DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	1	158
		CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)				

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

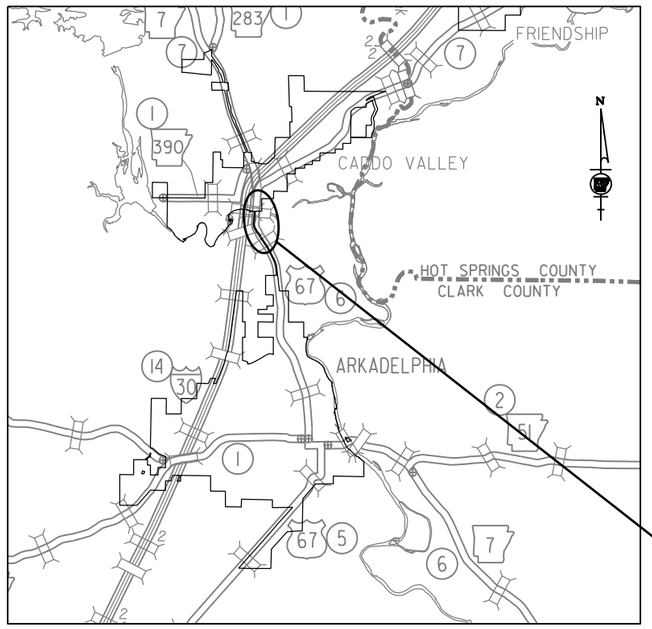
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)

CLARK COUNTY

ROUTE 67 SECTION 6

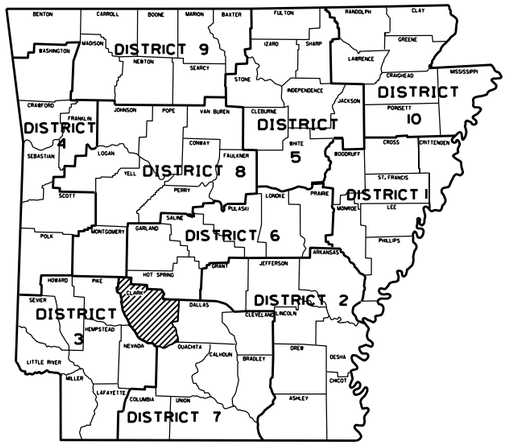
JOB 070509

FEDERAL AID PROJ. NHPP-TAPR-0010(52)



PROJECT LOCATION

VICINITY MAP



ARK. HWY. DIST. NO. 7

DESIGN TRAFFIC DATA

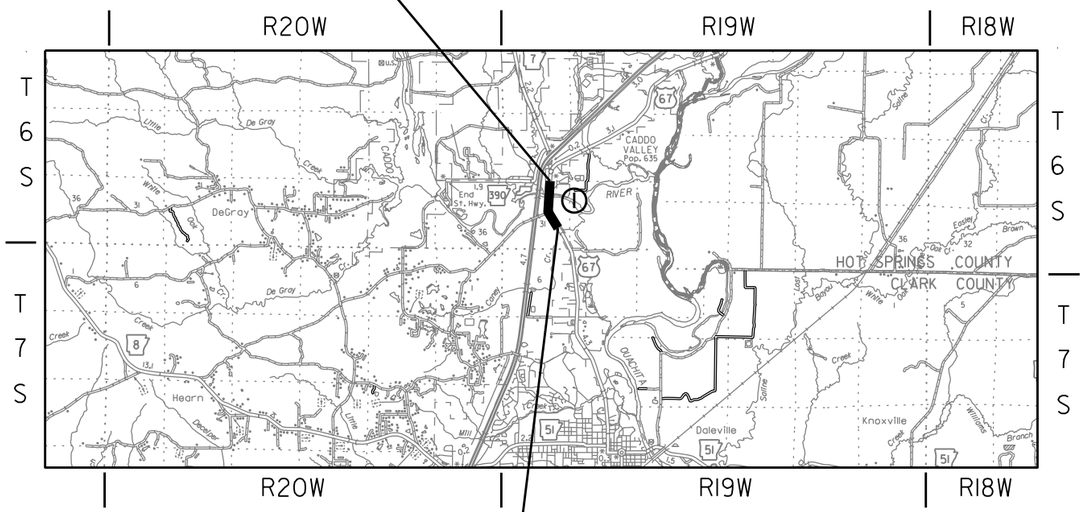
DESIGN YEAR	2045
2025 ADT	8700
2045 ADT	11000
2045 DHV	1210
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	4%
DESIGN SPEED	45 MPH

BRIDGE DATA

① STA. 112+34.94 BRIDGE END
BRIDGE NO. 07673 OVER CADDO RIVER
3@255'-0" COMPOSITE PRESTRESSED CONCRETE GIRDER UNITS (85', 85', 85')
370'-0" CONTINUOUS PLATE GIRDER UNIT (115', 140', 115')
30"-0" CLEAR ROADWAY
12'-0" BARRIER PROTECTED SHARED-USE PATH
6'-6" RAISED SIDEWALK
1137'-2" BRIDGE LENGTH
STA. 123+72.10 BRIDGE END

STA. 133+75.00
END JOB 070509

NOT TO SCALE



STA. 93+69.78
BEGIN JOB 070509
LOG MILE 3.38

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 34°10'17"	N 34°10'32"	N 34°10'47"
LONGITUDE	W 93°04'13"	W 93°04'16"	W 93°04'15"

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF PROJECT	4005.22	FEET	OR	0.758	MILES
NET " " ROADWAY	2868.05	"		0.543	MILES
NET " " BRIDGES	1137.17	"		0.215	MILES
NET " " PROJECT	4005.22	"		0.758	MILES

CERTIFICATE OF AUTHORIZATION NEEL-SCHAFFER, INC. NO. 285 ARKANSAS

Digitally signed by Raymond K. Eidson
Date: 2025.08.05 16:52:31-05'00'

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 19372 RAYMOND KYLE EIDSON

8/5/2025

R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	2	158
		INDEX OF SHEETS AND STANDARD DRAWINGS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

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2	INDEX OF SHEETS AND STANDARD DRAWINGS		
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BRIDGE STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
55000	STANDARD DETAILS FOR EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS	02-27-14
55001	STANDARD DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND COMPUTING EXCAVATION FOR STRUCTURES	02-27-14
55005	STANDARD DETAILS FOR PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS	03-24-16
55006	STANDARD GENERAL NOTES FOR STEEL BRIDGE STRUCTURES	09-02-15
55007	STANDARD DETAILS FOR STEEL BRIDGE STRUCTURES	02-11-16
55008	STANDARD DETAILS FOR POURED SILICONE JOINTS	02-11-16
55010	STANDARD DETAILS FOR TYPE D BRIDGE NAME PLATE	01-28-25
55013A	STANDARD DETAILS FOR TRANSITIONAL APPROACH RAILING TYPE SSTR36	04-08-21
55015	STANDARD DETAILS FOR TYPE H2 RAILING	06-25-20
55021	STANDARD DETAILS FOR CONCRETE FILLED STEEL SHELL PILES AND PILE ENCASEMENTS	03-24-16
55070	STANDARD DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR36	09-27-22

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
CDP-1	CONCRETE DITCH PAVING	12-08-16
CG-1	CURBING DETAILS	11-29-07
DR-1	DETAILS OF DRIVEWAYS & ISLANDS	05-22-25
DR-2	DETAILS OF DRIVEWAYS & STREET TURNOUTS	05-19-22
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
FPC-9E	DETAILS OF DROP INLETS (TYPE C)	08-22-02
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
MB-1	MAILBOX DETAILS	11-18-04
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCP-1	PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)	02-27-14
PCP-2	PLASTIC PIPE CULVERT (PVC F949)	02-27-14
PM-1	PAVEMENT MARKING DETAILS	02-27-20
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
SE-3	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC (4% MAXIMUM)	11-07-19
SI-1	DETAILS OF SPECIAL ITEMS	10-25-18
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TC-6	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-14-25
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
TEC-4	TEMPORARY EROSION CONTROL DEVICES	07-26-12
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	3	158
		GOVERNING SPECIFICATIONS AND GENERAL NOTES				

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 - TRAINING PROGRAM - JOB 070509
FHWA-1273__	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273__	SUPPLEMENT - WAGE RATE DETERMINATION
100-3_____	CONTRACTOR'S LICENSE
100-4_____	DEPARTMENT NAME CHANGE
102-2_____	ISSUANCE OF PROPOSALS
102-3_____	PREQUALIFICATION OF BIDDERS
103-2_____	CONTACT INFROMATION FOR MOTORIST DAMAGE CLAIMS
105-4_____	MAINTENANCE DURING CONSTRUCTION
107-2_____	RESTRAINING CONDITIONS
108-1_____	LIQUIDATED DAMAGES
108-2_____	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1_____	PROTECTION OF WATER QUALITY AND WETLANDS
210-1_____	UNCLASSIFIED EXCAVATION
303-1_____	AGGREGATE BASE COURSE
306-1_____	QUALITY CONTROL AND ACCEPTANCE
307-2_____	CEMENT TREATED BASE COURSE
308-2_____	CEMENT STABILIZED CRUSED 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
505-1_____	PORTLAND CEMENT CONCRETE DRIVEWAY
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)
605-1_____	CONCRETE DITCH PAVING
620-1_____	MULCH COVER
621-1_____	FILTER SOCKS
632-1_____	CONCRETE ISLAND
633-1_____	CONCRETE WALKS, CONCRETE STEPS, AND HAND RAILING
634-1_____	CURBING
637-1_____	MAILBOXES
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 070509__	ARCHITECTURAL FINISH
JOB 070509__	ASPHALT MIXTURES WITH PG 76-22 BINDER
JOB 070509__	ASSESSMENT OF WORKING DAYS – MAINTENANCE OF TRAFFIC
JOB 070509__	BIDDING REQUIREMENTS AND CONDITIONS
JOB 070509__	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 070509__	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 070509__	CARGO PREFERENCE ACT REQUIREMENTS
JOB 070509__	CLASS C FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT AND CLASS S(AE) CONCRETE
JOB 070509__	COLD MILLING – COUNTY PROPERTY
JOB 070509__	CONCRETE BRIDGE DECK CURING AND SURFACE TREATMENT RESTRICTIONS
JOB 070509__	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 070509__	CONSTRUCTION PROJECT INFORMATION SIGN
JOB 070509__	DESIGN AND QUALITY CONTROL ASPHALT MIXTURES
JOB 070509__	DETAILS FOR SAFETY OF STREAM TRAFFIC
JOB 070509__	DIRECT TENSION INDICATORS FOR HIGH STRENGTH BOLT ASSEMBLIES
JOB 070509__	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 070509__	EXTENSION FOR PIPE CULVERTS
JOB 070509__	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 070509__	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 070509__	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 070509__	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 070509__	MAINTENANCE OF TRAFFIC
JOB 070509__	MANDATORY ELECTRONIC CONTRACT
JOB 070509__	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 070509__	NESTING SITES OF MIGRATORY BIRDS
JOB 070509__	OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 070509__	PARTNERING REQUIREMENTS
JOB 070509__	PIPE CULVERTS
JOB 070509__	PRE-BID ON SITE INVESTIGATION OF SOIL CONDITIONS
JOB 070509__	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 070509__	PRICE ADJUSTMENT FOR FUEL
JOB 070509__	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 070509__	RESTRAINING CONDITION
JOB 070509__	RESTRICTIONS ON THE USE OF RECYCLED ASPHALT PAVEMENT MATERIAL
JOB 070509__	SECTION 404 NATIONWIDE 14 PERMIT REQUIREMENTS
JOB 070509__	SHORING FOR CULVERTS
JOB 070509__	SHORING
JOB 070509__	SOIL STABILIZATION
JOB 070509__	STORM WATER POLLUTION PREVENTION PLAN
JOB 070509__	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 070509__	TEXTURED COATING FINISH
JOB 070509__	UTILITY ADJUSTMENTS
JOB 070509__	VALUE ENGINEERING
JOB 070509__	WARM MIX ASPHALT
JOB 070509__	WATER POLLUTION CONTROL

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIBSON
07/24/25

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. 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.
4. 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.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. 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.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. 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.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
10. 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.
11. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
12. ARDOT WILL CONSTRUCT PERMANENT SIGNING.

danny.mccollum 8/4/2025
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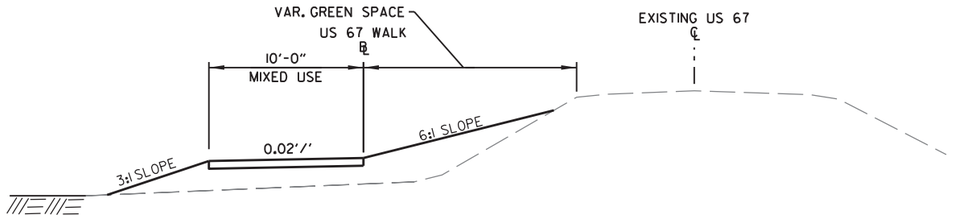
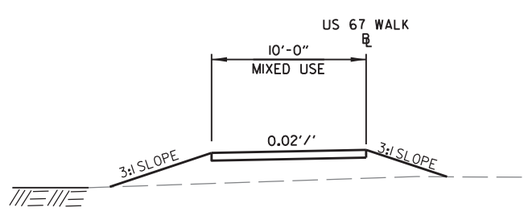
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



CONCRETE WALK

STA. 193+02.00 TO STA. 205+48.22



CONCRETE WALK

STA. 192+75.00 TO STA. 193+02.00

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
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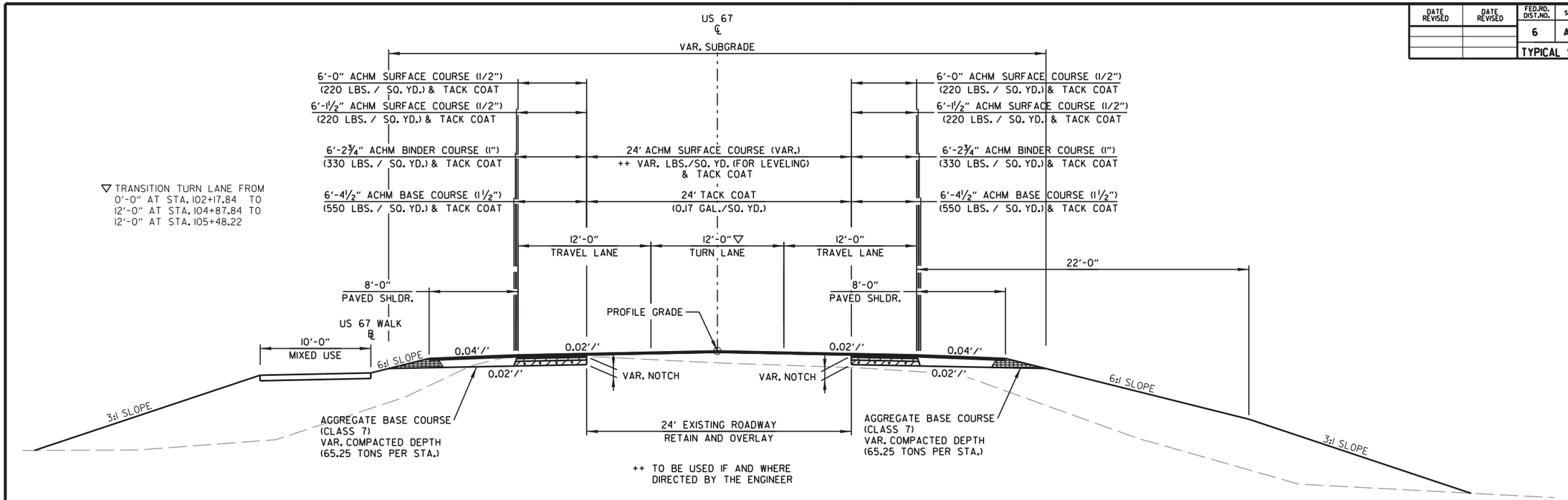
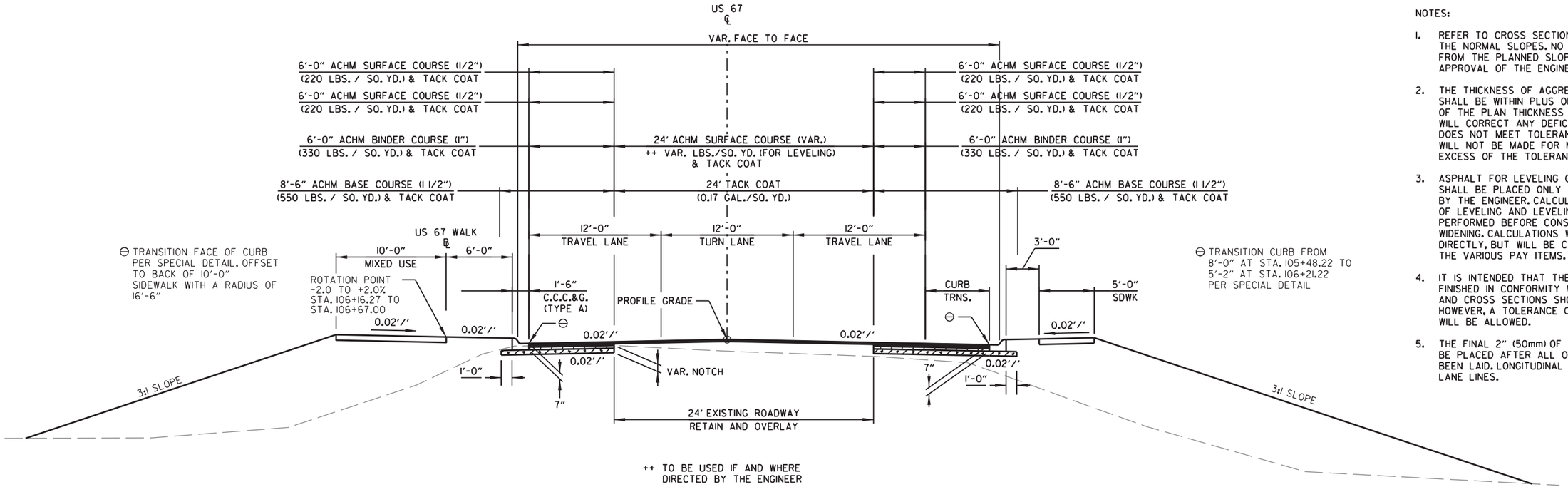
07/24/25



US 67 - 36' NOTCH & WIDEN LT. & RT. (24' EXISTING PAVEMENT)

STA. 102+17.84.00 TO STA. 105+48.22



US 67 - 36' NOTCH & WIDEN LT. & RT. (CURBED) (24' EXISTING PAVEMENT)

STA. 105+48.22 TO STA. 106+21.22

NOTES:

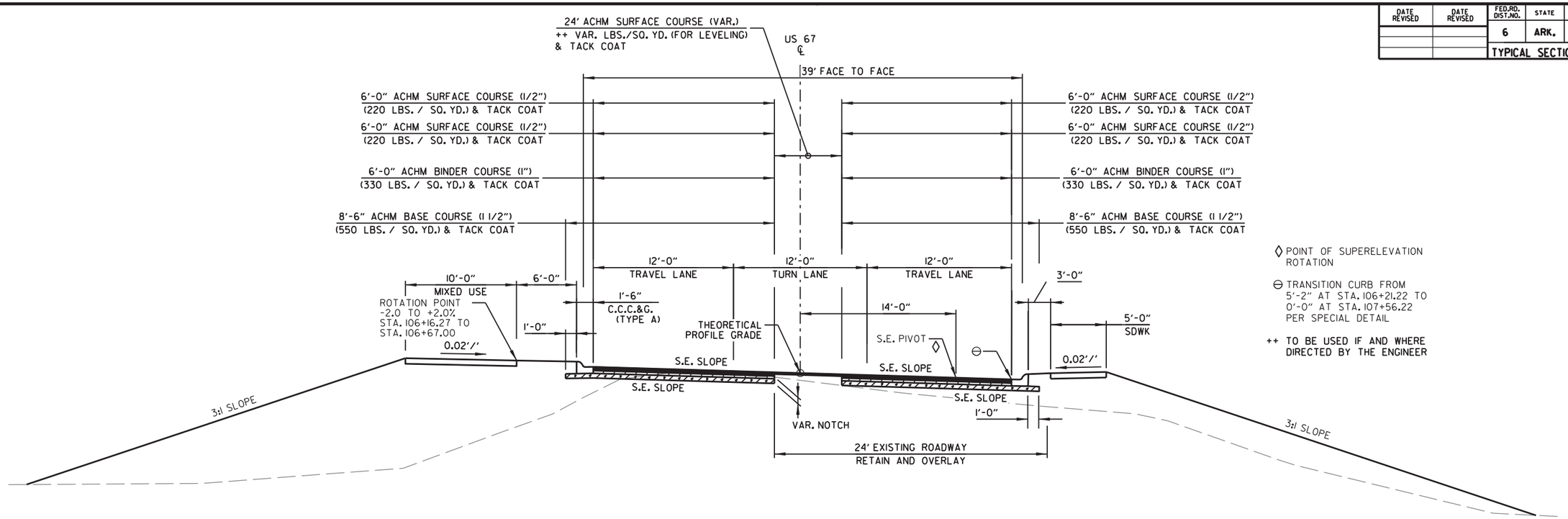
1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH (25mm) OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
4. IT IS INTENDED THAT THE SUBGRADE SHALL BE FINISHED IN CONFORMITY WITH THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS. HOWEVER, A TOLERANCE OF PLUS OR MINUS 1/2" WILL BE ALLOWED.
5. THE FINAL 2" (50mm) OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

TYPICAL SECTIONS OF IMPROVEMENT

danny.mccollum 8/1/2025
R070509.dgn

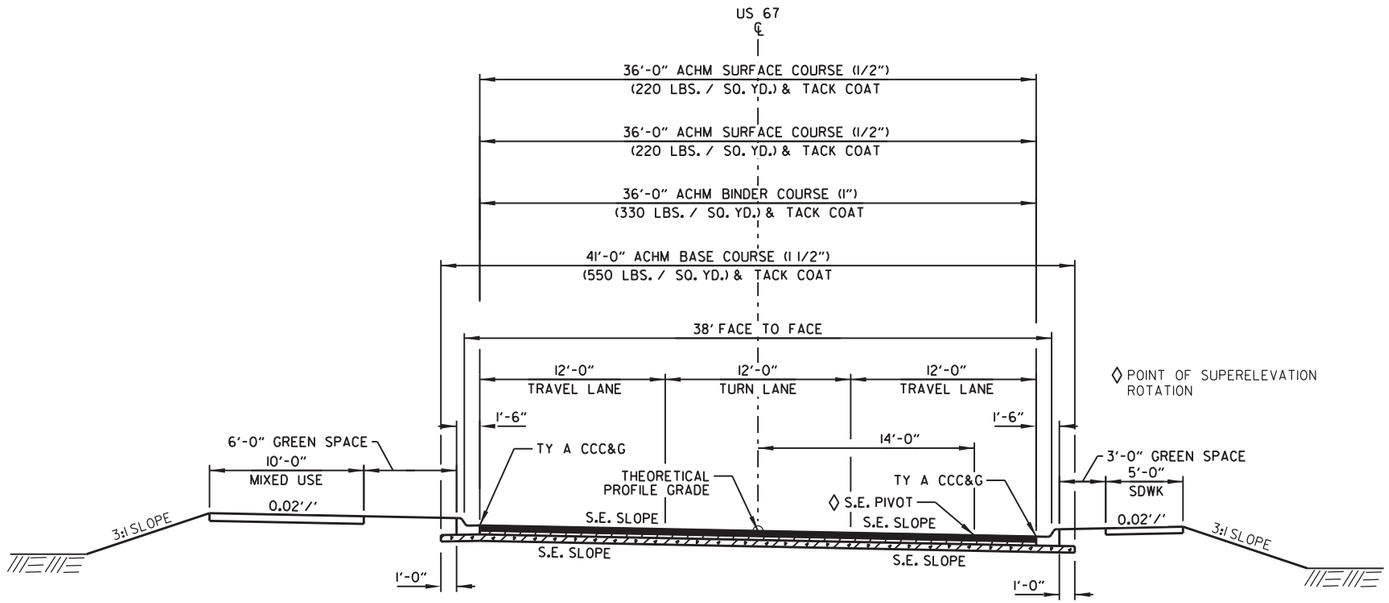
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	6	158
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



US 67 - 36' NOTCH & WIDEN (CURBED) IN SUPERELEVATION

STA. 106+21.22 TO STA. 108+00.00



US 67 - 36' FULL DEPTH SECTION IN SUPERELEVATION

STA. 108+00.00 TO STA. 109+46.40

NOTES:

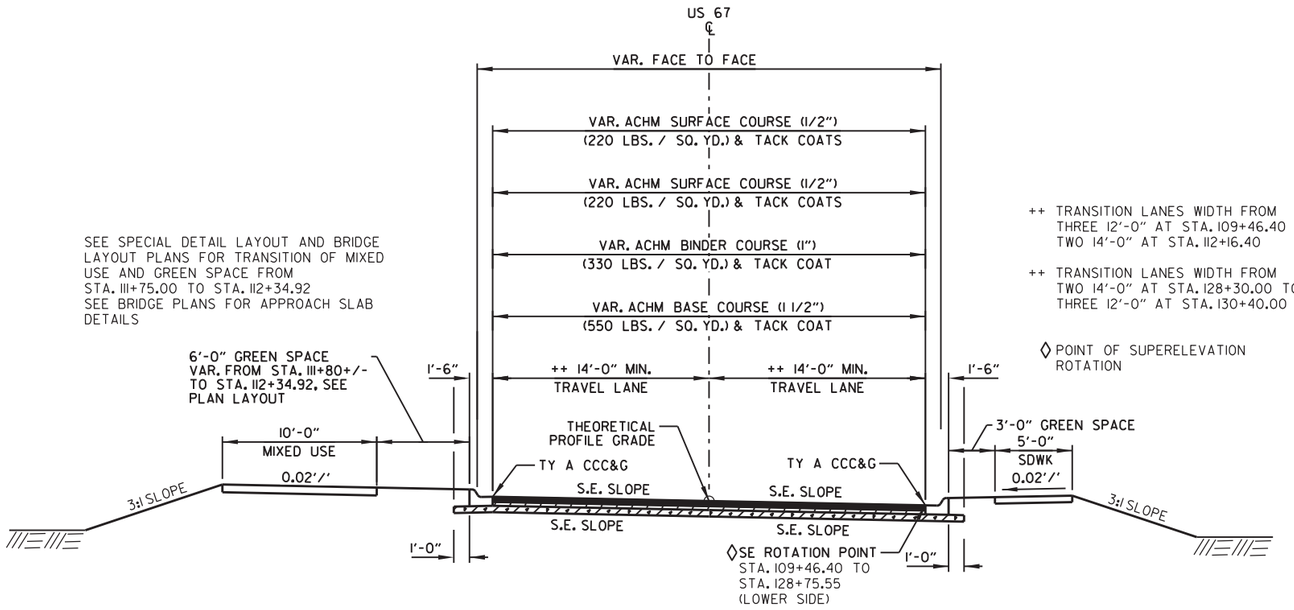
1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
3. IT IS INTENDED THAT THE SUBGRADE SHALL BE FINISHED IN CONFORMITY WITH THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS. HOWEVER, A TOLERANCE OF PLUS OR MINUS 1/2" WILL BE ALLOWED.
4. THE FINAL 2" (50mm) OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

TYPICAL SECTIONS OF IMPROVEMENT

danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	7	158
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIBSON
07/24/25



US 67 - FULL DEPTH TRANSITION SECTION IN SUPERELEVATION

STA. 109+46.40 TO STA. 111+98.44
STA. 128+30.00 TO STA. 128+63.28

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

3. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

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5. THE FINAL 2" (50mm) OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

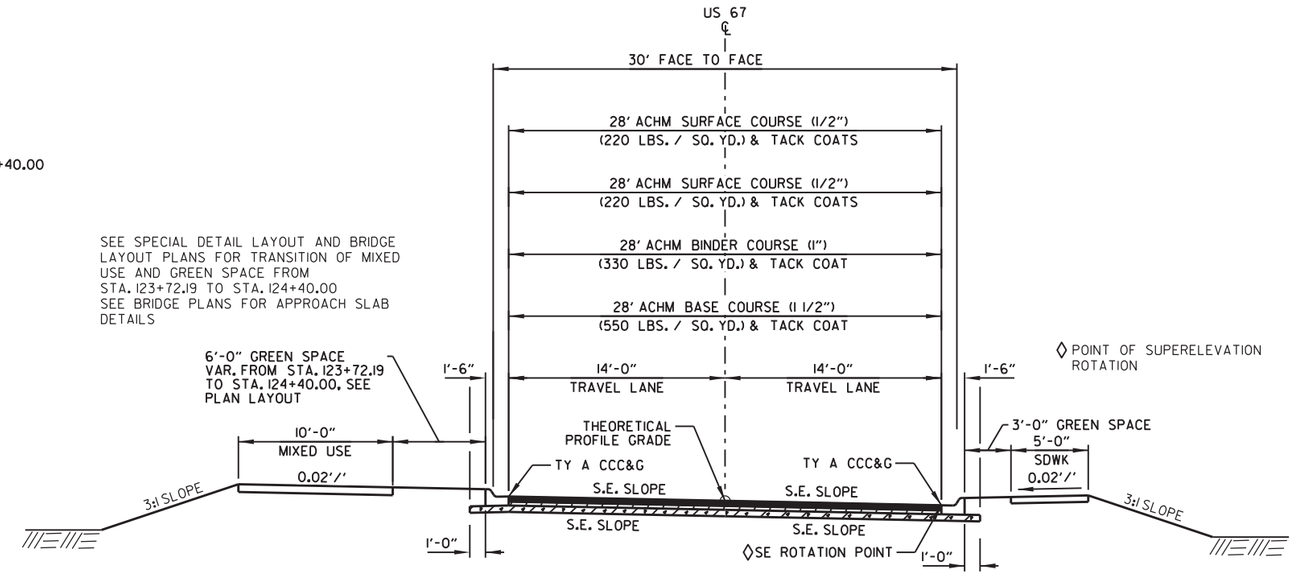
danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	8	158
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

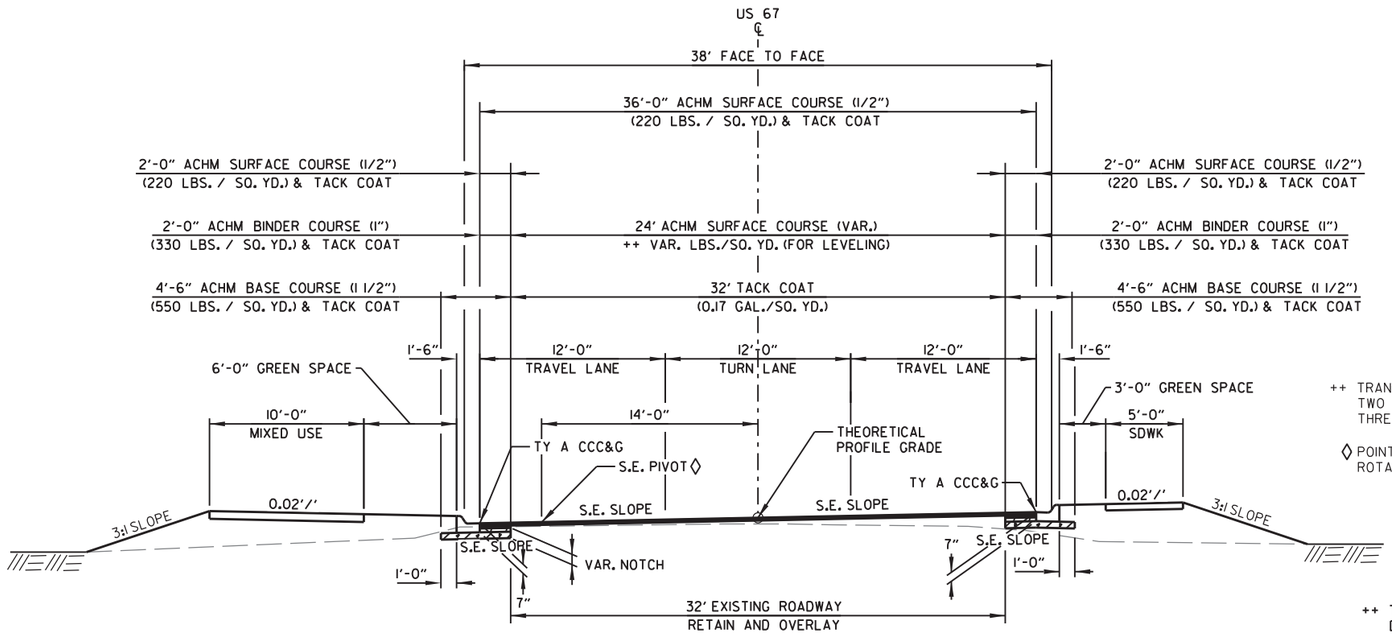
TRANSITION:
STA. 128+63.28 - STA. 130+40.00

SEE SPECIAL DETAIL LAYOUT AND BRIDGE LAYOUT PLANS FOR TRANSITION OF MIXED USE AND GREEN SPACE FROM STA. 123+72.19 TO STA. 124+40.00
SEE BRIDGE PLANS FOR APPROACH SLAB DETAILS



US 67 - 28' FULL DEPTH SECTION IN SUPERELEVATION

STA. 124+08.60 TO STA. 128+30.00



++ TRANSITION LANES WIDTH FROM TWO 14'-0" AT STA. 128+30.00 TO THREE 12'-0" AT STA. 130+40.00

◊ POINT OF SUPERELEVATION ROTATION

++ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

US 67 - 36' NOTCH AND WIDEN IN SUPERELEVATION

STA. 128+63.28 TO STA. 133+75.00

NOTES:

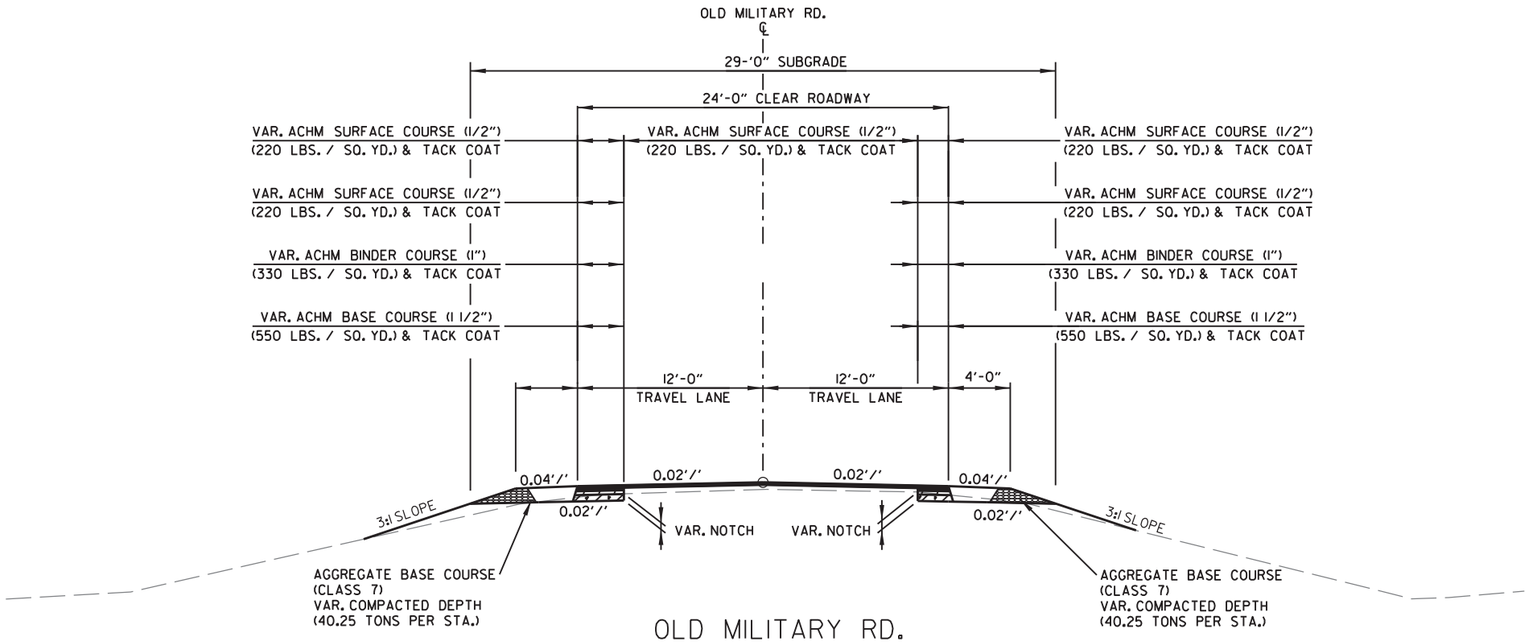
1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
3. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
4. IT IS INTENDED THAT THE SUBGRADE SHALL BE FINISHED IN CONFORMITY WITH THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS. HOWEVER, A TOLERANCE OF PLUS OR MINUS 1/2" WILL BE ALLOWED.
5. THE FINAL 2" (50mm) OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

TYPICAL SECTIONS OF IMPROVEMENT

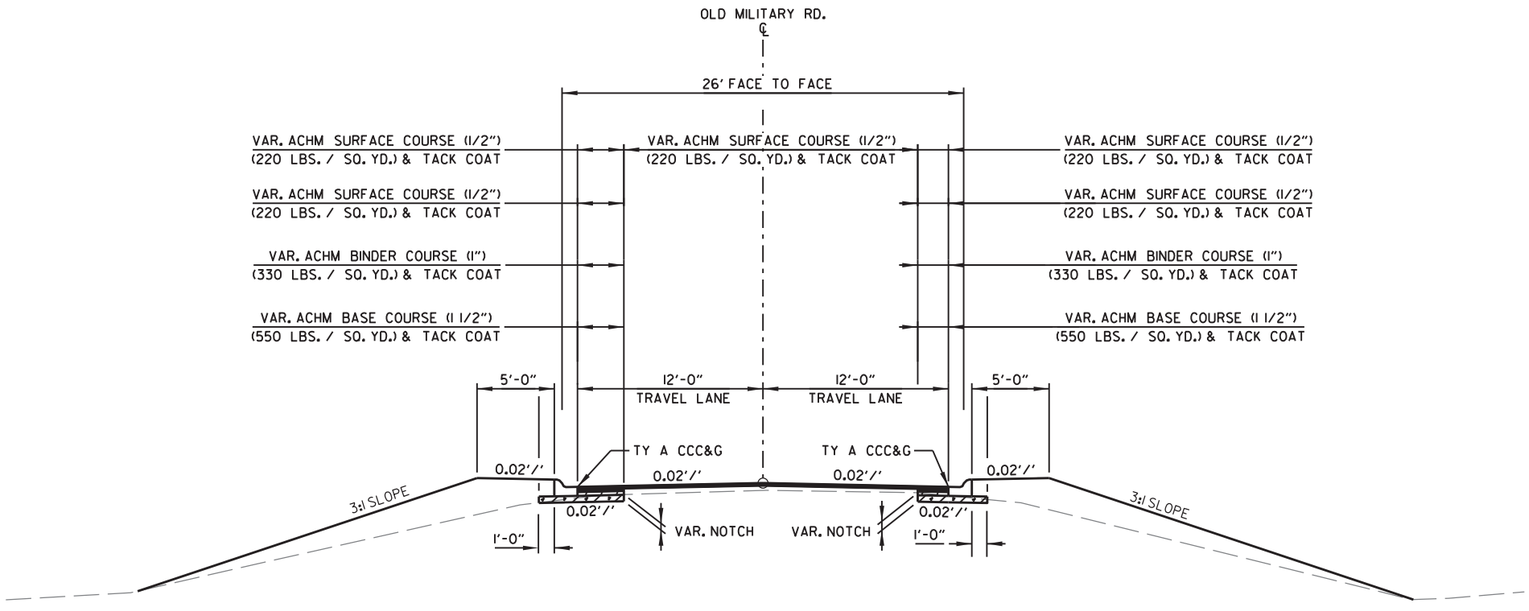
danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	9	158
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



OLD MILITARY RD.
NOTCH AND WIDEN LT. & RT.
STA. 11+45.00 TO STA. 13+02.67



OLD MILITARY RD. - 24' NOTCH AND WIDEN WITH CURB & GUTTER
STA. 13+02.67 TO STA. 14+56.33

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH (25mm) OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
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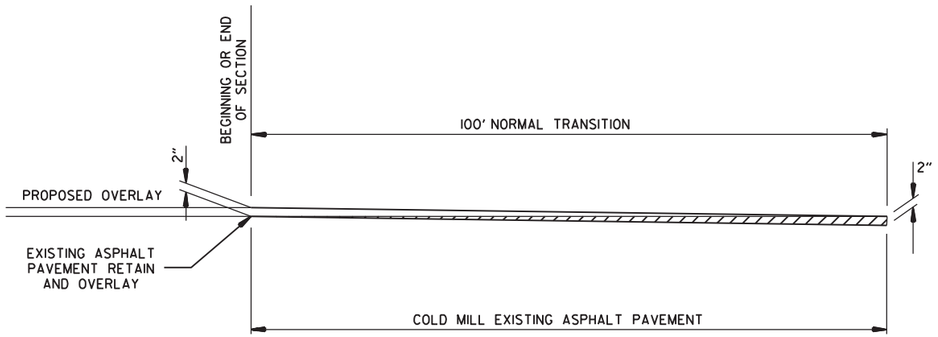
5. THE FINAL 2" (50mm) OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

TYPICAL SECTIONS OF IMPROVEMENT

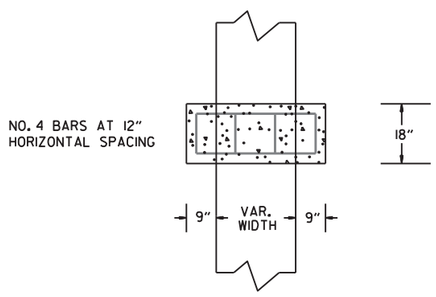
danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	10	158
		SPECIAL DETAILS				

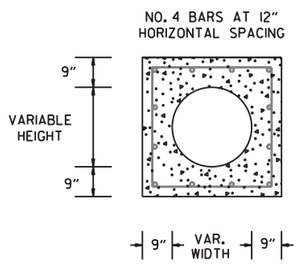
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



DETAIL FOR PAVEMENT TRANSITIONS

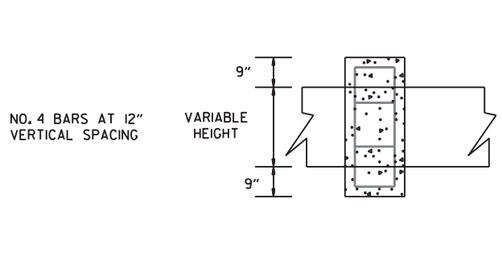


TOP VIEW



FRONT VIEW

MIN 3" COVER



SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

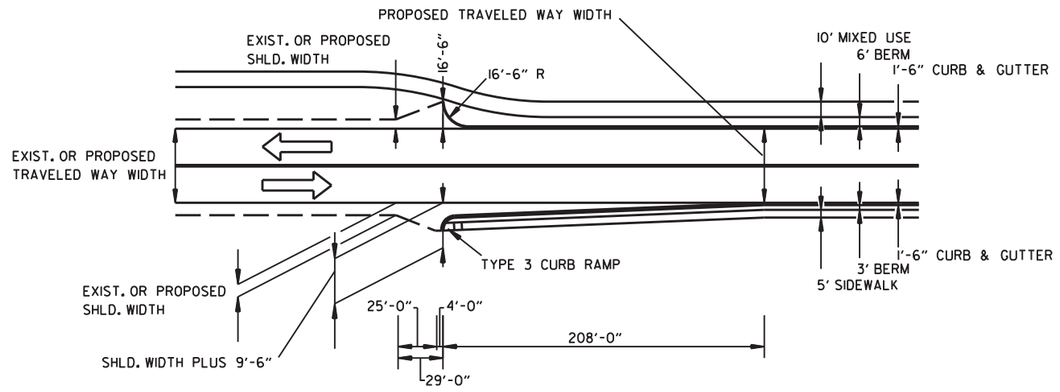
SP DET 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	11	158
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EDSON
07/24/25

6.0" Radius, 1.3" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Mo Year" C 2K;
"Est Completion Mo Year" C 2K; "IDRIVE " Arial;
" ARKANSAS.COM " Arial;

CONSTRUCTION PROJECT INFORMATION SIGN



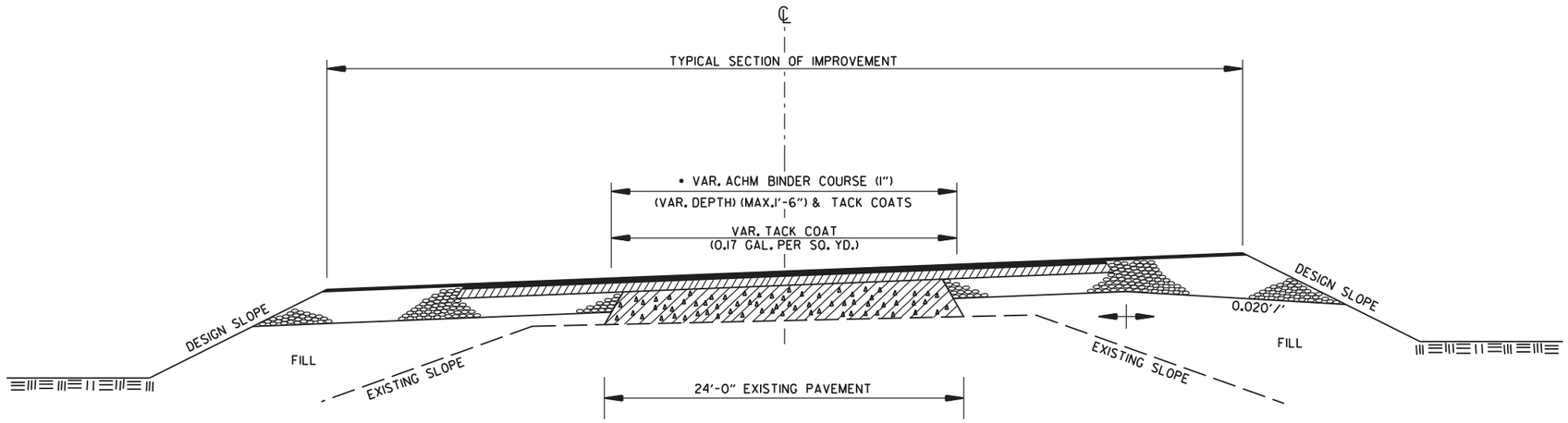
TRANSITION FROM OPEN SHOULDER
TO CURB & GUTTER SECTION

SP DET 8/1/2025
R070509.dgn

SPECIAL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	12	158
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



• 7" AGGREGATE BASE COURSE (CLASS 7)
TO BE REPLACED WITH ACHM BINDER COURSE (I")

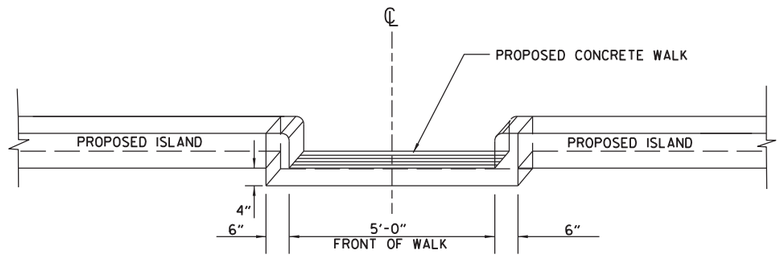
METHOD OF RAISING GRADE

NOTES:

(I) THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

(2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.

(3) IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09, OF THE STANDARD SPECIFICATIONS.



FACE SHALL MEET REQUIREMENTS
OF TYPE B CURB

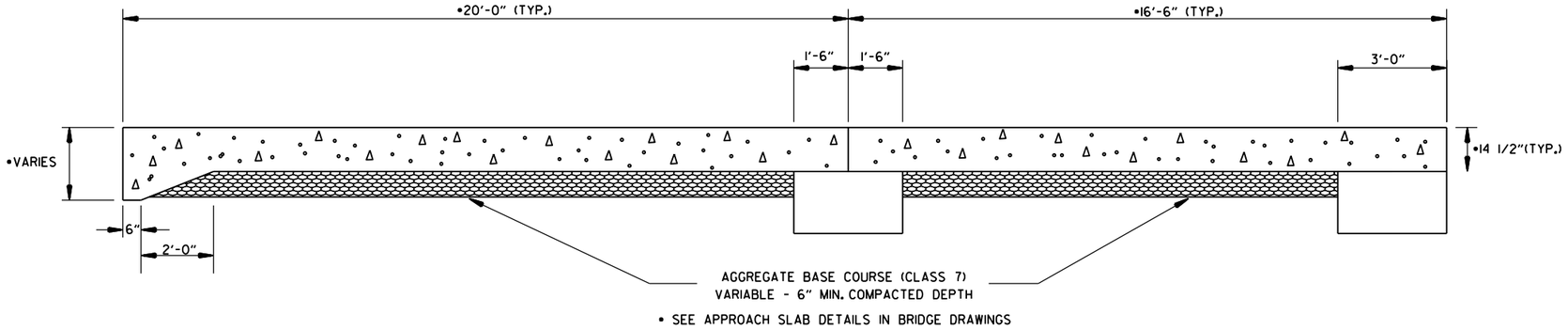
NOTE: CONCRETE WALK-THROUGH ISLAND SHALL BE POURED MONOLITHICALLY. ALL MATERIALS REQUIRED TO CONSTRUCT CONCRETE WALK-THROUGH ISLAND SHALL BE INCLUDED IN THE PRICE BID FOR CONCRETE ISLAND.

CONCRETE WALK-THROUGH ISLAND

SP DET 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	13	158
		SPECIAL DETAILS				

09/12/25



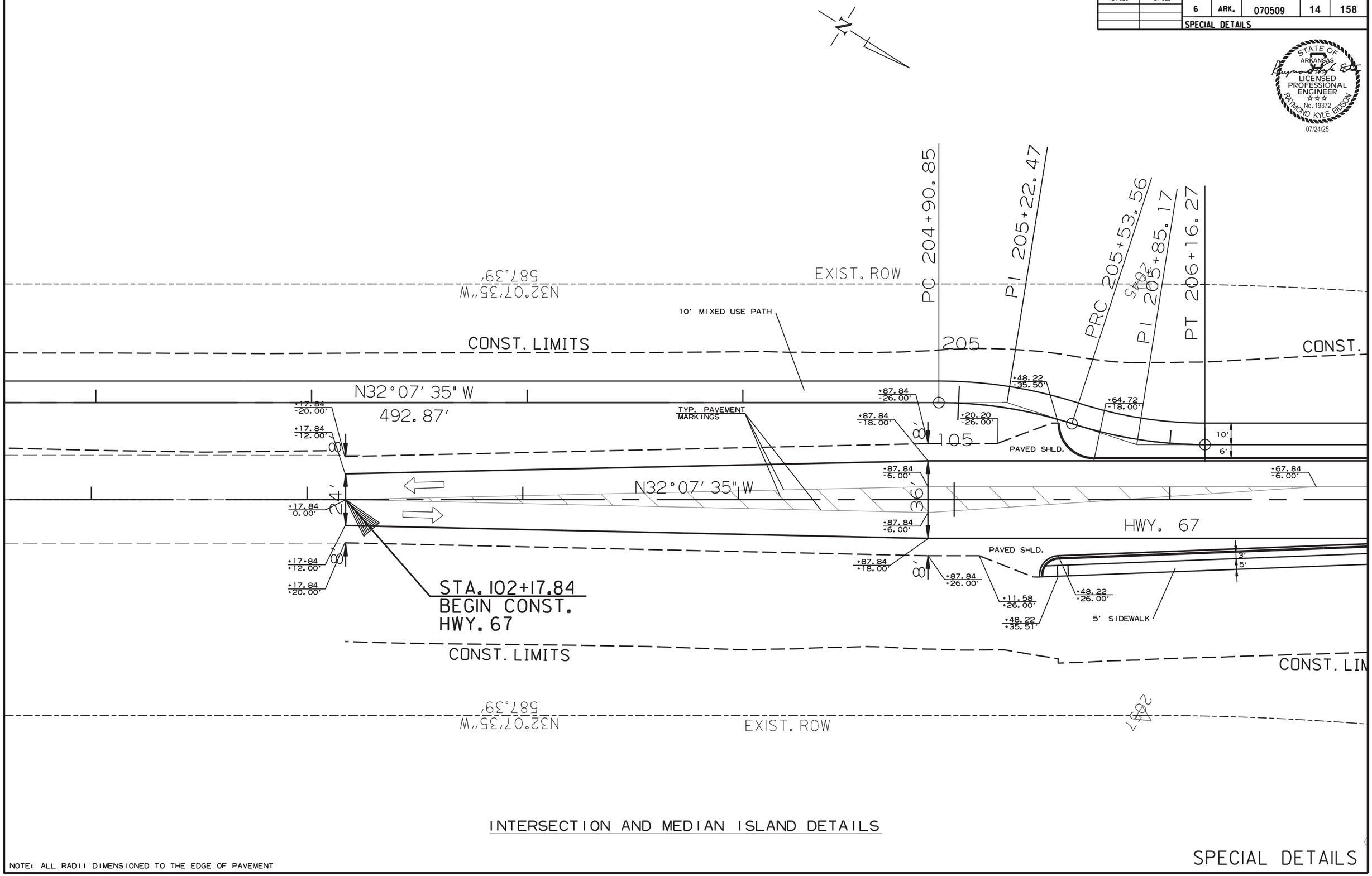
• SEE APPROACH SLAB DETAILS IN BRIDGE DRAWINGS

SECTION OF APPROACH SLAB

SP DET 9/12/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	14	158
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



INTERSECTION AND MEDIAN ISLAND DETAILS

NOTE: ALL RADII DIMENSIONED TO THE EDGE OF PAVEMENT

SPECIAL DETAILS

danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	15	158
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIBSON
07/24/25

OLD MILITARY RD.
HWY. 67
PROP. ROW
CONST. LIMITS
EXIST. ROW
PROP. TCE
PAVED SHLD.
10' MIXED USE PATH
5' SIDEWALK
TYP. PAVEMENT MARKINGS
PI 110+04.31
PC 107+56.22
PT 112+33.88
S57°58'10"W 113.47'
+40.00 190.00
+71.94 130.00
+00.98 140.00
+60.00 125.00
+10.00 115.50
+30.00 150.00
+80.00 131.42
R 165'
R 185'
R 4'
R 1'
R 275'
R 32'
R 22'
20'
16'
14
110
28
+01.39 +12.00'
+02.67 -12.00'
+64.16 -51.72
+54.35 -64.37
+52.91 -50.54
+56.45 -45.52
+07.25 +25.28'
+09.54 +18.00'
+16.93 -18.00'
+14.74 -25.35'
+73.90 -62.00
+84.50 -73.73
+84.85 -59.79
+80.63 -55.14
+49.57 +18.00'
+51.80 -18.00'
+66.85 -27.22'
+82.47 -26.75'
+05.86 -20.00'
+69.14 -20.00'
+07.84 -6.00'
+48.44 -19.97'
+48.43 -5.96'
+80.16 -19.50'
+56.22 -18.00'
+79.39 -18.00'
+07.84 +6.00'
+47.84 -2.02'
+04.06 +4.73'
+74.00 -16.11'
+56.22 +18.00'
+67.84 -6.00'
+97.84 +6.00'
+16.40 -14.00'
+16.40 0.00
+16.40 +14.00'
12'
3'
5'
10'
6'

NOTES: 1. ALL RADII DIMENSIONED TO THE EDGE OF PAVEMENT
2. SEE NEXT SHEET AND SPECIAL DETAILS FOR WALK-THROUGH MEDIAN ISLAND DETIALS

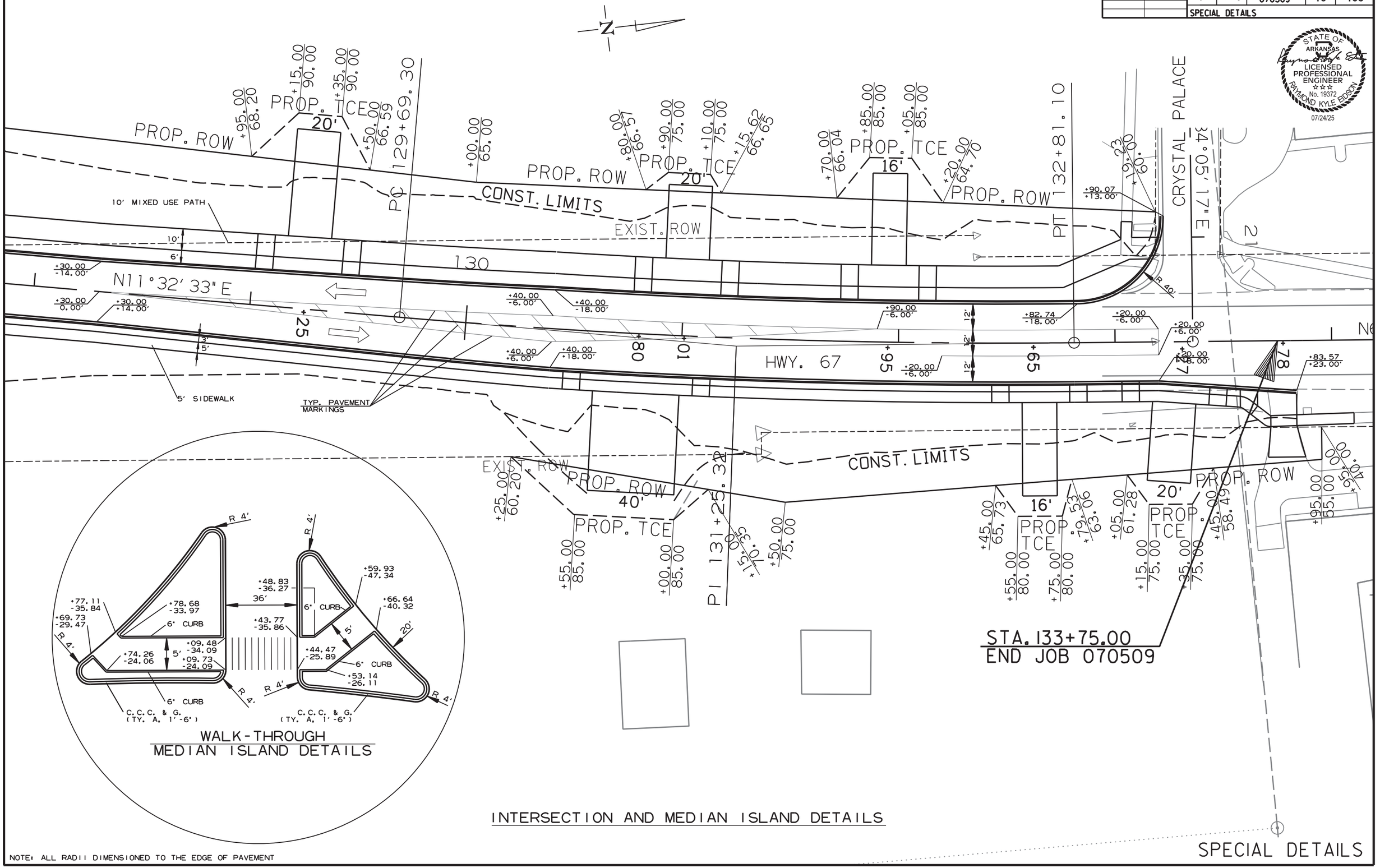
INTERSECTION AND MEDIAN ISLAND DETAILS

SPECIAL DETAILS

danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	16	158
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



NOTE: ALL RADII DIMENSIONED TO THE EDGE OF PAVEMENT

SPECIAL DETAILS

danny.mccollum 8/1/2025
R070509.dgn

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	17	158

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

=760 LIN.FT.
E-11

POB 90+00.00
PI 194+14.79
PRC 194+27.06
PT 194+73.03
PC 193+41.24
PI 194+50.70
POB 192+27.77
PI 199+97.99
PI 100+00.00
POE 100+00.00

N32°01'50"W
524.96'
N32°01'50"W
1000.00'

PAVED SHOULDER
18 INCH CMP 75% FULL
18 INCH CMP DAMAGED BY MOWER
35' TO LOCAL ABOVE MAINT. ELEVATION

STA. 93+69.78
BEGIN JOB 070509
LOG MILE 3.38

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

=220 LIN.FT.
E-11

=830 LIN.FT.
E-11

=80 LIN.FT.
E-11

=580 LIN.FT.
E-11

=840 LIN.FT.
E-11

PI 199+97.99
PC 204+90.85
PI 205+22.47
PRC 205+53.56
PI 205+85.17
PT 206+16.27
PI 107+56.22
PI 110+04.31

N32°07'35"W
492.87'
N32°07'35"W

EXIST. ROW
PROP. ROW
PROP. TCE
N68°41'13"E
S57°58'10"W
113.47'
N27°29'14"W 1.04'

WETLANDS

CLEARING AND GRUBBING STAGE
TEMPORARY EROSION CONTROL DETAILS

donny.mccollum 8/1/2025
R070509.dgn

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-11 = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	18	158

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

=1090 LIN.FT. E-11
=840 LIN.FT. E-11
=125 LIN.FT. E-11
=155 LIN.FT. E-11
=65 LIN.FT. E-11

PROP. ROW
PROP. TCE
EXIST. ROW
CADDO RIVER
WETLANDS
N6°05' 10" E
N11°32' 33" E
S84°05' 17" E
PC 129+69.30
PT 132+81.10
PI 131+25.32
PT 127+81.80
PC 124+70.01
PI 126+33.88
POE 135+93.21
POB 20+00.00
STA. 133+75.00
END JOB 070509
CLEARING LIMITS

LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-11 = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

CLEARING AND GRUBBING STAGE TEMPORARY EROSION CONTROL DETAILS

danny.mccollum 8/1/2025
R070509.dgn

REVISIONS

DATE OF REVISION	REVISION

LEGEND

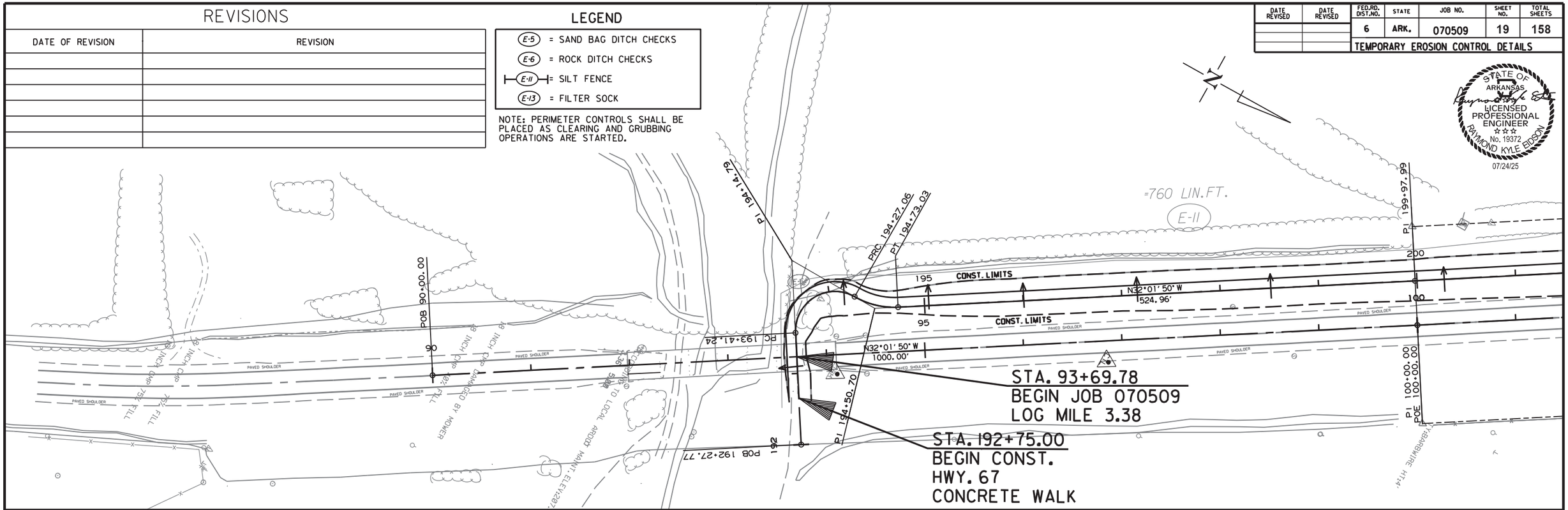
- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	19	158

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



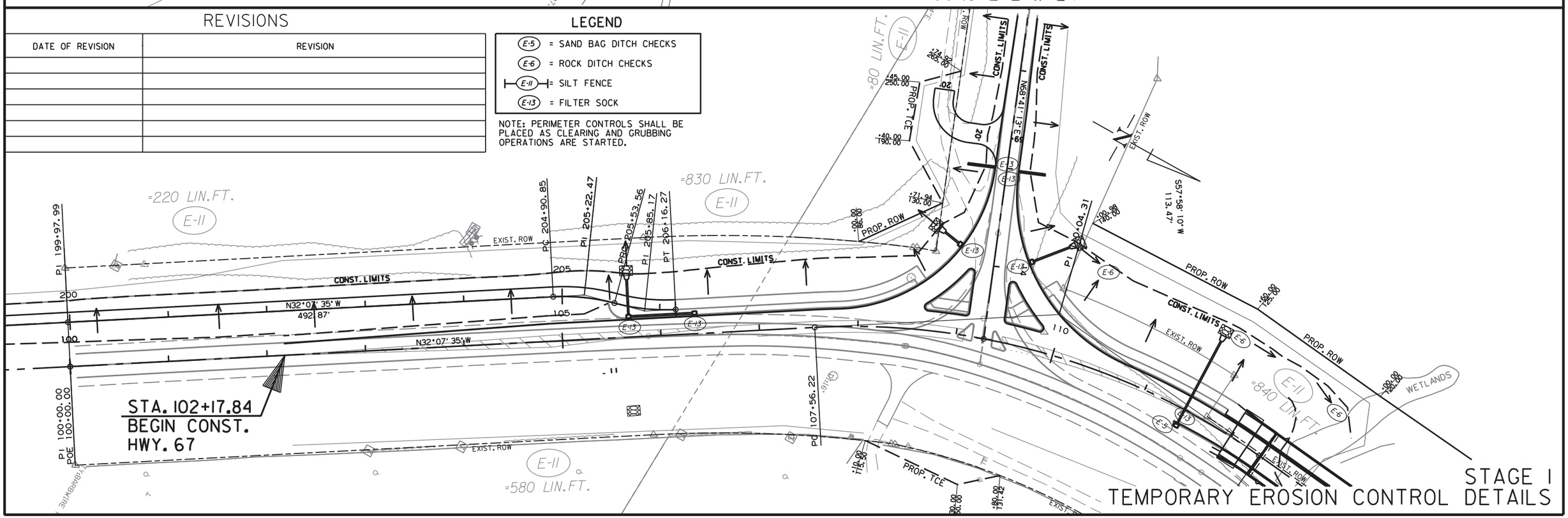
REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.



donny.mccollum 8/1/2025
R070509.dgn

REVISIONS

DATE OF REVISION	REVISION

LEGEND

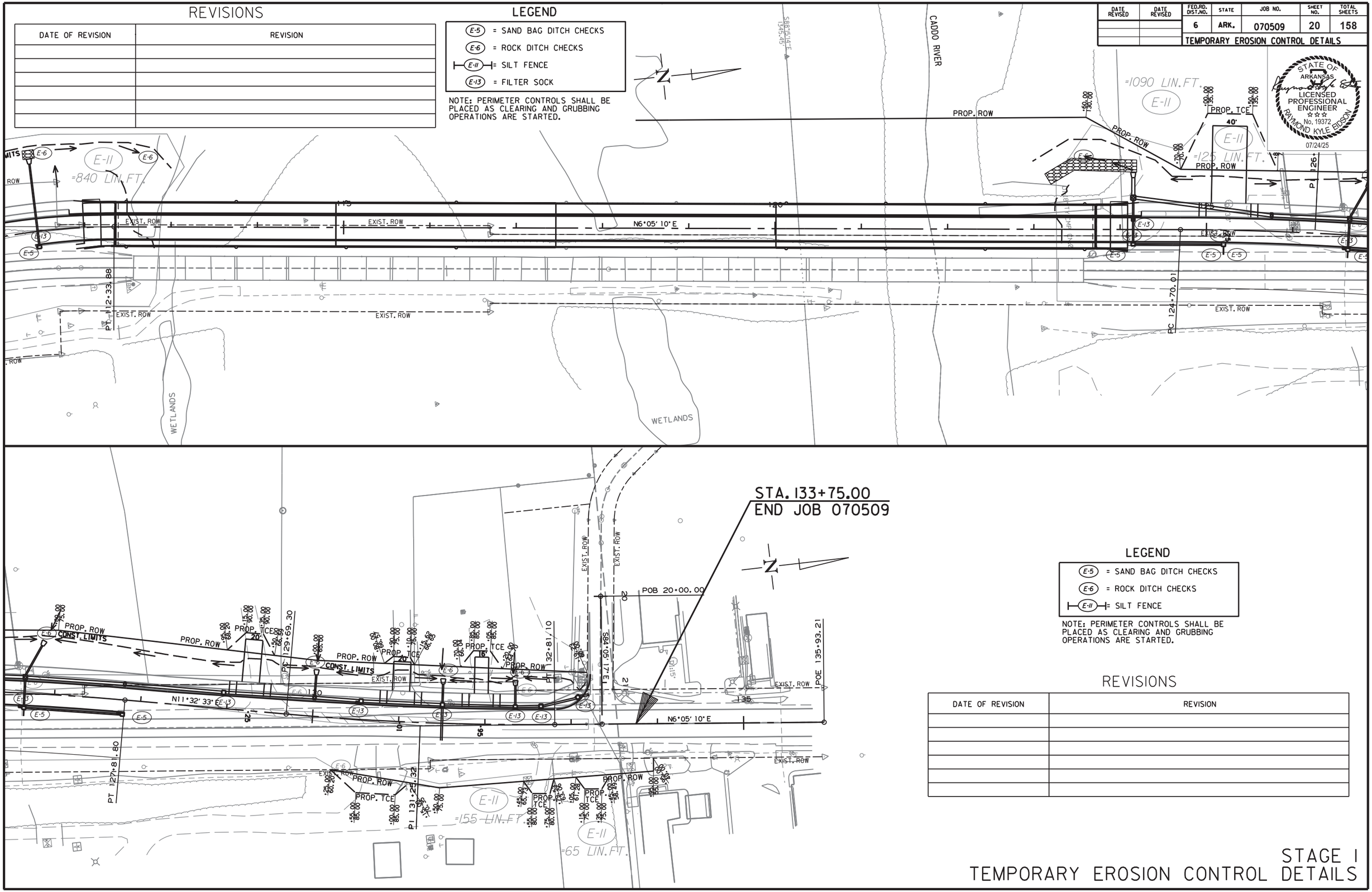
- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-11 = SILT FENCE
- E-13 = FILTER SOCK

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	20	158

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-11 = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

STAGE I
TEMPORARY EROSION CONTROL DETAILS

danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	21	158

TEMPORARY EROSION CONTROL DETAILS

REVISIONS

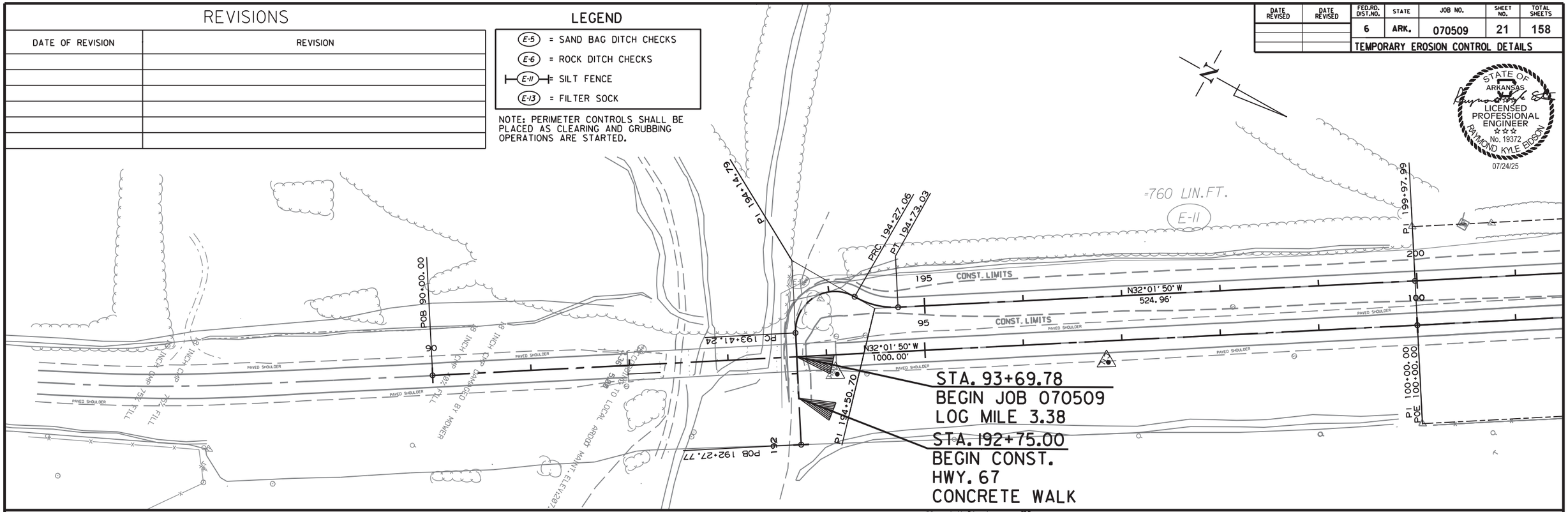
DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



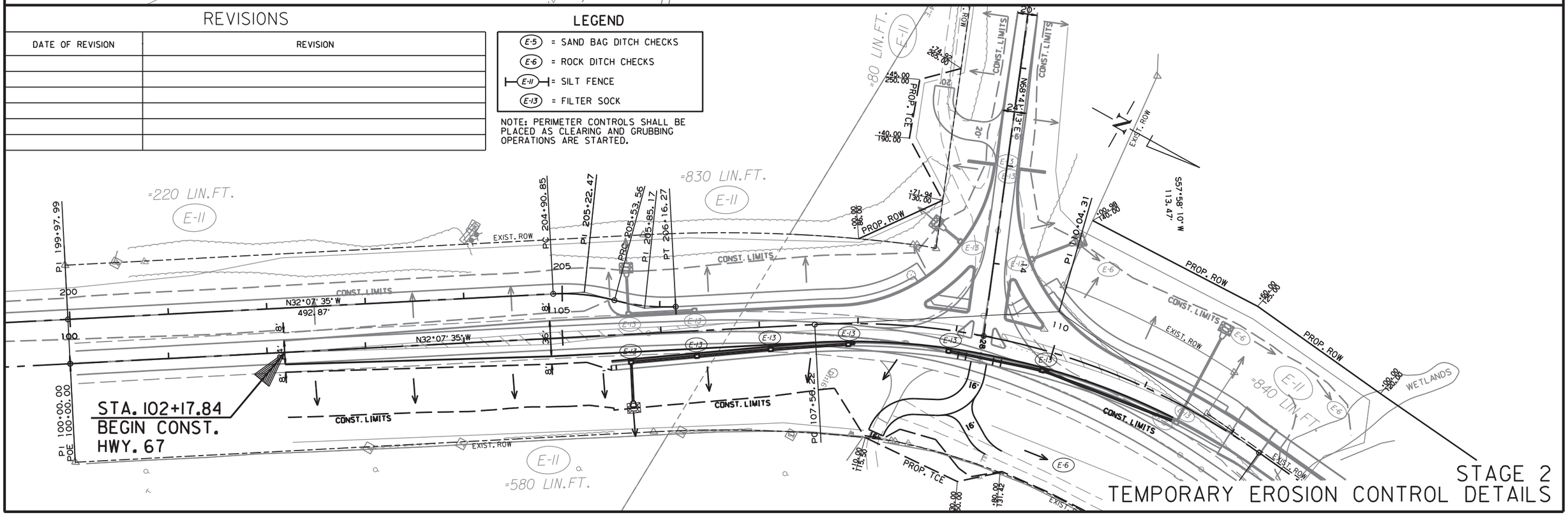
REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.



donny.mccollum 8/1/2025
R070509.dgn

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE
- (E-13) = FILTER SOCK

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	22	158

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

=1090 LIN.FT.
=840 LIN.FT.
=125 LIN.FT.
=155 LIN.FT.
=65 LIN.FT.

PROP. ROW
PROP. TCE
EXIST. ROW
CONST. LIMITS
WETLANDS
CADDO RIVER
S83°15'14"E 1345.45'
N6°05' 10" E
N11°32' 33" E
S84°05' 17" E 135.21'
PC 124+70.01
PT 126+33.88
PC 129+69.30
PI 131+25.32
PT 132+81.10
PT 127+81.80
POB 20+00.00
POE 135+93.21
STA. 133+75.00
END JOB 070509

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

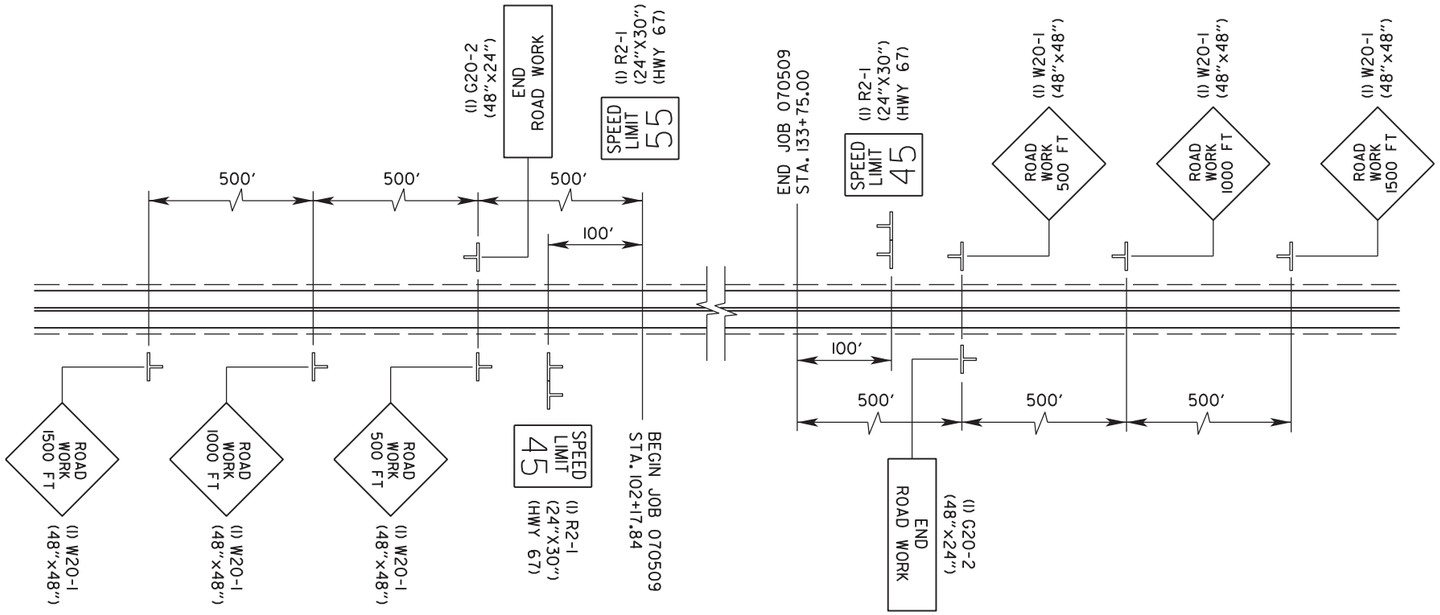
DATE OF REVISION	REVISION

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

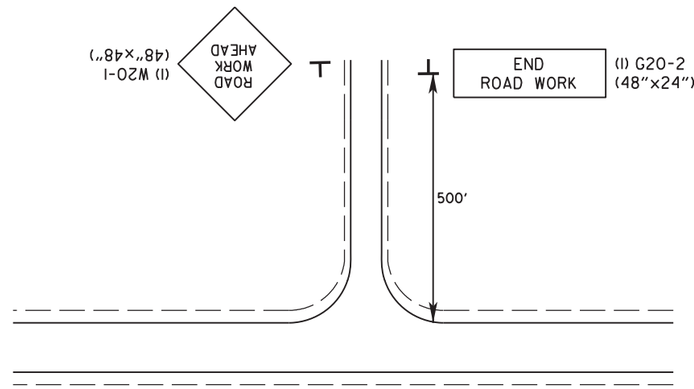
danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	23	158
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



ADVANCE WARNING (DETOUR & RELOCATION)



ADVANCE WARNING - SIDE ROADS
(ALL STAGES)

STAGE 1:

INSTALL ADVANCE WARNING SIGNS AS SHOWN. INSTALL TRAFFIC DRUMS AND VERTICAL PANELS TO DELINEATE THE WORK ZONE AND NECESSARY DRIVEWAYS.

CONSTRUCT BRIDGE NO. 07673 AND PROPOSED ROADWAY THROUGH FIRST LAYER OF SURFACE COURSE. REFER TO CROSS SECTIONS FOR LOCATIONS OF TEMPORARY SLOPES AND TEMPORARY DRAINAGE.

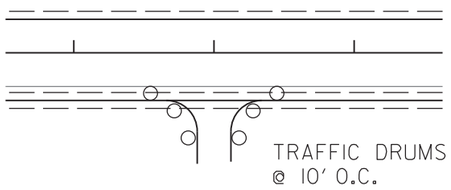
STAGE 2:

MAINTAIN ADVANCE WARNING SIGNS TRAFFIC DRUMS, AND STRIPING AS SHOWN ON STAGE 2 - MAINTENANCE OF TRAFFIC DETAILS. SHIFT TRAFFIC ONTO PROPOSED ROADWAY.

PROPERTY ACCESS TO BE MAINTAINED ON EXISTING ROADWAY UNTIL DRIVEWAYS COMPLETED.

MILL OUT THE TRANSITIONS AT BOTH ENDS OF JOB AND PLACE FINAL 2" LIFT OF SURFACE COURSE. INSTALL PERMANENT PAVEMENT MARKINGS AS SHOWN IN THE PERMANENT PAVEMENT MARKINGS DETAILS.

FINISH SLOPES AND CONSTRUCT DRIVEWAYS, OBLITERATE EXISTING BRIDGE STRUCTURE & ROADWAY.



DRIVEWAY/TRAFFIC DRUM DETAIL

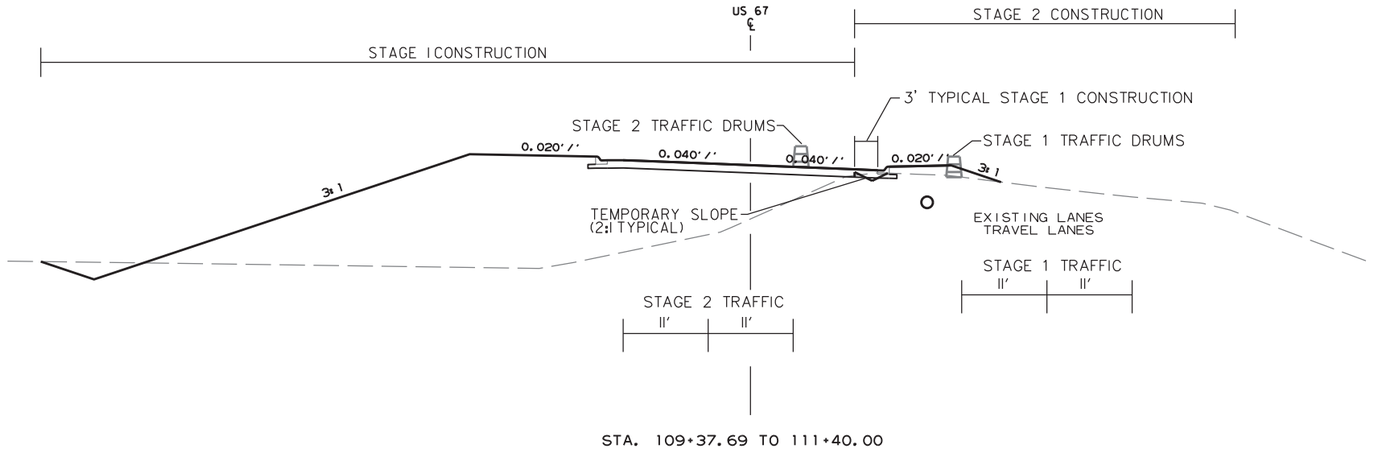
(2) W21-5a (36"x36")	RIGHT SHOULDER CLOSED	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
(2) R4-1 (24"x30")	DO NOT PASS	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
(2) W8-1 (30"x30")	BUMP	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
(2) W20-1 (48"x48")	ROAD WORK AHEAD	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

ADVANCE WARNING DETAILS
MAINTENANCE OF TRAFFIC DETAILS

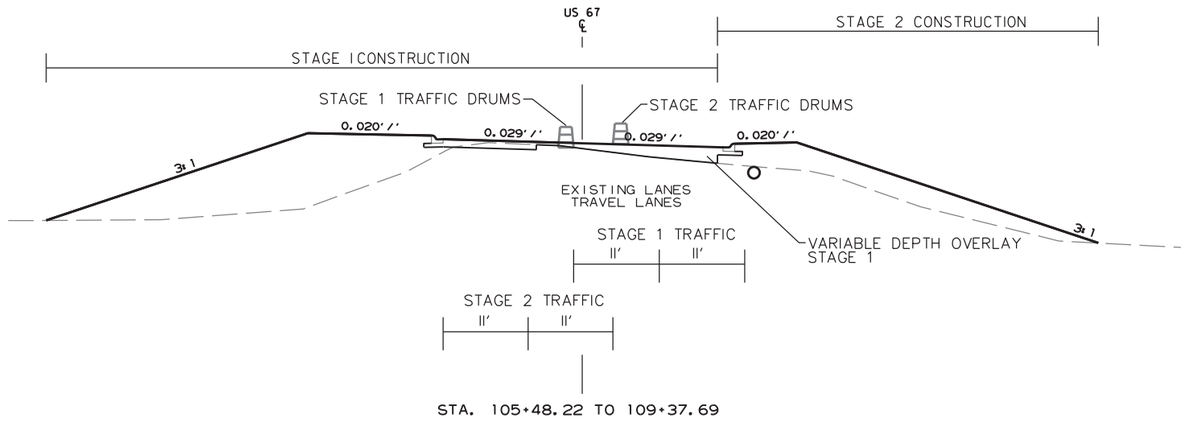
MDT N.1 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	24	158
		MAINTENANCE OF TRAFFIC DETAILS				

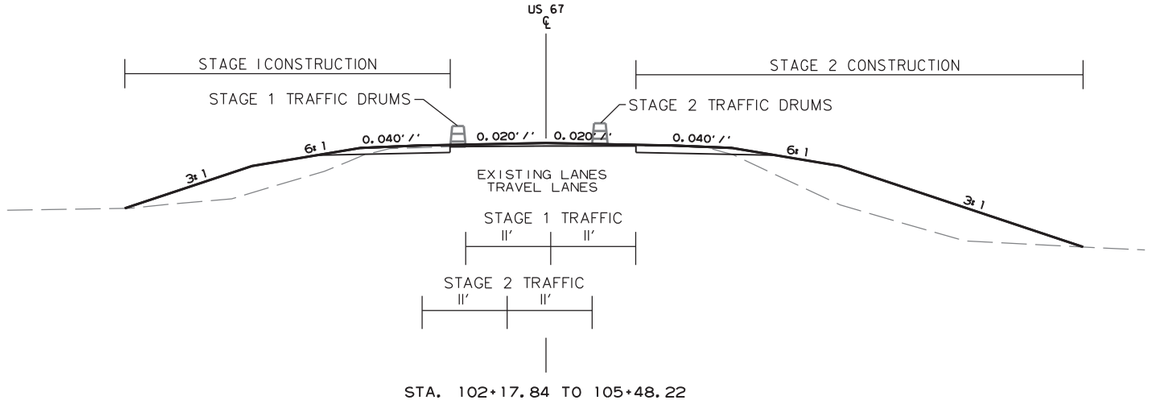
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



STA. 109+37.69 TO 111+40.00



STA. 105+48.22 TO 109+37.69



STA. 102+17.84 TO 105+48.22

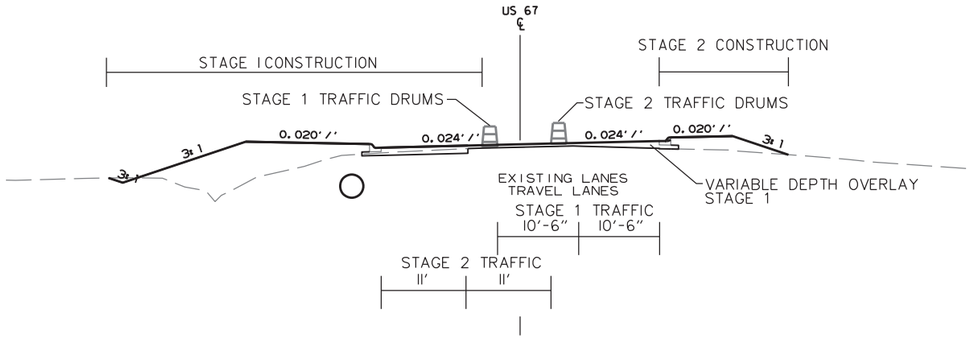
CROSS SLOPES SHOWN NOT TYPICAL IN ALL STATION RANGES (SEE CROSS SECTIONS)
EXISTING PAVED SHOULDERS AND INTERSECTION CHANNELIZATION TO BE REMOVED (VAR. OVERLAY EXISTING TRAVEL LANE WHERE REQUIRED)

MAINTENANCE OF TRAFFIC DETAILS

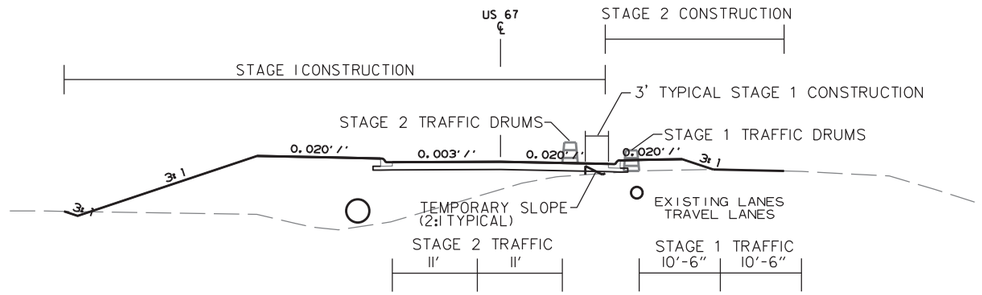
MDT N.2 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	25	158
		MAINTENANCE OF TRAFFIC DETAILS				

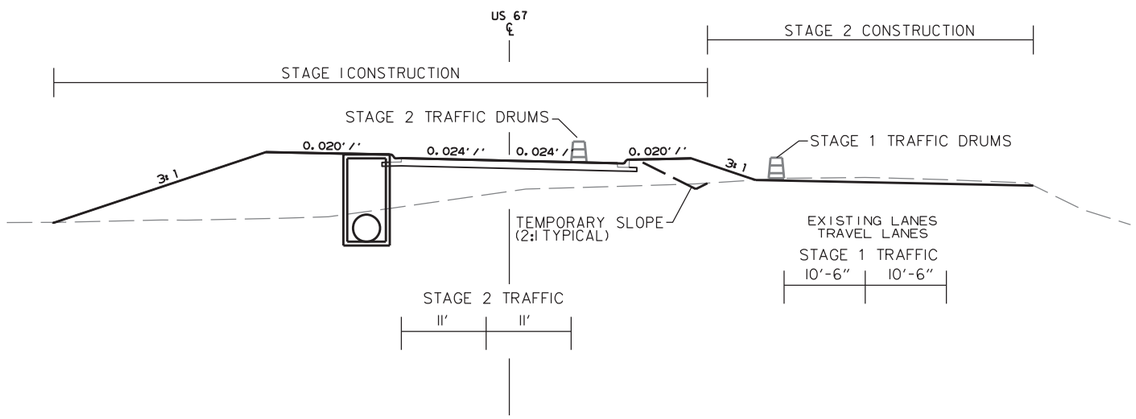
STATE OF ARKANSAS
RAYMOND KYLE GIBSON
LICENSED PROFESSIONAL ENGINEER
No. 19372
07/24/25



STA. 128+89.86 TO 133+22.74



STA. 127+81.80 TO 128+89.86



STA. 111+40.00 TO BEGIN BRIDGE
STA. BRIDGE END TO 127+81.80

CROSS SLOPES SHOWN NOT TYPICAL IN ALL STATION RANGES (SEE CROSS SECTIONS)
EXISTING PAVED SHOULDERS AND INTERSECTION CHANNELIZATION TO BE REMOVED (VAR. OVERLAY EXISTING TRAVEL LANE WHERE REQUIRED)

MAINTENANCE OF TRAFFIC DETAILS

MDT N.3 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	26	158
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

DENOTES STAGE I CONSTRUCTION

STA. 93+69.78
BEGIN JOB 070509
LOG MILE 3.38

POB 90+00.00

PI 194+14.79

PRC 194+27.06

PT 194+73.03

193+41.24

N32°01'50"W
524.96'

N32°01'50"W
1000.00'

PI 194+50.70

POB 192+27.77

TRAFFIC DRUMS
55' O.C. = 10 EACH

PI 199+97.99

PI 100+00.00
POE 100+00.00

CONST. LIMITS

PAVED SHOULDER

18 INCH CMP 75% FILL

18 INCH CMP DAMAGED BY MOWER

36 INCH CMP CONNECTS TO LOCAL AROUND MAINT. ELEVATION

STA. 192+75.00
BEGIN CONST.
HWY. 67
CONCRETE WALK

DENOTES STAGE I CONSTRUCTION

TRAFFIC DRUMS
55' O.C. = 4 EACH

TRAFFIC DRUMS
10' O.C. = 7 EACH

TRAFFIC DRUMS
55' O.C. = 3 EACH

PROP. TCE

PROP. ROW

EXIST. ROW

CONST. LIMITS

N69°47'13"E
265.05'

STA. 102+17.84
BEGIN CONST.
HWY. 67

TRAFFIC DRUMS
55' O.C. = 13 EACH

CONSTRUCTION PAVEMENT MARKING - WHITE

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

TRAFFIC DRUMS
10' O.C. = 3 EACH

VERTICAL PANELS
55' O.C. = 6 EACH

VERTICAL PANELS
55' O.C. = 5 EACH

PC 204+90.85

PI 205+22.47

PRC 205+53.56

PI 205+85.17

PT 206+16.27

PI 199+04.31

S57°58'10"W
113.47'

ROAD CLOSED
(1) RII-2 (48" X 30")
16' BARR. TYP. III LT.

ROAD CLOSED
(1) RII-2 (48" X 30")
8' BARR. TYP. III RT.
8' BARR. TYP. III LT.

N32°07'35"W
492.87'

N32°07'35"W

PI 199+97.99

PI 100+00.00
POE 100+00.00

RETAIN EXISTING PAVEMENT MARKING

VERTICAL PANELS
55' O.C. = 10 EACH

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

2-11' TEMPORARY LANES

1' SHIFT @ 50'
BEGIN STA. 101+50
CL. & LEFT EDGE
PAVEMENT MARKING

PC 107+56.22

TRAFFIC DRUMS
45' O.C. = 5 EACH

WETLANDS

PROP. TCE

EXIST. ROW

STAGE I
MAINTENANCE OF TRAFFIC DETAILS

MOT 1.1 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	27	158

MAINTENANCE OF TRAFFIC DETAILS

ROAD CLOSED (1) RII-2 (48" X 30")

8' BARR. TYP. III RT.
8' BARR. TYP. III LT.

TRAFFIC DRUMS 45' O.C. = 5 EACH

DENOTES STAGE I CONSTRUCTION

WETLANDS

PROP. ROW

EXIST. ROW

N6°05'10"E

PT 112+33.88

RETAIN EXISTING PAVEMENT MARKING

SHIFT CONSTRUCTION PAVMENT MARKINGS TO EXISTING @ 25' BEGIN STA. 112+35 CL. & LEFT EDGE PAVEMENT MARKING

CADDO RIVER

ROAD CLOSED (1) RII-2 (48" X 30")

8' BARR. TYP. III RT.
8' BARR. TYP. III LT.

TRAFFIC DRUMS 10' O.C. = 16 EACH

PROP. TCE

40'

PC 124+70.01

TRAFFIC DRUMS 45' O.C. = 3 EACH

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

TRAFFIC DRUMS 45' O.C. = 4 EACH

VERTICAL PANELS 45' O.C. = 4 EACH

(1) RII-2 (48" X 30") ROAD CLOSED

16' BARR. TYP. III RT.

TRAFFIC DRUMS 10' O.C. = 8 EACH

VERTICAL PANELS 55' O.C. = 2 EACH

TRAFFIC DRUMS 10' O.C. = 6 EACH

CONSTRUCTION PAVEMENT MARKING - WHITE

VERTICAL PANELS 55' O.C. = 2 EACH

TRAFFIC DRUMS 10' O.C. = 6 EACH

CONST. LIMITS

PROP. ROW

PROP. TCE

PT 129+69.30

PI 132+81.10

PT 127+81.80

PI 131+25.32

RETAIN EXISTING PAVEMENT MARKING

BEGIN 2-10.5' LANES STA. 130+00

BEGIN LANE SHIFT STA. 132+12

CONSTRUCTION PAVEMENT MARKING FOR HATCHING - DBL. YELLOW

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

END LANE SHIFT 3-10.5' STA. 133+23

STA. 133+75.00
END JOB 070509

DENOTES STAGE I CONSTRUCTION

POB 20+00.00

POE 135+93.21

N6°05'10"E

STA. 131+50.00 CONSTRUCT JUNCTION BOX ON RT.
18" X 22' PIPE INLET WITH F.E.S
& 24" X 56' PIPE CULVERT CONNECT TO DROP INLET LT. @ STA. 131+50.00
TYPE E JUNCTION BOX = 3' X 3'
H= 7.89'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1 EACH
24" R.C. PIPE (CLASS V)(TYPE 3) = 56 LIN. FT.
56' R.C. PIPE REQUIRED IN STAGE 1,
REMOVE 15' R.C. PIPE IN STAGE 2
FINAL INSTALLED LENGTH OF 41'
INSTALL BY JACK AND BORE.

STAGE I
MAINTENANCE OF TRAFFIC DETAILS

MDT 1.2 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	28	158
		MAINTENANCE OF TRAFFIC DETAILS				

DENOTES STAGE 2 CONSTRUCTION

DENOTES OBLITERATION OF EXISTING PAVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

STA. 93+69.78
BEGIN JOB 070509
LOG MILE 3.38

POB 90+00.00

PI 194+14.79

PRC 194+27.06

PT 194+73.03

193+41.24

N32°01'50"W
1000.00'

PI 194+50.70

PI 199+97.99

CONST. LIMITS

N32°01'50"W
524.96'

PI 100+00.00
POE 100+00.00

POB 192+27.77

STA. 192+75.00
BEGIN CONST.
HWY. 67
CONCRETE WALK

45 M.P.H.

(I) W13-1 (24"x24")

(48"x48")

18 INCH CMP 75% FULL

18 INCH CMP DAMAGED BY MOWER

75% FULL

SEE SHEET 35 FOR ADDITIONAL TO LOCAL AROUND MAINT. ELEVATION

PAVED SHOULDER

PAVED SHOULDER MARKS ON SIDE OF ROAD

DENOTES STAGE 2 CONSTRUCTION

DENOTES OBLITERATION OF EXISTING PAVEMENT

(I) W3-1A (48"x48")

STOP AHEAD

(I) R1-1 (48"x48")

STOP

PROP. TCE

CONST. LIMITS

N69°41'13"E

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

EXIST. ROW

CONSTRUCTION PAVEMENT MARKING - WHITE

PROP. ROW

ROAD CLOSED

(I) R11-2 (48"x30")

(I) W1-6 (48"x24")

16' BARR. TYP. III RT.

S57°58'10"W
113.47'

PI 200+04.31

TRAFFIC DRUMS
55' O.C. = 6 EACH

TRAFFIC DRUMS
10' O.C. = 22 EACH

WETLANDS

STA. 102+17.84
BEGIN CONST.
HWY. 67

PI 199+97.99

PC 204+90.85

PI 205+22.47

PRC 205+53.56

PI 205+85.17

PT 206+16.27

N32°07'35"W
492.87'

VERTICAL PANELS
55' O.C. = 13 EACH

PC 207+58.22

2-11' TEMPORARY LANES

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

PI 100+00.00
POE 100+00.00

45 M.P.H.

(I) W13-1 (24"x24")

(I) W1-2R (48"x48")

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

MOT 2.1 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	29	158

MAINTENANCE OF TRAFFIC DETAILS

DENOTES STAGE 2 CONSTRUCTION

DENOTES OBLITERATION OF EXISTING PAVEMENT

(1) W1-2L (48"x48")

(1) W13-1 (24"x24") 45 M.P.H.

S88°15'14"E 1345.45'

CADDO RIVER

WETLANDS

CONSTRUCTION PAVEMENT MARKING - WHITE

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

PROP. ROW

2-11' TEMPORARY LANES

ROAD CLOSED (1) R11-2 (48"x30")

8' BARR. TYP. III RT.

8' BARR. TYP. III LT.

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

PROP. TCE

PROP. ROW

EXIST. ROW

N6°05' 10"E

12' OF EXIST. PAVE. TO REMAIN

12' 3X 5X 12'

100'

CONST. LIMITS

18'R

TRAFFIC DRUMS 45' O.C. = 7 EACH

PC 124+76.50

PT 126+26.93

STATE OF ARKANSAS RAYMOND LEE GIBSON LICENSED PROFESSIONAL ENGINEER No. 19372 07/24/25

PC 112+33.88

(1) R11-2 (48"x30") ROAD CLOSED

8' BARR. TYP. III RT.

8' BARR. TYP. III LT.

WETLANDS

DENOTES STAGE 2 CONSTRUCTION

DENOTES OBLITERATION OF EXISTING PAVEMENT

STA. 133+75.00
END JOB 070509

(1) R11-2 (48"x30") ROAD CLOSED

(1) W1-6 (48"x24")

16' BARR. TYP. III LT.

CONSTRUCTION PAVEMENT MARKING - DBL. YELLOW

CONSTRUCTION PAVEMENT MARKING - WHITE

PROP. ROW

CONST. LIMITS

PROP. TCE

PC 129+69.30

PT 127+81.80

PT 132+81.10

POB 20+00.00

POE 135+93.21

N11°32' 33"E

N6°05' 10"E

S84°05' 17"E

EXIST. ROW

STOP (1) R1-1 (30"x30")

VERTICAL PANELS 55' O.C. = 4 EACH

TRAFFIC DRUMS 45' O.C. = 4 EACH

TRAFFIC DRUMS 10' O.C. = 9 EACH

VERTICAL PANELS 55' O.C. = 3 EACH

PC 131+25.32

BEGIN LANE SHIFT STA. 132+12

TRAFFIC DRUMS 10' O.C. = 8 EACH

TRAFFIC DRUMS 45' O.C. = 1 EACH

END LANE SHIFT 3-11' STA. 133+23

TRAFFIC DRUMS 10' O.C. = 7 EACH

STA. 131+50.00 CONSTRUCT JUNCTION BOX ON RT.
18" X 22' PIPE INLET WITH F.E.S
& 24" X 56' PIPE CULVERT CONNECT TO DROP INLET LT. @ STA. 131+50.00
TYPE E JUNCTION BOX = 3' X 3'
H= 7.89'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1EACH
24" R.C. PIPE (CLASS V)(TYPE 3) = 56 LIN. FT.
56' R.C. PIPE REQUIRED IN STAGE 1,
REMOVE 15' R.C. PIPE IN STAGE 2
FINAL INSTALLED LENGTH OF 41'
INSTALL BY JACK AND BORE.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

MDT 2.2 8/1/2025
RO70509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	30	158

PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

LEGEND
- THERMOPLASTIC PAVEMENT MARKING (ARROW)
- THERMOPLASTIC PAVEMENT MARKING (WORD)

STA. 102+17.84 - STA. 112+00.00

THERMOPLASTIC PAVEMENT MARKINGS
6" YELLOW CENTERLINE = 3869 LIN. FT.
6" WHITE CONTINUOUS = 3317 LIN. FT.
8" YELLOW HATCHING = 238 LIN. FT.
12" WHITE CROSS WALK = 190 LIN. FT.
12" STOP LINE = 24 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING ARROWS = 2 EACH
THERMOPLASTIC PAVEMENT MARKING WORDS = 1 EACH

RAISED PAVEMENT MARKERS 80' O.C.
TYPE II (YEL/YEL) ON DBL YELLOW LINES = 28 EACH

STA. 102+17.84
BEGIN CONST.
HWY. 67

PI 199+97.99
PI 100+00.00
POE 100+00.00

6" THERMOPLASTIC PAVEMENT MARKING DBL. YELLOW SOLID AND R.P.M. (TYPE II) 80' O.C.
6" THERMOPLASTIC PAVEMENT MARKING WHITE SOLID
8" THERMOPLASTIC YELLOW SOLID PAVEMENT MARKING FOR HATCHING
PC 204+90.85
PI 205+22.47
PRC 205+53.56
PI 205+85.17
PT 206+16.27
N32°07' 35" W 492.87'
N32°07' 35"W
PC 107+56.22
12" THERMOPLASTIC PAVEMENT MARKING WHITE STOP LINE
12" THERMOPLASTIC PAVEMENT MARKING WHITE CROSSWALK 10' WIDE @ 4' O.C.
6" THERMOPLASTIC PAVEMENT MARKING WHITE SOLID AROUND ISLAND
S57°58' 10" W 113.47'
PI 110+04.31
N39°13' 23" E
12" THERMOPLASTIC PAVEMENT MARKING WHITE CROSSWALK 10' WIDE @ 4' O.C.
8" THERMOPLASTIC YELLOW SOLID PAVEMENT MARKING FOR HATCHING
6" THERMOPLASTIC PAVEMENT MARKING DBL. YELLOW SOLID
12" THERMOPLASTIC PAVEMENT MARKING WHITE STOP LINE
6" THERMOPLASTIC PAVEMENT MARKING DBL. YELLOW SOLID AND R.P.M. (TYPE II) 80' O.C.
CONST. LIMITS
EXIST. ROW
PROP. ROW
PROP. TCE
N14°E
O RIVER

STA. 112+00.00 - STA. 126+00.00

THERMOPLASTIC PAVEMENT MARKINGS
6" YELLOW CENTERLINE = 2800 LIN. FT.
6" WHITE CONTINUOUS = 2800 LIN. FT.

RAISED PAVEMENT MARKERS 80' O.C.
TYPE II (YEL/YEL) ON DBL YELLOW LINES = 18 EACH

6" THERMOPLASTIC PAVEMENT MARKING DBL. YELLOW SOLID AND R.P.M. (TYPE II) 80' O.C.
6" THERMOPLASTIC PAVEMENT MARKING WHITE SOLID
N06°05' 10" E 6144.42'
N06°05' 10" E 1784.
PC 124+76.00
PI 126+26.02
PT 112+33.88
STA 362+72.71
12' OF EXIST. PAVE. TO REMAIN
18'R
100'
40'
PROP. TCE
CONST. LIMITS
EXIST. ROW
PROP. ROW

8/1/2025
ppmd
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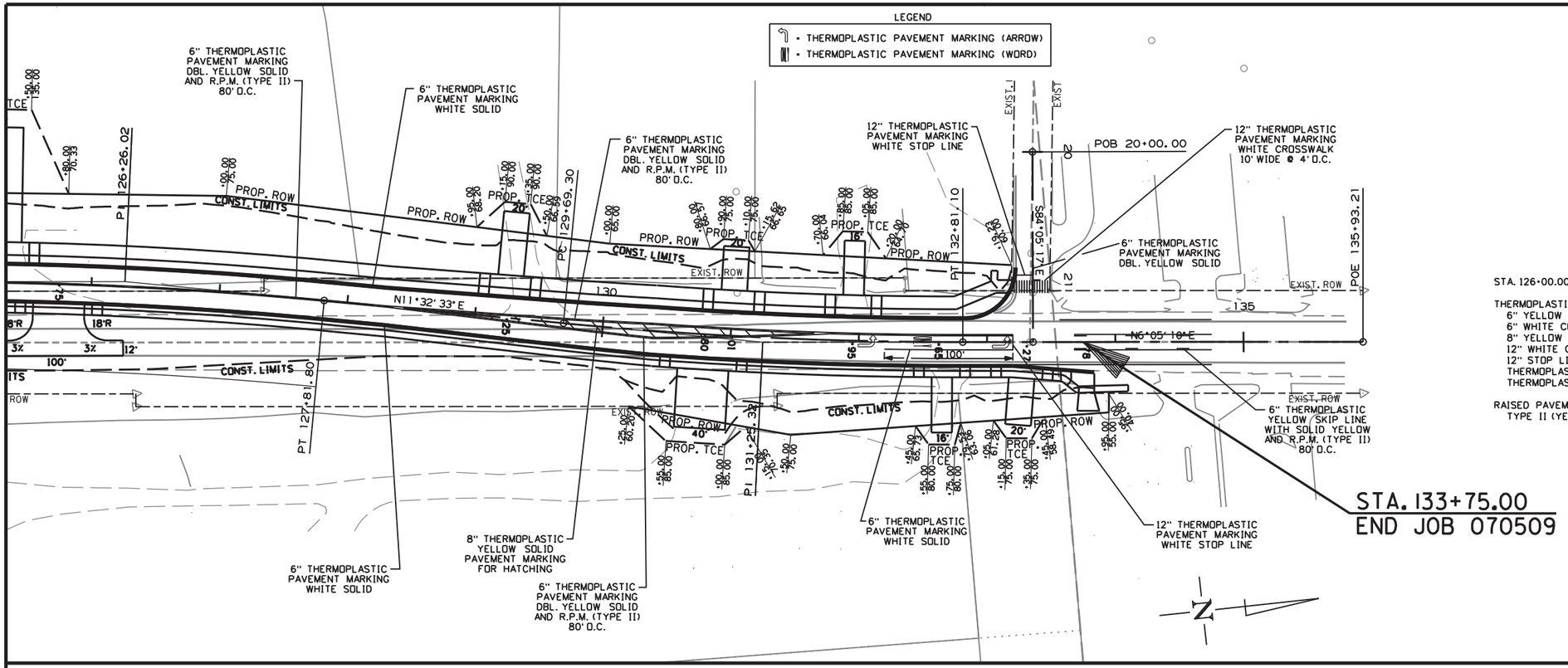
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	31	158

PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25



STA. 126+00.00 - STA. 133+75.00

THERMOPLASTIC PAVEMENT MARKINGS
- 6" YELLOW CENTERLINE = 2361 LIN. FT.
- 6" WHITE CONTINUOUS = 1840 LIN. FT.
- 8" YELLOW HATCHING = 124 LIN. FT.
- 12" WHITE CROSS WALK = 76 LIN. FT.
- 12" STOP LINE = 12 LIN. FT.
- THERMOPLASTIC PAVEMENT MARKING ARROWS = 2 EACH
- THERMOPLASTIC PAVEMENT MARKING WORDS = 1 EACH

RAISED PAVEMENT MARKERS 80' O.C.
- TYPE II (YEL/YEL) ON DBL YELLOW LINES = 16 EACH

ppmd 8/1/2025
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	32	158
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIBSON
09/12/25

ADVANCE WARNING SIGNS AND DEVICES (NHPP-0010(52))

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		CONSTRUCTION PROJECT INFORMATION SIGN UPDATE
										RIGHT	LEFT	
			LIN. FT. - EACH			NO.	SQ. FT.	EACH		LIN. FT.		EACH
W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	2	32.0					
W20-1	ROAD WORK 1000 FT.	48"x48"	2	2	2	2	32.0					
W20-1	ROAD WORK 500 FT.	48"x48"	2	2	2	2	32.0					
W20-1	ROAD WORK AHEAD	48"x48"	4	4	4	4	64.0					
G20-2	END ROAD WORK	48"x24"	4	4	4	4	32.0					
W13-1	SPEED LIMIT (ADVISORY)	24"x24"		2	2	2	8.0					
R11-2	ROAD CLOSED	48"x30"	4	4	4	4	40.0					
W1-2L	CURVE LT.	48"x48"		1	1	1	16.0					
W1-2R	CURVE RT.	48"x48"		1	1	1	16.0					
W1-6	LARGE ARROW	48"x24"		2	2	2	16.0					
W3-1A	STOP AHEAD	48"x48"		1	1	1	16.0					
R1-1	STOP	48"x48"		2	2	2	32.0					
R2-1	SPEED LIMIT	24"x30"	3	3	3	3	15.0					
R4-1	DO NOT PASS	24"x30"	2	2	2	2	10.0					
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	2	2	2	2	18.0					
W8-1	BUMP	30"x30"	2	2	2	2	12.5					
SPECIAL	CONSTRUCTION PROJECT INFORMATION SIGN	96"x48"	2	2	2	2	64.0					
	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE				4							4
SPECIAL	WARNING! BRIDGE CONSTRUCTION DOWNSTREAM	60"x36"	1	1	1	1	15.0					
SPECIAL	BRIDGE CONSTRUCTION AHEAD	48"x48"	1	1	1	1	16.0					
SPECIAL	BRIDGE CONSTRUCTION PORTAGE RIGHT	48"x48"	1	1	1	1	16.0					
SPECIAL	WARNING! STAY WITHIN NAVIGATION CHANNEL	60"x36"	1	1	1	1	15.0					
	VERTICAL PANELS		29	21	29			29				
	TRAFFIC DRUMS		78	63	78				78			
	TYPE III BARRICADE-RT. (8')		2	2	2					16		
	TYPE III BARRICADE-LT. (8')		2	2	2						16	
	TYPE III BARRICADE-RT. (16')		1	1	1					16		
	TYPE III BARRICADE-LT. (16')		1	1	1						16	
TOTALS:							**517.5**	**29**	**78**	**32**	**32**	**4**

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS (NHPP-0010(52))

DESCRIPTION	STAGE 1	STAGE 2	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKING					
						TYPE II	6"		8"	12"	WORDS	ARROWS
						(YELLOW/YELLOW)	WHITE	YELLOW	YELLOW	WHITE		
	LIN. FT. - EACH			LIN. FT.		EACH	LIN. FT.				EACH	
REMOVAL OF PERMANENT PAVEMENT MARKINGS	4205			4205								
CONSTRUCTION PAVEMENT MARKINGS	5153	14434			19587							
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)			62			62						
THERMOPLASTIC PAVEMENT MARKING WHITE (6")			7957				7957					
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			9030					9030				
THERMOPLASTIC PAVEMENT MARKING YELLOW (8")			362						362			
THERMOPLASTIC PAVEMENT MARKING WHITE (12")			302							302		
THERMOPLASTIC PAVEMENT MARKING (WORDS)			2								2	
THERMOPLASTIC PAVEMENT MARKING (ARROWS)			4									4
TOTALS:				**4205**	**19587**	**62**	**7957**	**9030**	**362**	**302**	**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.

danny.mccollum 9/12/2025
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	33	158
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
09/12/25

ADVANCE WARNING SIGNS AND DEVICES (TAPR-0010(52))

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TRAFFIC DRUMS
			LIN. FT. - EACH			EACH
	TRAFFIC DRUMS		10		10	10
TOTALS:						10

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

REMOVAL AND DISPOSAL OF ITEMS (NHPP-0010(52))

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	CONCRETE DRIVEWAYS	WALKS	ASPHALT ISLANDS	GUARDRAIL	HANDRAIL	CATTLE GUARD	SIGNS
			LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	LIN. FT.	LIN. FT.	EACH	EACH
106+55		HWY. 67 LT.									1
106+55		HWY. 67 RT.									1
107+00		HWY. 67 LT.									1
108+74		HWY. 67 LT.									1
109+01	109+16	HWY. 67 LT.	54				15				1
109+36	109+52	HWY. 67 LT.	55				15				
109+68		HWY. 67 LT.									1
110+20		HWY. 67 RT.									1
111+80		HWY. 67 RT.									1
111+77	112+55	HWY. 67 RT.						78			1
112+27	112+55	HWY. 67 LT.						28			1
112+50		HWY. 67 LT.								1	
119+24		HWY. 67 RT.									1
123+63	123+97	HWY. 67 LT.						34			2
123+63	123+97	HWY. 67 RT.						34			5
124+03	124+23	HWY. 67 LT.		40		17			17		1
124+83	125+10	HWY. 67 RT.				15					
125+38		HWY. 67 RT.									1
128+74		HWY. 67 LT.									1
128+74		HWY. 67 RT.									1
132+14		HWY. 67 LT.									1
132+32		HWY. 67 RT.									1
133+27		HWY. 67 RT.			33						
133+78		HWY. 67 RT.			47						
TOTALS:			109	40	80	32	30	174	17	1	24

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.

REMOVAL AND DISPOSAL OF CULVERTS AND JUNCTION BOX (NHPP-0010(52))

STATION	DESCRIPTION	PIPE CULVERTS	JUNCTION BOXES
		EACH	EACH
126+50	18" X 280 LT. SIDE DRAIN	1	
129+25	24" X 44' LT. SIDE DRAIN	1	
130+80	24" X 49' RT. SIDE DRAIN	1	
131+01	24" X 39' LT. SIDE DRAIN	1	
131+95	24" X 24' LT SIDE DRAIN	1	
132+65	18" X 27' RT SIDE DRAIN	1	
133+27	18" X 24 RT. SIDE DRAIN	1	
133+88	RT. OF MAIN LANES		1
TOTALS:		7	1

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

EARTHWORK (NHPP-0010(52))

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
ENTIRE	PROJECT	STAGE 1-MAIN LANES	1111	21946
ENTIRE	PROJECT	STAGE 1-OLD MILITARY RD.	60	1262
ENTIRE	PROJECT	STAGE 2-MAIN LANES	353	4758
ENTIRE	PROJECT	APPROACHES	25	2095
ENTIRE	PROJECT	BRIDGE EXCAVATION	982	
TOTALS:			2531	30061

NOTE: EARTHWORK QUANTITIES SHALL BE PAID AS PLAN QUANTITY.

EARTHWORK (TAPR-0010(52))

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
192+75	202+18	CONCRETE WALK	2	2600
TOTALS:			2	2600

NOTE: EARTHWORK QUANTITIES SHALL BE PAID AS PLAN QUANTITY.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	34	158
		QUANTITIES				

STATE OF ARKANSAS
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No. 19372
RAYMOND KYLE EDSON
09/12/25

CONCRETE DITCH PAVING (NHPP-0010(52))

STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
		LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
13+01.39	OLD MILITARY RD. RT.	28.00	6.00	18.67	12.44	0.16
13+02.67	OLD MILITARY RD. LT.	27.20	6.00	18.13	12.09	0.15
TOTALS:				**36.80**	**24.53**	**0.31**

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

EROSION CONTROL (NHPP-0010(52))

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL						TEMPORARY EROSION CONTROL												
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SOLID SODDING	TEMPORARY SEEDING	MULCH COVER	WATER	WATTLE (20") DITCH CHECKS (E-1)	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	SILT FENCE (E-11)	PIPE FOR SLOPE DRAINS SLOPE DRAIN (E-12)	DUMPED RIPRAP SLOPE DRAIN (E-12)	DROP INLET FILTER SOCK (12") (E-13)	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	LIN. FT.	BAG	CU.YD.	LIN. FT.	LIN. FT.	CU.YD.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING							7.61	7.61	155.2			15	3685						141
ENTIRE	PROJECT	STAGE 1	4.74	9.48	4.74	495.7	4.74	970					132	24				391			14
ENTIRE	PROJECT	STAGE 2	2.87	5.74	2.87	299.8	2.87	560						9				253			3
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.												90	220	30	900	40	2	60	200	200	263
TOTALS:			**7.61**	**15.22**	**7.61**	**795.5**	**7.61**	**1530**	**7.61**	**7.61**	**155.2**	**90**	**352**	**78**	**4585**	**40**	**2**	**704**	**200**	**200**	**421**

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
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING
WATTLE DITCH CHECKS.....9 LIN. FT. / LOCATION
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION
FILTER SOCKS.....23 LIN. FT. / 4' DIA. INLET
27 LIN. FT. / 5' DIA. INLET
30 LIN. FT. / 6' DIA. INLET

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.

EROSION CONTROL (TAPR-0010(52))

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL				
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN. FT.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING						0.75	0.75	15.3	980	36
ENTIRE	PROJECT	STAGE 1	0.75	1.50	0.75	76.5	0.75					
ENTIRE	PROJECT	STAGE 2										
TOTALS:			**0.75**	**1.50**	**0.75**	**76.5**	**0.75**	**0.75**	**0.75**	**15.3**	**980**	**36**

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

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.

SOIL STABILIZATION (NHPP-0010(52))

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE	400
		DIRECTED BY THE ENGINEER	
TOTAL:			**400**

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

EROSION CONTROL MATTING (NHPP-0010(52))

STATION	STATION	LOCATION	LENGTH	CLASS 3
			LIN. FT.	SQ. YD.
108+50.00	109+00.00	HWY. 67 RT.	50.00	44.44
110+00.00	113+00.00	HWY. 67 LT.	300.00	266.67
124+19.00	124+60.00	HWY. 67 LT.	41.00	36.44
125+80.00	128+95.00	HWY. 67 LT.	315.00	280.00
129+60.00	130+75.00	HWY. 67 LT.	115.00	102.22
131+50.00	132+35.00	HWY. 67 RT.	85.00	75.56
132+20.00	133+00.00	HWY. 67 LT.	80.00	71.11
132+90.00	133+00.00	HWY. 67 RT.	10.00	8.89
TOTAL:				**885.33**

NOTE: AVERAGE WIDTH = 8'-0"

REMOVAL AND DISPOSAL OF FENCE (NHPP-0010(52))

STATION	STATION	LOCATION	FENCE	GATES
			LIN. FT.	
111+57	113+90	HWY. 67 LT.	386	
123+85		HWY. 67 LT.		2
TOTALS:			**386**	**2**

CLEARING AND GRUBBING (NHPP-0010(52))

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
109+50	114+50	HWY. 67	5	5
116+50	121+50	HWY. 67	5	5
122+50	124+00	HWY. 67	2	2
125+00	125+50	HWY. 67	1	1
12+00	12+50	OLD MILITARY RD.	1	1
TOTALS:			**14**	**14**

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QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	35	158
		QUANTITIES				

DUMPED RIPRAP AND FILTER BLANKET (NHPP-0010(52))

STATION	STATION	LOCATION	DUMPED RIPRAP	FILTER BLANKET
			CU. YD.	SQ. YD.
105+68		OUTLET OF PIPE CULVERT ON LT.	8	16
105+68		OUTLET OF PIPE CULVERT ON RT.	8	16
111+45		OUTLET OF PIPE CULVERT ON LT.	8	16
123+19	124+19	HWY. 67 LT.	78	156
13+84		OUTLET OF PIPE CULVERT ON RT.	8	16
13+92		OUTLET OF PIPE CULVERT ON LT.	8	16
TOTALS:			118	236

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

BENCH MARKS (NHPP-0010(52))

STATION	LOCATION	BENCH MARKS
		EACH
112+35	HWY 67 LT.	1
TOTAL:		1

NOTE: SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.

