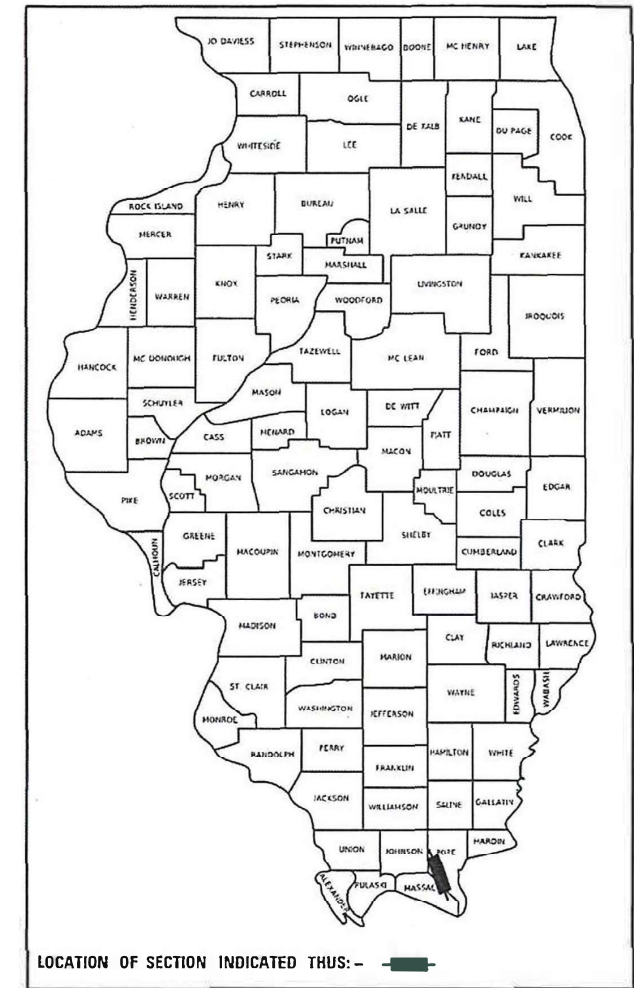


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DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	1
		ILLINOIS	CONTRACT NO. 78719	

D-99-028-19



**PROPOSED  
HIGHWAY PLANS**

FAP ROUTE 132 (IL 145)  
SECTION 103B-2  
PROJECT HIBR-ZM0X(092)  
STRUCTURE REPLACEMENT  
POPE COUNTY

C-99-049-19

R 5 E

FOR INDEX OF SHEETS, SEE SHEET NO. 3

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-10

**TRAFFIC DATA**

ROADWAY CLASSIFICATION = MINOR ARTERIAL  
DESIGN SPEED = 55 MPH  
CURRENT ADT (2023) = 2,070  
SU = 185  
MU = 115

**TOWNSHIPS**

WEBSTER #5 PRECINCT

DESIGN DESIGNATION : NA

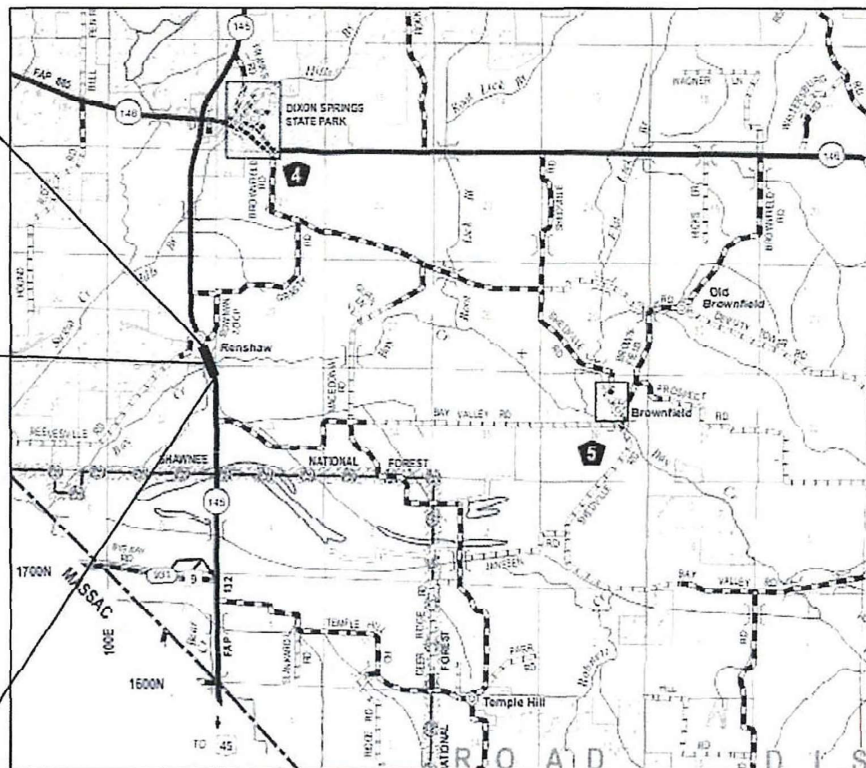
COORDINATE SYSTEM : STATE PLANE ZONE - ILLINOIS EAST

POSTED SPEED : 55 MPH

**END IMPROVEMENTS**  
STA. 903 + 25.00 (IL 145)

**PROJECT LOCATION**  
EXISTING SN 076-0024  
☉ STRUCTURE STA 896 + 49.0  
PROPOSED SN 076-0033  
☉ STRUCTURE STA 896 + 66.0  
IL 145 OVER BAY CREEK  
4 SPAN INTEGRAL STRUCTURE  
WITH W36 BEAMS  
323'-8" BK. TO BK. ABUTS

**BEGIN IMPROVEMENTS**  
STA. 891 + 78.50 (IL 145)



**LOCATION MAP**  
(NOT TO SCALE)

GROSS LENGTH = 1,146.50 FT = (0.217 MILE)  
NET LENGTH = 1,146.50 FT = (0.217 MILE)



*Bill Tindall, P.E.* 9/16/22  
BILL TINDALL, P.E.  
License Expires 11/30/2023

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St. Charles 820 South Main, Suite 309  
St. Charles, MO 63301  
636.493.6277

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

PROJECT ENGINEER: GRANT DETERDING

CONTRACT NO. 78719

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 22, 2022

*Kirk H. Brown*

REGION FIVE ENGINEER

October 14, 2022

*John A. Etk*

ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2022

*Stephen M. Smith*

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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*Charles Stein*

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*Conn Nelson*

DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By:

*Ran C. Co*

DISTRICT OPERATIONS ENGINEER

Examined By:

*Days J. Nesbit*

DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By:

*Days J. Nesbit*

DISTRICT CONSTRUCTION ENGINEER

Examined By:

*Ran C. Co*

DISTRICT MATERIALS ENGINEER

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SIGNATURE SHEET

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	68	2
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**INDEX OF SHEETS**

1	COVER SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES & HIGHWAY STANDARDS
4-10	SUMMARY OF QUANTITIES
11	TYPICAL SECTIONS
12	SCHEDULES
13	ALIGNMENT TIES AND BENCHMARKS
14-15	PLAN AND PROFILE SHEET
16-19	TRAFFIC CONTROL PLANS
20	EROSION CONTROL AND PAVEMENT MARKING
21	REMOVAL SHEET
22-58	STRUCTURE PLANS
59-64	CONSTRUCTION DETAILS
65-70	CROSS SECTIONS

**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 CONNETOR (PCC) FOR BRIDGE APPROACH SLAB
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC / HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD OPERATIONS, 2L, 2W, DAY ONLY
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
701321-18	LANE CLOSURE 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAIN
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)

**GENERAL NOTES**

- 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.
- THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED 8%. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.
- ON ALL SUPERELEVATED CURVES, THE PROPOSED BASE COURSE WIDENING SHALL BE CONSTRUCTED WITH A SLOPE CONFORMING TO THE RATE OF SUPERELEVATION OF THE EXISTING PAVEMENT.
- 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
- 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.
- LONGITUDINAL JOINT SEALANT SHALL BE PLACED UNDER THE HMA SURFACE COURSE

**COMMITMENTS**

NONE

**HMA MIX REQUIREMENT TABLE**

LOCATIONS:	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT BINDER COURSE	HOT-MIX ASPHALT SHOULDERS TOP LIFT	HOT-MIX ASPHALT SHOULDERS LOWER LIFT
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, MIX C, N70	HOT-MIX ASPHALT BINDER COURSE, N70	HOT-MIX SURFACE COURSE, MIX C, N70	HOT-MIX ASPHALT BINDER COURSE, N70, IL-19.0
AB/PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22
ABR % (MAX):				
DESIGN AIR VOIDS:	4.0%, 70 GYRATION DESIGN	4.0%, 70 GYRATION DESIGN	4.0%, 70 GYRATION DESIGN	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5MM	IL-19.0	IL-9.5MM	IL-19.0MM
FRICTION AGGREGATE:	MIX C	NONE	MIX C	NONE
MIXTURE WEIGHT:	112 LBS./SQ YD/IN	112 LBS./SQ YD/IN	112 LBS./SQ YD/IN	112 LBS./SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QCQA	QCQA	QCP	QCP
SUBLOT SIZE:	N/A	N/A	N/A	N/A
MATERIAL TRANSFER DEVICE:	NO	NO	NO	NO

**BINDER REQUIREMENTS:** THE FINAL LIFT OF BINDER SHALL BE 2-1/4"  
 THE INITIAL LIFT OF BINDER SHALL BE 4"  
 THE MINIMAL THICKNESS OF BINDER SHALL NOT BE LESS THAN 2-1/4"  
 THE MAXIMUM THICKNESS OF BINDER SHALL NOT BE GREATER THAN 4"  
**SURFACE REQUIREMENTS:** THE MINIMAL THICKNESS OF SURFACE SHALL NOT BE LESS THAN 1-1/2"  
 THE MAXIMUM THICKNESS OF SURFACE SHALL NOT BE GREATER THAN 2-1/2"

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**GENERAL NOTES & HIGHWAY STANDARDS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	3
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 076-0033
				CTC-0010
20200100	EARTH EXCAVATION	CU YD	635	635
20400800	FURNISHED EXCAVATION	CU YD	1,635	1,635
25000200	SEEDING, CLASS 2	ACRE	1.30	1.30
25000350	SEEDING, CLASS 7	ACRE	1.30	1.30
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	118	118
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	118	118
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	118	118
25100115	MULCH, METHOD 2	ACRE	1.30	1.30
25100630	EROSION CONTROL BLANKET	SQ YD	6,316	6,316
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	130	130
28000305	TEMPORARY DITCH CHECKS	FOOT	54	54
28000400	PERIMETER EROSION BARRIER	FOOT	1,162	1,162
28100107	STONE RIPRAP, CLASS A4	SQ YD	976	976
28200200	FILTER FABRIC	SQ YD	724	724

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET 1	OF 7 SHEETS	STA. TO STA.

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 4
			CONTRACT NO. 78719	
		ILLINOIS FED. AID PROJECT		

COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
				SN 076-0033 CTC-0010
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	161	161
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	2,010	2,010
40600370	LONGITUDINAL JOINT SEALANT	FOOT	654	654
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	236	236
40600990	TEMPORARY RAMP	SQ YD	110	110
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	898	898
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	191	191
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	88	88
42001300	PROTECTIVE COAT	SQ YD	88	88
44000100	PAVEMENT REMOVAL	SQ YD	143	143
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SQ YD	1,930	1,930
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	681	681
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50200100	STRUCTURE EXCAVATION	CU YD	465	465

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SUMMARY OF QUANTITIES</b>	
SCALE:	SHEET 2 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	5
			CONTRACT NO. 78719	
		ILLINOIS FED. AID PROJECT		

COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL
TOTAL QUANTITY	SN 076-0033
	CTC-0010

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
50200300	COFFERDAM EXCAVATION	CU YD	257	257
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1	1
50300100	FLOOR DRAINS	EACH	40	40
50300225	CONCRETE STRUCTURES	CU YD	367.8	367.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	413.1	413.1
50300260	BRIDGE DECK GROOVING	SQ YD	1,272	1,272
50300265	SEAL COAT CONCRETE	CU YD	91.9	91.9
50300300	PROTECTIVE COAT	SQ YD	1,683	1,683
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1
50500505	STUD SHEAR CONNECTORS	EACH	5,886	5,886
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	159,050	159,050
50800515	BAR SPLICERS	EACH	1,315	1,315
50800530	MECHANICAL SPLICERS	EACH	336	336
51200963	FURNISHING METAL SHELL PILES 16" X 0.375"	FOOT	3,055	3,055

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET 3	OF 7	SHEETS STA.
			TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	6
			CONTRACT NO. 78719	
			ILLINOIS FED. AID PROJECT	

COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 076-0033
				CTC-0010
51202305	DRIVING PILES	FOOT	3,055	3,055
51203200	TEST PILE METAL SHELLS	EACH	5	5
51500100	NAME PLATES	EACH	1	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	66	66
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18	18
52100520	ANCHOR BOLTS, 1"	EACH	60	60
52200010	TEMPORARY SHEET PILING	SQ FT	1,049	1,049
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	125	125
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	73	73
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	140	140
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	150.0	150.0
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4

**\* SPECIALTY ITEM**

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET 4	OF 7	SHEETS
	STA.	TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	7
			CONTRACT NO. 78719	
		ILLINOIS	FED. AID PROJECT	

COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 076-0033
				CTC-0010
63200310	GUARDRAIL REMOVAL	FOOT	547	547
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	16	16
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	6	6
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	42	42
70300100	SHORT TERM PAVEMENT MARKING	FOOT	232	232
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	39	39
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	6,567	6,567
70400100	TEMPORARY CONCRETE BARRIER	FOOT	637.5	637.5

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 5 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	8
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 076-0033
				CTC-0010
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	51	51
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	612.5	612.5
70500665	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2
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	3,426	3,426
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	6	6
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10
78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	377	377
* 86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1	1
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	226	226
X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	1,900	1,900
X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	2	2

\* SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET 6	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	9
			CONTRACT NO. 78719	
		ILLINOIS	FED. AID PROJECT	

COUNTY	POPE
ROUTE	FAP 132 (IL 145)
FUNDING	80% FED, 20% ST
LOCATION	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY		
				SN 076-0033	CTC-0010
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	24	24	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	122	122	
∅ Z0076600	TRAINEES	HOUR	1000	1000	
∅ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1000	1000	

REV. - MS

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USER NAME = rynn.wiltjes
PLOT SCALE = 2,0000' / in.
PLOT DATE = 8/16/2022

DESIGNED -
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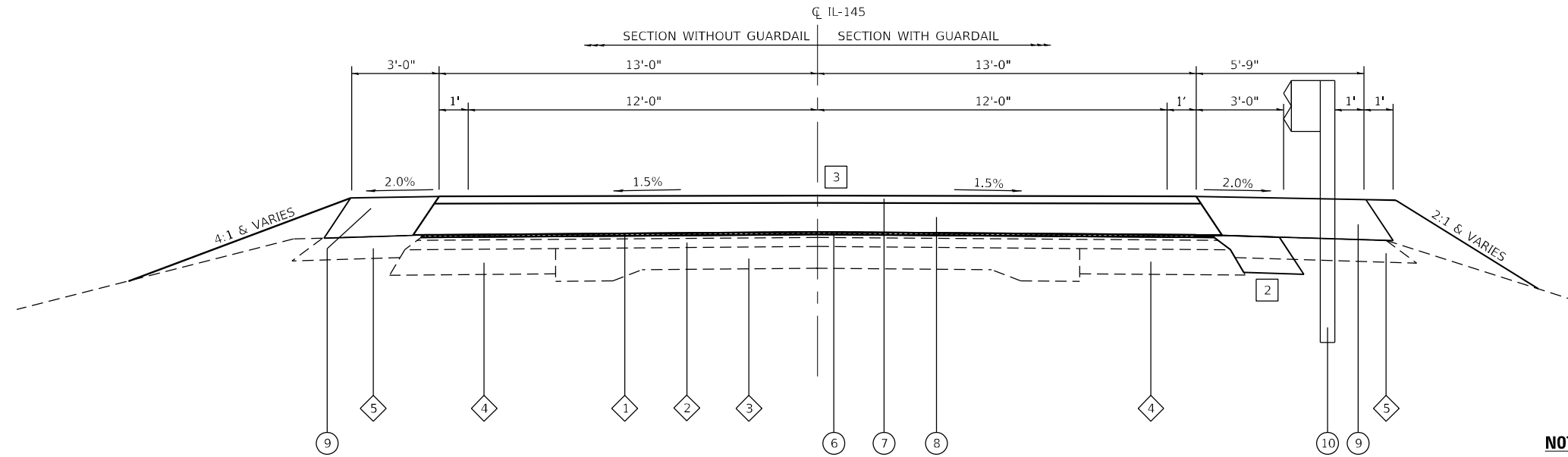
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET 7	OF 7	SHEETS
	STA.	TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	10
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**TYPICAL SECTION LEGEND**

- ① EXISTING HMA PAVEMENT SURFACE COURSE, 1.5"
- ② EXISTING HMA PAVEMENT BINDER COURSE, 3.5"
- ③ EXISTING PCC PAVEMENT, 9-6-9
- ④ EXISTING HMA PAVEMENT BASE COURSE WIDENING, 7"
- ⑤ EXISTING AGGREGATE SHOULDERS
- ⑥ PROPOSED HMA SURFACE COURSE REMOVAL, 0.5"
- ⑦ PROPOSED HMA PAVEMENT SURFACE COURSE, 1.5"
- ⑧ PROPOSED HMA PAVEMENT BINDER COURSE, 8.5" AND VARIES
- ⑨ PROPOSED HMA SHOULDERS, 10" AND VARIES
- ⑩ PROPOSED STEEL PLATE BEAM GUARDRAIL



**PROPOSED TYPICAL SECTION**  
IL ROUTE 145

STA 892+11.25 TO STA 894+60.01  
STA 898+71.83 TO STA 902+76.04

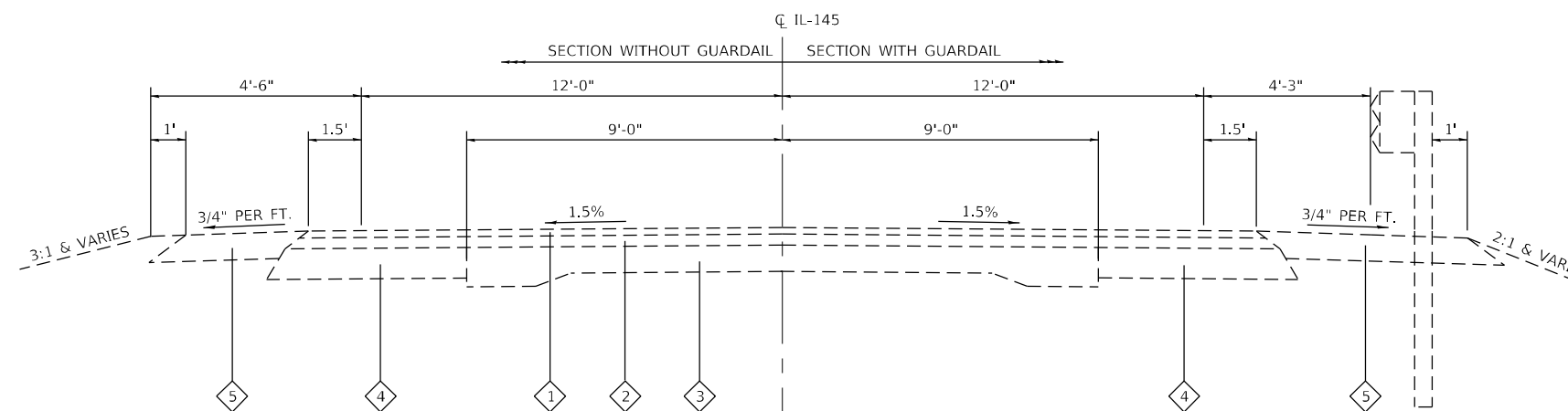
**NOTES**

- ① SPBGR:  
STA 893+27.7 RT TO STA 894+90.2 RT  
STA 894+02.7 LT TO STA 894+90.2 LT  
STA 898+41.8 RT TO STA 899+29.3 RT  
STA 898+41.8 LT TO STA 900+04.3 LT

- ② HMA BASE COURSE WIDENING, 10":  
STAGE 1 - 2'-6" WIDENING  
STAGE 2 - 3'-0" WIDENING

- ③ KEY SUPERELEVATION POINTS:

STA	LT	RT
892+68.75	6.0%	6.0%
894+21.75	1.5%	1.5%
894+40.88	1.5%	0.0%
894+60.00	1.5%	-1.5%



**EXISTING TYPICAL SECTION**  
IL ROUTE 145

STA 891+78.50 TO STA 894+87.41  
STA 898+11.41 TO STA 903+25.00

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PLOT DATE = 8/16/2022	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>TYPICAL SECTION</b>	
SCALE: NTS	SHEET 1 OF 1 SHEETS
STA. N/A	TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	11
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**PAVEMENT SCHEDULE**

STATION	STATION	OFFSET	BIT MATLS TACK CT	LONG JOINT SEALANT	HMA BC IL-19.0 N70	HMA SC IL-9.5 C N70	PVT CON PCC BR APP SL	PROTECTIVE COAT	HMA SHOULDERS 10
			(POUND)	(FOOT)	(TON)	(TON)	(SQ YD)	(SQ YD)	(SQ YD)
IL ROUTE 145									
891+78	894+75	RT							154
891+78	894+75	LT							130
891+78	894+60	LT/RT	670	249	264	75			
894+60	894+75	LT/RT					44	44	
898+42	903+25	RT							187
898+42	903+25	LT							210
898+57	903+25	LT/RT	1,340	405	634	116	44	44	
TOTAL			2,010	654	898	191	88	88	681

**STAGING SCHEDULE**

STATION	STATION	O/S	HMA BC WID 10	TEMPORARY RAMP	TEMP BR TRAF SIGNALS	TEMP RUMBLE STRIPS	TEMP CONC BARRIER	PIN TEMP CONC BARRIER	REL TEMP CONC BARRIER	TEMP TR BAR TERM T6	IMP ATTN TEMP NRD TL3	IMP ATTN REL NRD TL3	TEMP TRBT T1 SPL TAN
			(SQ YD)	(SQ YD)	(EACH)	(EACH)	(FOOT)	(EACH)	(FOOT)	(EACH)	(EACH)	(EACH)	(EACH)
IL ROUTE 145													
SOUTH OF STAGING													
891+79	891+81	LT/RT		6		3							
	892+21	RT			0.25								
	892+46	LT			0.25								
	893+30	LT/RT									1	1	
893+60	894+60	RT								1			1
893+39	894+60	RT	39										
893+41	894+87	LT	38										
893+44	899+56	LT					27	612.5					
893+44	899+81	RT					637.5	24					
894+31	894+60	RT		49									
898+12	899+88	LT	52										
898+72	899+01	RT		49									
898+72	899+87	RT	32										
898+72	899+72	RT								1			1
	899+95	LT/RT									1	1	
	900+89	RT			0.25								
	901+14	LT			0.25								
903+23	903+25	LT/RT		6									
NORTH OF STAGING													
TOTAL			161	110	1	6	637.5	51	612.5	2	2	2	2

**SEEDING SCHEDULE**

STATION	STATION	O/S	SEEDING CL 2	SEEDING CL 7	NITROGEN FERT NUTR	PHOSPHORUS FERT NUTR	POTASSIUM FERT NUTR	MULCH METHOD 2	TEMP EROS CONTR SEED
			(ACRE)	(ACRE)	(POUND)	(POUND)	(POUND)	(ACRE)	(POUND)
IL ROUTE 145									
891+79	894+75	LT	0.15	0.15	14	14	14	0.15	15
891+79	894+75	RT	0.15	0.15	14	14	14	0.15	15
898+42	903+25	LT	0.50	0.50	45	45	45	0.50	50
898+42	903+25	RT	0.50	0.50	45	45	45	0.50	50
TOTAL			1.30	1.30	118	118	118	1.30	130

**EARTHWORK SCHEDULE**

STATION	STATION	EARTH EXCAVATION	AVERAGE SHRINKAGE FACTOR	EARTH EXCAVATION (ADJUSTED)	EMBANKMENT	EARTHWORK BALANCE		FURNISHED EXCAVATION	REMARKS
						EXCAVATION REQUIRED TO COMPLETE	EXCESS EXCAVATION		
		(CU YD)	(%)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	
IL ROUTE 145									
891+79	894+75	30	25	23	403	380	0	380	
SOUTH BRIDGE CONE		0	25	0	225	225	0	225	
NORTH BRIDGE CONE		475	25	355	30	0	325	-325	
898+57	903+25	130	25	100	1455	1355	0	1355	
TOTAL		635						1,635	

**REMOVAL SCHEDULE**

STATION	STATION	OFFSET	HMA SURF REM BUTT JT	PAVEMENT REM	HMA SURF REM 1/2	GUARDRAIL REMOVAL	RAISED REF PVT MK REM	APPROACH SLAB REM
			(SQ YD)	(SQ YD)	(SQ YD)	(FOOT)	(EACH)	(SQ YD)
IL ROUTE 145								
891+78	894+60	LT/RT	95		743		4	
892+25	894+87	RT				264		
894+48	894+89	LT				41		
894+60	894+67	LT/RT		22				
894+67	894+87	LT/RT						61
898+11	898+50	RT				40		61
898+11	900+12	LT				202		
898+31	898+72	LT/RT		121				
898+72	903+25	LT/RT	141		1187		6	
TOTAL			236	143	1930	547	10	122

**PAVEMENT MARKING SCHEDULE**

STATION	OFFSET	STATION	OFFSET	SHORT TERM PAVT MKING	SHRT TRM PAVT MK REM	TEMP PVT MK L 4 PNT			PAINT PM T1 LN 4			PAVMT MRKG REM GRIND	
						SOLID WHITE	SOLID YELLOW	SKIP DASH YELLOW	SOLID WHITE	SOLID YELLOW	SKIP DASH YELLOW		
				(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(SQ FT)	
IL ROUTE 145													
891+78	CNTR	891+70	RT							80		80	27
891+78	RT	903+25	RT			1147			1147				
891+78	LT	903+25	LT			1147			1147				
891+78	CNTR	903+25	CNTR	232	39								
893+98	CNTR	903+25	CNTR				928	124		928	124		350
894+60	CNTR	898+72	CNTR										
		901+65	LT										
STAGE 1													
891+81	LT/RT	901+04	LT/RT				925						
893+41	LT/RT	899+88	LT/RT				645						
STAGE 2													
892+31	LT/RT	901+54	LT/RT				923						
893+39	LT/RT	899+87	LT/RT				648						
SUBTOTAL				232	39	5,435	928	204	2,294	928	204		377
TOTAL				232	39		6,567			3,426			377

**GUARDRAIL SCHEDULE**

STATION	STATION	O/S	SPBGR TY A 6FT POSTS	TRAF BAR TERM T6	TR BAR TRM T1 SPL TAN	TERMINAL MARKER-DA	GRDRAIL REF TYPE A
			(FOOT)	(EACH)	(EACH)	(EACH)	(EACH)
IL ROUTE 145							
893+28	894+90	RT	75.0	1	1	2	2
894+03	894+90	LT		1	1	1	1
898+42	899+72	RT		1	1	2	1
898+42	900+04	LT	75.0	1	1	1	2
TOTAL			150.0	4	4	6	6

**EROSION SCHEDULE**

STATION	STATION	O/S	EROSION CONTR BLANKET	TEMP DITCH CHECKS	PERIMETER EROS BAR
			(SQ YD)	(FOOT)	(FOOT)
IL ROUTE 145					
891+78	894+94	LT	746		327
891+77	894+94	RT	776		342
898+10	903+25	LT	2,379	54	
898+38	903+25	RT	2,415		493
TOTAL			6,316	54	1,162

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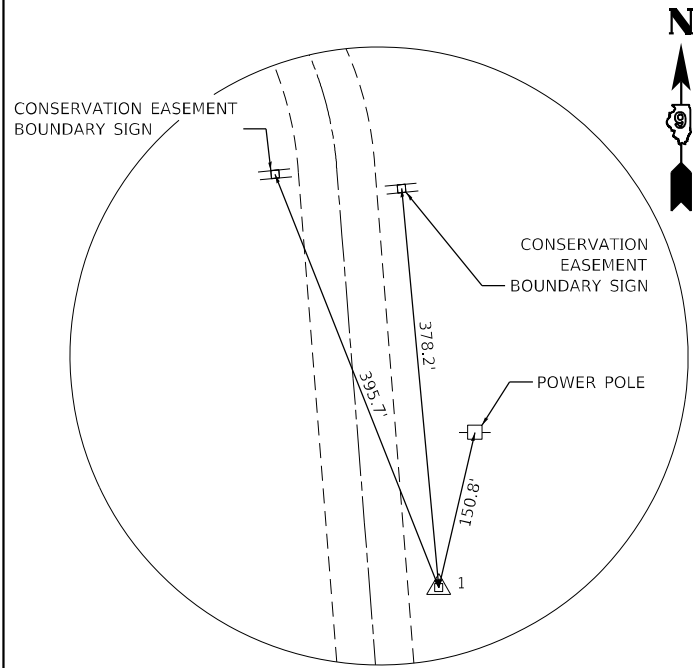
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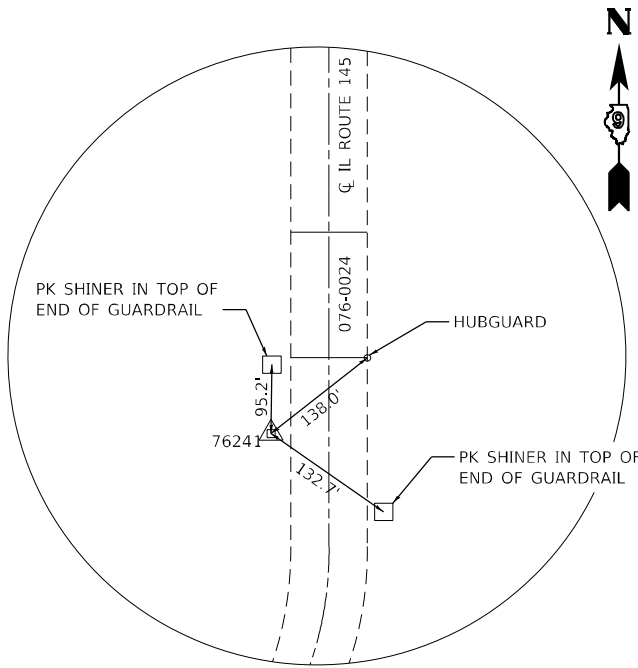
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULES  
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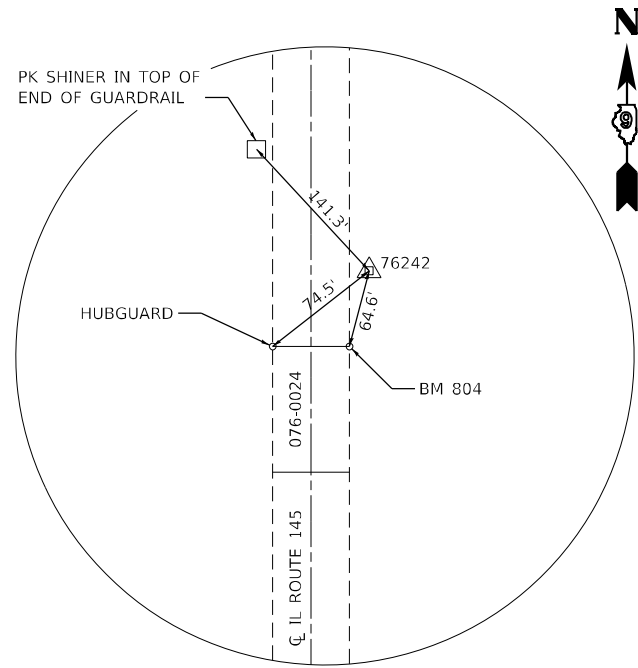
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	12
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



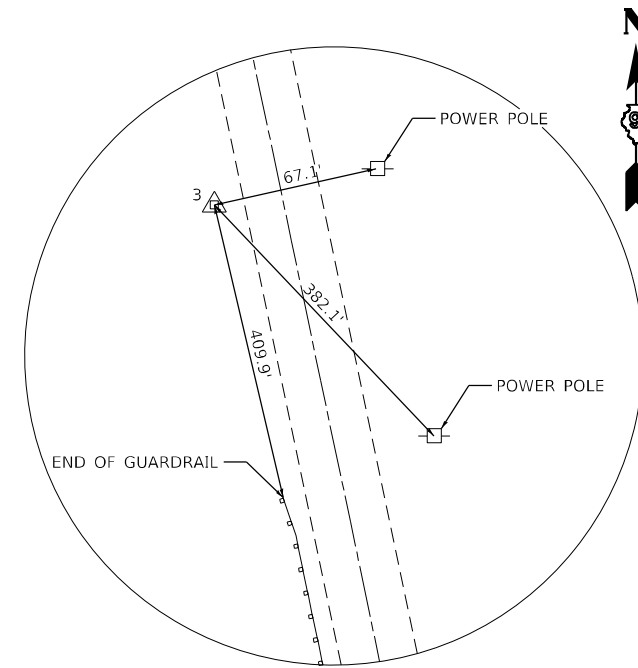
IRON BAR WITH CAP  
 STA. 885+82.18, 21.5' RT  
 N: 248,413.06  
 E: 884,973.64



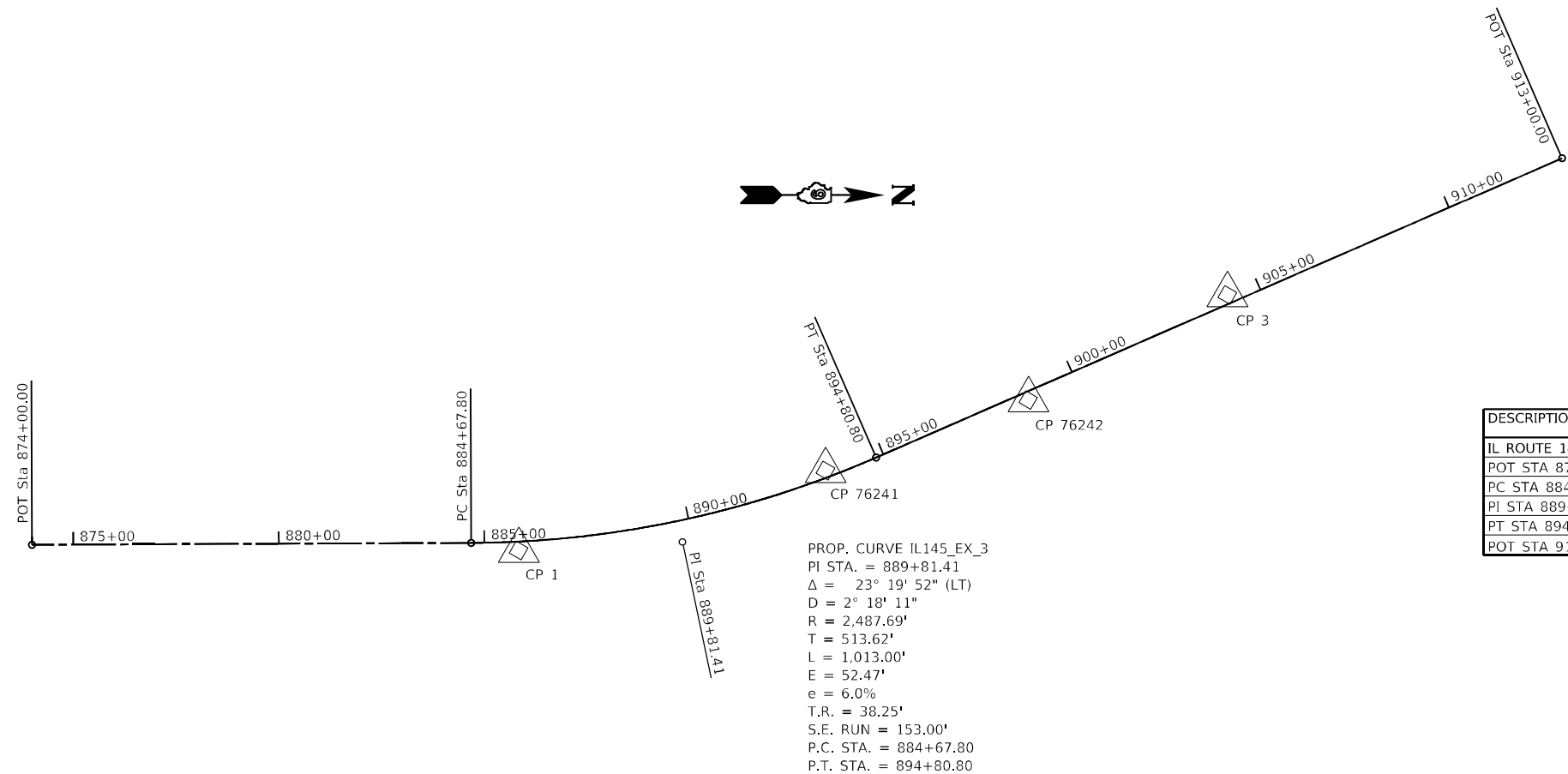
PK NAIL & RIBBON  
 STA. 893+54.33, 16.7' LT  
 N: 249,158.98  
 E: 884,779.67



PK NAIL & RIBBON  
 STA. 898+75.28, 19.6' RT  
 N: 249,651.41  
 E: 884,607.85



SPINDLE  
 STA. 904+21.48, 21.1' LT  
 N: 250,135.76  
 E: 884,352.14



PROP. CURVE IL145\_EX\_3  
 PI STA. = 889+81.41  
 $\Delta = 23^\circ 19' 52''$  (LT)  
 $D = 2^\circ 18' 11''$   
 $R = 2,487.69'$   
 $T = 513.62'$   
 $L = 1,013.00'$   
 $E = 52.47'$   
 $e = 6.0\%$   
 $T.R. = 38.25'$   
 $S.E. RUN = 153.00'$   
 $P.C. STA. = 884+67.80$   
 $P.T. STA. = 894+80.80$

DESCRIPTION	NORTHING	EASTING
IL ROUTE 145		
POT STA 874+00.00	247,229.87	884,959.86
PC STA 884+67.80	248,297.65	884,955.30
PI STA 889+81.41	248,811.27	884,953.10
PT STA 894+80.80	249,282.10	884,747.68
POT STA 913+00.00	250,949.37	884,020.07

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PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES AND BENCHMARKS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	13
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

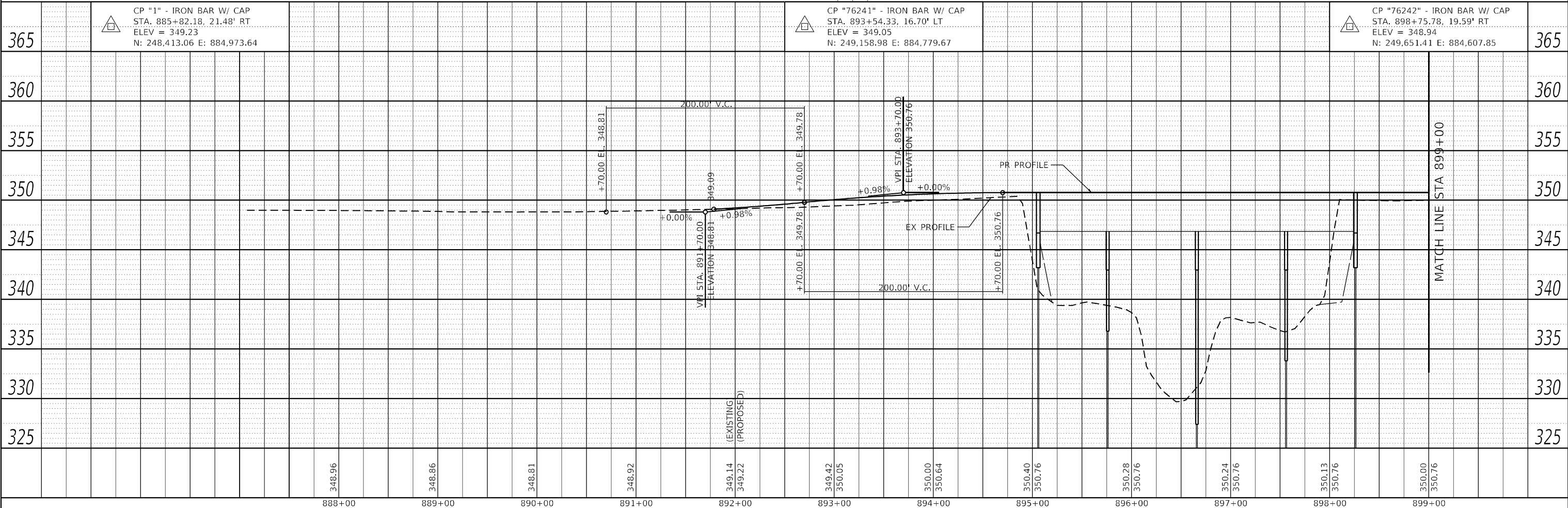
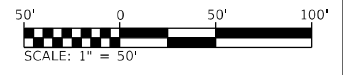
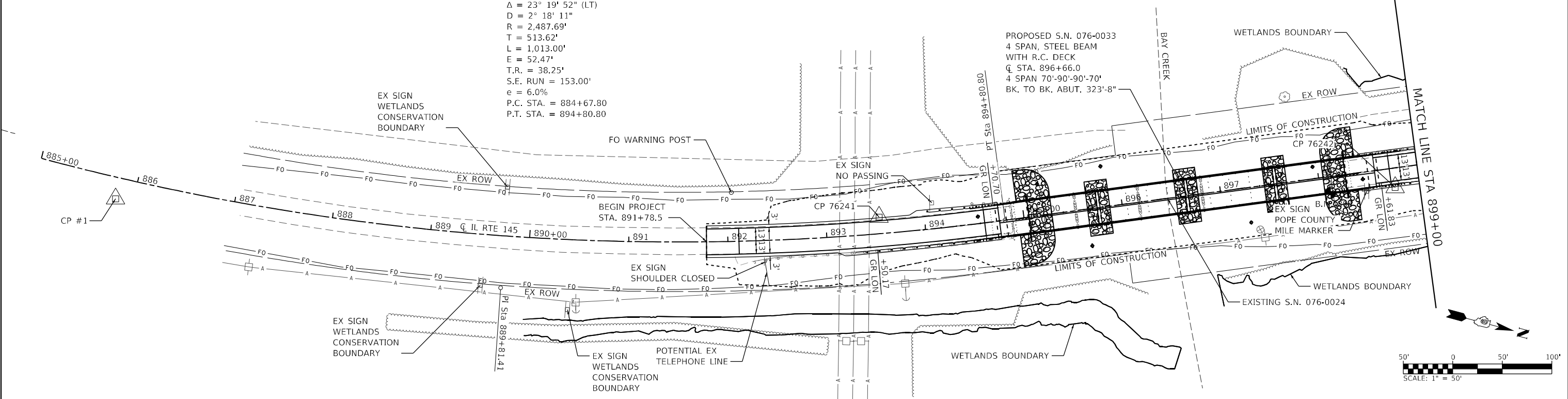
B.M. 804 - APPROXIMATELY 180' S. OF STATION STAMP 900+00 & 17' EAST OF  $\bar{C}$  OF ROUTE 145, A "□" ON THE N.E. WINGWALL OF S.N. 076-0024 ELEV = 350.054

EXIST. CURVE 1  
 PI STA. = 889+81.41  
 $\Delta = 23^\circ 19' 52''$  (LT)  
 $D = 2^\circ 18' 11''$   
 $R = 2,487.69'$   
 $T = 513.62'$   
 $L = 1,013.00'$   
 $E = 52.47'$   
 $T.R. = 38.25'$   
 $S.E. RUN = 153.00'$   
 $e = 6.0\%$   
 $P.C. STA. = 884+67.80$   
 $P.T. STA. = 894+80.80$

PROPOSED S.N. 076-0033  
 4 SPAN, STEEL BEAM  
 WITH R.C. DECK  
 $\bar{C}$  STA. 896+66.0  
 4 SPAN 70'-90'-90'-70'  
 BK. TO BK. ABUT. 323'-8"

DATE	
BY	
PLAN	
SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
GRADATIONS CHECKED	
STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	
CADD FILE NAME	

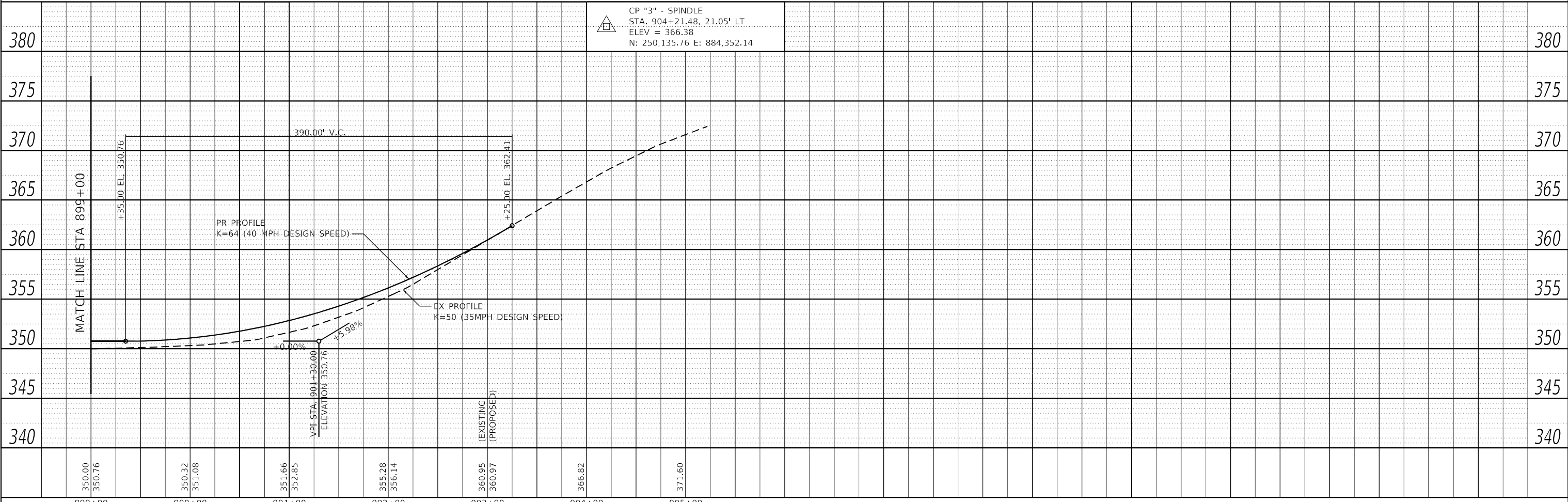
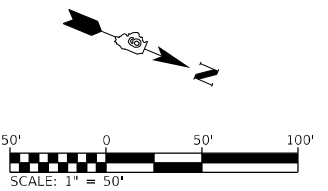
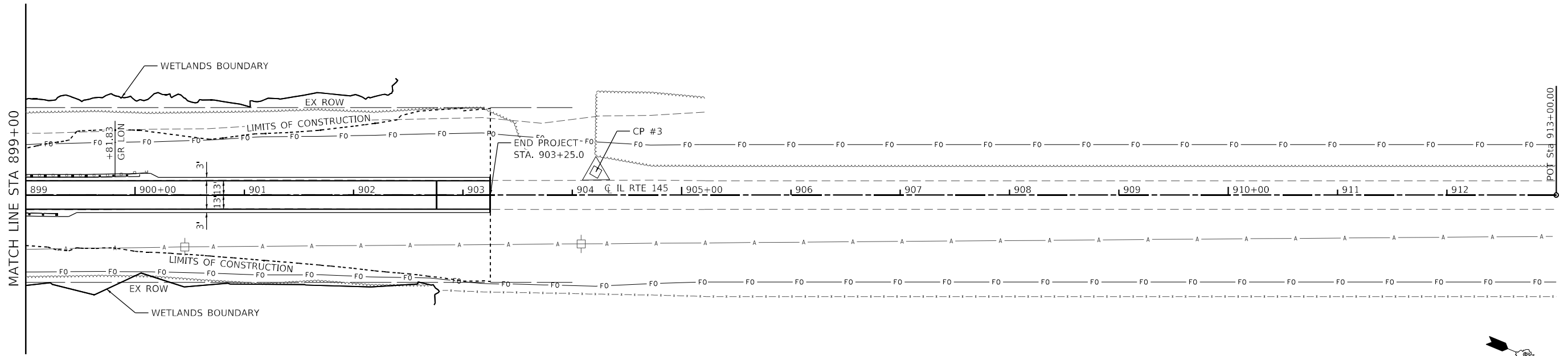
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365	CP "1" - IRON BAR W/ CAP STA. 885+82.18, 21.48' RT ELEV = 349.23 N: 248,413.06 E: 884,973.64	365
360		360
355		355
350		350
345		345
340		340
335		335
330		330
325		325

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTARIS	
	NO.	



