

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	1
		ILLINOIS	CONTRACT NO. 72189	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3-7 SUMMARY OF QUANTITIES
- 8 SCHEDULE OF QUANTITIES
- 9 DETOUR PLAN
- 10-17 TRAFFIC CONTROL PLAN - I-55
- 18-21 TRAFFIC CONTROL PLAN - IL 104
- 22 MAXIMUM WIDTH SIGNING DETAIL
- 23-49 BRIDGE PLANS

HIGHWAY STANDARDS

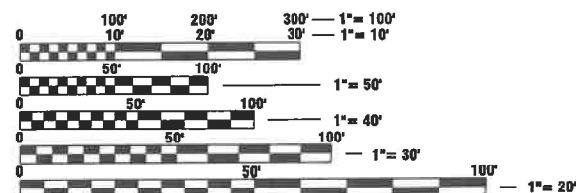
000001-08	701106-02	701426-09	704001-08	001001-02
642001-03	701326-04	701428-01	780001-05	001006
701001-02	701400-12	701446-11	782006-01	781001-04
701006-05	701402-12	701451-05		
701101-05	701411-09	701901-09		

DESIGN DESIGNATION

I-55: INTERSTATE
ADT: 35,500 (2022)
SU: 900
MU: 7,700

IL 104: MINOR ARTERIAL

ADT: 4,850 (2021)
SU: 240
MU: 200



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 EXCAVATORS
1-800-892-0123
OR 811

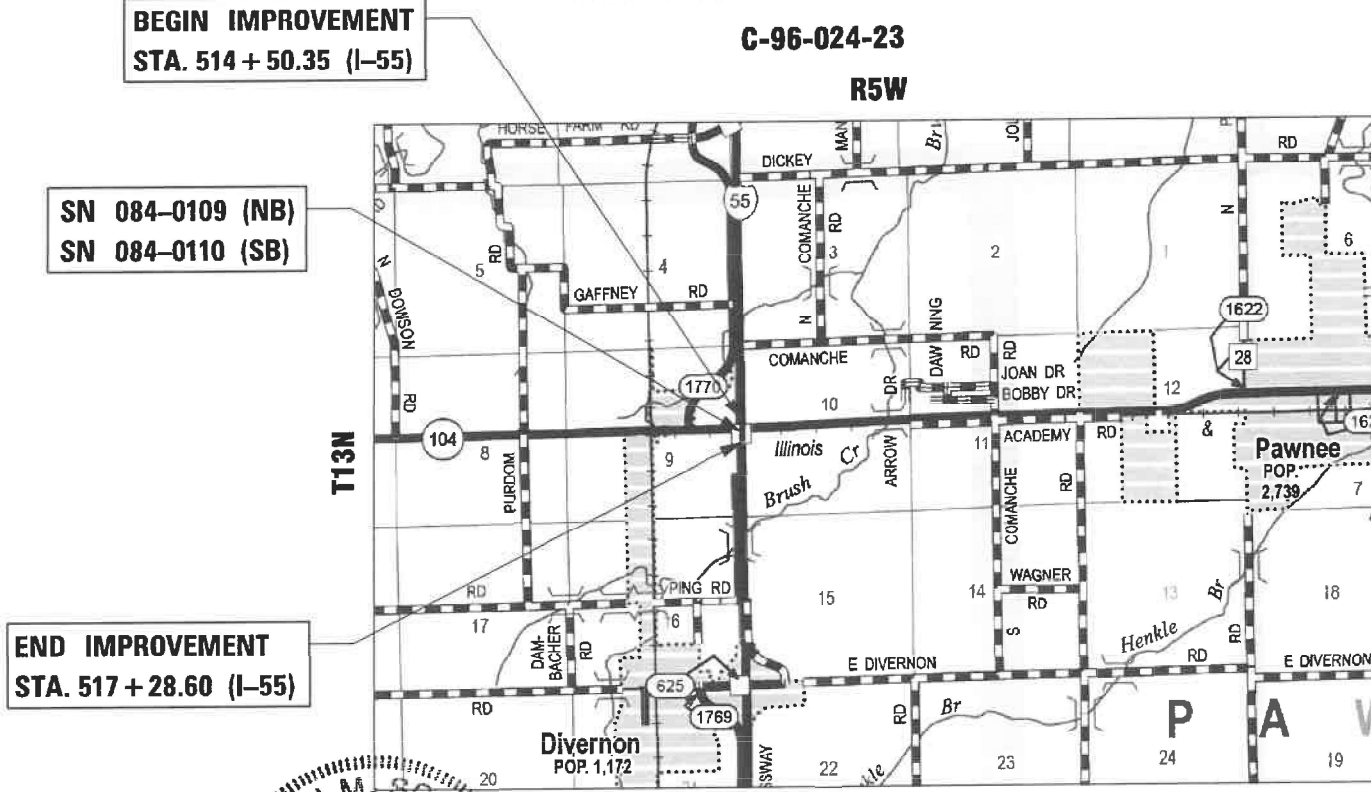
PROJECT ENGINEER: JON KELLEY (217) 785-2739
PROJECT MANAGER: ED KERN (217) 524-7547

CONTRACT NO. 72189

PROPOSED
HIGHWAY PLANS

FAI ROUTE 55 (I-55)
SECTION (84-5-1VHB)BDR,BP,BJR,BRR
PROJECT HBFP-3AP8(540)
BRIDGE REPAIR
SANGAMON COUNTY

C-96-024-23
R5W



END IMPROVEMENT
STA. 517 + 28.60 (I-55)

SN 084-0109 (NB)
SN 084-0110 (SB)

BEGIN IMPROVEMENT
STA. 514 + 50.35 (I-55)

AARON M. SCHAFER
062-065354
REGISTERED PROFESSIONAL ENGINEER
OF ILLINOIS
2/8/2024
AARON M. SCHAFER DATE

REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-065354
LICENSE EXPIRES NOVEMBER 30, 2025

LOCATION MAP
GROSS LENGTH = 278.25 FT. = 0.053 MILE
NET LENGTH = 278.25 FT. = 0.053 MILE

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com

Quincy, Illinois
616 North 24th Street
217.223.3670

Hannibal, MO Burlington, IA
Galesburg, IL Pella, IA Columbia, MO
Davenport, IA Carbondale, IL

DESIGN FIRM NO. 184-2738



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SUBMITTED February 9, 2024
John P. Meyer REGIONAL ENGINEER
March 22, 2024
Scott A. Etkin
ENGINEER OF DESIGN AND ENVIRONMENT
March 22, 2024
Stephen M. Smith
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

GENERAL NOTES

- FOR HORIZONTAL CONTROL AND CENTERLINE ALIGNMENT METADATA PLEASE CONTACT IDOT DISTRICT 6 CHIEF OF SURVEYS AT 217-782-8707.
- NOTIFY THE BUREAU OF OPERATIONS AT 217-785-5306, 21 DAYS BEFORE ANY ROAD CLOSURE OR WIDTH RESTRICTIONS AND 7 DAYS BEFORE IMPLEMENTING ANY TRAFFIC CONTROL.

COMMITMENTS

APPLICATION RATES

STONE RIPRAP	1.75 TON/CU YD
BITUMINOUS MATERIALS - TACK COAT (EXISTING HMA, MILLED SURFACE, CONCRETE, MILLED/TINED CONCRETE)	0.05 LBS/SQ FT
BITUMINOUS MATERIALS - TACK COAT (BETWEEN HMA LIFTS, IL 4.75, BRICK)	0.025 LBS/SQ FT
HMA SURFACE/BINDER (112 LBS)	0.056 TONS/(SQ YD * IN)

MIX TABLES

MIXTURE USE	HMA BASE COURSE WIDENING (LOWER LIFTS)	HMA BASE COURSE WIDENING (TOP LIFT)
PG	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL-19.0	IL-9.5
FRICTION AGGREGATE	N/A	MIX "C"
QUALITY MANAGEMENT	QC/QA	QC/QA
SUBLOT SIZE	N/A	N/A

MIXTURE USE	HMA SURFACE COURSE (I-55 SHOULDERS)
PG	PG 64-22
DESIGN AIR VOIDS	4.0% @ N70
MIXTURE COMPOSITION	IL-9.5
FRICTION AGGREGATE	MIX "D"
QUALITY MANAGEMENT	QC/QA
SUBLOT SIZE	N/A
MIXTURE WEIGHT	112 LB/SY*IN
MATERIAL TRANSFER DEVICE REQUIRED	NO

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6**

EXAMINED January, 8 20 24

[Signature]
ENGINEER OF OPERATIONS

EXAMINED January, 16 20 24

[Signature]
ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED January, 22 20 24

[Signature]
ENGINEER OF PROGRAM DEVELOPMENT

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
816 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
GENERAL NOTES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	2
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

CONSTRUCTION CODE			
PPS# 6-01454-0100			
90% FED			
10% STATE			
BRIDGE			
0047			
SN 084-0109/0110			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY				
20200500	EARTH EXCAVATION (WIDENING)	CU YD	204	204			
20700110	POROUS GRANULAR EMBANKMENT	TON	295	295			
28100805	STONE DUMPED RIPRAP, CLASS A3	TON	26	26			
35600724	HOT-MIX ASPHALT BASE COURSE WIDENING, 12"	SQ YD	1,833	1,833			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	391	391			
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	869	869			
44004250	PAVED SHOULDER REMOVAL	SQ YD	1,833	1,833			
48203100	HOT-MIX ASPHALT SHOULDERS	TON	98	98			
50102400	CONCRETE REMOVAL	CU YD	39.7	39.7			
50104650	SLOPE WALL REMOVAL	SQ YD	313	313			
50157300	PROTECTIVE SHIELD	SQ YD	1,477	1,477			
50300100	FLOOR DRAINS	EACH	16	16			
50300225	CONCRETE STRUCTURES	CU YD	27.4	27.4			
50300255	CONCRETE SUPERSTRUCTURE	CU YD	41.2	41.2			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. ROUTE 55 SUMMARY OF QUANTITIES			
SCALE: NONE	SHEET 1	OF 5 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	3
CONTRACT NO. 72189			ILLINOIS FED. AID PROJECT	

CONSTRUCTION CODE			
PPS# 6-01454-0100			
90% FED			
10% STATE			
BRIDGE			
0047			
SN 084-0109/0110			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY				
50300300	PROTECTIVE COAT	SQ YD	3,825	3,825			
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	22,707	22,707			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	9,750	9,750			
50800515	BAR SPLICERS	EACH	56	56			
51100100	SLOPE WALL 4 INCH	SQ YD	313	313			
52000110	PREFORMED JOINT STRIP SEAL	FOOT	257	257			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	42	42			
52100520	ANCHOR BOLTS, 1"	EACH	84	84			
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	50	50			
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	2,605	2,605			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12			
67100100	MOBILIZATION	L SUM	1	1			
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	2			
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1			
70100815	TRAFFIC CONTROL AND PROTECTION, STANDARD 701446	L SUM	1	1			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. ROUTE 55
SUMMARY OF QUANTITIES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	4
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

CONSTRUCTION CODE			
PPS# 6-01454-0100			
90% FED			
10% STATE			
BRIDGE			
0047			
SN 084-0109/0110			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY				
70100820	TRAFFIC CONTROL AND PROTECTION, STANDARD 701451	L SUM	1	1			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5			
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	200	200			
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,700	1,700			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,838	1,838			
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4			
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	5	5			
* 78009005	MODIFIED URETHANE PAVEMENT MARKING - LINE 5"	FOOT	9,824	9,824			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	90	90			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	90	90			
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	3,008	3,008			
X0326444	SURFACE FILLER (SPECIAL)	GALLON	5	5			
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	2,718	2,718			

* SPECIALTY ITEM

REV. - MS

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
SUMMARY OF QUANTITIES**

SCALE: NONE SHEET 3 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	5
CONTRACT NO. 72189			ILLINOIS FED. AID PROJECT	

CONSTRUCTION CODE			
PPS# 6-01454-0100			
90% FED			
10% STATE			
BRIDGE			
0047			
SN 084-0109/0110			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY				
X5030550	PROTECTIVE COAT (SPECIAL)	SQ YD	805	805			
X7010208	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	2	2			
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1			
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1			
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	42	42			
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	1,102	1,102			
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	9,555	9,555			
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1			
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1	1			
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1			
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1			
Z0012148	BRIDGE DECK SCARIFICATION 3"	SQ YD	3,742	3,742			
Z0012170	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 3 1/4"	SQ YD	3,742	3,742			
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
SUMMARY OF QUANTITIES**

SCALE: NONE SHEET 4 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	6
			CONTRACT NO. 72189	
		ILLINOIS	FED. AID PROJECT	

TRAFFIC CONTROL AND PROTECTION

LOCATION	STATION TO STATION	70400100	70400200	70600260	70600332
		TEMP CONCRETE BARRIER	RELOCATE TEMP CONC BARRIER	IMPACT ATTENUATORS TEMP FRN, TL3	IMPACT ATTN RELOCATE FRN, TL3
		FOOT	FOOT	EACH	EACH
STAGE 1					
I-55 NB	514+50.00 519+86.70	537.5		1	
I-55 SB	511+92.10 517+29.00	537.5		1	
IL 104	98+69.00 101+29.50	262.5		1	
IL 104	99+32.50 101+93.00	262.5		1	
STAGE 2					
I-55 NB	514+50.00 519+74.40		525.0		1
I-55 SB	512+04.60 517+29.00		525.0		1
IL 104	98+21.00 101+29.50	50	262.5		1
IL 104	99+29.50 102+38.00	50	262.5		1
STAGE 3					
IL 104	98+69.00 101+29.50		262.5		1
TOTALS		1700	1838	4	5

HMA ASPHALT BASE COURSE WIDENING

STATION TO STATION	SIDE	WIDTH	20200500	35600724	44004250
			EARTH EXCAVATION (WIDENING)	HMA ASPHALT BASE COURSE WIDENING 12"	PAVED SHOULDER REMOVAL
			CU YD	SQ YD	SQ YD
IL 104		FOOT			
95+67.00	103+92.00	RT/OUTSIDE	10.0	101.9	916.7
96+67.00	104+92.00	LT/OUTSIDE	10.0	101.9	916.7
TOTAL			203.8	1833.3	1833.3
USE			204	1833	1833

RAISED REFLECTIVE PAVEMENT MARKERS

STATION TO STATION	SIDE	78100100	78300200
		RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
		EACH	EACH
I-55			
509+13.10	514+51.00	LT/RT	28
517+29.00	521+36.30	LT/RT	22
510+42.80	514+51.00	LT/RT	22
517+29.00	520+52.80	LT/RT	18
TOTALS			90

PAVEMENT MARKING REMOVAL - WATER BLASTING

STATION TO STATION	SIDE	DESCRIPTION	78300202	78300202
			WHITE	YELLOW
			SQ FT	SQ FT
I-55				
509+13.10	532+84.00	LT	EDGE LINE (SOLID)	461.4
514+51.00	532+84.00	LT	CENTERLINE (DASHED)	493.9
495+42.80	520+52.80	RT	EDGE LINE (SOLID)	612.9
495+42.80	520+52.80	RT	CENTERLINE (DASHED)	520.2
IL 104				
96+67.00	104+92.00	LT	EDGE LINE (SOLID)	343.8
95+67.00	103+92.00	RT	EDGE LINE (SOLID)	343.8
TOTAL				231.6
USE				3008

MODIFIED URETHANE PAVEMENT MARKING - LINE 5"

STATION TO STATION	SIDE	DESCRIPTION	78009005	
			WHITE	YELLOW
			FOOT	FOOT
I-55				
509+13.10	532+84.00	LT	EDGE LINE (SOLID)	1938.5
509+13.10	532+84.00	LT	CENTERLINE (DASHED)	1185.5
495+42.80	520+52.80	RT	EDGE LINE (SOLID)	1567.6
495+42.80	520+52.80	RT	CENTERLINE (DASHED)	1248.5
IL 104				
96+67.00	104+92.00	LT	EDGE LINE (SOLID)	825.0
95+67.00	103+92.00	RT	EDGE LINE (SOLID)	825.0
TOTAL				7590.1
USE				9824

HMA SURFACE REMOVAL, 2"

STATION TO STATION	SIDE	WIDTH	DEPTH	44000157	
				AREA	AREA
				FOOT	INCH
I-55					
509+13.10	514+51.00	LT INSIDE	3	2	179.0
517+29.00	521+36.30	LT INSIDE	3	2	135.8
509+13.10	513+36.90	LT OUTSIDE	3	2	141.3
517+29.00	521+36.30	LT OUTSIDE	3	2	135.8
510+42.80	511+39.50	RT OUTSIDE	3	2	32.23
510+42.80	514+51.00	RT INSIDE	3	2	135.7
517+29.00	520+52.80	RT INSIDE	3	2	107.9
TOTAL					868.3
USE					869

SHOULDER RUMBLE STRIPS, 16 INCH

STATION TO STATION	SIDE	64200116	
		LENGTH	LENGTH
		FOOT	FOOT
I-55			
509+13.10	514+51.00	LT INSIDE	536.9
517+29.00	521+36.30	LT INSIDE	407.3
509+13.10	513+36.90	LT OUTSIDE	423.8
517+29.00	521+36.30	LT OUTSIDE	407.3
510+42.80	511+39.50	RT OUTSIDE	96.7
510+42.80	514+51.00	RT INSIDE	407.2
517+29.00	520+52.80	RT INSIDE	323.8
TOTAL			2605.0
USE			2605

HMA SHOULDERS

STATION TO STATION	SIDE	48203100	
		TON	TON
		TON	TON
I-55			
509+13.10	514+51.00	LT INSIDE	20.0
517+29.00	521+36.30	LT INSIDE	15.2
509+13.10	513+36.90	LT OUTSIDE	15.8
517+29.00	521+36.30	LT OUTSIDE	15.2
510+42.80	511+39.50	RT OUTSIDE	3.6
510+42.80	514+51.00	RT INSIDE	15.2
517+29.00	520+52.80	RT INSIDE	12.1
TOTAL			97.1
USE			98

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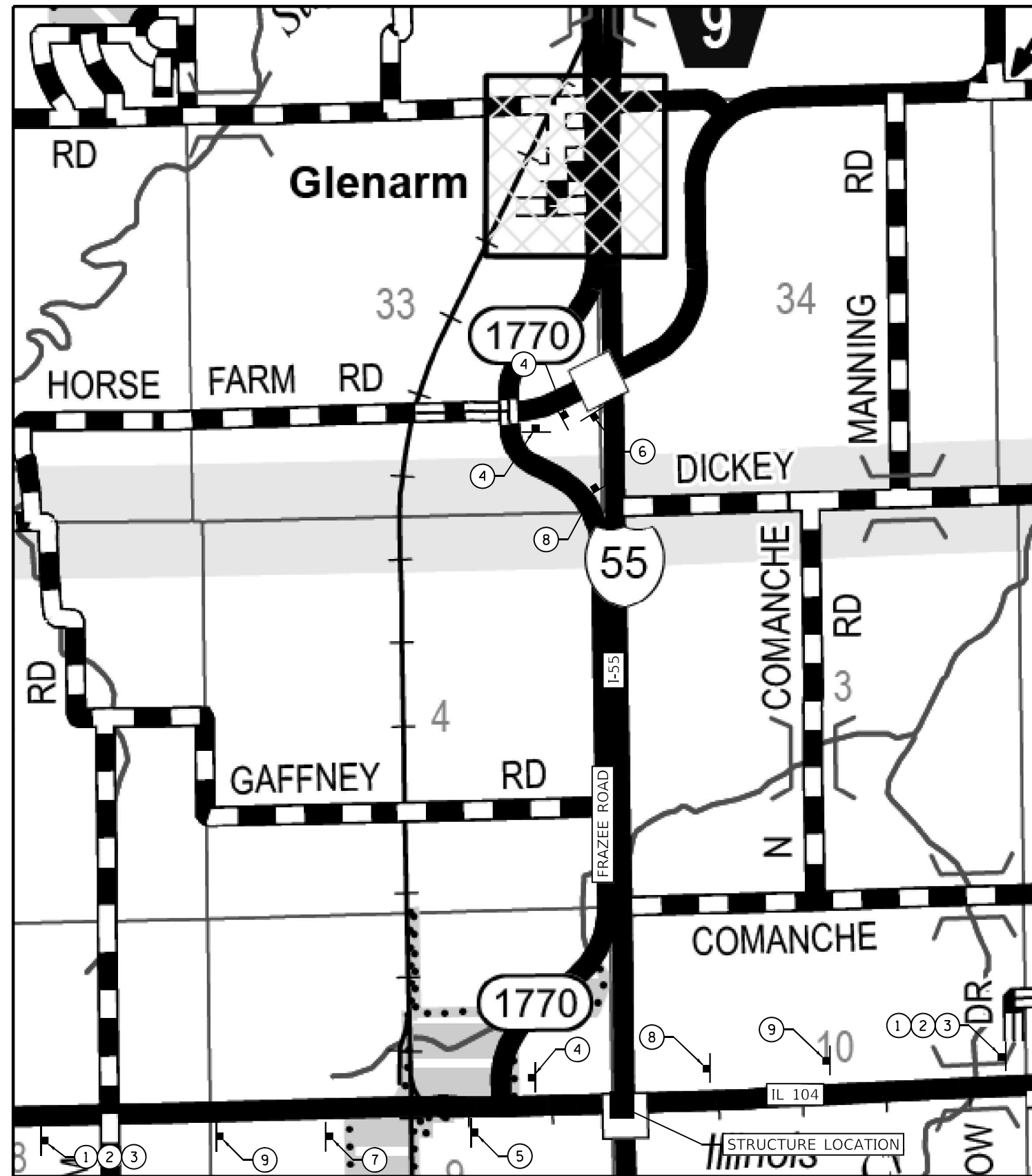


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

F.A.I. ROUTE 55 SCHEDULE OF QUANTITIES			
SCALE: NONE	SHEET 1 OF 1 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	8
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



GENERAL NOTES

- 1) FLAGS SHALL BE USED AT EACH DETOUR SIGN LOCATION.
- 2) SEE SHEETS 10-17 FOR DETAILS OF TRAFFIC CONTROL AND PROTECTION ON I-55.
- 3) ALL SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.
- 4) THE LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
- 5) ALL SIGNS SHALL BE REMOVED WHEN NOT REQUIRED FOR FUTURE USE.
- 6) FURNISHING, ERECTING, MAINTAINING, AND REMOVAL OF THE SIGNS SHOWN SHALL BE PAID FOR ACCORDING TO THE CONTRACT UNIT COST PER LUMP SUM FOR "DETOUR SIGNING".
- 7) THE EXACT LOCATIONS OF ALL TRAFFIC CONTROL ITEMS SHALL BE APPROVED BY THE ENGINEER.
- 8) IF SIGNS ARE NOT IN USE THEY SHALL BE COVERED.
- 9) IDOT DISTRICT 6 BUREAU OF OPERATIONS (217-785-5306) SHALL BE NOTIFIED 21 DAYS PRIOR TO ANY RAMP CLOSURE REQUIRING DETOUR SIGNING.

SIGNAGE LEGEND

<p>① R11-3(O) - 60"x30" 2 EACH</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;"> <p>I-55 RAMP SOUTH CLOSED 3 MILES AHEAD</p> </div>	<p>② R11-3(O) - 60"x30" 2 EACH</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;"> <p>I-55 RAMP SOUTH CLOSED 1.5 MILES AHEAD</p> </div>	<p>③ R11-3(O) - 60"x30" 2 EACH</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;"> <p>I-55 RAMP SOUTH CLOSED 0.5 MILES AHEAD</p> </div>
<p>④ M4-8 (O) M3-3 (W) M1-1 M6-1R (O) 3 EACH</p> <div style="display: flex; flex-direction: column; align-items: center; margin: 5px auto;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">DETOUR</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">SOUTH</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin: 2px;">55</div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="margin: 2px;">→</div> </div>	<p>⑤ M4-8 (O) M3-3 (W) M1-1 M6-1L (O) 1 EACH</p> <div style="display: flex; flex-direction: column; align-items: center; margin: 5px auto;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">DETOUR</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">SOUTH</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin: 2px;">55</div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="margin: 2px;">←</div> </div>	<p>⑥ M4-8a (O) M3-3 (W) M1-1 1 EACH</p> <div style="display: flex; flex-direction: column; align-items: center; margin: 5px auto;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">END DETOUR</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">SOUTH</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin: 2px;">55</div> </div> <p style="font-size: small; margin-top: 5px;">LOCATE ON SB RAMP AT THE GLENARM EXIT</p>
<p>⑦ M4-8 (O) M3-3 (W) M1-1 M5-1L (O) 1 EACH</p> <div style="display: flex; flex-direction: column; align-items: center; margin: 5px auto;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">DETOUR</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">SOUTH</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin: 2px;">55</div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="margin: 2px;">↶</div> </div>	<p>⑧ M4-8 (O) M3-3 (W) M1-1 M5-1L (O) 2 EACH</p> <div style="display: flex; flex-direction: column; align-items: center; margin: 5px auto;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">DETOUR</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">SOUTH</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin: 2px;">55</div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="margin: 2px;">↷</div> </div>	<p>⑨ M20-2 (O) 2 EACH</p> <div style="border: 1px solid black; padding: 10px; width: 60px; height: 60px; margin: 5px auto; display: flex; align-items: center; justify-content: center;"> <p>DETOUR AHEAD</p> </div>

MODEL: Default
FILE NAME: P:\Quincy\22116\2024\Bridges\Transportation\CADD_Sheets\17189-sh1_Detour.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
816 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = aschafer	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 5000,0000' / in.	CHECKED -	REVISED -	
DATE = 2/7/2024	DATE -	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
DETOUR PLAN**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	9
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

LEGEND

	DIRECTION OF TRAFFIC		WORK ZONE
	TEMPORARY CONCRETE BARRIER		HMA SURFACE REMOVAL, 2"
	BARRICADE		W1-4BL
	DRUM WITH MONODIRECTIONAL STEADY BURNING LIGHT		W1-4BR
	ARROW BOARD		G20-1103-6036
	TEMPORARY IMPACT ATTENUATOR		EXIT SIGN-SPECIAL
	MONODIRECTIONAL REFLECTORS		

STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

PRE-STAGE 1:
 UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARD 701400, 701411, AND 701446.
 MEDIAN AND OUTSIDE SHOULDERS:
 REMOVE CONFLICTING RUMBLE STRIPS (HMA SURFACE REMOVAL 2" - 3FT WIDE)
 INSTALL HMA SHOULDERS (TONS)

STAGE 1:
 SET-UP STAGE 1 TRAFFIC CONTROL
 CLOSE RAMP B, UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARD 701451.
 CONSTRUCT EAST HALF OF SN 084-0109 IMPROVEMENTS.
 CONSTRUCT WEST HALF OF SN 0840110 IMPROVEMENTS.
 UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARDS 701400, 701402, AND 701411.
 EXISTING GUARDRAIL TO REMAIN IN PLACE.
 REMOVE STAGE 1 TRAFFIC CONTROL.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, ARROW BOARDS, SIGNS, REFLECTORS/MARKERS, AND INDICATOR BARRICADES WITH STEADY BURNING LIGHTS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

EXISTING SHOULDER IS ADEQUATE FOR SUPPORTING TAPERED TRAFFIC SINCE THE SHOULDER WAS STRENGTHENED ON PREVIOUS CONTRACT.

THIS WORK SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH HIGHWAY STANDARD 701402. ADVANCE SIGNAGE AND BARRICADES IN ACCORDANCE WITH HIGHWAY STANDARDS 701400.

RAMP B CLOSURE AND ADVANCE SIGNAGE IN ACCORDANCE WITH HIGHWAY STANDARD 701451 AND RAMP C TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH HIGHWAY STANDARD 701411.

HIGHWAY STANDARD 701446 TO BE UTILIZED IF THERE IS NIGHT WORK.

THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

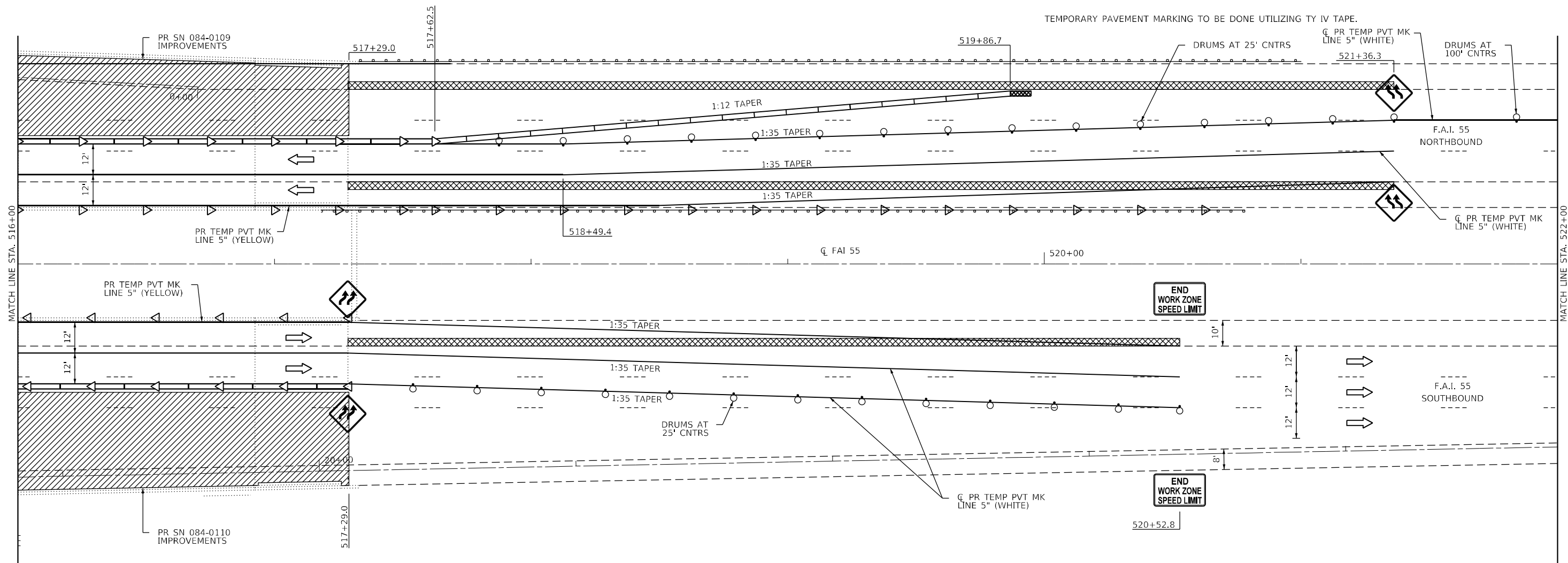
REMOVE ALL CONFLICTING PAVEMENT MARKINGS. ARIEL SPEED MARKERS HAVE BEEN PLACED IN THE NB LANES, NORTH OF INTERCHANGE. THE EXACT LOCATIONS OF THE ARIEL MARKERS SHALL BE VERIFIED BY FIELD PERSONNEL. IF THE ARIEL MARKERS ARE WITHIN SECTIONS REQUIRING PAVEMENT MARKING REMOVAL WATER BLASTING, THE ARIEL MARKERS SHALL NOT BE REMOVED IN ANY WAY.

LANE-REDUCTION PAVEMENT ARROWS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE COVERED WITH BLACKOUT TAPE. THE COST OF ALL BLACKOUT TAPE AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.



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KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 816 N. 24TH ST., QUINCY, ILL. 62301-2112, 223-3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

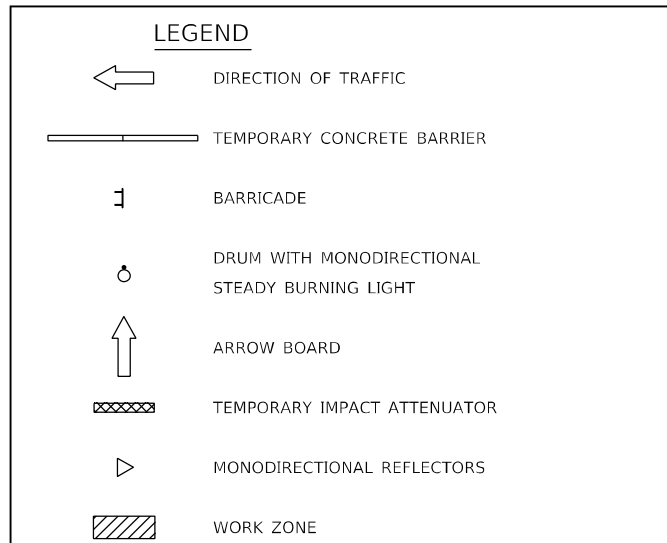
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PLOT DATE = 2/7/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
 TRAFFIC CONTROL PLAN (STAGE 1)**

SCALE: 1"=20' SHEET 3 OF 4 SHEETS STA. 516+00.00 TO STA. 522+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	17
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

STAGE 2:

- SET-UP STAGE 2 TRAFFIC CONTROL.
- CONSTRUCT WEST HALF OF SN 084-0109 IMPROVEMENTS.
- CONSTRUCT EAST HALF OF SN 0840110 IMPROVEMENTS.
- UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARDS 701400, 701402, AND 701411.
- EXISTING GUARDRAIL TO REMAIN IN PLACE.
- REMOVE STAGE 2 TRAFFIC CONTROL.
- OPEN RAMP B.

