11-07-2025 LETTING ITEM 071

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	1
	ILLINOIS	CONTRACT NO. 78209		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAS ROUTE 904 (IL ROUTE 166)
SECTION 101B-1
PROJECT BR-2XMH(743)
BRIDGE REPLACEMENT
WILLIAMSON COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 3

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-6

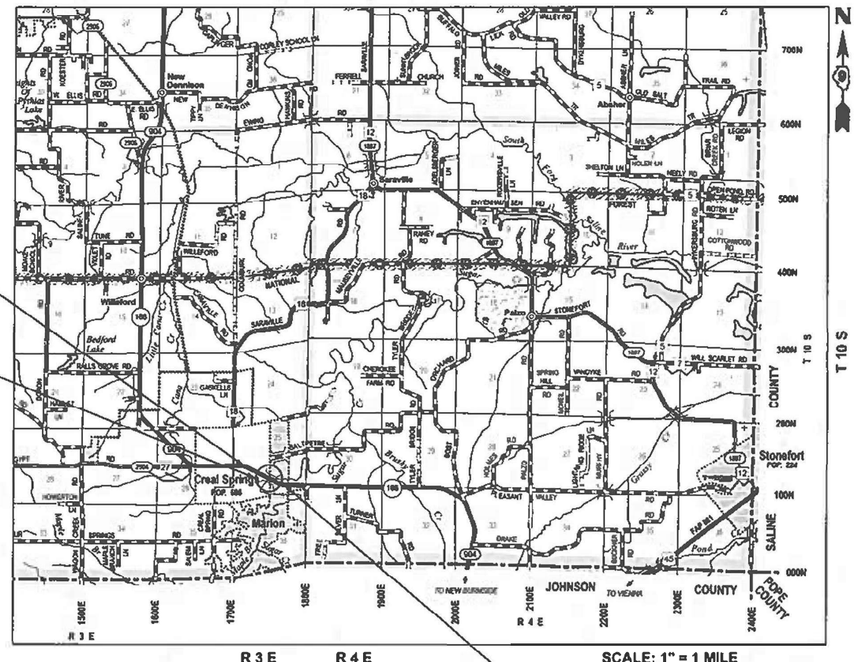
TRAFFIC DATA

FAS ROUTE 904 (IL 166)
EXISTING ADT = 1400 (2023)
% SU = 80 (5.71%)
% MU = 110 (7.86%)
FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR
POSTED SPEED: 55 MPH

TOWNSHIPS

CREAL SPRINGS, IL

C-99-067-10



D-99-065-10

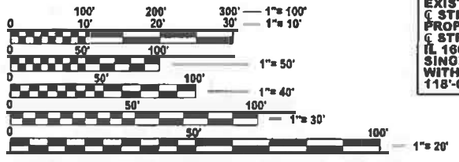
LOCATION OF SECTION INDICATED THUS:-

COORDINATE SYSTEM: NAD83 ILLINOIS STATE PLANES, EAST ZONE

BEGIN IMPROVEMENT
STA. 238+30.00

PROJECT LOCATION
EXISTING SN 100-0031
℄ STRUCTURE STA. 242+09.99
PROPOSED SN 100-0101
℄ STRUCTURE STA. 242+07.12
IL 166 OVER SUGAR CREEK
SINGLE SPAN STEEL PLATE GIRDER
WITH W54 BEAMS
118'-0" BK. TO BK. ABUTMENTS

END IMPROVEMENT
STA. 245+80.00



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT MANAGER: EHREN KIRBY, PE
PROJECT DESIGNER: VOLKERT, INC.

CONTRACT NO. 78209

VOLKERT

GROSS LENGTH = 750.00 FT. = 0.142 MILE
NET LENGTH = 750.00 FT. = 0.142 MILE

LICENSED PROFESSIONAL ENGINEER
ELIZABETH S. WITT
062-061876
STATE OF ILLINOIS

7/25/2025
ILLINOIS PROFESSIONAL ENGINEER NO. 062-061876
EXP. 11-30-2025

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 1 20 25
Lora S. Benson
REGION FIVE ENGINEER

October 3 20 25
ENGINEER OF DESIGN AND ENVIRONMENT

October 3 20 25
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV - MS

Prepared By:

DISTRICT STUDIES & PLANS ENGINEER

Examined By:

DISTRICT LAND ACQUISITION ENGINEER

Examined By:

DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By:

DISTRICT OPERATIONS ENGINEER

Examined By:

DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By:

DISTRICT CONSTRUCTION ENGINEER

Examined By:

DISTRICT MATERIALS ENGINEER

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MODEL: Signatures-1 [Sheet]
FILE NAME: c:\volkert_pw_working\nclare.hoffmann@volkert.com\d0399714\D978209-Sht-Signature.dgn

VOLKERT	USER NAME = karen.lawrence	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
	PLOT DATE = 7/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET
IL ROUTE 166

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	2

CONTRACT NO. 78209

ILLINOIS | FED. AID PROJECT

GENERAL NOTES

1. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
RIPRAP	1.50 TONS/CU YD
EARTH	110 LBS/CU FT

2. THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION EACH FOR THE HMA SURFACE REMOVAL, BINDER COURSE, AND SURFACE COURSE.

3. AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.

4. LONGITUDINAL JOINT SEALANT SHALL BE PLACED UNDER THE HMA SURFACE COURSE.

5. EDGE LINE PAVEMENT MARKING SHALL BE REMOVED IF A 10 FT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHALL BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.

COMMITMENTS

TREES EQUAL TO OR GREATER THEN 3 INCHES IN DIAMETER SHALL NOT BE REMOVED BETWEEN APRIL 1 AND SEPTEMBER 30 OF ANY GIVEN YEAR.

MIXTURE REQUIREMENTS

LOCATION(S):	HOT-MIX ASPHALT SURFACE COURSE
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, MIX C N70
AB/PG:	PG-64-22
DESIGN AIR VOIDS:	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5mm
FRICTION AGGREGATE:	MIX C
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	3,000 TONS
MATERIAL TRANSFER DEVICE (REQUIRED?)	NO

LOCATION(S):	HOT-MIX ASPHALT BINDER COURSE
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70
AB/PG:	PG64-22
DESIGN AIR VOIDS:	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5mm FINE GRADED
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	3,000 TONS
MATERIAL TRANSFER DEVICE (REQUIRED?)	NO

LOCATION(S):	HOT-MIX ASPHALT SHOULDERS 10" (SURFACE)
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, MIX C N30
AB/PG:	PG-64-22
DESIGN AIR VOIDS:	4.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5L
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	3,000 TONS
MATERIAL TRANSFER DEVICE (REQUIRED?)	NO

LOCATION(S):	HOT-MIX ASPHALT SHOULDERS 10" (BINDER)
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE, IL-19.0mm, N70
AB/PG:	PG64-22
DESIGN AIR VOIDS:	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.0mm
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	3,000 TONS
MATERIAL TRANSFER DEVICE (REQUIRED?)	NO

LIFT THICKNESS REQUIREMENTS

HOT-MIX ASPHALT SHOULDERS 10"

11/2" SURFACE
2 1/4" BINDER
2 1/4" BINDER
4" BINDER

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-10	PAVEMENT JOINTS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
483001-06	PCC SHOULDER
515001-04	NAME PLATE FOR BRIDGES
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
630001-13	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-19	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-10	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)

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VOLKERT

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PLOT DATE = 8/8/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS, HIGHWAY STANDARDS, AND MIXTURE REQUIREMENTS - IL ROUTE 166

SCALE: N/A | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	3
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	COUNTY:	WILLIAMSON	WILLIAMSON
			ROUTE:	FAS 904	FAS 904
			FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
			LOCATION:	RURAL	RURAL
			TOTAL QUANTITY	ROADWAY 0010	BRIDGE - SN 100-0101 0010
20200100	EARTH EXCAVATION	CU YD	900	150	750
25000200	SEEDING, CLASS 2	ACRE	0.5	0.5	
25000350	SEEDING, CLASS 7	ACRE	0.5	0.5	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1	1	
25100115	MULCH, METHOD 2	ACRE	0.5	0.5	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50	50	
28000400	PERIMETER EROSION BARRIER	FOOT	1169	1169	
28100105	STONE RIPRAP, CLASS A3	SQ YD	12	12	
28100109	STONE RIPRAP, CLASS A5	SQ YD	602		602
28200200	FILTER FABRIC	SQ YD	614	12	602
30300011	AGGREGATE SUBGRADE IMPROVEMENT	TON	65	65	
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SQ YD	184	184	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1061	1061	

CODE NO.	ITEM	UNIT	COUNTY:	WILLIAMSON	WILLIAMSON
			ROUTE:	FAS 904	FAS 904
			FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
			LOCATION:	RURAL	RURAL
			TOTAL QUANTITY	ROADWAY 0010	BRIDGE - SN 100-0101 0010
40600370	LONGITUDINAL JOINT SEALANT	FOOT	544	544	
40600990	TEMPORARY RAMP	SQ YD	238	238	
40602970	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70	TON	186	186	
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	143	143	
42000060	WELDED WIRE REINFORCEMENT	SQ YD	87	87	
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	107	107	
42001300	PROTECTIVE COAT	SQ YD	107	107	
44000100	PAVEMENT REMOVAL	SQ YD	291	291	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	1575	1575	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	5	5	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	21	21	
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	211	211	
48300100	PORTLAND CEMENT CONCRETE SHOULDERS 6"	SQ YD	204	204	
48301000	PROTECTIVE COAT	SQ YD	204	204	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	734		734

VOLKERT

USER NAME = claire.hoffmann	DESIGNED -	REVISED -	
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PLOT DATE = 8/11/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 166

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	4
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	COUNTY:	WILLIAMSON	WILLIAMSON
			ROUTE:	FAS 904	FAS 904
			FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
			LOCATION:	RURAL	RURAL
			TOTAL QUANTITY	ROADWAY 0010	BRIDGE - SN 100-0101 0010
50300225	CONCRETE STRUCTURES	CU YD	81.8		81.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	192		192
50300260	BRIDGE DECK GROOVING	SQ YD	587		587
50300300	PROTECTIVE COAT	SQ YD	820		820
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	94.8		94.8
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	1062		1062
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	89300		89300
50800515	BAR SPLICERS	EACH	668		668
51201600	FURNISHING STEEL PILES HP12X53	FOOT	216		216
51265001	DRILLING AND SETTING PILES (IN SOIL)	CU FT	322.3		322.3
51265002	DRILLING AND SETTING PILES (IN ROCK)	CU FT	281.2		281.2
51500100	NAME PLATES	EACH	1		1
52100520	ANCHOR BOLTS, 1"	EACH	24		24
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	927		927
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	534		534

	CODE NO.	ITEM	UNIT	COUNTY:	WILLIAMSON	WILLIAMSON
				ROUTE:	FAS 904	FAS 904
				FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				LOCATION:	RURAL	RURAL
				TOTAL QUANTITY	ROADWAY 0010	BRIDGE - SN 100-0101 0010
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4	
	60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	159		159
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	150	150	
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
	63200310	GUARDRAIL REMOVAL	FOOT	735	735	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18	
	67100100	MOBILIZATION	L SUM	1	1	
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
	70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6	
	70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	504	504	

* SPECIALTY ITEM

MODEL: SOQ-2 [Sheet]
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	CHECKED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 166

SCALE: NTS | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	5
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	COUNTY:	WILLIAMSON	WILLIAMSON
				ROUTE:	FAS 904	FAS 904
				FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				LOCATION:	RURAL	RURAL
				TOTAL QUANTITY	ROADWAY 0010	BRIDGE - SN 100-0101 0010
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	205	205	
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	51	51	
	70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	2715	2715	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	413	413	
	70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	57	57	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	388	388	
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	6	6	
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2715	2715	
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16	16	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10	
	78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	905	905	
*	86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1	1	
	X4400110	TEMPORARY PAVEMENT REMOVAL	SQ YD	24	24	

	CODE NO.	ITEM	UNIT	COUNTY:	WILLIAMSON	WILLIAMSON
				ROUTE:	FAS 904	FAS 904
				FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				LOCATION:	RURAL	RURAL
				TOTAL QUANTITY	ROADWAY 0010	BRIDGE - SN 100-0101 0010
	X5080530	BAR TERMINATORS	EACH	408		408
	X7050169	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED)	EACH	2	2	
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	22		22
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Ø	Z0076600	TRAINEES	HOUR	1000	1000	
Ø	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1000	1000	

* SPECIALTY ITEM

Ø 0042

REV - MS

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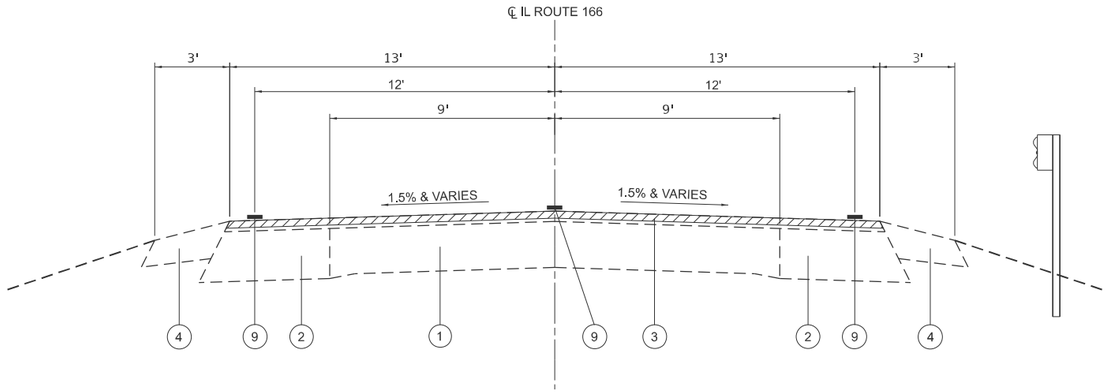
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 166

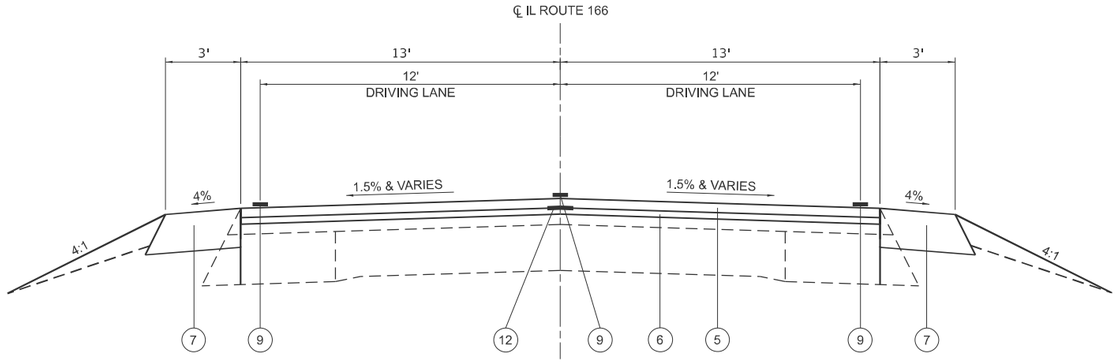
SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	6
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



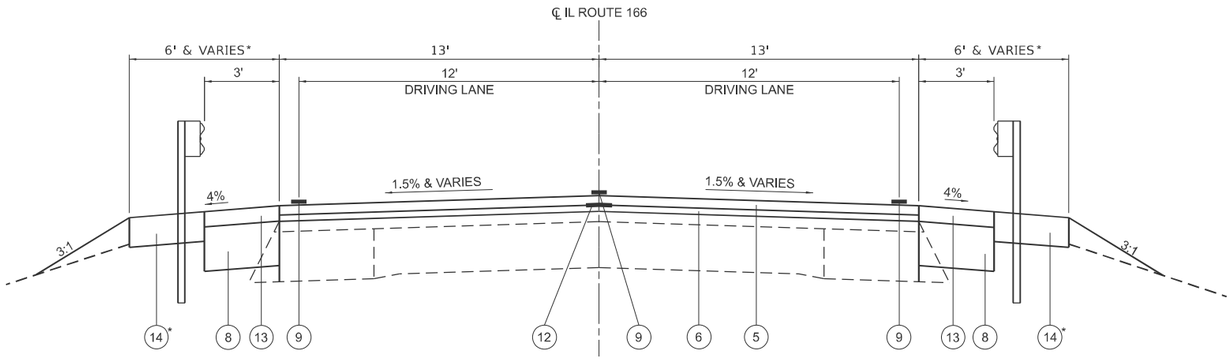
EXISTING IL ROUTE 166

STA 238+30.00 TO STA 245+80.00
EXISTING BRIDGE OMISSION: STA 241+53.83 TO STA 242+66.27



PROPOSED IL ROUTE 166

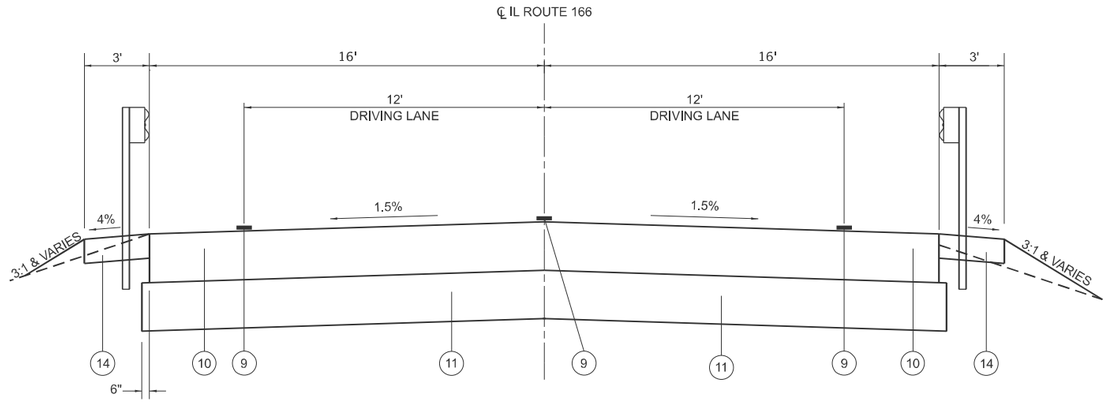
STA 238+30.00 RT TO STA 239+86.00 RT
STA 238+30.00 LT TO STA 239+90.00 LT
STA 244+16.00 RT TO STA 245+80.00 RT
STA 244+28.00 LT TO STA 245+80.00 LT



PROPOSED IL ROUTE 166

STA 239+86.00 RT TO STA 241+04.12 RT
STA 239+90.00 LT TO STA 241+04.12 LT
STA 243+10.12 RT TO STA 244+16.00 RT
STA 243+10.12 LT TO STA 244+28.00 LT

*IF PRESENT, SEE PLANS



PROPOSED IL ROUTE 166

STA 241+04.12 TO STA 241+19.12
STA 242+95.12 TO STA 243+10.12

PROPOSED BRIDGE OMISSION: STA 241+19.12 TO STA 242+95.12

LEGEND

1. EXISTING PAVEMENT 9"
2. EXISTING HOT-MIX ASPHALT BASE COURSE WIDENING, 9"
3. EXISTING HOT-MIX ASPHALT SURFACE, 2" & VARIES
4. EXISTING AGGREGATE SHOULDER 8"
5. PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70 1 1/2" & VARIES
6. PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70 1 1/4" & VARIES
7. PROPOSED HOT-MIX ASPHALT SHOULDERS, 10"
8. PROPOSED PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"
9. PAINT PAVEMENT MARKING - LINE 4"
10. PROPOSED PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
11. PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 10"
12. PROPOSED LONGITUDINAL JOINT SEALANT
13. HOT-MIX ASPHALT SHOULDERS, 2¾" AND VARIES
14. PORTLAND CEMENT CONCRETE SHOULDERS 6"

HOT-MIX ASPHALT SURFACE REMOVAL, 1½"

MODEL: Typical Section [Sheet]
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
IL ROUTE 166

SCALE: NTS | SHEET 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	7
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			

PAVING SCHEDULE

LOCATION				AGGREGATE SUBGRADE IMPROVEMENT	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	BITUMINOUS MATERIALS (TACK COAT)	LONGITUDINAL JOINT SEALANT	TEMPORARY RAMP	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	WELDED WIRE REINFORCEMENT	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	PROTECTIVE COAT	AGGREGATE SHOULDERS, TYPE B	HOT-MIX ASPHALT SHOULDERS	HOT-MIX ASPHALT SHOULDERS, 10"	PORTLAND CEMENT CONCRETE SHOULDERS 6"	PROTECTIVE COAT
STATION	TO	STATION	ROADWAY	(TON)	(SQ YD)	(POUND)	(FOOT)	(SQ YD)	(TON)	(TON)	(SQ YD)	(SQ YD)	(SQ YD)	(TON)	(TON)	(SQ YD)	(SQ YD)	(SQ YD)
238+30.00	TO	241+04.12	IL ROUTE 166		77.4	534.5	274.1	138.8	103.3	71.6				4.8	14.1	105.3	101.8	101.8
241+04.12	TO	241+19.12	IL ROUTE 166	32.1	5.0						43.3	53.3	53.3					
241+19.12	TO	242+95.12	IL ROUTE 166		21.2													
242+95.12	TO	243+10.12	IL ROUTE 166	32.1	5.0						43.3	53.3	53.3					
243+10.12	TO	245+80.00	IL ROUTE 166		74.6	526.3	269.9	98.9	82.2	70.6					6.6	105.3	101.8	101.8
			SUBTOTAL	64.2	183.2	1060.8	544.0	237.7	185.5	142.2	86.6	106.6	106.6	4.8	20.7	210.6	203.6	203.6
			PAY TOTAL	**65**	**184**	**1061**	**544**	**238**	**186**	**143**	**87**	**107**	**107**	**5**	**21**	**211**	**204**	**204**

EARTHWORK SCHEDULE

LOCATION				EARTH EXCATION	FOR INFORMATION ONLY			REMARKS
					EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 20%	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	
STATION	TO	STATION	ROADWAY	(CU YD)	(CU YD)	(CU YD)	(CU YD)	
238+30.00	TO	245+80.00	IL ROUTE 166	150.0	120.0	20.0	100.0	
			SUBTOTAL	150.0	120.0	20.0	100.0	
			PAY TOTAL	**150***	**120**	**20**	**100**	**DISPOSE OF EXCESS IN ACCORDANCE WITH 202.03**

*** SEE STRUCTURE PLANS FOR ADDITIONAL QUANTITY**

REMOVAL SCHEDULE

LOCATION				PAVEMENT REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	TEMPORARY PAVEMENT REMOVAL
STATION	TO	STATION	ROADWAY	(SQ YD)	(SQ YD)	(SQ YD)
238+30.00	TO	241+04.12	IL ROUTE 166		791.7	
241+04.12	TO	243+10.12	IL ROUTE 166	290.6		24.0
243+10.12	TO	245+80.00	IL ROUTE 166		783.1	
			SUBTOTAL	290.6	1574.8	24.0
			PAY TOTAL	**291**	**1575**	**24**

TEMPORARY PAVEMENT MARKING SCHEDULE

LOCATION				SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING - LINE 4" - PAINT			PAVEMENT MARKING REMOVAL - GRINDING
				SKIP DASH YELLOW	REMOVAL	SOLID WHITE	SKIP DASH YELLOW	SOLID YELLOW	
STATION	TO	STATION	ROADWAY	(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)	(SQ FT)
238+30.00	TO	241+04.12	IL ROUTE 166	74.8	8.3	548.2	30.0	428.2	335.5
241+04.12	TO	243+10.12	IL ROUTE 166	56.2	6.2	412.0		412.0	274.7
243+10.12	TO	245+80.00	IL ROUTE 166	73.6	8.2	539.8	65.3	278.8	294.7
			SUBTOTAL	204.6	22.7	1500.0	95.3	1119.0	904.9
			PAY TOTAL	**205**	**23***	**2715**			**905**

*** NOT A TOTAL QUANTITY**

PERMANENT PAVEMENT MARKING SCHEDULE

LOCATION				PAINT PAVEMENT MARKING - LINE 4"			RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
				SOLID WHITE	SKIP DASH YELLOW	SOLID YELLOW	
STATION	TO	STATION	ROADWAY	(FOOT)	(FOOT)	(FOOT)	(EACH)
238+30.00	TO	241+04.12	IL ROUTE 166	548.2	30.0	428.2	4
241+04.12	TO	243+10.12	IL ROUTE 166	412.0		412.0	2
243+10.12	TO	245+80.00	IL ROUTE 166	539.8	65.3	278.8	4
			SUBTOTAL	1500.0	95.3	1119.0	10
			PAY TOTAL	**2715**			**10**

GUARDRAIL SCHEDULE

LOCATION					STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	GUARDRAIL REMOVAL	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED)
STATION	TO	STATION	SIDE	ROADWAY	(FOOT)	(EACH)	(EACH)	(FOOT)	(EACH)	(EACH)	(EACH)
239+38.78	TO	244+21.13	RT	IL ROUTE 166				367.7			
239+72.24	TO	241+34.74	RT	IL ROUTE 166	75.0	1	1		1	4	
240+01.86	TO	244+83.93	LT	IL ROUTE 166				367.1			
240+01.86	TO	240+51.73	LT	IL ROUTE 166					1		1
240+47.24	TO	241+34.74	LT	IL ROUTE 166		1	1		1	4	
242+79.49	TO	243+66.99	RT	IL ROUTE 166		1	1		1	4	
242+79.49	TO	244+41.99	LT	IL ROUTE 166	75.0	1	1		1	4	
244+34.52	TO	244+83.93	LT	IL ROUTE 166					1		1
				SUBTOTAL	150.0	4	4	734.8	6	16	2
				PAY TOTAL	**150**	**4**	**4**	**735**	**6**	**16**	**2**

MODEL: Schedule 1 [Sheet]
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
IL ROUTE 166

SCALE: NTS | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	8
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

MAINTENANCE OF TRAFFIC SCHEDULE

LOCATION				TEMPORARY RUMBLE STRIPS	PAVEMENT MARKING BLACKOUT TAPE, 5"	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY CONCRETE BARRIER	PINNING TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
STATION	TO	STATION	ROADWAY	(EACH)	(FOOT)	(SQ FT)	(FOOT)	(EACH)	(FOOT)	(EACH)	(EACH)
238+05.09	TO	240+51.03	IL ROUTE 166	3	246.0	10.4					
239+98.00	TO	240+87.00	IL ROUTE 166				87.5			1	
240+11.00	TO	240+87.00	IL ROUTE 166						75.0		1
240+87.00	TO	243+27.00	IL ROUTE 166				237.5	57	237.5		
243+27.00	TO	244+03.00	IL ROUTE 166						75.0		1
243+27.00	TO	244+16.00	IL ROUTE 166				87.5			1	
243+63.22	TO	246+21.12	IL ROUTE 166	3	258.0	17.1					
			SUBTOTAL	6	504.0	27.5	412.5	57	387.5	2	2
			PAY TOTAL	**6**	**504**	**28***	**413**	**57**	**388**	**2**	**2**

*** NOT A TOTAL QUANTITY**

SEEDING SCHEDULE

LOCATION				SEEDING, CLASS 2	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2	TEMPORARY EROSION CONTROL SEEDING
STATION	TO	STATION	ROADWAY	(ACRE)	(ACRE)	(POUND)	(POUND)	(POUND)	(TON)	(ACRE)	(POUND)
238+30.00	TO	245+80.00	IL ROUTE 166	0.5	0.5	45	45	45	1	0.5	50
			SUBTOTAL	0.5	0.5	45	45	45	1	0.5	50
			PAY TOTAL	**0.5**	**0.5**	**45**	**45**	**45**	**1**	**0.5**	**50**

EROSION CONTROL SCHEDULE

LOCATION				PERIMETER EROSION BARRIER	STONE RIPRAP, CLASS A3	FILTER FABRIC
STATION	TO	STATION	SIDE	(FOOT)	(SQ YD)	(SQ YD)
238+30	TO	241+30	RT	303		
238+65	TO	241+30	LT	266		
242+82	TO	245+80	LT	301		
242+82	TO	245+80	RT	299		
242+95	TO	243+05	LT/RT		12	12
			SUBTOTAL	1169	12	12
			PAY TOTAL	**1169**	**12**	**12***

*** SEE STRUCTURE PLANS FOR ADDITIONAL QUANTITY**

MODEL: Schedule 2 [Sheet]
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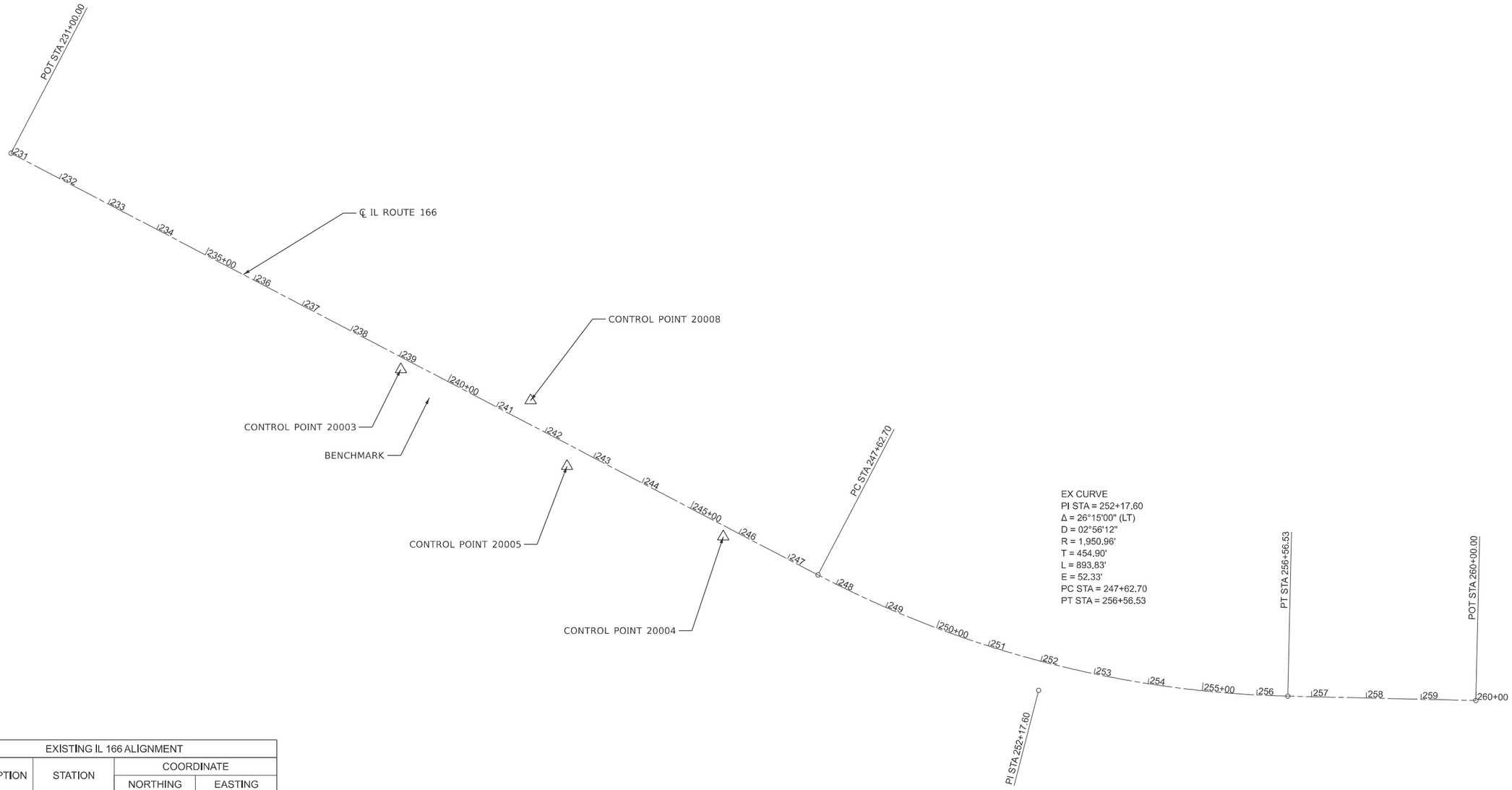
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
IL ROUTE 166

SCALE: NTS | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	9
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



EXISTING IL 166 ALIGNMENT			
DESCRIPTION	STATION	COORDINATE	
		NORTHING	EASTING
POT	231+00.00	346,913.54	839,947.58
PC	247+62.70	346,143.52	841,421.23
PI	252+17.60	345,932.85	841,824.41
PT	256+56.53	345,922.23	842,279.19
POT	260+00.00	345,914.21	842,622.56

CONTROL POINTS			
POINT NUMBER	NORTHING	EASTING	ELEVATION
20003	346,518.75	840,659.46	485.99
20008	346,461.83	840,896.51	466.66
20005	346,341.98	840,963.01	464.52
20004	346,213.23	841,248.17	469.20

BENCHMARK:

MAG SPIKE SET 2' ABOVE GRADE IN POWER POLE SOUTHWEST OF IL 166. STA. 239+80.02, 0 SET 34.21' RT., ELEV. 480.86

0 100 200
SCALE IN FEET

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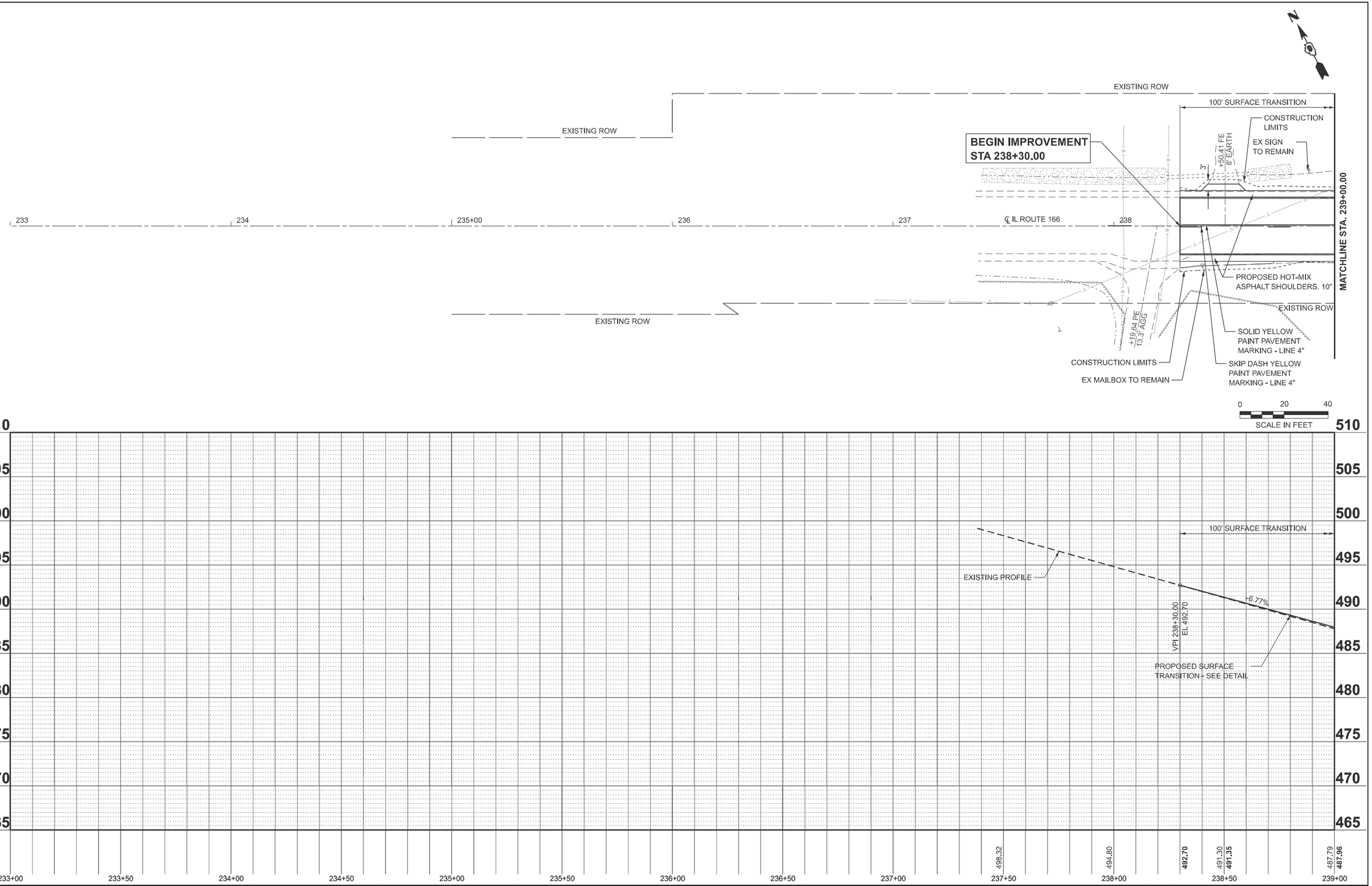
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENTS AND BENCHMARKS
IL ROUTE 166