CP #3 - SPINDLE  
 STA. 904+21.48, 21.05' LT  
 ELEV = 366.38  
 N: 250,135.76 E: 884,352.14

**OATES ASSOCIATES**  
 ILLINOIS DESIGN FIRM LICENSE NO.: 184,001115

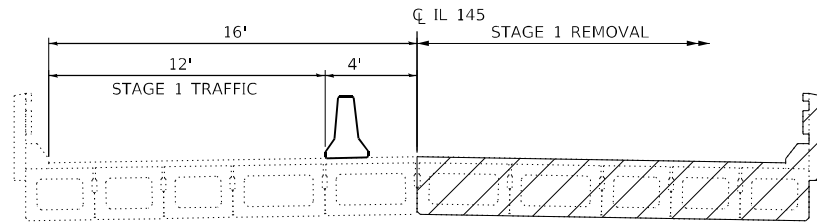
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PLOT DATE = 8/16/2022	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 145  
 PLAN AND PROFILE SHEET**  
 SCALE: 1"=50' SHEET 2 OF 2 SHEETS STA. 899+00.00 TO STA. 913+00.00

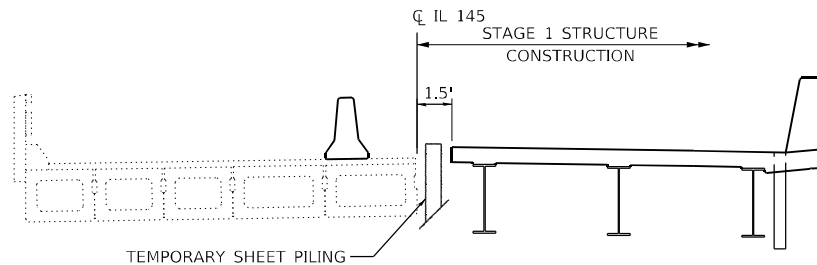
F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 15
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

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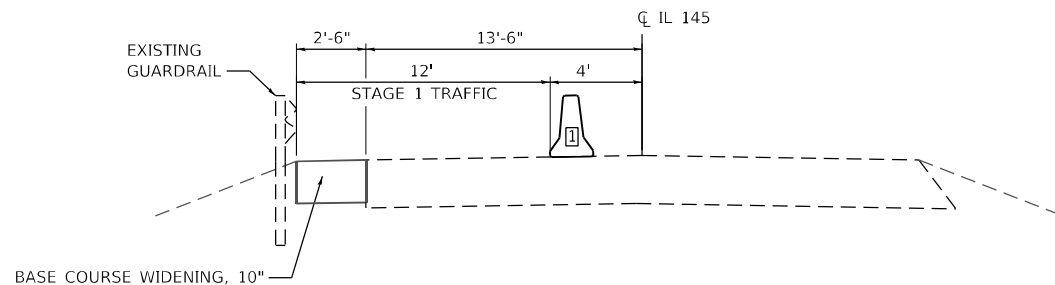
**STAGE ONE BRIDGE REMOVAL TYPICAL SECTION**

(LOOKING NORTH AT STRUCTURE)  
FOR INFORMATION ONLY



**STAGE ONE BRIDGE CONSTRUCTION TYPICAL SECTION**

(LOOKING NORTH AT STRUCTURE)  
FOR INFORMATION ONLY



**STAGE 1 CONSTRUCTION TYPICAL SECTION**

(SOUTH OF STRUCTURE LOOKING NORTH)  
FOR INFORMATION ONLY

**STAGE CONSTRUCTION GENERAL NOTES**

- ONE LANE OF TRAFFIC ON IL 145 SHALL BE MAINTAINED AT ALL TIMES.
- EMERGENCY ACCESS SHALL BE PROVIDED AT ALL TIMES.

**SUGGESTED STAGE 1 CONSTRUCTION**

**PHASE 1**

- UTILIZING TRAFFIC CONTROL & PROTECTION STANDARD 701201, INSTALL BASE COURSE WIDENING, 10" ON LEFT SIDE OF IL ROUTE 145
- PLACE TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE NEXT SHEET.
- INSTALL TEMPORARY TRAFFIC SIGNALS PRIOR TO CLOSING THE RIGHT HALF OF ROADWAY, SEE "TRAFFIC CONTROL NOTES" FOR MORE DETAILS.

**PHASE 2**

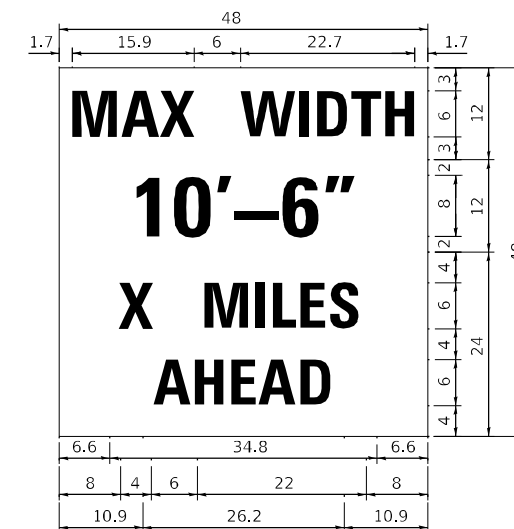
- UTILIZE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, DIRECT TRAFFIC TO THE LEFT LANE OF IL 145.
- CONSTRUCT TEMPORARY SHEET PILING AT THE NORTH AND SOUTH SIDE OF EXISTING STRUCTURE AND REMOVE THE RIGHT SIDE OF EXISTING STRUCTURE.
- CONSTRUCT THE RIGHT SIDE OF BRIDGE STRUCTURE
- INSTALL TEMPORARY RAMP AS SHOWN ON PHASE 1 PLAN SHEET AT A TRANSITION RATE OF 40:1. 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. INSTALL TEMPORARY TRAFFIC BARRIER TERMINALS AS SHOWN ON STAGING SHEETS. 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.

**TRAFFIC CONTROL NOTES**

- THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL MUTCD REQUIREMENTS.
- THE CONTRACTOR SHALL USE MICROWAVE DETECTION FOR USE WITH THE TEMPORARY TRAFFIC SIGNALS IN ACCORDANCE WITH HWY STD 701321. THE CONTRACTOR MAY ELECT TO UTILIZE DETECTOR LOOPS.
- 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.
- ALL TEMPORARY PAVEMENT MARKINGS, DRUMS, ETC. SHALL BE PLACED PRIOR TO PLACING TEMPORARY CONCRETE BARRIERS.

**ADDITIONAL NOTES**

- THE TEMPORARY CONCRETE BARRIER SHALL BE PINNED AS SPECIFIED IN SECTION 704 OF THE STANDARD SPECIFICATIONS



**W12-1103**

W12-1103 (Width is 8D)  
No border, Black on White;  
"MAX WIDTH" D;  
No border, Black on Orange;  
"10'-6"" D;  
No border, Black on White;  
"X MILES" D' "AHEAD" D

**WIDTH RESTRICTION SIGN**

MODEL: 1 - Stage 1 Traffic.dwg  
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USER NAME = ryne.witjes	DESIGNED -	REVISED -
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PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

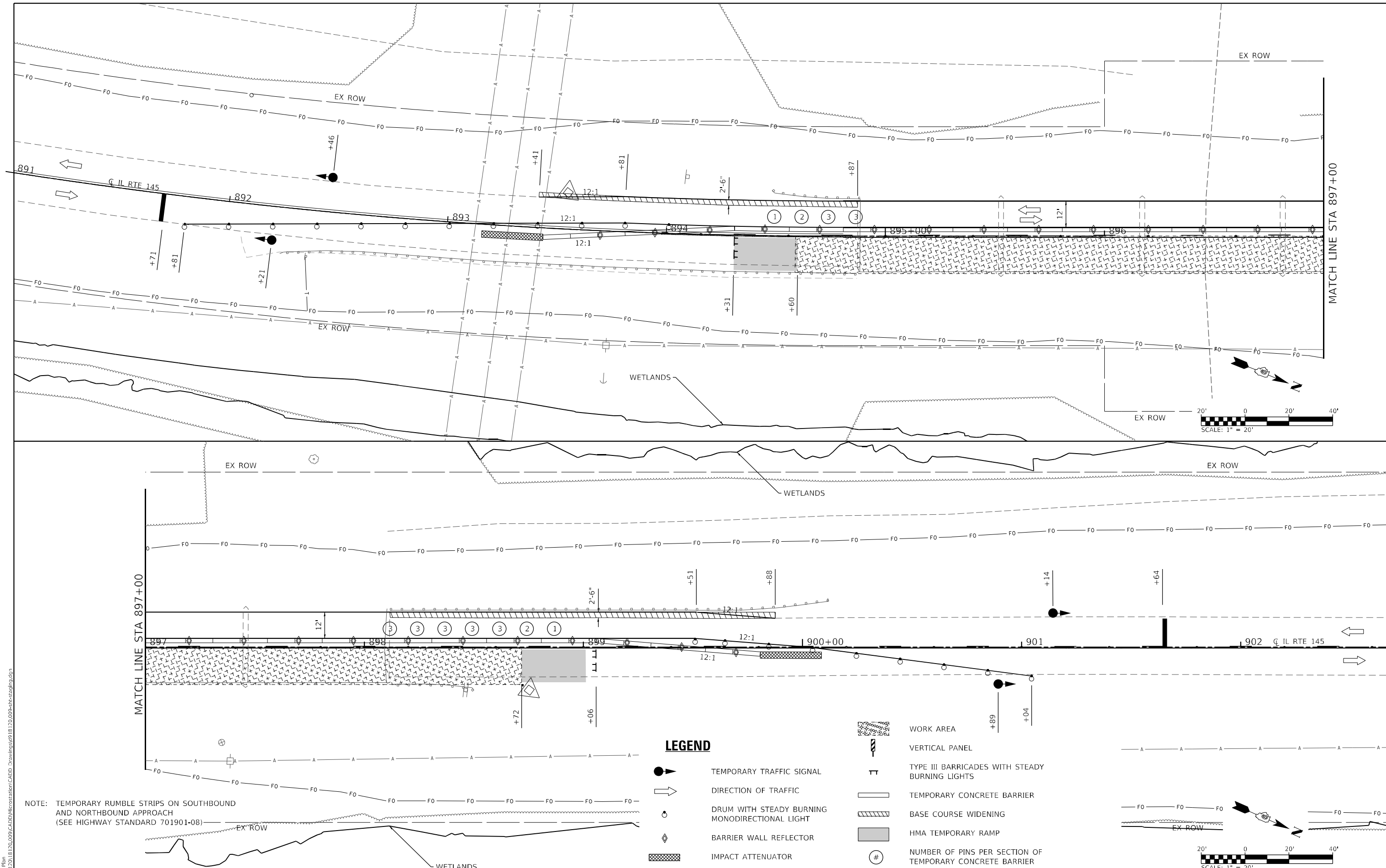
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL  
TYPICAL SECTIONS - STAGE 1**

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	16
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				





NOTE: TEMPORARY RUMBLE STRIPS ON SOUTHBOUND AND NORTHBOUND APPROACH (SEE HIGHWAY STANDARD 701901-08)

**LEGEND**

- TEMPORARY TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- BARRIER WALL REFLECTOR
- IMPACT ATTENUATOR
- WORK AREA
- VERTICAL PANEL
- TYPE III BARRICADES WITH STEADY BURNING LIGHTS
- TEMPORARY CONCRETE BARRIER
- BASE COURSE WIDENING
- HMA TEMPORARY RAMP
- NUMBER OF PINS PER SECTION OF TEMPORARY CONCRETE BARRIER



USER NAME = rjnr,wilfjes	DESIGNED -	REVISED -
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PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

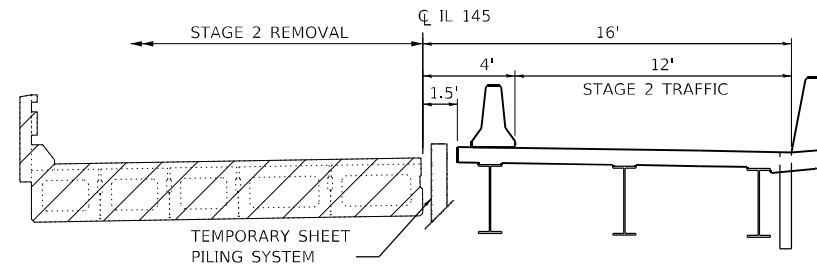
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL  
PLAN VIEW - STAGE 1**

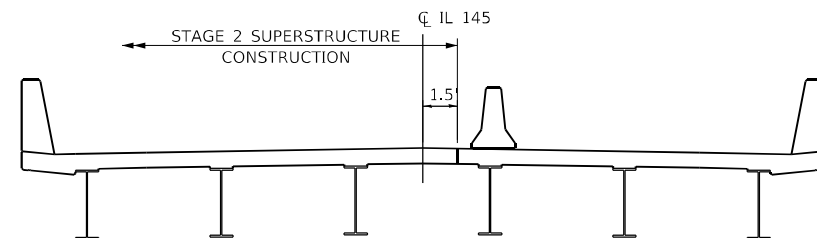
SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 17
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

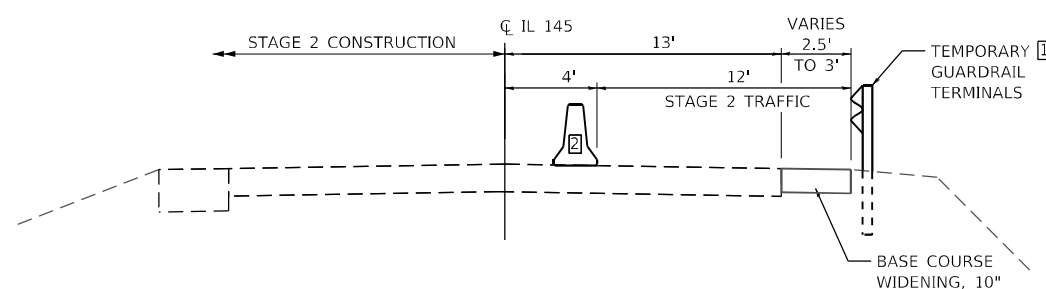
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FILE NAME: I:\181201\181201\09\CADD\MicroStation\CADD\_Drawing\181201\_09\_sht-ctrfp09.dgn



**STAGE TWO BRIDGE REMOVAL TYPICAL SECTION**  
(LOOKING NORTH AT STRUCTURE)  
FOR INFORMATION ONLY



**STAGE TWO BRIDGE CONSTRUCTION TYPICAL SECTION**  
(LOOKING NORTH AT STRUCTURE)  
FOR INFORMATION ONLY



**STAGE TWO CONSTRUCTION TYPICAL SECTION**  
(SOUTH OF BRIDGE LOOKING NORTH)  
FOR INFORMATION ONLY

**SUGGESTED STAGE 2 CONSTRUCTION**

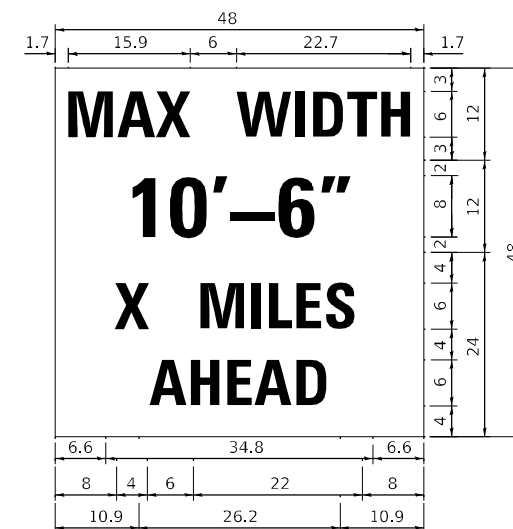
1. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, DIRECT TRAFFIC TO THE RIGHT LANE OF IL ROUTE 145.
2. REMOVE THE LEFT SIDE OF THE EXISTING STRUCTURE.
3. CONSTRUCT THE LEFT SIDE OF THE BRIDGE, BRIDGE APPROACH, AND CONNECTOR PAVEMENT.
4. CONSTRUCT THE REMAINING HMA SHOULDER AND RIPRAP ON THE LEFT SIDE.
5. COMPLETE DRAINAGE AND GRADING IMPROVEMENTS.

**SUGGESTED STAGE 3 CONSTRUCTION**

1. PERFORM HMA SURFACE REMOVAL & BUTT JOINT ON THE LEFT & RIGHT SIDES OF IL ROUTE 145 FROM STA. 891+78.5 TO STA. 892+11.3 AND FROM STA. 902+76.0 TO STA. 903+25.0
2. CONSTRUCT PROPOSED HMA BINDER AND SURFACE COURSE FOR THE LEFT & RIGHT SIDES OF IL ROUTE 145 FROM STA. 892+11.3 TO STA. 894+59.2 AND FROM STA. 898+72.8 TO 902+76.0
3. FILL BUTT JOINTS WITH SURFACE COURSE (MINIMUM 1.5" THICK). SEE PAVEMENT TRANSITION DETAIL.
4. CONSTRUCT ALL REMAINING IMPROVEMENTS.

**ADDITIONAL NOTES**

- 1 THE PERMANENT GUARDRAIL SHALL BE INSTALLED AT THE PROPER HEIGHT REQUIREMENTS LISTED ON HWY STD 630001 AFTER SURFACE COURSE HAS BEEN PLACED
- 2 THE TEMPORARY SIGNALS WILL REMAIN IN OPERATION AND THE TEMPORARY BARRIERS WILL REMAIN IN PLACE UNTIL THE BRIDGE, PCC PAVEMENT CONNECTORS AND APPROACH SLABS ARE COMPLETE INCLUDING CONSTANT SLOPE PARAPET. THE REMAINING HMA SHOULDERS, HMA SURFACE COURSE, GUARDRAIL, AND TRAFFIC BARRIER TERMINALS SHALL BE COMPLETED USING THE APPROPRIATE STANDARDS INCLUDED IN THE PLANS AND TRAFFIC SHALL BE OPEN TO BOTH LANES DURING NON-WORKING HOURS. THE CONTRACTOR SHALL SCHEDULE THEIR OPERATIONS SO THERE IS NO MORE THAN TWO WEEKS BETWEEN THE REMOVAL OF THE TEMPORARY BARRIERS AND THE START OF GUARDRAIL AND TERMINAL INSTALLATION.
- 3 THE TEMPORARY CONCRETE BARRIER SHALL BE PINNED AS SPECIFIED IN SECTION 704 OF THE STANDARD SPECIFICATIONS AND ACCORDING TO THE DETAILS SHOWN ON THE PLANS. THE TEMPORARY CONCRETE BARRIER PLACED ON THE PROPOSED CONNECTOR PAVEMENTS, APPROACH SLABS, AND BRIDGE DECK FROM STA 894+59.2 TO 898+72.8 SHALL BE RESTRAINED USING STEEL RETAINERS 1"x10"x10" SHOWN FOR DETAIL III ON SHEET NO. 26. THE STEEL RETAINERS SHALL BE PLACED ON 6'-0" CTS. WITH EXPANSION ANCHORS OR CAST IN PLACE INSERTS AT THE MID-DEPTH OF THE PAVEMENT. THE ANCHORS OR INSERTS SHALL HAVE A MINIMUM PROOF LOAD OF 5,000 POUNDS. THE COST OF PROVIDING THE RESTRAINING SYSTEM FOR THE TEMPORARY CONCRETE BARRIER ON TOP OF THE CONNECTOR PAVEMENTS, APPROACH SLABS, OR BRIDGE DECK WILL NOT BE PAID FOR SEPARATELY.
- 4 THE CONTRACTOR'S OPERATION MAY RESULT IN A DROP-OFF AT THE END OF THE PCC PAVEMENT THAT IS UNDER TRAFFIC PRIOR TO THE HMA RESURFACING. TEMPORARY RAMPS SHALL BE PROVIDED AT THESE LOCATIONS IF NEEDED ACCORDING TO ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST FOR THE TEMPORARY RAMPS AT THESE LOCATIONS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF VARIOUS HMA PAY ITEMS INCLUDED IN THE PLANS.



**WIDTH RESTRICTION SIGN**

**W12-I103**

W12-I103 (Width is 8D)  
No border, Black on White;  
"MAX WIDTH" D;  
No border, Black on Orange;  
"10'-6\"/>

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PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

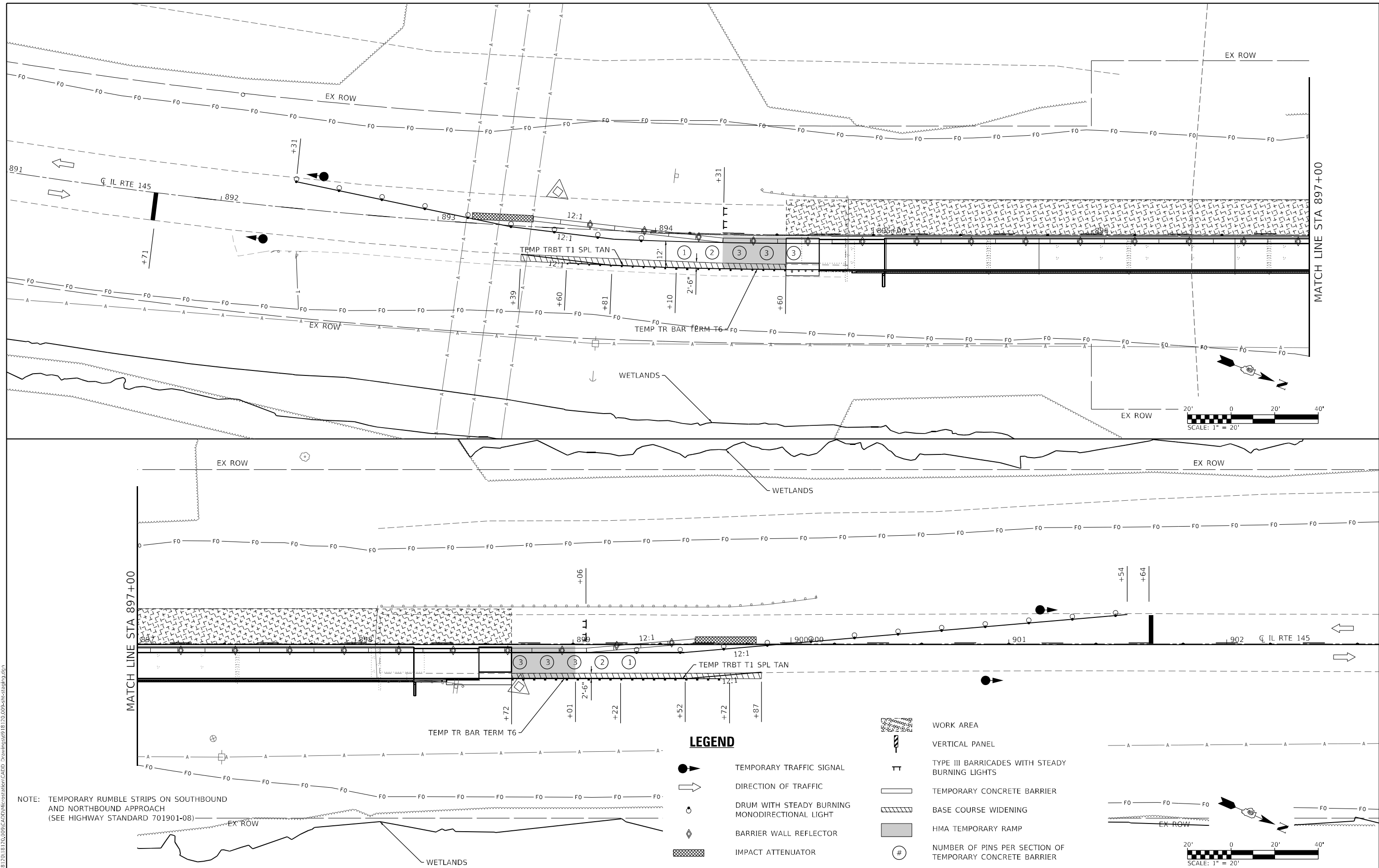
DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL  
TYPICAL SECTIONS - STAGE 2**

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	18
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



NOTE: TEMPORARY RUMBLE STRIPS ON SOUTHBOUND AND NORTHBOUND APPROACH (SEE HIGHWAY STANDARD 701901-08)

**LEGEND**

- TEMPORARY TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- BARRIER WALL REFLECTOR
- IMPACT ATTENUATOR
- WORK AREA
- VERTICAL PANEL
- TYPE III BARRICADES WITH STEADY BURNING LIGHTS
- TEMPORARY CONCRETE BARRIER
- BASE COURSE WIDENING
- HMA TEMPORARY RAMP
- NUMBER OF PINS PER SECTION OF TEMPORARY CONCRETE BARRIER



MODEL: 4 - Stage 2 Plan  
FILE NAME: I:\181201\181201\09\CADD\MicroStation\CADD\_Drawing\181201\09\sh-ctb-01.dgn



USER NAME = rynn.witjes	DESIGNED -	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -





**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL  
PLAN VIEW - STAGE 2**

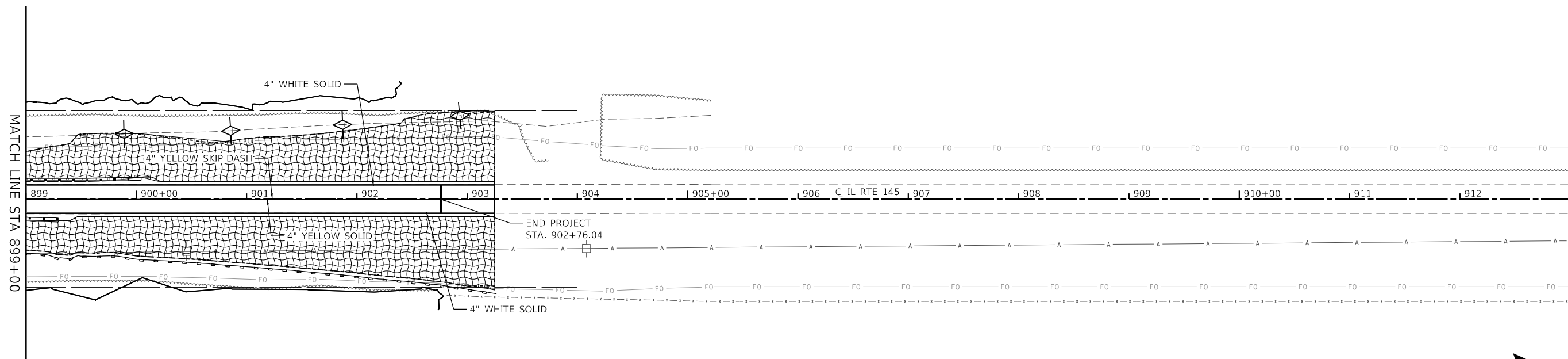
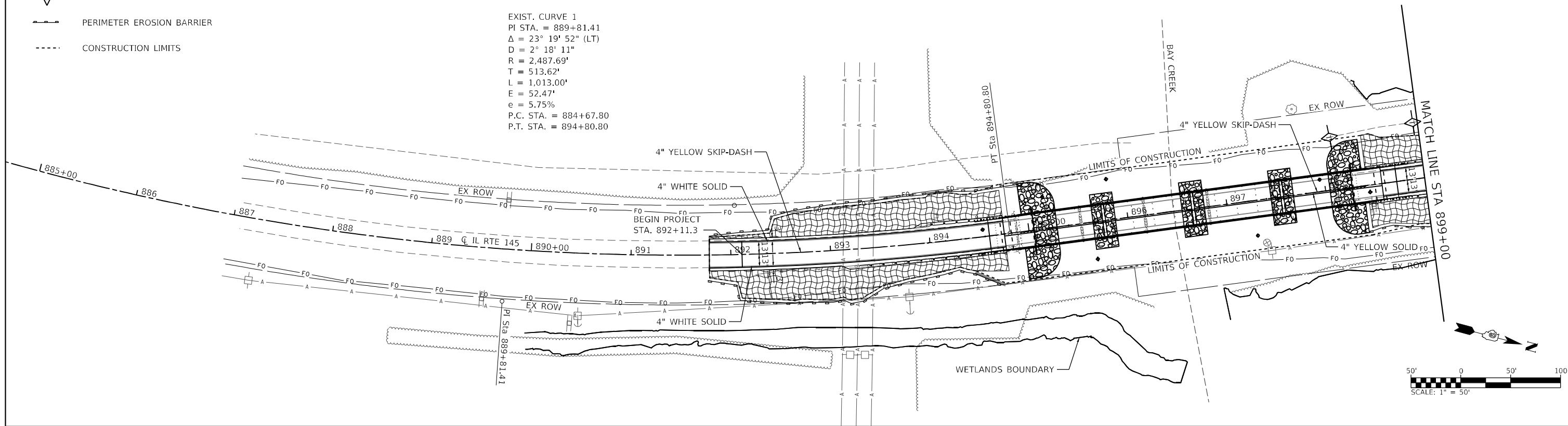
SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 19
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**EROSION CONTROL LEGEND**

-  EROSION CONTROL BLANKET
-  DITCH CHECK
-  PERIMETER EROSION BARRIER
-  CONSTRUCTION LIMITS

EXIST. CURVE 1  
 PI STA. = 889+81.41  
 $\Delta = 23^\circ 19' 52''$  (LT)  
 $D = 2^\circ 18' 11''$   
 $R = 2,487.69'$   
 $T = 513.62'$   
 $L = 1,013.00'$   
 $E = 52.47'$   
 $e = 5.75\%$   
 P.C. STA. = 884+67.80  
 P.T. STA. = 894+80.80



MODEL: j:\projects\11111111\11111111\11111111\CADD\Microstation\CADD\_Drawing\11111111\11111111.dgn  
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USER NAME = rjnr,witjes	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -






**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

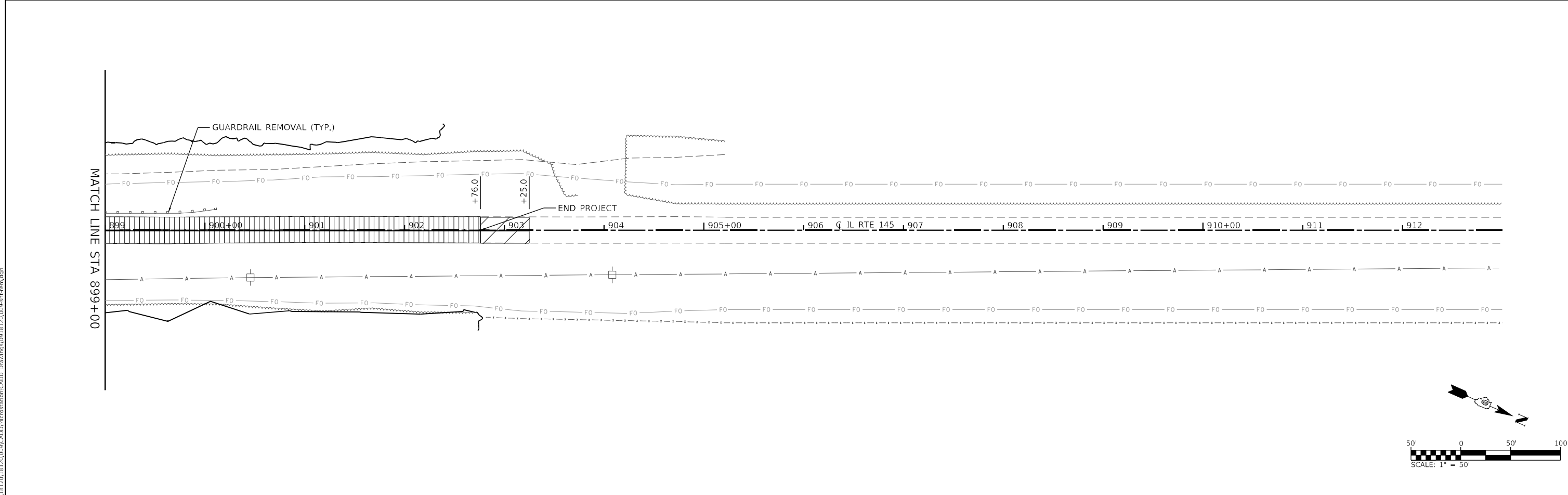
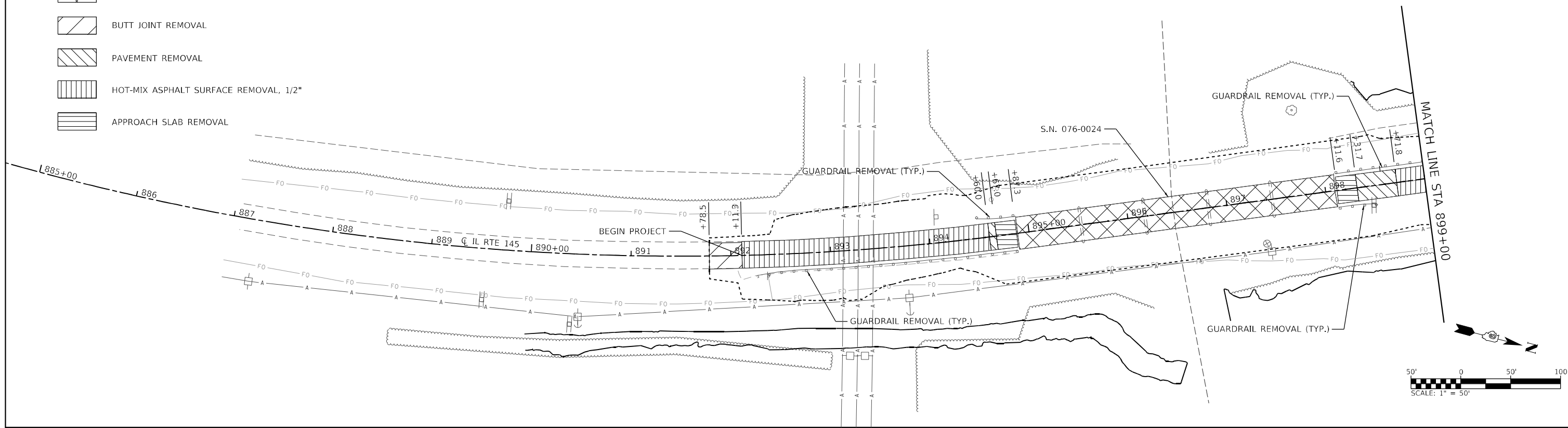
**PAVEMENT MARKING & EROSION CONTROL SHEETS**

SCALE: 1" = 50' SHEET 1 OF 1 SHEETS STA. 885+00 TO STA. 913+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	20
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**REMOVALS LEGEND**

-  STRUCTURE REMOVAL
-  BUTT JOINT REMOVAL
-  PAVEMENT REMOVAL
-  HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"
-  APPROACH SLAB REMOVAL



MODEL: REM\_1  
 FILE NAME: I:\18120\18120\009\CADD\Microstation\CADD\_Drawing\18120\_009\_011111.dgn



USER NAME = rynn.witjes	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>REMOVAL SHEETS</b>			
SCALE: 1" = 50'	SHEET 1	OF 1 SHEETS	STA. TO STA.

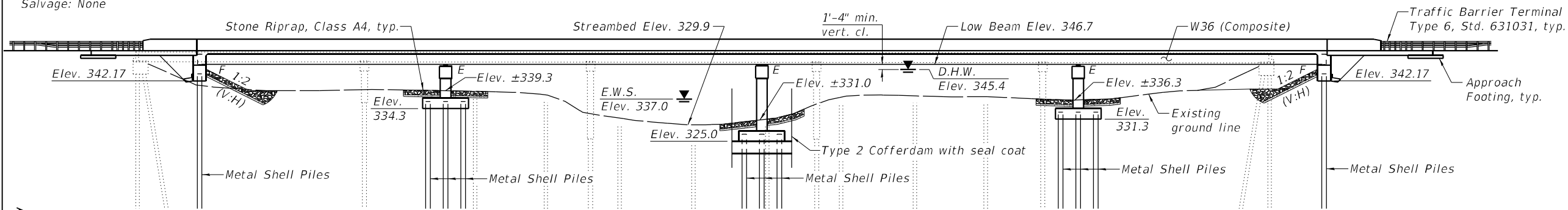
F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 21
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

Bench Mark: BM 804 - Chiseled square on northeast wingwall, Sta. 898+11, 17' RT., Elev. 350.05.

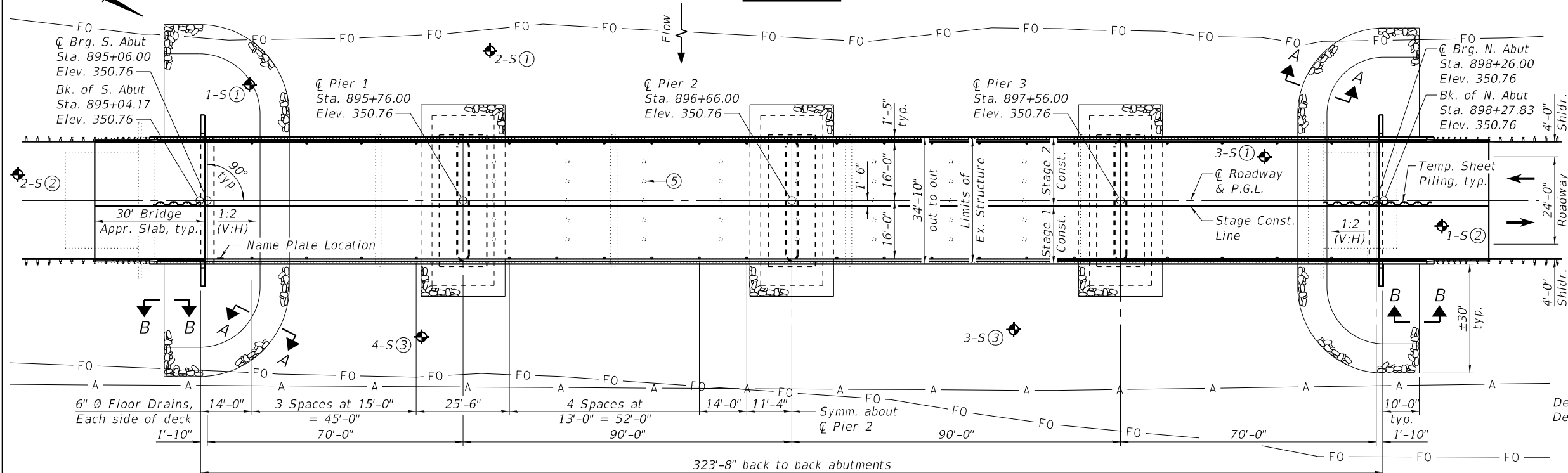
Existing Structure: S.N. 076-0024 was originally built in 1983 as F.A. Route 132, Section 103A-B. The back to back abutment length is 324'-7" and the out to out deck width is 34'-0". The existing structure consists of a five span 27" PPC deck beam superstructure supported by concrete stub abutments founded on concrete piles and concrete pile bent piers founded on concrete piles. Structure is to be removed and replaced.

Traffic Control: One lane of traffic will be maintained by utilizing staged construction.

Salvage: None



ELEVATION



PLAN

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.		Opening Ft <sup>2</sup>		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	Main Channel	10	6,502	6,489	2,448	2,460	345.4	0.2	0.2	345.6	345.6
	Relief Str.		3,498	3,511	1,344	1,344					
	Total		10,000	10,000	3,792	3,804					
Base	Main Channel	50	9,008	8,959	2,448	2,460	345.4	0.4	0.4	345.8	345.8
	Relief Str.		5,092	5,141	1,344	1,344					
	Total		14,100	14,100	3,792	3,804					
Check	Main Channel	100	10,096	10,074	2,448	2,460	345.4	0.5	0.5	345.9	345.9
	Relief Str.		5,704	5,726	1,344	1,344					
	Total		15,800	15,800	3,792	3,804					
Max Calc.	Main Channel	200	11,418	11,287	2,448	2,460	345.4	0.6	0.6	346.0	346.0
	Relief Str.		6,282	6,413	1,344	1,344					
	Total		17,700	17,700	3,792	3,804					
10 Year Velocity	Main Channel	500	12,865	12,835	2,448	2,460	345.4	0.7	0.7	346.1	346.1
	Relief Str.		7,235	7,265	1,344	1,344					
	Total		20,100	20,100	3,792	3,804					

10 Year Velocity Through Existing Bridge = 2.65 ft/s  
10 Year Velocity Through Proposed Bridge = 2.68 ft/s

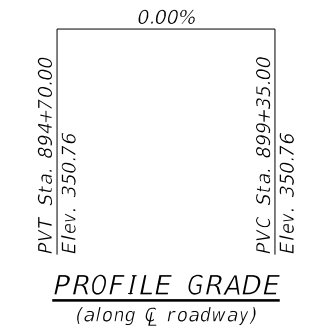
DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)					Item 113
	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.	
Q100	342.2	331.6	319.9	328.9	342.2	5
Q200	342.2	331.3	319.4	328.6	342.2	
Design	342.2	331.6	319.9	328.9	342.2	
Check	342.2	331.3	319.4	328.6	342.2	

- Notes:  
 ① 1979 Boring.  
 ② 2019 Boring.  
 ③ 2021 Boring.  
 ④ For Sections A-A and B-B, and Riprap Protection at Piers, see sheet 2 of 37.  
 ⑤ Timber piles from 1959 bridge construction, typical.

APPROVED  
For Structural Adequacy Only  
*James F. Schell*  
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER  
DANIEL GEORGE LUTZ  
081 006772  
STATE OF ILLINOIS  
DATE: 10/13/2022  
EXPIRATION: 11/30/2022



PROFILE GRADE (along centerline roadway)

STATION 896+66  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 132 SEC. 103B-2  
LOADING HL-93  
STR. NO. 076-0033

NAME PLATE  
See Std. 515001

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

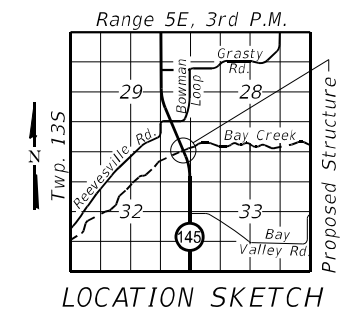
DESIGN STRESSES

FIELD UNITS

- f'c = 3,500 psi
- f'c = 4,000 psi (Superstructure concrete)
- fy = 60,000 psi (Reinforcement)
- fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

- Seismic Performance Zone (SPZ) = 4
- Design Spectral Acceleration at 1.0 sec. (SD1) = 0.701g
- Design Spectral Acceleration at 0.2 sec. (SDS) = 0.918g
- Soil Site Class = E



IL RTE. 145 OVER BAY CREEK  
F.A.P. RTE. 132 - SEC. 103B-2  
POPE COUNTY  
STA. 896+66.00  
STRUCTURE NO. 076-0033

FILE NAME: H:\P\18120\09\Bridges\Final Plans\Microstation\0760033-78719-001-General Plan & Elevation.dgn



USER NAME	DESIGNED	REVISIONS
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	-	-
	-	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
STRUCTURE NO. 076-0033

SHEET 1 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	22
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts in painted areas.  
Bolts 7/8 in. Ø, holes 1 5/16 in. Ø, unless noted otherwise.

Calculated weight of Structural Steel: AASHTO M 270 Grade 50 = 315,890 pounds  
AASHTO M 270 Grade 36 = 26,760 pounds

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all steel surfaces shall be gray, Munsell No. 5B 7/1.

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

Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

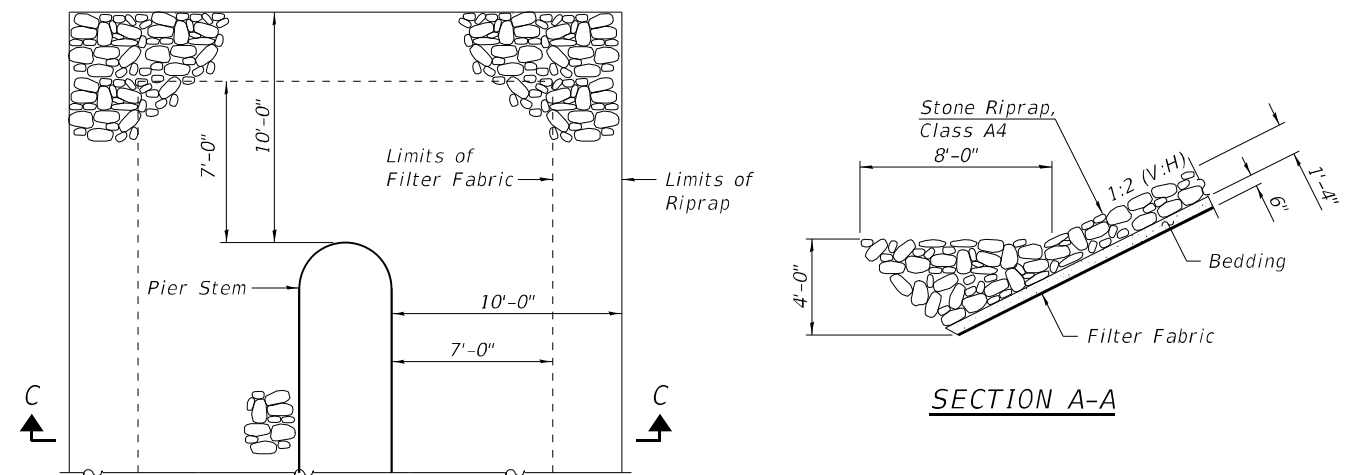
Slipforming of the parapets is not allowed.

**TOTAL BILL OF MATERIAL**

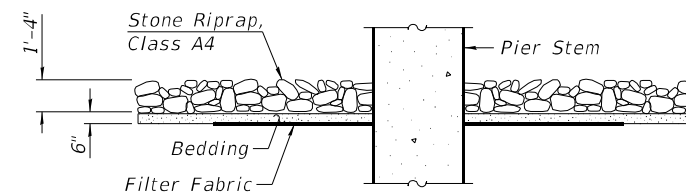
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.	-	976	976
Filter Fabric	Sq. Yd.	-	724	724
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	465	465
Cofferdam Excavation	Cu. Yd.	-	257	257
Cofferdam (Type 2) (Location - 1)	Each	-	1	1
Floor Drains	Each	40	-	40
Concrete Structures	Cu. Yd.	-	367.8	367.8
Concrete Superstructure	Cu. Yd.	413.1	-	413.1
Bridge Deck Grooving	Sq. Yd.	1,272	-	1,272
Seal Coat Concrete	Cu. Yd.	-	91.9	91.9
Protective Coat	Sq. Yd.	1,683	-	1,683
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	5,886	-	5,886
Reinforcement Bars, Epoxy Coated	Pound	107,020	52,030	159,050
Bar Splicers	Each	1,004	311	1,315
Mechanical Splicers	Each	-	336	336
Furnishing Metal Shell Piles 16" X 0.375"	Foot	-	3,055	3,055
Driving Piles	Foot	-	3,055	3,055
Test Pile Metal Shells	Each	-	5	5
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	66	-	66
Elastomeric Bearing Assembly, Type I	Each	18	-	18
Anchor Bolts, 1"	Each	60	-	60
Temporary Sheet Piling	Sq. Ft.	-	1,049	1,049
Granular Backfill for Structures	Cu. Yd.	-	125	125
Geocomposite Wall Drain	Sq. Yd.	-	73	73
Pipe Underdrains for Structures 4"	Foot	-	140	140
Asbestos Bearing Pad Removal	Each	-	-	24
Concrete Wearing Surface, 5"	Sq. Yd.	226	-	226
Precast Bridge Approach Slab	Sq. Ft.	1,900	-	1,900

**INDEX OF SHEETS**

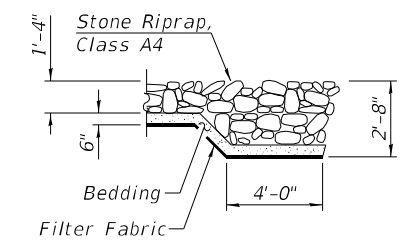
Sheet No.	Description
1	General Plan & Elevation
2	General Data
3	Footing Layout
4	Stage Construction Details
5	Temporary Concrete Barrier
6-9	Top of Slab Elevations
10	Top of Approach Slab Elevations
11	Superstructure
12	Superstructure Details
13	Integral Diaphragm Details
14-16	Precast Bridge Approach Slab
17	Framing Plan
18-19	Beam Details
20	Bearing Details
21	Abutment Details
22-23	Pier 1
24-25	Pier 2
26-27	Pier 3
28	Metal Shell Pile Details
29	Bar Splicer Assembly and Mechanical Splicer Details
30	Preformed Joint Strip Seal
31-37	Soil Boring Logs



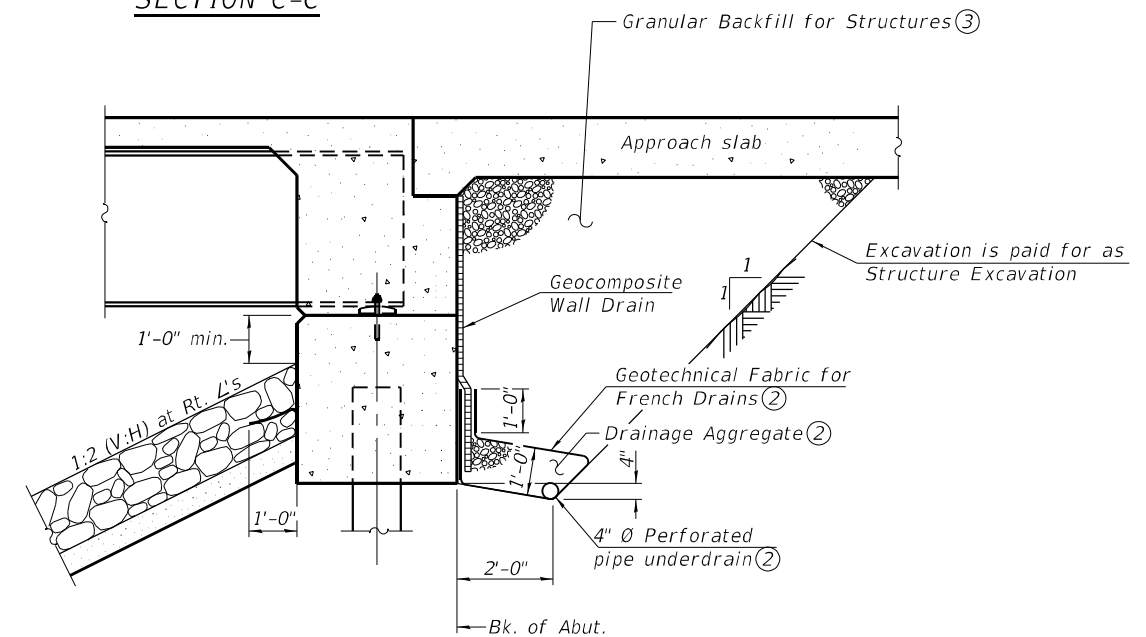
**RIPRAP PROTECTION AT PIERS**



**SECTION C-C**



**SECTION B-B**



**SECTION THRU INTEGRAL ABUTMENT ①**

**Notes:**

- ① All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. See Article 601.05 of the Standard Specifications and Highway Standard 601101.
- ② Included in the cost of Pipe Underdrains for Structures.
- ③ Granular Backfill for Structures shall follow Article 586 of the Standard Specifications, and the Coarse Aggregate shall be Grade CA 7, CA 11, or CA 14. Granular backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.