STAGE 3:

- INSTALL PAVEMENT MARKINGS.
- UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARD 701426.
- INSTALL SHOULDER RUMBLE STRIPS, 16 INCH.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, ARROW BOARDS, SIGNS, REFLECTORS/MARKERS, AND INDICATOR BARRICADES WITH STEADY BURNING LIGHTS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

EXISTING SHOULDER IS ADEQUATE FOR SUPPORTING TAPERED TRAFFIC SINCE THE SHOULDER WAS STRENGTHENED ON PREVIOUS CONTRACT.

THIS WORK SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH HIGHWAY STANDARD 701402. ADVANCE SIGNAGE AND BARRICADES IN ACCORDANCE WITH HIGHWAY STANDARDS 701400.

RAMP B CLOSURE AND ADVANCE SIGNAGE IN ACCORDANCE WITH HIGHWAY STANDARD 701451 AND RAMP C TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH HIGHWAY STANDARD 701411.

HIGHWAY STANDARD 701446 TO BE UTILIZED IF THERE IS NIGHT WORK.

THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

REMOVE ALL CONFLICTING PAVEMENT MARKINGS. ARIEL SPEED MARKERS HAVE BEEN PLACED IN THE NB LANES, NORTH OF INTERCHANGE. THE EXACT LOCATIONS OF THE ARIEL MARKERS SHALL BE VERIFIED BY FIELD PERSONNEL. IF THE ARIEL MARKERS ARE WITHIN SECTIONS REQUIRING PAVEMENT MARKING REMOVAL WATER BLASTING, THE ARIEL MARKERS SHALL NOT BE REMOVED IN ANY WAY.

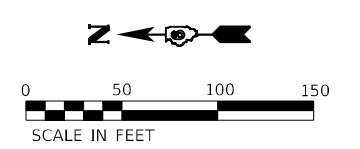
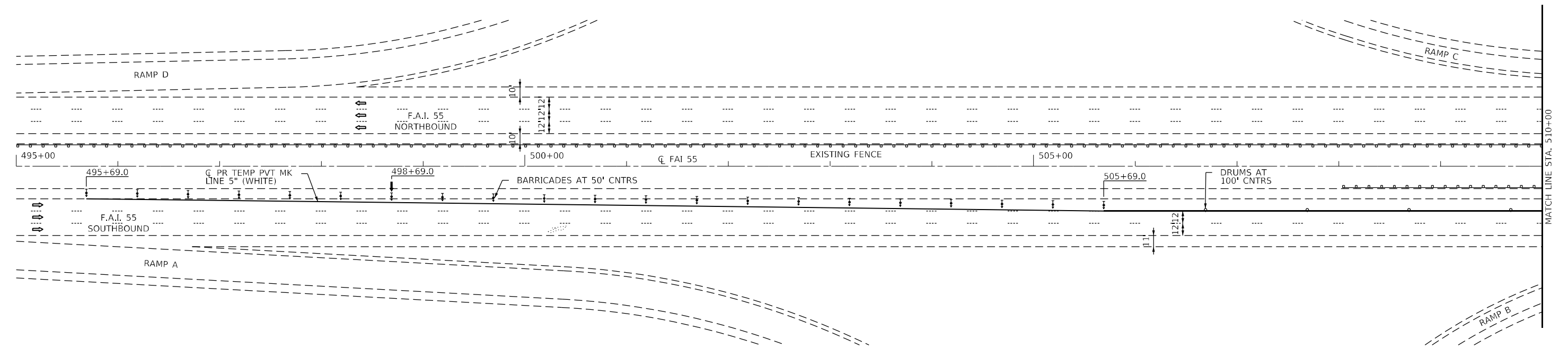
LANE-REDUCTION PAVEMENT ARROWS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE COVERED WITH BLACKOUT TAPE. THE COST OF ALL BLACKOUT TAPE AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.

← ADVANCE SIGNAGE AND BARRICADES IN ACCORDANCE WITH HIGHWAY STANDARDS 701400.



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KLINGNER & ASSOCIATES, P.C. <small>Engineers • Architects • Surveyors 816 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223-3670 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738</small>	USER NAME = aschafer	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.I. ROUTE 55 TRAFFIC CONTROL PLAN (STAGE 2)	F.A.I. RTE. 55	SECTION (84-5-1VH)BDR,BP,BJR,BRR	COUNTY SANGAMON	TOTAL SHEETS 49	SHEET NO. 14
	PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -			SCALE: 1"=50'	SHEET 1 OF 4 SHEETS	STA. 495+00.00 TO STA. 510+00.00	CONTRACT NO. 72189	
	PLOT DATE = 2/7/2024	DATE -	REVISED -							

LEGEND

	DIRECTION OF TRAFFIC		WORK ZONE
	TEMPORARY CONCRETE BARRIER		HMA SURFACE REMOVAL, 2"
	BARRICADE		W1-4BL
	DRUM WITH MONODIRECTIONAL STEADY BURNING LIGHT		W1-4BR
	ARROW BOARD		G20-1103-6036
	TEMPORARY IMPACT ATTENUATOR		EXIT SIGN-SPECIAL
	MONODIRECTIONAL REFLECTORS		

STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

STAGE 2:
 SET-UP STAGE 2 TRAFFIC CONTROL.
 CONSTRUCT WEST HALF OF SN 084-0109 IMPROVEMENTS.
 CONSTRUCT EAST HALF OF SN 0840110 IMPROVEMENTS.
 UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARDS 701400, 701402, AND 701411.
 EXISTING GUARDRAIL TO REMAIN IN PLACE.
 REMOVE STAGE 2 TRAFFIC CONTROL.
 OPEN RAMP B.

STAGE 3:
 INSTALL PAVEMENT MARKINGS.
 UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARD 701426.
 INSTALL SHOULDER RUMBLE STRIPS, 16 INCH.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, ARROW BOARDS, SIGNS, REFLECTORS/MARKERS, AND INDICATOR BARRICADES WITH STEADY BURNING LIGHTS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

EXISTING SHOULDER IS ADEQUATE FOR SUPPORTING TAPERED TRAFFIC SINCE THE SHOULDER WAS STRENGTHENED ON PREVIOUS CONTRACT.

THIS WORK SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH HIGHWAY STANDARD 701402. ADVANCE SIGNAGE AND BARRICADES IN ACCORDANCE WITH HIGHWAY STANDARDS 701400.

RAMP B CLOSURE AND ADVANCE SIGNAGE IN ACCORDANCE WITH HIGHWAY STANDARD 701451 AND RAMP C TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH HIGHWAY STANDARD 701411.

HIGHWAY STANDARD 701446 TO BE UTILIZED IF THERE IS NIGHT WORK.

THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

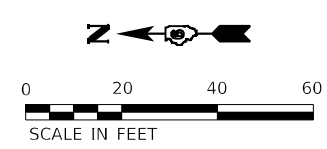
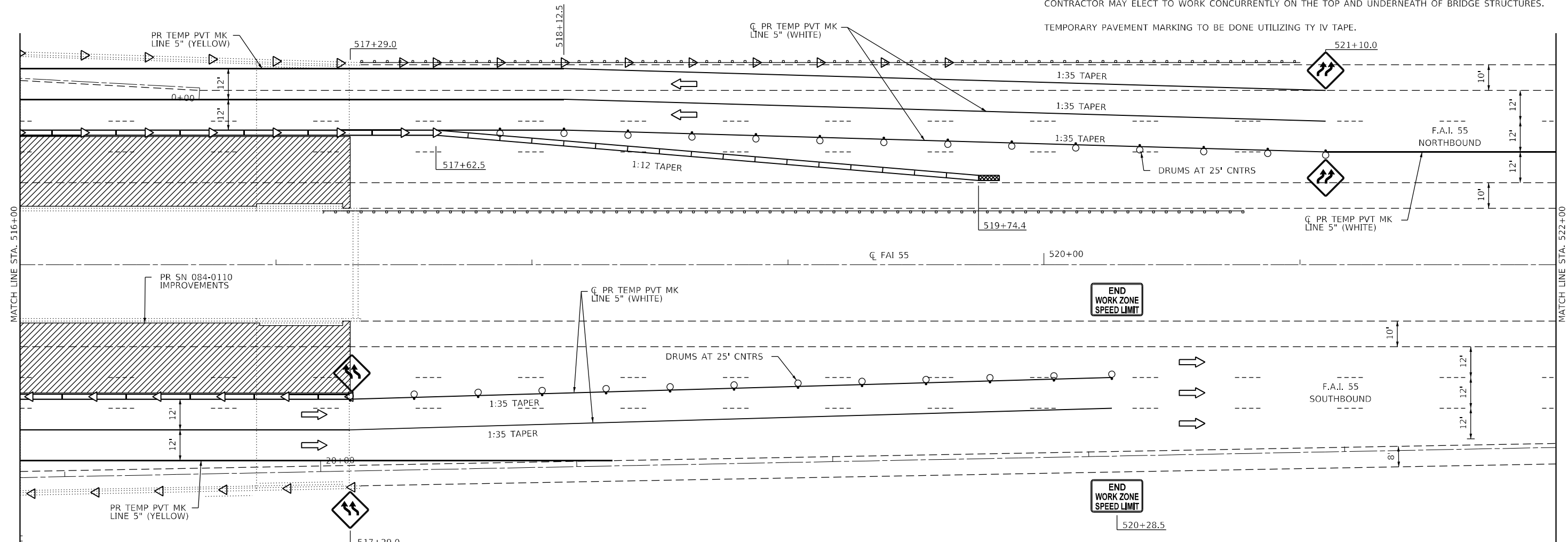
REMOVE ALL CONFLICTING PAVEMENT MARKINGS. ARIEL SPEED MARKERS HAVE BEEN PLACED IN THE NB LANES, NORTH OF INTERCHANGE. THE EXACT LOCATIONS OF THE ARIEL MARKERS SHALL BE VERIFIED BY FIELD PERSONNEL. IF THE ARIEL MARKERS ARE WITHIN SECTIONS REQUIRING PAVEMENT MARKING REMOVAL WATER BLASTING, THE ARIEL MARKERS SHALL NOT BE REMOVED IN ANY WAY.

LANE-REDUCTION PAVEMENT ARROWS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE COVERED WITH BLACKOUT TAPE. THE COST OF ALL BLACKOUT TAPE AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.



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KLINGNER & ASSOCIATES, P.C.
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 816 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223-3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738









USER NAME = aschafer	DESIGNED -	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 2/7/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

F.A.I. ROUTE 55 TRAFFIC CONTROL PLAN (STAGE 2)	
SCALE: 1"=20'	SHEET 3 OF 4 SHEETS
STA. 516+00.00	TO STA. 522+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHBJ)BDR,BP,BJR,BRR	SANGAMON	49	16
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

LEGEND

-  DIRECTION OF TRAFFIC
-  TEMPORARY CONCRETE BARRIER
-  BARRICADE
-  DRUM WITH MONODIRECTIONAL STEADY BURNING LIGHT
-  ARROW BOARD
-  TEMPORARY IMPACT ATTENUATOR
-  MONODIRECTIONAL REFLECTORS
-  WORK ZONE

STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

STAGE 2:

SET-UP STAGE 2 TRAFFIC CONTROL.
 CONSTRUCT WEST HALF OF SN 084-0109 IMPROVEMENTS.
 CONSTRUCT EAST HALF OF SN 0840110 IMPROVEMENTS.
 UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARDS 701400, 701402, AND 701411.
 EXISTING GUARDRAIL TO REMAIN IN PLACE.
 REMOVE STAGE 2 TRAFFIC CONTROL.
 OPEN RAMP B.

STAGE 3:

INSTALL PAVEMENT MARKINGS.
 UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARD 701426.
 INSTALL SHOULDER RUMBLE STRIPS, 16 INCH.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, ARROW BOARDS, SIGNS, REFLECTORS/MARKERS, AND INDICATOR BARRICADES WITH STEADY BURNING LIGHTS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

EXISTING SHOULDER IS ADEQUATE FOR SUPPORTING TAPERED TRAFFIC SINCE THE SHOULDER WAS STRENGTHENED ON PREVIOUS CONTRACT.

THIS WORK SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH HIGHWAY STANDARD 701402. ADVANCE SIGNAGE AND BARRICADES IN ACCORDANCE WITH HIGHWAY STANDARDS 701400.

RAMP B CLOSURE AND ADVANCE SIGNAGE IN ACCORDANCE WITH HIGHWAY STANDARD 701451 AND RAMP C TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH HIGHWAY STANDARD 701411.

HIGHWAY STANDARD 701446 TO BE UTILIZED IF THERE IS NIGHT WORK.

THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

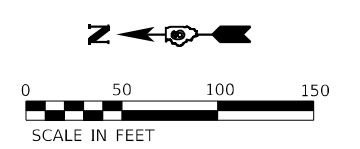
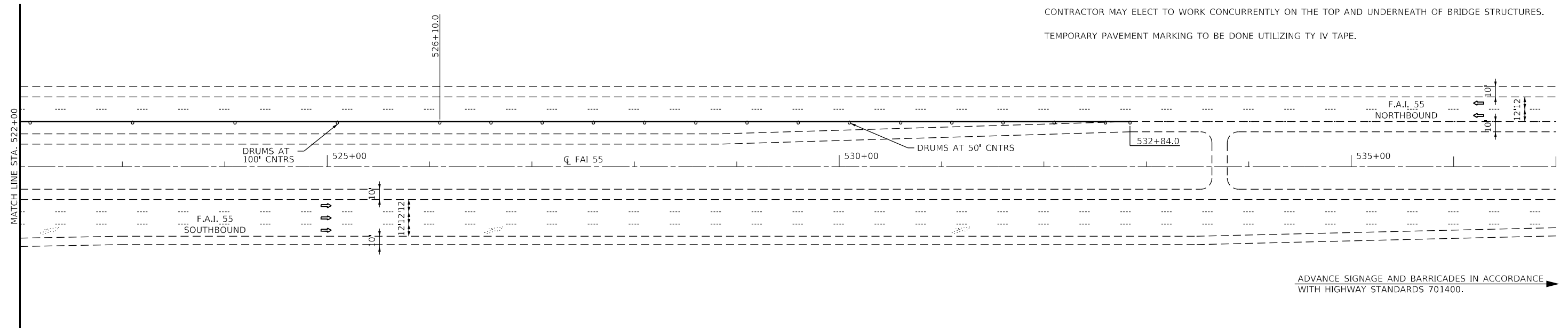
REMOVE ALL CONFLICTING PAVEMENT MARKINGS. ARIEL SPEED MARKERS HAVE BEEN PLACED IN THE NB LANES, NORTH OF INTERCHANGE. THE EXACT LOCATIONS OF THE ARIEL MARKERS SHALL BE VERIFIED BY FIELD PERSONNEL. IF THE ARIEL MARKERS ARE WITHIN SECTIONS REQUIRING PAVEMENT MARKING REMOVAL WATER BLASTING, THE ARIEL MARKERS SHALL NOT BE REMOVED IN ANY WAY.

LANE-REDUCTION PAVEMENT ARROWS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE COVERED WITH BLACKOUT TAPE. THE COST OF ALL BLACKOUT TAPE AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)".

TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.



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 Engineers • Architects • Surveyors
 816 N. 24TH ST. QUINCY, ILLINOIS 62301-2112-3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = aschafer	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 2/7/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
 TRAFFIC CONTROL PLAN (STAGE 2)**

SCALE: 1"=50' SHEET 4 OF 4 SHEETS STA. 522+00.00 TO STA. 537+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	17
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

PRE-STAGE 1:

UTILIZE TRAFFIC CONTROL PROTECTION STANDARD 701326.
 REMOVE EXISTING SHOULDERS OF EASTBOUND AND WESTBOUND OUTSIDE LANES.
 CONSTRUCT HOT-MIX ASPHALT BASE COURSE 12" ALONG EASTBOUND (STA. 95+67.00 TO 103+92.00) AND WESTBOUND OUTSIDE LANES (STA. 96+67.00 TO 104+92.00)
 SET UP STAGE 1 TRAFFIC CONTROL.

STAGE 1:

COMPLETE NORTH END ABUTMENT REPAIRS AND SLOPE REPAIRS.
 COMPLETE REPAIRS ON SN 084-0109 AND 084-0110 STRUCTURES NORTH AND SOUTH ENDS.
 PAINT STRUCTURE AT NORTH ABUTMENT.
 PAINT NORTH END OF SN 084-0109 AND 084-0110 STRUCTURES.
 REMOVE STAGE 1 TRAFFIC CONTROL.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, BARRIER REFLECTORS, SIGNS, AND FLAGGERS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)"

THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

REMOVE ALL CONFLICTING PAVEMENT MARKINGS.

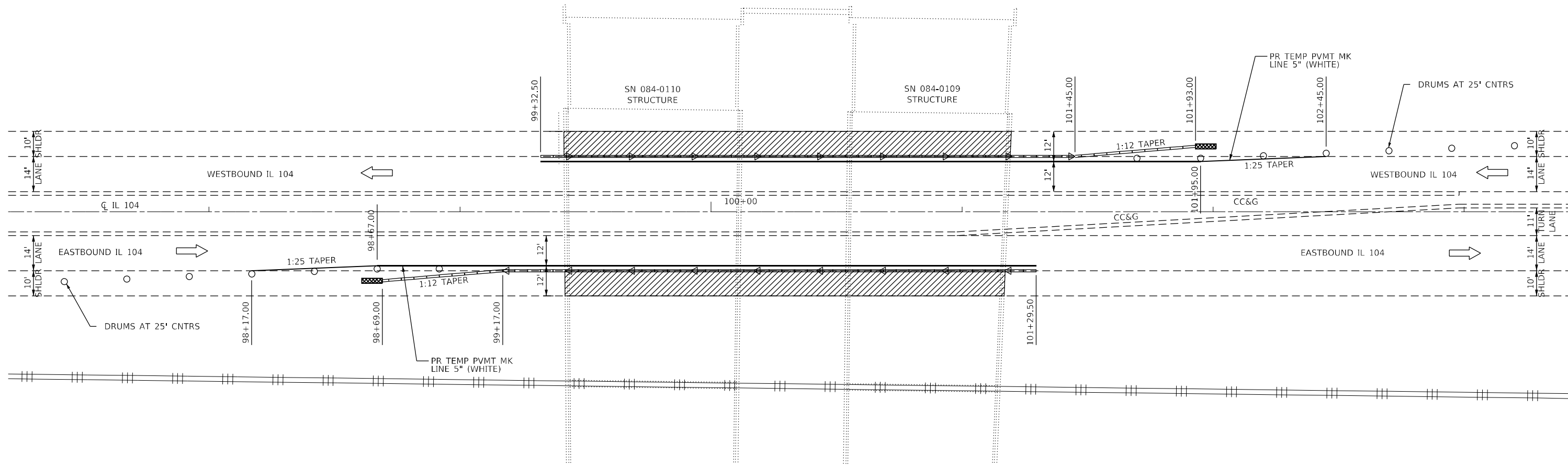
TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.

LEGEND

- DIRECTION OF TRAFFIC
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- WORK ZONE
- MONODIRECTIONAL REFLECTORS



ADVANCE SIGNING

STATION	LOCATION	SIGN DESIGNATION
83+17.00	EASTBOUND IL 104	W20-1103(O)-48
88+17.00	EASTBOUND IL 104	W21-5aR(O)-48
93+17.00	EASTBOUND IL 104	W21-1(O)-48
107+45.00	WESTBOUND IL 104	W21-1(O)-48
112+45.00	WESTBOUND IL 104	W21-5aR(O)-48
117+45.00	WESTBOUND IL 104	W20-1103(O)-48



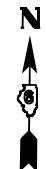
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W21-5aR(O)-48



W21-1(O)-48



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KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 816 N.24TH ST. QUINCY, ILLINOIS 62301 217.223-3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = aschaefer	DESIGNED -	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 2/8/2024	CHECKED -	REVISED -
	DATE -	REVISED -









**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 104
 TRAFFIC CONTROL PLAN (STAGE 1)**

SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. 97+20.00 TO STA. 103+40.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	18
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

LEGEND

-  DIRECTION OF TRAFFIC
-  DRUM
-  DIRECTION INDICATOR BARRICADE WITH MONODIRECTIONAL STEADY BURNING LIGHT
-  TEMPORARY IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  WORK ZONE
-  ARROW BOARD
-  MONODIRECTIONAL REFLECTORS

STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

STAGE 2:
 SET UP STAGE 2 TRAFFIC CONTROL.
 PAINT STEEL AT MIDDLE SECTIONS OF SN 084-0109 AND 084-0110 STRUCTURES.
 REMOVE STAGE 2 TRAFFIC CONTROL.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, BARRIER REFLECTORS, SIGNS, AND FLAGGERS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)"

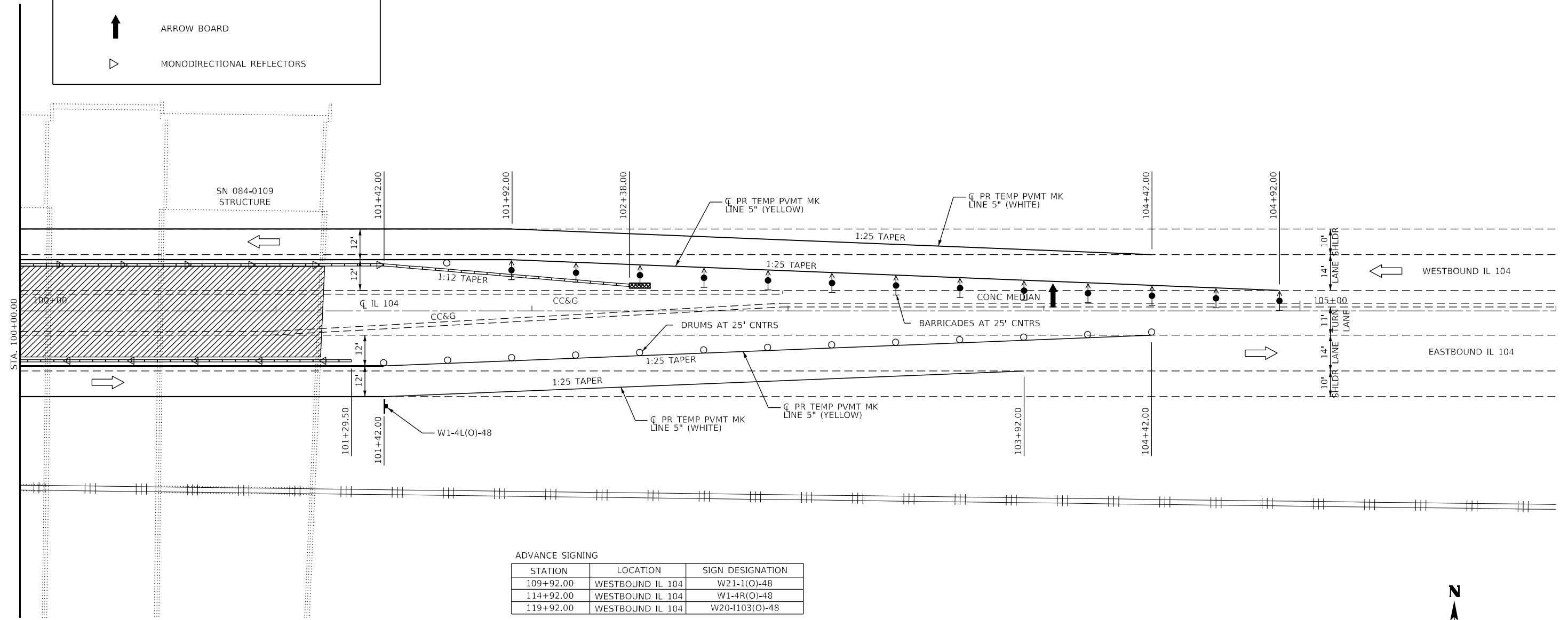
THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

REMOVE ALL CONFLICTING PAVEMENT MARKINGS.

TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

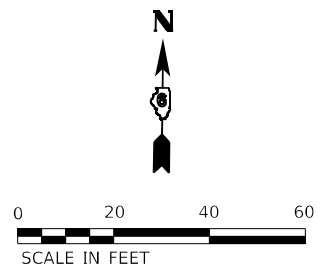
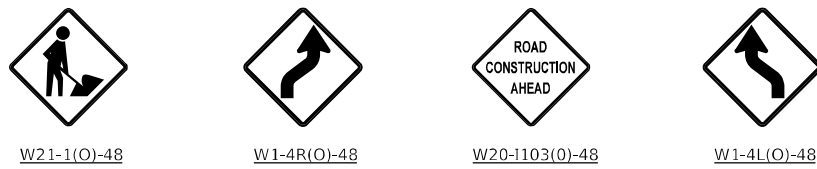
CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.



ADVANCE SIGNING

STATION	LOCATION	SIGN DESIGNATION
109+92.00	WESTBOUND IL 104	W21-1(O)-48
114+92.00	WESTBOUND IL 104	W1-4R(O)-48
119+92.00	WESTBOUND IL 104	W20-1103(O)-48



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 816 N.24TH ST. QUINCY, ILLINOIS 62301 217.223-5970
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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PLOT DATE = 2/7/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 104
 TRAFFIC CONTROL PLAN (STAGE 2)**

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. 100+00.00 TO STA. 106+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	20
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

STAGE CONSTRUCTION SEQUENCE

THE FOLLOWING STAGE CONSTRUCTION SEQUENCE IS FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING AND EXECUTING THIS PROJECT WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

STAGE 3:
 SET UP STAGE 3 TRAFFIC CONTROL.
 PAINT STEEL AT SOUTH SECTIONS OF SN 084-0109 AND 084-0110 STRUCTURES.
 REMOVE STAGE 3 TRAFFIC CONTROL.

GENERAL NOTES

DRUMS WITH STEADY BURNING LIGHTS, TEMPORARY PAVEMENT MARKINGS, BARRIER REFLECTORS, SIGNS, AND FLAGGERS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)"

THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL.

REMOVE ALL CONFLICTING PAVEMENT MARKINGS.

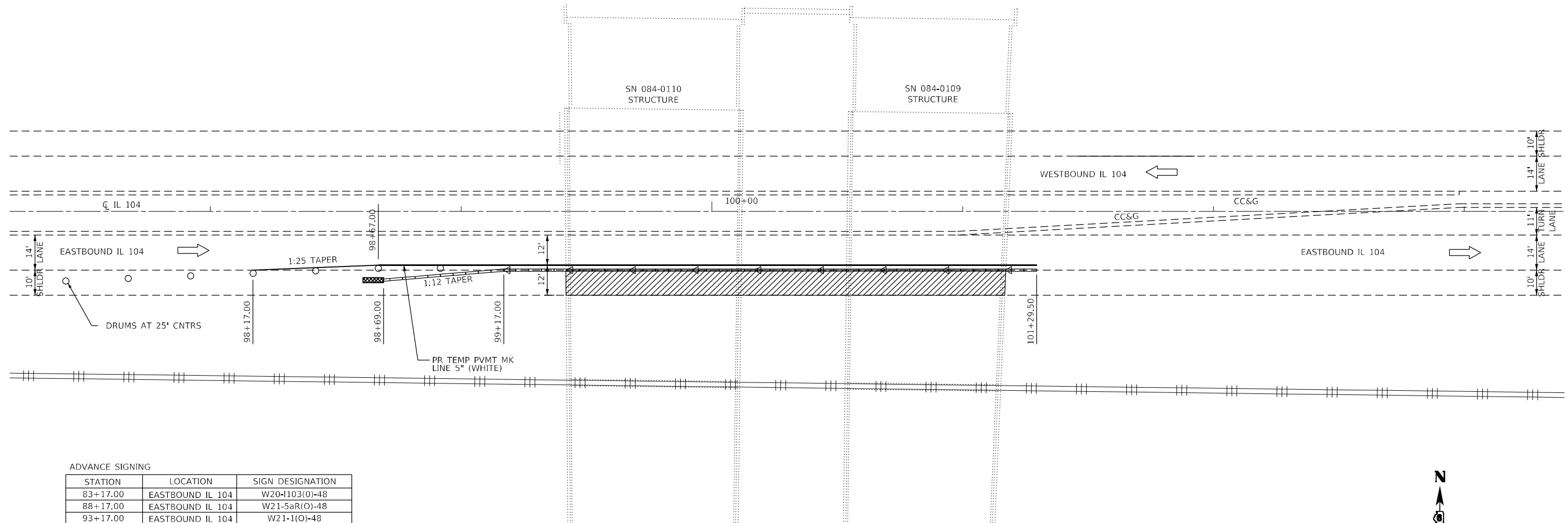
TRAFFIC CONTROL MAY BE ADJUSTED DUE TO FIELD CONDITIONS APPROVED BY ENGINEER.

CONTRACTOR MAY ELECT TO WORK CONCURRENTLY ON THE TOP AND UNDERNEATH OF BRIDGE STRUCTURES.

TEMPORARY PAVEMENT MARKING TO BE DONE UTILIZING TY IV TAPE.

LEGEND

- DIRECTION OF TRAFFIC
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- WORK ZONE
- MONODIRECTIONAL REFLECTORS



ADVANCE SIGNING

STATION	LOCATION	SIGN DESIGNATION
83+17.00	EASTBOUND IL 104	W20-1103(O)-48
88+17.00	EASTBOUND IL 104	W21-5aR(O)-48
93+17.00	EASTBOUND IL 104	W21-1(O)-48



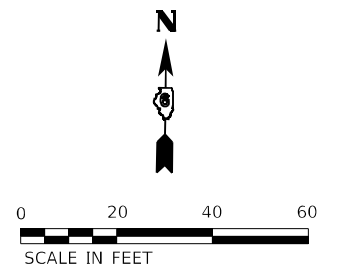
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W21-5aR(O)-48



W21-1(O)-48



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 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = aschaefer
 PLOT SCALE = 40,0000 * / in.
 PLOT DATE = 2/7/2024

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

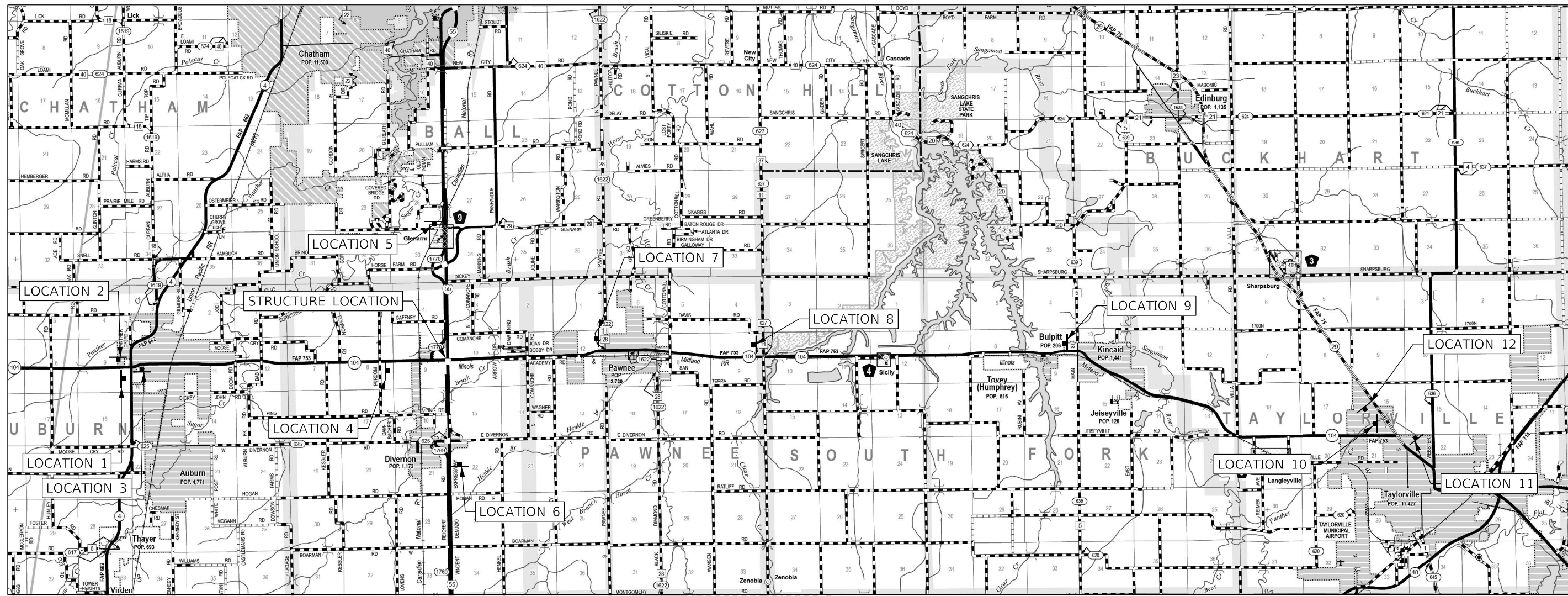
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

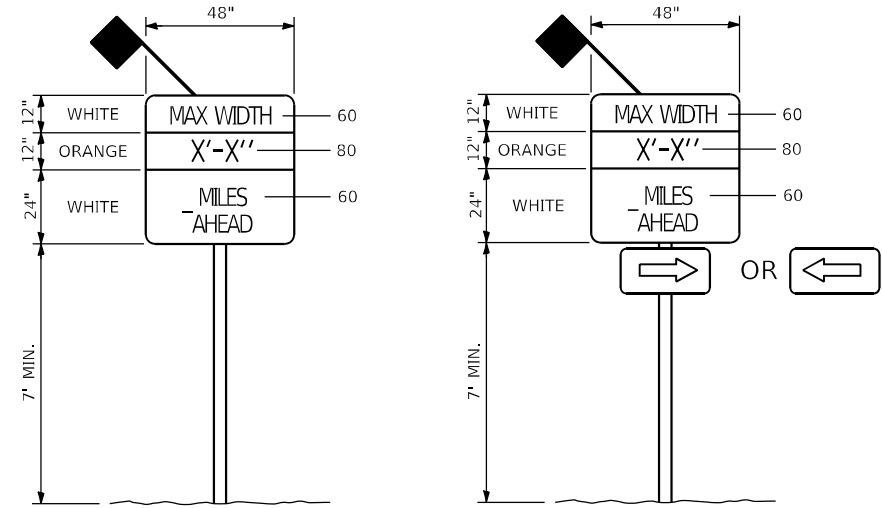
**IL 104
 TRAFFIC CONTROL PLAN (STAGE 3)**

SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. 97+20.00 TO STA. 103+40.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	21
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

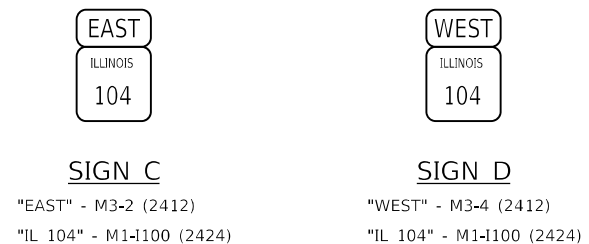


LOCATION	SIGN(S)	DISTANCE
1	IL 104 EB AT IL 4	10.1 MILES
2	IL 4 SB AT IL 104	10.1 MILES
3	IL 4 NB AT IL 104	10.1 MILES
4	IL 104 EB EAST OF PURDOM RD	1.3 MILES
5	I-55 SB NORTH OF GLENARM EXIT	2.1 MILES
6	I-55 NB SOUTH OF DIVERNON EXIT	3.0 MILES
7	IL 104 WB WEST OF PAWNEE RD	3.4 MILES
8	IL 104 WB WEST OF CH 37	6.0 MILES
9	IL 104 WB WEST OF KINCAID	11.6 MILES
10	IL 104 WB WEST OF IL 29	18.4 MILES
11	IL 29 NB SOUTH OF IL 104	18.6 MILES
12	IL 29 SB NORTH OF IL 104	18.6 MILES



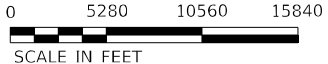
SIGN A
(WIDTH RESTRICTION SIGN)

SIGN B
(WIDTH RESTRICTION SIGN)



SIGN C
"EAST" - M3-2 (2412)
"IL 104" - M1-100 (2424)

SIGN D
"WEST" - M3-4 (2412)
"IL 104" - M1-100 (2424)



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 Engineers • Architects • Surveyors
 816 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223-2670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = aschaefer	DESIGNED -	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 2/7/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**F.A.I. ROUTE 55
 MAXIMUM WIDTH SIGNING DETAIL**

SCALE: 1"=5280' SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	22
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

Existing S.N. 084-0109: The existing structure was originally built in 1972 under Section 84-5-1-VHB and rehabilitated in 1986, 1989, and 2003 is a two span continuous, composite, multi-girder structure with vaulted abutments. The vaulted slabs are supported on PPC girders. The structure has an overall length of 278'-3" back-to-back of approach bents and an out-to-out width that varies from 58'-0 1/8" to 66'-6 1/4".