SCALE: 1"=100' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	10
		CONTRACT NO. 78209		
		ILLINOIS	FED. AID PROJECT	



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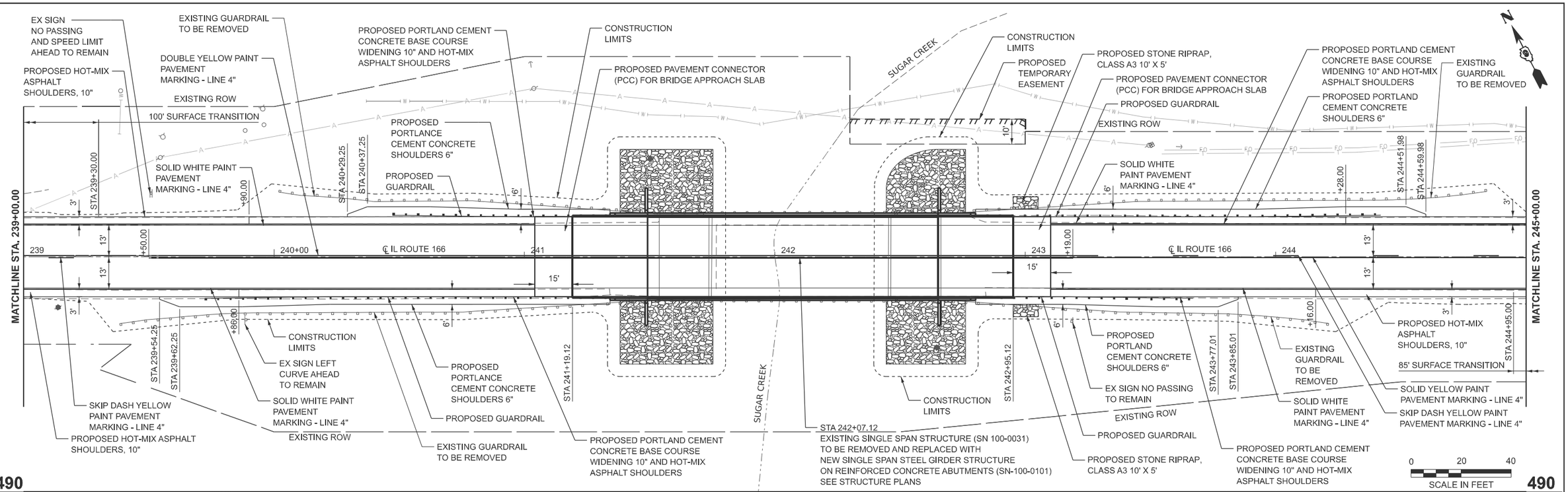
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL ROUTE 166

SCALE: 1"=20' | SHEET 1 OF 3 SHEETS | STA. 233+00.00 | TO STA. 239+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	11
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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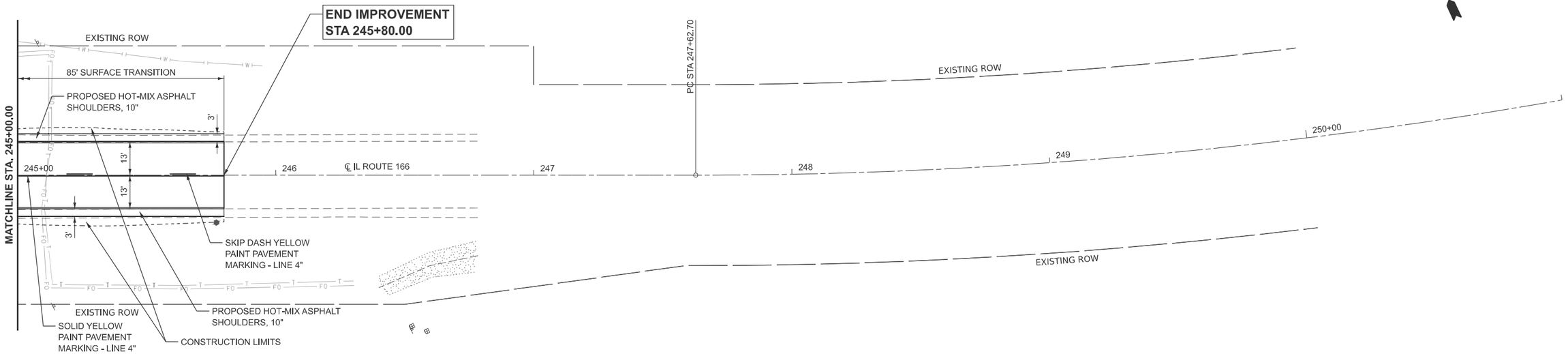
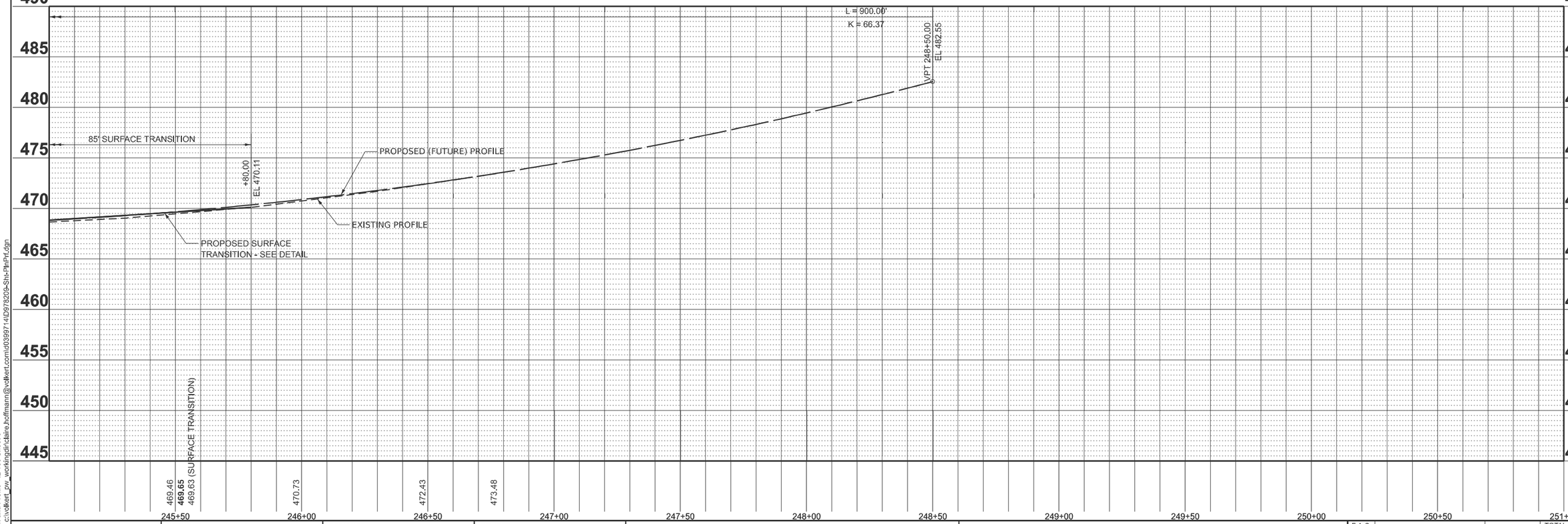
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL ROUTE 166

SCALE: 1"=20' | SHEET 2 OF 3 SHEETS | STA. 239+00.00 | TO STA. 245+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	12
		CONTRACT NO. 78209		
		ILLINOIS FED. AID PROJECT		





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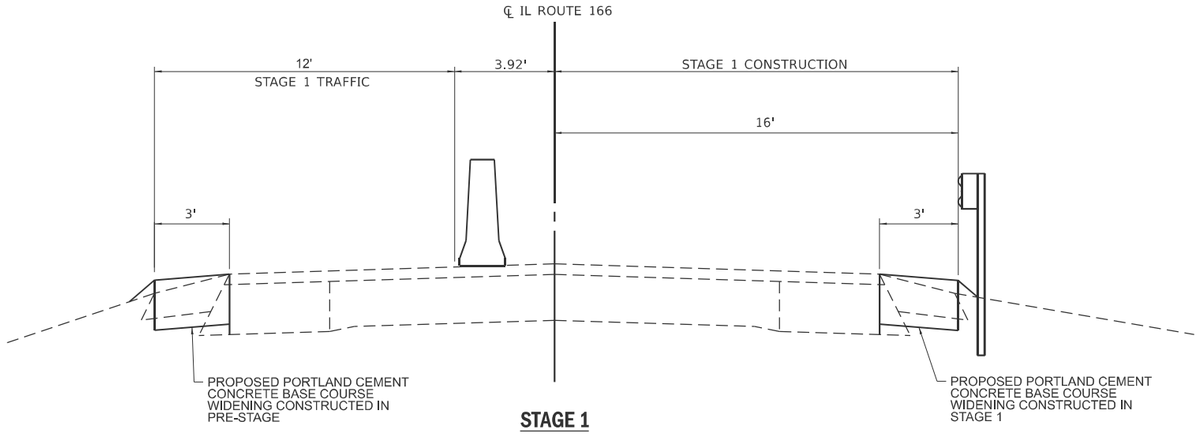
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL ROUTE 166

SCALE: 1"=20' | SHEET 3 OF 3 SHEETS | STA. 245+00.00 | TO STA. 251+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	13
		CONTRACT NO. 78209		
		ILLINOIS	FED. AID PROJECT	



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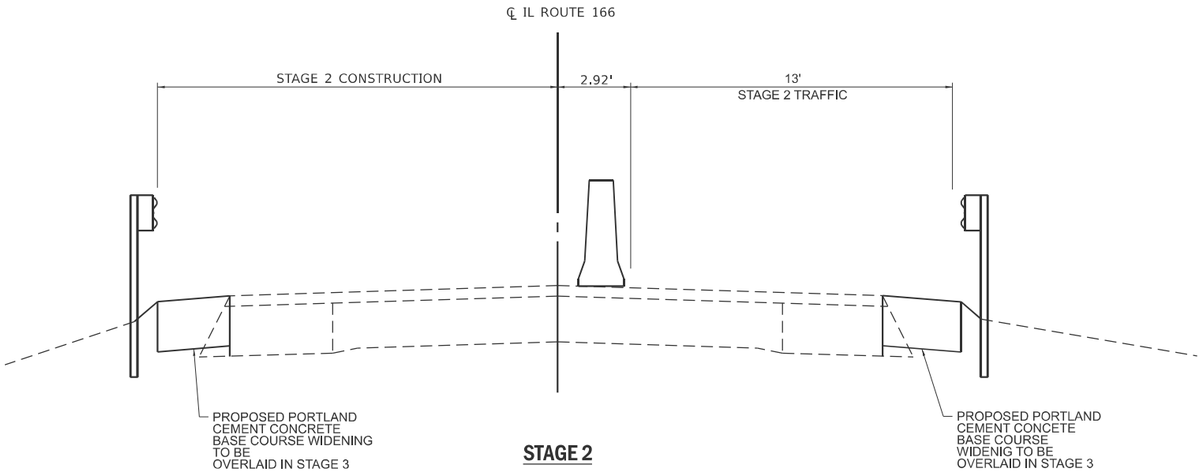
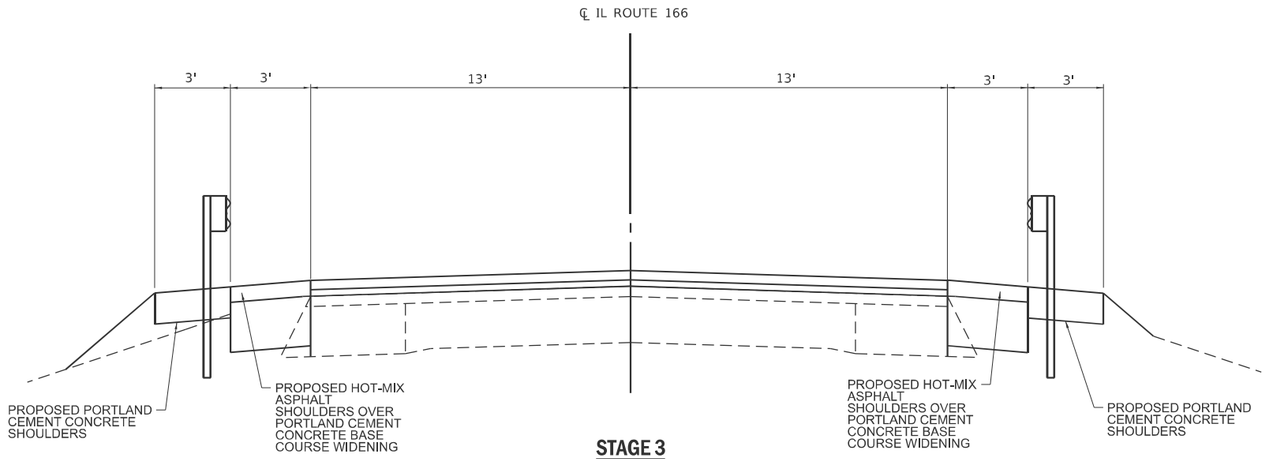


STAGE 2



STAGE 3

STAGE CONSTRUCTION GENERAL NOTES

1. ONE LANE OF TRAFFIC ON IL ROUTE 166 SHALL BE MAINTAINED AT ALL TIMES.
2. EMERGENCY ACCESS SHALL BE PROVIDED AT ALL TIMES.

SUGGESTED PRE-STAGE CONSTRUCTION

1. UTILIZING TRAFFIC CONTROL AND PROTECTION STANDARD 701201, INSTALL PORTLAND CEMENT CONCRETE BASE COURSE WIDENING ON LEFT SIDE OF IL ROUTE 166 WITH THE TOP OF THE SHOULDER FLUSH WITH THE EXISTING PAVEMENT. INSTALL TEMPORARY TRAFFIC BARRIER TERMINALS.
2. PLACE TEMPORARY TRAFFIC CONTROL AS SHOWN ON MOT STAGE 1 PLANS.
3. INSTALL TEMPORARY TRAFFIC SIGNALS PRIOR TO CLOSING THE RIGHT HALF OF ROADWAY, SEE "TRAFFIC CONTROL NOTES" FOR MORE DETAILS.

SUGGESTED STAGE 1 CONSTRUCTION

1. UTILIZE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, DIRECT TRAFFIC TO THE LEFT LANE OF IL ROUTE 166.
2. REMOVE THE RIGHT SIDE OF THE EXISTING STRUCTURE AND CONSTRUCT THE RIGHT SIDE OF THE PROPOSED STRUCTURE, APPROACH SLAB AND CONNECTOR PAVEMENT.
3. CONSTRUCT THE PORTLAND CEMENT CONCRETE BASE COURSE WIDENING ON THE RIGHT SIDE OF IL ROUTE 166 WITH THE TOP OF THE SHOULDER FLUSH WITH THE EXISTING PAVEMENT. INSTALL PERMANENT GUARDRAIL ON THE RIGHT SIDE OF IL ROUTE 166 AT THE PROPER HEIGHT REQUIREMENTS LISTED ON HIGHWAY STANDARD 630001, CONSIDERING HMA RESURFACING TO BE PLACED IN STAGE 3.
4. INSTALL TEMPORARY RAMP AS SHOWN ON THE MOT STAGE 1 PLAN SHEET AT A TRANSITION RATE OF 80:1. THE TOP WIDTH OF THE TEMPORARY RAMP SHALL EXTEND 1 FOOT BEYOND THE BACK OF THE STAGE 2 TEMPORARY CONCRETE BARRIER BEFORE TAPERING AT 1:1 TO THE EXISTING PAVEMENT. PLACEMENT OF THE TEMPORARY RAMP AS INDICATED MAY REQUIRE RELOCATION OF THE TEMPORARY BARRIERS AND IMPACT ATTENUATORS DURING DAYLIGHT HOURS. THE COST ASSOCIATED WITH THE STAGING INCLUDING ANY RELOCATION OF THE BARRIER AND ATTENUATORS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS PAY ITEMS INCLUDED IN THE PLANS.

SUGGESTED STAGE 2 CONSTRUCTION

1. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, DIRECT TRAFFIC TO THE RIGHT LANE OF IL ROUTE 166.
2. REMOVE THE LEFT SIDE OF THE EXISTING STRUCTURE AND CONSTRUCT THE LEFT SIDE OF THE PROPOSED STRUCTURE, APPROACH SLAB AND CONNECTOR PAVEMENT.
3. INSTALL PERMANENT GUARDRAIL ON THE LEFT SIDE OF IL ROUTE 166 AT THE PROPER HEIGHT REQUIREMENTS LISTED ON HIGHWAY STANDARD 630001, CONSIDERING HMA RESURFACING TO BE PLACED IN STAGE 3.
4. INSTALL TEMPORARY RAMP AS SHOWN ON THE MOT STAGE 2 PLAN SHEET AT A TRANSITION RATE OF 80:1. PLACEMENT OF THE TEMPORARY RAMP AS INDICATED MAY REQUIRE RELOCATION OF THE TEMPORARY BARRIERS AND IMPACT ATTENUATORS DURING DAYLIGHT HOURS. THE COST ASSOCIATED WITH THE STAGING INCLUDING ANY RELOCATION OF THE BARRIER AND ATTENUATORS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS PAY ITEMS INCLUDED IN THE PLANS.

SUGGESTED STAGE 3 CONSTRUCTION

1. PERFORM HMA SURFACE REMOVAL, HMA BINDER AND HMA SURFACE ON THE LEFT AND RIGHT SIDES OF IL ROUTE 166 UTILIZING TRAFFIC CONTROL AND PROTECTION STANDARD 701306.
2. CONSTRUCT REMAINING SHOULDERS.
3. CONSTRUCT ALL REMAINING IMPROVEMENTS UTILIZING THE APPROPRIATE STANDARDS INCLUDED IN THE PLANS.

TRAFFIC CONTROL NOTES

1. THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL MUTCD REQUIREMENTS.
2. THE CONTRACTOR SHALL USE MICROWAVE DETECTION FOR USE WITH THE TEMPORARY TRAFFIC SIGNALS IN ACCORDANCE WITH HIGHWAY STANDARD 701321. THE CONTRACTOR MAY ELECT TO UTILIZE DETECTOR LOOPS.
3. REMOVAL OF DETECTOR LOOPS AND RUMBLE STRIPS AFTER STAGED CONSTRUCTION SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER. ANY DAMAGE TO THE EXISTING PAVEMENT FROM THE RUMBLE STRIPS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THERE WILL BE NO ADDITIONAL COMPENSATION.
4. ALL TEMPORARY PAVEMENT MARKINGS, BLACKOUT TAPE, DRUMS, ETC. SHALL BE PLACED PRIOR TO PLACING TEMPORARY CONCRETE BARRIER.
5. THE TEMPORARY SIGNALS WILL REMAIN IN OPERATION AND THE TEMPORARY BARRIERS WILL REMAIN IN PLACE UNTIL THE BRIDGE, APPROACH SLABS AND PCC PAVEMENT CONNECTORS ARE COMPLETE INCLUDING CONSTANT SLOPE PARAPET. THE REMAINING HMA SURFACE REMOVAL, HMA SHOULDERS, AND HMA SURFACE AND BINDER COURSE SHALL BE COMPLETED USING THE APPROPRIATE STANDARDS INCLUDED IN THE PLANS AND TRAFFIC SHALL BE OPEN TO BOTH LANES DURING NON-WORKING HOURS.

WIDE LOAD SIGN

W12-I103 (48 X 48)
SERIES D ALPHABET,
NO BORDER,
BLACK ON WHITE

NOTES FOR WIDE LOAD SIGN

THE CONTRACTOR SHALL FURNISH THE POST AND ERECT THE SIGN AT THE NECCESSARY LOCATION AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE POST MOUNTED.

THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, AND NO OTHER COMPENSATION WILL BE ALLOWED.

FOR WORK ON ALL STRUCTURES, THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 11'-1" (STAGE 1) AND 11'-7" (STAGE 2) OR DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

VOLKERT

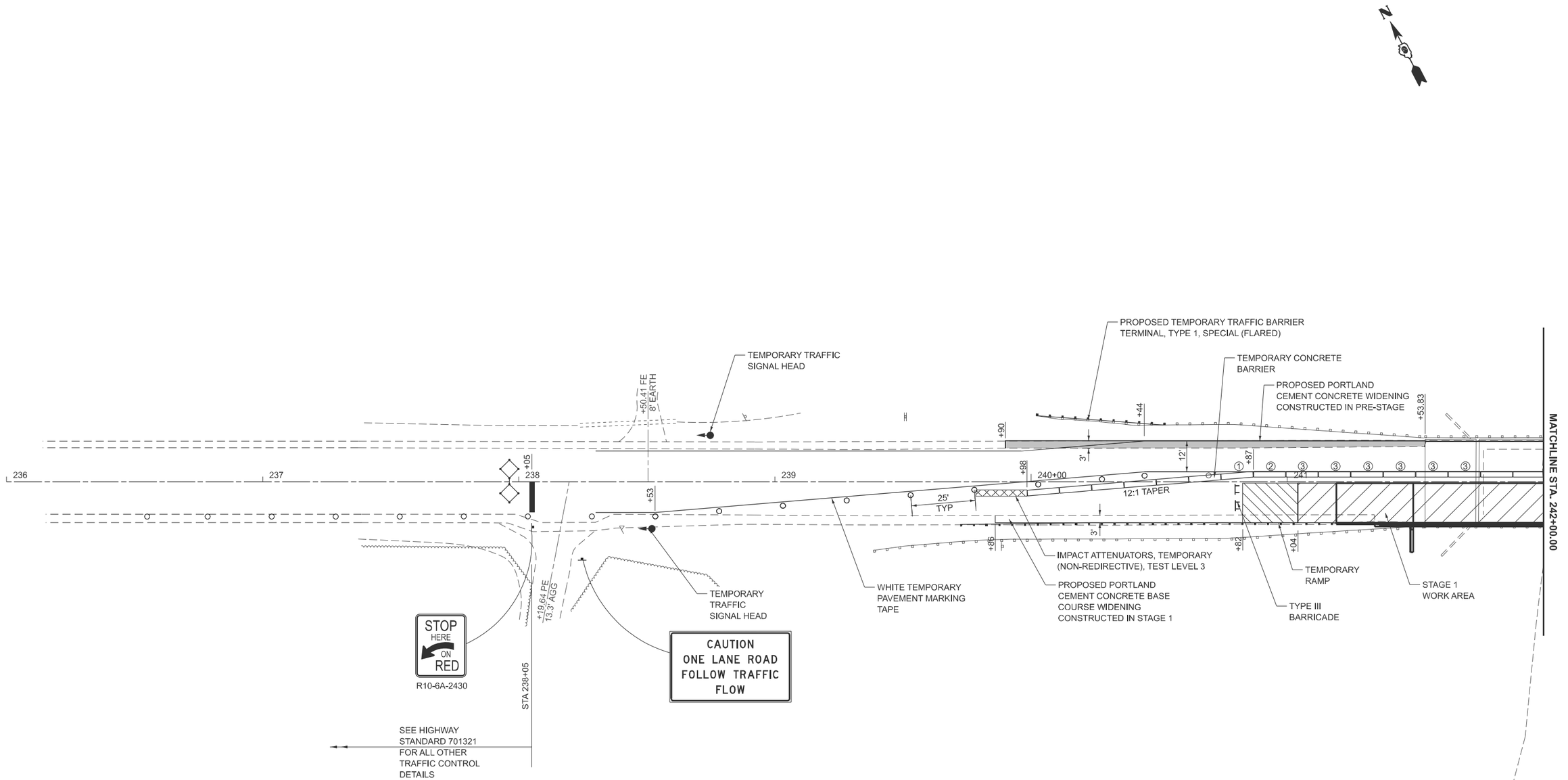
USER NAME = karen.lawrence	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/8/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS
IL ROUTE 166

SCALE: NTS | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	14
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUMS
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIPS
- WIDENING CONSTRUCTED IN PRE-STAGE
- TEMPORARY RAMP
- (#) NUMBER OF PINS PER SECTION OF TEMPORARY CONCRETE BARRIER

NOTES

ANY DETAILS NOT SHOWN SHALL BE ACCORDING TO HIGHWAY STANDARD 701321.

MODEL: SHT - MOT1-1
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d03997141D978203-Sht-MOT S1.dgn

VOLKERT

USER NAME = claire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

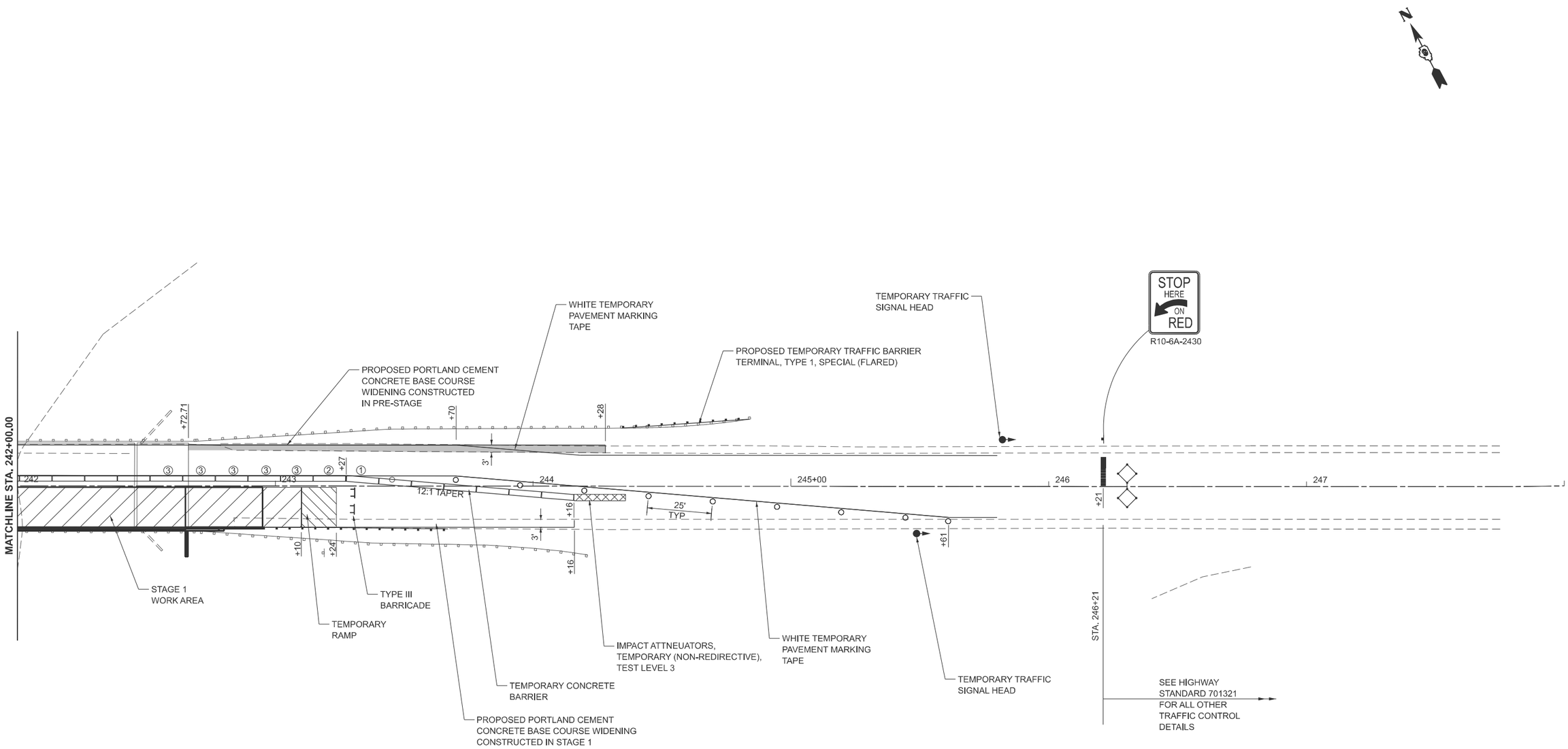
MAINTENANCE OF TRAFFIC - STAGE 1
IL ROUTE 166

SCALE: 1"=20' | SHEET 2 OF 5 SHEETS | STA. 236+00.00 | TO STA. 242+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	15

CONTRACT NO. 78209

ILLINOIS | FED. AID PROJECT



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUMS
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIPS
- WIDENING CONSTRUCTED IN PRE-STAGE
- TEMPORARY RAMP
- (#) NUMBER OF PINS PER SECTION OF TEMPORARY CONCRETE BARRIER

NOTES

ANY DETAILS NOT SHOWN SHALL BE ACCORDING TO HIGHWAY STANDARD 701321.

0 20 40
SCALE IN FEET

MODEL: SHT - MOT1-2
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d039971\D978209-Sht-MOT S1.dgn

VOLKERT

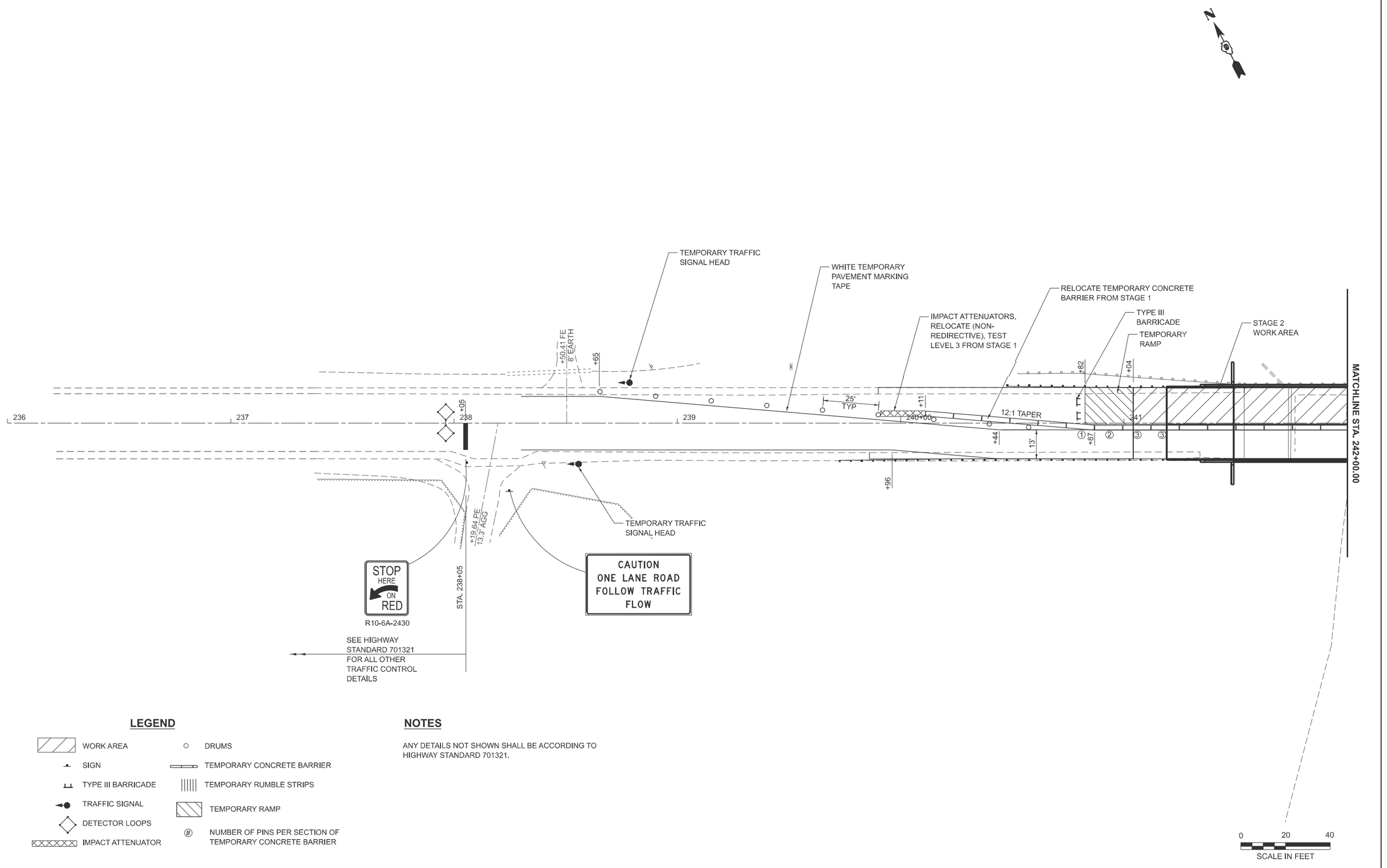
USER NAME = karen.lawrence	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/8/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC - STAGE 1
IL ROUTE 166

SCALE: 1"=20' | SHEET 3 OF 5 SHEETS | STA. 242+00.00 | TO STA. 248+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	16
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUMS
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIPS
- TEMPORARY RAMP
- (#) NUMBER OF PINS PER SECTION OF TEMPORARY CONCRETE BARRIER

NOTES

ANY DETAILS NOT SHOWN SHALL BE ACCORDING TO HIGHWAY STANDARD 701321.

MODEL: SHT - MOT2-1
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d0399714\D978209-Sht-MOT S2.dgn

VOLKERT

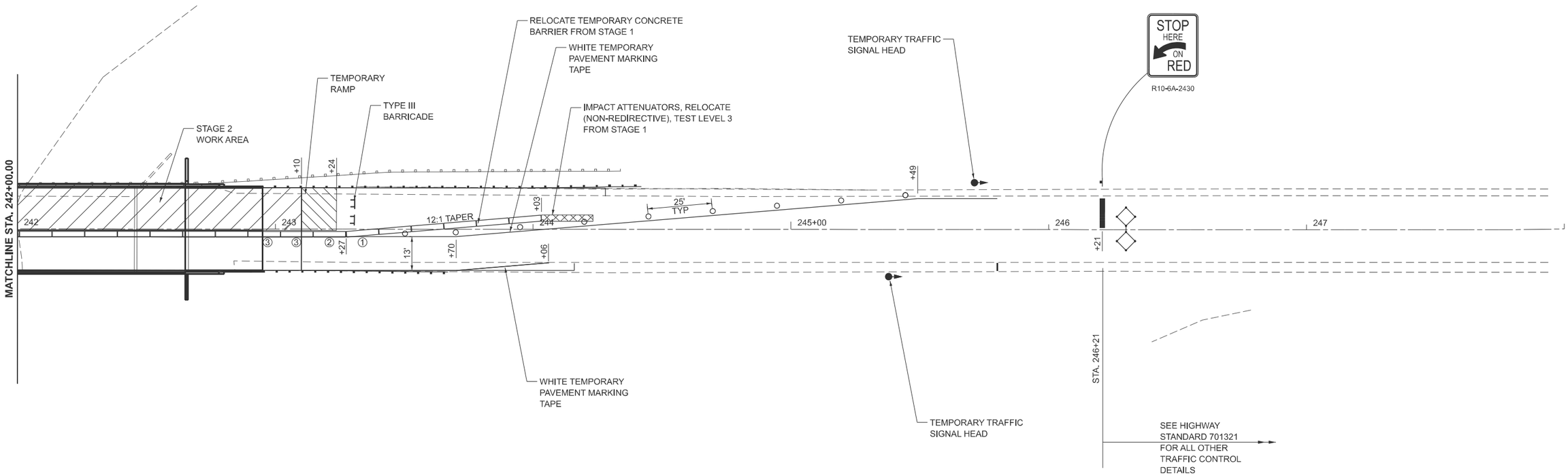
USER NAME = karen.lawrence	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/8/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC - STAGE 2
IL ROUTE 166

SCALE: 1"=20' | SHEET 4 OF 5 SHEETS | STA. 236+00.00 | TO STA. 242+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	17
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUMS
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIPS
- TEMPORARY RAMP
- (#) NUMBER OF PINS PER SECTION OF TEMPORARY CONCRETE BARRIER

NOTES

ANY DETAILS NOT SHOWN SHALL BE ACCORDING TO HIGHWAY STANDARD 701321.

