

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	1
		ILLINOIS	CONTRACT NO. 70871	

D-95-087-18



PROPOSED HIGHWAY PLANS

ROUTE: FAP 317 (US 24)
SECTION: 28BR-1
PROJECT: NHPP 18GB(473)
BRIDGE REPLACEMENT
COUNTY: MCLEAN

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NOS. 3-7

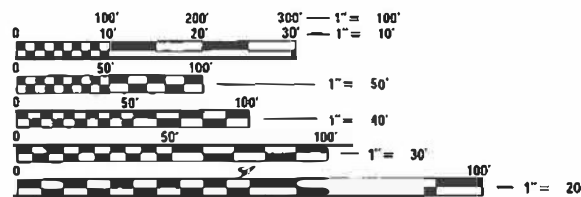
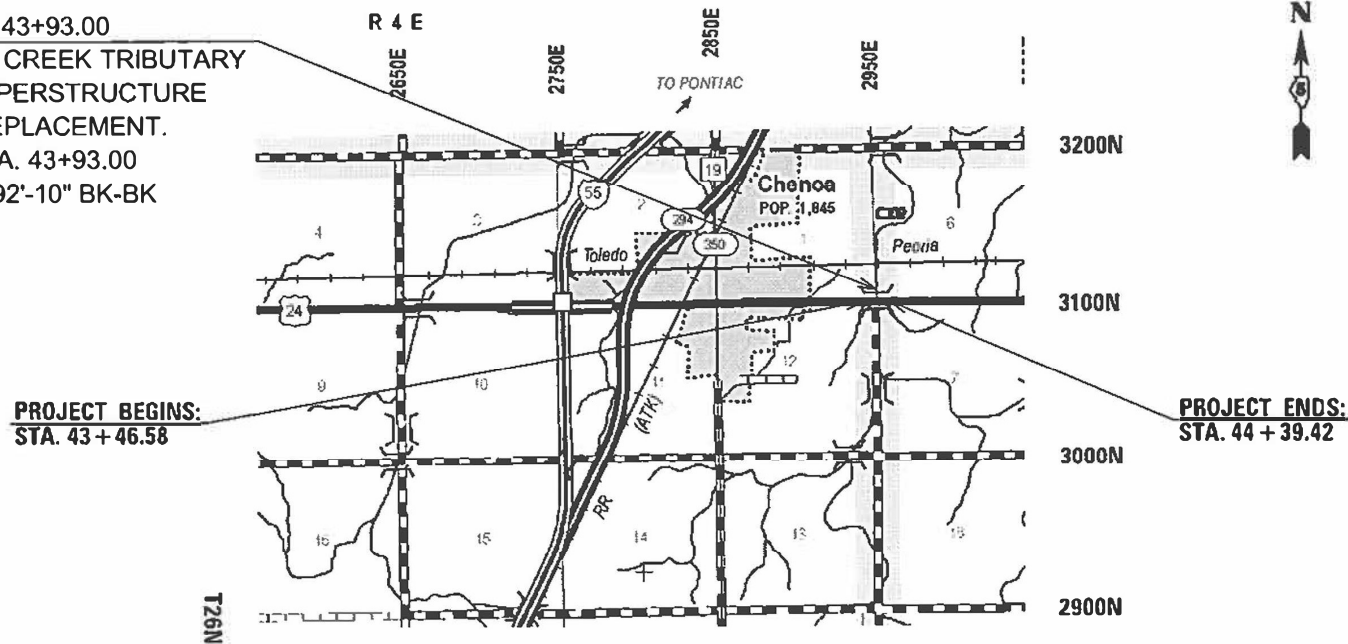
TOWNSHIPS:
CHENOA, YATES

TRAFFIC DATA

Leg "A"	US 24
2018 ADT =	4,600
2028 ADT =	4,850
2038 ADT =	5,100
2038 AM DHV =	440
2038 PM DHV =	435
P.U. & P.C.% =	82.1
(Bus, 6T, & 3A)SU% =	4.9
(All Semi)MU% =	13.0
ADT Max. Dir. Dist. =	55%
Truck Rte. Class. =	Class II
N.H.S. Route (?) =	Yes
Functional Class. =	O.P.A.

EXISTING S.N. 057-0071 AT STA. 43+93.00
CARRYING US 24 OVER ROOK'S CREEK TRIBUTARY
0.5 MILES EAST OF CHENOA SUPERSTRUCTURE
TO BE REMOVED COMPLETE REPLACEMENT.
PROPOSED S.N. 057-0257 AT STA. 43+93.00
SINGLE SPAN 36" PPC IL-BEAM 92'-10" BK-BK
SKEW 0°

AT INTERMITTENT STREAM 0.5 MILE OF CHENOA ECL
C-95-087-18

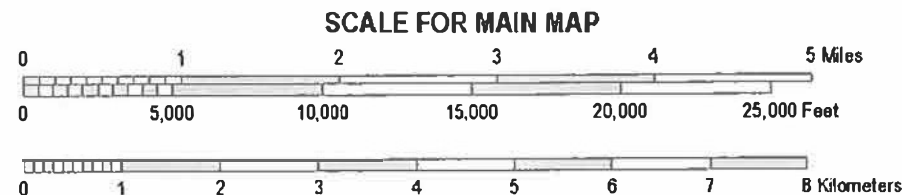


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: JASON W. STULTS, P.E.
SQUAD LEADER: JASON GOBLE
PROJECT DESIGNER: MATTHEW MURPHY
PHONE NUMBER: 217-465-4181

CONTRACT NO. 70871



GROSS LENGTH = 92.833 FT. = 0.017 MILE
NET LENGTH = 92.833 FT. = 0.017 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 10/13 20 2023
Kenneth A. Bennett esq
REGIONAL ENGINEER

December 8, 2023
Scott A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT

December 8, 2023
Stephen M. Davis
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
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15	SEEDING AND EROSION CONTROL PLAN
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LIST OF STANDARDS

STANDARD NO.	NAME OF STANDARD
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
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
515001-04	NAME PLATE FOR BRIDGES
630001- 13	STEEL PLATE BEAM GUARDRAIL
630301- 09	SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
666001-01	RIGHT-OF-WAY MARKERS
667101-02	PERMANENT SURVEY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600mm) FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS 45 MPH OR MORE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-09	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

G.N.-100B
 MICROSTATION AND GEOPAK FILES OF THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR AFTER CONTRACT AWARD. IF THERE IS A CONFLICT BETWEEN THE ELECTRONIC FILES AND THE PRINTED CONTRACT PLANS AND DOCUMENTS, THE PRINTED CONTRACT PLANS AND DOCUMENTS SHALL TAKE PRECEDENCE OVER THE ELECTRONIC FILES. THE CONTRACTOR SHALL ACCEPT ALL RISK ASSOCIATED WITH USING THE ELECTRONIC FILES AND SHALL HOLD THE DEPARTMENT HARMLESS FOR ANY ERRORS OR OMISSIONS IN THE ELECTRONIC FILES AND THE DATA CONTAINED THEREIN. ERRORS OR DELAYS RESULTING FROM THE USE OF THE ELECTRONIC FILES BY THE CONTRACTOR SHALL NOT RESULT IN AN EXTENSION OF TIME FOR ANY INTERIM OR FINAL COMPLETION DATE OR SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL NOT USE, SHARE, OR DISTRIBUTE THESE ELECTRONIC FILES EXCEPT FOR THE PURPOSE OF CONSTRUCTING THIS CONTRACT. ANY CLAIMS BY THIRD PARTIES DUE TO USE OR ERRORS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THIS DISCLAIMER WITH THE TRANSFER OF THESE ELECTRONIC FILES TO ANY OTHER PARTIES AND SHALL INCLUDE APPROPRIATE LANGUAGE BINDING THEM TO SIMILAR RESPONSIBILITIES.

G.N.-105.09A
 ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

GN 406H Mixture Requirements Contract: 70871

Location	US 24	US 24
Mixture Use	(IIMA) / Shoulders Below 1.5"	(IIMA) Surface / Shoulders Top 1.5"
AC/PG	PG 64-22	PG 64-22
Design Air Voids	4.0% @ Ndes=50	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 19.0	IL 9.5
Friction Aggregate	N.A.	Mix D
Mixture Weight	112	112
Quality Management Program	QC/QA	QC/QA
Sublot Size	3000	3000
Material Transfer Device (Required ?)	NO	NO

BENCHMARK INFORMATION

BM: 3295 ELEVATION: 707.077
 PMS IS LOCATED ON THE TOP OF THE HUB GUARD SE END OF BRIDGE STA. 44+45.20, 16.08' RT.
 BM: C1000 ELEVATION: 701.068
 CHISELED SQUARE ON TOP OF WEST HEADWALL OF CEMETERY ENTRANCE STA. 39+10.66, 48.79' LT.

COMMITMENTS

THERE ARE NO COMMITMENTS FOR THIS CONTRACT.

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, LIST OF STANDARDS
 GENERAL NOTES & COMMITMENTS**

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	DRAWN -	REVISED -
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PLOT DATE = 10/19/2023	DATE -	REVISED -

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	2
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

FAP 317 (US 24)
OTHER PRINCIPAL ARTERIAL
STA. 43+46.58 TO STA. 44+39.42
MCLEAN COUNTY
80% FEDERAL / 20% STATE
0010
RURAL

CCDE NO.	PAY ITEM	UNIT	TOTAL QUANTITY		
20400800	FURNISHED EXCAVATION	CU YD	350		350
25000210	SEEDING, CLASS 2A	ACRE	0.5		0.5
25000350	SEEDING, CLASS 7	ACRE	0.5		0.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45		45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45		45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45		45
251000115	MULCH, METHOD 2	ACRE	0.5		0.5
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50		50
28000305	TEMPORARY DITCH CHECKS	FOOT	24		24
28000400	PERIMETER EROSION BARRIER	FOOT	807		807
28100107	STONE RIPRAP, CLASS A4	SQ YD	1,352		1,352
28200200	FILTER FABRIC	SQ YD	1,352		1,352
40600291	BITUMINOUS MATERIAL (TACK COAT)	POUND	45		45
40604060	HMA SURFACE COURSE, IL-9.5, MIX D, N50	TON	13		13

* DENOTES SPECIALTY ITEM

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SUMMARY OF QUANTITIES

FAP 317 (US 24)
OTHER PRINCIPAL ARTERIAL
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CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	
44213200	SAW CUTS	FOOT	72	72
48101500	AGGREGATE SHOULDER, TYPE B, 6"	SQ YD	125	125
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	285	285
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50200100	STRUCTURE EXCAVATION	CU YD	220	220
50300100	FLOOR DRAINS	EACH	10	10
50300225	CONCRETE STRUCTURES	CU YD	76.3	76.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	172.1	172.1
50300300	PROTECTIVE COAT	SQ YD	786	786
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	120	120
50401315	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE BEAMS, IL36N	FOOT	541	541
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	90,500	90,500
50800515	BAR SPLICES	EACH	615	615

* DENOTES SPECIALTY ITEM

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET 2 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	4
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

FAP 317 (US 24)
OTHER PRINCIPAL ARTERIAL
STA. 43+46.58 TO STA. 44+39.42
MCLEAN COUNTY
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RURAL

CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	
51200959	FURNISHING METAL SHELL PILES 14" x 0.312"	FOOT	630	630
51202305	DRIVING PILES	FOOT	630	630
51203200	TEST PILES METAL SHELLS	EACH	2	2
51204650	PILE SHOES	EACH	12	12
51500100	NAME PLATES	EACH	1	1
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	193	193
56600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	126	126
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	69	69
60100060	CONCRETE HEAD WALLS FOR PIPE DRAINS	EACH	4	4
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	EACH	149	149
*	63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	167	167
*	63100085 TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
*	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4

* DENOTES SPECIALTY ITEM

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SUMMARY OF QUANTITIES

FAP 317 (US 24)
OTHER PRINCIPAL ARTERIAL
STA. 43+46.58 TO STA. 44+39.42
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CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	
63200310	GUARDRAIL REMOVAL	FOOT	624	624
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	8	8
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
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	14	14
70400100	TEMPORARY CONCRETE BARRIER	FOOT	688	688
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	688	688
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	4	4
*	78200005 GUARDRAIL REFLECTORS, TYPE A	EACH	8	8

* DENOTES SPECIALTY ITEM

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SUMMARY OF QUANTITIES

FAP 317 (US 24)
OTHER PRINCIPAL ARTERIAL
STA. 43+46.58 TO STA. 44+39.42
MCLEAN COUNTY
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0010
RURAL

	CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	
	X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	402	402
*	X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	43	43
	X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	214	214
	Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	100	100
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	27.4	27.4
	Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	723	723
	Z0038700	PERMANENT BENCH MARKS	EACH	1	1
∅	Z0076600	TRAINEES	HOUR	1,000	1,000
∅	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	1,000	1,000
	Z0073500	TEMPORARY SUPPORT SYSTEM	L SUM	1	1

* DENOTES SPECIALTY ITEM

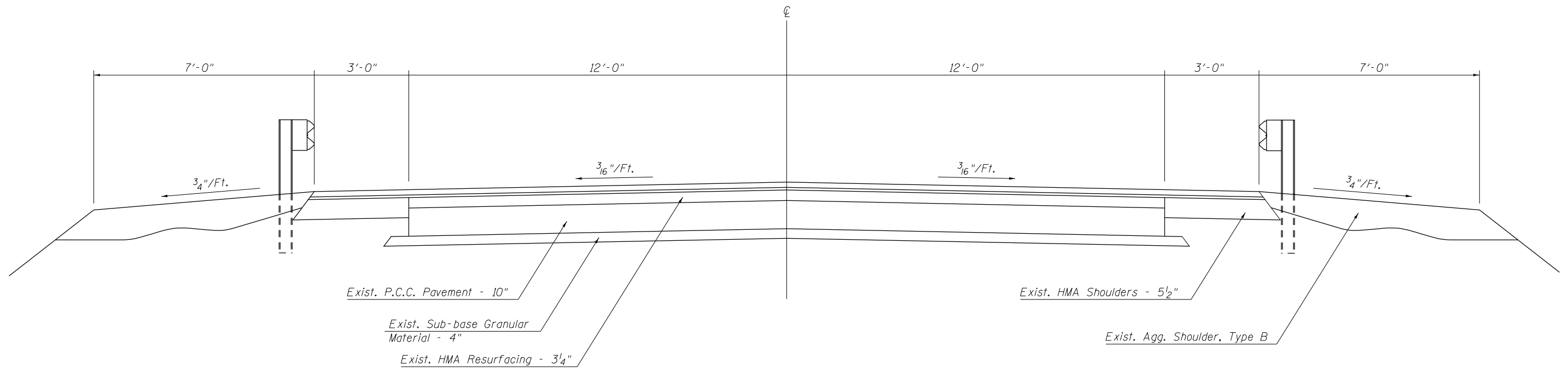
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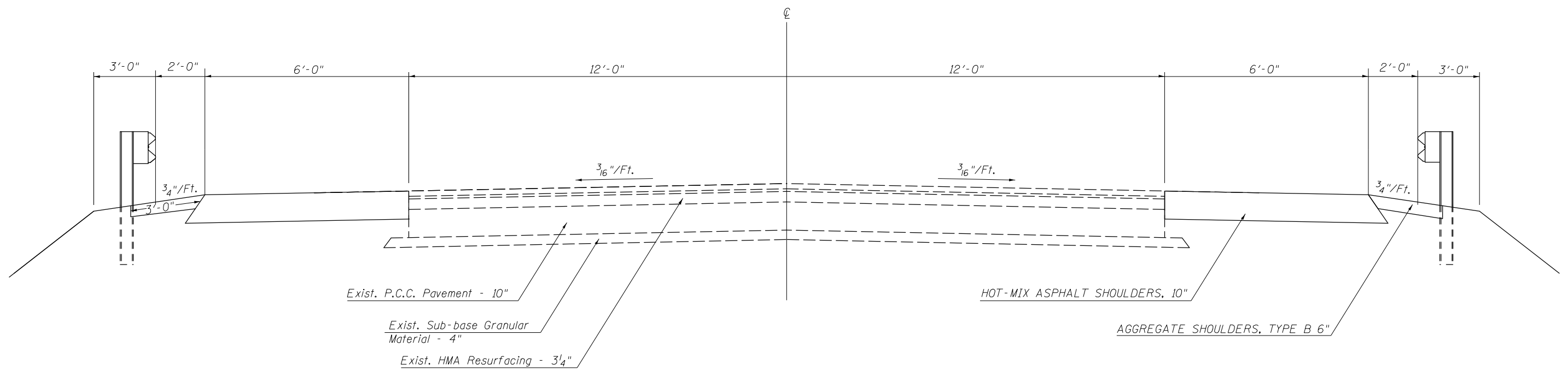
① EXISTING TYPICAL CROSS SECTION FAP 317 (US 24)

STATION 42+00.00 TO STATION 43+40.38
44+45.62 46+00.00



② PROPOSED TYPICAL CROSS SECTION FAP 317 (US 24)

STATION 42+00.00 TO STATION 43+46.58
44+39.42 46+00.00



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

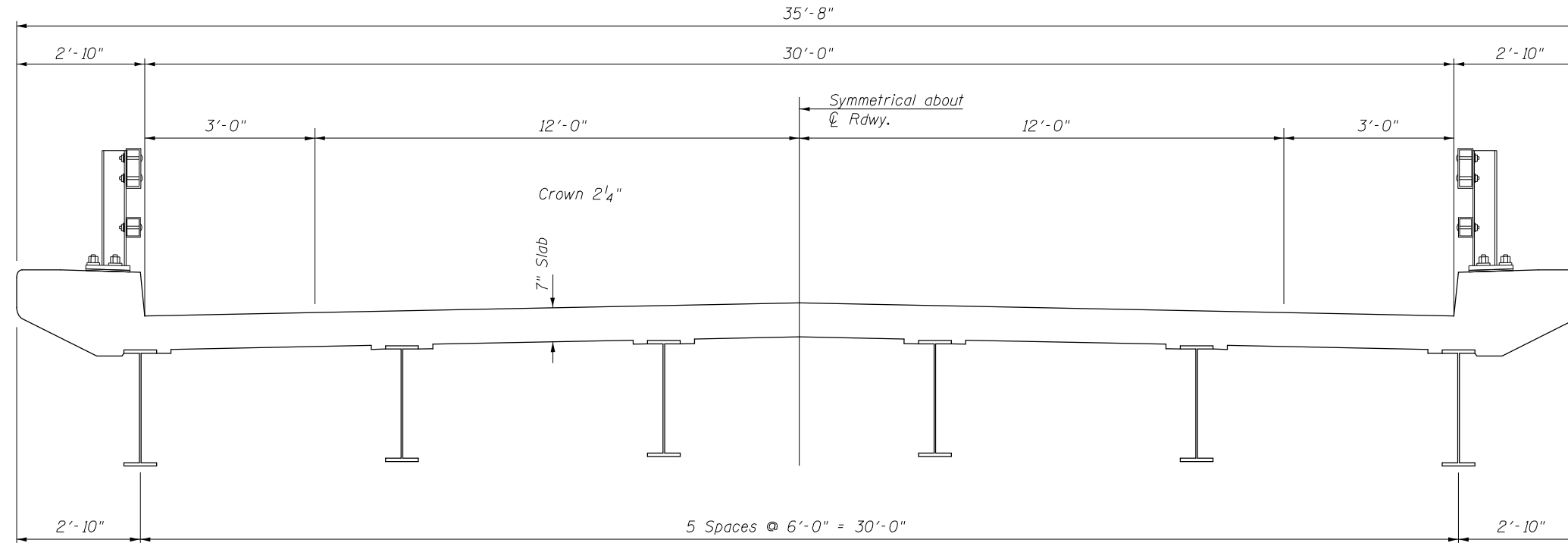
TYPICAL CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	8
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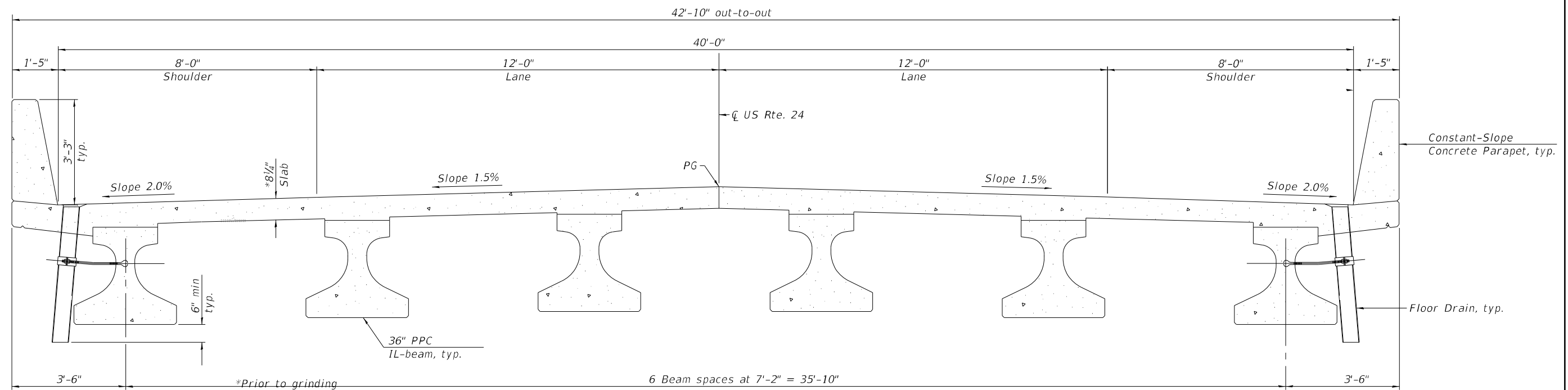
② EXISTING TYPICAL CROSS SECTION S.N. 057-0071

STATION 43+40.38 TO STATION 44+45.62



③ PROPOSED TYPICAL CROSS SECTION S.N. 057-0257

STATION 43+46.58 TO STATION 44+39.42



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL CROSS SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	9
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

25000210 SEEDING CLASS 2A

STATION	TO	STATION	ACRE
42+00.00		46+00.00	0.5

25000400 NITROGEN FERTILIZER NUTRIENT

STATION	TO	STATION	POUND
42+00.00		46+00.00	45.0

25000500 PHOSPHORUS FERTILIZER NUTRIENT

STATION	TO	STATION	POUND
42+00.00		46+00.00	45.0

25000600 POTASSIUM FERTILIZER NUTRIENT

STATION	TO	STATION	POUND
42+00.00		46+00.00	45.0

25100115 MULCH METHOD 2

STATION	TO	STATION	ACRE
42+00.00		46+00.00	0.5

28000250 TEMPORARY EROSION CONTROL SEEDING

STATION	TO	STATION	POUND
42+00.00		46+00.00	50.0

25000350 SEEDING CLASS 7

STATION	TO	STATION	ACRE
42+00.00		46+00.00	0.5

28000305 TEMPORARY DITCH CHECKS

STATION	OFF SET	FOOT
43+25	RT. 55.0'	6.0
43+52	RT. 52.0'	6.0
44+20	RT. 55.0'	6.0
44+62	RT. 58.0'	6.0
TOTAL:		24.0

28000400 PERIMETER EROSION CONTROL BARRIER

OFFSET	STATION	TO	OFFSET	STATION	FOOT
Lt. 13.0'	42+31.00		Lt. 0.0'	43+91.00	197
Rt. 51.5'	42+74.00		Rt. 46.0'	43+27.00	53
Rt. 75.5'	43+79.00		Rt. 0.0'	43+91.00	82
Lt. 0.0'	44+02.00		Lt. 62.0'	46+00.00	251
Rt. 0.0'	44+02.00		Rt. 66.9'	44+25.00	85
Rt. 45.0'	44+59.00		Rt. 56.0'	45+97.00	139
TOTAL:					807

28100107 STONE RIPRAP, CLASS A4

STATION	TO	STATION	SQ YD
43+26.58		44+59.42	1352

44213200 SAW CUTS

STATION	FOOT
Rt. 43+10.58	36.0
Rt. 44+75.42	36.0
TOTAL:	72.0

48101500 AGGREGATE SHOULDER, TYPE B, 6"

STATION	TO	STATION	WIDTH	SQ YD
RT.44+69.42		RT.44+68.45	3.0'	87.70
LT.44+69.42		LT.44+68.45	3.0'	87.70
LT.42+00.00		LT.42+62.15	3.0'	78.41
RT.42+70.00		RT.42+70.93	3.0'	31.11
TOTAL:				124.2
USE:				125

48203037 HOT-MIX ASPHALT SHOULDER, 10"

STATION	TO	TO	WIDTH	SQ YD
RT.44+69.42		RT.46+00.00	6.0'	87.70
LT.44+69.42		LT.46+00.00	6.0'	87.70
LT.42+00.00		LT.43+16.58	6.0'	78.41
RT.42+70.00		43+16.58	6.0'	31.11
TOTAL:				284.92
USE:				285

50100100 REMOVE EXISTING STRUCTURE

STATION	TO	STATION	EACH
43+41.79		44+56.24	1

51500100 NAME PLATES

STATION	OFF SET	EACH
43+51.58	20.0'	1.0

60100060 CONCRETE HEADWALLS FOR PIPE DRAINS

STATION	LOCATION	EACH
43+44.58	LT.	1.0
43+44.58	RT.	1.0
44+41.42	LT.	1.0
44+41.42	RT.	1.0
TOTAL:		4.0

28200200 FILTER FABRIC

STATION	TO	STATION	SQ YD
43+26.58		44+59.42	1352

63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT. POSTS

OFF SET	STATION	TO	OFF SET	STATION	FOOT
Rt. 94.32'	42+98.00		Rt. 20.0'	42+95.11	110.8
Rt. 20.0'	44+90.94		Rt.20.0'	45+15.75	25.0
Lt. 20.0'	42+70.61		Lt.	42+95.11	25.0
Lt. 20.0'	44+90.94		Lt.	45+39.44	48.5
TOTAL:					209.3
USE:					210.0

63100085 TRAFFIC BARRIER TERMINAL, TYPE 6

OFF SET	STATION	EACH
20.0' Rt.	42+95.11	1.0
20.0' Rt.	44+53.44	1.0
20.0, Lt.	42+95.11	1.0
23.0' Lt.	44+53.44	1.0
TOTAL:		4.0

63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

OFF SET	STATION	EACH
111.0 Rt.	42+98.00	1.0
20.0 Rt.	45+40.92	1.0
20.0 Lt.	42+45.14	1.0
23.0 Lt.	45+64.46	1.0
TOTAL:		4.0

63200310 GUARDRAIL REMOVAL

OFF SET	STATION	TO	OFF SET	STATION	FOOT
111.28' Rt.	42+98.00		15.0' Rt.	43+40.42	165
15.0' Rt.	44+44.60		20.0' Rt.	45+30.60	86
20.0' Lt.	42+55.00		15.0' Lt.	43+40.42	87
15.0' Lt.	44+44.60		23.0' Lt.	47+30.60	286
TOTAL:					624.0
USE:					624.0

70400100 TEMPORARY CONCRETE BARRIER

OFF SET	STATION	TO	OFF SET	STATION	FOOT
14.0' RT.	40+49.25		1.5' LT	42+24.25	175.0
1.5' LT.	42+24.25		1.5' LT	45+61.75	337.5
1.5' LT.	45+61.75		14.0' RT.	47+36.75	175.0
TOTAL:					687.5
USE:					688.0

70400200 RELOCATE CONCRETE BARRIER

OFF SET	STATION	TO	OFF SET	STATION	FOOT
14.0' RT.	40+49.25		1.5' LT	42+24.25	175.0
1.5' LT.	42+24.25		1.5' LT	45+61.75	337.5
1.5' LT.	45+61.75		14.0' RT.	47+36.75	175.0
TOTAL:					687.5
USE:					688.0

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES			
SCALE:	SHEET 1	OF 1	SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	10
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

78200005 GUARDRAIL REFLECTORS, TYPE A

STATION	OFF SET	TO	STATION	OFF SET	EACH
42+00.00	Rt.		46+00.00	Rt.	4.0
42+00.00	Lt.		46+00.00	Lt.	4.0
					TOTAL: 8.0

72501000 TERMINAL MARKER DIRECT APPLIED

OFF SET	OFF SET	STATION	EACH
111.0 Rt.	111.0 Rt.	42+98.00	1.0
20.0 Rt.	20.0 Rt.	45+30.60	1.0
20.0 Lt.	20.0 Lt.	42+55.00	1.0
23.0 Lt.	23.0 Lt.	47+30.60	1.0
			TOTAL: 4.0

Z0004552 APPROACH SLAB REMOVAL

STATION	TO	STATION	SQ YD
43+00.38		43+40.38	106.7
45+63.04		46+03.04	106.7
			TOTAL: 213.3
			USE: 214.0

Z0038700 PERMENANT BENCH MARKS

STATION	OFF SET	EACH
44+40	20.0'	1.0
		TOTAL: 1.0

X6330725 STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS)

STATION	OFF SET	TO	STATION	OFF SET	FOOT
42+68.73	59.29'		42+89.98	20.73'	43.0

EARTH WORK TABLE

LOCATION	NEEDED FURNISHED EXCAVATION	50200100 STRUCTURE EXCAVATION	20400800 FURNISHED EXCAVATION
	CU. YD	CU. YD.	CU. YD
RT. STA. 42+00.00 ~ RT. STA. 43+46.58	128.6	55.00	73.6
RT. STA. 44+39.42 ~ RT. STA. 46+00.00	136.4	55.00	81.4
LT. STA. 42+00.00 ~ RT. STA. 43+46.58	151.7	55.00	96.7
LT. STA. 44+39.42 ~ RT. STA. 46+00.00	153.3	55.00	98.3
		TOTAL:	350.0
		USE:	350

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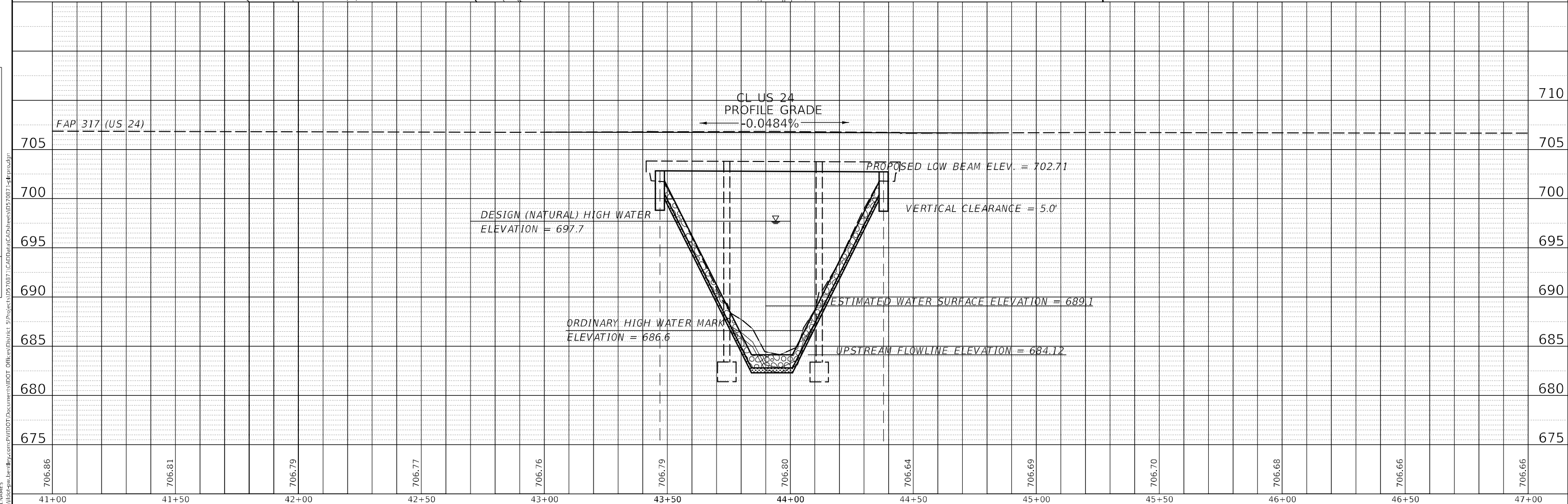
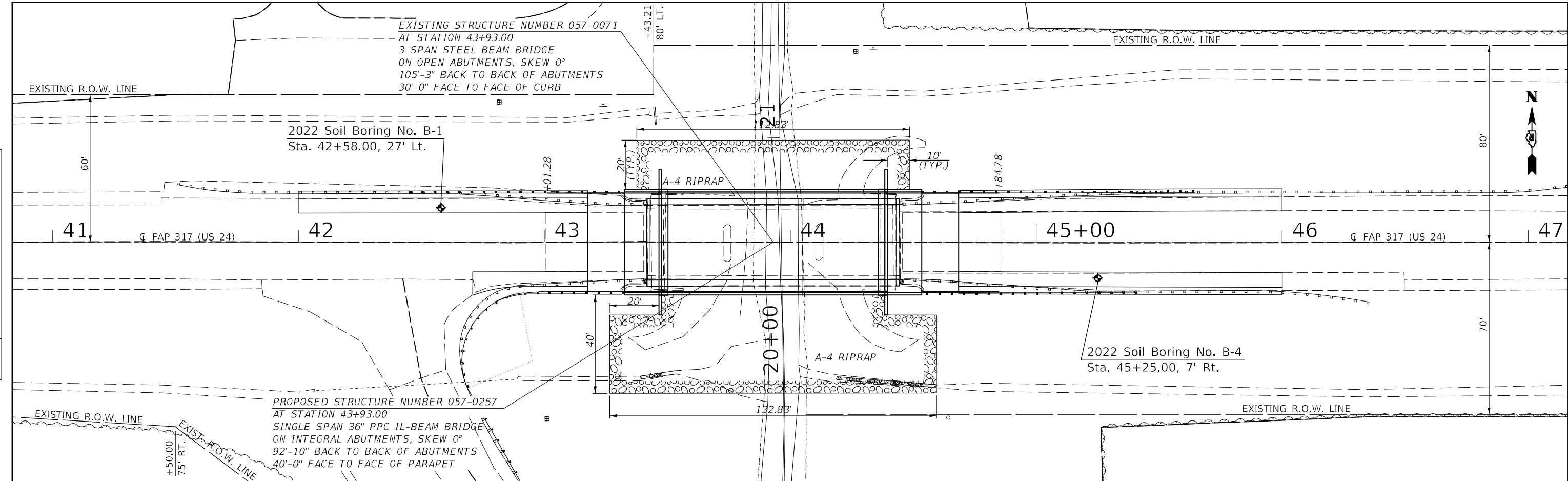
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	11
			CONTRACT NO. 70871	
			ILLINOIS FED. AID PROJECT	

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	ALIGNMENT CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTATION	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATION	
	FILE NAME	
	NO.	



41+00	41+50	42+00	42+50	43+00	43+50	44+00	44+50	45+00	45+50	46+00	46+50	47+00
706.86	706.81	706.79	706.77	706.76	706.79	706.80	706.64	706.69	706.70	706.68	706.66	706.66

USER NAME = Jason,Goble	DESIGNED - JG	REVISED -
	DRAWN - BBP	REVISED -
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PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PLAN & PROFILE
STRUCTURE NO. 057-0257**

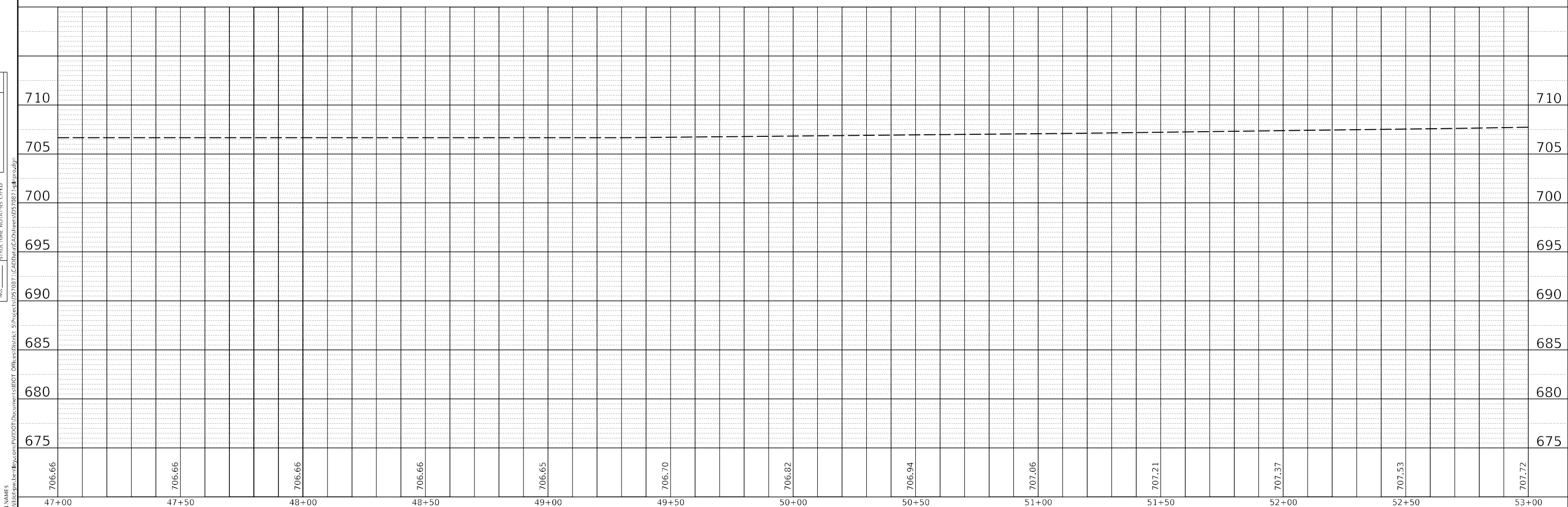
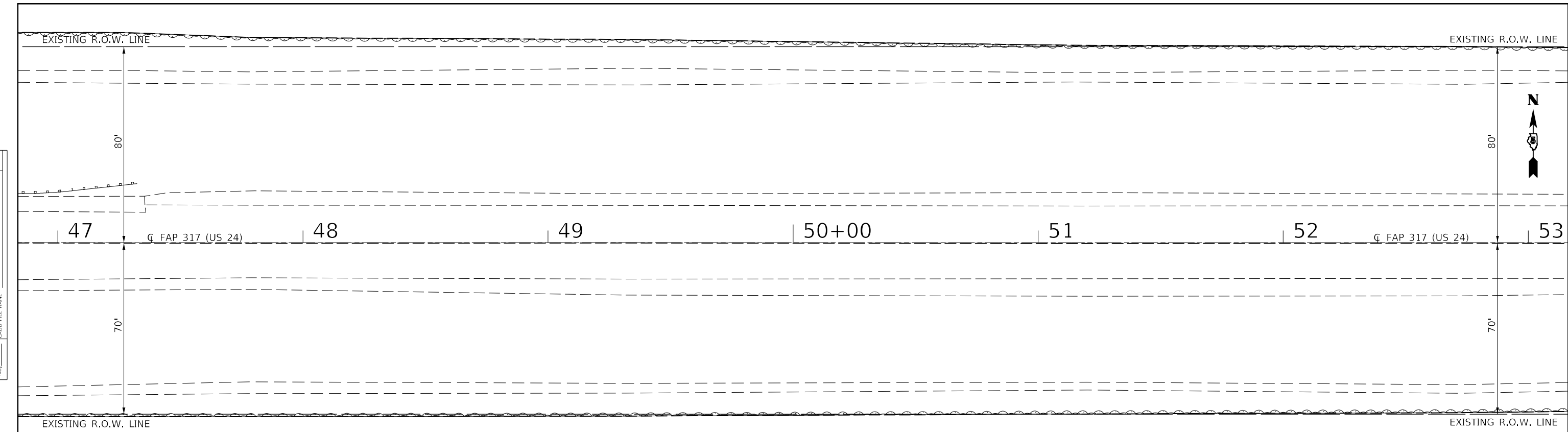
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	288R-1	MCLEAN	66	12
CONTRACT NO. 70871				