Existing S.N. 084-0110: The existing structure was originally built in 1972 under Section 84-5-1-VHB and rehabilitated in 1986 and 2003 is a two span continuous, composite, multi-girder structure with vaulted abutments. The vaulted slabs are supported on PPC girders. The structure has an overall length of 277'-0" back-to-back of approach bents and an out-to-out width that varies from 66'-5 1/4" to 71'-10 1/2".

All work will be performed utilizing staged construction with two lanes open to traffic in each direction at all times.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Notes and Details
- 3-4 Staging
- 5-10 Superstructure Details
- 11 Preformed Joint Strip Seal
- 12 Temporary Concrete Barrier
- 13-14 Deck Patching
- 15 Deck Drain Details
- 16 Parapet Repair Details
- 17 Framing Plan
- 18-19 Structural Steel Repair Details
- 20 Jack and Remove Existing Bearings
- 21 Abutment Bearing Details
- 22-23 Abutment Repair Details
- 24-25 Pier Repair Details
- 26 Slope Wall Repair Details
- 27 Bar Splicer Assembly and Mechanical Splicer Details

LOADING HS20-44 (New Const.)

DESIGN SPECIFICATIONS (New Const.)

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.057g
Site Coefficient (S) = 1.2

DESIGN STRESSES

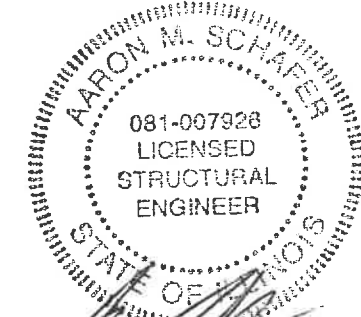
FIELD UNITS (Exist. Construction)

$f'_c = 3,000$ psi (Superstructure)
 $f'_c = 3,500$ psi (Curb, Parapet, Substructure)
 $f_y = 36,000$ psi (Structural Steel)
 $f_y = 40,000$ psi (Reinforcement)

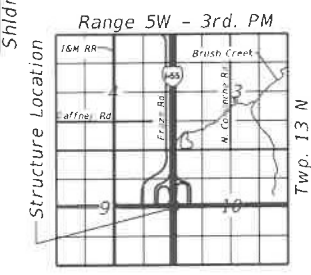
FIELD UNITS (New Construction)

$f'_c = 4,000$ psi (Superstructure)
 $f'_c = 3,500$ psi (Substructure)
 $f_y = 50,000$ psi (Structural Steel)
 $f_y = 60,000$ psi (Reinforcement)

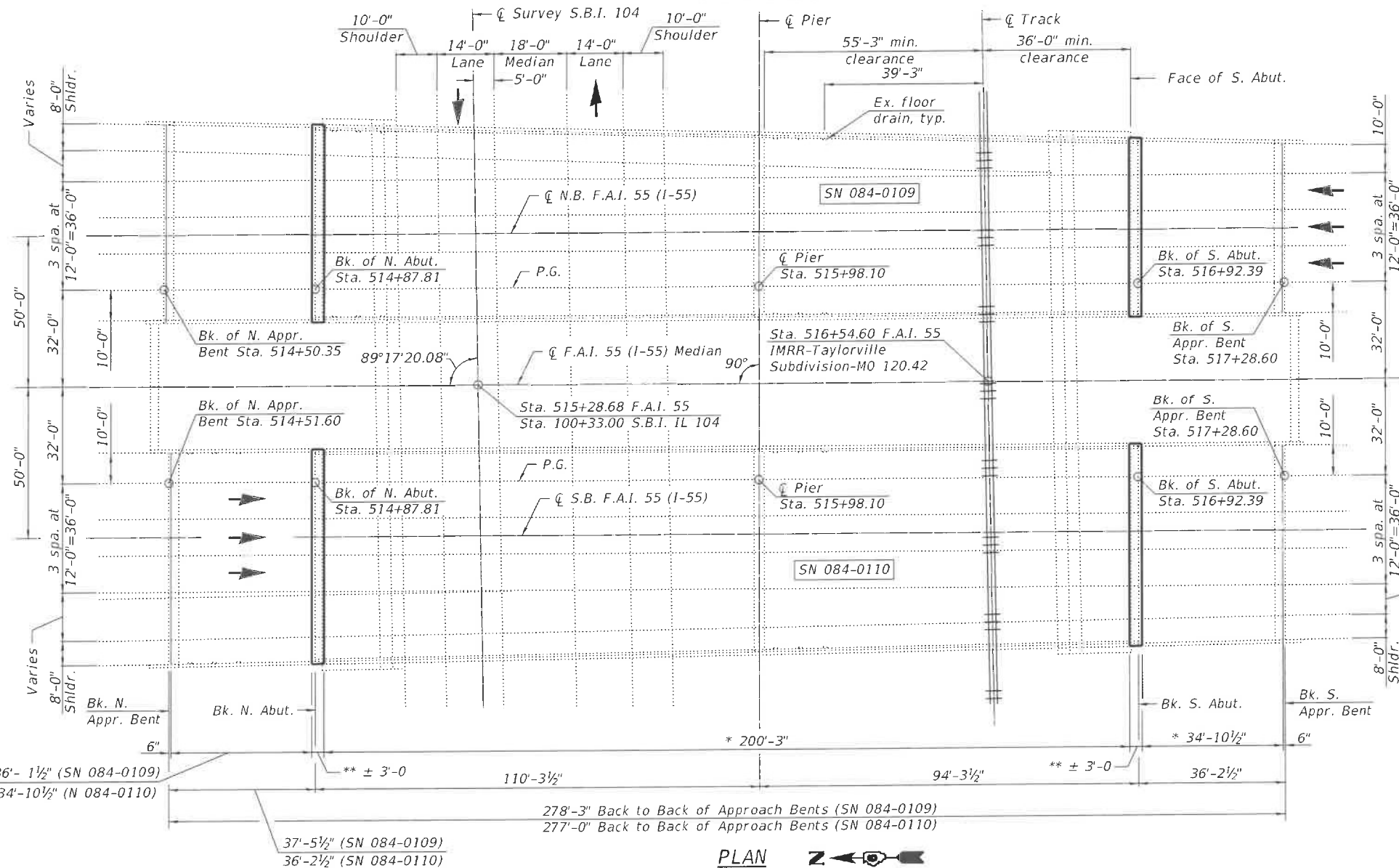
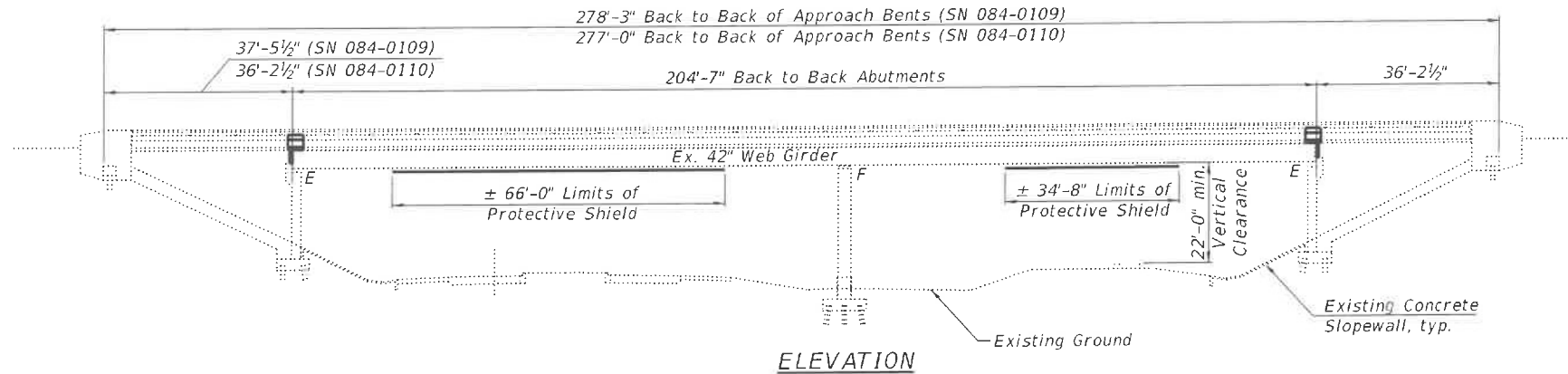
* Limits of Bridge Deck Scarification 3"
** Limits of Expansion Joint Conc. Removal and Replacement



Aaron M. Schaefer
Licensed Structural Engineer
State of Illinois No. 081-007926
License Expires 11/30/2024
Date: 2/8/2024



GENERAL PLAN & ELEVATION
F.A.I. ROUTE 55 (I-55) OVER
F.A.P. ROUTE 753 (IL 104) & I&M RAILROAD
SECTION (84-5-1VHB)BDR,BP,BJR,BRR
SANGAMON COUNTY
STATION 515+28.68
SN 084-0109 & 084-0110



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Engineers • Architects • Surveyors
185 N. 4TH ST. QUINCY, ILLINOIS 62451-3117
STATE OF ILLINOIS DESIGN FIRN NO. 194-2738

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	CHECKED - RJP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 084-0109 & 084-0110
SHEET 1 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	23
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

SCOPE OF WORK

1. Set-up traffic control for Stage I Construction.
2. Remove concrete deck to install new expansion joints and scarify existing microsilica concrete overlay.
3. Remove existing rocker expansion bearings at the abutments and replace with elastomeric bearings.
4. Perform structural steel repairs to beam ends and end diaphragms.
5. Complete substructure concrete repairs and construct concrete pier wall extension.
6. Install new expansion joints and re-construct concrete deck, parapet, and abutment face at expansion joint location.
7. Perform concrete deck and concrete parapet patching and repairs. Seal parapets with elastomeric sealant.
8. Construct Microsilica overlay and grind smooth.
9. Set-up traffic control for Stage II Construction and repeat steps 2-8.
10. Complete blast and paint of the superstructure.

Cleaning and Painting Structural Steel

Work shall consist of blasting and painting all structural steel. Galvanized bearings and structural steel encountered at the abutments shall be protected from normal blasting operations and shall have surfaces prepared per the applicable sections of the special provisions for "Cleaning and Painting Steel Structures". The color of the final finish coat for the outside and bottom of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. All other surfaces shall be Gray, Munsell No 5B 7/1. Containment and disposal of lead paint cleaning residues shall be utilized. Air monitors will be required.

GENERAL NOTES

Fasteners shall be ASTM 3125 grade A325 Type 1, mechanically galvanized bolts. Bolts 3/4" Ø, holes 13/16" Ø, unless otherwise noted. No field welding is permitted except as specified in the contract documents. Reinforcement bars designated (E) shall be epoxy coated. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work. Concrete Sealer shall be applied to the new concrete surfaces on the front face of abutment backwalls. All new Structural Steel and bearing assemblies shall be hot-dipped galvanized. See special provisions for "Hot dip galvanizing for Structural Steel". The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. Protective Coat shall be applied to top of deck. Protective Coat (Special) shall be applied to the inside and outside faces and top of the parapets. Synthetic Fibers are not required in Bridge Deck Microsilica Concrete Overlay.

Contractor to notify G&W Public Projects Department 30 days prior to starting construction. G&W flagging services will be required for all work within G&W right-of-way. The contractor must not use the railroad right of way for storage of materials or equipment during construction. The railroad's right of way must remain clear at all times. The contractor must plan and perform the work in a manner such that the railroad tracks at the project location remain fully capable of operating rail traffic throughout the work period and rail traffic is not delayed or otherwise impacted due to the work being performed. All work performed on, above, or adjacent to railroad property shall be in accordance with the Public Project Manual, current edition. Work plans shall be submitted for review to the Railroad for tasks related to site access, soil and water management, ballast protection, demolition, debris shield, paint containment, pier repairs, jacking, and all other work that presents potentially affects railroad property or operations. All work plans shall be prepared and submitted to the Railroad in adherence with the Public Project Manual, Section 1.11 Construction Submission Criteria.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Ton		295	295
Stone Dumped Riprap, Class A3	Ton		26	26
Concrete Removal	Cu. Yd.	39.7		39.7
Slope Wall Removal	Sq. Yd.		313	313
Protective Shield	Sq. Yd.	1,477		1,477
Floor Drains	Each	16		16
Concrete Structures	Cu. Yd.		27.4	27.4
Concrete Superstructure	Cu. Yd.	41.2		41.2
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	2,718		2,718
Protective Coat	Sq. Yd.	3,825		3,825
Furnishing and Erecting Structural Steel	Pound	22,707		22,707
Reinforcement Bars, Epoxy Coated	Pound	7,630	2,120	9,750
Bar Splicers	Each	56		56
Slope Wall 4 Inch	Sq. Yd.		313	313
Preformed Joint Strip Seal	Foot	257		257
Elastomeric Bearing Assembly, Type I	Each	42		42
Anchor Bolts, 1"	Each	84		84
Controlled Low-Strength Material	Cu. Yd.		50	50
Surface Filler (Special)	Gallon	5		5
Protective Coat (Special)	Sq. Yd.	805		805
Jack and Remove Existing Bearings	Each	42		42
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	506	596	1,102
Structural Steel Removal	Pound	9,555		9,555
* Containment and Disposal of Lead Paint Cleaning Residues No. 1	L Sum	1		1
** Containment and Disposal of Lead Paint Cleaning Residues No. 2	L Sum	1		1
* Cleaning and Painting Steel Bridge No. 1	L Sum	1		1
** Cleaning and Painting Steel Bridge No. 2	L Sum	1		1
Bridge Deck Scarification 3"	Sq. Yd.	3,742		3,742
Bridge Deck Microsilica Concrete Overlay 3 1/4"	Sq. Yd.	3,742		3,742
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	9		9
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	90		90
Diamond Grinding (Bridge Section)	Sq. Yd.	3,579		3,579
Railroad Protective Liability Insurance	L Sum	1		1

* Bridge No. 1 - S.N. 084-0109
 ** Bridge No. 2 - S.N. 084-0110

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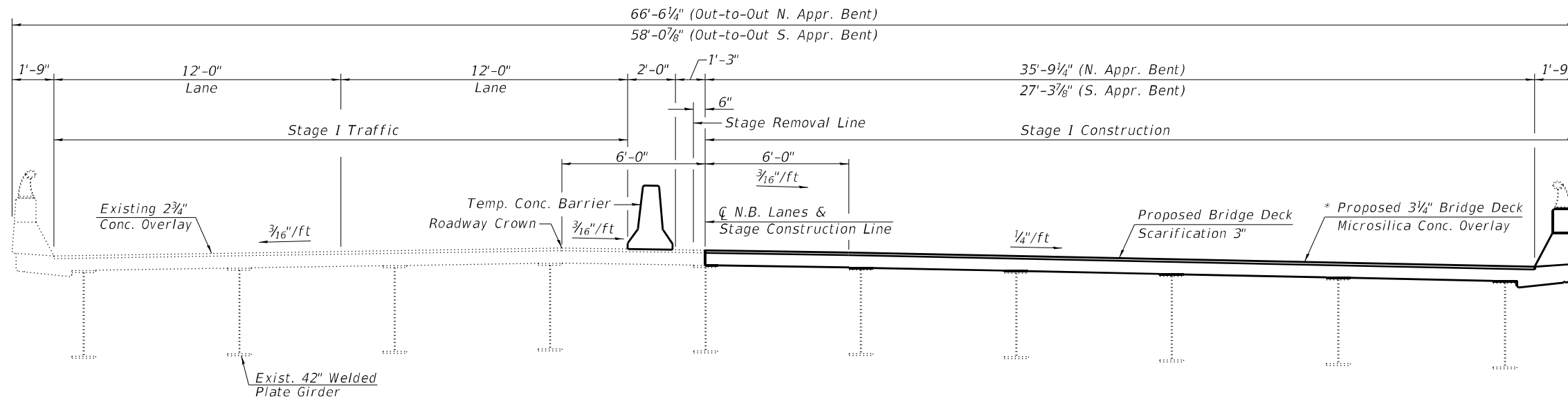
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PLOT DATE =	CHECKED - RJP	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND DETAILS
 STRUCTURE NO. 084-0109 & 084-0110**

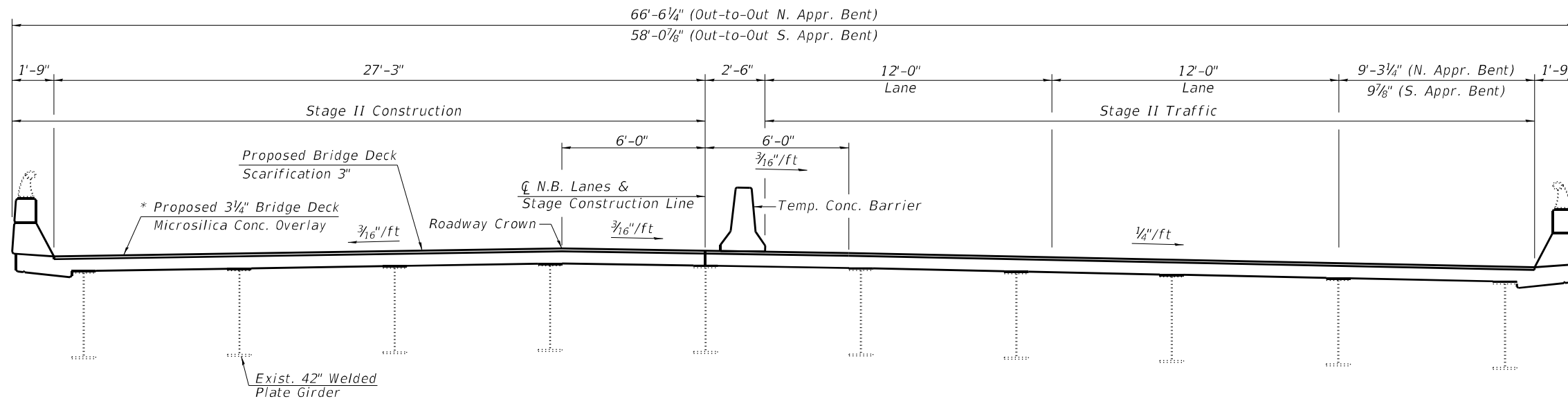
SHEET 2 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VB)BDR,BP,BJR,BRR	SANGAMON	49	24
CONTRACT NO. 72189				
		ILLINOIS	FED. AID PROJECT	



STAGE I CONSTRUCTION
(Looking North SN 084-0109)

* Prior to grinding



STAGE II CONSTRUCTION
(Looking North SN 084-0109)

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

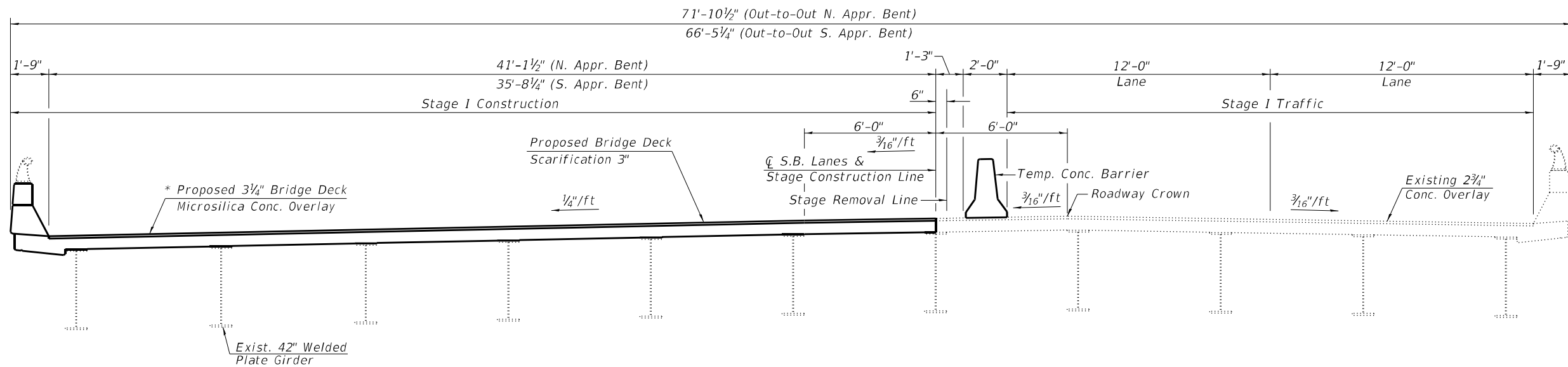
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING
STRUCTURE NO. 084-0109 & 084-0110

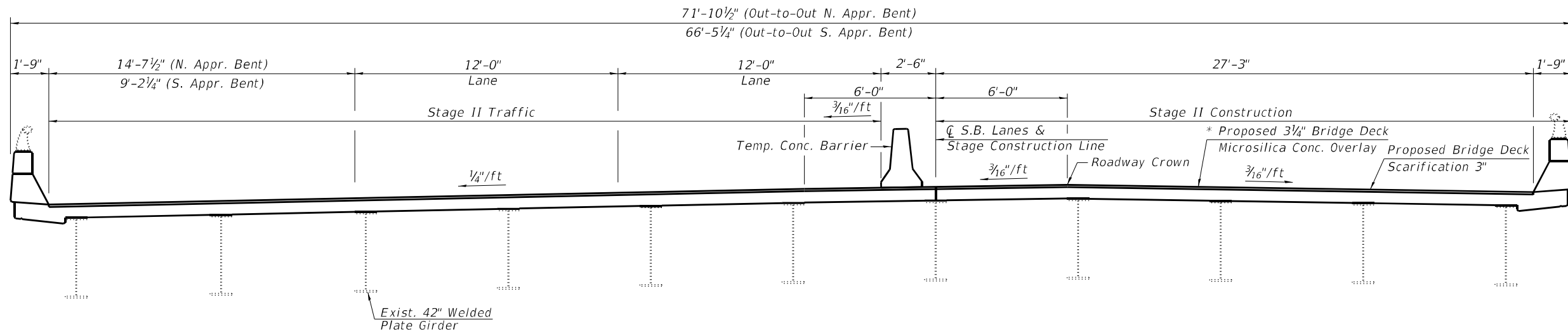
SHEET 3 OF 27 SHEETS

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CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



STAGE I CONSTRUCTION
(Looking North SN 084-0110)

* Prior to grinding



STAGE II CONSTRUCTION
(Looking North SN 084-0110)

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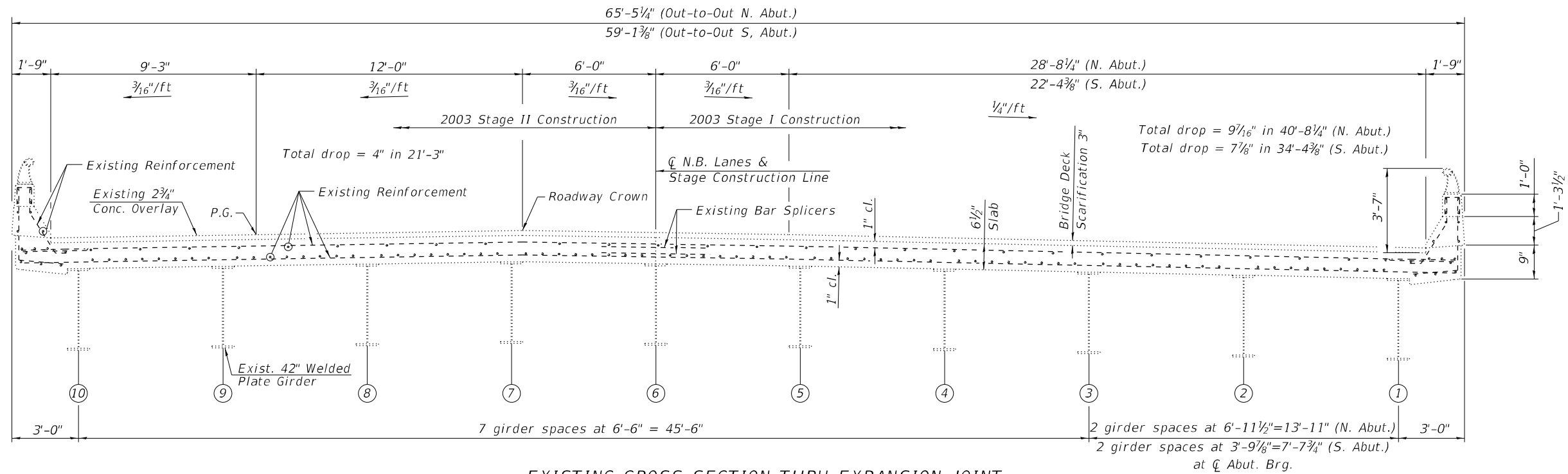
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STAGING
STRUCTURE NO. 084-0109 & 084-0110

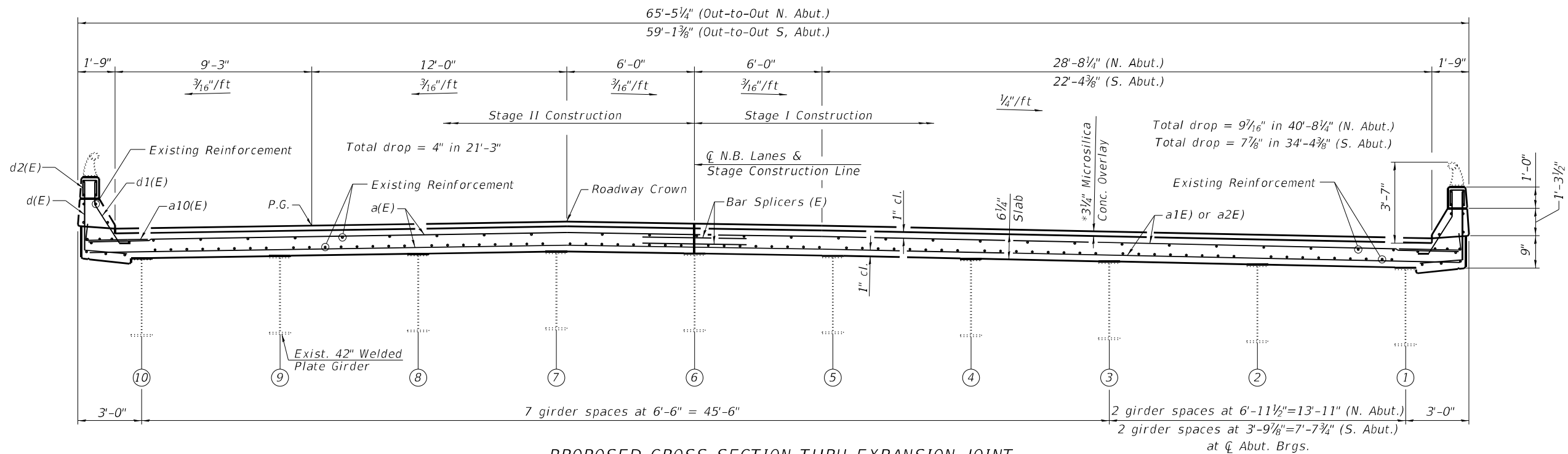
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CONTRACT NO. 72189				
ILLINOIS		FED. AID PROJECT		



EXISTING CROSS SECTION THRU EXPANSION JOINT
(Looking North SN 084-0109)

* Prior to grinding



PROPOSED CROSS SECTION THRU EXPANSION JOINT
(Looking North SN 084-0109)

Note:
The longitudinal reinforcement bars in the area of slab, parapet, and curb removal shall remain in place and shall be cleaned and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced as directed by the Engineer. Cost included with Concrete Removal.

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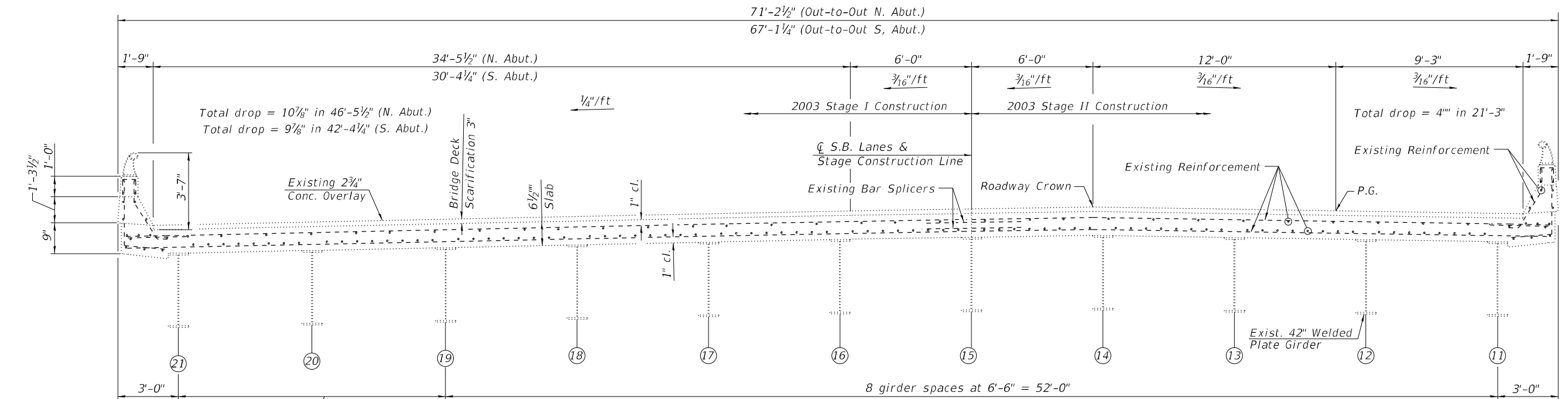
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

SHEET 5 OF 27 SHEETS

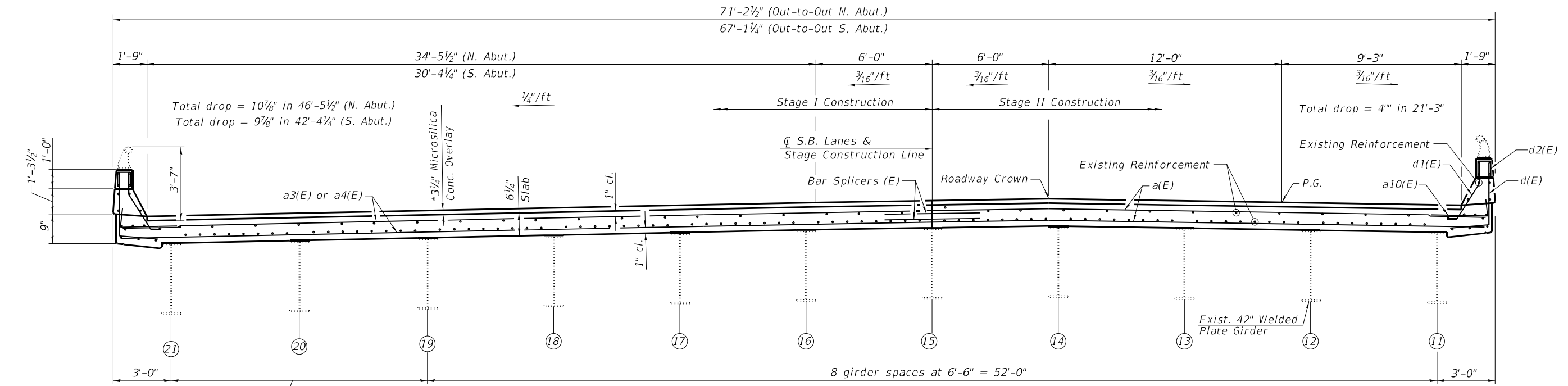
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55	(84-5-1VHB)BDR, BP, BJR, BRR	SANGAMON	49	27
CONTRACT NO. 72189				
		ILLINOIS	FED. AID PROJECT	



EXISTING CROSS SECTION THRU EXPANSION JOINT
(Looking North SN 084-0110)

2 girder spaces at 6'-7 1/4" = 13'-2 1/2" (N. Abut.)
2 girder spaces at 4'-6 5/8" = 9'-1 1/4" (S. Abut.)
at \bar{C} Abut. Brgs.