0 20 40
SCALE IN FEET

MODEL: SHT - MOT2-2
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d0399714\D978209-Sht-MOT S2.dgn

VOLKERT

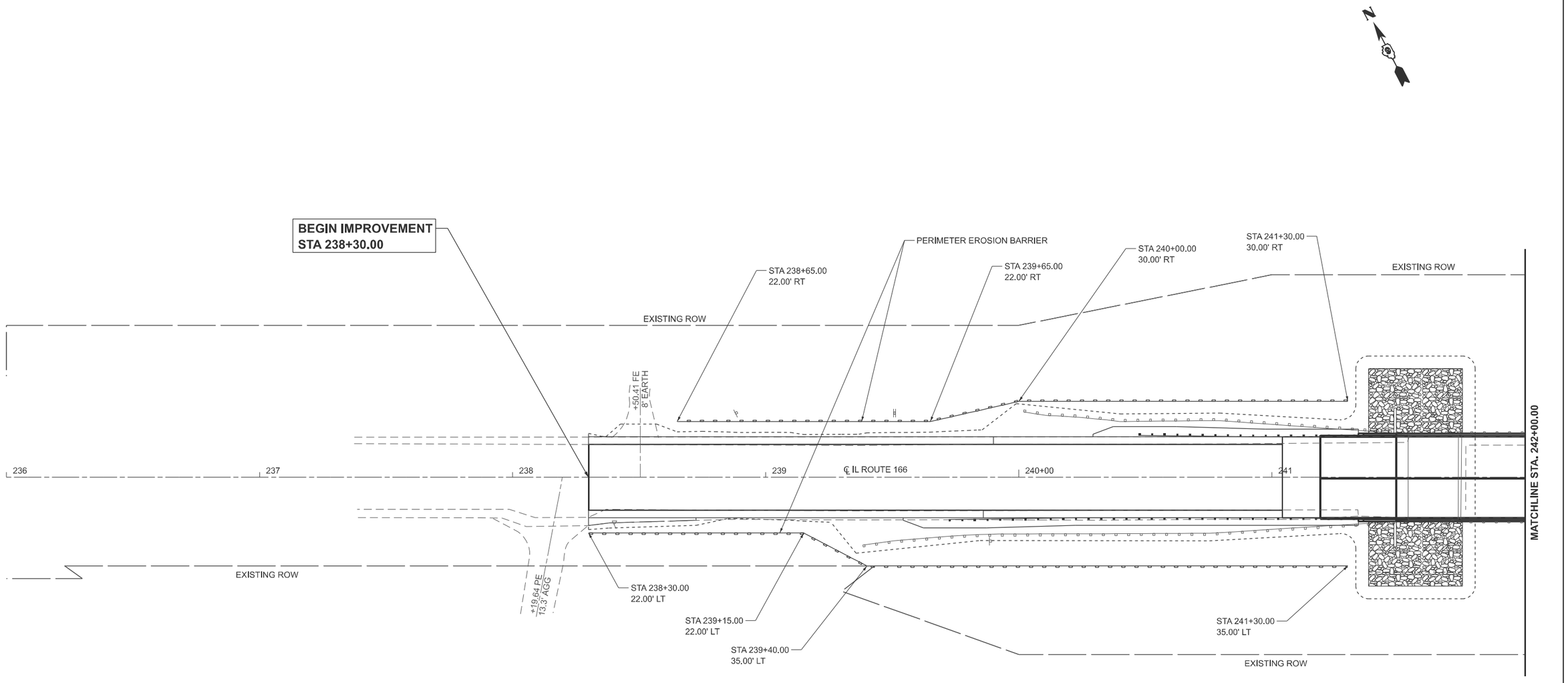
USER NAME = claire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC - STAGE 2
IL ROUTE 166

SCALE: 1"=20' | SHEET 5 OF 5 SHEETS | STA. 242+00.00 | TO STA. 248+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	18
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



0 20 40

SCALE IN FEET

MODEL: Erosion Control - IL 166 Sheet 1
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d0399714\D978209-Sht-eros.dgn

VOLKERT

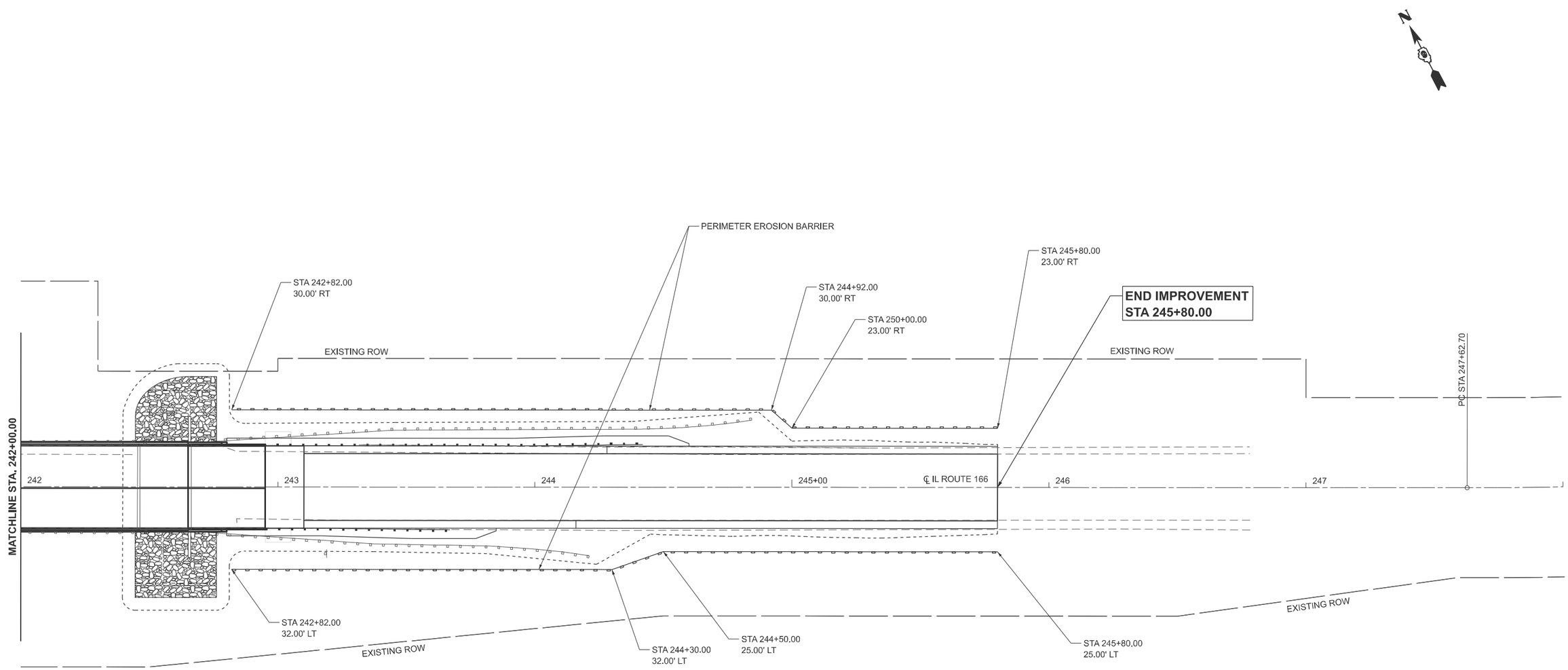
USER NAME = karen.lawrence	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/8/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
IL ROUTE 166

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 236+00.00 | TO STA. 242+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	19
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



MODEL: Erosion Control - IL 166 Sheet 2
FILE NAME: c:\volkert_pw_working\dir\daire.hoffmann@volkert.com\d0399714\D978209-Sht-eros.dgn

VOLKERT

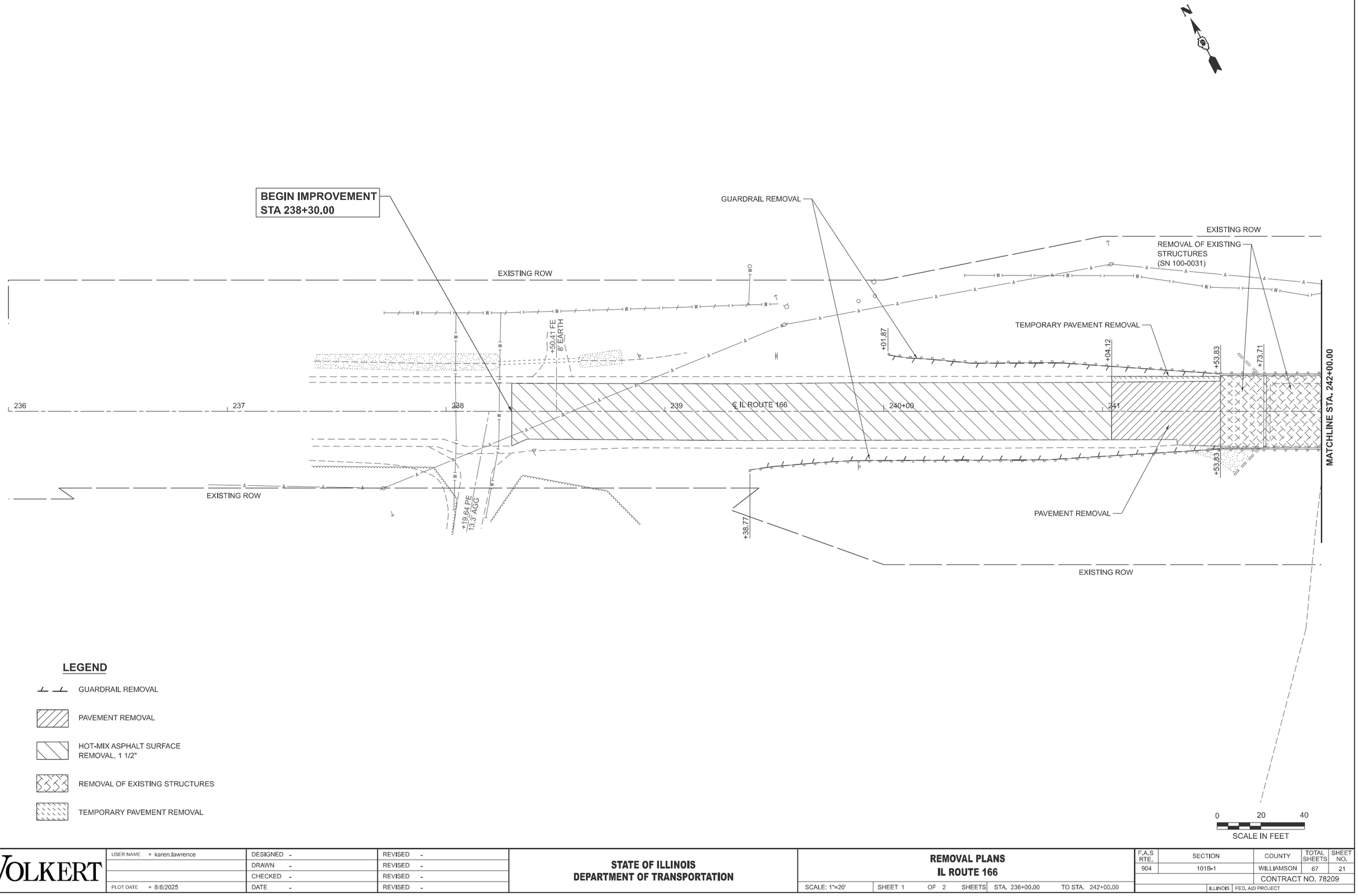
USER NAME = daire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
IL ROUTE 166

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 242+00.00 | TO STA. 248+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	20
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- GUARDRAIL REMOVAL
- PAVEMENT REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- REMOVAL OF EXISTING STRUCTURES
- TEMPORARY PAVEMENT REMOVAL

MODEL: Removal - IL 166 Sheet 1
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d03997141D978209-Sht-Removal.dgn

VOLKERT

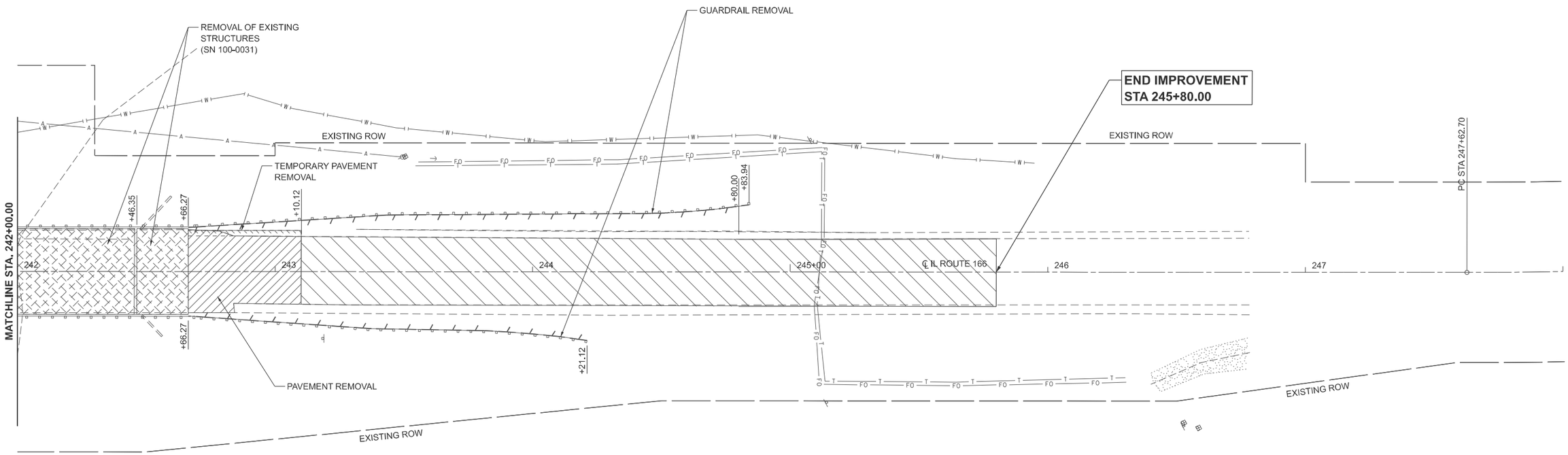
USER NAME = karen.lawrence	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/8/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL PLANS
IL ROUTE 166

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 236+00.00 | TO STA. 242+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	21
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- GUARDRAIL REMOVAL
- PAVEMENT REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- REMOVAL OF EXISTING STRUCTURES
- TEMPORARY PAVEMENT REMOVAL

0 20 40
SCALE IN FEET

MODEL: Removal - IL 166 Sheet 2
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d03997141D9782O9-Sht-Removal.dgn

VOLKERT

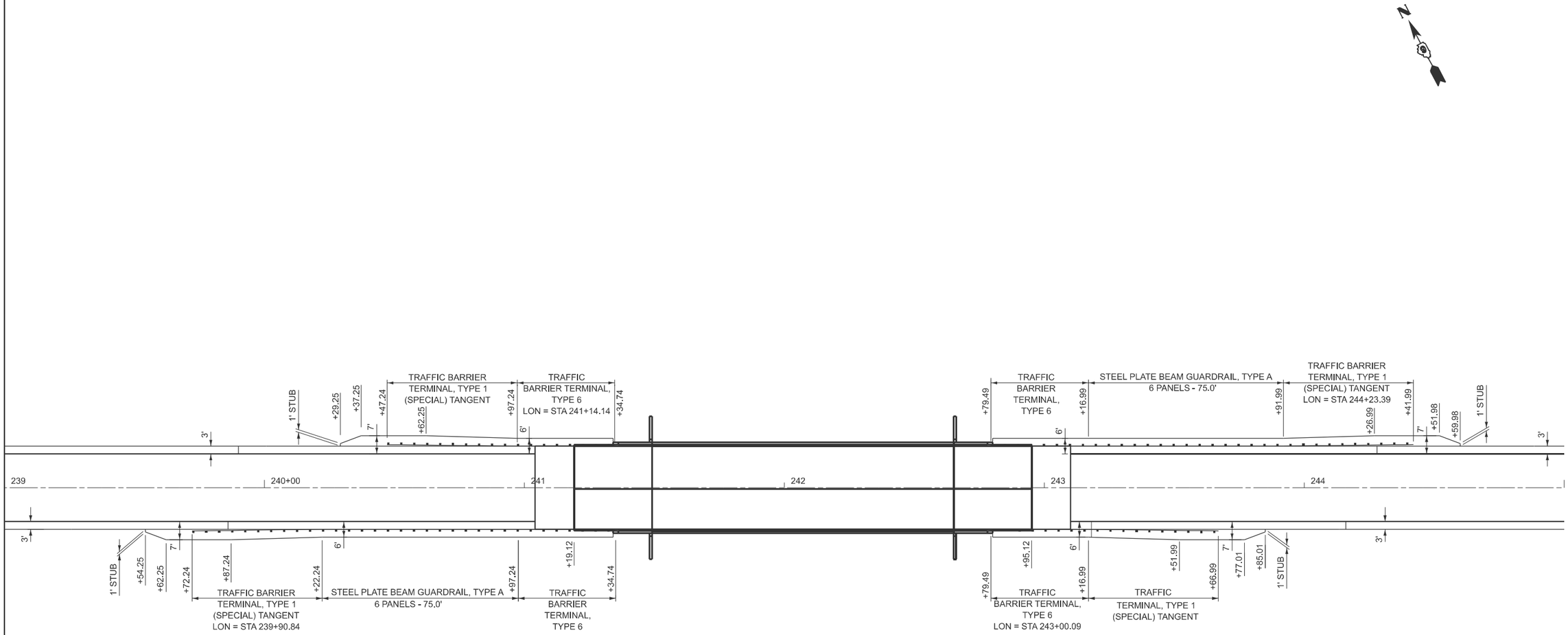
USER NAME = claire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL PLANS
IL ROUTE 166

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 242+00.00 | TO STA. 248+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	22
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



MODEL: Guardrail Details-1 [Sheet]
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d0399714\D9782209-Shs-Details.dgn

VOLKERT

USER NAME = claire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

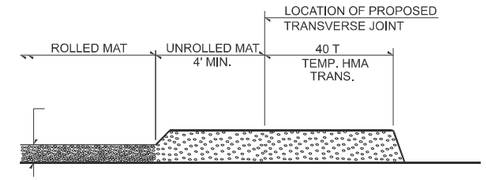
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL DETAIL
IL ROUTE 166

SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

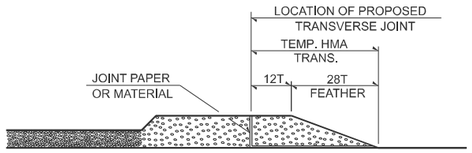
F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	23
		CONTRACT NO. 78209		
		ILLINOIS	FED. AID PROJECT	

TEMPORARY HOT–MIX ASPHALT TRANSITIONS



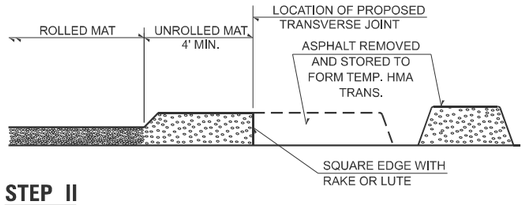
STEP I

1. PLACE HOT-MIX ASPHALT MAT, LENGTH 40 TIMES THE THICKNESS OF THE MAT BEING PLACED PAST THE PROPOSED TRANSVERSE JOINT LOCATION USING NORMAL OPERATING PROCEDURES.
2. EXTREME CARE SHOULD BE TAKEN TO MAINTAIN ENOUGH MATERIAL IN FRONT OF THE SCREED TO MAINTAIN REQUIRED PAVING DEPTH.



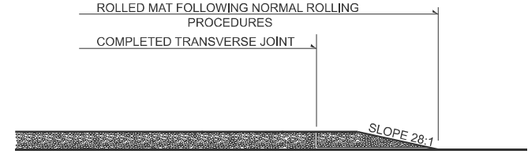
STEP III

1. JOINT PAPER OR OTHER PRESELECTED JOINT MATERIAL IS THEN PLACED IN THE CLEARED AREA AND THE EXCESS ASPHALT USED TO HAND FORM A TRANSITION TO THE DIMENSIONS SHOWN ABOVE.
2. NOTE THAT IN CONSTRUCTING THE TRANSITION, THE MAT DEPTH IS CONTINUED AS PART OF THE TRANSITION BEFORE FORMING THE FEATHER.



STEP II

1. MOVE THE PAVER OUT OF THE WAY AND REMOVE THE ASPHALT FROM THE AREA OF THE PROPOSED TEMPORARY HOT-MIX ASPHALT TRANSITION.
2. SQUARE UP THE END OF THE MAT WITH A RAKE OR LUTE.
3. NOTE THAT THE MAT WITHIN 4' OF THE END OF JOINT IS NOT TO BE ROLLED AT THIS TIME.



STEP IV

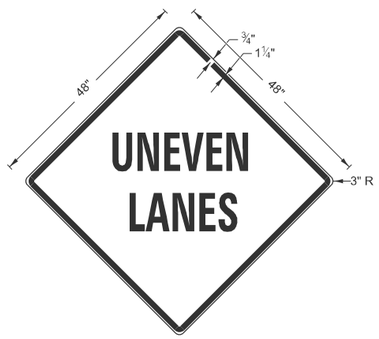
1. COMPLETE TEMPORARY TRANSITION BY ROLLING.
2. TO RESUME PAVING, AT THE JOINT, REMOVE TEMPORARY TRANSITION AND DISPOSE OF THE MATERIAL ACCORDING TO ART. 202.03 OF THE STD. SPECS. (COST INCLUDED IN THE CONTRACT).
3. CONSTRUCTING THE TEMPORARY TRANSITIONS WILL NOT BE PAID FOR SEPARATELY IN ACCORDANCE WITH ARTICLE 406.14 OF THE STANDARD SPECIFICATIONS.

DRAWN	02-15-89
REVISED	01-09-07
REVISED	10-21-21
REVISED	05-27-22

STD. 9-18

UNEVEN LANES SIGN

W8–11 (48" X 48")



COLORS:

LEGEND AND BORDER - BLACK NON-REFLECTORIZED
BACKGROUND - ORANGE REFLECTORIZED

NOTE: PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLDMILLED OR BEFORE RESURFACING OPERATIONS BEGIN, THE CONTRACTOR SHALL HAVE ERECTED "UNEVEN PAVEMENT" SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE "UNEVEN PAVEMENT" SIGNS UNTIL THE RESURFACING OPERATIONS ARE COMPLETED.

IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

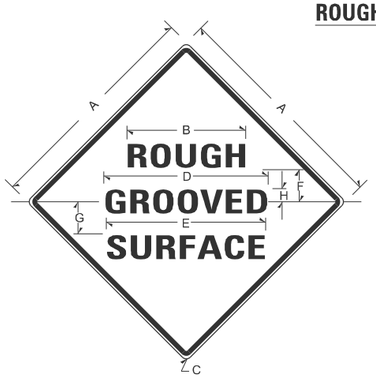
THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

DRAWN	02-15-89
REVISED	05-08-08
REVISED	10-21-21
REVISED	05-27-22

STD. 9-24

ILLINOIS STANDARD

ROUGH GROOVED SURFACE SIGN



COLORS

LEGEND AND BORDER- BLACK NON-REFLECTORIZED
BACKGROUND- ORANGE REFLECTORIZED

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
48X48	48.0	24.1	3.0	34.0	33.0	6.0	13.0	3.5

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD.
	1	2	3			
48X48	7C	7C	7C	0.8	1.2	B4-48D

ALL DIMENSIONS IN INCHES

NOTES

PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLDMILLED, THE CONTRACTOR SHALL HAVE ERECTED "ROUGH GROOVED SURFACE" SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE "ROUGH GROOVED SURFACE" SIGNS UNTIL THE COLDMILLED SURFACE IS COVERED WITH LEVELING BINDER OR SURFACE COURSE.

IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

DRAWN	02-15-89
REVISED	03-27-08
REVISED	10-21-21
REVISED	05-27-22

STD. 9-23

VOLKERT

USER NAME = claire.hoffmann	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 8/11/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

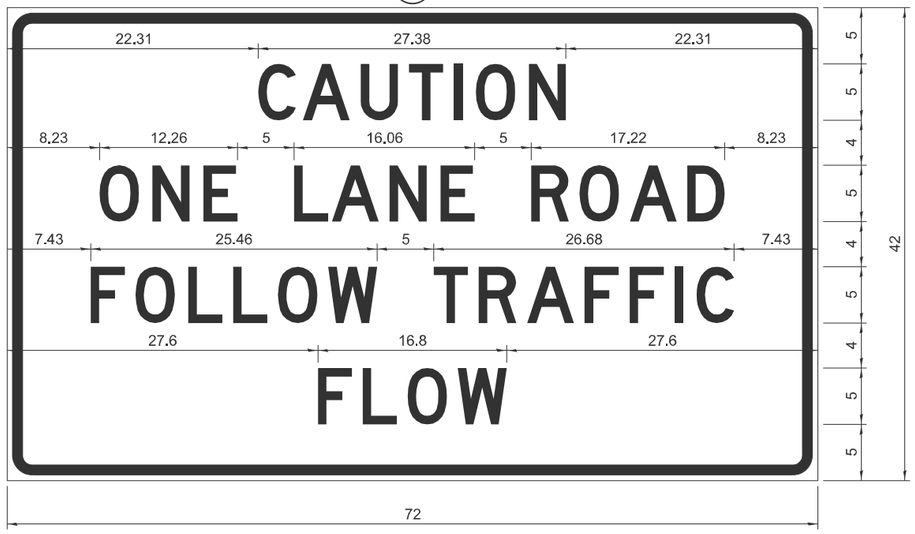
DISTRICT DETAILS SHEET
IL ROUTE 166

SCALE: NTS | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	24
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS

(2)



COLOR	LEGEND AND BORDER	BLACK
	BACKGROUND	ORANGE

NON-REFLECTORIZED
REFLECTORIZED

2.25" Radius, 0.88" Border, 0.50" IndenT;
[CAUTION] D; [ONE LANE ROAD] D;
[FOLLOW TRAFFIC] D; [FLOW] D

(2) This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

Table Of Widths And Spaces

	C		A		U		T		I		O		N	
22.31	3.36	0.62	4.18	0.94	3.36	0.94	3.04	0.94	0.78	1.17	3.52	1.17	3.36	22.31

	O		N		E	
8.23	3.51	1.17	3.36	1.18	3.04	

	L		A		N		E	
5.00	3.05	0.31	4.18	0.94	3.36	1.17	3.05	

	R		O		A		D		
5.00	3.36	0.93	3.52	0.94	4.18	0.93	3.36	8.23	

	F		O		L		L		O		W		
7.43	3.04	0.94	3.52	1.17	3.04	0.94	3.05	0.94	3.51	0.94	4.37		

	T		R		A		F		F		I		C		
5.00	3.05	0.94	3.36	0.94	4.18	0.93	3.05	0.94	3.04	0.94	0.78	1.18	3.35	7.43	

	F		L		O		W	
27.60	3.05	0.94	3.04	0.94	3.52	0.93	4.38	27.60

Sign not to scale

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

DRAWN	3-2-16 D2
REVISED	03-12-24
REVISED	
REVISED	

STD. 9-34

VOLKERT

USER NAME = claire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

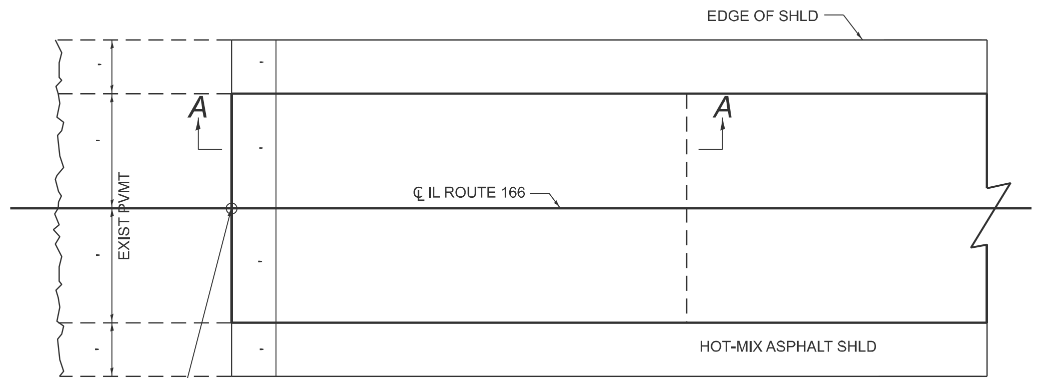
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

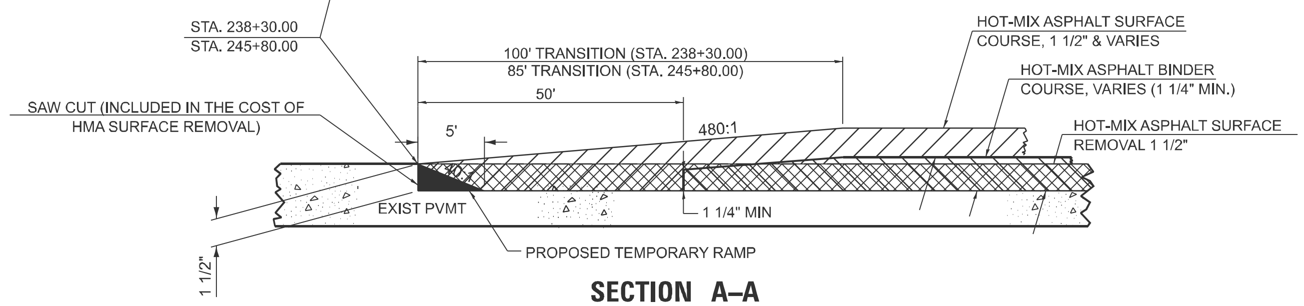
DISTRICT DETAILS SHEET
IL ROUTE 166

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	25
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			

SURFACE TRANSITION DETAIL



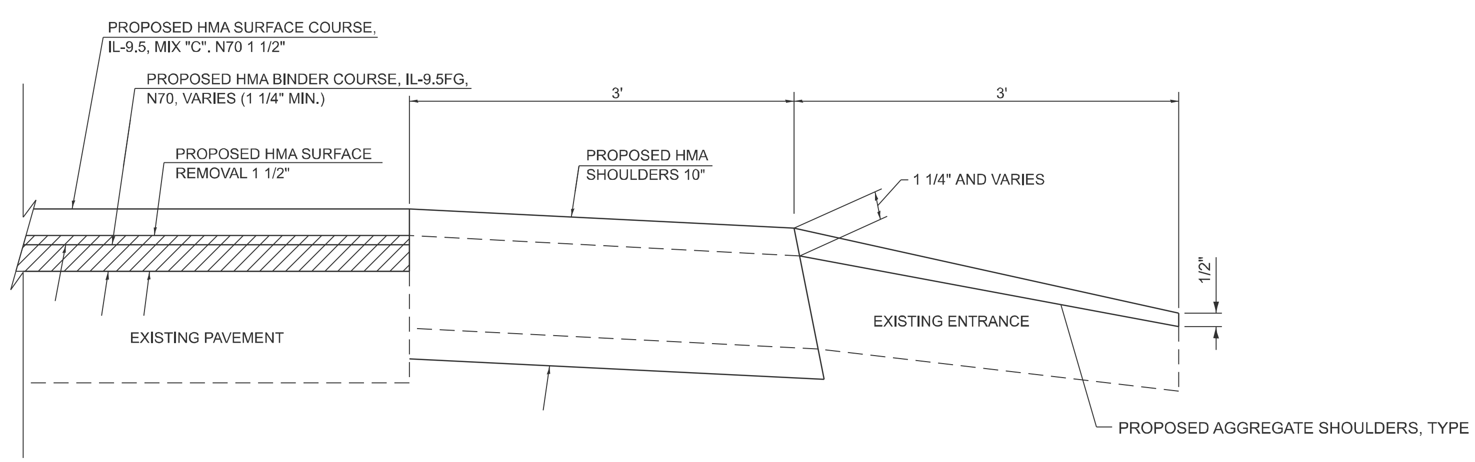


SECTION A–A

MILLING AND RESURFACING TABLE

STATION	MILLING (IN)	HMA SURFACE (IN)	HMA BINDER (IN)
238+30.00	1.50	1.50	0.00
238+50.00	1.50	2.11	0.00
238+75.00	1.50	1.50	1.40
239+00.00	1.50	1.50	2.00
239+25.00	1.50	1.50	2.42
239+30.00	1.50	1.50	2.52
239+50.00	1.50	1.50	2.39
239+75.00	1.50	1.50	2.90
240+00.00	1.50	1.50	2.80
240+25.00	1.50	1.50	2.81
240+50.00	1.50	1.50	2.92
240+75.00	1.50	1.50	3.65
241+00.00	1.50	1.50	3.49
241+04.12	1.50	1.50	3.24
243+10.12	1.50	1.50	2.04
243+25.00	1.50	1.50	1.91
243+50.00	1.50	1.50	1.40
243+75.00	1.50	1.50	1.61
244+00.00	1.50	1.50	1.40
244+25.00	1.50	1.50	2.00
244+50.00	1.50	1.50	1.78
244+75.00	1.50	1.50	2.52
244+95.00	1.50	1.50	2.16
245+00.00	1.50	1.50	2.34
245+25.00	1.50	1.50	3.22
245+50.00	1.50	1.50	2.02
245+75.00	1.50	1.72	0.00
245+80.00	1.50	1.50	0.00

AGGREGATE/EARTH ENTRANCE DETAIL



MODEL: Misc Detail [Sheet]
FILE NAME: c:\volkert_pw_workingdir\claire.hoffmann@volkert.com\d0399714\D978209-Sht-Details.dgn

VOLKERT

USER NAME = claire.hoffmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
IL ROUTE 166

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	26

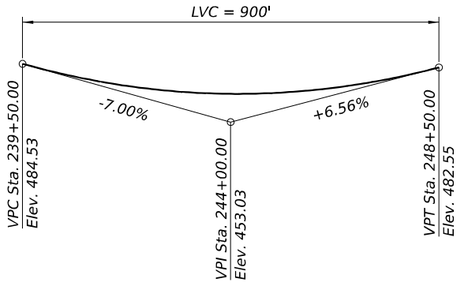
CONTRACT NO. 78209

ILLINOIS | FED. AID PROJECT

Benchmark: Mag Spike set 2' above grade in Power Pole southwest of IL 166. Sta. 239+80.02, 0ffset 34.21' Rt., Elev. 480.86.

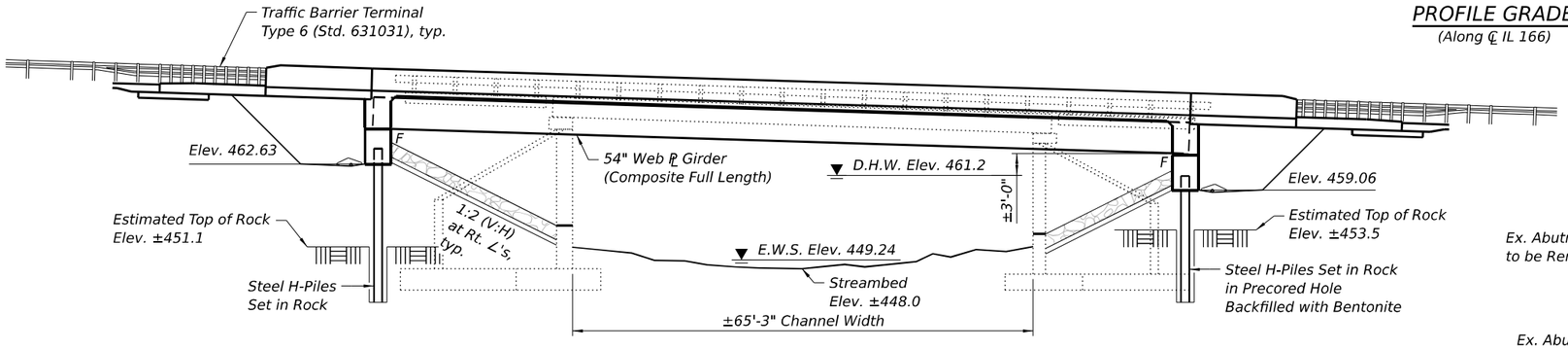
Existing Structure: SN 100-0031 was originally built in 1933 as SBI Route 166, Section 101-B and 101-C and was reconstructed with a superstructure replacement in 1980. The bridge is 73'-8" bk-bk abutments and 33'-0" out-out of deck. The superstructure consists of 33" PPC Deck Beams on closed abutments. The bridge has an HMA wearing surface and waterproofing membrane in place. The structure will be replaced using staged construction.

The base of the existing abutment walls will be left in place as shown to retain the proposed riprap.