ILLINOIS FED. AID PROJECT

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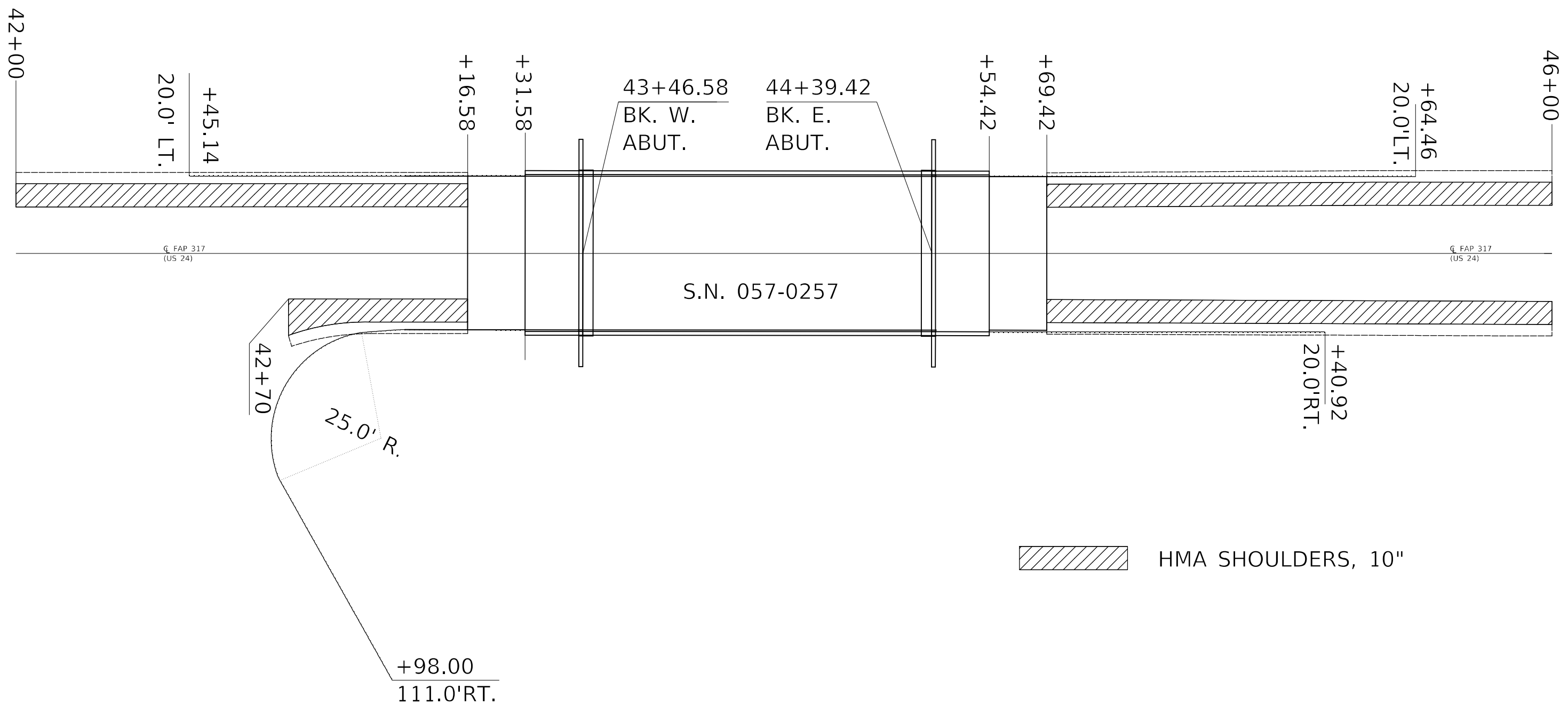
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GUARDRAIL & HMA SHOULDERS PLAN



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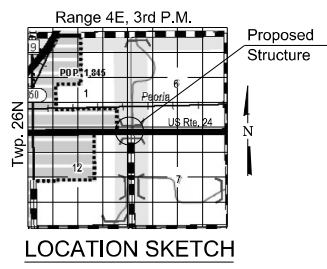
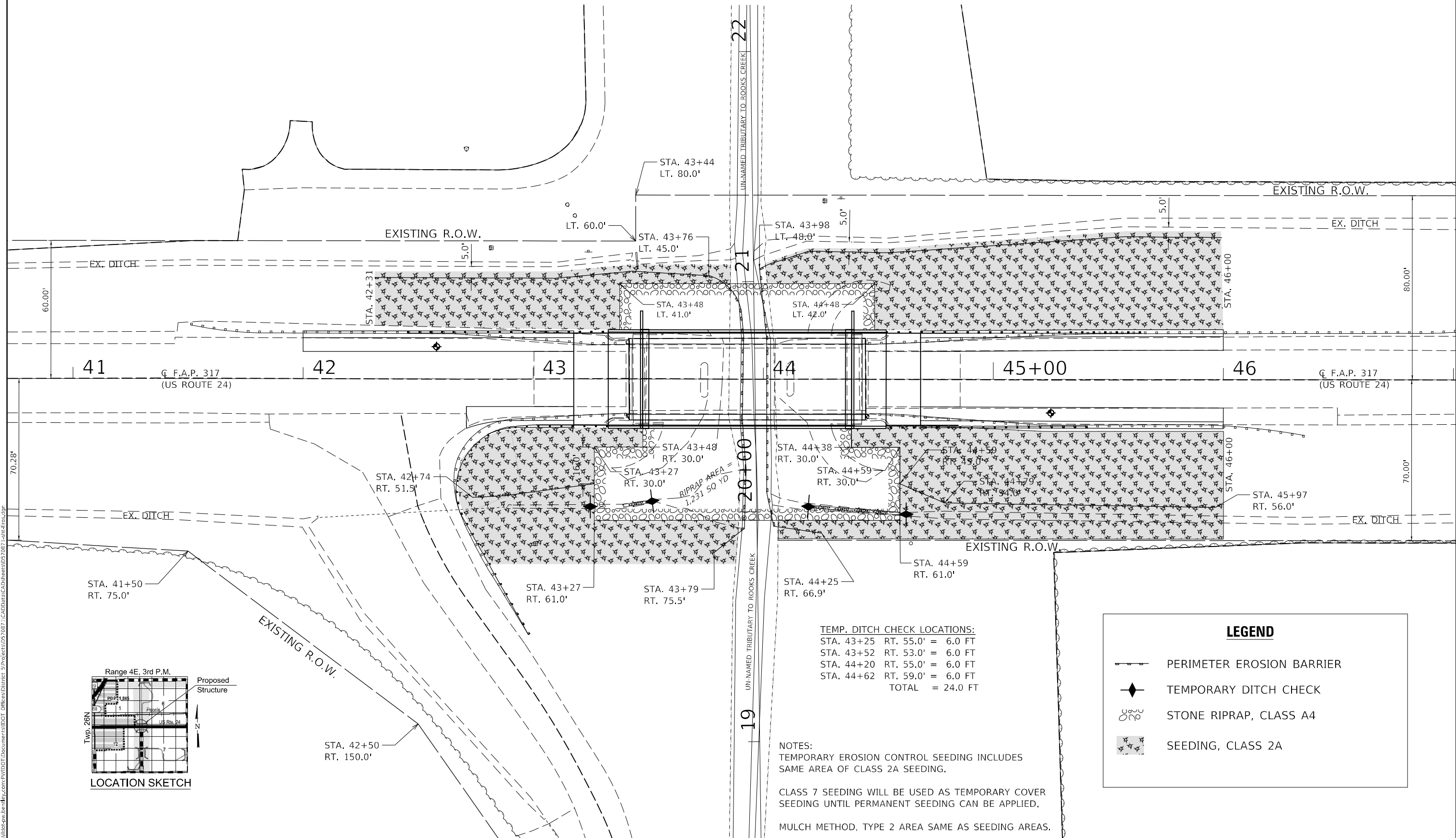
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GUARDRAIL & HMA SHOULDERS PLAN
S.N. 057-0257**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	14
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70871	

SEEDING AND EROSION CONTROL PLAN



- TEMP. DITCH CHECK LOCATIONS:**
- STA. 43+25 RT. 55.0' = 6.0 FT
 - STA. 43+52 RT. 53.0' = 6.0 FT
 - STA. 44+20 RT. 55.0' = 6.0 FT
 - STA. 44+62 RT. 59.0' = 6.0 FT
 - TOTAL = 24.0 FT

NOTES:
 TEMPORARY EROSION CONTROL SEEDING INCLUDES SAME AREA OF CLASS 2A SEEDING.

CLASS 7 SEEDING WILL BE USED AS TEMPORARY COVER SEEDING UNTIL PERMANENT SEEDING CAN BE APPLIED.

MULCH METHOD, TYPE 2 AREA SAME AS SEEDING AREAS.

LEGEND

- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECK
- STONE RIPRAP, CLASS A4
- SEEDING, CLASS 2A

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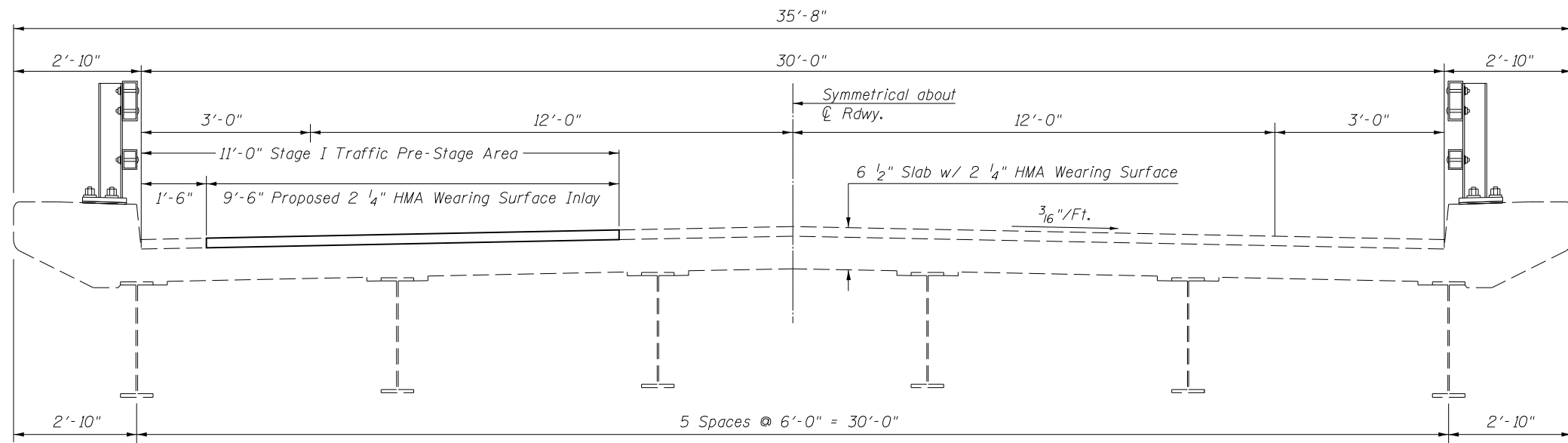
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

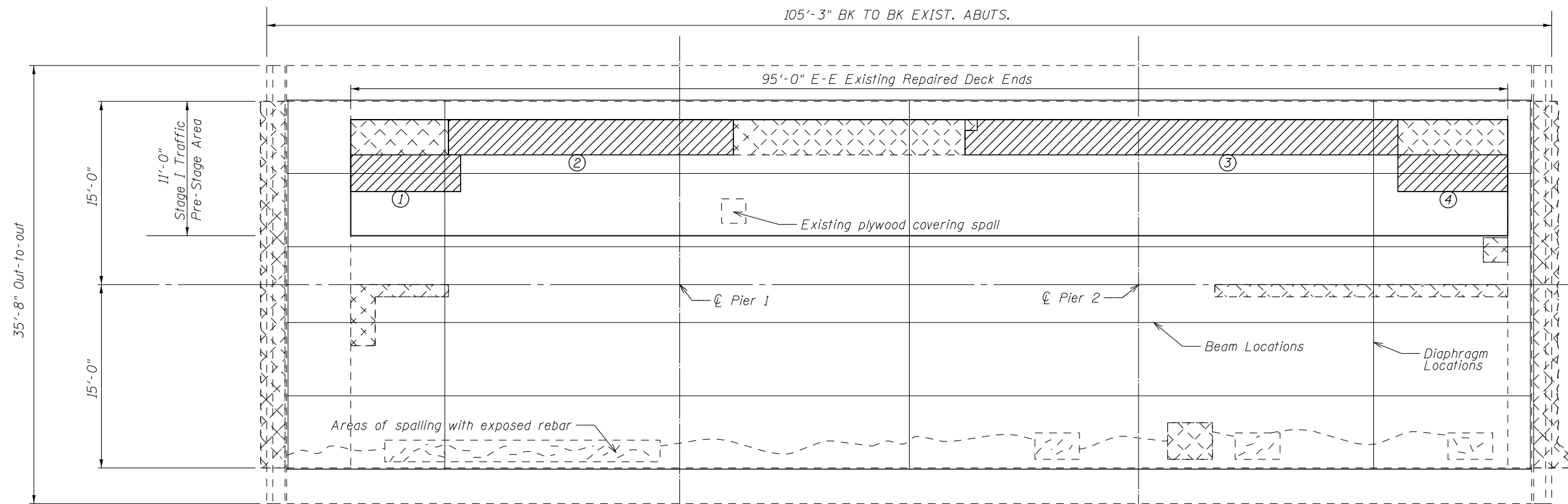
SEEDING AND EROSION CONTROL PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	15
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



EXISTING DECK SECTION



PLAN VIEW

PATCH NO.	SIZE L. * W. (FT.)	DECK SLAB REPAIR (PARTIAL)	DECK SLAB REPAIR (FD TY 1)	DECK SLAB REPAIR (FD TY 2)	APPROACH SLAB REPAIR (PD)
		SQ YD	SQ YD	SQ YD	SQ YD
1	12.0 X 3.0	4.0			
2	23.0 X 3.0	7.7			
3	35.0 X 3.0	11.7			
4	12.0 X 3.0	4.0			
TOTAL		27.4			

GENERAL NOTES

Deck Survey performed on August 22, 2023. Locations and sizes shown are approximate.

Standard 701316 shall be used for Traffic Control unless otherwise directed by the Resident Engineer.

See special provision "Deck Slab Repair" for requirements pertaining to Deck Slab Repair and HMA Surface Removal (Deck).

S.N. 057-0071 has been determined, based on information available in the District Office not to involve asbestos in the bituminous bridge deck wearing surface or waterproofing membrane as certified with BBS Form 2536 dated May 14, 2002.

Bridge Maintenance Patching

BILL OF MATERIALS

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (PARTIAL)	SQ YD	27.4
HMA SURFACE REMOVAL (DECK)	SQ YD	100.0
HMA SURFACE COURSE, IL-9.5, MIX D, N50	TON	13.0
BITUMINOUS MATERIALS (TACK COAT)	POUND	45.0

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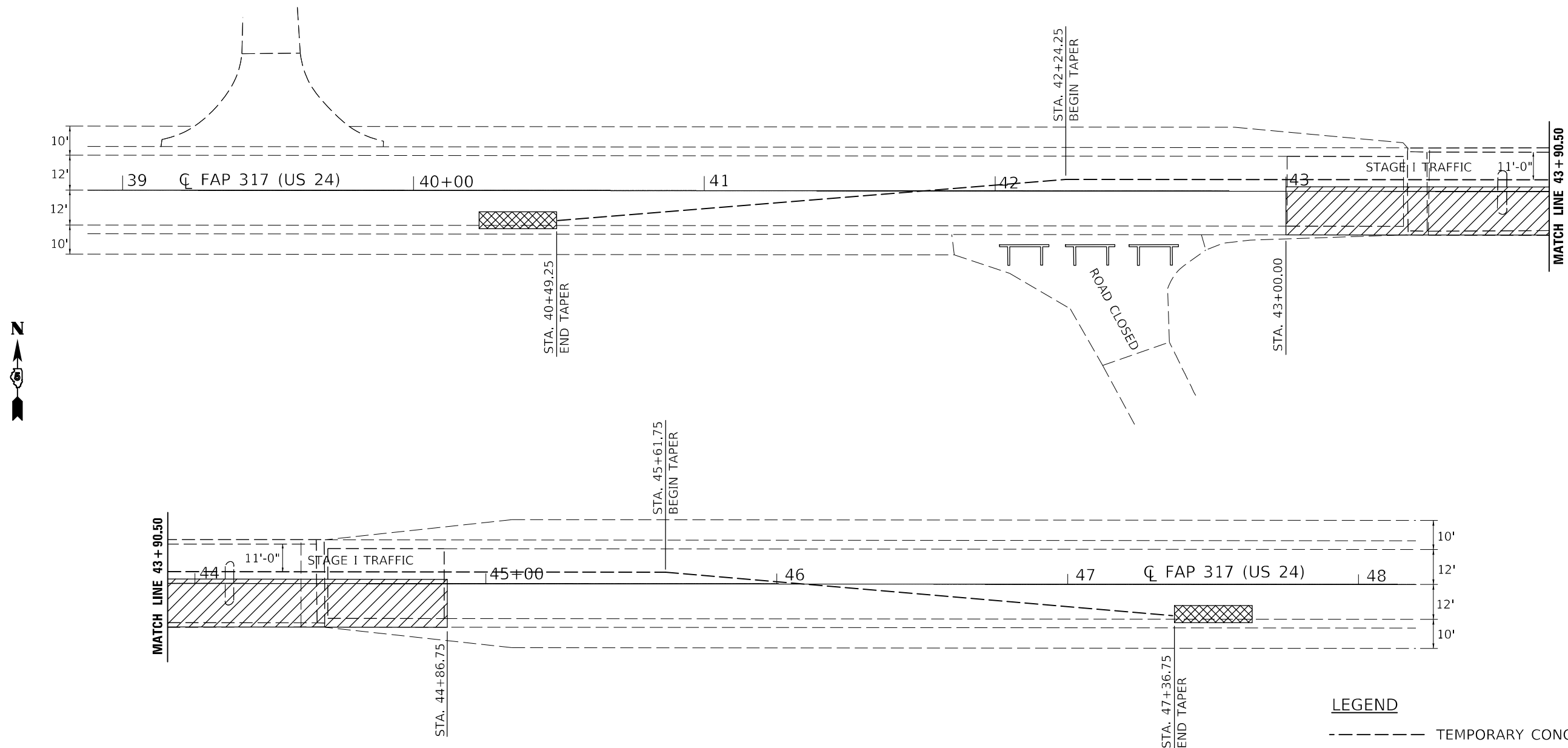
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PRE-STAGE IMPROVEMENTS S.N. 057-0071

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

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS	SHEET NO.
			CONTRACT NO. 70871	
ILLINOIS FED. AID PROJECT				

STAGE I TEMPORARY CONCRETE BARRIER LAYOUT



PLAN NOTES

ALL STAGING DETAILS SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH LOCATION.

ALL WORK WITHOUT TEMPORARY CONCRETE BARRIER IN PLACE SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARDS 701201, 701301 AND 701311.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE HIGHWAY STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

REFLECTORS SHALL BE ATTACHED TO GUARDRAIL AND BARRIER WALL AT 25 FOOT CENTERS. COST INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

70400100 TEMPORARY CONCRETE BARRIER

	STATION	TO	STATION	LENGTH
14.0' RT.	40+49.25		42+24.25	175.0'
Centerline	42+24.25		45+61.75	337.5'
14.0' RT	45+61.75		47+36.75	175.0'
			TOTAL =	687.5'
			USE:	688.0'

LEGEND

	TEMPORARY CONCRETE BARRIER
	PROPOSED WORK AREA
	IMPACT ATTENUATOR

BILL OF MATERIALS

ITEM	UNIT	TOTAL
TEMPORARY CONCRETE BARRIER	FOOT	688.0
IMPACT ATTENUATOR TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2.0

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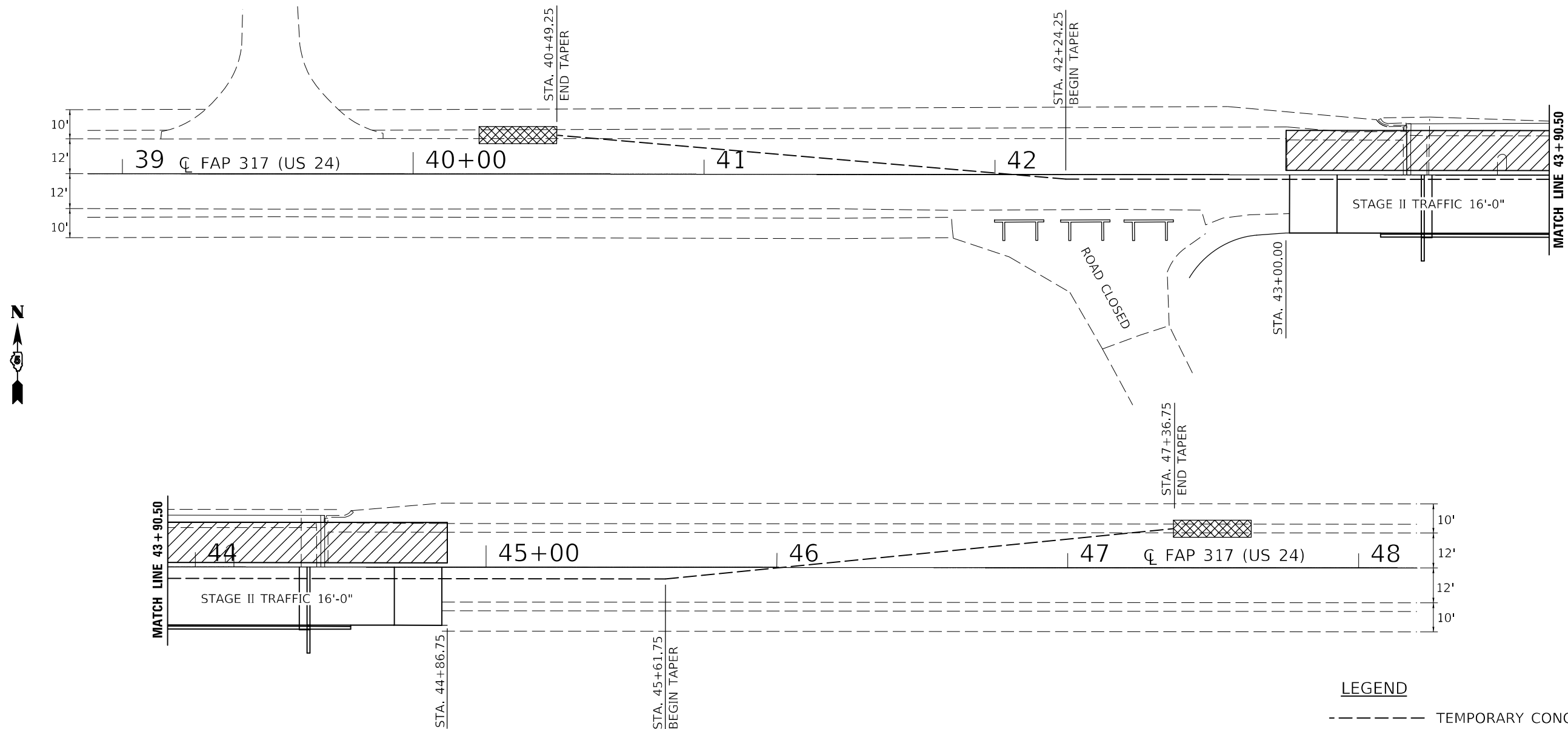
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1 TEMPORARY CONCRETE BARRIER
S.N. 057-0257

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	17
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70871	

STAGE 2 TEMPORARY CONCRETE BARRIER LAYOUT



PLAN NOTES

ALL STAGING DETAILS SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH LOCATION.

ALL WORK WITHOUT TEMPORARY CONCRETE BARRIER IN PLACE SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARDS 701201, 701301 AND 701311.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE HIGHWAY STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

REFLECTORS SHALL BE ATTACHED TO GUARDRAIL AND BARRIER WALL AT 25 FOOT CENTERS. COST INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

70400200 RELOCATE CONCRETE BARRIER

	STATION	TO	STATION	LENGTH
14.0' RT.	40+49.25		42+24.25	175.0'
Centerline	42+24.25		45+61.75	337.5'
14.0' RT	45+61.75		47+36.75	175.0'
			TOTAL =	687.5'
			USE:	688.0'

LEGEND

- TEMPORARY CONCRETE BARRIER
- ▨ PROPOSED WORK AREA
- ▩ IMPACT ATTENUATOR

BILL OF MATERIALS

ITEM	UNIT	TOTAL
RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	688.0
IMPACT ATTENUATOR RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2.0

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PLOT DATE = 10/19/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 2 TEMPORARY CONCRETE BARRIER
S.N. 057-0257

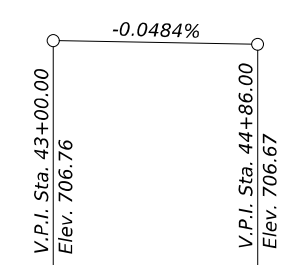
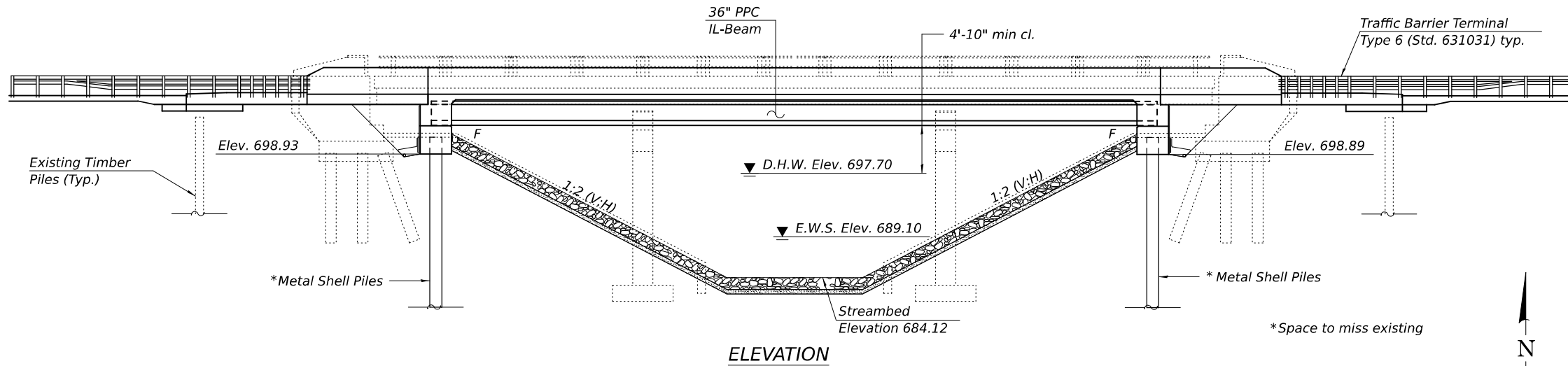
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	18
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70871	

Benchmark: Permanent Survey Marker Station 44+45.20, Right 16.08', Elevation 707.077

Existing Structure: SN 057-0071 was originally built in 1959 as SBI Rte. 8, Section 28-BR, at Station 43+93.00. The current 3-span structure consists of 6-24" WF steel beams supporting a reinforced concrete deck and bituminous concrete overlay, at 0 degree skew. The existing structure has an out-to-out width of 35'-8" and a back-to-back length of 105'-3". The existing structure is supported by spill-thru abutments on concrete piles and piers on spread footings. Structure to be removed and replaced. Traffic to be maintained using stage construction.

No Salvage.



PROFILE GRADE
(Along C U.S. 24)

Up to ¼ inch to be ground off the bridge deck and the bridge approach slabs.
The Profile Grade shows the final grade after grinding.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.081g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.140g
Soil Site Class = C

DESIGN STRESSES

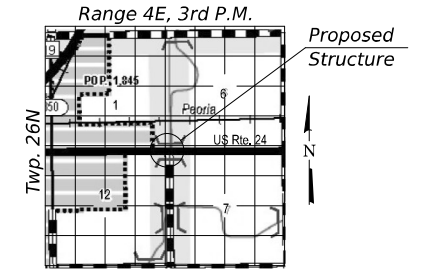
FIELD UNITS
f_c = 3,500 psi
f_c = 4,000 psi (Superstructure)
f_y = 60,000 psi (Reinforcement)
PRECAST PRESTRESSED UNITS
f_c = 8,500 psi
f_{ci} = 6,500 psi
f_{pu} = 270,000 psi (0.6" Dia. low lax. strands)
f_{pbt} = 202,300 psi (0.6" Dia. low lax. strands)

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

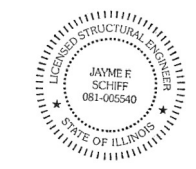
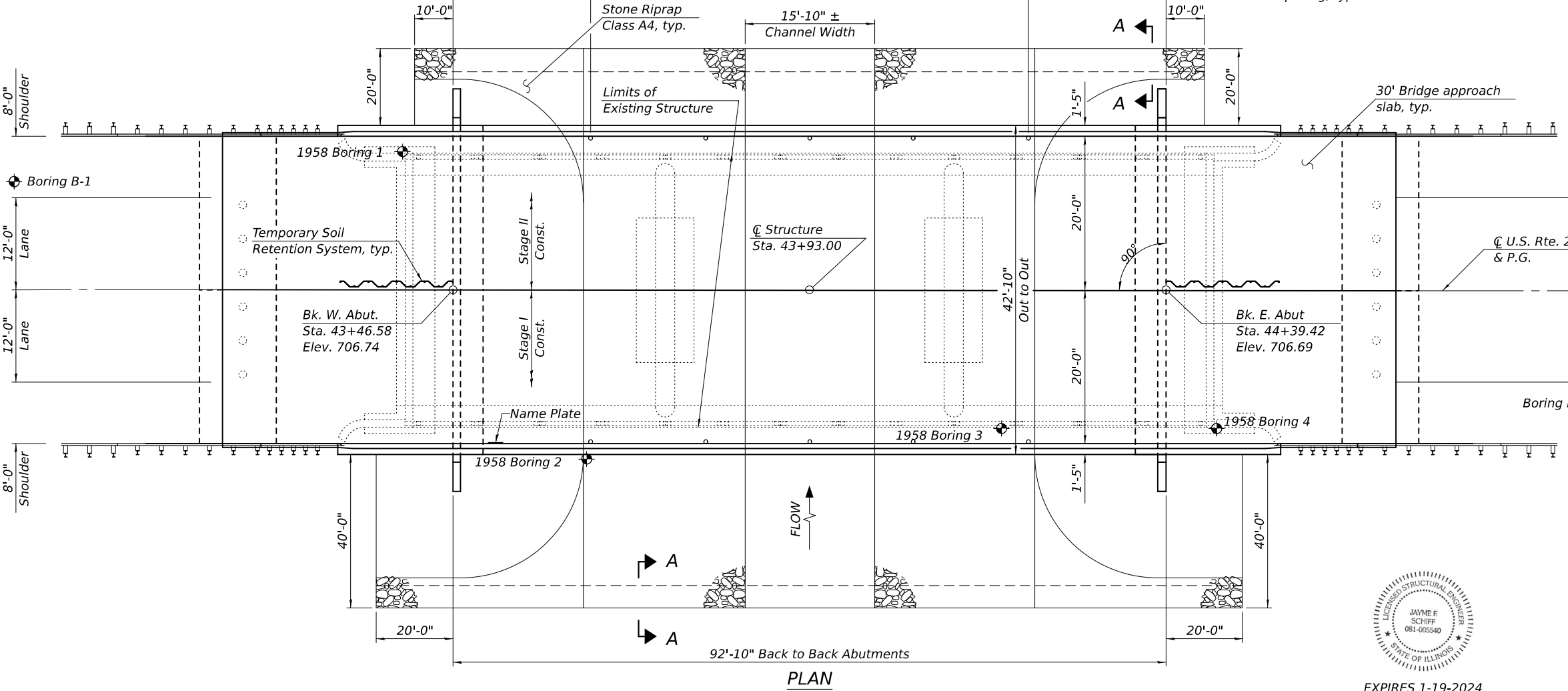
Allow 50#/sq. ft. for future wearing surface.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
U.S. RTE. 24 OVER UN-NAMED TRIBUTARY TO ROOKS CREEK
F.A.P. RTE. 317 - SEC. 28BR-1
MCLEAN COUNTY
STATION 43+93.00
STRUCTURE NO. 057-0257

MODEL: 0570257-70871-001
FILE NAME: p:\p\11010-pw\benley.com\FWIDOT\Documents\OBM Projects\0570257\CADDData\Bridges\0570257-70871.dgn



EXPIRES 1-19-2024

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Stuffer</i>
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jayme F. Schiff</i>
DRAWN - GLENN W. STOVER	
CHECKED - R.P.N. / T.L.M.	

DATE - 12/5/2023
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

REVISD -	
REVISD -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 19	SHEET NO. 66
CONTRACT NO. 70871				

SHEET 1 OF 25 SHEETS

ILLINOIS FED. AID PROJECT

11/28/2023 9:05:25 AM

INDEX OF SHEETS

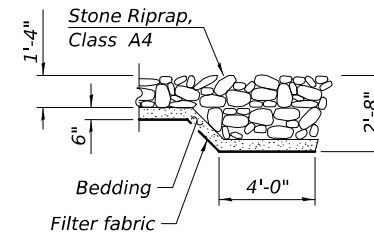
- 1 General Plan & Elevation
- 2 General Data
- 3 Stage Construction Details
- 4 T.S.R.S. & Temporary Support System
- 5 Temporary Concrete Barrier
- 6-7 Top of Slab Elevations
- 8-9 Top of Approach Slab Elevations
- 10 Superstructure
- 11 Superstructure Details
- 12 Diaphragm Details
- 13-14 Bridge Approach Slab Details
- 15 Framing Plan
- 16 Framing Details
- 17 IL36N Beam
- 18 IL36N Beam Details
- 19 West Abutment
- 20 East Abutment
- 21 Abutment Details
- 22 Metal Shell Pile Details
- 23 Bar Splicer Details
- 24-25 Soil Boring Logs

STATION 43+93.00
 BUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. RT. 317 - Sec. 28BR-1
 LOADING HL93
 STRUCTURE NO. 057-0257

NAME PLATE
 See Std. 515001

GENERAL NOTES

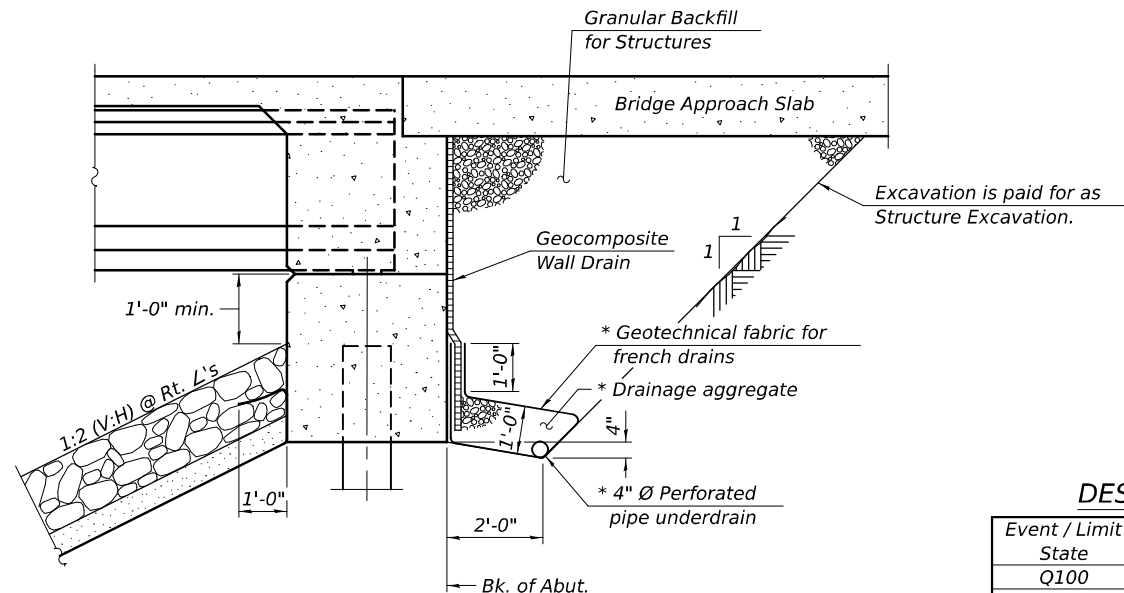
Reinforcement bars designated (E) shall be epoxy coated.
 Slipforming of the parapets is not allowed.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to address the presence of lead on this project.



SECTION A-A

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		1,352	1,352
Filter Fabric	Sq. Yd.		1,352	1,352
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		220	220
Floor Drains	Each	10		10
Concrete Structures	Cu. Yd.		76.3	76.3
Concrete Superstructure	Cu. Yd.	172.1		172.1
Protective Coat	Sq. Yd.	786		786
Concrete Superstructure (Approach Slab)	Cu. Yd.	120.0		120.0
Furnishing and Erecting Precast Prestressed Concrete Beams, IL36N	Foot	541		541
Reinforcement Bars, Epoxy Coated	Pound	81,900	8,600	90,500
Bar Splicers	Each	515	100	615
Furnishing Metal Shell Piles 14" x 0.312"	Foot		630	630
Driving Piles	Foot		630	630
Test Pile Metal Shells	Each		2	2
Pile Shoes	Each		12	12
Name Plates	Each	1		1
Temporary Soil Retention System	Sq. Ft.		193	193
Granular Backfill for Structures	Cu. Yd.		126	126
Geocomposite Wall Drain	Sq. Yd.		69	69
Pipe Underdrains for Structures 4"	Foot		149	149
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	402		402
Diamond Grinding (Bridge Section)	Sq. Yd.	723		723
Temporary Support System	L. Sum		1	1



SECTION THRU INTEGRAL ABUTMENT
 (Horiz. dim. at Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 6011101).

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)		Item 113
	W. Abut.	E. Abut.	
Q100	698.93	698.89	8
Q200	698.93	698.89	
Design	698.93	698.89	
Check	698.93	698.89	

WATERWAY INFORMATION TABLE

Flood Event	Freq. Yr.	Discharge Ft ³ /s	Waterway Opening-ft ²		Natural H.W.E. ft.	Head-ft.		Headwater Elev. ft.		
			Existing	Proposed		Existing	Proposed	Existing	Proposed	
Drainage Area = 15.69 sq. mi. ²					Existing Overtopping Elev. = 706.65 at Sta. 49 + 31.65		Proposed Overtopping Elev. = 706.65 at Sta. 49 + 31.65			
Design	50	2,820	531	570	697.7	1.5	1.4	699.2	699.1	
Base	100	3,290	557	599	698.1	2.0	1.9	700.1	700.0	
Scour Design Chk	200	3,781	584	629	698.5	2.3	2.2	700.8	700.7	
Max. Calc.	500	4,430	619	666	699.0	2.8	2.7	701.8	701.7	

10 Year velocity through existing bridge = 3.84 ft/s

10 Year velocity through proposed bridge = 3.46 ft/s

MODEL: 0570257-70871-002
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DESIGNED - RYAN P. NEGANGARD	EXAMINED	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED	
DRAWN - GLENN W. STOVER		
CHECKED - R.P.N. / T.L.M.		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

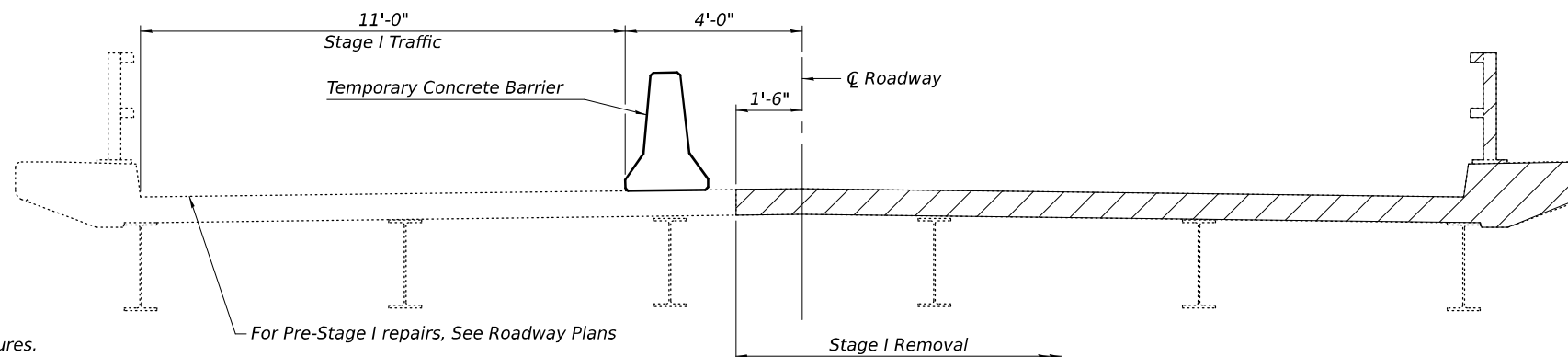
GENERAL DATA
 STRUCTURE NO. 057-0257

SHEET 2 OF 25 SHEETS

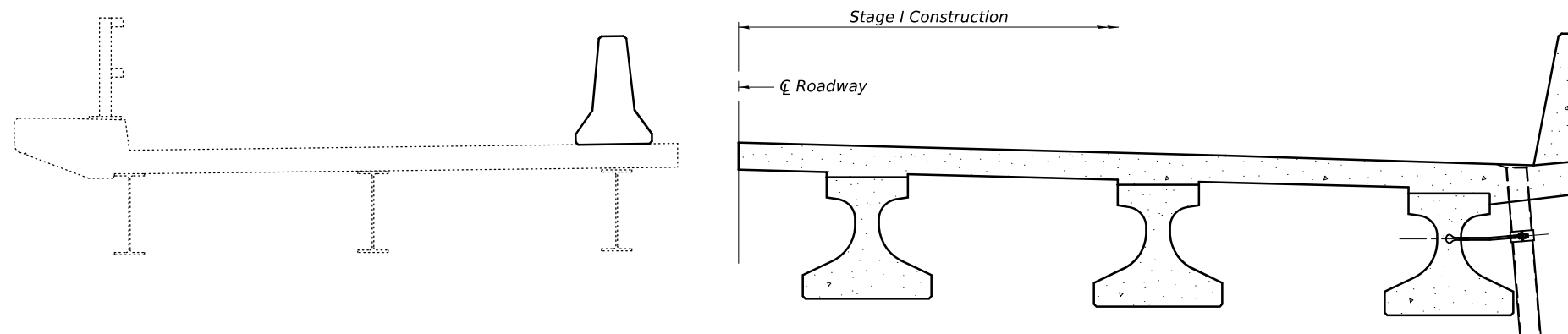
F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 20	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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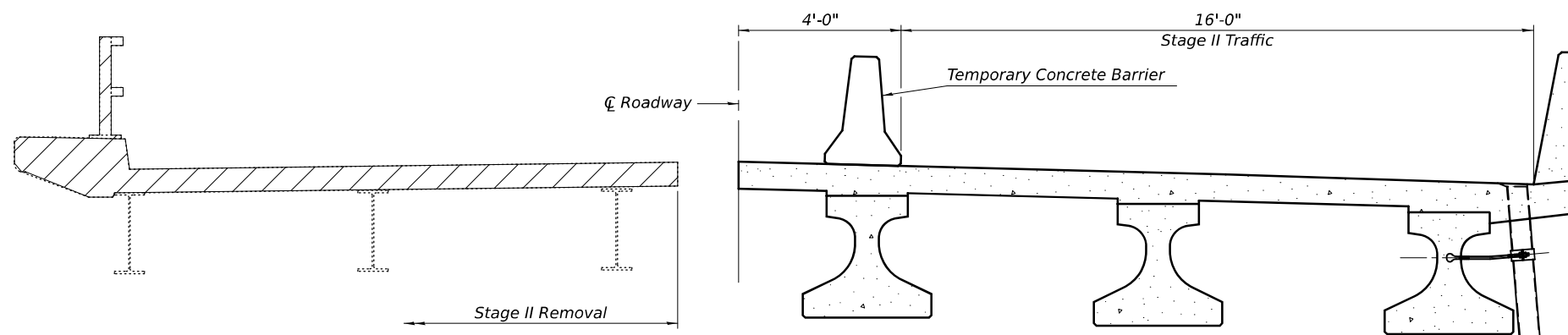
Notes:
 Hatched areas indicate Removal of Existing Structures.
 For quantity of Temporary Concrete Barriers, See Roadway Plans.
 See sheet 5 of 25 for details.
 All staging cross sections are looking East.