CONCRETE WALKS (NHPP-0010(52))

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN. FT.	SQ.YD.
105+48	109+05	HWY. 67 RT.	357	198
109+51	111+98	HWY. 67 RT.	247	137
124+08	130+46	HWY. 67 RT.	638	354
131+14	132+43	HWY. 67 RT.	129	72
132+87	133+03	HWY. 67 RT.	16	9
133+43	133+52	HWY. 67 RT.	9	5
TOTAL:				775

CONCRETE WALKS (TAPR-0010(52))

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN. FT.	SQ.YD.
192+75	202+18	HWY. 67 CONCRETE WALK	943	1048
102+18	105+48	HWY. 67 CONCRETE WALK	330	367
105+00	105+48	HWY. 67 LT.		
105+48	108+60	HWY. 67 LT.	312	347
109+78	111+98	HWY. 67 LT.	220	252
124+08	124+91	HWY. 67 LT.	83	100
125+58	129+01	HWY. 67 LT.	343	381
129+49	130+77	HWY. 67 LT.	128	142
131+25	131+73	HWY. 67 LT.	48	53
132+17	133+08	HWY. 67 LT.	91	101
20+92	21+00	CRYSTAL PALACE RT.	8	4
TOTAL:				2795

WHEELCHAIR RAMPS (NHPP-0010(52))

STATION	LOCATION	TYPE 3
		SQ.YD.
105+41	HWY. 67 RT.	6.4
TOTAL:		6.4

WHEELCHAIR RAMPS (TAPR-0010(52))

STATION	LOCATION	TYPE 3
		SQ.YD.
108+60	HWY. 67 LT.	8.3
109+78	HWY. 67 LT.	8.3
133+19	HWY. 67 LT.	13.2
TOTAL:		29.8

CONCRETE ISLAND (NHPP-0010(52))

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND
			SQ.YD.
108+37	LT. OF MAIN LANES	A	115
109+32	LT. OF MAIN LANES	A	92
TOTAL:			207

CONCRETE COMBINATION CURB AND GUTTER (NHPP-0010(52))

STATION	STATION	LOCATION	TYPE A (1' 6")
			LIN. FT.
105+48	108+56	HWY. 67 LT.	327
105+48	111+98	HWY. 67 RT.	650
108+37		HWY. 67 LT. ISLAND	159
109+32		HWY. 67 LT. ISLAND	144
109+80	111+83	HWY. 67 LT.	218
124+08	133+84	HWY. 67 RT.	976
124+24	133+23	HWY. 67 LT.	919
13+01	14+22	OLD MILITARY RD. RT.	136
13+03	14+17	OLD MILITARY RD. LT.	123
TOTAL:			3652

4" PIPE UNDERDRAIN (NHPP-0010(52))

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
* ENTIRE PROJECT TO BE USED IF AND			1000	10
WHERE DIRECTED BY THE ENGINEER				
TOTALS:			1000	10

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

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	36	158
		QUANTITIES				

09/12/25

COLD MILLING ASPHALT PAVEMENT (NHPP-0010(52))

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
101+17.84	102+17.84	MAIN LANES	24.00	266.67
133+75.00	134+75.00	MAIN LANES	36.00	400.00
11+45.00	12+45.00	OLD MILITARY RD.	24.00	266.67
20+88.07	21+08.07	CRYSTAL PLALACE	26.00	57.78
TOTAL:				**991.12**

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

SELECTED PIPE BEDDING (NHPP-0010(52))

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	210
ENGINEER	
	210

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

MAILBOXES (NHPP-0010(52))

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)
	EACH	
ENTIRE PROJECT	4	4
TOTALS:	**4**	**4**

ACHM PATCHING OF EXISTING ROADWAY(NHPP-0010(52))

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	10
DIRECTED BY THE ENGINEER	
TOTAL:	**10**

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

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC (NHPP-0010(52))

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	13	26
DIRECTED BY THE ENGINEER		
TOTALS:	**13**	**26**

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

APPROACH SLABS (NHPP-0010(52))

STATION	STATION	LOCATION	APPROACH SLABS	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)
			CU.YD.	POUND	TON
111+98.60	112+34.94	HWY 67	109.20	13530	80.38
123+72.10	124+08.60	HWY 67	108.96	13532	80.38
TOTALS:			**218.16**	**27062**	**160.76**

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	37	158
		QUANTITIES				

STRUCTURES (NHPP-0010(52))

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 18"	(CLASS III) 42"	(CLASS V) 24"	PIPE CULVERT STORM DRAIN ALTERNATES 1, 2, & 3 18"	24"	36"	42"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	42"	TEMPORARY CULVERTS 12"	DROP INLETS TYPE C	MO	EXT. 4'	JUNCT. BOXES (TYPE E)	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.							EACH		LIN. FT.	EACH				SQ.YD.	M.GAL.	
105+68	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET	36							1			1				5	0.06	FES-1, FES-2, FPC-9E, PCC-1
105+68	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET	32							1			1				5	0.06	FES-1, FES-2, FPC-9E, PCC-1
106+35	CONSTRUCT DROP INLET ON LT.				63							1						FPC-9E, PCC-1, PCM-1
106+35	CONSTRUCT DROP INLET ON RT.				63							1						FPC-9E, PCC-1, PCM-1
107+10	CONSTRUCT DROP INLET ON RT.				72							1						FPC-9E, PCC-1, PCM-1
107+90	CONSTRUCT DROP INLET ON RT. W/EXT.				75							1		1				FPC-9E, PCC-1, PCM-1
108+95	CONSTRUCT DROP INLET ON RT.				94							1						FPC-9E, PCC-1, PCM-1
109+95	CONSTRUCT DROP INLET ON RT. W/ EXT.				142							1		1				FPC-9E, PCC-1, PCM-1
111+45	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET	96							1			1				5	0.06	FES-1, FES-2, FPC-9E, PCC-1
111+45	TEMPORARY PIPE STUB INTO DROP INLET										8							PCC-1, PCM-1, PCP-1, PCP-2
124+15	CONSTRUCT DROP INLET ON LT.	16										1						FPC-9E, PCC-1
124+15	CONSTRUCT JUNCTION BOX ON LT. W PIPE OUTLET		22							1					1	23	0.29	FES-1, FES-2, FPC-9, PCC-1
124+15	CONSTRUCT DROP INLET ON RT.	32										1						FPC-9E, PCC-1
125+20	CONSTRUCT DROP INLET ON RT.				101							1						FPC-9E, PCC-1, PCM-1
125+20	TEMPORARY PIPE STUB INTO DROP INLET										10							PCC-1, PCM-1, PCP-1, PCP-2
125+75	CONSTRUCT JUNCTION BOX ON LT.							159							1			FPC-9, PCC-1, PCM-1
126+65	CONSTRUCT JUNCTION BOX ON LT.							88							1			FPC-9, PCC-1, PCM-1
126+65	CONSTRUCT DROP INLET ON RT. W/ EXT.				32							1		1				FPC-9E, PCC-1, PCM-1
126+65	TEMPORARY PIPE STUB INTO DROP INLET										8							PCC-1, PCM-1, PCP-1, PCP-2
126+80	PIPE INLET W/ FES ON LT.	40							1							5	0.06	FES-1, FES-2, PCC-1
127+80	CONSTRUCT JUNCTION BOX ON LT.						113								1			FPC-9, PCC-1, PCM-1
127+80	CONSTRUCT DROP INLET ON RT. W/ EXT.				111							1		1				FPC-9E, PCC-1, PCM-1
128+95	CONSTRUCT DROP INLET ON LT.						112					1						FPC-9E, PCC-1, PCM-1
128+95	CONSTRUCT DROP INLET ON RT.				111							1						FPC-9E, PCC-1, PCM-1
130+00	CONSTRUCT JUNCTION BOX ON LT. W PIPE INLET	22					102		1						1	5	0.06	FES-1, FES-2, FPC-9, PCC-1, PCM-1
130+55	CONSTRUCT DROP INLET ON LT. W/ EXT.						51					1		1				FPC-9E, PCC-1, PCM-1
131+50	CONSTRUCT JUNCTION BOX ON LT. W PIPE INLET	22					92		1						1	5	0.06	FES-1, FES-2, FPC-9, PCC-1, PCM-1
131+50	CONSTRUCT JUNCTION BOX ON RT. W PIPE INLET	22		56					1						1	5	0.06	FES-1, FES-2, FPC-9, PCC-1
132+35	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET	22				81			1			1				5	0.06	FPC-9E, PCC-1, PCM-1
132+65	CONSTRUCT DROP INLET ON LT.					26							1					FPC-9E, FPC-9M, PCC-1, PCM-1
133+00	CONSTRUCT DROP INLET ON RT. W/ PIPE INLET	12				148			1			1				5	0.06	FPC-9E, PCC-1, PCM-1
133+10	CONSTRUCT DROP INLET ON LT.					41							1					FPC-9E, FPC-9M, PCC-1, PCM-1
133+20	CONSTRUCT PIPE COLLAR ON LT. W/ PIPE					12												PCC-1, PCM-1, SPECIAL DETAILS
133+55	CONSTRUCT DROP INLET ON RT.	8			51				1				1			5	0.06	FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1
133+88	CONSTRUCT JUNCTION BOX ON RT.				32										1			FPC-9, PCC-1, PCM-1
13+84	CONSTRUCT DROP INLET ON RT.	18							1			1				5	0.06	FES-1, FES-2, FPC-9E, PCC-1
13+92	CONSTRUCT DROP INLET ON LT.	40							1			1				5	0.06	FES-1, FES-2, FPC-9E, PCC-1
TOTALS:		**418**	**22**	**56**	**947**	**308**	**470**	**247**	**12**	**1**	**26**	**21**	**3**	**5**	**8**	**83**	**1.01**	

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	38	158
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EDSON
09/12/25

DRIVEWAYS & TURNOUTS (NHPP-0010(52))

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	STANDARD DRAWINGS
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	
109+28	RT.	HWY. 67	16	109+06	109+50	39.11	343.27	37.76	140.17	DR-1
125+25	LT.	HWY. 67	40	124+91	125+59	120.89	397.56	43.73	162.34	DR-1
125+75	RT.	HWY. 68	40	125+41	126+09	94.62	409.11	45.00	167.05	DR-2
129+25	LT.	HWY. 67	20	129+01	129+49	85.33	109.36	12.03	44.66	DR-1
130+80	RT.	HWY. 67	40	130+46	131+14	60.44	204.58	22.50	83.54	DR-1
131+01	LT.	HWY. 67	20	130+77	131+25	85.33	75.58	8.31	30.86	DR-1
131+95	LT.	HWY. 67	16	131+73	132+17	78.22	75.40	8.29	30.79	DR-1
132+65	RT.	HWY. 67	16	132+43	132+87	39.11	76.64	8.43	31.29	DR-1
133+27	RT.	HWY. 67	20	133+03	133+51	42.67	79.76	8.77	32.57	DR-1
133+35	LT.	HWY. 67 / CRYSTAL PALACE	26				262.24	28.85	107.08	DR-2
133+78	RT.	HWY. 67	12	133+58	133+98	85.50				DR-1
12+69	RT.	OLD MILITARY RD.	20				44.12	4.85	98.14	DR-2
* ENTIRE PROJECT TEMPORARY DRIVES									150.00	
TOTALS:						**731.22**	**2077.62**	**228.52**	**1078.49**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.1% MIN. AGGR.....5.9% ASPHALT BINDER

THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, WILL BE ALLOWED TO SUBSTITUTE A HIGHER PERFORMANCE GRADE ASPHALT SURFACE COURSE FOR DRIVEWAYS AND MINOR SIDE STREET CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	39	158
		QUANTITIES				

09/12/25

BASE AND SURFACING (NHPP-0010(52))

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
						(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)																				
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	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				FEET			TON	FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																													
101+17.84	102+17.84	HWY. 67 TRANSITION	100.00						40.00	444.44	75.55	75.55													40.00	444.44	220.00	48.89	48.89
102+17.84	105+48.22	HWY. 67 NOTCH & WIDEN	330.38	130.50	431.15	VAR.	2591.50	129.58				129.58	VAR.	285.22	550.00	78.44	VAR.	275.37	330.00	45.44	VAR.	275.37	220.00	30.29	VAR.	1755.54	220.00	193.11	223.40
105+48.22	106+21.22	HWY. 67 NOTCH & WIDEN	73.00			VAR.	867.76	43.39				43.39	VAR.	200.52	550.00	55.14	VAR.	157.97	330.00	26.07	VAR.	157.97	220.00	17.38	VAR.	351.30	220.00	38.64	56.02
106+21.22	108+00.00	HWY. 67 NOTCH & WIDEN	178.78			VAR.	1808.29	90.41				90.41	VAR.	417.17	550.00	114.72	VAR.	318.53	330.00	52.56	VAR.	318.53	220.00	35.04	VAR.	754.06	220.00	82.95	117.99
108+00.00	109+46.40	HWY. 67 FULL DEPTH	146.40			149.00	2423.73	121.19				121.19	41.00	666.93	550.00	183.41	36.00	585.60	330.00	96.62	36.00	585.60	220.00	64.42	36.00	585.60	220.00	64.42	128.84
109+46.40	111+98.44	HWY. 67 FULL DEPTH	252.04			VAR.	3753.86	187.69				187.69	VAR.	1043.48	550.00	286.96	VAR.	903.46	330.00	149.07	VAR.	903.46	220.00	99.38	VAR.	903.46	220.00	99.38	198.76
124+08.60	128+30.00	HWY. 67 FULL DEPTH	421.40			117.00	5478.20	273.91				273.91	33.00	1545.13	550.00	424.91	28.00	1311.02	330.00	216.32	28.00	1311.02	220.00	144.21	28.00	1311.02	220.00	144.21	288.42
128+30.00	128+63.28	HWY. 67 FULL DEPTH	33.28			VAR.	442.01	22.10				22.10	VAR.	124.37	550.00	34.20	VAR.	105.88	330.00	17.47	VAR.	105.88	220.00	11.65	VAR.	105.88	220.00	11.65	23.30
128+63.28	130+40.00	HWY. 67 NOTCH & WIDEN	176.72			VAR.	2069.95	103.50				103.50	VAR.	541.62	550.00	148.95	VAR.	443.77	330.00	73.22	VAR.	443.77	220.00	48.81	VAR.	640.79	220.00	70.49	119.30
130+40.00	133+75.00	HWY. 67 NOTCH & WIDEN	335.00			VAR.	2405.57	120.28				120.28	VAR.	452.12	550.00	124.33	VAR.	276.73	330.00	45.66	VAR.	276.73	220.00	30.44	VAR.	1399.99	220.00	154.00	184.44
133+75.00	134+75.00	HWY. 67 TRANSITION	100.00						45.00	500.00	85.00	85.00													45.00	500.00	220.00	55.00	55.00
11+45.00	13+02.67	OLD MILITARY RD. NOTCH & WIDEN	157.67	VAR.	126.92	VAR.	548.16	27.41				27.41	VAR.	53.14	550.00	14.61	VAR.	48.24	330.00	7.96	VAR.	48.24	220.00	5.31	VAR.	398.54	220.00	43.84	49.15
13+02.67	14+50.00	OLD MILITARY RD. NOTCH & WIDEN	147.33			VAR.	3509.79	175.49				175.49	VAR.	911.38	550.00	250.63	VAR.	719.66	330.00	118.74	VAR.	719.66	220.00	79.16	VAR.	1159.09	220.00	127.50	206.66
ADDITIONAL FOR LEVELING																													
102+17.84	108+00.00	LEVELING	582.16						VAR.	1513.28	257.26	257.26									VAR.	1513.28	220.00	166.46					166.46
128+63.28	133+75.00	LEVELING	511.72						VAR.	1286.39	218.69	218.69									VAR.	1286.39	220.00	141.50					141.50
ADDITIONAL FOR METHOD OF RAISING GRADE																													
106+00.00	109+00.00	HWY. 67	300.00						24.00	800.00	136.00	136.00	24.00	800.00	VAR.	308.00													
131+00.00	132+50.00	HWY. 67	150.00						24.00	400.00	68.00	68.00	24.00	400.00	VAR.	88.00													
13+48.00	14+56.00	OLD MILITARY RD.	108.00						20.00	240.00	40.80	40.80	20.00	240.00	VAR.	118.80													
TOTALS:						**558.07**		**25898.82**	**1294.95**		**5184.11**	**881.30**	**2176.25**		**7681.08**		**2231.10**		**5146.23**		**849.13**		**7945.90**		**874.05**		**10309.71**		**1134.08**	**2008.13**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.1% MIN. AGGR.....5.9% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.6% MIN. AGGR.....4.4% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
09/11/25		6	ARK.	070509	40	158
09/15/25		07673 - QUANTITIES - 67100				

SCHEDULE OF BRIDGE QUANTITIES - JOB. NO. 070509

BRIDGE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	801	SP, SS & 802	SP, SS & 802	SS & 802	SP & 803	SS & 804	SS & 804	SS & 805	SS & 805	SS & 805	SS & 805	SS & 805	SS & 806	SS & 806	SS & 806	SS & 806	SP, SS & 807	SS & 807	SS & 808	SS & 809
			ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO.)	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	CLASS S CONCRETE-BRIDGE	CLASS S(AE) CONCRETE-BRIDGE	PRESTRESSED CONCRETE GIRDERS (TYPE IV)	CLASS 2 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL SHELL PILING (18" DIA.) (1)	STEEL SHELL PILING (24" DIA.) (1)	STEEL SHELL PILING (30" DIA.) (1)	PILE ENCASEMENT	PREBORING (3)	METAL BRIDGE RAILING (TYPE H2)	METAL BRIDGE RAILING (TYPE H3)	METAL BRIDGE RAILING (TYPE H4)	TRANSITIONAL APPROACH RAILING	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)	PAINTING STRUCTURAL STEEL (2)	ELASTOMERIC BEARINGS	SILICONE JOINT SEALANT
			UNIT	LUMP SUM	CU. YD.	CU. YD.	CU. YD.	LIN. FT.	SQ. YD.	POUND	POUND	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	POUND	TON	CU. IN.	LIN. FT.
07673	HIGHWAY 67 OVER CADDO RIVER	BENT 1			9	60.63			5.6	10,099	945	450								18	2	1,286		3,042.0	52
		BENT 2				39.28				8,922			350		56									6,084.0	
		BENT 3				39.29				8,684			350		56	210								6,084.0	
		BENT 4				39.29				8,684			350		56	189								6,084.0	52
		BENT 5				39.29				8,684			350		56									6,084.0	
		BENT 6				39.29				8,684			350		49									6,084.0	
		BENT 7				39.29				8,684			350		49									6,084.0	52
		BENT 8				39.29				8,684			385		98	259								6,084.0	
		BENT 9				39.29				8,684			385		91	154								6,084.0	
		BENT 10				39.98				9,163			385		77	154								6,185.0	52
		BENT 11				41.05				8,823				455	147	280								3,132.0	
		BENT 12				41.05				8,823				455	140	280								3,132.0	
		BENT 13			39	58.58			5.6	9,882	917	405								17	2	1,318		3,143.0	52
		3 - 255'-0" CONT. PRESTRESSED CONCRETE GIRDER UNITS					1,526.30	4,563.0	4,122.5		365,868						762	760	765		14,540			
		370'-0" CONTINUOUS STEEL PLATE GIRDER UNIT					⚠1 ~~474.20~~		1,993.9		165,620						367	365	370		625,186	58.2		
							641.20																		
		EXIST. BR. NO. 00899 (SITE NO. 1)		1																					
							1,887.89																		
⚠1	TOTAL (F.A.P. NHPP-0010(52))				48	483.93	⚠1 ~~1,742.44~~	3,974.4	5,337.1	101,471	464,548	745	2,835	793	762	1,329	1,129	1,125		4	559,469	50.7	58,623.5	226
⚠1	TOTAL (F.A.P. TAPR-0010(52))					71.67	⚠1 ~~258.06~~	588.6	790.5	15,029	68,802	110	420	117	113	197			1,170		82,861	7.5	8,682.5	34
	TOTALS FOR JOB NO. 070509				48	555.60	⚠1 ~~2,000.50~~	4,563.0	6,127.6	116,500	533,350	855	3,255	910	875	1,526	1,129	1,125	1,170	4	642,330	58.2	67,306.0	260
							279.61																		
							2,167.50																		

(1) Steel shell piles shall conform to ASTM A252, Grade 3 (Fy = 45,000 psi)

(2) The color or paint shall be Brown equal to or close to Federal Std. 595B Color Chip No. 30070 and as approved by the Engineer.

(3) Quantity for preboring shown is for estimating and bidding purposes only. Actual quantity will be determined in the field.

SCHEDULE OF BRIDGE QUANTITIES - JOB. NO. 070509

BRIDGE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	812	SS & 816	SS & 816	SP JOB 070509	SP JOB 070509
			ITEM	BRIDGE NAME PLATE (TYPE D)	FILTER BLANKET	DUMPED RIPRAP	ARCHITECTURAL FINISH	TEXTURED COATING FINISH
			UNIT	EACH	SQ. YD.	CU. YD.	SQ. FT.	SQ. YD.
07673	HIGHWAY 67 OVER CADDO RIVER	BENT 1		1	519	236	33	38
		BENT 2						
		BENT 3						
		BENT 4						
		BENT 5						
		BENT 6						
		BENT 7						
		BENT 8						
		BENT 9						
		BENT 10						
		BENT 11						
		BENT 12						
		BENT 13			556	253	35	39
		3 - 255'-0" CONT. PRESTRESSED CONCRETE GIRDER UNITS					3,088	1,893
		370'-0" CONTINUOUS STEEL PLATE GIRDER UNIT					1,499	920
		EXIST. BR. NO. 00899 (SITE NO. 1)						
⚠1	TOTAL (F.A.P. NHPP-0010(52))			1	1,075	489	4,055	2,517
⚠1	TOTAL (F.A.P. TAPR-0010(52))						600	373
	TOTALS FOR JOB NO. 070509			1	1,075	489	4,655	2,890

TABLE OF STANDARD APPROACH RAILING QUANTITIES

(FOR INFORMATION ONLY)

ITEM	REINFORCING STEEL	CONCRETE	TEXTURED COATING	ARCHITECTURAL FINISH
UNIT	LB.	CU. YDS.	SQ. YDS.	SQ. FT.
Begin Bridge	374	5.00	8.1	15.2
End Bridge	374	5.00	8.1	15.2
		QUANTITIES MODIFIED FROM STANDARD		

TABLE OF TRANSITIONAL APPROACH RAILING QUANTITIES

(FOR INFORMATION ONLY)

ITEM	REINFORCING STEEL	CONCRETE	TEXTURED COATING	ARCHITECTURAL FINISH
UNIT	LB.	CU. YDS.	SQ. YDS.	SQ. FT.
Begin Bridge	508	4.94	14.9	77.9
End Bridge	508	4.94	14.9	77.9

TABLE OF TYPE SPECIAL APPROACH SLAB QUANTITIES

(FOR INFORMATION ONLY)

ITEM	REINFORCING STEEL	CONCRETE
UNIT	LB.	CU. YDS.
Begin Bridge	13,191	109.36
End Bridge	13,219	109.19

⚠1 Revised Class S(AE) Concrete Quantities and Separated Shared Use Path Quantities
Made By: LAC Date: 09/11/25
Ck'd By: BKC Date: 09/11/25

⚠2 Added Preboring Pay Item and Quantities
Made By: LAC Date: 09/15/25
Ck'd By: BKC Date: 09/15/25

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
09/15/2025
BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY

ROUTE 67 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_q1rev2.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: NONE
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67100

PRINT DATE: 9/12/2025

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	41	158
		SUMMARY OF QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EDSON
09/12/25

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY (NHPP-0010(52))	QUANTITY (TAPR-0010(52)	TOTAL QUANTITY	UNIT
201	CLEARING	14		14	STATION
201	GRUBBING	14		14	STATION
202	REMOVAL AND DISPOSAL OF CURB	109		109	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	40		40	LIN. FT.
202	REMOVAL AND DISPOSAL OF FENCE	386		386	LIN. FT.
202	REMOVAL AND DISPOSAL OF GATES	2		2	EACH
202	REMOVAL AND DISPOSAL OF ASPHALT ISLANDS	30		30	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	80		80	SQ. YD.
202	REMOVAL AND DISPOSAL OF WALKS	32		32	SQ. YD.
202	REMOVAL AND DISPOSAL OF JUNCTION BOXES	1		1	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	7		7	EACH
202	REMOVAL AND DISPOSAL OF GUARDRAIL	174		174	LIN. FT.
202	REMOVAL AND DISPOSAL OF CATTLE GUARD	1		1	EACH
202	REMOVAL AND DISPOSAL OF SIGNS	24		24	EACH
202	REMOVAL AND DISPOSAL OF HANDRAIL	17		17	LIN. FT.
SP, SS, & 210	UNCLASSIFIED EXCAVATION	2531	2	2533	CU. YD.
SP & 210	COMPACTED EMBANKMENT	30061	2600	32661	CU. YD.
SP & 210	SOIL STABILIZATION	400		400	TON
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)	1797		1797	TON
SS & 401	TACK COAT	2202		2202	GAL.
SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	2142		2142	TON
SP, SS, & 405	ASPHALT BINDER (PG 64-22) IN ACHM BASE COURSE (1 1/2")	89		89	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	812		812	TON
SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")	37		37	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	2105		2105	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	14		14	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	118		118	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	991		991	SQ. YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	13		13	TON
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	10		10	TON
SP, SS, & 504	APPROACH SLABS	218.16		218.16	CU. YD.
SP, SS, & 505	PORTLAND CEMENT CONCRETE DRIVEWAY	731.22		731.22	SQ. YD.
601	MOBILIZATION	1.00		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1		1	EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC	1.00		1.00	LUMP SUM
603	12" TEMPORARY CULVERT	26		26	LIN. FT.
SS & 604	SIGNS	518		518	SQ. FT.
SP, SS, & 604	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE	4		4	EACH
SS & 604	BARRICADES	64		64	LIN. FT.
SS & 604	TRAFFIC DRUMS	78	10	88	EACH
604	CONSTRUCTION PAVEMENT MARKINGS	19587		19587	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	4205		4205	LIN. FT.
SS & 604	VERTICAL PANELS	29		29	EACH
SP, SS, & 605	CONCRETE DITCH PAVING (TYPE B)	37		37	SQ. YD.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	418		418	LIN. FT.
* SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	947		947	LIN. FT.
* SS & 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	947		947	LIN. FT.
* SS & 606	18" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 3)	947		947	LIN. FT.
* SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	308		308	LIN. FT.
* SS & 606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	308		308	LIN. FT.
* SS & 606	24" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 3)	308		308	LIN. FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	56		56	LIN. FT.
* SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	470		470	LIN. FT.
* SS & 606	36" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	470		470	LIN. FT.
* SS & 606	36" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 3)	470		470	LIN. FT.
SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	22		22	LIN. FT.
* SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	247		247	LIN. FT.
* SS & 606	42" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	247		247	LIN. FT.
* SS & 606	42" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 3)	247		247	LIN. FT.
SS & 606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	12		12	EACH
SS & 606	42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1		1	EACH
SS & 606	SELECTED PIPE BEDDING	210		210	CU. YD.
SS & 609	DROP INLETS (TYPE C)	21		21	EACH
SS & 609	DROP INLETS (TYPE MO)	3		3	EACH
SS & 609	JUNCTION BOXES (TYPE E)	8		8	EACH
SS & 609	DROP INLET EXTENSIONS (4')	5		5	EACH
SS & 611	4" PIPE UNDERDRAINS	1000		1000	LIN. FT.
SS & 611	UNDERDRAIN OUTLET PROTECTORS	10		10	EACH
620	LIME	15	2	17	TON
620	SEEDING	7.61	0.75	8.36	ACRE
SS & 620	MULCH COVER	15.22	1.50	16.72	ACRE
620	WATER	952.0	91.8	1043.8	M. GAL.
621	TEMPORARY SEEDING	7.61	0.75	8.36	ACRE
621	SILT FENCE	4585	980	5565	LIN. FT.
621	SAND BAG DITCH CHECKS	352		352	BAG
621	SEDIMENT BASIN	200		200	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN	200		200	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	421	36	457	CU. YD.

danny.mccollum 9/12/2025
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SUMMARY OF QUANTITIES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	42	158
9/15/2025		SUMMARY OF QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EDSON
09/15/25

SUMMARY OF QUANTITIES (BOX 2 OF 2)

ITEM NUMBER	ITEM	QUANTITY (NHPP-0010(52))	QUANTITY (TAPR-0010(52))	TOTAL QUANTITY	UNIT
621	PIPE FOR SLOPE DRAINS	40		40	LIN. FT.
621	ROCK DITCH CHECKS	78		78	CU. YD.
SS & 621	FILTER SOCK (12")	704		704	LIN. FT.
621	WATTLE (20")	90		90	LIN. FT.
623	SECOND SEEDING APPLICATION	7.61	0.75	8.36	ACRE
624	SOLID SODDING	1638		1638	SQ. YD.
626	EROSION CONTROL MATTING (CLASS 3)	885		885	SQ. YD.
SP, SS, & 632	CONCRETE ISLAND	207		207	SQ. YD.
SP, SS, & 633	CONCRETE WALKS	775	2795	3570	SQ. YD.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	3652		3652	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00		1.00	LUMP SUM
637	MAILBOXES	4		4	EACH
SS & 637	MAILBOX SUPPORTS (SINGLE)	4		4	EACH
SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 3)	6	30	36	SQ. YD.
709	GALVANIZED STEEL CONDUIT (1")	100		100	LIN. FT.
710	NON-METALLIC CONDUIT (2")	2500		2500	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	4		4	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	7957		7957	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	302		302	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	9030		9030	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")	362		362	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	2		2	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	4		4	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	62		62	EACH
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	27062		27062	POUND
SS & 816	FILTER BLANKET	236		236	SQ. YD.
SS & 816	DUMPED RIPRAP	120		120	CU. YD.
	STRUCTURES OVER 20' SPAN				
205	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 1)	1.00		1.00	LUMP SUM
636	BRIDGE CONSTRUCTION CONTROL	1.00		1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	48		48	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-BRIDGE	483.93	71.67	555.60	CU. YD.
SP, SS, & 802	CLASS S(AE) CONCRETE-BRIDGE	1887.89	279.61	2167.50	CU. YD.
SP	ARCHITECTURAL FINISH	4055.0	600.0	4655.0	SQ. FT.
SS & 802	PRESTRESSED CONCRETE GIRDERS (TYPE IV)	3974.4	588.6	4563.0	LIN. FT.
SP	TEXTURED COATING FINISH	2517.0	373.0	2890.0	SQ. YD.
SP & 803	CLASS 2 PROTECTIVE SURFACE TREATMENT	5337.1	790.5	6127.6	SQ. YD.
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	101471	15029	116500	POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)	464548	68802	533350	POUND
SS & 805	STEEL SHELL PILING (18" DIAMETER)	745	110	855	LIN. FT.
SS & 805	STEEL SHELL PILING (24" DIAMETER)	2835	420	3255	LIN. FT.
SS & 805	STEEL SHELL PILING (30" DIAMETER)	793	117	910	LIN. FT.
SS & 805	PREBORING	1329	197	1526	LIN. FT.
SS & 805	PILE ENCASEMENT	762	113	875	LIN. FT.
SS & 806	METAL BRIDGE RAILING (TYPE H2)	1129		1129	LIN. FT.
SS & 806	METAL BRIDGE RAILING (TYPE H3)	1125		1125	LIN. FT.
SS & 806	METAL BRIDGE RAILING (TYPE H4)		1170	1170	LIN. FT.
SS & 806	TRANSITIONAL APPROACH RAILING	4		4	EACH
SP, SS, & 807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)	559469	82861	642330	POUND
SS & 807	PAINTING STRUCTURAL STEEL	50.7	7.5	58.2	TON
SS & 808	ELASTOMERIC BEARINGS	58623.5	8682.5	67306.0	CU. IN.
SS & 809	SILICONE JOINT SEALANT	226	34	260	LIN. FT.
812	BRIDGE NAME PLATE (TYPE D)	1		1	EACH
SS & 816	FILTER BLANKET	1075		1075	SQ. YD.
SS & 816	DUMPED RIPRAP	489		489	CU. YD.

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
9/12/2025	REMOVED SUMMARY OF QUANTITIES ITEM HAND RAILING, THE FOLLOWING ROADWAY PAY ITEM FOR THE 10' SHARED USE PATH WERE SEPARATED TO TAPR-0010(52) FUNDING: WHEELCHAIR RAMPS (TYPE 3). THE FOLLOWING BRIDGE PAY ITEMS FOR THE 10' SHARED USE PATH WERE SEPARATED TO TAPR-0010(52) FUNDING: CLASS S CONCRETE-BRIDGE, CLASS S(AE) CONCRETE-BRIDGE, ARCHITECTURAL FINISH, PRESTRESSED CONCRETE GIRDERS (TYPE IV), TEXTURED COATING FINISH, CLASS 2 PROTECTIVE SURFACE TREATMENT, REINFORCING STEEL-BRIDGE (GRADE 60), EPOXY COATED REINFORCING STEEL (GRADE 60), STEEL SHELL PILING (18" DIAMETER), STEEL SHELL PILING (24" DIAMETER), STEEL SHELL PILING (30" DIAMETER), PILE ENCASEMENT, METAL BRIDGE RAILING (TYPE H4), STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W), PAINTING STRUCTURAL STEEL, ELASTOMERIC BEARINGS, SILICONE JOINT SEALANT. REVISED SUMMARY OF QUANTITIES ITEMS CLASS S CONCRETE-BRIDGE, CLASS S(AE) CONCRETE-BRIDGE, CLASS 2 PROTECTIVE SURFACE TREATMENT	13, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 46, 47, 49 & 51
9/15/2025	ADDED SUMMARY OF QUANTITY ITEM PREBORING. ADDED PREBORING NOTE AND ESTIMATED PREBORE ELEVATION.	40, 42 & 58

danny.mccollum 9/15/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	43	158
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

SURVEY CONTROL COORDINATES

Project Name: s070509
Date: 7/22/2020
Coordinate System: ARKANSAS STATE PLANE -SOUTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	1861286.5938	988980.5509	209.926	CTL	ARDOT STD. MON. STAMPED PN: 1
2	1861819.2133	988647.0938	209.628	CTL	ARDOT STD. MON. STAMPED PN: 2
3	1862284.9862	988313.2845	211.771	CTL	ARDOT STD. MON. STAMPED PN: 3
4	1862644.5790	988360.8229	210.069	CTL	ARDOT STD. MON. STAMPED PN: 4
5	1863126.8359	988419.5939	203.383	CTL	ARDOT STD. MON. STAMPED PN: 5
6	1863769.8529	988478.4024	212.227	CTL	ARDOT STD. MON. STAMPED PN: 6
7	1864347.4600	988540.5559	210.122	CTL	ARDOT STD. MON. STAMPED PN: 7
8	1864988.8448	988559.9114	211.758	CTL	ARDOT STD. MON. STAMPED PN: 8
100	1867886.9965	988294.0696	220.415	GPS	ARDOT GPS #100035
101	1869437.1081	987703.0788	231.755	GPS	ARDOT GPS #100032A
900	1861052.1219	989124.8348	211.067	TBM	CHS SQ.19FT NW OF CR NE CORNER BR END
901	1862654.3882	988355.9452	211.689	TBM	CHS SQ.19' E OF CR 2' SW OF BRB FE
902	1864709.3358	988504.4076	211.755	TBM	CHS SQ
903	1867871.2397	988332.8603	221.275	TBM	CHSQ IN HS

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.999924438 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME s070509gi.ctl
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 100035 - 100032A
CONVERGENCE ANGLE: 0°35'58.06" LEFT AT LAT N34°10'37.33" LON W93°04'15.80"
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

HWY. 67

POINT NO.	TYPE	STATION	NORTHING	EASTING
8001	POB	100+00.00	1861541.9018	988795.2341
8002	PC	107+56.22	1862182.3244	988393.0847
8004	PT	112+33.88	1862639.1246	988287.4543
8005	PC	124+70.01	1863868.2885	988418.5126
8007	PT	127+81.80	1864176.2862	988466.2720
8008	PC	129+69.30	1864359.9943	988503.7899
8010	PT	132+81.10	1864667.9921	988551.5494
8011	POE	135+93.21	1864978.3420	988584.6401

OLD MILITARY ROAD

POINT NO.	TYPE	STATION	NORTHING	EASTING
8012	POB	10+00.00	1862165.2363	987877.9228
8013	POE	14+74.38	1862337.6554	988319.8561

CRYSTAL PALACE

POINT NO.	TYPE	STATION	NORTHING	EASTING
8014	POB	20+00.00	1864737.7696	988409.9219
8015	POE	21+48.23	1864722.5024	988557.3615

US67 B.O.P.

POINT NO.	TYPE	STATION	NORTHING	EASTING
8016	POB	90+00.00	1860697.1361	989325.6076
8001	POE	100+00.00	1861541.9018	988795.2341

HWY. 67 WALK

POINT NO.	TYPE	STATION	NORTHING	EASTING
8017	POB	192+27.77	1861054.9276	989205.1037
8018	PC	193+41.24	1860994.7470	989108.9091
8020	PRC	194+27.06	1861029.2816	989047.6991
8022	PT	194+73.03	1861072.9593	989035.5300
8023	PI	199+97.99	1861518.0031	988757.1047
8024	PC	204+90.85	1861935.3987	988495.0037
8026	PRC	205+53.56	1861992.8225	988470.4576
8028	PT	206+16.27	1862050.2463	988445.9116

SCD - SHEETS 8/1/2025
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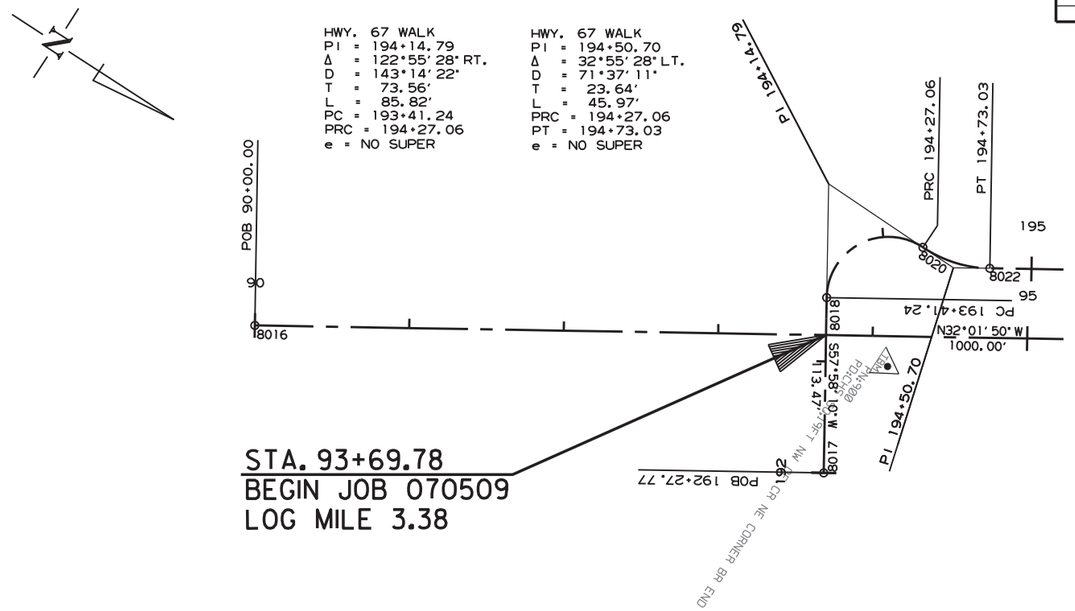
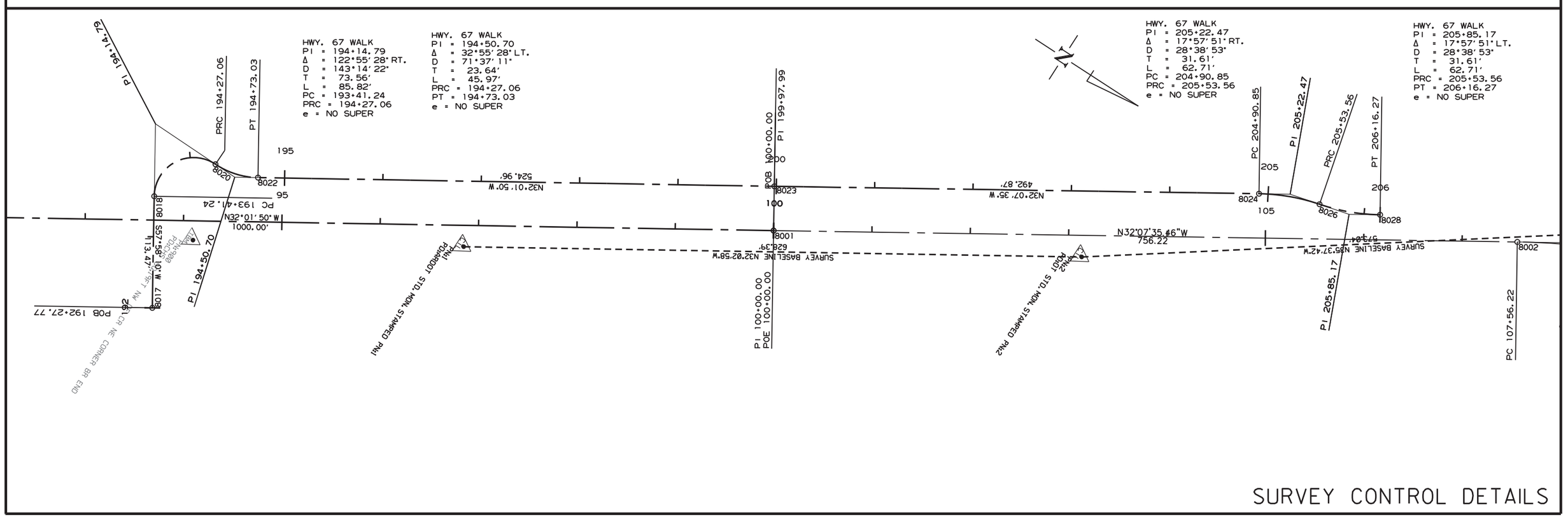
SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	44	158
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25





SURVEY CONTROL DETAILS

SCD - SHEETS 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	45	158
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

MATCH LINE
L N66°41'12.81"E 474.38
POB 10+00.00
8012
PI 110+04.31
110
MATCH LINE
8004
115
N6°05'09.98"E 1236.13
120
SURVEY BASELINE N07°31'51"E 362.72'
8013
STA. 109+28.36 HWY 67=
STA. 14+74.38
Δ = 87°02'33"
PC 107+56.22
8002
HWY. 67
PI = 110+04.31
Δ = 38°12'45" RT.
D = 8°00'00"
T = 248.09
L = 477.66
PC = 107+56.22
PT = 112+33.88
e = 0.040'/'
Ls = 180'
PT 112+33.88
SURVEY BASELINE N06°56'53"E 485.82'
SURVEY BASELINE N05°13'32"E 645.70'
PN3 PDOT STD. MON. STAMPED PN3
PN4 PDOT STD. MON. STAMPED PN4
PN5 PDOT STD. MON. STAMPED PN5
BRASS SQ. 19' E OF CR 2' SW OF BRB FE

Z

HWY. 67
PI = 131+25.32
Δ = 5°27'23" LT.
D = 1°45'00"
T = 156.02
L = 311.80
PC = 129+69.30
PT = 132+81.10
e = 0.024'/'
Ls = 125'

PI 126+26.02
PC 129+69.30
PT 132+81.10
8014
S84°05'17.36"E 148.23
POE 135+93.21
125
8005
130
8007
N11°32'33.16"E 187.50
8008
135
SURVEY BASELINE N01°43'43"E 641.88'
8010
8015
N6°05'09.98"E 312.11
8011
PC 124+70.01
PT 127+81.80
PI 131+25.32
SURVEY BASELINE N06°08'30"E 580.94'
PN6 PDOT STD. MON. STAMPED PN6
PN7 PDOT STD. MON. STAMPED PN7
PN8 PDOT STD. MON. STAMPED PN8
BRASS CAP PDOT SHS 2020 SO

HWY. 67
PI = 126+26.02
Δ = 5°27'23" RT.
D = 1°45'00"
T = 156.01
L = 311.79
PC = 124+70.01
PT = 127+81.80
e = 0.024'/'
Ls = 125'

STA. 133+35.92 HWY 67=
STA. 21+48.23
Δ = 89°49'33"

STA. 133+75.00
END JOB 070509

SURVEY CONTROL DETAILS

SCD - SHEETS 8/1/2025
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	46	158
		PLAN AND PROFILE SHEET				

HWY. 67 WALK
PI = 194+14.79
Δ = 122°55'28" RT.
D = 143°14'22"
T = 73.56'
L = 85.82'
PC = 193+41.24
PRC = 194+27.06
e = NO SUPER

HWY. 67 WALK
PI = 194+50.70
Δ = 32°55'28" LT.
D = 71°37'11"
T = 23.64'
L = 45.97'
PRC = 194+27.06
PT = 194+73.03
e = NO SUPER

HWY. 67 WALK
PI = 205+22.47
Δ = 17°57'51" RT.
D = 28°38'53"
T = 31.61'
L = 62.71'
PC = 204+90.85
PRC = 205+53.56
e = NO SUPER

HWY. 67 WALK
PI = 205+85.17
Δ = 17°57'51" LT.
D = 28°38'53"
T = 31.61'
L = 62.71'
PRC = 205+53.56
PT = 206+16.27
e = NO SUPER

STATE OF ARKANSAS
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No. 19372
RAYMOND KYLE EDSON
09/12/25

PI 194+14.79
PRC 194+27.06
PT 194+73.03
PI 194+50.70
PC 193+41.24
POB 192+27.77
PI 199+97.99
PI 100+00.00
PC 204+90.85
PI 205+22.47
PRC 205+53.56
PI 205+85.17
PT 206+16.27
EXIST. ROW
CONST. LIMITS
PAVED SHOULDER
N32°01'50"W 524.96'
N32°01'50"W 1000.00'
N32°07'35"W 492.87'
N32°07'35"W
S87°52'39"W
N87°52'39"E
S87°52'39"W
N87°52'39"E
SOUTH WEST BELL
SOUTH WEST BELL MANHOLE
CABLE TV MARKS
CABLE TV MARKS
CABLE TV MARKS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	47	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EDSON
09/12/25

STA. 105+68.00 CONSTRUCT
DROP INLET ON LT.
& 18" X 36' PIPE CULVERT
OUTLET WITH F.E.S.
TYPE C DROP INLET = 4' X 3'
H = 4.35'
18" R.C. PIPE (CLASS III)(TYPE 3) = 36 LIN. FT.
18" F.E.S. = 1 EACH

STA. 106+35.00 CONSTRUCT
DROP INLET ON LT.
& 18" X 63' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 105+68.00.
TYPE C DROP INLET = 4' X 3'
H = 4.47'
18" R.C. PIPE (CLASS III)(TYPE 3) = 63 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 63 LIN. FT.

DUMPED RIPRAP					
STA.	STA.	SIDE	LENGTH	"W"	CU. YDS.
105+68		LT.	14	10	8
105+68		RT.	14	10	8
111+45		LT.	14	10	8

STA. 108+60 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP
ON LT. = 8.3 SQ. YDS.

STA. 109+28.36 CONSTRUCT
TURNOUT ON LT. =
881 CU. YDS. COMP. EMB.
59 CU. YDS. UNCLASSIFIED

STA. 112+56 - STA. 123+58 IN PLACE
BR. NO. 00899
31.5' X 1102' CONC. DECK/CONC. & STEEL BEAMS
CONC. PILE BENTS/CONC. PIERS ON TIMBER PILE FOOTINGS
STEEL H-PILE SUPPORTS/CONC. SLAB FOOTINGS
REMOVE AS EXISTING BRIDGE
STR. (SITE NO. 1) = 1.00 LUMP SUM

STA. 109+78 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP
ON LT. = 8.3 SQ. YDS.

HWY. 67 WALK
PI = 205+22.47
Δ = 17°57'51" RT.
D = 28°38'53"
T = 31.61'
L = 62.71'
PC = 204+90.85
PRC = 205+53.56
e = NO SUPER

HWY. 67 WALK
PI = 205+85.17
Δ = 17°57'51" LT.
D = 28°38'53"
T = 31.61'
L = 62.71'
PRC = 205+53.56
PT = 206+16.27
e = NO SUPER

STA. 102+17.84
BEGIN CONST.
HWY. 67

STA. 109+28.36 HWY 67+
STA. 14+74.38
Δ = 87°02'33"

STA. 105+41 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP
ON RT. = 6.4 SQ. YDS.

STA. 105+68.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 32' PIPE CULVERT
OUTLET WITH F.E.S.
TYPE C DROP INLET = 4' X 3'
H = 4.39'
18" R.C. PIPE (CLASS III)(TYPE 3 = 32 LIN. FT.
18" F.E.S. = 1 EACH

STA. 106+35.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 63' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 105+68.00
TYPE C DROP INLET = 4' X 3'
H = 4.52'
18" R.C. PIPE (CLASS III)(TYPE 3) = 63 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 63 LIN. FT.

STA. 107+10.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 72' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 106+35.00
TYPE C DROP INLET = 4' X 3'
H = 4.47'
18" R.C. PIPE (CLASS III)(TYPE 3) = 72 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 72 LIN. FT.

STA. 107+90.00 CONSTRUCT
DROP INLET ON RT. WITH 4' EXTENSION
& 18" X 75' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 107+10.00
TYPE C DROP INLET = 4' X 3'
H = 4.46'
18" R.C. PIPE (CLASS III)(TYPE 3) = 75 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 75 LIN. FT.

STA. 108+95.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 94' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 109+95.00.
TYPE C DROP INLET = 4' X 3'
H = 4.56'
18" R.C. PIPE (CLASS III)(TYPE 3) = 94 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 94 LIN. FT.

STA. 109+28.00
CONSTRUCT APPROACH ON RT. =
380 CU. YDS. COMP. EMB.
25 CU. YDS. UNCLASSIFIED

STA. 109+95.00 CONSTRUCT
DROP INLET ON RT. WITH 4' EXTENSION
& 18" X 142' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 111+45.00.
TYPE C DROP INLET = 4' X 3'
H = 5.07'
18" R.C. PIPE (CLASS III)(TYPE 3) = 142 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 142 LIN. FT.

STA. 111+45.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 96' PIPE CULVERT OUTLET
WITH F.E.S. LT. @ STA. 111+45.00
TYPE C DROP INLET = 4' X 3'
H = 5.87'
18" R.C. PIPE (CLASS III)(TYPE 3) = 96 LIN. FT.
18" F.E.S. = 1 EACH

STA. 111+45.00 CONSTRUCT
TEMP. 12" X 8' PIPE CULVERT
STUB INTO DROP INLET

STA. 112+34.94 BRIDGE END
BRIDGE NO. 07673 OVER CADDO RIVER
3@255'-0" COMPOSITE PRESTRESSED CONCRETE
GIRDER UNITS (85', 85', 85')
370'-0" CONTIUOUS PLATE GIRDER UNIT
(115', 140', 115')
30"-0" CLEAR ROADWAY
12'-0" BARRIER PROTECTED SHARED-USE PATH
6'-6" RAISED SIDEWALK
1137'-2¼" BRIDGE LENGTH
STA. 123+72.10 BRIDGE END

HWY. 67
PI = 110+04.31
Δ = 38°12'45" RT.
D = 8°00'00"
T = 248.09'
L = 477.66'
PC = 107+56.22
PT = 112+33.88
e = 0.040'/'
Ls = 180'

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN. FT.
111+77	112+55	RT.	78
112+27	112+55	LT.	28

HWY. 67

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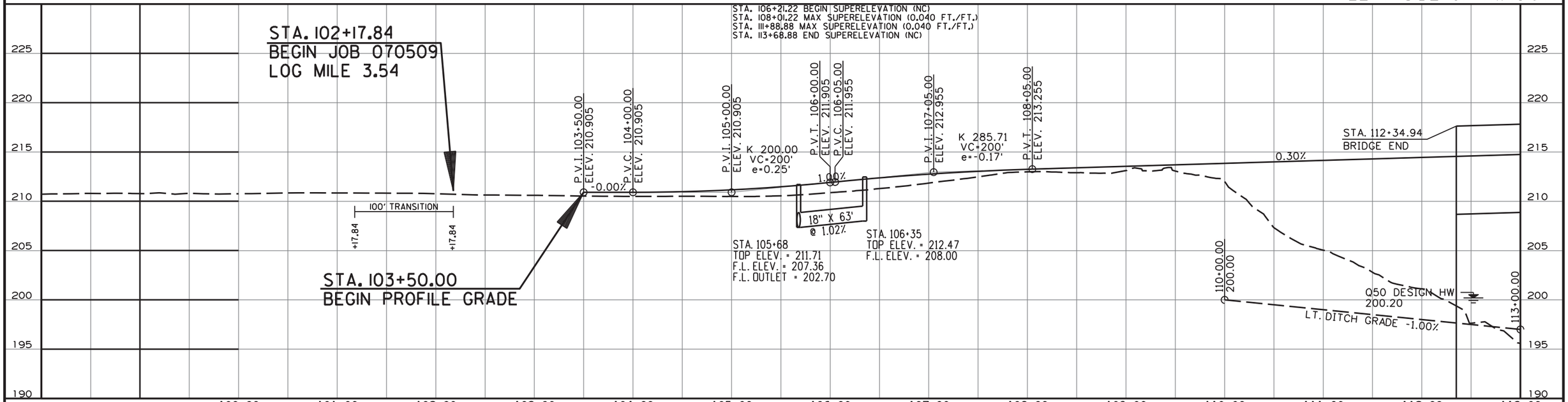
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	48	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EIDSON
07/24/25

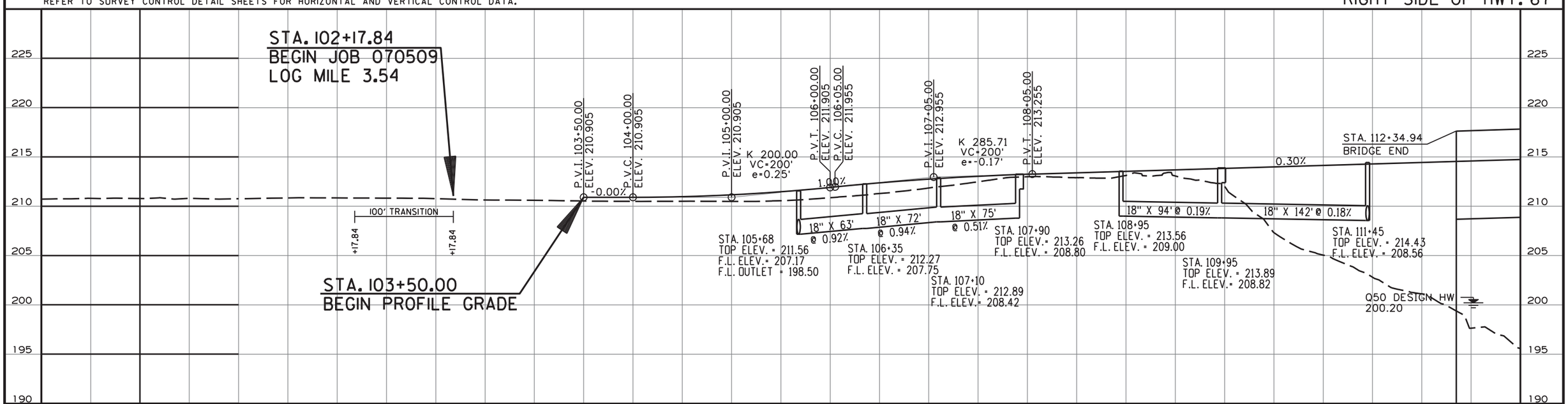
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF HWY. 67



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

RIGHT SIDE OF HWY. 67



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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	49	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
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STA. 124+15.00 CONSTRUCT
DROP INLET ON LT.
& 18" X 16' PIPE CULVERT
CONNECT TO JUNCTION BOX LT. @
STA. 124+15.00
TYPE C DROP INLET = 4' X 3'.
H = 6.46'
18" R.C. PIPE (CLASS III)(TYPE 3) = 16 LIN. FT.

STA. 124+15.00 CONSTRUCT
JUNCTION BOX ON LT.
& 42" X 22' PIPE
OUTLET WITH F.E.S
TYPE E JUNCTION BOX = 5' X 5'
H = 9.48'
42" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT.
42" F.E.S. = 1 EACH

STA. 125+25 IN PLACE
18" X 280' CMP PIPE CULVERT
LT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON LT. =
765 CU. YDS. COMP. EMB.

REMOVAL AND DISPOSAL OF FENCING

STA.	STA.	SIDE LT.	LIN. FT.	GATE
123+79				1

STA. 125+75.00 CONSTRUCT
JUNCTION BOX ON LT.
& 42" X 159' PIPE CULVERT CONNECT TO
JUNCTION BOX LT. @ STA. 124+15.00
TYPE E JUNCTION BOX = 2' X 5'
H = 11.29'
42" R.C. PIPE (CLASS III)(TYPE 3) = 159 LIN. FT.
42" SLPCCS PIPE (TYPE 2) = 159 LIN. FT.

STA. 126+65.00 CONSTRUCT
JUNCTION BOX ON LT.
42" X 88' PIPE CULVERT CONNECT TO
JUNCTION BOX LT. @ STA. 125+75.00
TYPE E JUNCTION BOX = 4' X 5'
H = 10.41'
42" R.C. PIPE (CLASS III)(TYPE 3) = 88 LIN. FT.
42" SLPCCS PIPE (TYPE 2) = 88 LIN. FT.

STA. 126+80.00 CONSTRUCT
18" X 40' PIPE INLET WITH F.E.S.
CONNECT TO JUNCTION BOX LT. @ STA. 126+65.00
18" R.C. PIPE (CLASS III)(TYPE 3) = 40 LIN. FT.
18" F.E.S. = 1 EACH

STA. 127+80.00 CONSTRUCT
JUNCTION BOX ON LT.
& 36" X 113' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 126+65.00
TYPE E JUNCTION BOX = 2' X 4'
H = 9.23'
36" R.C. PIPE (CLASS III)(TYPE 3) = 113 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 113 LIN. FT.

DUMPED RIPRAP

STA.	STA.	SIDE	LENGTH	"W"	CU. YDS.
123+19	124+19	LT.	78	14	110

STA. 124+15.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 32' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 124+15.00
TYPE C DROP INLET = 4' X 3'
H = 5.83'
18" R.C. PIPE (CLASS III)(TYPE 3) = 32 LIN. FT.

STA. 125+20.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 101' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 124+15.00
TYPE C DROP INLET = 4' X 3'
H = 5.07'
18" R.C. PIPE (CLASS III)(TYPE 3) = 101 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 101 LIN. FT.

STA. 125+20.00 CONSTRUCT
TEMP. 12" X 10' PIPE CULVERT
STUB INTO DROP INLET

STA. 126+65.00 CONSTRUCT
DROP INLET ON RT. WITH 4' EXTENSION
& 18" X 32' PIPE CULVERT CONNECT TO
JUNCTION BOX LT. @ STA. 126+65.00
TYPE C DROP INLET = 4' X 3'
H = 7.01'
18" R.C. PIPE (CLASS III)(TYPE 3) = 32 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 32 LIN. FT.

STA. 126+65.00 CONSTRUCT
TEMP. 12" X 8' PIPE CULVERT
STUB INTO DROP INLET

STA. 127+80.00 CONSTRUCT
DROP INLET ON RT. WITH 4' EXTENSION
& 18" X 111' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 126+65.00
TYPE C DROP INLET = 4' X 3'
H = 5.66'
18" R.C. PIPE (CLASS III)(TYPE 3) = 111 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 111 LIN. FT.

HWY. 67
PI = 126+26.02
Δ = 5°27'23" RT.
D = 1°45'00"
T = 156.01'
L = 311.79'
PC = 124+70.01
PT = 127+81.80
e = 0.024'/'
Ls = 125'

** STA. 125+75 IN PLACE
CONSTRUCT APPROACH ON RT. =
100 CU. YDS. COMP. EMB.

**FOR FUTURE BOAT RAMP USE

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN. FT.
123+63	123+97	RT.	34
123+63	123+97	LT.	34

HWY. 67

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	50	158
		PLAN AND PROFILE SHEET				

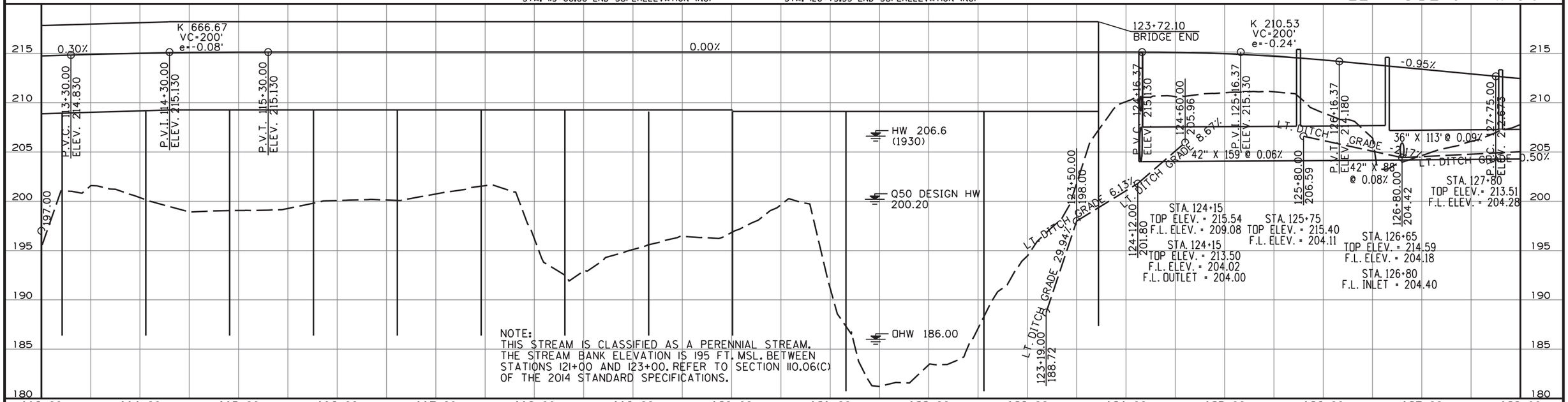
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EDISON
07/24/25

STA. 106+21.22 BEGIN SUPERELEVATION (NC)
STA. 108+01.22 MAX SUPERELEVATION (0.040 FT./FT.)
STA. 111+88.88 MAX SUPERELEVATION (0.040 FT./FT.)
STA. 113+68.88 END SUPERELEVATION (NC)

STA. 123+76.26 BEGIN SUPERELEVATION (NC)
STA. 125+01.26 MAX SUPERELEVATION (0.024 FT./FT.)
STA. 127+50.55 MAX SUPERELEVATION (0.024 FT./FT.)
STA. 128+75.55 END SUPERELEVATION (NC)

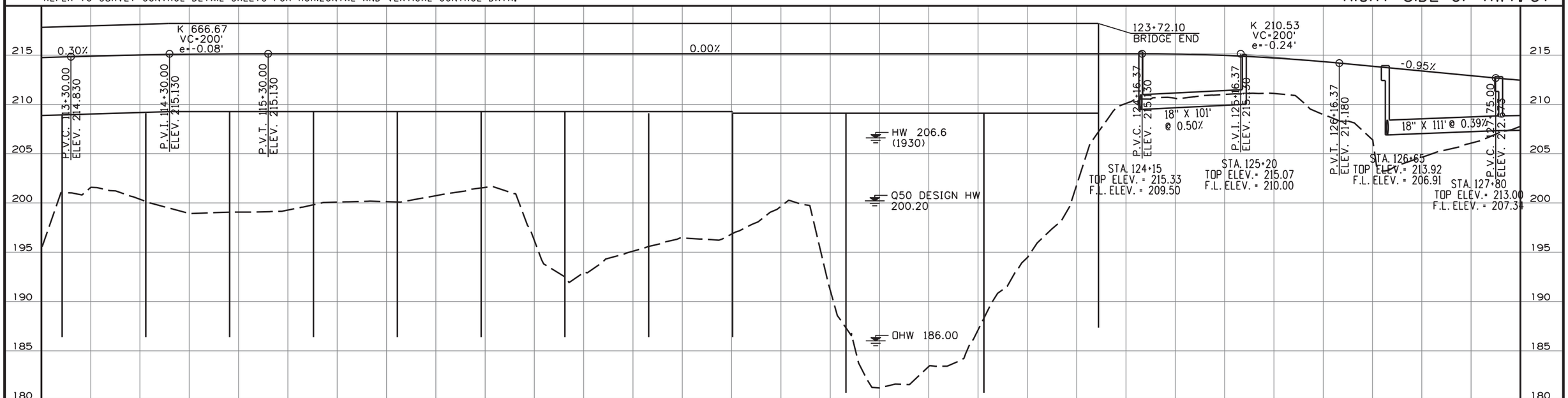
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF HWY. 67



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

RIGHT SIDE OF HWY. 67



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R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/12/2025		6	ARK.	070509	51	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
RAYMOND KYLE EIDSON
No. 19372
09/12/25

STA. 128+95.00 CONSTRUCT
DROP INLET ON LT.
& 36" X 112' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 127+80.00
TYPE C DROP INLET = 4' X 4'
H = 7.59'
36" R.C. PIPE (CLASS III)(TYPE 3) = 112 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 112 LIN. FT.

STA. 129+25 IN PLACE
24" X 44' CMP PIPE CULVERT
LT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON LT. =
135 CU. YDS. COMP. EMB.

STA. 130+00.00 CONSTRUCT
JUNCTION BOX ON LT.
18" X 22' PIPE INLET WITH F.E.S
& 36" X 102' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 128+95.00
TYPE E JUNCTION BOX = 3' X 4'
H = 7.05'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1 EACH
36" R.C. PIPE (CLASS III)(TYPE 3) = 102 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 102 LIN. FT.

HWY. 67
PI = 131+25.32
Δ = 5°27'23" LT.
D = 1°45'00"
T = 156.02'
L = 311.80'
PC = 129+69.30
PT = 132+81.10
e = 0.024'/'
Ls = 125'

STA. 130+55.00 CONSTRUCT
DROP INLET ON LT. WITH 4' EXTENSION
& 36" X 51' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 130+00.00
TYPE C DROP INLET = 4' X 4'
H = 6.95'
36" R.C. PIPE (CLASS III)(TYPE 3) = 51 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 51 LIN. FT.

STA. 131+01 IN PLACE
24" X 39' RCP PIPE CULVERT
LT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON LT. =
75 CU. YDS. COMP. EMB.

STA. 131+50.00 CONSTRUCT
JUNCTION BOX ON LT.
18" X 22' PIPE INLET WITH F.E.S
& 36" X 92' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 130+55.00
TYPE E JUNCTION BOX = 3' X 4'
H = 7.09'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1 EACH
36" R.C. PIPE (CLASS III)(TYPE 3) = 92 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 92 LIN. FT.

STA. 131+95 IN PLACE
24" X 24' CMP PIPE CULVERT
LT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON LT. =
70 CU. YDS. COMP. EMB.

STA. 132+35.00 CONSTRUCT
DROP INLET ON LT.
18" X 22' PIPE INLET WITH F.E.S
& 24" X 81' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 131+50.00
TYPE C DROP INLET = 4' X 3'
H = 5.43'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1 EACH
24" R.C. PIPE (CLASS III)(TYPE 3) = 81 LIN. FT.
24" SLPCCS PIPE (TYPE 2) = 81 LIN. FT.

STA. 132+65.00 CONSTRUCT
DROP INLET ON LT.
& 24" X 26' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 132+35.00
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 4'
H = 5.34
24" R.C. PIPE (CLASS III)(TYPE 3) = 26 LIN. FT.
24" SLPCCS PIPE (TYPE 2) = 26 LIN. FT.

STA. 133+10.00 CONSTRUCT
DROP INLET ON LT.
& 24" X 41' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 132+65.00
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 4'
H = 4.44'
24" R.C. PIPE (CLASS III)(TYPE 3) = 41 LIN. FT.
24" SLPCCS PIPE (TYPE 2) = 41 LIN. FT.

STA. 133+19 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP
ON LT. = 13.2 SQ. YDS.

STA. 133+20.00 CONSTRUCT
PIPE COLLAR
& 24" X 12' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 133+10.00
24" R.C. PIPE (CLASS III)(TYPE 3) = 12 LIN. FT.
24" SLPCCS PIPE (TYPE 2) = 12 LIN. FT.

STA. 133+35.92 CONSTRUCT
TURNOUT ON LT.

STA. 133+35.92 HWY 67=
STA. 21+48.23
Δ = 89°49'33"

STA. 133+75.00
END JOB 070509

STA. 128+95.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 111' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 127+80.00
TYPE C DROP INLET = 4' X 3'
H = 4.55'
18" R.C. PIPE (CLASS III)(TYPE 3) = 111 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 111 LIN. FT.

STA. 131+50.00 CONSTRUCT
JUNCTION BOX ON RT.
18" X 22' PIPE INLET WITH F.E.S
& 24" X 56' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 131+50.00
TYPE E JUNCTION BOX = 3' X 3'
H = 7.89'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1 EACH
24" R.C. PIPE (CLASS V)(TYPE 3) = 56 LIN. FT.
56' R.C. PIPE REQUIRED IN STAGE 1,
REMOVE 15' R.C. PIPE IN STAGE 2
FINAL INSTALLED LENGTH OF 41'
INSTALL BY JACK AND BORE.

STA. 130+80 IN PLACE
24" X 48' CPP PIPE CULVERT
RT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON RT. =
120 CU. YDS. COMP. EMB.

STA. 132+65 IN PLACE
18" X 27' CMP PIPE CULVERT
RT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON RT. =
85 CU. YDS. COMP. EMB.

STA. 133+00.00 CONSTRUCT
DROP INLET ON RT.
18" X 12' PIPE INLET WITH F.E.S
& 24" X 148' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 131+50.00
TYPE C DROP INLET = 4' X 3'
H = 5.17'
18" R.C. PIPE (CLASS III)(TYPE 3) = 12 LIN. FT
18" F.E.S. = 1 EACH
24" R.C. PIPE (CLASS III)(TYPE 3) = 148 LIN. FT.
24" SLPCCS PIPE (TYPE 2) = 148 LIN. FT.

STA. 133+27 IN PLACE
18" X 24' CMP PIPE CULVERT
RT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON RT. =
60 CU. YDS. COMP. EMB.

STA. 133+55.00 CONSTRUCT
DROP INLET ON RT.
18" X 8' PIPE INLET WITH F.E.S.
& 18" X 51' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 133+00.00
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4' X 4'
H = 4.79'
18" R.C. PIPE (CLASS III)(TYPE 3) = 8 LIN. FT.
18" F.E.S. = 1 EACH
18" R.C. PIPE (CLASS III)(TYPE 3) = 51 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 51 LIN. FT.

STA. 133+78 IN PLACE
18" X 19' CMP PIPE CULVERT
RT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON RT. =
5 CU. YDS. COMP. EMB.

STA. 133+88.00 CONSTRUCT
JUNCTION BOX ON RT.
& 18" X 32' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 133+55.00
TYPE E JUNCTION BOX = 2' X 3'
H = 2.92'
18" R.C. PIPE (CLASS III)(TYPE 3) = 32 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 32 LIN. FT.

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R070509.dgn

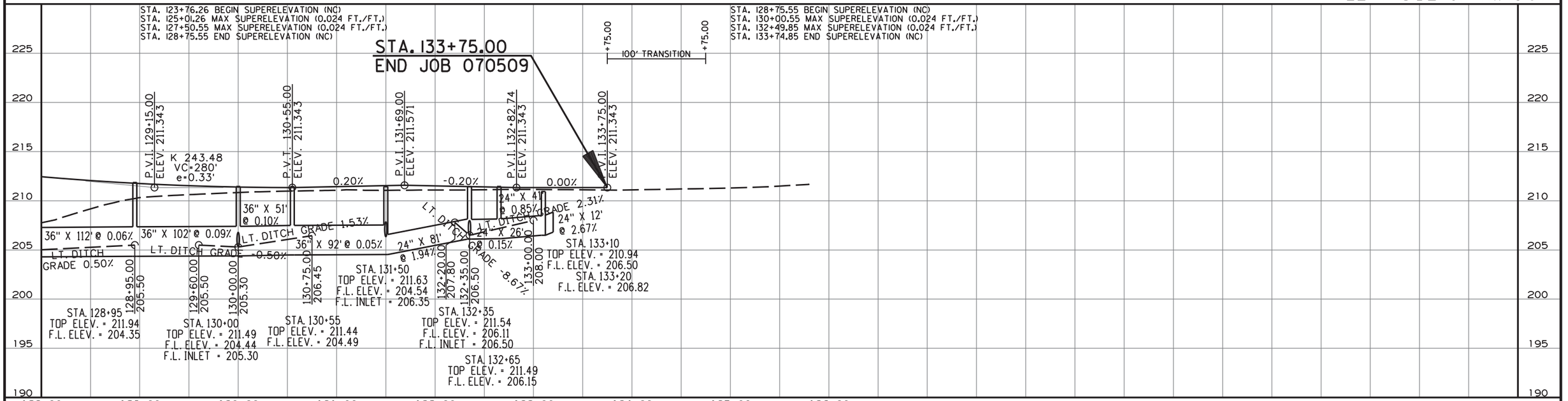
HWY. 67

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	52	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE EIDSON
07/24/25

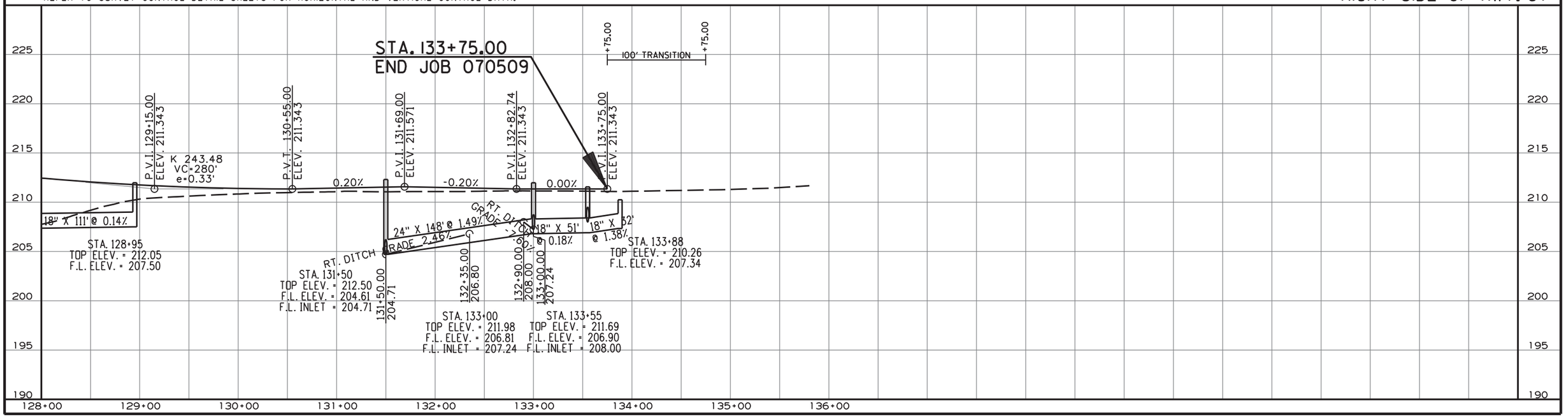
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF HWY. 67



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

RIGHT SIDE OF HWY. 67



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R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	53	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

STA. 13+92.00 CONSTRUCT
DROP INLET ON LT.
& 18" X 40' PIPE CULVERT
OUTLET WITH F.E.S..
TYPE C DROP INLET = 4' X 3'
H = 4.22'
18" R.C. PIPE (CLASS III)(TYPE 3) = 40 LIN. FT.
18" F.E.S. = 1 EACH

STA. 13+02.67 LT. OF C.L.
CONCRETE DITCH PAVING
(TYPE B) = SQ. YD.

STA. 14+52.38
END CONST.
OLD MILITARY RD.

DUMPED RIPRAP

STA.	STA.	SIDE	LENGTH	"W"	CU. YDS.
13+84		LT.	14	10	8
13+92		RT.	14	10	8

STA. 13+84.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 18' PIPE CULVERT
OUTLET WITH F.E.S..
TYPE C DROP INLET = 4' X 3'
H = 4.05'
18" R.C. PIPE (CLASS III)(TYPE 3) = 18 LIN. FT.
18" F.E.S. = 1 EACH

STA. 11+45.00
BEGIN CONST.
OLD MILITARY RD.

STA. 12+69 IN PLACE
CONSTRUCT APPROACH ON RT. =
300 CU. YDS. COMP. EMB.

STA. 13+01.39 RT. OF C.L.
CONCRETE DITCH PAVING
(TYPE B) = SQ. YD.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

OLD MILITARY RD.

STA. 109+28.36 HWY 67
STA. 14+74.38
= 87°02'33"

P.V.I. 12+45.00
ELEV. 212.987
P.V.C. 12+55.56
ELEV. 212.987
K 60.00
VC=90'
e=0.17'
-0.00%
P.V.I. 13+00.56
ELEV. 212.987
STA. 13+84 RT.
TOP ELEV. = 214.05
F.L. ELEV. = 210.00
F.L. OUTLET = 207.00
18" X 18' @ 16.66%
P.V.T. 13+45.56
ELEV. 213.662
P.V.C. 13+50.00
ELEV. 213.728
1.50%
K 90.00
VC=90'
e=-0.11'
P.V.I. 13+95.00
ELEV. 214.403
P.V.T. 14+40.00
ELEV. 214.628
STA. 13+92 LT.
TOP ELEV. = 214.22
F.L. ELEV. = 210.00
F.L. OUTLET = 200.00
18" X 40' @ 25.00%
P.V.I. 14+54.35
ELEV. 214.700
P.V.I. 14+74.38
ELEV. 213.900
0.50%
3.99%

STA. 14+52.38
END CONST.
OLD MILITARY RD.

230 225 220 215 210 205 200 195 190 185

10+00 11+00 12+00 13+00 14+00 15+00

danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	54	158
		PLAN AND PROFILE SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19372
RAYMOND KYLE GIDSON
07/24/25

STA. 21+28.23
END CONST.
CRYSTAL PALACE

STA. 20+88.07
BEGIN CONST.
CRYSTAL PALACE

STA. 133+35.92 HWY 67=
STA. 21+48.23
Δ = 89°49'33"

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

CRYSTAL PALACE

STA. 20+88.07
BEGIN CONST.
CRYSTAL PALACE

STA. 21+28.23
END CONST.
CRYSTAL PALACE

230 225 220 215 210 205 200 195 190

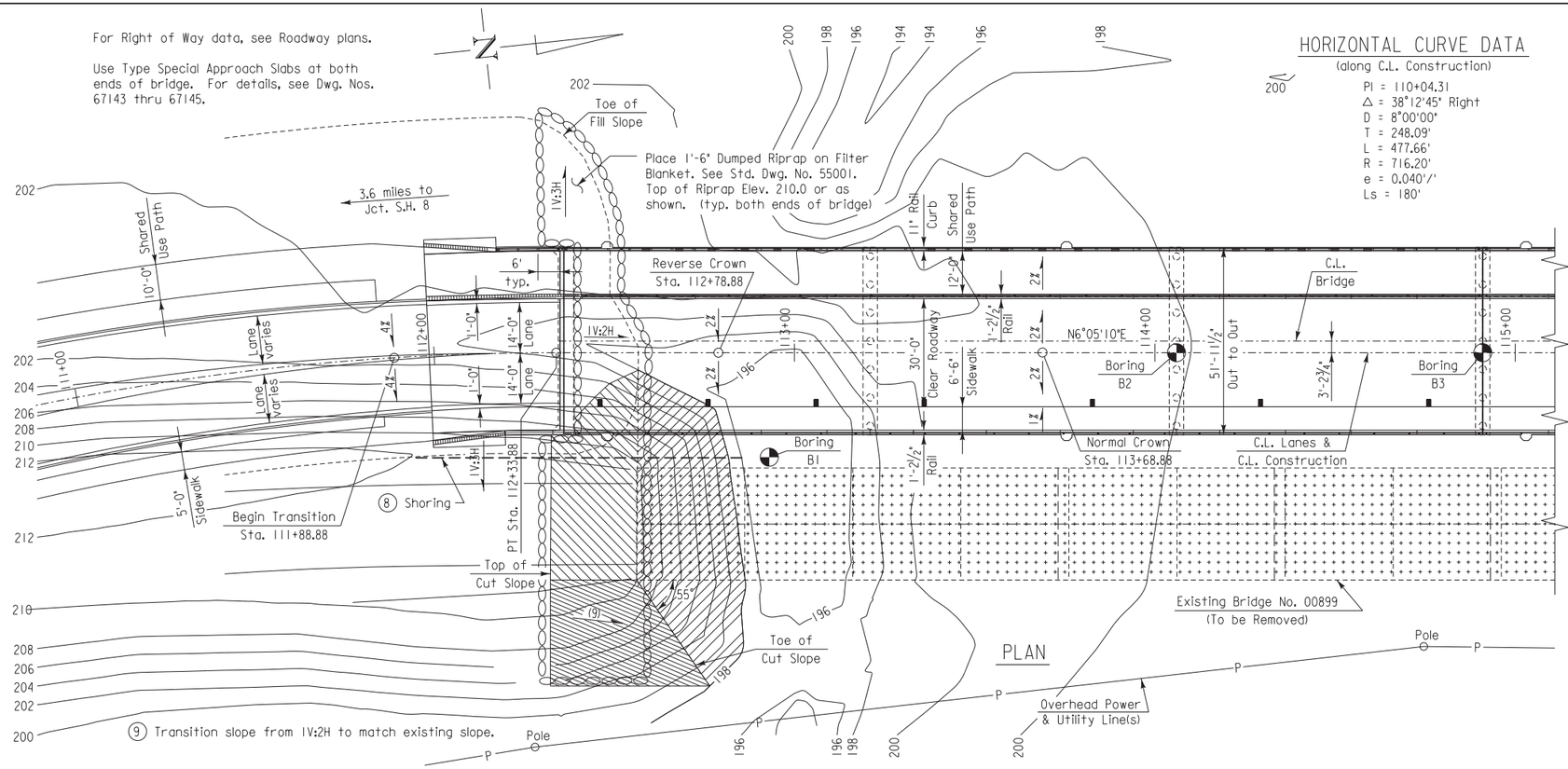
20+00 21+00 22+00

danny.mccollum 8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	55	158
		07673 - LAYOUT - 67101				

For Right of Way data, see Roadway plans.

Use Type Special Approach Slabs at both ends of bridge. For details, see Dwg. Nos. 67143 thru 67145.



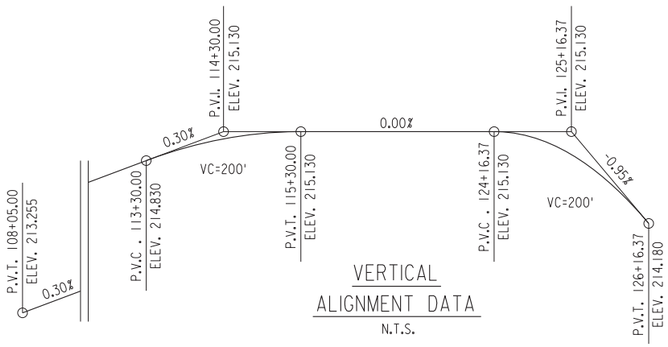
(9) Transition slope from 1V:2H to match existing slope.

Stations shown are along C.L. Construction. Elevations shown at and before Station 112+78.88 are actual top of deck elevations at C.L. Construction. Any vertical dimension referenced to top of deck is based on actual top of deck elevation at C.L. Construction. See 'Superelevation Transition Sketch'. Elevations shown after Station 112+78.88 are theoretical working point elevations at C.L. Construction. Any vertical dimension referenced to top of deck is based on theoretical working point elevation at C.L. Construction. See 'Rounding Detail' on Std. Dwg. No. 55007 for additional information.

HORIZONTAL CURVE DATA

(along C.L. Construction)

PI = 110+04.31
Δ = 38°12'45" Right
D = 8°00'00"
T = 248.09'
L = 477.66'
R = 716.20'
e = 0.040'/'
Ls = 180'



VERTICAL ALIGNMENT DATA

N.T.S.

The Contractor shall excavate the existing embankment as shown to Elev. 198.0 at End Bent 1 and End Bent 13. Approx. 982 cubic yards of excavation.

Toe of cut slopes shown are parallel to the end bents. The toe of the cut slope on the east side of End Bent 1 extends to a distance of 40.3 feet beyond the edge of the bridge deck and then transitions at 55 degrees back into the channel's natural side slopes.

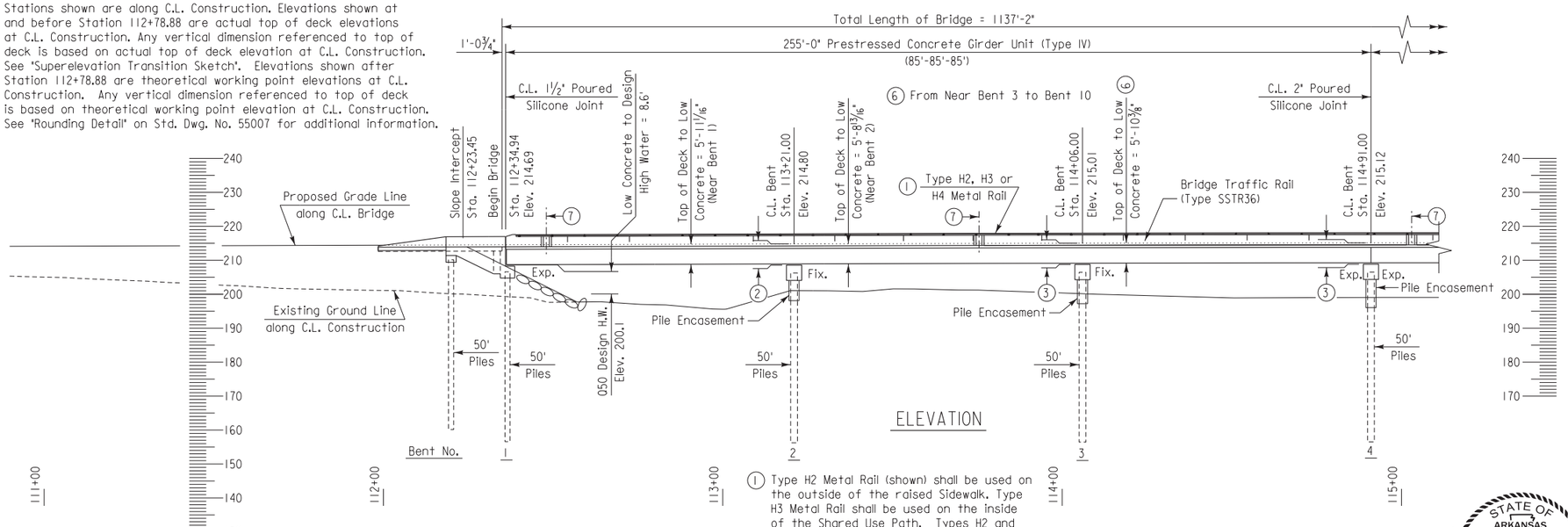
HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	DISCHARGE	NATURAL WATER SURFACE ELEVATION (10)	WATER SURFACE ELEVATION WITH BACKWATER
	YEARS	CFS	FEET	FEET
Design	50	23,020	199.9	200.1
Base	100	26,070	200.9	201.2
Extreme	500	33,930	203.0	203.4
Overtopping	>500	-	-	-

(10) Unconstricted water surface elevation without structure or roadway approaches

0100 backwater elevation for existing structure = 201.2 feet
Proposed Low Bridge Chord Elevation = 208.7 feet
Existing Low Bridge Chord Elev. = 208.6 feet

Drainage Area = 471 square miles
Historical H.W. Elevation = N/A



ELEVATION

(1) Type H2 Metal Rail (shown) shall be used on the outside of the raised Sidewalk. Type H3 Metal Rail shall be used on the inside of the Shared Use Path. Types H2 and H3 are mounted atop the SSTR36 Traffic Rail shown. Type H4 Metal Rail shall be used on the outside of the Shared Use Path and is mounted atop a 12" tall concrete curb.

(2) C.L. Deck to Low Seat Top of Cap = 6'-1⅝"

(3) C.L. Deck to Low Seat Top of Cap = 6'-2¹³⁄₁₆"

(7) For locations and details of light pole brackets, see Dwg. No. 67137.

(8) See SP Job No. 070509 'Shoring'.

See GENERAL NOTES on Dwg. No. 67104.
See SUPERELEVATION TRANSITIONS on Dwg. No. 67104.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 6
LAYOUT OF BRIDGE
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY

ROUTE 67 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

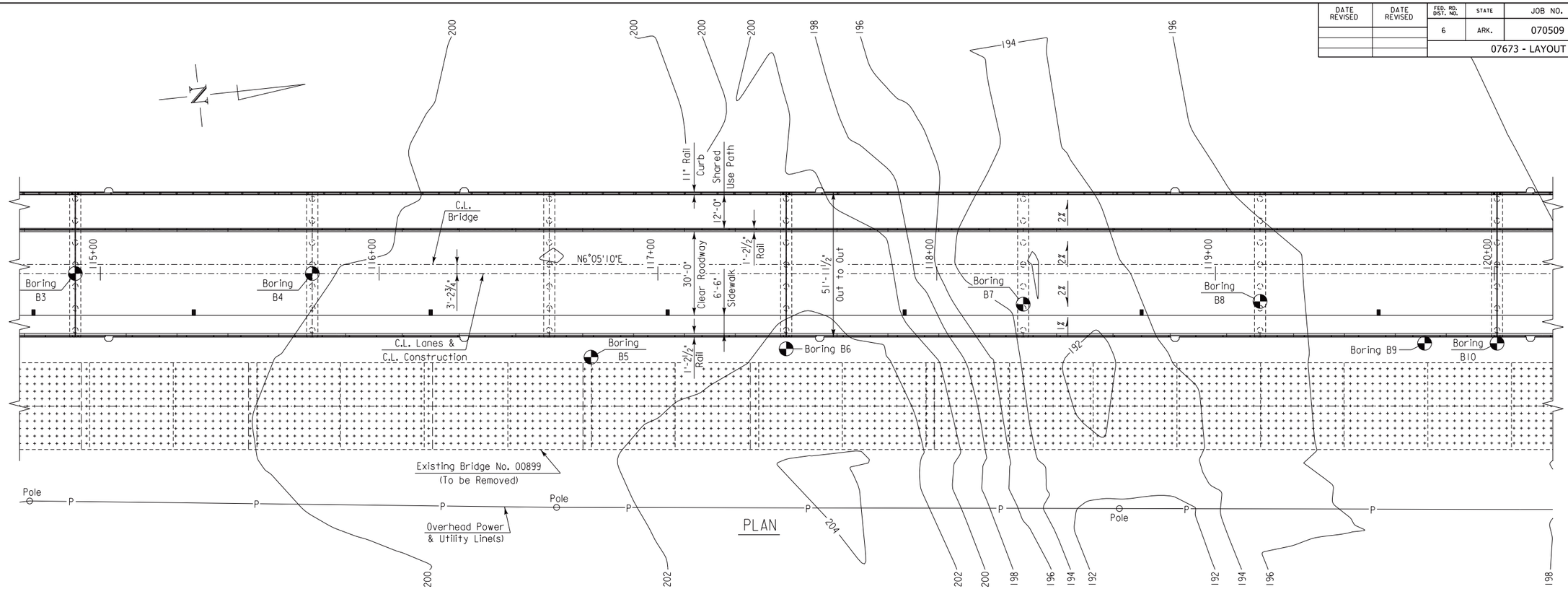
LITTLE ROCK, ARK.

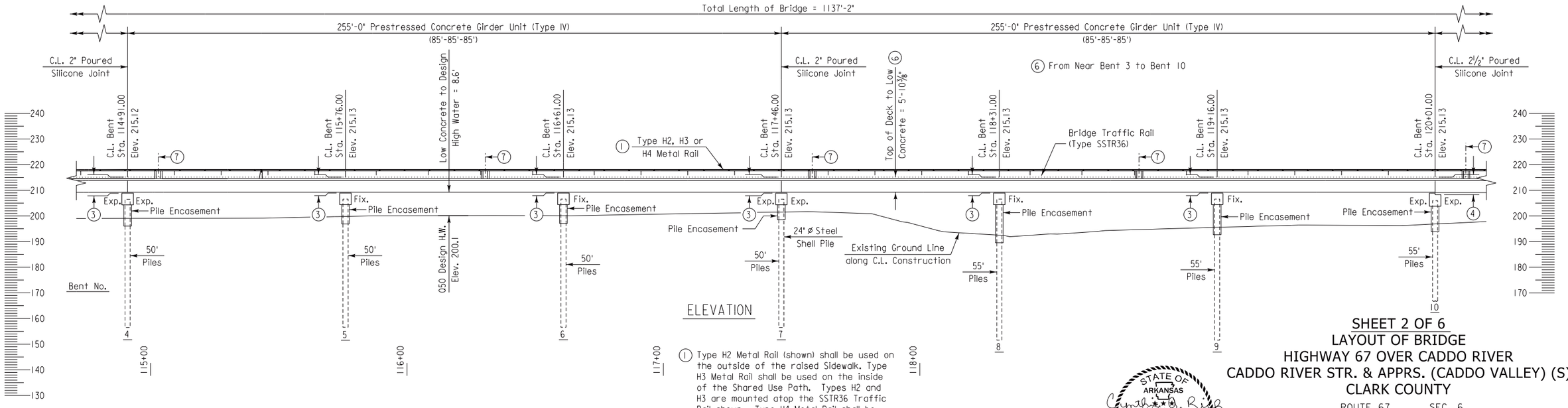
DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_l1.dgn
SCALE: 1" = 20'-0"

BRIDGE NO. 07673 DRAWING NO. 67101

PRINT DATE: 8/1/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	56	158
		07673 - LAYOUT - 67102				





ELEVATION

(1) Type H2 Metal Rail (shown) shall be used on the outside of the raised Sidewalk. Type H3 Metal Rail shall be used on the inside of the Shared Use Path. Types H2 and H3 are mounted atop the SSTR36 Traffic Rail shown. Type H4 Metal Rail shall be used on the outside of the Shared Use Path and is mounted atop a 12" tall concrete curb.

(3) C.L. Deck to Low Seat Top of Cap = 6'-2 13/16"

(4) C.L. Deck to Low Seat Top of Cap = 6'-5"

(7) For locations and details of light pole brackets, see Dwg. No. 67137.

See GENERAL NOTES on Dwg. No. 67104.
See HYDRAULIC DATA on Dwg. No. 67101.
See VERTICAL CURVE DATA on Dwg. No. 67101.
See SUPERELEVATION TRANSITIONS on Dwg. No. 67104.

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 6
LAYOUT OF BRIDGE
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY

ROUTE 67 SEC. 6

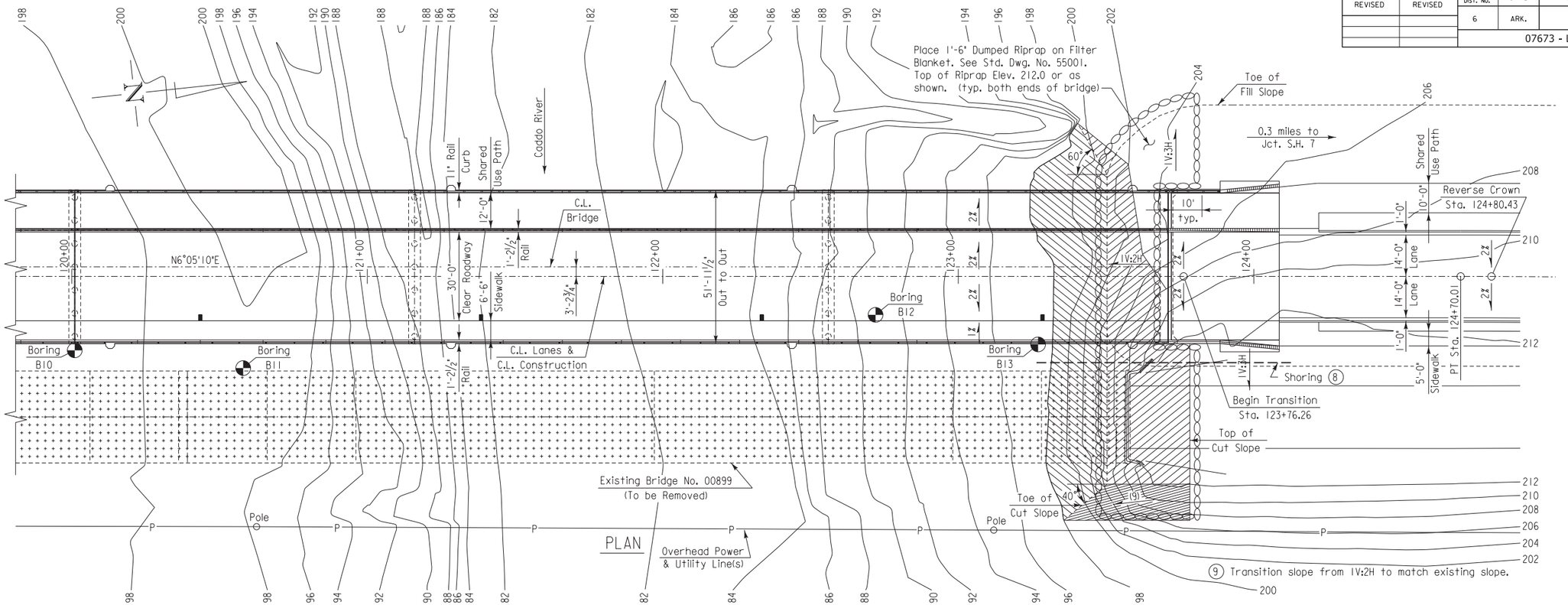
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_l2.dgn
SCALE: 1" = 20'-0"

BRIDGE NO. 07673 DRAWING NO. 67102

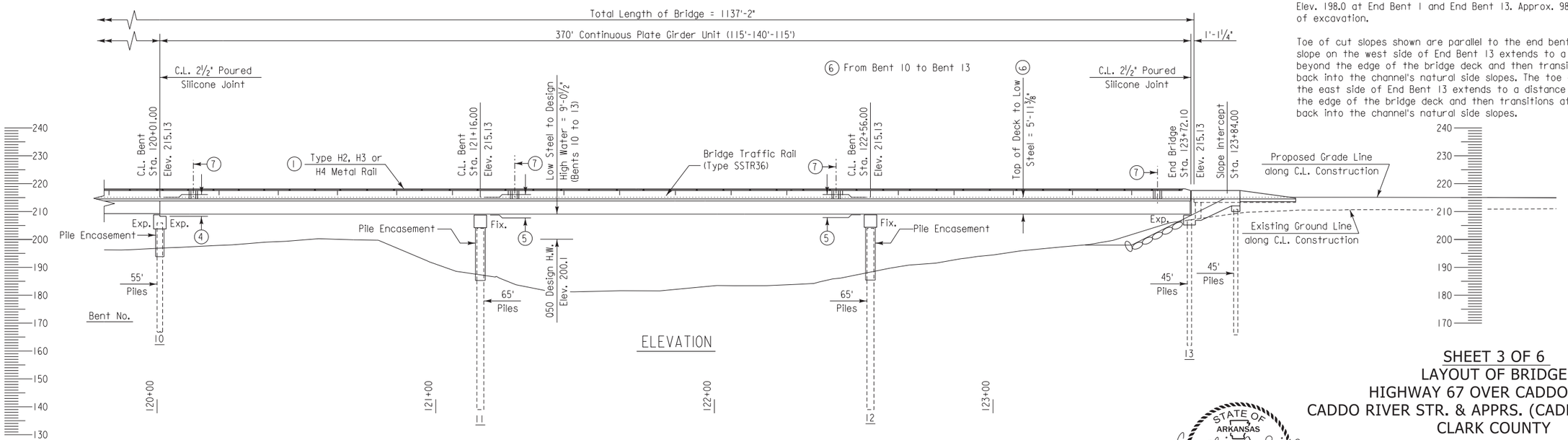
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	57	158
		07673 - LAYOUT - 67103				



The Contractor shall excavate the existing embankment as shown to Elev. 198.0 at End Bent 1 and End Bent 13. Approx. 982 cubic yards of excavation.

Toe of cut slopes shown are parallel to the end bents. The toe of cut slope on the west side of End Bent 13 extends to a distance of 5.0 feet beyond the edge of the bridge deck and then transitions at 60 degrees back into the channel's natural side slopes. The toe of the cut slope on the east side of End Bent 13 extends to a distance of 47.5 feet beyond the edge of the bridge deck and then transitions at 40 degrees back into the channel's natural side slopes.



(4) C.L. Deck to Low Seat Top of Cap = 6'-5"
(5) C.L. Deck to Low Seat Top of Cap = 6'-3 11/16"
(7) For locations and details of light pole brackets, see Dwg. No. 67137.
(8) See SP Job No. 070509 "Shoring".

(1) Type H2 Metal Rail (shown) shall be used on the outside of the raised Sidewalk. Type H3 Metal Rail shall be used on the inside of the Shared Use Path. Types H2 and H3 are mounted atop the SSTR36 Traffic Rail shown. Type H4 Metal Rail shall be used on the outside of the Shared Use Path and is mounted atop a 12" tall concrete curb.

See GENERAL NOTES on Dwg. No. 67104.
See HYDRAULIC DATA on Dwg. No. 67101.
See VERTICAL CURVE DATA on Dwg. No. 67101.
See SUPERELEVATION TRANSITIONS on Dwg. No. 67104.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 6
LAYOUT OF BRIDGE
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY
ROUTE 67 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_l3.dgn
SCALE: 1" = 20'-0"

BRIDGE NO. 07673 DRAWING NO. 67103

PRINT DATE: 8/1/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
09/15/25		6	ARK.	070509	58	158
		07673 - LAYOUT - 67104				

GENERAL NOTES

BENCH MARK: Vertical Control Data are shown on Survey Control Data Sheets.

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

DESIGN SPECIFICATIONS:
AASHTO LRFD Bridge Design Specifications (2017, 8th Edition)
AASHTO Guide Specifications for LRFD Seismic Bridge Design (2011, 2nd Edition with interims thru 2015)

SEISMIC OPERATIONAL CLASSIFICATION: Essential

LIVE LOADING: HL-93

SEISMIC ZONE: 2 SDI= 0.155g Site Class = D

MATERIALS AND STRENGTHS:

Class S Concrete (Prestressed Concrete Girders)	f'c = 8,000 psi
Class S (AE) Concrete (Superstructure)	f'c = 4,000 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
Prestressing Strands (AASHTO M 203, Gr. 270)	fpu = 270,000 psi
Structural Steel (ASTM A709, Gr. 36)	Fy = 36,000 psi
Structural Steel (ASTM A709, Gr. 50)	Fy = 50,000 psi
Structural Steel (ASTM A709, Gr. 50W)	Fy = 50,000 psi

BORING LOGS: Boring Logs may be obtained from the Construction Contract Development Section of the Program Management Division.

STEEL SHELL PILING: Piling in Bent 1 shall be 18" diameter concrete filled steel shell piles and shall be driven to meet the requirements in PILE BEARING TABLE. Piling in Bents 2 thru 10 shall be 24" diameter concrete filled steel shell piles and shall be driven to meet the requirements in PILE BEARING TABLE. Piling in Bents 11 & 12 shall be 30" diameter concrete filled steel shell piles and shall be driven to meet the requirements in PILE BEARING TABLE. Piling in Bent 13 shall be 18" diameter concrete filled steel shell piles and shall be driven to meet the requirements in PILE BEARING TABLE. All piling shall be driven with an approved air, steam, or diesel hammer to a minimum tip elevation as shown in PILE BEARING TABLE. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths of piling shown are assumed for estimating quantities only. Actual lengths are to be determined in the field. No additional payment will be made for cut-off or build-up. Test piles are not required but may be driven for the Contractor's information in accordance with Subsection 805.08(g). No piles will be paid for as Test Piles.

Water jetting or other methods as approved by the Engineer may be required to achieve minimum penetration. This work shall not be paid for directly, but shall be considered incidental to the item 'STEEL SHELL PILING (__" DIA.)".

PILE ENCASEMENT: Pile encasement for Bents 2 thru 12 shall extend from bottom of cap to 3' below natural ground. See Standard Dwg. No. 55021 & Dwg. No. 67119 for additional information.

⚠ PREBORING: Preboring will be required at all piles in Bents 3, 4, and 8 through 12 to achieve minimum penetration. See PILE BEARING TABLE for the estimated depth of preboring required at each bent. Quantities of preboring shown are for bidding purposes only. The actual size and depth of preboring shall be determined in the field by the Engineer. After the piles have been driven, the holes shall be backfilled in accordance with Subsection 805.08(a). The Contractor shall be responsible for keeping prebored holes free of debris prior to driving piles and backfilling which may require the use of temporary casings or other approved methods. Any related cost for backfilling and temporary casing will not be paid for directly, but shall be considered subsidiary to the item 'PREBORING'.

DRIVING SYSTEM: The driving system approval and the ultimate bearing capacity determination for piling shall be based on the requirements of Subsection 805.09(b), 'Method B - Wave Equation Analysis (WEAP)'. It is estimated that the minimum rated hammer energy per blow required to obtain the ultimate bearing capacity for all piles will be as shown in PILE BEARING TABLE.

BRIDGE DECK: The concrete bridge deck, except the sidewalk and shared use path, shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Sidewalk and shared use path shall be given a Class 6 Broomed Finish.

PILE BEARING TABLE

⚠

Bent No.	Required Minimum Ultimate Bearing Capacity (Tons)	Minimum Tip Elevation	Minimum Energy (ft-lbs)	Estimated Prebore Elevation
1	315	① 162.89	60,000	Not Expected
2	433	① 161.05	85,000	Not Expected
3	433	① 160.15	85,000	170.00
4	433	① 159.04	85,000	172.00
5	448	① 159.82	85,000	Not Expected
6	448	① 160.07	85,000	Not Expected
7	448	① 161.53	85,000	Not Expected
8	452	① 152.53	85,000	155.00
9	455	① 155.55	85,000	174.00
10	414	① 156.38	85,000	175.00
11	607	① 144.32	115,000	148.00
12	622	① 144.32	115,000	148.00
13	293	① 163.21	60,000	Not Expected

① Controlled by minimum depth required for lateral stability

CLASS 2 PROTECTIVE SURFACE TREATMENT: Class 2 Protective Surface Treatment shall be applied to the roadway surface, sidewalk surface (including curbing), shared use path surface and any other surface not receiving Textured Coating Finish in accordance with Section 803.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge and retaining wall surfaces as specified in SP Job No. 070509 'Textured Coating Finish', as noted in the plans, and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

BRIDGE PAINTING: The following weathering steel surfaces shall be painted as specified in Section 807:

- All steel surfaces within 9 feet of bridge deck expansion joints, including diaphragms, cross-frames, connection bolts and bearings.

- All steel surfaces exposed to the outside face of the bridge, including outside faces and bottom of the exterior beams or girders, splice plates and bolts, stiffeners, drip plates and bearings. ASTM F3125, Grade A325 Type 3 bolts shall be used within these painted zones and shall be painted.

Galvanized members, the expansion device, and surfaces in contact with concrete shall not be painted. The color of paint shall be Brown equal or close to Fed. Std. 595 B, Color Chip No. 30070 and as approved by the Engineer. The finish system may be applied in the shop. Any damage to the paint system occurring during transport or installation shall be corrected according to the manufacturer's recommendations at no cost to the Department.

POWDER COATING: All metal bridge railing shall receive a powder coating finish. The color of the paint shall be Black equal or close to Federal Std. 595B, Color Chip No. 27035 and as approved by the Engineer. See Std. Dwg. No. 55015, Dwg. No. 67138 and 67140 for additional information.

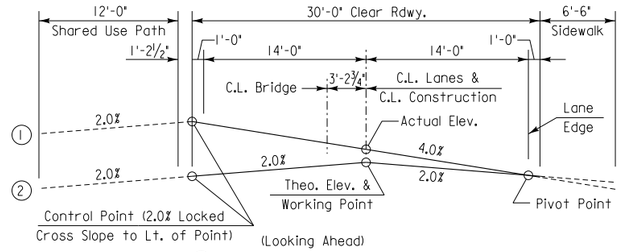
DETAIL DRAWINGS:	DRAWING No.
Details For Permanent Steel Bridge Deck Forms	55005
General Notes For Steel Bridge Structures	55006
Details For Steel Bridge Structures	55007
Poured Silicone Joints	55008
Transitional Approach Railing	55013a
Type H2 Rail	55015
Concrete Filled Steel Shell Piling	55021
Bridge Traffic Rail	55070
End Bent 1	67107-67110
End Bent 13	67111-67114
Intermediate Bent 2	67115
Intermediate Bents 3 thru 9	67116
Intermediate Bent 10	67117
Intermediate Bents 11 & 12	67118
Details of 30" Dia. Steel Shell Piling	67119
Elastomeric Bearings	67120-67121
255'-0" Prestressed Concrete Girder Unit	67122-67128
370'-0" Continuous Plate Girder Unit	67129-67136
Common Superstructure Details	67137-67140
Deck Drains	67141-67142
Type Special Approach Slab	67143-67146

EXISTING BRIDGE: Existing Bridge No. 00899 (Log Mile 3.74) is 1103' in length, 31.5' wide and consists of thirty 30-foot reinforced concrete deck girder spans and two 101-foot steel girder spans. All 30-foot spans are supported by concrete caps with concrete piling. The 101-foot spans are supported by monolithic concrete piers supported by timber pile supported footings. Additional remediation supports near nine of the original bents for the 30-foot spans consists of steel H-pile vertical members supporting selected beam ends and supported by a slab on the underlying ground. The existing bridge is located approximately 47' downstream from the proposed new bridge.

REMOVAL AND SALVAGE: After the new bridge is open to traffic, the Contractor shall remove existing Bridge No. 00899 in accordance with Section 205. All material from the existing bridge shall become the property of the Contractor except the steel beams, including diaphragms and all accessories, which shall remain the property of Clark County. The Contractor shall notify the Department prior to removal to coordinate with the Engineer for removal and delivery of the salvage items to 1501 Hwy. 67 South. This work shall be considered incidental to the item 'Removal of Existing Bridge Structure (Site No. 1)'.

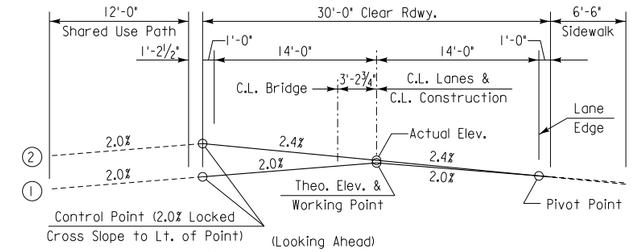
MAINTENANCE OF TRAFFIC: See Roadway Plans.

⚠ Added Preboring Note and Estimated Prebore Elevation
Made By: LAC Date: 09/15/25
Ck'd By: BKC Date: 09/15/25



SUPERELEVATION TRANSITION SKETCH #1

The dimensional data shown for the Shared Use Path and Sidewalk in the sketch above applies only within the limits of the bridge and approach slab.



SUPERELEVATION TRANSITION SKETCH #2

The dimensional data shown for the Shared Use Path and Sidewalk in the sketch above applies only within the limits of the bridge and approach slab.

STATE OF ARKANSAS
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BRIDGE ENGINEER

SHEET 4 OF 6
LAYOUT OF BRIDGE
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY

ROUTE 67 SEC. 6

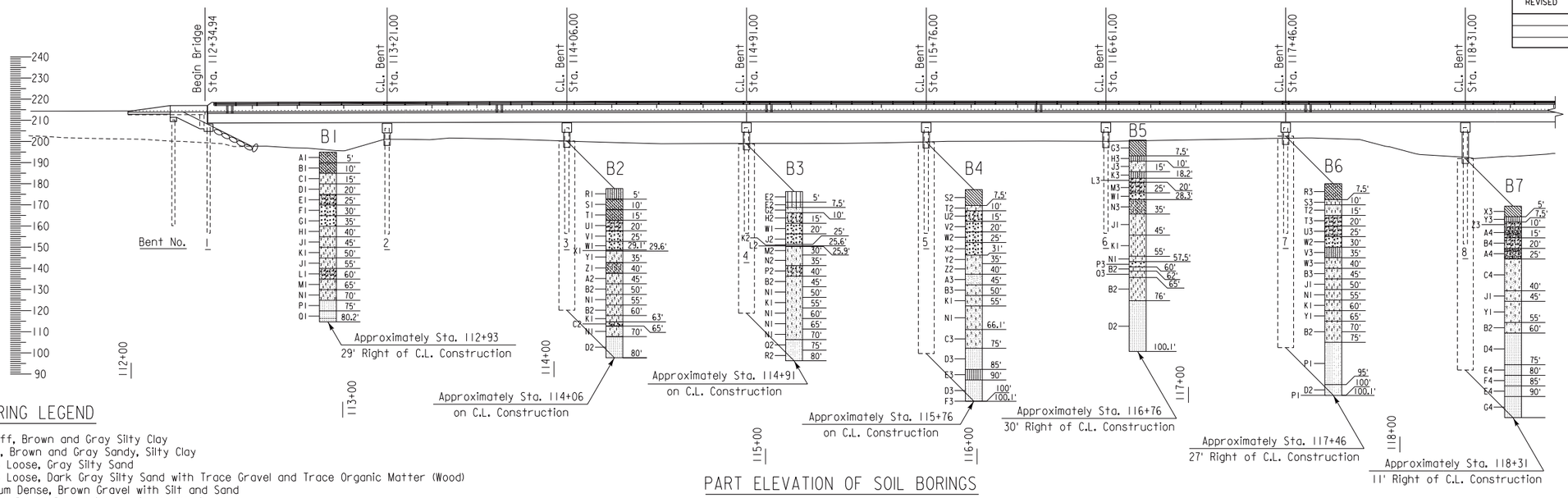
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_l4rev.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: NONE
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67104

PRINT DATE: 9/12/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	59	158
		07673 - LAYOUT - 67105				



PART ELEVATION OF SOIL BORINGS

PART BORING LEGEND

A1-Moist, Stiff, Brown and Gray Silty Clay
B1-Wet, Soft, Brown and Gray Sandy, Silty Clay
C1-Wet, Very Loose, Gray Silty Sand
D1-Wet, Very Loose, Dark Gray Silty Sand with Trace Gravel and Trace Organic Matter (Wood)
E1-Wet, Medium Dense, Brown Gravel with Silt and Sand
F1-Wet, Loose, Brown Poorly Graded Sand with Gravel
G1-Wet, Medium Dense, Brown Gravel
H1-Wet, Very Dense, Dark Gray Poorly Graded Sand with Silt (Nacatoch Formation)
J1-Wet, Very Dense, Gray Poorly Graded Sand with Silt
K1-Wet, Very Dense, Gray Sand with Silt
L1-Wet, Very Dense, Gray Poorly Graded Sand with Silt and Gravel
M1-Wet, Very Dense, Gray Poorly Graded Sand with Silt and Trace Gravel
N1-Wet, Very Dense, Gray Sand with Silt and Trace Gravel
P1-Very Dense, Poorly Cemented Sand (No Sample Recovered)
Q1-Very Dense, Poorly Cemented Sand with Poorly Cemented Silt Layers
R1-Moist, Loose, Brown Sandy Silt with Trace Gravel
S1-Moist, Medium Stiff, Brown Silty Clay
T1-Wet, Medium Stiff, Brown Sandy, Silty Clay with Some Gravel
U1-Wet, Medium Dense, Brown Gravel with Silt and Sand•
V1-Wet, Very Dense, Brown Gravel with Sand
W1-Wet, Medium Dense, Brown Well Graded Gravel with Sand
X1-SANDSTONE (Nacatoch Formation)
Y1-Wet, Very Dense, Gray Silty Sand with Trace Gravel
Z1-Wet, Medium Dense, Gray Silty, Clayey Sand
A2-Wet, Very Dense, Gray Poorly Graded Sand with Silt and Trace Gravel and Trace Lignite
B2-Wet, Very Dense, Gray Silty Sand
C2-Some Gravel encountered at 63 feet.
D2-Very Dense, Poorly Cemented Sand
E2-Moist, Medium Dense, Brown Silt
F2-Moist, Loose, Brown Silt with Sand
G2-Moist, Loose, Brown Silty Sand with Some Gravel
H2-Wet, Loose, Brown Poorly Graded Gravel with Silt and Sand•
J2-Wet, Very Dense, Brown Well Graded Sand with Gravel
K2-Wet, Very Hard, Gray Clay with Cemented Sand Seams (Nacatoch Formation)
L2-SANDSTONE - Unweathered, Medium Hard, Calcareous, Gray
M2-Sand with Silt
N2-Wet, Medium Dense, Gray Sand with Silt and Trace Gravel
P2-Wet, Dense, Gray Silty Sand with Gravel
Q2-Very Dense, Poorly Cemented Sand with Silt
R2-Very Dense, Poorly Cemented Sand with Trace Gravel
S2-Moist, Very Stiff, Brown Lean Clay (samples at 2.5 and 5.0 combined to ensure enough sample to test)
T2-Moist, Loose, Brown Silty Sand
U2-Wet, Medium Dense, Brown Silty Gravel with Sand•
V2-Wet, Very Loose, Brown Gravel with Sand
W2-Wet, Medium Dense, Brown Poorly Graded Gravel with Sand
X2-Wet, Medium Dense, Brown Poorly Graded Sand with Gravel
Y2-Wet, Medium Dense, Gray Silty Sand (Nacatoch Formation)
Z2-Wet, Very Dense, Gray Silty Sand with Some Gravel and Trace Lignite
A3-Wet, Very Dense, Gray Poorly Graded Sand with Trace Lignite
B3-Wet, Very Dense, Gray Sand with Silt and Trace Gravel (Some lignite was observed in cuttings at 49.5')
C3-Wet, Very Dense, Gray Sand with Silt (Poorly Cemented Seams)
D3-Wet, Very Dense, Gray Poorly Cemented Silty Sand
E3-Moist, Very Dense, Gray Cemented Silt
F3-Wet, Very Dense, Gray Poorly Cemented Sand
G3-Moist, Loose, Brown Lean Clay with Sand (samples at 2.5 and 5.0 combined to ensure enough sample to test)
H3-Wet, Loose, Brown Sandy Silt
J3-Wet, Loose, Brown Silty Sand
K3-Wet, Very Loose, Gray Sandy Silt
L3-Wet, Dense, Brown Gravel with Silt and Sand
M3-Wet, Dense, Brown Well Graded Gravel with Silt and Sand
N3-Wet, Medium Dense, Gray Silty, Clayey Sand (Nacatoch Formation)
P3-Gravel with Sand
Q3-Wet, Very Dense, Gray Silty Sand with Some Lignite
R3-Moist, Stiff, Brown Silty Clay (samples at 2.5 and 5.0 combined to ensure enough sample to test)
S3-Moist, Loose, Brown Silty Sand•
T3-Wet, Dense, Brown Silty Gravel with Sand••

"N" VALUES

B1, Approximately Sta. 112+93 — 29' Right of C.L. Construction

3.0- 4.0,N=11
5.5- 6.5,N=2
8.0- 9.0,N=3
10.5- 11.5,N=4
15.5- 16.5,N=2
20.5- 21.5,N=25
25.5- 26.5,N=10
30.5- 31.5,N=23
35.5- 36.5,N=91
40.5- 41.0,N=100(6")
45- 45.4,N=100(5")
50.5- 51.0,N=100(6")
55- 55.4,N=100(5")
60.5- 61.0,N=100(6")
65- 65.3,N=100(4")
70- 70.3,N=100(4")
75- 75.3,N=100(4")
80- 80.2,N=100(2")

B2, Approximately Sta. 114+06 — C.L. Construction

3.0- 4.0,N=9
5.5- 6.5,N=8
8.0- 9.0,N=7
10.5- 11.5,N=6
15.5- 16.5,N=13
20.5- 21.5,N=36
25.5- 26.5,N=21
30.1- 30.2,N=40(1")
35.5- 36.5,N=17
40- 40.4,N=100(5")
45- 45.4,N=60(5")
50- 50.1,N=100(1")
55- 55.1,N=100(1")
60- 60.3,N=100(4")
65.5- 66.5,N=114
70- 70.2,N=100(2")
75- 75.3,N=100(4")

B3, Approximately Sta. 114+91 — C.L. Construction

3.0- 4.0,N=16
5.5- 6.5,N=9
8.0- 9.0,N=10
10.5- 11.5,N=10
15.5- 16.5,N=19
20- 20.2,N=60(2")
25.5- 25.6,N=60(1")
30.5- 31.5,N=29
35.5- 36.5,N=45
40.5- 40.5,N=100(6")
45.5- 45.7,N=60(2")
50- 50.3,N=60(4")
55- 55.4,N=100(5")
60.5- 61.5,N=57
65.5- 65.6,N=60(1")
70.5- 70.6,N=100(1")
75- 75.2,N=60(2")

B4, Approximately Sta. 115+76 — C.L. Construction

3.0- 4.0,N=16
5.5- 6.5,N=16
8.0- 9.0,N=6
10.5- 11.5,N=21
15.5- 16.5,N=4
20.5- 21.5,N=11(9")
25.5- 26.5,N=24
30.5- 31.5,N=14
35.5- 36.5,N=105
40.5- 40.9,N=60(5")
45- 45.2,N=60(2")
50.5- 50.7,N=15(2")
55- 55.4,N=100(5")
60.5- 61.1,N=114(7")
65- 65.4,N=100(5")
70- 70.2,N=60(2")
75- 75.1,N=60(1")
80- 80.1,N=100(1")
85- 85.4,N=100(5")
90- 90.2,N=60(2")
95- 95.3,N=60(4")
100-100.1,N=100(1")

B5, Approximately Sta. 116+76 — 30' Right of C.L. Construction

3.0- 4.0,N=8
5.5- 6.5,N=8
8.0- 9.0,N=6
10.5- 11.5,N=6
15.5- 16.5,N=0
20.5- 21.5,N=40
25.5- 26.5,N=11
30.5- 31.5,N=14
35.5- 36.5,N=15
40.5- 41.5,N=190
45- 45.1,N=100(1")
50- 50.1,N=100(1")
55- 55.1,N=100(1")
60.5- 61.5,N=96
65- 65.2,N=100(2")
70- 70.3,N=100(4")
75- 75.3,N=100(4")
80- 80.1,N=100(1")
85- 85.3,N=100(4")
90- 90.3,N=100(4")
95- 95.1,N=100(1")
100-100.1,N=100(1")

B6, Approximately Sta. 117+46 — 27' Right of C.L. Construction

3.0- 4.0,N=14
5.5- 6.5,N=10
8.0- 9.0,N=7
10.5- 11.5,N=8
15.5- 16.5,N=40
20.5- 21.5,N=15
25.5- 26.5,N=14
30.5- 31.5,N=17
35.5- 36.5,N=27
40.5- 40.5,N=100(6")
45.5- 45.5,N=100(6")
50- 50.2,N=100(2")
55- 55.1,N=100(1")
60.5- 61.5,N=102
65- 65.2,N=100(2")
70- 70.1,N=100(1")
75- 75.1,N=100(1")
80- 80.1,N=100(1")
85- 85.1,N=100(1")
90- 90.1,N=100(1")
95- 95.1,N=100(1")
100-100.1,N=100(1")

B7, Approximately Sta. 118+31 — 11' Right of C.L. Construction

3.0- 4.0,N=11
5.5- 6.5,N=10
8.0- 9.0,N=18
10.5- 11.5,N=13
15.5- 16.5,N=5
20.5- 21.5,N=23
25.5- 25.5,N=60(6")
30.5- 30.5,N=100(6")
35.5- 35.6,N=60(1")
40.5- 40.5,N=100(6")
45- 45.2,N=60(2")
50.5- 51.5,N=81
55- 55.3,N=75(4")
60- 60.1,N=60(1")
65- 65.1,N=60(1")
70- 70.1,N=60(1")
75- 75.1,N=60(1")
80- 80.1,N=100(1")
85- 85.1,N=100(1")
90- 90.1,N=100(0.5")
95- 95.1,N=100(1")
100-100.1,N=100(1")

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 5 OF 6
LAYOUT OF BRIDGE
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY

ROUTE 67 SEC. 6

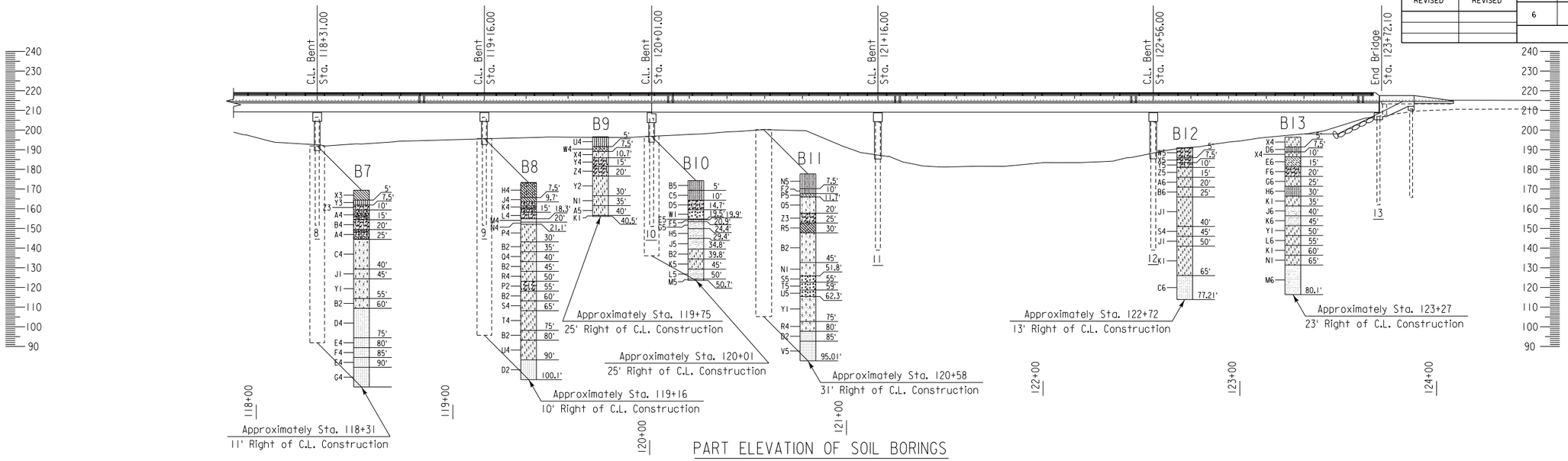
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_l5.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: 1" = 30'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67105

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	60	158
		07673 - LAYOUT - 67106				



PART ELEVATION OF SOIL BORINGS

PART BORING LEGEND

U3-Wet, Medium Dense, Brown Silty Sand with Gravel**
V3-Wet, Medium Dense, Gray Sandy Silt (Nacatoch Formation)
W3-Wet, Medium Dense, Gray Silty Sand with Some Gravel
X3-Moist, Stiff, Brown Lean Clay and Some Organic Matter (Roots)
Y3-Moist, Loose, Brown Silt with Sand and Trace Gravel
Z3-Wet, Medium Dense, Brown Well Graded Gravel with Silt and Sand
A4-Wet, Medium Dense, Brown Poorly Graded Gravel and Cobbles with Silt and Sand
B4-Wet, Loose, Brown Poorly Graded Gravel with Silt and Sand
C4-Wet, Very Dense, Gray Poorly Graded Sand with Silt (Nacatoch Formation)
D4-Very Dense, Poorly Cemented Sand (No sample recovered)
E4-Moist, Very Dense, Gray Poorly Cemented Sand
F4-(No sample recovered)
G4-(No Sample recovered)
H4-Moist, Stiff, Brown Silty Clay with Sand (samples at 2.5 and 5.0 combined to ensure enough sample to test)
J4-Moist, Stiff, Brown Sandy Lean Clay
K4-Moist, Very Dense, Brown Silty Sand with Gravel (Cobbles observed on auger flights)•
L4-Wet, Very Dense, Brown Well Graded Sand with Silt and Gravel (Cobbles observed on auger flights)
M4-Sand (Nacatoch Formation)
N4-SANDSTONE
P4-Wet, Medium Dense, Gray Silty Sand
Q4-Wet, Very Dense, Gray Sand with Silt with Trace Gravel
R4-Wet, Very Dense, Gray Silty Sand with Trace Cemented Nodules
S4-Wet, Very Dense, Gray Silty Sand with Some Gravel
T4-Silty Sand (No Recovery)
U4-Moist, Very Dense, Gray Silty Sand
V4-Moist, Medium Dense, Brown Sandy Silt
W4-Moist, Medium Dense, Brown Silty, Clayey Sand with Trace Organic Matter (Roots)
X4-Moist, Loose, Brown Silty Sand with Trace Gravel
Y4-Moist, Medium Dense, Brown Sand with Silt and Gravel
Z4-Wet, Medium Dense, Brown Well Graded Sand with Silt and Gravel
A5-Wet, Very Dense, Gray Poorly Graded Sand with Silt and Trace Lignite
B5-Dry, Very Loose, Brown Sandy Silt
C5-Dry, Very Loose, Brown Silt with Sand with Trace Organic Matter (Roots)
D5-Wet, Loose, Brown Silty Sand with Gravel and Some Organic Matter (Wood)•
E5-SANDSTONE - Weathered, Cemented, Calcareous, Brown (Nacatoch Formation)
F5-SANDSTONE - Unweathered, Cemented, Calcareous, Gray
G5-sand (no recovery)
H5-Sand. Gravel at the bottom of the run. Gravel may be fall-in.
J5-Sand (No recovery)
K5-Wet, Very Dense, Gray Sand with Silt••
L5-Wet, Very Dense, Gray Sand (No Recovery - damaged catcher)
M5-Wet, Very Dense, Gray Poorly Graded Sand with Silt and Some Gravel
N5-Moist, Loose, Brown Sandy Silt (samples at 2.5 and 5.0 combined to ensure enough sample to test)
P5-Moist, Loose, Brown Silty, Clayey Sand
Q5-Wet, Very Loose, Sand with Silt and Some Gravel
R5-Wet, Stiff, Gray Sandy, Silty Clay (Nacatoch Formation)
S5-Wet, Very Dense, Gray Sand with Gravel
T5-Wet, Very Dense, Gray Poorly Graded Sand with Gravel
U5-Wet, Very Dense, Gray Gravel with Sand
V5-Very Dense, Poorly Cemented Sand (No recovery)•
W5-Moist, Dense, Brown Poorly Graded Gravel with Silt and Sand
X5-Moist, Medium Dense, Brown Poorly Graded Gravel with Silt and Sand
Y5-Wet, Dense, Brown Poorly Graded Gravel with Silt and Sand
Z5-Wet, Medium Dense, Brown and Gray Silty Sand with Trace Gravel (Nacatoch Formation)

PART BORING LEGEND

A6-Wet, Medium Dense, Dark Gray Silty Sand with Trace Gravel
B6-Wet, Very Dense, Dark Gray Silty Sand with Trace Gravel
C6-Very Dense, Poorly Cemented Sand with Silt (No Sample Recovered)
D6-Moist, Very Loose, Brown Sandy Silt with Trace Gravel
E6-Wet, Very Loose, Brown Clayey Sand with Some Gravel
F6-Wet, Dense, Reddish Brown Poorly Graded Gravel with Silt and Sand
G6-Wet, Medium Dense, Dark Gray Silty Sand with Trace Lignite
H6-Wet, Very Dense, Gray Silt with Sand
J6-Wet, Very Dense, Gray Sand with Trace Lignite
K6-Wet, Very Dense, Gray Sand with Trace Gravel
L6-Wet, Very Dense, Gray Sand with Silt Trace Gravel
M6-Very Hard, Poorly Cemented Sand (No Sample Recovered)

"N" VALUES

B8, Approximately Sta. 119+16
10' Right of C.L. Construction

3.0- 4.0,N=12
5.5- 6.5,N=13
8.0- 9.0,N=13
10.5- 11.5,N=57
15.5- 16.5,N=68
20- 20.0,N=40(0")
25.5- 26.5,N=11
30.5- 31.5,N=89
35.5- 36.0,N=60(6")
40.5- 41.0,N=60(6")
45- 45.3,N=40(4")
50.5- 51.5,N=37
55.5- 56.0,N=60(6")
60.5- 60.6,N=35(1")
65- 65.2,N=30(3")
75.5- 76.5,N=60
80- 80.2,N=100(2")
85.5- 85.5,N=3(0")
90- 90.1,N=100(1")
95- 95.1,N=100(1")
100-100.1,N=100(1")

B9, Approximately Sta. 119+75
25' Right of C.L. Construction

3.0- 4.0,N=11
5.5- 6.5,N=13
8.0- 9.0,N=10
10.5- 11.5,N=12
15.5- 16.5,N=26
20.5- 21.5,N=29
25.5- 26.5,N=11
30- 30.4,N=100(5")
35.5- 36.5,N=52
40.5- 40.5,N=100(6")

B10, Approximately Sta. 120+01
25' Right of C.L. Construction

3.0- 4.0,N=3
5.5- 6.5,N=1
8.0- 9.0,N=0
10.5- 11.5,N=7
15.2- 16.2,N=22
19.5- 19.8,N=15(4")
34.8- 35.2,N=60(5")
40.3- 40.7,N=100(5")
45- 45.4,N=100(5")
50.5- 50.7,N=65(2")

B11, Approximately Sta. 120+58
31' Right of C.L. Construction

3.0- 4.0,N=7
5.5- 6.5,N=5
8.0- 9.0,N=7
10.5- 11.5,N=7
15.5- 16.5,N=3
20.5- 21.5,N=13
25.5- 26.5,N=14
30.5- 31.5,N=100
35.5- 35.5,N=36(0")
40.5- 40.5,N=64(0")
45.5- 45.5,N=100(6")
50- 50.4,N=100(5")
55.5- 55.9,N=34(5")
60.5- 60.9,N=60(5")
65.5- 65.9,N=40(5")
70- 70.2,N=100(2")
75.5- 75.6,N=60(1")
80- 80.1,N=60(1")
85- 85.1,N=60(1")
90- 90.0,N=40(0")
95- 95.0,N=40(0")

B12, Approximately Sta. 122+72
13' Right of C.L. Construction

3.0- 4.0,N=38
5.5- 6.5,N=26
8.0- 9.0,N=36
10.5- 11.5,N=17
15.5- 16.5,N=11
20.5- 20.8,N=62(4")
25.5- 25.7,N=50(2")
30.5- 30.8,N=50(4")
35- 35.3,N=60(4")
40.5- 41.5,N=73
45.5- 45.9,N=60(5")
50- 50.2,N=60(2")
65- 65.1,N=60(1")
70- 70.1,N=60(1")
77.2- 77.2,N=60(0")

B13, Approximately Sta. 123+27
23' Right of C.L. Construction

3.0- 4.0,N=5
5.5- 6.5,N=4
8.0- 9.0,N=5
10.5- 11.5,N=1
15.5- 16.5,N=34
20.5- 21.5,N=17
25.5- 25.9,N=60(5")
30.5- 30.5,N=60(6")
35- 35.4,N=60(5")
40- 40.3,N=60(4")
45.5- 46.5,N=73
50.5- 50.8,N=60(4")
55- 55.4,N=60(5")
60- 60.2,N=60(2")
65- 65.2,N=60(2")
70- 70.2,N=60(2")
75- 75.1,N=60(1")
80- 80.1,N=60(1")

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 6 OF 6
LAYOUT OF BRIDGE
HIGHWAY 67 OVER CADDO RIVER
CADDO RIVER STR. & APPRS. (CADDO VALLEY) (S)
CLARK COUNTY

ROUTE 67 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

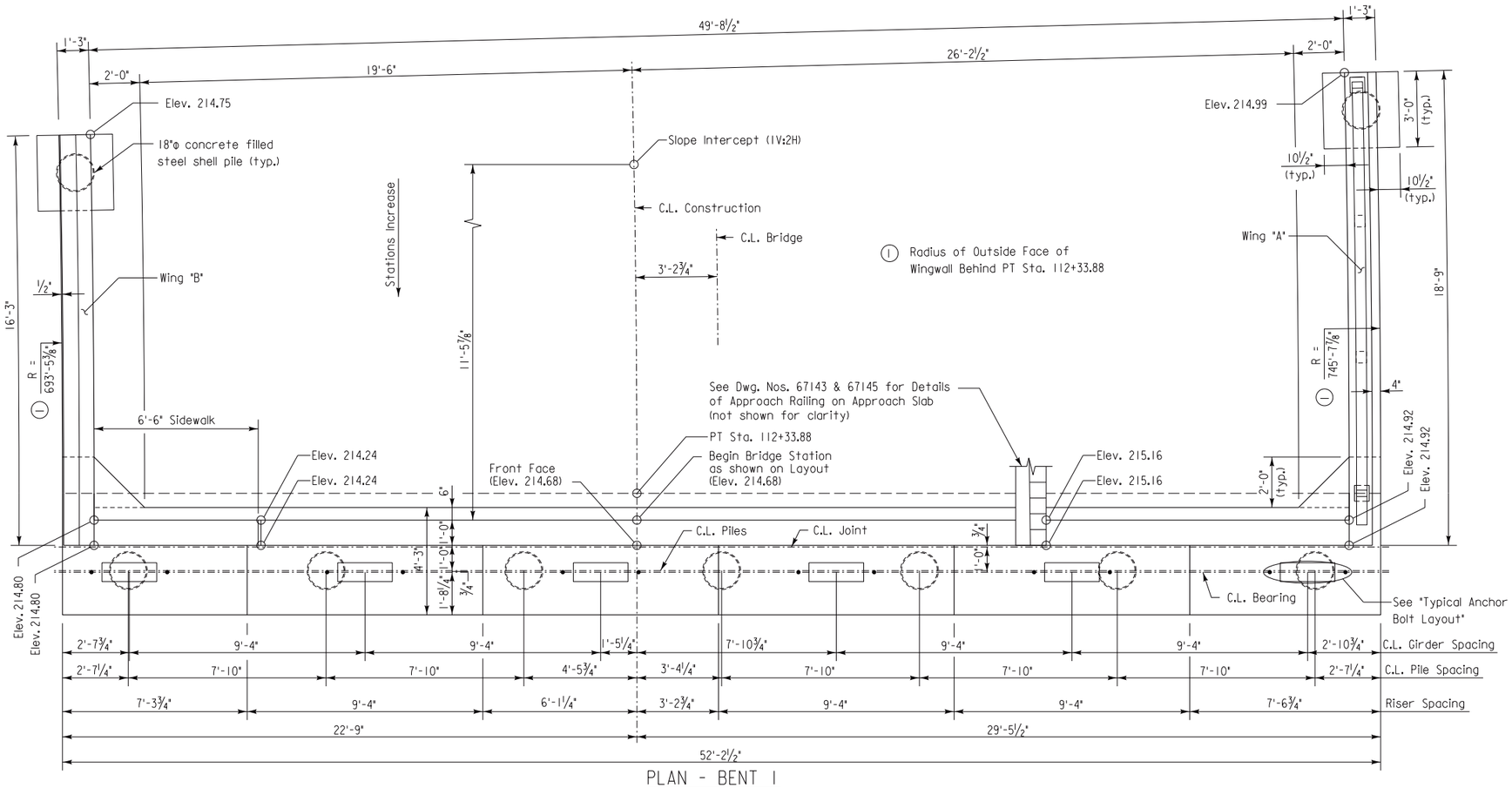
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_l6.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07673 DRAWING NO. 67106

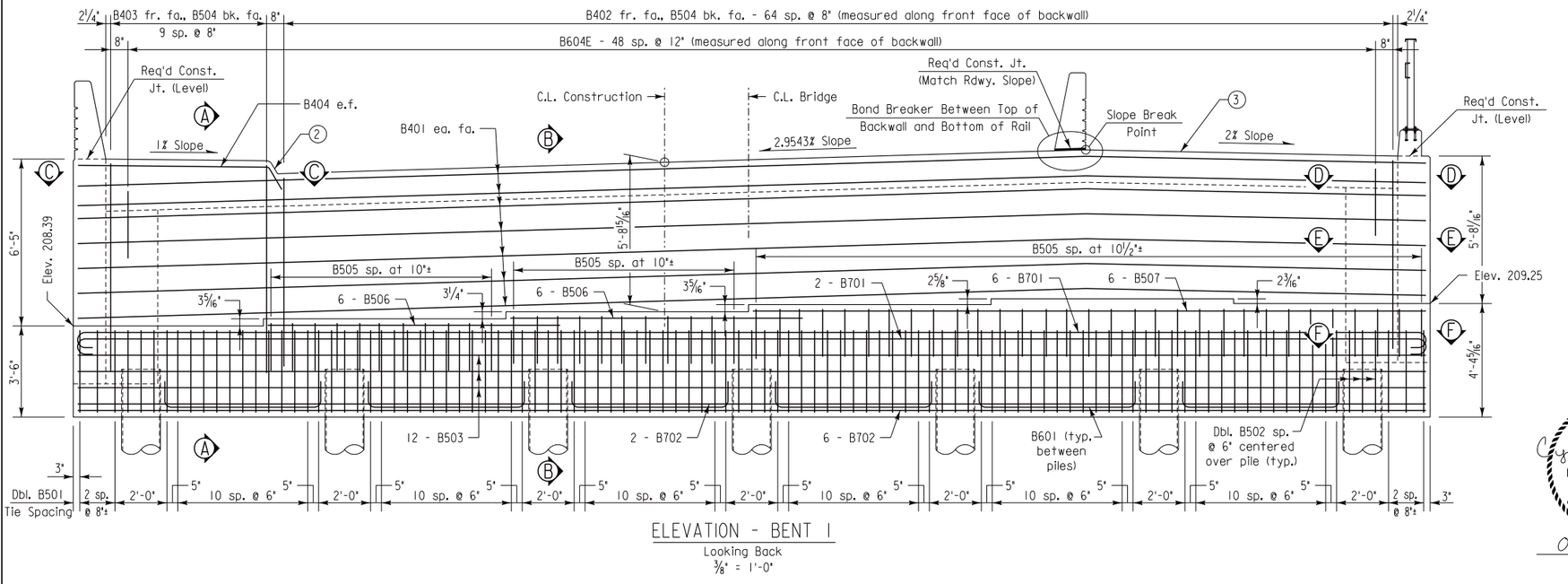
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	61	158
		07673 - END BENTS - 67107				



PLAN - BENT 1

⅜" = 1'-0"



ELEVATION - BENT 1

Looking Back

⅜" = 1'-0"

GENERAL NOTES:

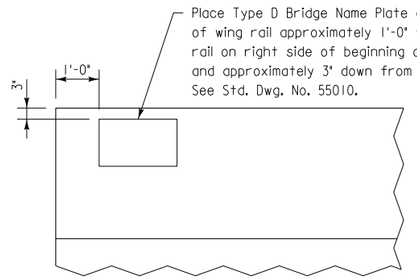
For General Notes, see Std. Dwg. No. 55006.

Structural Steel in Bent 1 and Bent 13 shall be ASTM A709, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (A709, Gr. 50W)".

All piling shall be ASTM A252, Grade 3 (Fy= 45 ksi). For details of concrete filled steel shell piles, see Std. Dwg. No. 55021.

Class 2 Protective Surface Treatment shall be applied to the top of the backwall.

For additional information, see Layout.



NAME PLATE DETAIL

No Scale

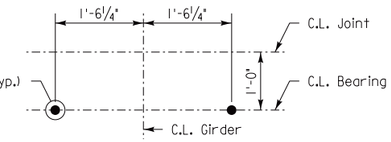
NOTES:

For Details of Wings, see Dwg. Nos. 67108 & 67109.

