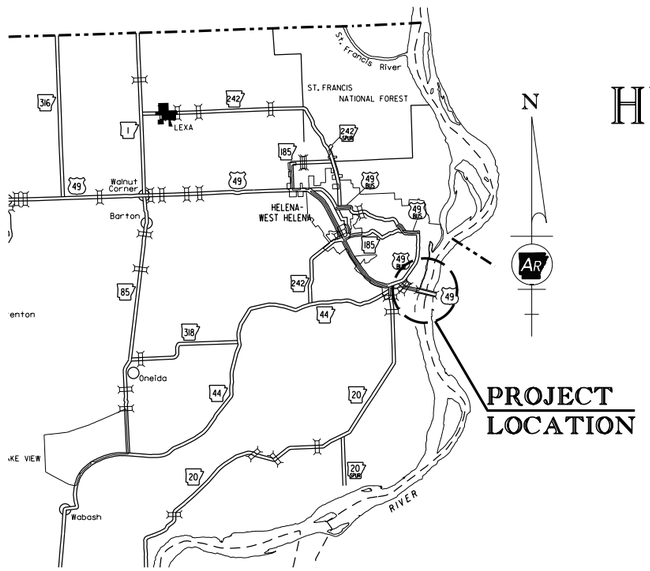
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	1	107
		HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)				

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

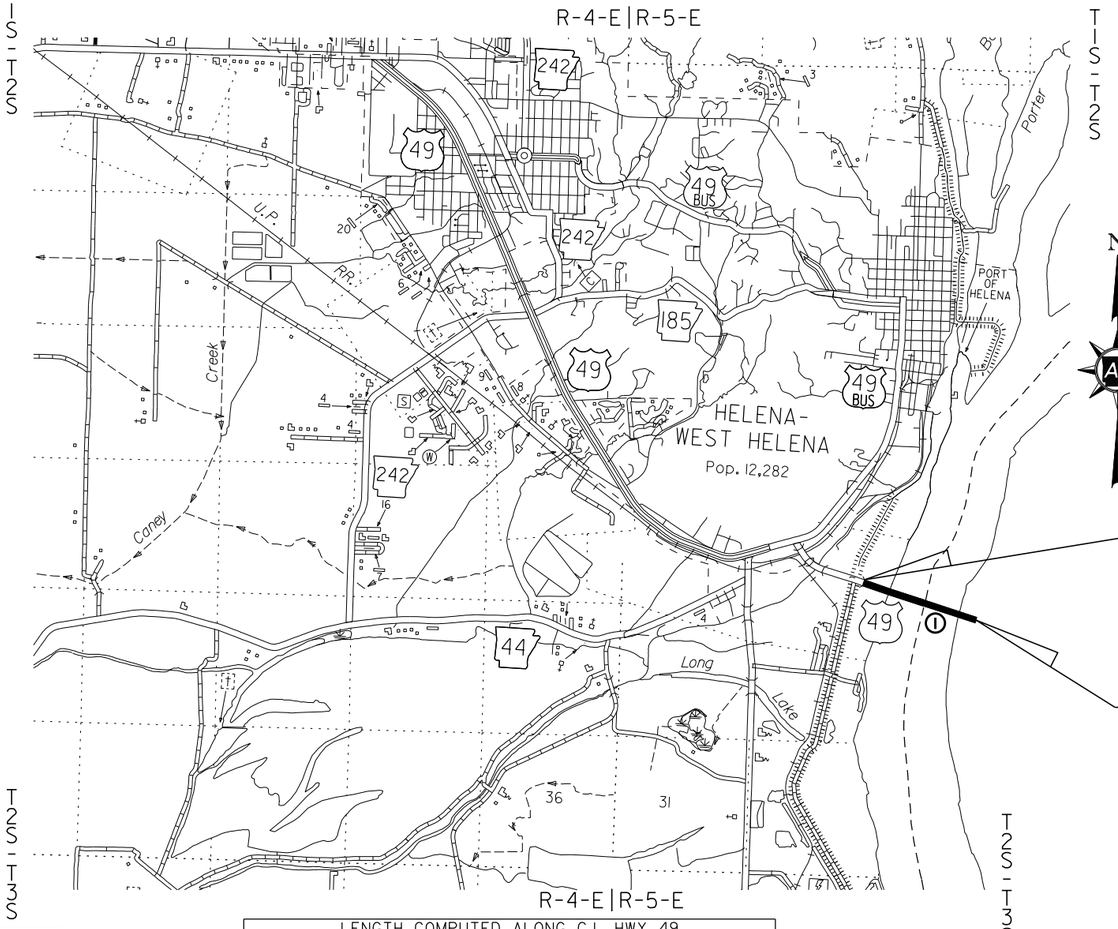
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
ROUTE 49 SECTION 11
PHILLIPS COUNTY
JOB 110812

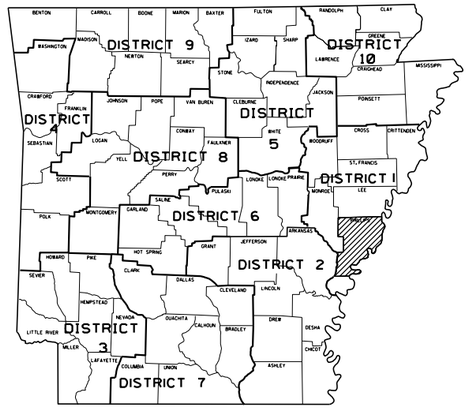
FED. AID PROJ. NHPP-PRTT-HIPBIP-0054(31)



VICINITY MAP

NOT TO SCALE





ARKANSAS HIGHWAY DISTRICT 1

BRIDGE DATA (EXISTING)

① LOG MILE 0.569 BRIDGE END
BRIDGE NO. 02899
1199'-6" WEST APPROACH SPANS
UNIT 1 (290'-6")
UNIT 2 (433'-6")
UNIT 3 (475'-6")
2'-0" C.L. BEARING TO C.L. BEARING AT BENT 10
3108' MAIN RIVER BRIDGE
UNIT 1 (15 @ 42'-0")
UNIT 2 (10 @ 42'-0")
UNIT 3 (18 @ 42'-0")
UNIT 4 (16 @ 42'-0")
UNIT 5 (15 @ 42'-0")
2'-0" C.L. BEARING TO C.L. BEARING AT BENT 15
887'-0" EAST APPROACH SPANS
UNIT 4 (475'-6")
UNIT 5 (411'-6")
28'-0" CLEAR ROADWAY
5198'-6" BRIDGE LENGTH
LOG MILE 1.554 BRIDGE END

DESIGN TRAFFIC DATA

DESIGN YEAR----------2046
2026 ADT----------3600
2046 ADT----------4000
2046 DHV----------440
DIRECTIONAL DISTRIBUTION-------0.60
TRUCKS----------14%
DESIGN SPEED----------55 MPH

	BEGIN OF PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 34°29'56"	N 34°29'49"	N 34°29'39"
LONGITUDE	W 90°35'50"	W 90°35'19"	W 90°34'39"

LENGTH COMPUTED ALONG C.L. HWY. 49		
GROSS LENGTH OF PROJECT	6140.64 FEET	1.163 MILES
NET LENGTH OF ROADWAY	942.14 FEET	0.178 MILES
NET LENGTH OF BRIDGES	5198.50 FEET	0.985 MILES
NET LENGTH OF PROJECT	6140.64 FEET	1.163 MILES

CERTIFICATE OF AUTHORIZATION
MICHAEL BAKER INTERNATIONAL INC
No. 1126
ARKANSAS - ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 12370
TONY N. CRAFTON
6-16-2026

MeganLand 6/16/2026 11:34:55 AM
WORKSPACE: megan_land
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	2	107
		INDEX OF SHEETS AND STANDARD DRAWINGS				

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
1	TITLE SHEET		
2	INDEX OF SHEETS AND STANDARD DRAWINGS		
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
4	TYPICAL SECTIONS OF IMPROVEMENT		
5 - 12	SPECIAL DETAILS		
13	TEMPORARY EROSION CONTROL DETAILS		
14 - 20	MAINTENANCE OF TRAFFIC DETAILS		
21	PERMANENT PAVEMENT MARKINGS DETAILS		
22 - 23	QUANTITIES		
24	SCHEDULE OF BRIDGE QUANTITIES	02899	69536
25	SUMMARY OF QUANTITIES AND REVISIONS		
26 - 30	PERMANENT SIGNING PLANS		
31	SUMMARY OF ILLUMINATION & ITS QUANTITIES - HWY. 49 OVER MISSISSIPPI RIVER		
32	SHEET INDEX, SYMBOLS, ABBREVIATIONS - HWY. 49 OVER MISSISSIPPI RIVER		
33	ELECTRICAL GENERAL NOTES - HWY. 49 OVER MISSISSIPPI RIVER		
34	LIGHTING LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER		
35	NAVIGATION LIGHT LAYOUT - HWY. 49 OVER MISSISSIPPI RIVER		
36	OBSTRUCTION LIGHT LAYOUT - HWY. 49 OVER MISSISSIPPI RIVER		
37	WIRING SCHEMATIC - HWY. 49 OVER MISSISSIPPI RIVER		
38	ELECTRICAL DETAILS - HWY. 49 OVER MISSISSIPPI RIVER		
39	ITS NOTES - HWY. 49 OVER MISSISSIPPI RIVER		
40	ITS REPLACEMENT PLAN - HWY. 49 OVER MISSISSIPPI RIVER		
41	SCHEMATIC - HWY. 49 OVER MISSISSIPPI RIVER		
42	ITS DETAILS - HWY. 49 OVER MISSISSIPPI RIVER		
43	LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER	02899	69537
44	GENERAL NOTES - HWY. 49 OVER MISSISSIPPI RIVER	02899	69538
45	DETAILS OF WEST ABUTMENT BACKWALL REPAIR	02899	69539
46	DETAILS OF BEARING REPLACEMENT (SHEET 1 OF 4)	02899	69540
47	DETAILS OF BEARING REPLACEMENT (SHEET 2 OF 4)	02899	69541
48	DETAILS OF BEARING REPLACEMENT (SHEET 3 OF 4)	02899	69542
49	DETAILS OF BEARING REPLACEMENT (SHEET 4 OF 4)	02899	69543
50	DETAILS OF DECK REPLACEMENT (SHEET 1 OF 9)	02899	69544
51	DETAILS OF DECK REPLACEMENT (SHEET 2 OF 9)	02899	69545
52	DETAILS OF DECK REPLACEMENT (SHEET 3 OF 9)	02899	69546
53	DETAILS OF DECK REPLACEMENT (SHEET 4 OF 9)	02899	69547
54	DETAILS OF DECK REPLACEMENT (SHEET 5 OF 9)	02899	69548
55	DETAILS OF DECK REPLACEMENT (SHEET 6 OF 9)	02899	69549
56	DETAILS OF DECK REPLACEMENT (SHEET 7 OF 9)	02899	69550
57	DETAILS OF DECK REPLACEMENT (SHEET 8 OF 9)	02899	69551
58	DETAILS OF DECK REPLACEMENT (SHEET 9 OF 9)	02899	69552
59	DETAILS OF MAIN TRUSS STRUCTURAL STEEL REPAIRS	02899	69553
60	DETAILS OF CONTRACTION JOINTS	02899	69554
61	DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 1 OF 5)	02899	69555
62	DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 2 OF 5)	02899	69556
63	DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 3 OF 5)	02899	69557
64	DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 4 OF 5)	02899	69558
65	DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 5 OF 5)	02899	69559
66	DETAILS OF FLOOR BEAM REPAIRS: L25, L43, L59 LOCATIONS (SHEET 1 OF 4)	02899	69560
67	DETAILS OF FLOOR BEAM REPAIRS: L25, L43, L59 LOCATIONS (SHEET 2 OF 4)	02899	69561
68	DETAILS OF FLOOR BEAM REPAIRS: L25, L43, L59 LOCATIONS (SHEET 3 OF 4)	02899	69562
69	DETAILS OF FLOOR BEAM REPAIRS: L25, L43, L59 LOCATIONS (SHEET 4 OF 4)	02899	69563
70	DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE A - TOP FLANGE REPAIR	02899	69564
71	DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE B - BOTTOM FLANGE REPAIR (SHEET 1 OF 2)	02899	69565
72	DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE B - BOTTOM FLANGE REPAIR (SHEET 2 OF 2)	02899	69566
73	DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE C - WEB REPAIR (SHEET 1 OF 2)	02899	69567
74	DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE C - WEB REPAIR (SHEET 2 OF 2)	02899	69568
75	DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE D - STIFFENER REPLACEMENT	02899	69569
76	DETAILS OF REPAIR TYPE E - PIN AND HANGER REPLACEMENT	02899	69570
77	DETAILS OF REPAIR TYPES F AND G - STRINGER CONNECTION REPAIR	02899	69571
78	DETAILS OF REPAIR TYPE H - CROSS BEAM REPLACEMENT	02899	69572
79	DETAILS OF UPPER CHORD REPAIRS (SHEET 1 OF 2)	02899	69573
80	DETAILS OF UPPER CHORD REPAIRS (SHEET 2 OF 2)	02899	69574
81	DETAILS OF LOWER CHORD REPAIRS (SHEET 1 OF 4)	02899	69575
82	DETAILS OF LOWER CHORD REPAIRS (SHEET 2 OF 4)	02899	69576
83	DETAILS OF LOWER CHORD REPAIRS (SHEET 3 OF 4)	02899	69577
84	DETAILS OF LOWER CHORD REPAIRS (SHEET 4 OF 4)	02899	69578
85	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 1 OF 7)	02899	69579
86	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 2 OF 7)	02899	69580
87	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 3 OF 7)	02899	69581
88	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 4 OF 7)	02899	69582
89	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 5 OF 7)	02899	69583
90	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 6 OF 7)	02899	69584
91	DETAILS OF MAIN TRUSS SPANS WIND LOCK REPLACEMENT (SHEET 7 OF 7)	02899	69585
92	DETAILS OF ACCESS PLATFORM REPAIR	02899	69586
93	DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 1 OF 4)	02899	69587
94	DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 2 OF 4)	02899	69588
95	DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 3 OF 4)	02899	69589
96	DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS (SHEET 4 OF 4)	02899	69590
97	DETAILS OF APPROACH SPANS FLOOR BEAM REPLACEMENTS (SHEET 1 OF 2)	02899	69591
98	DETAILS OF APPROACH SPANS FLOOR BEAM REPLACEMENTS (SHEET 2 OF 2)	02899	69592
99	DETAILS OF APPROACH SPANS FLOOR BEAM REPAIRS	02899	69593
100	DETAILS OF EAST ABUTMENT STRINGER 2 REPAIR	02899	69594
101	DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT (SHEET 1 OF 6)	02899	69595
102	DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT (SHEET 2 OF 6)	02899	69596
103	DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT (SHEET 3 OF 6)	02899	69597
104	DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT (SHEET 4 OF 6)	02899	69598
105	DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT (SHEET 5 OF 6)	02899	69599
106	DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT (SHEET 6 OF 6)	02899	69600
107	DETAILS OF TYPE SPECIAL APPROACH GUTTER	02899	69601

BRIDGE STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
55006	STANDARD GENERAL NOTES FOR STEEL BRIDGE STRUCTURES	09-02-15
55007	STANDARD DETAILS FOR STEEL BRIDGE STRUCTURES	02-11-16
55040F1	STANDARD DETAILS FOR TYPE F APPROACH SLAB	09-07-23

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
GR-6	GUARDRAIL DETAILS	05-19-22
GR-8	GUARDRAIL DETAILS	11-07-19
GR-9	GUARDRAIL DETAILS	11-07-19
GR-10	GUARDRAIL DETAILS	11-07-19
GR-11	GUARDRAIL DETAILS	11-07-19
GR-12	GUARDRAIL DETAILS	05-14-20
PM-1	PAVEMENT MARKING DETAILS	04-09-26
SD-6	HEAVY DUTY PULL BOX	02-13-24
SHS-3	DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS	05-19-22
SHS-4	DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS	09-12-13
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-1A	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	04-09-26
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-6	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	04-09-26
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026

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WORKSPACE: meganland
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	3	107
		GOVERNING SPECIFICATIONS & GENERAL NOTES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 12370
TONY N. CRAFTON
06-24-2026

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER **TITLE**

ERRATA ____ ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273_ REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273_ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273_ SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273_ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273_ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273_ SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273_ SUPPLEMENT - WAGE RATE DETERMINATION
FHWA-1273_ SUPPLEMENT - TRAINING PROGRAM - JOB NUMBER 110812
100-3 _____ CONTRACTOR'S LICENSE
100-4 _____ DEPARTMENT NAME CHANGE
102-2 _____ ISSUANCE OF PROPOSALS
102-3 _____ PREQUALIFICATION OF BIDDERS
103-2 _____ CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4 _____ MAINTENANCE DURING CONSTRUCTION
107-2 _____ RESTRAINING CONDITIONS
108-1 _____ LIQUIDATED DAMAGES
303-1 _____ AGGREGATE BASE COURSE
306-1 _____ QUALITY CONTROL AND ACCEPTANCE
307-2 _____ CEMENT TREATED BASE COURSE
308-2 _____ CEMENT STABILIZED CRUSHED STONE BASE COURSE
400-1 _____ TACK COATS
400-4 _____ DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5 _____ PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6 _____ LIQUID ANTI-STRIP ADDITIVE
400-7 _____ TRACKLESS TACK
404-3 _____ DESIGN OF ASPHALT MIXTURES
409-2 _____ ASPHALT LABORATORY FACILITY
410-1 _____ CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2 _____ DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
410-4 _____ EVALUATION OF ACHM SUBLOT REPLACEMENT MATERIAL
416-1 _____ RECYCLED ASPHALT PAVEMENT
501-3 _____ PORTLAND CEMENT CONCRETE PAVEMENT
502-1 _____ WELDED WIRE REINFORCEMENT
600-2 _____ INCIDENTAL CONSTRUCTION
603-1 _____ LANE CLOSURE NOTIFICATION
604-1 _____ RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3 _____ TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
617-1 _____ GUARDRAIL TERMINAL (TYPE 2)
617-2 _____ GUARDRAIL DELINEATORS
620-1 _____ MULCH COVER
621-1 _____ FILTER SOCKS
700-2 _____ TRAFFIC CONTROL FACILITIES
723-1 _____ GENERAL REQUIREMENTS FOR SIGNS
729-1 _____ CHANNEL POST SIGN SUPPORT
730-1 _____ BREAKAWAY SIGN SUPPORT
800-1 _____ STRUCTURES
802-3 _____ CONCRETE FOR STRUCTURES
802-5 _____ CONCRETE FOR STRUCTURES
804-2 _____ REINFORCING STEEL FOR STRUCTURES
807-2 _____ STEEL STRUCTURES
808-1 _____ INSTALLATION OF ELASTOMERIC BEARINGS
808-2 _____ ELASTOMERIC BEARINGS
JOB 110812_ AIRWAY OBSTRUCTION LIGHTING SYSTEM
JOB 110812_ ASPHALT MIXTURES WITH PG 76-22 BINDER
JOB 110812_ ASSESSMENT OF WORKING DAYS – MAINTENANCE OF TRAFFIC
JOB 110812_ BARRIER WALL DELINEATOR
JOB 110812_ BIDDING REQUIREMENTS AND CONDITIONS
JOB 110812_ BRIDGE DECK REPAIR FOR POLYMER OVERLAYS
JOB 110812_ BRIDGE JACKING AND TEMPORARY FALSEWORK FOR BEARING REPLACEMENTS
JOB 110812_ BRIDGE MOUNTED GALVANIZED STEEL CONDUIT SYSTEM
JOB 110812_ BRIDGE POST MOUNTED SIGN SUPPORT
JOB 110812_ BRIDGE STRUCTURAL STEEL REPAIRS
JOB 110812_ BROADBAND INTERNET SERVICE & FLOOD PLAIN REQUIREMENTS FOR FIELD OFFICE
JOB 110812_ BUY AMERICA - CONSTRUCTION MATERIALS
JOB 110812_ CARGO PREFERENCE ACT REQUIREMENTS
JOB 110812_ CLASS C FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT AND CLASS S(AE) CONCRETE
JOB 110812_ CLEANING AND PAINTING EXISTING STRUCTURAL STEEL
JOB 110812_ COLD MILLING – MILL & INLAY
JOB 110812_ CONCRETE BRIDGE DECK CURING AND SURFACE TREATMENT RESTRICTIONS
JOB 110812_ CONCRETE FOR STRUCTURES
JOB 110812_ CONSTRUCTION PROJECT INFORMATION SIGN
JOB 110812_ CONTAINMENT SYSTEM
JOB 110812_ CONTRACTOR CERTIFICATION
JOB 110812_ COORDINATION OF WORK
JOB 110812_ CRACK ARREST HOLES FOR BRIDGE STRUCTURAL STEEL
JOB 110812_ DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 110812_ DIRECT TENSION INDICATORS FOR HIGH STRENGTH BOLT ASSEMBLIES
JOB 110812_ DOCUMENTATION OF PAYMENTS MADE - PROMPT PAYMENT (SIGNET)
JOB 110812_ ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 110812_ FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT
JOB 110812_ INSPECTOR'S PERSONAL PROTECTION CLOTHING
JOB 110812_ ITS ELECTRICAL JUNCTION BOX, METALLIC
JOB 110812_ ITS EQUIPMENT CABINETS

GOVERNING SPECIFICATIONS (CONTINUED)

JOB 110812_ LIGHTWEIGHT AGGREGATE CONCRETE (AE)
JOB 110812_ LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 110812_ LOCAL WORK ZONE LAW ENFORCEMENT
JOB 110812_ LONGITUDINAL TINING
JOB 110812_ LOW-CARBON CHROMIUM REINFORCING STEEL
JOB 110812_ MAINTENANCE OF TRAFFIC
JOB 110812_ MANDATORY ELECTRONIC CONTRACT
JOB 110812_ MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 110812_ MOTORIST ASSISTANCE PATROL
JOB 110812_ NAVIGATION LIGHTING SYSTEM
JOB 110812_ NESTING SITES OF MIGRATORY BIRDS
JOB 110812_ NETWORKING EQUIPMENT
JOB 110812_ PAN-TILT-ZOOM CAMERA SYSTEM
JOB 110812_ PARTNERING REQUIREMENTS
JOB 110812_ POLYMER OVERLAY
JOB 110812_ PORTABLE CAMERA TRAILERS
JOB 110812_ PORTABLE TRAFFIC SIGNAL SYSTEM WITH TRAFFIC TIMER UNITS - COUNTDOWN
JOB 110812_ PRECAST CONCRETE BARRIER (TYPE SPECIAL)
JOB 110812_ PREFORMED SILICONE JOINT SEAL
JOB 110812_ PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 110812_ PRICE ADJUSTMENT FOR FUEL
JOB 110812_ PRIME CONTRACTOR PERFORMANCE EVALUATION
JOB 110812_ PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 110812_ PROSECUTION AND PROGRESS WITH BID SCHEDULE
JOB 110812_ RADIO INTERCONNECT SYSTEM
JOB 110812_ REQUIREMENTS OF U.S. COAST GUARD PERMIT
JOB 110812_ ROAD WEATHER INFORMATION SYSTEM (RWIS)
JOB 110812_ SEQUENCE OF CONSTRUCTION - ALTERNATE CONCEPTUAL PROPOSAL (ACP)
JOB 110812_ SHORING
JOB 110812_ SITE USE (A+C METHOD) – CALENDAR DAY CONTRACT
JOB 110812_ SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB 110812_ STEEL PLATE CONNECTION PREPARATION
JOB 110812_ STONE BACKFILL
JOB 110812_ STRUCTURAL STEEL SHORING
JOB 110812_ SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 110812_ TRAFFIC CONTROL SUPERVISOR
JOB 110812_ TRENCHING AND SHOULDER PREPARATION FOR TEMPORARY WIDENING
JOB 110812_ UTILITY ADJUSTMENTS
JOB 110812_ VALUE ENGINEERING
JOB 110812_ VARIABLE MESSAGE SIGN SYSTEM
JOB 110812_ VENDOR REGISTRATION REQUIREMENT
JOB 110812_ WARM MIX ASPHALT
JOB 110812_ WATER POLLUTION CONTROL
JOB 110812_ WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
JOB 110812_ WRECKER SERVICE

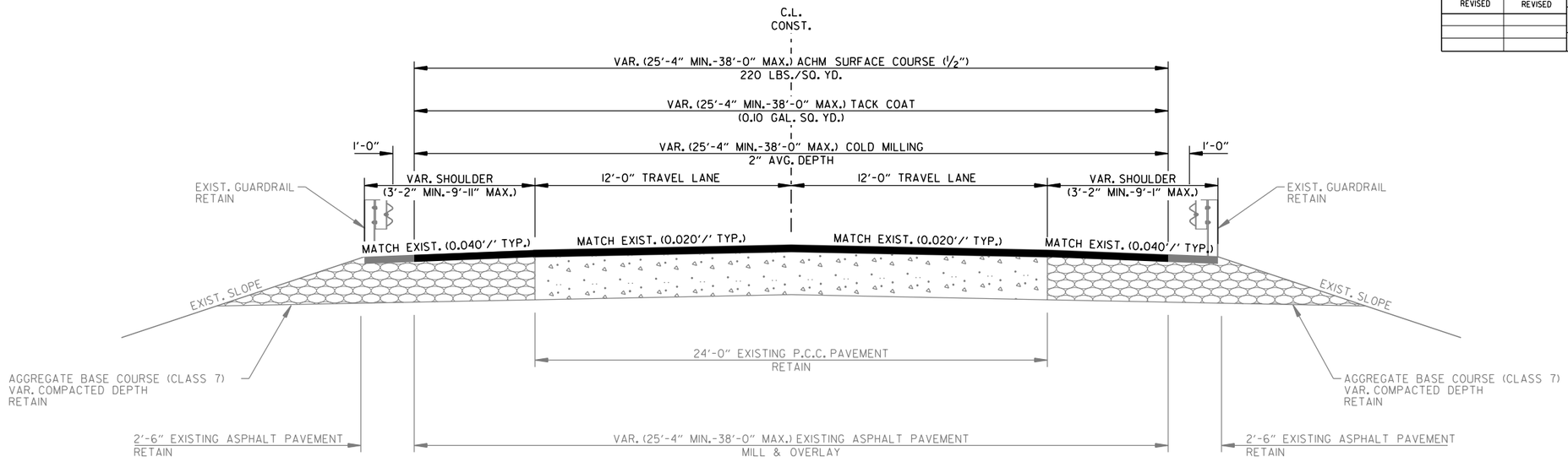
GENERAL NOTES

1. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
6. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
7. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ChrisLonders 6/24/2026 11:32 PM
WORKSPACE: ChrisLonders
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	4	107
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026

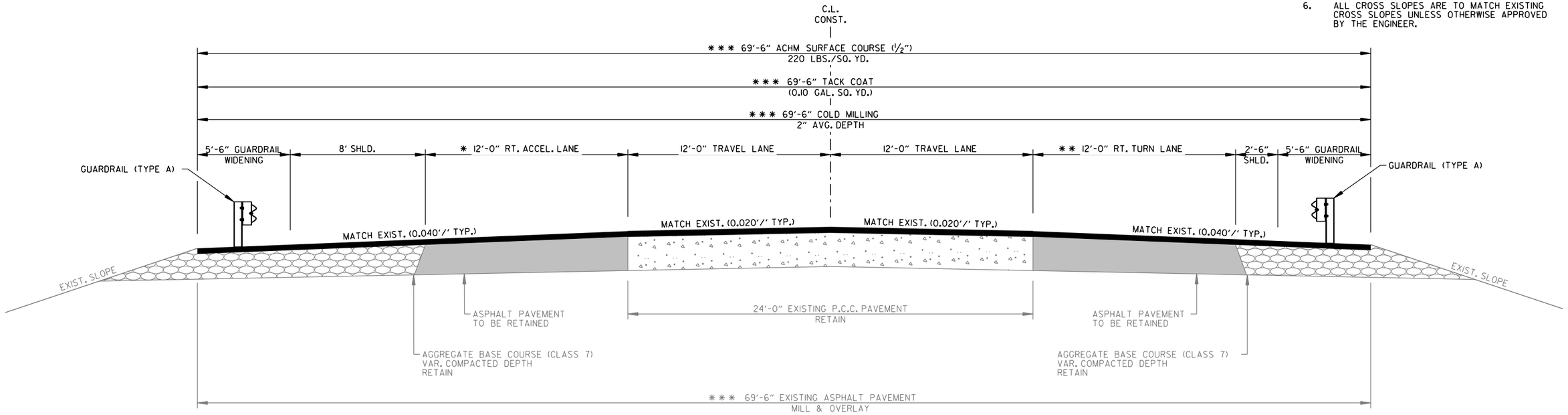


HWY. 49 MILL & OVERLAY

LOG MILE 0.543 TO LOG MILE 0.562

NOTES:

1. LONGITUDINAL JOINTS ARE TO BE PLACED PER TYPICAL SECTION IN ACCORDANCE WITH SECTION 410.07 UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL PROVIDE 2-WAY RADIO COMMUNICATION FOR FLAG PERSONS.
3. STRINGLINE WILL BE USED TO MAINTAIN A UNIFORM HORIZONTAL ALIGNMENT.
4. THE CONTRACTOR SHALL FURNISH & MAINTAIN STD. W8-11 "BUMP" SIGNS (30" X 30") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL TRANSVERSE JOINTS EXPOSED TO TRAFFIC.
5. THE CONTRACTOR SHALL FURNISH & MAINTAIN STD. W8-11 "UNEVEN LANES" SIGNS (48" X 48") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS.
6. ALL CROSS SLOPES ARE TO MATCH EXISTING CROSS SLOPES UNLESS OTHERWISE APPROVED BY THE ENGINEER.



* LOG MILE 1.562 TO LOG MILE 1.619 TAPER RT. ACCEL. LANE FROM 0'-0" TO 12'-0"
** LOG MILE 1.562 TO LOG MILE 1.619 TAPER RT. TURN LANE FROM 0'-0" TO 12'-0"
*** LOG MILE 1.562 TO LOG MILE 1.619 TAPER FROM 28'-0" TO 69'-6"

HWY. 49 MILL & OVERLAY

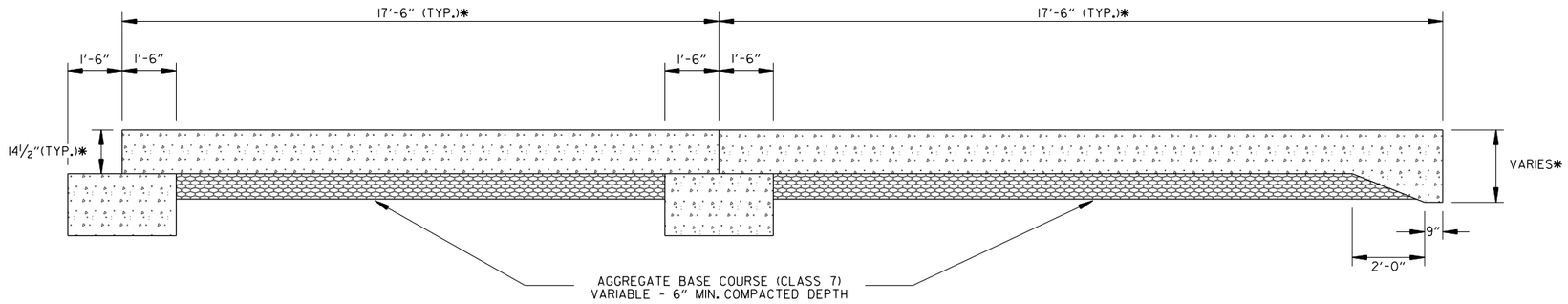
LOG MILE 1.562 TO LOG MILE 1.706

TYPICAL SECTIONS OF IMPROVEMENT

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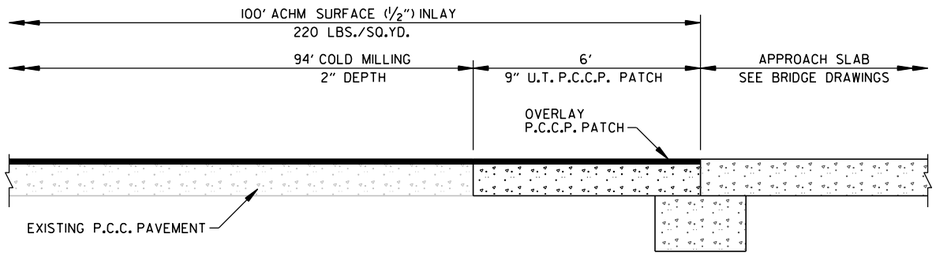
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	5	107
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026

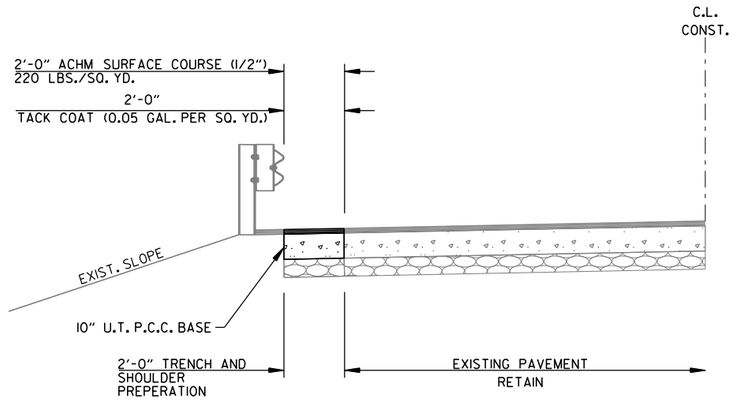


*SEE APPROACH SLAB DETAILS IN BRIDGE DRAWINGS

SECTION OF APPROACH SLAB (FOR CONCRETE PAVEMENT)



SECTION OF PAVEMENT REPAIR

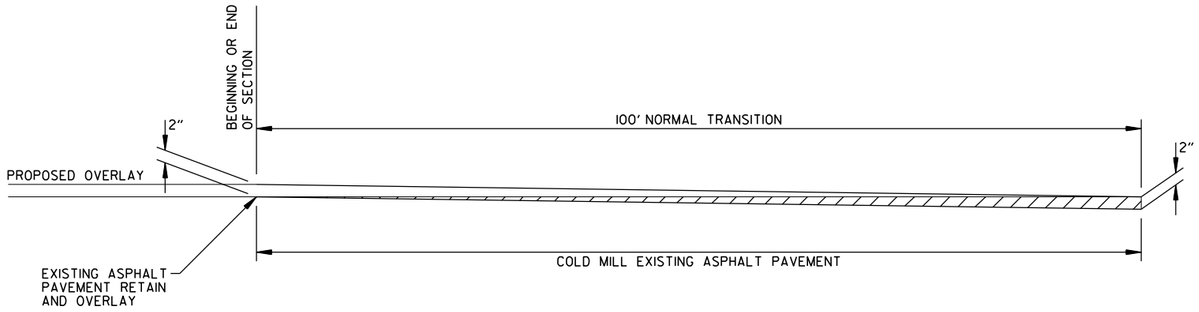


STAGE I ADDITIONAL WIDENING FOR MAINTENANCE OF TRAFFIC

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	6	107
		SPECIAL DETAILS				

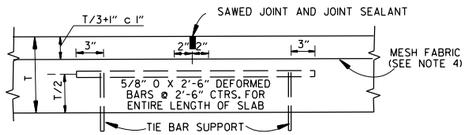
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026



DETAIL FOR TRANSITIONS

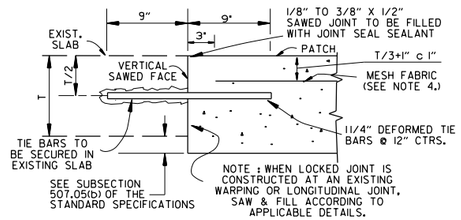
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		SPECIAL DETAILS				



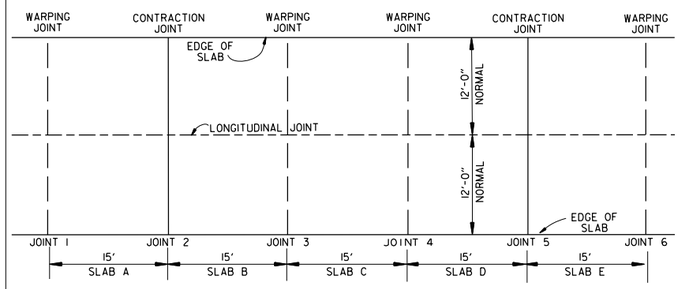
SECTION A-A

TIED LONGITUDINAL JOINT



SECTION D-D

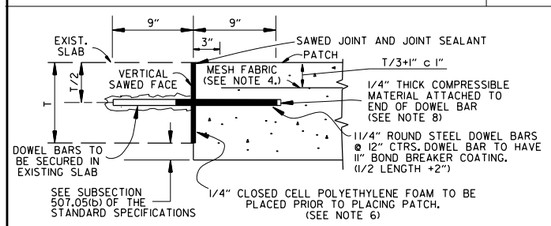
LOCKED JOINT



PLAN OF PAVEMENT REPAIR
(FULL SLABS)

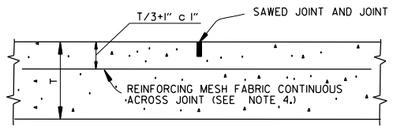
TYPICAL SLAB REPLACEMENT EXAMPLES

SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		



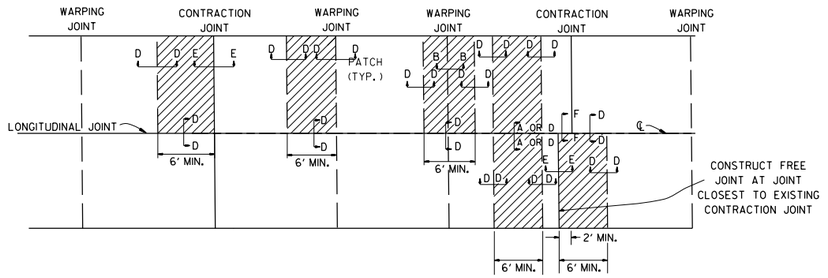
SECTION E-E

FREE TRANSVERSE JOINT

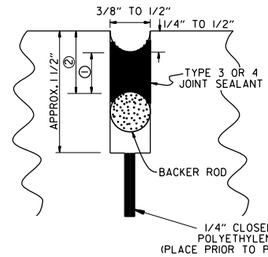


SECTION B-B

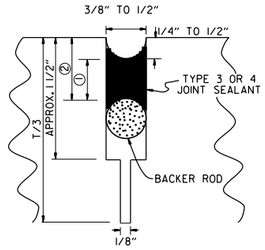
WARPING JOINT



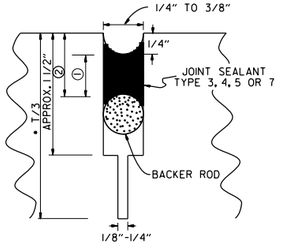
PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)



DETAIL OF SAWED FREE TRANSVERSE &
FREE LONGITUDINAL JOINT

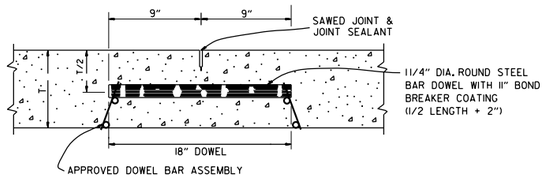


DETAIL OF SAWED CONTRACTION JOINT

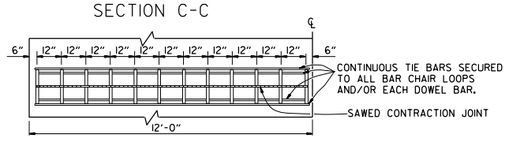


•NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED
TIED LONGITUDINAL JOINT
AND WARPING JOINT



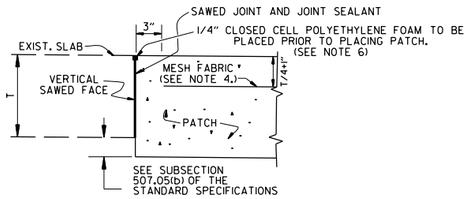
SECTION C-C



ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN - CONTRACTION JOINT

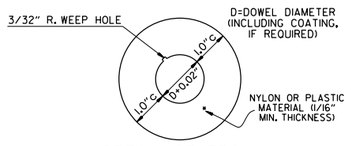
NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



SECTION F-F

FREE LONGITUDINAL JOINT



DETAIL OF EPOXY
RETENTION DISK

NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE

JOINT CONFIGURATION FOR
TYPE 3 OR 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH 2
INCHES			
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2

JOINT CONFIGURATION FOR
TYPE 5 OR 7 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/2	3/8	3/4
3/8	3/4	1/2	1

NOTES FOR PAVEMENT REPAIR:

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF ±1INCH. MESH FABRIC SHALL BE 12 X 12 - W4 X W4 WELDED WIRE FENCE (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION. MINIMUM COVER AT EDGES SHALL BE 2".
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL, COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. 1/4" THICK, COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OF OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS 1/4" WILL BE ALLOWED FOR THE TILT AND SKEW.

STATE OF ARKANSAS
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No.12370
TONY N. CRAFTON
6-16-2026

DETAILS OF PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (MAIN LANES)

SPECIAL DETAILS

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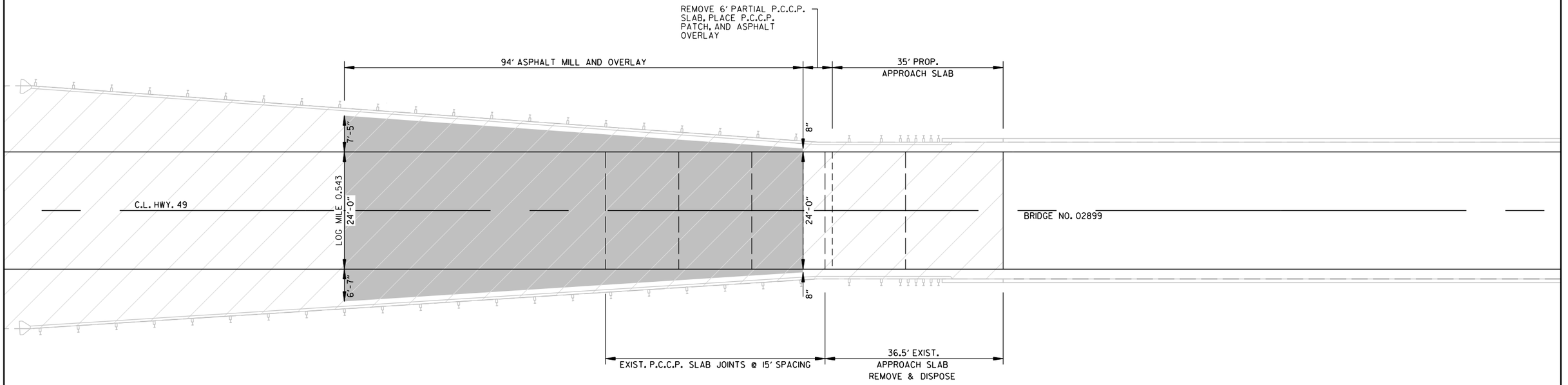
LEGEND

2" MILL AND OVERLAY

EXISTING ASPHALT OVERLAY

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	8	107
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026



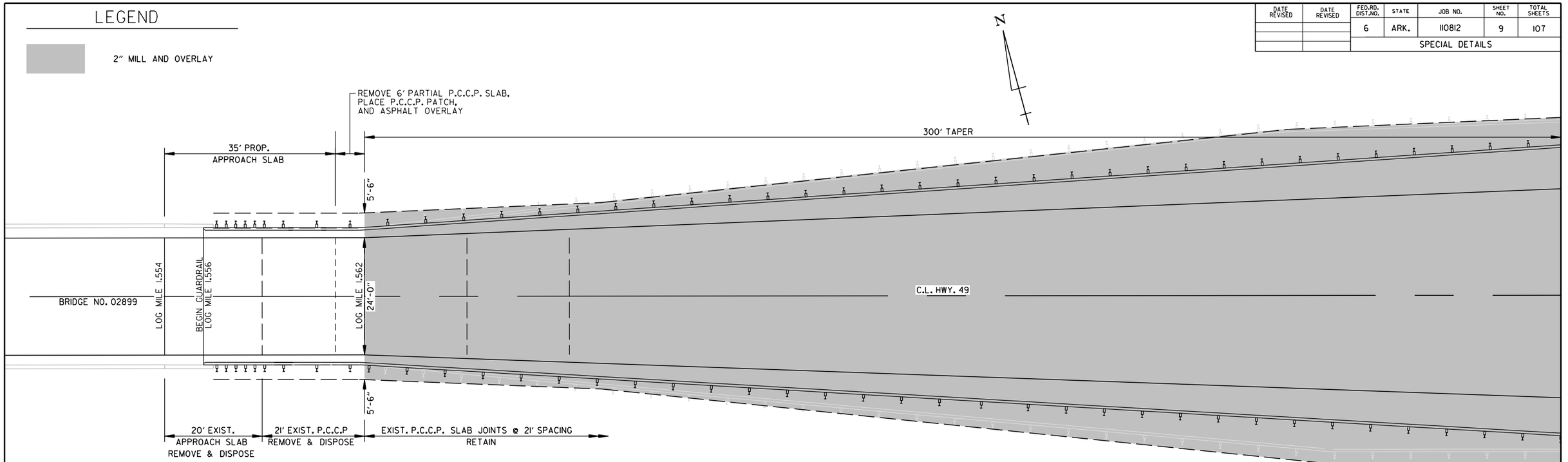
WEST END PAVEMENT
(ARKANSAS END)

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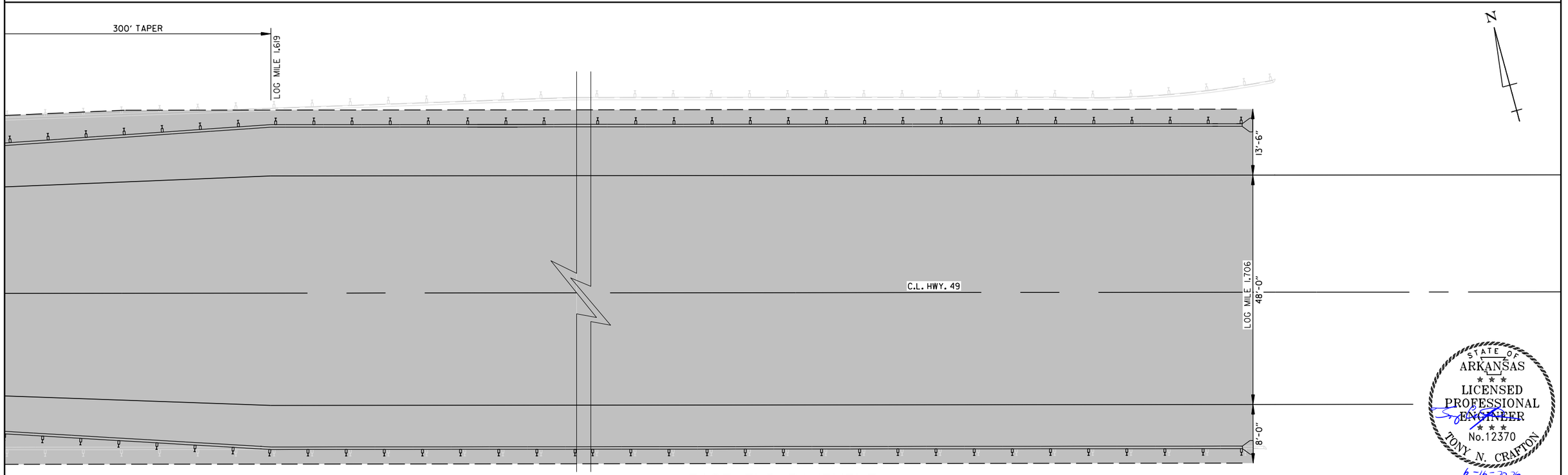
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		6	ARK.	110812	9	107
		SPECIAL DETAILS				

LEGEND

2" MILL AND OVERLAY



EAST END PAVEMENT
(MISSISSIPPI END)



EAST END PAVEMENT
(MISSISSIPPI END)

STATE OF ARKANSAS
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TONY N. CRAFTON
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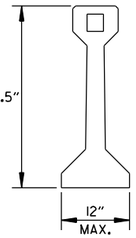
SPECIAL DETAILS

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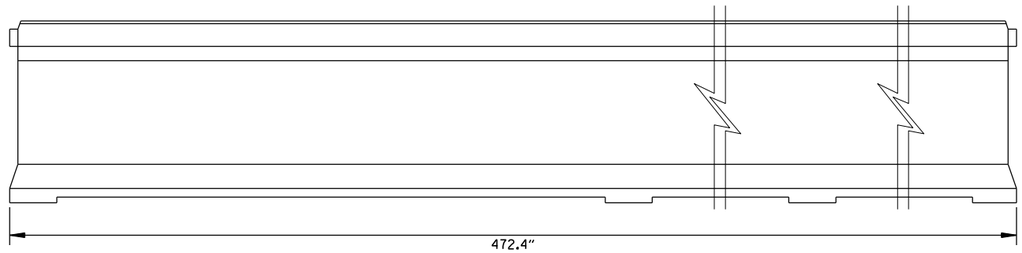
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STATE OF ARKANSAS
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TONY N. CRAFTON
6-16-2026

NOTE: SHAPE AND DIMENSIONS SHOWN ARE BASED ON REBLOCK 80SAH PRECAST CONCRETE SAFETY BARRIER. THE CONTRACTOR MAY USE ANY OTHER BARRIER WALL THAT DOES NOT EXCEED 12" IN WIDTH AND MEETS MASH (TL-3) TESTING REQUIREMENTS. INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-4. SEE SPECIAL PROVISION "PRECAST CONCRETE BARRIER (TYPE SPECIAL)".



CROSS SECTION VIEW



ELEVATION VIEW

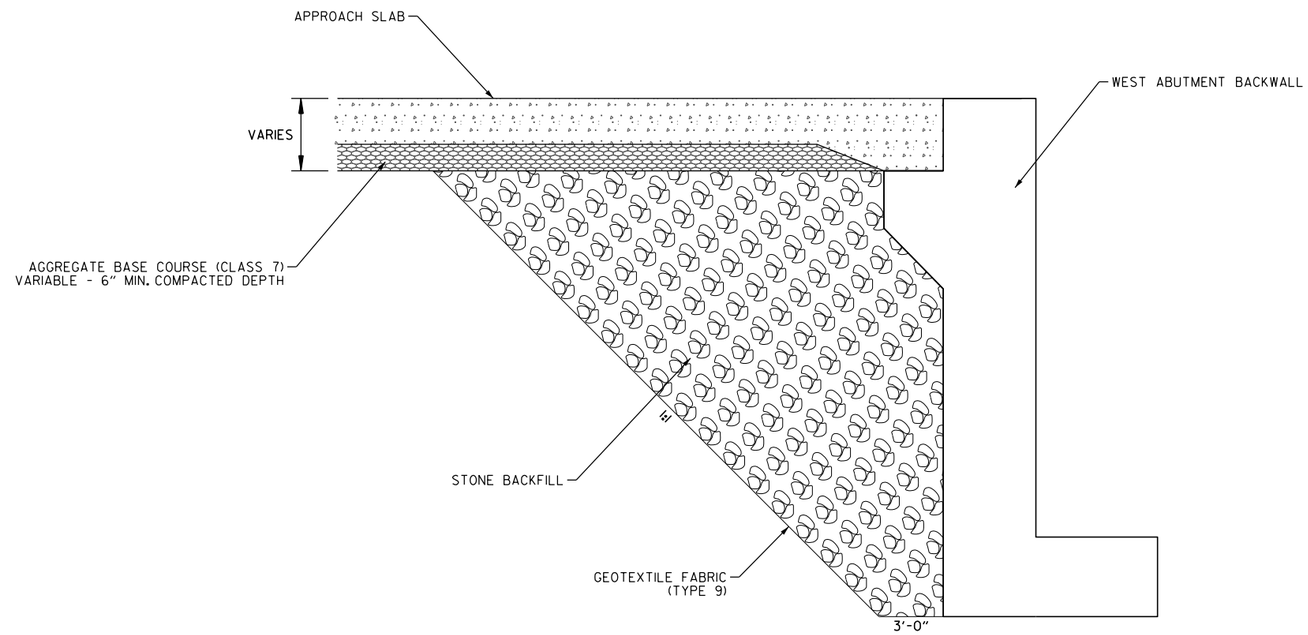
PRECAST CONCRETE BARRIER (TYPE SPECIAL)

LOG MILE 0.544 TO LOG MILE 0.589 (STAGE I)

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STATE OF ARKANSAS
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No.12370
TONY N. CRAFTON
6-16-2026



BACKFILL DETAIL FOR
WEST ABUTMENT BACKWALL REPAIR

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	12	107
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026

FENCE LINE

N

10023

EXIST. R/W

10030

2225
150' RT

150'

HWY. 49

2221+07

60'

60'

60'

60'

150'

10020

2224
150' LT

EXIST. R/W

10019

OWNED BY: SOLOMON FARMS, LLC
LEASED BY: POINSETT GRAIN & RICE INC.
PARCEL NO. 101.7723
PHILLIPS, AR
6211 SOUTHWEST DR
JONESBORO, AR 72404

OWNED BY: SOLOMON FARMS, LLC
LEASED BY: POINSETT GRAIN & RICE INC.
PARCEL NO. 101.7723
PHILLIPS, AR
6211 SOUTHWEST DR
JONESBORO, AR 72404

OWNED BY: SOLOMON FARMS, LLC
LEASED BY: THE HELENA MARINA, INC.
106 WALDEN LANDING
P.O. BOX 513
HELENA, AR 72342

MISSISSIPPI RIVER

N

JOHNSON ROGER ALLEN JR. ET AL
PARCEL NO. 161.020000000.0000300
COAHOMA COUNTY, MS
BK. 623 - PG. 612
P.O. BOX 543185
DALLAS, TX 75354-0000
COAHOMA COUNTY, MS

245'

180'

180'

EXIST. R/W

60'

60'

HWY. 49

140'

140'

EXIST. R/W

MISSISSIPPI RIVER

JOHNSON ROGER ALLEN JR. ET AL
PARCEL NO. 161.120000000.0000200
COAHOMA COUNTY, MS
BK. 623 - PG. 612
P.O. BOX 543185
DALLAS, TX 75354-0000
COAHOMA COUNTY, MS

RIGHT OF WAY SPECIAL DETAILS

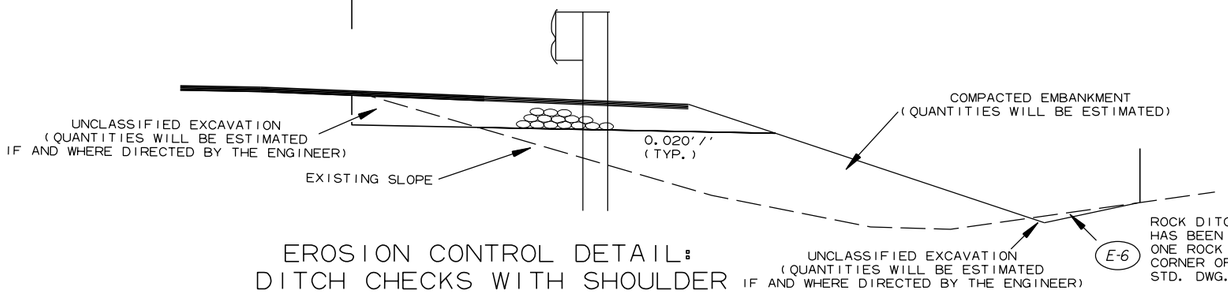
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	13	107
		TEMPORARY EROSION CONTROL DETAILS				

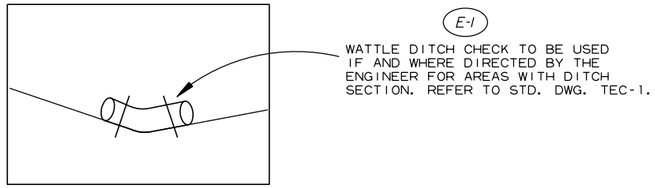
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026

ROADWAY TYPICAL

GUARDRAIL WIDENING



EROSION CONTROL DETAIL: DITCH CHECKS WITH SHOULDER WIDENING FOR GUARDRAIL INSTALLATIONS



NOTES:
1. REFER TO STD. DWG. GR-9 FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.
2. FOR HORIZONTAL AND VERTICAL CONTROL, THE GUARDRAIL WIDENING SHALL MATCH THE GRADES AND SLOPES OF THE MAIN LANE SHOULDERS. CONSTRUCT BRIDGE APPROACH AND MAIN LANE TRANSITIONS BEFORE PAVING GUARDRAIL WIDENING.

LEGEND

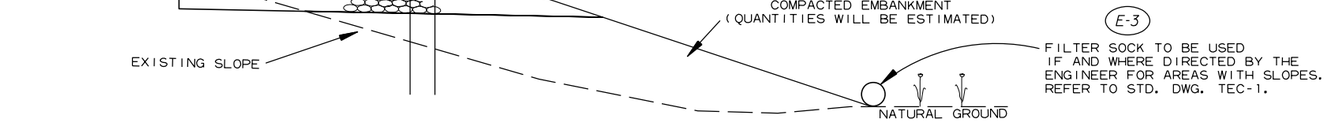
E-3 = FILTER SOCKS

E-1 = WATTLE DITCH CHECK

E-6 = ROCK DITCH CHECK

ROADWAY TYPICAL

GUARDRAIL WIDENING



EROSION CONTROL DETAIL: FILTER SOCKS WITH SHOULDER WIDENING FOR GUARDRAIL INSTALLATIONS

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG A REQUIRED TO CONTROL EROSION.

REVISIONS

DATE OF REVISION	REVISION

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		6	ARK.	110812	14	107
		MAINTENANCE OF TRAFFIC DETAILS				

LEGEND

- TEMPORARY TRAFFIC SIGN
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE
- TRAFFIC DRUM

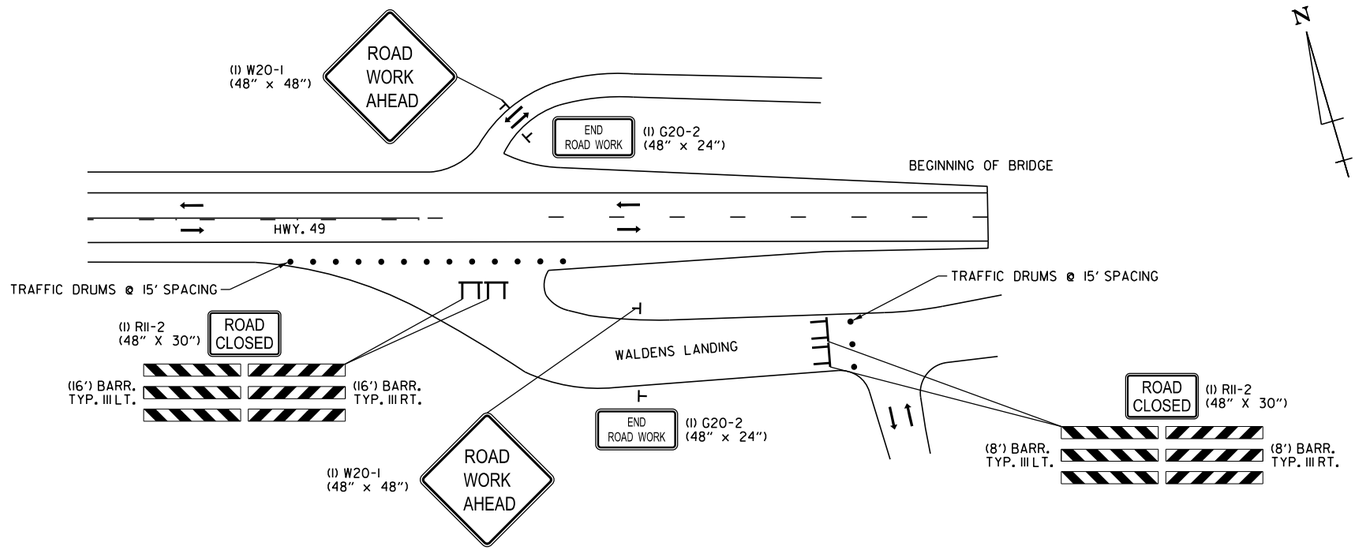
RIGHT SHOULDER CLOSED * (2) W21-5a (36" X 36")

DO NOT PASS * (2) R4-1 (24" X 30")

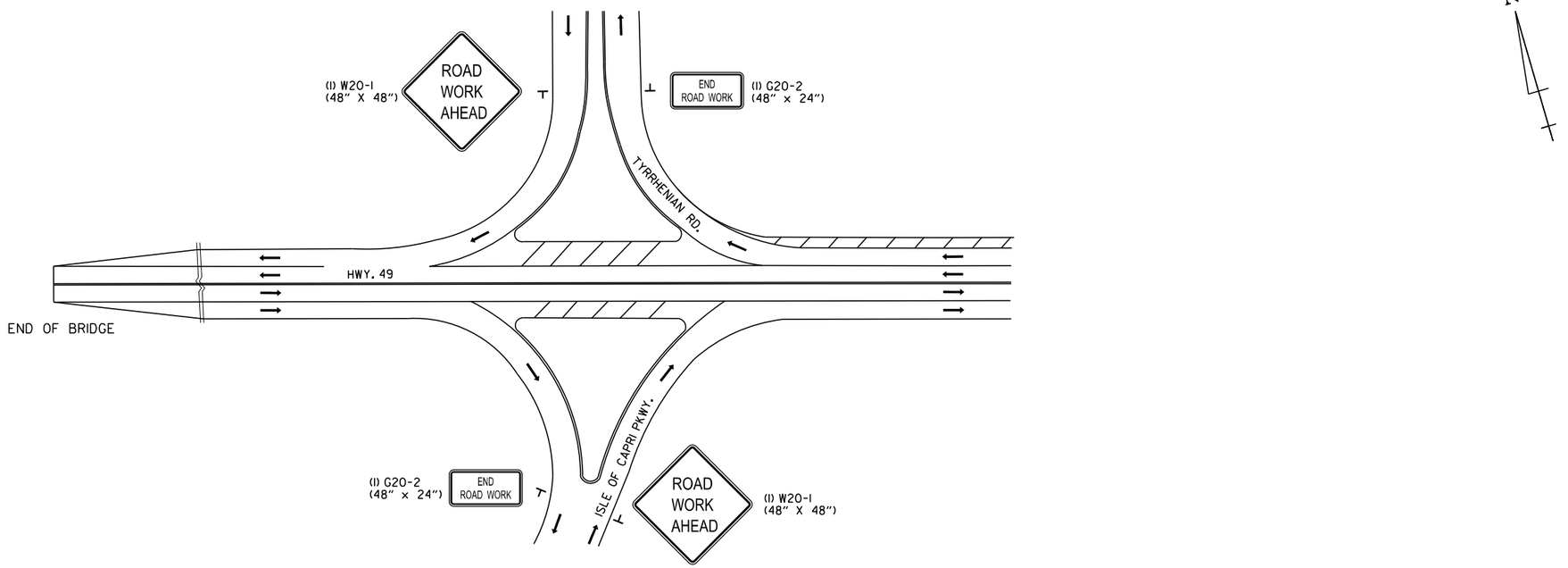
BUMP * (2) W8-1 (36" X 36")

* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026



WALDENS LANDING & LEVEE RD.



TYRRHENIAN RD. & ISLE OF CAPRI PKWY.

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	15	107
		MAINTENANCE OF TRAFFIC DETAILS				

WORK LOCATIONS & INFORMATION HIGHLIGHTS

NOTE: THE FOLLOWING DETAIL IS NOT INTENDED TO BE AN ALL INCLUSIVE WORK DETAIL; BUT IS TO HIGHLIGHT LOCATIONS OF WORK OUTSIDE AND WITHIN THE PROJECT AND DRAW ATTENTION TO SIGNIFICANT INFORMATION.

ROADWAY - ARKANSAS SIDE		WEST BRIDGE APPROACH SPANS: 1199'-6" (WEST ABUTMENT TO PIER 10)	MAIN TRUSS SPANS: 3108'-0" (PIER 10 TO PIER 15)	EAST BRIDGE APPROACH SPANS: 887''-0" (PIER 15 TO EAST ABUTMENT)	ROADWAY - MISSISSIPPI SIDE	
ADVANCE WARNING SIGN WITH FLASHING BEACON "ICE ON BRIDGE" SIGNS: ONE SIGN APPROX. 1200 FT. FROM BR. END ONE SIGN LOCATED AT INTERSECTION OF HWYS. 49B AND HWY. 49 REFER TO PLAN SHEETS & "ROADWAY WEATHER INFORMATION SYSTEM" SPECIAL PROVISION	COLD MILLING W/ 2" ACHM SURF. CRS. OVERLAY REFER TO SPECIAL PROVISIONS & PLAN SHEETS REMOVE & REPLACE APPROACH SLAB/GUTTERS REFER TO "STONE BACKFILL" SPECIAL PROVISION AND SPECIAL DETAILS IN PLANS TEMP. WIDENING FOR MAINTENANCE OF TRAFFIC SET-UP PORTABLE TRAFFIC SIGNAL AND TRAFFIC TIMER UNIT-COUNTDOWN & MOT DEVICES AS SHOWN ON THE MOT PLAN SHEETS FOR STAGE CONSTRUCTION. PROJECT RIGHT-OF-WAY IS EXISTING FOR LENGTH OF PROJECT.	REMOVE & REPLACE IN 1/2 WIDTHS: WEST ABUT. BACKWALL - SHORING REQUIRED & COORDINATION WITH APPROACH SLAB/ GUTTER REMOVAL & REPLACEMENT REFER TO "LAYOUT OF BRIDGE HWY. 49 OVER MISSISSIPPI RIVER" FOR SCOPE OF WORK LOCATIONS AND BRIDGE DRAWING NUMBERS FOR REPAIR DETAILS, INCLUDING CLEANING & PAINTING OF STRUCTURAL STEEL. REFER TO "COORDINATION OF WORK" SP TO COORDINATE WITH BUSINESSES. UTILITY LINES CROSSING UNDER THE BRIDGE @ TWO LOCATIONS. REFER TO "COORDINATION OF WORK" SPECIAL PROVISION. POLYMER OVERLAY ON EXISTING DECK WITH SPECIAL PROVISION REQUIREMENTS MIGRATORY BIRDS MAY BE PRESENT. REFER TO "NESTING SITES OF MIGRATORY BIRDS" SPECIAL PROVISION	REFER TO "LAYOUT OF BRIDGE HWY. 49 OVER MISSISSIPPI RIVER" FOR SCOPE OF WORK LOCATIONS AND BRIDGE DRAWING NUMBERS FOR PROJECT REPAIR DETAILS AND PAINTING OF TRUSS & ALL EXPOSED STRUCTURAL STEEL. THE EXISTING CONCRETE DECK IS TO BE REMOVED AND REPLACED. REFER TO BRIDGE PLANS SHEETS AND SPECIAL PROVISIONS: "LIGHTWEIGHT AGGREGATE CONCRETE (AE)", "LOW CARBON CHROMIUM STEEL BARS FOR CONCRETE REPLACEMENT", "BRIDGE STRUCTURAL STEEL REPAIRS", AND OTHERS. REFER TO "COORDINATION OF WORK" SP TO COORDINATE WITH BUSINESSES. THE EXISTING PAINT ON THE BRIDGE CONTAINS LEAD. REFER TO SPECIAL PROVISIONS RELATED TO CLEANING OF STEEL, SAFETY, AND CONTAINMENT. CAMERAS & NAVIGATIONAL LIGHTING PLACEMENT TO MONITOR TRAFFIC AND TO ASSIST DISTRICT PERSONNEL. POLYMER OVERLAY THE MAIN TRUSS SPAN AFTER ALL OF THE CONCRETE DECK HAS BEEN REMOVED AND REPLACED.	REFER TO "LAYOUT OF BRIDGE HWY. 49 OVER MISSISSIPPI RIVER" FOR SCOPE OF WORK LOCATIONS AND BRIDGE DRAWING NUMBERS FOR REPAIR DETAILS, INCLUDING CLEANING & PAINTING OF STRUCTURAL STEEL. POLYMER OVERLAY ON EXISTING DECK WITH SPECIAL PROVISION REQUIREMENTS REFER TO "COORDINATION OF WORK" SP TO COORDINATE WITH BUSINESSES. MIGRATORY BIRDS MAY BE PRESENT. REFER TO "NESTING SITES OF MIGRATORY BIRDS" SPECIAL PROVISION	GUARDRAIL REPLACEMENT COLD MILLING W/ 2" ACHM SURF. CRS. OVERLAY REFER TO SPECIAL PROVISIONS & PLANS REMOVE & REPLACE APPROACH SLAB/GUTTERS TEMP. WIDENING FOR MAINTENANCE OF TRAFFIC SET-UP PORTABLE TRAFFIC SIGNAL AND TRAFFIC TIMER UNIT-COUNTDOWN & MOT DEVICES AS SHOWN ON THE MOT PLAN SHEETS FOR STAGE CONSTRUCTION	ADVANCE WARNING SIGN WITH FLASHING BEACON "ICE ON BRIDGE" SIGNS: ONE SIGN APPROX. 1200 FT. FROM BR. END TWO SIGNS LOCATED AT INTERSECTION OF HWYS. 1 & 49 (APPROX. 2.7 MILES FROM PROJECT) REFER TO PLAN SHEETS & "ROADWAY WEATHER INFORMATION SYSTEM" SPECIAL PROVISION

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MAINTENANCE OF TRAFFIC

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS SHOWN ON THE STANDARD DRAWING TC-6 "STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION".

INSTALL MAINTENANCE OF TRAFFIC SIGNS AND MOT ITEMS AS SHOWN IN THE PLANS a) IN ADVANCE OF THE PORTABLE TRAFFIC SIGNAL SYSTEM BEFORE BRIDGE APPROACHES, b) AT INTERSECTION LOCATIONS, AND c) AROUND CONSTRUCTION STAGING AREAS.

THE CONTRACTOR IS TO UTILIZE TRAINED FLAGGERS WITH TWO-WAY RADIO COMMUNICATION AS PRECAST CONCRETE BARRIER IS PLACED OR RELOCATED AND WHILE THE PORTABLE TRAFFIC SIGNAL SYSTEM AND TRAFFIC TIMER UNIT-COUNTDOWN IS INSTALLED, TESTED, AND VERIFIED OPERATIONAL. (REFER TO MOT SHEETS FOR LOCATIONS)

REFER TO STANDARD DRAWINGS TC-4 AND TC-5 FOR BARRIER PLACEMENT. REFER TO THE "PRECAST CONCRETE BARRIER (TYPE SPECIAL)" SPECIAL PROVISION FOR INSTALLATION OF THE REBLOC TEMPORARY CONCRETE BARRIER OR COMPARABLE SYSTEM AT THE WEST END OF THE BRIDGE FOR THE REMOVAL & REPLACEMENT OF THE BACKWALL, APPROACH SLAB & GUTTERS; ASPHALT OVERLAY OPERATIONS; AND TEMP. WIDENING.

TRAINED FLAGGERS WILL BE UTILIZED FOR STAGE 2 RELOCATION OF THE PRECAST CONCRETE BARRIER SYSTEMS, MOT ITEMS, AND THE PORTABLE TRAFFIC SIGNAL SYSTEM AND TRAFFIC TIMER UNIT-COUNTDOWN.

FOR STAGE 1 CONSTRUCTION AN 11'-0" LANE AND FOR STAGE 2 AN 11'-6" LANE IS TO BE MAINTAINED FOR TRAFFIC MOVEMENT ACROSS THE BRIDGE. REFER TO THE MOT STAGE CONSTRUCTION TYPICAL SECTIONS AND BRIDGE DRAWINGS.

15-MINUTE BRIDGE CLOSURES WILL BE PERMITTED PER THE "MAINTENANCE OF TRAFFIC" SPECIAL PROVISION. THE CONTRACTOR IS NOT TO CLOSE THE BRIDGE COMPLETELY UNLESS THERE IS AN UNFORSEEN EVENT SUCH AS AN ACCIDENT. WRECKER SERVICE AND MOBILE ASSISTANCE PATROL ARE PROVIDED IN THIS CONTRACT TO ASSIST IN CLEARING OF ANY LANE BLOCKAGE AS QUICKLY AS POSSIBLE ONCE PERMISSION HAS BEEN GIVEN BY THE POLICE. REFER TO THE "WRECKER SERVICE" AND "MOTORIST ASSISTANCE PATROL" SPECIAL PROVISIONS.

REFER TO THE "COORDINATION OF WORK" SPECIAL PROVISION FOR MAINTENANCE OF TRAFFIC ON THE ARKANSAS SIDE FOR THE ACCESS ROAD OFF HWY. 49 AND FOR UNDER THE BRIDGE ACCESS BY THE PUBLIC.

MAINTENANCE OF TRAFFIC (CONT.)

ONCE WORK ON THE MAIN TRUSS SPANS OF THE BRIDGE IS COMPLETE, PRECAST CONCRETE BARRIER MAY BE REMOVED AND REPLACED WITH VERTICAL PANELS FOR THE POLYMER OVERLAY PROCESS.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN W8-11 "UNEVEN LANES" SIGNS (48" X 48") AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS. SIGNS WILL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND.

DURING CONSTRUCTION, "REMOVABLE CONSTRUCTION PAVEMENT MARKINGS" ARE TO BE USED AS SHOWN IN THE PLANS OR IF AND WHERE DIRECTED BY THE ENGINEER FOR MOT.

UPON COMPLETION OF THE PROJECT WORK, THE CONSTRACTOR SHALL INSTALL THERMOPLASTIC PAVEMENT MARKINGS FOR THE CENTERLINE AND EDGE LINES AND RETURN THE ROADWAY AND BRIDGE TO THE NORMAL TRAFFIC PATTERN.

NOTES

1) OTHER THAN THE SEQUENCE OF CONSTRUCTION STAGES NOTED AND THE REQUIREMENT TO MAINTAIN AN 11'-0" OR 11'-6" OPEN LANE FOR TRAFFIC, THE CONTRACTOR IS FREE TO PROCEED WITH SEQUENCING THE REHAB CONSTRUCTION SCOPE OF WORK SHOWN IN THE PLANS AS THEY CHOOSE AFTER PROVIDING ADVANCE NOTICE AND RECEIVING APPROVAL FROM THE ENGINEER.

2) THE SPECIAL PROVISIONS IN THE PROJECT CONTAIN PROJECT INFORMATION CONCERNING COORDINATION REQUIREMENTS, CONTRACTOR CERTIFICATIONS, NEW PRODUCT DATA, CAMERA & LIGHT INSTALLATIONS, SPECIAL CONCRETE DECK DETAILS, AND REPAIR & SHORING REQUIREMENTS.

3) REFER TO THE "WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER" SPECIAL PROVISION ALLOWING FIELD VERIFIED MEASUREMENTS OF EXISTING STEEL IN ADVANCE OF THE WORK ORDER AND OTHER SCOPE OF WORK ITEMS.

CONSTRUCTION SEQUENCE

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS PER STANDARD DRAWING TC-6.

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE 1 AND REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. CLOSE WALDENS LANDING. THE CONTRACTOR SHALL USE GPR OR MIT SCANS TO LOCATE REBAR IN THE EXISTING CONCRETE DECK BEFORE INSTALLATION OF PRECAST CONCRETE BARRIER IN STAGE 1. SET-UP PORTABLE TRAFFIC SIGNALS AND TRAFFIC TIMER UNIT-COUNTDOWN.

TRAFFIC IS TO BE MAINTAINED IN AN 11'-0" LANE ON THE LEFT.

ON THE CLOSED LANE & SHOULDER - RT. (BRIDGE AND ROADWAY): CONSTRUCT REHAB. WORK AS SHOWN IN THE BRIDGE PLANS, SPECIAL DETAILS, AND TYPICAL SECTIONS. REFER TO THE "LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER" FOR BRIDGE REHAB SCOPE OF WORK LOCATIONS.

THREADED INSERTS SHALL BE CAST IN PLACE IN ALL NEW BRIDGE DECK SECTIONS PLACED DURING STAGE 1 IN ACCORDANCE WITH STANDARD DRAWING TC-4 FOR THE RELOCATION OF PRECAST CONCRETE BARRIER IN STAGE 2.

STAGE 2:

RETAIN ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS PER STANDARD DRAWING TC-6.

RELOCATE MAINTENANCE OF TRAFFIC DEVICES FOR STAGE 2 AND INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. KEEP WALDENS LANDING CLOSED. IF THREADED INSERTS CAST IN PLACE DURING STAGE 1 IN THE BRIDGE DECK SECTIONS DO NOT LINE UP WITH PRECAST CONCRETE BARRIER INSTALLATION, THEN THE CONTRACTOR SHALL USE GPR OR MIT SCANS TO LOCATE REBAR BEFORE INSTALLATION OF PRECAST CONCRETE BARRIER IN STAGE 2.

RELOCATE PORTABLE TRAFFIC SIGNALS AND TRAFFIC TIMER UNIT-COUNTDOWN. SHIFT TRAFFIC ONTO OPPOSITE LANE FOR STAGE 2.

TRAFFIC IS TO BE MAINTAINED IN AN 11'-6" LANE ON THE RIGHT.

ON THE CLOSED LANE & SHOULDER - LT. (BRIDGE AND ROADWAY): CONSTRUCT REHAB WORK AS SHOWN IN THE BRIDGE PLANS, SPECIAL DETAILS, AND TYPICAL SECTIONS. REFER TO THE "LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER" FOR BRIDGE REHAB SCOPE OF WORK LOCATIONS.

ONCE WORK IS COMPLETED ON THE MAIN TRUSS SPANS OF THE BRIDGE, THE CONCRETE BARRIER IS TO BE REMOVED AND REPLACED WITH VERTICAL PANELS ACROSS THE BRIDGE FOR THE POLYMER OVERLAY PROCESS. ALL INSERTS OR ANCHOR HOLES IN THE NEW BRIDGE DECKS SHALL BE FILL WITH APPROVED NON-SHRINK EPOXY IN ACCORDANCE WITH STANDARD DRAWING TC-4.

END OF JOB:

REMOVE ALL MAINTENANCE OF TRAFFIC DEVICES & REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. (REFER TO SECTION 604 "TRAFFIC CONTROL DEVICES IN CONSTUCTION ZONES, SECTION 604.04 METHOD OF MEASUREMENT, (C) PAVEMENT MARKINGS" OF THE ARDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION CONCERNING REMOVABLE CONSTRUCTION PAVEMENT MARKINGS.)

INSTALL PERMANENT PAVEMENT MARKINGS AND RETURN TRAFFIC TO A NORMAL PATTERN.

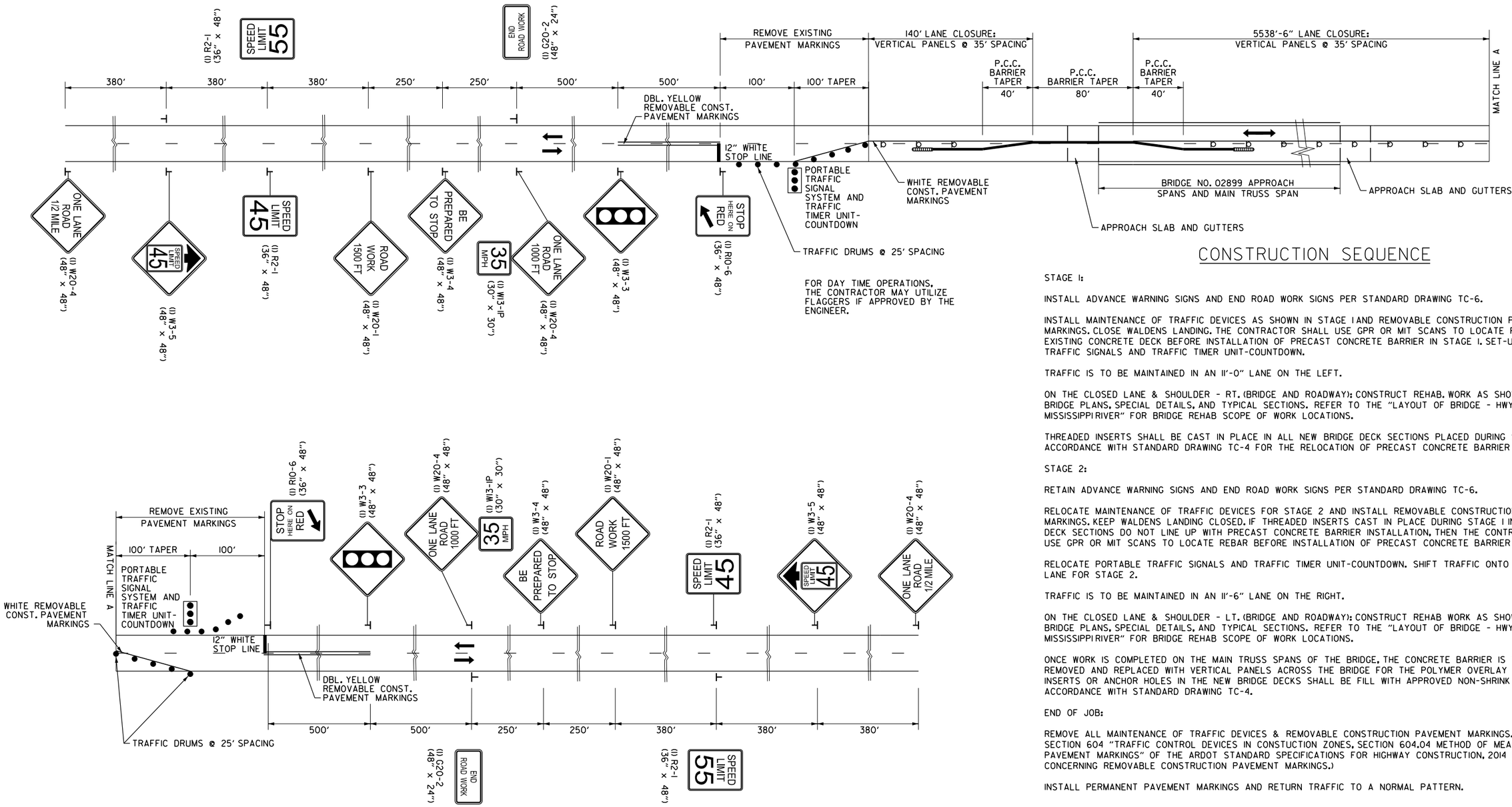
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		6	ARK.	110812	16	107
		MAINTENANCE OF TRAFFIC DETAILS				

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No.12370
TONY N. CRAFTON
6-16-2026

LEGEND

- TRAFFIC DRUM
- VERTICAL PANEL
- TEMPORARY TRAFFIC SIGN
- TRAFFIC FLOW ARROWS
- PRECAST CONC. BARRIER (TYPE SPECIAL)
- TEMP. IMPACT ATTENUATION BARRIER



FOR DAY TIME OPERATIONS, THE CONTRACTOR MAY UTILIZE FLAGGERS IF APPROVED BY THE ENGINEER.

CONSTRUCTION SEQUENCE

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS PER STANDARD DRAWING TC-6.

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE 1 AND REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. CLOSE WALDENS LANDING. THE CONTRACTOR SHALL USE GPR OR MIT SCANS TO LOCATE REBAR IN THE EXISTING CONCRETE DECK BEFORE INSTALLATION OF PRECAST CONCRETE BARRIER IN STAGE 1. SET-UP PORTABLE TRAFFIC SIGNALS AND TRAFFIC TIMER UNIT-COUNTDOWN.

TRAFFIC IS TO BE MAINTAINED IN AN 11'-0" LANE ON THE LEFT.

ON THE CLOSED LANE & SHOULDER - RT. (BRIDGE AND ROADWAY): CONSTRUCT REHAB. WORK AS SHOWN IN THE BRIDGE PLANS, SPECIAL DETAILS, AND TYPICAL SECTIONS. REFER TO THE "LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER" FOR BRIDGE REHAB SCOPE OF WORK LOCATIONS.

THREADED INSERTS SHALL BE CAST IN PLACE IN ALL NEW BRIDGE DECK SECTIONS PLACED DURING STAGE 1 IN ACCORDANCE WITH STANDARD DRAWING TC-4 FOR THE RELOCATION OF PRECAST CONCRETE BARRIER IN STAGE 2.

STAGE 2:

RETAIN ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS PER STANDARD DRAWING TC-6.

RELOCATE MAINTENANCE OF TRAFFIC DEVICES FOR STAGE 2 AND INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. KEEP WALDENS LANDING CLOSED. IF THREADED INSERTS CAST IN PLACE DURING STAGE 1 IN THE BRIDGE DECK SECTIONS DO NOT LINE UP WITH PRECAST CONCRETE BARRIER INSTALLATION, THEN THE CONTRACTOR SHALL USE GPR OR MIT SCANS TO LOCATE REBAR BEFORE INSTALLATION OF PRECAST CONCRETE BARRIER IN STAGE 2.

RELOCATE PORTABLE TRAFFIC SIGNALS AND TRAFFIC TIMER UNIT-COUNTDOWN. SHIFT TRAFFIC ONTO OPPOSITE LANE FOR STAGE 2.

TRAFFIC IS TO BE MAINTAINED IN AN 11'-6" LANE ON THE RIGHT.

ON THE CLOSED LANE & SHOULDER - LT. (BRIDGE AND ROADWAY): CONSTRUCT REHAB WORK AS SHOWN IN THE BRIDGE PLANS, SPECIAL DETAILS, AND TYPICAL SECTIONS. REFER TO THE "LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER" FOR BRIDGE REHAB SCOPE OF WORK LOCATIONS.

ONCE WORK IS COMPLETED ON THE MAIN TRUSS SPANS OF THE BRIDGE, THE CONCRETE BARRIER IS TO BE REMOVED AND REPLACED WITH VERTICAL PANELS ACROSS THE BRIDGE FOR THE POLYMER OVERLAY PROCESS. ALL INSERTS OR ANCHOR HOLES IN THE NEW BRIDGE DECKS SHALL BE FILL WITH APPROVED NON-SHRINK EPOXY IN ACCORDANCE WITH STANDARD DRAWING TC-4.

END OF JOB:

REMOVE ALL MAINTENANCE OF TRAFFIC DEVICES & REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. (REFER TO SECTION 604 "TRAFFIC CONTROL DEVICES IN CONSTUCTION ZONES, SECTION 604.04 METHOD OF MEASUREMENT, (C) PAVEMENT MARKINGS" OF THE ARDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION CONCERNING REMOVABLE CONSTRUCTION PAVEMENT MARKINGS.)

INSTALL PERMANENT PAVEMENT MARKINGS AND RETURN TRAFFIC TO A NORMAL PATTERN.

WEST BACKWALL AND APPROACH SLAB REPLACEMENT
MAINTENANCE OF TRAFFIC DETAILS

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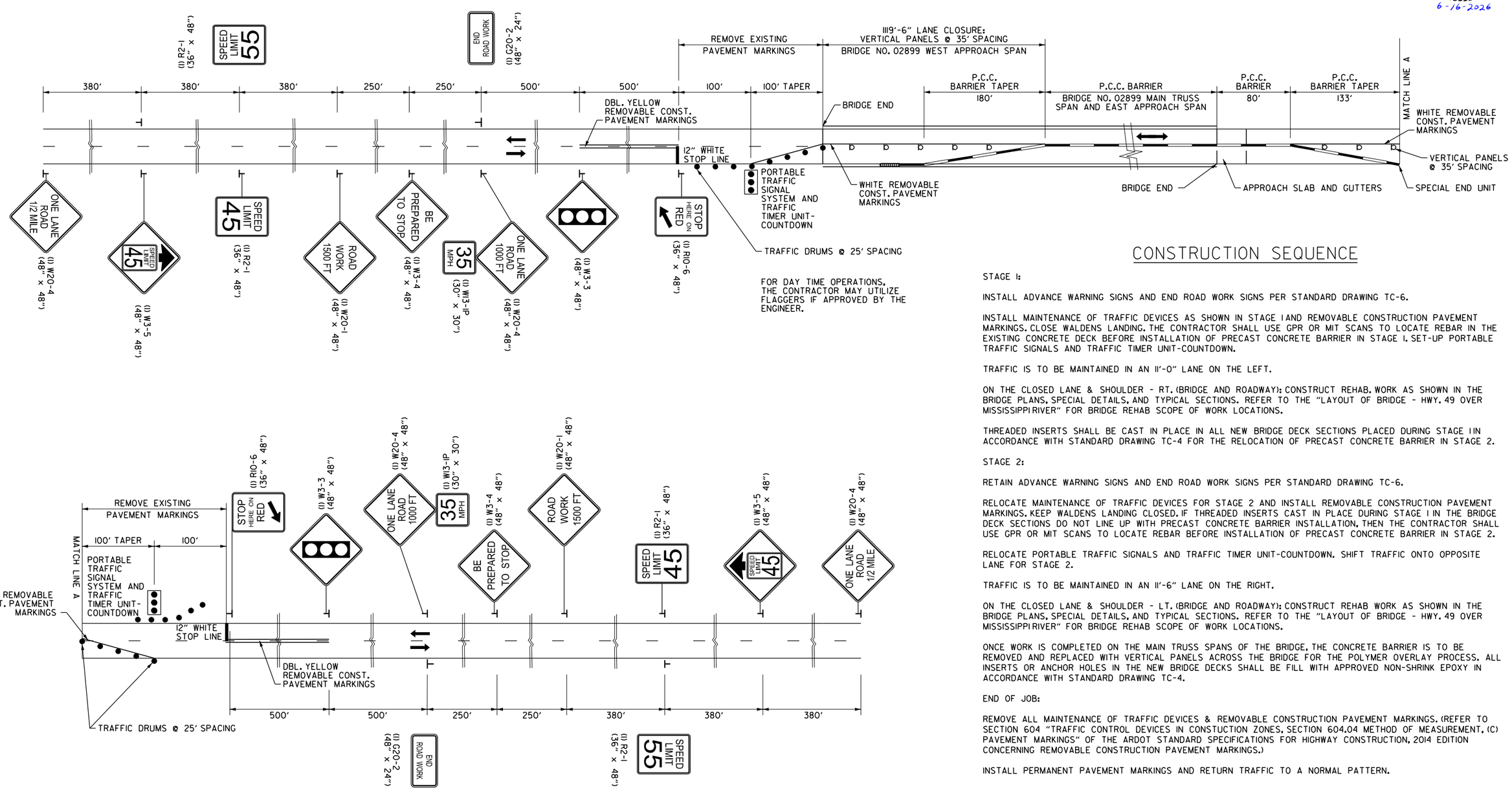
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		6	ARK.	110812	17	107
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LEGEND

- TRAFFIC DRUM
- VERTICAL PANEL
- TEMPORARY TRAFFIC SIGN
- TRAFFIC FLOW ARROWS
- PRECAST CONC. BARRIER WALL
- TEMP. IMPACT ATTENUATION BARRIER

NOTE: REFER TO FIRST MAINTENANCE OF TRAFFIC PLAN SHEET FOR "MAINTENANCE OF TRAFFIC" NOTES.

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No. 12370
TONY N. CRAFTON
6-16-2026



CONSTRUCTION SEQUENCE

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS PER STANDARD DRAWING TC-6.

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE 1 AND REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. CLOSE WALDENS LANDING. THE CONTRACTOR SHALL USE GPR OR MIT SCANS TO LOCATE REBAR IN THE EXISTING CONCRETE DECK BEFORE INSTALLATION OF PRECAST CONCRETE BARRIER IN STAGE 1. SET-UP PORTABLE TRAFFIC SIGNALS AND TRAFFIC TIMER UNIT-COUNTDOWN.

TRAFFIC IS TO BE MAINTAINED IN AN 11'-0" LANE ON THE LEFT.

ON THE CLOSED LANE & SHOULDER - RT. (BRIDGE AND ROADWAY): CONSTRUCT REHAB. WORK AS SHOWN IN THE BRIDGE PLANS, SPECIAL DETAILS, AND TYPICAL SECTIONS. REFER TO THE "LAYOUT OF BRIDGE - HWY. 49 OVER MISSISSIPPI RIVER" FOR BRIDGE REHAB SCOPE OF WORK LOCATIONS.

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STAGE 2:

RETAIN ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS PER STANDARD DRAWING TC-6.

RELOCATE MAINTENANCE OF TRAFFIC DEVICES FOR STAGE 2 AND INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. KEEP WALDENS LANDING CLOSED. IF THREADED INSERTS CAST IN PLACE DURING STAGE 1 IN THE BRIDGE DECK SECTIONS DO NOT LINE UP WITH PRECAST CONCRETE BARRIER INSTALLATION, THEN THE CONTRACTOR SHALL USE GPR OR MIT SCANS TO LOCATE REBAR BEFORE INSTALLATION OF PRECAST CONCRETE BARRIER IN STAGE 2.

RELOCATE PORTABLE TRAFFIC SIGNALS AND TRAFFIC TIMER UNIT-COUNTDOWN. SHIFT TRAFFIC ONTO OPPOSITE LANE FOR STAGE 2.

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ONCE WORK IS COMPLETED ON THE MAIN TRUSS SPANS OF THE BRIDGE, THE CONCRETE BARRIER IS TO BE REMOVED AND REPLACED WITH VERTICAL PANELS ACROSS THE BRIDGE FOR THE POLYMER OVERLAY PROCESS. ALL INSERTS OR ANCHOR HOLES IN THE NEW BRIDGE DECKS SHALL BE FILL WITH APPROVED NON-SHRINK EPOXY IN ACCORDANCE WITH STANDARD DRAWING TC-4.

END OF JOB:

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INSTALL PERMANENT PAVEMENT MARKINGS AND RETURN TRAFFIC TO A NORMAL PATTERN.

MAIN TRUSS CONSTRUCTION AND EAST APPROACH SLAB REPLACEMENT
MAINTENANCE OF TRAFFIC DETAILS

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		6	ARK.	110812	18	107
		MAINTENANCE OF TRAFFIC DETAILS				

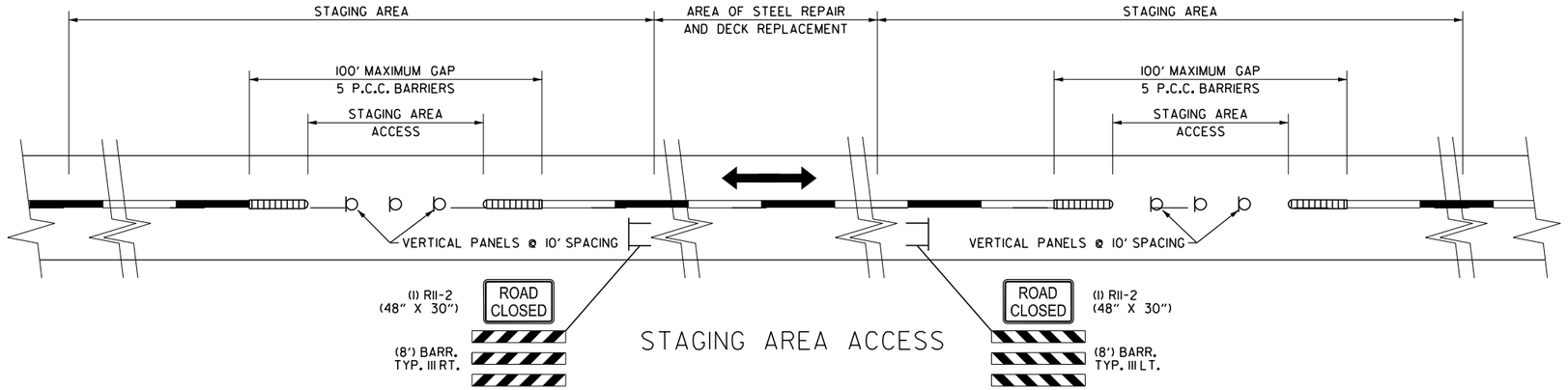
LEGEND

- VERTICAL PANEL
- TRAFFIC FLOW ARROWS
- PRECAST CONC. BARRIER WALL
- TEMP. IMPACT ATTENUATION BARRIER

NOTES:

1. STAGING AREA ACCESS SHOULD BE PLACED FAR ENOUGH FROM THE AREA OF STEEL REPAIR AND DECK REPLACEMENT TO ALLOW VEHICLES AND EQUIPMENT ROOM TO SAFELY STOP.
2. VEHICLES AND EQUIPMENT LEAVING STAGING AREAS SHALL ENTER TRAFFIC IN THE SAME DIRECTION AS TRAFFIC AND SHOULD ENTER AT THE END OF THE CURRENT TRAFFIC QUEUE.
3. THERE SHALL BE A MINIMUM DISTANCE OF 200' BETWEEN STAGING AREA ACCESSES. THE CONTRACTOR MUST REQUEST IN WRITING FOR ACCESSES TO BE CLOSER THAN 200' AND IS SUBJECT TO APPROVAL BY THE ENGINEER.
4. THE MAXIMUM NUMBER OF DEVICES (8 TEMP. IMPACT ATTENUATION BARRIERS, 16 LIN. FT OF BARRICADES AND 12 VERTICAL PANELS) TO HAVE 4 STAGING AREA ACCESSES WILL BE ALLOWED FOR PAYMENT. THE CONTRACTOR MAY PLACE MORE THAN 4 STAGING AREA ACCESSES, BUT DEVICES NECESSARY FOR ANY ACCESS OVER THE 4 PROVIDED FOR IN THE PLANS WILL NOT PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE UNIT BID PRICE OF OTHER ITEMS.
5. NO GAPS IN THE PRECAST CONCRETE BARRIER WILL BE ALLOWED IN AREAS WHERE STEEL REPAIR AND DECK REPLACEMENT ARE CURRENTLY BEING MADE.
6. THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO ONLY HAVE THE EQUIPMENT, VEHICLES, AND MATERIALS NECESSARY FOR THE DAYS WORK IN THE STAGING AREA.
7. THE CONTRACTOR'S EMPLOYEES SHALL NOT PARK PERSONAL VEHICLES IN THE STAGING AREA.
8. THE MAXIMUM GAP BETWEEN P.C.C. BARRIERS IS 100'. THE MAXIMUM GAP IS BASED ON AN IMPACT ATTENUATION BARRIER LENGTH OF 21' TO PROVIDE APPROXIMATE ACCESS OPENING OF 50'. THE CONTRACTOR MUST REQUEST IN WRITING FOR ANY INCREASE IN THE MAXIMUM GAP AND IS SUBJECT TO APPROVAL BY THE ENGINEER.

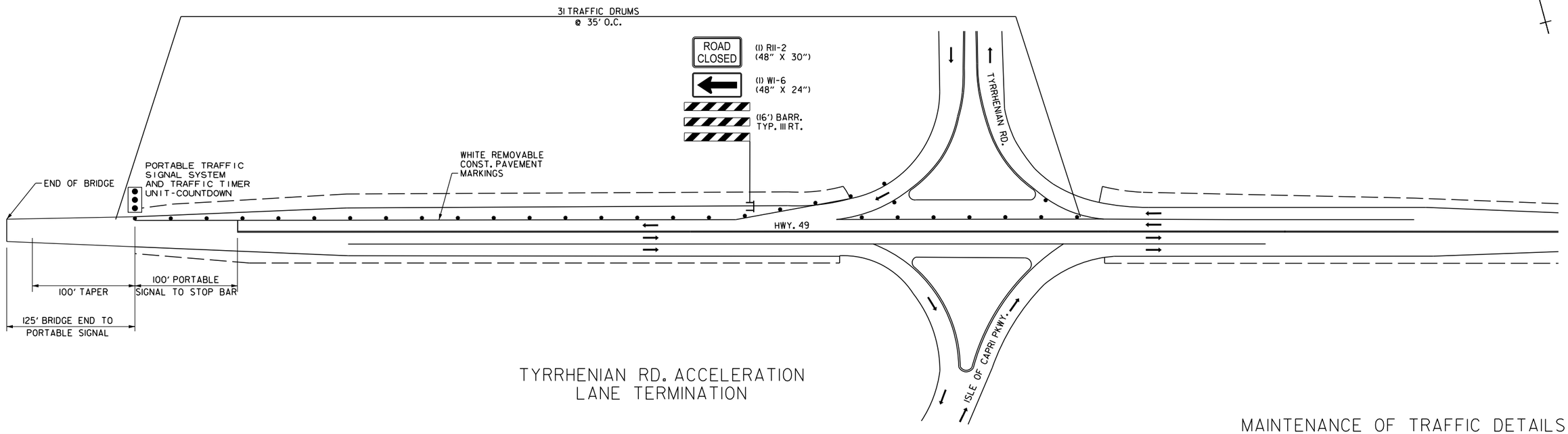
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026



STAGING AREA ACCESS

LEGEND

- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS



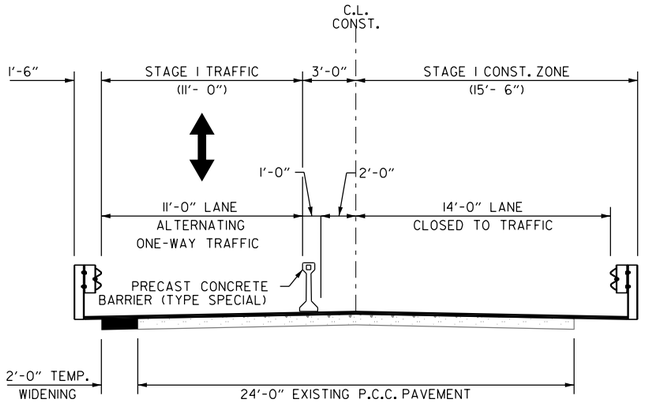
TYRRHENIAN RD. ACCELERATION LANE TERMINATION

MAINTENANCE OF TRAFFIC DETAILS

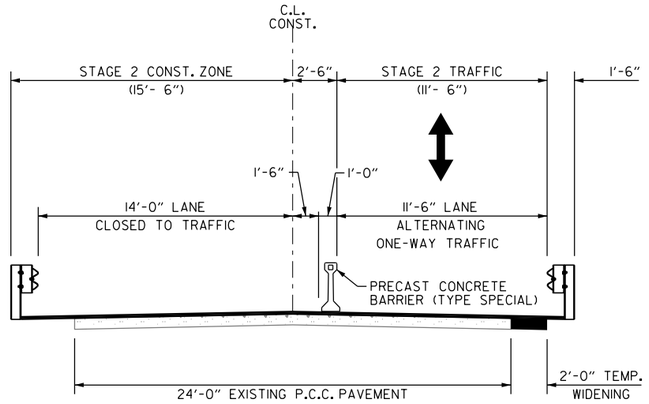
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	19	107
		MAINTENANCE OF TRAFFIC DETAILS				

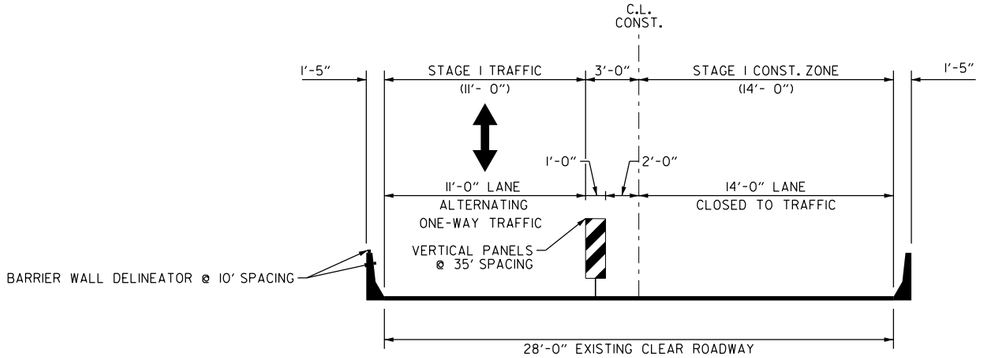
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026



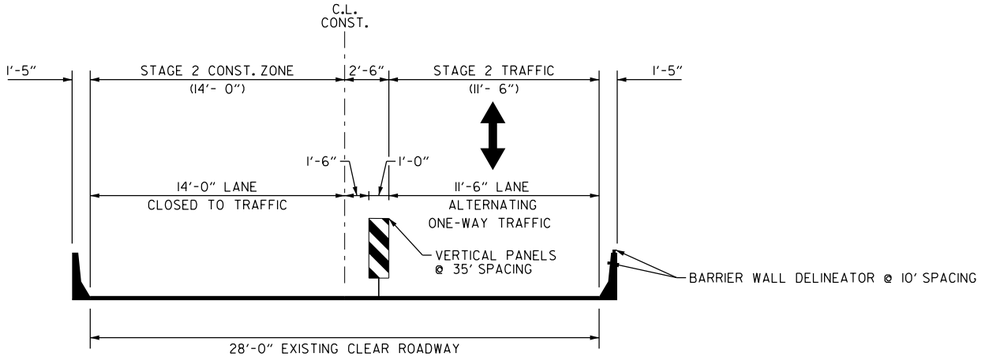
STAGE 1 CONSTRUCTION
WEST BACKWALL REPAIR/APPROACH SLAB REPLACEMENT



NOTE: TEMP WIDENING TO BE PLACED AS DIRECTED BY THE ENGINEER.