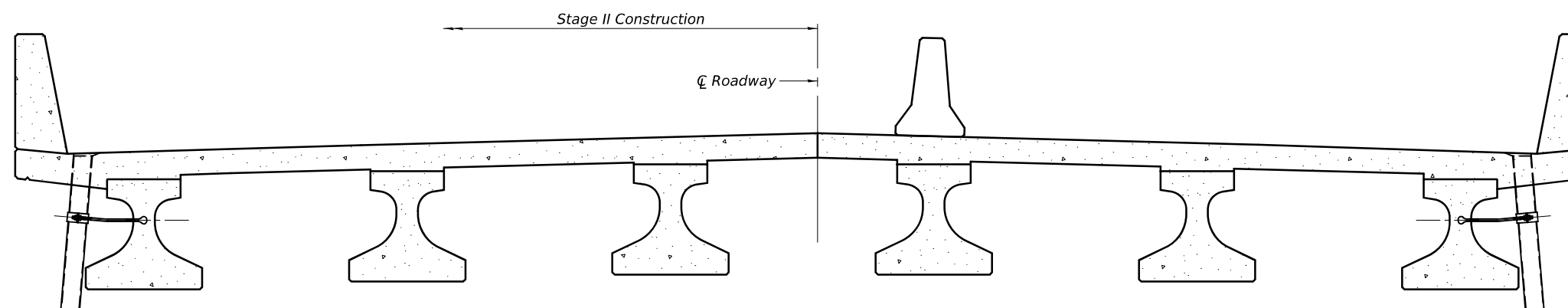
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

DESIGNED - RYAN P. NEGANGARD
 CHECKED - TIFFANY L. MEIER
 DRAWN - GLENN W. STOVER
 CHECKED - R.P.N. / T.L.M.

EXAMINED
 PASSED

Mark Shuffler
 ENGINEER OF BRIDGE DESIGN
Jayne F. [Signature]
 ENGINEER OF BRIDGES AND STRUCTURES

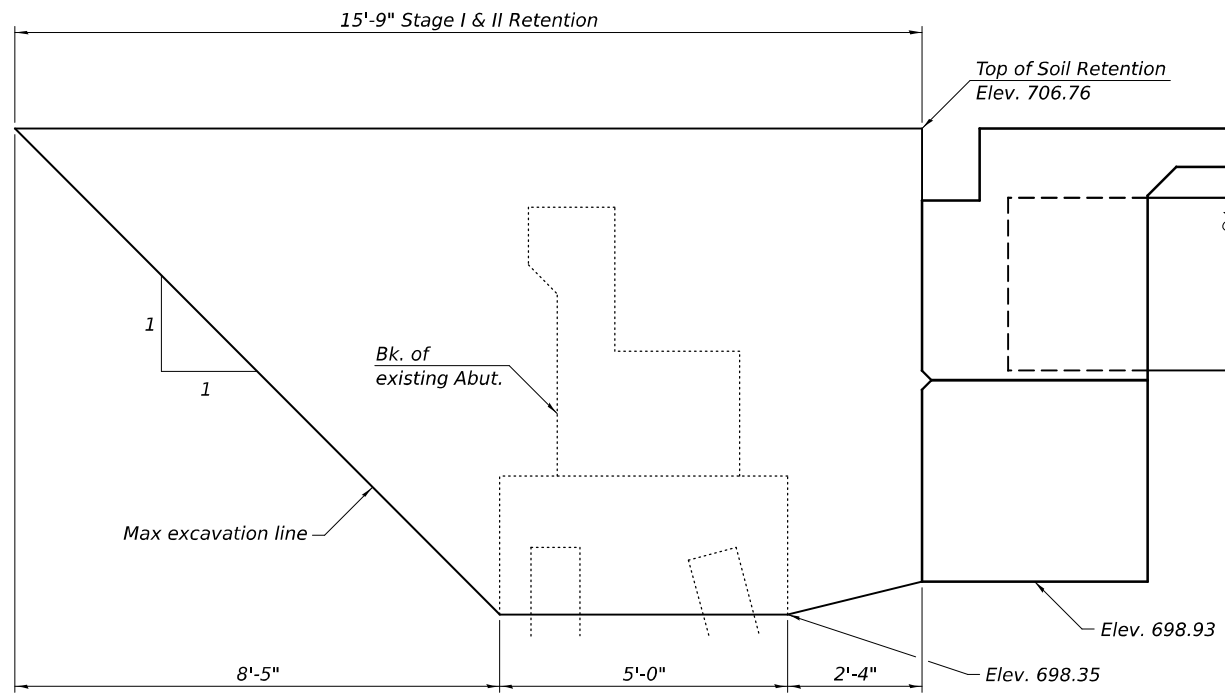
DATE - 12/5/2023
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

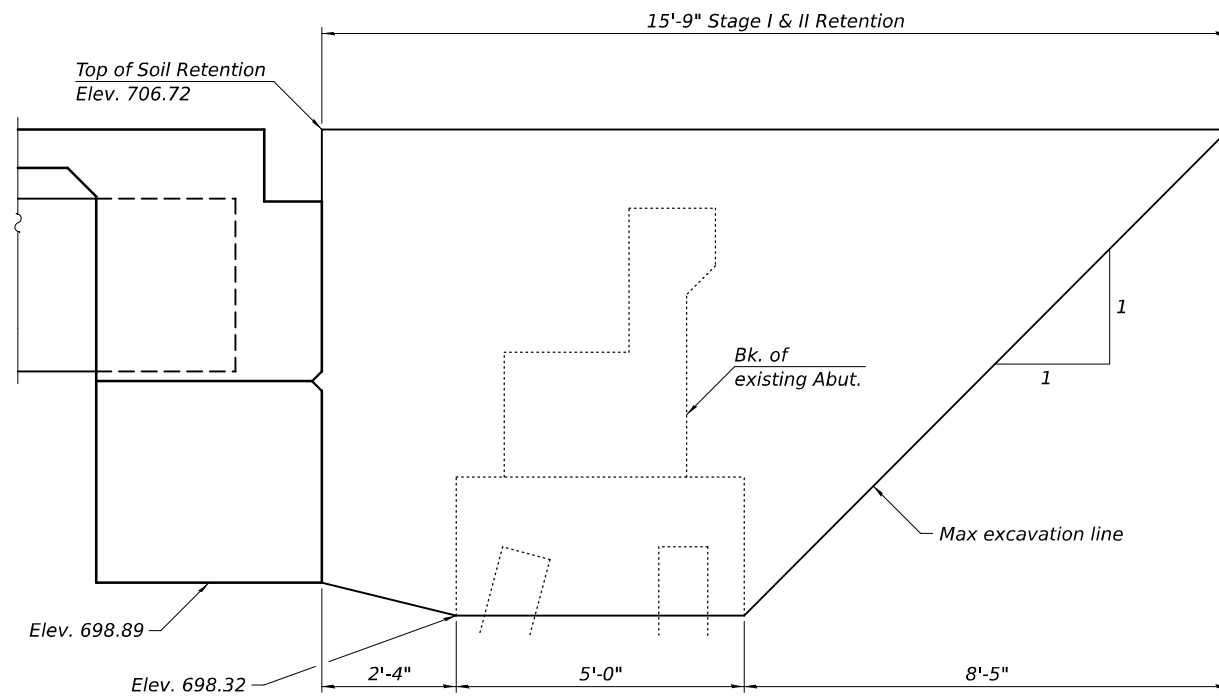
**STAGE CONSTRUCTION DETAILS
 STRUCTURE NO. 057-0257**

SHEET 3 OF 25 SHEETS

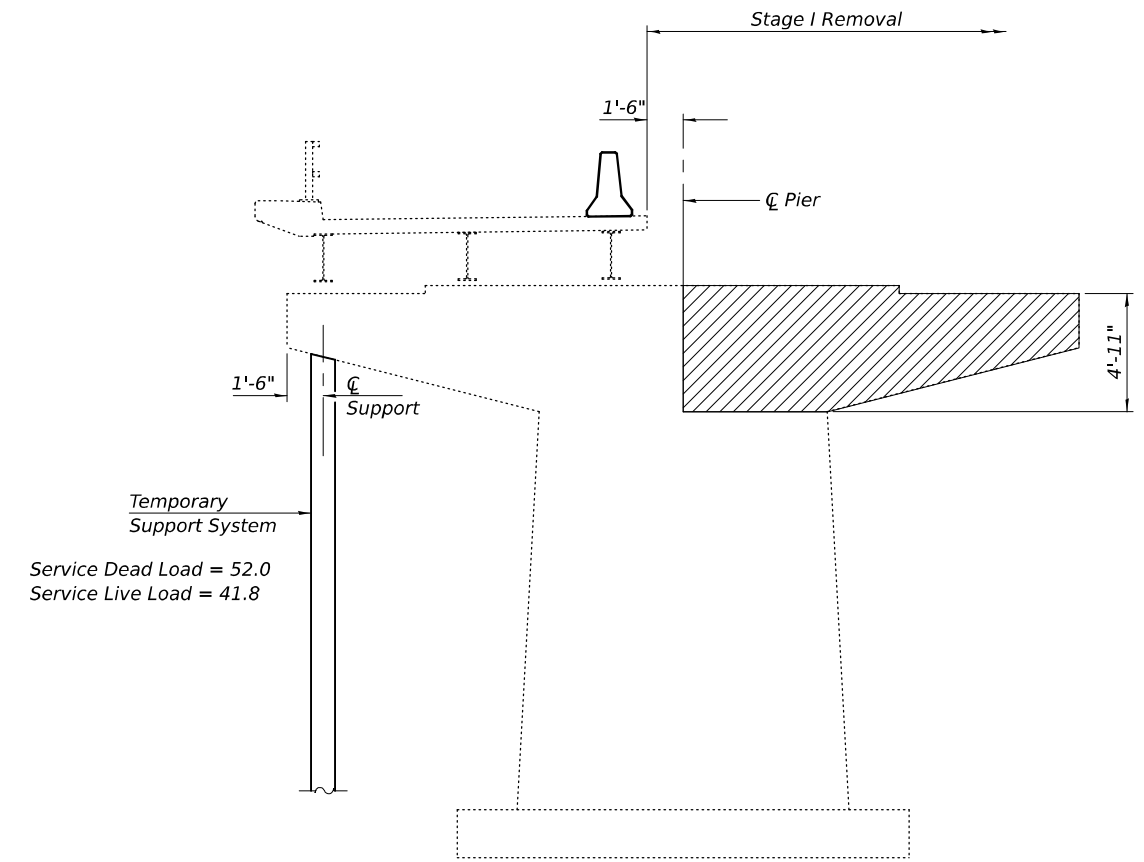
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	21	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



TEMPORARY SOIL RETENTION SYSTEM
(West Abutment looking North)



TEMPORARY SOIL RETENTION SYSTEM
(East Abutment looking North)



PIER STAGE REMOVAL SKETCH
(Pier 1 & 2 looking East)

Service Dead Load = 52.0
Service Live Load = 41.8

Notes:
Install Temporary Support System prior to Stage I Removal of the superstructure. System to remain in place until Stage II Removal of the superstructure is complete. See Special Provision.
Hatched area indicates the maximum pier area that may be removed to allow Stage I Construction. Remaining portions to be removed shall be removed during Stage II Removal. Cost included with Removal of Existing Structures.

Notes:
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
The existing abutment footings shall be completely removed.
Removal of existing slopewall shall be included in the cost of Removal of Existing Structures.

MODEL: 0570257-70871-004
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DESIGNED -	RYAN P. NEGANGARD
CHECKED -	TIFFANY L. MEIER
DRAWN -	GLENN W. STOVER
CHECKED -	R.P.N. / T.L.M.

EXAMINED	<i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>Jayne F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES

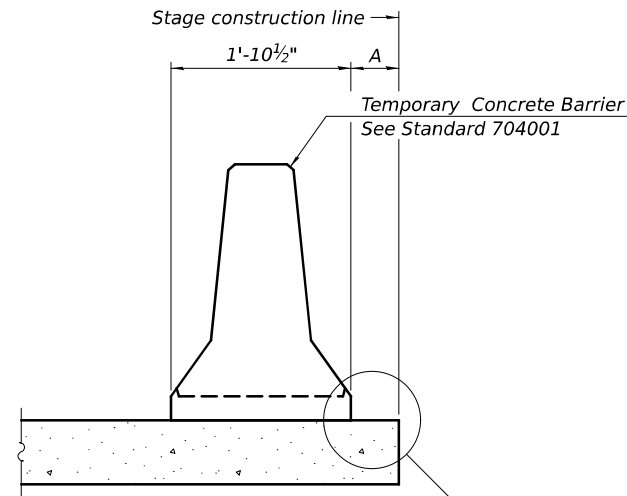
DATE -	12/5/2023
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.S.R.S. & TEMPORARY SUPPORT SYSTEM
STRUCTURE NO. 057-0257

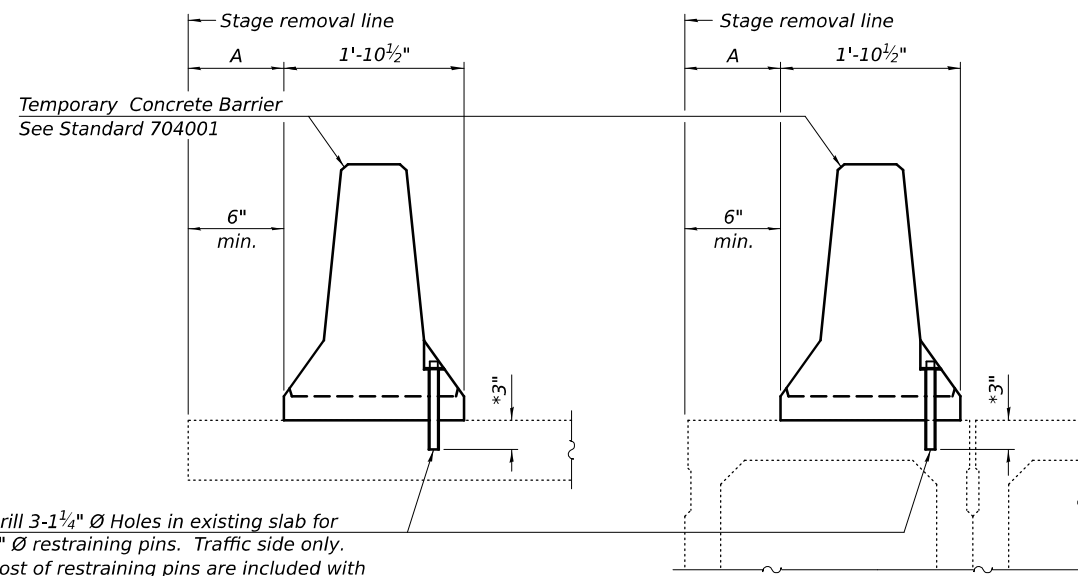
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	22	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

MODEL: 0570257-70871-005
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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

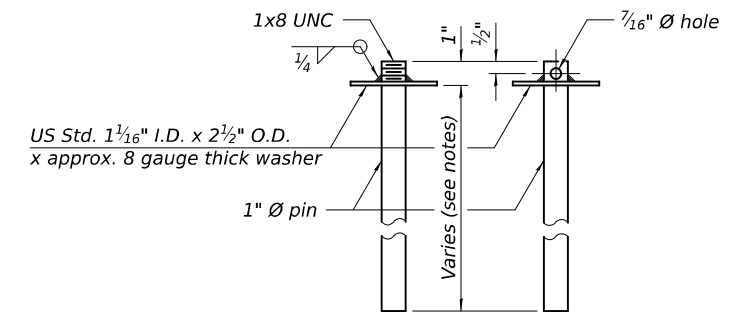


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

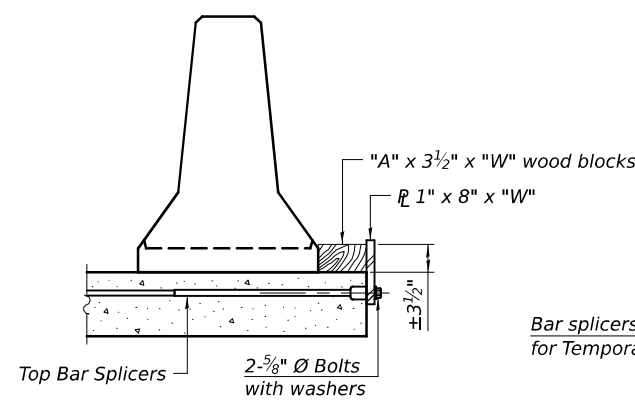
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

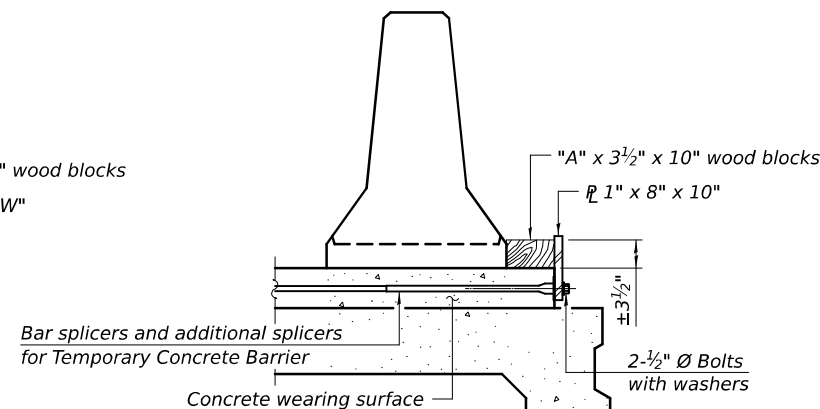


RESTRAINING PIN

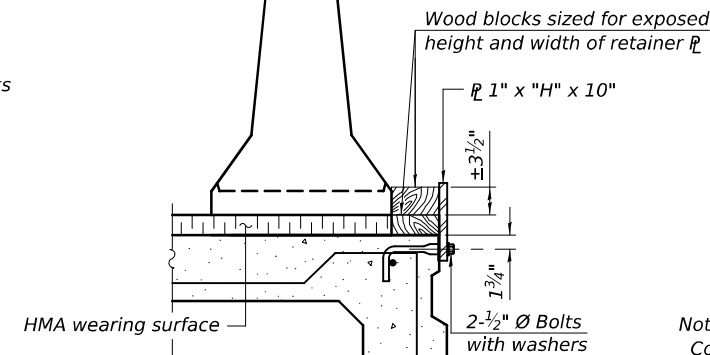
SECTIONS THRU SLAB OR DECK BEAM



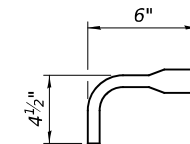
DETAIL I



DETAIL II



DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III

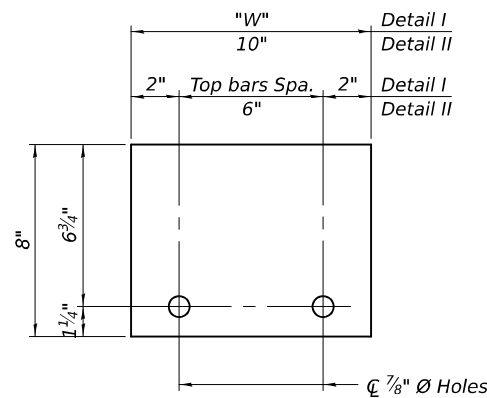
Notes:

- 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.

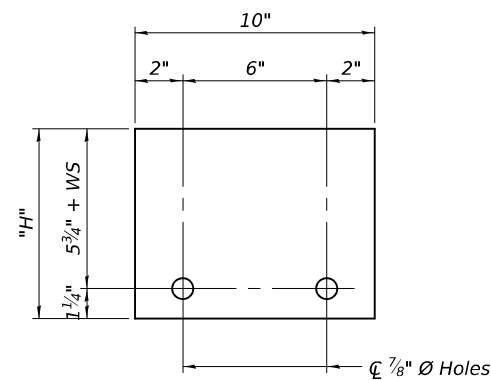
Detail I - Installation for a new bridge deck or bridge slab.

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.



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



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

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 5-15-2023

DESIGNED - RYAN P. NEGANGARD	EXAMINED
CHECKED - TIFFANY L. MEIER	PASSED
DRAWN - GLENN W. STOVER	
CHECKED - R.P.N. / T.L.M.	

DATE - 12/5/2023
 ENGINEER OF BRIDGES AND STRUCTURES

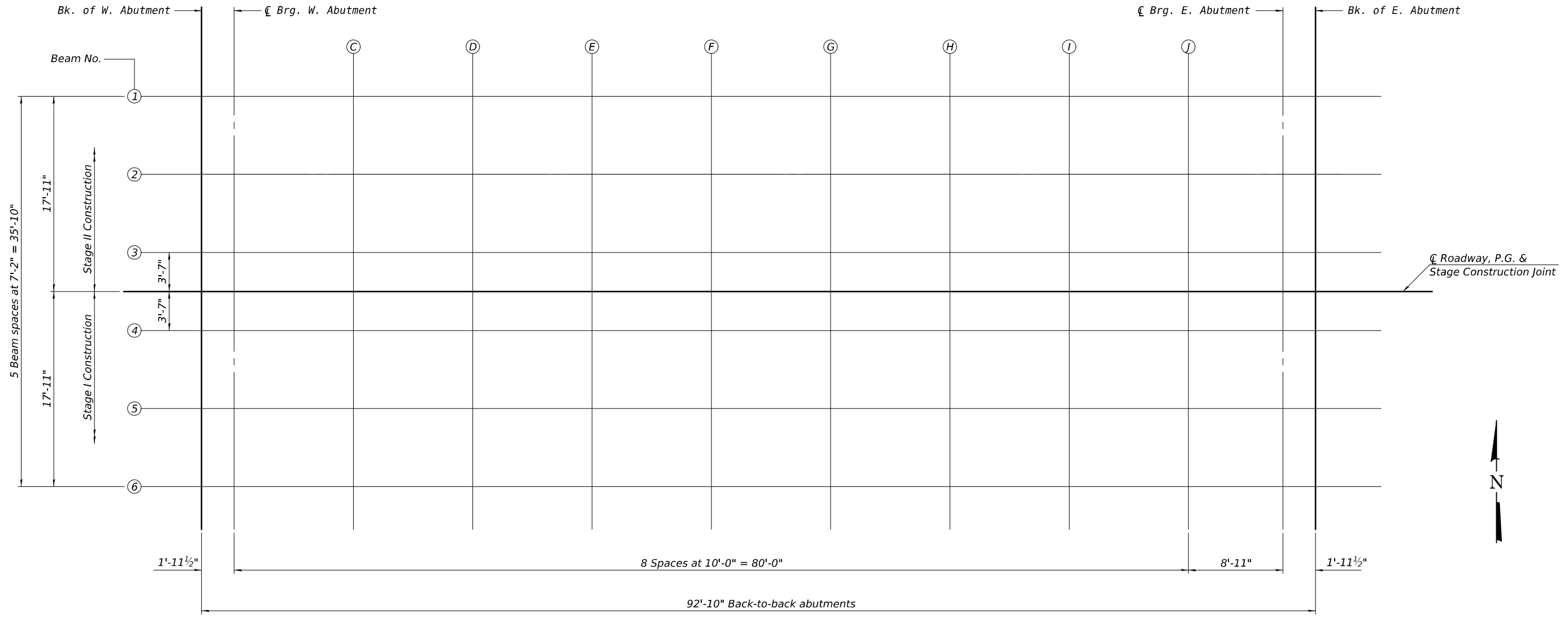
REVISIONS	
REVISIONS	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
 STRUCTURE NO. 057-0257

SHEET 5 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	23	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



PLAN

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	-17.92	706.44	706.46
☐ Brg. W. Abut.	43+48.54	-17.92	706.44	706.46
C	43+58.54	-17.92	706.43	706.51
D	43+68.54	-17.92	706.43	706.56
E	43+78.54	-17.92	706.42	706.58
F	43+88.54	-17.92	706.42	706.60
G	43+98.54	-17.92	706.41	706.59
H	44+08.54	-17.92	706.41	706.56
I	44+18.54	-17.92	706.40	706.53
J	44+28.54	-17.92	706.40	706.47
☐ Brg. E. Abut.	44+37.46	-17.92	706.40	706.42
Bk. of E. Abut.	44+39.42	-17.92	706.39	706.41

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	-10.75	706.58	706.60
☐ Brg. W. Abut.	43+48.54	-10.75	706.58	706.60
C	43+58.54	-10.75	706.57	706.64
D	43+68.54	-10.75	706.57	706.69
E	43+78.54	-10.75	706.56	706.72
F	43+88.54	-10.75	706.56	706.73
G	43+98.54	-10.75	706.55	706.73
H	44+08.54	-10.75	706.55	706.70
I	44+18.54	-10.75	706.54	706.66
J	44+28.54	-10.75	706.54	706.60
☐ Brg. E. Abut.	44+37.46	-10.75	706.53	706.55
Bk. of E. Abut.	44+39.42	-10.75	706.53	706.55

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	-3.58	706.68	706.70
☐ Brg. W. Abut.	43+48.54	-3.58	706.68	706.70
C	43+58.54	-3.58	706.68	706.75
D	43+68.54	-3.58	706.67	706.80
E	43+78.54	-3.58	706.67	706.82
F	43+88.54	-3.58	706.66	706.84
G	43+98.54	-3.58	706.66	706.83
H	44+08.54	-3.58	706.65	706.81
I	44+18.54	-3.58	706.65	706.77
J	44+28.54	-3.58	706.64	706.71
☐ Brg. E. Abut.	44+37.46	-3.58	706.64	706.66
Bk. of E. Abut.	44+39.42	-3.58	706.64	706.66

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DESIGNED - RYAN P. NEGANGARD
CHECKED - TIFFANY L. MEIER
DRAWN - GLENN W. STOVER
CHECKED - R.P.N. / T.L.M.

EXAMINED *Mark Shuffler*
PASSED *Jayne F. [Signature]*
ENGINEER OF BRIDGES AND STRUCTURES

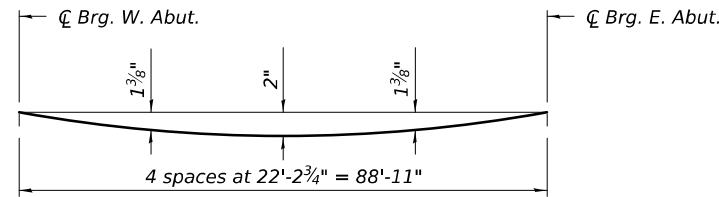
DATE - 12/5/2023
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0257

SHEET 6 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	24	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



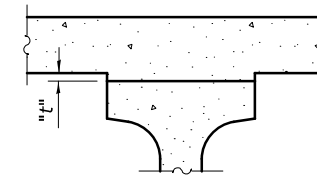
DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete excluding beams.)

Note:

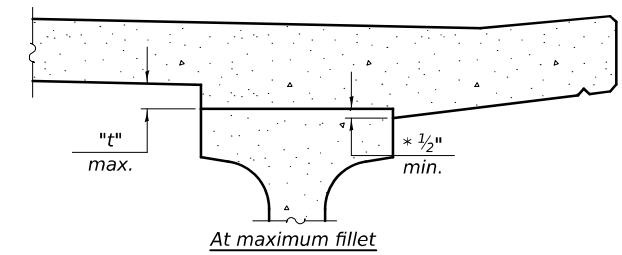
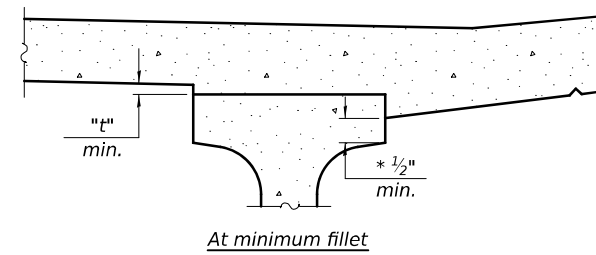
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown.

**CL ROADWAY, P.G. &
STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	0.00	706.74	706.76
CL Brg. W. Abut.	43+48.54	0.00	706.74	706.76
C	43+58.54	0.00	706.73	706.81
D	43+68.54	0.00	706.73	706.85
E	43+78.54	0.00	706.72	706.88
F	43+88.54	0.00	706.72	706.89
G	43+98.54	0.00	706.71	706.89
H	44+08.54	0.00	706.71	706.86
I	44+18.54	0.00	706.70	706.82
J	44+28.54	0.00	706.70	706.77
CL Brg. E. Abut.	44+37.46	0.00	706.69	706.71
Bk. of E. Abut.	44+39.42	0.00	706.69	706.71



INTERIOR BEAMS



* Variable (not less than 1/2")

EXTERIOR BEAMS

To determine "t": After all beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown, minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	3.58	706.68	706.70
CL Brg. W. Abut.	43+48.54	3.58	706.68	706.70
C	43+58.54	3.58	706.68	706.75
D	43+68.54	3.58	706.67	706.80
E	43+78.54	3.58	706.67	706.82
F	43+88.54	3.58	706.66	706.84
G	43+98.54	3.58	706.66	706.83
H	44+08.54	3.58	706.65	706.81
I	44+18.54	3.58	706.65	706.77
J	44+28.54	3.58	706.64	706.71
CL Brg. E. Abut.	44+37.46	3.58	706.64	706.66
Bk. of E. Abut.	44+39.42	3.58	706.64	706.66

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	10.75	706.58	706.60
CL Brg. W. Abut.	43+48.54	10.75	706.58	706.60
C	43+58.54	10.75	706.57	706.64
D	43+68.54	10.75	706.57	706.69
E	43+78.54	10.75	706.56	706.72
F	43+88.54	10.75	706.56	706.73
G	43+98.54	10.75	706.55	706.73
H	44+08.54	10.75	706.55	706.70
I	44+18.54	10.75	706.54	706.66
J	44+28.54	10.75	706.54	706.60
CL Brg. E. Abut.	44+37.46	10.75	706.53	706.55
Bk. of E. Abut.	44+39.42	10.75	706.53	706.55

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. of W. Abut.	43+46.58	17.92	706.44	706.46
CL Brg. W. Abut.	43+48.54	17.92	706.44	706.46
C	43+58.54	17.92	706.43	706.51
D	43+68.54	17.92	706.43	706.56
E	43+78.54	17.92	706.42	706.58
F	43+88.54	17.92	706.42	706.60
G	43+98.54	17.92	706.41	706.59
H	44+08.54	17.92	706.41	706.56
I	44+18.54	17.92	706.40	706.53
J	44+28.54	17.92	706.40	706.47
CL Brg. E. Abut.	44+37.46	17.92	706.40	706.42
Bk. of E. Abut.	44+39.42	17.92	706.39	706.41

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DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shuffler</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	ENGINEER OF BRIDGE DESIGN	
DRAWN - GLENN W. STOVER	PASSED - <i>James F. [Signature]</i>	REVISED -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0257**

SHEET 7 OF 25 SHEETS

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 25	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

N. EDGE OF SHOULDER

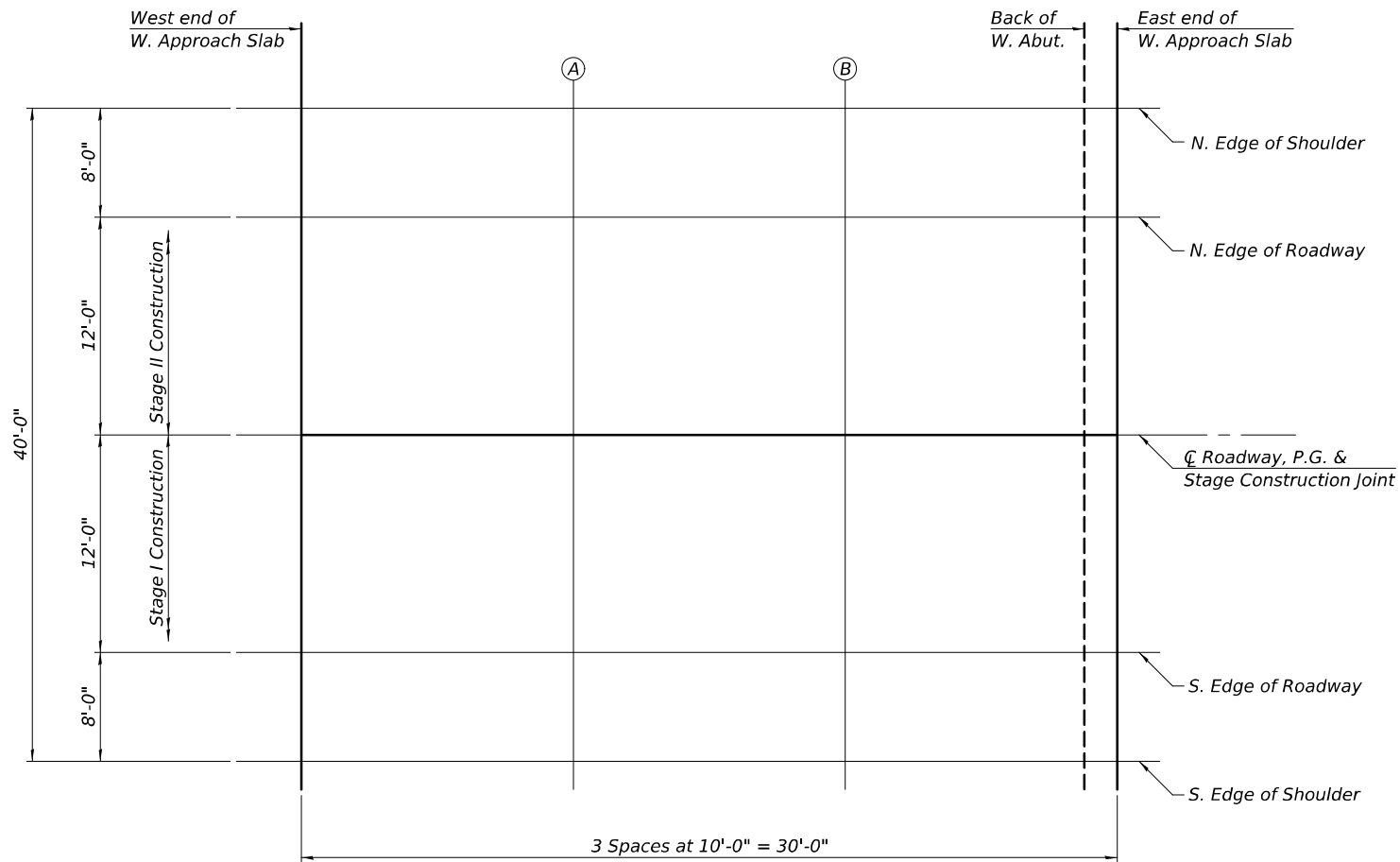
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Approach	43+17.58	-20.00	706.41	706.43
A	43+27.58	-20.00	706.41	706.43
B	43+37.58	-20.00	706.40	706.42
E. End of W. Approach	43+47.58	-20.00	706.40	706.42

N. EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Approach	43+17.58	-12.00	706.57	706.59
A	43+27.58	-12.00	706.57	706.59
B	43+37.58	-12.00	706.56	706.58
E. End of W. Approach	43+47.58	-12.00	706.56	706.58

CL ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Approach	43+17.58	0.00	706.75	706.77
A	43+27.58	0.00	706.75	706.77
B	43+37.58	0.00	706.74	706.76
E. End of W. Approach	43+47.58	0.00	706.74	706.76



PLAN

S. EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Approach	43+17.58	12.00	706.57	706.59
A	43+27.58	12.00	706.57	706.59
B	43+37.58	12.00	706.56	706.58
E. End of W. Approach	43+47.58	12.00	706.56	706.58

S. EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Approach	43+17.58	20.00	706.41	706.43
A	43+27.58	20.00	706.41	706.43
B	43+37.58	20.00	706.40	706.42
E. End of W. Approach	43+47.58	20.00	706.40	706.42

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DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Steffen</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jayne F. [Signature]</i>	REVISOR -
DRAWN - GLENN W. STOVER	ENGINEER OF BRIDGES AND STRUCTURES	REVISION -
CHECKED - R.P.N. / T.L.M.		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF W. APPROACH SLAB ELEVATIONS
STRUCTURE NO. 057-0257**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	26	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

N. EDGE OF SHOULDER

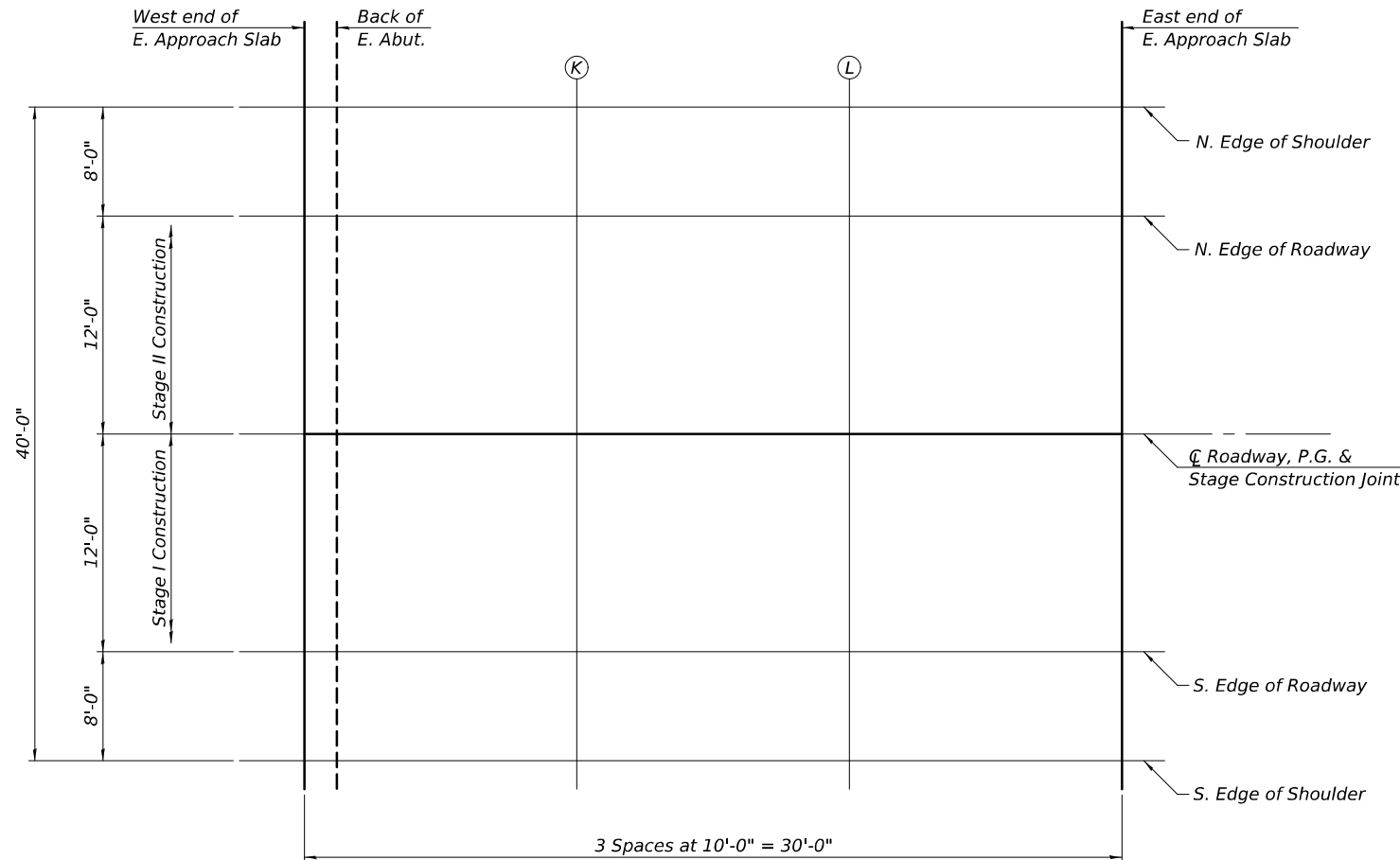
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Approach	44+38.42	-20.00	706.35	706.37
K	44+48.42	-20.00	706.35	706.37
L	44+58.42	-20.00	706.34	706.36
E. End of E. Approach	44+68.42	-20.00	706.34	706.36

N. EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Approach	44+38.42	-12.00	706.51	706.53
K	44+48.42	-12.00	706.51	706.53
L	44+58.42	-12.00	706.50	706.52
E. End of E. Approach	44+68.42	-12.00	706.50	706.52

CL ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Approach	44+38.42	0.00	706.69	706.71
K	44+48.42	0.00	706.69	706.71
L	44+58.42	0.00	706.68	706.70
E. End of E. Approach	44+68.42	0.00	706.68	706.70



PLAN

S. EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Approach	44+38.42	12.00	706.51	706.53
K	44+48.42	12.00	706.51	706.53
L	44+58.42	12.00	706.50	706.52
E. End of E. Approach	44+68.42	12.00	706.50	706.52

S. EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Approach	44+38.42	20.00	706.35	706.37
K	44+48.42	20.00	706.35	706.37
L	44+58.42	20.00	706.34	706.36
E. End of E. Approach	44+68.42	20.00	706.34	706.36

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DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shuffin</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jayne F. [Signature]</i>	REVISER -
DRAWN - GLENN W. STOVER	REVISER -	REVISER -
CHECKED - R.P.N. / T.L.M.		