For Bar List and additional Sections, see Dwg. Nos. 67108, 67109, and 67110.

(2) See "SIDEWALK & CURB DETAIL" on Dwg. No. 67111.

(3) See "SHARED USE PATH SECTION THRU JOINT AT END BENT" on Dwg. No. 67123.



See Dwg. No. 67120 for Details of Elastomeric Bearings.

TYPICAL ANCHOR BOLT LAYOUT

No Scale

No portion of the backwall shall be poured before the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55008. No heavy construction equipment shall be allowed within 10' of the backwall before the deck concrete placement for the adjacent span has been completed.

STATE OF ARKANSAS
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No. 19278
CYNTHIA A. RICH

06/20/2025

BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF END BENT 1
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_a1.dgn

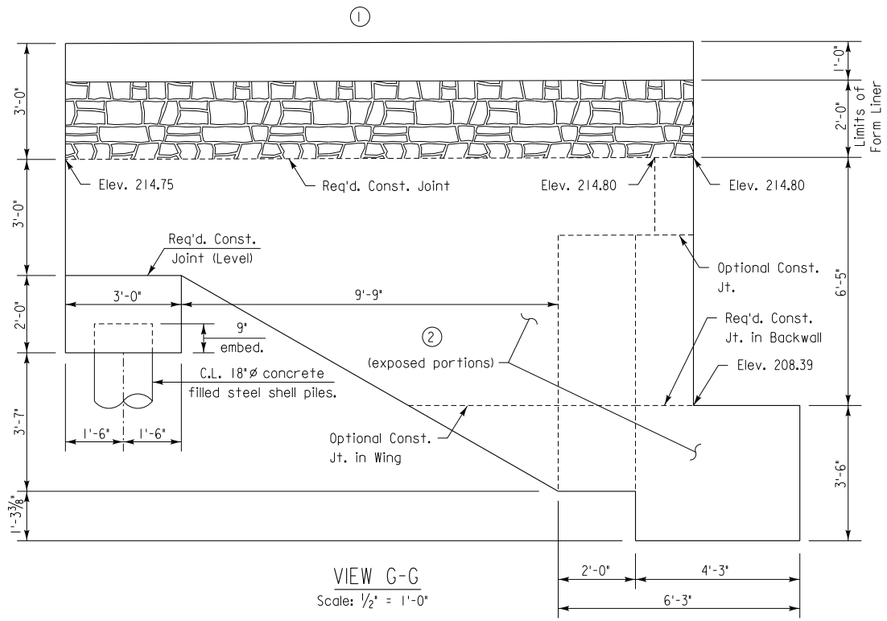
CHECKED BY: LAC DATE: JUN 2025 SCALE: ⅜" = 1'-0"

DESIGNED BY: KJK DATE: OCT 2023

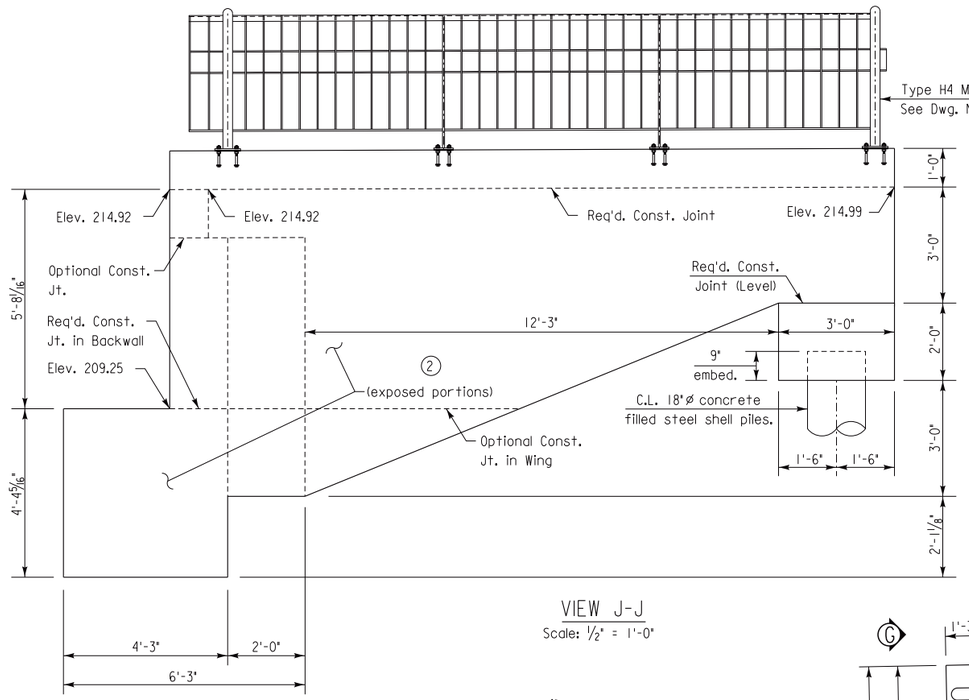
BRIDGE NO. 07673 DRAWING NO. 67107

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	62	158
		07673 - END BENTS - 67108				



VIEW G-G
Scale: ½" = 1'-0"



VIEW J-J
Scale: ½" = 1'-0"

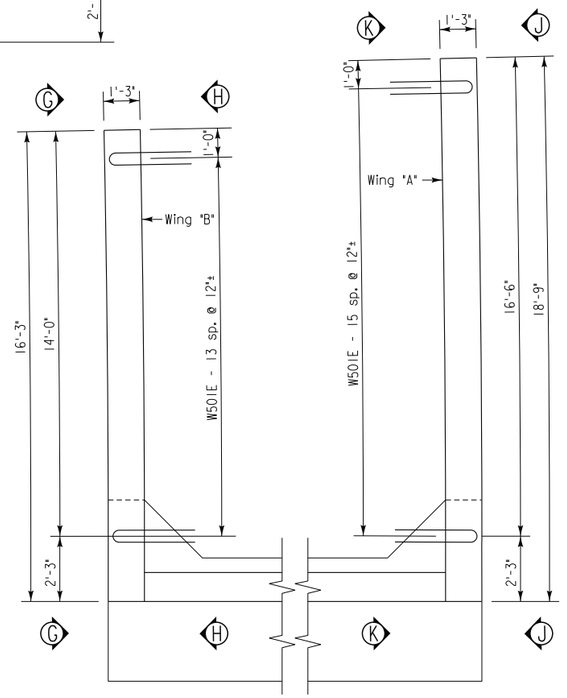
NOTE:

① See "TEXTURED COATING & ARCHITECTURAL FINISH DETAILS AT END BENTS" for placement of Ashlar Stone on Dwg. No. 67114.

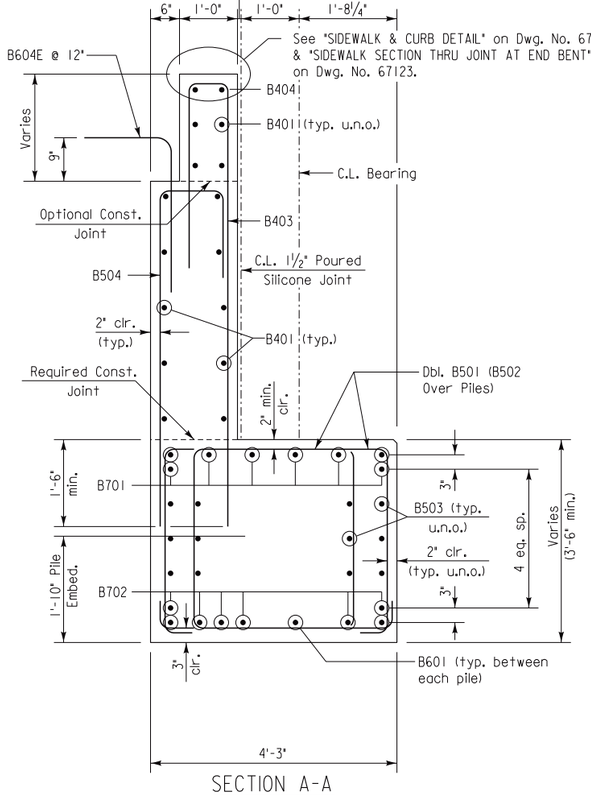
② Class 3 Textured Coating Finish shall be appllied to bridge surfaces as specified in SP "Textured Coating Finish" and in accordance with Subsection 802.19(b)(3). See details shown on Dwg. No. 67114.

NOTE:

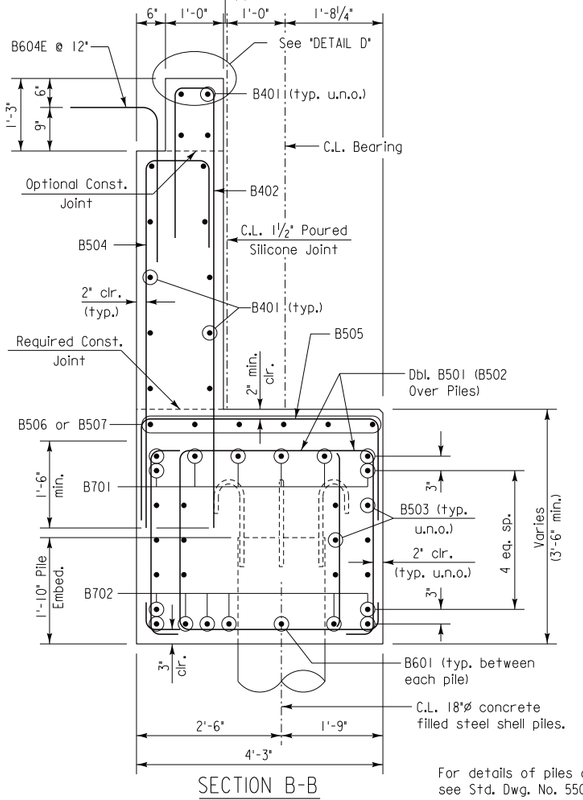
For "VIEW H-H" and "VIEW K-K", see Dwg. No. 67109.



PLAN OF RAILS
Scale: ⅜" = 1'-0"

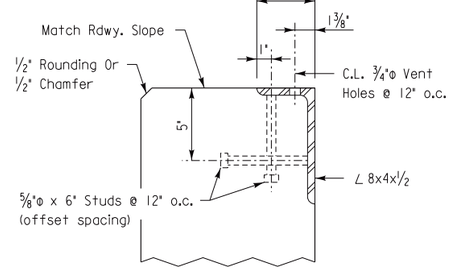


SECTION A-A
No Scale



SECTION B-B
No Scale

For details of piles and pile anchorage, see Std. Dwg. No. 55021.



DETAIL D
No Scale

For additional joint details, see Std. Dwg. 55008 & Dwg. No. 67123.

Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under the joint armor.

STATE OF ARKANSAS
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No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF END BENT 1
CADDO RIVER

ROUTE SEC.

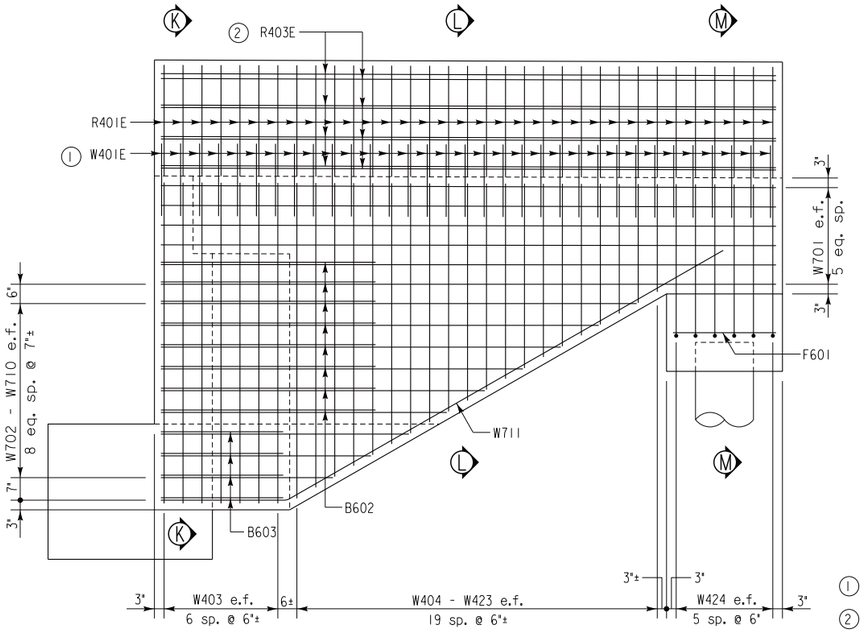
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

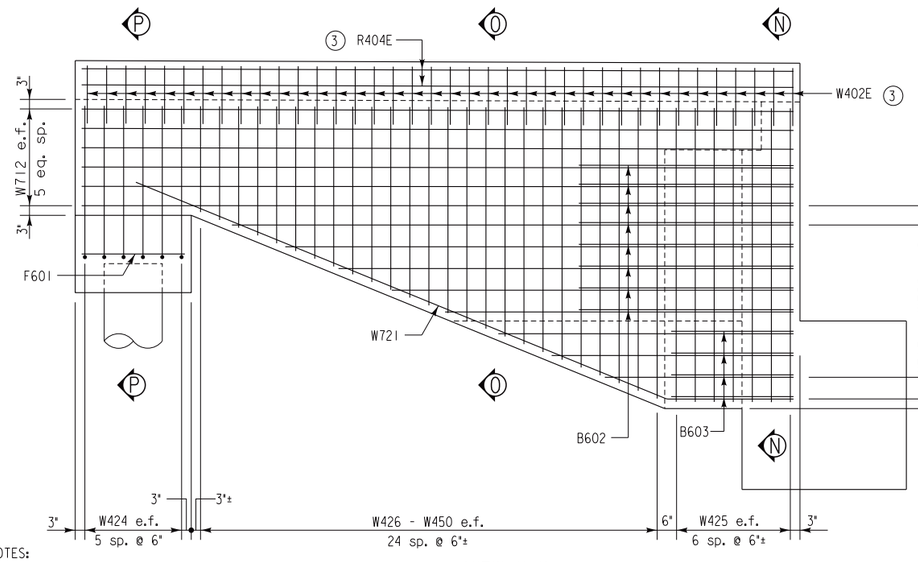
DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_a2.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ½" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67108

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	63	158
		07673 - END BENTS - 67109				





NOTES:

① See "DETAIL A" for placement of Bars W401E on Dwg No. 67110.

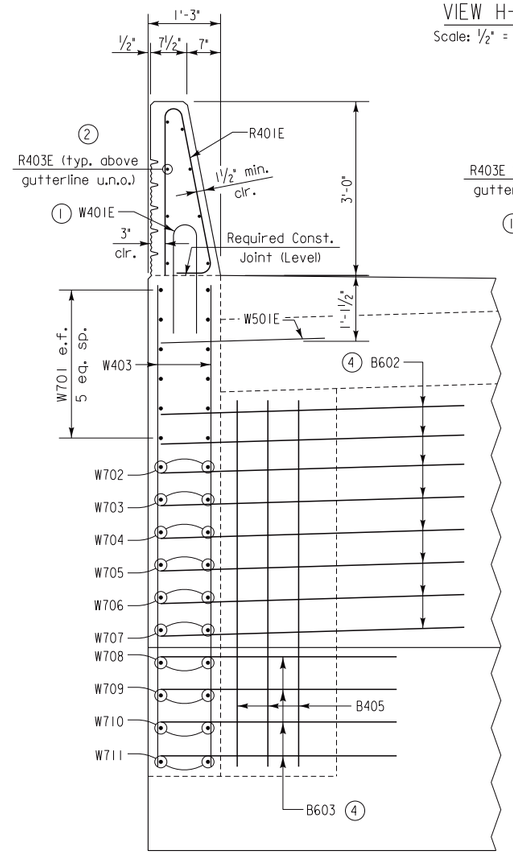
② See "DETAIL B" for placement of Bars R403E on Dwg No. 67110.

③ See "DETAIL C" for placement of Bars W402E & R404E on Dwg No. 67110.

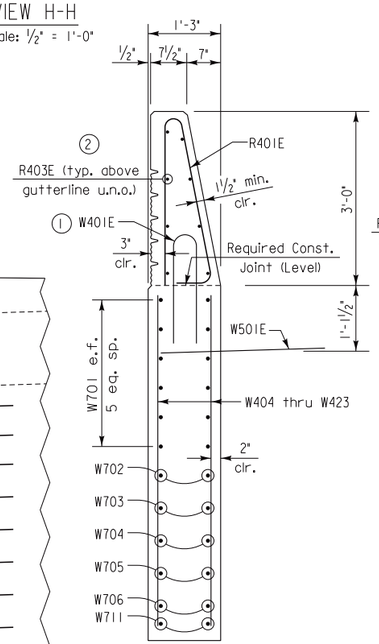
④ See end bent details on Dwg. Nos. 67107, 67108 & 67110 for reinforcing and additional details.

VIEW H-H
Scale: ½" = 1'-0"

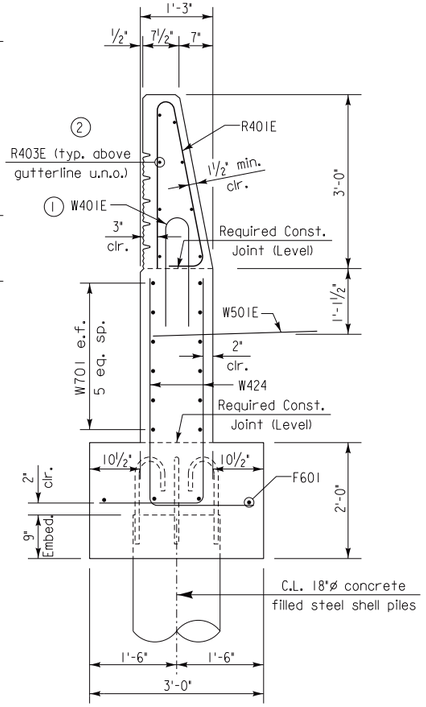
VIEW K-K
Scale: ½" = 1'-0"



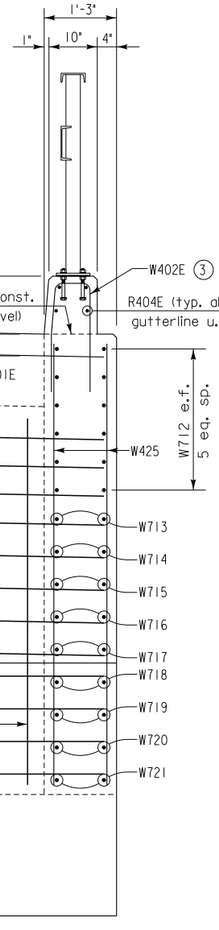
SECTION K-K
Scale: ¾" = 1'-0"



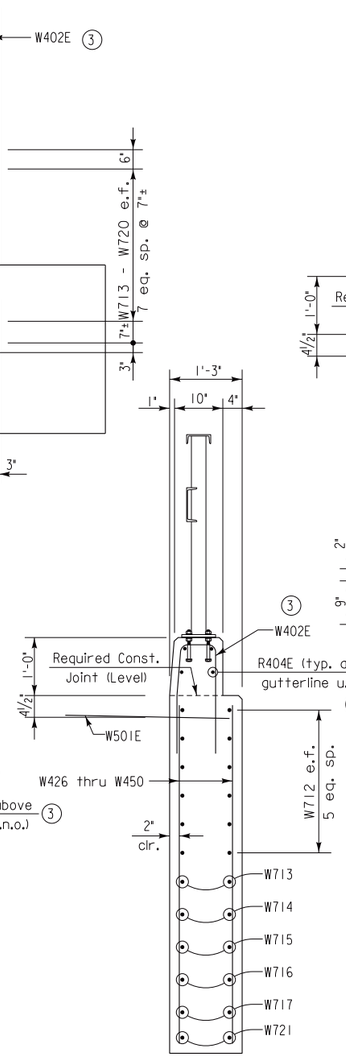
SECTION L-L
Scale: ¾" = 1'-0"



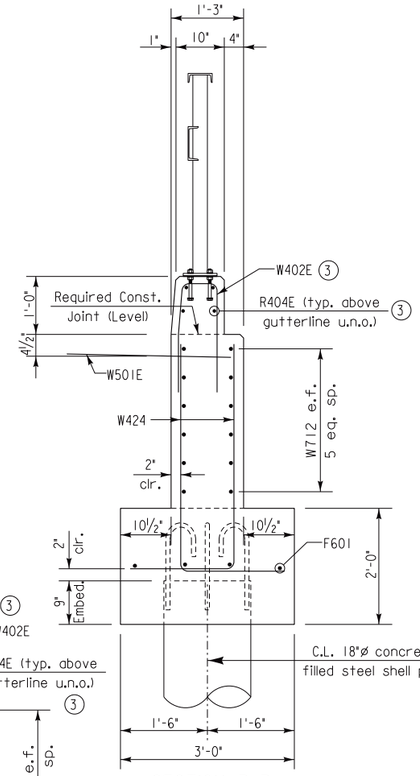
SECTION M-M
Scale: ¾" = 1'-0"



SECTION N-N
Scale: ¾" = 1'-0"



SECTION O-O
Scale: ¾" = 1'-0"



SECTION P-P
Scale: ¾" = 1'-0"

For details of piles and pile anchorage, see Std. Dwg. No. 55021.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF END BENT 1
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_a3.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ½" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67109

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	64	158
		07673 - END BENTS - 67110				

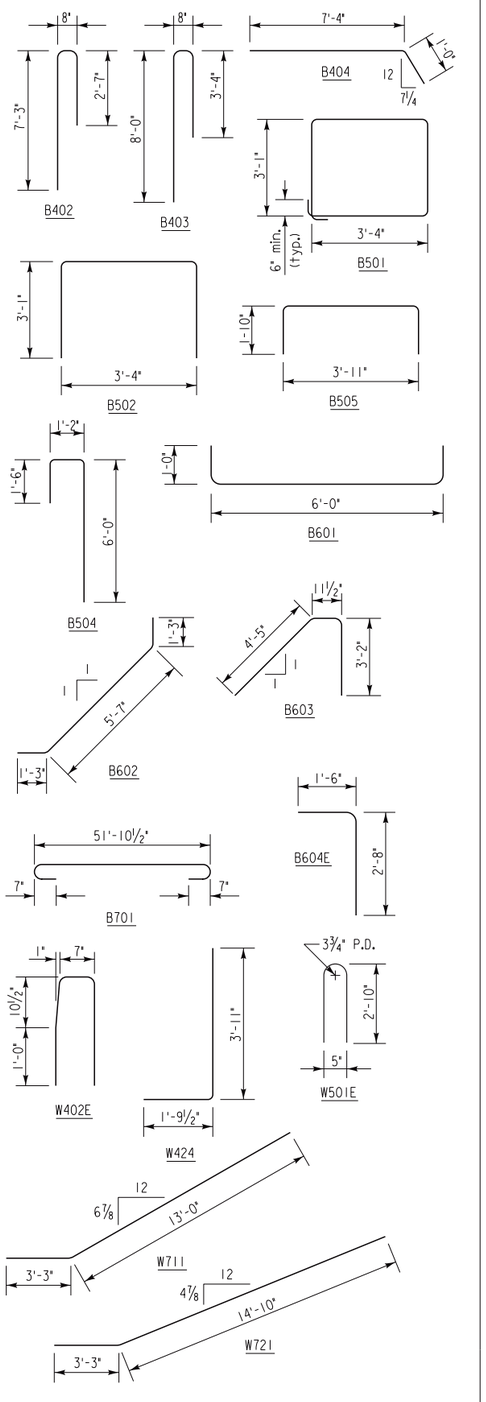
BAR LIST - PER BENT

	MARK	NO. REQ'D.	LENGTH	P.D.
	B401	14	51'-11"	Str.
	B402	65	10'-4"	2"
	B403	10	11'-10"	2"
	B404	2	8'-3½"	2"
	B405	6	6'-4"	Str.
	B501	168	13'-4"	2½"
	B502	42	9'-3½"	2½"
	B503	12	51'-10½"	Str.
	B504	75	8-5½"	2½"
	B505	53	7'-4½"	2½"
	B506	12	11'-3"	Str.
	B507	6	25'-10½"	Str.
	B601	6	7'-9½"	4½"
	B602	16	8'-0"	4½"
	B603	8	8'-4"	4½"
	B604E	49	4'-0"	4½"
	B701	8	53'-6½"	5¼"
	B702	8	51'-10½"	Str.
	F601	8	2'-8"	Str.
(1)	W401E	33	3'-11"	3¾"
	W402E	38	4'-3"	2"
	W403	14	8'-3½"	Str.
	W404 To W423	2 ea.	8'-2" To 2'-9½"	Str.
	W424	24	5'-7½"	3"
	W425	14	7'-7"	Str.
	W426 To W450	2 ea.	7'-6" To 2'-9"	Str.
	W501E	30	5'-10"	3¾"
	W701	12	15'-11"	Str.
	W702 To W710	2 ea.	12'-4" To 4'-5½"	Str.
	W711	2	16'-3"	5¼"
	W712	12	18'-5"	Str.
	W713 To W720	2 ea.	14'-6" To 4'-10½"	Str.
	W721	2	18'-1"	5¼"
(1)	R401E	33	6'-4"	2½", 3"
	R403E	8	15'-11"	Str.
	R404E	4	18'-5"	Str.

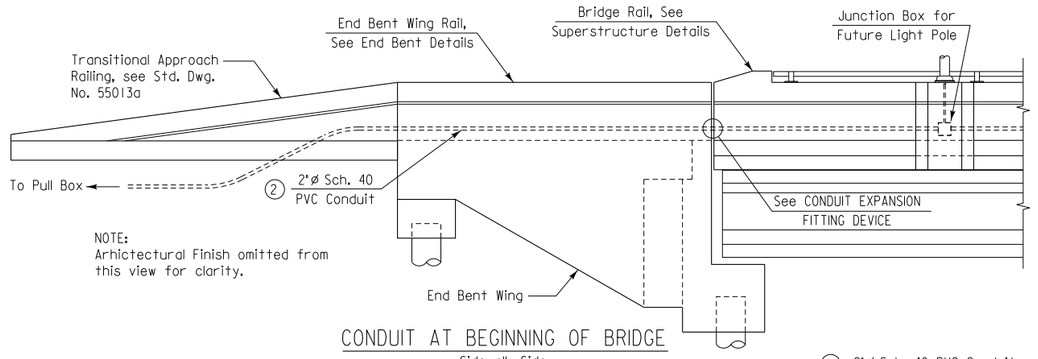
NOTE: Bars designated with an "E" suffix to be Epoxy coated.

BENDING DIAGRAMS

Dimensions are out to out of bars.



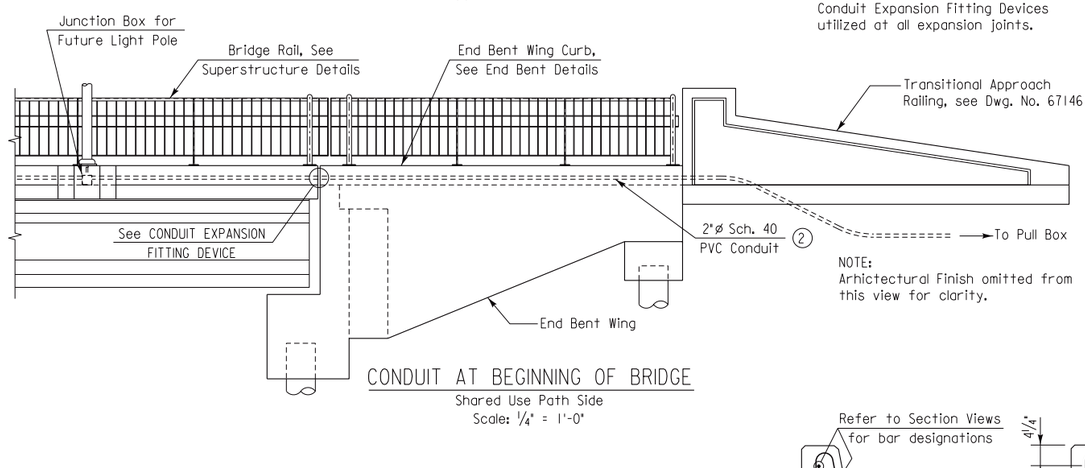
(1) For additional details and bending diagrams of reinforcing bars in Bridge Traffic Rail and Wings, see Std. Dwg. No. 55070.



CONDUIT AT BEGINNING OF BRIDGE

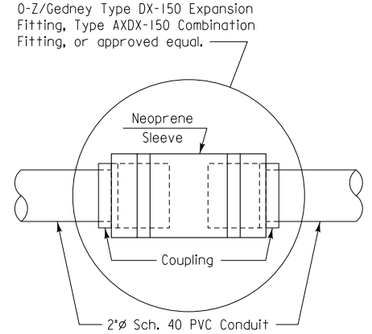
Sidewalk Side
Scale: ¼" = 1'-0"

(2) 2"ø Sch. 40 PVC Conduit extends along entire length of bridge with Conduit Expansion Fitting Devices utilized at all expansion joints.



CONDUIT AT BEGINNING OF BRIDGE

Shared Use Path Side
Scale: ¼" = 1'-0"

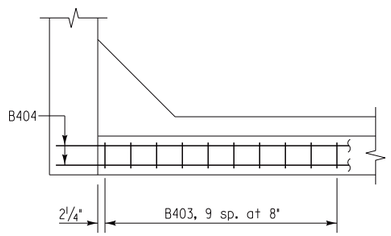


CONDUIT EXPANSION FITTING DEVICE

No Scale

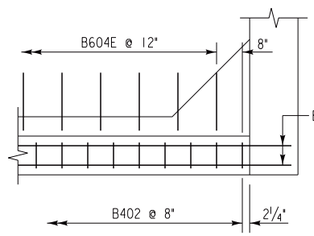
The movement range of the expansion fitting shall meet or exceed the movement range of the bridge expansion joints. Bonding jumper not shown for clarity. One fitting device is required at every bridge expansion joint.

Provide standard PVC adaptors for connections at each end of expansion fitting.



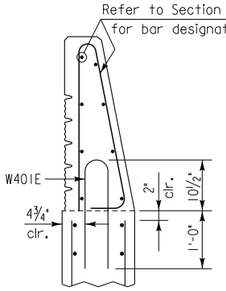
SECTION C-C

½" = 1'-0"



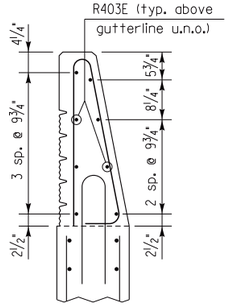
SECTION D-D

½" = 1'-0"



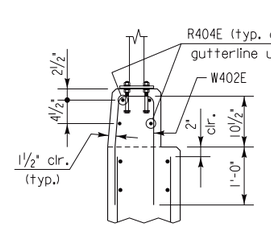
DETAIL A

Scale: ¾" = 1'-0"



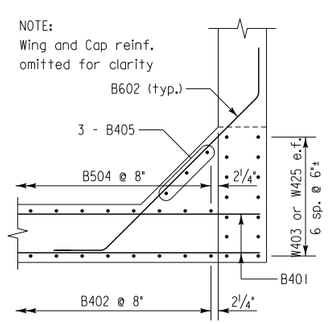
DETAIL B

Scale: ¾" = 1'-0"



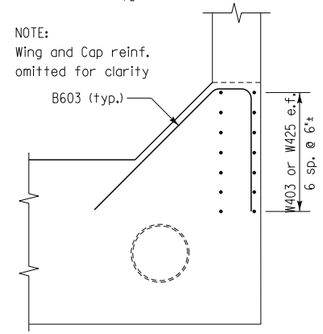
DETAIL C

Scale: ¾" = 1'-0"



SECTION E-E

½" = 1'-0"



SECTION F-F

½" = 1'-0"

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF END BENT 1
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

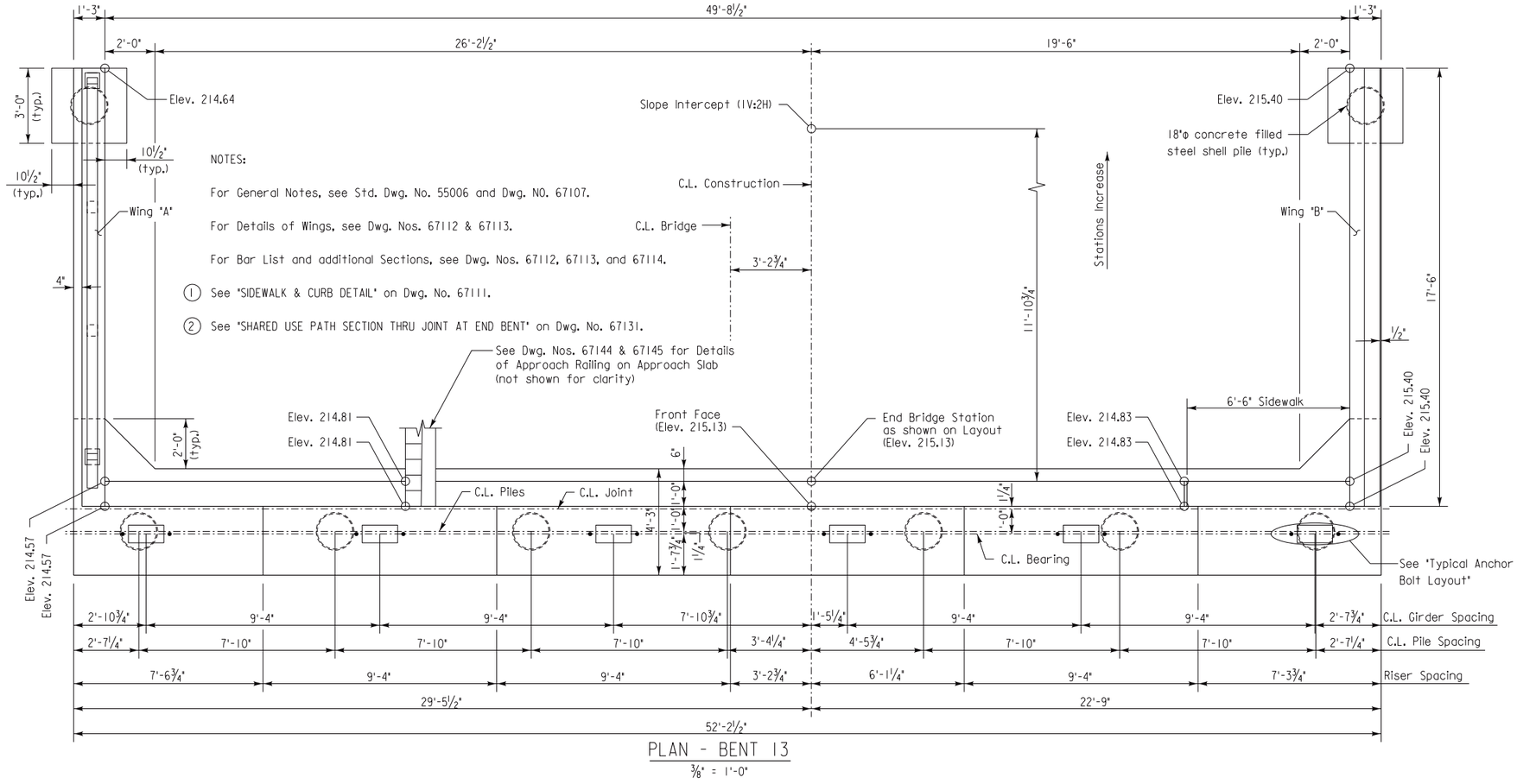
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_a4.dgn
SCALE: ½" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67110

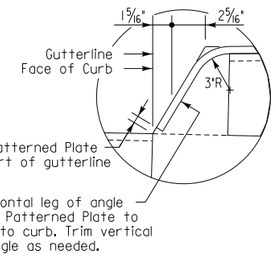
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	65	158
		07673 - END BENTS - 67111				



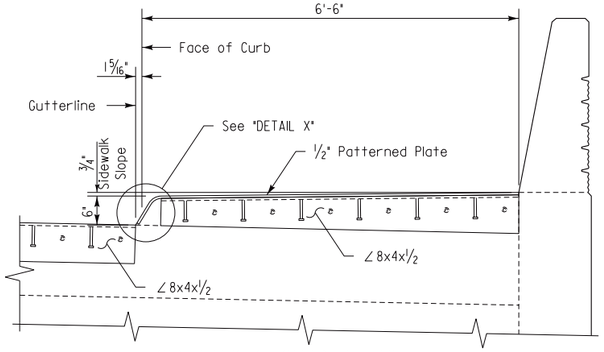
PLAN - BENT 13

3/8" = 1'-0"



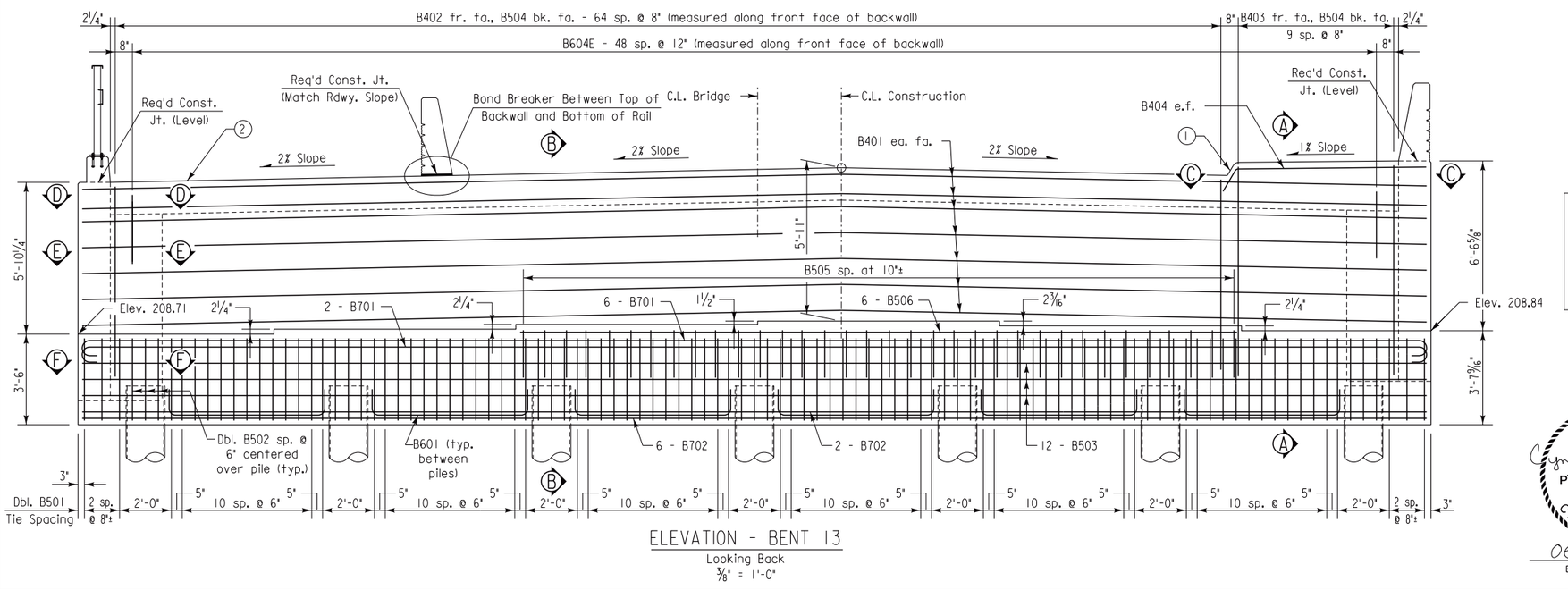
DETAIL X

No Scale



SIDEWALK & CURB DETAIL

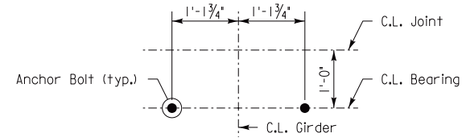
Scale: ¾" = 1'-0"



ELEVATION - BENT 13

Looking Back

3/8" = 1'-0"



See Dwg. No. 67121 for Details of Elastomeric Bearings.

TYPICAL ANCHOR BOLT LAYOUT

No Scale

No portion of the backwall shall be poured before the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55008. No heavy construction equipment shall be allowed within 10' of the backwall before the deck concrete placement for the adjacent span has been completed.

STATE OF ARKANSAS
Cynthia A. Rich
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF END BENT 13
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
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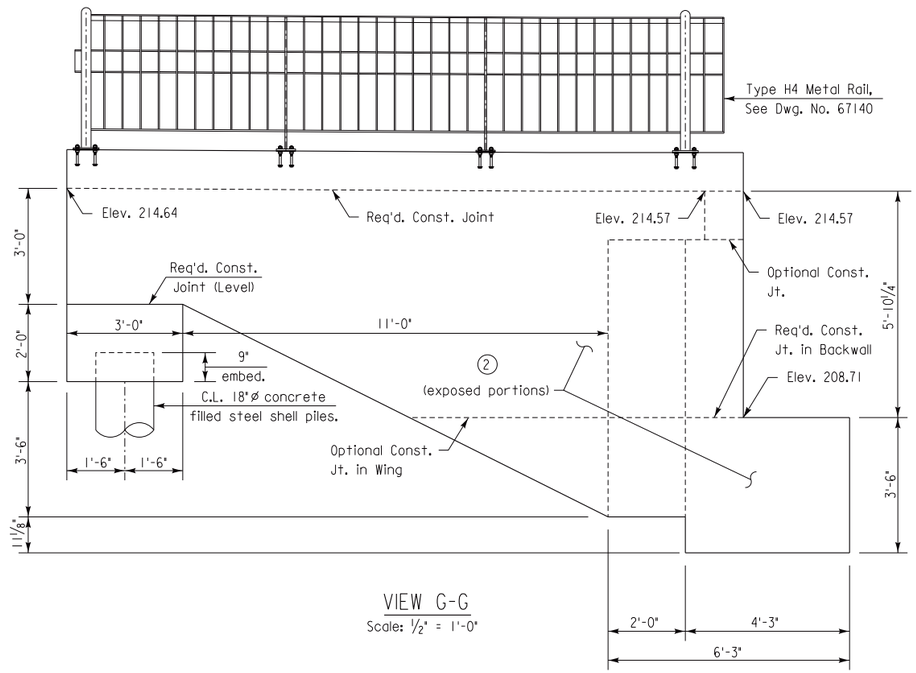
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_a5.dgn
SCALE: 3/8" = 1'-0"

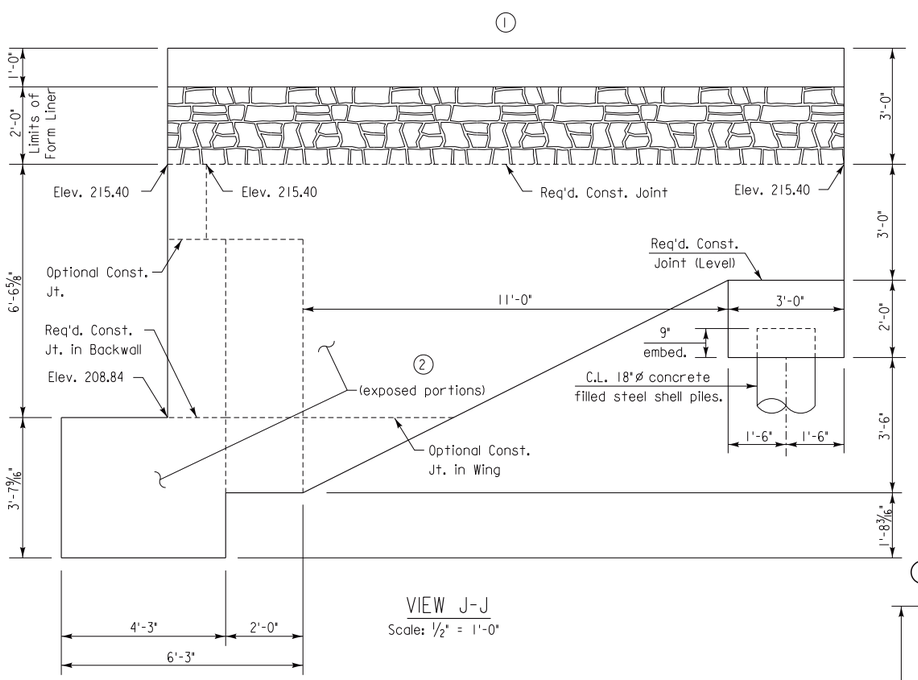
BRIDGE NO. 07673 DRAWING NO. 67111

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	66	158
		07673 - END BENTS - 67112				



VIEW G-G
Scale: ½" = 1'-0"



VIEW J-J
Scale: ½" = 1'-0"

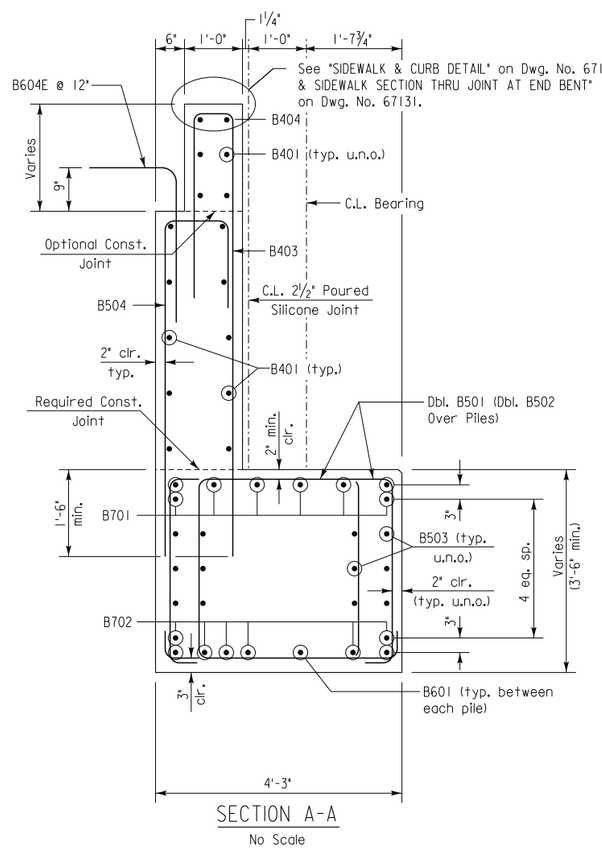
NOTE:

(1) See "TEXTURED COATING & ARCHITECTURAL FINISH DETAILS AT END BENTS" for placement of Ashlar Stone on Dwg. No. 67114.

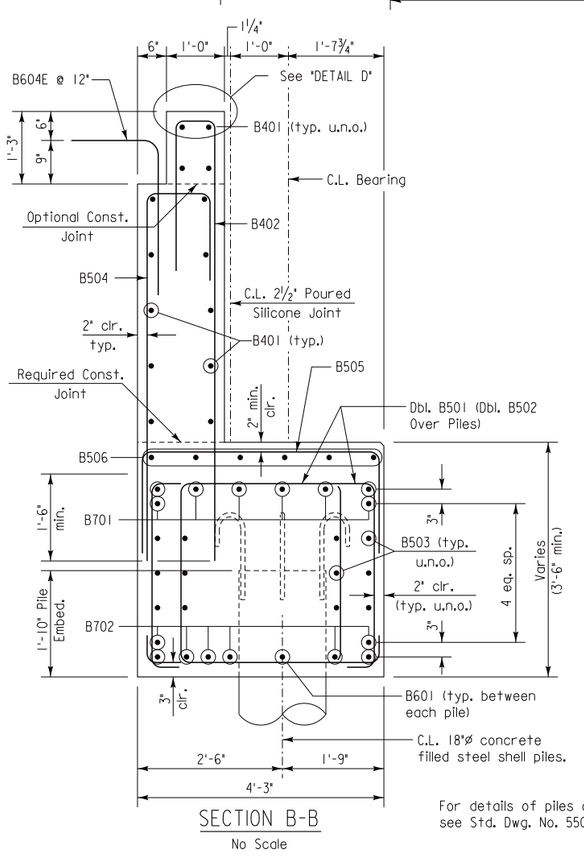
(2) Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP "Textured Coating Finish" and in accordance with Subsection 802.19(b)(3). See details shown on Dwg. No. 67114.

NOTE:

For "VIEW H-H" and "VIEW K-K", see Dwg. No. 67113.

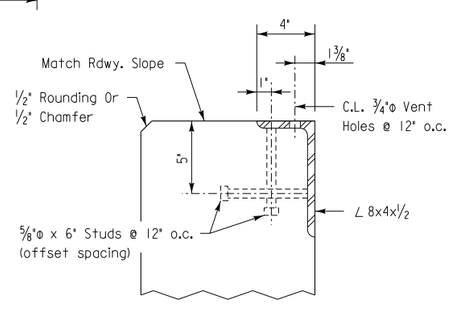


SECTION A-A
No Scale



SECTION B-B
No Scale

For details of piles and pile anchorage, see Std. Dwg. No. 55021.

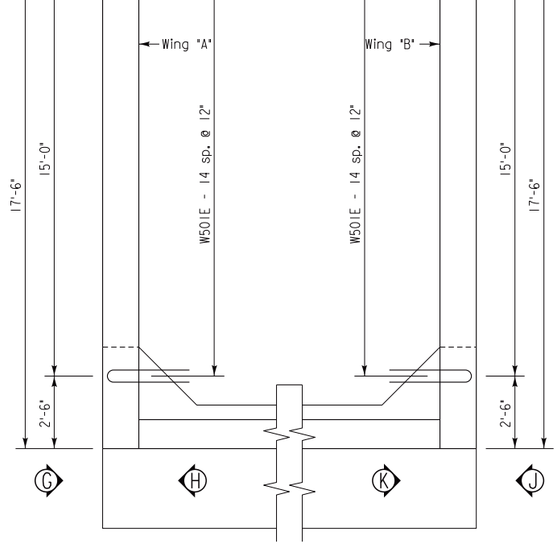


DETAIL D
No Scale

For additional joint details, see Std. Dwg. No. 55008 & Dwg. No. 67131.

Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under the joint armor.



PLAN OF RAILS
Scale: ⅜" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF END BENT 13
CADDO RIVER

ROUTE SEC.

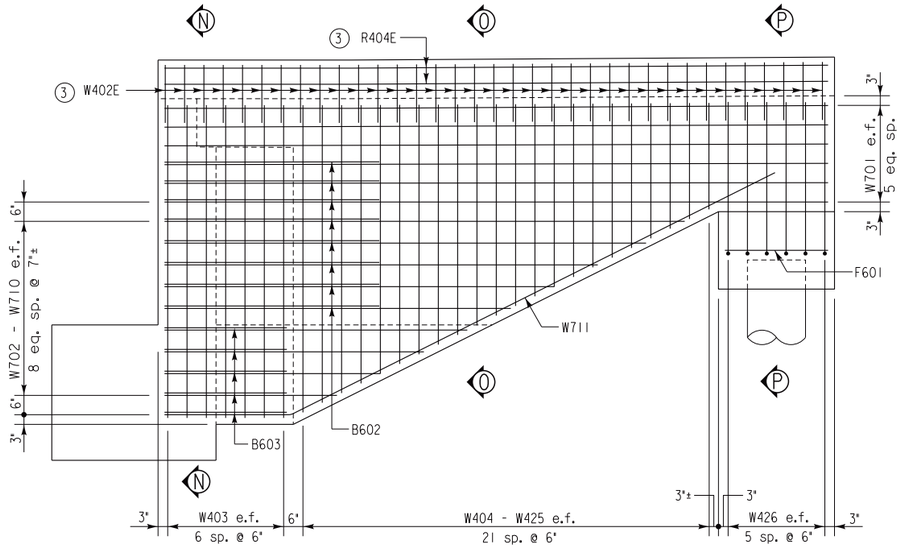
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_a6.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ½" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

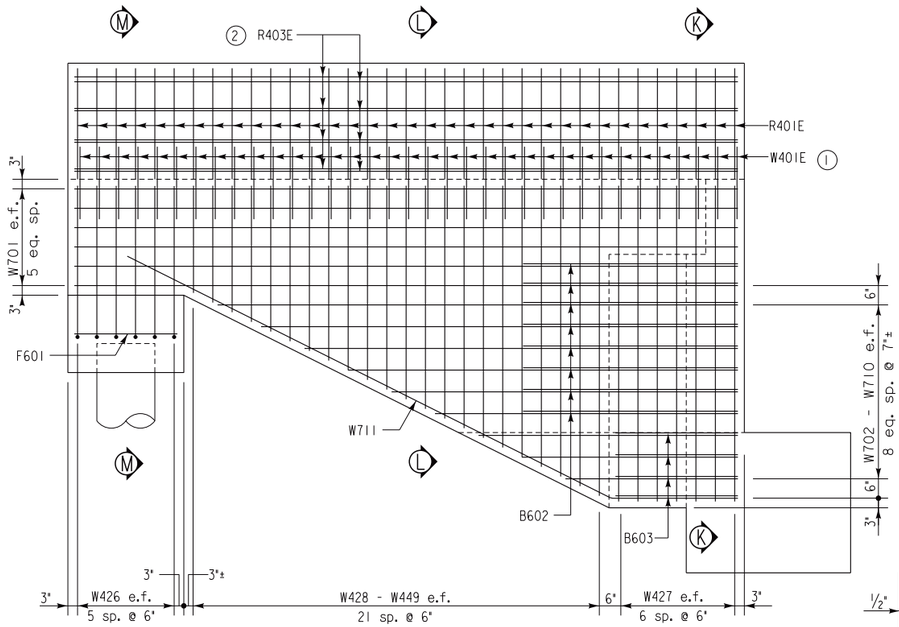
BRIDGE NO. 07673 DRAWING NO. 67112

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	67	158
		07673 - END BENTS - 67113				



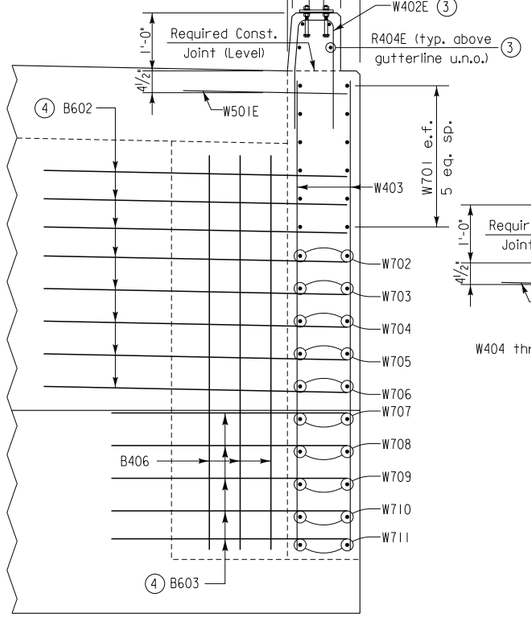
VIEW H-H
Scale: ½" = 1'-0"



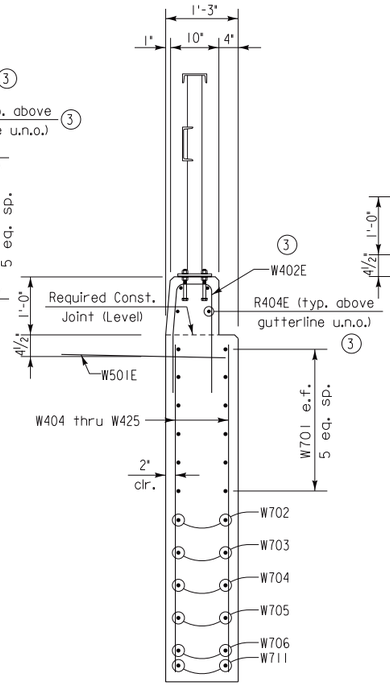
VIEW K-K
Scale: ½" = 1'-0"

NOTES:

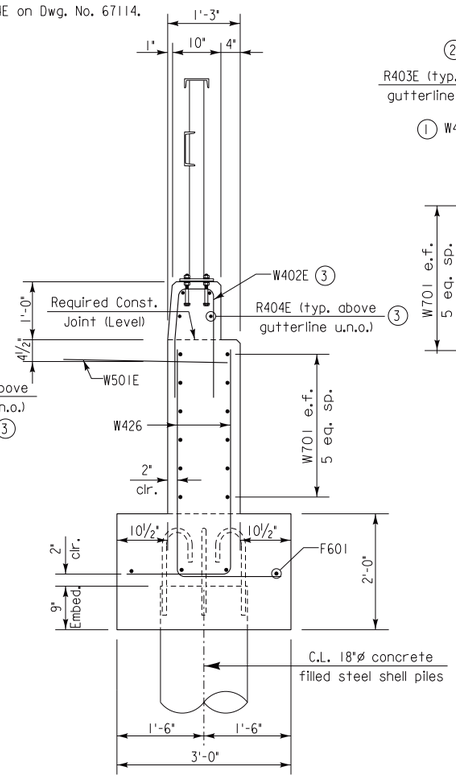
1. See "DETAIL A" for placement of Bars W401E on Dwg. No. 67114.
2. See "DETAIL B" for placement of Bars R403E on Dwg. No. 67114.
3. See "DETAIL C" for placement of Bars W402E & R404E on Dwg. No. 67114.
4. See end bent details on Dwg. Nos. 67111, 67112 & 67114 for reinforcing and additional details.



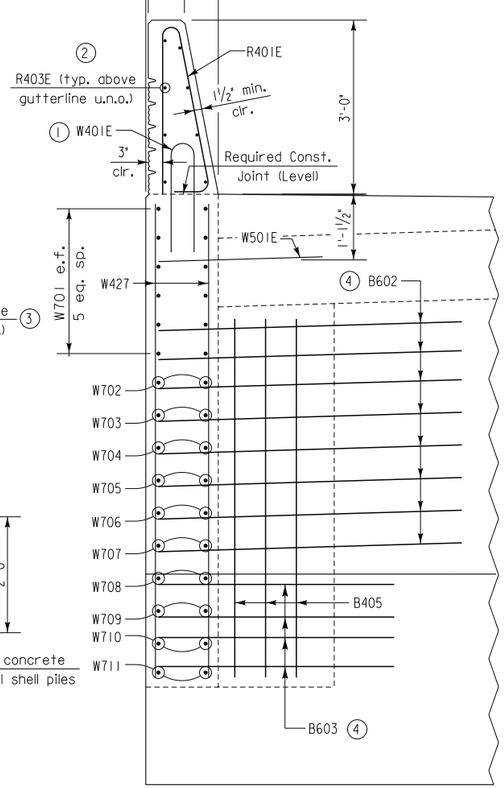
SECTION N-N
Scale: ¾" = 1'-0"



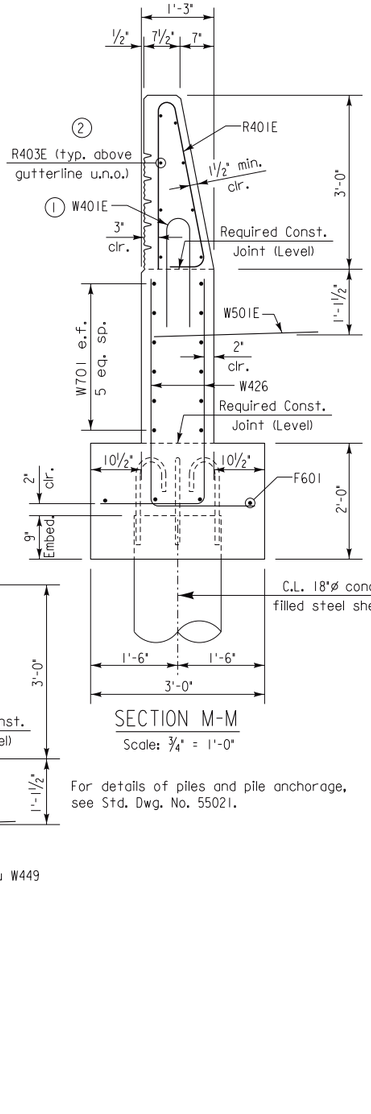
SECTION O-O
Scale: ¾" = 1'-0"



SECTION P-P
Scale: ¾" = 1'-0"



SECTION K-K
Scale: ¾" = 1'-0"



SECTION L-L
Scale: ¾" = 1'-0"

SECTION M-M
Scale: ¾" = 1'-0"

For details of piles and pile anchorage, see Std. Dwg. No. 55021.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF END BENT 13
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_a7.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ½" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67113

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	68	158
		07673 - END BENTS - 67114				

BAR LIST - PER BENT

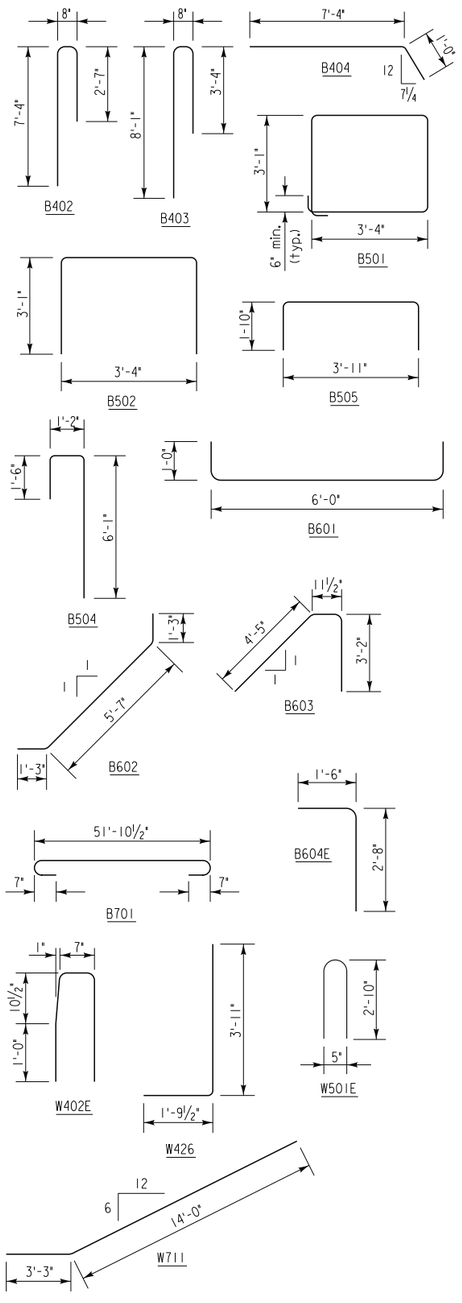
	MARK	NO. REQ'D.	LENGTH	P.D.
	B401	14	51'-11"	Str.
	B402	65	10'-5"	2"
	B403	10	11'-11"	2"
	B404	2	8'-3½"	2"
	B405	3	6'-2"	Str.
	B406	3	6'-10"	Str.
	B501	168	13'-4"	2½"
	B502	42	9'-3½"	2½"
	B503	12	51'-10½"	Str.
	B504	75	8-6½"	2½"
	B505	34	7'-4½"	2½"
	B506	6	27'-8"	Str.
	B601	6	7'-9½"	4½"
	B602	16	8'-0"	4½"
	B603	9	8'-4"	4½"
	B604E	49	4'-0"	4½"
	B701	8	53'-6½"	5¼"
	B702	8	51'-10½"	Str.
	F601	8	2'-8"	Str.
(4)	W401E	35	3'-11"	3¾"
	W402E	35	4'-3"	2"
	W403	14	8'-1"	Str.
	W404 To W425	2 ea.	7'-11" To 2'-9"	Str.
	W426	24	5'-7½"	3"
	W427	14	8'-2"	Str.
	W428 To W449	2 ea.	8'-0" To 2'-9"	Str.
	W501E	30	5'-10"	3¾"
	W701	24	17'-2"	Str.
	W702 To W710	4 ea.	13'-5½" To 4'-5½"	Str.
	W711	4	17'-3"	5¼"
(4)	R401E	35	6'-4"	2½", 3"
	R403E	8	17'-2"	Str.
	R404E	4	17'-2"	Str.

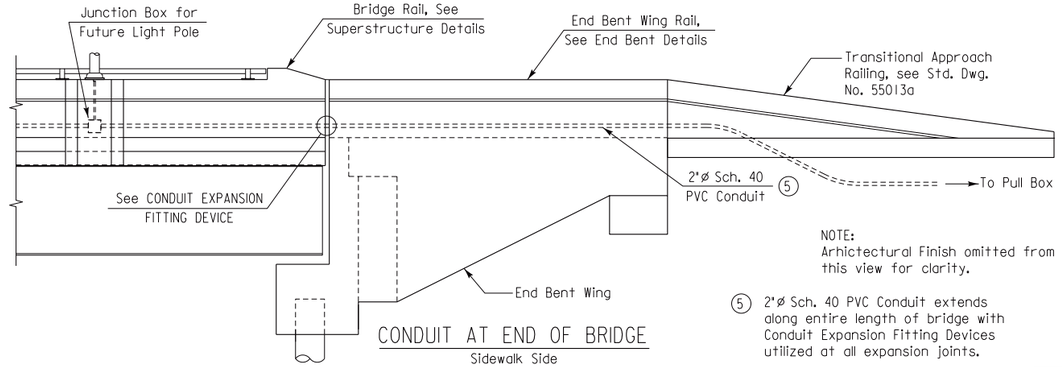
NOTE: Bars designated with an "E" suffix to be Epoxy coated.

(4) For additional details and bending diagrams of reinforcing bars in Bridge Traffic Rail and Wings, see Std. Dwg. No. 55070.

BENDING DIAGRAMS

Dimensions are out to out of bars.



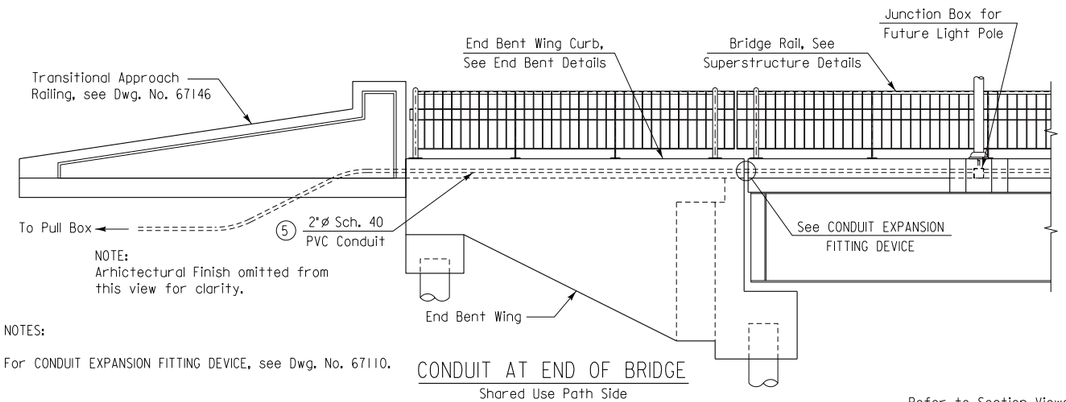


CONDUIT AT END OF BRIDGE

Sidewalk Side
Scale: ¼" = 1'-0"

NOTE:
Arhictectural Finish omitted from this view for clarity.

(5) 2"ø Sch. 40 PVC Conduit extends along entire length of bridge with Conduit Expansion Fitting Devices utilized at all expansion joints.



NOTE:
Arhictectural Finish omitted from this view for clarity.

NOTES:

For CONDUIT EXPANSION FITTING DEVICE, see Dwg. No. 67110.

CONDUIT AT END OF BRIDGE

Shared Use Path Side
Scale: ¼" = 1'-0"

(1) Class 3 Textured Coating Finish (Color = Brown, Color Chip No. 33522)

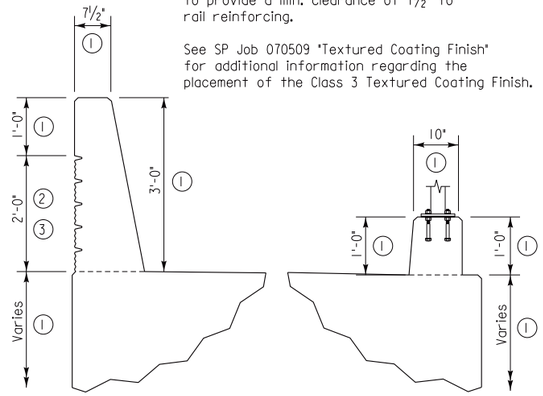
(2) Class 3 Textured Coating Finish (Color = Brown, Color Chip No. 30219)

(3) "Ashlar Stone" Pattern Form Liner, See SP Job 070509 "Architectural Finish".

NOTES:

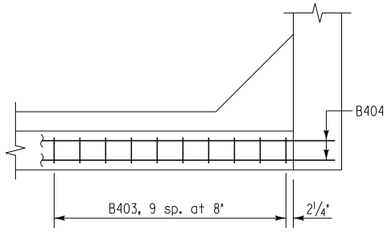
Form liner shall be max. depth of 1½" to provide a min. clearance of 1½" to rail reinforcing.

See SP Job 070509 "Textured Coating Finish" for additional information regarding the placement of the Class 3 Textured Coating Finish.



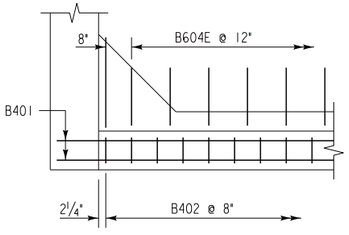
TEXTURED COATING & ARCHITECTURAL FINISH DETAILS AT END BENTS

No Scale



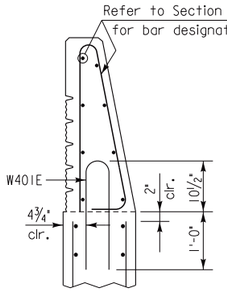
SECTION C-C

½" = 1'-0"



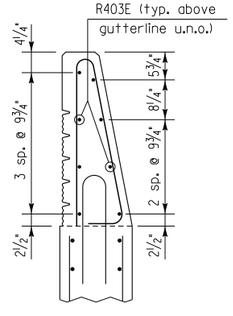
SECTION D-D

½" = 1'-0"



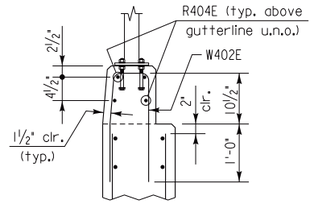
DETAIL A

Scale: ¾" = 1'-0"



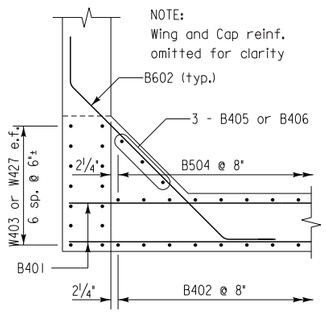
DETAIL B

Scale: ¾" = 1'-0"



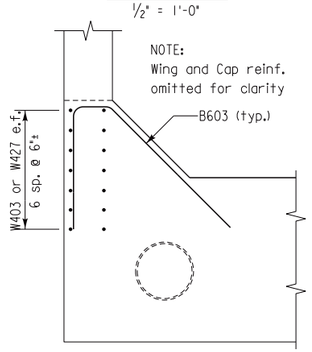
DETAIL C

Scale: ¾" = 1'-0"



SECTION E-E

½" = 1'-0"



SECTION F-F

½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH

06/20/2025
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF END BENT 13
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

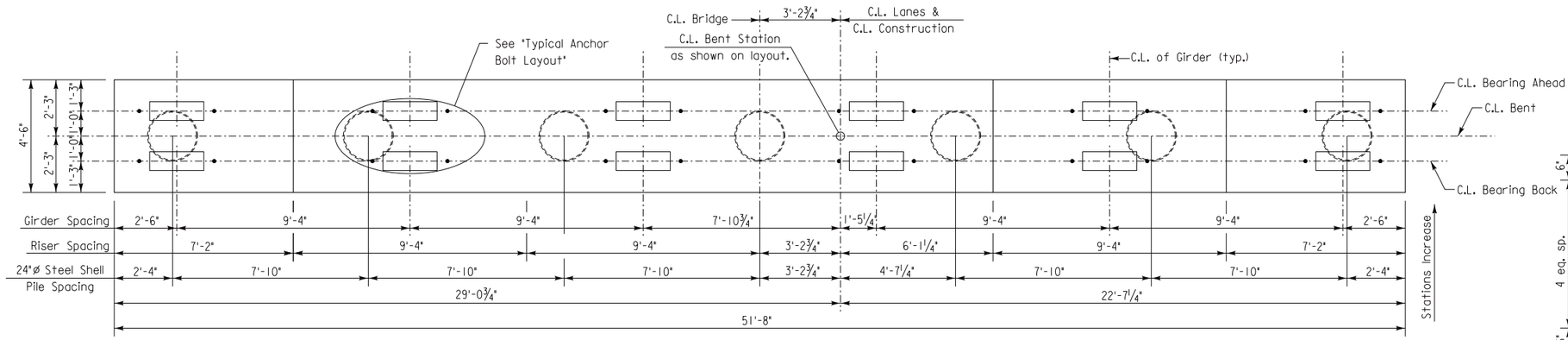
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_a8.dgn
SCALE: ½" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67114

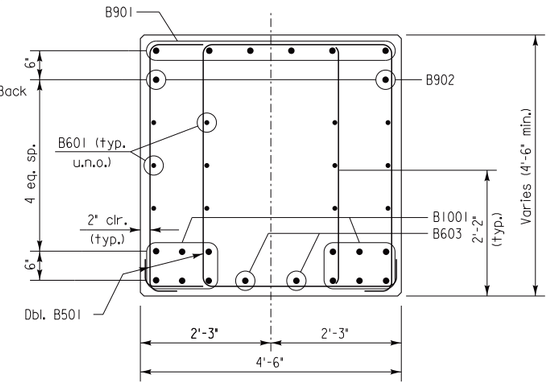
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	69	158
		07673 - INT. BENTS - 67115				



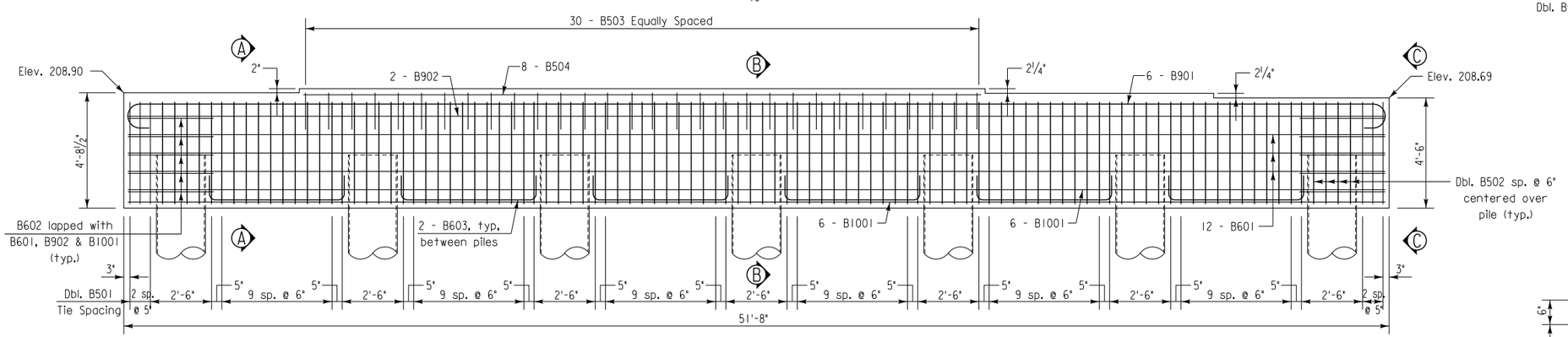
PLAN - BENT NO. 2

Scale: ⅜" = 1'-0"



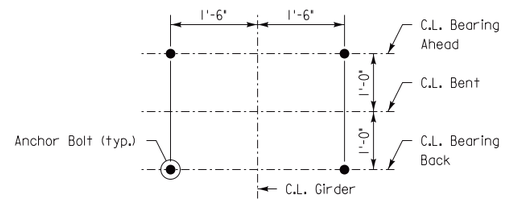
SECTION A-A

¾" = 1'-0"



ELEVATION - BENT NO. 2

Looking Ahead
Scale: ⅜" = 1'-0"



See Dwg. No. 67120 for Details of Elastomeric Bearings.

TYPICAL ANCHOR BOLT LAYOUT

No Scale

For details of piles and pile anchorage, see Std. Dwg. No. 55021.

SECTION B-B

¾" = 1'-0"

NOTES:

For General Notes, see Std. Dwg. No. 55006.

All piling shall be ASTM A252, Grade 3 (Fy= 45 ksi). For details of concrete filled steel shell piles, see Std. Dwg. No. 55021.

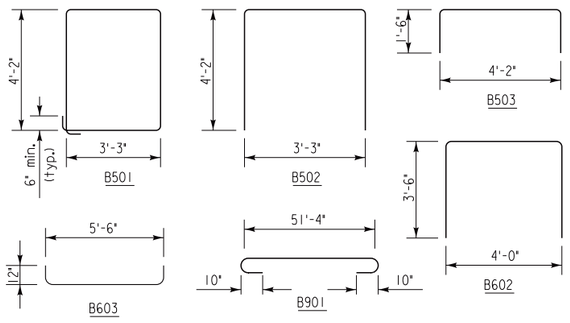
For additional information, see Layout.

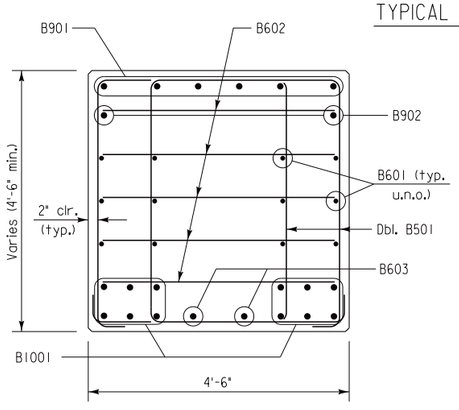
BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B501	156	15'-4"	2½"
B502	56	11'-4½"	2½"
B503	30	6'-11½"	2½"
B504	8	27'-8"	Str.
B601	12	51'-4"	Str.
B602	10	10'-8"	4½"
B603	12	7'-2½"	4½"
B901	6	53'-10"	9"
B902	2	51'-4"	Str.
B1001	12	51'-4"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.





VIEW C-C

¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 2 CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

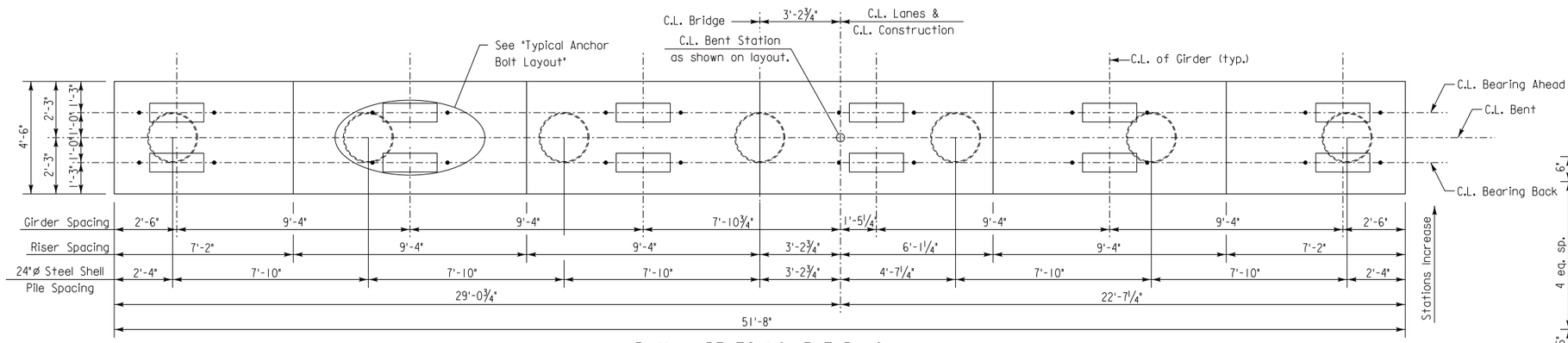
DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023

FILENAME: b070509_b1.dgn
SCALE: ⅜" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67115

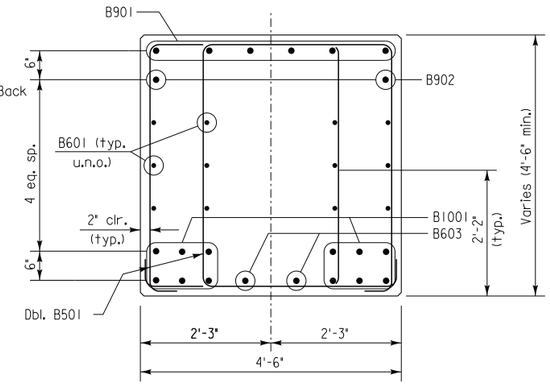
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	70	158
		07673 - INT. BENTS - 67116				



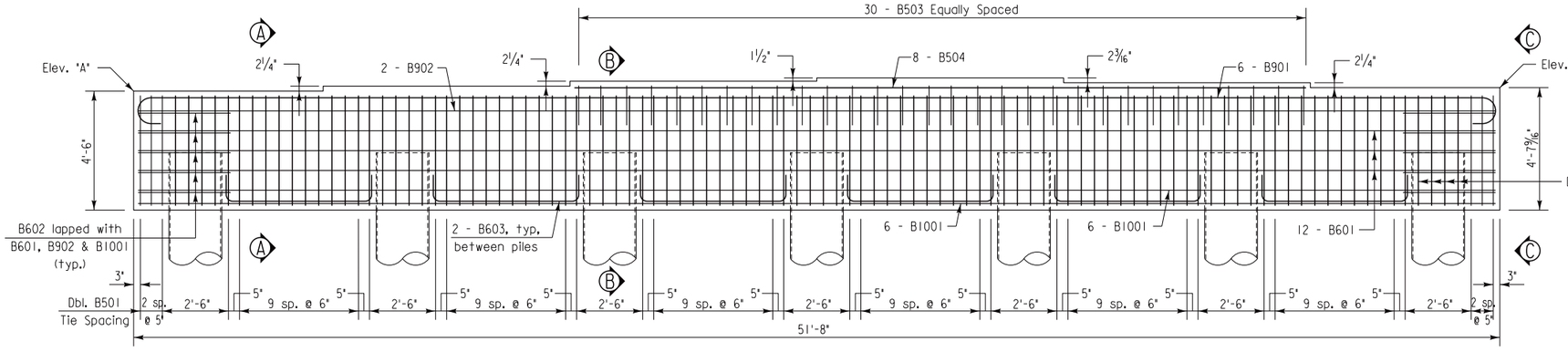
PLAN - BENTS NO. 3 THRU 9

Scale: ⅜" = 1'-0"



SECTION A-A

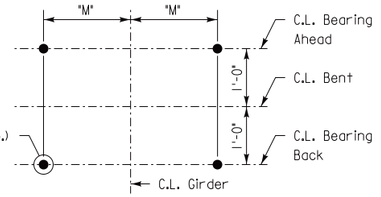
¾" = 1'-0"



ELEVATION - BENTS NO. 3 THRU 9

Looking Ahead
Scale: ⅜" = 1'-0"

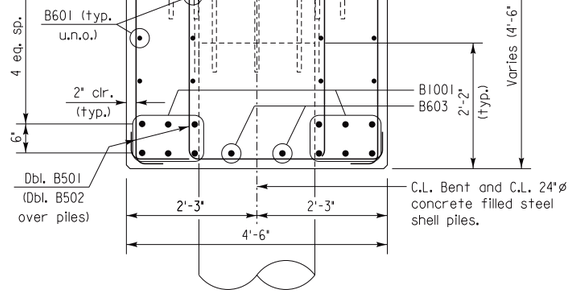
TABLE OF ELEVATIONS		
Bent No.	Elev. 'A'	Elev. 'B'
3	208.78	208.91
4	208.88	209.01
5 thru 9	208.90	209.03



See Dwg. No. 67120 for Details of Elastomeric Bearings.

TYPICAL ANCHOR BOLT LAYOUT

No Scale



For details of piles and pile anchorage, see Std. Dwg. No. 55021.

SECTION B-B

¾" = 1'-0"

NOTES:

For General Notes, see Std. Dwg. No. 55006.

All piling shall be ASTM A252, Grade 3 (Fy= 45 ksi). For details of concrete filled steel shell piles, see Std. Dwg. No. 55021.

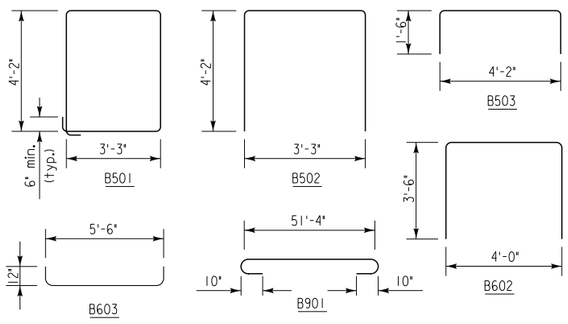
For additional information, see Layout.

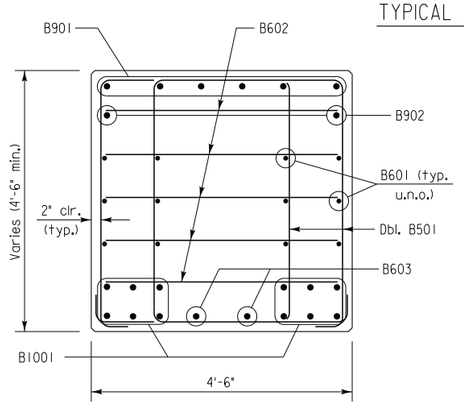
BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B501	156	15'-4"	2½"
B502	36	11'-4½"	2½"
B503	30	6'-11½"	2½"
B504	8	27'-8"	Str.
B601	12	51'-4"	Str.
B602	10	10'-8"	4½"
B603	12	7'-2½"	4½"
B901	6	53'-10"	9"
B902	2	51'-4"	Str.
B1001	12	51'-4"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.





VIEW C-C

¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NOS. 3 - 9 CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

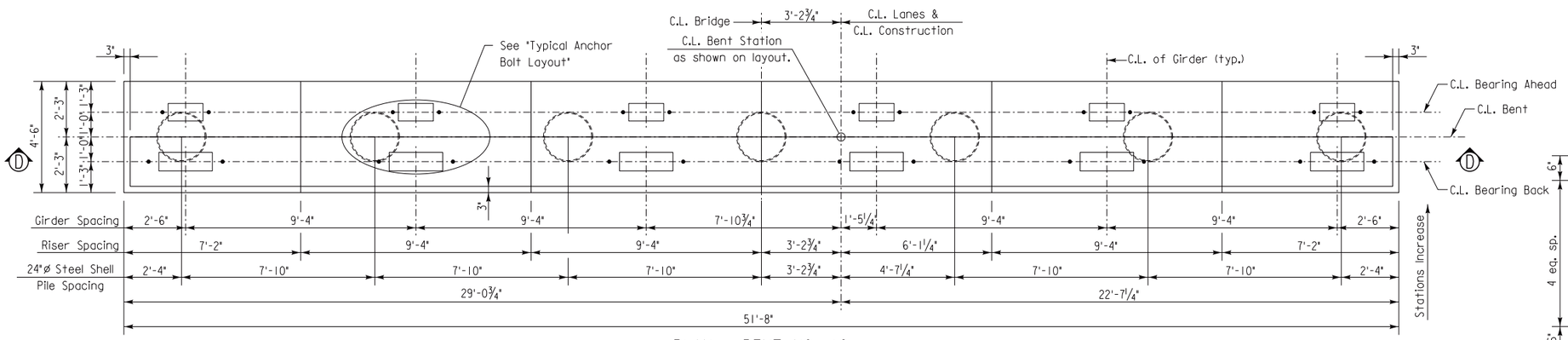
DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023

FILENAME: b070509_b2.dgn
SCALE: ⅜" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67116

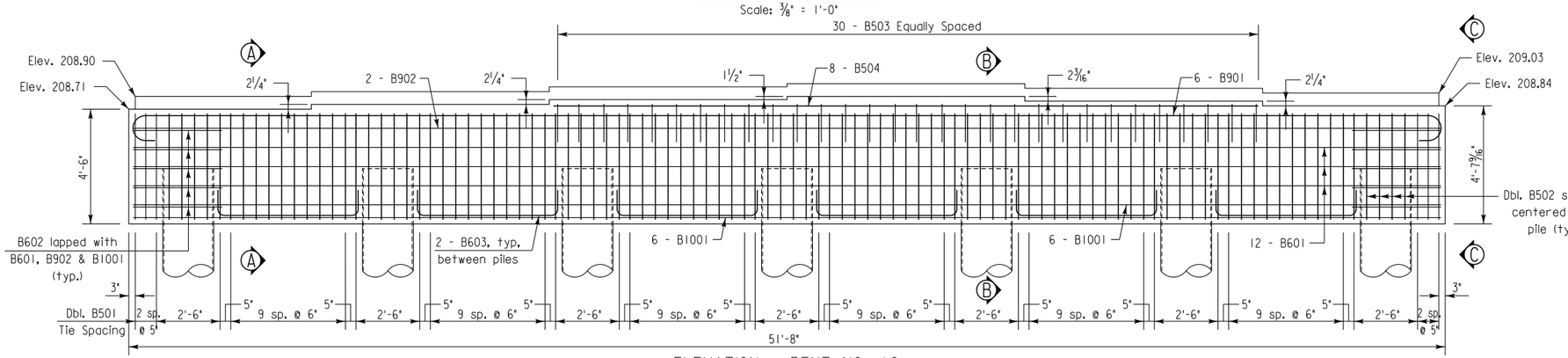
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	71	158
		07673 - INT. BENT - 67117				



PLAN - BENT NO. 10

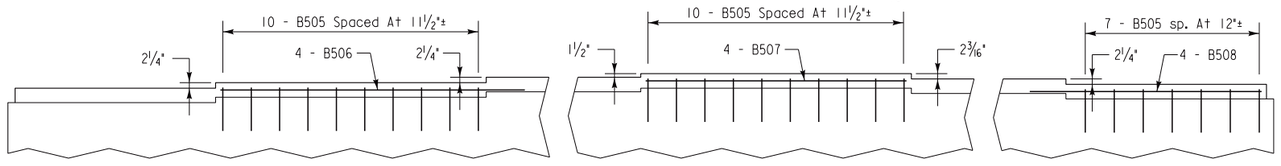
Scale: ⅜" = 1'-0"



ELEVATION - BENT NO. 10

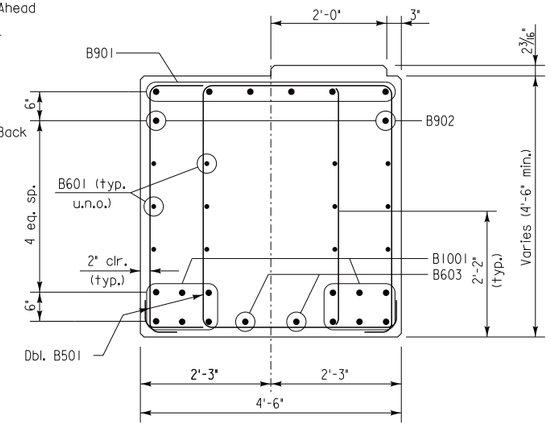
Looking Ahead

Scale: ⅜" = 1'-0"



SECTION D-D

¾" = 1'-0"



SECTION A-A

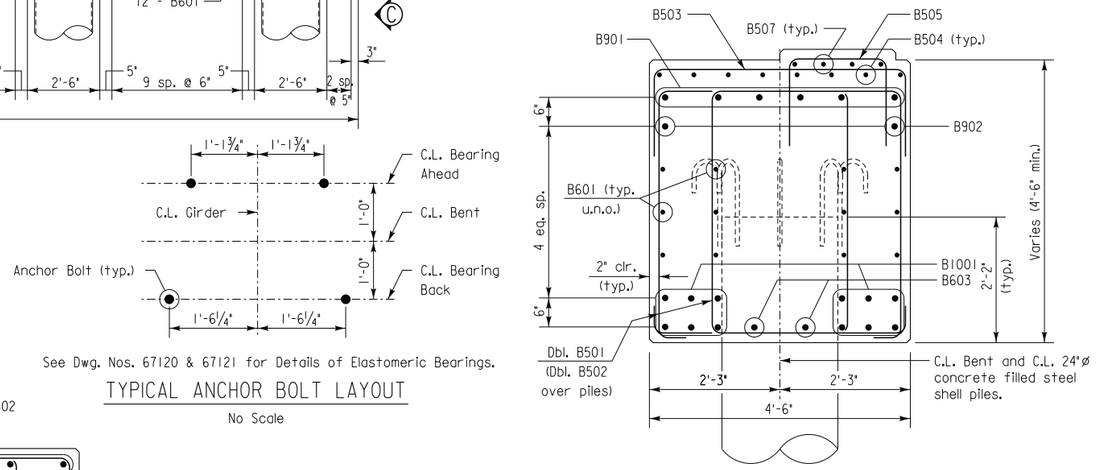
¾" = 1'-0"

NOTES:

For General Notes, see Std. Dwg. No. 55006.

All piling shall be ASTM A252, Grade 3 (Fy= 45 ksi). For details of concrete filled steel shell piles, see Std. Dwg. No. 55021.

For additional information, see Layout.



For details of piles and pile anchorage, see Std. Dwg. No. 55021.

SECTION B-B

¾" = 1'-0"

See Dwg. Nos. 67120 & 67121 for Details of Elastomeric Bearings.

TYPICAL ANCHOR BOLT LAYOUT

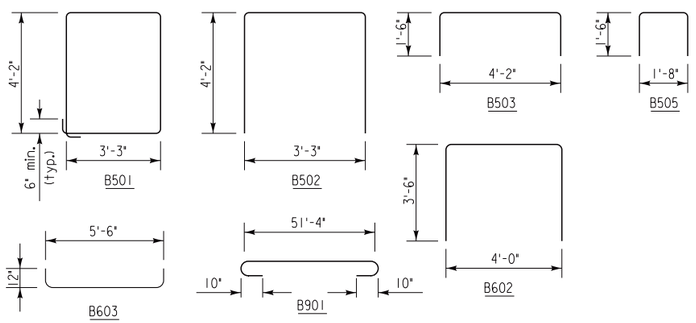
No Scale

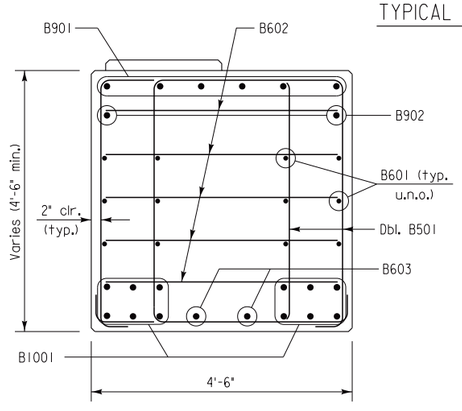
BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B501	156	15'-4"	2½"
B502	56	11'-4½"	2½"
B503	30	6'-11½"	2½"
B504	8	27'-8"	Str.
B505	27	4'-5½"	2½"
B506	4	10'-6"	Str.
B507	4	9'-0"	Str.
B508	4	8'-0"	Str.
B601	12	51'-4"	Str.
B602	10	10'-8"	4½"
B603	12	7'-2½"	4½"
B901	6	53'-10"	9"
B902	2	51'-4"	Str.
B1001	12	51'-4"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.





VIEW C-C

¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 10 CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_b3.dgn

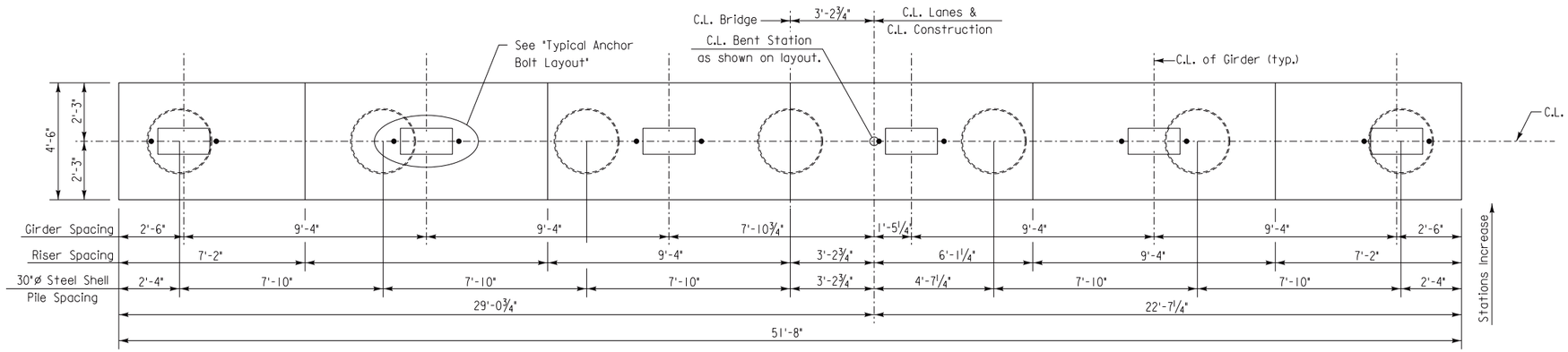
CHECKED BY: LAC DATE: JUN 2025 SCALE: ⅜" = 1'-0"

DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67117

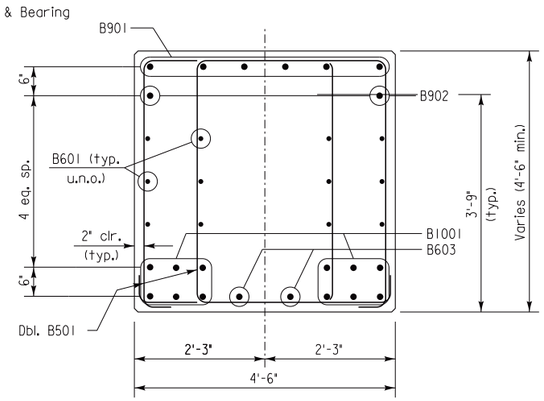
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	72	158
		07673 - INT. BENTS - 67118				



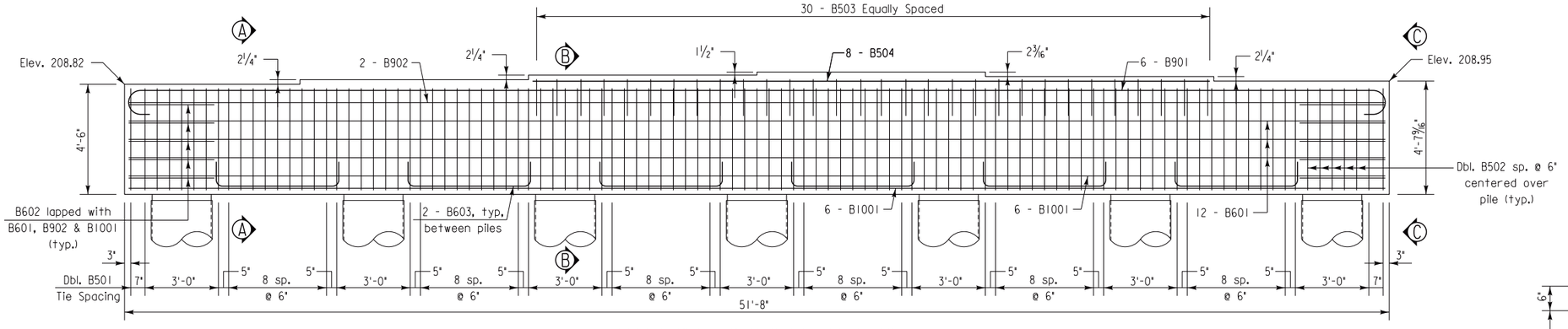
PLAN - BENTS NO. 11 & 12

Scale: ⅜" = 1'-0"



SECTION A-A

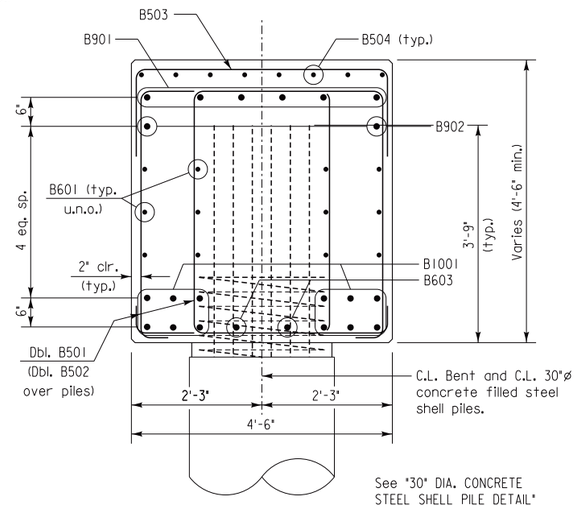
¾" = 1'-0"



ELEVATION - BENTS NO. 11 & 12

Looking Ahead

Scale: ⅜" = 1'-0"



SECTION B-B

¾" = 1'-0"

NOTES:

For General Notes, see Std. Dwg. No. 55006.

All piling shall be ASTM A252, Grade 3 (Fy= 45 ksi). For details of concrete filled steel shell piles, see Std. Dwg. No. 55021.

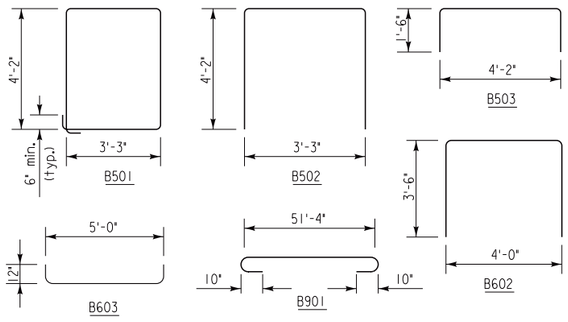
For additional information, see Layout.

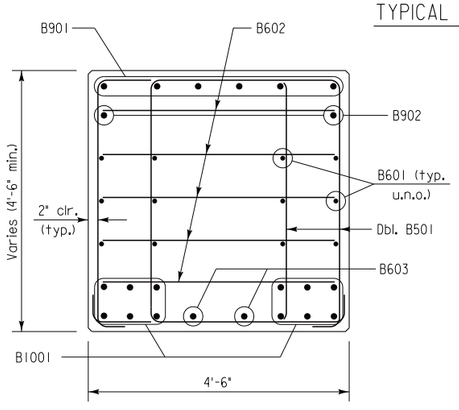
BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B501	140	15'-4"	2½"
B502	70	11'-4½"	2½"
B503	30	6'-11½"	2½"
B504	8	27'-8"	Str.
B601	12	51'-4"	Str.
B602	10	10'-8"	4½"
B603	12	6'-8½"	4½"
B901	6	53'-10"	9"
B902	2	51'-4"	Str.
B1001	12	51'-4"	Str.

BENDING DIAGRAMS

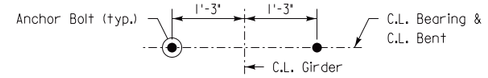
Dimensions are out to out of bars.





VIEW C-C

¾" = 1'-0"



See Dwg. No. 67121 for Details of Elastomeric Bearings.

TYPICAL ANCHOR BOLT LAYOUT

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH

06/20/2025

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NOS. 11 & 12 CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_b4.dgn

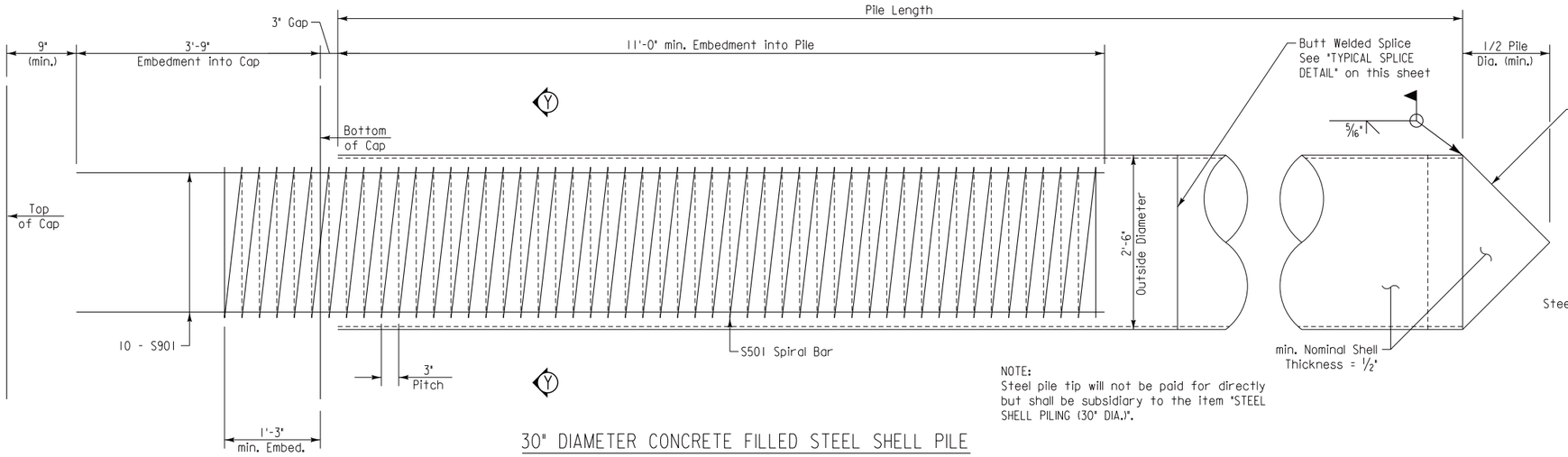
CHECKED BY: LAC DATE: JUN 2025 SCALE: ⅜" = 1'-0"

DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67118

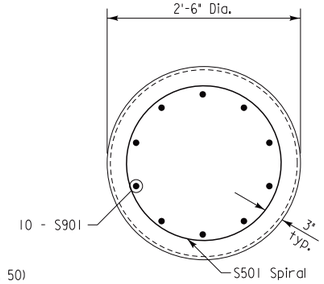
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	73	158
		07673 - 30" DIA. STEEL SHELL PILES - 67119				



NOTE:
Steel pile tip will not be paid for directly but shall be subsidiary to the item "STEEL SHELL PILING (30" DIA.)".

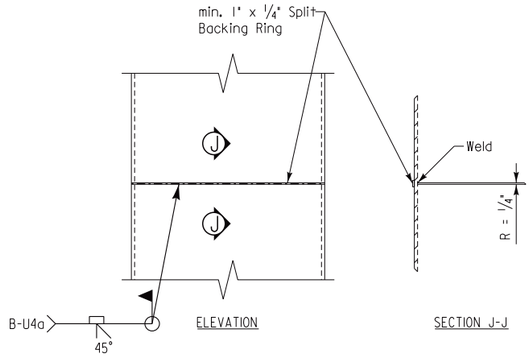
PART SECTION



SECTION Y-Y
Scale: 1" = 1'-0"

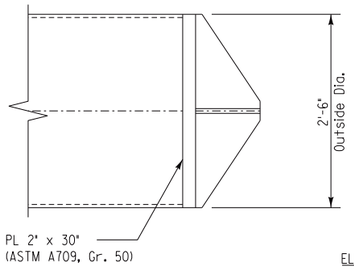
30" DIAMETER CONCRETE FILLED STEEL SHELL PILE

Scale: 1" = 1'-0"

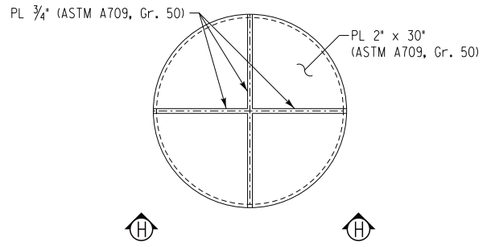


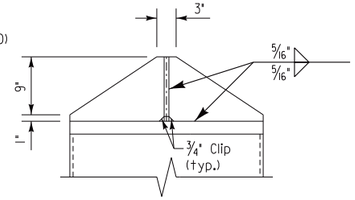
ELEVATION

SECTION J-J



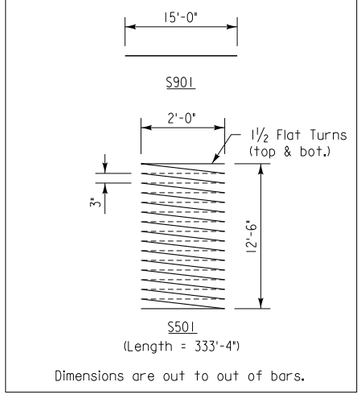
ELEVATION





VIEW H-H

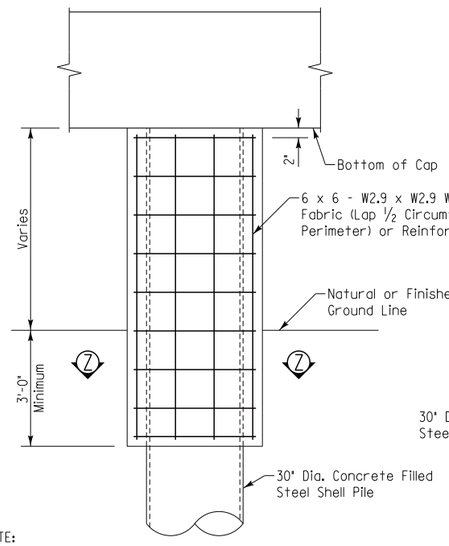
BAR BENDING DIAGRAMS



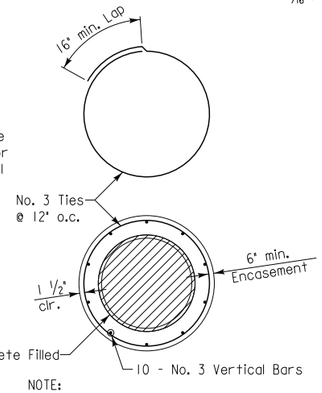
Dimensions are out to out of bars.

TYPICAL SPLICE DETAIL

Scale: 1" = 1'-0"



NOTE:
Galvanized corrugated steel pipe shall not be used to form pile encasement



NOTE:
Reinforcing steel shown. 6 x 6 - W2.9 X WW2.9 Welded Wire Fabric may be used in lieu of reinforcing steel.

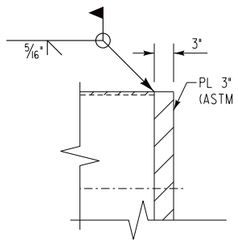
SECTION Z-Z
No Scale

PILE ENCASEMENT DETAIL FOR 30" STEEL SHELL PILES

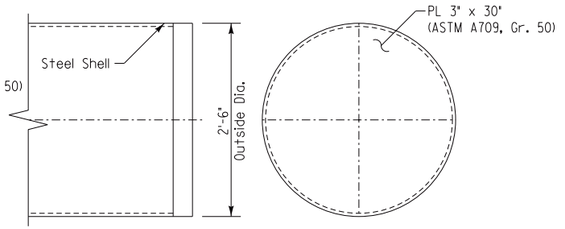
No Scale

ALTERNATE VANED TIP DETAIL FOR 30" PILE

Scale: 1" = 1'-0"



PART SECTION



ELEVATION

ALTERNATE FLAT TIP DETAIL FOR 30" PILE

1" = 1'-0"

GENERAL NOTES - PILE ENCASEMENTS:

See Bridge Layouts for additional notes and required locations of pile encasements.

Concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. If concrete cannot be placed in the dry, Seal Concrete may be used from top to bottom of encasement.

Reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A.

Welded wire fabric shall conform to AASHTO M 55 or M 221.

Concrete, welded wire fabric or reinforcing steel, and galvanized pipe shall not be paid for directly but shall be considered subsidiary to the item "PILE ENCASEMENT".

GENERAL NOTES:

Steel shells shall conform to ASTM A252, Grade 3 (Fy = 45,000 psi)

Concrete used for filling of steel shell shall be Class S with a minimum 28-day compressive strength, f'c = 3,500 psi and shall be poured in the dry.

Reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A with mill test reports.

Steel Shell piling shall be encased with concrete in accordance with "PILE ENCASEMENT DETAIL FOR 30" STEEL SHELL PILES" on this sheet. Steel shell piling that extends above the ground and is not protected by pile encasement shall be painted in accordance with Subsection 805.02.

See Bridge Layout for size and estimated length of steel shell piles and for driving information.

Concrete, structural steel, and reinforcing steel shall not be paid for directly, but shall be considered subsidiary to the item "STEEL SHELL PILING (30" DIA.)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

DETAILS OF 30" DIA. STEEL SHELL PILES CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023

FILENAME: b070509_c1.dgn
SCALE: 1/2" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67119

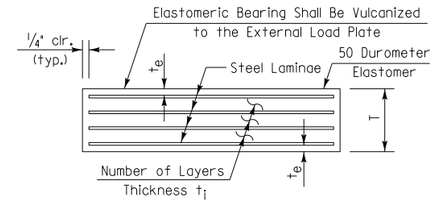
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	74	158
		07673 - ELASTOMERIC BEARINGS - 67120				

TABLE OF FABRICATOR VARIABLES

LOCATION		BEARING TYPE	SHEAR BLOCK USED	NO. OF BEARINGS EACH BENT	MAXIMUM DESIGN LOAD (KIPS) ①	G	H	ELASTOMERIC PAD						EXTERNAL LOAD PLATE								ANCHOR BOLT				
BENT NO(S).	BEAM NO.							A	B	N	t_i	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	C	D	E	F	J	K	M	T_a	T_b	ANCHOR BOLT (Ø X L)	GRADE	PIPE SLEEVE SIZE (Ø X L)	SHEET METAL SLEEVE SIZE (Ø X L)	STEEL WASHER SIZE (O.D.)
1	All	Exp.	Yes	6	210	7¾"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	11½"	46"	5⅛"	3⅛"	1⅞"	1¾"	18¼"	2"	2"	2" x 32"	55	2½" x 4¾"	4" x 12"	3¾"
2 Bk.	1	Fix.	Yes	1	210	7¾"	4⅝"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2¼"	2¼"	1¾" x 31"	55	2" x 4¾"	4" x 18"	3⅜"
2 Bk.	2	Fix.	Yes	1	210	7⅞"	4 13⁄16"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2⅞16"	2⅞16"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
2 Bk.	3	Fix.	Yes	1	210	8"	4⅞"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2½"	2½"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
2 Bk.	4, 5 & 6	Fix.	Yes	3	210	7½"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2"	2"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
2 Ah.	1	Fix.	Yes	1	210	7½"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2"	2"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
2 Ah.	2	Fix.	Yes	1	210	7¾"	4 11⁄16"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2⅝16"	2⅝16"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
2 Ah.	3	Fix.	Yes	1	210	7⅞"	4 13⁄16"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2⅞16"	2⅞16"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
2 Ah.	4, 5 & 6	Fix.	Yes	3	210	7½"	4 7⁄16"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2 1⁄16"	2 1⁄16"	1¾" x 31"	55	2" x 4¾"	4" x 11"	3⅜"
3 Bk.	1 thru 6	Fix.	Yes	6	210	7½"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2"	2"	1¾" x 31"	55	2" x 4¾"	4" x 12"	3⅜"
3 Ah.	1 thru 6	Fix.	Yes	6	210	7½"	4 7⁄16"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2 1⁄16"	2 1⁄16"	1¾" x 31"	55	2" x 4¾"	4" x 12"	3⅜"
4 & 7	1 thru 6	Exp.	Yes	12	210	7¾"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	11½"	46"	5⅛"	3⅛"	1⅞"	1¾"	18¼"	2"	2"	2" x 32"	55	2½" x 4¾"	4" x 12"	3¾"
5, 6, 8 & 9	1 thru 6	Fix.	Yes	12	210	7½"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	9"	45"	2⅝"	2⅝"	1⅞"	½"	18"	2"	2"	1¾" x 31"	55	2" x 4¾"	4" x 12"	3⅜"
10 Bk.	1 thru 6	Exp.	Yes	6	210	7¾"	4⅜"	26"	8"	3	½"	¼"	4 @ 12 ga.	2⅞16"	11½"	46"	5⅛"	3⅛"	1⅞"	1¾"	18¼"	2"	2"	2" x 32"	55	2½" x 4¾"	4" x 15"	3¾"

① Maximum Design Load = Service I Limit State

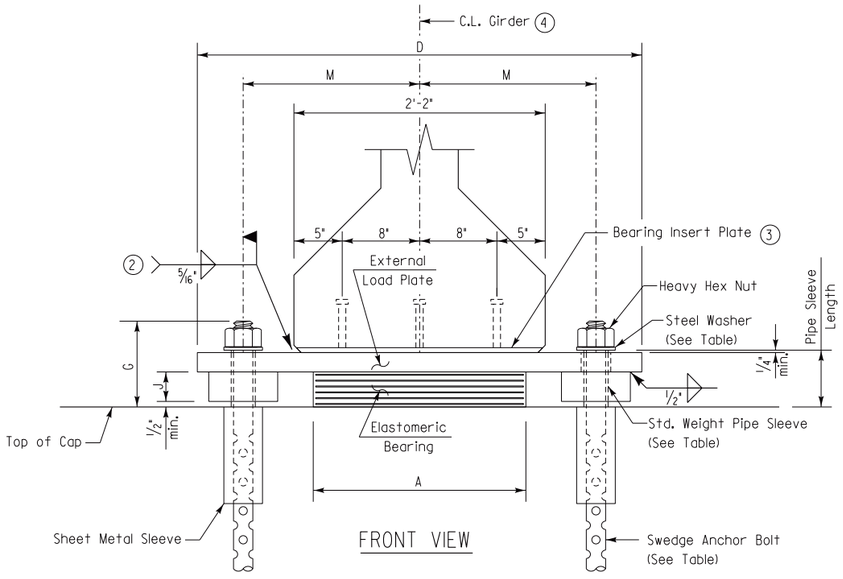


t_e = Thickness of Elastomer Cover on Top and Bottom of Pad

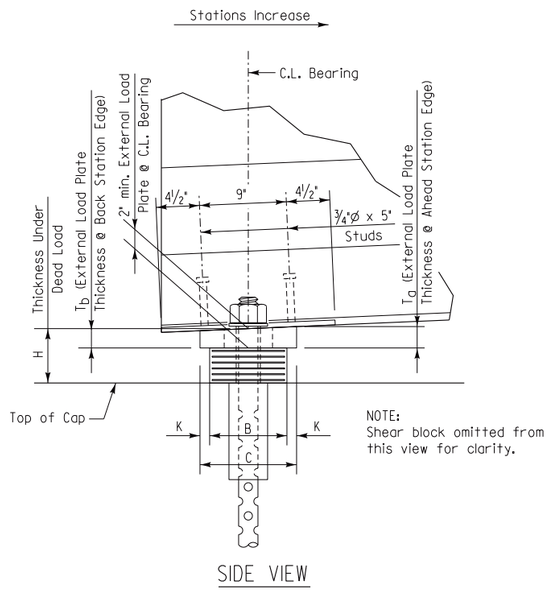
t_i = Thickness of Elastomer Between Steel Laminae

N = Number of Elastomer Layers of Thickness t_i

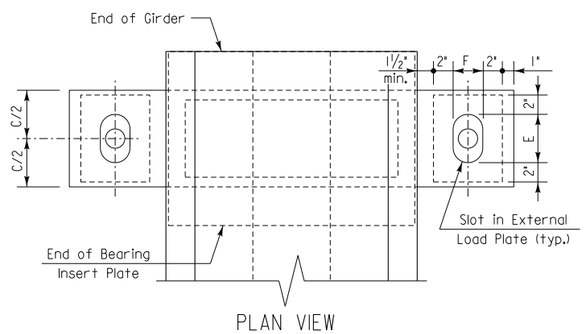
ELASTOMERIC BEARING



FRONT VIEW



SIDE VIEW



PLAN VIEW

For "ANCHOR BOLT DETAIL", see Dwg. No. 67121.

(2) Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the bearing insert plate 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 temperatures 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 bearing insert plate before welding begins.

(3) Bearing insert plate (ASTM A709, Gr. 50W) & studs shall be considered subsidary to the item "PRESTRESSED CONCRETE GIRDERS (TYPE IV)".

(4) Centerline elastomeric pad shall be aligned with centerline girder.

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 50W. Pipe sleeves shall be ASTM A 500, 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 welding) 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 and 807.84(e) for unpainted Grade 50W 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, Gr. 50W)". External load plates and shear blocks will not be measured and 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.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF ELASTOMERIC BEARINGS
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_e1.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: NONE
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67120

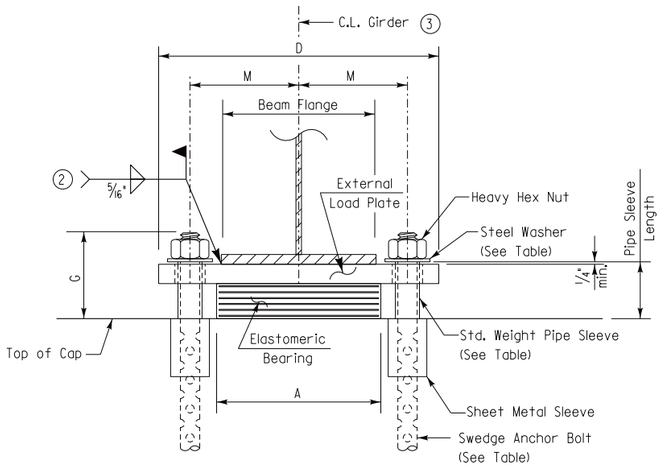
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	75	158
		07673 - ELASTOMERIC BEARINGS - 67121				

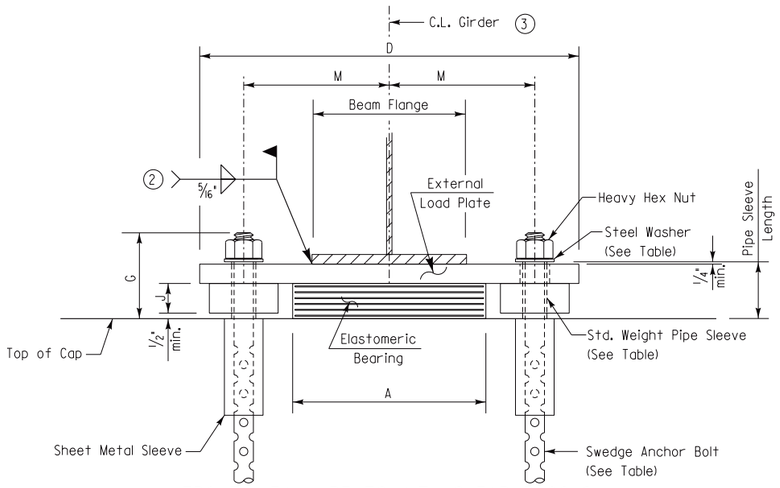
TABLE OF FABRICATOR VARIABLES

LOCATION		BEARING TYPE	SHEAR BLOCK USED	NO. OF BEARINGS EACH BENT	MAXIMUM DESIGN LOAD (KIPS) ①	G	H	ELASTOMERIC PAD						EXTERNAL LOAD PLATE								ANCHOR BOLT				
BENT NO(S).	BEAM NO.							A	B	N	t_i	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	C	D	E	F	J	K	M	T_a	T_b	ANCHOR BOLT (Ø X L)	GRADE	PIPE SLEEVE SIZE (Ø X L)	SHEET METAL SLEEVE SIZE (Ø X L)	STEEL WASHER SIZE (O.D.)
10 Ah. & 13	All	Exp.	Yes	6	160	8⅞"	5⁹⁄₁₆"	17"	8½"	5	½"	¼"	6 @ 12 ga.	3⅝"	12"	37"	5¾"	3⅛"	3¹⁄₁₆"	1¾"	13¾"	2"	2"	2" x 32"	55	2½" x 5⅞"	4" x 12"	3¾"
11 & 12	All	Fix.	No	6	415	7⅝"	3¾"	24"	12"	2	½"	¼"	3 @ 12 ga.	1¹³⁄₁₆"	13"	37"	3¾"	3¾"	NA	½"	15"	2"	2"	2½" x 35"	55	3" x 4⅛"	4" x 12"	4½"

① Maximum Design Load = Service I Limit State



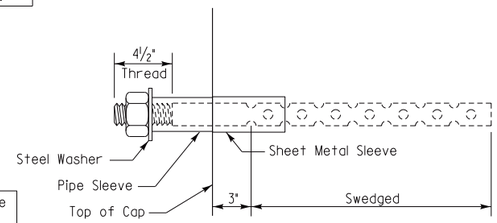
FRONT VIEW
Bents 11 & 12



FRONT VIEW - BENTS WITH SHEAR BLOCKS
Bents 10 & 13

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to T_a and T_b.

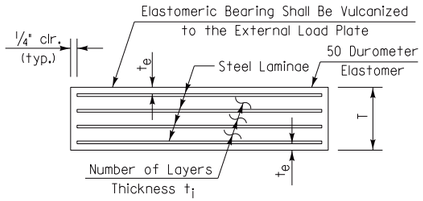
The grade and the direction of bevel of the external load plate may not be accurately depicted with respect to T_a and T_b values shown in the "Table of Fabricator Variables".



ANCHOR BOLT DETAIL

Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. 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. Galvanized Sheet Metal Sleeves shall meet the requirements of ASTM 653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans (A709, Gr. 50W)".



t_e = Thickness of Elastomer Cover on Top and Bottom of Pad

t_i = Thickness of Elastomer Between Steel Laminae

N = Number of Elastomer Layers of Thickness t_i

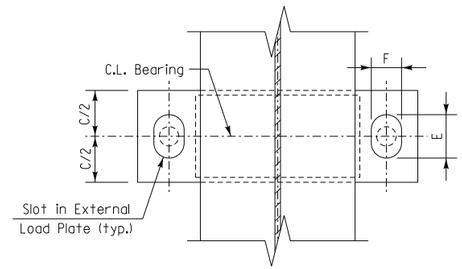
ELASTOMERIC BEARING

For General Notes, see Dwg. No. 67120.

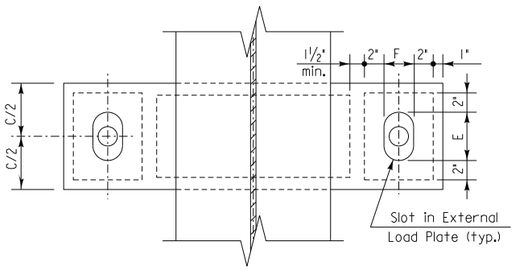
② Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the bearing insert plate will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in 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 temperatures 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 bearing insert plate before welding begins.

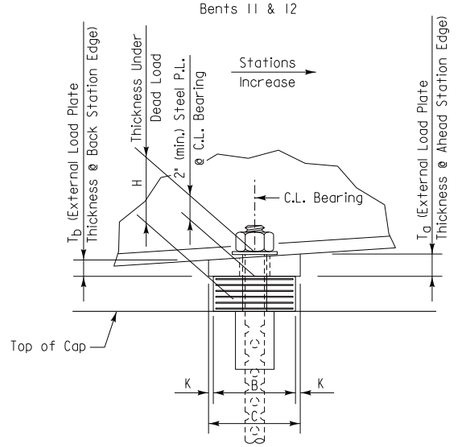
③ Centerline elastomeric pad shall be aligned with centerline girder.



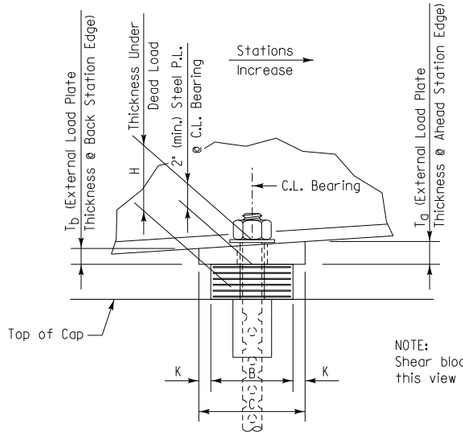
PLAN VIEW
Bents 11 & 12



PLAN VIEW - BENTS WITH SHEAR BLOCKS
Bents 10 & 13



SIDE VIEW
Bents 11 & 12



NOTE:
Shear block omitted from this view for clarity.

SIDE VIEW - BENTS WITH SHEAR BLOCKS
Bents 10 & 13

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF ELASTOMERIC BEARINGS
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_e2.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: NONE
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67121

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	76	158
		07673 - 255' UNIT - 67122				

SLAB REINFORCING:

Longitudinal: S401E in top and bottom (place as shown)
S701E placed as shown. See "HALF REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. Nos. 67124 & 67125.

Transverse: S501E @ 6" o.c. in top and bottom
S502E @ 6" in top of overhangs (bundled with S501E)

SIDEWALK REINFORCING:

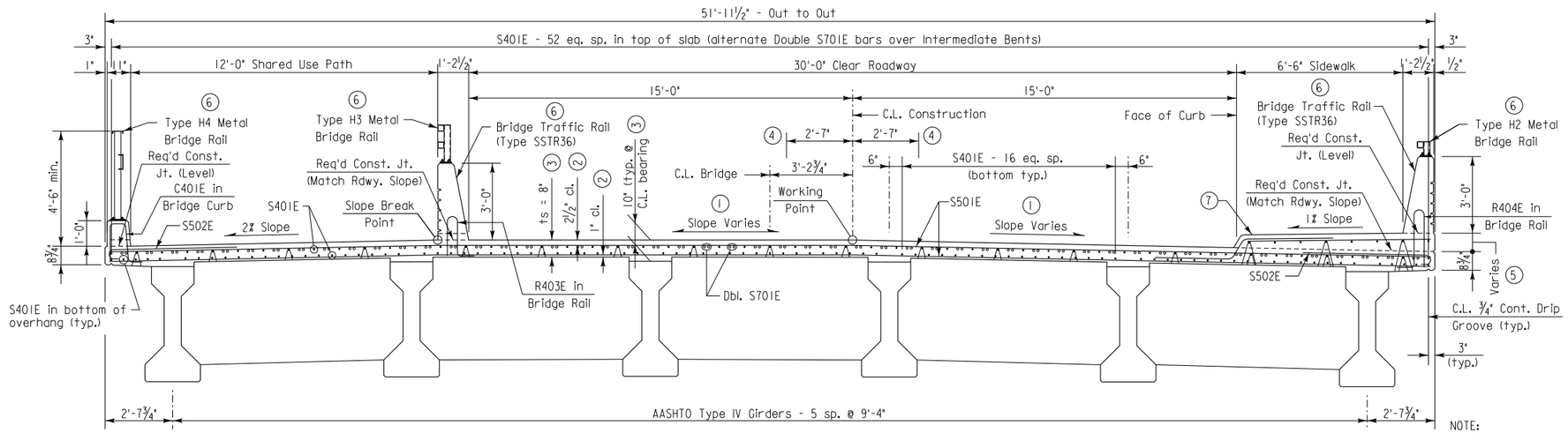
Longitudinal: K401E placed as shown on "SIDEWALK DETAIL".

Transverse: K402E & K403E @ 12" o.c.

Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly on removable deck forms will not be allowed.

Class 2 Protective Surface Treatment shall be applied to the roadway surface, sidewalk surface (including curbing) and shared use path surface in accordance with Section 803.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP "Textured Coating Finish" and in accordance with Subsection 802.19(b)(3). See details shown on Dwg. No. 67130.

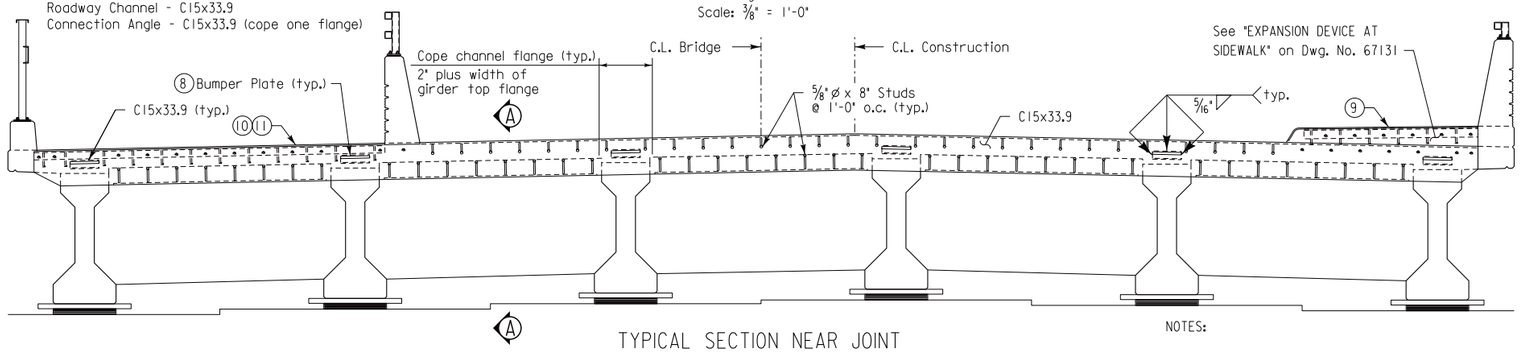


TYPICAL ROADWAY SECTION

Looking Ahead
Scale: ⅜" = 1'-0"

NOTE:
Deck drains not shown for clarity. For deck drain layout and details, see Dwg. Nos. 67141 & 67142.

EXPANSION DEVICE:
Poured Silicone Joint
Roadway Channel - C15x33.9
Connection Angle - C15x33.9 (cope one flange)



TYPICAL SECTION NEAR JOINT

Looking Ahead At Bent Nos. 1, 4, & 7
Looking Back At Bent No. 10 - Similar By Orientation
Scale: ⅜" = 1'-0"

NOTES:

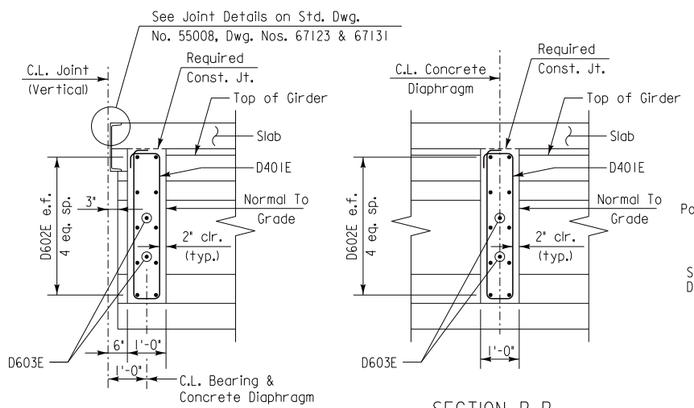
For details of poured silicone joint, see Std. Dwg. No. 55008 & Dwg. No. 67123.