* Prior to grinding



PROPOSED CROSS SECTION THRU EXPANSION JOINT
(Looking North SN 084-0110)

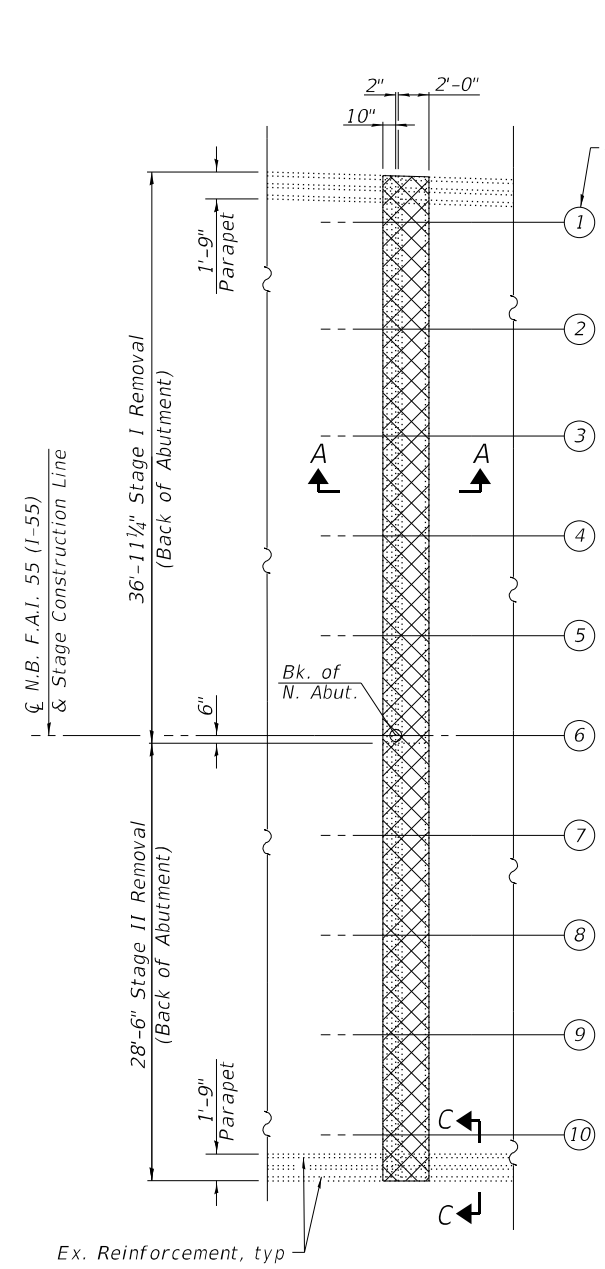
2 girder spaces at 6'-7 1/4" = 13'-2 1/2" (N. Abut.)
2 girder spaces at 4'-6 5/8" = 9'-1 1/4" (S. Abut.)
at \bar{C} Abut. Brgs.

Note:
The longitudinal reinforcement bars in the area of slab, parapet, and curb removal shall remain in place and shall be cleaned and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced as directed by the Engineer. Cost included with Concrete Removal.

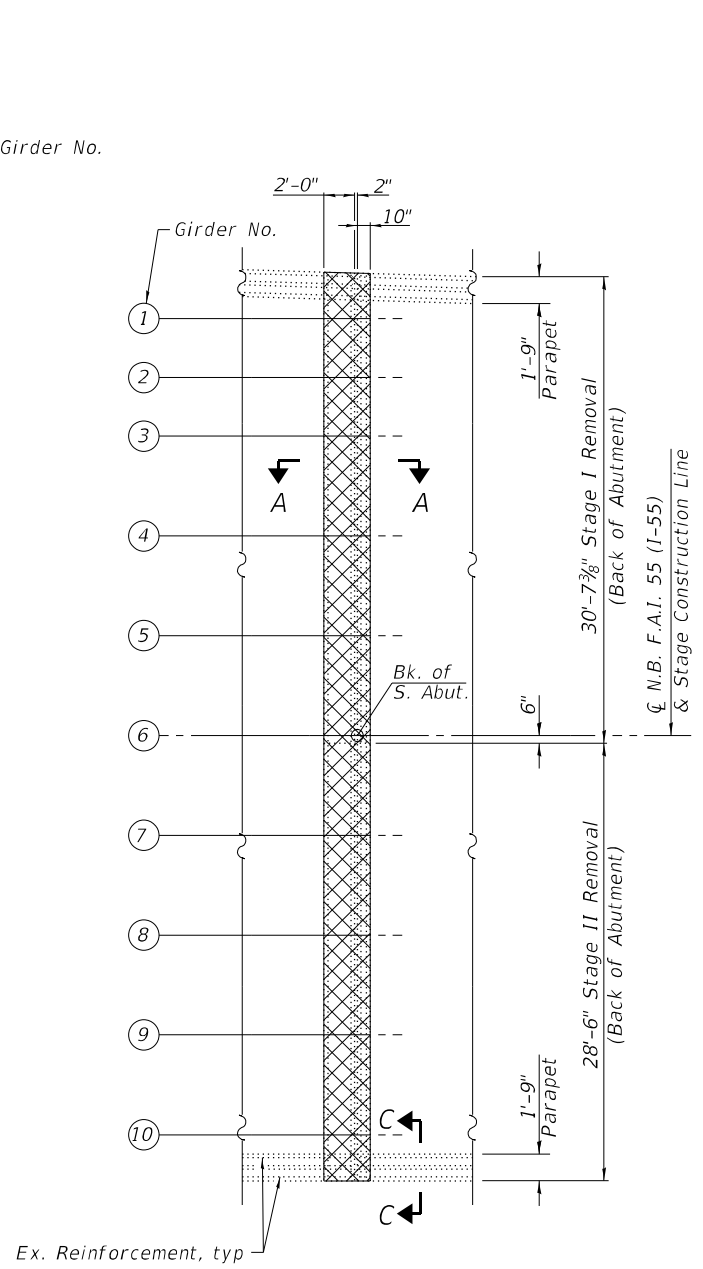
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PLOT DATE =	DRAWN - AMS	REVISED -	CONTRACT NO. 72189							
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SHEET 6 OF 27 SHEETS										

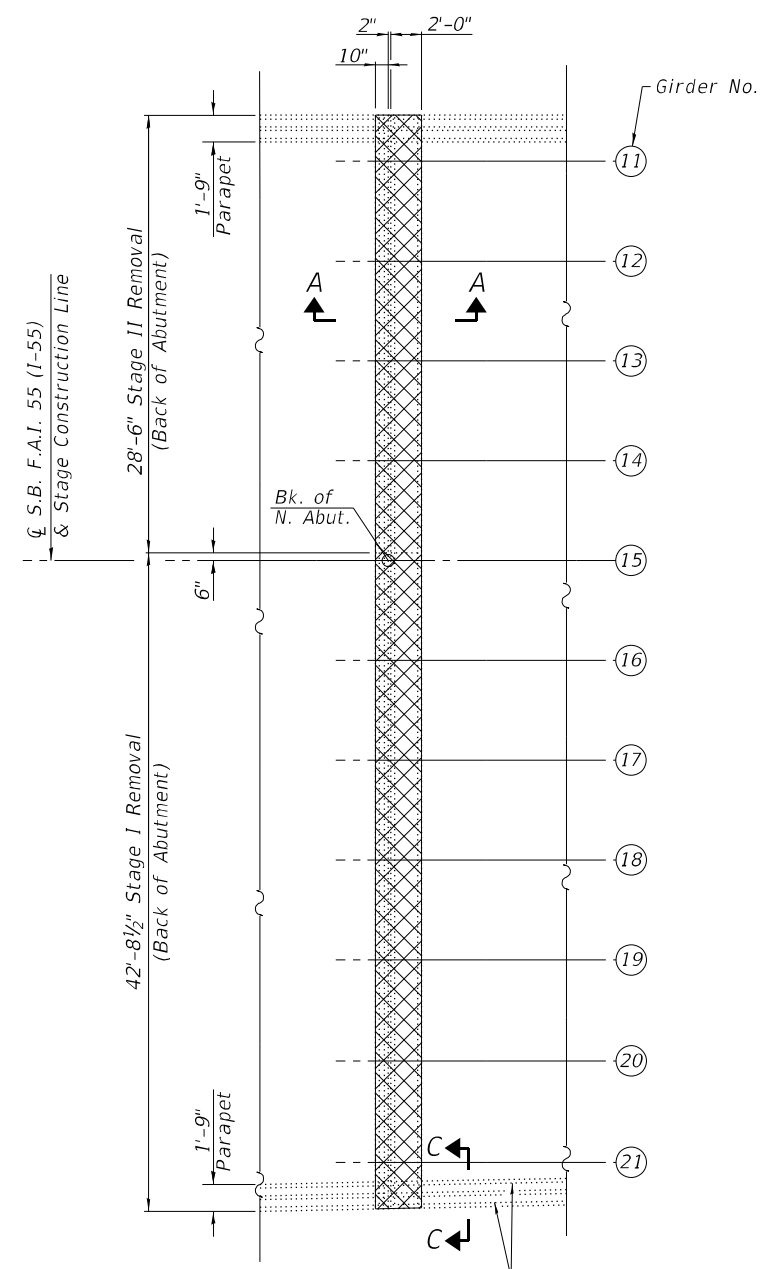
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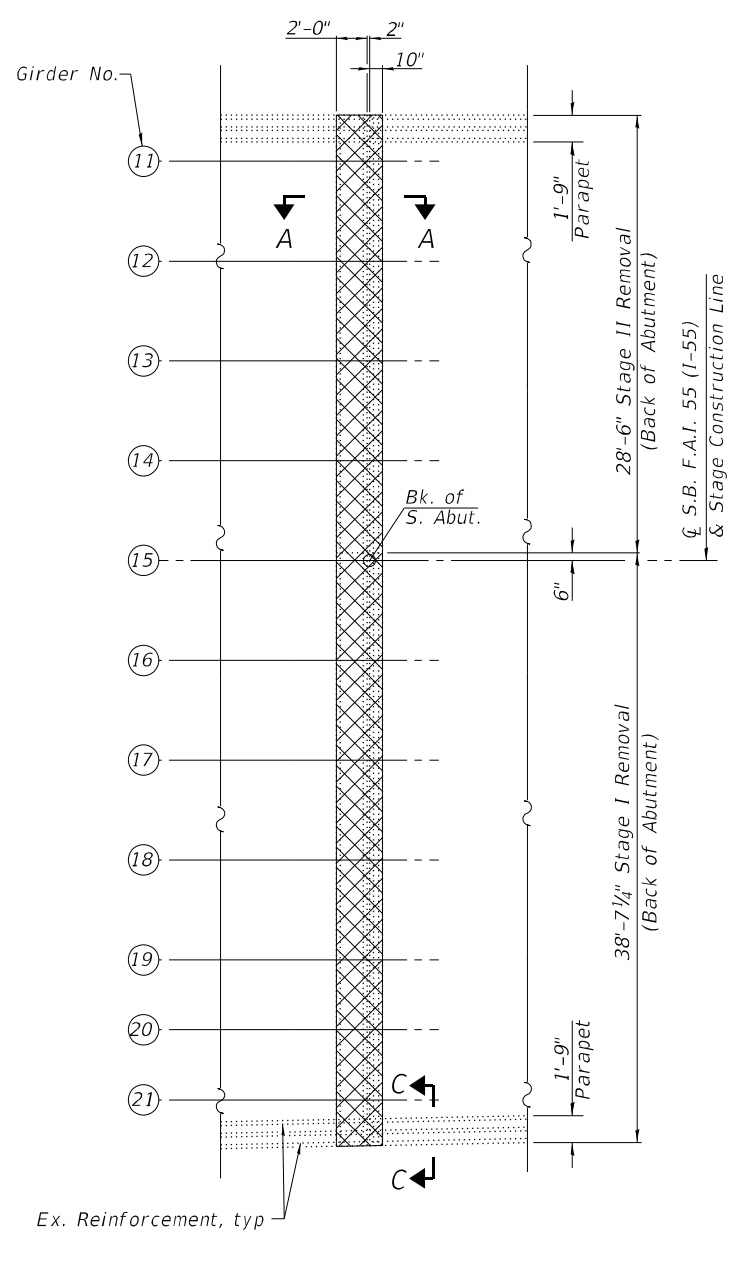
PARTIAL REMOVAL PLAN
 (North Abutment SN 084-0109)



PARTIAL REMOVAL PLAN
 (South Abutment SN 084-0109)



PARTIAL REMOVAL PLAN
 (North Abutment SN 084-0110)



PARTIAL REMOVAL PLAN
 (South Abutment SN 084-0110)

Notes:
 Cost of removing the existing expansion joint will be included in "Concrete Removal".
 Perimeter of concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.
 The contractor may elect to remove and re-erect the existing aluminum railing for ease of construction. Upon completion of repairs, the contractor shall reconnect the existing railing to the newly formed concrete parapet utilizing the existing mounting brackets. The base of the rail post shall be placed with 1/8" fabric bearing pad and sealed with polyurethane sealant. Cost included in "Concrete Removal".
 Existing reinforcement bars protruding from the existing concrete shall be cleaned, straightened and incorporated into the new concrete. Any reinforcement bars that are damaged during construction, shall be repaired or replaced using an appropriate bar splicer or mechanical system. Cost included in "Concrete Removal".
 Existing reinforcement bars parallel to the expansion joint shall be removed. Cost included in "Concrete Removal".
 For Sections A-A and C-C, bar details & Bill of Material, see Sheet 10 of 27.
 Because of the proximity of the removal line to the beam flange, the contractor must exercise care when completing the concrete removal operations, so as not to damage the girder.

LEGEND

Concrete Removal

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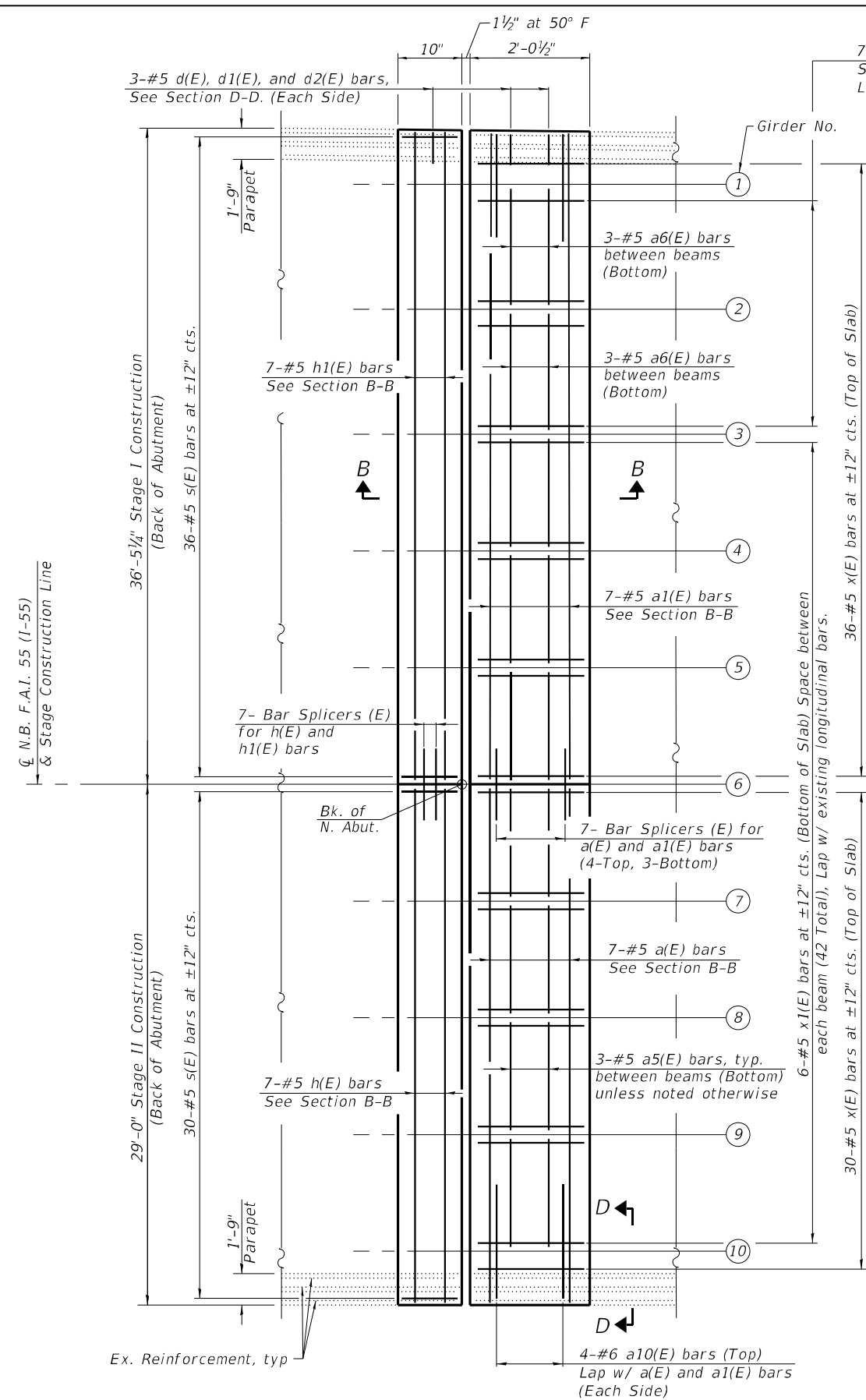
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 084-0109 & 084-0110**

SHEET 7 OF 27 SHEETS

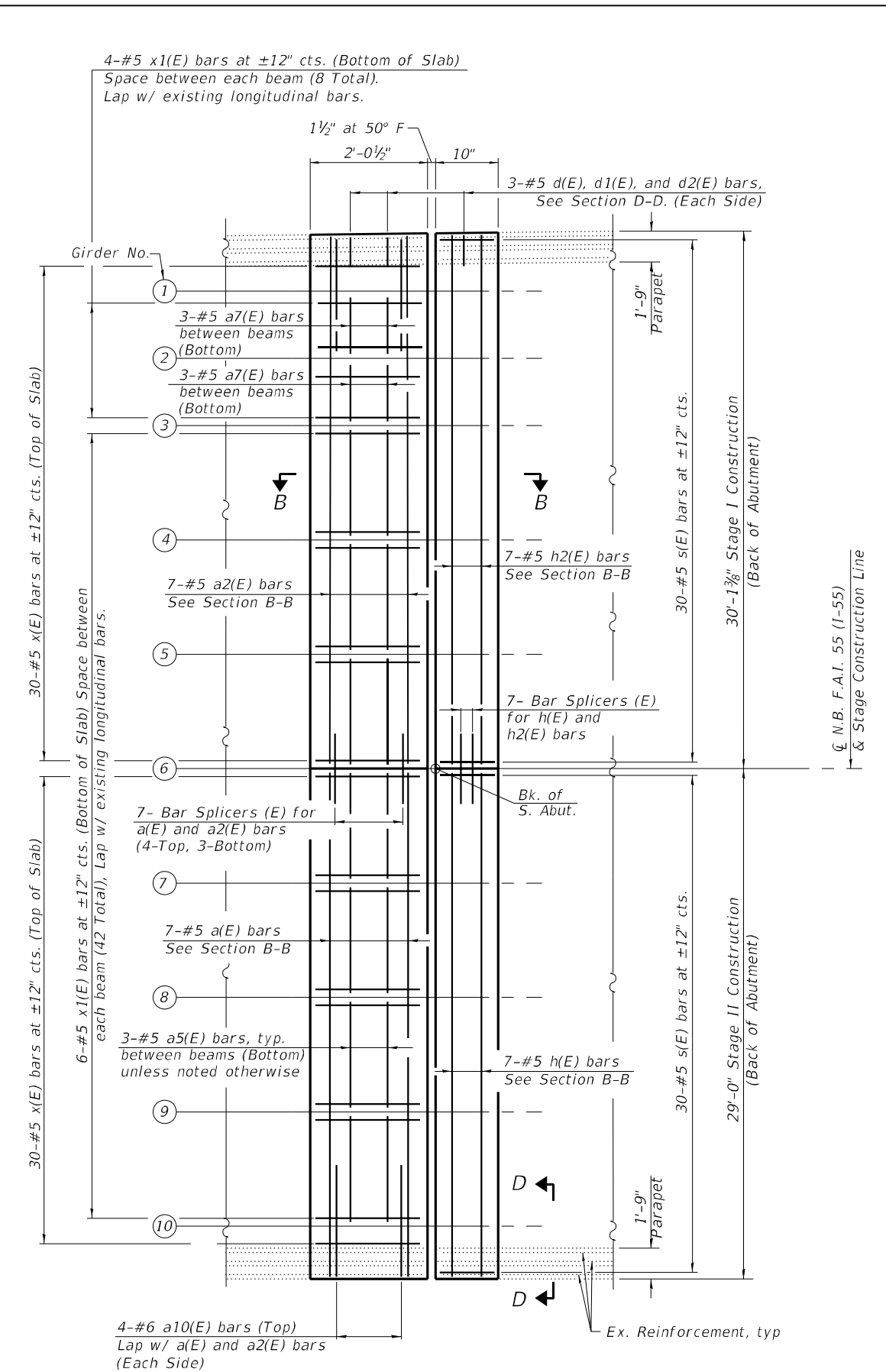
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

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PARTIAL PROPOSED PLAN
 (North Abutment SN 084-0109)

Notes:
 For Sections B-B and D-D, bar details & Bill of Material, see Sheet 10 of 27.



PARTIAL PROPOSED PLAN
 (South Abutment SN 084-0109)

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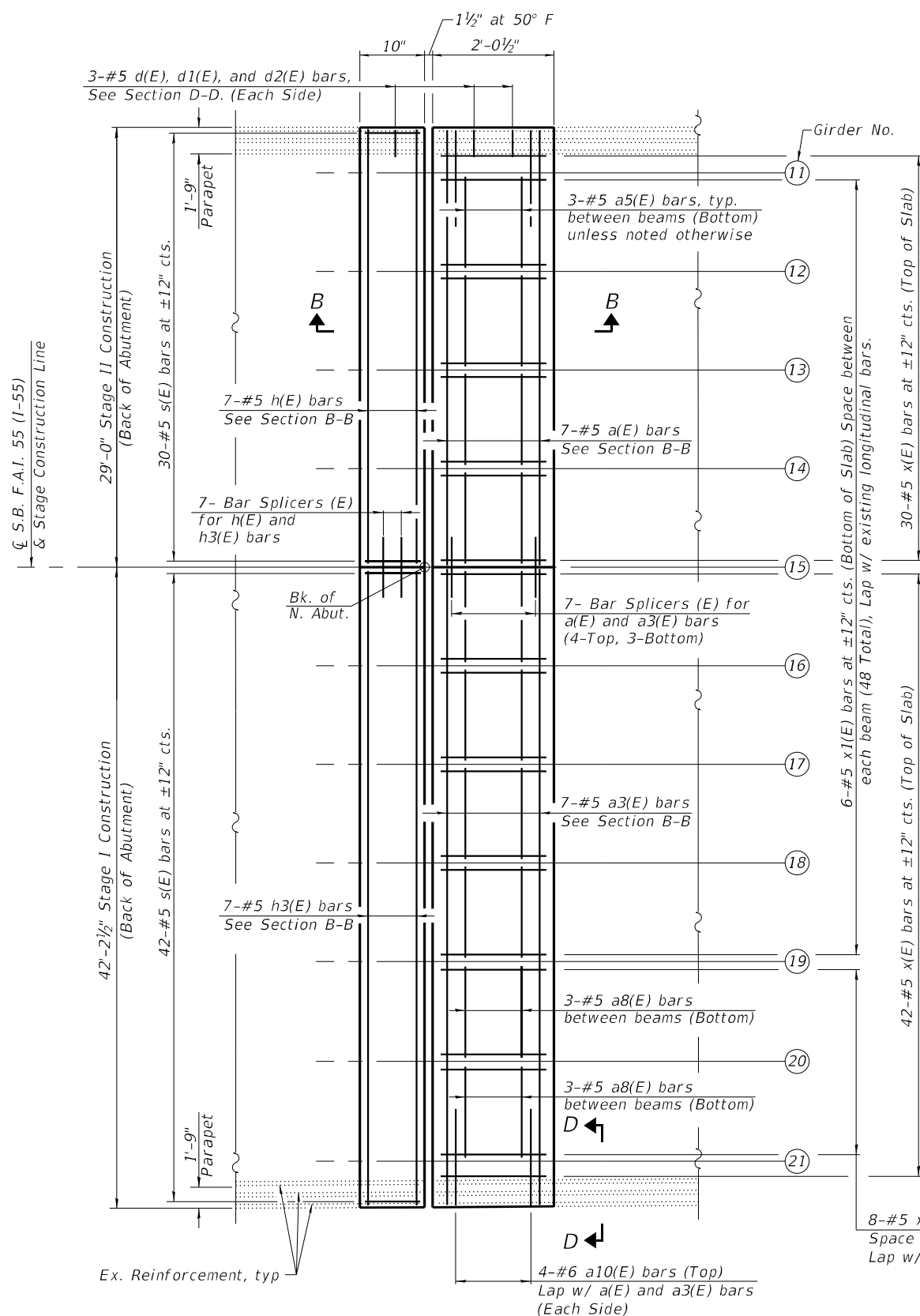
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STATE OF ILLINOIS
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SUPERSTRUCTURE DETAILS
STRUCTURE NO. 084-0109 & 084-0110

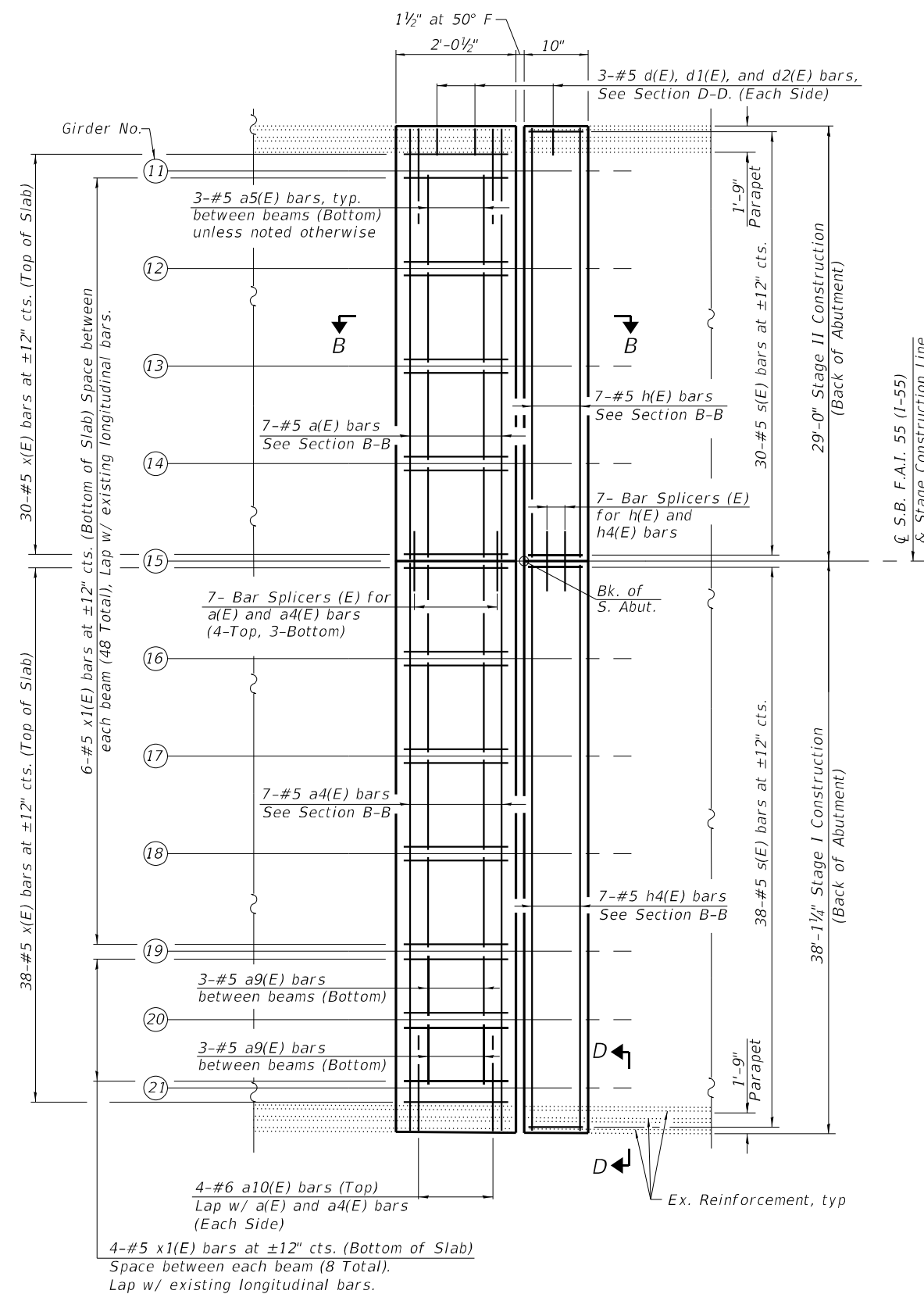
SHEET 8 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



PARTIAL PROPOSED PLAN
(North Abutment SN 084-0110)

Notes:
For Sections B-B and D-D, bar details & Bill of Material, see Sheet 10 of 27.



