

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
FEDERAL-AID PROJECT
HSIP FUNDS
VARIOUS ROUTES
SECTION 22-00220-00-GR
PROJECT NO. PMD7(036)
VERMILION COUNTY
C-95-032-24

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	1
FEDERAL AID PROJECT	ILLINOIS	CONTRACT NO. 91641		

UTILITY CONTACTS:

UTILITY TYPE:

COMMUNICATIONS
COMCAST
 ATT: MARTHA GIERAS
 PHONE: (224) 229-5862

UTILITY TYPE:

COMMUNICATIONS
WINDSTREAM KDL/MCLEOD USA
 ATTN: LOCATE DESK
 PHONE: (800) 289-1901

UTILITY TYPE:

COMMUNICATIONS
METRO COMMUNICATIONS CO.
 ATTN: TAYLOR RICH
 PHONE: (217) 728-3608

UTILITY TYPE:

ELECTRIC
EASTERN ILLINI ELECTRIC COOP.
 ATT: BRAD SMITH
 PHONE: (217) 379-2131 x 173

UTILITY TYPE:

GAS PIPELINE
MIDWESTERN GAS TRANSMISSION
 ATT: NICK BOCKLET
 PHONE: (779) 230-0519

UTILITY TYPE:

GAS PIPELINE
TRUNKLINE GAS CO./AMBIA
 ATT: G. MICK BRADDOCK
 PHONE: (765) 869-5521 x 211

UTILITY TYPE:

GAS PIPELINE
BP PIPELINES
 ATT: BLAKE PATRICK
 PHONE: (872) 245-3915
 PHONE: (630) 281-0342

UTILITY TYPE:

GAS /WATER
WESTVILLE GAS & WATER
 ATT: MICHAEL BENNETT
 PHONE: (217) 267-7911
 PHONE: (217) 304-6575

UTILITY TYPE:

SANITARY SEWER
WESTVILLE BELGIUM SANITARY DISTRICT
 ATT: MICHAEL BENNETT
 PHONE: (217) 267-7911
 PHONE: (217) 304-6575

UTILITY TYPE:

WATER/SEWER
CITY OF DANVILLE
 ATT: SAM COLE
 PHONE: (217) 431-2384

UTILITY TYPE:

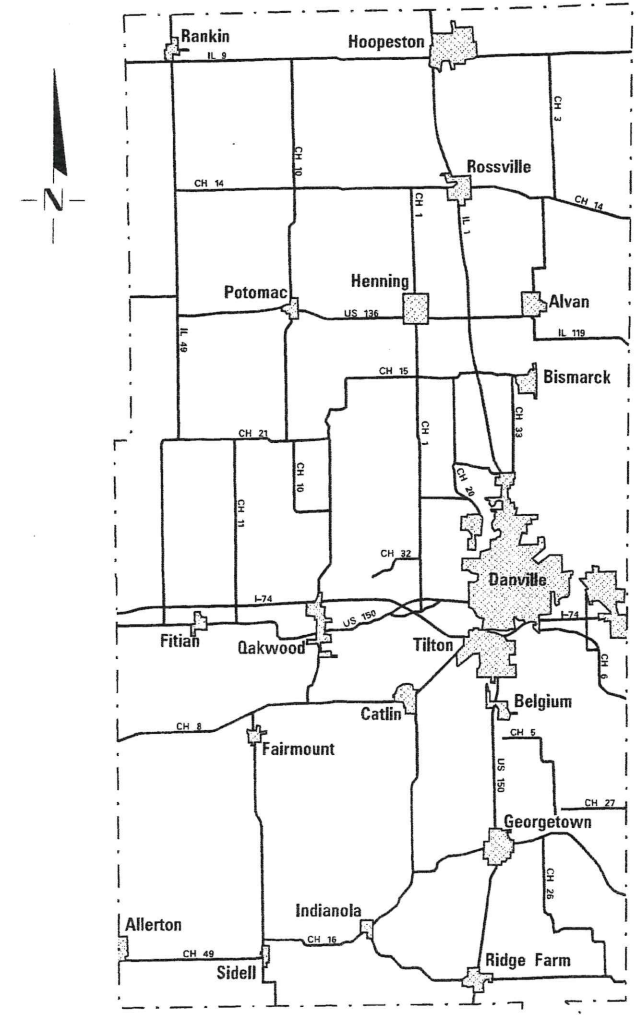
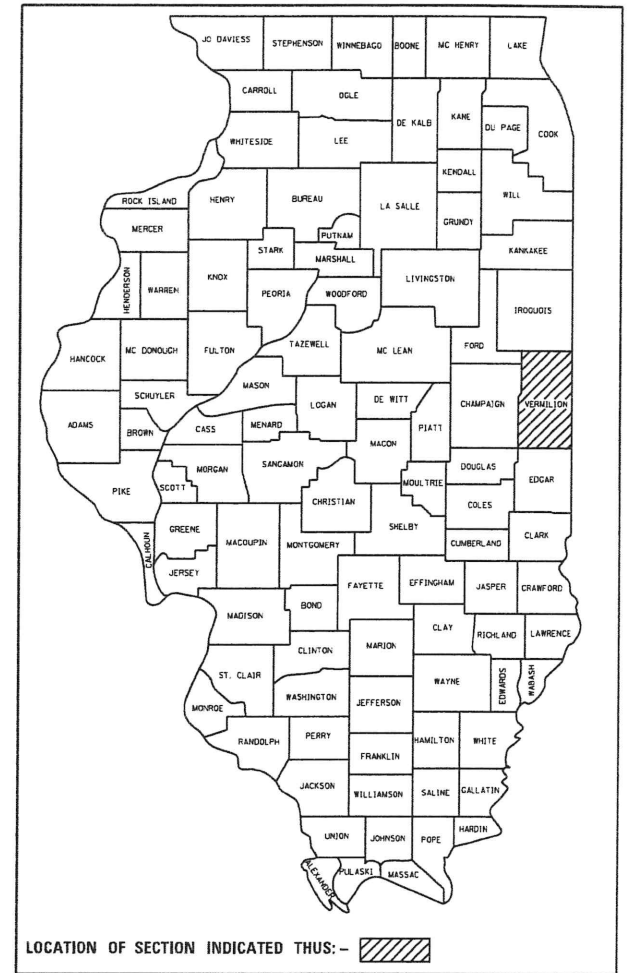
WATER/SEWER
VILLAGE OF ROSSVILLE
 ATT: RANDY LUSK
 PHONE: (217) 304-6816
 PHONE: (217) 748-6914

UTILITY TYPE:

WATER
AQUA ILLINOIS-VERMILION CO.
 ATT: STEPHEN PALINSKI
 PHONE: (815) 614-2047

UTILITY TYPE:

WIND
HOOPESTON WIND, LLC
 ATT: ROY FALCON
 PHONE: (432) 557-8274



GENERAL NOTES

INDEX OF SHEETS

SHEET NO.	TITLE
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND ENTRANCE DETAILS
3-4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6-9	SCHEDULES OF QUANTITIES
10-11	LOCATION MAP
12-37	PLAN SHEETS
38	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)
39	STEEL RAILING, 2399

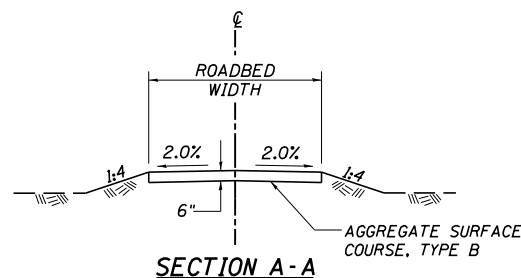
- THE PROJECT IS LOCATED ON VARIOUS ROUTES IN VERMILION COUNTY. THE WORK INCLUDED IN THIS SECTION CONSISTS OF GUARDRAIL REMOVAL, REPLACEMENT, AND ALL OTHER WORK NECESSARY TO COMPLETE THE PROJECT.
- ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- NO MATERIAL SHALL BE LEFT ON OR NEAR THE ROADWAY DURING NON-WORKING HOURS.
- WHEN NO WORK IS BEING PERFORMED, THE FLAGGERS WILL NOT BE REQUIRED. IF THE FLAGGERS ARE NOT PRESENT, THE FLAGGER SIGNS SHALL BE REMOVED OR COVERED.
- ANY NECESSARY TRAFFIC CONTROL WILL BE PROVIDED BY THE CONTRACTOR. APPROPRIATE STANDARDS ARE INCLUDED IN THE PLANS AND CONTRACT DOCUMENTS.
- ARTICLE 701.20 OF THE STANDARD SPECIFICATIONS DISCUSSES AN ADJUSTED UNIT PRICE. NO ADJUSTMENTS SHALL BE MADE TO THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS FOR THIS CONTRACT.
- THE CONTRACTOR IS ADVISED THAT THE GUARDRAIL AND TERMINAL PAY ITEMS INCLUDED IN THE PLANS WILL BE USED TO REPLACE STEEL PLATE BEAM GUARDRAIL AND TRAFFIC BARRIER TERMINALS FOR EITHER CURRENT MIDWEST STYLES OR STEEL PLATE BEAM GUARDRAIL AND TRAFFIC BARRIER TERMINALS INSTALLED PRIOR TO JANUARY 1, 2007. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR UTILIZING THE CURRENT MIDWEST STANDARDS.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE REVISION NUMBER SHOWN IN THE LIST OF ILLINOIS DOT HIGHWAY STANDARDS OR THE COPY INCLUDED IN THESE PLANS.
- GUARDRAIL POSTS THAT NEED TO BE DRIVEN THROUGH EXISTING HOT-MIX ASPHALT SHOULDERS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF STEEL PLATE BEAM GUARDRAIL.
- REMOVED GUARDRAIL THAT IS NOT REPLACED ON THE SAME DAY MUST BE DELINEATED WITH LIGHTED TYPE III BARRICADES. NO LOCATIONS SHALL BE LEFT WITHOUT EITHER LIGHTED BARRICADES OR RESTORED GUARDRAIL AT ANY TIME. CONTRACTOR SHALL MAKE SURE ALL DRUMS AND BARRICADES ARE IN PLACE WHERE GUARDRAIL POSTS ARE REMOVED IN ACCORDANCE WITH ARTICLE 701 OF THE STANDARD SPECIFICATIONS.
- ALL STEEL PLATE BEAM GUARDRAIL RAIL ELEMENTS, POSTS AND HARDWARE THAT ARE NOT REINCORPORATED INTO THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THIS WORK WILL INCLUDE THE REMOVAL, HAULING, AND DISPOSAL OF ALL MATERIAL AND SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEMS.
- FURNISHED EXCAVATION, AS SHOWN, IS FOR CONSTRUCTION OF THE PROPOSED SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS AND FOR SHOULDER WIDENING ALONG STEEL PLATE BEAM GUARDRAIL AS NEEDED. SHOULDER WIDENING AT TYPE I (SPECIAL) TERMINALS SHALL BE AS SHOWN ON STANDARD 630301. SHOULDER WIDENING AT STEEL PLATE BEAM GUARDRAIL TYPE A, 6 FOOT POSTS WILL BE TWO FEET BEHIND THE POST AS SHOWN ON STANDARD 630001. SHOULDER WIDENING AT STEEL PLATE BEAM GUARDRAIL TYPE A, 9 FOOT POSTS WILL BE TO THE FACE OF THE POST AS SHOWN ON STANDARD 630001. QUANTITIES SHOWN ARE APPROXIMATE.
- TEMPORARY SEEDING OPERATION SHALL BE COMPLETED WITHIN 3 DAYS OF COMPLETING GUARDRAIL WORK.
- SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER. THE TOTAL DISTURBANCE AREA IS NOT CONTIGUOUS AND IS DISTRIBUTED THROUGHOUT THE INDIVIDUAL LOCATIONS AS SHOWN IN THE PLANS.
- THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.
- NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.
- BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT PIPE LENGTHS.
- LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

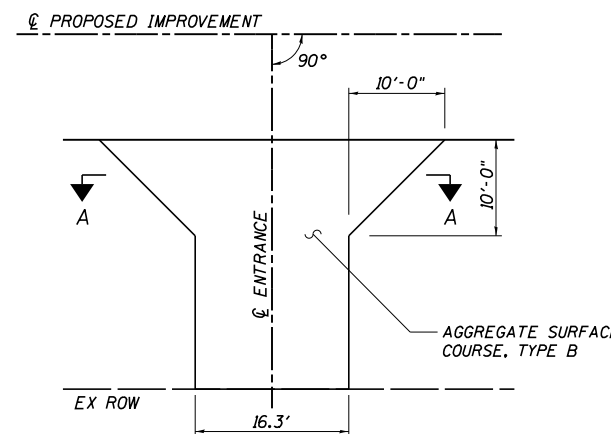
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
542401-04	METAL FLARED END SECTION FOR PIPE CULVERTS
630001-13	STEEL PLATE BEAM GUARDRAIL
630106-02	LONG-SPAN GUARDRAIL OVER CULVERT
630301-09	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-06	TRAFFIC BARRIER TERMINAL, TYPE 5
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701901-09	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
782001-01	CURB REFLECTORS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A

APPLICATION RATES USED IN QUANTITY CALCULATIONS
 TEMPORARY EROSION CONTROL SEEDING _____ .100 LBS/ACRE
 GRANULAR MATERIALS _____ .18 TONS/CU YD
 RIPRAP _____ .175 TONS/CU YD

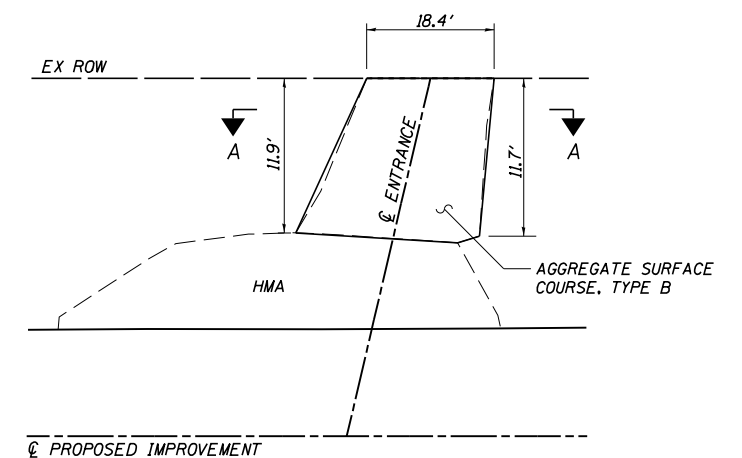
COMMITMENTS
 NONE AT THIS TIME



SECTION A-A



FIELD ENTRANCE DETAIL
 LOCATION 65



PRIVATE ENTRANCE DETAIL
 LOCATION 21

VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

INDEX OF SHEETS, HIGHWAY STANDARDS,
 GENERAL NOTES, AND ENTRANCE DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	2
CONTRACT NO. 91641			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
* 20200100	EARTH EXCAVATION	CU YD	625
* 20400800	FURNISHED EXCAVATION	CU YD	1,705
* 21400100	GRADING AND SHAPING DITCHES	FOOT	2,683
25100630	EROSION CONTROL BLANKET	SQ YD	310
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	24
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	237
28000305	TEMPORARY DITCH CHECKS	FOOT	176
28000400	PERIMETER EROSION BARRIER	FOOT	6,590
28000500	INLET AND PIPE PROTECTION	EACH	7
* 28100807	STONE DUMPED RIPRAP, CLASS A4	TON	34
* 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	23
* 50105220	PIPE CULVERT REMOVAL	FOOT	97
50900200	STEEL RAILING, TYPE 2399	FOOT	50.0
* 54262715	METAL FLARED END SECTIONS 15"	EACH	2

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
* 542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	212
* 542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	90
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	150.0
63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	4,487.5
63000009	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS	FOOT	1,212.5
63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	525.0
63000360	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	FOOT	87.5
63000370	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN	FOOT	400.0
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	83
63200310	GUARDRAIL REMOVAL	FOOT	10,768

* SPECIALTY ITEMS

MODEL PATH: \\s:\projects\2024\01_Vermilion_Guardrail\ISPCADD\SHEET2140_1.dwg



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 PLOT DATE = 3/20/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 07/10/2023

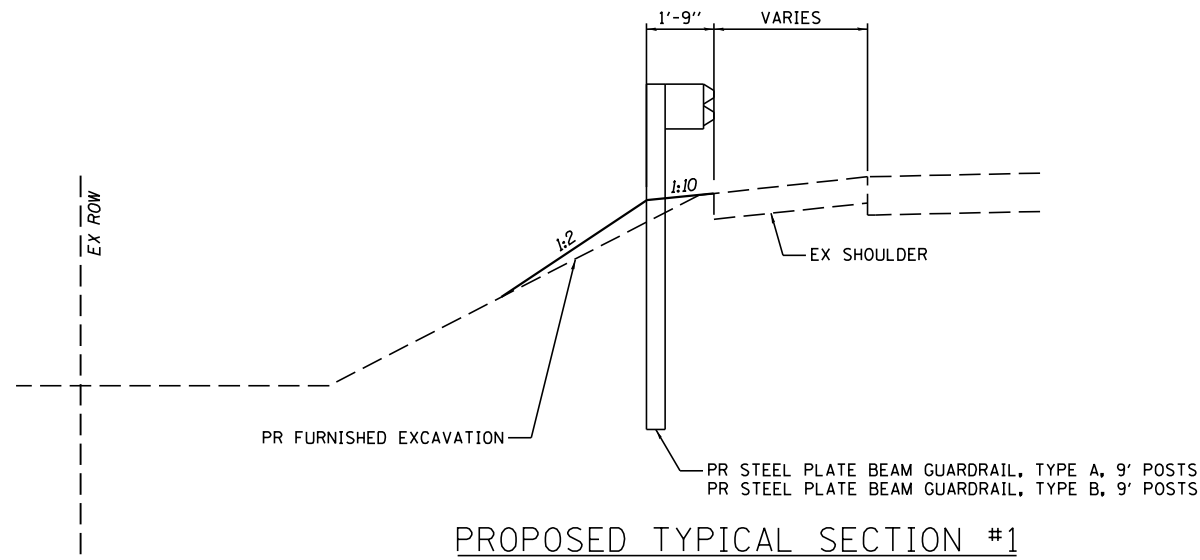
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VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

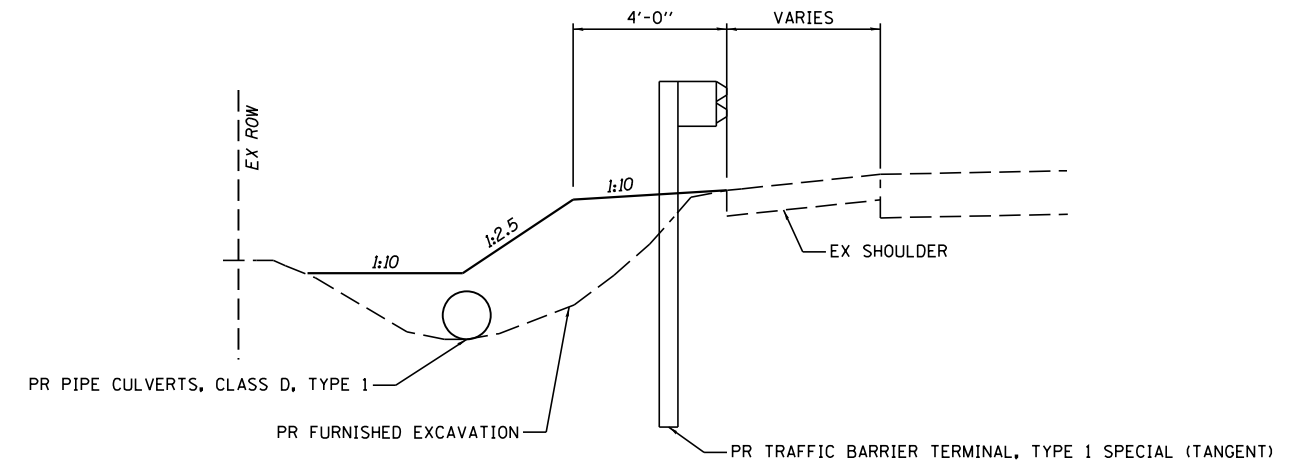
SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