⑨ See "SIDEWALK SECTION THRU JOINT AT BENT" on Dwg. Nos. 67123 & 67131.

⑩ See "SHARED USE PATH SECTION THRU JOINT AT BENT" on Dwg. Nos. 67123 & 67131.

⑪ See "SHARED USE PATH COVER PLATE DETAIL" on Dwg. No. 67135.

⑫ See "CHANNEL CONNECTION DETAIL (TYPE IV GIRDER)" on Dwg. No. 67126.



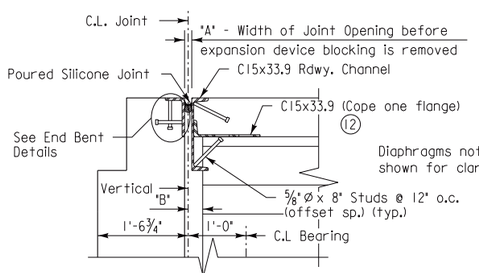
SECTION A-A

End Of Unit Diaphragm
Scale: ½" = 1'-0"

SECTION B-B

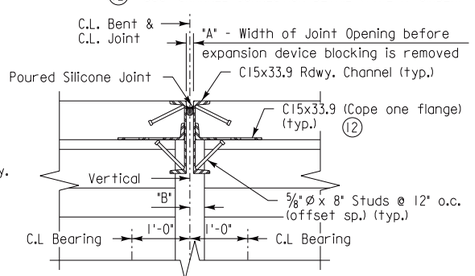
Midspan Diaphragm
Scale: ½" = 1'-0"

For variables "A" and "B", see "TABLE OF SILICONE JOINT DATA" on Dwg. No. 67123.



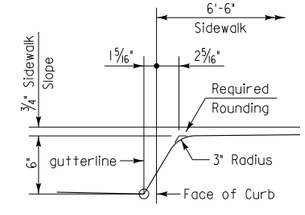
SECTION THRU JOINT AT END BENT

Shown at Bent No. 1
No Scale



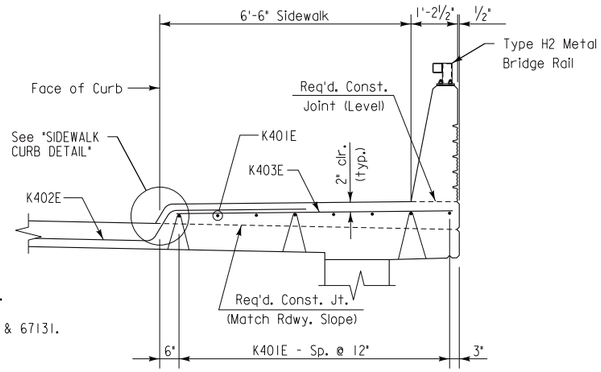
SECTION THRU JOINT AT BENT

Shown at Bent Nos. 4 & 7
No Scale



SIDEWALK CURB DETAIL

No Scale



SIDEWALK DETAIL

Looking Ahead
Shown for Concrete Spans, Steel Spans Similiar.
Scale: ½" = 1'-0"

① TYPICAL ROADWAY SECTION varies between Beginning of Bridge Station 112+34.94 and 113+68.88. See "SUPERELEVATION TRANSITION SKETCH 1" and "SUPERELEVATION TRANSITION SKETCH 2" on Dwg. No. 67104.

② Tolerances: Minus = ¼"
Plus = to the amount of slab thickening used to meet slab thickness tolerance.

③ See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Dwg. No. 67123.

④ See "ROUNDING DETAIL" on Std. Dwg. No. 55007.

⑤ Height of Raised Sidewalk at outside edge of slab varies based on the following:

75.6876" x (Deck Slope + 1) + 6.3"

⑥ For additional bridge railing details, see the following:

Bridge Traffic Rail (Type SSTR36), see Std. Dwg. No. 55070.
Type H2 Metal Bridge Railing, see Std. Dwg. No. 55015.
Type H3 Metal Bridge Railing, see Dwg. No. 67138.
Type H4 Metal Bridge Railing, see Dwg. No. 67140.

⑦ For additional information, see "SIDEWALK DETAIL".

⑧ For size of Bumper Plate, see "TABLE OF SILICONE JOINT DATA", on Dwg. No. 67123.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

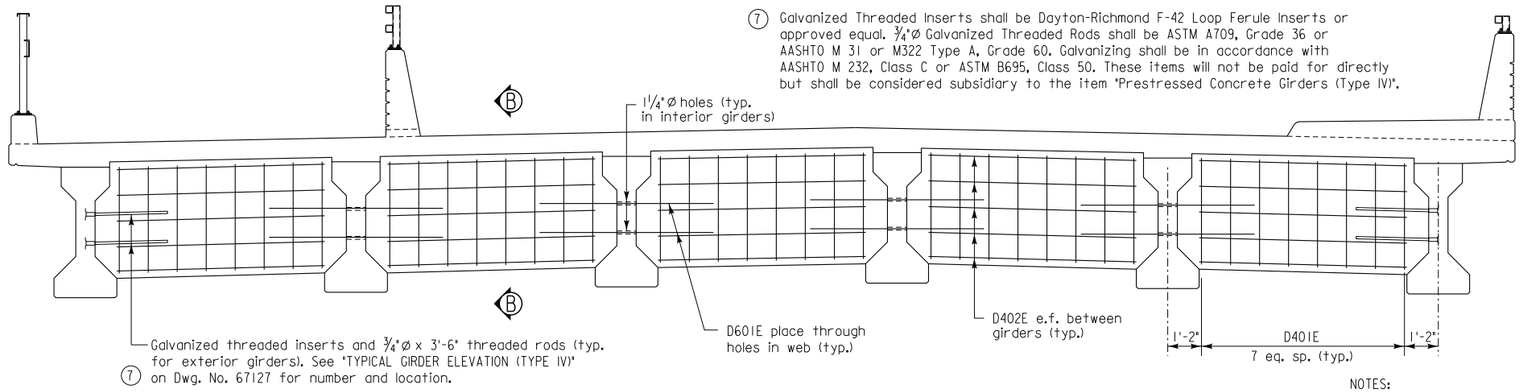
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s1.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ⅜" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67122

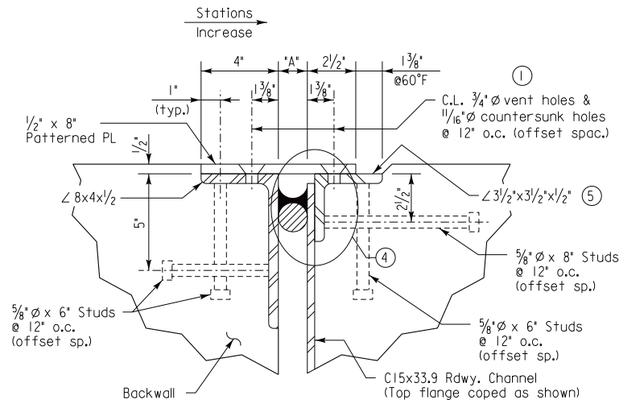
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	77	158
		07673 - 255' UNIT - 67123				



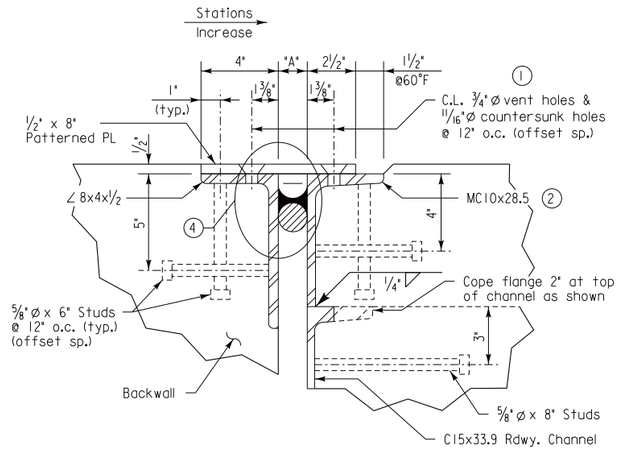
TYPICAL ROADWAY SECTION THRU DIAPHRAGMS

Scale: 3/8" = 1'-0"



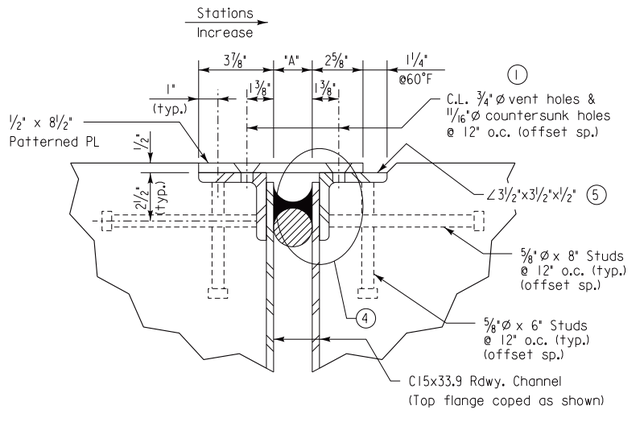
SHARED USE PATH SECTION THRU JOINT AT END BENT

Shown at Bent No. 1
Scale: 3" = 1'-0"



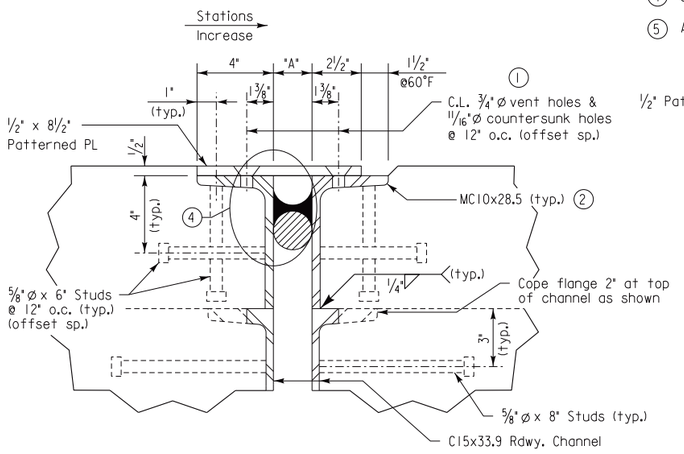
SIDEWALK SECTION THROUGH JOINT AT END BENT

Shown at Bent No. 1
Scale: 3" = 1'-0"



SHARED USE PATH SECTION THRU JOINT AT BENT

Shown at Bent Nos. 4 & 7
Scale: 3" = 1'-0"



SIDEWALK SECTION THROUGH JOINT AT BENT

Shown at Bent Nos. 4 & 7
Scale: 3" = 1'-0"

NOTES:

For details of poured silicone joint, see Std. Dwg. No. 55008 & Dwg. No. 67122.

For details of joint seal placement, see Std. Dwg. No. 55008 & Dwg. No. 67131.

For "SECTION B-B", see Dwg. No. 67122.

For additional patterned plate details and notes, see Dwg. No. 67135.

Concrete shall be hand packed under the joint armor in the sidewalk and shared use path.

(1) Ctsk. 11/16" Ø holes in 1/2" patterned PL. Tap horz. leg of channel and angle for ASTM A449 5/8" Ø screws @ 12" o.c. Install screws in the shop and ship as a unit. At Bent Nos. 1 & 13 screws on the span to be removed. Screws on the backwall to remain after erection. At Bent Nos. 4, 7, & 10 screws are to remain on the on the down station side (back side) of the joint. See 'DETAILS FOR BLOCKING EXPANSION JOINT DEVICE' on Dwg. Std. No. 55008.

(2) Trim vertical leg of MC10x28.5 as needed.

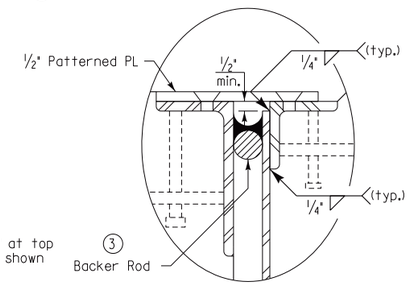
(3) Use an appropriately sized backer rod at the depth shown in the Manufacturer's literature based on the joint width at the time of sealing.

Except as noted, do not install more backer rod than can be sealed in one day.

The Contractor shall verify separation of the backer rod from the joint material after the joint material has set.

(4) See 'DETAIL X'.

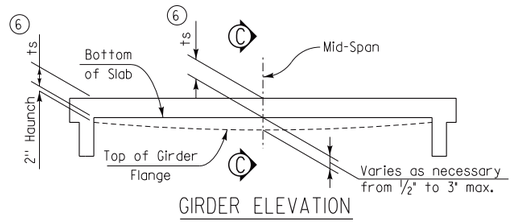
(5) Attach angle to coped C15x33.9 as shown.



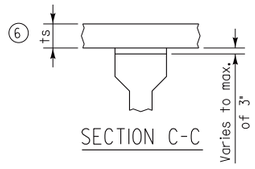
DETAIL X

No Scale

Detail shown for Bent No. 1 other bents are similar.



GIRDER ELEVATION



SECTION C-C

ts = slab thickness as shown on superstructure details - See 'Typical Roadway Section', Dwg. No. 67122.

(6) Tolerance when removable deck forming is used is + 1/2", - 1/4". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance. See Std. Dwg. No. 55005 for tolerances when permanent steel deck forms are used.

Girder Elevation sketches show the range of acceptability of the top of the Girder relative to bottom of slab after the placement of the slab. When the top of the Girder projects more than 3/4" into the slab, a raise in grade will be necessary. Girders shall be set in a sufficient number of spans over suitable increments so the revised grade will produce a smooth riding surface. Variation of haunch height will be at the Contractor's expense.

ADJUSTMENT FOR SLAB THICKNESS TOLERANCE

Girder Elevation sketches show the range of acceptability of the top of the Girder relative to bottom of slab after the placement of the slab. When the top of the Girder projects more than 1/2" into the slab, a raise in grade will be necessary. Girders shall be set in a sufficient number of spans over suitable increments so the revised grade will produce a smooth riding surface. Variation of haunch height will be at the Contractor's expense.

TABLE OF SILICONE JOINT DATA

Bent No.	"A" Width Perpendicular To Joint At 24 Hour Average Temperature Of:			"B" Perpendicular To Joint At 60°F	Bumper Plate Size
	40°F	60°F	80°F		
1	1 11/16"	1 1/2"	1 5/16"	3"	1" x 3/4"
4 & 7	2 3/8"	2"	1 5/8"	3"	1" x 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. Installation is limited to 40°F min. and 80°F max. The temperature limitations of the lubricant-adhesive Manufacturer shall be observed.

STATE OF ARKANSAS
Cynthia A. Rich
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

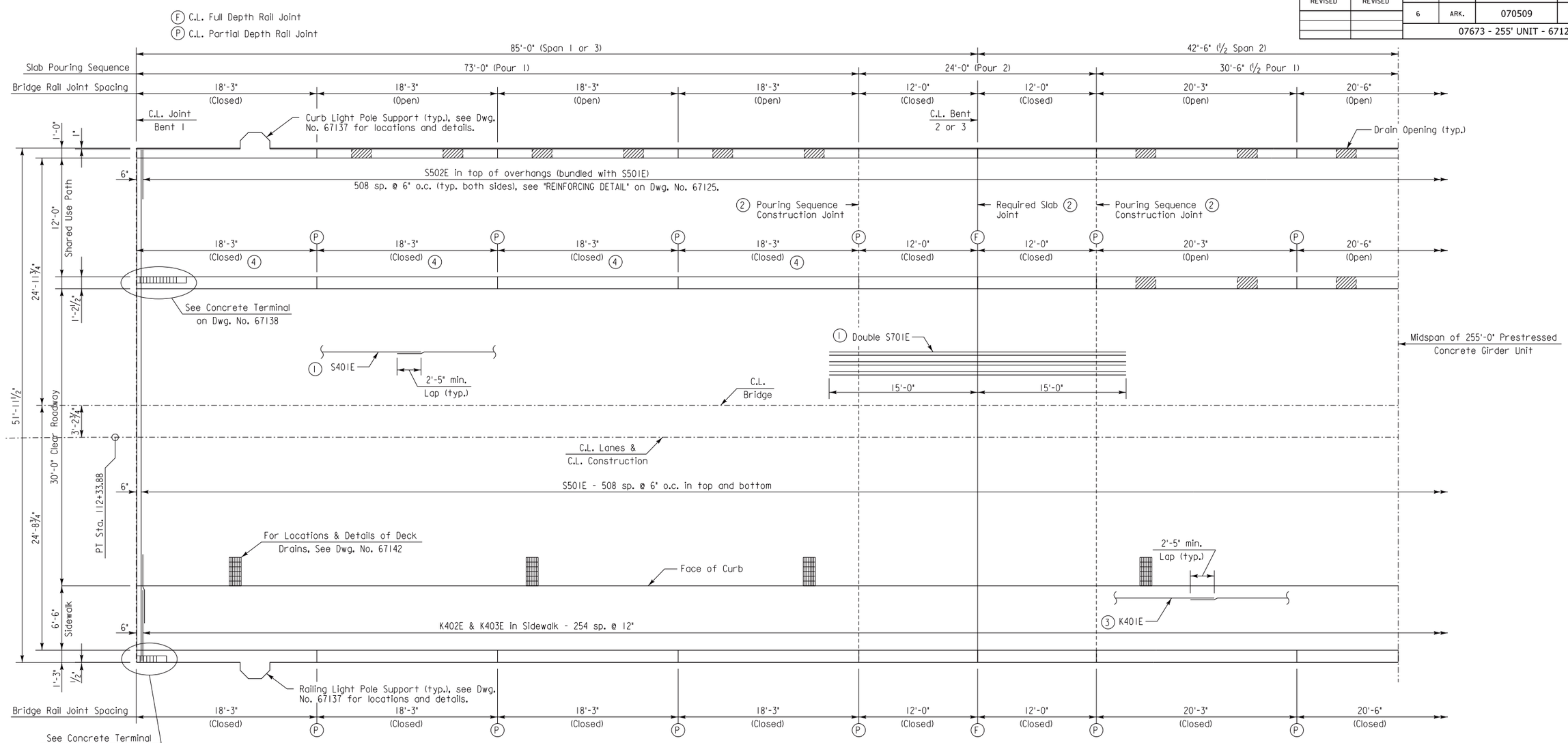
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s2.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: 3/8" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67123

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	78	158
		07673 - 255' UNIT - 67124				



HALF REINFORCING PLAN AND SLAB POURING SEQUENCE

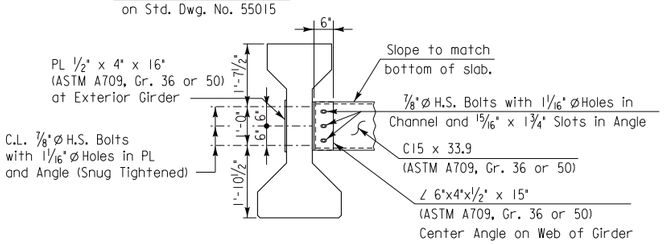
Span 1 & 1/2 Span 2 Shown
Scale: 3/16" = 1'-0"

(1) Placed as shown in "TYPICAL ROADWAY SECTION", see Dwg. No. 67122.

(2) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.

(3) Placed as shown in "SIDEWALK DETAIL", see Dwg. No. 67122.

(4) Closed in Span 1, Open in Span 3.



DETAILS OF ALTERNATE STEEL DIAPHRAGM

No Scale

Steel diaphragms may be used in lieu of concrete diaphragms at midspan. Payment will be based on concrete diaphragms.

All components of steel diaphragms and connection shall be galvanized in accordance with Section 807.

A standard washer shall be supplied under both the nut and the head of the 7/8" dia. H.S. bolts. An additional plate washer shall cover the angle slots.

Slab Pouring Sequence:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours. A minimum of 72 hours shall elapse between completion of the slab and pouring of the traffic rails, curb or sidewalk. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence.

Concrete in bridge superstructure 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.

Any railing or sidewalk pours made before the entire slab unit has been placed must be approved by the Engineer.

Unless otherwise noted, required slab joints and pouring sequence construction joints shall align with parapet joints at the gutterline.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

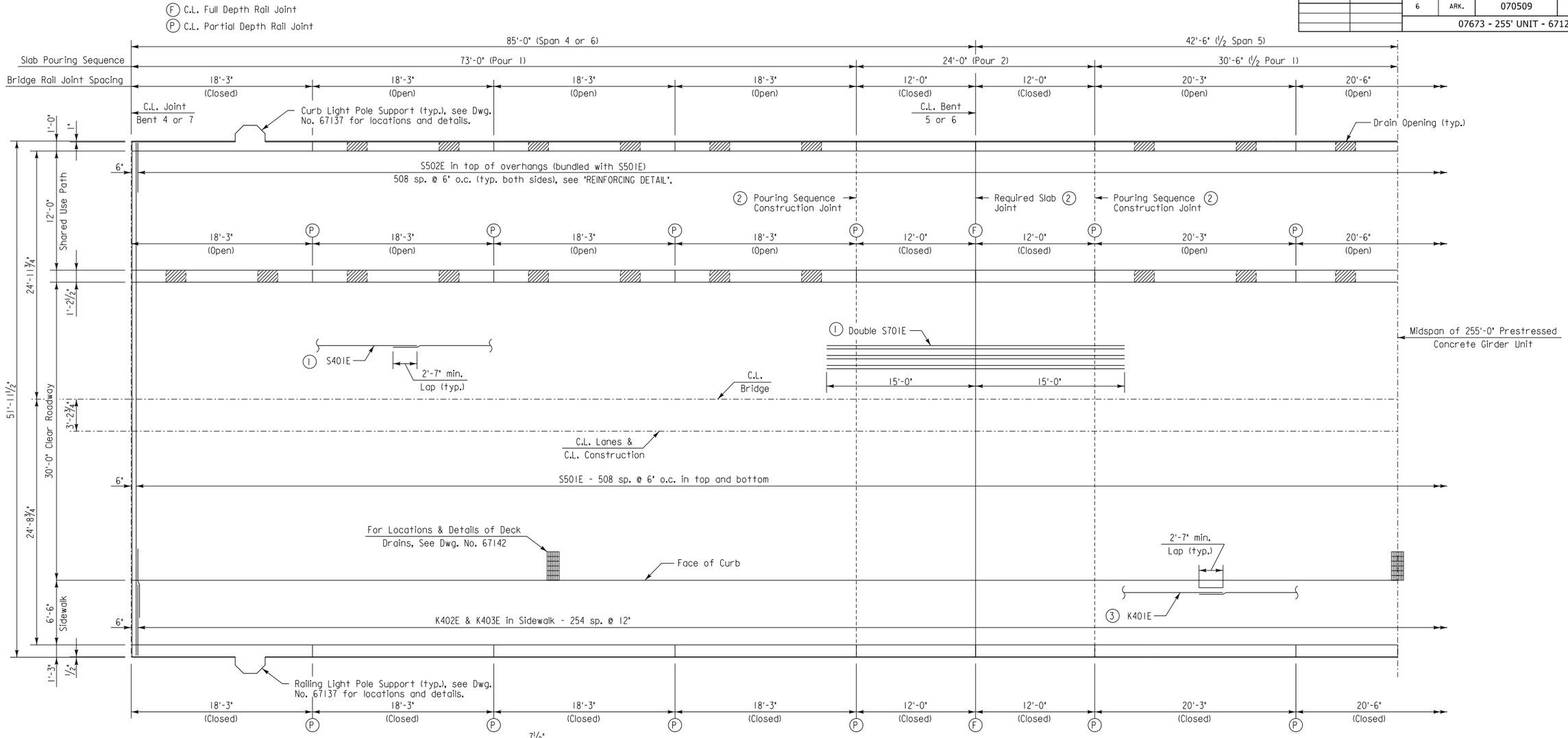
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s3.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: 3/16" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67124

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	79	158
		07673 - 255' UNIT - 67125				



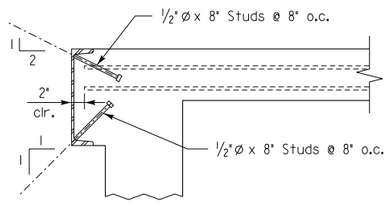
HALF REINFORCING PLAN AND SLAB POURING SEQUENCE

Span 4 & ½ Span 5 Shown, Span 7 & ½ Span 8 Similar
Scale: 3/16" = 1'-0"

(1) Placed as shown in 'TYPICAL ROADWAY SECTION', see Dwg. No. 67122.

(2) See 'TRANSVERSE SLAB JOINT DETAIL' on Std. Dwg. No. 55007.

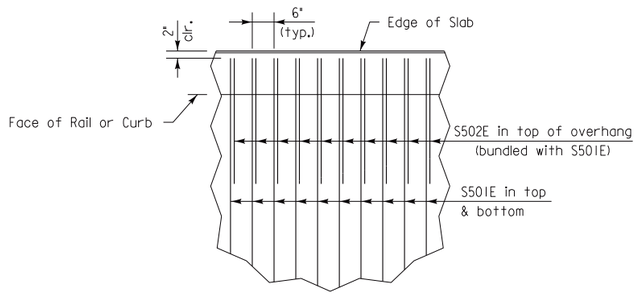
(3) Placed as shown in 'SIDEWALK DETAIL', see Dwg. No. 67122.



DETAIL OF ALTERNATE ANCHORS

No Scale

As an alternative to ⅝"Ø studs, ½"Ø x 8" studs spaced as shown may be used. Use weight of ⅝"Ø studs as basis of measurement of Structural Steel in Anchors.



REINFORCING DETAIL

No Scale
Left side shown, Right side similar

BRIDGE TRAFFIC RAIL VARIABLES, SPANS 1 THRU 9								
CLOSED RAIL PANELS			OPEN RAIL PANELS					
PANEL LENGTH	A	R4XXE	PANEL LENGTH	B	C	D	E	R4XXE
12'-0"	23	R405E	18'-3"	9	3'-6"	14	7'-3"	R406E
18'-3"	36	R406E	20'-3"	11	4'-0"	16	8'-3"	R407E
20'-3"	40	R407E	20'-6"	11	4'-0"	16	8'-6"	R408E
20'-6"	41	R408E						

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 4 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

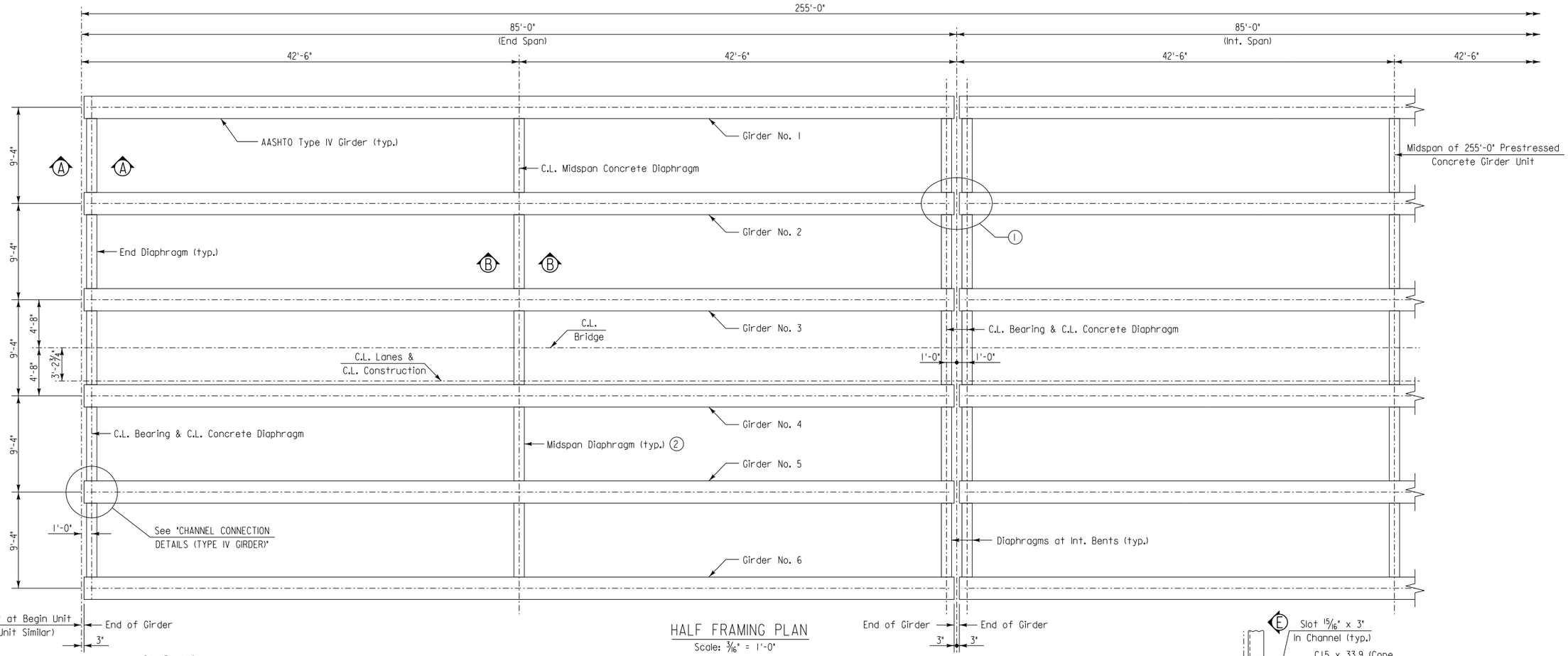
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s4.dgn
SCALE: 3/16" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67125

PRINT DATE: 6/20/2025

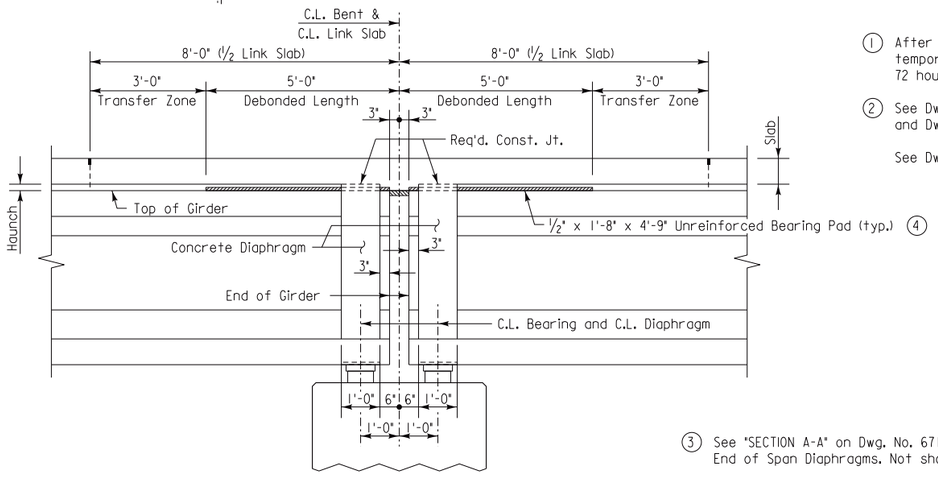
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	80	158
		07673 - 255' UNIT - 67126				



HALF FRAMING PLAN
Scale: 3/16" = 1'-0"

C.L. Joint at Begin Unit (End Unit Similar) — End of Girder — 3"

End of Girder — 3" — End of Girder — 3"

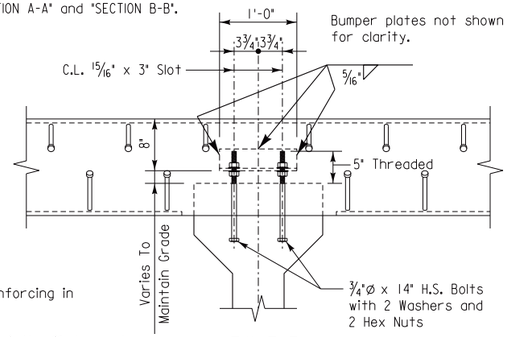


(3) VIEW AT INTERMEDIATE BENTS 2, 3, 5, 6, 8 AND 9
Scale: 3/8" = 1'-0"

(1) After erecton, the ends of girders at all bents shall be blocked using temporary blocking to maintain proper location on bent caps until 72 hours after the diaphragms are poured.

(2) See Dwg. No. 67124 for details of Concrete Diaphragms and Dwg. No. 67122 for "DETAILS OF ALTERNATE STEEL DIAPHRAGM".

See Dwg. No. 67122 for "SECTION A-A" and "SECTION B-B".

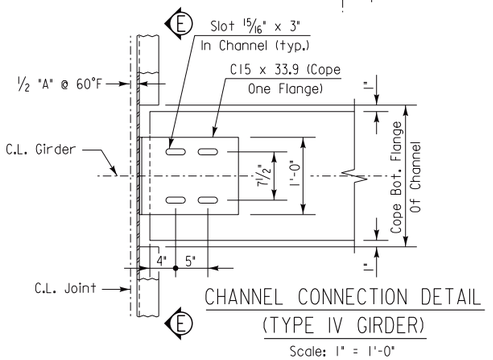


VIEW E-E
Scale: 1" = 1'-0"

Bolts, washers and hex nuts shall be considered subsidiary to the item PRESTRESSED CONCRETE GIRDERS (TYPE IV).

(3) See "SECTION A-A" on Dwg. No. 67122 for details of reinforcing in End of Span Diaphragms. Not shown for clarity.

(4) Unreinforced bearing pads shall be glued to the top of the Girder and shall meet the requirement of Section 808 with the exception that hardness shall be 50 durometer. Unreinforced bearing pads shall not be paid for directly but shall be considered subsidary to the item "Class S(AE) Concrete - Bridge".



CHANNEL CONNECTION DETAIL (TYPE IV GIRDER)
Scale: 1" = 1'-0"

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 5 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

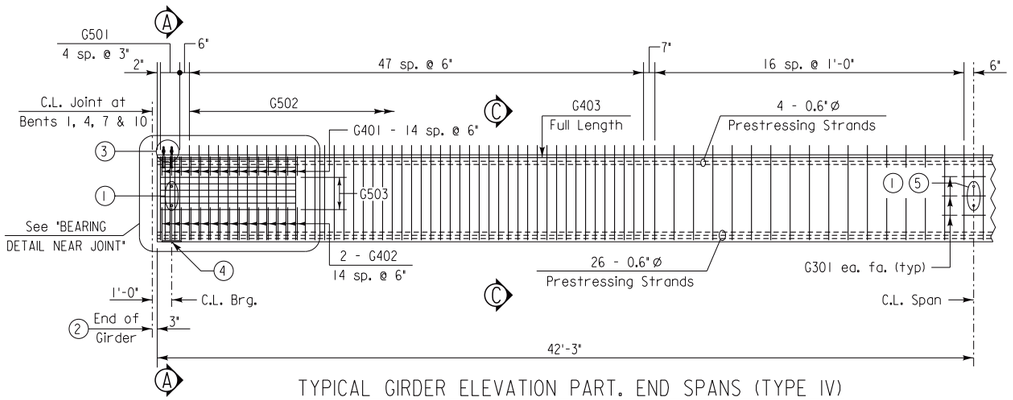
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s5.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: 3/16" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67126

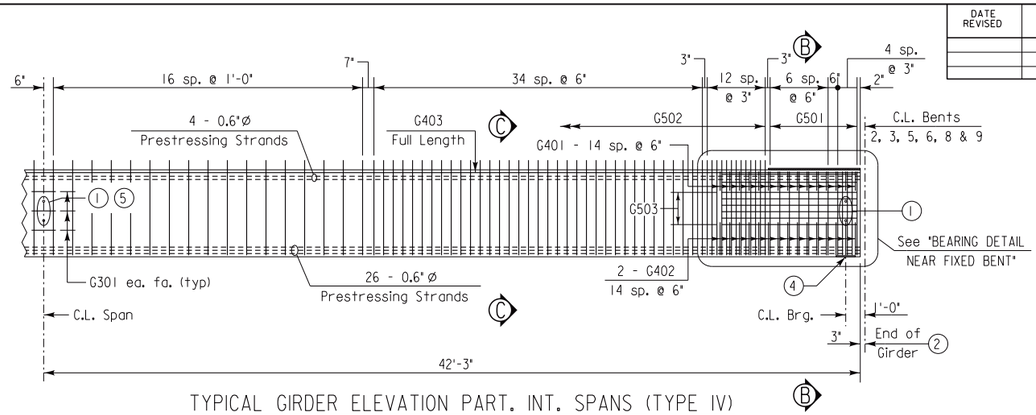
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	81	158
		07673 - 255' UNIT - 67127				



TYPICAL GIRDER ELEVATION PART. END SPANS (TYPE IV)

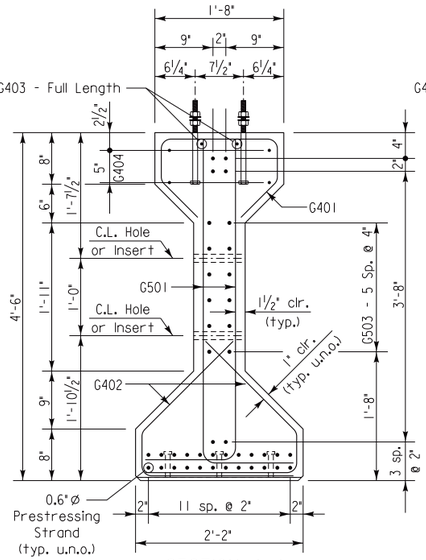
At Bents 1, 4, 7 & 10
Scale: 1/4" = 1'-0"



TYPICAL GIRDER ELEVATION PART. INT. SPANS (TYPE IV)

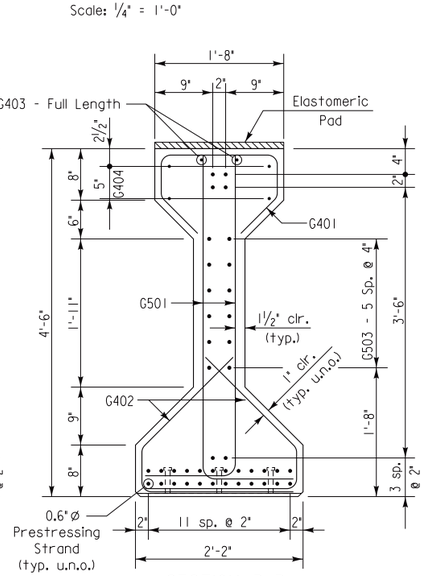
At Bents 2, 3, 5, 6, 8 & 9
Scale: 1/4" = 1'-0"

1. Connection for Concrete Diaphragms: 3/4"ø Threaded Inserts at interior face of exterior girders or 1 1/4"ø holes at interior girders. See Dwg. No. 67123 for additional details.
2. End of Girder to receive an epoxy coating. See "END OF GIRDER VIEW".
3. See "CHANNEL CONNECTION DETAIL (TYPE IV GIRDER)" on Dwg. No. 67126 for additional details.
4. For details of Bearing Insert Plate, see Dwg. No. 67120.
5. Shown for concrete diaphragms. See "DETAILS OF ALTERNATE STEEL DIAPHRAGM" on Dwg. No. 67124 for hole size and number when using alternate steel diaphragms.



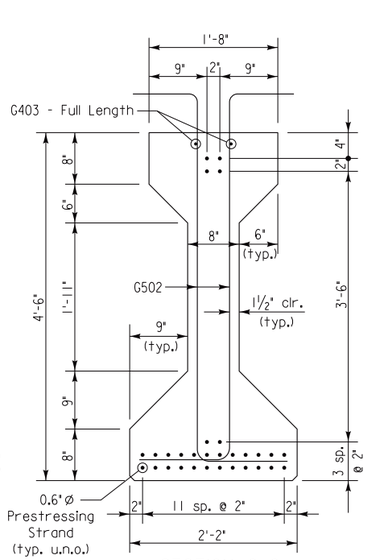
SECTION A-A

Scale: 1" = 1'-0"



SECTION B-B

Scale: 1" = 1'-0"

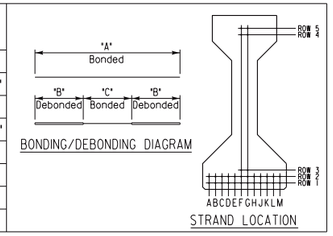


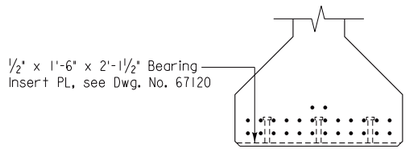
SECTION C-C

Scale: 1" = 1'-0"

TABLE OF GIRDER VARIABLES

STRAND DESIGNATION		VARIABLES OF BONDING/DEBONDING		
ROW	LINE	"A"	"B"	"C"
1	B,D,J,L	—	15'-0"	54'-6"
1	A,C,E,F,G,H,J,K,M	84'-6"	—	—
2	C,K	—	12'-0"	60'-6"
2	A,B,D,E,F,G,H,J,L,M	84'-6"	—	—
3	F,G	84'-6"	—	—
4	F,G	84'-6"	—	—
5	F,G	84'-6"	—	—





Saw cut or grind all strands flush with the end of the girder. The ends of the girders and the cut-off strands shall be coated with a 1/16" min. thick coating of a QPL approved epoxy resin.

END OF GIRDER VIEW

Scale: 1" = 1'-0"

NOTES:

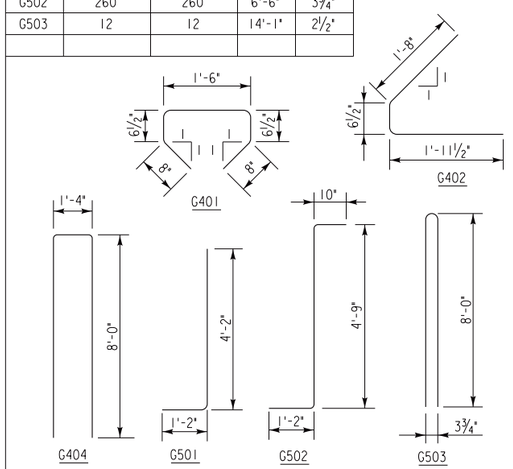
Dimensions are measured along girders.

Prestressing strands will not be paid for directly, but will be considered subsidiary to the item "Prestressed Concrete Girder (Type IV)".

BAR LIST - PER GIRDER

MARK	NO. REQ'D. (End Spans)	NO. REQ'D. (Int. Spans)	LENGTH	P.D.
G301	6	6	1'-3"	Str.
G401	30	30	3'-9"	2"
G402	60	60	4'-1"	2"
G403	2	2	84'-2"	Str.
G404	8	8	17'-2"	2"
G501	34	48	5'-3"	3 3/4"
G502	260	260	6'-6"	3 3/4"
G503	12	12	14'-1"	2 1/2"

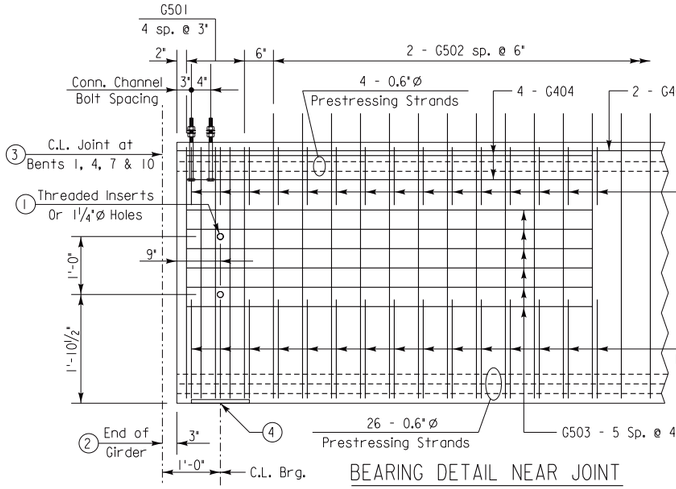
BENDING DIAGRAMS
Dimensions are out to out of bars.



All bars in BAR LIST will not be paid for directly, but will be considered subsidiary to the item "Prestressed Concrete Girders (Type IV)".

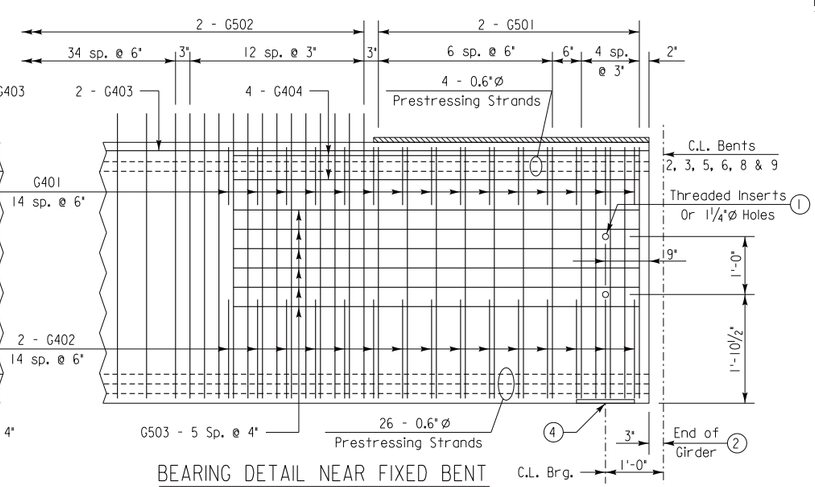
At the Contractor's option, the two G402 bars may be furnished as one bar.

At the Contractor's option, 3/8"ø strands pulled to 2,000 lbs. may be substituted for bars G403.



BEARING DETAIL NEAR JOINT

At Bents 1, 4, 7 & 10
Scale: 3/4" = 1'-0"



BEARING DETAIL NEAR FIXED BENT

At Bents 2, 3, 5, 6, 8 & 9
Scale: 3/4" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 6 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s6.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67127

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	82	158
		07673 - 255' UNIT - 67128				

GENERAL NOTES

PRESTRESSED GIRDERS:

Prestressing steel shall be 0.6"ø low relaxation strands with a minimum ultimate strength of 270 ksi, and shall conform to AASHTO M 203.

Distances from the forms and spacing of the Prestressing Steel shall be maintained by stays, ties, hangers, spacers, or other approved supports which shall be shown on the Shop Drawings.

All girders shall be Type IV as noted on the details and shall be the standard prestressed sections adopted by the Joint Committee of AASHTO and the Prestressed Concrete Institute. All girders shall be cast in concrete floored pallets and in metal forms. All work and materials shall be as specified in Subsection 802.22.

Concrete shall be Class S and shall have a minimum 28 day compressive strength, f'c = 8,000 psi. The initial tensile force applied to each 0.6"ø strand shall be 43,950 lbs. Transfer of this tensioning load to the girder shall not be done until the compressive strength of the concrete is 4,800 psi.

Dimensions shown are to the center of the strands.

The Contractor shall submit the method and sequence for release of strands to the Engineer for approval prior to casting of the girders.

Holes and Inserts shall be cast into the girder. Field drilling of holes shall not be permitted.

The first 1'-2" along the tops of the girders at the beginning and end of each unit shall have a smooth surface. The tops of the remaining length of the girders shall be rough floated at approximately the time of set. This portion of the tops of girders shall be scrubbed tansversely with a coarse wire brush to remove all laitance and to produce a roughened surface for bonding the slab.

After detensioning, saw cut, grind, or bend up strands as designated by the plans. Heat-cutting or bending methods shall not be used within 6' of the girder.

Extreme care shall be exercised in handling and moving precast prestressed concrete girders. Girders must be maintained in an upright position at all times and must be picked up from points near the girder ends. Disregard of this requirement may lead to collapse of the girder. The Contractor's proposed lifting details shall be submitted on shop drawings to the Engineer for approval. The use of holes for lifting purposes will not be permitted.

The points of support and directions of the reactions with respect to the member shall be approximately the same during transportation and storage as when the member is in its final position.

Girder lengths shown on the design plans are net lengths measured horizontally along the girder centerlines. The girder manufacturer shall make the necessary allowances for grade and shortening due to elastic shortening, creep, and shrinkage.

Reinforcing steel in girders shall be Grade 60 (Fy = 60,000 psi.) conforming to AASHTO M 31 or M 322, Type A with mill test reports.

All exposed steel at ends of girders not extended into diaphragms at fixed bents shall be protected again corrosion by a coating of tar or other waterproofing material.

The Contractor may submit alternate strand patterns with design calculations for review and approval in accordance with Subsection 802.22 except that only 0.6"ø strands will be allowed.

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.

REINFORCING STEEL:

All reinforcing steel in slabs and rails shall be Grade 60 (Fy = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports. 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)".

CONCRETE:

Concrete shall be poured in the dry and all exposed corners shall be chamfered ¾" unless otherwise noted. All concrete, except for prestressed girders, shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi. All end of unit and mid-span diaphragms shall be cast-in-place and poured a minimum of 48 hours before the slab is poured. Fixed bent diaphragms shall be cast monolithically with the slab. Removable forms shall be used when pouring diaphragms. The slab and fixed bent diaphragms for the prestressed concrete girder units shall not be poured until at least 90 days after the release of the prestressed strands.

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.

Concrete in bridge superstructure 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.

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. The 6'-6" sidewalk and 12'-0" shared use path shall receive a broomed finish as specified 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 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 the railing. A minimum of 72 hours shall elapse between completion of the bridge deck slab and the pouring of the sidewalk and the pouring of the bridge railing. Any bridge rail or sidewalk pours made before the entire slab has been placed and cured must be approved by the Engineer.

STRUCTURAL STEEL:

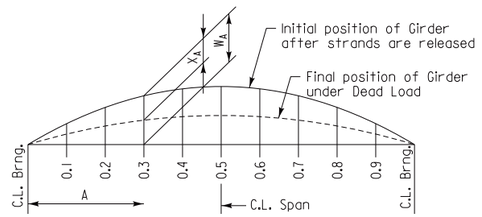
Structural steel shall be ASTM A709 with grade and payment as specified in the plans. Grade 50W steel shall not be painted and all exposed surfaces shall be cleaned in accordance with the Subsection 807.84(e). Grade 36 and Grade 50 steel shall be painted unless otherwise noted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84. Structural steel completely embedded in concrete may be ASTM A709, 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, where applicable, will be based on the basis of shapes and material 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 requird approval prior to construction. All welding shall conform to Subsection 807.26.

PRINT DATE: 6/20/2025



'W_A' is camber of Girder (Prestress + Dead Load of Girder @ 60 days after release)

'X_A' is Dead Load Deflection of Slab + Diaphragms + Composite Dead Load

CAMBER & DEFLECTIONS (INCHES)

No Scale

'W_A' & 'X_A' are based on the required minimum concrete strength and may vary from the dimension shown. 'W_A' & 'X_A' shall be measured along bottom of girders unless otherwise approved by the Engineer. See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Dwg. No. 67123 for limitations of the girder final position under dead load. The Contractor is responsible for any adjustment necessary to meet slab thickness tolerance and to achieve an acceptable finished grade. No payment shall be made for any additional concrete in the haunches when camber is less than shown.

Span Pt.	Inches	
	W_A	X_A
0.0	0"	0"
0.1	0.841"	0.275"
0.2	1.530"	0.544"
0.3	1.977"	0.756"
0.4	2.249"	0.891"
0.5	2.338"	0.937"
0.6	2.249"	0.891"
0.7	1.977"	0.756"
0.8	1.530"	0.544"
0.9	0.841"	0.275"
1.0	0"	0"

TABLE OF VARIABLES

Variable	Prestressed Girder Span Units		
	1	2	3
"A"	56	88	88
"B"	1023	1015	1015
"C"	507	499	499
"D"	3	0	0
"E"	1	0	0
"F"	7	0	0
"G"	1	0	0

NOTE:

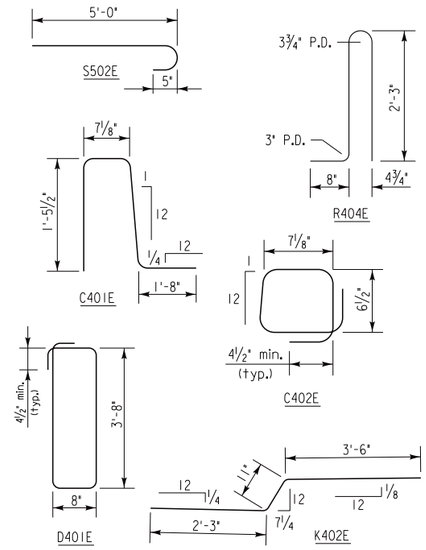
See Dwg. No. 67137 for additional reinforcement bars required for light pole supports.

BAR LIST - PER PRESTRESSED SPAN UNIT

MARK	NO. REQ'D.	LENGTH	P.D.
S401E	1036	38'-7"	Str.
S501E	1018	51'-8"	Str.
S502E	1018	5'-7"	3¾"
S701E	208	30'-0"	Str.
K401E	56	38'-6"	Str.
K402E	255	6'-7"	3"
K403E	255	7'-2"	Str.
D401E	360	9'-0"	2"
D402E	450	7'-2"	Str.
D601E	72	6'-0"	Str.
(1) R400E	"A"	5'-3"	2½"
(1) R401E	"B"	6'-4"	2½"
(1) R402E	96	5'-6"	Str.
(1) R403E	"C"	3'-6"	3¾"
R404E	516	5'-3"	3", 3¾"
R405E	64	11'-8"	Str.
R406E	128	17'-11"	Str.
R407E	32	19'-11"	Str.
R408E	16	20'-2"	Str.
(2) H401E	"D"	2'-11"	2"
(2) H402E	"E"	3'-7"	2"
(2) H403E	"F"	6'-1"	2"
(2) H404E	"G"	7'-7"	2"
(3) C401E	263	5'-0"	2"
(3) C402E	48	2'-8"	2"
(3) C404E	16	11'-8"	Str.
(3) C405E	32	17'-11"	Str.
(3) C407E	8	19'-11"	Str.
(3) C408E	4	20'-2"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.



NOTE: Bars designated with an "E" suffix to be Epoxy coated.

(1) For additional details and bending diagrams of reinforcing bars in Bridge Traffic Rail, see Std. Dwg. No. 55070.

(2) For details and bending diagrams of additional reinforcing bars in concrete terminals, see Dwg. No. 67138 & Std. Dwg. No. 55015.

(3) For details of reinforcing bars in bridge curb, see Dwg. No. 67139.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH

06/20/2025
BRIDGE ENGINEER

SHEET 7 OF 7
DETAILS OF 255' PRESTRESSED CONCRETE GIRDER UNIT CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s7.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: NONE
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67128

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	83	158
		07673 - 370' UNIT - 67129				

SLAB REINFORCING:

Longitudinal: S401E in top and bottom (place as shown)
S601E placed as shown. See "PART REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. Nos. 67133 & 67134

Transverse: S501E @ 6" o.c. in top and bottom
S502E @ 6" in top of overhangs (bundled with S501E)

SIDEWALK REINFORCING:

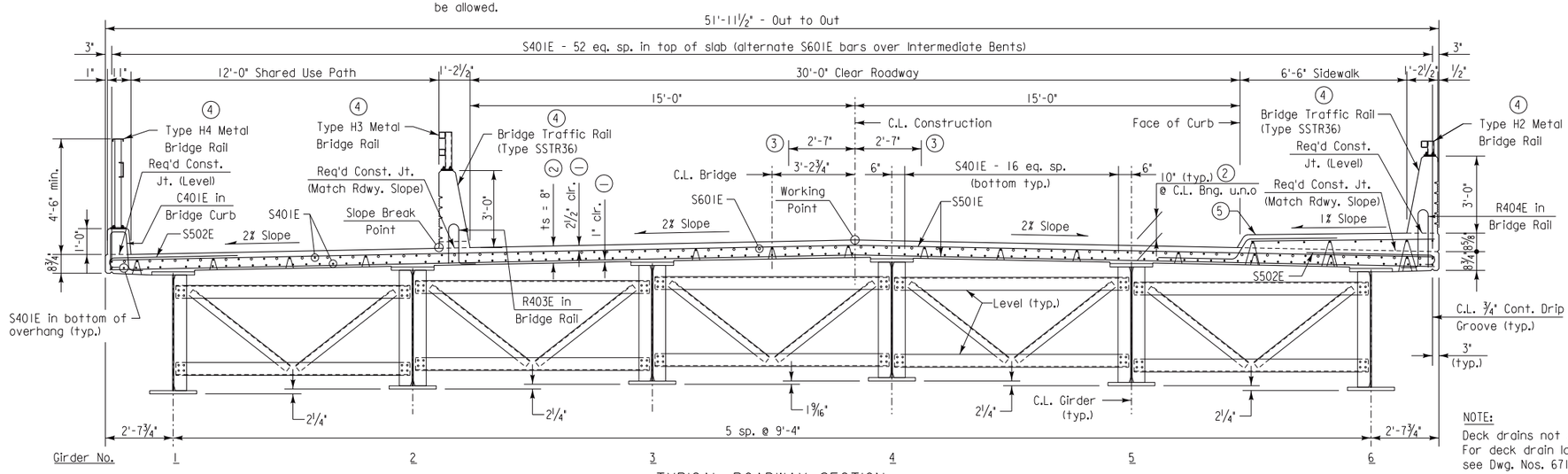
Longitudinal: K401E placed as shown on "SIDEWALK DETAIL".

Transverse: K402E & K403E @ 12" o.c.

Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly on removable deck forms will not be allowed.

Class 2 Protective Surface Treatment shall be applied to the roadway surface, sidewalk surface (including curbing) and shared use path surface in accordance with Section 803.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP "Textured Coating Finish" and in accordance with Subsection 802.19(b)(3). See details shown on Dwg. No. 67130.



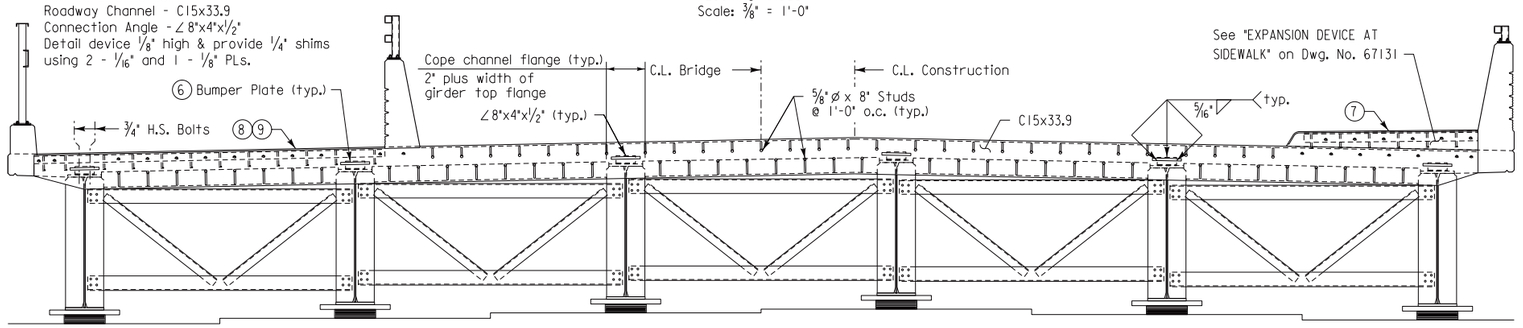
TYPICAL ROADWAY SECTION

Looking Ahead
Scale: ⅜" = 1'-0"

NOTE:
Deck drains not shown for clarity. For deck drain layout and details, see Dwg. Nos. 67141 & 67142.

EXPANSION DEVICE:

Poured Silicone Joint
Roadway Channel - C15x33.9
Connection Angle - ∠ 8"x4"x½"
Detail device ⅛" high & provide ¼" shims using 2 - 1/16" and 1 - ⅛" PLs.



TYPICAL SECTION NEAR JOINT

Looking Ahead At Bent No. 10
Looking Back At Bent No. 13 - Similar By Orientation
Scale: ⅜" = 1'-0"

NOTES:

For details of poured silicone joint, see Std. Dwg. No. 55008 & Dwg. No. 67131.

(1) Tolerances: Minus = ¼"
Plus equal to the amount of slab thickening used to meet slab thickness tolerance. See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) See "ROUNDING DETAIL" on Std. Dwg. No. 55007.

(4) For additional bridge railing details, see the following:

Bridge Traffic Rail (Type SSTR36), see Std. Dwg. No. 55070.
Type H2 Metal Bridge Railing, see Std. Dwg. No. 55015.
Type H3 Metal Bridge Railing, see Dwg. No. 67138.
Type H4 Metal Bridge Railing, see Dwg. No. 67140.

(5) For additional information, see "SIDEWALK DETAIL" on Dwg. No. 67122.

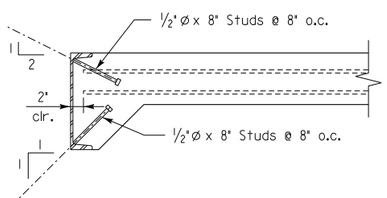
(6) For size of Bumper Plate, see "TABLE OF SILICONE JOINT DATA", on Dwg. No. 67131.

(7) See "SIDEWALK SECTION THRU JOINT AT BENT" on Dwg. No. 67131.

(8) See "SHARED USE PATH SECTION THRU JOINT AT BENT" on Dwg. No. 67131.

(9) See "SHARED USE PATH COVER PLATE DETAIL" on Dwg. No. 67135.

(10) See "CHANNEL CONNECTION DETAIL" on Std. Dwg. No. 55008.

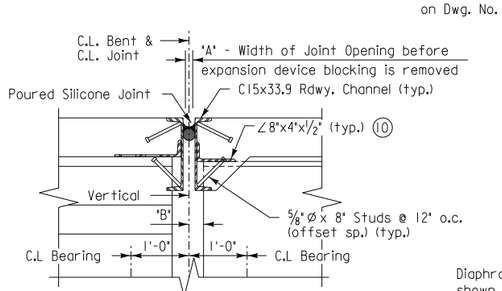


DETAIL OF ALTERNATE ANCHORS

No Scale

As an alternative to ⅝"ø studs, ½"ø x 8" studs spaced as shown may be used. Use weight of ⅝"ø studs as basis of measurement of Structural Steel in Anchors.

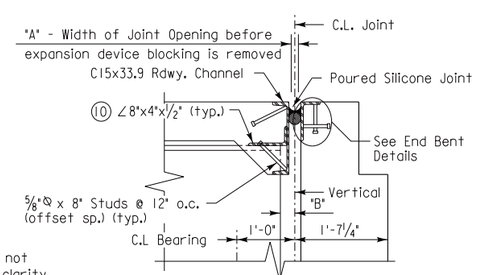
For variables "A" and "B", see "TABLE OF SILICONE JOINT DATA" on Dwg. No. 67131.



SECTION THRU JOINT AT BENT

Shown at Bent No. 10
No Scale

Diaphragms not shown for clarity.



SECTION THRU JOINT AT END BENT

Shown at Bent No. 13
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 8
DETAILS OF 370'-0" CONTINUOUS PLATE GIRDER UNIT CADDO RIVER

ROUTE SEC.

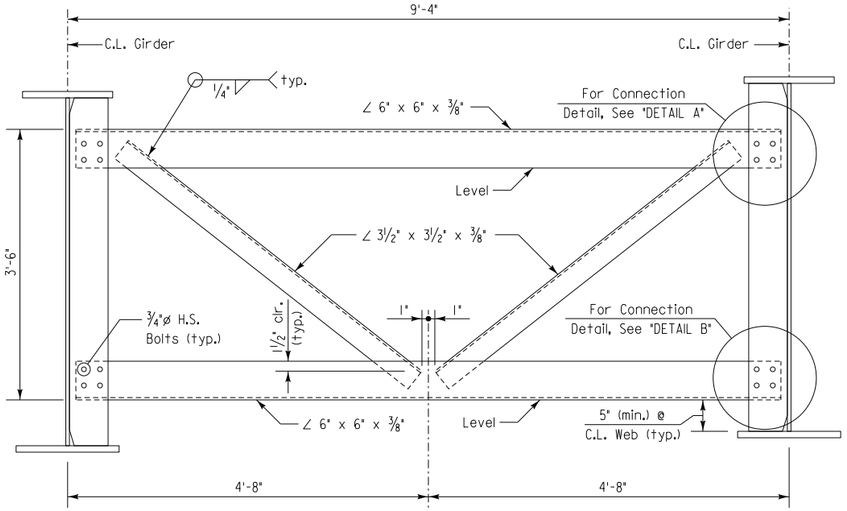
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s8.dgn
SCALE: ⅜" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67129

PRINT DATE: 6/20/2025

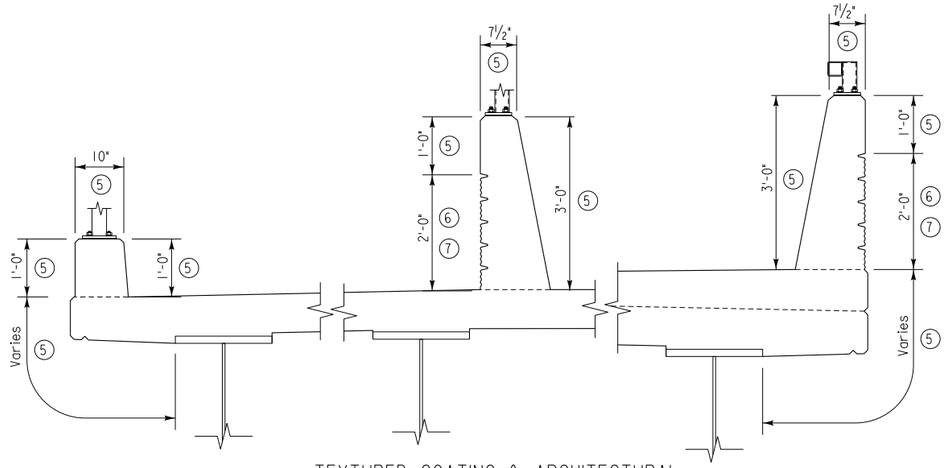
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	84	158
		07673 - 370' UNIT - 67130				



CROSS-FRAME DETAIL

Scale: 1" = 1'-0"

NOTE:
Cross-frames at Bent Nos. 10 & 13 shall be fabricated such that horizontal legs of cross-frame members point away from C.L. joint.



TEXTURED COATING & ARCHITECTURAL FINISH DETAILS ALONG SPANS

Shown for Steel Spans, Concrete Spans Similiar.
Scale: 3/4" = 1'-0"

(5) Class 3 Textured Coating Finish (Color = Brown, Color Chip No. 33522)

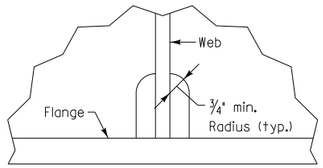
(6) Class 3 Textured Coating Finish (Color = Brown, Color Chip No. 30219)

(7) "Ashlar Stone" Pattern Form Liner, See SP Job 070509 "Architectural Finish".

NOTES:

Form liner shall be max. depth of 1 1/2" to provide a min. clearance of 1 1/2" to rail reinforcing.

See SP Job 070509 "Textured Coating Finish" for additional information regarding the placement of the Class 3 Textured Coating Finish.



Height and width of clip shall be as noted in other details.

ALTERNATE CLIP DETAIL

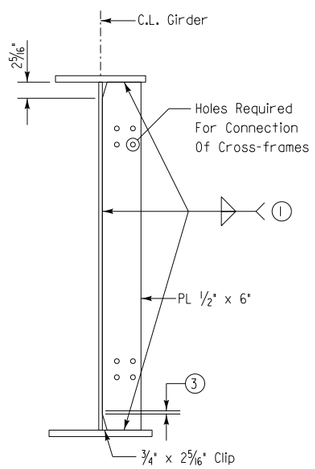
For Bearing Stiffeners and Cross-frame Connection Plates
No Scale

(1) See "WELD TABLE" on Std. Dwg. No. 55007 For min. Weld Size.

(2) If permanent deck forms are used, the fabricator shall clip the plate as necessary to accomodate the deck form supports.

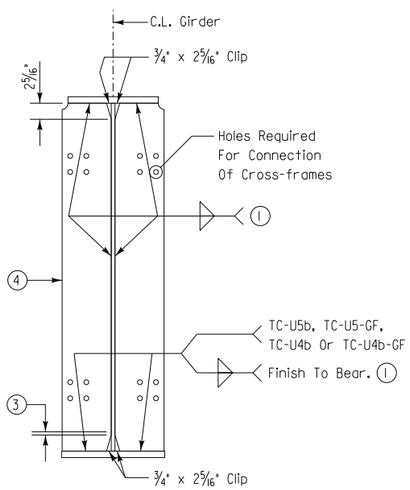
(3) Stop weld 1/4" to 1" from end of clip (typ.)

(4) See "HALF-FRAMING PLAN" and "HALF-GIRDER ELEVATION" on Dwg. No. 67132 for sizes and locations.



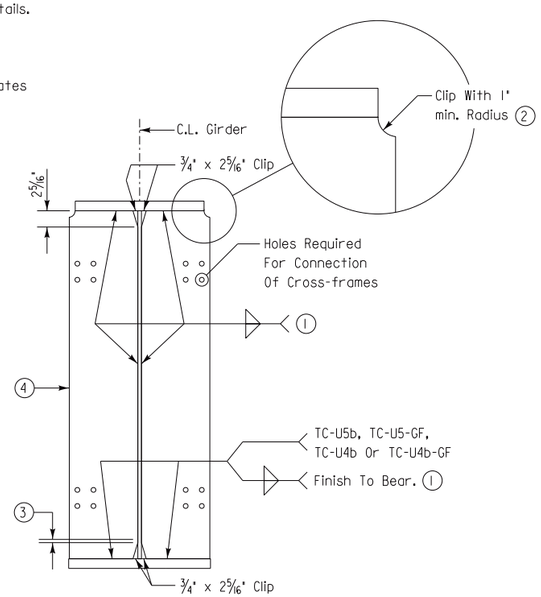
CROSS-FRAME CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"



BEARING STIFFENER @ BENT NOS. 10 & 13

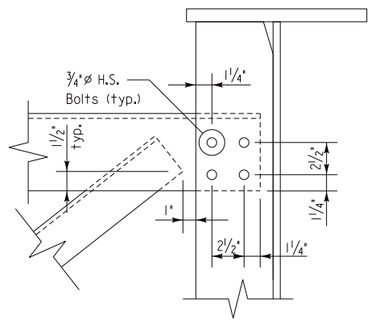
Scale: 1" = 1'-0"



BEARING STIFFENER @ BENT NOS. 11 & 12

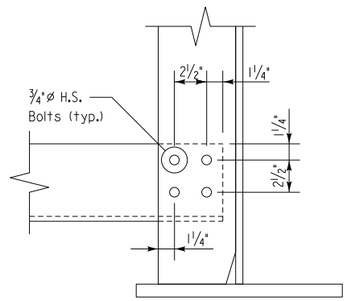
Scale: 1" = 1'-0"

NOTE:
Bearing stiffeners shall be fabricated to be vertical in their final positions. Bearing stiffeners are to be placed on both sides of all girder webs at bearing locations.



DETAIL A

No Scale



DETAIL B

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 8
DETAILS OF 370'-0"
CONTINUOUS PLATE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

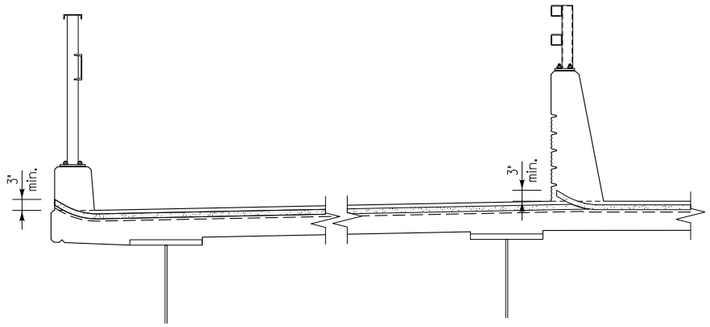
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s9.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: 1" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67130

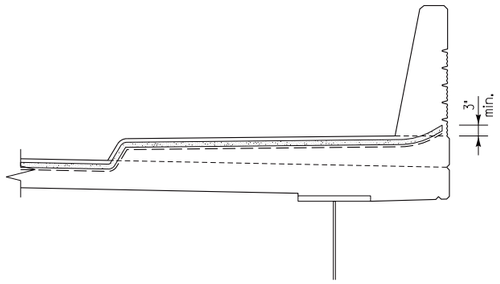
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	85	158
		07673 - 370' UNIT - 67131				



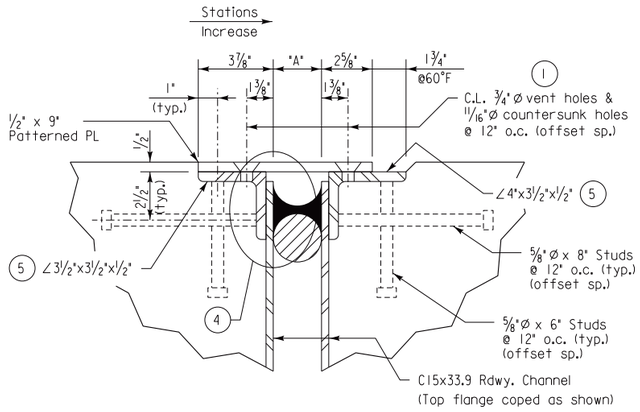
JOINT SEAL PLACEMENT AT SHARED USE PATH

Looking Ahead
Shown for Steel Spans, Concrete Spans Similar.
No Scale



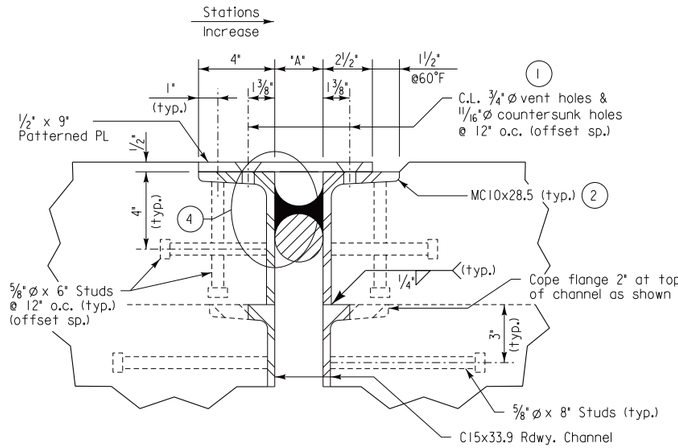
JOINT SEAL PLACEMENT AT SIDEWALK

Looking Ahead
Shown for Steel Spans, Concrete Spans Similar.
No Scale



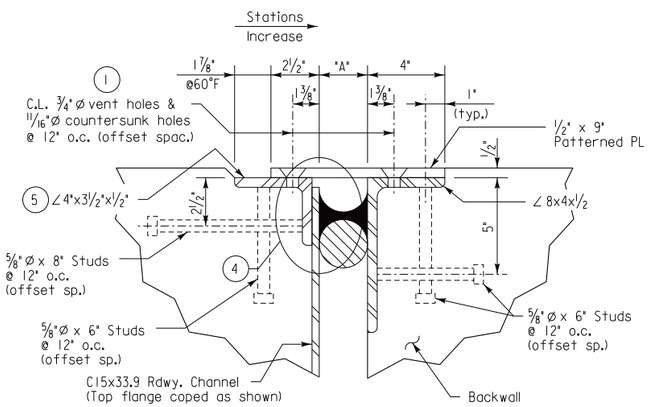
SHARED USE PATH SECTION THRU JOINT AT BENT

Shown at Bent No. 10
Scale: 3" = 1'-0"



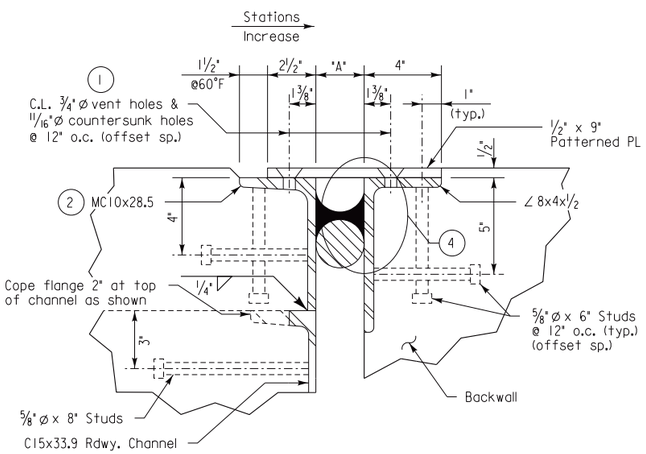
SIDEWALK SECTION THROUGH JOINT AT BENT

Shown at Bent No. 10
Scale: 3" = 1'-0"



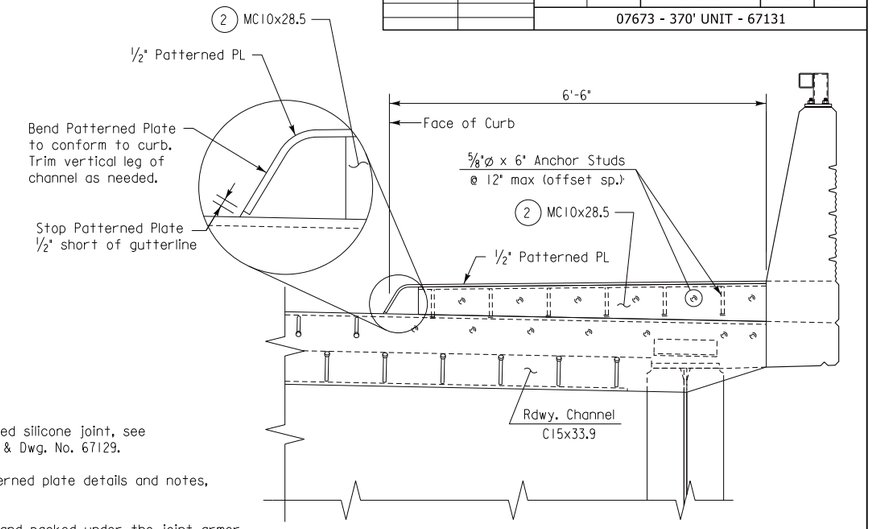
SHARED USE PATH SECTION THRU JOINT AT END BENT

Shown at Bent No. 13
Scale: 3" = 1'-0"



SIDEWALK SECTION THROUGH JOINT AT END BENT

Shown at Bent No. 13
Scale: 3" = 1'-0"



EXPANSION DEVICE AT SIDEWALK

Looking Ahead
Shown for Steel Spans, Concrete Spans Similiar.
Scale: ¾" = 1'-0"

NOTES:

For details of poured silicone joint, see Std. Dwg. No. 55008 & Dwg. No. 67129.

For additional patterned plate details and notes, see Dwg. No. 67135.

Concrete shall be hand packed under the joint armor in the sidewalk and shared use path.

① Ctsk. 11/16" ø holes in ½" patterned PL. Tap horz. leg of channel and angle for ASTM A449 5/8" screws @ 12" o.c. Install screws in the shop and ship as a unit. At Bent Nos. 1 & 13 screws on the span to be removed. Screws on the backwall to remain after erection. At Bent Nos. 4, 7, & 10 screws are to remain on the on the down station side (back side) of the joint. See "DETAILS FOR BLOCKING EXPANSION JOINT DEVICE" on Dwg. Std. No. 55008.

② Trim vertical leg of MC10x28.5 as needed.

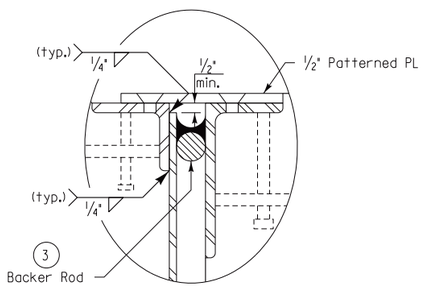
③ Use an appropriately sized backer rod at the depth shown in the Manufacturer's literature based on the joint width at the time of sealing.

Except as noted, do not install more backer rod than can be sealed in one day.

The Contractor shall verify separation of the backer rod from the joint material after the joint material has set.

④ See "DETAIL X".

⑤ Attach angle to coped C15x33.9 as shown.



DETAIL X

No Scale

Detail shown for Bent No. 13 other bents are similar.

TABLE OF SILICONE JOINT DATA

Bent No.	"A" Width Perpendicular To Joint At 24 Hour Average Temperature Of:			"B" Perpendicular To Joint At 60°F	Bumper Plate Size
	40°F	60°F	80°F		
10	3"	2½"	2"	3"	1" x 1¼"
13	2 13/16"	2½"	2 3/16"	3"	1" x 1¼"

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. Installation is limited to 40°F min. and 80°F max. The temperature limitations of the lubricant-adhesive Manufacturer shall be observed.

STATE OF ARKANSAS
Cynthia A. Rich
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 8
DETAILS OF 370'-0" CONTINUOUS PLATE GIRDER UNIT CADDO RIVER

ROUTE SEC.

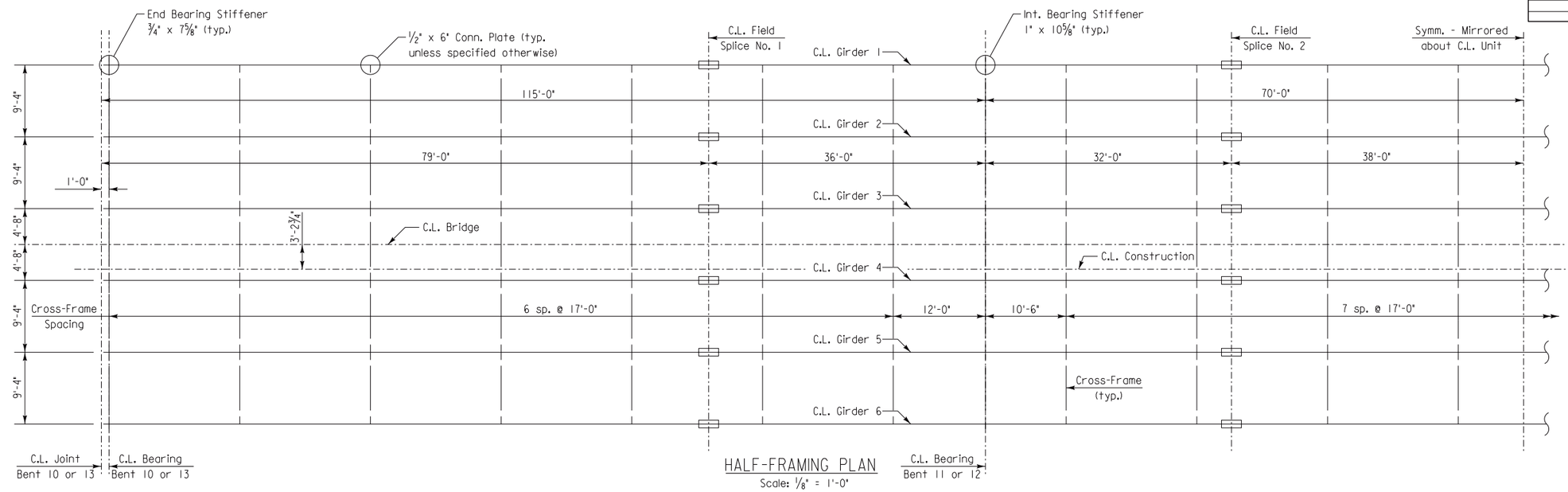
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s10.dgn
SCALE: 3/8" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67131

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	86	158
		07673 - 370' UNIT - 67132				



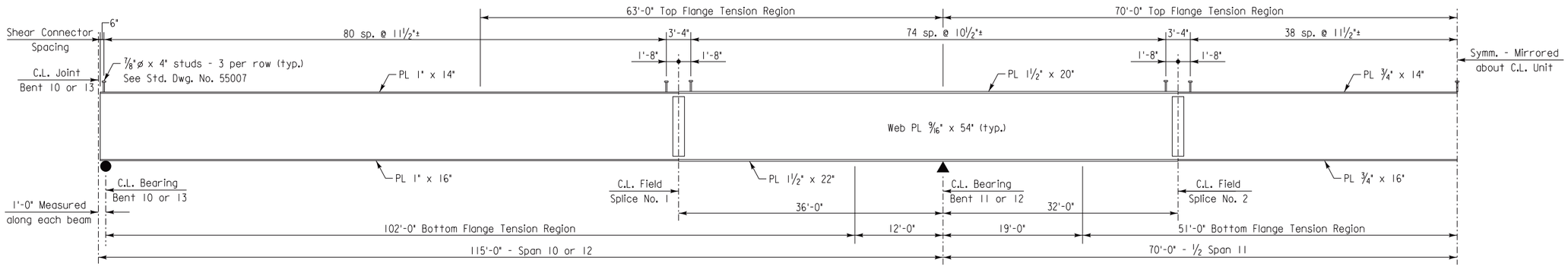
HALF-FRAMING PLAN
Scale: ⅛" = 1'-0"

NOTES:

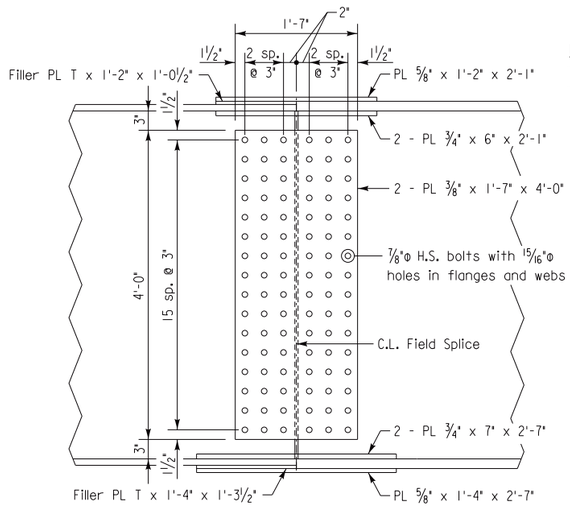
Structural steel, unless noted otherwise, shall be ASTM A709, Grade 50W and shall be paid for as "Structural Steel in Plate Girder Spans (A709, Grade 50W)".

Bolted field splices may either be eliminated or shop welded splices may be substituted with the approval of the Engineer. Payment will be made on the basis of plan quantities.

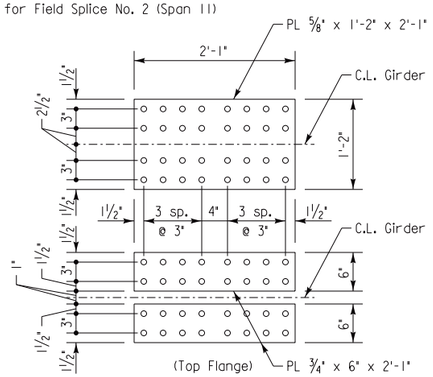
See Std. Dwg. No. 55006 for additional notes.



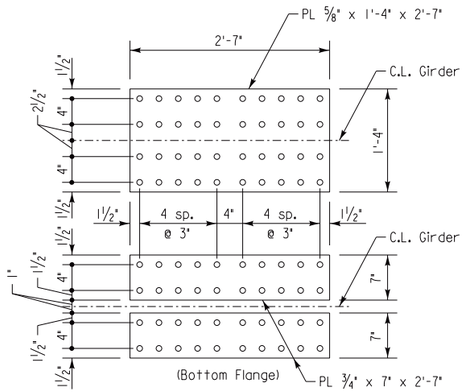
HALF-GIRDER ELEVATION
No Scale

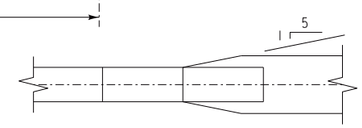


NOTE:
T = ½" for Field Splice No. 1 (Spans 10 & 12)
T = ¾" for Field Splice No. 2 (Span 11)



DETAILS OF FIELD SPLICES 1 & 2
Scale: 1" = 1'-0"





FIELD SPLICE AT UNEQUAL FLANGE WIDTHS
No Scale

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 4 OF 8
DETAILS OF 370'-0" CONTINUOUS PLATE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

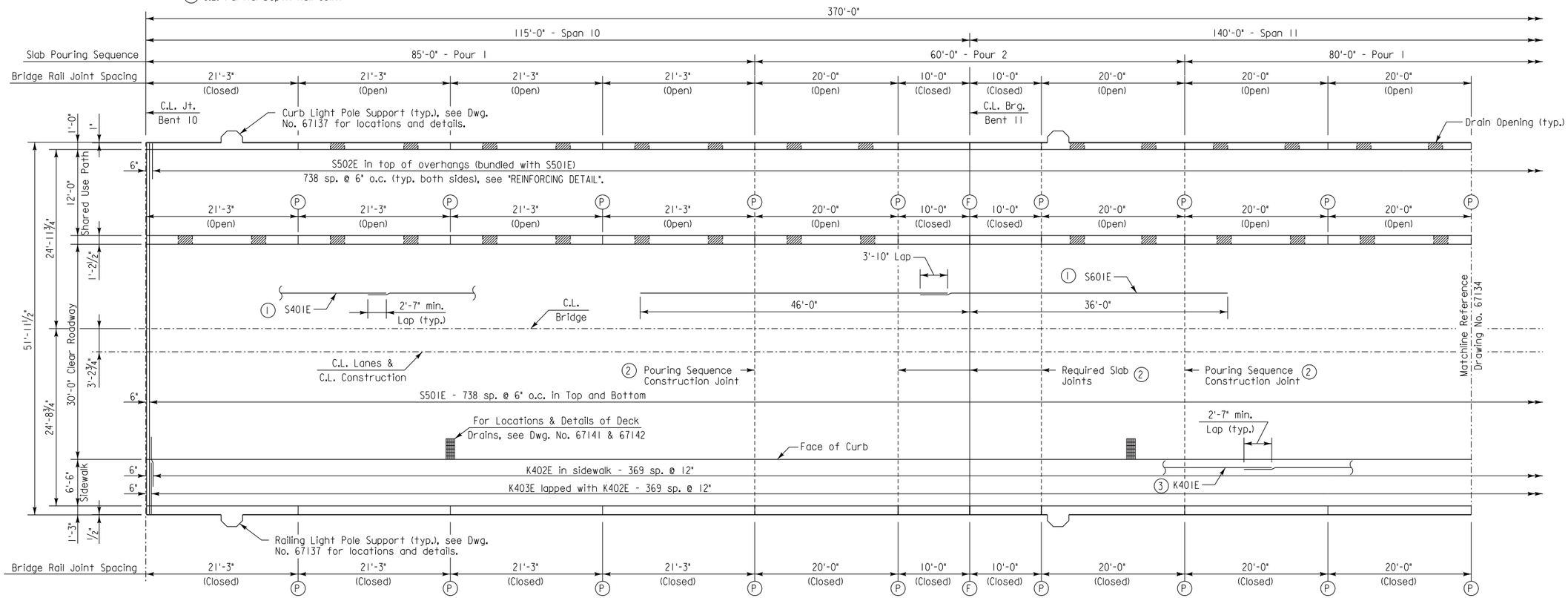
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s11.dgn
SCALE: ⅛" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67132

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	87	158
		07673 - 370' UNIT - 67133				



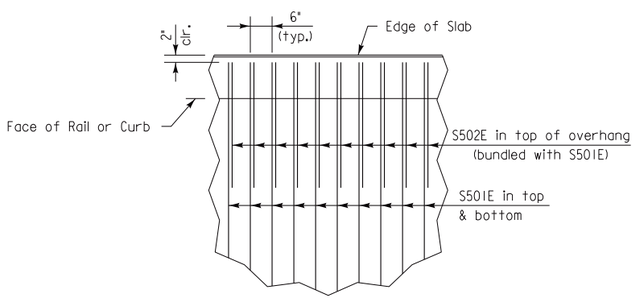
PART REINFORCING PLAN & SLAB POURING SEQUENCE

Span 10 & ½ Span 11
Scale: ⅛" = 1'-0"

(1) Placed as shown in "TYPICAL ROADWAY SECTION", see Dwg. No. 67129.

(2) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.

(3) Placed as shown in "SIDEWALK DETAIL", see Dwg. No. 67122.



REINFORCING DETAIL

No Scale
Left side shown, Right side similar

Slab Pouring Sequence:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours. A minimum of 72 hours shall elapse between completion of the slab and pouring of the traffic rails, curb or sidewalk. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence.

Concrete in bridge superstructure 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.

Any railing or sidewalk pours made before the entire slab unit has been placed must be approved by the Engineer.

Unless otherwise noted, required slab joints and pouring sequence construction joints shall align with parapet joints at the gutterline.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 5 OF 8
DETAILS OF 370'-0" CONTINUOUS PLATE GIRDER UNIT CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

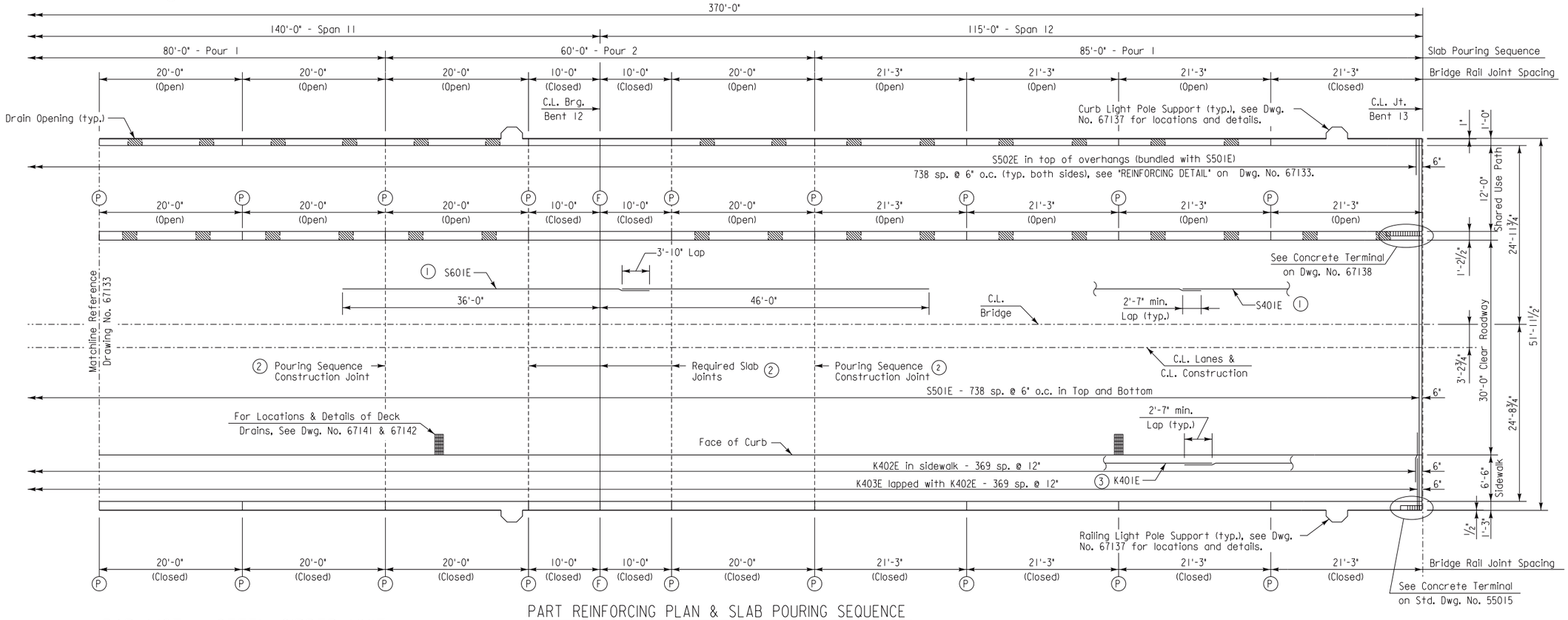
DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s12.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ⅛" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67133

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	88	158
		07673 - 370' UNIT - 67134				

(F) C.L. Full Depth Rail Joint
(P) C.L. Partial Depth Rail Joint



PART REINFORCING PLAN & SLAB POURING SEQUENCE

½ Span 11 & Span 12
Scale: ⅛" = 1'-0"

NOTE:

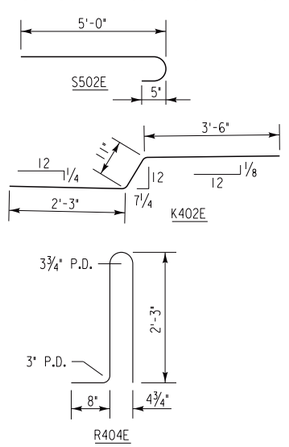
See Dwg. No. 67137 for additional reinforcement bars required for light pole supports.

BAR LIST - STEEL GIRDER UNIT

	MARK	NO. REQ'D.	LENGTH	P.D.
	S401E	1628	36'-0"	Str.
	S501E	1478	51'-8"	Str.
	S502E	1478	5'-7"	3¾"
	S601E	208	42'-11"	Str.
	K401E	88	36'-0"	Str.
	K402E	370	6'-7"	2"
	K403E	370	7'-2"	Str.
(1)	R400E	128	5'-3"	2½"
(1)	R401E	1488	6'-4"	2½"
(1)	R402E	136	5'-6"	Str.
(1)	R403E	744	3'-6"	3", 3¾"
	R404E	744	5'-3"	3", 3¾"
	R405E	64	9'-8"	Str.
	R406E	128	19'-8"	Str.
	R407E	128	20'-11"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.



NOTE: Bars designated with an 'E' suffix to be Epoxy coated.

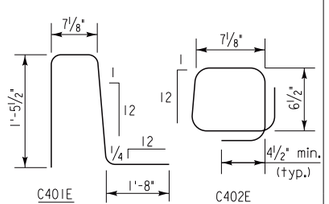
(1) For additional details and bending diagrams of reinforcing bars in Bridge Traffic Rail, see Std. Dwg. No. 55070.

BAR LIST - STEEL GIRDER UNIT (CONT.)

	MARK	NO. REQ'D.	LENGTH	P.D.
(2)	H401E	3	2'-11"	2"
(2)	H402E	1	3'-7"	2"
(2)	H403E	7	6'-1"	2"
(2)	H404E	1	7'-7"	2"
(3)	C401E	402	5'-0"	2"
(3)	C402E	56	2'-8"	2"
(3)	C403E	16	9'-8"	Str.
(3)	C406E	32	19'-8"	Str.
(3)	C409E	32	20'-11"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.



NOTE: Bars designated with an 'E' suffix to be Epoxy coated.

(2) For details and bending diagrams of additional reinforcing bars in concrete terminals, see Dwg. No. 67138 and Standard Dwg. No. 55015.

(3) For details of reinforcing bars in bridge curb, see Dwg. No. 67139.

(1) Placed as shown in 'TYPICAL ROADWAY SECTION', see Dwg. No. 67129.

(2) See 'TRANSVERSE SLAB JOINT DETAIL' on Std. Dwg. No. 55007.

(3) Placed as shown in 'SIDEWALK DETAIL', see Dwg. No. 67122.

BRIDGE TRAFFIC RAIL VARIABLES, SPANS 10 THRU 12

CLOSED RAIL PANELS			OPEN RAIL PANELS					
PANEL LENGTH	A	R4XXE	PANEL LENGTH	B	C	D	E	R4XXE
10'-0"	19	R405E	20'-0"	11	4'-2"	15	7'-8"	R406E
20'-0"	39	R406E	21'-3"	12	4'-6"	16	8'-3"	R407E
21'-3"	42	R407E						

SHEET 6 OF 8
DETAILS OF 370'-0"
CONTINUOUS PLATE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

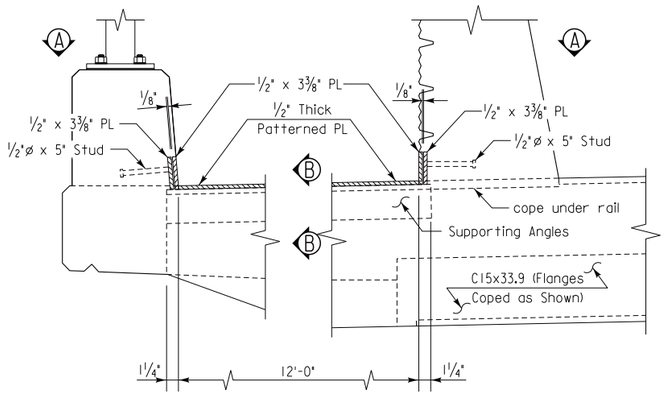
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A RICH
06/20/2025
BRIDGE ENGINEER

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s13.dgn
SCALE: ⅛" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67134

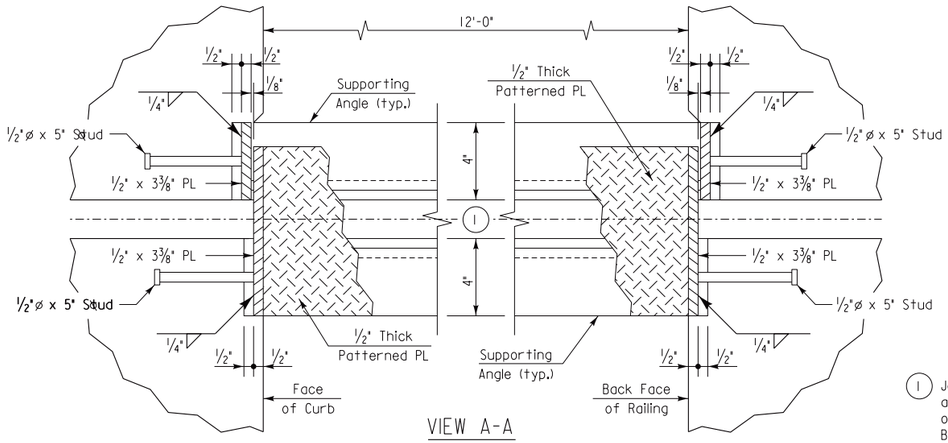
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	89	158
		07673 - 370' UNIT - 67135				



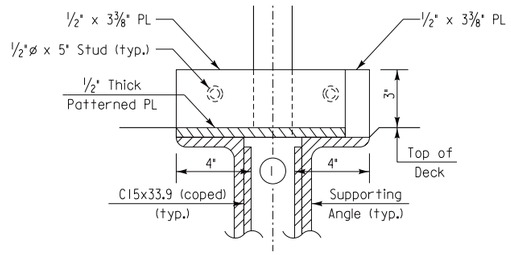
SHARED USE PATH COVER PLATE DETAIL

Shown for Bents 4 & 7, Bent 1 similar.
Scale: 1½" = 1'-0"



VIEW A-A

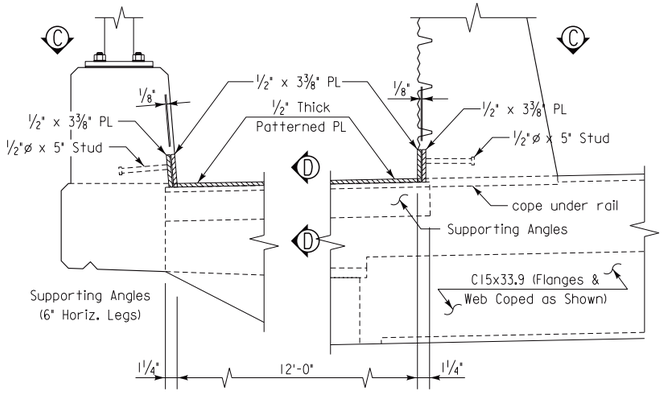
Shown for Bents 4 & 7, Bent 1 similar.
Scale: 3" = 1'-0"



VIEW B-B

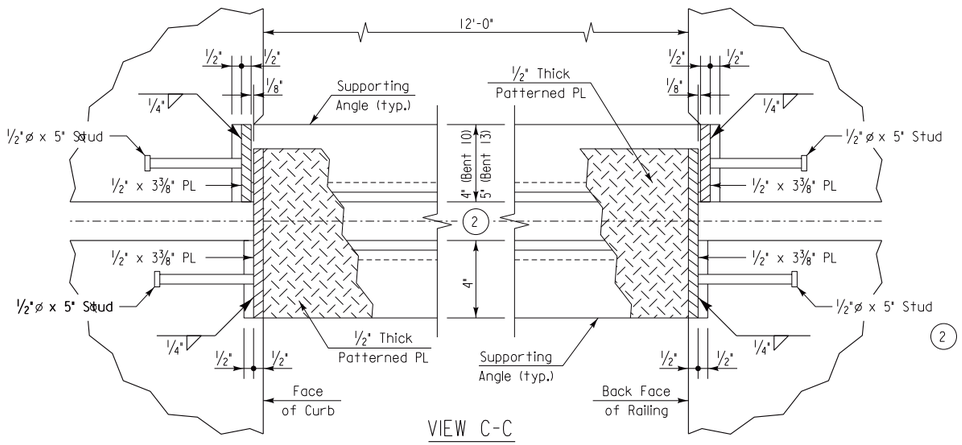
Scale: 3" = 1'-0"

(1) Joint Width varies. Joint width is 1½" at Bent 1 and 2" at Bents 4 & 7. Lengths of ½" Thick Patterned Plate is 8" at Bent 1 and 8½" at Bents 4 & 7. Details are shown for general intent and may vary slightly at each bent from what is shown.



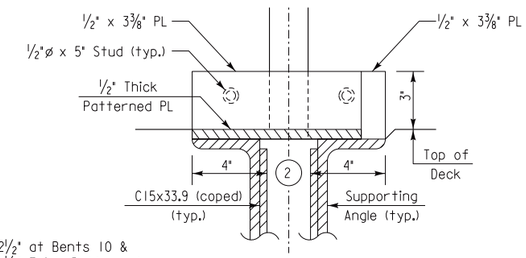
SHARED USE PATH COVER PLATE DETAIL

Shown for Bent 10, Bent 13 similar.
Scale: 1½" = 1'-0"



VIEW C-C

Shown for Bent 10, Bent 13 similar.
Scale: 3" = 1'-0"



VIEW D-D

Scale: 3" = 1'-0"

(2) Joint Width is 2½" at Bents 10 & 13. Lengths of ½" Thick Patterned Plate is 9" at Bent 10 and 9" at Bent 13. Details are shown for general intent and may vary slightly at each bent from what is shown.

Patterned Floor Plate Note:
Sidewalk and Shared Use Path patterned floor plates shall be ASTM A709, Gr. 50 and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)". The surfaces of the plates which will not be in contact with the concrete shall be cleaned and painted in accordance with Section 638, or as directed by the Engineer. Only one coat is required and shall be applied in the Fabricator's shop. Painting shall not be paid for directly but will be considered subsidiary to "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)". The color shall be Brown, Color Chip No. 33522.

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 7 OF 8
DETAILS OF 370'-0"
CONTINUOUS PLATE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s14.dgn
SCALE: 1½" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67135

PRINT DATE: 6/20/2025

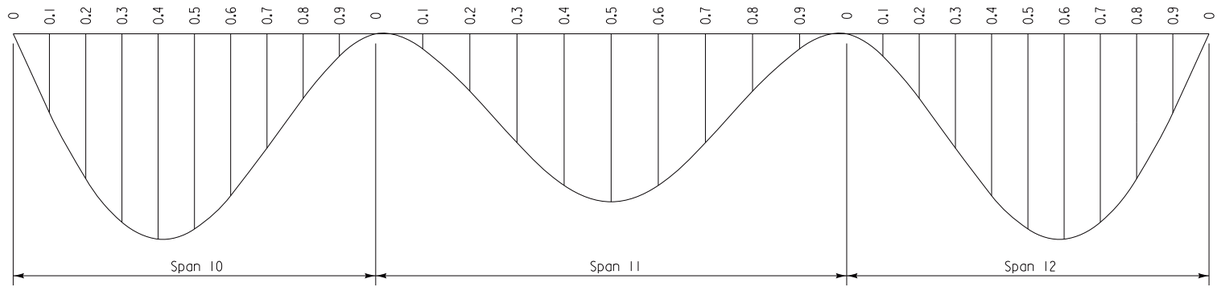
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	90	158
		07673 - 370' UNIT - 67136				

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

Span	Point of Deflection	Girder 1			Girder 2			Girder 3			Girder 4			Girder 5			Girder 6		
		Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Sidewalk + Rails	Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Sidewalk + Rails	Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Sidewalk + Rails	Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Sidewalk + Rails	Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Sidewalk + Rails	Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Sidewalk + Rails
Support	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.1	0.151	0.738	0.839	0.153	0.771	0.870	0.154	0.789	0.888	0.154	0.789	0.888	0.153	0.771	0.870	0.151	0.738	0.839
	0.2	0.279	1.355	1.541	0.282	1.413	1.596	0.284	1.444	1.625	0.284	1.444	1.625	0.282	1.413	1.596	0.279	1.355	1.541
	0.3	0.366	1.766	2.007	0.370	1.837	2.075	0.372	1.879	2.115	0.372	1.879	2.115	0.370	1.837	2.075	0.366	1.766	2.007
	0.4	0.402	1.923	2.186	0.407	2.002	2.262	0.409	2.046	2.304	0.409	2.046	2.304	0.407	2.002	2.262	0.402	1.923	2.186
	0.5	0.389	1.828	2.079	0.393	1.901	2.148	0.395	1.942	2.187	0.395	1.942	2.187	0.393	1.901	2.148	0.389	1.828	2.079
	0.6	0.330	1.518	1.726	0.333	1.578	1.783	0.335	1.612	1.815	0.335	1.612	1.815	0.333	1.578	1.783	0.330	1.518	1.726
	0.7	0.239	1.071	1.217	0.242	1.114	1.258	0.243	1.137	1.279	0.243	1.137	1.279	0.242	1.114	1.258	0.239	1.071	1.217
	0.8	0.140	0.604	0.684	0.142	0.628	0.707	0.142	0.642	0.721	0.142	0.642	0.721	0.142	0.628	0.707	0.140	0.604	0.684
	0.9	0.053	0.209	0.235	0.054	0.220	0.245	0.054	0.222	0.247	0.054	0.222	0.247	0.054	0.220	0.245	0.053	0.209	0.235
Support	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.1	0.012	0.131	0.160	0.013	0.142	0.170	0.013	0.145	0.173	0.013	0.145	0.173	0.013	0.142	0.170	0.012	0.131	0.160
	0.2	0.073	0.514	0.610	0.075	0.544	0.638	0.075	0.560	0.654	0.075	0.560	0.654	0.075	0.544	0.638	0.073	0.514	0.610
	0.3	0.151	0.986	1.160	0.154	1.041	1.212	0.156	1.071	1.240	0.156	1.071	1.240	0.154	1.041	1.212	0.151	0.986	1.160
	0.4	0.217	1.382	1.617	0.222	1.456	1.687	0.223	1.493	1.722	0.223	1.493	1.722	0.222	1.456	1.687	0.217	1.382	1.617
	0.5	0.243	1.535	1.793	0.246	1.611	1.865	0.249	1.655	1.906	0.249	1.655	1.906	0.246	1.611	1.865	0.243	1.535	1.793
	0.6	0.217	1.382	1.617	0.222	1.456	1.687	0.223	1.493	1.722	0.223	1.493	1.722	0.222	1.456	1.687	0.217	1.382	1.617
	0.7	0.151	0.986	1.160	0.154	1.041	1.212	0.156	1.071	1.240	0.156	1.071	1.240	0.154	1.041	1.212	0.151	0.986	1.160
	0.8	0.073	0.514	0.610	0.075	0.544	0.638	0.075	0.560	0.654	0.075	0.560	0.654	0.075	0.544	0.638	0.073	0.514	0.610
	0.9	0.012	0.131	0.160	0.013	0.142	0.170	0.013	0.145	0.173	0.013	0.145	0.173	0.013	0.142	0.170	0.012	0.131	0.160
Support	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.1	0.053	0.209	0.235	0.054	0.220	0.245	0.054	0.222	0.247	0.054	0.222	0.247	0.054	0.220	0.245	0.053	0.209	0.235
	0.2	0.140	0.604	0.684	0.142	0.628	0.707	0.142	0.642	0.721	0.142	0.642	0.721	0.142	0.628	0.707	0.140	0.604	0.684
	0.3	0.239	1.071	1.217	0.242	1.114	1.258	0.243	1.137	1.279	0.243	1.137	1.279	0.242	1.114	1.258	0.239	1.071	1.217
	0.4	0.330	1.518	1.726	0.333	1.578	1.783	0.335	1.612	1.815	0.335	1.612	1.815	0.333	1.578	1.783	0.330	1.518	1.726
	0.5	0.389	1.828	2.079	0.393	1.901	2.148	0.395	1.942	2.187	0.395	1.942	2.187	0.393	1.901	2.148	0.389	1.828	2.079
	0.6	0.402	1.923	2.186	0.407	2.002	2.262	0.409	2.046	2.304	0.409	2.046	2.304	0.407	2.002	2.262	0.402	1.923	2.186
	0.7	0.366	1.766	2.007	0.370	1.837	2.075	0.372	1.879	2.115	0.372	1.879	2.115	0.370	1.837	2.075	0.366	1.766	2.007
	0.8	0.279	1.355	1.541	0.282	1.413	1.596	0.284	1.444	1.625	0.284	1.444	1.625	0.282	1.413	1.596	0.279	1.355	1.541
	0.9	0.151	0.738	0.839	0.153	0.771	0.870	0.154	0.789	0.888	0.154	0.789	0.888	0.153	0.771	0.870	0.151	0.738	0.839
Support	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NOTE:

Camber for dead load deflection plus vertical curve $\pm 1/4$" tolerance.
Deflections shown are along C.L. Girder from the plane perpendicular to the web extending from C.L. Bearing to C.L. Bearing.
Negative sign (-) indicates point above plane.



DEAD LOAD DEFLECTION DIAGRAM

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH

06/20/2025
BRIDGE ENGINEER

SHEET 8 OF 8
DETAILS OF 370'-0"
CONTINUOUS PLATE GIRDER UNIT
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

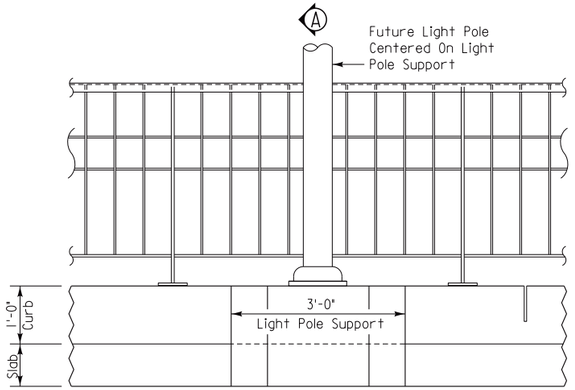
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s15.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: NONE
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67136

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	91	158
		07673 - COMMON DETAILS - 67137				

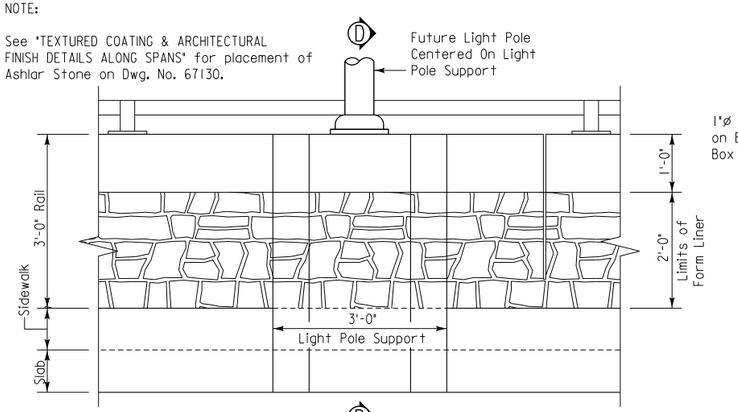


ELEVATION SHOWING CURB LIGHT POLE SUPPORT PEDESTAL

Looking At Outside Face of Shared Use Path
Scale: ¾" = 1'-0"

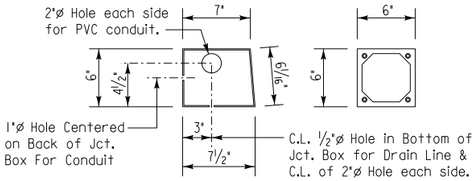
NOTE:

(3) See 'TEXTURED COATING & ARCHITECTURAL FINISH DETAILS ALONG SPANS' for placement of Ashlar Stone on Dwg. No. 67130.



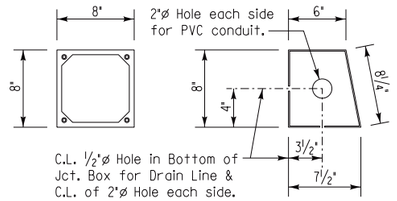
(3) ELEVATION SHOWING RAILING LIGHT POLE SUPPORT PEDESTAL

Looking At Outside Face of Traffic Rail at Sidewalk
Scale: ¾" = 1'-0"



JUNCTION BOX DETAILS (CURB)

Scale: 1½" = 1'-0"



JUNCTION BOX DETAILS (RAIL)

Scale: 1½" = 1'-0"

Junction Box material shall be ¼" A36 steel. Lid Material shall be ⅜" A36 steel. Fasteners shall be 5/16" x ¾" S.S. FH Socket Screws. Weld per ARDOT Std. Spec. Hot dip galvanize after fabrication per AASHTO M 111. Prefabricated Junction Boxes may be substituted by the Contractor if approved by the Engineer. The junction boxes shall be adequately anchored to the curb by means of an approved mechanical device. Junction Boxes shall not interfere with expansion joints.

Work completed and accepted for junction boxes shall be subsidiary to the bid item "Structural Steel in Plate Girder Spans (A709, Gr. 50W).

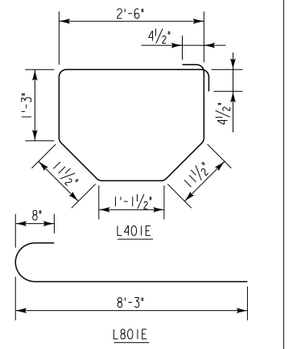
BAR LIST - PER POLE SUPPORT

MARK	NO. REQ'D.	LENGTH	P.D.
CURB LIGHT POLE SUPPORT			
L401E	3	8'-5½"	2"
L402E	9	1'-5"	Str.
L801E	5	9'-2"	6"
RAILING LIGHT POLE SUPPORT			
L401E	8	8'-5½"	2"
L403E	9	4'-1½"	Str.
L801E	5	9'-2"	6"

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

BENDING DIAGRAMS

Dimensions are out to out of bars.



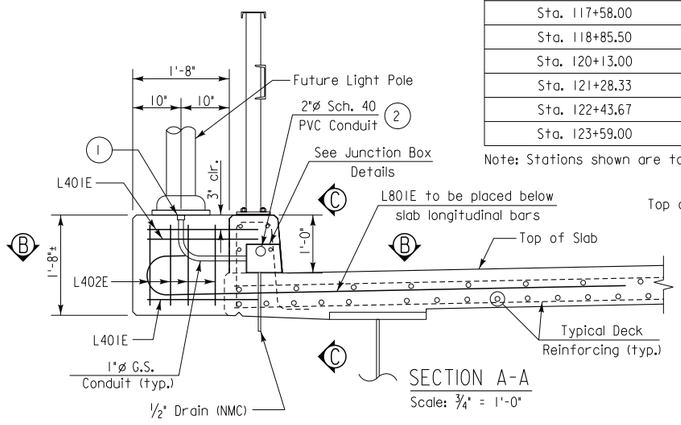
(1) Install Flush Coupling with Plug Ready for Future Extension into Future Light Pole Base

(2) For details of CONDUIT EXPANSION FITTING DEVICE (required at all deck expansion joints) and routing of PVC conduit at the bridge ends, see Dwg. Nos. 67110 & 67114.

LIGHT POLE SUPPORT LOCATIONS

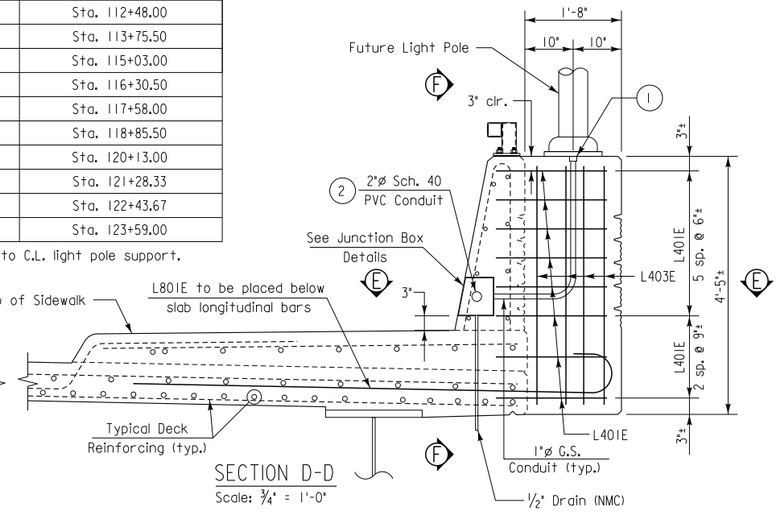
CURB LIGHT POLE SUPPORT (LEFT SIDE OF BRIDGE)	RAILING LIGHT POLE SUPPORT (RIGHT SIDE OF BRIDGE)
Sta. 112+48.00	Sta. 112+48.00
Sta. 113+75.50	Sta. 113+75.50
Sta. 115+03.00	Sta. 115+03.00
Sta. 116+30.50	Sta. 116+30.50
Sta. 117+58.00	Sta. 117+58.00
Sta. 118+85.50	Sta. 118+85.50
Sta. 120+13.00	Sta. 120+13.00
Sta. 121+28.33	Sta. 121+28.33
Sta. 122+43.67	Sta. 122+43.67
Sta. 123+59.00	Sta. 123+59.00

Note: Stations shown are to C.L. light pole support.



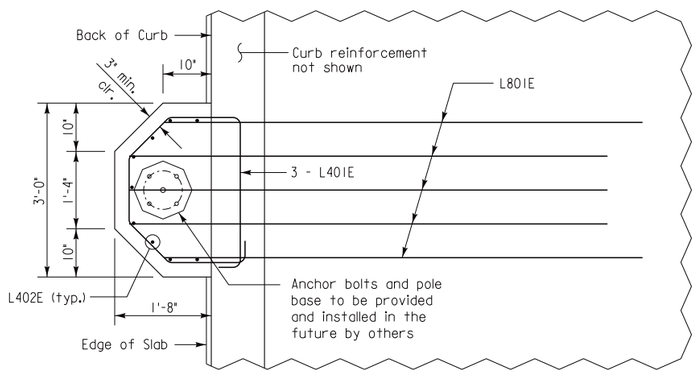
SECTION A-A

Scale: ¾" = 1'-0"



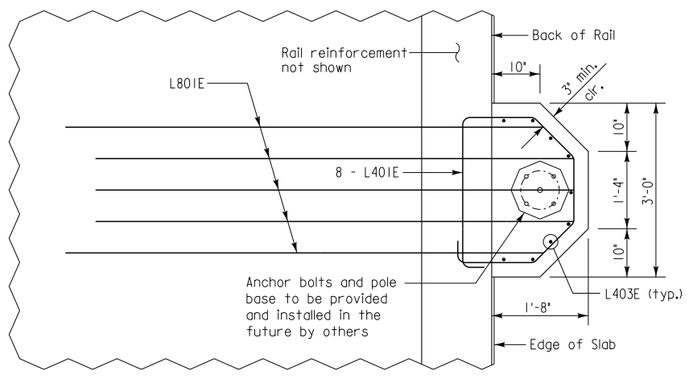
SECTION D-D

Scale: ¾" = 1'-0"



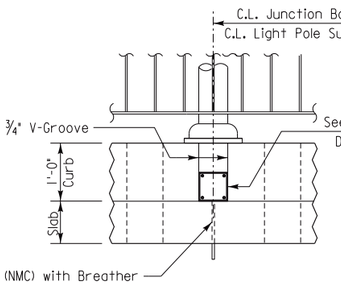
SECTION B-B

Scale: ¾" = 1'-0"



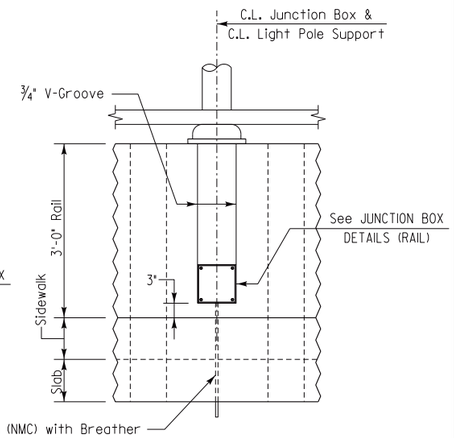
SECTION E-E

Scale: ¾" = 1'-0"



VIEW C-C

Scale: ¾" = 1'-0"



VIEW F-F

Scale: ¾" = 1'-0"

STATE OF ARKANSAS
Cynthia A. Rich
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 4
COMMON SUPERSTRUCTURE DETAILS
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

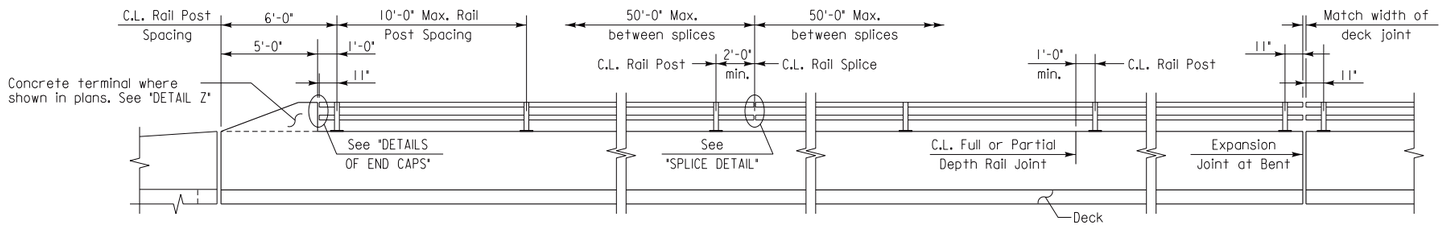
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_s16.dgn
SCALE: ¾" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67137

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	92	158
		07673 - COMMON DETAILS - 67138				



TYPE H3 RAIL - POST SPACING DETAIL

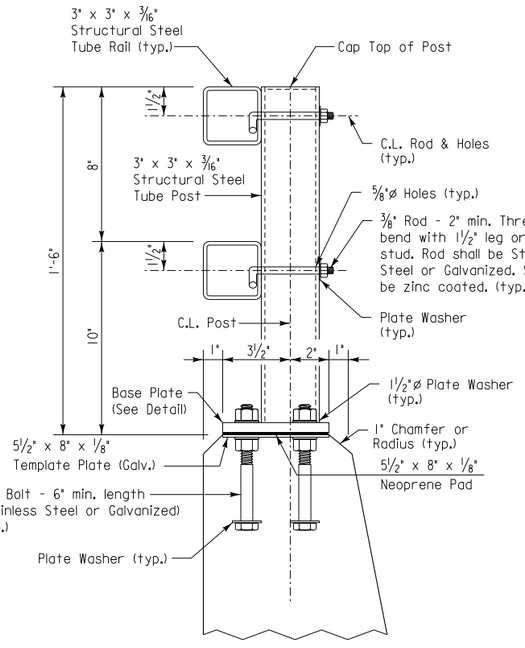
No Scale

NOTES:

For General Notes, see Std. Dwg. No. 55015.

Bridge railing, including posts, templates and base plates, fasteners, and neoprene pads shall be paid for at the contract unit price bid per linear foot for "Metal Bridge Railing (Type H3)". When required elsewhere in the plans, powdered coating finish and repair of powdered coating finish shall be considered subsidiary to the item "Metal Bridge Railing (Type H3)".

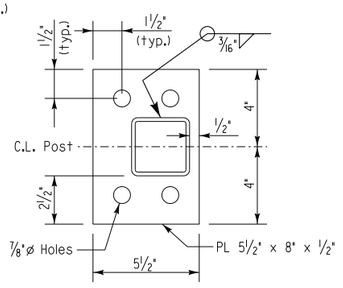
Shop drawings showing details of railing shall be submitted and approval secured prior to fabrication.



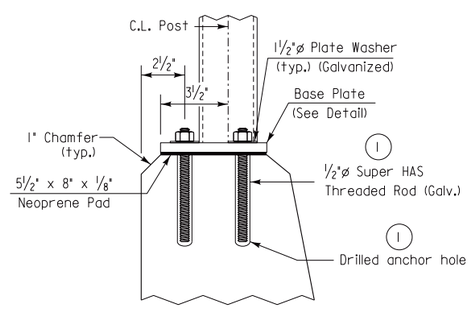
DETAILS OF POST ANCHOR SYSTEM FOR TYPE H3 RAIL

Cast-in-Place Bolts

3" = 1'-0"



BASE PLATE



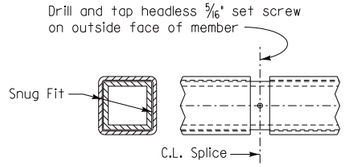
DETAILS OF ALTERNATE POST ANCHOR SYSTEM FOR TYPE H3 RAIL

Epoxy Adhesive Anchors

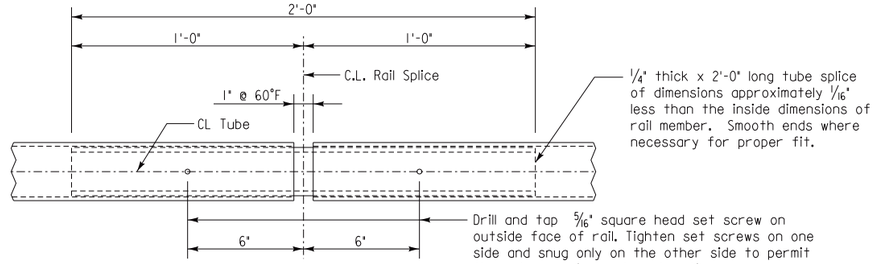
3" = 1'-0"

(1) Hilti HIT RE 500 V3 Epoxy Adhesive Anchor System with 4½" embedment or an approved equal.

The Hilti Epoxy Adhesive Anchor System (or approved equal) shall be installed in accordance with Manufacturer's recommendations.

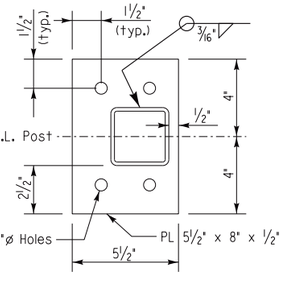


ALTERNATE INSTALLATION

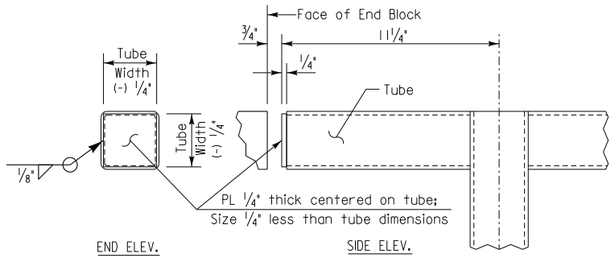


SPLICE DETAIL

3" = 1'-0"

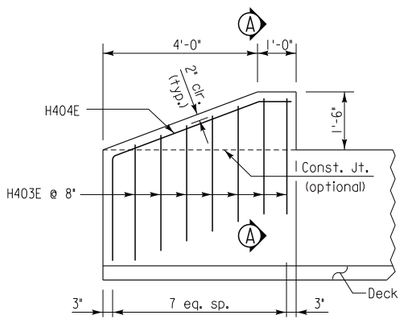


ALTERNATE BASE PLATE



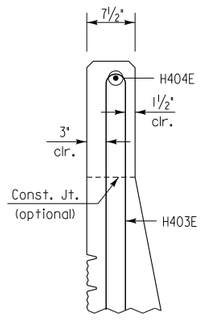
DETAILS OF END CAPS

3" = 1'-0"



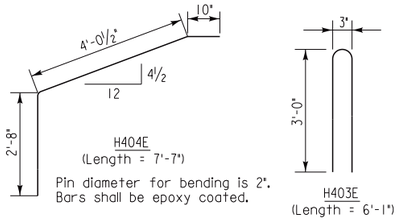
DETAIL Z

Scale: ½" = 1'-0"



SECTION A-A

Scale: 1" = 1'-0"



Pin diameter for bending is 2". Bars shall be epoxy coated.