PARTIAL PROPOSED PLAN
(South Abutment SN 084-0110)

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

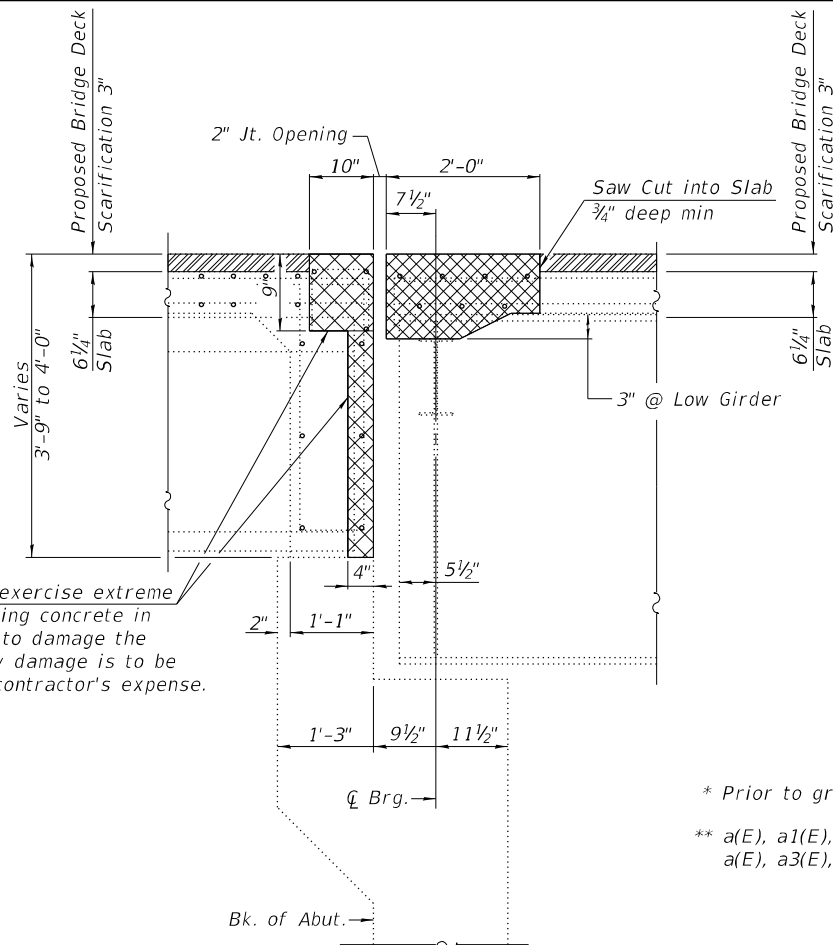
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

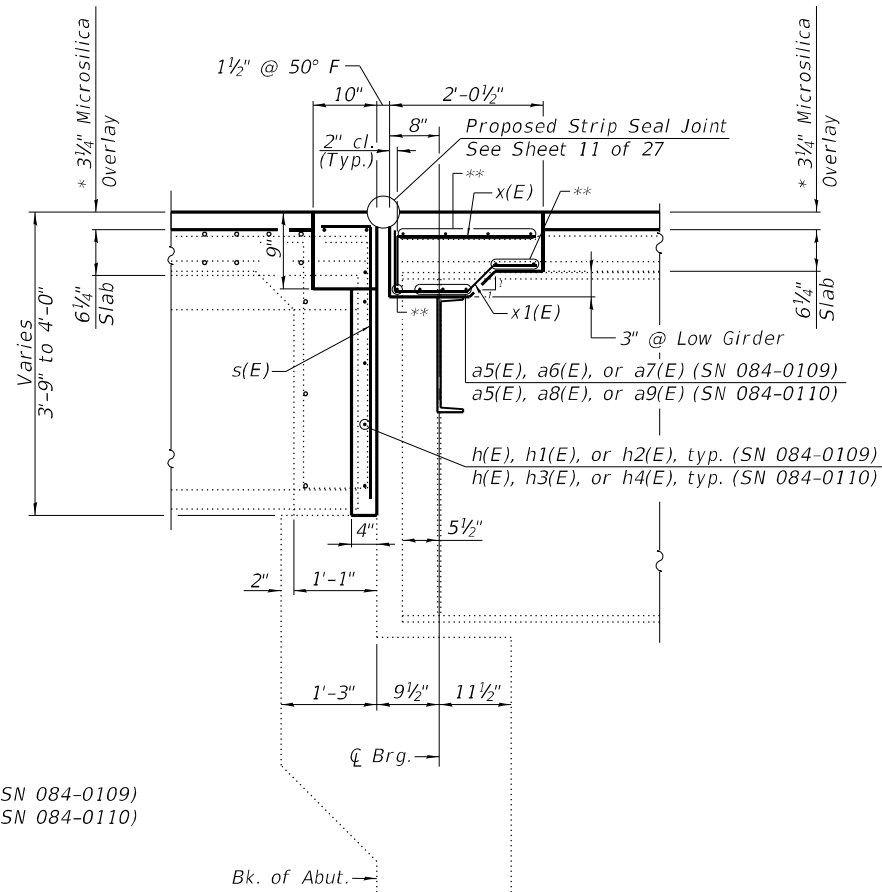
SHEET 9 OF 27 SHEETS

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55	(84-5-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	31
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



Contractor must exercise extreme care while removing concrete in this area as not to damage the PPC I beams. Any damage is to be repaired at the contractor's expense.

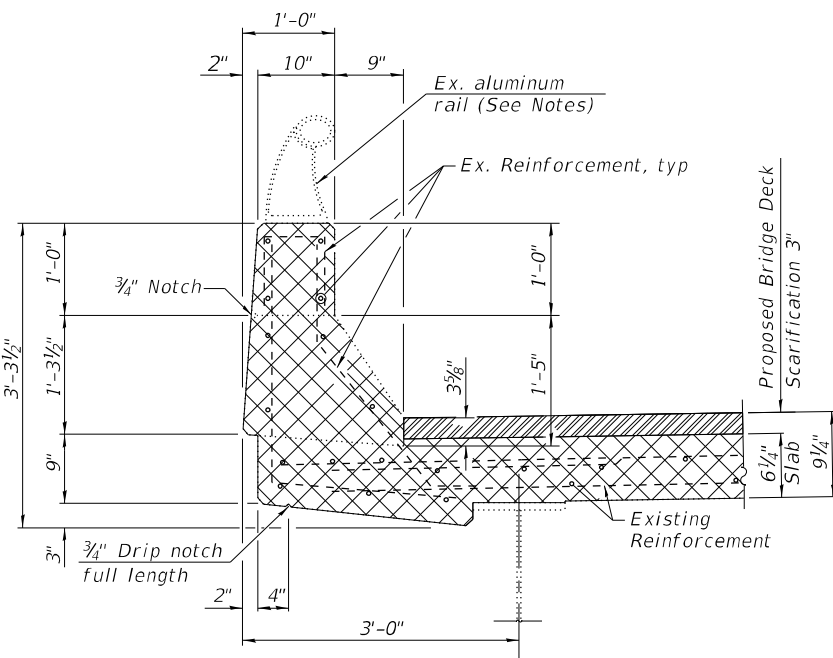
SECTION A-A



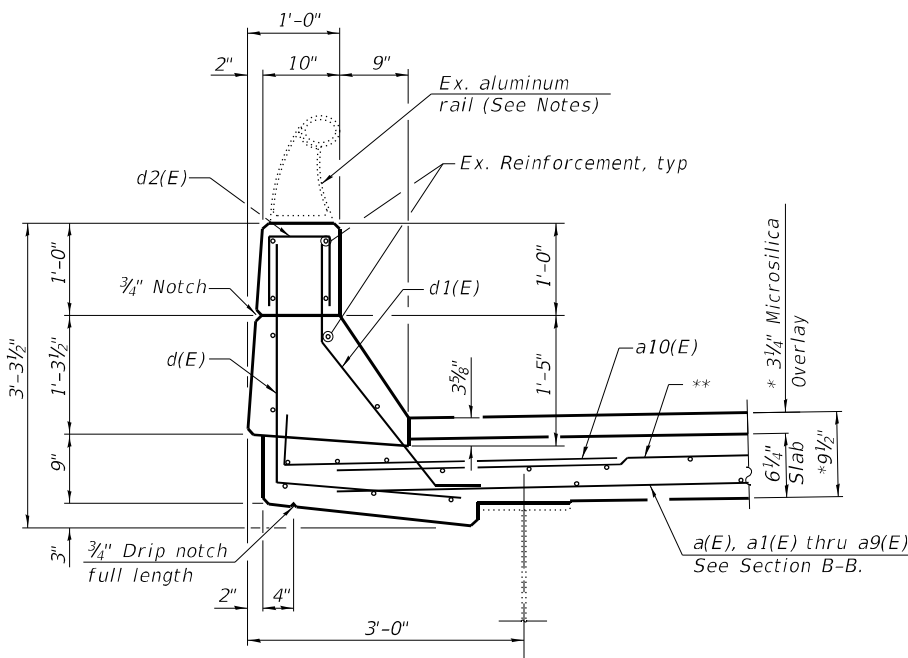
* Prior to grinding

** a(E), a1(E), or a2(E) (SN 084-0109)
a(E), a3(E), or a4(E) (SN 084-0110)

SECTION B-B



SECTION C-C

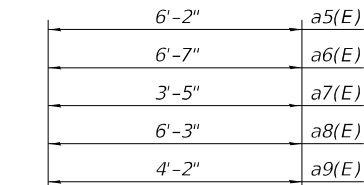


SECTION D-D
(West Parapet Shown, Mirror for East Parapet)

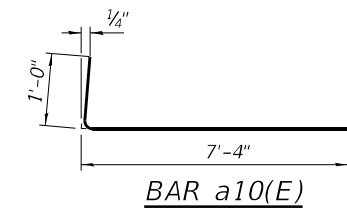
Notes:
 Cost of removing the existing expansion joint will be included in "Concrete Removal".
 The contractor may elect to remove and re-erect the existing aluminum railing for ease of construction. Upon completion of repairs, the contractor shall reconnect the existing railing to the newly formed concrete parapet utilizing the existing mounting brackets. The base of the rail post shall be placed with 1/8" fabric bearing pad and sealed with polyurethane sealant. Cost included in "Concrete Removal".
 Existing reinforcement bars protruding from the existing concrete shall be cleaned, straightened and incorporated into the new concrete. Any reinforcement bars that are damaged during construction, shall be repaired or replaced using an appropriate bar splicer or mechanical system. Cost included in "Concrete Removal".
 Existing reinforcement bars parallel to the expansion joint shall be removed. Cost included in "Concrete Removal".
 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.

**SUPERSTRUCTURE
BILL OF MATERIAL**

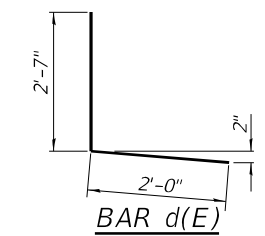
Bar	No.	Size	Length	Shape
a(E)	28	#5	28'-6"	—
a1(E)	7	#5	35'-11"	—
a2(E)	7	#5	29'-7"	—
a3(E)	7	#5	41'-8"	—
a4(E)	7	#5	37'-7"	—
a5(E)	90	#5	6'-2"	—
a6(E)	6	#5	6'-7"	—
a7(E)	6	#5	3'-5"	—
a8(E)	6	#5	6'-3"	—
a9(E)	6	#5	4'-2"	—
a10(E)	32	#6	8'-4"	—
d(E)	24	#5	4'-7"	└
d1(E)	24	#5	3'-5"	└
d2(E)	24	#5	2'-1"	└
h(E)	28	#5	29'-8"	—
h1(E)	7	#5	36'-1"	—
h2(E)	7	#5	29'-9"	—
h3(E)	7	#5	41'-10"	—
h4(E)	7	#5	37'-9"	—
s(E)	266	#5	4'-0"	└
x(E)	266	#5	2'-6"	└
x1(E)	226	#5	2'-9"	└
Concrete Removal			Cu. Yd.	39.7
Concrete Superstructure			Cu. Yd.	41.2
Bridge Deck Grooving (Longitudinal)			Sq. Yd.	2,718
Protective Coat			Sq. Yd.	3,825
Reinforcement Bars, Epoxy Coated			Pound	7,630
Bar Splicers			Each	56
Diamond Grinding (Bridge Section)			Sq. Yd.	3,579



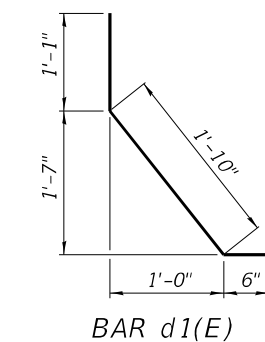
BAR a5(E) thru a9(E)
(Headed)



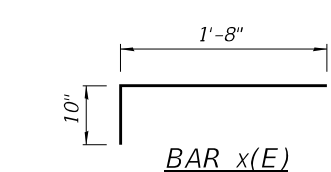
BAR a10(E)



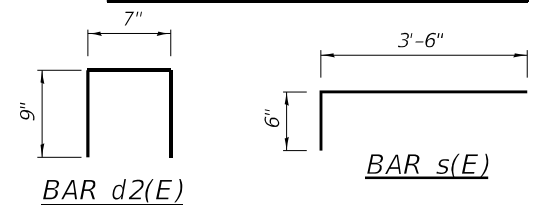
BAR d(E)



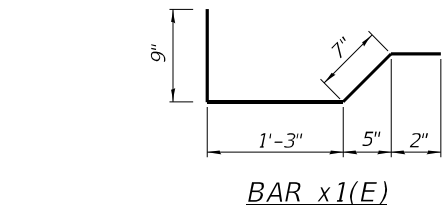
BAR d1(E)



BAR x(E)



BAR d2(E)



BAR s(E)

LEGEND

- Concrete Removal
- Proposed Bridge Deck Scarification 3"

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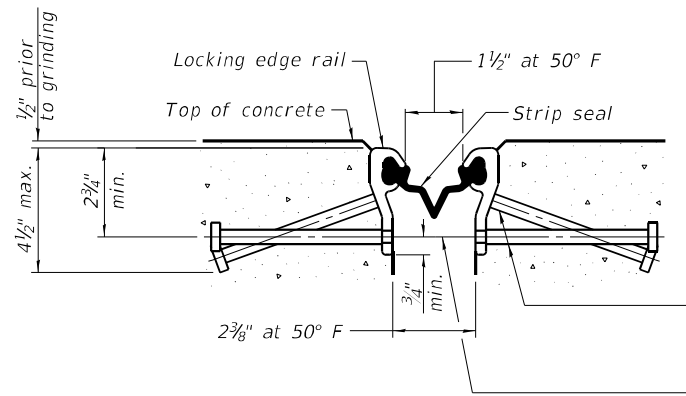
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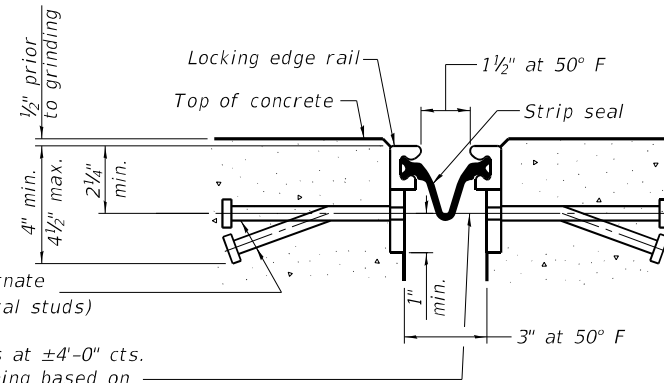
**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

SHEET 10 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	32
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



SHOWING ROLLED RAIL JOINT

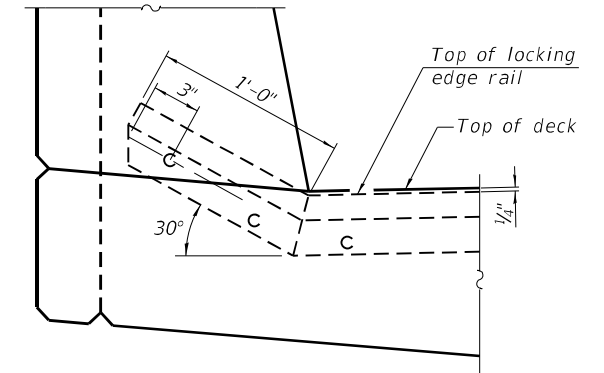


SHOWING WELDED RAIL JOINT

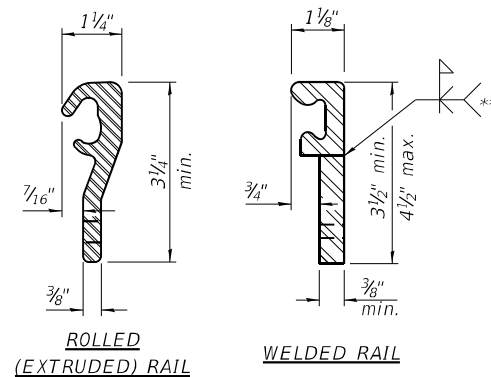
* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

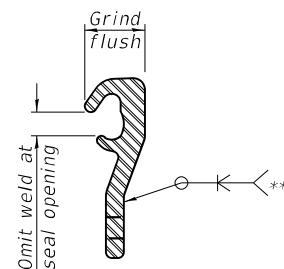


TYPICAL END TREATMENT AT CURB



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of embedded plates and anchorage studs included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	257

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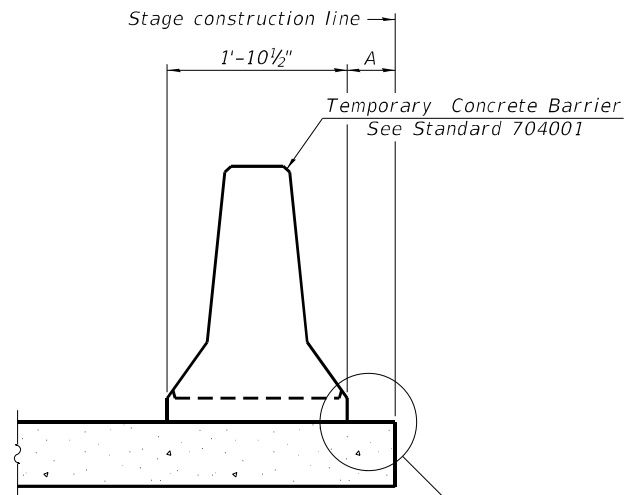
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PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 084-0109 & 084-0110

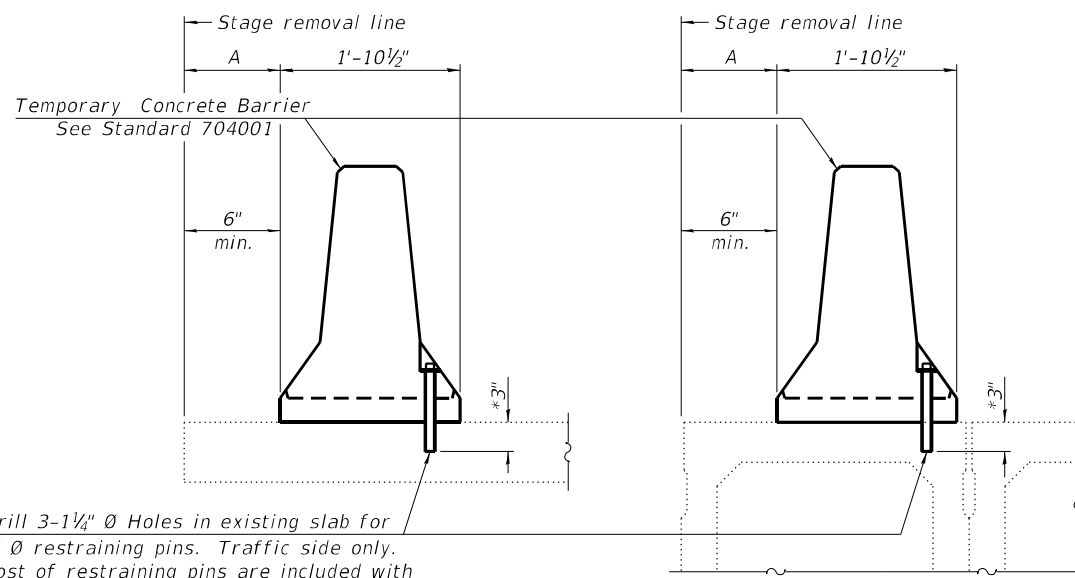
SHEET 11 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	33
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



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

NEW SLAB OR NEW DECK BEAM

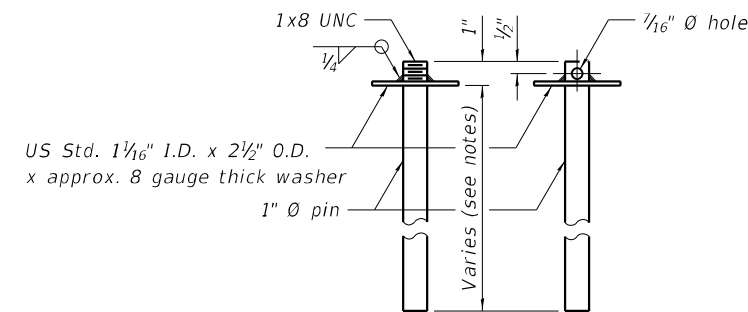


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

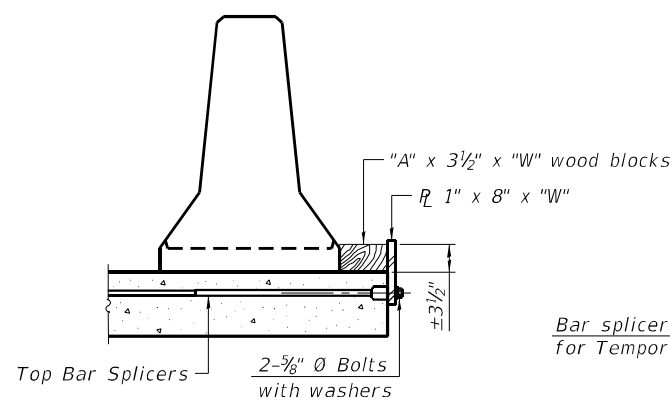
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

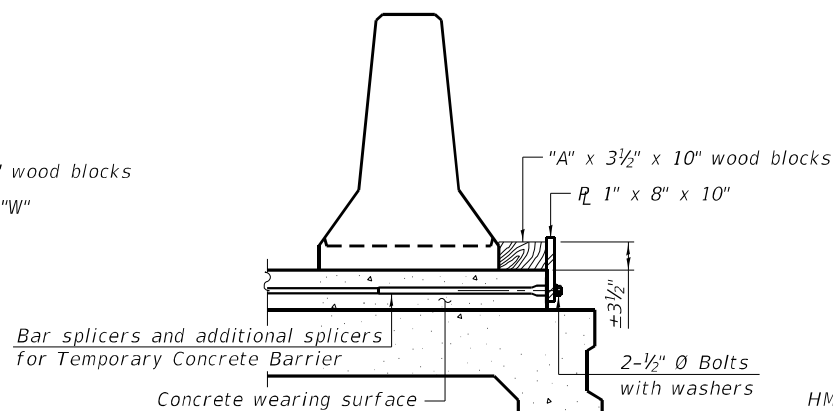


RESTRAINING PIN

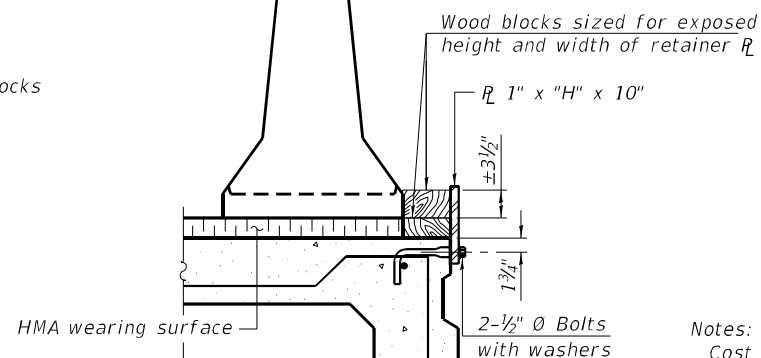
SECTIONS THRU SLAB OR DECK BEAM



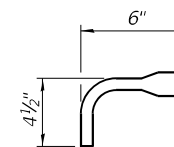
DETAIL I



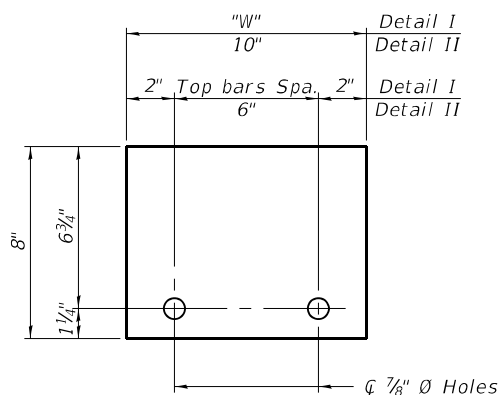
DETAIL II



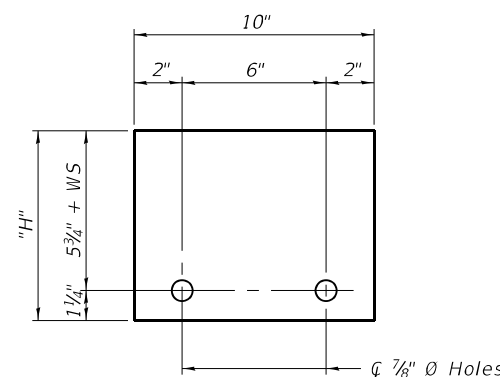
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



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



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

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate \bar{C} of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

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

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021

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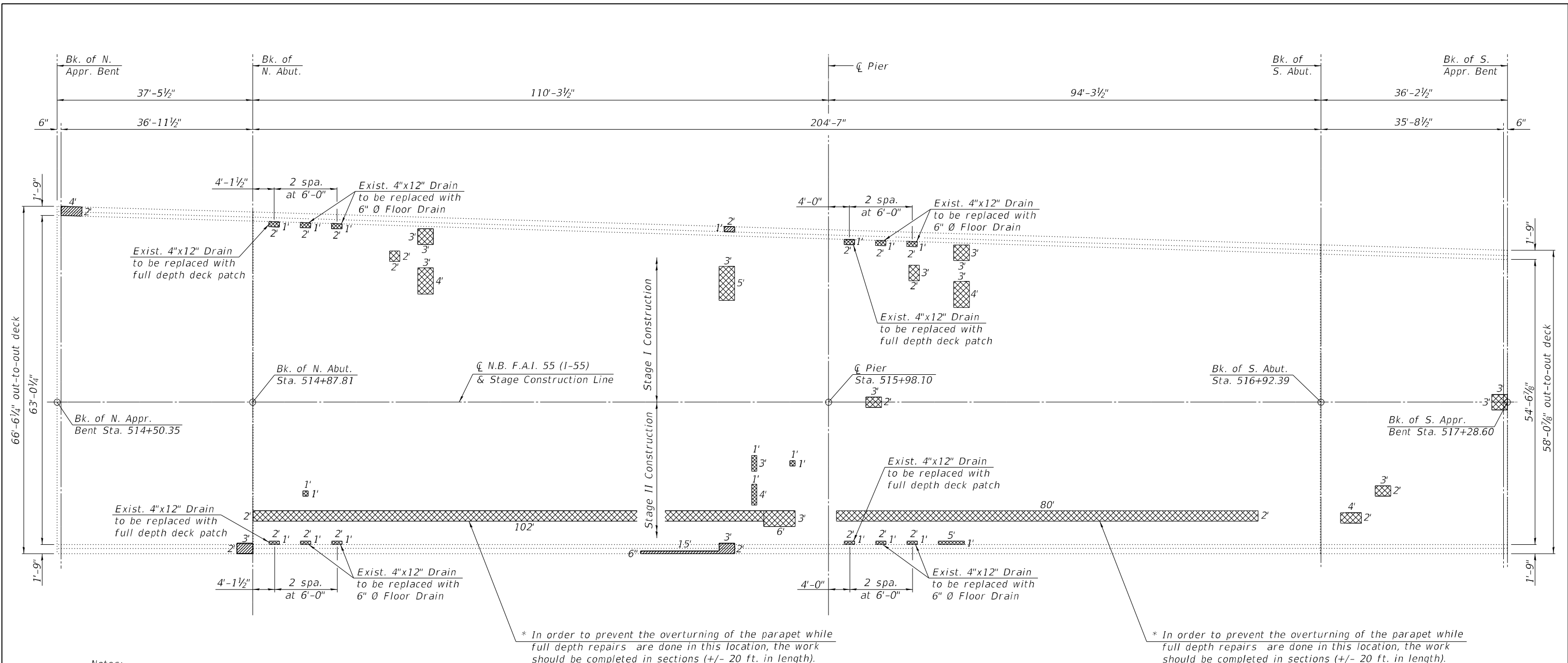
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TEMPORARY CONCRETE BARRIER
 STRUCTURE NO. 084-0109 & 084-0110

SHEET 12 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR, BP, BJR, BRR	SANGAMON	49	34
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



Notes:
For Drain Patching Details, see Sheet 15 of 27.

* In order to prevent the overturning of the parapet while full depth repairs are done in this location, the work should be completed in sections (+/- 20 ft. in length).

* In order to prevent the overturning of the parapet while full depth repairs are done in this location, the work should be completed in sections (+/- 20 ft. in length).

PLAN
(SN 084-0109)

* At least 72 hours shall have elapsed from the end of the previous pour and the concrete shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3,500 psi.

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 inches) (Bottom of deck, under existing parapet)

Deck Slab Repair (Full Depth) (Areas of Deck Slab Repair are estimated. The Resident Engineer shall show actual locations of deck slab repair on the "As-Built" Plans.)

Note: Partial Depth Repair shall be achieved by bridge deck scarification and filled with microsilica concrete overlay. Cost included in "Bridge Deck Scarification 3" " and "Bridge Deck Microsilica Concrete Overlay 3/4" "

BILL OF MATERIAL

Item	Unit	Total
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	42
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	30

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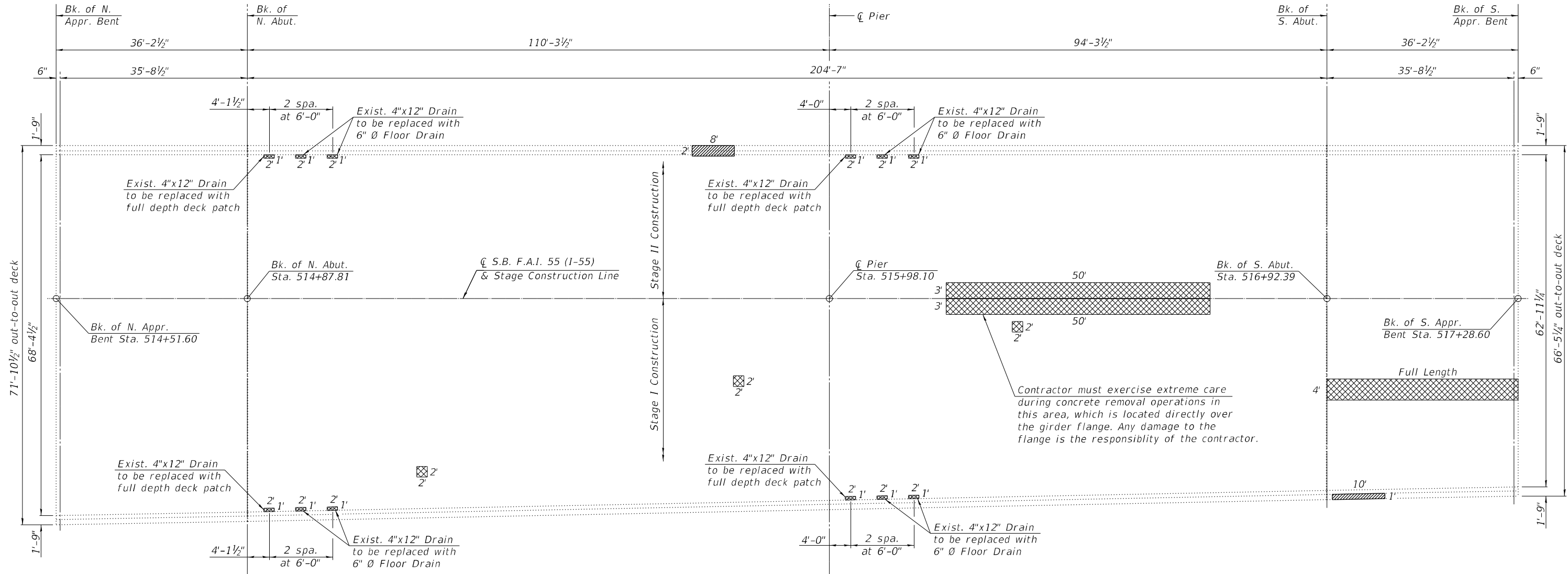
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DECK PATCHING
STRUCTURE NO. 084-0109 & 084-0110

SHEET 13 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR, BP, BJR, BRR	SANGAMON	49	35
CONTRACT NO. 72189				
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Notes:
For Drain Patching Details, see Sheet 15 of 27.

LEGEND

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
(Bottom of deck, under existing parapet)
- Deck Slab Repair (Full Depth)
(Areas of Deck Slab Repair are estimated. The Resident Engineer shall show actual locations of deck slab repair on the "As-Built" Plans.)