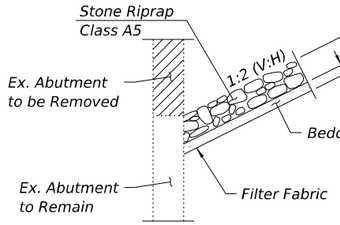


PROFILE GRADE
(Along ℄ IL 166)

INDEX OF SHEETS



ELEVATION



SECTION A-A

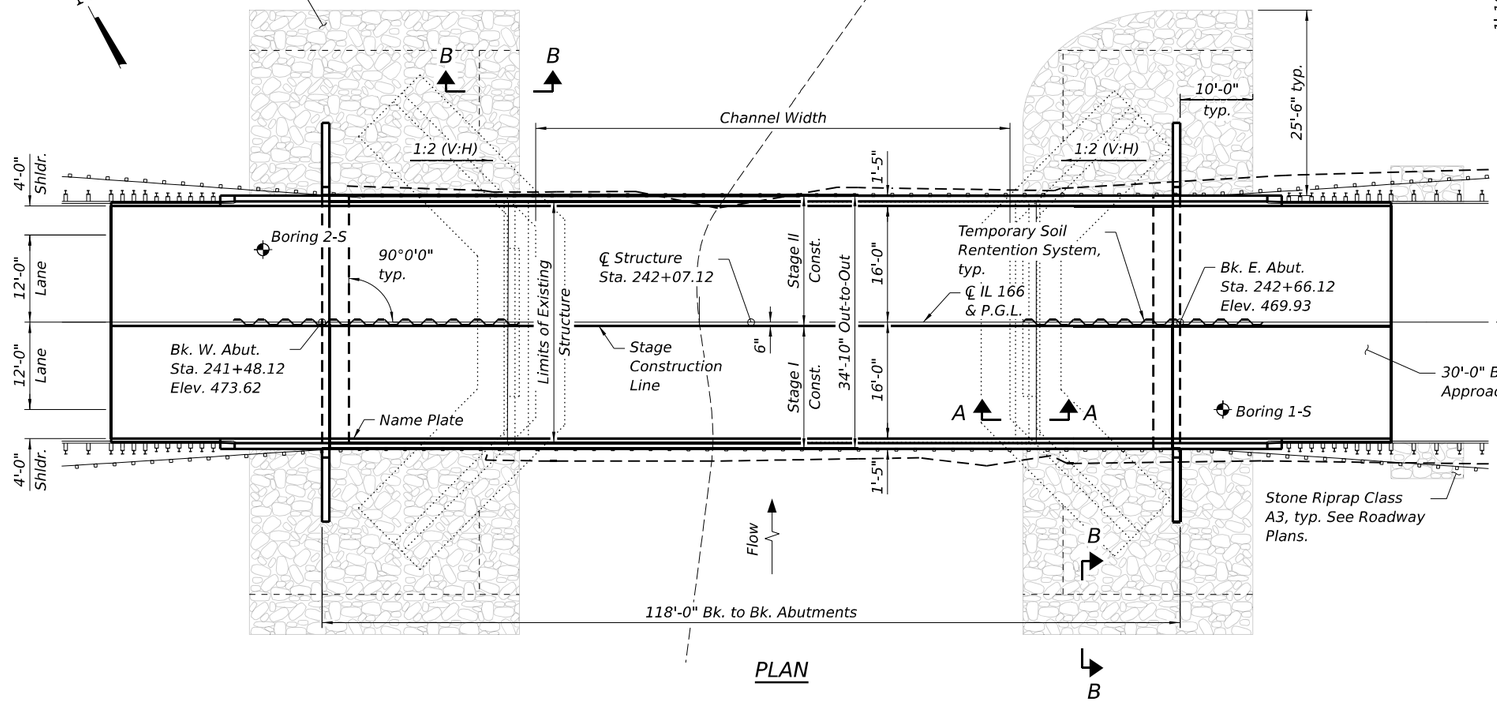
DESIGN STRESSES
FIELD UNITS

f 'c = 4,000 psi (Superstructure)
f 'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)
*fy = 50,000 psi (M270 Grade 50) **
** All structural steel shall be metalized.*

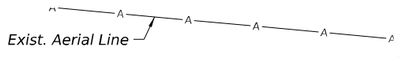
DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

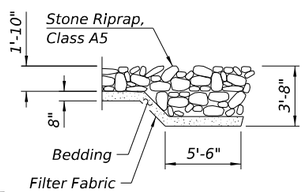
LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.30g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.81g
Soil Site Class = C

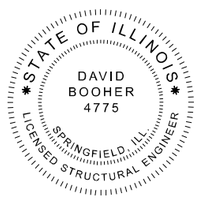


PLAN





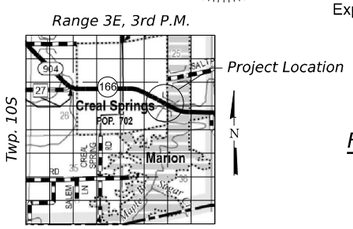
SECTION B-B



APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

7/8/2025
Dave Booher, Illinois S.E. 081-004775 Date
Expires 11/30/2026

Range 3E, 3rd P.M.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL 166 OVER SUGAR CREEK
F.A.S. ROUTE 904 - SECTION 101B-1
WILLIAMSON COUNTY
STATION 242+07.12
STRUCTURE NO. 100-0101

MODEL: Default
FILE NAME: S:\2021\21IL033 - PTB 199-38 D9 - QEI - Various HIWO-13 & 18 IL-166 BR Replace PH1-2 100-0031\CADD\CADD Sheets\Final Plans\1000101-78209-001-GPE_new.dgn
8/14/2025 8:46:39 AM

QUIGG ENGINEERING INC DESIGN FIRM REG. NO. 184.004721-0014	USER NAME = ZDavidson	DESIGNED - ZLD	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	1000101-78209-001-GPE_new.dgn	CHECKED - DRB	REVISED -	
	PLOT SCALE = 20.833 ' / in.	DRAWN - JDC	REVISED -	**GENERAL PLAN AND ELEVATION** **STRUCTURE NO. 100-0101**
	PLOT DATE =	CHECKED - MDC	REVISED -	SHEET 1 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	27
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

Fasteners shall be ASTM F 3125 Grade A325 Type 1, hot-dip galvanized bolts in uncoated metallized areas. Bolts $^{3}/_{4}$ in. diameter, holes $^{15}/_{16}$ in. diameter, unless otherwise noted. See special provision for "Metallizing of Structural Steel".

Calculated weight of Structural Steel = 9,810 lbs (M270 Grade 36)
174,320 lbs (M270 Grade 50)

All new structural steel shall be metallized. See Special Provision for "Metallizing of Structural Steel."

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Slipforming of the parapets is not allowed.

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.) W. Abut.	E. Abut.	Item 113
Q100	462.63	459.06	8
Q200	462.63	459.06	
Design	462.63	459.06	
Check	462.63	459.06	

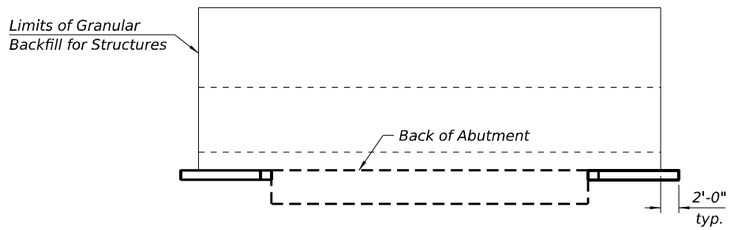
WATERWAY INFORMATION

Drainage Area = 25.2 Sq. Mi.

Existing Overtopping Elev. 468.12 at Sta. 244+27
Proposed Overtopping Elev. 468.12 at Sta. 244+27

Flood	Freq. Yr.	Q. C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Ten-Year	10	3,230	592	624	459.4	1.2	1.0	460.6	460.4
Design	50	5,080	712	787	461.2	1.3	1.0	462.5	462.2
Base	100	5,900	752	845	461.8	1.4	1.0	463.2	462.8
Scour Check	200	6,750	792	905	462.4	1.6	1.1	464.0	463.5
Max. Calc.	500	8,000	832	966	463.0	1.8	1.2	464.8	464.2

10-Year Velocity through Existing Structure = 4.8 fps
10-Year Velocity through Proposed Structure = 4.5 fps



PLAN SHOWING GRANULAR BACKFILL FOR STRUCTURES

STA. 242+07.12
BUILT 202_ BY
STATE OF ILLINOIS
F.A.S. RT. 904 SEC. 101B-1
LOADING HL-93
STR. NO. 100-0101

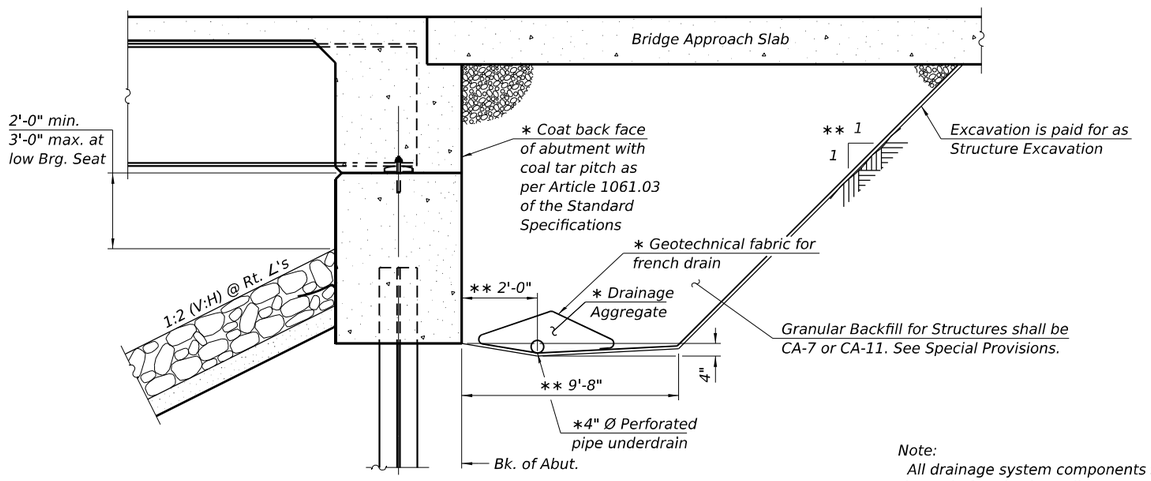
NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

	Item	Unit	Super	Sub	Total
***	Earth Excavation	Cu. Yd.		750	750
	Stone Riprap, Class A5	Sq. Yd.		602	602
	Filter Fabric	Sq. Yd.		602	602
***	Removal of Existing Structures	Each			1
	Structure Excavation	Cu. Yd.		734	734
	Concrete Structures	Cu. Yd.		81.8	81.8
	Concrete Superstructure	Cu. Yd.	192.0		192.0
	Bridge Deck Grooving	Sq. Yd.	587		587
	Protective Coat	Sq. Yd.	820		820
	Concrete Superstructure (Approach Slab)	Cu. Yd.	94.8		94.8
	Furnishing & Erecting Structural Steel	L. Sum	1		1
	Stud Shear Connectors	Each	1,062		1,062
	Reinforcement Bars, Epoxy Coated	Pound	70,740	18,560	89,300
	Bar Splicers	Each	560	108	668
	Furnishing Steel Piles HP12x53	Foot		216	216
	Drilling and Setting Piles (In Soil)	Cu. Ft.		322.3	322.3
	Drilling and Setting Piles (In Rock)	Cu. Ft.		281.2	281.2
	Name Plates	Each	1		1
	Anchor Bolts, 1"	Each		24	24
	Temporary Soil Retention System	Sq. Ft.		927	927
	Granular Backfill for Structures	Cu. Yd.		534	534
	Pipe Underdrain for Structures 4"	Foot		159	159
	Asbestos Bearing Pad Removal	Each	22		22
	Bar Terminators	Each	72	336	408

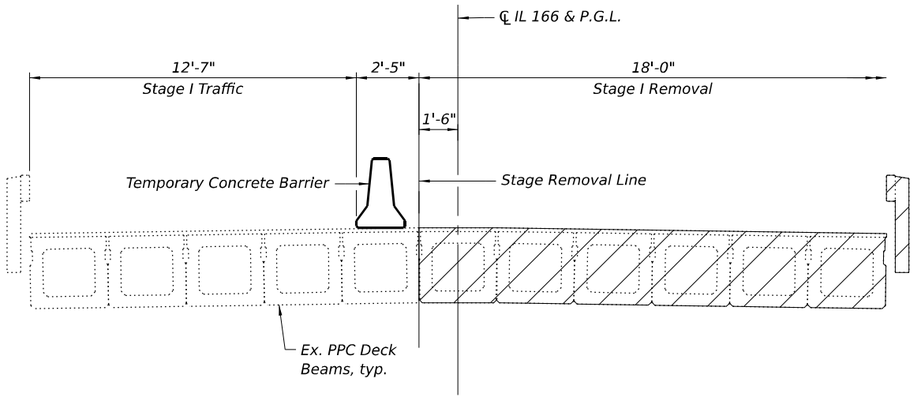
*** Includes the removal of the precast concrete beams at the 4 corners of the existing structure and all pavement between those beams.



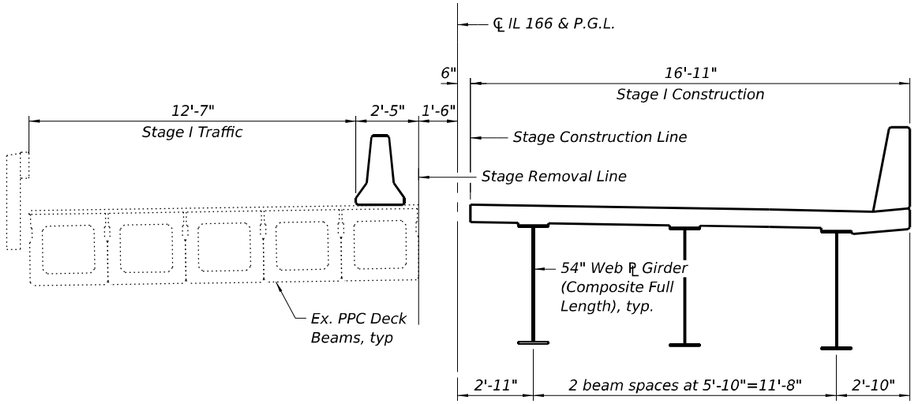
SECTION THRU INTEGRAL ABUTMENT

∗ Included in the cost of Pipe Underdrains for Structures.
** Dimension parallel to traffic.

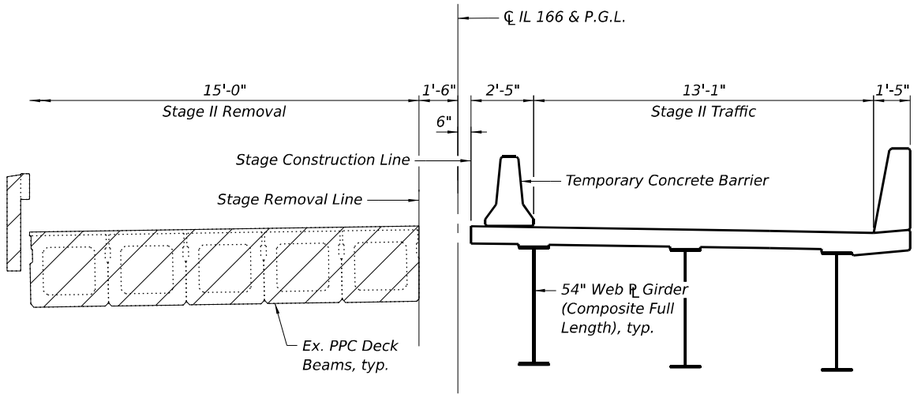
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).
Granular Backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.



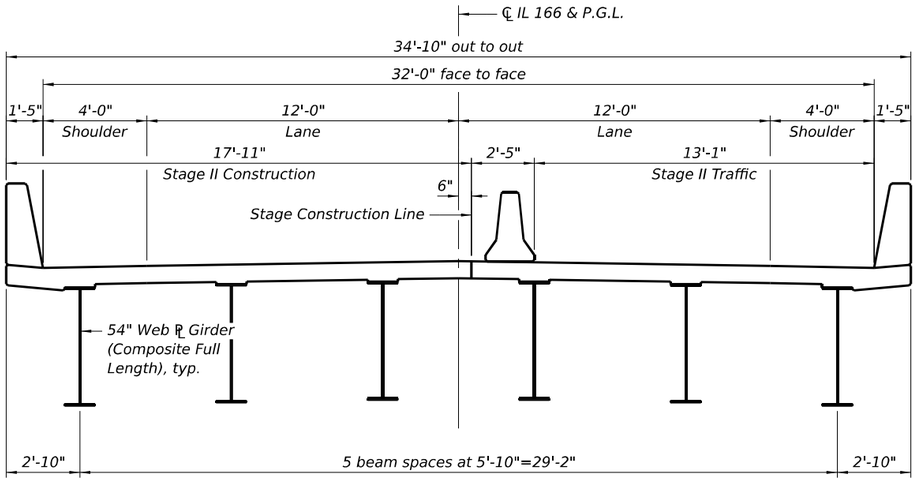
STAGE I REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

Notes:
Hatched areas indicate Removal of Existing Structure which shall include removal of the existing bituminous concrete wearing surface and existing bridge rail.
For quantities of Temporary Concrete Barrier, see Roadway Plans.

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8/14/2025 8:46:49 AM

QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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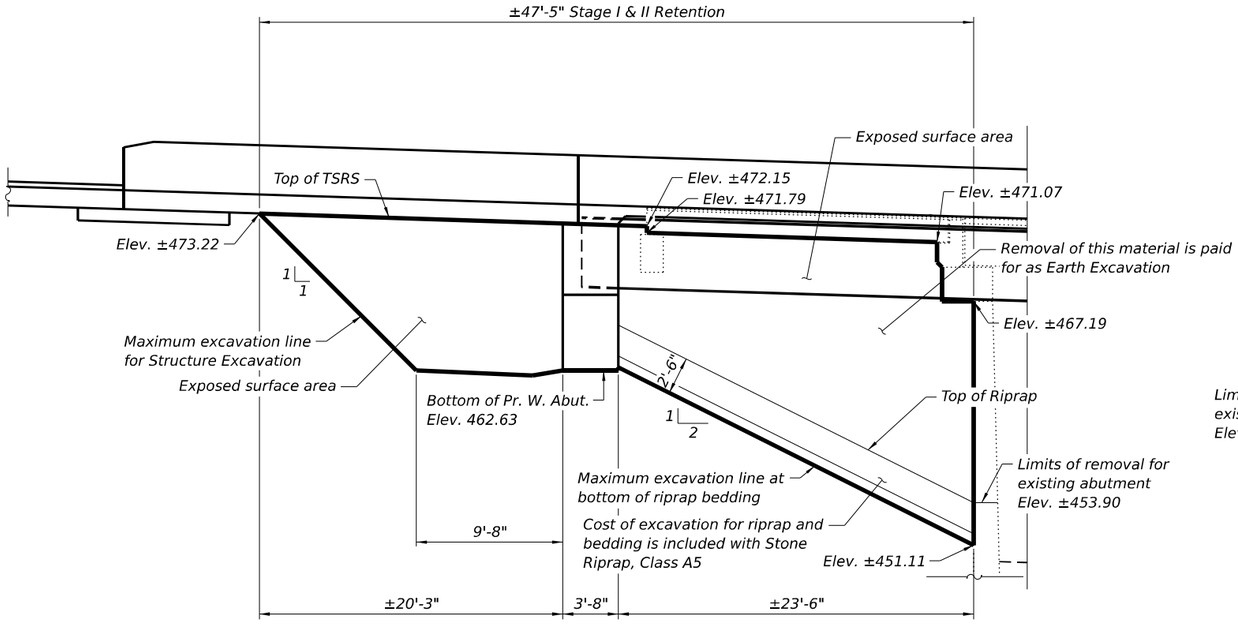
PLOT DATE =	CHECKED - MDC	REVISED -	

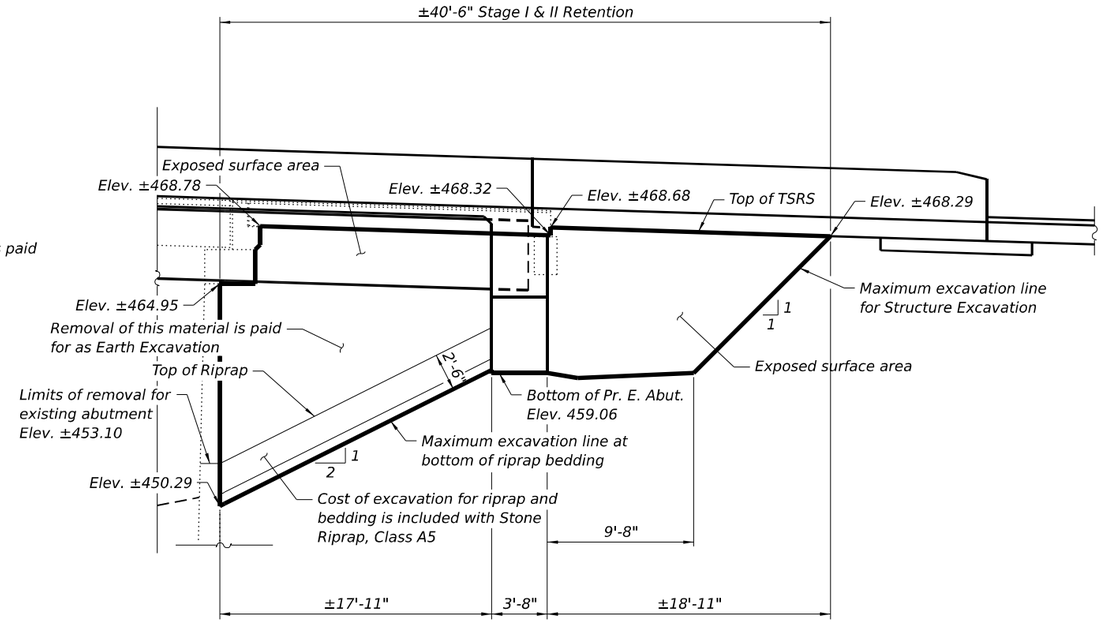
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 100-0101
SHEET 3 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	29
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



WEST ABUTMENT
TEMPORARY SOIL RETENTION SYSTEM



EAST ABUTMENT
TEMPORARY SOIL RETENTION SYSTEM

Notes:

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

Dimensions and slopes are shown along the temporary soil retention system.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Soil Retention System.

BILL OF MATERIAL

ITEM	*UNIT*	*TOTAL*
Temporary Soil Retention System	*Sq. Ft.*	*927*

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QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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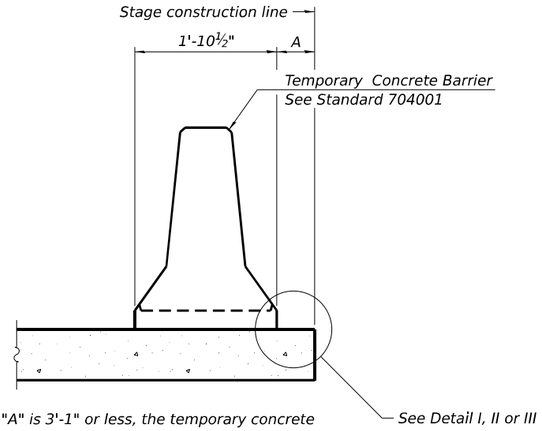
PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

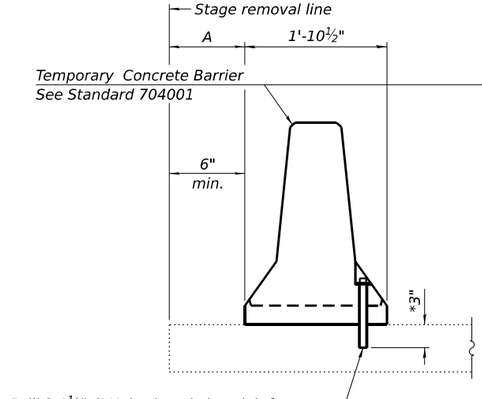
TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 100-0101
SHEET 4 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	30
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



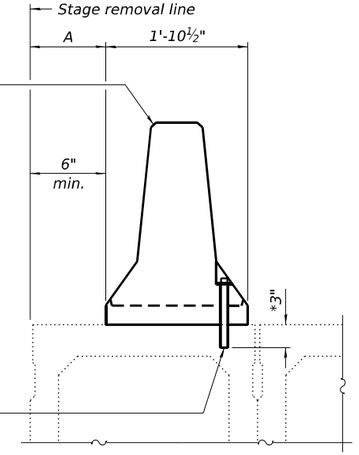
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

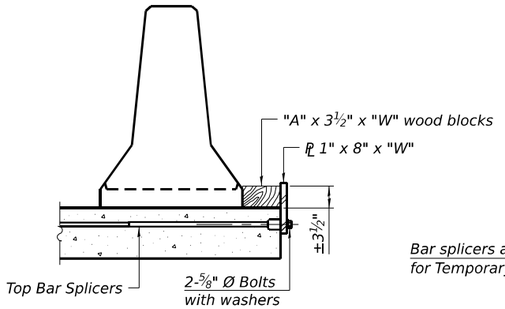
EXISTING SLAB



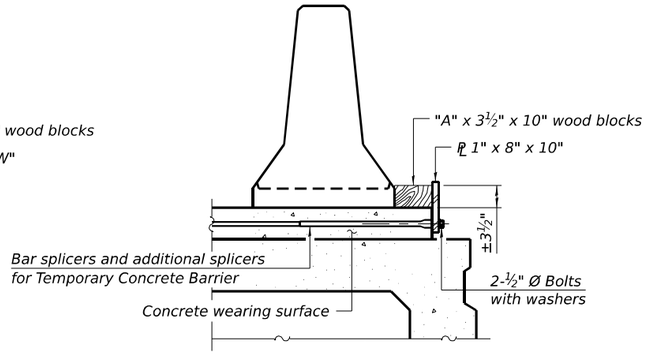
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

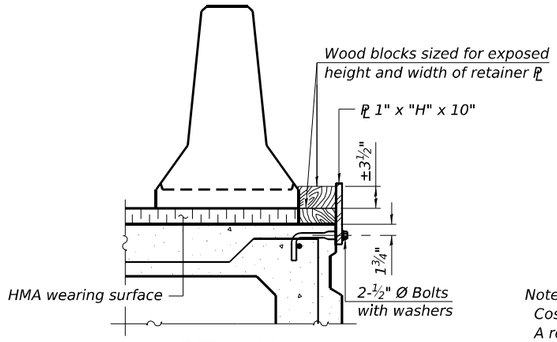
SECTIONS THRU SLAB OR DECK BEAM



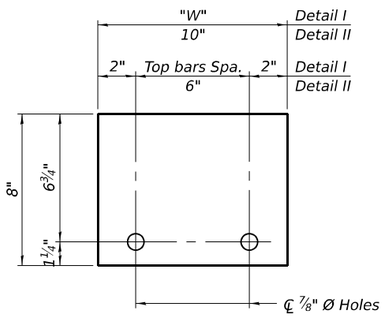
DETAIL I



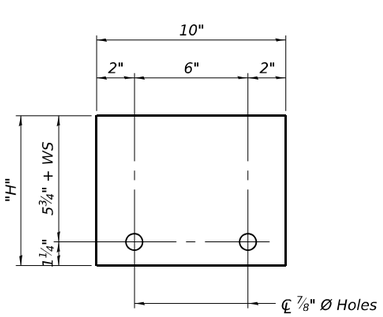
DETAIL II



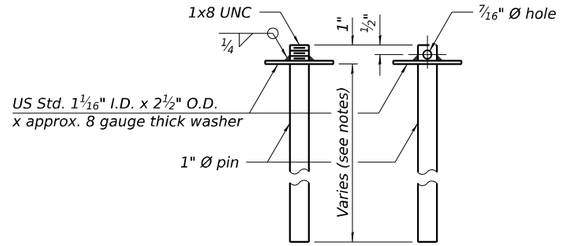
DETAIL III



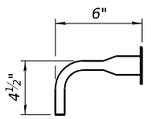
STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

5-15-2023

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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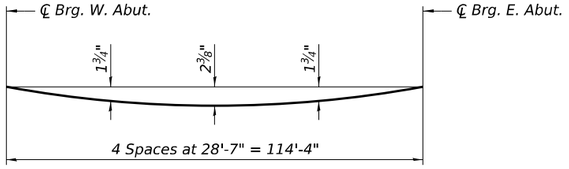
PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 100-0101

SHEET 5 OF 24 SHEETS

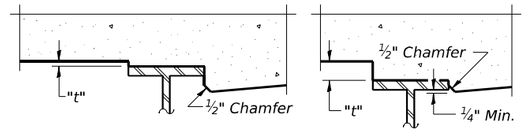
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	31
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

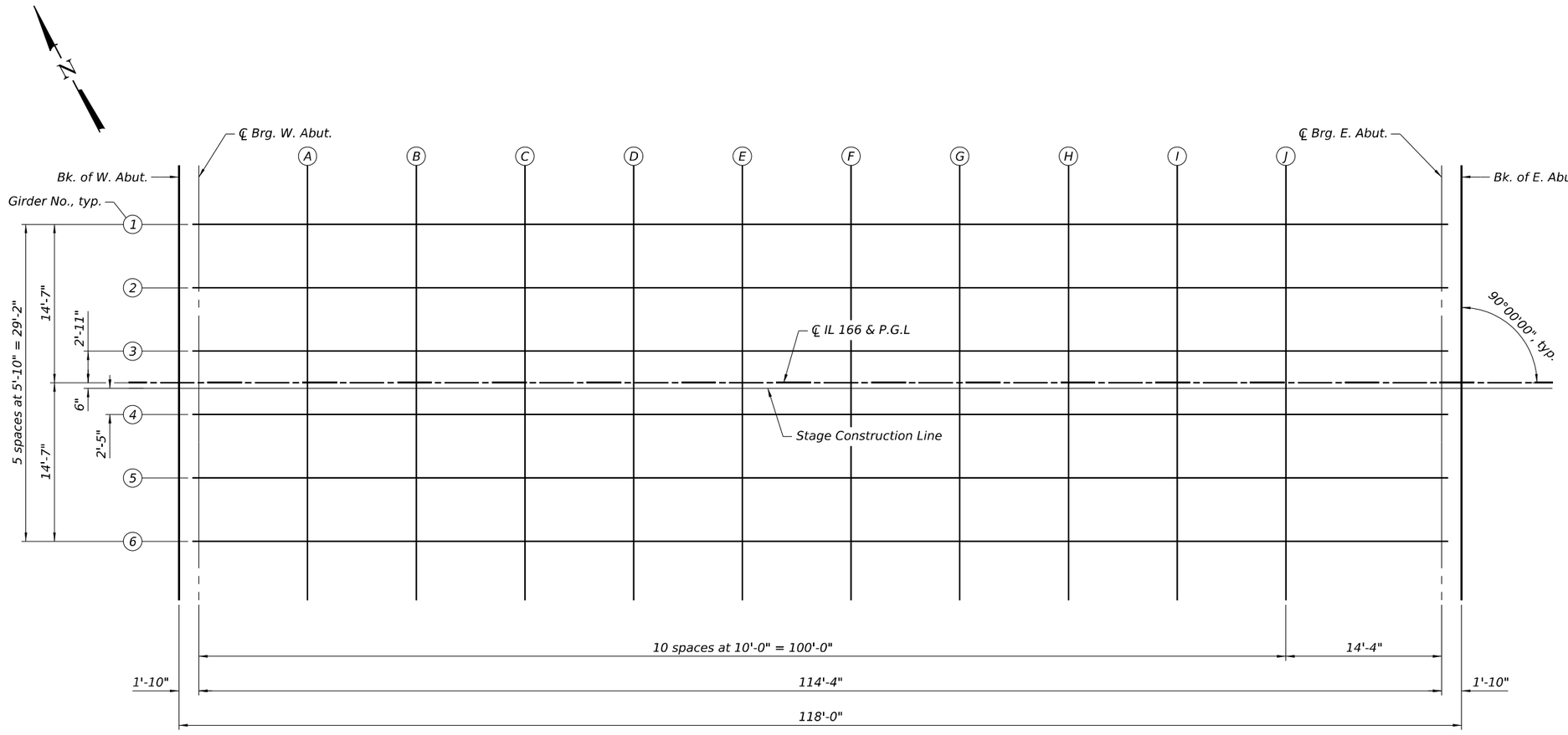
Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 7 of 24.