BENDING DIAGRAMS

Dimensions are Out-to-Out of Bars

STATE OF ARKANSAS
Cynthia A. Rich
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 4

COMMON SUPERSTRUCTURE DETAILS

CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s17.dgn

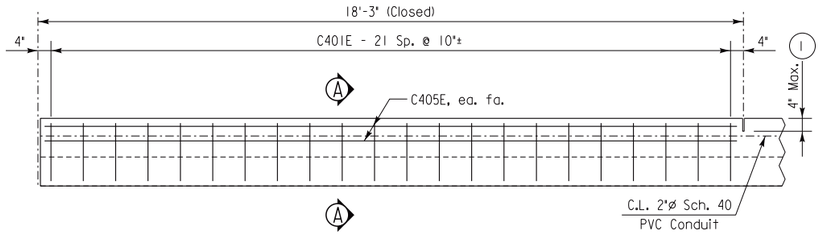
CHECKED BY: LAC DATE: JUN 2025 SCALE: ½" = 1'-0"

DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67138

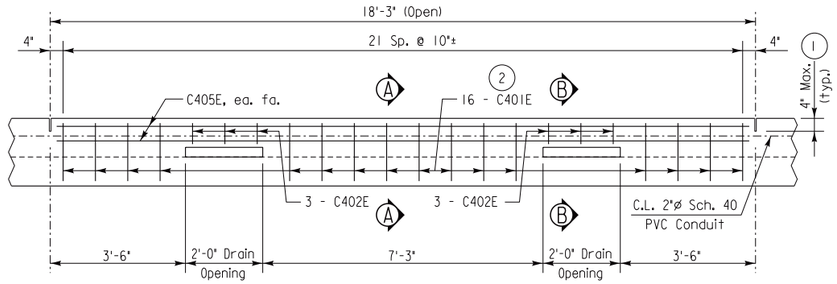
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	93	158
		07673 - COMMON DETAILS - 67139				



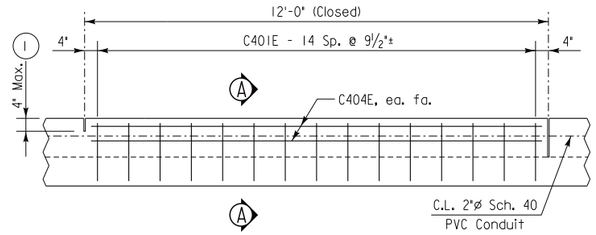
DETAILS OF TYPICAL 18'-3" (CLOSED) CURB SECTION

Scale: ½" = 1'-0"



DETAILS OF TYPICAL 18'-3" (OPEN) CURB SECTION

Scale: ½" = 1'-0"



DETAILS OF TYPICAL 12'-0" (CLOSED) CURB SECTION

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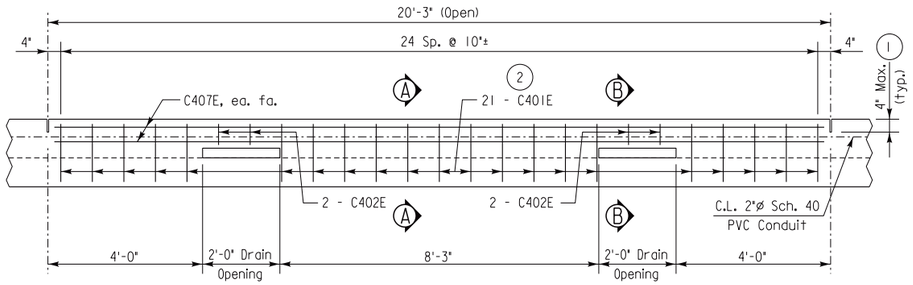
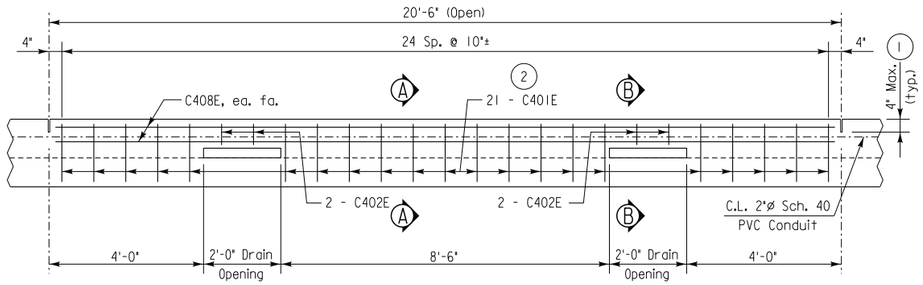


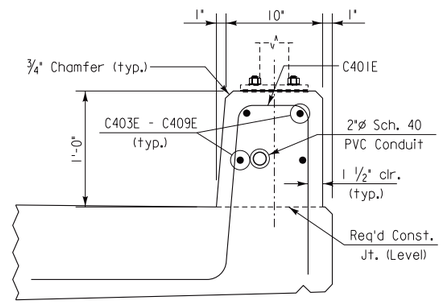
DETAILS OF TYPICAL 20'-3" (OPEN) CURB SECTION

Scale: ½" = 1'-0"



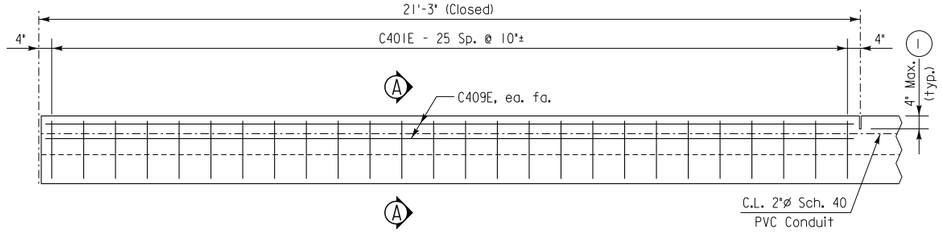
DETAILS OF TYPICAL 20'-6" (OPEN) CURB SECTION

Scale: ½" = 1'-0"



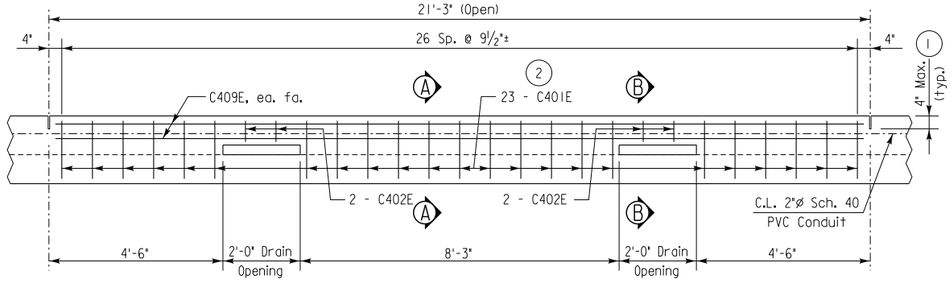
SECTION A-A

Scale: 1½" = 1'-0"



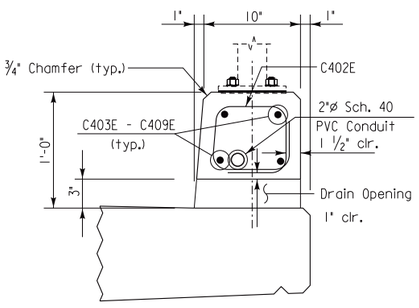
DETAILS OF TYPICAL 21'-3" (CLOSED) CURB SECTION

Scale: ½" = 1'-0"



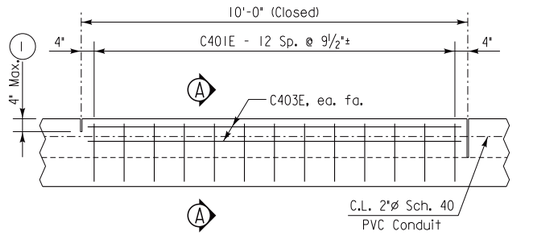
DETAILS OF TYPICAL 21'-3" (OPEN) CURB SECTION

Scale: ½" = 1'-0"



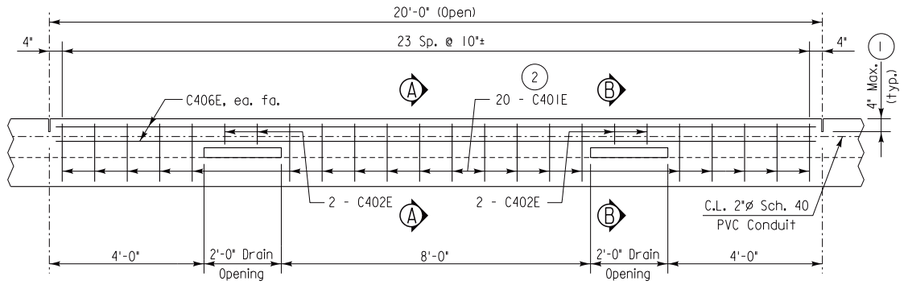
SECTION B-B

Scale: 1½" = 1'-0"



DETAILS OF TYPICAL 10'-0" (CLOSED) CURB SECTION

Scale: ½" = 1'-0"



DETAILS OF TYPICAL 20'-0" (OPEN) CURB SECTION

Scale: ½" = 1'-0"

(1) Contractor shall use extreme caution in avoiding contact and damage to the 2"ø PVC conduit if saw cutting is used to produce these joints.

(2) Shift Bar C401E adjacent to openings to provide 2" clr. to edge of opening.

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 4
COMMON SUPERSTRUCTURE DETAILS
CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

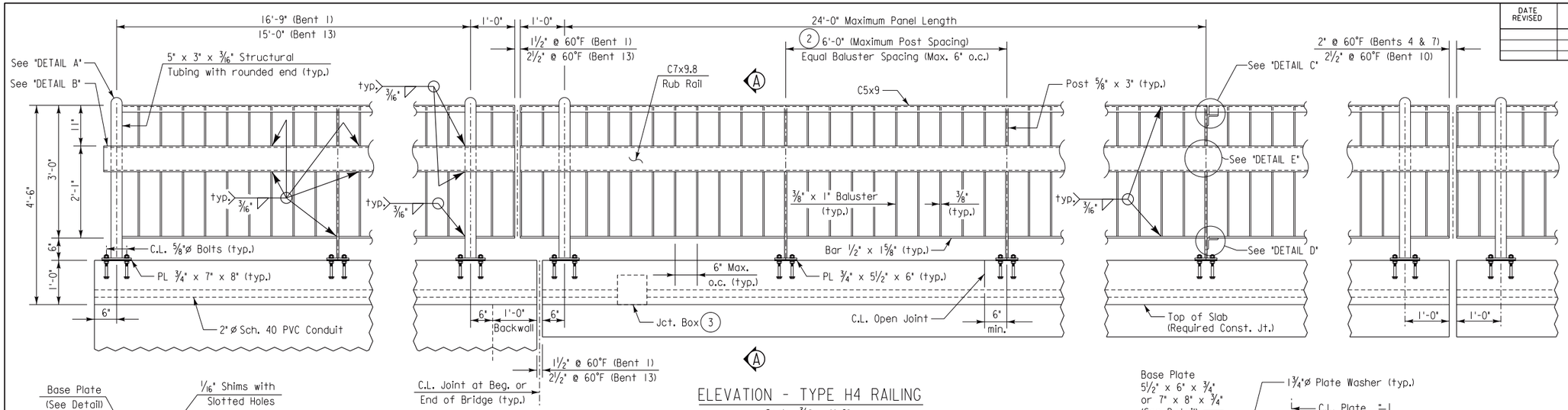
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_s18.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ½" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67139

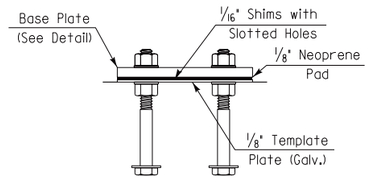
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	94	158
		07673 - COMMON DETAILS - 67140				



ELEVATION - TYPE H4 RAILING

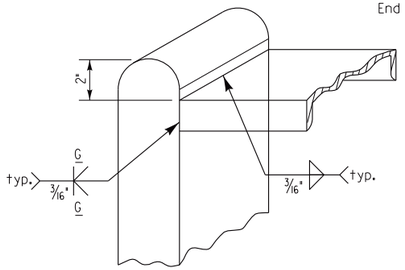
Scale: 3/4" = 1'-0"



The Contractor may place the 1/8" galvanized template plate on the finished surface and provide shim plates and neoprene pads for leveling in lieu of placing the template on nuts, leveling and finishing with grout.

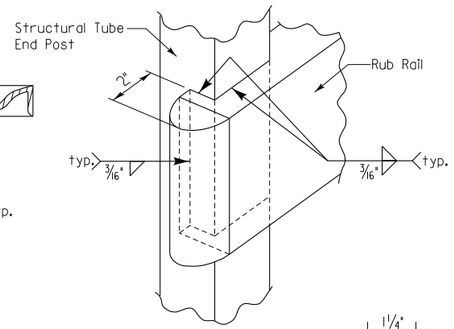
DETAILS OF ALTERNATE LEVELING SYSTEM

No Scale



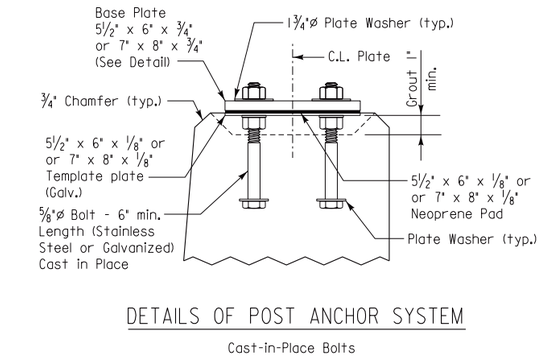
DETAIL A

No Scale



DETAIL B

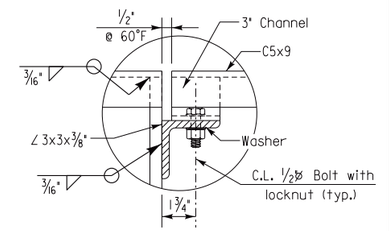
No Scale



DETAILS OF POST ANCHOR SYSTEM

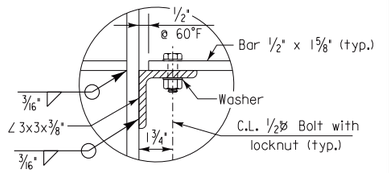
Cast-in-Place Bolts

No Scale



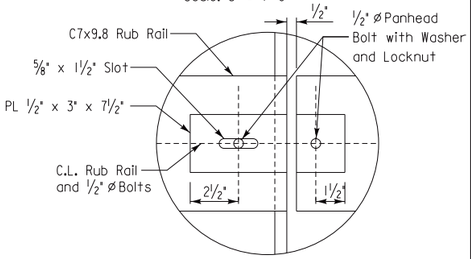
DETAIL C

Scale: 3" = 1'-0"



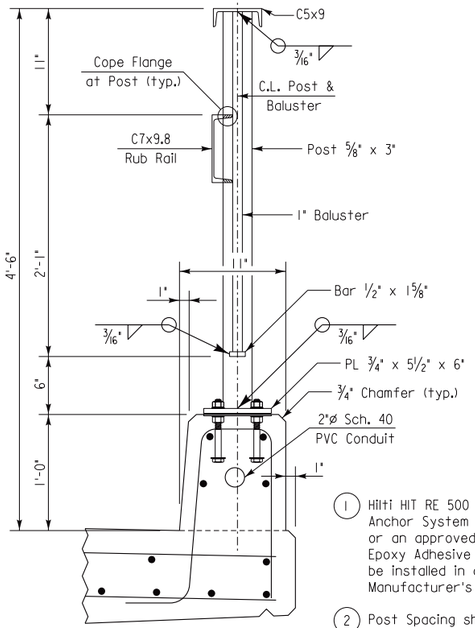
DETAIL D

Scale: 3" = 1'-0"



DETAIL E

Scale: 3" = 1'-0"



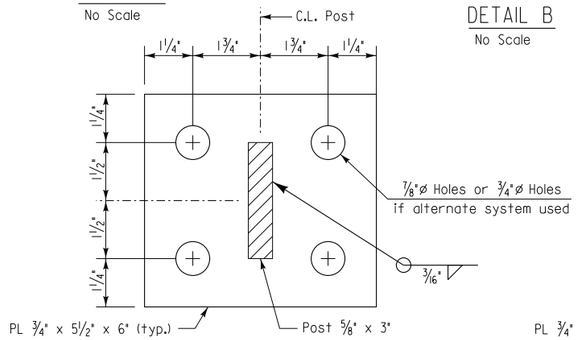
SECTION A-A

Scale: 1½" = 1'-0"

(1) Hilti HIT RE 500 V3 Epoxy Adhesive Anchor System with 4½" embedment or an approved equal. The Hilti Epoxy Adhesive Anchor System shall be installed in accordance with the Manufacturer's recommendations.

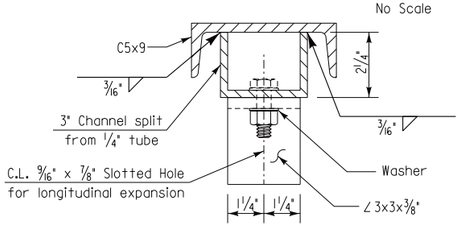
(2) Post Spacing shall be arranged to maintain a minimum of 2' from a junction box.

(3) See Roadway Plans and Dwg. No. 67137 for additional details.



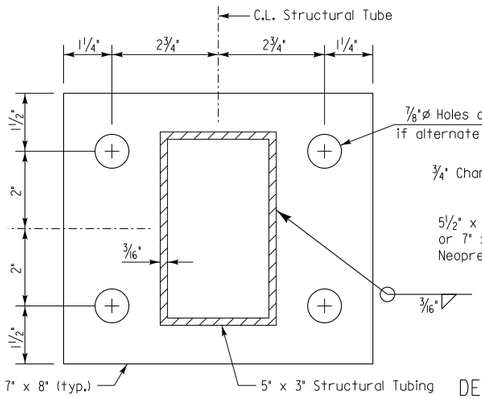
DETAILS OF TYPE H4 BASE PLATES

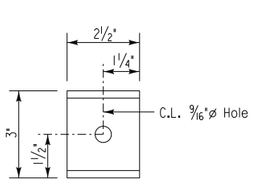
No Scale



PANEL CONNECTION DETAIL

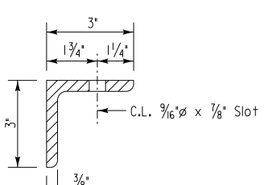
No Scale





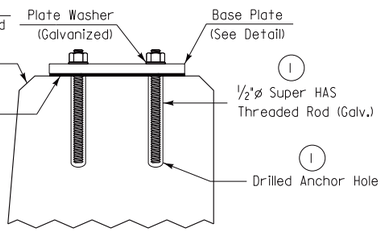
DETAILS OF 3" CHANNEL SPLIT FROM 1/4" TUBE

No Scale



ANGLE DETAIL

No Scale



DETAILS OF ALTERNATE POST ANCHOR SYSTEM

Epoxy Adhesive Anchors

No Scale

NOTES:

For General Notes, see Std. Dwg. No. 55015.

Bridge railing, including posts, templates and base plates, fasteners, and neoprene pads shall be paid for at the contract unit price bid per linear foot for "Metal Bridge Railing (Type H4)". When required elsewhere in the plans, powdered coating finish and repair of powdered coating finish shall be considered subsidiary to the item "Metal Bridge Railing (Type H4)".

Shop drawings showing details of railing shall be submitted and approval secured prior to fabrication.

For reinforcing details in curb, see "SECTION A-A" & "SECTION B-B" on Dwg. No. 67139.

For Wing Details, see Dwg. Nos. 67108, 67110, 67112, & 67114.

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 4 OF 4

COMMON SUPERSTRUCTURE DETAILS

CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

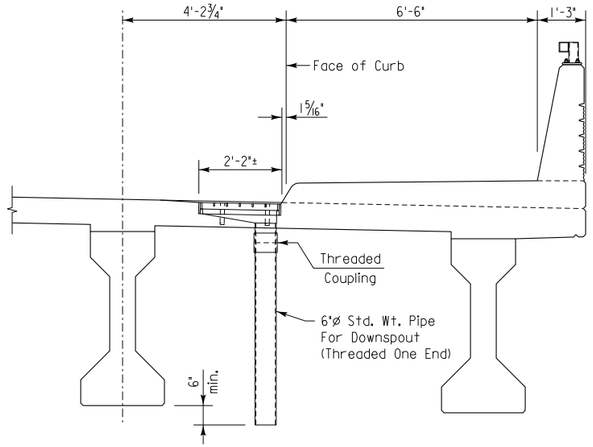
DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023

FILENAME: b070509_s19.dgn
SCALE: 3/4" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67140

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	95	158
		07673 - DECK DRAIN DETAILS - 67141				



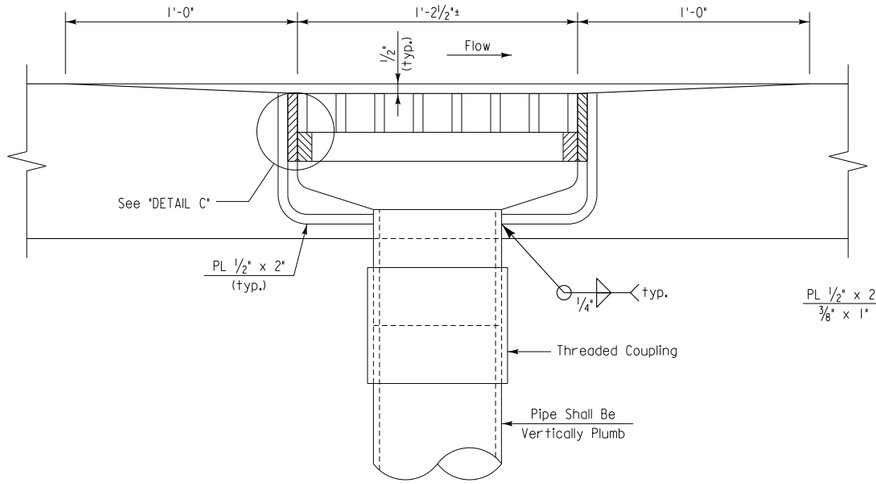
SECTION AT DECK DRAIN
Scale: ½" = 1'-0"

NOTE:
Details shown are for prestressed concrete girder spans. Details for plate girder spans are similar.

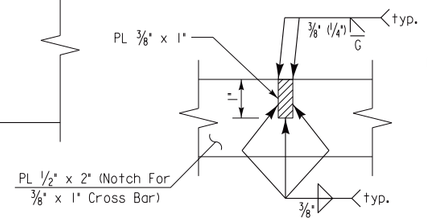
BAR LIST - PER DRAIN
(FOR INFORMATION ONLY)

Mark	No. Req'd.	Length
X401E	8	5'-6"
X402E	4	6'-9"
X501E	4	8'-1"
X601E	8	9'-10"

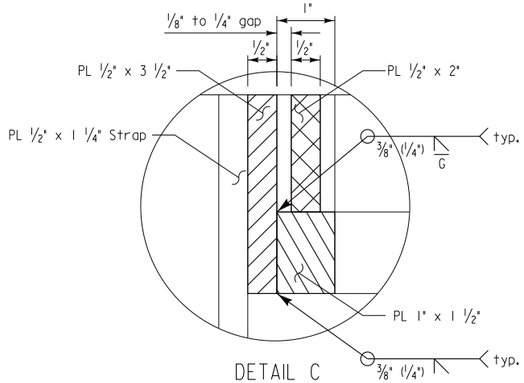
Bars designated with an 'E' suffix are to be epoxy coated.



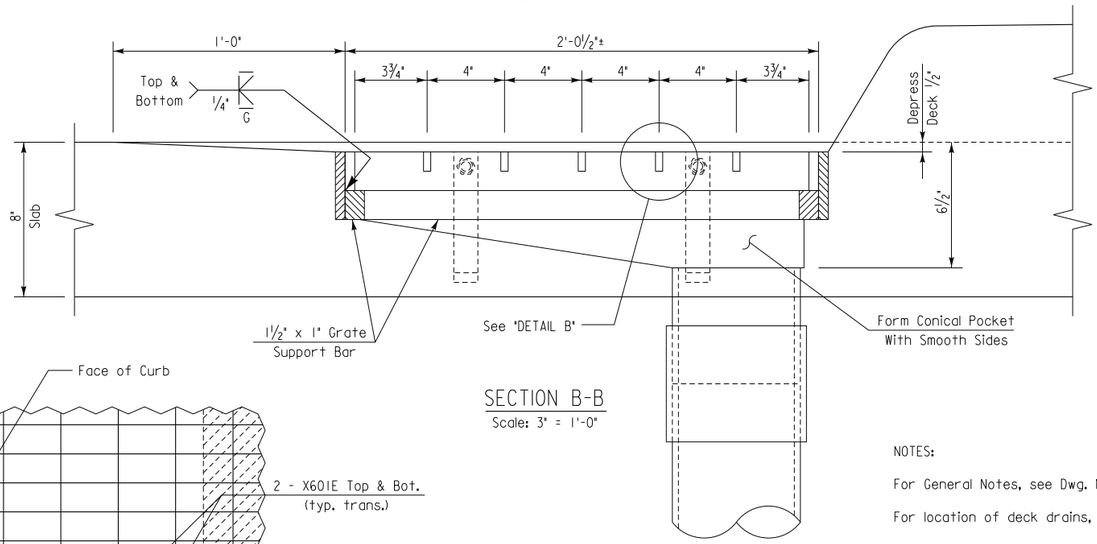
SECTION A-A
Scale: 3" = 1'-0"



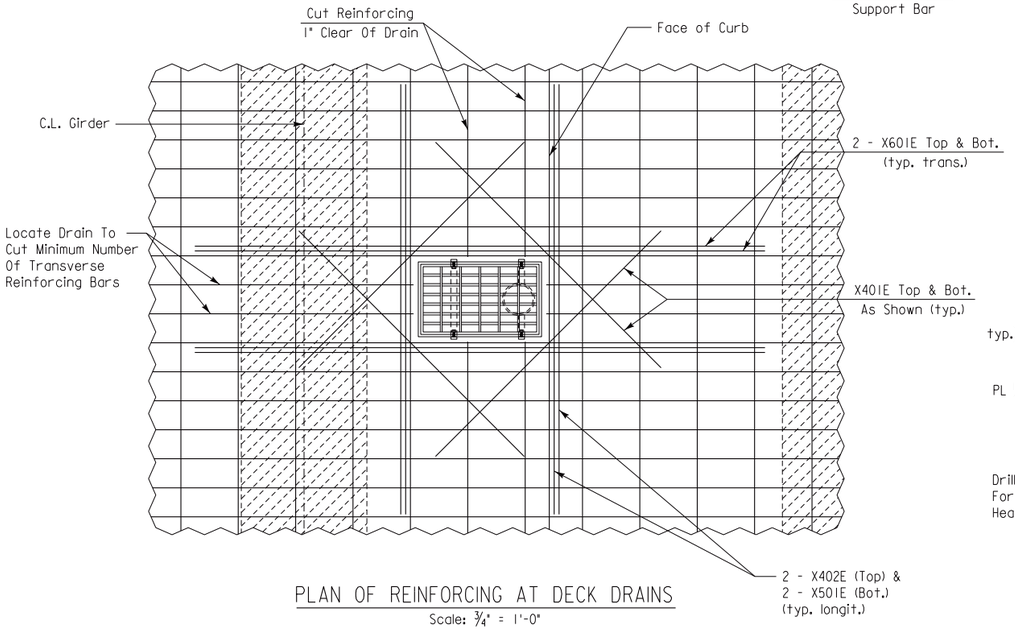
DETAIL B
Scale: 6" = 1'-0"



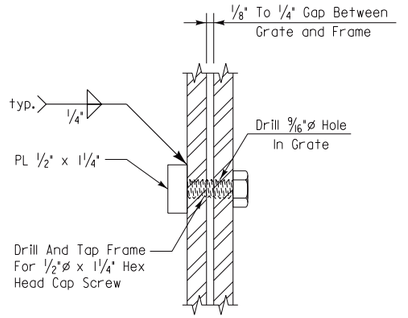
DETAIL C
Scale: 6" = 1'-0"



SECTION B-B
Scale: 3" = 1'-0"



PLAN OF REINFORCING AT DECK DRAINS
Scale: ¾" = 1'-0"



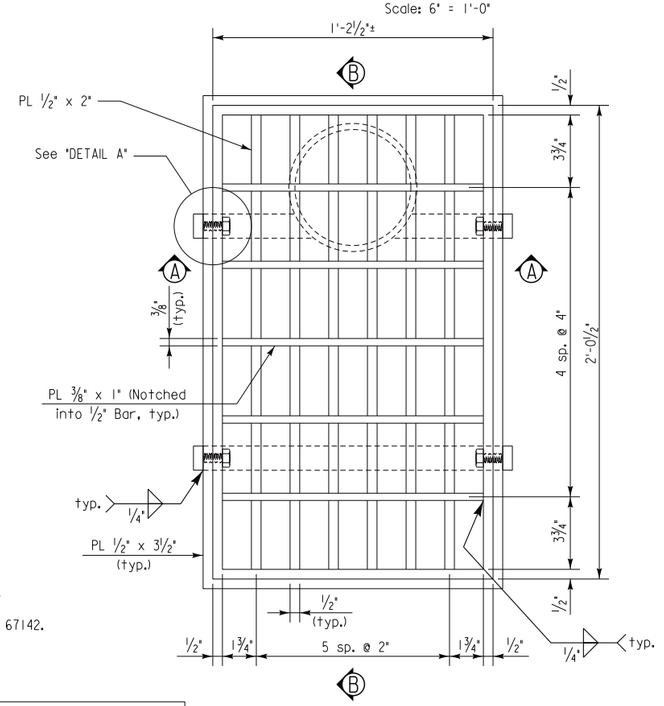
DETAIL A
Scale: 6" = 1'-0"

NOTES:

For General Notes, see Dwg. No. 67142.

For location of deck drains, see Dwg. 67142.

A Pre-Manufactured Grate or Grate and Frame may be submitted for approval of the Engineer in place of the steel fabrication shown in the Plans. Grate shall have an AASHTO-AGC-ARTBA Type 5 or 6 Configuration and shall be designed for a 16,000 lb. wheel load.



PLAN
Scale: 3" = 1'-0"

STATE OF ARKANSAS
Cynthia A. Rich
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

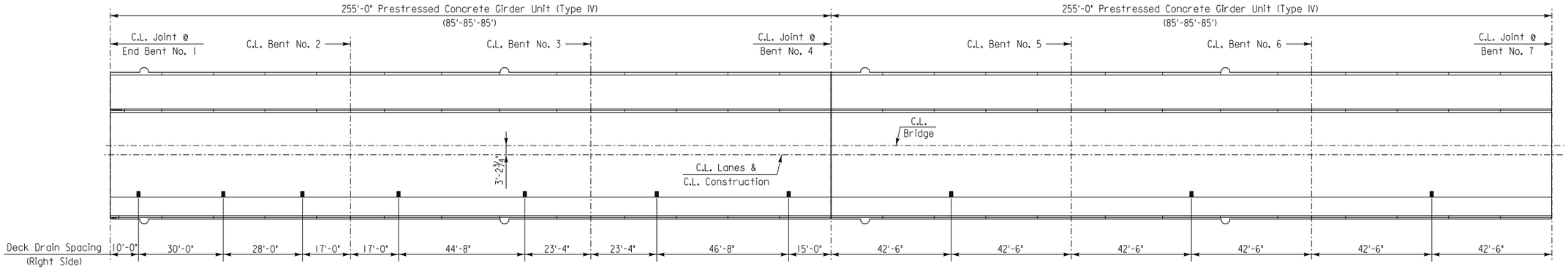
SHEET 1 OF 2
DETAILS OF DECK DRAINS
CADDO RIVER
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_d1.dgn
SCALE: ½" = 1'-0"

BRIDGE NO. 07673 DRAWING NO. 67141

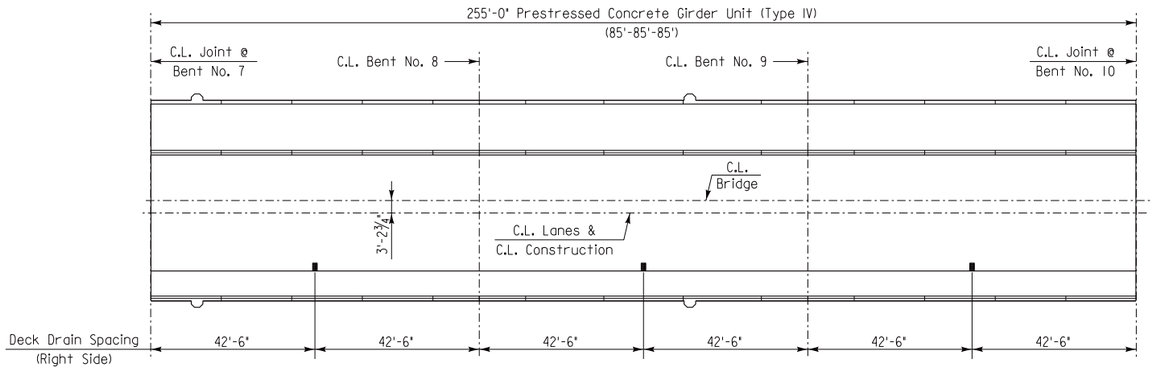
PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	96	158
		07673 - DECK DRAIN DETAILS - 67142				



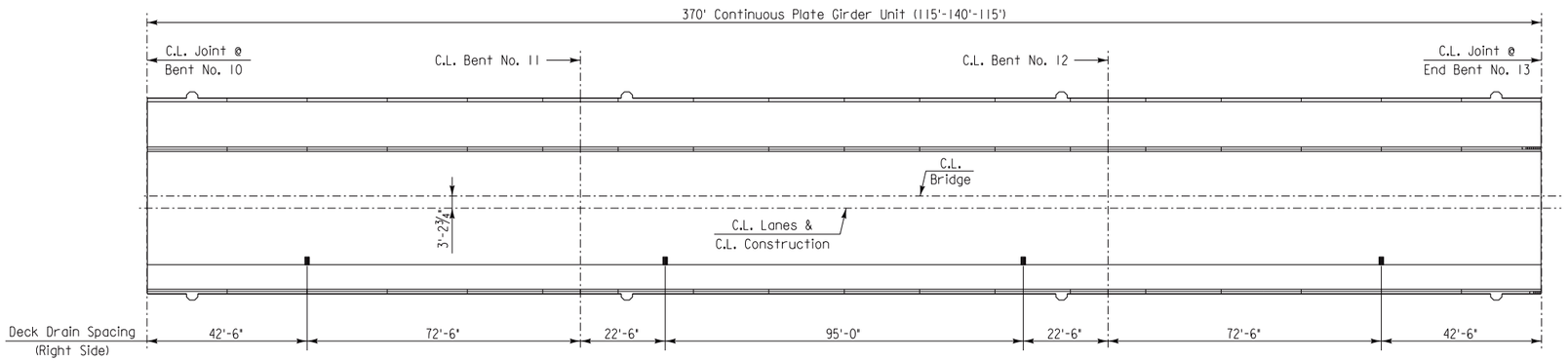
DECK DRAIN PLACEMENT PLAN - UNIT NOS. 1 & 2

1" = 20'-0"



DECK DRAIN PLACEMENT PLAN - UNIT NO. 3

1" = 20'-0"



DECK DRAIN PLACEMENT PLAN - UNIT NO. 4

1" = 20'-0"

GENERAL NOTES:

For location of deck drains, see this sheet and Dwg. Nos. 67124, 67125, 67133 & 67134.

Drain location may be adjusted to clear diaphragm connections.

Standard weight pipe for deck drains shall conform to ASTM A500 OR A501. All other structural steel shall be ASTM A709, Gr. 36. After fabrication, all structural steel drains shall be galvanized in accordance with AASHTO M 111.

Steel fasteners shall be galvanized in accordance with AASHTO M232, Class C or ASTM B695, Class 50.

Structural steel in deck drains shall not be paid for directly, but shall be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

Top longitudinal reinforcing steel in the slab shall be cut as shown to install the deck drains. Two additional No. 4 x 6'-9" straight bars shall be placed longitudinally on each side of the drain in the top mat. Two additional No. 5 x 8'-1" straight bars shall be placed longitudinally on each side of the drain in the bottom mat.

Top and bottom transverse reinforcing steel in the slab shall be cut as required (up to maximum of three bars per mat) to install deck drains. Two additional No. 6 x 9'-10" straight bars shall be transversely per mat on each side of the drain.

One additional No. 4 x 5'-6" straight bar shall be placed at a 45° angle to each corner in both top and bottom mats.

Repair all cut or damaged epoxy bars in accordance with the Standard Specifications.

All additional reinforcing steel placed around deck drains shall be epoxy coated and shall be paid for at the unit price bid for "EPOXY COATED REINFORCING STEEL (GRADE 60)."

STATE OF ARKANSAS
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06/20/2025
BRIDGE ENGINEER

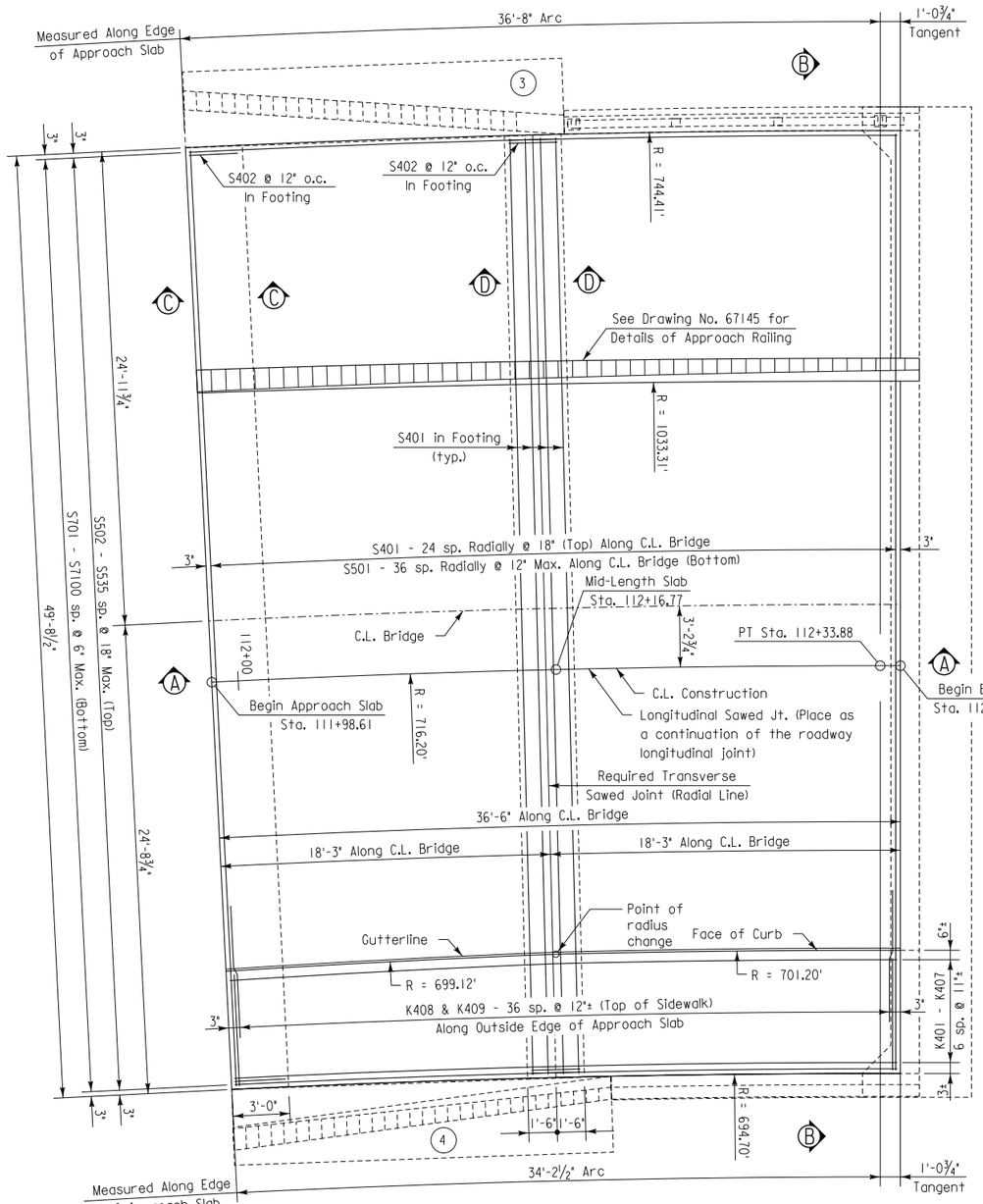
SHEET 2 OF 2
DETAILS OF DECK DRAINS
CADDO RIVER
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_d2.dgn
SCALE: 1" = 20'-0"

BRIDGE NO. 07673 DRAWING NO. 67142

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	97	158
		07673 - APPROACH SLAB - 67143				



PLAN - TYPE SPECIAL APPROACH SLAB

At Beginning of Bridge

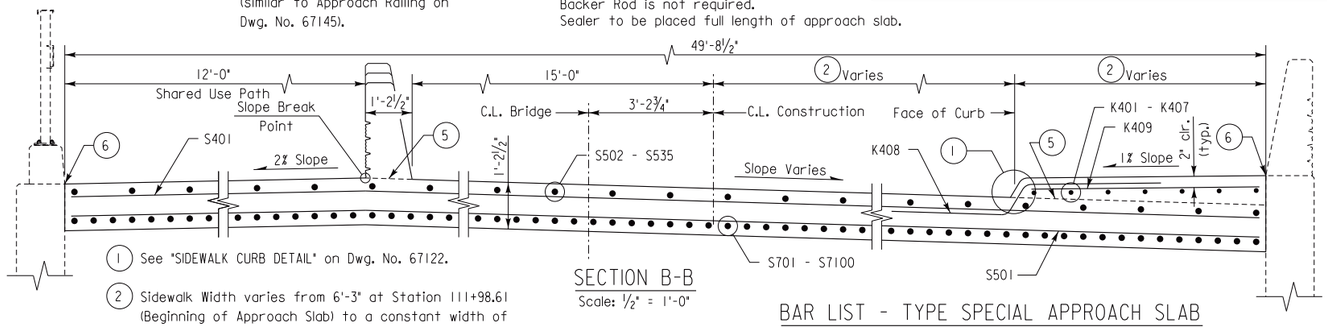
Scale: 1/4" = 1'-0"

(3) See Transitional Approach Railing Details on Dwg. No. 67146.

(4) See Transitional Approach Railing Details on Standard Dwg. No. 55013a. Modify for architectural treatment (similar to Approach Railing on Dwg. No. 67145).

(5) Req'd Const. Jt. (Match Rdwy. Slope)

(6) ½" x 1" Poured Joint Sealer (Type 3 or 4) per Subsection 501.02(h)(2). Backer Rod is not required. Sealer to be placed full length of approach slab.

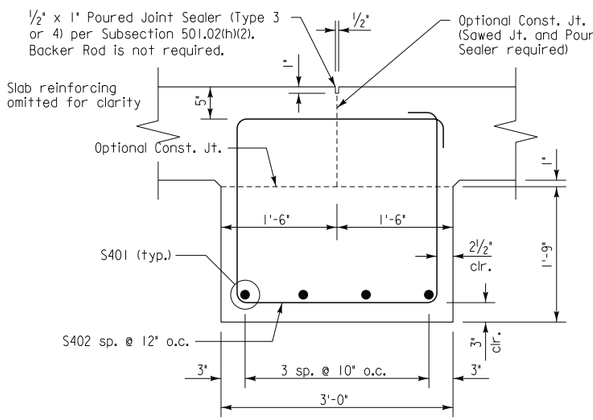


(1) See "SIDEWALK CURB DETAIL" on Dwg. No. 67122.

(2) Sidewalk Width varies from 6'-3" at Station 111+98.61 (Beginning of Approach Slab) to a constant width of 6'-6" at approximate Station 112+16.41 and beyond. Gutter to C.L. Construction varies due to variation in gutterline radius.

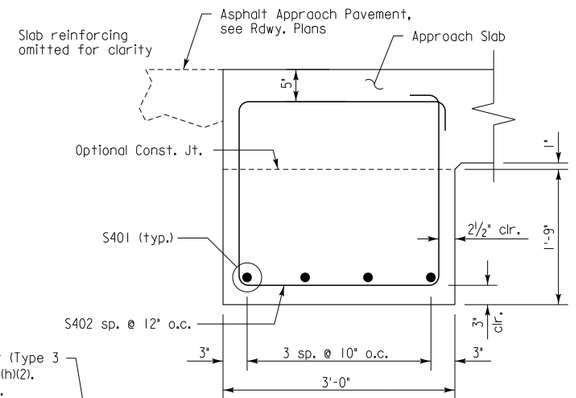
SECTION B-B

Scale: ½" = 1'-0"



SECTION D-D

Scale: 1" = 1'-0"



SECTION C-C

Scale: 1" = 1'-0"

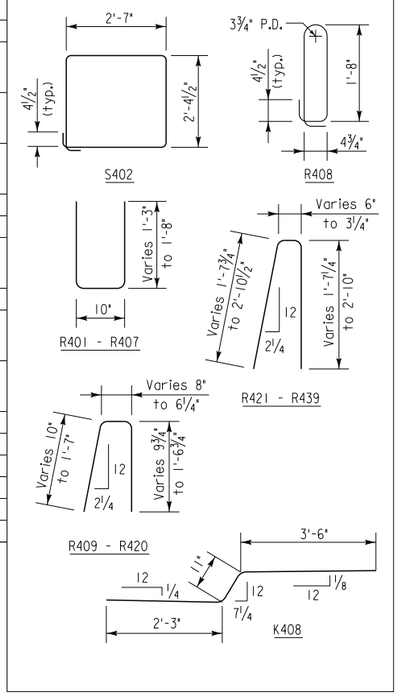
BAR LIST - TYPE SPECIAL APPROACH SLAB

At Beginning of Bridge

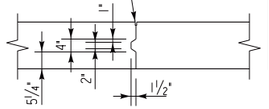
MARK	NO. REQ'D.	LENGTH	P.D.
S401	33	49'-4½"	Str.
S402	102	10'-3"	2"
S501	37	49'-4½"	Str.
S502 To S535	1 ea.	37'-4½" To 34'-11½"	Str.
S701 To S7100	1 ea.	37'-4½" To 34'-11½"	Str.
K401 To K407	1 ea.	35'-3" To 34'-11½"	Str.
K408	37	6'-7"	2"
K409	37	5'-11"	Str.
R401 To R407	1 ea.	3'-2" To 4'-0"	2"
R408	31	4'-4½"	2", 3¾"
R409 To R420	1 ea.	2'-2" To 3'-6"	2"
R421 To R439	1 ea.	3'-7" To 5'-10"	2"
R440	2	19'-3"	Str.
R441	2	16'-3"	Str.
R442	2	16'-3"	Str.
R443	2	19-2	Str.
R444	2	8'-9	Str.
R445	2	37'-9	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.



½" x 1" Poured Jt. Sealer (Type 3 or 4) per Subsection 501.02(h)(2). Backer rod is not required.

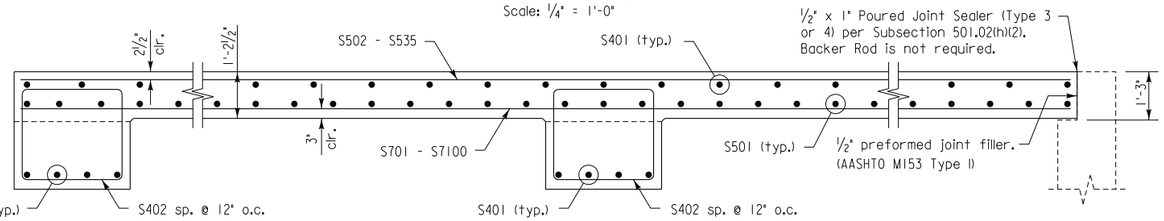


DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

Scale: ½" = 1'-0"

NOTES:

For General Notes, see Dwg. No. 67146.



SECTION A-A

Scale: ½" = 1'-0"

QUANTITIES (FOR INFORMATION ONLY)		
TYPE	Class S(AE) Concrete	Reinforcing Steel (Gr. 60)
Begin Bridge	109.36 Cu. Yds.	13,190 Lbs.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF TYPE SPECIAL APPROACH SLABS CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_as1.dgn

CHECKED BY: LAC DATE: JUN 2025 SCALE: 1/4" = 1'-0"

DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67143

PRINT DATE: 6/20/2025

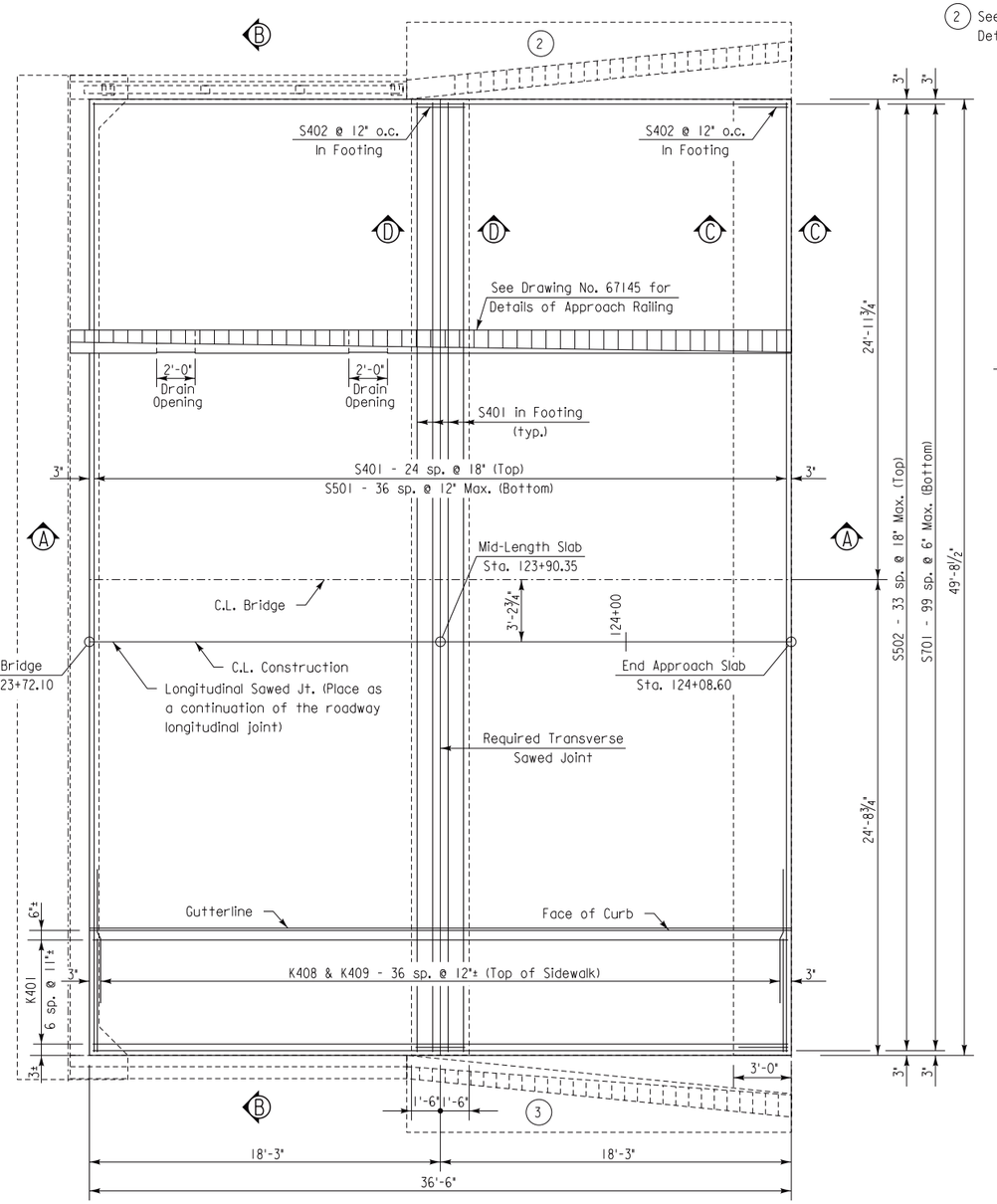
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	98	158
		07673 - APPROACH SLAB - 67144				

(2) See Transitional Approach Railing Details on Dwg. No. 67146.

(3) See Transitional Approach Railing Details on Standard Dwg. No. 55013a. Modify for architectural treatment (similar to Approach Railing on Dwg. No. 67145).

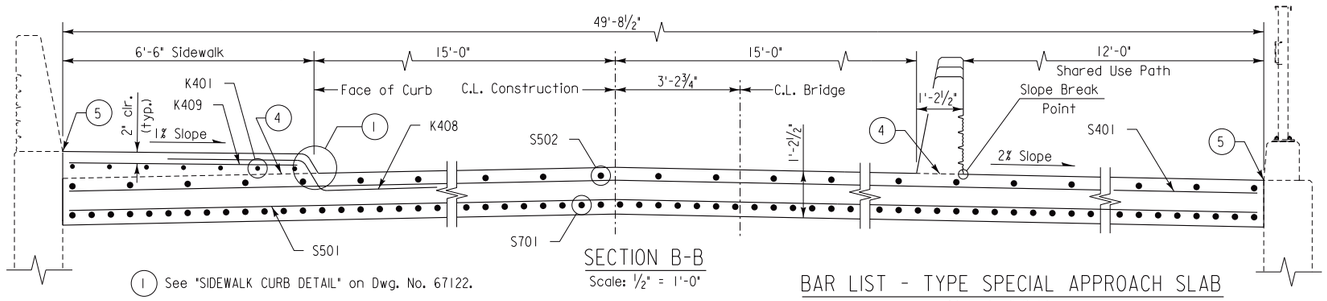
(4) Req'd Const. Jt. (Match Rdwy. Slope)

(5) ½" x 1" Poured Joint Sealer (Type 3 or 4) per Subsection 501.02(h)(2). Backer Rod is not required. Sealer to be placed full length of approach slab.



PLAN - TYPE SPECIAL APPROACH SLAB

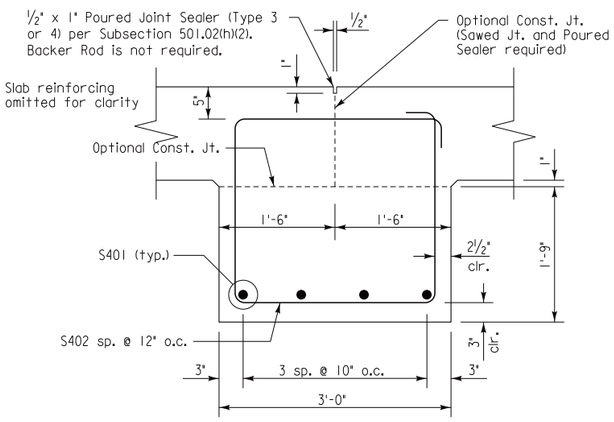
At End of Bridge
Scale: ¼" = 1'-0"



(1) See "SIDEWALK CURB DETAIL" on Dwg. No. 67122.

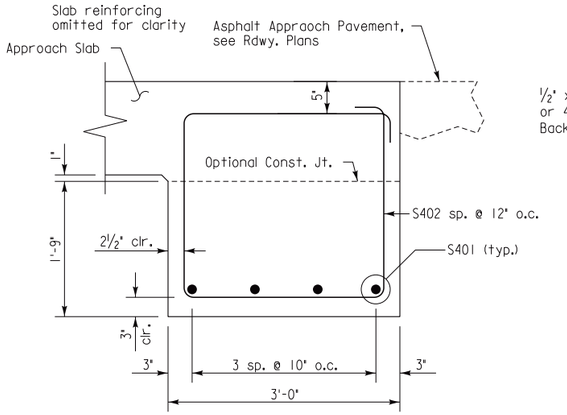
SECTION B-B

Scale: ½" = 1'-0"



SECTION D-D

Scale: 1" = 1'-0"



SECTION C-C

Scale: 1" = 1'-0"

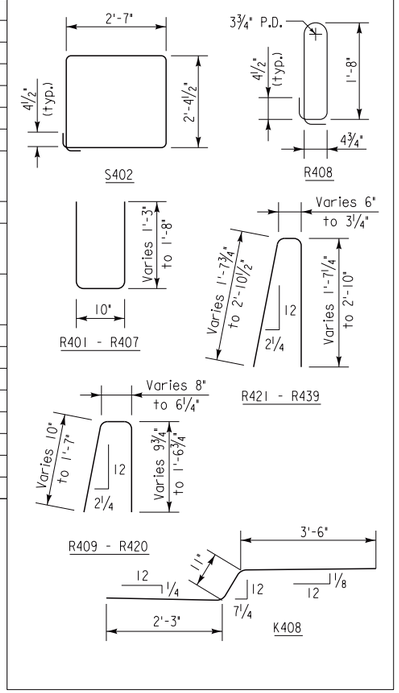
BAR LIST - TYPE SPECIAL APPROACH SLAB

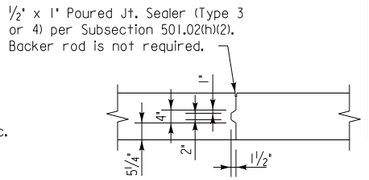
At End of Bridge

MARK	NO. REQ'D.	LENGTH	P.D.
S401	33	49'-4½"	Str.
S402	102	10'-3"	2"
S501	37	49'-4½"	Str.
S502	34	36'-2"	Str.
S701	100	36'-2"	Str.
K401	7	36'-2"	Str.
K408	37	6'-7"	2"
K409	37	5'-11"	Str.
R401 To R407	1 ea.	3'-2" To 4'-0"	2"
R408	27	4'-4½"	2"
R409 To R420	1 ea.	2'-2" To 3'-6"	2"
R421 To R439	1 ea.	3'-7" To 5'-10"	2"
R440	2	18'-11½"	Str.
R441	2	16'-0"	Str.
R442	2	16'-1"	Str.
R443	2	18'-11"	Str.
R444	2	8'-8"	Str.
R445	2	4'-2"	Str.
R446	2	7'-8"	Str.
R447	2	20'-7½"	Str.

BENDING DIAGRAMS

Dimensions are out to out of bars.

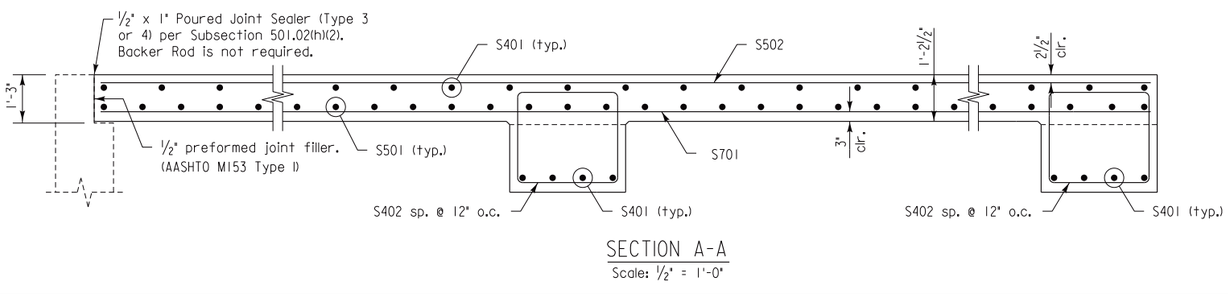




DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

Scale: ½" = 1'-0"

NOTES:
For General Notes, see Dwg. No. 67146.



SECTION A-A

Scale: ½" = 1'-0"

QUANTITIES (FOR INFORMATION ONLY)		
TYPE	Class S(AE) Concrete	Reinforcing Steel (Gr. 60)
End Bridge	109.19 Cu. Yds.	13,219 Lbs.

STATE OF ARKANSAS
CYNTHIA A. RICH
LICENSED PROFESSIONAL ENGINEER
No. 19278
06/20/2025
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF TYPE SPECIAL APPROACH SLABS CADDO RIVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023
CHECKED BY: LAC DATE: JUN 2025
DESIGNED BY: KJK DATE: OCT 2023
FILENAME: b070509_as2.dgn
SCALE: ¼" = 1'-0"

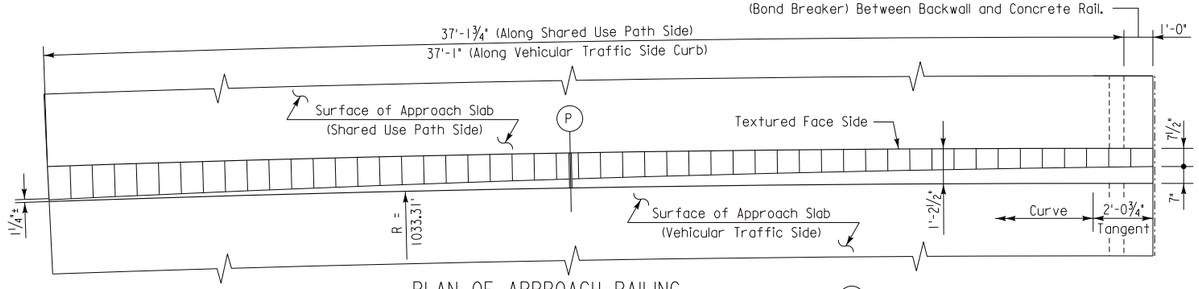
BRIDGE NO. 07673 DRAWING NO. 67144

PRINT DATE: 6/20/2025

NOTES:
For General Notes, see Dwg. No. 67146.

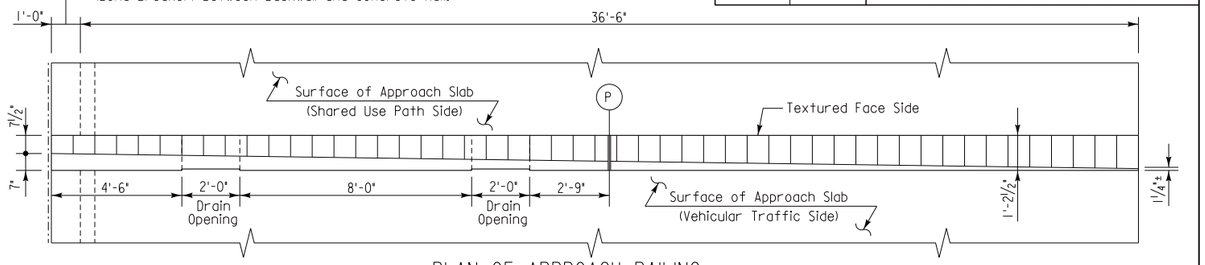
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	99	158
		07673 - APPROACH SLAB - 67145				

Extension of Concrete Rail from Approach Slab over End Bent 1 Backwall. Provide 3 Layers of Roofing Felt Material (Bond Breaker) Between Backwall and Concrete Rail.



PLAN OF APPROACH RAILING
At End Bent 1
Scale: ⅜" = 1'-0"

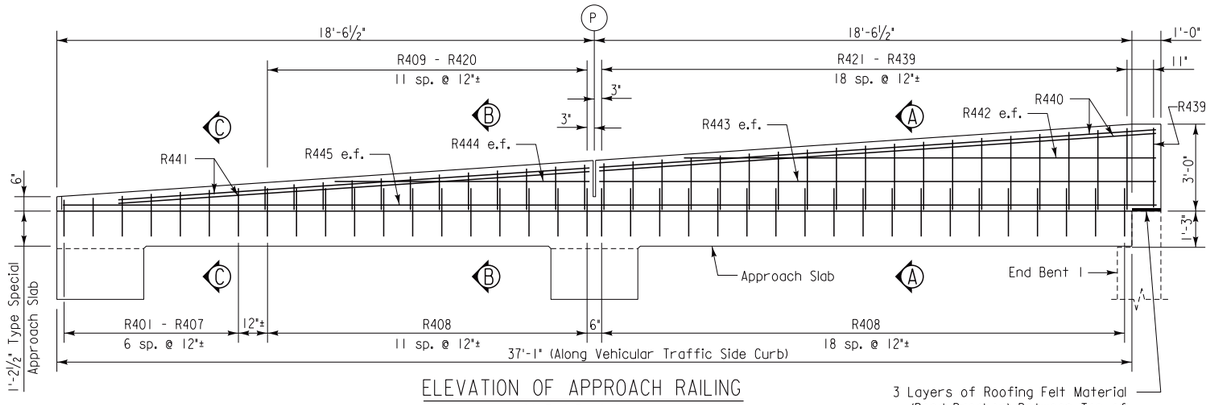
Extension of Concrete Rail from Approach Slab over End Bent 13 Backwall. Provide 3 Layers of Roofing Felt Material (Bond Breaker) Between Backwall and Concrete Rail.



PLAN OF APPROACH RAILING
At End Bent 13
Scale: ⅜" = 1'-0"

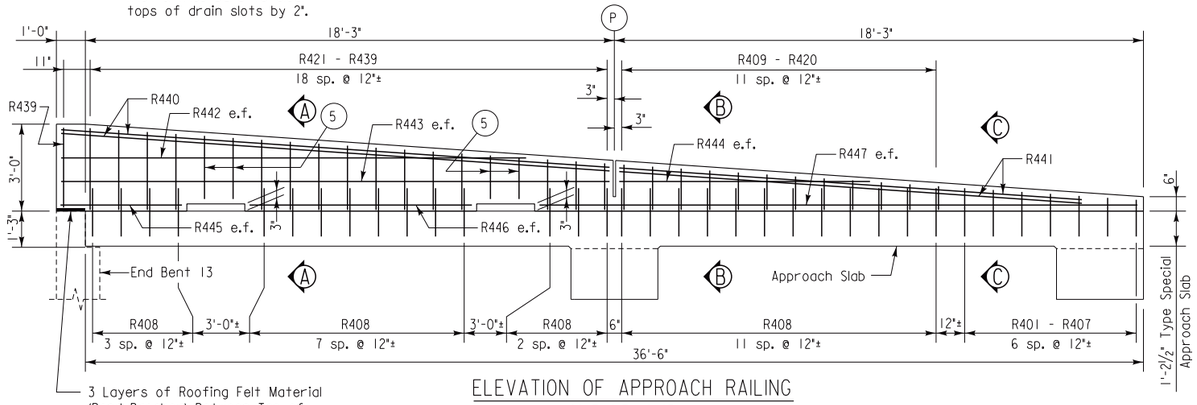
(P) Partial-depth approach railing joint (1" to 1¼" max.). Stop 6" from top of approach slab.

(5) Field cut ends of R424, R425, R434 & R435 bars to clear tops of drain slots by 2".



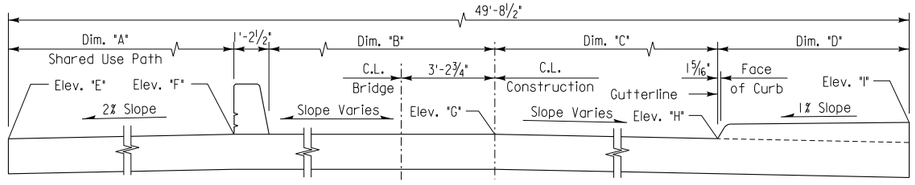
ELEVATION OF APPROACH RAILING
At End Bent 1
Scale: ⅜" = 1'-0"

3 Layers of Roofing Felt Material (Bond Breaker) Between Top of Backwall Notch and Bottom of Rail



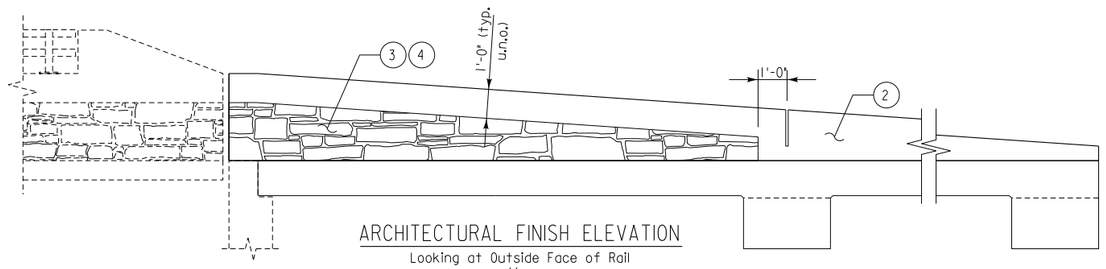
ELEVATION OF APPROACH RAILING
At End Bent 13
Scale: ⅜" = 1'-0"

3 Layers of Roofing Felt Material (Bond Breaker) Between Top of Backwall Notch and Bottom of Rail

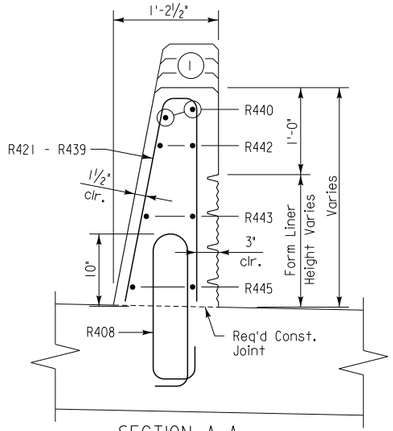


VARIABLE DIMENSIONS & ELEVATIONS SKETCH
Scale: ⅜" = 1'-0"

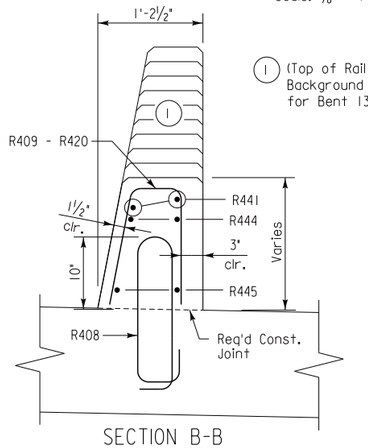
TABLE OF VARIABLE DIMENSIONS & ELEVATIONS										
End Bent	Station Location	Dim. "A"	Dim. "B"	Dim. "C"	Dim. "D"	Elev. "E"	Elev. "F"	Elev. "G"	Elev. "H"	Elev. "I"
APPROACH SLAB AT END BENT 1	Begin 111+98.61	11'-8⅞"	15'-3⅛"	15'-1³⁄₁₆"	6'-4⅜"	215.07	215.31	214.69	214.11	214.67
	Mid-Length 112+16.77	11'-11¼"	15'-0¾"	14'-10¹¹⁄₁₆"	6'-7⅝"	214.99	215.23	214.68	214.18	214.74
	End 112+34.94	12'-0"	15'-0"	14'-10¹¹⁄₁₆"	6'-7⅝"	214.92	215.16	214.68	214.24	214.80
APPROACH SLAB AT END BENT 13	Begin 123+72.10	12'-0"	15'-0"	14'-10¹¹⁄₁₆"	6'-7⅝"	214.57	214.81	215.13	214.83	215.40
	Mid-Length 123+90.35	12'-0"	15'-0"	14'-10¹¹⁄₁₆"	6'-7⅝"	214.65	214.89	215.13	214.83	215.40
	End 124+08.60	12'-0"	15'-0"	14'-10¹¹⁄₁₆"	6'-7⅝"	214.77	215.01	215.13	214.83	215.40



ARCHITECTURAL FINISH ELEVATION
Looking at Outside Face of Rail
Scale: ½" = 1'-0"

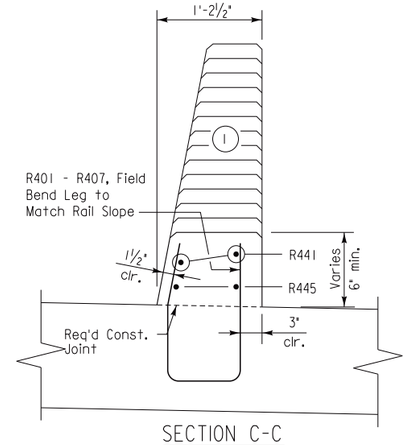


SECTION A-A
Scale: 1" = 1'-0"



(1) (Top of Rail Slope in Background Visible Only for Bent 13 Sections)

SECTION B-B
Scale: 1" = 1'-0"



SECTION C-C
Scale: 1" = 1'-0"

(2) Class 3 Textured Coating Finish (Color = Brown, Color Chip No. 33522)

(3) Class 3 Textured Coating Finish (Color = Brown, Color Chip No. 30219)

(4) "Ashlar Stone" Pattern Form Liner, See SP Job 070509 "Architectural Finish".

NOTES:

Form liner shall be max. depth of 1½" to provide a min. clearance of 1½" to rail reinforcing.

See SP Job 070509 "Textured Coating Finish" for additional information regarding the placement of the Class 3 Textured Coating Finish.

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LICENSED PROFESSIONAL ENGINEER
No. 19278
CYNTHIA A. RICH
06/20/2025
BRIDGE ENGINEER

SHEET 3 OF 4

DETAILS OF TYPE SPECIAL APPROACH SLABS CADDO RIVER

ROUTE SEC.

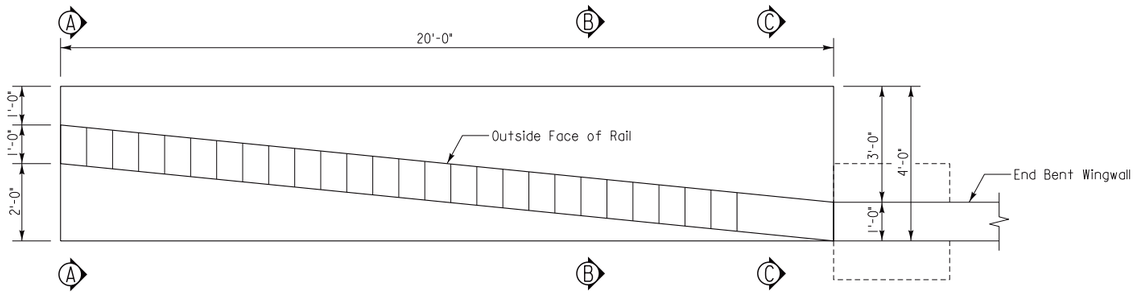
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KJK DATE: OCT 2023 FILENAME: b070509_as3.dgn
CHECKED BY: LAC DATE: JUN 2025 SCALE: ⅜" = 1'-0"
DESIGNED BY: KJK DATE: OCT 2023

BRIDGE NO. 07673 DRAWING NO. 67145

PRINT DATE: 6/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	100	158
		07673 - APPROACH SLABS - 67146				

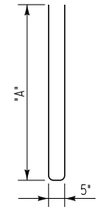


PLAN - TRANSITIONAL APPROACH RAILING

(Shown at beginning of bridge, similar at end of bridge)
Scale: ½" = 1'-0"

BAR LIST - PER TRANSITION RAIL

MARK	NO. REQ'D.	LENGTH	"A"	P.D.	BENDING DIAGRAMS
F401	10	19'-8"		Str.	Dimensions are out to out of bars.
F402	54	3'-8"		Str.	
R401	4	11'-5"	5'-7"	2"	
R402 To R424	1 ea.	8'-7" To 3'-8"	4'-2" To 1'-8½"	2"	
R425	4	2'-5"		Str.	
R426	2	3'-8"		Str.	
R427	2	8'-8"		Str.	
R428	2	13'-8"		Str.	
R429	2	18'-8"		Str.	
R430	2	19'-8"		Str.	
R431	2	19'-10"		Str.	



R401-R424

(1) Class 3 Textured Coating Finish
(Color = Brown, Color Chip No. 33522)

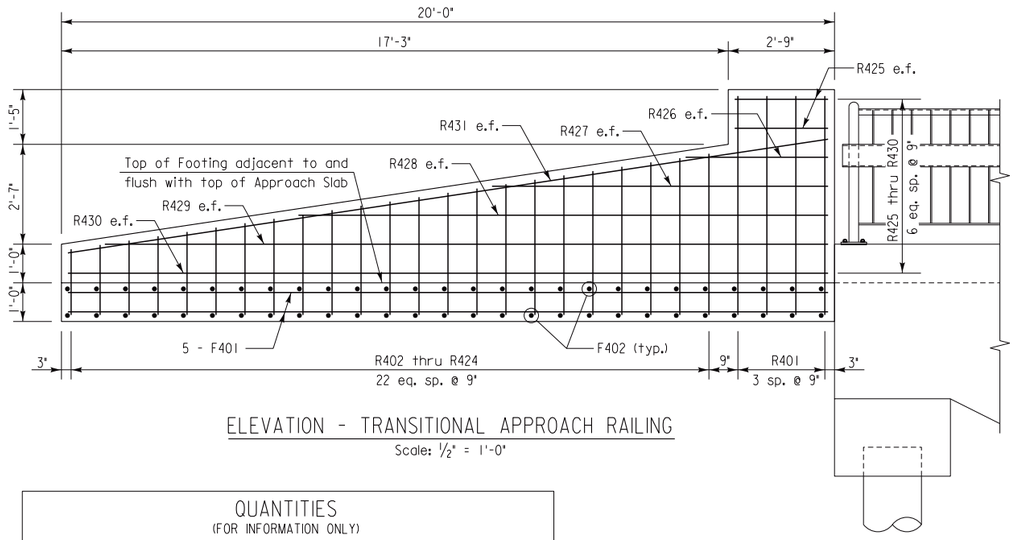
(2) Class 3 Textured Coating Finish
(Color = Brown, Color Chip No. 30219)

(3) "Ashlar Stone" Pattern Form Liner,
See SP Job 070509 "Architectural Finish".

NOTES:

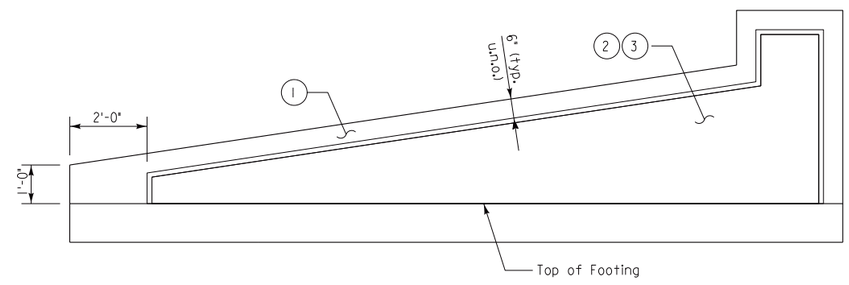
Form liner shall be max. depth of 1½" to provide a min. clearance of 1½" to rail reinforcing.

See SP Job 070509 "Textured Coating Finish" for additional information regarding the placement of the Class 3 Textured Coating Finish.



ELEVATION - TRANSITIONAL APPROACH RAILING

Scale: ½" = 1'-0"



ARCHITECTURAL FINISH ELEVATION

Looking at Inside Face of Rail, Outside Face of Rail Similar
Scale: ½" = 1'-0"

GENERAL NOTES:

All concrete shall be Class S (AE) with a minimum 28 day compressive strength of f'c = 4,000 psi and shall be poured in the dry. All exposed corners shall be chamfered ¾" unless otherwise noted.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports.

Class 3 textured coating finish shall be applied to top and both faces of transitional approach rail in accordance with special provision "Textured Coating Finish". Payment for Class 3 textured coating and architectural finish shall be considered subsidiary to the item "Transitional Approach Railing".

Transitional approach rail shall be placed at locations shown on the plan.

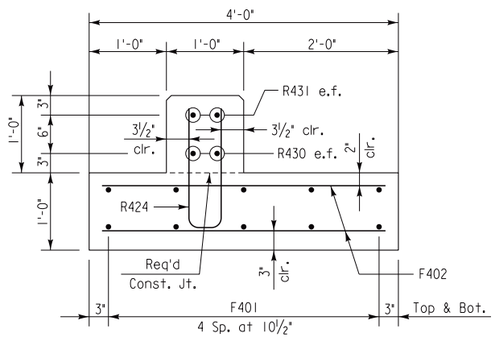
Transitional approach railing shall conform to Section 806 and shall be paid for as "Transitional Approach Railing."

Approach Slabs will be measured and paid for in accordance with Section 504.

The surface finish for Approach Slab shall match that used on the bridge deck.

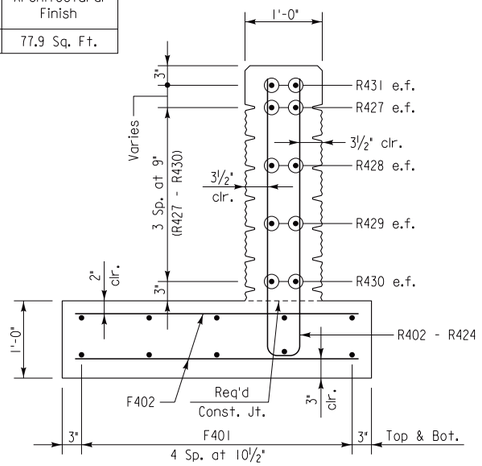
QUANTITIES
(FOR INFORMATION ONLY)

RAIL LENGTH	Class S(AE) Concrete	Reinforcing Steel (Gr. 60)	Textured Coating	Architectural Finish
20'-0"	4.94 Cu. Yds.	508 Lbs.	14.9 Sq. Yds	77.9 Sq. Ft.



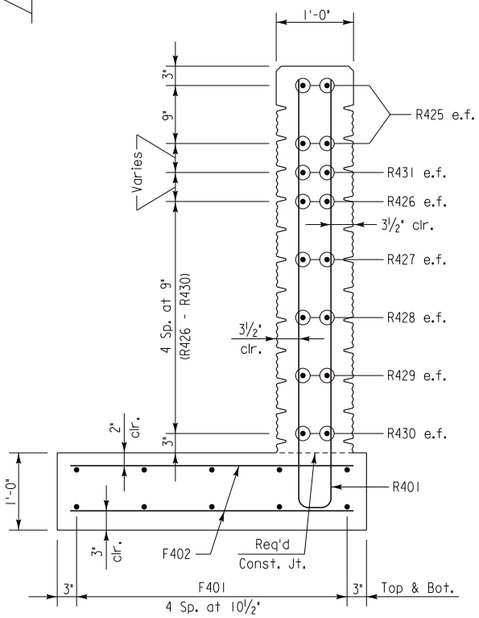
SECTION A-A

Scale: 1" = 1'-0"



SECTION B-B

Scale: 1" = 1'-0"



SECTION C-C

Scale: 1" = 1'-0"

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SHEET 4 OF 4
DETAILS OF TYPE SPECIAL APPROACH SLABS CADDO RIVER

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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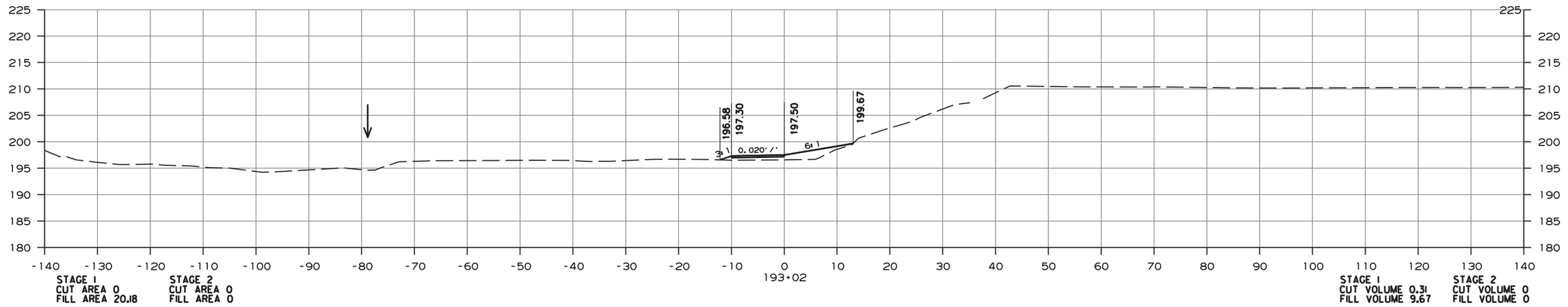

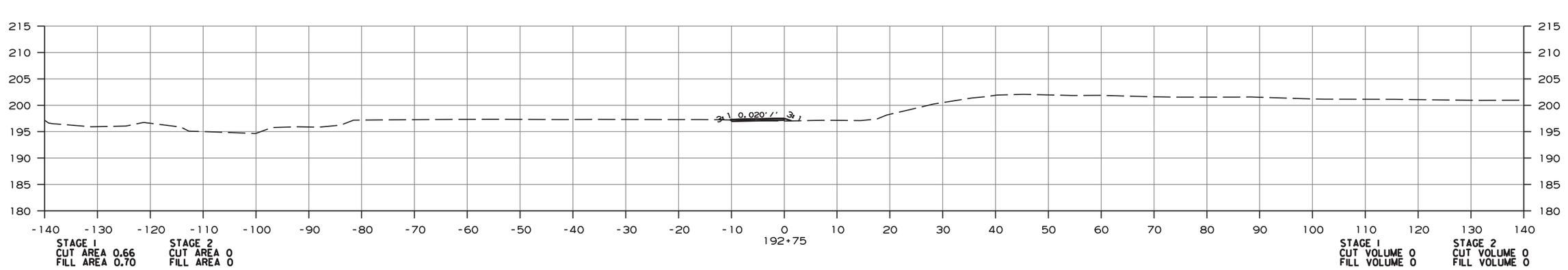

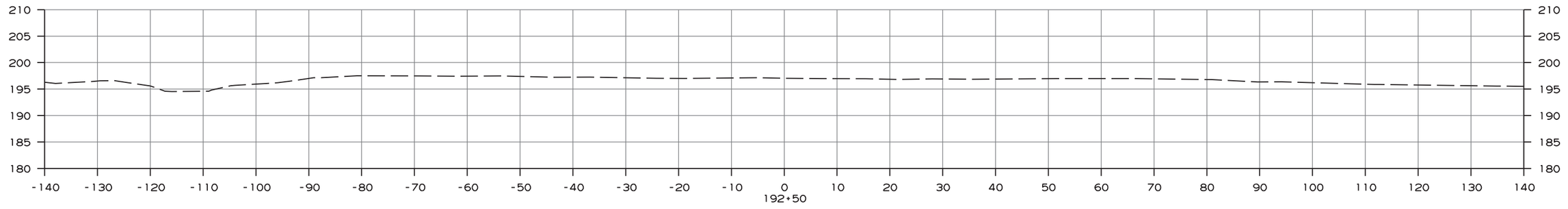

8/1/2025
R070509.dgn

CROSS SECTION STA. 192+50 TO STA. 193+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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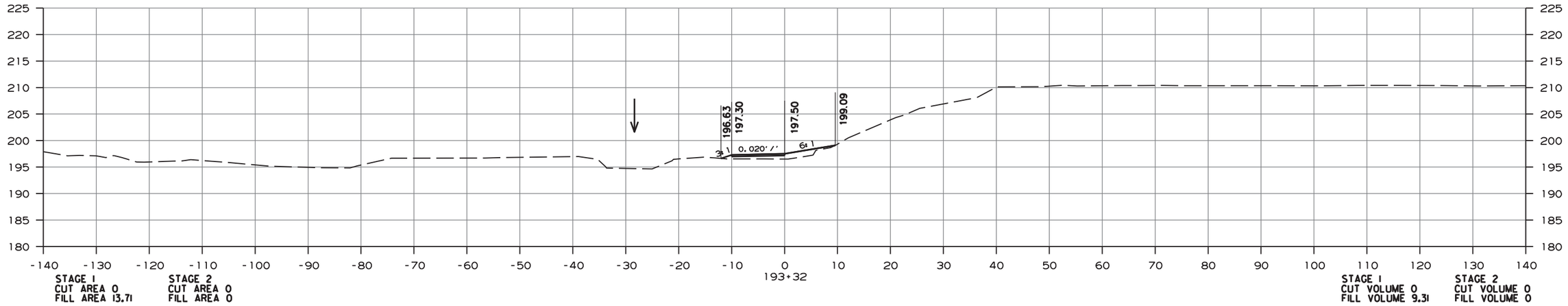

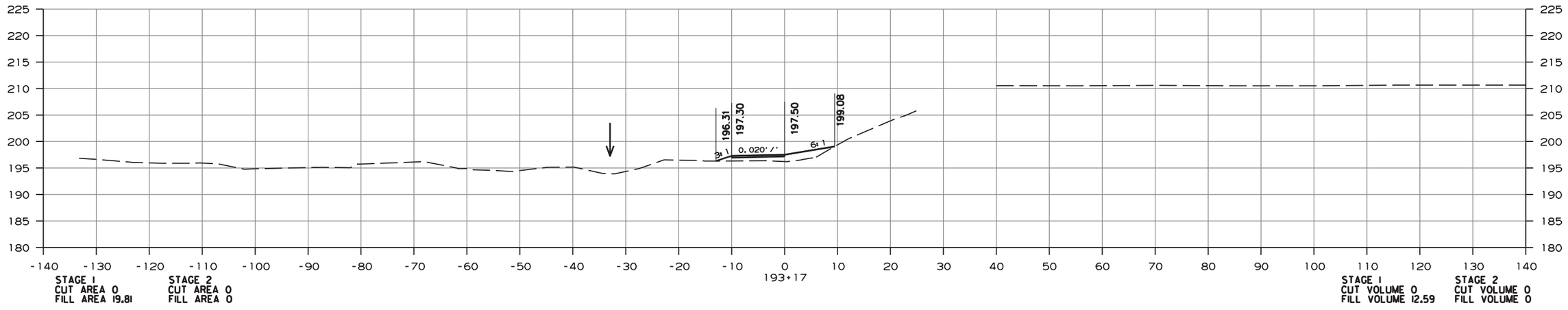

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CROSS SECTION STA. 193+17 TO STA. 193+32

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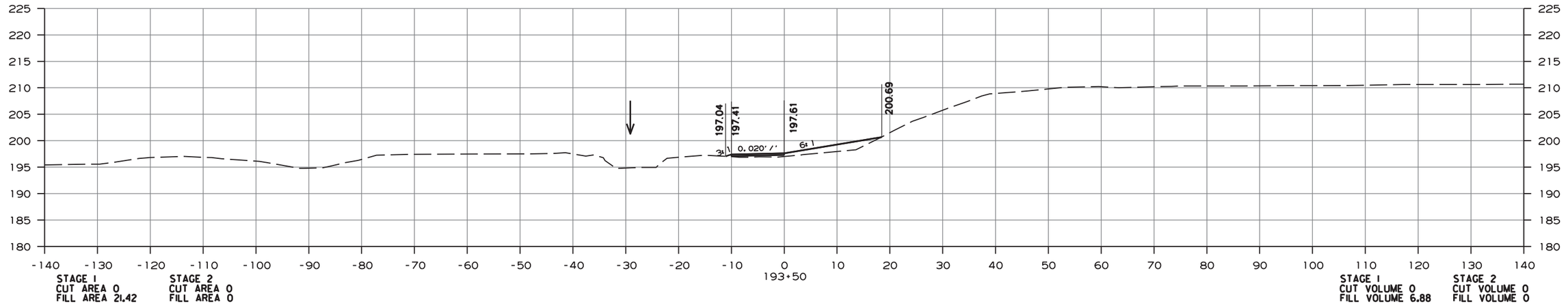
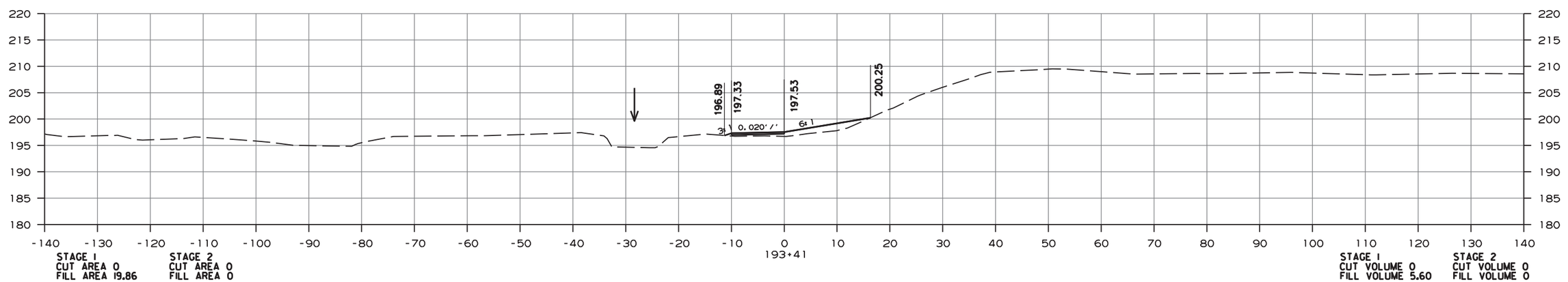


STAGE 1
CUT AREA 0
FILL AREA 21.42

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 6.88

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 19.86

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 5.60

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

8/1/2025
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CROSS SECTION STA. 193+41 TO STA. 193+50

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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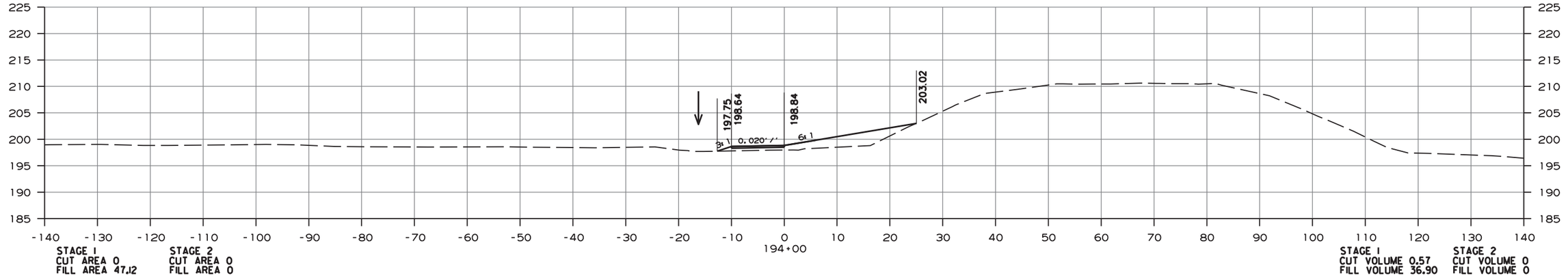
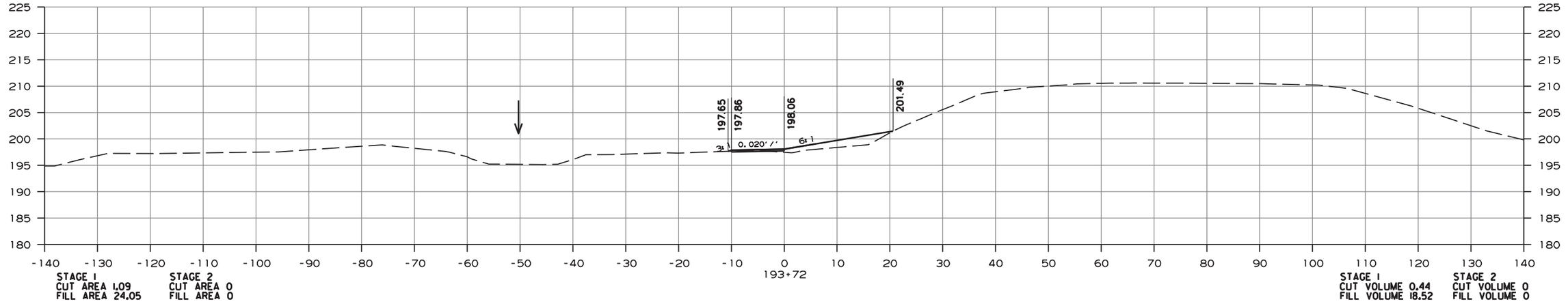


STAGE 1
CUT AREA 0
FILL AREA 47.12

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0.57
FILL VOLUME 36.90

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 1.09
FILL AREA 24.05

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0.44
FILL VOLUME 18.52

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

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R070509.dgn

CROSS SECTION STA. 193+72 TO STA. 194+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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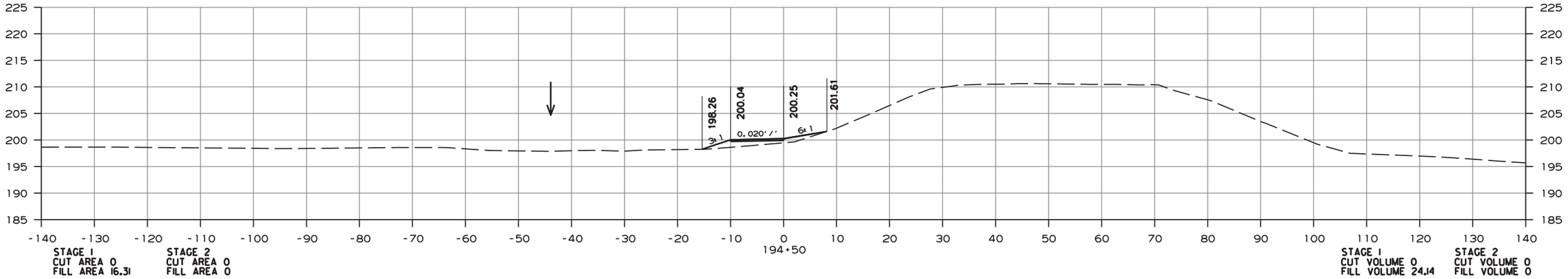

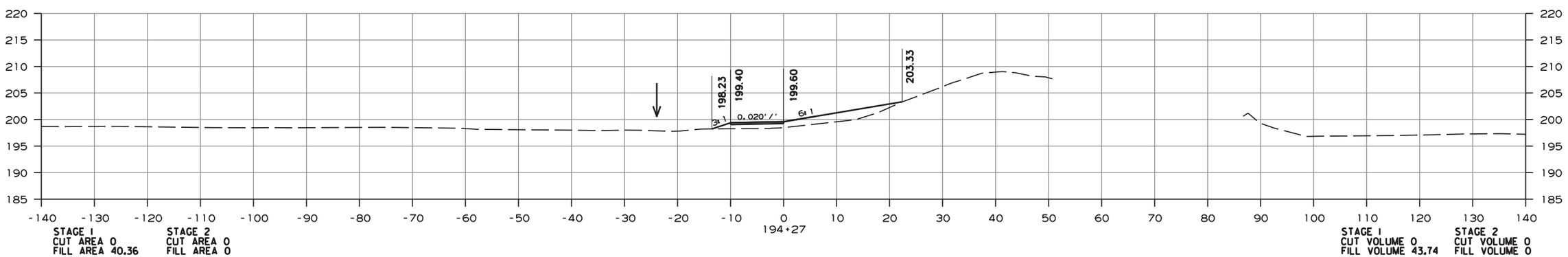

8/1/2025
R070509.dgn

CROSS SECTION STA. 194+27 TO STA. 194+50

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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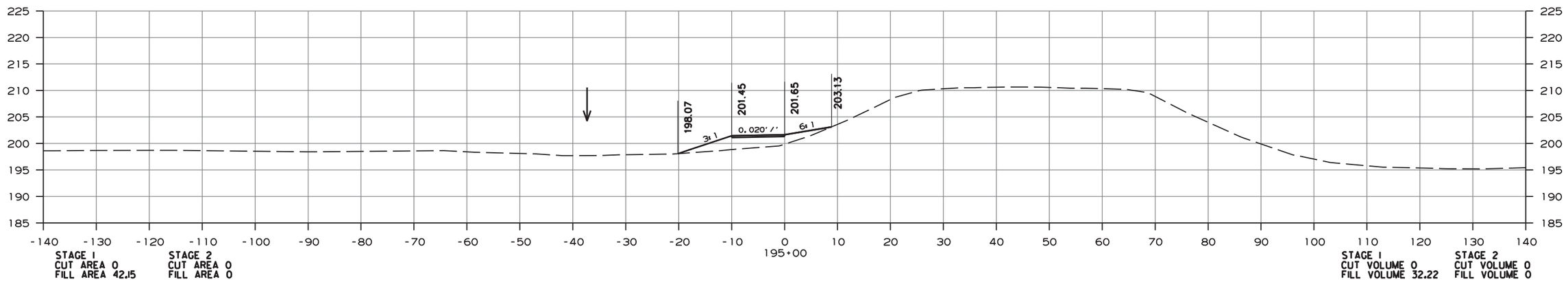
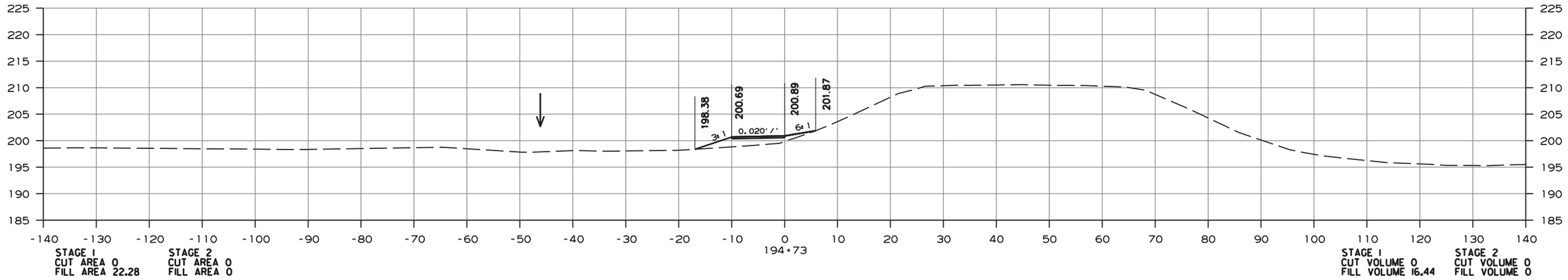


STAGE 1
CUT AREA 0
FILL AREA 42.15

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 32.22

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 22.28

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 16.44

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

8/1/2025
R070509.dgn

CROSS SECTION STA. 194+73 TO STA. 195+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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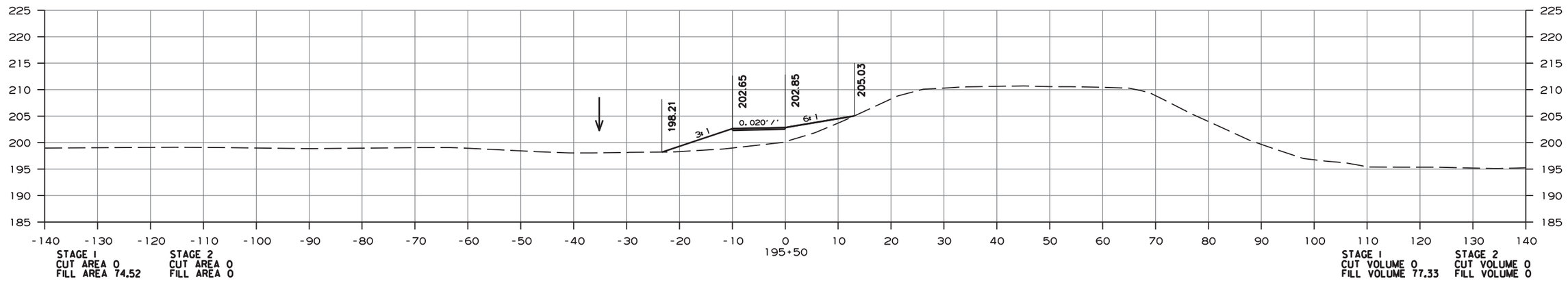
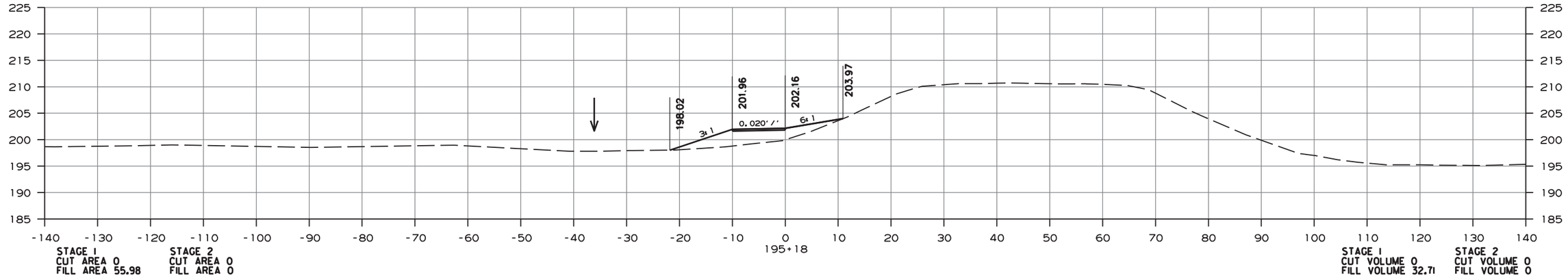


STAGE 1
CUT AREA 0
FILL AREA 74.52

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 77.33

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 55.98

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 32.71

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

8/1/2025
R070509.dgn

CROSS SECTION STA. 195+18 TO STA. 195+50

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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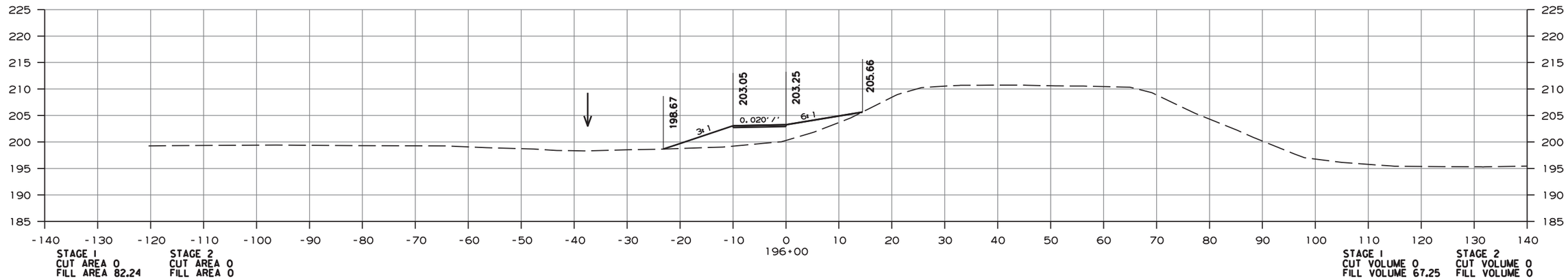

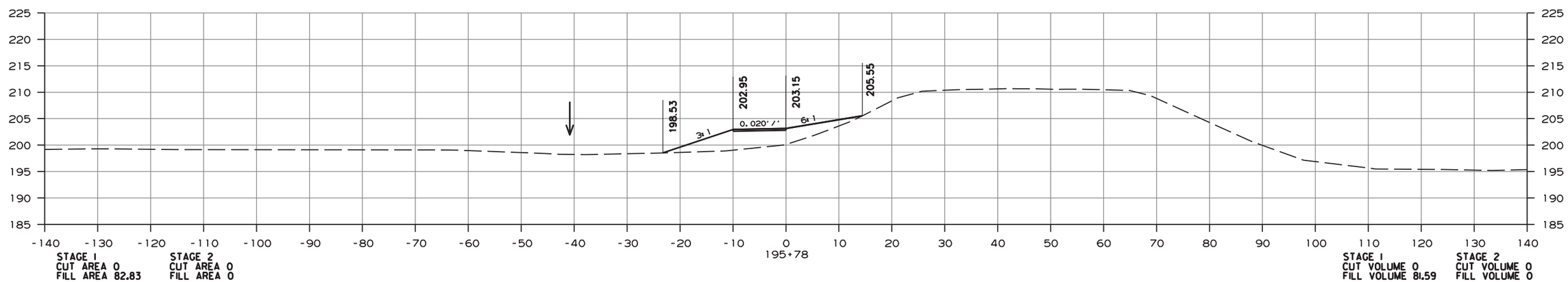

8/1/2025
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CROSS SECTION STA. 195+78 TO STA. 196+00

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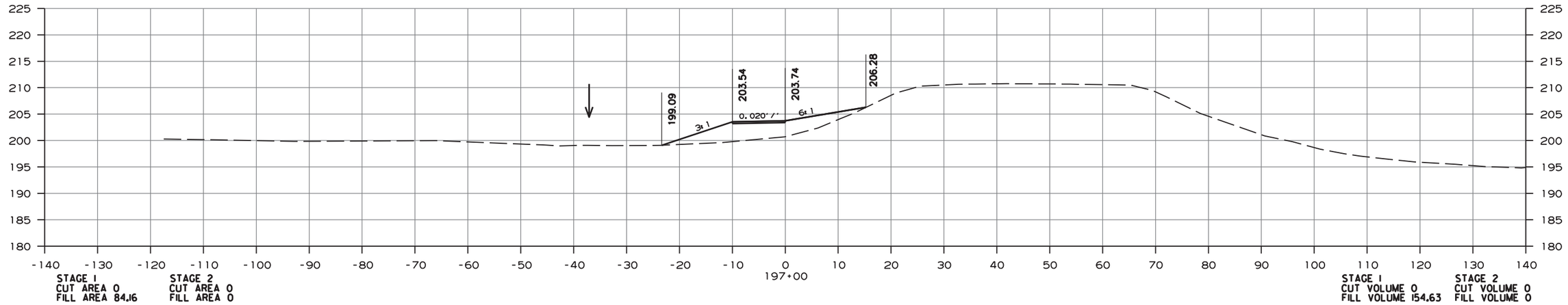

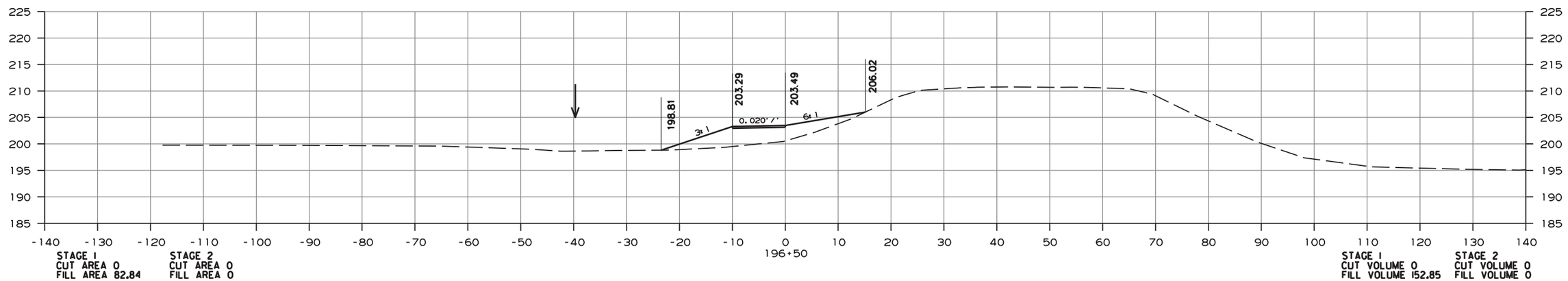

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CROSS SECTION STA. 196+50 TO STA. 197+00

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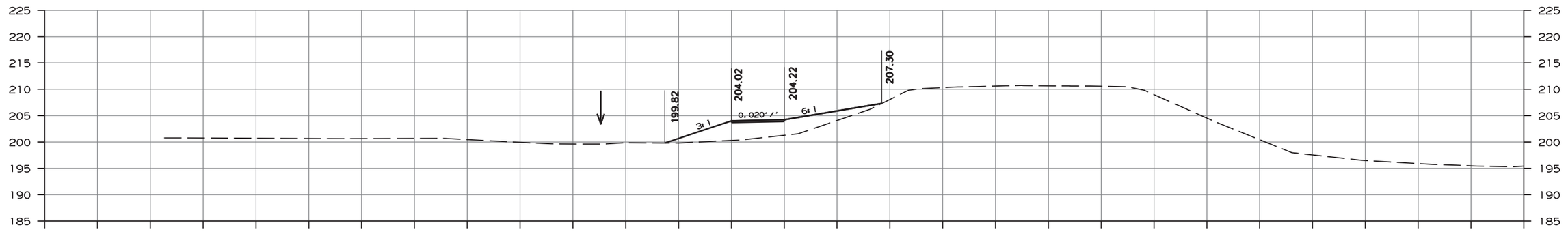
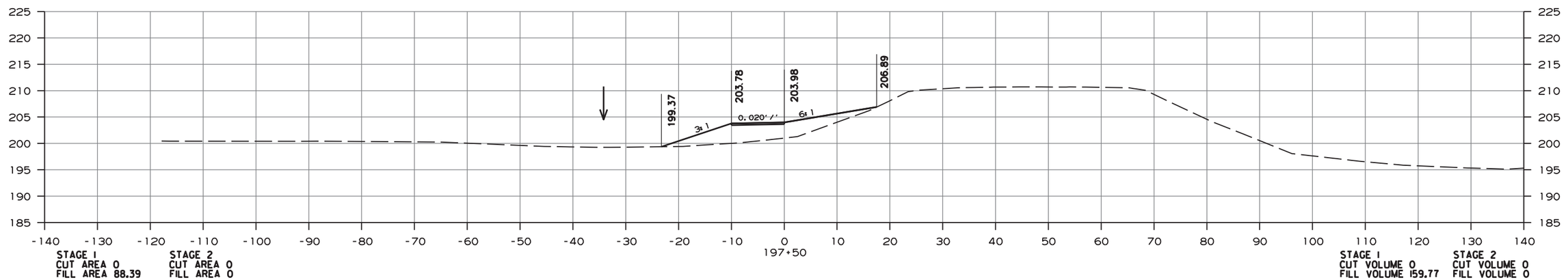


STAGE 1
CUT AREA 0
FILL AREA 89.20

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 164.44

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 88.39

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 159.77

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

8/1/2025
R070509.dgn

CROSS SECTION STA. 197+50 TO STA. 198+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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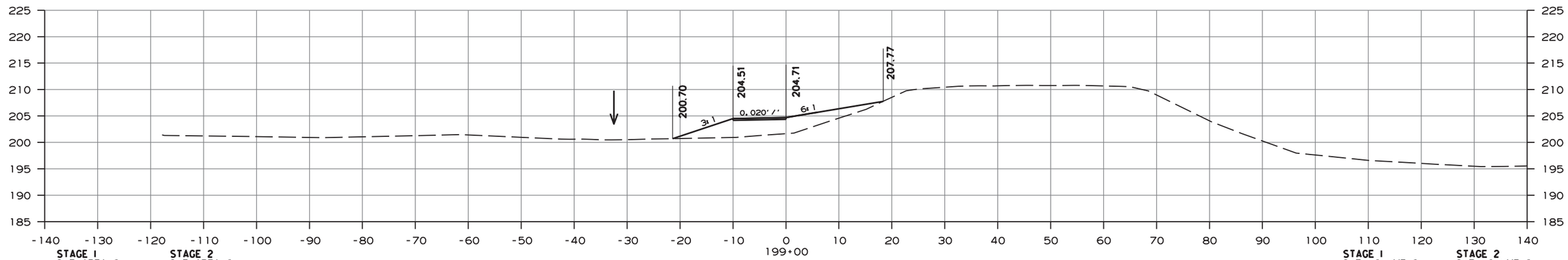
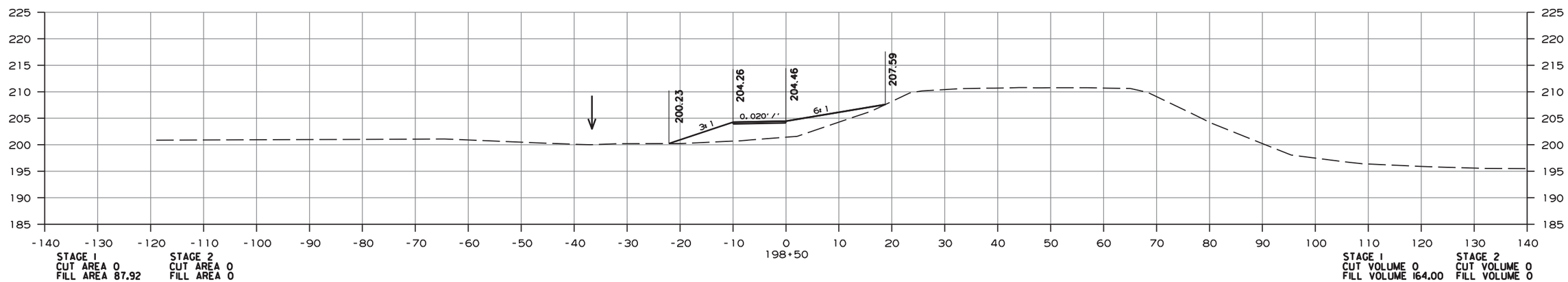


STAGE 1
CUT AREA 0
FILL AREA 84.65

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 159.77

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 87.92

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 164.00

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

8/1/2025
R070509.dgn

CROSS SECTION STA. 198+50 TO STA. 199+00

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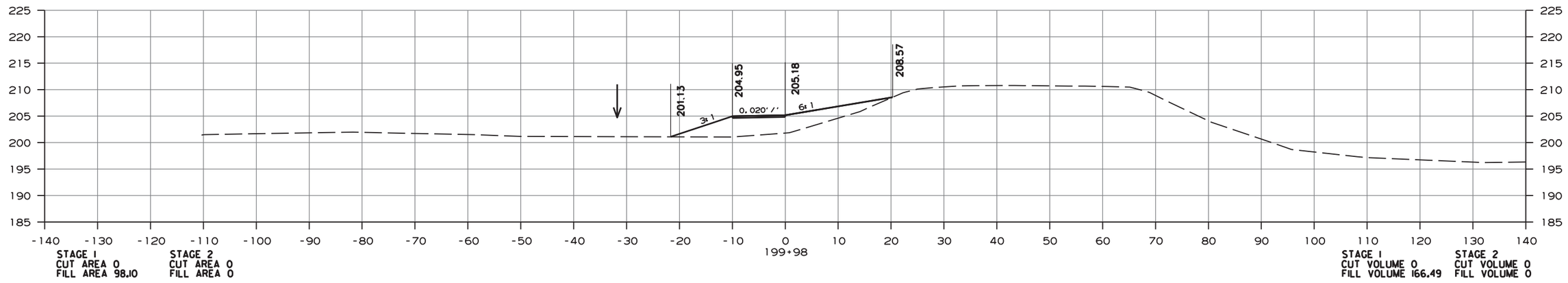
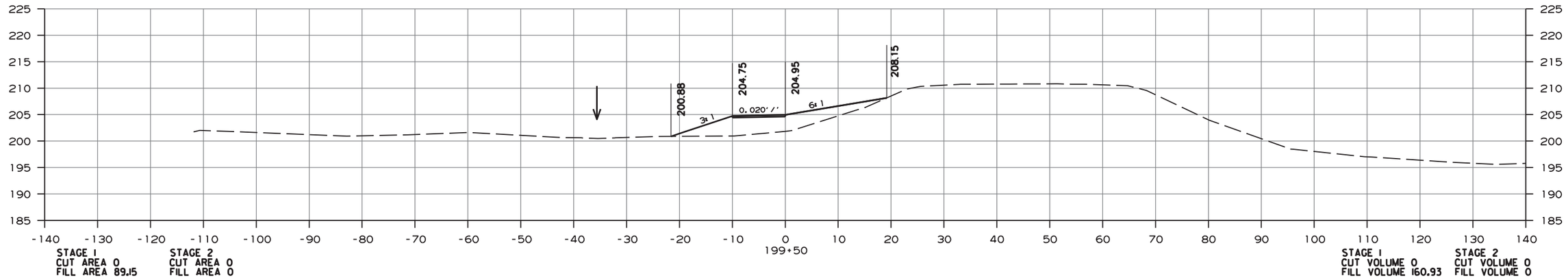


STAGE 1
CUT AREA 0
FILL AREA 98.10

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 166.49

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 89.15

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 160.93

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

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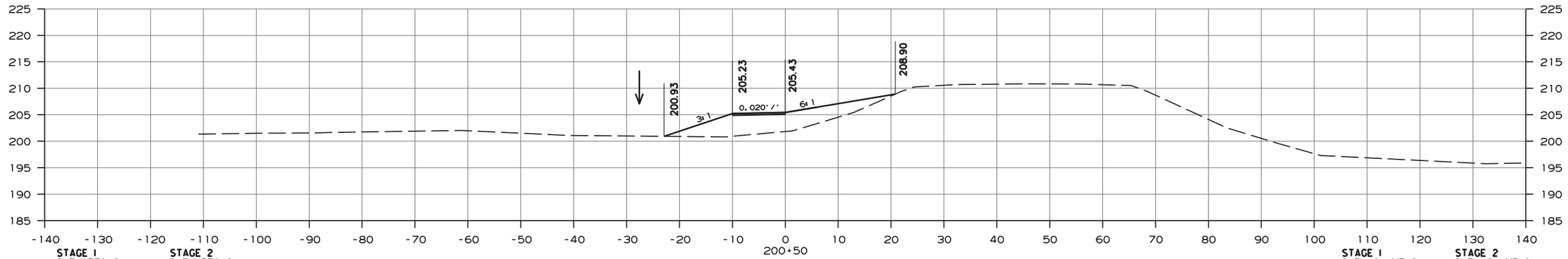
RO70509.dgn

CROSS SECTION STA. 199+50 TO STA. 199+98

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	113	158
		CROSS SECTIONS - HWY 67 CONCRETE WALK				

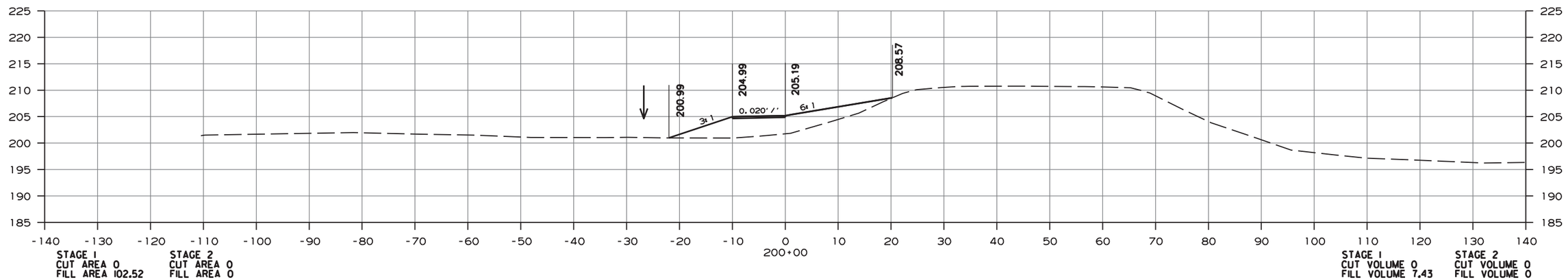


STAGE 1
CUT AREA 0
FILL AREA 112.34

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 198.94

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 102.52

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 7.43

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

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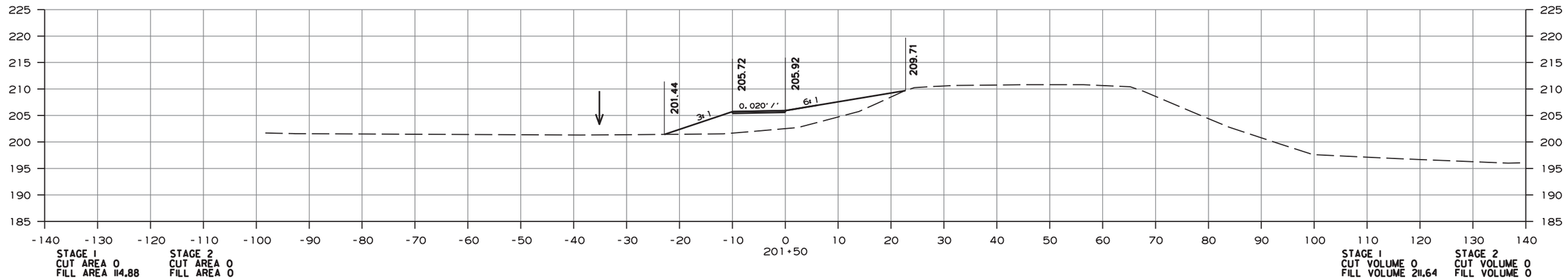
R070509.dgn

CROSS SECTION STA. 200+00 TO STA. 200+50

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	114	158
		CROSS SECTIONS - HWY 67 CONCRETE WALK				

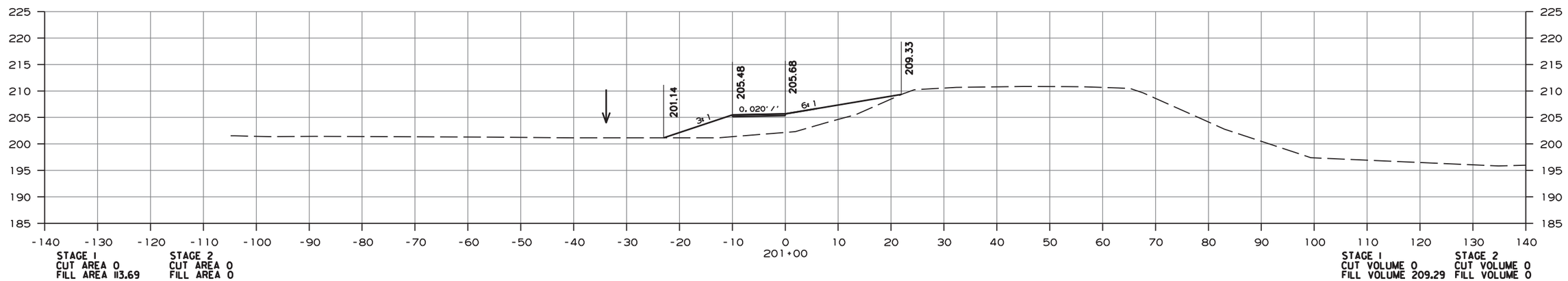


STAGE 1
CUT AREA 0
FILL AREA 114.88

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 211.64

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 113.69

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 209.29

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

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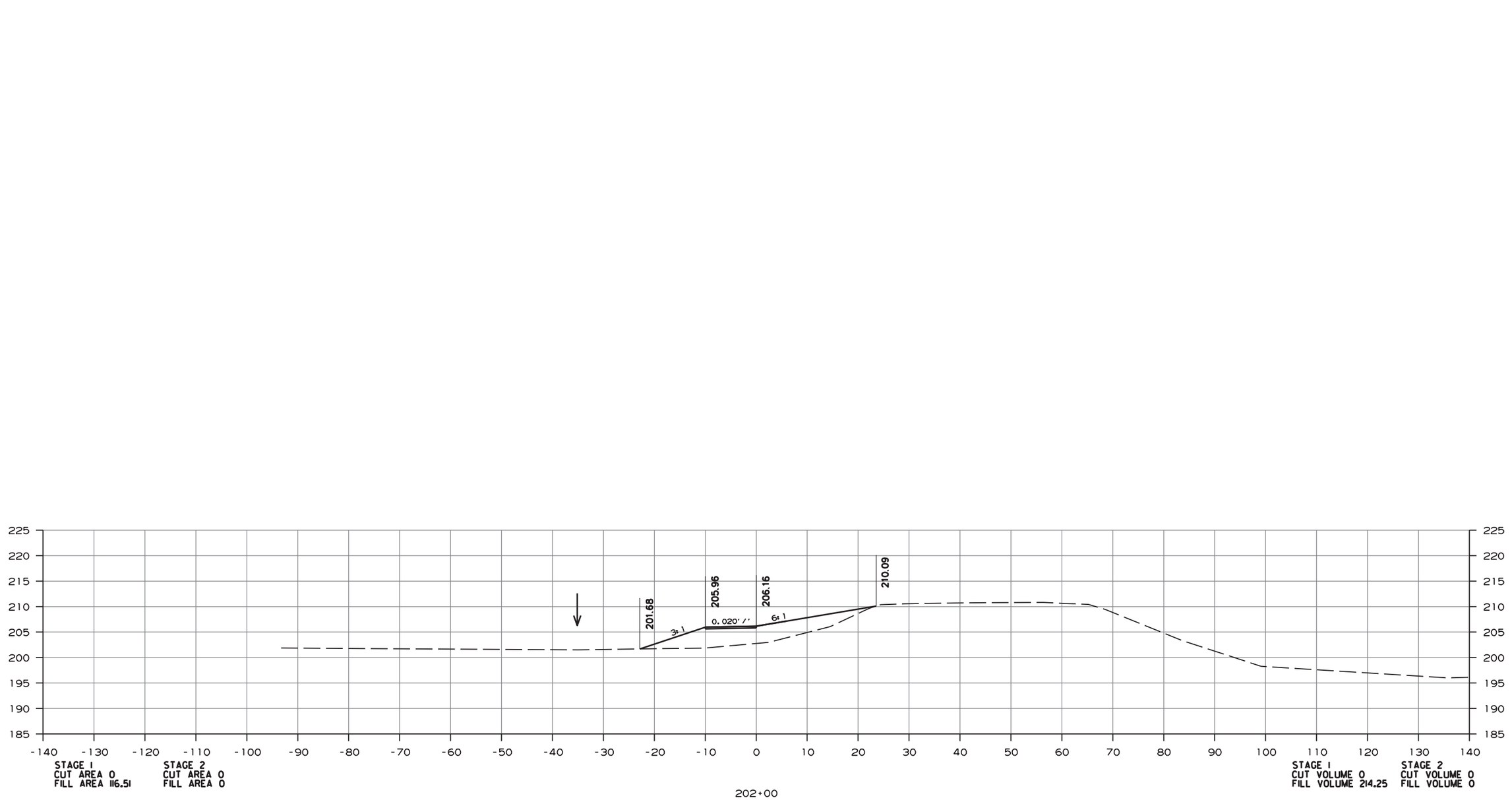
R070509.dgn

CROSS SECTION STA. 201+00 TO STA. 201+50

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	115	158
		CROSS SECTIONS - HWY 67 CONCRETE WALK				



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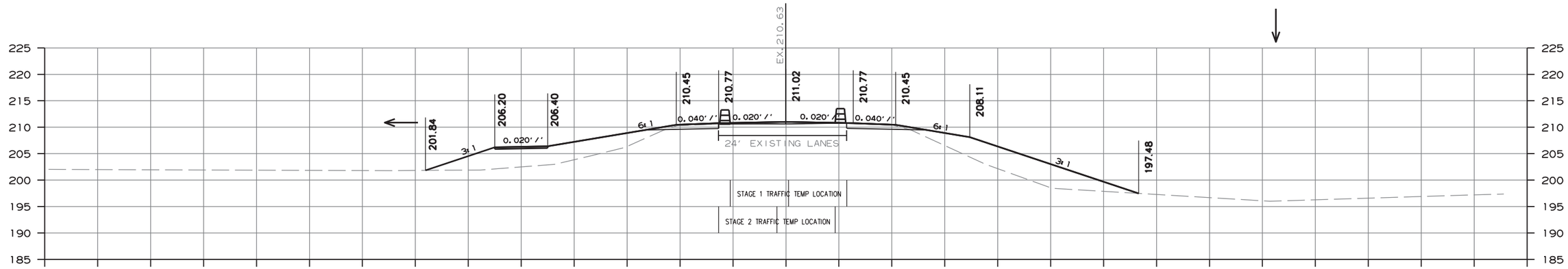
R070509.dgn

CROSS SECTION STA. 202+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	116	158
		CROSS SECTIONS - HWY 67				

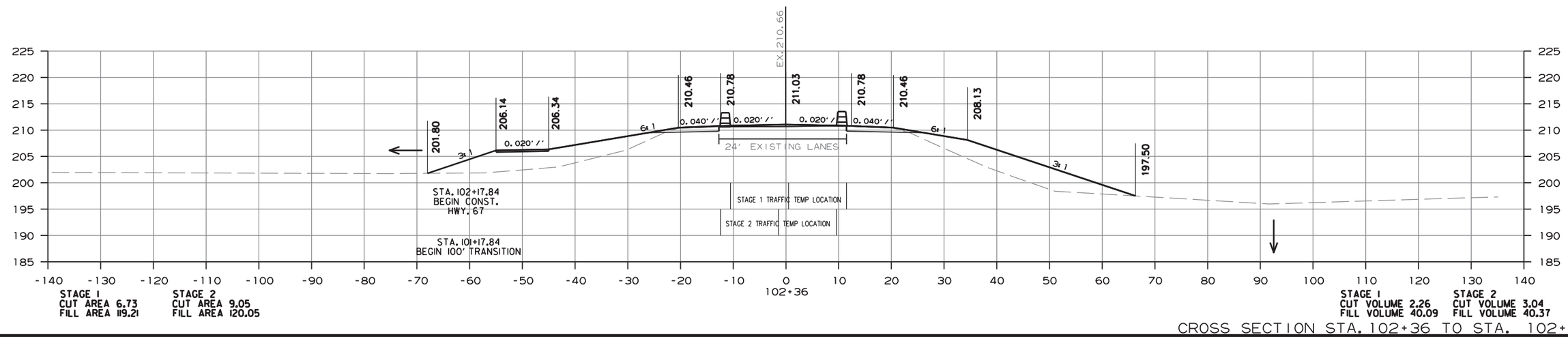


STAGE 1
CUT AREA 6.66
FILL AREA 119.92

STAGE 2
CUT AREA 9.09
FILL AREA 125.59

STAGE 1
CUT VOLUME 3.47
FILL VOLUME 62.00

STAGE 2
CUT VOLUME 4.70
FILL VOLUME 63.68



STAGE 1
CUT AREA 6.73
FILL AREA 119.21

STAGE 2
CUT AREA 9.05
FILL AREA 120.05

STAGE 1
CUT VOLUME 2.26
FILL VOLUME 40.09

STAGE 2
CUT VOLUME 3.04
FILL VOLUME 40.37

CROSS SECTION STA. 102+36 TO STA. 102+50

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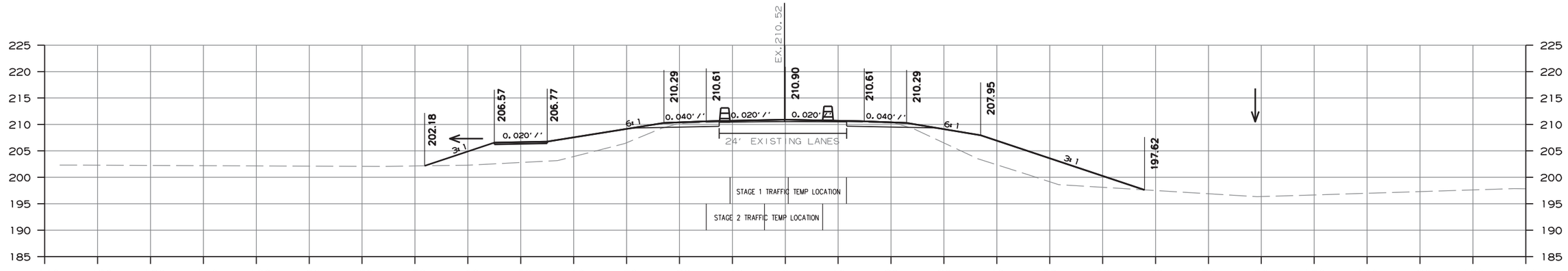
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	117	158
		CROSS SECTIONS - HWY 67				