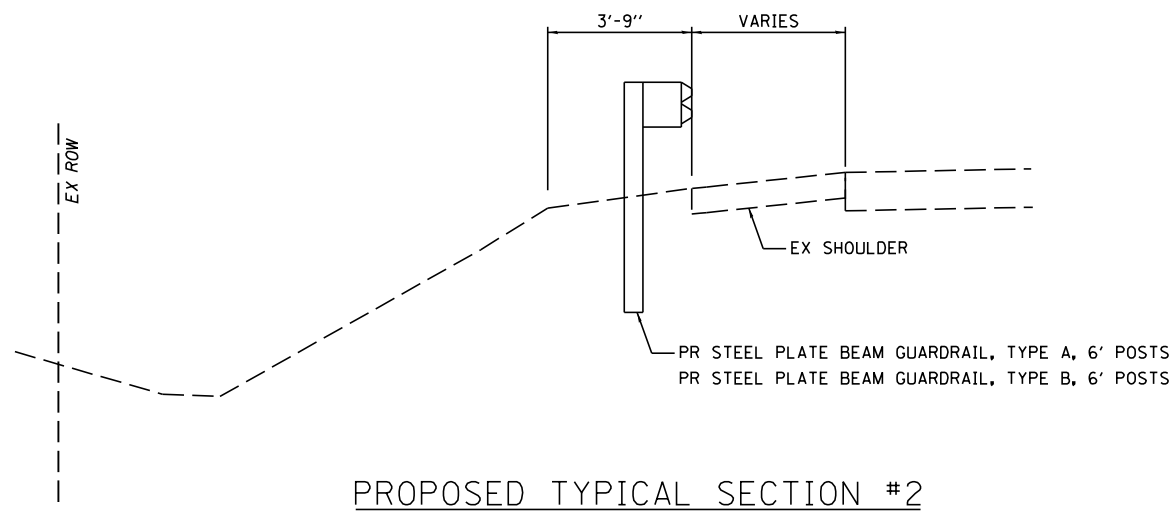
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	22-00220-00-GR	VERMILION	39	3
			CONTRACT NO.	91641
[ILLINOIS] FED. AID PROJECT				



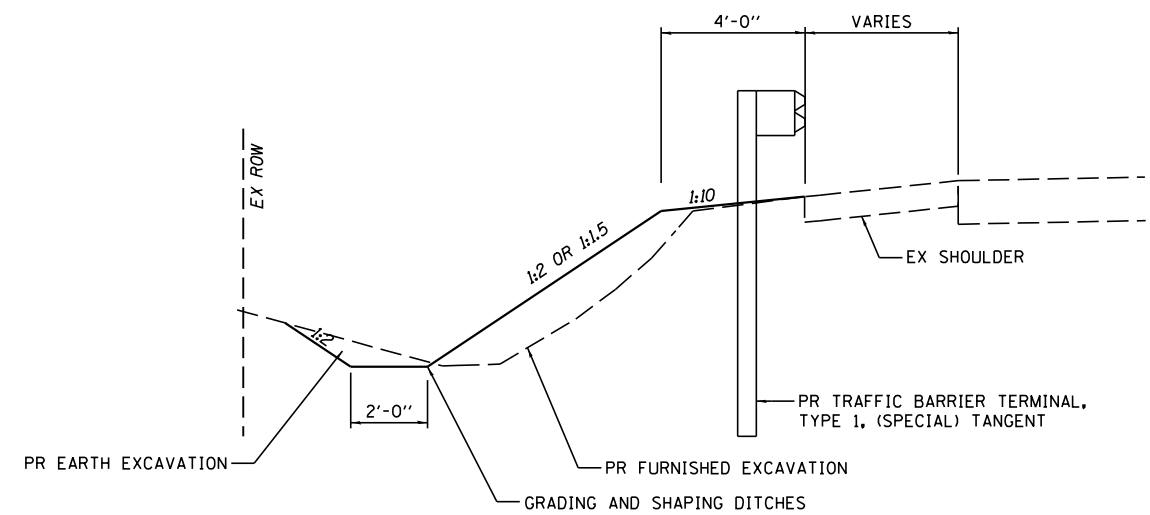
PROPOSED TYPICAL SECTION #1
GUARDRAIL WITH 9' POSTS



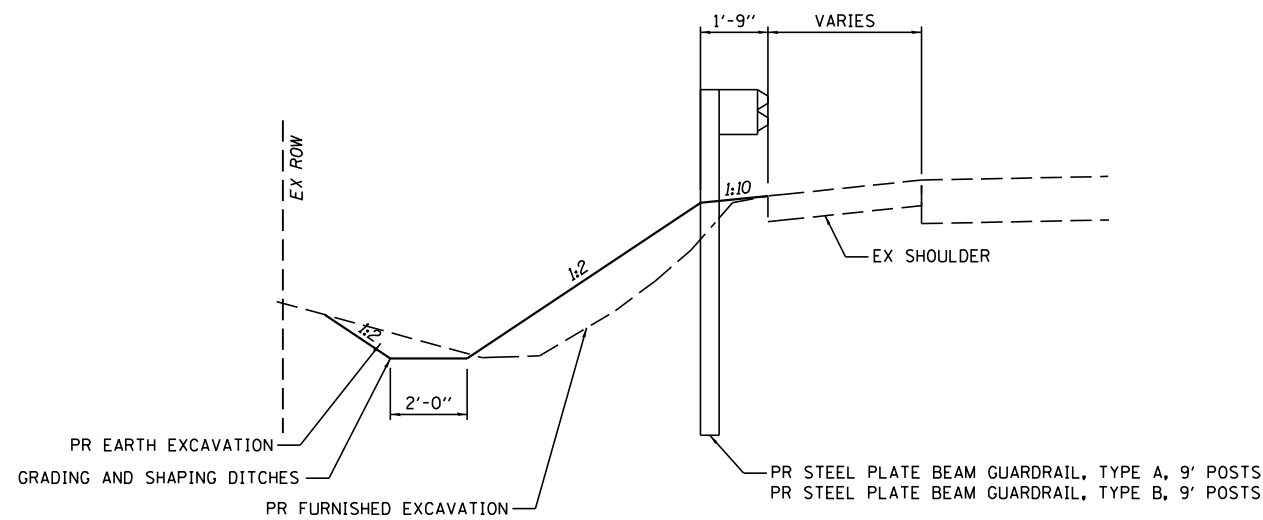
PROPOSED TYPICAL SECTION #4
PR PIPE CULVERT AT TYPE 1 TERMINAL



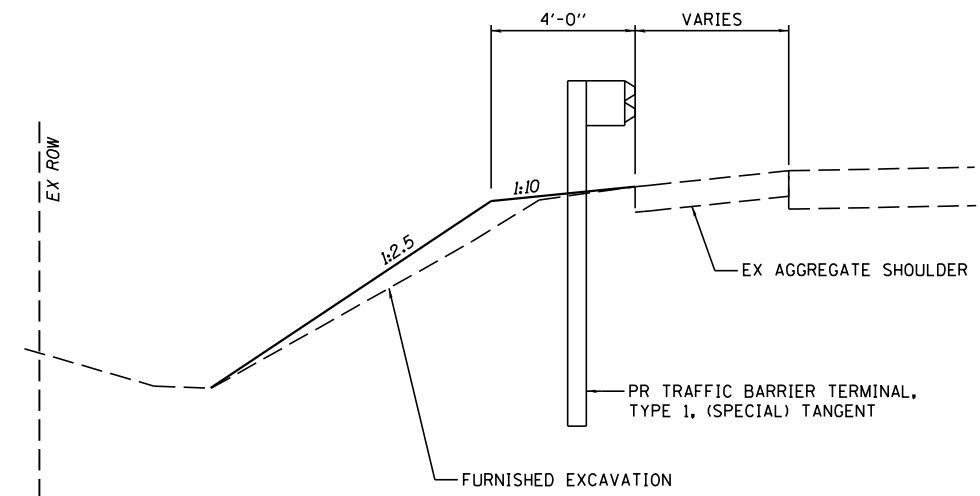
PROPOSED TYPICAL SECTION #2
GUARDRAIL WITH 6' POSTS



PROPOSED TYPICAL SECTION #5
PR GRADING AND SHAPING DITCHES AT TYPE 1 TERMINAL



PROPOSED TYPICAL SECTION #3
PR GRADING AND SHAPING DITCHES



PROPOSED TYPICAL SECTION #6
TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT

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FILE NAME = 2740.1-ehb-typical.dgn
PLOT SCALE = 5.0000 1/1in.
PLOT DATE = 3/20/2024

DESIGNED - CGF
DRAWN - CGF
CHECKED - THF
DATE - 07/10/2023

REVISED -
REVISED -
REVISED -
REVISED -

**VERMILION COUNTY
GUARDRAIL IMPROVEMENTS**

SCALE:		SHEET OF SHEETS		STA.	TO STA.

TYPICAL SECTIONS

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR <td>VERMILION <td>39</td> <td>5</td> </td>	VERMILION <td>39</td> <td>5</td>	39	5
			CONTRACT NO. 91641	
ILLINOIS FED. AID PROJECT				

LOCATION	20200100 EARTH EXCAVATION	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	20400800 EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
10	5	5	15	-10
11	5	5	85	-80
14	20	15	35	-20
16	5	5	20	-15
17	15	15	55	-40
18	30	25	65	-40
20	10	10	20	-10
21	25	20	55	-35
23	25	20	80	-60
26	65	50	195	-145
27	10	10	50	-40
31	30	25	30	-5
33	75	60	240	-180
34	5	5	45	-40
35	5	5	55	-50
37	55	45	110	-65
38	40	30	90	-60
61	25	20	15	5
63	0	0	220	-220
64	40	30	135	-105
65	30	25	105	-80
66	20	15	125	-110
67	20	15	45	-30
68	25	20	145	-125
70	10	10	75	-65
71	30	25	105	-80
TOTAL	625	510	2,215	-1,705

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	X2501000 SEEDING, CLASS 2 (SPECIAL)
		ACRE
10	LT	0.026
11	LT	0.044
	RT	0.045
14	NE	0.003
	NW	0.005
	SE	0.000
	SW	0.012
16	LT	0.031
17	LT	0.037
	RT	0.037
18	LT	0.038
	RT	0.039
20	LT	0.020
21	LT	0.040
	RT	0.055
23	LT	0.045
	RT	0.008
26	RT	0.134
27	NE	0.027
	NW	0.004
	SE	0.027
	SW	0.008
31	LT	0.023
	RT	0.037
33	LT	0.053
	RT	0.102
34	LT	0.024
	RT	0.029
35	RT	0.092
37	LT	0.069
	RT	0.082
38	LT	0.074
	RT	0.046
61	LT	0.040
	RT	0.038
63	LT	0.083
	RT	0.085
64	LT	0.064
	RT	0.059
65	LT	0.100
	RT	0.071
66	LT	0.063
	RT	0.085

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	X2501000 SEEDING, CLASS 2 (SPECIAL)
		ACRE
67	LT	0.017
	RT	0.049
68	LT	0.048
	RT	0.054
70	LT	0.057
	RT	0.046
71	LT	0.068
	RT	0.048
TOTAL USE		2.391 2.50

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	28100807 STONE DUMPED RIPRAP, CLASS A4
		TON
65	RT	3
66	LT	8
	RT	7
70	LT	6
	RT	3
71	LT	7
TOTAL		34

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	40200800 AGGREGATE SURFACE COURSE, TYPE B
		TON
21	RT	9
65	LT	14
TOTAL		23

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	50105220 PIPE CULVERT REMOVAL
		FOOT
21	LT	34
35	RT	33
65	LT	30
TOTAL		97

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	X5012502 CONCRETE REMOVAL (SPECIAL)
		CU YD
67	LT	1.0
	RT	1.0
TOTAL		2.0

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JOB = 2740_1
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 PLOT DATE = 3/26/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 03/19/2024

REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
GUARDRAIL IMPROVEMENTS**

SCHEDULES OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	6
CONTRACT NO. 91641			ILLINOIS FED. AID PROJECT	

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	28000250	28000400	28000500	21400100	28000305	25100630	25100635
		TEMPORARY EROSION CONTROL SEEDING	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECION	GRADING AND SHAPING DITCHES	TEMPORARY DITCH CHECKS	EROSION CONTROL BLANKET	HEAVY DUTY EROSION CONTROL BLANKET
		POUND	FOOT	EACH	FOOT	FOOT	SQ YD	SQ YD
10	LT	2.6						
11	LT	4.4	261				89	
	RT	4.5	226				100	
14	NE	0.3	122					
	NW	0.5	63					
	SE							
	SW	1.2	128					
16	LT	3.1	407					
17	LT	3.7	198		34	8		
	RT	4.1	99	1	42			
18	LT	3.8	220					
	RT	3.9	197					
20	LT	2.0	58					
21	LT	4.0	125	1	44	16		
	RT	5.5			89	8		
23	LT	4.5	124		80	8		
	RT	0.8						
26	RT	13.4	268					
27	NE	0.5	38					
	NW	0.4	38					
	SE	2.7	245					
	SW	0.8	85					
31	LT	2.3	209					
	RT	3.7	97					
33	LT	5.3	144					
	RT	10.2	260	1				
34	LT	2.4						
	RT	2.9	39					
35	RT	9.2	423	1	73	8	19	
37	LT	6.9			256	16		
	RT	8.2			256	16		
38	LT	7.4			277	16		
	RT	4.6			74	8		
61	LT	4.0	199					
	RT	3.8	199					
63	LT	8.3	359	1	95	8		
	RT	8.5	325					
64	LT	6.4	300					
	RT	5.9	316					
65	LT	10.0			309	16		
	RT	7.1			109	16		
66	LT	6.3			203	8		
	RT	8.5			204			24
67	LT	1.7	60	1				
	RT	4.9	35		131	8		
68	LT	4.8	77	1				
	RT	5.4	255					
70	LT	5.7			196	8		
	RT	4.6	131				102	
71	LT	6.8			211	8		
	RT	4.8	260					
TOTAL		237	6,590	7	2,683	176	310	24

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	542D0220	542D0223	54262715
		PIPE CULVERTS, CLASS D, TYPE 1 15"	PIPE CULVERTS, CLASS D, TYPE 1 18"	METAL FLARED END SECTIONS 15"
		FOOT	FOOT	EACH
21	LT		36	
33	RT		54	
35	RT	34		
63	LT	96		
65	LT	28		2
68	LT	54		
TOTAL		212	90	2

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 PLOT SCALE = 2.0000' / 1in.
 PLOT DATE = 3/26/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 03/19/2024

REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
GUARDRAIL IMPROVEMENTS**

SCHEDULES OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	7
			CONTRACT NO. 91641	
ILLINOIS FED. AID PROJECT				

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	63000001 SPBGR, TY A, 6' POSTS	63000003 SPBGR, TY A, 9' POSTS	63000009 SPBGR, TY B, 9' POSTS	X6300130 SPBGR, TYPE A (SPECIAL)	X6330725 SPBGR (SHORT RADIUS)	63000350 LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	63000360 LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	63000370 LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN	50900200 STEEL RAILING, TYPE 2399	63100167 TBT TY 1 (SPECIAL) TANGENT	63100045 TBT TYPE 2	63100075 TBT TYPE 5A	63100085 TBT TYPE 6	63100087 TBT TYPE 6A	63200310 GUARDRAIL REMOVAL	X5091600 STEEL RAILING REMOVAL	78200005 GUARDRAIL REFLECTORS, TYPE A	78200020 CURB REFLECTORS	72501000 TERMINAL MARKER - DIRECT APPLIED
		FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	50'	EACH	EACH	EACH	EACH	EACH	FOOT	FOOT	EACH	EACH
10	LT		175.0								2					287.5		4		2
	RT	112.5									2					225.0		4		2
11	LT		87.5								2					162.5		4		2
	RT		50.0								2					162.5		4		2
14	NE		25.0								1		1			45.0		4		1
	NW		37.5			25.0							1			45.0		4		
	SE		12.5										1			25.0		4		
	SW		25.0								1		1			45.0		4		1
16	LT		300.0								1					350.0		4		1
17	LT		100.0	62.5			37.5				1	1				247.0		4		1
	RT		25.0	50.0			37.5				1					172.0		4		1
18	LT		125.0								2					247.0		4		2
	RT		225.0								2					350.0		4		2
20	LT										2					42.0		4		2
21	LT		37.5	50.0			37.5				1					175.0		4		1
	RT		50.0	50.0			37.5				2					225.0		4		2
23	LT			50.0			37.5				2					225.0		4		2
	RT			50.0			37.5				2							4		2
26	RT		387.5								2					495.0		6		2
27	NE		62.5								1			1		172.0		4		1
	NW		150.0								1			1		259.0		4		1
	SE		225.0								1			1		327.0		4		1
	SW		175.0											1		229.0		4		
31	LT		62.5			37.5					1	1				212.5		4		1
	RT		50.0								2					212.5		4		2
33	LT		237.5			37.5					1					319.0		4		1
	RT		312.5								2					421.0		4		2
34	LT		62.5		25.0	75.0										75.0	25.0	4		
	RT		75.0		25.0	25.0					1					75.0	25.0	4		1
35	RT		325.0								2					437.5		5		2
37	LT		12.5	50.0			37.5				2					262.5		4		2
	RT		12.5	50.0			37.5				2					262.5		4		2
38	LT		25.0	50.0					50.0		2					225.0		4		2
	RT		25.0	50.0					50.0		2					237.5		4		2
61	LT		125.0	50.0					50.0		2					350.0		4		2
	RT		137.5	50.0					50.0		2					350.0		4		2
63	LT		150.0								2					262.5		4		2
	RT		150.0								2					262.5		4		2
64	LT		62.5	50.0					50.0		2					275.0		4		2
	RT		87.5	50.0					50.0		2					300.0		4		2
65	LT		100.0	50.0				43.8			2					312.5		4		2
	RT		125.0	50.0				43.8			2					337.5		4		2
66	LT			50.0					50.0		2					87.5		4		2
	RT			50.0					50.0		2					87.5		4		2
67	LT	37.5								25.0	2				2	245.0		4	2	2
	RT		75.0			25.0				25.0	1				2	195.0		4	2	1

MODEL: Default
 FILE NAME: 2740_1_Vermilion_Guardrail_HSP/CADD/Sheets/2740_1-ehs-schedules.dgn



JOB = 2740_1
 FILE NAME = 2740_1-ehs-schedules.dgn
 PLOT SCALE = 2.0000 "/in.
 PLOT DATE = 3/26/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 03/19/2024

REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

SCHEDULES OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	8
CONTRACT NO. 91641				
ILLINOIS FED. AID PROJECT				

LOCATION NUMBER	QUADRANT (NE, SE, NW, SW, LEFT, RIGHT)	63000001 SPBGR, TY A, 6' POSTS	63000003 SPBGR, TY A, 9' POSTS	63000009 SPBGR, TY B, 9' POSTS	X6300130 SPBGR TYPE A (SPECIAL)	X6330725 SPBGR (SHORT RADIUS)	63000350 LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	63000360 LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	63000370 LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN	50900200 STEEL RAILING, TYPE 2399	63100167 TBT TY 1 (SPECIAL) TANGENT 50'	63100045 TBT TYPE 2	63100075 TBT TYPE 5A	63100085 TBT TYPE 6	63100087 TBT TYPE 6A	63200310 GUARDRAIL REMOVAL	X5091600 STEEL RAILING REMOVAL	78200005 GUARDRAIL REFLECTORS, TYPE A	78200020 CURB REFLECTORS	72501000 TERMINAL MARKER - DIRECT APPLIED
		FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	FOOT	FOOT	EACH	EACH
68	LT			50.0			37.5				2					75.0		4		2
	RT			50.0			37.5				2					75.0		4		2
70	LT			50.0			37.5				2					75.0		4		2
	RT			50.0			37.5				2					75.0		4		2
71	LT			50.0			37.5				2					75.0		4		2
	RT			50.0			37.5				2					75.0		4		2
TOTAL		150.0	4,487.5	1,212.5	50.0	225.0	525.0	87.5	400.0	50.0	83	2	4	4	4	10,767.5	50.0	211	4	83
ROUNDED TOTAL																10,768	50			

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_MSP/CADD/Sheets/2740.1-eh-schedules.dgn



JOB = 2740.1
 FILE NAME = 2740.1-eh-schedules.dgn
 PLOT SCALE = 2.0000 1/16"
 PLOT DATE = 3/26/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 03/19/2024

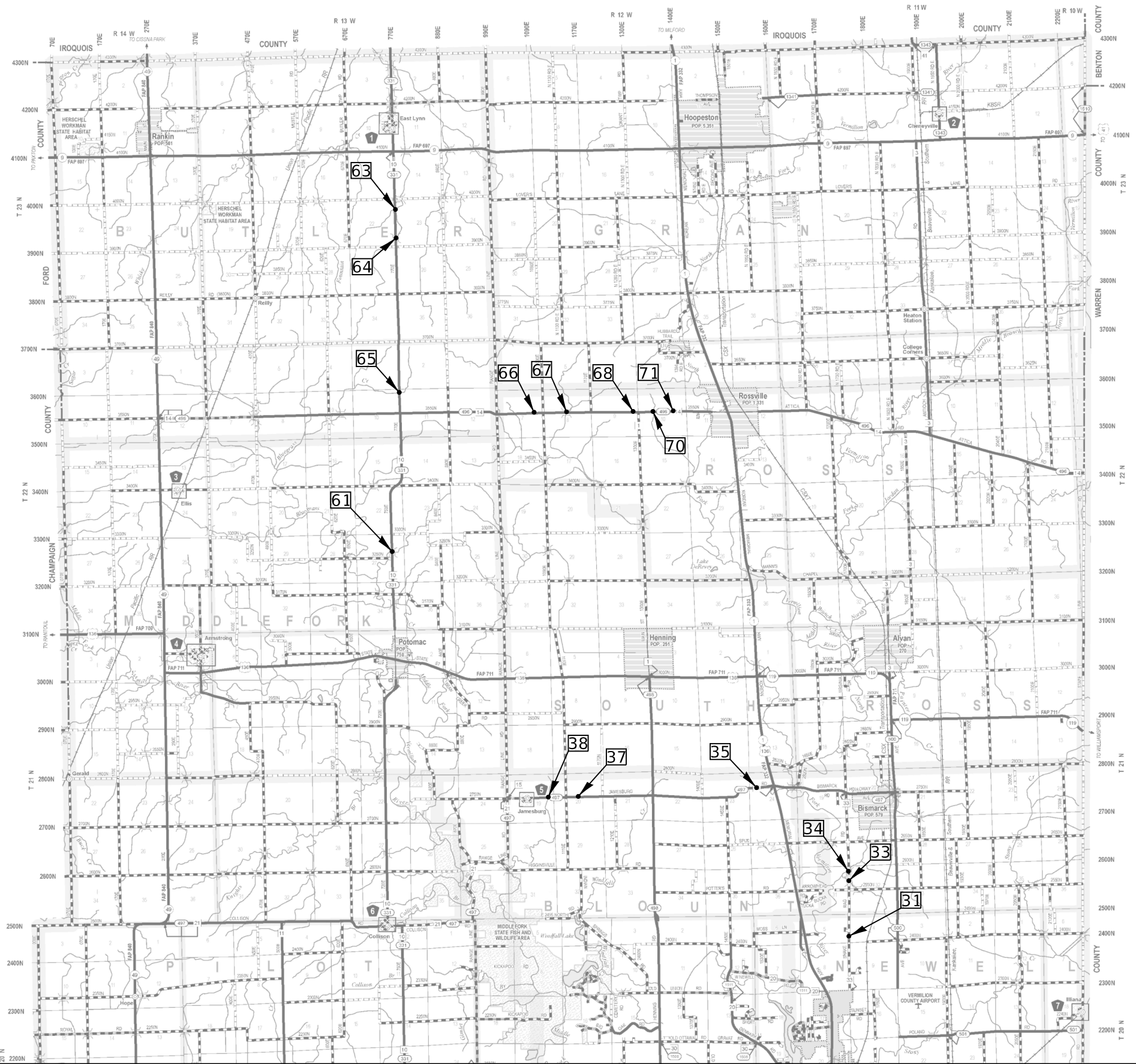
REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

SCHEDULES OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	9
			CONTRACT NO. 91641	
ILLINOIS FED. AID PROJECT				



MATCHLINE-SOUTHERN VERMILION COUNTY

**NORTHERN VERMILION COUNTY
GUARDRAIL IMPROVEMENTS**

LOCATION MAP

SCALE: SHEET OF SHEETS STA. TO STA.