At Minimum Fillet *At Maximum Fillet*

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 7 of 24, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	-14.58	473.39	473.39
℄ Brg. W. Abut.	241+49.95	-14.58	473.31	473.31
A	241+59.95	-14.58	472.92	472.98
B	241+69.95	-14.58	472.55	472.65
C	241+79.95	-14.58	472.19	472.33
D	241+89.95	-14.58	471.84	472.01
E	241+99.95	-14.58	471.51	471.70
F	242+09.95	-14.58	471.19	471.39
G	242+19.95	-14.58	470.89	471.08
H	242+29.95	-14.58	470.61	470.77
I	242+39.95	-14.58	470.34	470.46
J	242+49.95	-14.58	470.08	470.16
℄ Brg. E. Abut.	242+64.28	-14.58	469.74	469.74
Bk. E. Abut.	242+66.12	-14.58	469.70	469.70

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	-8.75	473.49	473.49
℄ Brg. W. Abut.	241+49.95	-8.75	473.41	473.41
A	241+59.95	-8.75	473.02	473.08
B	241+69.95	-8.75	472.65	472.75
C	241+79.95	-8.75	472.29	472.43
D	241+89.95	-8.75	471.94	472.12
E	241+99.95	-8.75	471.61	471.80
F	242+09.95	-8.75	471.29	471.49
G	242+19.95	-8.75	470.99	471.18
H	242+29.95	-8.75	470.71	470.87
I	242+39.95	-8.75	470.44	470.56
J	242+49.95	-8.75	470.18	470.26
℄ Brg. E. Abut.	242+64.28	-8.75	469.84	469.84
Bk. E. Abut.	242+66.12	-8.75	469.80	469.80

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	-2.92	473.57	473.57
℄ Brg. W. Abut.	241+49.95	-2.92	473.50	473.50
A	241+59.95	-2.92	473.11	473.16
B	241+69.95	-2.92	472.73	472.84
C	241+79.95	-2.92	472.37	472.52
D	241+89.95	-2.92	472.03	472.20
E	241+99.95	-2.92	471.70	471.89
F	242+09.95	-2.92	471.38	471.58
G	242+19.95	-2.92	471.08	471.27
H	242+29.95	-2.92	470.79	470.96
I	242+39.95	-2.92	470.52	470.65
J	242+49.95	-2.92	470.27	470.34
℄ Brg. E. Abut.	242+64.28	-2.92	469.93	469.93
Bk. E. Abut.	242+66.12	-2.92	469.89	469.89

℄ IL 166 & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	0.00	473.62	473.62
℄ Brg. W. Abut.	241+49.95	0.00	473.55	473.55
A	241+59.95	0.00	473.15	473.21
B	241+69.95	0.00	472.78	472.88
C	241+79.95	0.00	472.42	472.56
D	241+89.95	0.00	472.07	472.25
E	241+99.95	0.00	471.74	471.93
F	242+09.95	0.00	471.42	471.62
G	242+19.95	0.00	471.12	471.31
H	242+29.95	0.00	470.84	471.00
I	242+39.95	0.00	470.57	470.69
J	242+49.95	0.00	470.31	470.39
℄ Brg. E. Abut.	242+64.28	0.00	469.97	469.97
Bk. E. Abut.	242+66.12	0.00	469.93	469.93

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	0.50	473.61	473.61
℄ Brg. W. Abut.	241+49.95	0.50	473.54	473.54
A	241+59.95	0.50	473.15	473.20
B	241+69.95	0.50	472.77	472.88
C	241+79.95	0.50	472.41	472.56
D	241+89.95	0.50	472.06	472.24
E	241+99.95	0.50	471.73	471.93
F	242+09.95	0.50	471.42	471.61
G	242+19.95	0.50	471.12	471.30
H	242+29.95	0.50	470.83	470.99
I	242+39.95	0.50	470.56	470.68
J	242+49.95	0.50	470.30	470.38
℄ Brg. E. Abut.	242+64.28	0.50	469.96	469.96
Bk. E. Abut.	242+66.12	0.50	469.92	469.92

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	2.92	473.57	473.57
℄ Brg. W. Abut.	241+49.95	2.92	473.50	473.50
A	241+59.95	2.92	473.11	473.16
B	241+69.95	2.92	472.73	472.84
C	241+79.95	2.92	472.37	472.52
D	241+89.95	2.92	472.03	472.20
E	241+99.95	2.92	471.70	471.89
F	242+09.95	2.92	471.38	471.58
G	242+19.95	2.92	471.08	471.27
H	242+29.95	2.92	470.79	470.96
I	242+39.95	2.92	470.52	470.65
J	242+49.95	2.92	470.27	470.34
℄ Brg. E. Abut.	242+64.28	2.92	469.93	469.93
Bk. E. Abut.	242+66.12	2.92	469.89	469.89

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	8.75	473.49	473.49
℄ Brg. W. Abut.	241+49.95	8.75	473.41	473.41
A	241+59.95	8.75	473.02	473.08
B	241+69.95	8.75	472.65	472.75
C	241+79.95	8.75	472.29	472.43
D	241+89.95	8.75	471.94	472.12
E	241+99.95	8.75	471.61	471.80
F	242+09.95	8.75	471.29	471.49
G	242+19.95	8.75	470.99	471.18
H	242+29.95	8.75	470.71	470.87
I	242+39.95	8.75	470.44	470.56
J	242+49.95	8.75	470.18	470.26
℄ Brg. E. Abut.	242+64.28	8.75	469.84	469.84
Bk. E. Abut.	242+66.12	8.75	469.80	469.80

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. W. Abut.	241+48.12	14.58	473.39	473.39
℄ Brg. W. Abut.	241+49.95	14.58	473.31	473.31
A	241+59.95	14.58	472.92	472.98
B	241+69.95	14.58	472.55	472.65
C	241+79.95	14.58	472.19	472.33
D	241+89.95	14.58	471.84	472.01
E	241+99.95	14.58	471.51	471.70
F	242+09.95	14.58	471.19	471.39
G	242+19.95	14.58	470.89	471.08
H	242+29.95	14.58	470.61	470.77
I	242+39.95	14.58	470.34	470.46
J	242+49.95	14.58	470.08	470.16
℄ Brg. E. Abut.	242+64.28	14.58	469.74	469.74
Bk. E. Abut.	242+66.12	14.58	469.70	469.70

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 100-0101
SHEET 7 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	33
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

NORTH SHOULDER LINE

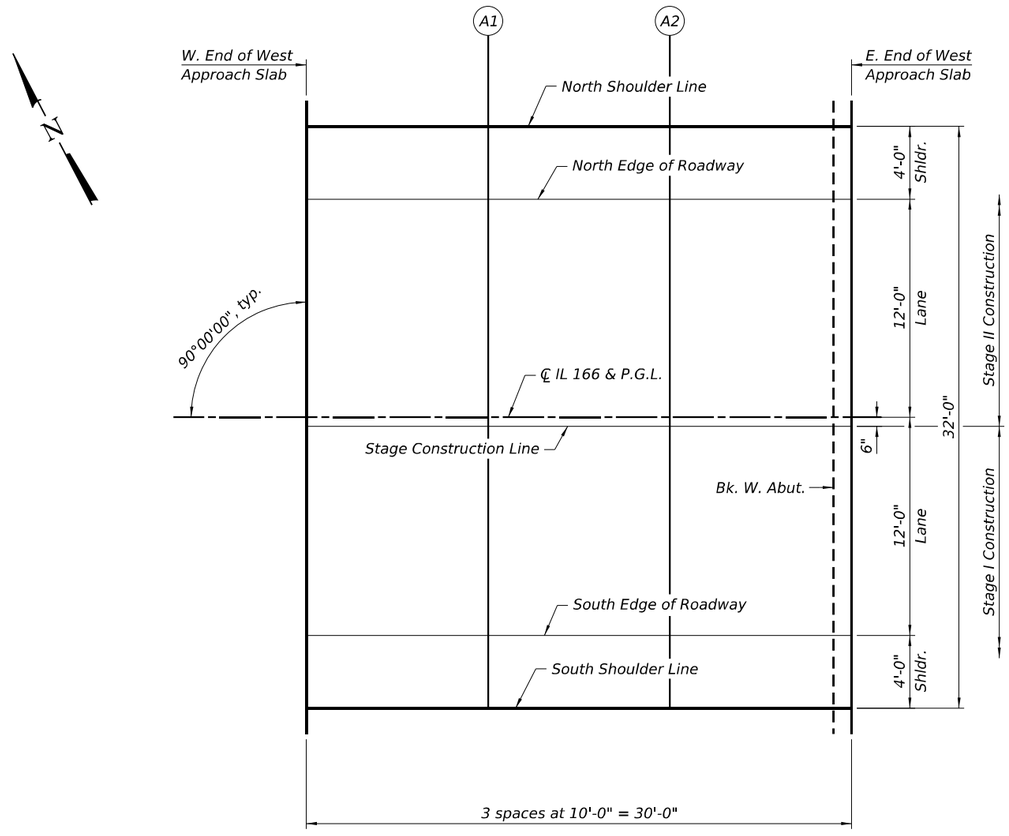
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	241+19.12	-16.00	474.59
A1	241+29.12	-16.00	474.15
A2	241+39.12	-16.00	473.73
E. End of W. Approach	241+49.12	-16.00	473.32

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	241+19.12	-12.00	474.67
A1	241+29.12	-12.00	474.23
A2	241+39.12	-12.00	473.81
E. End of W. Approach	241+49.12	-12.00	473.40

℄ IL 166 & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	241+19.12	0.00	474.85
A1	241+29.12	0.00	474.41
A2	241+39.12	0.00	473.99
E. End of W. Approach	241+49.12	0.00	473.58



PLAN

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	241+19.12	0.50	474.84
A1	241+29.12	0.50	474.40
A2	241+39.12	0.50	473.98
E. End of W. Approach	241+49.12	0.50	473.57

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	241+19.12	12.00	474.67
A1	241+29.12	12.00	474.23
A2	241+39.12	12.00	473.81
E. End of W. Approach	241+49.12	12.00	473.40

SOUTH SHOULDER LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	241+19.12	16.00	474.59
A1	241+29.12	16.00	474.15
A2	241+39.12	16.00	473.73
E. End of W. Approach	241+49.12	16.00	473.32

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 100-0101
SHEET 8 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	34
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

NORTH SHOULDER LINE

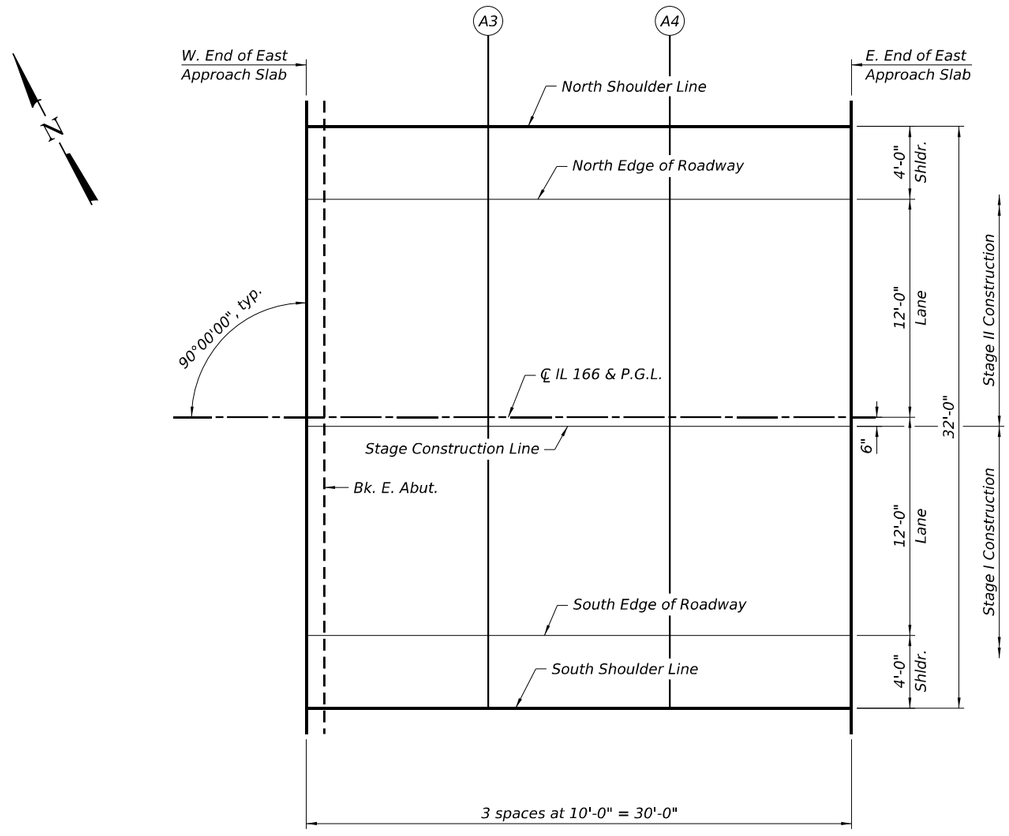
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Approach	242+65.12	-16.00	469.69
A3	242+75.12	-16.00	469.47
A4	242+85.12	-16.00	469.27
E. End of E. Approach	242+95.12	-16.00	469.08

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Approach	242+65.12	-12.00	469.77
A3	242+75.12	-12.00	469.55
A4	242+85.12	-12.00	469.35
E. End of E. Approach	242+95.12	-12.00	469.16

℄ IL 166 & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Approach	242+65.12	0.00	469.95
A3	242+75.12	0.00	469.73
A4	242+85.12	0.00	469.53
E. End of E. Approach	242+95.12	0.00	469.34



PLAN

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Approach	242+65.12	0.50	469.94
A3	242+75.12	0.50	469.73
A4	242+85.12	0.50	469.52
E. End of E. Approach	242+95.12	0.50	469.34

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Approach	242+65.12	12.00	469.77
A3	242+75.12	12.00	469.55
A4	242+85.12	12.00	469.35
E. End of E. Approach	242+95.12	12.00	469.16

SOUTH SHOULDER LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Approach	242+65.12	16.00	469.69
A3	242+75.12	16.00	469.47
A4	242+85.12	16.00	469.27
E. End of W. Approach	242+95.12	16.00	469.08

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 100-0101
SHEET 9 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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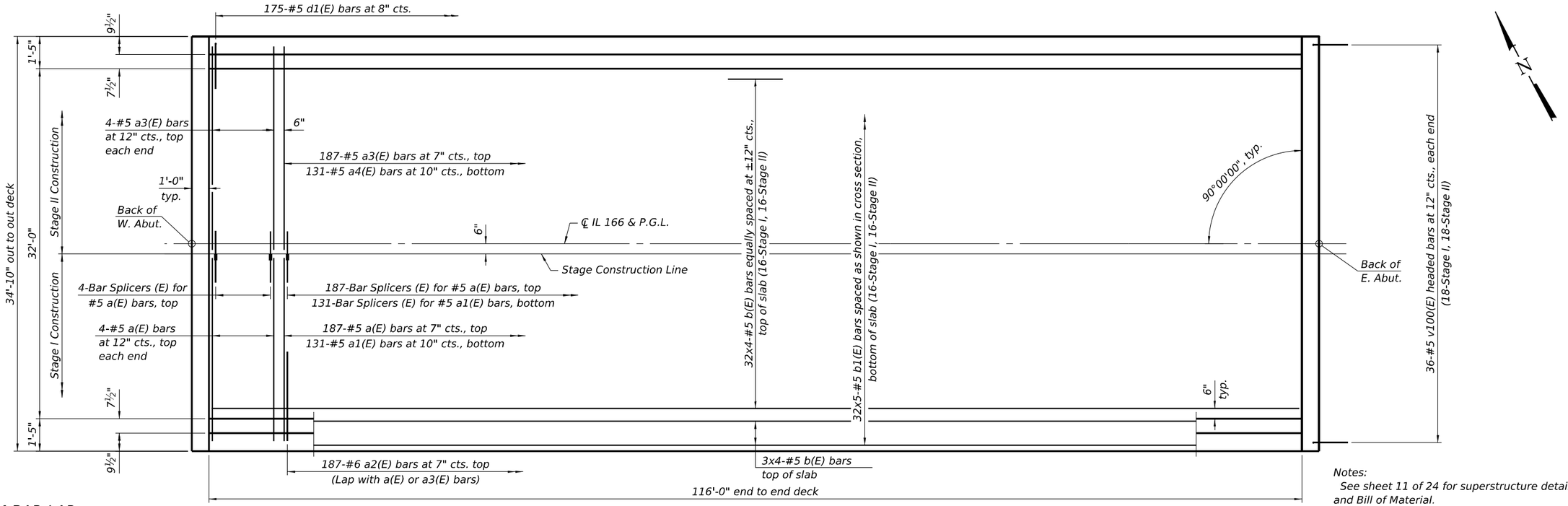
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

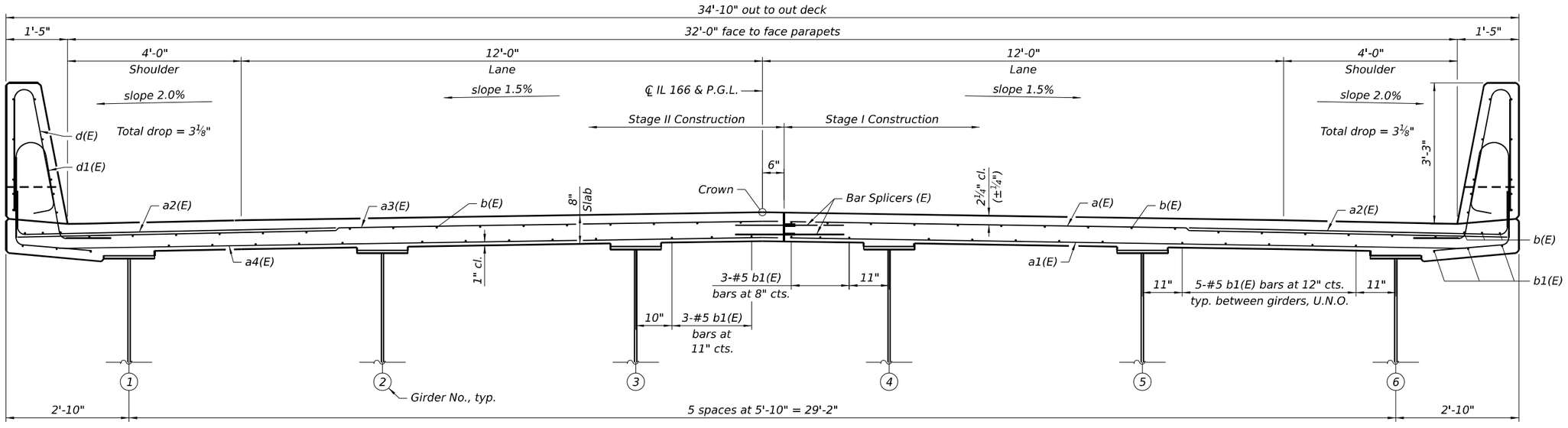


PLAN

MINIMUM BAR LAP

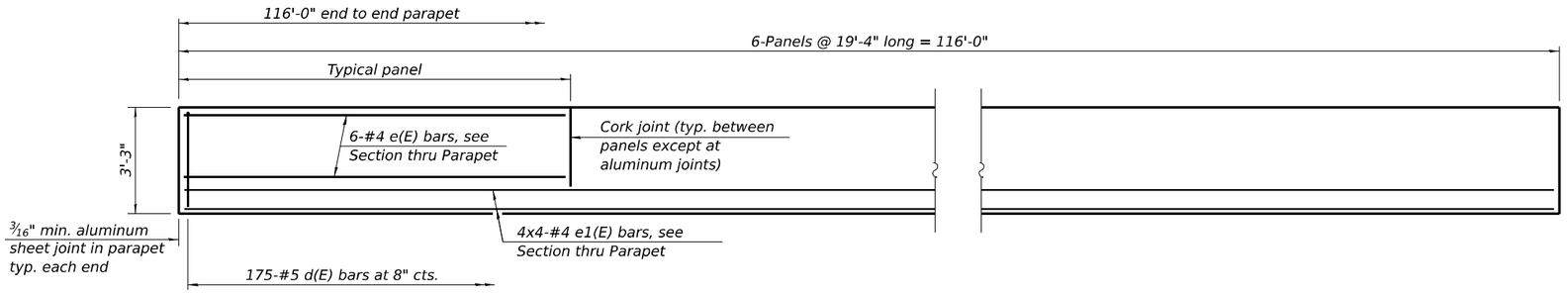
#5 bar = 3'-10"

Notes:
See sheet 11 of 24 for superstructure details and Bill of Material.
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 22 of 24 for Bar Splicer details.



CROSS SECTION

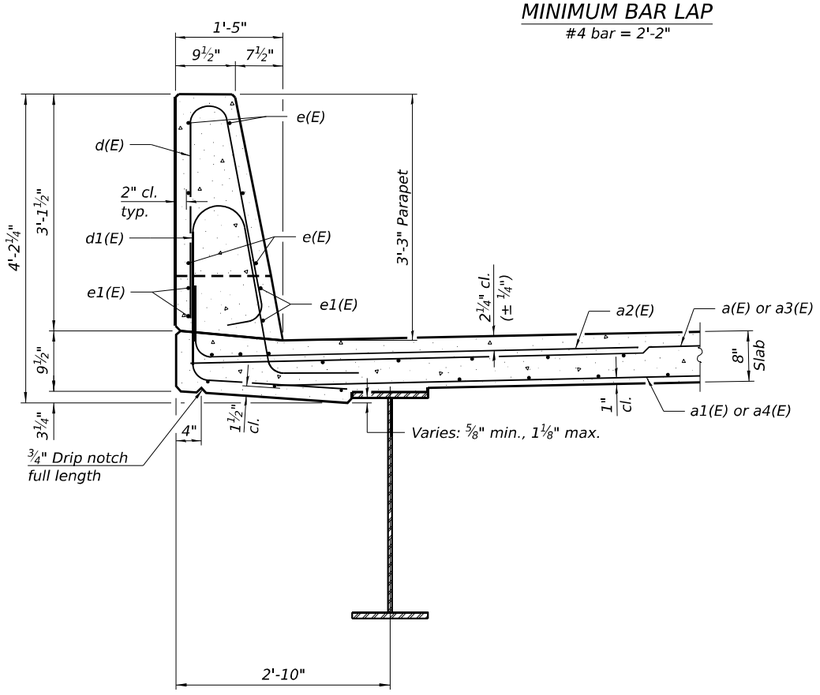
(Looking East)



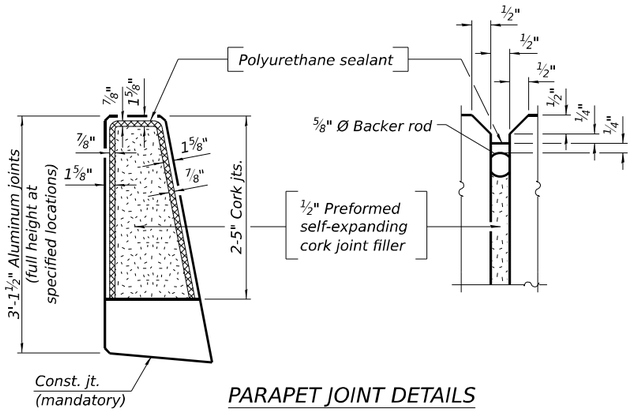
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

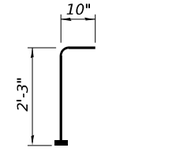
#4 bar = 2'-2"



SECTION THRU PARAPET



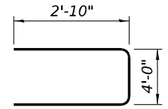
PARAPET JOINT DETAILS



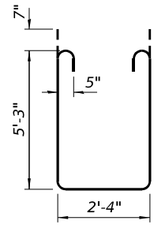
BAR v100(E)

(Headed. 72-#5 Bar terminators)

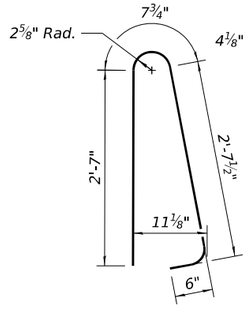
BAR a2(E)



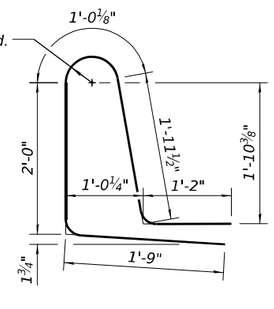
BAR s10(E)



BAR s11(E)



BAR d(E)



BAR d1(E)

Notes:

The 3/16" min. aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

Bar terminators, paid for separately. See Total Bill of Material.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	195	#5	16'-7"	
a1(E)	131	#5	15'-9"	
a2(E)	374	#6	8'-4"	
a3(E)	195	#5	17'-7"	
a4(E)	131	#5	16'-9"	
b(E)	152	#5	31'-11"	
b1(E)	160	#5	26'-4"	
d(E)	350	#5	6'-5"	
d1(E)	350	#5	7'-11"	
e(E)	72	#4	19'-0"	
e1(E)	32	#4	30'-8"	
m10(E)	12	#6	16'-7"	
m11(E)	12	#6	17'-7"	
m12(E)	40	#6	5'-5"	
m13(E)	20	#6	2'-5"	
s10(E)	64	#5	9'-8"	
s11(E)	64	#5	14'-0"	
v100(E)	72	#5	3'-1"	
Concrete Superstructure			Cu. Yds.	184.2
Reinforcement Bars, Epoxy Coated			Lbs.	35,160

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

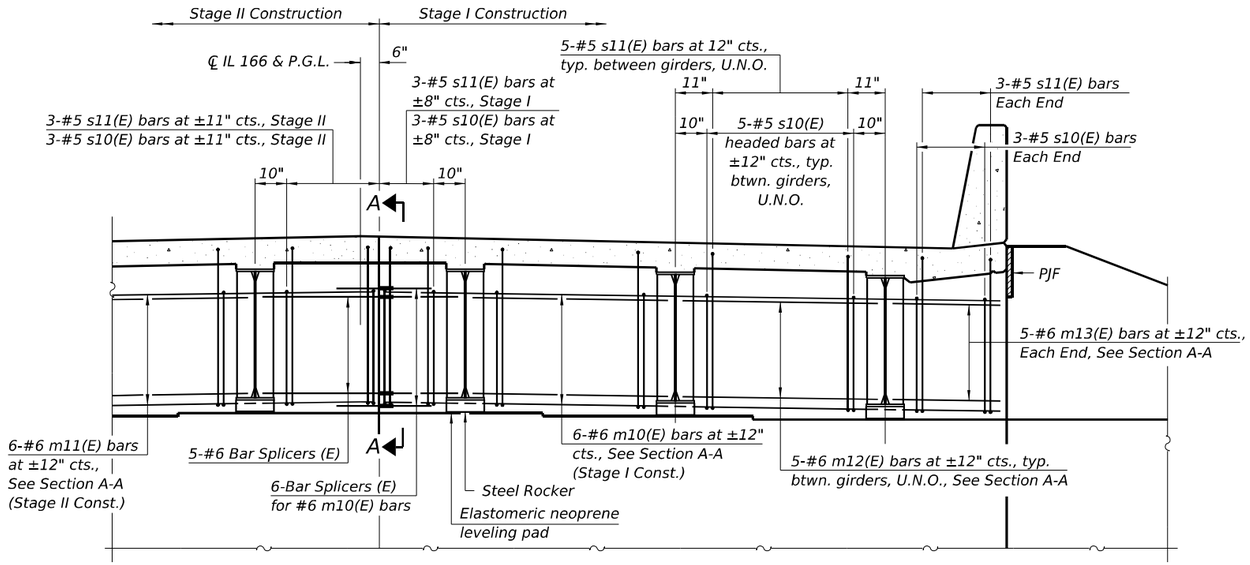
QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

USER NAME = ZDavidson	DESIGNED - ZLD	REVISED -	
1000101-78209-011-Superstructure Details_new.dgn	CHECKED - DRB	REVISED -	
PLOT SCALE = 0.167 ' / in.	DRAWN - JDC	REVISED -	
PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

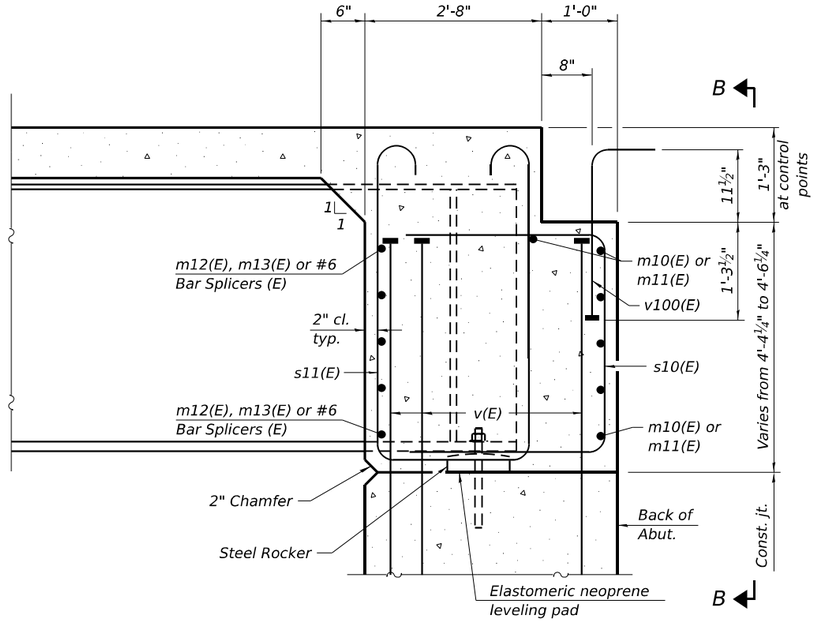
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 100-0101
SHEET 11 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	37
		CONTRACT NO. 78209		
		ILLINOIS	FED. AID PROJECT	

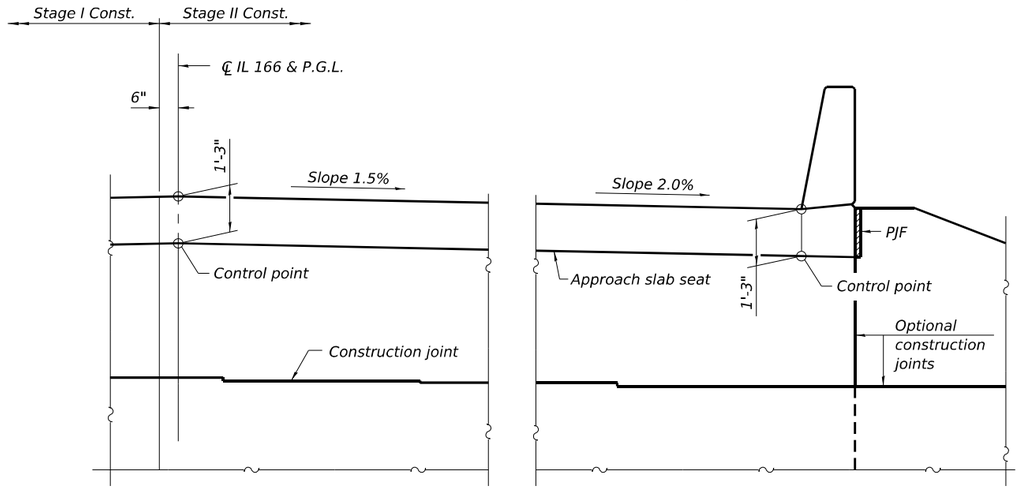


DIAPHRAGM AT EAST ABUTMENT

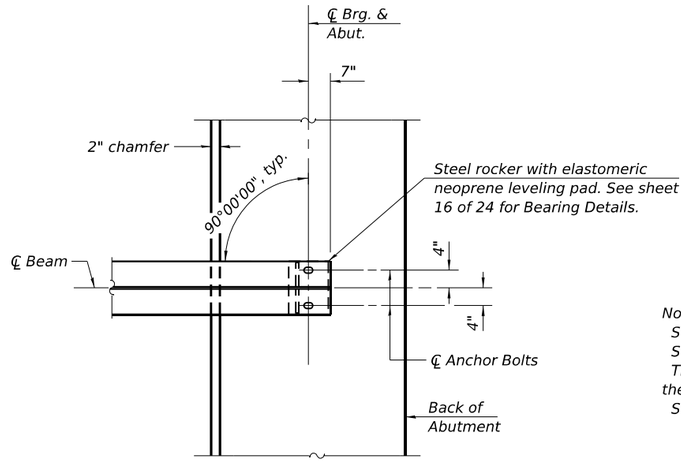
(Looking East)
(East Abutment Shown, West Abutment Similar)



SECTION A-A



VIEW B-B



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:
See sheet 11 of 24 for superstructure details and Bill of Material.
See sheet 13 of 24 for PJF details.
The approach slab seat shall have a constant slope determined from the control points shown.
See sheet 22 of 24 for Bar Splicer details.

DIA-SB-0 4-4-2025

QUIGG ENGINEERING INC DESIGN FIRM REG. NO. 184.004721-0014	USER NAME = ZDavidson	DESIGNED - ZLD	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
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	PLOT DATE =	CHECKED - MDC	REVISED -	

DIAPHRAGM DETAILS
STRUCTURE NO. 100-0101
SHEET 12 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	38
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

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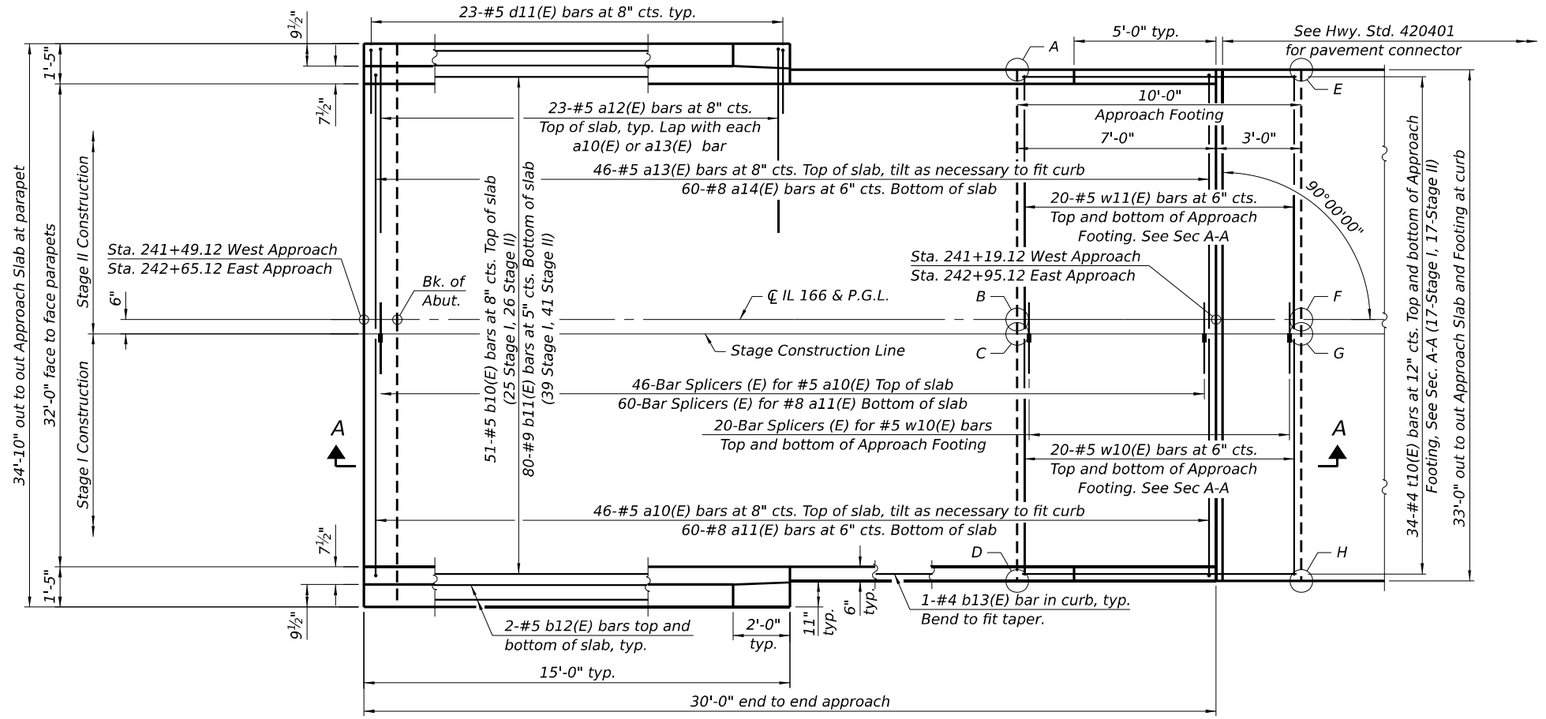


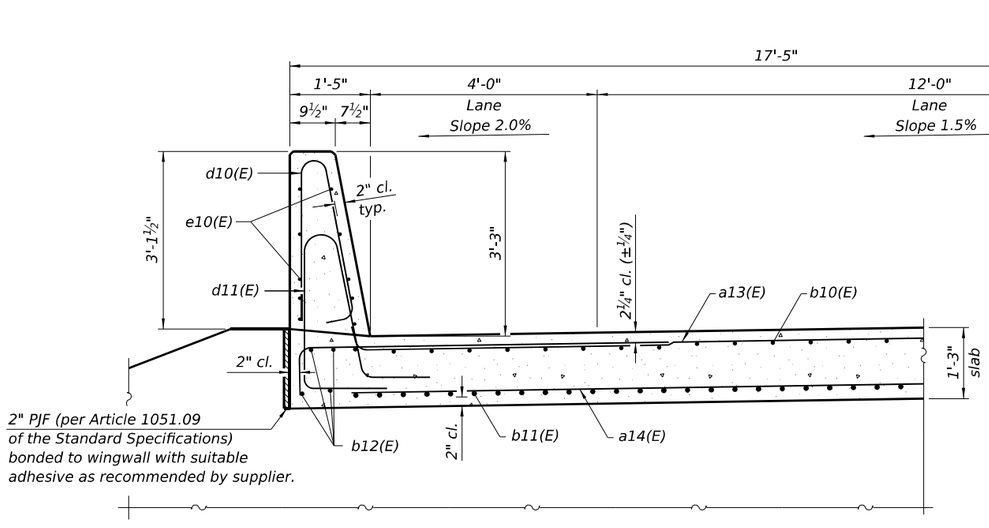
PLAN

(East approach slab shown; West approach slab similar by 180° rotation)

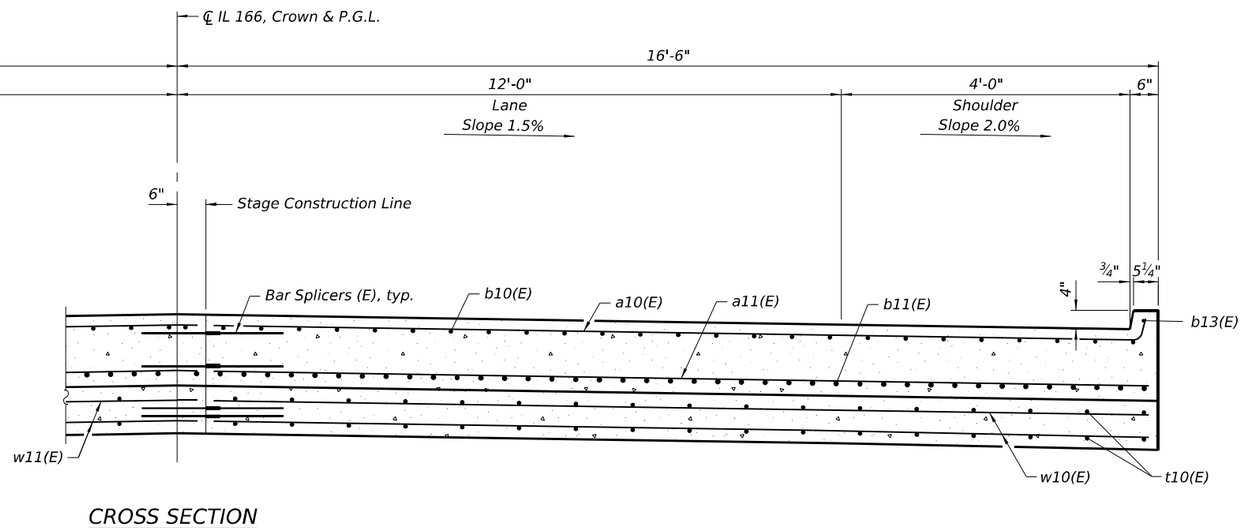
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

West Approach			East Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A - NE	473.02	472.18	A - NW	467.95	467.12
B - E ℄	473.29	472.45	B - W ℄	468.22	467.39
C - E SCL	473.28	472.45	C - W SCL	468.22	467.38
D - SE	473.02	472.18	D - SW	467.95	467.12
E - NW	473.46	472.63	E - NE	467.77	466.94
F - W ℄	473.73	472.90	F - E ℄	468.04	467.21
G - W SCL	473.72	472.89	G - E SCL	468.03	467.20
H - SW	473.46	472.63	H - SE	467.77	466.94

Notes:
See sheet 14 of 24 for location of Sec. A-A and Bill of Material.
See sheet 22 of 24 for Bar Splicer details.