FILE NAME: H:\P\18120.009\Bridges\Final Plans\Microstation\0760033-78719-002-General\_Data.dgn



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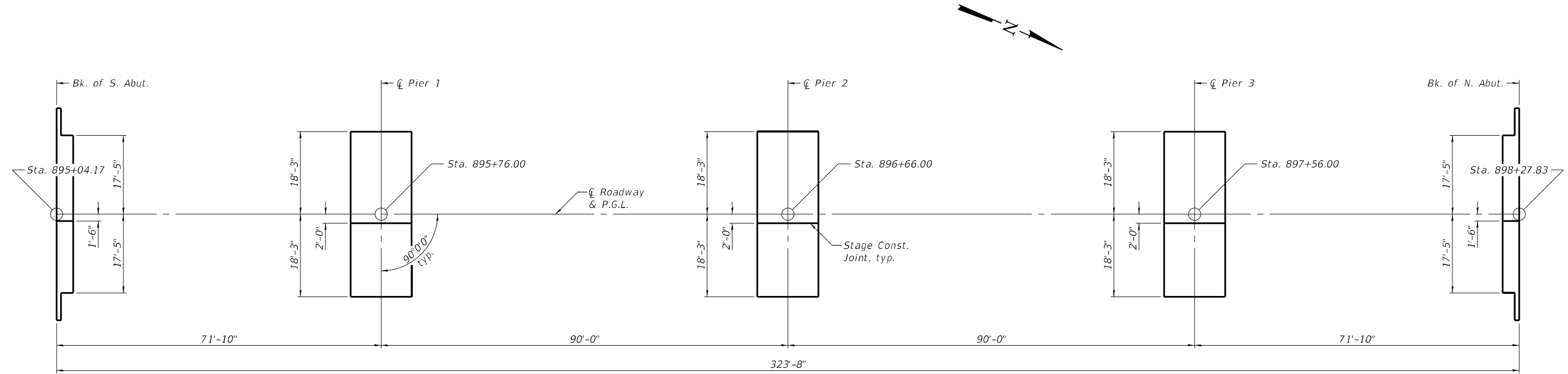
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA  
STRUCTURE NO. 076-0033**

SHEET 2 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	23
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

FILE NAME: H:\PI\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-003-Footing Layout.dgn



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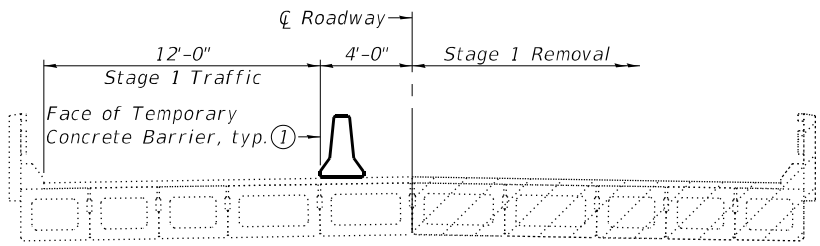
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FOOTING LAYOUT  
STRUCTURE NO. 076-0033**

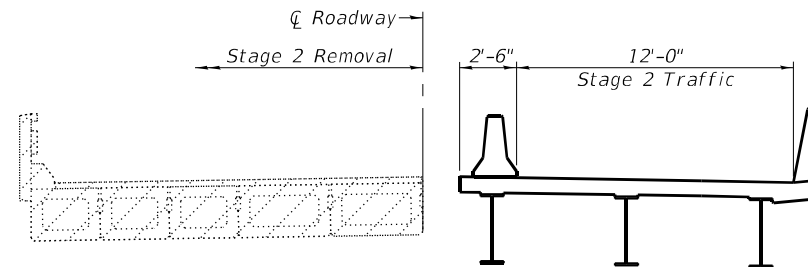
SHEET 3 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	24
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78719	

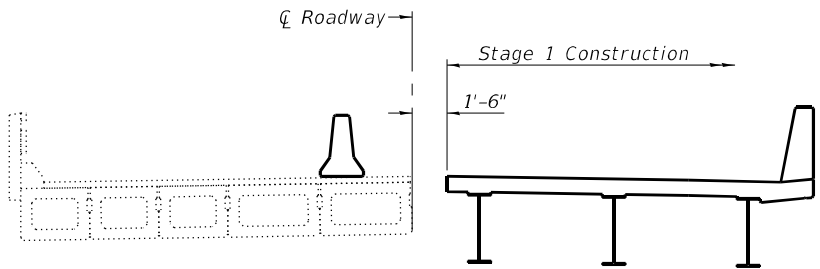




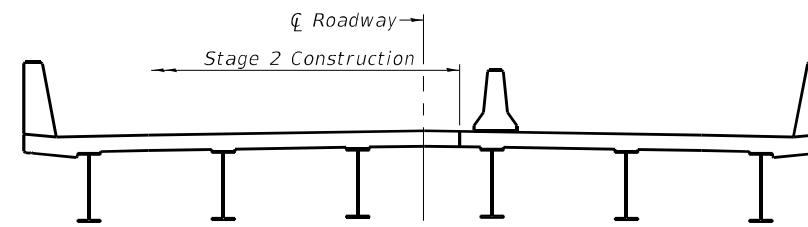
**STAGE 1 REMOVAL**  
(Looking North)



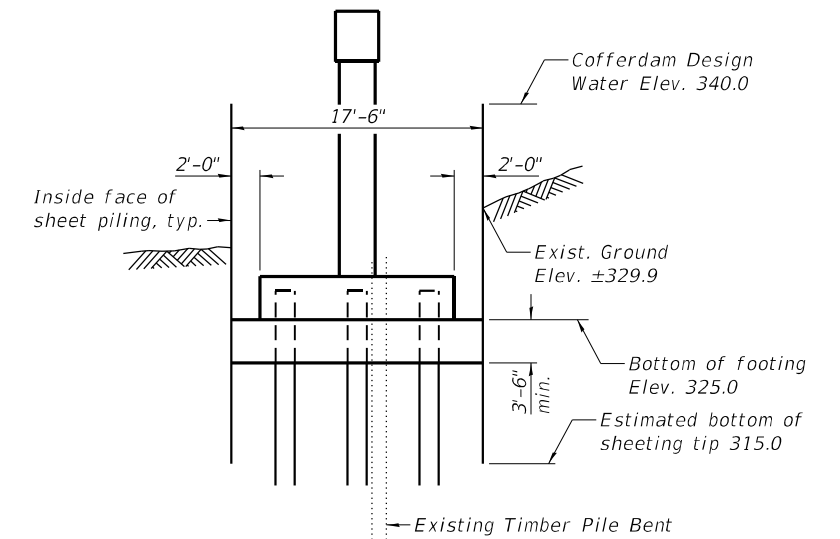
**STAGE 2 REMOVAL**  
(Looking North)



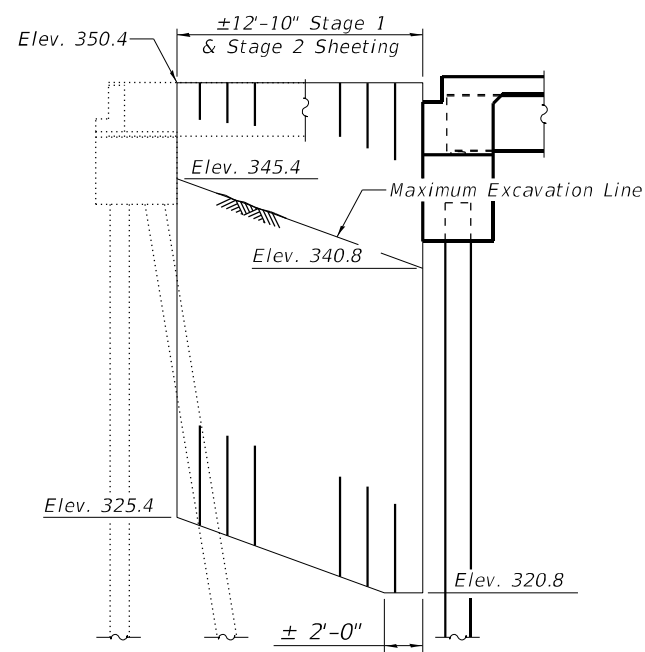
**STAGE 1 CONSTRUCTION ③**  
(Looking North)



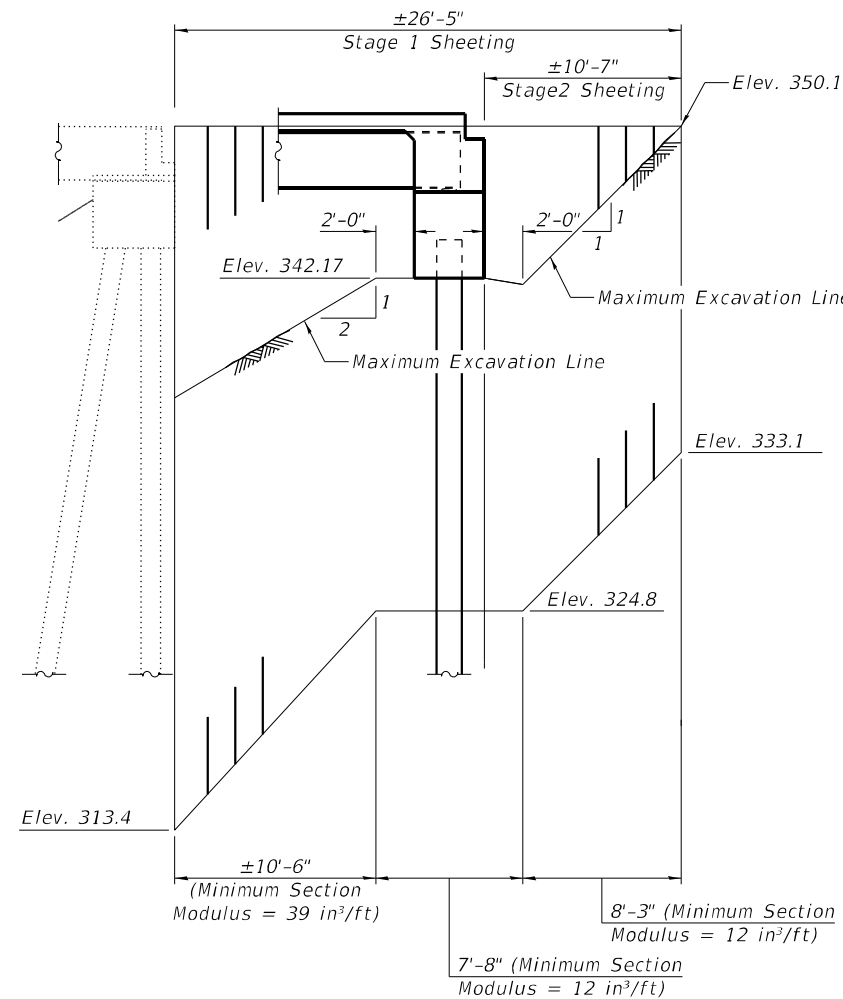
**STAGE 2 CONSTRUCTION ③**  
(Looking North)



**COFFERDAM DETAIL**  
(Looking West)

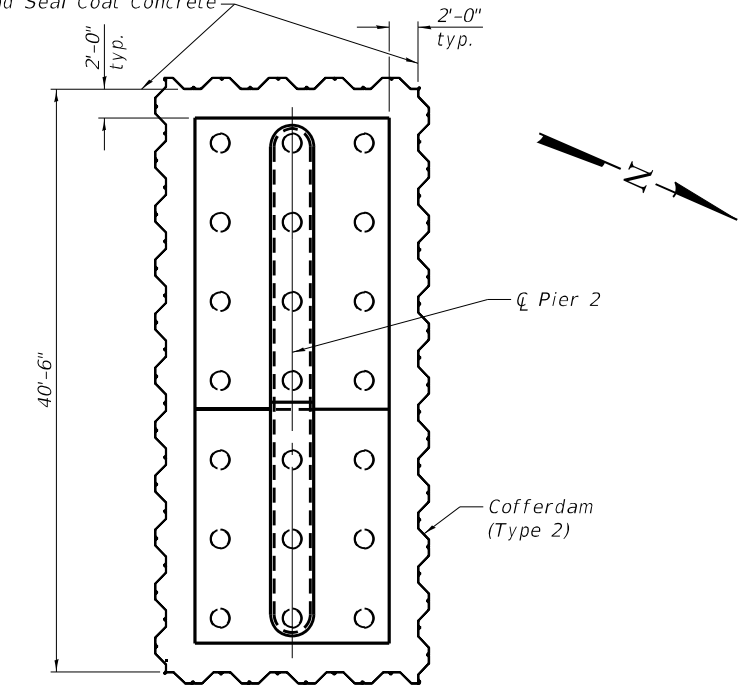


**SOUTH ABUTMENT**  
(Minimum Section Modulus = 21 in<sup>3</sup>/ft)



**NORTH ABUTMENT**

Pay limits for  
Cofferdam Excavation  
and Seal Coat Concrete



**COFFERDAM PLAN ③④**

**Notes:**

- ① For details of Temporary Concrete Barrier, see sheet 5 of 37. For quantity of Temporary Concrete Barrier and related traffic control, see roadway plans.
- ② If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- ③ Stage Construction line for the Superstructure is not the same as the Stage Construction lines for Piers 1, 2, and 3.
- ④ Cofferdam staging shall be determined by the Contractor.

FILE NAME: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-004-Stage Construction Details.dgn



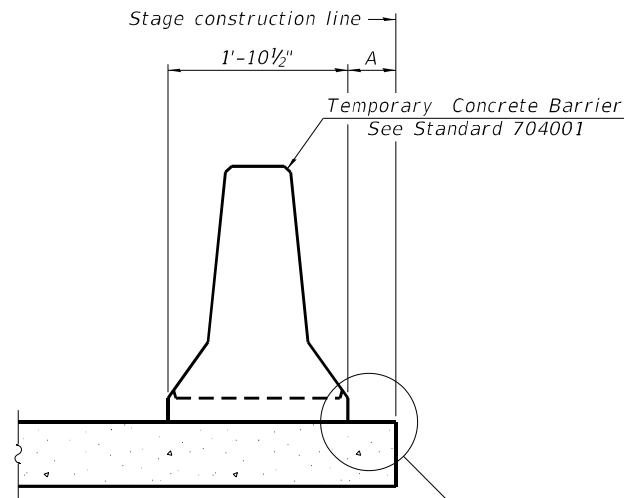
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PLOT DATE = 8/16/2022	CHECKED - KBC	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 076-0033**

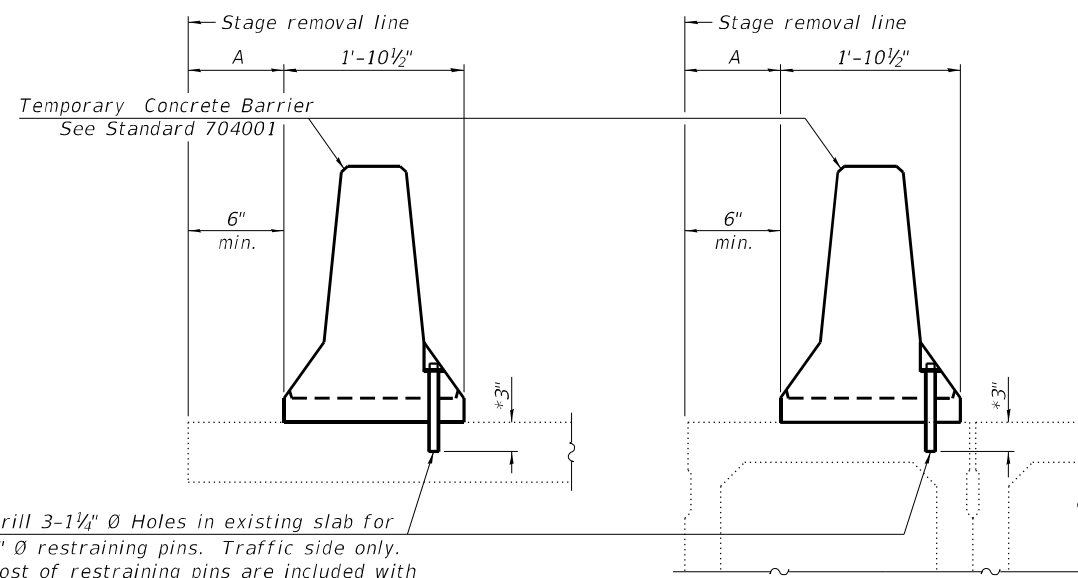
SHEET 4 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	25
CONTRACT NO. 78719				
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

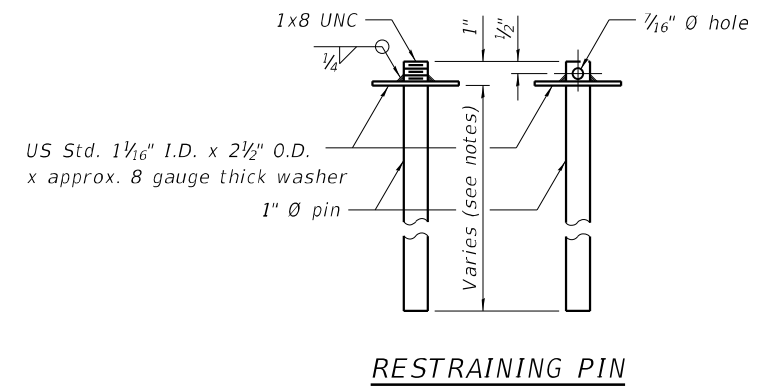


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

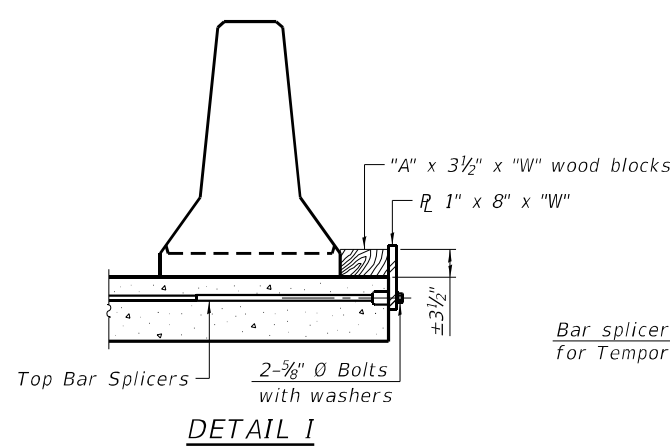
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

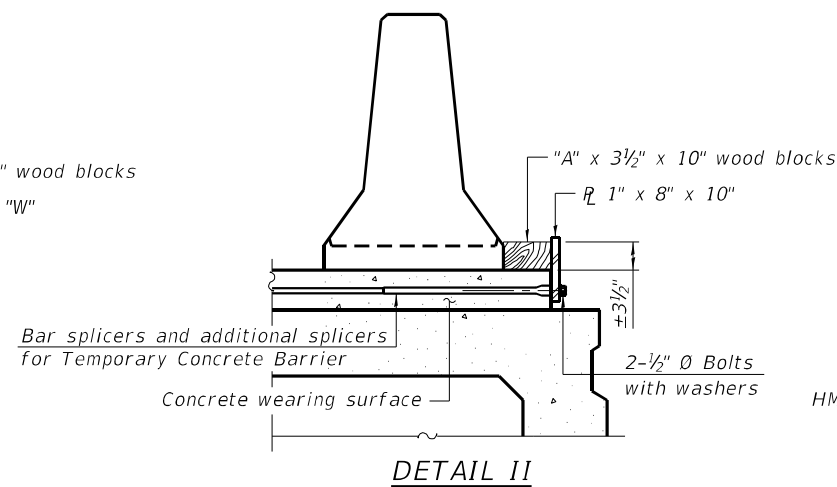


RESTRAINING PIN

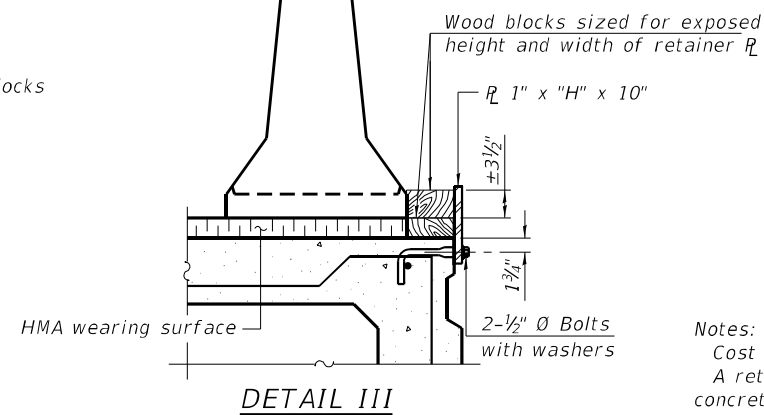
\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.



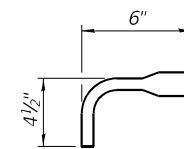
DETAIL I



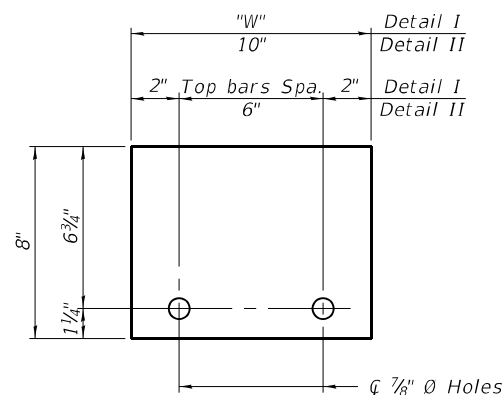
DETAIL II



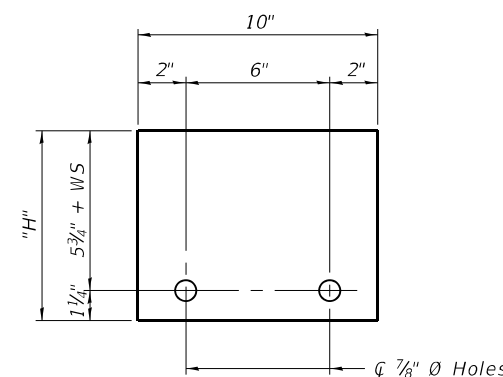
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



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



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

Notes:  
 Cost of retainer assembly is included with Temporary Concrete Barrier.  
 A retainer assembly shall be located at the approximate center 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 1 1/2', 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.

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021

FILE NAME: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-005-Temporary Concrete Barrier.dgn



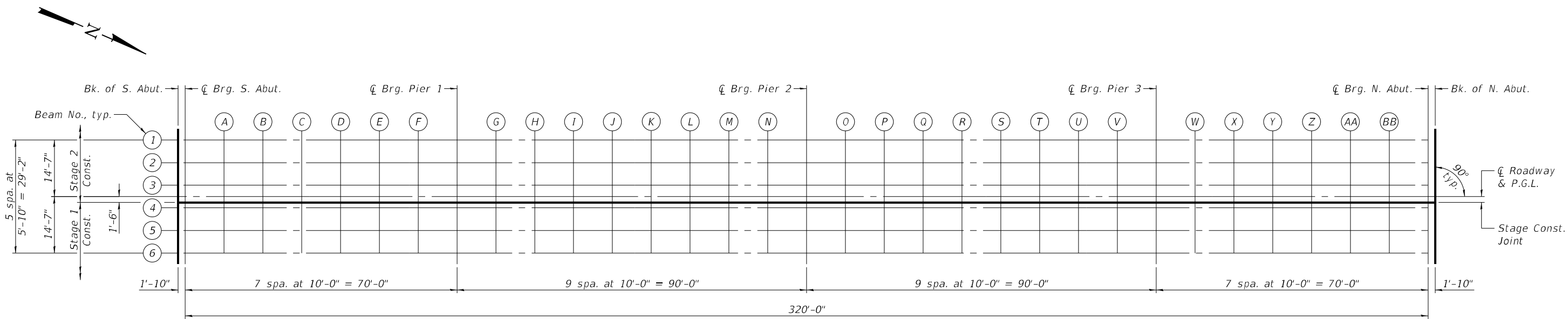
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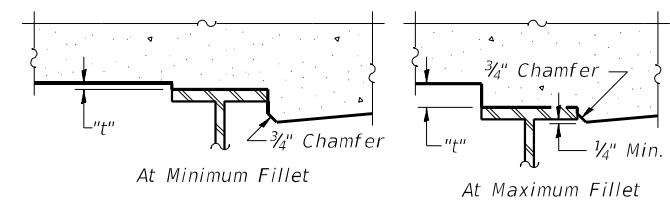
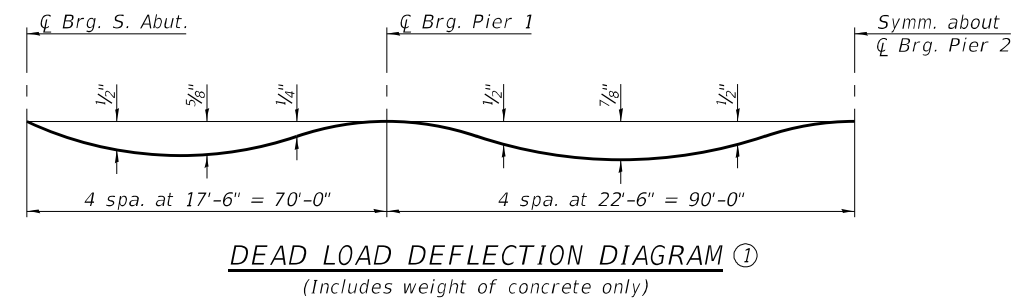
TEMPORARY CONCRETE BARRIER  
STRUCTURE NO. 076-0033

SHEET 5 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	26
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



**PLAN**



Notes:  
 ① The deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on sheets 7 thru 9 of 37.  
 ② To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 7 thru 9 of 37, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILE NAME: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-006-Top of Slab Elevations.dgn



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 076-0033**

SHEET 6 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 27
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	-14.58	350.53	350.53
☉ Brg. S. Abut.	895+06.00	-14.58	350.53	350.53
A	895+16.00	-14.58	350.53	350.56
B	895+26.00	-14.58	350.53	350.57
C	895+36.00	-14.58	350.53	350.58
D	895+46.00	-14.58	350.53	350.57
E	895+56.00	-14.58	350.53	350.55
F	895+66.00	-14.58	350.53	350.54
☉ Brg. Pier 1	895+76.00	-14.58	350.53	350.53
G	895+86.00	-14.58	350.53	350.54
H	895+96.00	-14.58	350.53	350.56
I	896+06.00	-14.58	350.53	350.58
J	896+16.00	-14.58	350.53	350.60
K	896+26.00	-14.58	350.53	350.60
L	896+36.00	-14.58	350.53	350.58
M	896+46.00	-14.58	350.53	350.56
N	896+56.00	-14.58	350.53	350.54
☉ Brg. Pier 2	896+66.00	-14.58	350.53	350.53
O	896+76.00	-14.58	350.53	350.54
P	896+86.00	-14.58	350.53	350.56
Q	896+96.00	-14.58	350.53	350.58
R	897+06.00	-14.58	350.53	350.60
S	897+16.00	-14.58	350.53	350.60
T	897+26.00	-14.58	350.53	350.58
U	897+36.00	-14.58	350.53	350.56
V	897+46.00	-14.58	350.53	350.54
☉ Brg. Pier 3	897+56.00	-14.58	350.53	350.53
W	897+66.00	-14.58	350.53	350.54
X	897+76.00	-14.58	350.53	350.55
Y	897+86.00	-14.58	350.53	350.57
Z	897+96.00	-14.58	350.53	350.58
AA	898+06.00	-14.58	350.53	350.57
BB	898+16.00	-14.58	350.53	350.56
☉ Brg. N. Abut.	898+26.00	-14.58	350.53	350.53
Bk. of N. Abut.	898+27.83	-14.58	350.53	350.53

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	-8.75	350.63	350.63
☉ Brg. S. Abut.	895+06.00	-8.75	350.63	350.63
A	895+16.00	-8.75	350.63	350.66
B	895+26.00	-8.75	350.63	350.67
C	895+36.00	-8.75	350.63	350.68
D	895+46.00	-8.75	350.63	350.67
E	895+56.00	-8.75	350.63	350.65
F	895+66.00	-8.75	350.63	350.64
☉ Brg. Pier 1	895+76.00	-8.75	350.63	350.63
G	895+86.00	-8.75	350.63	350.64
H	895+96.00	-8.75	350.63	350.66
I	896+06.00	-8.75	350.63	350.68
J	896+16.00	-8.75	350.63	350.70
K	896+26.00	-8.75	350.63	350.70
L	896+36.00	-8.75	350.63	350.68
M	896+46.00	-8.75	350.63	350.66
N	896+56.00	-8.75	350.63	350.64
☉ Brg. Pier 2	896+66.00	-8.75	350.63	350.63
O	896+76.00	-8.75	350.63	350.64
P	896+86.00	-8.75	350.63	350.66
Q	896+96.00	-8.75	350.63	350.68
R	897+06.00	-8.75	350.63	350.70
S	897+16.00	-8.75	350.63	350.70
T	897+26.00	-8.75	350.63	350.68
U	897+36.00	-8.75	350.63	350.66
V	897+46.00	-8.75	350.63	350.64
☉ Brg. Pier 3	897+56.00	-8.75	350.63	350.63
W	897+66.00	-8.75	350.63	350.64
X	897+76.00	-8.75	350.63	350.65
Y	897+86.00	-8.75	350.63	350.67
Z	897+96.00	-8.75	350.63	350.68
AA	898+06.00	-8.75	350.63	350.67
BB	898+16.00	-8.75	350.63	350.66
☉ Brg. N. Abut.	898+26.00	-8.75	350.63	350.63
Bk. of N. Abut.	898+27.83	-8.75	350.63	350.63

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	-2.92	350.72	350.72
☉ Brg. S. Abut.	895+06.00	-2.92	350.72	350.72
A	895+16.00	-2.92	350.72	350.74
B	895+26.00	-2.92	350.72	350.76
C	895+36.00	-2.92	350.72	350.77
D	895+46.00	-2.92	350.72	350.76
E	895+56.00	-2.92	350.72	350.74
F	895+66.00	-2.92	350.72	350.72
☉ Brg. Pier 1	895+76.00	-2.92	350.72	350.72
G	895+86.00	-2.92	350.72	350.73
H	895+96.00	-2.92	350.72	350.75
I	896+06.00	-2.92	350.72	350.77
J	896+16.00	-2.92	350.72	350.78
K	896+26.00	-2.92	350.72	350.78
L	896+36.00	-2.92	350.72	350.77
M	896+46.00	-2.92	350.72	350.75
N	896+56.00	-2.92	350.72	350.73
☉ Brg. Pier 2	896+66.00	-2.92	350.72	350.72
O	896+76.00	-2.92	350.72	350.73
P	896+86.00	-2.92	350.72	350.75
Q	896+96.00	-2.92	350.72	350.77
R	897+06.00	-2.92	350.72	350.78
S	897+16.00	-2.92	350.72	350.78
T	897+26.00	-2.92	350.72	350.77
U	897+36.00	-2.92	350.72	350.75
V	897+46.00	-2.92	350.72	350.73
☉ Brg. Pier 3	897+56.00	-2.92	350.72	350.72
W	897+66.00	-2.92	350.72	350.72
X	897+76.00	-2.92	350.72	350.74
Y	897+86.00	-2.92	350.72	350.76
Z	897+96.00	-2.92	350.72	350.77
AA	898+06.00	-2.92	350.72	350.76
BB	898+16.00	-2.92	350.72	350.74
☉ Brg. N. Abut.	898+26.00	-2.92	350.72	350.72
Bk. of N. Abut.	898+27.83	-2.92	350.72	350.72

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 076-0033**

SHEET 7 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	28
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

☐ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	0.00	350.76	350.76
☐ Brg. S. Abut.	895+06.00	0.00	350.76	350.76
A	895+16.00	0.00	350.76	350.79
B	895+26.00	0.00	350.76	350.81
C	895+36.00	0.00	350.76	350.81
D	895+46.00	0.00	350.76	350.80
E	895+56.00	0.00	350.76	350.79
F	895+66.00	0.00	350.76	350.77
☐ Brg. Pier 1	895+76.00	0.00	350.76	350.76
G	895+86.00	0.00	350.76	350.77
H	895+96.00	0.00	350.76	350.79
I	896+06.00	0.00	350.76	350.81
J	896+16.00	0.00	350.76	350.83
K	896+26.00	0.00	350.76	350.83
L	896+36.00	0.00	350.76	350.81
M	896+46.00	0.00	350.76	350.79
N	896+56.00	0.00	350.76	350.77
☐ Brg. Pier 2	896+66.00	0.00	350.76	350.76
O	896+76.00	0.00	350.76	350.77
P	896+86.00	0.00	350.76	350.79
Q	896+96.00	0.00	350.76	350.81
R	897+06.00	0.00	350.76	350.83
S	897+16.00	0.00	350.76	350.83
T	897+26.00	0.00	350.76	350.81
U	897+36.00	0.00	350.76	350.79
V	897+46.00	0.00	350.76	350.77
☐ Brg. Pier 3	897+56.00	0.00	350.76	350.76
W	897+66.00	0.00	350.76	350.77
X	897+76.00	0.00	350.76	350.79
Y	897+86.00	0.00	350.76	350.80
Z	897+96.00	0.00	350.76	350.81
AA	898+06.00	0.00	350.76	350.81
BB	898+16.00	0.00	350.76	350.79
☐ Brg. N. Abut.	898+26.00	0.00	350.76	350.76
Bk. of N. Abut.	898+27.83	0.00	350.76	350.76

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	1.50	350.74	350.74
☐ Brg. S. Abut.	895+06.00	1.50	350.74	350.74
A	895+16.00	1.50	350.74	350.76
B	895+26.00	1.50	350.74	350.78
C	895+36.00	1.50	350.74	350.79
D	895+46.00	1.50	350.74	350.78
E	895+56.00	1.50	350.74	350.76
F	895+66.00	1.50	350.74	350.75
☐ Brg. Pier 1	895+76.00	1.50	350.74	350.74
G	895+86.00	1.50	350.74	350.75
H	895+96.00	1.50	350.74	350.77
I	896+06.00	1.50	350.74	350.79
J	896+16.00	1.50	350.74	350.80
K	896+26.00	1.50	350.74	350.80
L	896+36.00	1.50	350.74	350.79
M	896+46.00	1.50	350.74	350.77
N	896+56.00	1.50	350.74	350.75
☐ Brg. Pier 2	896+66.00	1.50	350.74	350.74
O	896+76.00	1.50	350.74	350.75
P	896+86.00	1.50	350.74	350.77
Q	896+96.00	1.50	350.74	350.79
R	897+06.00	1.50	350.74	350.80
S	897+16.00	1.50	350.74	350.80
T	897+26.00	1.50	350.74	350.79
U	897+36.00	1.50	350.74	350.77
V	897+46.00	1.50	350.74	350.75
☐ Brg. Pier 3	897+56.00	1.50	350.74	350.74
W	897+66.00	1.50	350.74	350.75
X	897+76.00	1.50	350.74	350.76
Y	897+86.00	1.50	350.74	350.78
Z	897+96.00	1.50	350.74	350.79
AA	898+06.00	1.50	350.74	350.78
BB	898+16.00	1.50	350.74	350.76
☐ Brg. N. Abut.	898+26.00	1.50	350.74	350.74
Bk. of N. Abut.	898+27.83	1.50	350.74	350.74

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	2.92	350.72	350.72
☐ Brg. S. Abut.	895+06.00	2.92	350.72	350.72
A	895+16.00	2.92	350.72	350.74
B	895+26.00	2.92	350.72	350.76
C	895+36.00	2.92	350.72	350.77
D	895+46.00	2.92	350.72	350.76
E	895+56.00	2.92	350.72	350.74
F	895+66.00	2.92	350.72	350.72
☐ Brg. Pier 1	895+76.00	2.92	350.72	350.72
G	895+86.00	2.92	350.72	350.73
H	895+96.00	2.92	350.72	350.75
I	896+06.00	2.92	350.72	350.77
J	896+16.00	2.92	350.72	350.78
K	896+26.00	2.92	350.72	350.78
L	896+36.00	2.92	350.72	350.77
M	896+46.00	2.92	350.72	350.75
N	896+56.00	2.92	350.72	350.73
☐ Brg. Pier 2	896+66.00	2.92	350.72	350.72
O	896+76.00	2.92	350.72	350.73
P	896+86.00	2.92	350.72	350.75
Q	896+96.00	2.92	350.72	350.77
R	897+06.00	2.92	350.72	350.78
S	897+16.00	2.92	350.72	350.78
T	897+26.00	2.92	350.72	350.77
U	897+36.00	2.92	350.72	350.75
V	897+46.00	2.92	350.72	350.73
☐ Brg. Pier 3	897+56.00	2.92	350.72	350.72
W	897+66.00	2.92	350.72	350.72
X	897+76.00	2.92	350.72	350.74
Y	897+86.00	2.92	350.72	350.76
Z	897+96.00	2.92	350.72	350.77
AA	898+06.00	2.92	350.72	350.76
BB	898+16.00	2.92	350.72	350.74
☐ Brg. N. Abut.	898+26.00	2.92	350.72	350.72
Bk. of N. Abut.	898+27.83	2.92	350.72	350.72

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 076-0033

SHEET 8 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	29
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	8.75	350.63	350.63
☒ Brg. S. Abut.	895+06.00	8.75	350.63	350.63
A	895+16.00	8.75	350.63	350.66
B	895+26.00	8.75	350.63	350.67
C	895+36.00	8.75	350.63	350.68
D	895+46.00	8.75	350.63	350.67
E	895+56.00	8.75	350.63	350.65
F	895+66.00	8.75	350.63	350.64
☒ Brg. Pier 1	895+76.00	8.75	350.63	350.63
G	895+86.00	8.75	350.63	350.64
H	895+96.00	8.75	350.63	350.66
I	896+06.00	8.75	350.63	350.68
J	896+16.00	8.75	350.63	350.70
K	896+26.00	8.75	350.63	350.70
L	896+36.00	8.75	350.63	350.68
M	896+46.00	8.75	350.63	350.66
N	896+56.00	8.75	350.63	350.64
☒ Brg. Pier 2	896+66.00	8.75	350.63	350.63
O	896+76.00	8.75	350.63	350.64
P	896+86.00	8.75	350.63	350.66
Q	896+96.00	8.75	350.63	350.68
R	897+06.00	8.75	350.63	350.70
S	897+16.00	8.75	350.63	350.70
T	897+26.00	8.75	350.63	350.68
U	897+36.00	8.75	350.63	350.66
V	897+46.00	8.75	350.63	350.64
☒ Brg. Pier 3	897+56.00	8.75	350.63	350.63
W	897+66.00	8.75	350.63	350.64
X	897+76.00	8.75	350.63	350.65
Y	897+86.00	8.75	350.63	350.67
Z	897+96.00	8.75	350.63	350.68
AA	898+06.00	8.75	350.63	350.67
BB	898+16.00	8.75	350.63	350.66
☒ Brg. N. Abut.	898+26.00	8.75	350.63	350.63
Bk. of N. Abut.	898+27.83	8.75	350.63	350.63

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	895+04.17	14.58	350.53	350.53
☒ Brg. S. Abut.	895+06.00	14.58	350.53	350.53
A	895+16.00	14.58	350.53	350.56
B	895+26.00	14.58	350.53	350.57
C	895+36.00	14.58	350.53	350.58
D	895+46.00	14.58	350.53	350.57
E	895+56.00	14.58	350.53	350.55
F	895+66.00	14.58	350.53	350.54
☒ Brg. Pier 1	895+76.00	14.58	350.53	350.53
G	895+86.00	14.58	350.53	350.54
H	895+96.00	14.58	350.53	350.56
I	896+06.00	14.58	350.53	350.58
J	896+16.00	14.58	350.53	350.60
K	896+26.00	14.58	350.53	350.60
L	896+36.00	14.58	350.53	350.58
M	896+46.00	14.58	350.53	350.56
N	896+56.00	14.58	350.53	350.54
☒ Brg. Pier 2	896+66.00	14.58	350.53	350.53
O	896+76.00	14.58	350.53	350.54
P	896+86.00	14.58	350.53	350.56
Q	896+96.00	14.58	350.53	350.58
R	897+06.00	14.58	350.53	350.60
S	897+16.00	14.58	350.53	350.60
T	897+26.00	14.58	350.53	350.58
U	897+36.00	14.58	350.53	350.56
V	897+46.00	14.58	350.53	350.54
☒ Brg. Pier 3	897+56.00	14.58	350.53	350.53
W	897+66.00	14.58	350.53	350.54
X	897+76.00	14.58	350.53	350.55
Y	897+86.00	14.58	350.53	350.57
Z	897+96.00	14.58	350.53	350.58
AA	898+06.00	14.58	350.53	350.57
BB	898+16.00	14.58	350.53	350.56
☒ Brg. N. Abut.	898+26.00	14.58	350.53	350.53
Bk. of N. Abut.	898+27.83	14.58	350.53	350.53

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 076-0033**

SHEET 9 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	30
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Apr. Slab	894+75.17	-16.00	350.50
A1	894+85.17	-16.00	350.50
A2	894+95.17	-16.00	350.50
N. End of South Apr. Slab	895+05.17	-16.00	350.50
S. End of North Apr. Slab	898+26.83	-16.00	350.50
A3	898+36.83	-16.00	350.50
A4	898+46.83	-16.00	350.50
N. End of North Apr. Slab	898+56.83	-16.00	350.50

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Apr. Slab	894+75.17	-12.00	350.58
A1	894+85.17	-12.00	350.58
A2	894+95.17	-12.00	350.58
N. End of South Apr. Slab	895+05.17	-12.00	350.58
S. End of North Apr. Slab	898+26.83	-12.00	350.58
A3	898+36.83	-12.00	350.58
A4	898+46.83	-12.00	350.58
N. End of North Apr. Slab	898+56.83	-12.00	350.58

CL ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Apr. Slab	894+75.17	0.00	350.76
A1	894+85.17	0.00	350.76
A2	894+95.17	0.00	350.76
N. End of South Apr. Slab	895+05.17	0.00	350.76
S. End of North Apr. Slab	898+26.83	0.00	350.76
A3	898+36.83	0.00	350.76
A4	898+46.83	0.00	350.76
N. End of North Apr. Slab	898+56.83	0.00	350.76

STAGE CONSTRUCTION JOINT

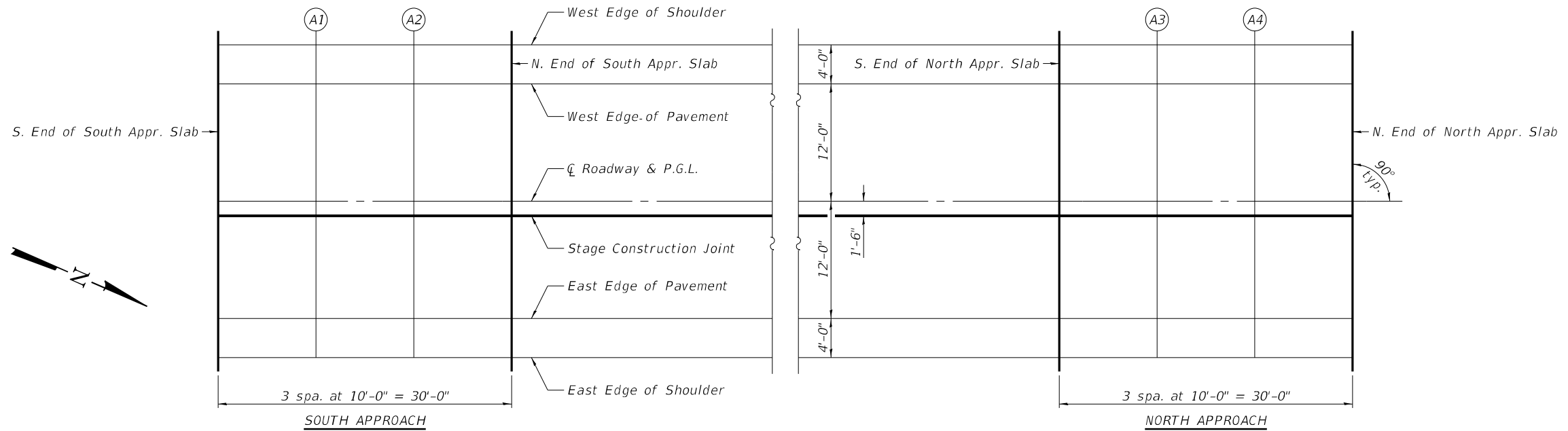
Location	Station	Offset	Theoretical Grade Elevations
S. End of South Apr. Slab	894+75.17	1.50	350.74
A1	894+85.17	1.50	350.74
A2	894+95.17	1.50	350.74
N. End of South Apr. Slab	895+05.17	1.50	350.74
S. End of North Apr. Slab	898+26.83	1.50	350.74
A3	898+36.83	1.50	350.74
A4	898+46.83	1.50	350.74
N. End of North Apr. Slab	898+56.83	1.50	350.74

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Apr. Slab	894+75.17	12.00	350.58
A1	894+85.17	12.00	350.58
A2	894+95.17	12.00	350.58
N. End of South Apr. Slab	895+05.17	12.00	350.58
S. End of North Apr. Slab	898+26.83	12.00	350.58
A3	898+36.83	12.00	350.58
A4	898+46.83	12.00	350.58
N. End of North Apr. Slab	898+56.83	12.00	350.58

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Apr. Slab	894+75.17	16.00	350.50
A1	894+85.17	16.00	350.50
A2	894+95.17	16.00	350.50
N. End of South Apr. Slab	895+05.17	16.00	350.50
S. End of North Apr. Slab	898+26.83	16.00	350.50
A3	898+36.83	16.00	350.50
A4	898+46.83	16.00	350.50
N. End of North Apr. Slab	898+56.83	16.00	350.50



PLAN

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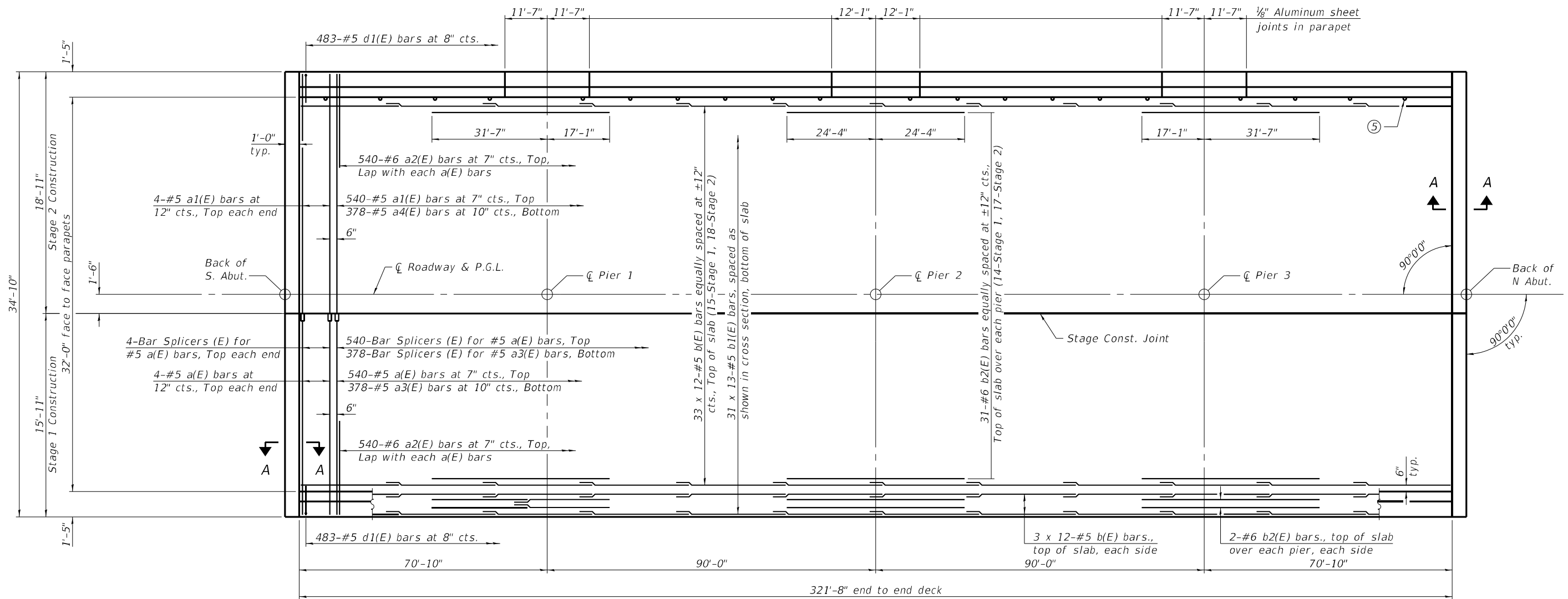
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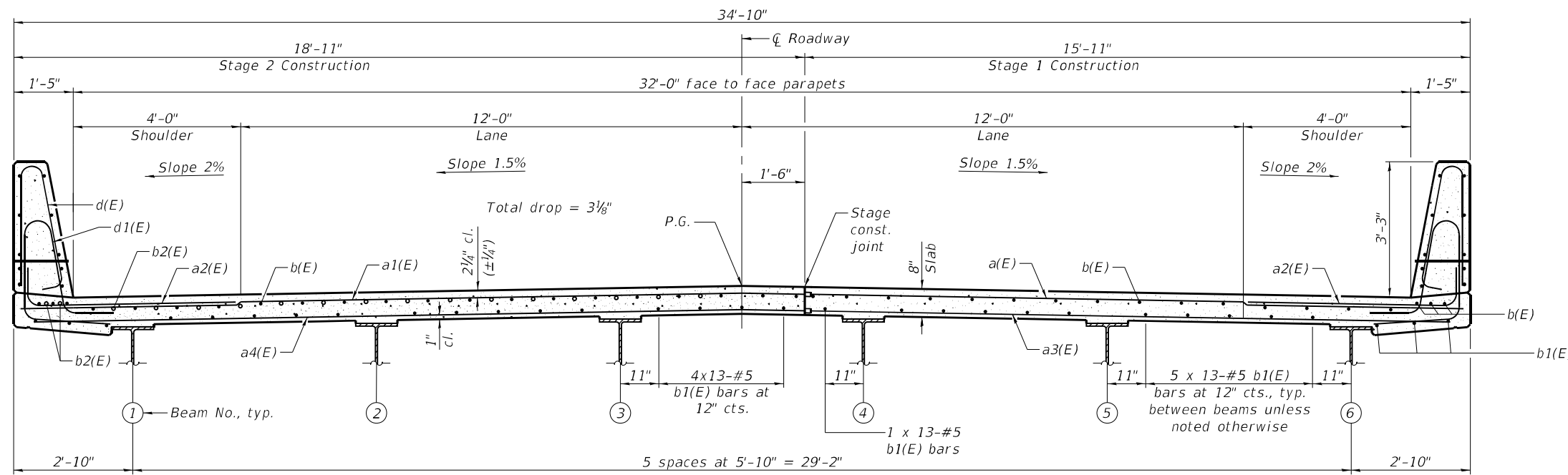
TOP OF APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 076-0033

SHEET 10 OF 37 SHEETS

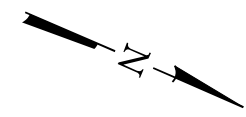
F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 31
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



PLAN



CROSS SECTION  
(Looking North)



**MINIMUM BAR LAP**  
#5 bar = 3'-6"

- Notes:
- ① For Section A-A, see sheet 13 of 37.
  - ② For superstructure details, bar details, drain details, parapet reinforcement, and Bill of Material, see sheet 12 of 37.
  - ③ Bars indicated thus 33 x 12-#5 etc. indicates 33 lines of bars with 12 lengths per line.
  - ④ For details of Bar Splicers, see sheet 29 of 37.
  - ⑤ For location of floor drains, see sheet 1 of 37.