MODEL: Default
FILE NAME: 27401_Vermilion_Guardrail_ILSPCAD_Sheets\27401_1-rlb-location_map.dgn

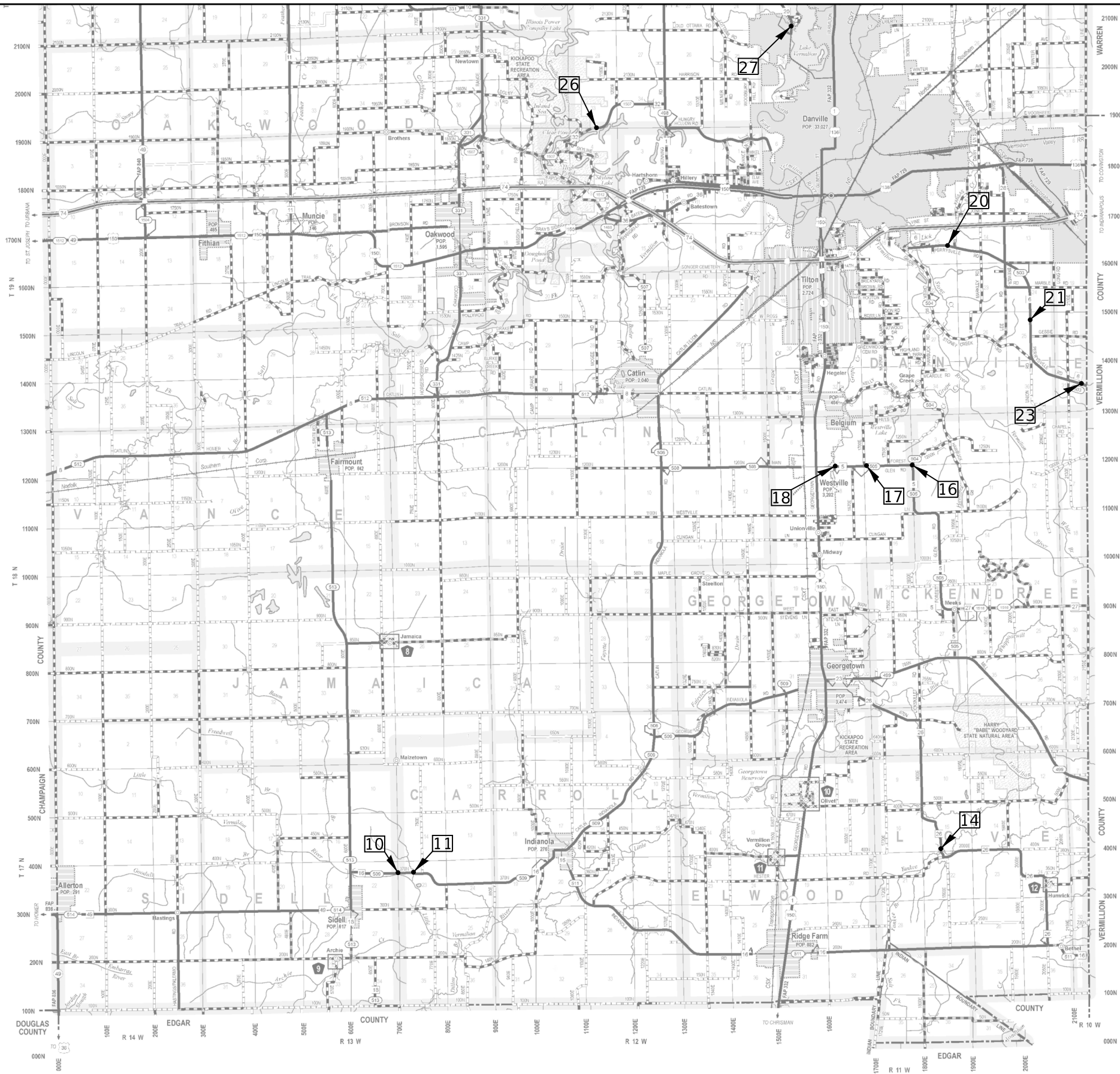


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FILE NAME = 2740.1-rlb-location map.dgn
PLOT SCALE = 1,0000' / 1in.
PLOT DATE = 3/19/2024

DESIGNED -	CGF	REVISED -	
DRAWN -	BEB	REVISED -	
CHECKED -	CGF	REVISED -	
DATE -	7/17/2023	REVISED -	

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	10
			CONTRACT NO. 91641	
ILLINOIS FED. AID PROJECT				

MATCHLINE-NORTHERN VERMILION COUNTY



MODEL: Default
 FILE NAME: 27401_1_Vermilion_Guardrail_USPCADD_Sheets\27401_1-shf-location_map.dgn

CEC Cummins
 Engineering
 Corporation
 ENGINEERS & SURVEYORS

JOB = 2740.1
 FILE NAME = 27401_1-shf-location map.dgn
 PLOT SCALE = 1,0000 1/In.
 PLOT DATE = 3/19/2024

DESIGNED - CGF
 DRAWN - BEB
 CHECKED - CGF
 DATE - 7/17/2023

REVISED -
 REVISED -
 REVISED -
 REVISED -

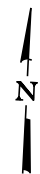
**SOUTHERN VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

**LOCATION MAP
 VERMILION COUNTY**

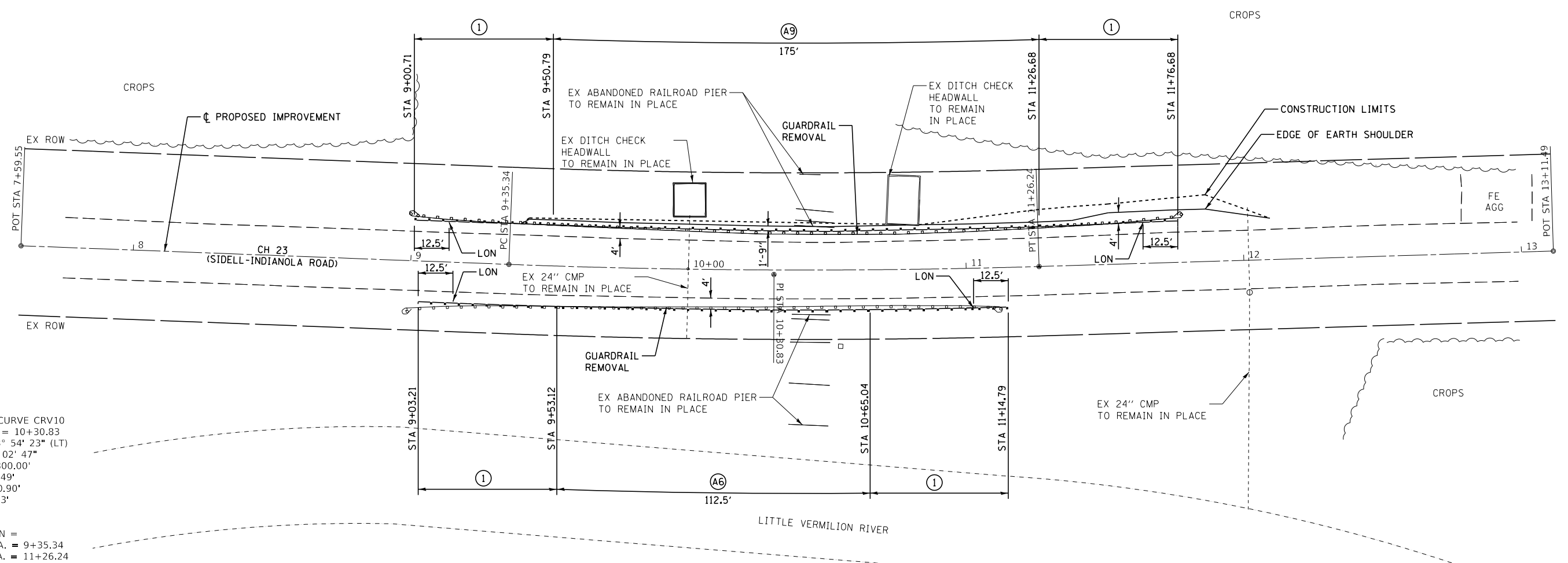
SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR <td>VERMILION <td>39</td> <td>11</td> </td>	VERMILION <td>39</td> <td>11</td>	39	11
			CONTRACT NO. 91641	

ILLINOIS FED. AID PROJECT



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(A6)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
LON	LENGTH OF NEED POINT



EXIST. CURVE CRV10
 PI STA. = 10+30.83
 $\Delta = 3^\circ 54' 23''$ (LT)
 $D = 2^\circ 02' 47''$
 $R = 2,800.00'$
 $T = 95.49'$
 $L = 190.90'$
 $E = 1.63'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 9+35.34$
 $P.T. STA. = 11+26.24$

CL LOCATION NO. 10			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+59.55	1185434.0207	1132407.2219
POT	9+35.34	1185435.9519	1132583.0049
PI	10+30.83	1185437.0009	1132678.4860
PT	11+26.24	1185444.5521	1132773.6737
POT	13+11.49	1185459.2015	1132958.3373

LOCATION NO. 10
 MAJOR COLLECTOR
 ADT 450 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE: 2740.1_Vermilion_Guardrail_HSP/CADD/Sheets/2740.1-ehb-plan10.dgn



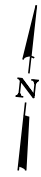
JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehb-plan10.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,000.00 / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/10/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

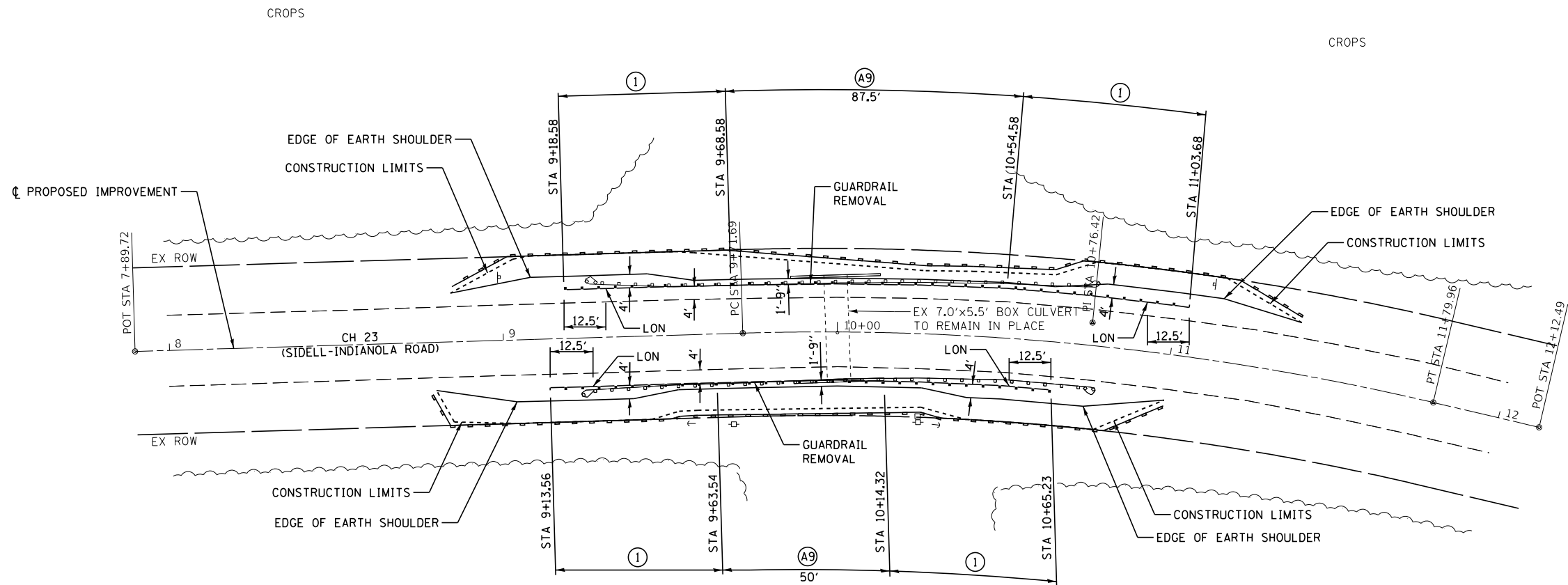
PLAN - LOCATION NO. 10

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	12
CONTRACT NO. 91641				
ILLINOIS		FED. AID PROJECT		



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER



EXIST. CURVE CRV11
 PI STA. = 10+76.42
 $\Delta = 14^\circ 54' 58''$ (RT)
 $D = 7^\circ 09' 43''$
 $R = 800.00'$
 $T = 104.73'$
 $L = 208.27'$
 $E = 6.83'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 9+71.69$
 $P.T. STA. = 11+79.96$

NOTE:
 EROSION CONTROL BLANKET SHALL BE USED
 IN ALL QUADRANTS BEHIND TYPE 1 TERMINALS
 SINCE SLOPES ARE STEEPER THAN 1:2.5.

LOCATION NO. 11			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+89.72	1185488.1174	1133958.2170
PC	9+71.69	1185492.6341	1134140.1325
PI	10+76.42	1185495.2335	1134244.8260
PT	11+79.96	1185470.7969	1134346.6608
POT	12+12.49	1185463.2051	1134378.2981

LOCATION NO. 11
 MAJOR COLLECTOR
 ADT 450 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-11_Vermilion_Guardrail_USP/CADD/Sheets/2740.1-ghp-plan11.dgn



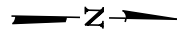
JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ghp-plan11.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/120/2023	REVISED -

VERMILION COUNTY	SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
GUARDRAIL IMPROVEMENTS							

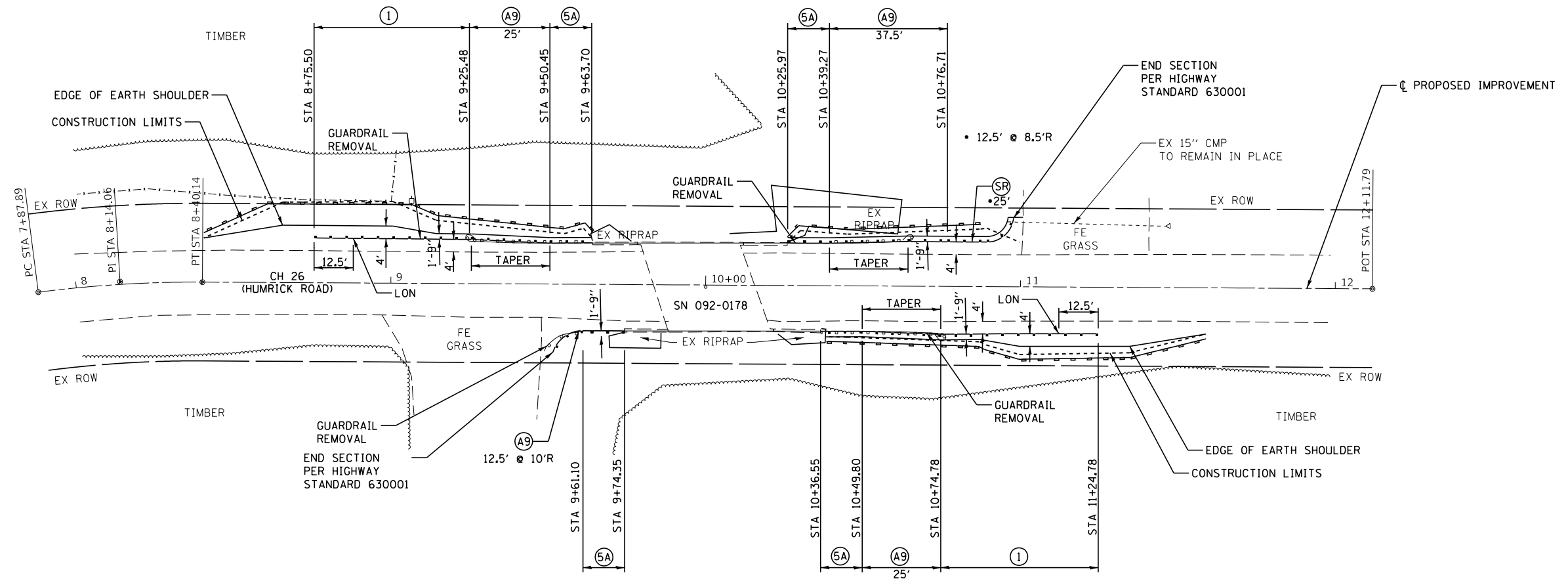
VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	13
CONTRACT NO. 91641				
ILLINOIS FED. AID PROJECT				

PLAN - LOCATION NO. 11				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	13
CONTRACT NO. 91641				
ILLINOIS FED. AID PROJECT				



LEGEND	
(5A)	TRAFFIC BARRIER TERMINAL, TYPE 5A
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(SR)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)
LON	LENGTH OF NEED POINT
	PERIMETER EROSION BARRIER



EXIST. CURVE CRV14
 PI STA. = 8+14.06
 $\Delta = 7^\circ 41' 29''$ (RT)
 $D = 14^\circ 43' 12''$
 $R = 389.24'$
 $T = 26.17'$
 $L = 52.25'$
 $E = 0.88'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 P.C. STA. = 7+87.89
 P.T. STA. = 8+40.14

CL LOCATION NO. 14			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+87.89	1187865.2003	1192493.5477
PI	8+14.06	1187891.0821	1192489.7049
PT	8+40.14	1187917.2453	1192489.3607
POT	12+11.79	1188288.8566	1192484.4712

LOCATION NO. 14
 LOCAL ROAD
 ADT 250 (2019)
 DESIGN SPEED 30 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1-ghb-plan14.dgn



JOB = 2740.1
 FILE NAME = 2740.1-ghb-plan14.dgn
 PLOT SCALE = 40,000' / 1 in.
 PLOT DATE = 3/20/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 07/10/2023

REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

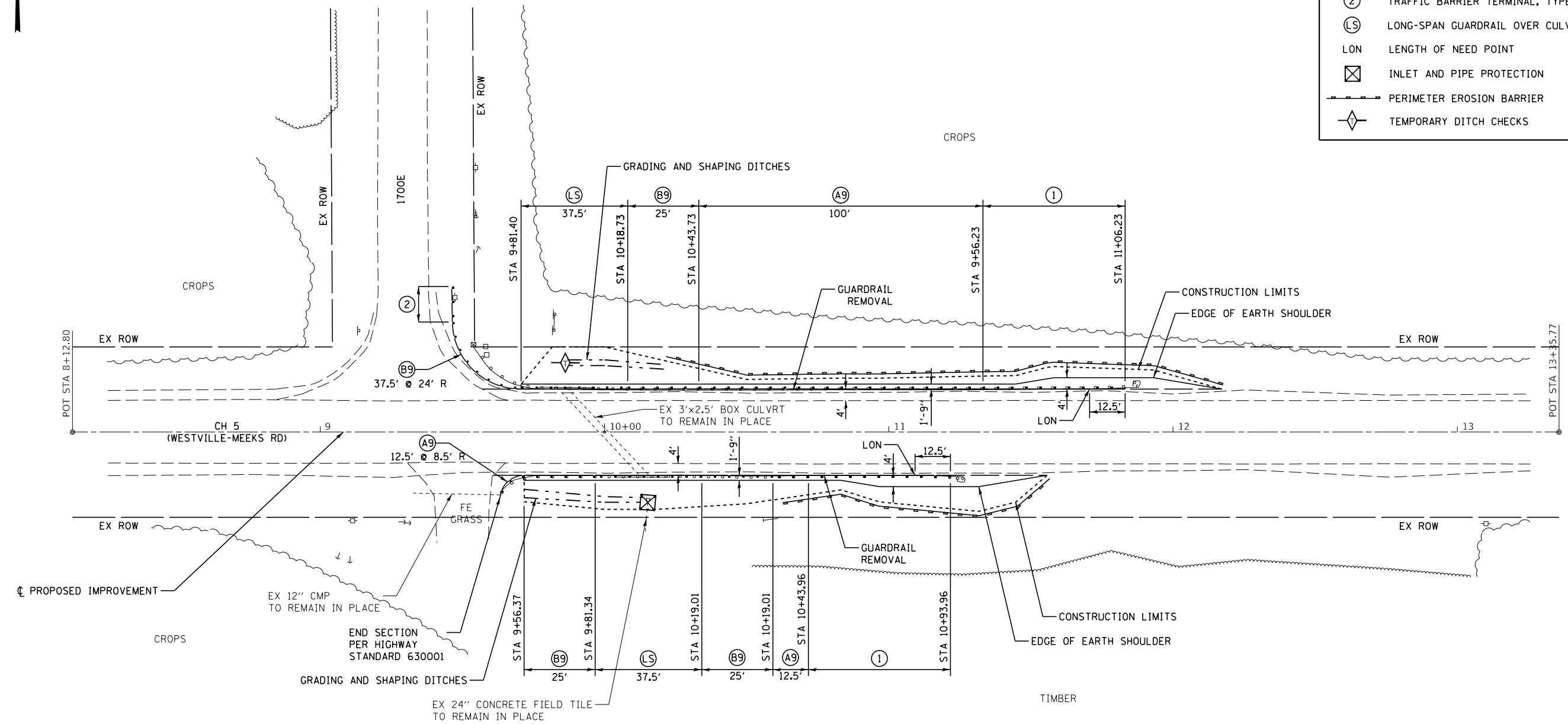
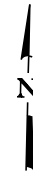
PLAN - LOCATION NO. 14

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	14
CONTRACT NO. 91641				
ILLINOIS FED. AID PROJECT				

LEGEND

- (A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (B9) STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- (2) TRAFFIC BARRIER TERMINAL, TYPE 2
- (LS) LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN
- LON LENGTH OF NEED POINT
- ☒ INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER
- ◇ TEMPORARY DITCH CHECKS



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

CL LOCATION NO. 17			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+12.80	1230256.0126	1183920.0909
POT	13+35.77	1230268.2036	1184442.9218

LOCATION NO. 17
 MAJOR COLLECTOR
 ADT 1000 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_HSR/CADD/Sheets/2740_1-tpb-pln17.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740_1-tpb-pln17.dgn	DRAWN - CDS	REVISED -
PLOT SCALE = 40,000' / 1in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 02/05/2024	REVISED -

VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

PLAN - LOCATION NO. 17

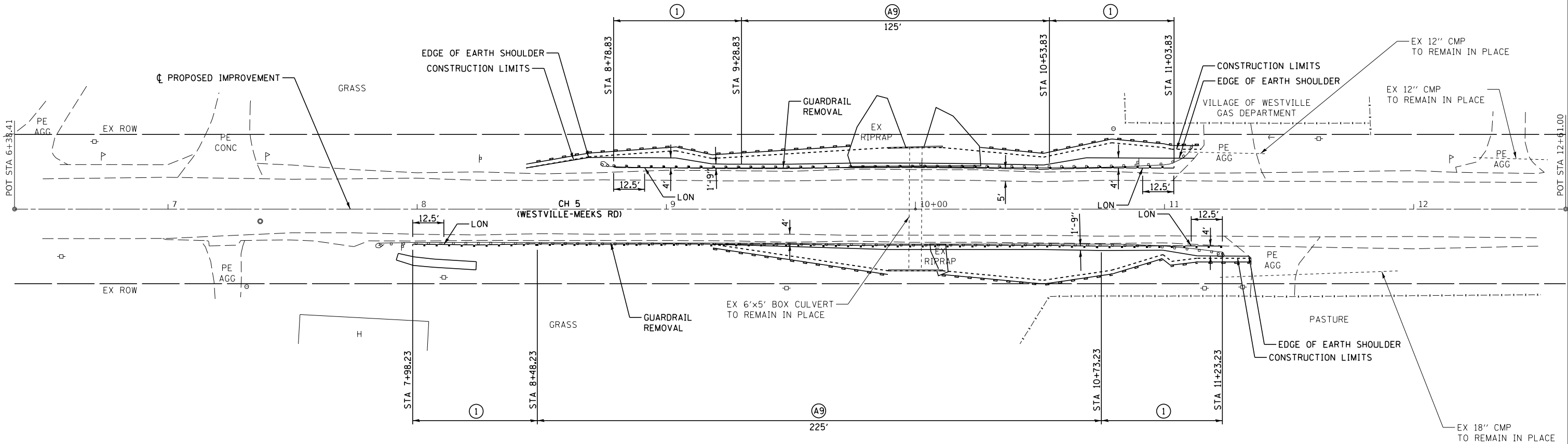
SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	

ILLINOIS FED. AID PROJECT



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER



LOCATION NO. 18			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+38.41	1230197.7918	1180583.8588
POT	12+61.00	1230206.3656	1181206.3858

LOCATION NO. 18
 MAJOR COLLECTOR
 ADT 1200 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_MSP_CADD_Sheets\2740.1-ehp-plan18.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehp-plan18.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/10/2023	REVISED -

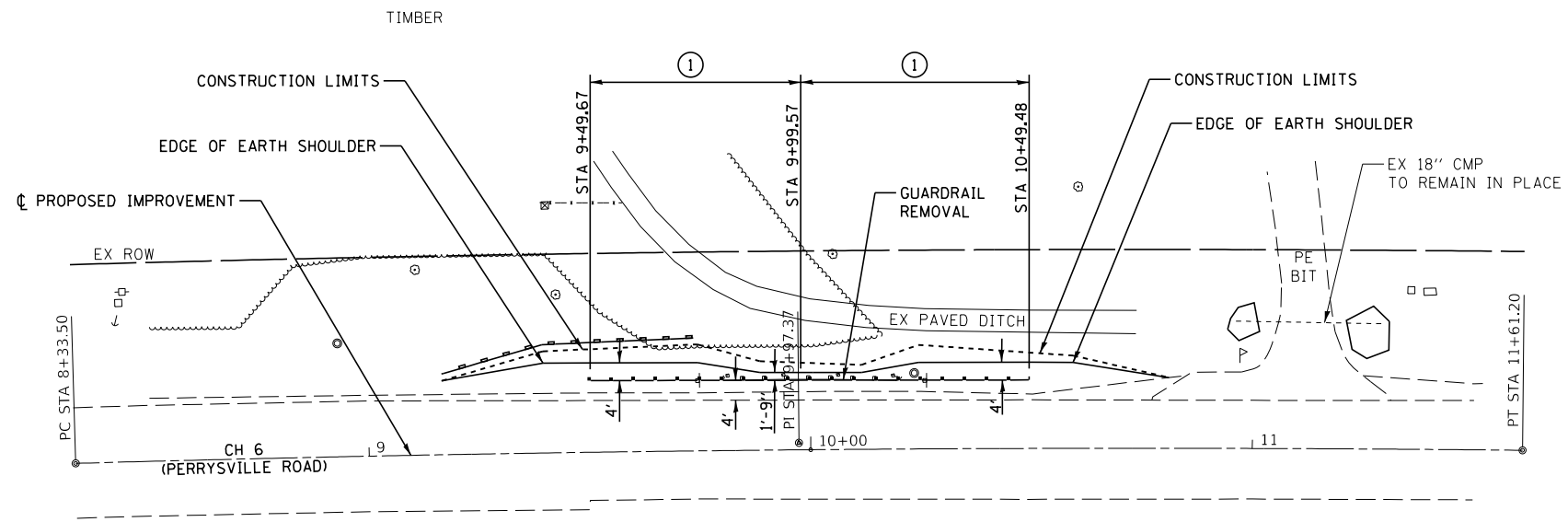
**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

PLAN - LOCATION NO. 18

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	17
CONTRACT NO. 91641				
		ILLINOIS	FED. AID PROJECT	

- ① TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- PERIMETER EROSION BARRIER



EXIST. CURVE CRV10
 PI STA. = 9+97.37
 $\Delta = 2^\circ 13' 03''$ (RT)
 $D = 0^\circ 40' 36''$
 $R = 8,466.64'$
 $T = 163.87'$
 $L = 327.70'$
 $E = 1.59'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 8+33.50$
 $P.T. STA. = 11+61.20$

☉ LOCATION NO. 20

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
PC	8+33.50	1254488.0376	1193177.8009
PI	9+97.37	1254458.0888	1193338.9105
PT	11+61.20	1254421.9283	1193498.7405

LOCATION NO. 20
 MAJOR COLLECTOR
 ADT 1500 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1-ehb-plan20.dgn



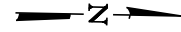
JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehb-plan20.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,000' / 1 in.	CHECKED - THF	REVISED -
PLOT DATE = 3/19/2024	DATE - 07/10/2023	REVISED -

VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

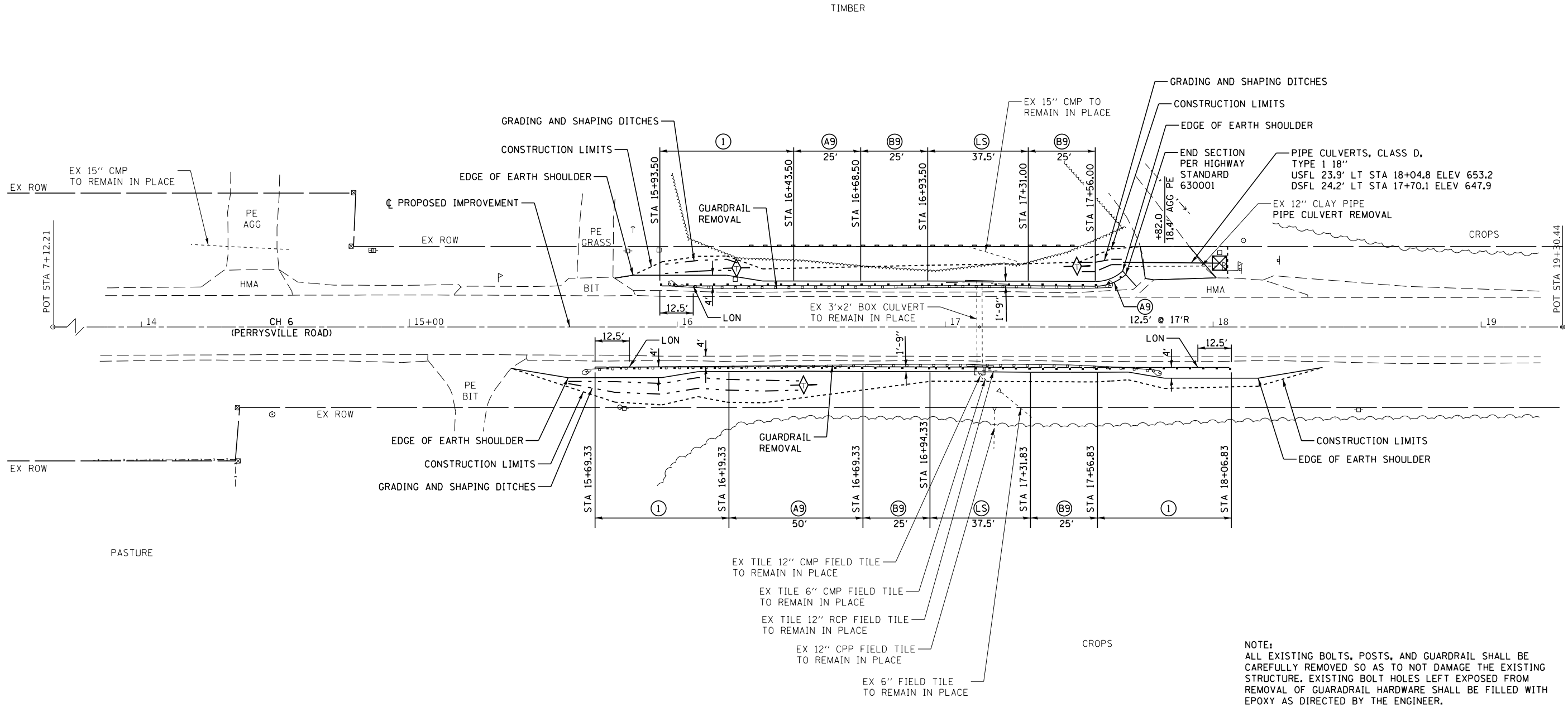
PLAN - LOCATION NO. 20

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12FT 6IN SPAN
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER
◇	TEMPORARY DITCH CHECKS
⊠	INLET AND PIPE PROTECTION



LOCATION NO. 21			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+12.21	1245019.4190	1202343.1450
POT	19+30.44	1246237.4430	1202320.8773

MODEL: Default
FILE NAME: 2740.1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1_rhb_rban21-22.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1_rhb_rban21-22.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/11/2023	REVISED -

**VERMILION COUNTY
GUARDRAIL IMPROVEMENTS**

PLAN - LOCATION NO. 21

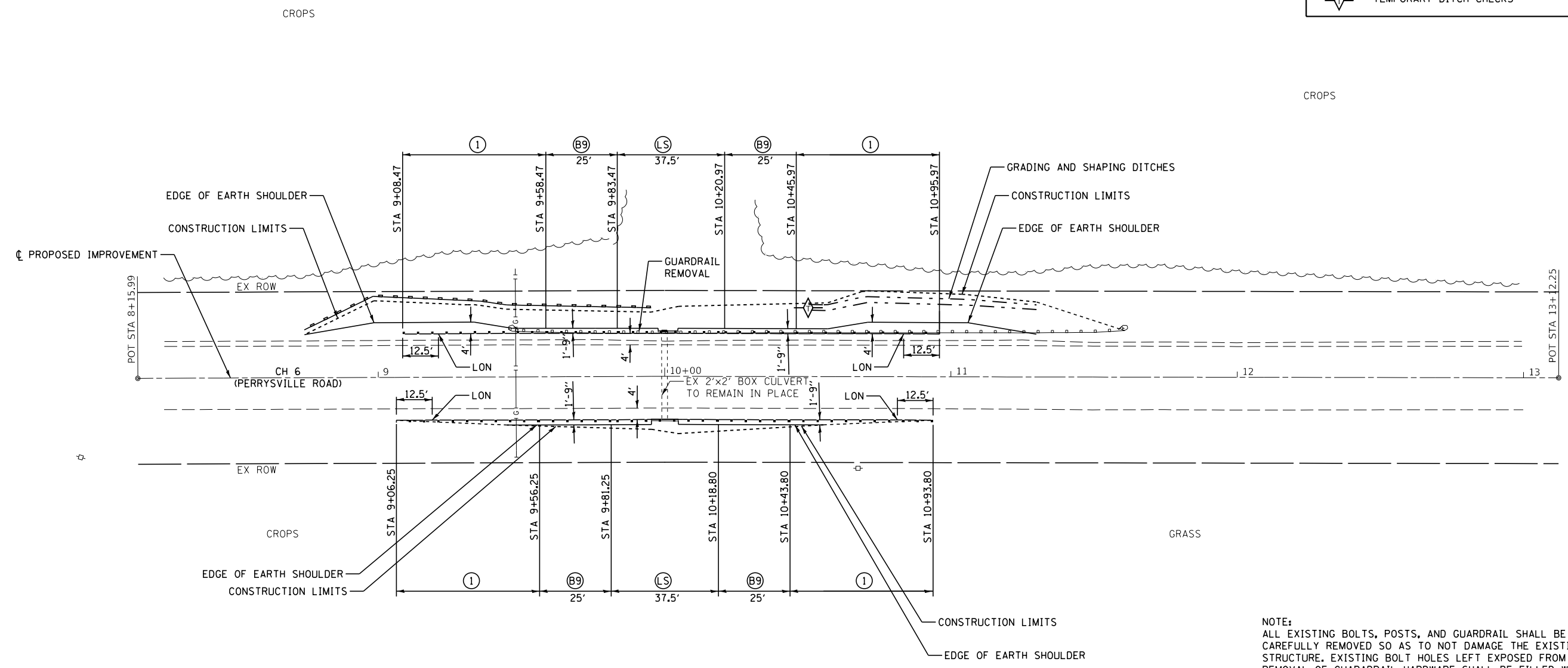
SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

LOCATION NO. 21
MAJOR COLLECTOR
ADT 1150 (2019)
DESIGN SPEED 40 MPH



LEGEND	
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FT POSTS
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER
◇	TEMPORARY DITCH CHECKS



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

GUARDRAIL POSTS SHALL STRADDLE THE GAS LINE AT LOCATIONS SHOWN ON THE PLANS. GUARDRAIL ON NORTH SIDE OF ROADWAY SHALL BE SHIFTED TO THE EAST AS NECESSARY AS DIRECTED BY THE ENGINEER AND COORDINATED WITH THE UTILITY COMPANY. GUARDRAIL ON SOUTH SIDE OF ROADWAY SHALL BE SHIFTED TO THE WEST AS NECESSARY AS DIRECTED BY THE ENGINEER AND COORDINATED WITH THE UTILITY COMPANY.