Note: Partial Depth Repair shall be achieved by bridge deck scarification and filled with microsilica concrete overlay. Cost included in "Bridge Deck Scarification 3" " and "Bridge Deck Microsilica Concrete Overlay 3/4" "

BILL OF MATERIAL

Item	Unit	Total
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	4
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	48
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	26

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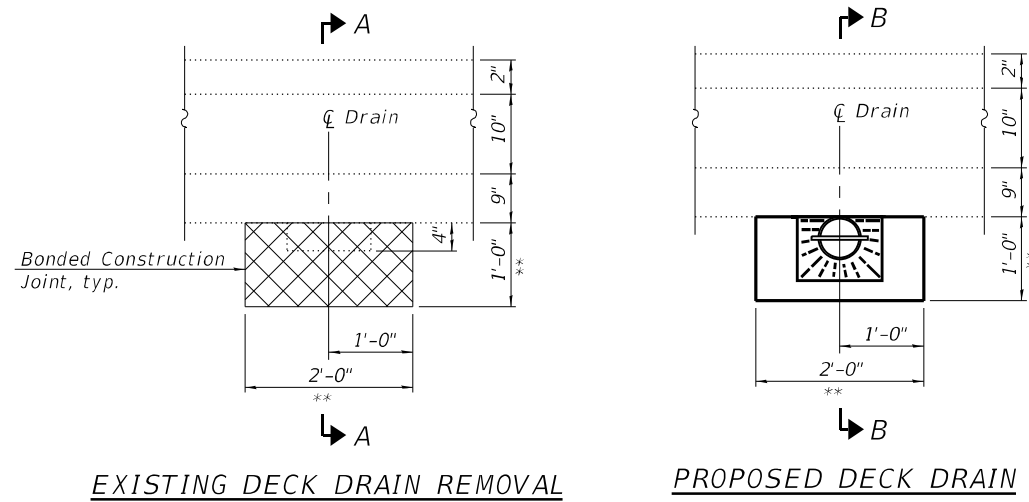
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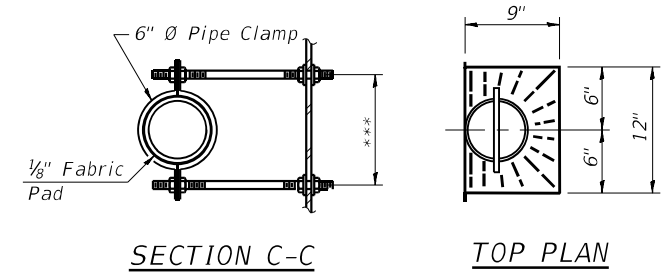
**DECK PATCHING
STRUCTURE NO. 084-0109 & 084-0110**

SHEET 14 OF 27 SHEETS

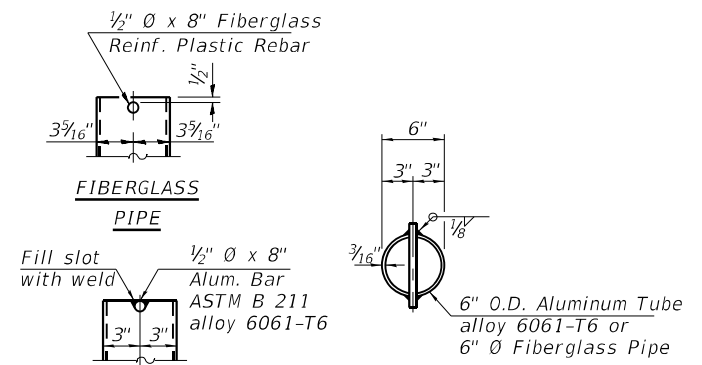
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CONTRACT NO. 72189				
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** Deck Slab Repair
(Full Depth, Type I)

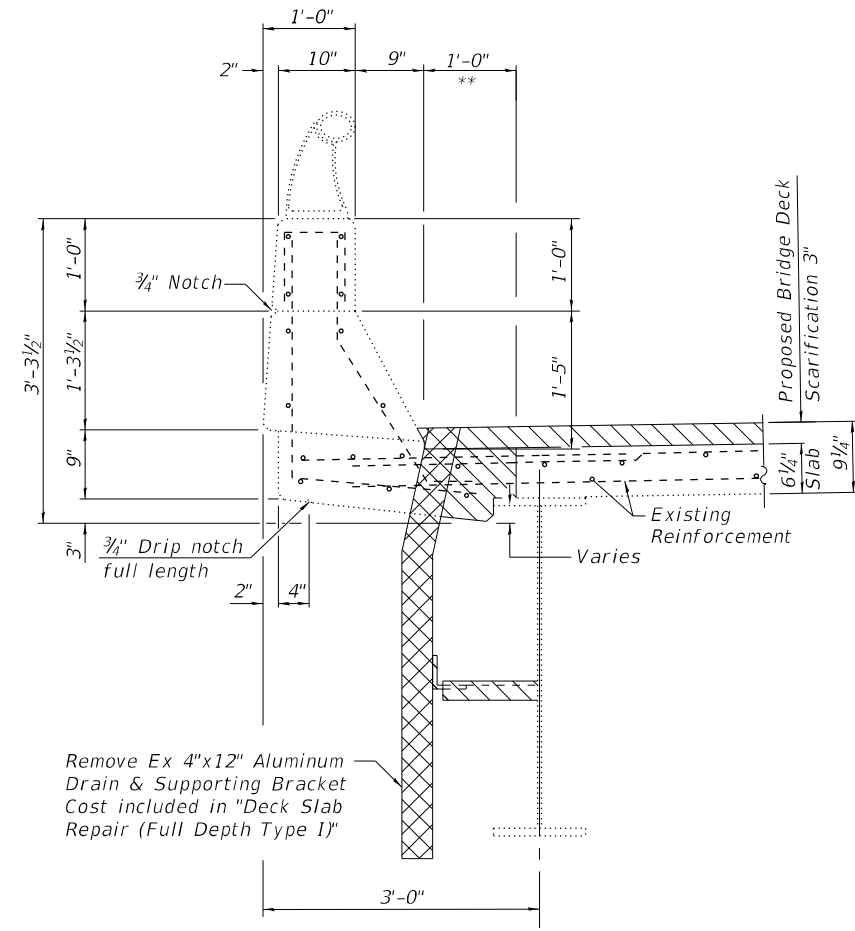


***Dimension as required
by Pipe Clamp

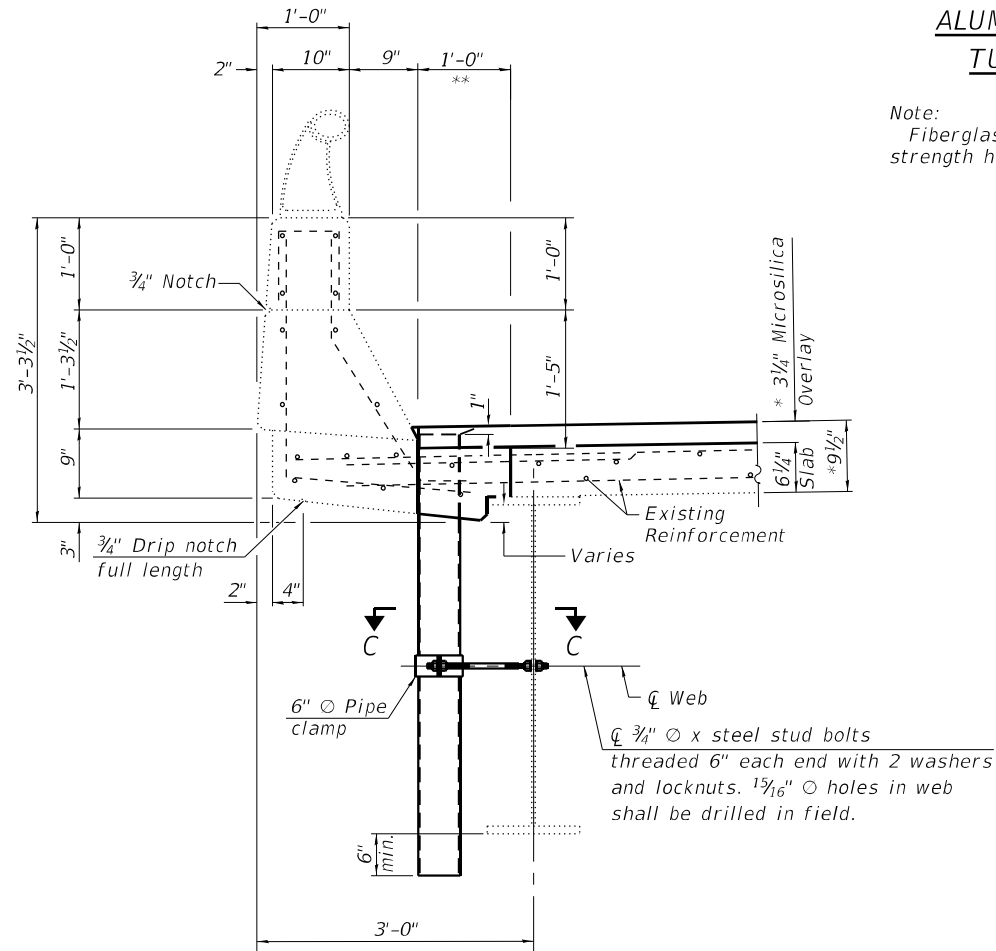


ALUMINUM TUBE
(Showing Aluminum Tube)

Note:
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



SECTION A-A
(For Locations See Sheets 13 and 14 of 27)



SECTION B-B
(For Locations See Sheets 13 and 14 of 27)

* Prior to grinding

Notes:
Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4" prior to the removal of concrete.
Existing reinforcement bars shown are to be cleaned and incorporated into the new construction.

BILL OF MATERIAL

Item	Unit	Total
Floor Drains	Each	16

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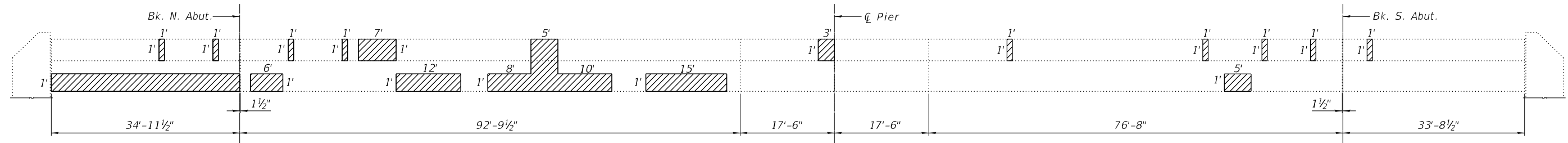
STATE OF ILLINOIS
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DECK DRAIN DETAILS
STRUCTURE NO. 084-0109 & 084-0110

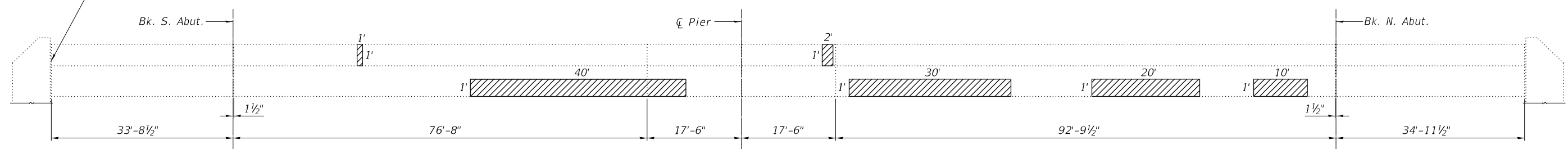
SHEET 15 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

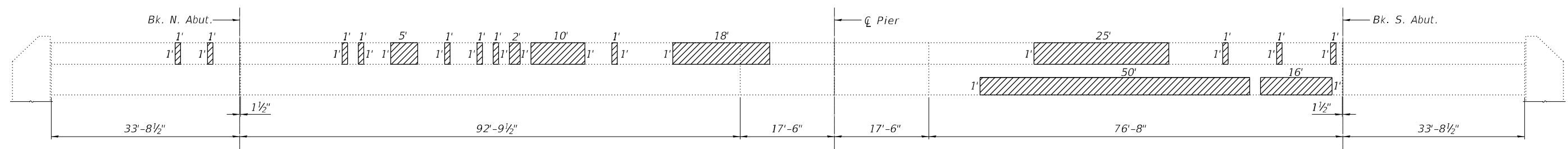
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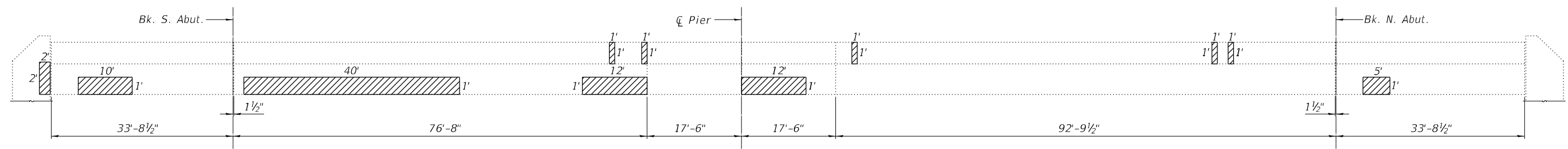
INSIDE ELEVATION OF EAST PARAPET
 (SN 084-0109 - Looking East)



INSIDE ELEVATION OF WEST PARAPET
 (SN 084-0109 - Looking West)



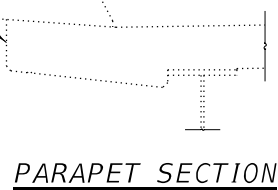
INSIDE ELEVATION OF EAST PARAPET
 (SN 084-0110 - Looking East)



INSIDE ELEVATION OF WEST PARAPET
 (SN 084-0110 - Looking West)

Apply Surface Filler (Special) and Protective Coat (Special) on bridge parapets and approach span parapets

Apply Surface Filler (Special) and Protective Coat (Special) on bridge parapets and approach span parapets



Note:
 Existing top steel railing not shown for clarity.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	450
Surface Filler (Special)	Gallon	5
Protective Coat (Special)	Sq. Yd.	805

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 inches)

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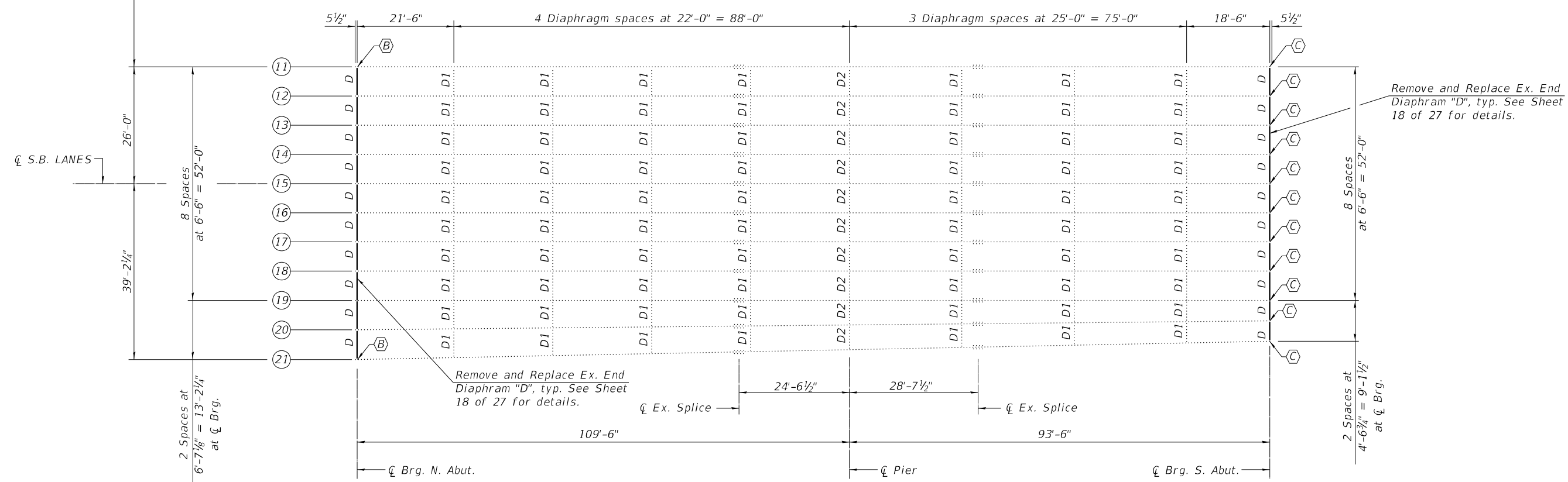
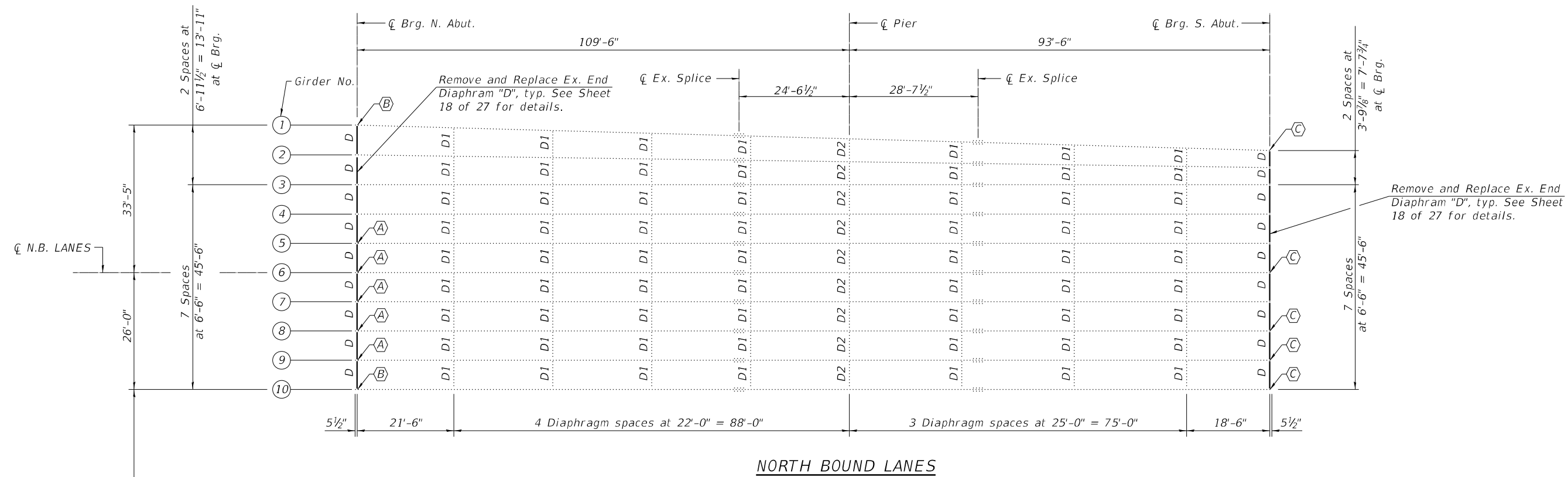
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 DEPARTMENT OF TRANSPORTATION

PARAPET REPAIR DETAILS
 STRUCTURE NO. 084-0109 & 084-0110

SHEET 16 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VHB)BDR, BP, BJR, BRR	SANGAMON	49	38
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

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LEGEND

(X) - Girder End Repair Detail (See Sheet 19 of 27 for Details)

Notes:
 For diaphragm repair details, see Sheet 18 of 27.
 For Bill of Material, see Sheet 19 of 27.

FRAMING PLAN



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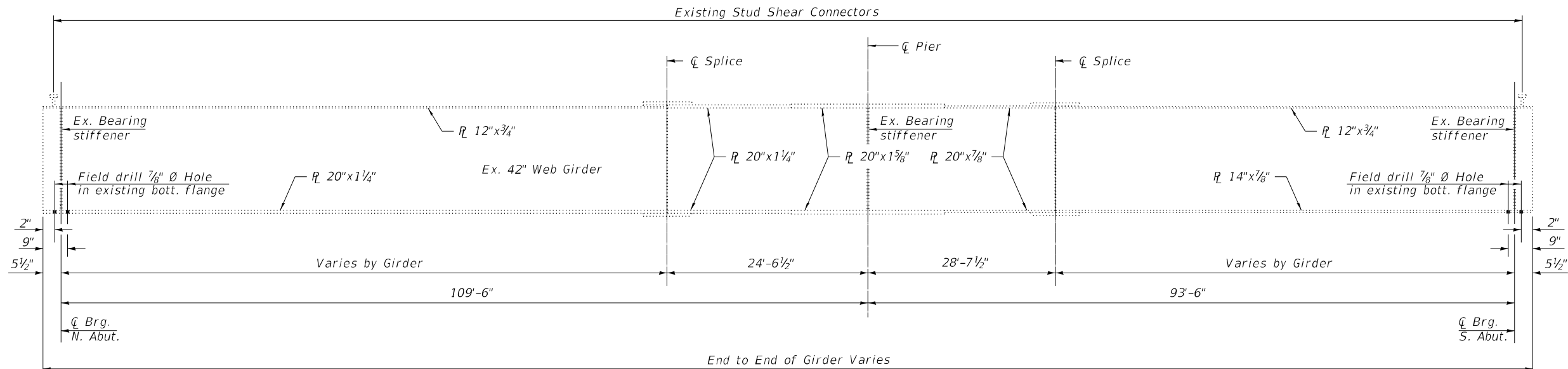
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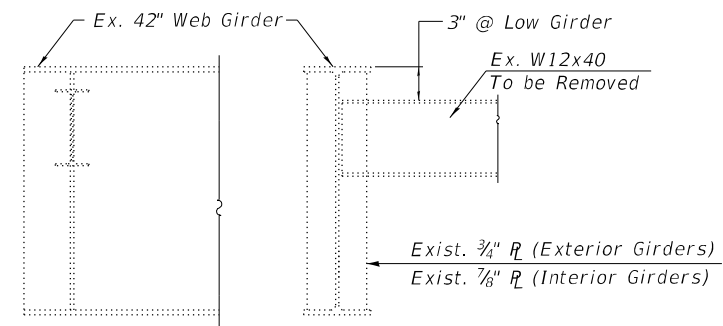
**FRAMING PLAN
 STRUCTURE NO. 084-0109 & 084-0110**

SHEET 17 OF 27 SHEETS

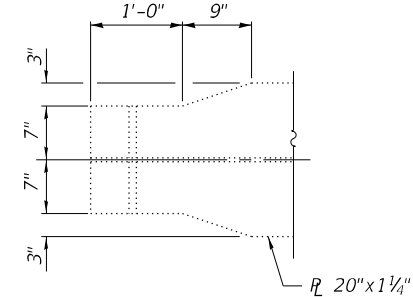
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CONTRACT NO. 72189				
ILLINOIS		FED. AID PROJECT		



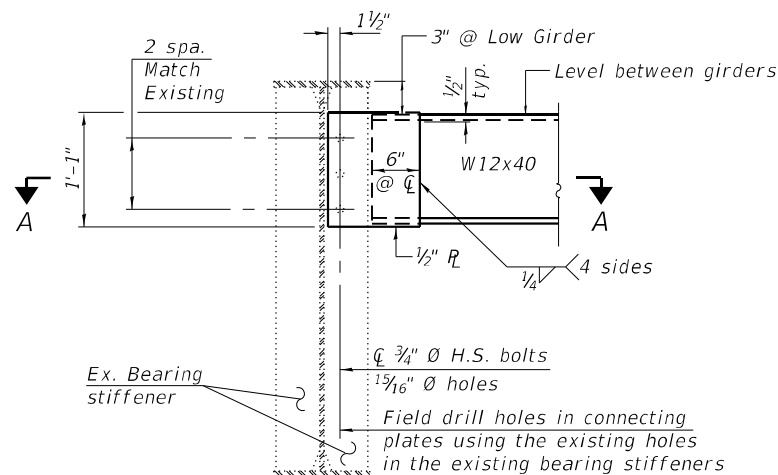
GIRDER ELEVATION



EXISTING END DIAPHRAGM, D



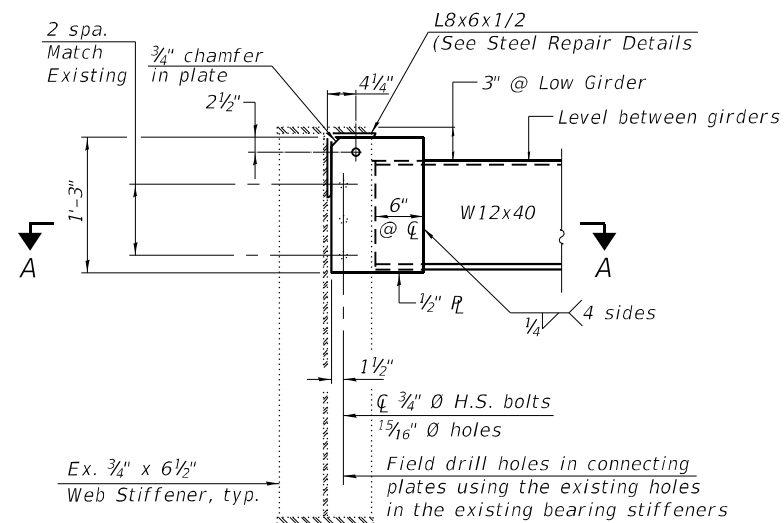
NORTH END (EXTERIOR GIRDERS)
(Girders 1, 10, 11 and 21)



END DIAPHRAGM REPAIR DETAIL

All Girders - S. Abut. & Interior Girders - N. Abut.

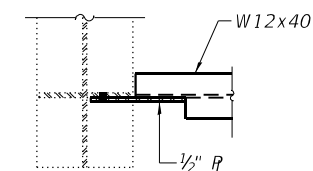
Note:
Two hardened washers required for each set of oversized holes.
New W12x40 diaphragms and connecting plates shall be hot-dipped galvanized.



END DIAPHRAGM REPAIR DETAIL

Exterior Girders - N. Abut.

Note:
Two hardened washers required for each set of oversized holes.
New W12x40 diaphragms and connecting plates shall be hot-dipped galvanized.



SECTION A-A

Notes:
For Bill of Material, see Sheet 19 of 27.

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**STRUCTURAL STEEL REPAIR DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

SHEET 18 OF 27 SHEETS

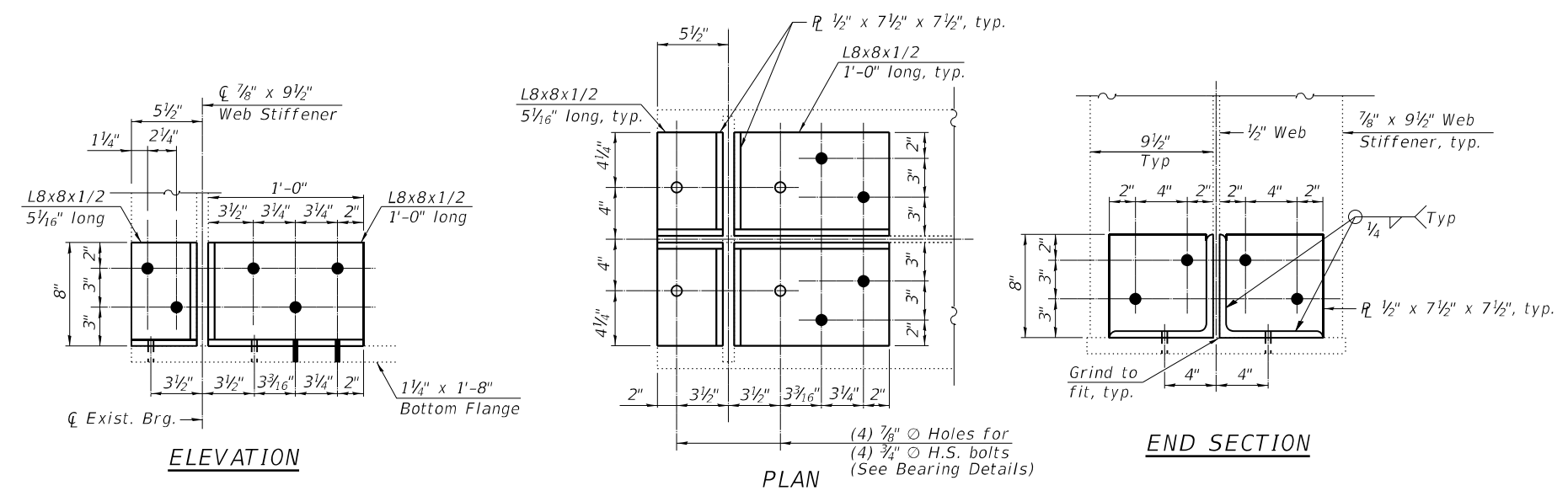
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CONTRACT NO. 72189				
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SOUTH ABUTMENT (SN 084-0109)

SOUTH ABUTMENT (SN 084-0110)

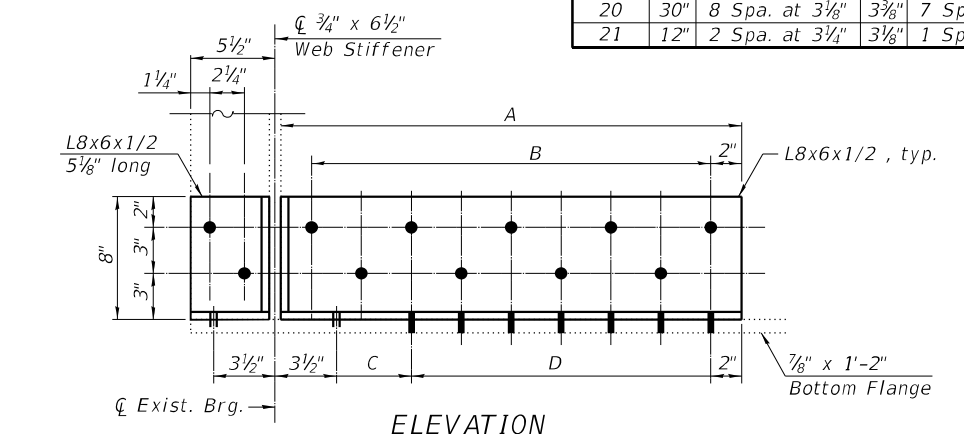
Girder	A	B	C	D
1	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
6	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
8	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
9	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
10	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"

Girder	A	B	C	D
11	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
12	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
13	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
14	24"	6 Spa. at 3 1/8"	3 3/8"	5 Spa. at 3"
15	24"	6 Spa. at 3 1/8"	3 3/8"	5 Spa. at 3"
16	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
17	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"
18	18"	4 Spa. at 3 1/4"	3 3/8"	3 Spa. at 3"
19	30"	8 Spa. at 3 1/8"	3 3/8"	7 Spa. at 3"
20	30"	8 Spa. at 3 1/8"	3 3/8"	7 Spa. at 3"
21	12"	2 Spa. at 3 1/4"	3 1/8"	1 Spa. at 3 1/4"



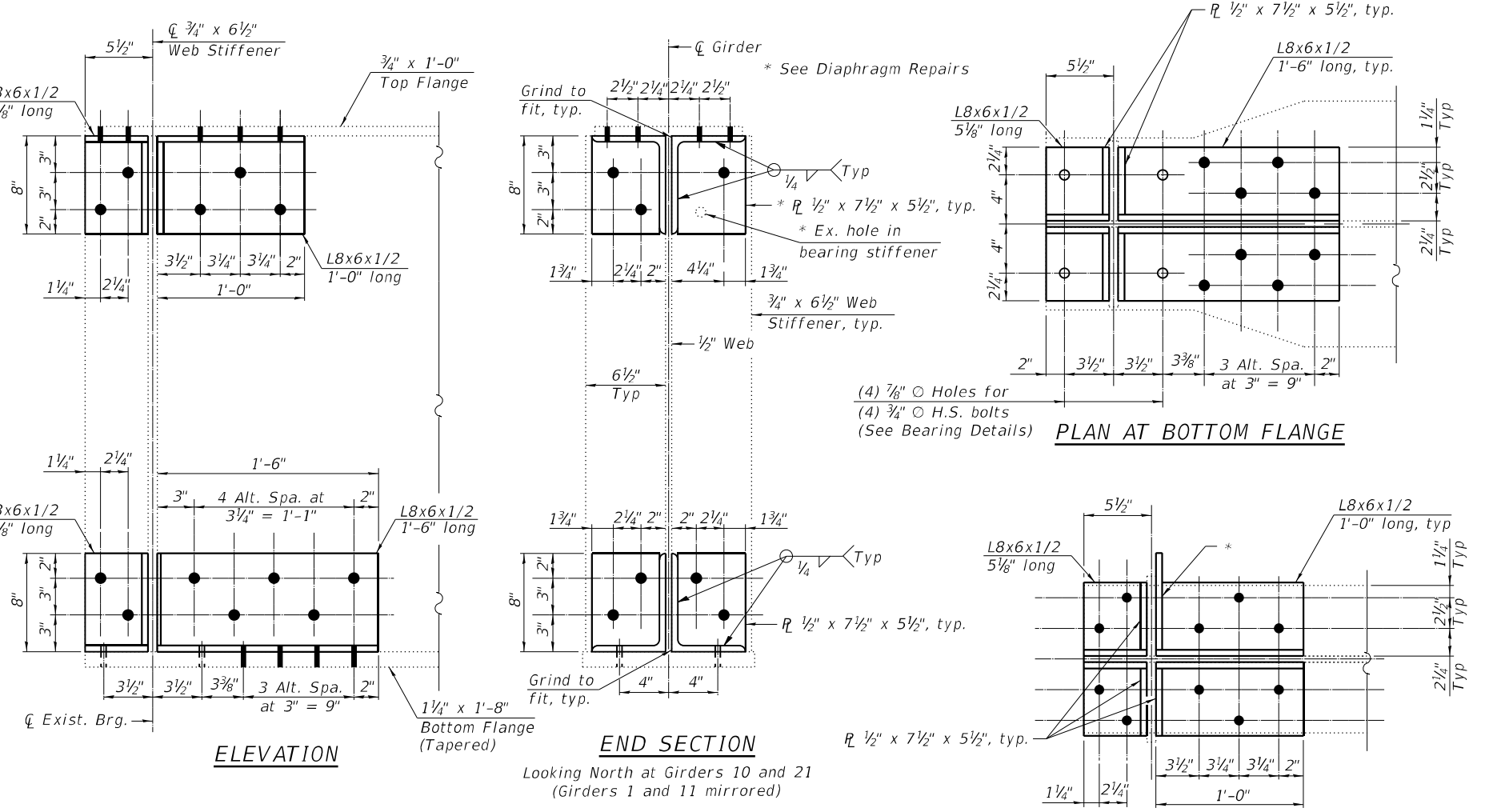
REPAIR DETAIL A
 Interior Girders - N. Abut.
 (5 Locations)

Note:
 At locations where there are holes on the web a sealer compatible with structural steel should be used prior to installing the strengthening angles. Cost of the sealer included in "Furnishing and Erecting Structural Steel".