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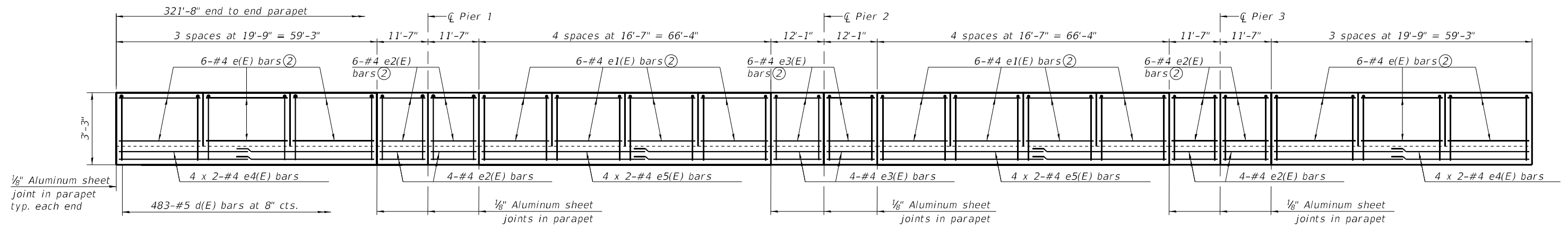
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SUPERSTRUCTURE  
STRUCTURE NO. 076-0033

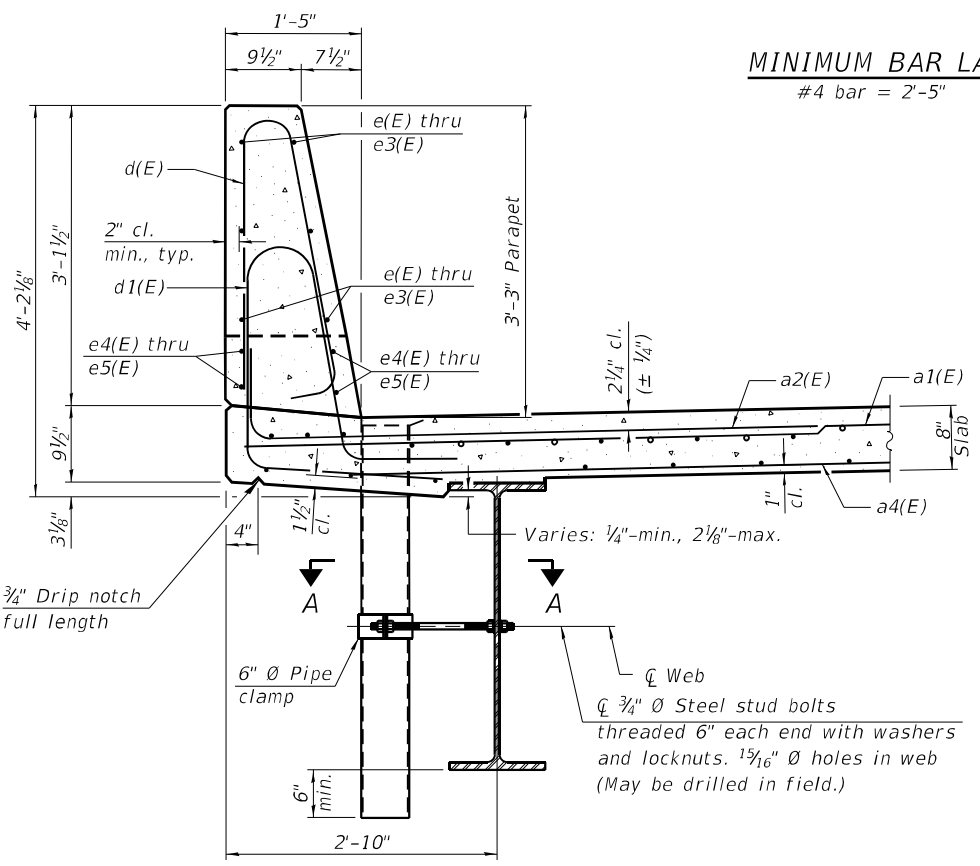
SHEET 11 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 32
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



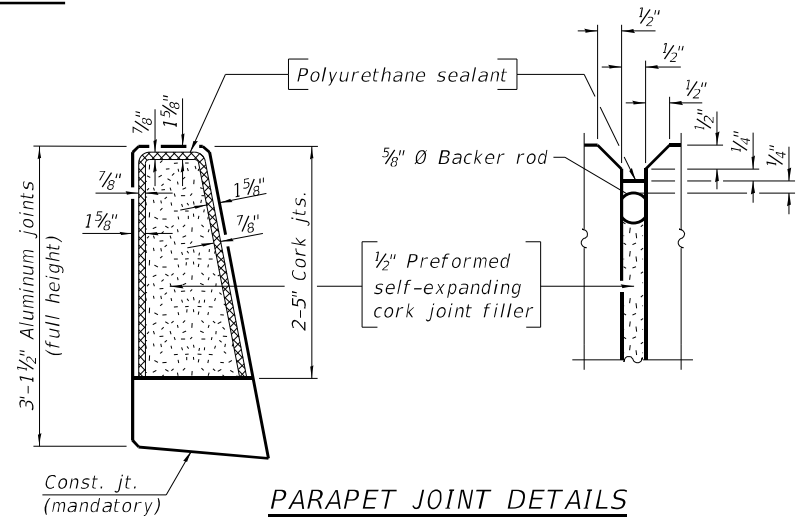


**INSIDE ELEVATION OF PARAPET**

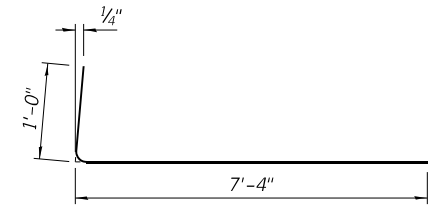


**SECTION THRU PARAPET**

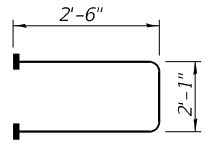
**MINIMUM BAR LAP**  
 #4 bar = 2'-5"



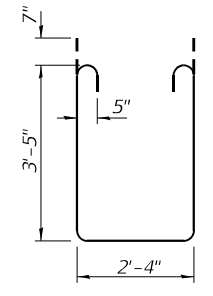
**PARAPET JOINT DETAILS**



**BAR a2(E)**



**BAR s(E)**  
 (Headed)

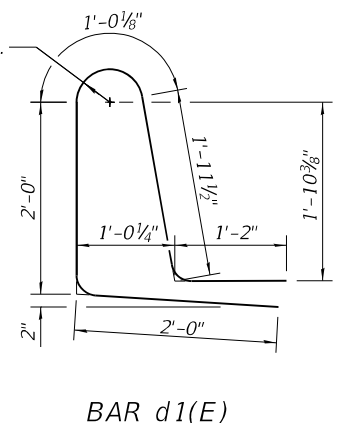
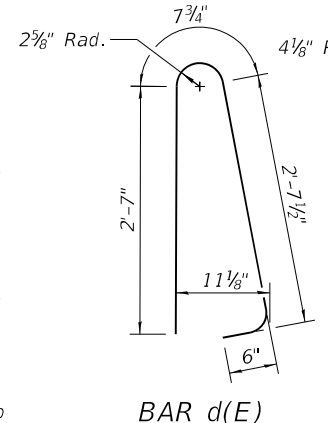
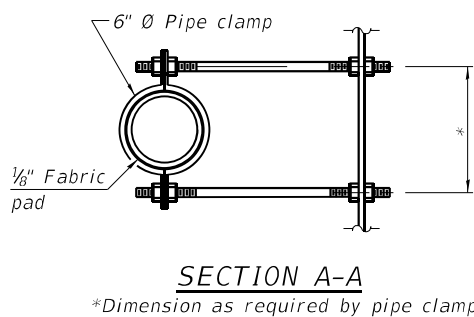
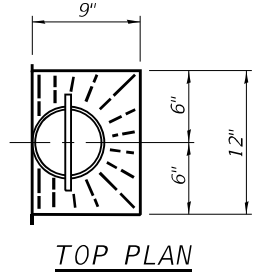
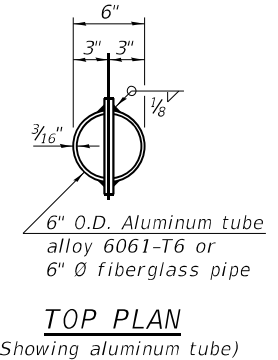
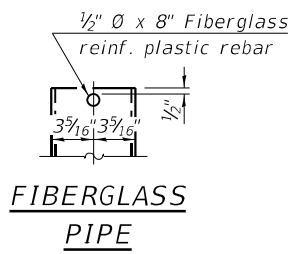
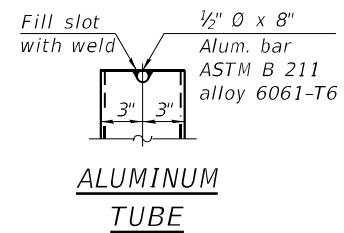


**BAR s1(E)**

**SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	548	#5	15'-7"	—
a1(E)	548	#5	18'-7"	—
a2(E)	1080	#6	8'-4"	—
a3(E)	378	#5	15'-3"	—
a4(E)	378	#5	18'-3"	—
b(E)	468	#5	30'-0"	—
b1(E)	403	#5	28'-0"	—
b2(E)	105	#6	48'-8"	—
d(E)	966	#5	6'-5"	—
d1(E)	966	#5	8'-2"	—
e(E)	72	#4	19'-5"	—
e1(E)	96	#4	16'-3"	—
e2(E)	80	#4	11'-3"	—
e3(E)	40	#4	11'-9"	—
e4(E)	32	#4	30'-8"	—
e5(E)	32	#4	34'-3"	—
m(E)	8	#6	15'-7"	—
m1(E)	8	#6	18'-7"	—
m2(E)	24	#6	5'-5"	—
m3(E)	12	#6	2'-6"	—
s(E)	74	#5	7'-1"	—
s1(E)	74	#5	10'-4"	—
Reinforcement Bars, Epoxy Coated		Pound	101,310	
Concrete Superstructure		Cu. Yd.	405.3	

- Notes:  
 ① Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.  
 ② See Section Thru Parapet.  
 ③ Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.  
 ④ The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.  
 ⑤ The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.  
 ⑥ The 1/8" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.  
 ⑦ The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.  
 ⑧ Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.



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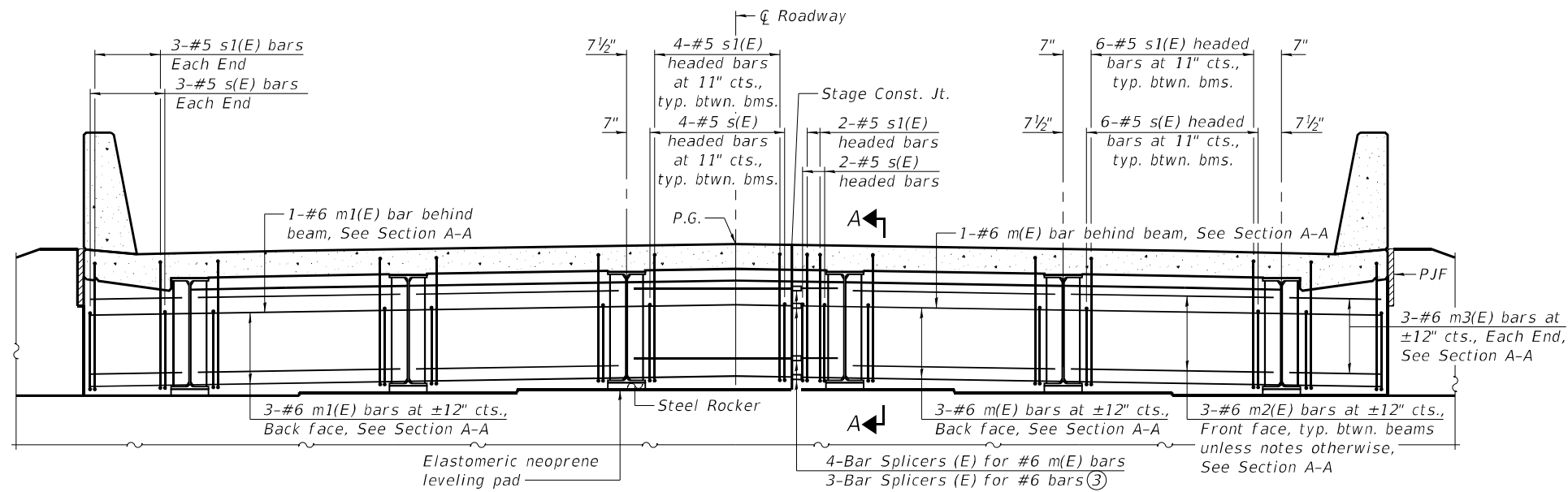
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

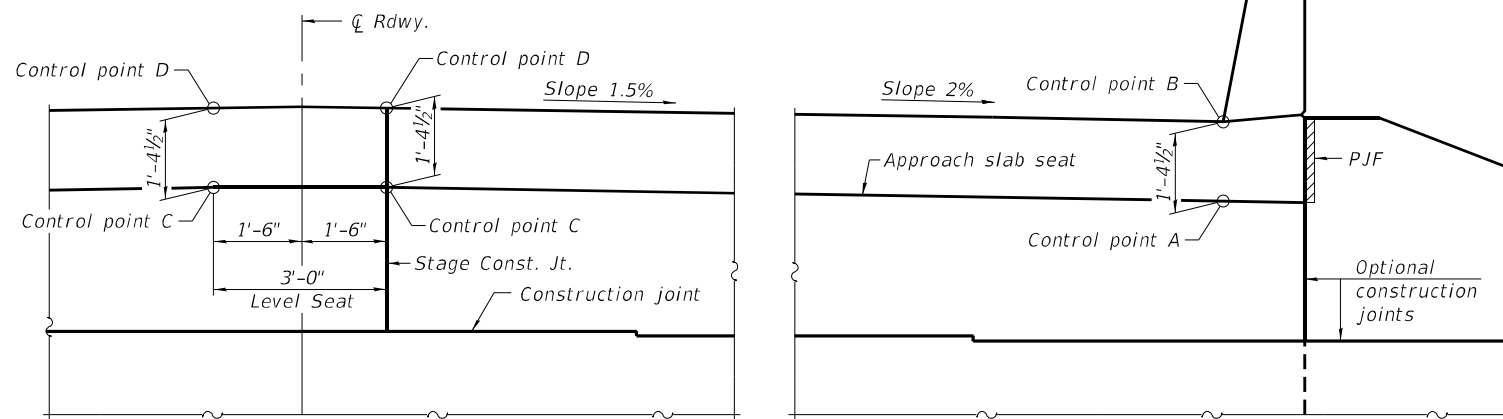
**SUPERSTRUCTURE DETAILS  
 STRUCTURE NO. 076-0033**

SHEET 12 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	33
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



VIEW B-B

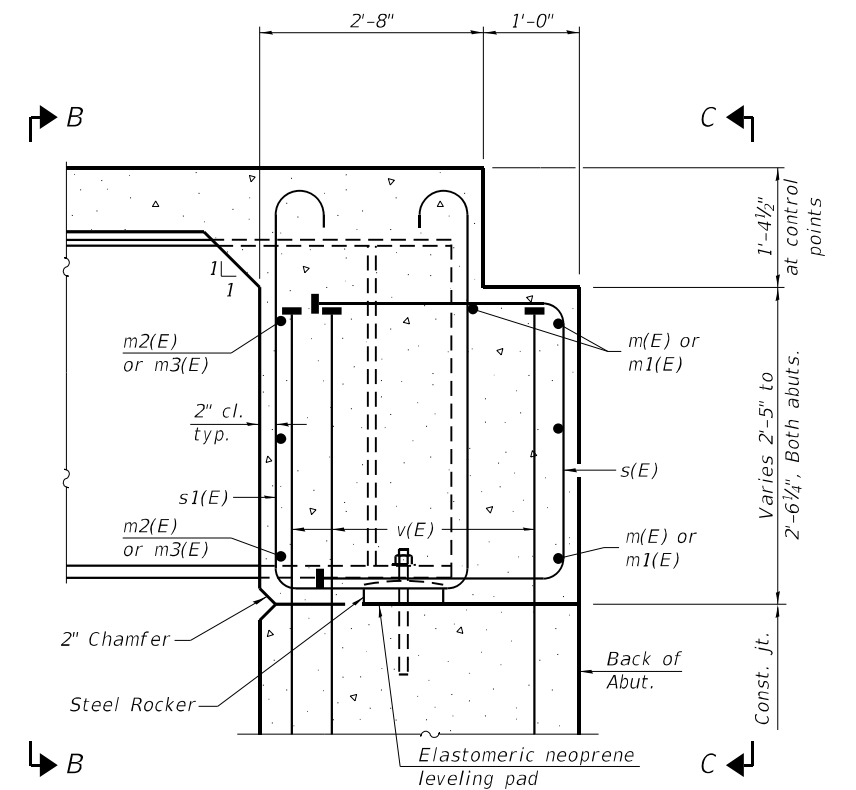


VIEW C-C

CONTROL POINT ELEVATIONS ⑤

(Both abuts.)

A	B	C	D
349.13	350.50	349.36	350.74



SECTION A-A

Notes:

- ① See sheet 12 of 37 for superstructure details and Bill of Material.
- ② See sheet 14 of 37 for P.J.F. details.
- ③ Use Bar Splicers in place of m2(E) bars between beam and stage construction joint. Cut Bar Splicers as required to provide adequate clearance to beam.
- ④ For details of Bar Splicers, see sheet 29 of 37.
- ⑤ Control point elevations are taken at top of approach slab seat as shown in View C-C.
- ⑥ The approach slab seat shall have a constant slope between the control points shown.
- ⑦ For details of bars s(E) and s1(E), see sheet 12 of 37.
- ⑧ For bearing details, see sheet 20 of 37.

FILE NAME: H:\P\18120.09\Bridges\Final Plans\Microstation\0760033-78719-013-Integral Diaphragm Details.dgn



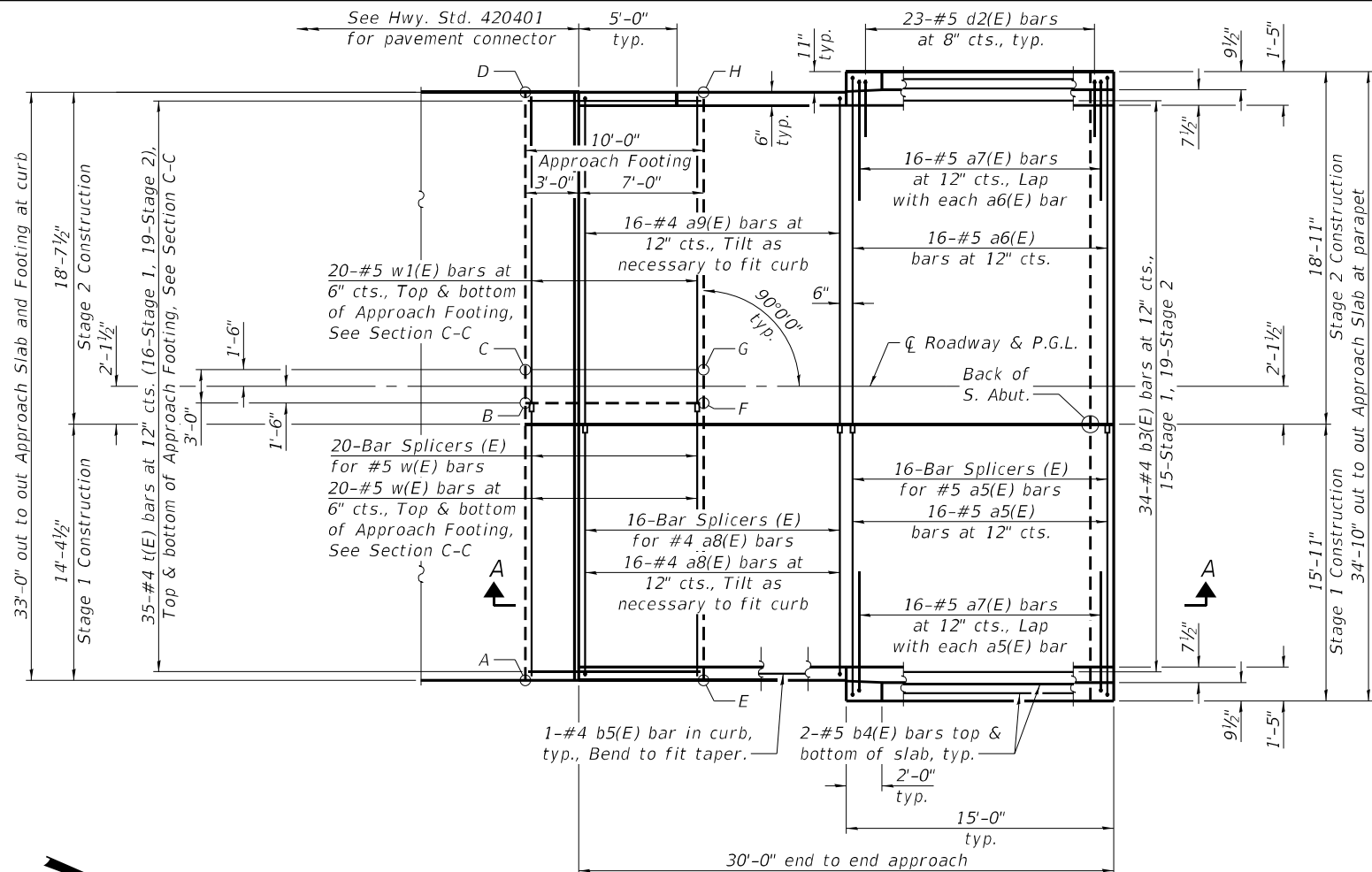
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INTEGRAL DIAPHRAGM DETAILS  
STRUCTURE NO. 076-0033

SHEET 13 OF 37 SHEETS

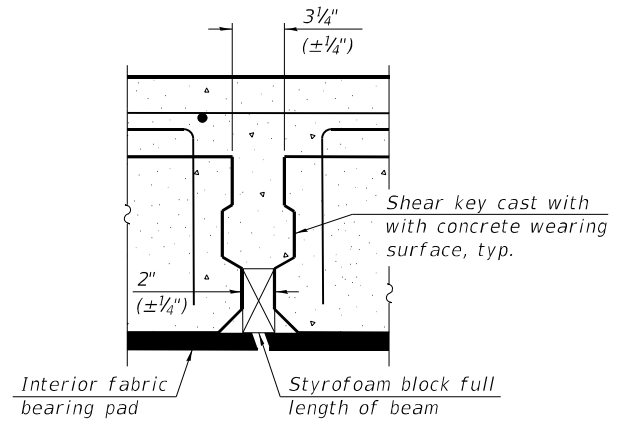
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	34
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



PLAN ①

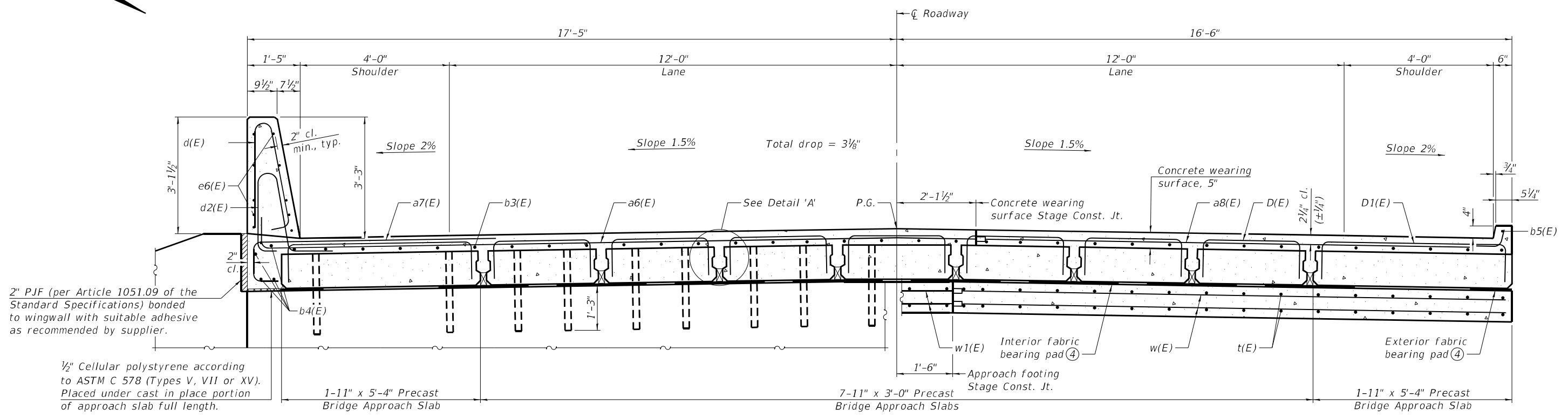
TOP AND BOTTOM ELEVATIONS  
FOR APPROACH FOOTING

Point/ Location	South Approach		North Approach	
	Top	Bottom	Top	Bottom
A	349.12	348.28	A	349.12
B	349.36	348.53	B	349.36
C	349.36	348.53	C	349.36
D	349.12	348.28	D	349.12
E	349.12	348.28	E	349.12
F	349.36	348.53	F	349.36
G	349.36	348.53	G	349.36
H	349.12	348.28	H	349.12



DETAIL 'A'

- Notes:
- ① South approach slab shown, North approach slab similar.
  - ② For Section A-A, see sheet 16 of 37
  - ③ For details of Bar Splicers, see sheet 29 of 37
  - ④ Fabric bearing pads at the expansion end shall be recessed 1/4" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.
  - ⑤ For details of Precast Bridge Approach Slabs, see sheet 15 of 37.



NEAR ABUTMENT

CROSS SECTION ①

AT APPROACH FOOTING

(Sheet 1 of 3)

FILE NAME: H:\P\18120.009\Bridge\Final Plans\Microstation\0760033-78719-014-Precast Bridge Approach Slab.dgn



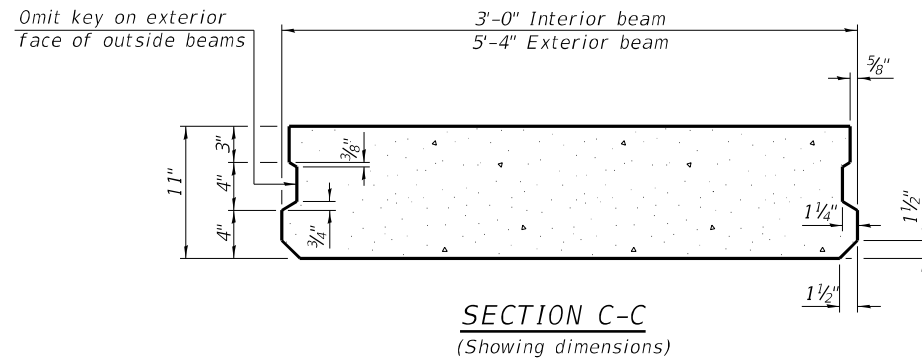
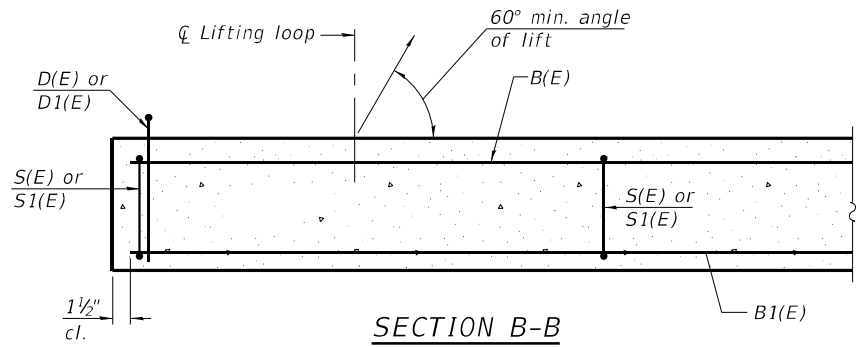
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STATE OF ILLINOIS  
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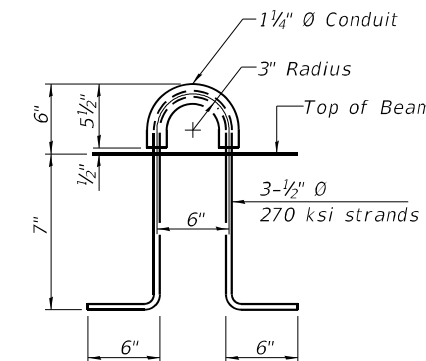
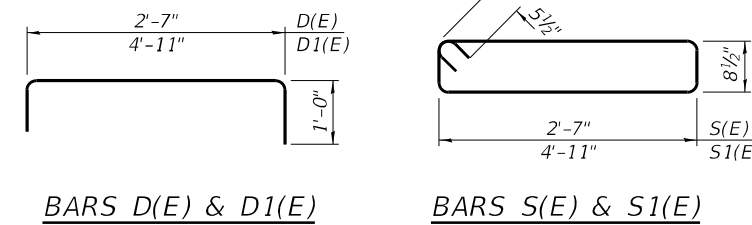
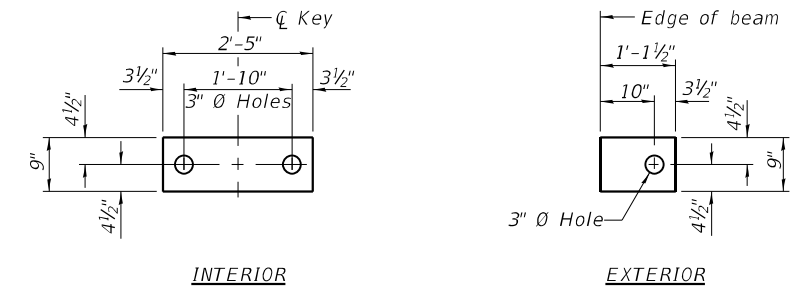
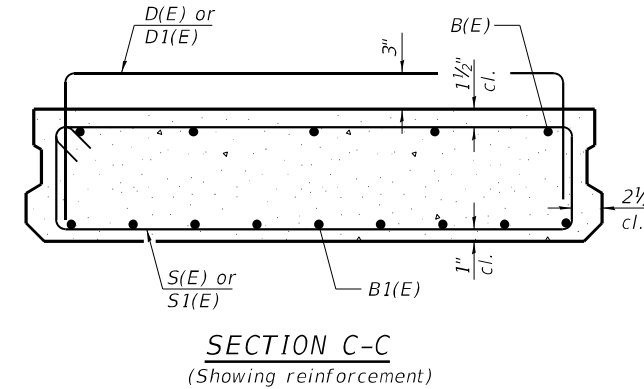
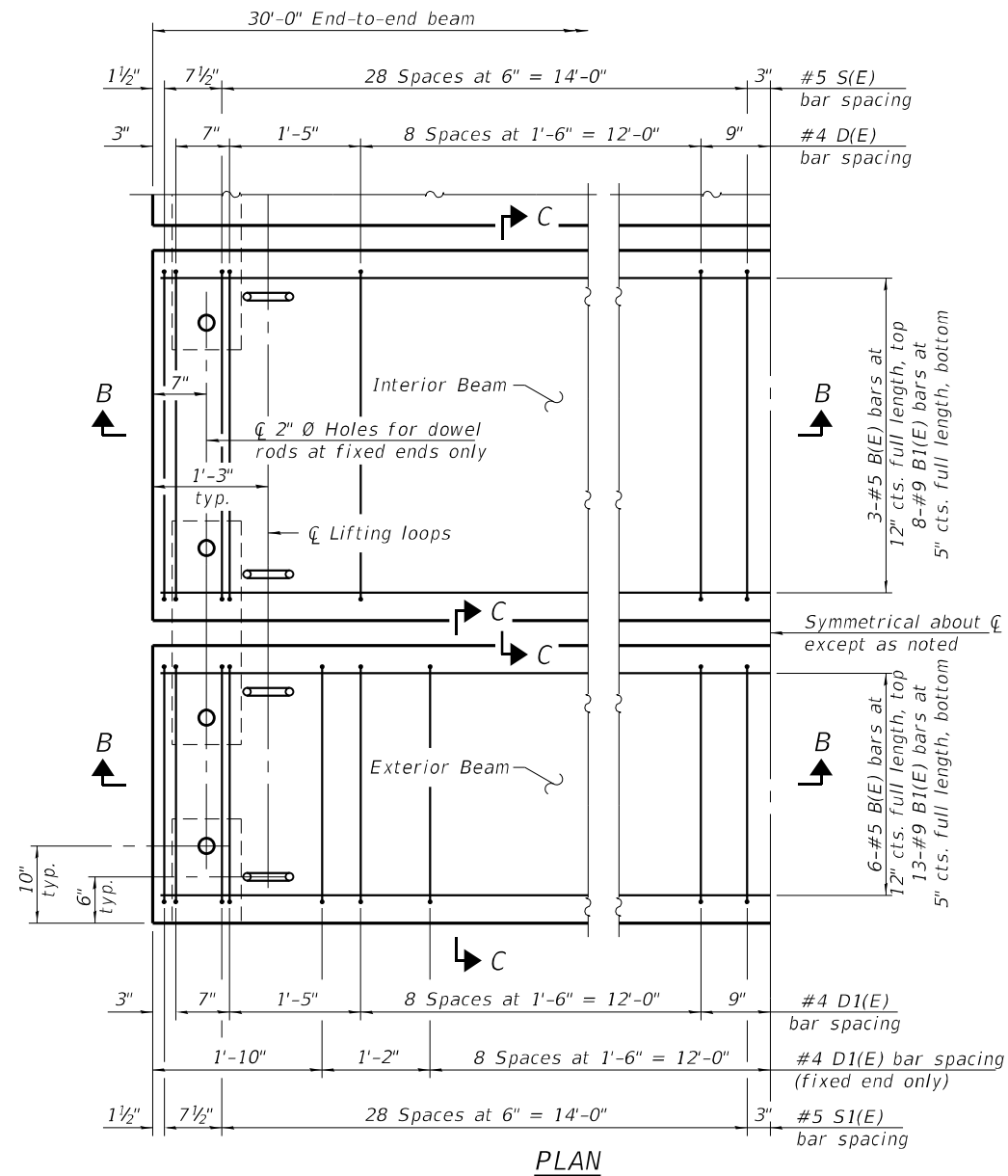
PRECAST BRIDGE APPROACH SLAB  
STRUCTURE NO. 076-0033

SHEET 14 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 35
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



Notes:  
 The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Bridge Approach Slab.  
 Cast-in-place substitution of Precast Bridge Approach Slab is not allowed.  
 The top surface of precast bridge approach slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."  
 Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Bridge Approach Slab.  
 A minimum 2 1/2" Ø lifting pins shall be used to engage the lifting loops during handling.  
 Compressive strength of precast concrete, f'c shall be 6,000 psi.  
 Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.



**BAR LIST**  
**EACH INTERIOR BEAM**  
 (For information only)

Bar	No.	Size	Length	Shape
B(E)	3	#5	29'-8"	—
B1(E)	8	#9	29'-8"	—
D(E)	22	#4	4'-7"	┌
S(E)	58	#5	7'-6"	▭

**BAR LIST**  
**EACH EXTERIOR BEAM**  
 (For information only)

Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
B1(E)	13	#9	29'-8"	—
D1(E)	32	#4	6'-11"	┌
S1(E)	58	#5	12'-2"	▭

(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)

(Sheet 2 of 3)

BA-P-39CS-0 10-12-2021

FILE NAME: H:\P\18120.18120.09\Bridge\Final Plans\Microstation\0760033-78719-015-Precast Bridge Approach Slab.dgn



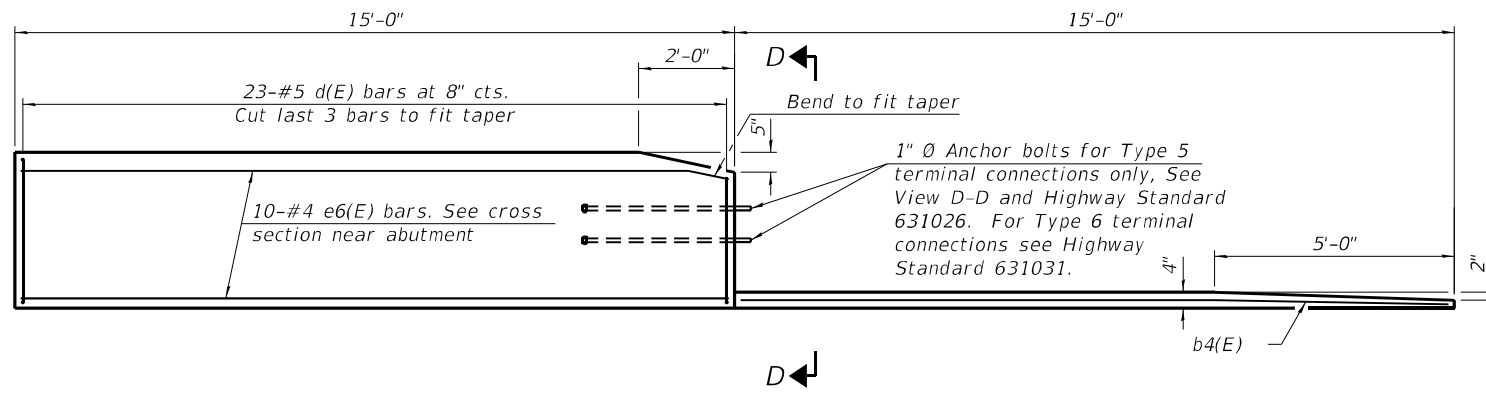
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

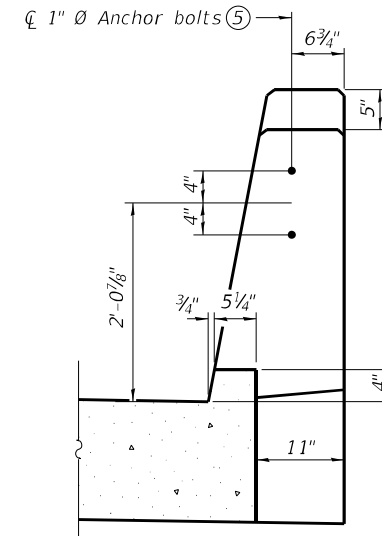
PRECAST BRIDGE APPROACH SLAB  
 STRUCTURE NO. 076-0033

SHEET 15 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 36
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



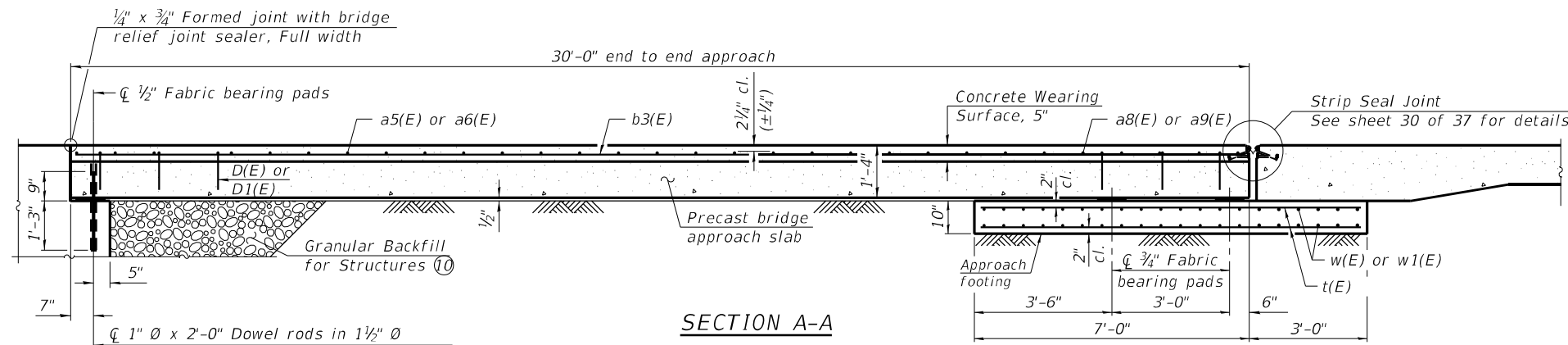
**INSIDE ELEVATION OF PARAPET AND CURB**



**VIEW D-D**

**Notes:**

- ① 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.
- ② After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.
- ③ Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".
- ④ The strip seal shall extend 6" beyond the edge of the approach slab on each end.
- ⑤ Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost of anchor bolt assemblies included with Concrete Superstructure.
- ⑥ Parapet concrete shall be paid for as Concrete Superstructure.
- ⑦ Approach footing concrete shall be paid for as Concrete Structures.
- ⑧ The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- ⑨ Cost of excavation for approach footing included with Concrete Structures.
- ⑩ For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 37.
- ⑪ Cost of cellular polystyrene is included with Concrete Superstructure.
- ⑫ Calculated weight of Reinforcement Bars, Epoxy Coated = 5,710 (Superstructure) 3,600 (Substructure)

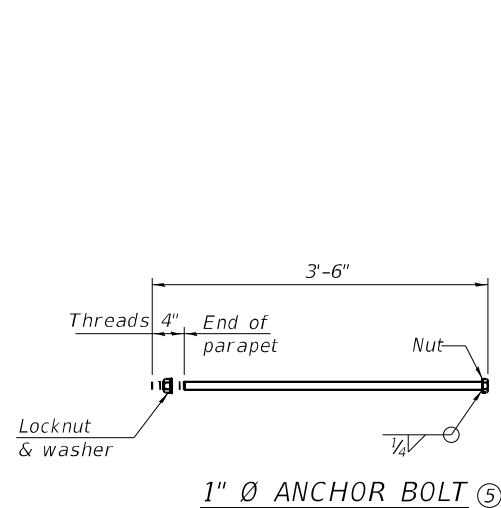


**SECTION A-A**

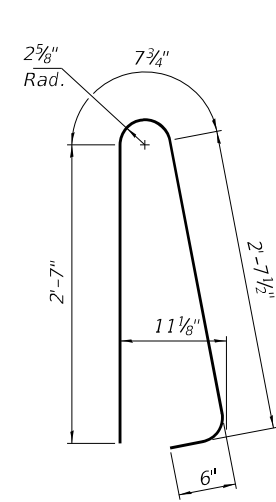
**TWO APPROACHES  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a5(E)	32	#5	15'-9"	┌───┐
a6(E)	32	#5	20'-0"	┌───┐
a7(E)	64	#5	8'-2"	┌───┐
a8(E)	32	#4	14'-6"	┌───┐
a9(E)	32	#4	18'-9"	┌───┐
b3(E)	68	#4	29'-8"	┌───┐
b4(E)	16	#5	14'-8"	┌───┐
b5(E)	4	#4	14'-8"	┌───┐
d(E)	92	#5	6'-5"	┌───┐
d2(E)	92	#5	6'-5"	┌───┐
e6(E)	40	#4	14'-8"	┌───┐
t(E)	140	#4	9'-8"	┌───┐
w(E)	80	#5	14'-8"	┌───┐
w1(E)	80	#5	17'-8"	┌───┐
Concrete Structures			Cu. Yd.	20.4
Concrete Superstructure			Cu. Yd.	7.8
Reinforcement Bars, Epoxy Coated			Pound	9,310
Concrete Wearing Surface, 5"			Sq. Yd.	226
Precast Bridge Approach Slab			Sq. Ft.	1,900

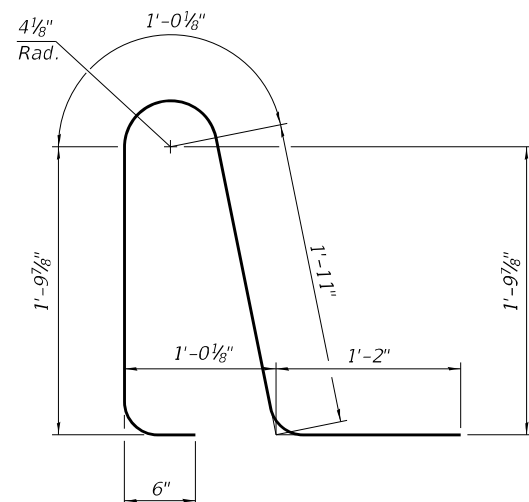
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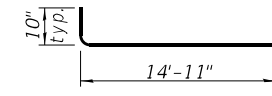
**1" Ø ANCHOR BOLT ⑤**



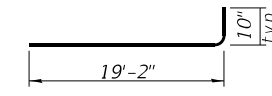
**BAR d(E)**



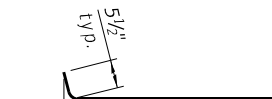
**BAR d2(E)**



**BAR a5(E)**



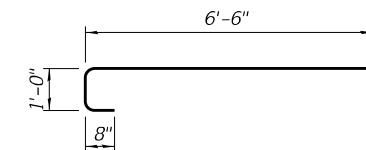
**BAR a6(E)**



**BAR a8(E)**



**BAR a9(E)**



**BAR a7(E)**

(Sheet 3 of 3)