STAGE 1 CONSTRUCTION
APPROACH SPANS
POLYMER OVERLAY



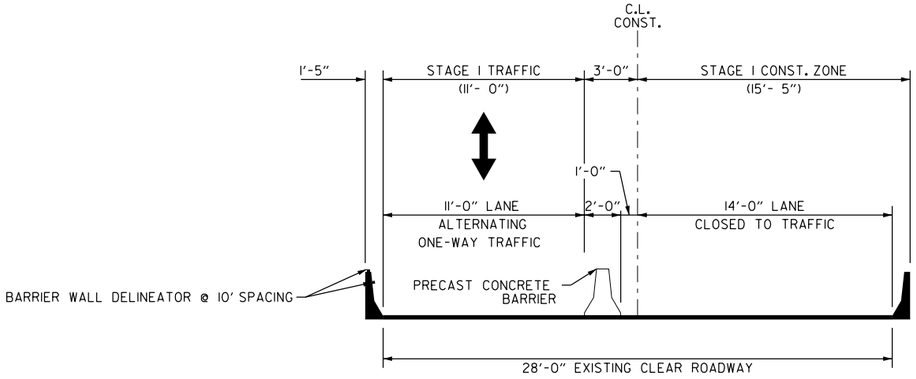
STAGE 2 CONSTRUCTION
APPROACH SPANS
POLYMER OVERLAY

TYPICAL SECTIONS
MAINTENANCE OF TRAFFIC DETAILS

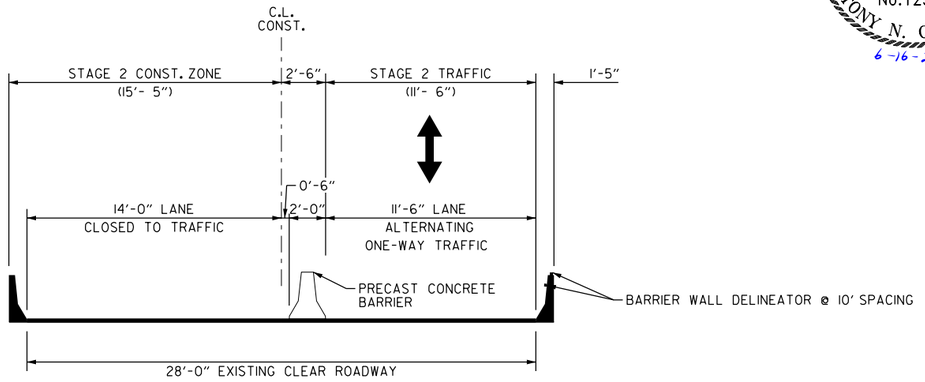
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	20	107
		MAINTENANCE OF TRAFFIC DETAILS				

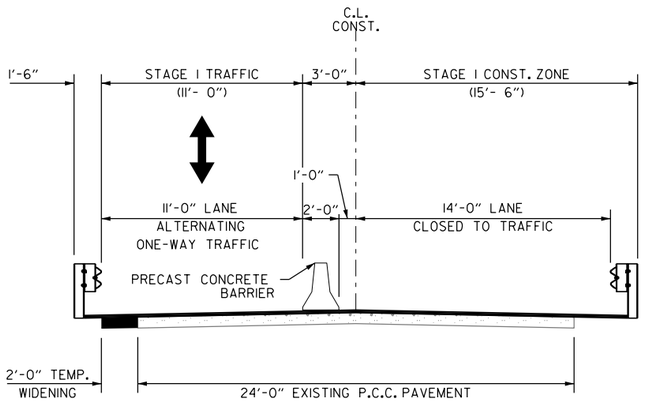
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026



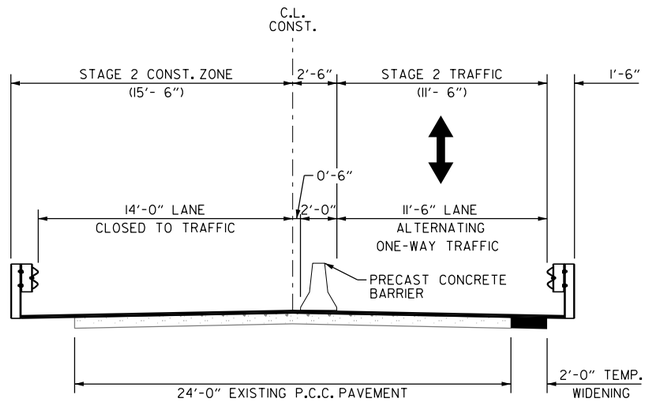
STAGE 1 CONSTRUCTION
MAIN TRUSS SPANS
STEEL REPAIR AND DECK REPLACEMENT



STAGE 2 CONSTRUCTION
MAIN TRUSS SPANS
STEEL REPAIR AND DECK REPLACEMENT



STAGE 1 CONSTRUCTION
EAST BACKWALL APPROACH SLAB REPLACEMENT



STAGE 2 CONSTRUCTION
EAST BACKWALL APPROACH SLAB REPLACEMENT

TYPICAL SECTIONS
MAINTENANCE OF TRAFFIC DETAILS

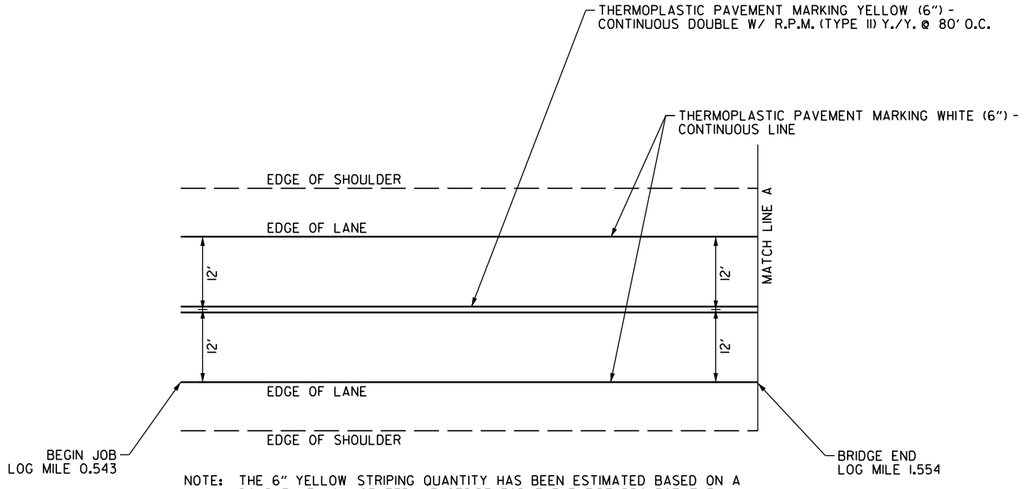
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	21	107
		PERMANENT PAVEMENT MARKINGS DETAILS				

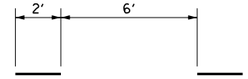
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-16-2026

LEGEND

- THERMOPLASTIC PAVEMENT MARKING (ARROW)
- ONLY — THERMOPLASTIC PAVEMENT MARKING (WORD-ONLY)
- THERMOPLASTIC PAVEMENT MARKING (ARROW)



NOTE: THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.



THERMOPLASTIC PAVEMENT MARKING WHITE (6") - DOTTED LINE DETAIL

THERMOPLASTIC PAVEMENT MARKING YELLOW (6") - CONTINUOUS DOUBLE W/ R.P.M. (TYPE II) Y./Y. @ 80' O.C.

LOG MILE 0.543	TO 1.706	CL. - 12282	LIN. FT. - 78 R.P.M.	

THERMOPLASTIC PAVEMENT MARKING WHITE (6") - DOTTED LINE W/ R.P.M (TYPE II) - W./R. @ 80' O.C.

LOG MILE 1.562	TO 1.706	LT. - 191	LIN. FT. - 10 R.P.M.
LOG MILE 1.562	TO 1.617	RT. - 73	LIN. FT. - 4 R.P.M.

THERMOPLASTIC PAVEMENT MARKING WHITE (6") - CONTINUOUS LINE W/ R.P.M (TYPE II) - W./R. @ 80' O.C.

LOG MILE 1.617	TO 1.706	RT. - 470	LIN. FT. - 6 R.P.M.

THERMOPLASTIC PAVEMENT MARKING WHITE (6") - CONTINUOUS LINE

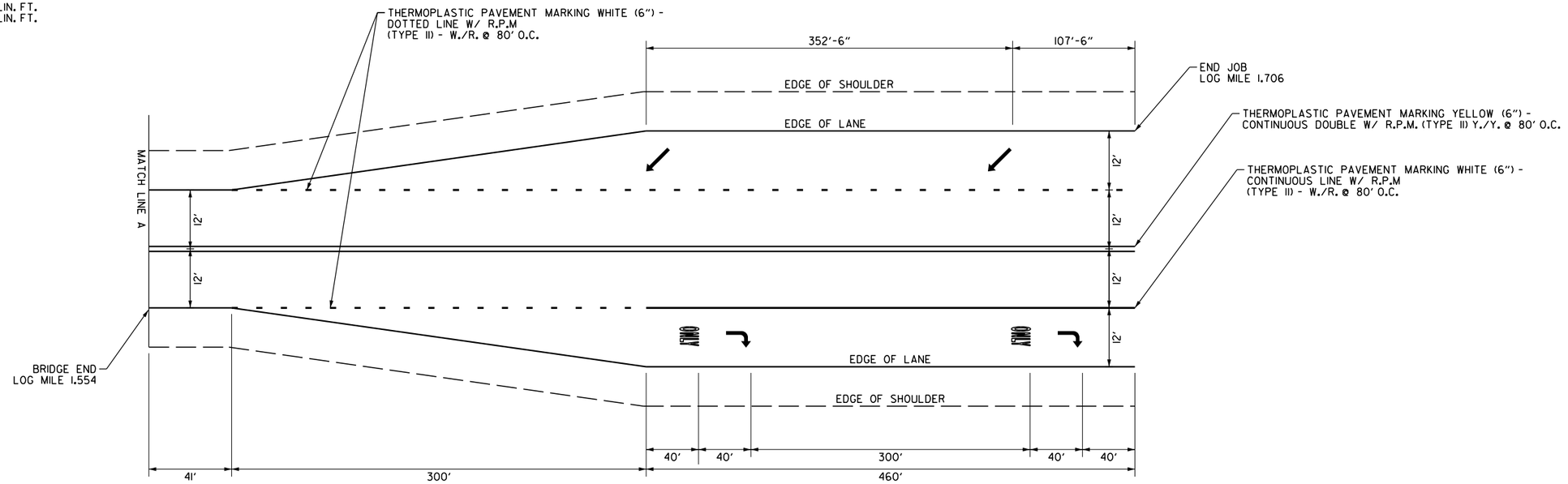
LOG MILE 0.543	TO 1.706	LT. - 6141	LIN. FT.
LOG MILE 0.543	TO 1.706	RT. - 6141	LIN. FT.

THERMOPLASTIC PAVEMENT MARKING (ARROW)

LOG MILE 1.617	LT. - 1 EACH
LOG MILE 1.632	RT. - 1 EACH
LOG MILE 1.683	LT. - 1 EACH
LOG MILE 1.697	RT. - 1 EACH

THERMOPLASTIC PAVEMENT MARKING (WORD - ONLY)

LOG MILE 1.625	RT. - 1 EACH
LOG MILE 1.689	RT. - 1 EACH



PERMANENT PAVEMENT MARKINGS DETAILS

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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	22	107
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026

ADVANCE WARNING SIGNS AND DEVICES

	SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		*CONSTRUCTION PROJECT INFORMATION SIGN UPDATE	VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER (TYPE SPECIAL)	RELOCATING PRECAST CONCRETE BARRIER (TYPE SPECIAL)	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (RELOCATE)	TEMP. IMPACT ATTEN.BARR. (REPAIR)	PORTABLE TRAFFIC SIGNAL	TRAFFIC TIMER UNITS - COUNTDOWN	PORTABLE CAMERA TRAILER
												RIGHT	LEFT										
				LIN. FT. - EACH			NO.	SQ. FT.	EACH			LIN. FT.						EACH			WEEK		EACH
	W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	2	32.0															
	W20-1	ROAD WORK AHEAD	48"x48"	4	4	4	4	64.0															
	W20-4	ONE LANE ROAD 1/2 MILE	48"X48"	2	2	2	2	32.0															
	W20-4	ONE LANE ROAD 1000 FT	48"X48"	2	2	2	2	32.0															
	G20-2	END ROAD WORK	48"x24"	6	6	6	6	48.0															
	W13-1P	SPEED LIMIT (ADVISORY)	30"X30"	2	2	2	2	12.5															
	R11-2	ROAD CLOSED	48"x30"	3	3	3	3	30.0															
	W1-6	LARGE ARROW	48"x24"	1	1	1	1	8.0															
	W3-3	SIGNAL AHEAD	48"X48"	2	2	2	2	32.0															
	W3-4	BE PREPARED TO STOP	48"X48"	2	2	2	2	32.0															
	W3-5	SPEED REDUCTION	48"X48"	2	2	2	2	32.0															
*	W8-1	BUMP	36"X36"	2	2	2	2	18.0															
	R2-1	SPEED LIMIT XX MPH	36"X48"	4	4	4	4	48.0															
*	R4-1	DO NOT PASS	24"x30"	2	2	2	2	10.0															
	R10-6	STOP HERE ON RED	36"X48"	2	2	2	2	24.0															
*	W21-5a	RIGHT SHOULDER CLOSED	36"x36"	2	2	2	2	18.0															
	R2-11	END HIGHER FINES ZONE	36"x48"	2	2	2	2	24.0															
	R2-6aP	FINES DOUBLE	48"X36"	2	2	2	2	24.0															
	WZ-4	NO HAND-HELD PHONE USE BY DRIVER	36"X54"	2	2	2	2	27.0															
	SPECIAL	CONSTUCTION PROJECT INFORMATION SIGN	96"X48"	2	2	2	2	64.0															
	SPECIAL	CONSTUCTION PROJECT INFORMATION SIGN UPDATE				4			4														
		VERTICAL PANELS		158	158	158				158													
		TRAFFIC DRUMS		31	31	31					31												
		TYPE III BARRICADE-RT. (8')		2	2	2						16											
		TYPE III BARRICADE-LT. (8')		2	2	2							16										
		TYPE III BARRICADE-RT. (16')		2	2	2						32											
		TYPE III BARRICADE-LT. (16')		1	1	1							16										
		FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER (TYPE SPECIAL)		240		240								240									
		RELOCATING PRECAST CONCRETE BARRIER (TYPE SPECIAL)			240	240									240								
		FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		5266		5266										5266							
		RELOCATING PRECAST CONCRETE BARRIER		1600	6866	8466											8466						
		TEMPORARY IMPACT ATTENUATION BARRIER		8		8												8					
		TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATE)		32	32	64													64				
		TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		8	8	16														16			
*		PORTABLE TRAFFIC SIGNAL SYSTEM - ACTIVATED		1	1	1															156		
*		TRAFFIC TIMER UNITS - COUNTDOWN		1	1	1																156	
		PORTABLE CAMERA TRAILER		2	2	2																	2
	TOTALS:							**611.5**	**4**	**158**	**31**	**48**	**32**	**240**	**240**	**5266**	**8466**	**8**	**64**	**16**	**156**	**156**	**2**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING			
							TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6" WHITE	6" YELLOW	WORDS	ARROWS
	LIN. FT. - EACH			LIN. FT.			EACH		LIN.FT.		EACH	
REMOVAL OF PERMANENT PAVEMENT MARKINGS	800			800								
CONSTRUCTION PAVEMENT MARKINGS			25297		25297							
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	4411	4411				8822						
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)			20				20					
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)			78					78				
THERMOPLASTIC PAVEMENT MARKING WHITE (6")			13015						13015			
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			12282							12282		
THERMOPLASTIC PAVEMENT MARKING (WORDS)			2								2	
THERMOPLASTIC PAVEMENT MARKING (ARROWS)			4									4
TOTALS:				**800**	**25297**	**8822**	**20**	**78**	**13015**	**12282**	**2**	**4**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NOTE: THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT.
THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING.
CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	25
TOTAL:	**25**

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	5	10
TOTALS:	**5**	**10**

BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC...25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC.....50 GAL./MILE

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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	23	107
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
06-24-2026

BASE AND SURFACING

LOG MILE	LOG MILE	LOCATION	LENGTH	TACK COAT (0.10 GAL. PER SQ. YD.) TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	ACHM SURFACE COURSE (1/2") AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET	FEET				FEET			TON	FEET			TON	TON
0.543	0.562	HWY. 49 MAIN LANES	100.00	31.67	351.89	35.19	35.19					31.67	351.89	220.00	38.71	38.71
1.562	1.686	HWY. 49 MAIN LANES	654.72	52.25	3801.01	380.10	380.10					52.25	3801.01	220.00	418.11	418.11
1.686	1.706	HWY. 49 MAIN LANES	105.60	69.50	815.47	81.55	81.55					69.50	815.47	220.00	89.70	89.70
ADDITIONAL FOR MAINTENANCE OF TRAFFIC																
0.543	0.568	HWY. 49 LT. OF MAIN LANES	132.00					2.00	29.33	220.00	3.23	2.00	29.33	220.00	3.23	6.46
0.543	0.568	HWY. 49 RT. OF MAIN LANES	132.00					2.00	29.33	220.00	3.23	2.00	29.33	220.00	3.23	6.46
1.554	1.579	HWY. 49 LT. OF MAIN LANES	132.00					2.00	29.33	220.00	3.23	2.00	29.33	220.00	3.23	6.46
1.554	1.579	HWY. 49 RT. OF MAIN LANES	132.00					2.00	29.33	220.00	3.23	2.00	29.33	220.00	3.23	6.46
TOTALS:					**4968.37**	**496.84**	**496.84**		**117.32**		**12.92**		**5085.69**		**559.44**	**572.36**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.0% MIN. AGGR.....6.0% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
ADDITIONAL TACK COAT FOR MAINTENANCE OF TRAFFIC IS ACCOUNTED FOR WITH THE CONCRETE BASE

VARIABLE MESSAGE SIGN SYSTEM

	LOCATION	FURNISH AND INSTALL VARIABLE MESSAGE SIGN	*VMSS OPERATION	VMSS MOBILIZATION	*DEVICE RELOCATION
		EACH	MONTHS	LUMP SUM	EACH
	NORTHBOUND HWY. 49 SOUTH OF HWY. 49 INTERSECTION	1			
	SOUTHBOUND HWY. 49B NORTH OF HWY. 49 INTERSECTION	1			
	NORTHBOUND HWY. 1 SOUTH OF HWY. 49 INTERSECTION	1			
	WESTBOUND HWY. 49 EAST OF HWY. 1 INTERSECTION	1			
*	ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER		36	1.00	4
	TOTALS:	**4**	**36**	**1.00**	**4**

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY EROSION CONTROL TEMPORARY SEEDING	MULCH COVER	WATER	WATTLE (20") DITCH CHECKS (E-1)	FILTER SOCK ALONG SLOPE (E-3)	ROCK DITCH CHECKS (E-6)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN. FT.	LIN. FT.	CU.YD.	CU. YD.
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			0.50	1.00	0.50	51.0	0.50	0.50	0.50	10.2	54	1584	18	12
TOTALS:			**0.50**	**1.00**	**0.50**	**51.0**	**0.50**	**0.50**	**0.50**	**10.2**	**54**	**1584**	**18**	**12**

BASIS OF ESTIMATE:
LIME.....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
WATTLE DITCH CHECKS.....9 LIN. FT. / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

REMOVAL AND DISPOSAL OF ITEMS

LOG MILE	LOGMILE	LOCATION	CONCRETE PAVEMENT	GUARDRAIL	APPROACH GUTTERS AND SLABS
		C.L. HWY. 49	SQ. YD.	LIN. FT.	EACH
0.565	0.569	HWY. 49 WEST APPROACH			1
1.554	1.558	HWY. 49 EAST APPROACH			1
0.561	0.561	HWY. 49 WEST APPROACH	16		
1.561	1.561	HWY. 49 EAST APPROACH	16		
1.560	1.712	HWY. 49 RT.		801	
1.560	1.712	HWY. 49 LT.		803	
TOTALS:			**32**	**1604**	**2**

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

WRECKER SERVICE

LOCATION / DESCRIPTION	WRECKER SERVICE
	LUMP SUM
ENTIRE JOB	1
TOTALS:	**1**

MOTORIST ASSISTANCE PATROL

LOCATION / DESCRIPTION	MOTORIST ASSISTANCE PATROL
	LUMP SUM
ENTIRE JOB	1
TOTALS:	**1**

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING

LOG MILE	LOCATION	9" U.T.
		SQ. YD.
0.561	HWY. 49 WEST APPROACH	16.00
1.561	HWY. 49 EAST APPROACH	16.00
TOTAL:		**32.00**

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

DELINEATORS

LOG MILE	LOG MILE	LOCATION	BARRIER WALL DELINEATOR
			EACH
0.569	1.554	STAGE 1 LT. BRIDGE RAIL	1,040
0.569	1.554	STAGE 2 RT. BRIDGE RAIL	1,040
TOTAL:			**2,080**

APPROACH GUTTERS AND SLABS

LOG MILE	LOG MILE	LOCATION	APPROACH GUTTER (TYPE SPECIAL)	APPROACH SLABS (TYPE F)	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)
			CU.YD.	CU.YD.	POUND	TON
0.562	0.569	HWY. 49	9.42	47.40	6268	41.29
1.554	1.561	HWY. 49	9.42	47.40	6268	41.29
TOTALS:			**18.84**	**94.80**	**12536**	**82.58**

COLD MILLING ASPHALT PAVEMENT

LOG MILE	LOG MILE	LOCATION	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	FEET	SQ. YD.
0.543	0.561	MAIN LANES	94.00	30.00	313.33
1.562	1.686	MAIN LANES	654.72	52.25	3801.01
1.686	1.706	MAIN LANES	105.60	69.50	815.47
TOTAL:					**4929.81**

NOTE: COORDINATE COLD MILLING STOCKPILE LOCATIONS WITH DISTRICT ENGINEER.
STOCKPILE LOCATIONS SHALL BE NO FARTHER THAN FIVE MILES FROM EACH SITE.

TRENCHING AND SHOULDER PREPARATION

LOG MILE	LOG MILE	LOCATION	AVG. WIDTH	TOTAL LENGTH	TRENCHING AND SHOULDER PREPARATION
			FEET	FEET	STATION
0.543	0.568	HWY. 49 LT. OF MAIN LANES	2.00	132.00	1.32
0.543	0.568	HWY. 49 RT. OF MAIN LANES	2.00	132.00	1.32
1.554	1.579	HWY. 49 RT. OF MAIN LANES	2.00	132.00	1.32
1.554	1.579	HWY. 49 RT. OF MAIN LANES	2.00	132.00	1.32
TOTAL:					**5.28**

CONCRETE BASE

LOG MILE	LOG MILE	LOCATION	LENGTH	TACK COAT 0.05 GAL. PER SQ. YD. AVG. WID.	SQ. YD.	GAL.	PORTLAND CEMENT CONCRETE BASE AVG. WID.	10" U.T.
			FEET	FEET			FEET	SQ. YD.
0.543	0.568	HWY. 49 LT. OF MAIN LANES	132.00	2.00	29.33	1.47	2.00	29.33
0.543	0.568	HWY. 49 RT. OF MAIN LANES	132.00	2.00	29.33	1.47	2.00	29.33
1.554	1.579	HWY. 49 LT. OF MAIN LANES	132.00	2.00	29.33	1.47	2.00	29.33
1.554	1.579	HWY. 49 RT. OF MAIN LANES	132.00	2.00	29.33	1.47	2.00	29.33
TOTALS:					**117.32**	**5.88**		**117.32**

BASIS OF ESTIMATE:
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

GUARDRAIL

LOG MILE	LOG MILE	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
		C.L. HWY. 49	LIN. FT.	EACH	
1.554	1.704	RT. OF C.L.	725.00	1	1
1.554	1.704	LT. OF C.L.	725.00	1	1
TOTALS:			**1450**	**2**	**2**

STONE BACKFILL

LOG MILE	LOCATION / DESCRIPTION	STONE BACKFILL	GEOTEXTILE FABRIC (TYPE 9)
		TON	SQ. YD.
0.543	HWY. 49 WEST ABUTMENT BACKWALL REPAIR	50	33
TOTALS:		**50**	**33**

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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	24	107
		02899 - QUANTITIES - 69536				

SCHEDULE OF BRIDGE QUANTITIES - JOB 110812

BRIDGE NUMBER	UNIT OF STRUCTURE	ITEM NUMBER	SP, SS, & 802	SP, SS, & 802	SP & 803	SP, SS, & 804	SP, SS, & 804	SP, SS, & 807	SP, SS, & 807	SP, SS, & 807	SP, SS, & 807	SS & 808	SP & 820	SP & 820	821	SP JOB 110812	SP JOB 110812	SP JOB 110812
		ITEM	CLASS S CONCRETE - BRIDGE	CLASS S(AE) CONCRETE - BRIDGE	CLASS 2 PROTECTIVE SURFACE TREATMENT	LCCR REINFORCING STEEL-BRIDGE (GRADE 100)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)	STRUCTURAL STEEL IN TRUSS SPANS (A709, GR 36)	STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 50W)	ELASTOMERIC BEARINGS	CLEANING AND PAINTING EXISTING STRUCTURAL STEEL (TYPE II)	DISPOSAL OF HAZARDOUS WASTE (SITE NO. 1)	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	BRIDGE JACKING (SITE NO. 1)	CRACK ARREST HOLE
		UNIT	CU. YD.	CU. YD.	SQ. YDS.	POUND	POUND	POUND	POUND	POUND	POUND	CU. IN.	TON	LUMP SUM	LUMP SUM	SQ. FT.	LUMP SUM	EA.
02899	WEST ABUTMENT		11.80		5.9		1,938	1,373									0.5	
	EAST ABUTMENT							1,389									0.5	
	WEST APPROACH SPANS			2.50	2.5		1,698 ①	19,227	2,480			2,448.0	521.7	0.3		1,680.7 ①		
	MAIN TRUSS SPANS				2,301.4	413,880	110,486			267,350	3,870		5,587.6	0.5				1
	EAST APPROACH SPANS						1,057 ①	11,633	1,240			3,274.0	374.7	0.2		1,243.2 ①		
TOTALS FOR JOB NO. 110812			11.80	2.50	2,309.8	413,880	115,180	33,630	3,720	267,350	3,870	5,722.0	6,484.0	1.0	1.0 ②	2,923.9 ①	1.0	1

BRIDGE NUMBER	UNIT OF STRUCTURE	ITEM NUMBER	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812	SP JOB 110812
		ITEM	LIGHTWEIGHT AGGREGATE CONCRETE (AE)	POLYMER OVERLAY	PREFORMED SILICONE JOINT	REPAIR TYPE A: FLOOR BEAM TOP FLANGE	REPAIR TYPE B: FLOOR BEAM BOTTOM FLANGE	REPAIR TYPE C: FLOOR BEAM WEB	REPAIR TYPE D: FLOOR BEAM STIFFENER	REPAIR TYPE E: STRINGER PIN AND HANGER	REPAIR TYPE F: RIVET REPLACEMENTS	REPAIR TYPE G: STRINGER CONNECTION ANGLE REPLACEMENT	REPAIR TYPE H: CROSS BEAM REPLACEMENT	SHORING (SITE NO. 1)	SHORING TYPE 1: MAIN TRUSS SPANS FLOOR BEAM	SHORING TYPE 2: MAIN TRUSS SPANS WIND LOCK	SHORING TYPE 3: MAIN TRUSS SPANS STRINGER	SHORING TYPE 4: APPROACH SPANS FLOOR BEAM
		UNIT	CU. YD.	SQ. YD.	LIN. FT.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM
02899	WEST ABUTMENT													1.0				
	EAST ABUTMENT																	
	WEST APPROACH SPANS			3,734.9														0.3
	MAIN TRUSS SPANS		2,552.20	9,669.4	596	1	11	10	48	9	550	2	51		1.0	1.0	1.0	
	EAST APPROACH SPANS			2,762.7														0.7
TOTALS FOR JOB NO. 110812			2,552.20	16,167.0	596	1	11	10	48	9	550 ①③	2	51	1.0	1.0	1.0	1.0	1.0

BRIDGE NUMBER	UNIT OF STRUCTURE	ITEM NUMBER	SP JOB 110812	SP JOB 110812
		ITEM	SHORING TYPE 5: APPROACH SPANS WIND LOCK	TEMPORARY FALSEWORK (SITE NO. 1)
		UNIT	LUMP SUM	LUMP SUM
02899	WEST ABUTMENT			0.5
	EAST ABUTMENT			0.5
	WEST APPROACH SPANS		1.0	
	MAIN TRUSS SPANS			
	EAST APPROACH SPANS			
TOTALS FOR JOB NO. 110812			1.0	1.0

① Quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in field.

② "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)" includes verification of the geometry of the existing bridge and its relationship to the proposed work, as well as, demolition work for the entire project, including but not limited to, existing concrete removal, saw cutting, cleaning existing reinforcing steel to remain, removal of existing portions of structural steel, rivet removal, and reaming as required. Repair Types A-H as described in SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS" are not included in this pay item.

③ If and Where Directed by the Engineer, as described in Section 104.03 of the Standard Specifications for Highway Construction (2014 Edition).

TABLE OF QUANTITIES FOR ONE TYPE F APPROACH SLAB

FOR INFORMATION ONLY

Reinforcing Steel	Concrete
(Lbs.)	(Cu. Yds.)
5,782	47.40

TABLE OF QUANTITIES FOR ONE TYPE SPECIAL APPROACH GUTTER

FOR INFORMATION ONLY

Reinforcing Steel	Concrete
(Lbs.)	(Cu. Yds.)
243	4.71

TABLE OF QUANTITIES FOR ONE STRUCTURAL STEEL REPAIR

FOR INFORMATION ONLY

	Structural Steel
	(Lbs.)
Repair A	80
Repair B	2,880
Repair C	500
Repair D	170
Repair E	220
Repair F	1
Repair G	100
Repair H	1,860

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14501 STEPHEN F. HARPER

6/24/2026

BRIDGE ENGINEER
PRINT DATE: 6/24/2026

SCHEDULE OF BRIDGE QUANTITIES
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 06/2025 FILENAME: B110812_QX1.DGN
CHECKED BY: SFH DATE: 05/2026 SCALE: NO SCALE
DESIGNED BY: -- DATE: --

BRIDGE NO. 02899 DRAWING NO. 69536

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	25	107
		SUMMARY OF QUANTITIES AND REVISIONS				

SUMMARY OF QUANTITIES (BOX 1 OF 2)

ITEM NUMBER	ITEM	QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT	32	SQ. YD.
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	2	EACH
202	REMOVAL AND DISPOSAL OF GUARDRAIL	1604	LIN. FT.
202	REMOVAL AND DISPOSAL OF EXISTING CONDUIT AND CABLING	1.00	LUMP SUM
202	REMOVAL AND DISPOSAL OF EXISTING ITS EQUIPMENT	1.00	LUMP SUM
202	REMOVAL AND DISPOSAL OF EXISTING NAVIGATION LIGHTING SYSTEM	1.00	LUMP SUM
202	REMOVAL AND DISPOSAL OF EXISTING OBSTRUCTION LIGHTING SYSTEM	1.00	LUMP SUM
SP & 207	STONE BACKFILL	50	TON
SP & 215	TRENCHING AND SHOULDER PREPARATION	5	STATION
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)	83	TON
SP, SS, & 309	PORTLAND CEMENT CONCRETE BASE (10" UNIFORM THICKNESS)	117	SQ. YD.
SS & 401	TACK COAT	513	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	538	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	34	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	4930	SQ. YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	5	TON
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	25	TON
SP, SS, & 504	APPROACH SLABS	94.80	CU. YD.
SP, SS, & 504	APPROACH GUTTERS	18.84	CU. YD.
SP, SS, & 507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (9" UNIFORM THICKNESS)	32.00	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SP & 603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
SS & 604	SIGNS	612	SQ. FT.
SP, SS, & 604	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE	4	EACH
SS & 604	BARRICADES	80	LIN. FT.
SS & 604	TRAFFIC DRUMS	31	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	5266	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER	8466	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	25297	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	8822	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	800	LIN. FT.
SS & 604	VERTICAL PANELS	158	EACH
SP	MOTORIST ASSISTANCE PATROL	1.00	LUMP SUM
SP	WRECKER SERVICE	1.00	LUMP SUM
SP	PORTABLE CAMERA TRAILER	2	EACH
SP	DEVICE RELOCATION	4	EACH
SP	FURNISH AND INSTALL VARIABLE MESSAGE SIGN	1	EACH
SP	VMSS MOBILIZATION	1.00	LUMP SUM
SP	VMSS OPERATION	36	MNTH
SP, SS, & 604	WARNING SIGN ASSEMBLY WITH FLASHING BEACONS	6	EACH
SP, SS, & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER (TYPE SPECIAL)	240	LIN. FT.
SP, SS, & 604	RELOCATING PRECAST CONCRETE BARRIER (TYPE SPECIAL)	240	LIN. FT.
SS & 617	GUARDRAIL (TYPE A)	1450	LIN. FT.
SS & 617	GUARDRAIL TERMINAL (TYPE 2)	2	EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL	2	EACH
620	LIME	1	TON
620	SEEDING	0.50	ACRE
SS & 620	MULCH COVER	1.00	ACRE
620	WATER	61.2	M. GAL.
621	TEMPORARY SEEDING	0.50	ACRE
621	SEDIMENT REMOVAL AND DISPOSAL	12	CU. YD.
621	ROCK DITCH CHECKS	18	CU. YD.
SS & 621	FILTER SOCK (12")	1584	LIN. FT.
621	WATTLE (20")	54	LIN. FT.
623	SECOND SEEDING APPLICATION	0.50	ACRE
625	GEOTEXTILE FABRIC (TYPE 9)	33	SQ. YD.
SP	EQUIPMENT CABINET, TYPE B	3	EACH
SP	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	156	WEEK
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	7	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	1340	LIN. FT.
SP	CELLULAR MODEM	7	EACH
SP	TRAFFIC TIMER UNIT - COUNTDOWN	156	WEEK
SP	ROAD WEATHER INFORMATION SYSTEM	2	EACH
SP	PTZ CAMERA SYSTEM	16	EACH
SP	ELECTRICAL CONDUCTORS IN CONDUIT (3C/8, A.W.G., E.G.C.)	8260	LIN. FT.
SP & 709	GALVANIZED STEEL CONDUIT (2")	8260	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	13015	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	12282	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	2	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	4	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	98	EACH
SP	BRIDGE POST MOUNTED SIGN SUPPORT	2	EACH
SS & 725	GUIDE SIGN-ROADSIDE MOUNTED (DIRECT APPLIED LEGEND)	215	SQ. FT.
SP	BARRIER WALL DELINEATOR	2080	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	8	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	16	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)	64	EACH
SP, SS, & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	12536	POUND
SP	NAVIGATION LIGHTING SYSTEM	1.00	LUMP SUM
SP	OBSTRUCTION LIGHTING SYSTEM	1.00	LUMP SUM
SP	RADIO INTERCONNECT, BROADBAND, SHORT RANGE	13	EACH
SP	TERMINAL SERVER	1	EACH
SP	VIDEO MANAGEMENT SYSTEM INTEGRATION	1.00	LUMP SUM
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (24" X 24" X 8")	22	EACH
	STRUCTURES OVER 20' SPAN		
SP	TEMPORARY FALSEWORK (SITE NO. 1)	1.00	LUMP SUM
SP	BRIDGE JACKING (SITE NO. 1)	1.00	LUMP SUM
SP, SS, & 802	CLASS S CONCRETE-BRIDGE	11.8	CU. YD.
SP, SS, & 802	CLASS S(AE) CONCRETE-BRIDGE	2.5	CU. YD.
SP	LIGHTWEIGHT AGGREGATE CONCRETE (AE)	2552.2	CU. YD.
SP & 803	CLASS 2 PROTECTIVE SURFACE TREATMENT	2309.8	SQ. YD.
SP, SS, & 804	LCCR REINFORCING STEEL-BRIDGE (GRADE 100)	413880	POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)	115180	POUND

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
06-25-2026

SUMMARY OF QUANTITIES (BOX 2 OF 2)

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP, SS, & 807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)	33630	POUND
SP, SS, & 807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)	3720	POUND
SP, SS, & 807	STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)	267350	POUND
SP, SS, & 807	STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 50W)	3870	POUND
SP	REPAIR TYPE A: FLOOR BEAM TOP FLANGE	1	EACH
SP	REPAIR TYPE B: FLOOR BEAM BOTTOM FLANGE	11	EACH
SP	REPAIR TYPE C: FLOOR BEAM WEB	10	EACH
SP	REPAIR TYPE D: FLOOR BEAM STIFFENER	48	EACH
SP	REPAIR TYPE E: STRINGER PIN AND HANGER	9	EACH
SP	REPAIR TYPE F: RIVET REPLACEMENTS	550	EACH
SP	REPAIR TYPE G: STRINGER CONNECTION ANGLE REPLACEMENT	2	EACH
SP	REPAIR TYPE H: CROSS BEAM REPLACEMENT	51	EACH
SP	CRACK ARREST HOLE	1	EACH
SS & 808	ELASTOMERIC BEARINGS	5722	CU. IN.
SP	PREFORMED SILICONE JOINT	596	LIN. FT.
SP & 820	CLEANING AND PAINTING EXISTING STRUCTURAL STEEL (TYPE II)	6484	TON
SP & 820	DISPOSAL OF HAZARDOUS WASTE (SITE NO. 1)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)	1.00	LUMP SUM
SP	SHORING (SITE NO. 1)	1.00	LUMP SUM
SP	SHORING TYPE 1: MAIN TRUSS SPANS FLOOR BEAM	1.00	LUMP SUM
SP	SHORING TYPE 2: MAIN TRUSS SPANS WIND LOCK	1.00	LUMP SUM
SP	SHORING TYPE 3: MAIN TRUSS SPANS STRINGER	1.00	LUMP SUM
SP	SHORING TYPE 4: APPROACH SPANS FLOOR BEAM	1.00	LUMP SUM
SP	SHORING TYPE 5: APPROACH SPANS WIND LOCK	1.00	LUMP SUM
SP	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	2923.9	SQ. FT.
SP	POLYMER OVERLAY	16167.0	SQ. YD.

REVISIONS

DATE	REVISION	SHEET NUMBER

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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	26	107
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
06-24-2026

SIGNING SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SS & 725	GUIDE SIGN-ROADSIDE MOUNTED (DIRECT APPLIED LEGEND)	215	SQ. FT.
SP	BRIDGE POST MOUNTED SIGN SUPPORT	2	EACH
SP, SS, & 604	WARNING SIGN ASSEMBLY WITH FLASHING BEACONS	6	EACH

NOTES:

ALL EXISTING GUIDE SIGNS SHALL BE MAINTAINED IN SUCH A MANNER THAT THE SIGNS ARE FULLY VISIBLE, INTACT, AND ERECT FOR THE DURATION OF THE PROJECT, AND SHALL BE REMOVED WHEN THEIR USE IS NO LONGER REQUIRED. REMOVAL AND DISPOSAL OF SIGNS, SUPPORTS, AND FOUNDATIONS SHALL NOT BE PAID FOR SEPERATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

THE EXISTING SIGNS AND SUPPORTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE EXISTING FOOTINGS SHALL BE REMOVED AND THE HOLES FILLED WITH A SUITABLE MATERIAL AND COMPACTED.

EXISTING LOGOS WILL BE RELOCATED TO THE NEW LOGO SIGN BY THE CONTRACTOR. THE LOGO INSTALLATION SHALL NOT BE PAID FOR SEPARATLY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

THE CONTRACTOR SHOULD MAKE EVERY EFFORT TO LOCATE BURIED UTILITIES PRIOR TO EXCAVATION INCLUDING, BUT NOT LIMITED TO, CALLING ARKANSAS ONE CALL CENTER (800) 482-8998 FOR LOCATES. SHOULD IT BE DETERMINED A POSSIBILITY OF A UTILITY CONFLICT, CONTRACTOR SHALL CONSULT WITH RESIDENT ENGINEER FOR FURTHER GUIDANCE.

BREAKAWAY SIGN SUPPORT TOTAL IS CALCULATED BY TAKING THE LENGTH OF H1, H2, H3, AND THE STUB POST AND MULTIPLYING BY THE BEAM WEIGHT (LBS).

ChrisLanders 6/24/2026 10:42 PM
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	27	107
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026

MAIN LANES ROADSIDE MOUNTED SIGNING

SIGN NO. / LOCATION	GUIDE SIGN DIRECT APPLIED LEGEND			BRIDGE POST MOUNTED SIGN SUPPORT
	LENGTH	HEIGHT	SQ. FT.	
	LIN. FT.			EACH
ML 49-SL-AR-WB	3.50	1.50	5.25	1
ML 49-SL-MS-EB	4.00	1.50	6.00	1
TOTALS:			215.25	2

WARNING SIGN ASSEMBLY WITH FLASHING BEACONS

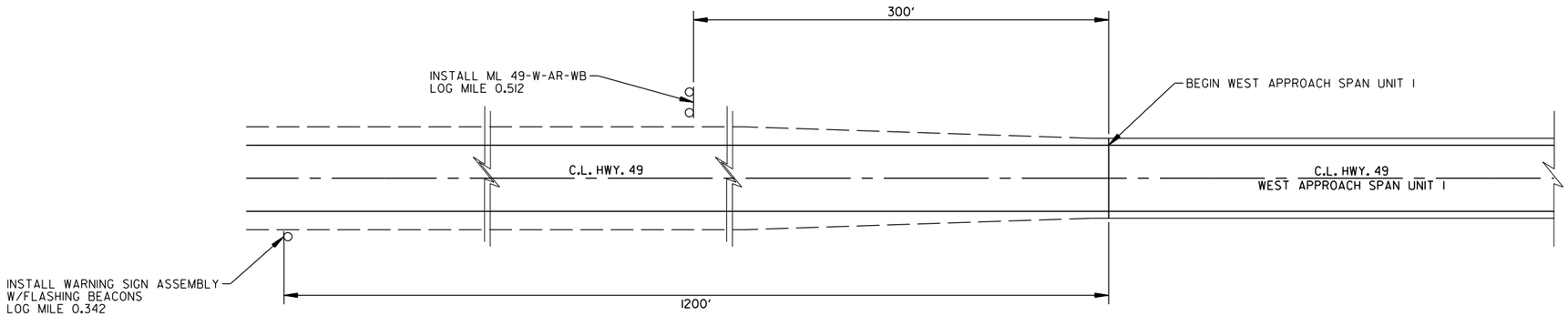
LOCATION	DESCRIPTION	BREAKAWAY SIGN SUPPORT												WARNING SIGN ASSEMBLY WITH FLASHING BEACONS
		TYPE	STEEL SECT. A-572		SIGN POST LENGTH		STUB POST		FOOTINGS			SIGN POST AND STUB	
		G2-2			H - 1	H - 2	H - 1	H - 2	DIA.	DEPTH	EMBED.		
		EACH	BEAM	LBS.	LIN. FT.		LIN. FT.		LIN. FT.			LBS.	EACH
L.M. 0.342 RT.	EB HWY. 49, SECTION 11	1	W6	15.00	12.93	13.46	3.00	3.00	1.50	4.00	2.67	486	1
L.M. 1.781 LT.	EB HWY. 49, SECTION 11	1	W6	15.00	12.93	13.46	3.00	3.00	1.50	4.00	2.67	486	1
L.M. 6.710 RT.	SB HWY. 49, SECTION 10B	1	W6	15.00	12.93	13.46	3.00	3.00	1.50	4.00	2.67	486	1
L.M. 28.565 RT.	NB HWY. 49, SECTION 10	1	W6	15.00	12.93	13.46	3.00	3.00	1.50	4.00	2.67	486	1
HWY. 49 AND HWY. 1	HWY. 1, 1000' BEFORE INTERSECTION - RT.	1	W6	15.00	12.93	13.46	3.00	3.00	1.50	4.00	2.67	486	1
HWY. 49 AND HWY. 1	HWY. 49, 1000' BEFORE INTERSECTION - RT.	1	W6	15.00	12.93	13.46	3.00	3.00	1.50	4.00	2.67	486	1
TOTAL:													6

NOTE: EACH WARNING SIGN ASSEMBLY WITH FLASHING BEACONS SHALL INCLUDE 1 ML 49-WSP (36"X36") SIGN, 1 W16-13P (24"X18") SIGN, 2 ONE-SECTION LED TRAFFIC SIGNAL HEADS, COMMUNICATION EQUIPMENT, CONTROLLER, SOLAR PANEL WITH BATTERY, G2-2 BREAKAWAY SIGN SUPPORT, CONDUCTORS, CONDUIT, AND ALL HARDWARE FOR ASSEMBLY. BREAKAWAY SIGN SUPPORT STRUCTURE SHOWN FOR INFORMATION ONLY AND IS CONSIDERED INCLUDED IN THE UNIT PRICE FOR WARNING SIGN ASSEMBLY WITH FLASHING BEACONS.

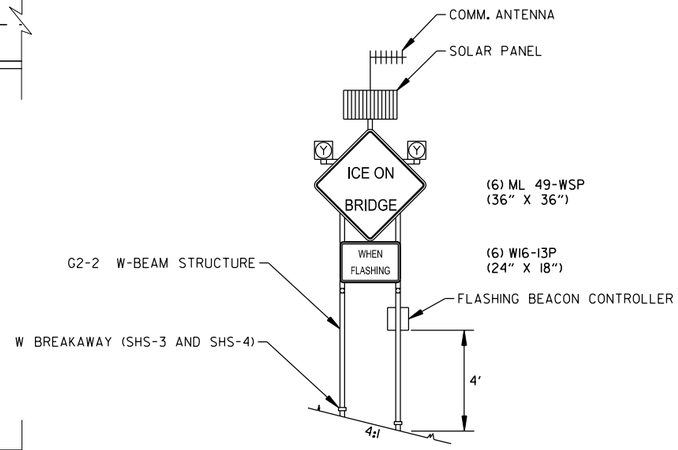
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	28	107
		PERMANENT SIGNING PLANS				

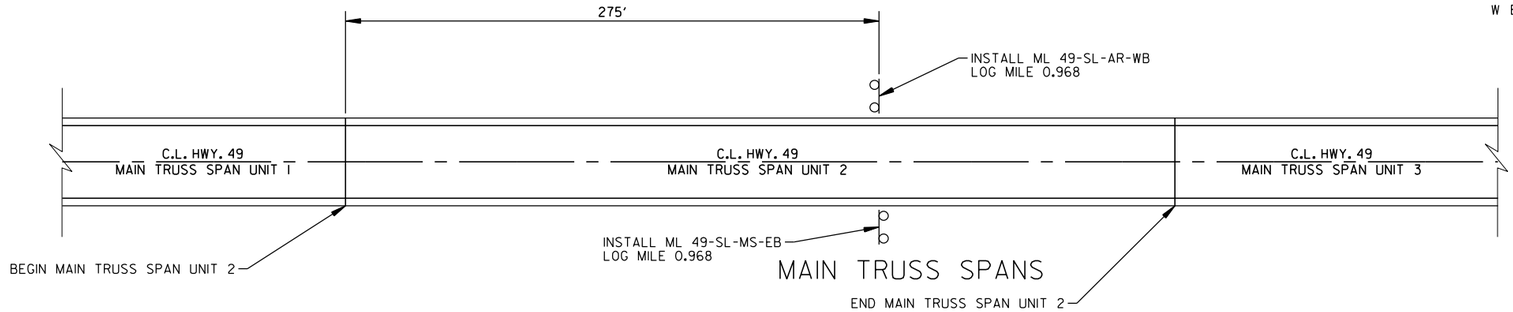
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026



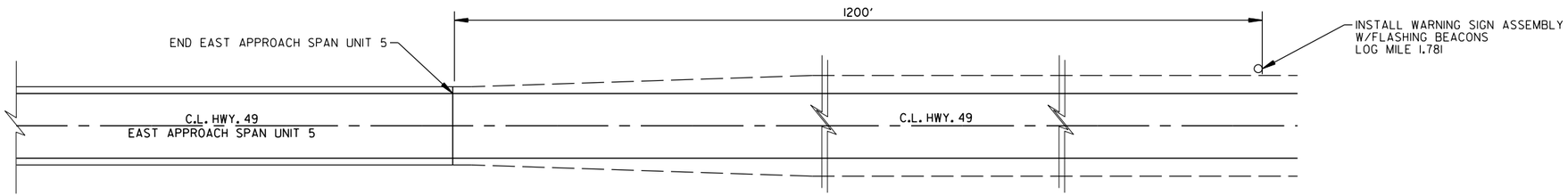
WEST END
(ARKANSAS END)



WARNING SIGN ASSEMBLY
WITH FLASHING BEACONS



MAIN TRUSS SPANS

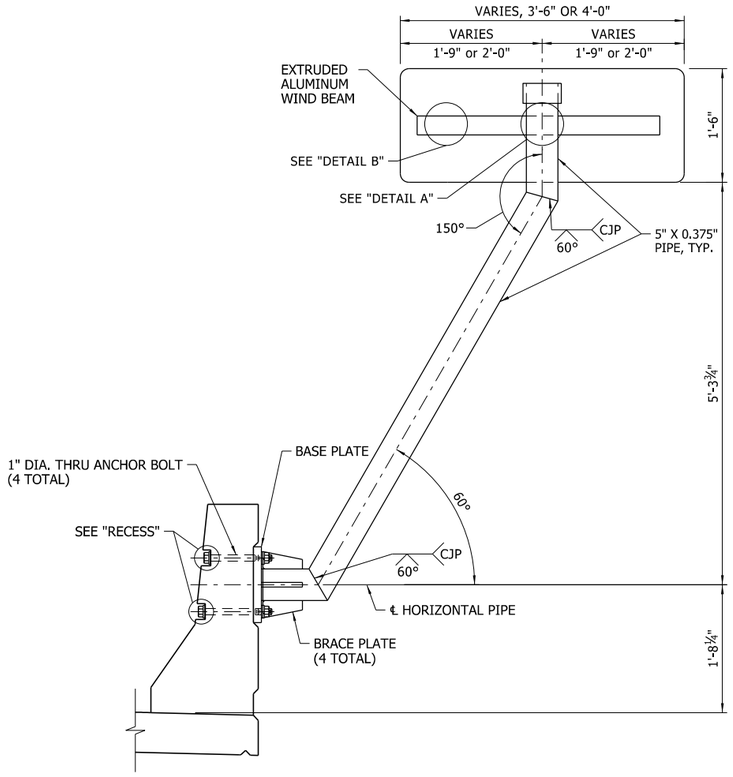


EAST END
(MISSISSIPPI END)

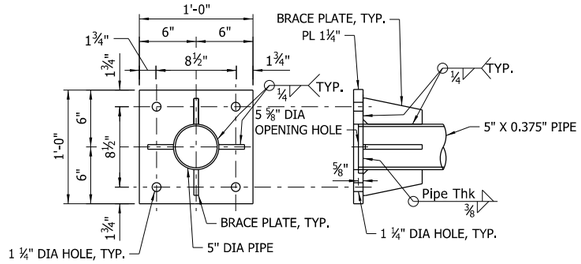
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	29	107
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026



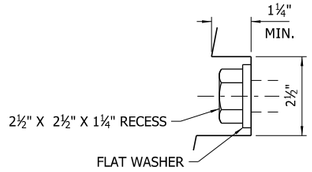
BRIDGE POST MOUNTED SIGN SUPPORT
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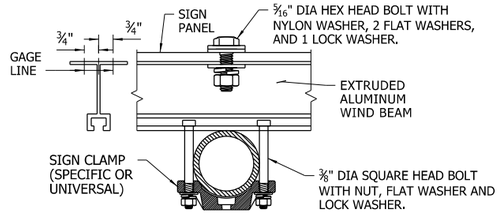
BASE PLATE DETAILS
NO SCALE

NOTES:
STATE LINE SIGN PLACEMENT SHALL BE AT LOG MILE 0.968 ALONG THE BRIDGE. THE ARKANSAS SIGN WILL BE ATTACHED ON THE NORTH RAIL FACING EAST AND THE MISSISSIPPI SIGN WILL BE ON THE SOUTH RAIL FACING WEST.

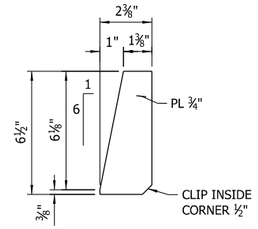
MATERIAL FOR PIPE SHALL BE ASTM A53 GRADE B PIPE OR A501. STRUCTURAL STEEL PLATES SHALL BE ASTM A36, A572, OR A588. BOLTS USED TO CONNECT PIPE AND MOUNTING BRACKET, AND WIND BEAM TO SIGN PANEL SHALL BE ASTM A307. ANCHOR BOLTS SHALL BE ASTM A325 OR A193 B7. EACH ANCHOR BOLT SHALL BE PROVIDED WITH 2 FLAT WASHERS, 1 LOCK WASHER, AND 1 HEAVY HEX NUT. ALL STRUCTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION ACCORDING TO AASHTO M 111. ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVONIZED ACCORDING TO AASHTO M 323 OR M 298, CLASS 40 OR 50.



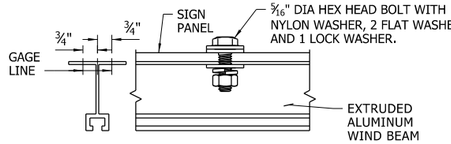
RECESS
No Scale



DETAIL A
NO SCALE

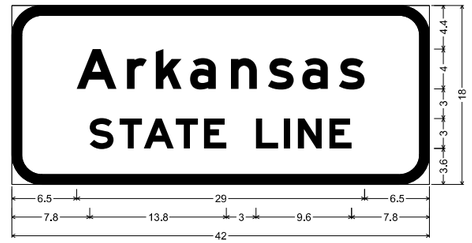


BRACE PLATE DETAILS
NO SCALE



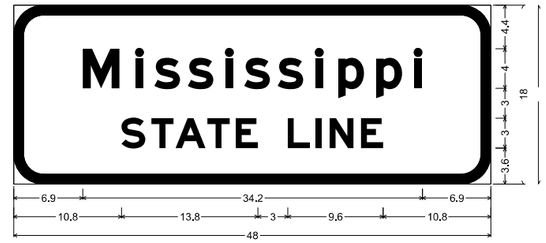
DETAIL B
NO SCALE

ML 49-SL-AR-WB



3.0" Radius, 1.0" Border, White on Green;
"Arkansas", E Mod;
"STATE LINE", E Mod;

ML 49-SL-MS-EB



3.0" Radius, 1.0" Border, White on Green;
"Mississippi", E Mod;
"STATE LINE", E Mod;

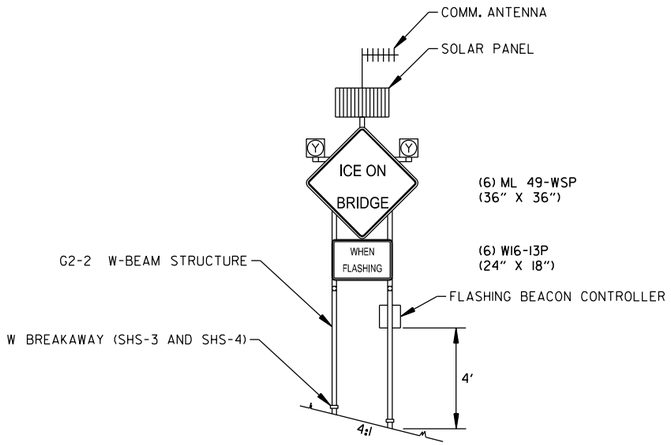
ML 49-WSP



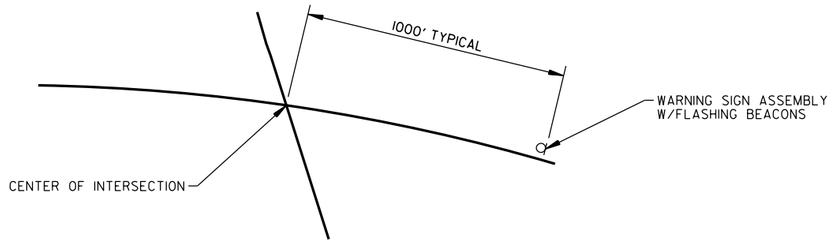
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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	30	107
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.12370
TONY N. CRAFTON
6-17-2026



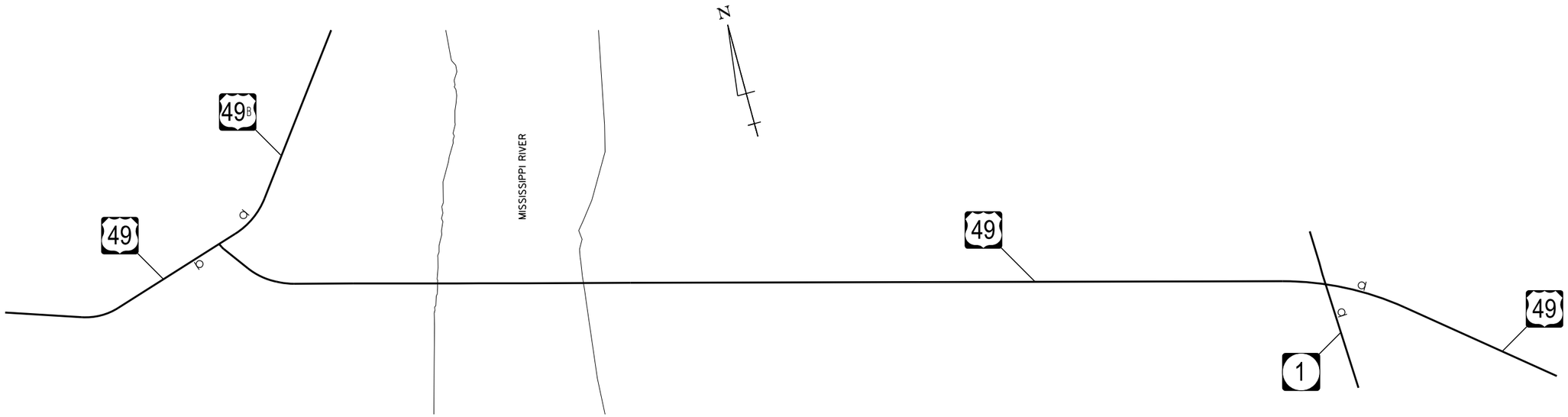
WARNING SIGN ASSEMBLY
WITH FLASHING BEACONS



TYPICAL WARNING SIGN ASSEMBLY PLACEMENT

LEGEND

a WARNING SIGN ASSEMBLY W/FLASHING BEACONS



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REVISED DATE: $$REVDATE$$

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	31	107
		QUANTITIES				

SUMMARY OF QUANTITIES - ELECTRICAL		
PAY ITEM	**UNIT**	**QUANTITY**
NAVIGATIONAL LIGHTING SYSTEM	LS	1.00
OBSTRUCTION LIGHTING SYSTEM	LS	1.00
REMOVAL AND DISPOSAL OF EXISTING NAVIGATION LIGHTING SYSTEM	LS	1.00
REMOVAL AND DISPOSAL OF EXISTING OBSTRUCTION LIGHTING SYSTEM	LS	1.00
REMOVAL AND DISPOSAL OF EXISTING CONDUIT AND CABLING	LS	1.00
REMOVAL AND DISPOSAL OF EXISTING ITS EQUIPMENT	LS	1.00

FOR INFORMATION ONLY: SUMMARY OF QUANTITIES - INCLUDED IN NAVIGATIONAL LIGHTING SYSTEM AND OBSTRUCTION LIGHTING SYSTEM PAY ITEMS		
PAY ITEM	**UNIT**	**QUANTITY**
ELECTRIC CABLE, AERIAL SUPPORTED CONDUIT, XHHW, AWG #12, 3 CONDUCTOR	LF	1200
ELECTRIC CABLE, AERIAL SUPPORTED CONDUIT, XHHW, AWG #6, 3 CONDUCTOR	LF	4750
ELECTRIC CABLE, UNDERGROUND IN CONDUIT, XHHW, AWG #6, 3 CONDUCTOR	LF	100
LUMINAIRE FIXTURE, TYPE A	EA	4
LUMINAIRE FIXTURE, TYPE B	EA	4
LUMINAIRE FIXTURE, TYPE C	EA	10
LUMINAIRE FIXTURE, TYPE D	EA	6
LUMINAIRE FIXTURE, TYPE E	EA	2
LUMINAIRE FIXTURE, TYPE F	EA	20
NEMA 3R PANELBOARD W/ (1) 30A MAIN AND (4) 15A BRANCH BREAKERS	EA	8
PULLBOX, TYPE 2	EA	23
TRANSFORMER, 1.5KVA 600V TO 120/240V, NEMA 3R	EA	8
TRANSFORMER, 5KVA 120/240V TO 600V, NEMA 3R	EA	1

SUMMARY OF QUANTITIES - ITS EQUIPMENT		
PAY ITEM	**UNIT**	**QUANTITY**
RADIO INTERCONNECT, BROADBAND, SHORT RANGE	EA	13
PTZ CAMERA SYSTEM	EA	16
ETHERNET SWITCH, T100 HARDENED (8-PORT)	EA	7
EQUIPMENT CABINET, TYPE B	EA	3
TERMINAL SERVER	EA	1
ROAD WEATHER INFORMATION SYSTEM	EA	2
CELLULAR MODEM	EA	7
E-NET CABLE (EXTERIOR CAT 5E)	LF	1340
ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/8, AWG, EGC)	LF	8260
GALVANIZED STEEL CONDUIT (2")	LF	8260
ITS ELECTRICAL JUNCTION BOX, METALLIC (24" X 24" X 8")	EA	22
VIDEO MANAGEMENT SYSTEM INTEGRATION	LS	1

BROADBAND RADIO INTERCONNECT KIT PRECISION EQUIPMENT HPIRU02 OR COMPATIBLE INCLUDES:
INTEGRATED RADIO, ANTENNA, AND MOUNT
DIN MOUNT GIGABIT POWER INJECTOR
DIN MOUNT GAGABIT SURGE ARRESTOR
OUTDOOR MOUNT GIGABIT SURGE ARRESTOR
POLE MOUNT GIGABIT POE OUTDOOR SURGE ARRESTOR
UP TO 250 FEET OF CABLING
RJ45 MOD PLUGS FOR CABLING
GROUNDING STRAPS AND KITS
CABINET DIN RAIL AND SPRING NUTS
ALL STAINLESS STEEL HARDWARE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/24/2026

SUMMARY OF ILLUMINATION & ITS QUANTITIES
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JR DATE: 11/2025 FILENAME: B110812_E1.DGN
CHECKED BY: DM DATE: 11/2025 SCALE: NOT TO SCALE
DESIGNED BY: DB DATE: 11/2025

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	32	107
		INDEX, ABBREVATIONS, SYMBOLS				

ELECTRICAL SCOPE OF WORK

SCOPE OF WORK INCLUDES THE COMPLETE REPLACEMENT OF THE NAVIGATIONAL AND OBSTRUCTION LIGHTING SYSTEM. WORK INCLUDES BUT NOT LIMITED TO THE COMPLETE DEMOLITION AND REPLACEMENT OF THE EXISTING ARDOT SYSTEMS ON THE BRIDGE, INSTALLATION OF NEW CONDUIT AND ASSOCIATED CABLING, FURNISHING AND INSTALLING NEW OBSTRUCTION LIGHTING AND NAVIGATIONAL LIGHTING SYSTEMS, UPGRADE THE EXISTING ELECTRICAL SERVICE EQUIPMENT, OVER CURRENT PROTECTION AND GROUNDING SYSTEMS. ALL NAVIGATION AND OBSTRUCTION LIGHTING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PROVIDE NECESSARY TEMPORARY POWER AND REMOVE UPON COMPLETION OF THE PROJECT.

UTILITIES

ELECTRICAL SERVICE PROVIDERS	PHONE NUMBER
ENTERGY ARKANSAS, INC.	(800) 368-3749
COAHOMA ELECTRIC POWER ASSOCIATION	(662) 624-8321
COMMUNICATION SERVICE PROVIDERS	
AT&T ARKANSAS	(870) 972-7596

GOVERNING CODES AND AGENCIES

THIS LIST IS PROVIDED FOR INFORMATION ONLY AND SHALL NOT BE CONSIDERED FINAL. GENERAL CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND COMPLY WITH ALL APPLICABLE CODES.

NATIONAL ELECTRICAL CODE (NEC) - NFPA 70, CURRENT EDITION
FEDERAL AVIATION ADMINISTRATION (FAA) - AC 70/7460-1
U.S. COAST GUARD (USCG) - 33 CFR PART 118
ARKANSAS DEPARTMENT OF TRANSPORTATION (ARDOT) - STANDARD SPECIFICATIONS

SYMBOLS LEGEND

- LED LIGHTING FIXTURE, 'A' DENOTES FIXTURE TYPE
- TRANSFORMER
- WEATHERPROOF PANELBOARD
- SP — SURFACE MOUNTED PULL BOX
- SURFACE MOUNTED CONDUIT
- BELOW GRADE CONDUIT
- EXISTING CONSTRUCTION

SINGLE LINE DIAGRAM SYMBOLS

- A — LED LIGHTING FIXTURE, 'A' DENOTES FIXTURE TYPE
- TRANSFORMER
- W — LIGHT FIXTURE, 'W' DENOTES FIXTURE COLOR
  - 'W' = WHITE
  - 'R' = RED
  - 'G' = GREEN
  - 'B' = BLUE
- B — BREAKER
- GROUND

ELECTRICAL INDEX OF DRAWINGS

1. SUMMARY OF ILLUMINATION AND ITS QUANTITIES
2. SHEET INDEX, SYMBOLS, ABBREVIATIONS
3. GENERAL NOTES
4. COMPREHENSIVE PLAN, ELEVATIONS, AND FIXTURE SCHEDULE
5. NAVIGATION LIGHT LAYOUT
6. OBSTRUCTION LIGHT LAYOUT
7. WIRING SCHEMATIC
8. ILLUMINATION DETAILS
9. ITS NOTES, SYMBOLS, ABBRIVIATIONS
10. ITS REPLACEMENT PLAN
11. ITS WIRING DIAGRAM
12. ITS DETAILS

ABBREVIATIONS

ABUT	ABUTMENT
DBC	DIRECT BURIAL CABLE
CL	CENTER LINE
CONT	CONTRACTION
EMBED	EMBEDMENT
GALV	GALVANIZED
GND	GROUND
GRS	GALVANIZED RIGID STEEL
JB	JUNCTION BOX
JT	JOINT
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
LT	LEFT
MAX	MAXIMUM
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NTS	NOT TO SCALE
PEC	PROFESSIONAL ENGINEERING CONSULTANTS
REQD	REQUIRED
RT	RIGHT
RTRC	REINFORCED THERMOSETTING RESIN CONDUIT
TYP	TYPICAL

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

SHEET INDEX, SYMBOLS, ABBREVIATIONS
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	33	107
		GENERAL NOTES				

GENERAL NOTES

1. NOT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THEIR OWN INDEPENDENT INVESTIGATIONS, INCLUDING SUB-SURFACE INVESTIGATIONS AS MAY BE NECESSARY TO LOCATE UTILITIES WITHIN THE PROJECT LIMITS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST TWO WEEKS IN ADVANCE OF WORK WITHIN EACH AREA, SO THAT UTILITIES CAN BE FIELD LOCATED.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING STRUCTURES SUCH AS PIPES, INLETS, APRONS, BRIDGES, ETC. FROM DAMAGE WHICH MIGHT OCCUR DURING CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT WILL BE MADE FOR REPLACEMENT OR REPAIR OF DAMAGED ITEMS.

3. THE CONTRACTOR SHALL MAKE THE APPLICATION FOR POWER SERVICE WITH LOCAL UTILITY, COORDINATING WITH ARDOT IN ADVANCE OF REQUIRING THE ELECTRICAL SERVICES. IF ELECTRICAL SERVICES REQUIRES A SERVICE METER TO BE INSTALLED, THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY OWNER. ANY INSTALLATIONS OF AERIAL POWER CIRCUITS, POWER PANELS OR WOOD POLES TO PROVIDE POWER SERVICE SHALL MEET LOCAL EPA REQUIREMENTS AND BE COST ABSORBED. CONTRACTOR SHALL PAY ALL UTILITY CONNECTION CHARGES AND CHARGES FOR SERVICE UNTIL FINAL PROJECT ACCEPTANCE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY MAKE-READY COST INCURRED TO PROVIDE POWER AND COMMUNICATION SERVICES TO THE EQUIPMENT, NOT A SEPARATE PAY ITEM (COST ABSORBED IN MOBILIZED PAY ITEM). THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING AN INDEPENDENT INVESTIGATION INTO UTILITY MAKE-SAFE COST FOR BIDDING PURPOSES.

5. CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED, NOT A SEPARATE PAY ITEM (COST ABSORBED IN CONDUIT PAY ITEM).

6. UNDERGROUND DRILLED OR JACKED CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF FIVE FEET AND UNDERGROUND TRENCHED CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF THREE FEET UNLESS OTHERWISE DIRECTED BY BY THE ENGINEER.

7. ANY AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR (INCLUDING SITE GRADING) AS DIRECTED BY THE ENGINEER. ALL REMOVAL AND REPLACEMENT OF SIDEWALKS, ASPHALT, CONCRETE, SOD, GRASSING, AND SOIL SHALL BE ABSORBED UNDER THE PAY ITEMS FOR CONDUIT.

8. THE CONTRACTOR IS TO REMOVE AND RESET SIGNS WHICH CONFLICT WITH CONSTRUCTION. THE COST SHALL BE ABSORBED IN THE PAY ITEM FOR MAINTENANCE OF TRAFFIC (NOT A SEPARATE PAY ITEM).

9. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE SHOULDER MATERIALS WHICH MIGHT OCCUR DURING CONSTRUCTION. ANY REPAIR TO SHOULDERS WILL BE PERFORMED IN ACCORDANCE TO ARDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. NO PAYMENT WILL BE MADE FOR THE REPAIR OF DAMAGED SHOULDERS.

10. THE COST OF DISPOSING ALL UNUSED OR REMOVED MATERIALS SHALL BE ABSORBED FOR PAYMENT IN OTHER ITEMS (NOT A SEPARATE PAY ITEM).

11. ALL BASELINES SHOWN ON THE PLANS ARE FOR GRAPHICAL REFERENCE PURPOSES ONLY AND ARE NOT STAKED IN THE FIELD.

12. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER A MINIMUM OF 72 HOURS IN ADVANCE OF REQUIRING LANE CLOSURES AND OTHER FORMS OF SIGNIFICANT TRAFFIC CONTROL MEASURES.

13. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NFPA 70, CURRENT EDITION), LIFE SAFETY CODE (NFPA 101, CURRENT EDITION), UNDERGROUND FACILITIES DAMAGE PREVENTION ACT (14-271-101 ET SEQ.), ARKANSAS AND MISSISSIPPI STATE AND LOCAL ELECTRICAL CODE(S). IN ADDITION, ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

14. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER, TO ENSURE ARKANSAS STATE CODES (14-28-101 ET SEQ, AND 20-31-101 ET SEQ.) ARE MET. THE DOCUMENTATION SHALL INCLUDE:
    (1) ELECTRICIANS LICENSE INFORMATION AND EXPIRATION DATE.
    (2) THE RATIO OF LICENSED-ELECTRICIAN-TO-APPRENTICE-ELECTRICIANS.
    (3) PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (WWW.ARK.ORG/LABOR/ELECTRICIAN/SEARCH.PHP)
    ALL LICENSES SHALL BE VALID AND CURRENT

15. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS ONE CALL CENTER AND MISSISSIPPI ONE CALL UTILITY LOCATING SERVICE (MISSISSIPPI 811) IN ACCORDANCE WITH UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBER OF THE ARKANSAS ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE CALL CENTER.

16. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTORS NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACT SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NOT LONGER NECESSARY.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIRS, REPLACEMENT, OR ANY ASSOCIATED DAMAGES OF EXISTING UTILITIES DAMAGED DURING THE CONSTRUCTION.

18. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF THE UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE NOTED.

19. NONDESTRUCTIVE MEG TEST AND CURRENT LEAKAGE TEST SHALL BE PERFORMED ON NEW CONDUCTORS, IN THE PRESENCE OF FIELD INSPECTOR. THE TEST VOLTAGE SHALL BE LIMITED TO 600 VOLTS. ANY CONDUCTOR NOT MEETING THE MINIMUM ACCEPTABLE VALUE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE USING NEW CONDUCTOR. THE RESULTS SHALL BE DOCUMENTED AND PROVIDED TO THE JOB ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED BY MEG TEST WHILE DEVICES OR ACCESSORIES ARE STILL CONNECTED AND SHALL BE REPLACED AT CONTRACTORS EXPENSE.

20. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT CONTRACTORS EXPENSE.

21. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

22. BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

23. PULL CABLE SHALL BE MINIMUM 1/4" NYLON OR POLYESTER ROPE, OR 1200 LBS PULL TAPE WHEN PULLING CONDUCTORS. STEEL CABLE OR FISH TAPE SHALL NOT BE USED. CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY NEC FOR CONDUCTORS USED.

24. ALL CONCRETE PULL BOXES SHALL BY TYPE-2 HD UNLESS OTHERWISE INDICATED ON THE PLANS.

25. SLACK CABLES IN PULL BOXES SHALL BE 3 FEET.

26. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY A PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC AND/OR HDPE CONDUIT SHALL BE USED.

27. THE CONTRACTOR SHALL LABEL/PHASE ALL CONDUCTORS IN PULL BOXES AND AT SPLICE POINTS. ALSO CIRCUIT NUMBER AND PANELBOARD BEING FED FROM.

28. CONDUCTORS SHALL CONTINUOUSLY RUN DIRECTLY FROM SERVICE POINTS TO ELECTRICAL DEVICES AND/OR PULL BOXES WITHOUT SPLICES BEING MADE IN THE CONDUIT. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTORS EXPENSE.

29. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.

30. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, AND JUNCTION BOXES. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM. EXAMPLES FOR CONDUIT:
    SERVICE POINT TO PULL BOX 1 (SP TO PB-1)
    PULL BOX 1 TO SERVICE POINT (PB-1 TO SP)
    PULL BOX 1 TO PULL BOX 2 (PB-1 TO PB-2)

31. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NONMETALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM. ALL NONMETALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.

32. PRIOR TO ORDERING OF ALL LIGHTING EQUIPMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER (2) PRINTED COPIES OF THE APPLICABLE BROCHURES CONTAINING THE DESIGN CRITERIA FOR THE EQUIPMENT WHICH THE CONTRACTOR PROPOSED TO INSTALL FOR APPROVAL. THE SPECIFIC ITEMS THAT ARE PROPOSED FOR USE SHALL BE CLEARLY MARKED IN THE APPLICABLE BROCHURES. A LIST SHALL BE ATTACHED TO IDENTIFY THE ITEM AND CONTAIN THE MANUFACTURER, QUANTITY, MODEL, AND IDENTIFYING DESCRIPTIONS OF EACH ITEM. ADEQUATE ENGINEERING DATA, ESSENTIAL SHOP DRAWINGS, AND SCHEMATIC DIAGRAMS SHALL BE PROVIDED FOR REVIEW. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED FOR CONSIDERATION AND SHALL BE RETURNED FOR CORRECTION WITHOUT REVIEW.

33. CONSTRUCTION DETAILS NOT SHOWN ON THE DRAWINGS ARE TO CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS:

    SD-6 HEAVY DUTY PULL BOX 02-13-2024

34. MAINTAIN A MINIMUM OF 1.5 FEET OF CLEARANCE FROM ALL UNDERGROUND UTILITIES.

35. SEAL CONDUITS / CONDULETS WITH DUCT SEAL AT ENCLOSURES TO PREVENT RODENT ENTRY.

36. PROVIDE WATERTIGHT, SUBMERSIBLE, NON-FUSIBLE, PREMOLDED DISCONNECTABLE CONNECTOR KITS FOR SPLICES IN JUNCTION BOXES UNLESS NOTED OTHERWISE. DO NOT SPLIT CABLE IN JUNCTION BOXES UNLESS REQUIRED FOR BRANCH CIRCUITS.

37. THE CONTROL CABINET LOCATION IS APPROXIMATE AND ITS EXACT LOCATION NEEDS TO BE COORDINATED WITH OWNER AND THE REPRESENTATIVE. ANY DEVIATION FROM THE FINAL LOCATION SHOWN MUST BE APPROVED BY THE REPRESENTATIVE.

38. ALL SPLICES SHALL BE WATERTIGHT AND UL-LISTED FOR CONTINUOUS USE IN SUBMERSIBLE INSTALLATIONS.

39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING FULL COMPLIANCE WITH THE BUILD AMERICA, BUY AMERICA ACT (PUBLIC LAW NO. 117-58). ALL MATERIALS, PRODUCTS, AND CONSTRUCTION ACTIVITIES MUST CONFORM TO THE DOMESTIC CONTENT REQUIREMENTS OUTLINED IN THE ACT AND ANY APPLICABLE GUIDANCE FROM THE RELEVANT FEDERAL AGENCY. THE CONTRACTOR SHALL PROVIDE VERIFIABLE DOCUMENTATION DEMONSTRATING THAT ALL IRON, STEEL, MANUFACTURED PRODUCTS, AND CONSTRUCTION MATERIALS USED IN THE PROJECT MEET BUILD AMERICA, BUY AMERICA ACT. THE DOCUMENTATION MUST BE SUBMITTED PRIOR TO PRODUCT PURCHASING, INSTALLATION AND/OR INCLUSION IN THE WORK AND MUST BE SUFFICIENT TO SATISFY THE ENGINEER AND ANY RELEVANT FEDERAL OR STATE AGENCY REQUIREMENTS. FAILURE TO PROVIDE ACCEPTABLE PROOF OF COMPLIANCE MAY RESULT IN THE REJECTION OF MATERIALS, WITHHOLDING OF PAYMENT, AND OTHER REMEDIES AS DEEMED NECESSARY.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

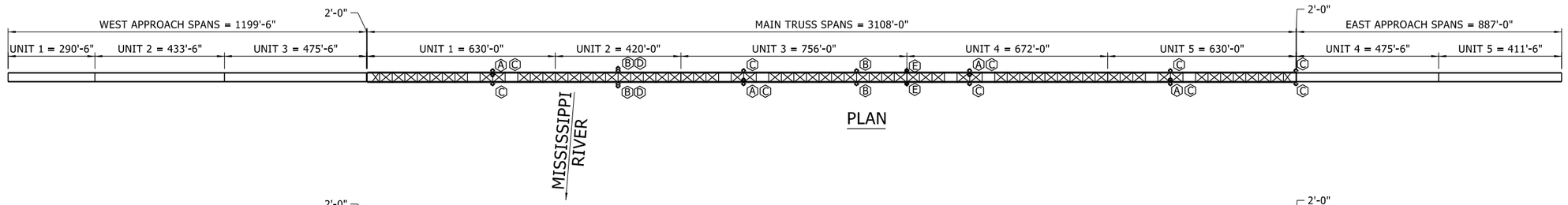
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HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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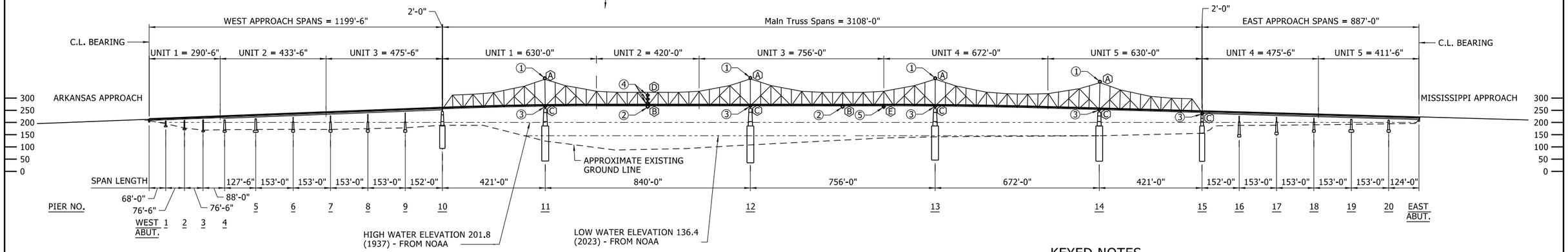
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	34	107
		LAYOUT				



PLAN



ELEVATION

LIGHTING FIXTURE SCHEDULE				
TYPE	DESCRIPTION	LUMENS	VOLTAGE	MOUNTING HEIGHT
A	AERIAL HAZARD / OBSTRUCTION LIGHT	NA	120V	EXISTING
B	CHANNEL CENTER 360°, GREEN	NA	120V	EXISTING
C	180° RED PIER LIGHT	NA	120V	EXISTING
D	MAIN CHANNEL 180°, WHITE, 3 FIXTURES IN VERTICAL LINE	NA	120V	EXISTING
E	CHANNEL MARGIN - 180° RED	NA	120V	EXISTING
F	REMOTE LAMP OUT INDICATOR, BLUE	NA	120V	EXISTING

GENERAL NOTES

1. ALL EXISTING LIGHTS, TRANSFORMERS, PANELS, WIRING, ETC. TO BE REMOVED AND REPLACED WITH NEW AT APPROXIMATELY THE SAME LOCATION.
2. ALL LABOR AND MATERIAL TO CONFORM TO NEC CURRENT EDITION.
3. NEW LIGHTING FIXTURES TO BE INSTALLED AT APPROXIMATELY THE SAME LOCATION AS THE EXISTING WHICH ARE TO BE REMOVED.

KEYED NOTES

① REMOVE AND REPLACE EXISTING AERIAL HAZARD WARNING BEACON / OBSTRUCTION LIGHTS (4 TOTAL) AND ALL ASSOCIATED CONDUIT, WIRING, TRANSFORMERS, RELAYS, DISCONNECTS, FUSES, REMOTE LAMP OUT INDICATORS, AND JUNCTION BOXES WITH NEW. REFER TO LIGHTING FIXTURE SCHEDULE AND GENERAL NOTES FOR ADDITIONAL INFORMATION. PAYMENT FOR ALL REMOVAL ITEMS WILL BE IN THE CONTRACT BID ITEM "REMOVAL AND DISPOSAL OF EXISTING OBSTRUCTION LIGHTING SYSTEM" BY THE LUMP SUM.

② REMOVE AND REPLACE EXISTING CHANNEL MARKER LIGHTS (4 TOTAL) AND ALL ASSOCIATED CONDUIT, WIRING, TRANSFORMERS, RELAYS, DISCONNECTS, FUSES, REMOTE LAMP OUT INDICATORS, AND JUNCTION BOXES WITH NEW. REFER TO LIGHTING FIXTURE SCHEDULE AND GENERAL NOTES FOR ADDITIONAL INFORMATION. PAYMENT FOR ALL REMOVAL ITEMS WILL BE IN THE CONTRACT BID ITEM "REMOVAL AND DISPOSAL OF EXISTING CHANNEL MARKER LIGHT SYSTEM" BY THE LUMP SUM.

③ REMOVE AND REPLACE EXISTING PIER LIGHTS (10 TOTAL) AND ALL ASSOCIATED CONDUIT, WIRING, TRANSFORMERS, RELAYS, DISCONNECTS, FUSES, REMOTE LAMP OUT INDICATORS, AND JUNCTION BOXES WITH NEW. REFER TO LIGHTING FIXTURE SCHEDULE AND GENERAL NOTES FOR ADDITIONAL INFORMATION. PAYMENT FOR ALL REMOVAL ITEMS WILL BE IN THE CONTRACT BID ITEM "REMOVAL AND DISPOSAL OF EXISTING PIER LIGHT SYSTEM" BY THE LUMP SUM.

④ REMOVE AND REPLACE EXISTING MAIN CHANNEL LIGHTS (6 TOTAL) AND ALL ASSOCIATED CONDUIT, WIRING, TRANSFORMERS, RELAYS, DISCONNECTS, FUSES, REMOTE LAMP OUT INDICATORS, AND JUNCTION BOXES WITH NEW. REFER TO LIGHTING FIXTURE SCHEDULE AND GENERAL NOTES FOR ADDITIONAL INFORMATION. PAYMENT FOR ALL REMOVAL ITEMS WILL BE IN THE CONTRACT BID ITEM "REMOVAL AND DISPOSAL OF EXISTING MAIN CHANNEL LIGHT SYSTEM" BY THE LUMP SUM.

⑤ FURNISH AND INSTALL NEW CHANNEL MARGIN LINE AND ALL ASSOCIATED CONDUIT, WIRING, TRANSFORMERS, RELAYS, DISCONNECTS, FUSES, REMOTE LAMP OUT INDICATORS, AND JUNCTION BOXES. REFER TO LIGHTING SCHEDULE AND GENERAL NOTES FOR ADDITIONAL INFORMATION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

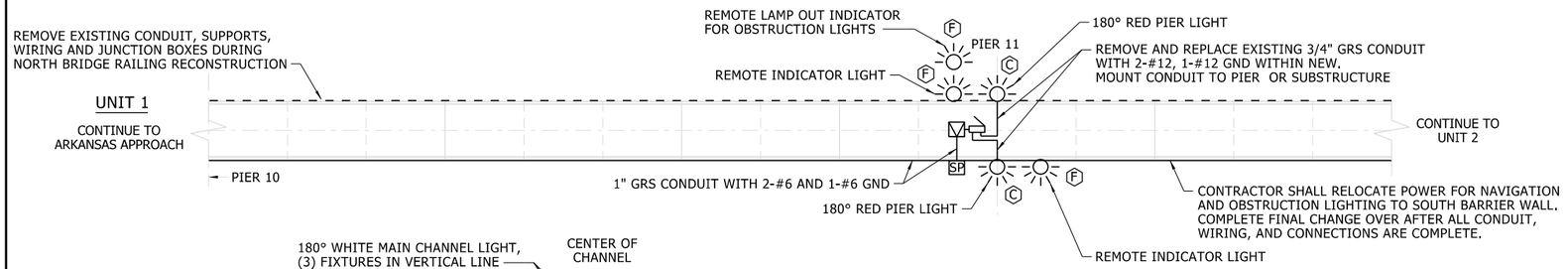
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HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

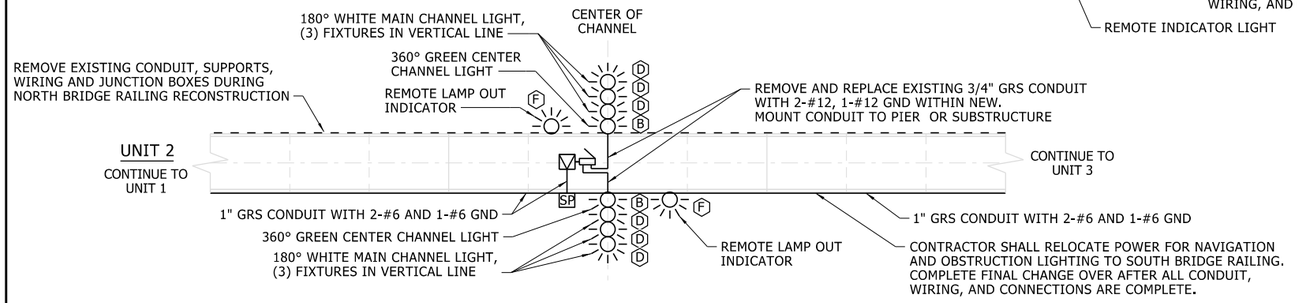
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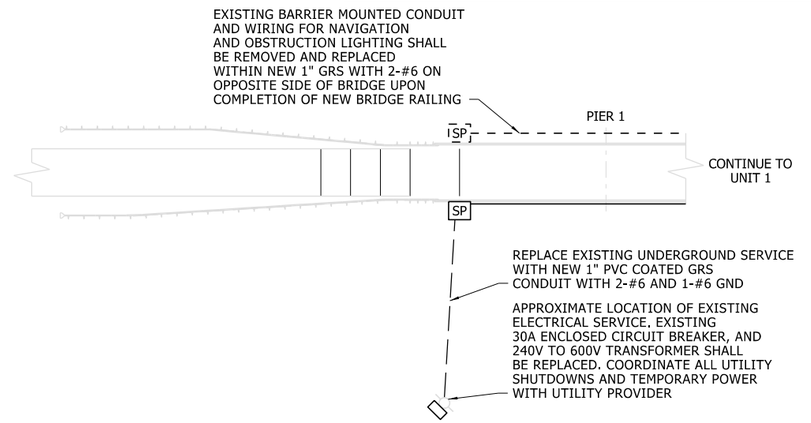
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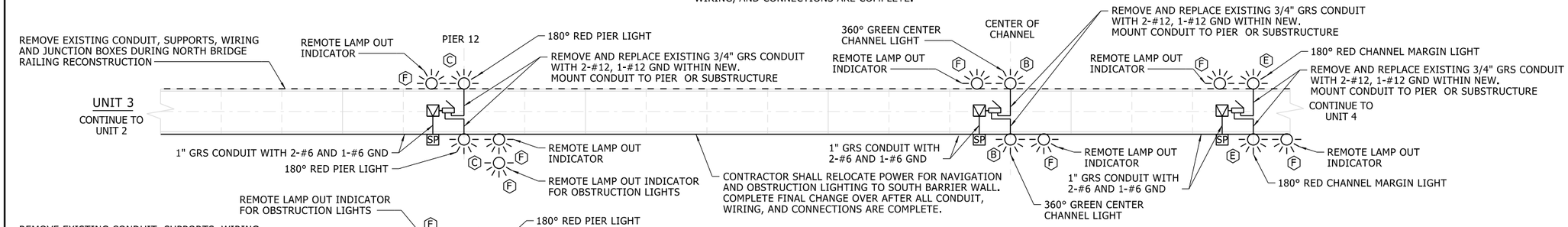
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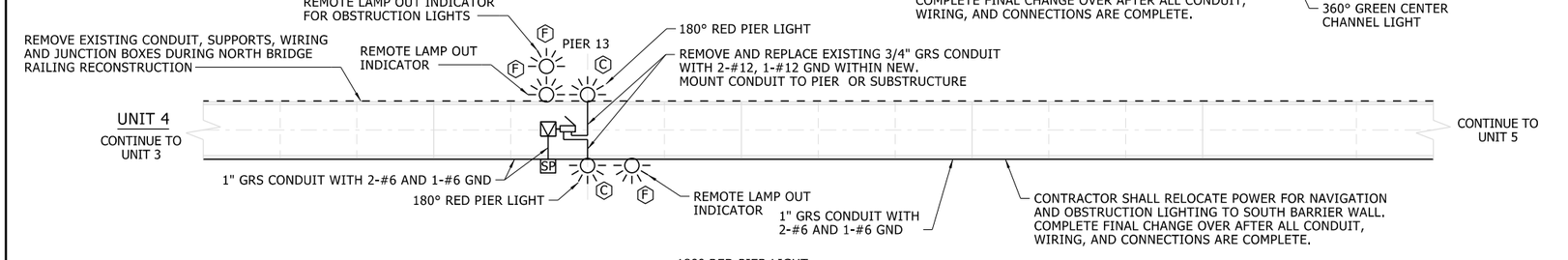
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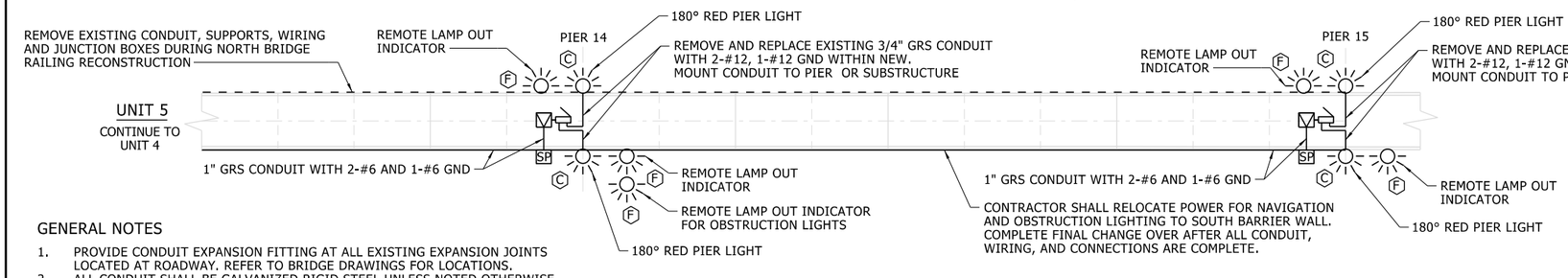


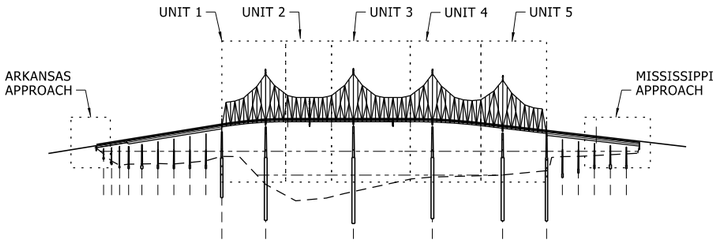












BRIDGE ELEVATION KEY
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GENERAL NOTES

1. PROVIDE CONDUIT EXPANSION FITTING AT ALL EXISTING EXPANSION JOINTS LOCATED AT ROADWAY. REFER TO BRIDGE DRAWINGS FOR LOCATIONS.
2. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL UNLESS NOTED OTHERWISE.
3. ALL MOUNTING HARDWARE, HANGERS, JUNCTION BOXES, U-BOLTS, CONDUIT AND BOX SUPPORTS SHALL BE REMOVED AND REPLACED WITH STAINLESS STEEL COMPONENTS.
4. ALL EXISTING CONDUIT AND WIRING SHALL BE REPLACED WITH NEW. PROVIDE AND INSTALL 1" GALVANIZED RIGID STEEL WITH 2-#6'S FOR MAIN FEEDER LINE AND 3/4" GALVANIZED RIGID STEEL WITH 2-#12 AND 1-#12 GND FOR BRANCH CABLING.
5. REFER TO OVERALL PLAN FOR OVERALL DIMENSIONS.
6. REMOTE INDICATOR LIGHTS (FIXTURE TYPE, F; QTY 20) NOT SHOWN FOR CLARITY PURPOSES. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING INDICATOR LIGHTS AS SPECIFIED. REFER TO NAVIGATION AND OBSTRUCTION WIRING SCHEMATIC, AND LIGHTING SCHEDULE FOR ADDITIONAL INFORMATION.
7. CONTRACTOR SHALL PROVIDE TEMPORARY POWER TO MAINTAIN ALL LIGHTING AND ITS EQUIPMENT DURING CONSTRUCTION.
8. CONTRACTOR SHALL KEEP EXISTING NAVIGATIONAL AND OBSTRUCTION LIGHTING IN SERVICE UNTIL THE NEW SYSTEM IS INSTALLED, TESTED AND ACCEPTED BY ARDOT AND MDOT.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

NAVIGATION LIGHT LAYOUT
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY

ROUTE 49 SECTION 11

ARKANSAS STATE HIGHWAY COMMISSION

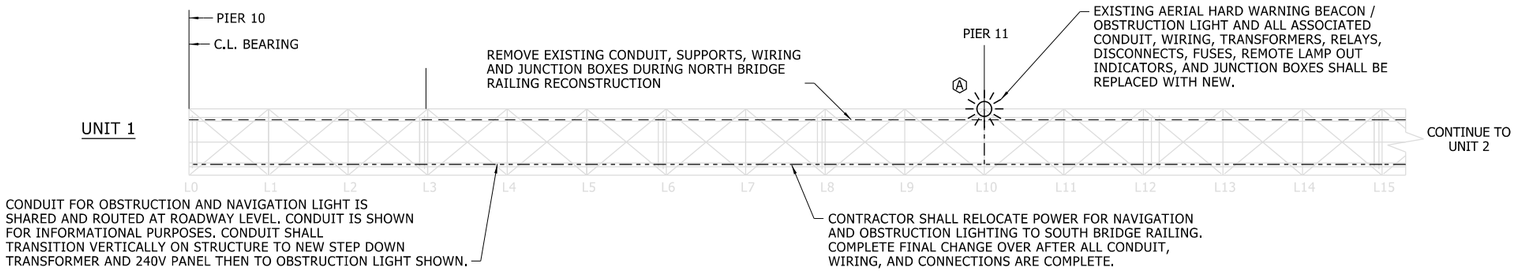
LITTLE ROCK, ARK.

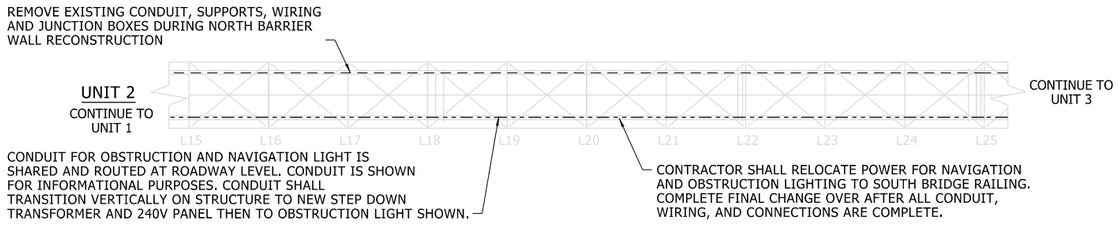
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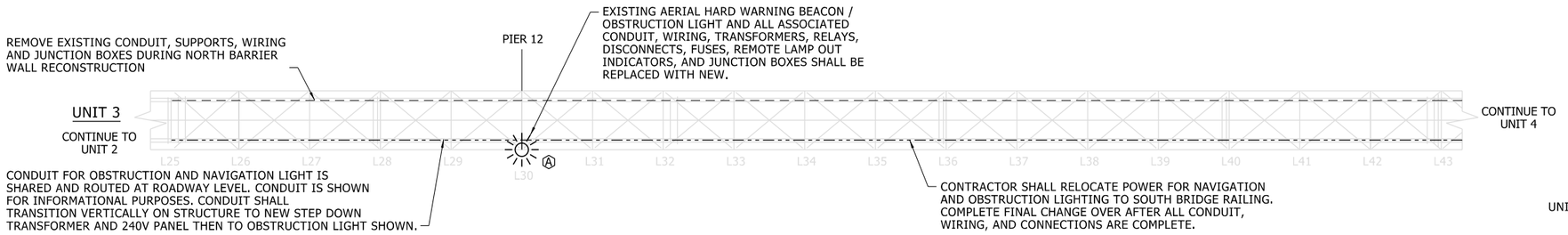
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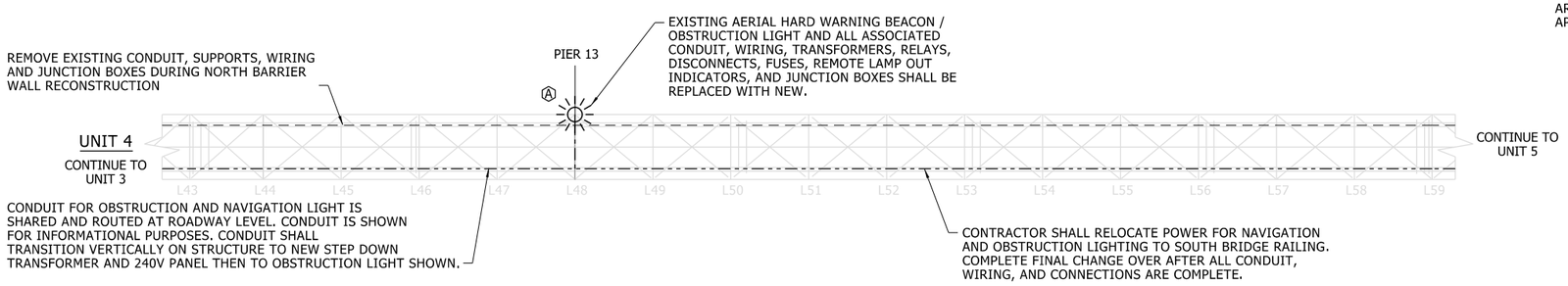
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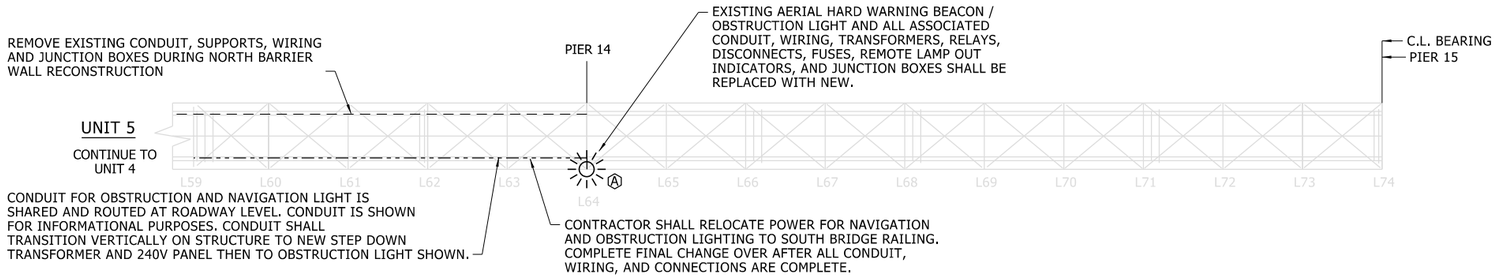
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		OBSTRUCTION LIGHTING PLAN				





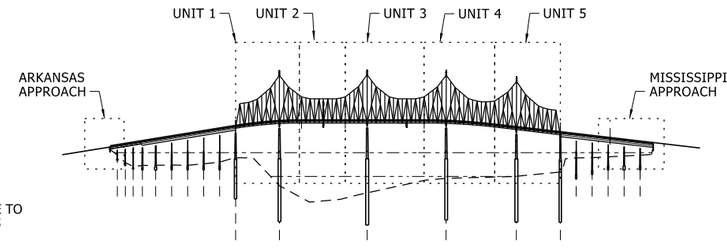






GENERAL NOTES

1. PROVIDE CONDUIT EXPANSION FITTING AT ALL EXISTING EXPANSION JOINTS LOCATED AT ROADWAY.
2. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL UNLESS NOTED OTHERWISE.
3. ALL MOUNTING HARDWARE, HANGERS, JUNCTION BOXES, U-BOLTS, CONDUIT AND BOX SUPPORTS SHALL BE REMOVED AND REPLACED WITH STAINLESS STEEL COMPONENTS.
4. ALL EXISTING CONDUIT AND WIRING SHALL BE REPLACED WITH NEW. PROVIDE AND INSTALL 1" GALVANIZED RIGID STEEL WITH 2-#6 AND 1-#6 GND FOR MAIN SERVICE LINE AND 3/4" GALVANIZED RIGID STEEL WITH 2-#12 AND 1-#12 GND FOR BRANCH CABLING.
5. REFER TO OVERALL PLAN FOR OVERALL DIMENSIONS.
6. REMOTE INDICATOR LIGHTS NOT SHOWN FOR CLARITY PURPOSES. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING INDICATOR LIGHTS AS SPECIFIED. REFER TO NAVIGATION AND OBSTRUCTION WIRING SCHEMATIC, AND LIGHTING SCHEDULE FOR ADDITIONAL INFORMATION.
7. CONTRACTOR SHALL PROVIDE TEMPORARY POWER TO MAINTAIN ALL LIGHTING AND ITS EQUIPMENT DURING CONSTRUCTION.
8. CONTRACTOR SHALL KEEP EXISTING NAVIGATIONAL AND OBSTRUCTION LIGHTING IN SERVICE UNTIL NEW SYSTEM IS INSTALLED, TESTED, AND ACCEPTED BY BOTH ARDOT AND MDOT.