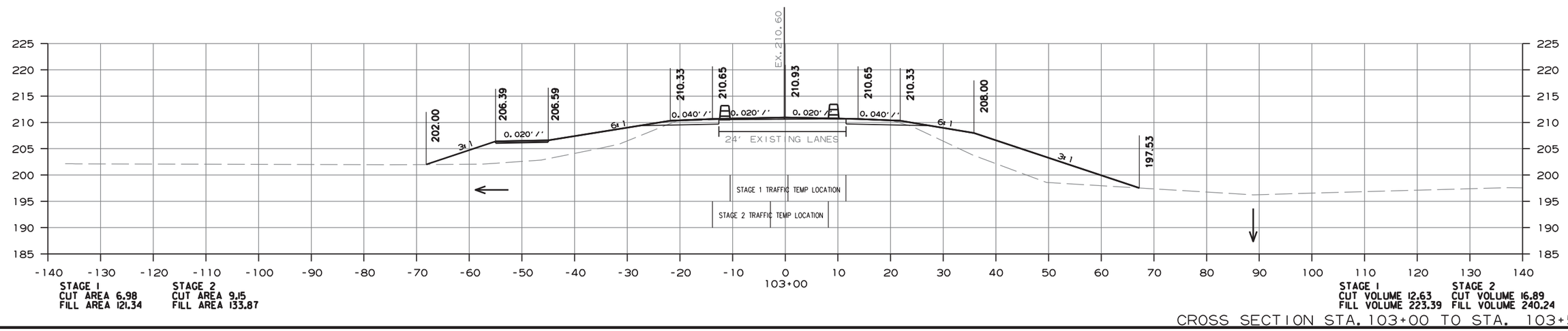


STAGE 1
CUT AREA 6.52
FILL AREA 122.76

STAGE 2
CUT AREA 8.37
FILL AREA 136.52

STAGE 1
CUT VOLUME 12.50
FILL VOLUME 226.02

STAGE 2
CUT VOLUME 16.22
FILL VOLUME 250.36



STAGE 1
CUT AREA 6.98
FILL AREA 121.34

STAGE 2
CUT AREA 9.15
FILL AREA 133.87

STAGE 1
CUT VOLUME 12.63
FILL VOLUME 223.39

STAGE 2
CUT VOLUME 16.89
FILL VOLUME 240.24

CROSS SECTION STA. 103+00 TO STA. 103+50

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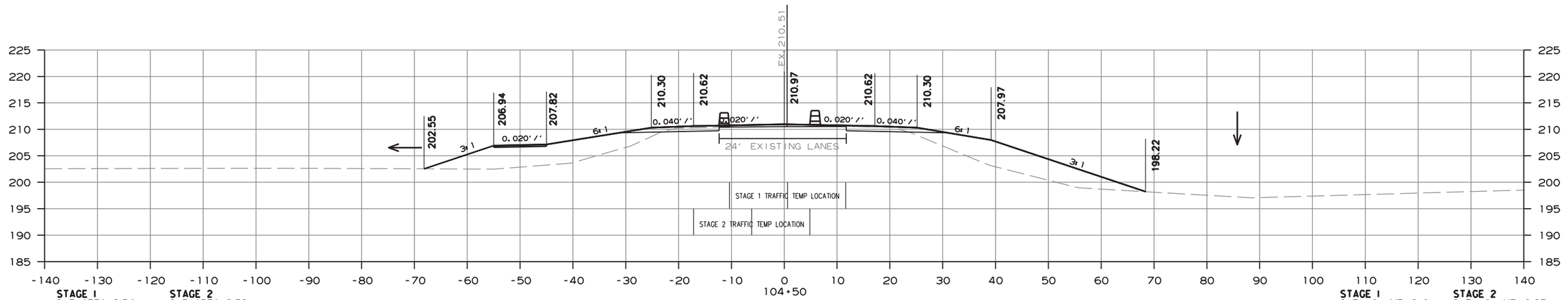
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	118	158
		CROSS SECTIONS - HWY 67				

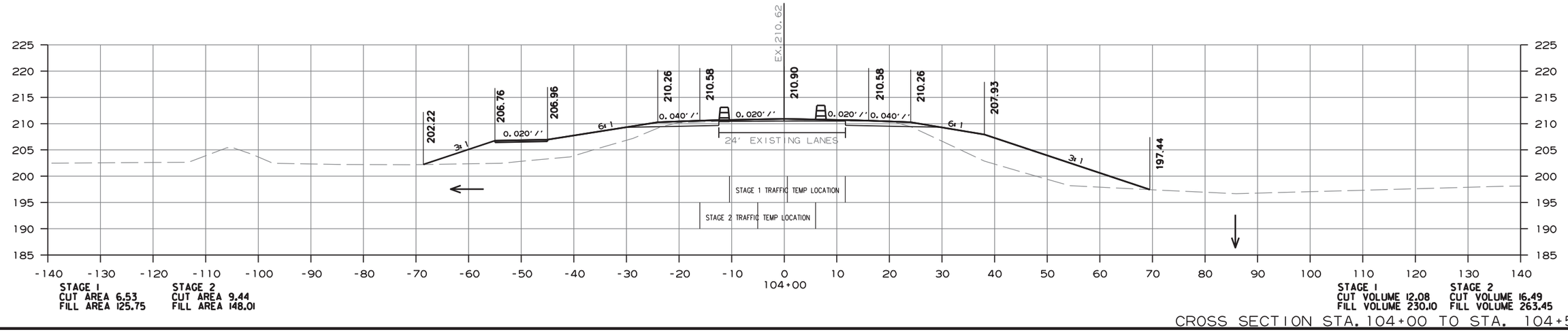


STAGE 1
CUT AREA 6.54
FILL AREA 133.82

STAGE 2
CUT AREA 8.56
FILL AREA 133.57

STAGE 1
CUT VOLUME 12.10
FILL VOLUME 240.34

STAGE 2
CUT VOLUME 16.67
FILL VOLUME 260.72



STAGE 1
CUT AREA 6.53
FILL AREA 125.75

STAGE 2
CUT AREA 9.44
FILL AREA 148.01

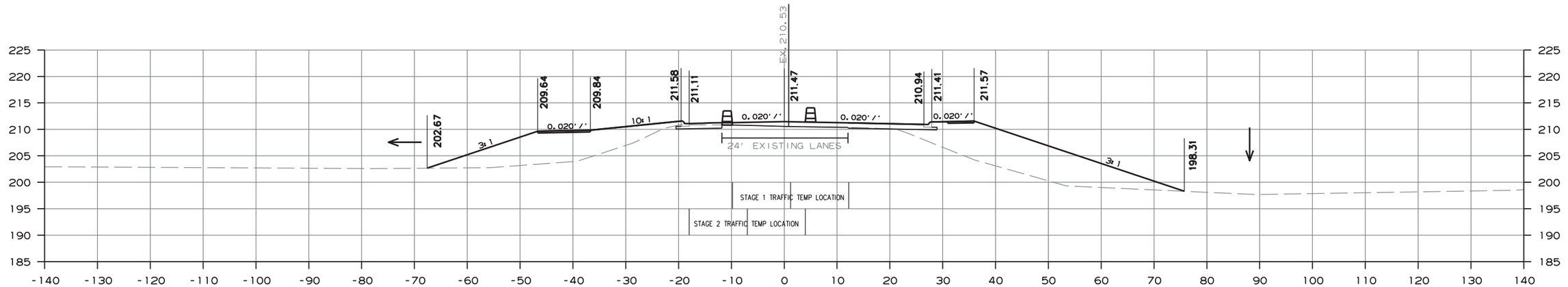
STAGE 1
CUT VOLUME 12.08
FILL VOLUME 230.10

STAGE 2
CUT VOLUME 16.49
FILL VOLUME 263.45

CROSS SECTION STA. 104+00 TO STA. 104+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	119	158
		CROSS SECTIONS - HWY 67				

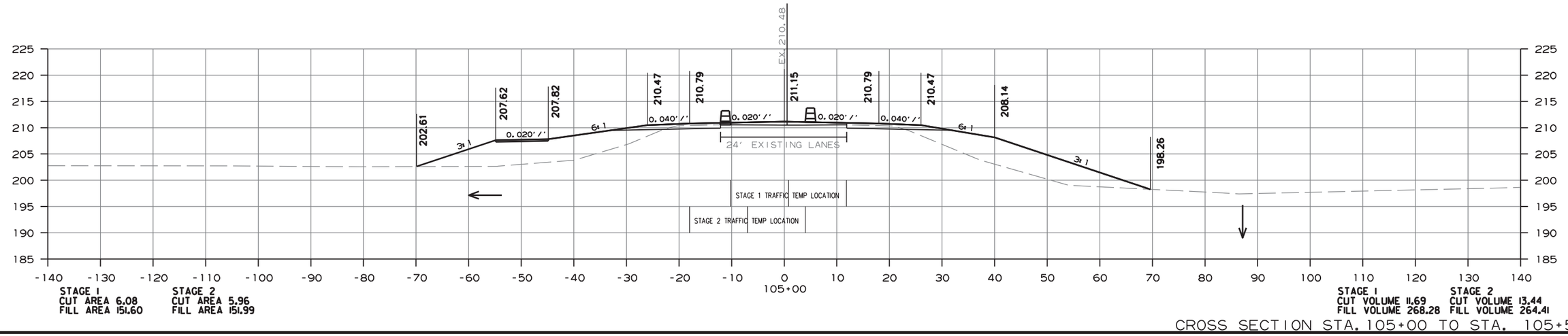


STAGE 1
CUT AREA 6.06
FILL AREA 172.90

STAGE 2
CUT AREA 0.83
FILL AREA 243.13

STAGE 1
CUT VOLUME 11.24
FILL VOLUME 300.46

STAGE 2
CUT VOLUME 6.29
FILL VOLUME 365.85



STAGE 1
CUT AREA 6.08
FILL AREA 151.60

STAGE 2
CUT AREA 5.96
FILL AREA 151.99

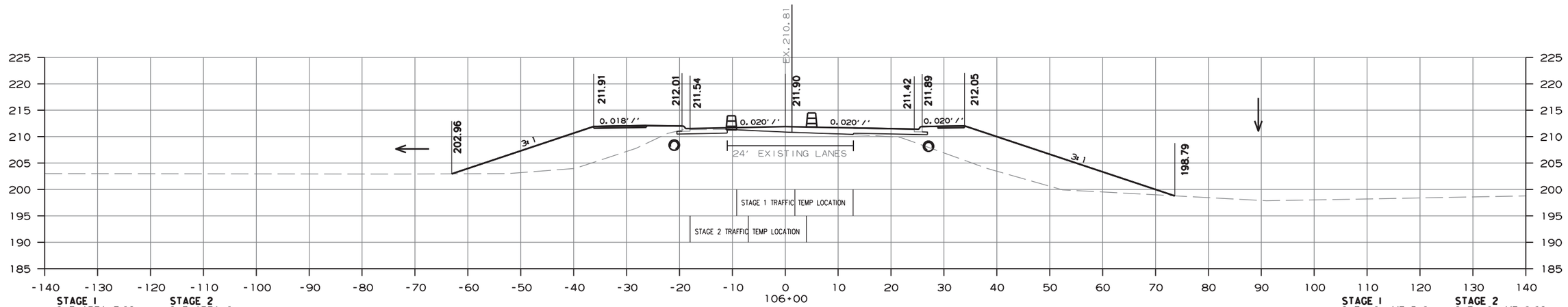
STAGE 1
CUT VOLUME 11.69
FILL VOLUME 268.28

STAGE 2
CUT VOLUME 13.44
FILL VOLUME 264.41

CROSS SECTION STA. 105+00 TO STA. 105+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	120	158
		CROSS SECTIONS - HWY 67				

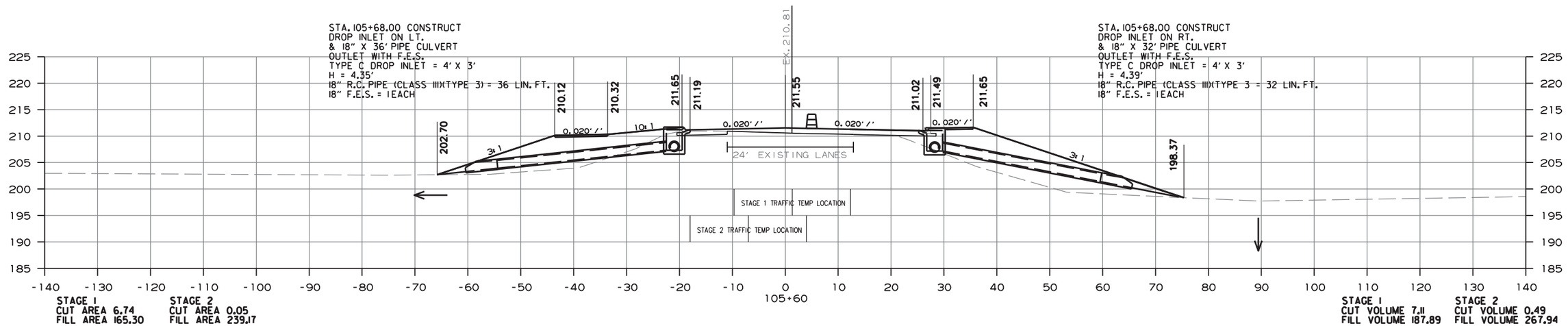


STAGE 1
CUT AREA 7.02
FILL AREA 168.90

STAGE 2
CUT AREA 0
FILL AREA 228.17

STAGE 1
CUT VOLUME 5.10
FILL VOLUME 123.78

STAGE 2
CUT VOLUME 0.02
FILL VOLUME 173.09



STAGE 1
CUT AREA 6.74
FILL AREA 165.30

STAGE 2
CUT AREA 0.05
FILL AREA 239.17

STAGE 1
CUT VOLUME 7.11
FILL VOLUME 187.89

STAGE 2
CUT VOLUME 0.49
FILL VOLUME 267.94

CROSS SECTION STA. 105+60 TO STA. 106+00

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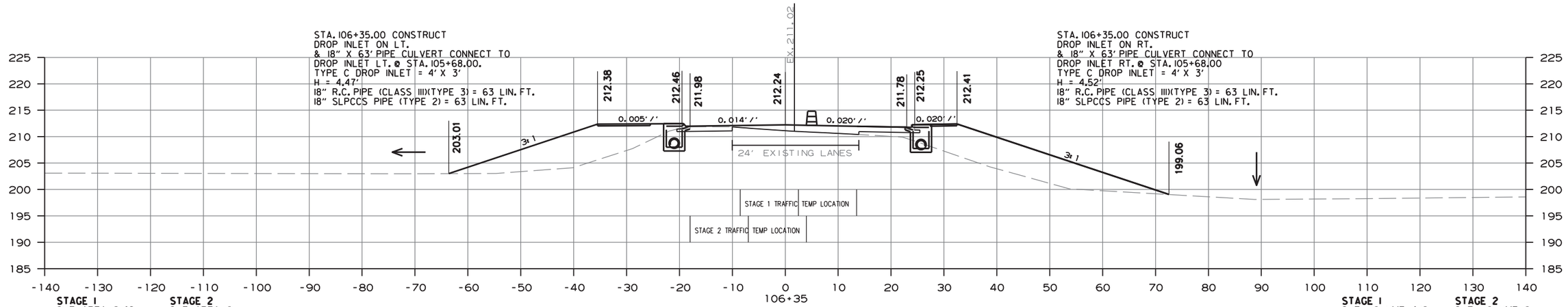
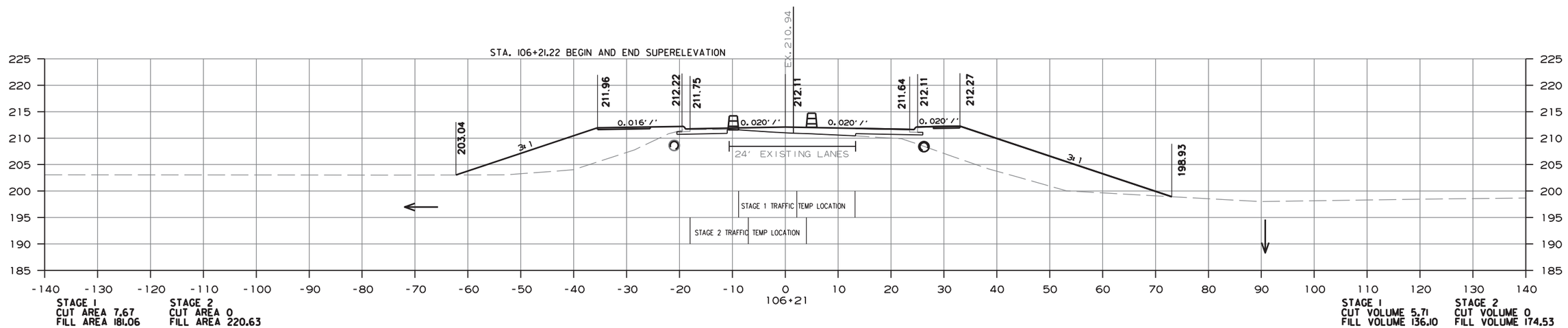
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	121	158
		CROSS SECTIONS - HWY 67				

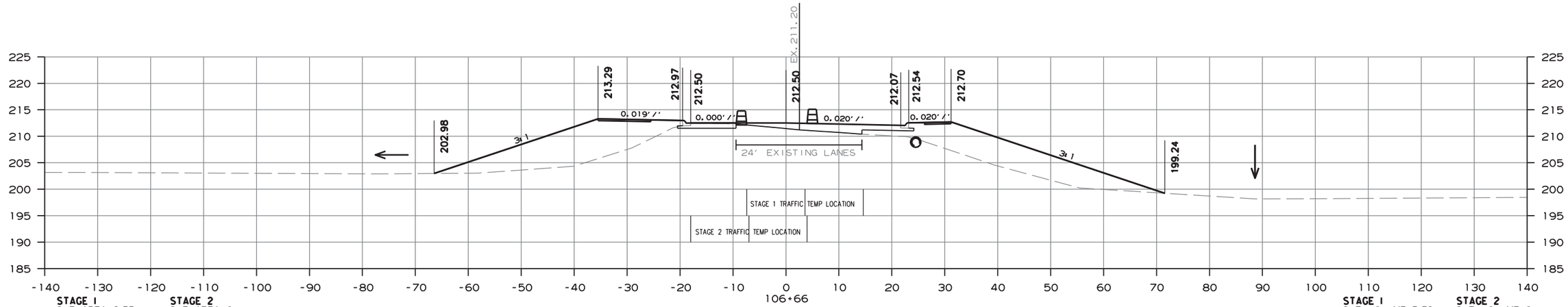




CROSS SECTION STA. 106+21 TO STA. 106+35

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	122	158
		CROSS SECTIONS - HWY 67				

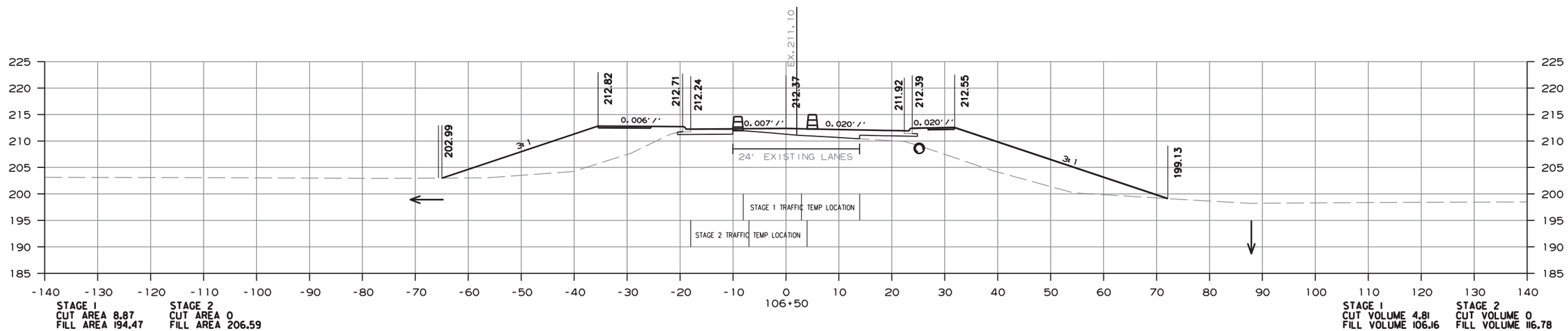


STAGE 1
CUT AREA 9.33
FILL AREA 203.40

STAGE 2
CUT AREA 0
FILL AREA 196.60

STAGE 1
CUT VOLUME 5.39
FILL VOLUME 117.89

STAGE 2
CUT VOLUME 0
FILL VOLUME 119.46



STAGE 1
CUT AREA 8.87
FILL AREA 194.47

STAGE 2
CUT AREA 0
FILL AREA 206.59

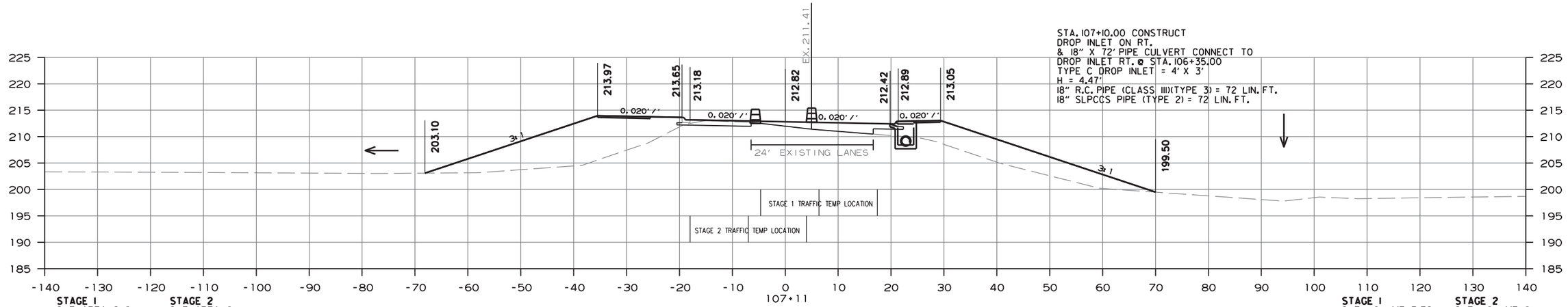
STAGE 1
CUT VOLUME 4.81
FILL VOLUME 106.16

STAGE 2
CUT VOLUME 0
FILL VOLUME 116.78

CROSS SECTION STA. 106+50 TO STA. 106+66

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	123	158
		CROSS SECTIONS - HWY 67				

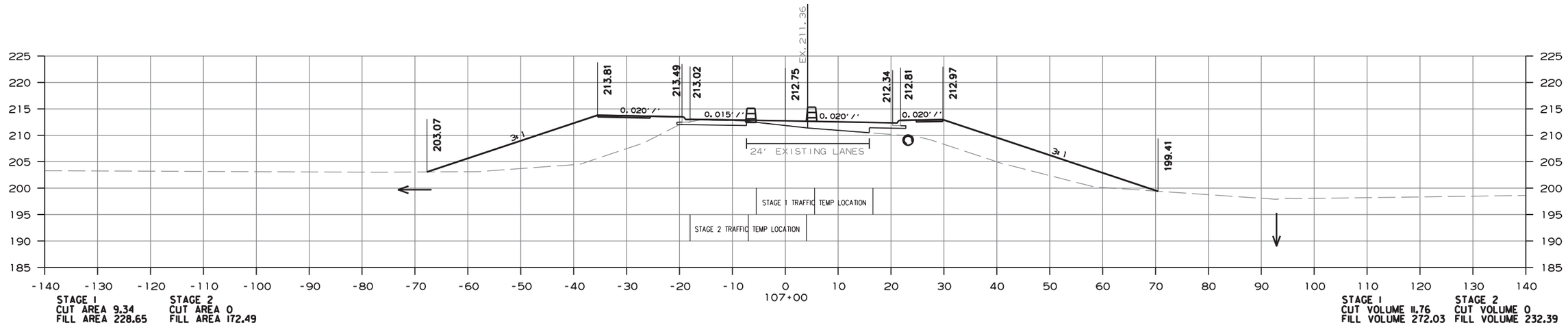


STAGE 1
CUT AREA 9.10
FILL AREA 237.32

STAGE 2
CUT AREA 0
FILL AREA 160.67

STAGE 1
CUT VOLUME 3.76
FILL VOLUME 94.92

STAGE 2
CUT VOLUME 0
FILL VOLUME 67.87



STAGE 1
CUT AREA 9.34
FILL AREA 228.65

STAGE 2
CUT AREA 0
FILL AREA 172.49

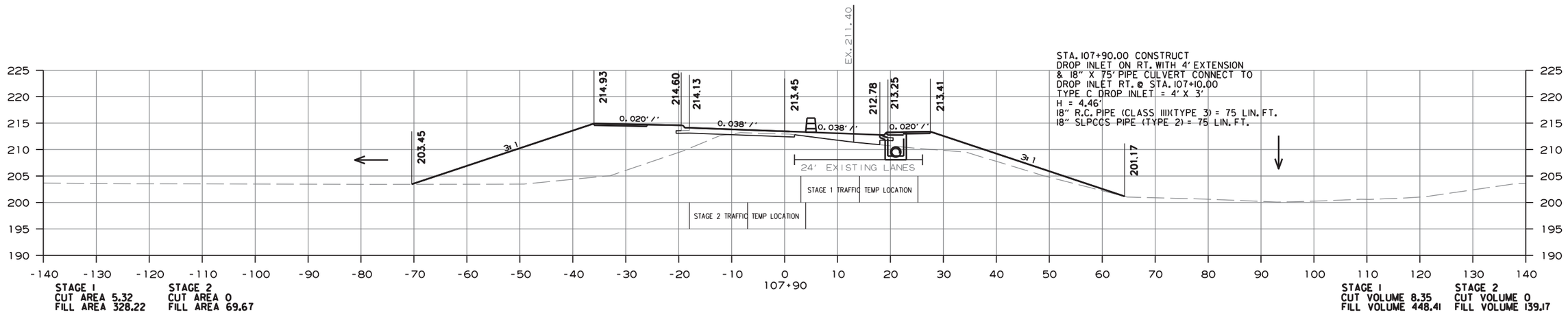
STAGE 1
CUT VOLUME 11.76
FILL VOLUME 272.03

STAGE 2
CUT VOLUME 0
FILL VOLUME 232.39

CROSS SECTION STA. 107+00 TO STA. 107+11

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	124	158
		CROSS SECTIONS - HWY 67				

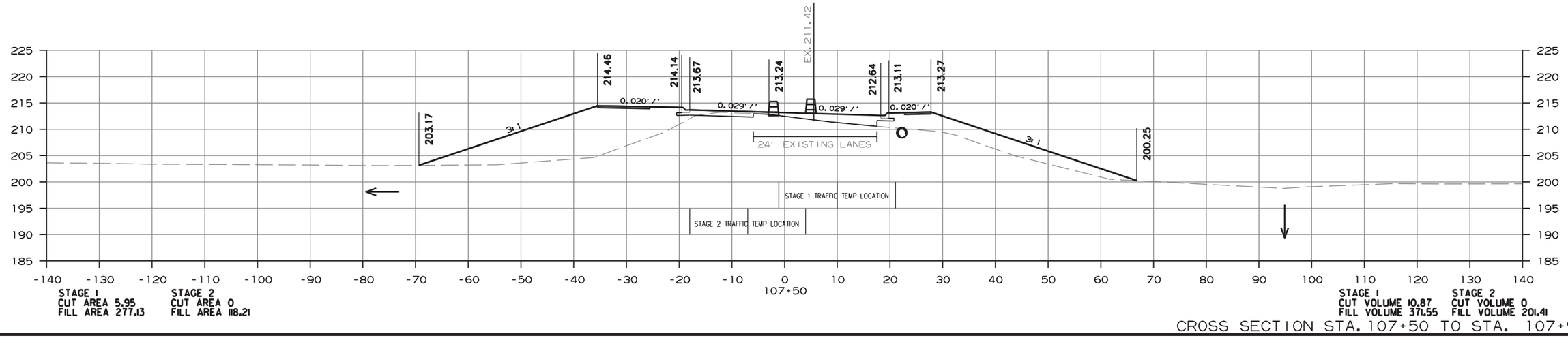


STAGE 1
CUT AREA 5.32
FILL AREA 328.22

STAGE 2
CUT AREA 0
FILL AREA 69.67

STAGE 1
CUT VOLUME 8.35
FILL VOLUME 448.41

STAGE 2
CUT VOLUME 0
FILL VOLUME 139.17



STAGE 1
CUT AREA 5.95
FILL AREA 277.13

STAGE 2
CUT AREA 0
FILL AREA 118.21

STAGE 1
CUT VOLUME 10.87
FILL VOLUME 371.55

STAGE 2
CUT VOLUME 0
FILL VOLUME 201.41

CROSS SECTION STA. 107+50 TO STA. 107+90

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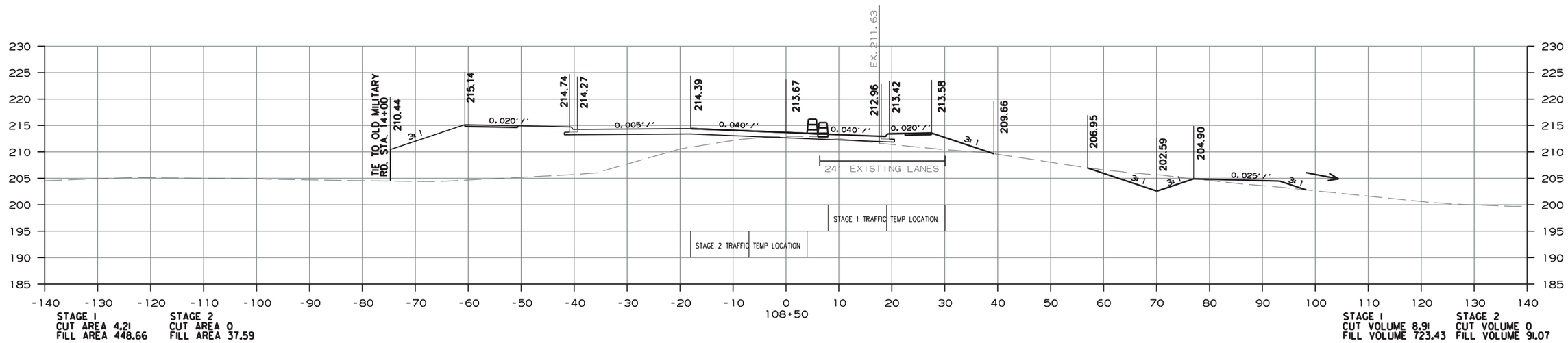
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	125	158
		CROSS SECTIONS - HWY 67				

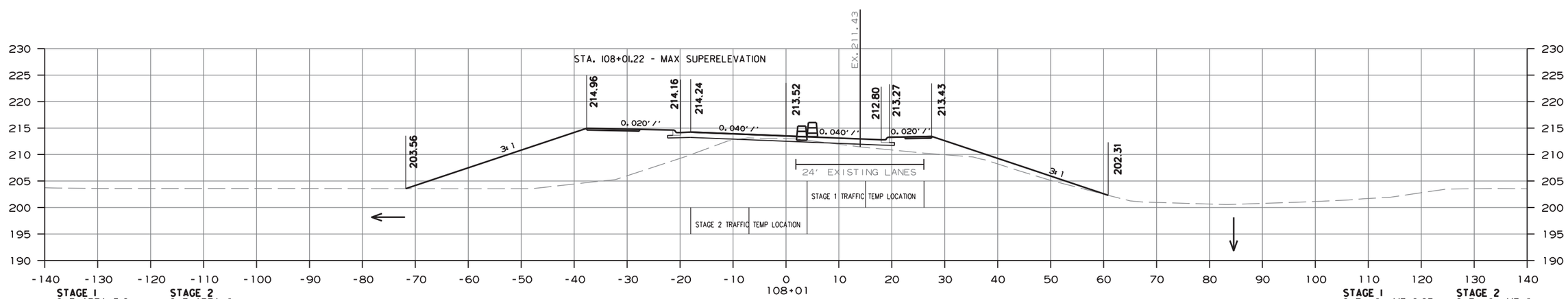


STAGE 1
CUT AREA 4.21
FILL AREA 448.66

STAGE 2
CUT AREA 0
FILL AREA 37.59

STAGE 1
CUT VOLUME 8.91
FILL VOLUME 723.43

STAGE 2
CUT VOLUME 0
FILL VOLUME 91.07



STAGE 1
CUT AREA 5.61
FILL AREA 348.59

STAGE 2
CUT AREA 0
FILL AREA 62.77

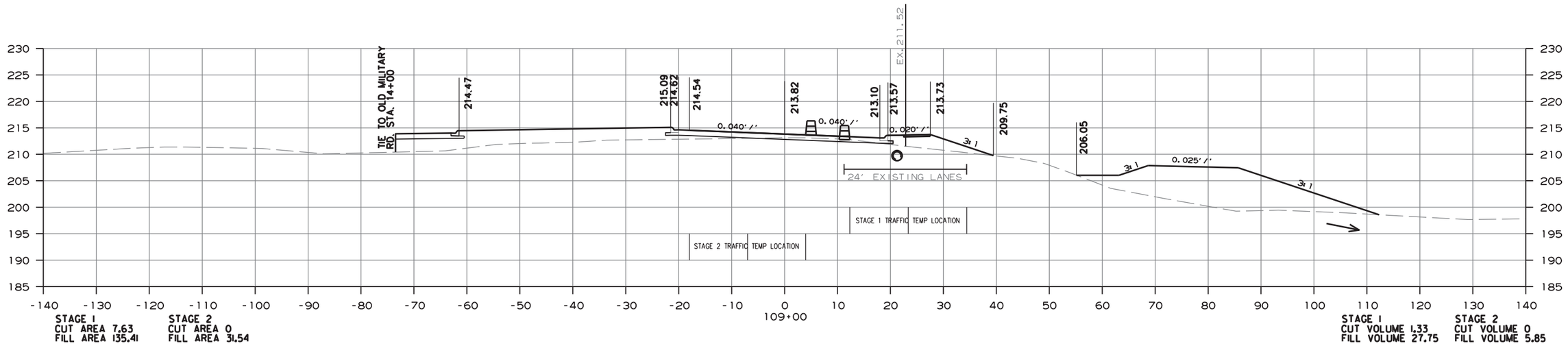
STAGE 1
CUT VOLUME 2.23
FILL VOLUME 137.87

STAGE 2
CUT VOLUME 0
FILL VOLUME 26.98

CROSS SECTION STA. 108+01 TO STA. 108+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	126	158
		CROSS SECTIONS - HWY 67				

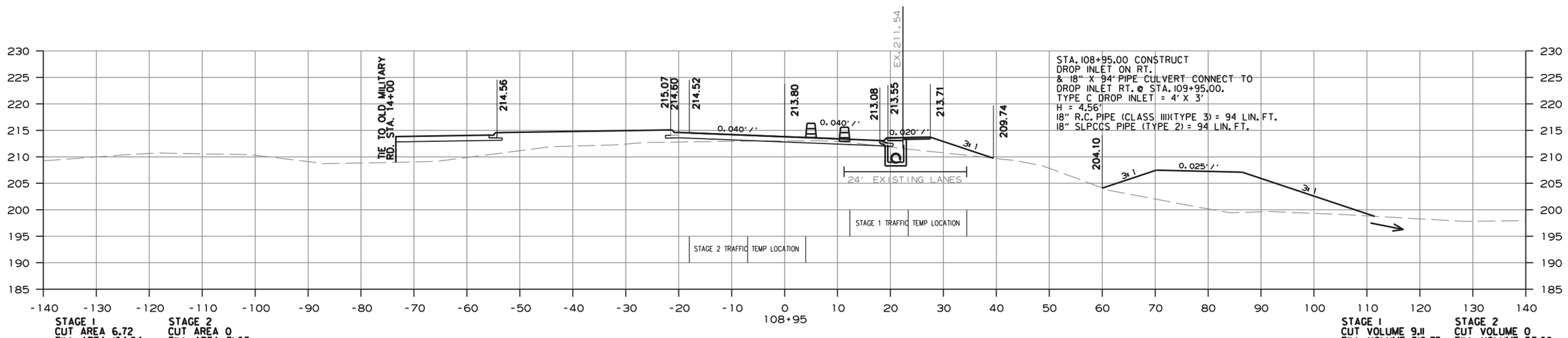


STAGE 1
CUT AREA 7.63
FILL AREA 135.41

STAGE 2
CUT AREA 0
FILL AREA 31.54

STAGE 1
CUT VOLUME 1.33
FILL VOLUME 27.75

STAGE 2
CUT VOLUME 0
FILL VOLUME 5.85



STAGE 1
CUT AREA 6.72
FILL AREA 164.24

STAGE 2
CUT AREA 0
FILL AREA 31.63

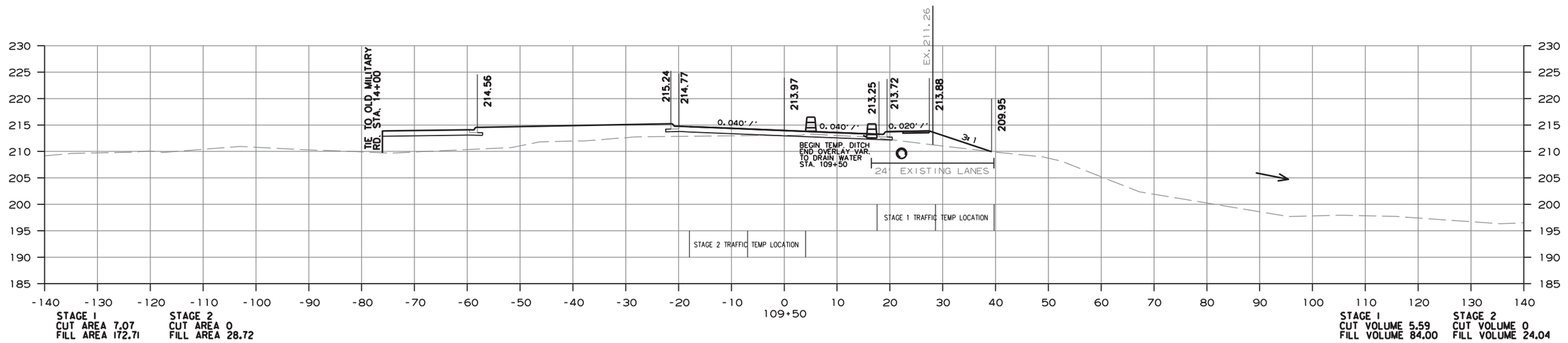
STAGE 1
CUT VOLUME 9.11
FILL VOLUME 510.75

STAGE 2
CUT VOLUME 0
FILL VOLUME 57.68

CROSS SECTION STA. 108+95 TO STA. 109+00

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	127	158
		CROSS SECTIONS - HWY 67				

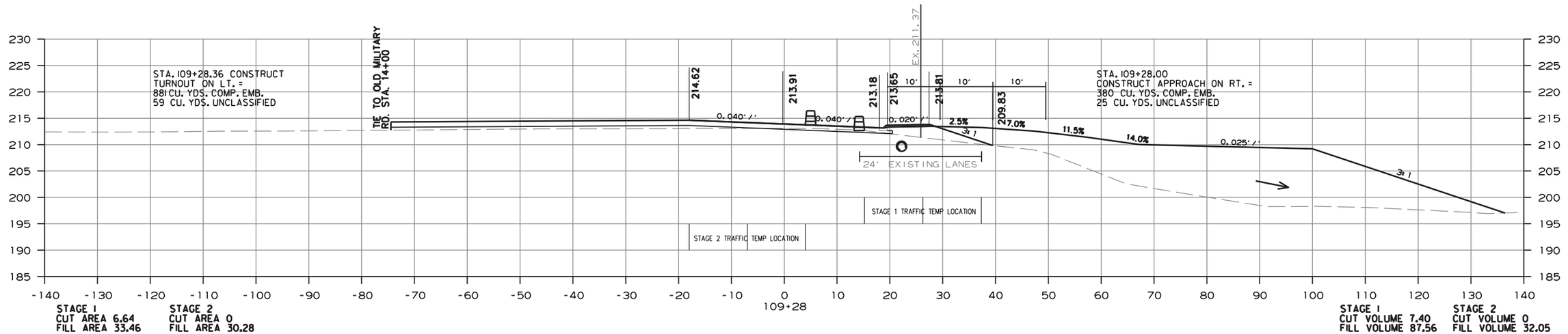


STAGE 1
CUT AREA 7.07
FILL AREA 172.71

STAGE 2
CUT AREA 0
FILL AREA 28.72

STAGE 1
CUT VOLUME 5.59
FILL VOLUME 84.00

STAGE 2
CUT VOLUME 0
FILL VOLUME 24.04



STAGE 1
CUT AREA 6.64
FILL AREA 33.46

STAGE 2
CUT AREA 0
FILL AREA 30.28

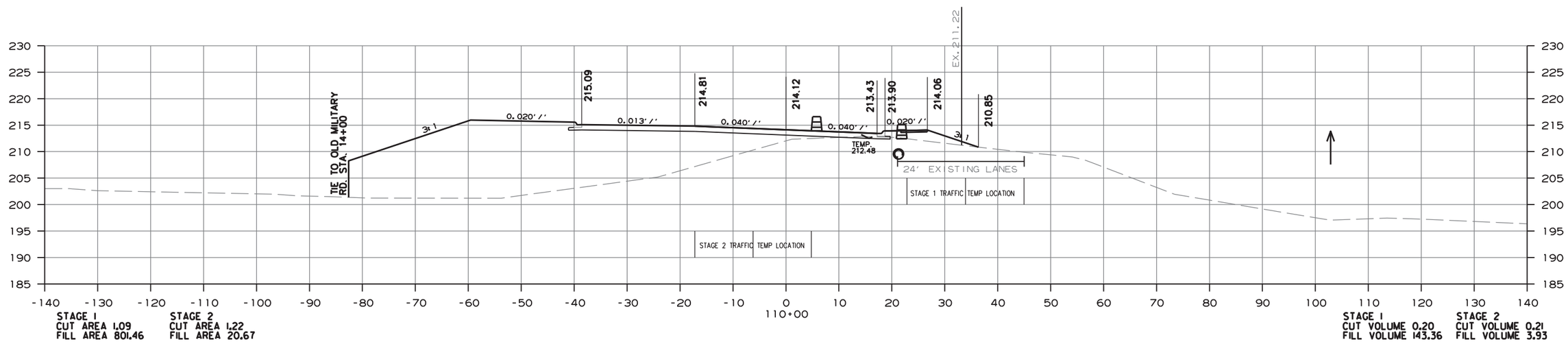
STAGE 1
CUT VOLUME 7.40
FILL VOLUME 87.56

STAGE 2
CUT VOLUME 0
FILL VOLUME 32.05

CROSS SECTION STA. 109+28 TO STA. 109+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	128	158
		CROSS SECTIONS - HWY 67				

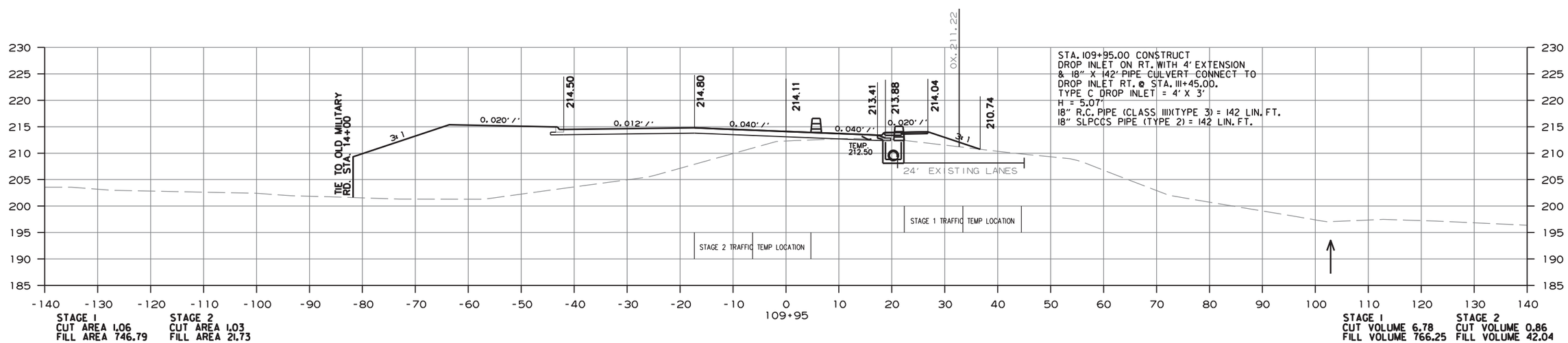


STAGE 1
CUT AREA 1.09
FILL AREA 801.46

STAGE 2
CUT AREA 1.22
FILL AREA 20.67

STAGE 1
CUT VOLUME 0.20
FILL VOLUME 143.36

STAGE 2
CUT VOLUME 0.21
FILL VOLUME 3.93



STAGE 1
CUT AREA 1.06
FILL AREA 746.79

STAGE 2
CUT AREA 1.03
FILL AREA 21.73

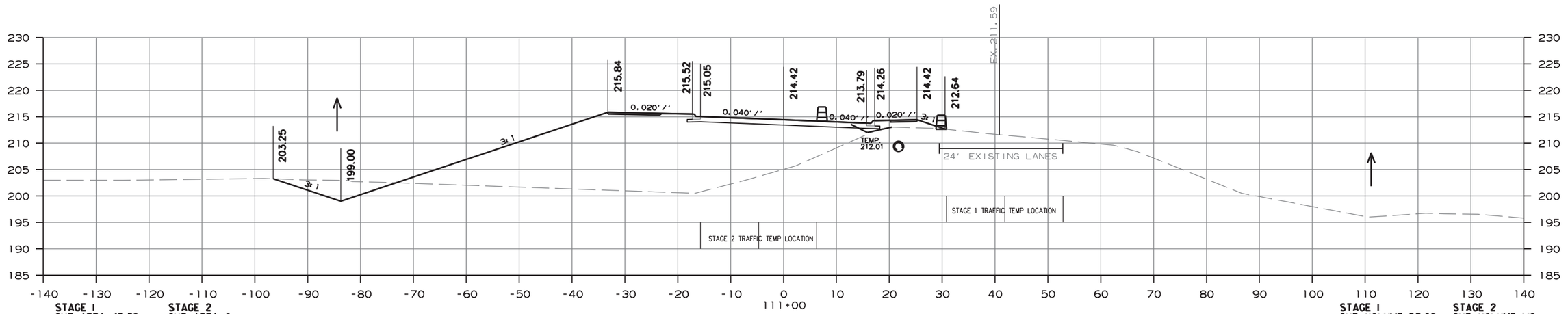
STAGE 1
CUT VOLUME 6.78
FILL VOLUME 766.25

STAGE 2
CUT VOLUME 0.86
FILL VOLUME 42.04

CROSS SECTION STA. 109+95 TO STA. 110+00

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	129	158
		CROSS SECTIONS - HWY 67				

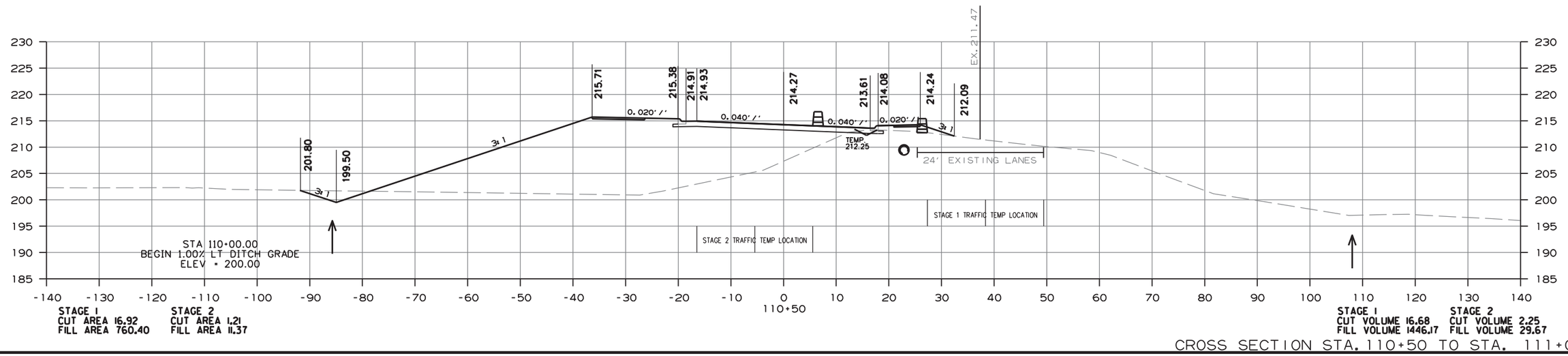


STAGE 1
CUT AREA 45.38
FILL AREA 797.19

STAGE 2
CUT AREA 0
FILL AREA 15.25

STAGE 1
CUT VOLUME 57.69
FILL VOLUME 1442.21

STAGE 2
CUT VOLUME 1.12
FILL VOLUME 24.65



STAGE 1
CUT AREA 16.92
FILL AREA 760.40

STAGE 2
CUT AREA 1.21
FILL AREA 11.37

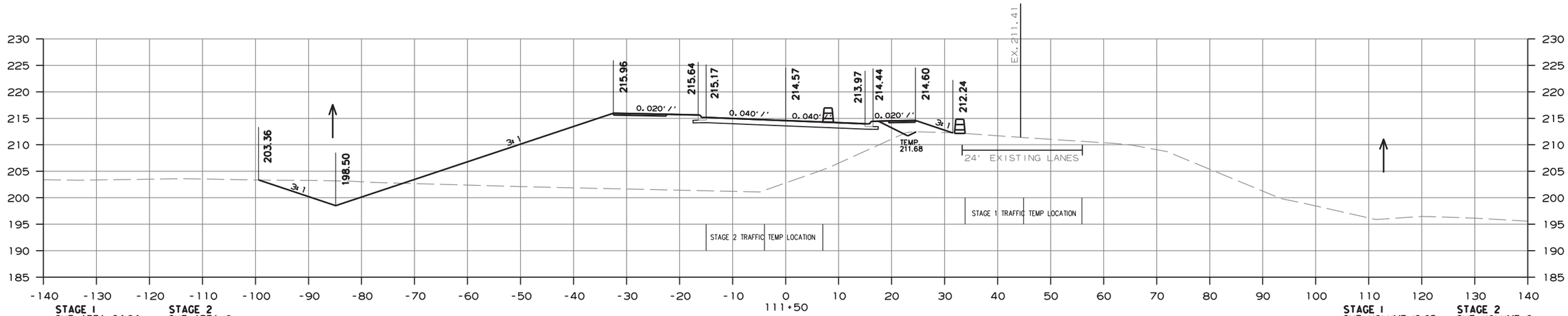
STAGE 1
CUT VOLUME 16.68
FILL VOLUME 1446.17

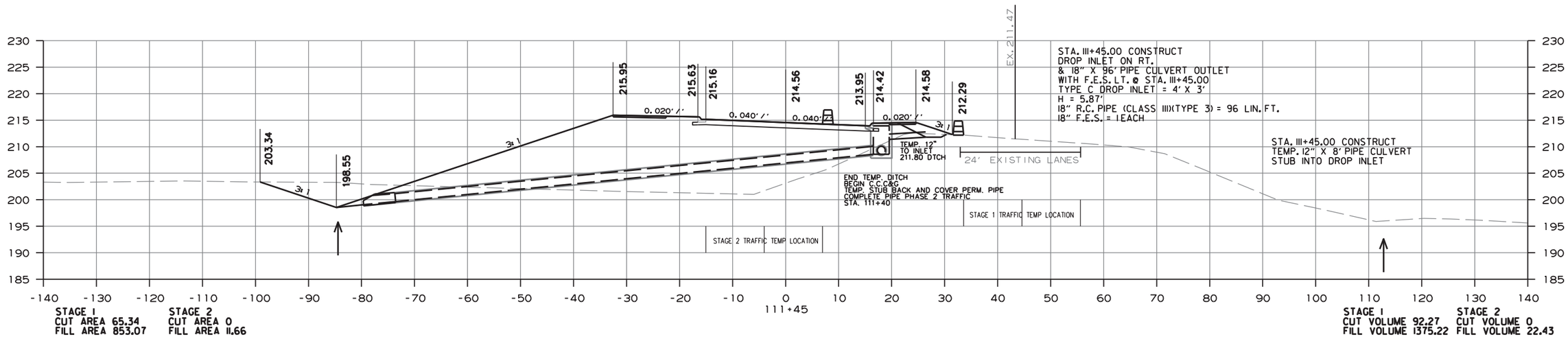
STAGE 2
CUT VOLUME 2.25
FILL VOLUME 29.67

CROSS SECTION STA. 110+50 TO STA. 111+00

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	130	158
		CROSS SECTIONS - HWY 67				

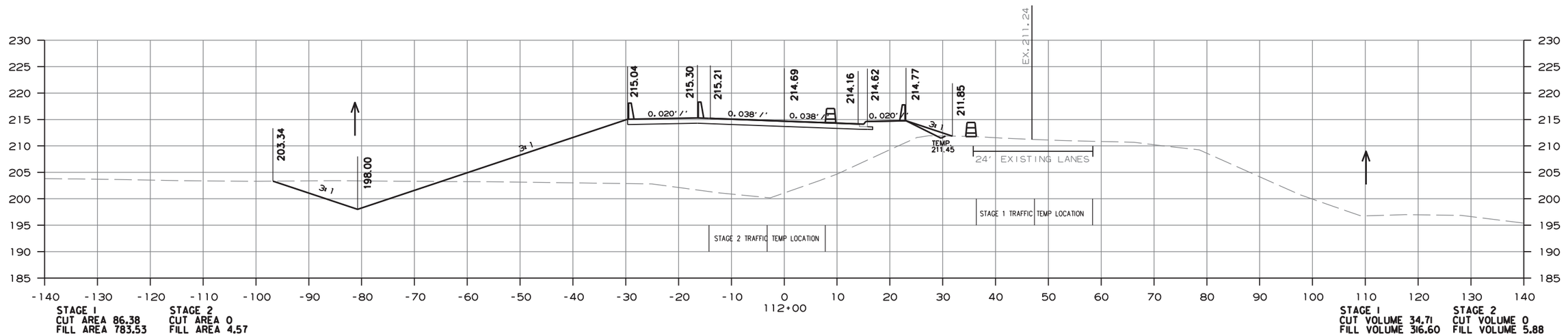




CROSS SECTION STA. 111+45 TO STA. 111+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	131	158
		CROSS SECTIONS - HWY 67				

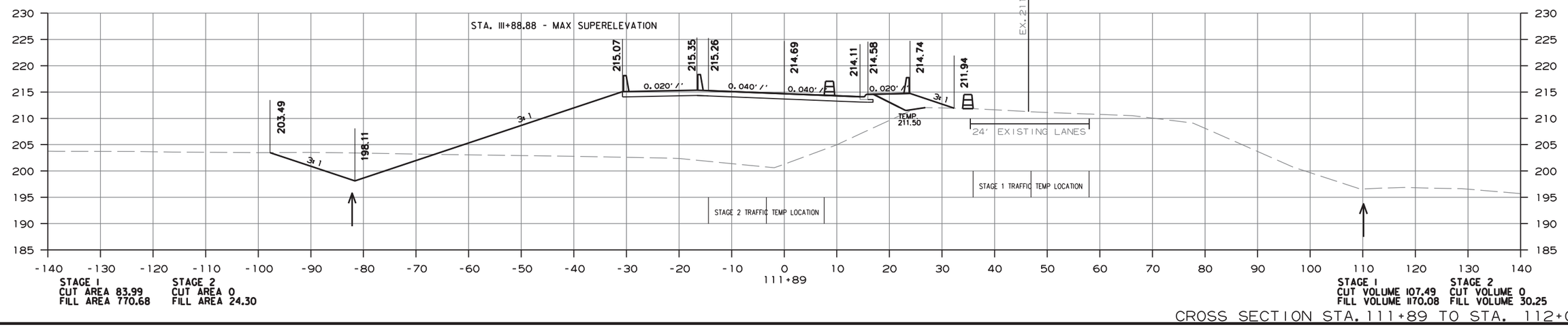


STAGE 1
CUT AREA 86.38
FILL AREA 783.53

STAGE 2
CUT AREA 0
FILL AREA 4.57

STAGE 1
CUT VOLUME 34.71
FILL VOLUME 316.60

STAGE 2
CUT VOLUME 0
FILL VOLUME 5.88



STAGE 1
CUT AREA 83.99
FILL AREA 770.68

STAGE 2
CUT AREA 0
FILL AREA 24.30

STAGE 1
CUT VOLUME 107.49
FILL VOLUME 1170.08

STAGE 2
CUT VOLUME 0
FILL VOLUME 30.25

CROSS SECTION STA. 111+89 TO STA. 112+00

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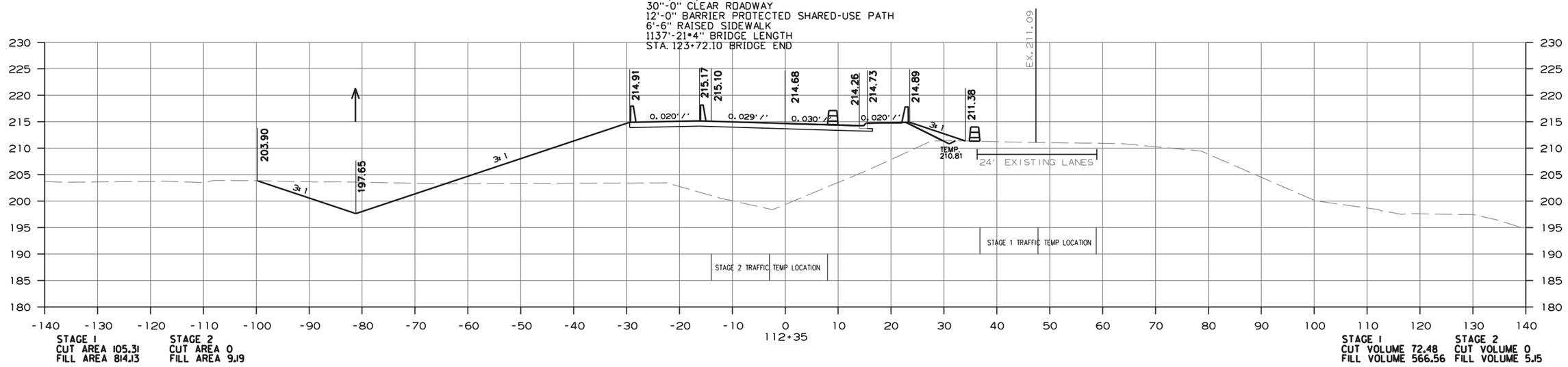
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	132	158
		CROSS SECTIONS - HWY 67				

STA. 112+34.94 BRIDGE END
BRIDGE NO. 07673 OVER CADDO RIVER
3@255'-0" COMPOSITE PRESTRESSED CONCRETE
GIRDER UNITS (85', 85', 85')
370'-0" CONTIUOUS PLATE GIRDER UNIT
(115', 140', 115')
30"-0" CLEAR ROADWAY
12'-0" BARRIER PROTECTED SHARED-USE PATH
6'-6" RAISED SIDEWALK
1137'-21•4" BRIDGE LENGTH
STA. 123+72.10 BRIDGE END



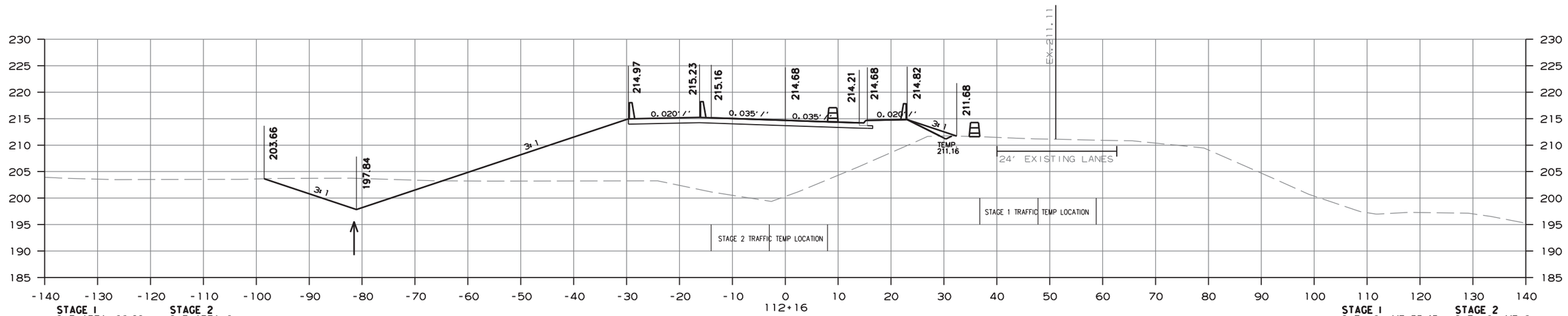
STAGE 1
CUT AREA 105.31
FILL AREA 814.13

STAGE 2
CUT AREA 0
FILL AREA 9.19

112+35

STAGE 1
CUT VOLUME 72.48
FILL VOLUME 566.56

STAGE 2
CUT VOLUME 0
FILL VOLUME 5.15



STAGE 1
CUT AREA 100.68
FILL AREA 796.09

STAGE 2
CUT AREA 0
FILL AREA 5.46

112+16

STAGE 1
CUT VOLUME 55.43
FILL VOLUME 468.04

STAGE 2
CUT VOLUME 0
FILL VOLUME 2.97

CROSS SECTION STA. 112+16 TO STA. 112+35

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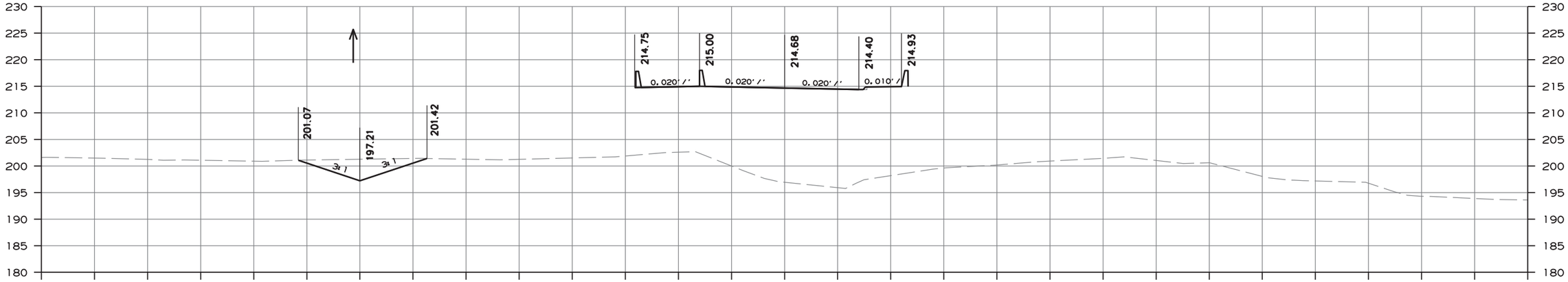
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	133	158
		CROSS SECTIONS - HWY 67				



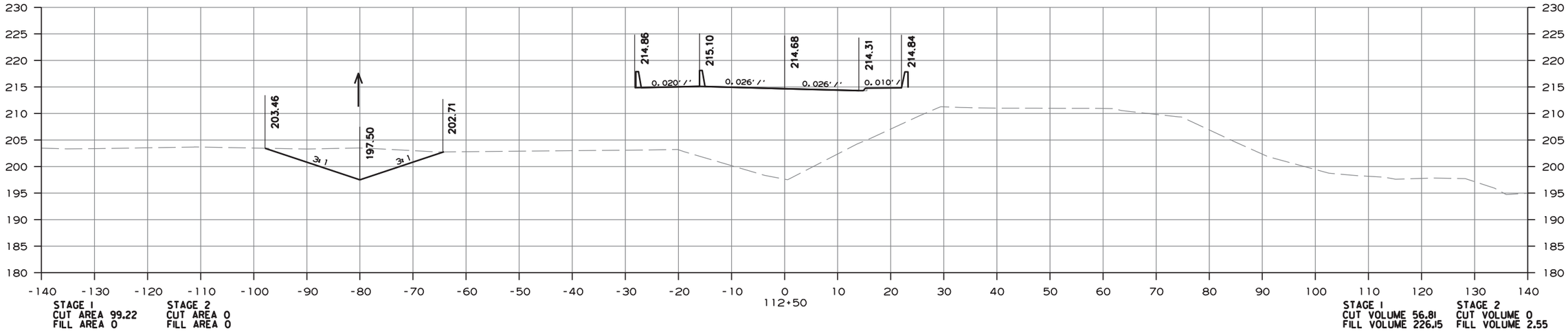
112+79

STAGE 1
CUT AREA 45.54
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 79.89
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



112+50

STAGE 1
CUT AREA 99.22
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 56.81
FILL VOLUME 226.15

STAGE 2
CUT VOLUME 0
FILL VOLUME 2.55

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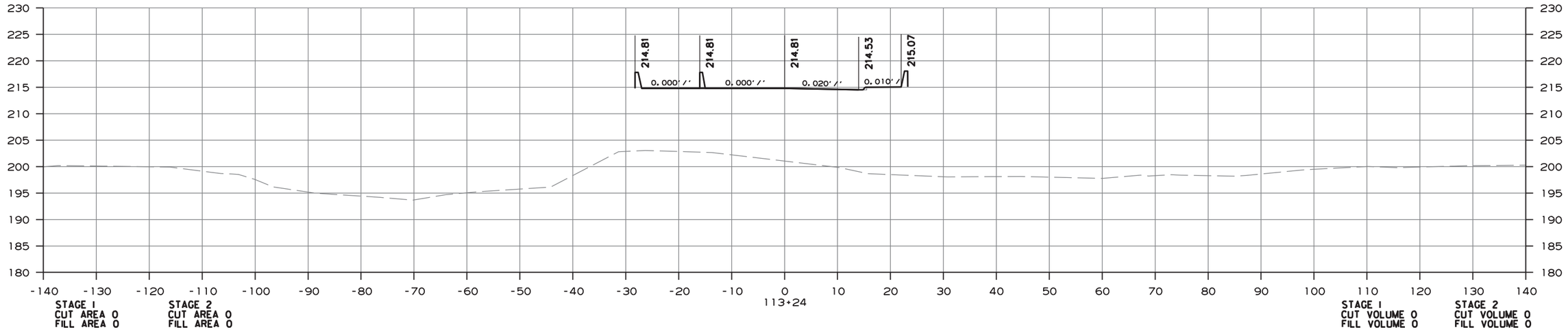
CROSS SECTION STA. 112+50 TO STA. 112+79

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	134	158
		CROSS SECTIONS - HWY 67				

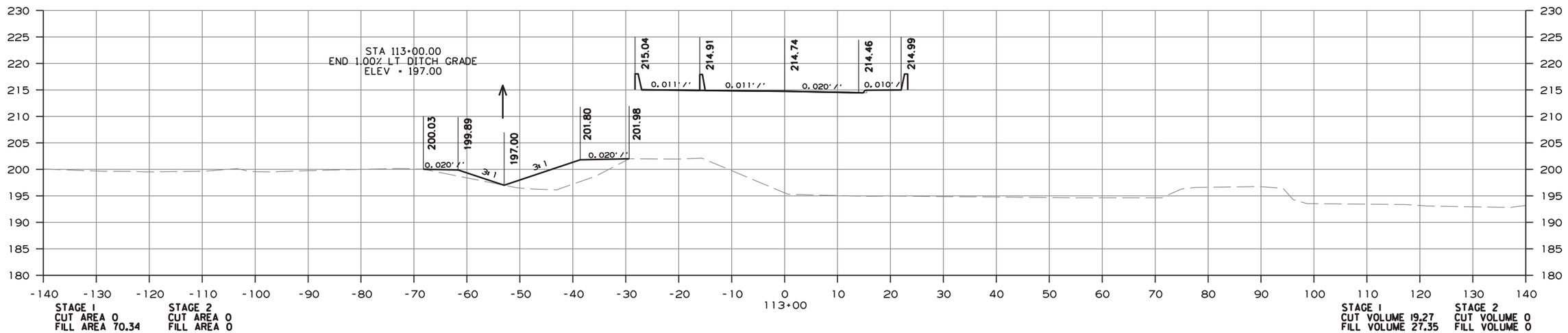


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 70.34

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 19.27
FILL VOLUME 27.35

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

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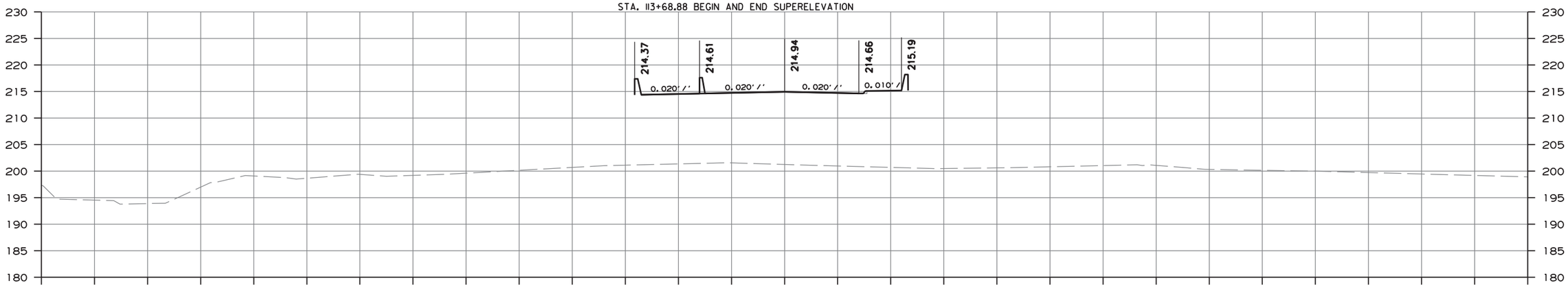
CROSS SECTION STA. 113+00 TO STA. 113+24

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	135	158
		CROSS SECTIONS - HWY 67				

STA. 113+68.88 BEGIN AND END SUPERELEVATION

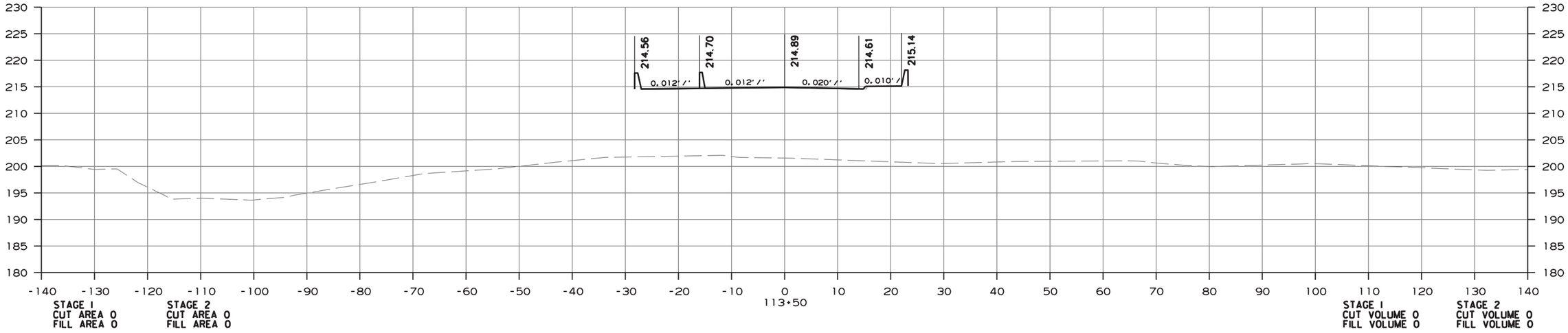


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

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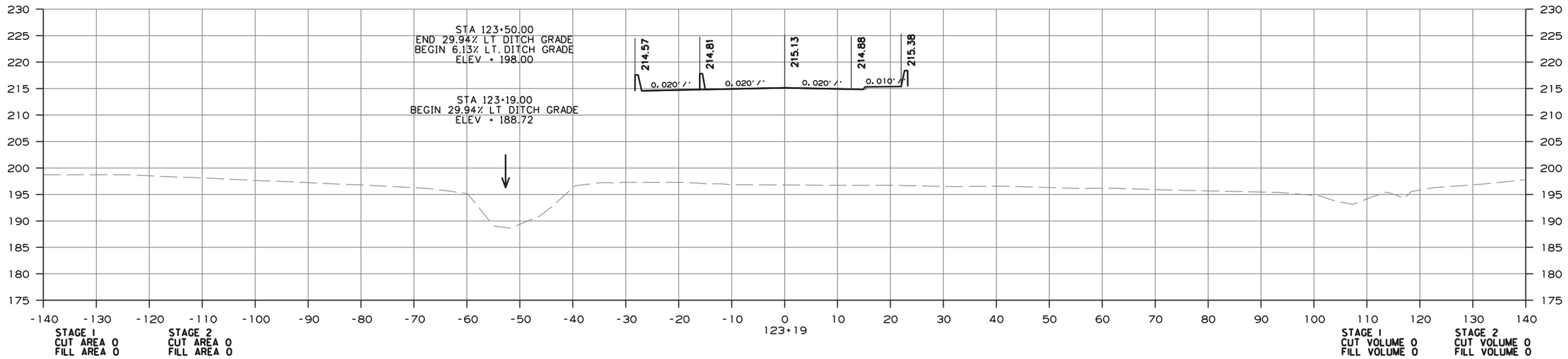
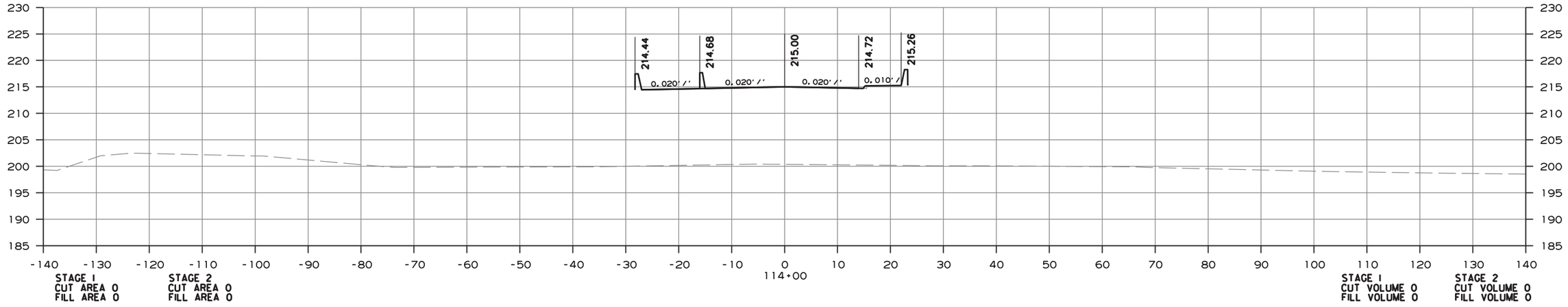
CROSS SECTION STA. 113+50 TO STA. 113+69

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	136	158
		CROSS SECTIONS - HWY 67				





CROSS SECTION STA. 114+00 TO STA. 123+19

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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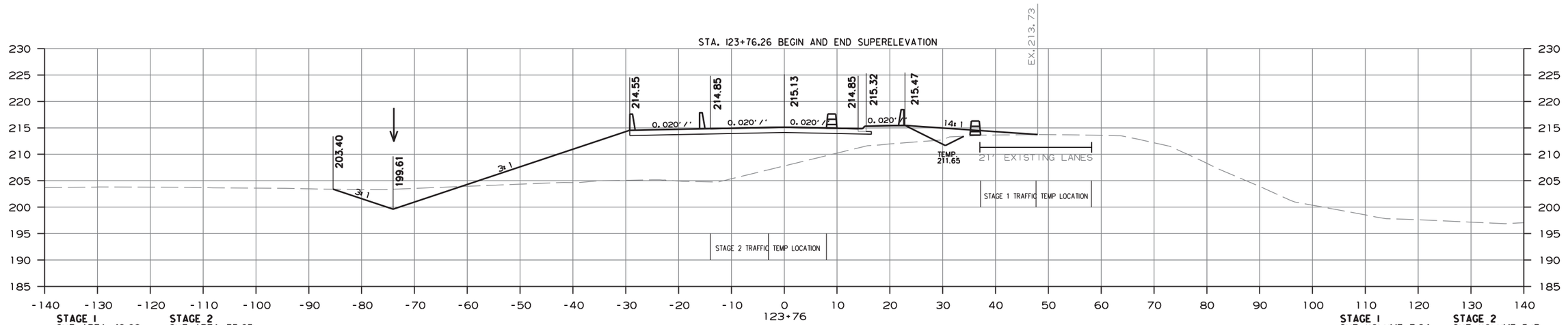
		CROSS SECTIONS - HWY 67				

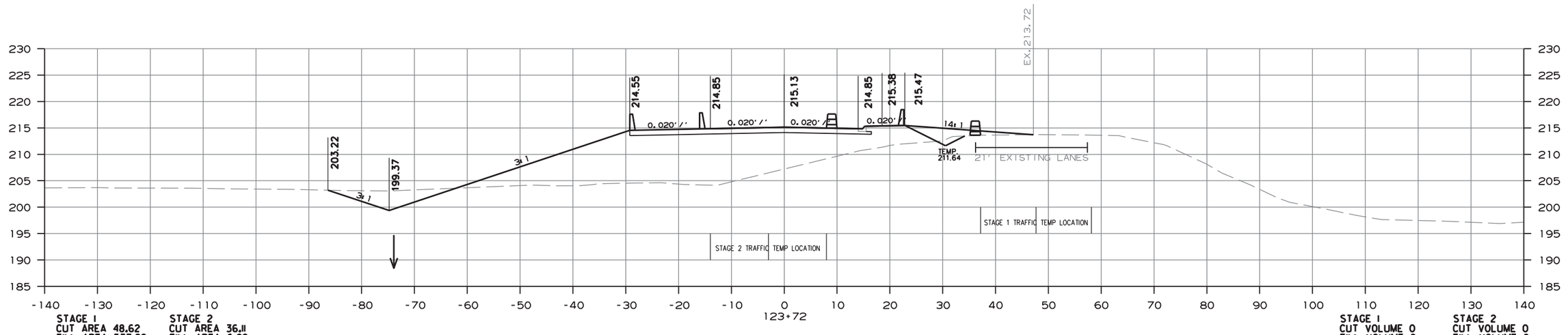


STAGE 1
CUT AREA 49.09
FILL AREA 494.08

STAGE 2
CUT AREA 33.65
FILL AREA 6.41

STAGE 1
CUT VOLUME 7.24
FILL VOLUME 76.44

STAGE 2
CUT VOLUME 5.17
FILL VOLUME 0.94



STAGE 1
CUT AREA 48.62
FILL AREA 537.88

STAGE 2
CUT AREA 36.11
FILL AREA 6.22

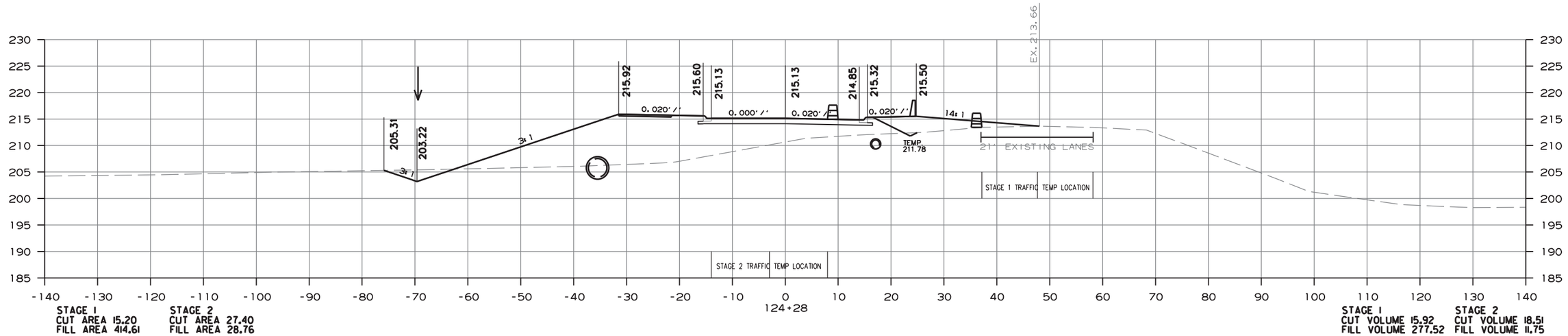
STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

CROSS SECTION STA. 123+72 TO STA. 123+76

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	138	158
		CROSS SECTIONS - HWY 67				



STAGE 1
CUT AREA 15.20
FILL AREA 414.61

STAGE 2
CUT AREA 27.40
FILL AREA 28.76

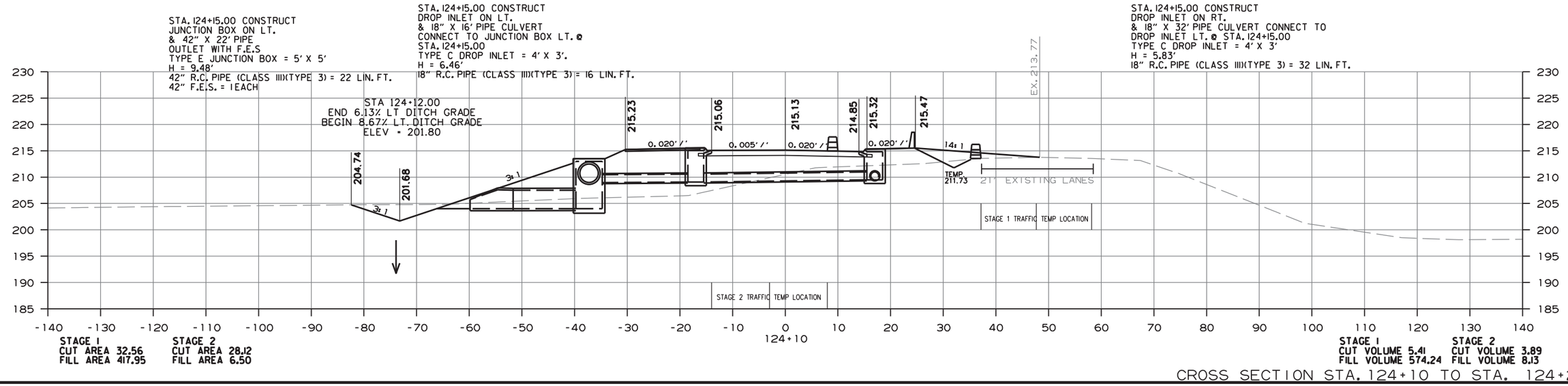
STAGE 1
CUT VOLUME 15.92
FILL VOLUME 277.52

STAGE 2
CUT VOLUME 18.51
FILL VOLUME 11.75

STA. 124+15.00 CONSTRUCT
JUNCTION BOX ON LT.
& 42" X 22' PIPE
OUTLET WITH F.E.S
TYPE E JUNCTION BOX = 5' X 5'
H = 9.48'
42" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT.
42" F.E.S. = 1EACH

STA. 124+15.00 CONSTRUCT
DROP INLET ON LT.
& 18" X 16' PIPE CULVERT
CONNECT TO JUNCTION BOX LT. @
STA. 124+15.00
TYPE C DROP INLET = 4' X 3'.
H = 6.46'
18" R.C. PIPE (CLASS III)(TYPE 3) = 16 LIN. FT.

STA. 124+15.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 32' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 124+15.00
TYPE C DROP INLET = 4' X 3'
H = 5.83'
18" R.C. PIPE (CLASS III)(TYPE 3) = 32 LIN. FT.



STAGE 1
CUT AREA 32.56
FILL AREA 417.95

STAGE 2
CUT AREA 28.12
FILL AREA 6.50

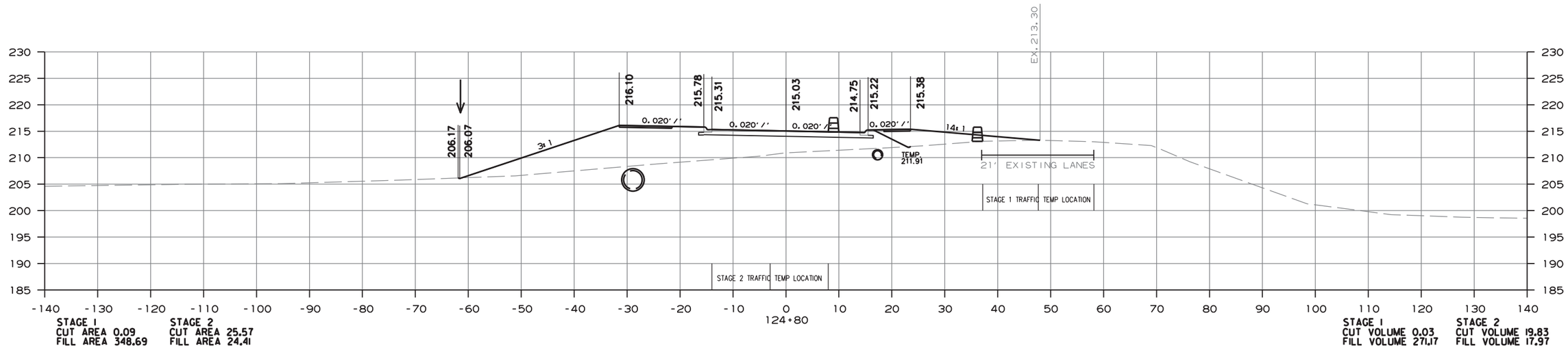
STAGE 1
CUT VOLUME 5.41
FILL VOLUME 574.24

STAGE 2
CUT VOLUME 3.89
FILL VOLUME 8.13

CROSS SECTION STA. 124+10 TO STA. 124+28

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	139	158
		CROSS SECTIONS - HWY 67				

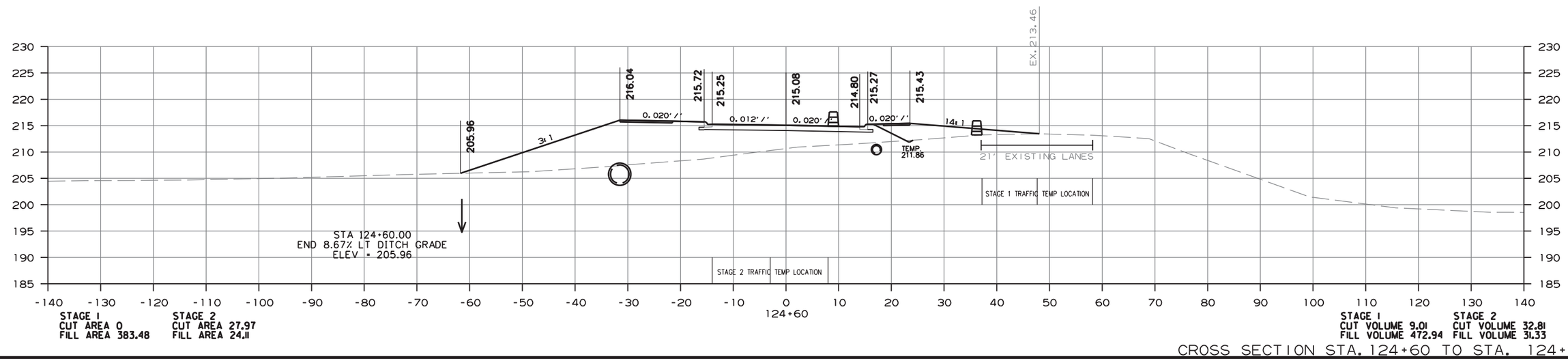


STAGE 1
CUT AREA 0.09
FILL AREA 348.69

STAGE 2
CUT AREA 25.57
FILL AREA 24.41

STAGE 1
CUT VOLUME 0.03
FILL VOLUME 271.17

STAGE 2
CUT VOLUME 19.83
FILL VOLUME 17.97



STAGE 1
CUT AREA 0
FILL AREA 383.48

STAGE 2
CUT AREA 27.97
FILL AREA 24.11

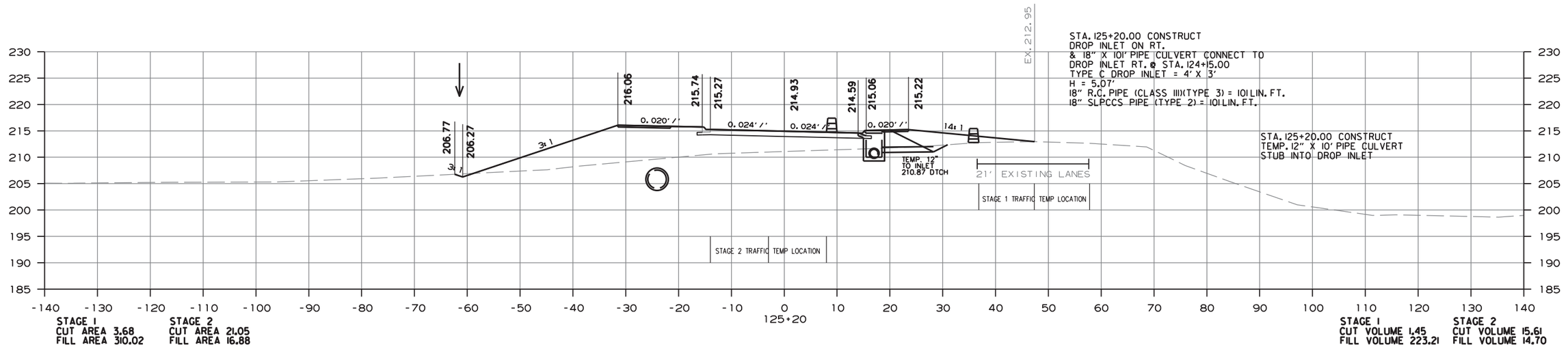
STAGE 1
CUT VOLUME 9.01
FILL VOLUME 472.94

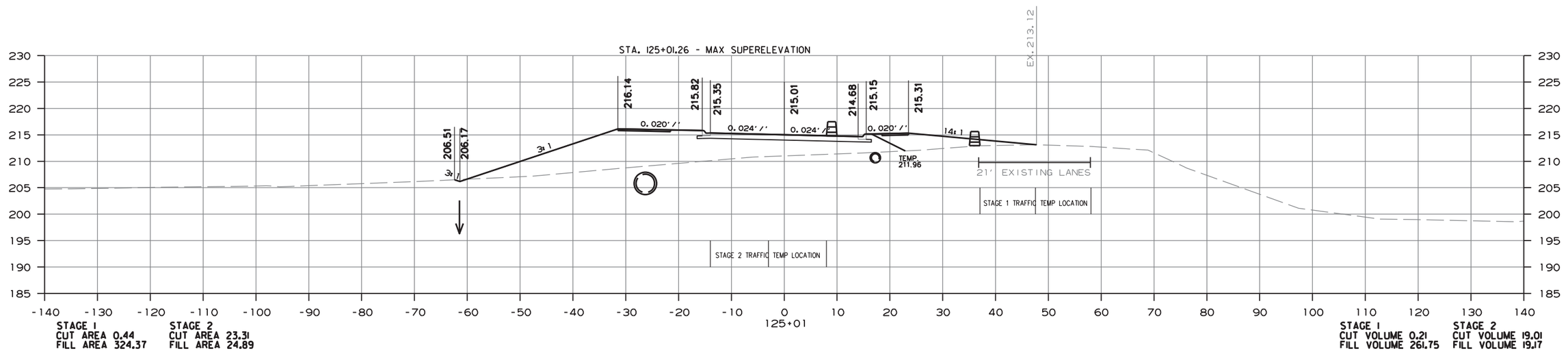
STAGE 2
CUT VOLUME 32.81
FILL VOLUME 31.33

CROSS SECTION STA. 124+60 TO STA. 124+80

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	140	158
		CROSS SECTIONS - HWY 67				

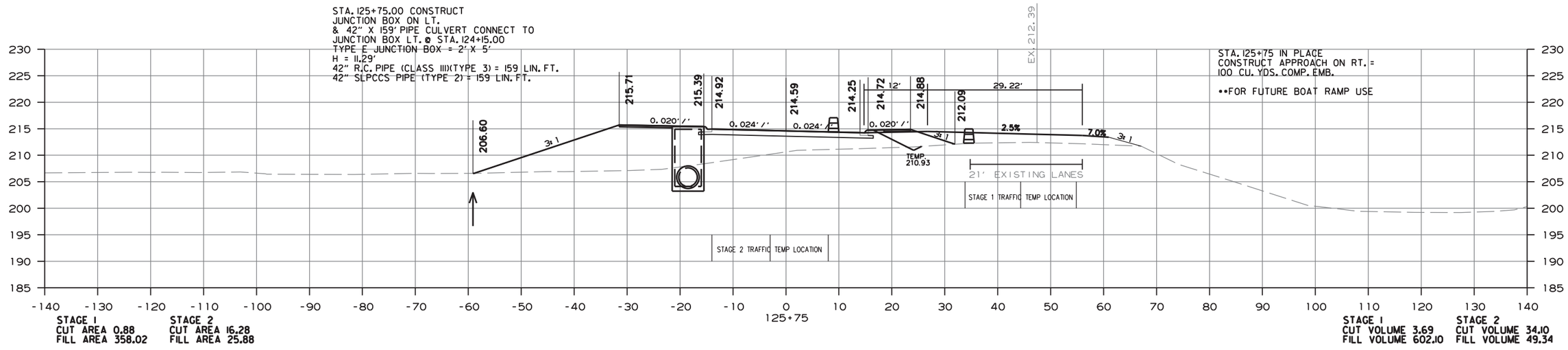


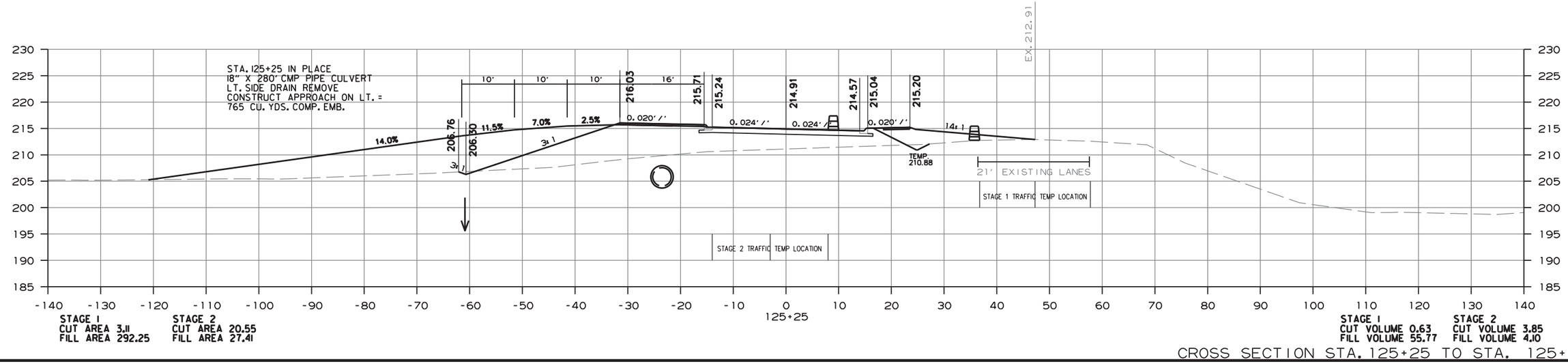


CROSS SECTION STA. 125+01 TO STA. 125+20

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	141	158
		CROSS SECTIONS - HWY 67				

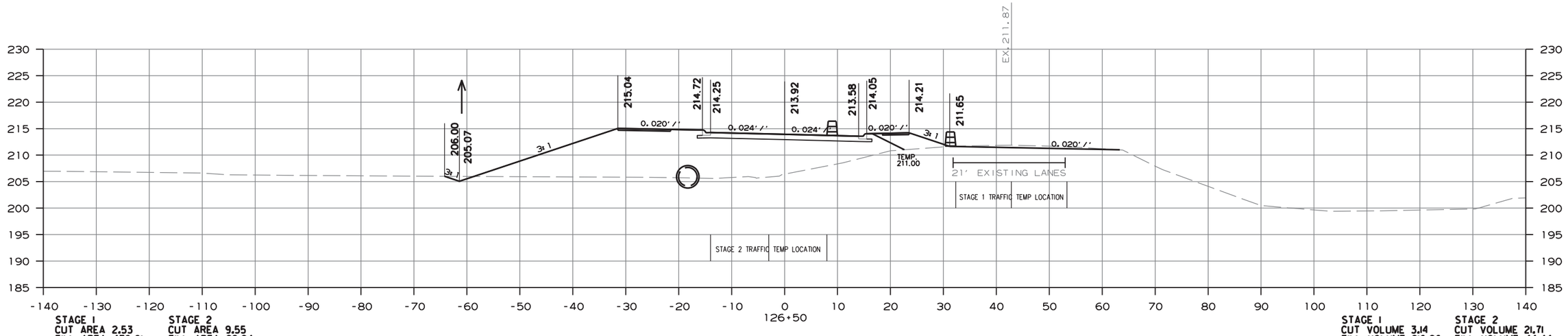




CROSS SECTION STA. 125+25 TO STA. 125+75

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	142	158
		CROSS SECTIONS - HWY 67				

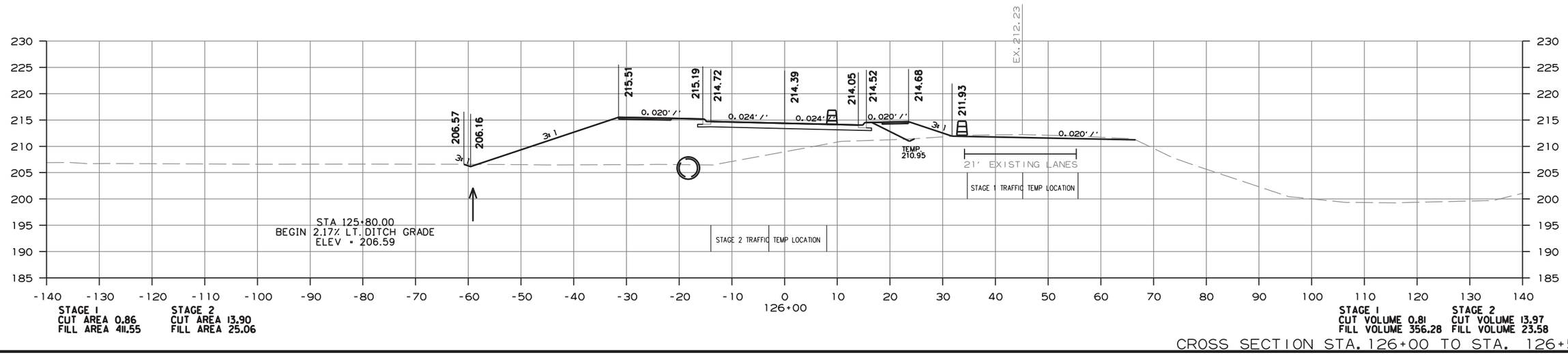


STAGE 1
CUT AREA 2.53
FILL AREA 470.01

STAGE 2
CUT AREA 9.55
FILL AREA 22.94

STAGE 1
CUT VOLUME 3.14
FILL VOLUME 816.26

STAGE 2
CUT VOLUME 21.71
FILL VOLUME 44.44



STAGE 1
CUT AREA 0.86
FILL AREA 411.55

STAGE 2
CUT AREA 13.90
FILL AREA 25.06

STAGE 1
CUT VOLUME 0.81
FILL VOLUME 356.28

STAGE 2
CUT VOLUME 13.97
FILL VOLUME 23.58

CROSS SECTION STA. 126+00 TO STA. 126+50

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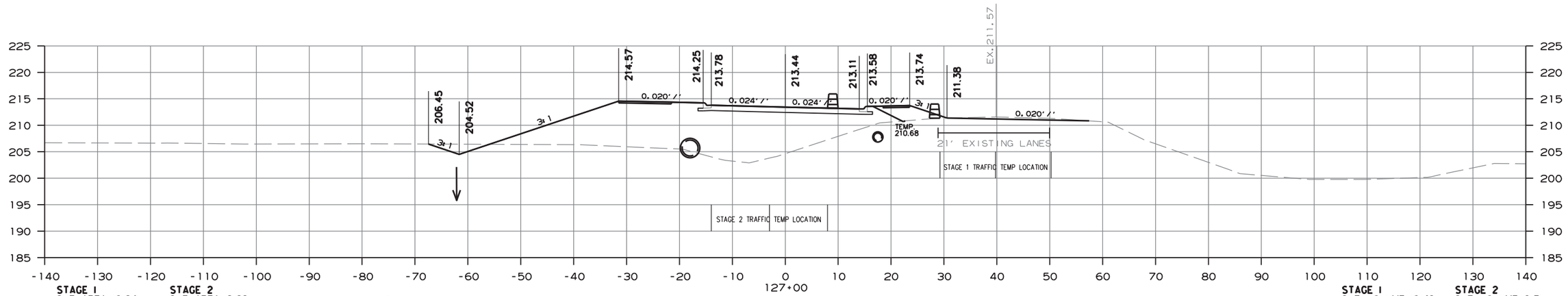
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	143	158
		CROSS SECTIONS - HWY 67				



STAGE 1
CUT AREA 10.94
FILL AREA 471.47

STAGE 2
CUT AREA 6.62
FILL AREA 20.23

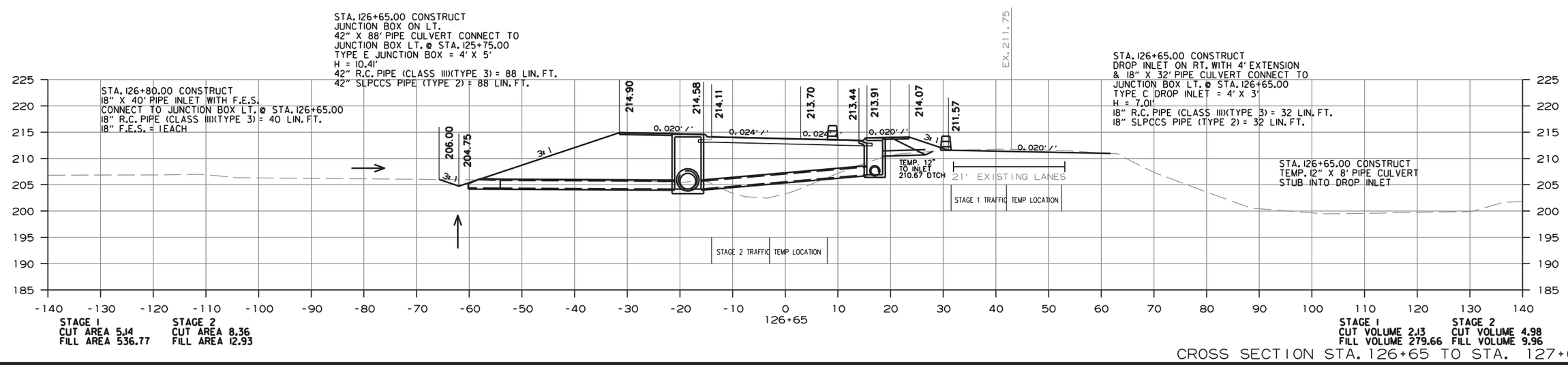
STA 126+80.00
END 2.17% LT DITCH GRADE
BEGIN 0.50% LT. DITCH GRADE
ELEV = 204.42

STAGE 1
CUT VOLUME 10.42
FILL VOLUME 653.49

STAGE 2
CUT VOLUME 9.71
FILL VOLUME 21.49

STA. 126+65.00 CONSTRUCT
JUNCTION BOX ON LT.
42" X 88' PIPE CULVERT CONNECT TO
JUNCTION BOX LT. @ STA. 125+75.00
TYPE E JUNCTION BOX = 4' X 5'
H = 10.41'
42" R.C. PIPE (CLASS III)(TYPE 3) = 88 LIN. FT.
42" SLPCCS PIPE (TYPE 2) = 88 LIN. FT.

STA. 126+80.00 CONSTRUCT
18" X 40' PIPE INLET WITH F.E.S.
CONNECT TO JUNCTION BOX LT. @ STA. 126+65.00
18" R.C. PIPE (CLASS III)(TYPE 3) = 40 LIN. FT.
18" F.E.S. = 1EACH



STA. 126+65.00 CONSTRUCT
DROP INLET ON RT. WITH 4' EXTENSION
& 18" X 32' PIPE CULVERT CONNECT TO
JUNCTION BOX LT. @ STA. 126+65.00
TYPE C DROP INLET = 4' X 3'
H = 7.01'
18" R.C. PIPE (CLASS III)(TYPE 3) = 32 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 32 LIN. FT.

STA. 126+65.00 CONSTRUCT
TEMP. 12" X 8' PIPE CULVERT
STUB INTO DROP INLET

STAGE 1
CUT AREA 5.14
FILL AREA 536.77

STAGE 2
CUT AREA 8.36
FILL AREA 12.93

STAGE 1
CUT VOLUME 2.13
FILL VOLUME 279.66

STAGE 2
CUT VOLUME 4.98
FILL VOLUME 9.96

CROSS SECTION STA. 126+65 TO STA. 127+00

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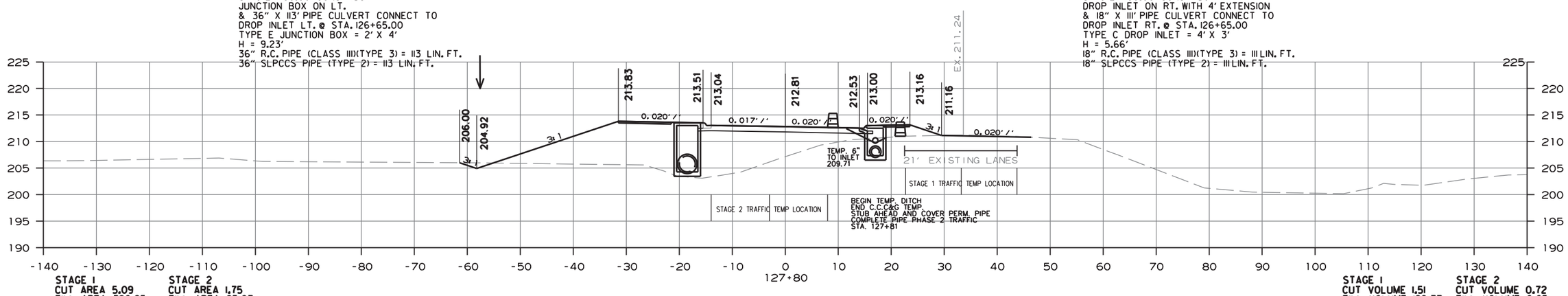
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	144	158
		CROSS SECTIONS - HWY 67				

STA. 127+80.00 CONSTRUCT
JUNCTION BOX ON LT.
& 36" X 113' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 126+65.00
TYPE E JUNCTION BOX = 2' X 4'
H = 9.23'
36" R.C. PIPE (CLASS III)(TYPE 3) = 113 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 113 LIN. FT.

STA. 127+80.00 CONSTRUCT
DROP INLET ON RT. WITH 4' EXTENSION
& 18" X 111' PIPE CULVERT CONNECT TO
DROP INLET RT. @ STA. 126+65.00
TYPE C DROP INLET = 4' X 3'
H = 5.66'
18" R.C. PIPE (CLASS III)(TYPE 3) = 111 LIN. FT.
18" SLPCCS PIPE (TYPE 2) = 111 LIN. FT.

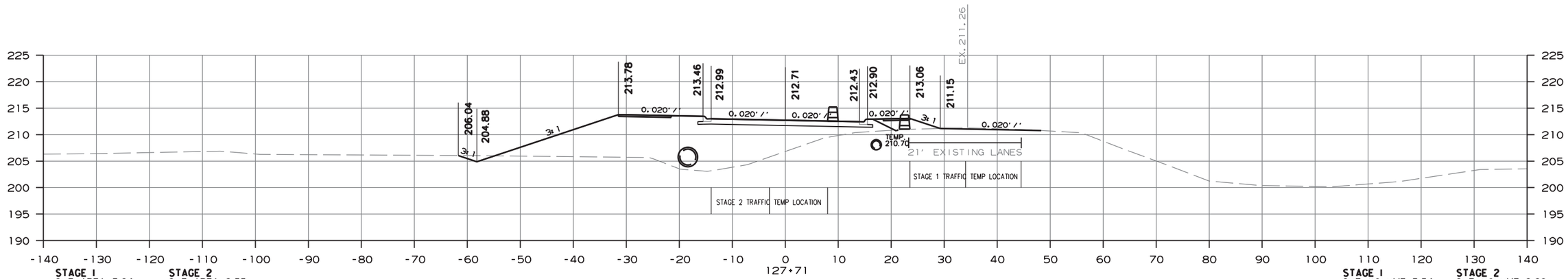


STAGE 1
CUT AREA 5.09
FILL AREA 386.25

STAGE 2
CUT AREA 1.75
FILL AREA 25.27

STAGE 1
CUT VOLUME 1.51
FILL VOLUME 129.77

STAGE 2
CUT VOLUME 0.72
FILL VOLUME 6.65

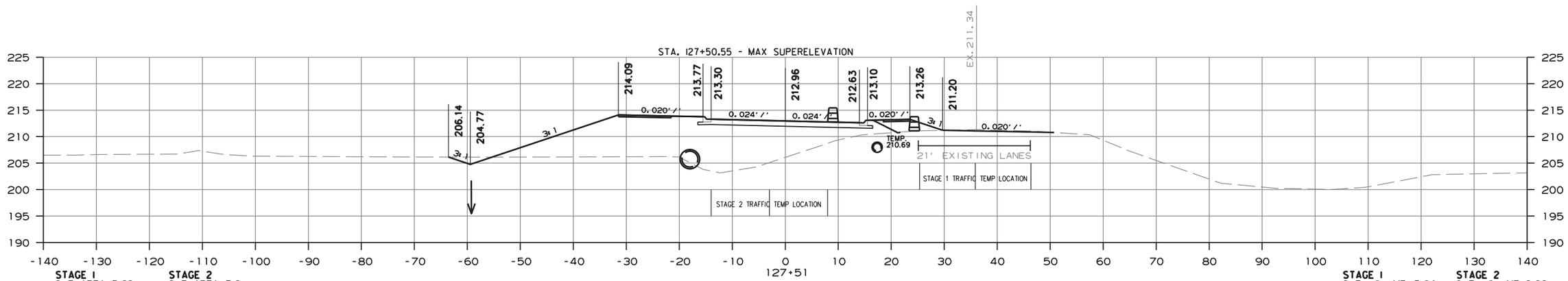


STAGE 1
CUT AREA 3.94
FILL AREA 392.35

STAGE 2
CUT AREA 2.55
FILL AREA 14.64

STAGE 1
CUT VOLUME 3.54
FILL VOLUME 293.94

STAGE 2
CUT VOLUME 2.28
FILL VOLUME 11.45



STAGE 1
CUT AREA 5.62
FILL AREA 401.29

STAGE 2
CUT AREA 3.61
FILL AREA 16.28

STAGE 1
CUT VOLUME 15.64
FILL VOLUME 824.27

STAGE 2
CUT VOLUME 9.66
FILL VOLUME 34.48

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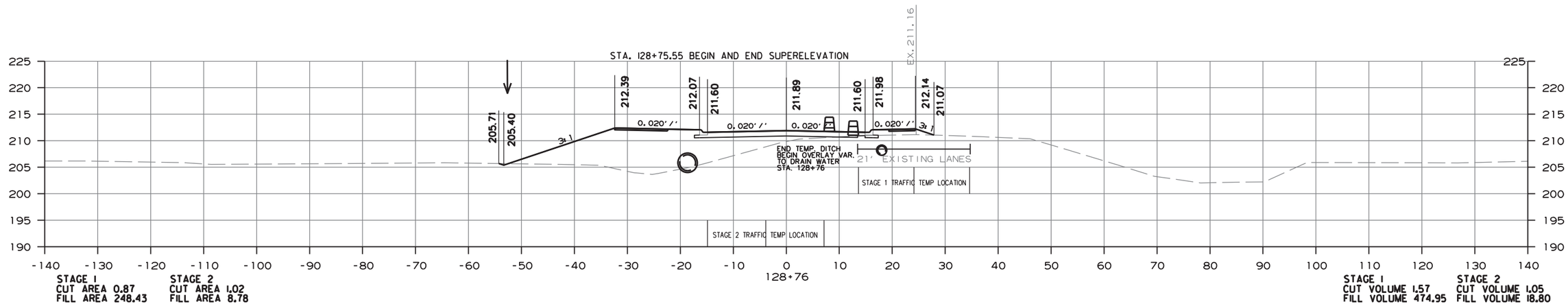
CROSS SECTION STA. 127+51 TO STA. 127+80

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	145	158
		CROSS SECTIONS - HWY 67				

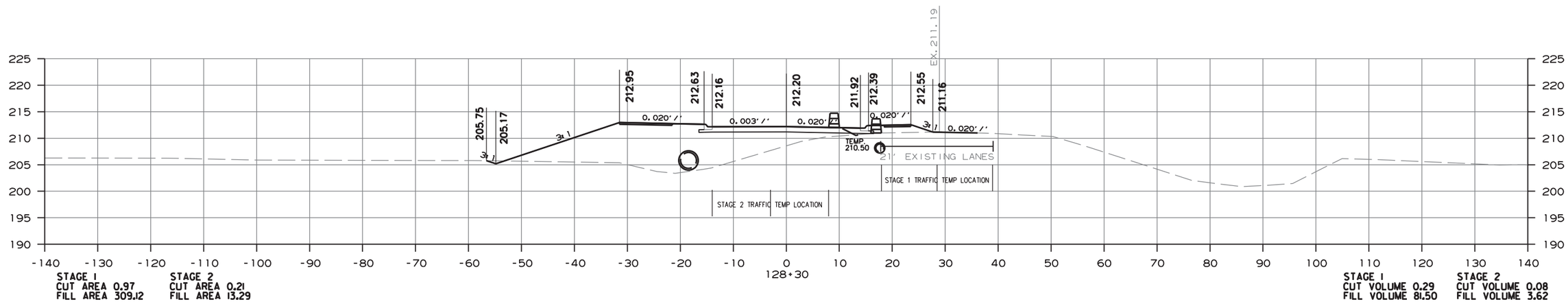


STAGE 1
CUT AREA 0.87
FILL AREA 248.43

STAGE 2
CUT AREA 1.02
FILL AREA 8.78

STAGE 1
CUT VOLUME 1.57
FILL VOLUME 474.95

STAGE 2
CUT VOLUME 1.05
FILL VOLUME 18.80

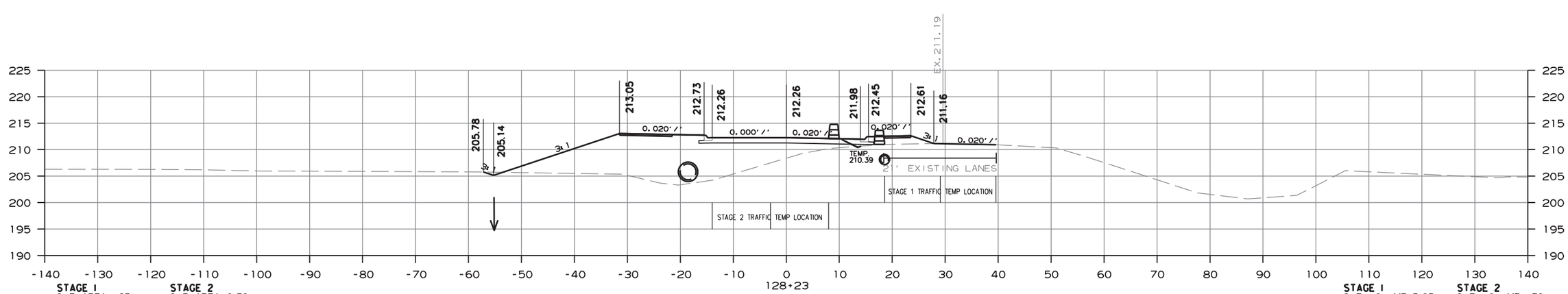


STAGE 1
CUT AREA 0.97
FILL AREA 309.12

STAGE 2
CUT AREA 0.21
FILL AREA 13.29

STAGE 1
CUT VOLUME 0.29
FILL VOLUME 81.50

STAGE 2
CUT VOLUME 0.08
FILL VOLUME 3.62



STAGE 1
CUT AREA 1.25
FILL AREA 319.57

STAGE 2
CUT AREA 0.38
FILL AREA 14.63

STAGE 1
CUT VOLUME 5.05
FILL VOLUME 562.04

STAGE 2
CUT VOLUME 1.70
FILL VOLUME 31.77

CROSS SECTION STA. 128+23 TO STA. 128+76

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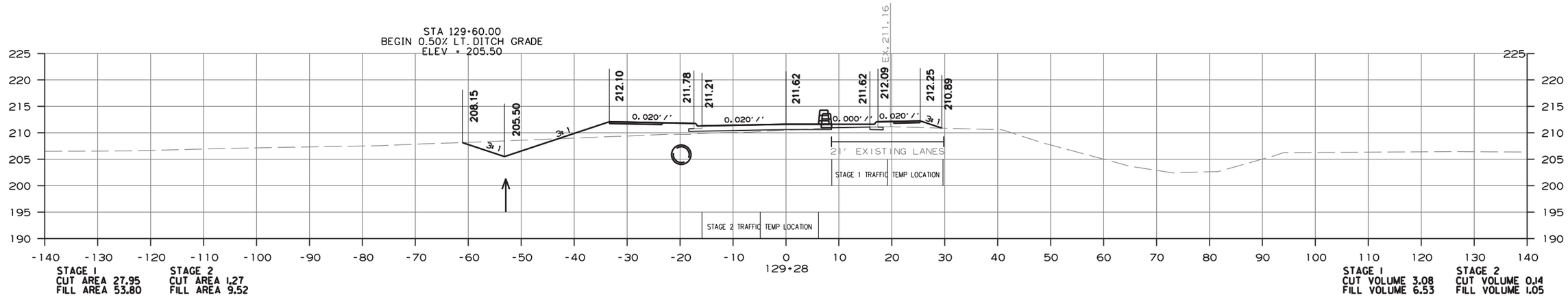
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	146	158
		CROSS SECTIONS - HWY 67				

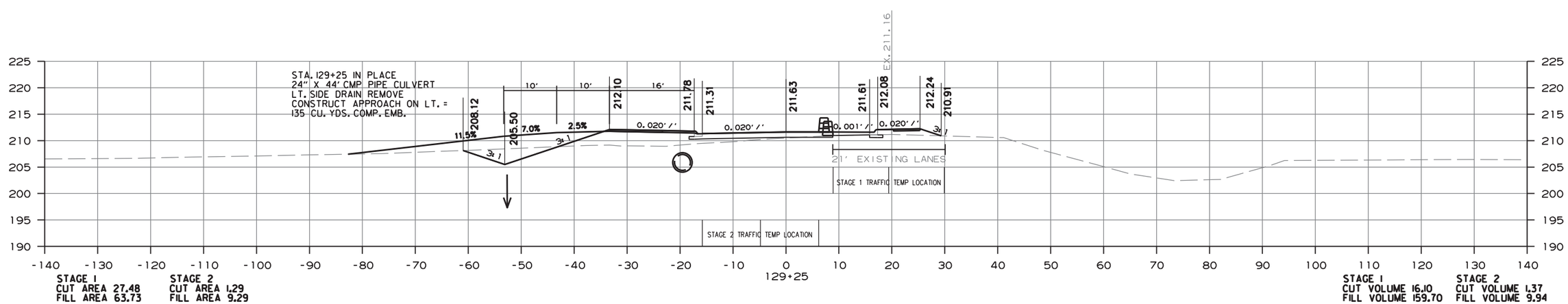


STAGE 1
CUT AREA 27.95
FILL AREA 53.80

STAGE 2
CUT AREA 1.27
FILL AREA 9.52

STAGE 1
CUT VOLUME 3.08
FILL VOLUME 6.53

STAGE 2
CUT VOLUME 0.14
FILL VOLUME 1.05

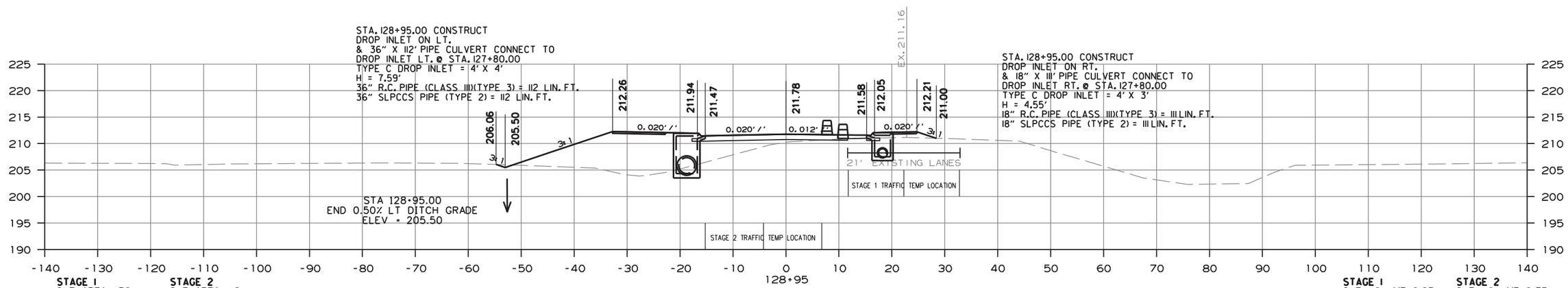


STAGE 1
CUT AREA 27.48
FILL AREA 63.73

STAGE 2
CUT AREA 1.29
FILL AREA 9.29

STAGE 1
CUT VOLUME 16.10
FILL VOLUME 159.70

STAGE 2
CUT VOLUME 1.37
FILL VOLUME 9.94



STAGE 1
CUT AREA 1.50
FILL AREA 223.73

STAGE 2
CUT AREA 1.18
FILL AREA 8.61

STAGE 1
CUT VOLUME 0.83
FILL VOLUME 166.13

STAGE 2
CUT VOLUME 0.77
FILL VOLUME 6.12

CROSS SECTION STA. 128+95 TO STA. 129+28

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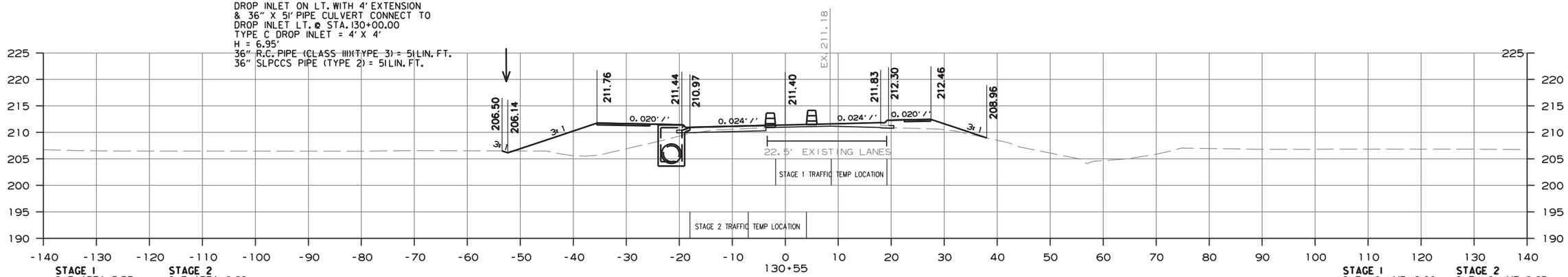
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	147	158
		CROSS SECTIONS - HWY 67				

STA. 130+55.00 CONSTRUCT
DROP INLET ON LT. WITH 4' EXTENSION
& 36" X 51' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 130+00.00
TYPE C DROP INLET = 4' X 4'
H = 6.95'
36" R.C. PIPE (CLASS III)(TYPE 3) = 51LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 51LIN. FT.



STAGE 1
CUT AREA 5.57
FILL AREA 110.75

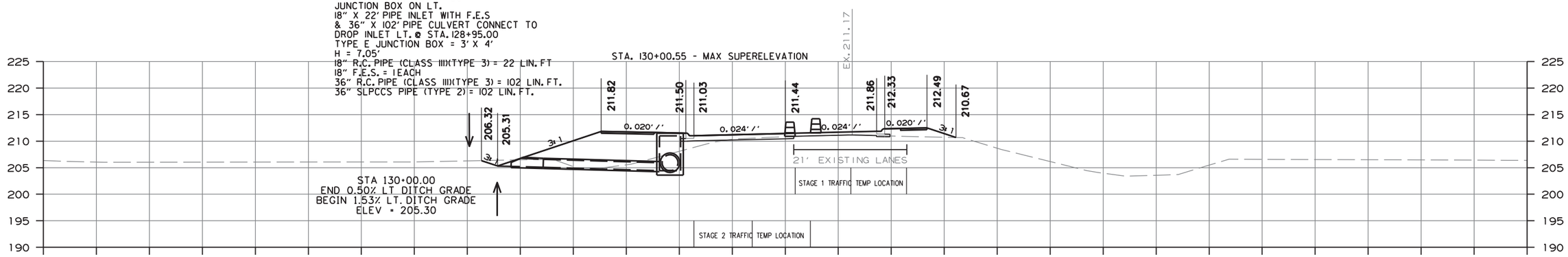
STAGE 2
CUT AREA 0.22
FILL AREA 18.29

STAGE 1
CUT VOLUME 12.60
FILL VOLUME 249.12

STAGE 2
CUT VOLUME 0.65
FILL VOLUME 33.04

STA. 130+00.00 CONSTRUCT
JUNCTION BOX ON LT.
18" X 22' PIPE INLET WITH F.E.S
& 36" X 102' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 128+95.00
TYPE E JUNCTION BOX = 3' X 4'
H = 7.05'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1EACH
36" R.C. PIPE (CLASS III)(TYPE 3) = 102 LIN. FT.
36" SLPCCS PIPE (TYPE 2) = 102 LIN. FT.

STA. 130+00.55 - MAX SUPERELEVATION

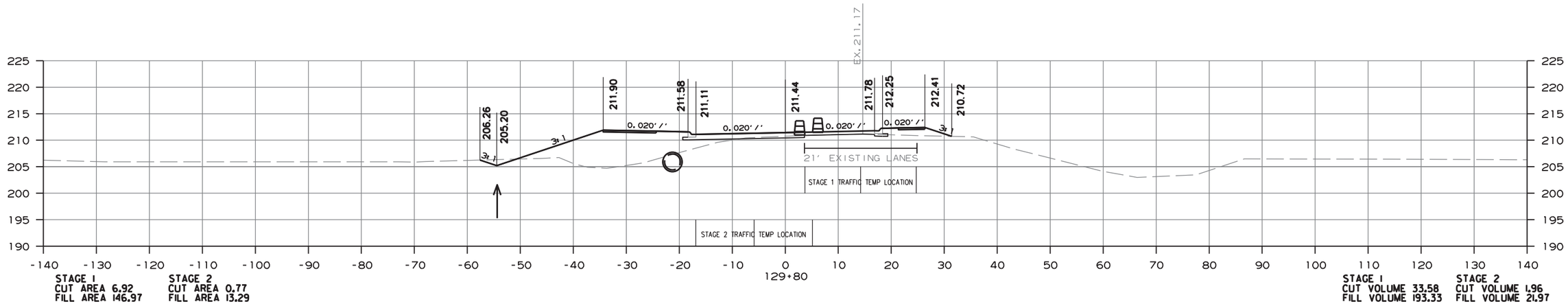


STAGE 1
CUT AREA 7.03
FILL AREA 138.37

STAGE 2
CUT AREA 0.43
FILL AREA 14.75

STAGE 1
CUT VOLUME 5.43
FILL VOLUME 110.97

STAGE 2
CUT VOLUME 0.47
FILL VOLUME 10.90



STAGE 1
CUT AREA 6.92
FILL AREA 146.97

STAGE 2
CUT AREA 0.77
FILL AREA 13.29

STAGE 1
CUT VOLUME 33.58
FILL VOLUME 193.33

STAGE 2
CUT VOLUME 1.96
FILL VOLUME 21.97

CROSS SECTION STA. 129+80 TO STA. 130+55

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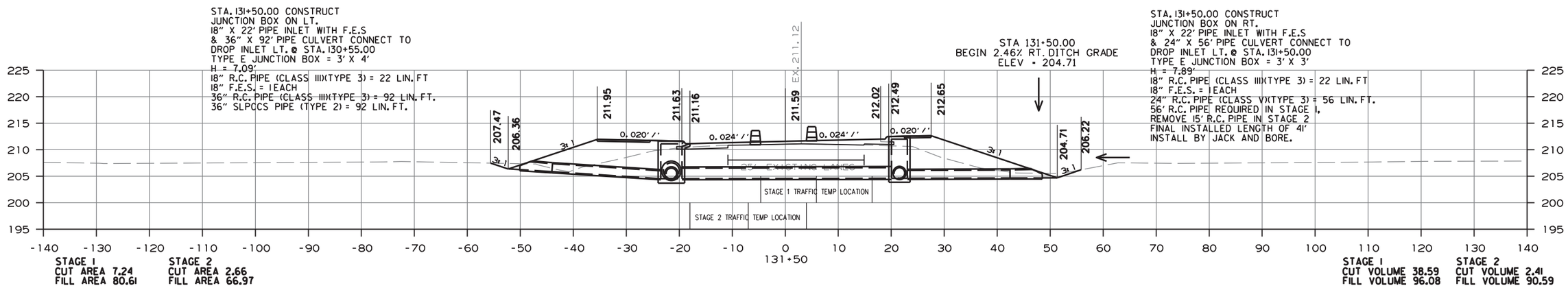
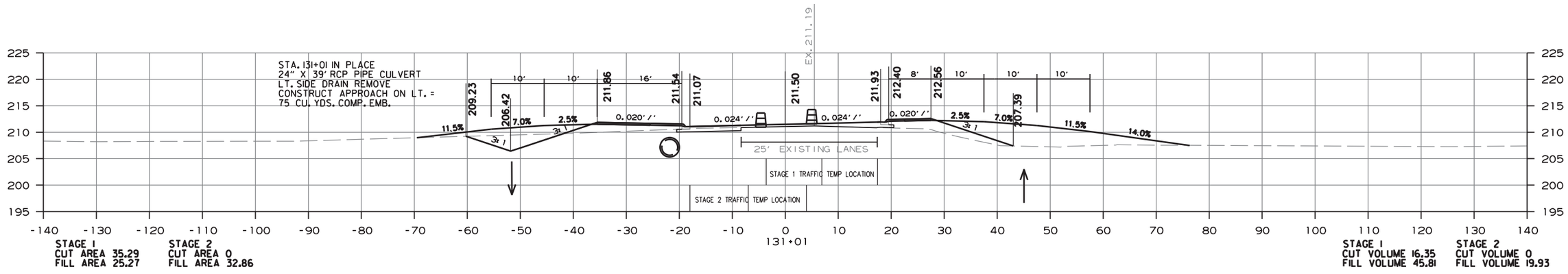
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	148	158
		CROSS SECTIONS - HWY 67				

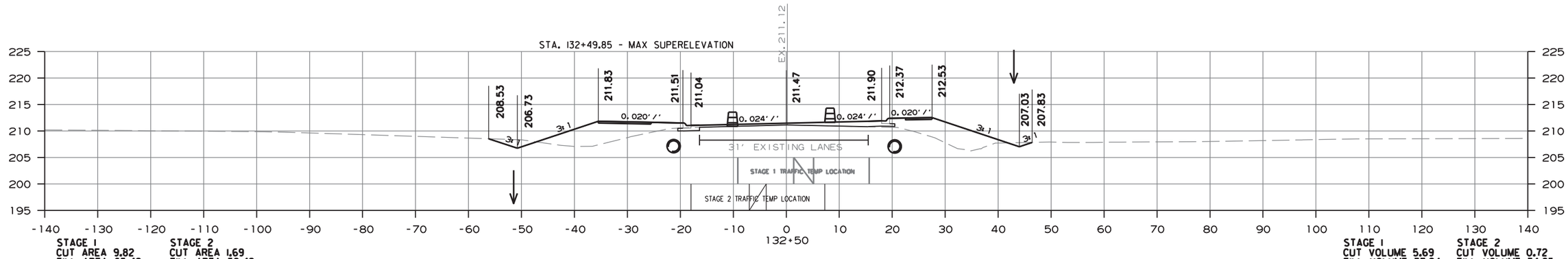




CROSS SECTION STA. 130+80 TO STA. 131+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	149	158
		CROSS SECTIONS - HWY 67				



STAGE 1
CUT AREA 9.82
FILL AREA 65.49

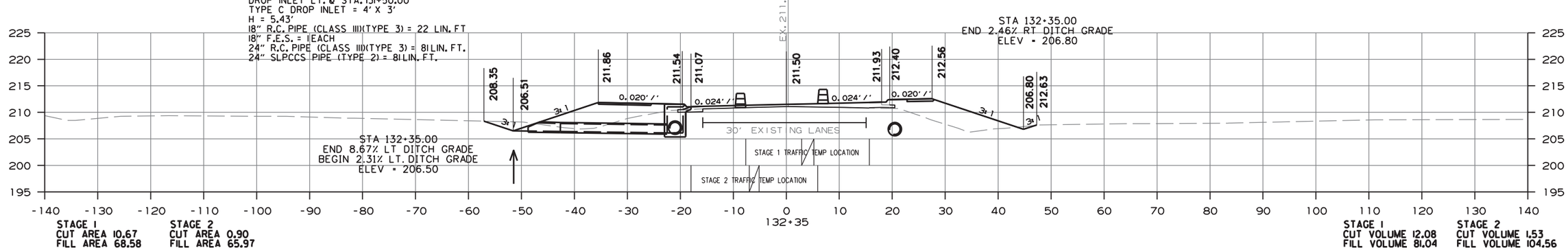
STAGE 2
CUT AREA 1.69
FILL AREA 59.49

STAGE 1
CUT VOLUME 5.69
FILL VOLUME 37.24

STAGE 2
CUT VOLUME 0.72
FILL VOLUME 34.85

STA. 132+35.00 CONSTRUCT
DROP INLET ON LT.
18" X 22' PIPE INLET WITH F.E.S
& 24" X 81' PIPE CULVERT CONNECT TO
DROP INLET LT. @ STA. 131+50.00
TYPE C DROP INLET = 4' X 3'
H = 5.43'
18" R.C. PIPE (CLASS III)(TYPE 3) = 22 LIN. FT
18" F.E.S. = 1 EACH
24" R.C. PIPE (CLASS III)(TYPE 3) = 81 LIN. FT.
24" SLPCCS PIPE (TYPE 2) = 81 LIN. FT.