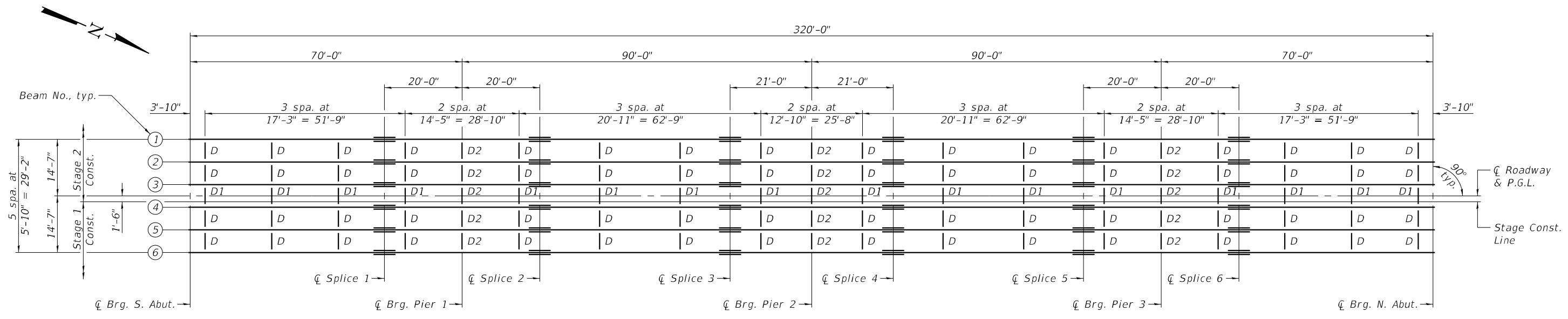
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

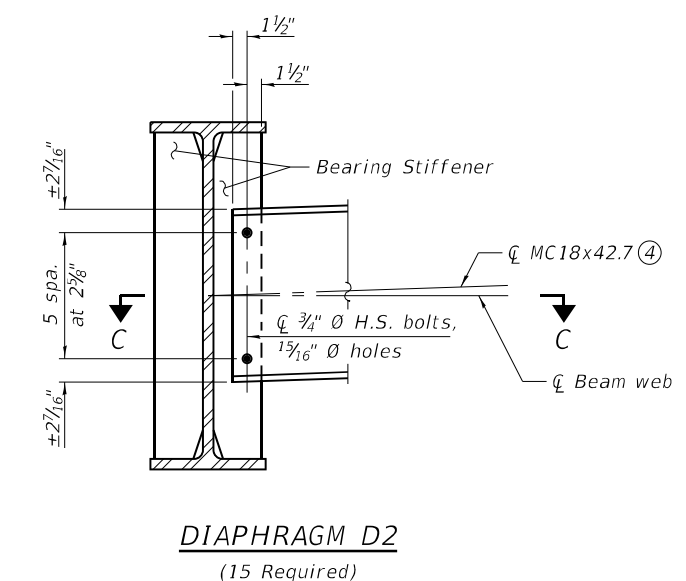
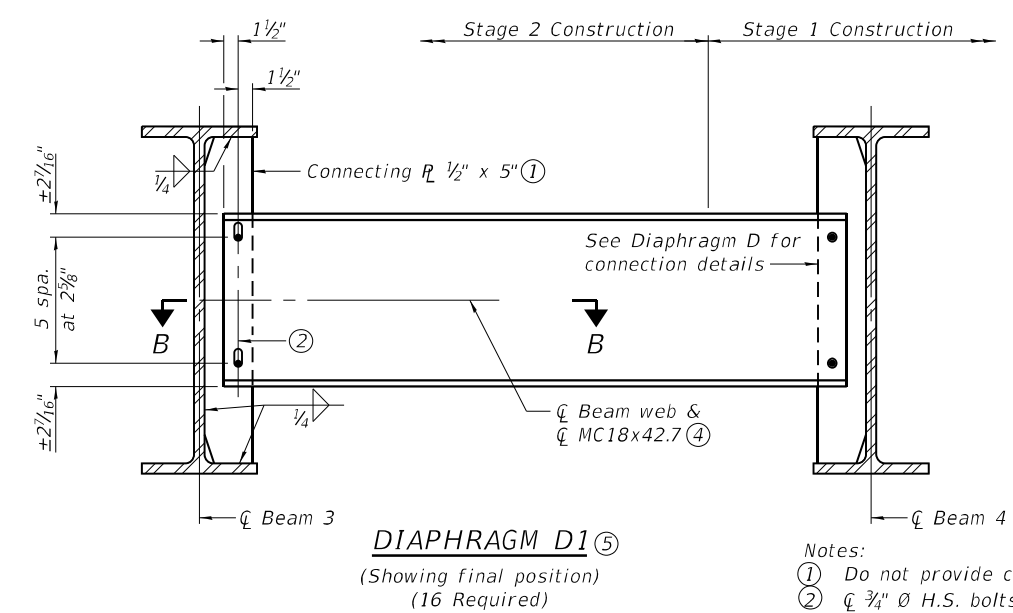
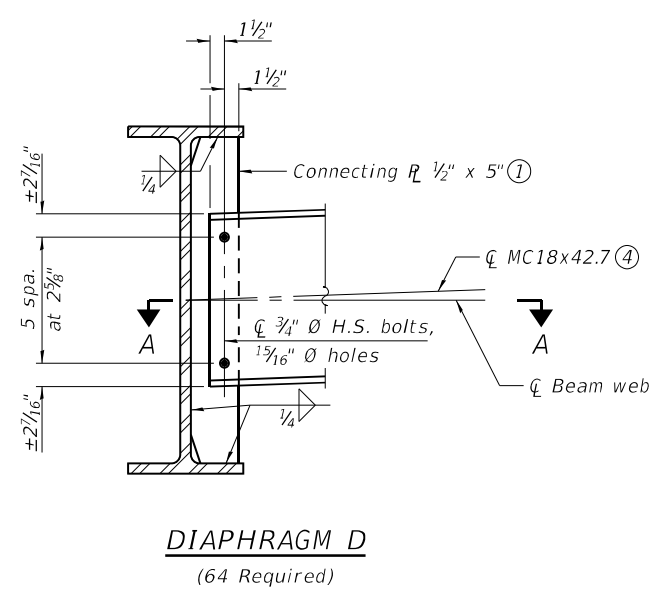
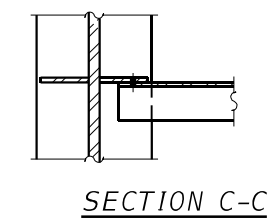
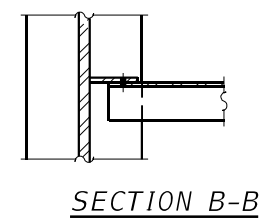
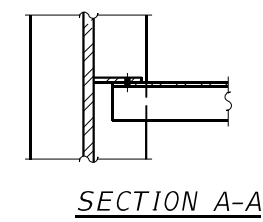
**PRECAST BRIDGE APPROACH SLAB  
STRUCTURE NO. 076-0033**

SHEET 16 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 37
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



**FRAMING PLAN**



- Notes:
- ① Do not provide connecting plate on exterior face of fascia beams.
  - ②  $\frac{3}{4}$ "  $\varnothing$  H.S. bolts,  $1\frac{5}{16}$ "  $\varnothing$  holes in connecting plate, and  $1\frac{3}{16}$ " x  $1\frac{1}{8}$ " vertical slotted holes in channel. Two  $\frac{5}{16}$ " structural plate washers required for each set of slotted holes.
  - ③ Two hardened washers required for each set of oversized holes.
  - ④ Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.
  - ⑤ The Fabricator shall detail slotted hole locations on channel to allow for differential deflection during Stage 2 deck and parapet pour. The bolts shall be finger tight until the Stage 2 deck and parapet concrete is poured, allowing the Stage 2 beams to deflect vertically without stressing the diaphragm or Stage 1 beams. The diaphragm connection shall be detailed so that the centerline of beam web and centerline of diaphragm channel align in their final position.
  - ⑥ All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at support may be temporarily disconnected to install bearing anchor rods.

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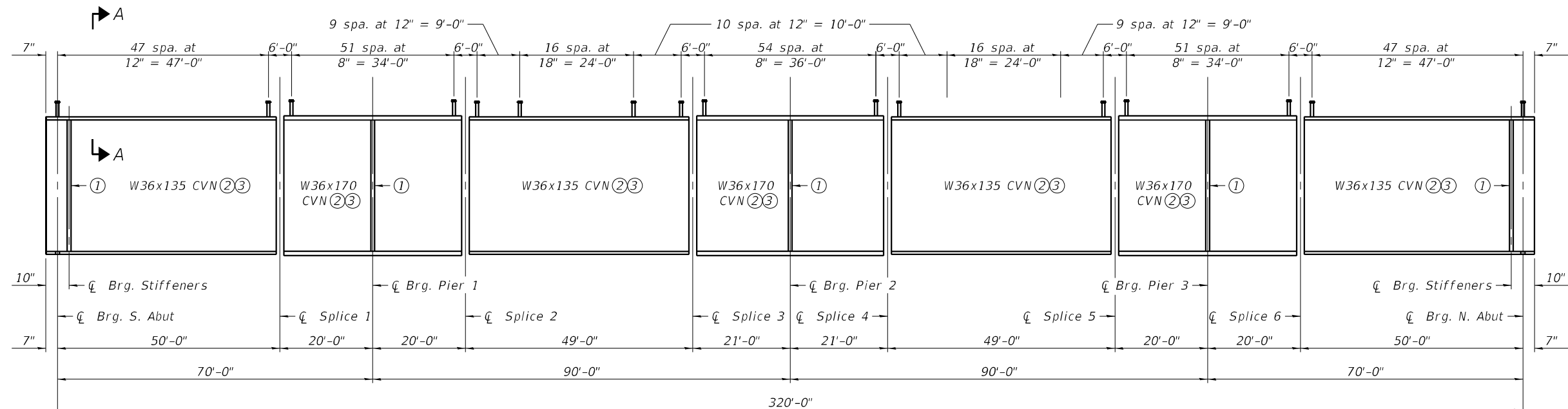
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

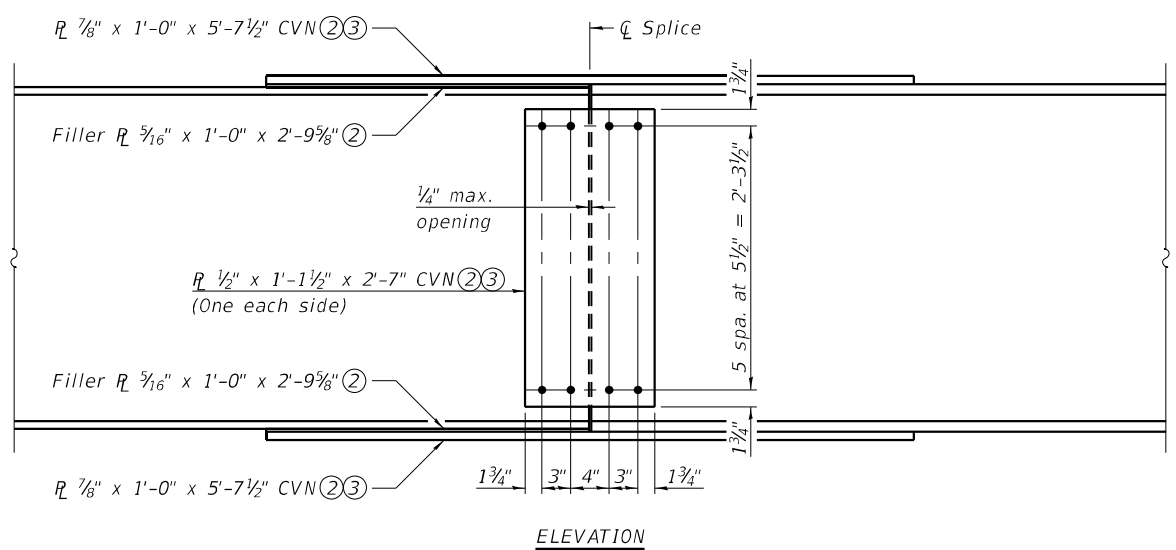
**FRAMING PLAN  
STRUCTURE NO. 076-0033**

SHEET 17 OF 37 SHEETS

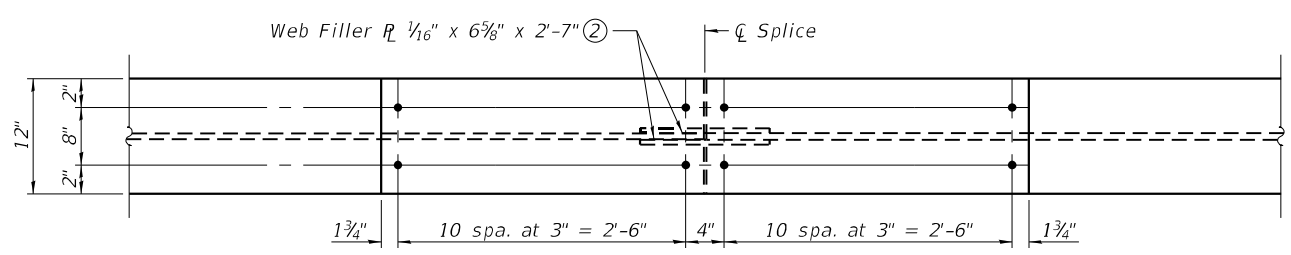
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	38
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



**BEAM ELEVATION**  
(6 Required)

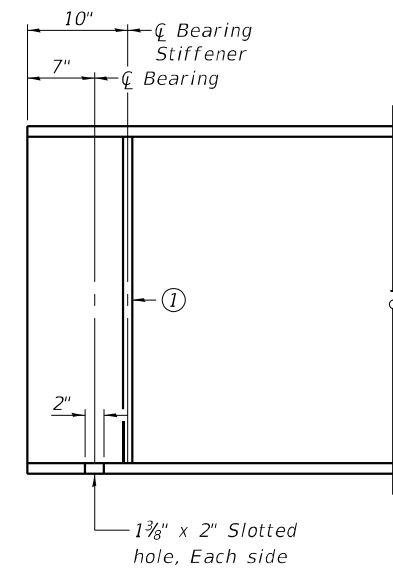


**ELEVATION**

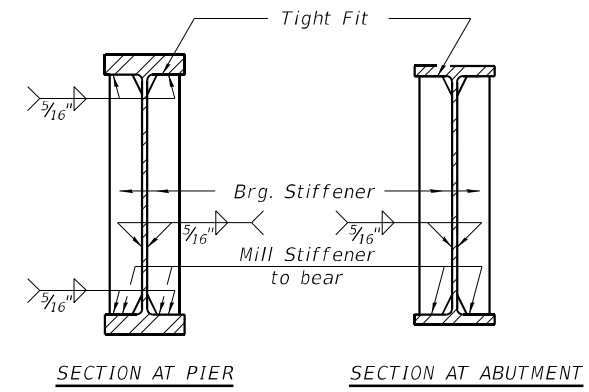


**TOP & BOTTOM PLAN**

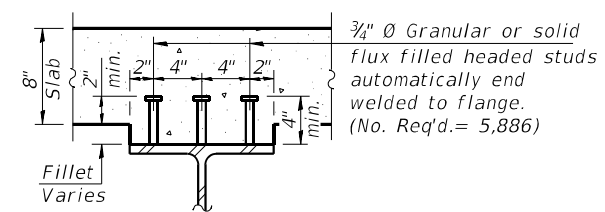
**SPLICE DETAIL**  
(36 Required)



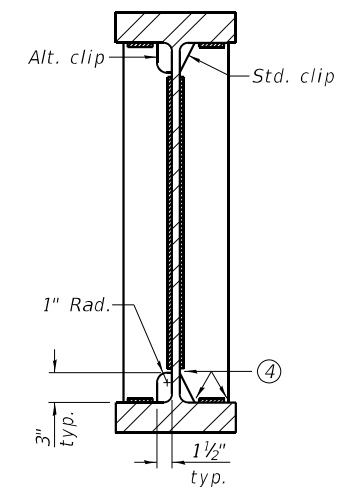
**TYPICAL END OF BEAM ELEVATION**



**BEARING STIFFENER DETAILS**



**SECTION A-A**



**WELD LIMITS & CLIP DETAILS**

- Notes:
- ① Bearing Stiffeners, R 1" x 5" (One each side).
  - ② AASHTO M 270 Grade 50 Steel.
  - ③ "CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.
  - ④ Stop welds 1/4" (±1/8") from edges as shown, typical.

FILE NAME: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-018-Beam\_Details.dgn



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BEAM DETAILS  
STRUCTURE NO. 076-0033**

SHEET 18 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	39
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

**INTERIOR GIRDER MOMENT TABLE**

		0.4 Sp. 1 or 0.6 Sp. 4	Pier 1 or 3	0.5 Sp. 2 or 0.5 Sp. 3	Pier 2
<i>I<sub>s</sub></i>	(in <sup>4</sup> )	7,800	10,500	7,800	10,500
<i>I<sub>c</sub>(n)</i>	(in <sup>4</sup> )	20,236	25,166	20,236	25,166
<i>I<sub>c</sub>(3n)</i>	(in <sup>4</sup> )	14,932	18,426	14,932	18,426
<i>I<sub>c</sub>(cr)</i>	(in <sup>4</sup> )	-	13,068	-	13,068
<i>S<sub>s</sub></i>	(in <sup>3</sup> )	439	581	439	581
<i>S<sub>c</sub>(n)</i>	(in <sup>3</sup> )	638	812	638	812
<i>S<sub>c</sub>(3n)</i>	(in <sup>3</sup> )	577	733	577	733
<i>S<sub>c</sub>(cr)</i>	(in <sup>3</sup> )	-	640	-	640
<i>DC1</i>	(k/')	0.749	0.790	0.749	0.790
<i>MDC1</i>	(k)	229.8	523.2	230.0	552.5
<i>DC2</i>	(k/')	0.175	0.175	0.175	0.175
<i>MDC2</i>	(k)	54.8	118.1	55.4	125.2
<i>DW</i>	(k/')	0.267	0.267	0.267	0.267
<i>MDW</i>	(k)	83.6	180.0	84.4	190.8
<i>LLDF</i>		0.498	0.493	0.467	0.478
<i>M<sub>ℓ+IM</sub></i>	(k)	689.2	823.1	680.2	865.9
<i>M<sub>u</sub> (Strength I)</i>	(k)	1687.3	2512.1	1673.7	2648.7
<i>∅f Mn</i>	(k)	3259.9	2529.1	3259.5	2662.6
<i>f<sub>s</sub> DC1</i>	(ksi)	6.28	10.80	6.28	11.41
<i>f<sub>s</sub> DC2</i>	(ksi)	1.14	2.21	1.15	2.35
<i>f<sub>s</sub> DW</i>	(ksi)	1.74	3.38	1.76	3.58
<i>f<sub>s</sub> (ℓ+IM)</i>	(ksi)	12.96	15.43	12.79	16.24
<i>f<sub>s</sub> (Service II)</i>	(ksi)	26.01	36.45	25.82	38.45
<i>0.95RhFyf</i>	(ksi)	47.50	47.50	47.50	47.50
<i>f<sub>s</sub> (Total)(Strength I)</i>	(ksi)	-	-	-	-
<i>∅f Fn</i>	(ksi)	-	-	-	-
<i>Vf</i>	(k)	25.8	29.7	22.3	28.8

**GIRDER REACTION TABLE**

	S. or N. Abut.		Pier 1 or 3		Pier 2	
	Interior	Exterior	Interior	Exterior	Interior	Exterior
<i>LLDF</i>	0.658	0.488	0.658	0.488	0.658	0.488
<i>RDC1</i> (k)	18.8	18.8	68.6	68.6	69.9	69.9
<i>RDC2</i> (k)	4.4	4.4	15.6	15.6	15.9	15.9
<i>RDW</i> (k)	6.8	6.8	23.8	23.8	24.2	24.2
<i>R<sub>ℓ</sub></i> (k)	53.3	39.5	103.2	76.5	105.2	78.0
<i>R<sub>IM</sub></i> (k)	13.1	9.7	20.5	15.2	20.5	15.2
<i>RTotal</i> (k)	96.4	79.2	231.7	199.7	235.7	203.2

**TOP OF BEAM ELEVATIONS ① ②**

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
∅ Brg. S. Abut.	349.82	349.92	350.01	350.01	349.92	349.82
∅ Splice 1	349.77	349.87	349.96	349.96	349.87	349.77
∅ Pier 1	349.77	349.87	349.96	349.96	349.87	349.77
∅ Splice 2	349.77	349.87	349.96	349.96	349.87	349.77
∅ Splice 3	349.77	349.87	349.96	349.96	349.87	349.77
∅ Pier 2	349.77	349.87	349.96	349.96	349.87	349.77
∅ Splice 4	349.77	349.87	349.96	349.96	349.87	349.77
∅ Splice 5	349.77	349.87	349.96	349.96	349.87	349.77
∅ Pier 3	349.77	349.87	349.96	349.96	349.87	349.77
∅ Splice 6	349.77	349.87	349.96	349.96	349.87	349.77
∅ Brg. N. Abut.	349.82	349.92	350.01	350.01	349.92	349.82

*I<sub>s</sub>, S<sub>s</sub>*: Non-composite moment of inertia and section modulus of the steel section used for computing *f<sub>s</sub>*(Total-Strength I, and Service II) due to non-composite dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

*I<sub>c</sub>(n), S<sub>c</sub>(n)*: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing *f<sub>s</sub>*(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.<sup>4</sup> and in.<sup>3</sup>).

*I<sub>c</sub>(3n), S<sub>c</sub>(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<sub>s</sub>*(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

*I<sub>c</sub>(cr), S<sub>c</sub>(cr)*: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing *f<sub>s</sub>* (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.<sup>4</sup> and in.<sup>3</sup>).

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

*MDC1*: 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.).

*MDC2*: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

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

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

*LLDF*: Live load distribution factor for moment

*M<sub>ℓ+IM</sub>*: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

*M<sub>u</sub> (Strength I)*: Factored design moment (kip-ft.).

1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M<sub>ℓ+IM</sub>

*∅f Mn*: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

*f<sub>s</sub> DC1*: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).

*f<sub>s</sub> DC2*: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).

*f<sub>s</sub> DW*: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).

*f<sub>s</sub> (ℓ+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<sub>ℓ+IM</sub> / S<sub>c</sub>(n) or M<sub>ℓ+IM</sub> / S<sub>c</sub>(cr)* as applicable.

*f<sub>s</sub> (Service II)*: Sum of stresses as computed below (ksi).

*f<sub>s</sub>DC1 + f<sub>s</sub>DC2 + f<sub>s</sub>DW + 1.3 f<sub>s</sub>(ℓ+IM)*

*0.95RhFyf*: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

*f<sub>s</sub> (Total)(Strength I)*: Sum of stresses as computed below on non-compact section (ksi).

1.25 (f<sub>s</sub>DC1 + f<sub>s</sub>DC2) + 1.5 f<sub>s</sub>DW + 1.75 f<sub>s</sub>(ℓ+IM)

*∅f Fn*: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

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

Notes:

① For fabrication only.

② Top of Beam Elevations at ∅ Splices taken at top of W36x170.

FILE NAME: H:\P\18120.09\Bridge\Final Plans\Microstation\0760033-78719-019-Beam\_Details.dgn



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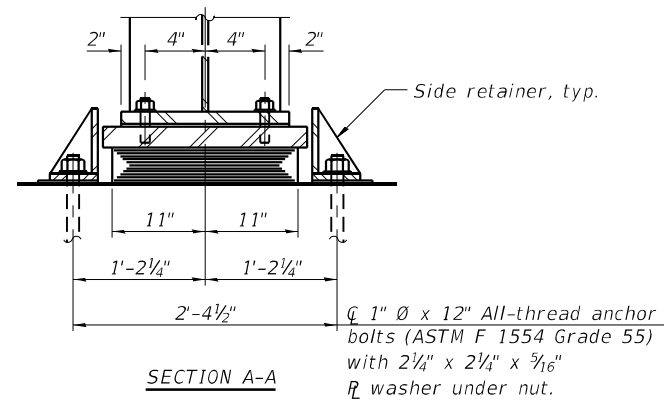
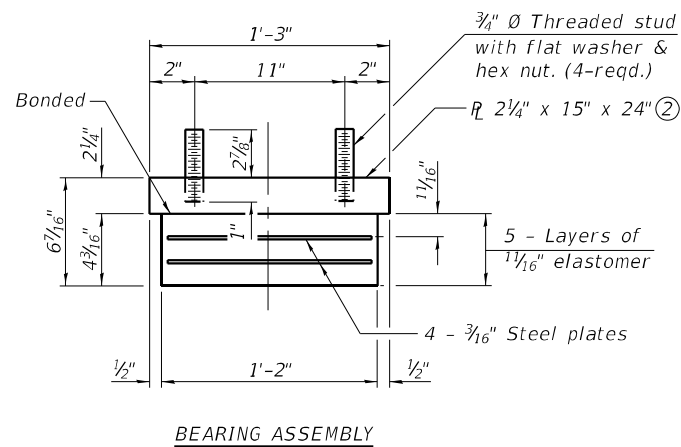
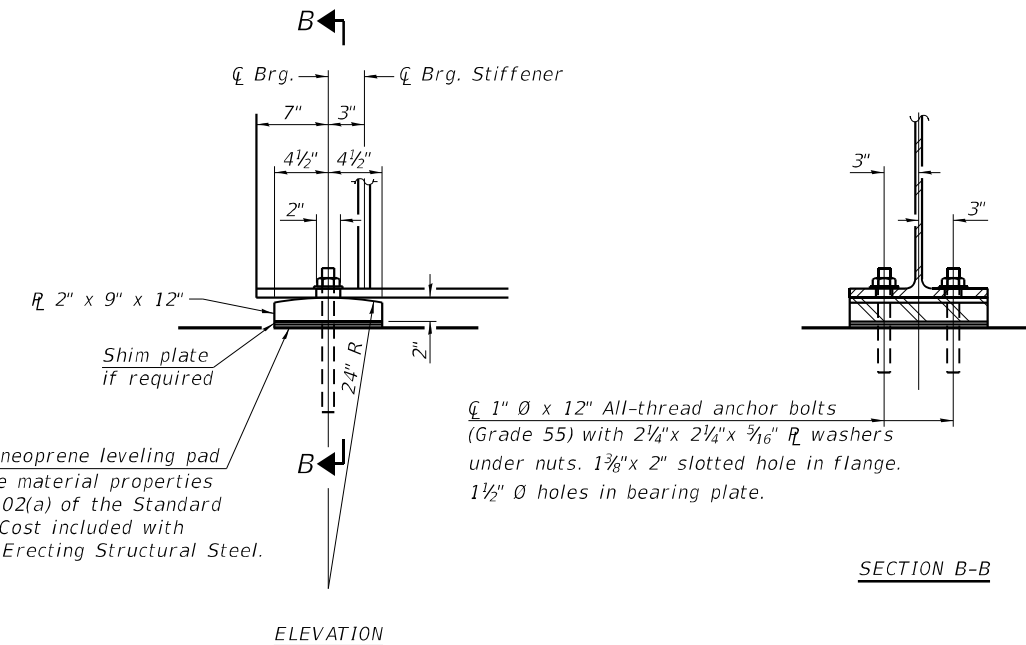
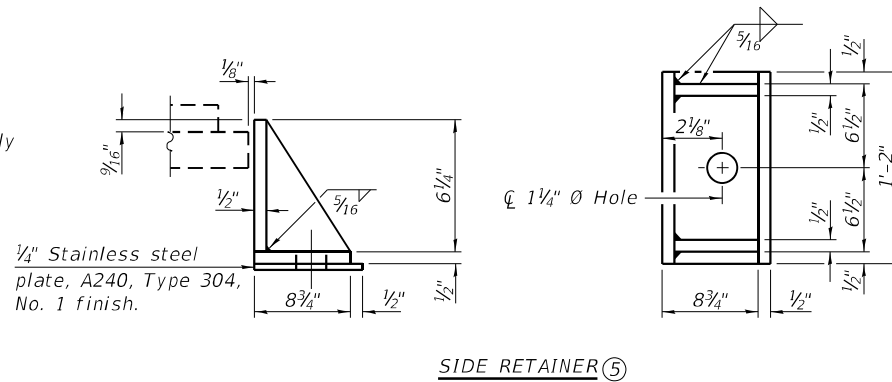
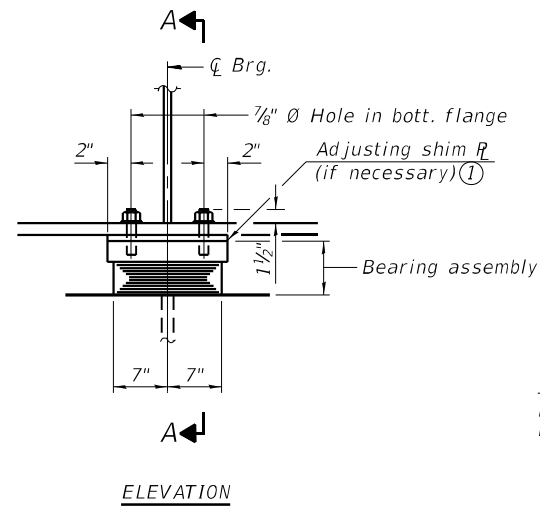
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BEAM DETAILS  
STRUCTURE NO. 076-0033**

SHEET 19 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	40
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				





**TYPE I ELASTOMERIC EXP. BRG. AT PIERS**  
(18 Required)

**FIXED BEARING AT ABUTMENTS**  
(12 Required)

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	18
Anchor Bolts, 1"	Each	60

- Notes:
- Shim plates shall not be placed under bearing assembly.
  - The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
  - Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
  - Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
  - Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
  - Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown.
  - The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grad anchor bolts will not be allowed.
  - All bearing plates, side retainers, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M 111 or M 232 as applicable.

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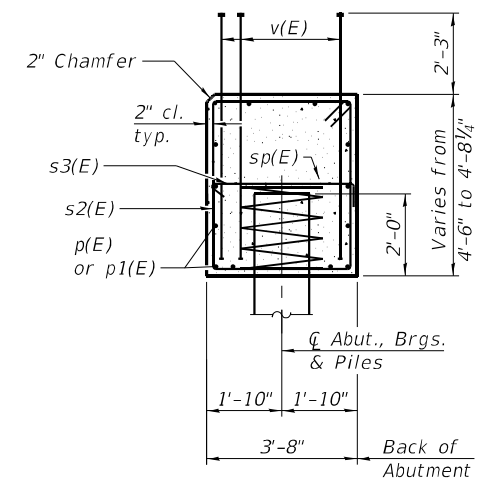
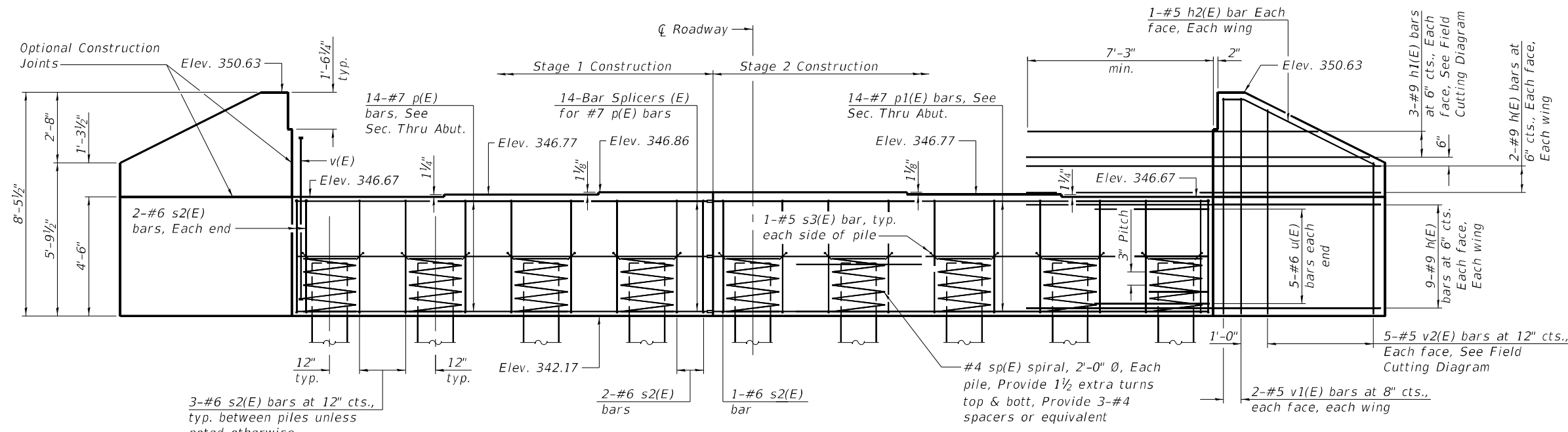
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS  
STRUCTURE NO. 076-0033

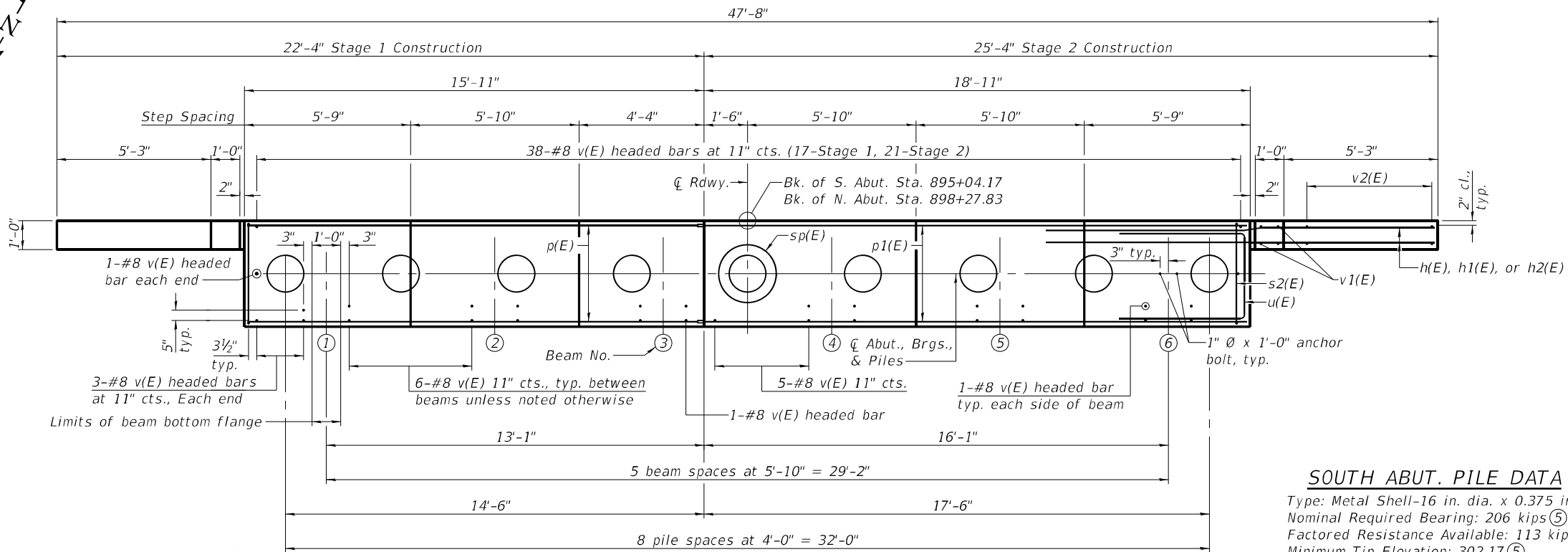
SHEET 20 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	41
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



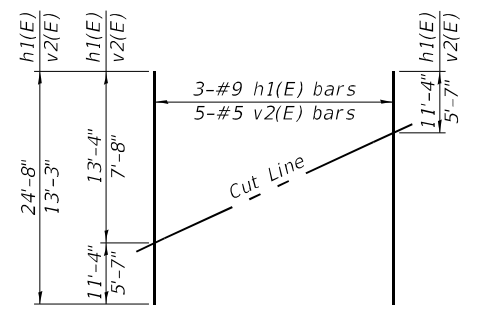
**ELEVATION**

**SEC. THRU ABUT.**



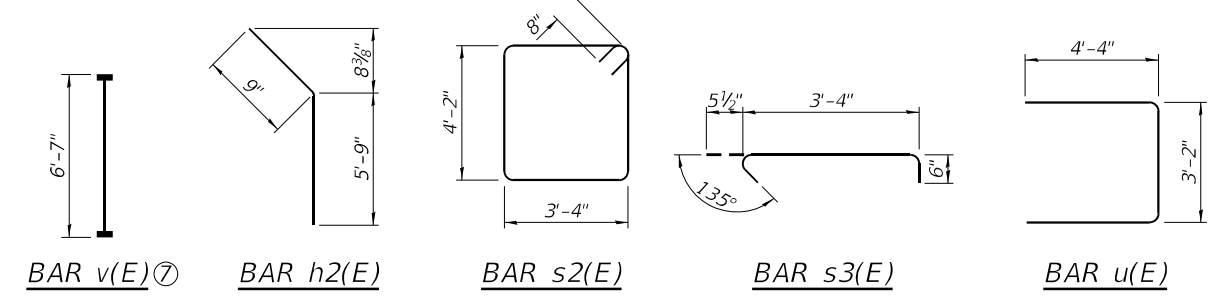
**PLAN**

(South Abut. shown, North Abut. similar)



**FIELD CUTTING DIAGRAM**

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



**BILL OF MATERIAL**  
(Two Abutments)

Bar	No.	Size	Length	Shape
h(E)	88	#9	13'-6"	—
h1(E)	12	#9	24'-8"	—
h2(E)	8	#5	6'-6"	—
p(E)	28	#7	15'-7"	—
p1(E)	28	#7	18'-7"	—
s2(E)	56	#6	16'-4"	□
s3(E)	36	#5	4'-4"	┌
sp(E)	18	#4	2'-0"	≡≡≡
u(E)	20	#6	11'-10"	┌
v(E)	176	#8	6'-7"	—
v1(E)	16	#5	8'-1"	—
v2(E)	20	#5	13'-3"	—
Structure Excavation		Cu. Yd.	203	
Concrete Structures		Cu. Yd.	50.4	
Reinforcement Bars, Epoxy Coated		Pound	13,280	
Furnishing Metal Shell Piles 16" X 0.375"		Foot	736	
Driving Piles		Foot	736	
Test Pile Metal Shells		Each	2	

**SOUTH ABUT. PILE DATA**

Type: Metal Shell-16 in. dia. x 0.375 in. walls  
 Nominal Required Bearing: 206 kips<sup>⑤</sup>  
 Factored Resistance Available: 113 kips  
 Minimum Tip Elevation: 302.17<sup>⑤</sup>  
 Estimated Nominal Bearing at Minimum Tip Elevation: 362 kips<sup>⑤</sup>  
 Estimated Length: 42 ft.<sup>⑤</sup>  
 No. Production Piles: 8  
 No. Test Piles: 1

**NORTH ABUT. PILE DATA**

Type: Metal Shell-16 in. dia. x 0.375 in. walls  
 Nominal Required Bearing: 206 kips<sup>⑤</sup>  
 Factored Resistance Available: 113 kips  
 Minimum Tip Elevation: 294.17<sup>⑤</sup>  
 Estimated Nominal Bearing at Minimum Tip Elevation: 336 kips<sup>⑤</sup>  
 Estimated Length: 50 ft.<sup>⑤</sup>  
 No. Production Piles: 8  
 No. Test Piles: 1

- Notes:
- Length is height of spiral.
  - South Abutment: 65 Cu. Yd.  
North Abutment: 138 Cu. Yd.
  - For details of piles, see sheet 28 of 37.
  - For details of Bar Splicers, see sheet 29 of 37.
  - Pile length is controlled by lateral stability. At a minimum, pile driving shall achieve both the Minimum Tip Elevation and the Nominal Required Bearing. Estimated Nominal Bearing at Minimum Tip Elevation is provided to assist the Contractor in selecting an appropriate pile hammer.
  - Pour steps monolithically with cap.
  - Headed bars shall conform to ASTM A970 Class HA. Cost included with Reinforcement Bars, Epoxy Coated.

FILE NAME: H:\P\18120.009\Bridges\Final Plans\Microstation\0760033-78719-021-Abutment Details.dgn



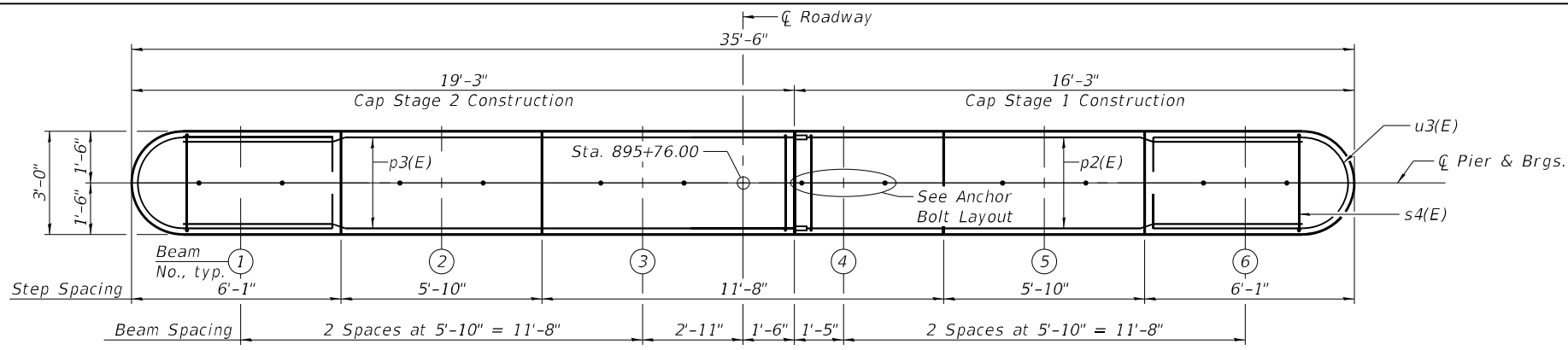
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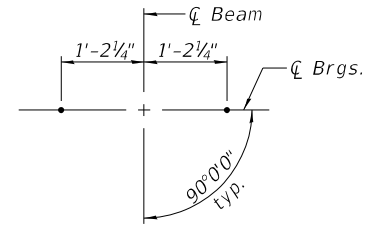
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**STRUCTURE NO. 076-0033**

SHEET 21 OF 37 SHEETS

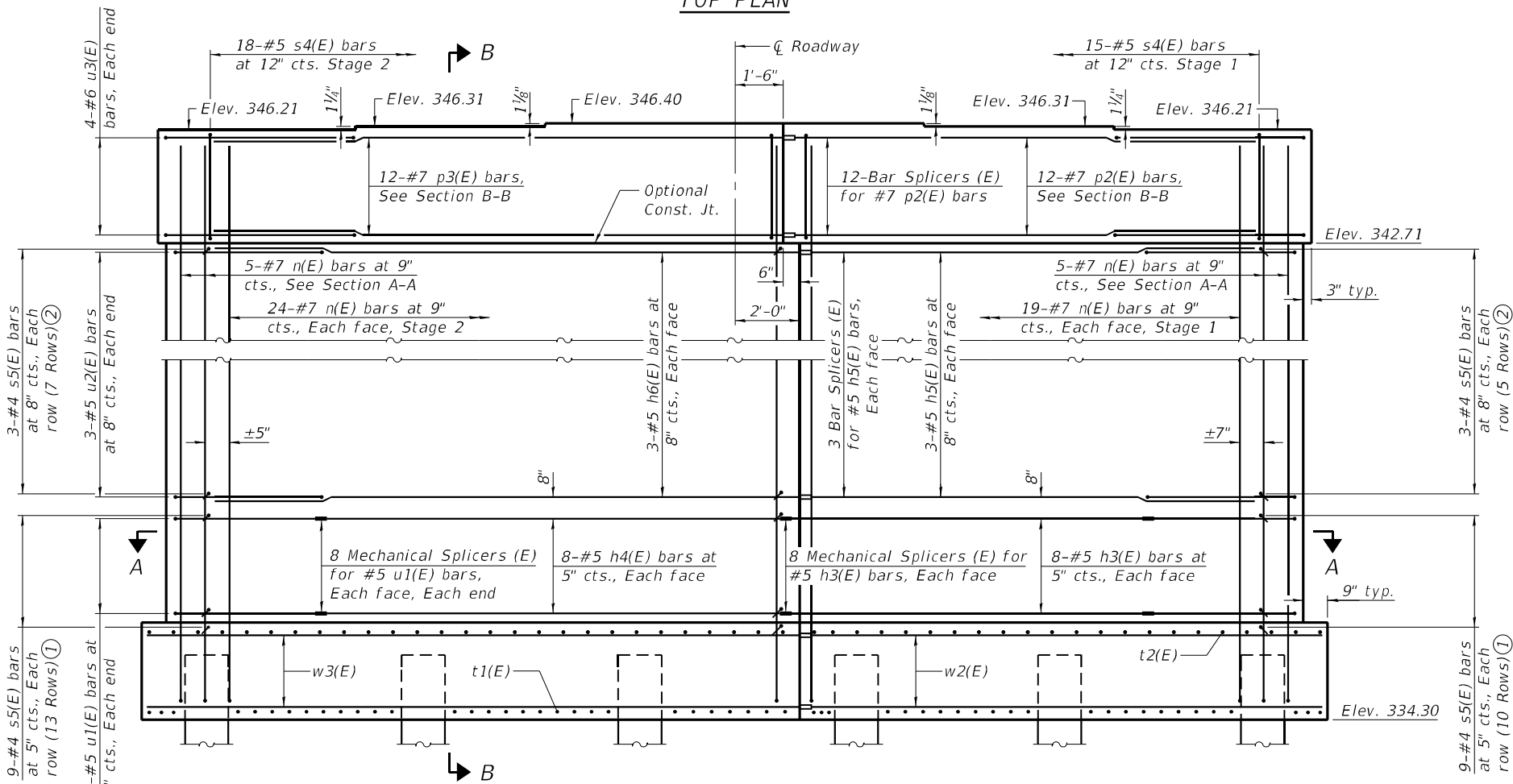
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	42
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



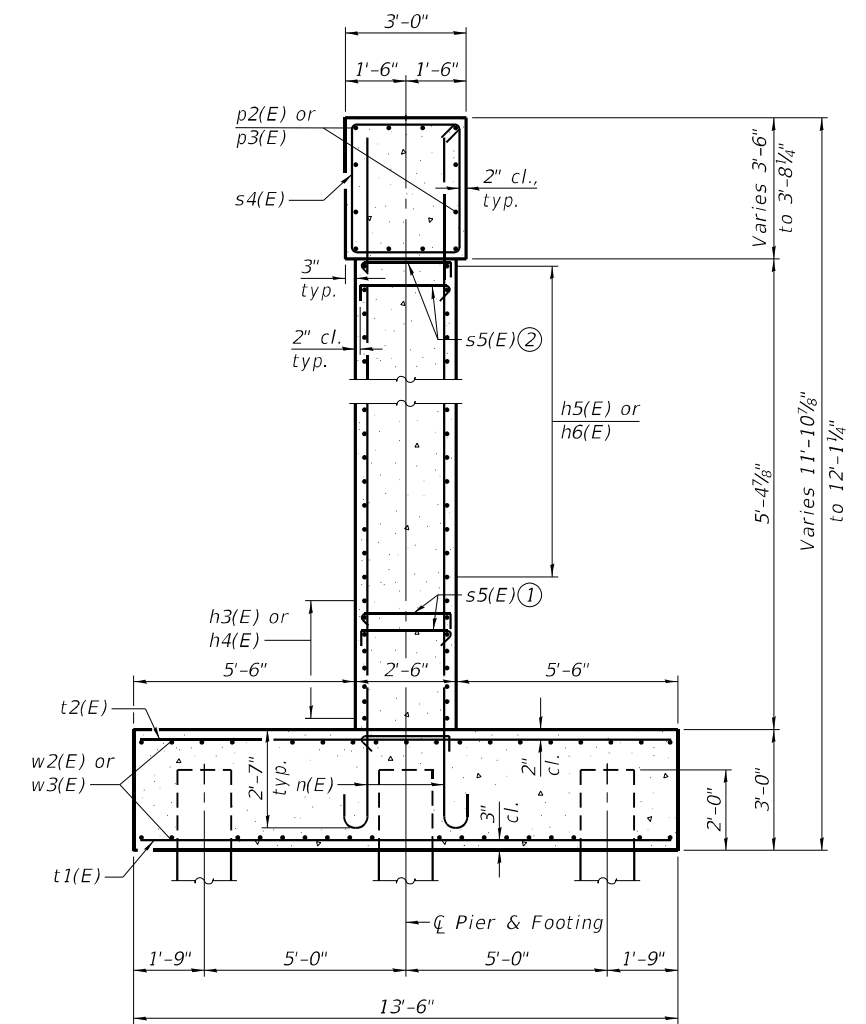
TOP PLAN



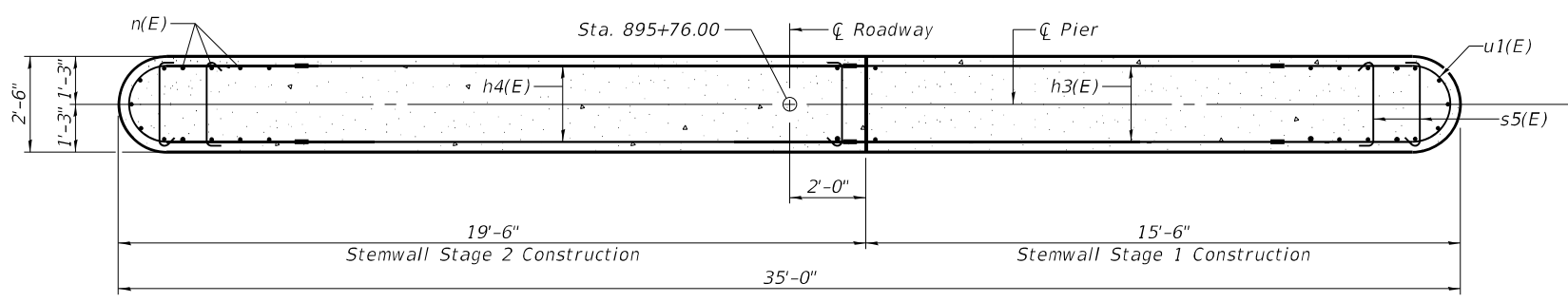
ANCHOR BOLT LAYOUT



ELEVATION  
(Looking North)



SECTION B-B



SECTION A-A

- Notes:
- Space s5(E) bars horizontally with every other n(E) bar ( $\pm 1'-6"$  spacing) and vertically with each h3(E) or h4(E) bar. Total includes one row of bars in top of footing. Alternate s5(E) bars end for end as shown in Section B-B.
  - Space s5(E) bars horizontally with every fourth n(E) bar ( $\pm 3'-0"$  spacing) and vertically with each h5(E) or h6(E) bar. Alternate s5(E) bars end for end as shown in Section B-B.
  - Pour steps monolithically with cap.
  - Space reinforcement in cap to miss anchor bolts.
  - For Bill of Material, Bar Details, Footing Plan and footing reinforcement, see sheet 23 of 37.
  - For details of Bar Splicers and Mechanical Splicers, see sheet 29 of 37.