BRIDGE ELEVATION KEY
NOT TO SCALE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA L. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

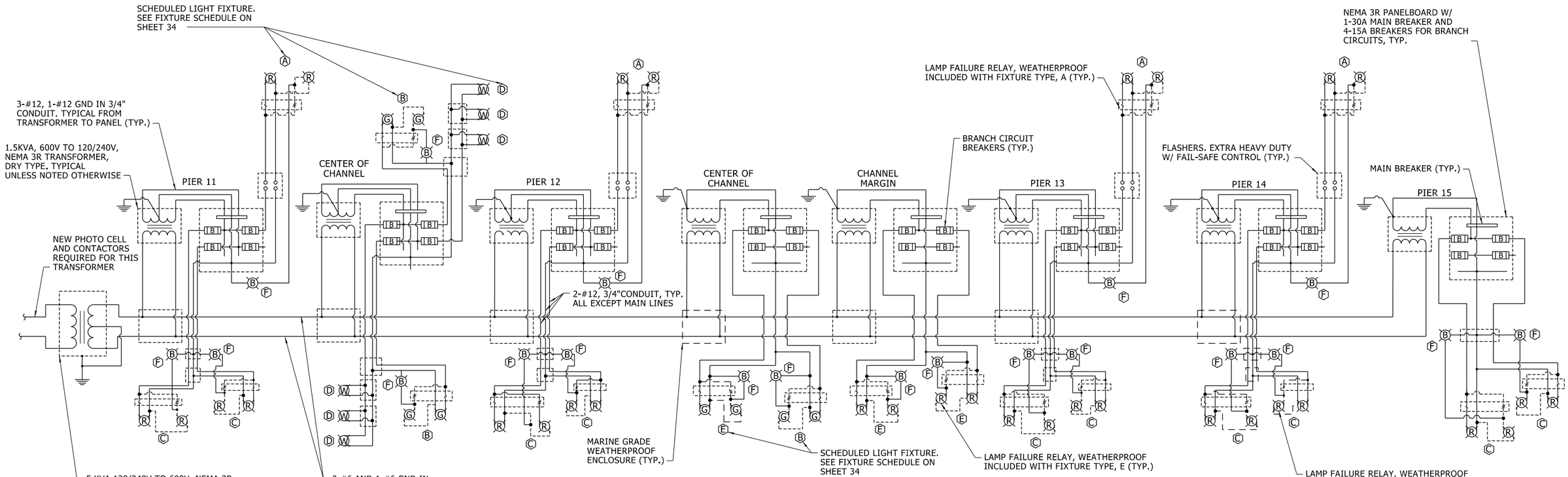
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HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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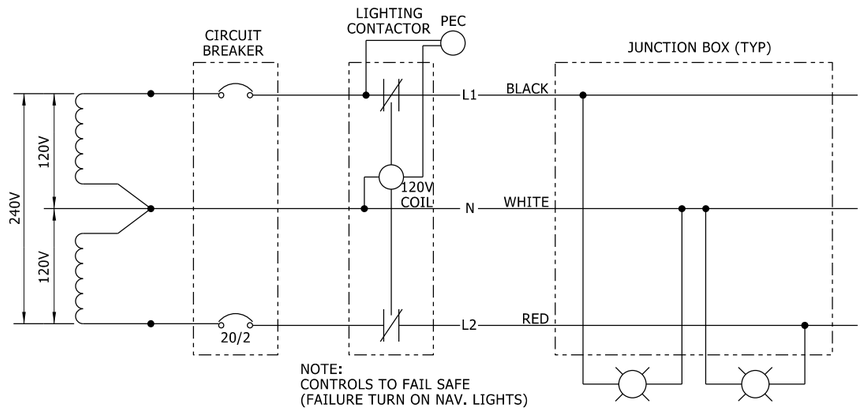
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	37	107
		WIRING SCHEMATIC				



NAVIGATION AND AVIATION LIGHTING WIRING DIAGRAM
NOT TO SCALE



CONNECTION DIAGRAM
NOT TO SCALE

GENERAL NOTES

1. ALL LABOR AND MATERIALS TO CONFORM TO NATIONAL ELECTRICAL CODE CURRENT EDITION.
2. ALL BOLTS NUTS STUDS WASHERS TERMINALS FASTENINGS AND TERMINALS SHALL BE OF CORROSION RESISTANT MATERIALS OR GALVANIZED.
3. ALL FITTINGS, J-BOXES ETC. TO BE WEATHERPROOF NEMA-3R RATED.
4. ALL WIRING TO BE COPPER WITH INSULATION UNLESS OTHERWISE NOTED. ALL CONDUIT TO BE GALVANIZED RIGID STEEL.
5. ALL JUNCTION BOXES TO BE NEMA-3R WEATHERPROOF PER ARDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.
6. TRANSFORMER TO BE OPERATED BY PHOTOCELL AND CONTACTORS NOT SHOWN BUT SUPPLIED AND INSTALLED.
7. ALL EXISTING LIGHTING FIXTURES, CONDUIT, AND WIRING TO BE REMOVED AND REPLACED.

(R) LIGHT FIXTURE, 'W' DENOTES FIXTURE COLOR
'W' = WHITE
'R' = RED
'G' = GREEN
'B' = BLUE

STATE OF ARKANSAS
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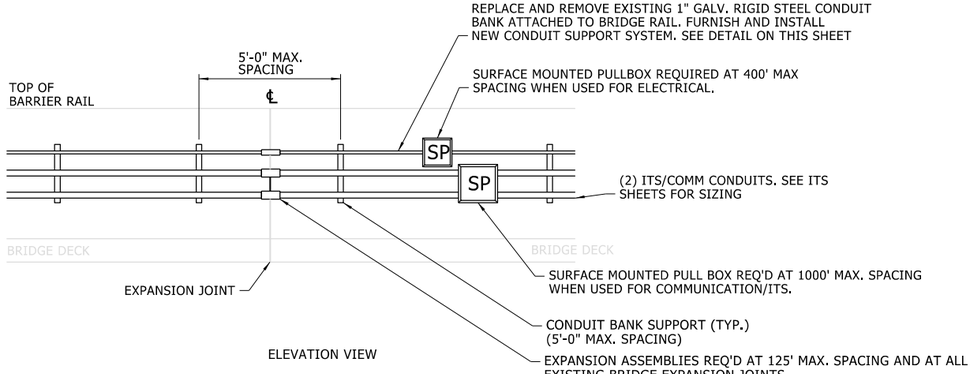
WIRING SCHEMATIC
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
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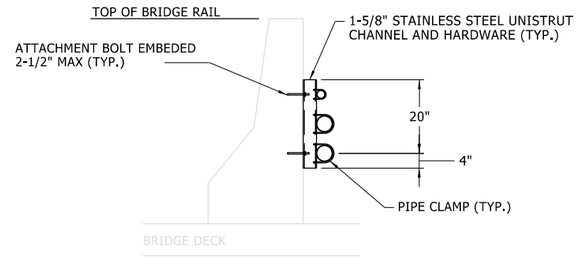
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		DETAILS				



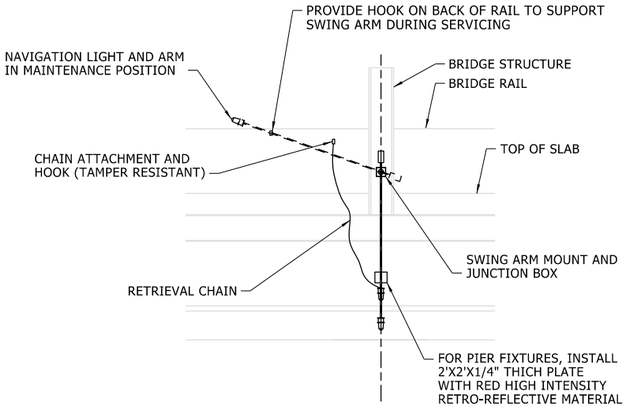
TYPICAL BRIDGE RAIL INSTALLATION
NOT TO SCALE



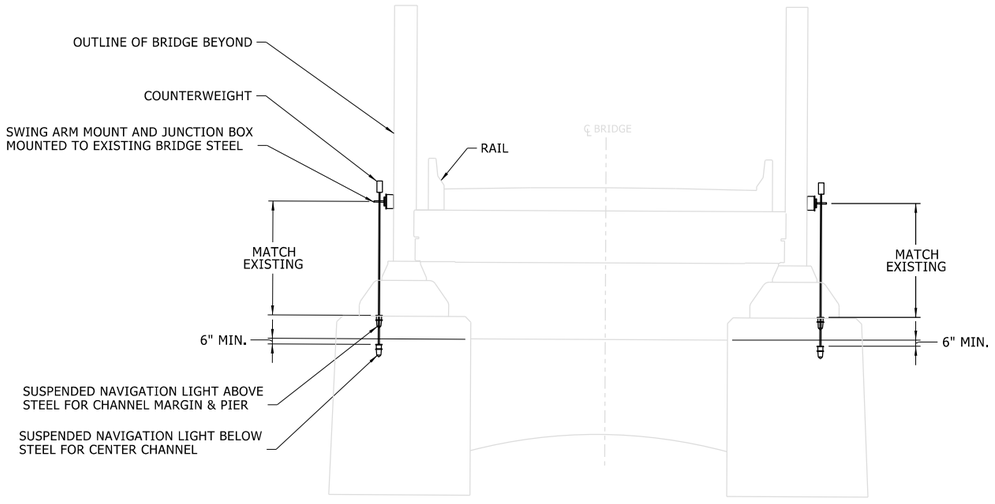
TYPICAL CONDUIT BANK SUPPORT
NOT TO SCALE

INSTALLATION GENERAL NOTES:

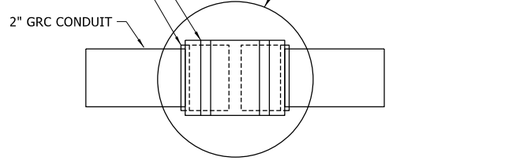
1. REFER TO ELECTRICAL PLAN SHEETS FOR AERIAL SUPPORTED AND STRUCTURE ATTACHED CONDUIT LOCATIONS.
2. THE CONDUIT BANK SUPPORT SYSTEM IS TO BE ATTACHED TO THE OUTSIDE FACE OF THE BRIDGE BARRIER RAIL. THE DETAILS SHOWN FOR THE SUPPORT SYSTEM ARE TO SERVER AS A GUIDE ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE SUPPORT SYSTEM TO THE ENGINEER FOR REVIEW AND APPROVAL.
3. NO WELDING OR DRILLING TO STRUCTURAL STEEL WILL BE PERMITTED. ATTACHMENT TO STRUCTURAL STEEL SHALL BE MADE BY CLAMPS, STRAPS, ETC.
4. ALL AERIAL SUPPORTED CONDUIT SHALL BE 1" GALVANIZED RIGID STEEL (GRS), EXCEPT FOR SHORT SEGMENTS OF 1" LIQUID TIGHT FLEXIBLE CONDUIT TO BE USED AT BRIDGE ABUTMENTS, EXISTING BRIDGE EXPANSION JOINTS, AND AS INDICATED IN THE PLANS.
5. IN ALL CASES, THE CONDUIT SUPPORT SPACING SHALL BE A MAXIMUM OF FIVE (5) FEET.
6. CONDUIT SHALL NOT BE INSTALLED IN A MANNER WHICH IT OBSTRUCTS EXISTING BRIDGE DECK DRAINS.
7. CORE DRILLING OF EXISTING BRIDGE ABUTMENTS WILL NOT BE PERMITTED.
8. ATTACH RETRO-REFLECTIVE MATERIAL IN SHOP. SEE 'NAVIGATION LIGHTING SYSTEM' SP.
9. MISCELLANEOUS HARDWARE SHALL BE NON-CORROSIVE MATERIALS.
10. THE SUPPLIER OF THE NAVIGATIONAL LIGHT ASSEMBLIES SHALL OFFER THE CONTRACTOR THE OPTION OF INSTALLATION SUPERVISION. THE COST OF THIS SUPERVISION SHALL BE INCLUDED IN OTHER ITEMS OF WORK, IF UTILIZED.



ELEVATION OF NAVIGATION LIGHT
NOT TO SCALE

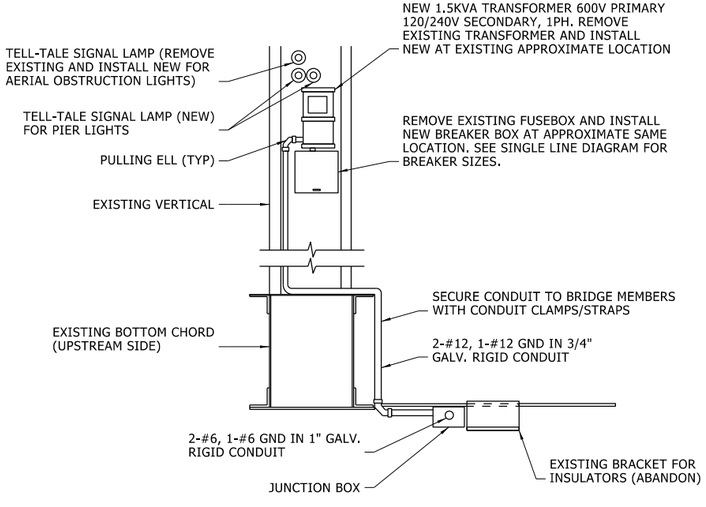


NAVIGATION LIGHT SWING ARM
NOT TO SCALE

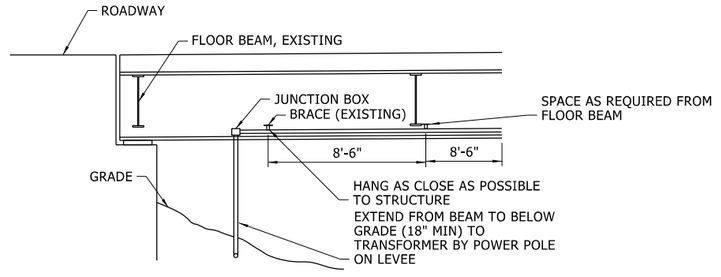


CONDUIT DEFLECTION - EXPANSION JOINT
NOT TO SCALE

EXPANSION JOINT NOTES:
1. THE MOVEMENT RANGE OF THE EXPANSION JOINT SHALL MEET OR EXCEED THE MOVEMENT RANGE OF THE BRIDGE EXPANSION JOINTS.
2. PROVIDE GRC ADAPTORS FOR CONNECTIONS AT EACH END OF THE EXPANSION JOINT.
3. DEFLECTION - EXPANSION JOINT PAY ITEM SHALL BE SUBSIDIARY TO THE NAVIGATIONAL LIGHTING SYSTEM, OBSTRUCTION LIGHTING SYSTEM, AND GALVANIZED STEEL CONDUIT (2") FOR THE ITS EQUIPMENT.
4. QUANTITY OF DEFLECTION - EXPANSION JOINT SHALL BE EQUIVALENT TO THE NUMBER OF BRIDGE EXPANSIONS TIME THE CONDUIT RUNS.



TRANSFORMER & BREAKER BOX DETAIL
NOT TO SCALE



DETAIL AT WEST ABUTMENT
NOT TO SCALE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
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		ITS NOTES				

GENERAL NOTES

1. EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THEIR OWN INDEPENDENT INVESTIGATIONS, INCLUDING SUB-SURFACE INVESTIGATIONS AS MAY BE NECESSARY TO LOCATE UTILITIES WITHIN THE PROJECT LIMITS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST TWO WEEKS IN ADVANCE OF WORK WITHIN EACH AREA, SO THAT UTILITIES CAN BE FIELD LOCATED.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING STRUCTURES SUCH AS PIPES, INLETS, APRONS, BRIDGES, ETC. FROM DAMAGE WHICH MIGHT OCCUR DURING CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT WILL BE MADE FOR REPLACEMENT OR REPAIR OF DAMAGED ITEMS.

3. THE CONTRACTOR SHALL MAKE THE APPLICATION FOR POWER SERVICE, COORDINATING WITH ARDOT IN ADVANCE OF REQUIRING THE ELECTRICAL SERVICES. IF ELECTRICAL SERVICES REQUIRES A SERVICE METER TO BE INSTALLED, CONTRACTOR TO CONTACT THE ELECTRIC UTILITY OWNER. ANY INSTALLATIONS OF AERIAL POWER CIRCUITS, POWER PANELS OR WOOD POLES TO PROVIDE POWER SERVICE SHALL MEET LOCAL EPA REQUIREMENTS AND BE COST ABSORBED. CONTRACTOR SHALL PAY ALL UTILITY CONNECTION CHARGES AND CHARGES FOR SERVICE UNTIL FINAL PROJECT ACCEPTANCE.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY MAKE-READY COST INCURRED TO PROVIDE POWER AND COMMUNICATION SERVICES TO THE EQUIPMENT. NOT A SEPARATE PAY ITEM (COST ABSORBED IN MOBILIZED PAY ITEM). THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING AN INDEPENDENT INVESTIGATION INTO UTILITY MAKE-SAFE COST FOR BIDDING PURPOSES.

5. NOT USED.

6. CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED, NOT A SEPARATE PAY ITEM (COST ABSORBED).

7. UNDERGROUND DRILLED OR JACKED CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF FIVE FEET AND UNDERGROUND TRENCHED CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF THREE FEET UNLESS OTHERWISE DIRECTED BY BY THE ENGINEER.

8. ANY AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR (INCLUDING SITE GRADING) AS DIRECTED BY THE ENGINEER. ALL REMOVAL AND REPLACEMENT OF SIDEWALKS, ASPHALT, CONCRETE, SOD, GRASSING, AND SOIL SHALL BE ABSORBED UNDER THE PAY ITEMS FOR CONDUIT.

9. THE CONTRACTOR IS TO REMOVE AND RESET SIGNS WHICH CONFLICT WITH CONSTRUCTION. THE COST SHALL BE ABSORBED IN THE PAY ITEM FOR MAINTENANCE OF TRAFFIC (NOT A SEPARATE PAY ITEM).

10. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE SHOULDER MATERIALS WHICH MIGHT OCCUR DURING CONSTRUCTION. ANY REPAIR TO SHOULDERS WILL BE PERFORMED IN ACCORDANCE TO ARDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. NO PAYMENT WILL BE MADE FOR THE REPAIR OF DAMAGED SHOULDERS.

11. CONTRACTOR SHALL FIELD VERIFY CAMERA SITE LOCATION AND ORIENTATION FOR COMPLETE COVERAGE OF ROADWAY AND RIVER CHANNEL PRIOR TO INSTALLING CAMERAS. LOCATIONS AND ORIENTATIONS TO BE APPROVED BY THE PROJECT MANAGER.

12. NOT USED.

13. CONTRACTOR HAS THE OPTION TO USE REINFORCED THERMOSETTING RESIN CONDUIT (RTRC) AS DEFINED IN NEC ARTICLE 355 IN LIEU OF GRS CONDUIT AS SHOWN ON PLANS. (PAID FOR UNDER GRS CONDUIT WITH NOT ADDITIONAL COST).

14. ALL BASELINES SHOWN ON THE PLANS ARE FOR GRAPHICAL REFERENCE PURPOSES ONLY AND ARE NOT STAKED IN THE FIELD.

15. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER A MINIMUM OF 72 HOURS IN ADVANCE OF REQUIRING LANE CLOSURES AND OTHER FORMS OF SIGNIFICANT TRAFFIC CONTROL MEASURES.

16. ALL REINFORCED THERMOSETTING RESIN CONDUIT (RTRC) AS DEFINED IN NEC ARTICLE 355 SHALL BE GRAY IN COLOR.

17. SPECIFIC ITS ELEMENTS SHALL BE THE SAME EQUIPMENT AND PAY ITEM, REGARDLESS OF WHICH STATE IT IS INSTALLED.

18. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATION ELECTRICAL CODE (NFPA 70, CURRENT EDITION), LIFE SAFETY CODE (NFPA 101, CURRENT EDITION), UNDERGROUND FACILITIES DAMAGE PREVENTION ACT (14-271-101 ET SEQ.), AND ARKANSAS AND MISSISSIPPI STATE AND LOCAL ELECTRICAL CODE(S). IN ADDITION, ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

19. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER, TO ENSURE ARKANSAS STATE CODES (14-28-101 ET SEQ, AND 20-31-101 ET SEQ.) ARE MET. THE DOCUMENTATION SHALL
    (1) ELECTRICIANS LICENSE INFORMATION AND EXPIRATION DATE.
    (2) THE RATIO OF LICENSED-ELECTRICIAN-TO-APPRENTICE-ELECTRICIANS.
    (3) PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (WWW.ARK.ORG/LABOR/ELECTRICIAN/SEARCH.PHP)
    ALL LICENSES SHALL BE VALID AND CURRENT

20. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS AND MISSISSIPPI ONE CALL CENTER IN ACCORDANCE WITH UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBER OF THE ARKANSAS ONE CALL SYSTEM AND MISSISSIPPI ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE CALL CENTER.

21. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTORS NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACT SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NOT LONGER NECESSARY.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES DAMAGED DURING THE CONSTRUCTION.

23. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MY BE THE PROPERTY OF THE UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE NOTED.

24. NONDESTRUCTIVE MEG TEST AND CURRENT LEAKAGE TEST SHALL BE PERFORMED ON NEW CONDUCTORS, IN THE PRESENCE OF FIELD INSPECTOR. THE TEST VOLTAGE SHALL BE LIMITED TO 600 VOLTS. ANY CONDUCTOR NOT MEETING THE MINIMUM ACCEPTABLE VALUE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE USING NEW CONDUCTOR. THE RESULTS SHALL BE DOCUMENTED AND PROVIDED TO THE JOB ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED BY MEG TEST WHILE DEVICES OR ACCESSORIES ARE STILL CONNECTED AND SHALL BE REPLACED AT CONTRACTORS EXPENSE. SEE SPECIAL PROVISION ELECTRICAL.

25. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT CONTRACTORS EXPENSE.

26. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

27. BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

28. PULL CABLE SHALL BE MINIMUM 1/4" NYLON OR POLYESTER ROPE, OR 1200 LBS PULL TAPE WHEN PULLING CONDUCTORS. STEEL CABLE OR FISH TAPE SHALL NOT BE USED. CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY NEC FOR CONDUCTORS USED.

29. ALL CONCRETE PULL BOXES SHALL BY TYPE-2 HD UNLESS OTHERWISE INDICATED ON THE PLANS.

30. SEE STANDARD DRAWING SD-6 FOR PULL BOX CONSTRUCTION.

31. THE CONTRACTOR SHALL LABEL/PHASE ALL CONDUCTORS IN PULL BOXES AND AT SPLICE POINTS ALONG WITH CIRCUIT NUMBER AND PANEL BEING FED FROM.

32. CONDUCTORS SHALL CONTINUOUSLY RUN DIRECTLY FROM SERVICE POINTS TO ELECTRICAL DEVICES AND/OR PULL BOXES WITHOUT SPLICES BEING MADE IN THE CONDUIT. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTORS EXPENSE.

33. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.

34. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, AND JUNCTION BOXES. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM. EXAMPLES FOR CONDUIT:
    SERVICE POINT TO PULL BOX 1 (SP TO PB-1)
    PULL BOX 1 TO SERVICE POINT (PB-1 TO SP)
    PULL BOX 1 TO PULL BOX 2 (PB-1 TO PB-2)

35. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NONMETALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM. ALL NONMETALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.

36. CONSTRUCTION DETAILS NOT SHOWN ON THE DRAWINGS ARE TO CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS:

    SD-6 HEAVY DUTY PULL BOX 02-13-2024

40. MAINTAIN A MINIMUM OF 1.5 FEET OF CLEARANCE FROM ALL UNDERGROUND UTILITIES.

41. SEAL CONDUITS / CONDULETS AT ENCLOSURES TO PREVENT RODENT ENTRY.

42. PROVIDE WATERTIGHT, SUBMERSIBLE, NON-FUSIBLE, PREMOLDED DISCONNECTABLE CONNECTOR KITS FOR SPLICES IN JUNCTION BOXES UNLESS NOTED OTHERWISE. DO NOT SPLIT CABLE IN JUNCTION BOXES UNLESS REQUIRED FOR BRANCH CIRCUITS.

43. THE CONTROL CABINET LOCATION IS APPROXIMATE AND ITS EXACT LOCATION NEEDS TO BE COORDINATED WITH OWNER AND THE REPRESENTATIVE. ANY DEVIATION FROM THE FINAL LOCATION SHOWN MUST BE APPROVED BY THE REPRESENTATIVE.

44. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING FULL COMPLIANCE WITH THE BUILD AMERICA, BUY AMERICA ACT (PUBLIC LAW NO. 117-58). ALL MATERIALS, PRODUCTS, AND CONSTRUCTION ACTIVITIES MUST CONFORM TO THE DOMESTIC CONTENT REQUIREMENTS OUTLINED IN THE ACT AND ANY APPLICABLE GUIDANCE FROM THE RELEVANT FEDERAL AGENCY. THE CONTRACTOR SHALL PROVIDE VERIFIABLE DOCUMENTATION DEMONSTRATING THAT ALL IRON, STEEL, MANUFACTURED PRODUCTS, AND CONSTRUCTION MATERIALS USED IN THE PROJECT MEET BUILD AMERICA, BUY AMERICA ACT. THE DOCUMENTATION MUST BE SUBMITTED PRIOR TO PRODUCT PURCHASING, INSTALLATION AND/OR INCLUSION IN THE WORK AND MUST BE SUFFICIENT TO SATISFY THE ENGINEER AND ANY RELEVANT FEDERAL OR STATE AGENCY REQUIREMENTS. FAILURE TO PROVIDE ACCEPTABLE PROOF OF COMPLIANCE MAY RESULT IN THE REJECTION OF MATERIALS, WITHHOLDING OF PAYMENT, AND OTHER REMEDIES AS DEEMED NECESSARY.

45. ALL SPLICES SHALL BE WATERTIGHT AND UL-LISTED FOR CONTINUOUS USE IN SUBMERSIBLE INSTALLATIONS.

46. DO NOT INSTALL ELECTRICAL SERVICE OR ELECTRONIC DEVICES IN THE RWIS CABINET OR CONNECT TO THE CABINET UNTIL THE CABINET GROUNDING SYSTEMS HAVE BEEN SUCCESSFULLY COMPLETED AND ACCEPTED, AND THE CABINET GROUND CONNECTION HAS BEEN INSTALLED.

ABBREVIATIONS

DBC	DIRECT BURIAL CABLE	LT	LEFT
GRD	GROUND	MAX	MAXIMUM
GALV	GALVANIZED	N	NEUTRAL
GRS	GALVANIZED RIGID STEEL	RT	RIGHT
JB	JUNCTION BOX	RTRC	REINFORCED THERMOSETTING RESIN CONDUIT
LED	LIGHT EMITTING DIODE	TYP	TYPICAL
LTG	LIGHTING		

SYMBOLS LEGEND

- TRANSFORMER
- WEATHERPROOF PANELBOARD
- SP — SURFACE MOUNTED PULL BOX
- CAMERA POLE
- CCTV — CCTV CAMERA
- ANTENNA
- B — TYPE B CABINET
- CH — COMMUNICATIONS HUT
- V — COMMUNICATIONS VAULT
- PB — PULL BOX, TYPE-2
- WIRELESS COMMUNICATION
- ABOVE GRADE CONDUIT
- BELOW GRADE CONDUIT
- CATEGORY 6 CABLE
- MANUFACTURER-SPECIFIC COMMUNICATION CABLE
- PTZ — PAN-TILT-ZOOM TYPE CAMERA
- FIXED — FIXED TYPE CAMERA
- RWIS — ROADWAY WEATHER INFORMATION SYSTEM
- RDS — RADAR DETECTION SYSTEM
- WOOD POLE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
DAKOTA I. BATEMAN
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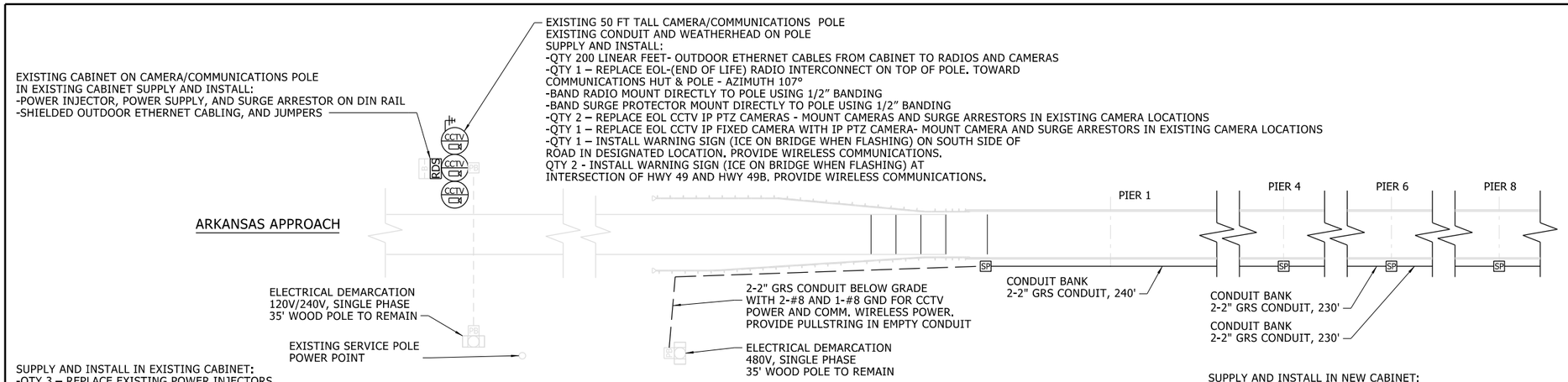
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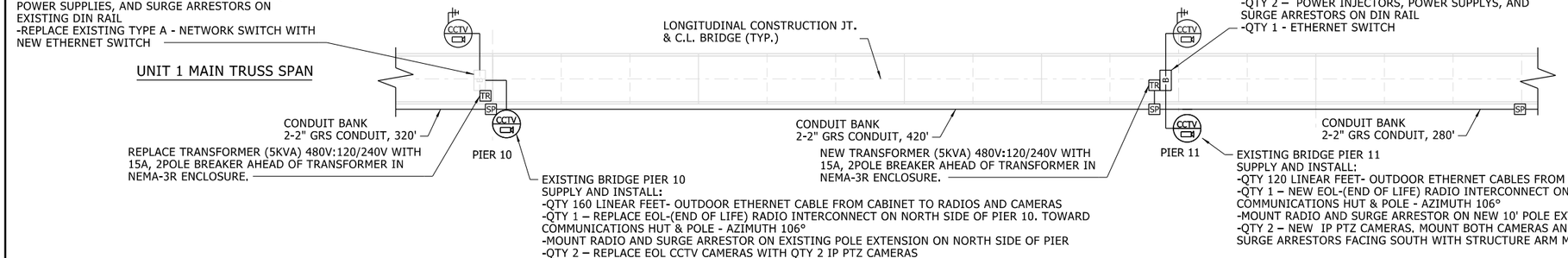
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		6	ARK.	110812	40	107
		ITS REPLACEMENT PLAN				

EXISTING CABINET ON CAMERA/COMMUNICATIONS POLE
IN EXISTING CABINET SUPPLY AND INSTALL:
-POWER INJECTOR, POWER SUPPLY, AND SURGE ARRESTOR ON DIN RAIL
-SHIELDED OUTDOOR ETHERNET CABLING, AND JUMPERS

EXISTING 50 FT TALL CAMERA/COMMUNICATIONS POLE
EXISTING CONDUIT AND WEATHERHEAD ON POLE
SUPPLY AND INSTALL:
-QTY 200 LINEAR FEET- OUTDOOR ETHERNET CABLES FROM CABINET TO RADIOS AND CAMERAS
-QTY 1 – REPLACE EOL-(END OF LIFE) RADIO INTERCONNECT ON TOP OF POLE. TOWARD COMMUNICATIONS HUT & POLE - AZIMUTH 107°
-BAND RADIO MOUNT DIRECTLY TO POLE USING 1/2" BANDING
-BAND SURGE PROTECTOR MOUNT DIRECTLY TO POLE USING 1/2" BANDING
-QTY 2 – REPLACE EOL CCTV IP PTZ CAMERAS - MOUNT CAMERAS AND SURGE ARRESTORS IN EXISTING CAMERA LOCATIONS
-QTY 1 – REPLACE EOL CCTV IP FIXED CAMERA WITH IP PTZ CAMERA- MOUNT CAMERA AND SURGE ARRESTORS IN EXISTING CAMERA LOCATIONS
-QTY 1 – INSTALL WARNING SIGN (ICE ON BRIDGE WHEN FLASHING) ON SOUTH SIDE OF ROAD IN DESIGNATED LOCATION. PROVIDE WIRELESS COMMUNICATIONS.
QTY 2 - INSTALL WARNING SIGN (ICE ON BRIDGE WHEN FLASHING) AT INTERSECTION OF HWY 49 AND HWY 49B. PROVIDE WIRELESS COMMUNICATIONS.



SUPPLY AND INSTALL IN EXISTING CABINET:
-QTY 3 – REPLACE EXISTING POWER INJECTORS, POWER SUPPLIES, AND SURGE ARRESTORS ON EXISTING DIN RAIL
-REPLACE EXISTING TYPE A - NETWORK SWITCH WITH NEW ETHERNET SWITCH



SUPPLY AND INSTALL IN NEW CABINET:
-QTY 2 – POWER INJECTORS, POWER SUPPLYS, AND SURGE ARRESTORS ON DIN RAIL
-QTY 1 - ETHERNET SWITCH

EXISTING BRIDGE PIER 10
SUPPLY AND INSTALL:
-QTY 160 LINEAR FEET- OUTDOOR ETHERNET CABLE FROM CABINET TO RADIOS AND CAMERAS
-QTY 1 – REPLACE EOL-(END OF LIFE) RADIO INTERCONNECT ON NORTH SIDE OF PIER 10. TOWARD COMMUNICATIONS HUT & POLE - AZIMUTH 106°
-MOUNT RADIO AND SURGE ARRESTOR ON EXISTING POLE EXTENSION ON NORTH SIDE OF PIER
-QTY 2 – REPLACE EOL CCTV CAMERAS WITH QTY 2 IP PTZ CAMERAS
-MOUNT CAMERAS AND SURGE ARRESTORS IN EXISTING CAMERA LOCATIONS

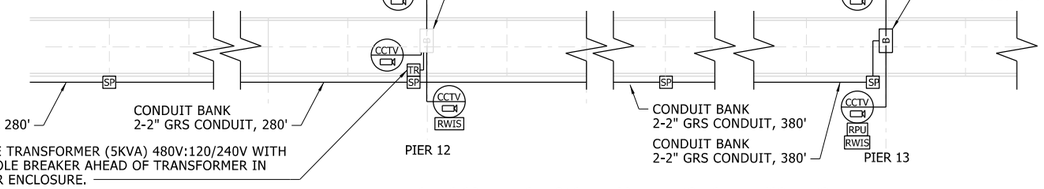
EXISTING BRIDGE PIER 11
SUPPLY AND INSTALL:
-QTY 120 LINEAR FEET- OUTDOOR ETHERNET CABLES FROM CABINET TO RADIOS AND CAMERAS
-QTY 1 – NEW EOL-(END OF LIFE) RADIO INTERCONNECT ON NORTH SIDE OF PIER 11. TOWARD COMMUNICATIONS HUT & POLE - AZIMUTH 106°
-MOUNT RADIO AND SURGE ARRESTOR ON NEW 10' POLE EXTENSION ON NORTH SIDE OF PIER
-QTY 2 – NEW IP PTZ CAMERAS. MOUNT BOTH CAMERAS AND SURGE ARRESTORS FACING SOUTH WITH STRUCTURE ARM MOUNT.

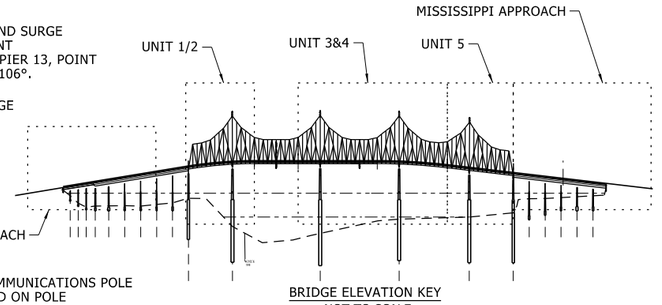
EXISTING BRIDGE PIER 12
SUPPLY AND INSTALL:
-QTY 160 LINEAR FEET- OUTDOOR ETHERNET CABLES FROM CABINET TO RADIOS AND CAMERAS
-QTY 1 – REPLACE EOL-(END OF LIFE) RADIO INTERCONNECT ON NORTH SIDE OF PIER 12. TOWARD COMMUNICATIONS HUT & POLE - AZIMUTH 107°
-MOUNT RADIO AND SURGE ARRESTOR ON EXISTING POLE EXTENSION ON NORTH SIDE OF PIER
-QTY 2 – REPLACE EOL CCTV IP PTZ CAMERAS (NORTH & SOUTH SIDES OF PIER)
MOUNT CAMERAS AND SURGE ARRESTORS IN EXISTING CAMERA LOCATIONS
-QTY 1 – REPLACE EOL CCTV IP PTZ CAMERA (SOUTH SIDES OF PIER ABOVE THE BRIDGE DECK)
MOUNT CAMERAS AND SURGE ARRESTORS IN EXISTING CAMERA LOCATIONS
-RWIS -MOUNTED TO EXISTING STRUCTURAL BEAM ON TOP OF DECK, SOUTH SIDE

SUPPLY AND INSTALL IN EXISTING CABINET:
-QTY 3 – REPLACE EXISTING POWER INJECTORS, POWER SUPPLYS, AND SURGE ARRESTORS ON EXISTING DIN RAIL
-REPLACE EXISTING TYPE A - NETWORK SWITCH WITH NEW ETHERNET SWITCH
-RWIS MOUNT REMOTE PROCESSING UNIT

160 LINEAR FEET OUTDOOR ETHERNET CABLE
QTY 2 - NEW IP PTZ CAMERAS. MOUNT BOTH CAMERAS AND SURGE ARRESTORS FACING NORTH WITH STRUCTURE ARM MOUNT
QTY 1 - NEW RADIO INTERCONNECT ON NORTH SIDE OF PIER 13, POINT TOWARDS COMMUNICATIONS HUT AND POLE - AZIMUTH 106°.

SUPPLY AND INSTALL IN NEW CABINET:
-QTY 2 – POWER INJECTORS, POWER SUPPLYS, AND SURGE ARRESTORS ON EXISTING DIN RAIL
-QTY 1 - ETHERNET SWITCH, RWIS MOUNT, REMOTE PROCESSING UNIT (SEE ITS-3)





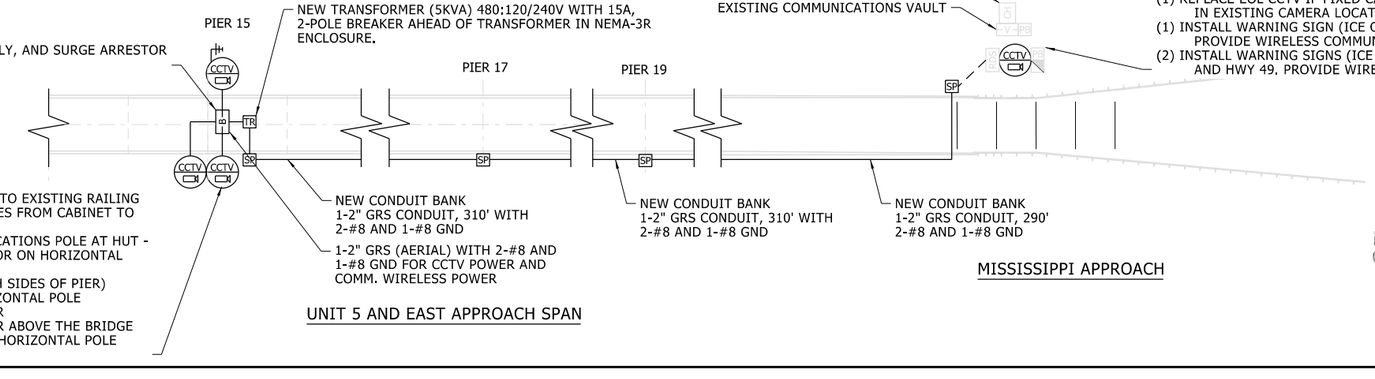
BRIDGE ELEVATION KEY
NOT TO SCALE

EXISTING COMMUNICATIONS HUT 23 FEET FROM CAMERA/COMM POLE.
WITHIN EXISTING COMMUNICATION HUT SUPPLY AND INSTALL:
POWER INJECTOR, POWER SUPPLY, ETHERNET SWITCH,
AND SURGE ARRESTOR ON DIN RAIL SHIELDED OUTDOOR ETHERNET
CABLING AND JUMPERS.

SUPPLY AND INSTALL IN NEW CABINET:
EQUIPMENT CABINET
DIN RAIL IN CABINET
-QTY 3 - POWER INJECTORS, POWER SUPPLY, AND SURGE ARRESTOR
-QTY 1 - ETHERNET SWITCH

NEW TRANSFORMER (5KVA) 480:120/240V WITH 15A,
2-POLE BREAKER AHEAD OF TRANSFORMER IN NEMA-3R
ENCLOSURE.

EXISTING COMMUNICATIONS VAULT



NEW CAMERA LOCATIONS AT BRIDGE PIER 15
QTY 2 - 10 FT HORIZONTAL POLE EXTENSION PIPE TO EXISTING RAILING
QTY 160 LINEAL FEET - OUTDOOR ETHERNET CABLES FROM CABINET TO RADIOS AND CAMERAS
QTY 1 - NEW RADIO INTERCONNECT TO COMMUNICATIONS POLE AT HUT - AZIMUTH 107° MOUNT RADIO AND SURGE ARRESTOR ON HORIZONTAL POLE EXTENSIONS ON NORTH SIDE OF PIER
QTY 2 -CCTV IP PTZ CAMERAS (NORTH AND SOUTH SIDES OF PIER) MOUNT CAMERAS AND SURGE ARRESTOR ON HORIZONTAL POLE EXTENSIONS ON NORTH AND SOUTH SIDES OF PIER
QTY 1 - CCTV IP PTZ CAMERA (SOUTH SIDE OF PIER ABOVE THE BRIDGE DECK) MOUNT CAMERA AND SURGE ARRESTOR ON HORIZONTAL POLE EXTENSION

UNIT 5 AND EAST APPROACH SPAN

MISSISSIPPI APPROACH

CCTV SITE #22
EXISTING 50 FT TALL CAMERA AND COMMUNICATIONS POLE
EXISTING CONDUIT AND WEATHERHEAD ON POLE
SUPPLY AND INSTALL:
(250) LINEAR FEET - OUTDOOR ETHERNET CABLES FROM HUT TO RADIOS AND CAMERAS
(1) REPLACE EOL (END OF LIFE) RADIO INTERCONNECTION ON TOP OF POLE
(TO - INTERSECTION 49 & 1 - AZIMUTH 120°)
(TO - NORTH SIDE OF BRIDGE PIERS - AZIMUTH 286°)
BAND RADIO MOUNT DIRECTLY TO POLE USING 1/2" BANDING
BAND SURGE PROTECTOR MOUNT DIRECTLY TO POLE USING 1/2" BANDING
(2) REPLACE EOL CCTV IP PTZ CAMERAS - MOUNT CAMERAS AND SURGE ARRESTORS IN EXISTING CAMERA LOCATIONS
(1) REPLACE EOL CCTV IP FIXED CAMERA - MOUNT CAMERA AND SURGE ARRESTOR IN EXISTING CAMERA LOCATION
(1) INSTALL WARNING SIGN (ICE ON BRIDGE WHEN FLASHING) 1200 FT FROM END OF BRIDGE. PROVIDE WIRELESS COMMUNICATIONS.
(2) INSTALL WARNING SIGNS (ICE ON BRIDGE WHEN FLASHING) AT INTERSECTION OF HWY 1 AND HWY 49. PROVIDE WIRELESS COMMUNICATIONS.

SCOPE OF WORK

INFORMATION CONTAINED ON THIS DRAWING IS BASED UPON PREVIOUS CONSTRUCTION DOCUMENTS PROVIDED.

WORK AT THIS SITE ALSO INCLUDES FURNISHING AND INSTALLING CONDUIT, CABLING, PULL STRING, PULLBOXES, TESTING, AND ALL OTHER APPURTENANCES REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL CCTV INSTALLATION AS SHOWN ON THE PLANS AND SPECIFICATIONS.

CONTRACTOR SHALL COORDINATE WITH ELECTRICAL AND COMMUNICATION SERVICE PROVIDERS AS REQUIRED FOR OUTAGES.

GENERAL NOTES

1. PROVIDE CONDUIT EXPANSION FITTING AT ALL EXISTING EXPANSION JOINTS LOCATED AT ROADWAY.
2. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL UNLESS NOTED OTHERWISE.
3. ALL MOUNTING HARDWARE, HANGERS, JUNCTION BOXES, U-BOLTS, CONDUIT, AND BOX SUPPORTS SHALL BE REPLACED WITH STAINLESS STEEL COMPONENTS.
4. ALL EXISTING CONDUIT AND WIRING SHALL BE REPLACED WITH NEW. PROVIDE AND INSTALL 2" GALVANIZED RIGID STEEL CONDUIT WITH 2-#8 AND 1-#8 GND, UNLESS NOTED OTHERWISE.
5. REFER TO OVERALL PLANS FOR OVERALL DIMENSIONS.
6. CONTRACTOR SHALL PROVIDE TEMPORARY POWER TO MAINTAIN ALL ITS EQUIPMENT DURING CONSTRUCTION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA L. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

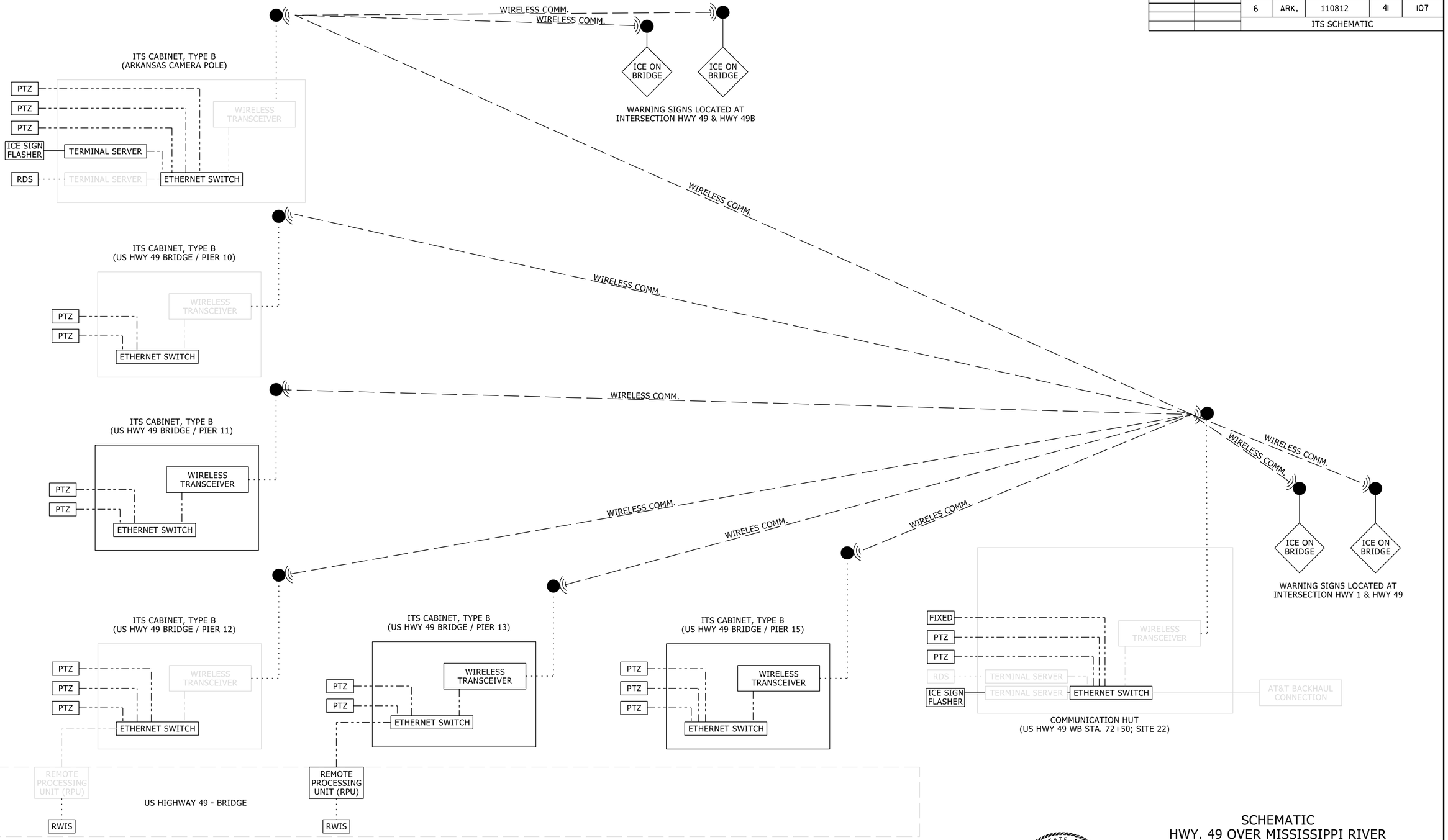
ITS REPLACEMENT PLAN
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: DB DATE: 11/2025

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	41	107
		ITS SCHEMATIC				



SYSTEM BLOCK DIAGRAM - HELENA BRIDGE AREA

NOTE
THIS DIAGRAM IS SCHEMATIC AND FOR INFORMATIONAL PURPOSES ONLY.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

SCHEMATIC
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11

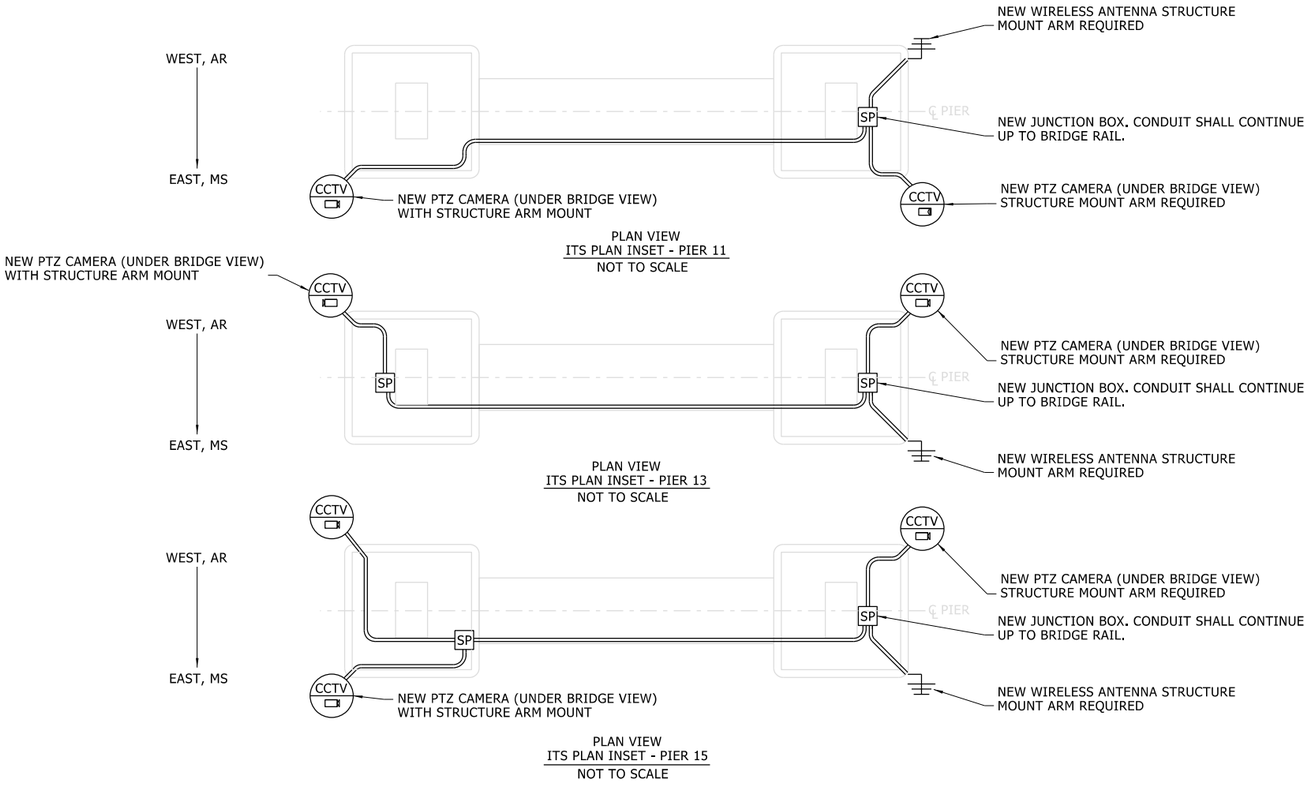
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LITTLE ROCK, ARK.

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REVISED DATE:

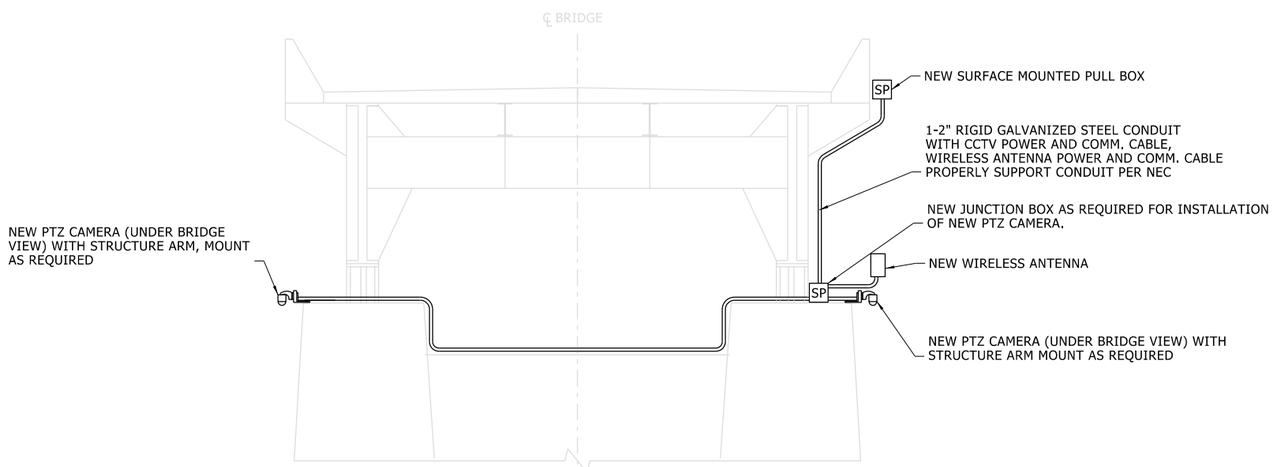
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	42	107
		ITS DETAILS				



PLAN VIEW
ITS PLAN INSET - PIER 11
NOT TO SCALE

PLAN VIEW
ITS PLAN INSET - PIER 13
NOT TO SCALE

PLAN VIEW
ITS PLAN INSET - PIER 15
NOT TO SCALE



ELEVATION VIEW
ITS PLAN INSET - PIER 11, 13, 15
NOT TO SCALE

CABLE TYPE	TYPE 2 PULL BOX	TYPE 4 PULL BOX ON TRUNK	TYPE 4 PULL BOX ON DROP	TYPE 5 PULL BOX
FIBER OPTIC CABLES (TRUNK)		25		
FIBER OPTIC CABLES (DROP)			10	200
ELECTRICAL SERVICE CONDUCTORS	10			100
VOLTAGE DETECTION SYSTEM LEAD-IN CABLE			10	
RDS COMM CABLE		20	20	20
DMS COMM CABLE			10	

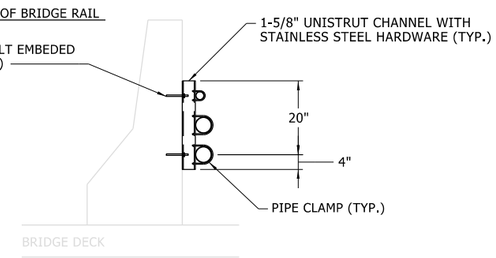
NOTE: NO ADDITIONAL PAYMENT WILL BE MADE FOR REQUIRED SLACK IN PULL BOXES (COST ABSORBED) SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION

TYPICAL CABLE COIL INSTALLATION GUIDE

(FEET OF COIL LENGTH PER ENTERING CABLE)

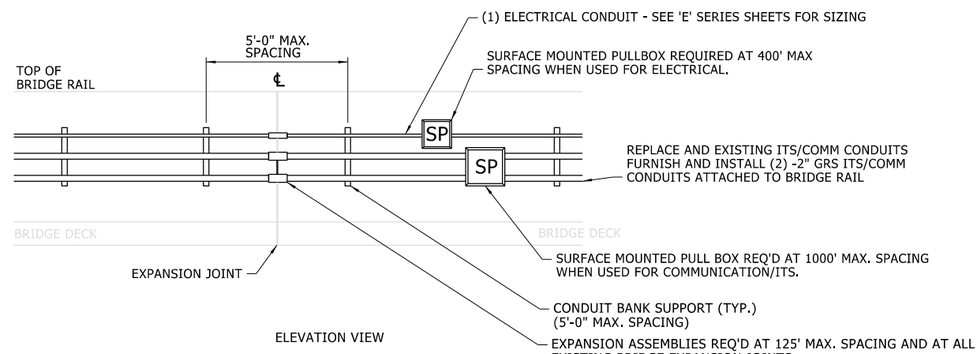
INSTALLATION GENERAL NOTES:

1. REFER TO ITS PLAN SHEETS FOR AERIAL SUPPORTED AND STRUCTURE ATTACHED CONDUIT LOCATIONS.
2. THE CONDUIT BANK SUPPORT SYSTEM IS TO BE ATTACHED TO THE OUTSIDE FACE OF THE BRIDGE BARRIER RAIL. THE DETAILS SHOWN FOR THE SUPPORT SYSTEM ARE TO SERVE AS A GUIDE ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE SUPPORT SYSTEM TO THE ENGINEER FOR REVIEW AND APPROVAL.
3. NO WELDING OR DRILLING TO STRUCTURAL STEEL WILL BE PERMITTED. ATTACHMENT TO STRUCTURAL STEEL SHALL BE MADE BY CLAMPS, STRAPS, ETC.
4. ALL AERIAL SUPPORTED CONDUIT SHALL BE 2" GALVANIZED RIGID STEEL (GRS), EXCEPT FOR SHORT SEGMENTS OF 2" LIQUID TIGHT FLEXIBLE CONDUIT TO BE USED AT BRIDGE ABUTMENTS, EXISTING BRIDGE EXPANSION JOINTS, AND AS INDICATED IN THE PLANS.
5. IN ALL CASES, THE CONDUIT SUPPORT SPACING SHALL BE A MAXIMUM OF FIVE (5) FEET.
6. CONDUIT SHALL NOT BE INSTALLED IN A MANNER WHICH IT OBSTRUCTS EXISTING BRIDGE DECK DRAINS.
7. CORE DRILLING OF EXISTING BRIDGE ABUTMENTS WILL NOT BE PERMITTED.
8. MISCELLANEOUS HARDWARE SHALL BE NON-CORROSIVE MATERIALS.



TYPICAL CONDUIT BANK SUPPORT

NOT TO SCALE



ELEVATION VIEW

TYPICAL BRIDGE RAIL INSTALLATION

NOT TO SCALE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.23133
DAKOTA I. BATEMAN

ELECTRICAL ENGINEER
PRINT DATE: 6/15/2026

ITS DETAILS
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY

ROUTE 49 SECTION 11

ARKANSAS STATE HIGHWAY COMMISSION

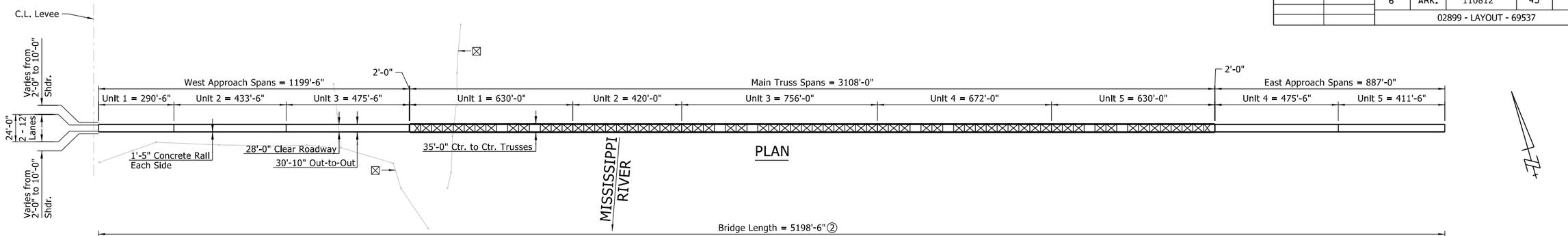
LITTLE ROCK, ARK.

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DESIGNED BY: DB DATE: 11/2025

BRIDGE NO. 02899 DRAWING NO.

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	43	107
		02899 - LAYOUT - 69537				



ELEVATION

SCOPE OF WORK

Clean and Paint All Structural Steel. See SP Job No. 110812 "CLEANING AND PAINTING EXISTING STRUCTURAL STEEL".

(1) Replace East Approach Guardrail and Thrie-Beam, for details see Roadway Plans.
(2) Apply Polymer Overlay to entire bridge deck, see SP Job No. 110812 "POLYMER OVERLAY".
(3) Replace West Abutment Backwall, for details see Dwg. No. 69539.
(4) Replace Approach Slab and Gutters. Use Type F Approach Slab ("W"=24'-0") and Type Special Approach Gutters at both ends of bridge. See Std. Dwg. No. 55040F1 and Dwg. No. 69601 respectively.
(5) Replace Abutment Bearings, for details see Dwg. Nos. 69540-69543.
(6) Replace deck In Main Truss Spans, for details see Dwg. Nos. 69544-69552.
(7) Install State Line Delineators, for details see Permanent Signing Plans.
Replace Contraction Joints, for locations and details see Dwg. No. 69554 (not displayed for clarity).
(8) Replace Expansion Joint Drainage System, for details see Dwg. Nos. 69555-69559 (Main Truss Spans).
(9) Repair Floor Beams at L25, L43, and L59, for details see Dwg. Nos. 69560-69563 (Main Truss Spans).
(10) Replace Upper Lateral Connection Plate, for details see Dwg. No. 69573.
(11) Install Crack Arrest Hole, for details see Dwg. No. 69574.
(12) Repair Lower Chord, for details see Dwg. Nos. 69575-69578.
(13) Replace Lower Wind Locks, for details see Dwg. Nos. 69579-69585 (Main Truss Spans).
(14) Repair Access Platform at Pier 15, for details see Dwg. No. 69586.
(15) Replace Expansion Joint Drainage System, for details see Dwg. Nos. 69587-69590 (Approach Spans).
(16) Replace Select Floor Beams, for details see Dwg. Nos. 69591-69592 (Approach Spans).
(17) Replace Floor Beam Stiffeners, for details see Dwg. No. 69593 (Approach Spans).
(18) Repair Stringer, for details see Dwg. No. 69594 (Approach Spans).
(19) Replace Wind Locks, for details see Dwg. Nos. 69595-69600 (Approach Spans).
(20) Replace Expansion Joint, for details see Dwg. Nos. 69587-69590 (Approach Spans).
(21) Remove existing structure-mounted "Welcome to Arkansas" Sign. Cost to be considered subsidiary to "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)".
Mill and Inlay West and East approaches, for details see Roadway Plans.
(A) Repair Type A: Floor Beam Top Flange Repair, for details see Dwg. No. 69564.
(B) Repair Type B: Floor Beam Bottom Flange Repair, for details see Dwg. Nos. 69565-69566.
(C) Repair Type C: Floor Beam Web Repair, for details see Dwg. Nos. 69567-69568.
(D) Repair Type D: Floor Beam Stiffener Replacements, for details see Dwg. No. 69569 (Main Truss Spans).
(E) Repair Type E: Replace Pin and Hanger Assemblies in Main Truss Stringers, for details see Dwg. No. 69570.
Repair Type F: Repair Stringer Connections, for locations and details see Dwg. No. 69571 (not displayed for clarity).
(G) Repair Type G: Replace Stringer Connection Angles, for details see Dwg. No. 69571.
Repair Type H: Replace Select Cross Beams, see Dwg. No. 69572 for locations and details (not displayed for clarity).
Install navigation lighting, aerial obstruction lighting, and ITS system, for details see Electrical and ITS Plans.

Notes:
For General Notes, see Dwg. No. 69538.

☒ Overhead Utility Line. Approximate location, contractor shall verify locations and coordinate with respective utility companies prior to start of construction.

Energized Electrical Line Safety, Warnings, and Advanced Notices: All owners, general contractors, and subcontractors associated with this project shall be responsible for familiarizing themselves with, complying with, and the enforcement of Arkansas Codes AR ST § 11-5-307 and § AR ST 11-5-308 and any other current state codes pertaining to advance notice requirements and for safety of all personnel, including the general public, pertaining to any work, movement, and activity in close proximity to any energized electrical line.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER
6/17/2026
BRIDGE ENGINEER
PRINT DATE: 6/16/2026

LAYOUT OF BRIDGE
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 10/2025 FILENAME: B110812_LX1.DGN
CHECKED BY: SFH DATE: 05/2026 SCALE: 1" = 200'
DESIGNED BY: HSS DATE: 04/2025
BRIDGE NO. 02899 DRAWING NO. 69537

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	44	107
		02899 - GENERAL NOTES - 69538				

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 Edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Construction Specifications unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 17th Edition (2002)

DESIGN METHODS: LFD except for Pin and Hanger Assemblies which use ASD.

LIVE LOADING: HS 20-44

ADDITIONAL DEAD LOADING (Future Wearing Surface): 0 psf

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi
Lightweight Aggregate Concrete (AE) (superstructure) (See SP Job No 110812 "LIGHTWEIGHT AGGREGATE CONCRETE (AE)")	f'c = 3,500 psi
Class S Concrete (substructure)	f'c = 3,500 psi
Reinforcing Steel (AASHTO M 31 or M 322, Type A, Gr. 60)	fy = 60,000 psi
Reinforcing Steel (AASHTO M 334 M/ M 334, Type 1035 CS)	fy = 100,000 psi
Structural Steel (ASTM A709, Gr. 36)	Fy = 36,000 psi
Structural Steel (ASTM A709, Gr. 50W)	Fy = 50,000 psi
Structural Steel (ASTM A668 Class G)	Fy = 50,000 psi

CONCRETE: See Std. Dwg. No. 55006 for additional concrete notes. Refer to SP Job No. 110812 "LIGHTWEIGHT AGGREGATE CONCRETE (AE)".

REINFORCING STEEL: See Std. Dwg. No. 55006 for additional reinforcing steel notes. Refer to SP Job No. 110812 "LOW-CARBON CHROMIUM REINFORCING STEEL".

In the concrete deck, mechanical couplers shall be used when splicing transverse reinforcing steel; lap splices shall only be allowed when splicing longitudinal reinforcing steel.

STRUCTURAL STEEL: See Std. Dwg. No. 55006 for additional structural steel notes.

All structural steel (excluding certain members of the abutment bearings, the pins and hangers in the pin and hanger assemblies, and certain windlock plates) shall be ASTM A709, Gr. 36. The external load plates and shear blocks of the bearing assemblies shall be ASTM A709, Gr. 50. The pins in the pin and hanger assemblies shall be ASTM A668 Class G. The hanger bars in the pin and hanger assemblies shall be ASTM A709, Gr. 50. The truss windlock Plates A14 and B4 and approach windlocks C4 and D5 shall be ASTM A709, Gr. 50W.

All bolts, unless noted otherwise, shall be ASTM F3125 Grade A325 Type 1, $\frac{7}{8}$" Dia.

Unless noted otherwise, bolt tensioning requirements for all structural steel repairs shall meet the requirements in Subsection 807.06.

All new bolt holes, unless noted otherwise, shall be $\frac{15}{16}$" dia. Where existing rivets are to be removed and replaced with bolts, existing rivet holes shall be reamed up to $\frac{1}{16}$". The Contractor shall not exceed $1\frac{1}{16}$" dia. bolt holes. If larger bolt holes are formed, the Contractor shall contact the Engineer for further evaluation.

All oversized holes shall require the use of two washers, one below the head of the bolt and one below the nut.

The minimum edge distance on bolted connections shall meet the requirements in the Subsection 807.42.

SUBSTRUCTURE NOTES: See Std. Dwg. No. 55006 for additional substructure notes.

PAINTING: Blast clean the faying surfaces of splices and connections of all structural elements to a level SSPC-SP15 requiring a Commercial Grade Power Cleaning Tool. Unless noted otherwise on the plans, all existing steel within 12" of the working limits of each retrofit location shall be cleaned and capable of achieving a Class B Slip Resistant Coefficient. See SP Job No. 110812 "STEEL PLATE CONNECTION PREPARATION" for additional information. Blast clean all other surfaces of all structural elements to a level SSPC-SP10, see SP Job No. 110812 "CLEANING AND PAINTING EXISTING STRUCTURAL STEEL" for additional information.

The existing bridge structural members may contain lead paint and other toxic materials. All power tools shall be equipped with vacuum shrouds and tipped with HEPA-grade air filters at their air exhaust.

All structural steel, except galvanized members and surfaces in contact with concrete, shall be painted as specified in Subsection 807.75. The color of paint shall be Aluminum and shall match Federal Standard 595B, Color Chip No. 27200. Submit a sample of the proposed paint color to the Engineer for acceptance prior to ordering the finish coat material.

The intermediate coat(s) shall be white. Provide stripe coats of contrasting colors to accommodate coating inspection in the field.

BRIDGE DECK: The concrete bridge deck shall be given an artificial turf drag finish before the concrete has attained its initial set. The Mean Texture Depth (MTD) shall be no less than 0.04 in. per ASTM E 965. See SP Job No. 110812 "LIGHTWEIGHT AGGREGATE CONCRETE (AE)" for additional information.

PROTECTIVE SURFACE TREATMENT: Class 2 Protective Surface Treatment shall be applied to the roadway surface of the backwall and to the roadway face and top of the concrete bridge traffic rails in the Main Truss Spans in accordance with Section 803.

DETAIL DRAWING NO(S).	DETAIL DRAWINGS:
69539	Details of West Abutment Backwall Repair
69540-69543	Details of Bearing Replacement
69544-69552	Details of Deck Replacement
69553	Details of Main Truss Structural Steel Repairs
69554	Details of Contraction Joints
69555-69559	Details of Main Truss Expansion Joints and Drainage Systems
69560-69563	Details of Floor Beam Repairs: L25, L43, and L59 Locations
69564	Details of Floor Beam Repairs: Repair Type A - Top Flange Repair
69565-69566	Details of Floor Beam Repairs: Repair Type B - Bottom Flange Repair
69567-69568	Details of Floor Beam Repairs: Repair Type C - Web Repair
69569	Details of Floor Beam Repairs: Repair Type D - Stiffener Replacement
69570	Details of Repair Type E - Pin and Hanger Replacement
69571	Details of Repair Types F and G
69572	Details of Repair Type H - Cross Beam Replacement
69573-69574	Details of Upper Chord Repairs
69575-69578	Details of Lower Chord Repairs
69579-69585	Details of Main Truss Spans Wind Lock Replacement
69586	Details of Access Platform Repair
69587-69590	Details of Approach Spans Expansion Joints and Drainage System
69591-69592	Details of Approach Spans Floor Beam Replacements
69593	Details of Approach Spans Floor Beam Repairs
69594	Details of East Abutment Stringer 2 Repair
69595-69600	Details of Approach Spans Wind Lock Replacement
69601	Details of Type Special Approach Gutter

GENERAL NOTES (Cont'd)

EXISTING BRIDGE: Existing Bridge No. 02899 (Log Mile 0.569) is 30.8' wide (28.0' clear roadway) and 5198.5' long consists of three steel superstructure units in the West Approach Spans, five steel truss units in the Main Truss Spans, and two steel superstructure units in the East Approach Span; with a concrete substructure. Plans of the existing structure, if available, may be obtained upon request to the Construction Contract Development Section of the Program Management Division.

VERIFICATION: Except as noted, components of the existing bridge are to be retained and joined to the proposed work. Information and dimensions shown are based on the existing bridge plans. The Contractor is to adhere strictly to the requirements for verification of the geometry of the existing bridge and its relationship to the proposed work described in Subsection 821.02 and make necessary adjustments to fit the proposed work to the existing structure. Payment for this work shall be considered subsidiary to the pay item "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)".

REMOVAL AND SALVAGE: Portions of existing Bridge No. 02899 shall carefully be removed by the Contractor during staged construction as detailed in the plans. All material removed from the existing bridge shall become property of the Contractor. Payment for this work shall be considered subsidiary to the pay item "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)".

SHORING: Shoring for truss floor beam repairs, truss stinger repairs, approach floor beam replacements and repairs, and lower wind lock replacements shall conform to SP Job No. 110812 "STRUCTURAL STEEL SHORING". Shoring for west abutment backwall excavation shall conform to SP Job No. 110812 "SHORING".

The west abutment backwall is located on the Mississippi and White River Below Helena levee system. Care shall be taken so that the shoring for the backwall replacement shall not be detrimental to the levee integrity. All shoring details and plans for the backwall replacement must be submitted to USACE for review prior to beginning construction. In the event of high water, an emergency action plan shall be required to protect the integrity of the levee system. See SP Job No. 110812 "SHORING" for additional information.

MAINTENANCE OF TRAFFIC: See Roadway Plans and SP Job No. 110812 "MAINTENANCE OF TRAFFIC"

WORKING PLATFORM: Stability of partial members and complete members is to be maintained by the Contractor during erection, until all members and final bracing are in place and all bolts are properly installed. Erection loads, including self-weight of the steel members, wind loading and construction live load effects are to be evaluated by the Contractor for stability, stresses and deflections on the steel members during any stage of erection in accordance with Subsection 105.14.

The Contractor is responsible for all construction loads on the bridge and shall conduct the work in a manor to avoid overstressing or damage of the existing structure. The Contractor shall consider provided inspection information in their construction approach.

The Contractor shall provide to the Engineer their proposed access systems for review and approval.

The Contractor is responsible for ensuring all construction loads acting on the structure and its components are within safe working limits. The Contractor shall provide to the Engineer their proposed paint tarping system and blast containment system for review and approval.

STEEL DETERIORATION LIMITS: The Contractor shall refer to the "Section Loss Limits" and "Remaining Section Limits" tables provided for allowable section loss by member. During blast cleaning and surface preparation, care shall be taken to avoid removal of material beyond the section loss values listed in the table. After cleaning, the Contractor shall perform thickness checks using approved methods to verify that remaining section dimensions meet or exceed the listed values. If upon inspection, it appears that cleaning of the structural members should exceed any of the listed section loss values, the Contractor shall consult the Engineer prior to cleaning for evaluation and determination of necessary repair. For additional information see SP Job No. 110812 "CLEANING AND PAINTING EXISTING STRUCTURAL STEEL".

BRIDGE REHABILITATION: Do not consider any of the data on the existing structure supplied in the original design drawings or made available to you by ARDOT or its authorized agents as positive representations of any of the conditions that you will encounter in the field.

The information shown on the plans for the existing bridge is not part of the plans, proposal, or contract and is not to be considered a basis for computation of the unit prices used for bidding purposes. There is no expressed or implied agreement that information is correctly shown. The bidder is not to rely on this information, but is to assume the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated.

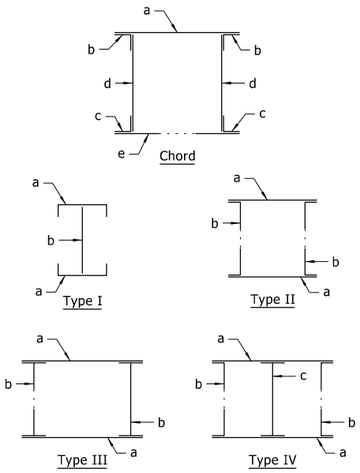
Use care when removing portions of the existing structure to prevent damage to the remaining portions. Repair or replace any remaining components damaged by removal operations at no additional cost to ARDOT to the satisfaction of the Engineer.

VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT TO PROPOSED CONSTRUCTION PRIOR TO FABRICATION. SUBMIT TO THE ENGINEER FOR APPROVAL ANY PROPOSED ADJUSTMENTS TO FACILITATE PROPER FIT TO THE EXISTING STRUCTURE.

Final design inspection was not performed prior to developing the contract plans. Types of repairs and repair limits have been developed using inspection data provided by others. Every effort has been taken to accurately represent the types and extents of repairs required; however, repairs and their limits are subject to change in the field at the direction of the Engineer.

FIELD DRILLING OPTION: The Contractor may, subject to the Engineers approval, substitute field drilling for shop-drilled holes when attaching new plates or members to existing riveted/bolted connections. The Contractor is responsible for ensuring proper hole alignment and fit-up. Any misalignment requiring reaming or adjustment shall be performed at the Contractor's expense.

TRUSS MEMBER TYPES



SECTION LOSS LIMITS

Maximum Allowable Section Loss

TRUSS MEMBERS	
Chord	
Top Plate, a	0.5 sq. in.
Top Angles, b	0.25 sq. in.
Bottom Angles, c	0.25 sq. in.
Web Plate, d	1.0 sq. in.
Bottom Plate, e	0.5 sq. in.
Type I	
Channels, a	1.5 sq. in.
Web Plate, b	0.125 in.
Type II	
Plates, a	0.125 In.
Channels, b	2.52 sq. in.
Type III	
Plates, a	0.125 In.
I-Beams, b	1.0 sq. in.
Type IV	
Plates, a	0.125 In.
Channels, b	2.7 sq. in.
I-Beam, c	3.2 sq. in.

REMAINING SECTION LIMITS

Minimum Allowable Remaining Section

MAIN SPANS							
Member	Top Flange	Bottom Flange	Bottom Cover PL	Top Cover PL	Web Out Side Stingers	Web Between Stingers	Thickness
① Floor Beam Type FB1 & FB2	0.5"	0.5"	--	--	0.3125"	0.1875"x6"	--
② Floor Beam Type FB5	0.5"	0.5"	0.4"	0.4"	0.594"	0.594"	--
③ Floor Beam Type FB6	0.7"	0.7"	--	--	0.55"	0.55"	--
Stringers 1 and 3 (Ext. Stringer)	0.9375"	0.9375"	--	--	0.625"	0.625"	--
Stringer 2 (Int. Stringer)	1.125"	1.125"	--	--	0.6875"	0.6875"	--
Gusset Plate	--	--	--	--	--	--	0.5"
④ Pin & Hanger Bar (Ext. Stringer)	--	--	--	--	--	--	0.875"
④ Pin & Hanger Bar (Int. Stringer)	--	--	--	--	--	--	0.875"
APPROACH SPANS							
Member	Top Flange	Bottom Flange	Bottom Cover PL	Top Cover PL	Web Out Side Stingers	Web Between Stingers	Thickness
Exterior Girders - Unit 1	0.5"x3"	0.5"x3"	--	--	0.25"x12"	0.25"x12"	--
Interior Girders - Unit 1	0.5"x6"	0.5"x6"	0.25"x3"	0.25"x3"	0.25"x12"	0.25"x12"	--
Girders - Units 2 & 3	0.625"x3"	0.625"x3"	--	--	0.375"x12"	0.375"x12"	--
Girders - Units 4 & 5	0.625"	0.625"	--	--	0.375"	0.375"	--
⑤ Floor Beam - Unit 2	0.7875"x4"	0.7875"x4"	--	--	0.45"	0.45"	--
Floor Beam - Unit 3	0.725"x4"	0.725"x4"	--	--	0.45"	0.45"	--
Floor Beam - Unit 4	0.725"x4"	0.725"x4"	--	--	0.45"	0.45"	--
⑤ Floor Beam - Unit 5	0.7875"x4"	0.7875"x4"	--	--	0.45"	0.45"	--
Stringers - Units 2 thru 5	0.6875"	0.6875"	--	--	0.4375"	0.4375"	--

①FB1 are typical floor beams, FB2 are floor beams located at contraction joints.

FB3 and FB4 are floor beams located at L25, L43, and L59 (not included in this table); see Dwg. Nos. 69560-69563 for additional details.

②FB5 are floor beams at L0 and L74.

③FB6 are floor beams located at L10, L30, L48, and L64.

④Allowable reduction in the edge distance of hanger bar is 0.125 in. on each end.

⑤Maximum section loss cannot be allowed in top and bottom flanges simultaneously at the same location.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/18/2026

BRIDGE ENGINEER
PRINT DATE: 6/18/2026

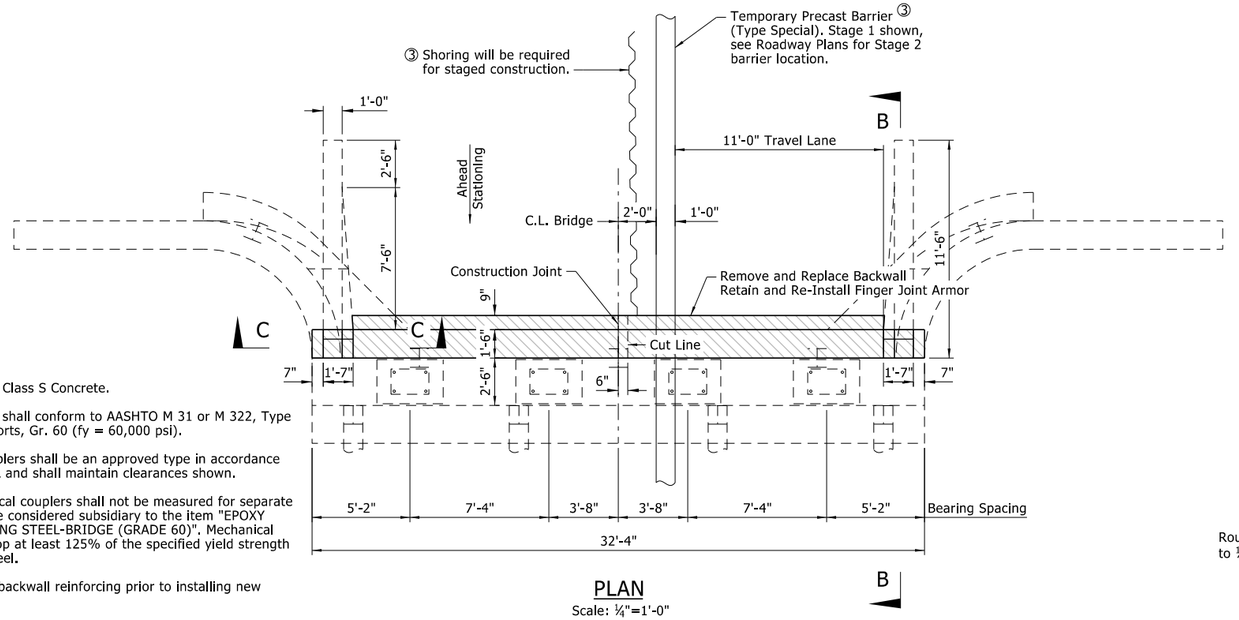
GENERAL NOTES
HWY. 49 OVER MISSISSIPPI RIVER
HWY. 49 MISSISSIPPI RIVER BRIDGE REHAB. (S)
PHILLIPS COUNTY
ROUTE 49 SECTION 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: HSS DATE: 04/2025

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	45	107
		02899 - BACKWALL REPAIR- 69539				



PLAN
Scale: ¼"=1'-0"

Notes:
All concrete shall be Class S Concrete.

Reinforcement Steel shall conform to AASHTO M 31 or M 322, Type A with Mill Test Reports, Gr. 60 (fy = 60,000 psi).

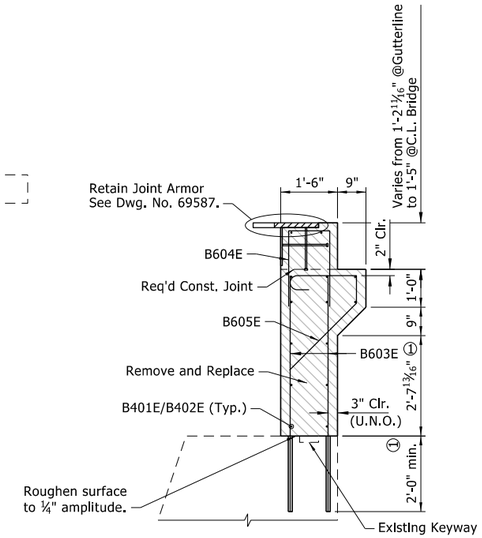
The mechanical couplers shall be an approved type in accordance with the ARDOT QPL and shall maintain clearances shown.

The cost of mechanical couplers shall not be measured for separate payment but shall be considered subsidiary to the item "EPOXY COATED REINFORCING STEEL-BRIDGE (GRADE 60)". Mechanical couplers shall develop at least 125% of the specified yield strength of the reinforcing steel.

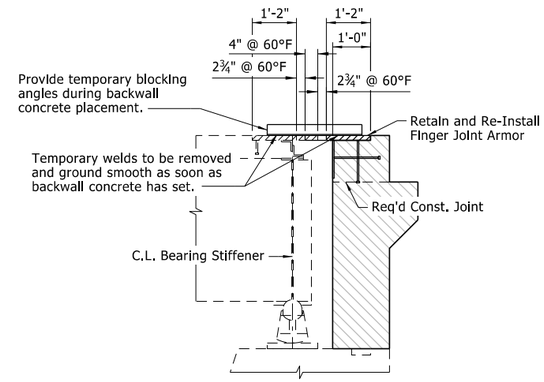
Remove all existing backwall reinforcing prior to installing new vertical reinforcing.

The Type C Bridge Name Plate, if removed, should be retained and reinstalled approximately 1' from front face of backwall. The work necessary to remove, clean, and reinstall the Bridge Name Plate shall be considered subsidiary to Class S Concrete.

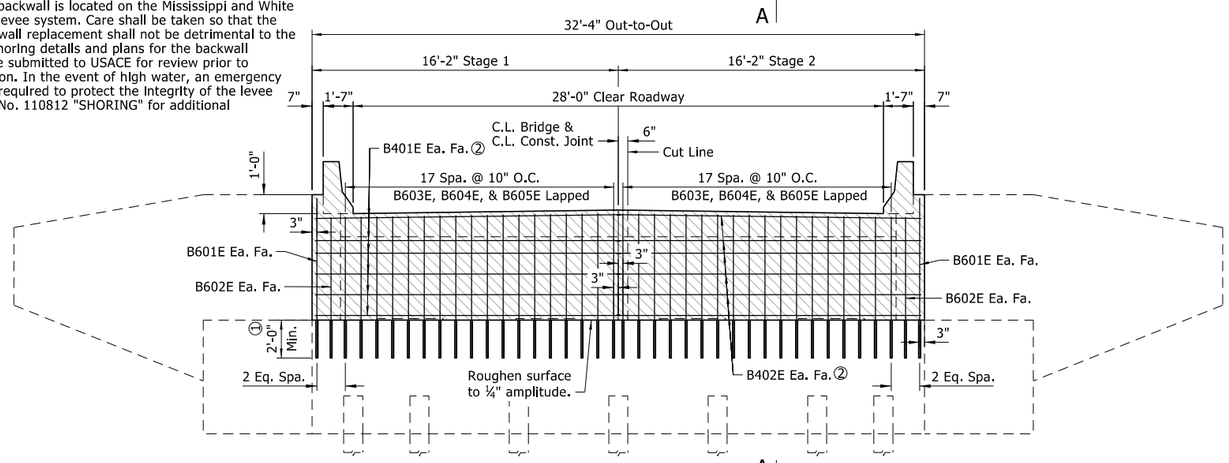
The west abutment backwall is located on the Mississippi and White River Below Helena levee system. Care shall be taken so that the shoring for the backwall replacement shall not be detrimental to the levee integrity. All shoring details and plans for the backwall replacement must be submitted to USACE for review prior to beginning construction. In the event of high water, an emergency action plan shall be required to protect the integrity of the levee system. See SP Job No. 110812 "SHORING" for additional information.



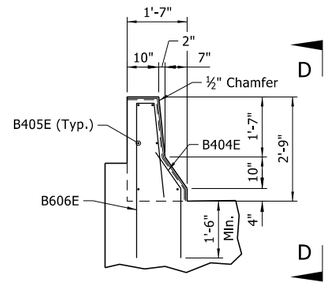
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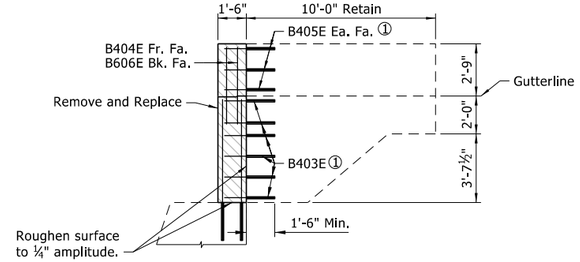
FINGER JOINT INSTALLATION
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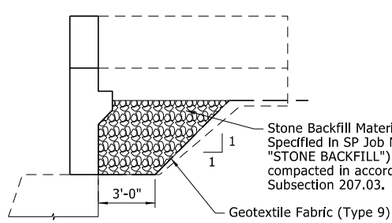
ELEVATION
(Looking Back)
Scale: ¼"=1'-0"



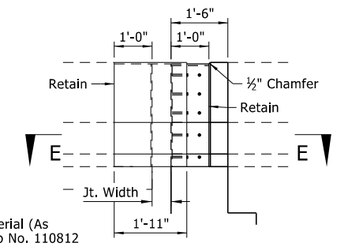
SECTION C-C
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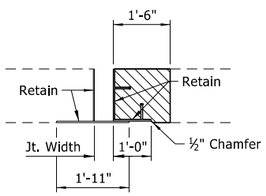
SECTION B-B
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BACKFILL DETAIL ③
Scale: ¼"=1'-0"



VIEW D-D
Scale: ½"=1'-0"



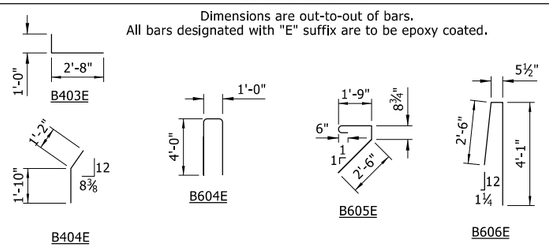
SECTION E-E
No Scale

BAR LIST

MARK	NO. REQ'D	LENGTH	PIN DIA.
②B401E	14	16'-6"	Str.
②B402E	14	15'-6"	Str.
B403E	12	3'-7"	2"
B404E	4	3'-0"	2"
B405E	12	2'-10"	Str.
B601E	4	8'-7"	Str.
B602E	4	7'-7"	Str.
B603E	72	6'-3"	Str.
B604E	36	8'-8"	4½"
B605E	36	5'-6"	4½"
B606E	4	6'-9"	4½"

BENDING DIAGRAMS

Dimensions are out-to-out of bars.
All bars designated with "E" suffix are to be epoxy coated.



①Bars placed shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Drilled hole diameter and depth shall be as recommended by the grout manufacturer.

②Bars are to be spliced with mechanical couplers. Bar lengths shown are proposed. Exact measurements and dimensions are to be determined by the Contractor. Any changes to the bar length to accommodate the couplers shall not be paid for directly but shall be considered subsidiary to the item "EPOXY COATED REINFORCING STEEL (GRADE 60)".

③Dimensions shown are proposed. Exact measurements and dimensions are to be determined by the Contractor. Contractor shall submit shoring plans to the Engineer for approval. See SP Job No. 110812 "SHORING" for additional details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER
6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF WEST ABUTMENT BACKWALL REPAIR

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

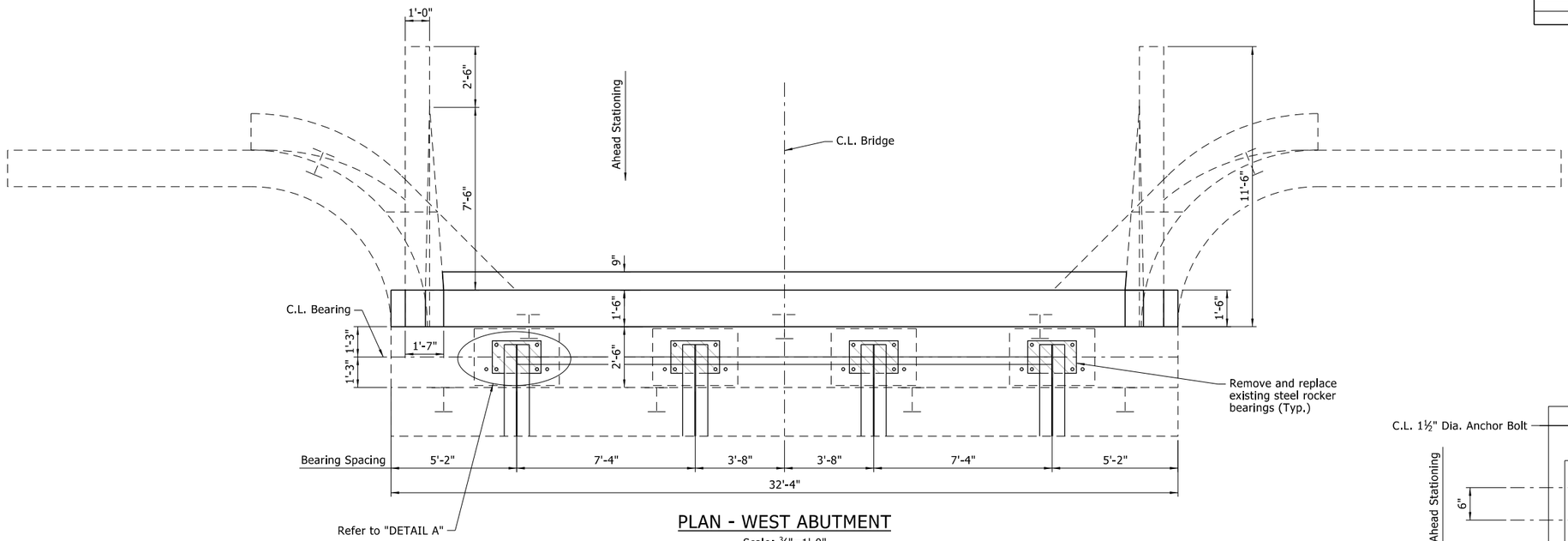
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DESIGNED BY:	LAC	DATE:	03/2025		

BRIDGE NO. 02899

DRAWING NO. 69539

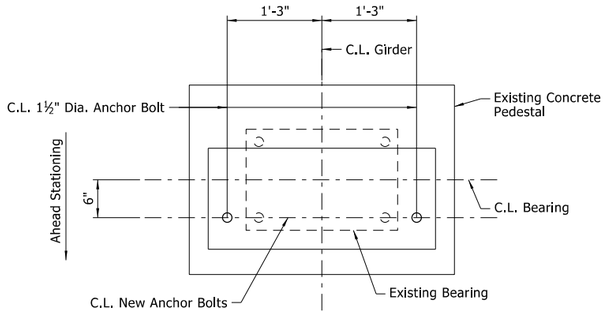
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	46	107
		02899 - BEARINGS - 69540				



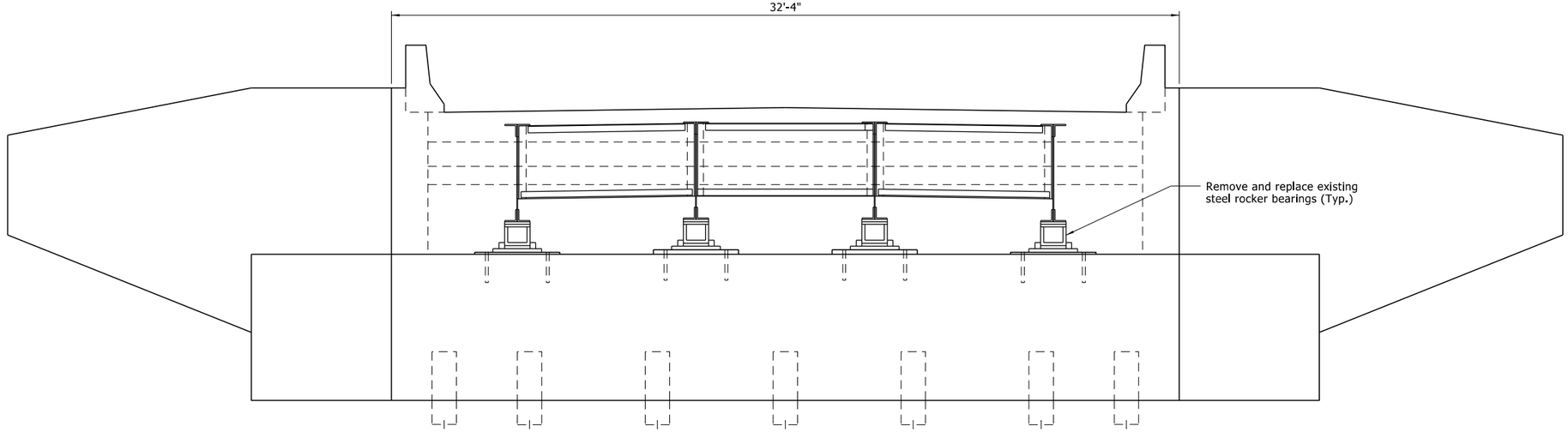
PLAN - WEST ABUTMENT

Scale: ⅜"=1'-0"



DETAIL A

Scale: 1"=1'-0"



ELEVATION - WEST ABUTMENT

(Looking Back)
Scale: ⅜"=1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 4
DETAILS OF BEARING REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

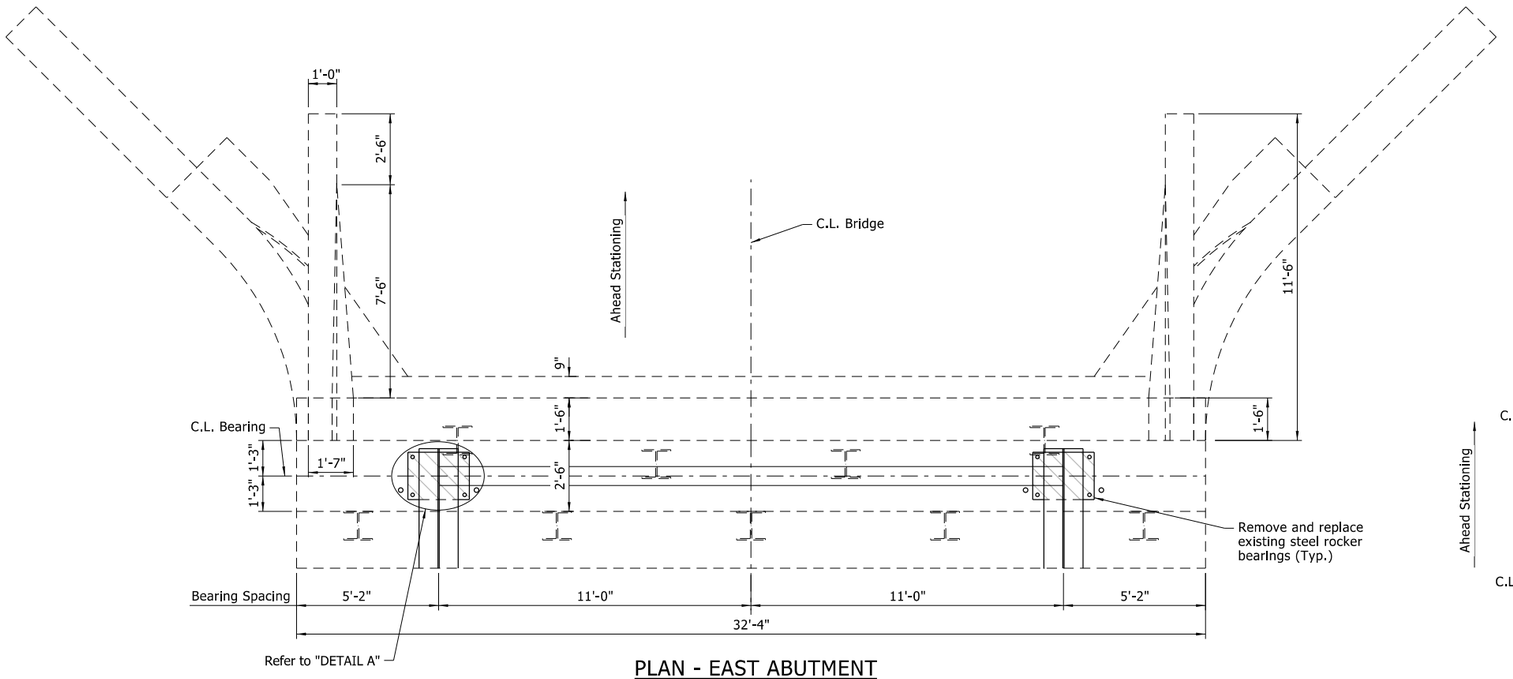
LITTLE ROCK, ARK.

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DESIGNED BY: JSB DATE: 05/2025

BRIDGE NO. 02899 DRAWING NO. 69540

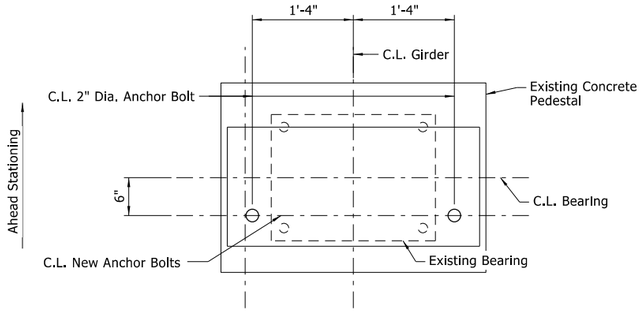
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REVISED DATE:

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		02899 - BEARINGS - 69541				



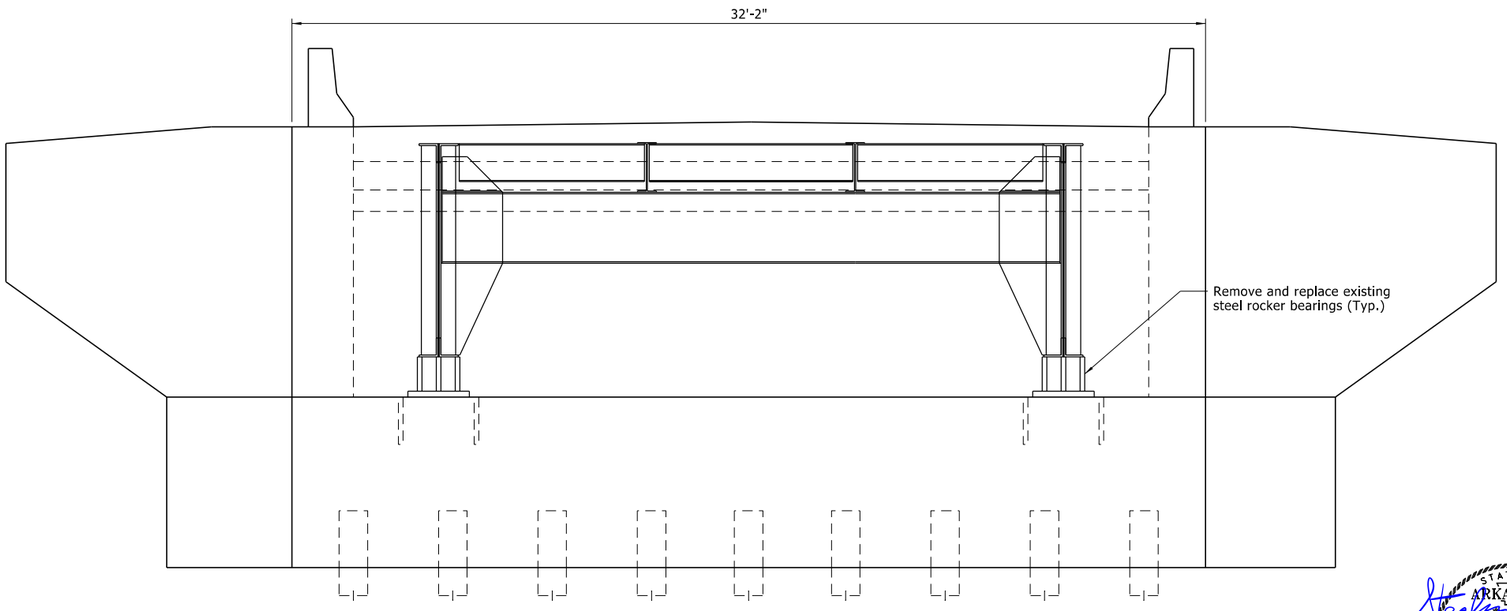
PLAN - EAST ABUTMENT

Scale: ⅜"=1'-0"



DETAIL A

Scale: 1"=1'-0"



ELEVATION - EAST ABUTMENT

(Looking Ahead)
Scale: ⅜"=1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 2 OF 4
DETAILS OF BEARING REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

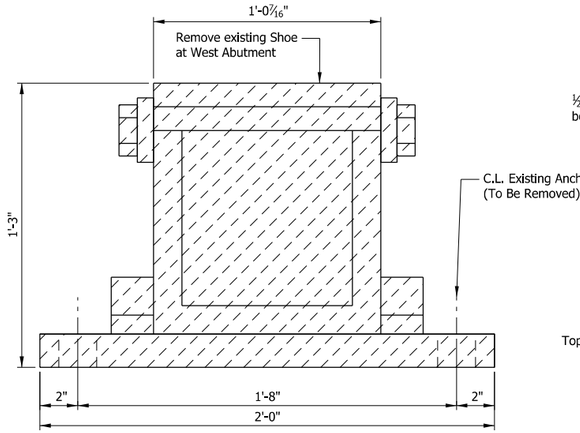
LITTLE ROCK, ARK.