ENGINEER OF BRIDGES AND STRUCTURES
ENGINEER OF BRIDGES AND STRUCTURES

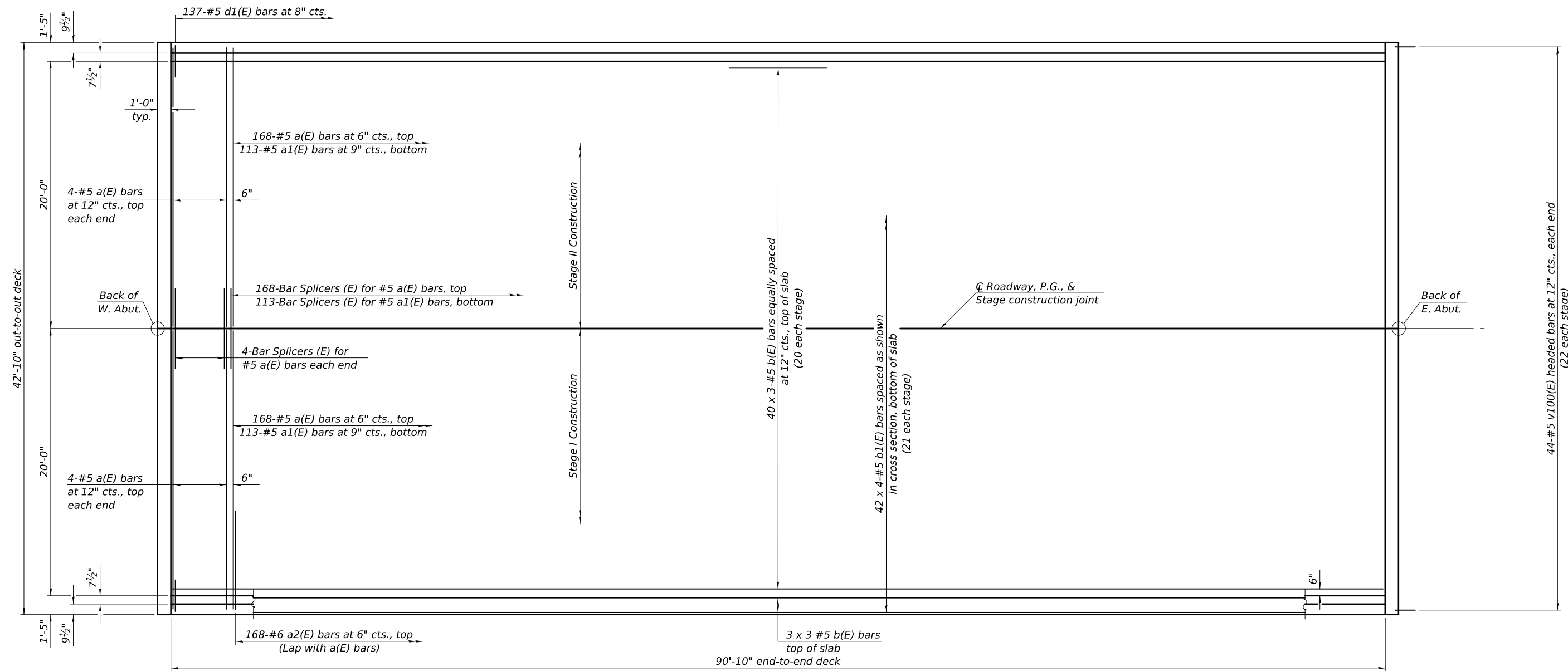
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF E. APPROACH SLAB ELEVATIONS
STRUCTURE NO. 057-0257**

SHEET 9 OF 25 SHEETS

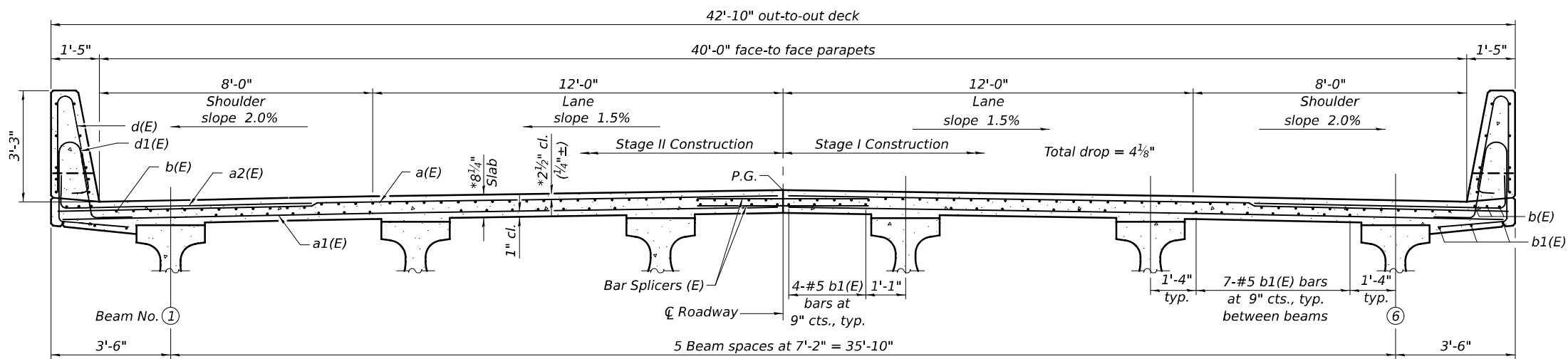
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	27	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

MODEL: 0570257-70871-010
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MINIMUM BAR LAP
 #5 bar = 3'-6"

PLAN



CROSS SECTION
 (Looking East)

Notes:
 See sheet 11 of 25 for superstructure details and Bill of Material.
 Bars indicated thus 40 x 3-#5 etc. indicates 40 lines of bars with 3 lengths per line.

* Prior to grinding

DESIGNED - RYAN P. NEGANGARD	EXAMINED	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED	REVISER -
DRAWN - GLENN W. STOVER		REVISER -
CHECKED - R.P.N. / T.L.M.		

<i>Mark Shuff</i> ENGINEER OF BRIDGE DESIGN
<i>Jayne F. ...</i> ENGINEER OF BRIDGES AND STRUCTURES

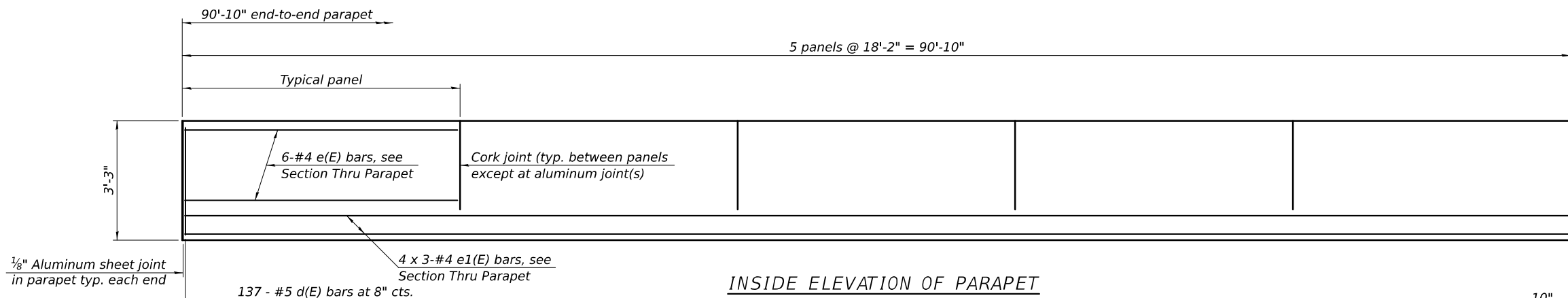
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
 STRUCTURE NO. 057-0257

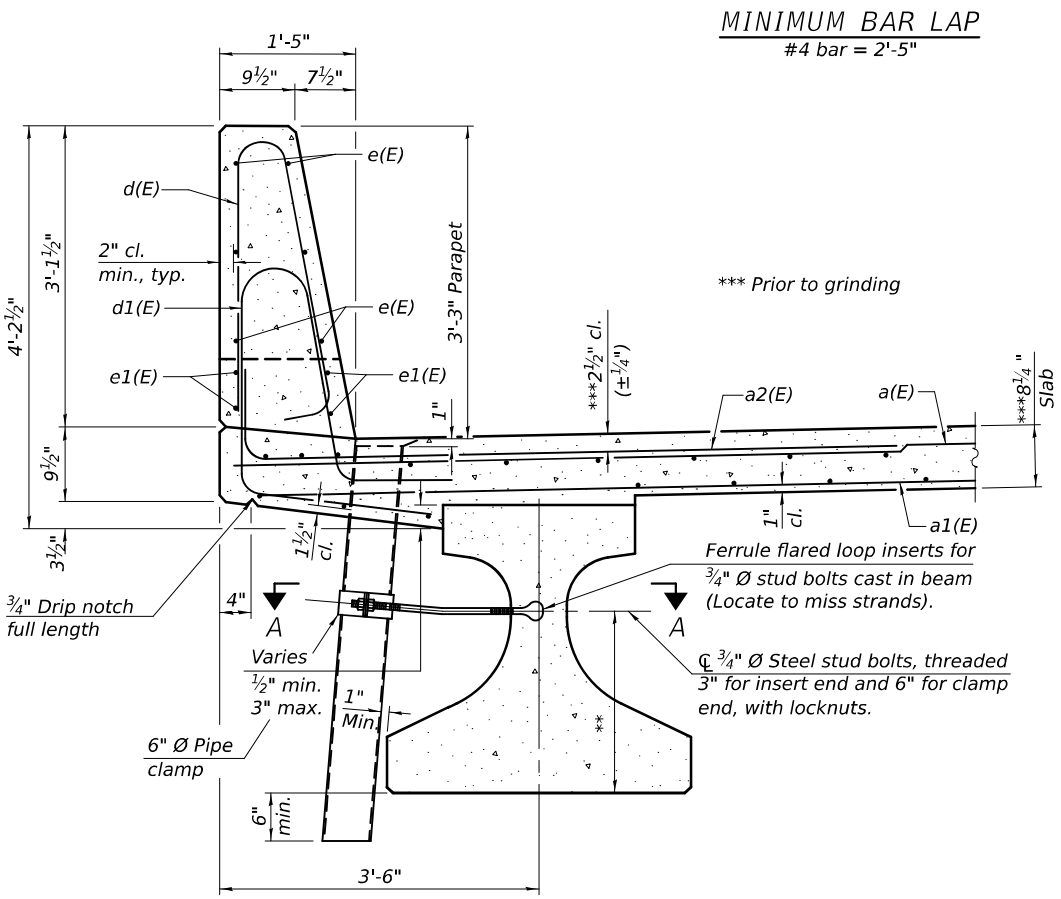
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317	28BR-1	MCLEAN	28	66
CONTRACT NO. 70871				

SHEET 10 OF 25 SHEETS

ILLINOIS FED. AID PROJECT

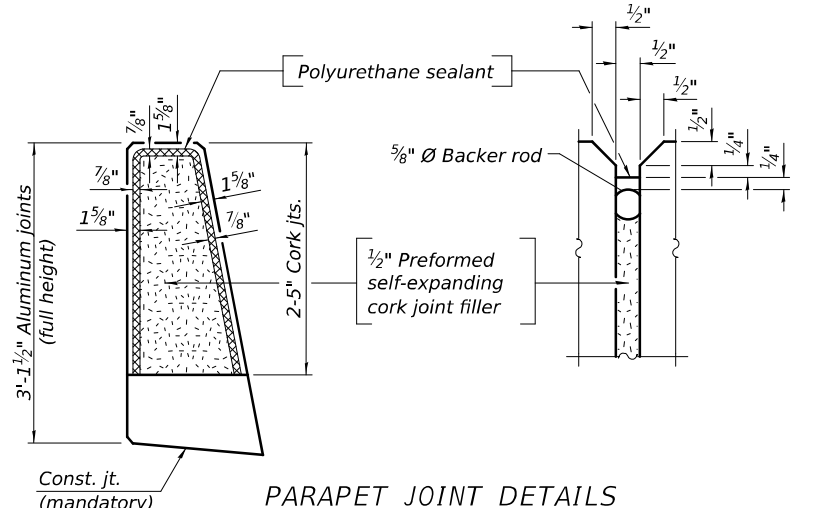


INSIDE ELEVATION OF PARAPET



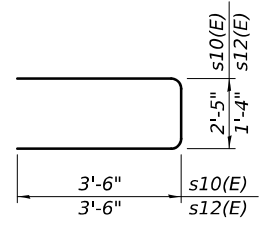
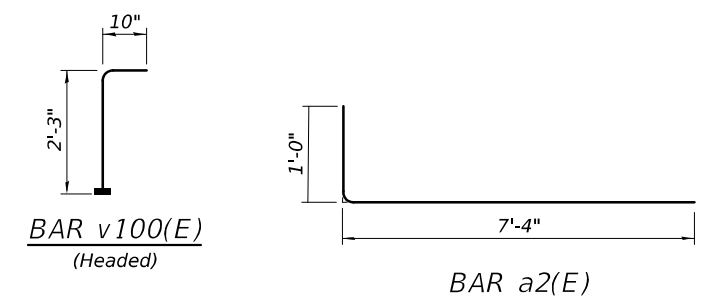
SECTION THRU PARAPET

**For insert locations see sheet 17 of 25.

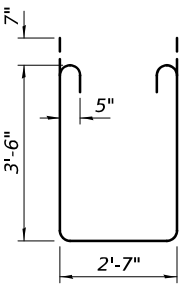


PARAPET JOINT DETAILS

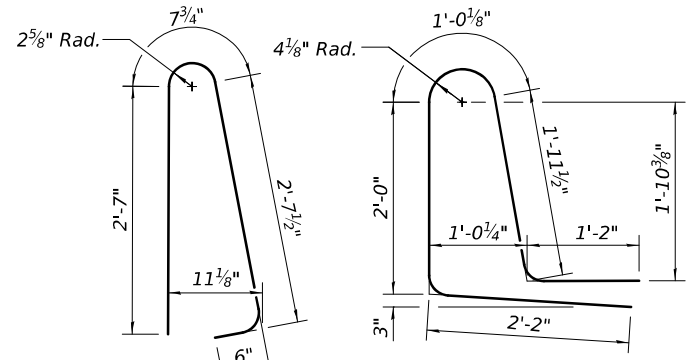
Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the fiberglass floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
 The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.
 The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.
 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.
 The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.
 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.



BARS s10(E) & s12(E)



BAR s11(E)



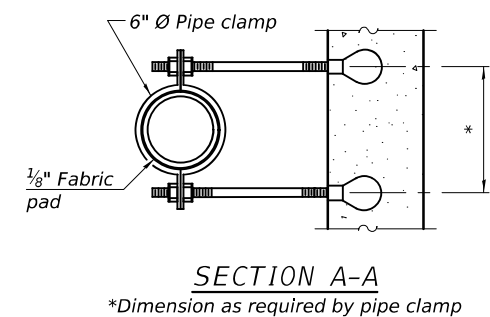
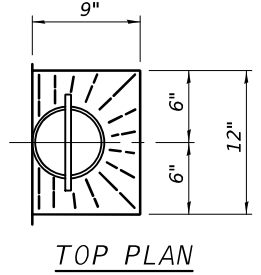
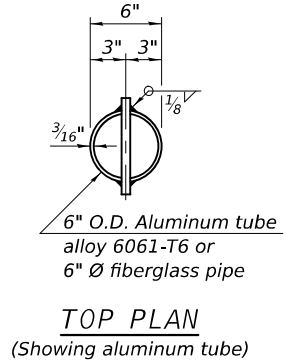
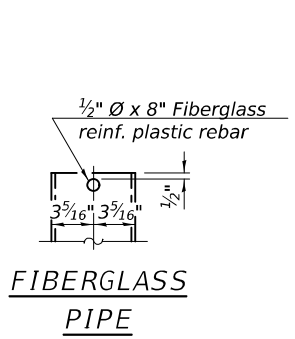
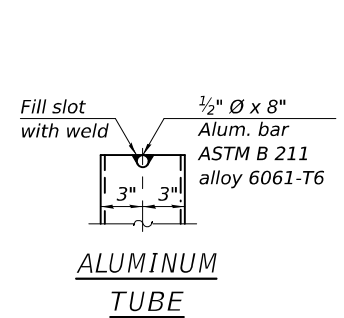
BAR d(E)

BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	352	#5	21'-1"	—
a1(E)	226	#5	20'-3"	—
a2(E)	336	#6	8'-4"	└
b(E)	138	#5	32'-6"	—
b1(E)	168	#5	25'-3"	—
d(E)	274	#5	6'-5"	└
d1(E)	274	#5	8'-5"	└
e(E)	60	#4	17'-10"	—
e1(E)	24	#4	31'-10"	—
m10(E)	16	#6	21'-1"	—
m11(E)	16	#6	5'-10"	—
m12(E)	8	#6	2'-8"	—
m13(E)	8	#6	3'-8"	—
m14(E)	4	#6	1'-7"	—
m15(E)	24	#5	4'-0"	—
s10(E)	64	#5	9'-5"	└
s11(E)	64	#5	10'-9"	└
s12(E)	48	#5	8'-4"	└
v100(E)	88	#5	3'-1"	└
Reinforcement Bars, Epoxy Coated		Pound		34,160
Concrete Superstructure		Cu. Yd.		164.3

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



SECTION A-A

*Dimension as required by pipe clamp

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DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Steffen</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	ENGINEER OF BRIDGE DESIGN	
DRAWN - GLENN W. STOVER	PASSED - <i>James F. [Signature]</i>	REVISOR -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -

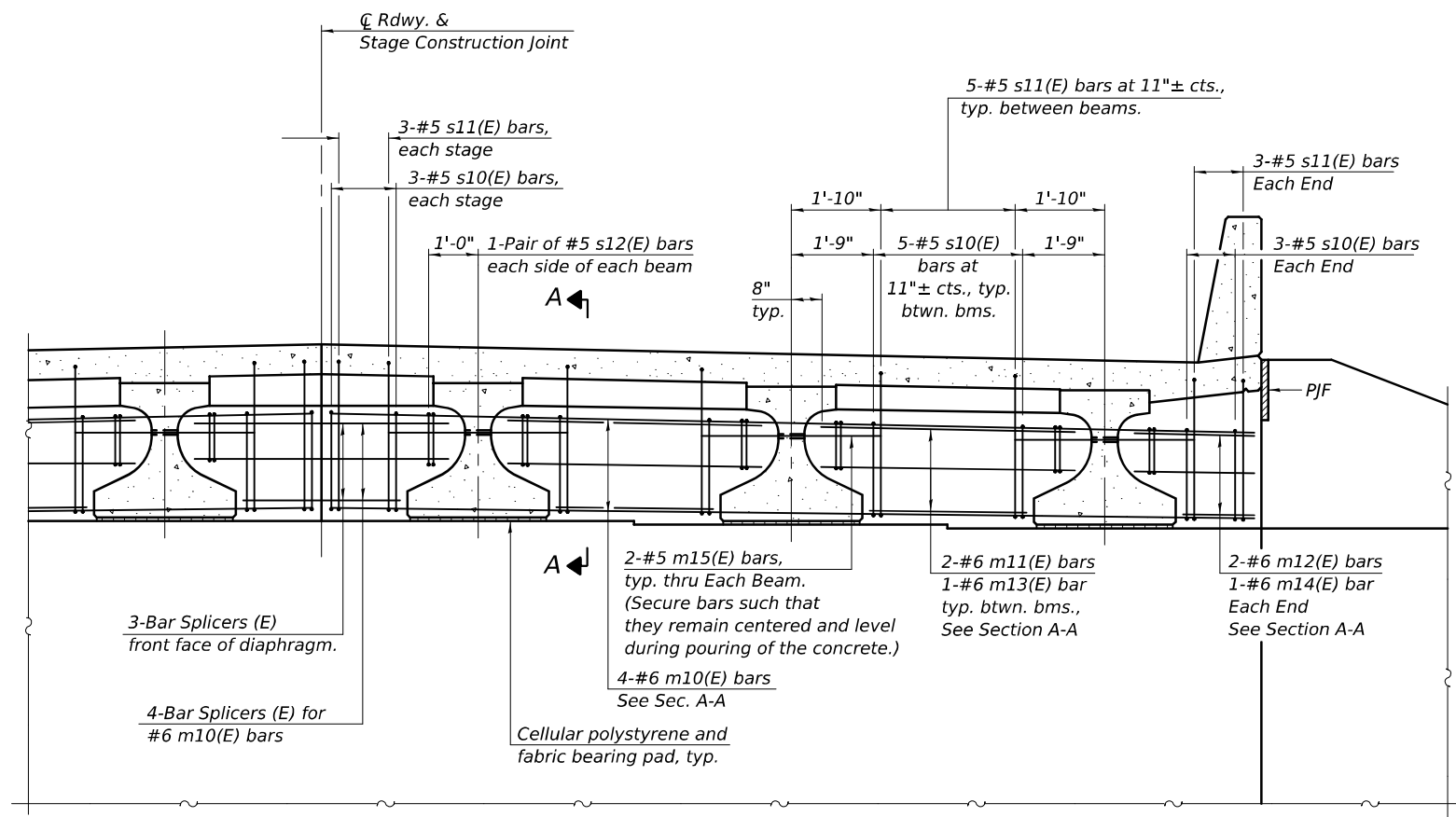
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 057-0257

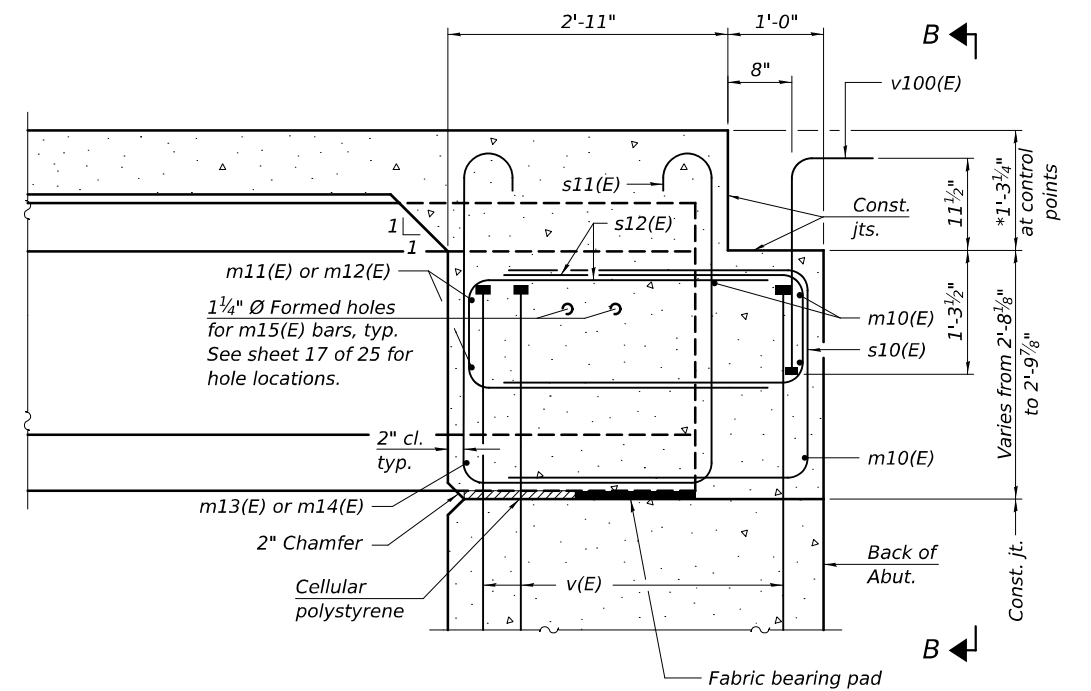
SHEET 11 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	29	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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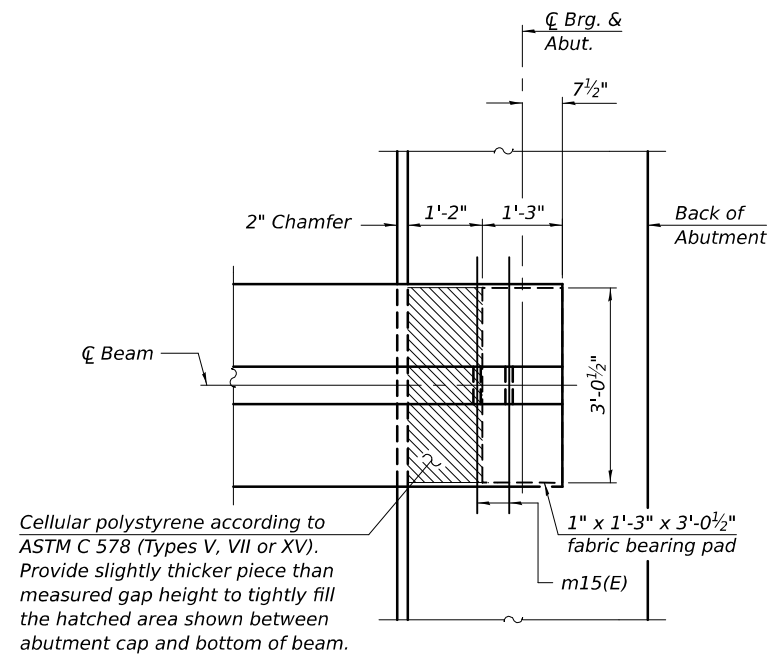
DIAPHRAGM AT ABUTMENT



SECTION A-A



VIEW B-B



PLAN AT ABUTMENT
 (Showing bottom flange of beam)

Notes:
 See sheet 11 of 25 for superstructure details and Bill of Material.
 See sheet 14 of 25 for PJF details.
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.
 See sheet 23 of 25 for bar splicer details.

* Prior to grinding

DESIGNED - RYAN P. NEGANGARD	EXAMINED - Mark Stoffer	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	ENGINEER OF BRIDGE DESIGN	
DRAWN - GLENN W. STOVER	PASSED - Joyce F. [Signature]	REVISED -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
 STRUCTURE NO. 057-0257

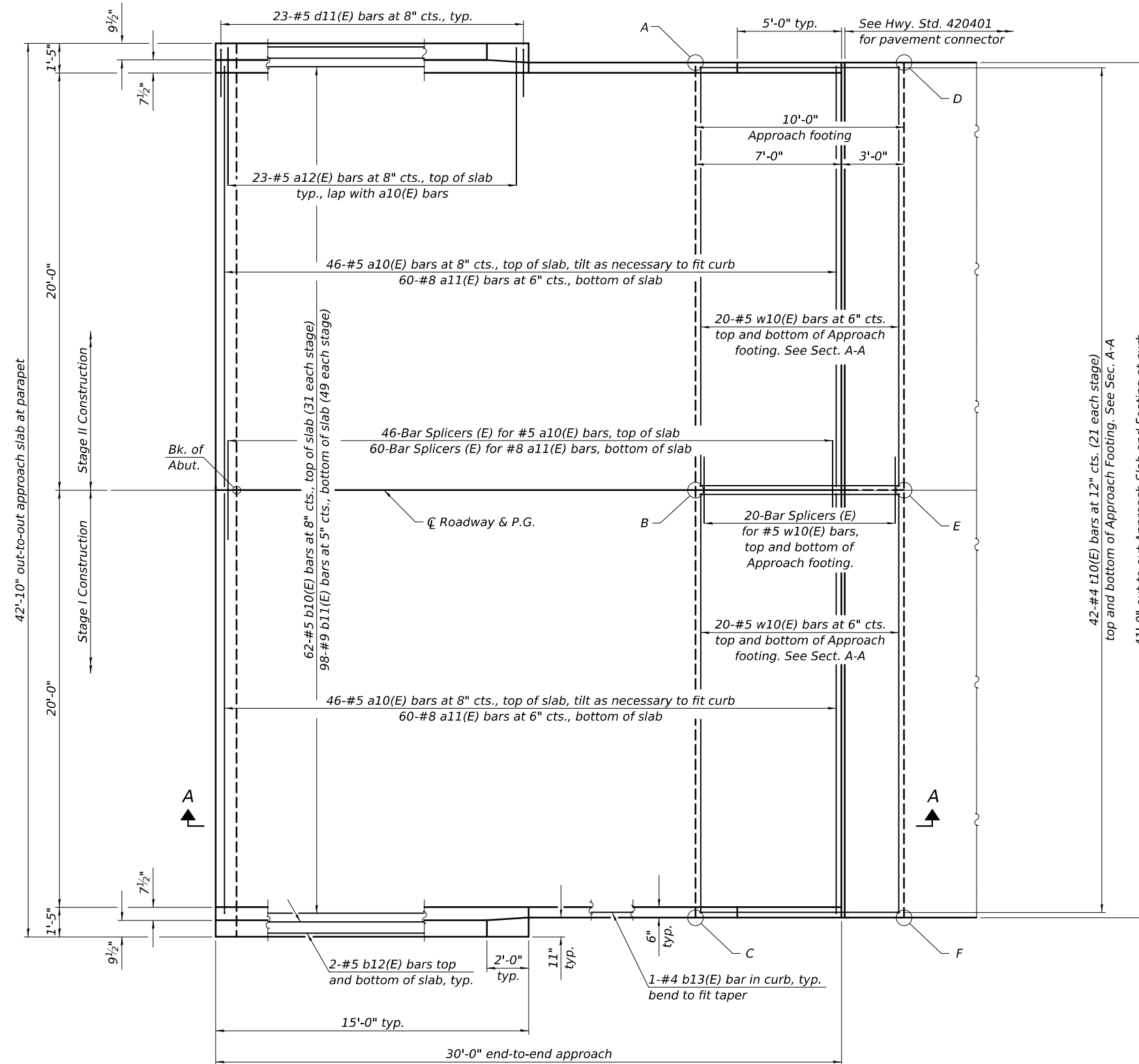
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	30	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

SHEET 12 OF 25 SHEETS

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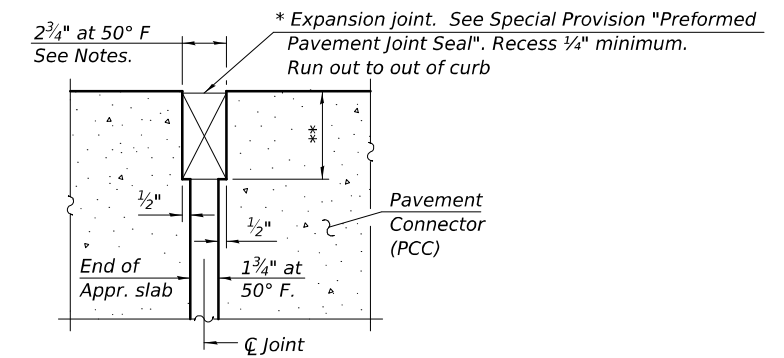
**TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING**

Point/ Location	West Approach		East Approach	
	Top	Bottom	Top	Bottom
A - SE	705.15	704.32	A - NW	705.08
B - E C	705.50	704.67	B - W C	705.43
C - NE	705.15	704.32	C - SW	705.08
D - SW	705.15	704.32	D - NE	705.08
E - W C	705.50	704.67	E - E C	705.43
F - NW	705.15	704.32	F - SE	705.08

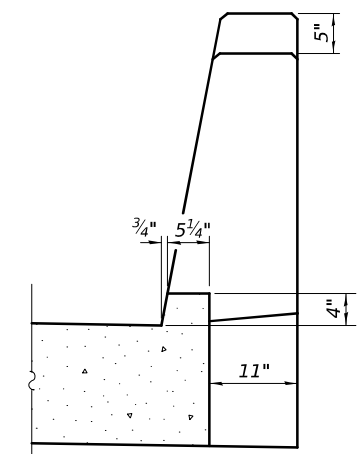


PLAN

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



DETAIL A



VIEW B-B



(Sheet 1 of 2)

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DESIGNED - RYAN P. NEGANGARD
CHECKED - TIFFANY L. MEIER
DRAWN - GLENN W. STOVER
CHECKED - R.P.N. / T.L.M.

EXAMINED
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

DATE - 12/5/2023
REVISED -
REVISED -

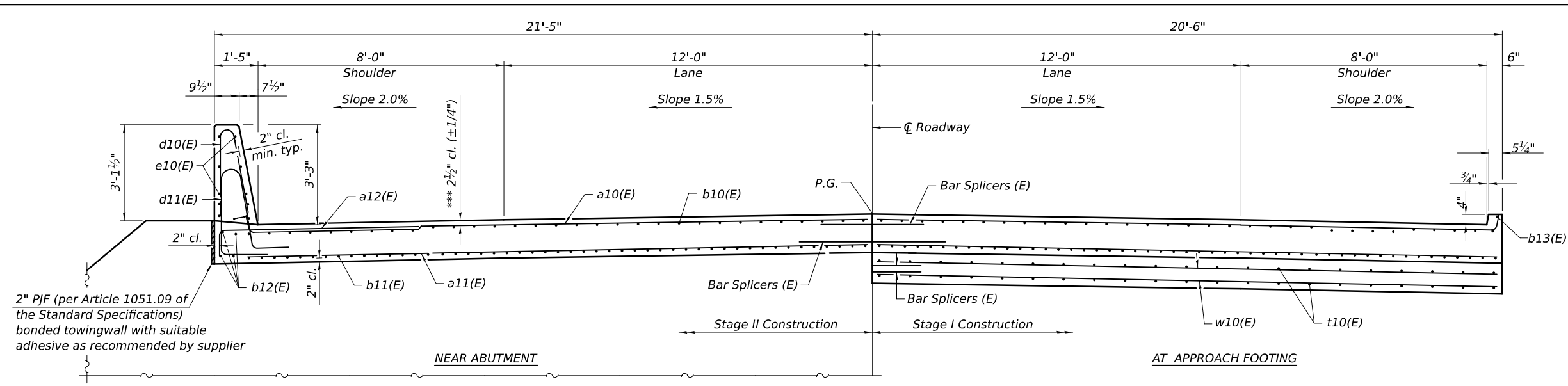
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 057-0257**

SHEET 13 OF 25 SHEETS

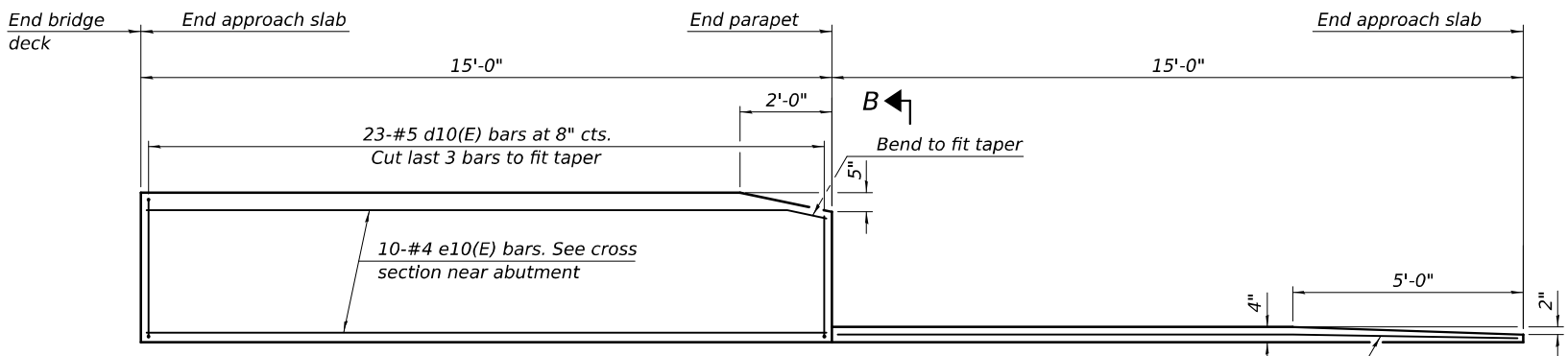
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	31	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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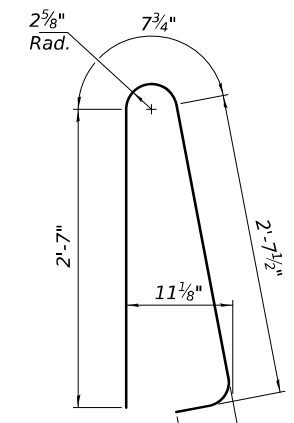


CROSS SECTION
(Looking East)

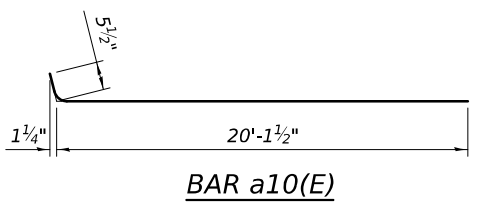
Notes:
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 25.



INSIDE ELEVATION OF PARAPET AND CURB



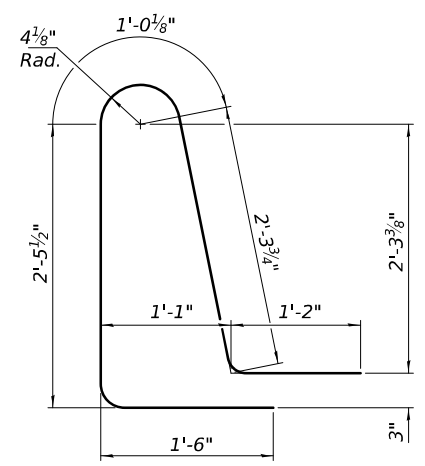
BAR d10(E)



BAR a10(E)



BAR a12(E)

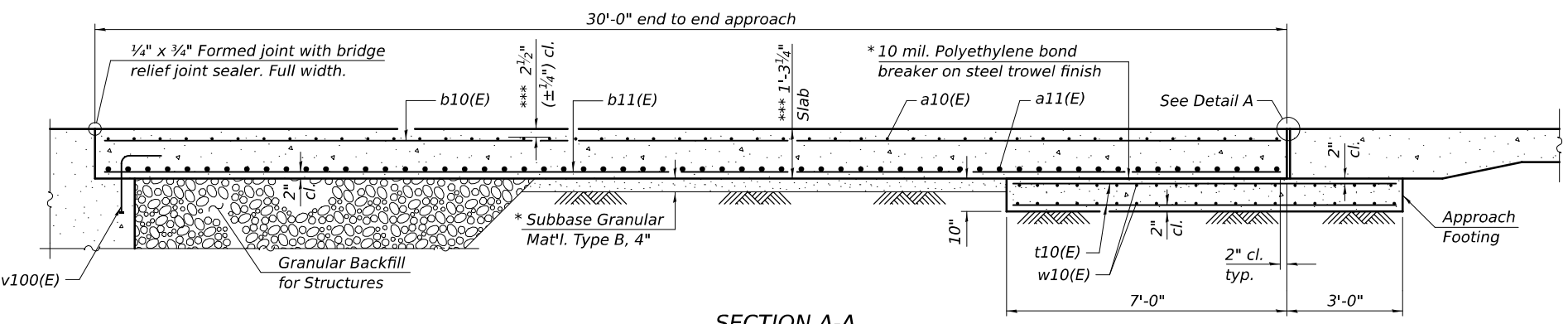


BAR d11(E)

* Cost included with Concrete Superstructure (Approach Slab).
 ** Per manufacturer recommendations
 *** Prior to grinding

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	184	#5	20'-7"	—
a11(E)	240	#8	20'-2"	—
a12(E)	92	#5	7'-4"	—
b10(E)	124	#5	29'-8"	—
b11(E)	196	#9	29'-8"	—
b12(E)	16	#5	14'-8"	—
b13(E)	4	#4	14'-8"	—
d10(E)	92	#5	6'-5"	U
d11(E)	92	#5	8'-6"	U
e10(E)	40	#4	14'-8"	—
t10(E)	168	#4	9'-8"	—
w10(E)	160	#5	20'-2"	—
Concrete Superstructure			Cu. Yd.	7.8
Concrete Superstructure (Approach Slab)			Cu. Yd.	120.0
Concrete Structures			Cu. Yd.	25.3
Reinforcement Bars, Epoxy Coated			Pound	47,740



SECTION A-A

(Sheet 2 of 2)

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DESIGNED - RYAN P. NEGANGARD
 CHECKED - TIFFANY L. MEIER
 DRAWN - GLENN W. STOVER
 CHECKED - R.P.N. / T.L.M.