STA 132+35.00
END 2.46% RT DITCH GRADE
ELEV = 206.80



STA 132+35.00
END 8.67% LT DITCH GRADE
BEGIN 2.31% LT. DITCH GRADE
ELEV = 206.50

STAGE 1
CUT AREA 10.67
FILL AREA 68.58

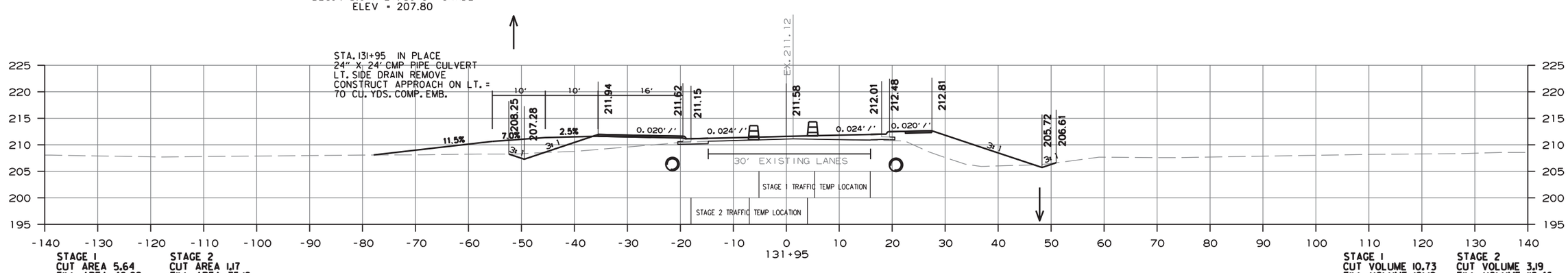
STAGE 2
CUT AREA 0.90
FILL AREA 65.97

STAGE 1
CUT VOLUME 12.08
FILL VOLUME 81.04

STAGE 2
CUT VOLUME 1.53
FILL VOLUME 104.56

STA 132+20.00
BEGIN 8.67% LT. DITCH GRADE
ELEV = 207.80

STA. 131+95 IN PLACE
24" X 24' CMP PIPE CULVERT
LT. SIDE DRAIN REMOVE
CONSTRUCT APPROACH ON LT. =
70 CU. YDS. COMP. EMB.



STAGE 1
CUT AREA 5.64
FILL AREA 40.82

STAGE 2
CUT AREA 1.17
FILL AREA 75.18

STAGE 1
CUT VOLUME 10.73
FILL VOLUME 101.19

STAGE 2
CUT VOLUME 3.19
FILL VOLUME 118.46

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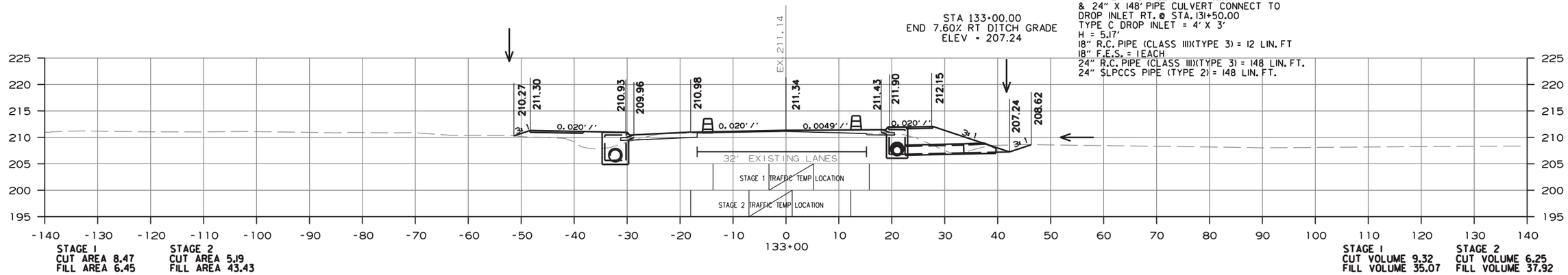
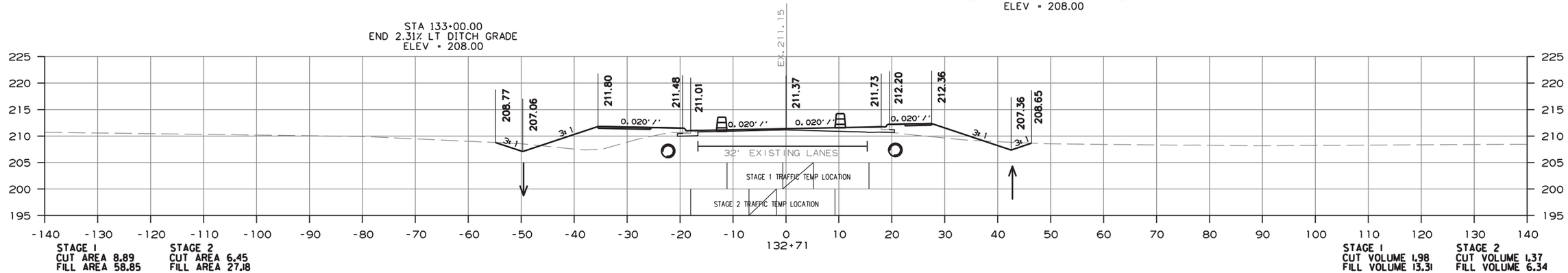
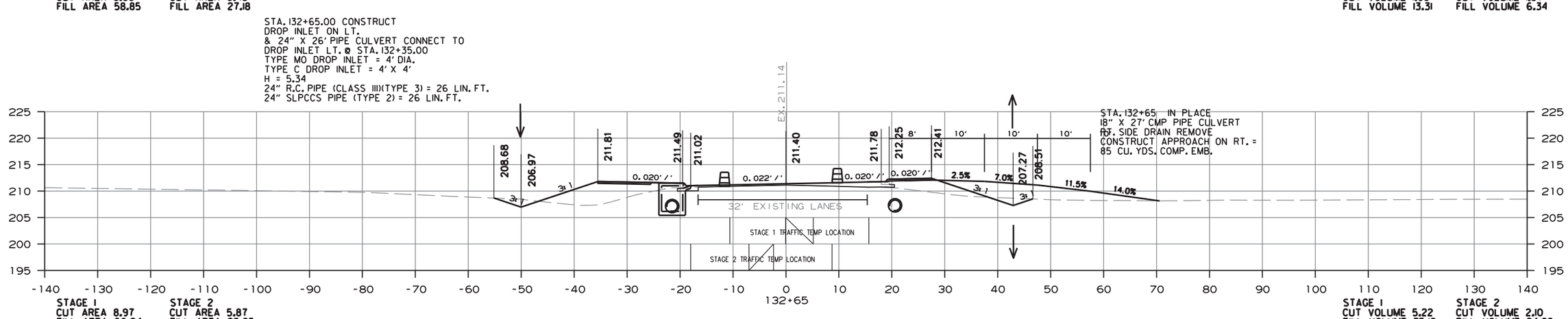
CROSS SECTION STA. 131+95 TO STA. 132+50

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	150	158
		CROSS SECTIONS - HWY 67				







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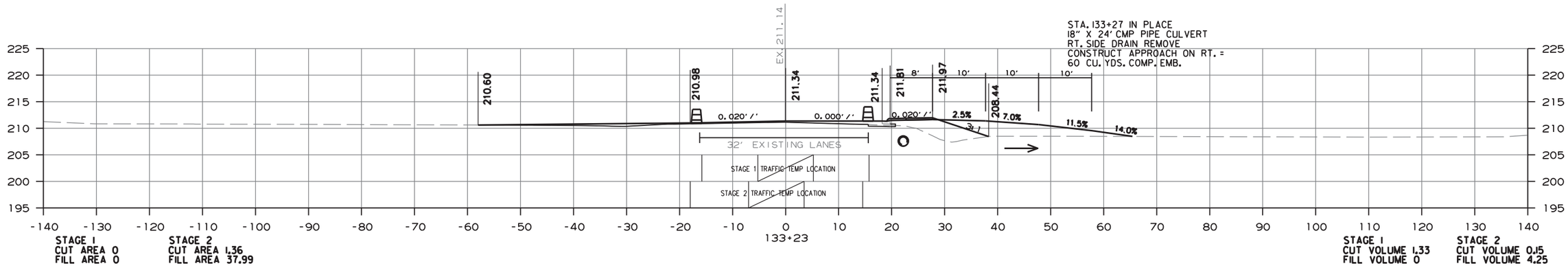
CROSS SECTION STA. 132+65 TO STA. 133+00

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	151	158
		CROSS SECTIONS - HWY 67				

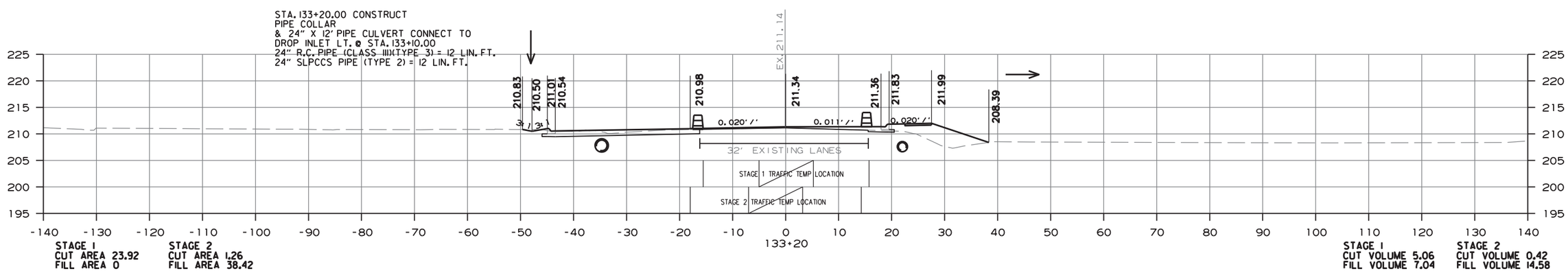


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 1.36
FILL AREA 37.99

STAGE 1
CUT VOLUME 1.33
FILL VOLUME 0

STAGE 2
CUT VOLUME 0.15
FILL VOLUME 4.25

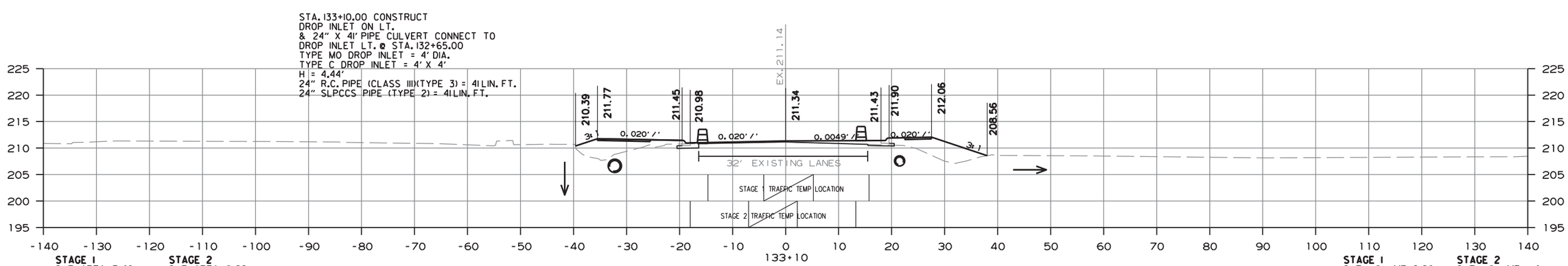


STAGE 1
CUT AREA 23.92
FILL AREA 0

STAGE 2
CUT AREA 1.26
FILL AREA 38.42

STAGE 1
CUT VOLUME 5.06
FILL VOLUME 7.04

STAGE 2
CUT VOLUME 0.42
FILL VOLUME 14.58



STAGE 1
CUT AREA 3.40
FILL AREA 38.00

STAGE 2
CUT AREA 0.99
FILL AREA 40.32

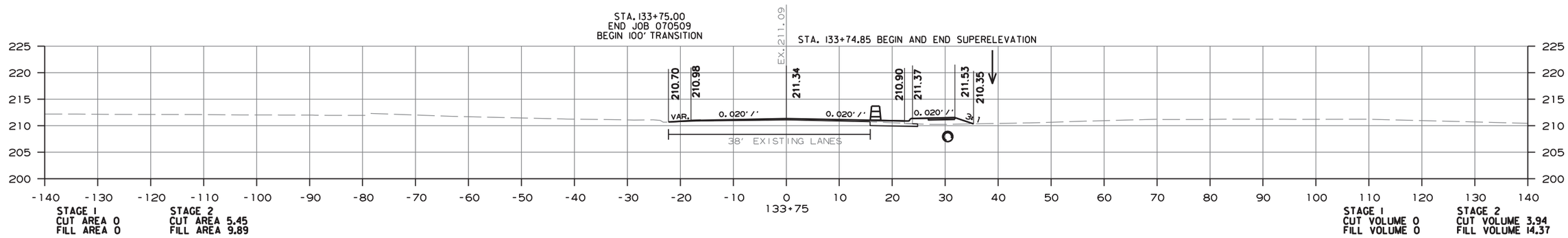
STAGE 1
CUT VOLUME 2.20
FILL VOLUME 8.23

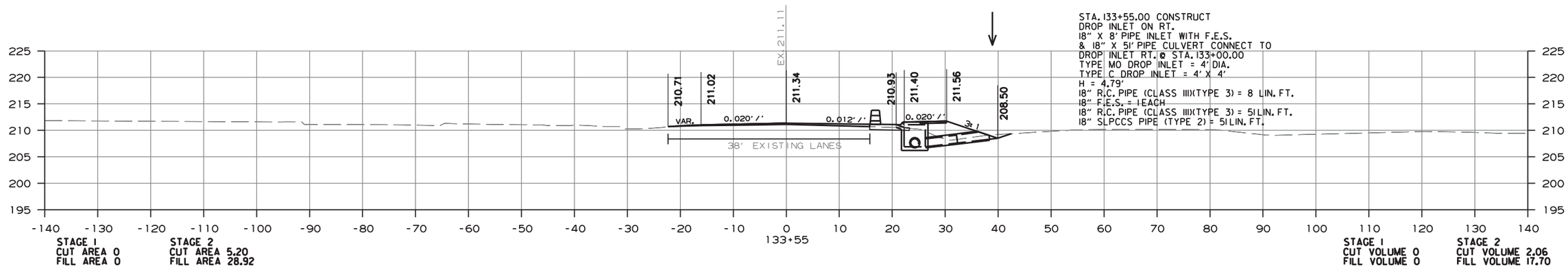
STAGE 2
CUT VOLUME 1.14
FILL VOLUME 15.51

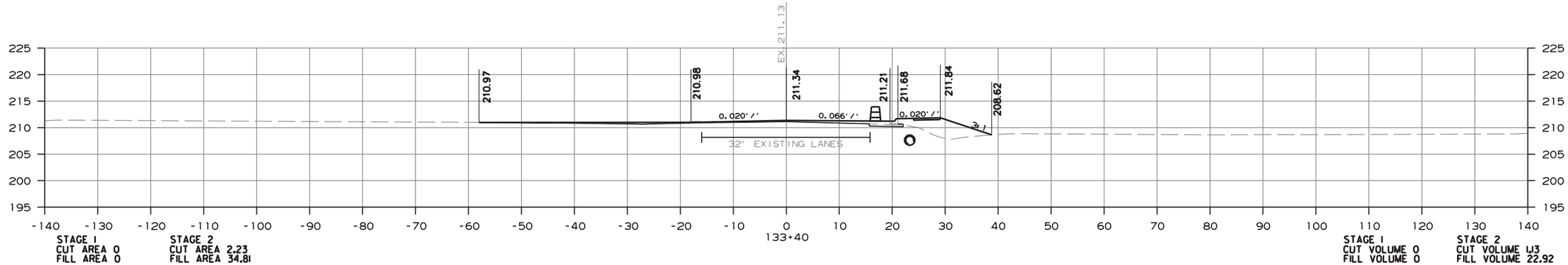
8/1/2025
R070509.dgn

CROSS SECTION STA. 133+10 TO STA. 133+23

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	152	158
		CROSS SECTIONS - HWY 67				





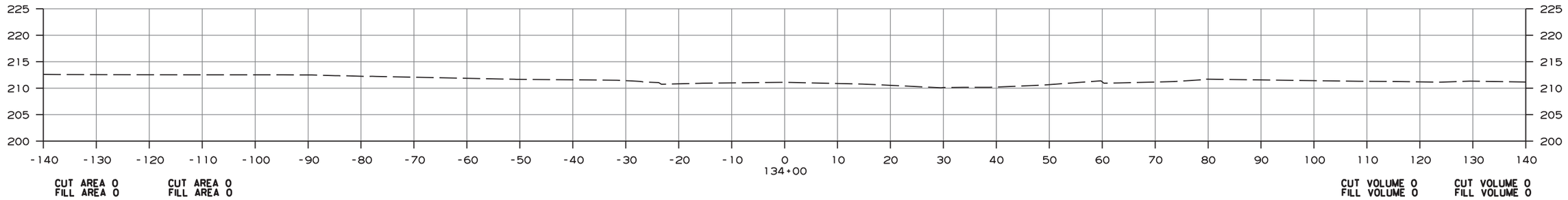


CROSS SECTION STA. 133+40 TO STA. 133+75

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	153	158
		CROSS SECTIONS - HWY 67				

STA. 134+75.00
END 100' TRANSITION

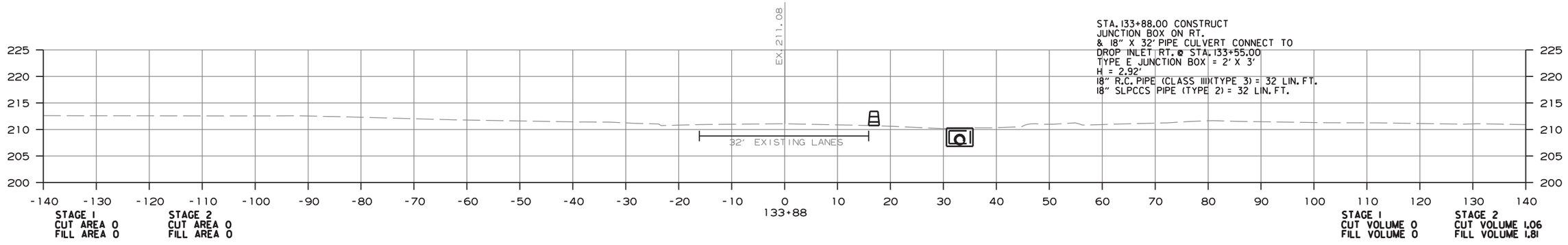


CUT AREA 0
FILL AREA 0

CUT AREA 0
FILL AREA 0

CUT VOLUME 0
FILL VOLUME 0

CUT VOLUME 0
FILL VOLUME 0

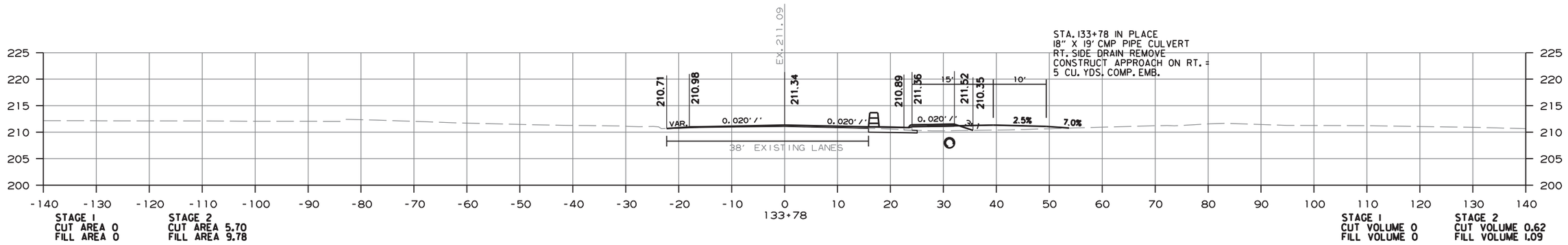


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 1.06
FILL VOLUME 1.81



STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 5.70
FILL AREA 9.78

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0.62
FILL VOLUME 1.09

CROSS SECTION STA. 133+78 TO STA. 134+00

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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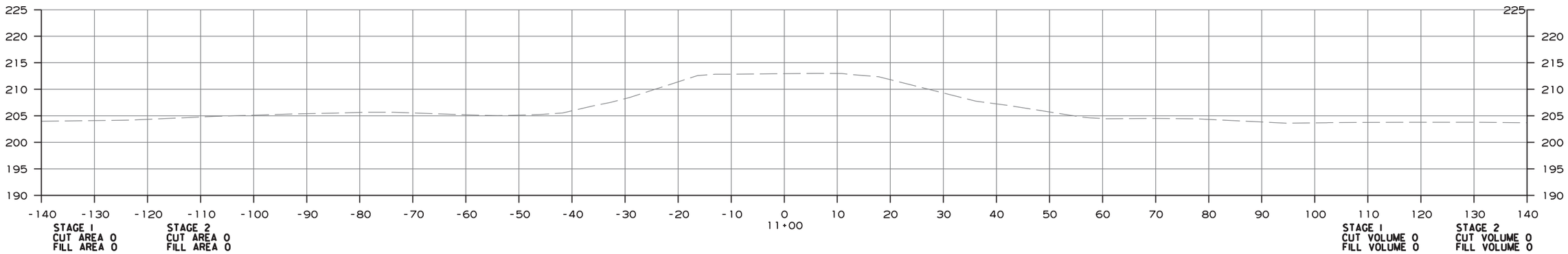
		CROSS SECTIONS - OLD MILITARY RD.				

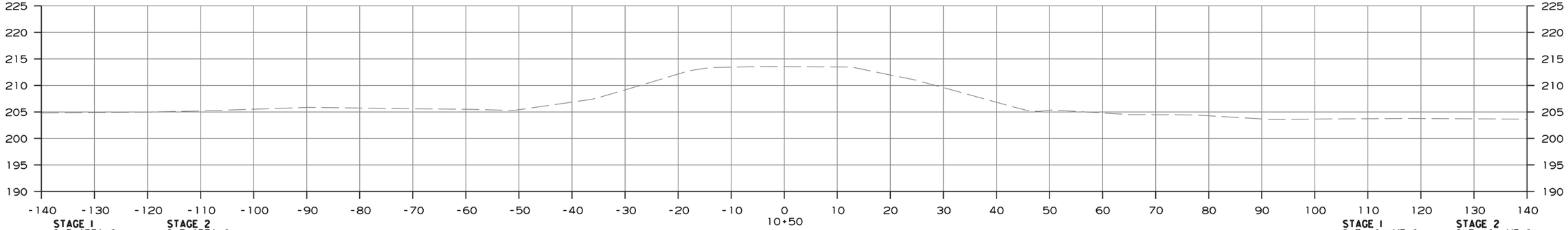


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

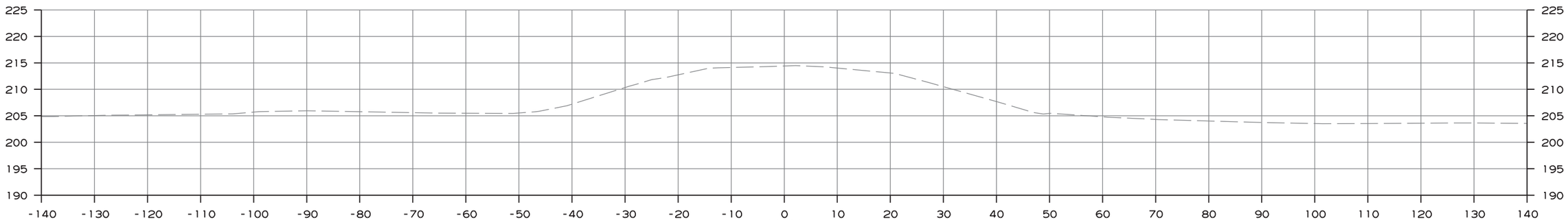


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

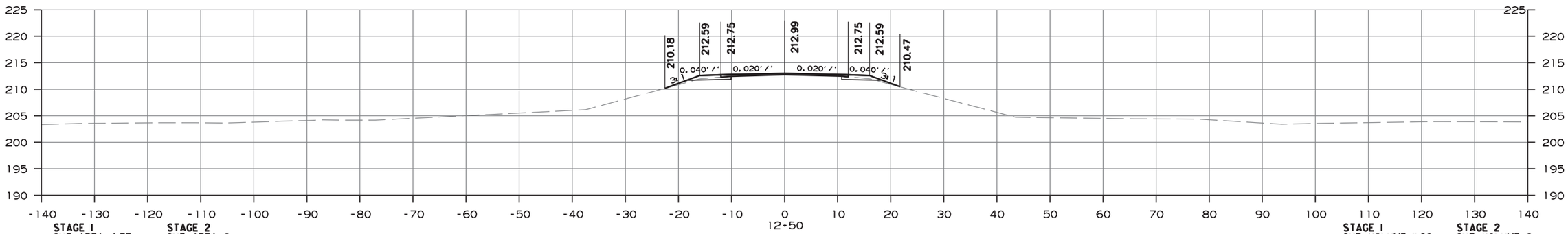
STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

CROSS SECTION STA. 10+00 TO STA. 11+00

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	155	158
		CROSS SECTIONS - OLD MILITARY RD.				



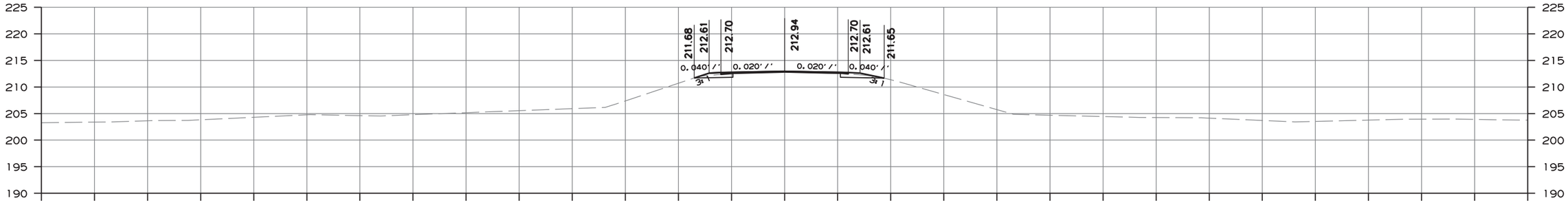
12+50

STAGE 1
CUT AREA 4.77
FILL AREA 1.95

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 11.20
FILL VOLUME 1.81

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



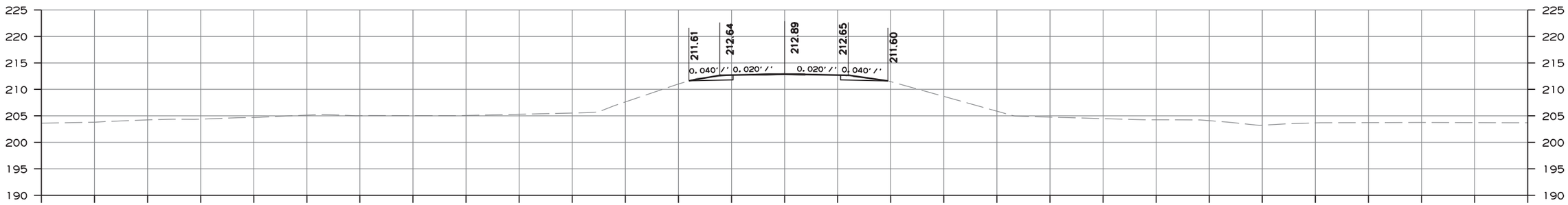
12+00

STAGE 1
CUT AREA 7.33
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 15.29
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



11+45

STAGE 1
CUT AREA 9.18
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

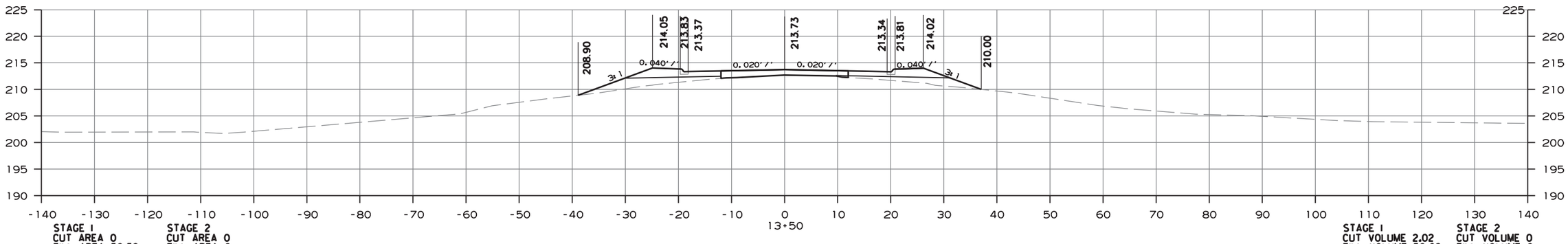
STAGE 1
CUT VOLUME 8.50
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

CROSS SECTION STA. 11+50 TO STA. 12+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	156	158
		CROSS SECTIONS - OLD MILITARY RD.				

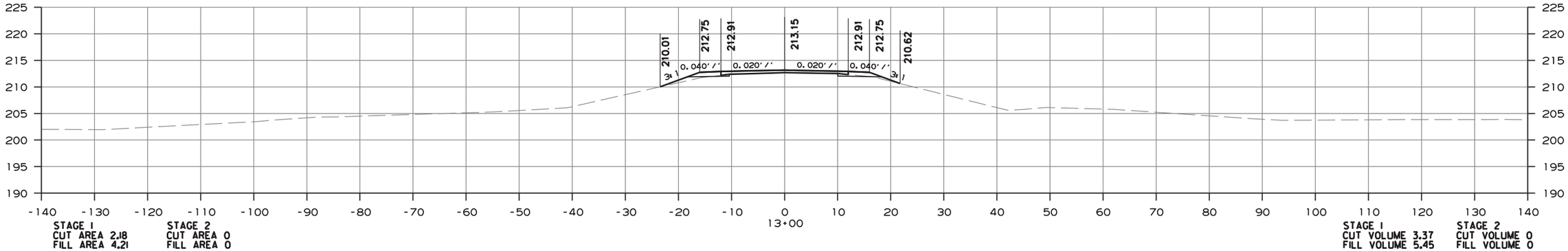


STAGE 1
CUT AREA 0
FILL AREA 50.52

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 2.02
FILL VOLUME 50.68

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

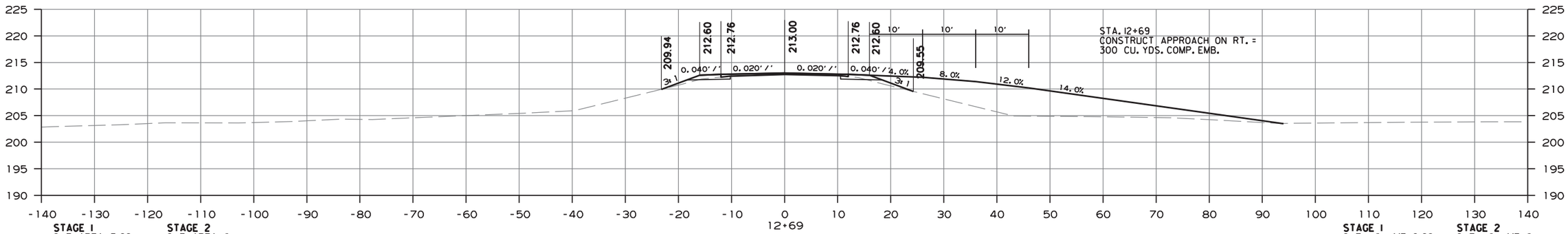


STAGE 1
CUT AREA 2.18
FILL AREA 4.21

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 3.37
FILL VOLUME 5.45

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 3.69
FILL AREA 5.29

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 2.98
FILL VOLUME 2.55

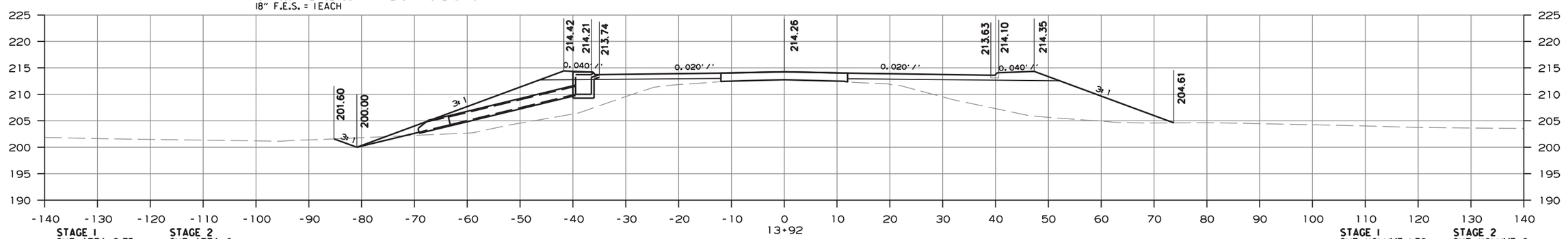
STAGE 2
CUT VOLUME 0
FILL VOLUME 0

CROSS SECTION STA. 12+69 TO STA. 13+50

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	157	158
		CROSS SECTIONS - OLD MILITARY RD.				

STA. 13+92.00 CONSTRUCT
DROP INLET ON LT.
& 18" X 40' PIPE CULVERT
OUTLET WITH F.E.S..
TYPE C DROP INLET = 4' X 3'
H = 4.22'
18" R.C. PIPE (CLASS III)(TYPE 3) = 40 LIN. FT.
18" F.E.S. = 1EACH



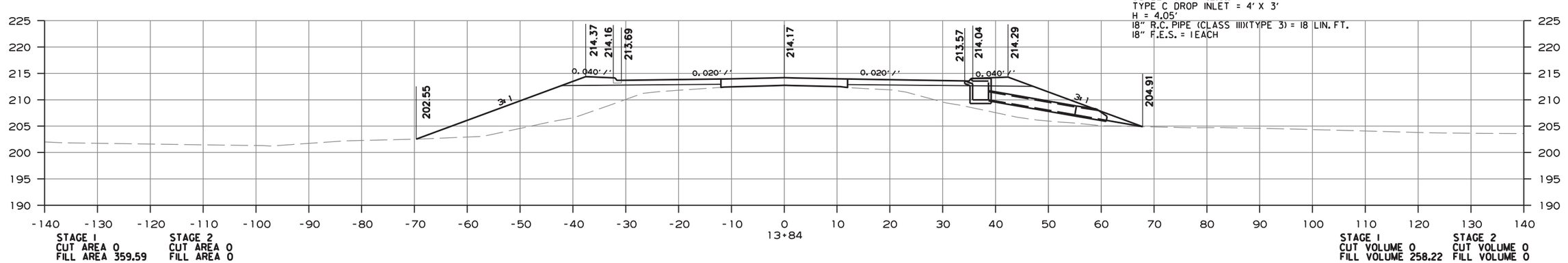
STAGE 1
CUT AREA 8.75
FILL AREA 472.60

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 1.30
FILL VOLUME 123.29

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

STA. 13+84.00 CONSTRUCT
DROP INLET ON RT.
& 18" X 18' PIPE CULVERT
OUTLET WITH F.E.S..
TYPE C DROP INLET = 4' X 3'
H = 4.05'
18" R.C. PIPE (CLASS III)(TYPE 3) = 18 LIN. FT.
18" F.E.S. = 1EACH



STAGE 1
CUT AREA 0
FILL AREA 359.59

STAGE 2
CUT AREA 0
FILL AREA 0

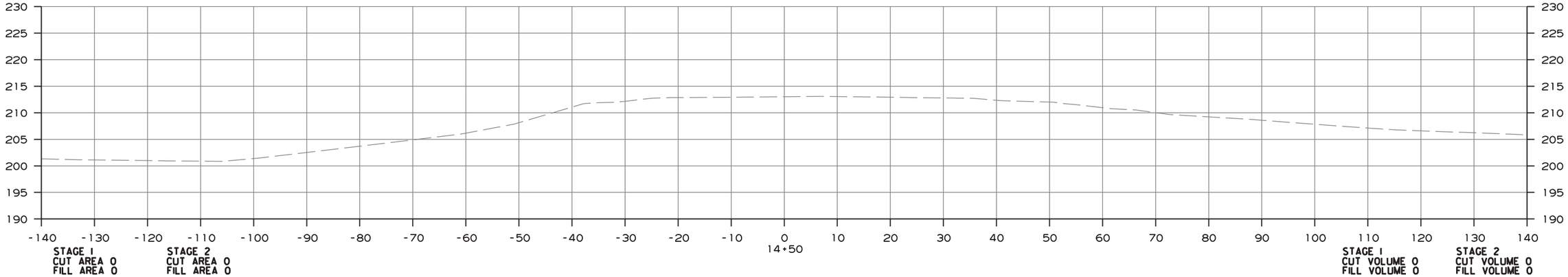
STAGE 1
CUT VOLUME 0
FILL VOLUME 258.22

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

CROSS SECTION STA. 13+84 TO STA. 13+92

8/1/2025
R070509.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	070509	158	158
		CROSS SECTIONS - OLD MILITARY RD.				

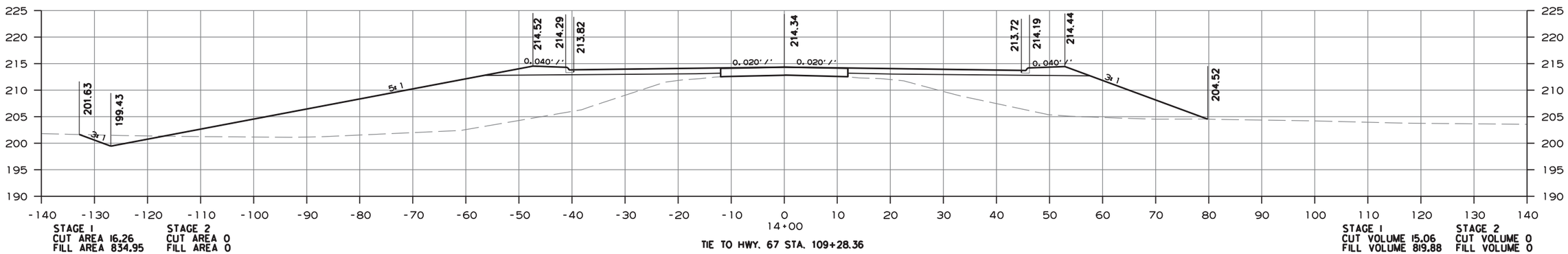


STAGE 1
CUT AREA 0
FILL AREA 0

STAGE 2
CUT AREA 0
FILL AREA 0

STAGE 1
CUT VOLUME 0
FILL VOLUME 0

STAGE 2
CUT VOLUME 0
FILL VOLUME 0



STAGE 1
CUT AREA 16.26
FILL AREA 834.95

STAGE 2
CUT AREA 0
FILL AREA 0

TIE TO HWY. 67 STA. 109+28.36

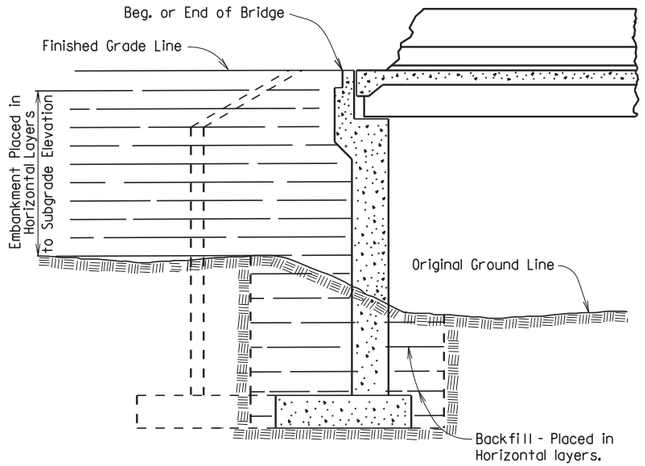
STAGE 1
CUT VOLUME 15.06
FILL VOLUME 819.88

STAGE 2
CUT VOLUME 0
FILL VOLUME 0

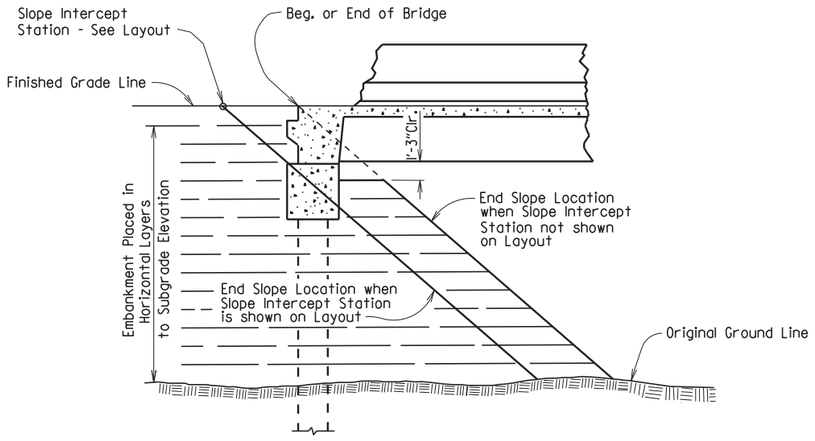
CROSS SECTION STA. 14+00 TO STA. 14+50

8/1/2025
R070509.dgn

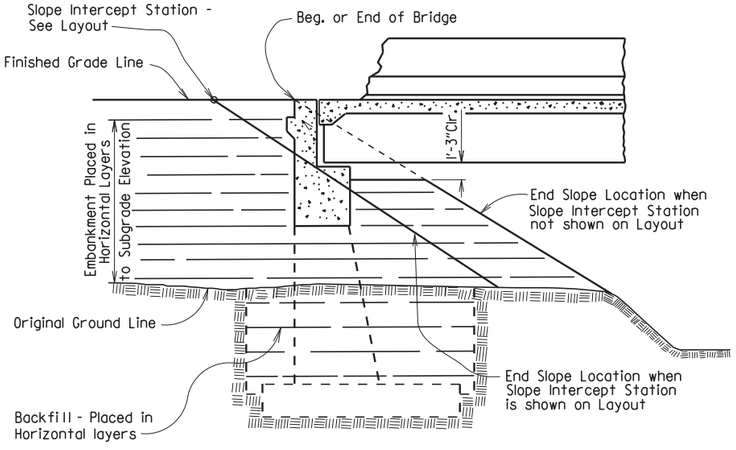
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				
				1	EMBANKMENT & BACKFILL		55000	



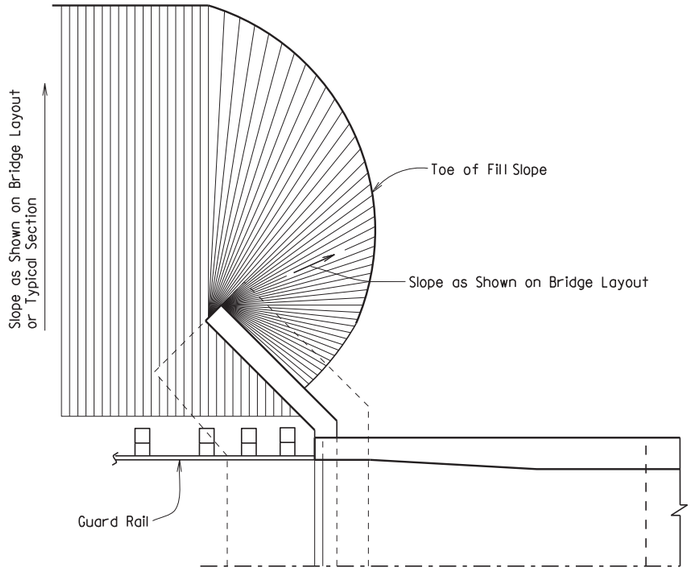
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT VERTICAL WALL ABUTMENTS



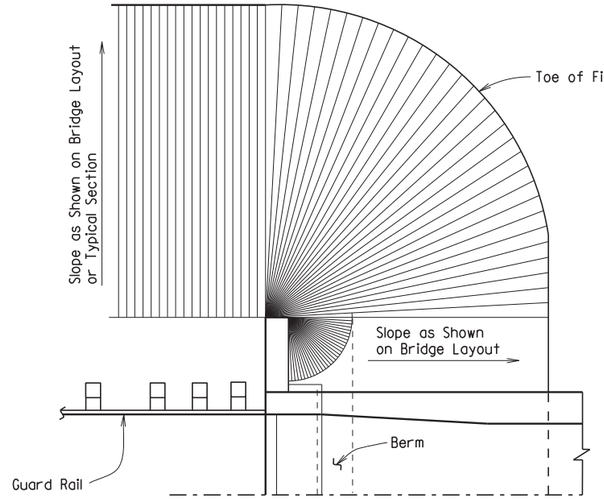
EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS



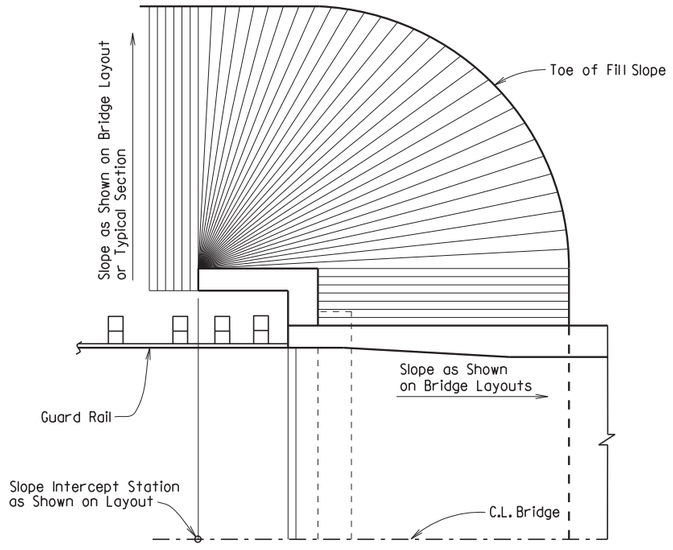
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT SPILL-THROUGH END BENTS



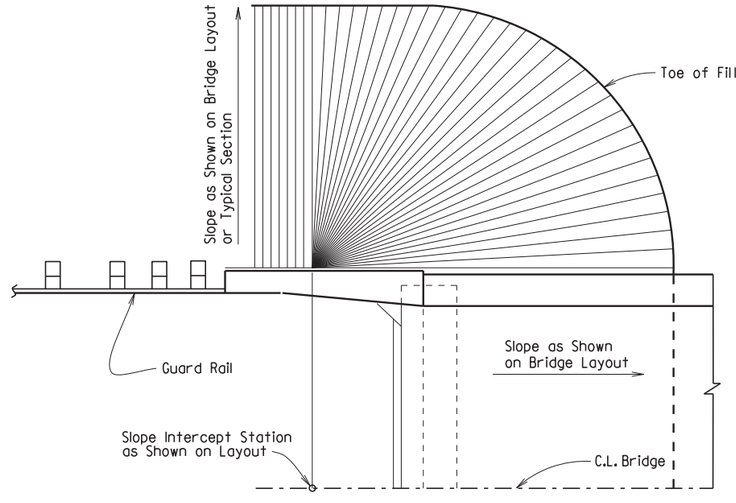
VERTICAL WALL ABUTMENTS



SPILL-THROUGH END BENTS WITH STUB WING



SPILL-THROUGH END BENTS WITH TURNBACK WING



SPILL-THROUGH END BENTS WITH TRANSITION WING

METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS

GENERAL NOTES

The Bridge End Embankment shall be defined as a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slopes under the bridge end including around the end of wingwalls. Embankment adjacent to structures shall be constructed in 6 inch horizontal layers (loose measure) and compacted by the use of mechanical equipment to the satisfaction of the Engineer. Refer to Subsections 210.09, 210.10 and 801.08 for construction requirements.

STANDARD DETAILS FOR EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

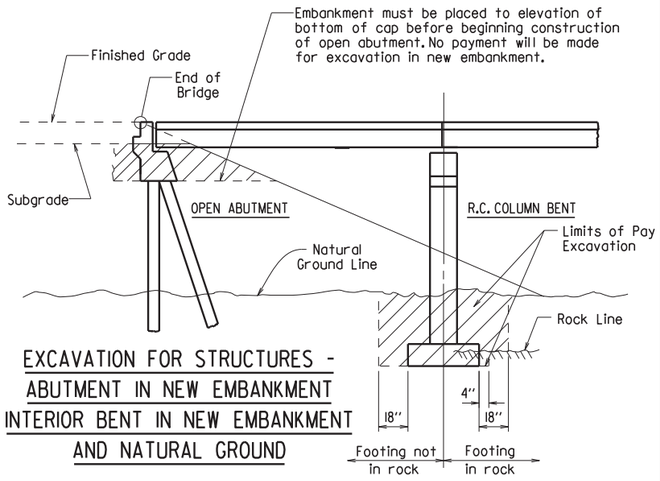
DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b55000.dgn

CHECKED BY: BEF DATE: 2-27-2014 SCALE: NO SCALE

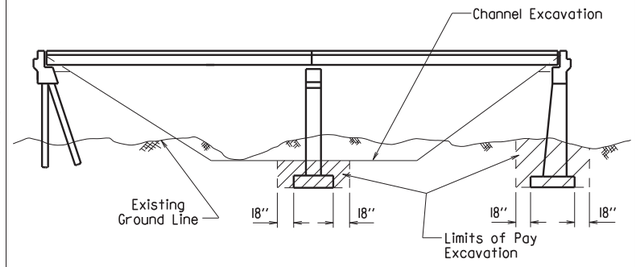
DESIGNED BY: STD. DATE: -

DRAWING NO. 55000

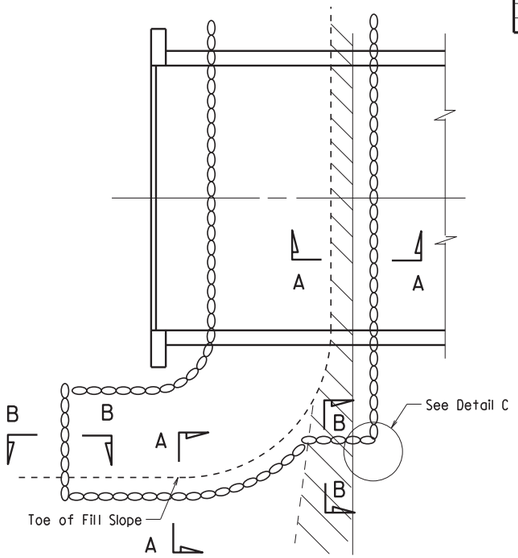
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				
				1	RIPRAP & EXCAV. 55001			



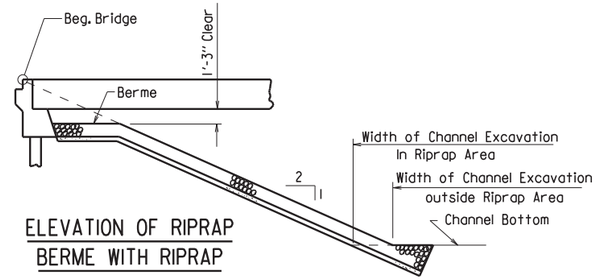
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND



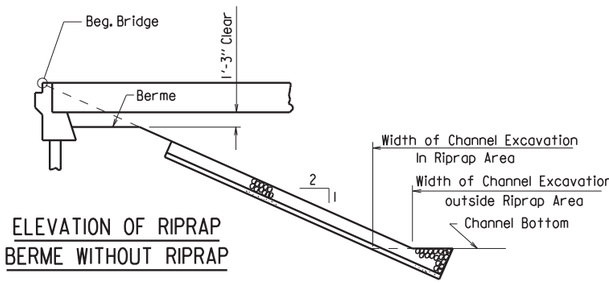
EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE



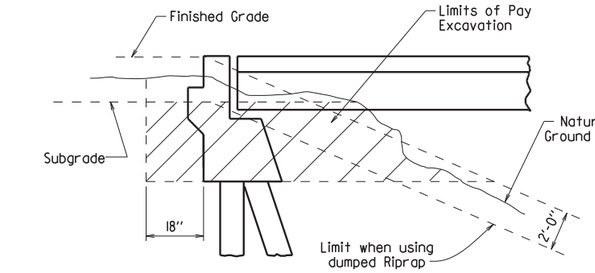
PLAN OF DUMPED RIPRAP



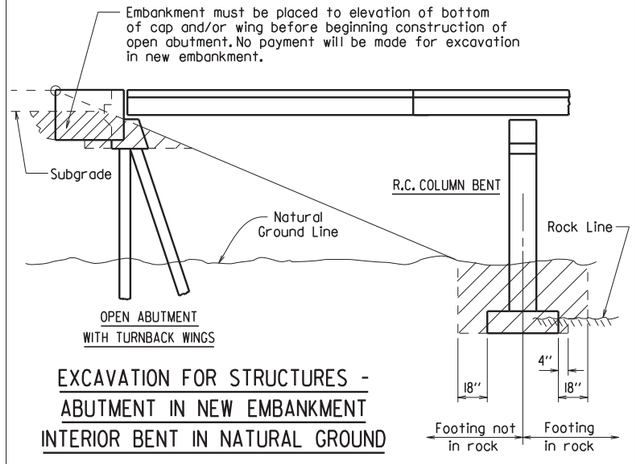
ELEVATION OF RIPRAP BERME WITH RIPRAP



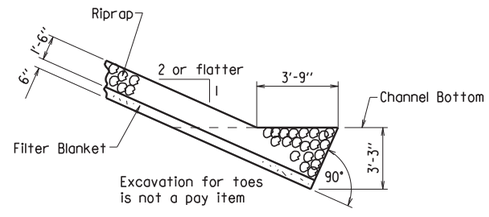
ELEVATION OF RIPRAP BERME WITHOUT RIPRAP



EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND

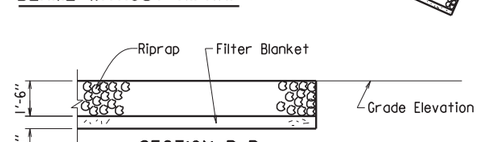


EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND

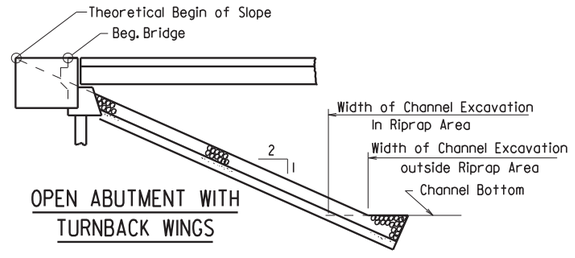


SECTION A-A

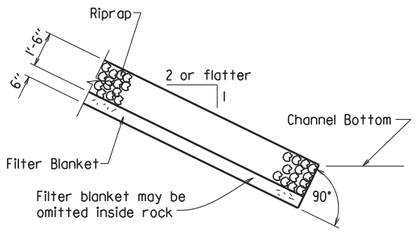
(Toe Excavation in Soil)



SECTION B-B



OPEN ABUTMENT WITH TURNBACK WINGS



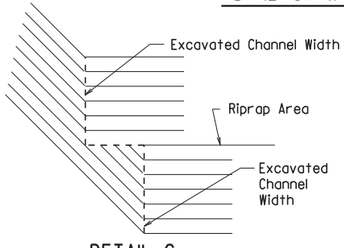
SECTION A-A

(Toe Excavation in Rock)

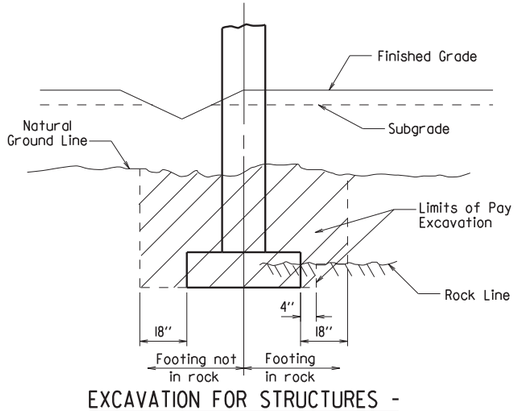
Note : Use this type of toe when rock is encountered which is in a stable condition.

Note : In lieu of an aggregate filter blanket, a synthetic fiber geotextile fabric complying with the requirements of Subsection 816.02(e) may be used.

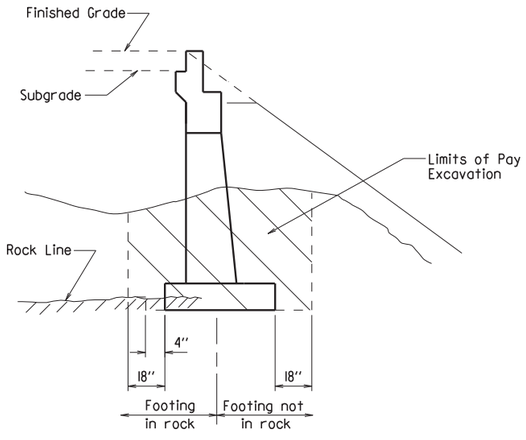
Note : Details for computing excavation for structures are included for information as to how plan quantities were calculated and for use when adjusting quantities when changing footing elevation.



DETAIL C



EXCAVATION FOR STRUCTURES - BENT IN ROADWAY FILL SECTION AND NATURAL GROUND



EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT

STANDARD DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND COMPUTING EXCAVATION FOR STRUCTURES

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b55001.dgn

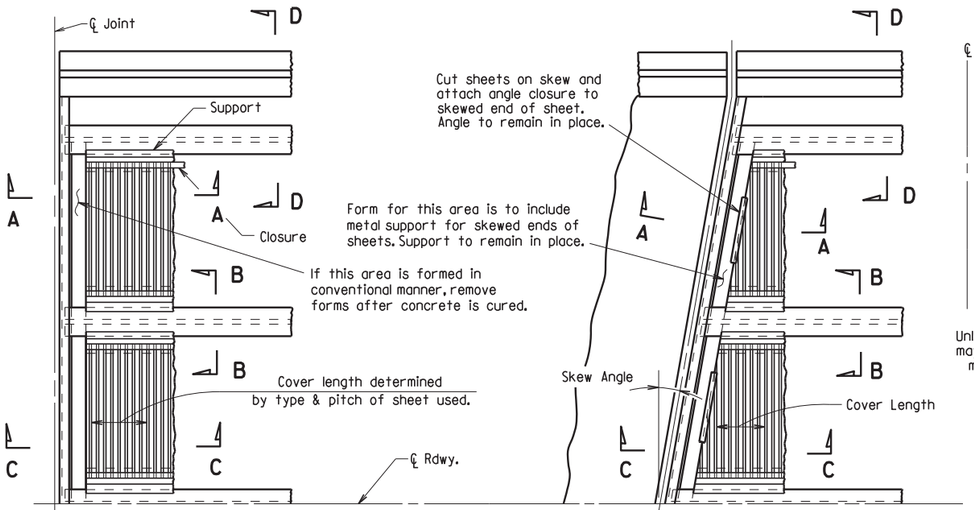
CHECKED BY: BEF DATE: 2-27-2014 SCALE: NO SCALE

DESIGNED BY: STD. DATE:

DRAWING NO. 55001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3/24/16				6	ARK.			
				JOB NO.				

① BRIDGE DECK FORMS 55005

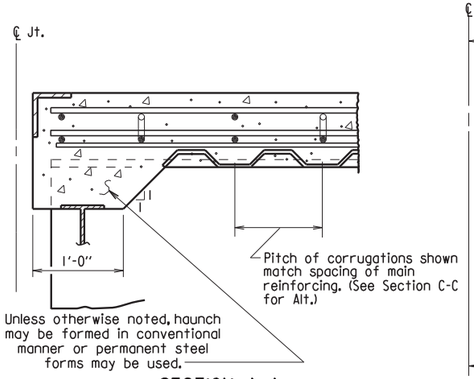


PART PLAN - SQUARE SPAN

3/8" = 1'-0"

PART PLAN - SKEWED SPAN

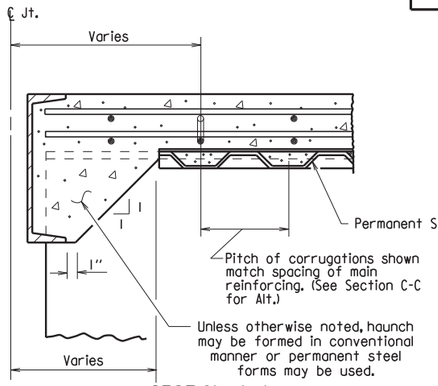
3/8" = 1'-0"



SECTION A-A

N.T.S.

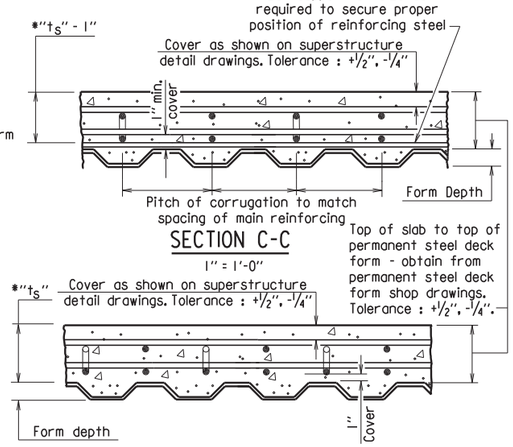
(Angle at end of span)



SECTION A-A

N.T.S.

(Channel at end of span)



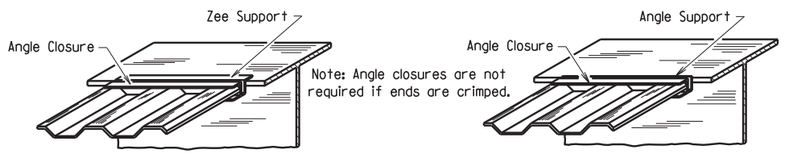
SECTION C-C

1" = 1'-0"

SECTION C-C - ALTERNATE

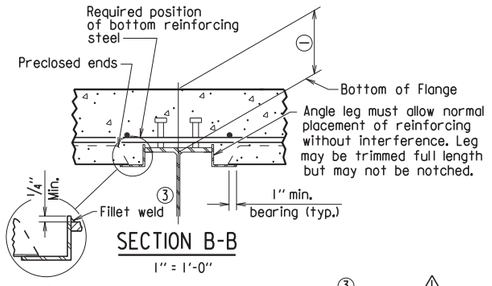
1" = 1'-0"

(Applicable when corrugations do not match spacing of main reinforcement)



SKETCH OF PERMISSIBLE SUPPORTS

N.T.S.

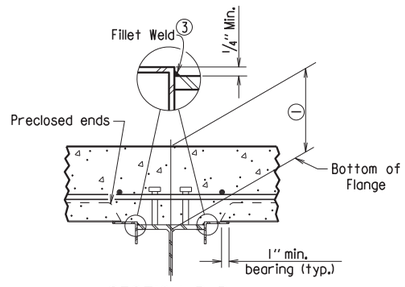


SECTION B-B

1" = 1'-0"

(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)

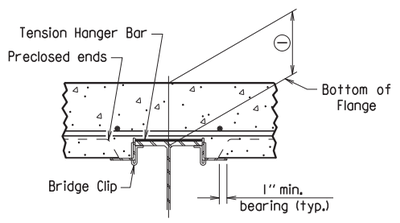
③ ⚠ Minimum weld: 1/8" x 1" @ 18". More weld may be required; maximum length per weld = 1 1/2" (typ.)



SECTION B-B

1" = 1'-0"

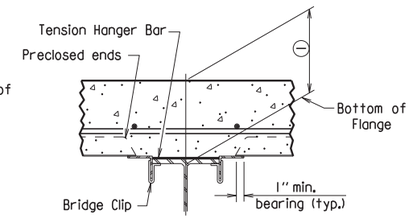
(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



SECTION B-B

1" = 1'-0"

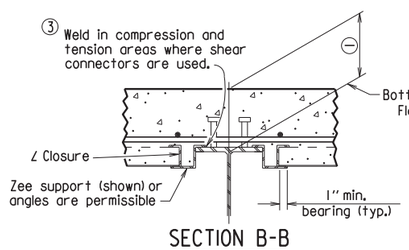
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B

1" = 1'-0"

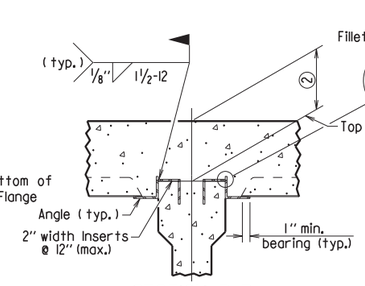
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B

1" = 1'-0"

(Showing ∠ Closure)

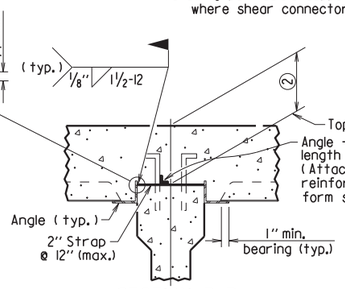


SECTION B-B

(FOR CONCRETE GIRDERS)

1" = 1'-0"

(Showing support by Insert cast in girder)

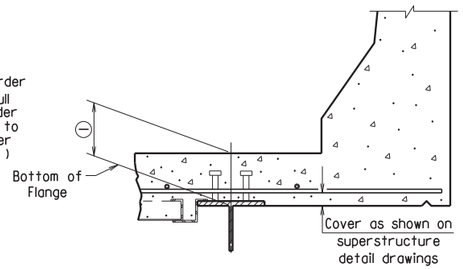


SECTION B-B

(FOR CONCRETE GIRDERS)

1" = 1'-0"

(Showing support by Strap)



SECTION D-D

1" = 1'-0"

Note: Only Bottom Reinforcing is shown.

① Distance from top of slab to bottom of top flange as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top flange or the support angle leg contacts the bottom reinforcing steel; Maximum = t_s + 1 3/4" + flange thickness. See Section C-C for slab thickness tolerance between adjacent girder flanges.

② Distance from top of slab to top of girder as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top of girder or the support angle leg contacts the bottom reinforcing steel; Maximum - value shown on the superstructure detail drawings when removable forms are used. See Section C-C for slab thickness tolerance between adjacent girder flanges.

⚠ Revised weld dimension by KWY. Ck'd. by BEF, 3/24/16.

*t_s = slab thickness as shown on superstructure detail drawings.

GENERAL NOTES

Permanent steel deck forms may be used at the Contractor's option and shall be at no additional cost to the Department. Such use may result in changes to the dead load deflection of the girder. Any cost for adjustments due to a change in the dead load deflection will be borne by the Contractor. Payment for deck concrete and structural steel will not be increased due to use of permanent steel deck forms.

Permanent steel deck forms shall conform to Subsection 802.14(b). Detailed plans, including detailed calculations and manufacturer's technical brochure, shall be submitted to and approved by the Engineer before work of forming the bridge deck is started.

Welding of form supports to the tension flange of steel girders will be permitted only in areas where shear connectors are used. When welding is not allowed, the method of fastening Z or ∠ supports to the flange must be approved by the Engineer.

Form sheets shall be fastened to supporting members and to each other with galvanized metal screws sufficient in size and number to provide a secure attachment. Alternate methods of attachment must be approved by the Engineer.

When the pitch of form corrugations match the reinforcing spacing, transversely align form sheets across the bridge to maintain the correct orientation of continuous reinforcing bars in the corrugations.

Bar support rods, when used, shall be sized and spaced to adequately support the bottom reinforcing mat at the required position.

High chairs shall be sized to support the top mat of reinforcing at the proper position. High chairs shall be placed at locations shown on the detail drawings.

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 Edition), with applicable Supplemental Specifications and Special Provisions.

STANDARD DETAILS FOR PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b55005.dgn

CHECKED BY: BEF DATE: 2-27-2014 SCALE: NONE

DESIGNED BY: STD. DATE: —

DRAWING NO. 55005

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.				
				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.

STANDARD GENERAL NOTES
FOR STEEL BRIDGE STRUCTURES

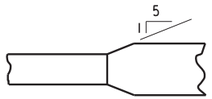
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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

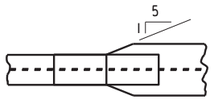
PRINT DATE: 11/7/2019

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	STEEL BRIDGE STRUCTURES 55007			

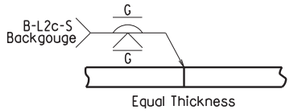


Plan-Unequal Width (Flg.)

FLANGE SPLICE

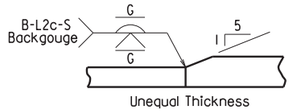


FLANGE SPLICE AT UNEQUAL BOTTOM FLANGE WIDTHS



Equal Thickness

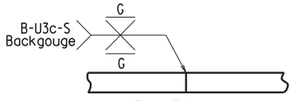
WEB & FLANGE SPLICE



Unequal Thickness

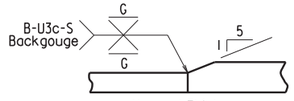
FLANGE SPLICE

(Use when Base Metal Thickness is Equal to or Less than 2")



Equal Thickness

WEB & FLANGE SPLICE

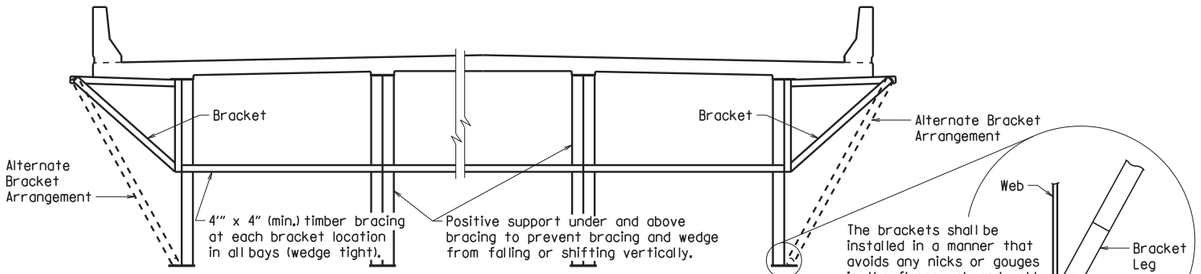


Unequal Thickness

FLANGE SPLICE

(Use when Base Metal Thickness is Greater than 2")

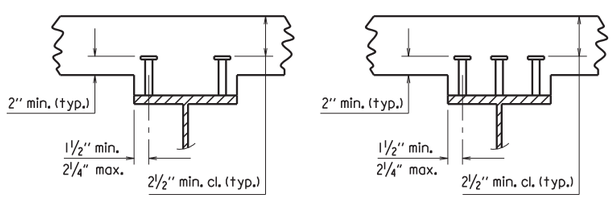
DETAILS OF WELDED SPLICES FOR PLATE GIRDERS



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)

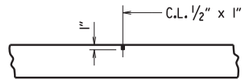


2 STUDS PER ROW

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.

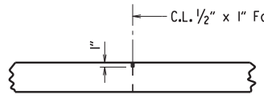
SHEAR CONNECTOR DETAIL



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.

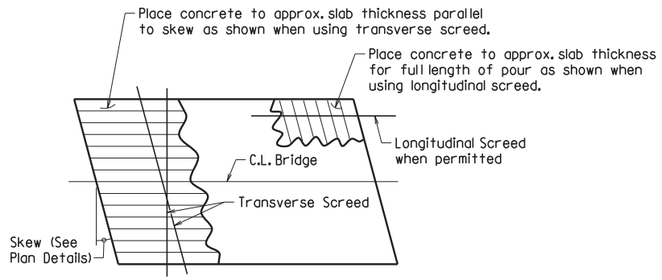
ADDITIONAL NOTES IF SIDEWALKS OR RAISED MEDIANS ARE REQUIRED:
Slab Joints shall be installed before the sidewalk or raised median is poured. After installation of the joint in the sidewalk or raised median and prior to pouring the parapet rail, the joint sealer shall be placed extending across the deck 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



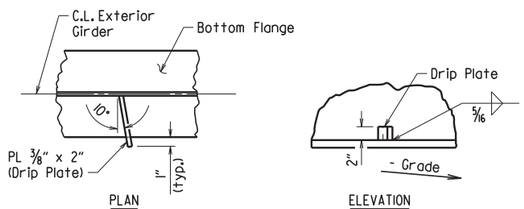
Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod filler will not be required. Joint sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. This joint shall be formed. Seal color shall be gray or other color similar to concrete.

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

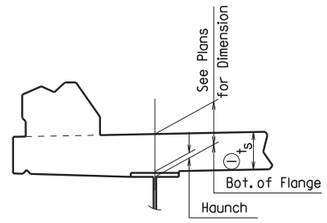
Drip Plate to be welded to the outer side of the bottom flange of the exterior girders.

Locate drip plate 5'-0" from C.L. Bearing on high side of each Bent, unless otherwise noted in the plans.

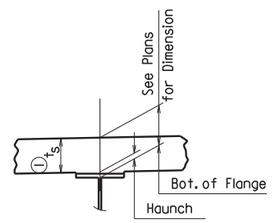
BOTTOM FLANGE DRIP PLATE

(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



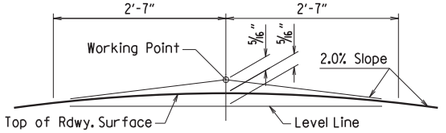
INTERIOR BEAM OR GIRDER

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"	5/16"	

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.

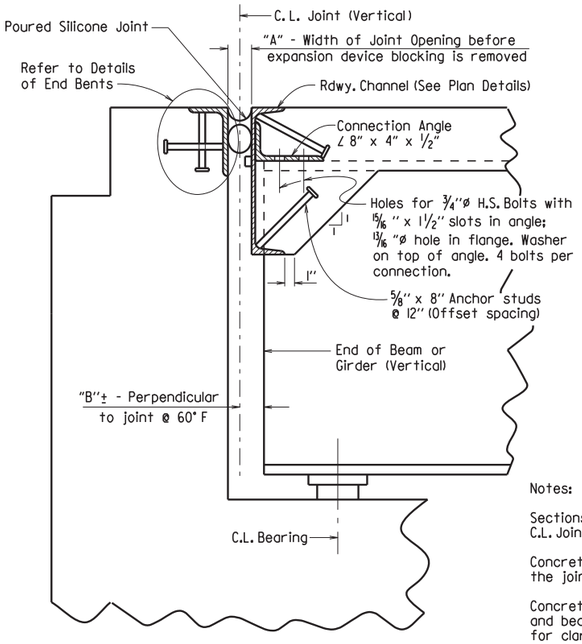
DRAWN BY: JYP DATE: 2/11/2016 FILENAME: b55007.dgn

CHECKED BY: AMS DATE: 2/11/2016 SCALE: No Scale

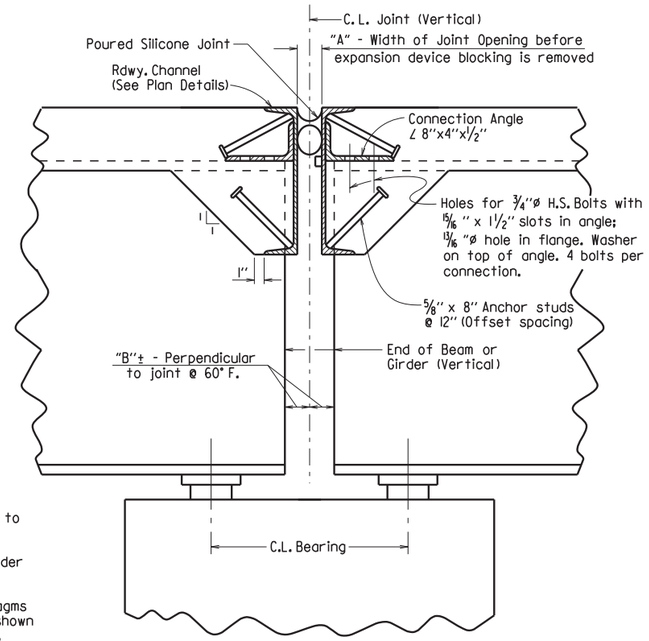
DESIGNED BY: STD. DATE: —

DRAWING NO. 55007

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	POURED SILICONE JOINT			55008



SECTION THRU JOINT AT END BENT



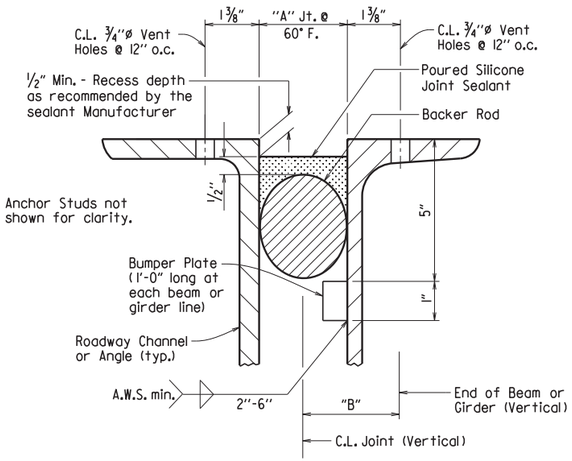
SECTION THRU JOINT AT INTERMEDIATE BENT

Notes:

Sections are taken perpendicular to C.L. Joint.

Concrete shall be hand packed under the joint armor.

Concrete diaphragms, steel diaphragms and bearing stiffeners are not shown for clarity. See plans for details.



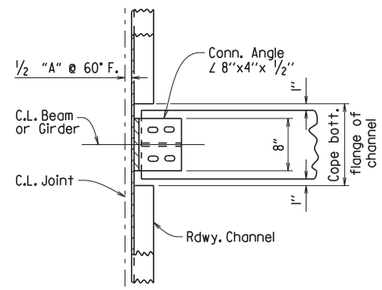
DETAIL OF POURED SILICONE JOINT

Silicone joint material and installation shall conform to Section 809. The temperature limitations recommended by the sealant Manufacturer shall be observed. The sealant shall be installed only when the average 24 hour air temperature is between 40° and 80° F.

Use an appropriately sized backer rod at the depth shown in the Manufacturer's literature based on the joint width at the time of sealing. Unless otherwise noted, do not install more backer rod than can be sealed in the same day.

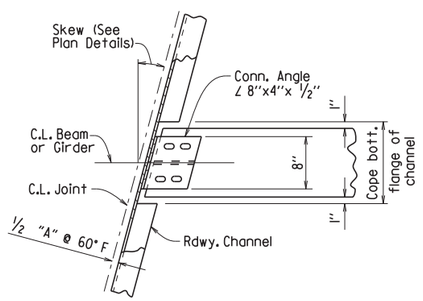
The Contractor shall verify separation of the backer rod from the joint material after the joint material has set.

When bridge deck is constructed in stages, backer rods shall be extended beyond length of poured joint in initial construction stage so that the two pieces can be properly spliced together prior to installing sealant in subsequent stages. Manufacturer's recommendations shall be followed to prevent sealant from "running out of joint" during stage construction.



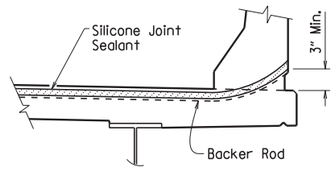
CHANNEL CONNECTION DETAIL

BENTS WITHOUT SKEW

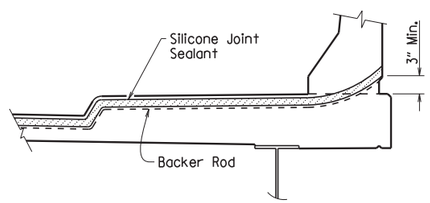


CHANNEL CONNECTION DETAIL

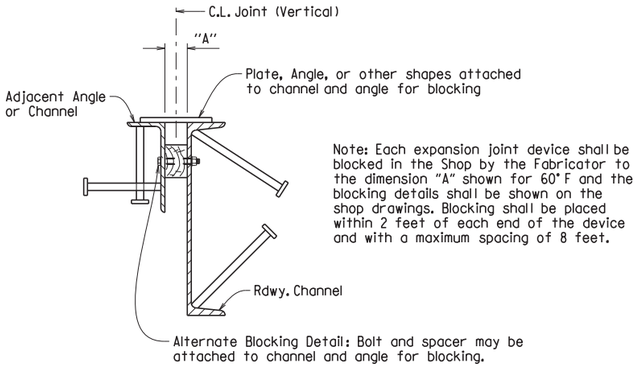
BENTS WITH SKEW



JOINT SEAL PLACEMENT AT RAIL



JOINT SEAL PLACEMENT AT SIDEWALK



DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

EXPANSION DEVICE INSTALLATION AT END BENTS:

The Contractor may elect to install the expansion device using one of the following two alternatives:

1) The concrete span pour adjacent to joint shall be placed before the end bent backwall is placed. After the end bent backwall forms are in place and the beams or girders erected, the blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the backwall concrete, the blocking shall be removed, and the opening adjusted for temperature and grade.

2) The backwall shall be poured to the optional construction joint after beams or girders are erected. The blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the remainder of the backwall concrete, the blocking shall be removed and the opening adjusted for temperature and grade.

EXPANSION DEVICE INSTALLATION AT INTERMEDIATE BENTS:

After all beams or girders on each side of the joint are erected the blocked expansion device shall be installed and adjusted for grade. Deck concrete shall be placed for the entire unit or span on one side of the joint before deck concrete on the other side is placed. Connection bolts for the first side to have deck concrete placed shall be completely bolted. Bolts on the other side shall be loosely installed so that thermal and rotational movements will not be restricted during concrete placement on the first side.

Connection bolts on the second 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 second side, the blocking shall be removed, the joint adjusted for temperature and grade, and the connection bolts tightened.

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. SEE "TABLE OF SILICONE JOINT DATA" IN PLAN DETAILS FOR VARIABLES "A" AND "B", AND BUMPER PLATE SIZE.

STANDARD DETAILS FOR POURED SILICONE JOINTS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: A.C.P. DATE: 2/11/2016 FILENAME: b55008.dgn

CHECKED BY: A.M.S. DATE: 2/11/2016 SCALE: No Scale

DESIGNED BY: STD. DATE: —

DRAWING NO. 55008

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
4-14-23		6	ARK.			
1-28-25		TYPE D NAME PLATE - 55010				

The name of the bridge as shown on the plans shall be placed on Lines 1 & 2 using ⅛" raised letters and numerals ⅜" high.

	Example 1	Example 2	Example 3	Example 4
Line 1	RED RIVER	SOUTHERN RAILROAD	SALINE RIVER	HIGHWAY 5
Line 2	RELIEF	OVERPASS		

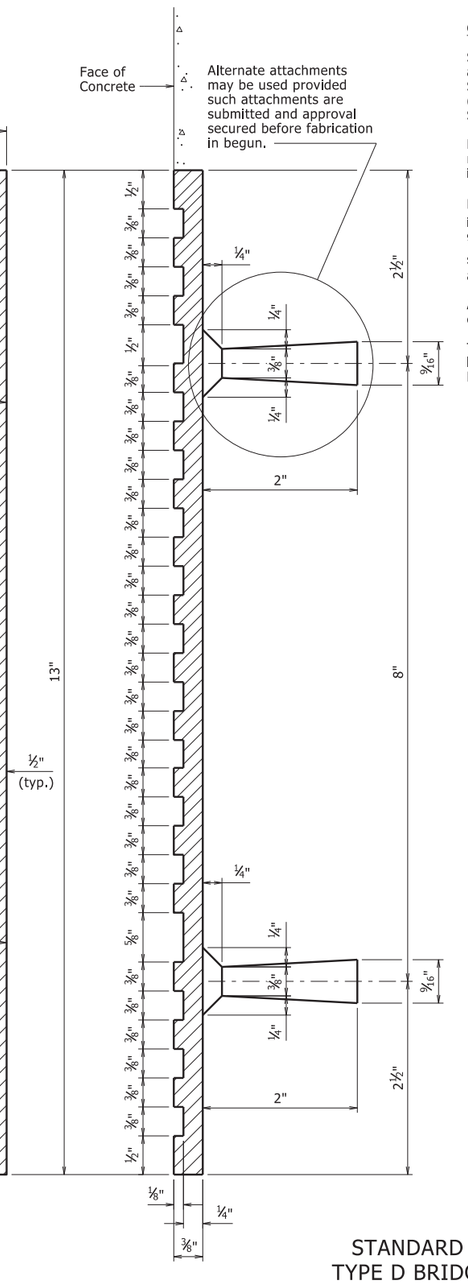
Place the design live loading here using ⅛" raised letters and numerals ¼" high. Examples: HS20, HL-93

Place the Year in which Contract was awarded here using ⅛" raised numerals ⅜" high. Example: 2001

Place the name of the company awarded the construction contract here using ⅛" raised letters and numerals ⅜" high. Example: ABCD CONSTRUCTION, INC.

Place the Bridge number here using ⅛" raised letters and numerals ¼" high. Examples: A1234, 05432

TYPICAL BRIDGE NAME PLATE



GENERAL NOTES

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (2014 Edition) with applicable Supplemental Specifications and Special Provisions.

Name plates shall be cast bronze and shall meet the material requirements as specified in Section 812.

Body of plate shall be ¼" thick and shall include four tapering cone lugs ⅜" to 9/16" x 2" long. The border and all lettering shall be raised ⅛" above the face of plate and shall be polished.

All lettering shall be plain gothic, square cut and not tapered.

The number of plates required and the location and name on the plate for each bridge shall be as designated on the plans.

2 Updated names
1-28-25 CGP Checked By: CRE

1 Revised and Redrawn
4-14-23 CGP Checked By: CRE

STANDARD DETAILS FOR
TYPE D BRIDGE NAME PLATE

ROUTE SEC.

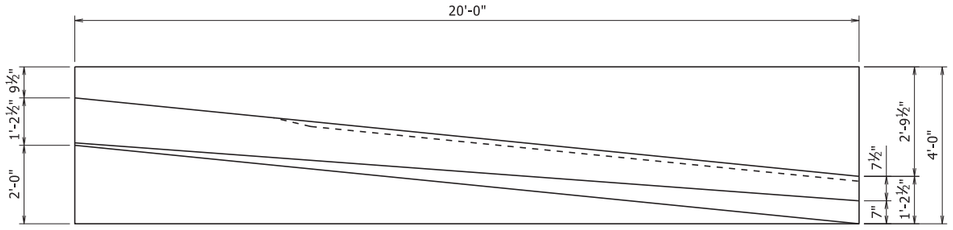
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b55010.dgn
CHECKED BY: BEF DATE: 2-27-2014 SCALE: NO SCALE
DESIGNED BY: STD. DATE:

DRAWING NO. 55010

PRINT DATE: 1/28/2025

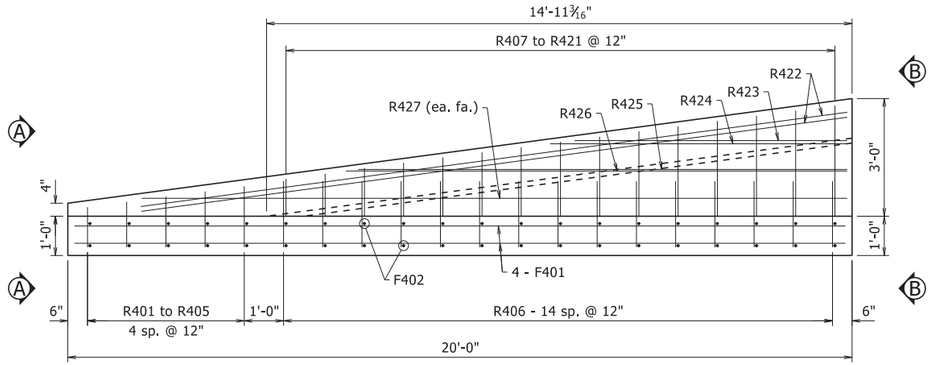
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				
				①	TRANSITIONAL RAIL - 55013A			



PLAN OF TRANSITIONAL APPROACH RAILING

Railings on each side of roadway are opposite hand to each other

½" = 1'-0"



ELEVATION OF TRANSITIONAL APPROACH RAILING

½" = 1'-0"

GENERAL NOTES

Transitional Approach Railing Type SSTR36 shall be placed at locations shown in plans.

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi and shall be poured in the dry. All exposed corners to be chamfered 1" unless otherwise noted.

All reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Construction. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Construction.

Unless otherwise required in the plans, curing and finishing shall be in accordance with Subsection 806.05(c) and the surface finish type and areas of application shall match that used on the adjacent bridge railing or barrier wall. See Subsection 802.19(3) for Class 3 Textured Coating Finish or Subsection 803.03(a) or 803.03(b) for Class 1 or 2 Protective Surface Treatment, respectively. Surface finishes shall not be paid for directly, but shall be considered incidental to the unit price bid for "Transitional Approach Railing."

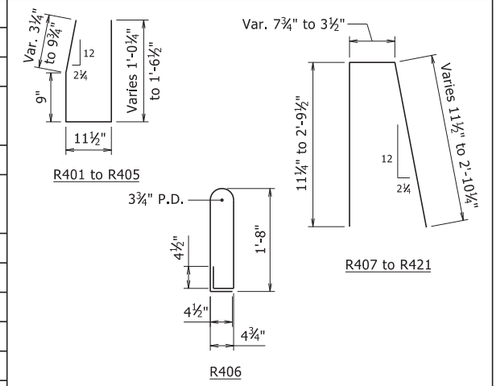
When alternate surface and/or architectural finishes are specified in the plans, no direct payment will be made, and the alternate finish shall be considered incidental to the unit price bid for "Transitional Approach Railing". See plan details for additional information when architectural finishes are specified.

Transitional Approach Railing Type SSTR36 shall be paid for at the contract unit price bid for "Transitional Approach Railing". See Section 806 for additional information.

Scales shown are for 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.

BAR LIST - ONE TRANSITIONAL APPROACH RAILING

MARK	NO. REQ'D	LENGTH	P.D.	BENDING DIAGRAMS
F401	8	19'-8"	Str.	
F402	40	3'-8"	Str.	
R401 to R405	1 ea.	2'-10" - 3'-11"	2"	
R406	15	4'-5"	2"	
R407 to R421	1 ea.	2'-5" - 5'-9"	2"	
R422	2	18'-2"	Str.	
R423	1	6'-11"	Str.	
R424	1	7'-6"	Str.	
R425	1	12'-6"	Str.	
R426	1	12'-9"	Str.	
R427	2	17'-11"	Str.	

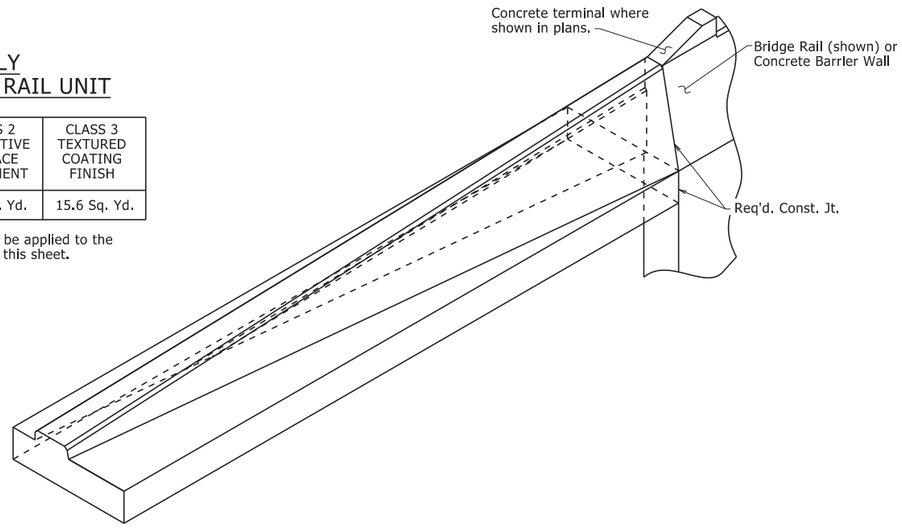


Dimensions are out to out of bars.

FOR INFORMATION ONLY
SCHEDULE OF QUANTITIES PER RAIL UNIT

CLASS "S" CONCRETE	REINFORCING STEEL (GRADE 60)	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 2 PROTECTIVE SURFACE TREATMENT	CLASS 3 TEXTURED COATING FINISH
4.1 Cu. Yds.	374 Lbs.	0.2 Gal.	8.1 Sq. Yd.	15.6 Sq. Yd.

Only one of the above three surface treatments shall be applied to the transitional approach railing. See "General Notes" on this sheet.



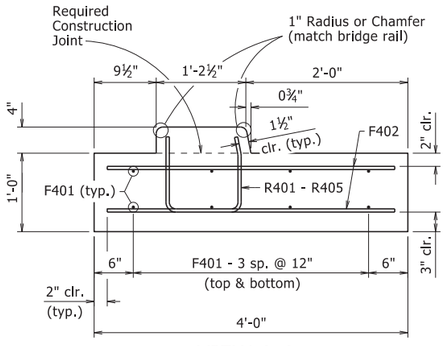
PICTORIAL OF TRANSITIONAL APPROACH RAILING

Sidewalk not shown for clarity

No Scale

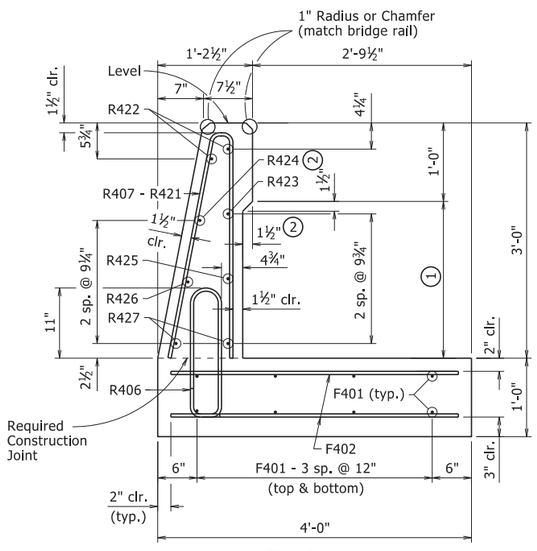
① Recess height varies as shown from 2'-0" to 0".

② Eliminate recess when formliner with architectural finish is used. See Plans for additional information.



VIEW A-A

1" = 1'-0"



VIEW B-B

1" = 1'-0"

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 TRANSITIONAL APPROACH RAILING TYPE SSTR36

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

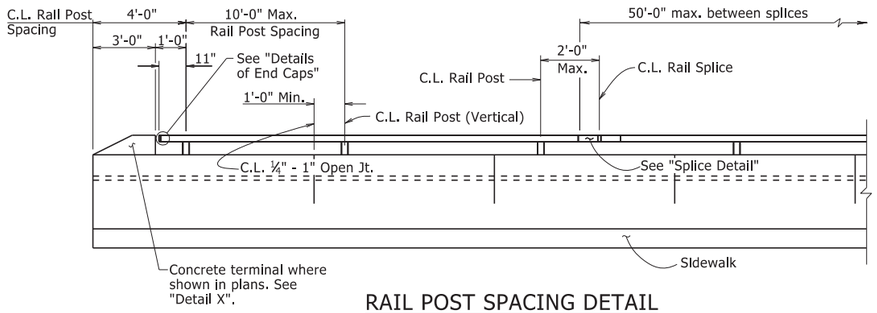
DRAWN BY:	KWY	DATE:	4/8/2021	FILENAME:	b55013a.dgn
CHECKED BY:	BHS	DATE:	4/8/2021	SCALE:	As Shown
DESIGNED BY:	STD.	DATE:	--		

DRAWING NO. 55013A

PRINT DATE: 4/9/2021

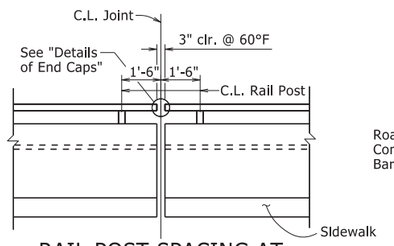
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				

(1) TYPE H2 RAILING - 55015

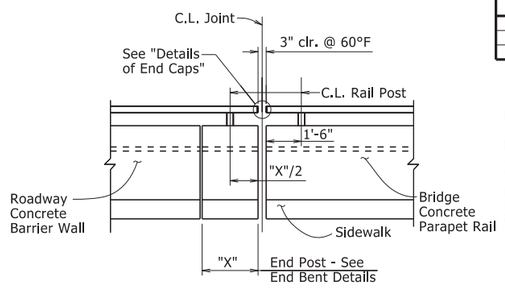


RAIL POST SPACING DETAIL

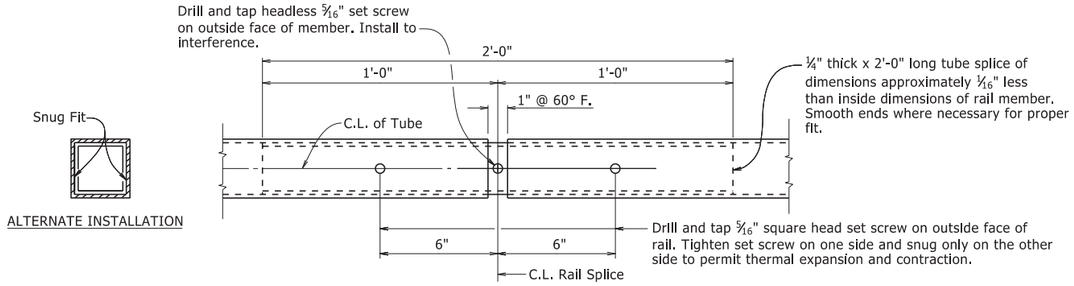
(Horizontal dimensions are along face of rail)



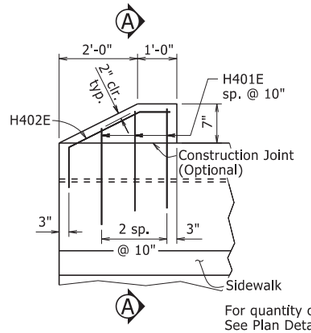
RAIL POST SPACING AT EXPANSION JOINTS



RAIL POST SPACING AT BRIDGE ENDS WITH CONCRETE BARRIER WALL

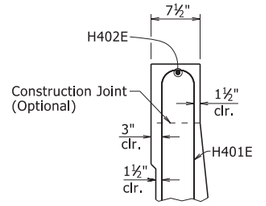


SPLICE DETAIL

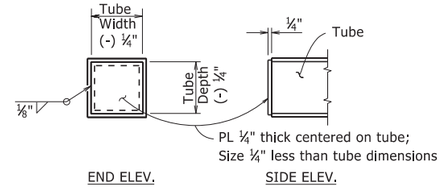


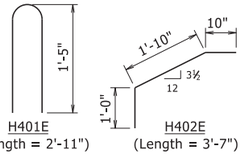
DETAIL X

For quantity of reinforcing steel, See Plan Details.



SECTION A-A

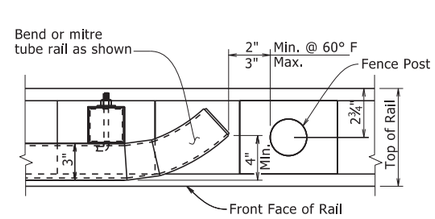




Pin diameter for bending is 2". Bars shall be epoxy coated.

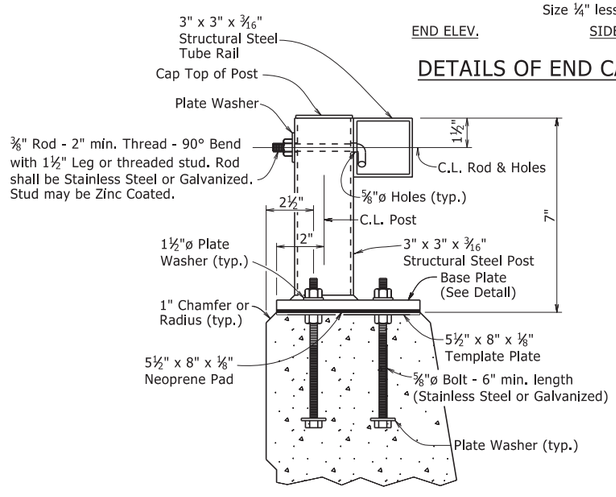
BENDING DIAGRAMS

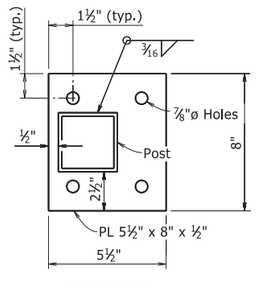
(Dimensions are Out-to-Out of Bars)



DETAILS OF RAIL TERMINUS AT FENCE POST

(When Chain Link Fence is Required)

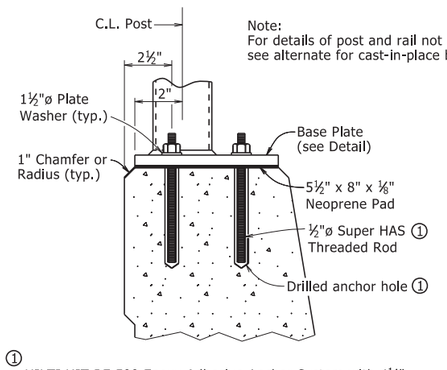


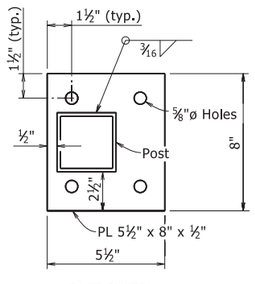


BASE PLATE

DETAILS OF POST ANCHOR SYSTEM

(Cast-in-Place Bolts)





BASE PLATE

① HILTI HIT RE 500 Epoxy Adhesive Anchor System with 4½" embedment or approved equal.

The Hilti Epoxy Adhesive Anchor System (or approved equal) shall be installed in accordance with Manufacturer's recommendations.

DETAILS OF ALTERNATE POST ANCHOR SYSTEM

(Epoxy Adhesive Anchors)

MATERIALS:

Rail tubing, posts, end caps, and base plates shall conform to ASTM A709, Grade 36 or ASTM A500-Grade B, and shall be galvanized after fabrication in accordance with Subsection 806.02(c). When required elsewhere in the plans, steel rail members shall receive a powder coating process after galvanizing. Galvanized surfaces shall be prepared in accordance with Subsection 807.87 and the manufacturer's recommendations prior to application of the powder coating process.

The powder coating process shall be a two coat system applied using electrostatic spray. The base coat shall be a thermosetting epoxy powder with a minimum thickness of 2 to 4 mils. The top coat shall be tough polyester powder with a minimum thickness of 2 to 4 mils. The color shall be as shown in the plans. Coated galvanized framework shall have a salt spray resistance of 3,000 hours using ASTM B117 without loss of adhesion. The powder coating process shall be in accordance with manufacturer's recommendations. Any damage to the powder coated finish shall be repaired with a compatible touch-up system in accordance with the manufacturer's recommendations and to the satisfaction of the Engineer at the Contractor's expense.

Cast-in-place anchor bolts, nuts, washers, and set screws shall be galvanized high-strength steel or stainless steel. Mixing of galvanized and stainless steel fasteners will not be permitted.

High-Strength Steel:
Cast-in-place anchor bolts shall conform to ASTM F3125, Grade A325, Type 1.
Nuts shall conform to ASTM A563, Grade DH or AASHTO M 292, Grade 2H.
Washers shall conform to ASTM F436.
Plate Washers shall conform to ASTM A709, Grade 36.
Template Plates shall conform to ASTM A709, Grade 36.
Splice Set Screws shall conform to ASTM A307, Grade A.
Anchor bolts, nuts, washers, plate washers, and set screws shall be galvanized in accordance with AASHTO M 232, Class C or ASTM B695, Class 50.

Stainless Steel:
Cast-in-place anchor bolts shall conform to ASTM A193, Grade B8, Class 2 or A320, Grade B8, Class 2 with a minimum yield strength of 80,000 psi.
Nuts shall conform to ASTM A194, Grade 8.
Washers shall conform to ASTM A240, Type 302.
Plate Washers shall conform to ASTM A240, Type 302.
Template Plates shall conform to ASTM A240, Type 302.
Splice Set Screws shall conform to ASTM A193, Grade B8, Class 1 or A320, Grade B8, Class 1.

Threads on bolts, screws, and nuts shall conform to American Standard Coarse Series, Class 2 FIT, ASA Specification B1.1. Plate washers shall have dimensions meeting the requirements of ANSI/ASME B18.22.1, Type A plain washer (Wide Series) unless otherwise noted. Neoprene pads shall conform to the requirements of Subsection 807.15(b).

GENERAL NOTES FOR BRIDGE RAILING:

Rail layout shall conform to vertical and horizontal alignment of bridge. All posts shall be vertical. Rail sections shall be fabricated to attach to at least three posts.

Base plates shall not be placed upon areas that are improperly finished, deformed or irregular.

Bridge railing, including posts, templates, and base plates, fasteners, and neoprene pads shall be paid for at the contract unit price bid per linear foot for "Metal Bridge Railing (Type H2)". When required elsewhere in the plans, powdered coating finish and repair of powdered coating finish shall be considered subsidiary to the item "Metal Bridge Railing (Type H2)".

Shop drawings showing details of railing shall be submitted and approval secured prior to fabrication.

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 TYPE H2 RAILING

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

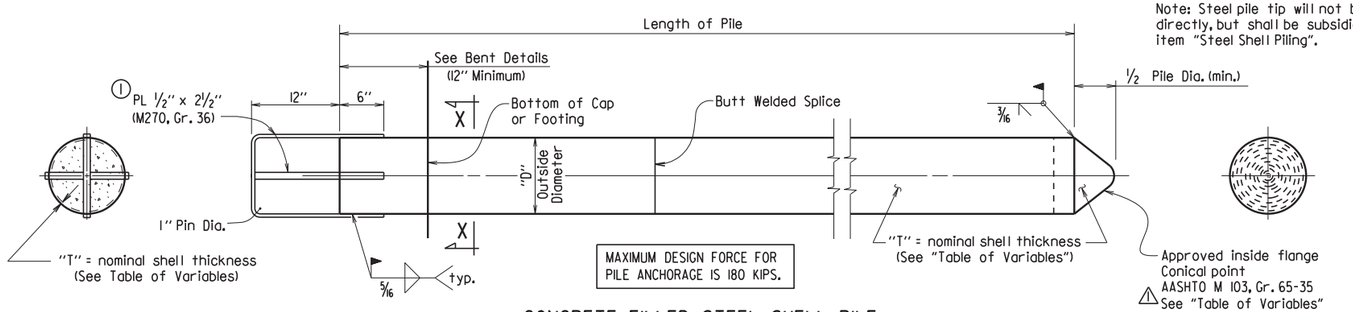
DRAWN BY: KJT DATE: 6/25/2020 FILENAME: b55015.dgn
CHECKED BY: KWY DATE: 6/25/2020 SCALE: No Scale
DESIGNED BY: STD. DATE: -

DRAWING NO. 55015

PRINT DATE: 4/6/2021

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3/24/16				6	ARK.			
				JOB NO.				
				①	STEEL SHELL PILES			55021

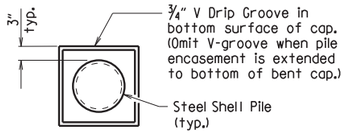
Note: Steel pile tip will not be paid for directly, but shall be subsidiary to the item "Steel Shell Piling".



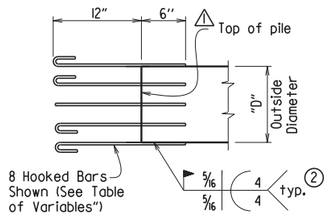
CONCRETE FILLED STEEL SHELL PILE

① Pile anchorage shall be placed to minimize interference with anchor bolts and reinforcing in cap or footing.

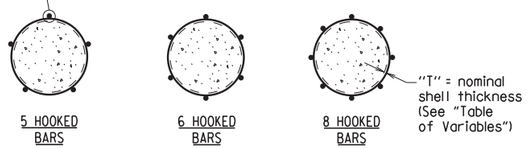
② Welding shall comply with ANSI/AWS D1.4 Structural Welding Code-Reinforcing Steel and applicable portions of ANSI/AWS D1.5 Bridge Welding Code.



VIEW X-X

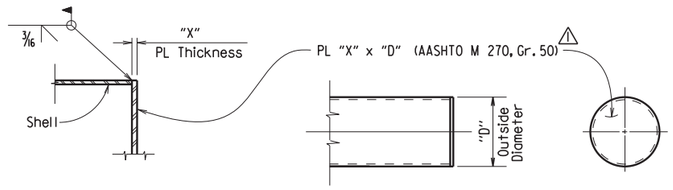


① The Contractor may use No. 7 hooked reinforcing bars equally spaced around piles. Reinforcing bars shall be ASTM A706, Grade 60. See "Table of Variables" for number required.



ALTERNATE PILE ANCHORAGE DETAIL

Note: Hooked bars shall be oriented to provide the required concrete clearances shown in the plans.

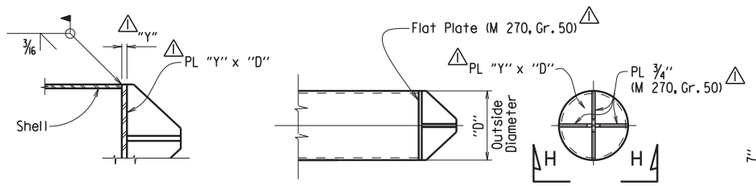


PART SECTION

ELEVATION

ALTERNATE FLAT TIP DETAIL

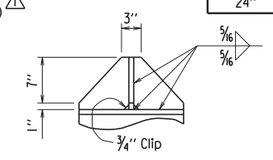
Note: The alternate flat tip detail shall not be used on steel shell piling to be driven through embankments constructed with internal geosynthetic reinforcement.



PART SECTION

ELEVATION

ALTERNATE VANED TIP DETAIL



VIEW H-H

GENERAL NOTES FOR CONCRETE FILLED STEEL SHEEL PILES:

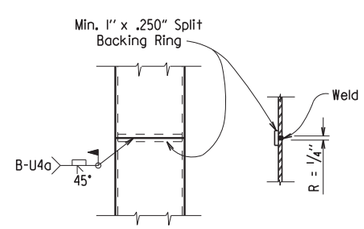
Steel shells shall conform ASTM A252, Grade 3 (Fy = 45,000 psi.)

Concrete used for filling of steel shell shall be Class S with a minimum 28-day compressive strength, f'c = 3,500 psi. and shall be poured in the dry.

Steel shell piling that extends above the ground and is not protected by pile encasement shall be painted in accordance with Subsection 805.02.

See Bridge Layout for size and estimated length of steel shell piles and for driving information.

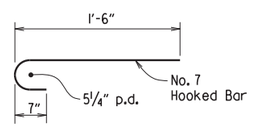
Concrete, structural steel, reinforcing steel (including welding), and painting shall not be paid for directly, but shall be considered subsidiary to the item "Steel Shell Piling".



TYPICAL SPLICE DETAILS

TABLE OF VARIABLES

OUTSIDE DIAMETER "D"	NOMINAL SHELL THICKNESS "T"	⚠ PLATE THICKNESS "X"	⚠ PLATE THICKNESS "Y"	NO. OF HOOKED BARS FOR ALTERNATE PILE ANCHORAGE	⚠ MINIMUM CONICAL TIP DESIGN LOAD (KIPS)
14"	0.50"	2 1/4"	1 1/2"	5	859
16"	0.50"	2 1/4"	1 1/2"	5	986
18"	0.50"	2 1/2"	1 1/2"	6	1,114
20"	0.50"	2 1/2"	1 3/4"	6	1,241
24"	0.50"	2 3/4"	1 3/4"	8	1,495



HOOKED BAR DETAIL

⚠ Revised and added various details by KWY, Ck'd. by BEF, 3/24/16.

GENERAL NOTES FOR PILE ENCASEMENTS:

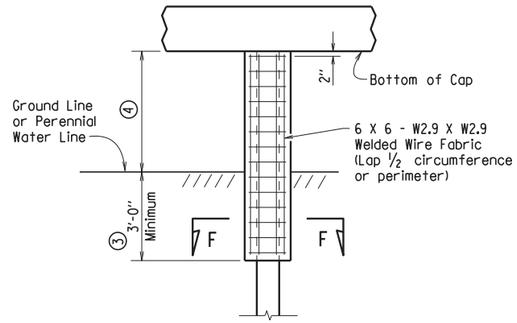
⚠ See Bridge Layout for additional notes, any pile encasement restrictions and required location of pile encasements.

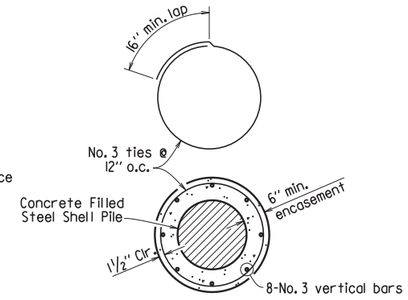
Concrete shall be Class S with a minimum 28-day compressive strength, f'c = 3,500 psi. If concrete cannot be placed in the dry, Seal Concrete may be used from top to bottom of encasement.

Reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A.

Welded wire fabric shall conform to AASHTO M 55 or M 221.

Concrete, welded wire fabric or reinforcing steel, and galvanized pipe shall not be paid for directly, but shall be considered subsidiary to the item "Pile Encasement".





SECTION F-F (REINF. ALTERNATE)

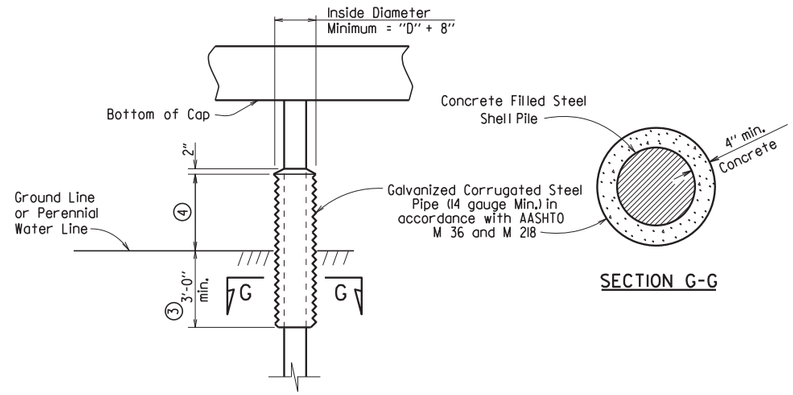
PILE ENCASEMENT DETAIL FOR STEEL SHELL PILES

⑤ (Shown with Encasement to Bottom of Cap)

③ Unless otherwise noted on Bridge Layout.

④ See Bridge Layout for height of pile encasement (3'-0" Minimum).

⑤ Pile encasement, when not extended to bottom of cap, shall have 2" concrete taper for water runoff as shown in the detail for partial height encasement.



SECTION G-G

ALTERNATE PILE ENCASEMENT DETAIL FOR STEEL SHELL PILES

(Shown with Partial Height Encasement)

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on March 24, 2016. This copy is not a signed and sealed document.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

STANDARD DETAILS FOR CONCRETE FILLED STEEL SHELL PILES AND PILE ENCASEMENTS

ARKANSAS STATE HIGHWAY COMMISSION

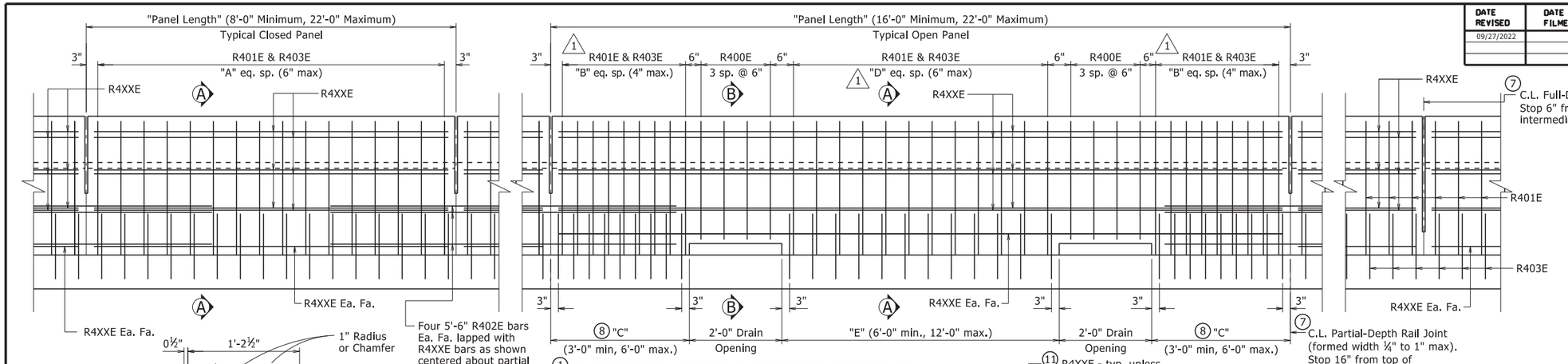
LITTLE ROCK, ARK.

DRAWN BY:	A.M.S.	DATE:	2/27/2014	FILENAME:	b55021.dgn
CHECKED BY:	B.E.F.	DATE:	2/27/2014	SCALE:	NO SCALE
DESIGNED BY:	STD.	DATE:	—		

DRAWING NO. 55021

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09/27/2022				6	ARK.			
				JOB NO.				

TYPE SSTR36 - 55070



(1) ELEVATION - SINGLE SLOPE TRAFFIC RAIL

¾" = 1'-0"

(7) C.L. Full-Depth Rail Joint (formed width ¼" to 1" max). Stop 6" from top of deck/slab or sidewalk. Place at all intermediate bents locations where rail is continuous.

(1) All measurements shown are along gutterline at base of rail.

(2) Minimum embedment into deck/slab.

(3) Eliminate recess when formliner with architectural finish is used. See Plans for additional information.

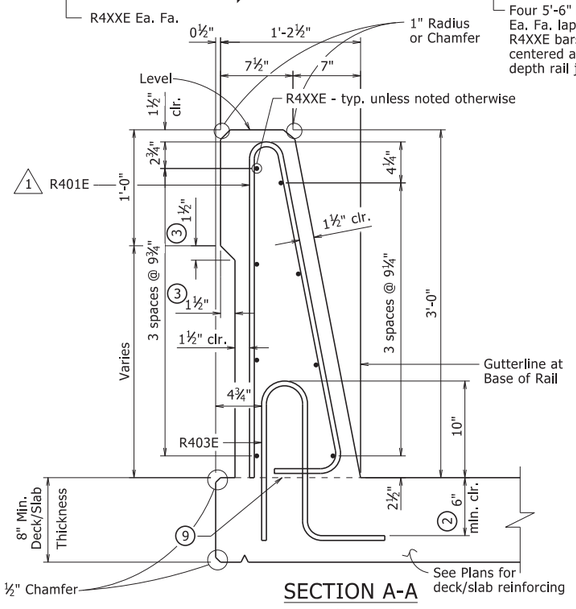
(4) C.L. 1" ø formed holes for ⅞" ø bolts. See Standard Drawings GR-10 and GR-12 for additional information.

(5) Only applicable for bridges with rail cast directly on bridge deck/slab surface. Increase height as necessary for sidewalks, see Plans for additional information.

(6) Field bend front leg of R401E bar as required to maintain minimum 1½" front face clearance within limits of taper.

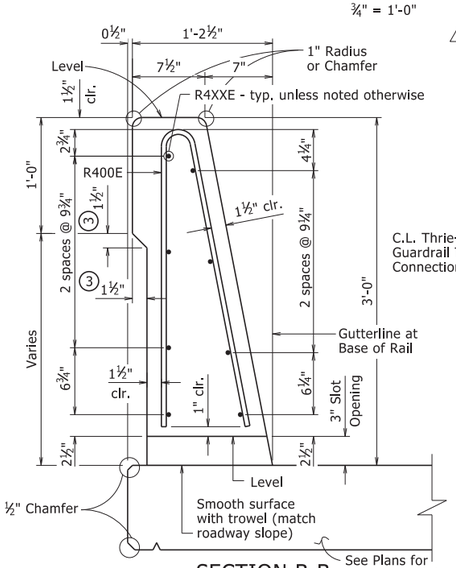
(7) When optional slip forming is used: to control cracking, all rail joints must be V-grooved around the perimeter of the rail prior to concrete set and sawing. Depth of V-groove shall be ½". Sawing of the joints shall be done as soon as practical to a width of ¼", and must be controlled so it will follow the V-Groove.

(8) End posts shall be the same length within a panel.



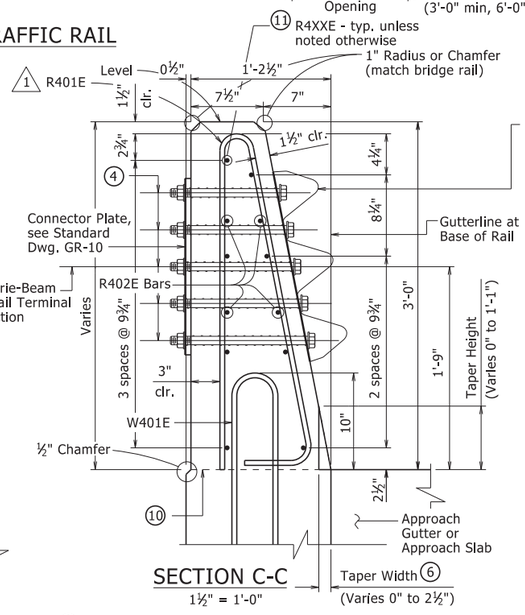
SECTION A-A

1½" = 1'-0"



SECTION B-B

1½" = 1'-0"

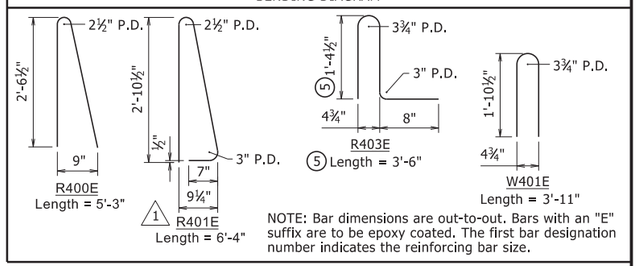


SECTION C-C

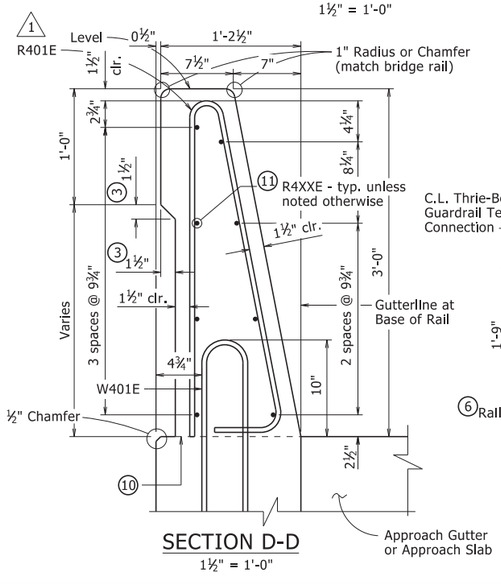
1½" = 1'-0"

Bolt Special End Shoe to face of rail as shown. Tapered washers are not required between the head of the bolts and the sloped face of the rail. Tighten the five terminal connection bolts in a well distributed pattern to prevent damage or distortion of the thrie-beam connection. Cut bolts off after installation so as to extend no more than ¾" beyond nut. Paint ends of cut-off bolts with zinc-rich paint. This work and material will not be paid for directly but shall be considered subsidiary to associated contract items.

BENDING DIAGRAM

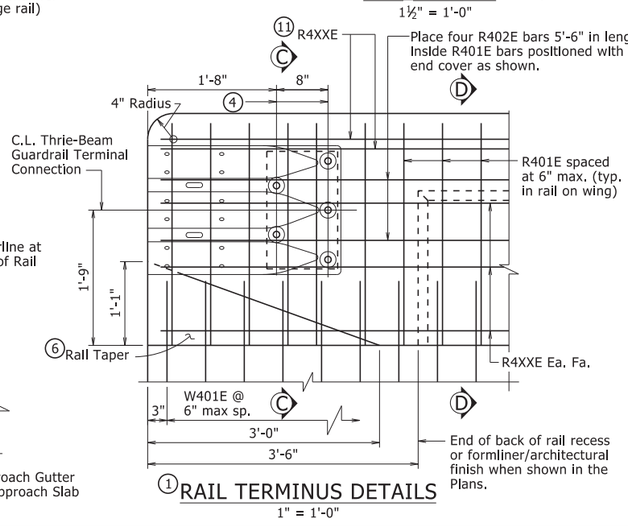


NOTE: Bar dimensions are out-to-out. Bars with an "E" suffix are to be epoxy coated. The first bar designation number indicates the reinforcing bar size.



SECTION D-D

1½" = 1'-0"



(1) RAIL TERMINUS DETAILS

1" = 1'-0"

(9) Required Construction Joint. Level where water flows away from rail, match roadway slope where water flows toward rail.

(10) Top of Abutment Wing & Required Construction Joint (match bridge deck/slab construction joint slope). See Plans for Wing reinforcing.

(11) These bars will not be included in the "Table of Variables". See Plans for details.

TABLE OF VARIABLES

Closed Rail Panels			Open Rail Panels					
Panel Length	A	R4XXE	Panel Length	B	C	D	E	R4XXE

See Plans for table with values.

GENERAL NOTES

This rail has been successfully evaluated by full-scale crash test to meet MASH TL-4 criteria.

Details shown are general for bridges without sidewalks. See Plans for additional details and requirements specific to bridges with sidewalks.

For Table of Variables, Rail Bar List, locations of Full and Partial Depth Rail Joints, and Wing & Rail Bar Lists, see Plans.

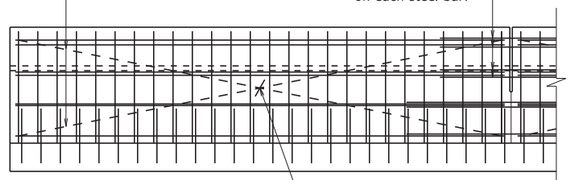
For location of drain openings, see Plans. Drain openings shown are not applicable for bridges with sidewalks. Drain openings will not be allowed over Railroad Right of Way, travelled roadways, and protected waterways.

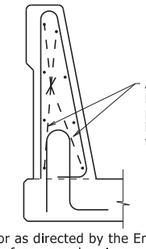
Rail Terminus details, including Rail Taper, are not applicable for bridges with sidewalks or when bridge railing is continuous with roadway railing.

Scales shown are for 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.

Wire shall be smooth 9 gage, and conform to AASHTO M 279, Class 3 galvanization and dimensions.

Four #4 fiberglass reinforcing bars shall be installed as shown across all sawed joints with a 20" minimum lap on each steel bar.





The extruded 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. Unless otherwise noted, exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish in place of Class 2, Rubbed Finish.

All panels shall be braced as required to prevent racking.

Slip forming will not be allowed on bridges where formliner with architectural treatment is used unless approval from the Engineer is obtained.

DETAILS OF OPTIONAL SLIP FORMING OF BRIDGE TRAFFIC RAIL

No Scale

(1) Modified bending diagram and spacing for R401E bar.

By: CGP, Checked by: CMW 09/27/2022

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on November 5, 2020. This copy is not a signed and sealed document.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS.

STANDARD DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR36

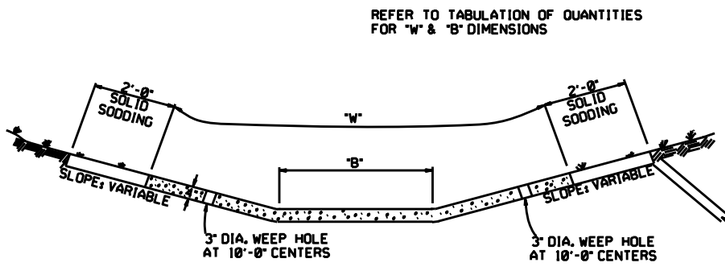
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KWY DATE: 11/5/2020 FILENAME: b55070.dgn
CHECKED BY: LJB DATE: 11/5/2020 SCALE: As Noted
DESIGNED BY: STD. DATE: -----

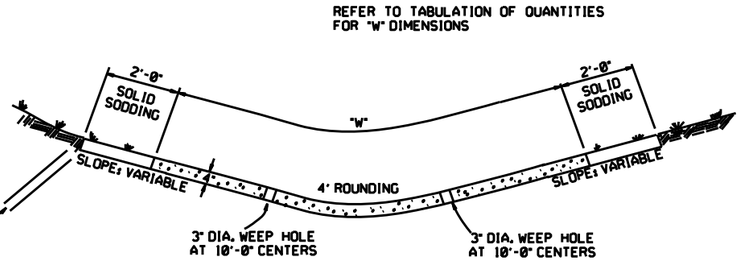
DRAWING NO. 55070

PRINT DATE: 10/6/2022



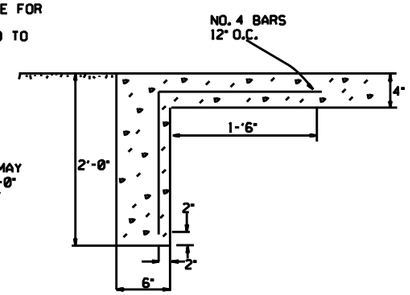
TYPE A

EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.



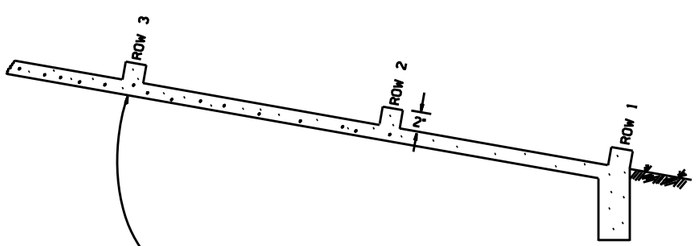
TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."