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DESIGNED BY: JSB DATE: 05/2025

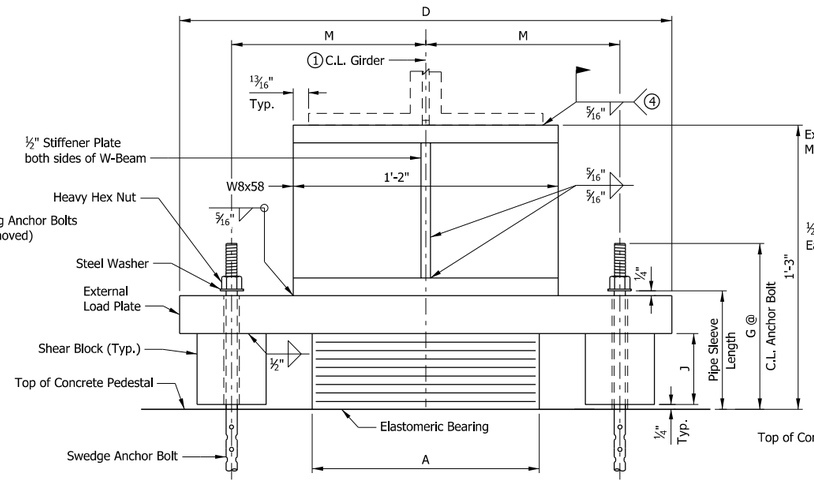
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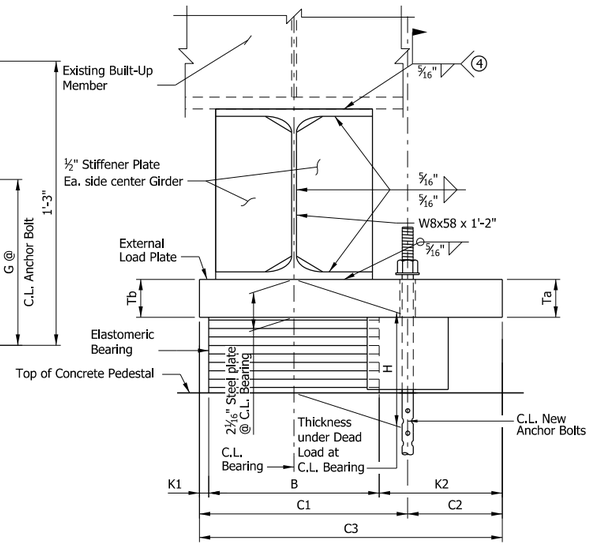
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		02899 - BEARINGS - 69542				



WEST ABUTMENT SHOE REMOVAL

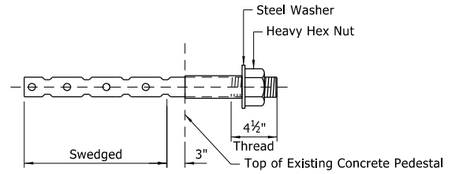


END VIEW



SIDE VIEW

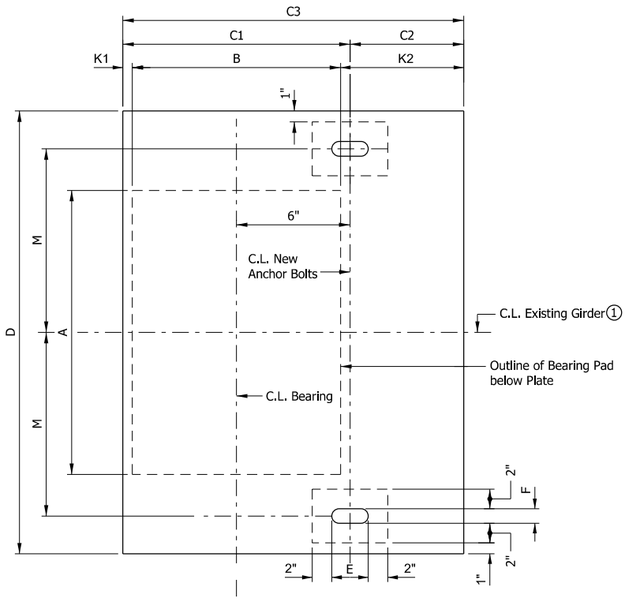
WEST ABUTMENT BEARING DETAILS



ANCHOR BOLT DETAIL

Note:
Anchor bolts shall be drilled and grouted into place.

Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes.



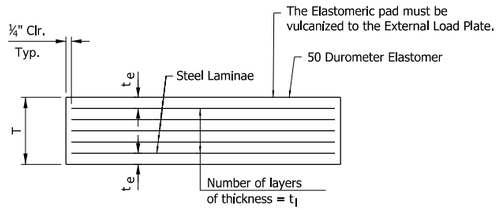
PLAN VIEW

① C.L. Elastomeric pad shall be aligned with C.L. Girder.

② Maximum Load = Service Load

③ Shear Blocks 4" or thicker may be fabricated from built-up plates with a 5/16" groove weld on all sides. No plate shall be less than 2" nominal thickness.

④ Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the beam or girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperature is required, the engineer will provide adjustment data. Care shall be taken to ensure that the external load plate is in full and complete contact with the beam or girder flanges before welding begins.



t_i = Thickness of Elastomer between Steel Laminae
t_e = Thickness of Elastomer cover on top and bottom of pad
N = Number of Elastomer layers of thickness t_i

ELASTOMERIC BEARING PAD DETAIL

GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS".

External load plates and shear blocks shall conform to ASTM A709, Grade 50. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

External load plates and shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welds) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709-GR36)". External load plates, shim plates, and W-Shape bolsters will not be measured or paid for separately, but will be considered incidental to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.

See Dwg. No. 69543 for East Abutment Bearing Details.

Existing anchor bolts shall be cut and ground flush with the top of the abutment cap so as not to interfere with the placement of the new anchor bolt assembly.

Prior to drilling holes in cap for new anchor bolts, the Contractor shall scan the abutment caps for existing reinforcing steel locations and report any conflicts or needed adjustments to the Engineer.

The bridge jacking and temporary falsework required for replacing the bearings at the west and east abutments shall be paid for as "BRIDGE JACKING (SITE NO. 1)" and "TEMPORARY FALSEWORK (SITE NO. 1)". For additional information see SP Job No. 110812 "BRIDGE JACKING AND TEMPORARY FALSEWORK FOR BEARING REPLACEMENTS".

ALL BEARING REPLACEMENT OPERATIONS SHALL BE COMPLETE UNDER TRAFFIC.

TABLE OF FABRICATOR VARIABLES

BRIDGE NO.	LOCATION		BEARING TYPE	NO. OF BEARINGS EACH BENT	MAXIMUM DESIGN ②LOAD (kips)	ELASTOMERIC PAD								EXTERNAL LOAD PLATE													ANCHOR BOLT			
	ABUTMENT	BEAM OR GIRDER NO.				G	H	A	B	N	t_i	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	C1	C2	C3	D	E	F	J ③	K1	K2	M	Ta	Tb	ANCHOR BOLT Ø x L	ANCHOR BOLT GRADE	PIPE SLEEVE SIZE (Ø x L)	STEEL WASHER SIZE (O.D.)
02899	WEST	ALL	EXP.	4	73.5	9"	6¼"	16"	9"	6	½"	¼"	7 @ 12ga.	4¼"	11"	10⅞"	21⅞"	38¼"	3¾"	2¼"	3 15/16"	½"	12⅜"	15"	2.72"	1.87"	1½" x 25"	55	1½" x 6⅝"	3"
	EAST	ALL	EXP.	2	227.8	11½"	8"	18"	15"	9	½"	¼"	10 @ 12ga.	6 1/16"	14"	12¼"	26¼"	41⅛"	6½"	3⅛"	5¾"	½"	10¾"	16"	1.78"	2.51"	2" x 32½"	55	2½" x 8⅜"	3¾"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/24/2026

BRIDGE ENGINEER
PRINT DATE: 6/24/2026

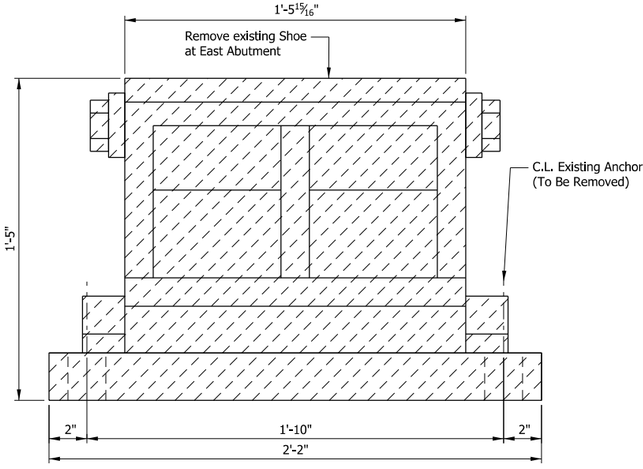
SHEET 3 OF 4
DETAILS OF BEARING REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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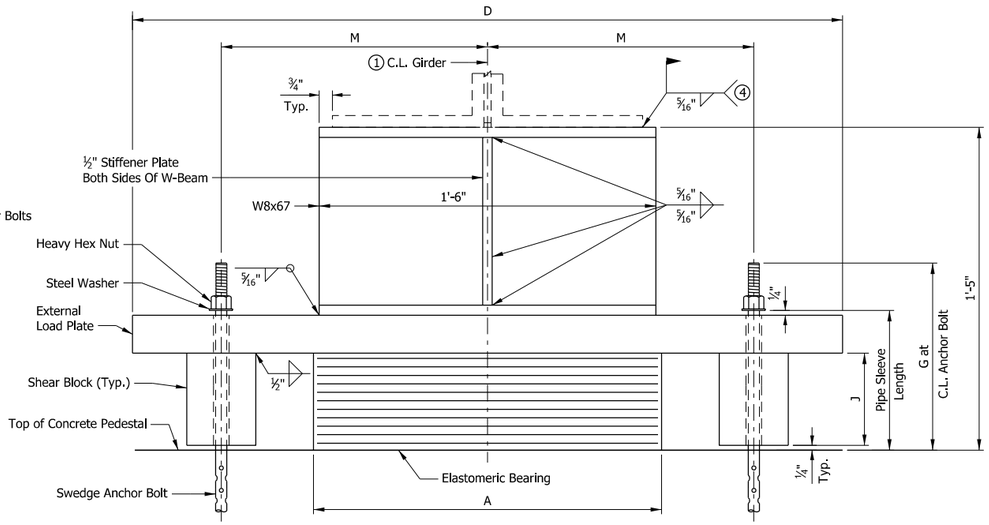
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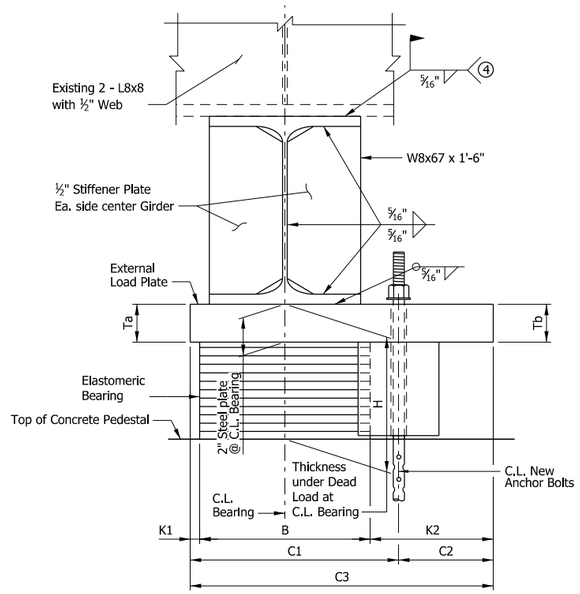


EAST ABUTMENT SHOE REMOVAL



END VIEW

EAST ABUTMENT BEARING DETAILS



SIDE VIEW

Note:
For Table of Fabricator Values, Elastomeric Bearing Pad Detail, Anchor Bolt Detail, and General Notes, see Dwg. No. 69542.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 4 OF 4
DETAILS OF BEARING REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

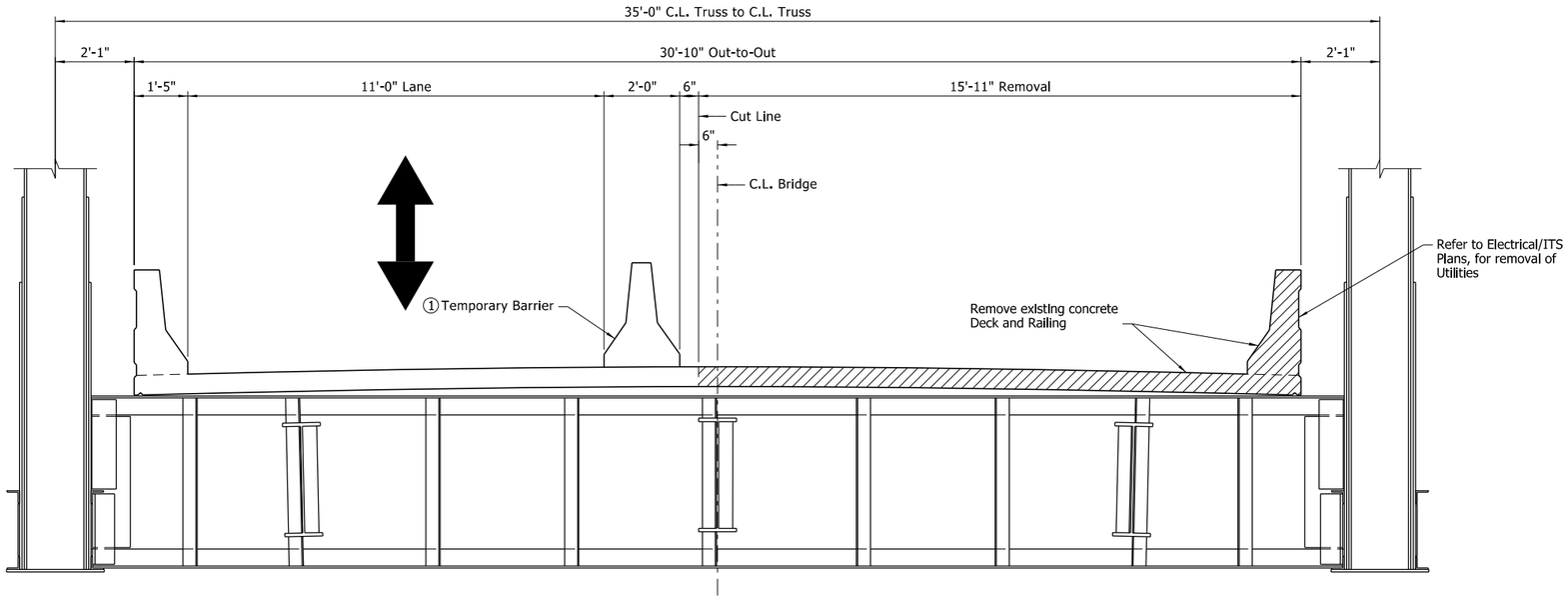
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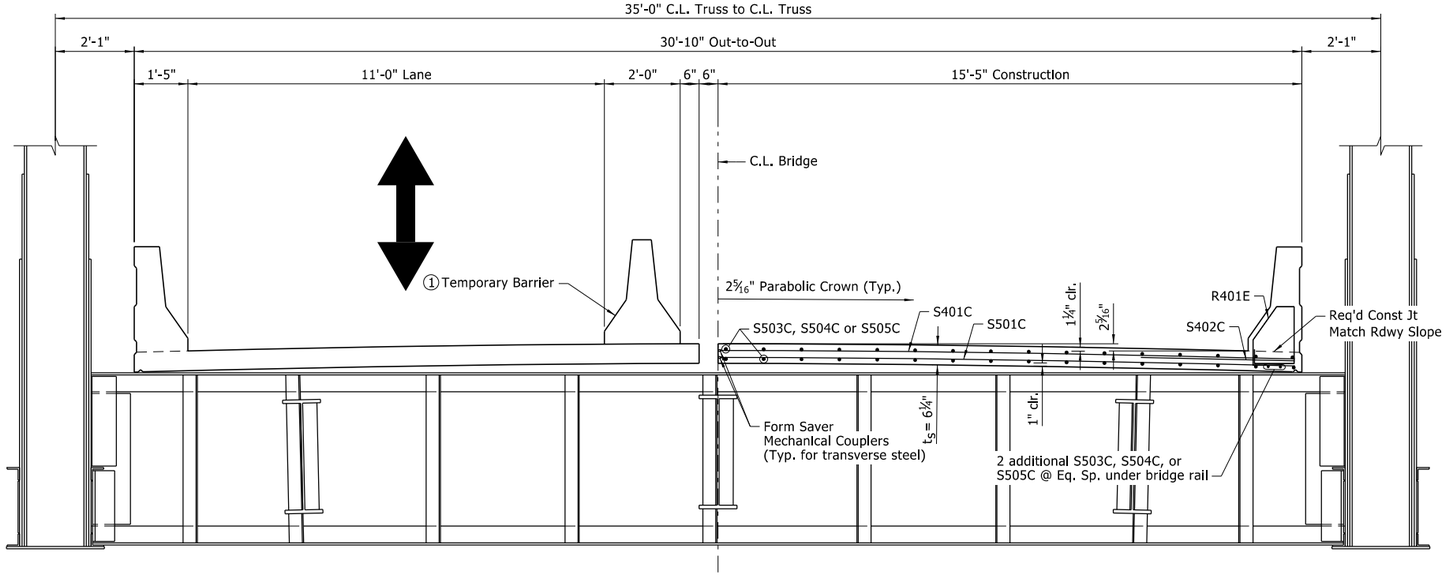
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		02899 - DECK REPLACEMENT - 69544				



STAGE 1: DEMOLITION
(Looking Ahead)

STAGE 1:
Slab Reinforcing:
Longitudinal: S503C, S504C or S505C @ 12" o.c max in top and bottom (placed as shown)

Transverse: S401C @ 12" O.C. in top
S501C @ 12" O.C. on bottom
S402C U-bars @ 24" O.C. under bridge rail



STAGE 1: CONSTRUCTION
(Looking Ahead)

Notes:
All reinforcing steel bars designated with an "E" suffix are to be AASHTO M 31 or M 322, Type A (fy = 60,000 psi) epoxy coated reinforcing steel.

All bars designated with a "C" suffix are to be AASHTO M334 M/ M 334, Type 1035 CS (fy = 100,000 psi) and conform to SP Job No. 110812 "LOW-CARBON CHROMIUM REINFORCING STEEL".

The cost of the Form Saver Mechanical Couplers shall not be measured for separate payment but shall be considered subsidiary to the item "LCCR REINFORCING STEEL-BRIDGE (GRADE 100)". Form Saver Mechanical Couplers shall develop at least 125% of the specified yield strength of the reinforcing steel.

All concrete shall conform to SP Job No. 110812 "LIGHTWEIGHT AGGREGATE CONCRETE (AE)" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

The details shown are for use when removable deck forming is used and is the basis of measurement for "LIGHTWEIGHT AGGREGATE CONCRETE (AE)".

For concrete bridge rail details, see Dwg. No. 69552.

① Attach temporary barrier to deck. See Roadway Std. Dwg. TC-4.

Threaded inserts shall be cast in all new bridge deck sections during Stage 1. If threaded inserts cast in place during Stage 1 in the bridge deck sections do not line up with precast concrete barrier installation, then the Contractor shall use GPR or MIT scans to locate rebar before installation of precast concrete barrier in Stage 2.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/18/2026

BRIDGE ENGINEER
PRINT DATE: 6/18/2026

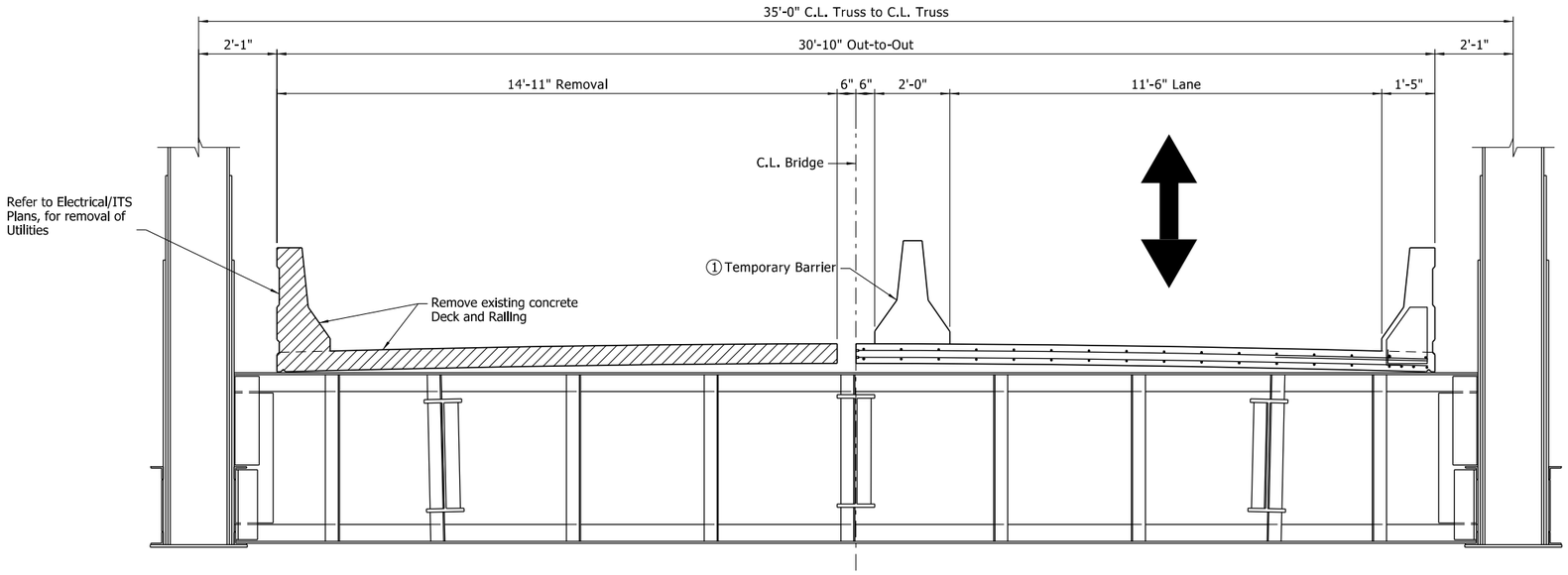
SHEET 1 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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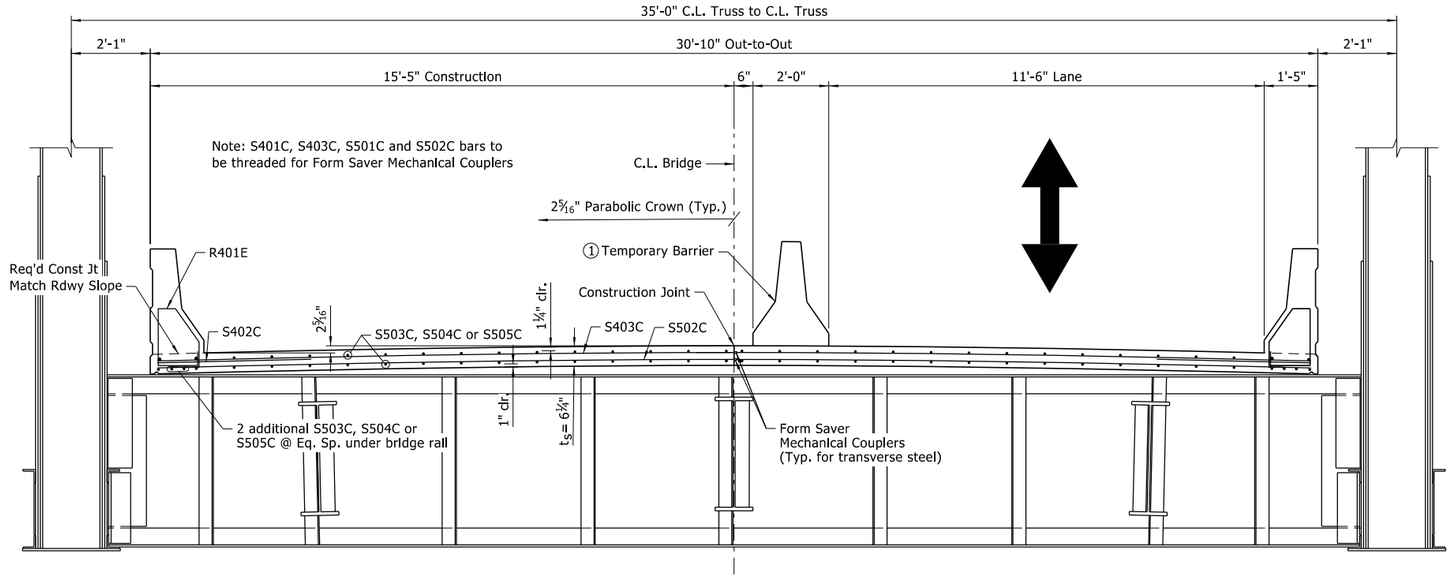


STAGE 2: DEMOLITION
(Looking Ahead)

STAGE 2:

Slab Reinforcing:
Longitudinal: S503C, S504C or S505C @ 12" o.c max. in top and bottom (Placed as shown)

Transverse: S403C @ 12" O.C. in top
S502C @ 12" O.C. on bottom
S402C U-bars @ 24" O.C. in top under bridge rail



STAGE 2: CONSTRUCTION
(Looking Ahead)

Notes:
All reinforcing steel bars designated with an "E" suffix are to be AASHTO M 31 or M 322, Type A (fy = 60,000 psi) epoxy coated reinforcing steel.

All bars designated with a "C" suffix are to be AASHTO M334 M/ M 334, Type 1035 CS (fy = 100,000 psi) and conform to SP Job No. 110812 "LOW-CARBON CHROMIUM REINFORCING STEEL".

The cost of the Form Saver Mechanical Couplers shall not be measured for separate payment but shall be considered subsidiary to the item "LCCR REINFORCING STEEL-BRIDGE (GRADE 100)". Form Saver Mechanical Couplers shall develop at least 125% of the specified yield strength of the reinforcing steel.

All concrete shall conform to SP Job No. 110812 "LIGHTWEIGHT AGGREGATE CONCRETE (AE)" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

The details shown are for use when removable deck forming is used and is the basis of measurement for "LIGHTWEIGHT AGGREGATE CONCRETE (AE)".

For concrete bridge rail details, see Dwg. No. 69552.

① Attach temporary barrier to deck. See Roadway Std. Dwg. TC-4.

Threaded inserts shall be cast in all new bridge deck sections during Stage 1. If threaded inserts cast in place during Stage 1 in the bridge deck sections do not line up with precast concrete barrier installation, then the Contractor shall use GPR or MIT scans to locate rebar before installation of precast concrete barrier in Stage 2.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/18/2026

BRIDGE ENGINEER
PRINT DATE: 6/18/2026

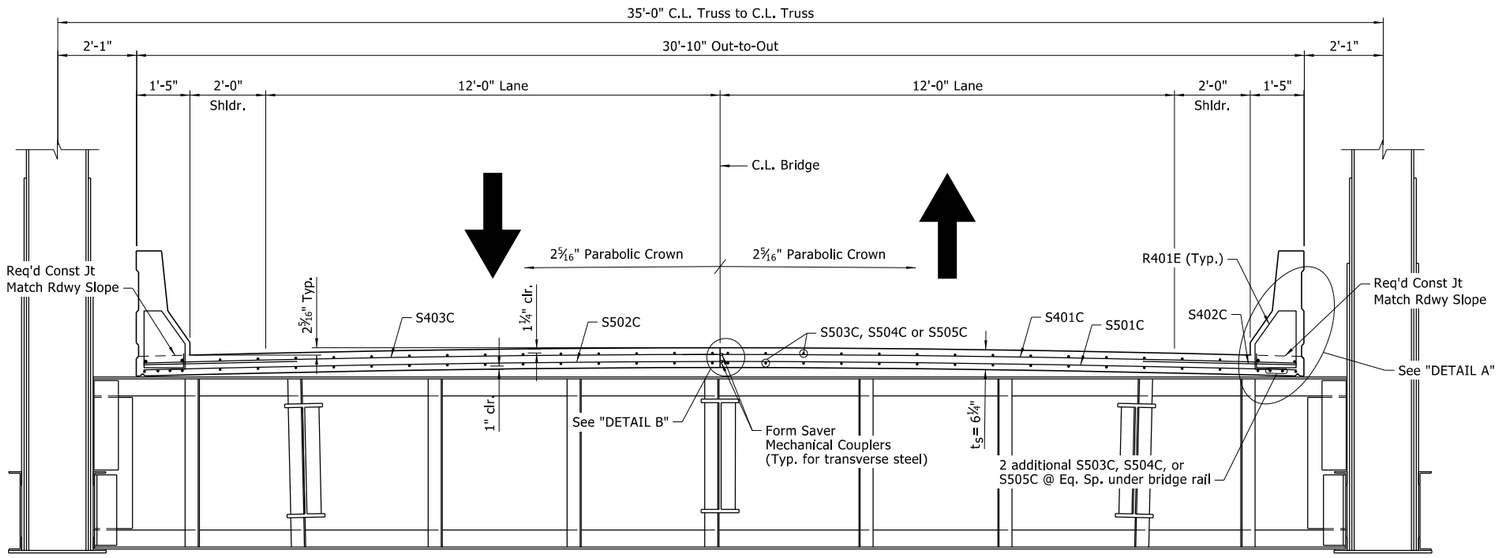
SHEET 2 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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BRIDGE NO. 02899 DRAWING NO. 69545

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	52	107
		02899 - DECK REPLACEMENT - 69546				



COMPLETED CONSTRUCTION
(Looking Ahead)
½" = 1'-0"

Notes:
All reinforcing steel bars designated with an "E" suffix are to be AASHTO M 31 or M 322, Type A (fy = 60,000 psi) epoxy coated reinforcing steel.

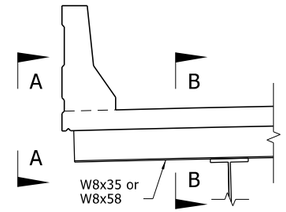
All bars designated with a "C" suffix are to be AASHTO M334 M/ M 334, Type 1035 CS (fy = 100,000 psi) and conform to SP Job No. 110812 "LOW-CARBON CHROMIUM REINFORCING STEEL".

The cost of the Form Saver Mechanical Couplers shall not be measured for separate payment but shall be considered subsidiary to the item "LCCR REINFORCING STEEL-BRIDGE (GRADE 100)". Form Saver Mechanical Couplers shall develop at least 125% of the specified yield strength of the reinforcing steel.

All concrete shall conform to SP Job No. 110812 "LIGHTWEIGHT AGGREGATE CONCRETE (AE)" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

The details shown are for use when removable deck forming is used and is the basis of measurement for "LIGHTWEIGHT AGGREGATE CONCRETE (AE)".

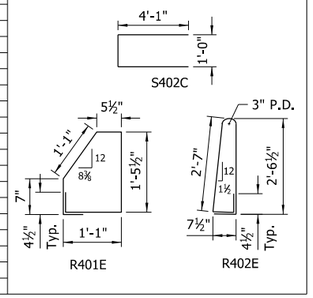
For concrete bridge rail details, see Dwg. No. 69552.



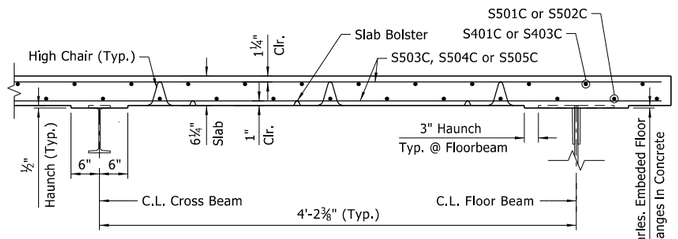
TYPICAL VIEW OF CROSS BEAMS AT OVERHANG

BAR LIST

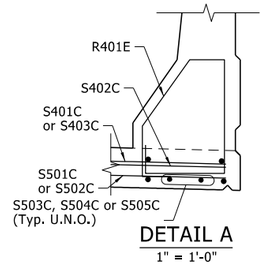
MARK	NO. REQ'D	LENGTH	PIN. DIA.	BENDING DIAGRAMS Dimensions are out-to-out of Bars.
S401C	3073	15'-1½"	Str.	
S402C	2922	9'-0"	3"	
S403C	3073	15'-3½"	Str.	
S501C	3049	15'-1½"	Str.	
S502C	3049	15'-4"	Str.	
S503C	272	44'-0"	Str.	
S504C	2856	45'-7"	Str.	
S505C	1428	59'-7"	Str.	
R401E	6640	5'-0"	2"	
R402E	6640	6'-4"	2"	
R403E	200	9'-0"	Str.	
R404E	168	6'-8"	Str.	
R405E	2592	8'-0"	Str.	
R601E	250	9'-0"	Str.	
R602E	210	6'-8"	Str.	
R603E	3240	8'-0"	Str.	



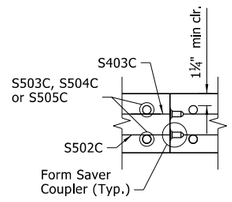
Notes:
All Bars designated with an "E" suffix are to be epoxy coated.
All Bars designated with an "C" suffix are to be AASHTO M334 M/ M 334, Type 1035 CS (fy = 100,000 psi) and conform to SP Job No. 110812 "LOW-CARBON CHROMIUM REINFORCING STEEL".
S401C, S403C, S501C and S502C bars to be threaded for Form Saver Mechanical Couplers.



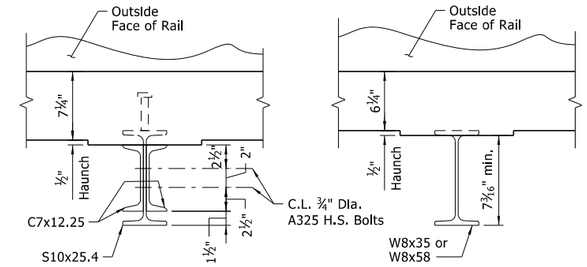
SECTION B-B
¾" = 1'-0"



DETAIL A
1" = 1'-0"



DETAIL B
1½" = 1'-0"



(Existing Deck and Cross Beam orientation)

(New Deck and Cross Beam orientation)

VIEW A-A
3" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

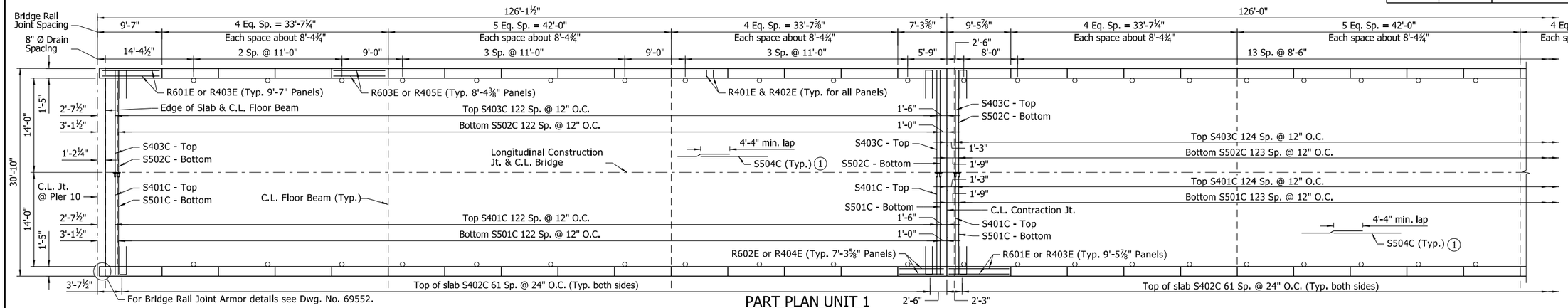
SHEET 3 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DGL DATE: 03/2025 FILENAME: B110812_SX1.DGN
CHECKED BY: JSB/SFH DATE: 05/2026 SCALE: AS SHOWN
DESIGNED BY: MHA DATE: 03/2025

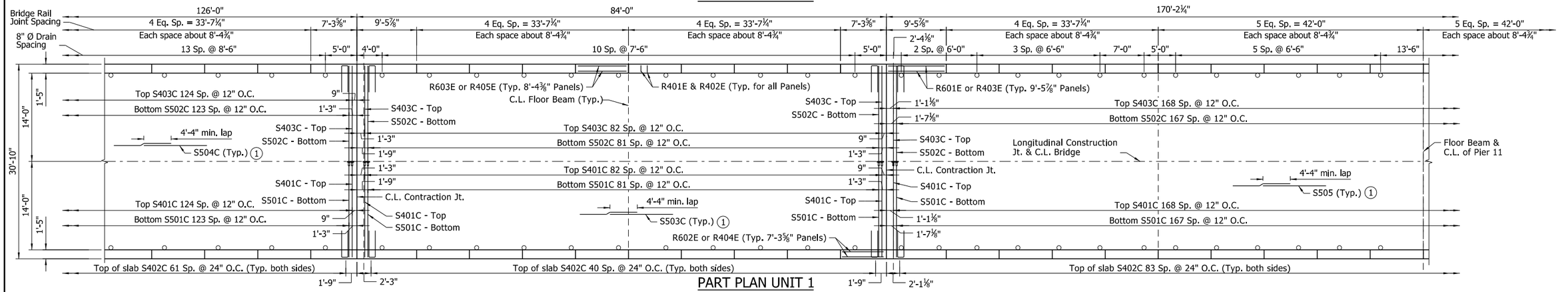
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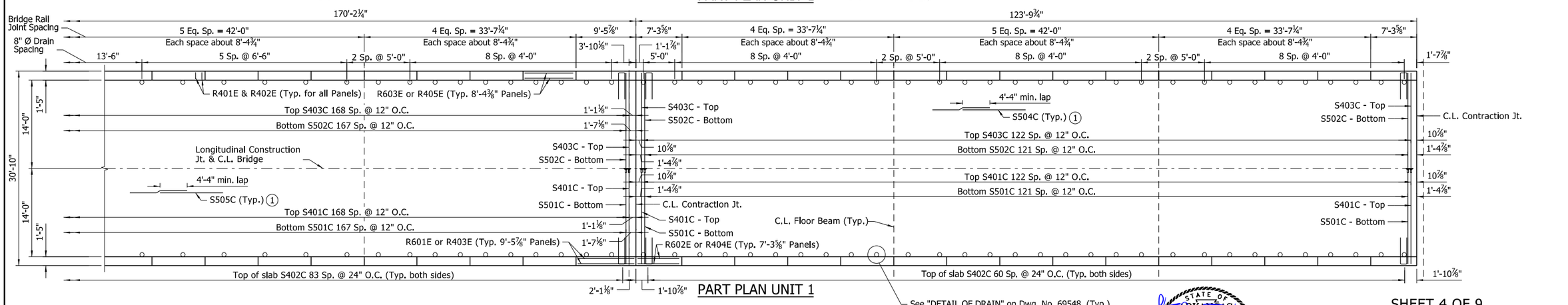
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	53	107
		02899 - DECK REPLACEMENT - 69547				



PART PLAN UNIT 1



PART PLAN UNIT 1



PART PLAN UNIT 1

Notes:
The deck concrete shall be placed as a single pour from contraction joint to contraction joint.

Concrete in the bridge deck shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the bridge deck and the start of the railing pour.

1 For exact placement of the reinforcing steel, see Dwg. No. 69546.

For Contraction Joint Details, see Dwg. No. 69554.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER
6/17/2026

BRIDGE ENGINEER
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SHEET 4 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION

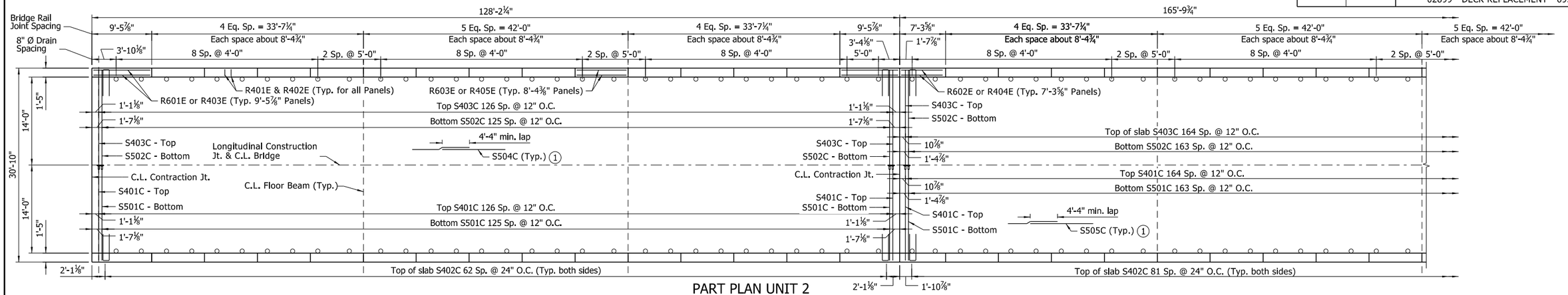
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: MHA DATE: 03/2025

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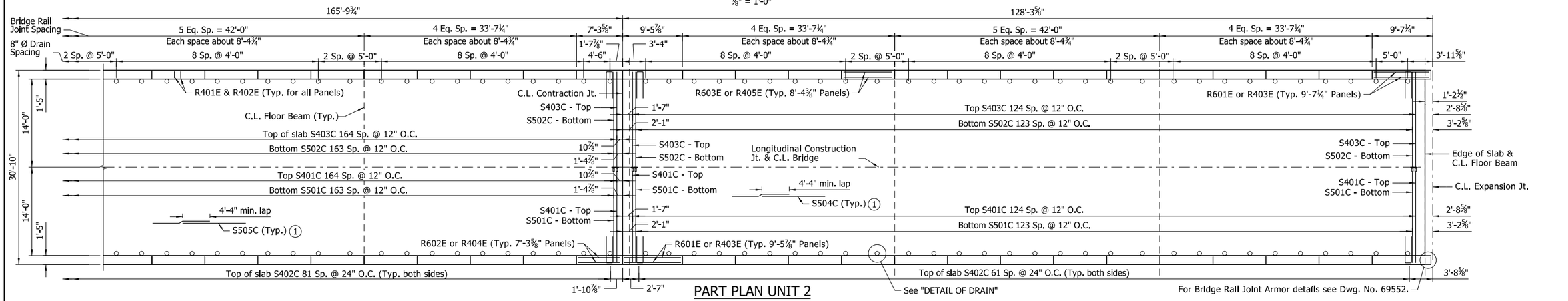
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - DECK REPLACEMENT - 69548				



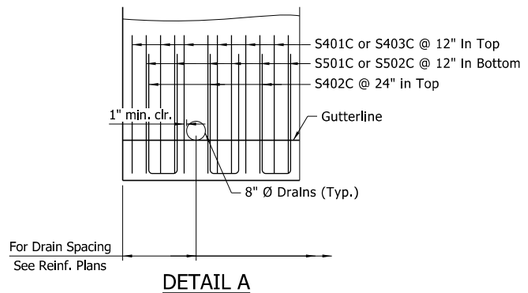
PART PLAN UNIT 2

⅛" = 1'-0"



PART PLAN UNIT 2

⅛" = 1'-0"

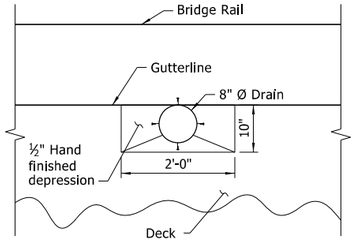


DETAIL A

No Scale

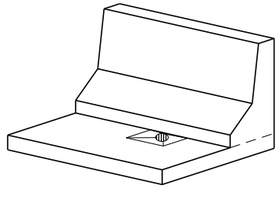
Rail spacing and joint depth shown are typical for both sides of roadway. For Reinforcing Details, see Dwg. No. 69552.

Adjust reinforcing steel as needed to provide 1" min. clearance to drain pipe.



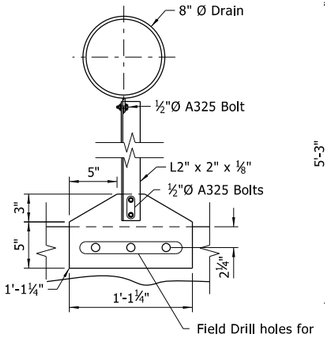
PLAN VIEW OF DRAIN

No Scale



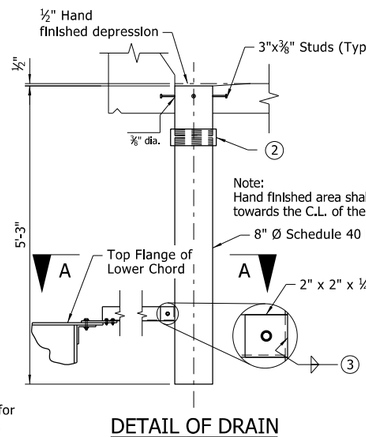
ISOMETRIC VIEW OF DRAIN

No Scale



VIEW A-A

No Scale



DETAIL OF DRAIN

No Scale

Notes:
The deck concrete shall be placed as a single pour from contraction joint to contraction joint.

Concrete in the bridge deck shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the bridge deck and the start of the railing pour.

1 For exact placement of the reinforcing steel, see Dwg. No. 69546.

For Contraction Joint Details, see Dwg. No. 69554.

2 Optional Threaded Coupler

3 See "WELD TABLE" on Std. Dwg. No. 55007

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No.14501
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6/17/2026

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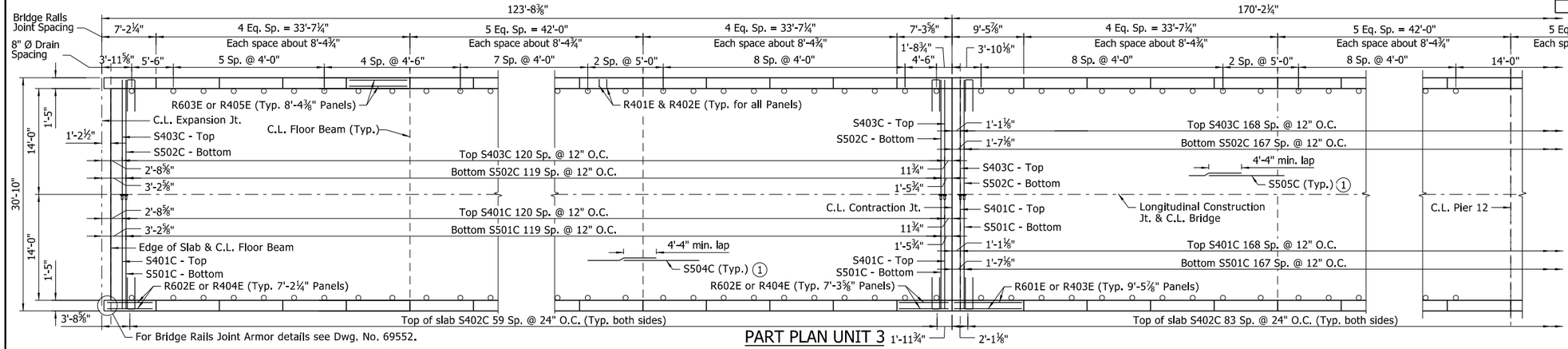
SHEET 5 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY:	DGL	DATE:	07/2025	FILENAME:	B110812_SX2.DGN
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DESIGNED BY:	MHA	DATE:	03/2025		

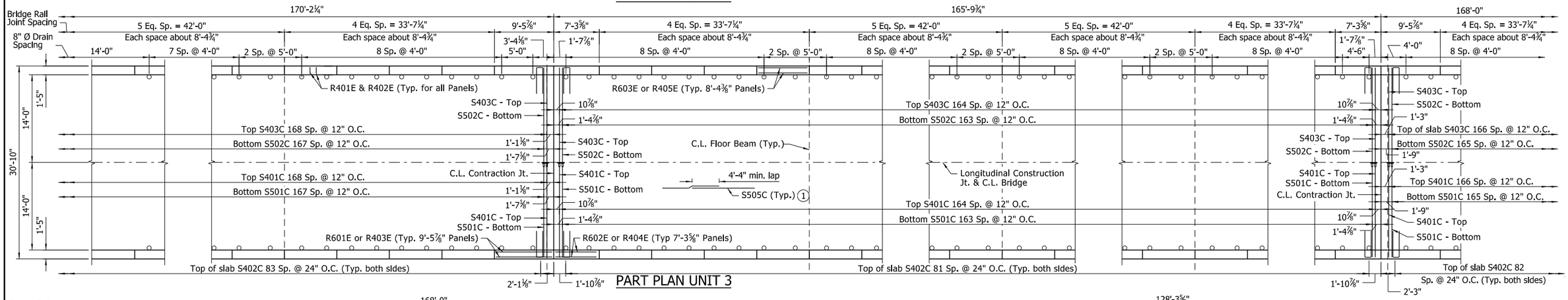
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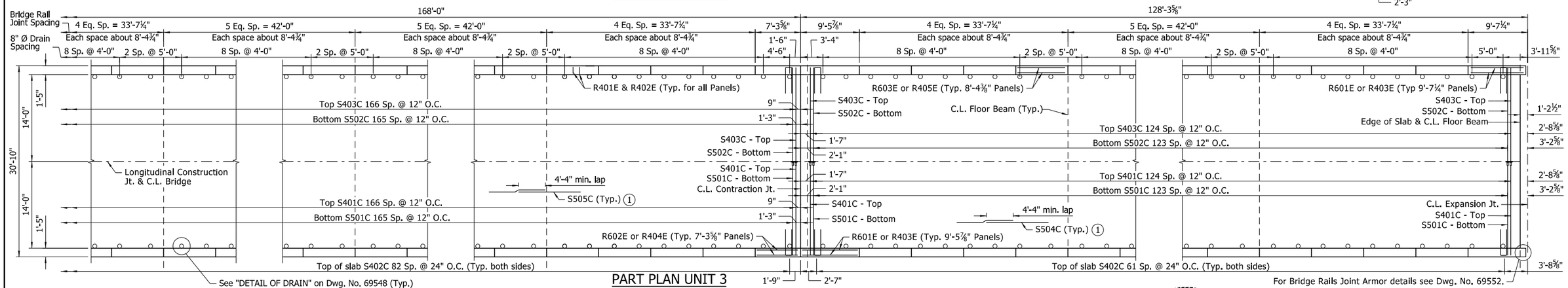
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		6	ARK.	110812	55	107
		02899 - DECK REPLACEMENT - 69549				



PART PLAN UNIT 3



PART PLAN UNIT 3



PART PLAN UNIT 3

Notes:
The deck concrete shall be placed as a single pour from contraction joint to contraction joint.

Concrete in the bridge deck shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the bridge deck and the start of the railing pour.

1 For exact placement of the reinforcing steel, see Dwg. No. 69546.

For Contraction Joint Details, see Dwg. No. 69554.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 6 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION

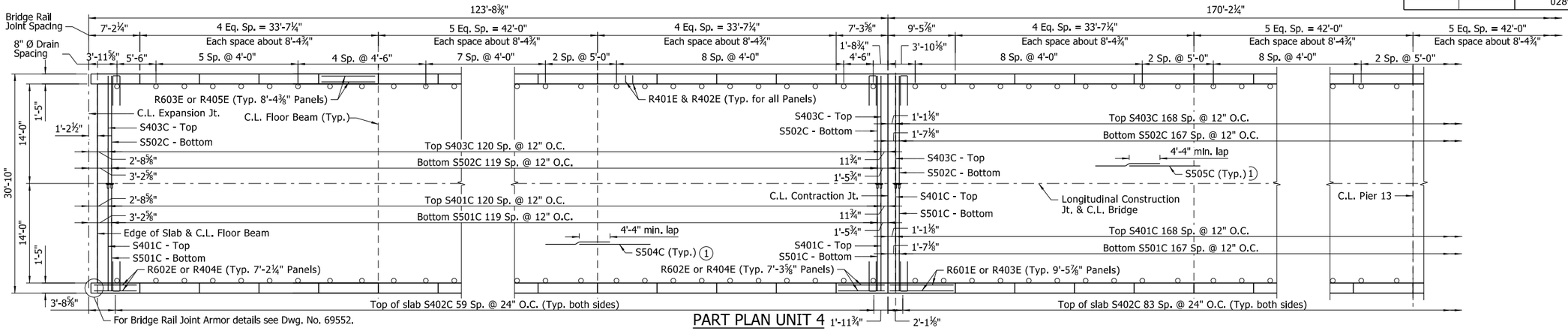
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: MHA DATE: 03/2025

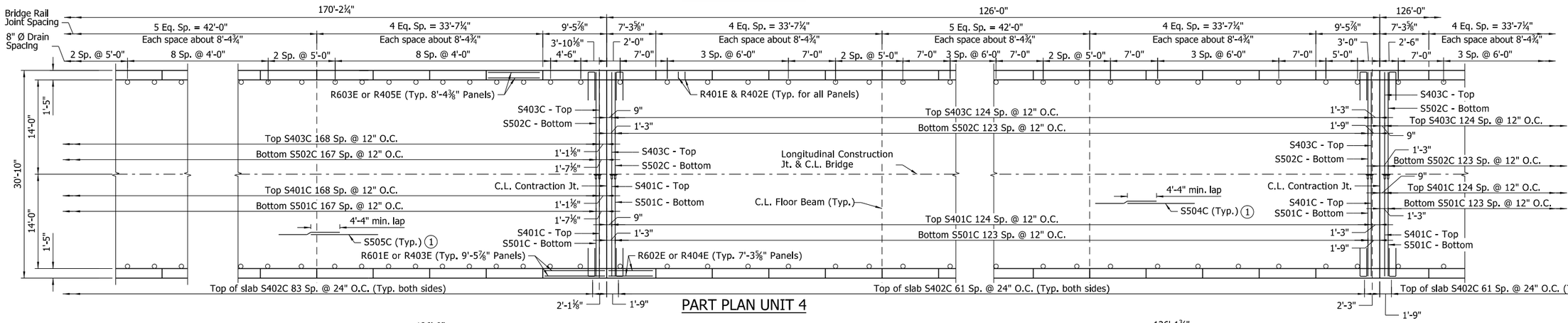
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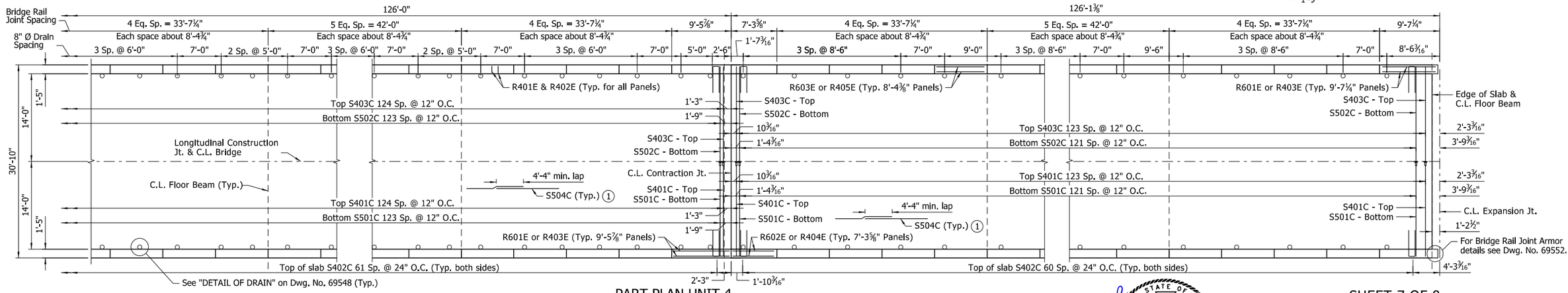
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	56	107
		02899 - DECK REPLACEMENT - 69550				



PART PLAN UNIT 4



PART PLAN UNIT 4



PART PLAN UNIT 4

Notes:
The deck concrete shall be placed as a single pour from contraction joint to contraction joint.

Concrete in the bridge deck shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the bridge deck and the start of the railing pour.

1 For exact placement of the reinforcing steel, see Dwg. No. 69546.

For Contraction Joint Details, see Dwg. No. 69554.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER
6/17/2026

BRIDGE ENGINEER
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SHEET 7 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

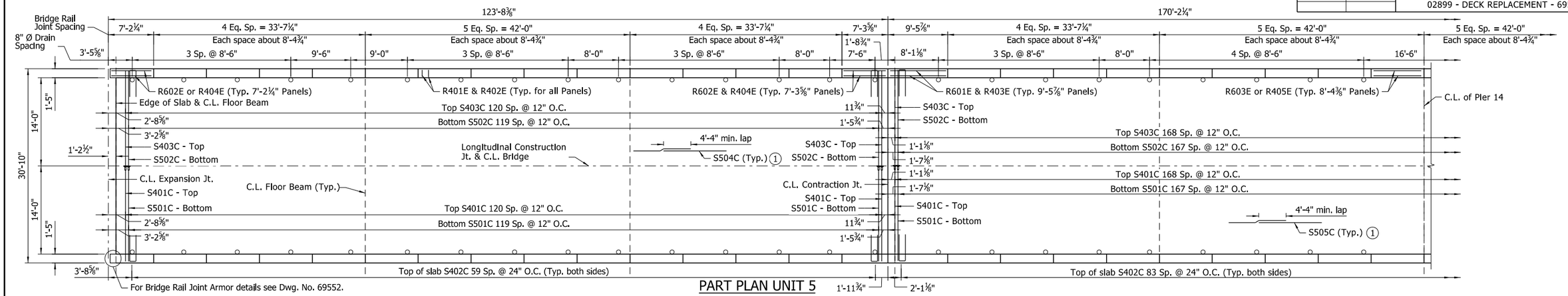
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DESIGNED BY:	MHA	DATE:	03/2025		

BRIDGE NO. 02899

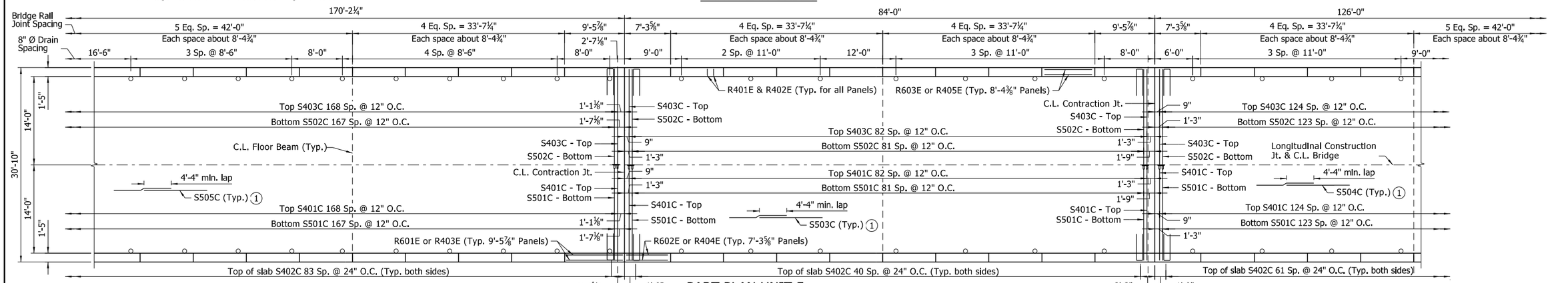
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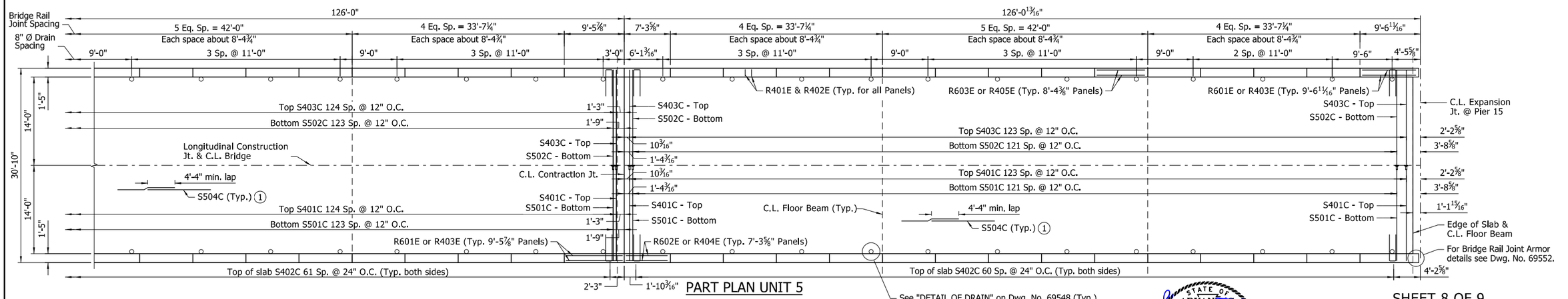
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		6	ARK.	110812	57	107
		02899 - DECK REPLACEMENT - 69551				



PART PLAN UNIT 5



PART PLAN UNIT 5



PART PLAN UNIT 5

Notes:
The deck concrete shall be placed as a single pour from contraction joint to contraction joint.

Concrete in the bridge deck shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the bridge deck and the start of the railing pour.

(1) For exact placement of the reinforcing steel, see Dwg. No. 69546.

For Contraction Joint Details, see Dwg. No. 69554.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
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6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 8 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION

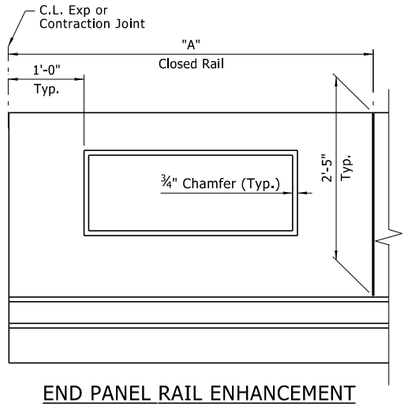
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY:	DGL	DATE:	07/2025	FILENAME:	B110812_SX2.DGN
CHECKED BY:	JSB/SFH	DATE:	05/2026	SCALE:	⅛" = 1'-0"
DESIGNED BY:	MHA	DATE:	03/2025		

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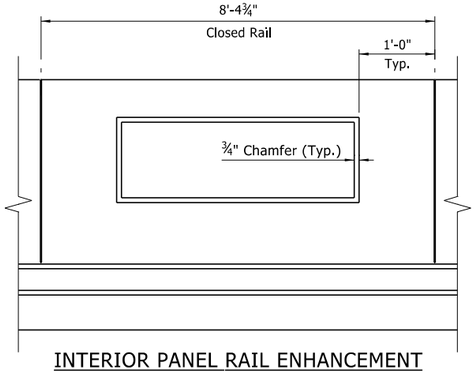
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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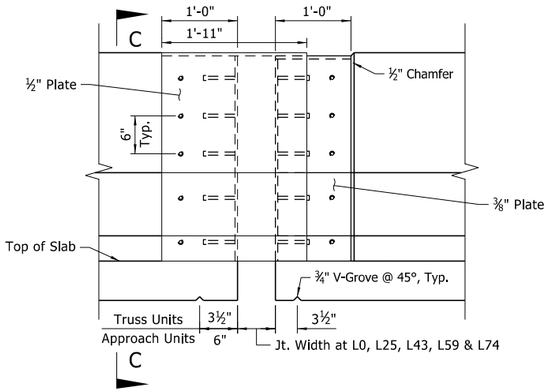
END PANEL RAIL ENHANCEMENT

1" = 1'-0"



INTERIOR PANEL RAIL ENHANCEMENT

1" = 1'-0"

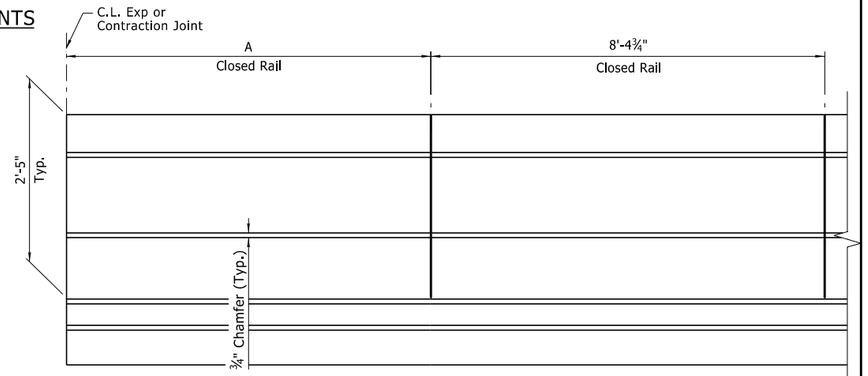


BRIDGE RAIL JOINT ARMOR AT EXPANSION JOINTS

1" = 1'-0"

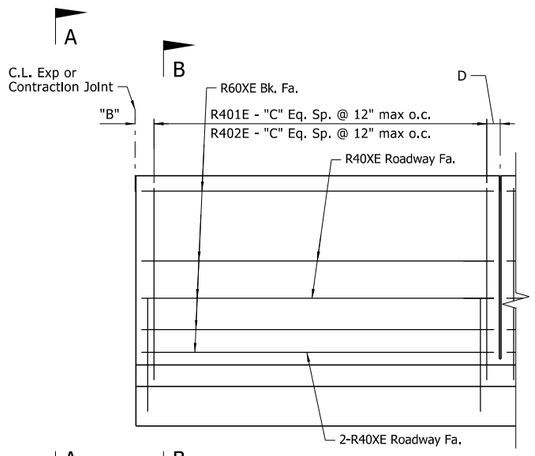
Note:
Only the Main Truss Span side of L74 should be replaced.

BRIDGE RAIL VARIABLES			
A	B	C	D
7'-2¼"	7"	6	7¼"
7'-3⅝"	7"	6	8⅝"
8'-4¾"	-	8	2⅜"
9'-5⅞"	4"	9	1⅞"
9'-6 11/16"	4"	9	2 11/16"
9'-7"	5"	9	2"
9'-7¼"	5"	9	2¼"



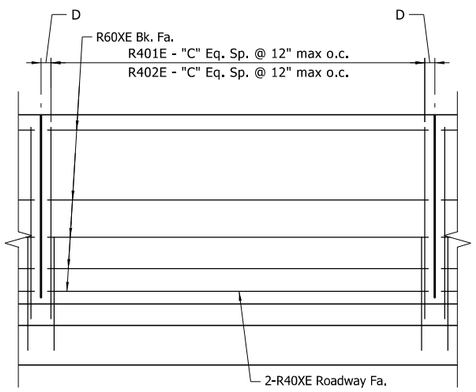
DETAILS OF OPTIONAL SLIPFORMING OF BRIDGE RAIL ENHANCEMENT

1" = 1'-0"



END PANEL SECTION AT CURB FOR BRIDGE RAILING

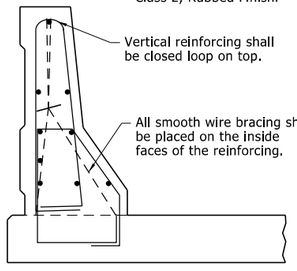
1" = 1'-0"

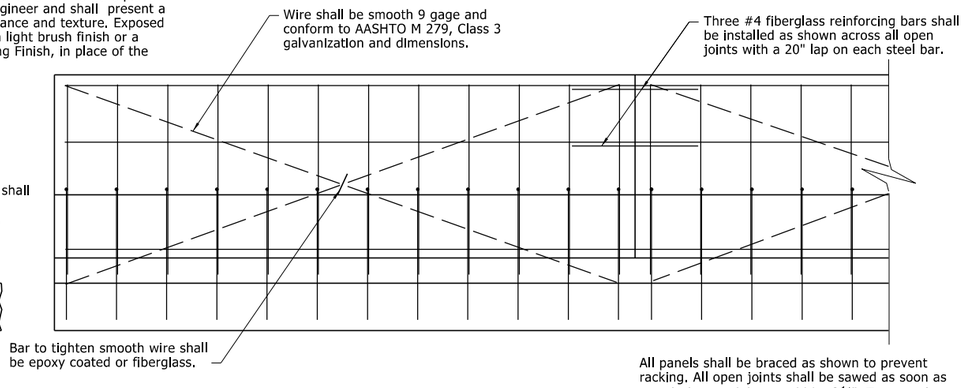


INTERIOR PANEL SECTION AT CURB FOR BRIDGE RAILING

1" = 1'-0"

The extruded bridge rail shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish, in place of the Class 2, Rubbed Finish.

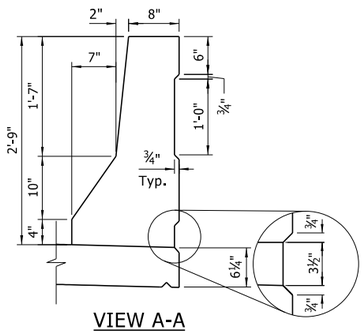




All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of ¼". To control cracking before sawing, all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

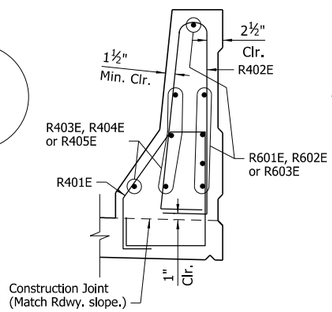
DETAILS OF OPTIONAL SLIPFORMING OF BRIDGE RAIL

1" = 1'-0"



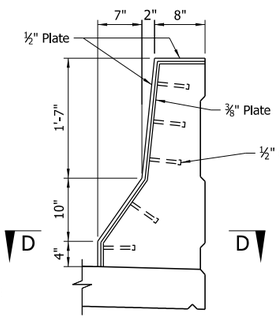
VIEW A-A

1" = 1'-0"



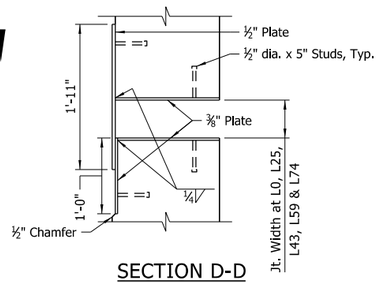
SECTION B-B

1" = 1'-0"



SECTION C-C

1" = 1'-0"



SECTION D-D

1" = 1'-0"

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REVISED DATE:

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER
6/17/2026

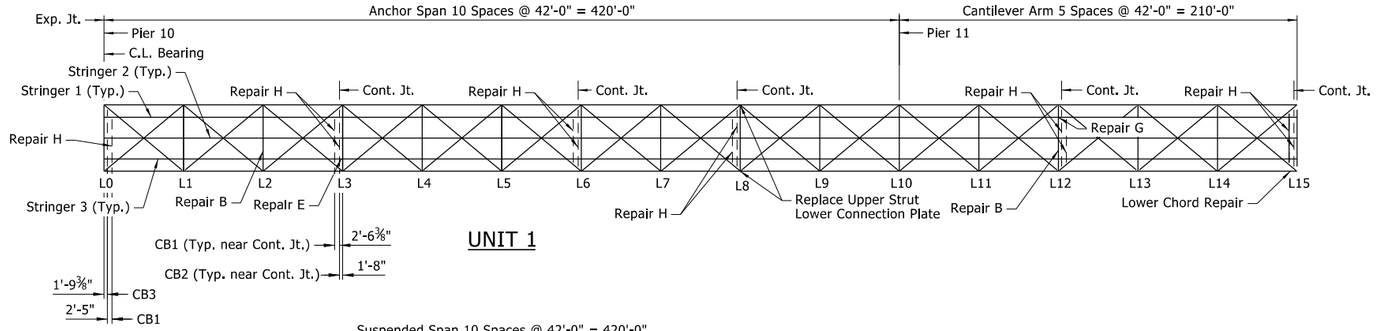
BRIDGE ENGINEER
PRINT DATE: 6/16/2026

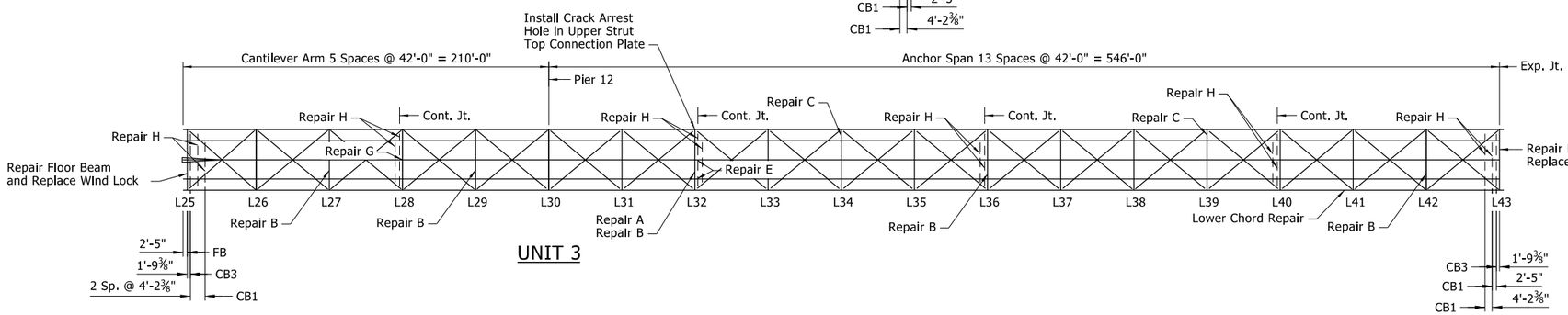
SHEET 9 OF 9
DETAILS OF DECK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

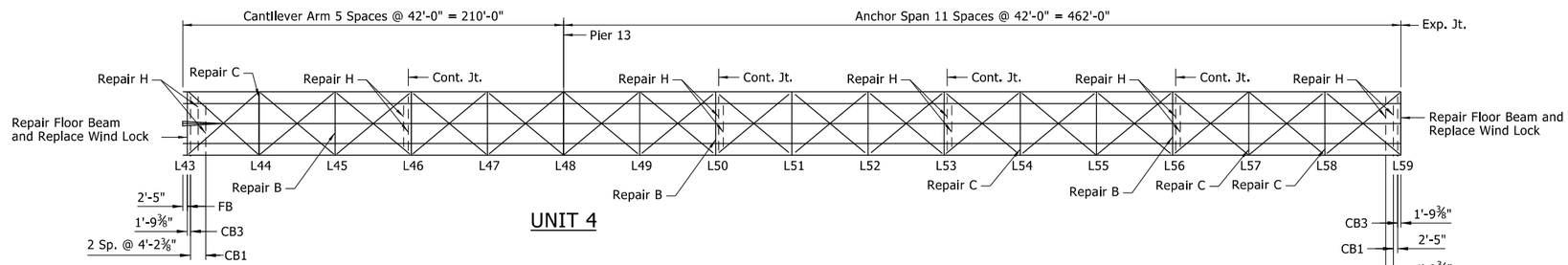
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CHECKED BY:	JSB/SFH	DATE:	05/2026	SCALE:	AS SHOWN
DESIGNED BY:	MHA	DATE:	03/2025		

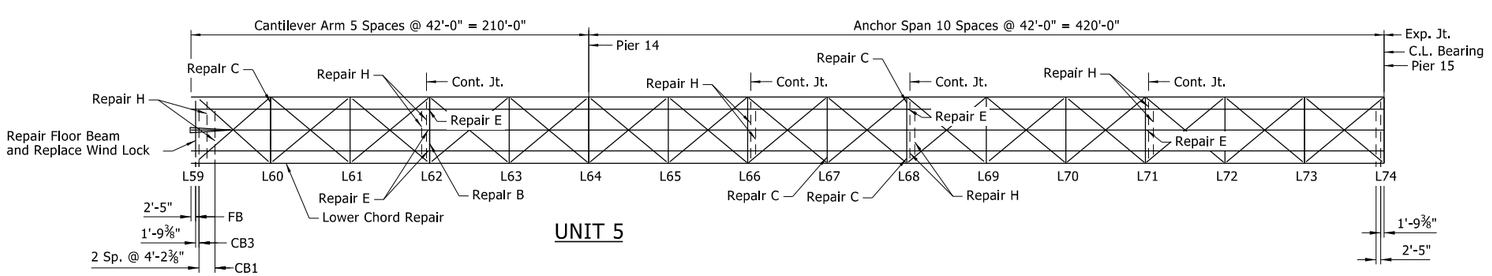
BRIDGE NO. 02899 DRAWING NO. 69552

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	59	107
		02899 - STEEL REPAIRS - 69553				









SCOPE OF WORK - MAIN TRUSS STRUCTURAL STEEL REPAIRS

Clean and Paint All Structural Steel.
Repair Floor Beams, for details see Dwg. Nos. 69560-69563.
Repair Type A: Floor Beam Top Flange Repair, for details see Dwg. No. 69564.
Repair Type B: Floor Beam Bottom Flange Repair, for details see Dwg. Nos. 69565-69566.
Repair Type C: Floor Beam Web Repair, for details see Dwg. Nos. 69567-69568.
Repair Type D: Floor Beam Stiffener Replacements, for details see Dwg. No. 69569 (Not Shown for clarity).
Repair Type E: Replace Pin and Hanger Assemblies In Main Truss Stringers, for details see Dwg. No. 69570.
Repair Type F: Repair Stringer Connections, for locations and details see Dwg. No. 69571 (Not Shown for clarity).
Repair Type G: Repair Stringer Connection Angles, for details see Dwg. No. 69571.
Repair Type H: Replace select Cross Beams, see Dwg. No. 69572 for details.
Replace Upper Lateral Connection Plate, for details see Dwg. No. 69573.
Install Crack Arrest Hole, for details see Dwg. No. 69574.
Repair Lower Chord, for details see Dwg. Nos. 69575-69578.
Replace Lower Wind Locks, for details see Dwg. Nos. 69579-69585.
Replace Contraction Joints, for details see Dwg. No. 69554.
Replace Drainage System, for details see Dwg. Nos. 69555-69559.

Notes:
Stringer 1 - Refers to S-1: W36x150 (formerly 36 WF 150).
Stringer 2 - Refers to S-2: W36x170 (formerly 36 WF 170).
Stringer 3 - Refers to S-1: W36x150 (formerly 36 WF 150).

CB1 - Cross Beam 1 - Refers to S10x25.4 (formerly 10 I 25.4).
CB2 - Cross Beam 2 - Refers to W10x39 (formerly 10 WF 39).
CB3 - Cross Beam 3 - Refers to W8x35 (formerly 8 WF 35).

Dimensions shown for Cross Beams on framing plan refer to existing locations. See Dwg. No. 69572 for proposed locations.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF MAIN TRUSS STRUCTURAL STEEL REPAIRS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

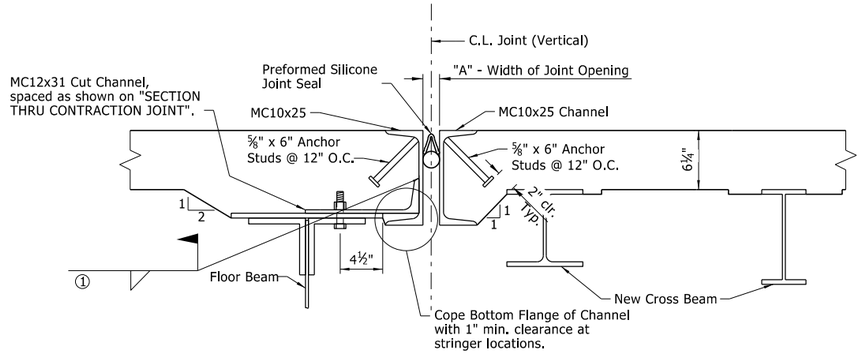
LITTLE ROCK, ARK.

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CHECKED BY: SFH DATE: 05/2026 SCALE: 1" = 40'
DESIGNED BY: MKL DATE: 01/2025

BRIDGE NO. 02899 DRAWING NO. 69553

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REVISED DATE:

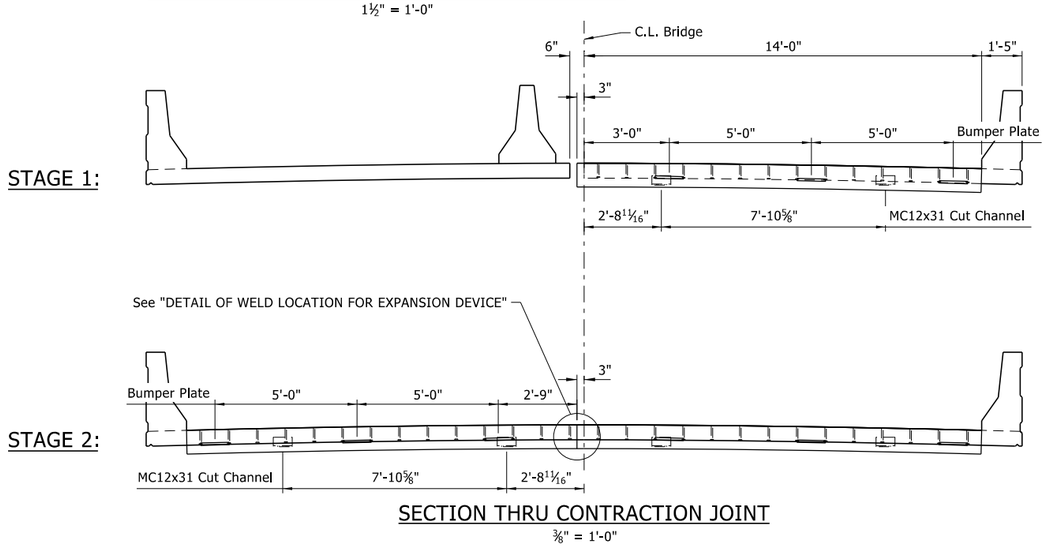
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	60	107
		02899 - CONTRACTION JOINT - 69554				



Note: Section taken perpendicular to C.L. Joint.

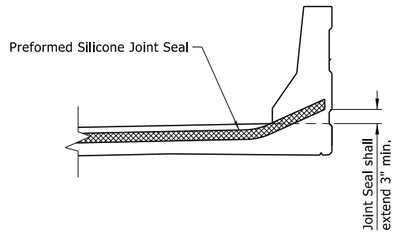
SECTION THRU JOINT AT CONTRACTION JOINT

1½" = 1'-0"



SECTION THRU CONTRACTION JOINT

⅜" = 1'-0"



JOINT SEAL PLACEMENT AT GUTTERLINE

NO SCALE

EXPANSION DEVICE INSTALLATION:

After the existing deck from each side of the joint is removed, the blocked expansion device shall be installed and adjusted for grade. Deck concrete shall be placed on one side of the joint before deck concrete on the other side is placed. Connection bolts for the floor beam side shall be completely bolted. The other side shall be loosely installed so that thermal and rotational movements will not be restricted during concrete placement on the first side.

The adjacent side shall remain loose until the concrete pour adjacent to the joint is to be placed. Immediately prior to pouring the span concrete on the adjacent side, the blocking shall be removed, the joint adjusted for temperature and grade.

GENERAL NOTES FOR PREFORMED SILICONE JOINTS:

The joint seal shall provide for the movement rating(s) shown in the "PREFORMED SILICONE JOINT SEAL DATA" table. The joint seal shall be capable of sealing the deck surface and barrier rail to prevent moisture and other contaminants from descending through the joint.

The preformed silicone joint seal shall be paid for in accordance with SP Job No. 110812 "PREFORMED SILICONE JOINT".

Structural steel in contraction joints shall be ASTM A709, Grade 36 and shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".

Surfaces of the structural steel not completely embedded in concrete shall be cleaned in accordance with subsection 807.84(b) and shop painted. No finish system shall be applied. The Contractor shall repair any damage to the primer at their expense and to satisfaction of the Engineer prior to installation of the joint seal.

① See "WELD TABLE" on Std. Dwg. No. 55007.

② Grind flush from top of deck to top of bumper plate.

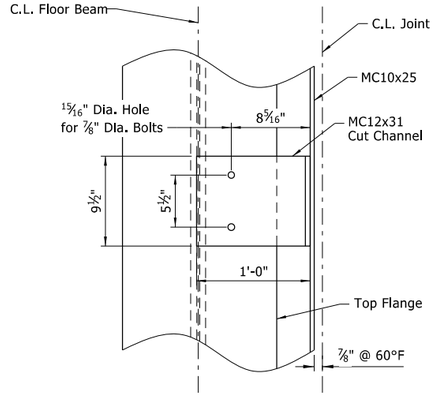
③ Weld after Stage 1 pour and prior to Stage 2 pour.

PREFORMED SILICONE JOINT SEAL DATA

Location	Movement Rating	"A" Width Perpendicular to Joint at 24 Hour Average Temperature (1) of:			"B" Perpendicular to Joint at 60°F
		40°F	60°F	80°F	
Contraction Joints	4"	2"	1¾"	1½"	1'-1⅛"

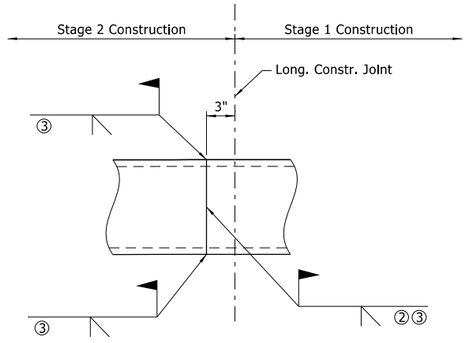
(1) The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The engineer shall establish the temperature. Interpolation of the table may be necessary.

The temperature limitations recommended by the joint seal Manufacturer shall be observed. The seal shall be installed only when the ambient air temperature is a minimum of 40°F and rising.



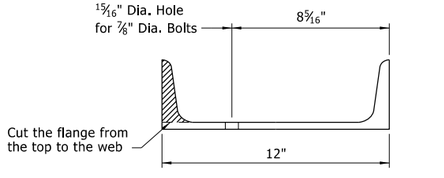
CHANNEL CONNECTION DETAIL

1½" = 1'-0"



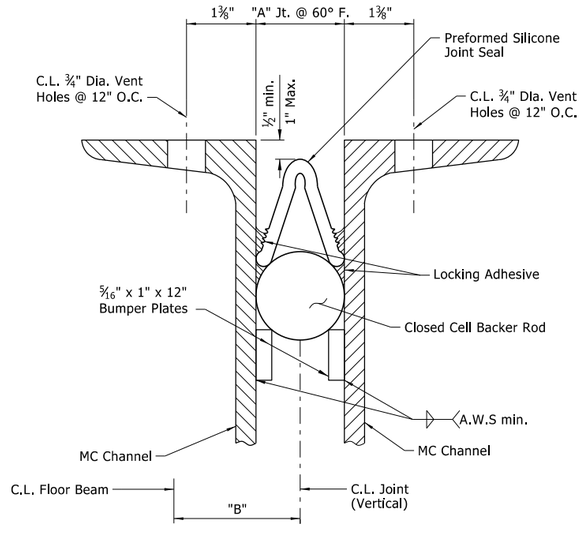
DETAIL OF WELD LOCATION FOR EXPANSION DEVICE

1½ = 1'-0"



MC12x31 CUT CHANNEL DETAIL

3" = 1'-0"



DETAIL OF PREFORMED SILICONE JOINT SEAL

NO SCALE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF CONTRACTION JOINTS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

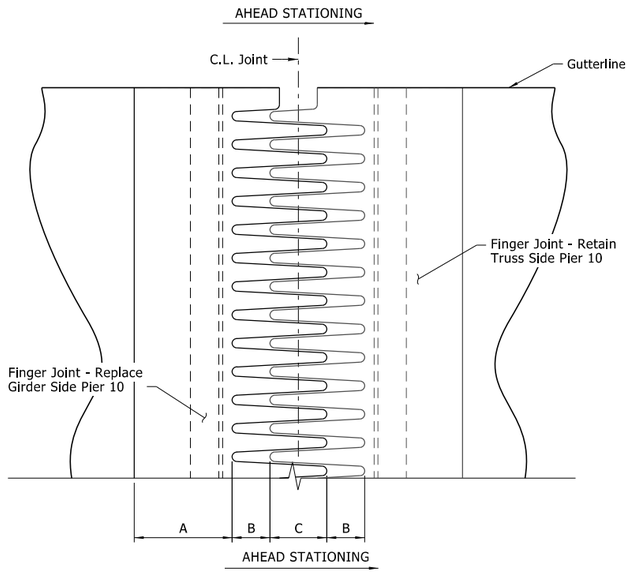
LITTLE ROCK, ARK.

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CHECKED BY: SFH DATE: 05/2026 SCALE: AS SHOWN
DESIGNED BY: LAC DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69554

REVISED DATE:
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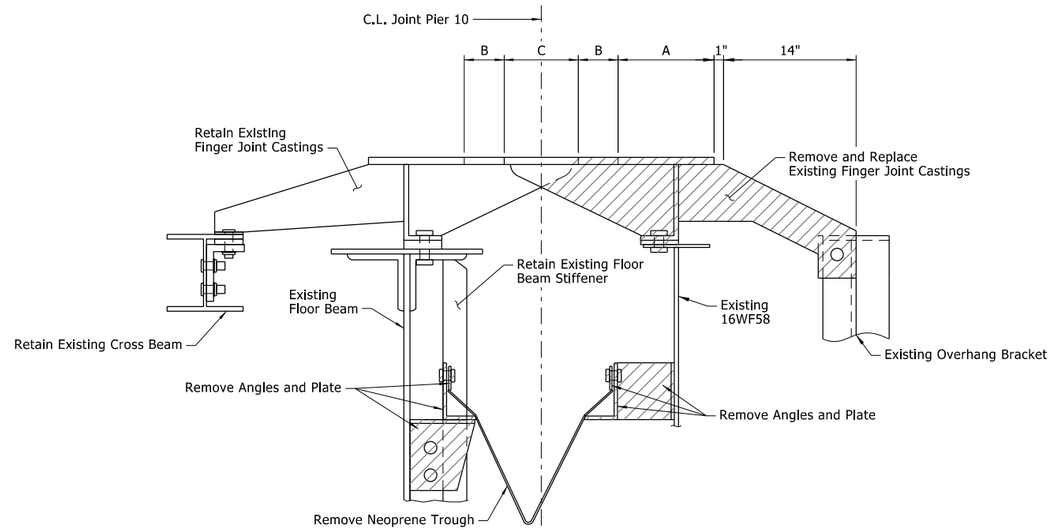
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		6	ARK.	110812	61	107
		02899 - EXP. JOINT - 69555				



FINGER JOINT PLATE DETAILS

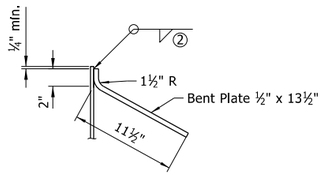
No Scale

LOCATION	A	"C Width Perpendicular to Joint at 24 Hour Average Temperature ① Of: 40°F	60°F	80°F
Pier 10	7¾"	4½"	4⅞"	5½"



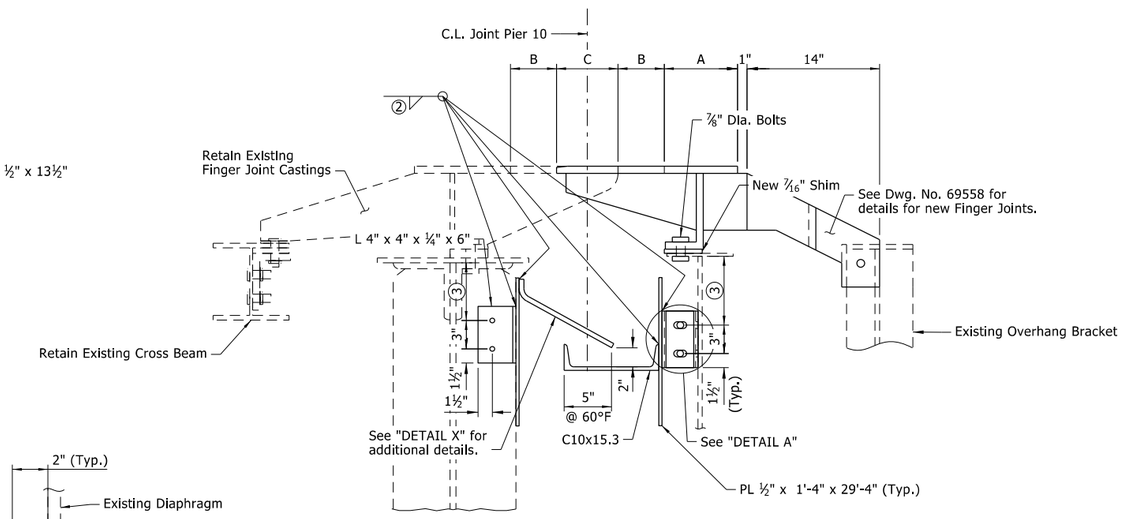
REMOVAL DETAILS OF JOINTS AT PIER 10

1½" = 1'-0"



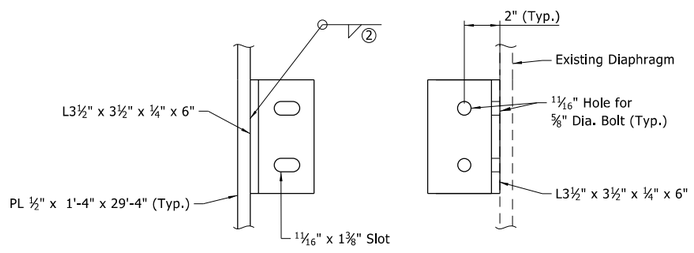
DETAIL X

1½" = 1'-0"



CONSTRUCTION DETAILS OF JOINTS AT PIER 10

1½" = 1'-0"



DETAIL A

3" = 1'-0"

Notes:
All repair dimensions and locations shall be field verified prior to performing the repair.

Top of Finger Joint shall conform to the profile grade of the roadway surfaces.

Drainage System is to be installed at a cross slope for proper water drainage out of the bridge.

All steel, unless noted otherwise, shall be ASTM A709, GR. 36. New Bent Plate and Channel (C10x15.3) shall be galvanized, AASHTO M11. Payment for all structural steel members in the truss spans shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)", and for all structural steel members in the approach spans shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

① The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The engineer shall establish the temperature. Interpolation of the table may be necessary.

② See "WELD TABLE" on Std. Dwg. No. 55007.

③ Varies

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 5
DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

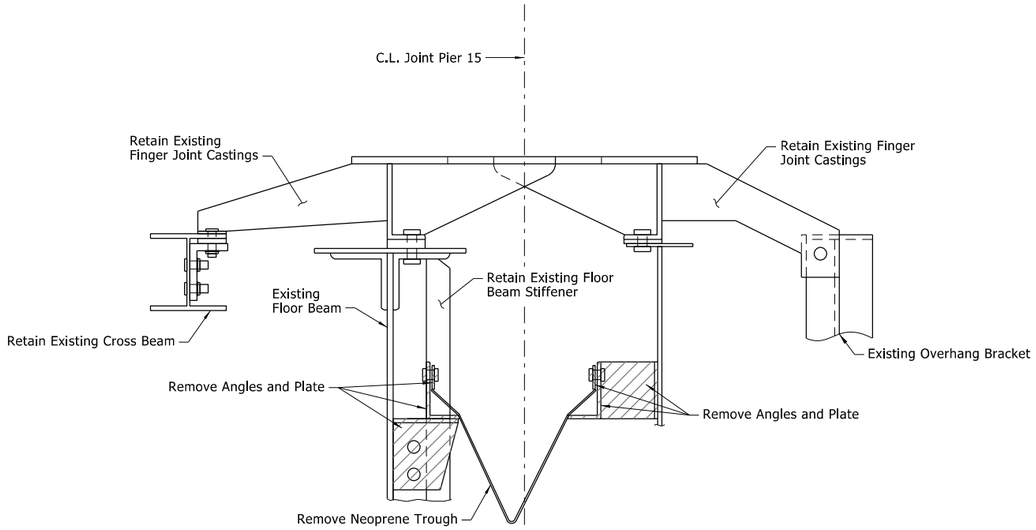
LITTLE ROCK, ARK.

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DESIGNED BY: MHA/LAC DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69555

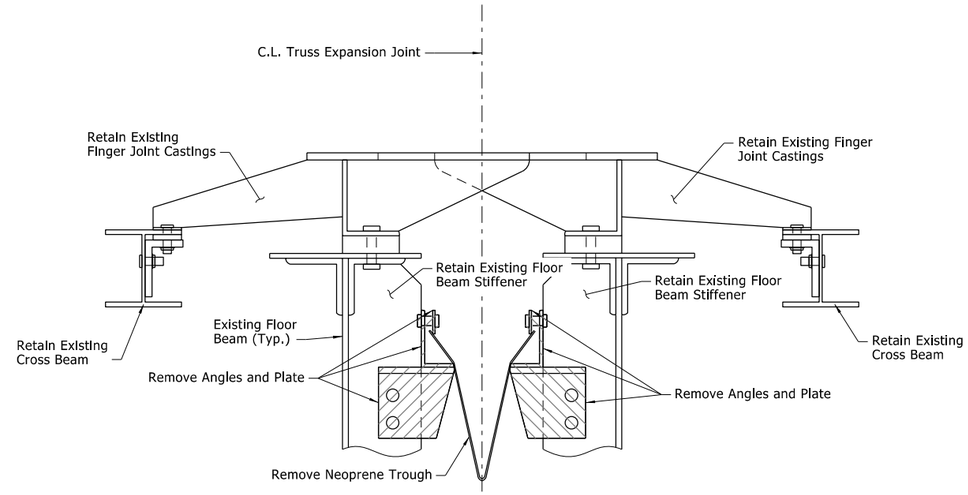
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - EXP. JOINT - 69556				



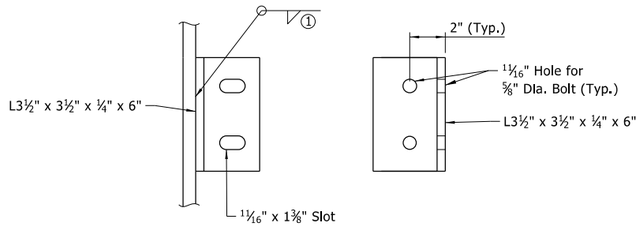
REMOVAL DETAILS OF JOINTS AT PIER 15

1½" = 1'-0"



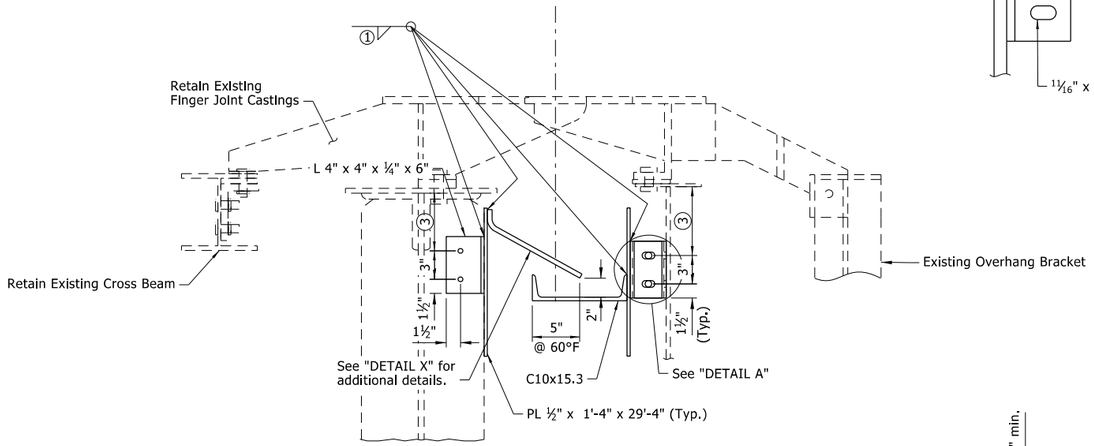
REMOVAL DETAILS OF EXP. TRUSS JOINTS (FLOOR BEAMS 25, 43, & 59)

1½" = 1'-0"



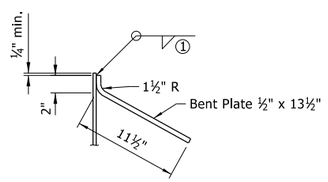
DETAIL A

3" = 1'-0"



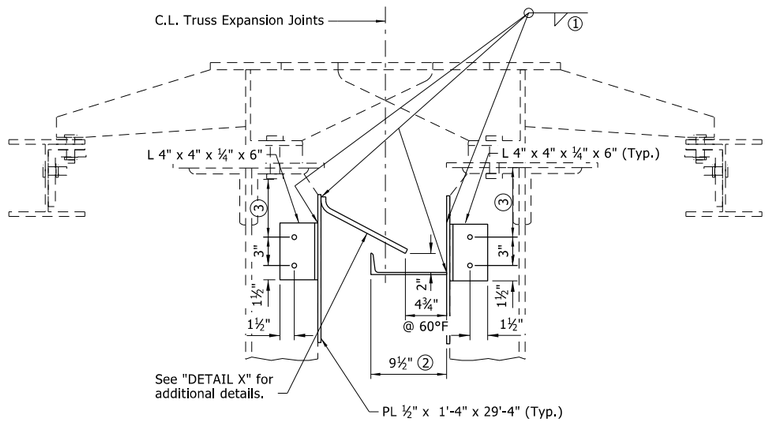
CONSTRUCTION DETAILS OF JOINTS AT PIER 15

1½" = 1'-0"



DETAIL X

1½" = 1'-0"



CONSTRUCTION DETAILS OF EXP. TRUSS JOINTS (FLOOR BEAMS 25, 43, & 59)

1½" = 1'-0"

Note:
Drainage System Is to be Installed at a cross slope for proper water drainage out of the bridge.

① See "WELD TABLE" on Std. Dwg. No. 55007.

② Cut a C10x15.3 to length shown.

③ Varies

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

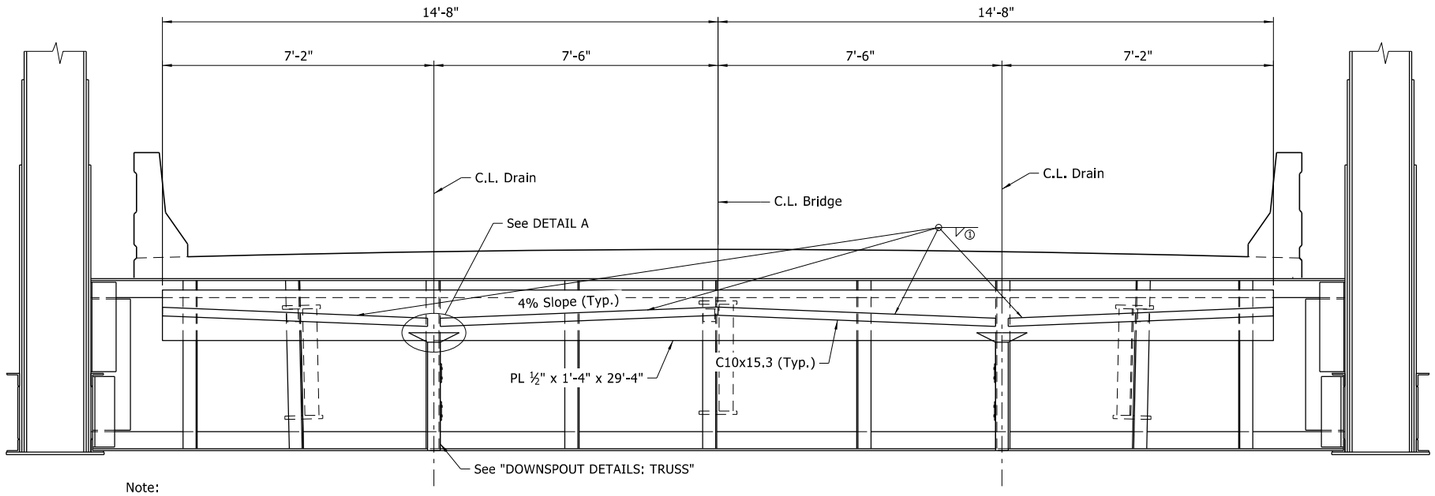
SHEET 2 OF 5
DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MHA DATE: 01/2025 FILENAME: B110812_JT.DGN
CHECKED BY: HSS DATE: 08/2025 SCALE: AS SHOWN
DESIGNED BY: MHA/LAC DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69556

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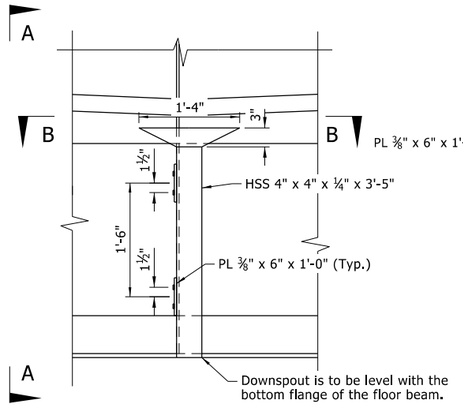
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	63	107
		02899 - EXP. JOINT - 69557				



Note:
L 4" x 4" x ¼" x 6" Connection Angles
are Located at Bearing Stiffeners

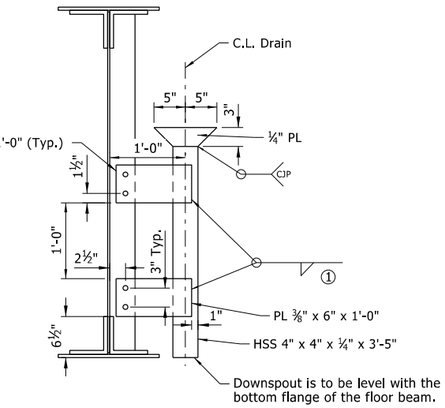
ELEVATION VIEW - EXP. TRUSS JOINTS 25, 43, & 59

½" = 1'-0"



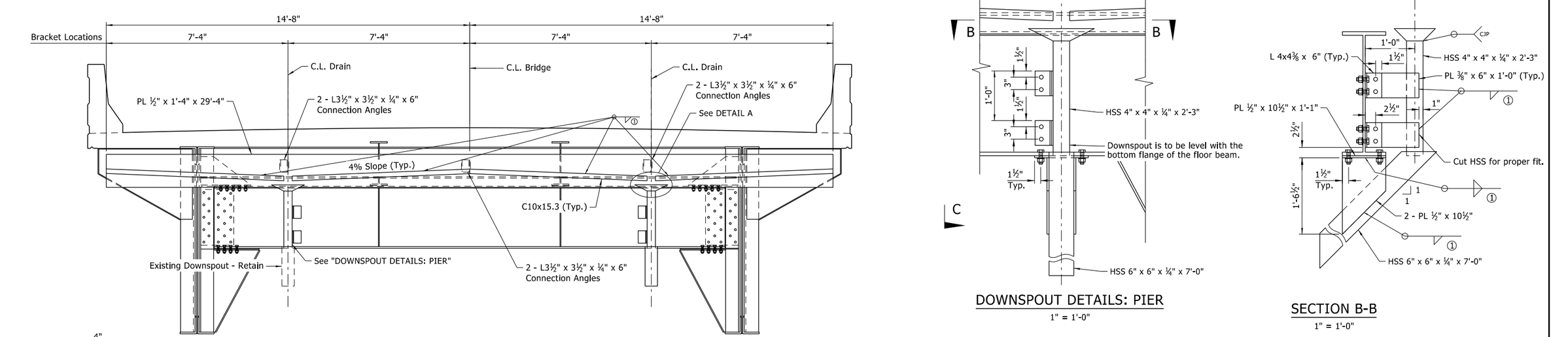
DOWNSPOUT DETAILS: TRUSS

1" = 1'-0"



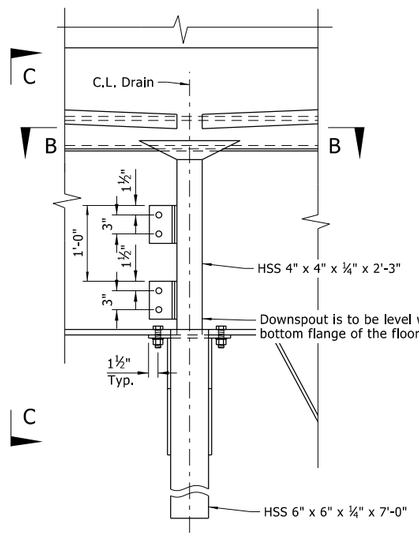
SECTION A-A

1" = 1'-0"



ELEVATION VIEW - EXP. JOINTS PIER 10 & 15

½" = 1'-0"

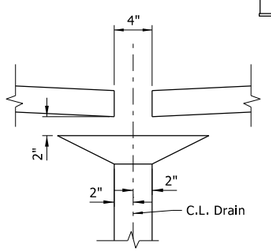


DOWNSPOUT DETAILS: PIER

1" = 1'-0"

SECTION B-B

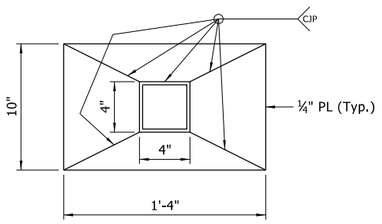
1" = 1'-0"



DETAIL A

1½" = 1'-0"

① See "WELD TABLE" on Std. Dwg. No. 55007.