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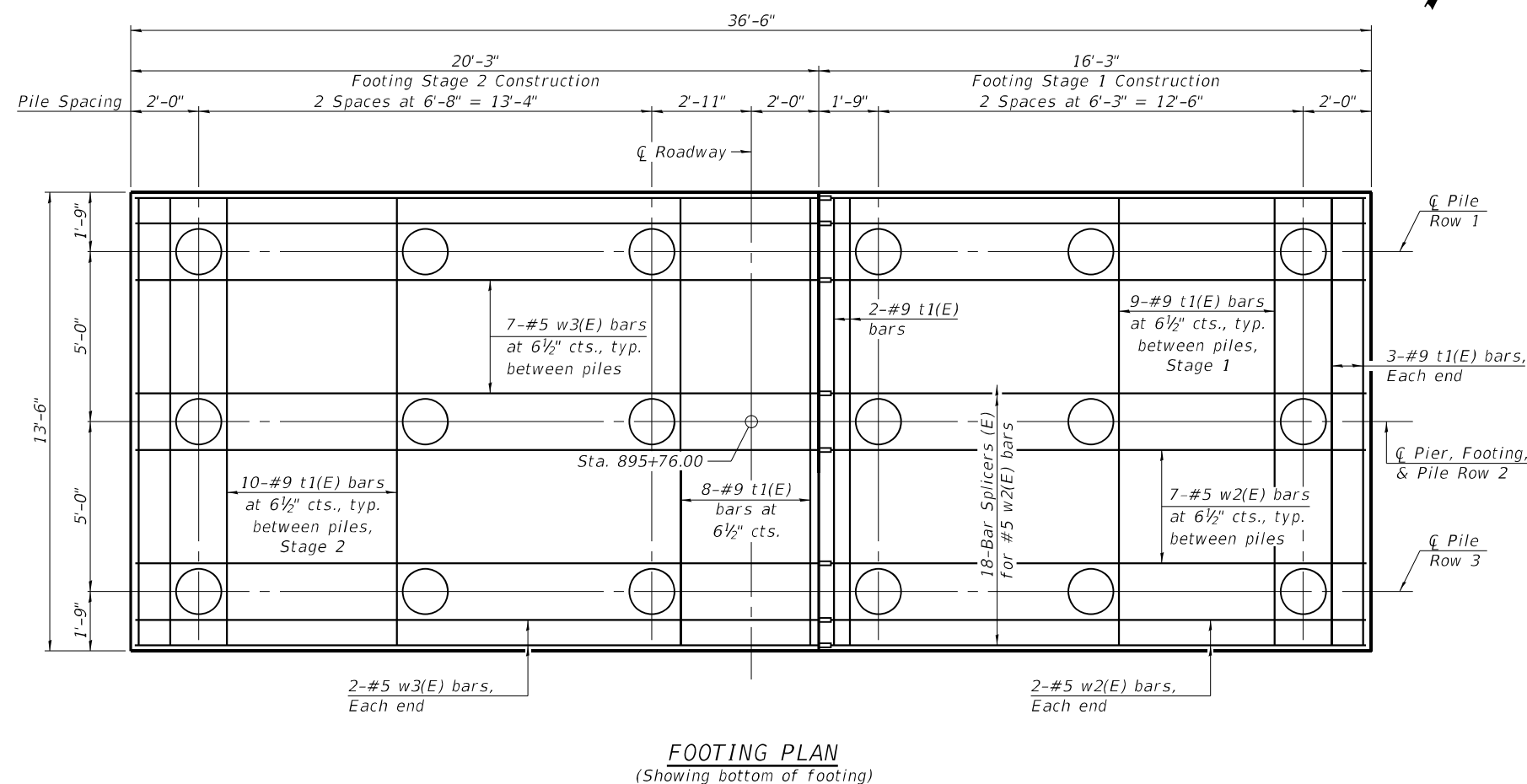
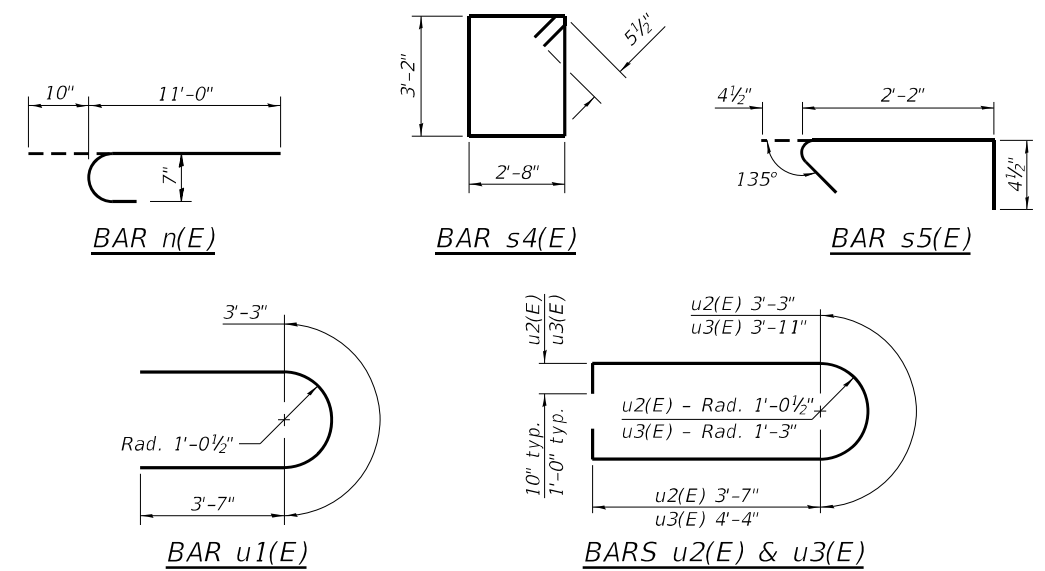
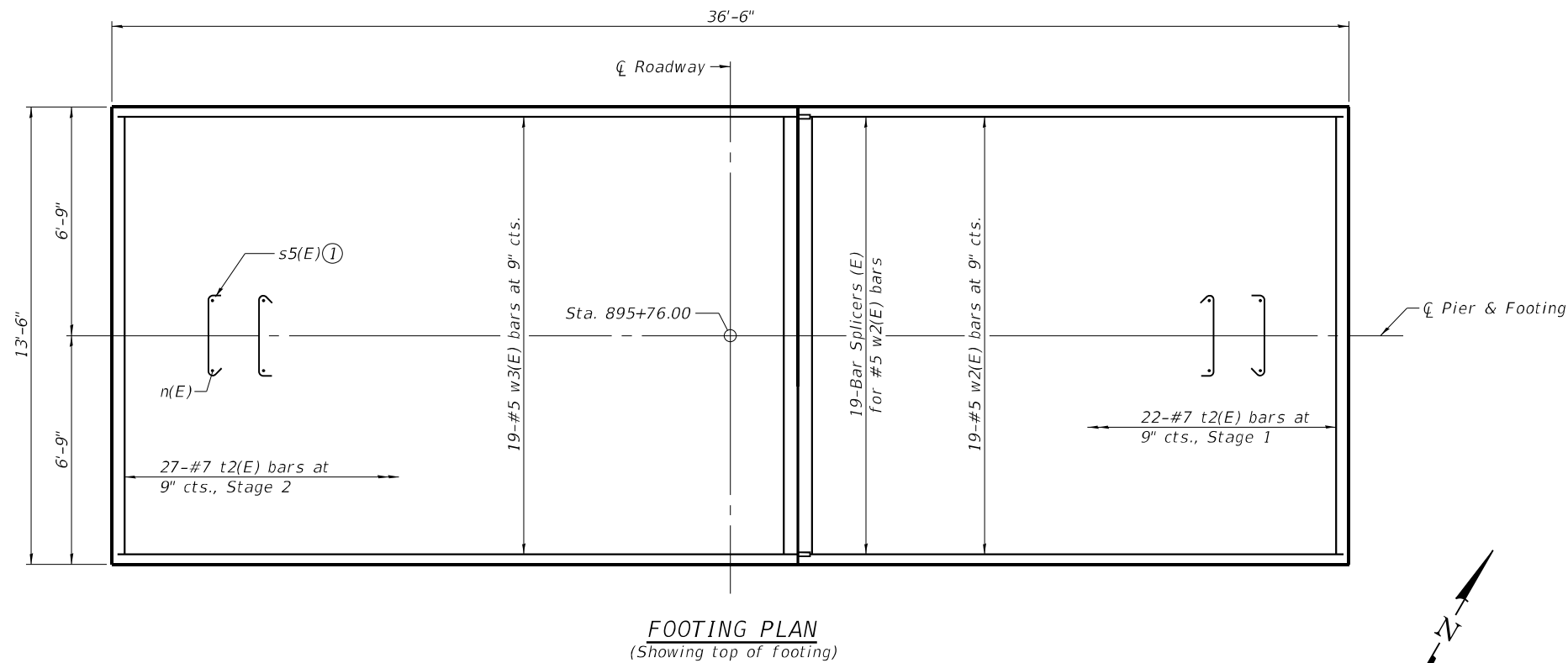
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER 1  
STRUCTURE NO. 076-0033

SHEET 22 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 43
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



**PILE DATA**

Type: Metal Shell-16 in. dia. x 0.375 in. walls  
 Nominal Required Bearing: 231 kips ②  
 Factored Resistance Available: 127 kips  
 Minimum Tip Elevation: 291.30 ②  
 Estimated Nominal Bearing at Minimum Tip Elevation: 350 kips ②  
 Estimated Length: 45 ft. ②  
 No. Production Piles: 17  
 No. Test Piles: 1

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	16	#5	11'-5"	—
h4(E)	16	#5	13'-11"	—
h5(E)	6	#5	14'-1"	—
h6(E)	6	#5	18'-1"	—
n(E)	96	#7	11'-10"	U
p2(E)	12	#7	14'-7"	—
p3(E)	12	#7	17'-7"	—
s4(E)	33	#5	12'-7"	□
s5(E)	243	#4	2'-11"	□
t1(E)	54	#9	13'-2"	—
t2(E)	49	#7	13'-2"	—
u1(E)	16	#5	10'-5"	U
u2(E)	6	#5	12'-1"	U
u3(E)	8	#6	14'-7"	U
w2(E)	37	#5	16'-0"	—
w3(E)	37	#5	20'-0"	—
Structure Excavation		Cu. Yd.	131	
Concrete Structures		Cu. Yd.	85.9	
Reinforcement Bars, Epoxy Coated		Pound	10,190	
Furnishing Metal Shell Piles 16" X 0.375"		Foot	765	
Driving Piles		Foot	765	
Test Pile Metal Shells		Each	1	

- Notes:
- ① Alternate s5(E) bars end for end as shown in Section B-B on sheet 22 of 37.
  - ② Pile length is controlled by lateral stability. At a minimum, pile driving shall achieve both the Minimum Tip Elevation and the Nominal Required Bearing. Estimated Nominal Bearing at Minimum Tip Elevation is provided to assist the Contractor in selecting an appropriate pile hammer.
  - ③ For details of piles, see sheet 28 of 37. The Reinforcement At Abutments shall be included at all pier levels.
  - ④ For details of Bar Splicers, see sheet 29 of 37.

FILE NAME: H:\P\18120.009\Bridge\Final Plans\Microstation\0760033-78719-023-Pier\_1.dgn

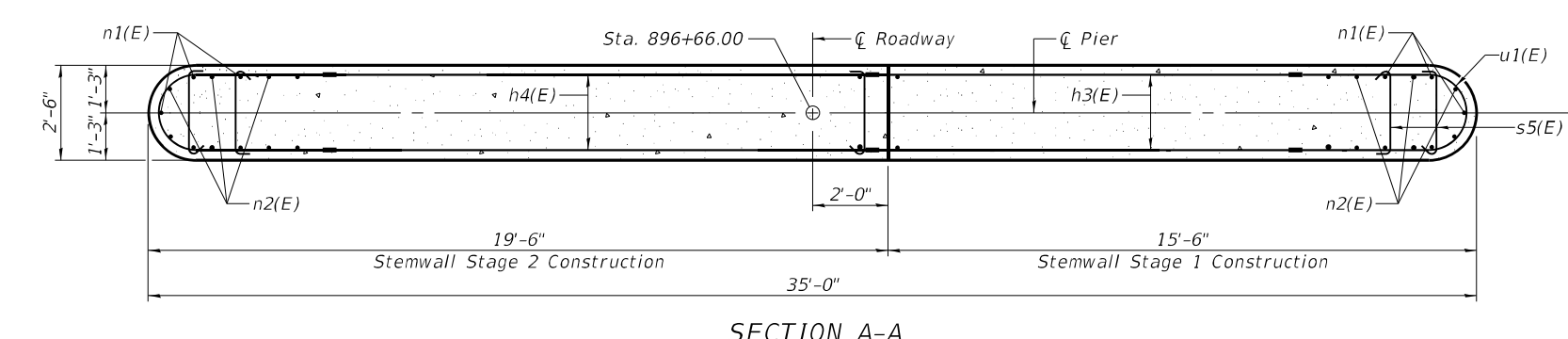
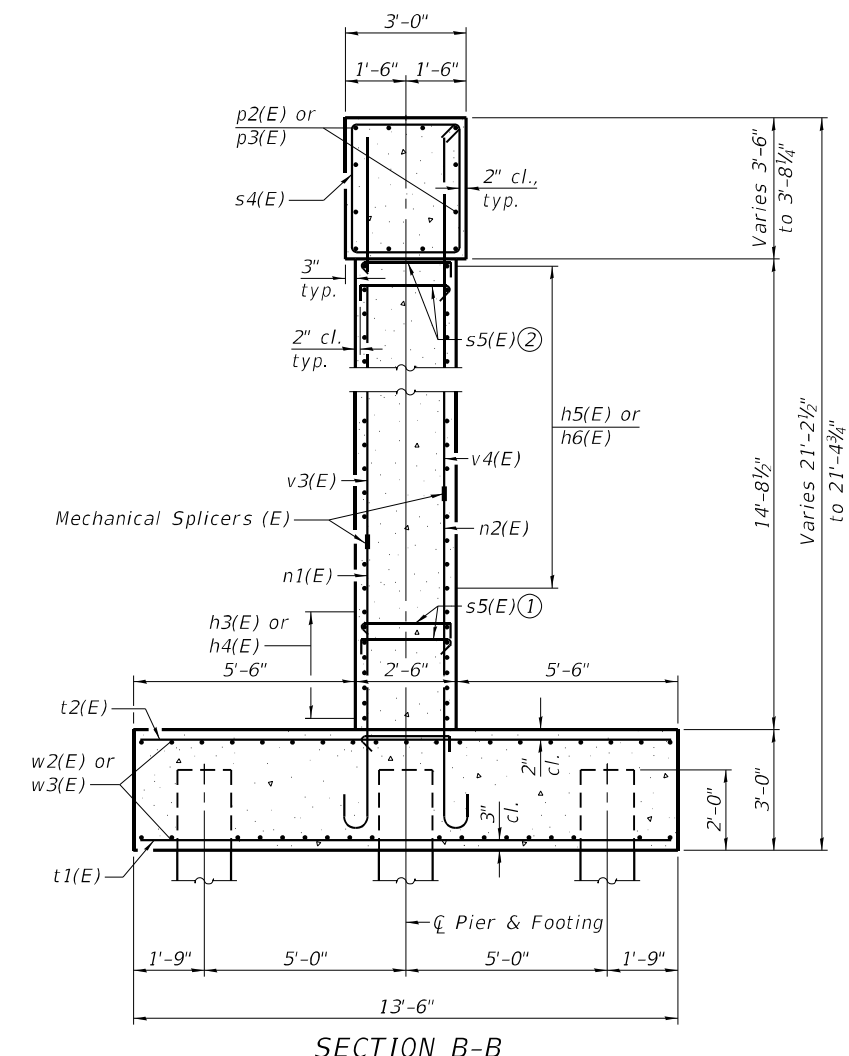
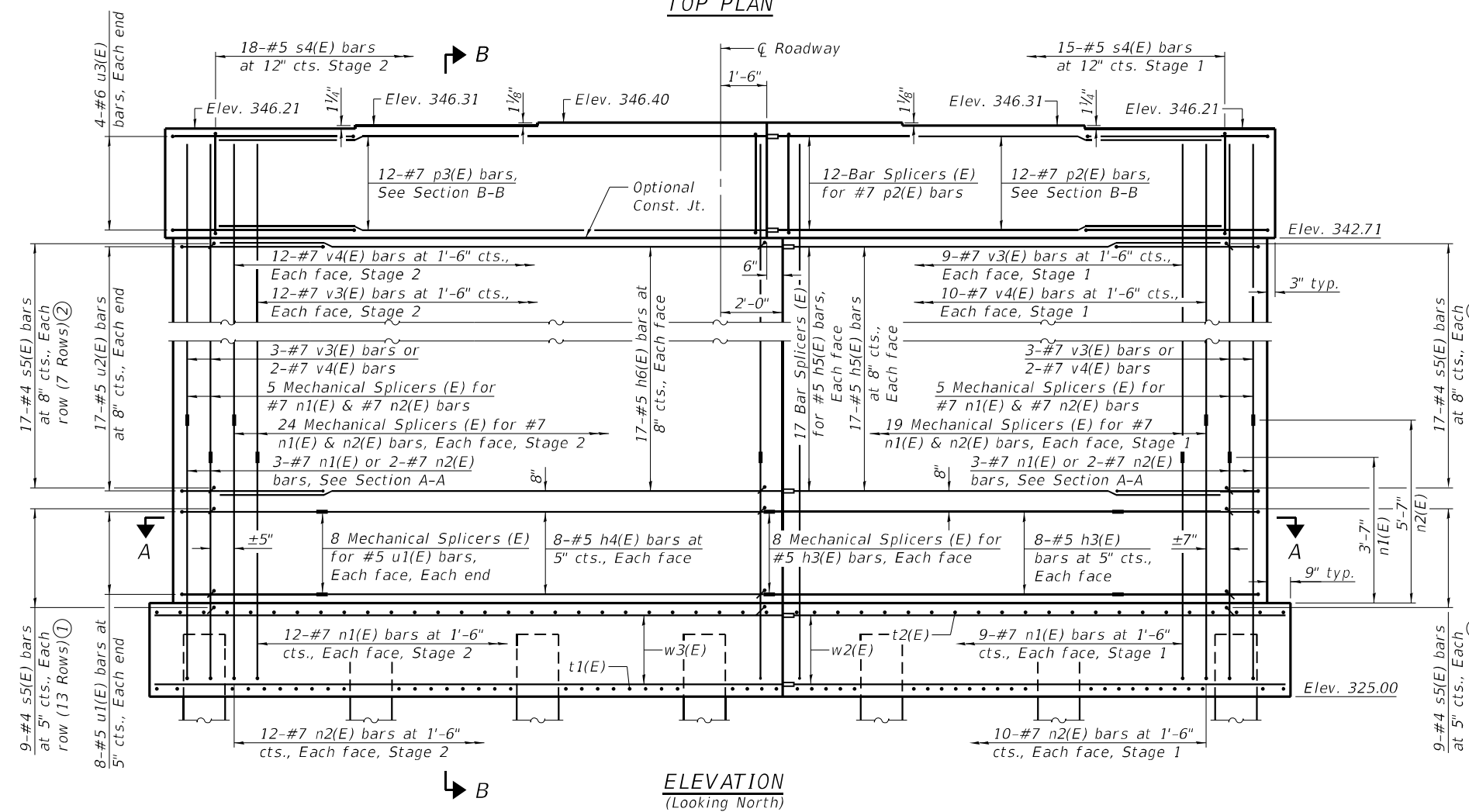
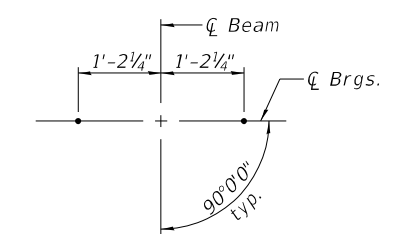
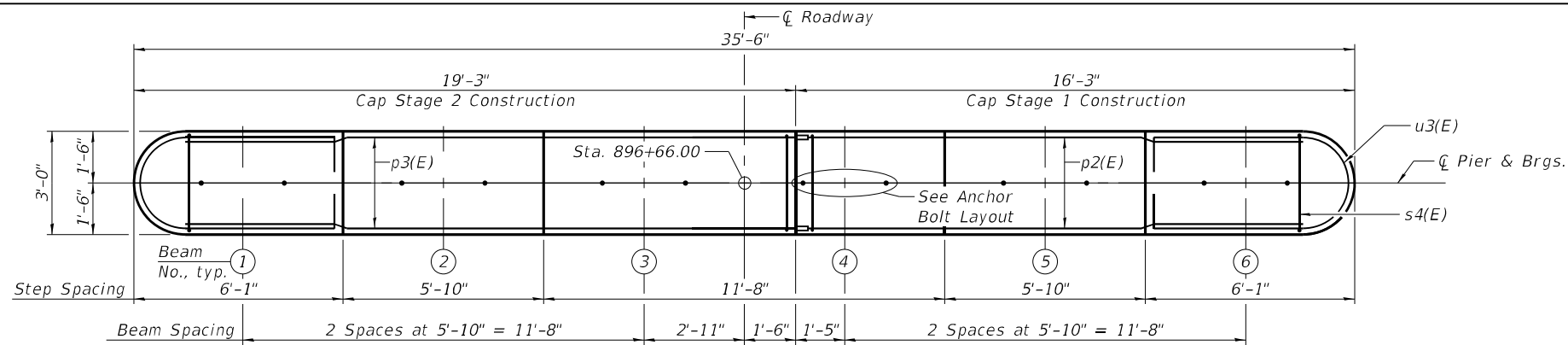


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	CHECKED - KBC	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER 1  
STRUCTURE NO. 076-0033  
SHEET 23 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	44
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



- Notes:**
- ① Space s5(E) bars horizontally with each n1(E) bar (±1'-6" spacing) and vertically with each h3(E) or h4(E) bar. Total includes one row of bars in top of footing. Alternate s5(E) bars end for end as shown in Section B-B.
  - ② Space s5(E) bars horizontally with every other n1(E) bar (±3'-0" spacing) and vertically with each h5(E) or h6(E) bar. Alternate s5(E) bars end for end as shown in Section B-B.
  - ③ Pour steps monolithically with cap.
  - ④ Space reinforcement in cap to miss anchor bolts.
  - ⑤ For Bill of Material, Bar Details, Footing Plan and footing reinforcement, see sheet 25 of 37.
  - ⑥ For details of Bar Splicers and Mechanical Splicers, see sheet 29 of 37.

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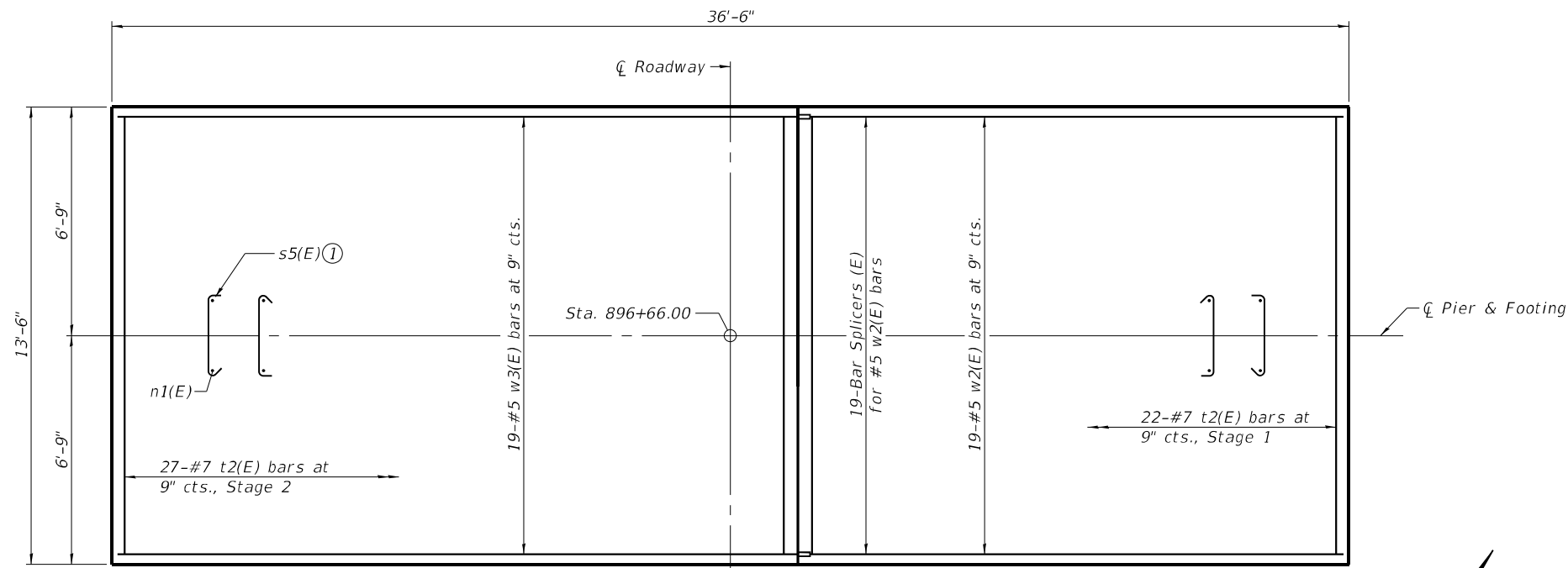
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

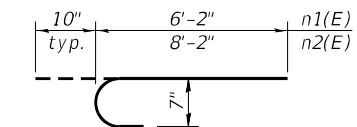
**PIER 2  
STRUCTURE NO. 076-0033**

SHEET 24 OF 37 SHEETS

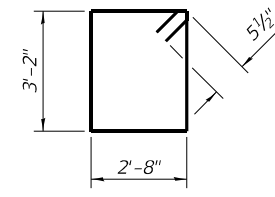
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CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	



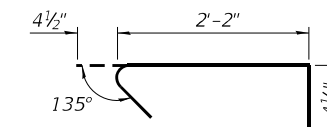
**FOOTING PLAN**  
(Showing top of footing)



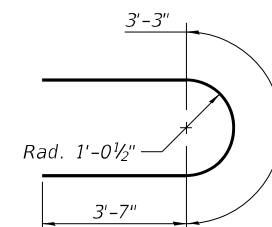
**BARS n1(E) & n2(E)**



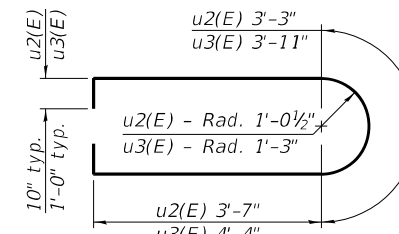
**BAR s4(E)**



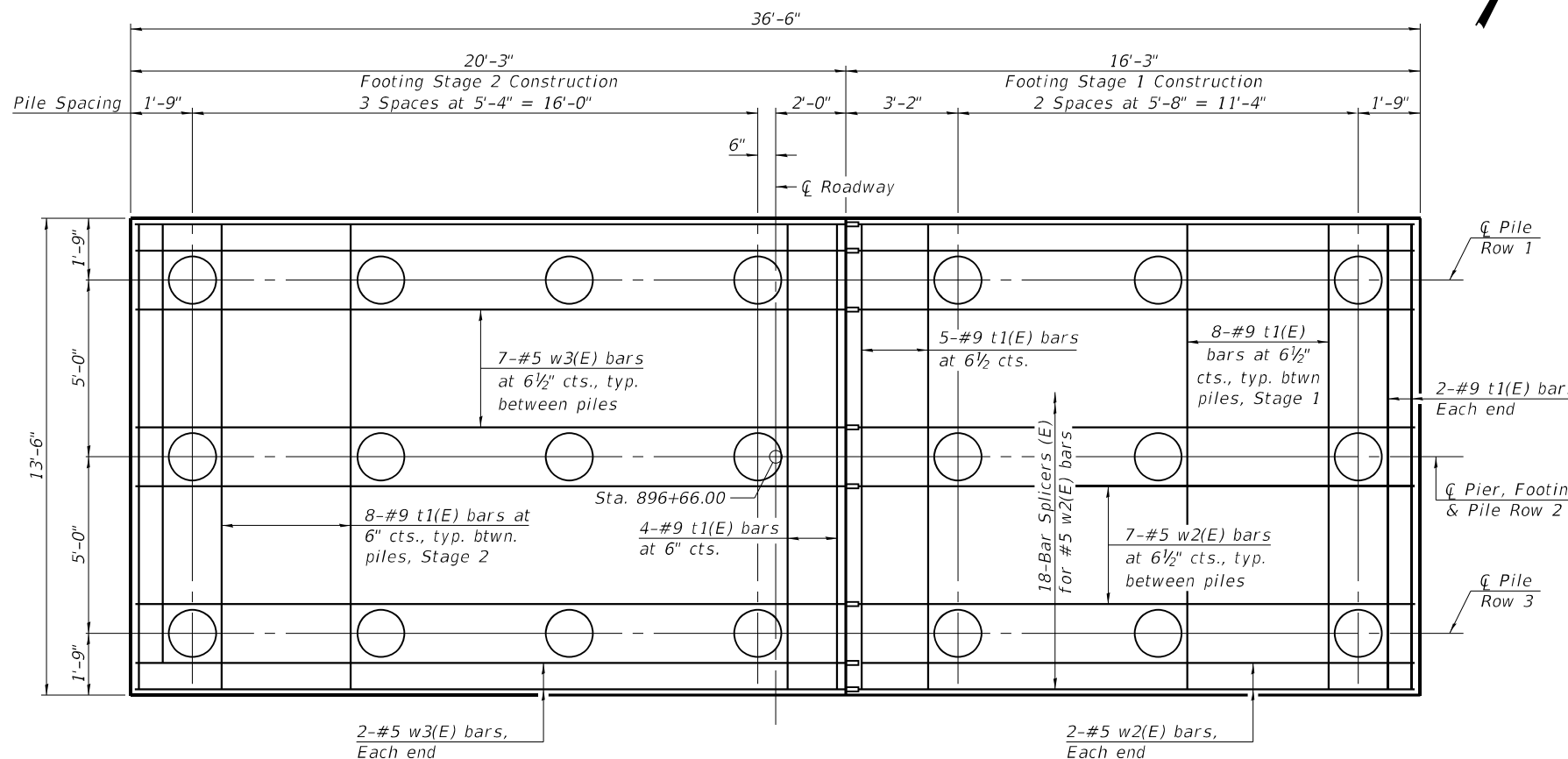
**BAR s5(E)**



**BAR u1(E)**



**BARS u2(E) & u3(E)**



**FOOTING PLAN**  
(Showing bottom of footing)

**PILE DATA**

Type: Metal Shell-16 in. dia. x 0.375 in. walls  
 Nominal Required Bearing: 279 kips ②  
 Factored Resistance Available: 153 kips  
 Minimum Tip Elevation: 285.00 ②  
 Estimated Nominal Bearing at Minimum Tip Elevation: 405 kips ②  
 Estimated Length: 42 ft. ②  
 No. Production Piles: 20  
 No. Test Piles: 1

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	16	#5	11'-5"	—
h4(E)	16	#5	13'-11"	—
h5(E)	34	#5	14'-1"	—
h6(E)	34	#5	18'-1"	—
n1(E)	48	#7	7'-0"	—
n2(E)	48	#7	9'-0"	—
p2(E)	12	#7	14'-7"	—
p3(E)	12	#7	17'-7"	—
s4(E)	33	#5	12'-7"	—
s5(E)	411	#4	2'-11"	—
t1(E)	53	#9	13'-2"	—
t2(E)	49	#7	13'-2"	—
u1(E)	16	#5	10'-5"	—
u2(E)	34	#5	12'-1"	—
u3(E)	8	#6	14'-7"	—
v3(E)	48	#7	14'-2"	—
v4(E)	48	#7	12'-2"	—
w2(E)	37	#5	16'-0"	—
w3(E)	37	#5	20'-0"	—
Cofferdam Excavation		Cu. Yd.	257	
Cofferdam (Type 2) (Location - 1)		Each	1	
Concrete Structures		Cu. Yd.	115.6	
Reinforcement Bars, Epoxy Coated		Pound	13,600	
Furnishing Metal Shell Piles 16" X 0.375"		Foot	840	
Driving Piles		Foot	840	
Test Pile Metal Shells		Each	1	

**Notes:**

- ① Alternate s5(E) bars end for end as shown in Section B-B on sheet 24 of 37.
- ② Pile length is controlled by lateral stability. At a minimum, pile driving shall achieve both the Minimum Tip Elevation and the Nominal Required Bearing. Estimated Nominal Bearing at Minimum Tip Elevation is provided to assist the Contractor in selecting an appropriate pile hammer.
- ③ For details of Cofferdam (Type 2) (Location - 1), see sheet 4 of 37.
- ④ For details of piles, see sheet 28 of 37. The Reinforcement At Abutments shall be included at all pier piles.
- ⑤ For details of Bar Splicers, see sheet 29 of 37.

FILE NAME: H:\PI\18120.009\Bridges\Final Plans\Microstation\0760033-78719-025-Pier\_2.dgn



USER NAME =	DESIGNED - JAD	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 8/16/2022	DRAWN - NBB	REVISED -
	CHECKED - KBC	REVISED -

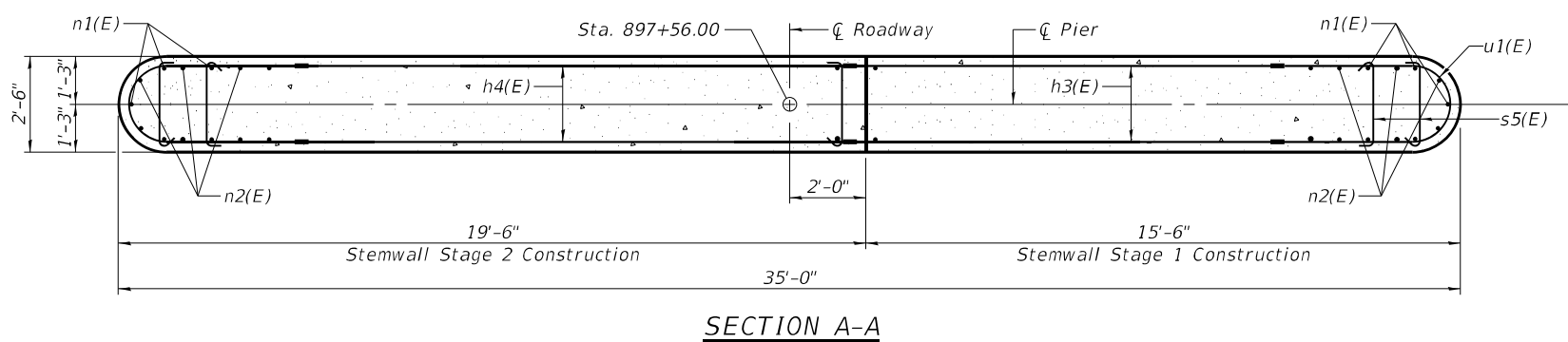
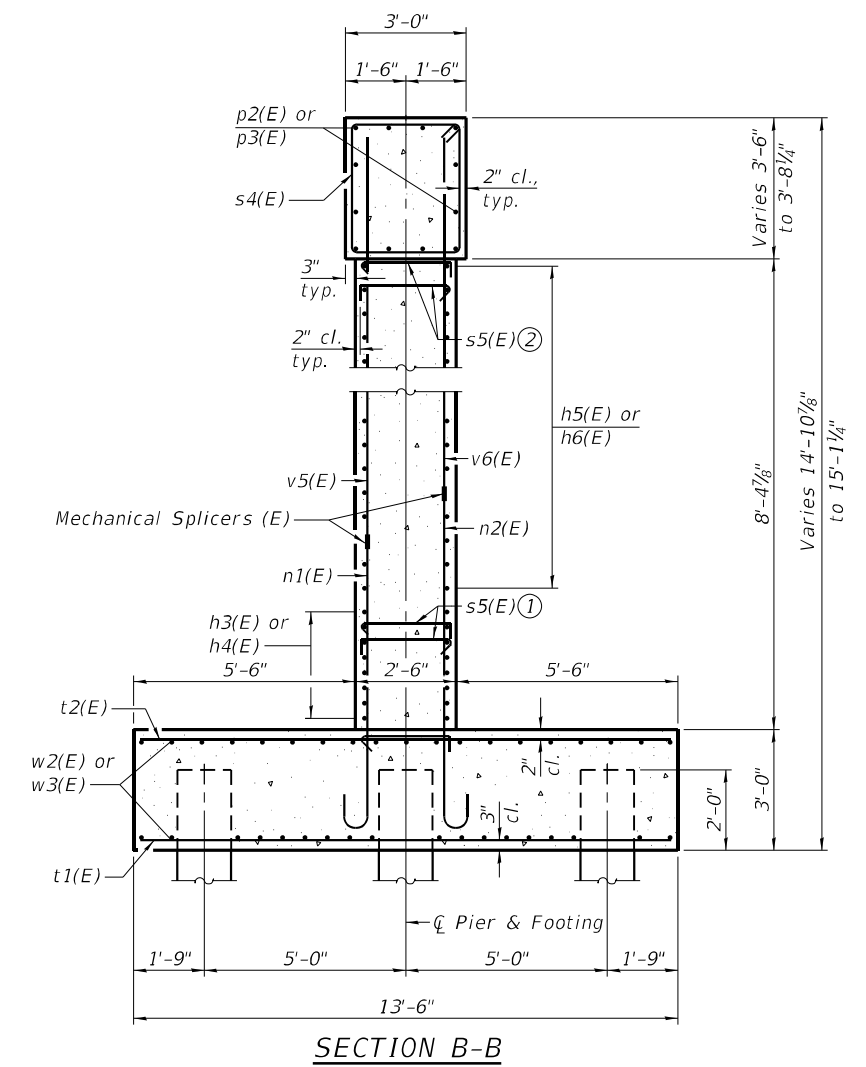
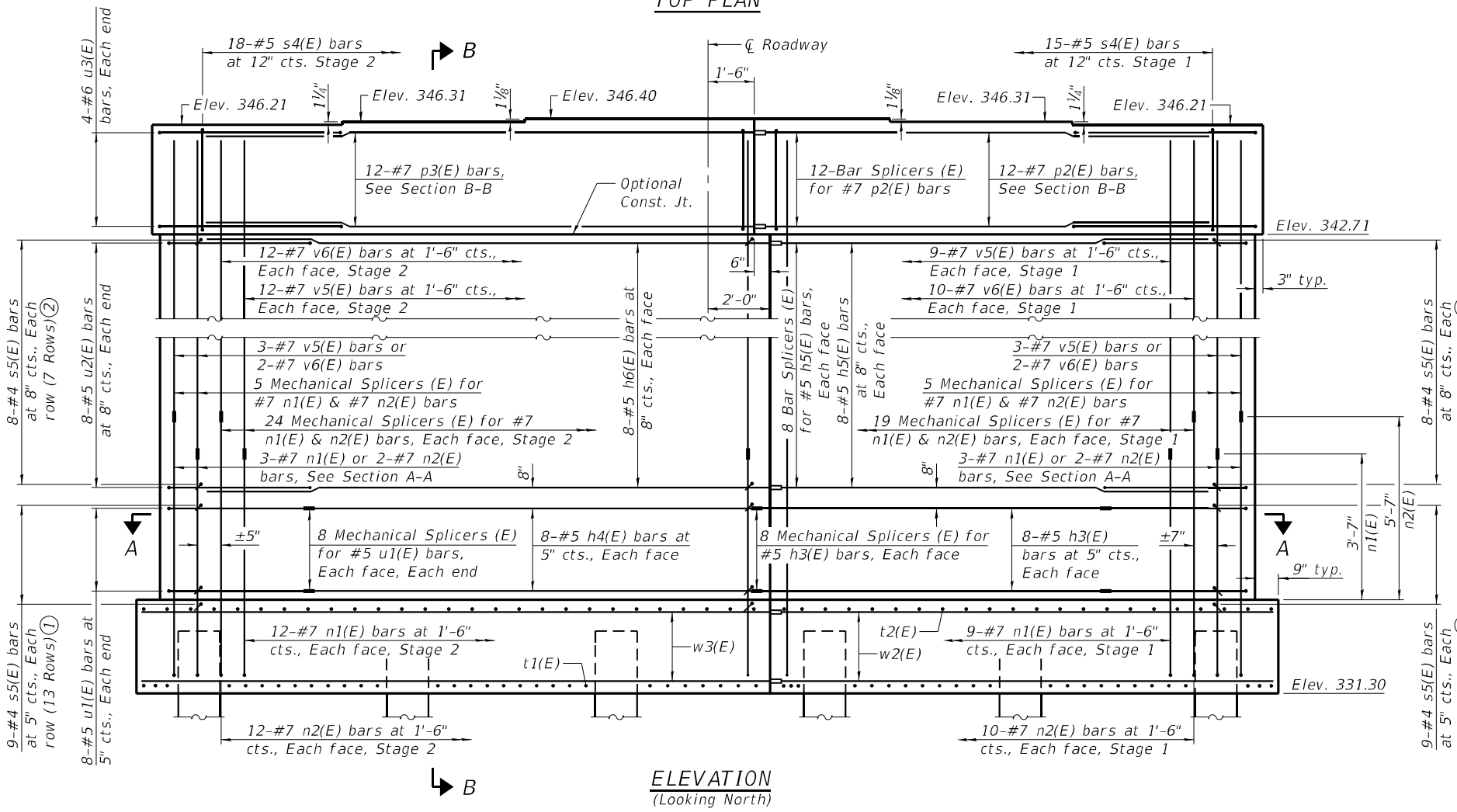
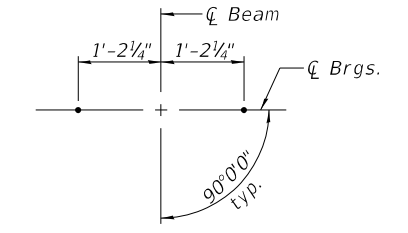
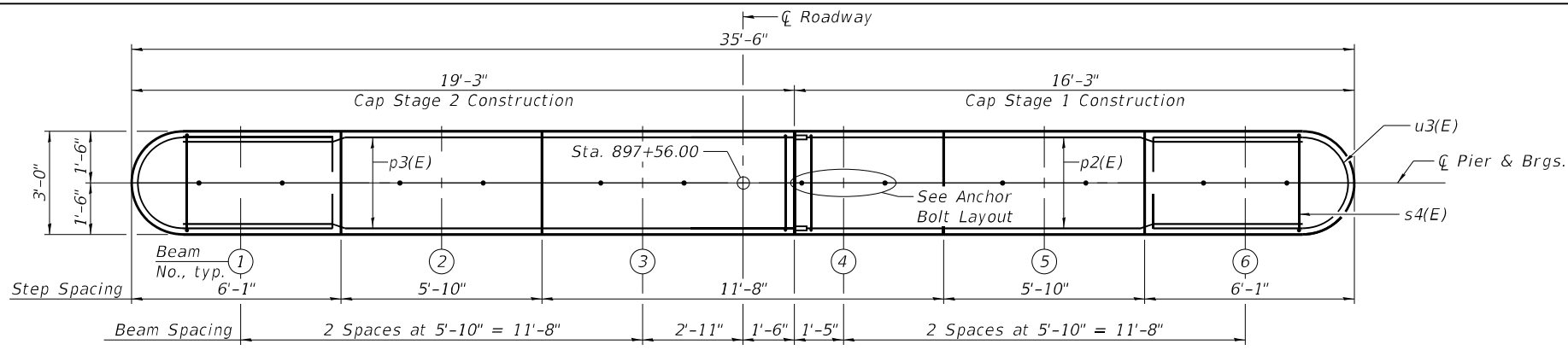
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER 2  
STRUCTURE NO. 076-0033

SHEET 25 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	46
CONTRACT NO. 78719				

ILLINOIS FED. AID PROJECT



- Notes:**
- ① Space s5(E) bars horizontally with each n1(E) bar ( $\pm 1'-6"$  spacing) and vertically with each h3(E) or h4(E) bar. Total includes one row of bars in top of footing. Alternate s5(E) bars end for end as shown in Section B-B.
  - ② Space s5(E) bars horizontally with every other n1(E) bar ( $\pm 3'-0"$  spacing) and vertically with each h5(E) or h6(E) bar. Alternate s5(E) bars end for end as shown in Section B-B.
  - ③ Pour steps monolithically with cap.
  - ④ Space reinforcement in cap to miss anchor bolts.
  - ⑤ For Bill of Material, Bar Details, Footing Plan and footing reinforcement, see sheet 27 of 37.
  - ⑥ For details of Bar Splicers and Mechanical Splicers, see sheet 29 of 37.