EXAMINED
 PASSED
 ENGINEER OF BRIDGE DESIGN
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - 12/5/2023
 REVISED -
 REVISED -

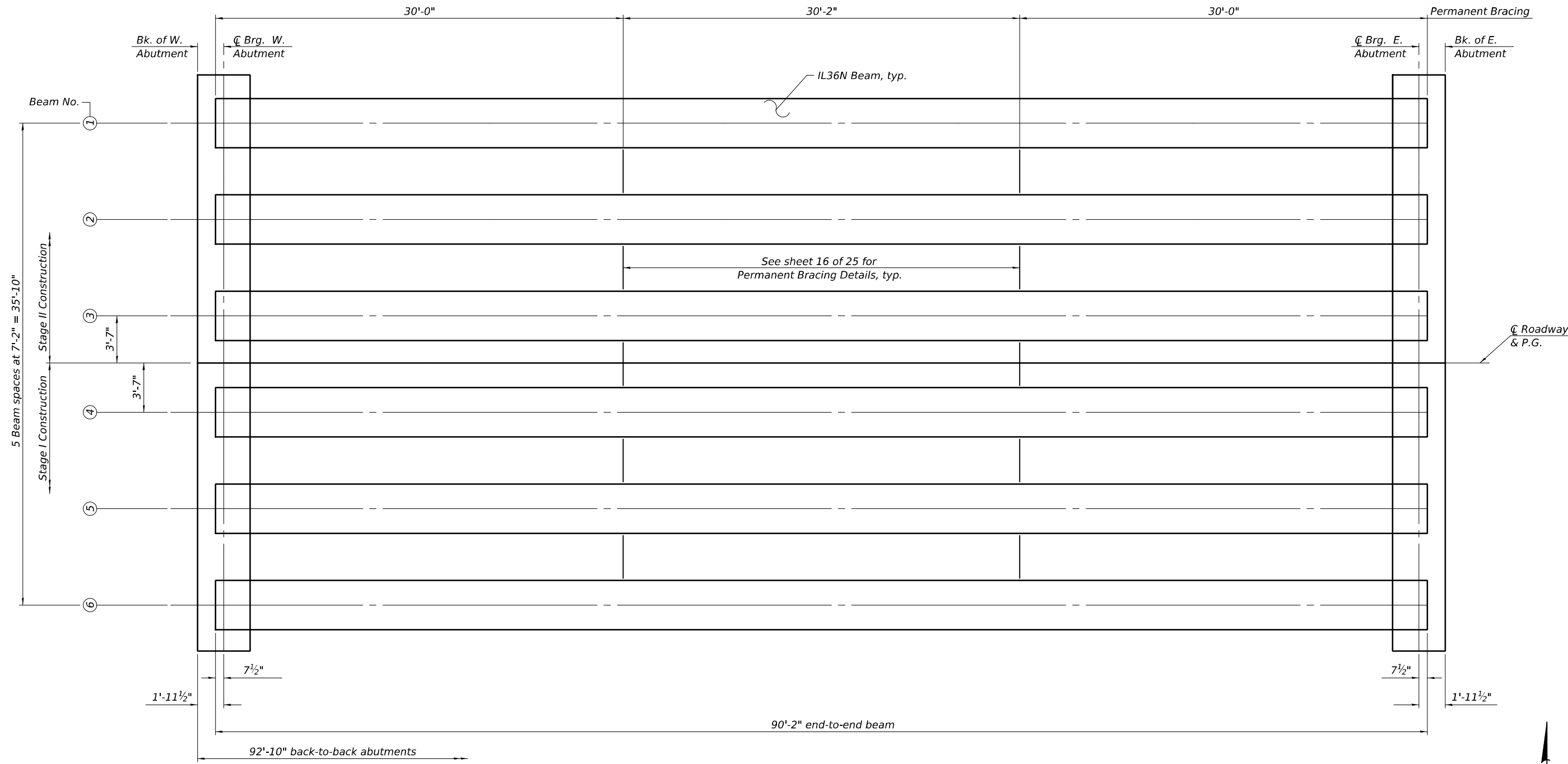
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 057-0257

SHEET 14 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	32	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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FRAMING PLAN



DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shuff</i>
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jayne F. [Signature]</i>
DRAWN - GLENN W. STOVER	
CHECKED - R.P.N. / T.L.M.	

DATE - 12/5/2023

ENGINEER OF BRIDGES AND STRUCTURES

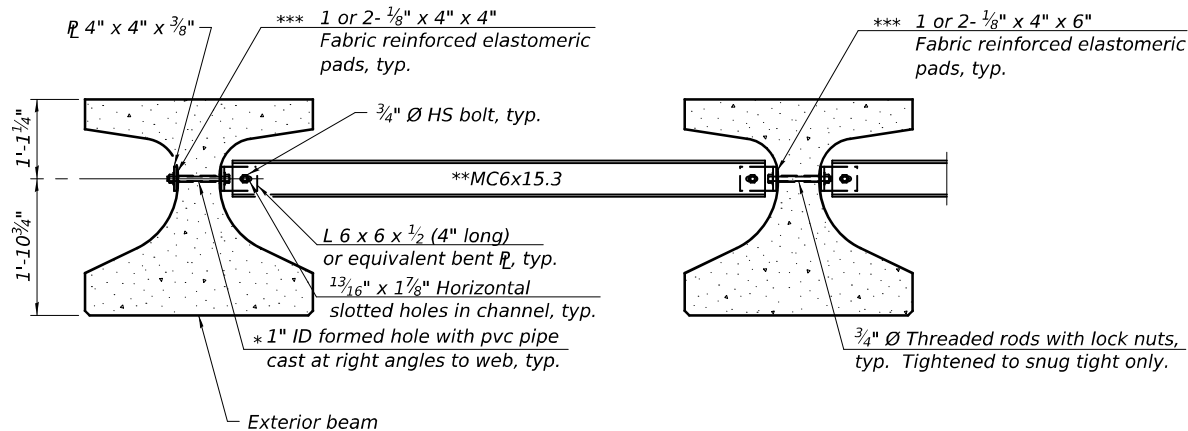
REVIS	DATE
REVIS	DATE

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN
 STRUCTURE NO. 057-0257**

SHEET 15 OF 25 SHEETS

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 33	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.

Two hardened washers are required for each set of oversized holes.

All holes shall be 1 5/16 inch diameter unless otherwise noted.

5/16 inch x 3 inch x 3 inch plate washers are required over all slotted holes.

All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

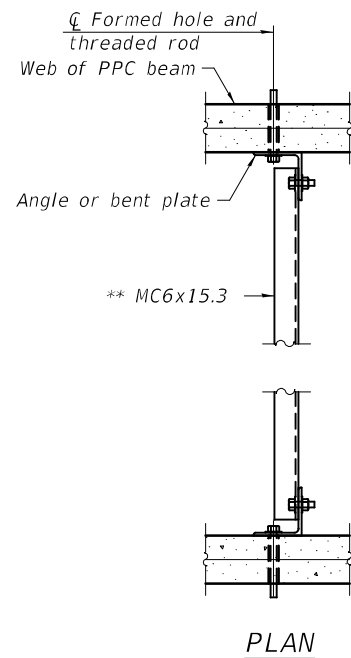
Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.

* Fabricator shall locate to miss strands within permissible tolerances.

** Alternate MC6x18 channels are permitted to facilitate material acquisition.

*** Place pads as necessary to provide a flat mounting surface between the steel and concrete.

**PERMANENT BRACING DETAILS FOR
IL36 BEAMS**



PLAN

INTERIOR BEAM MOMENT TABLE		
		0.5 Sp. 1
I	(in ⁴)	100,433
I'	(in ⁴)	326,436
S _b	(in ³)	6,832
S _b '	(in ³)	12,589
S _t	(in ³)	4,715
S _t '	(in ³)	32,417
DC1	(k/ft)	1,548
M _{DC1}	(k)	1,529.8
DC2	(k/ft)	0.175
M _{DC2}	(k)	172.9
DW	(k/ft)	0.358
M _{DW}	(k)	353.8
LLDF		0.609
M _{L + IM}	(k)	1,454.8

INTERIOR BEAM REACTION TABLE		
		Abutments
LLDF		0.755
OCF		1.000
R _{DC1}	(k)	68.8
R _{DC2}	(k)	7.8
R _{DW}	(k)	15.9
R _L	(k)	70.1
R _{IM}	(k)	16.1
R _{Total (Strength I)(Impact)}	(k)	270.5
R _{Total (Strength I)(No Impact)}	(k)	242.3

- I: Non-composite moment of inertia of beam section (in⁴).
- I': Composite moment of inertia of beam section (in⁴).
- S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_b': Composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_t: Non-composite section modulus for the top fiber of the prestressed beam (in³).
- S_t': Composite section modulus for the top fiber of the prestressed beam (in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.
- M_{L + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- OCF: Obtuse Correction Factor computed according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.
- R_{DC1}: Un-factored reaction due to non-composite dead load (kip).
- R_{DC2}: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
- R_{DW}: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
- R_L: Un-factored live load reaction (kip).
- R_{IM}: Un-factored dynamic load allowance (impact) (kip).
- R_{Total (Strength I)(Impact)}: Total factored reaction including dynamic load allowance (impact) (kip).
- R_{Total (Strength I)(No Impact)}: Total factored reaction not including dynamic load allowance (impact) (kip).

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DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shuff</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED - <i>James F. Kelly</i>	REVISER -
DRAWN - GLENN W. STOVER	REVISER -	REVISER -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	

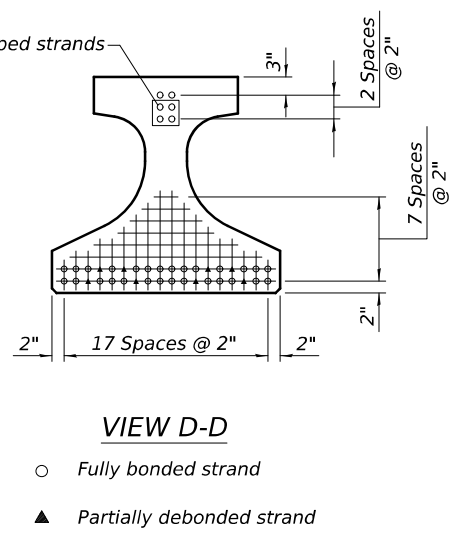
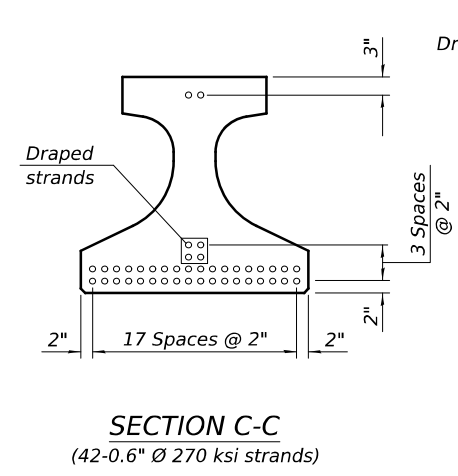
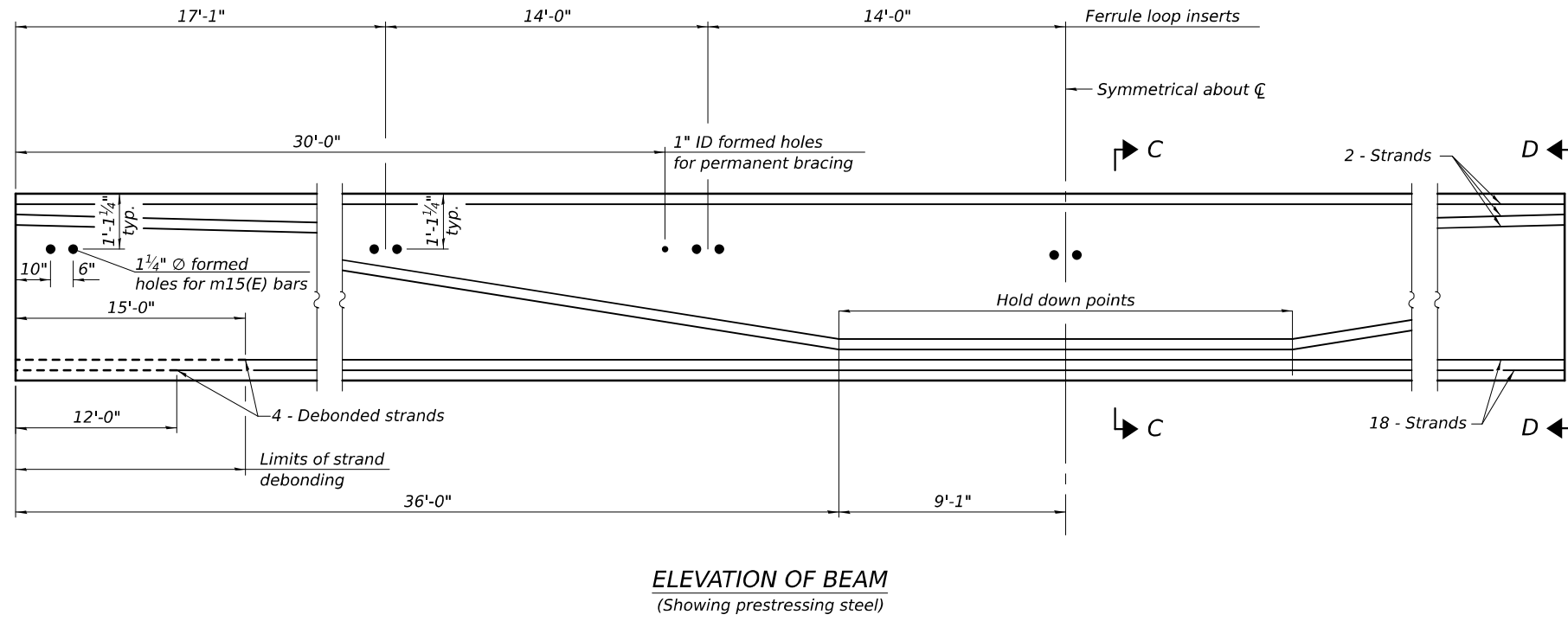
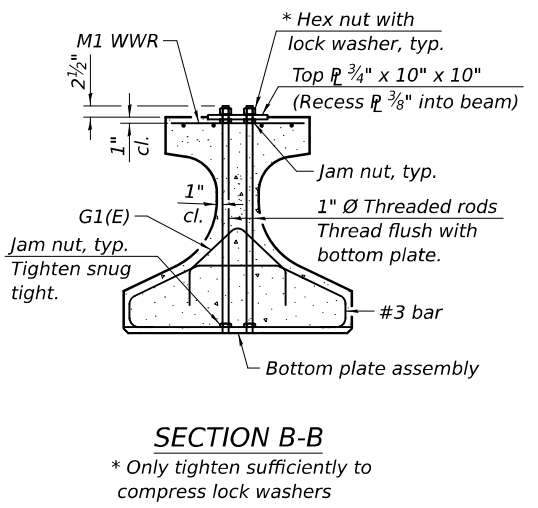
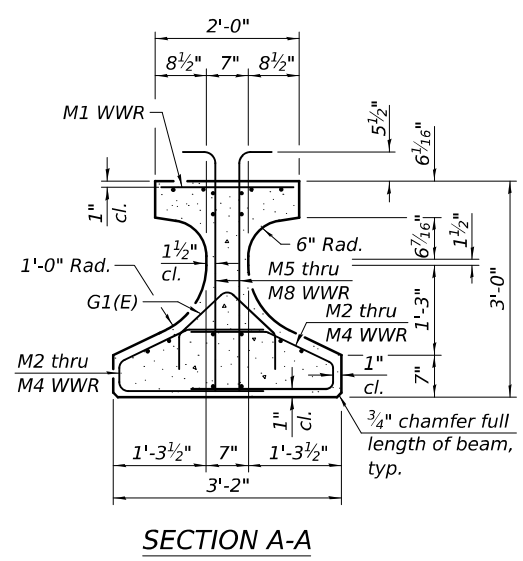
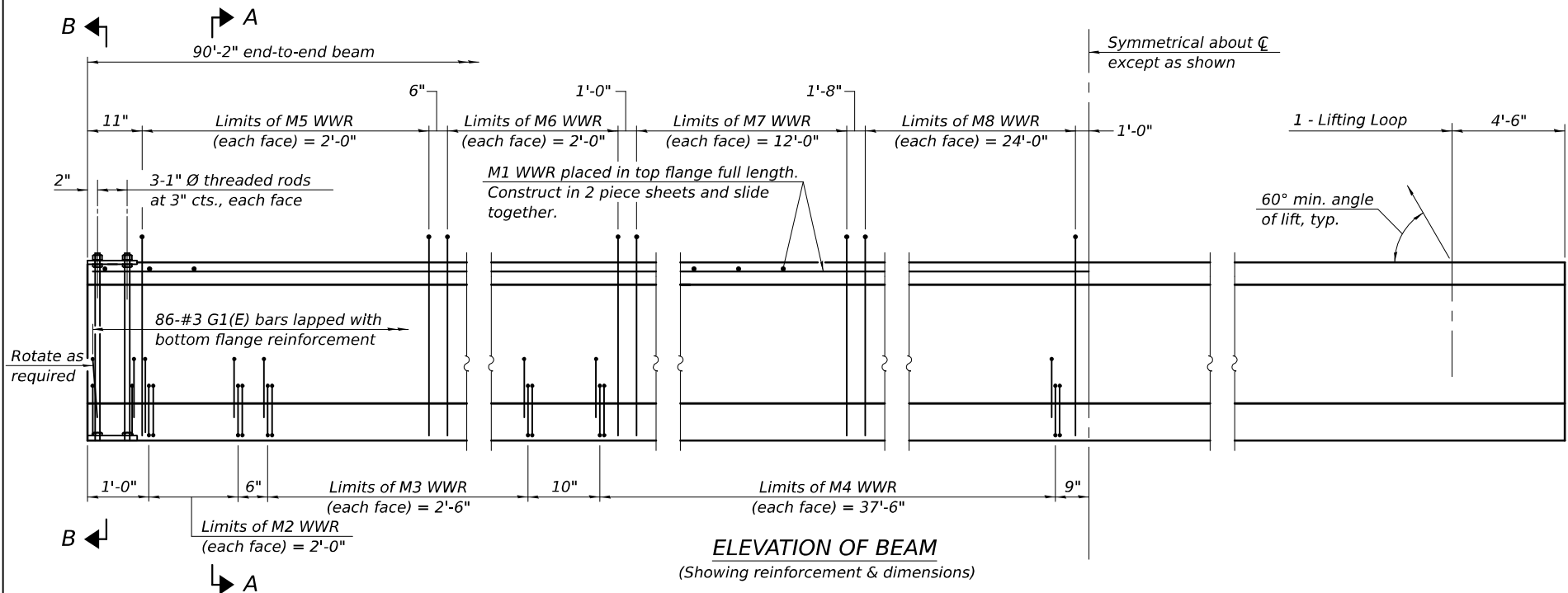
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING DETAILS
STRUCTURE NO. 057-0257**

SHEET 16 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	34	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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Note:
See sheet 18 of 25 for additional details and Bill of Material.

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shuffler</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	ENGINEER OF BRIDGE DESIGN	
DRAWN - GLENN W. STOVER	PASSED - <i>Jayne F. [Signature]</i>	REVISED -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

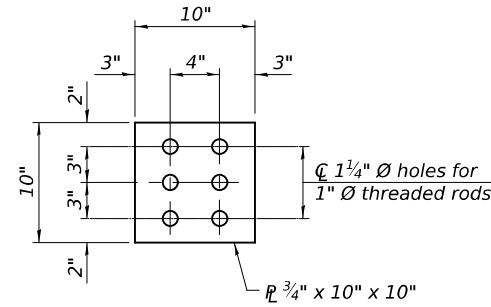
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL36N BEAM
STRUCTURE NO. 057-0257**

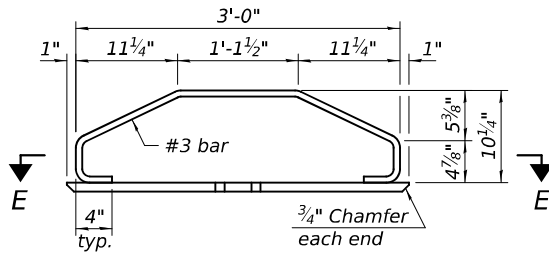
SHEET 17 OF 25 SHEETS

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 35	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

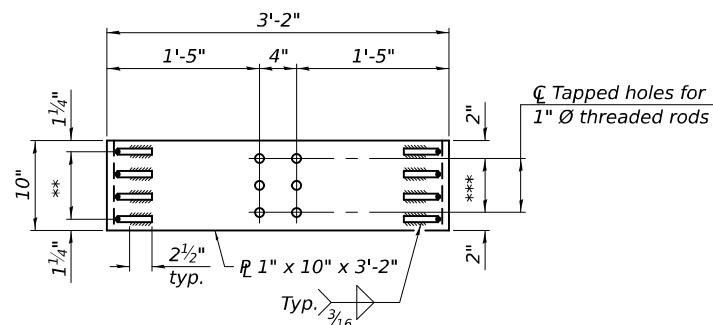
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PLAN - TOP PLATE



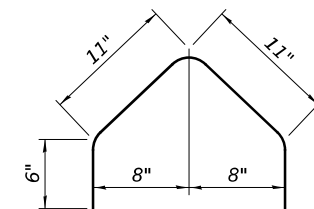
ELEVATION - BOTTOM PLATE ASSEMBLY



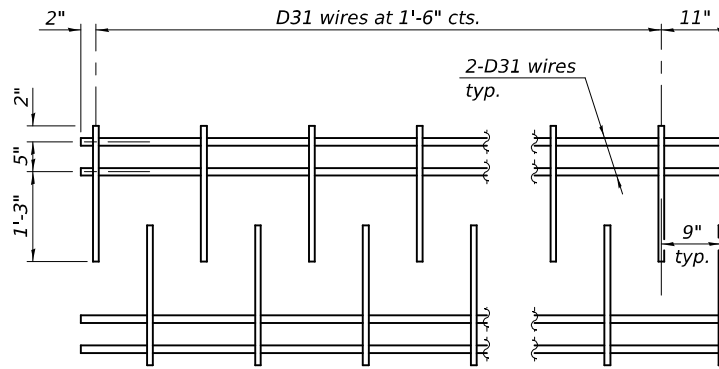
SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"

*** 2 Spaces at 3" = 6"

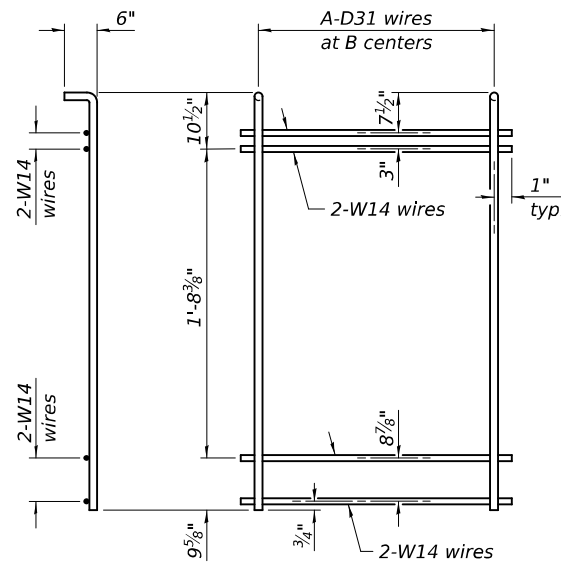


BAR G1(E)



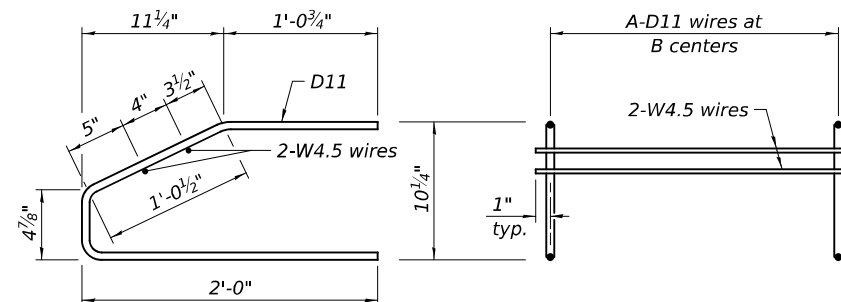
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (5'-0" long) shall be used to splice the longitudinal D31 wires together (Min. Lap 2'-2").



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

NOTES

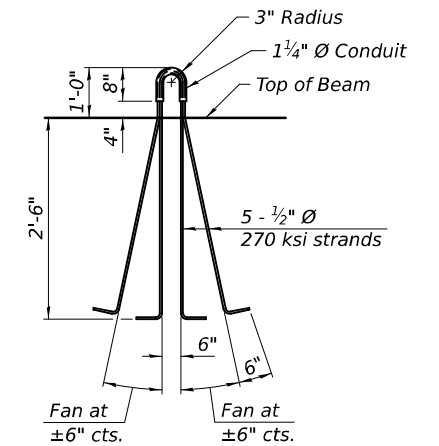
Inserts for 3/4" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 6500 psi. A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating or ASTM A1060, Table 3 galvanized coating.

TABLE OF DIMENSIONS

(The WWR designs assume grade 60. If necessary, this permits the fabricator to directly substitute grade 60 rebar as detailed in the Manual for Fabrication of Precast Prestressed Concrete Products.)

SPAN 1

WWR	A	B
M2	9	3"
M3	6	6"
M4	26	1'-6"
M5	9	3"
M6	5	6"
M7	13	1'-0"
M8	13	2'-0"



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL36N	Ft.	541

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DESIGNED - RYAN P. NEGANGARD
 CHECKED - TIFFANY L. MEIER
 DRAWN - GLENN W. STOVER
 CHECKED - R.P.N. / T.L.M.

EXAMINED
 PASSED

Mark Shaffer
 ENGINEER OF BRIDGE DESIGN
Jayne F. Kelly
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - 12/5/2023

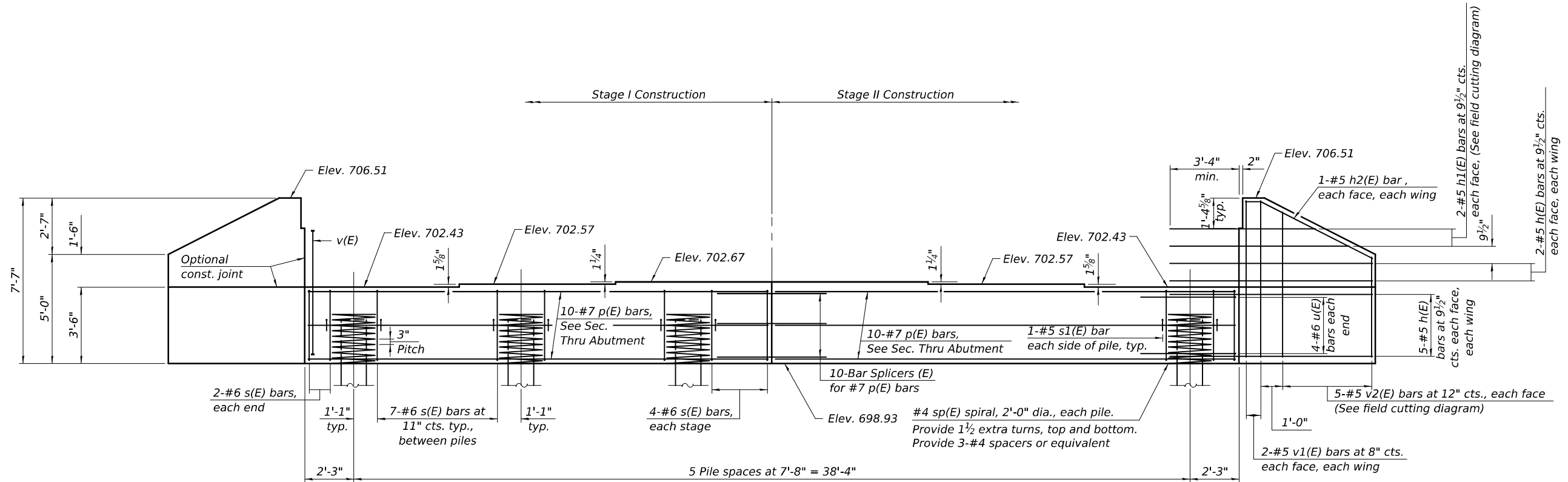
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 DEPARTMENT OF TRANSPORTATION

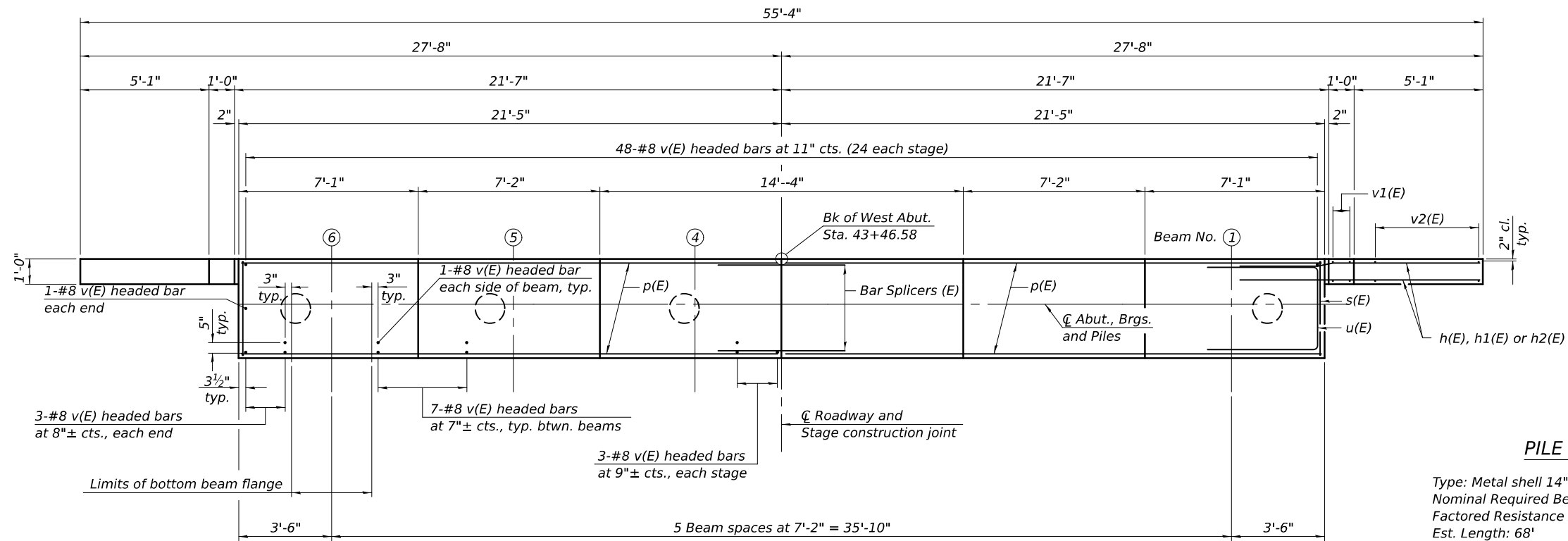
IL36N BEAM DETAILS
 STRUCTURE NO. 057-0257

SHEET 18 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	36	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



ELEVATION
(Looking West)



PLAN

PILE DATA

Type: Metal shell 14" x 0.312" w/ pile shoes
 Nominal Required Bearing: 524 kips
 Factored Resistance Available: 288 kips
 Est. Length: 68'
 No. Production Piles: 5
 No. Test Piles: 1

Note:
 See sheet 21 of 25 for additional details,
 notes, and Bill of Materials

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DESIGNED - RYAN P. NEGANGARD	EXAMINED	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED	REVISOR -
DRAWN - GLENN W. STOVER		REVISION -
CHECKED - R.P.N. / T.L.M.		

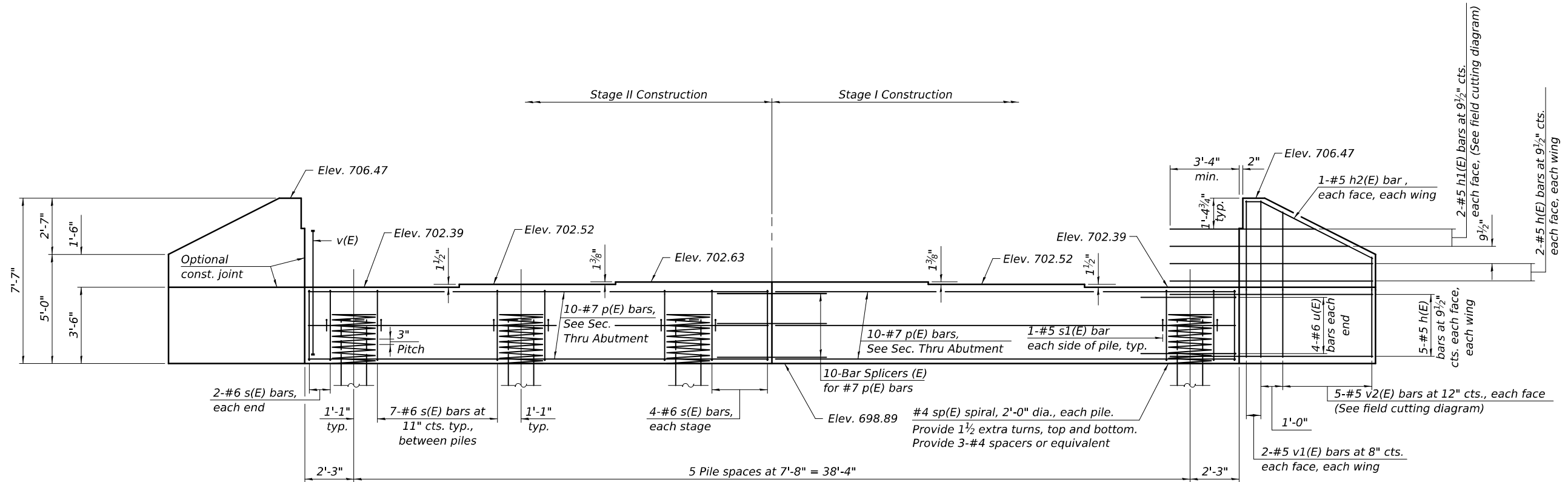
Mark Shuffler
 ENGINEER OF BRIDGE DESIGN
Jayne F. Stover
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

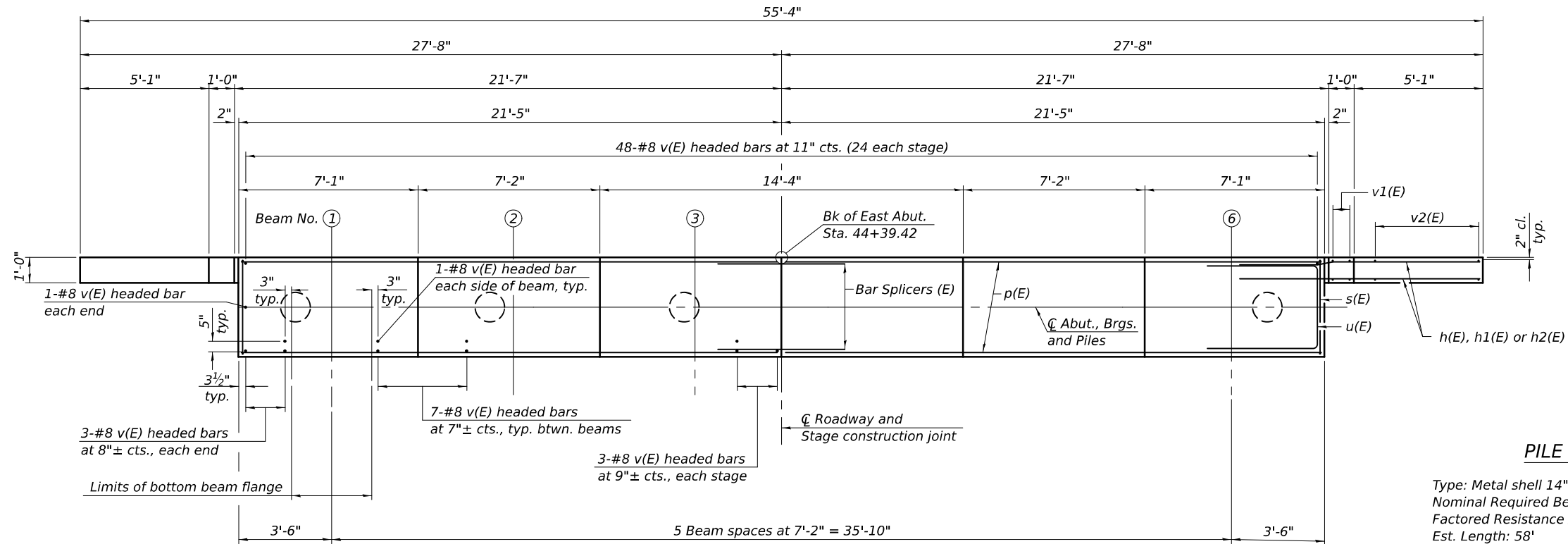
WEST ABUTMENT
STRUCTURE NO. 057-0257

SHEET 19 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	37	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



ELEVATION
(Looking East)



PLAN

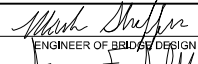
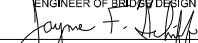
PILE DATA

Type: Metal shell 14" x 0.312" w/ pile shoes
 Nominal Required Bearing: 524 kips
 Factored Resistance Available: 288 kips
 Est. Length: 58'
 No. Production Piles: 5
 No. Test Piles: 1

Note:
 See sheet 21 of 25 for additional details,
 notes, and Bill of Materials

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DESIGNED - RYAN P. NEGANGARD	EXAMINED	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	PASSED	REVISED -
DRAWN - GLENN W. STOVER		REVISED -
CHECKED - R.P.N. / T.L.M.		


 ENGINEER OF BRIDGE DESIGN

 ENGINEER OF BRIDGES AND STRUCTURES

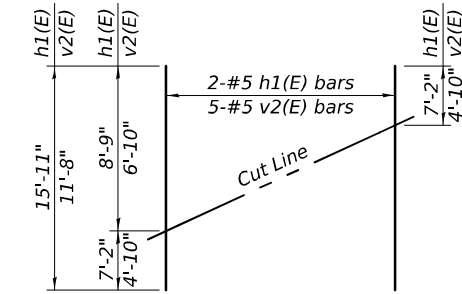
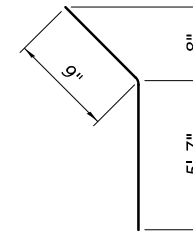
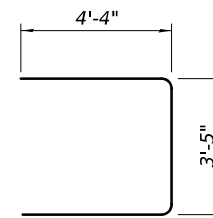
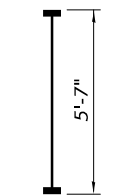
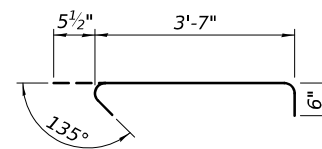
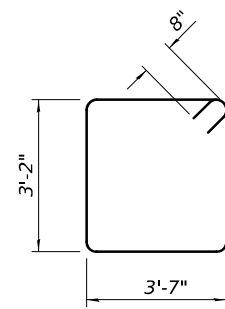
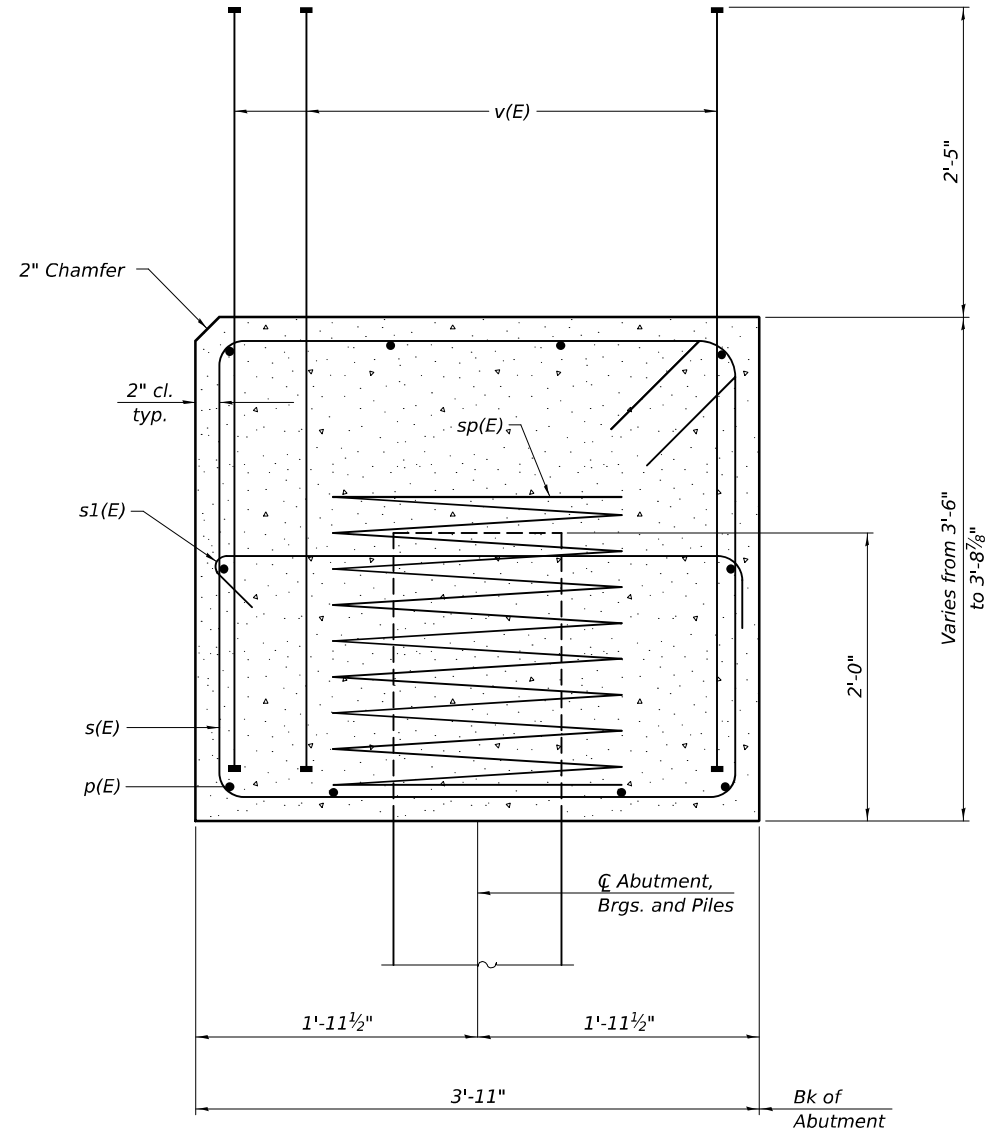
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 057-0257

SHEET 20 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	38	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

MODEL: 0570257-70871-021
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Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.