SECTION B-B

2" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 3 OF 5
DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

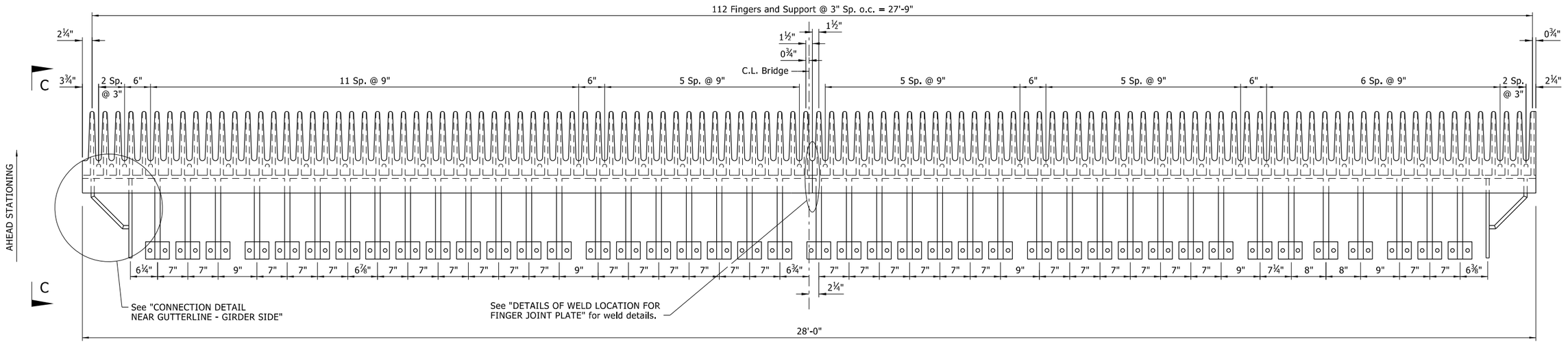
LITTLE ROCK, ARK.

DRAWN BY:	LAC	DATE:	09/2025	FILENAME:	B110812_JT.DGN
CHECKED BY:	MKL	DATE:	11/2025	SCALE:	AS SHOWN
DESIGNED BY:	MHA/LAC	DATE:	08/2025		

BRIDGE NO. 02899 DRAWING NO. 69557

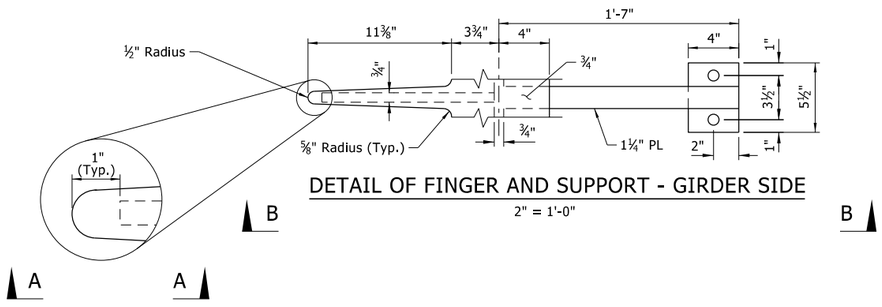
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	64	107
		02899 - EXP. JOINT - 69558				



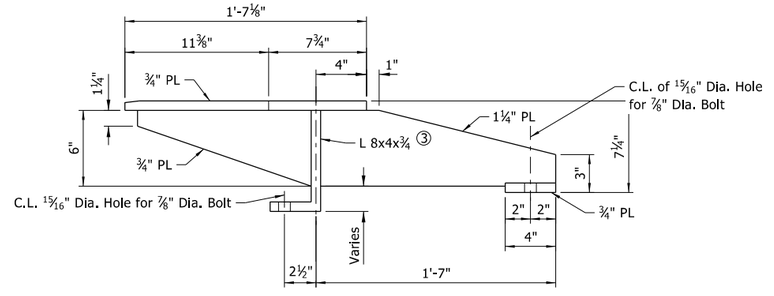
PIER 10 FINGER PLATE PLAN VIEW - GIRDER SIDE

1" = 1'-0"



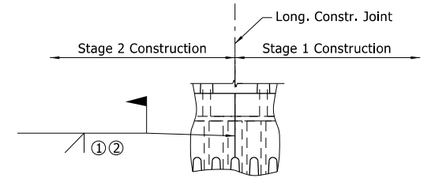
DETAIL OF FINGER AND SUPPORT - GIRDER SIDE

2" = 1'-0"



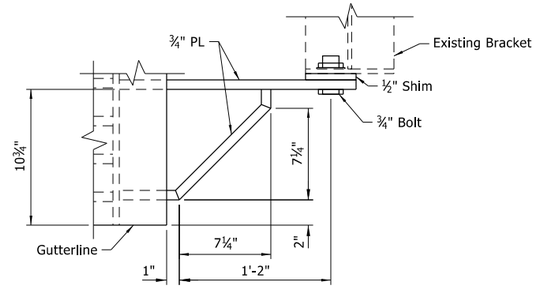
VIEW B-B

2" = 1'-0"



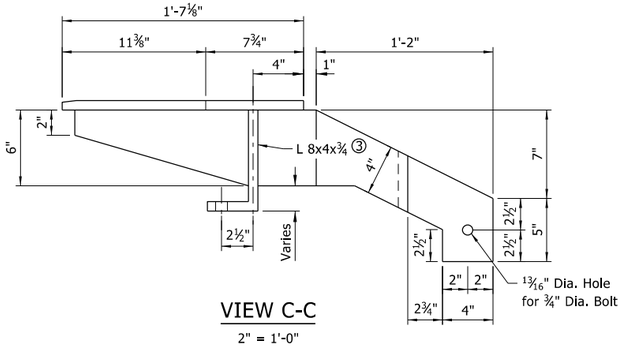
DETAILS OF WELD LOCATION FOR FINGER JOINT PLATE

No Scale



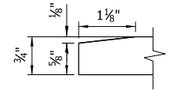
CONNECTION DETAIL NEAR GUTTERLINE - GIRDER SIDE

2" = 1'-0"



VIEW C-C

2" = 1'-0"



VIEW A-A

No Scale

① Grind flush from top of deck to top of bumper plate.

② Weld after Stage 1 pour and prior to Stage 2 pour.

③ Trim vertical leg as required to accommodate parabolic crown.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 4 OF 5
DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

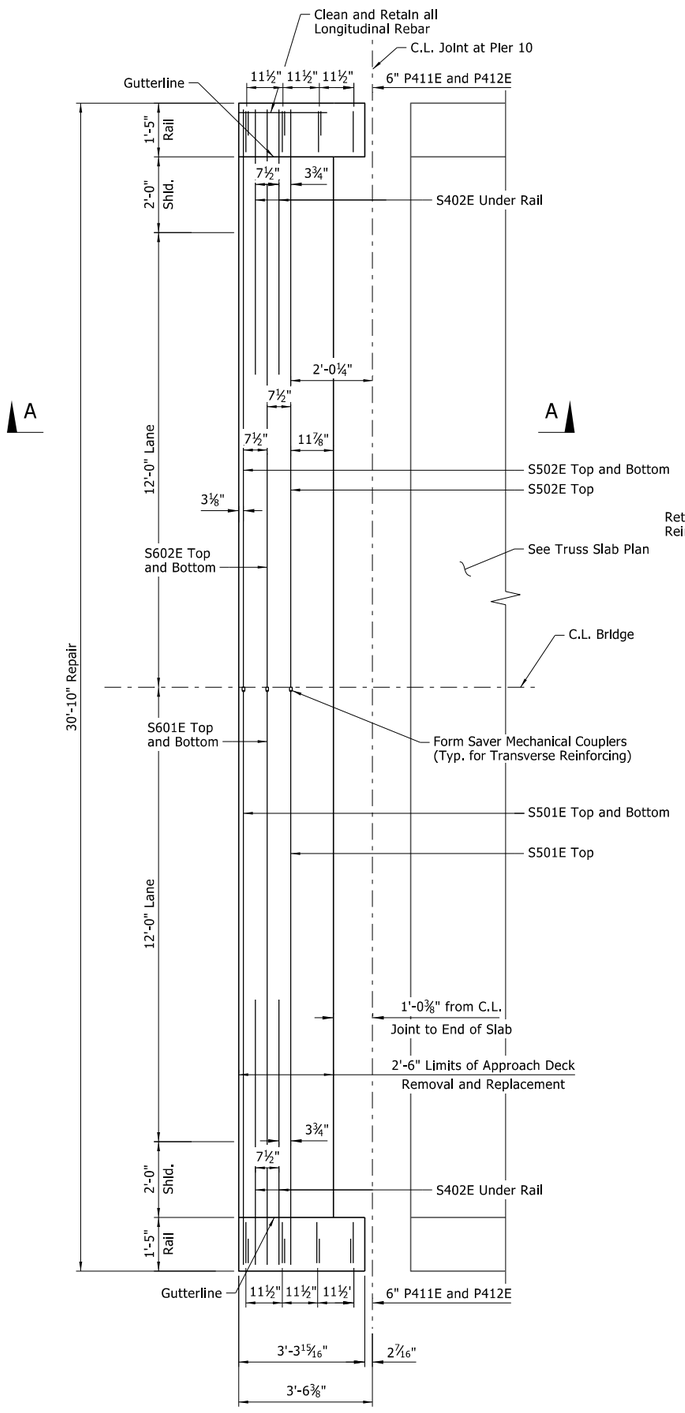
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DESIGNED BY:	LAC	DATE:	08/2025		

BRIDGE NO. 02899

DRAWING NO. 69558

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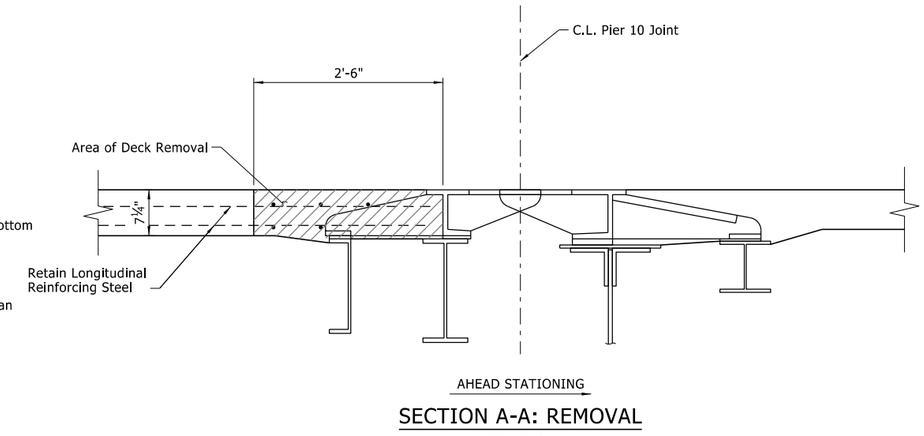
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	65	107
		02899 - EXP. JOINT - 69559				



AHEAD STATIONING

PIER 10

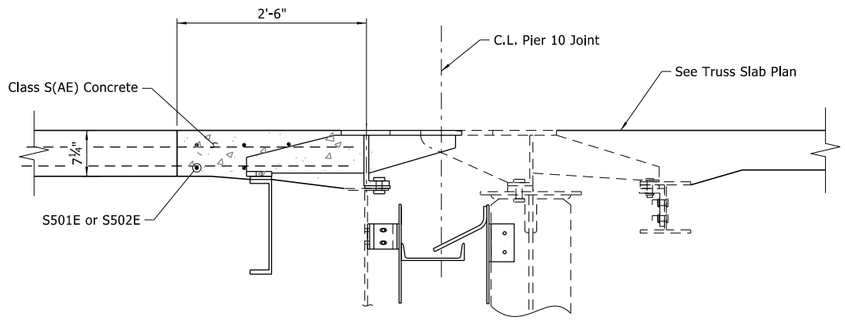
½" = 1'-0"



AHEAD STATIONING

SECTION A-A: REMOVAL

1" = 1'-0"



AHEAD STATIONING

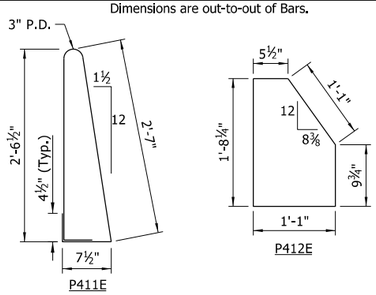
SECTION A-A: CONSTRUCTION

1" = 1'-0"

BAR LIST

MARK	NO. REQ'D	LENGTH	PIN. DIA.
P411E	8	6'-4"	2"
P412E	8	5'-6"	2"
S402E	4	7'-0"	Str.
① S501E	3	15'-3"	Str.
① S502E	3	15'-3"	Str.
① S601E	2	15'-3"	Str.
① S602E	2	15'-3"	Str.

BENDING DIAGRAMS
Dimensions are out-to-out of Bars.



Notes:
All Bars designated with an "E" suffix are to be epoxy coated.

① Bars are to be spliced with mechanical couplers. Any changes to the bar length to accommodate the couplers shall not be paid for directly but shall be considered subsidiary to the item "EPOXY COATED REINFORCING STEEL (GRADE 60)".

The mechanical couplers shall be an approved type in accordance with the ARDOT QPL and shall maintain clearances shown.

The cost of mechanical couplers shall not be measured for separate payment but shall be considered subsidiary to the item "EPOXY COATED REINFORCING STEEL (GRADE 60)". Mechanical couplers shall develop at least 125% of the specified yield strength of the reinforcing steel.

All concrete shall be Class S(AE) Concrete.

The joint replacement shall be done prior to the Polymer Overlay of the approach spans.

For Stage 1 and 2 limits, see Roadway Plans.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 5 OF 5
DETAILS OF MAIN TRUSS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

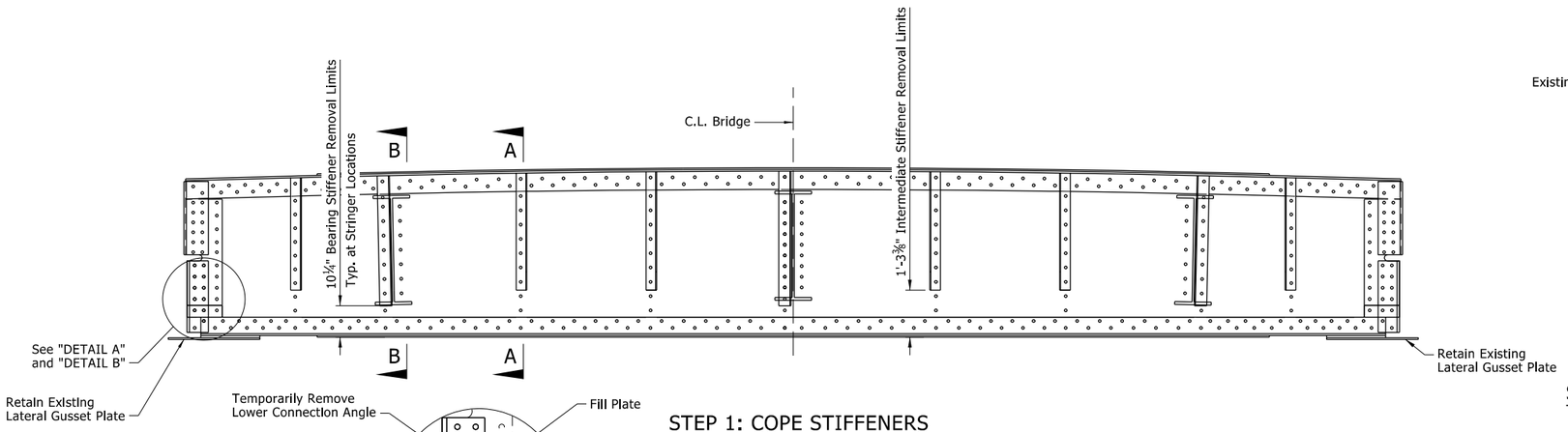
LITTLE ROCK, ARK.

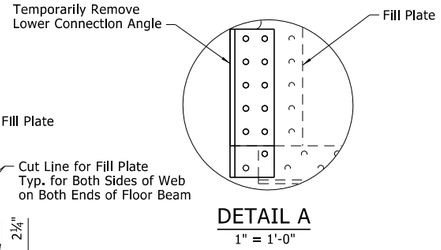
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BRIDGE NO. 02899 DRAWING NO. 69559

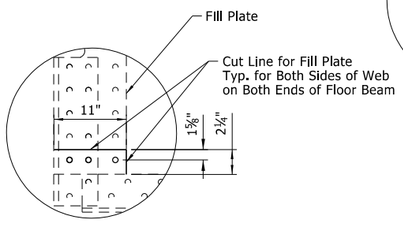
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	66	107
		02899 - FLOOR BEAM REPAIRS - 69560				





DETAIL A
1" = 1'-0"



DETAIL B
1" = 1'-0"

STEP 1: COPE STIFFENERS

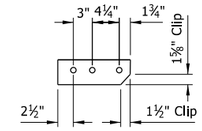
½" = 1'-0"

SEQUENCE OF REPAIR --- STEP 1:

1. Prior to start of repair, Contractor shall submit proposed shoring plans to the Engineer for approval. See SP Job No. 110812 "STRUCTURAL STEEL SHORING" for more details.

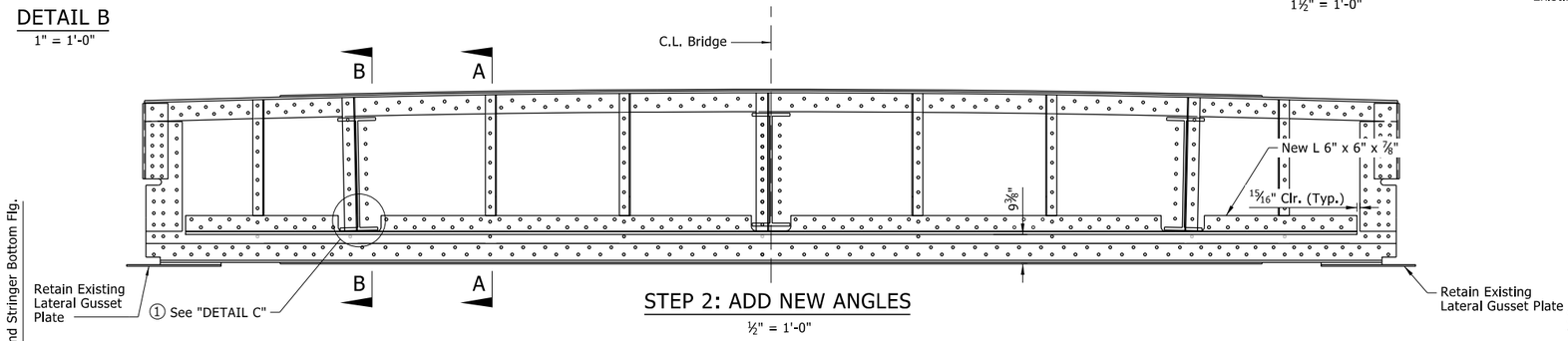
2. Establish cut lines for all stiffeners (Intermediate and Bearing). Remove all rivets connecting the stiffeners below the established cut line. Upon the removal of rivets, cut of stiffeners at previously established lines.

3. Remove the bottom connection angle and cut fill plate on both sides of the Floor Beam as shown on "DETAIL A" and "DETAIL B". Connecting angles and plates shall be retained to be installed after New Girder Section is Installed.



CUT FILL PLATE

Clip to be Performed after Cutting
1½" = 1'-0"

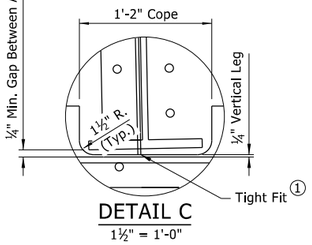


STEP 2: ADD NEW ANGLES

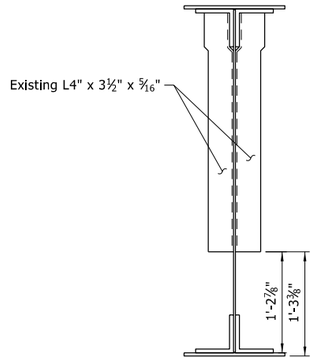
½" = 1'-0"

SEQUENCE OF REPAIR --- STEP 2:

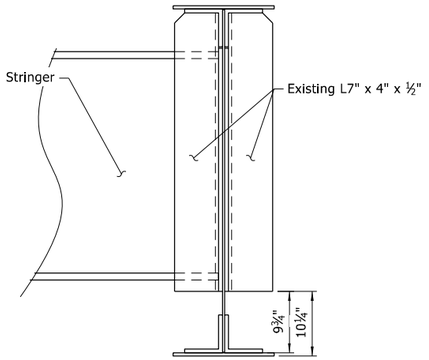
1. Install the New Angles as shown in "STEP 2: ADD NEW ANGLES".



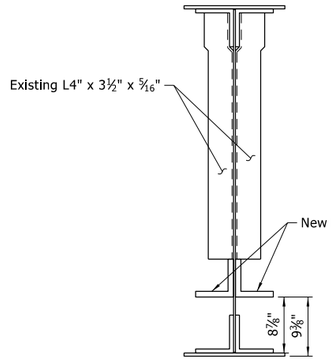
DETAIL C
1½" = 1'-0"



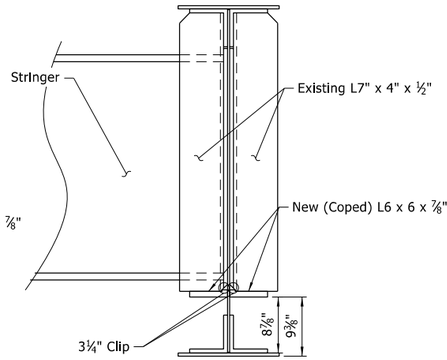
STEP 1: SECTION A-A
SHOWING INTERMEDIATE STIFFENER
1" = 1'-0"



STEP 1: SECTION B-B
SHOWING BEARING STIFFENER
1" = 1'-0"



STEP 2: SECTION A-A
SHOWING INTERMEDIATE STIFFENER
1" = 1'-0"



STEP 2: SECTION B-B
SHOWING BEARING STIFFENER
1" = 1'-0"

Notes:
① At location where the New Angle is coped, the top of the horizontal flange shall have a tight fit in respect to the bearing stiffener as shown in "DETAIL C".

New Angles may be used as template to drill holes in web.

All Structural Steel shall be ASTM A709, Grade 36 unless noted otherwise, and shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".

All work done to remove the existing portions of the floor beams shall be paid for as "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)"

The shoring required for this repair shall be paid for as "SHORING TYPE 1: MAIN TRUSS SPANS FLOOR BEAM", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
HUSSAM S. SALEEM
No.18919

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

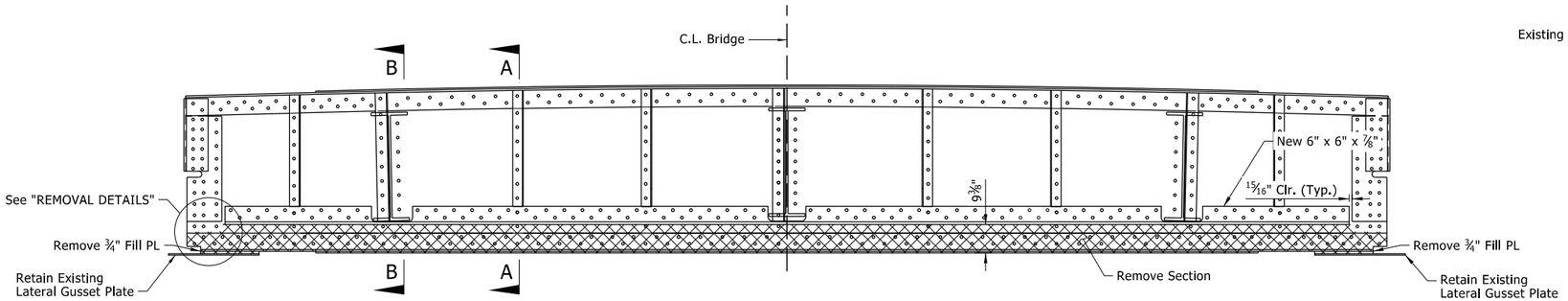
SHEET 1 OF 4
DETAILS OF FLOOR BEAM REPAIRS:
L25, L43, AND L59 LOCATIONS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY:	DGL	DATE:	10/2025	FILENAME:	B110812_FBR.DGN
CHECKED BY:	HSS	DATE:	11/2025	SCALE:	AS SHOWN
DESIGNED BY:	MHA/SB	DATE:	10/2025		

BRIDGE NO. 02899 DRAWING NO. 69560

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - FLOOR BEAM REPAIRS - 69561				



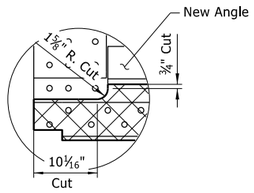
STEP 3: REMOVE DETERIORATED SECTION

½" = 1'-0"

SEQUENCE OF REPAIR --- STEP 3:

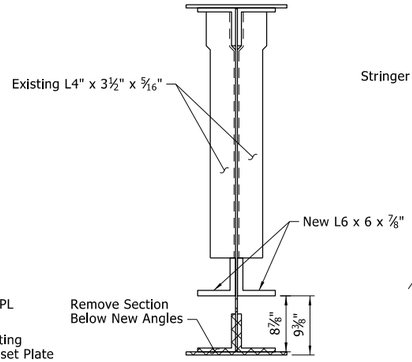
1. After the New Angles have been installed in the correct location and all bolts fully tensioned, the Contractor shall cut the section of the floor beam below the installed New Angles as shown in "STEP 3: REMOVE DETERIORATED SECTION".

2. The contractor shall retain the lateral gusset plates.



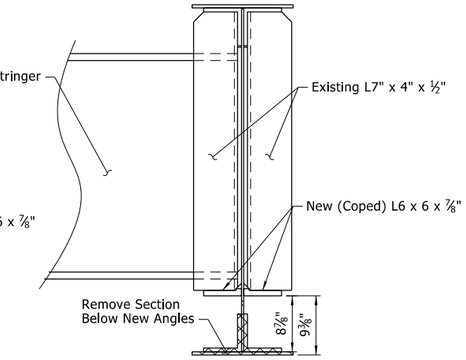
REMOVAL DETAILS

1" = 1'-0"



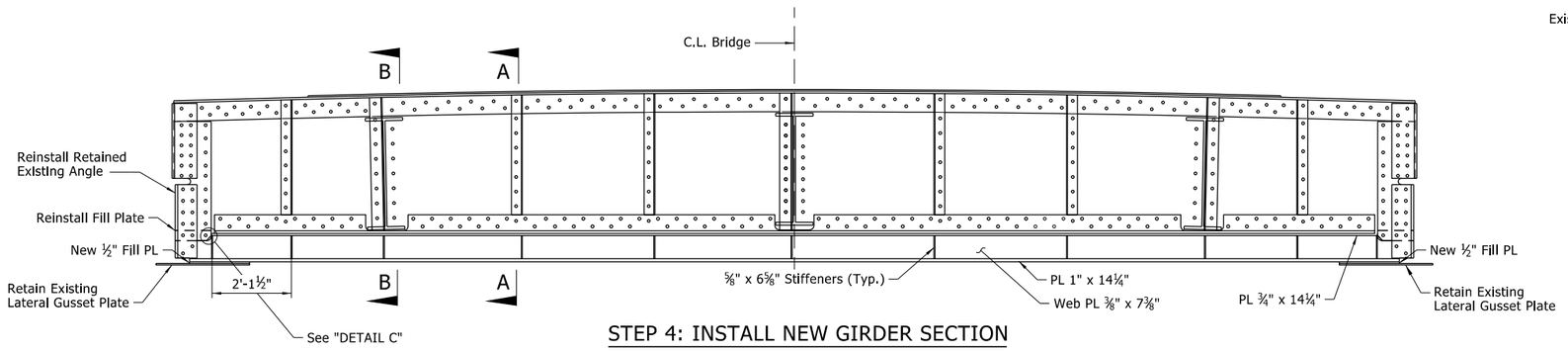
STEP 3: SECTION A-A SHOWING INTERMEDIATE STIFFENER

1" = 1'-0"



STEP 3: SECTION B-B SHOWING BEARING STIFFENER

1" = 1'-0"



STEP 4: INSTALL NEW GIRDER SECTION

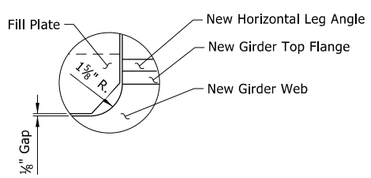
½" = 1'-0"

SEQUENCE OF REPAIR --- STEP 4:

1. Upon tensioning all the bolts, the Contractor shall install the new girder section as shown in "STEP 4: INSTALL NEW GIRDER SECTION". The New Girder Section shall be bolted to the New Angles installed earlier as well as the bottom lateral, gusset plates.

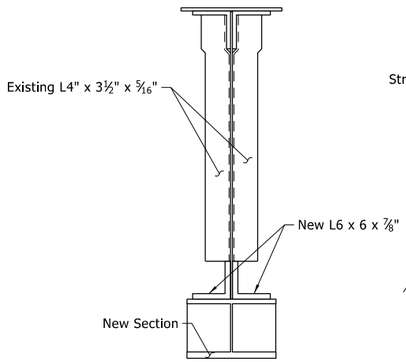
2. Reinstall the retained connections angles and cut fill plates to connect back the Floor Beam to the Truss.

3. Once installation is complete, the Contractor shall remove the shoring system.



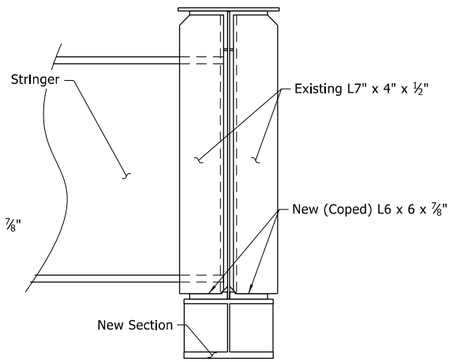
DETAIL C

3" = 1'-0"



STEP 4: SECTION A-A SHOWING INTERMEDIATE STIFFENER

1" = 1'-0"



STEP 4: SECTION B-B SHOWING BEARING STIFFENER

1" = 1'-0"

Notes:

New Angles may be used as template to drill holes in web.

Countersunk bolts shall be paid as ASTM F3125 Grade A325 Type 1, ⅞" dia. Bolts.

All Structural Steel shall be ASTM A709, Grade 36 unless noted otherwise, and shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".

All work done to remove the existing portions of the floor beams shall be paid for as "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)"

The shoring required for this repair shall be paid for as "SHORING TYPE 1: MAIN TRUSS SPANS FLOOR BEAM", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 2 OF 4
DETAILS OF FLOOR BEAM REPAIRS: L25, L43, AND L59 LOCATIONS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

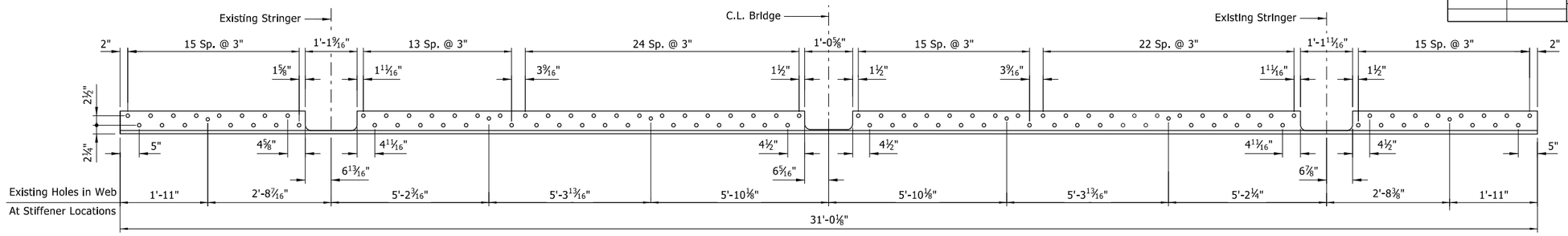
LITTLE ROCK, ARK.

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DESIGNED BY: MHA/SB DATE: 10/2025

BRIDGE NO. 02899 DRAWING NO. 69561

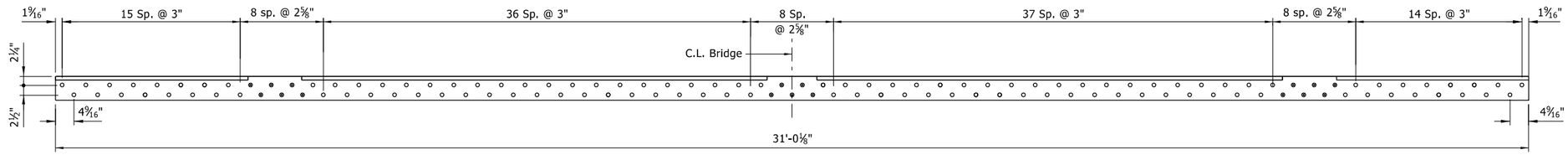
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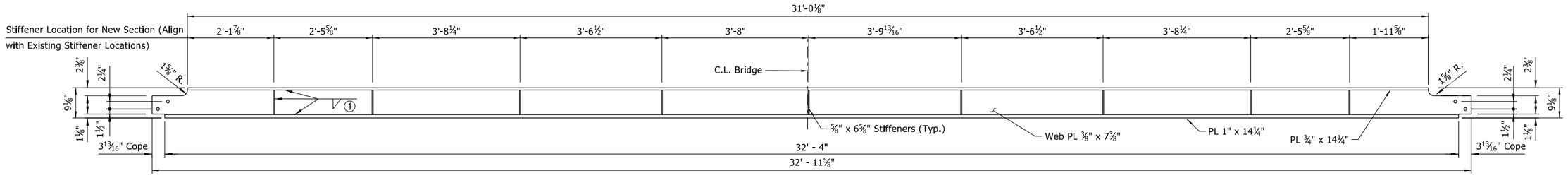
ELEVATION VIEW OF NEW ANGLE SHOWING VERTICAL LEG

3/4" = 1'-0"



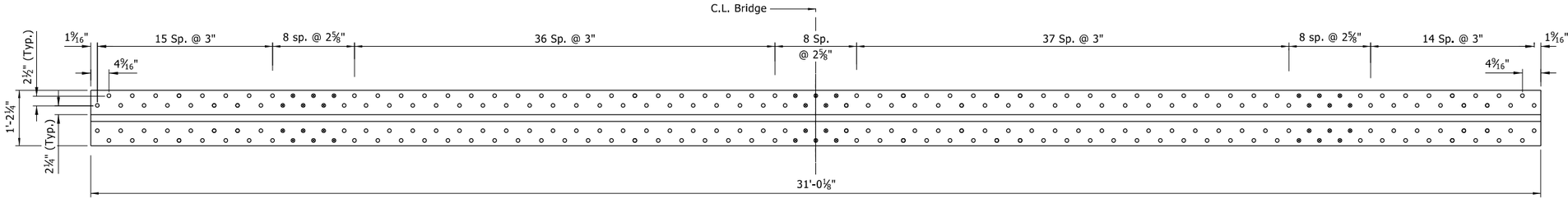
PLAN VIEW OF NEW ANGLE SHOWING HORIZONTAL LEG

3/4" = 1'-0"



ELEVATION NEW GIRDER SECTION

3/4" = 1'-0"



PLAN VIEW OF TOP FLANGE OF NEW GIRDER SECTION

LOOKING FROM TOP
3/4" = 1'-0"

Notes:
Bolt Holes Denoted as ⊗ to be Countersunk.

(1) See "WELD TABLE" on Std. Dwg. No. 55007.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

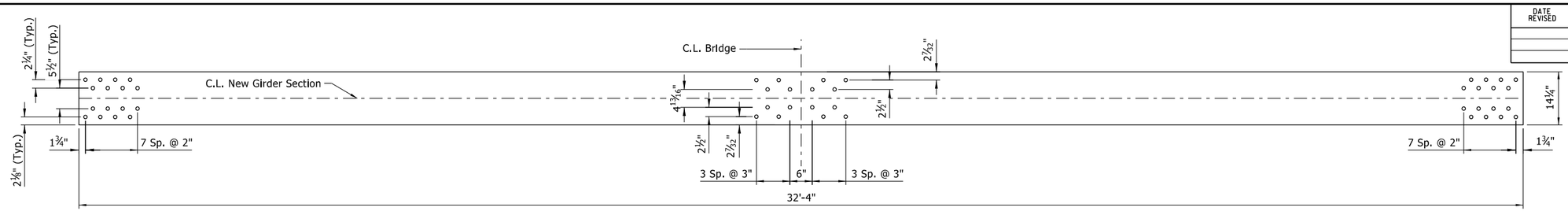
SHEET 3 OF 4
DETAILS OF FLOOR BEAM REPAIRS:
L25, L43, AND L59 LOCATIONS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DGL DATE: 10/2025 FILENAME: B110812_FBR.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: AS SHOWN
DESIGNED BY: MHA/SB DATE: 10/2025

BRIDGE NO. 02899 DRAWING NO. 69562

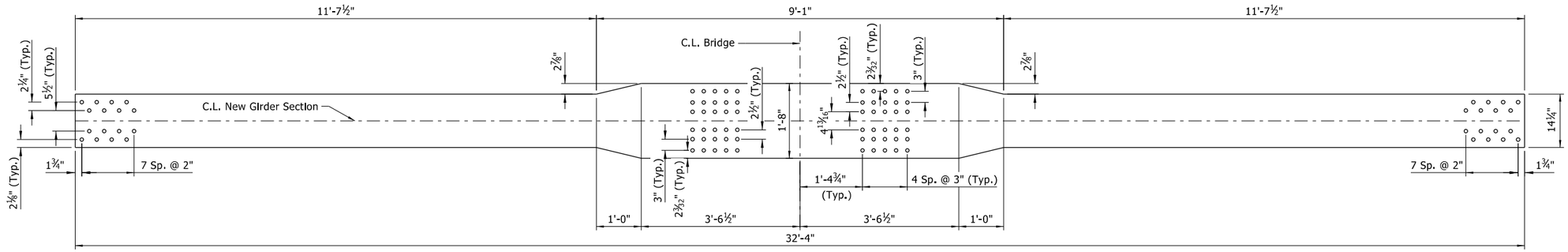
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - FLOOR BEAM REPAIRS - 69563				



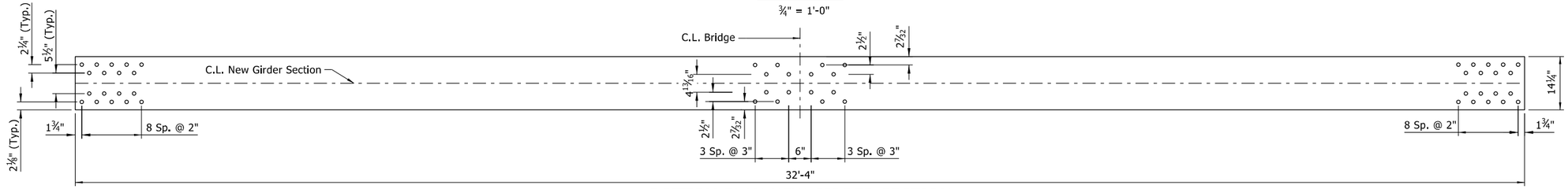
BOTTOM PLAN NEW GIRDER SECTION (L25 WEST)

¾" = 1'-0"



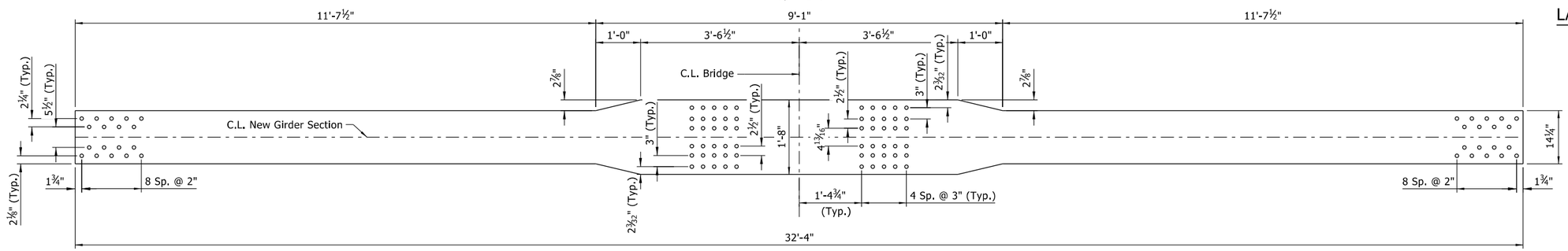
BOTTOM PLAN NEW GIRDER SECTION (L25 EAST)

¾" = 1'-0"



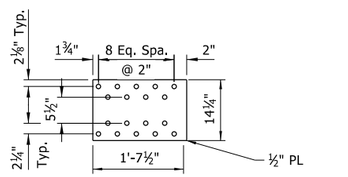
BOTTOM PLAN NEW GIRDER SECTION (L43 & L59 WEST)

¾" = 1'-0"



BOTTOM PLAN NEW GIRDER SECTION (L43 & L59 EAST)

¾" = 1'-0"



LATERAL GUSSET PLATE FILL PLATE ①

¾" = 1'-0"

①Fill Plates only required for L43 and L59

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
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SHEET 4 OF 4
DETAILS OF FLOOR BEAM REPAIRS: L25, L43, AND L59 LOCATIONS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

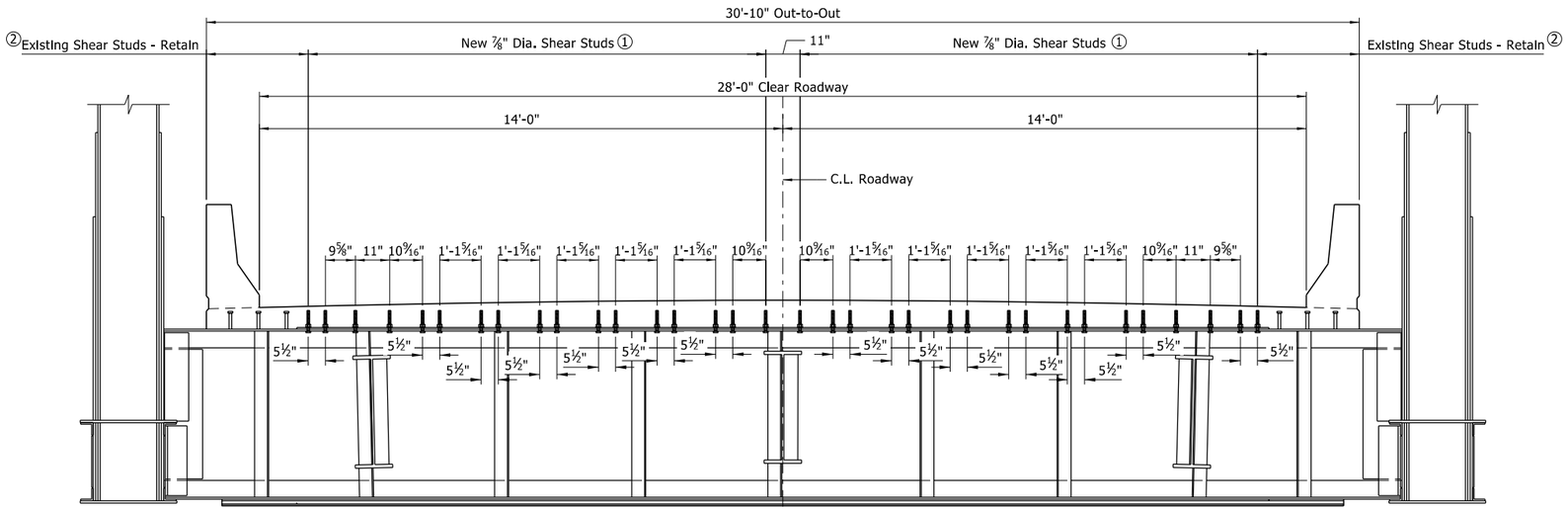
LITTLE ROCK, ARK.

DRAWN BY: DGL DATE: 10/2025 FILENAME: B110812_FBR.DGN
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BRIDGE NO. 02899 DRAWING NO. 69563

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	70	107
		02899 - FLOOR BEAM REPAIRS - 69564				



ELEVATION VIEW

½" = 1'-0"

Notes:

① In locations where New Shear Studs are required, existing rivets/bolts shall be replaced with fully threaded bolts, one at a time, when deck is removed and before pouring the new deck. Spacing shown on "ELEVATION VIEW" is estimated based on available data of existing holes. Contractor shall field verify all dimensions and contact the Engineer in case the indicated spacing can not be achieved with existing holes. See "SECTION VIEW AT C.L. ROADWAY" for additional placement details.

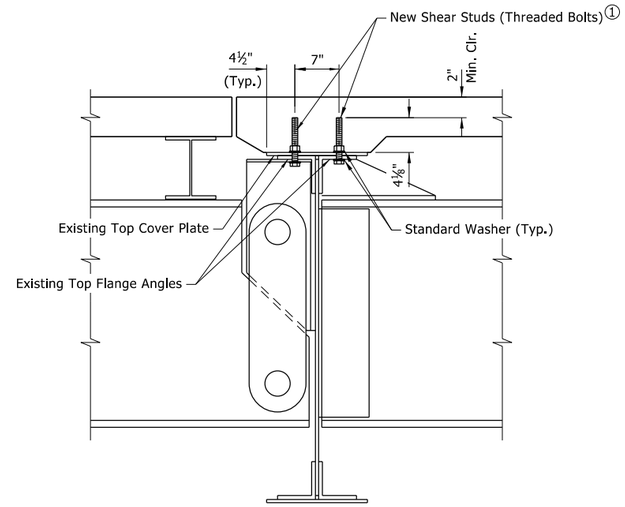
Shear studs shall be ⅞" dia. x 5¼" A325 fully threaded bolts.

② The Contractor shall retain existing shear studs and incorporate into the new deck. Contractor shall practice caution when removing concrete in areas where studs exist to prevent damaging the studs.

All work and materials required for this repair shall be paid for as "REPAIR TYPE A: FLOOR BEAM TOP FLANGE". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

REPAIR A LOCATION:

Floor Beam
L32



SECTION VIEW AT C.L. ROADWAY

1" = 1'-0"

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LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE A - TOP FLANGE REPAIR

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

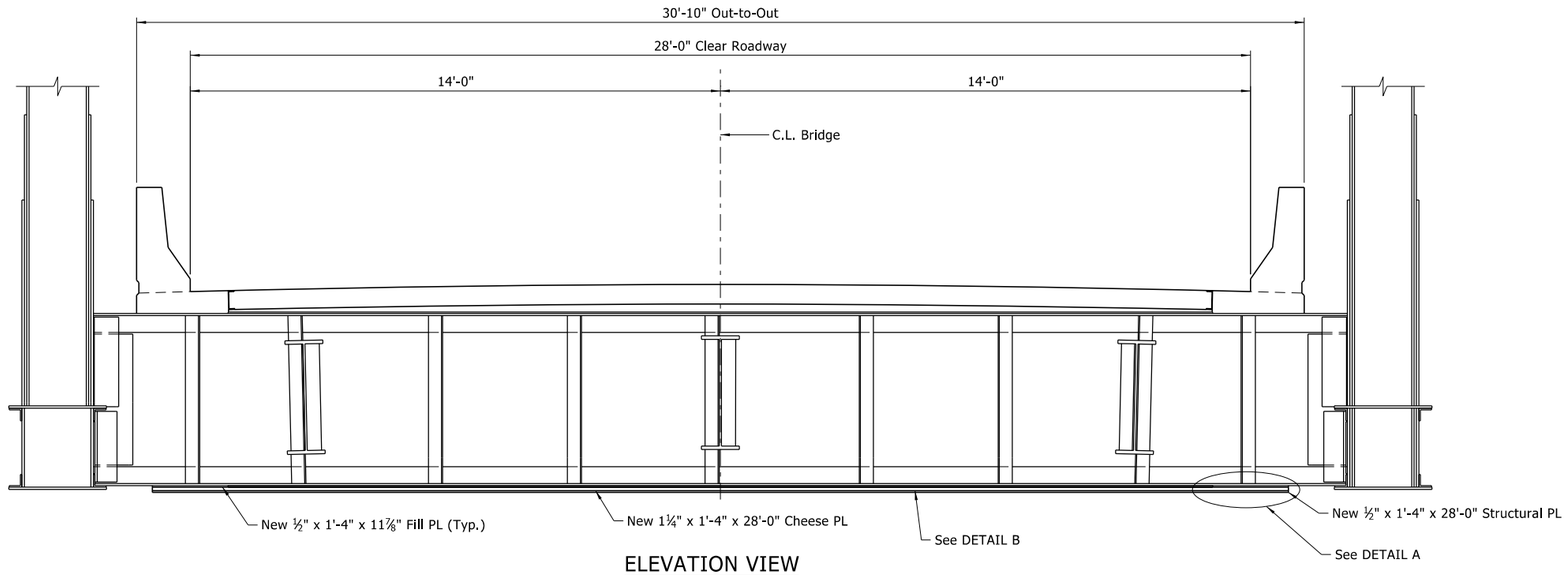
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 04/2025 FILENAME: B110812_FB1.DGN
CHECKED BY: HSS DATE: 10/2025 SCALE: AS SHOWN
DESIGNED BY: MHA DATE: 04/2025

BRIDGE NO. 02899 DRAWING NO. 69564

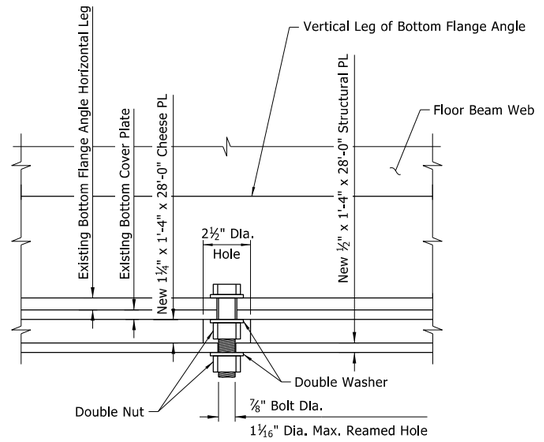
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - FLOOR BEAM REPAIRS - 69565				



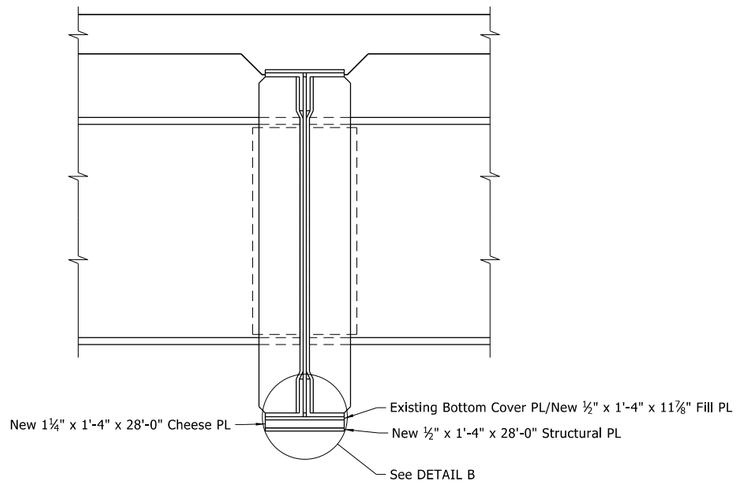
ELEVATION VIEW

½" = 1'-0"



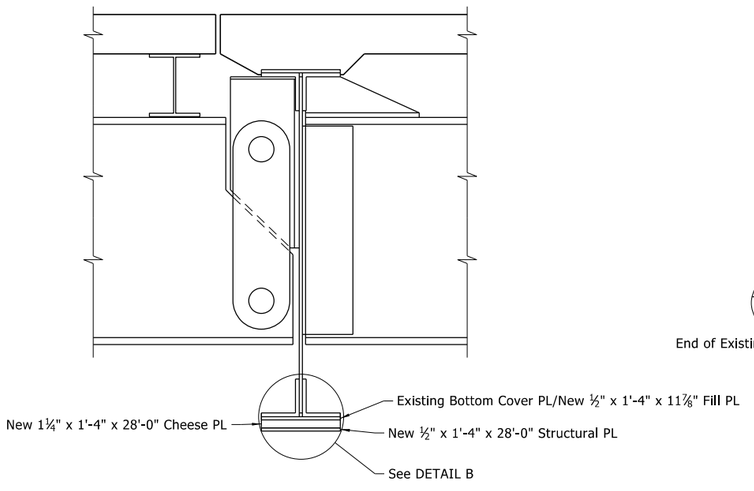
DETAIL B

3" = 1'-0"
Other bolts omitted for clarity.



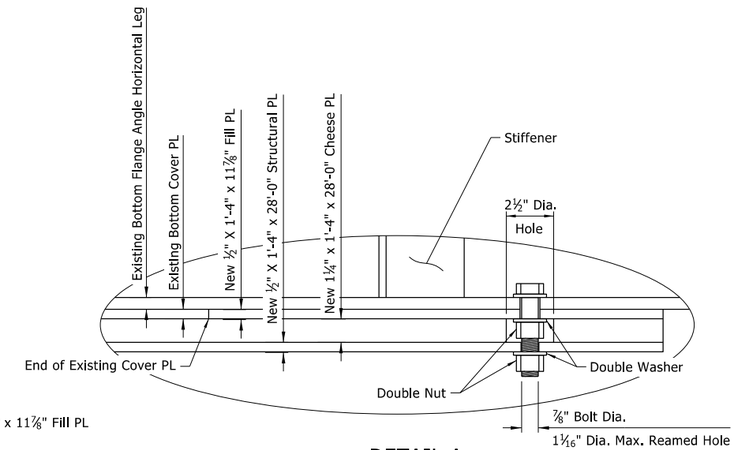
SECTION VIEW THROUGH FLOOR BEAM AT A FIXED (NO CONTRACTION JOINT) LOCATION

1" = 1'-0"



SECTION VIEW THROUGH FLOOR BEAM AT A CONTRACTION JOINT LOCATION

1" = 1'-0"



DETAIL A

No Scale
Detail A is Symmetrical about C.L. Roadway
Other Bolts Omitted for Clarity

Notes:
All Plates shall be ASTM A709, Grade 36.

All Bolts ⅞" dia., ASTM F3125, Grade A325 to be fully tensioned (both nuts).

Remove and replace existing rivets with new bolts one at a time prior to installing cheese plate and structural plate.

Install the fill plates, cheese plate, and structural plate. Fully torque nuts in accordance with Subsection 807.06.

All work and materials required for this repair shall be paid for as "REPAIR TYPE B: FLOOR BEAM BOTTOM FLANGE". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

REPAIR B LOCATIONS:

Floor Beam
L2
L12
L27
L29
L32
L36
L42
L45
L50
L56
L62

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 2
DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE B - BOTTOM FLANGE REPAIR

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

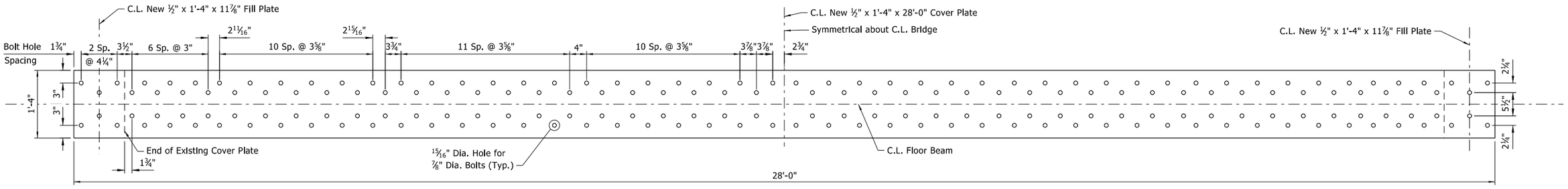
LITTLE ROCK, ARK.

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CHECKED BY: HSS DATE: 10/2025 SCALE: AS SHOWN
DESIGNED BY: SB DATE: 04/2025

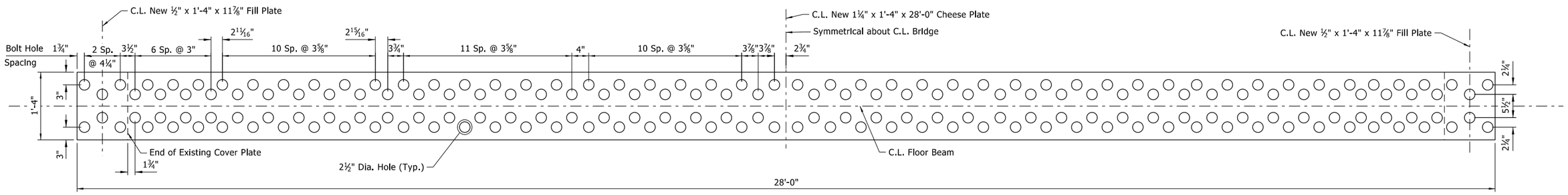
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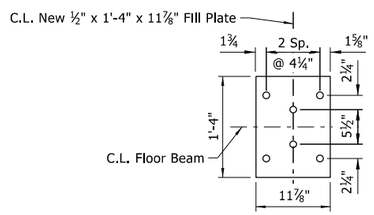
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		6	ARK.	110812	72	107
		02899 - FLOOR BEAM REPAIRS - 69566				



PLAN VIEW - NEW BOTTOM FLANGE STRUCTURAL PLATE



PLAN VIEW - BOTTOM FLANGE CHEESE PLATE



PLAN VIEW - BOTTOM FLANGE FILL PLATE

STATE OF ARKANSAS
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No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
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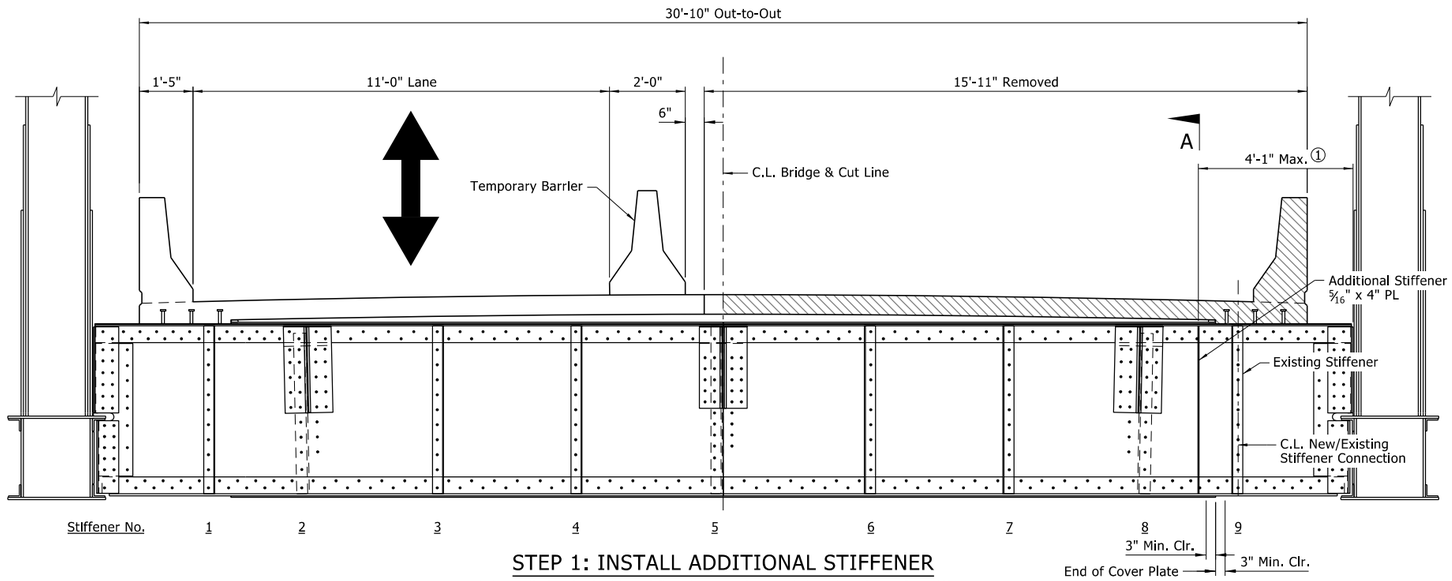
SHEET 2 OF 2
DETAILS OF FLOOR BEAM REPAIRS:
REPAIR TYPE B -
BOTTOM FLANGE REPAIR
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LAC DATE: 08/2025 FILENAME: B110812_FB2.DGN
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DESIGNED BY: SB DATE: 04/2025

BRIDGE NO. 02899 DRAWING NO. 69566

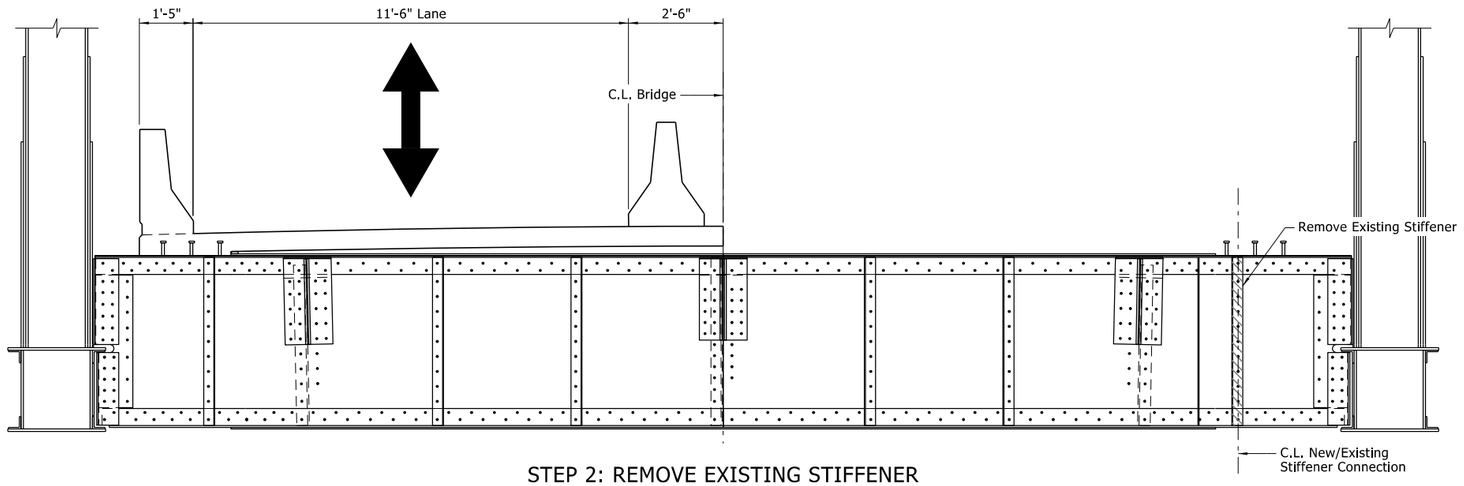
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		6	ARK.	110812	73	107
		02899 - FLOOR BEAM REPAIRS - 69567				



STEP 1: INSTALL ADDITIONAL STIFFENER

Repair is applied to both sides of floor beam web. Repair location shown for Stiffener 9,
Stiffener 1 repair is symmetrical about C.L. Bridge.
Floor beam shown at Contraction Joint, other locations similar.
½" = 1'-0"

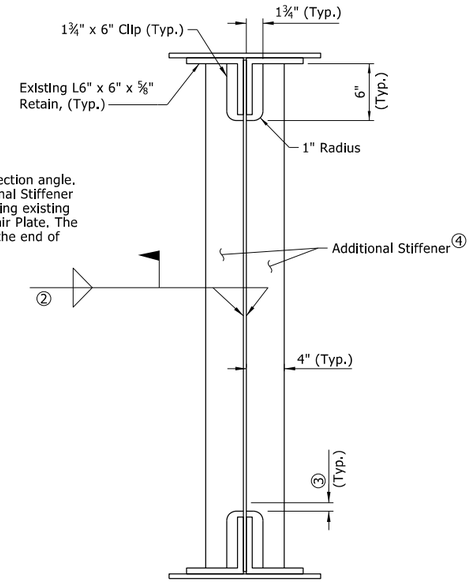


STEP 2: REMOVE EXISTING STIFFENER

Repair is applied to both sides of floor beam web. Repair location shown for Stiffener 9,
Stiffener 1 repair is symmetrical about C.L. Bridge.
Floor beam shown at Contraction Joint, other locations similar.
½" = 1'-0"

REPAIR C LOCATIONS:

Floor Beam	Stiffener	Web Defect Location from Left of Floor Beam
L34	1	3'-0"
L39	1	1'-4" & 2'-5"
L44	1	3'-4"
L54	9	30'-4"
L57	9	29'-11"
L58	9	30'-8"
L60	1	3'-4"
L67	9	30'-4"
L68	1 & 9	3'-4" & 30'-4"



SECTION A-A

1 ½" = 1'-0"

① Measured from the back face of the upper vertical connection angle. The Contractor may adjust the placement of the Additional Stiffener closer to the Existing Stiffener as necessary for fit avoiding existing riveted/bolted connections as well as the new Web Repair Plate. The Contractor shall not the place the stiffener within 3" of the end of cover plate as shown.

② See "WELD TABLE" on Std. Dwg. No. 55007.

③ Stop Weld ¼" to 1" from end of clip.

④ The additional stiffener shall have a tight fit with the top and bottom flanges.

Notes:
No web repairs may begin until both the lane load (half deck) above the web repair has been removed and the additional stiffener has been installed.

Contractor may taper additional stiffener to fit between existing angles.

The Contractor shall field verify all dimensions and locations including the bolt/rivet hole locations, spacings, and web damage extents. If any field measurement conflicts with the proposed information, notify the Engineer for further analysis.

All work and materials required for this repair shall be paid for as "REPAIR TYPE C: FLOOR BEAM WEB". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 2
DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE C - WEB REPAIR

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

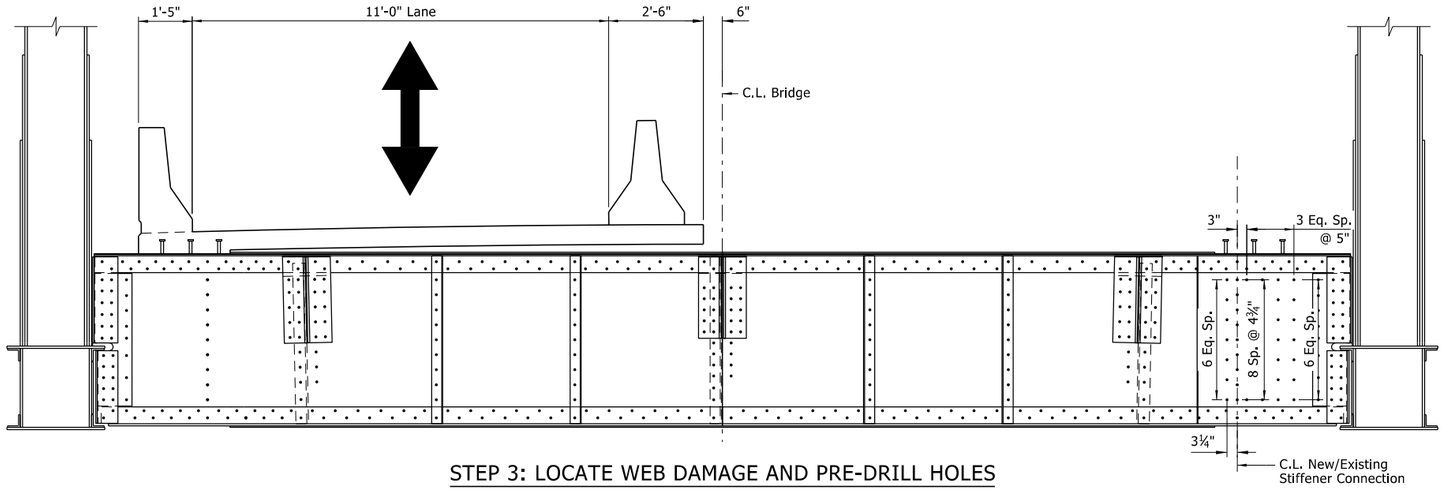
LITTLE ROCK, ARK.

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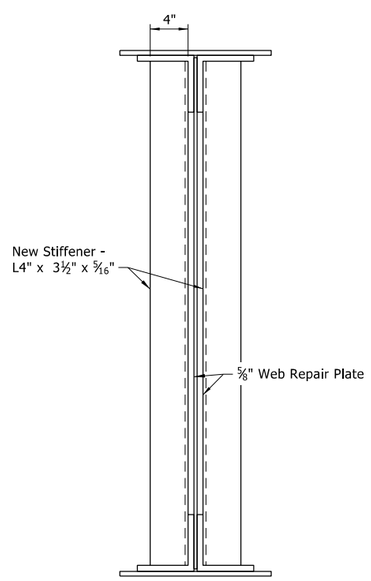
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		02899 - FLOOR BEAM REPAIRS - 69568				



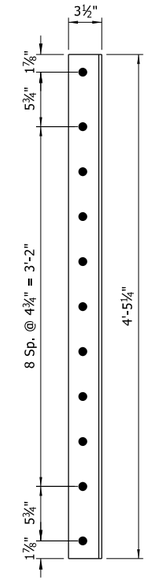
STEP 3: LOCATE WEB DAMAGE AND PRE-DRILL HOLES

Repair is applied to both sides of floor beam web. Repair location shown for Stiffener 9, Stiffener 1 repair is symmetrical about C.L. Bridge.
Floor beam shown at Contraction Joint, other locations similar.
½" = 1'-0"



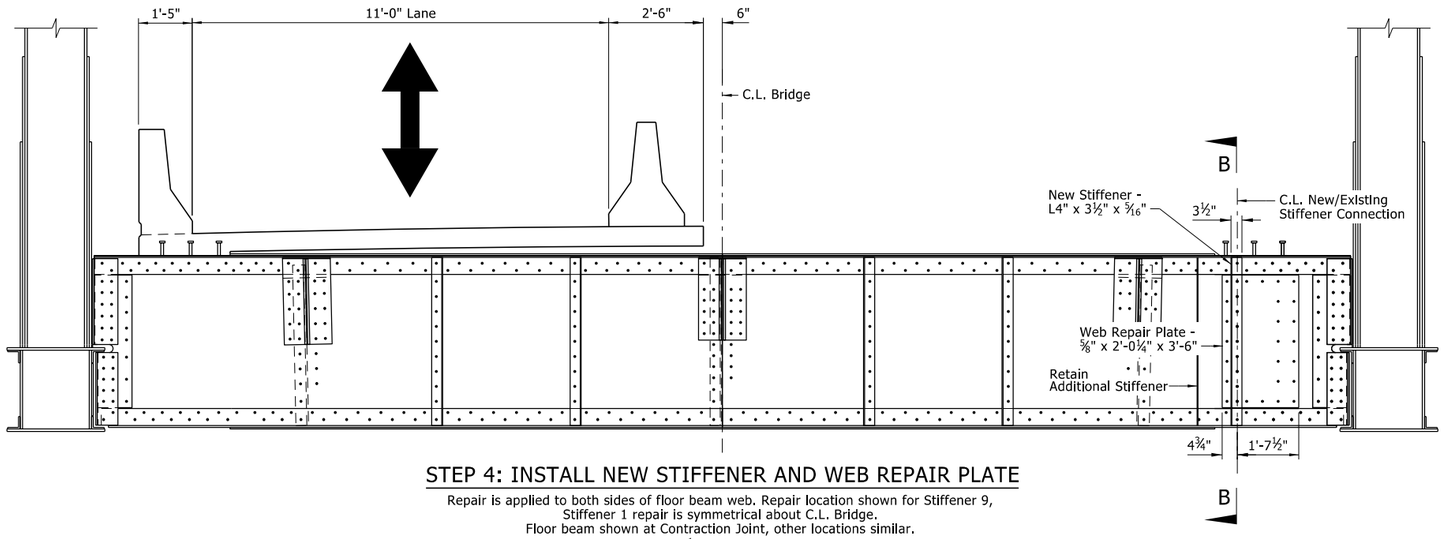
SECTION B-B

1 ½" = 1'-0"



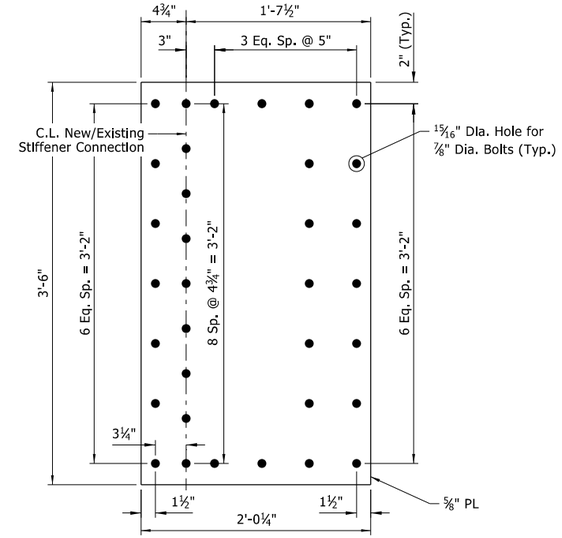
NEW STIFFENER

1 ½" = 1'-0"



STEP 4: INSTALL NEW STIFFENER AND WEB REPAIR PLATE

Repair is applied to both sides of floor beam web. Repair location shown for Stiffener 9, Stiffener 1 repair is symmetrical about C.L. Bridge.
Floor beam shown at Contraction Joint, other locations similar.
½" = 1'-0"



WEB REPAIR PLATE

1 ½" = 1'-0"

Notes:
No web repairs may begin until both the lane load (half deck) above the web repair has been removed and the additional stiffener has been installed.

Contractor may taper additional stiffener to fit between existing angles.

The Contractor shall field verify all dimensions and locations including the bolt/rivet hole locations, spacings, and web damage extents. If any field measurement conflicts with the proposed information, notify the Engineer for further analysis.

All work and materials required for this repair shall be paid for as "REPAIR TYPE C: FLOOR BEAM WEB". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 2 OF 2
DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE C - WEB REPAIR

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

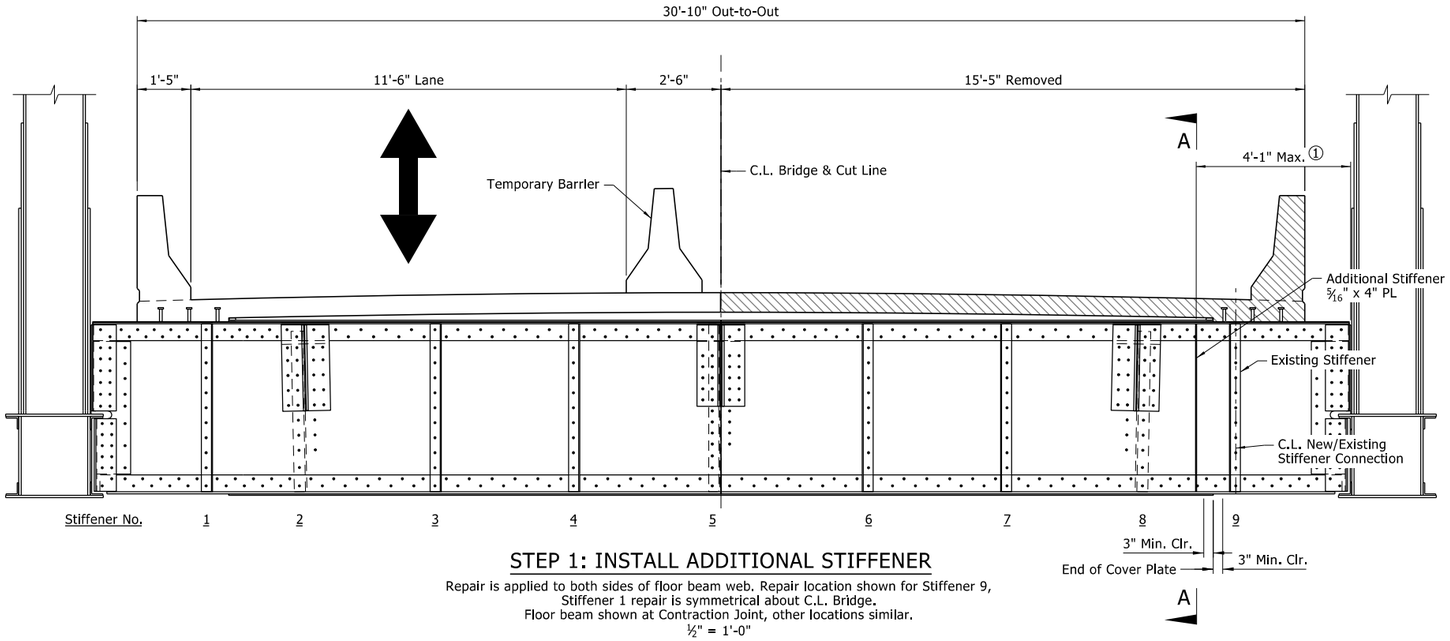
LITTLE ROCK, ARK.

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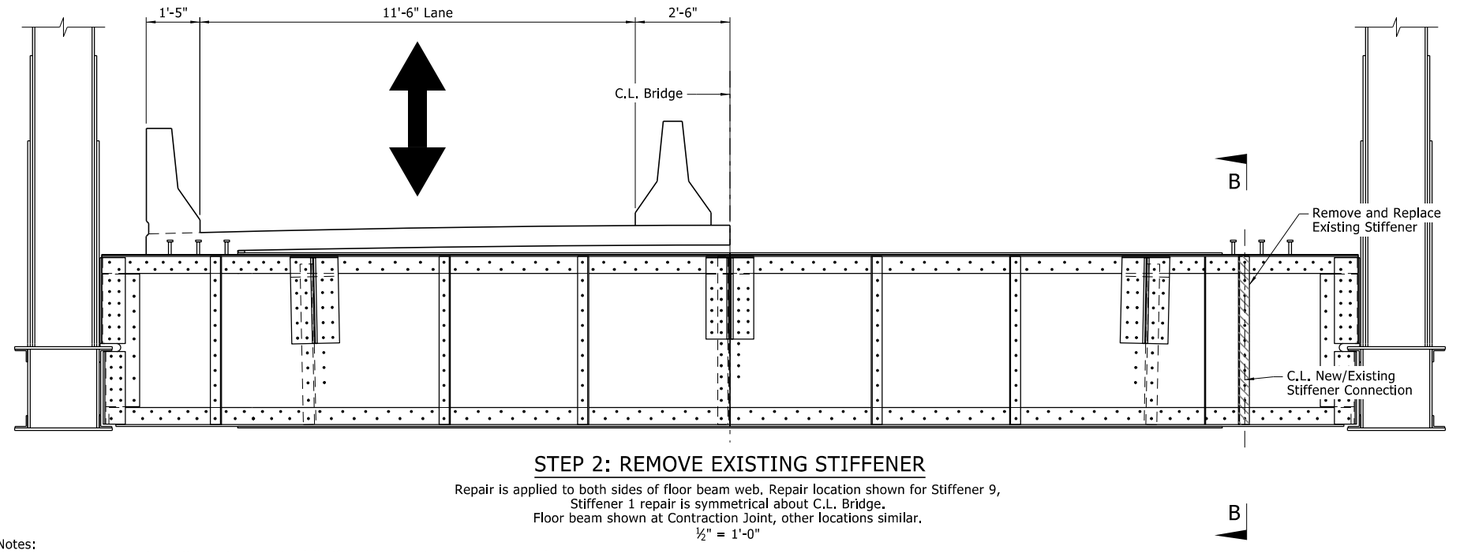
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	75	107
		02899 - FLOOR BEAM REPAIRS - 69569				



STEP 1: INSTALL ADDITIONAL STIFFENER

Repair is applied to both sides of floor beam web. Repair location shown for Stiffener 9,
Stiffener 1 repair is symmetrical about C.L. Bridge.
Floor beam shown at Contraction Joint, other locations similar.
½" = 1'-0"



STEP 2: REMOVE EXISTING STIFFENER

Repair is applied to both sides of floor beam web. Repair location shown for Stiffener 9,
Stiffener 1 repair is symmetrical about C.L. Bridge.
Floor beam shown at Contraction Joint, other locations similar.
½" = 1'-0"

Notes:
No web repairs may begin until both the lane load (half deck) above the web repair has been removed and the additional stiffener has been installed.

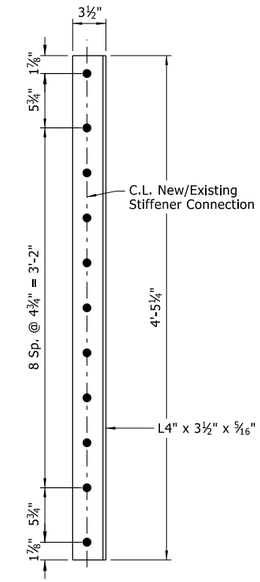
Contractor may taper additional stiffener to fit between existing angles.

The Contractor shall field verify all dimensions and locations including the bolt/rivet hole locations, spacings, and web damage extents. If any field measurement conflicts with the proposed information, notify the Engineer for further analysis.

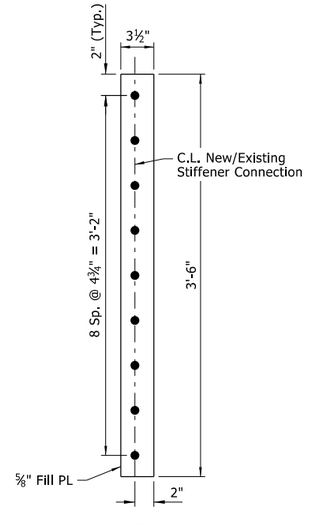
All work and materials required for this repair shall be paid for as "REPAIR TYPE D: FLOOR BEAM STIFFENER". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

REPAIR D LOCATIONS:

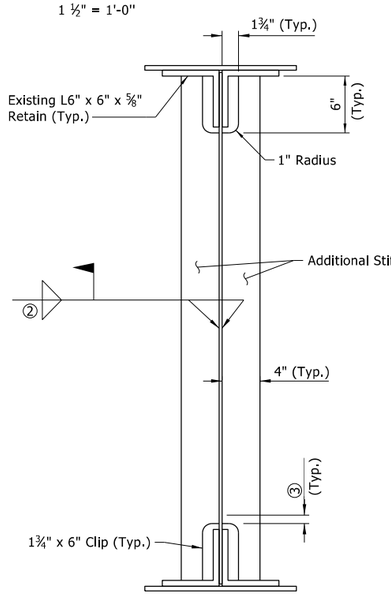
Floor Beam	Stiffener
L4	1 & 9
L18	1 & 9
L36	9
L37	1 & 9
L38	1 & 9
L40	1 & 9
L41	1 & 9
L42	1 & 9
L44	9
L45	1 & 9
L46	1 & 9
L47	9
L48	1
L49	9
L50	1 & 9
L51	1 & 9
L52	1
L53	9
L54	1
L55	1 & 9
L60	9
L61	9
L62	1 & 9
L63	1 & 9
L64	9
L66	1 & 9
L67	1
L69	9
L70	9
L72	1
L73	9
L74	1 & 9



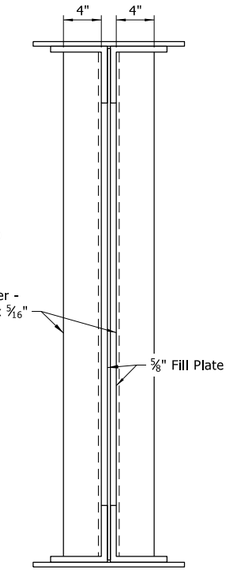
NEW STIFFENER
1 ½" = 1'-0"



FILL PLATE
1 ½" = 1'-0"



SECTION A-A
1 ½" = 1'-0"



SECTION B-B
1 ½" = 1'-0"

① Measured from the back face of the upper vertical connection angle. The Contractor may adjust the placement of the Additional Stiffener closer to the Existing Stiffener as necessary for fit avoiding existing riveted/bolted connections. The Contractor shall not place the stiffener within 3" of the end of the cover plate as shown.

② See "WELD TABLE" on Std. Dwg. No. 55007.

③ Stop Weld ¼" to 1" from end of clip.

④ The additional stiffener shall have a tight fit with the top and bottom flanges.

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6-17-2026

BRIDGE ENGINEER
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DETAILS OF FLOOR BEAM REPAIRS: REPAIR TYPE D - STIFFENER REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

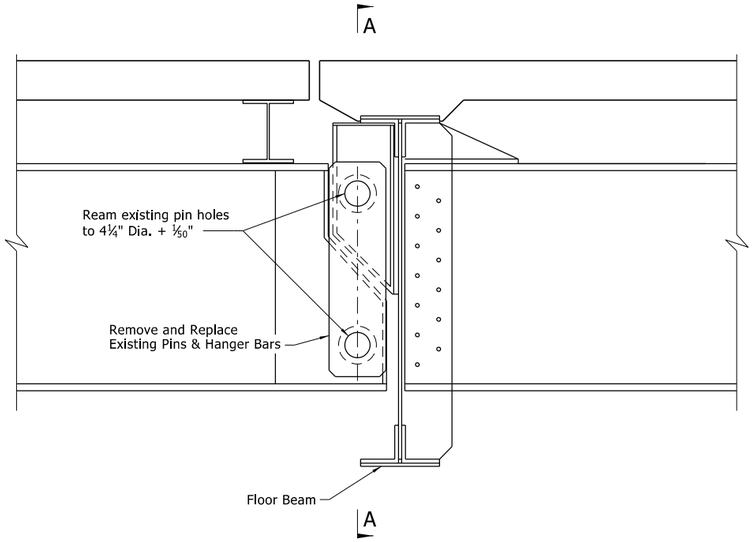
LITTLE ROCK, ARK.

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DESIGNED BY: MHA DATE: 07/2025

BRIDGE NO. 02899 DRAWING NO. 69569

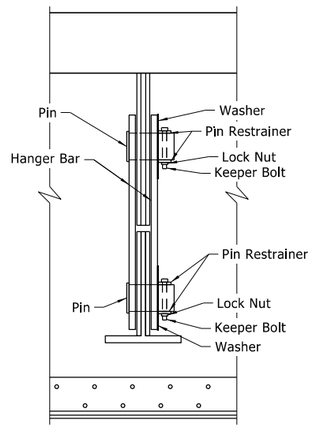
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	76	107
		02899 - PIN AND HANGER REPAIRS - 69570				



SECTION VIEW OF STRINGER PIN AND HANGER CONNECTION AT A CONTRACTION JOINT FLOOR BEAM LOCATION

1" = 1'-0"



SECTION A-A

1" = 1'-0"

Notes:
Refer to Dwg. No. 69553 for Stringer Locations.

Paint hanger bars, washers, and pin restrainers prior to assembly. For the required Paint System, refer to SP Job No. 110812 "CLEANING AND PAINTING EXISTING STRUCTURAL STEEL". Do not paint pin or pin hole of hanger bars and washers. Grease pin and pin holes during assembly using a high pressure marine bearing grease.

The Contractor shall field verify the size and location of each pin and hanger assembly location.

Existing pin holes shall be reamed prior to pin replacement. The Contractor shall not exceed 4¼" +1/50" dia. pin holes. If larger holes are formed Contractor shall contact the Engineer for further evaluation.

All structural steel, excluding the pins and hangers in the pin and hanger assemblies, shall be ASTM A709, Gr. 36. The pins shall be ASTM A668 Class G. The hanger bars shall be ASTM A709, Gr. 50.

Hanger bars shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the tensile stresses.

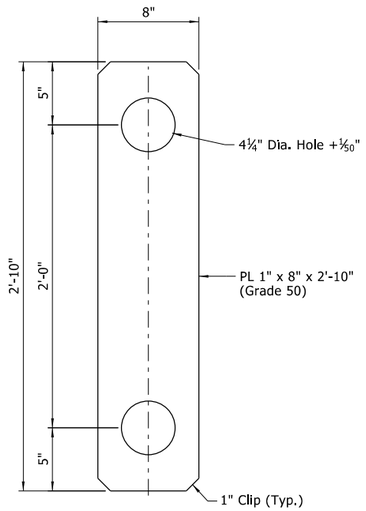
Hanger bars and pins are main load carrying members and are fracture critical. They shall meet the longitudinal Charpy V-notch test as specified in Subsection 807.05 for a minimum of 25 ft-lbs @ 70°F.

All work and materials required for this repair shall be paid for as "REPAIR TYPE E: STRINGER PIN AND HANGER". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

The shoring required for this repair shall be paid for as "SHORING TYPE 3: MAIN TRUSS SPANS STRINGER". For additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".

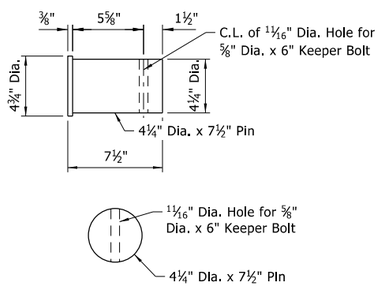
REPAIR E LOCATIONS:

Floor Beam	Stringer(s)
L3	3
L18	2
L32	2 & 3
L62	1, 2, & 3
L68	1
L71	2



HANGER BAR

2" = 1'-0"

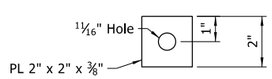


PIN

2" = 1'-0"

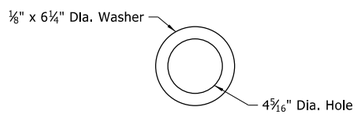
Pins shall be turned to the specified diameter. Coat turned pin and pin hole in hanger with light coat of high pressure grease after machining to prevent corrosion.

Keeper Bolt and Lock Nuts shall be Grade 5 steel.



PIN RESTRAINER

4" = 1'-0"



WASHER

2" = 1'-0"

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6-17-2026

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DETAILS OF REPAIR TYPE E - PIN AND HANGER REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

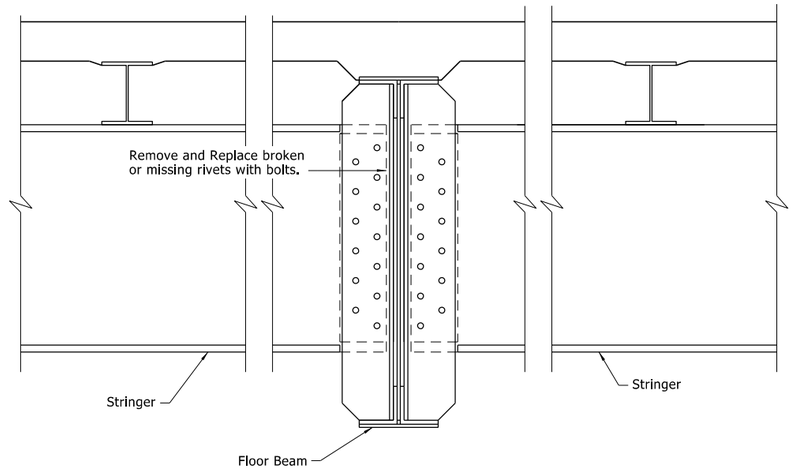
LITTLE ROCK, ARK.

DRAWN BY: SWB/MKL DATE: 01/2025 FILENAME: B110812_PH1.DGN
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DESIGNED BY: MHA DATE: 07/2025

BRIDGE NO. 02899 DRAWING NO. 69570

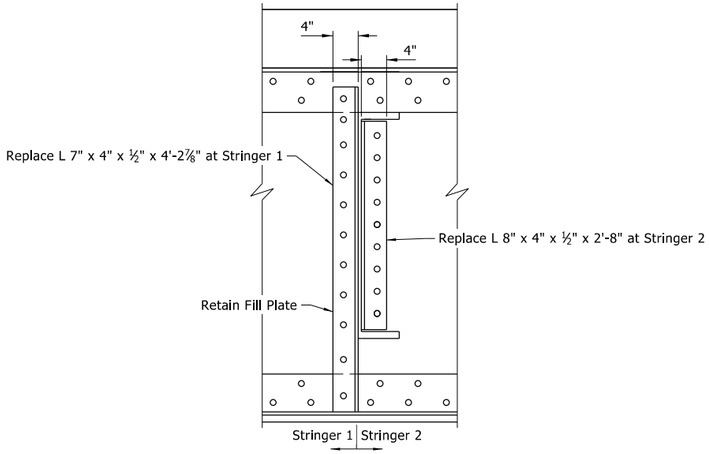
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	77	107
		02899 - STRINGER CONN. REPAIRS - 69571				



SECTION VIEW THROUGH FLOOR BEAM AT A FIXED (NO CONTRACTION JOINT) LOCATION

(Stringer 2 Shown)
1" = 1'-0"



VIEW A-A

1" = 1'-0"

REPAIR F
KNOWN LOCATIONS:
Rivet Replacements

Floor Beam	Stringer	Number ① of Rivets
L0	1	1
L8	2	1
L12	2 & 3	5
L13	1	1
L15	1	3
L17	1	3
L18	1 & 3	3
L19	3	1
L21	1	1
L23	1	1
L27	3	2
L31	1	2
L33	1	1
L34	1	1
L35	2	2
L36	2	1
L37	1 & 3	2
L38	1	2
L41	1 & 3	4
L42	1	2
L43	2	1
L44	1	1
L46	3	1
L48	1	2
L51	2	1
L52	1	1
L61	1	2
L62	1 & 3	2
L66	2 & 3	2

① For estimating purposes only.

Notes:
Refer to Dwg. No. 69553 for Stringer Locations.

The Contractor shall field verify all repairs dimensions and locations prior to performing the repair.

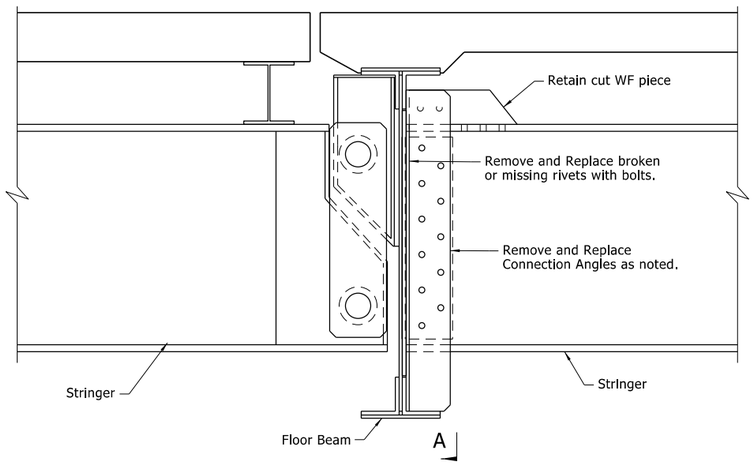
For Repair Type F: Rivet Replacements, remove missing, faulty, defective, or broken existing rivets one at a time, ream the hole, and replace with new high strength bolts. Payment for Repair Type F is per rivet replacement. All work and materials required for this repair shall be paid for as "REPAIR TYPE F: RIVET REPLACEMENTS", for additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS". The quantity shown for this pay item are: 1) an estimated quantity for bidding purposes only and 2) an "If and Where Directed by the Engineer" pay item as described in Subsection 104.03. Known rivet replacement locations can be found in "REPAIR F KNOWN LOCATIONS". The Contractor is to make a list of alternate locations of anticipated rivet replacements to submit to the Engineer for approval and to document the work for pay.

For Repair Type G: Stringer Connection Angle Replacement, remove and replace deteriorated existing angles at locations shown on "REPAIR G: LOCATIONS". All work and materials required for this repair shall be paid for as "REPAIR TYPE G: STRINGER CONNECTION ANGLE REPLACEMENT". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

The shoring required for Repair Type G shall be paid for as "SHORING TYPE 3: MAIN TRUSS SPANS STRINGER". For additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".

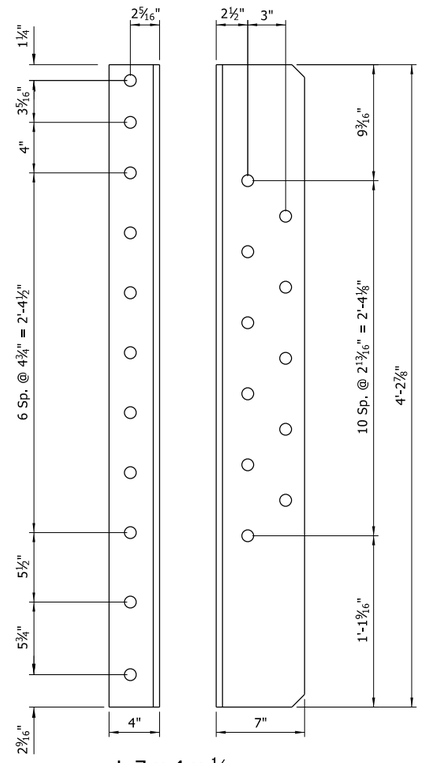
REPAIR G
LOCATIONS:
Stringer Connection Angle Replacement

Floor Beam	Stringer	Face of Floor Beam	Angle
L12	1	West Face	L 7 x 4 x ½
L28	2	East Face	L 8 x 4 x ½



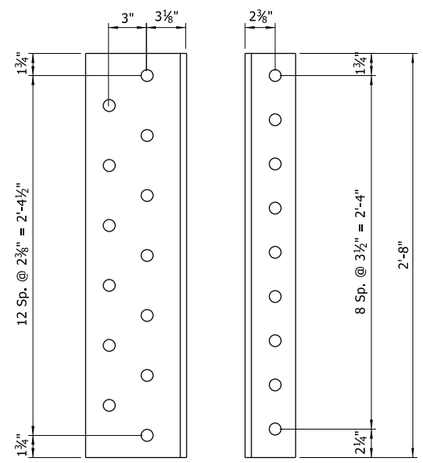
SECTION VIEW THROUGH FLOOR BEAM AT A CONTRACTION JOINT LOCATION

(Stringer 1/3 Shown)
1" = 1'-0"



L 7 x 4 x ½

2" = 1'-0"



L 8 x 4 x ½

2" = 1'-0"

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No.18919
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6-17-2026

BRIDGE ENGINEER
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DETAILS OF REPAIR TYPES F AND G

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY:	HSS	DATE:	11/2025	SCALE:	AS SHOWN
DESIGNED BY:	MKL	DATE:	04/2025		

BRIDGE NO. 02899 DRAWING NO. 69571

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	78	107
		02899 - CROSS BEAMS - 69572				

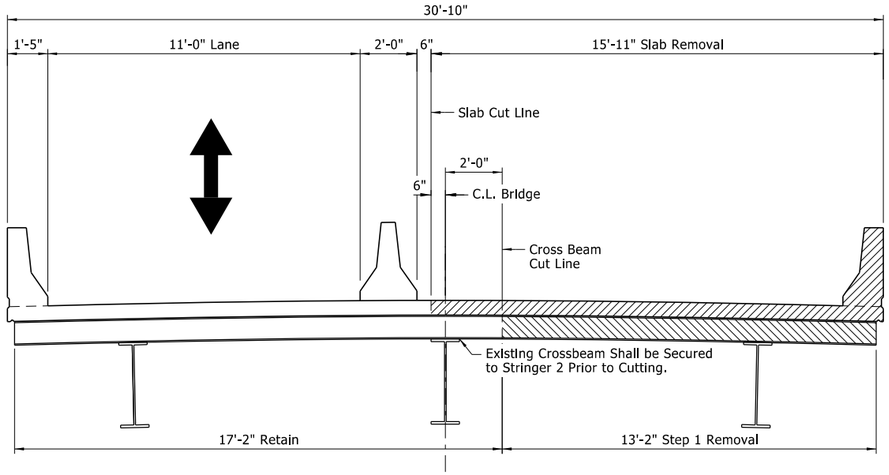
SEQUENCE OF CONSTRUCTION:

STEP 1. After removing the first section of the deck (Stage 1 Construction), secure the existing cross beam to Stringer 2, then cut the existing cross beam as shown in "STEP 1".

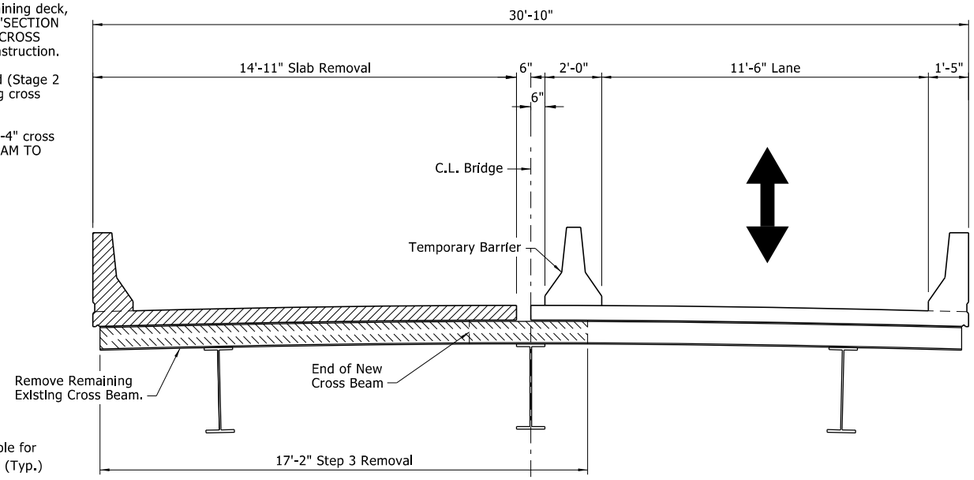
STEP 2. Slide the new 17'-4" cross beam beneath the remaining deck, parallel to the existing cross beam. Refer to "STEP 2" and "SECTION A-A" for details. Secure cross beam to stringers. Refer to "CROSS BEAM TO STRINGER CONNECTION". Complete Stage 1 Construction.

STEP 3. Once the remaining section of the deck is removed (Stage 2 Construction), remove the remaining portion of the existing cross beam.