FILE NAME: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-026-Pier\_3.dgn



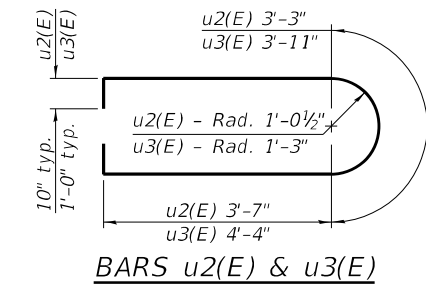
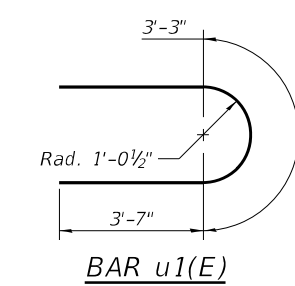
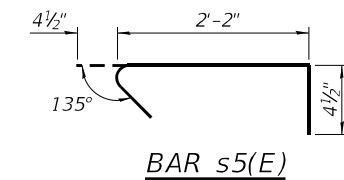
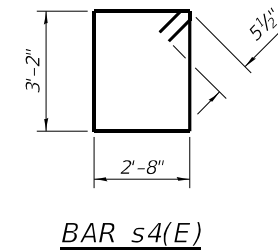
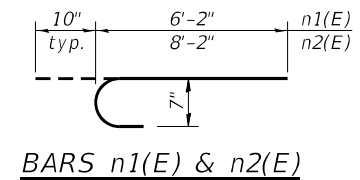
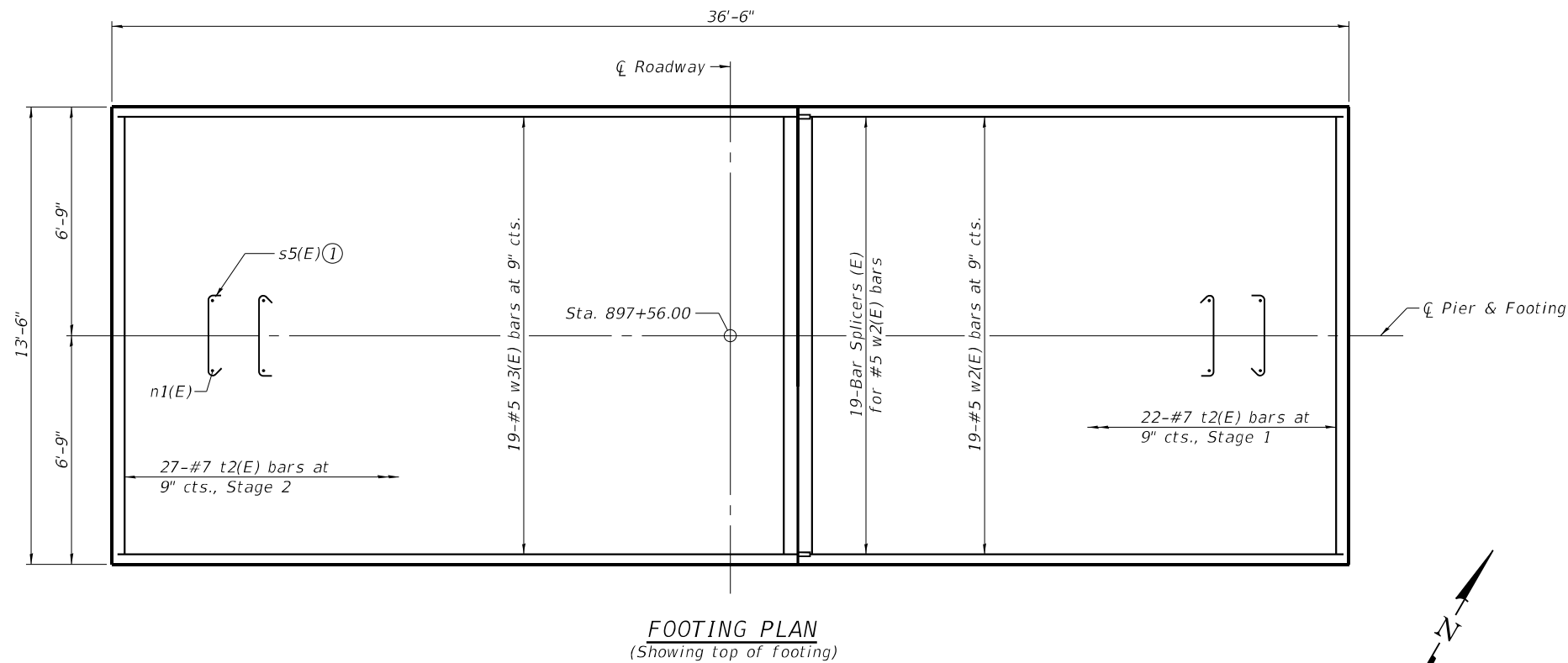
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CHECKED - DGL	CHECKED - DGL	REVISED -
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PLOT DATE = 8/16/2022	CHECKED - KBC	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 3**  
**STRUCTURE NO. 076-0033**

SHEET 26 OF 37 SHEETS

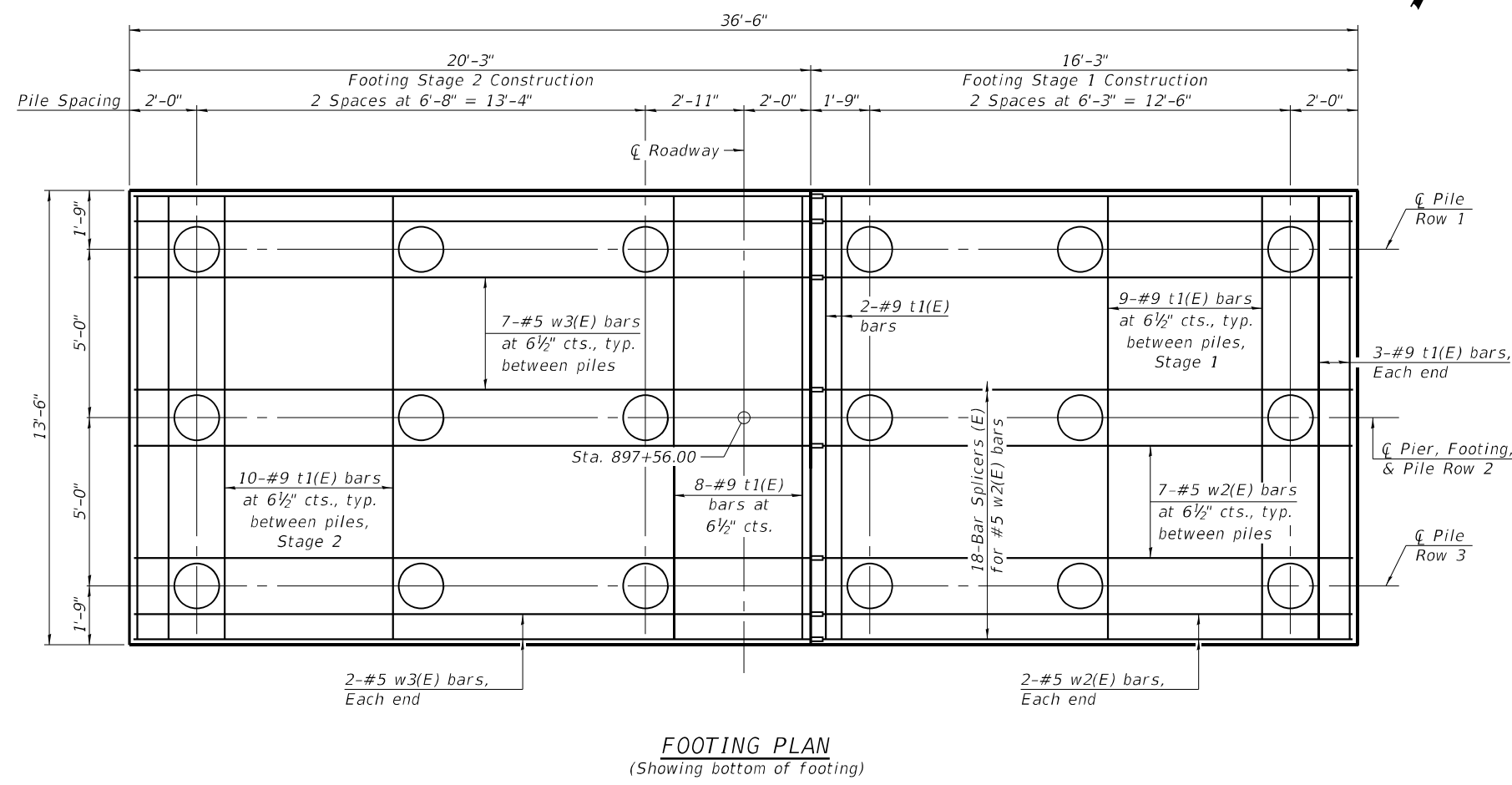
F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 47
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



**PILE DATA**  
 Type: Metal Shell-16 in. dia. x 0.375 in. walls  
 Nominal Required Bearing: 242 kips ②  
 Factored Resistance Available: 133 kips  
 Minimum Tip Elevation: 291.30 ②  
 Estimated Nominal Bearing at Minimum Tip Elevation: 327 kips ②  
 Estimated Length: 42 ft. ②  
 No. Production Piles: 17  
 No. Test Piles: 1

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	16	#5	11'-5"	—
h4(E)	16	#5	13'-11"	—
h5(E)	16	#5	14'-1"	—
h6(E)	16	#5	18'-1"	—
n1(E)	48	#7	7'-0"	—
n2(E)	48	#7	9'-0"	—
p2(E)	12	#7	14'-7"	—
p3(E)	12	#7	17'-7"	—
s4(E)	33	#5	12'-7"	—
s5(E)	303	#4	2'-11"	—
t1(E)	54	#9	13'-2"	—
t2(E)	49	#7	13'-2"	—
u1(E)	16	#5	10'-5"	—
u2(E)	16	#5	12'-1"	—
u3(E)	8	#6	14'-7"	—
v5(E)	48	#7	7'-10"	—
v6(E)	48	#7	5'-10"	—
w2(E)	37	#5	16'-0"	—
w3(E)	37	#5	20'-0"	—
Structure Excavation		Cu. Yd.	131	
Concrete Structures		Cu. Yd.	95.5	
Reinforcement Bars, Epoxy Coated		Pound	11,360	
Furnishing Metal Shell Piles 16" X 0.375"		Foot	714	
Driving Piles		Foot	714	
Test Pile Metal Shells		Each	1	



- Notes:  
 ① Alternate s5(E) bars end for end as shown in Section B-B on sheet 26 of 37.  
 ② Pile length is controlled by lateral stability. At a minimum, pile driving shall achieve both the Minimum Tip Elevation and the Nominal Required Bearing. Estimated Nominal Bearing at Minimum Tip Elevation is provided to assist the Contractor in selecting an appropriate pile hammer.  
 ③ For details of piles, see sheet 28 of 37. The Reinforcement At Abutments shall be included at all pier piles.  
 ④ For details of Bar Splicers, see sheet 29 of 37.

FILE NAME: H:\P\18120.009\Bridge\Final Plans\Microstation\0760033-78719-027-Pier\_3.dgn



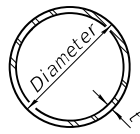
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PLOT DATE = 8/16/2022	DRAWN - NBB	REVISED -
	CHECKED - KBC	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 3  
 STRUCTURE NO. 076-0033  
 SHEET 27 OF 37 SHEETS

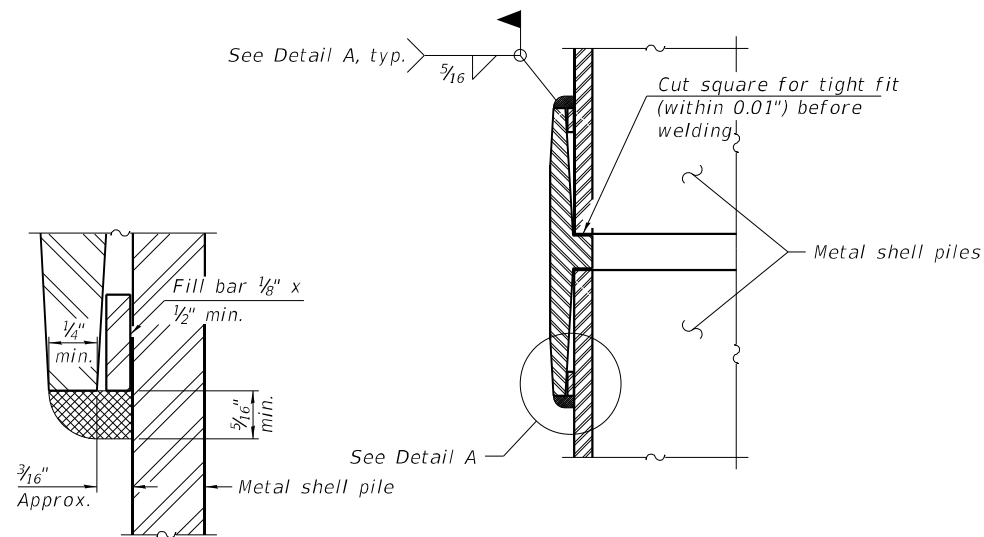
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	48
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



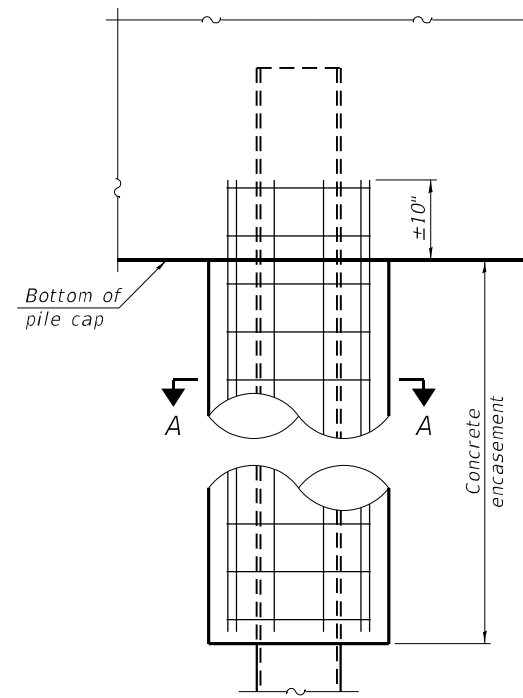


**METAL SHELL PILE TABLE**

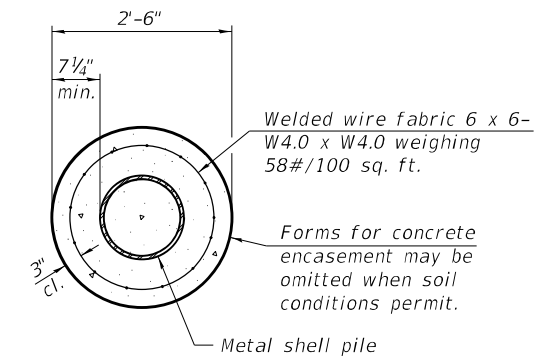
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



**DETAIL A**

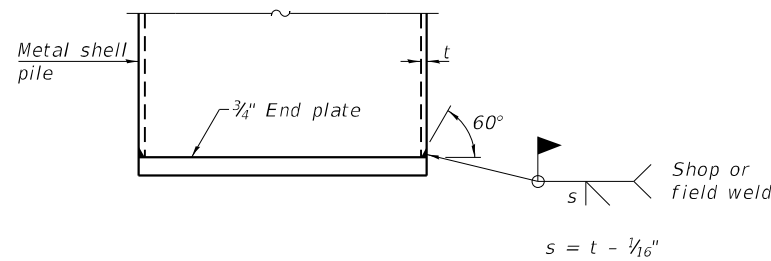


**ELEVATION**



**SECTION A-A**

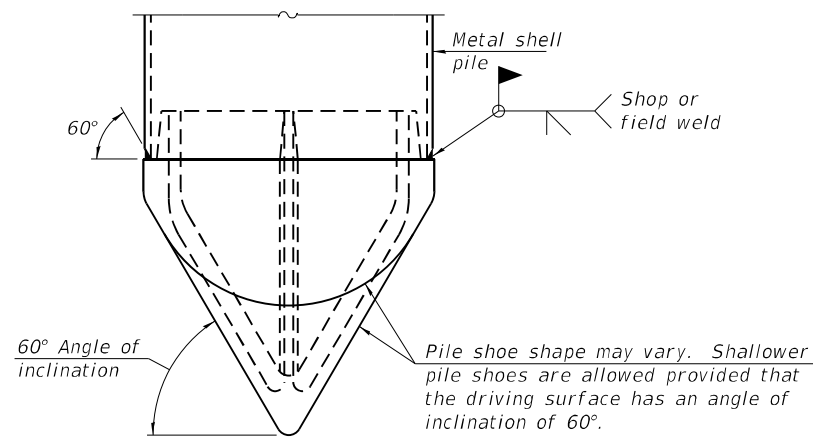
**INDIVIDUAL PILE CONCRETE ENCASEMENT**  
(When specified)



**END PLATE ATTACHMENT**

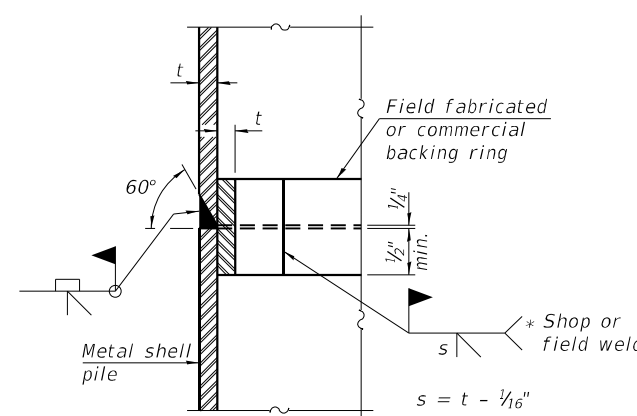
**WELDED COMMERCIAL SPLICE**

Notes:  
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
Pile segments shall be driven to solid contact with splicer before welding.



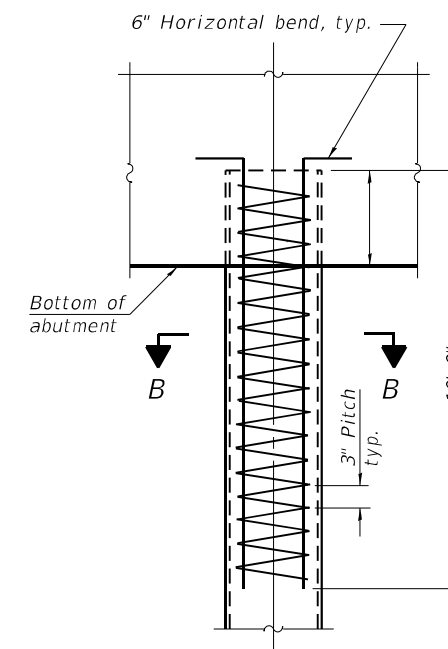
**PILE SHOE ATTACHMENT**

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80-50 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).



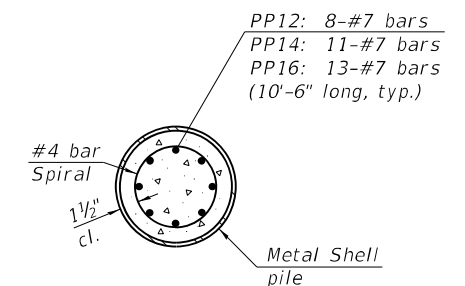
**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**ELEVATION**

**REINFORCEMENT AT ABUTMENTS**  
(Omit when concrete encasement is specified)



**SECTION B-B**

Note:  
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

FILE NAME: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-028-Metal\_Shell\_Pile\_Details.dgn

F-MS 1-1-2020



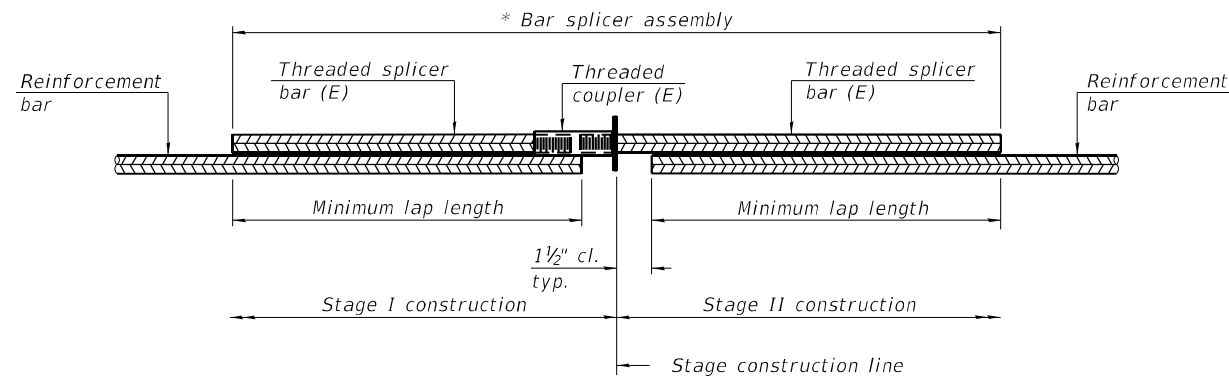
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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 8/16/2022	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS  
STRUCTURE NO. 076-0033**

SHEET 28 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	49
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

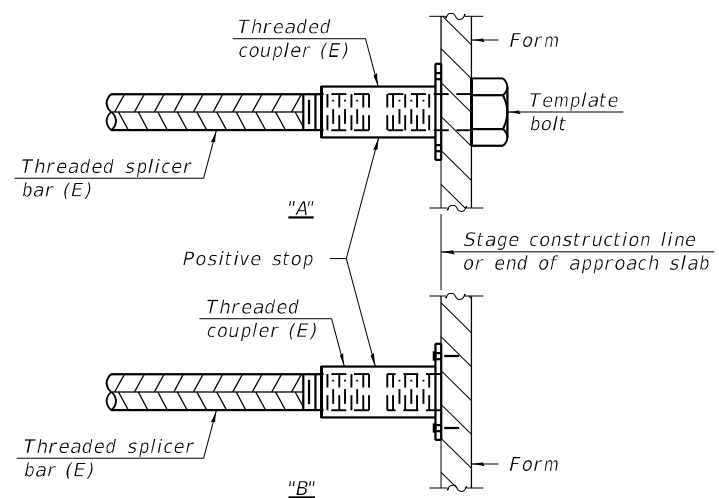


**STANDARD BAR SPLICER ASSEMBLY PLAN**  
 (All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + 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
Abutments	#7	28	5'-0"
Approach Footings	#5	80	3'-2"
Approach Slabs	#4	32	2'-5"
Approach Slabs	#5	32	3'-0"
Deck	#5	926	3'-6"
Integral Diaphragms	#6	14	4'-0"
Pier 1	#5	43	3'-7"
Pier 1	#7	12	5'-0"
Pier 2	#5	71	3'-7"
Pier 2	#7	12	5'-0"
Pier 3	#5	53	3'-7"
Pier 3	#7	12	5'-0"

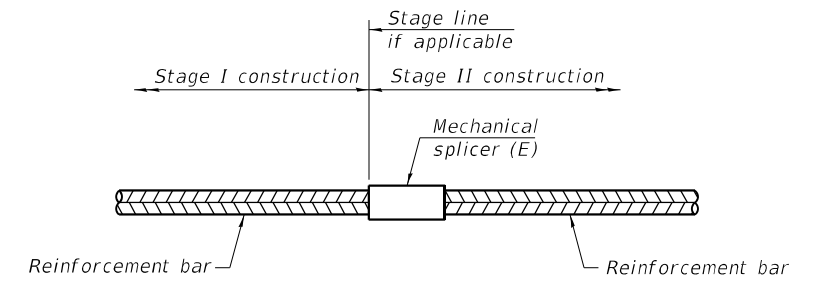


**INSTALLATION AND SETTING METHODS**

"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
Pier 1	#5	48
Pier 2	#5	48
Pier 2	#7	96
Pier 3	#5	48
Pier 3	#7	96

**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.

BSD-1

1-1-2020



USER NAME =	DESIGNED -	REVISED -
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PLOT DATE = 8/16/2022	CHECKED -	REVISED -

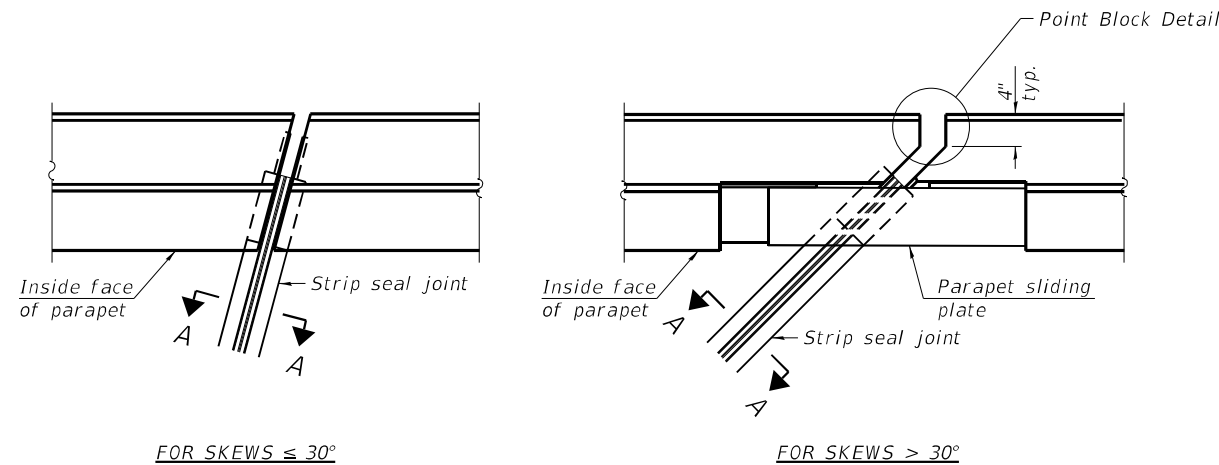
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 076-0033

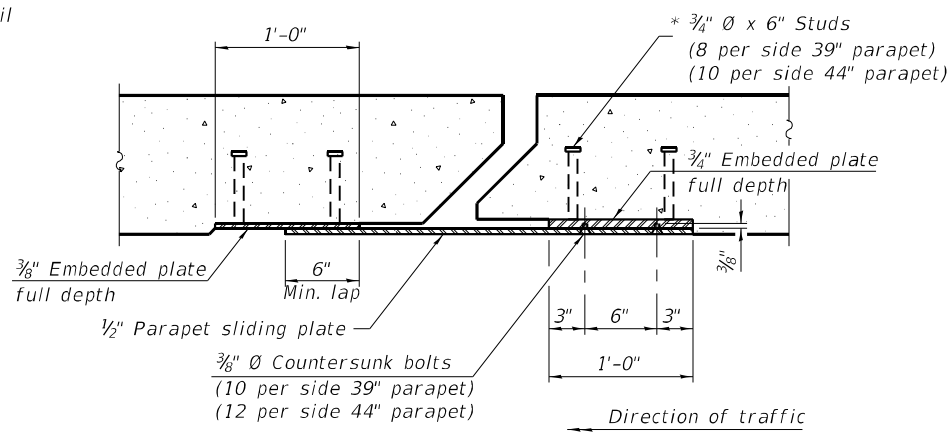
SHEET 29 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 50
CONTRACT NO. 78719			ILLINOIS FED. AID PROJECT	

FILE NAME: H:\P\18120.009\Bridges\Final Plans\Microstation\0760033-78719-02-02-Bar Splicer Assembly and Mechanical Splicer Details.dgn

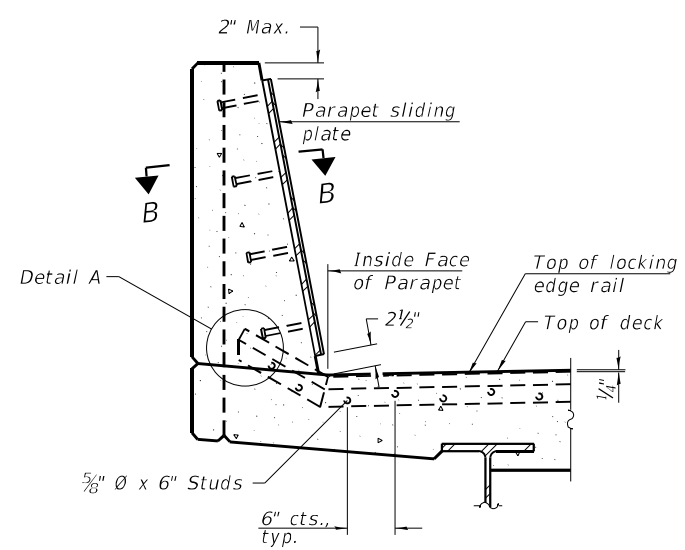


PLAN AT PARAPET



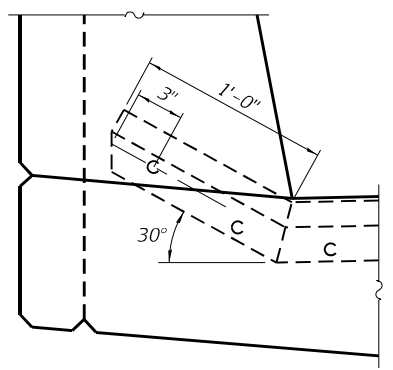
SECTION B-B

Notes:  
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.  
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.  
 The manufacturer's recommended installation methods shall be followed.

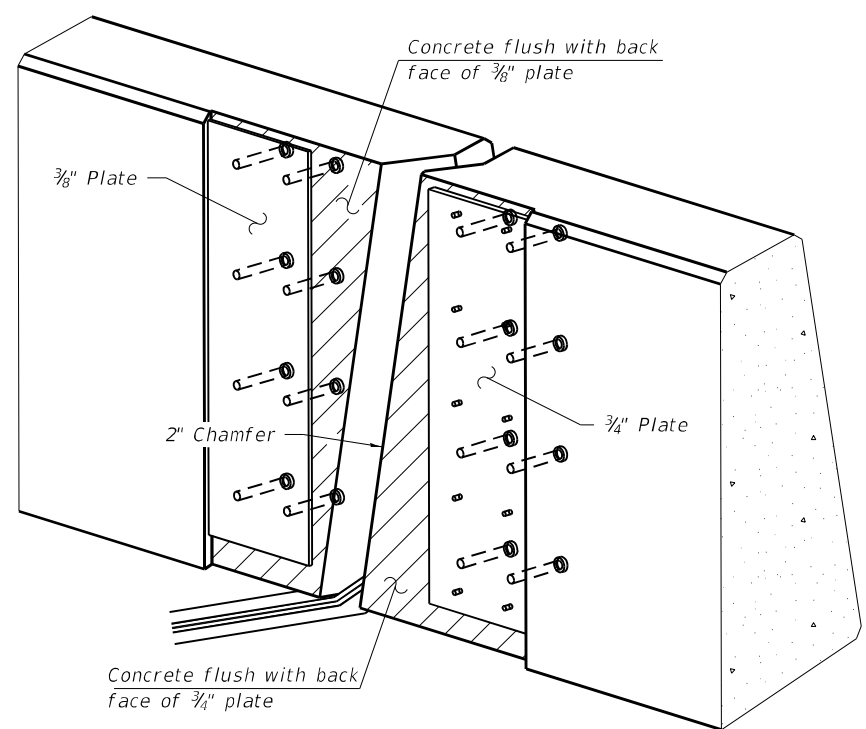


SECTION AT PARAPET

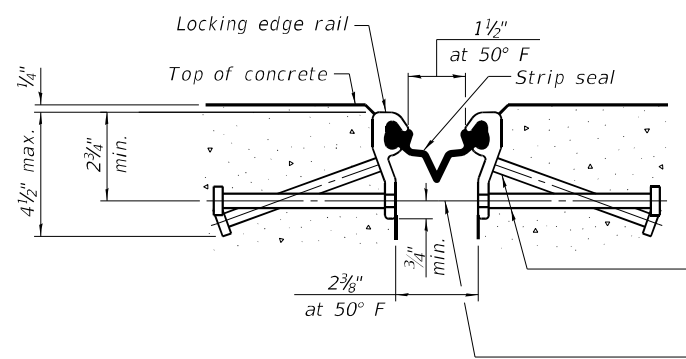
(Skews > 30° shown. Skews <= 30° similar except as shown in plan view.)



DETAIL A



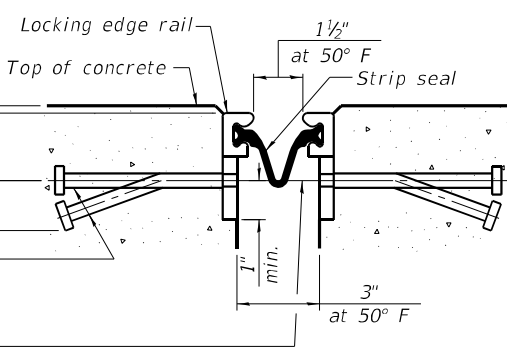
TRIMETRIC VIEW (Showing embedded plates only)



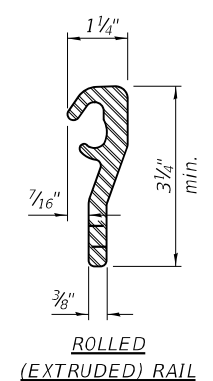
SHOWING ROLLED RAIL JOINT

\* 5/8" diameter x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

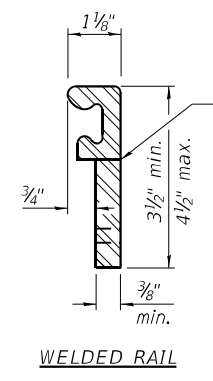
3/8" diameter threaded rods in 1/16" diameter holes at +/- 4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



SHOWING WELDED RAIL JOINT



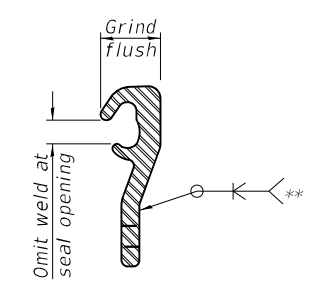
ROLLED (EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

\*\* Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	66

SECTION A-A

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

FILE NAME: H:\P\18120.009\Bridges\Final Plans\Microstation\0760033-78719-030-Preformed Joint Strip Seal.dgn

EJ-SS

1-1-2020



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PLOT DATE = 8/16/2022	DRAWN -	REVISED -
	CHECKED -	REVISED -

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DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 076-0033

SHEET 30 OF 37 SHEETS

F.A.P. RTE. 132	SECTION 103B-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 51
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 5/30/19

ROUTE IL 145 DESCRIPTION Structure over Bay Creek LOGGED BY L. Estel
SECTION 103(B-2) LOCATION 2.3 miles South of IL 146 (North Abut.), SEC. 29, TWP. 13S, RNG. 5E, PM
COUNTY Pope DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lb

Table with columns for Depth (ft), Blows (B), Penetration (P), Unconfined Compressive Strength (UCS), and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., Groundwater Elev., and various soil layers like Cored pavement, Grey Moist CLAY, Stiff Grey Moist SILT, etc.

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)



SOIL BORING LOG

Date 5/30/19

ROUTE IL 145 DESCRIPTION Structure over Bay Creek LOGGED BY L. Estel
SECTION 103(B-2) LOCATION 2.3 miles South of IL 146 (North Abut.), SEC. 29, TWP. 13S, RNG. 5E, PM
COUNTY Pope DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lb

Table with columns for Depth (ft), Blows (B), Penetration (P), Unconfined Compressive Strength (UCS), and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., Groundwater Elev., and various soil layers like Loose Grey, Moist m. and c. SAND with f. GRAVEL, M. Dense Grey, Moist m. and c. SAND with f. GRAVEL, etc.

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)



SOIL BORING LOG

Date 5/30/19

ROUTE IL 145 DESCRIPTION Structure over Bay Creek LOGGED BY L. Estel
SECTION 103(B-2) LOCATION 2.3 miles South of IL 146 (North Abut.), SEC. 29, TWP. 13S, RNG. 5E, PM
COUNTY Pope DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lb

Table with columns for Depth (ft), Blows (B), Penetration (P), Unconfined Compressive Strength (UCS), and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., Groundwater Elev., and various soil layers like M. Dense Grey, Moist m. and c. SAND with f. GRAVEL, etc.

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: H:\P\18120.18120.009\Bridges\Final Plans\Microstation\0760033-78719-031-Soil Boring\_Logs.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 076-0033

SHEET 31 OF 37 SHEETS

Table with columns for F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. 78719, ILLINOIS FED. AID PROJECT.



Illinois Department of Transportation  
Division of Highways  
District 9

SOIL BORING LOG

Page 1 of 3

Date 10/18/19

ROUTE IL 145 DESCRIPTION Structure over Bay Creek LOGGED BY L. Estel  
SECTION 103(B-2) LOCATION 2.3 miles South of IL 146 (South Abut.), SEC. 29, TWP. 13S, RNG. 5E, PM  
COUNTY Pope DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lb

STRUCT. NO.	Station	DRILLING METHOD	HOLLOW STEM AUGER (8" O.D., 3.25" I.D.)	HAMMER TYPE	Auto SPT 140 lb	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	(ft)	(ft)	(ft)	(tsf)	(%)
076-0024	896+49					333.3	330.3										
2-S	894+54							312.6									
	7 Off 1																
	350.1																
Cored pavement, 13" HMA over 9" CONCRETE																	
Dark Grey																	
Grey, Moist CLAY (visual ID from auger cuttings)																	
M. Stiff Grey, Moist CLAY																	
M. Stiff Grey, Moist CLAY with thin layers of ORGANICS																	
Soft Grey, Moist CLAY																	
Soft Grey, Moist SILTY CLAY																	
V. Soft Grey, Moist CLAY N.L. PI > 11 (Est.)																	
M. Stiff Grey, V. Moist CLAY N.L. PI > 11 (Est.)																	
M. Stiff Grey with specks of Brown, V. Moist CLAY with ORGANICS																	

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)



Illinois Department of Transportation  
Division of Highways  
District 9

SOIL BORING LOG

Page 2 of 3

Date 10/18/19

ROUTE IL 145 DESCRIPTION Structure over Bay Creek LOGGED BY L. Estel  
SECTION 103(B-2) LOCATION 2.3 miles South of IL 146 (South Abut.), SEC. 29, TWP. 13S, RNG. 5E, PM  
COUNTY Pope DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lb

STRUCT. NO.	Station	DRILLING METHOD	HOLLOW STEM AUGER (8" O.D., 3.25" I.D.)	HAMMER TYPE	Auto SPT 140 lb	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	(ft)	(ft)	(ft)	(tsf)	(%)
076-0024	896+49					333.3	330.3										
2-S	894+54							312.6									
	7 Off 1																
	350.1																
M. Dense (No sample)																	
(washed) (continued)																	
M. Dense Grey, Moist c. SANDY LOAM with rounded f. GRAVEL Non-plastic, 19% f. GRAVEL to c. SAND, 19% m. SAND, 25% f. SAND, 30% SILT, 7% CLAY (Lab 60) (washed)																	
M. Dense Grey, Wet SANDY LOAM A-6(1) LL = 28, PI = 14, 21% c. SAND to f. GRAVEL, 24% m. SAND, 27% f. SAND, 16% SILT, 12% CLAY (Lab 61) (washed)																	
M. Dense Grey, Moist m. and c. SAND with rounded f. GRAVEL and 1" COAL seam																	
M. Dense Grey, Moist m. and c. SAND with rounded GRAVEL Non-plastic, 29% c. SAND and f. GRAVEL, 69% m. SAND, 1% SILT, 1% CLAY (based on visual ID and Lab 45) (washed)																	
M. Dense Grey, Moist m. and c. SAND with rounded GRAVEL Non-plastic, 29% c. SAND and f. GRAVEL, 69% m. SAND, 1% SILT, 1% CLAY (based on visual ID and Lab 45) (washed)																	
M. Dense (No sample) (washed)																	

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)



Illinois Department of Transportation  
Division of Highways  
District 9

SOIL BORING LOG

Page 3 of 3

Date 10/18/19

ROUTE IL 145 DESCRIPTION Structure over Bay Creek LOGGED BY L. Estel  
SECTION 103(B-2) LOCATION 2.3 miles South of IL 146 (South Abut.), SEC. 29, TWP. 13S, RNG. 5E, PM  
COUNTY Pope DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lb

STRUCT. NO.	Station	DRILLING METHOD	HOLLOW STEM AUGER (8" O.D., 3.25" I.D.)	HAMMER TYPE	Auto SPT 140 lb	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	(ft)	(ft)	(ft)	(tsf)	(%)
076-0024	896+49					333.3	330.3										
2-S	894+54							312.6									
	7 Off 1																
	350.1																
M. Dense Grey, Moist m. and c. SAND with rounded GRAVEL Non-plastic, 29% c. SAND and f. GRAVEL, 69% m. SAND, 1% SILT, 1% CLAY (based on visual ID and Lab 45) (washed) (continued)																	
Bottom of hole @ 90.0 ft																	
N.L. = Not Liquefiable																	
Elevation referenced to BM 804, Chiseled Square on the NE wingwall of SN 076-0024; EL. 350.05																	
To convert "N" values to "N60", multiply by 1.5																	

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: H:\PI\18120.09\Bridges\Final Plans\Microstation\0760033-78719-032-Soil Boring\_Logs.dgn



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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 8/16/2022	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS  
STRUCTURE NO. 076-0033  
SHEET 32 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	53
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



3-S SOIL BORING LOG Sheet 1 of 3

COUNTY Pope SECTION 103(B-2) ROUTE 132 MPS PROJECT NO. 076-0024 DATE 6/30/2021

DESCRIPTION IL-145 over Bay Creek DISTRICT 9 LOCATION 2.3 miles South of IL 146 (North Abut.) CONSULTANT Millennia Professional Services DRILLED BY Geotechnlogy LOGGED BY P. Adhikari RIG TYPE CME 550X DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic EFFICIENCY 75%

BORING NO. 3-S Station 897+25 Offset 35 ft RT Northing Easting Ground Surface Elev. 338.5 ft

Table with columns for LITHOLOGY, (ft), (ft) (/6"), (tsf), (%) and data rows for soil layers like Topsoil (2.0'), FIL: Brown, very stiff, SILTY CLAY LOAM, etc.

The Unconfined Compressive Strength (UCS) Qu column represents either the IDOT Rimac or AASHTO T 208 Test Procedure. The Qu failure mode is indicated by B for Bulge or S for Shear. P is a Pocket Penetrometer test. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

Printed 8/17/2021



3-S SOIL BORING LOG Sheet 2 of 3

COUNTY Pope SECTION 103(B-2) ROUTE 132 MPS PROJECT NO. 076-0024 DATE 6/30/2021

DESCRIPTION IL-145 over Bay Creek DISTRICT 9 LOCATION 2.3 miles South of IL 146 (North Abut.) CONSULTANT Millennia Professional Services DRILLED BY Geotechnlogy LOGGED BY P. Adhikari RIG TYPE CME 550X DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic EFFICIENCY 75%

BORING NO. 3-S Station 897+25 Offset 35 ft RT Northing Easting Ground Surface Elev. 338.5 ft

Table with columns for LITHOLOGY, (ft), (ft) (/6"), (tsf), (%) and data rows for soil layers like Gray, loose to medium-dense, SAND, medium- to coarse-grained, with fine gravel, etc.

The Unconfined Compressive Strength (UCS) Qu column represents either the IDOT Rimac or AASHTO T 208 Test Procedure. The Qu failure mode is indicated by B for Bulge or S for Shear. P is a Pocket Penetrometer test. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

Printed 8/17/2021



3-S SOIL BORING LOG Sheet 3 of 3

COUNTY Pope SECTION 103(B-2) ROUTE 132 MPS PROJECT NO. 076-0024 DATE 6/30/2021

DESCRIPTION IL-145 over Bay Creek DISTRICT 9 LOCATION 2.3 miles South of IL 146 (North Abut.) CONSULTANT Millennia Professional Services DRILLED BY Geotechnlogy LOGGED BY P. Adhikari RIG TYPE CME 550X DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic EFFICIENCY 75%

BORING NO. 3-S Station 897+25 Offset 35 ft RT Northing Easting Ground Surface Elev. 338.5 ft

Table with columns for LITHOLOGY, (ft), (ft) (/6"), (tsf), (%) and data rows for soil layers like Gray, loose to medium-dense, SAND, medium- to coarse-grained, with fine gravel, etc.

The Unconfined Compressive Strength (UCS) Qu column represents either the IDOT Rimac or AASHTO T 208 Test Procedure. The Qu failure mode is indicated by B for Bulge or S for Shear. P is a Pocket Penetrometer test. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

Printed 8/17/2021

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DESIGNED - CHECKED - REVISED - DRAWN - CHECKED - REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 076-0033

SHEET 33 OF 37 SHEETS

Table with columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. 78719, ILLINOIS FED. AID PROJECT



4-S SOIL BORING LOG Sheet 1 of 3

COUNTY Pope SECTION 103(B-2) ROUTE 132 MPS PROJECT NO. 076.0024 DATE 6/29/2021

DESCRIPTION IL-145 over Bay Creek DISTRICT 9 LOCATION 2.3 miles South of IL 146 (South Abut.) CONSULTANT Millennia Professional Services DRILLED BY Geotechnology LOGGED BY P. Adhikari RIG TYPE CME 550X DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic EFFICIENCY 75%

Table with columns for BORING NO., Station, Offset, Northing, Easting, Ground Surface Elev., LITHOLOGY, and soil properties (E, D, B, U, M, S, I, T, W, H, S, Qu, T). Includes lithology descriptions like 'Topsoil (2.0')', 'Brown, soft to medium-stiff, SILTY CLAY', and 'Gray, very soft to soft, moist, SILT LOAM'.

The Unconfined Compressive Strength (UCS) Qu column represents either the IDOT Rimac or AASHTO T 208 Test Procedure. The Qu failure mode is indicated by B for Bulge or S for Shear. P is a Pocket Penetrometer test. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

Printed 8/17/2021



4-S SOIL BORING LOG Sheet 2 of 3

COUNTY Pope SECTION 103(B-2) ROUTE 132 MPS PROJECT NO. 076.0024 DATE 6/29/2021

DESCRIPTION IL-145 over Bay Creek DISTRICT 9 LOCATION 2.3 miles South of IL 146 (South Abut.) CONSULTANT Millennia Professional Services DRILLED BY Geotechnology LOGGED BY P. Adhikari RIG TYPE CME 550X DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic EFFICIENCY 75%

Table with columns for BORING NO., Station, Offset, Northing, Easting, Ground Surface Elev., LITHOLOGY, and soil properties (E, D, B, U, M, S, I, T, W, H, S, Qu, T). Includes lithology descriptions like 'Gray, very loose to medium-dense, SAND, fine- to medium-grained, trace gravel' and 'medium- to coarse-grained below 68.5 ft'.

The Unconfined Compressive Strength (UCS) Qu column represents either the IDOT Rimac or AASHTO T 208 Test Procedure. The Qu failure mode is indicated by B for Bulge or S for Shear. P is a Pocket Penetrometer test. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

Printed 8/17/2021



4-S SOIL BORING LOG Sheet 3 of 3

COUNTY Pope SECTION 103(B-2) ROUTE 132 MPS PROJECT NO. 076.0024 DATE 6/29/2021

DESCRIPTION IL-145 over Bay Creek DISTRICT 9 LOCATION 2.3 miles South of IL 146 (South Abut.) CONSULTANT Millennia Professional Services DRILLED BY Geotechnology LOGGED BY P. Adhikari RIG TYPE CME 550X DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic EFFICIENCY 75%

Table with columns for BORING NO., Station, Offset, Northing, Easting, Ground Surface Elev., LITHOLOGY, and soil properties (E, D, B, U, M, S, I, T, W, H, S, Qu, T). Includes lithology descriptions like 'Gray, very loose to medium-dense, SAND, fine- to medium-grained, trace gravel' and 'medium- to coarse-grained below 88.5 ft'.