LOCATION NO. 23			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+15.99	1239283.6201	1207993.3226
POT	13+12.25	1239117.1472	1208460.8280

LOCATION NO. 23
 MAJOR COLLECTOR
 ADT 900 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1-ehb-plan23.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehb-plan23.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/19/2024	DATE - 07/11/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

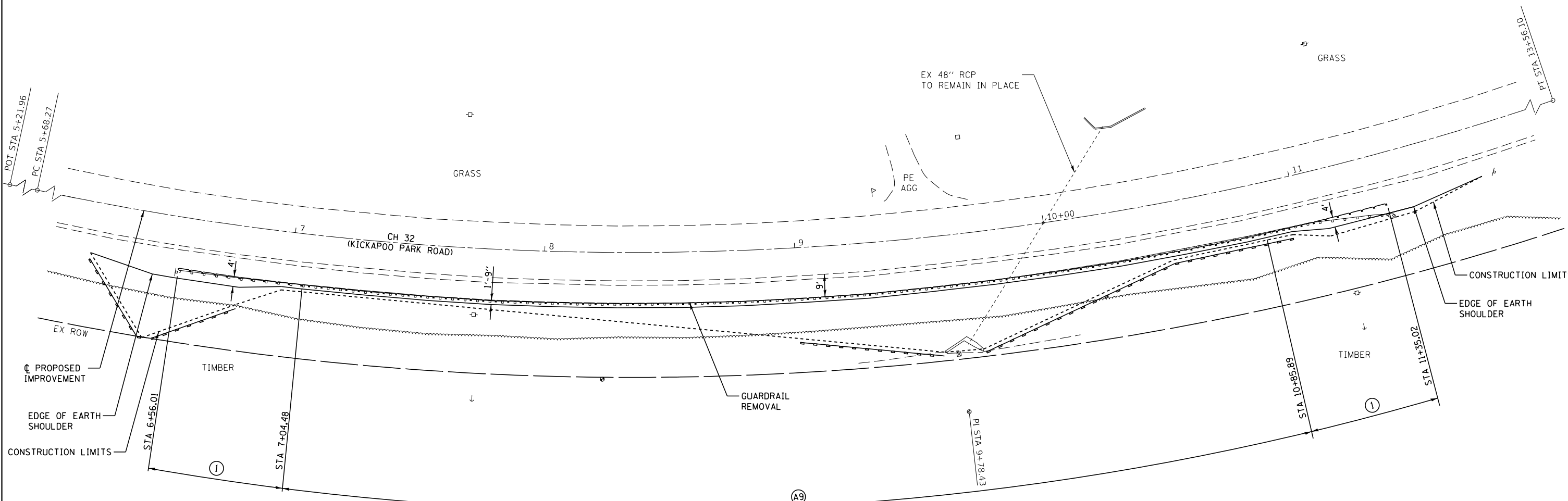
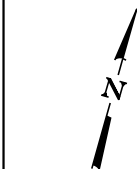
PLAN - LOCATION NO. 23

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
CONTRACT NO. 91641				
ILLINOIS		FED. AID PROJECT		

LEGEND

- (A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- PERIMETER EROSION BARRIER



EXIST. CURVE CRV26
 PI STA. = 9+78.43
 $\Delta = 39^\circ 24' 07''$ (LT)
 $D = 5^\circ 00' 07''$
 $R = 1,145.48'$
 $T = 410.16'$
 $L = 787.74'$
 $E = 71.22'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 5+68.27$
 $P.T. STA. = 13+56.01$

LOCATION NO. 26

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	5+21.96	1267453.6115	1154731.9657
PC	5+68.27	1267455.5299	1154778.2393
PI	9+78.43	1267472.5199	1155188.0483
PT	13+56.01	1267745.7772	1155493.9283

LOCATION NO. 26
 MINOR COLLECTOR
 ADT 900 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_HSR/CADD/Sheet32740.1-shb-plan26.dgn



JOB = 2740.1
 FILE NAME = 2740.1-shb-plan26.dgn
 PLOT SCALE = 40,0000' / in.
 PLOT DATE = 3/19/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 07/11/2023

REVISED -
 REVISED -
 REVISED -
 REVISED -

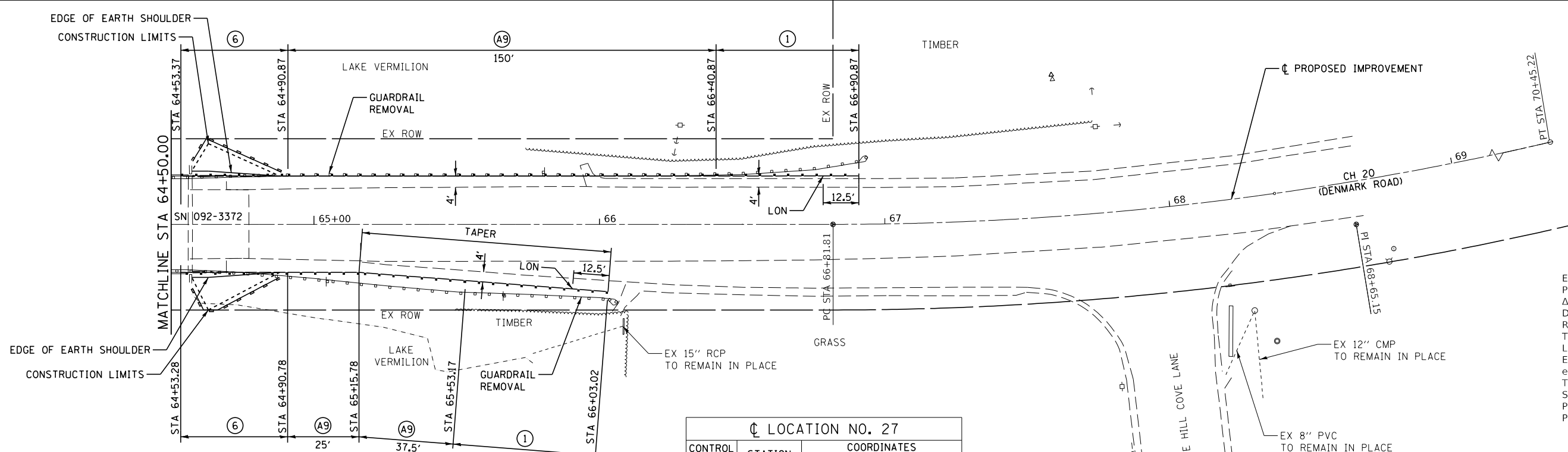
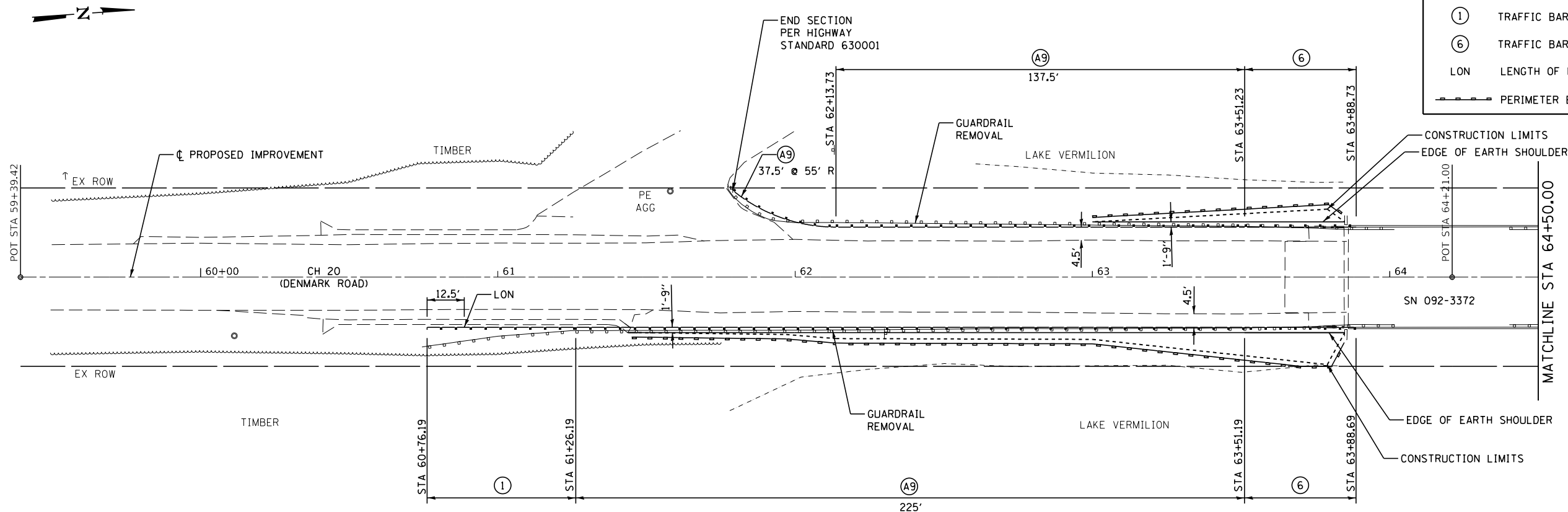
VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

PLAN - LOCATION NO. 26

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

- (A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- (6) TRAFFIC BARRIER TERMINAL, TYPE 6
- LON LENGTH OF NEED POINT
- PERIMETER EROSION BARRIER



EXIST. CURVE CRV27
 PI STA. = 68+65.15
 $\Delta = 18^\circ 45' 09''$ (LT)
 $D = 5^\circ 09' 37''$
 $R = 1,110.35'$
 $T = 183.35'$
 $L = 363.41'$
 $E = 15.04'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 66+81.81$
 $P.T. STA. = 70+45.22$

LOCATION NO. 27

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	59+39.42	1278091.8195	1176001.1106
POT	64+21.00	1278572.2217	1176034.8365
PC	66+81.81	1278832.3827	1176053.1007
PI	68+65.15	1279015.2784	1176065.9406
PT	70+45.22	1279192.5655	1176019.3084

LOCATION NO. 27
 MAJOR COLLECTOR
 ADT 1850 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740_1_Vermilion_Guardrail_HSR/CADD/Sheets/2740_1-ehb-plan27.dgn



JOB = 2740.1
 FILE NAME = 2740_1-ehb-plan27.dgn
 PLOT SCALE = 40,000' / in.
 PLOT DATE = 3/20/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 07/11/2023

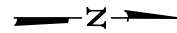
REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

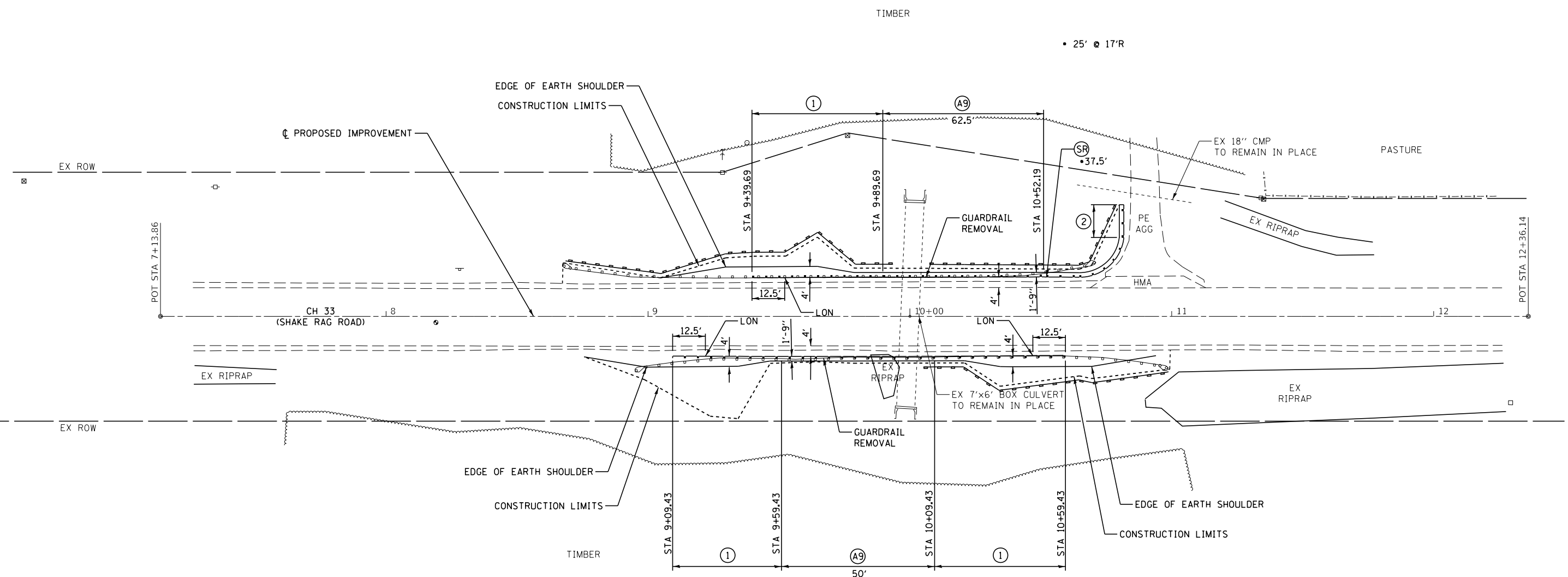
PLAN - LOCATION NO. 27

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
			ILLINOIS FED. AID PROJECT	



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(2)	TRAFFIC BARRIER TERMINAL, TYPE 2
(SR)	STEEL PLATE BEAM GUARD RAIL (SHORT RADIUS)
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER



LOCATION NO. 31

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+13.86	1294378.5962	1182754.9372
POT	12+36.14	1294900.8736	1182754.1476

LOCATION NO. 31
 MAJOR COLLECTOR
 ADT 1750 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_HSP/CADD/Sheets/2740.1-ehp-plan31.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehp-plan31.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,000' / 1 in.	CHECKED - THF	REVISED -
PLOT DATE = 3/19/2024	DATE - 07/11/2023	REVISED -

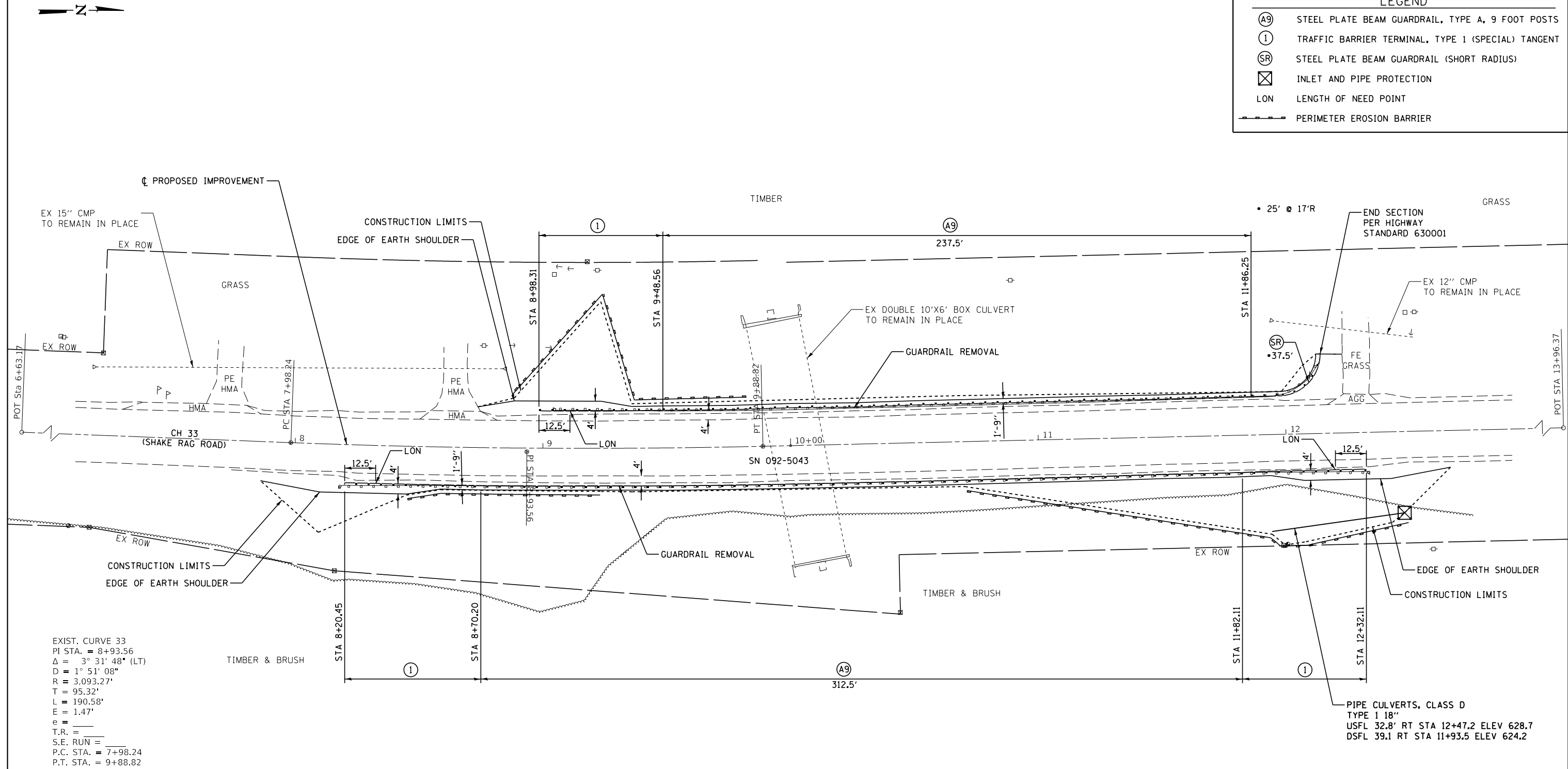
**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

PLAN - LOCATION NO. 31

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(SR)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)
⊠	INLET AND PIPE PROTECTION
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER



EXIST. CURVE 33
 PI STA. = 8+93.56
 $\Delta = 3^\circ 31' 48''$ (LT)
 $D = 1^\circ 51' 08''$
 $R = 3,093.27'$
 $T = 95.32'$
 $L = 190.58'$
 $E = 1.47'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 7+98.24$
 $P.T. STA. = 9+88.82$

LOCATION NO. 33			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+63.17	1300837.2487	1182764.4182
PC	7+98.24	1300972.2448	1182768.8692
PI	8+93.56	1301067.5124	1182772.0104
PT	9+88.82	1301162.7927	1182769.2798
POT	13+96.37	1301570.1750	1182757.6047

PIPE CULVERTS, CLASS D
 TYPE 1 18"
 USFL 32.8' RT STA 12+47.2 ELEV 628.7
 DSFL 39.1 RT STA 11+93.5 ELEV 624.2

LOCATION NO. 33
 MAJOR COLLECTOR
 ADT 1350 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_USFLCADD_Sheets32740.1_sheets33.dgn



JOB = 2740.1
 FILE NAME = 2740.1-shs-plan33.dgn
 PLOT SCALE = 40,000' / in.
 PLOT DATE = 3/20/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 07/11/2023

REVISED -
 REVISED -
 REVISED -
 REVISED -

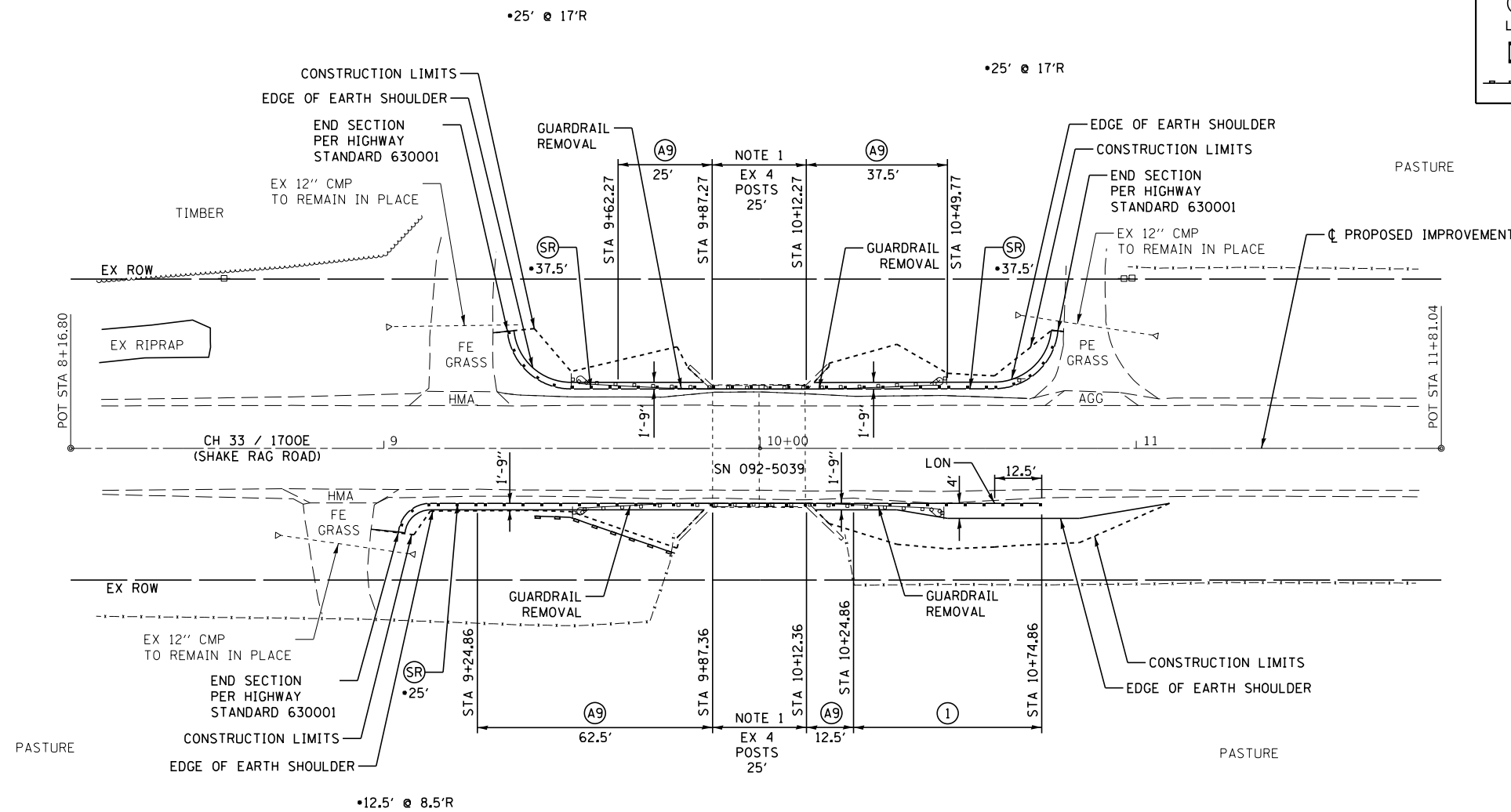
**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

PLAN - LOCATION NO. 33

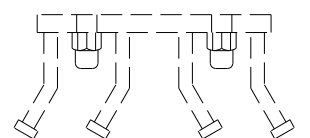
SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

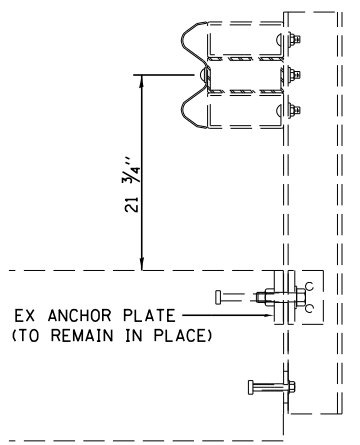
LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(SR)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)
LON	LENGTH OF NEED POINT
☒	INLET AND PIPE PROTECTION
— — — —	PERIMETER EROSION BARRIER



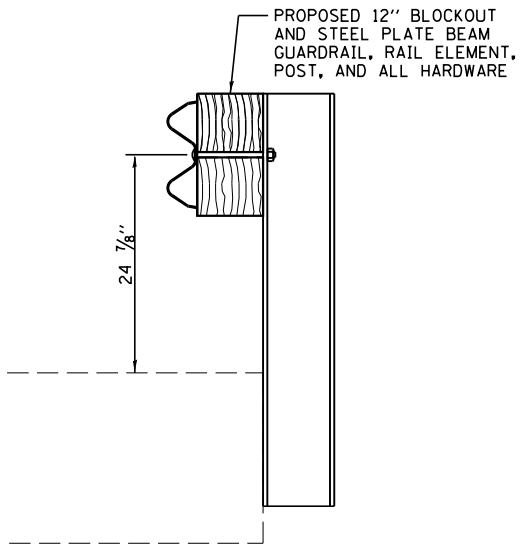
LOCATION NO. 34			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+16.80	1301940.7555	1182746.6489
POT	11+81.04	1302304.9006	1182738.4216



EXISTING ANCHOR PLATE (TO REMAIN IN PLACE)



STEEL RAILING REMOVAL



STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL)

NOTE 1
 EXISTING BRIDGE RAIL, GUARDRAIL ELEMENTS, BLOCKOUTS, AND ALL HARDWARE EXCEPT ANCHOR PLATES SHALL BE REMOVED. NEW 12" BLOCKOUTS AND STEEL PLATE BEAM GUARDRAIL, RAIL ELEMENTS SHALL BE INSTALLED ON THE NEW POSTS.

ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

CH 33 SHALL BE CLOSED TO TRAFFIC DURING CONSTRUCTION PER HIGHWAY STANDARD BLR 21. MAXIMUM CLOSURE TIME SHALL BE 3 CALENDAR DAYS.

LOCATION NO. 34
 MAJOR COLLECTOR
 ADT 1350 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_MSP/CADD/Sheets/2740.1-shb-plan34.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-shb-plan34.dgn	DRAWN - CDS	REVISED -
PLOT SCALE = 40,0000' / 1in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 3/5/2024	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

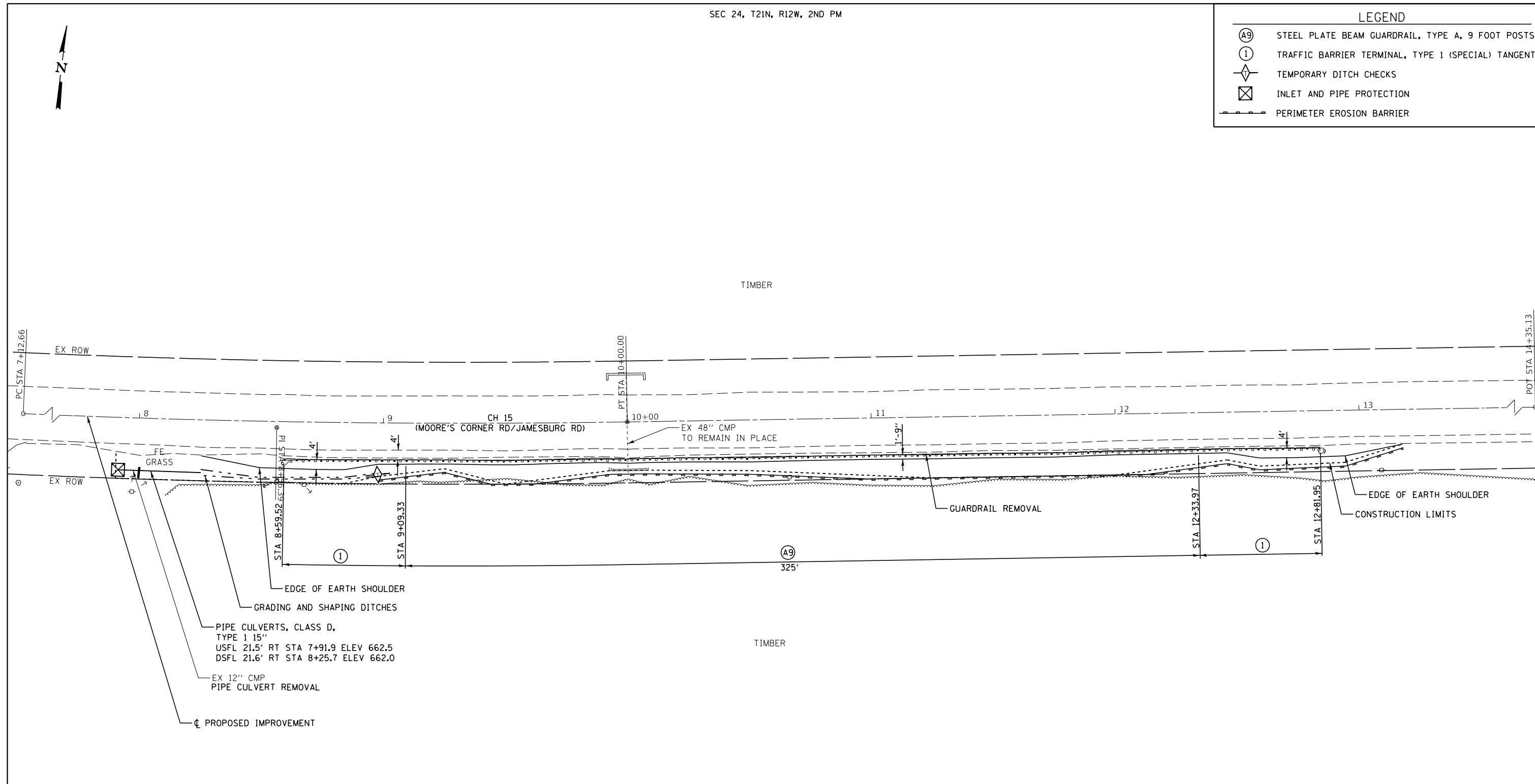
PLAN - LOCATION NO. 34

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

LEGEND

- (A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- ◇ TEMPORARY DITCH CHECKS
- ⊠ INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER



EDGE OF EARTH SHOULDER
 GRADING AND SHAPING DITCHES
 PIPE CULVERTS, CLASS D,
 TYPE 1 15\"/>

EXIST. CURVE CRV35
 PI STA. = 8+56.39
 $\Delta = 3^\circ 59' 08''$ (LT)
 $D = 1^\circ 23' 13''$
 $R = 4,130.86'$
 $T = 143.73'$
 $L = 287.34'$
 $E = 2.50'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 7+12.66$
 $P.T. STA. = 10+00.00$

LOCATION NO. 35			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
PC	7+12.66	1311474.7533	1172990.8142
PI	8+56.39	1311485.2902	1173134.1557
PT	10+00.00	1311505.7643	1173276.4183
POT	14+35.13	1311567.7479	1173707.1056

NOTE:
 EROSION CONTROL BLANKET SHALL BE USED
 IN ALL QUADRANTS BEHIND TYPE 1 TERMINALS
 SINCE SLOPES ARE STEEPER THAN 1:2.5.

LOCATION NO. 35
 MINOR COLLECTOR
 ADT 450 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 27401_Vermilion_Guardrail_HSR/CADD/Sheets/27401_1-ehb-plan35.dgn



JOB = 2740.1
 FILE NAME = 2740.1-ehb-plan35.dgn
 PLOT SCALE = 40,0000' / in.
 PLOT DATE = 3/19/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 02/01/2024

REVISED -
 REVISED -
 REVISED -
 REVISED -

VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

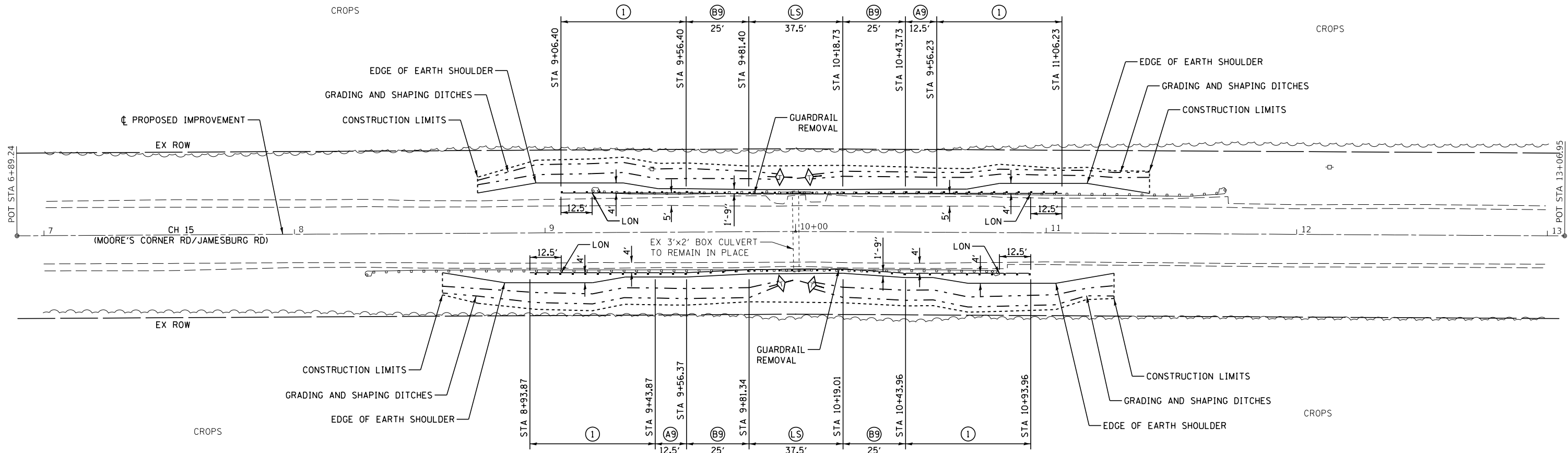
PLAN - LOCATION NO. 35

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN
LON	LENGTH OF NEED POINT
	TEMPORARY DITCH CHECKS



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

LOCATION NO. 37			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+89.24	1310422.5912	1152547.8914
POT	13+06.95	1310431.1463	1153165.5305

LOCATION NO. 37
 MINOR COLLECTOR
 ADT 175 (2019)
 DESIGN SPEED 30 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1_rfp_rbn37.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehk-pln37.dgn	DRAWN - CDS	REVISED -
PLOT SCALE = 40,0000' / 1in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 02/05/2024	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

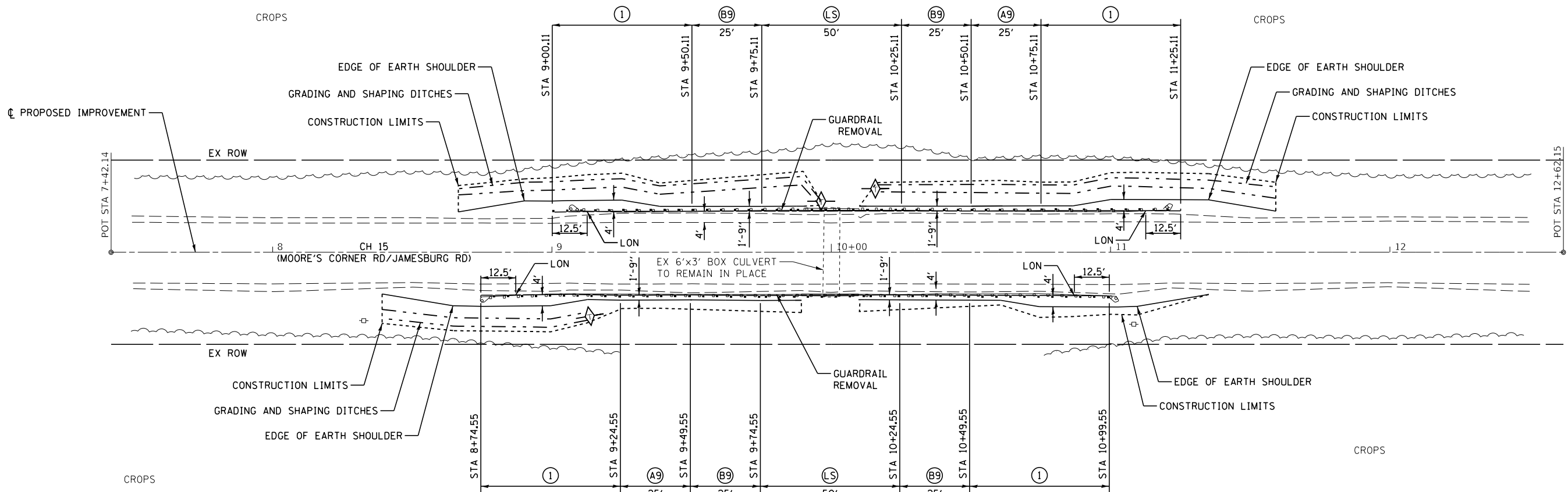
PLAN - LOCATION NO. 37

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

LEGEND

- (A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (B9) STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- (LS) LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN
- LON LENGTH OF NEED POINT
- ◇ TEMPORARY DITCH CHECKS



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

CL LOCATION NO. 38			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+42.14	1310347.2261	1149434.7850
POT	12+62.15	1310358.8638	1149954.6678

LOCATION NO. 38
 MINOR COLLECTOR
 ADT 175 (2019)
 DESIGN SPEED 30 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_USIP/CADD/Sheets/2740.1-ehb-plan38.dgn



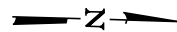
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PLOT DATE = 3/20/2024	DATE - 02/05/2024	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

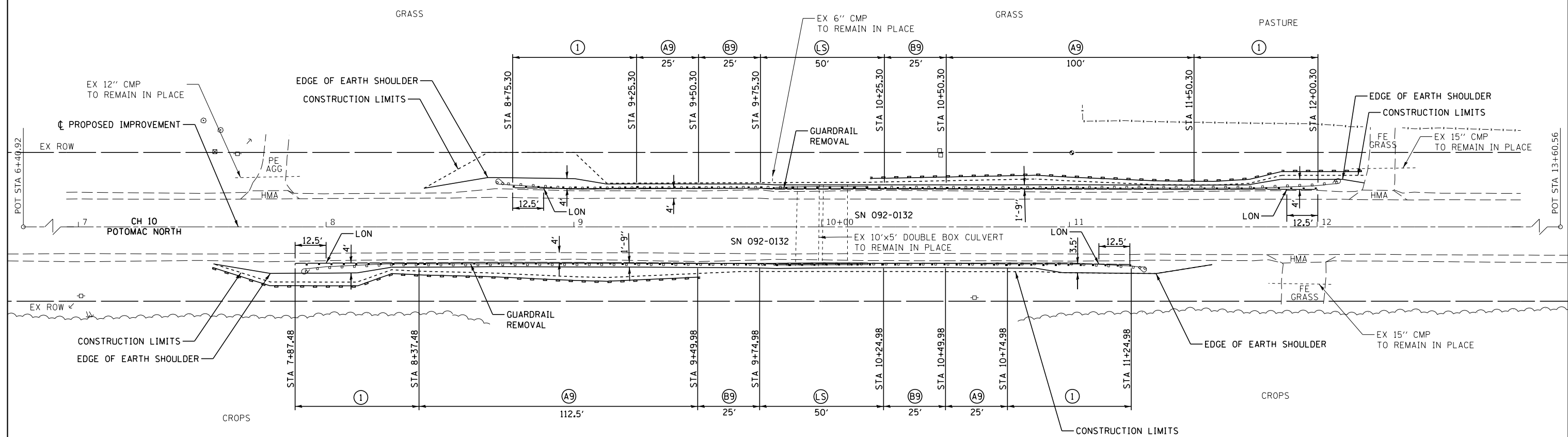
PLAN - LOCATION NO. 38

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN
LON	LENGTH OF NEED POINT
	PERIMETER EROSION BARRIER



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

LOCATION NO. 61			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+40.92	1336936.8209	1132505.6602
POT	13+60.56	1337656.1680	1132484.9592

LOCATION NO. 61
 MAJOR COLLECTOR
 ADT 350 (2019)
 DESIGN SPEED 30 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_HSP/CADD/Sheets/2740.1-ehb-pln61.dgn



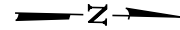
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PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/12/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

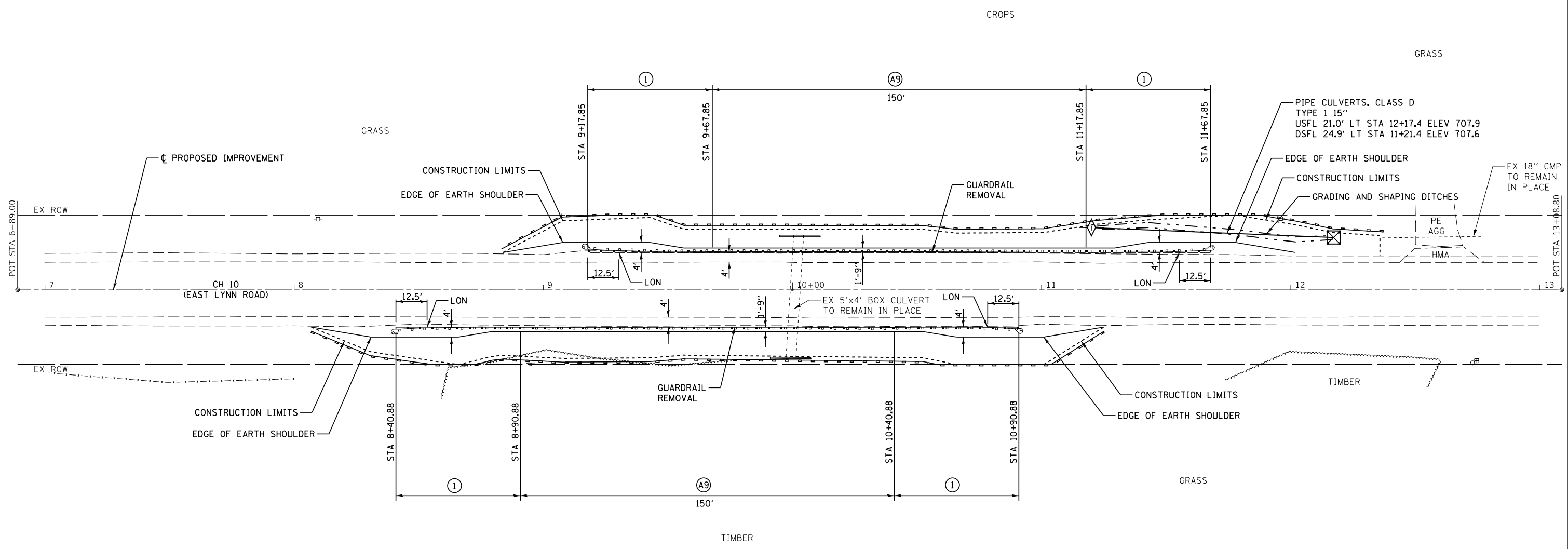
PLAN - LOCATION NO. 61

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER
⊠	INLET AND PIPE PROTECTION
◇	TEMPORARY DITCH CHECKS



EX 5'x4' BOX CULVERT TO REMAIN IN PLACE

CL LOCATION NO. 63			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+89.00	1374575.5570	1132813.1293
POT	13+08.80	1375195.1673	1132797.8423

LOCATION NO. 63
MAJOR COLLECTOR
ADT 475 (2022)
DESIGN SPEED 40 MPH

MODEL: Default
FILE NAME: 22-00220-01_Vermilion_Guardrail_HSP/CADD/Sheets/2740_1-ghb-ghb63.dgn



JOB = 2740_1
FILE NAME = 2740_1-ghb-ghb63.dgn
PLOT SCALE = 40,0000' / 1in.
PLOT DATE = 3/19/2024

DESIGNED - CGF
DRAWN - CGF
CHECKED - THF
DATE - 07/12/2023

REVISED -
REVISED -
REVISED -
REVISED -

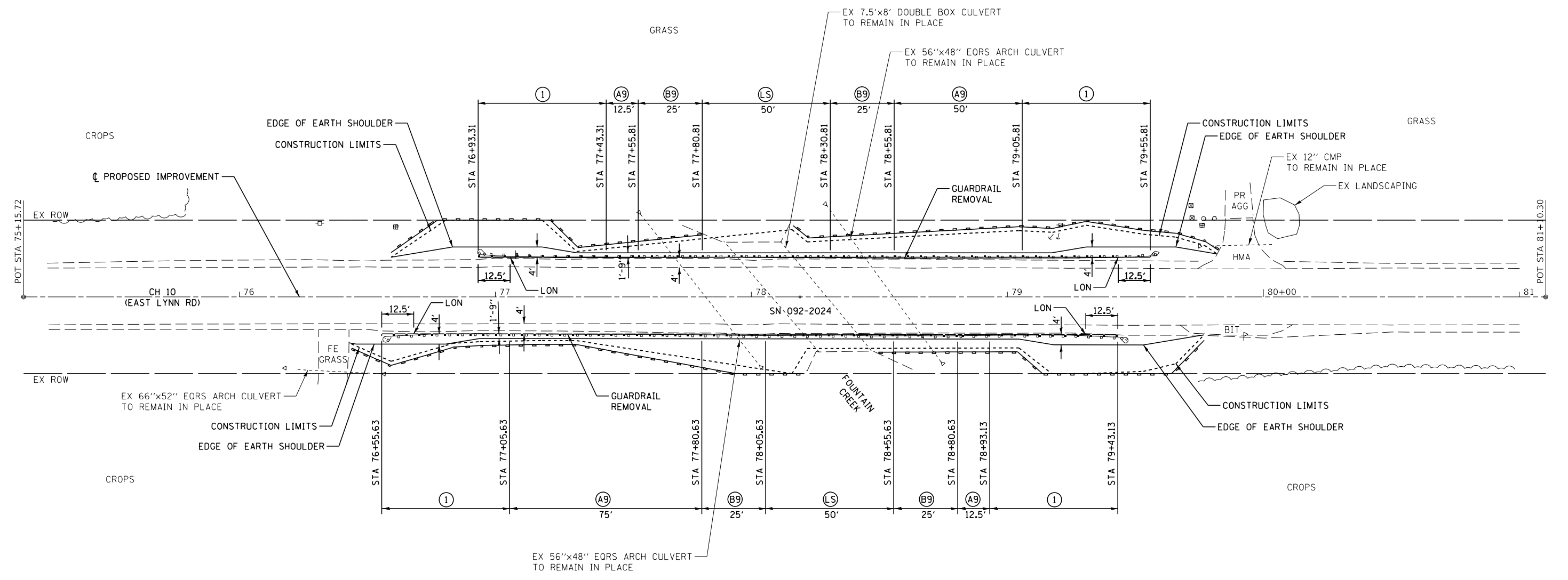
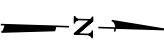
**VERMILION COUNTY
GUARDRAIL IMPROVEMENTS**