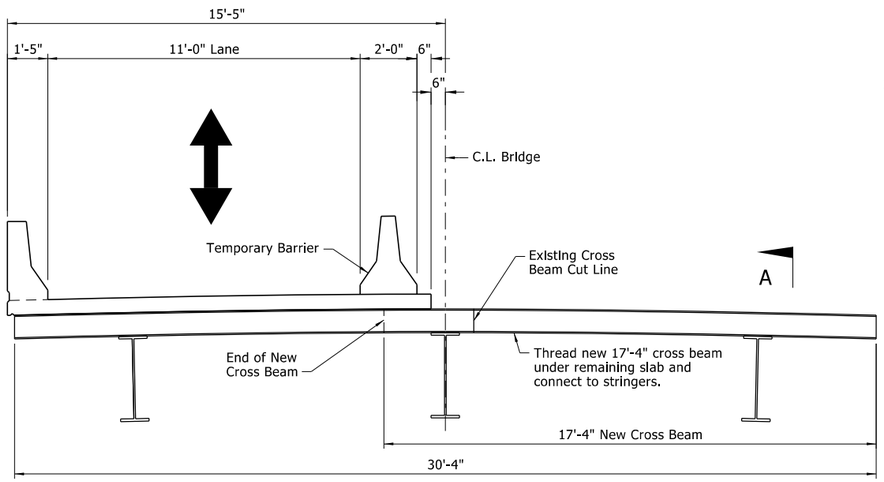
STEP 4. Field splice new 13'-0" cross beam to "STEP 2" 17'-4" cross beams. Secure cross beam to stringer. Refer to "CROSS BEAM TO STRINGER CONNECTION". Complete Stage 2 Construction.



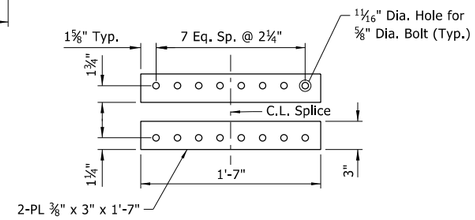
STEP 1



STEP 3

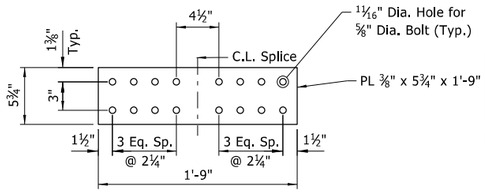


STEP 2



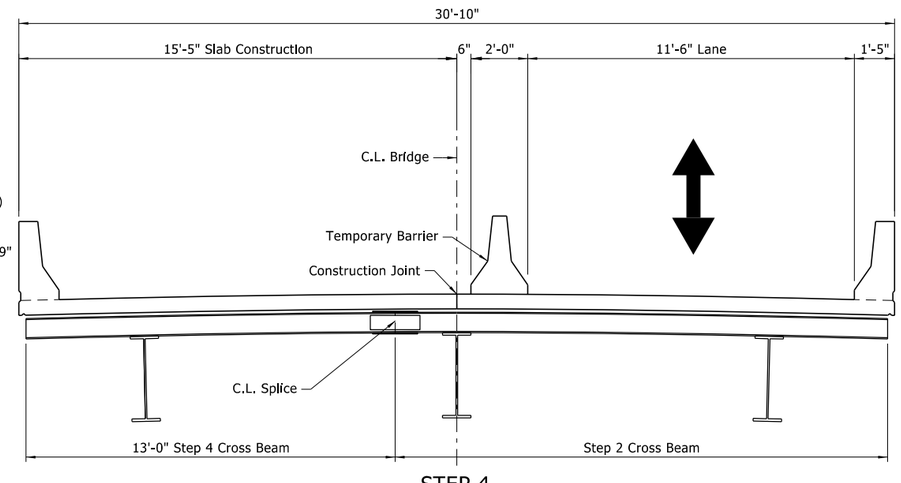
INNER & OUTER FLANGE SPLICE DETAIL

1½" = 1'-0"



WEB SPLICE DETAIL

1½" = 1'-0"



STEP 4

REPAIR H

Cross Beam Type	New Shape	Number of Replacements
CB1	W8x35	32
CB2	W8x58	19

CB1 - Cross Beam Type 1 - Refers to existing 10 I 25.4.
CB2 - Cross Beam Type 2 - Refers to existing 10 WF 39.

Notes:
Existing Cross Beam shall be bolted to Stringer 2 prior to cutting the existing Cross Beam as shown in "STEP 1".

New Cross Beams profile shall match the parabolic profile of the existing Cross Beams to ensure new Deck matches existing thickness and profile.

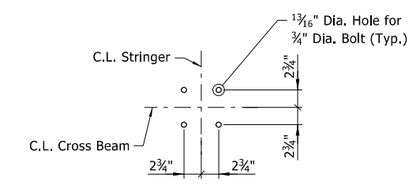
New Cross Beams shall be placed offset from the existing such that the maximum spacing of the Cross Beams does not exceed 4'-2", this may require an additional Cross Beam at select locations. Pour new slab after new cross beam is secured in place.

See Dwg. No. 69553 for locations of Cross Beam replacements.

All work and materials required for this repair shall be paid for as "REPAIR TYPE H: CROSS BEAM REPLACEMENT". For additional information see SP Job No. 110812 "BRIDGE STRUCTURAL STEEL REPAIRS".

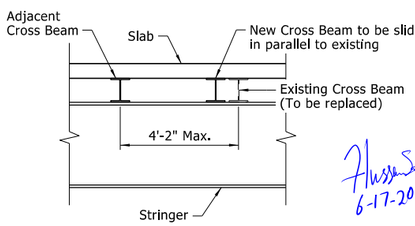
All Splice Plates shall use ⅝" dia. bolts, ASTM F3125, Grade A325.

This repair item is not intended for the replacement of ALL cross beams. If the Contractor damages the cross beams during concrete deck removal, replacement and payment shall be considered for approval by the Engineer but shall NOT be paid for as Repair Type H. The additional work shall be negotiated at a reduced unit price.



CROSS BEAM TO STRINGER CONNECTION

1" = 1'-0"



SECTION A-A

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF REPAIR TYPE H - CROSS BEAM REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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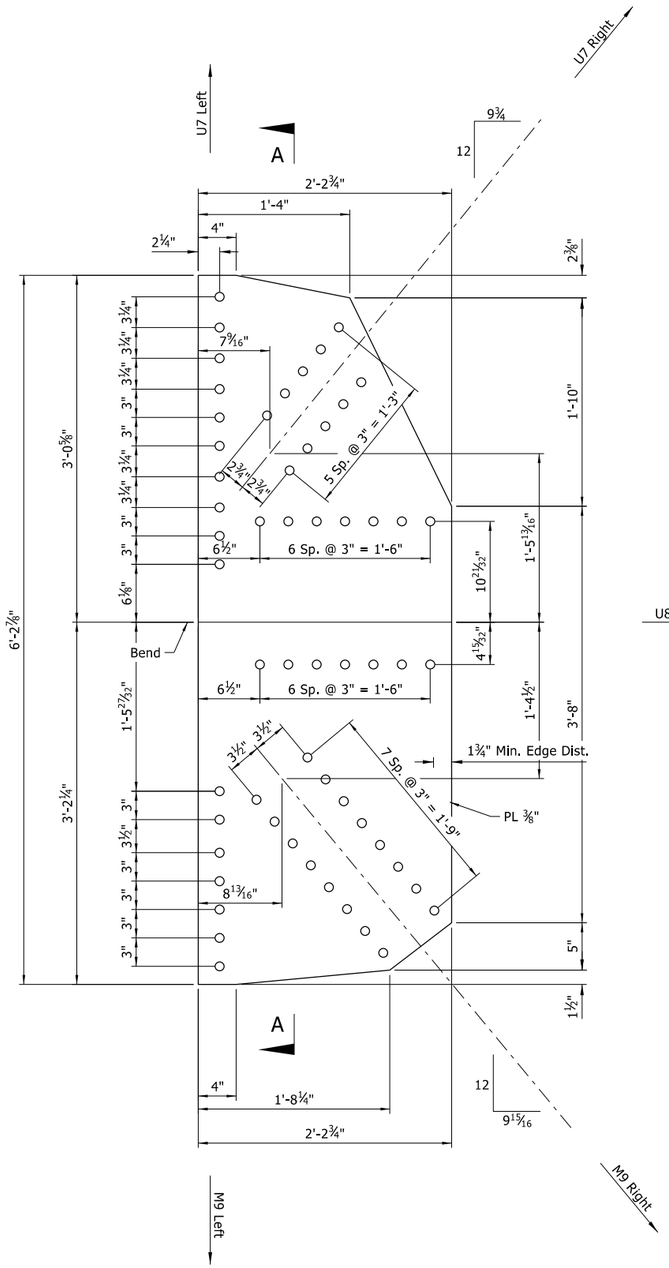
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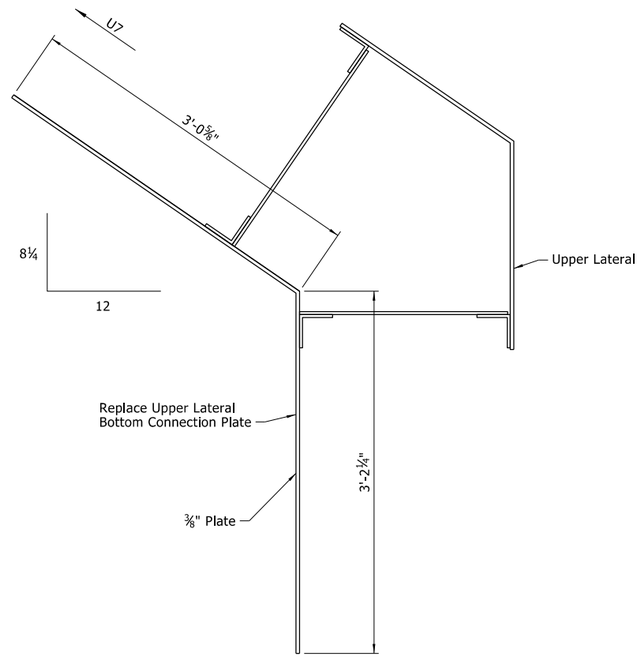
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	79	107
		02899 - UPPER CHORD REPAIRS - 69573				

Notes:
Refer to Dwg. No. 69553 for Upper Chord Locations.

All structural steel required for this repair shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".





U8 Right

SECTION A-A

M9

U8 UPPER LATERAL BOTTOM CONNECTION PLATE - BOTH SIDES

U8 Left Shown, U8 Right Mirrored

STATE OF ARKANSAS
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No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
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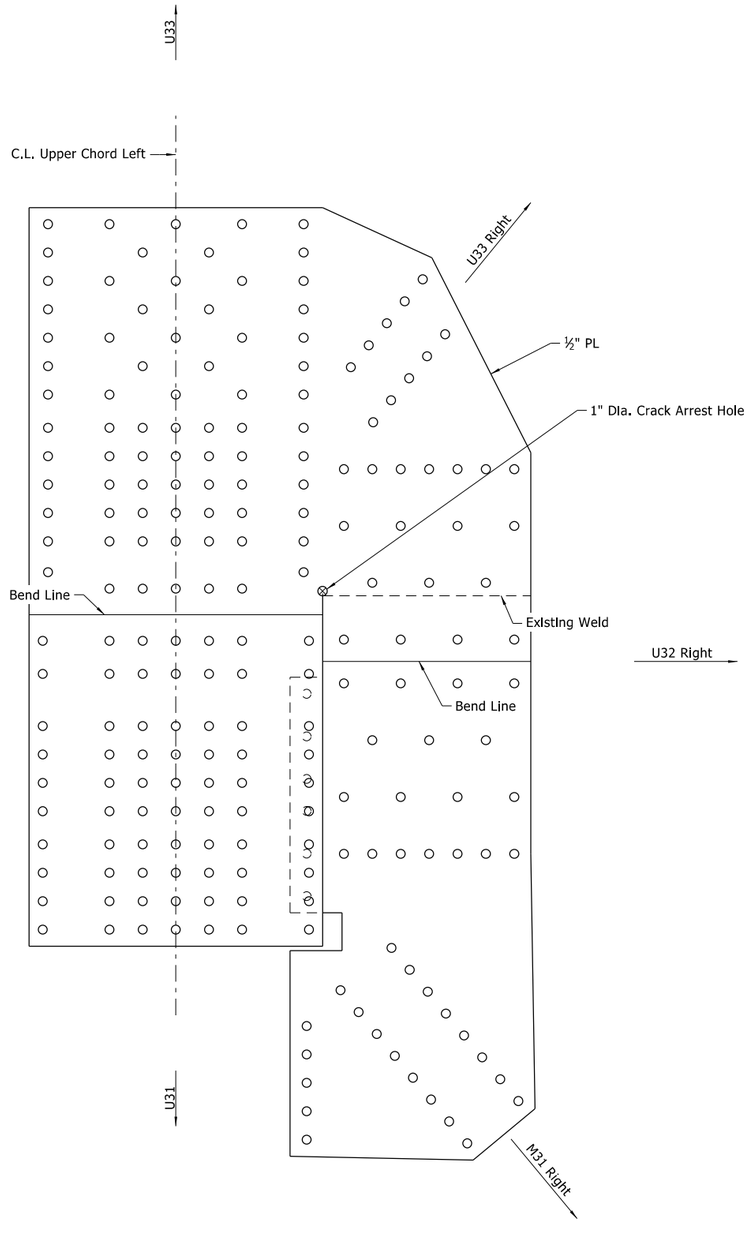
SHEET 1 OF 2
DETAILS OF UPPER CHORD REPAIRS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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		6	ARK.	110812	80	107
		02899 - UPPER CHORD REPAIRS - 69574				



U32 LEFT - UPPER LATERAL TOP CONNECTION PLATE REPAIR

Notes:
The Crack Arrest Hole shall be drilled starting at the tip of the crack.

Contractor shall verify the extents of the crack using Non-Destructive Evaluation as specified in SP Job No. 110812 "CRACK ARREST HOLES FOR BRIDGE STRUCTURAL STEEL".

Contractor shall practice caution when drilling not to damage the material below U32 Top Lateral Connection Plate.

All work and materials required for this repair shall be paid for as "CRACK ARREST HOLE". For additional information see SP Job No. 110812 "CRACK ARREST HOLES FOR BRIDGE STRUCTURAL STEEL".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

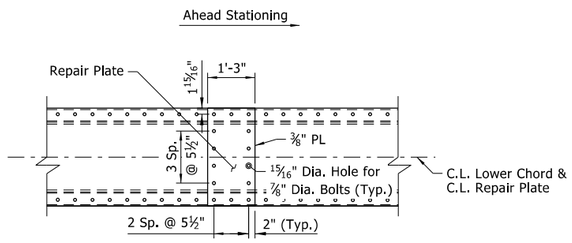
SHEET 2 OF 2
DETAILS OF UPPER CHORD REPAIRS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 07/2025 FILENAME: B110812_UC32.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: 1½" = 1'-0"
DESIGNED BY: MKL DATE: 07/2025

BRIDGE NO. 02899 DRAWING NO. 69574

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WORKSPACE: meganland
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	81	107
		02899 - LOWER CHORD REPAIRS - 69575				



PLAN - LWW-LXX

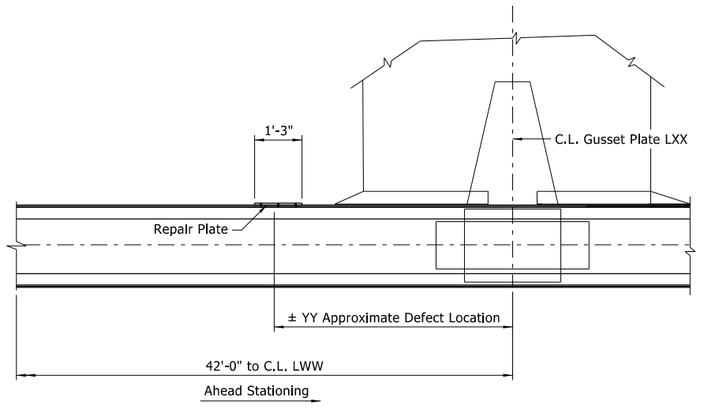
Scale: ½"=1'-0"

TOP FLANGE PLATING

LOCATION LWW - LXX	APPROXIMATE DEFECT LOCATION MEASURED FROM LXX "YY"	PLATE SIZE
L16-L17, RIGHT	3'-10"	⅜" x 31" x 1'-3"
L17-L18, RIGHT	8'-4"	⅜" x 31" x 1'-3"
L18-L19, RIGHT	4'-5"	⅜" x 31" x 1'-3"
L22-L23, RIGHT	6'-8"	⅜" x 31" x 1'-3"
L23-L24, RIGHT	6'-8"	⅜" x 31" x 1'-3"

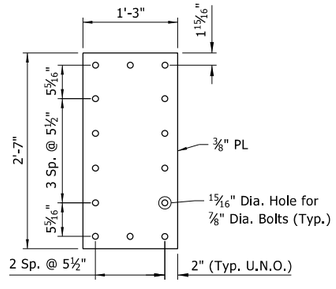
Notes:
All repair dimensions and locations shall be field verified prior to performing the repair.

All structural steel required for this repair shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".



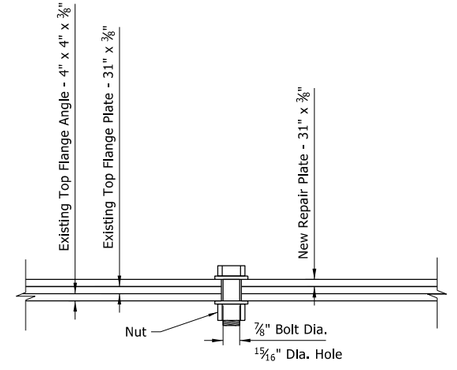
ELEVATION - LWW-LXX

Scale: ½"=1'-0"



REPAIR PLATE

Scale: 1"=1'-0"



REPAIR PLATE CONNECTION DETAIL - TOP FLANGE

3" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 4

DETAILS OF LOWER CHORD REPAIRS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

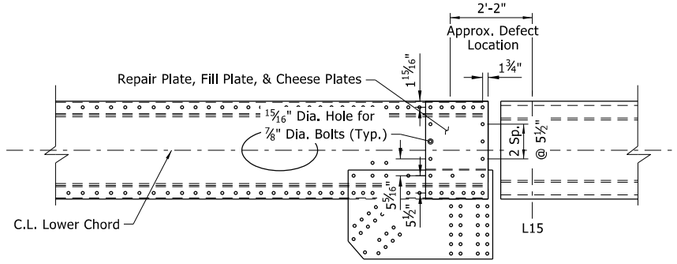
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 03/2025 FILENAME: B110812_LC1.DGN
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DESIGNED BY: SB DATE: 03/2025

BRIDGE NO. 02899 DRAWING NO. 69575

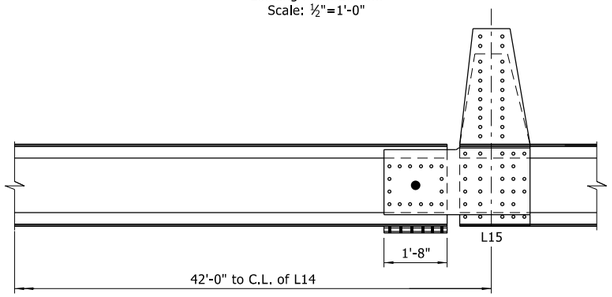
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - LOWER CHORD REPAIRS - 69576				



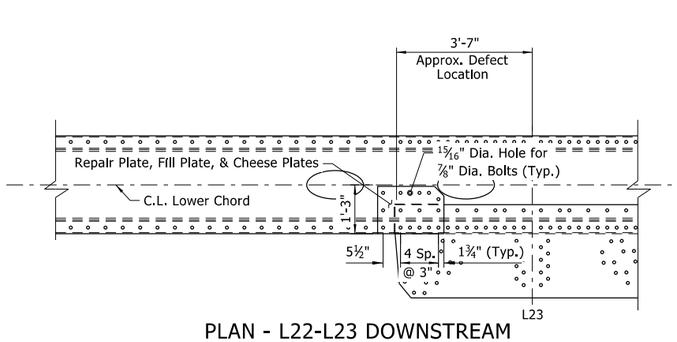
PLAN - L14-15 DOWNSTREAM

Looking From Bottom
Scale: ½"=1'-0"



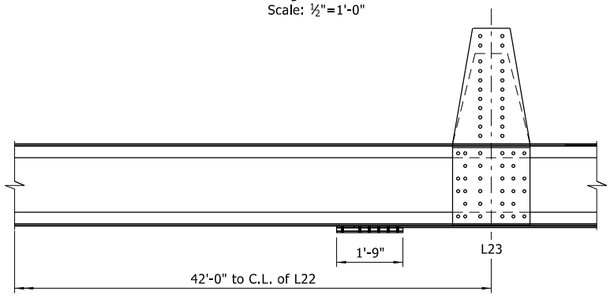
ELEVATION - L14-L15 DOWNSTREAM

Scale: ½"=1'-0"



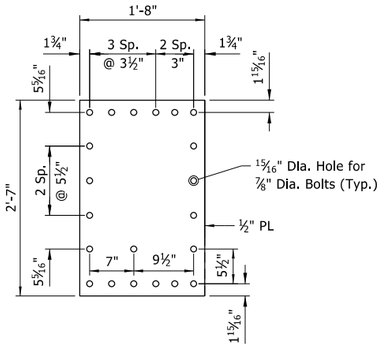
PLAN - L22-L23 DOWNSTREAM

Looking From Bottom
Scale: ½"=1'-0"



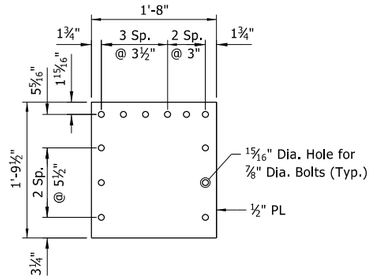
ELEVATION - L22-L23 DOWNSTREAM

Scale: ½"=1'-0"



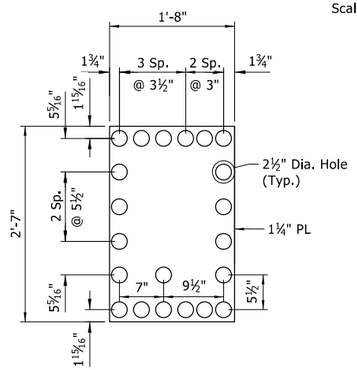
L14-15 DOWNSTREAM - REPAIR PLATE

Scale: 1"=1'-0"



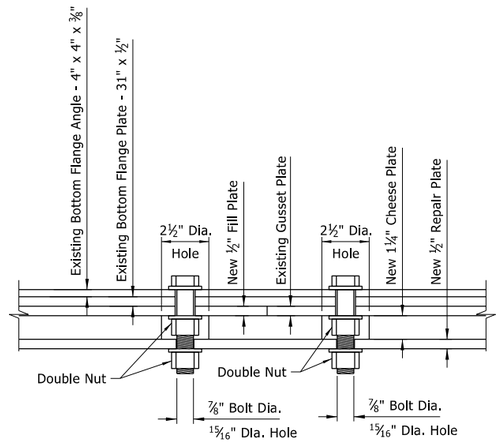
L14-15 DOWNSTREAM - FILL PLATE

Scale: 1"=1'-0"



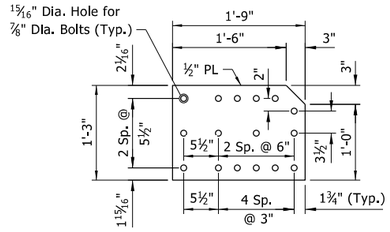
L14-15 DOWNSTREAM - CHEESE PLATE

Scale: 1"=1'-0"



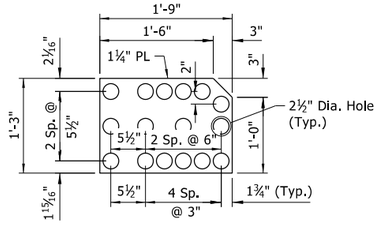
CHEESE PLATE CONNECTION DETAIL - BOTTOM FLANGE

3" = 1'-0"



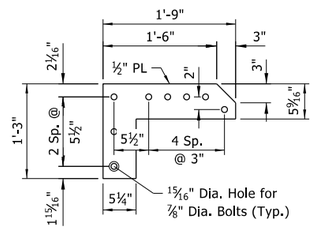
L22-L23 DOWNSTREAM - REPAIR PLATE

Scale: 1"=1'-0"



L22-L23 DOWNSTREAM - CHEESE PLATE

Scale: 1"=1'-0"



L22-L23 DOWNSTREAM - FILL PLATE

Scale: 1"=1'-0"

BOTTOM FLANGE PLATING

LOCATION LWW - LXX	APPROXIMATE DEFECT LOCATION MEASURED FROM LXX "YY"	PLATE SIZE
L14-L15, RIGHT	2'-2"	½" x 31" x 1'-8"
L22-L23, RIGHT	3'-7"	½" x 15" x 1'-9"

Notes:
All repair dimensions and locations shall be field verified prior to performing the repair.

Install the cheese plate, and repair plate. Fully torque both nuts in accordance with the Subsection 807.06.

All structural steel required for this repair shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

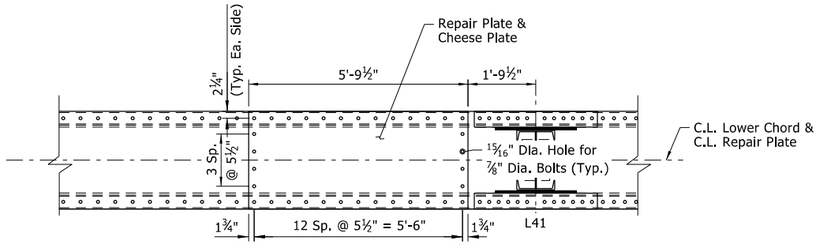
SHEET 2 OF 4
DETAILS OF LOWER CHORD REPAIRS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 03/2025 FILENAME: B110812_LC1.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: AS SHOWN
DESIGNED BY: SB DATE: 03/2025

BRIDGE NO. 02899 DRAWING NO. 69576

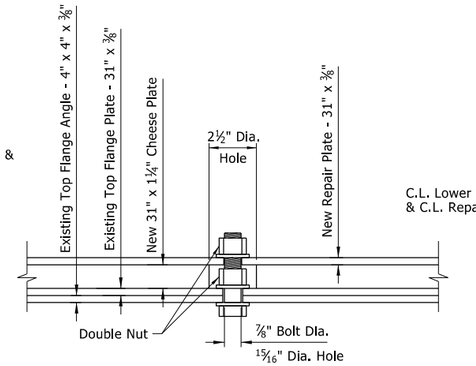
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	83	107
		02899 - LOWER CHORD REPAIRS - 69577				



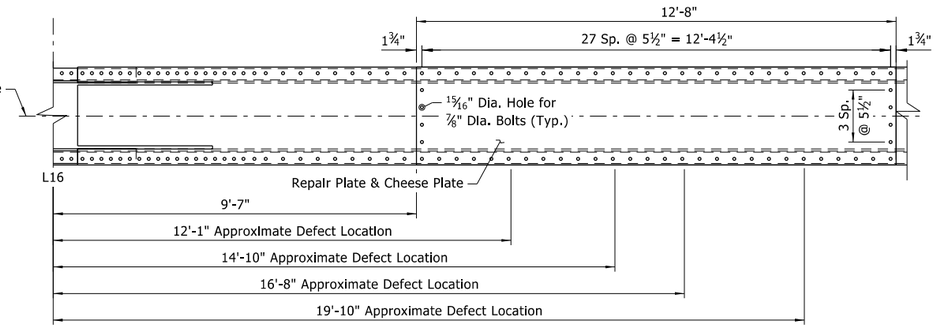
PLAN - L40-L41 DOWNSTREAM

Looking From Top
Scale: ½"=1'-0"



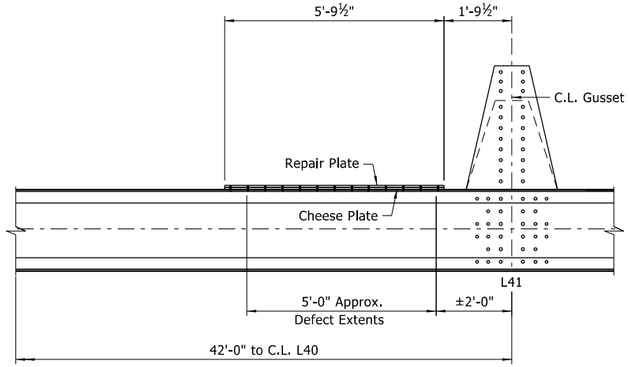
CHEESE PLATE CONNECTION DETAIL - TOP FLANGE

3" = 1'-0"



PLAN - L16-L17 UPSTREAM

Looking From Top
Scale: ½"=1'-0"



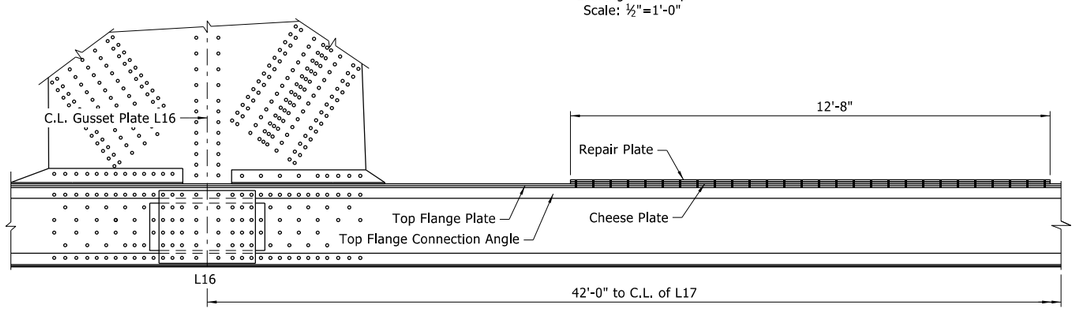
ELEVATION - L40-L41 DOWNSTREAM

Scale: ½"=1'-0"

Notes:
All repair dimensions and locations shall be field verified prior to performing the repair.

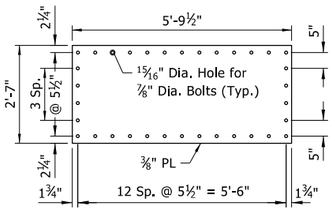
Install the cheese plate, and repair plate. Fully torque both nuts in accordance with the Subsection 807.06.

All structural steel required for this repair shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".



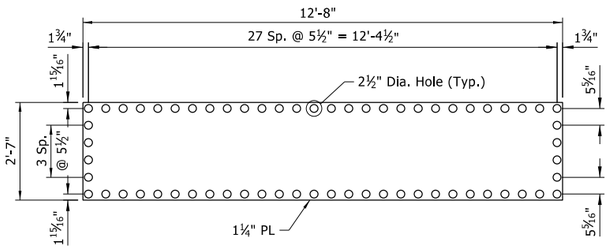
ELEVATION - L16-L17 UPSTREAM

Scale: ½"=1'-0"



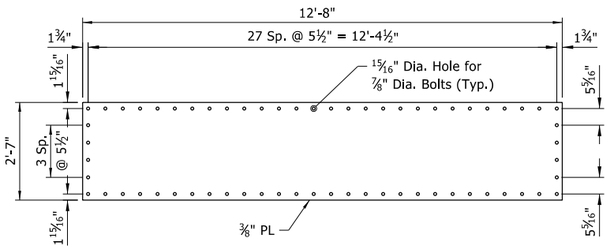
L40-L41 DOWNSTREAM: REPAIR PLATE

Scale: ½"=1'-0"



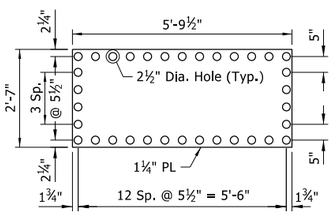
L16-L17 UPSTREAM: CHEESE PLATE

Scale: ½"=1'-0"



L16-L17 UPSTREAM: REPAIR PLATE

Scale: ½"=1'-0"



L40-L41 DOWNSTREAM: CHEESE PLATE

Scale: ½"=1'-0"

TOP FLANGE PLATING

LOCATION LWW - LXX	APPROXIMATE DEFECT LOCATION MEASURED FROM LXX "YY"	PLATE SIZE
L16-L17, LEFT	SEE DETAILS	⅜" x 31" x 12'-8"
L40-L41, RIGHT	SEE DETAILS	⅜" x 31" x 5'-9½"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 3 OF 4
DETAILS OF LOWER CHORD REPAIRS

ROUTE SECTION

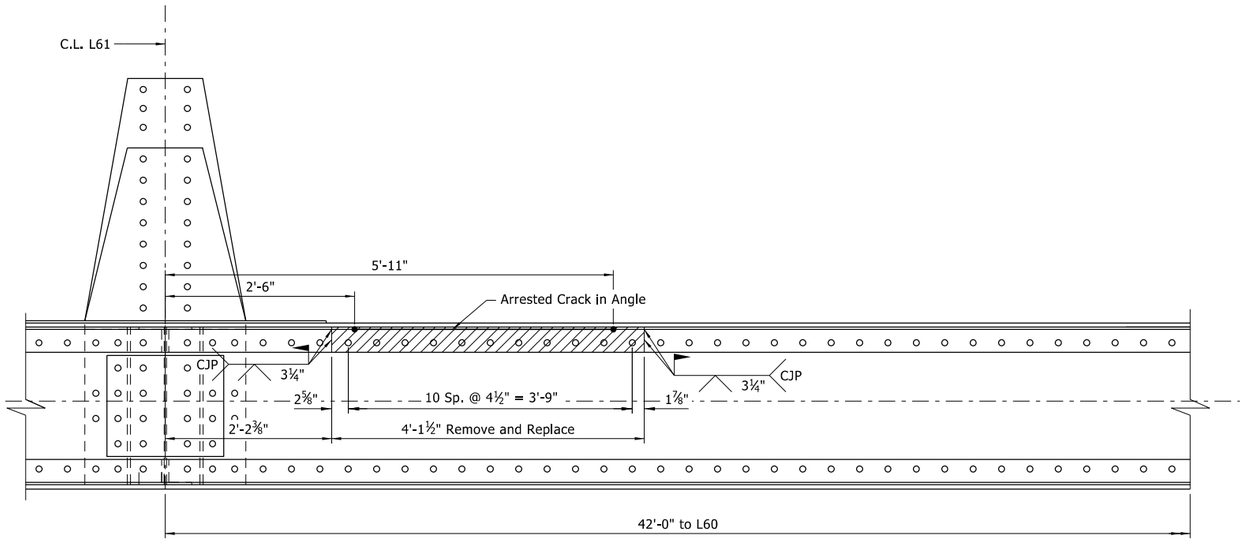
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: HSS DATE: 11/2025 SCALE: AS SHOWN
DESIGNED BY: SB DATE: 03/2025

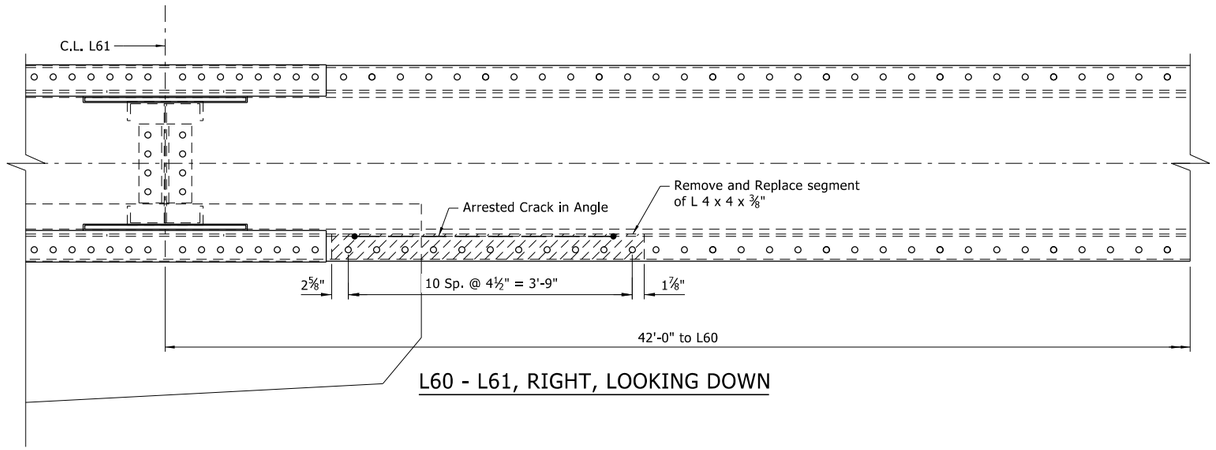
BRIDGE NO. 02899 DRAWING NO. 69577

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	84	107
		02899 - LOWER CHORD REPAIRS - 69578				



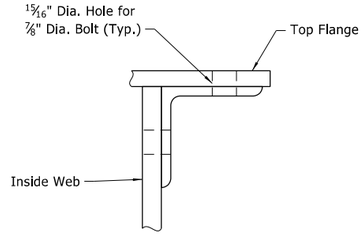
L60 - L61, RIGHT, LOOKING SOUTH



L60 - L61, RIGHT, LOOKING DOWN

Notes:
All repair dimensions and locations shall be field verified prior to performing the repair.

All structural steel required for this repair shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".



SECTION THROUGH REPAIR

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 4 OF 4
DETAILS OF LOWER CHORD REPAIRS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 07/2025 FILENAME: B110812_LC2.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: 1" = 1'-0"
DESIGNED BY: MKL DATE: 03/2025

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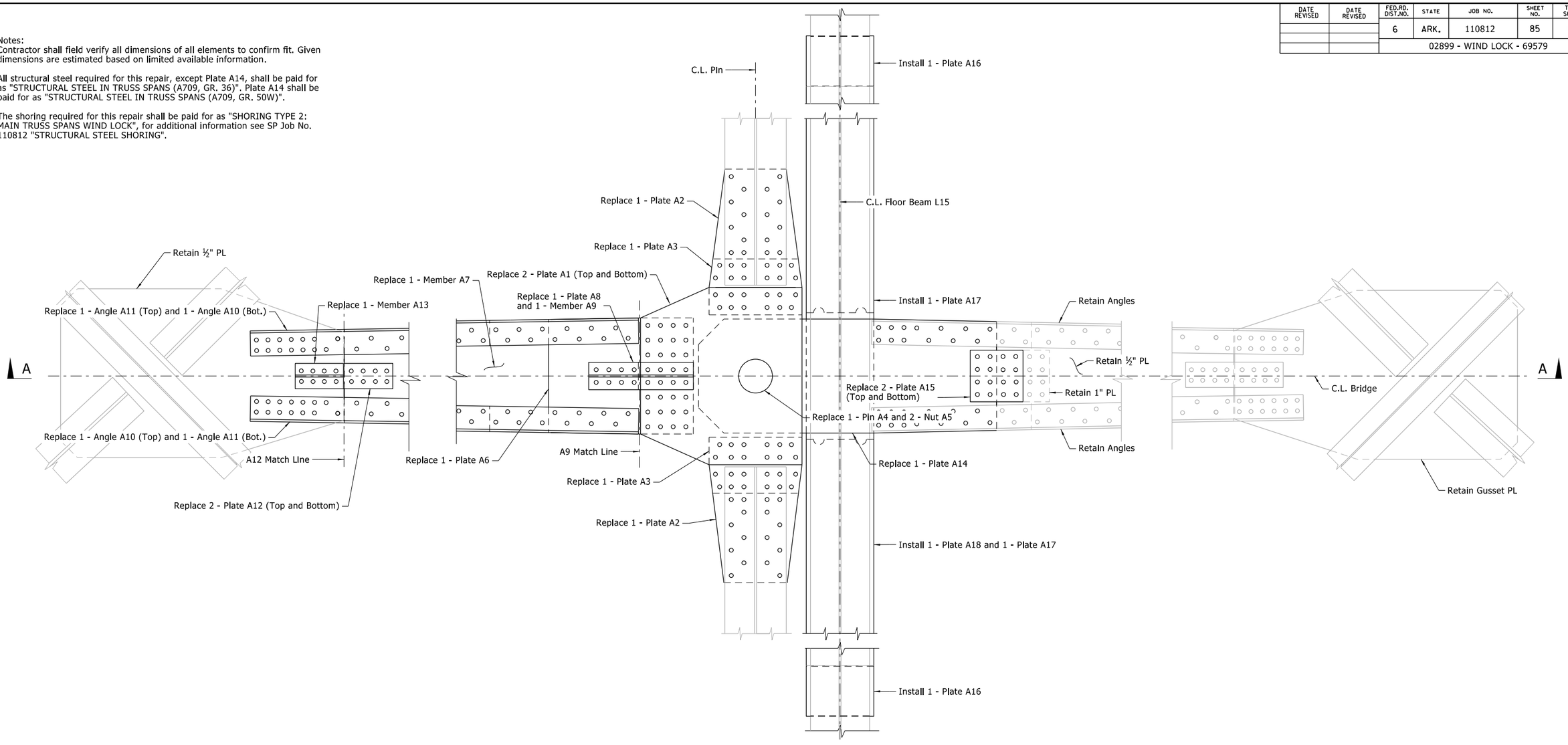
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	85	107
		02899 - WIND LOCK - 69579				

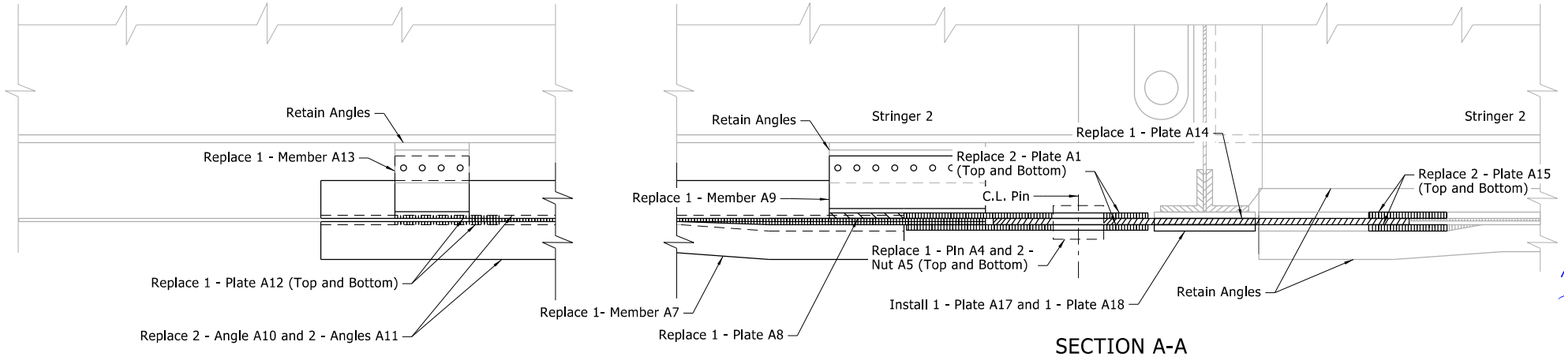
Notes:
Contractor shall field verify all dimensions of all elements to confirm fit. Given dimensions are estimated based on limited available information.

All structural steel required for this repair, except Plate A14, shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)". Plate A14 shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 50W)".

The shoring required for this repair shall be paid for as "SHORING TYPE 2: MAIN TRUSS SPANS WIND LOCK", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".



LOWER WIND LOCK DEVICE AT L15 - CONSTRUCTION



SECTION A-A

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

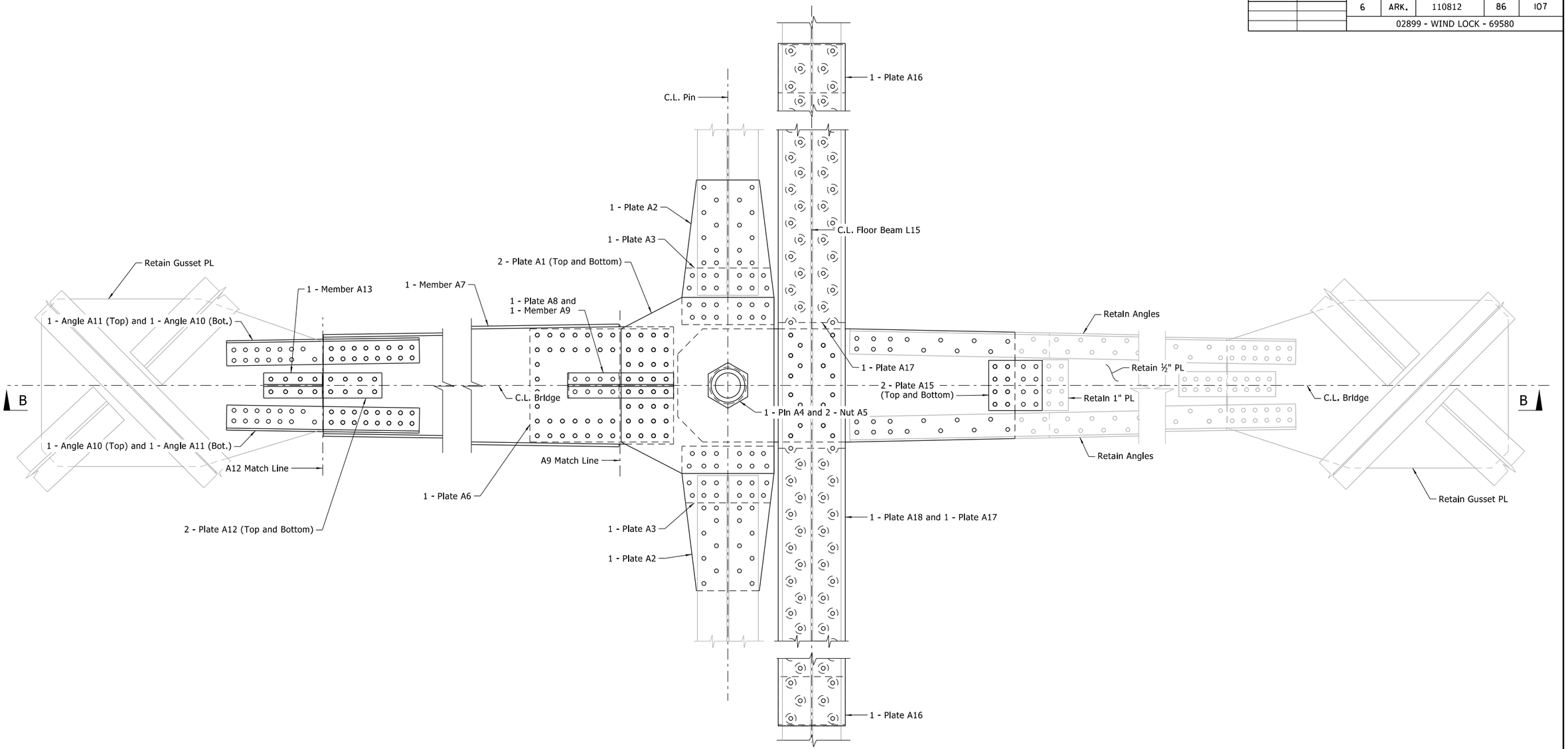
SHEET 1 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SB DATE: 03/2025 FILENAME: B110812_WL1.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: 1" = 1'-0"
DESIGNED BY: MKL DATE: 08/2025

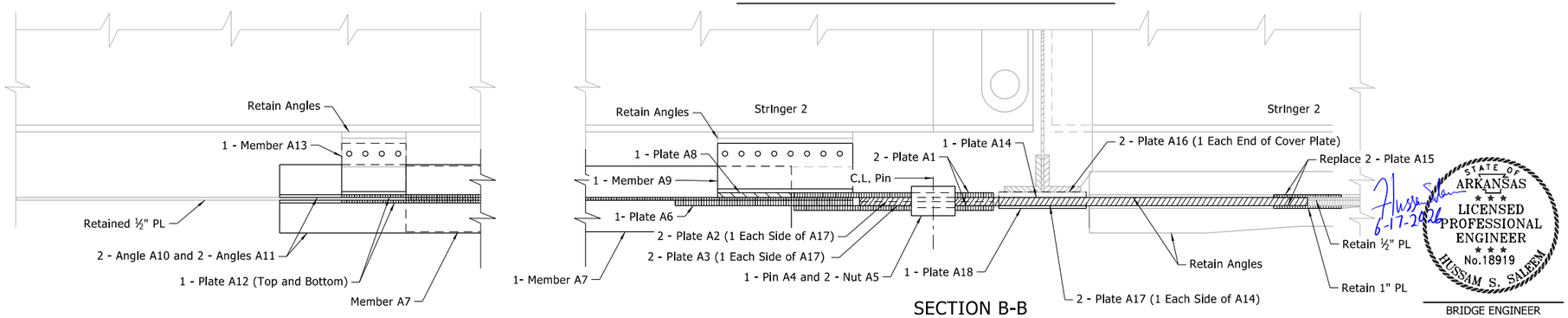
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	86	107
		02899 - WIND LOCK - 69580				



LOWER WIND LOCK DEVICE AT L15 - FINAL



SECTION B-B

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 2 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION

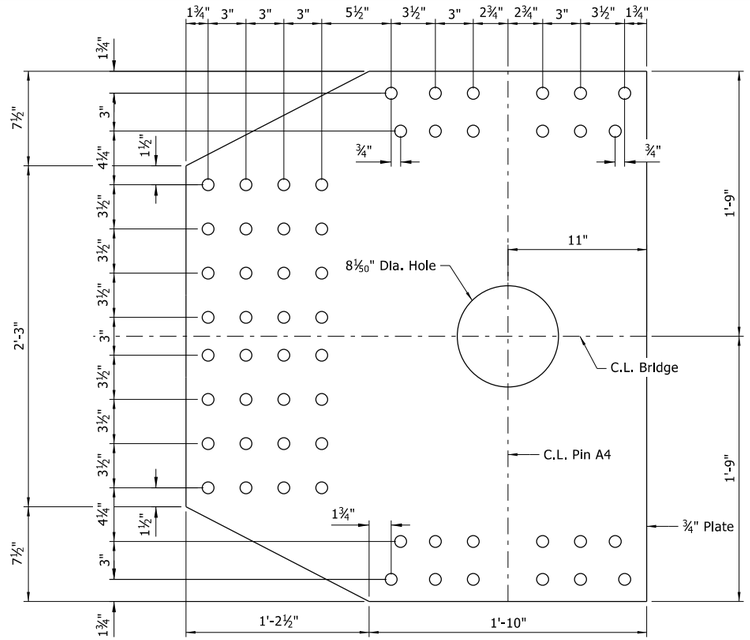
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SB DATE: 03/2025 FILENAME: B110812_WL1.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: 1" = 1'-0"
DESIGNED BY: MKL DATE: 08/2025

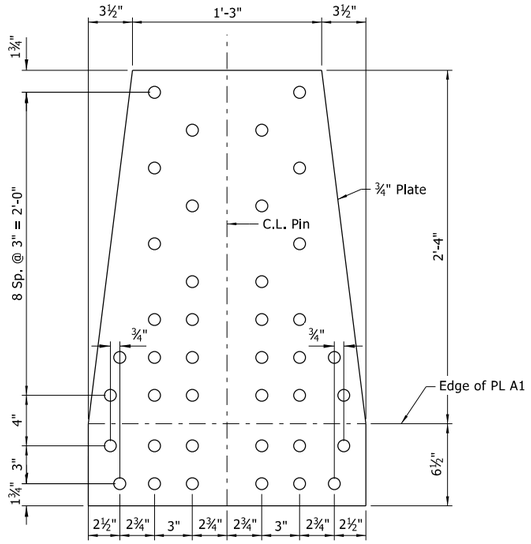
BRIDGE NO. 02899 DRAWING NO. 69580

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REVISED DATE:

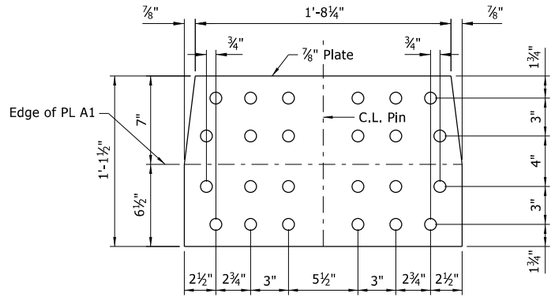
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	87	107
		02899 - WIND LOCK - 69581				



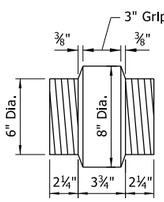
2 - PLATE A1 DETAILS



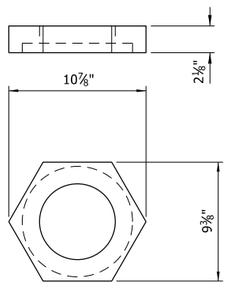
2 - PLATE A2 DETAILS



2 - PLATE A3 DETAILS



PIN A4 DETAILS



2 - RECESSED NUT A5 DETAILS

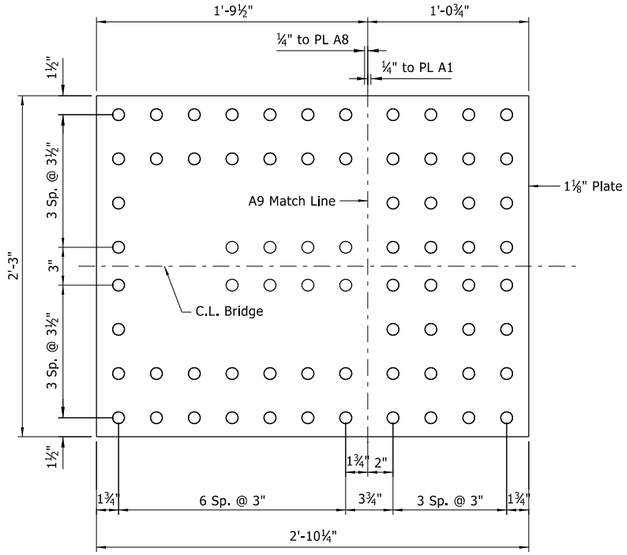


PLATE A6 DETAILS

Hussam Saleem 6-17-2026

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

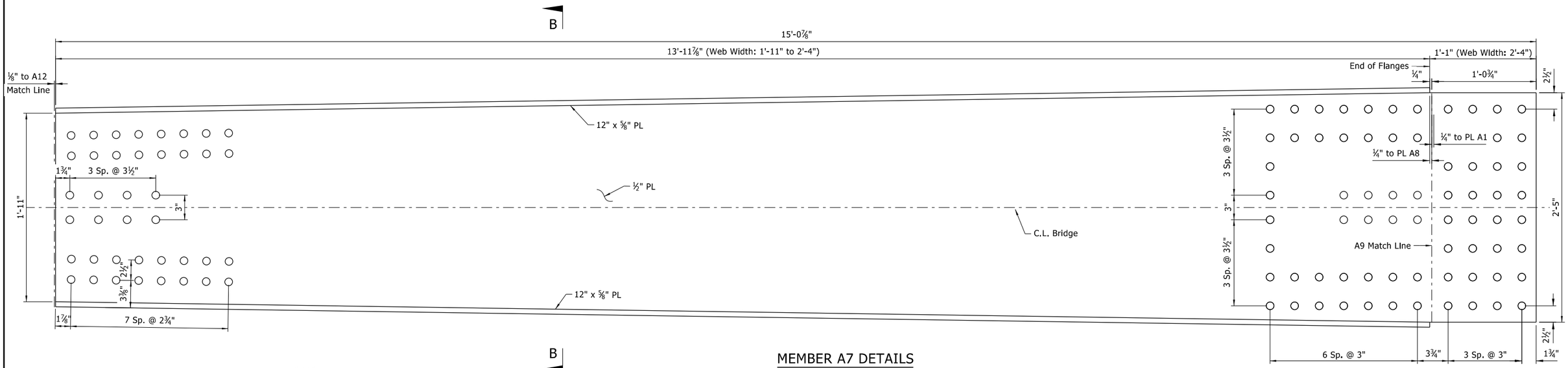
SHEET 3 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 08/2025 FILENAME: B110812_WL1.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: 2" = 1'-0"
DESIGNED BY: MKL DATE: 08/2025

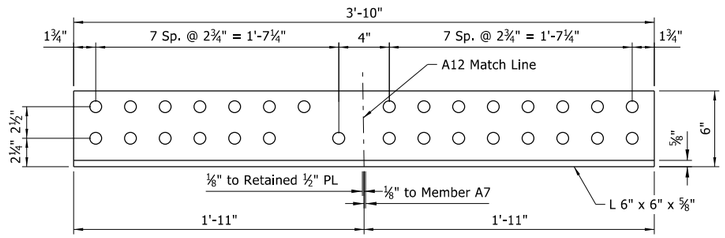
BRIDGE NO. 02899 DRAWING NO. 69581

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - WIND LOCK - 69582				

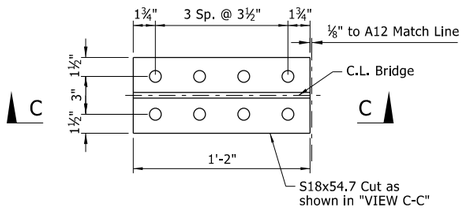


MEMBER A7 DETAILS

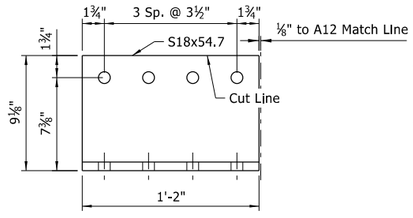


2 - ANGLE A10 DETAILS

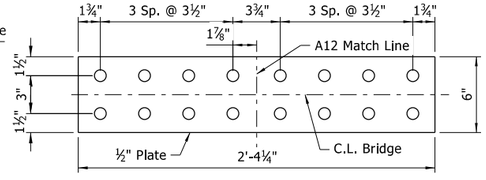
2 - ANGLE A11 DETAILS MIRRORED ABOUT C.L. BRIDGE



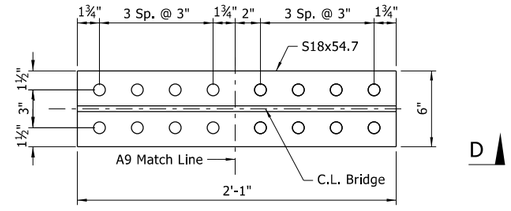
MEMBER A13 DETAILS



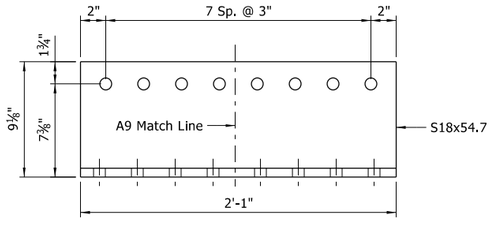
VIEW C-C



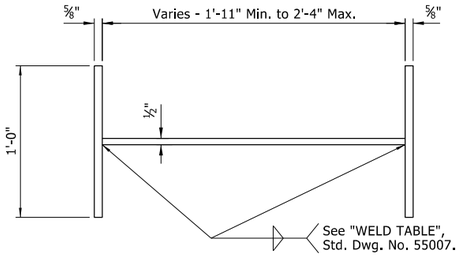
2 - PLATE A12 DETAILS



MEMBER A9 DETAILS



VIEW D-D



SECTION B-B

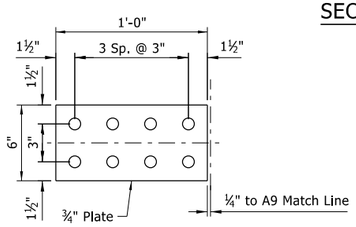


PLATE A8 DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 4 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY:	MKL	DATE:	08/2025	FILENAME:	B110812_WL1.DGN
CHECKED BY:	HSS	DATE:	11/2025	SCALE:	2" = 1'-0"
DESIGNED BY:	MKL	DATE:	08/2025		

BRIDGE NO. 02899 DRAWING NO. 69582

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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - WIND LOCK - 69583				

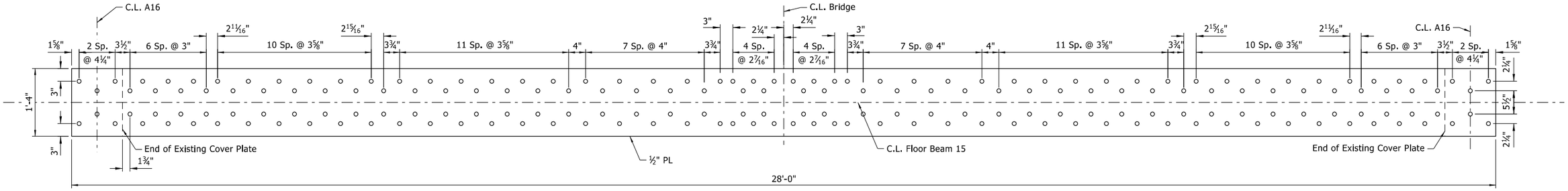
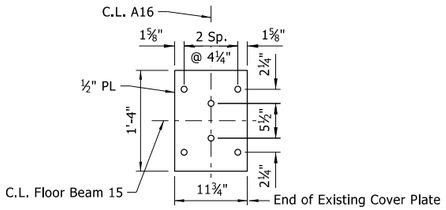


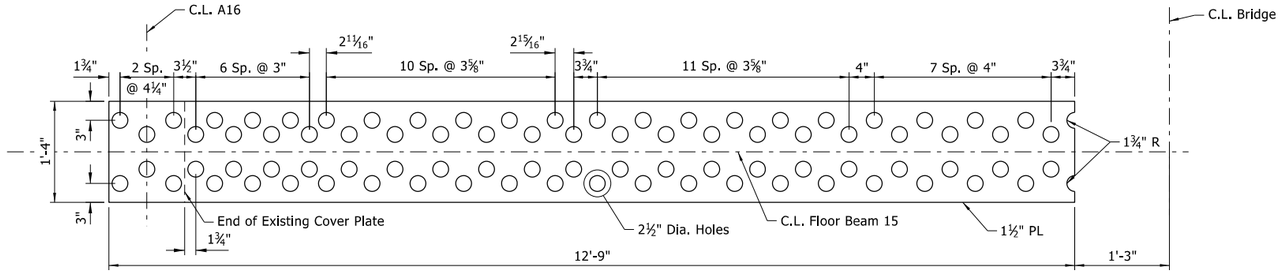
PLATE A18 DETAILS

1" = 1'-0"



2 - PLATE A16 DETAILS

1" = 1'-0"



2 - PLATE A17 DETAILS

1" = 1'-0"

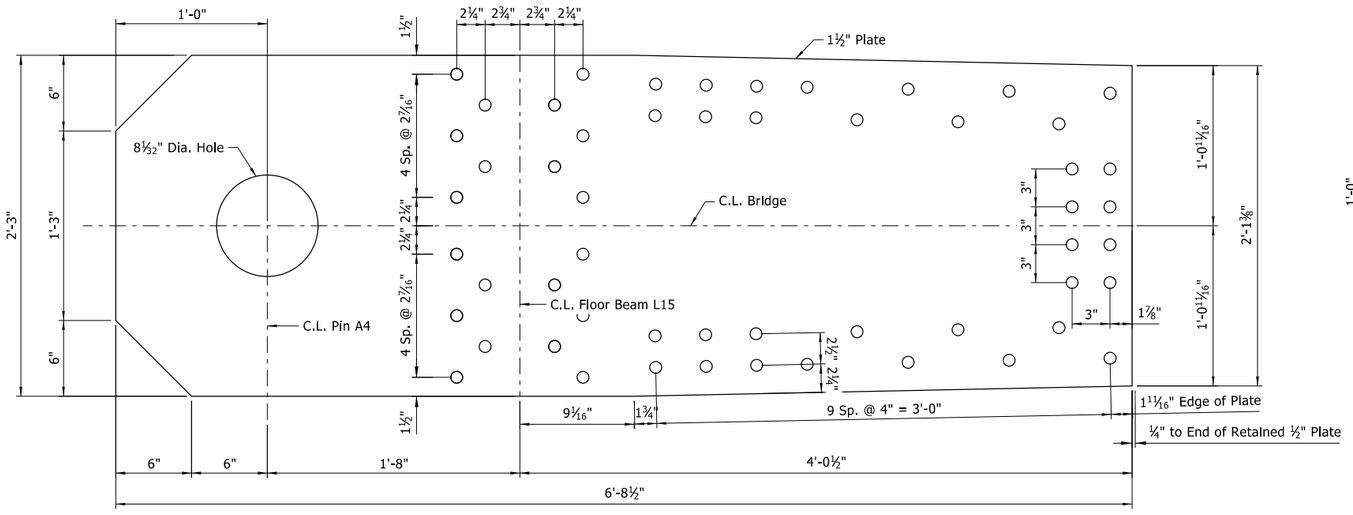
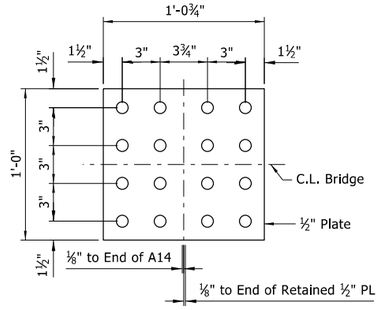


PLATE A14 DETAILS

2" = 1'-0"

Plate A14 shall conform to ASTM A709, Grade 50W.



2 - PLATE A15 DETAILS

2" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 5 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY:	MKL	DATE:	08/2025	FILENAME:	B110812_WL1.DGN
CHECKED BY:	HSS	DATE:	11/2025	SCALE:	AS SHOWN
DESIGNED BY:	MKL	DATE:	08/2025		

BRIDGE NO. 02899 DRAWING NO. 69583

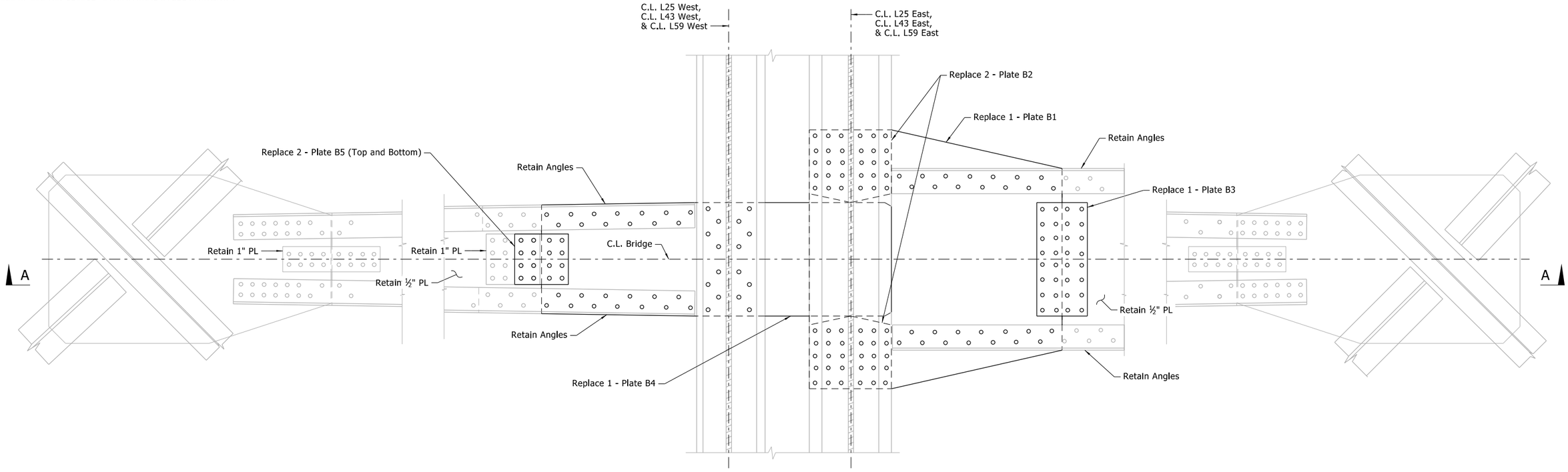
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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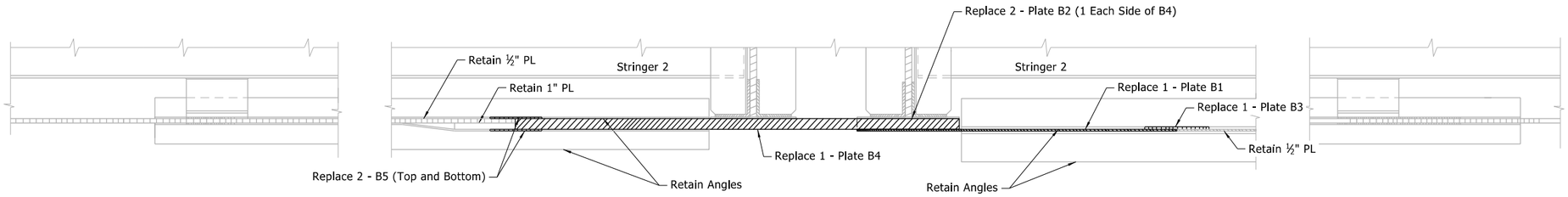
Notes:
Contractor shall field verify all dimensions any elements to confirm fit.
Given dimensions are estimated based on limited available information.

All structural steel required for this repair, except Plate B4, shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)". Plate B4 shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 50W)".

The shoring required for this repair shall be paid for as "SHORING TYPE 2: MAIN TRUSS SPANS WIND LOCK", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".



LOWER WIND LOCK DEVICE AT L25, L43 AND L59



SECTION A-A

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 6 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 09/2025 FILENAME: B110812_WL2.DGN
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DESIGNED BY: MKL DATE: 09/2025

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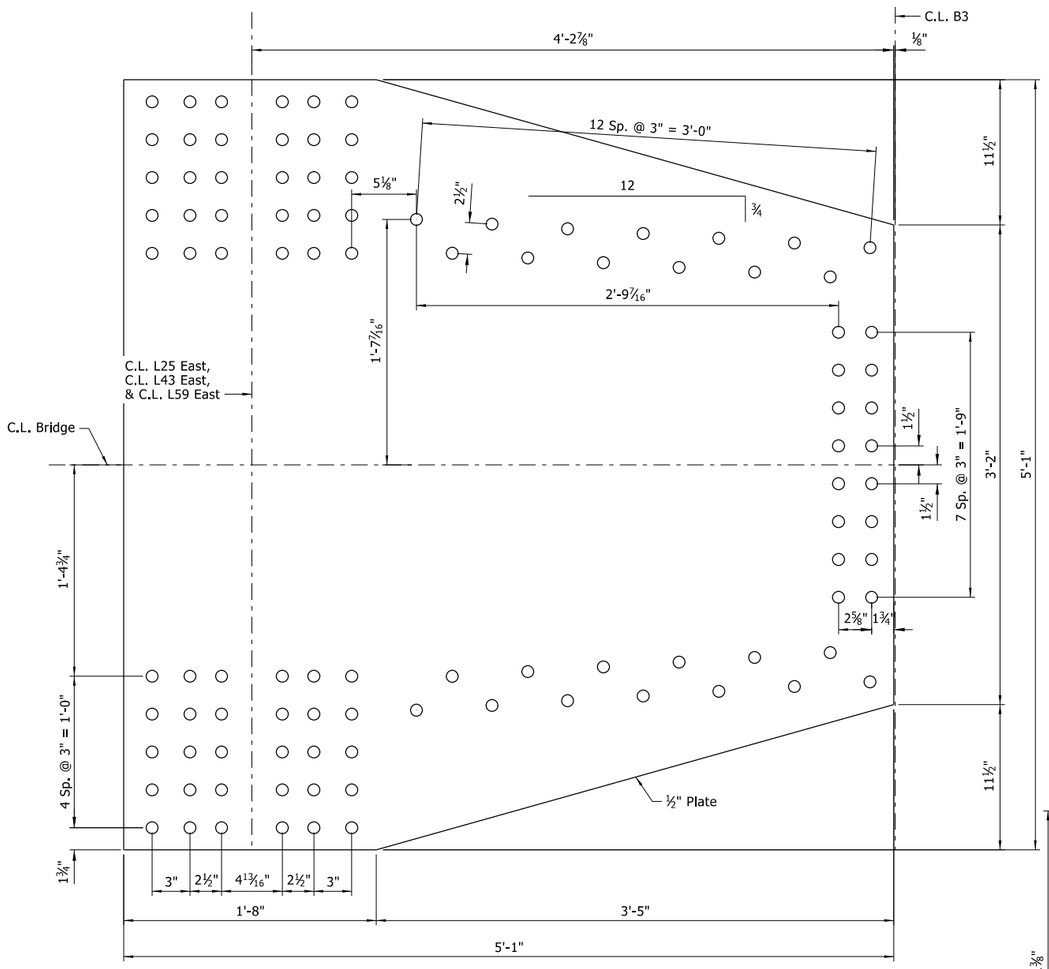
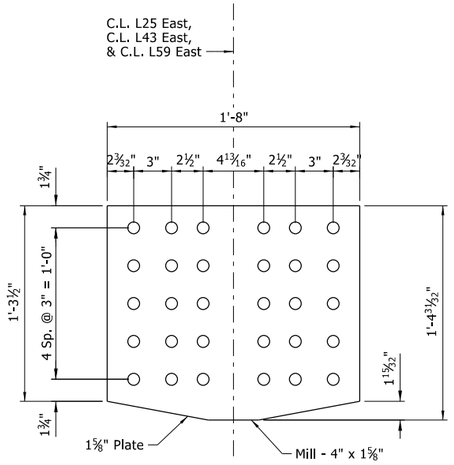


PLATE B1 DETAILS



2 - PLATE B2 DETAILS

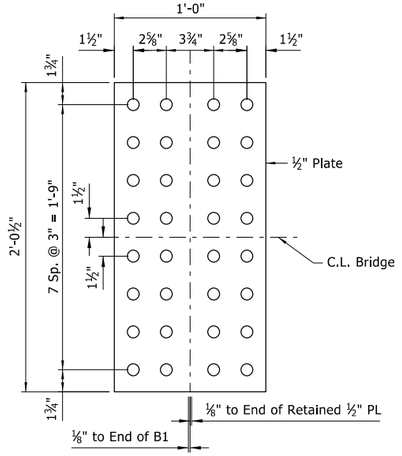
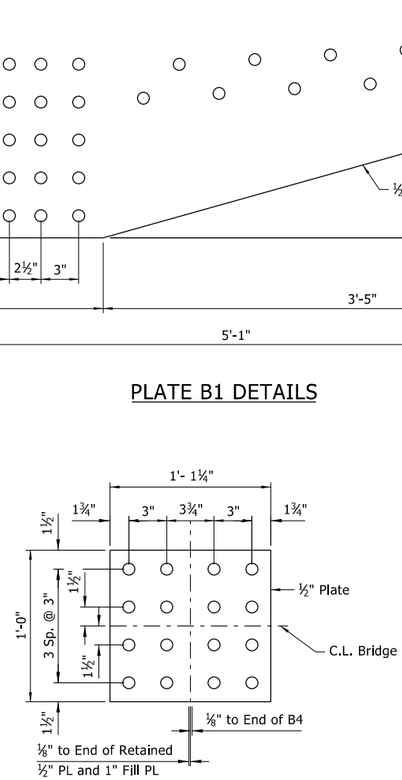


PLATE B3 DETAILS



2 - PLATE B5 DETAILS

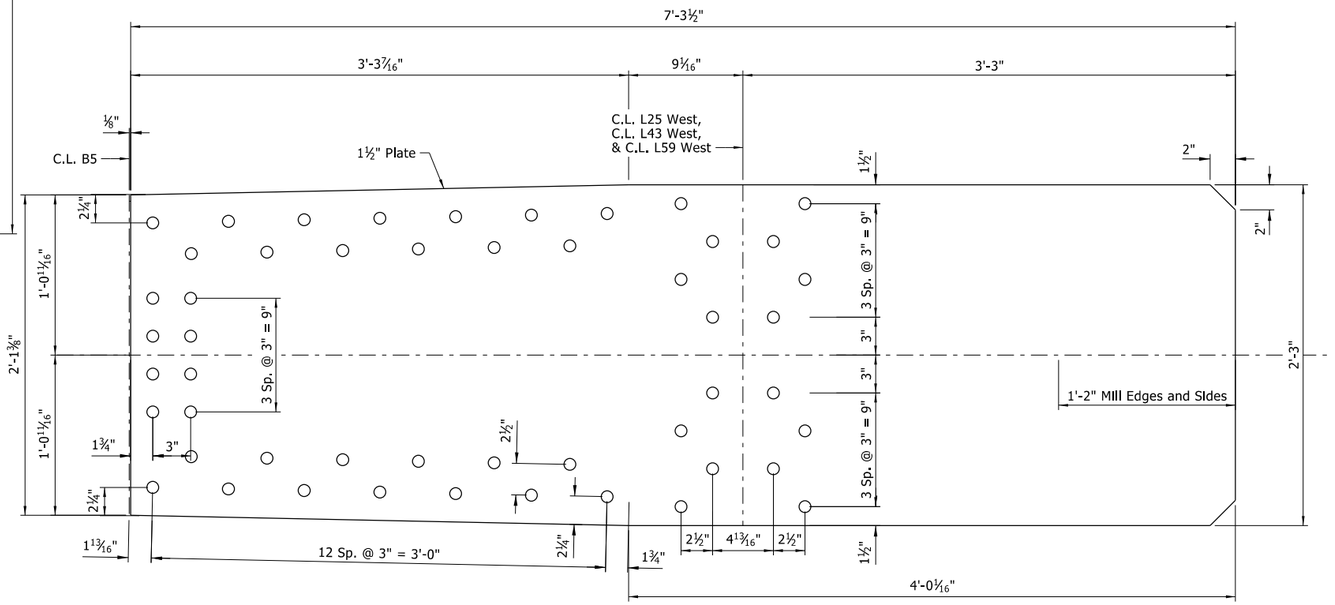


PLATE B4 DETAILS

Plate B4 shall conform to ASTM A709, Grade 50W.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 7 OF 7
DETAILS OF MAIN TRUSS SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION

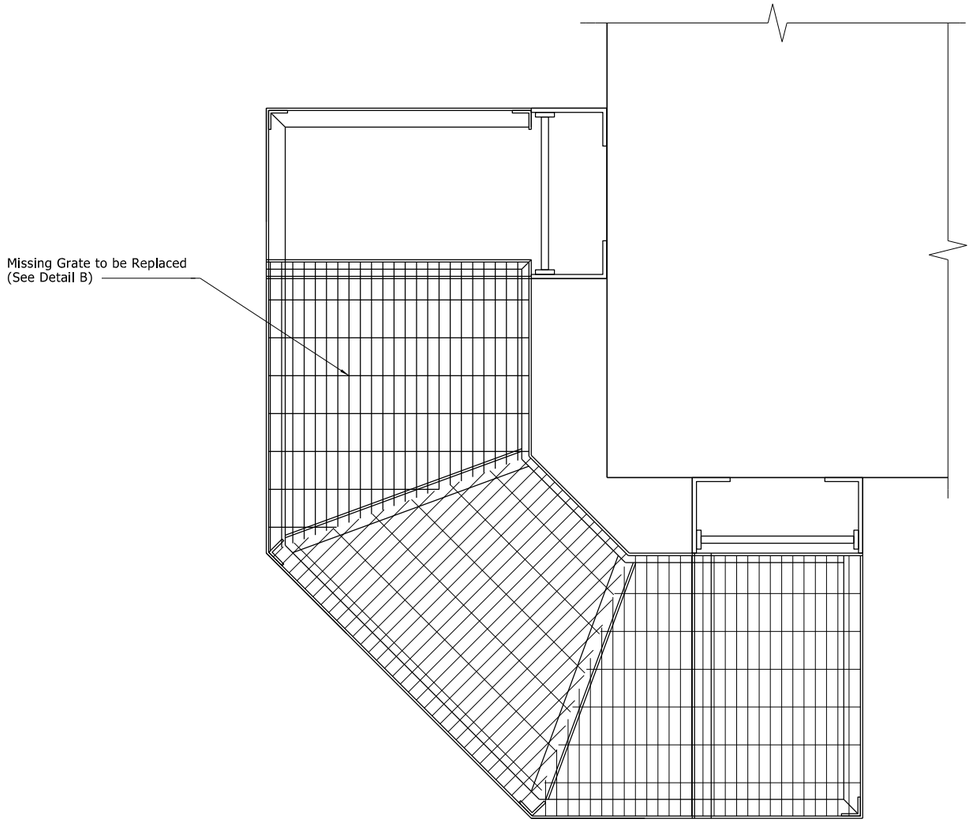
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 09/2025 FILENAME: B110812_WL2.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: 2" = 1'-0"
DESIGNED BY: MKL DATE: 09/2025

BRIDGE NO. 02899 DRAWING NO. 69585

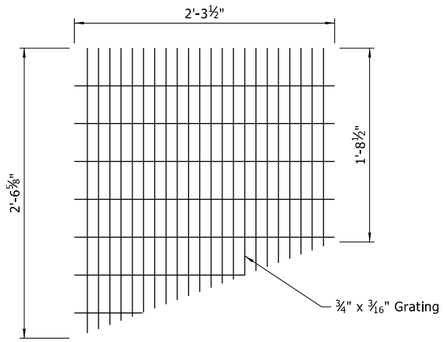
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - ACCESS PLATFORM - 69586				



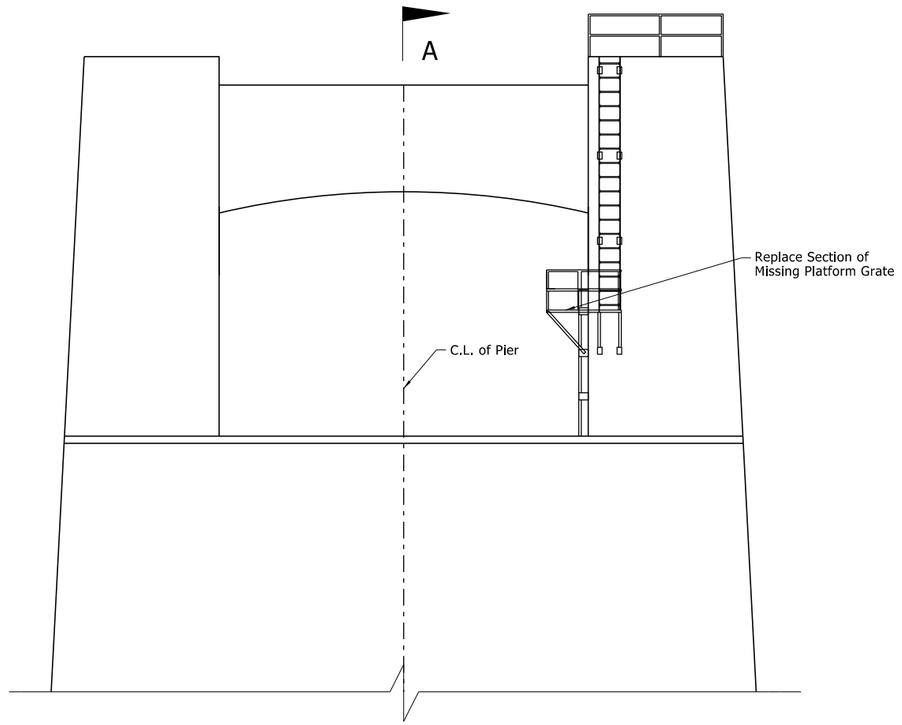
PLAN - PIER 15 LANDING PLATFORM

1 ½" = 1'-0"



DETAIL B

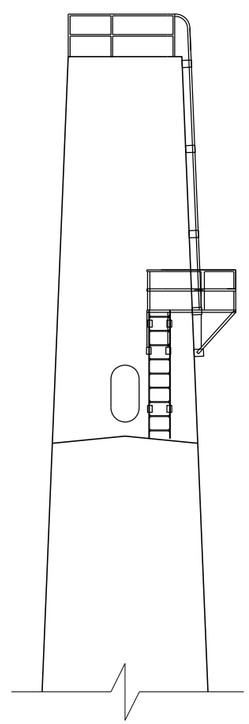
1 ½" = 1'-0"



PIER 15 ELEVATION

LOOKING WEST

3/16" = 1'-0"



VIEW A-A

3/16" = 1'-0"

Notes:
The Contractor shall provide the replacement grating as shown similar to Vulcraft steel bar grating or approved equal. Grating shall be galvanized in accordance with AASHTO M 111.

The Contractor shall field verify grating dimensions prior to fabrication.

All materials and labor required for this repair shall be paid for as "STRUCTURAL STEEL IN TRUSS SPANS (A709, GR. 36)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF ACCESS PLATFORM REPAIR

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

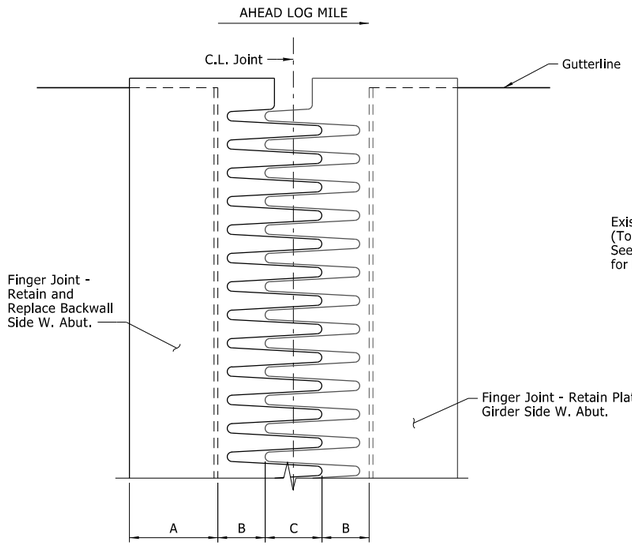
LITTLE ROCK, ARK.

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CHECKED BY:	SFH	DATE:	05/2026	SCALE:	AS SHOWN
DESIGNED BY:	LAC	DATE:	05/2025		

BRIDGE NO. 02899 DRAWING NO. 69586

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REVISED DATE:

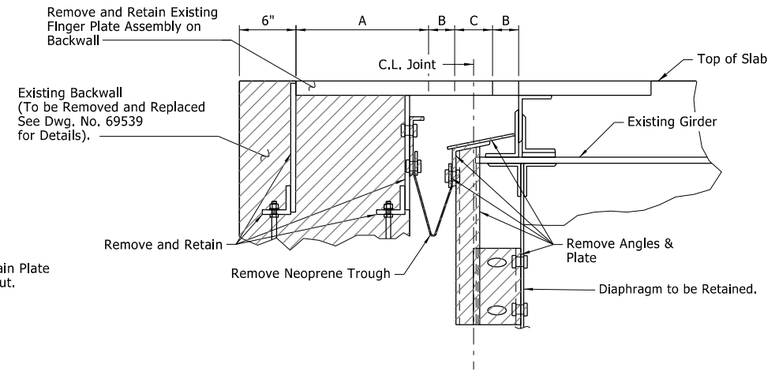
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	93	107
		02899 - EXP. JOINT - 69587				



FINGER PLATE DETAILS

No Scale

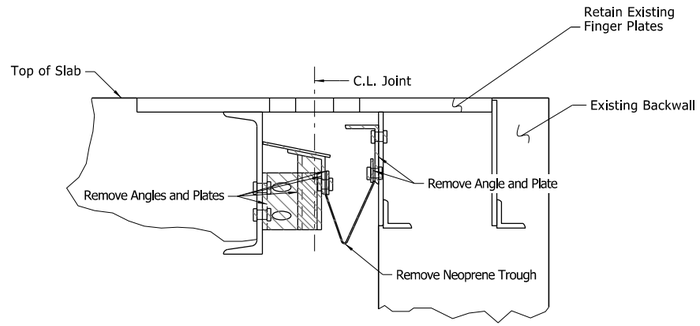
LOCATION	A	B	"C" Width Perpendicular to Joint at 24 Hour Average Temperature ① Of: 40°F	60°F	80°F
W. & E. Abutment	1'-2"	2¾"	3⅝"	4"	4⅜"



AHEAD STATIONING

REMOVAL DETAILS OF JOINTS AT WEST ABUTMENTS

1½" = 1'-0"



AHEAD STATIONING

REMOVAL DETAILS OF JOINTS AT EAST ABUTMENTS

1½" = 1'-0"

Notes:
Drainage System is to be installed along slope to maintain proper water drainage.

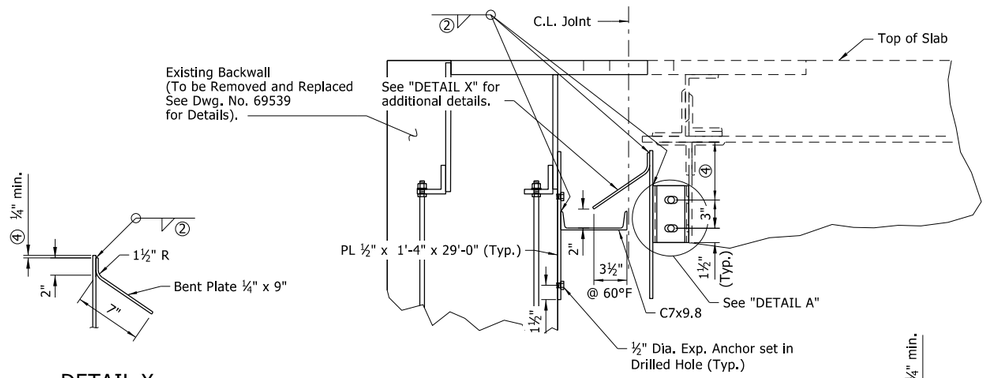
All steel, unless noted otherwise, shall be ASTM A709, GR. 36. New Bent Plate and Channels (C7x9.8) and (C10x15.3) shall be galvanized, AASHTO M11, payment for these members shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

① The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The engineer shall establish the temperature. Interpolation of the table may be necessary.

② See "WELD TABLE" on Std. Dwg. No. 55007.

③ The existing channel is encased in concrete. The Contractor may remove concrete that interferes with the weld for new East Abutment Joint Assembly.

④ Varies



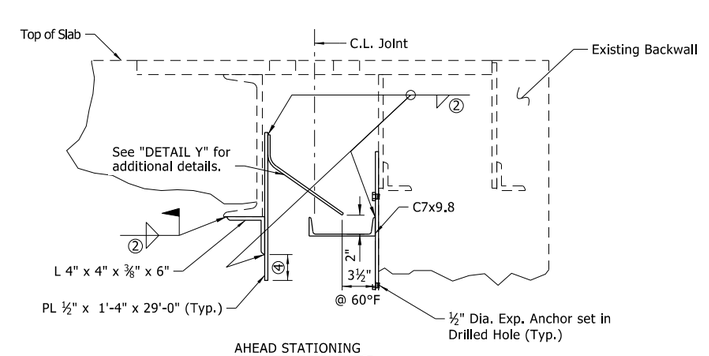
DETAIL X

1½" = 1'-0"

AHEAD STATIONING

DETAILS OF JOINTS AT WEST ABUTMENTS

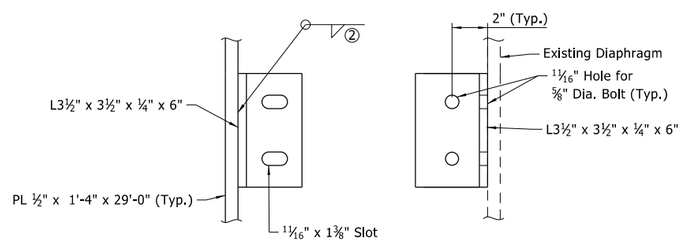
1½" = 1'-0"



AHEAD STATIONING

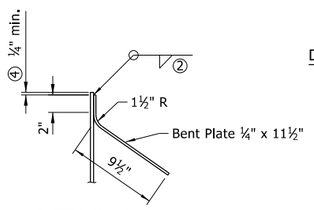
DETAILS OF JOINTS AT EAST ABUTMENTS

1½" = 1'-0"



DETAIL A

3" = 1'-0"



DETAIL Y

1½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 4

DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

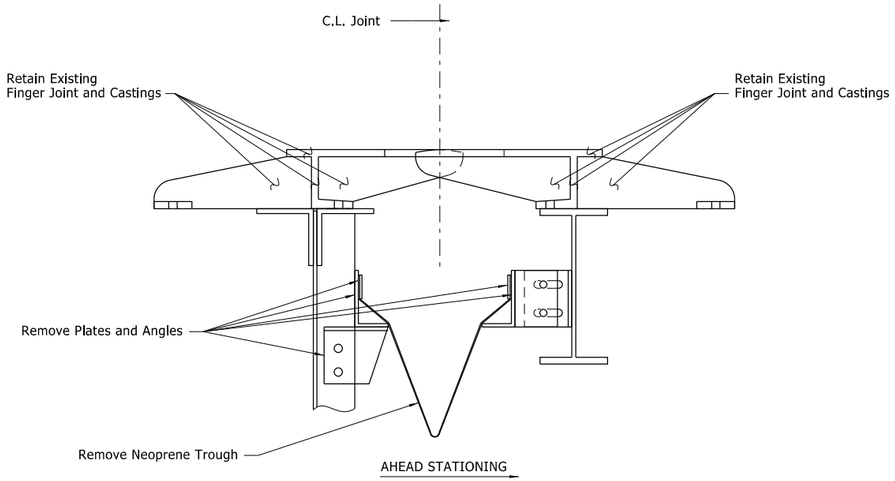
LITTLE ROCK, ARK.

DRAWN BY: MHA DATE: 01/2025 FILENAME: B110812_APJT.DGN
CHECKED BY: HSS DATE: 08/2025 SCALE: AS SHOWN
DESIGNED BY: MHA/LAC DATE: 08/2025

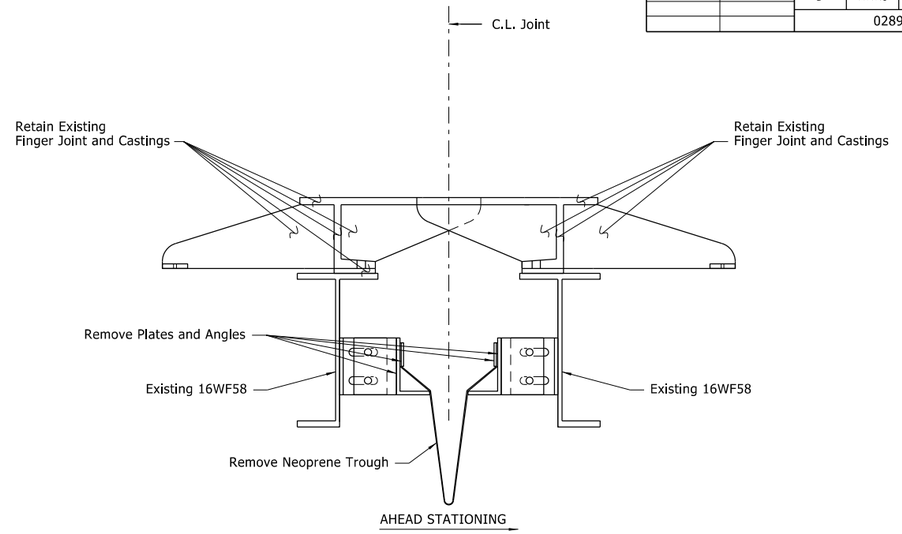
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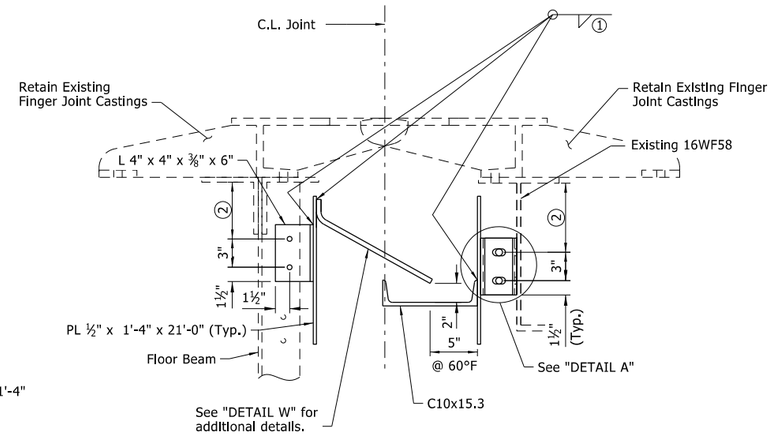
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	94	107
		02899 - EXP. JOINT - 69588				



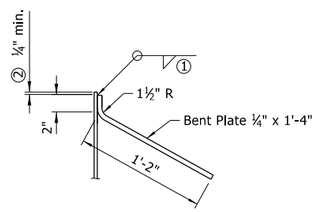
REMOVAL DETAILS OF JOINTS AT PIER 4
INSIDE FACE OF PIN & HANGERS
1½" = 1'-0"



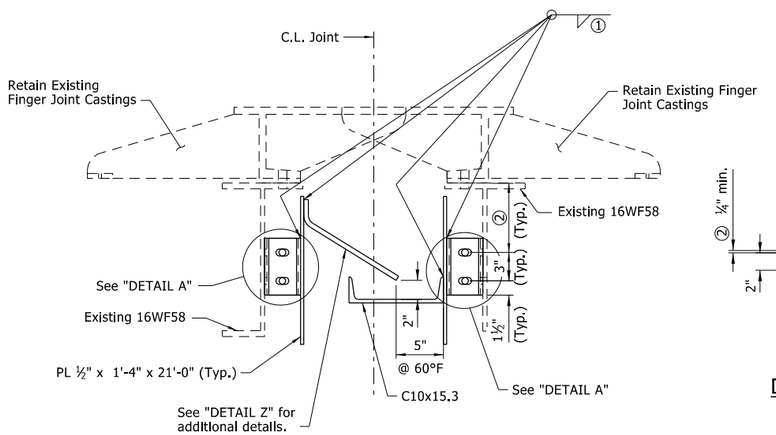
REMOVAL DETAILS OF JOINTS AT PIERS 7 & 18
INSIDE FACE OF PIN & HANGERS
1½" = 1'-0"

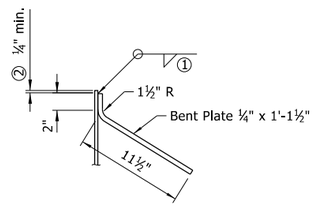


DETAILS OF JOINTS AT PIER 4
INSIDE FACE OF PIN & HANGERS
1½" = 1'-0"



DETAIL W
1½" = 1'-0"

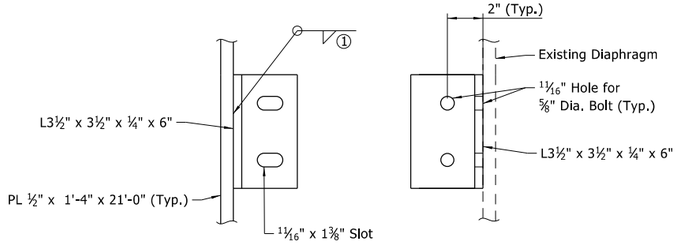




DETAIL Z
1½" = 1'-0"

AHEAD STATIONING

DETAILS OF JOINTS AT PIERS 7 & 18
INSIDE FACE OF PIN & HANGERS
1½" = 1'-0"



DETAIL A
3" = 1'-0"

Notes:
Drainage System is to be installed at a cross slope for proper water drainage out of the bridge.

Care should be taken not to damage the pins and existing finger joint assemblies.

Existing copper sheets (not shown for clarity) shall be removed.

① See "WELD TABLE" on Std. Dwg. No. 55007.

② Varies

STATE OF ARKANSAS
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BRIDGE ENGINEER
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SHEET 2 OF 4
DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

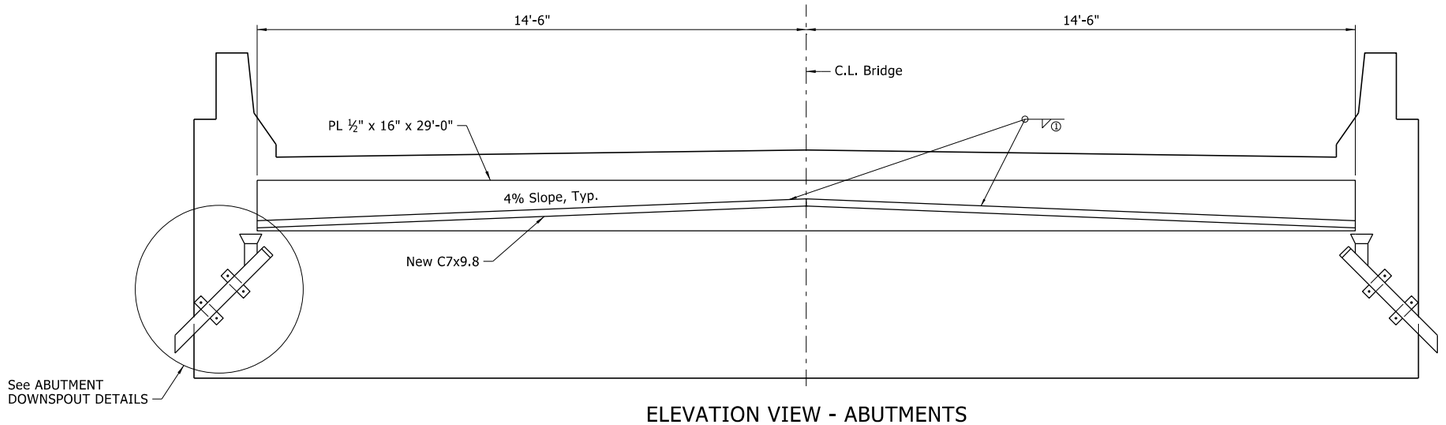
LITTLE ROCK, ARK.

DRAWN BY: MHA DATE: 01/2025 FILENAME: B110812_APJT.DGN
CHECKED BY: HSS DATE: 08/2025 SCALE: AS SHOWN
DESIGNED BY: MHA/LAC DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69588

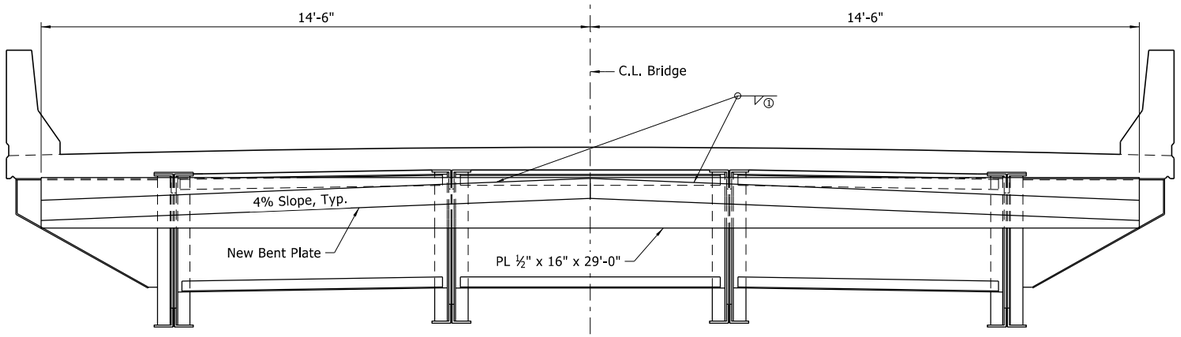
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - EXP. JOINT - 69589				



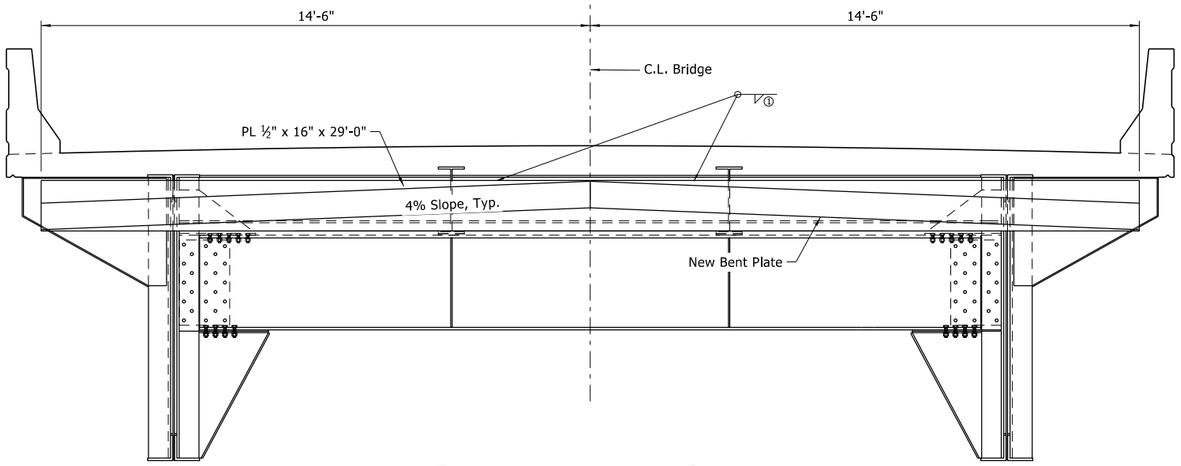
ELEVATION VIEW - ABUTMENTS

½" = 1'-0"



ELEVATION VIEW - UNIT 1 AT WEST ABUTMENT

½" = 1'-0"



ELEVATION VIEW - UNIT 5 AT EAST ABUTMENT

½" = 1'-0"

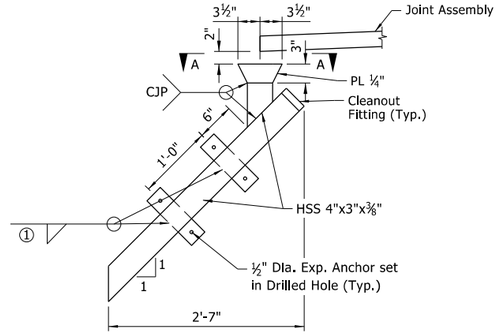
Notes:
Drainage System is to be installed at a cross slope for proper water drainage.