The Unconfined Compressive Strength (UCS) Qu column represents either the IDOT Rimac or AASHTO T 208 Test Procedure. The Qu failure mode is indicated by B for Bulge or S for Shear. P is a Pocket Penetrometer test. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

Printed 8/17/2021

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DESIGNED - CHECKED - REVISED - DRAWN - CHECKED - REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

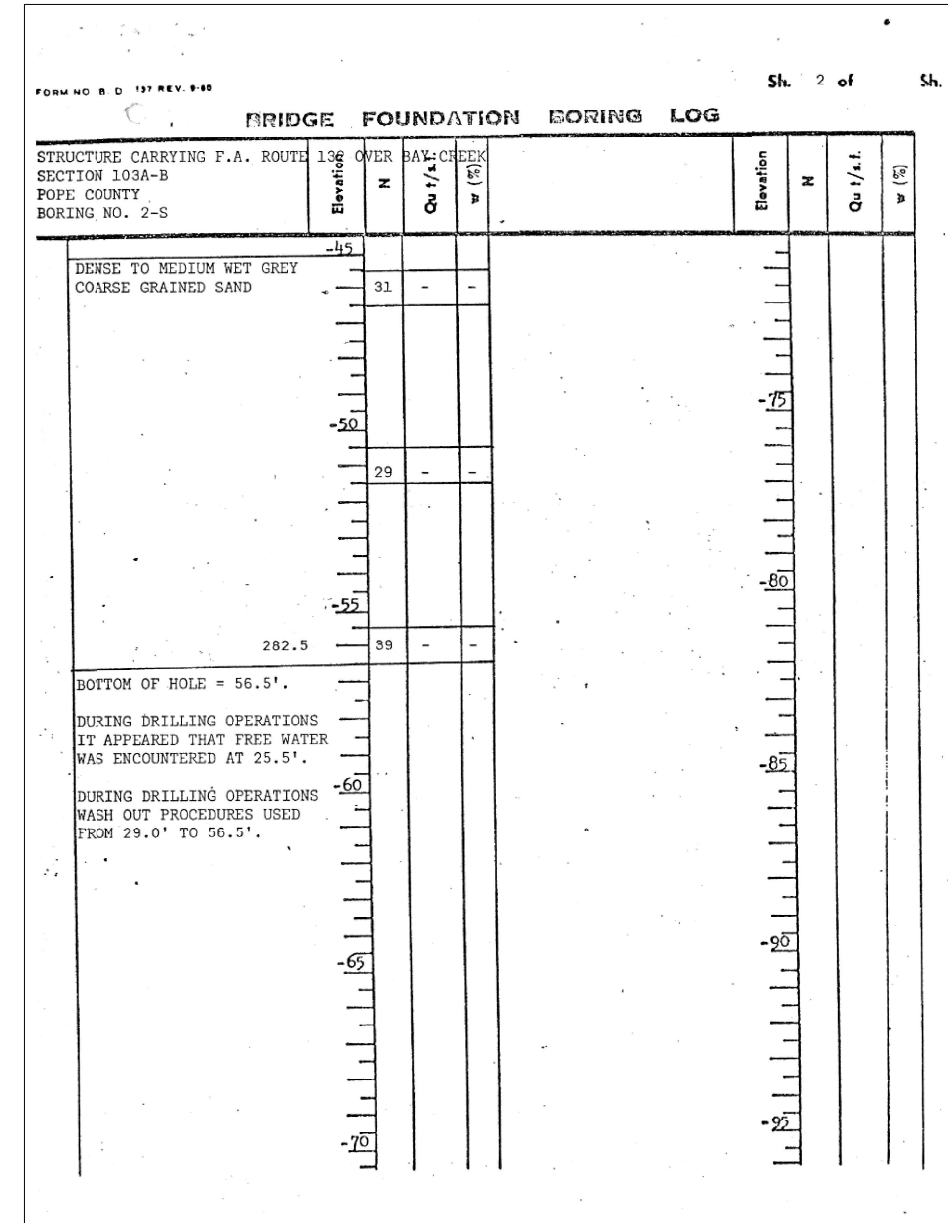
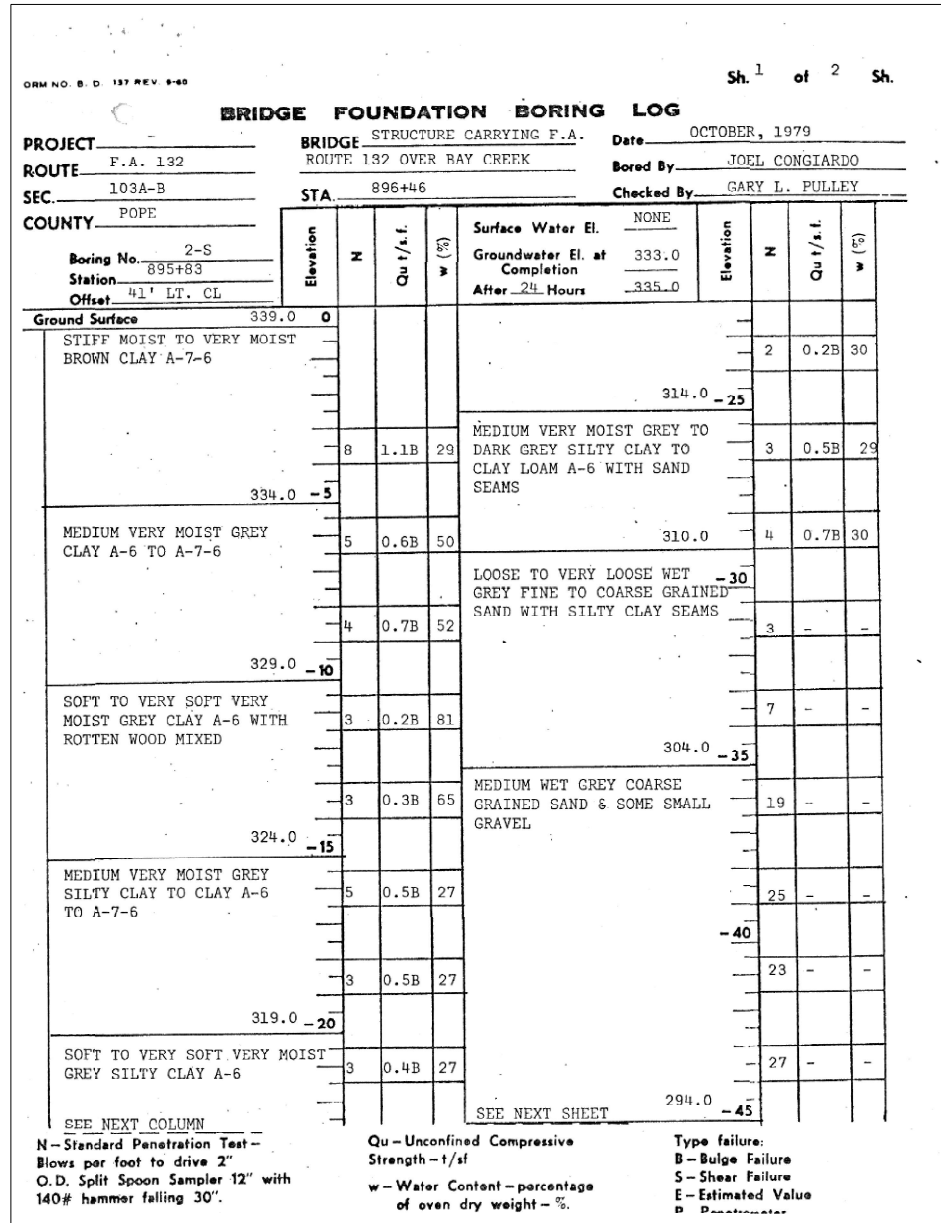
SOIL BORING LOGS STRUCTURE NO. 076-0033

SHEET 34 OF 37 SHEETS

Table with columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. 78719, ILLINOIS FED. AID PROJECT







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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

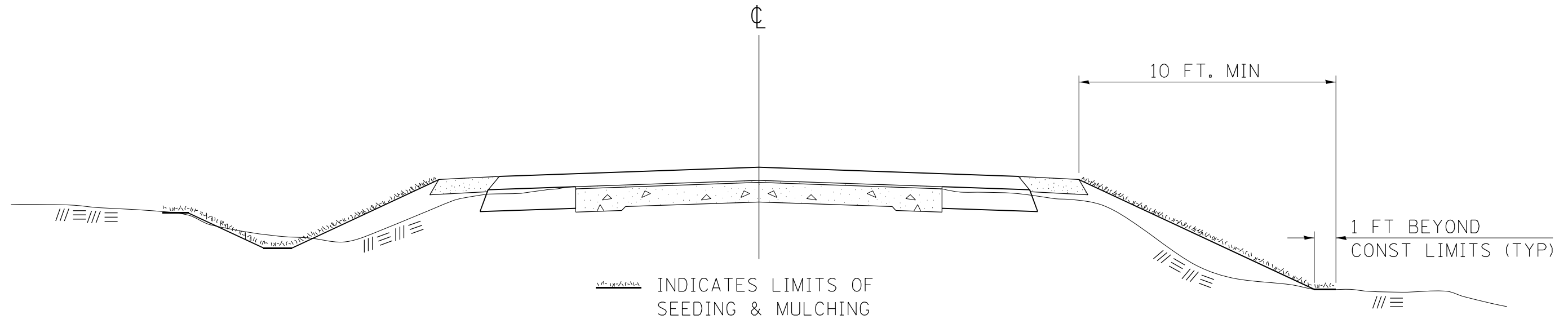
**SOIL BORING LOGS  
STRUCTURE NO. 076-0033**

SHEET 36 OF 37 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-2	POPE	70	57
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



# SEEDING & MULCHING



## GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

ON DETOUR ROADS, SLOPES SHALL BE SEEDED IMMEDIATELY UPON COMPLETION OF ANY GIVEN STAGE GRADING. TEMPORARY SEEDING SHALL BE CLASS 7.

FERTILIZER NUTRIENTS SHALL BE APPLIED TO ALL SEEDED AREAS. LIMESTONE SHALL BE APPLIED TO ALL AREAS OF FINAL SEEDING.

THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR ROAD AND BRIDGE CONSTRUCTION.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

### REVISIONS

REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	3-27-08
REVISED	5-16-13

STD. 9-12

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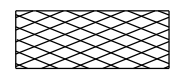
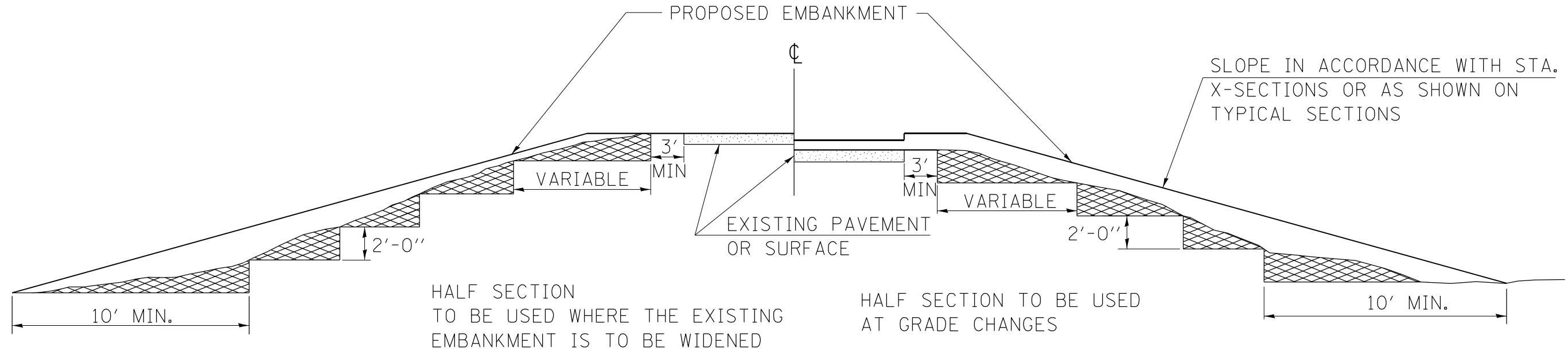
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS**

SCALE: SHEET 1 OF SHEETS STA. TO STA.

F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 59
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

# TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
RESIZED	5-7-08
REVIEWED	5-17-13

STD. 9-16

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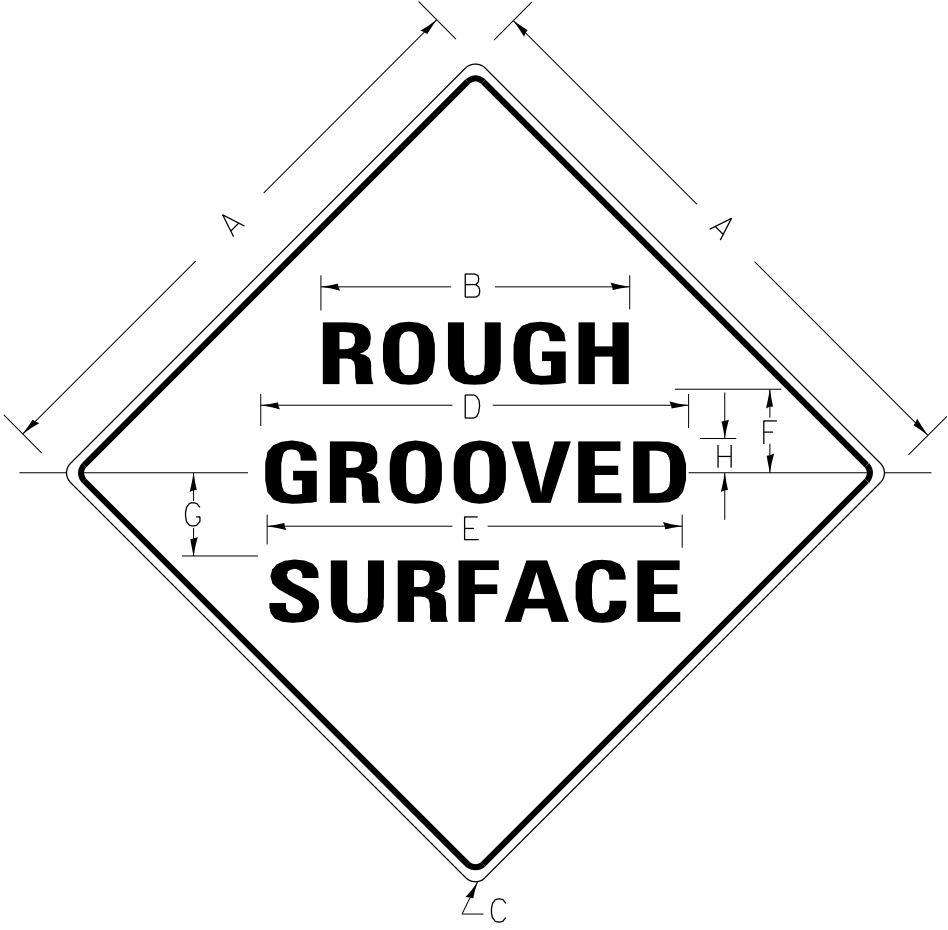
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PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CONSTRUCTION DETAILS</b>			
SCALE:	SHEET 2 OF SHEETS	STA.	TO STA.

F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 60
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

# ILLINOIS STANDARD



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			MAR- GIN	BOR- DER	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 COLD MILLED, 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 COLD MILLED 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.

REVISIONS

REDRAWN	2-15-89
REVISED	4-6-93
REVISED	3-27-08
REVIEWED	5-17-13

STD. 9-39

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	DATE -	REVISED -

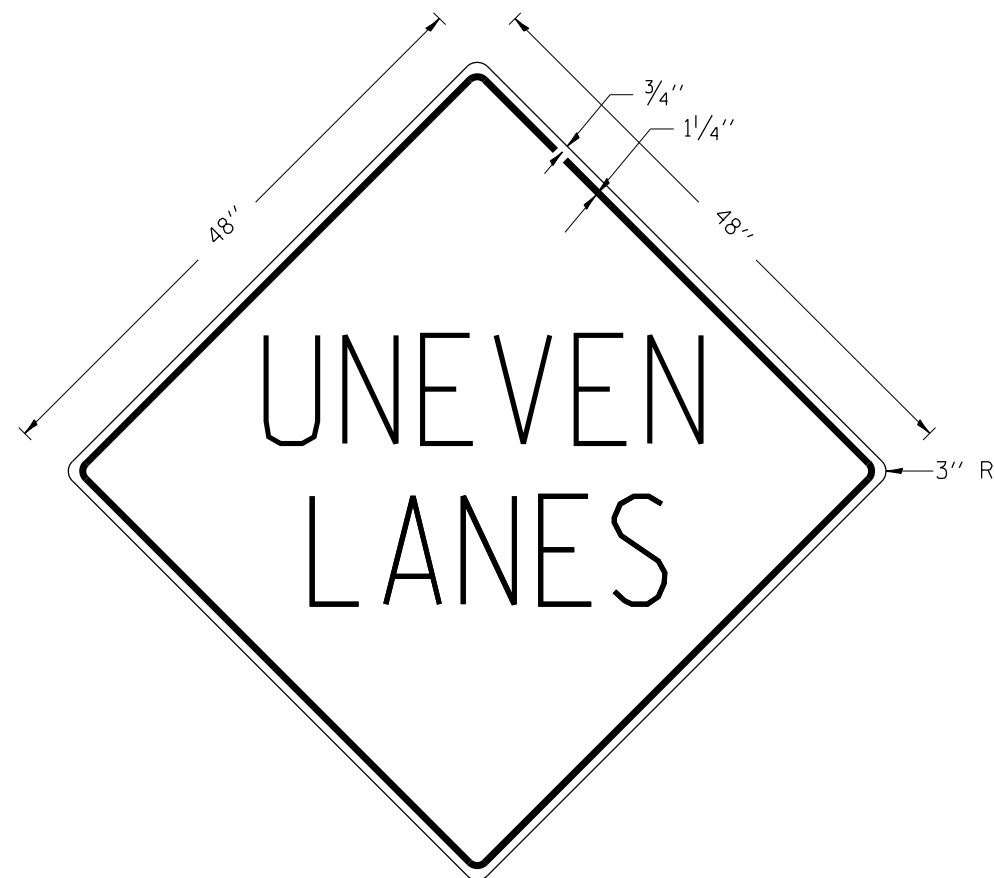
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION DETAILS			
SCALE:	SHEET 4 OF 4 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	61
				CONTRACT NO. 78719
ILLINOIS FED. AID PROJECT				

# 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.

REVISIONS

DRAWN	2-15-89
REVISED	4-06-93
REDSIGNED	7-23-04
RESIZED	5-08-08
REVIEWED	5-17-13

STD. 9-41

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USER NAME = rynn.wiltjes	DESIGNED -	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

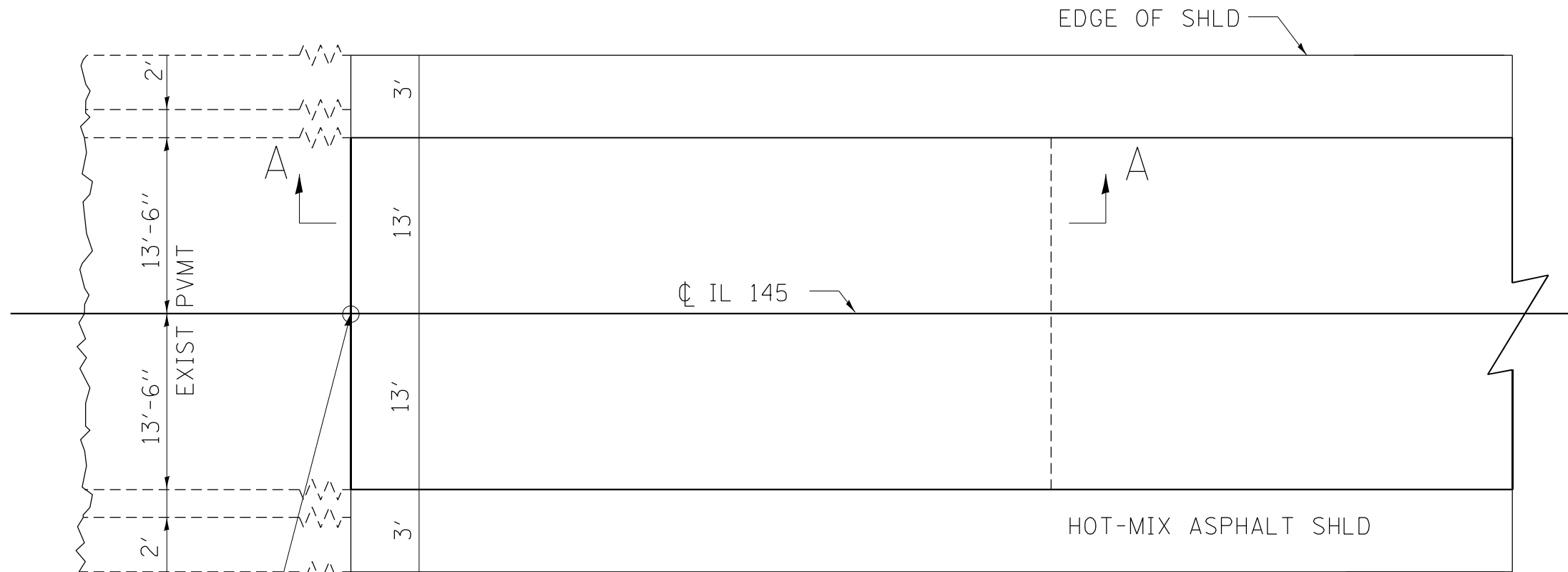
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

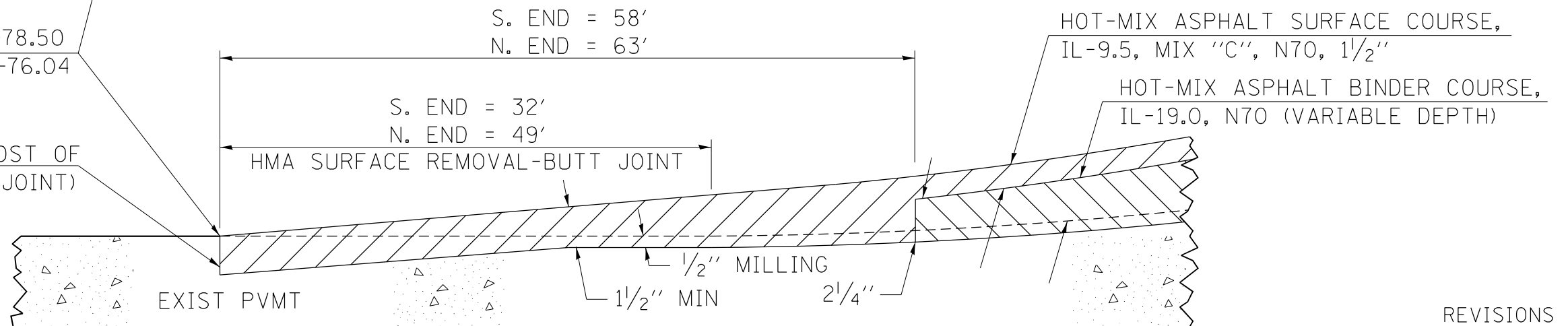
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	62
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

# BUTT JOINT



STA 891+78.50  
STA 902+76.04

SAW CUT (INCLUDED IN THE COST OF  
HMA SURFACE REMOVAL-BUTT JOINT)



SECTION A-A

REVISIONS

DRAWN	10-17-90
REVISED	01-11-07
REVISED	3-25-08
REVISED	5-17-13
REVISED	02-17-17
REVISED	03-09-17

STD. 9-86

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USER NAME = rjnr,wiljcs	DESIGNED -	REVISED -	
PLOT SCALE = 40,0000 * / in.	DRAWN -	REVISED -	
PLOT DATE = 8/16/2022	CHECKED -	REVISED -	
	DATE -	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

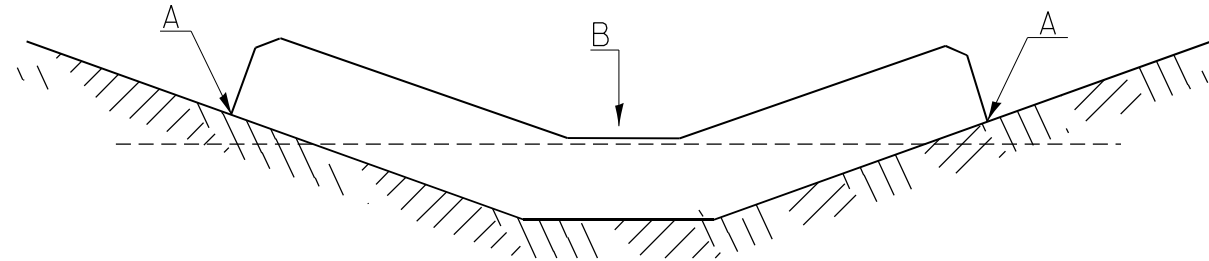
**CONSTRUCTION DETAILS**

SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 132	SECTION 1038-2	COUNTY POPE	TOTAL SHEETS 70	SHEET NO. 63
			CONTRACT NO. 78719	
ILLINOIS FED. AID PROJECT				

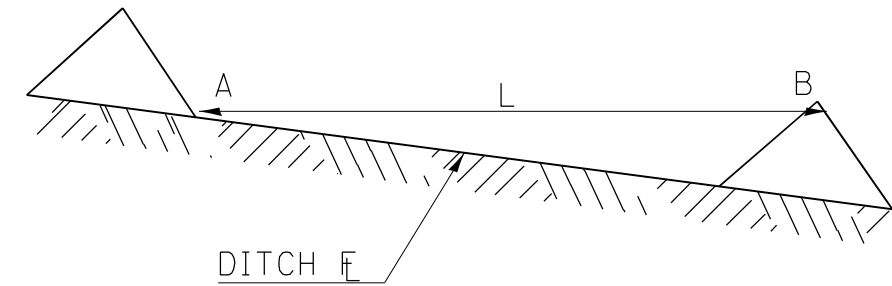
# TEMPORARY DITCH CHECKS

## PLACEMENT OF TEMPORARY DITCH CHECK IN DRAINAGE WAY



POINTS A SHOULD BE HIGHER THAN POINT B

## SPACING BETWEEN TEMPORARY DITCH CHECKS



L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

B = THE LOW POINT IN CENTER OF CHECK

### REVISIONS

DRAWN	9-01-99
REVISED	10-3-01
RESIZED	5-8-08
REVISED	05-04-10
REVIEWED	5-17-13

STD. 9-108

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	DRAWN -	REVISED -	
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PLOT DATE = 8/16/2022	DATE -	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS**

SCALE:      SHEET 3 OF SHEETS      STA.      TO STA.

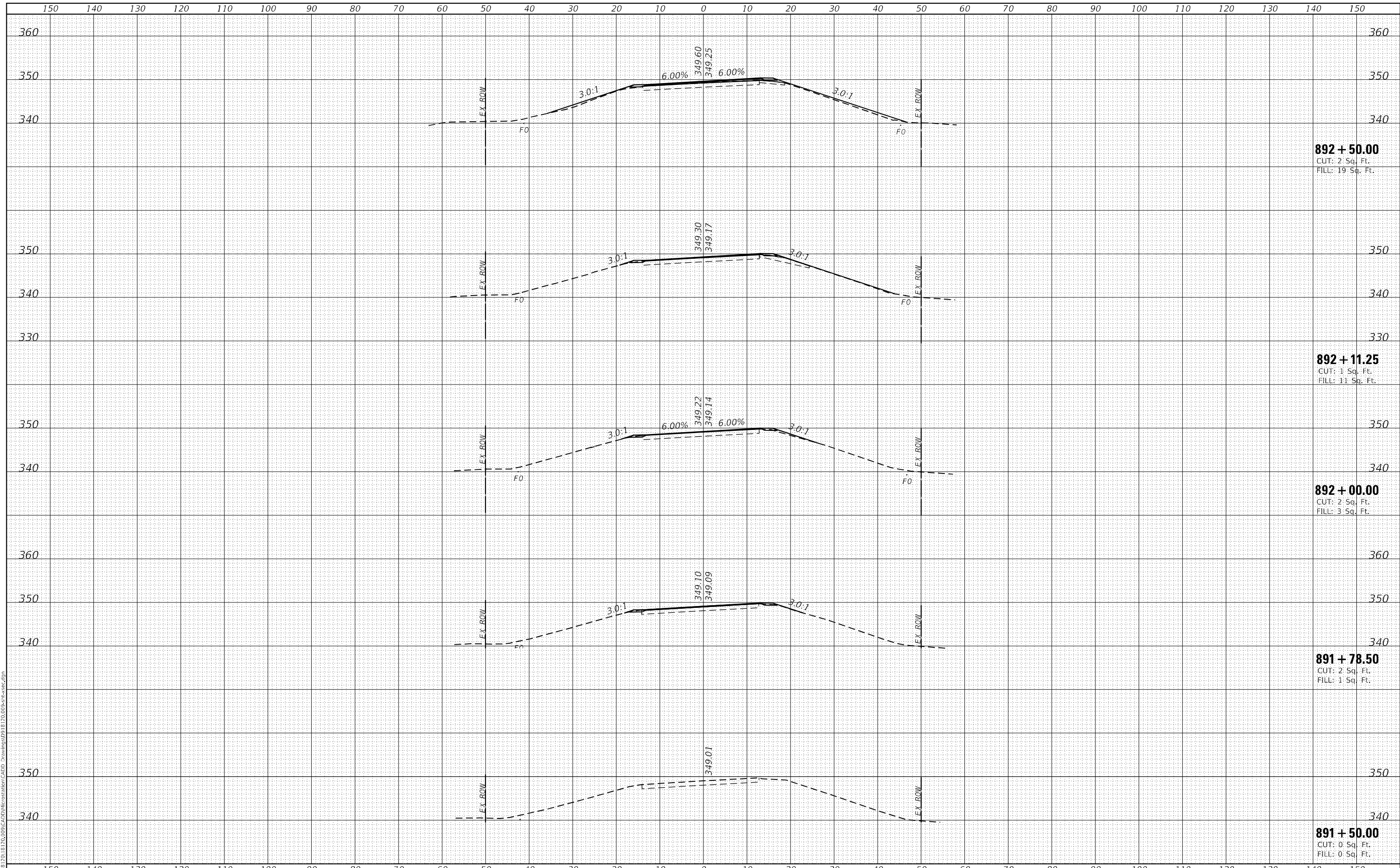
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	64
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

MODEL: D:\m\h\...  
 FILE NAME: H:\18120181201009CAD\DD\Microstation\CADD Drawings\18120181201009\sect-sec.dgn



USER NAME	= r\ne,wil\jes
DESIGNED	-
DRAWN	-
PLOT SCALE	= 20,0000 * / in.
CHECKED	-
DATE	= 8/16/2022

REVISD	-
REVISD	-
REVISD	-
REVISD	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEETS**

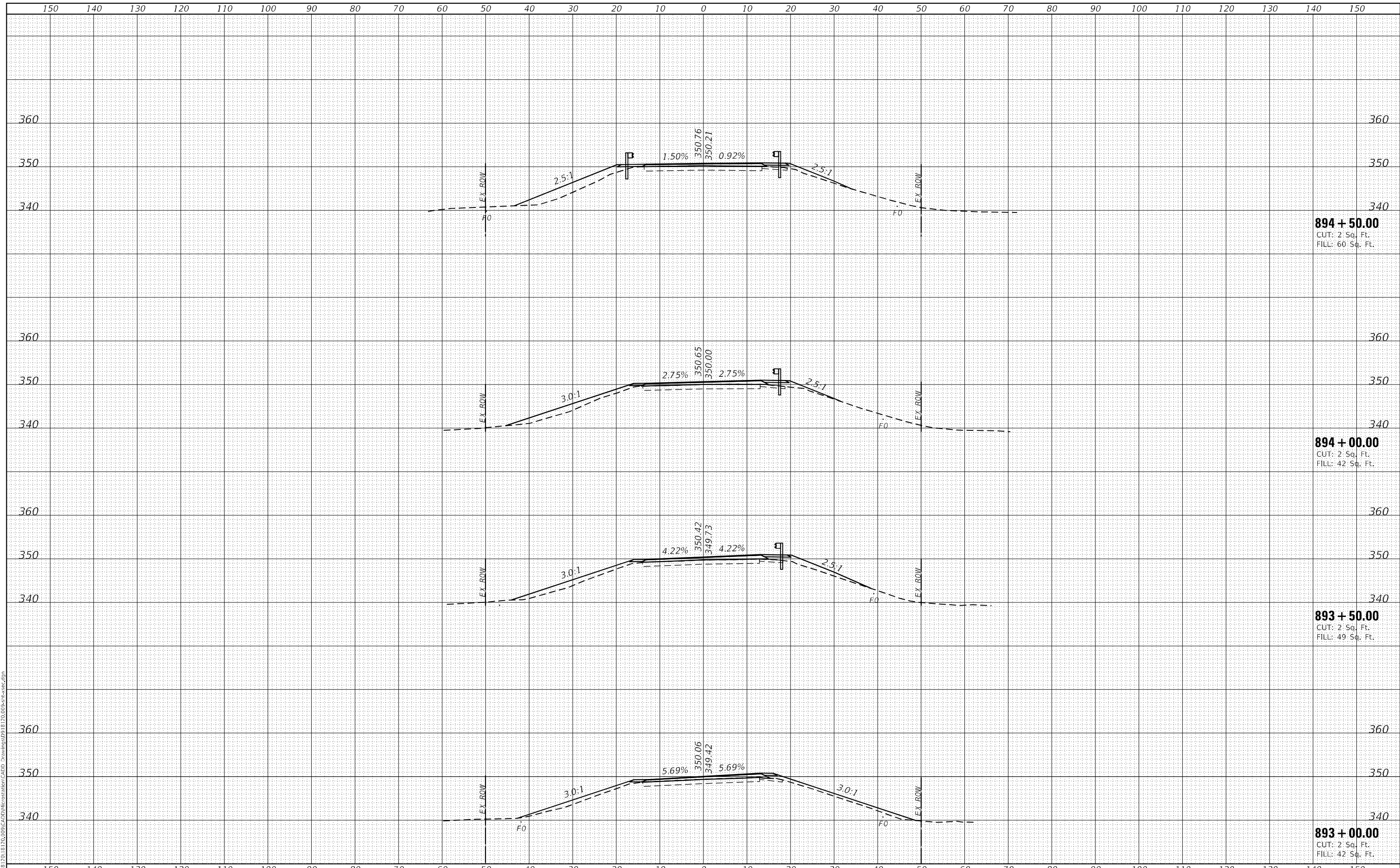
SCALE: SHEET 1 OF 6 SHEETS STA. 891+50.00 TO STA. 892+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	65
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

MODEL: Defn.rvt  
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USER NAME = rjnr,wiljns	DESIGNED -	REVISED -
PLOT SCALE = 20,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEETS**

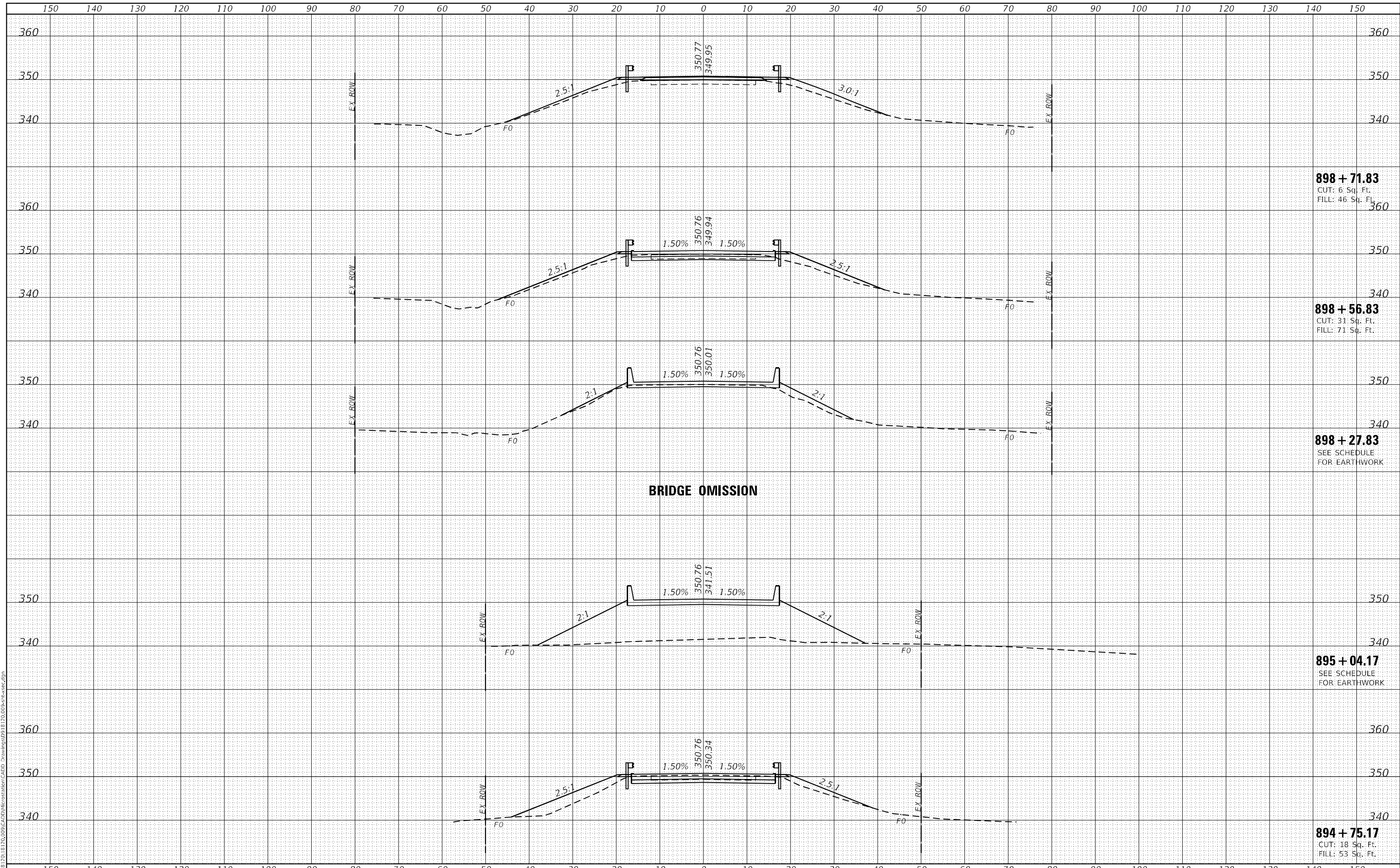
SCALE: SHEET 2 OF 6 SHEETS STA. 892+11.25 TO STA. 893+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1038-2	POPE	70	66
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

MODEL: Definit  
FILE NAME: H:\1812018120\_09\CADD\Microstation\CADD Drawings\1812018120\09sht-sec.dgn



**898 + 71.83**  
CUT: 6 Sq. Ft.  
FILL: 46 Sq. Ft.

**898 + 56.83**  
CUT: 31 Sq. Ft.  
FILL: 71 Sq. Ft.

**898 + 27.83**  
SEE SCHEDULE  
FOR EARTHWORK

**895 + 04.17**  
SEE SCHEDULE  
FOR EARTHWORK

**894 + 75.17**  
CUT: 18 Sq. Ft.  
FILL: 53 Sq. Ft.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEETS**



USER NAME = rjnr,wiljns	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/16/2022	DATE -	REVISED -

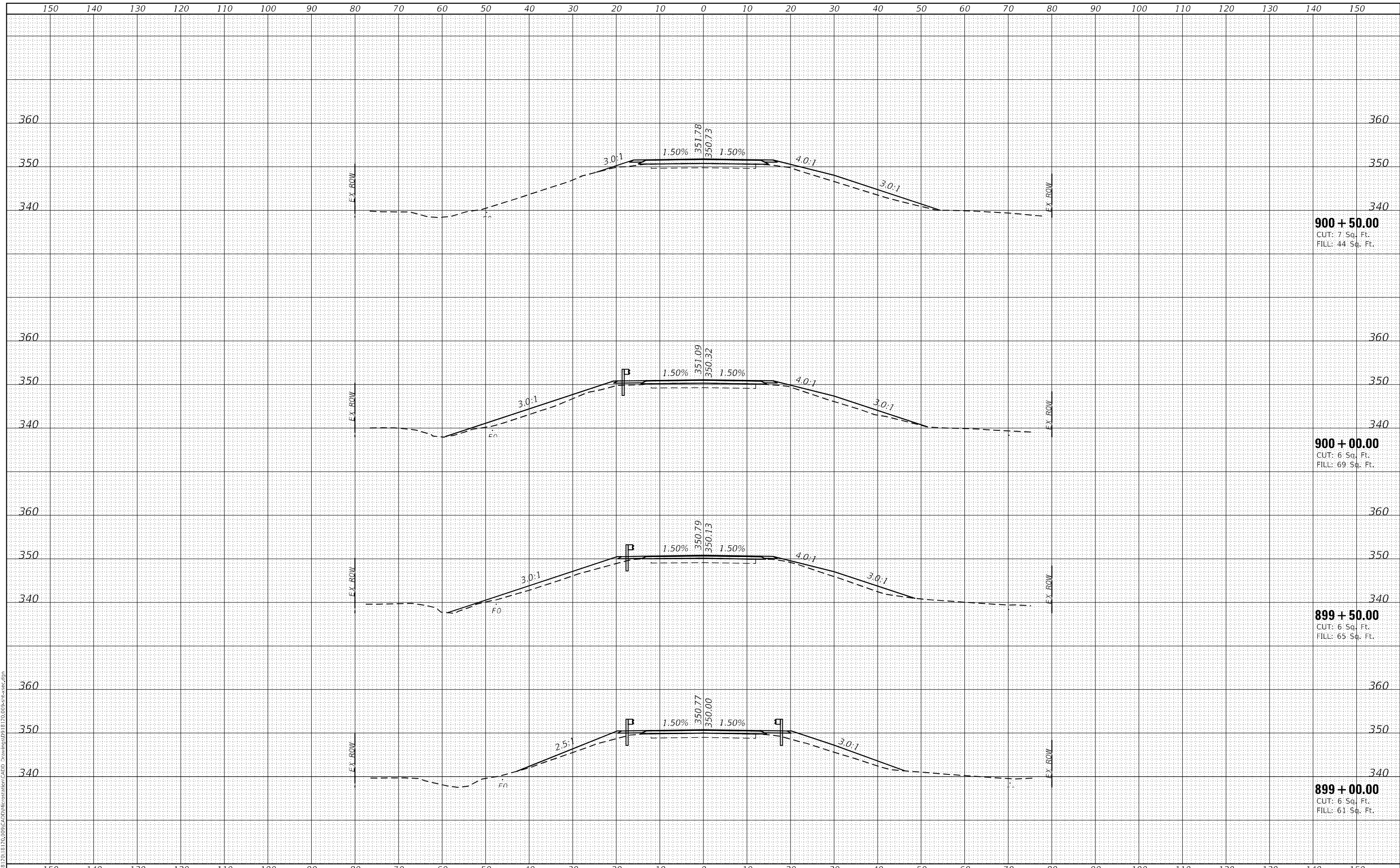
SCALE: SHEET 3 OF 6 SHEETS STA. 898+00.00 TO STA. 898+71.83

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	67
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

MODEL: Definit  
 FILE NAME: H:\1812018120\_09\CADD\Microstation\CADD Drawings\1812018120\09sht-sec.dgn



**900 + 50.00**  
 CUT: 7 Sq. Ft.  
 FILL: 44 Sq. Ft.

**900 + 00.00**  
 CUT: 6 Sq. Ft.  
 FILL: 69 Sq. Ft.

**899 + 50.00**  
 CUT: 6 Sq. Ft.  
 FILL: 65 Sq. Ft.

**899 + 00.00**  
 CUT: 6 Sq. Ft.  
 FILL: 61 Sq. Ft.



USER NAME = rjnr,wiljcs	DESIGNED -	REVISED -
PLOT SCALE = 20,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEETS**

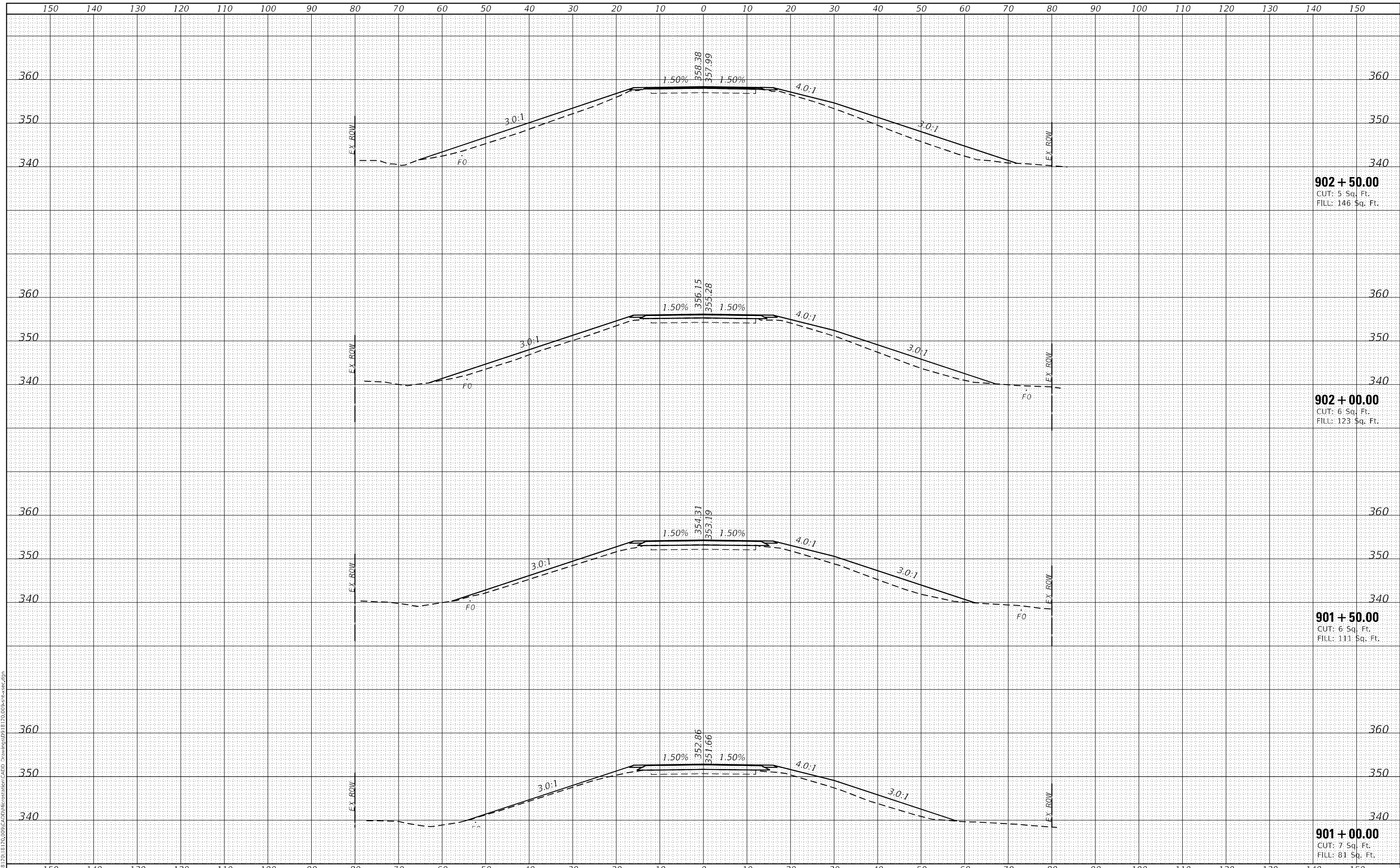
SCALE: SHEET 4 OF 6 SHEETS STA. 899+00.00 TO STA. 900+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	68
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

MODEL: Definit  
 FILE NAME: H:\118\2018\120\09\CAD\Drawings\18120\09\sect-sec.dgn



**902 + 50.00**  
 CUT: 5 Sq. Ft.  
 FILL: 146 Sq. Ft.

**902 + 00.00**  
 CUT: 6 Sq. Ft.  
 FILL: 123 Sq. Ft.

**901 + 50.00**  
 CUT: 6 Sq. Ft.  
 FILL: 111 Sq. Ft.

**901 + 00.00**  
 CUT: 7 Sq. Ft.  
 FILL: 81 Sq. Ft.



USER NAME = rjnr,wiljes	DESIGNED -	REVISED -
PLOT SCALE = 20,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/16/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEETS**

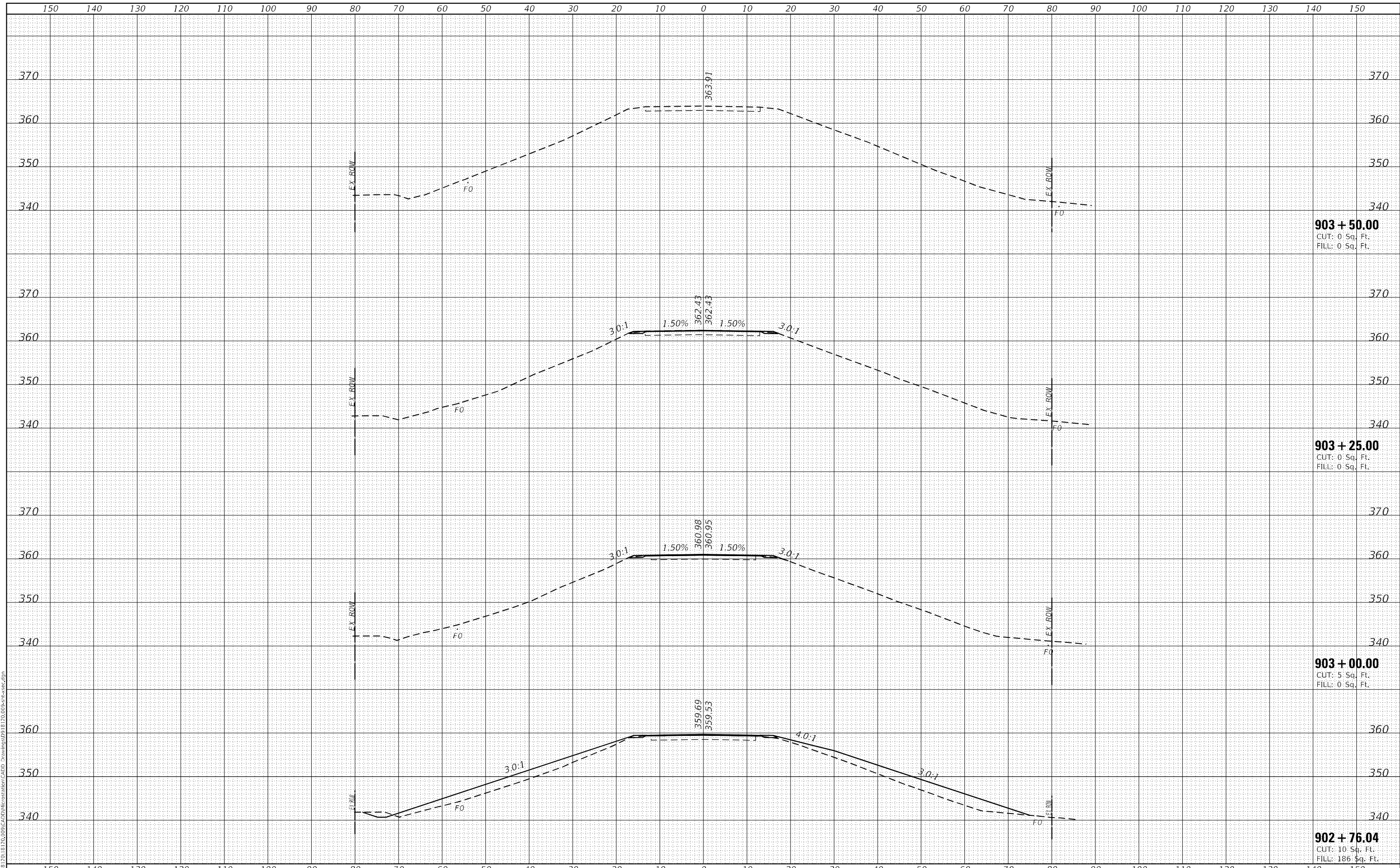
SCALE: SHEET 5 OF 6 SHEETS STA. 901+00.00 TO STA. 901+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	69
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

MODEL: Definit  
 FILE NAME: H:\18120\_18120\_09\CADD\Microstation\CADD Drawings\18120\_09\sect-sec.dgn



**903 + 50.00**  
 CUT: 0 Sq. Ft.  
 FILL: 0 Sq. Ft.

**903 + 25.00**  
 CUT: 0 Sq. Ft.  
 FILL: 0 Sq. Ft.

**903 + 00.00**  
 CUT: 5 Sq. Ft.  
 FILL: 0 Sq. Ft.

**902 + 76.04**  
 CUT: 10 Sq. Ft.  
 FILL: 186 Sq. Ft.



USER NAME	= ryrn,wiljtes
PLOT SCALE	= 20,0000 * / in.
PLOT DATE	= 8/16/2022

DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-

REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEETS**

SCALE: SHEET 6 OF 6 SHEETS STA. 902+76.04 TO STA. 902+76.04

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1038-2	POPE	70	70
CONTRACT NO. 78719				
ILLINOIS FED. AID PROJECT				