NEAR ABUTMENT



CROSS SECTION

(Looking East)

AT APPROACH FOOTING

BAIA-CIP-39CS-0 *4-4-2025*

(Sheet 1 of 2)

QUIGG ENGINEERING INC DESIGN FIRM REG. NO. 184.004721-0014	USER NAME = ZDavidson	DESIGNED - ZLD	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
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	PLOT DATE =	CHECKED - MDC	REVISED -	SHEET 13 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	39
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

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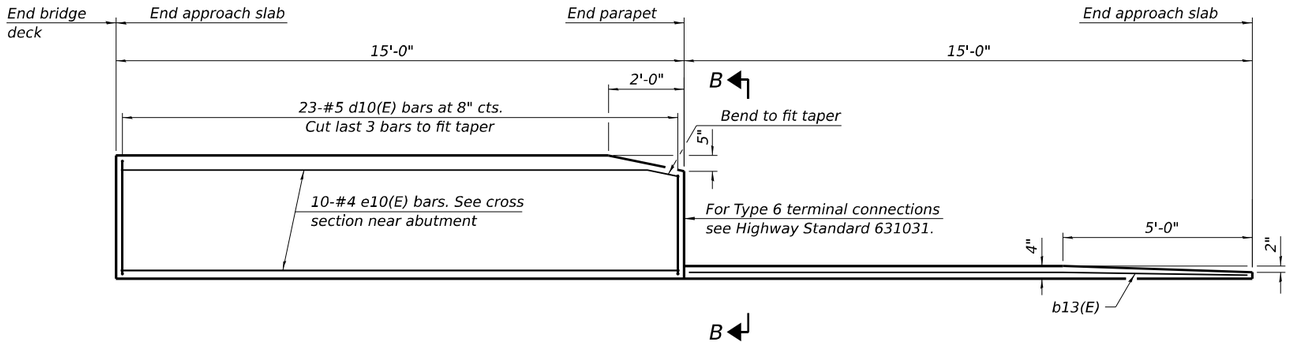
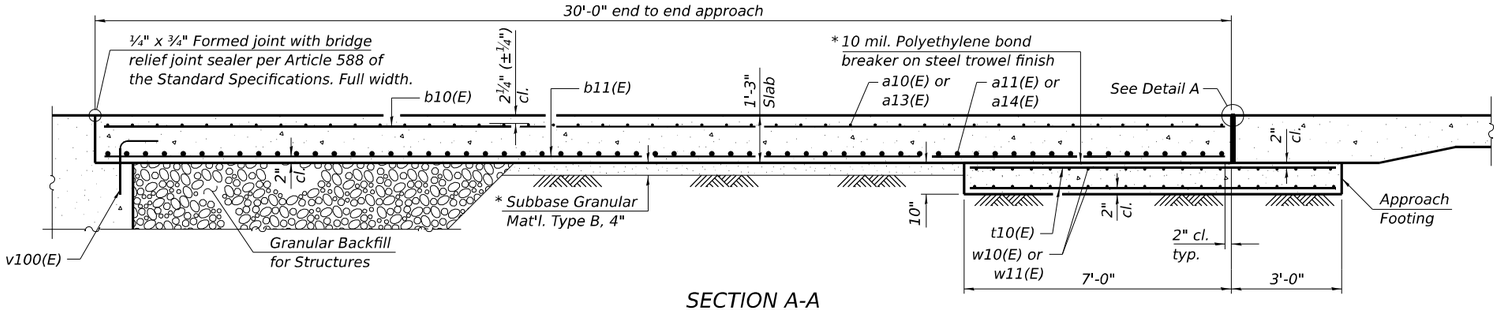
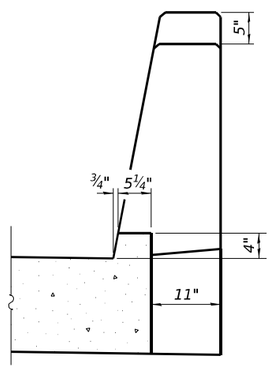


INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A

DETAIL A



VIEW B-B

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Parapet concrete shall be paid for as Concrete Superstructure.

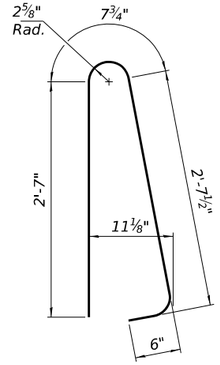
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

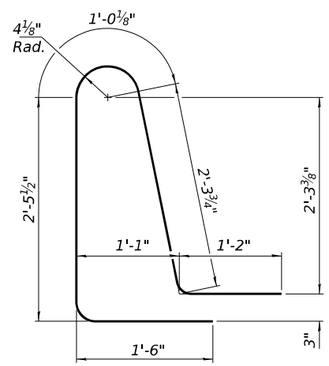
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

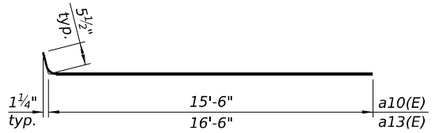
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 24.



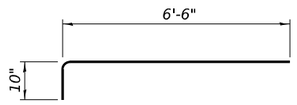
BAR d10(E)



BAR d11(E)



BAR a10(E) & a13(E)



BAR a12(E)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	16'-0"	
a11(E)	120	#8	15'-7"	
a12(E)	92	#5	7'-4"	
a13(E)	92	#5	17'-0"	
a14(E)	120	#8	16'-7"	
b10(E)	102	#5	29'-8"	
b11(E)	160	#9	29'-8"	
b12(E)	16	#5	14'-8"	
b13(E)	4	#4	14'-8"	
d10(E)	92	#5	6'-5"	
d11(E)	92	#5	8'-6"	
e10(E)	40	#4	14'-8"	
t10(E)	136	#4	9'-8"	
w10(E)	80	#5	15'-8"	
w11(E)	80	#5	16'-8"	
Concrete Structures			Cu. Yd.	20.4
Concrete Superstructure			Cu. Yd.	7.8
Concrete Superstructure (Approach Slab)			Cu. Yd.	94.8
Reinforcement Bars, Epoxy Coated			Pound	39,160

BAIA-CIP-39CS-0 4-4-2025

MODEL: Default
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8/14/2025 8:46:59 AM

QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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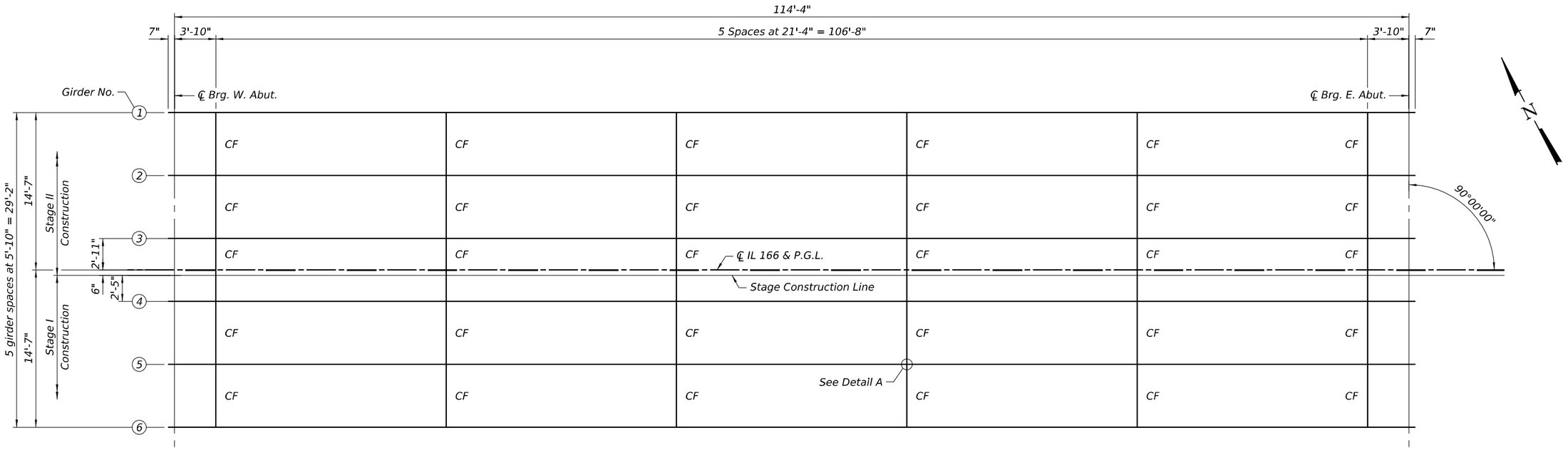
PLOT SCALE = 0.167 ' / in.	DRAWN - JDC	REVISED -	
PLOT DATE =	CHECKED - MDC	REVISED -	

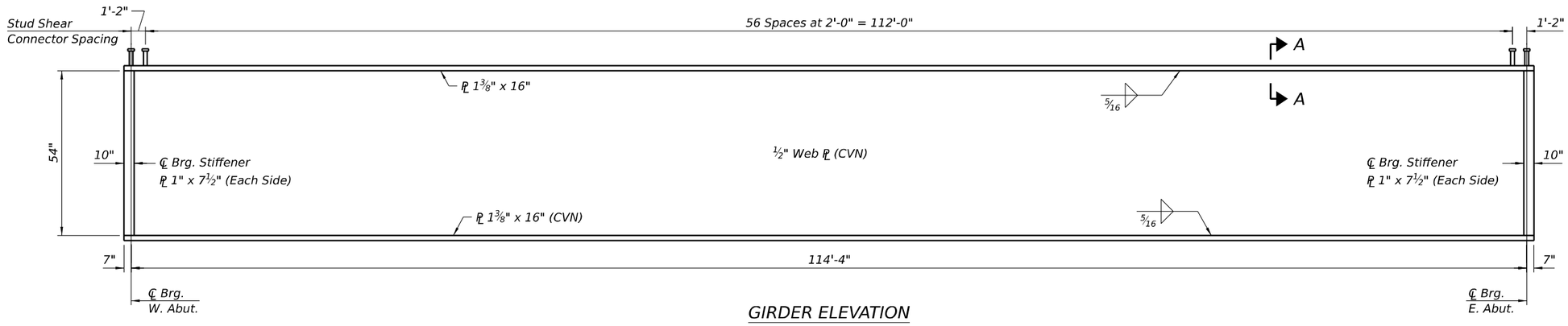
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 100-0101
SHEET 14 OF 24 SHEETS

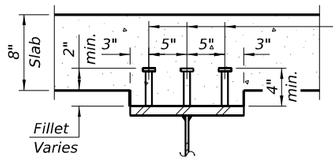
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	40
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



STEEL FRAMING PLAN



GIRDER ELEVATION



¾" Ø Granular or solid flux filled headed studs, automatically end welded to flange. (1,062 Required)

SECTION A-A

TOP OF WEB ELEVATION

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
℄ Brg. W. Abut.	468.86	468.96	469.05	469.05	468.96	468.86
℄ Brg. E. Abut.	472.43	472.53	472.62	472.62	472.53	472.43

Notes:

All cross-frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross-frames at supports may be temporarily disconnected to install bearing anchor bolts.

Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirements, Zone 2.

See sheet 16 of 24 for Detail A and additional details.

All girders and bearing stiffeners shall be AASHTO M270 Grade 50.

MODEL: Default
FILE NAME: S:\2021\2\ILI033 - PTB 199-38 D9 - QEI - Various HIWO-13 & 18 IL-166 BR Replace PH1-2 100-0031\CADD\CADD Sheets\Final Plans\1000101-78209-015-Framing Plan_new.dgn
8/14/2025 8:47:00 AM

QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 100-0101
SHEET 15 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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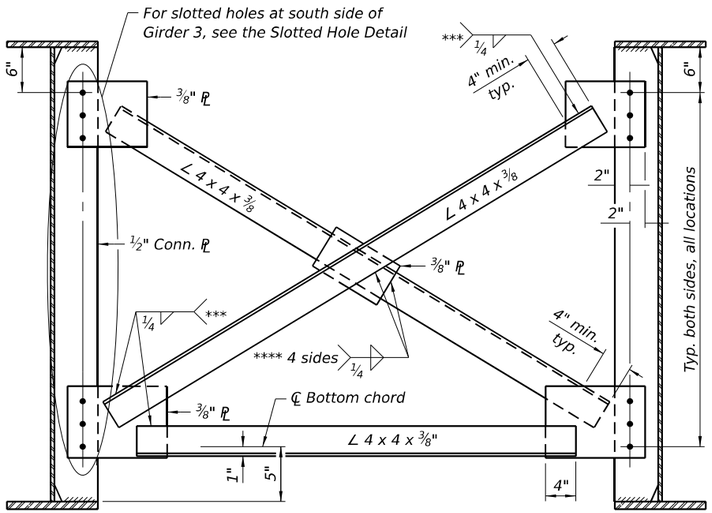
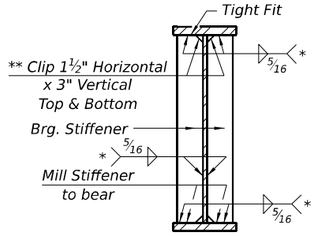
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



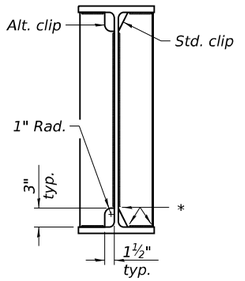
INTERIOR CROSS-FRAME

(30 Required)

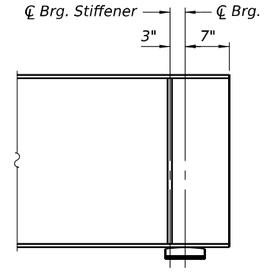
* Stop welds 1/4" (±1/8") from edges as shown, typical.
** Clip may be rounded for ease of shop painting.
*** Fillet weld angles along 3 sides on one face of gusset plate: however, if cross-frames are galvanized, weld all-around.
**** If cross-frames are galvanized, weld all-around.



SECTION AT ABUTMENT

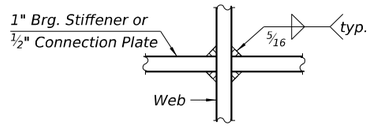


WELD LIMITS AND CLIP DETAILS

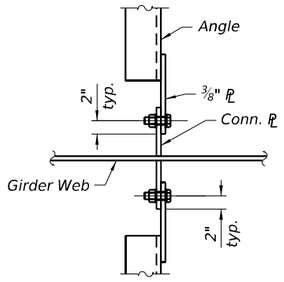


END OF GIRDER DETAIL

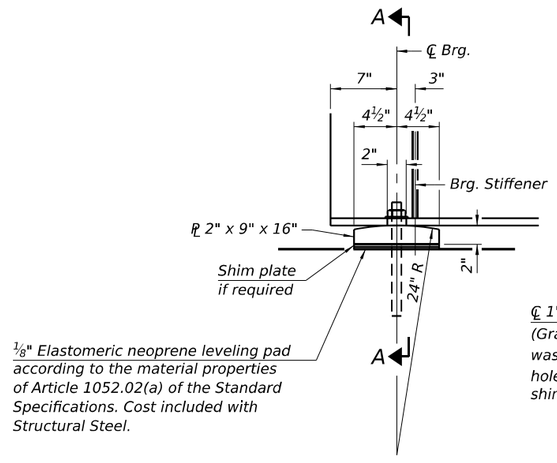
(Showing bearing stiffener location)



WEB WELD DETAILS

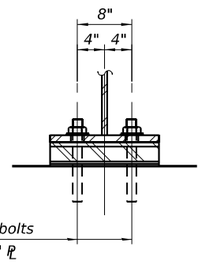


DETAIL A



1/8" Elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

ELEVATION AT ABUTMENT



℄ 1" Ø x 12" All-thread anchor bolts (Grade 55) with 2¼"x 2¼"x 5/16" PL washer under nut. 1 3/8"x 2" slotted hole in flange. 1½" Ø Holes in bearing plate, shim plate, and leveling pad.

SECTION A-A

FIXED BEARING AT ABUTMENT

(12 Required)

SLOTTED HOLE DETAIL

(South Side Girder 3)

Notes:

All girders and bearing stiffeners shall be AASHTO M270 Grade 50.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.

All separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

Detail 15/16" dia. holes for all 3/4" dia. H.S. bolts for Interior Cross Frames, except as noted. 13/16" x 2 1/8" vertical slotted holes shall be provided for both connection plates on the south side of girder 3 to accomodate the differential displacement between girder 3 and 4 due to stage construction. The bolts in slotted holes shall be finger tightened until the second stage pour is completed. Position slots so bolts move from one end with no concrete load to the opposite end under the deck load. The holes shall be positioned to allow maximum bolt displacement without laterally stressing the girders.

Two hardened washers required for each set of oversized holes.

See sheet 15 of 24 for Detail A location and additional details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	24

INTERIOR GIRDER MOMENT TABLE		
		0.5 Sp. 1
I_s	(in⁴)	40,298
I_c (n)	(in⁴)	84,366
I_c (3n)	(in⁴)	62,717
I_c (cr)	(in⁴)	-
S_s	(in³)	1,420
S_c (n)	(in³)	1,824
S_c (3n)	(in³)	1,672
S_c (cr)	(in³)	-
S_x	(in³)	1,674
DC1	(k/')	0.908
M_{DC1}	('k)	1,484
DC2	(k/')	0.175
M_{DC2}	('k)	286
DW	(k/')	0.292
M_{DW}	('k)	477
LLDF		0.497
M_{LL+IM}	('k)	1,695
f_f (Strength I)	(ksi)	0
$M_u + {}^1/_3 f_f S_x$	('k)	5,894
$\Phi_f M_n$	('k)	8,852
f_s DC1	(ksi)	12.54
f_s DC2	(ksi)	2.05
f_s DW	(ksi)	3.42
f_s (LL+IM)	(ksi)	11.15
f_f (Service II)	(ksi)	0
$f_s + {}^{f_f}/_2$ (Service II)	(ksi)	32.51
Service II Resistance	(ksi)	47.50
$f_s + {}^{f_f}/_3$ (Strength I)	(ksi)	-
$\Phi_f F_n$	(ksi)	-
V_f	(k)	26.31

INTERIOR GIRDER REACTION TABLE		
		W. or E. Abut.
LLDF		0.658
OCF		-
R_{DC1}	(k)	52.7
R_{DC2}	(k)	10.0
R_{DW}	(k)	16.7
R_{LL}	(k)	67.6
R_{Im}	(k)	14.4
R_{Total} (Strength I)(Impact)	(k)	246.9
R_{Total} (Strength I)(No Impact)	(k)	221.7

I_s , S_s : *Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).*

I_c (n), S_c (n): *Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).*

I_c (3n), S_c (3n): *Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).*

I_c (cr), S_c (cr): *Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).*

S_x : *Section modulus about the major axis of a section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.³).*

DC1: *Un-factored non-composite dead load (kips/ft.).*

M_{DC1}: *Un-factored moment due to non-composite dead load (kip-ft.).*

DC2: *Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).*

M_{DC2}: *Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (klp-ft.).*

DW: *Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).*

M_{DW} : *Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).*

LLDF: *Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.*

M_{LL+IM}: *Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).*

M_u : *Strength I load combination of factored design moments (kip-ft.).*
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}

f_f : *Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).*

$\Phi_f M_n$: *Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).*

f_s DC1: *Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).*
M_{DC1} / S_s

f_s DC2: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).*
M_{DC2} / S_c (3n) or M_{DC2} / S_c (cr) as applicable.

f_s DW: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).*
M_{DW} / S_c (3n) or M_{DW} / S_c (cr) as applicable.

f_s (LL+ IM): *Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).*
M_{LL+IM}/ S_c (n) or M_{LL+IM}/ S_c (cr) as applicable.

$f_s + f_f / 2$ (Service II): *Sum of stresses as computed below (ksi).*
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (LL+ IM) + f_f /2

Service II Resistance: *Composite ($0.95R_hF_{yf}$) or noncomposite ($0.80R_hF_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).*

$f_s + f_f / 3$ (Strength I): *Sum of stresses as computed below on non-compact sections (ksi).*
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (LL+ IM) + f_f /3

$\Phi_f F_n$: *Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).*

V_f: *Maximum factored shear range in span computed according to Article 6.10.10.*

OCF: *Obtuse Correction Factor according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.*

R_{DC1}: *Un-factored reaction due to non-composite dead load (kip).*

R_{DC2}: *Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).*

R_{DW} : *Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).*

R_{LL} : *Un-factored live load reaction (kip).*

R_{IM} : *Un-factored dynamic load allowance (impact) (kip).*

R_{Total} (Strength I)(Impact): *Strength I load combination of factored design reactions (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_{LL} + R_{IM})

R_{Total} (Strength I)(No Impact): *Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_{LL})

MODEL: Default
FILE NAME: S:\2021\21IL033 - PTB 199-38 D9 - QEI - Various HMWO-13 & 18 IL-166 BR Replace PH1-2 100-0031\CADD\CADD Sheets\Final Plans\1000101-78209-01

QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGN DATA TABLES
STRUCTURE NO. 100-0101
SHEET 17 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	43
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

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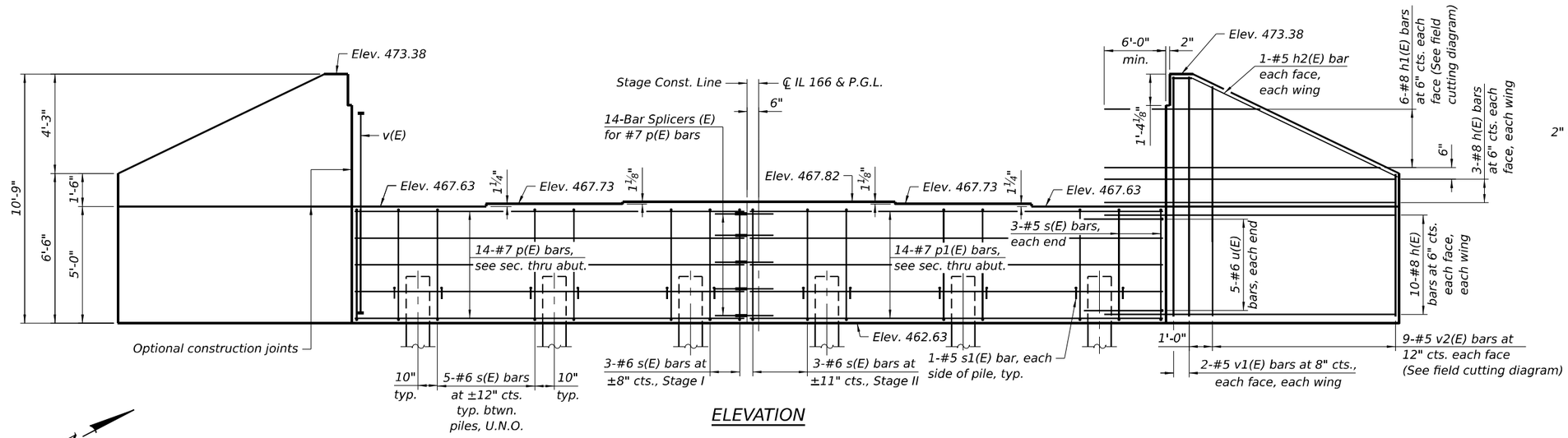

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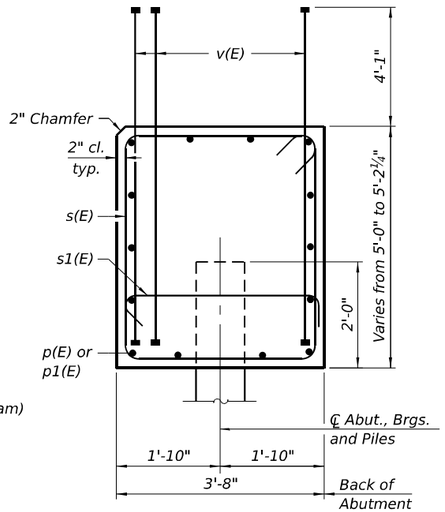
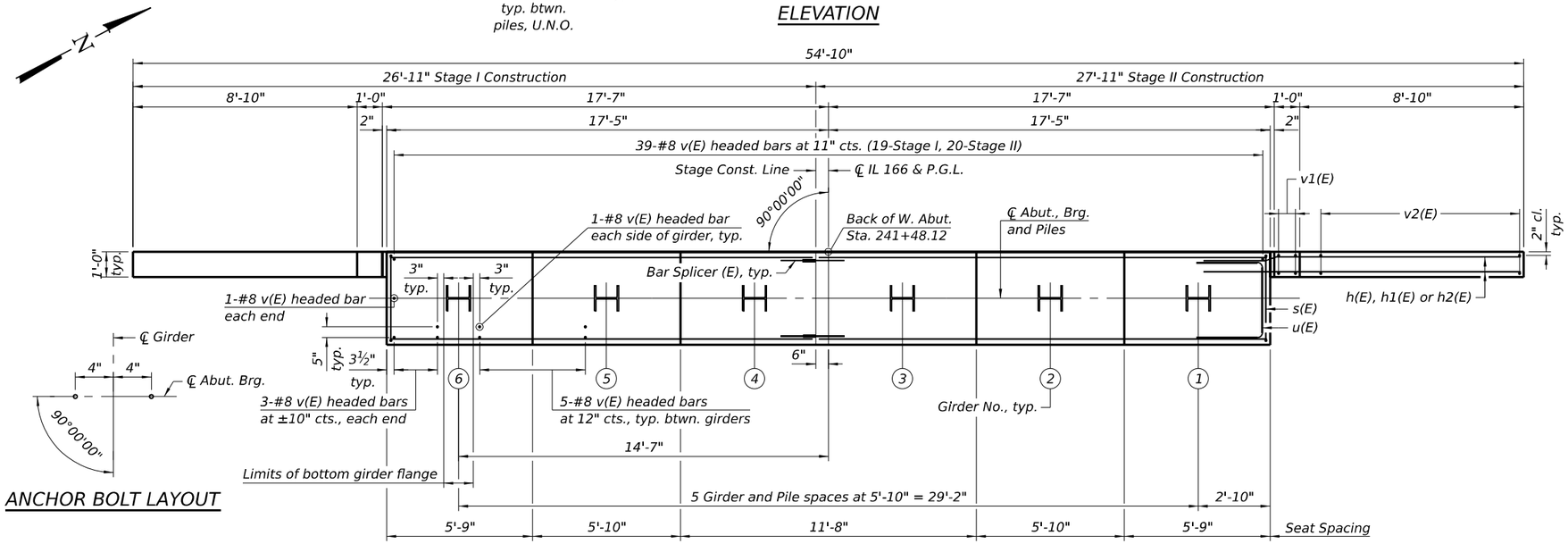
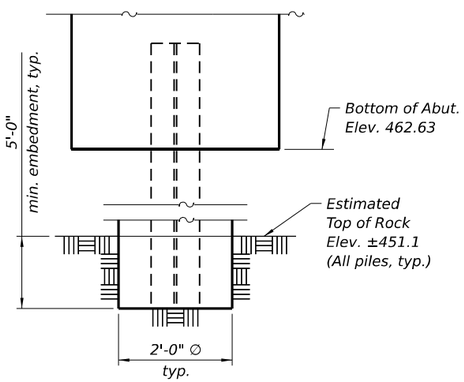


SEC. THRU ABUT.



PLAN

ANCHOR BOLT LAYOUT



ROCK SOCKET DETAIL

PILE DATA

Type: HP12x53
Nominal Required Bearing: Set in Rock
Factored Resistance Available: 542 kips
Est. Length: 19 ft.
No. Production Piles: 6
Est. Top of Rock: 451.1
Rock Socket Depth: 5'-0" min.
Rock Socket Diameter: 24"

Notes:
Pour steps monolithically with cap.
For details of piles see sheet 21 of 24.
Bar Terminators, paid for separately. See Total Bill of Material.
See sheet 20 of 24 for additional details and Bill of Material
See sheet 22 of 24 for Bar Splicer details.

MODEL: Default
FILE NAME: S:\2021\21IL033 - PTB 199-38 D9 - QEI - Various HRWC-13 & 18 IL-166 BR Replace PH1-2\100-0031\CADD\CADD Sheets\Final Plans\1000101-78209-018-West Abutment.dgn
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QUIGG ENGINEERING INC
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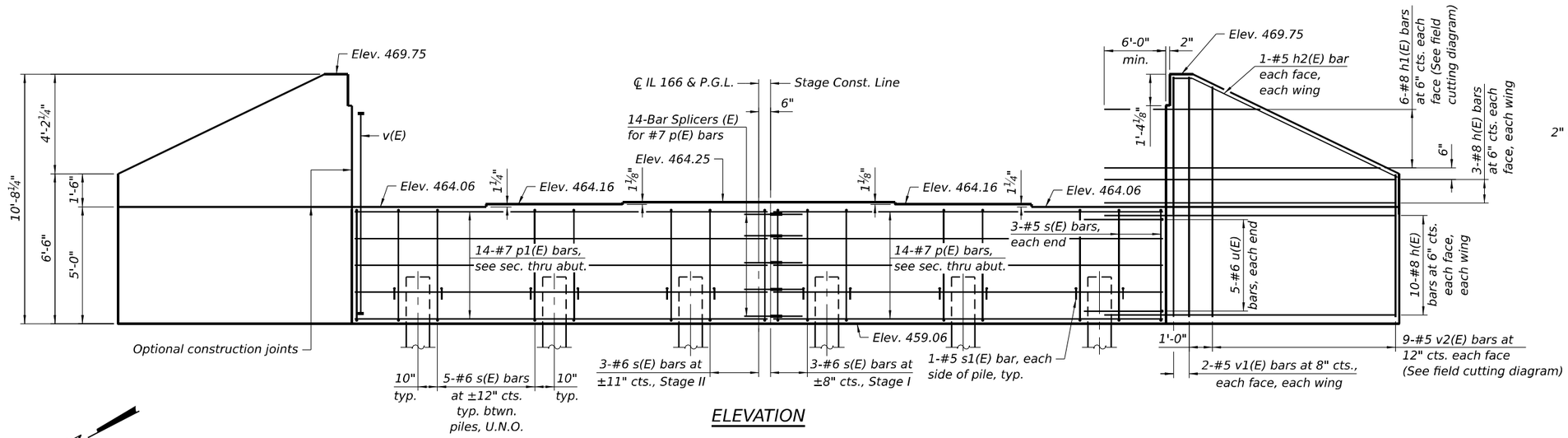
PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 100-0101
SHEET 18 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	44
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



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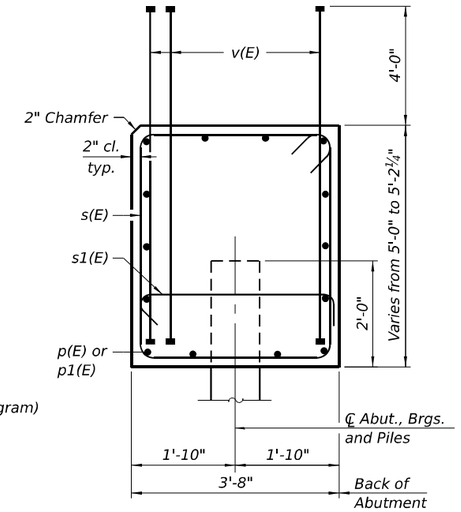

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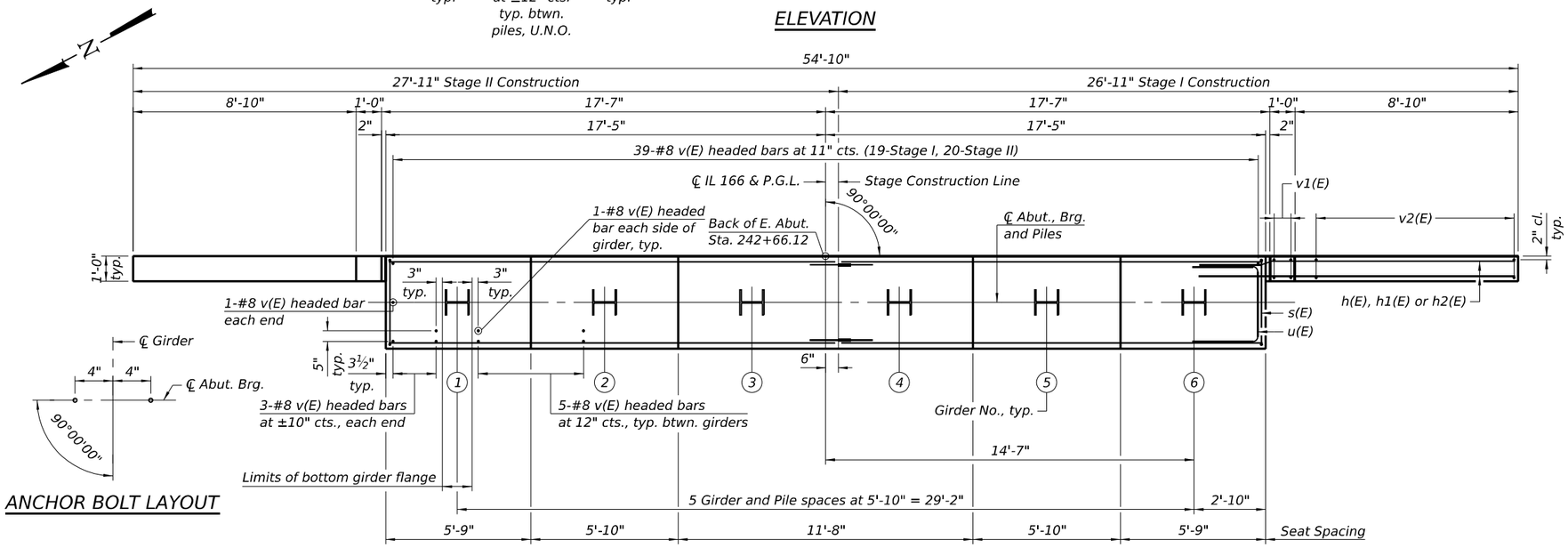
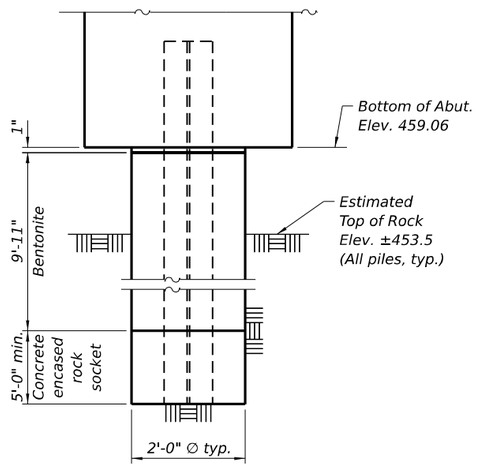


ANCHOR BOLT LAYOUT

PLAN



ROCK SOCKET DETAIL

PILE DATA

Type: HP12x53
Nominal Required Bearing: Set in Rock
Factored Resistance Available: 542 kips
Est. Length: 17 ft.
No. Production Piles: 6
Est. Top of Rock: 453.5
Rock Socket Depth: 5'-0" min.
Rock Socket Diameter: 24"

Notes:
Pour steps monolithically with cap.
For details of piles see sheet 21 of 24.
Bar Terminators, paid for separately. See Total Bill of Material.
Precored holes are required to allow lateral movement of the abutment piles within the very dense native soil. Hydrated bentonite shall be placed around each pile from 1" below the bottom of the proposed abutment to a minimum depth of 10' below the bottom of abutment. Below the 10' of bentonite shall be a 5' minimum rock socket encased in concrete.
The bentonite shall be mixed according to the manufacturer's recommendations to achieve a Qu of 1.5 tsf.
Cost of backfilling with concrete and bentonite shall be included with Drilling and Setting Piles (In Soil) and Drilling and Setting Piles (In Rock).
See sheet 20 of 24 for additional details and Bill of Material.
See sheet 22 of 24 for Bar Splicer details.

MODEL: Default
FILE NAME: S:\2021\21IL033 - PTB 199-38 D9 - QEI - Various I-WO-13 & 18 IL-166 BR Replace PH1-2 100-0031\CADD\CADD Sheets\Final Plans\1000101-78209-019-East Abutment.dgn
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QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

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PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 100-0101
SHEET 19 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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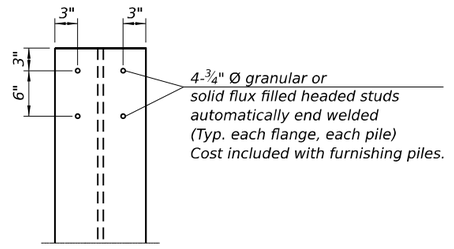
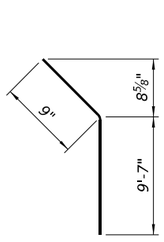
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

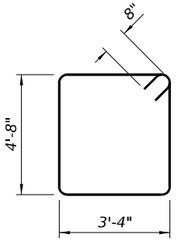


SEISMIC PILE DETAIL

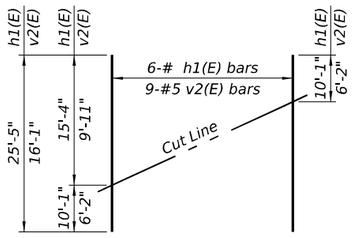
Note:
See sheets 18 and 19 of 24 for additional notes and details.