Remove existing downspouts & replace with new.

All items shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

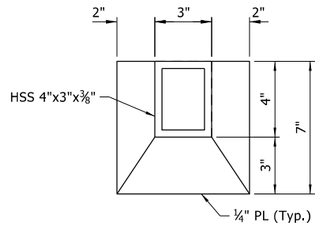
West Abutment steel joint work may occur at the same time as the backwall repair.

① See "WELD TABLE" on Std. Dwg. No. 55007.



ABUTMENT DOWNSPOUT DETAILS

1" = 1'-0"



SECTION A-A

3" = 1'-0"

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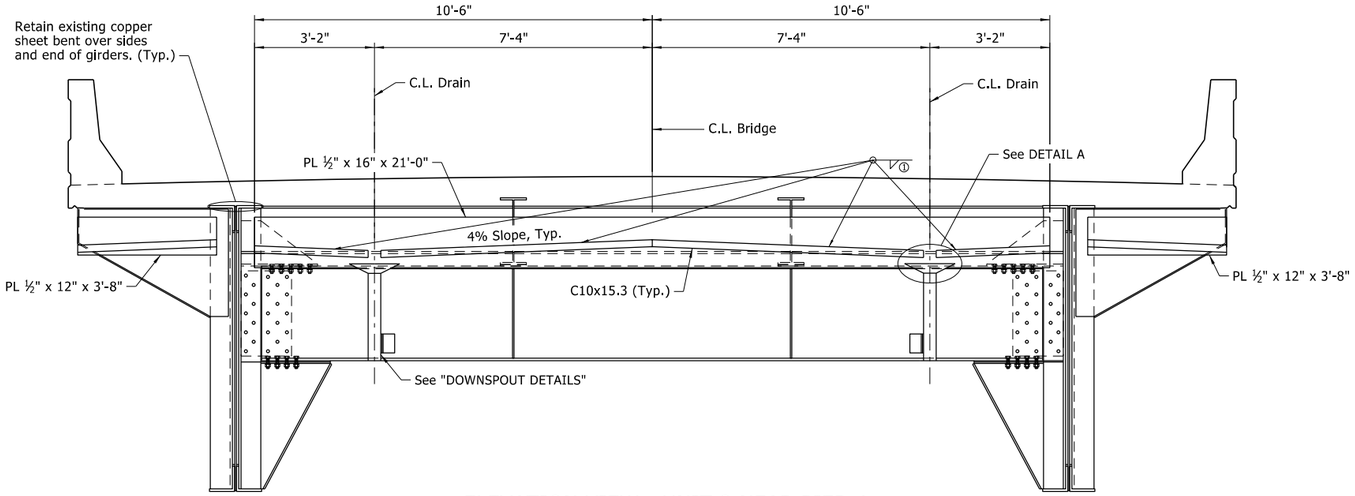
SHEET 3 OF 4
DETAILS OF APPROACH SPANS
EXPANSION JOINTS AND DRAINAGE SYSTEMS
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LAC DATE: 09/2025 FILENAME: B110812_APJT.DGN
CHECKED BY: HSS DATE: ##/2025 SCALE: AS SHOWN
DESIGNED BY: MHA/LAC DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69589

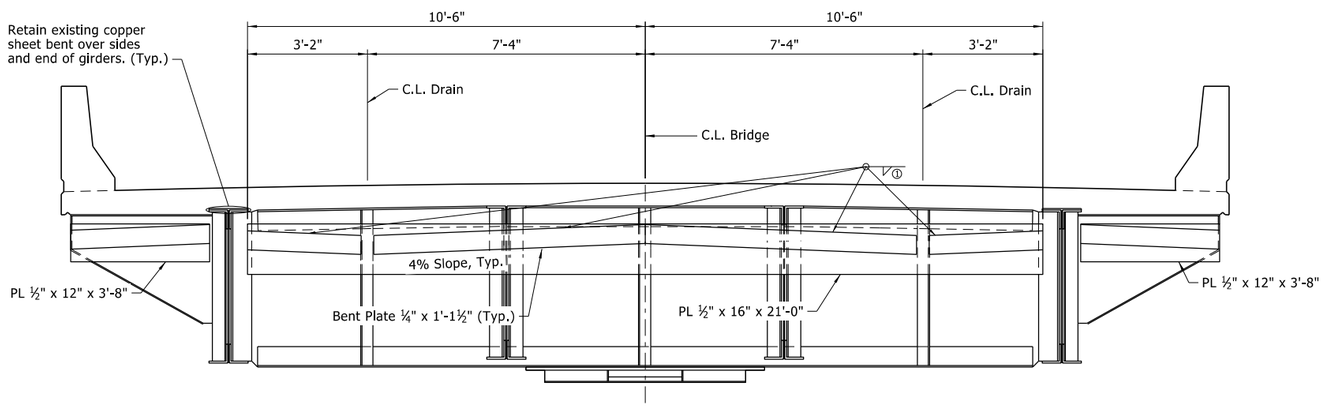
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - EXP. JOINT - 69590				



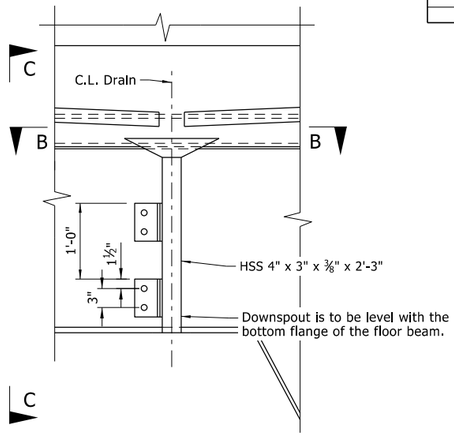
ELEVATION VIEW - UNIT 2 NEAR PIER 4
& JOINTS NEAR PIERS 7 & 18

½" = 1'-0"



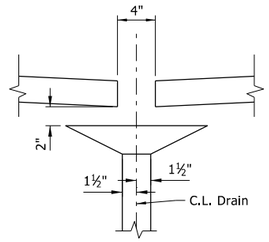
ELEVATION VIEW - UNIT 1 NEAR PIER 4

½" = 1'-0"



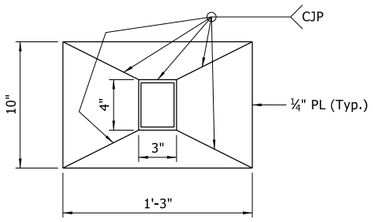
DOWNSPOUT DETAILS: PIER

1" = 1'-0"



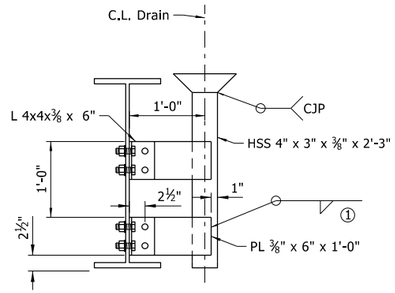
DETAIL A

1½" = 1'-0"



SECTION B-B

2" = 1'-0"



SECTION C-C

1" = 1'-0"

Notes:
Drainage System is to be installed at a cross slope for proper water drainage.

Remove existing downspouts & replace with new.

All items shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

① See "WELD TABLE" on Std. Dwg. No. 55007.

STATE OF ARKANSAS
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6-17-2026

BRIDGE ENGINEER
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SHEET 4 OF 4
DETAILS OF APPROACH SPANS EXPANSION JOINTS AND DRAINAGE SYSTEMS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

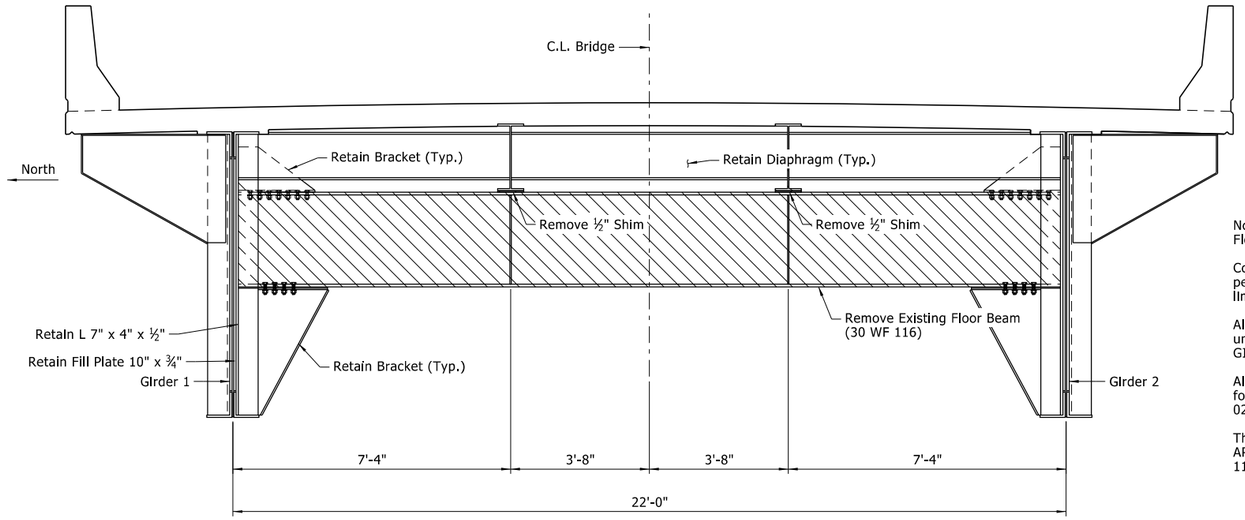
LITTLE ROCK, ARK.

DRAWN BY: LAC DATE: 09/2025 FILENAME: B110812_APJT.DGN
CHECKED BY: HSS DATE: ##/2025 SCALE: AS SHOWN
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BRIDGE NO. 02899 DRAWING NO. 69590

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	97	107
		02899 - APPROACH FLOOR BEAM - 69591				



ELEVATION VIEW - REMOVAL

Looking Forward
Scale ½" = 1'-0"

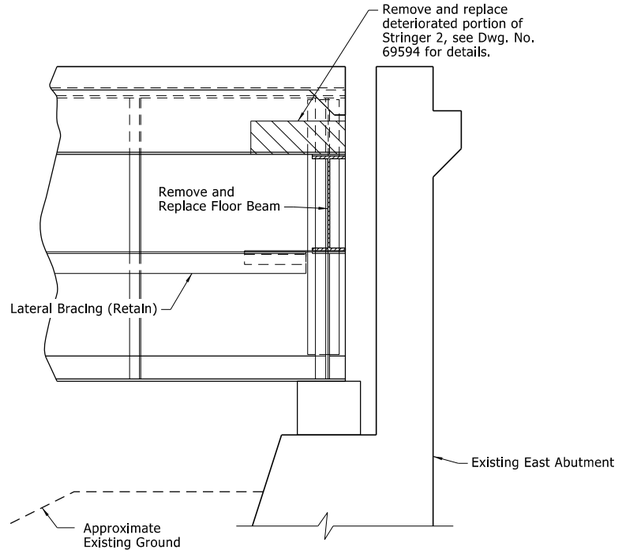
Notes:
Floor beams being replaced shall be the ones located west of the piers.

Contractor shall field verify all dimensions and deterioration limits prior to performing any repair to confirm fit. Given dimensions are estimated based on limited available information.

All Structural Steel shall required for this repair shall be ASTM A709, Grade 36 unless noted otherwise, and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

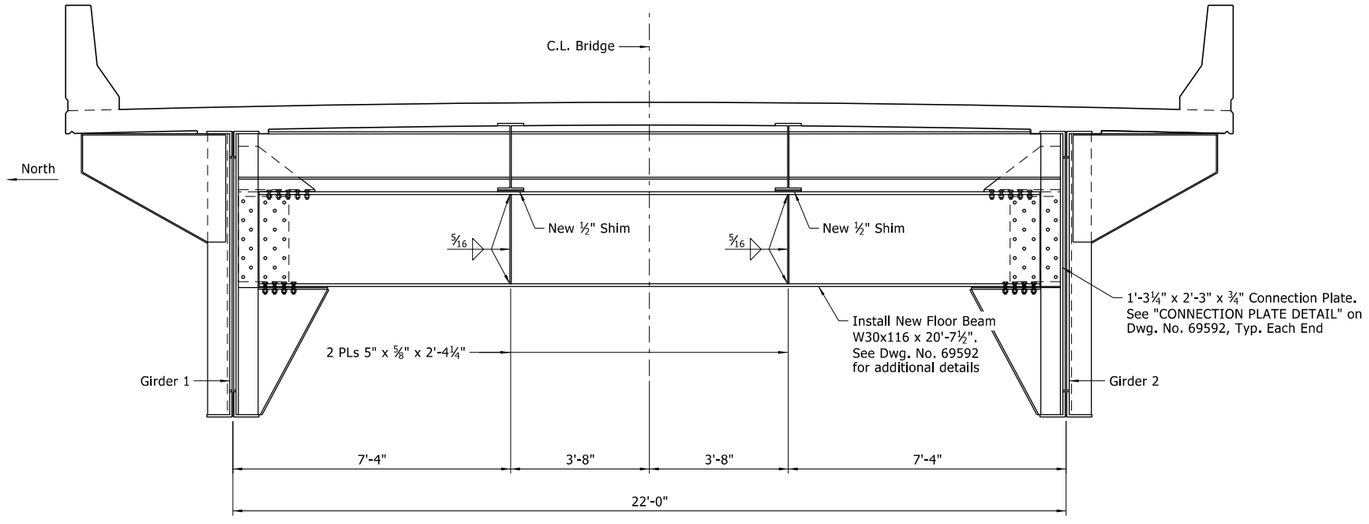
All work done to remove the existing portions of the floor beams shall be paid for as "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)".

The shoring required for this repair shall be paid for as "SHORING TYPE 4: APPROACH SPANS FLOOR BEAM", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".



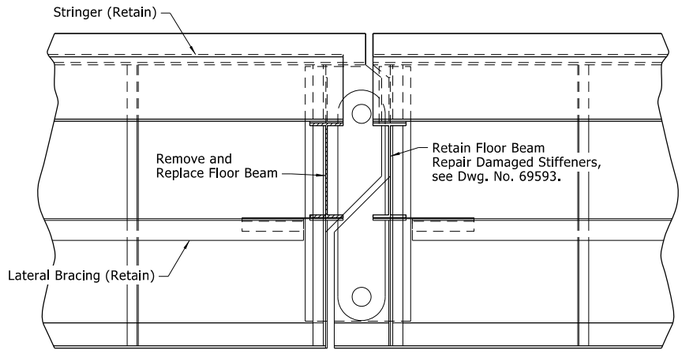
SECTION VIEW - EAST ABUTMENT

Ahead Stationing
Scale ½" = 1'-0"



ELEVATION VIEW - CONSTRUCTION

Looking Forward
Scale ½" = 1'-0"



SECTION VIEW - APPROACH EXPANSION JT. NEAR PIERS 7 AND 18

Ahead Stationing
Scale ½" = 1'-0"

STATE OF ARKANSAS
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SHEET 1 OF 2
DETAILS OF APPROACH SPANS FLOOR BEAM REPLACEMENTS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

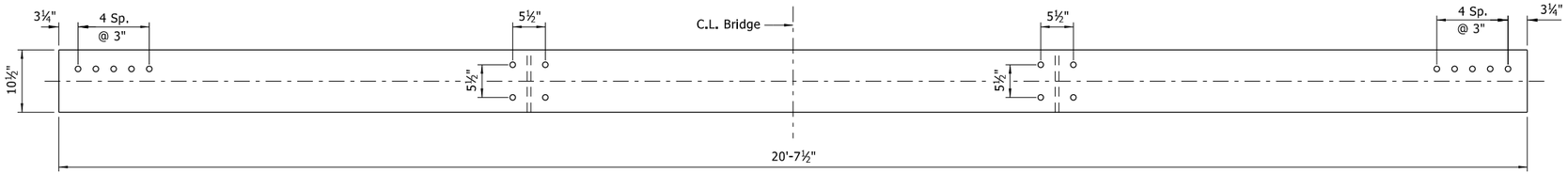
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 01/2025 FILENAME: B110812_AFB1.DGN
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DESIGNED BY: MHA DATE: 07/2025

BRIDGE NO. 02899 DRAWING NO. 69591

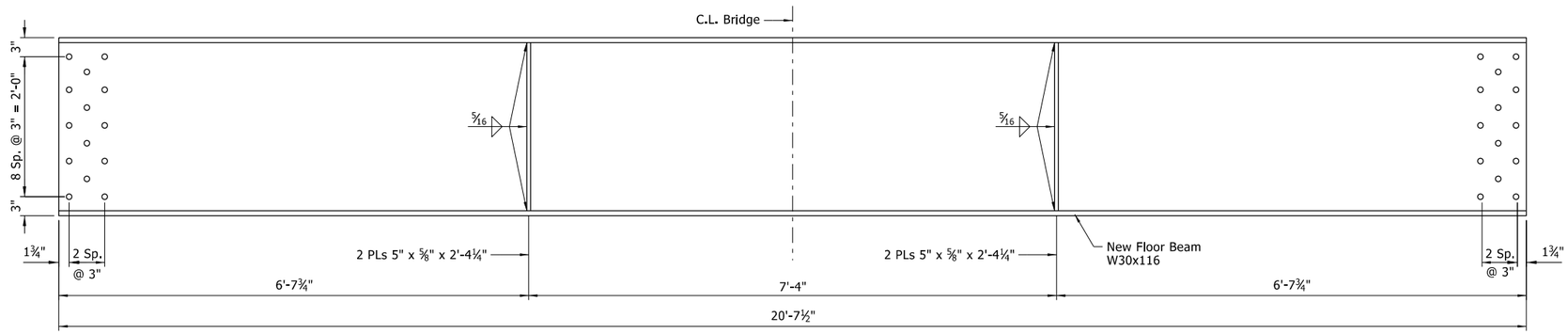
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - APPROACH FLOOR BEAM - 69592				



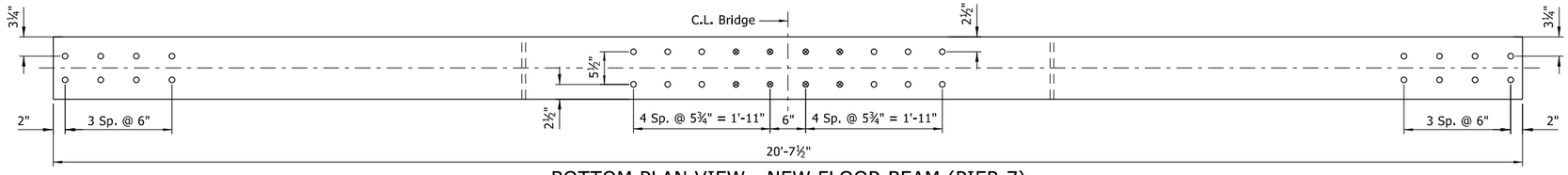
TOP PLAN VIEW - NEW FLOOR BEAM

Scale : 1" = 1'-0"



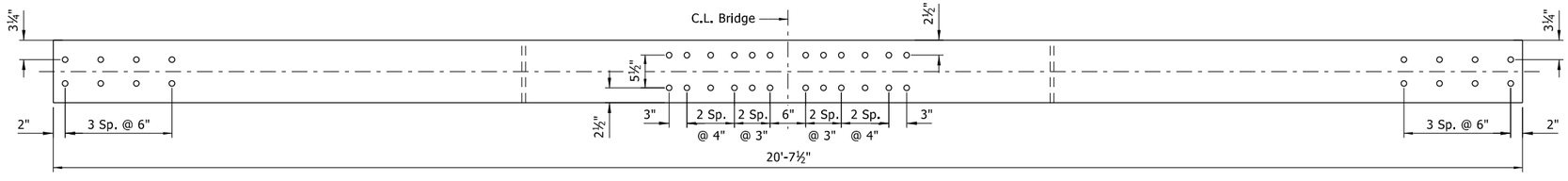
ELEVATION VIEW - NEW FLOOR BEAM

Looking Forward
Scale : 1" = 1'-0"



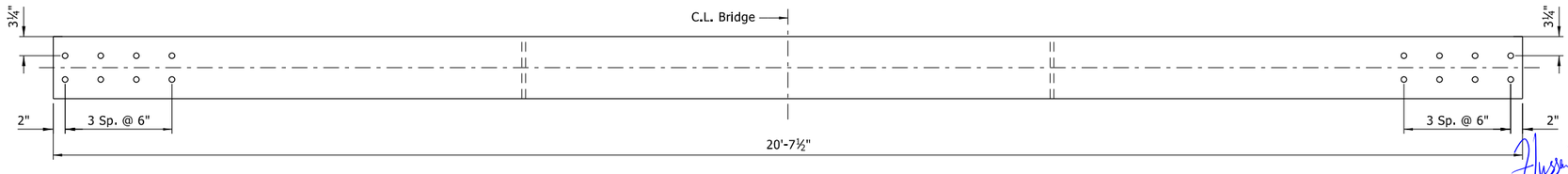
BOTTOM PLAN VIEW - NEW FLOOR BEAM (PIER 7)

Scale : 1" = 1'-0"



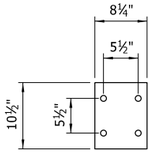
BOTTOM PLAN VIEW - NEW FLOOR BEAM (PIER 18)

Scale : 1" = 1'-0"



BOTTOM PLAN VIEW - NEW FLOOR BEAM (EAST ABUTMENT)

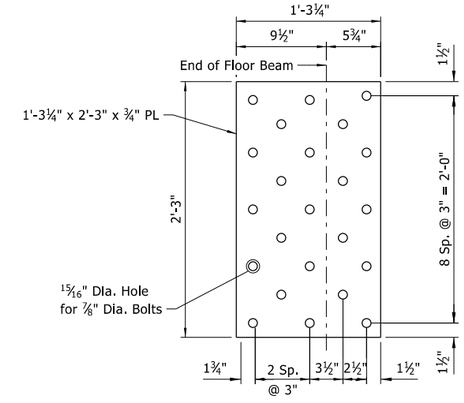
Scale : 1" = 1'-0"



PLAN VIEW - NEW SHIM

Scale : 1" = 1'-0"

Note:
Bolt Holes Denoted as ⊗ to be Countersunk.



CONNECTION PLATE DETAIL

(Girder 2 Connection Shown, Girder 1 Connection Similar)
Scale : 1½" = 1'-0"

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SHEET 2 OF 2
DETAILS OF APPROACH SPANS FLOOR BEAM REPLACEMENTS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

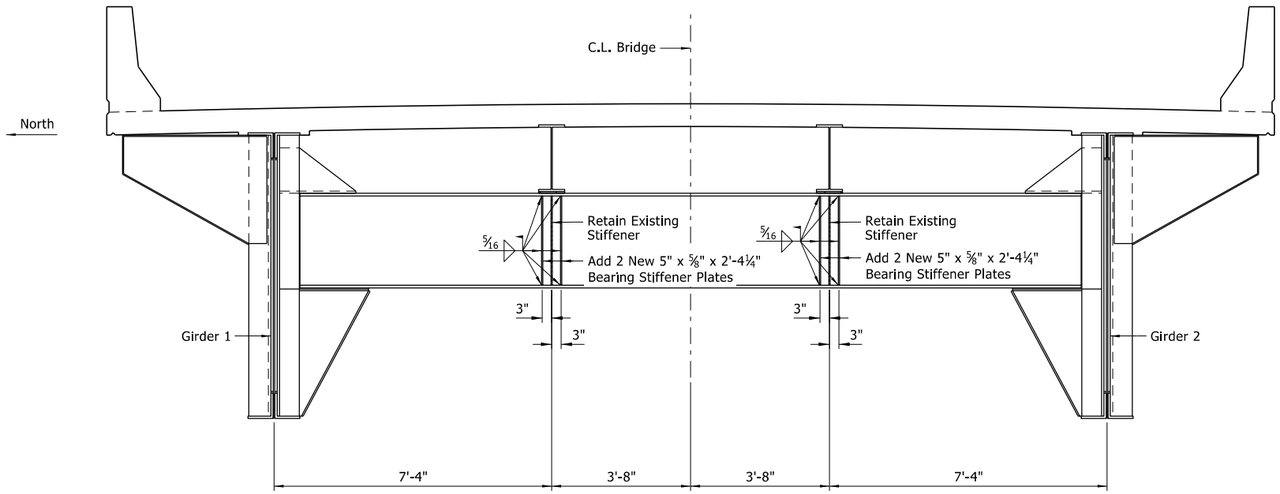
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 01/2025 FILENAME: B110812_AFB1.DGN
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DESIGNED BY: MHA DATE: 07/2025

BRIDGE NO. 02899 DRAWING NO. 69592

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	99	107
		02899 - APPROACH FLOOR BEAM - 69593				



ELEVATION VIEW - BEARING STIFFENER REPAIR

Looking Forward
East Floor Beams at approach expansion joints near Piers 7 and 18.
Scale ½" = 1'-0"

Notes:
Contractor shall clean all surfaces before placing new stiffeners.

Contractor shall field verify all dimensions and deterioration limits prior to performing any repair to confirm fit. Given dimensions are estimated based on limited available information.

All Structural Steel shall required for this repair shall be ASTM A709, Grade 36 unless noted otherwise, and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF APPROACH SPANS FLOOR BEAM REPAIRS

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

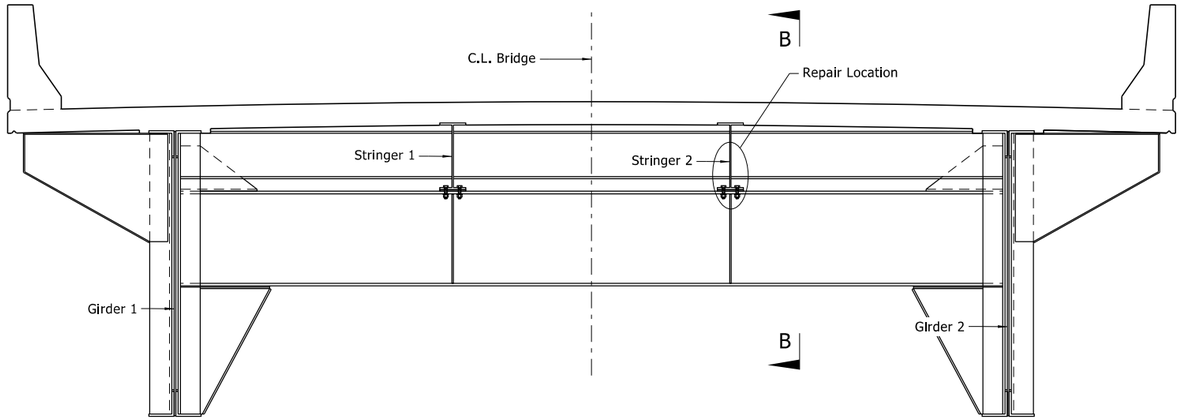
LITTLE ROCK, ARK.

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CHECKED BY: HSS DATE: 11/2025 SCALE: AS SHOWN
DESIGNED BY: MHA DATE: 07/2025

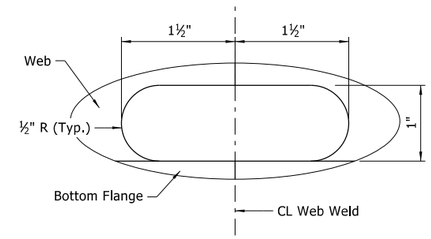
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REVISED DATE:

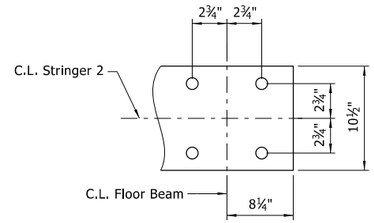
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		6	ARK.	110812	100	107
		02899 - E. ABUT. STRINGER - 69594				



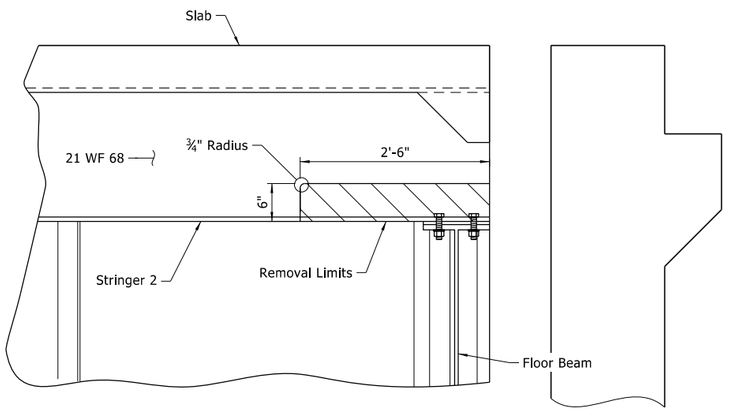
LOCATION SKETCH
LOOKING FORWARD
½" = 1'-0"



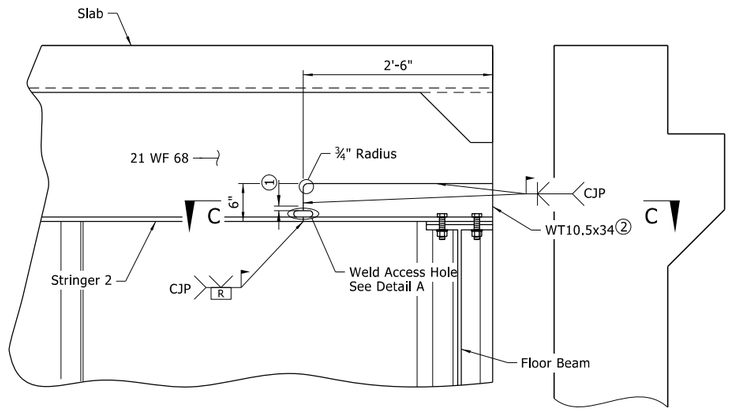
DETAIL A
1" = 1"



VIEW C-C
1" = 1'-0"



STEP 1: REMOVAL (VIEW B-B)
1" = 1'-0"



STEP 2: CONSTRUCTION (VIEW B-B)
1" = 1'-0"

①Stop weld ¼" to 1" from edge of weld access hole.

②Rolled member will need to be cut to fit repair needs.

Notes:
Contractor shall field verify all dimensions and deterioration limits prior to performing any repair to confirm fit. Given dimensions are estimated based on limited available information.

All Structural Steel required for this repair shall be ASTM A709, Grade 36 unless noted otherwise, and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)".

All work done to remove the existing portions of the stringer shall be paid for as "MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 02899)".

The shoring required for this repair shall be paid for as "SHORING TYPE 4: APPROACH SPANS FLOOR BEAM", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF EAST ABUTMENT STRINGER 2 REPAIR
ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 03/2025 FILENAME: B110812_AST1.DGN
CHECKED BY: HSS DATE: 11/2025 SCALE: AS SHOWN
DESIGNED BY: MKL DATE: 03/2025

BRIDGE NO. 02899 DRAWING NO. 69594

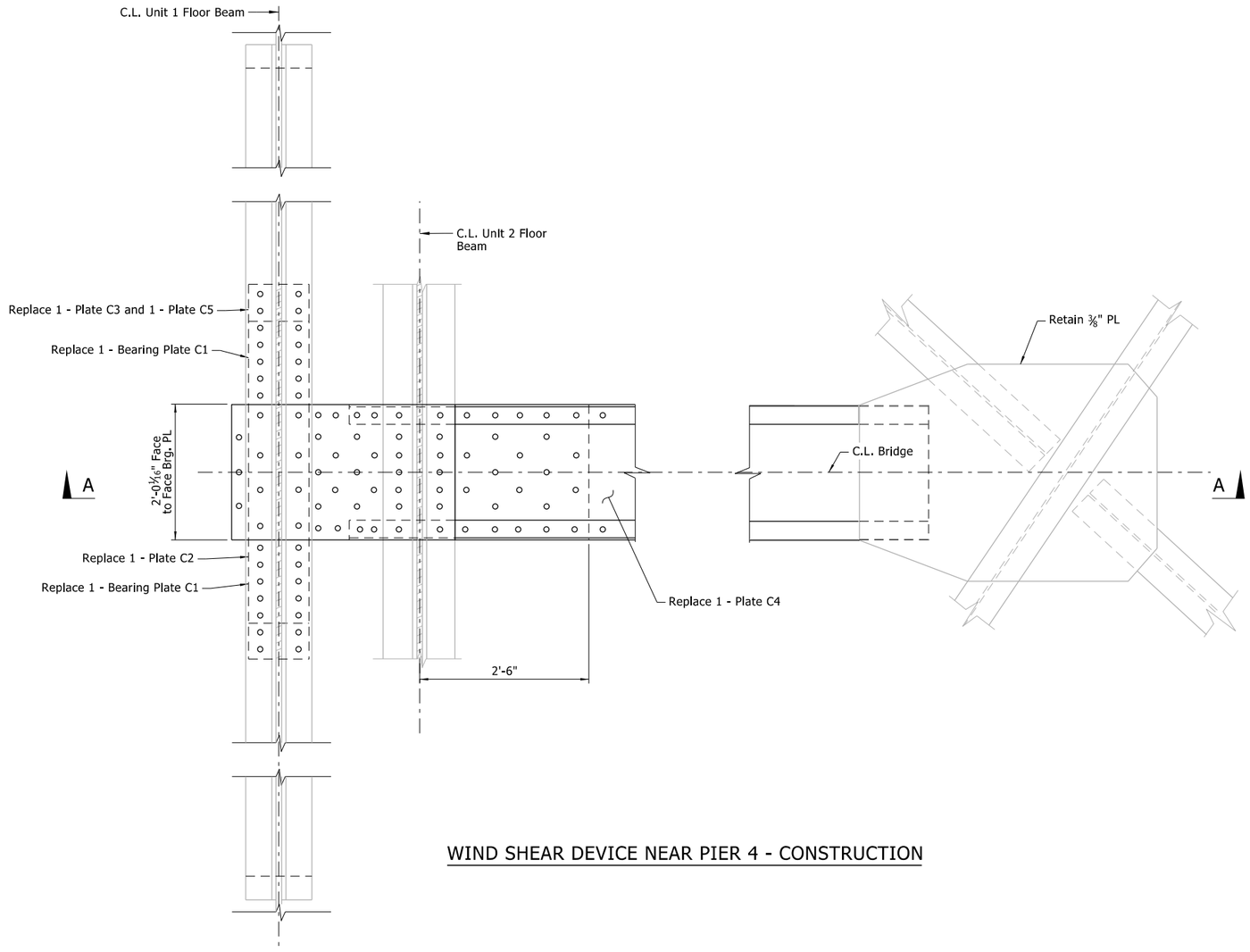
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		02899 - WIND LOCK - 69595				

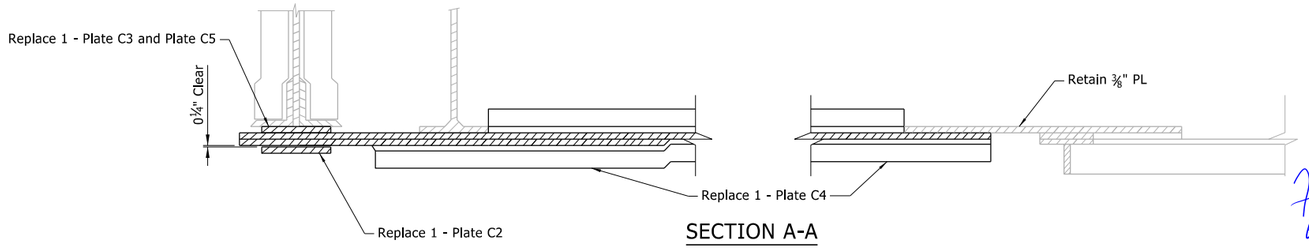
Notes:
Contractor shall field verify all dimensions any elements to confirm fit.
Given dimensions are estimated based on limited available information.

All structural steel required for this repair, except Member C4, shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)". Member C4 shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

The shoring required for this repair shall be paid for as "SHORING TYPE 5: APPROACH SPANS WIND LOCK", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".



WIND SHEAR DEVICE NEAR PIER 4 - CONSTRUCTION



SECTION A-A

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 1 OF 6
DETAILS OF APPROACH SPANS WIND LOCK REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

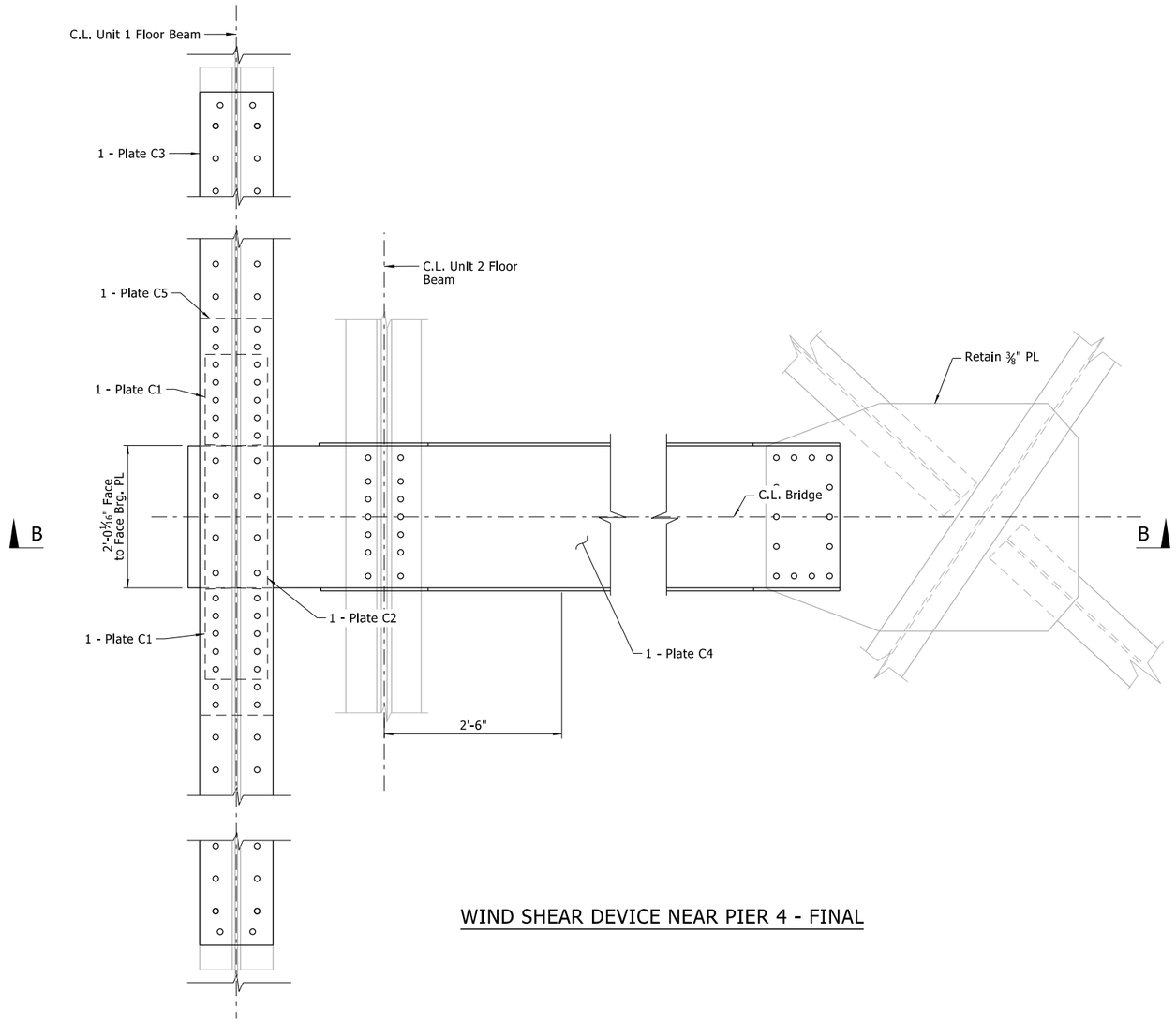
LITTLE ROCK, ARK.

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DESIGNED BY: MKL DATE: 08/2025

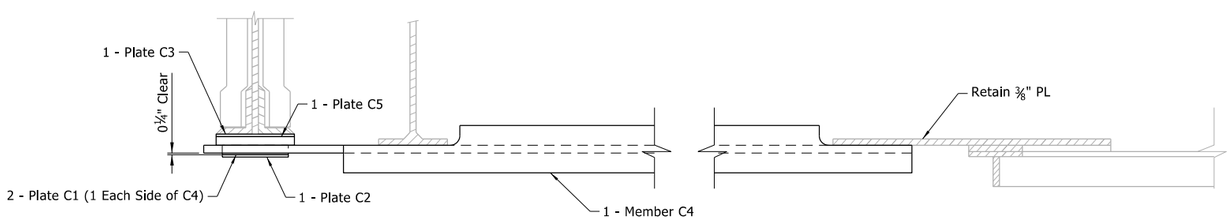
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REVISED DATE:

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		6	ARK.	110812	102	107
		02899 - WIND LOCK - 69596				



WIND SHEAR DEVICE NEAR PIER 4 - FINAL



SECTION B-B

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 2 OF 6
DETAILS OF APPROACH SPANS
WIND LOCK REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

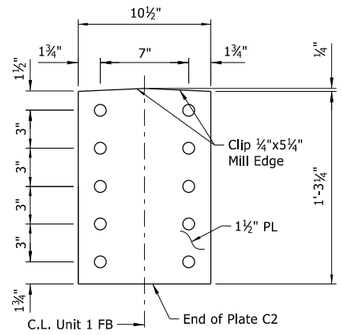
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REVISED DATE:

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		6	ARK.	110812	103	107
		02899 - WIND LOCK - 69597				

Note:
Bolt Holes Denoted as ⊗ to be Countersunk



2 - BEARING PLATE C1 DETAILS
2" = 1'-0" Scale

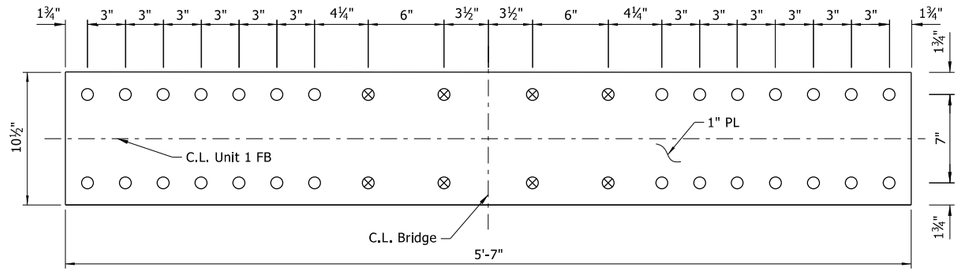


PLATE C5 DETAILS
1" = 1'-0" Scale

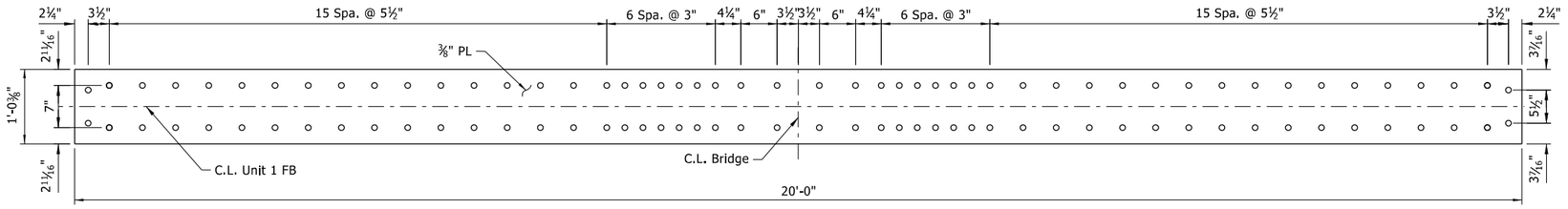
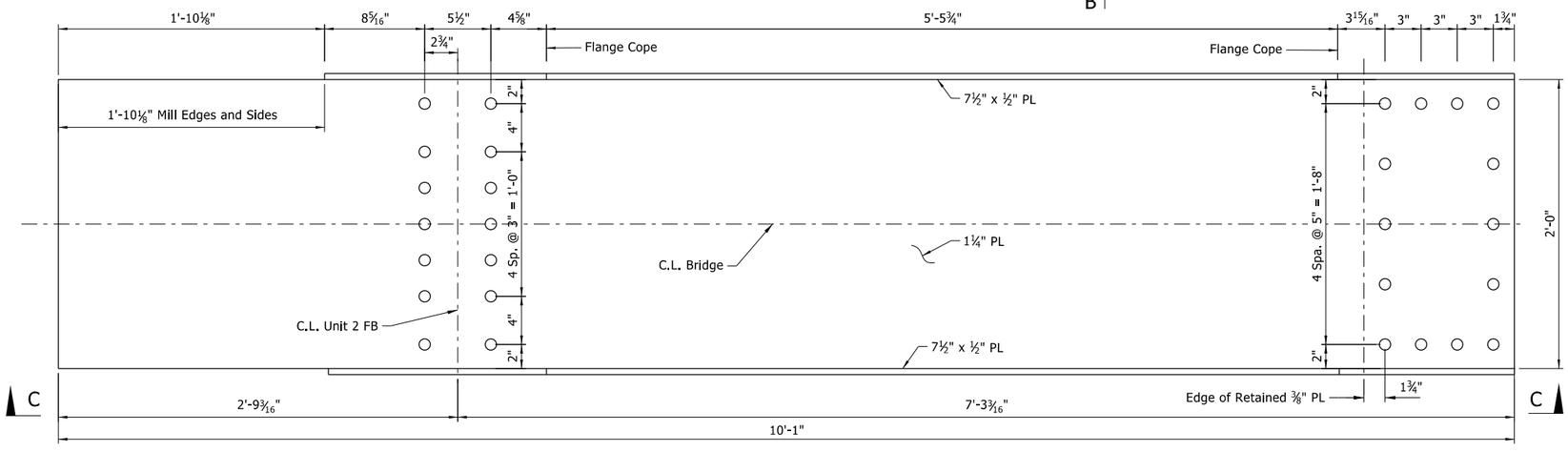
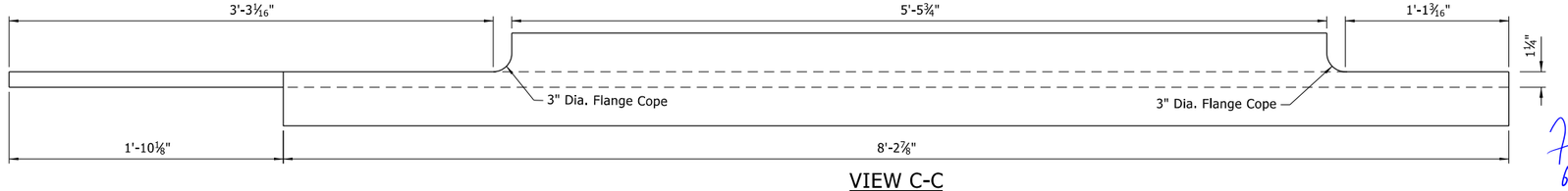


PLATE C3 DETAILS
1" = 1'-0" Scale



MEMBER C4 DETAILS
2" = 1'-0" Scale
Member C4 shall conform to ASTM A709, 50W.



VIEW C-C
2" = 1'-0" Scale

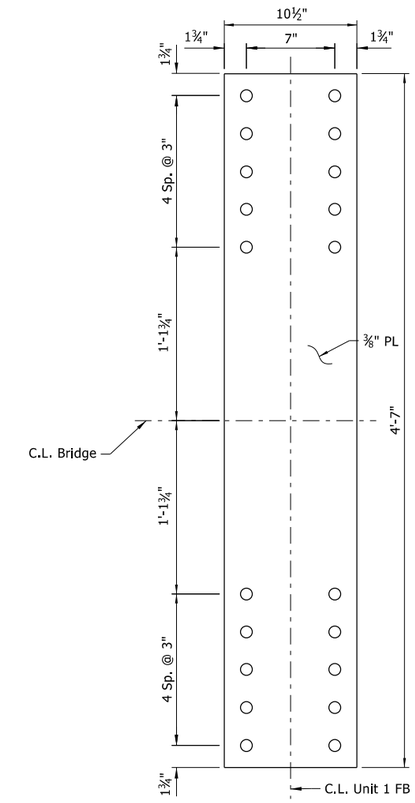
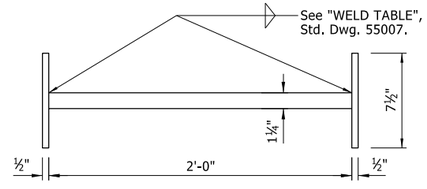


PLATE C2 DETAILS
2" = 1'-0" Scale



SECTION B-B
2" = 1'-0" Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 3 OF 6
DETAILS OF APPROACH SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 08/2025 FILENAME: B110812_AWL1.DGN
CHECKED BY: SB DATE: 11/2025 SCALE: AS SHOWN
DESIGNED BY: MKL DATE: 08/2025

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REVISED DATE:

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		02899 - WIND LOCK - 69598				

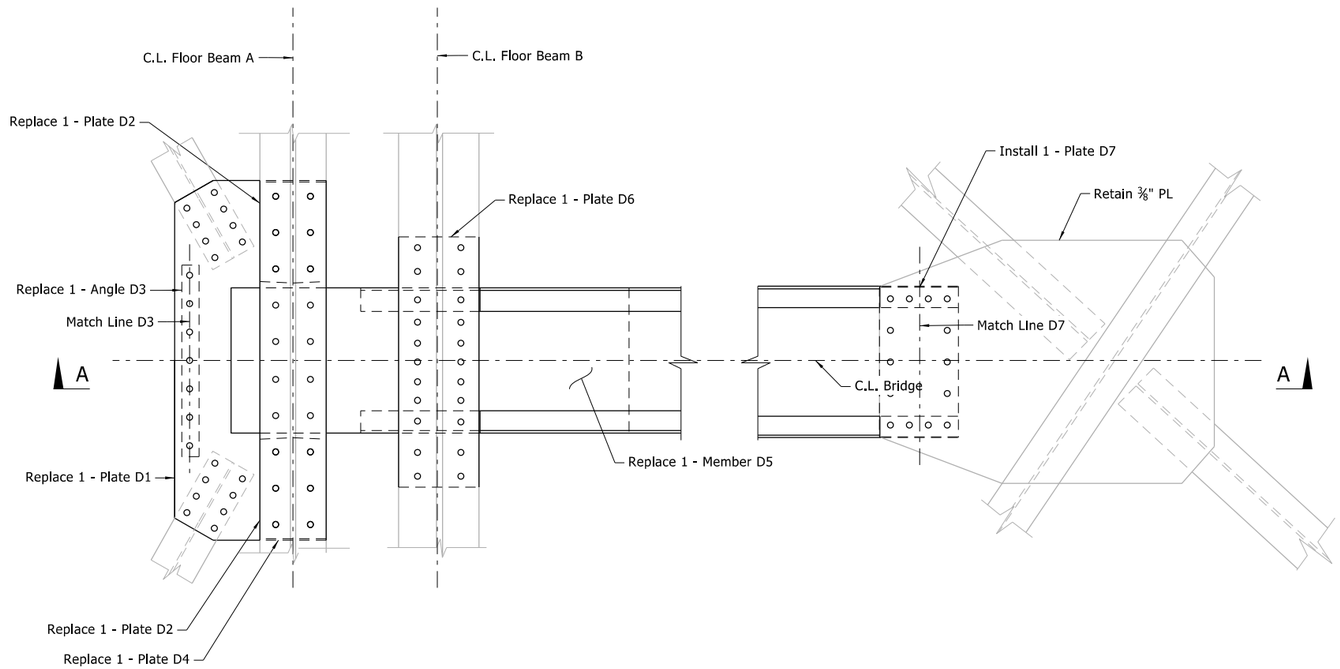
Notes:
Contractor shall field verify all dimensions any elements to confirm fit.
Given dimensions are estimated based on limited available information.

All structural steel required for this repair, except Member D5, shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 36)". Member D5 shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

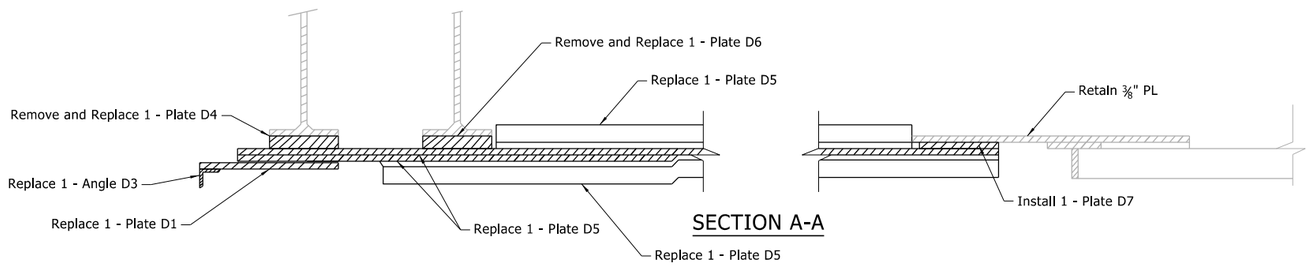
The shoring required for this repair shall be paid for as "SHORING TYPE 5: APPROACH SPANS WIND LOCK", for additional information see SP Job No. 110812 "STRUCTURAL STEEL SHORING".

Floor Beam A refers to:
- Unit 2 Floor Beam at the expansion joint near Pier 7
- Unit 5 Floor Beam at the expansion joint near Pier 18

Floor Beam B refers to:
- Unit 3 Floor Beam at the expansion joint near Pier 7
- Unit 4 Floor Beam at the expansion joint near Pier 18



WIND SHEAR DEVICE NEAR PIERS 7 AND 18 - CONSTRUCTION



SECTION A-A

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 4 OF 6
DETAILS OF APPROACH SPANS
WIND LOCK REPLACEMENT

ROUTE SECTION

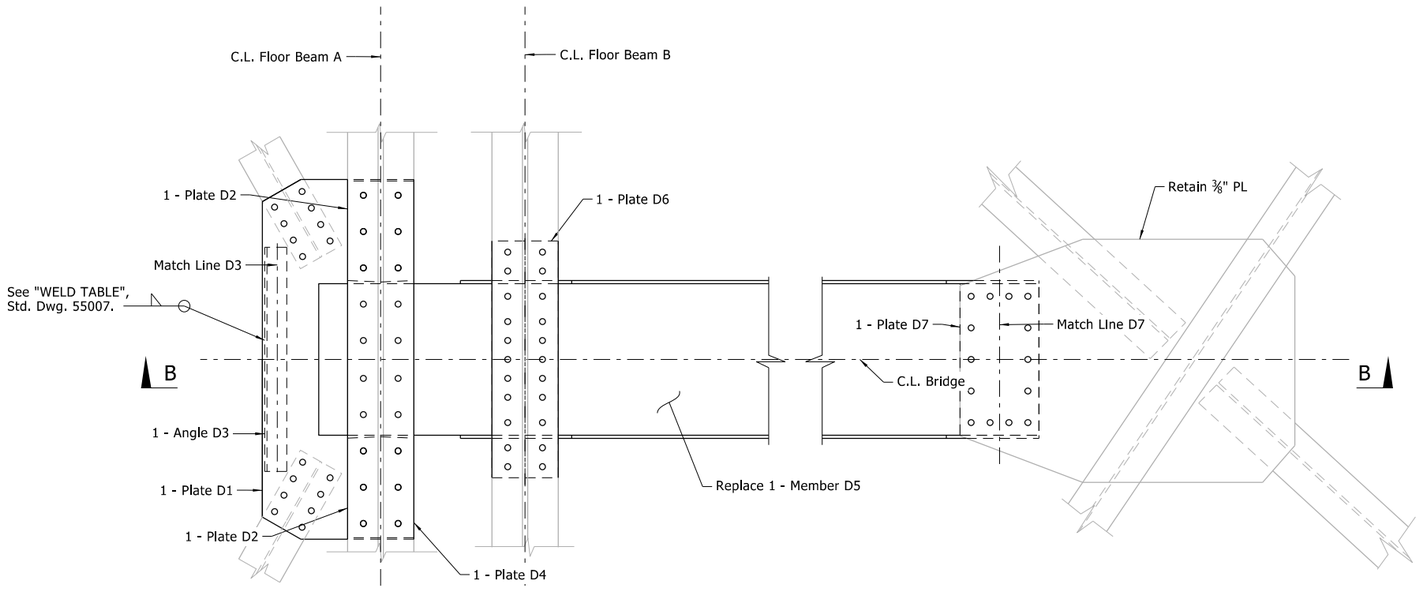
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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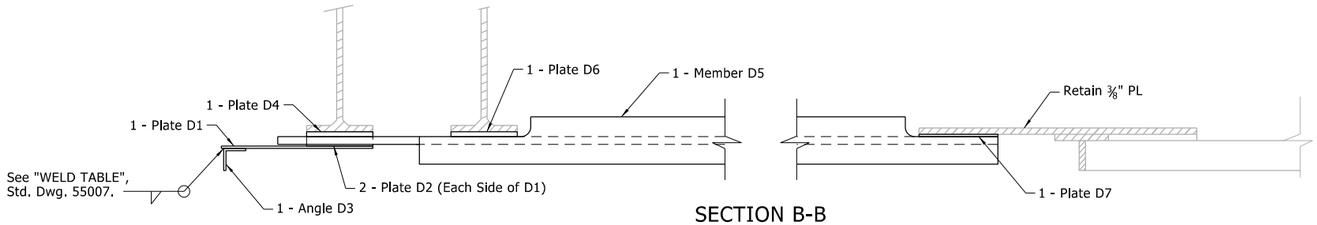
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REVISED DATE:

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		02899 - WIND LOCK - 69599				



WIND SHEAR DEVICE NEAR PIERS 7 AND 18 - FINAL



SECTION B-B

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM
6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

SHEET 5 OF 6
DETAILS OF APPROACH SPANS
WIND LOCK REPLACEMENT

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 08/2025 FILENAME: B110812_AWL2.DGN
CHECKED BY: SB DATE: 11/2025 SCALE: 1" = 1'-0"
DESIGNED BY: MKL DATE: 08/2025

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		02899 - WIND LOCK - 69600				

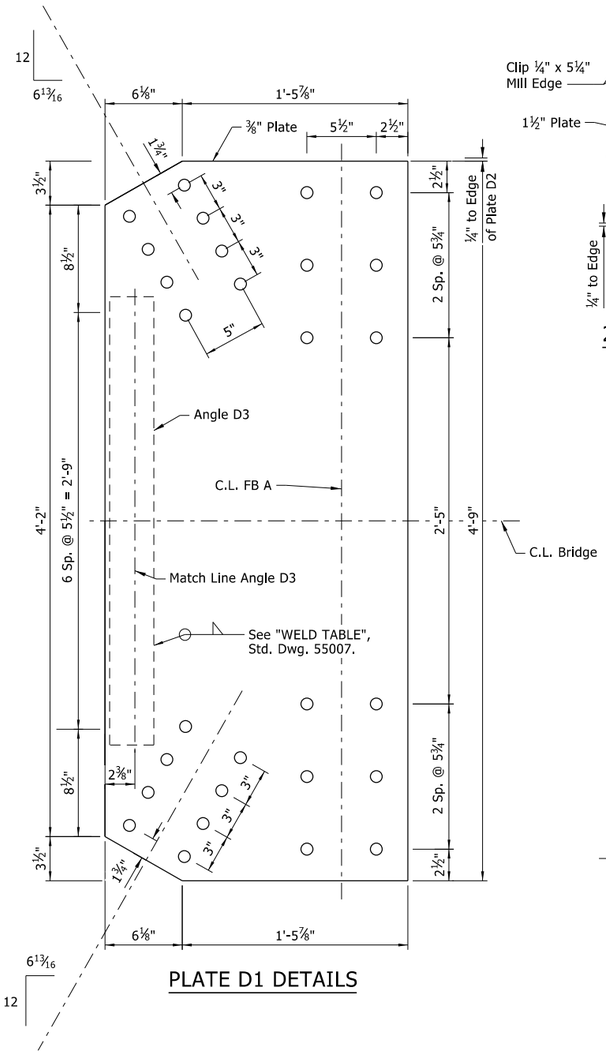
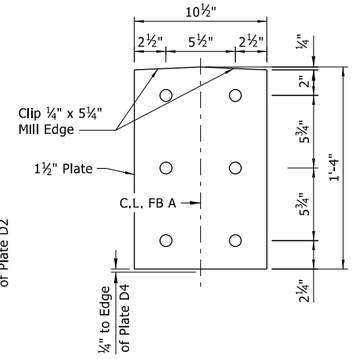
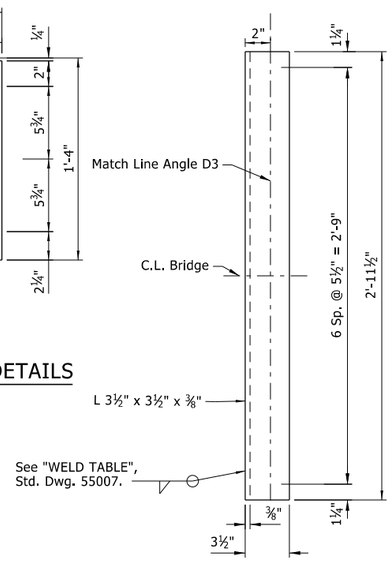


PLATE D1 DETAILS



2 - PLATE D2 DETAILS



ANGLE D3 DETAILS

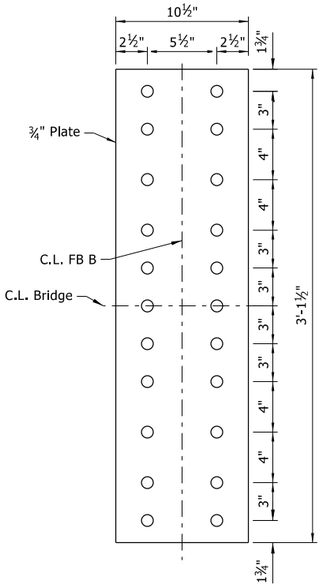


PLATE D6 DETAILS

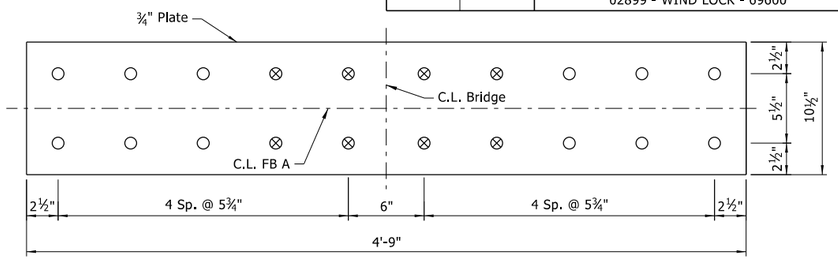
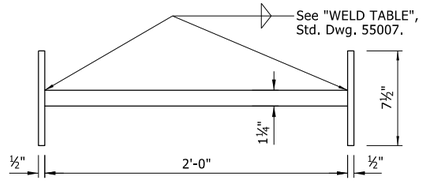
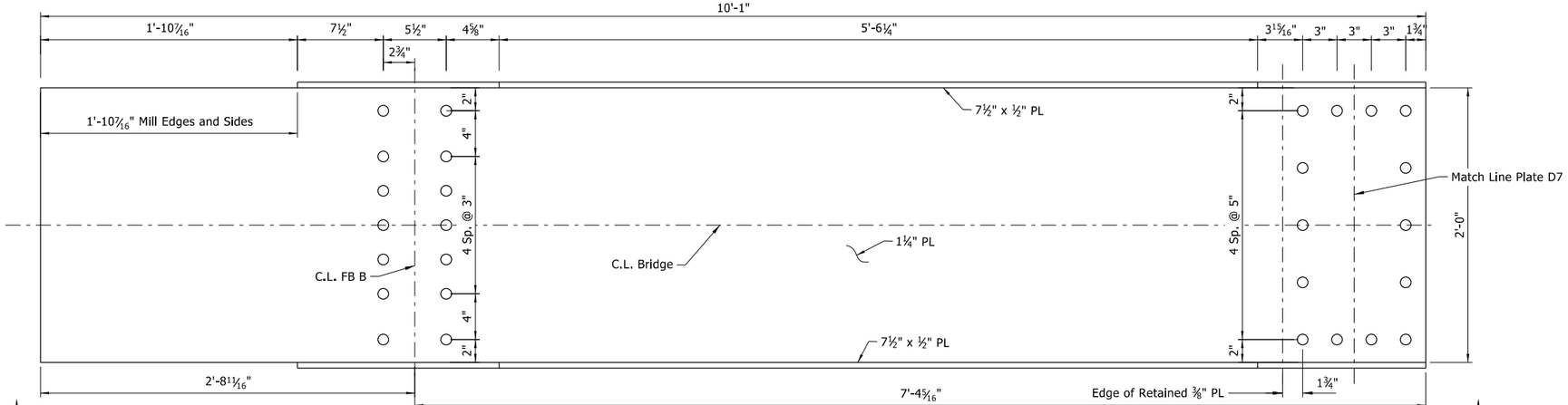


PLATE D4 DETAILS



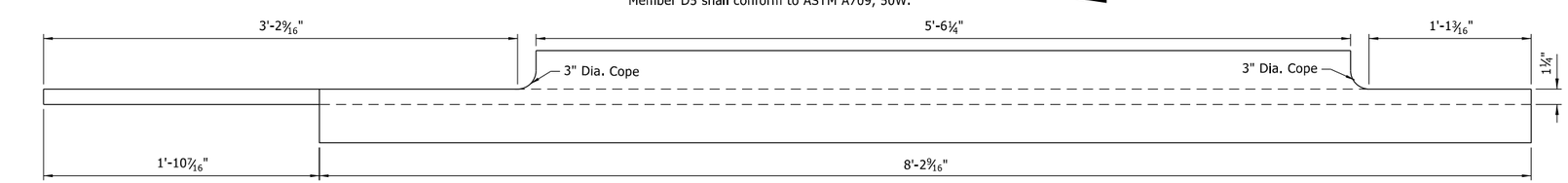
SECTION B-B

B



MEMBER D5 DETAILS

Member D5 shall conform to ASTM A709, 50W.



VIEW C-C

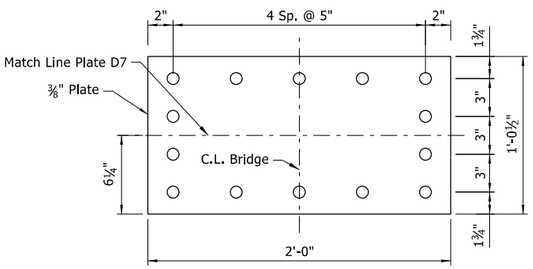


PLATE D7 DETAILS

Note:
Bolt Holes Denoted as ⊗ to be Countersunk

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18919
HUSSAM S. SALEEM

6-17-2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

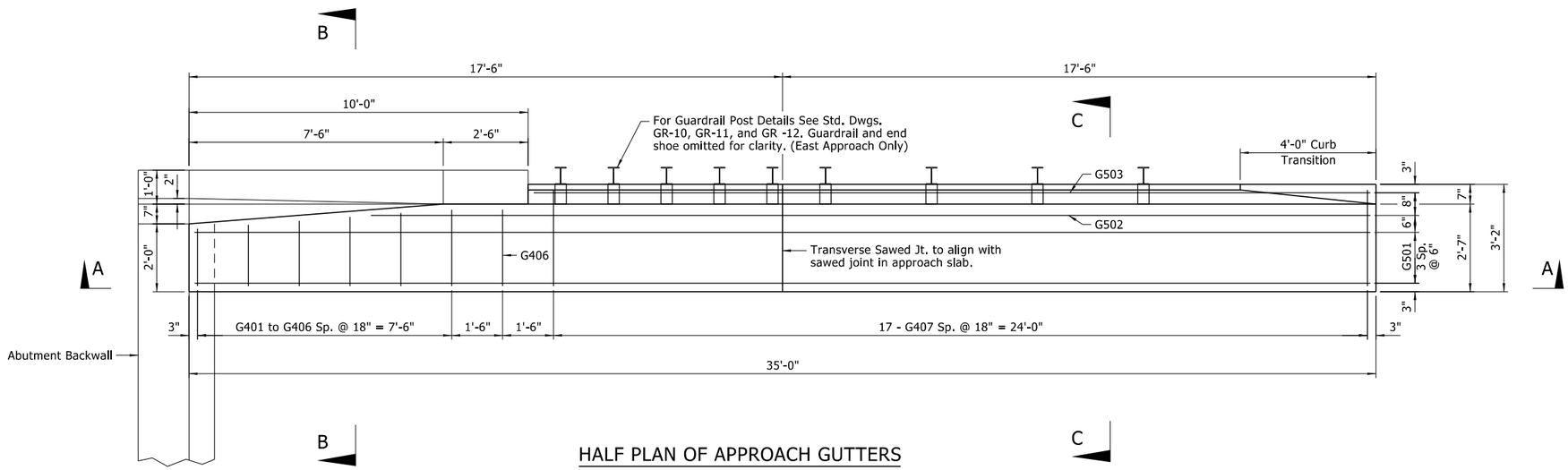
SHEET 6 OF 6
DETAILS OF APPROACH SPANS
WIND LOCK REPLACEMENT
ROUTE SECTION
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: MKL DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69600

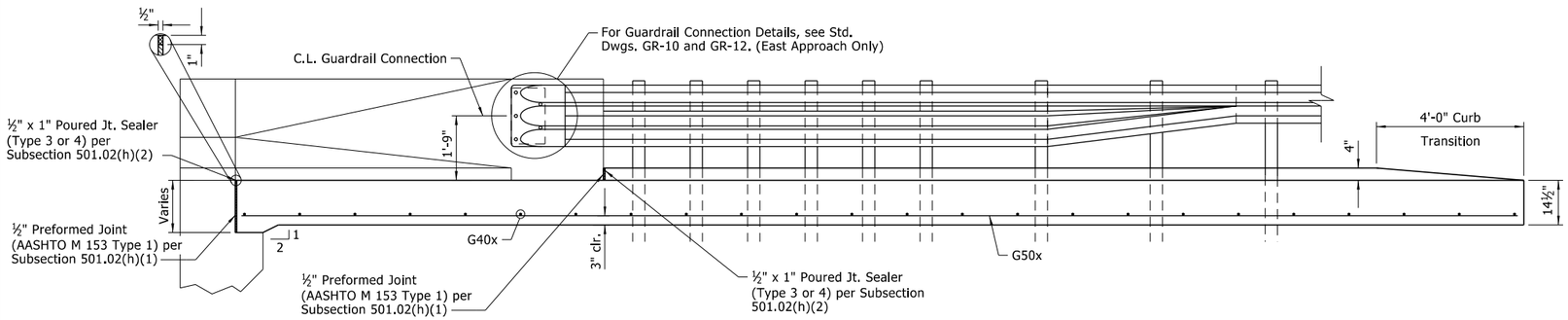
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REVISED DATE:

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	110812	107	107
		02899 - APPROACH GUTTER - 69601				



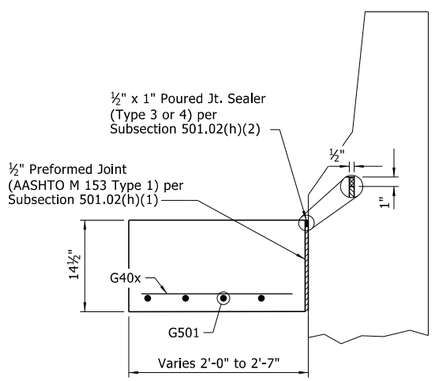
HALF PLAN OF APPROACH GUTTERS

½" = 1'-0"



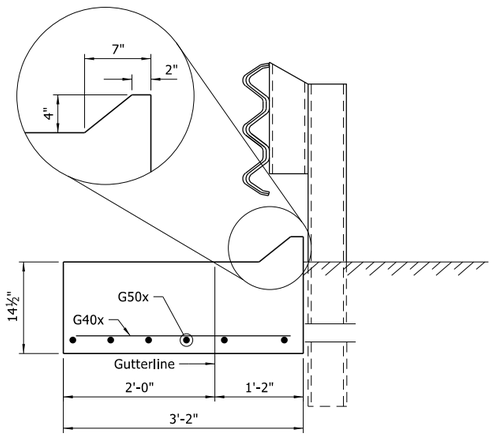
SECTION A-A

½" = 1'-0"



SECTION B-B

1" = 1'-0"



SECTION C-C

1" = 1'-0"

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (fy = 60 ksi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Gutters will be measured and paid for in accordance with Section 504.

TABLE OF QUANTITIES FOR ONE TYPE SPECIAL APPROACH GUTTER

Reinforcing Steel	Concrete
(Lbs.)	(Cu. Yds.)
243	4.71

BAR LIST FOR ONE APPROACH GUTTER

Mark	No. Req'd.	Length
G401 to G406	1 Ea.	1'-8" to 2'-3"
G406	1	2'-3"
G407	17	2'-10"
G501	4	34'-8"
G502	1	29'-5"
G503	1	24'-8"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14501
STEPHEN F. HARPER

6/17/2026

BRIDGE ENGINEER
PRINT DATE: 6/16/2026

DETAILS OF TYPE SPECIAL APPROACH GUTTER

ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 08/2025 FILENAME: B110812_AG1.DGN
CHECKED BY: SFH DATE: 05/2026 SCALE: AS SHOWN
DESIGNED BY: MKL DATE: 08/2025

BRIDGE NO. 02899 DRAWING NO. 69601

Megan.Land 6/16/2026 9:45:02 PM
WORKSPACE: megan.land
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				
				①		GENERAL NOTES		55006

GENERAL NOTES

These GENERAL NOTES are applicable unless otherwise shown in the Plan Details, Special Provisions, or Supplemental Specifications.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 Edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Specifications.

DESIGN SPECIFICATIONS: See Bridge Layout(s).

SUPERSTRUCTURE NOTES:

MATERIALS AND STRENGTHS:

Class S(AE) Concrete	f'c =	4,000 psi
Reinforcing Steel (Gr. 60, AASHTO M 31 or M 322, Type A)	fy =	60,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	Fy =	36,000 psi
Structural Steel (AASHTO M 270, Gr. 50)	Fy =	50,000 psi
Structural Steel (AASHTO M 270, Gr. 50W)	Fy =	50,000 psi
Structural Steel (AASHTO M 270, Gr. HPS70W)	Fy =	70,000 psi

See Plan Details for Grade(s) of Structural Steel required.

CONCRETE:

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners shall be chamfered ¾" unless otherwise noted.

The superstructure details shown are for use when removable deck forming is used and are the basis for measurement of Class S(AE) Concrete. See Standard Drawing No. 55005 for allowable modifications and for tolerances when Permanent Steel Bridge Deck Forms are used.

Use of a longitudinal screed is not permitted on any span of a bridge deck with horizontal curvature.

The concrete deck (roadway surface) shall be given a tine finish in accordance with Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Sidewalks shall receive a broomed finish as specified for final finishing in Subsection 802.19 for Class 6 Broomed Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam or girder. When permitted, the use of a longitudinal strike-off will require that a vertical camber adjustment be made in the strike-off to account for the future dead load deflection due to any railings, median barrier, and sidewalks.

REINFORCING STEEL:

All reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A, with mill test reports and shall be epoxy coated. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item "Epoxy Coated Reinforcing Steel (Grade 60)".

STRUCTURAL STEEL (COMMON TO W-BEAMS AND PLATE GIRDERS):

Structural steel shall be AASHTO M 270 with grade and payment as specified in the plans. Grade 50W steel shall not be painted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84(e). Grade 36 and Grade 50 steel shall be painted unless otherwise noted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84. Structural steel completely embedded in concrete may be AASHTO M 270, Gr. 36, Gr. 50 or Gr. 50W unless otherwise noted.

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Payment will be based on the basis of shapes and materials shown in the plans, and no additional compensation will be made for any adjustments due to substitutions.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether permanent or temporary, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching falsework support devices or screed rail supports to the structural steel that do not exceed the limitations of Subsection 802.13 will not require approval prior to construction. All welding shall conform to Subsection 807.26.

Unless otherwise noted, field connections shall be bolted with ¾" ø high-strength bolts using 13/16 " ø open holes. Holes for ¾" ø high-strength bolts may be 15/16 " ø if a washer is supplied for use under both the nut and head of the bolt. The use of oversized holes will not be allowed on main members unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior beam or girder webs and on the bottom of the beam or girder flanges.

All stud shear connectors shall be granular flux filled, solid fluxed, or equal and shall be automatically end welded in accordance with recommendations of the Manufacturer.

When painting is required, all structural steel except galvanized steel and steel completely encased in concrete shall be painted in accordance with Subsection 807.75. The color of paint shall be as specified in the plans.

STRUCTURAL STEEL (W-BEAMS):

All beams and field splice plates, and all diaphragms and connection plates attached to horizontally curved beams are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Subsection 807.05. This work and material will not be paid for directly, but shall be considered subsidiary to the item "Structural Steel in Beam Spans (M 270, Gr. ___)".

All beams in continuous units and simple spans with field splices shall be blocked in their true position in the shop in groups as specified in Subsection 807.54(b)(2) with the webs horizontal. The camber, length of sections, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram.

All beams in simple spans without field splices shall be blocked in their true position with webs horizontal. The camber, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records.

Flange field splice plates shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All beam dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" +/- is allowed for camber.

Bent plate diaphragms for horizontally curved beams shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses. Bent plate diaphragms for straight beams may be cut and fabricated in accordance with Subsection 807.35 or as required for horizontally curved beams.

Unless otherwise noted, diaphragms shall be installed as beams are erected. All bolts in diaphragms and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

STRUCTURAL STEEL (PLATE GIRDERS):

All references to cross-frames shall include "X" or "K" types.

All girder web and flange plates, all field splice plates, and all diaphragms, cross-frames and connection plates attached to horizontally curved girders are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Subsection 807.05. This work and material will not be paid for directly, but shall be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. ___)".

All girders in continuous units and simple spans with field splices shall be assembled in the shop as specified in Subsection 807.54(b)(2) and blocked in their true position with webs horizontal. The camber, length of sections, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram.

All girders in simple spans without field splices shall be blocked in their true position with webs horizontal. The camber, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records.

Web and flange plates for main members and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

Girder webs may be made by shop splicing with minimum lengths of 25 feet for sections. Flange plates longer than 50 feet may be made by shop splicing with minimum lengths of 25 feet for sections. No additional payment will be made for shop welded splices.

All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" +/- is allowed for camber.

Groove welds in web and flange plates shall be Quality Control (Q.C.) tested by nondestructive testing, as required in Subsection 807.23(b). Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Q.C. testing shall be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. ___)".

Bent plate diaphragms for horizontally curved girders shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses. Bent plate diaphragms for straight girders may be cut and fabricated in accordance with Subsection 807.35 or as required for horizontally curved girders.

Unless otherwise noted, cross-frames and diaphragms shall be installed as girders are erected. All bolts in cross-frames, diaphragms, and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

SUBSTRUCTURE NOTES:

CONCRETE:

Unless otherwise noted, concrete in caps, columns and footings (except seal footings) shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi and shall be poured in the dry. Seal Concrete for footings shall have a minimum 28 day compressive strength f'c = 2,100 psi.

Concrete in drilled shafts shall be Class "S" as modified by Job SP "Drilled Shaft Foundations".

All exposed corners shall be chamfered ¾" unless otherwise noted.

REINFORCING STEEL:

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

STRUCTURAL STEEL:

Structural steel in end bents shall be AASHTO M 270 with grade and payment as specified in the plans.

FOR ADDITIONAL INFORMATION AND NOTES, SEE LAYOUT(S) AND PLAN DETAILS.

FOR ADDITIONAL INFORMATION AND NOTES, SEE LAYOUT(S) AND PLAN DETAILS.

STANDARD GENERAL NOTES
FOR STEEL BRIDGE STRUCTURES

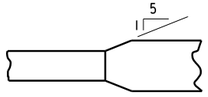
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.M.S. DATE: 9-2-2015 FILENAME: b55006.dgn
CHECKED BY: B.E.F. DATE: 9-2-2015 SCALE: NO SCALE
DESIGNED BY: STD. DATE:

DRAWING NO. 55006

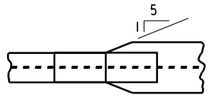
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				JOB NO.				
				①	STEEL BRIDGE STRUCTURES 55007			

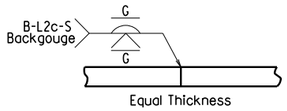


Plan-Unequal Width (Flg.)

FLANGE SPLICE

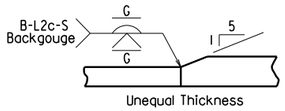


FLANGE SPLICE AT UNEQUAL BOTTOM FLANGE WIDTHS



Equal Thickness

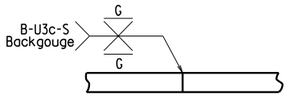
WEB & FLANGE SPLICE



Unequal Thickness

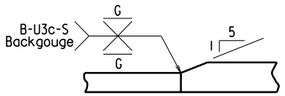
FLANGE SPLICE

(Use when Base Metal Thickness is Equal to or Less than 2")



Equal Thickness

WEB & FLANGE SPLICE

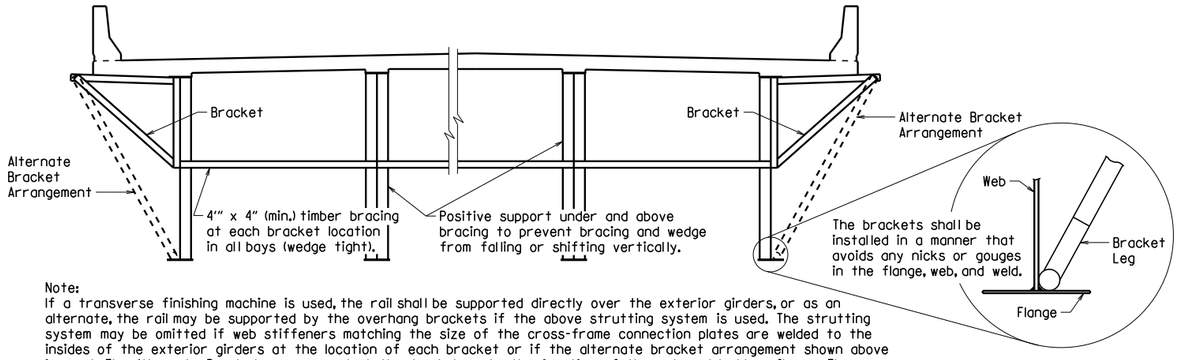


Unequal Thickness

FLANGE SPLICE

(Use when Base Metal Thickness is Greater than 2")

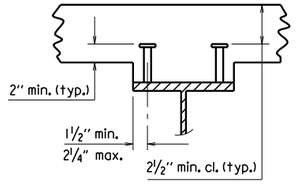
DETAILS OF WELDED SPLICES FOR PLATE GIRDERS



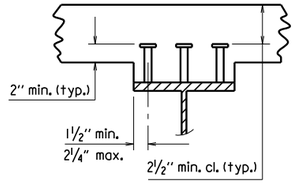
Note:
If a transverse finishing machine is used, the rail shall be supported directly over the exterior girders, or as an alternate, the rail may be supported by the overhang brackets if the above strutting system is used. The strutting system may be omitted if web stiffeners matching the size of the cross-frame connection plates are welded to the insides of the exterior girders at the location of each bracket or if the alternate bracket arrangement shown above is used. The Alternate Bracket arrangement shall extend down to the junction of the web and bottom flange. The stiffener shall conform to the details for cross frame connection plates shown on the plans. No direct payment will be made for brackets, timber bracing, supports, or welded stiffeners. Payment shall be subsidiary to "Structural Steel in Plate Girder Spans (___)".

SCREED RAIL SUPPORT FOR PLATE GIRDERS

(USE WHEN WEB DEPTHS ARE 48" OR GREATER)



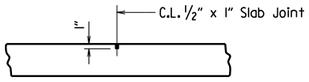
2 STUDS PER ROW



3 STUDS PER ROW

Stud Shear Connectors shall be automatically end welded to the beam or girder flange in accordance with the recommendations of the Manufacturer. See plan details for number and size.

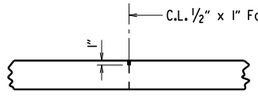
SHEAR CONNECTOR DETAIL



Use Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod filler will not be required. Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab Joints shall extend to the outside edge of the deck slab and shall align with open joints at the front face of the parapet. Slab joints shall be installed before the parapet railing is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations. The joint sealer shall extend across the deck from gutterline to gutterline.

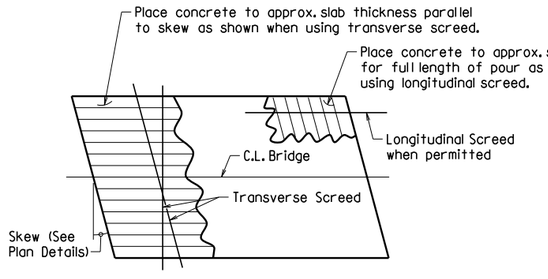
ADDITIONAL NOTES IF SIDEWALKS OR RAISED MEDIANS ARE REQUIRED:
Slab Joints shall be installed before the sidewalk or raised median is poured. After installation of the joint in the sidewalk or raised median and prior to pouring the parapet rail, the joint sealer shall be placed extending across the deck slab from gutterline to gutterline and acrosss the top of the sidwalk or raised median to the edge of the slab. No joint sealer shall be placed on the deck slab under the sidewalk or raised median.

TRANSVERSE SLAB JOINT DETAIL



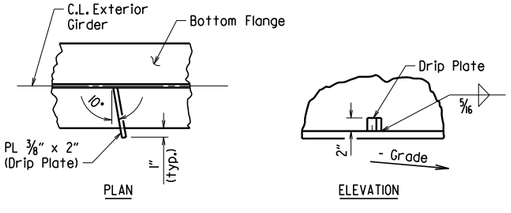
Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod filler will not be required. Joint sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. This joint shall be formed. Seal color shall be gray or other color similar to concrete.

LONGITUDINAL CONSTRUCTION JOINT



Note: At the Contractor's option, the transverse screed may be placed parallel to the skew or perpendicular to C. L. Bridge.

CONCRETE PLACEMENT PROCEDURE FOR BRIDGES WITH SKEW



PLAN

ELEVATION

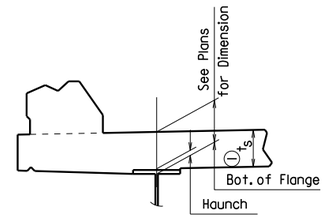
Drip Plate to be welded to the outer side of the bottom flange of the exterior girders.

Locate drip plate 5'-0" from C.L. Bearing on high side of each Bent, unless otherwise noted in the plans.

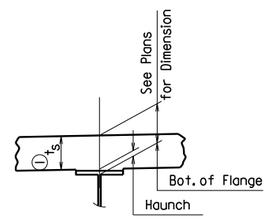
BOTTOM FLANGE DRIP PLATE

(USE WHEN WEB DEPTHS ARE 54" OR GREATER AND UNIT OR SPAN IS NOT IN LEVEL GRADE)

t_s = slab thickness. See "Typical Roadway Section" in the plans.



EXTERIOR BEAM OR GIRDER



INTERIOR BEAM OR GIRDER

① Tolerance when removable deck forming is used is + ½", - ¼". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance.

NOTES:
Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum occurs when top flange contacts bottom reinforcing steel; Maximum = top flange thickness plus 1¾" unless otherwise noted in the plans. No increase in concrete and structural steel quantities will be made to maintain tolerances.

Tolerances shown are applicable only when removable deck forming is used. See Std. Dwg. No. 55005 for tolerances when permanent steel deck forms are used. Payment for concrete shall be based on removable deck forming.

ADJUSTMENT FOR SLAB THICKNESS TOLERANCE

NOTE: Working Point matches Theoretical Roadway Grade.

ROUNDING DETAIL

BRIDGES IN NORMAL CROWN

WELD TABLE

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
To ¾" Inclusive	¼"	
Over ¾"	⅝"	

NOTE: When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.

SECTION AND SUBSECTION REFER TO THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2014 EDITION).

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS.

STANDARD DETAILS FOR STEEL BRIDGE STRUCTURES

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

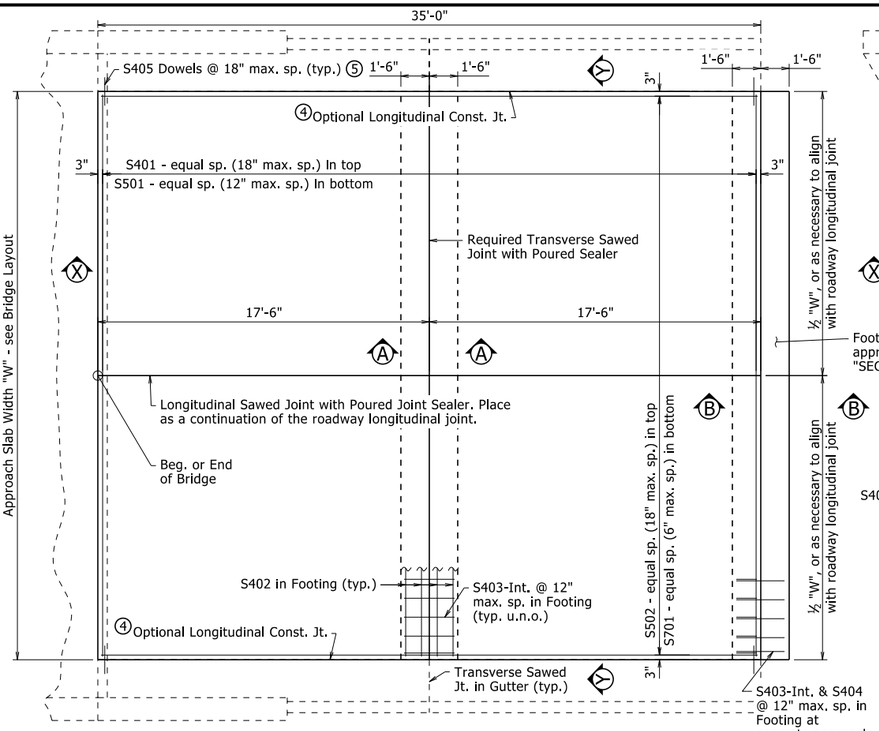
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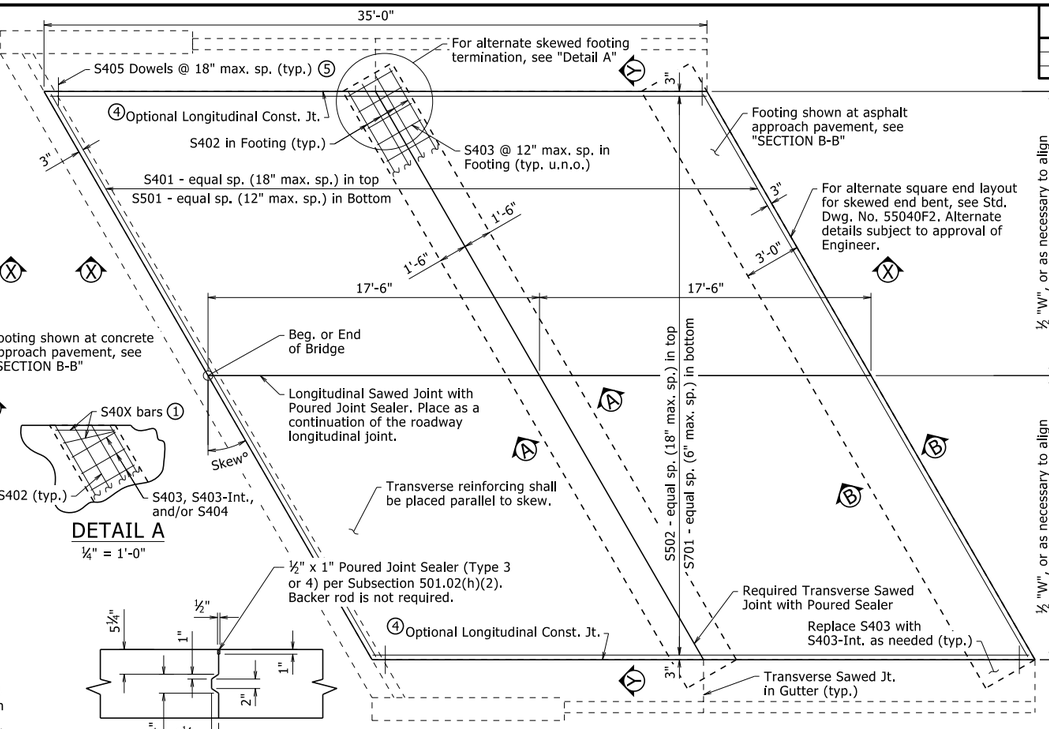
DESIGNED BY: STD. DATE: —

DRAWING NO. 55007

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.			
		Type F Approach Slab - 55040F1				

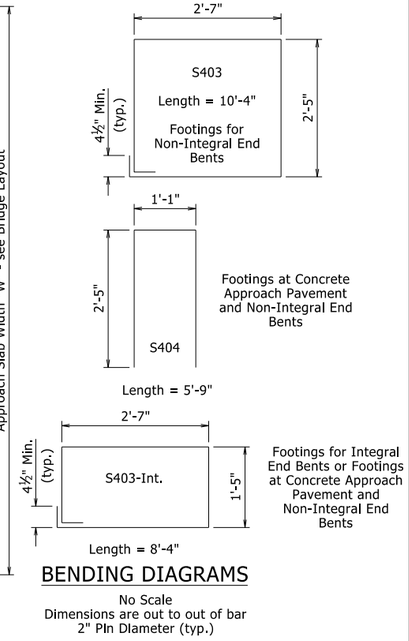


PLAN - APPROACH SLAB AT SQUARE END BENT



LONGITUDINAL CONSTRUCTION JOINT

½" = 1'-0"

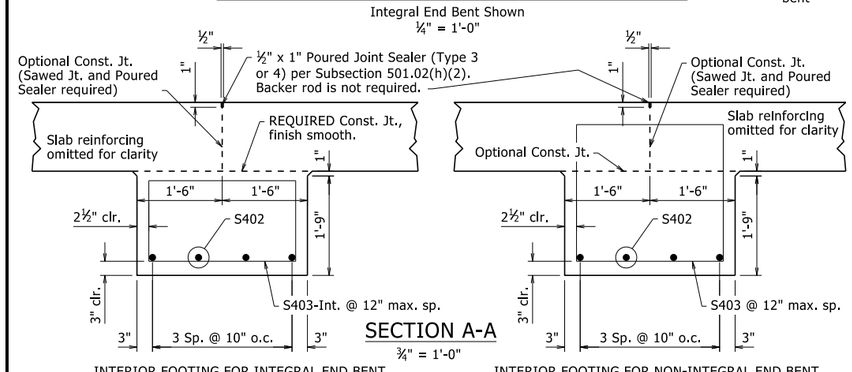


BENDING DIAGRAMS

No Scale
Dimensions are out to out of bar
2" PIn Diameter (typ.)

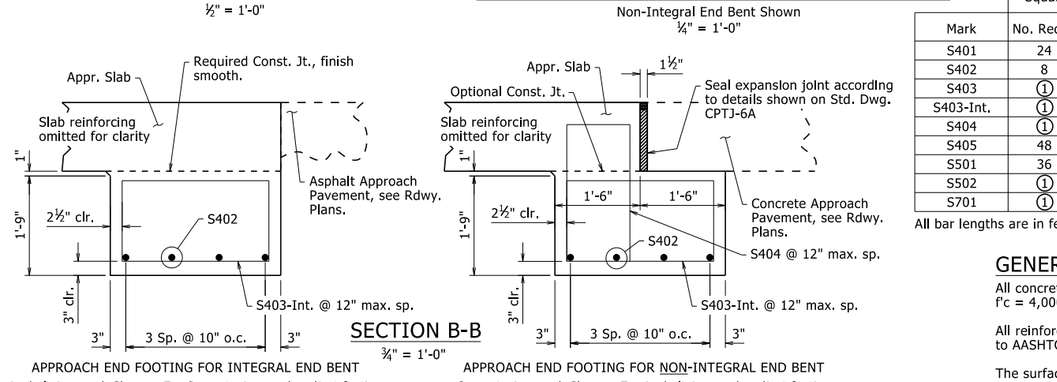
PLAN - APPROACH SLAB AT SKEWED END BENT

Non-Integral End Bent Shown
¼" = 1'-0"



INTERIOR FOOTING FOR INTEGRAL END BENT

INTERIOR FOOTING FOR NON-INTEGRAL END BENT



APPROACH END FOOTING FOR INTEGRAL END BENT

Asphalt Approach Shown. For Concrete Approach, adjust footing location by 1'-6" to add paving notch and include expansion joint.

APPROACH END FOOTING FOR NON-INTEGRAL END BENT

Concrete Approach Shown. For Asphalt Approach, adjust footing location by 1'-6", omit expansion joint, and replace bars S403-Int. & S404 with S403.

BAR LIST - PER APPROACH SLAB

	Square End Bent		Skewed End Bent	
Mark	No. Req'd.	Length	No. Req'd.	Length
S401	24	"W" - 0.33'	24	("W" - 0.33') / cos (Skew°)
S402	8	"W" - 0.33'	8	"W"/cos(Skew°) + 3.0'×tan(Skew°) - 0.33'
S403	①	②	①	②
S403-Int.	①	②	①	②
S404	①	②	①	②
S405	48	1'-6"	48	1'-6"
S501	36	"W" - 0.33'	36	("W" - 0.33') / cos (Skew°)
S502	①	34'-8"	①	34'-8"
S701	①	34'-8"	①	34'-8"

All bar lengths are in feet.

① Varies with Approach Slab Type, Width and/or Skew.
② See "BENDING DIAGRAMS"

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

The surface finish for Approach Slabs shall match that used on the bridge deck.

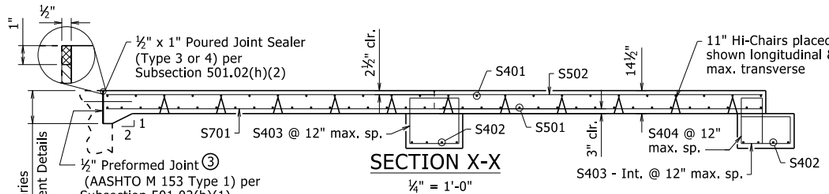
All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

See Plans for actual Approach Slab Width, "W", end bent or span details, and approach pavement. Units of "W" are in Feet.

Approach Slabs will be measured and paid for in accordance with Section 504.

Scales shown are for full size 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.

For Table of Quantities, see "SCHEDULE OF BRIDGE QUANTITIES".



Approach Slab for Square Non-Integral End Bent at Concrete Approach Shown

MINIMUM BAR LAP LENGTH

#4	1'-8"
#5	2'-0"
#7	2'-10"

③ Eliminate Type 1 Preformed Joint when bridge details show reinforcing dowels across these joints. Poured joint sealer is required, however, backer rod shall be eliminated.

④ When construction joint is eliminated, place 1" Sawed Joint with ½" x 1" Poured Joint Sealer (Type 3 or 4) per Subsection 501.02(h)(2). Backer rod is not required.

⑤ Eliminate dowels when approach slab is adjacent to curb and gutter, or as directed by the Engineer.

The document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on September 7, 2023. This copy is not a signed and sealed document.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

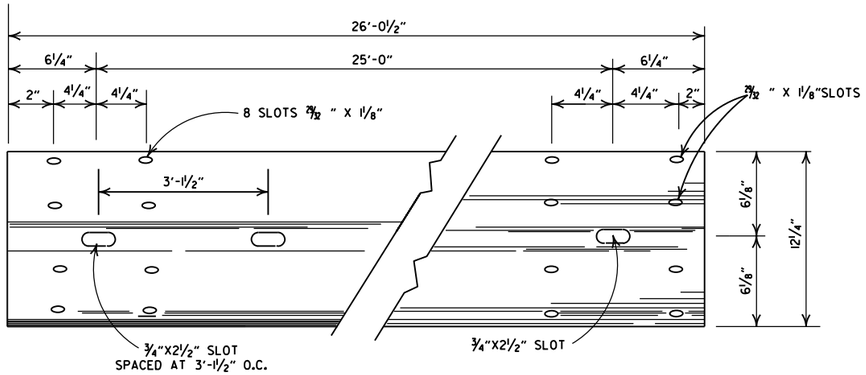
STANDARD DETAILS FOR TYPE F APPROACH SLAB

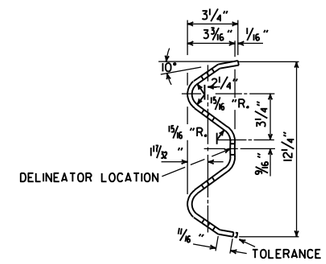
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY:	CGP	DATE:	05/12/2023	FILENAME:	b55040f.dgn
CHECKED BY:	JYP	DATE:	05/15/2023	SCALE:	AS NOTED
DESIGNED BY:	STD.	DATE:	-		

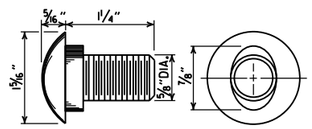
DRAWING NO. 55040F1



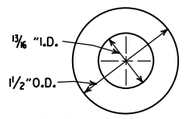


DETAILS OF W-BEAM GUARDRAIL

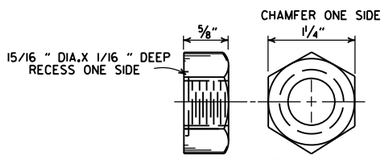
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



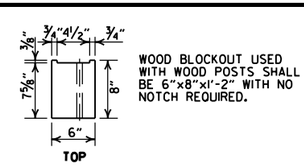
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

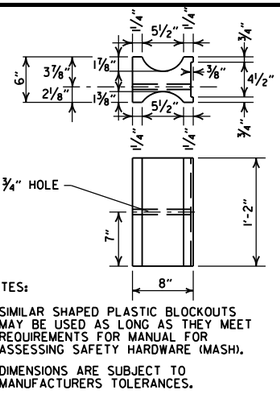


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

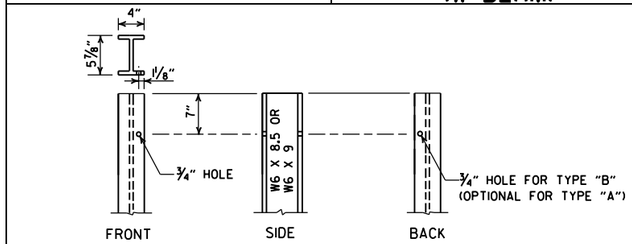
WOOD BLOCKOUT (W-BEAM)



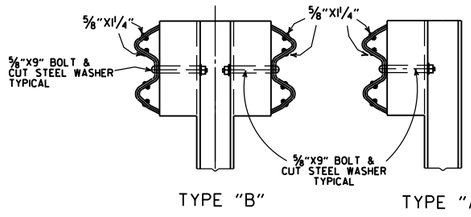
NOTES:

1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)



STEEL POST



DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARDRAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARDRAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

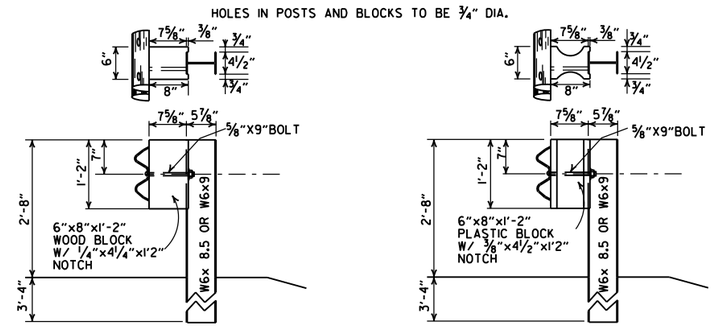
USE W-BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARDRAIL, W-BEAM GUARDRAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARDRAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARDRAIL.

DELINEATORS SHALL BE MOUNTED AT 37.5' SPACING ON THE FRONT FACE OF THE GUARDRAIL. SPACING MAY BE REDUCED IN CURVES, AS DIRECTED BY THE ENGINEER. COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR GUARDRAIL.



WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

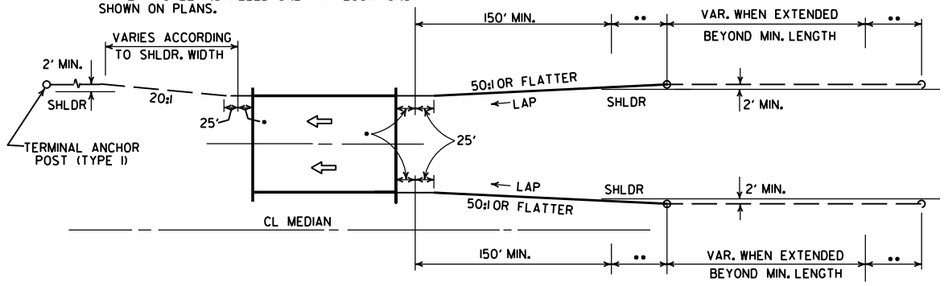
DATE	REVISION	FILMED
05-19-22	REVISED GENERAL NOTES, ADDED DELINEATOR LOCATION.	
11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARDRAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87

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GUARDRAIL DETAILS

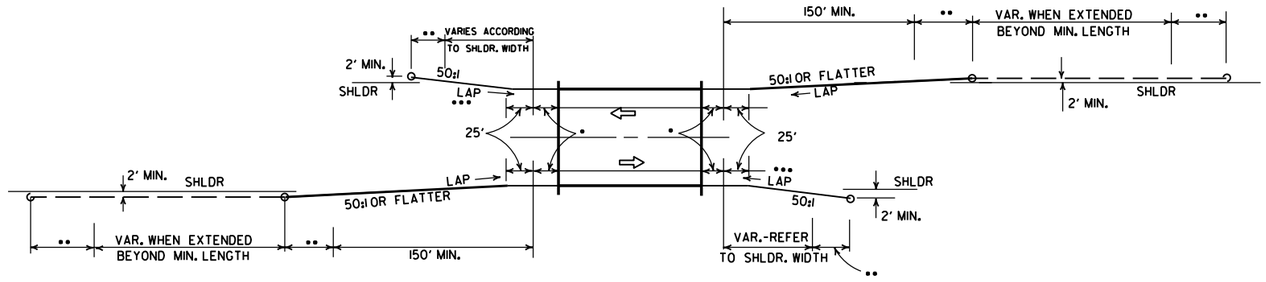
STANDARD DRAWING GR-6

NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

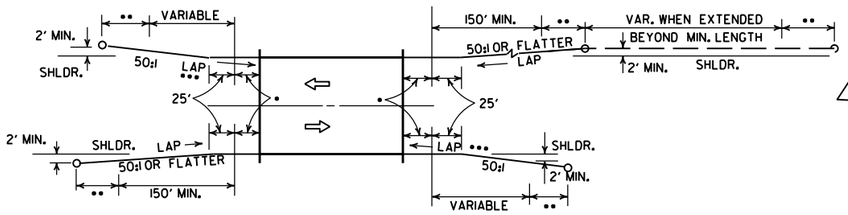
••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

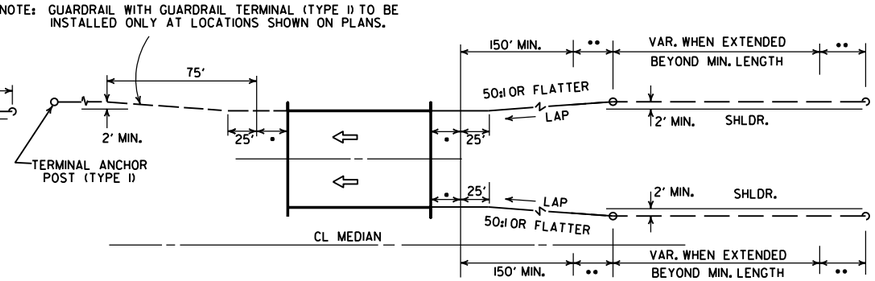
METHODS OF INSTALLATION OF GUARDRAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

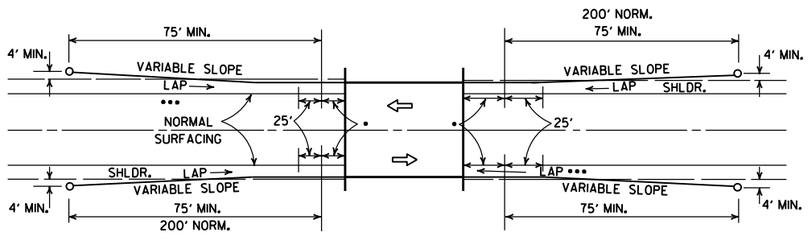
NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARDRAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.



METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERMINAL (TYPE 1) (FULL SHOULDER WIDTH OR LESS BRIDGES)

LEGEND

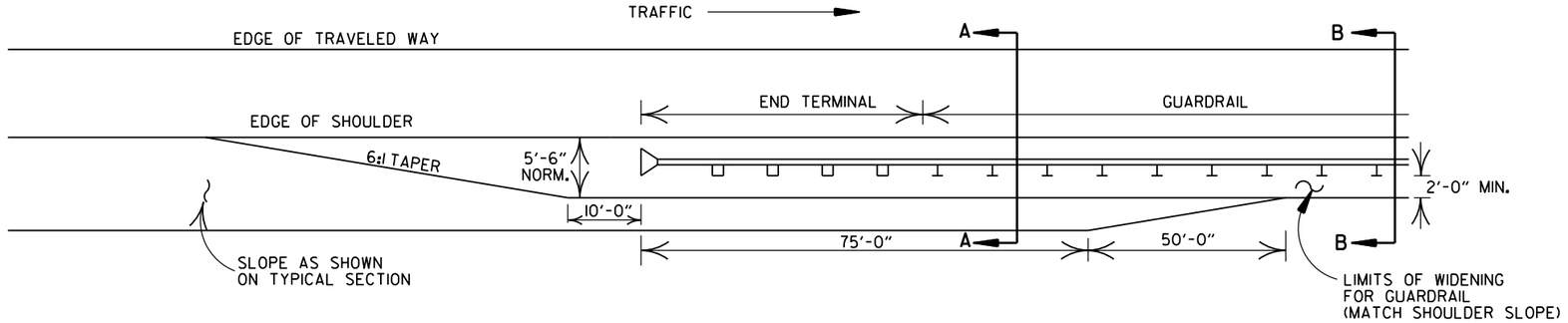
- • THRIE BEAM GUARDRAIL TERMINAL
- •• GUARDRAIL TERMINAL (TYPE 2)

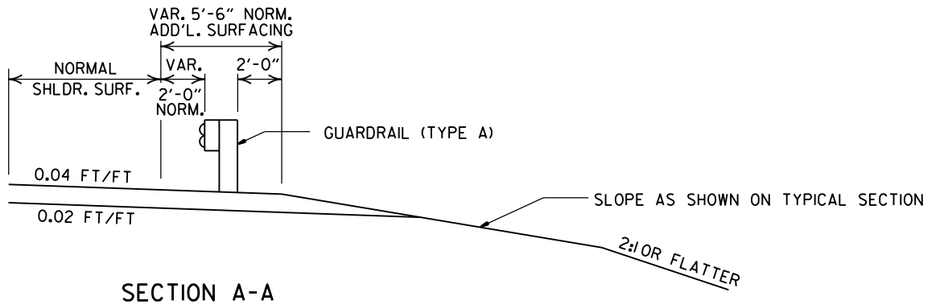
DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARDRAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERM. (TY. 1)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

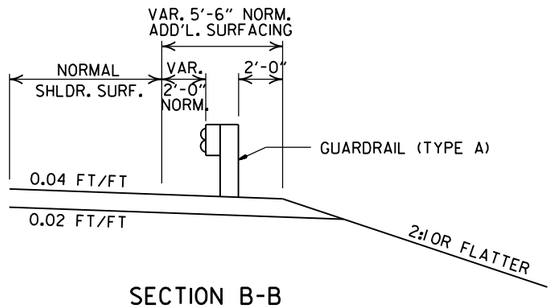
GUARDRAIL DETAILS

STANDARD DRAWING GR-8



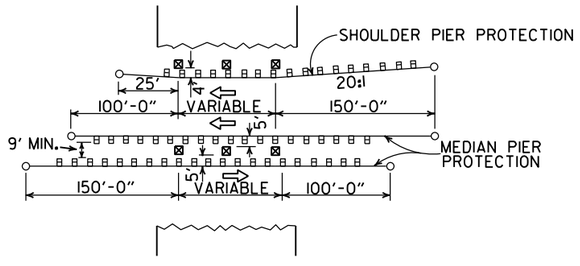


SECTION A-A



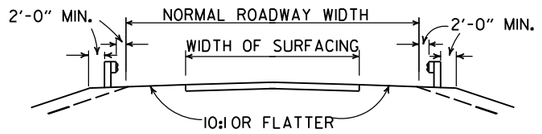
SECTION B-B

DETAILS OF WIDENING FOR GUARDRAIL

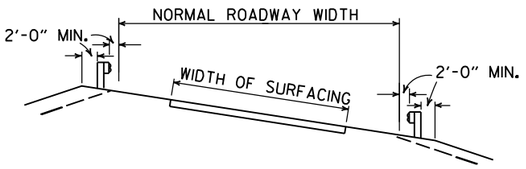


METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARDRAIL.



SECTION ON TANGENT



SECTION ON CURVE

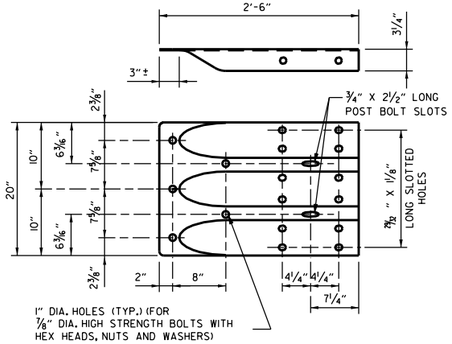
DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY

DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

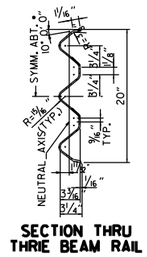
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

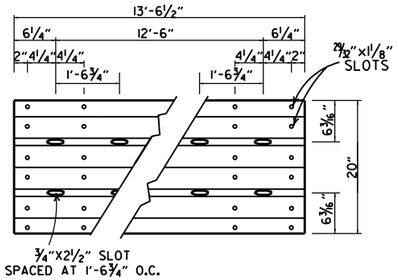
STANDARD DRAWING GR-9



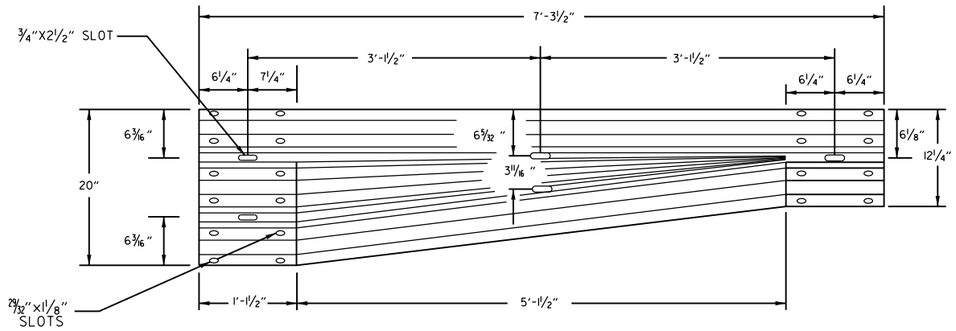
SPECIAL END SHOE



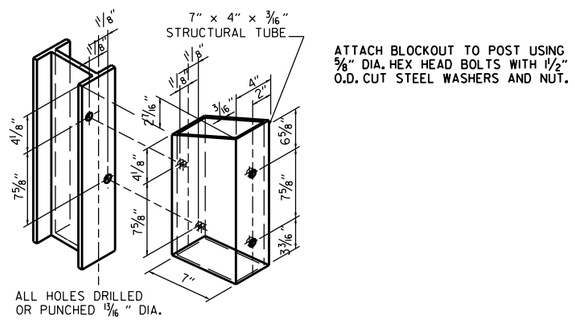
SECTION THRU THRIE BEAM RAIL



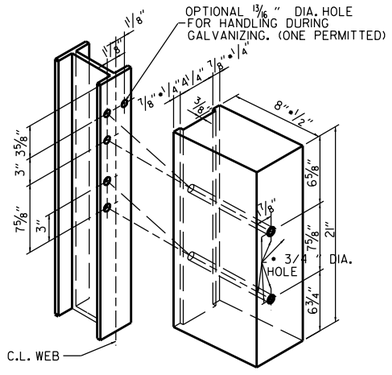
THRIE BEAM RAIL



TRANSITION SECTION



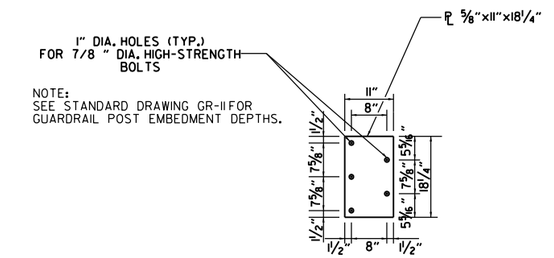
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

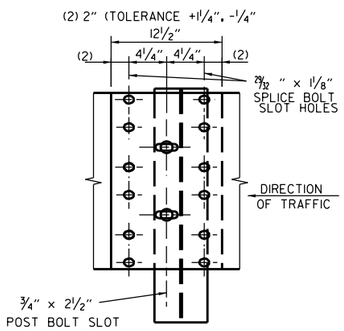
HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



THRIE BEAM RAIL SPLICE AT POST

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE 1.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3"4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

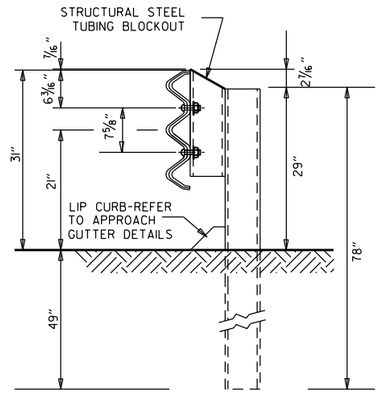
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED AND REVISED REFERENCES	
11-16-17	REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THRIE BEAM GUARD RAIL CONNECTIONS AT BRIDGES ENDS TO STD. DRWG. GR-12	
07-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-29-07	ADDED PLASTIC BLOCKOUTS	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-18-04	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED NOTE (2)	
06-29-00	MOVED DIMENSION LINES	
05-18-00	ADDED NOTE	
03-30-00	DRAWN & ISSUED	

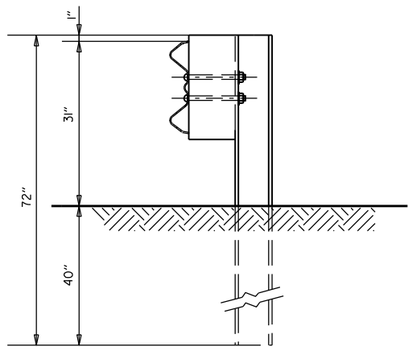
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

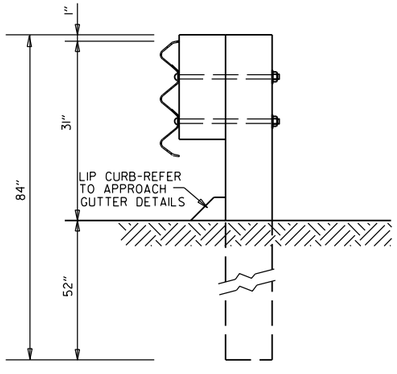
STANDARD DRAWING GR-10



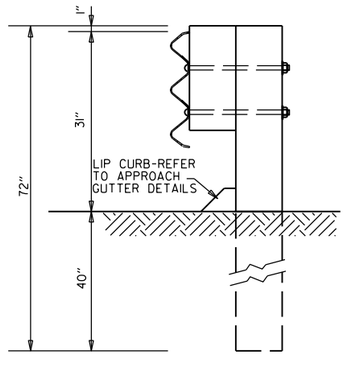
THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



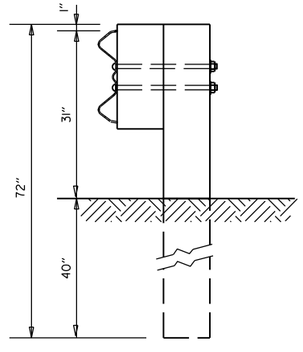
W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7



W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

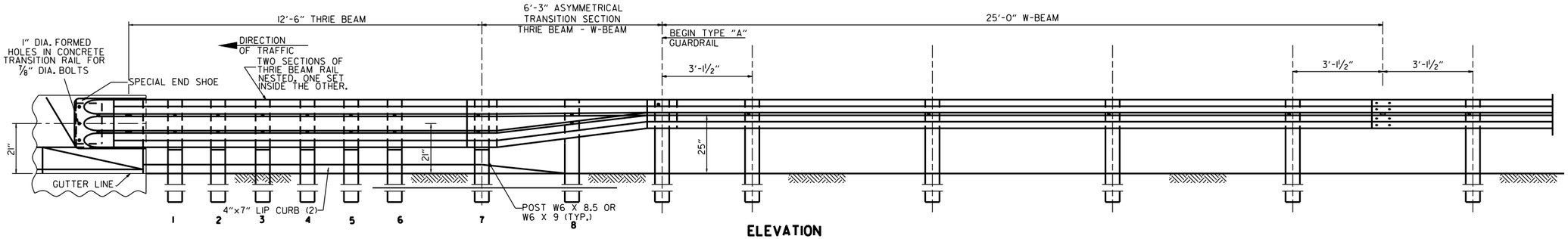
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1STRUCTURAL OR BETTER 9.7f (1400 f) OR NO.1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED	
11-16-17	REVISED GUARDRAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-11	
07-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
08-22-02	REVISED LIP CURB NOTE	
03-30-00	DRAWN & ISSUED	

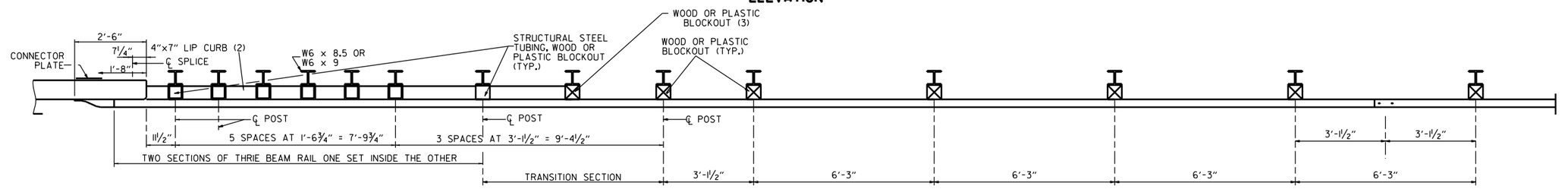
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

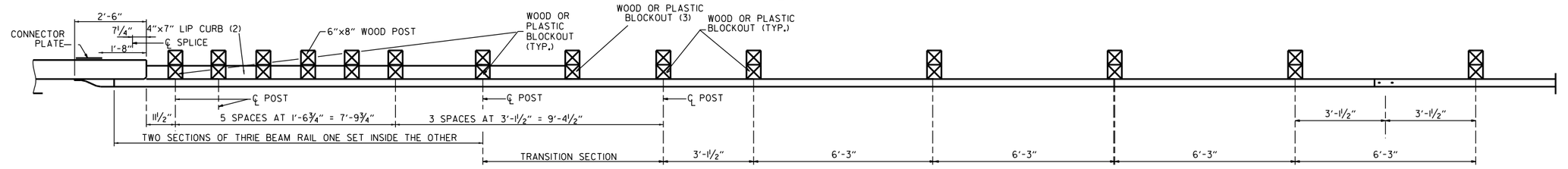
STANDARD DRAWING GR-11



ELEVATION



PLAN



PLAN

(1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
(2) REFER TO APPROACH GUTTER DETAILS.
(3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARDRAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

POSTS SHALL NOT BE PLACED AT SPLICE LOCATIONS ALONG W-BEAM RAILS.

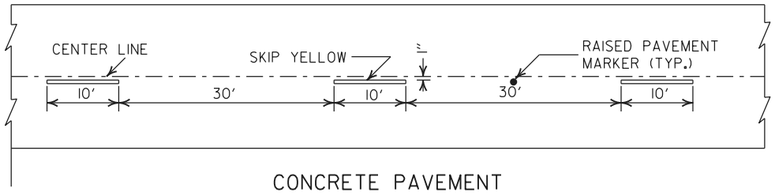
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
05-14-20	REVISED NOTES	
11-07-19	RENAMED & REVISED REFERENCES	
11-16-17	RE-DRAWN FROM STD. DWG. GR-10 & ISSUED	

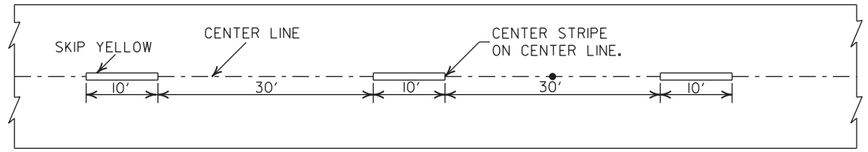
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING GR-12



CONCRETE PAVEMENT

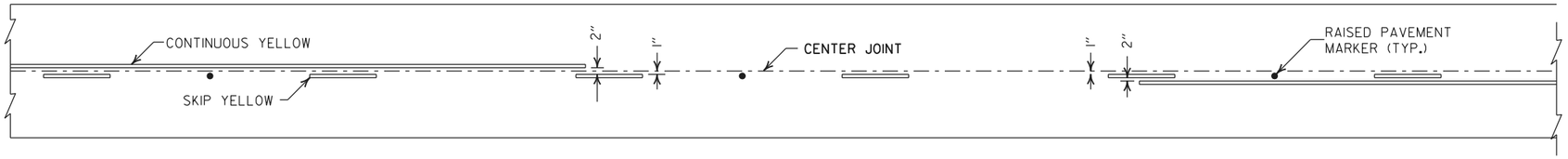


ASPHALT PAVEMENT

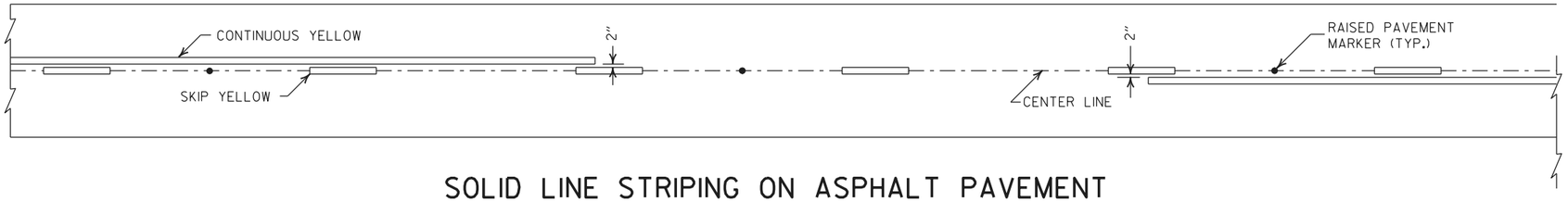
BROKEN LINE STRIPING

NOTES:

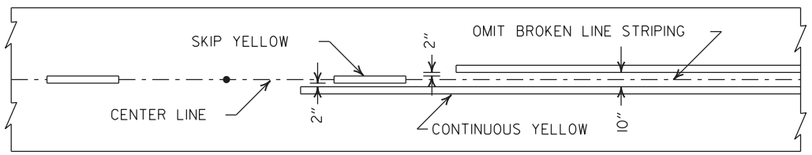
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.



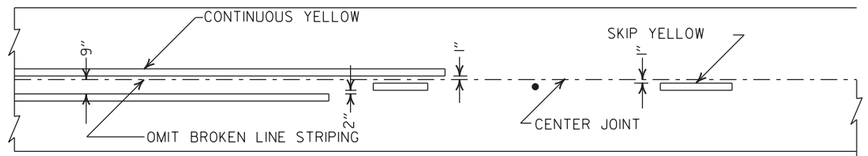
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

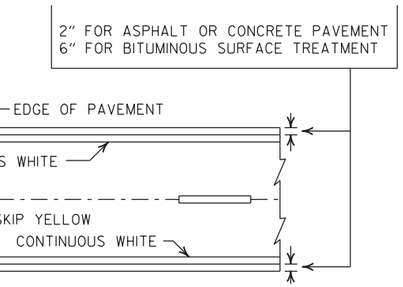


ASPHALT PAVEMENT

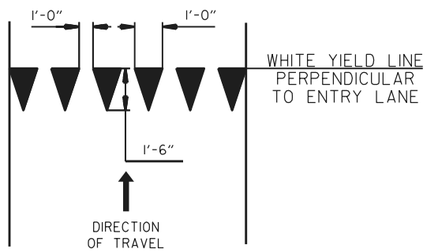


CONCRETE PAVEMENT

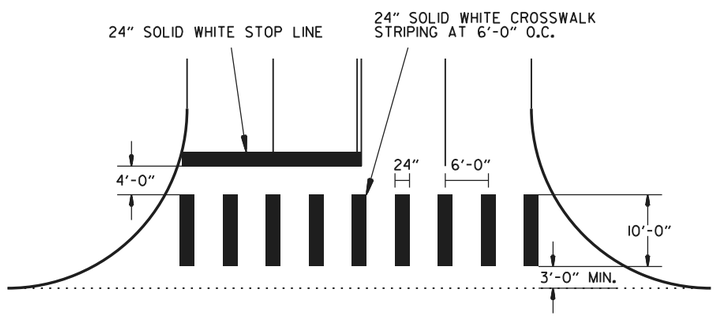
STRIPING AT ADJACENT NO PASSING LANES



PAVEMENT EDGE LINE MARKING



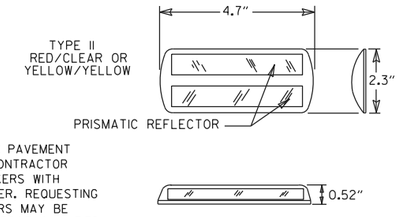
YIELD LINE DETAIL



CROSSWALK AND STOP LINE DETAILS

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

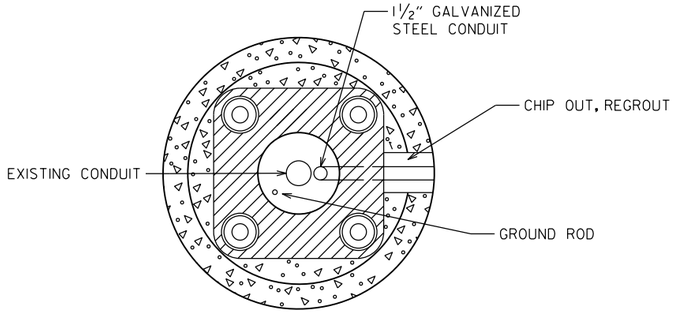
DATE	REV	DESCRIPTION
04-09-26		REV. CROSSWALK & STOP LINE DETAILS
02-27-20		REV. STOP LINE DETAILS
06-01-17		ADDED YIELD LINE DETAIL
05-12-16		REVISED LINE WIDTHS, SPACING, & NOTES
09-12-13		REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS

ARKANSAS STATE HIGHWAY COMMISSION

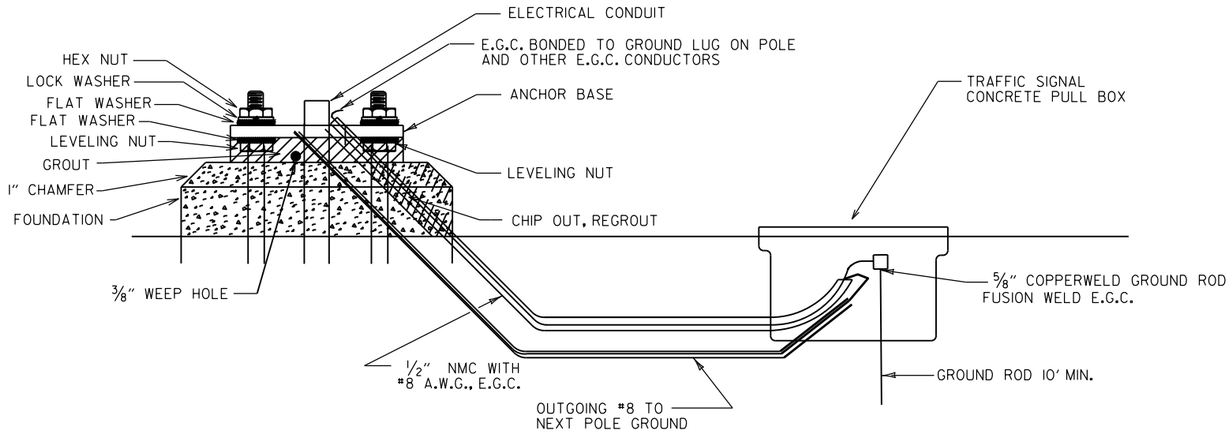
PAVEMENT MARKING DETAILS

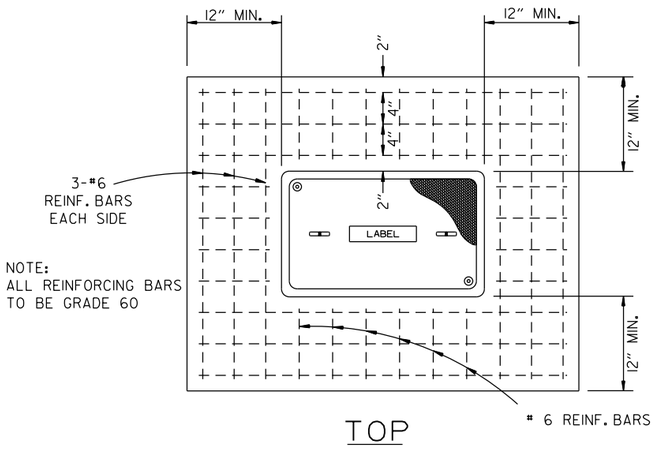
DATE EFFECTIVE 04-09-2026 | STANDARD DRAWING | PM-1

CONDUIT ENTRY TO EXISTING POLE BASE

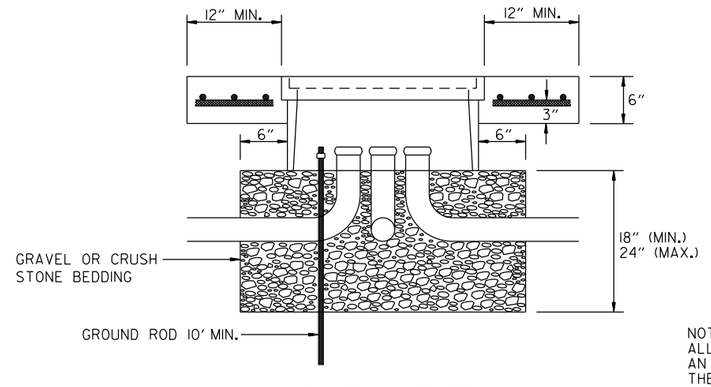


ANCHOR BASE



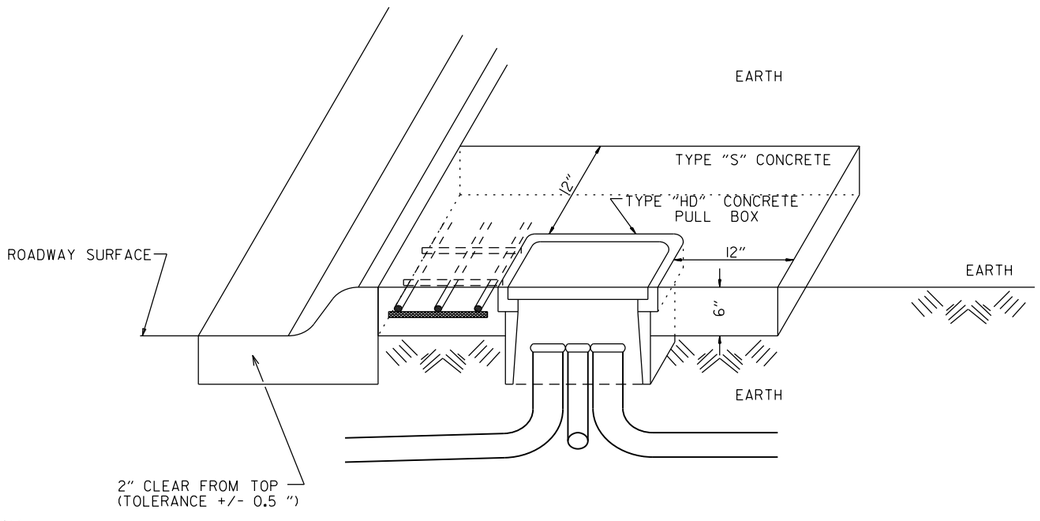


TOP



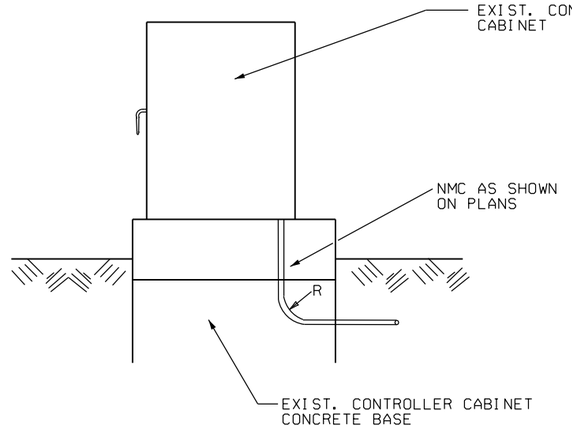
ELEVATION

TYPE "HD" CONCRETE PULL BOX DETAIL



NOTE:
ALL TYPE 1 HD, TYPE 2 HD, AND TYPE 3 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 6" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S". THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.

CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

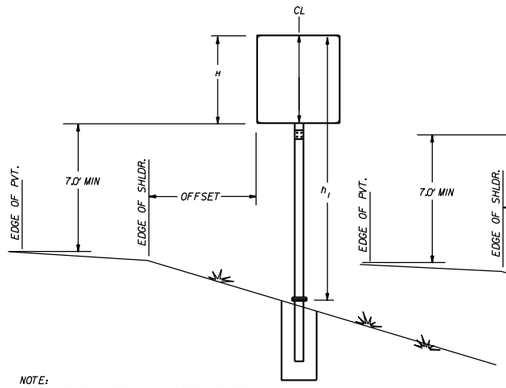
DATE	REVISION	FILMED
02-13-24	REVISED NOTES AND TYPE "HD" CONCRETE PULL BOX DETAILS	
11-16-17	REVISED NOTES	
09-02-15	REVISED PULL BOX DEPTH	
09-12-13	ISSUED AS STANDARD DRAWING	
05-21-09	REVISED GROUNDING	
07-31-08	ADDED & REVISED CONDUIT ENTRY	
06-23-04	REVISED CLEARANCE AT CURB ENTRY	
01-04-02	ADDED REINFORCING TO BOX APRON	
07-02-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

HEAVY DUTY PULL BOX

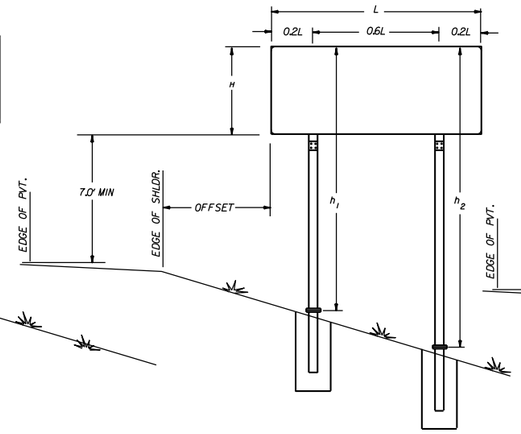
STANDARD DRAWING SD-6

POST SIZE	BASE CONNECTION DATA											FUSE PLATE DATA									
	BOLT SIZE	BOLT TORQUE (INCH/LBS)	A	B	C	D	E	t_1	t_2	W	R	F	G		J	K	M	d_1	d_2	t_3	BOLT SIZE	WT.OF EACH FUSE PLATE LBS.
W 6X9																						
W 6X12	5/8" x 2 3/4"	450"-680"	5"	2"	1 1/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"	4 1/4"	2"		4"	2 1/4"	1"	9/16"	3/4"	1/4"	1/2" x 1 1/2"	1.01
W 6X15												5"	2 1/2"		6"	3 1/2"	1 1/2"	11/16"	1 1/4"	3/8"	5/8" x 2 1/4"	2.51
W 8X18												5"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1 11/16"	3/8"	3/4" x 2 1/4"	2.26
W 8X21												5 1/2"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1"	1/2"	3/4" x 2 1/4"	3.35
W 10X22	3/4" x 3 1/2"	750"-1050"	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	11/32"	6"	3"		5 3/4"	2 3/4"	1 3/8"	1 3/16"	1 1/8"	1/2"	3/4" x 2 1/4"	4.03
W 10X26																						
W 12X26												6"	3"		6 1/2"	3 1/2"	1 5/8"	1 3/16"	1 15/16"	1/2"	3/4" x 2 1/4"	4.47

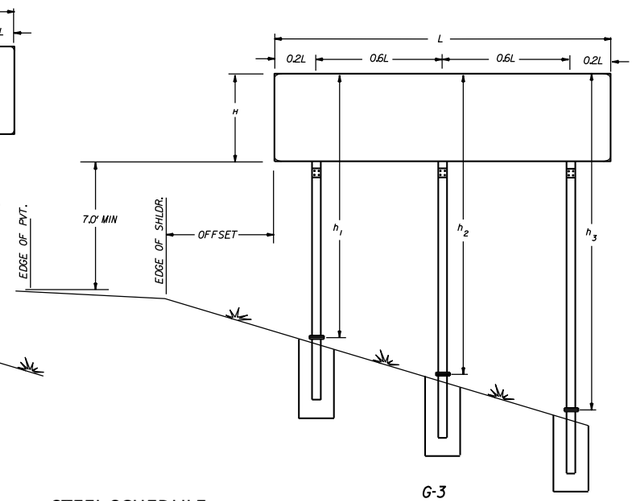


NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

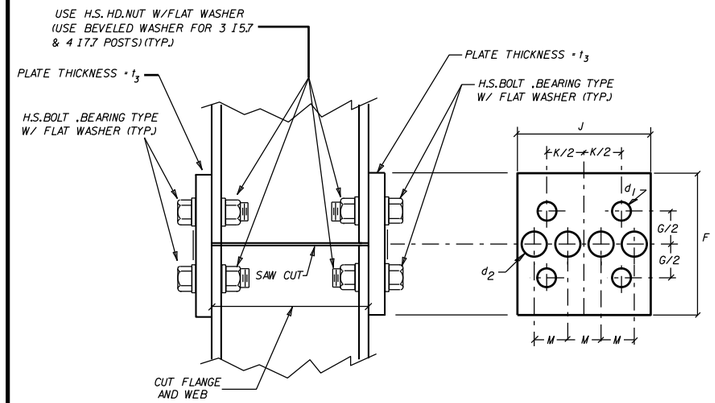
G-1



G-2

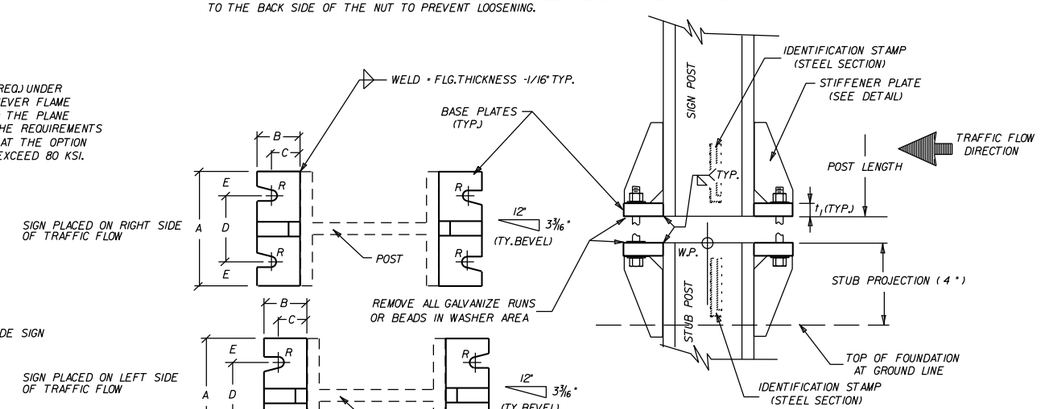


G-3

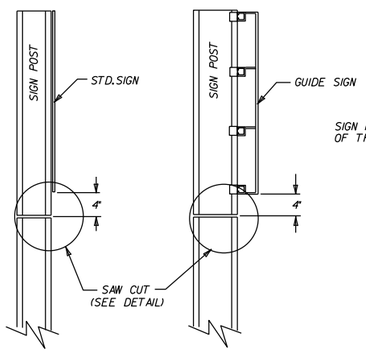


NOTE: USE H.S.HEX HEAD BOLTS,HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED.ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS,HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A36,ASTM-A441,ASTM-572 GRADE 50,OR ASTM-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.

NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S.BOLTS WITH HEX HD.,HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT.SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC.IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST. THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR ,THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.



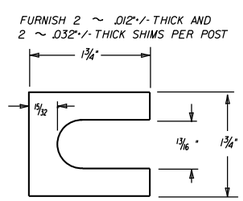
NOTE: BOLT HOLES,USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



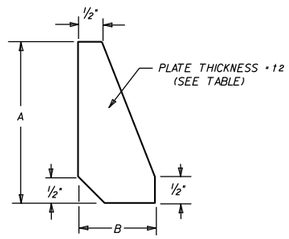
NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED. AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED. REPAIR OF CUT SURFACES AFTER GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A123.

STANDARD SIGNS GUIDE SIGNS

FUSE PLATE DETAILS



SHIM DETAIL



STIFFENER PLATE DETAIL

GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

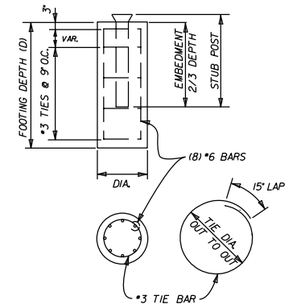
REFER TO THE PLANS FOR FOOTING DIMENSIONS.

EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

STEEL SCHEDULE

FOOTING DIAMETER	#3 TIE BARS		
	DIAMETER	BAR LENGTH	POUNDS
INCHES	INCHES	FEET	
18	12	4.39	1.65
24	18	5.96	2.24
30	24	7.53	2.83
36	30	9.1	3.42

FOOTINIG DEPTH	#6 STRAIGHT BARS		
	BAR LENGTH	NUMBER REQ'D.	POUNDS
FEET	FEET		
2.50	2.00	8	24.03
3.00	2.50	8	30.04
3.50	3.00	8	36.05
4.00	3.50	8	42.06
4.50	4.00	8	48.06
5.00	4.50	8	54.07
5.50	5.00	8	60.08
6.00	5.50	8	66.09
6.50	6.00	8	72.10
7.00	6.50	8	78.10
7.50	7.00	8	84.11
8.00	7.50	8	90.12



FOOTING QUANTITIES

FOOTING DEPTH	NUMBER TIE BARS REQ'D	18" DIAMETER		24" DIAMETER		30" DIAMETER		36" DIAMETER	
		CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL
FEET		CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)
2.50	4	0.16	31						
3.00	4	0.20	37						
3.50	5	0.23	44						
4.00	6	0.26	52	0.47	56				
4.50	6	0.29	58	0.52	62				
5.00	7	0.33	66	0.58	70	0.91	74		
5.50	8			0.64	78	1.00	83		
6.00	8			0.70	84	1.09	89	1.57	93
6.50	9					1.18	98	1.70	103
7.00	10					1.27	106	1.83	112
7.50	10							1.96	118
8.00	11							2.09	128

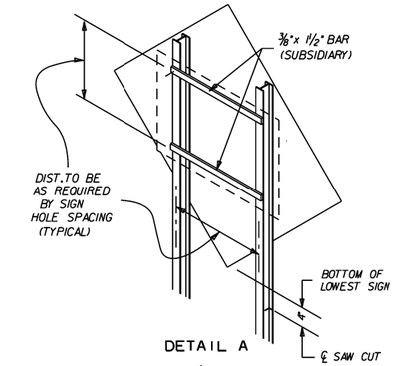
SIGN POST AND STUB POST

DATE	REVISION	FILMED
5-19-22	REVISED FUSE PLATE DETIALS' NOTE.	
9-12-13	ISSUED	

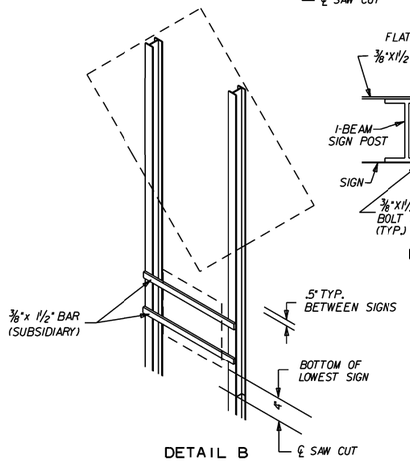
ARKANSAS STATE HIGHWAY COMMISSION

DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS

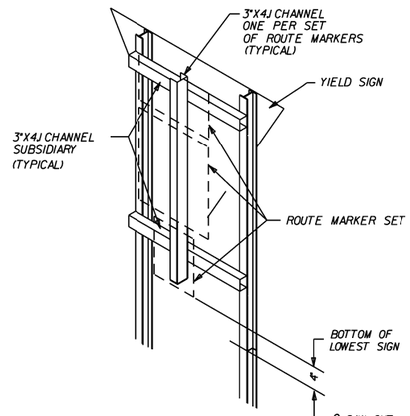
STANDARD DRAWING SHS-3



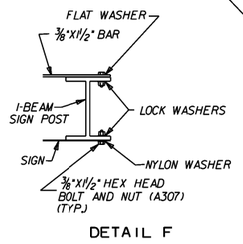
DETAIL A



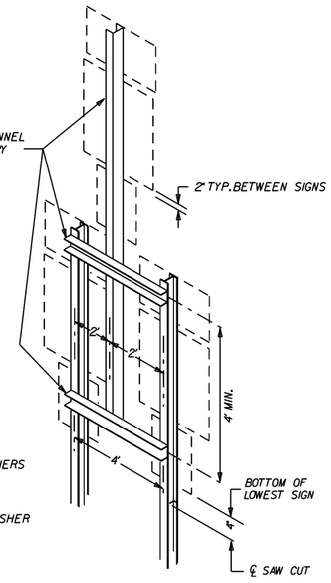
DETAIL B



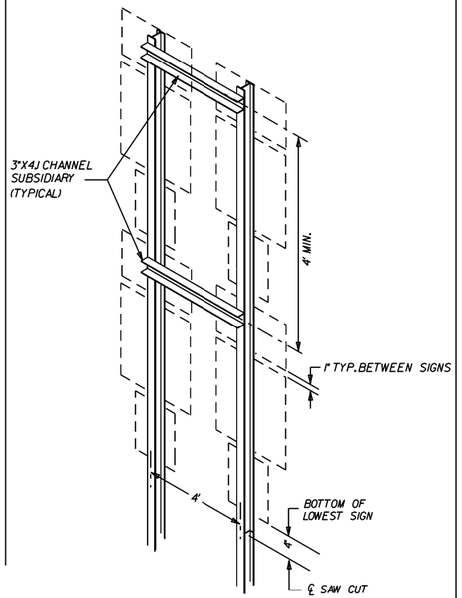
DETAIL C



DETAIL F



DETAIL D



DETAIL E

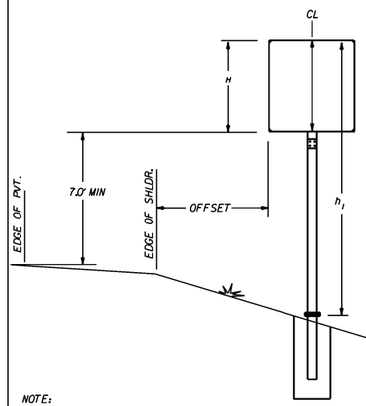
NOTE

ALL ADDITIONAL MOUNTING HARDWARE, BOLTS, NUTS, CHANNELS AND BAR STRAPS REQUIRED TO MOUNT SECONDARY SIGNS WILL BE CONSIDERED TO BE SUPPLEMENTAL TO THE MAIN SIGN SUPPORT SPECIFIED. PAYMENT WILL BE CONSIDERED SUBSIDIARY TO THE MAIN SUPPORT.

THE GALVANIZED STEEL CHANNEL AND BAR SUPPORTS MAY BE ASTM A-36.

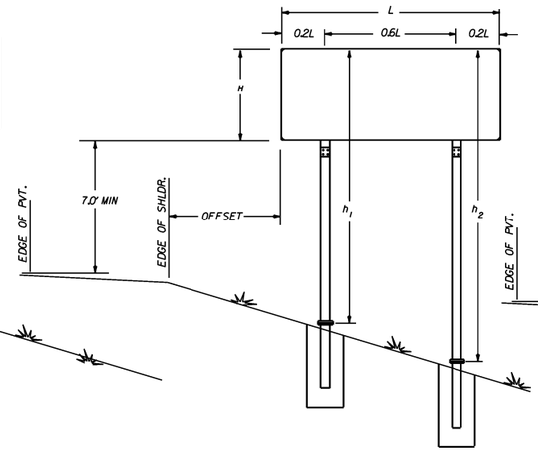
REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.

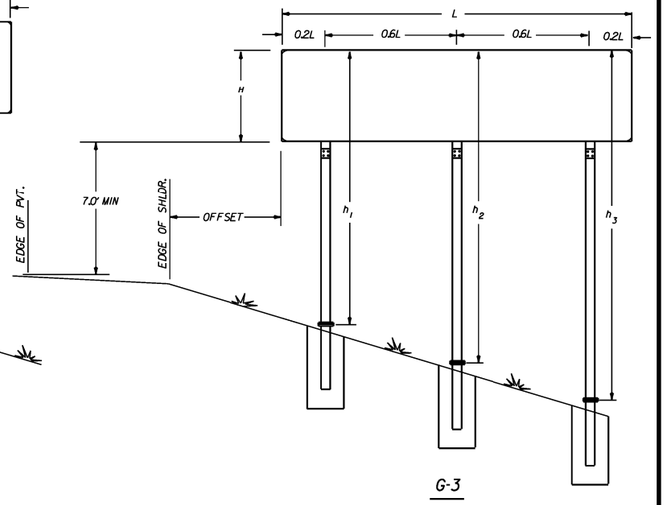


G-1

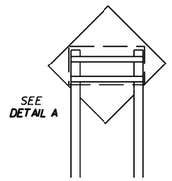
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.



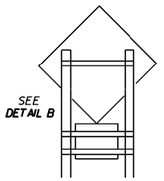
G-2



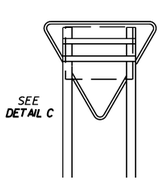
G-3



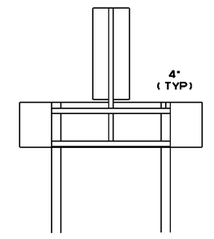
G2-1



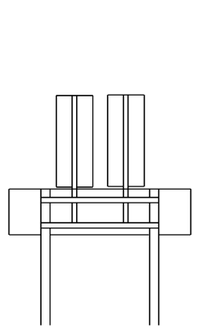
G2-2



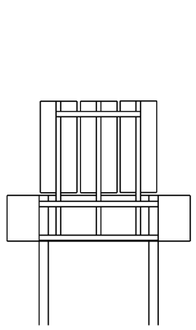
G2-3



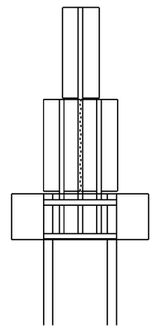
G2-4



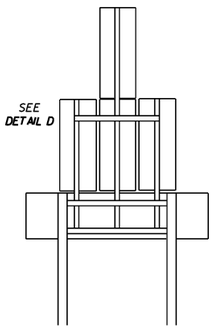
G2-5



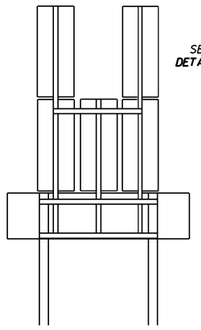
G2-6



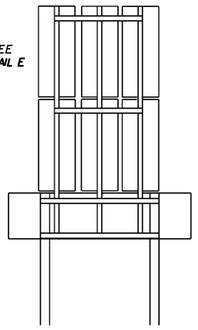
G2-7



G2-8



G2-9



G2-10

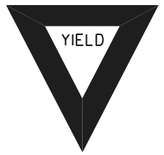
			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-4
DATE	REVISION	FILMED	

R1-1



STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5



STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a



STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-6aP



48"X36"

*USE 6" C LETTERS
**USE 4" D LETTERS

R5-1



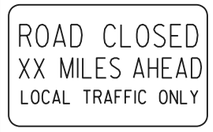
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2



48"X30"

RII-3A



60"X30"

RII-4



60"X30"

W21-5a



STD. 36"X36"
FWY. 48"X48"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2



STD. 36"X36"
FWY. 48"X48"

R2-11



36"X48"

W1-3



STD. 48"X48"

W1-4



STD. 48"X48"

W1-6



STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



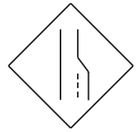
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

R56-1



STD. 18"X18"

W5-1



STD. 36"X36"
SPECIAL 48"X48"

W6-3



EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7



EXPWY. 36"X36"
FWY. 48"X48"

W9-2



STD. 36"X36"
FWY. 48"X48"

W13-1



STD. 24"X24"

W20-1



STD. 48"X48"

W20-2



STD. 48"X48"

W20-3



STD. 48"X48"

W20-4



STD. 48"X48"

W20-5



STD. 48"X48"

W20-7a



STD. 36"X36"
FWY. 48"X48"

W21-2



STD. 30"X30"
SPECIAL 36"X36"

W21-5



STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b



STD. 48"X48"

W8-11



STD. 36"X36"
FWY. 48"X48"

W8-9



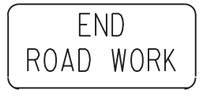
STD. 36"X36"
FWY. 48"X48"

G20-1



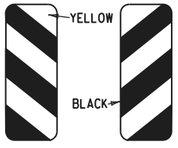
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

M4-9



STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10



48"X18"

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.

3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.

5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.

6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.

7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.

9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.

10. R2-6aP PLAQUES SHALL BE MOUNTED BELOW AN APPLICABLE ADVANCE WARNING SIGN THAT IS LOCATED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE PLAQUE SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE W3-5 "REDUCED SPEED AHEAD" SIGN. R2-11 SIGNS SHALL BE INSTALLED AT OR NEAR THE DOWNSTREAM END OF THE WORK ZONE. SEE STANDARD DRAWINGS TC-2, TC-3, AND TC-6 FOR TYPICAL PLACEMENT LOCATIONS.

• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

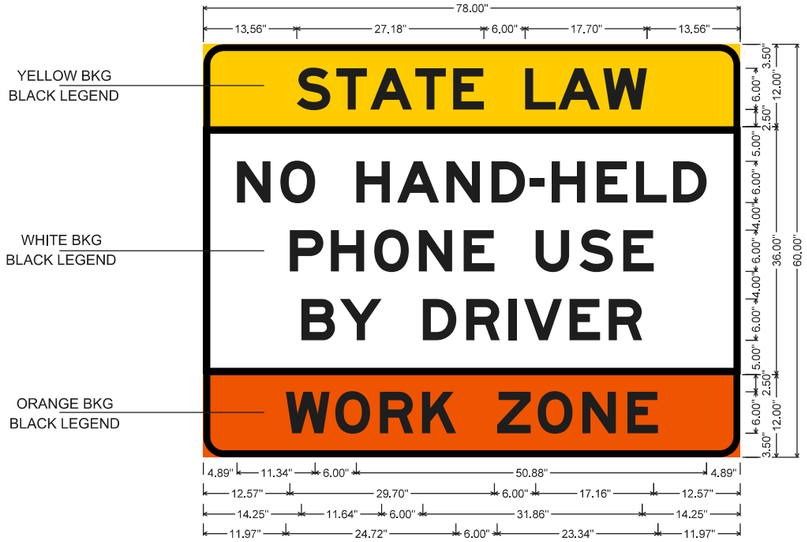
DATE REV	DESCRIPTION
08-14-25	REPLACED R55-1 WITH R2-6aP, ADDED R2-11 & REVISED NOTE 10
11-07-19	REVISED FOR MASH
04-13-17	DELETED RSP-1 & ADDED W21-5a
09-02-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS, REVISED ROAD WORK NEXT XX MILES
12-15-11	REVISED W24-1

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

DATE EFFECTIVE	STANDARD DRAWING	TC-1
08-14-2025		

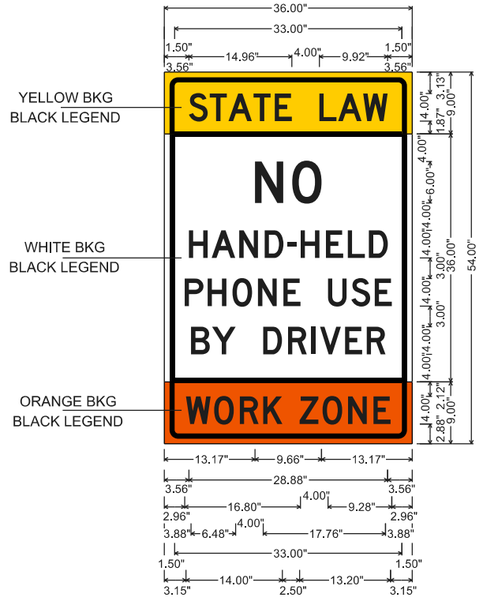


3.0" Radius, 1.0" Border, Black on Yellow;
"STATE LAW", E Mod 2K;

3.0" Radius, 1.0" Border, Black on White;
"NO HAND-HELD", E Mod 2K; "PHONE USE", E Mod 2K; "BY DRIVER", E Mod 2K;

3.0" Radius, 1.0" Border, Black on Orange;
"WORK ZONE", E Mod 2K;

WZ-4 (INTERSTATE) SIGN

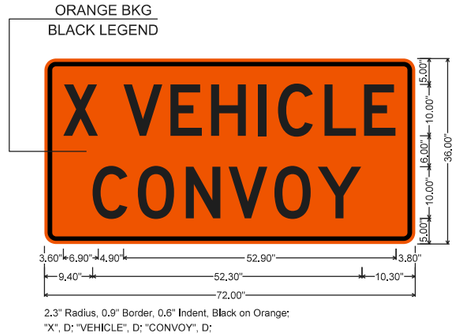


2.00" Radius, 0.75" Border, 0.75" Indent, Black on Yellow;
"STATE LAW", D 2K;

3.00" Radius, 0.75" Border, 0.75" Indent, Black on White;
"NO", D 2K; "HAND-HELD", D 2K;
"PHONE USE", D 2K;
"BY DRIVER", D 2K;

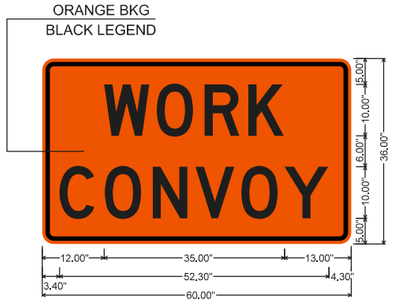
2.00" Radius, 0.75" Border, 0.75" Indent, Black on Orange;
"WORK", D 2K; "ZONE", D 2K;

WZ-4 (NON-INTERSTATE) SIGN



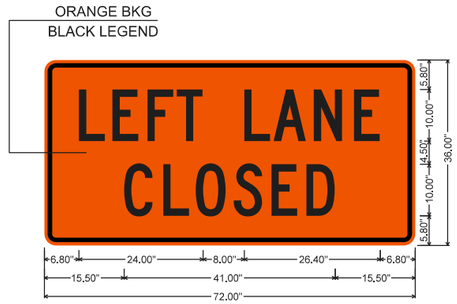
2.3" Radius, 0.9" Border, 0.6" Indent, Black on Orange;
"X", D; "VEHICLE", D; "CONVOY", D;

WZ-2 SIGN



2.3" Radius, 0.9" Border, 0.6" Indent, Black on Orange;
"WORK", D; "CONVOY", D;

WZ-3 SIGN



2.3" Radius, 0.9" Border, 0.6" Indent, Black on Orange;
"LEFT LANE", C; "CLOSED", C;

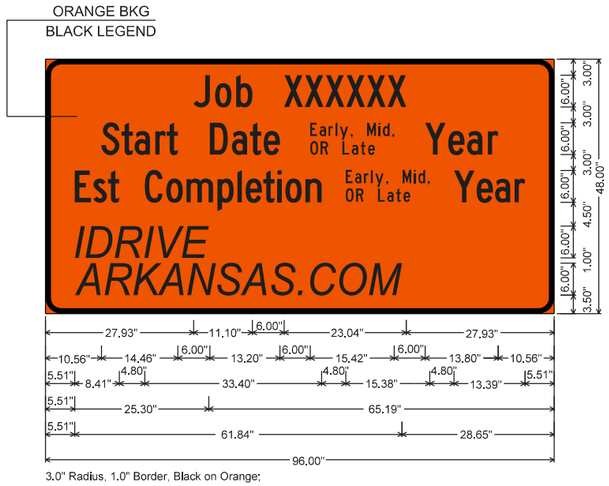
WZ-W20-5L SIGN



2.3" Radius, 0.9" Border, 0.6" Indent, Black on Orange;
"RIGHT", C specified length; "LANE", C specified length;
"CLOSED", C specified length;

WZ-W20-5R SIGN

NOTE: REFER TO STANDARD DRAWING TC-1 FOR GENERAL NOTES.



3.0" Radius, 1.0" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Xxxx Year" C 2K;
"Est Completion Xxxx Year" C 2K 80% spacing;
"IDRIVE" Arial, Italic; "ARKANSAS.COM" Arial, Italic;

CONSTRUCTION PROJECT INFORMATION SIGN



WZ-1 (INTERSTATE) SIGN



2.3" Radius, 0.9" Border, 0.6" Indent, Black on Orange;
"CENTER LANE", B 2K; "CLOSED", C;

WZ-W20-5C SIGN

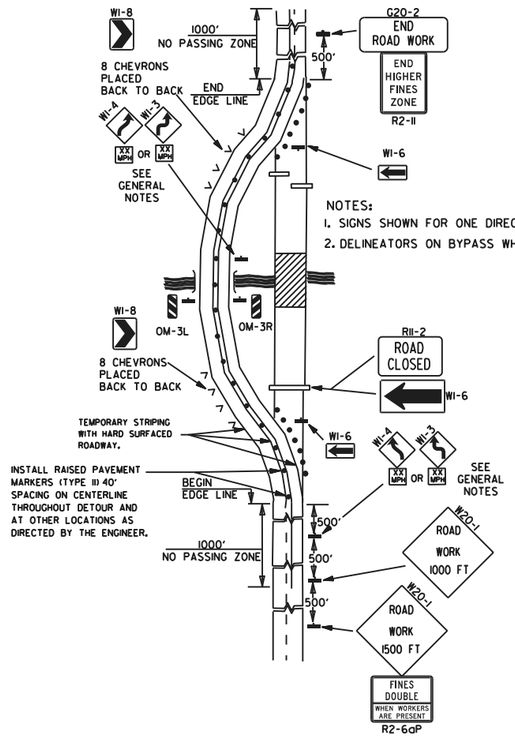
MOBILE WORK ZONE SIGNS

DATE REV	DESCRIPTION
04-09-26	ISSUED

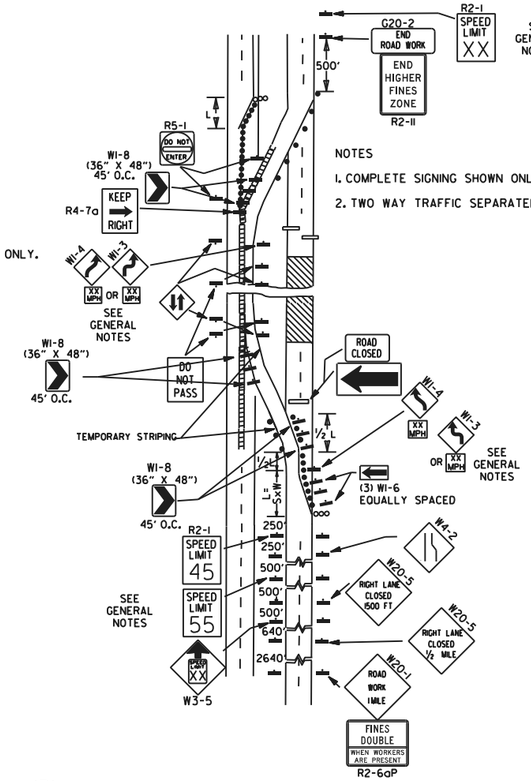
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

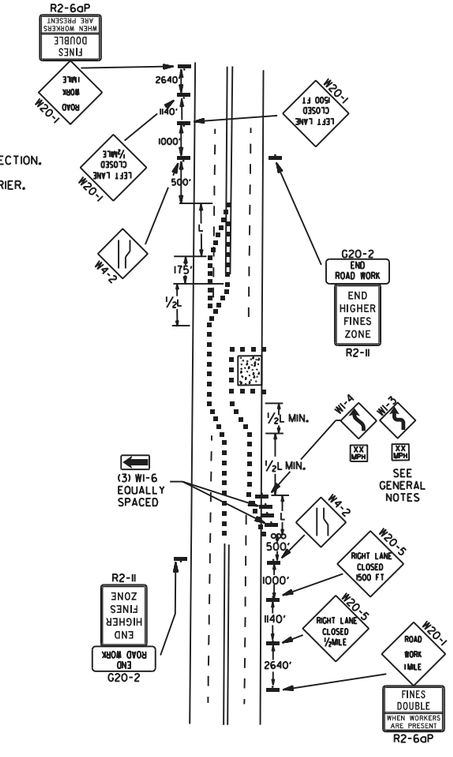
DATE EFFECTIVE	STANDARD DRAWING	TC-1A
04-09-2026		



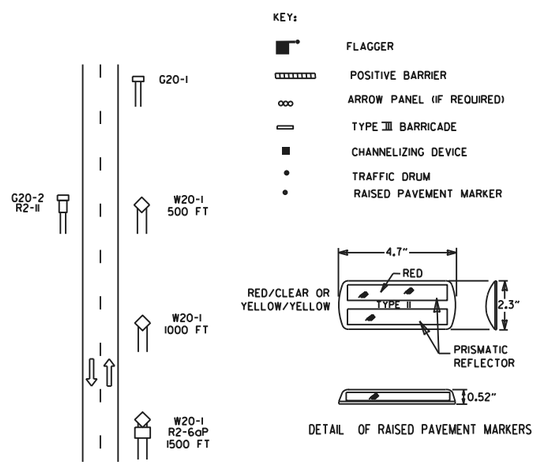
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:

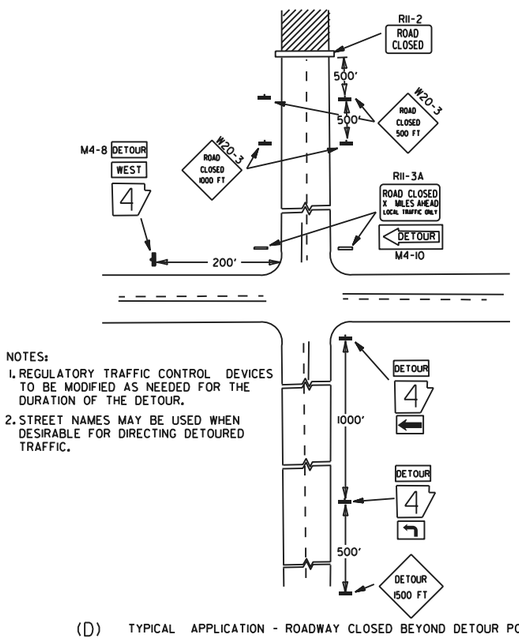
L= MINIMUM LENGTH OF TAPER.

S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

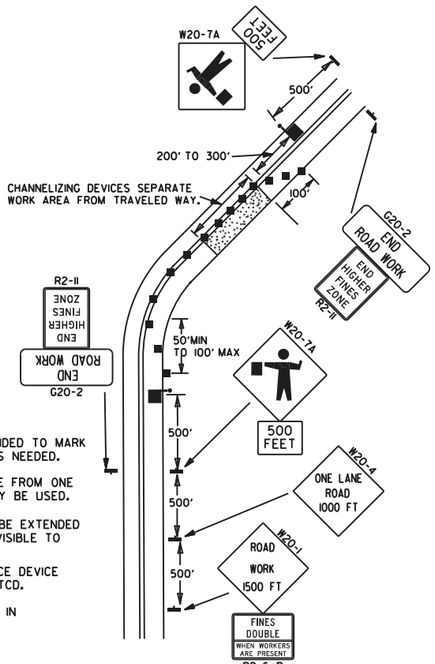
W= WIDTH OF OFFSET.

GENERAL NOTES:

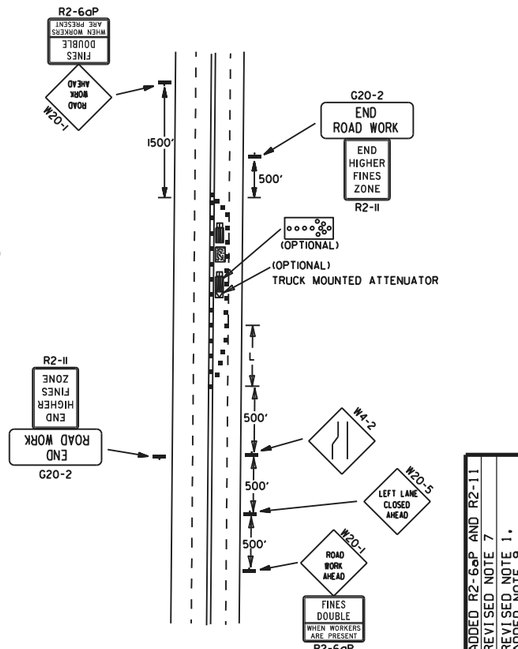
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.
9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



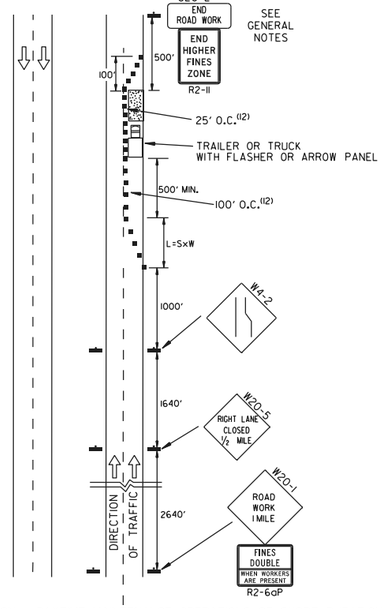
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE REV	DESCRIPTION
08-14-25	ADDED R2-6aP AND R2-11
05-20-21	REVISED NOTE 7
11-07-19	REVISED NOTE 1. ADDED NOTE 9
09-02-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (AT & REPLACED R2-5A WITH W3-5
09-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKINGS

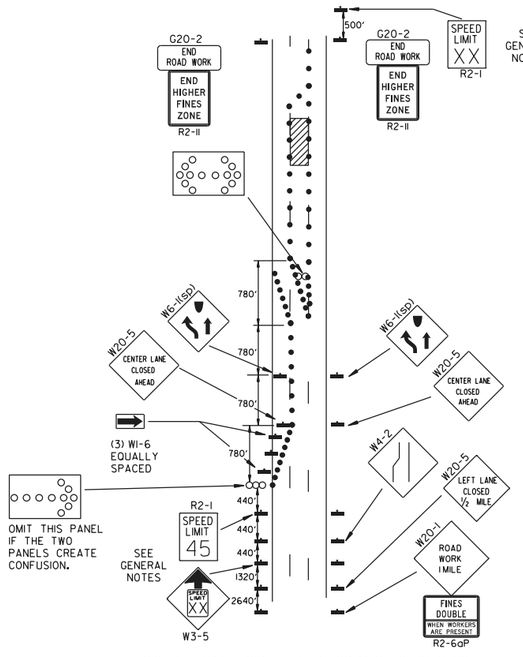
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

DATE EFFECTIVE	STANDARD DRAWING	TC-2
08-14-2025		



(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

KEY:

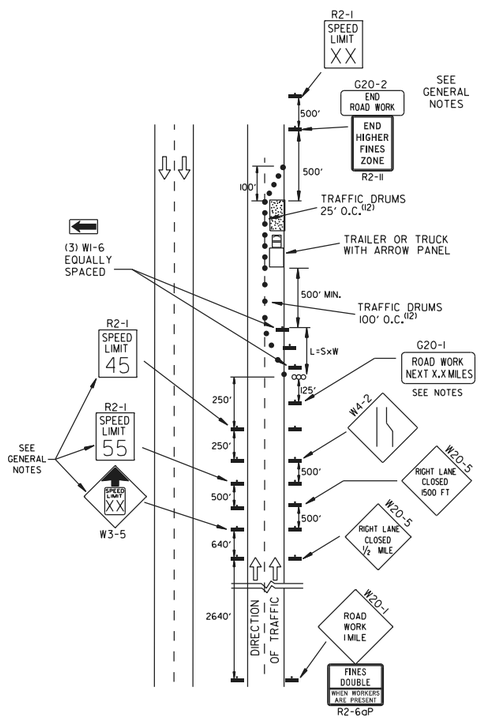
○○○ ARROW PANEL (IF REQUIRED)

■ CHANNELIZING DEVICE

● TRAFFIC DRUM

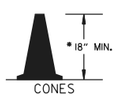
GENERAL NOTES:

1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-I(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-I 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-I(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-I(45) SHALL BE OMITTED. ADDITIONAL R2-I 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-I(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN SHOULD BE INSTALLED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS. THE DISTANCE DISPLAYED ON THE G20-1 SIGN SHALL BE STATED TO THE NEAREST WHOLE MILE.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
10. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
12. ONLY WHERE SPACE RESTRICTIONS DO NOT ALLOW FOR TRAFFIC DRUMS, TUBULAR MARKERS MAY BE USED AT 50' O.C. IN STABILIZATION ZONES AND AT 10' O.C. DIRECTLY ADJACENT TO CONSTRUCTION OPERATIONS AND AT EXIT TAPERS. TUBULAR MARKERS SHALL BE STABILIZED WITH WEIGHTED BASES IN ACCORDANCE WITH THE M.U.T.C.D.

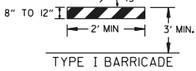


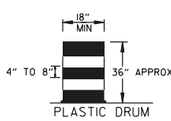
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

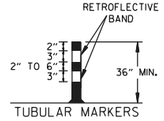
CHANNELIZING DEVICES

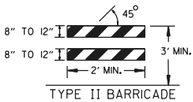


* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.



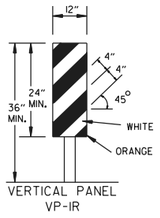


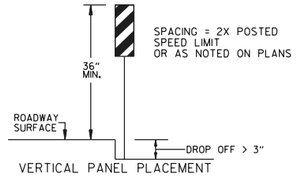


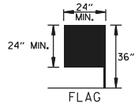




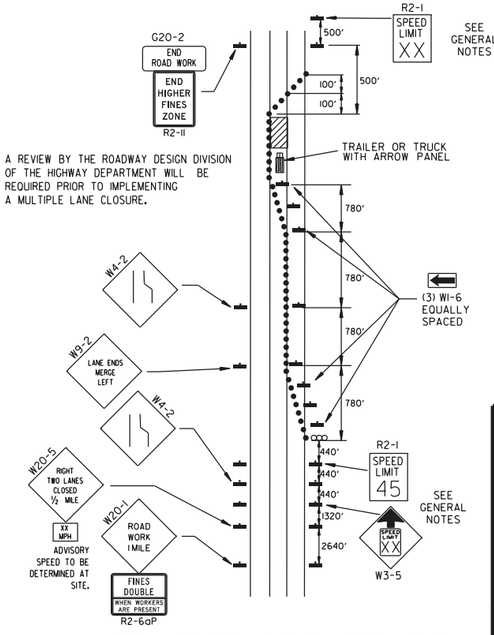
NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.







FLAG SHALL BE OF GOOD GRADE RED MATERIAL



(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

TRAFFIC CONTROL DEVICES

NON-INTERSTATE

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL ≤ 45 MPH	TRAFFIC CONTROL > 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE(6)	STANDARD LANE CLOSURE(6)
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9 AND TRAFFIC DRUMS(1)	W8-9 AND TRAFFIC DRUMS(1)
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(1)	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(1)
> 6" ≤ 18"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(1)	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 18" ≤ 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(1)	A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(3)
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER(4) & EDGE LINES	PRECAST CONCRETE BARRIER(4) & EDGE LINES

INTERSTATE

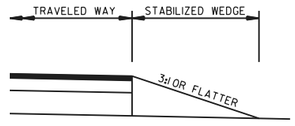
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

INTERSTATE AND NON-INTERSTATE

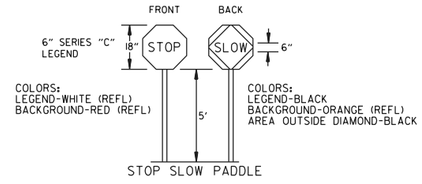
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

GENERAL NOTES:

1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED.
3. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
4. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
5. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.
6. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).



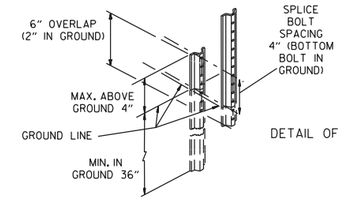
NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

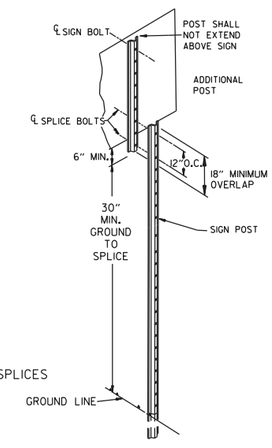


NOTES:
USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.





DATE REV	DESCRIPTION
08-14-25	ADDED R2-6aP AND R2-11
05-22-25	REVISED TRAFFIC CONTROL DEVICES AND NOTES. ADDED NOTE 12.
08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES
05-20-21	REVISED NOTE 10
02-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

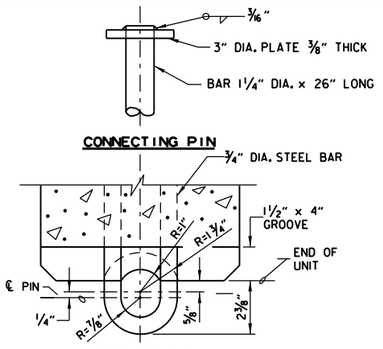
DATE EFFECTIVE 08-14-2025

STANDARD DRAWING

TC-3

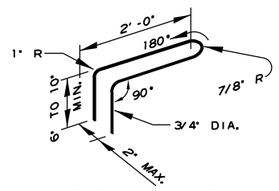
REINFORCING BAR TABLE PER BARRIER UNIT

MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", LIFTING HOLE, 90°, 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9"; 2 3/16" R; 12°; 1 1/2"; 9"; 2'-1 3/8"; 4 3/8"

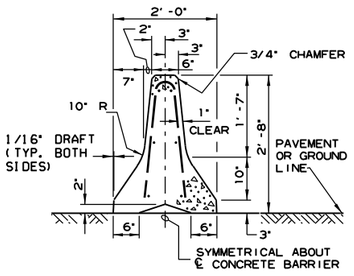


SECTION E-E

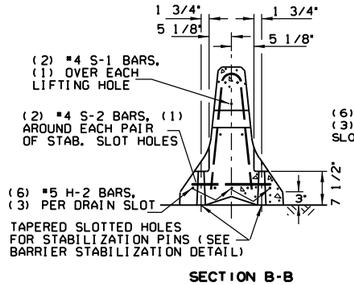
CONNECTION DETAILS



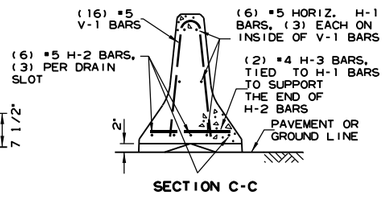
CONNECTION LOOP



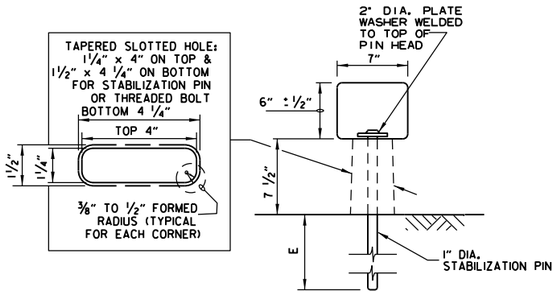
SECTION A-A



SECTION B-B



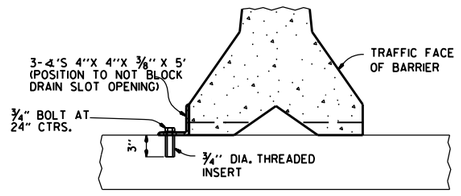
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

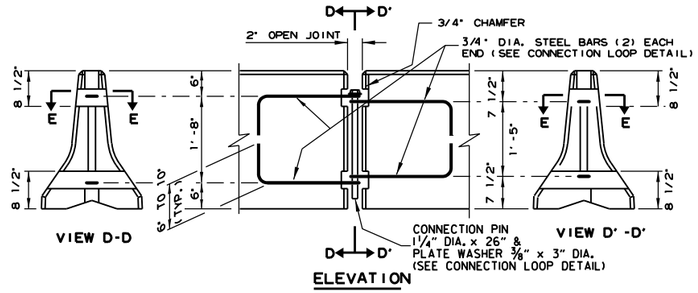
(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



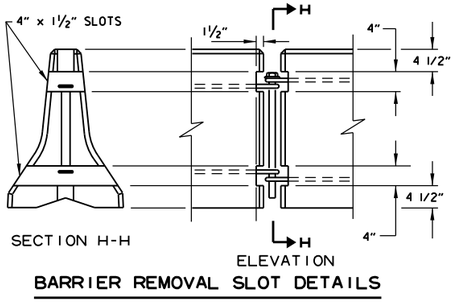
NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

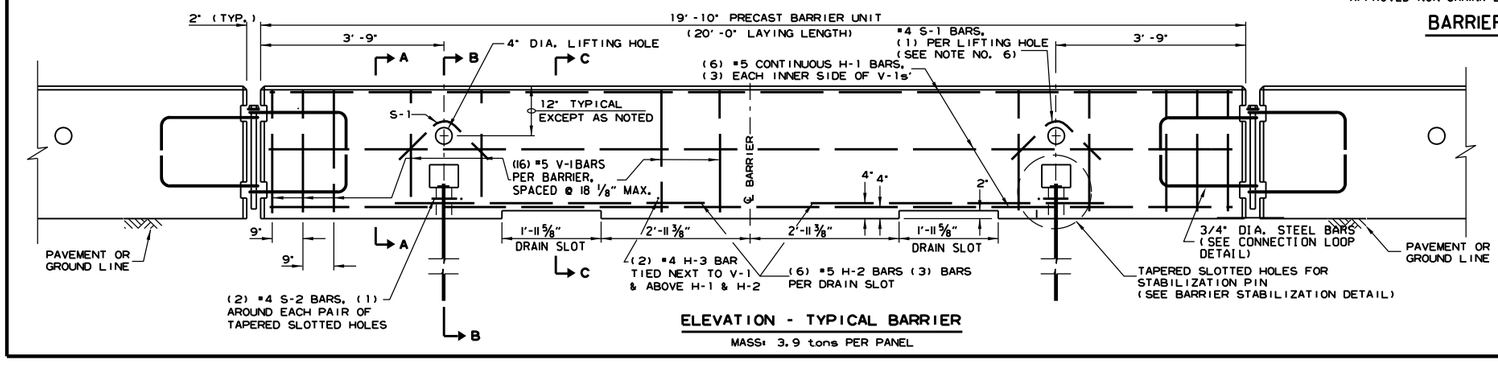
BRIDGE DECKS



ELEVATION



BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

GENERAL NOTES

(1) THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

(2) MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS.
DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.

(3) OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.

(4) DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.

(5) ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.

(6) A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

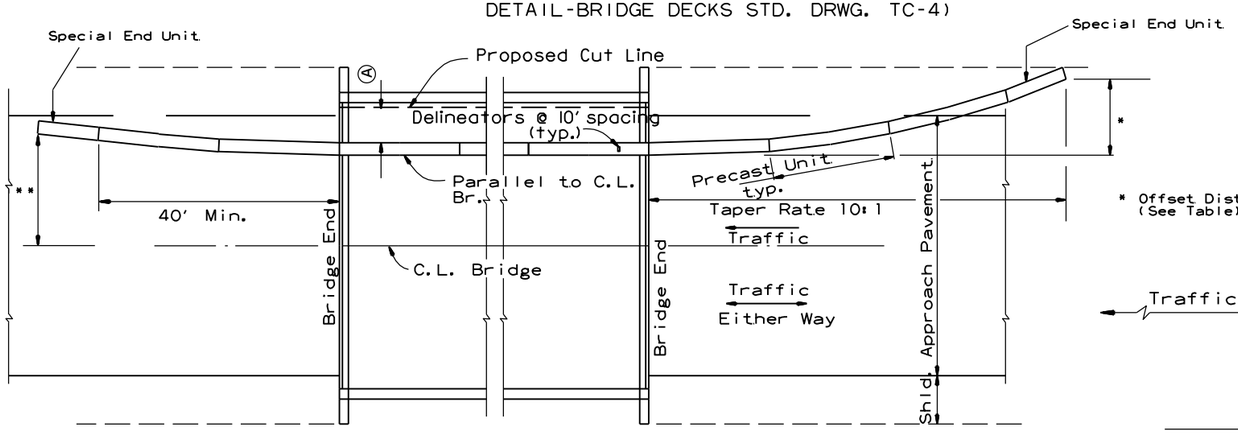
DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO WASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

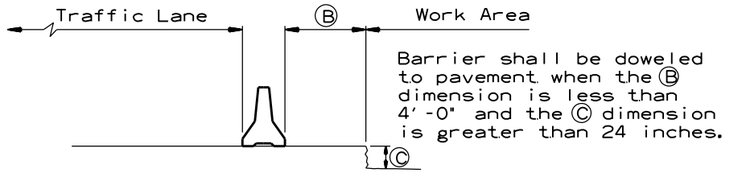
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



* Offset Distance (See Table)

BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

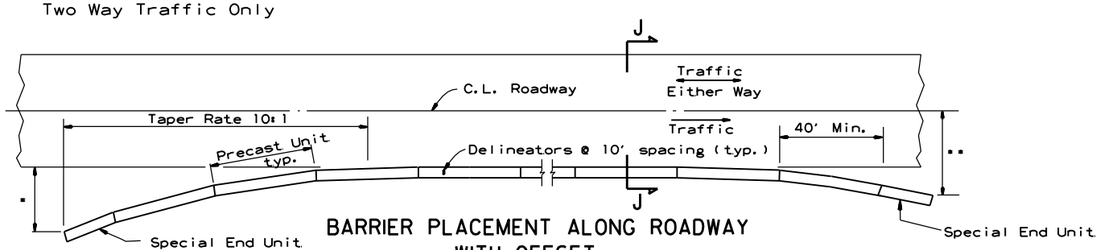


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

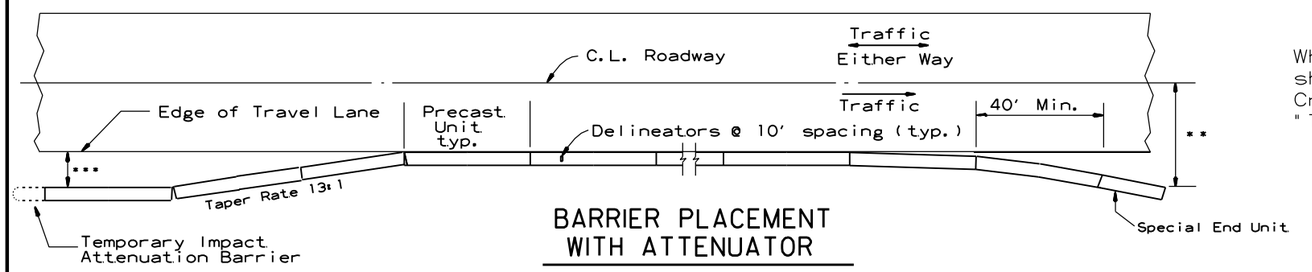
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.

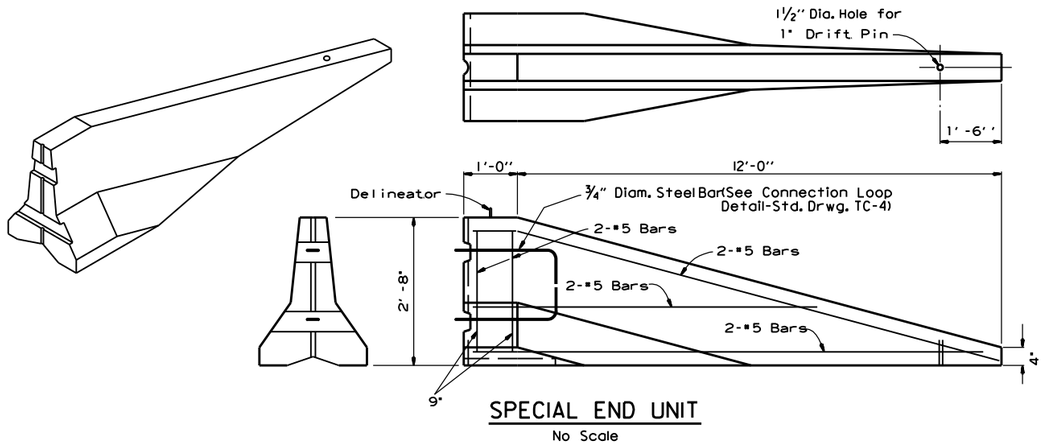


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator



SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

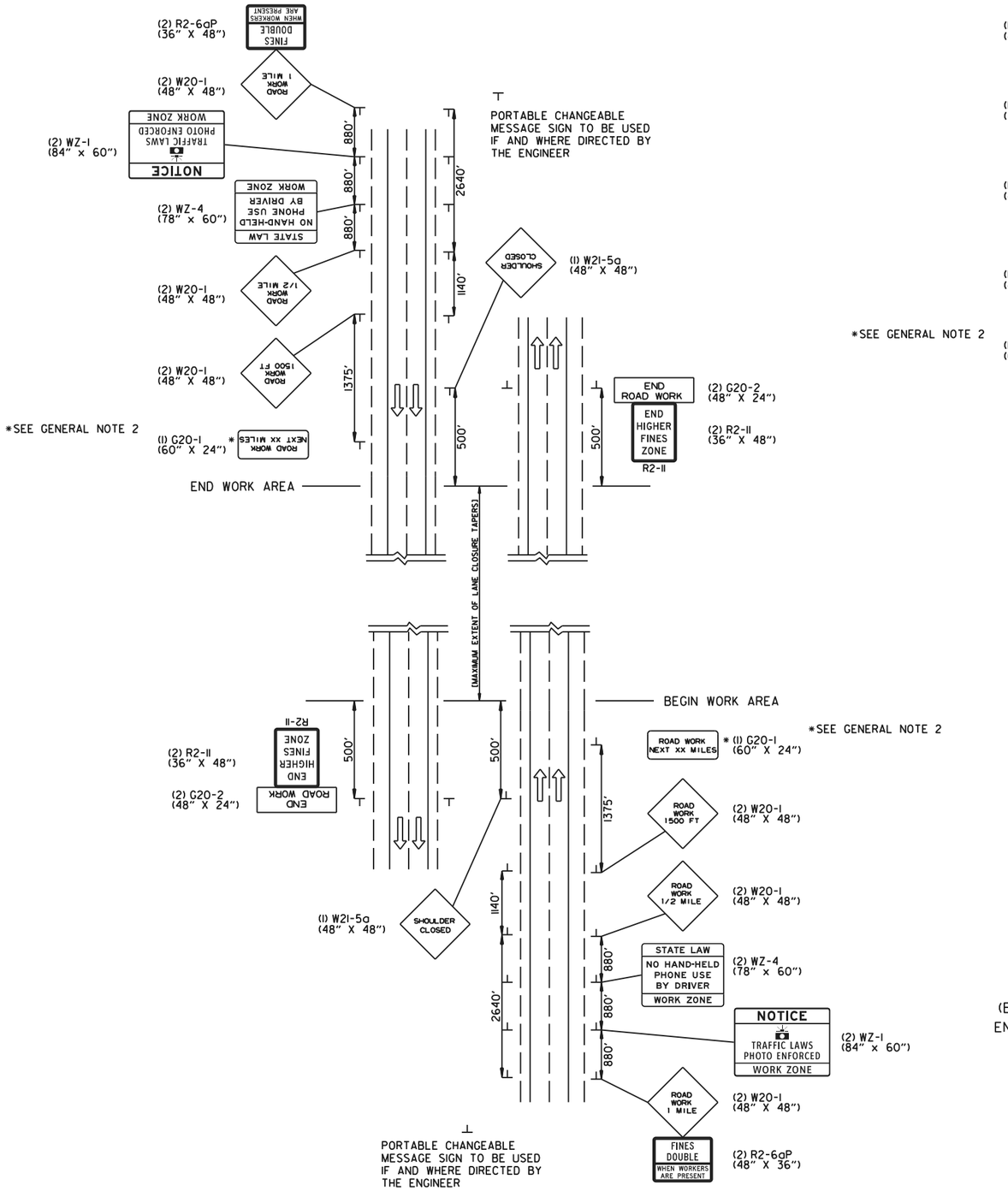
DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

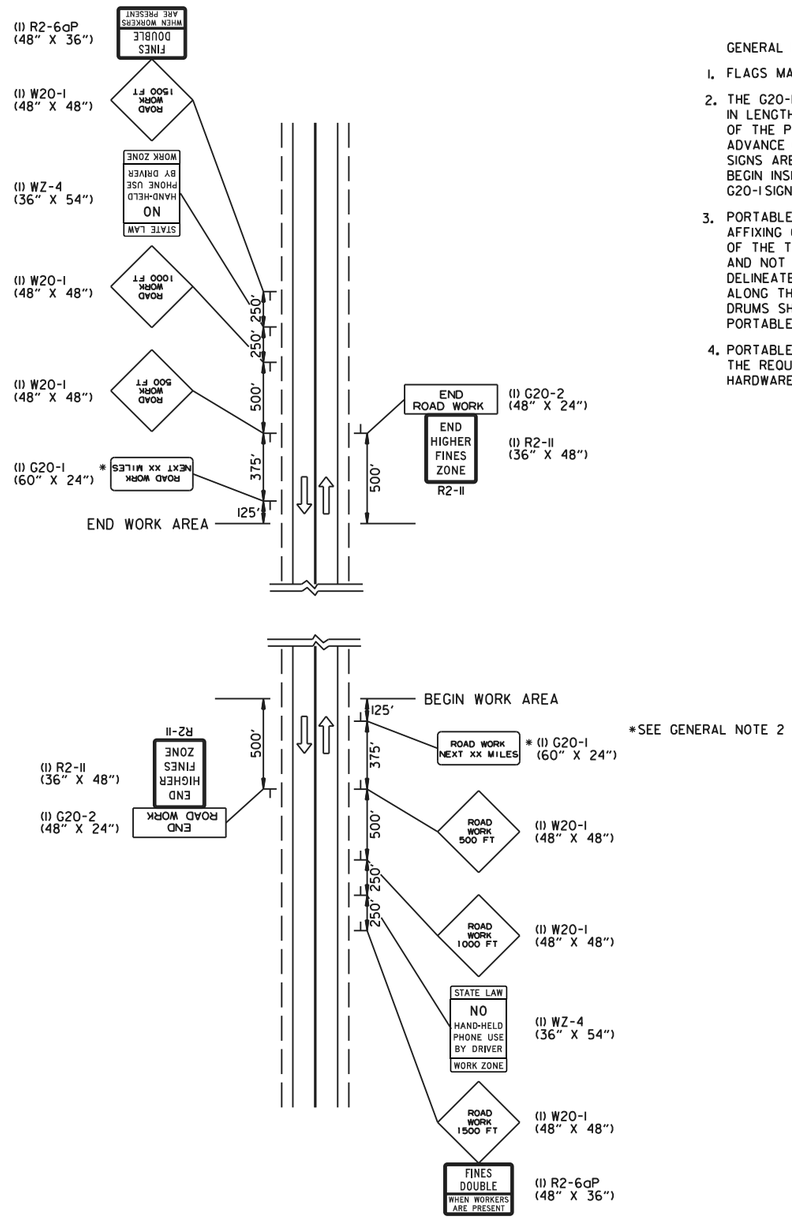
STANDARD DRAWING TC-5

NOTE : W20-1(VARIOUS DISTANCE) ADVANCE SIGNS TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS AS WORKING AREA SHIFTS.



NOTE : W20-1(VARIOUS DISTANCE) ADVANCE SIGNS TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS AS WORKING AREA SHIFTS.

(A) TYPICAL APPLICATION - ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB (FULLY CONTROLLED ACCESS FACILITIES) (ALL STAGES)



(B) TYPICAL APPLICATION - ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB (NON-FULLY CONTROLLED ACCESS FACILITIES) (ALL STAGES)

GENERAL NOTES:

1. FLAGS MAY BE MOUNTED TO SIGNS AT NIGHT AS NEEDED.
2. THE G20-1 SIGN SHOULD BE INSTALLED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE OR 1500 FT) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS. THE DISTANCE DISPLAYED ON THE G20-1 SIGN SHALL BE STATED TO THE NEAREST WHOLE MILE.
3. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THIS DEVICE SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR PORTABLE CHANGEABLE MESSAGE SIGNS.
4. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE REV	DESCRIPTION
08-14-25	ISSUED
11-06-25	REPLACED "SPEED" WITH "TRAFFIC LAWS" ON WZ-1
01-22-26	ADDED WZ-4 AND REVISED GENERAL NOTE 1
04-09-26	CORRECTED WZ-4 SIGN DIMENSIONS

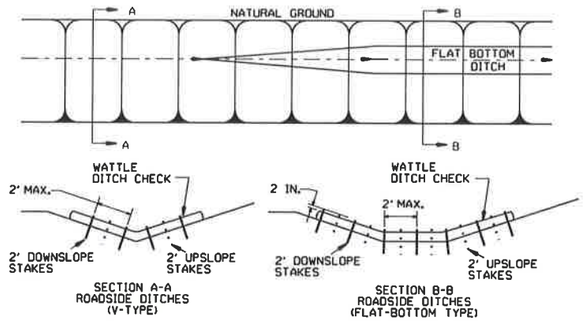
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

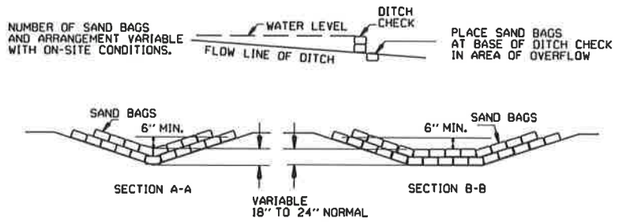
DATE EFFECTIVE	STANDARD DRAWING	TC-6
04-09-2026		

GENERAL NOTES

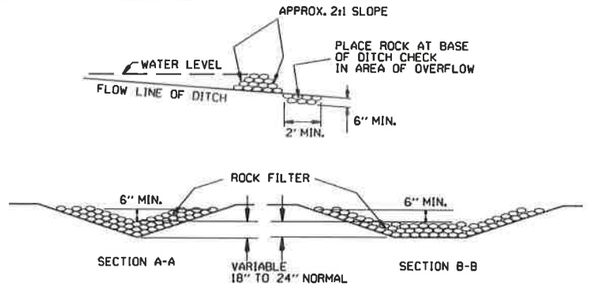
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

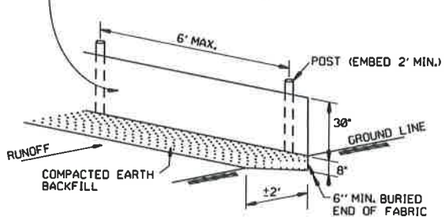


ROCK DITCH CHECK (E-6)

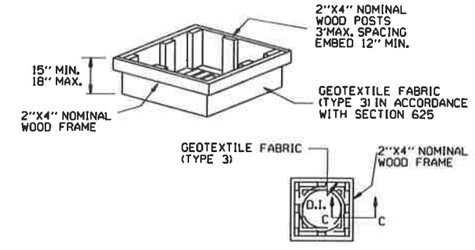
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

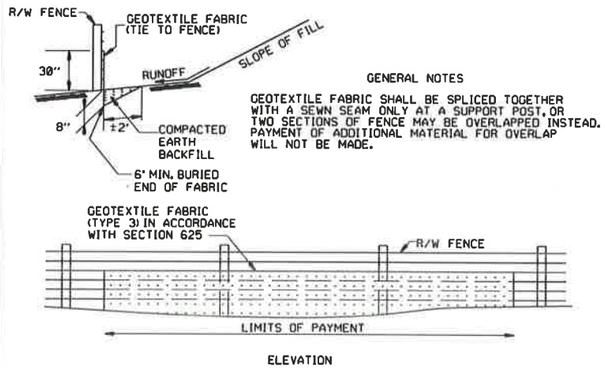
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)



DROP INLET SILT FENCE (E-7)



GENERAL NOTES

GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

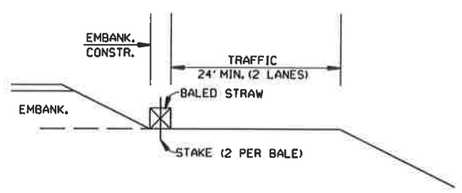
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

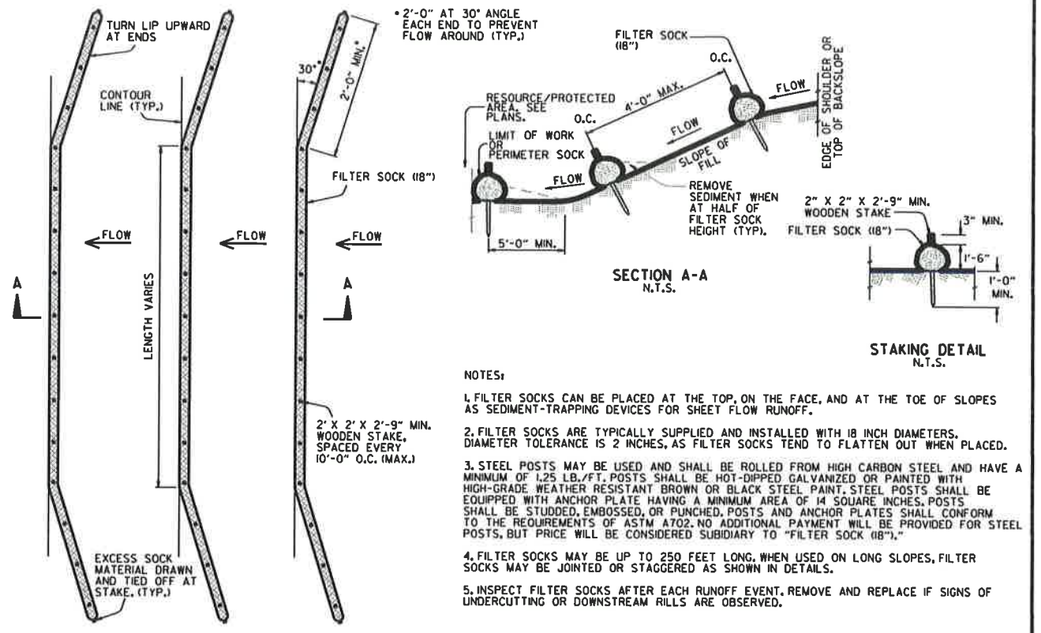
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



BALED STRAW FILTER BARRIER (E-2)



NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

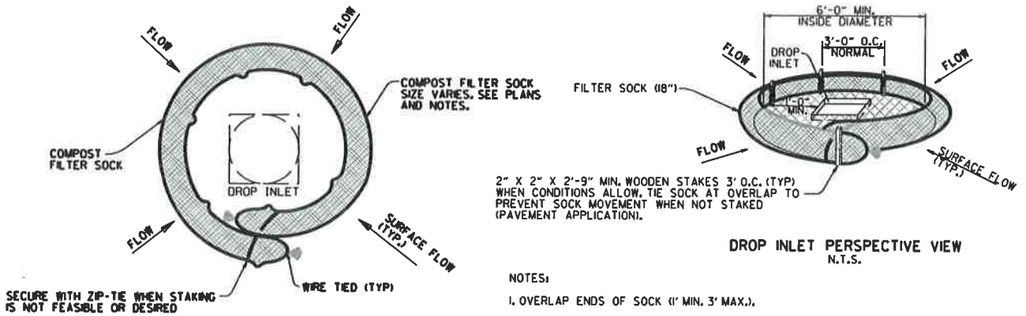
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIDIARY TO "FILTER SOCK (18")."

4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

FILTER SOCK ALONG SLOPE (E-3)



NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION	FILMED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-1