REPAIR DETAIL C
 Interior and Exterior Girders - S. Abut.
 (16 Locations)

(4) $\frac{7}{8}$ " \varnothing Holes for (4) $\frac{3}{4}$ " \varnothing H.S. bolts (See Bearing Details)



REPAIR DETAIL B
 Exterior Girders - N. Abut.
 (4 Locations)

LEGEND
 ● - Field drill using new steel as template

Looking North at Girders 10 and 21 (Girders 1 and 11 mirrored)

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Removal	Pound	9,555
Furnishing and Erecting Structural Steel	Pound	13,915

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DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR DETAILS
STRUCTURE NO. 084-0109 & 084-0110

SHEET 19 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	41
CONTRACT NO. 72189				

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 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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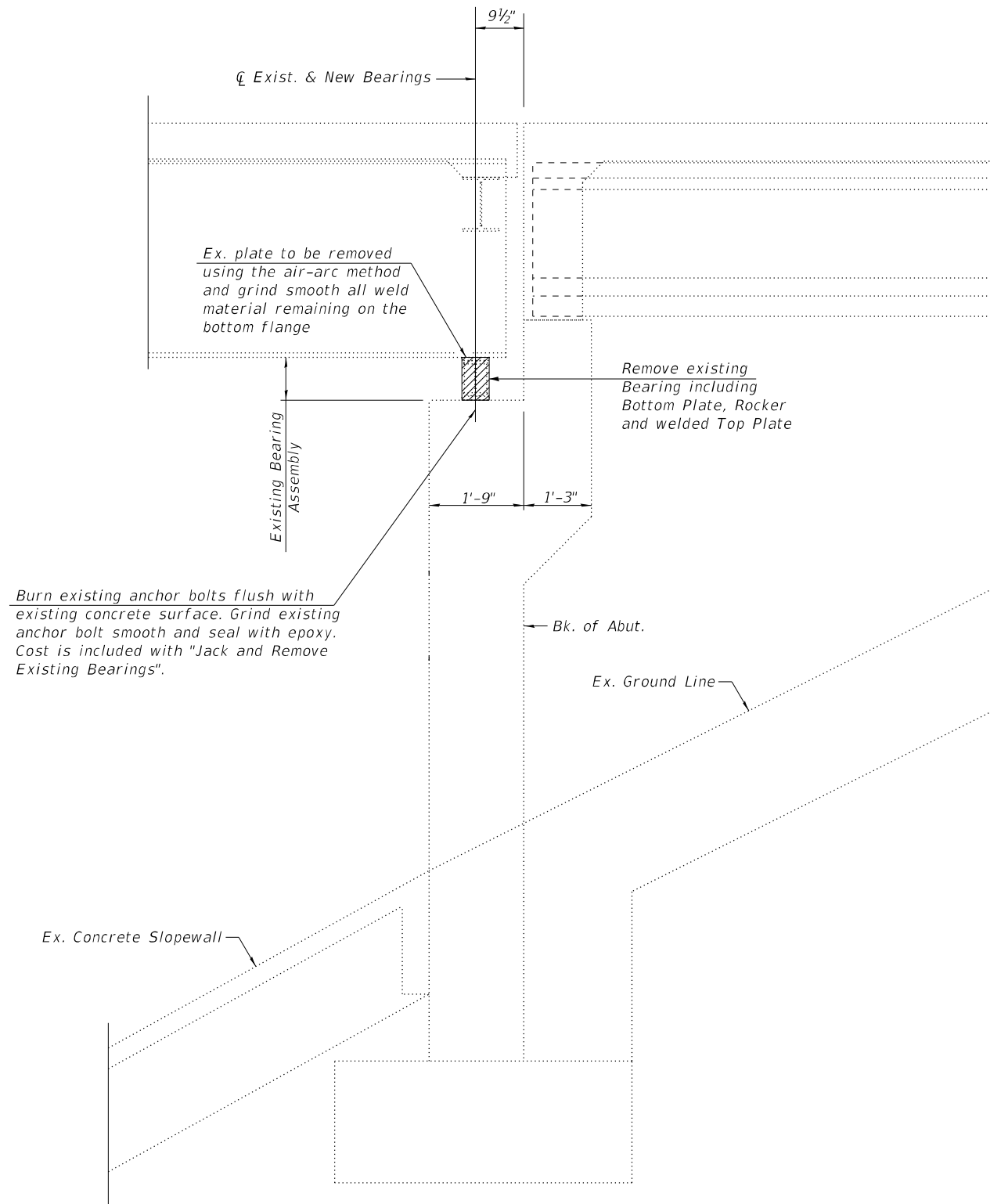
JACK AND REMOVE EXISTING BEARINGS PROCEDURES

1. The Contractor shall submit for approval by the Engineer plans for jacking, prior to commencing any work at the bearings. The maximum reactions (per bearing) are as follows:

North Abutment:
 Dead Load = 49.2 kips
 Live Load = 38.0 kips
 Impact = 11 kips
 Total = 98.2 kips
 Minimum Jack Capacity = 60 Tons

South Abutment:
 Dead Load = 37.7 kips
 Live Load = 37.3 kips
 Impact = 11 kips
 Total = 86.0 kips
 Minimum Jack Capacity = 50 Tons

- Top of deck elevations shall be measured prior to jacking and shall remain the same after bearings are in place.
- There shall be at least one jack per bearing and the jack shall be placed close to the bearing. After jacking, the beams shall be blocked in position until after the completion of the installation of new bearings.
- Burn the existing anchor bolts flush with the concrete surface, grind smooth, and seal with epoxy. The rollers and top and bottom plates shall be removed. The top plate shall be removed using the air-arc method. Grind smooth all weld material remaining on the bottom flange. Cost of removing anchor bolts, rockers, top plates, and bottom plates shall be included with "Jack and Remove Existing Bearings."
- The new elastomeric bearings shall be in place, prior to lowering the jacks.



EXISTING BEARING REMOVAL DETAIL
 (Dimensions at Rt L's)

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	42

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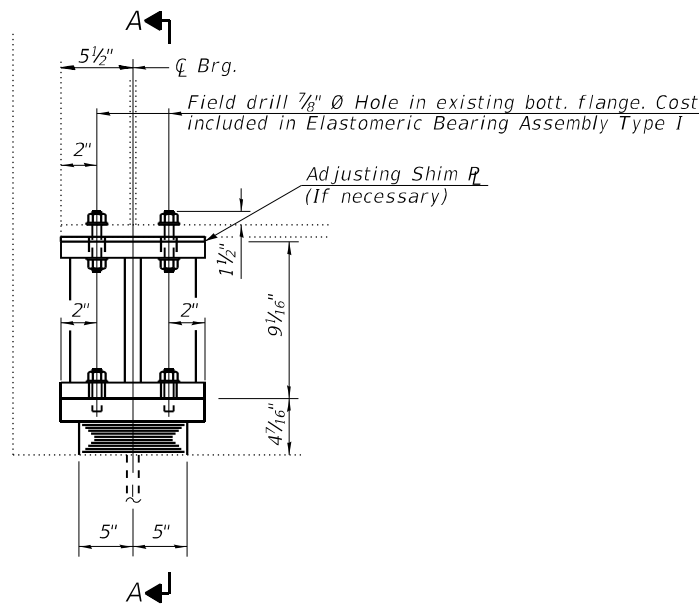
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 DEPARTMENT OF TRANSPORTATION**

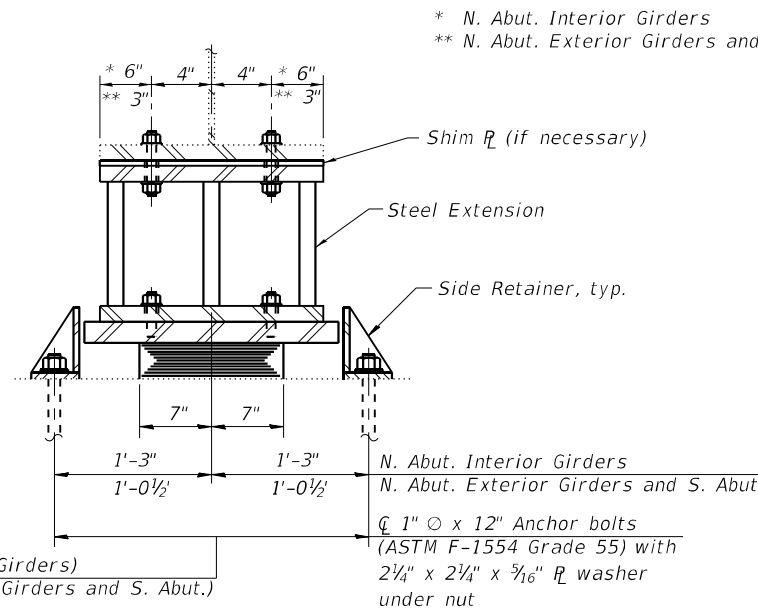
**JACK AND REMOVE EXISTING BEARINGS
 STRUCTURE NO. 084-0109 & 084-0110**

SHEET 20 OF 27 SHEETS

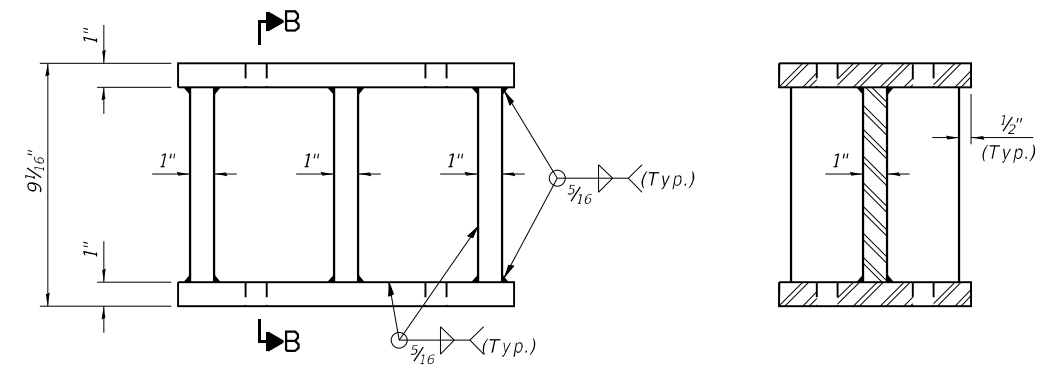
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-S-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	42
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



**ELEVATION AT ABUTMENTS
TYPE I ELASTOMERIC BEARING**

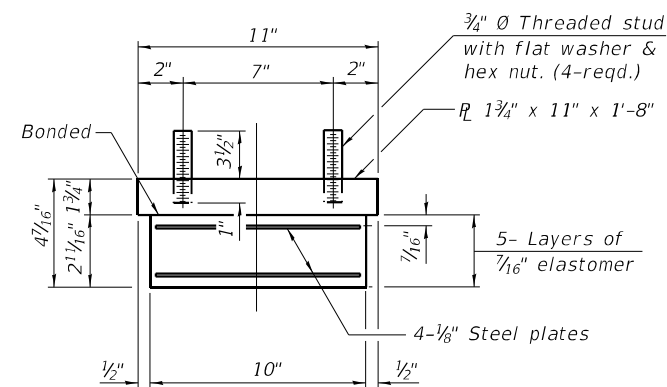


SECTION A-A



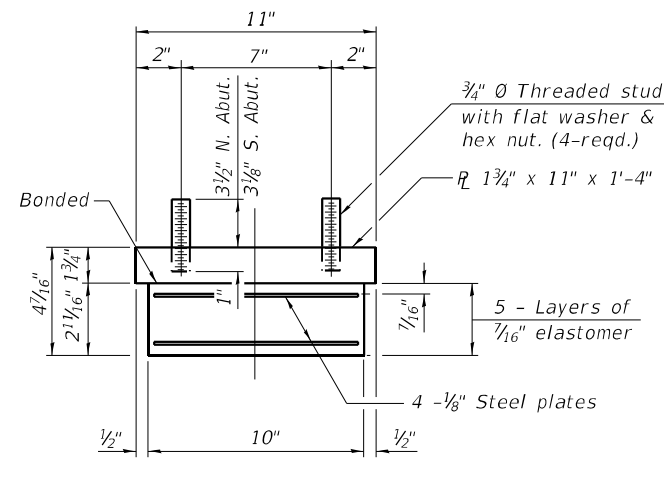
ELEVATION - STEEL EXTENSION

SECTION B-B



**BEARING ASSEMBLY
(North Abut. Interior Girders)**

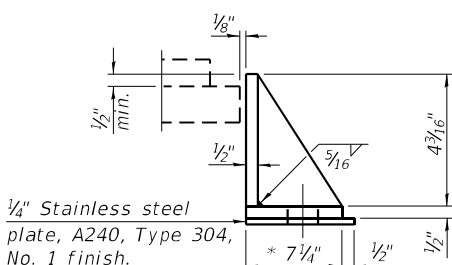
Note:
Shim plates shall not be placed under bearing assembly.



BEARING ASSEMBLY

(South Abut. and North Abut. Exterior Girders)

Note:
Shim plates shall not be placed under bearing assembly.

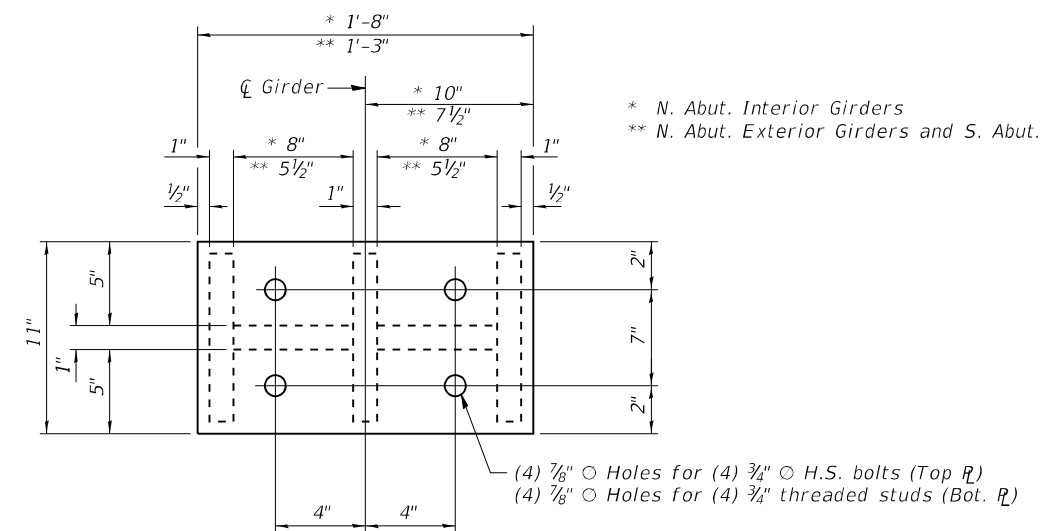


SIDE RETAINER

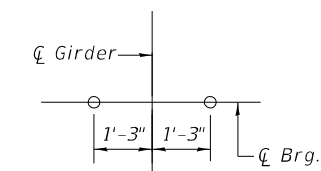
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

* N. Abut. Interior Girders
** N. Abut. Exterior Girders and S. Abut.

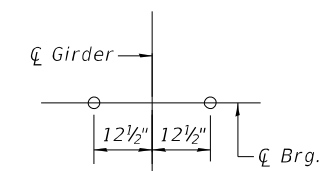
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Side retainers, and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Girders shall be braced for stability during erection and remain braced until deck is poured and cured.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
Prior to ordering any material, the Contractor shall verify in the field all bearing heights and shim thickness dimensions.
All (embedded and separate) bearing plates, side retainers, extensions, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable unless noted otherwise.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



PLAN - STEEL EXTENSION

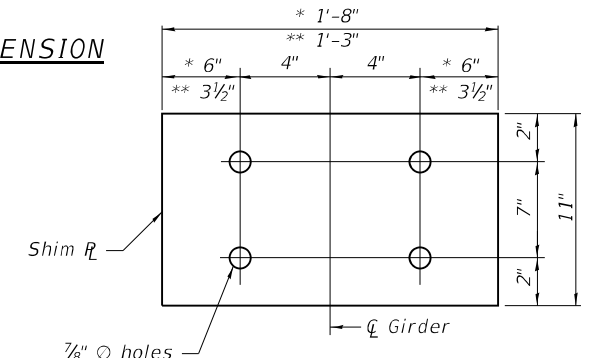


N. ABUT. INTERIOR GIRDERS



N. ABUT. EXTERIOR GIRDERS AND S. ABUT.

ANCHOR BOLT LAYOUT DETAIL



SHIM \bar{P} - ABUTMENTS

Note:
Shim plates shall be placed above bearing assembly top plate.

**FOUR ABUTMENTS
BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	42
Anchor Bolts, 1"	Each	84
Furnishing and Erecting Structural Steel	Pound	8,792

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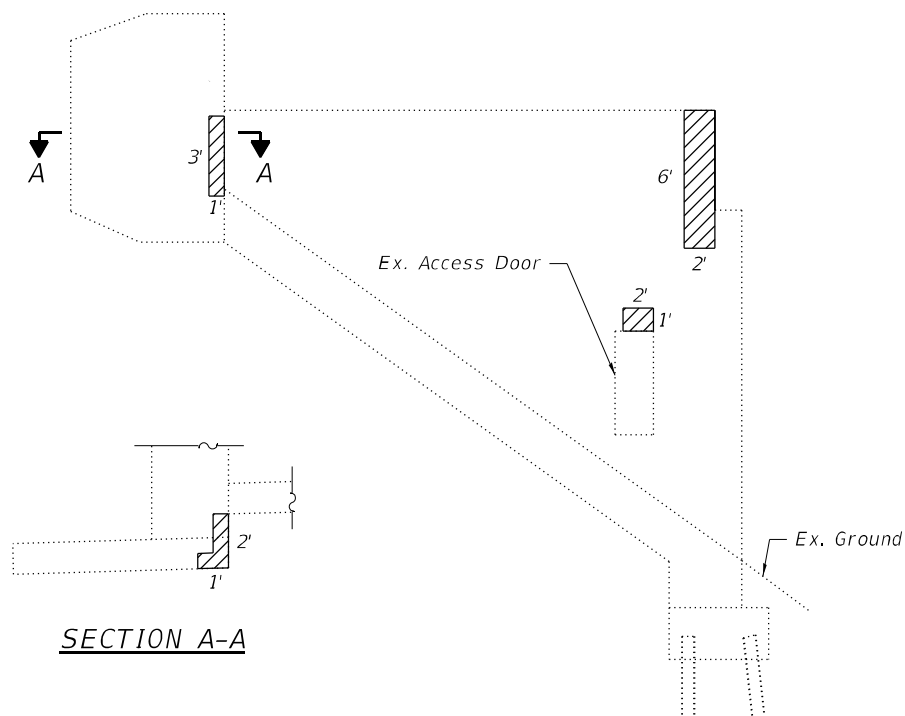
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DEPARTMENT OF TRANSPORTATION**

**ABUTMENT BEARING DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

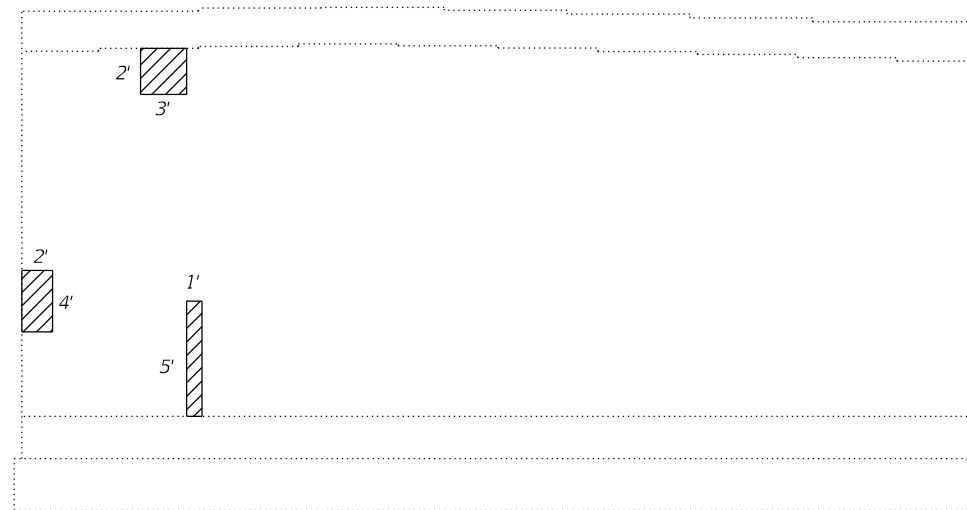
SHEET 21 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 72189				
ILLINOIS		FED. AID PROJECT		

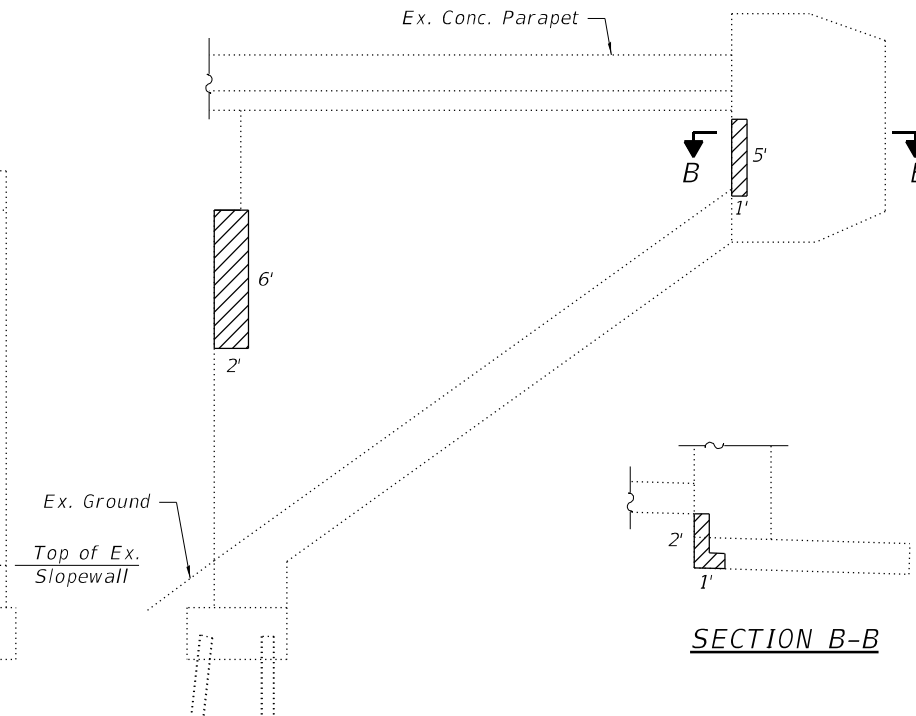
Notes:
 Repair of the existing abutment shall include but may not be limited to the areas shown. The actual area to be repaired will be determined at the time of construction.
 An existing electrical conduit is located at the north abutment. Contractor to coordinate conduit adjustment or removal, prior to completing repairs. Cost included in "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)".



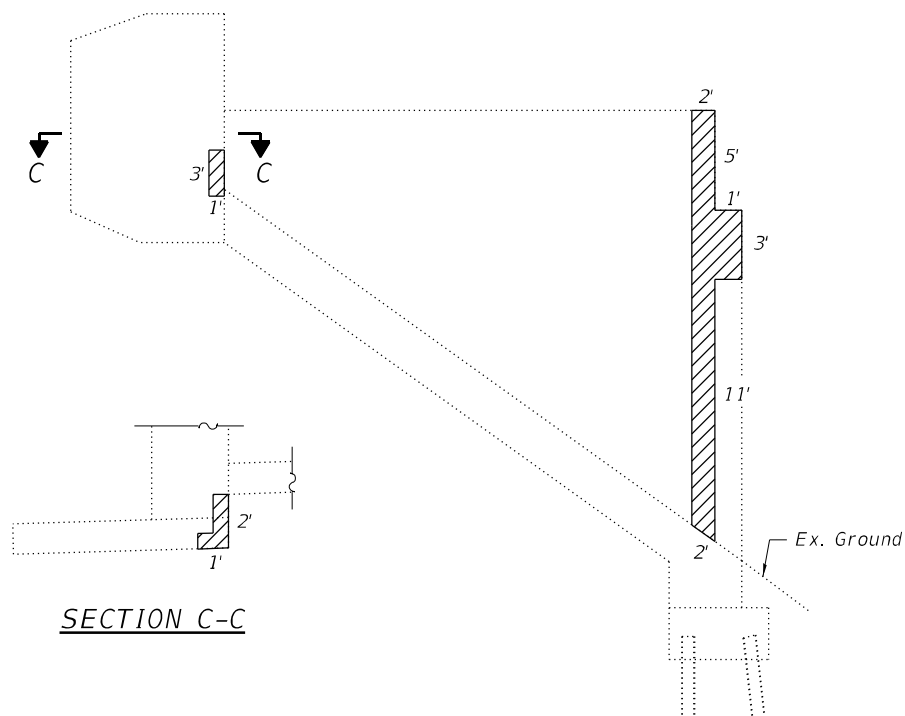
SECTION A-A



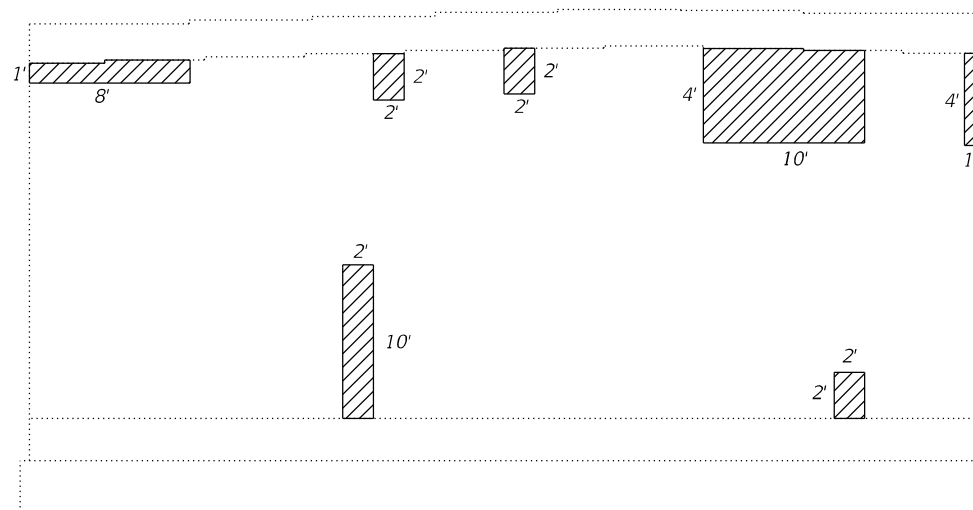
NORTH ABUTMENT
 (Looking North SN 084-0109)



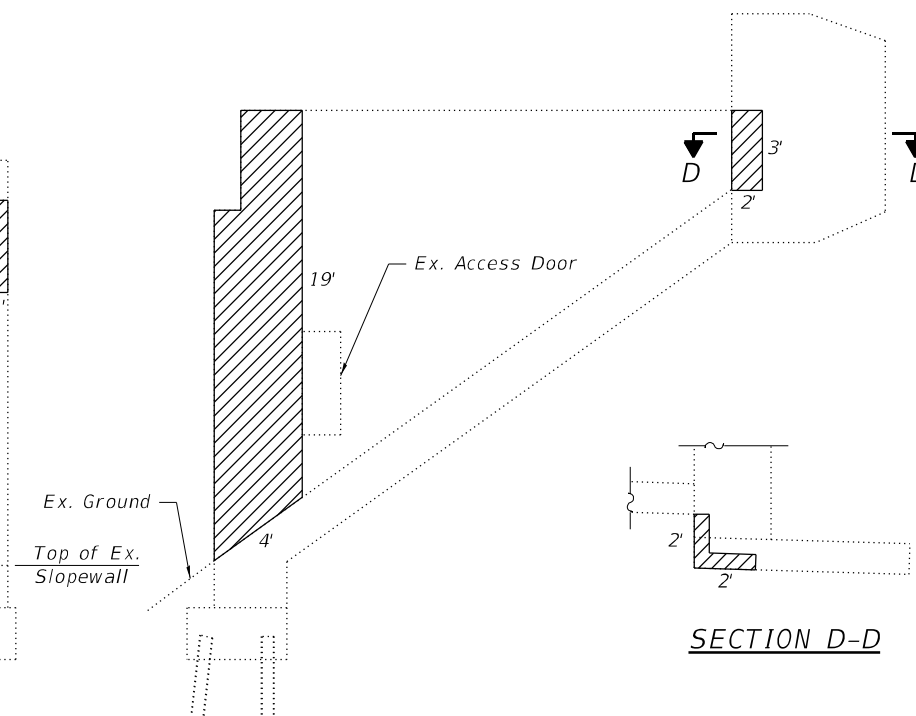
SECTION B-B



SECTION C-C



SOUTH ABUTMENT
 (Looking South SN 084-0109)



SECTION D-D

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 inches)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	286

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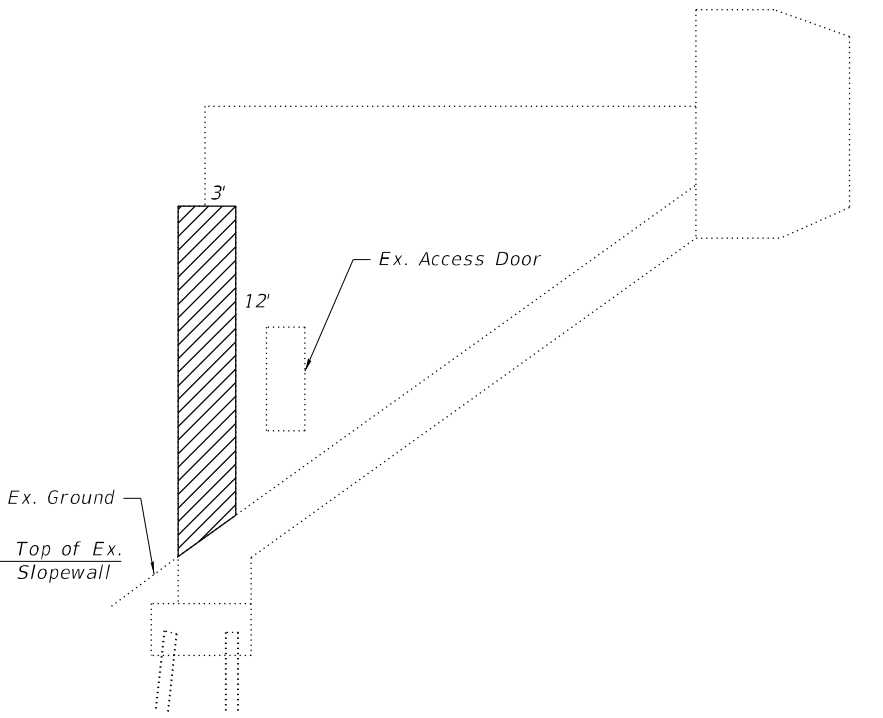
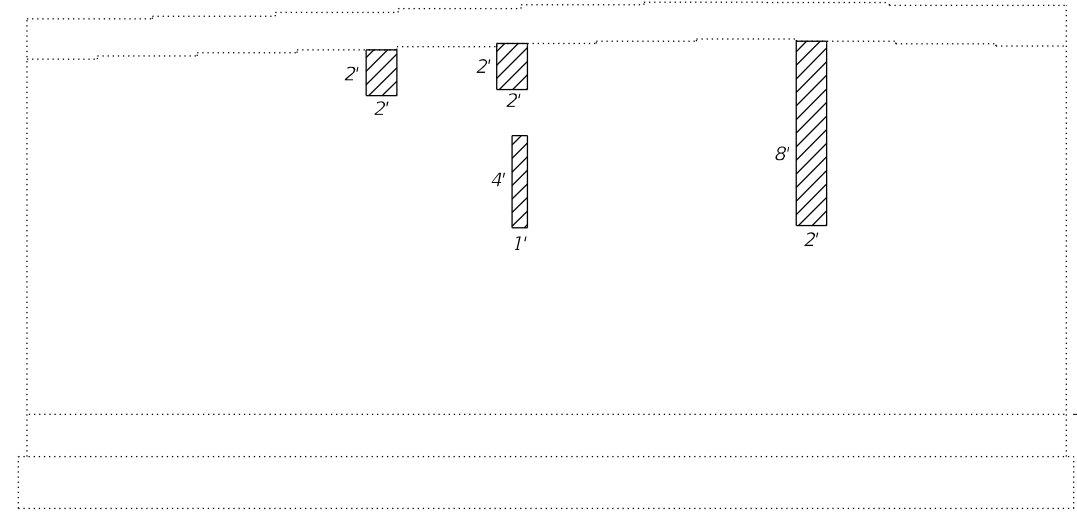
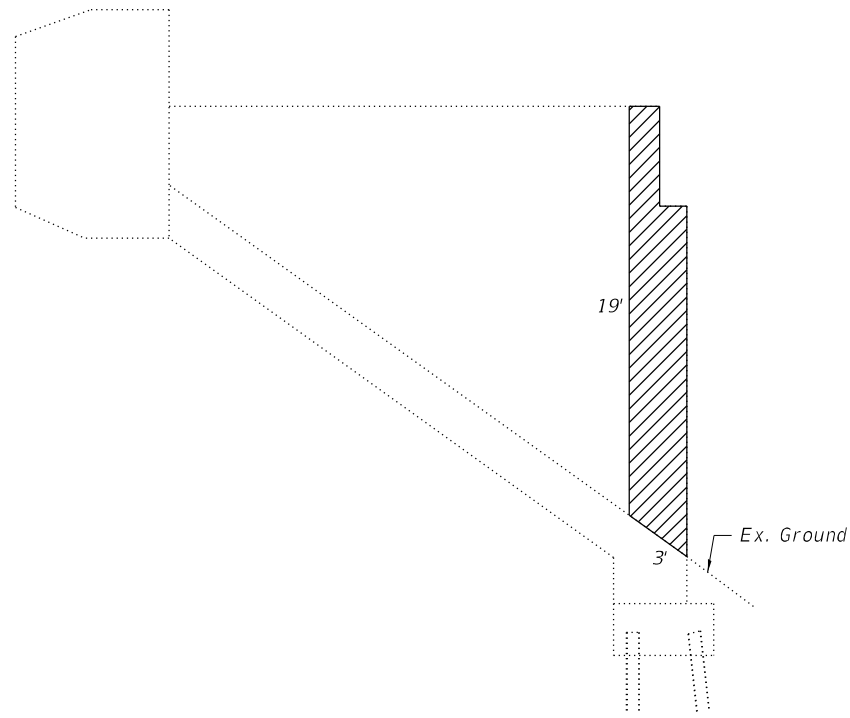
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 DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
 STRUCTURE NO. 084-0109 & 084-0110