PLAN - LOCATION NO. 63

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

LEGEND	
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FT POSTS
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FT POSTS
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER



LOCATION NO. 64			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	75+15.72	1371539.3718	1132903.2854
POT	81+10.30	1372133.6768	1132885.1108

LOCATION NO. 64
 MAJOR COLLECTOR
 ADT 475 (2022)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1-ehb-pln64.dgn



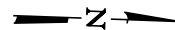
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PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/12/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

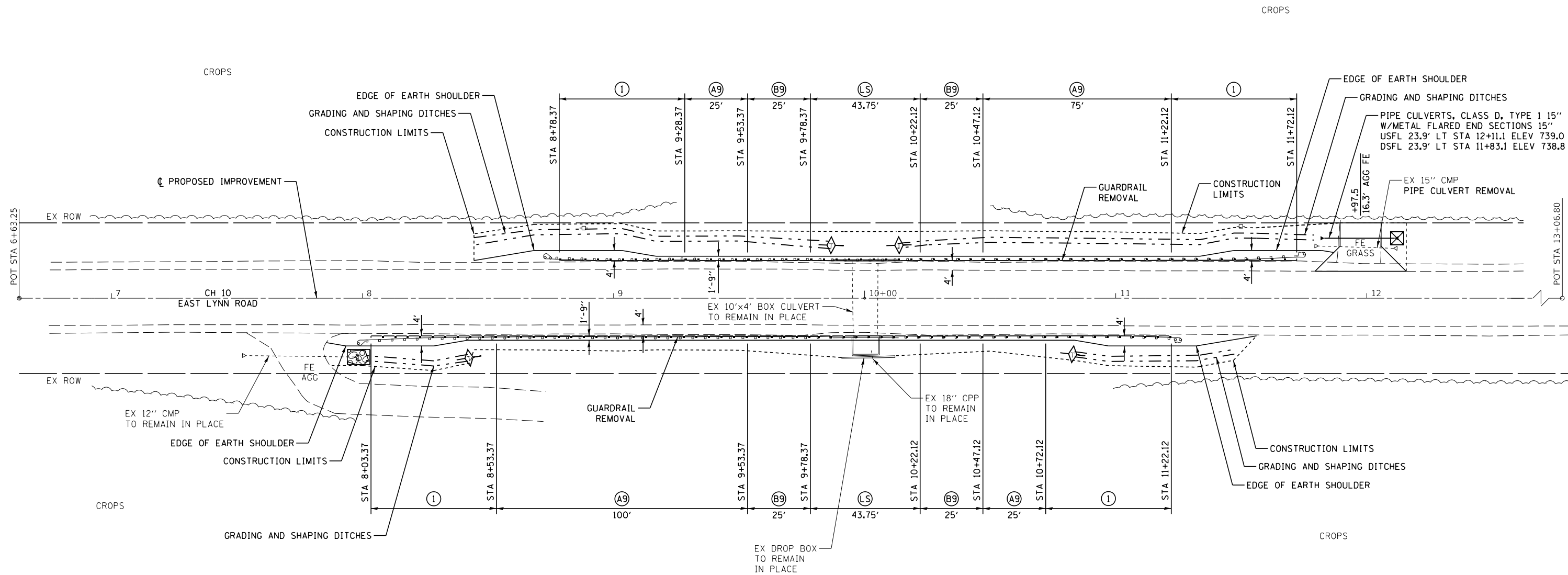
PLAN - LOCATION NO. 64

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN
⊠	INLET AND PIPE PROTECTION
◇	TEMPORARY DITCH CHECKS
⊞	STONE DUMPED RIPRAP, CLASS A4



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

LOCATION NO. 65			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+63.25	1354481.3937	1133305.2406
POT	13+06.80	1355124.5476	1133282.5283

LOCATION NO. 65
 MAJOR COLLECTOR
 ADT 350 (2019)
 DESIGN SPEED 30 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_HSP/CADD/Sheets/2740.1-ehb-plan65.dgn



JOB = 2740.1	DESIGNED - CGF	REVISED -
FILE NAME = 2740.1-ehb-plan65.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / 1in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/12/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

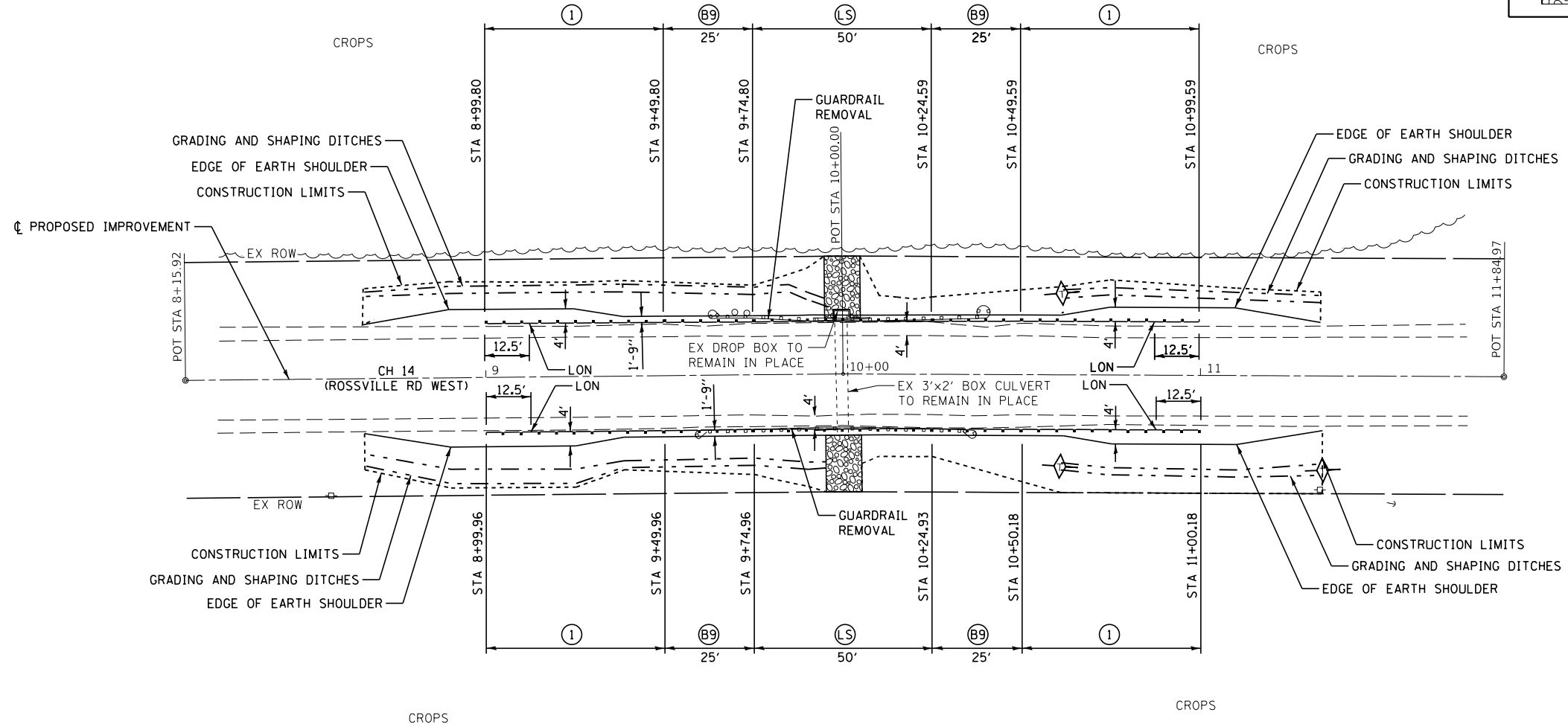
PLAN - LOCATION NO. 65

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	

LEGEND

- (LS) LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- (B9) STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FT POSTS
- LON LENGTH OF NEED POINT
- ☒ INLET AND PIPE PROTECTION
- ▬ PERIMETER EROSION BARRIER
- ◇ TEMPORARY DITCH CHECKS
- ⊞ STONE DUMPED RIPRAP, CLASS A4



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

HIGH POINT IN SE QUADRANT DITCH AND DRAINS BOTH DIRECTIONS.

HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED IN THE SE QUADRANT BEHIND TYPE 1 TERMINAL SINCE SLOPES ARE STEEPER THAN 1:2.5.

LOCATION NO. 66

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+15.92	1352657.7298	1148660.8537
POT	10+00.00	1352663.8735	1148844.8311
POT	11+84.97	1352667.4243	1149029.7659

LOCATION NO. 66
 MAJOR COLLECTOR
 ADT 450 (2022)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 27401_Vermilion_Guardrail_HSP/CADD/Sheets/27401_1-gh-pln66.dgn



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PLOT SCALE = 40,0000' / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/12/2023	REVISED -

VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

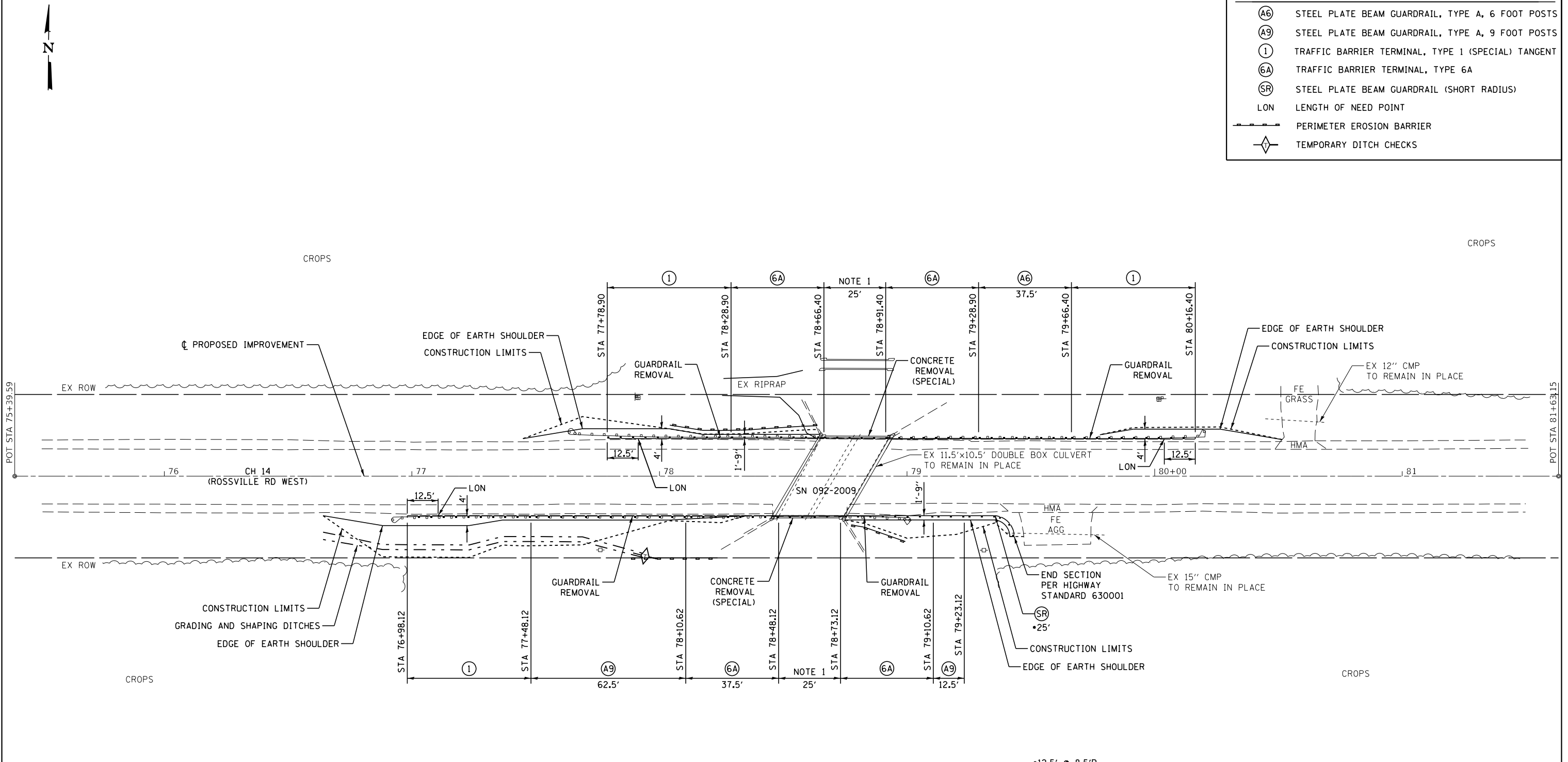
PLAN - LOCATION NO. 66

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
CONTRACT NO. 91641				
ILLINOIS		FED. AID PROJECT		

LEGEND

- (A6) STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- (A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- (6A) TRAFFIC BARRIER TERMINAL, TYPE 6A
- (SR) STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)
- LON LENGTH OF NEED POINT
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS



•12.5' @ 8.5'R

NOTE 1
 THE CONTRACTOR SHALL FURNISH AND INSTALL STEEL RAILING, TYPE 2399 ON STRUCTURE NO. 092-2009. THE STEEL RAILING SHALL BE ATTACHED TO THE EXISTING CONCRETE PARAPET (SEE STEEL RAILING, TYPE 2399 DETAIL).

CH 14 SHALL BE KEPT CLOSED TO TRAFFIC DURING CONSTRUCTION PER HIGHWAY STANDARD BLR 21. MAXIMUM CLOSURE TIME SHALL BE 3 CALENDAR DAYS.

LOCATION NO. 67
 MAJOR COLLECTOR
 ADT 450 (2022)
 DESIGN SPEED 40 MPH

LOCATION NO. 67			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	75+39.59	1352696.6657	1151319.9902
POT	81+63.15	1352703.0142	1151943.5202

MODEL: Default
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JOB = 2740.1
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 PLOT SCALE = 40,0000' / in.
 PLOT DATE = 3/20/2024

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - THF
 DATE - 07/12/2023

REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

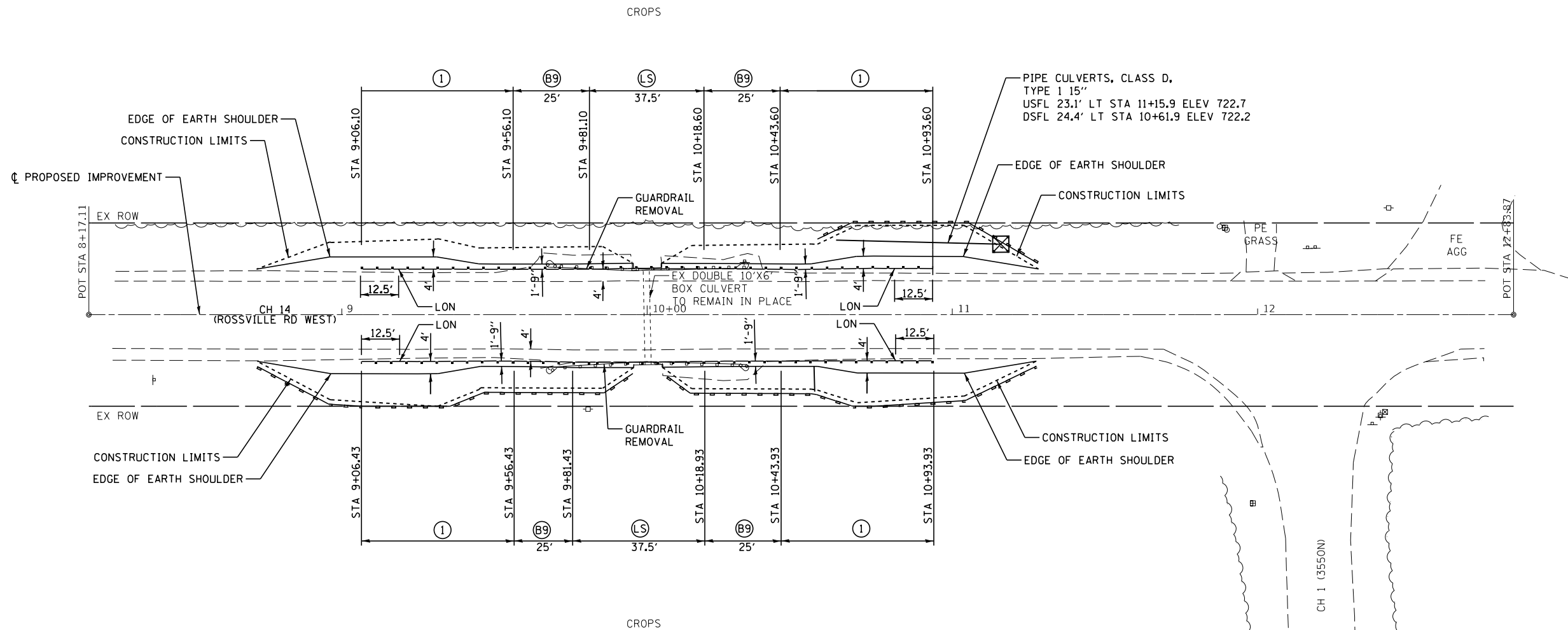
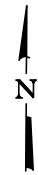
PLAN - LOCATION NO. 67

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
CONTRACT NO. 91641				
ILLINOIS		FED. AID PROJECT		

LEGEND

- (LS) LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN
- (1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- (B9) STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FT POSTS
- ⊗ INLET AND PIPE PROTECTION
- LON LENGTH OF NEED POINT
- PERIMETER EROSION BARRIER



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

LOCATION NO. 68			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+17.11	1352742.6828	1159134.0123
POT	12+83.87	1352747.1550	1159600.7550

LOCATION NO. 68
 MAJOR COLLECTOR
 ADT 450 (2022)
 DESIGN SPEED 40 MPH

MODEL: Default
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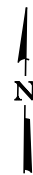
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PLOT SCALE = 40,0000' / 1in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/11/2023	REVISED -

VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS

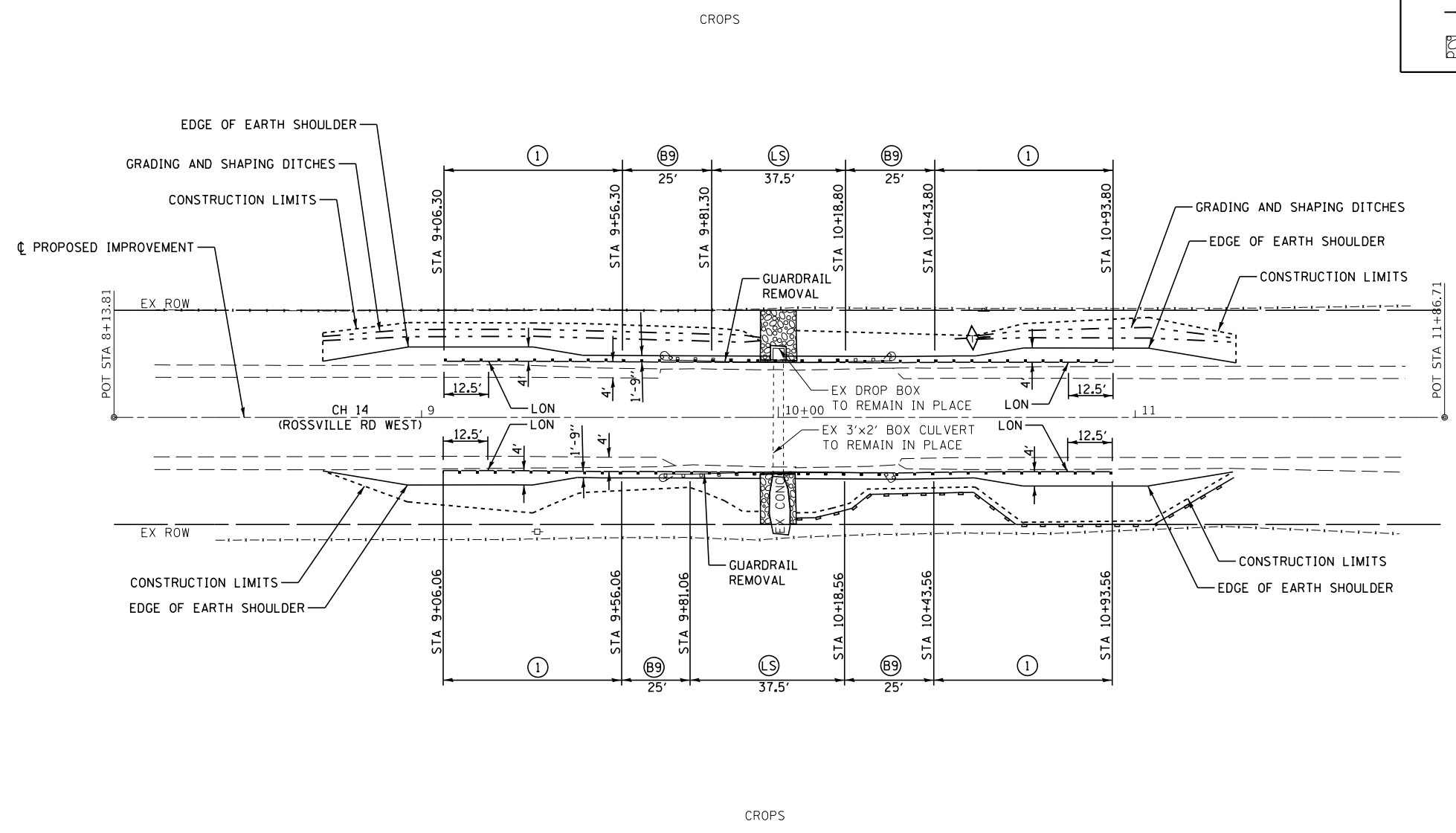
PLAN - LOCATION NO. 68

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL	SHEET
			SHEETS	NO.
	22-00220-00-GR	VERMILION	39	35
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
LON	LENGTH OF NEED POINT
	PERIMETER EROSION BARRIER
	TEMPORARY DITCH CHECKS
	STONE DUMPED RIPRAP, CLASS A4



NOTE:
 EROSION CONTROL BLANKET SHALL BE USED
 IN ALL QUADRANTS BEHIND TYPE 1 TERMINALS
 SINCE SLOPES ARE STEEPER THAN 1:2.5.

ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE
 CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING
 STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM
 REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH
 EPOXY AS DIRECTED BY THE ENGINEER.

LOCATION NO. 70			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+13.81	1352768.3252	1160992.1694
POT	11+86.71	1352773.8885	1161365.0283

LOCATION NO. 70
 MAJOR COLLECTOR
 ADT 775 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 2740.1_Vermilion_Guardrail_MSP/CADD/Sheets/2740.1-ehb-plan70.dgn



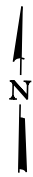
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PLOT SCALE = 40,0000' / 1in.	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/12/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

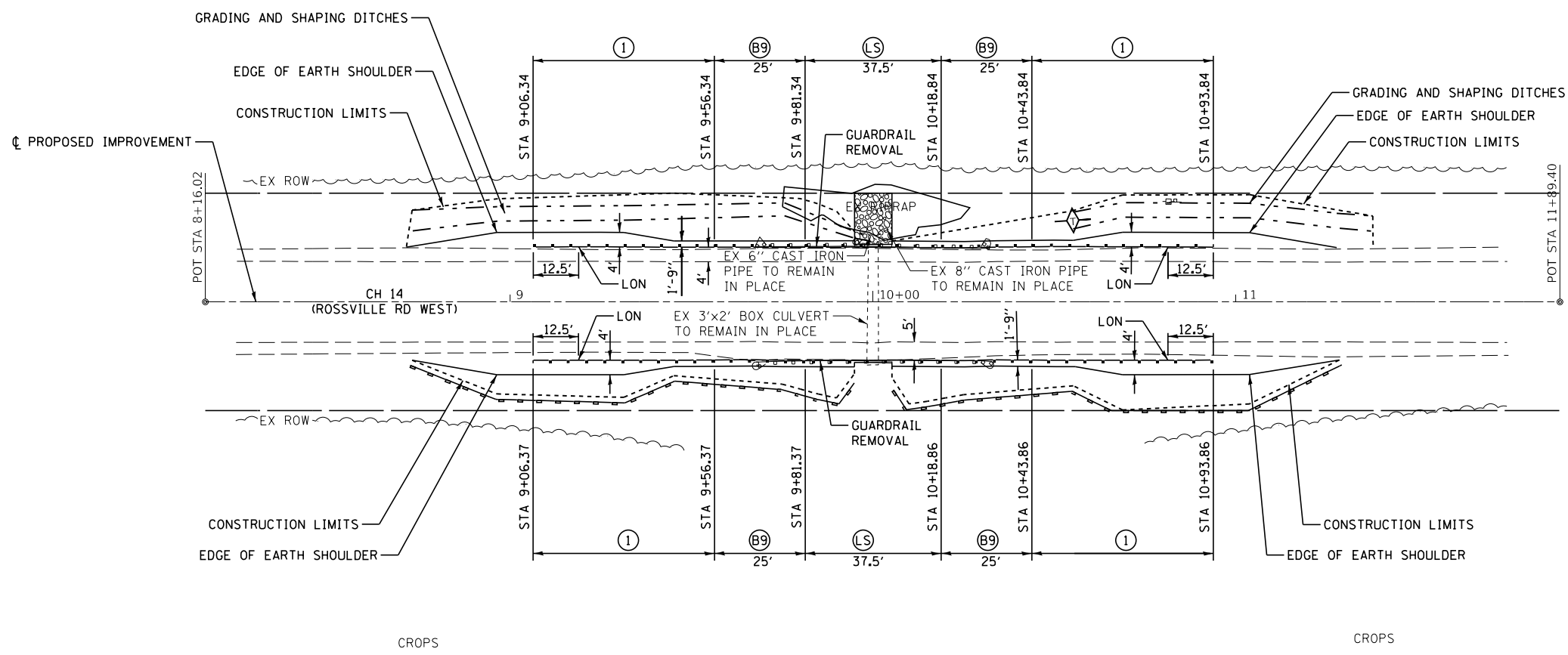
PLAN - LOCATION NO. 70

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



LEGEND	
(LS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FT POSTS
LON	LENGTH OF NEED POINT
---	PERIMETER EROSION BARRIER
◇	TEMPORARY DITCH CHECKS
⊞	STONE DUMPED RIPRAP, CLASS A4



NOTE:
 ALL EXISTING BOLTS, POSTS, AND GUARDRAIL SHALL BE CAREFULLY REMOVED SO AS TO NOT DAMAGE THE EXISTING STRUCTURE. EXISTING BOLT HOLES LEFT EXPOSED FROM REMOVAL OF GUARDRAIL HARDWARE SHALL BE FILLED WITH EPOXY AS DIRECTED BY THE ENGINEER.

CARE IS TO BE TAKEN AROUND EXISTING PIPES WHEN GRADING AND PLACING RIPRAP.

CL LOCATION NO. 71			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+16.02	1352795.5453	1162580.4916
POT	11+89.40	1352802.6111	1162953.8005

LOCATION NO. 71
 MAJOR COLLECTOR
 ADT 775 (2019)
 DESIGN SPEED 40 MPH

MODEL: Default
 FILE NAME: 22-00220-00-GR-1_Vermilion_Guardrail_HSR/CADD/Sheets/2740.1-ehb-plan71.dgn



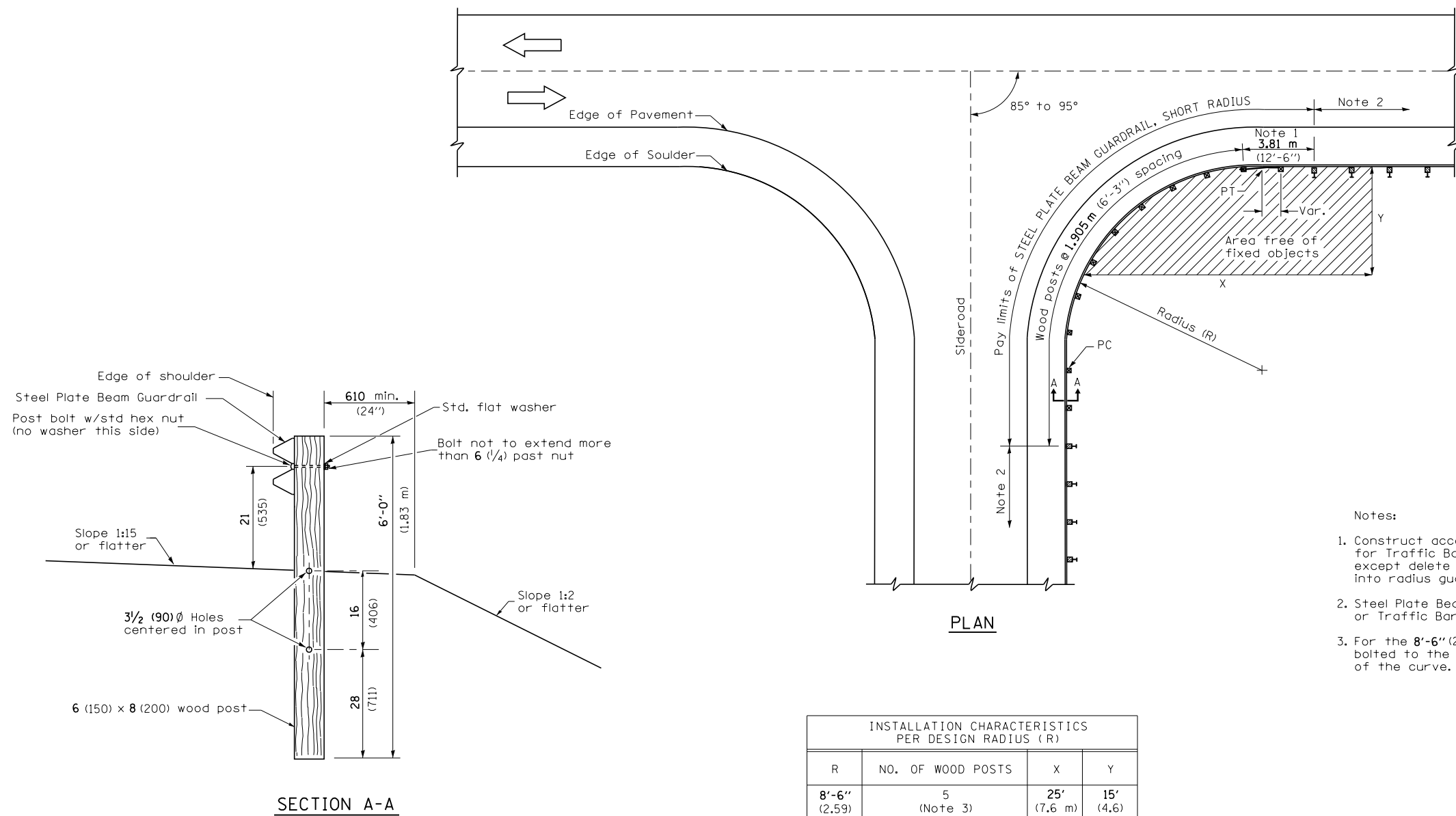
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PLOT SCALE = 40,000' / 1"	CHECKED - THF	REVISED -
PLOT DATE = 3/20/2024	DATE - 07/12/2023	REVISED -

**VERMILION COUNTY
 GUARDRAIL IMPROVEMENTS**

PLAN - LOCATION NO. 71

SCALE: SHEET OF SHEETS STA. TO STA.

VARIOUS ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			22-00220-00-GR	VERMILION
			CONTRACT NO. 91641	
		ILLINOIS	FED. AID PROJECT	



- Notes:
1. Construct according to Standard 631011 for Traffic Barrier Terminal Type 2, except delete end section and splice into radius guardrail.
 2. Steel Plate Beam Guardrail Type A, Type B, or Traffic Barrier Terminal as specified.
 3. For the 8'-6" (2.59 m) radius, the rail is not bolted to the post located at the midpoint of the curve.

INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R)			
R	NO. OF WOOD POSTS	X	Y
8'-6" (2.59)	5 (Note 3)	25' (7.6 m)	15' (4.6)
17'-0" (5.18)	6	30' (9.1 m)	15' (4.6)
25'-6" (7.77)	8	40' (12.2 m)	20' (6.1)
35'-0" (10.67)	11	50' (15.2 m)	20' (6.1)

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in inches (millimeters) unless otherwise shown.

MODEL: Default FILE NAME: 2740.1_Vermilion_Guardrail_HSP/CADD/Sheets/2740.1_guardrail_short_radius.dgn



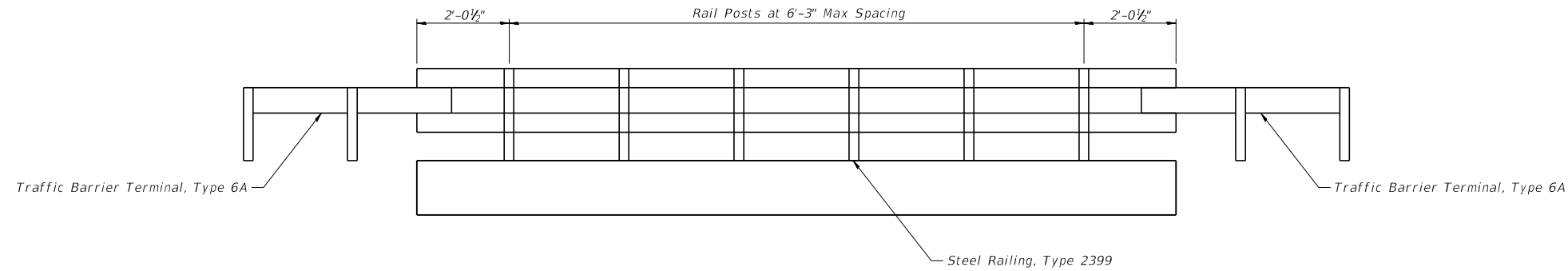
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PLOT SCALE = 400.0000" / in.	CHECKED - THF	REVISED -
PLOT DATE = 3/19/2024	DATE - 3/19/2024	REVISED -

VERMILION COUNTY GUARDRAIL IMPROVEMENTS

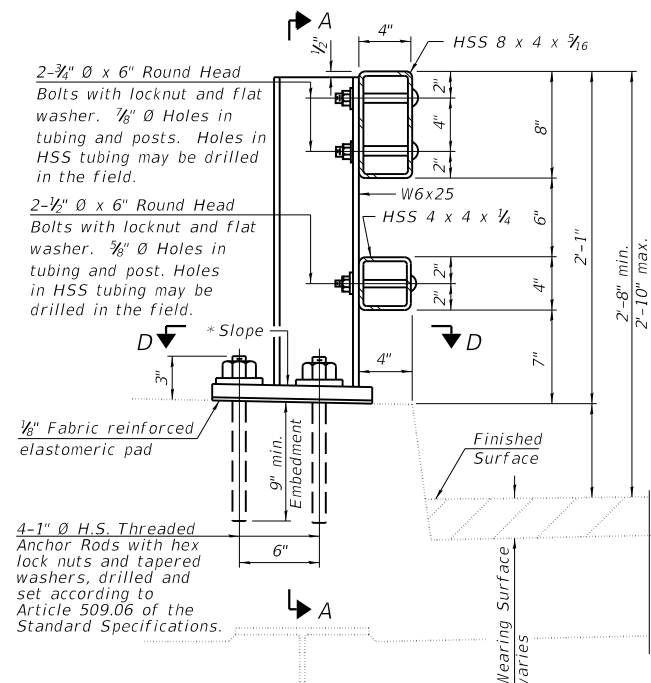
STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	38
CONTRACT NO.			91641	
ILLINOIS FED. AID PROJECT				

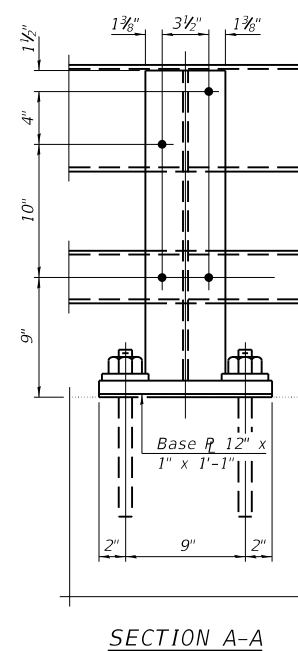
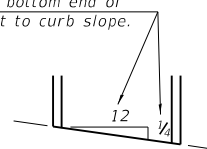


Notes:
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 All HSS tubing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.
 Rail splice inserts may be built out of 2 - 3/8" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.
 All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.

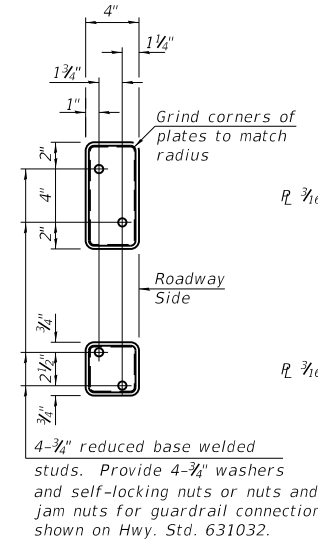


SECTION AT RAIL POST

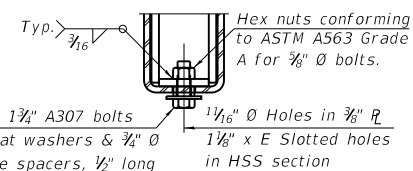
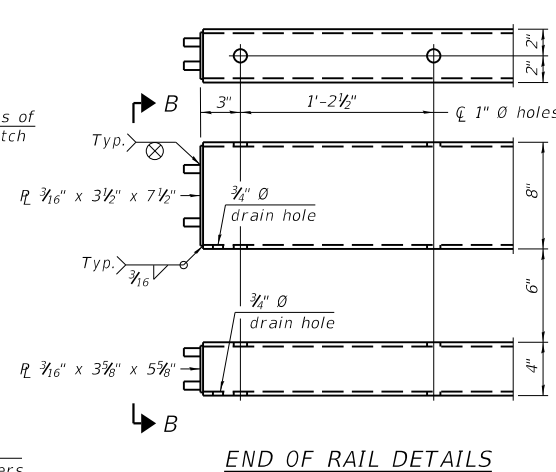
*Cut bottom end of post to curb slope.



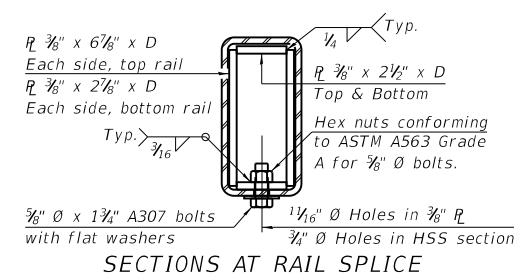
SECTION A-A



VIEW B-B



RAIL SPLICE CONNECTION AT EXPANSION JT.

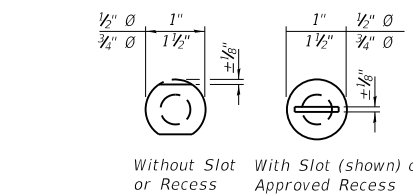


SPLICE DIMENSIONS

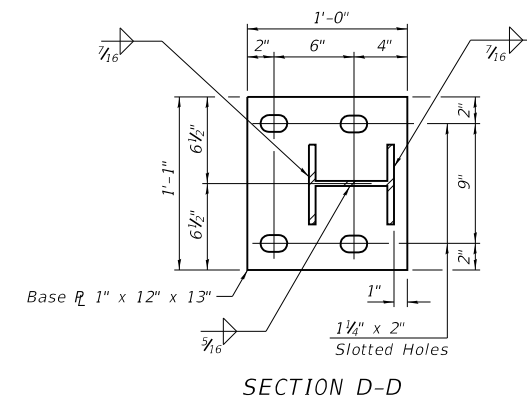
T	A	B	C	D	E
0	1/2"	4"	4"	1'-8"	-
≤4"	2 1/2"	4 3/8"	4 1/8"	1'-10"	3 1/16"
≤9 1/2"	5 1/2"	7 3/8"	7 1/4"	2'-9 1/4"	5 1/16"
≤15"	8 1/4"	10 1/8"	10"	3'-8 1/4"	8 1/16"

T = Total movement along centerline of roadway at expansion joint.

DETAIL OF 1/2" Ø & 3/4" Ø ROUND HEAD BOLTS



VIEW C-C



RAILING CRITERIA

NCHRP 350 Test Level	4
Railing Weight (plf)	70
Max Post Spacing	6'-3"

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	50.0

STEEL RAILING, TYPE 2399 STRUCTURE NO.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	22-00220-00-GR	VERMILION	39	39
CONTRACT NO. 91641				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			