WEST ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	9'-5"	—
h1(E)	4	#5	15'-11"	—
h2(E)	4	#5	6'-4"	—
p(E)	20	#7	21'-1"	—
s(E)	40	#6	14'-10"	□
s1(E)	12	#5	4'-7"	┌
* sp(E)	6	#4	2'-0"	MMM
u(E)	8	#6	12'-1"	U
v(E)	102	#8	5'-7"	
v1(E)	8	#5	7'-3"	—
v2(E)	10	#5	11'-8"	—
Structure Excavation		Cu. Yd.	110	
Concrete Structures		Cu. Yd.	25.5	
Reinforcement Bars, Epoxy Coated		Pound	4,300	
Furnishing Metal Shell Piles 14" x 0.312"		Foot	340	
Driving Piles		Foot	340	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	6	

* Length is height of spiral.

EAST ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	9'-5"	—
h1(E)	4	#5	15'-11"	—
h2(E)	4	#5	6'-4"	—
p(E)	20	#7	21'-1"	—
s(E)	40	#6	14'-10"	□
s1(E)	12	#5	4'-7"	┌
* sp(E)	6	#4	2'-0"	MMM
u(E)	8	#6	12'-1"	U
v(E)	102	#8	5'-7"	
v1(E)	8	#5	7'-3"	—
v2(E)	10	#5	11'-8"	—
Structure Excavation		Cu. Yd.	110	
Concrete Structures		Cu. Yd.	25.5	
Reinforcement Bars, Epoxy Coated		Pound	4,300	
Furnishing Metal Shell Piles 14" x 0.312"		Foot	290	
Driving Piles		Foot	290	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	6	

* Length is height of spiral.

Notes:
 Pour steps monolithically with cap.
 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.
 For details of piles see sheet 22 of 25.

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shuffler</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	ENGINEER OF BRIDGE DESIGN	
DRAWN - GLENN W. STOVER	PASSED - <i>Jayne F. [Signature]</i>	REVISER -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

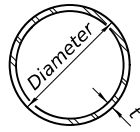
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 057-0257

SHEET 21 OF 25 SHEETS

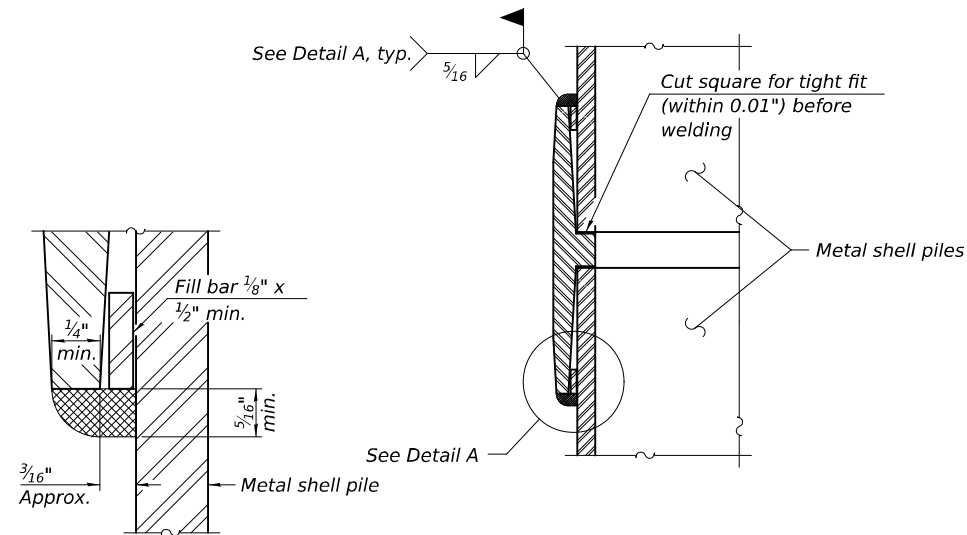
F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 39	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

12/13/2023 3:12:07 PM

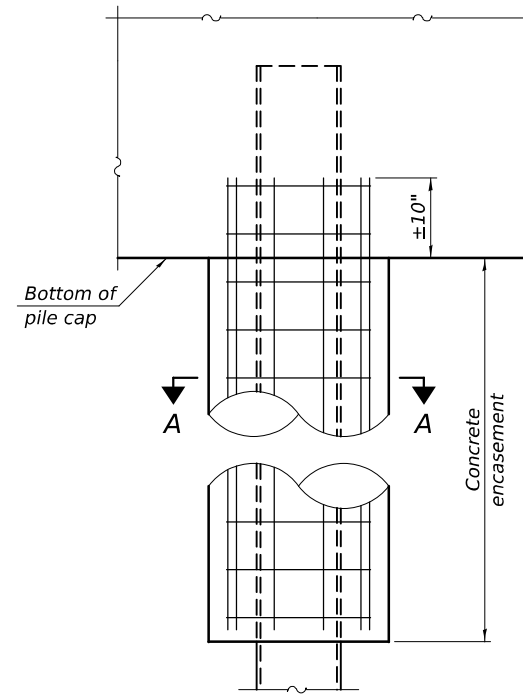


METAL SHELL PILE TABLE

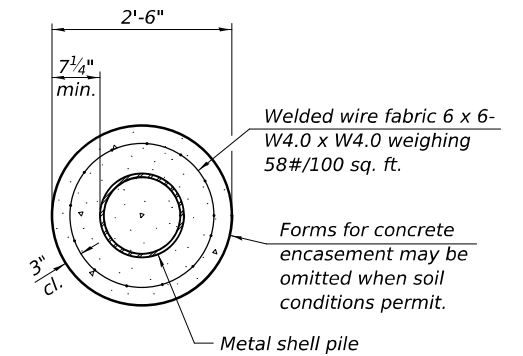
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.40	0.0267
PP14	0.250"	36.75	0.0368
PP14	0.312"	45.65	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



DETAIL A

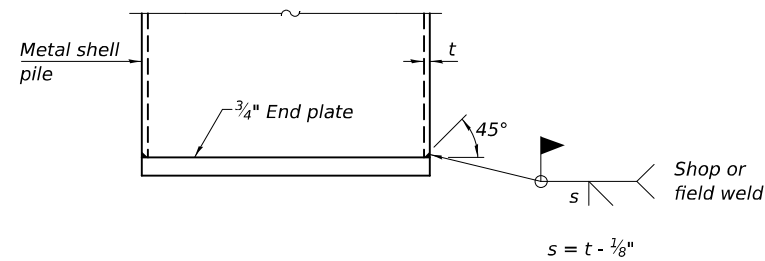


ELEVATION



SECTION A-A

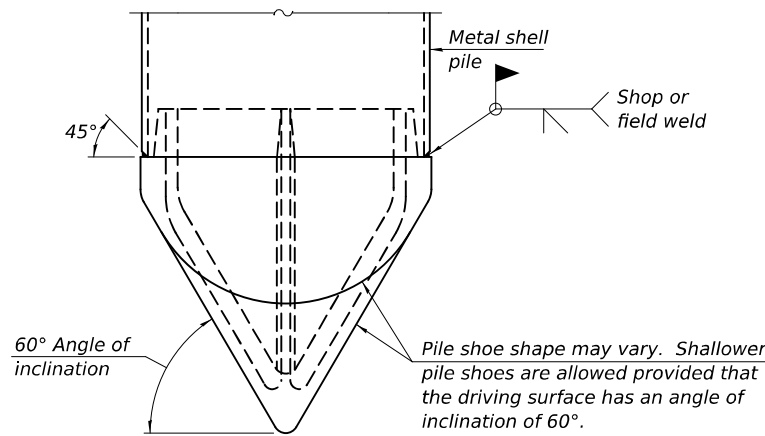
INDIVIDUAL PILE CONCRETE ENCASEMENT
(When specified)



END PLATE ATTACHMENT

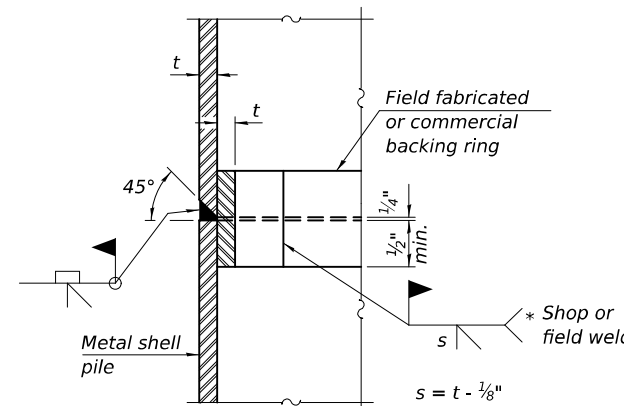
WELDED COMMERCIAL SPLICE

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.



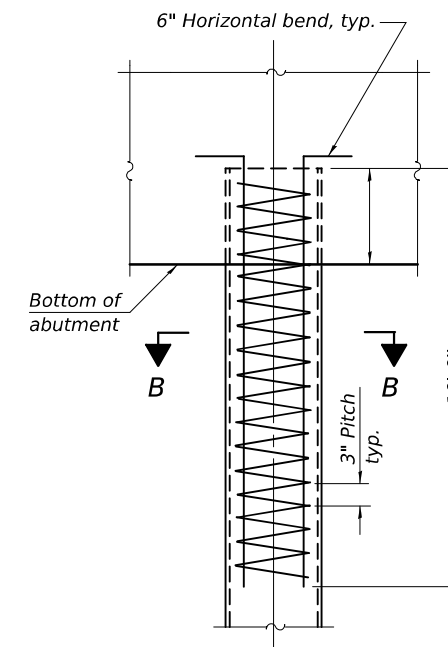
PILE SHOE ATTACHMENT

(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).

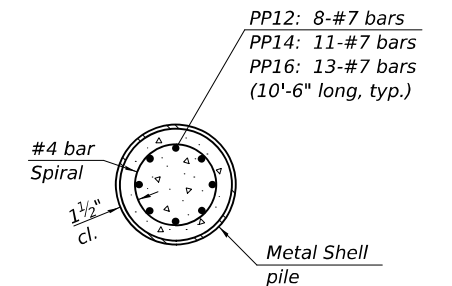


COMPLETE PENETRATION WELD SPLICE

* 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



SECTION B-B

REINFORCEMENT AT ABUTMENTS
(Omit when concrete encasement is specified)

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

MODEL: 0570257-70871-022
FILE NAME: p:\p\11010-pw-bentley.com\FWIDOT\Documents\OBM Projects\0570257\CADDData\Bridges\0570257-70871.dgn

F-MS 15-15-2023

DESIGNED - RYAN P. NEGANGARD	EXAMINED
CHECKED - TIFFANY L. MEIER	PASSED
DRAWN - GLENN W. STOVER	
CHECKED - R.P.N. / T.L.M.	

DATE - 12/5/2023	ENGINEER OF BRIDGE DESIGN <i>Mark Shuffler</i>
REVISIONS	ENGINEER OF BRIDGES AND STRUCTURES <i>Jayne F. [Signature]</i>

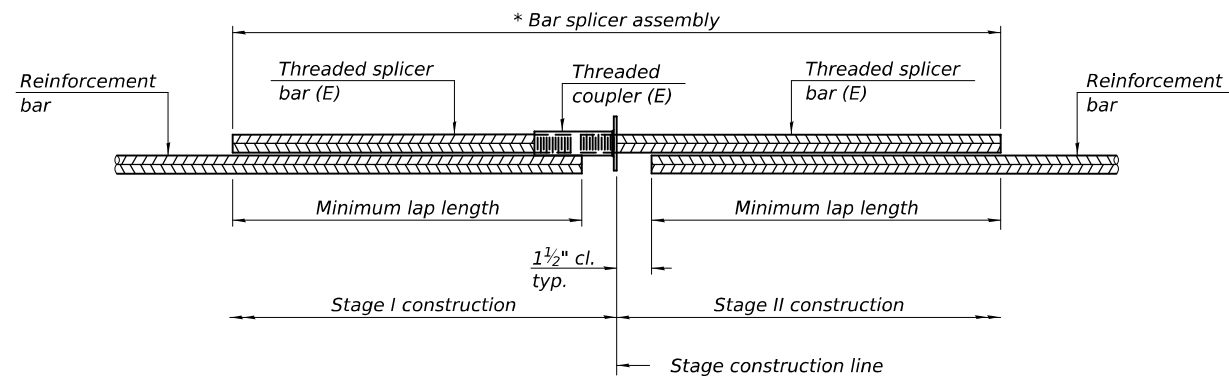
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS
STRUCTURE NO. 057-0257**

SHEET 22 OF 25 SHEETS

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 40	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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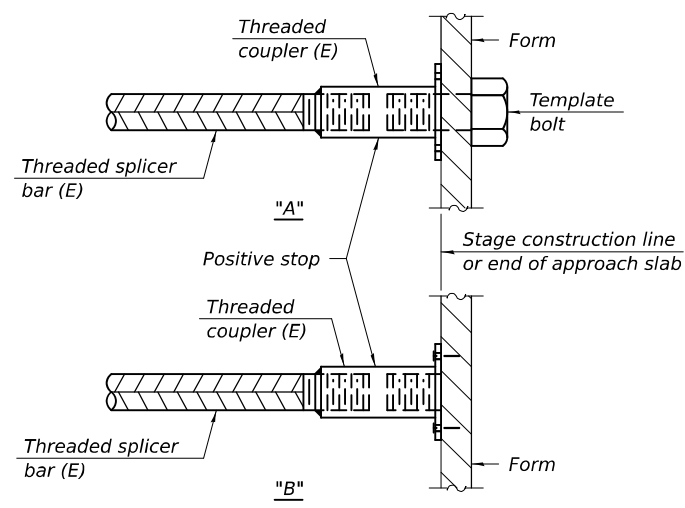
STANDARD BAR SPLICER ASSEMBLY PLAN

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

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

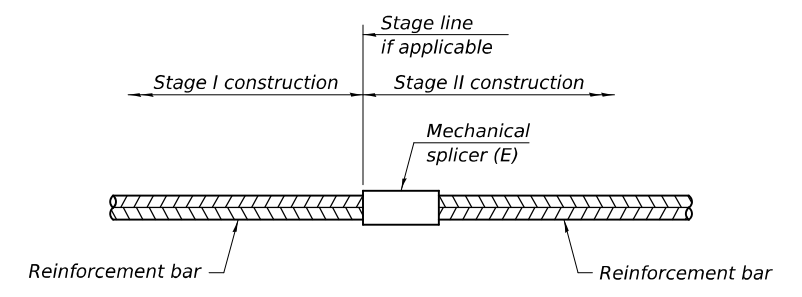
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Slab Top	5	176	3'-0"
Slab Bottom	5	113	3'-6"
Abutment Diaphragm, Back Face	6	8	4'-0"
Abutment Diaphragm, Front Face, Top	6	4	See Diaphragm Bar Splicer Detail
Abutment Diaphragm, Front Face, Bottom	6	2	See Diaphragm Bar Splicer Detail
Approach Slab, Top	5	92	3'-4"
Approach Slab, Bottom	8	120	4'-9"
Approach Slab, Footing	5	80	3'-2"
Abutment Caps	7	20	5'-0"



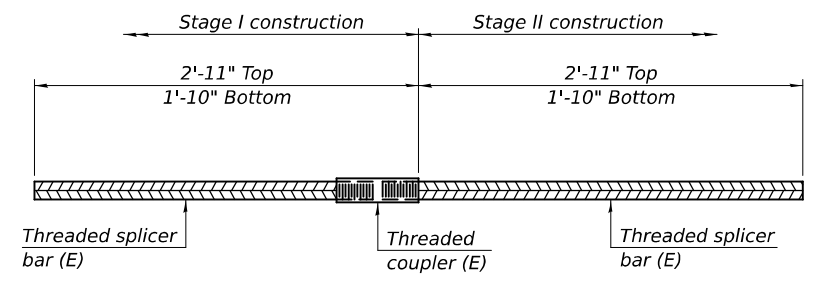
INSTALLATION AND SETTING METHODS

"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



DIAPHRAGM BAR SPLICER DETAIL

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

MODEL: 0570257-70871-4023
 FILE NAME: p:\i\p\w\benley.com\FWIDOT\Documents\IDOT_O_ces\Bureau of Bridges and Structures\OBM Projects\0570257-70871-4023.dgn

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Mark Shelton</i>	DATE - 12/5/2023
CHECKED - TIFFANY L. MEIER	ENGINEER OF BRIDGE DESIGN	
DRAWN - GLENN W. STOVER	PASSED - <i>James F. Hill</i>	REVISED -
CHECKED - R.P.N. / T.L.M.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER DETAILS
 STRUCTURE NO. 057-0257**

SHEET 23 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	41	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 1 of 1

Date 11/09/22

ROUTE FAP 317 (US 24) DESCRIPTION Bridge Replacement LOGGED BY SCI

SECTION 28 BR-1 LOCATION Chenoa, Illinois, SEC. 1, TWP. 26N, RNG. 4E
Lat 40.741805 Long -88.699462

COUNTY McLean DRILLING METHOD Mobile B-57, CFA and Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D E L T A	B L O W S	U C S	M O I S T
057-0257 43+93					N/A ft N/A ft				
BORING NO. B-1 Station 42+48 Offset 14 ft LT Ground Surface Elev. 707 ft					N/A ft N/A ft N/A ft				
2" ASPHALTIC CONCRETE 11" CONCRETE					706.8 706.0				
FILL: Brown, CLAY LOAM (A-6), moist, stiff		3 5 5		5.6 S/20			6 7 9	1.6 S/15	13
Becomes medium stiff		2 2		2.0 B/20			6 6	5.1 B/15	15
Switch to Mud Rotary									
		3 3 4		1.2 B/20			7 7 11	0.5 P	21
Becomes very stiff									
CONCRETE				21	698.5		7 8 10	3.4 S/20	12
FILL: Dark gray, CLAY LOAM (A-6), moist, medium stiff					697.0				
Boring terminated at 30 ft.					677.0				
CLAY LOAM: Dark gray, moist, soft (A-7)		1 2 3		0.4 S/10			3 2 3	NC	40
Becomes brownish-gray									
CLAY LOAM: Dark gray, moist, medium stiff, (A-7) Atterberg Limit Test performed.		1 2 2		0.3 B/20			1 3 4	0.4 S/15	28
Becomes dark gray									
CLAY LOAM: Tan and gray, moist, soft, (A-6)		1 1 2		0.3 P			1 2 2	NC	37
Becomes medium stiff									
CLAY LOAM: Gray, moist, stiff (A-6)		4 5 8		1.0 B/20			3 7 10	1.5 S/15	15
Becomes tan, gray and brown, very stiff 76.5% passing the No. 200 sieve.					687.0				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted. BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 1 of 1

Date 11/09/22

ROUTE FAP 317 (US 24) DESCRIPTION Bridge Replacement LOGGED BY SCI

SECTION 28 BR-1 LOCATION Chenoa, Illinois, SEC. 7, TWP. 26N, RNG. 5E
Lat 40.741710 Long -88.698497

COUNTY McLean DRILLING METHOD Mobile B-57, CFA and Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D E L T A	B L O W S	U C S	M O I S T
057-0257 43+93					N/A ft N/A ft				
BORING NO. B-4 Station 45+16 Offset 14.6 ft RT Ground Surface Elev. 707 ft					N/A ft N/A ft N/A ft				
14" ASPHALTIC CONCRETE					705.9				
FILL: Brown and gray, CLAY LOAM (A-6), moist, stiff		3 5 5		0.9 B/20			5 7 10	4.2 B/15	15
Becomes medium stiff		2 3		2.9 S/10			4 7	3.2 S/15	19
Switched to Mud Rotary									
Becomes stiff		3 5 5		0.6 B/20			5 6 7	1.7 B/20	13
Becomes brownish-gray									
Becomes dark gray		3 5 5		3.5 P			5 6 9	4.0 B/20	12
Boring terminated at 30 ft.					677.0				
Becomes medium stiff		3 2 3		NC			3 2 3		40
CLAY LOAM: Dark gray, moist, medium stiff, (A-7) Atterberg Limit Test performed.		1 3 4		0.4 S/15			1 3 4	0.4 S/15	28
Becomes dark gray									
CLAY LOAM: Tan and gray, moist, soft, (A-6)		1 2 2		NC			1 2 2	NC	37
Becomes medium stiff									
Becomes tan, gray and brown, very stiff 76.5% passing the No. 200 sieve.		3 7 10		1.5 S/15			3 7 10	1.5 S/15	15

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted. BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
IL DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG

Page 1 of 1

Date 10/1/58

ROUTE SBI 8 (US 24) DESCRIPTION OVER ROOKS CREEK LOGGED BY WC

SECTION 28BR-1 LOCATION E OF CHENOA, SEC. 1, TWP. 26N, RNG. 4E, 3rd PM, GPS:

COUNTY MCLEAN DRILLING METHOD HSA HAMMER TYPE Hand/Cathead

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D E L T A	B L O W S	U C S	M O I S T
057-0071 43+93					N/A ft N/A ft				
BORING NO. 1 Station 43+40 Offset 18.00 ft LT Ground Surface Elev. 698.9 ft					N/A ft N/A ft N/A ft				
MEDIUM TO STIFF BLACK SILTY CLAY					697.00				
Becomes medium stiff									
MEDIUM GRAY SILTY SANDY GRAVELLY CLAY					675.00				
Becomes stiff									
MEDIUM GRAY SILTY SANDY CLAY					692.50				
Becomes brownish-gray									
Becomes dark gray		3		0.7			3		
Boring terminated at 30 ft.					670.50				
End of Boring									
STIFF GRAY CLAY TILL					689.50				
Becomes medium stiff									
HARD GRAY CLAY TILL					687.50				
Becomes dark gray									
CLAY LOAM: Dark gray, moist, medium stiff, (A-7) Atterberg Limit Test performed.		45		8.5			45		
Becomes dark gray									
CLAY LOAM: Tan and gray, moist, soft, (A-6)		64		10.2			64		
Becomes medium stiff									
CLAY LOAM: Gray, moist, stiff (A-6)		61		10.2			61		
Becomes tan, gray and brown, very stiff 76.5% passing the No. 200 sieve.					680.00				
Becomes tan, gray and brown, very stiff 76.5% passing the No. 200 sieve.					687.0				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted. BBS, form 137 (Rev. 8-99)

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DESIGNED - RYAN P. NEGANGARD
CHECKED - TIFFANY L. MEIER
DRAWN - GLENN W. STOVER
CHECKED - R.P.N. / T.L.M.

EXAMINED
PASSED
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

DATE - 12/5/2023
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 057-0257
SHEET 24 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	42	66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



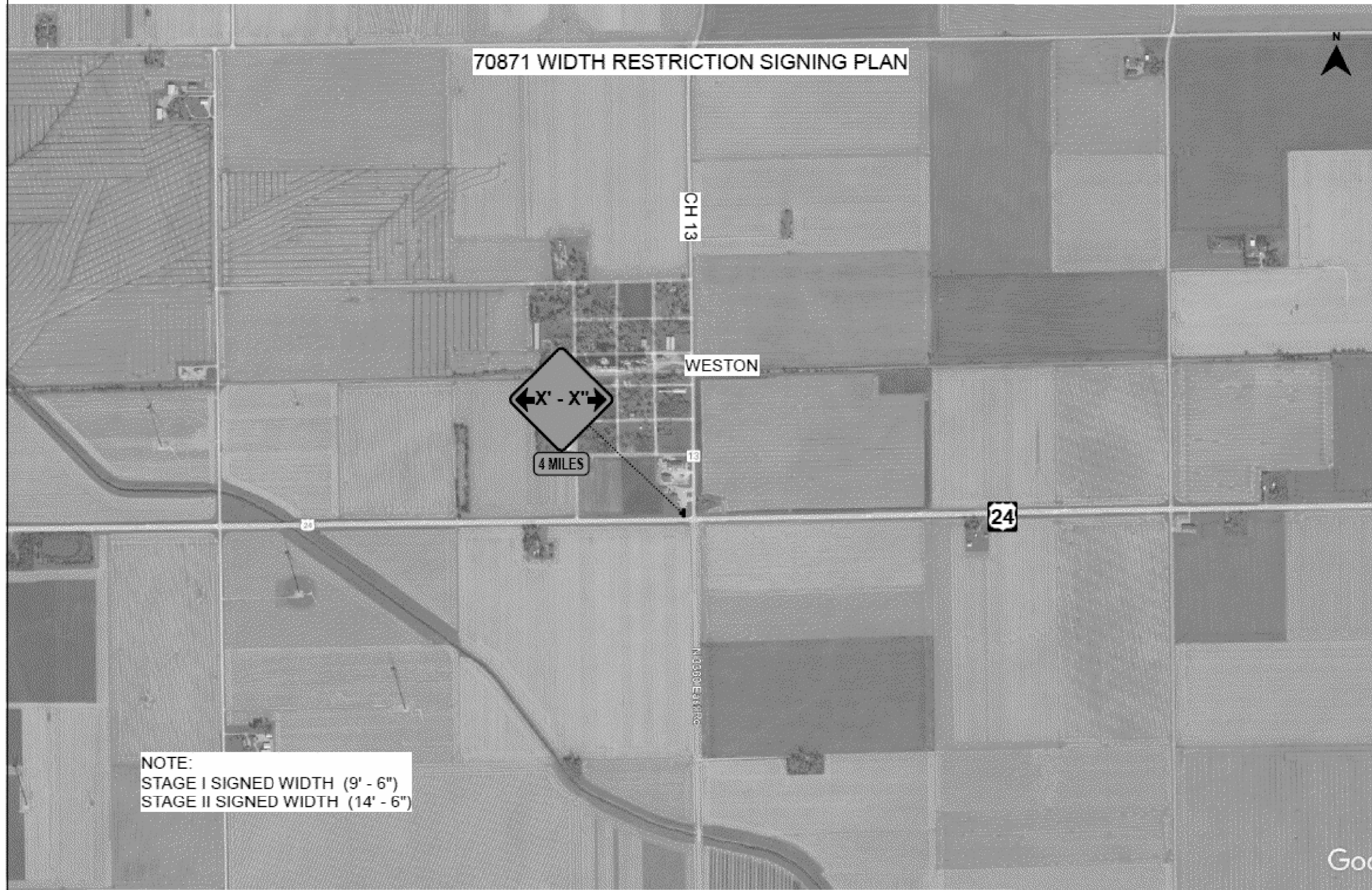
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USER NAME = Jason.Goble	DESIGNED - MWM	REVISED -
	DRAWN - JRG	REVISED -
PLOT SCALE = 100,000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION SIGNING PLAN			
SCALE: NTS	SHEET 1	OF 4 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	44
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



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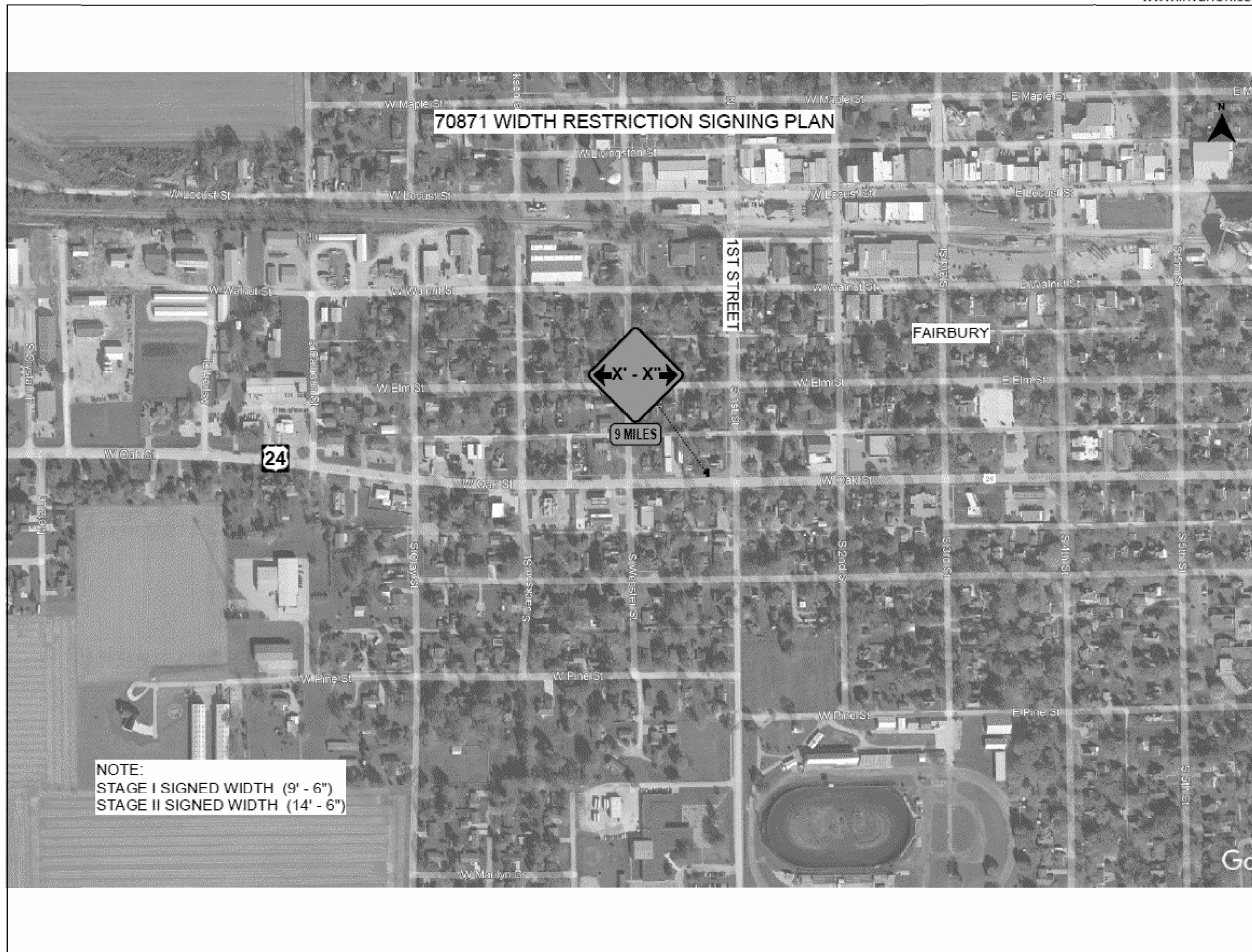
USER NAME = Jason.Goble	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION SIGNING PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	45
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



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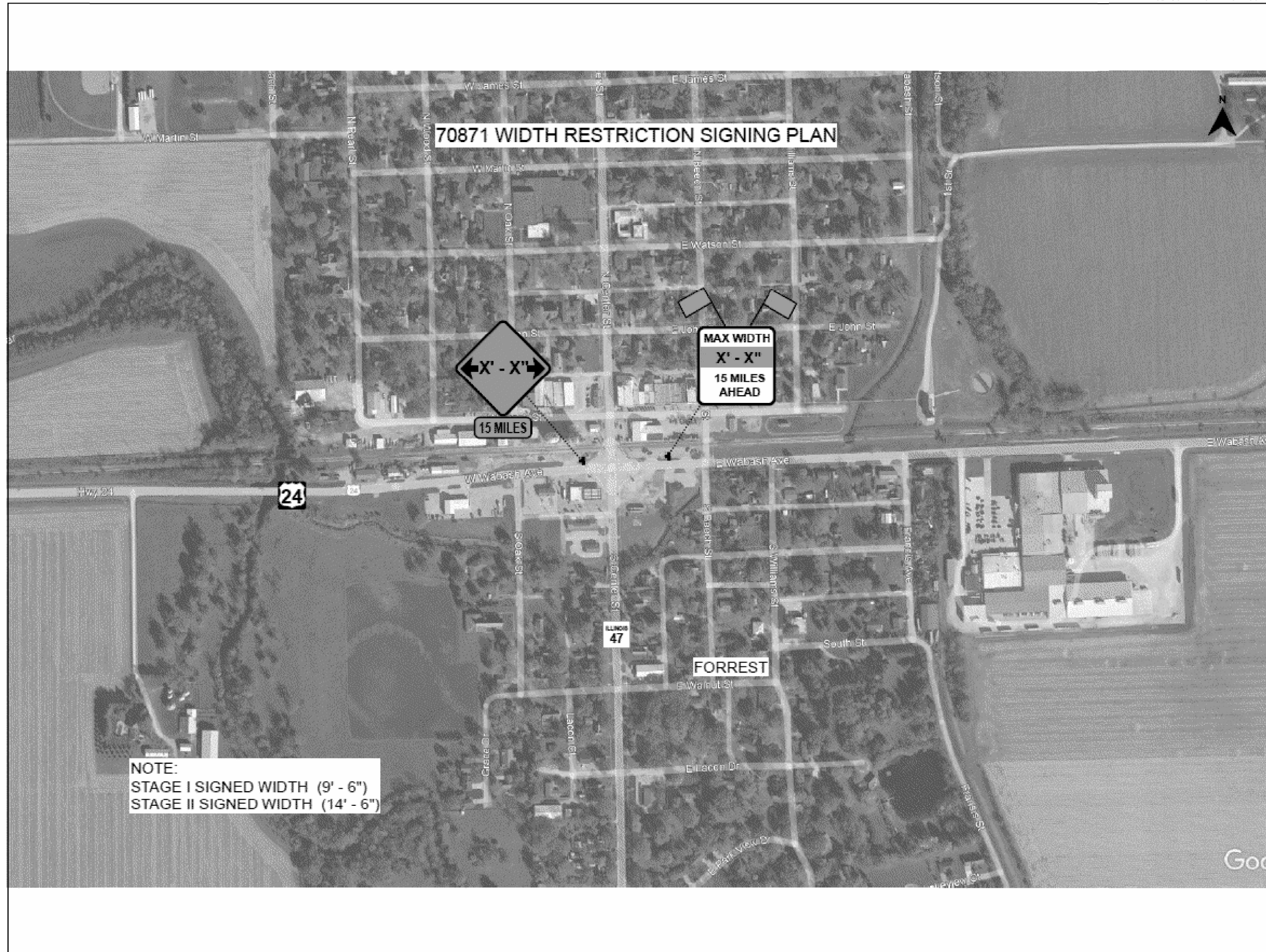
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	DRAWN -	REVISED -
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PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION SIGNING PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	46
CONTRACT NO. 70871				
		ILLINOIS	FED. AID PROJECT	



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USER NAME = Jason,Goble	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

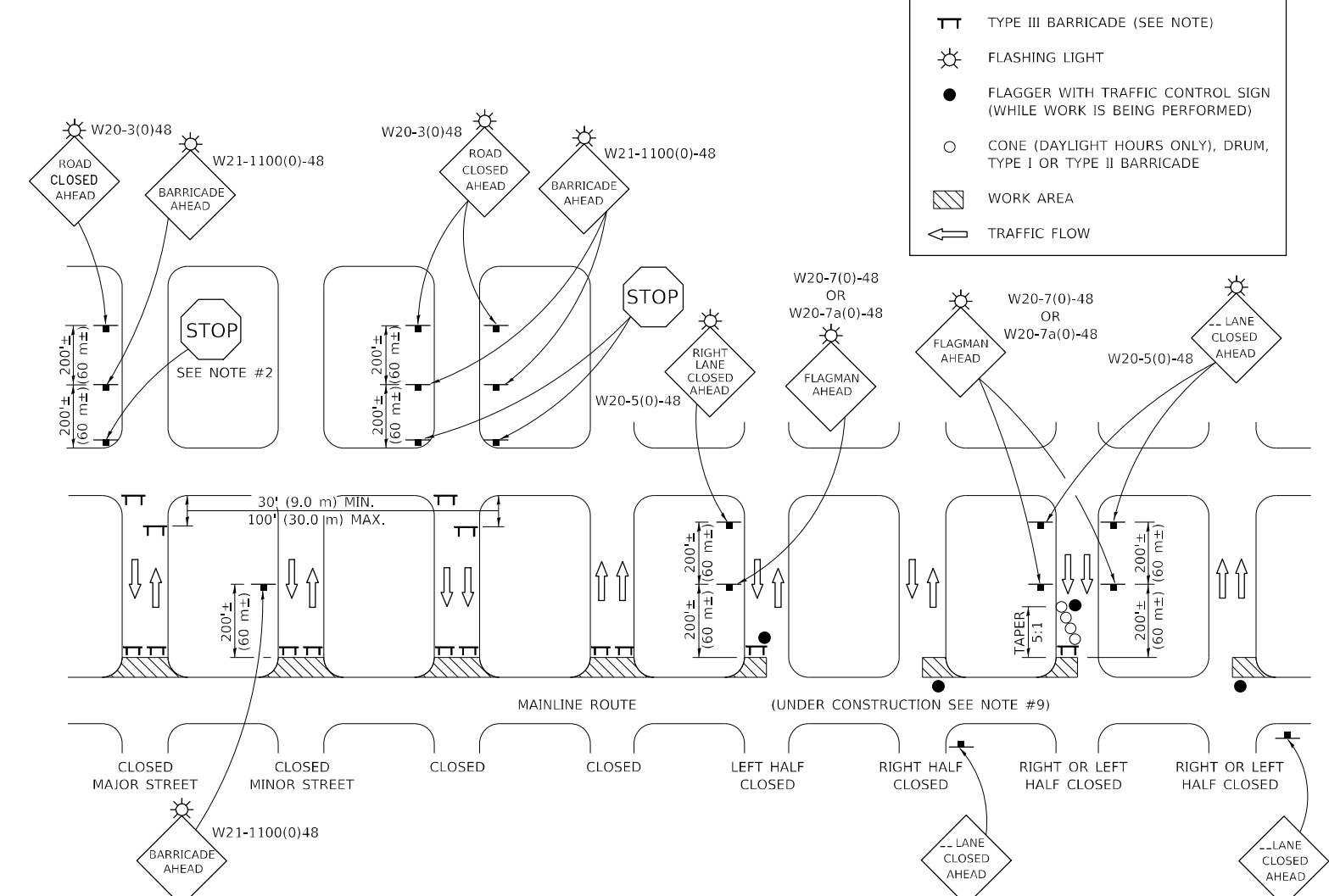
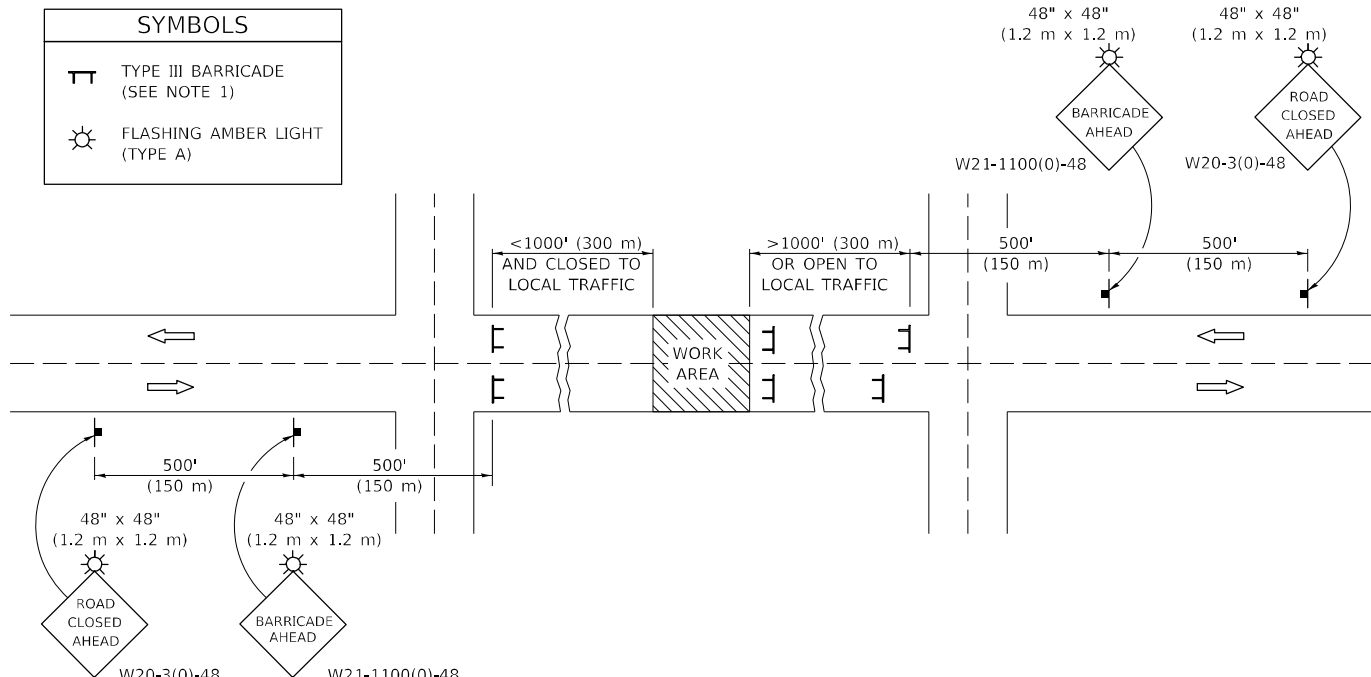
WIDTH RESTRICTION SIGNING PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	288R-1	MCLEAN	66	47
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