BAR h2(E)

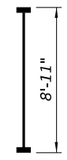


BAR s(E)

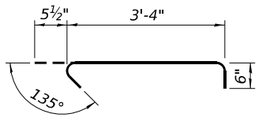


FIELD CUTTING DIAGRAM

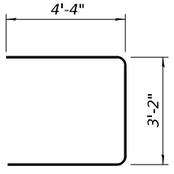
Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.



BAR v(E)
(Headed. 168-#8 Bar terminators)



BAR s1(E)



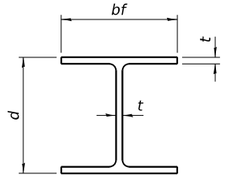
BAR u(E)

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	52	#8	15'-10"	
h1(E)	12	#8	25'-5"	
h2(E)	4	#5	10'-4"	
p(E)	14	#7	16'-7"	
p1(E)	14	#7	17'-7"	
s(E)	32	#6	17'-4"	
s1(E)	12	#5	4'-4"	
u(E)	10	#6	11'-10"	
v(E)	84	#8	8'-11"	
v1(E)	8	#5	10'-4"	
v2(E)	18	#5	16'-1"	
Structure Excavation		Cu. Yd.	368	
Concrete Structures		Cu. Yd.	30.7	
Reinforcement Bars, Epoxy Coated		Pound	7,490	
Furnishing Steel Piles HP12x53		Foot	114	
Drilling and Setting Piles (In Soil)		Cu. Ft.	217.4	
Drilling and Setting Piles (In Rock)		Cu. Ft.	103.2	

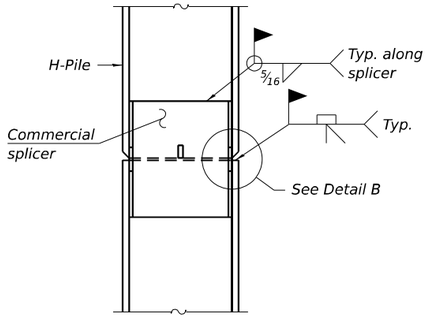
EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	52	#8	15'-10"	
h1(E)	12	#8	25'-5"	
h2(E)	4	#5	10'-4"	
p(E)	14	#7	16'-7"	
p1(E)	14	#7	17'-7"	
s(E)	32	#6	17'-4"	
s1(E)	12	#5	4'-4"	
u(E)	10	#6	11'-10"	
v(E)	84	#8	8'-11"	
v1(E)	8	#5	10'-4"	
v2(E)	18	#5	16'-1"	
Structure Excavation		Cu. Yd.	366	
Concrete Structures		Cu. Yd.	30.7	
Reinforcement Bars, Epoxy Coated		Pound	7,490	
Furnishing Steel Piles HP12x53		Foot	102	
Drilling and Setting Piles (In Soil)		Cu. Ft.	104.9	
Drilling and Setting Piles (In Rock)		Cu. Ft.	178.0	



STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 18x181	18	18	1	36"
x157	17¾"	17⅞"	⅞"	36"
x135	17½"	17¾"	¾"	36"
HP 16x183	16½"	16½"	1⅛"	36"
x162	16¼"	16⅛"	1"	36"
x141	16	16	⅞"	36"
x121	15¾"	15⅞"	¾"	36"
HP 14x117	14¼"	14⅞"	13/16"	30"
x102	14"	14¾"	11/16"	30"
x89	13⅞"	14¾"	⅝"	30"
x73	13⅝"	14⅝"	½"	30"
HP 12x84	12¼"	12¼"	11/16"	24"
x74	12⅛"	12¼"	⅝"	24"
x63	12"	12⅛"	½"	24"
x53	11¾"	12"	7/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9¾"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



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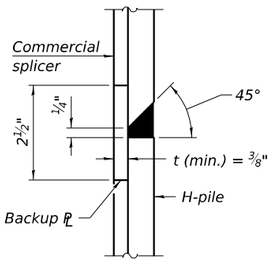
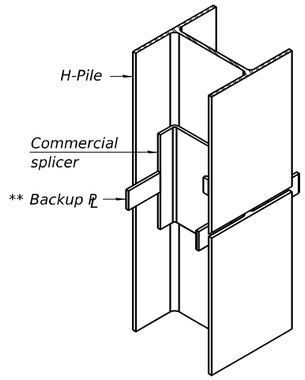
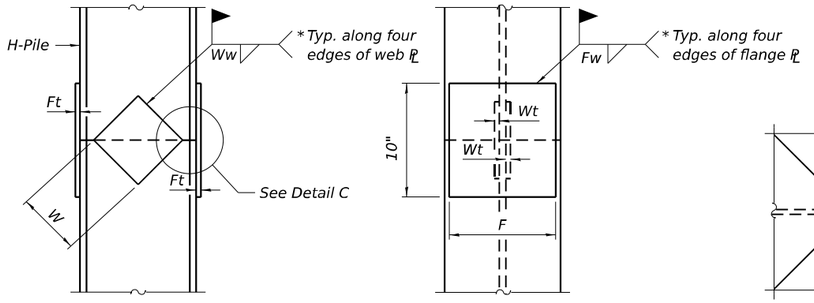


DETAIL B



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



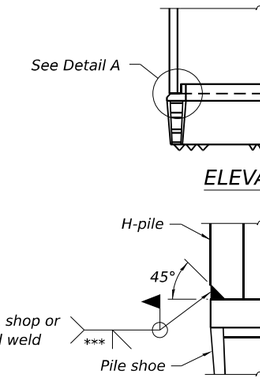
ELEVATION

END VIEW

DETAIL C

Designation	F	Ft	Fw	W	Wt	Ww
HP 18x181	15½"	1½"	1"	9½"	⅞"	¾"
x157	15¼"	1¼"	1"	9½"	⅞"	¾"
x135	15¼"	1¼"	1"	9½"	⅞"	¾"
HP 16x183	13¾"	1½"	1"	8¼"	⅞"	¾"
x162	13½"	1½"	1"	8¼"	¾"	⅝"
x141	13½"	1¼"	⅞"	8¼"	¾"	⅝"
x121	13½"	1¼"	⅞"	8¼"	¾"	⅝"
HP 14x117	12½"	1¼"	⅞"	7¾"	⅝"	½"
x102	12½"	1"	¾"	7¾"	⅝"	½"
x89	12½"	⅞"	11/16"	7¾"	⅝"	½"
x73	12½"	¾"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	1"	11/16"	6½"	⅝"	½"
x74	10"	⅞"	11/16"	6½"	⅝"	½"
x63	10"	¾"	½"	6½"	½"	⅜"
x53	10"	¾"	½"	6½"	½"	⅜"
HP 10x57	8"	⅞"	9/16"	5¼"	½"	⅜"
x42	8"	¾"	9/16"	5¼"	½"	⅜"
HP 8x36	6¾"	⅝"	7/16"	4"	½"	⅜"

WELDED PLATE FIELD SPLICE



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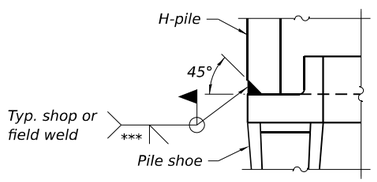
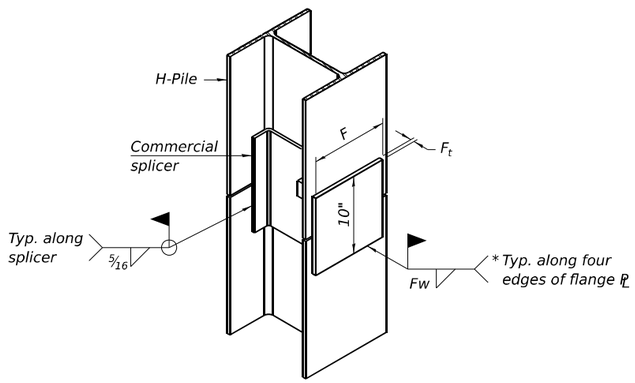


DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



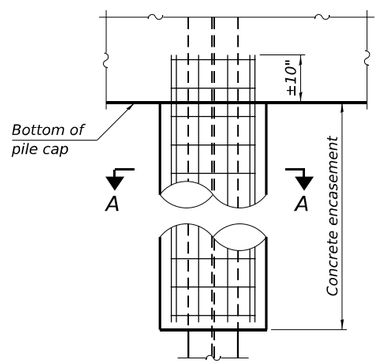
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

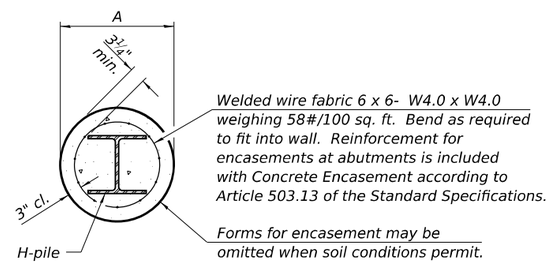
* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup PL's that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



ELEVATION

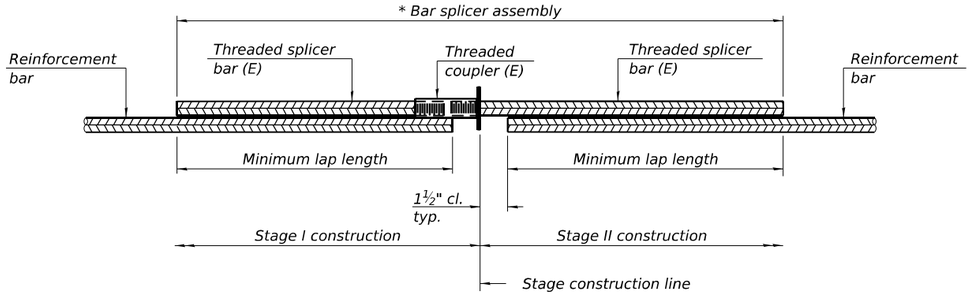


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

(when specified)

F-HP 4-4-2025



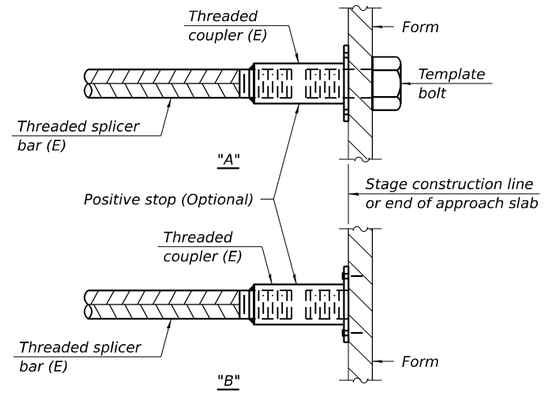
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + 1½" + thread length

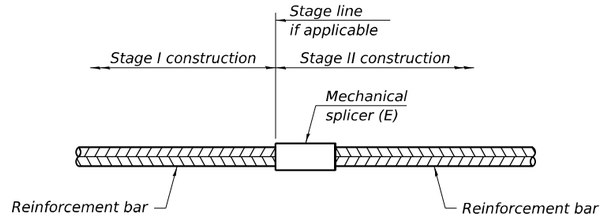
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	326	3'-10"
W. Diaphragm, m10(E)	#6	6	3'-0"
E. Diaphragm, m10(E)	#6	6	3'-0"
W. Appr. Slab	#5	46	2'-6"
W. Appr. Slab	#8	60	4'-4"
E. Appr. Slab	#5	46	2'-6"
E. Appr. Slab	#8	60	4'-4"
W. Appr. Footing	#5	40	2'-1"
E. Appr. Footing	#5	40	2'-1"
W. Abut.	#7	14	4'-1"
E. Abut.	#7	14	4'-1"



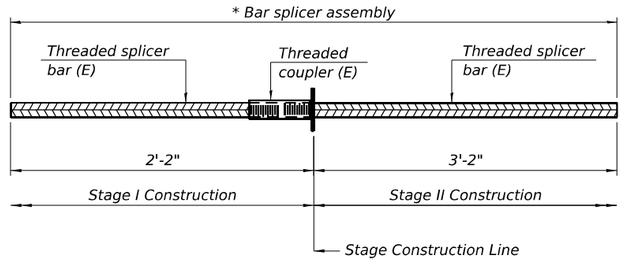
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

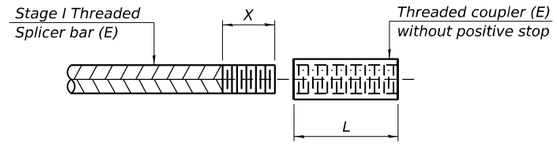


STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required
W. Diaphragm	#6	5
E. Diaphragm	#6	5



THREADING OF ASSEMBLIES

The threaded length "X" shall be no more than L/2. The bar should be tightened until 0-1 thread(s) is/are exposed.

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

MODEL: Default
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8/14/2025 8:47:06 AM

QUIGG ENGINEERING INC
DESIGN FIRM REG. NO. 184.004721-0014

USER NAME = ZDavidson	DESIGNED - ZLD	REVISED -	
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PLOT SCALE = 0.167 ' / in.	DRAWN - JDC	REVISED -	
PLOT DATE =	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 100-0101
SHEET 22 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	48
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 11/1/13

ROUTE FAS 904 (IL 166) DESCRIPTION Bridge over Sugar Creek LOGGED BY L. Estel

SECTION 101B-1 (existing) LOCATION At ECL of Creal Springs (near E. Abut.), SEC. 25, TWP. 10S, RNG. 3E, 3 PM

COUNTY Williamson DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

STRUCT. NO. 100-0031
Station 242+10

BORING NO. 1-S
Station 242+72
Offset 12.0ft Rt
Ground Surface Elev. 469.3 ft

Surface Water Elev. 449.7 ft
Stream Bed Elev. ft

Groundwater Elev.:
▽ First Encounter ft
▼ Upon Completion ft
▼ After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	
Cored pavement, 18" HMA				
467.80				
Stiff Brown, Moist SILTY CLAY	2			
	2 2	1.5 B	17	
464.80				
-5 Medium Brown, V. Moist CLAY	1			
	1 1	0.7 B	27	
462.30				
Stiff Brown, Moist SILTY CLAY LOAM % Fines <#200: 90%, LL 34, PI 14 (Estimated - based on visual ID and historical database)	1			
	1 2	1.1 B	24	
459.80				
-10 Medium Brown, V. Moist SANDY CLAY LOAM to CLAY LOAM % Fines <#200: 50%, LL<40, PI>11 (Estimated - based on visual ID and historical database)	1			
	2 1	0.6 S	14	
	WOH			
	1 1	0.6 S	18	
454.80				
-15 Loose Brown and Grey, Moist Broken SANDSTONE with CLAY	2			
453.50	7 50/3"			
(Borehole continued with rock coring.)				
-20				

Bottom of hole @ 30.8 ft

No free water observed

Ground surface elevation referenced to Benchmark @ SW corner of SN 100-0031; Elev. 470.40

Hammer Efficiency: 75%
To convert "N" values to "N60", multiply by 1.25

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\MATERIALS GEOTECHNICAL UNIT\GINT\PROJECTS\PROJECTS FILE\WILLIAMSON\STRUCTURES\100-0031 IL 166 OVER SUGAR CREEK 2020.GPJ Data Template D6TEMPLT.GDT Date Printed 5/4/21
Latitude 37 37 00.88 Longitude -88 49 40.61 Datum NAD83 Jo's Number

Illinois Department of Transportation
Division of Highways
District 9

ROCK CORE LOG

Date 11/1/13

ROUTE FAS 904 (IL 166) DESCRIPTION Bridge over Sugar Creek LOGGED BY L. Estel

SECTION 101B-1 (existing) LOCATION At ECL of Creal Springs (near E. Abut.), SEC. 25, TWP. 10S, RNG. 3E, 3 PM

COUNTY Williamson CORING METHOD Conventional rotary with water

STRUCT. NO. 100-0031
Station 242+10

CORING BARREL TYPE & SIZE NV3 5FT NWJ
Core Diameter 1.78 in
Top of Rock Elev. 453.80 ft
Begin Core Elev. 453.50 ft

BORING NO. 1-S
Station 242+72
Offset 12.0ft Rt
Ground Surface Elev. 469.3 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
V. Dense Brown and Grey, Dry SANDSTONE	1	100	57		315.3
					240.1
					331.2
-20					
(Grey)	2	100	48		
					375.2
-25					220.2
443.50					
Hard Grey, Dry CLAY SHALE and SANDSTONE	3	93	28		
					361.9
					443.8
-30					542.5
438.50					
Ground surface elevation referenced to BM at SW corner of SN 100-0031; Elev. 470.40					
-35					

Color pictures of the cores Yes, attached
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run **BBS, form 138 (Rev. 8-99)**

ROCK CCRE 100-0031 IL 166 OVER SUGAR CREEK 2020.GPJ D6TEMPLT.GDT 5/4/21

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8/14/2025 8:47:07 AM

QUIGG ENGINEERING INC	USER NAME = ZDavidson	DESIGNED - ZLD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 100-0101
DESIGN FIRM REG. NO. 184.004721-0014	1000101-78209-023-Boring Logs_new.dgn	CHECKED - DRB	REVISED -		SHEET 23 OF 24 SHEETS
	PLOT SCALE = 0.167 ' / in.	DRAWN - JDC	REVISED -		
	PLOT DATE =	CHECKED - MDC	REVISED -		

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	49
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 11/4/13

ROUTE FAS 904 (IL 166) **DESCRIPTION** Bridge over Sugar Creek **LOGGED BY** L. Estel

SECTION 101-B (original) **LOCATION** At ECL of Creal Springs (near W. Abut.), **SEC.** 25, **TWP.** 10S, **RNG.** 3E, 3 **PM**

COUNTY Williamson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 3.25" I.D.) **HAMMER TYPE** Auto SPT 140 lbs

STRUCT. NO. 100-0031
Station 242+10

BORING NO. 2-S
Station 241+40
Offset 10.0ft Lt
Ground Surface Elev. 473.1 ft

Surface Water Elev. 449.7 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 453.6 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				Cored Pavement, 16" HMA
471.60				
				Soil over Concrete Pavement
469.60				
	1			Stiff Brown and mottled Grey, Moist to V. Moist SILTY CLAY
	1	1.1	20	
-5	1	B		
	1			
	1	1.1	20	
	2	S		
464.60				
	1			Medium Brown, V. Moist CLAY
	1	0.6	23	
-10	2	B		
461.60	WOH			
	1	0.3	29	Soft Grey, V. Moist SILTY CLAY LOAM
	1	B		% Fines <#200: 90%, LL 34, PI 14 (Est. based on visual ID and historical database)
459.60				
	1			Soft Grey and Brown, V. Moist SANDY CLAY LOAM to CLAY LOAM
	1	0.3	22	% Fines <#200: 50%, LL<40, PI>11 (Est. based on visual ID and historical database)
-15	1	B		
457.10				
	2			Stiff Grey, Moist SILT LOAM
	2	1.2	21	% Fines <#200: 91%, LL 28, PI 9 (Est. based on visual ID and historical database)
	4	B		
454.60				
	WOH			
▽	WOH	0.1	25	
-20	1	B		

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				V. Soft Grey, Wet SILTY CLAY % Fines <#200: 85%, LL 44, PI 23 (Est. based on visual ID and historical database) *(continued)*
	WOH			
451.10	1			V. Dense Grey and Brown, Damp SANDSTONE
450.90	100/2"			
				(Borehole continued with rock coring.)
				Bottom of hole @ 37.2 ft
-25				
				Free water observed @ 19.5 ft
				Ground surface elevation referenced to benchmark at SW corner of SN 100-0031; Elev. 470.40
				Hammer efficiency : 75% To convert "N" values to "N60", multiply by 1.25
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\MATERIALS GEOTECHNICAL UNIT\GINT\PROJECTS\PROJECTS FILE\WILLIAMSON\STRUCTURES\100-0031 IL 166 OVER SUGAR CREEK 2020.GPJ Data Template D6TEMPLT.GDT Date Printed 5/4/21
Latitude 37 37 01.70 Longitude -88 49 42.10 Datum NAD83 Joo Number

Illinois Department of Transportation
Division of Highways
District 9

ROCK CORE LOG

Date 11/4/13

ROUTE FAS 904 (IL 166) **DESCRIPTION** Bridge over Sugar Creek **LOGGED BY** L. Estel

SECTION 101B-1 (existing) **LOCATION** At ECL of Creal Springs (near W. Abut.), **SEC.** 25, **TWP.** 10S, **RNG.** 3E, 3 **PM**

COUNTY Williamson **CORING METHOD** Conventional rotary with water

STRUCT. NO. 100-0031
Station 242+10

BORING NO. 2-S
Station 241+40
Offset 10.0ft Lt
Ground Surface Elev. 473.1 ft

CORING BARREL TYPE & SIZE NV3 5FT NWJ
Core Diameter 1.78 in
Top of Rock Elev. 451.10 ft
Begin Core Elev. 450.90 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	Description
450.90	1	100	77			V. Dense Grey, Dry SANDSTONE
					260.7	
					322.6	
-25						
					313.1	
					459.4	
					182.2	
	2	100	100			V. Dense Grey, Dry SANDSTONE
					323.8	
					317.9	
-30						
					444.5	
					377.9	
	3	100	100			V. Dense Grey, Dry SANDSTONE
					436.1	
-35					483	
					374.2	
435.60						
-40						
						Ground surface elevation referenced to BM at SW corner of SN 100-0031; Elev. 470.40

ROCK CORE 100-0031 IL 166 OVER SUGAR CREEK 2020.GPJ D6TEMPLT.GDT 5/4/21

Color pictures of the cores Yes, On File
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run **BBS, form 138 (Rev. 8-99)**

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DESIGN FIRM REG. NO. 184.004721-0014	1000101-78209-024-Boring Logs.dgn	CHECKED - DRB	REVISED -		SHEET 24 OF 24 SHEETS
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	PLOT DATE =	CHECKED - MDC	REVISED -		

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		

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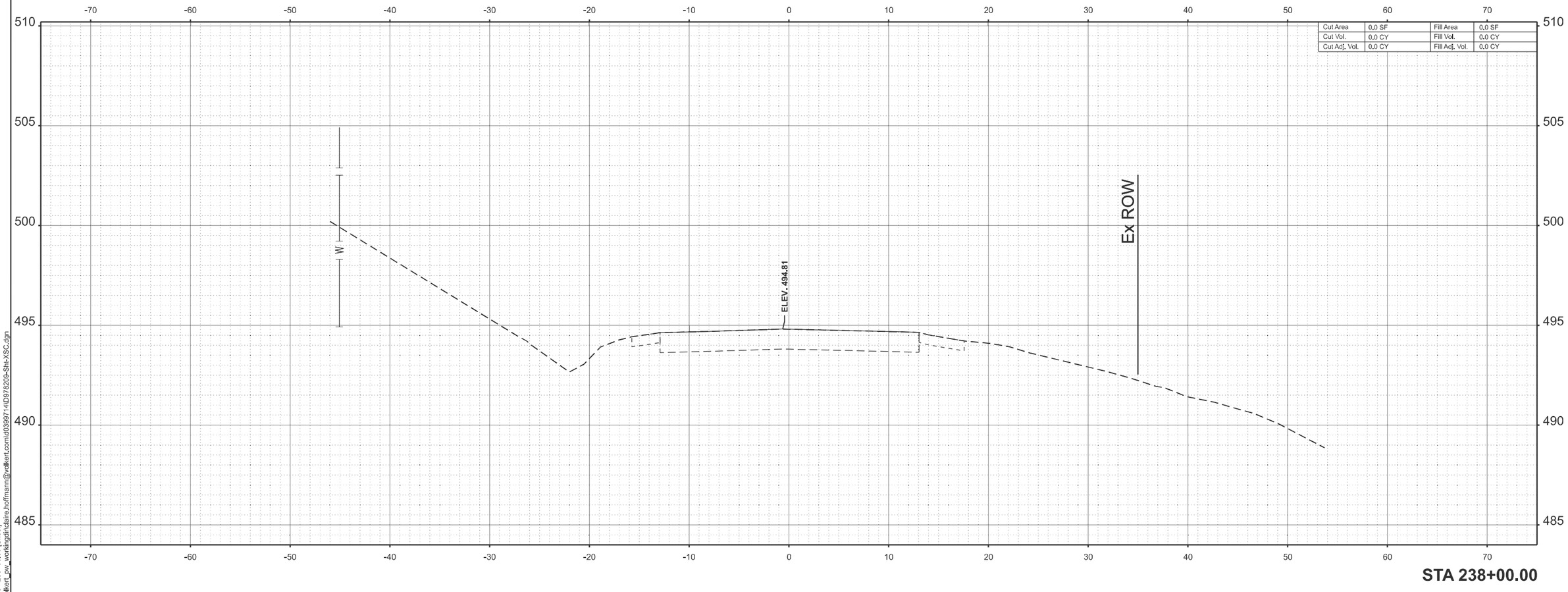

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/8/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 1 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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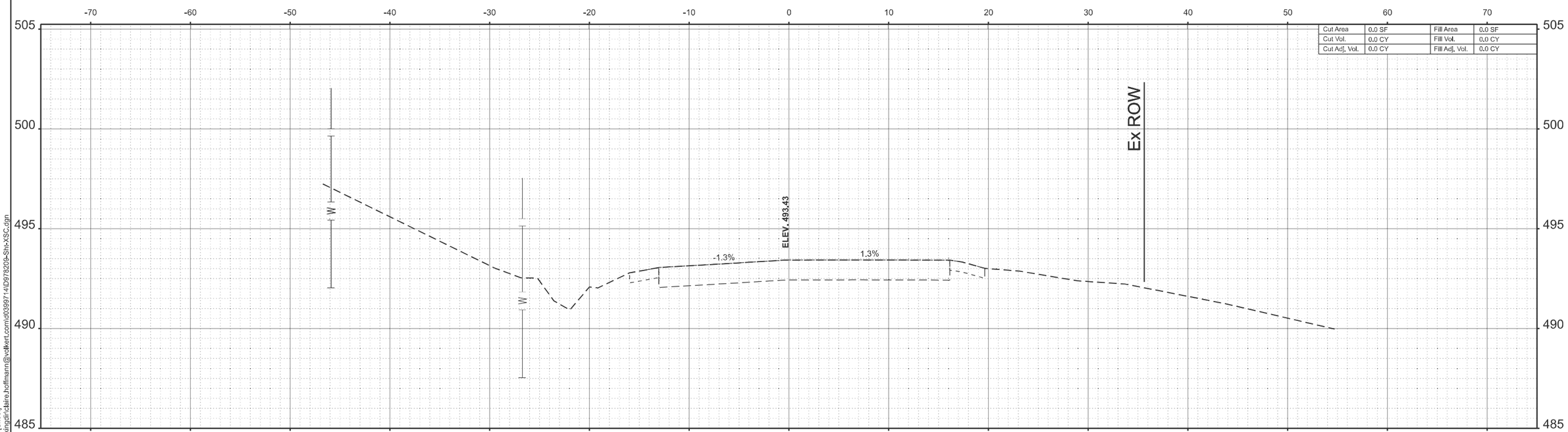
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 2 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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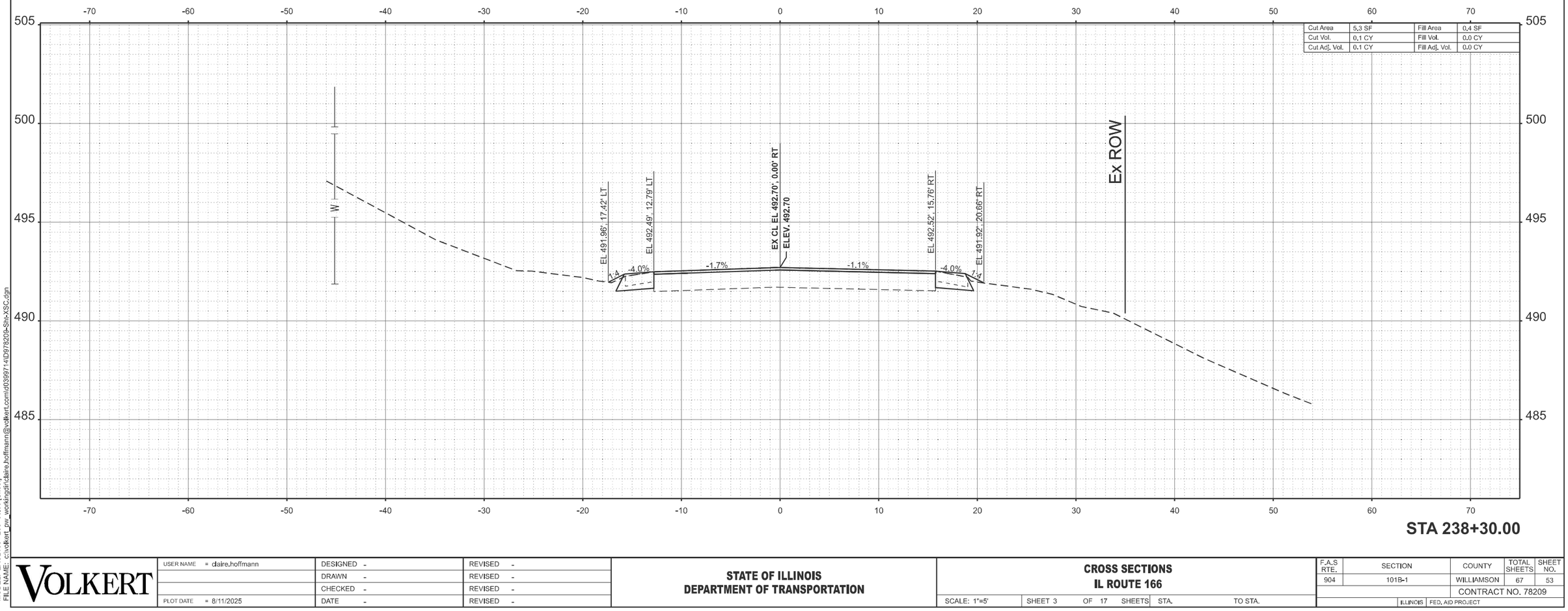
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 3 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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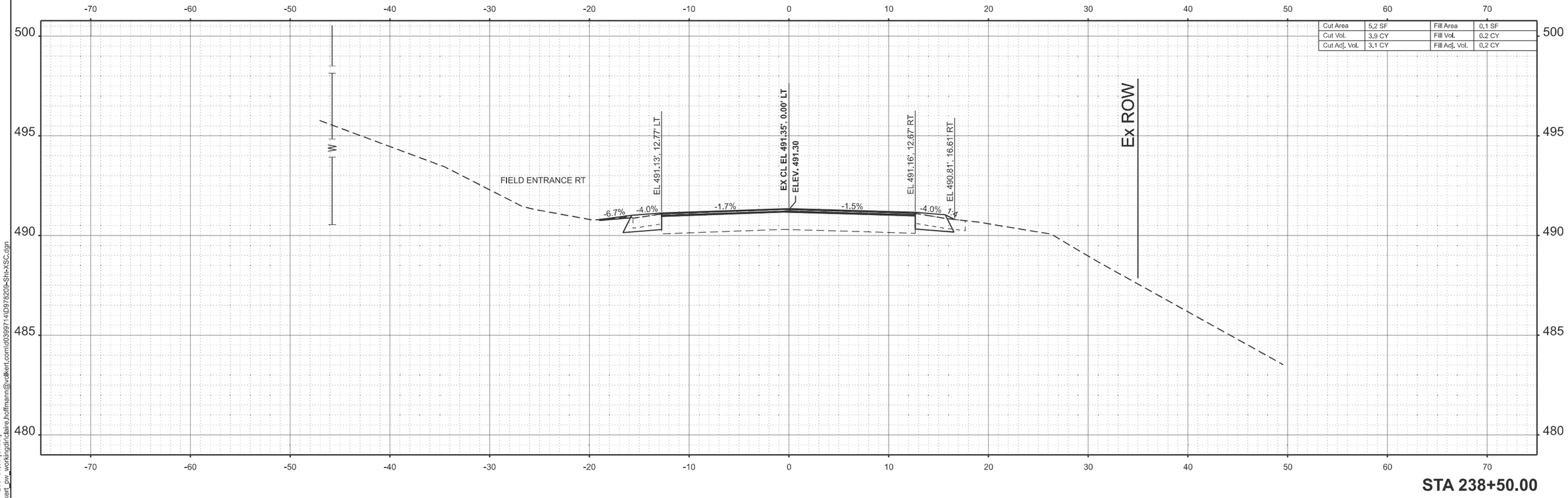
	ILLINOIS FED. AID PROJECT			



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	CHECKED -	REVISED -	
PLOT DATE = 8/11/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 4 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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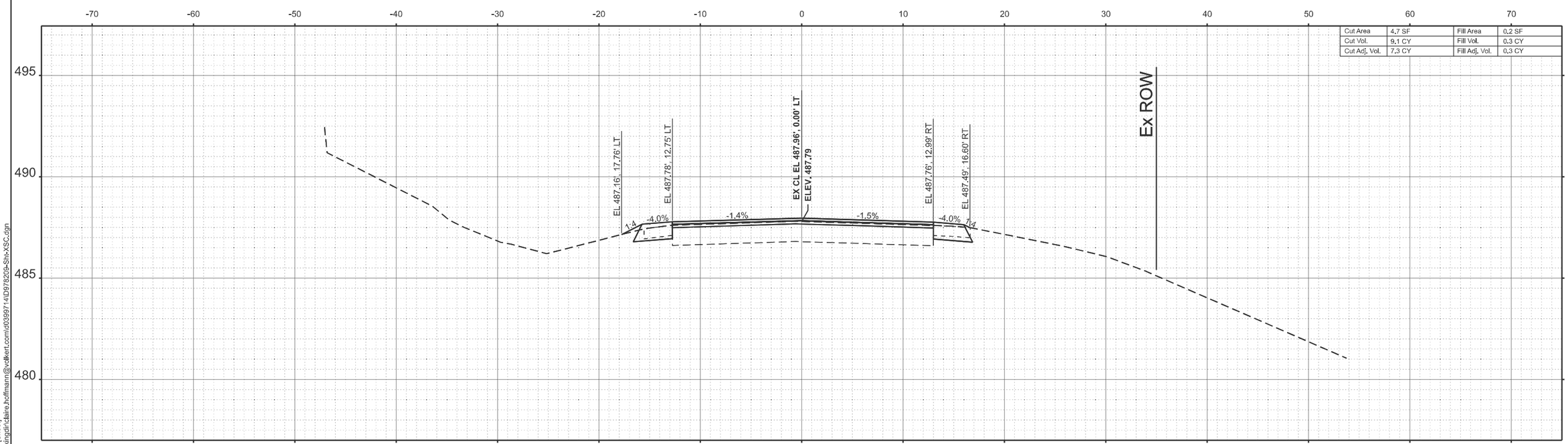

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	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 5 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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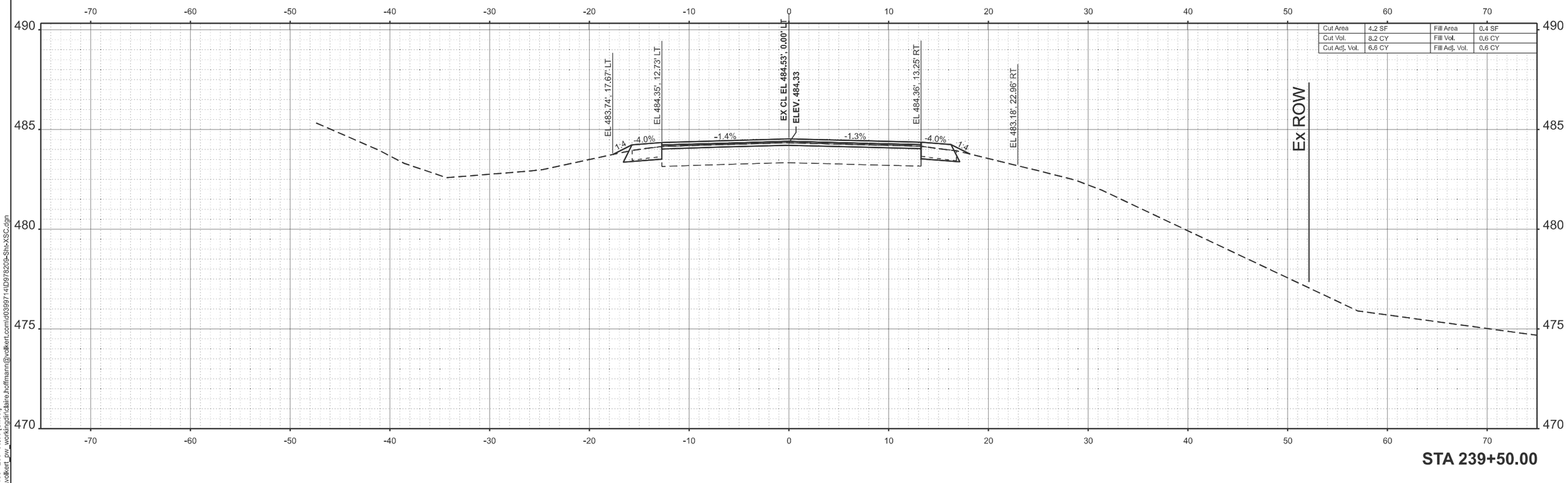