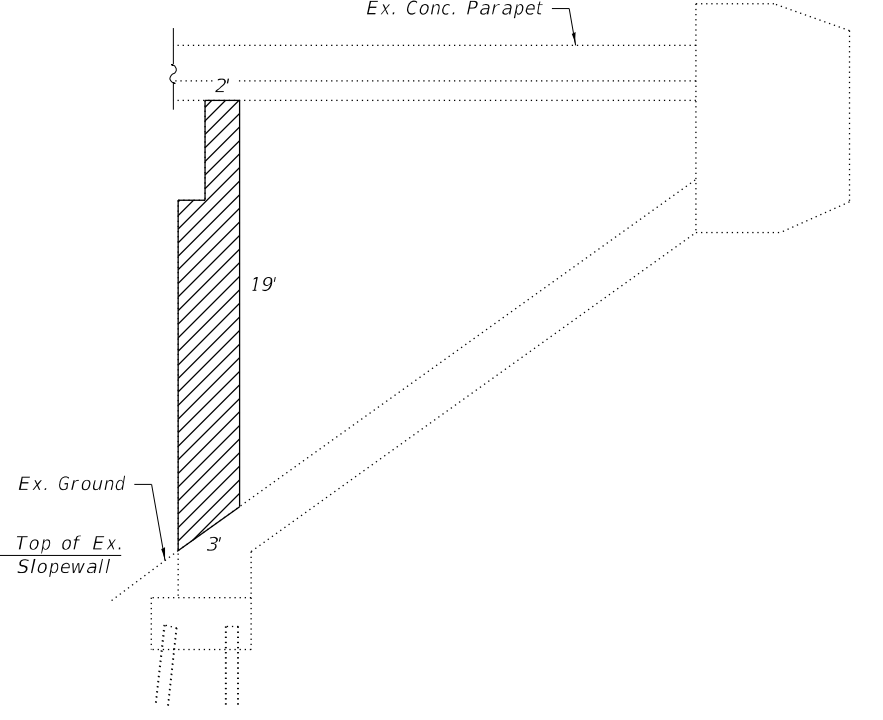
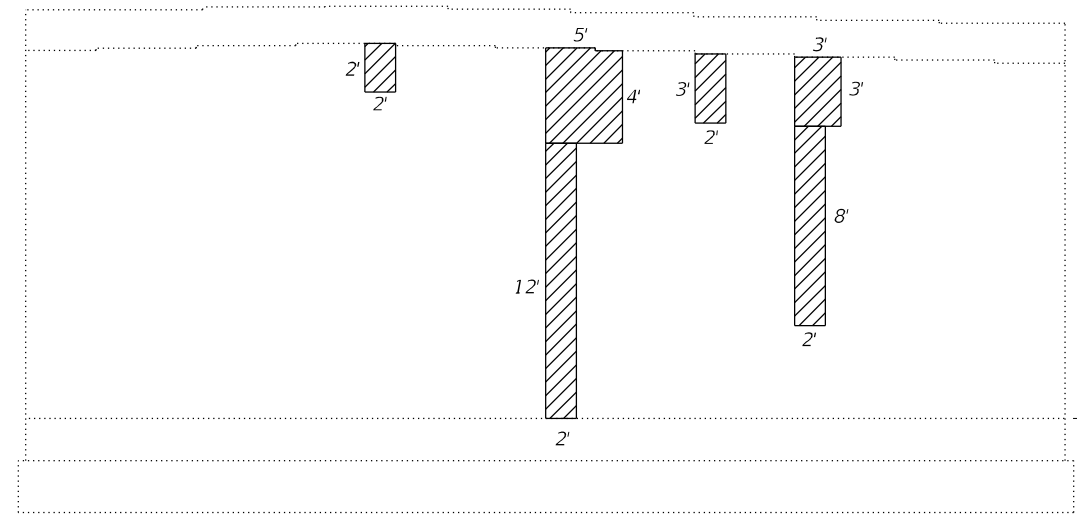
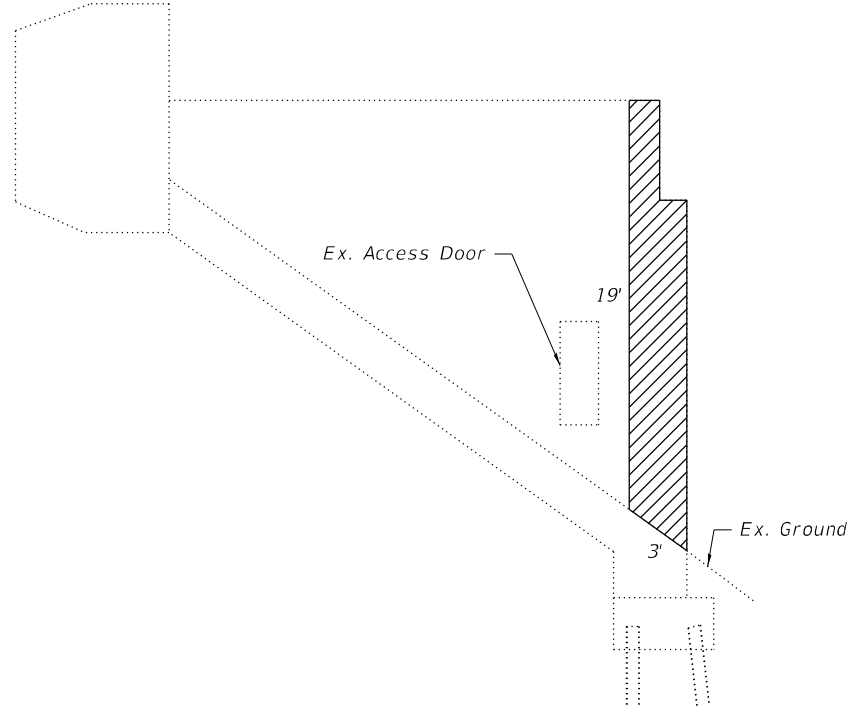
SHEET 22 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-S-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	44
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

Notes:
 Repair of the existing abutment shall include but may not be limited to the areas shown. The actual area to be repaired will be determined at the time of construction.
 An existing electrical conduit is located at the north abutment. Contractor to coordinate conduit adjustment or removal, prior to completing repairs. Cost included in "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)".



NORTH ABUTMENT
 (Looking North SN 084-0110)



SOUTH ABUTMENT
 (Looking South SN 084-0110)

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 inches)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	299

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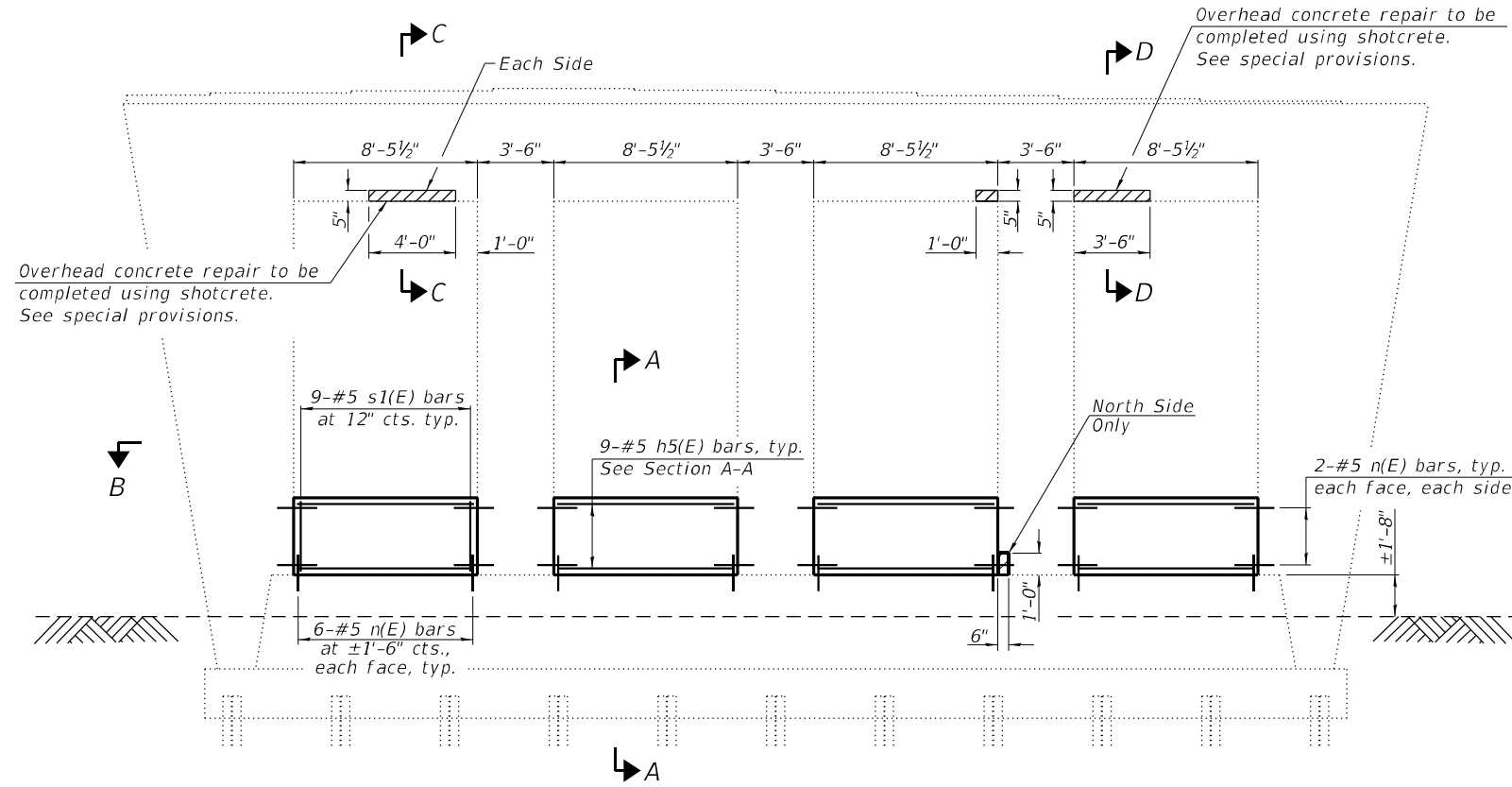
ABUTMENT REPAIR DETAILS
STRUCTURE NO. 084-0109 & 084-0110

SHEET 23 OF 27 SHEETS

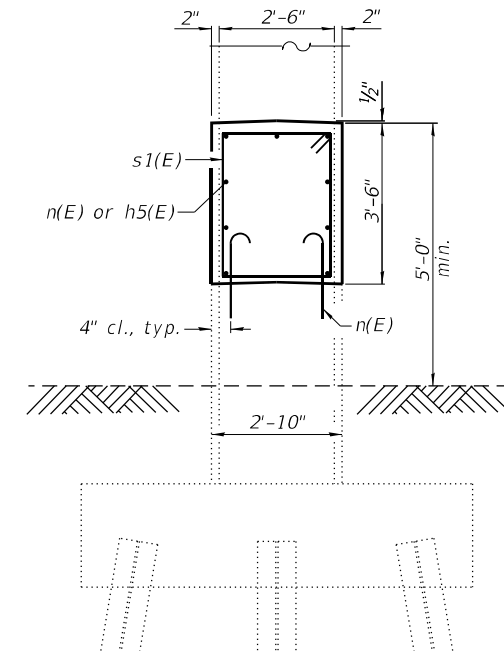
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CONTRACT NO. 72189				
		ILLINOIS	FED. AID PROJECT	

LEGEND

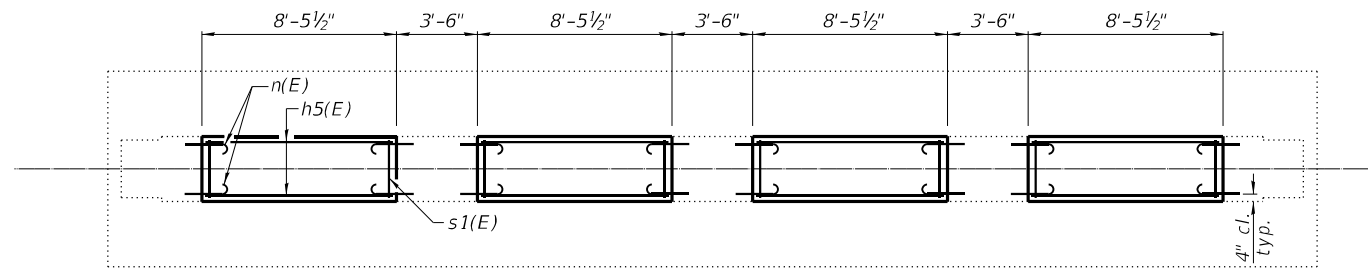
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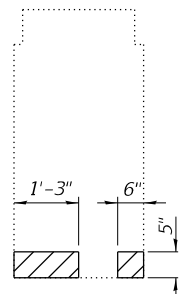
PIER ELEVATION
(Looking North SN 084-0109)



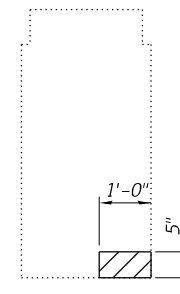
SECTION A-A



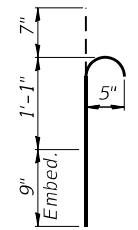
SECTION B-B



SECTION C-C

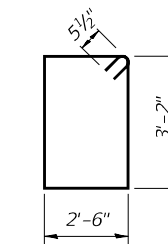


SECTION D-D



BAR n(E)

Epoxy grout n(E) bars in 9" min. deep holes according to Article 584 of the Standard Specifications
Cost included with Reinforcement Bars, Epoxy Coated



BAR s1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	36	#5	8'-1"	—
n(E)	80	#5	2'-5"	⌋
s1(E)	36	#5	12'-3"	⊠
Reinforcement Bars, Epoxy Coated			Pound	970
Concrete Structures			Cu. Yd.	12.4
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)			Sq. Ft.	11

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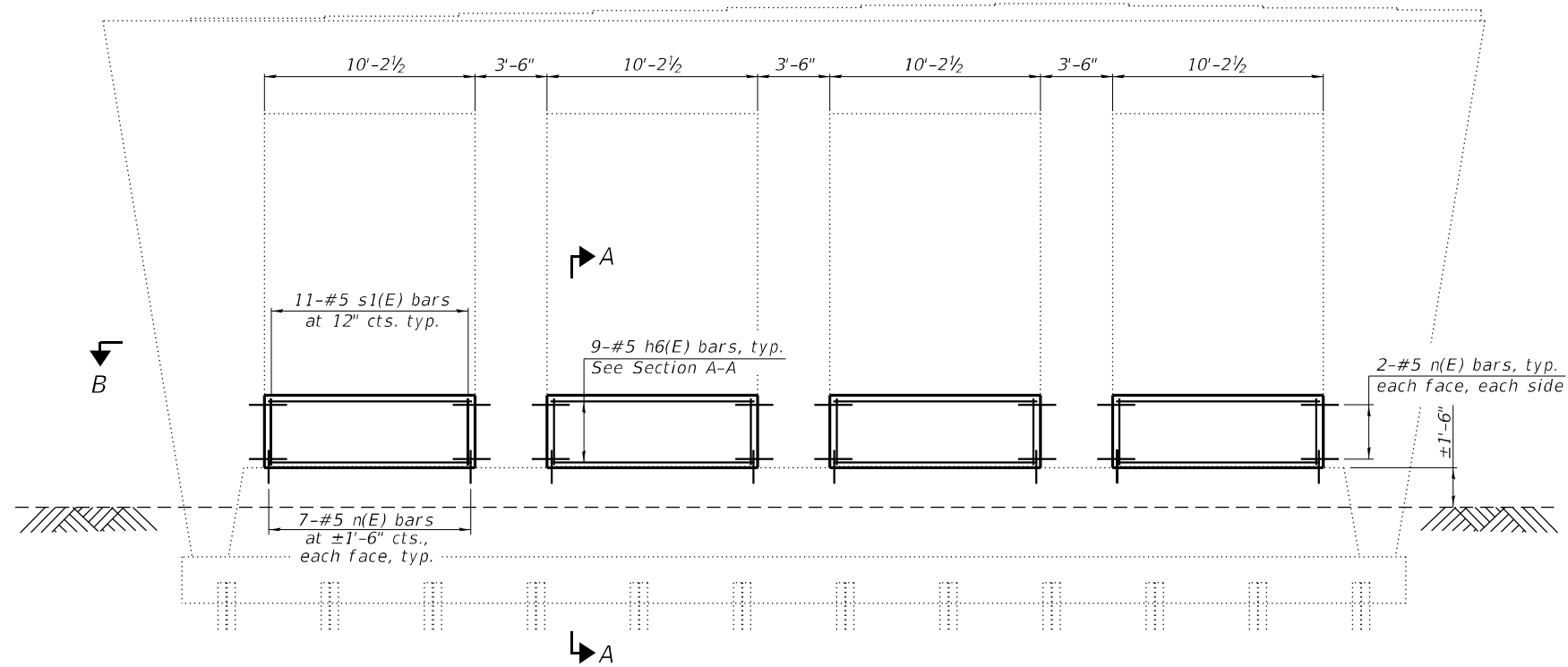
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DEPARTMENT OF TRANSPORTATION**

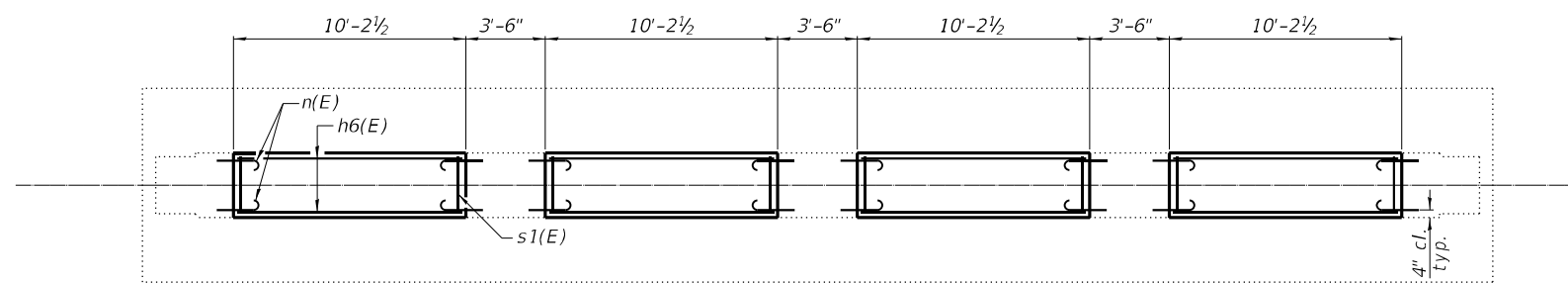
**PIER REPAIR DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

SHEET 24 OF 27 SHEETS

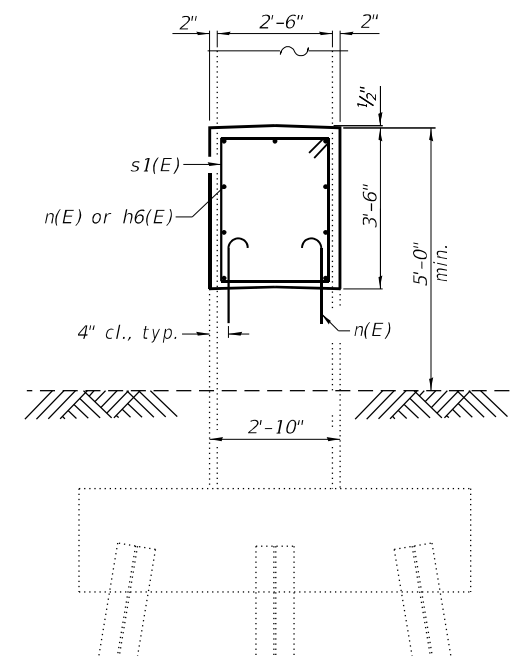
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CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				



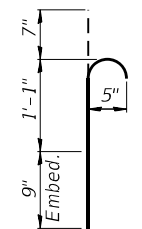
PIER ELEVATION
(Looking North SN 084-0110)



SECTION B-B

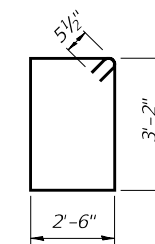


SECTION A-A



BAR n(E)

Epoxy grout n(E) bars in 9" min. deep holes according to Article 584 of the Standard Specifications
Cost included with Reinforcement Bars, Epoxy Coated



BAR s1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h6(E)	36	#5	9'-10"	—	
n(E)	88	#5	2'-5"	⌋	
s1(E)	44	#5	12'-3"	⊞	
Reinforcement Bars, Epoxy Coated				Pound	1,150
Concrete Structures				Cu. Yd.	15.0

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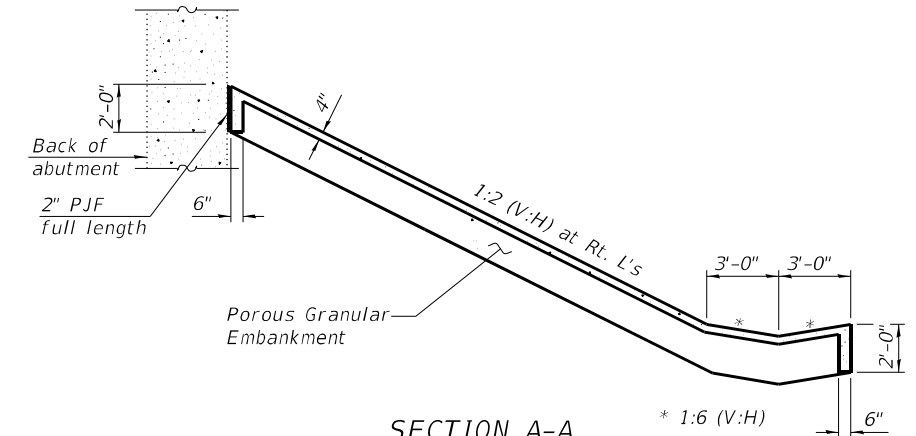
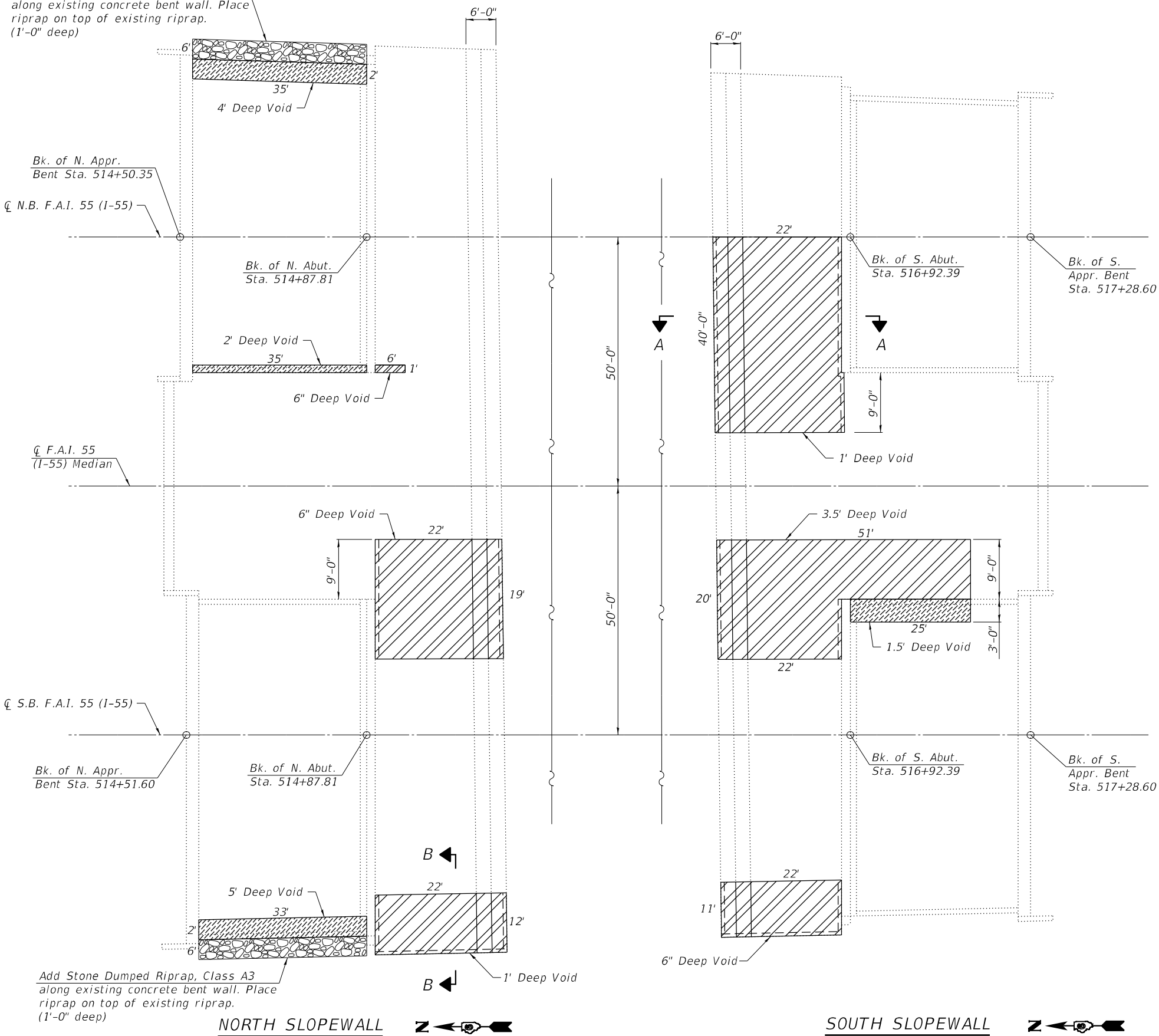
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**PIER REPAIR DETAILS
STRUCTURE NO. 084-0109 & 084-0110**

SHEET 25 OF 27 SHEETS

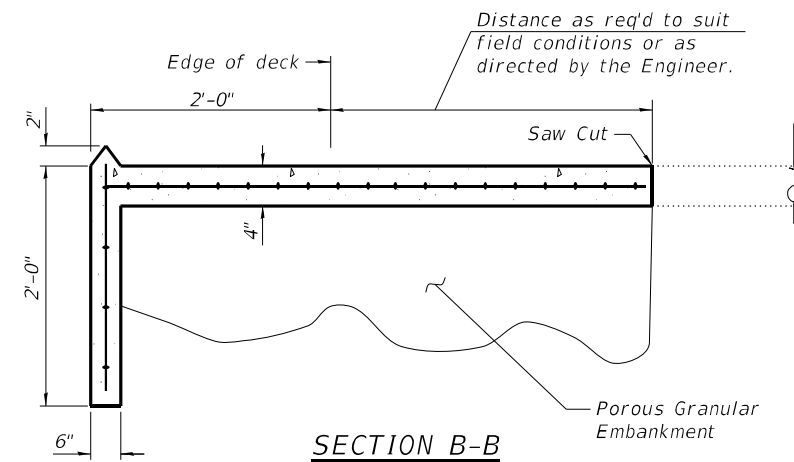
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55	(84-5-1VH)BDR,BP,BJR,BRR	SANGAMON	49	47
CONTRACT NO. 72189				
ILLINOIS FED. AID PROJECT				

Add Stone Dumped Riprap, Class A3 along existing concrete bent wall. Place riprap on top of existing riprap. (1'-0" deep)



SECTION A-A
SECTION THRU CONCRETE SLOPEWALL REPAIR

Concrete slope wall shall match Ex. concrete slopewall at Ex. joint



Notes:

Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft. Cost included in "Slopewall Repair".
Any voids shall be filled with Porous Granular Embankment prior to replacement of new Slope Wall.
For additional information, see Special Provisions.

LEGEND

- Slopewall Removal and Slope Wall 4"
- Fill Void with Controlled Low Strength Material

BILL OF MATERIAL

Item	Unit	Total
* Stone Dumped Riprap, Class A3	Ton	26
Slopewall Removal	Sq. Yd.	313
Slope Wall 4 Inch	Sq. Yd.	313
Controlled Low-Strength Material	Cu. Yd.	50
Porous Granular Embankment	Ton	295

* Bedding and fabric not required

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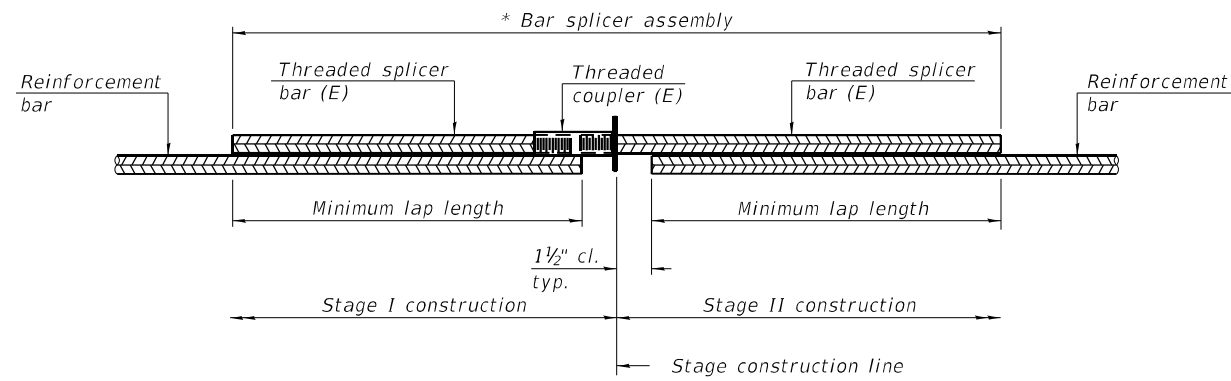
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE WALL REPAIR DETAILS
STRUCTURE NO. 084-0109 & 084-0110

SHEET 26 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-5-1VH)BDR, BP, BJR, BRR	SANGAMON	49	48
CONTRACT NO. 72189				
ILLINOIS		FED. AID PROJECT		

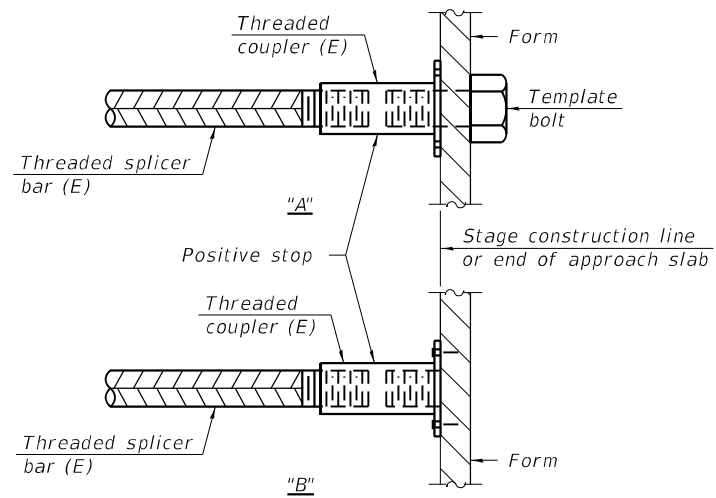


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

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

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

Location	Bar size	No. assemblies required	Minimum lap length
SN 084-0109 (N. Abut.) - Abutment	#5	7	3'-6"
SN 084-0109 (N. Abut.) - Deck	#5	7	3'-6"
SN 084-0109 (S. Abut.) - Abutment	#5	7	3'-6"
SN 084-0109 (S. Abut.) - Deck	#5	7	3'-6"
SN 084-0110 (N. Abut.) - Abutment	#5	7	3'-6"
SN 084-0110 (N. Abut.) - Deck	#5	7	3'-6"
SN 084-0110 (S. Abut.) - Abutment	#5	7	3'-6"
SN 084-0110 (S. Abut.) - Deck	#5	7	3'-6"

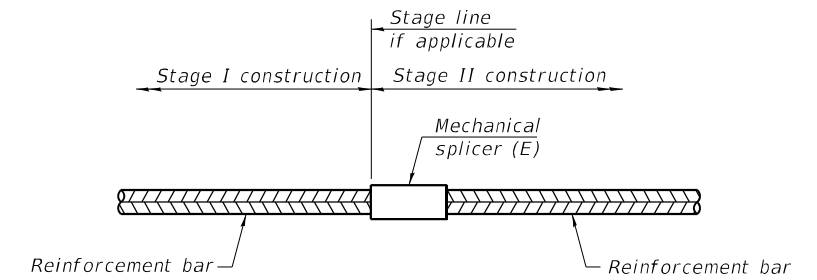


INSTALLATION AND SETTING METHODS

"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

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

MODEL: Default
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1-1-2020

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 816 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223-9970
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME =	DESIGNED - AMS	REVISED -
	CHECKED - RJP	REVISED -
PLOT SCALE =	DRAWN - AMS	REVISED -
PLOT DATE =	CHECKED - RJP	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 084-0109 & 084-0110**

SHEET 27 OF 27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-S-1VHB)BDR,BP,BJR,BRR	SANGAMON	49	49
CONTRACT NO. 72189				
		ILLINOIS	FED. AID PROJECT	