ROAD CLOSURE

SIDEROAD / STREET CLOSURE



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
- REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
- ALL FLAGGERS REQUIRED AT SIDE ROADS AND ENTRANCES REMAINING OPEN TO TRAFFIC AND/OR ADDITIONAL BARRICADES REQUIRED BY THE ENGINEER TO CLOSE SIDE ROADS AND ENTRANCES WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

MODEL: I:\MODELS\MHFE... FILE: 240124.dwg... PROJECT: 0570871... DISTRICT: 5

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	DRAWN -	REVISED - 12/07
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PLOT DATE = 10/19/2023	DATE -	REVISED -

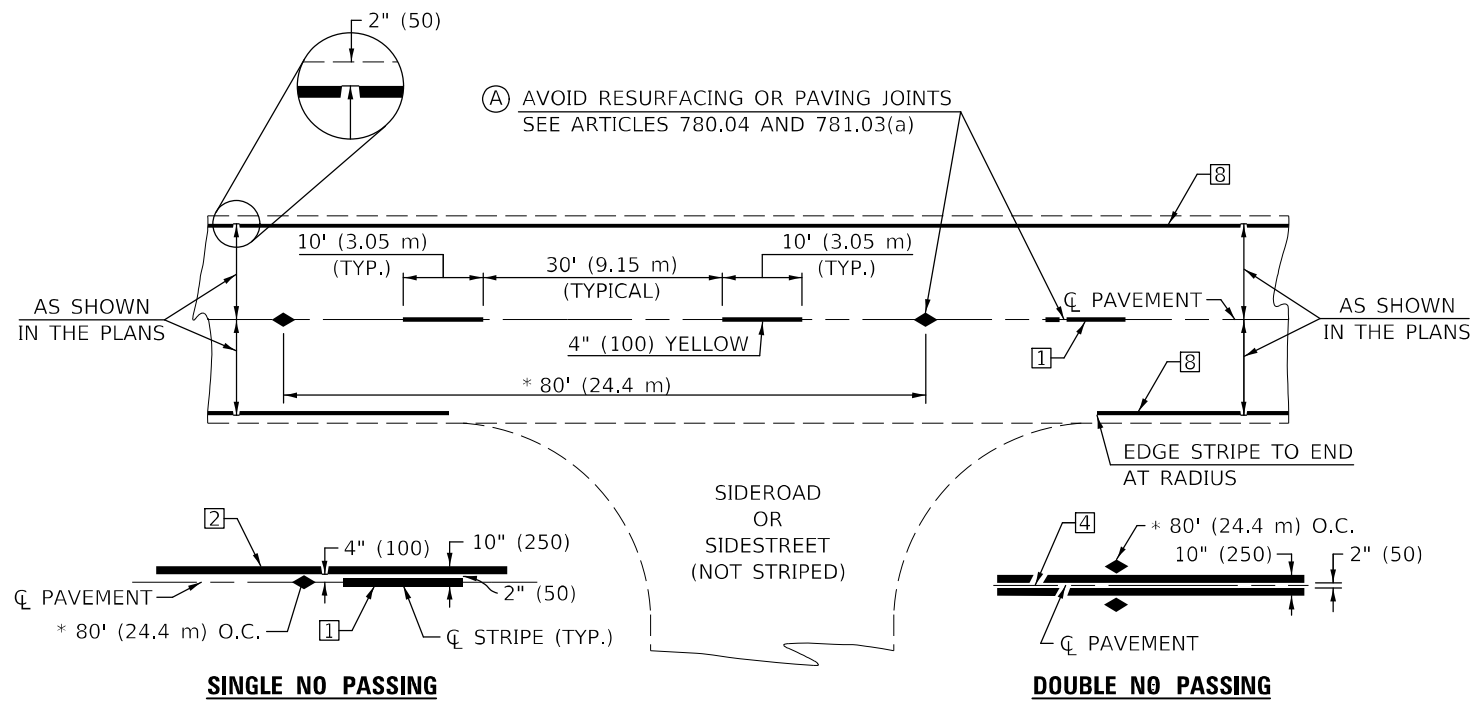
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION DEVICES
(ROAD & SIDEROAD / STREET CLOSURES)**

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

DISTRICT 5 DETAIL NO. 7020000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	288R-1	MCLEAN	66	48
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

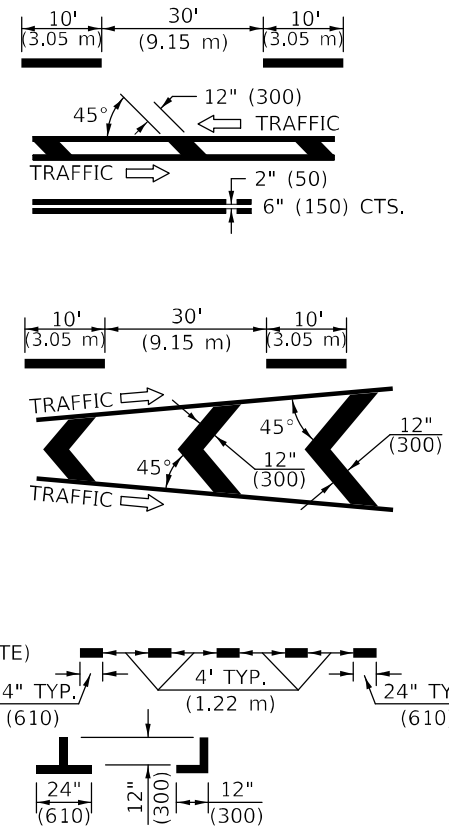
TWO LANE/TWO WAY

TYPICAL PAVEMENT MARKING LEGEND

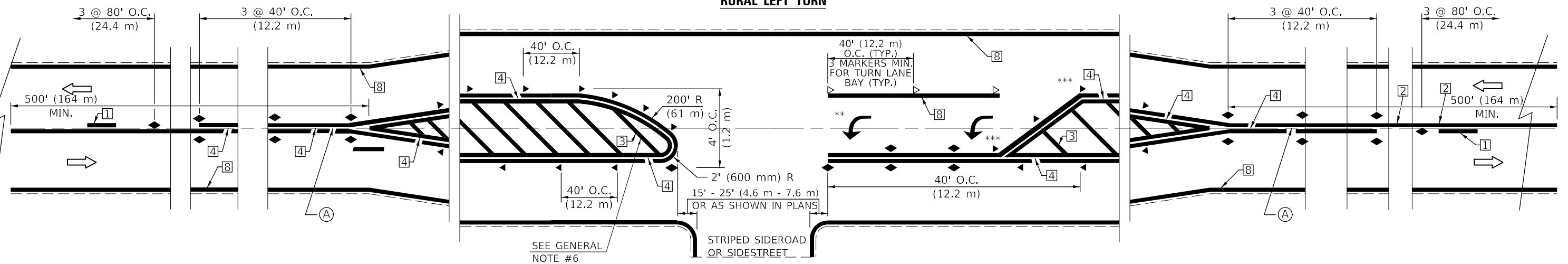
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER



RURAL LEFT TURN



*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.
 ** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

MODEL: I:\MODELS\MARF...
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 DRAWING: I:\DRAWINGS\2023\70871\...

USER NAME = Jason,Goble	DESIGNED -	REVISED - 4/2014 JLA
	DRAWN -	REVISED - 3/2019 SWN
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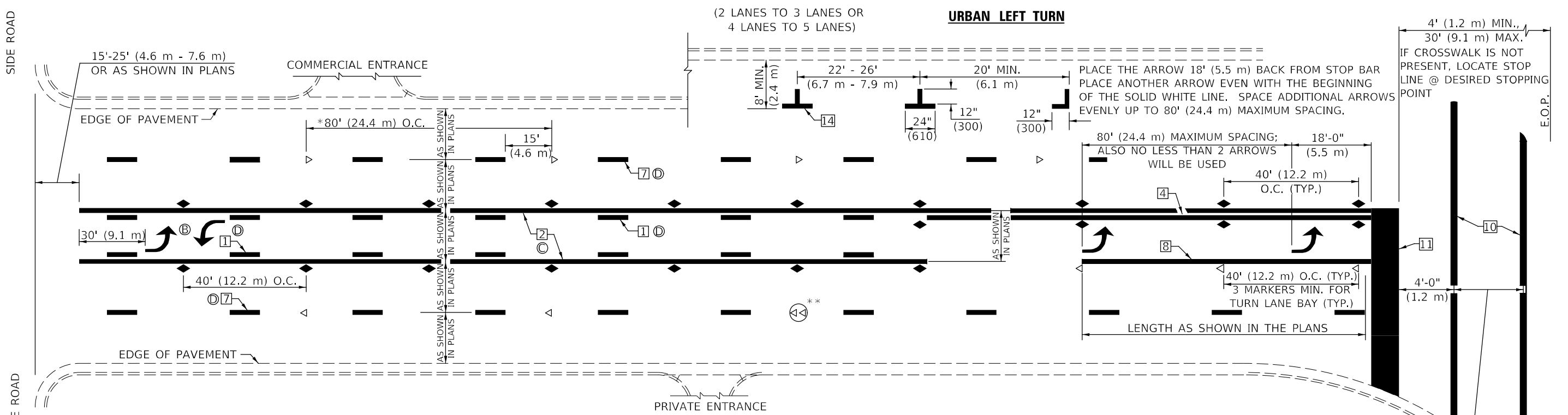
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
 (RURAL & URBAN APPLICATIONS)**

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

DISTRICT 5 DETAIL NO. 7800AAAA

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	49
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

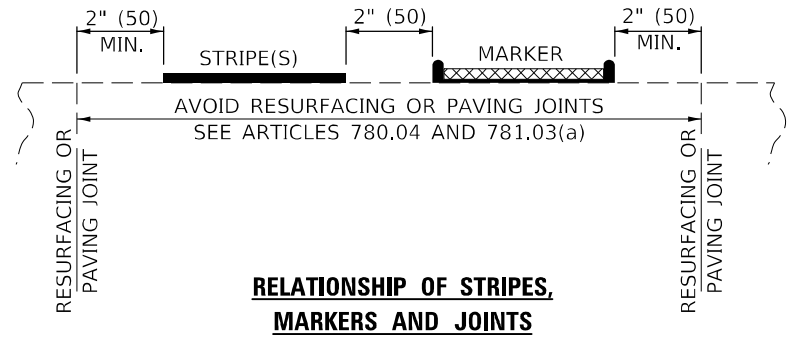
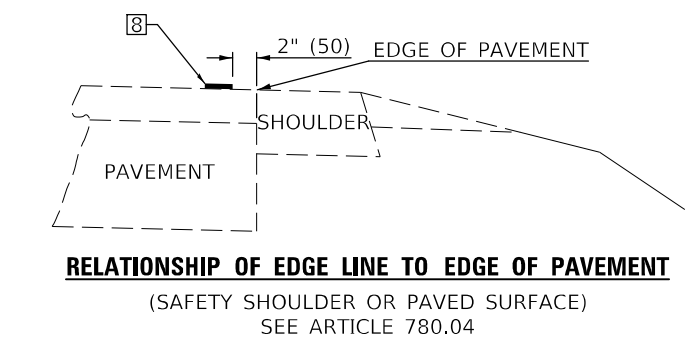
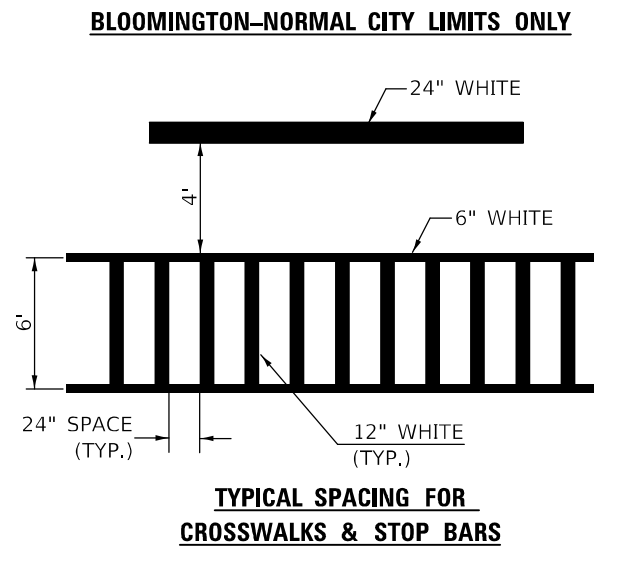
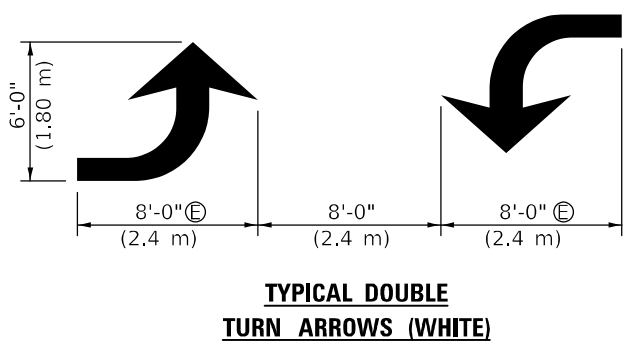
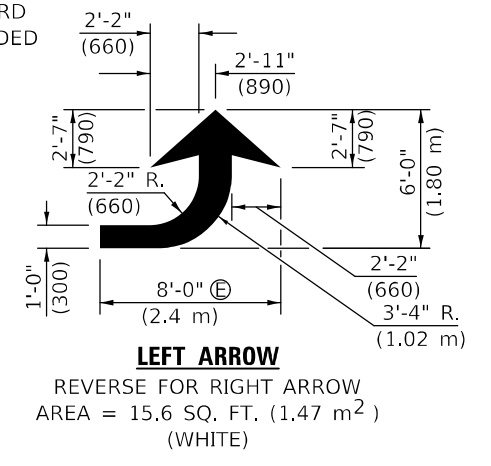


* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

GENERAL NOTES:

- ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- ⓒ THE SOLID YELLOW PAVEMENT MARKINGS ② SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
- ⓓ THE SKIP-DASH PAVEMENT MARKINGS ① OR ⑦ SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
- ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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PROJECT: 2023-01-10 10:19:23

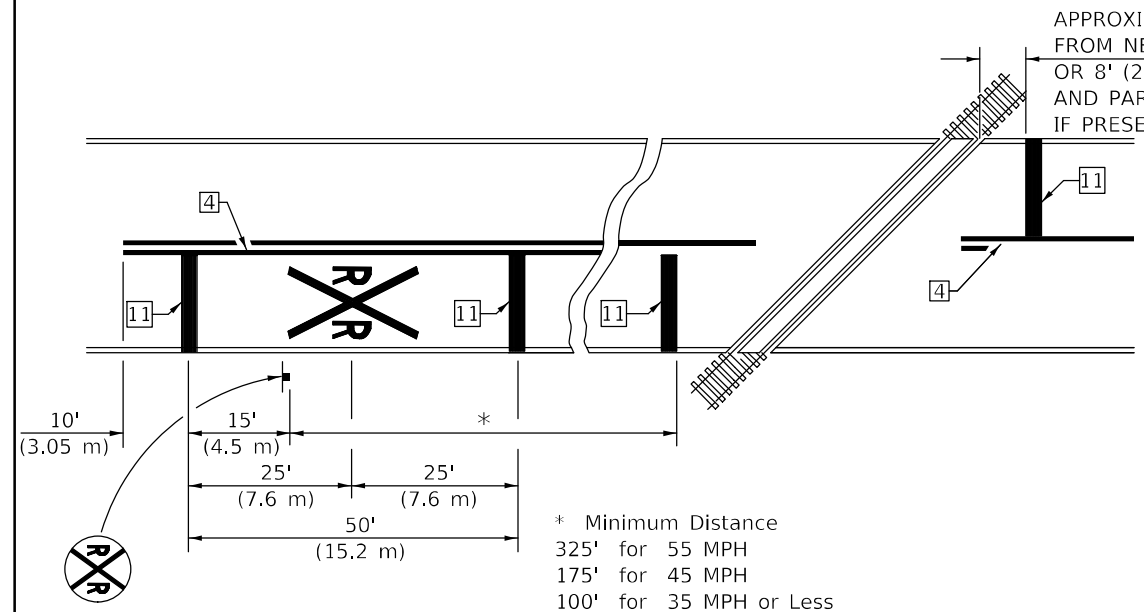
USER NAME = Jason.Goble	DESIGNED -	REVISED - 4/2014 JLA
	DRAWN -	REVISED - 3/2019 SWN
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PLOT DATE = 10/19/2023	DATE -	REVISED - 9/2022 JWS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

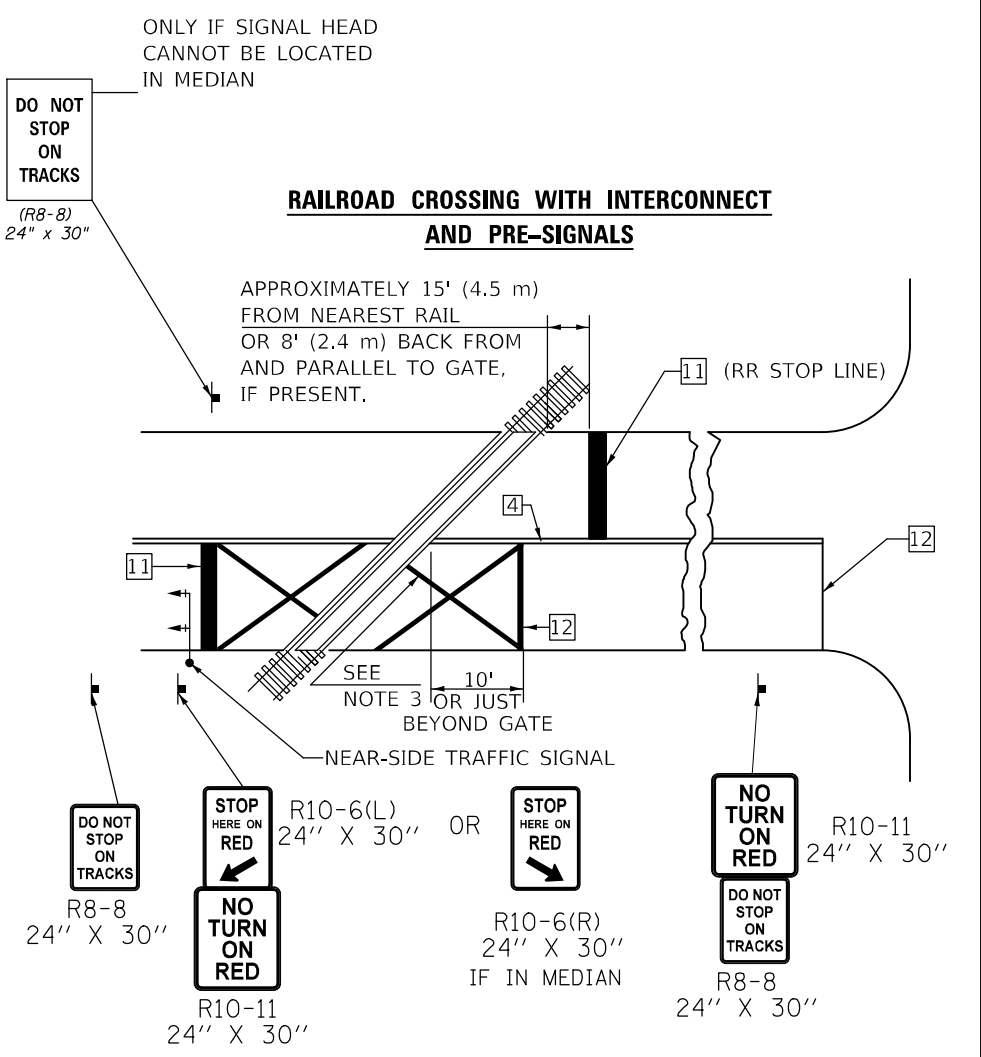
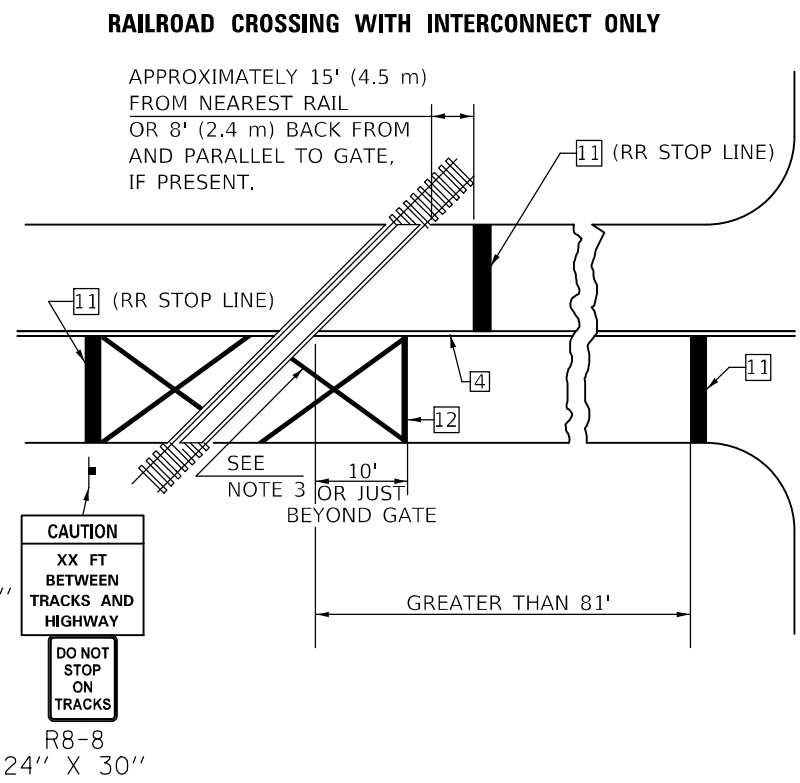
PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)			
SCALE:	SHEET 2 OF 4 SHEETS	STA.	TO STA.

DISTRICT 5 DETAIL NO. 7800AAAA				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	50
			CONTRACT NO. 70871	
ILLINOIS FED. AID PROJECT				

DESIGNER NOTE: SEE TABLE 2C-4 OF THE MUTCD FOR ADDITIONAL INFORMATION

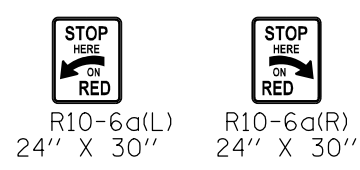


PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

ALTERNATE SIGNS

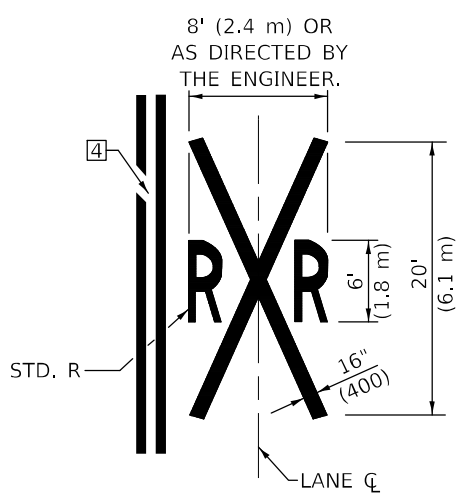


NOTES

- THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.
- ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.
- WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- 6" WHITE PAVEMENT MARKINGS AT 45° TO PAVEMENT, 8' CENTER TO CENTER.
- XX DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET FROM THE RAIL CLOSEST TO THE INTERSECTION OR FROM THE CLOSEST POINT ALONG THE EXIT GATE IF PRESENT OVER THE ROADWAY WHEN IN THE LOWERED POSITION TO THE STOP BAR OR CROSSWALK, WHICH EVER IS CLOSEST, ROUNDED DOWN TO NEAREST 5 FEET. WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
- THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6 FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTENDED TO THE INTERSECTION.



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

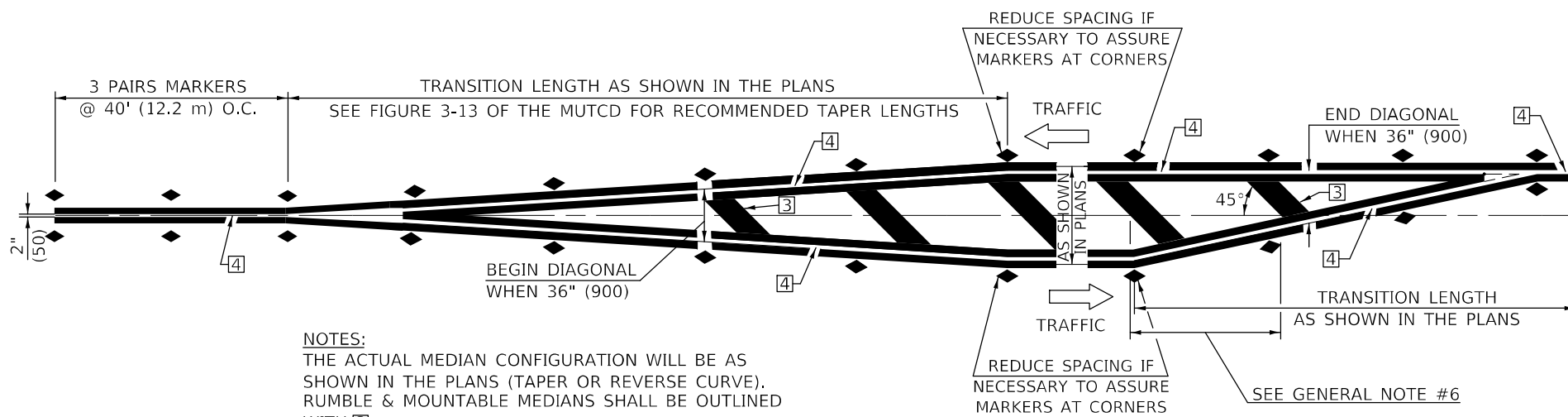
PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

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	DRAWN -	REVISED - 3/2019 SWN
PLOT SCALE = 40,0000 * / in.	CHECKED -	REVISED - 8/2022 JLA
PLOT DATE = 10/19/2023	DATE -	REVISED - 9/2022 JWS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	51
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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

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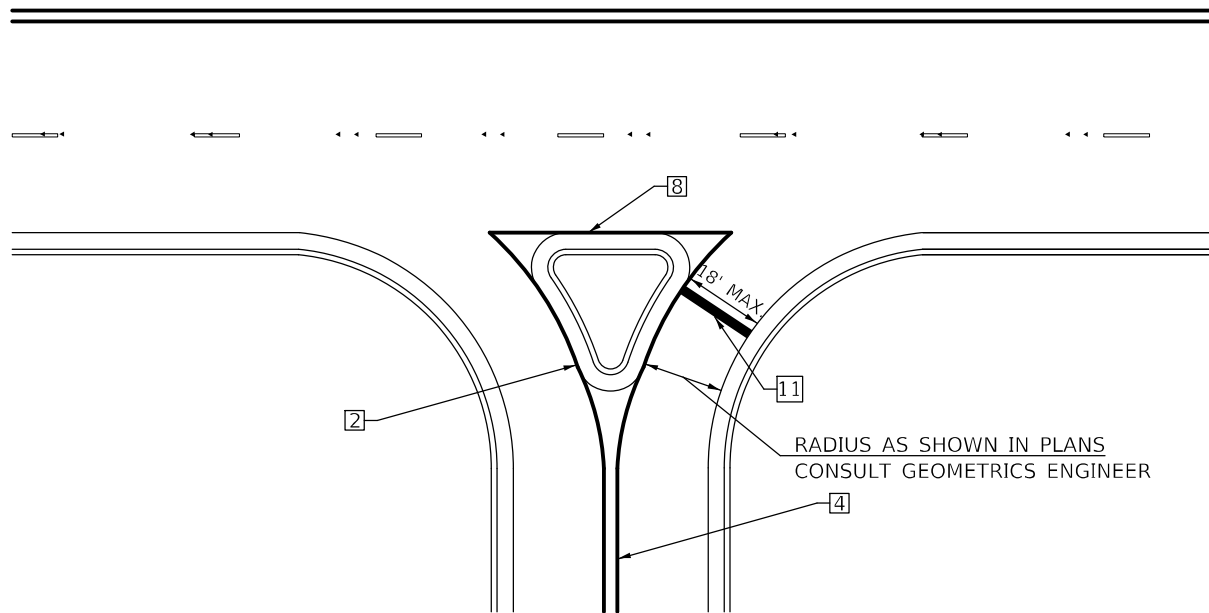


NOTES:
THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE). RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

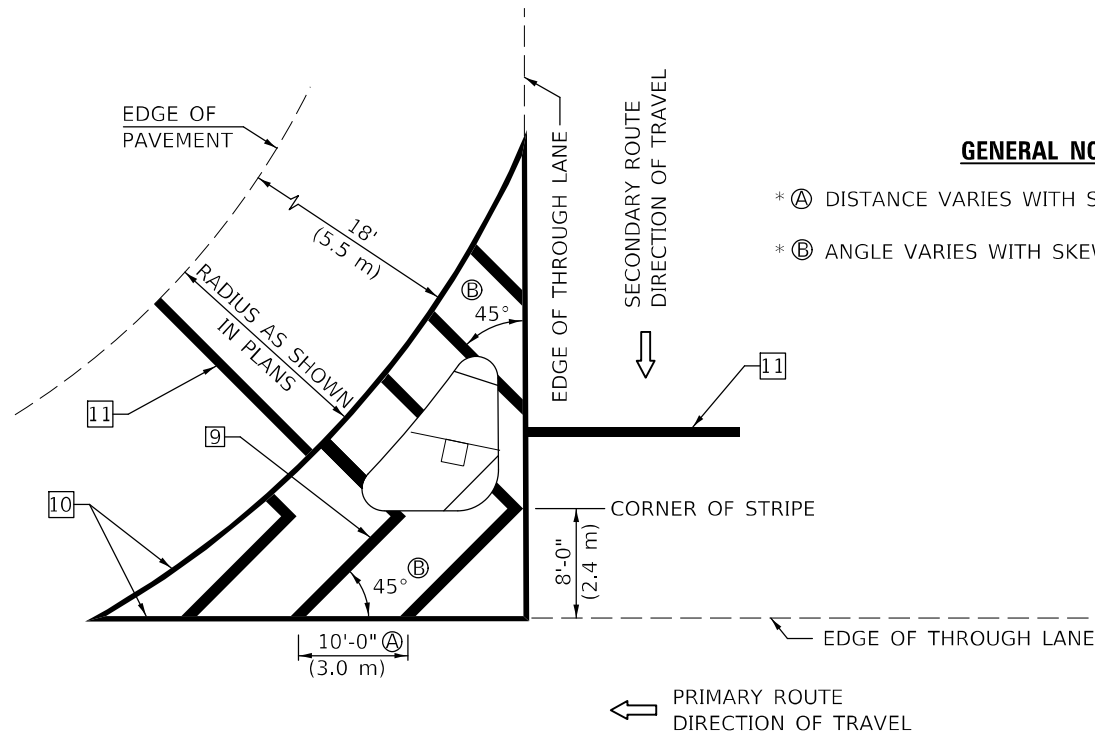
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
<30 MPH USE 15' (<50 km/h USE 4.5 m)
30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
>45 MPH USE 30' (>75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



ISLAND

GENERAL NOTES

- * A DISTANCE VARIES WITH SKEW OF INTERSECTION.
- * B ANGLE VARIES WITH SKEW OF INTERSECTION.

* FOR RIGHT TURN LANE AND ISLAND STRIPING CONSULT GEOMETRICS ENGINEER.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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USER NAME = Jason.Goble	DESIGNED -	REVISED - 4/2014 JLA
	DRAWN -	REVISED - 3/2019 SWN
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PLOT DATE = 10/19/2023	DATE -	REVISED - 9/2022 JWS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)**

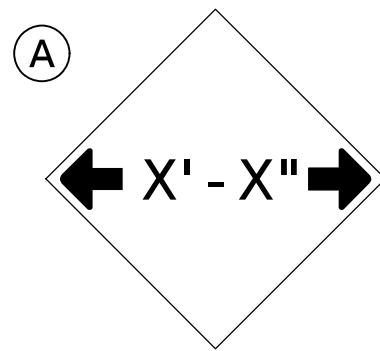
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DISTRICT 5 DETAIL NO. 7800AAAA				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	52
			CONTRACT NO. 70871	
ILLINOIS FED. AID PROJECT				

DESIGNER NOTE: PROVIDE MAP WITH SIGN LOCATIONS (A, B, ETC.) AND COORDINATE WITH TRAFFIC OPERATIONS ENGINEER.

INCLUDE DISTRICT SPECIAL PROVISION "WIDTH RESTRICTION SIGNING"

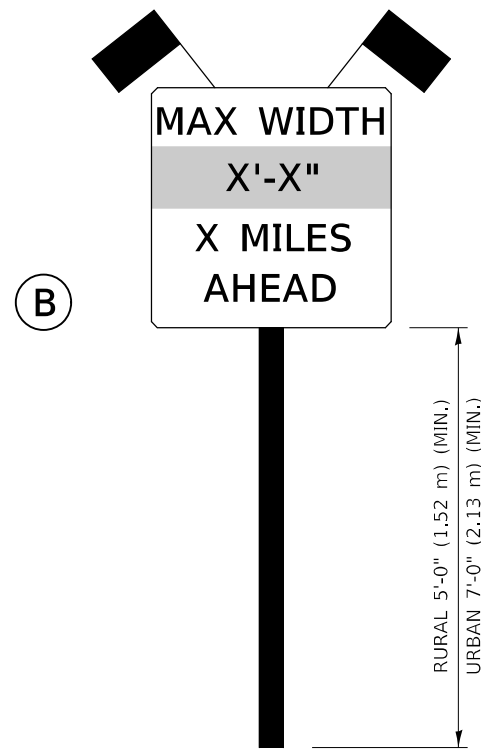
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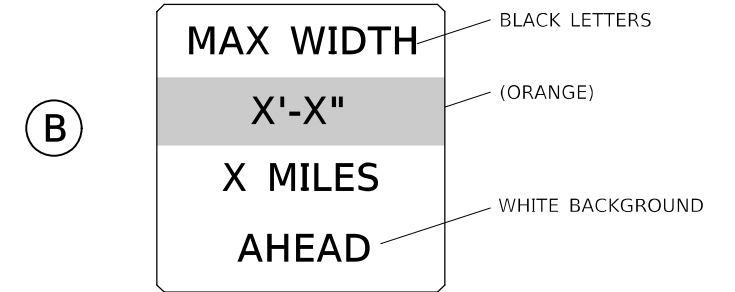
W12-2(O)-48"x48"(1200x1200)

SIGN (A) 2 SIGNS - W12-2(O)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



**W12-I103(O)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS**

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.
8. STAGE I SIGNED WIDTH (9'-6")
STAGE II SIGNED WIDTH (14'-6")

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

USER NAME = Jason.Goble	DESIGNED -	REVISED - 05/08
	DRAWN -	REVISED - 10/08 KJT
PLOT SCALE = 40,0000 * / in.	CHECKED -	REVISED - 07/09 KJT
PLOT DATE = 10/19/2023	DATE -	REVISED - 03/11 KJT

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION SIGNING

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

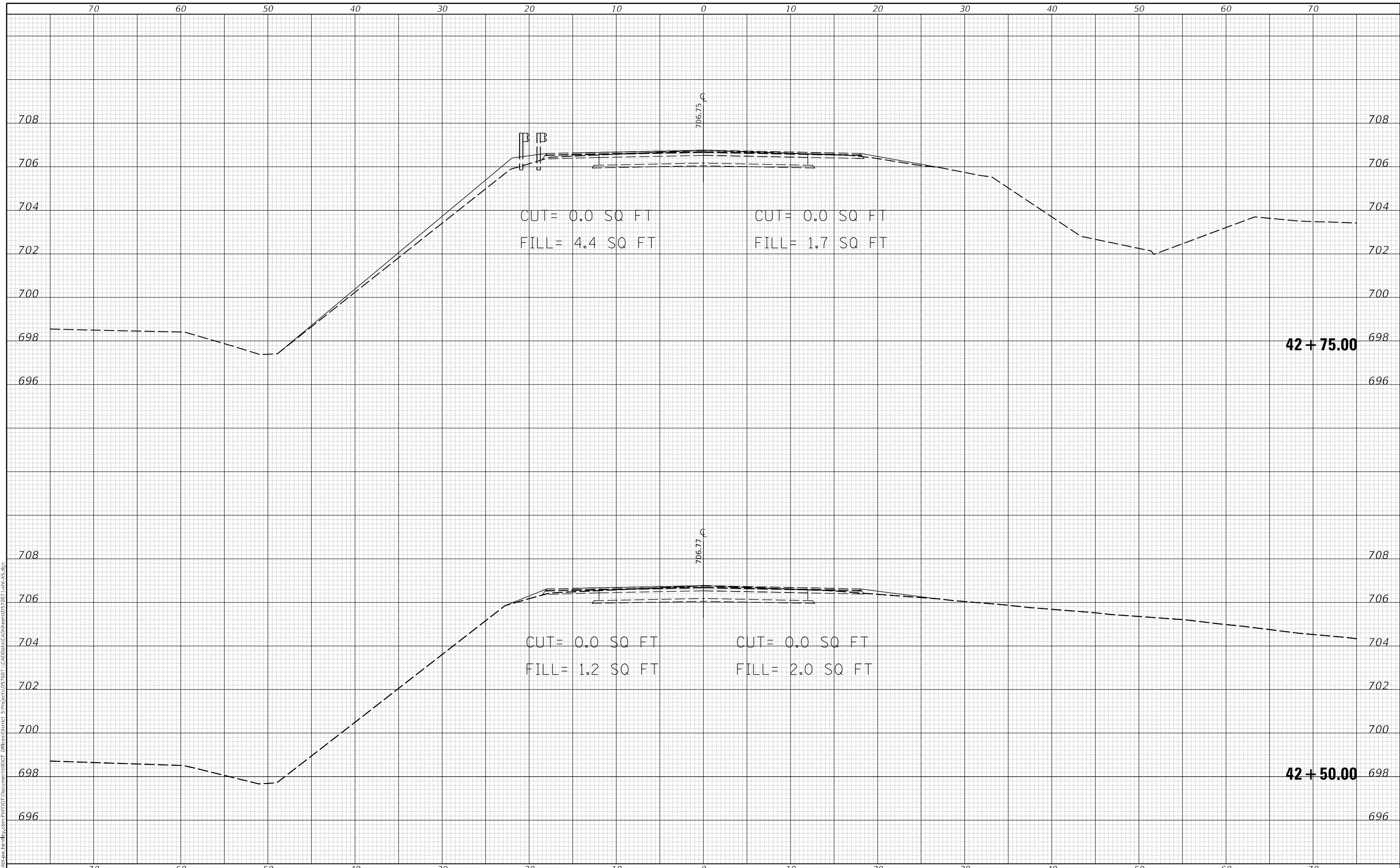
DISTRICT 5 DETAIL NO. X7200201

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	53
			CONTRACT NO. 70871	
		ILLINOIS	FED. AID PROJECT	

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

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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NOTE BOOK	
NO.	