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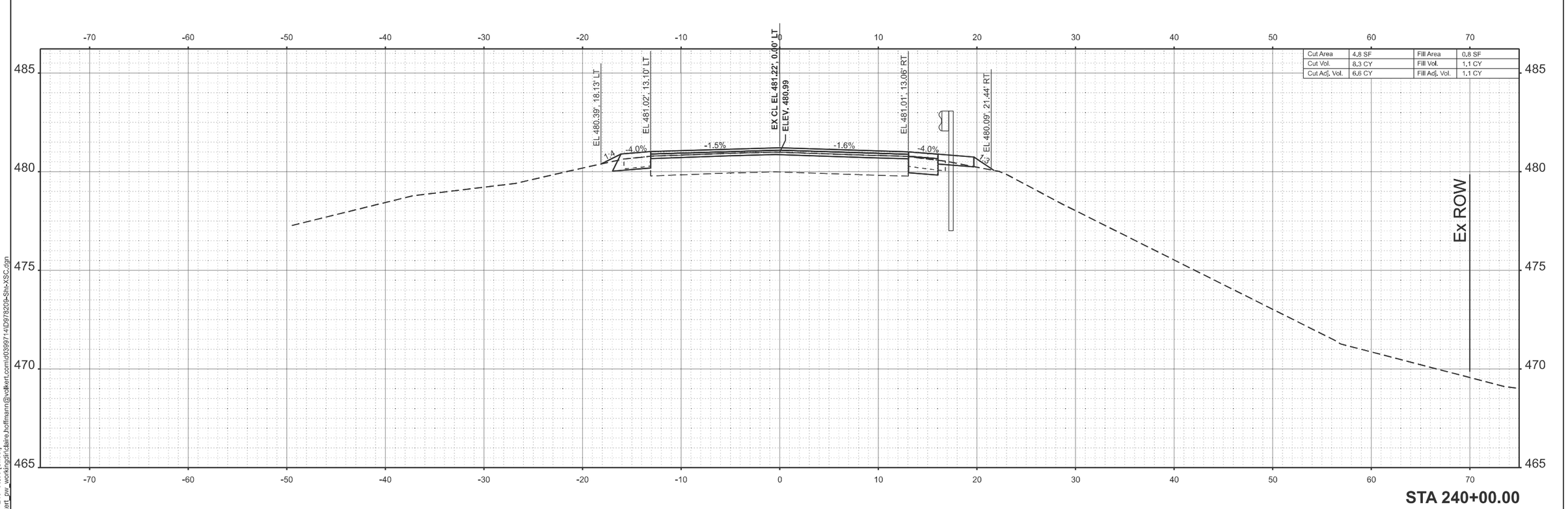
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 6 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	56
		CONTRACT NO. 78209		
		ILLINOIS	FED. AID PROJECT	



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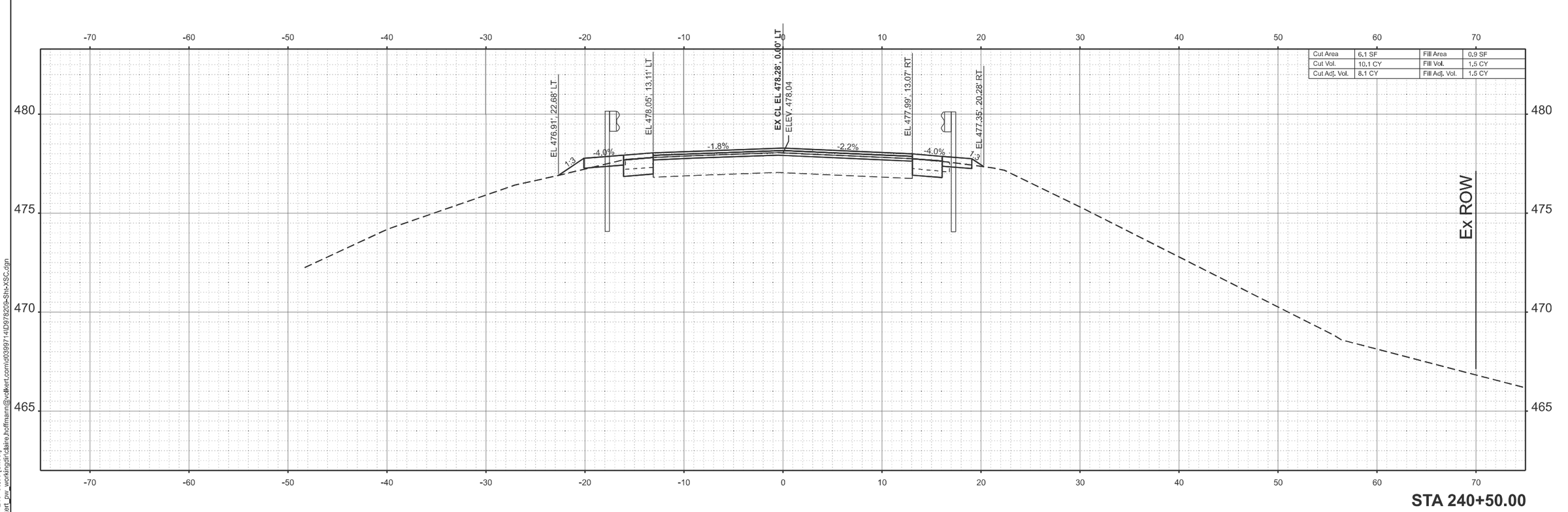
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 7 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	57
		CONTRACT NO. 78209		
		ILLINOIS	FED. AID PROJECT	



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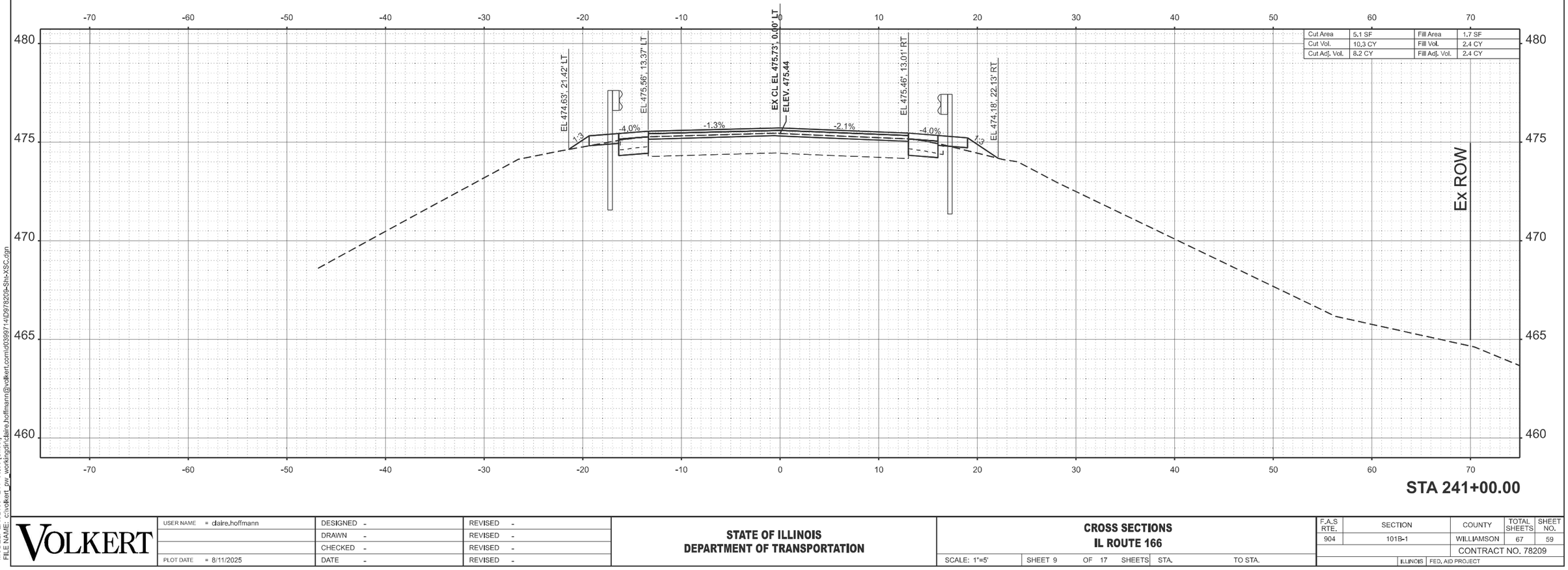
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 8 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	58
		CONTRACT NO. 78209		
		ILLINOIS FED. AID PROJECT		



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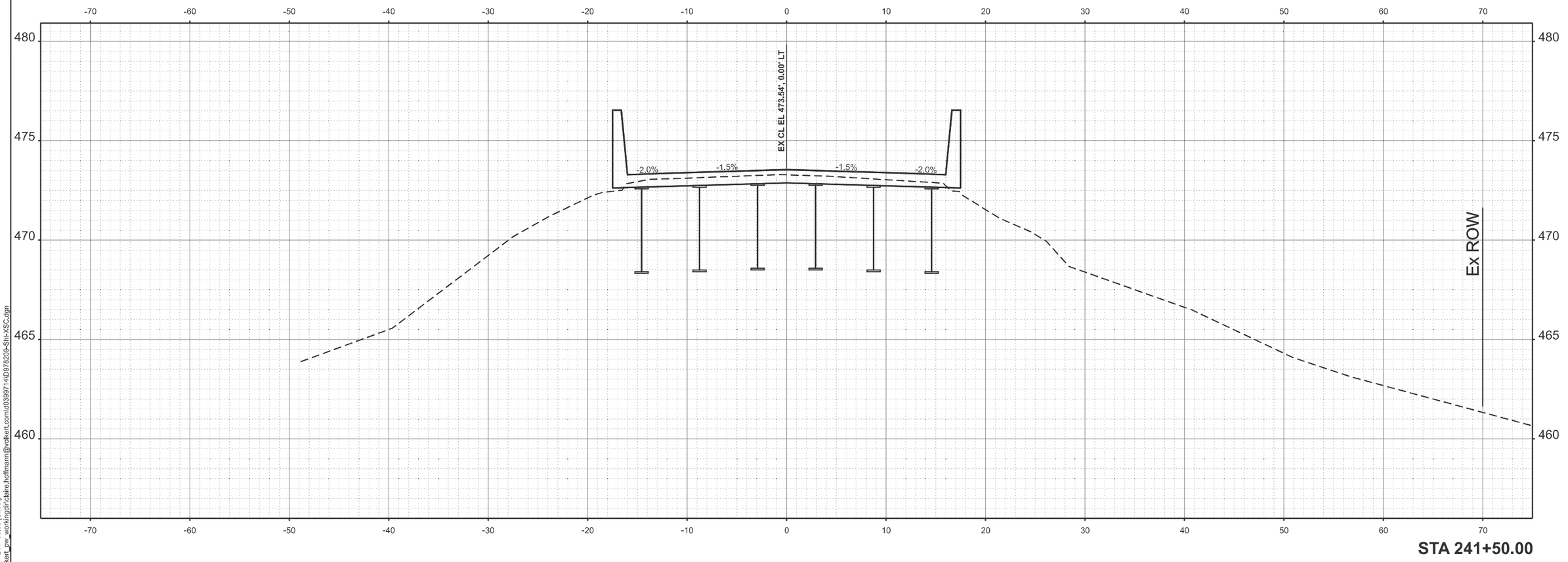
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 9 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	59
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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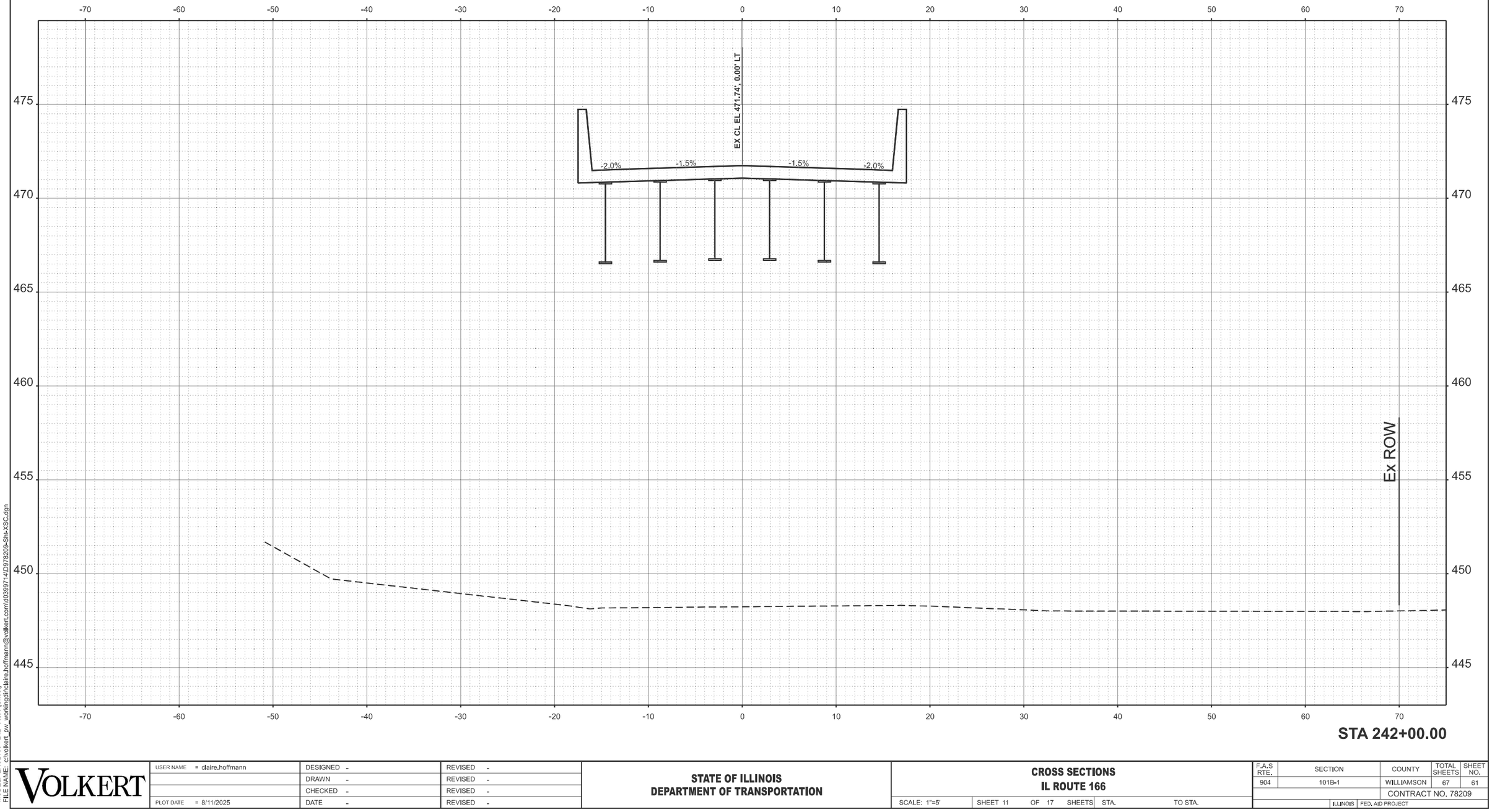
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 10 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	60
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



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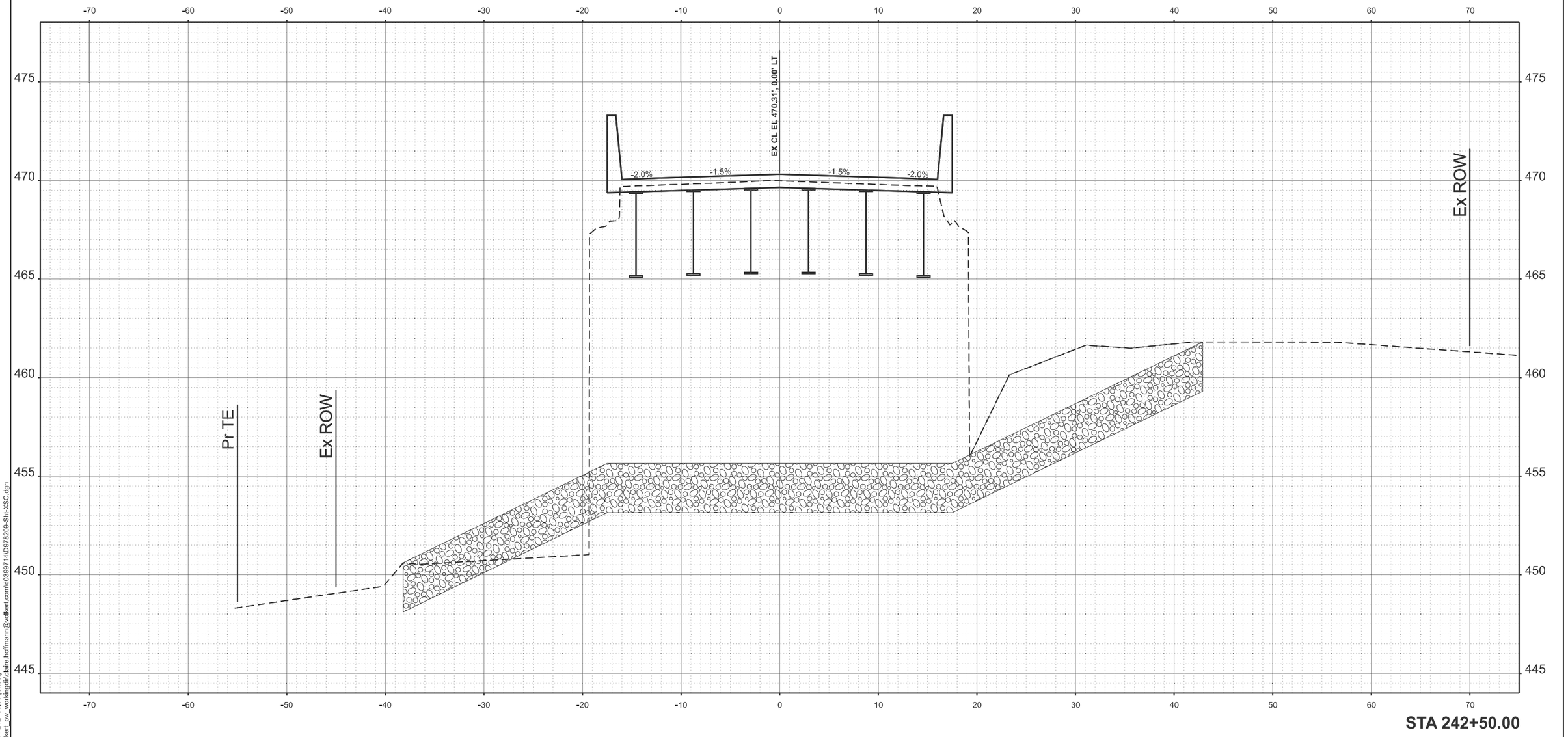
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 11 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	61
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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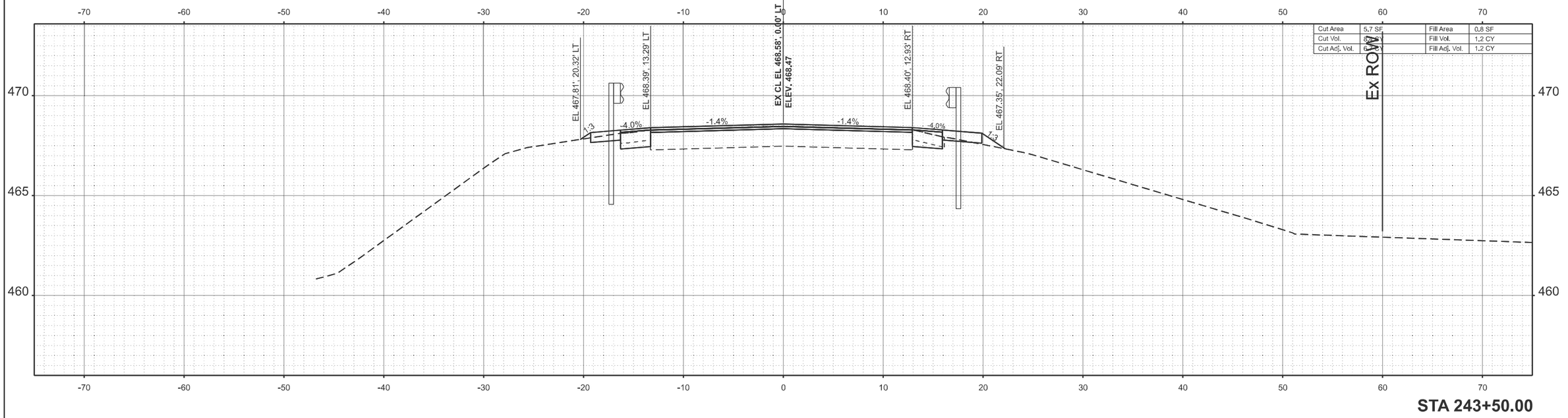
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 12 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	62
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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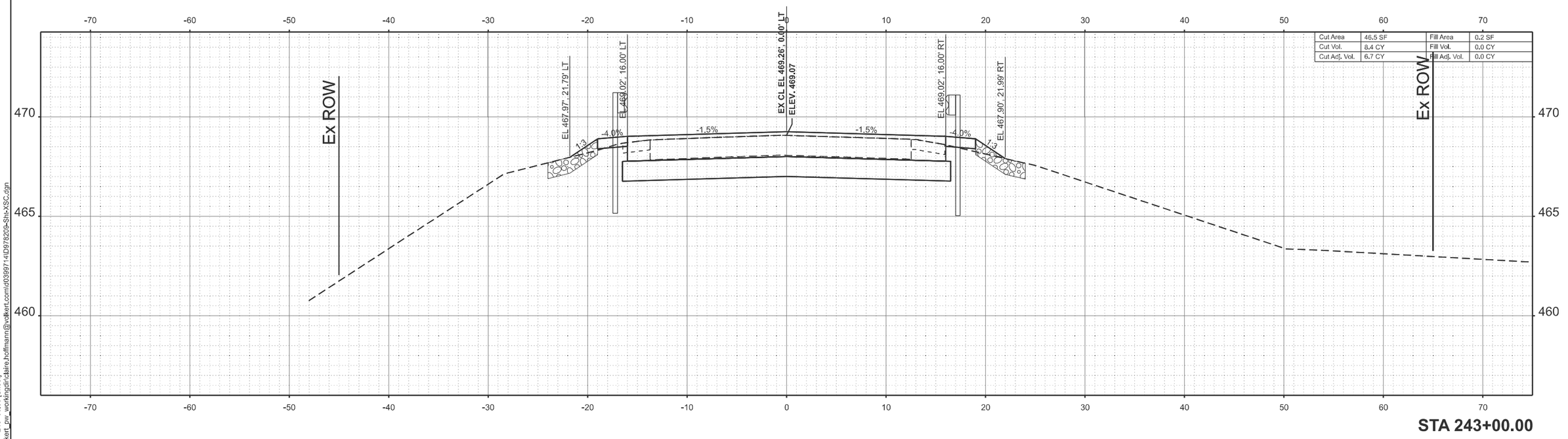

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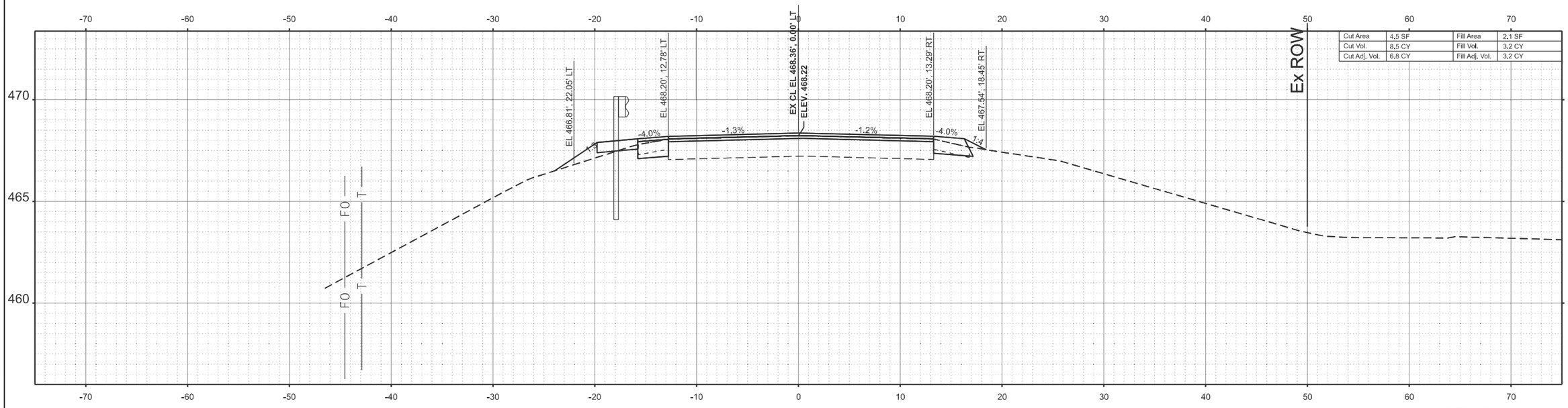
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 13 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	63
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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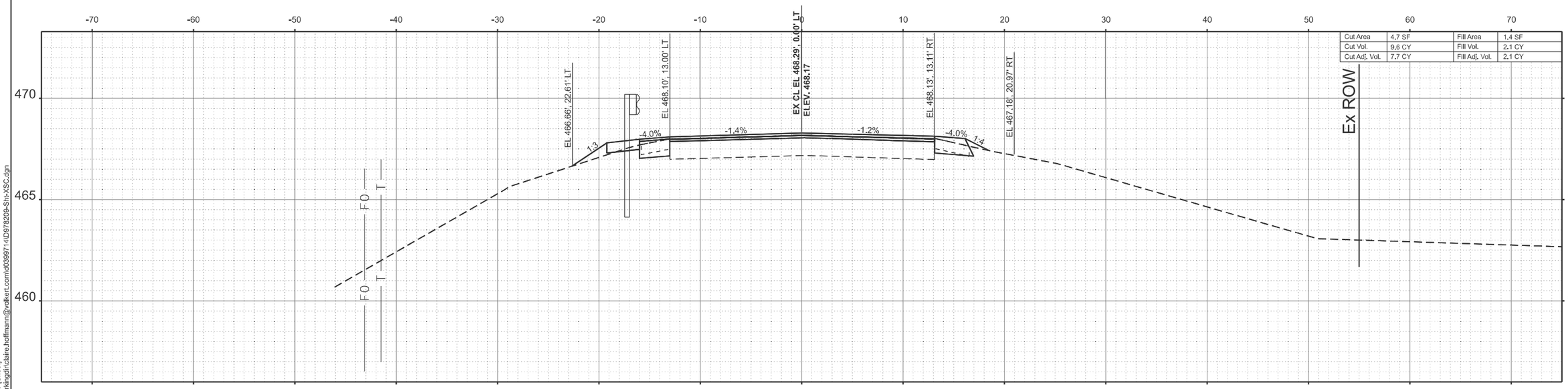

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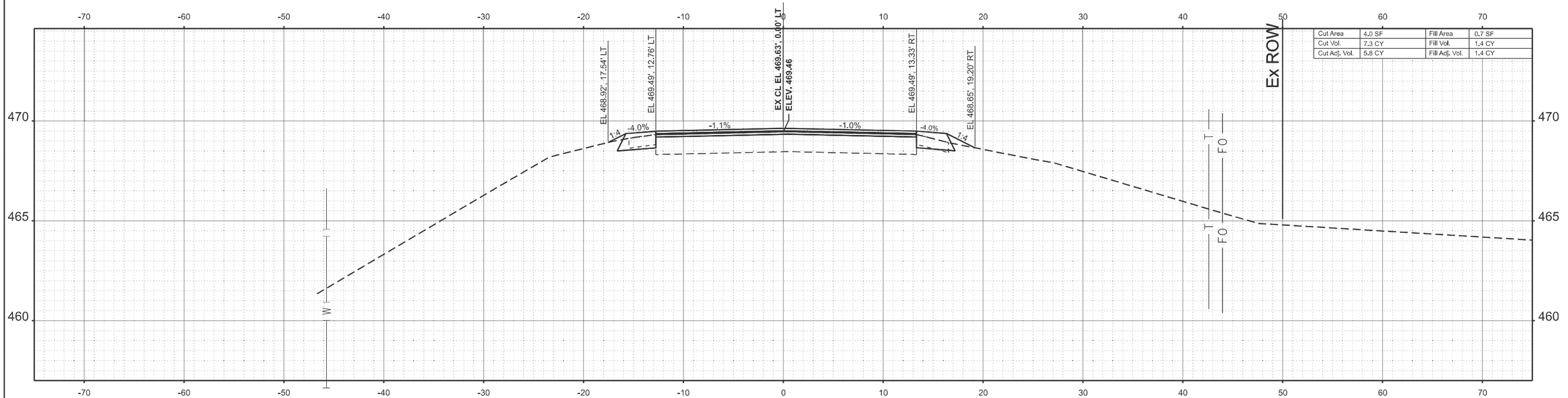
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 14 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	64
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			



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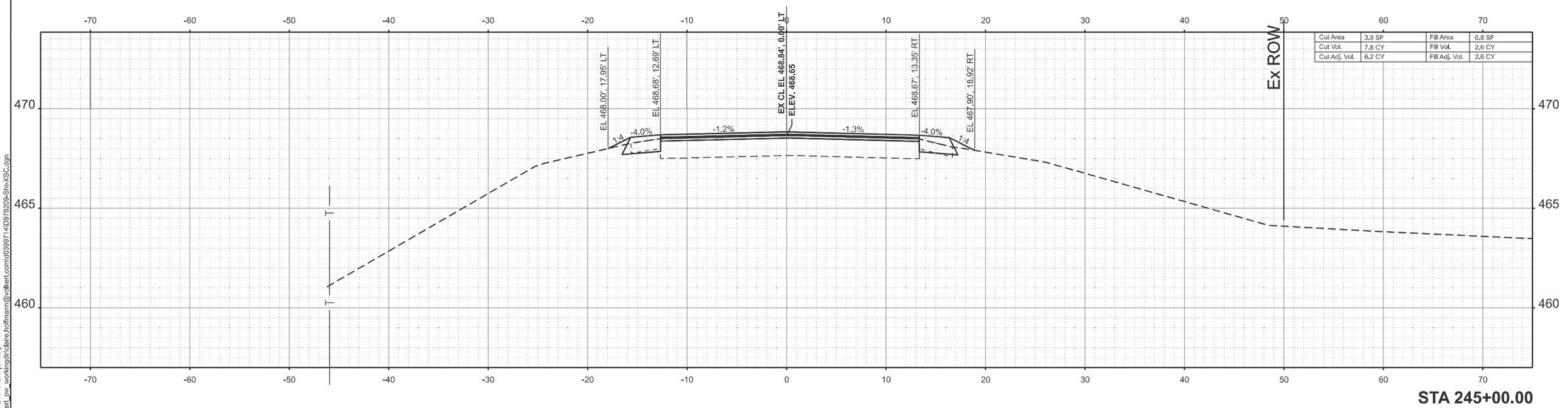

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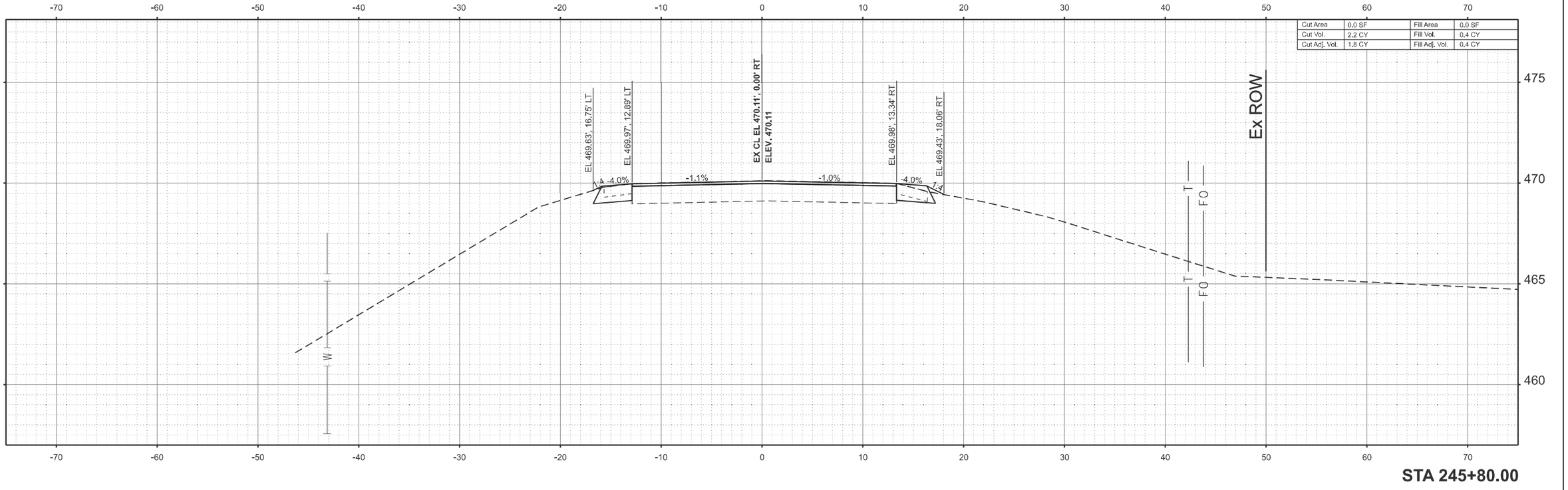
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 15 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	65
		CONTRACT NO. 78209		
	ILLINOIS	FED. AID PROJECT		



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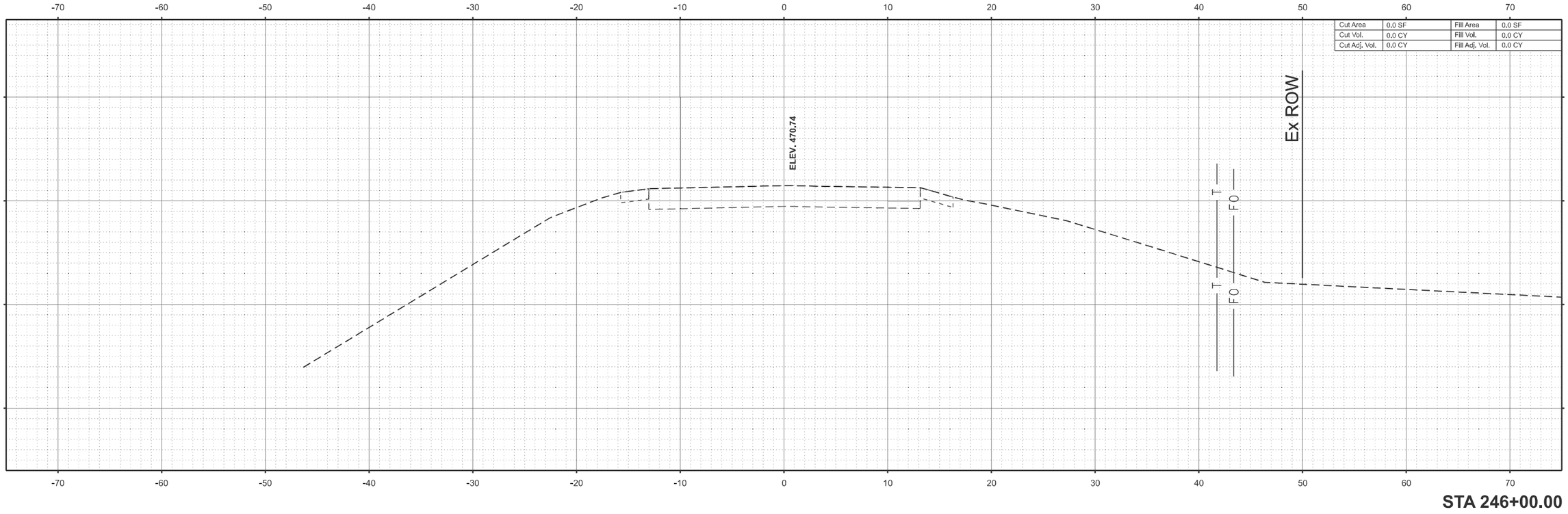
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 16 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	66
		CONTRACT NO. 78209		
		ILLINOIS FED. AID PROJECT		



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PLOT DATE = 8/11/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 166

SCALE: 1"=5' | SHEET 17 OF 17 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
904	101B-1	WILLIAMSON	67	67
		CONTRACT NO. 78209		
	ILLINOIS FED. AID PROJECT			