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 FILL= 4.4 SQ FT

CUT= 0.0 SQ FT
 FILL= 1.7 SQ FT

CUT= 0.0 SQ FT
 FILL= 1.2 SQ FT

CUT= 0.0 SQ FT
 FILL= 2.0 SQ FT

42 + 75.00

42 + 50.00

USER NAME = Jason,Goble	DESIGNED - MWM	REVISED -
DRAWN - JRG	CHECKED -	REVISED -
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PLOT DATE = 10/19/2023		

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

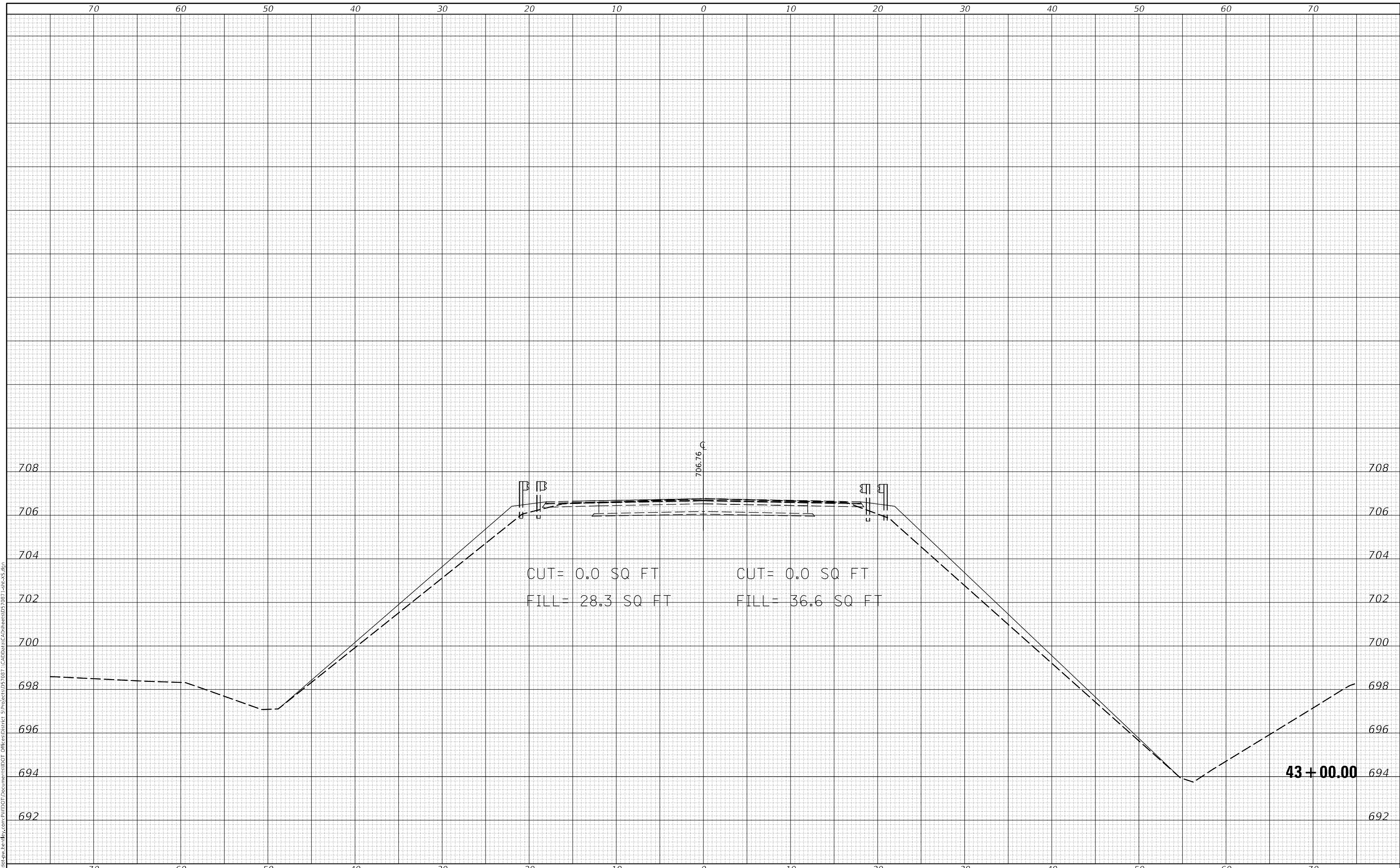
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F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 66	SHEET NO. 55
CONTRACT NO. 70871			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
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PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: 1:5H 1:2V	SHEET 3 OF 13 SHEETS	STA. 43+00.00 TO STA. 43+00.00
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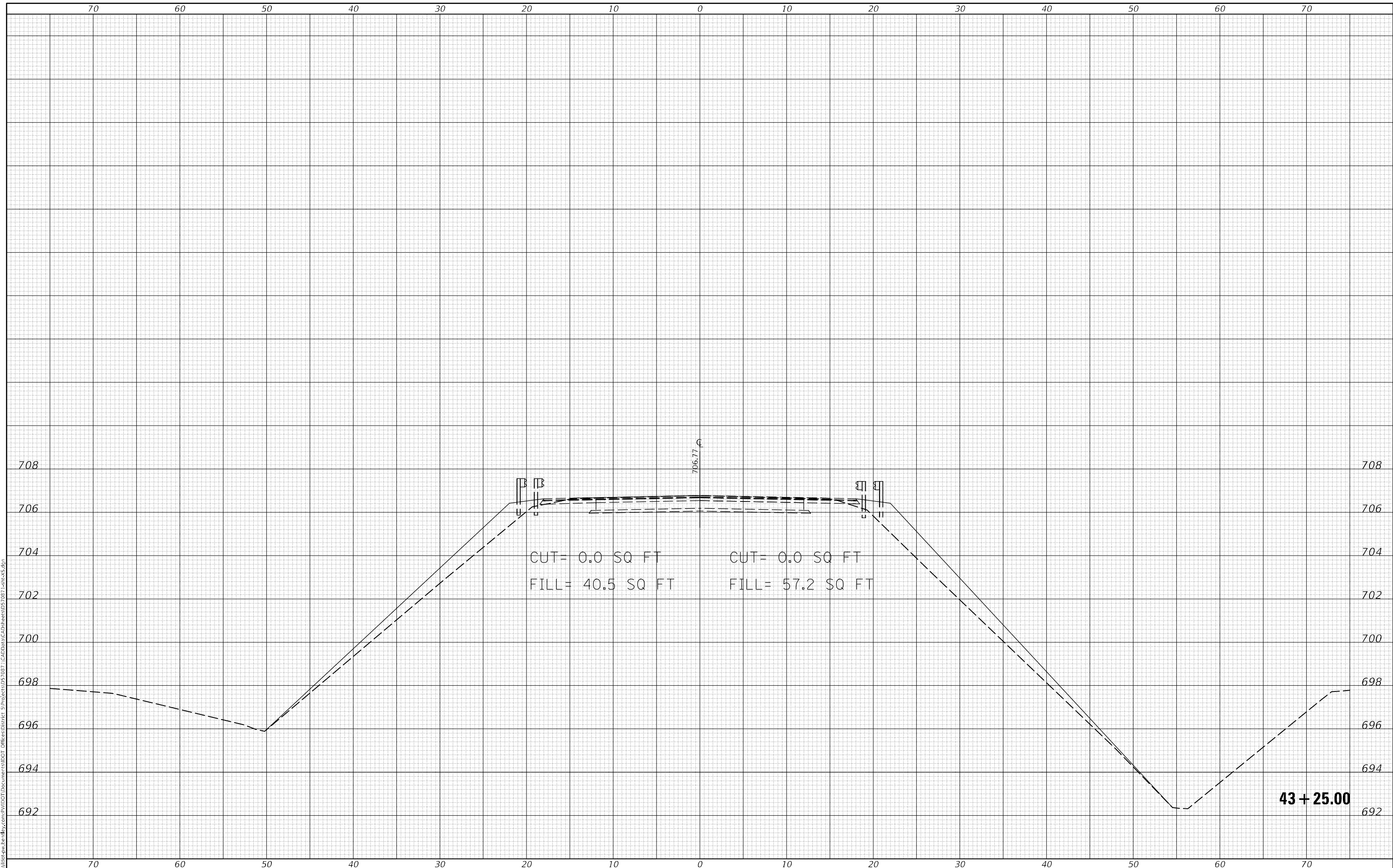
CROSS SECTIONS - US 24

F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 66	SHEET NO. 56
			CONTRACT NO. 70871	
		ILLINOIS FED. AID PROJECT		

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

DATE	
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USER NAME	= Jason,Goble
DESIGNED	- MWM
DRAWN	- JRG
PLOT SCALE	= 10,0000 * / in.
PLOT DATE	= 10/19/2023

REVISIONS	REVISIONS	REVISIONS
DESIGNED	REVISIONS	REVISIONS
DRAWN	REVISIONS	REVISIONS
CHECKED	REVISIONS	REVISIONS
DATE	REVISIONS	REVISIONS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 24

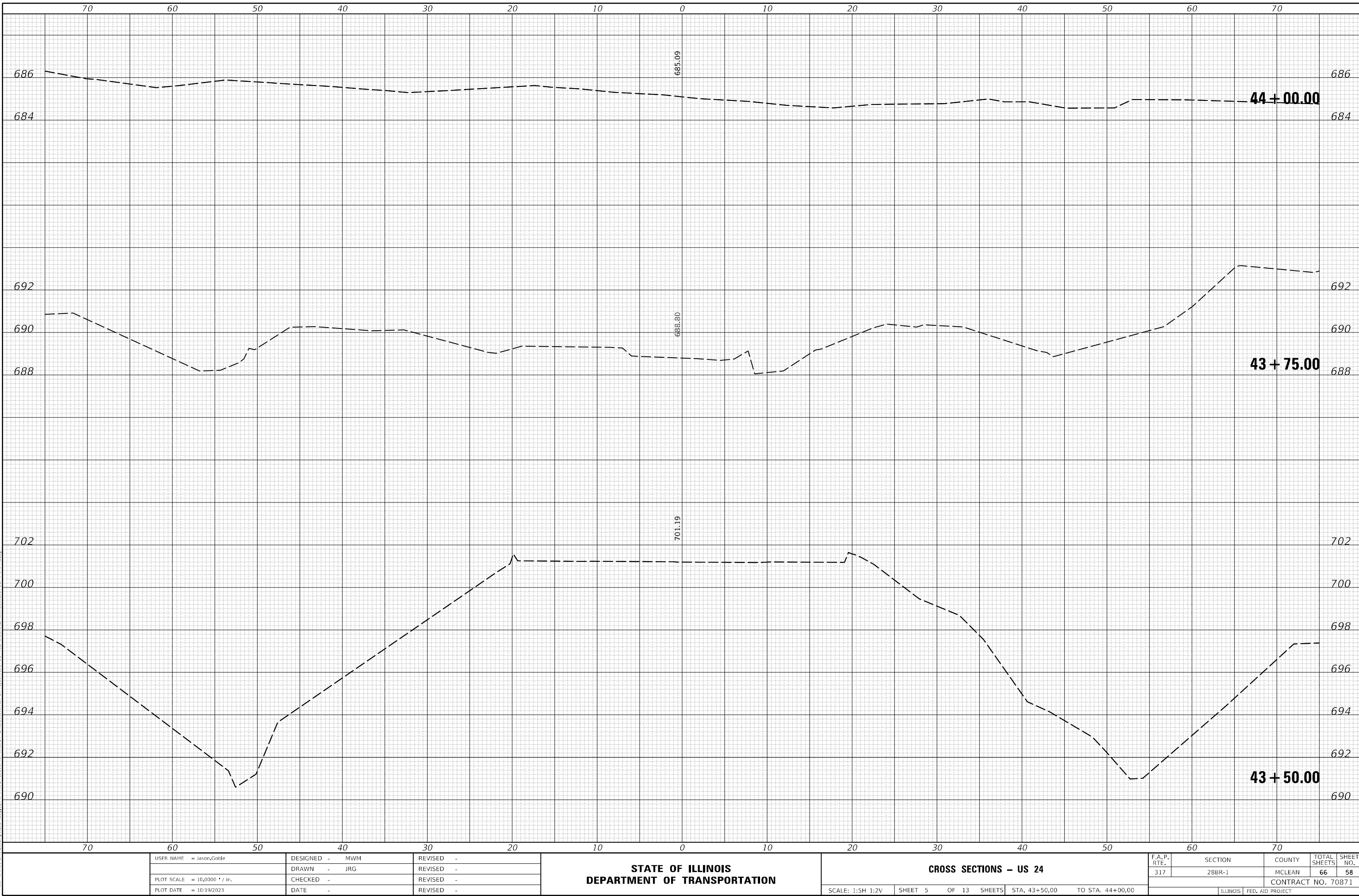
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	57
CONTRACT NO. 70871				

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

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

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USER NAME = Jason, Goble	DESIGNED - MWM	REVISD -
PLT SCALE = 10,000' / in.	DRAWN - JRG	REVISD -
PLT DATE = 10/19/2023	CHECKED -	REVISD -
	DATE -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: 1:5H 1:2V		SHEET 5 OF 13 SHEETS	STA. 43+50.00 TO STA. 44+00.00
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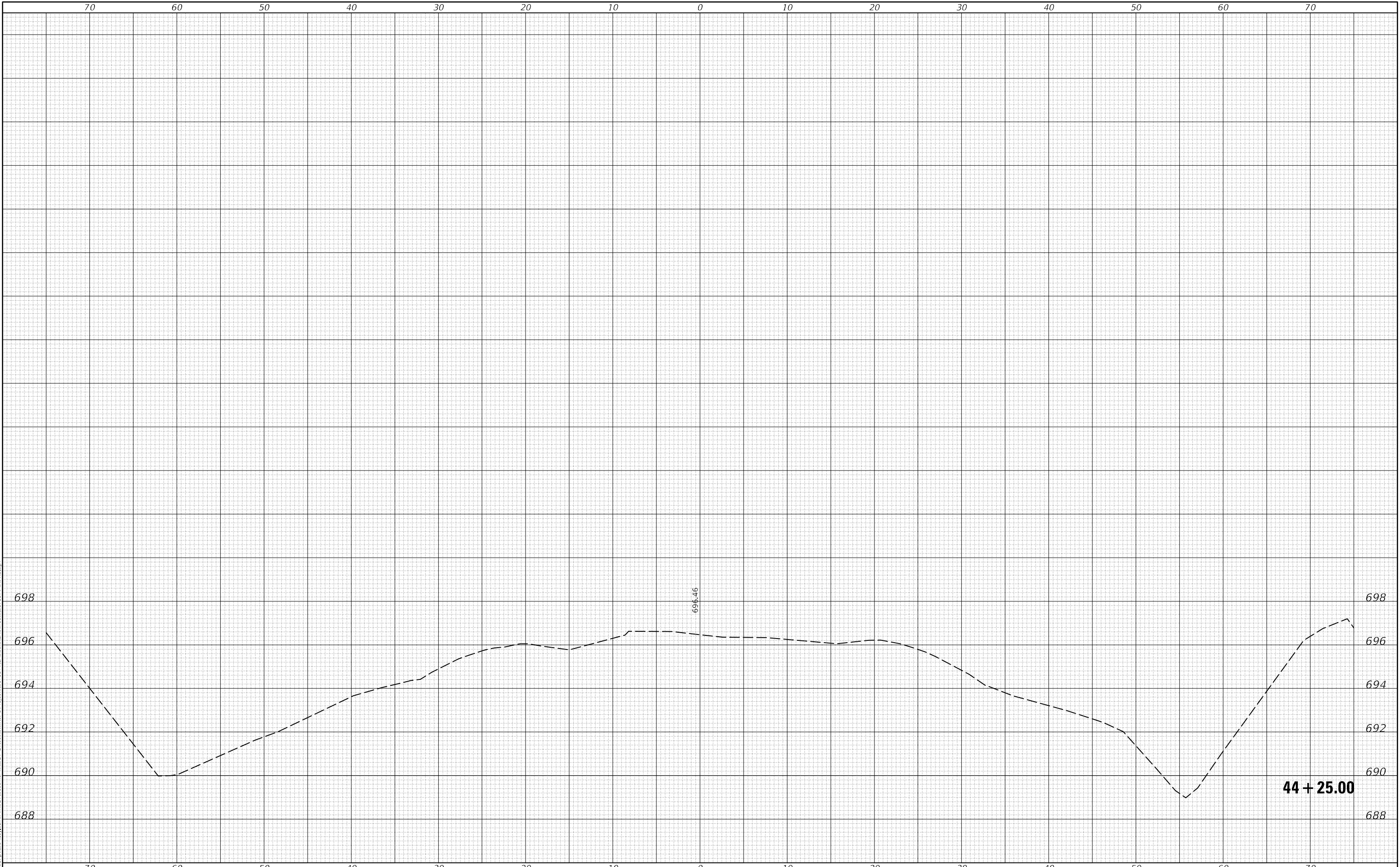
CROSS SECTIONS - US 24

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	58
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY		DATE	
SURVEYED	BY		
PLOTTED			
TEMPLATE			
AREAS CHECKED			
NO.			

ORIGINAL SURVEY		DATE	
SURVEYED	BY		
PLOTTED			
TEMPLATE			
AREAS CHECKED			
NO.			

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USER NAME = Jason,Goble
DESIGNED - MWM
DRAWN - JRG
PLOT SCALE = 10,0000' / in.
PLOT DATE = 10/19/2023

REVISID -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 24

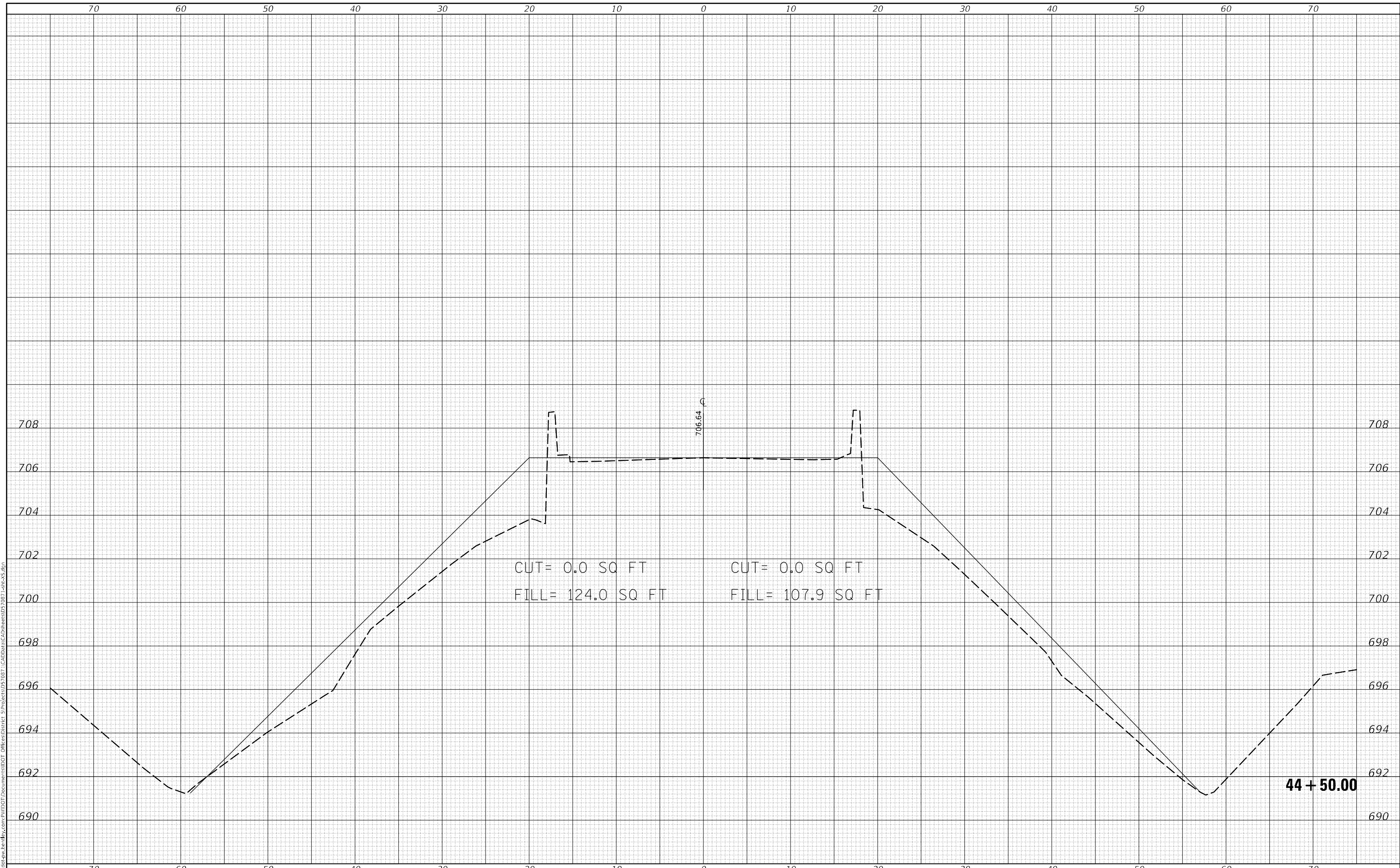
SCALE: 1:5H 1:2V	SHEET 6 OF 13 SHEETS	STA. 44+25.00 TO STA. 44+25.00
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F.A.P. RTE. 317	SECTION 28BR-1	COUNTY MCLEAN	TOTAL SHEETS 66	SHEET NO. 59
CONTRACT NO. 70871				ILLINOIS FED. AID PROJECT

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

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

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USER NAME = Jason, Goble	DESIGNED - MWM	REVISED -
DRAWN - JRG	REVISIONS	
PLLOT SCALE = 10,0000' / in.	CHECKED -	REVISED -
PLLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 24

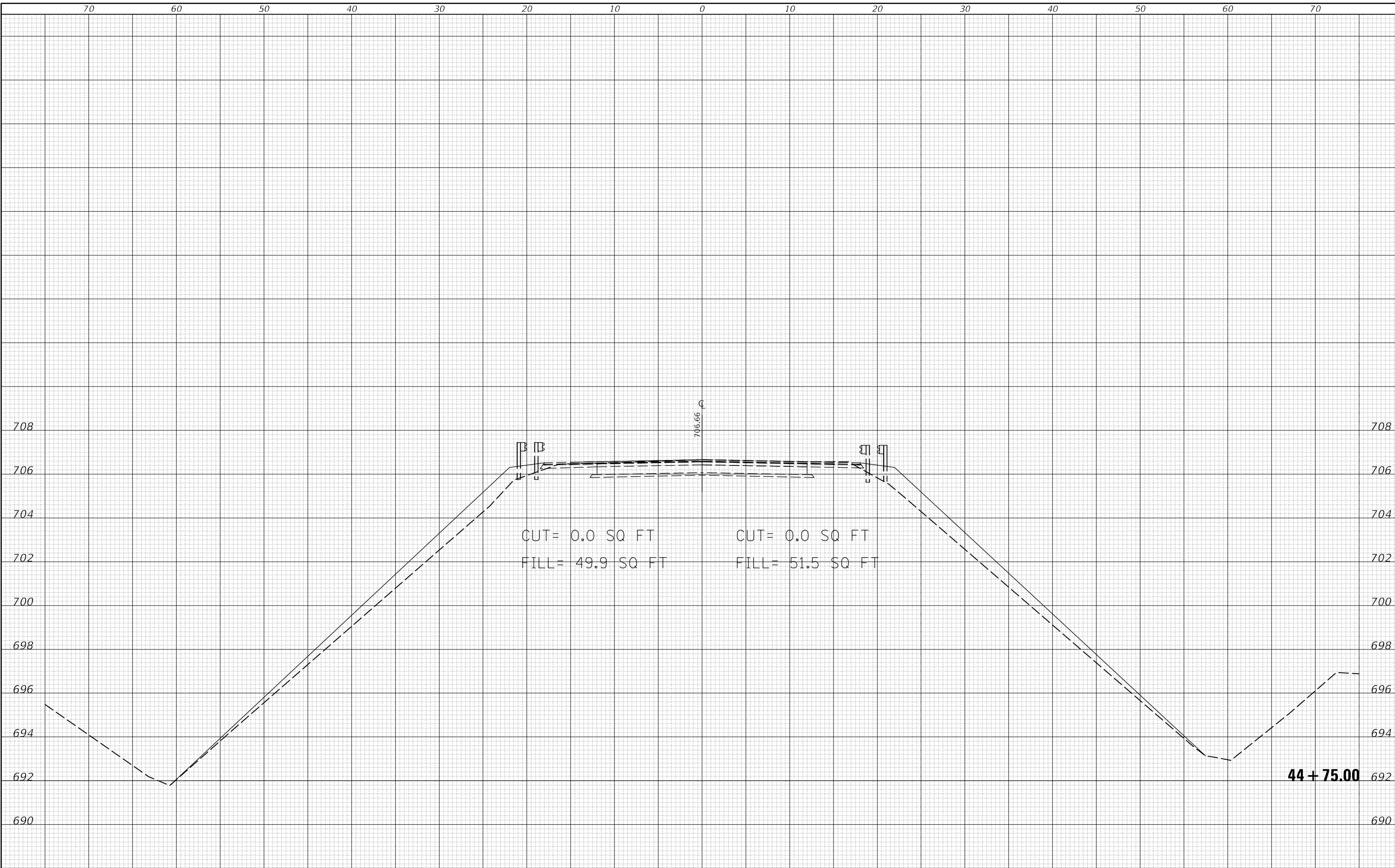
SCALE: 1:5H 1:2V SHEET 7 OF 13 SHEETS STA. 44+50.00 TO STA. 44+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	60
			CONTRACT NO. 70871	
ILLINOIS FED. AID PROJECT				

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

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

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USER NAME = Jason,Goble	DESIGNED - MWM	REVISED -
	DRAWN - JRG	REVISED -
PLOT SCALE = 10,0000 * / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 24

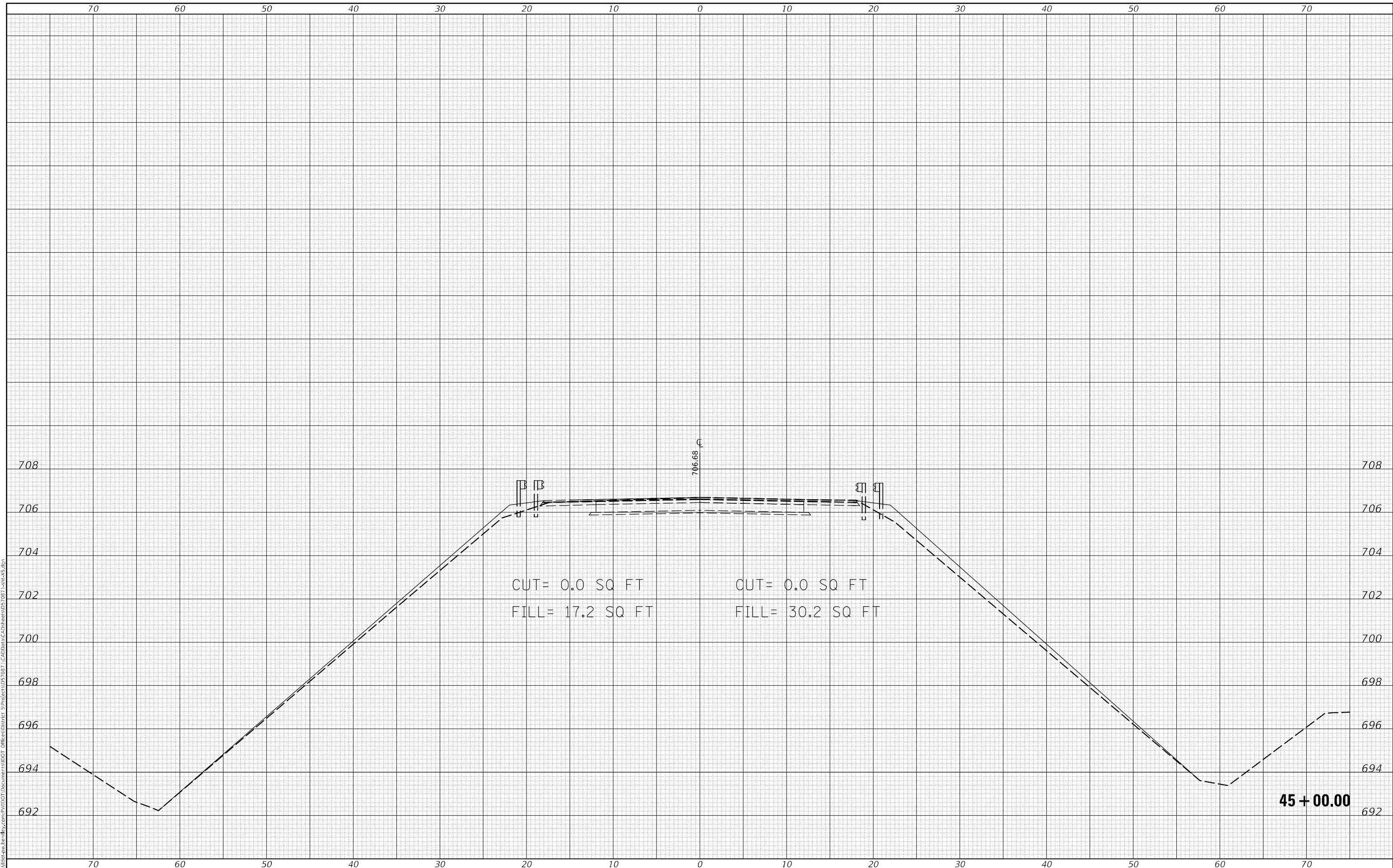
SCALE: 1:5H 1:2V SHEET 8 OF 13 SHEETS STA. 44+75.00 TO STA. 44+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	61
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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

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

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USER NAME = Jason,Goble	DESIGNED - MWM	REVISED -
DRAWN - JRG	REVISIONS	
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PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

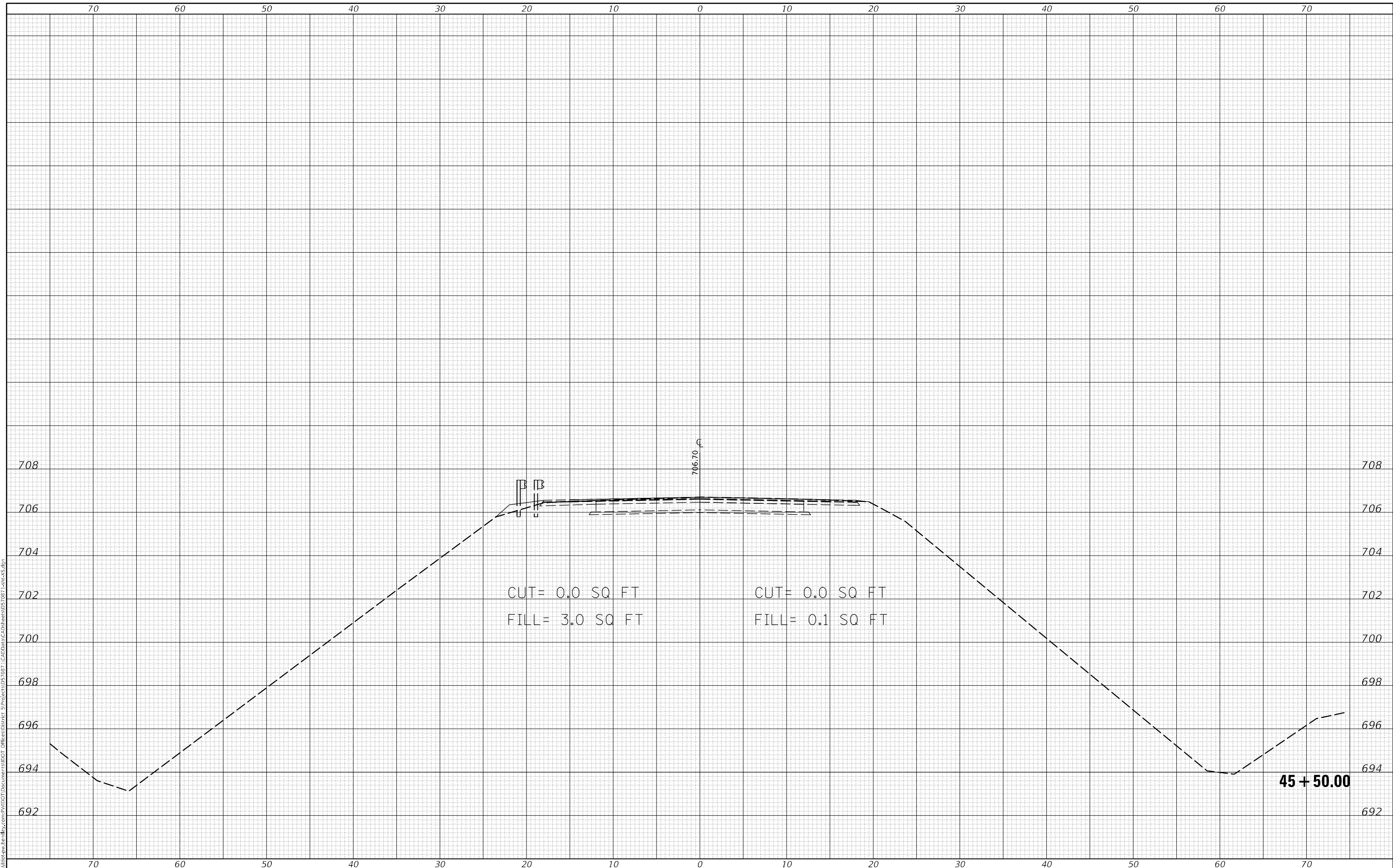
CROSS SECTIONS - US 24			
SCALE: 1:5H 1:2V	SHEET 9	OF 13 SHEETS	STA. 45+00.00 TO STA. 45+00.00

F.A.P. RTE. 317	SECTION 288R-1	COUNTY MCLEAN	TOTAL SHEETS 66	SHEET NO. 62
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	
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USER NAME = Jason,Goble	DESIGNED - MWM	REVISED -
DRAWN - JRG	REVISIONS -	
PLOT SCALE = 10,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

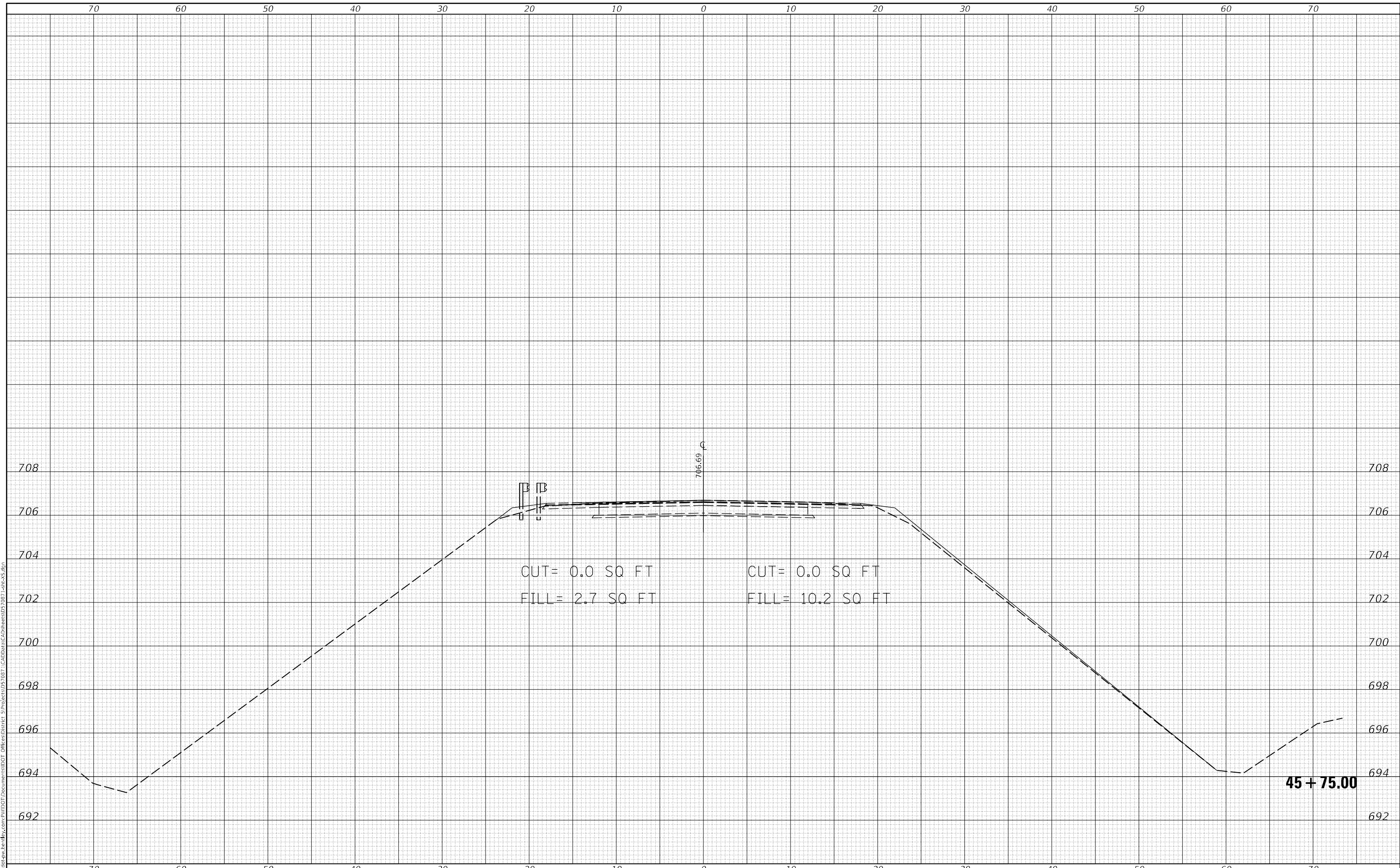
CROSS SECTIONS - US 24	
SCALE: 1:5H 1:2V	SHEET 11 OF 13 SHEETS
STA. 45+50.00	TO STA. 45+50.00

F.A.P. RTE. 317	SECTION 288R-1	COUNTY MCLEAN	TOTAL SHEETS 66	SHEET NO. 64
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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

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

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45 + 75.00

USER NAME = Jason,Goble	DESIGNED - MWM	REVISED -
	DRAWN - JRG	REVISED -
PLOT SCALE = 10,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 24

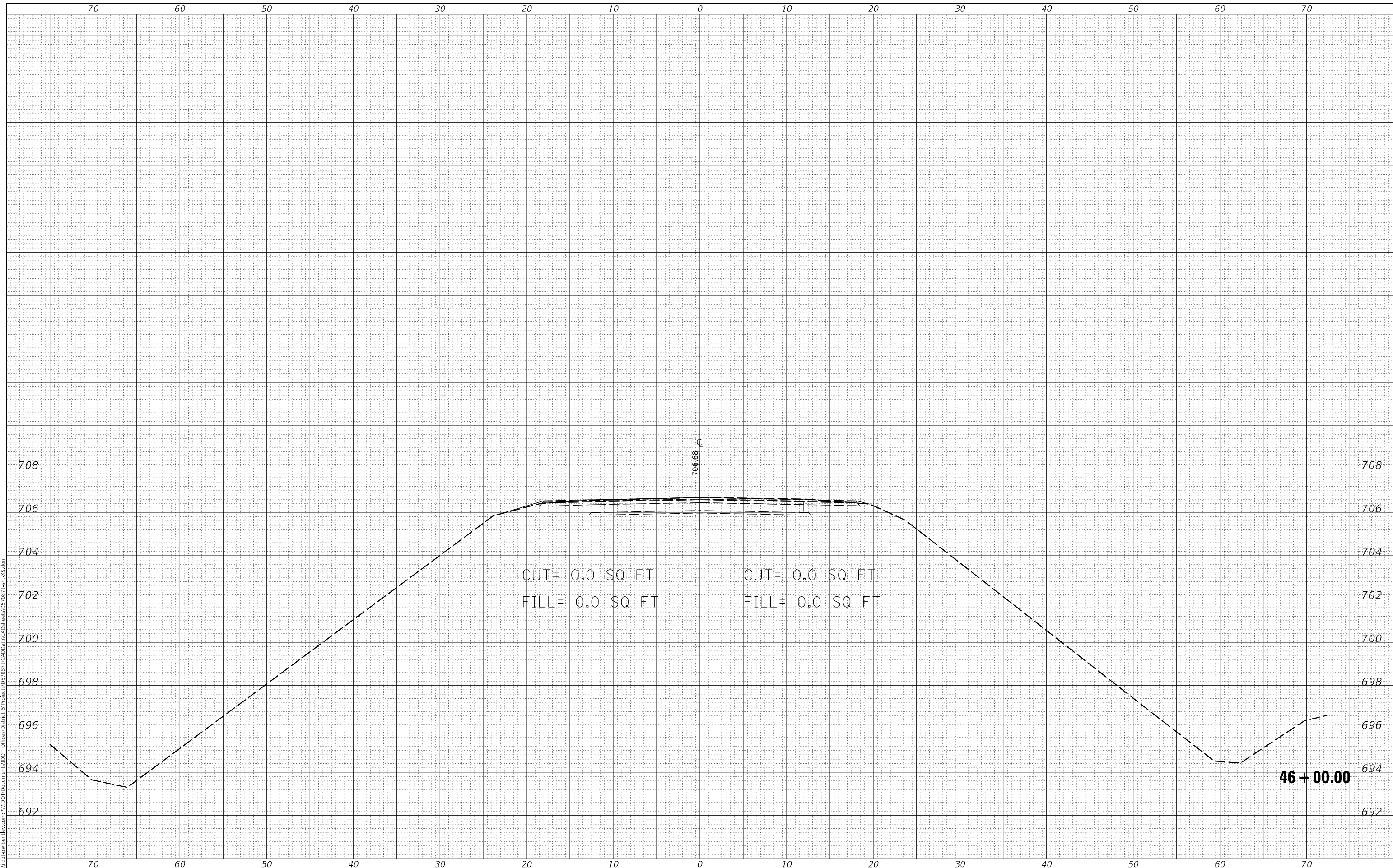
SCALE: 1:5H 1:2V SHEET 12 OF 13 SHEETS STA. 45+75.00 TO STA. 45+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	28BR-1	MCLEAN	66	65
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				

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

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
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USER NAME = Jason,Goble	DESIGNED - MWM	REVISED -
DRAWN - JRG	REVISIONS -	
PLOT SCALE = 10,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/19/2023	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 24	
SCALE: 1:5H 1:2V	SHEET 13 OF 13 SHEETS
STA. 46+00.00	TO STA. 46+00.00

F.A.P. RTE. 317	SECTION 288R-1	COUNTY MCLEAN	TOTAL SHEETS 66	SHEET NO. 66
CONTRACT NO. 70871				
ILLINOIS FED. AID PROJECT				