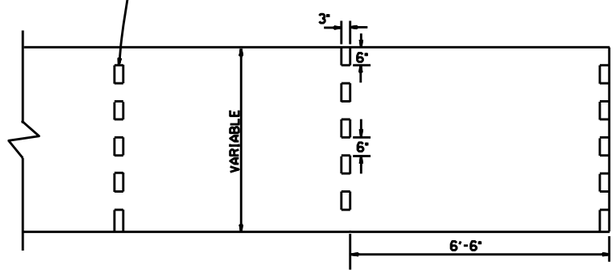
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

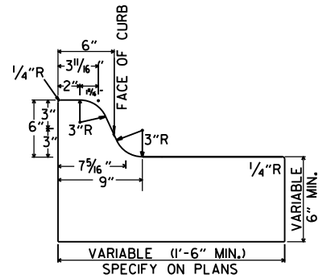
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45° INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
12-8-16	CORRECTED ENERGY DISSIPATOR DRAWING AND NOTE	
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

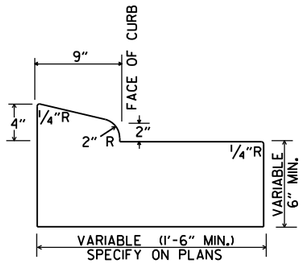
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

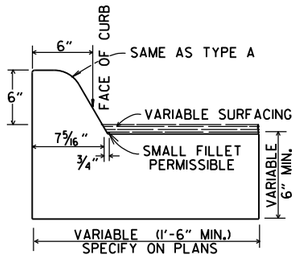
STANDARD DRAWING CDP-1



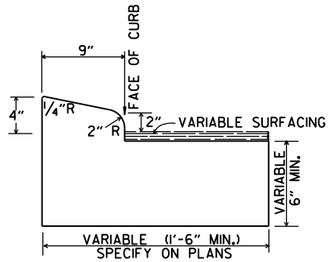
TYPE A



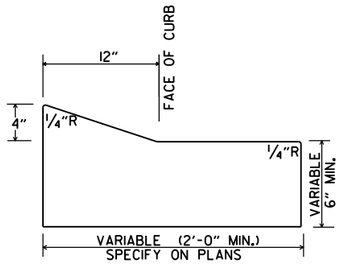
TYPE B-1



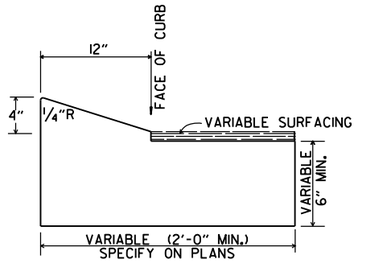
TYPE C



TYPE B-2

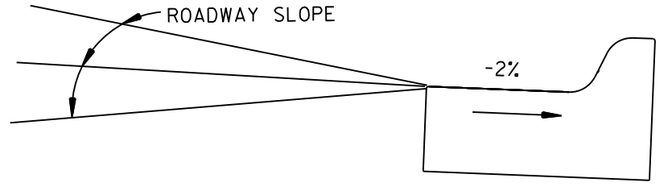


TYPE E-1



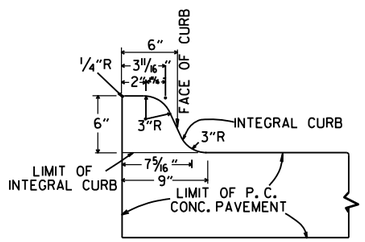
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

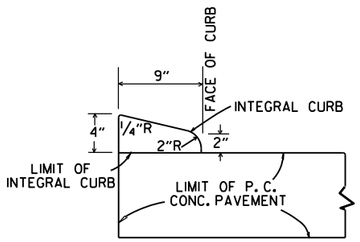


DETAIL OF GUTTER SLOPE

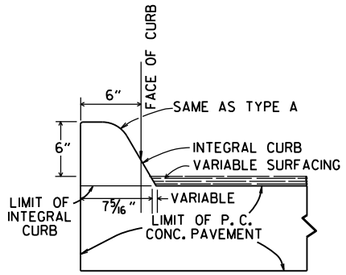
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

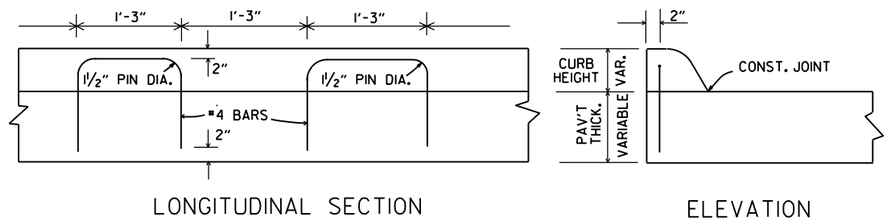


TYPE B



TYPE C

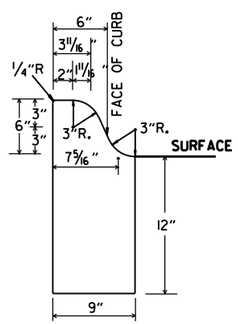
INTEGRAL CURB



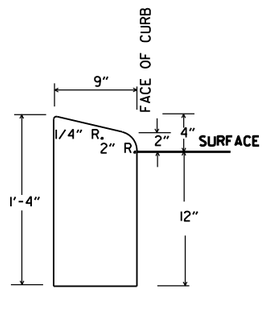
LONGITUDINAL SECTION

ELEVATION

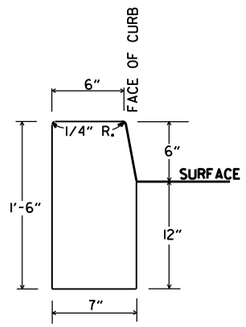
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



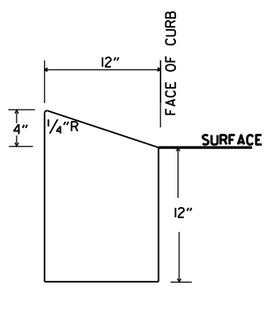
TYPE A



TYPE B

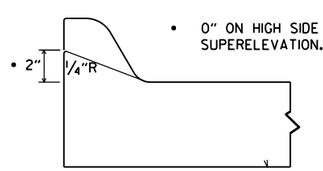


TYPE D



TYPE E

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

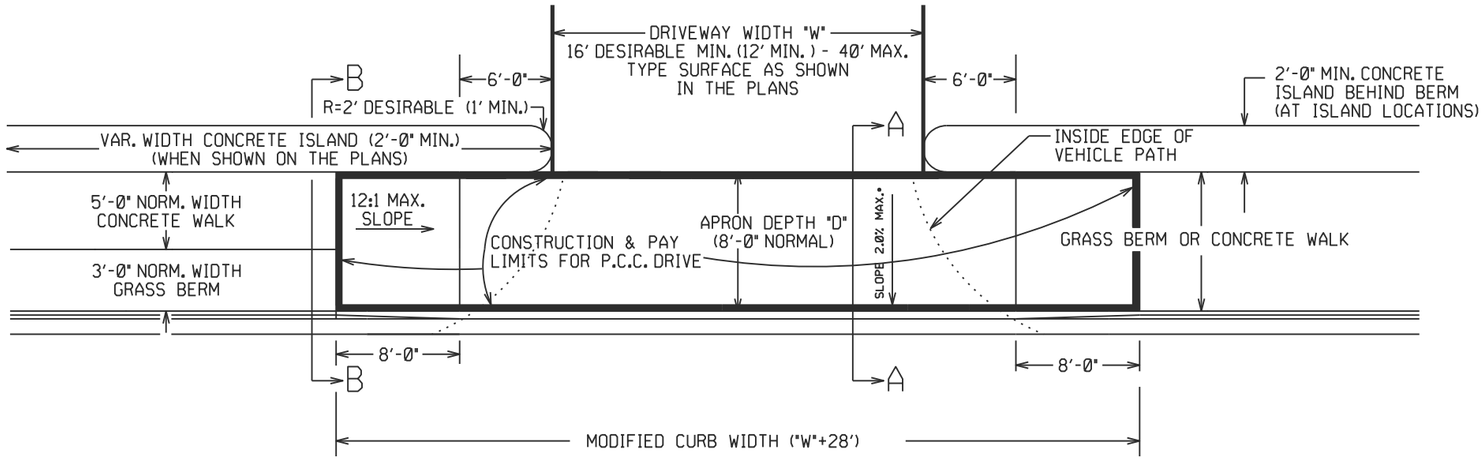
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIBLE DEPTH TYPE A & B I	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72

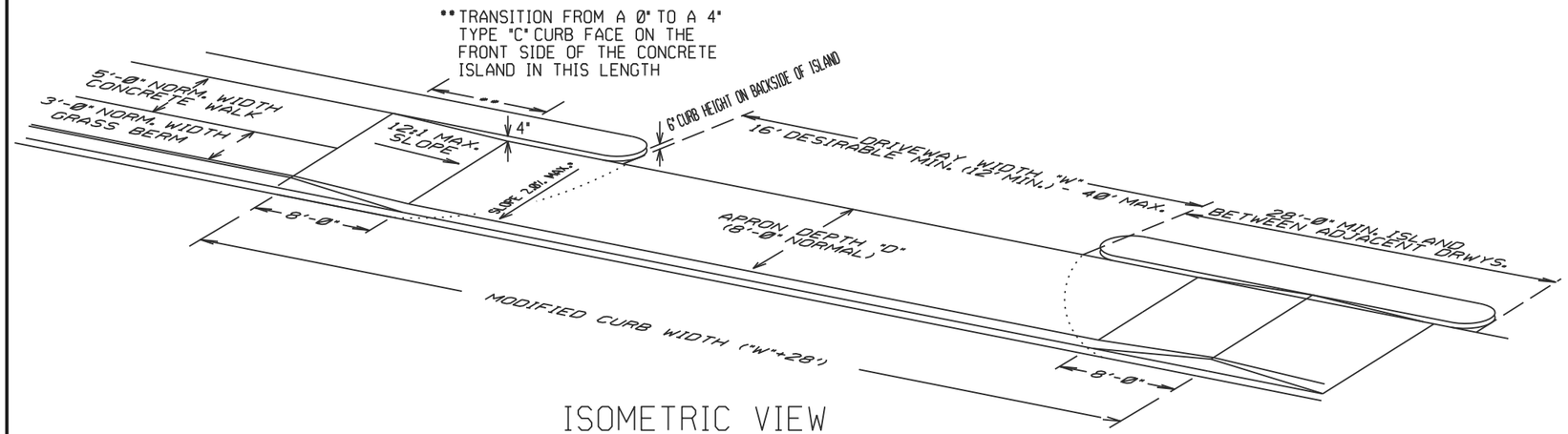
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

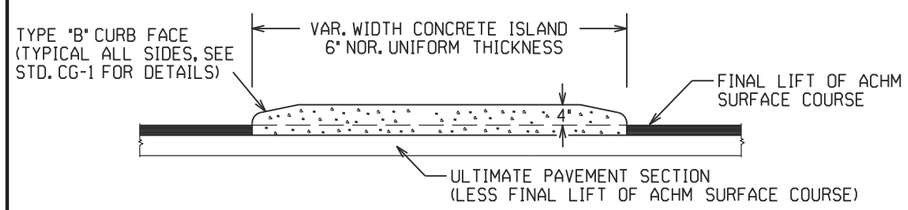
STANDARD DRAWING CG-1



PLAN VIEW



ISOMETRIC VIEW

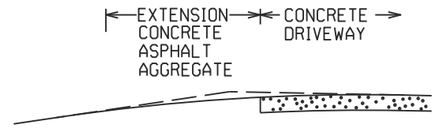


CURBED ISLANDS FOR CHANNELIZATION

CONCRETE ISLAND NOTES:

1. REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".

2. TRANSVERSE EXPANSION JOINTS, NOT LESS THAN 1/2" WIDE, SHALL BE PLACED AT MINIMUM INTERVAL OF 45'. TRANSVERSE JOINT SHALL BE CONSTRUCTED USING A JOINT FILLER COMPLYING WITH AASHTO M213.



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

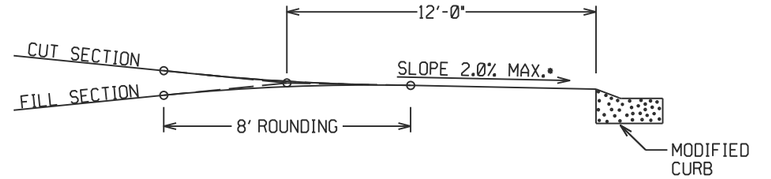
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

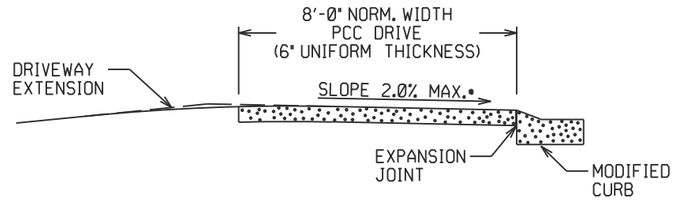
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

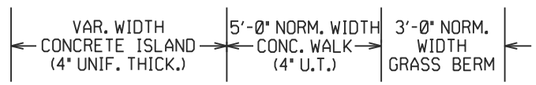


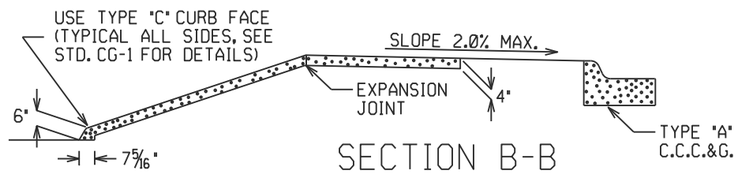
DRIVEWAY VERTICAL ALIGNMENT DETAILS

• NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



SECTION A-A





SECTION B-B

CURBED ISLAND BEHIND WALK

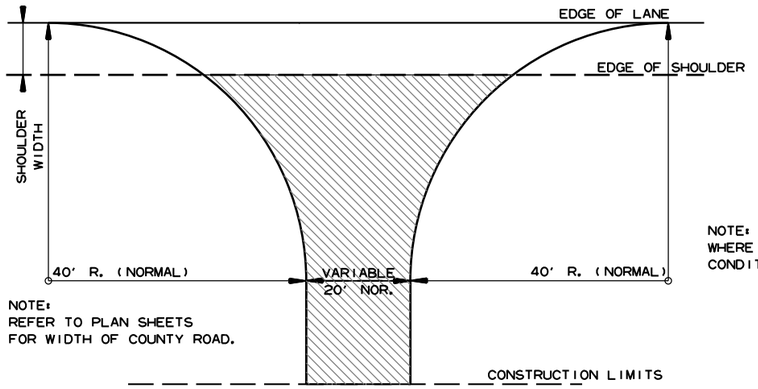
DATE REV	DESCRIPTION
05-22-25	REVISED ISLAND DETAILS & ADDED DESIRABLE MIN. DRIVEWAY WIDTH
05-19-22	REVISED ISLAND NOTES
11-07-19	REVISED WALK DETAILS
02-27-14	REVISED PLAN & ISOMETRIC VIEW
11-29-07	ADDED CHANNELIZATION ISLAND & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

DATE EFFECTIVE	STANDARD DRAWING	DR-1
05-22-2025		

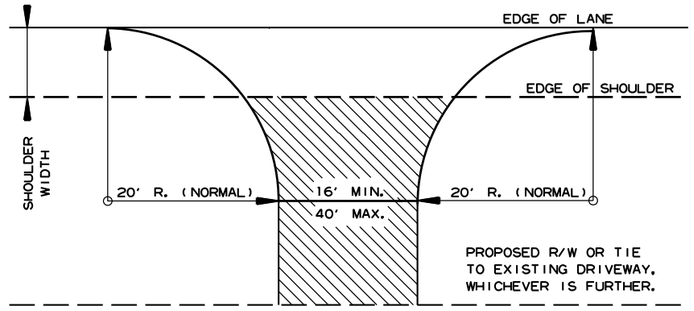


NOTE:
REFER TO PLAN SHEETS
FOR WIDTH OF COUNTY ROAD.

NOTE: TURNOUTS SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH, UNLESS OTHERWISE
SPECIFIED IN PLANS.

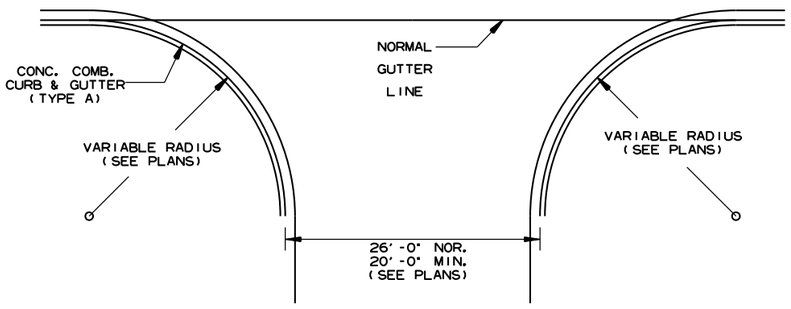
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

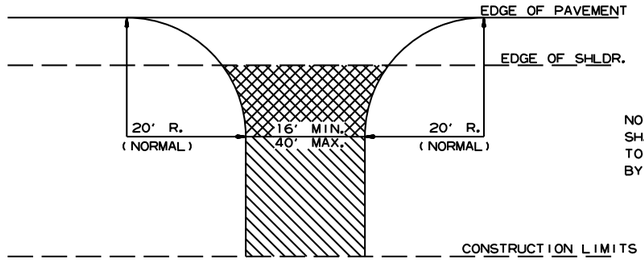
ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT OR
GRAVEL DRIVE EXISTING; OR 6"
CONCRETE IF CONCRETE DRIVE
EXISTING.

DETAIL FOR DRIVEWAY TURNOUTS OPEN SHOULDER SECTION (ARTERIALS)



NOTE:
PAVEMENT STRUCTURE FOR STATE HIGHWAYS, CITY STREETS,
& COUNTY ROADS TO BE SAME AS MAIN LANES.

DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS & STATE HIGHWAYS CURB & GUTTER SECTION



NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ASPHALT CONCRETE HOT MIX SURFACE
COURSE (220 LBS. PER SQ. YD.)
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR
6" CONCRETE IF CONCRETE DRIVE EXIST.

AGGREGATE BASE COURSE (CLASS 7)
9" COMP. DEPTH OR CONFORM
TO EXISTING DRIVEWAY

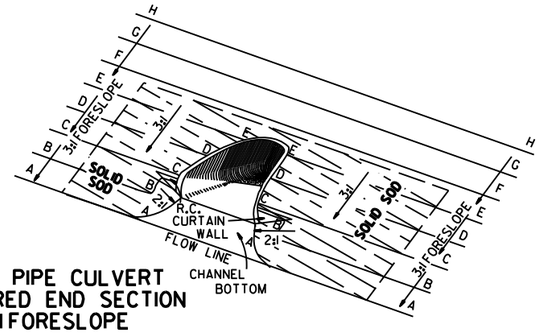
DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		ISSUED

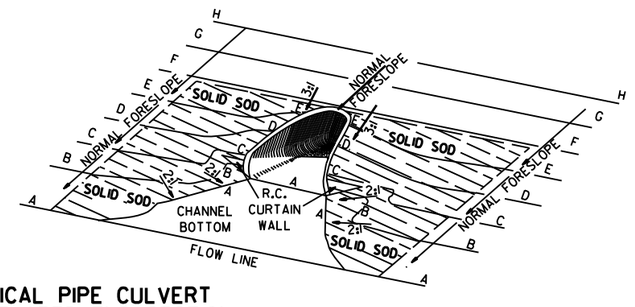
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS

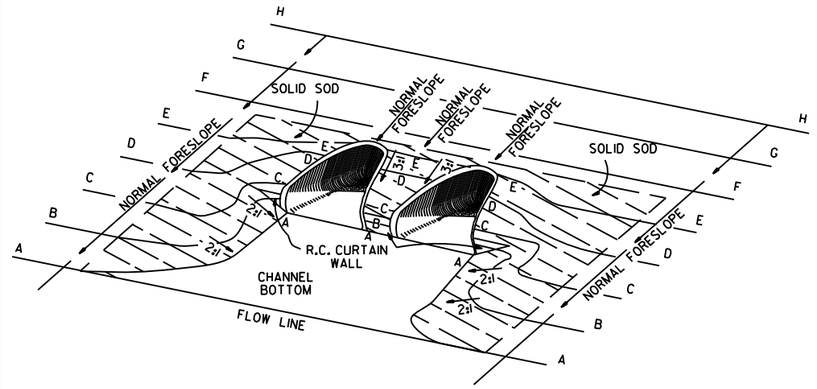
STANDARD DRAWING DR-2



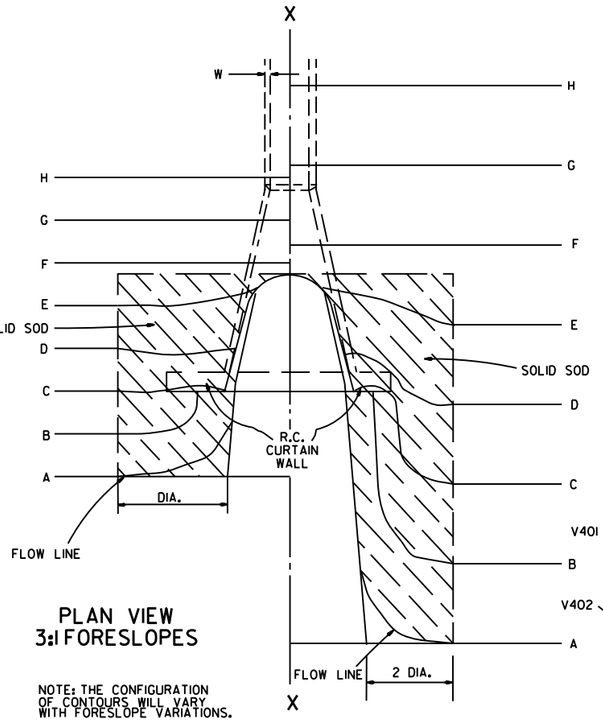
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES



PLAN VIEW
3:1 FORESLOPES

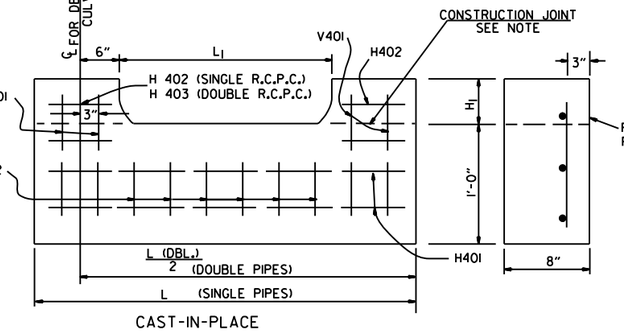
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

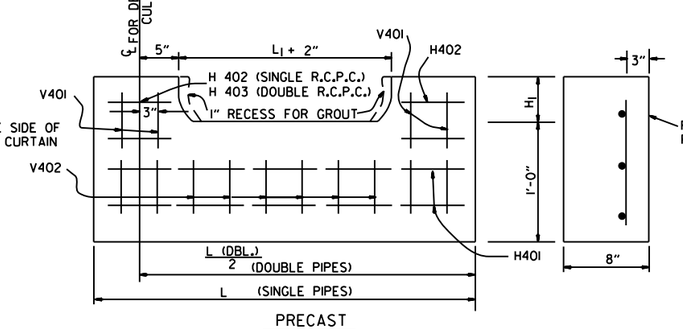
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	1'-11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



CAST-IN-PLACE

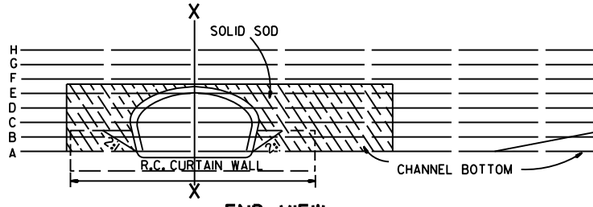
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



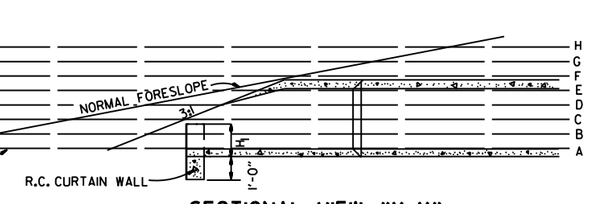
PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS



END VIEW



SECTIONAL VIEW "X-X"

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 3:1	4:1	6:1
	SQ. YDS.			SQ. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

STANDARD DRAWING FES-1

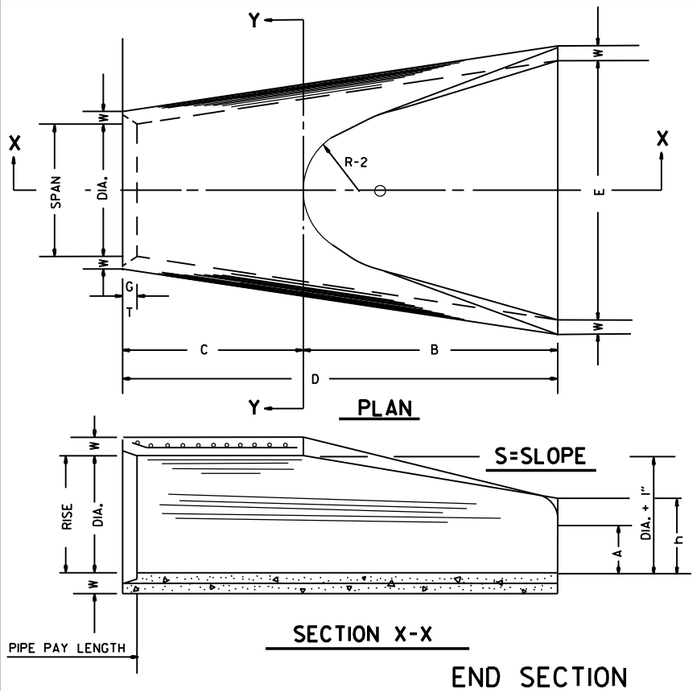
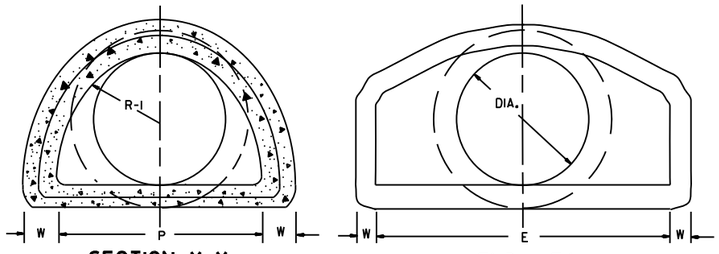


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3:1	25"	33 3/16"	16 15/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 13/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅞"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 13/16"	38 15/16"	24"	5"	13250	4'-6"

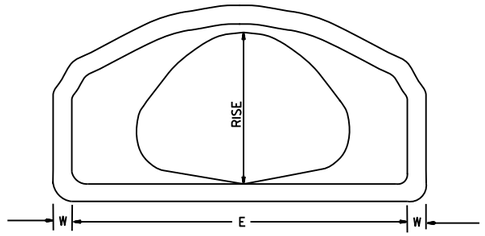


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

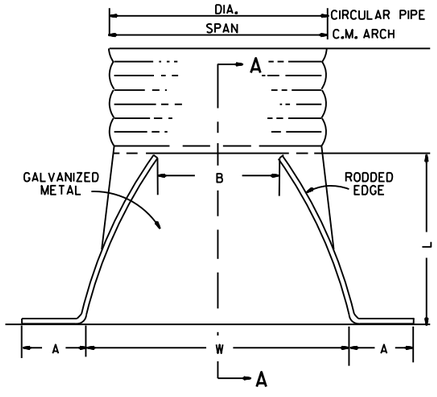
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 11/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 11/16"	20"	3"	2½:1
36	43¾	44	26⅜	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54 5/16"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

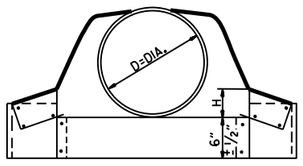
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

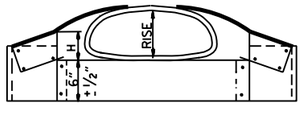


END VIEW
CONCRETE ARCH PIPE

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS







CIRCULAR PIPE

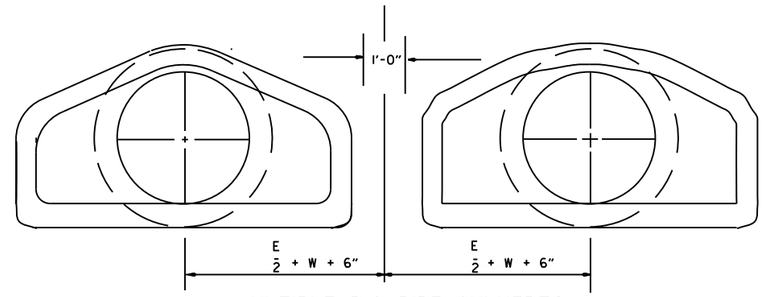
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

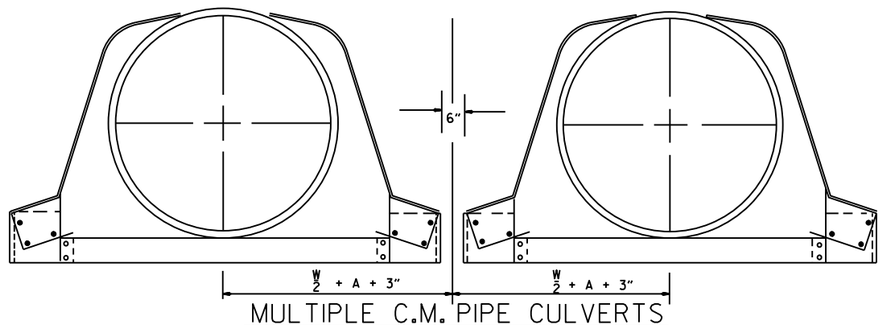
EQUIV. DIA.	SPAN	RISE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



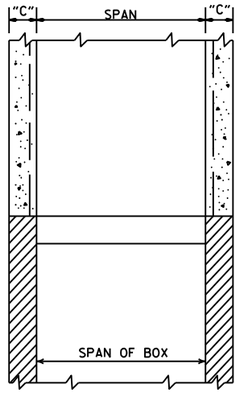
MULTIPLE C.M. PIPE CULVERTS

DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

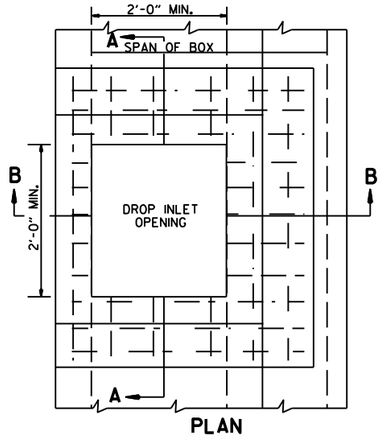
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

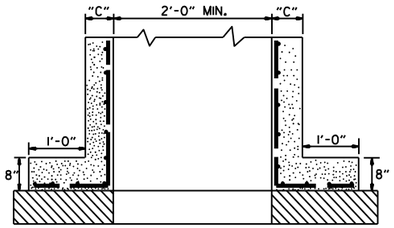
STANDARD DRAWING FES-2



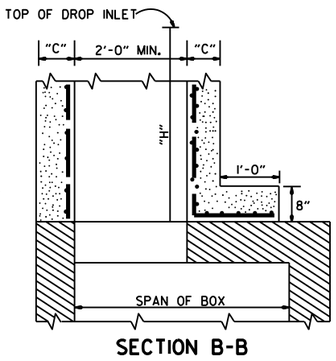
SECTION B-B



PLAN

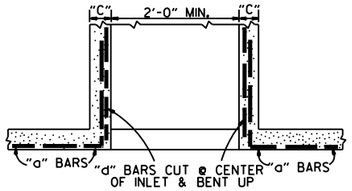


SECTION A-A

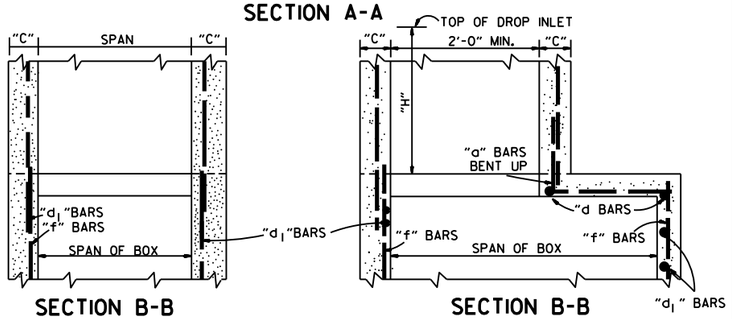


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



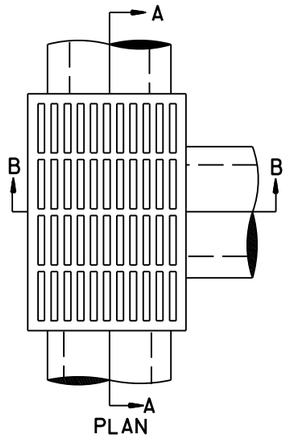
SECTION A-A



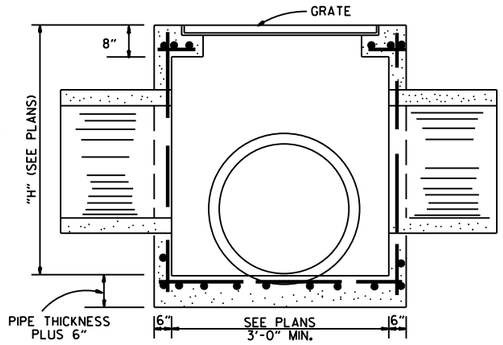
SECTION B-B SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.

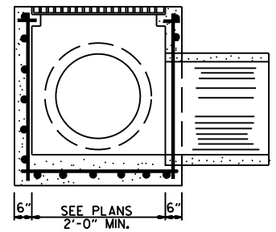


PLAN



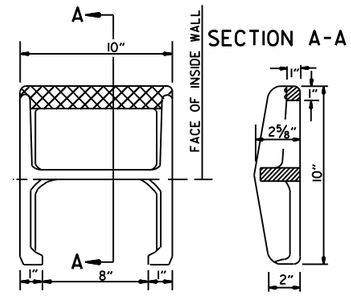
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

DROP INLET (TYPE E)

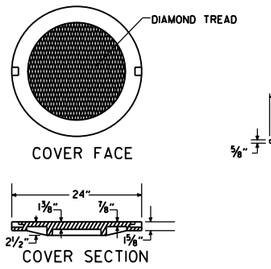


APPROX. WEIGHT = 11 LBS. (CAST IRON)

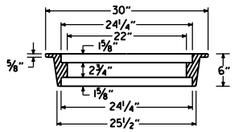
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



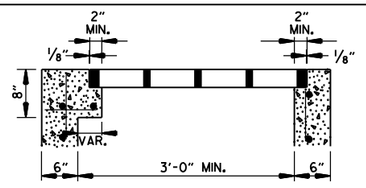
COVER SECTION



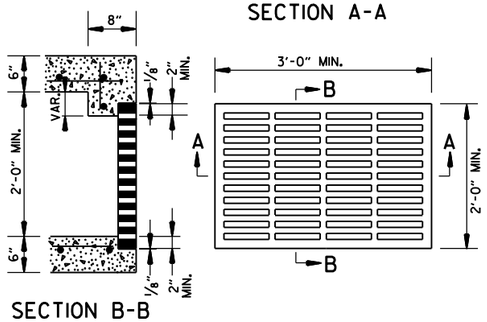
RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



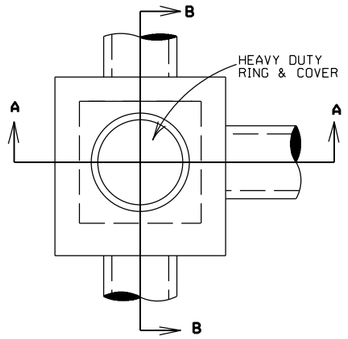
SECTION A-A



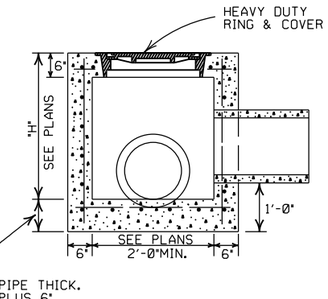
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

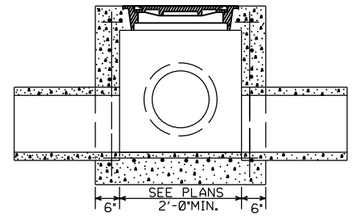


PLAN



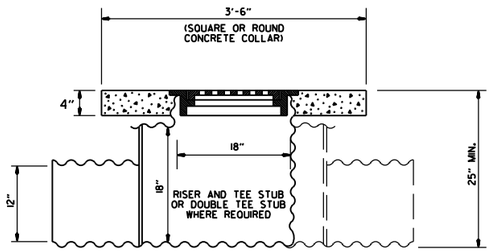
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

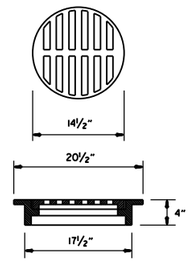


SECTION B-B

JUNCTION BOX (TYPE E)



NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".



USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

DETAIL OF YARD DRAIN

GENERAL NOTES:

1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
11-16-01	ADDED NOTE 10	
1-12-00	REVISED HEAVY DUTY RING & COVER	
7-02-98	CHANGED GRATE DETAIL, DELETED DI(TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97	ADDED DIMENSION TO TYPE IV-A	
10-18-96	ADDED DETAIL OF YARD DRAIN	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

STANDARD DRAWING FPC-9

4'-0" LENGTH DROP INLET

PIPE SIZE	MIN. WIDTH	HEIGHT 5'-0" CLASS A CONC.	HEIGHT 5'-0" REINF. STEEL	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL
		CU. YDS.	POUNDS	CU. YDS.	POUNDS
18"	2'-6"	1.77	156	0.28	22
24"	2'-6"	1.79	156	0.28	22
30"	3'-2"	2.39	205	0.30	26
36"	3'-8"	2.63	236	0.32	28
42"	4'-4"	2.95	250	0.34	30
48"	4'-10"	3.21	265	0.36	32

NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

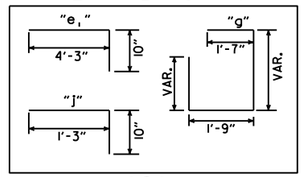
DROP INLET EXTENSION

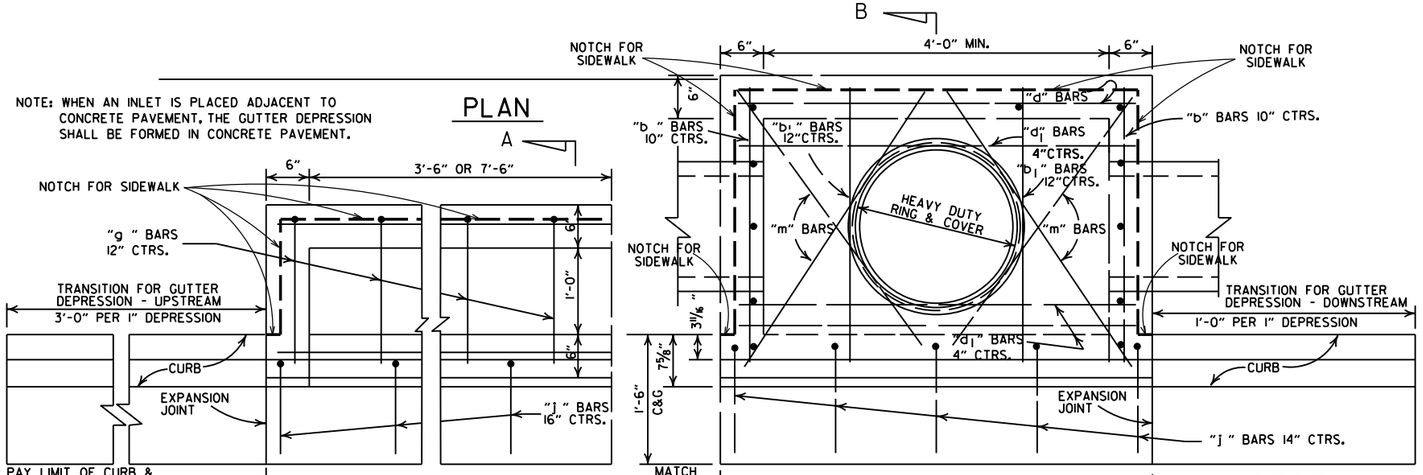
4'-0" CLASS A CONC.	4'-0" REINF. STEEL	8'-0" CLASS A CONC.	8'-0" REINF. STEEL
CU. YDS.	POUNDS	CU. YDS.	POUNDS
0.58	38	0.87	72
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.			
0.04	3		

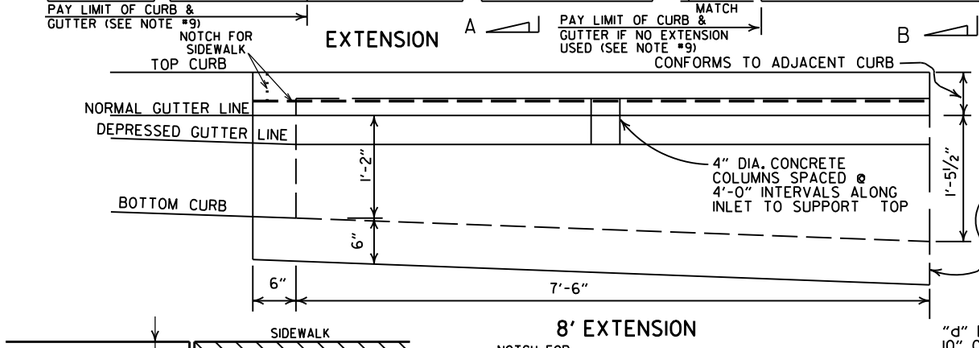
DEDUCT FROM QUANTITY COMPUTED FOR EACH PIPE ENTERING INLET

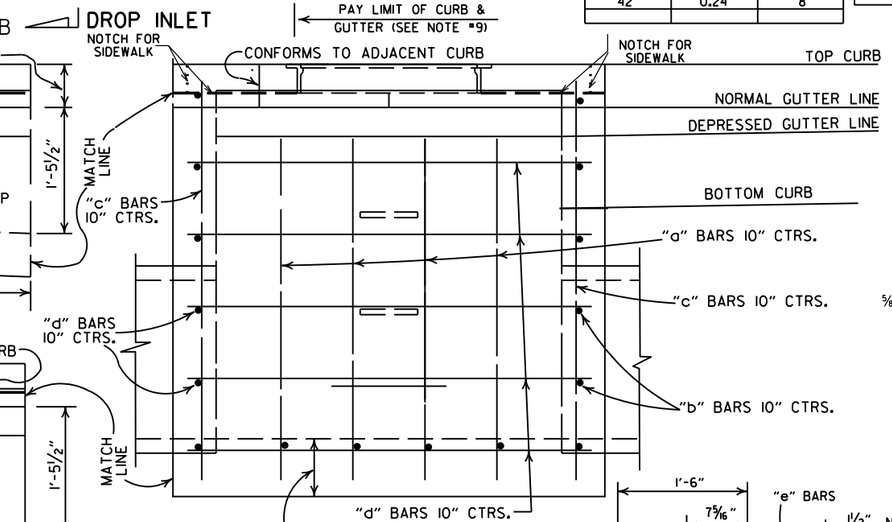
INSIDE DIA. PIPE	CLASS A CONC.	REINF. STEEL
INCHES	CU. YDS.	POUNDS
18	0.05	2
24	0.09	3
30	0.13	4
42	0.24	8

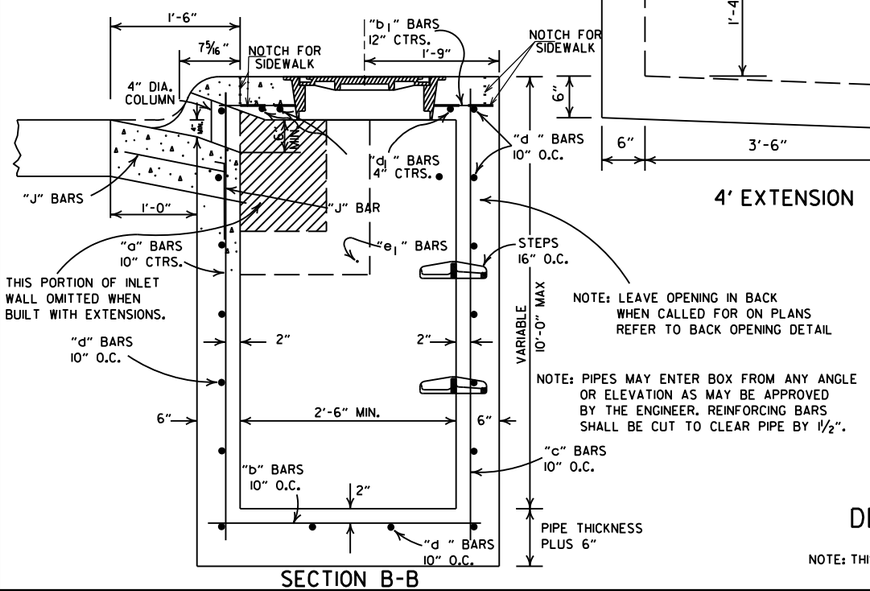
BAR DIAMETER

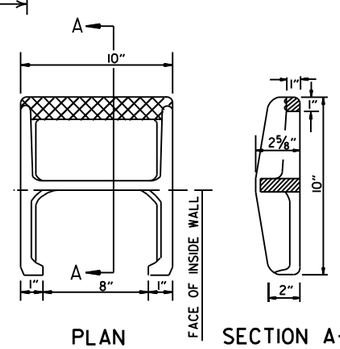


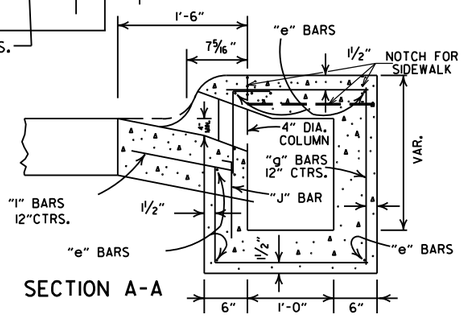


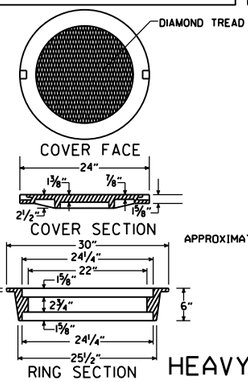






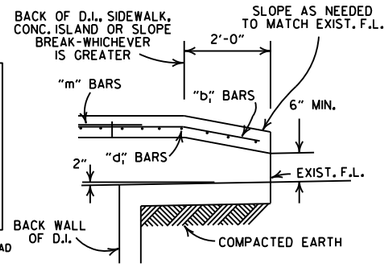






APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE C).

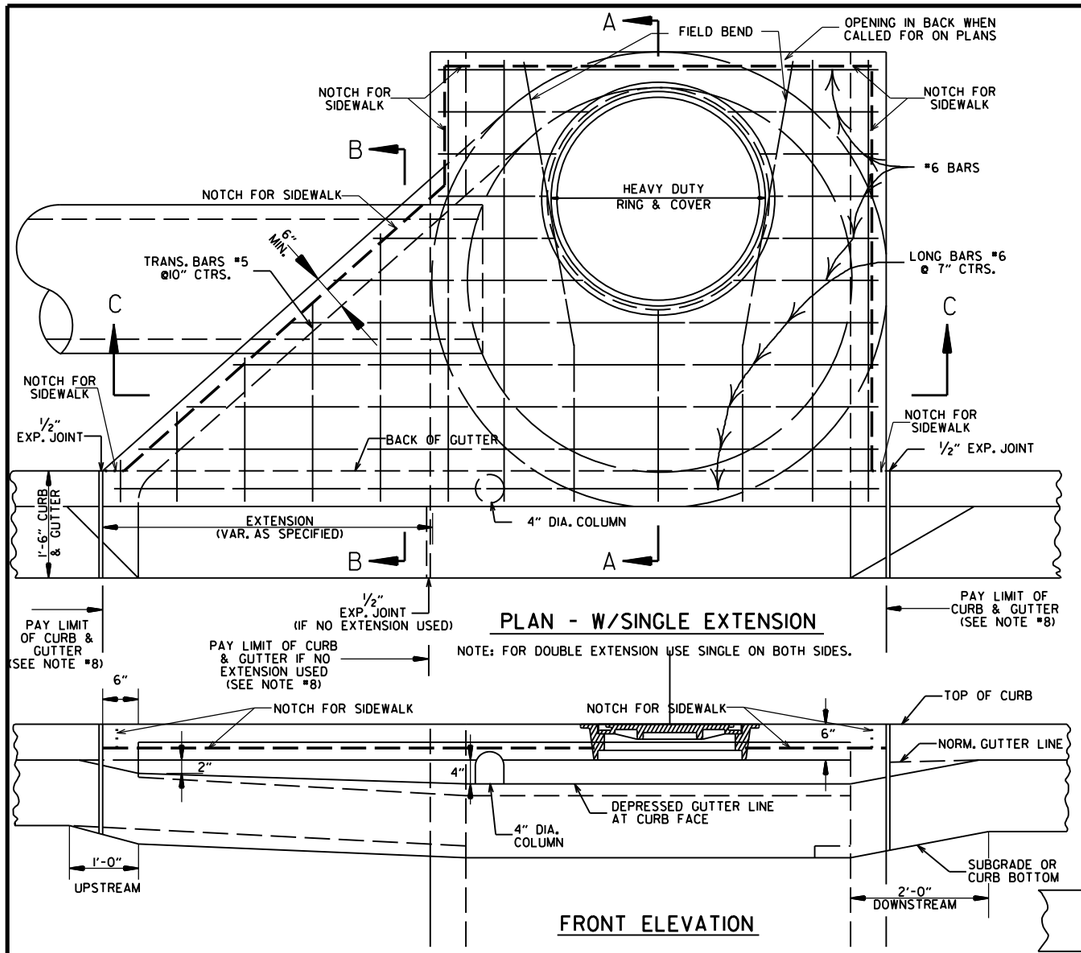
GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
3. ALL REINF. BARS SHALL BE #4 AND HAVE 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
6. WHEN PLANS CALL FOR DROP INLET OVER 10'-0" HIGH, FLOOR AND WALLS SHALL BE CONSTRUCTED AS SHOWN FOR TYPE "RM" DROP INLET (FPC-9D).
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
9. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
10. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
11. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
12. 4"×2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER ADDED NOTES 9,10,&11	
10-18-96	CORRECTED SPELLING	
4-26-96	ADDED NOTE 8 & REVISED (4')(8') EXTENSION TITLES	10-18-96
4-1-93	REVISED BACK OPENING & NOTE	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS (TYPE C)

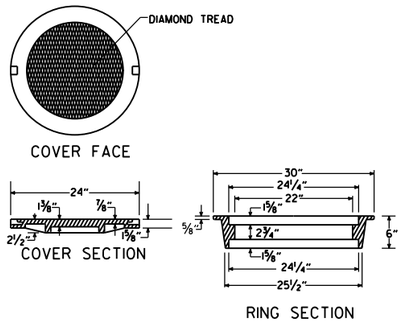
STANDARD DRAWING FPC-9E



PLAN - W/SINGLE EXTENSION

FRONT ELEVATION

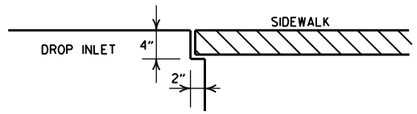
SECTION C-C



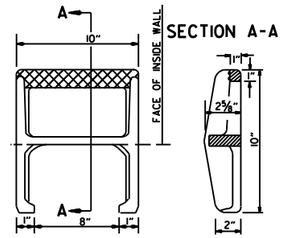
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS



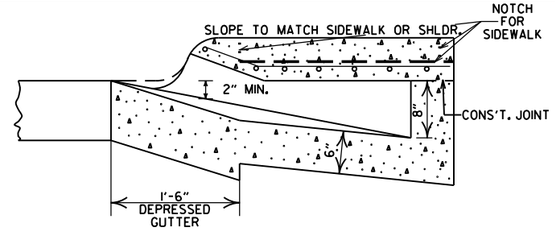
SECTION A-A

APPROX. WEIGHT = 11LBS. (CAST IRON)

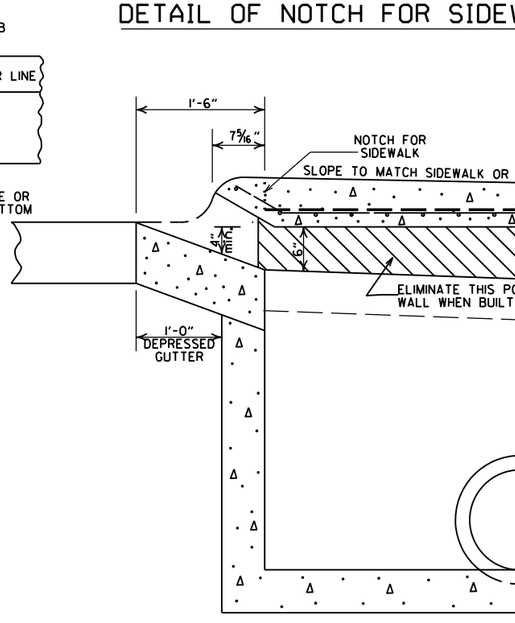
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

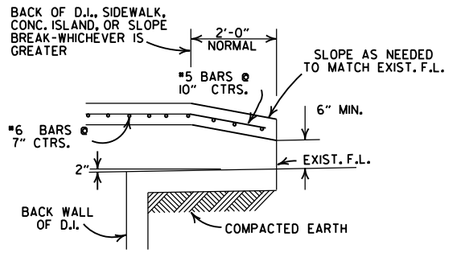
DETAIL OF STEP FOR DROP INLET



SECTION B-B



SECTION A-A



BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

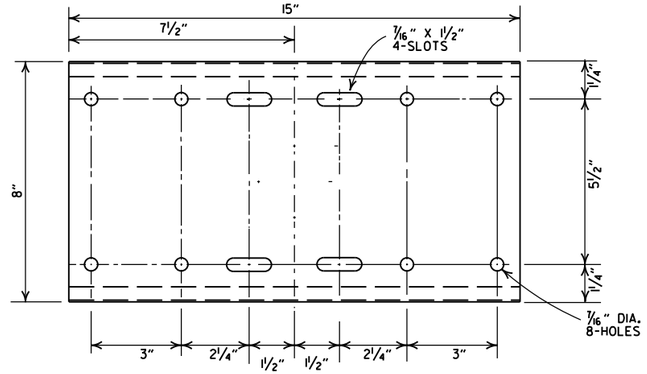
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 11, ADJ. OPENING DIMENSION	
10-12-95	CORRECTED #6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN, BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-16-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
5-23-89	ADDED NOTE 8 & MINIMUM WALL THICKNESS	513-5-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	629-7-15-88
1-14-87	MODIFIED WALL THICKNESS	783-1-14-87
6-12-87	ISSUED	4-6-12-87

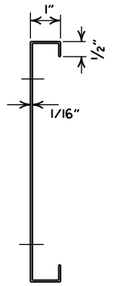
ARKANSAS STATE HIGHWAY COMMISSION

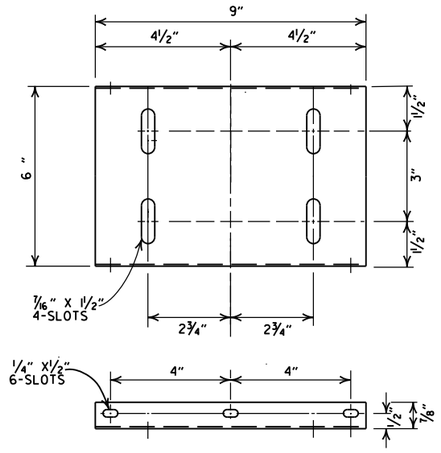
DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M

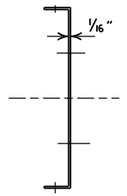


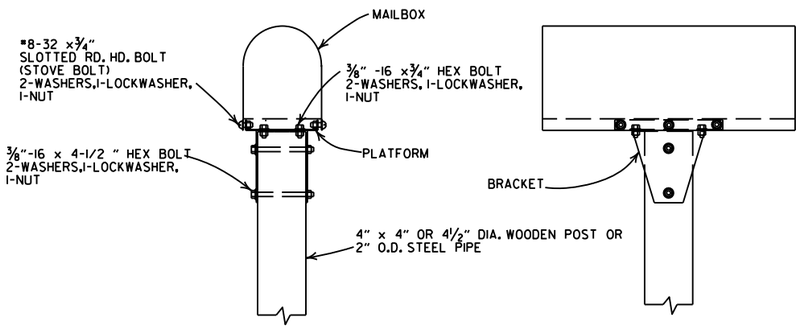
SHELF



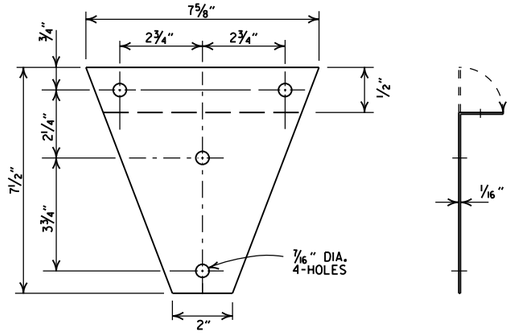


PLATFORM





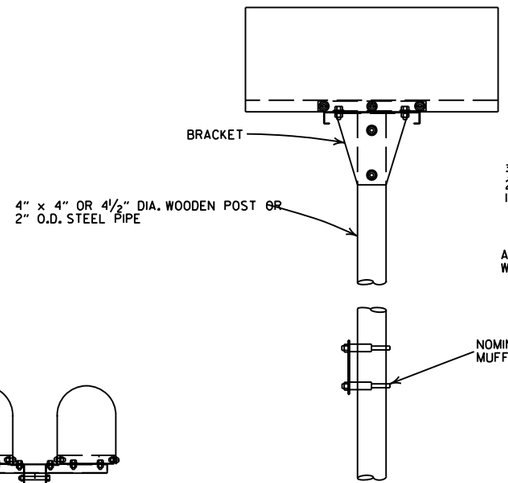
SINGLE INSTALLATION



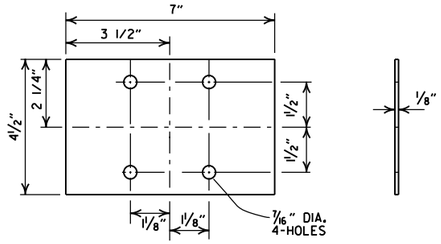
BRACKET

GENERAL NOTES

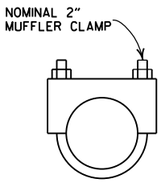
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF ¾" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 X¾" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



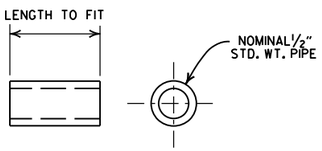
DOUBLE INSTALLATION



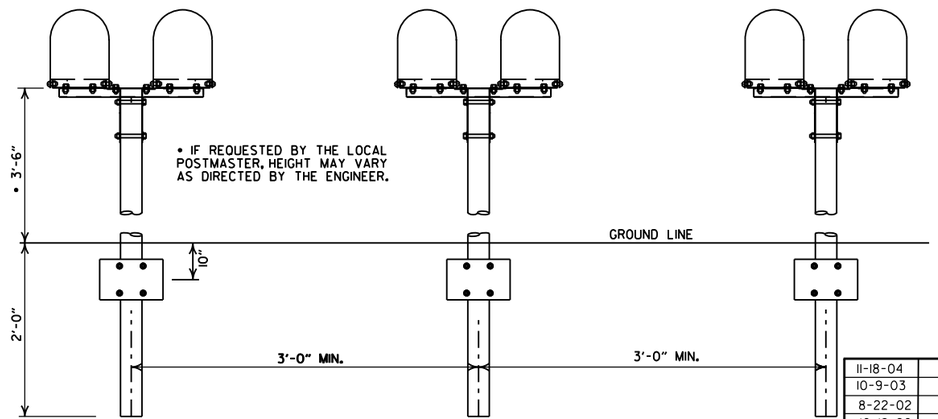
ANTI-TWIST PLATE



CLAMP



SPACER



SPACING FOR MULTIPLE POST INSTALLATION

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	20-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS

STANDARD DRAWING MB-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	ARDOT NOMINAL	AASHTO M 206	ARDOT NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31⅜	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

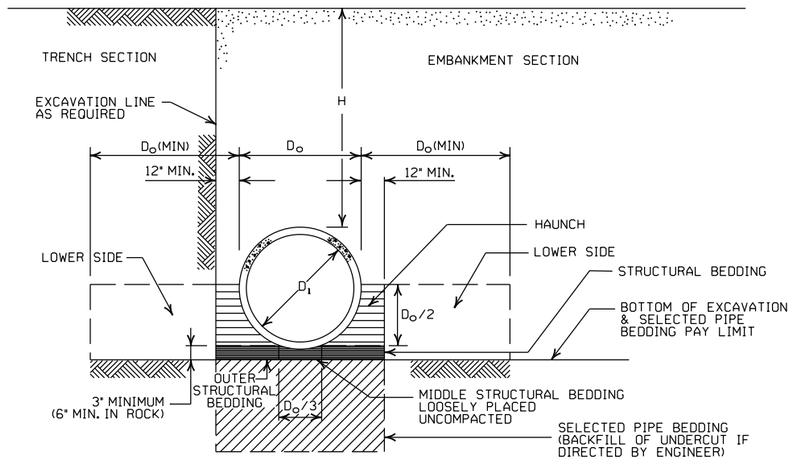
- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_O = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM						
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8

CORRUGATED METAL PIPE ARCHES

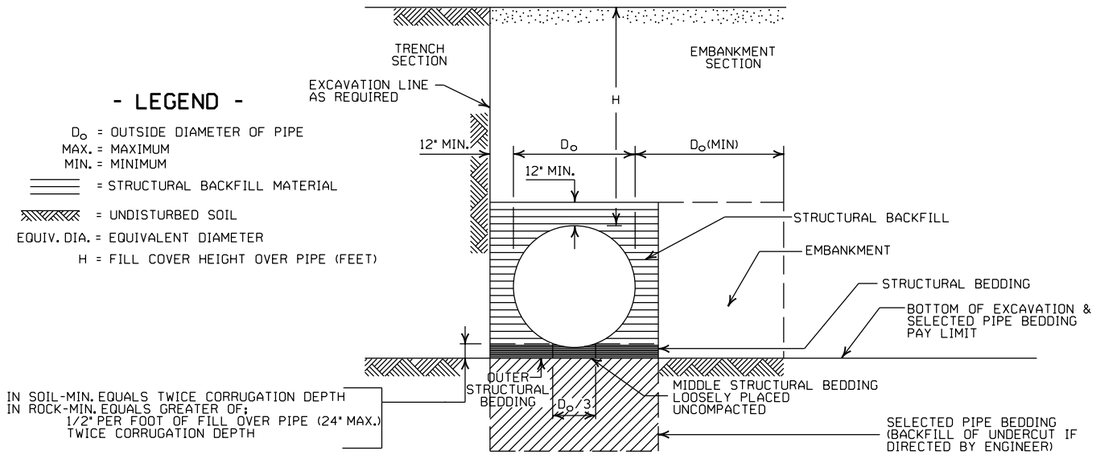
EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL			ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)
				INSTALLATION TYPE 1	INSTALLATION TYPE 1		INSTALLATION TYPE 1	INSTALLATION TYPE 1
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM		
15	17x13	3	0.064	2	15	0.060	2	15
18	21x15	3	0.064	2	15	0.060	2	15
21	24x18	3	0.064	2.25	15	0.060	2.25	15
24	28x20	3	0.064	2.5	15	0.075	2.5	15
30	35x24	3	0.079	3	12	0.075	3	12
36	42x29	3½	0.079	3	12	0.105	3	12
42	49x33	4	0.079	3	12	0.105	3	12
48	57x38	5	0.109	3	13	0.135	3	13
54	64x43	6	0.109	3	14	0.135	3	14
60	71x47	7	0.138	3	15	0.164	3	15
66	77x52	8	0.168	3	15			
72	83x57	9	0.168	3	15			
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM					
				INSTALLATION TYPE 2	INSTALLATION TYPE 1		INSTALLATION TYPE 2	INSTALLATION TYPE 1
36	40x31	5	0.079	3	2		12	15
42	46x36	6	0.079	3	2		13	15
48	53x41	7	0.079	3	2		13	15
54	60x46	8	0.079	3	2		13	15
60	66x51	9	0.079	3	2		13	15
66	73x55	12	0.079	3	2		15	15
72	81x59	14	0.079	3	2		15	15
78	87x63	14	0.079	3	2		15	15
84	95x67	16	0.109	3	2		15	15
90	103x71	16	0.109	3	2		15	15
96	112x75	18	0.109	3	2		15	15
102	117x79	18	0.109	3	2		15	15
108	128x83	18	0.138	3	2		15	15

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

- LEGEND -

D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HDPE PIPE.

MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

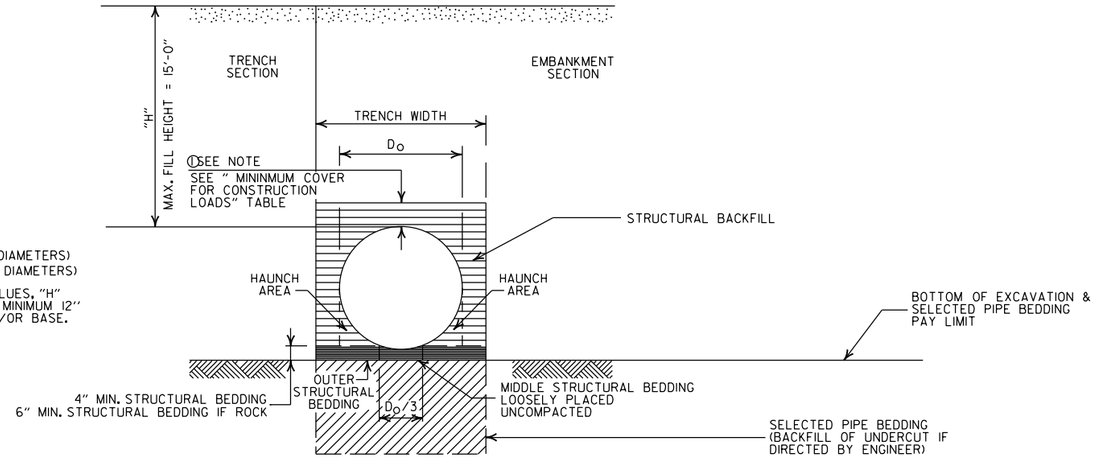
PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"

①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)
MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D_O = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED GENERAL NOTES & MINIMUM COVER NOTE	
11-17-10	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)

STANDARD DRAWING PCP-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PVC PIPE.

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"

MULTIPLE INSTALLATION OF PVC PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"

MAXIMUM FILL HEIGHT BASED ON STRUCTURAL BACKFILL

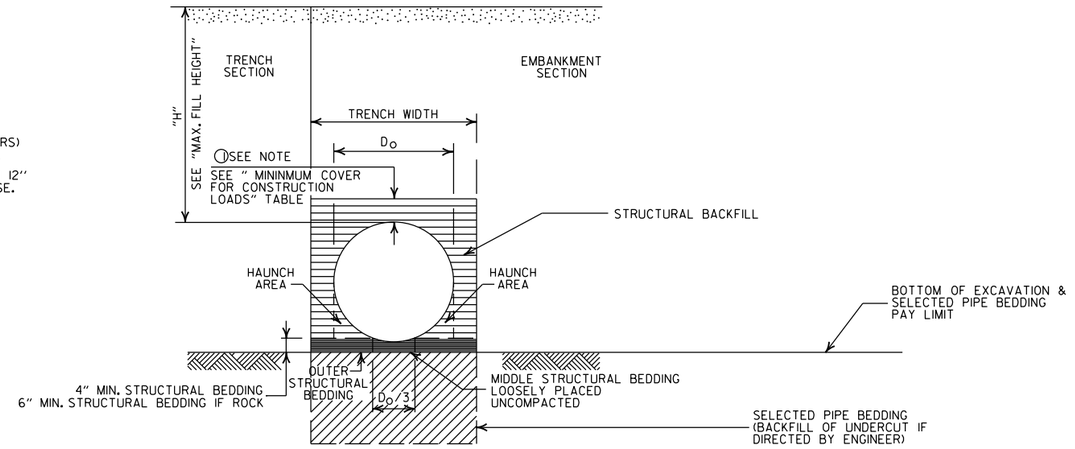
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

① NOTE:
12" MIN. (18" - 36" DIAMETERS)
MINIMUM COVER VALUE, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
18" THRU 36"	2'-0"	2'-6"	3'-0"	3'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F949, CELL CLASS 12454. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D_O = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

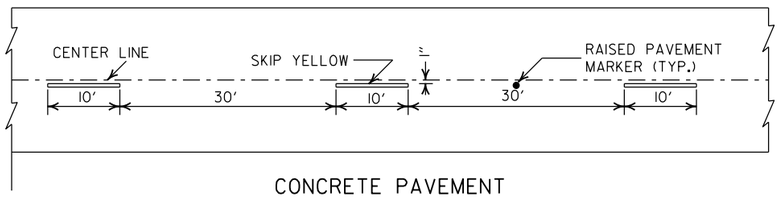
DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL	
11-17-10	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

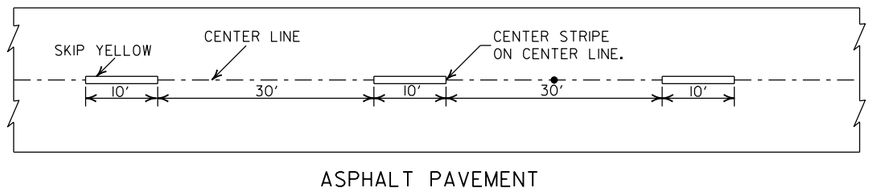
PLASTIC PIPE CULVERT (PVC F949)

STANDARD DRAWING PCP-2

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.

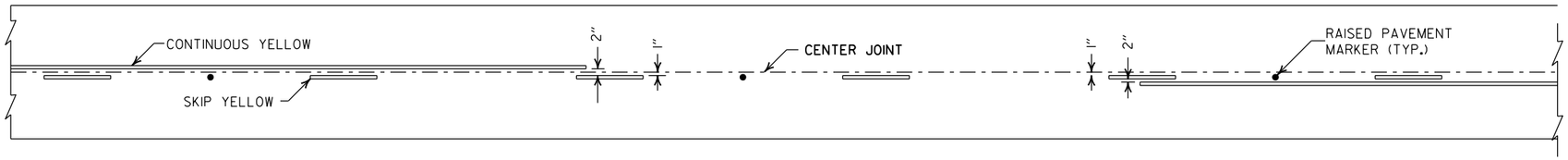


CONCRETE PAVEMENT

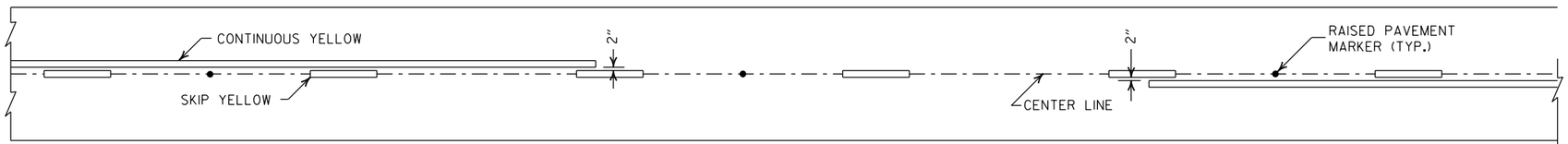


ASPHALT PAVEMENT

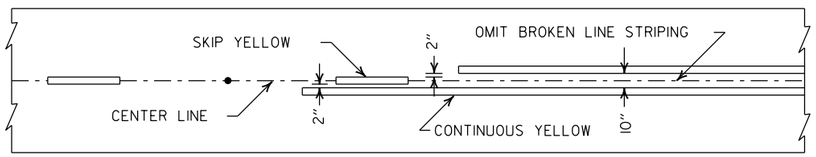
BROKEN LINE STRIPING



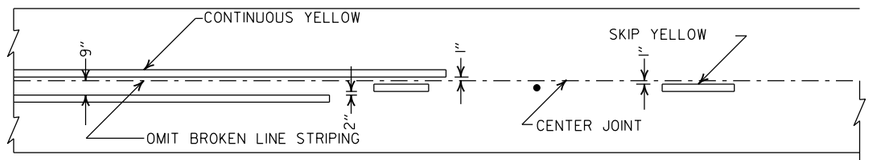
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

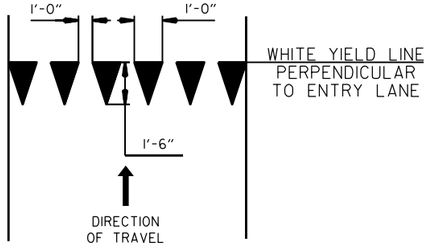


ASPHALT PAVEMENT

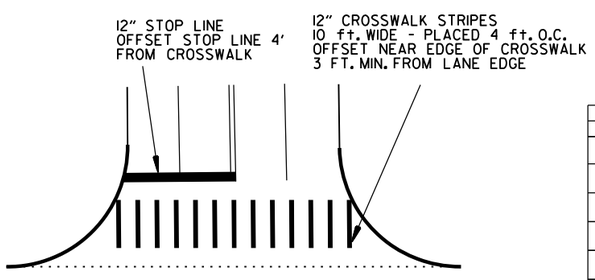


CONCRETE PAVEMENT

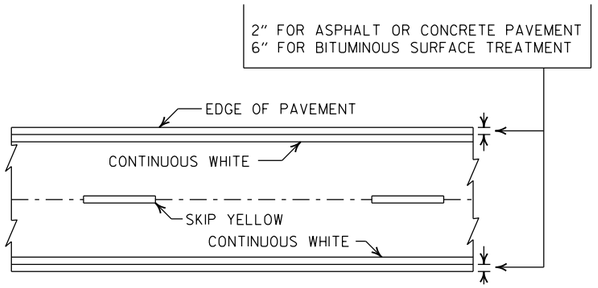
STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL



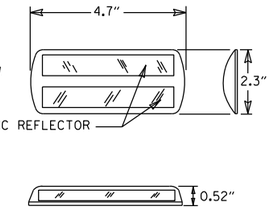
CROSSWALK AND STOP LINE DETAILS



PAVEMENT EDGE LINE MARKING

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

TYPE II
RED/CLEAR OR YELLOW/YELLOW



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	REVISION	FILMED
2-27-20	REVISED STOP LINE DETAILS	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION

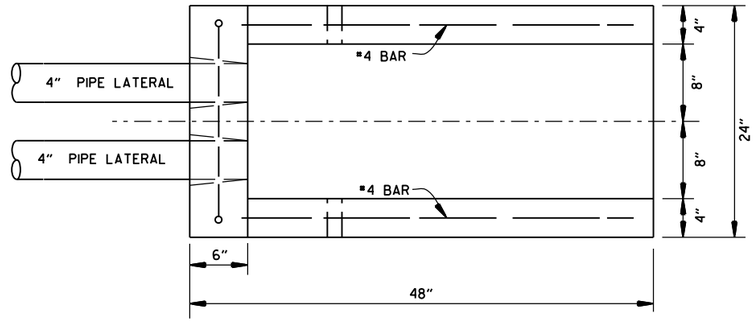
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

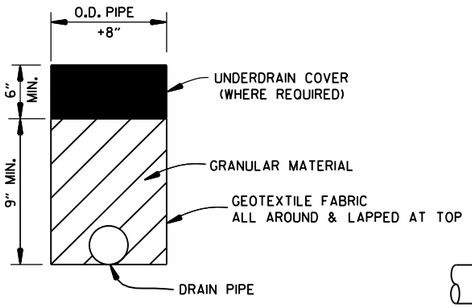
NOTE:

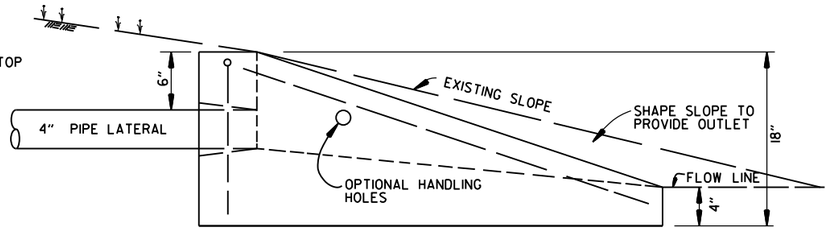
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

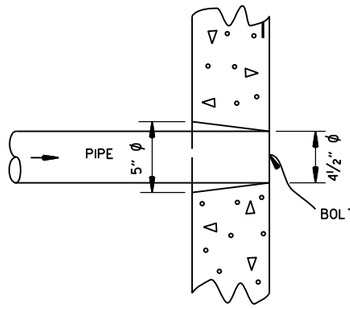


PLAN VIEW

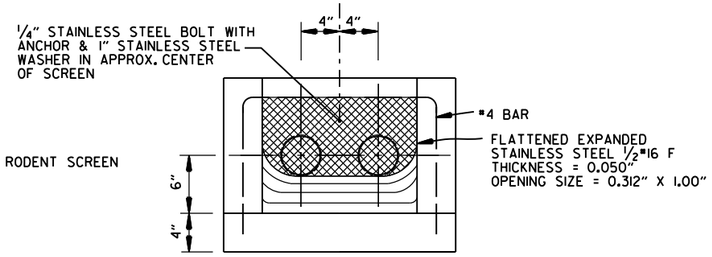




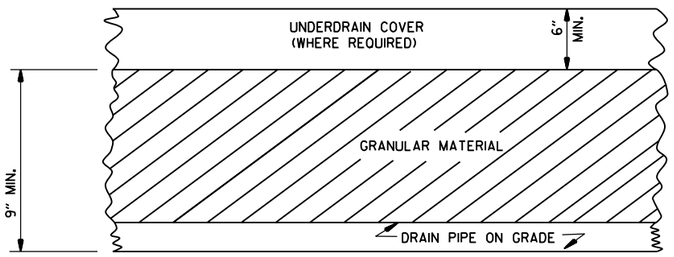
SIDE VIEW



DETAIL OF HOLE FOR 4" PIPE

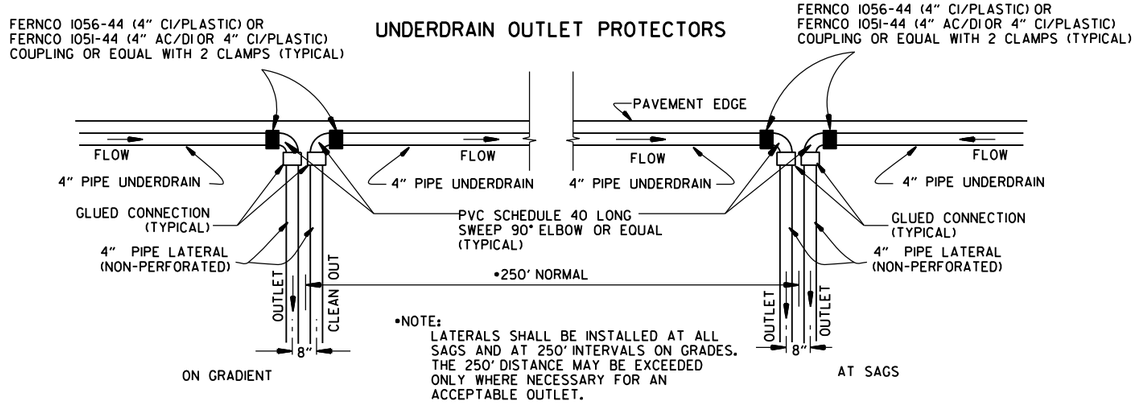


FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

DATE	REVISION	DATE FILMED
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

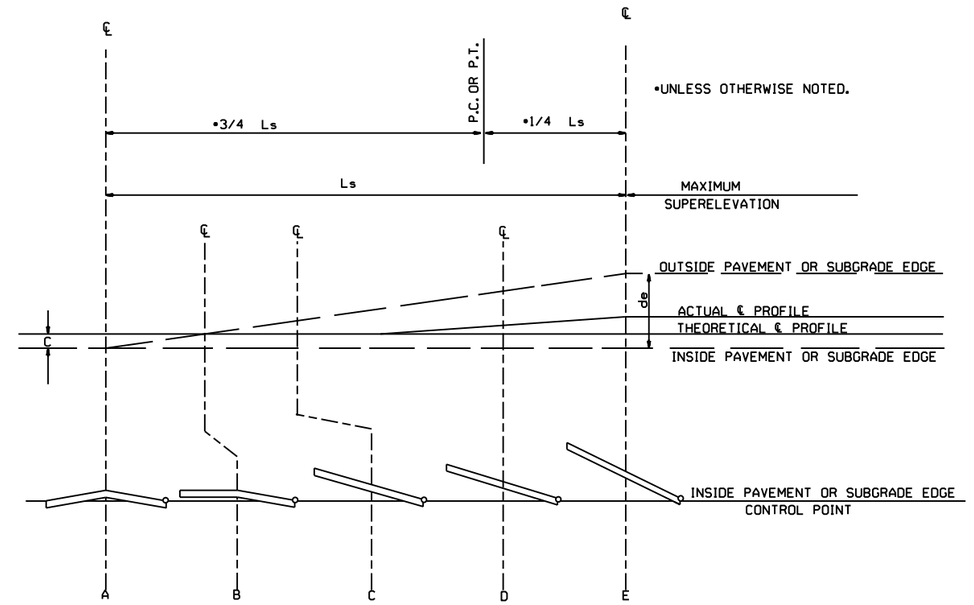
SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC (4% MAXIMUM)

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	DEGREE OF CURVE	35 MPH e	35 MPH Ls (FT) MINIMUM	35 MPH Ls (FT) DESIRABLE	DEGREE OF CURVE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	DEGREE OF CURVE	45 MPH e	45 MPH Ls (FT) MINIMUM	45 MPH Ls (FT) DESIRABLE
0° 15'	NC			0° 15'	NC			0° 15'	NC			0° 15'	NC		
0° 30'				0° 30'				0° 30'				0° 30'			
0° 45'				0° 45'				0° 45'				0° 45'			
1° 00'				1° 00'				1° 00'				1° 00'	RC	90	125
1° 15'				1° 15'				1° 15'				1° 15'			
1° 30'				1° 30'				1° 30'	RC	84	100	1° 30'	0.022	95	
1° 45'				1° 45'				1° 45'				1° 45'	0.024	99	
2° 00'				2° 00'	RC	78	100	2° 00'	0.022	88		2° 00'	0.026	104	
2° 15'				2° 15'				2° 15'	0.024	92		2° 15'			
2° 30'	RC	72		2° 30'	0.022	82		2° 30'	0.026	97		2° 30'	0.028	108	
2° 45'				2° 45'				2° 45'				2° 45'	0.030	113	
3° 00'				3° 00'	0.024	86		3° 00'				3° 00'			
3° 15'	0.022	75		3° 15'				3° 15'	0.028	101	125	3° 15'	0.032	117	
3° 30'				3° 30'				3° 30'				3° 30'			
3° 45'				3° 45'	0.026	90		3° 45'				3° 45'			
4° 00'	0.024	79	100	4° 00'				4° 00'	0.030	105		4° 00'	0.034	122	150
4° 15'				4° 15'				4° 15'				4° 15'			
4° 30'				4° 30'	0.028	94	125	4° 30'	0.032	109		4° 30'	0.036	126	
4° 45'				4° 45'				4° 45'				4° 45'			
5° 00'	0.026	83		5° 00'	0.030	98		5° 00'	0.034	113		5° 00'	0.038	131	
5° 30'				5° 30'				5° 30'				5° 30'			
6° 00'				6° 00'	0.032	101		6° 00'	0.036	118		6° 00'	0.040	135	
6° 30'	0.028	86		6° 30'				6° 30'			150				
7° 00'				7° 00'				7° 00'	0.038	122					
7° 30'	0.030	90		7° 30'	0.034	105		7° 30'							
8° 00'				8° 00'				8° 00'	0.040	126					
8° 30'	0.032	93		8° 30'	0.036	109									
9° 00'				9° 00'			150								
9° 30'				9° 30'											
10° 00'	0.034	97		10° 00'	0.038	113									
10° 30'				10° 30'											
11° 00'			125	11° 00'											
11° 30'				11° 30'	0.040	117									
12° 00'															
12° 30'	0.036	100													
13° 00'															
13° 30'															
14° 00'															
14° 30'	0.038	104													
15° 00'															
15° 30'															
16° 00'															
16° 30'	0.040	108	150												

D MAX = 22° 45' | D MAX = 15° 15' | D MAX = 10° 30' | D MAX = 8° 00'

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$

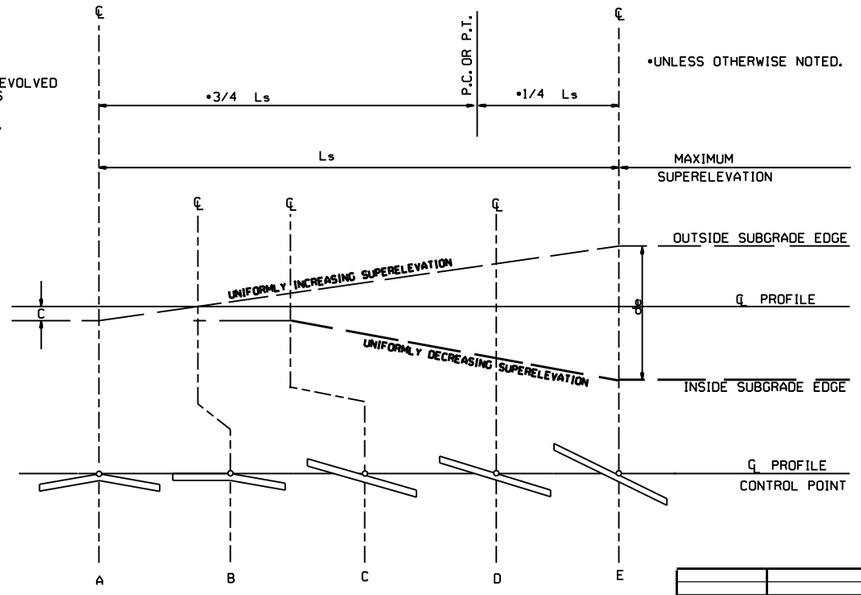
GENERAL NOTES

1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED - - - - - +20%
4 LANE UNDIVIDED - - - - - +50%
5 LANE UNDIVIDED - - - - - +80%
6 LANE UNDIVIDED - - - - - +100%

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



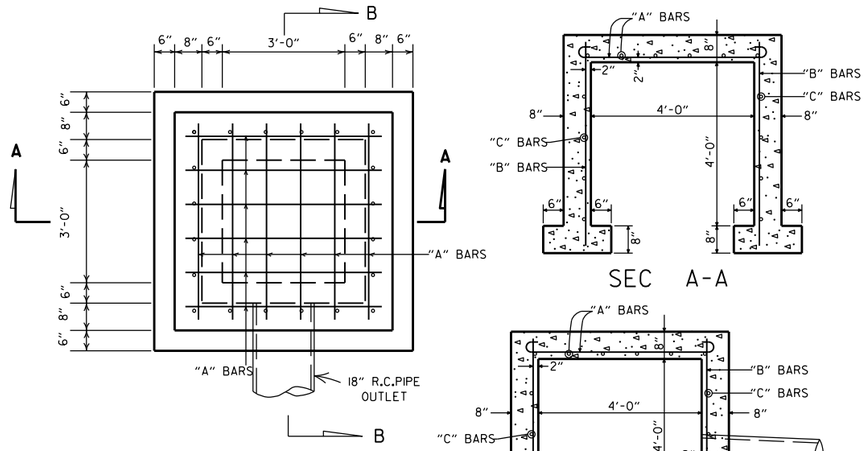
STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE

11-07-19	ISSUED	
DATE	REVISION	DATE FILMED

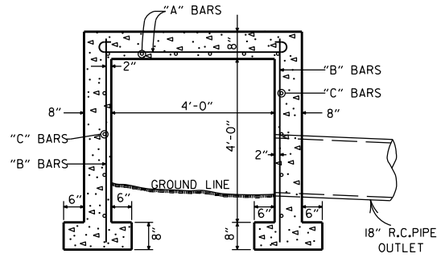
ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC (4% MAXIMUM)

STANDARD DRAWING SE-3



SEC A-A



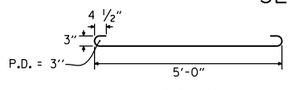
SEC B-B

NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 ½"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



"A" BARS

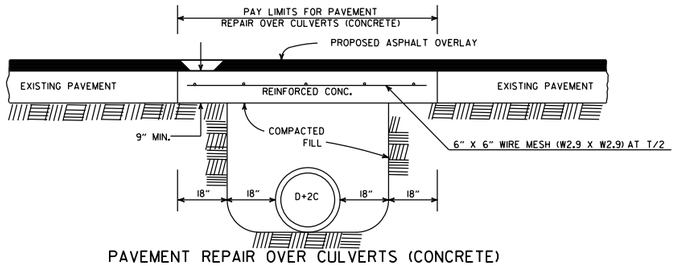
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

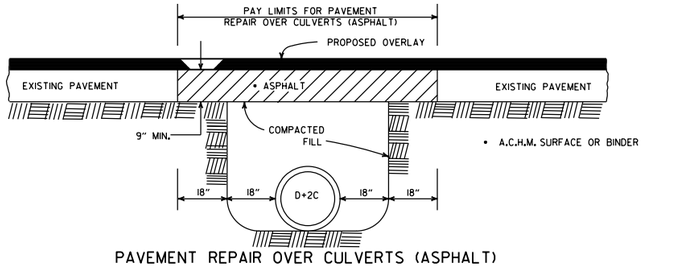
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



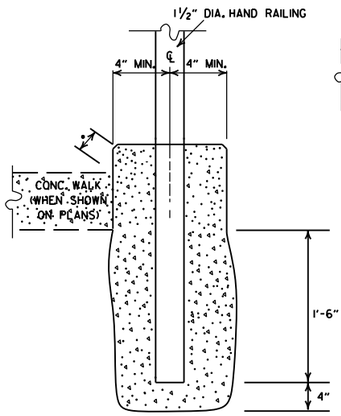
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



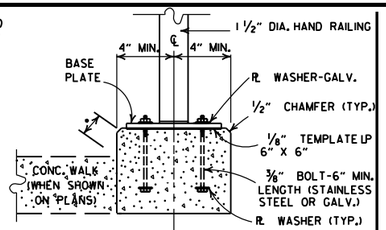
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

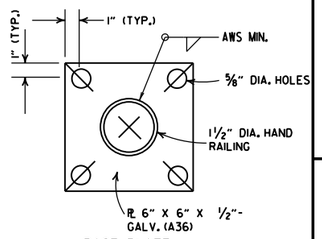
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

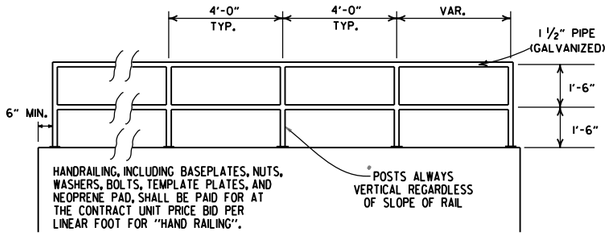


POST CONNECTION TO WALL

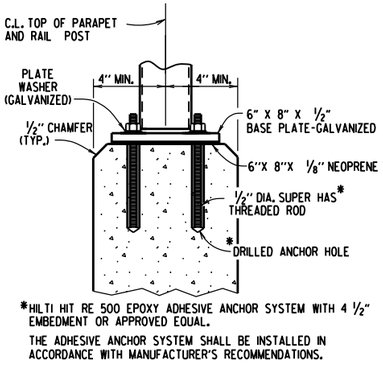


BASE PLATE

POST CONNECTION DETAILS



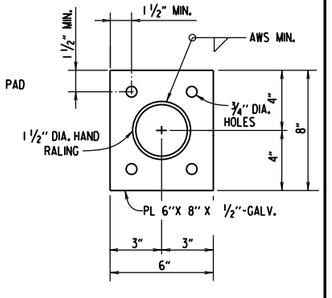
HAND RAILING SHALL CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

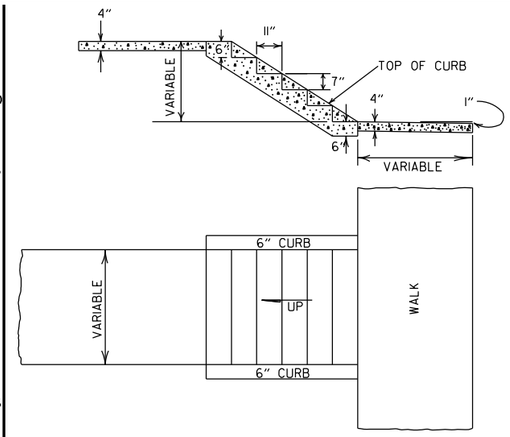
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS



GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
10-25-18	REVISED DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS	
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-94	ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	10-1-92
8-15-91	DELETED HDWL MODIFICATION DETAIL	8-15-91
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-8-90
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	11-30-89
11-17-88	V. BARS BEHIND ARROW	665-11-17-88
7-15-88	REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	649-7-15-88
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DET& PAVEMENT REPAIR	674-4-20-79
2-2-76	12"MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

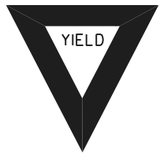
DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI - 1

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

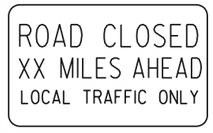
R5-1

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"

WI-1

STD. 36"X36"
FWY. 48"X48"

WI-2

STD. 36"X36"
FWY. 48"X48"

R2-11

36"X48"

WI-3

STD. 48"X48"

WI-4

STD. 48"X48"

WI-6

STD. 48"X24"
SPECIAL 60"X30"

WI-8

STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

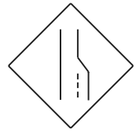
W3-1

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"

WI3-1

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"

WI-4b

STD. 48"X48"

W8-11

STD. 36"X36"
FWY. 48"X48"

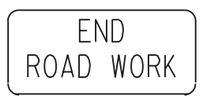
W8-9

STD. 36"X36"
FWY. 48"X48"

G20-1

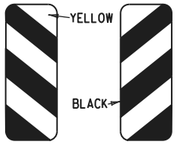
60"X24"

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.

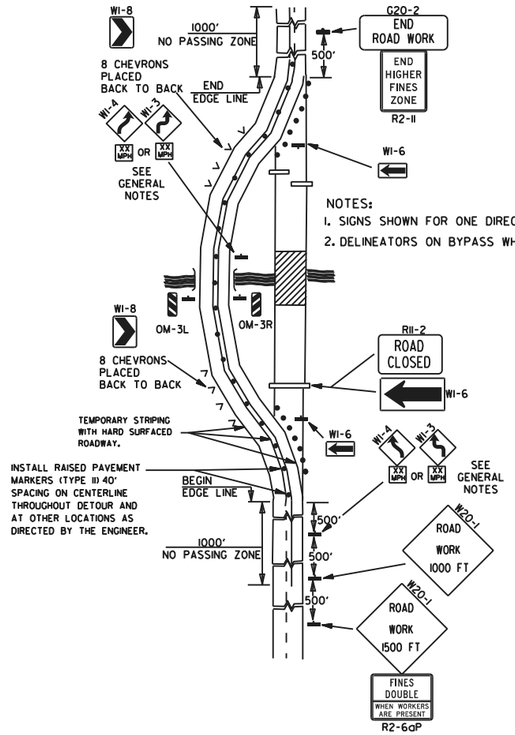
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED 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

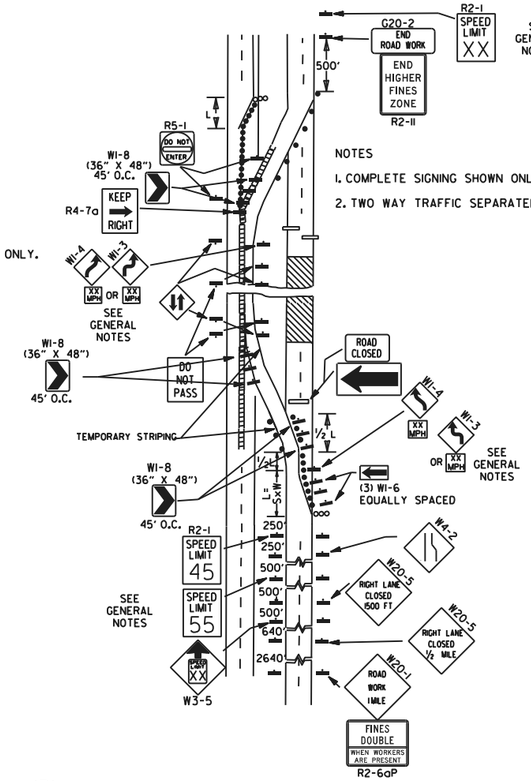
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

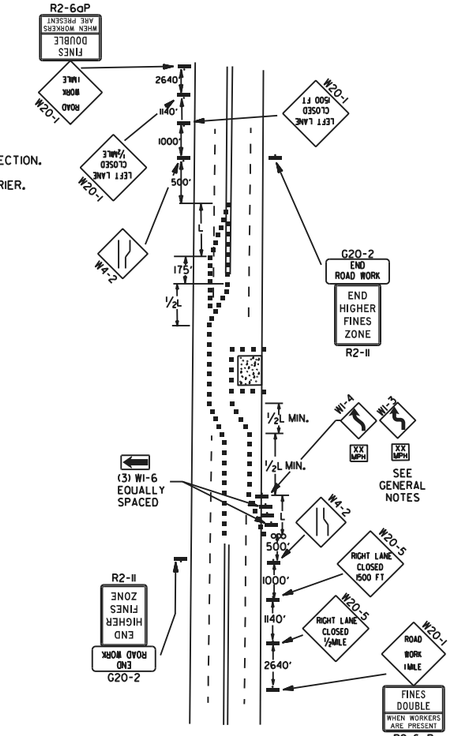
DATE EFFECTIVE 08-14-2025 | STANDARD DRAWING | TC-1



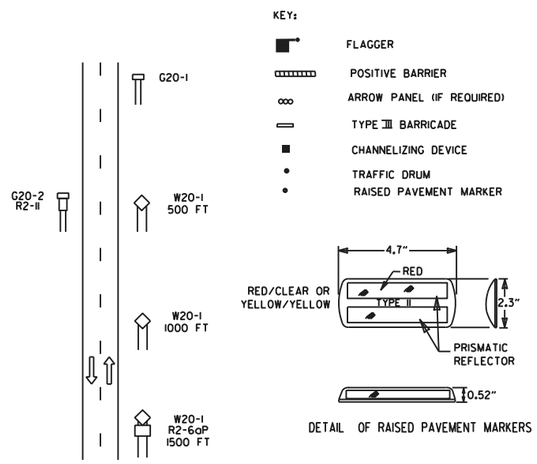
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



(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.



DETAIL OF RAISED PAVEMENT MARKERS

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:

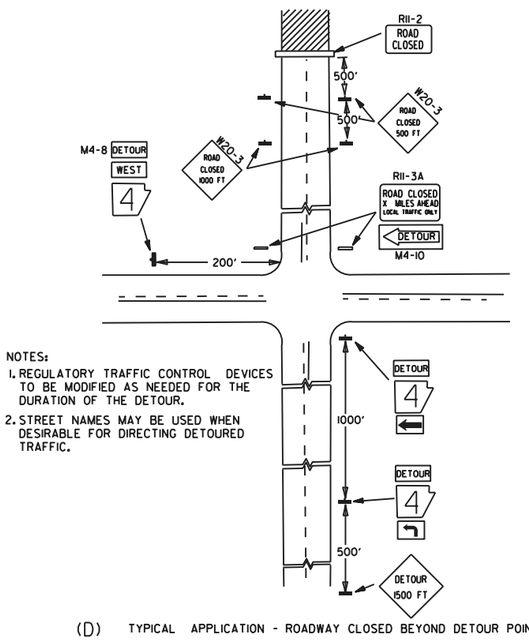
L= MINIMUM LENGTH OF TAPER.

S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

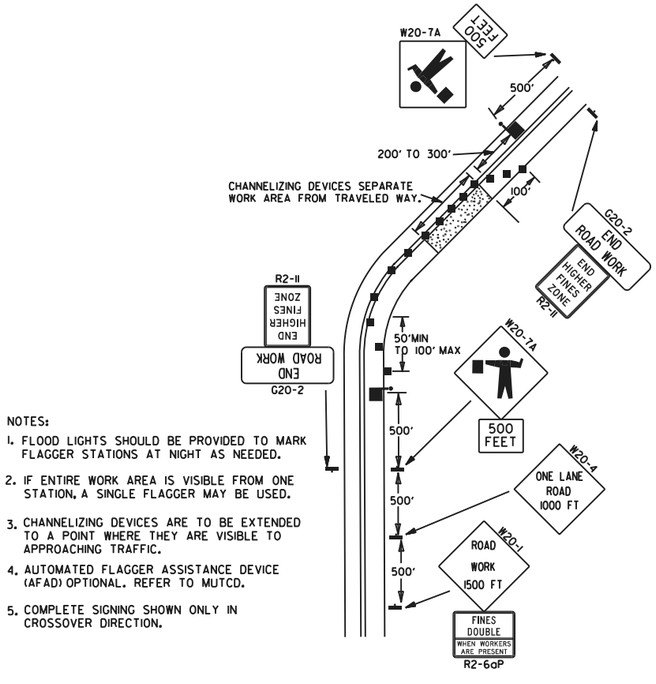
W= WIDTH OF OFFSET.

GENERAL NOTES:

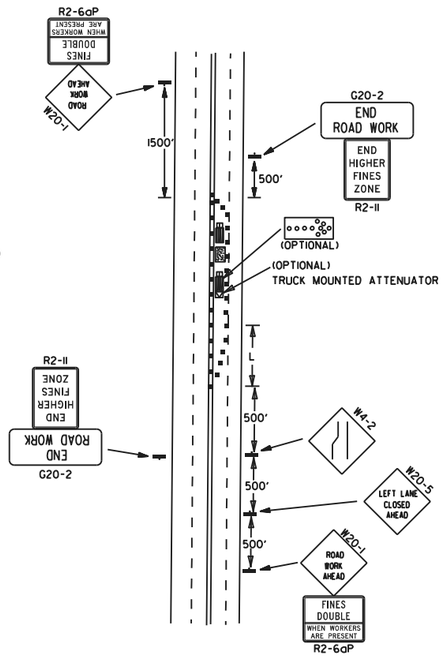
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT 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.



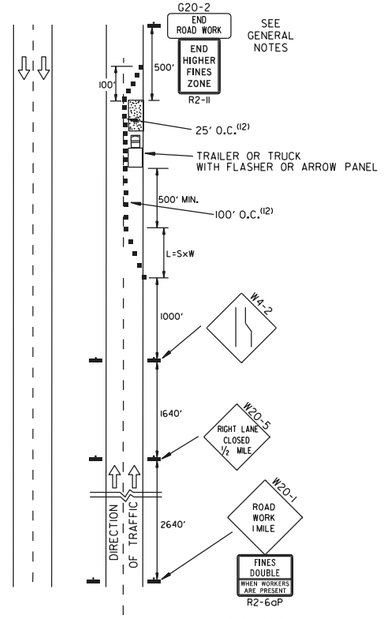
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

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

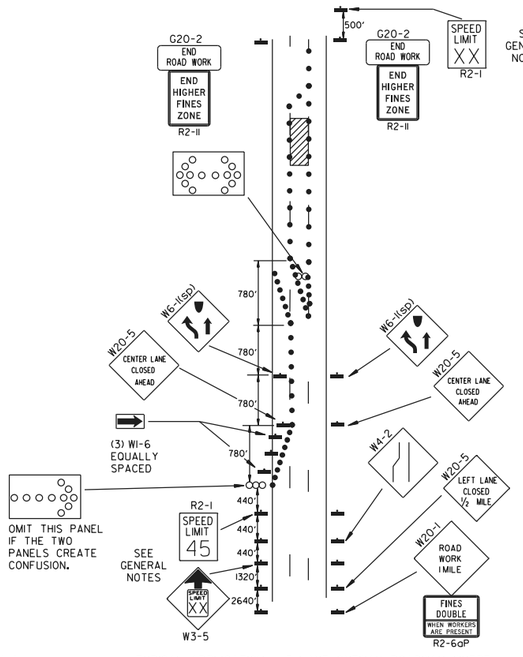
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

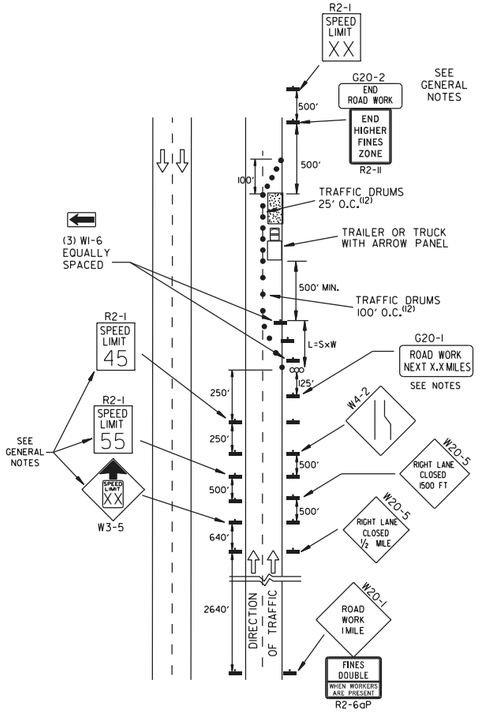
DATE EFFECTIVE	STANDARD DRAWING	TC-2
08-14-2025		



(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.



(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

KEY:

○○○ ARROW PANEL (IF REQUIRED)

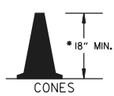
■ CHANNELIZING DEVICE

● TRAFFIC DRUM

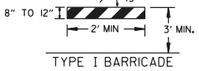
GENERAL NOTES:

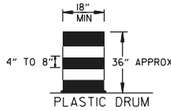
1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-I(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL 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.

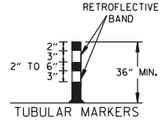
CHANNELIZING DEVICES

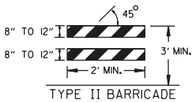


* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

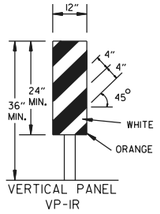


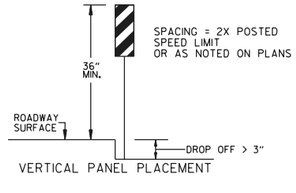


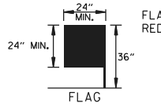




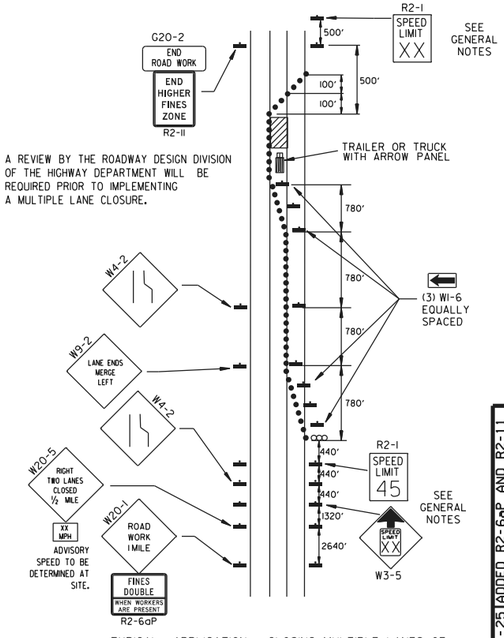
NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.







FLAG SHALL BE OF GOOD GRADE RED MATERIAL



A REVIEW BY THE ROADWAY DESIGN DIVISION OF THE HIGHWAY DEPARTMENT WILL BE REQUIRED PRIOR TO IMPLEMENTING A MULTIPLE LANE CLOSURE.

(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

TRAFFIC CONTROL DEVICES

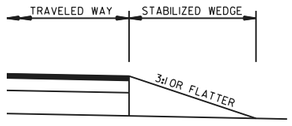
NON-INTERSTATE			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE[6]	STANDARD LANE CLOSURE[6]
≤ 3"	EDGE OF TRAVELED LANE OR 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

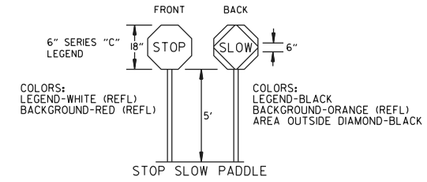
INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

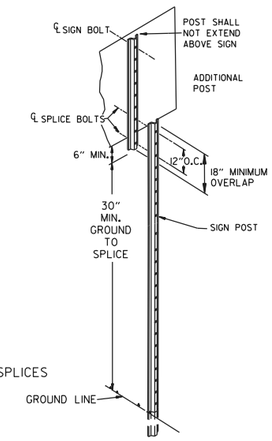
GENERAL NOTES:

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.

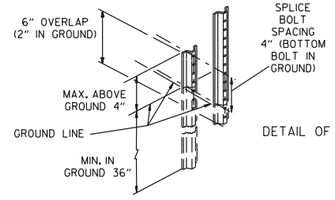




NOTES:
USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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

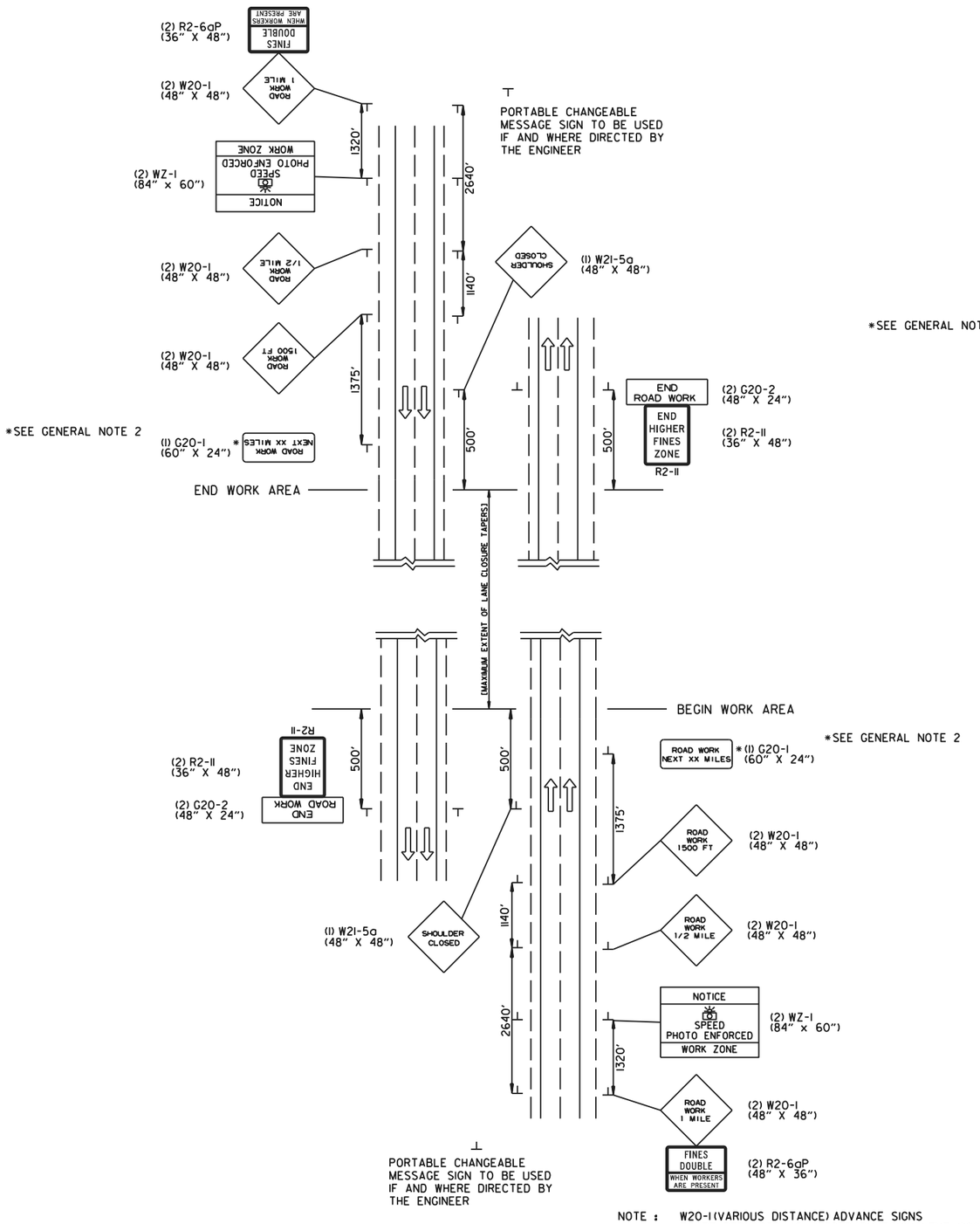
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

DATE EFFECTIVE 08-14-2025

STANDARD DRAWING

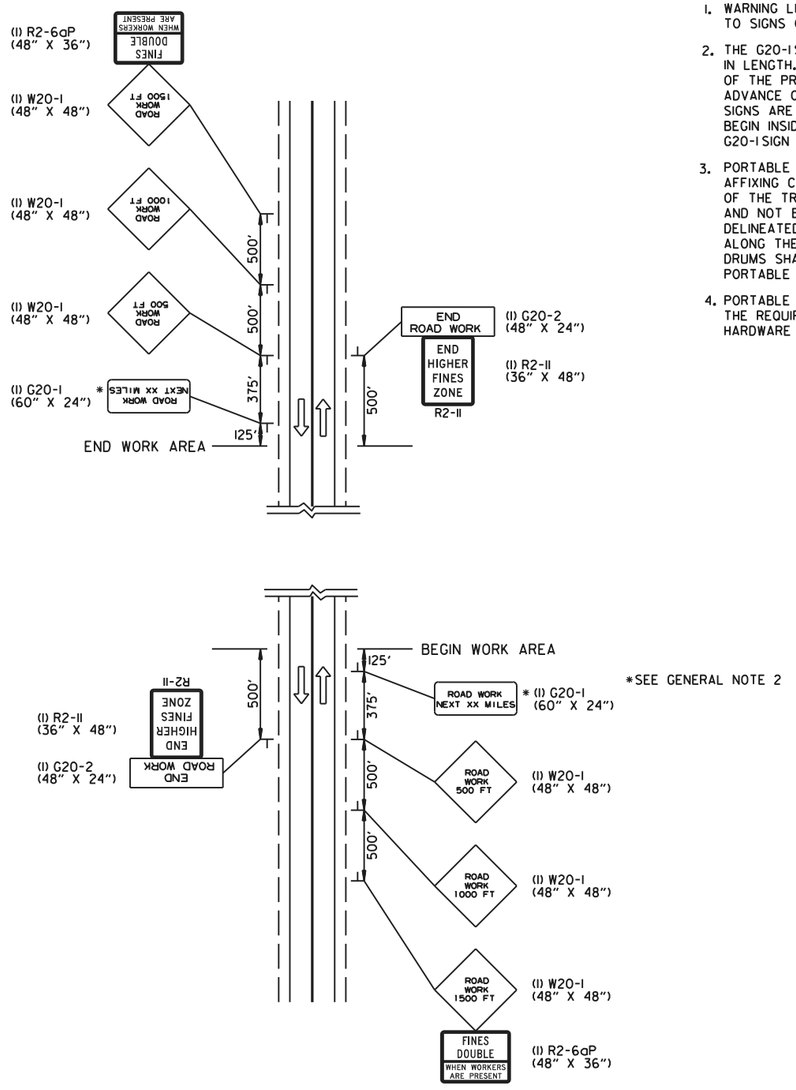
TC-3

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)

NOTE : W20-1 (VARIOUS DISTANCE) ADVANCE SIGNS TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS AS WORKING AREA SHIFTS.



(B) TYPICAL APPLICATION - ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB (NON-FULLY CONTROLLED ACCESS FACILITIES) (ALL STAGES)

GENERAL NOTES:

1. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES 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	ISSUED	DESCRIPTION
08-14-25		

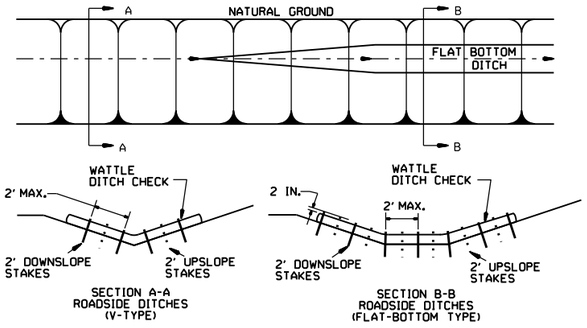
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

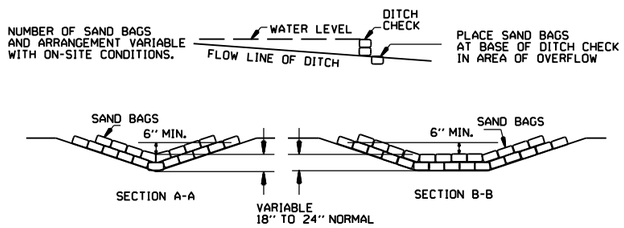
DATE EFFECTIVE	STANDARD DRAWING	TC-6
08-14-2025		

GENERAL NOTES

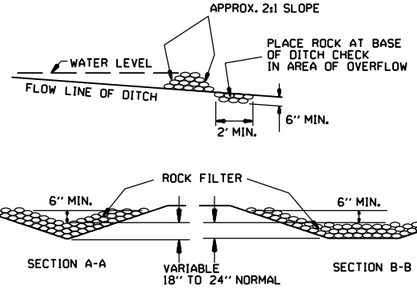
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

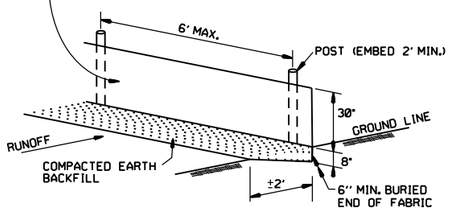


ROCK DITCH CHECK (E-6)

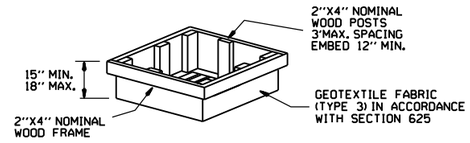
GENERAL NOTES

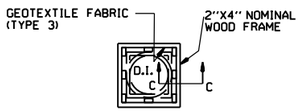
GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

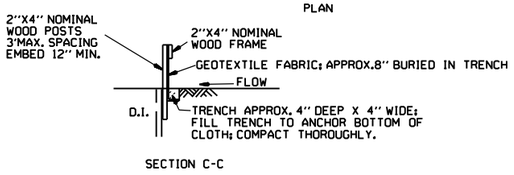
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



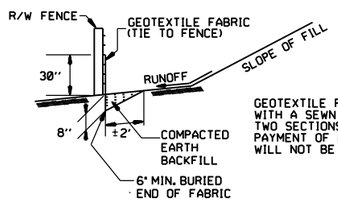
SILT FENCE (E-11)





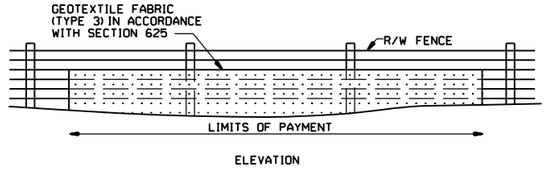


DROP INLET SILT FENCE (E-7)



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.



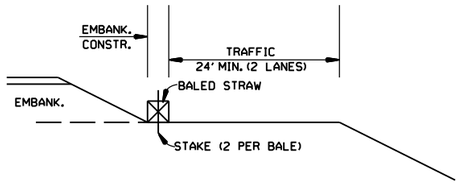
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

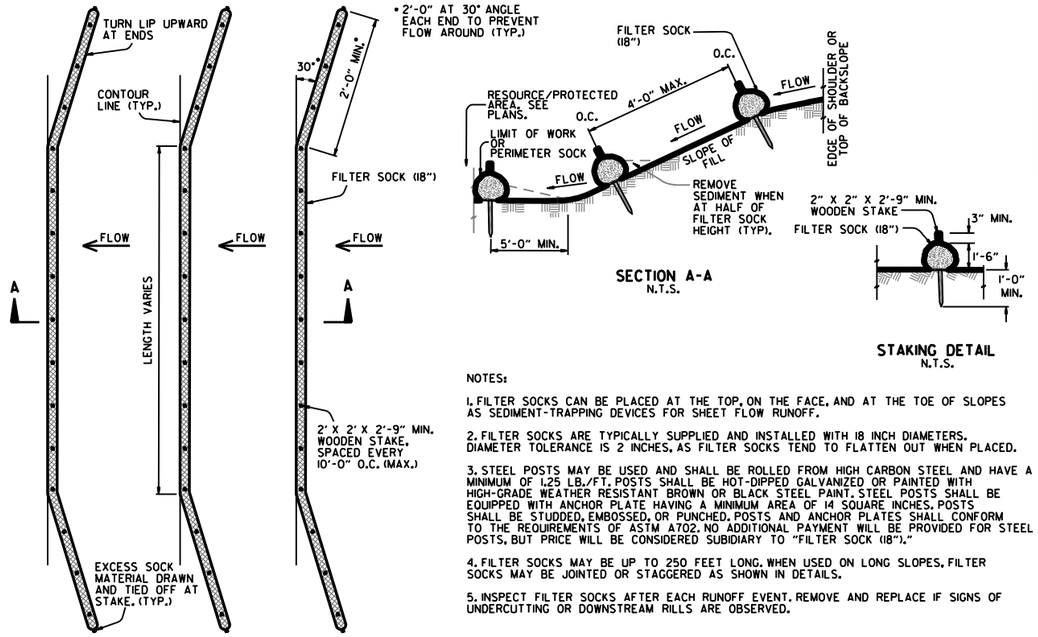
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

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.

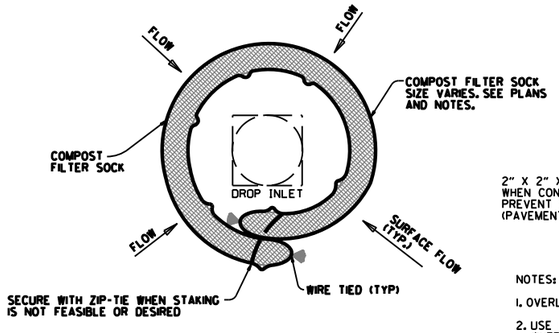
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

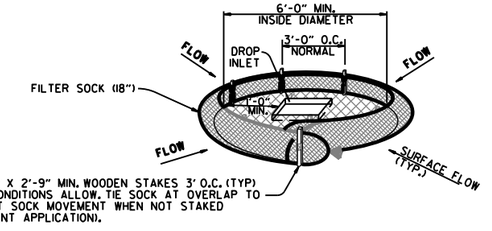
3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. 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.

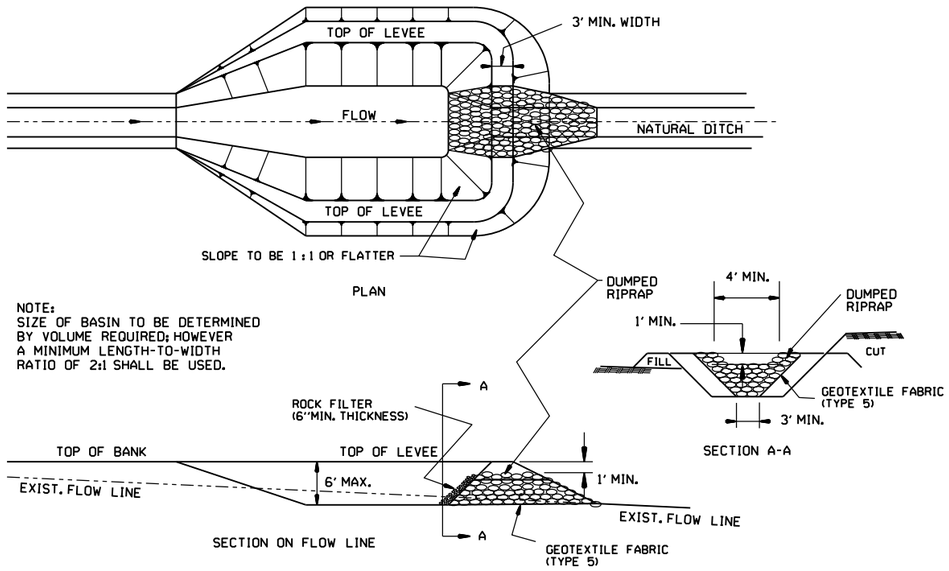
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

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

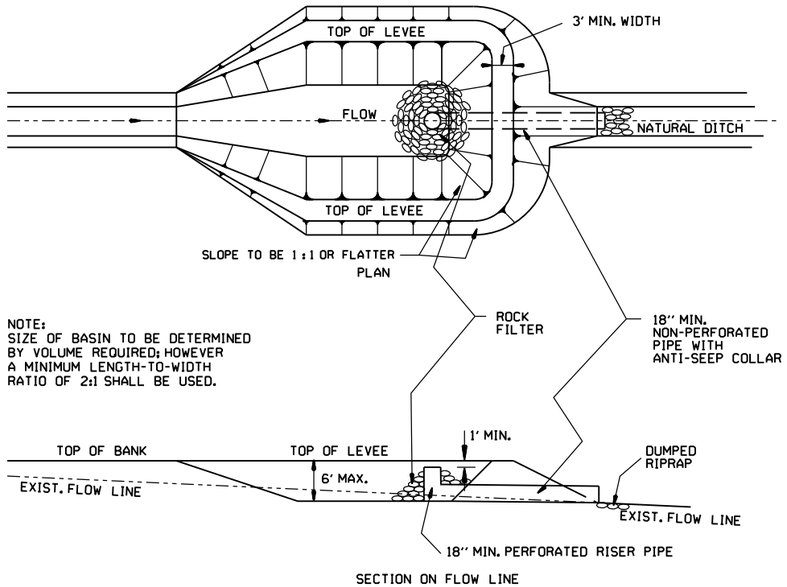
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

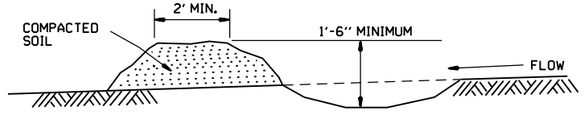
STANDARD DRAWING TEC-1



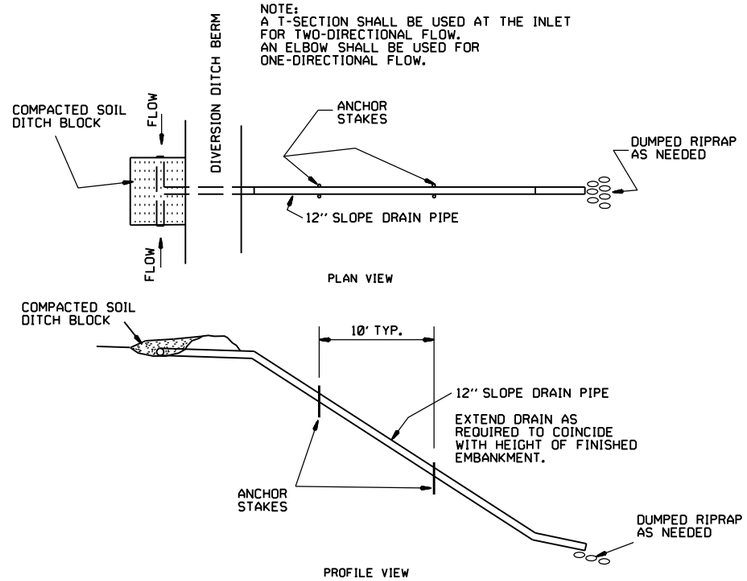
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



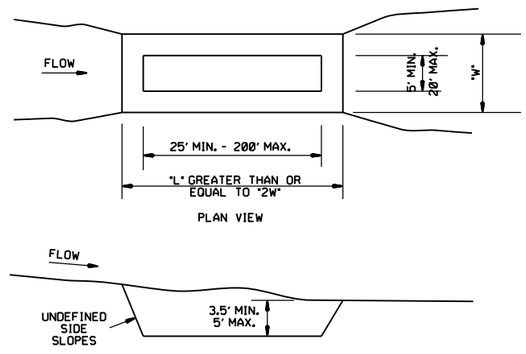
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

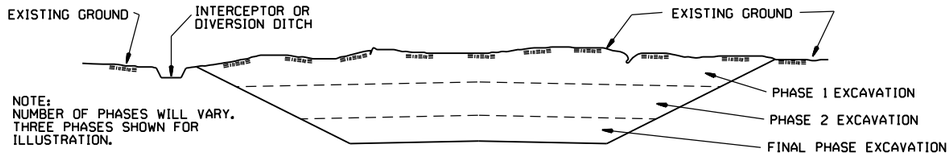
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



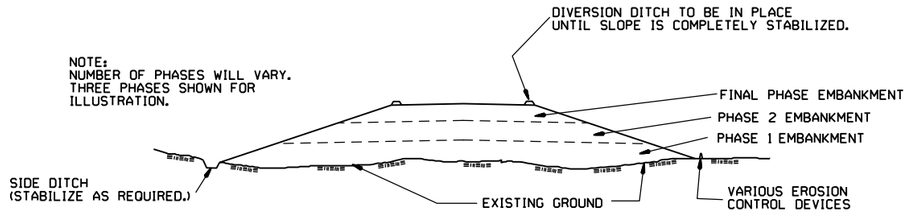
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

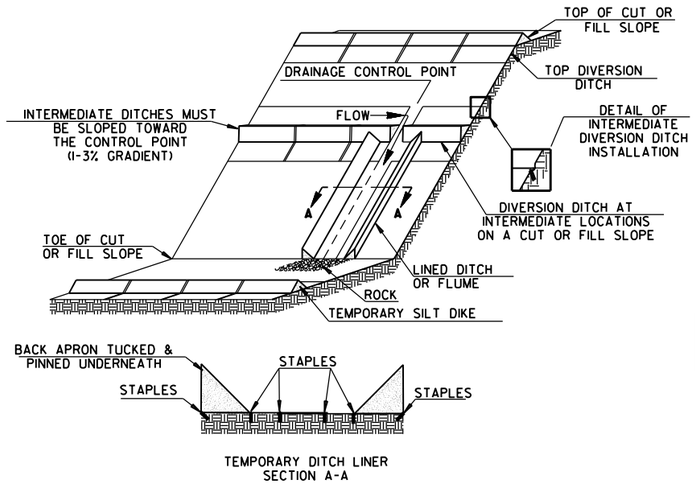
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

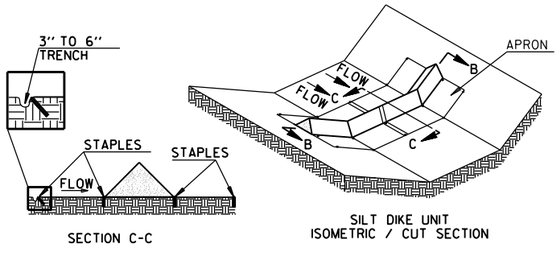
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3



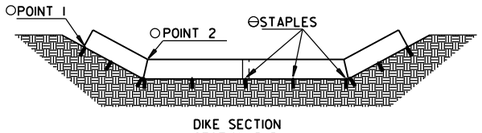
TEMPORARY DITCH LINER
SECTION A-A

TRIANGULAR SILT DIKE INSTALLATION FOR DIVERSION DITCH AND/OR DITCH LINER



SECTION C-C

SILT DIKE UNIT
ISOMETRIC / CUT SECTION

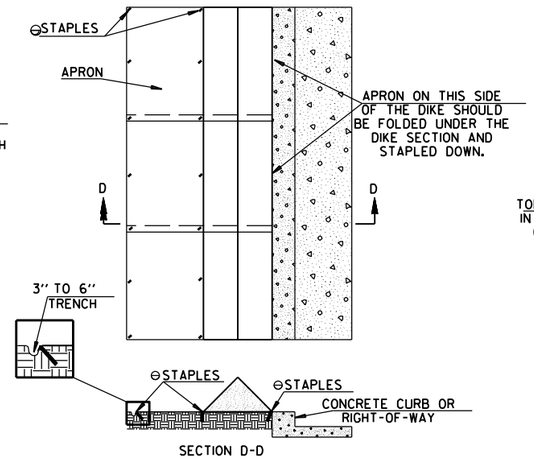


DIKE SECTION
SECTION B-B

TRIANGULAR SILT DIKE INSTALLATION FOR ROADWAY DITCH OR DRAINAGE DITCH

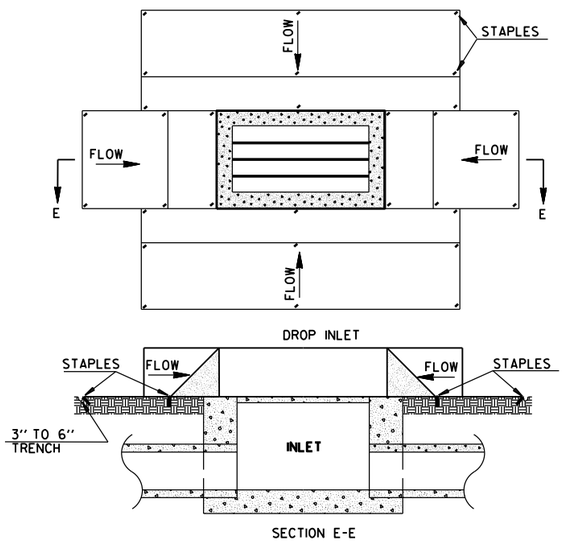
○ POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

⊖ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.



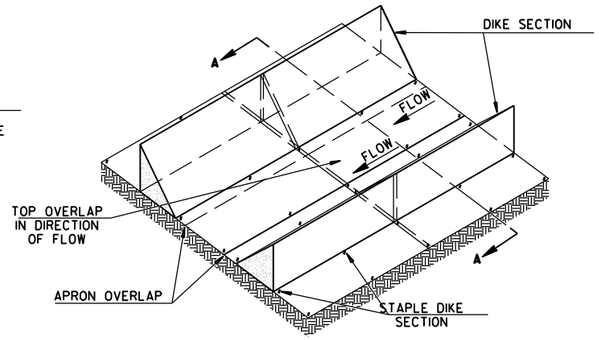
SECTION D-D

TRIANGULAR SILT DIKE INSTALLATION FOR CONTINUOUS BARRIER



SECTION E-E

TRIANGULAR SILT DIKE INSTALLATION FOR DROP INLETS



TRIANGULAR SILT DIKE INSTALLATION FOR TEMPORARY DITCH LINER

GENERAL NOTES

1. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE. THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER. THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.

2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. 11 GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.

   THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER. ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.

3. ACCEPTED TRIANGULAR SILT DIKE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TRIANGULAR SILT DIKE. PRICE BID WILL INCLUDE THE COST OF FURNISHING THE DIKES, INSTALLING, MAINTAINING AND REMOVAL WHEN DIRECTED BY THE ENGINEER.

SYMBOLOGY
SYMBOL TO BE USED TO DENOTE DEVICE ON PLANS

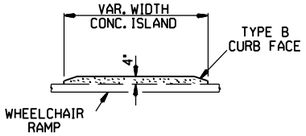
NOTE: SILT DIKE SHOULD ONLY BE USED FOR DROP INLETS IN SUMP LOCATIONS.

DATE	REVISION	FILMED
7-26-12	REVISED GENERAL NOTE 2.	
12-15-11	ISSUED	

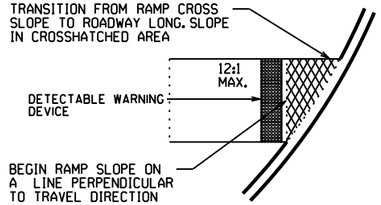
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

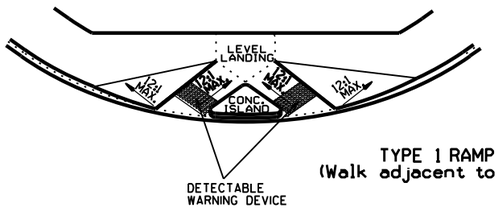
STANDARD DRAWING TEC-4



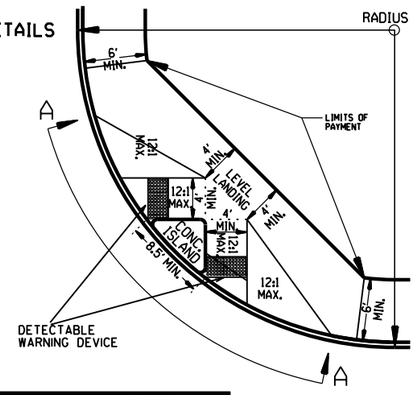
CONCRETE ISLAND DETAIL

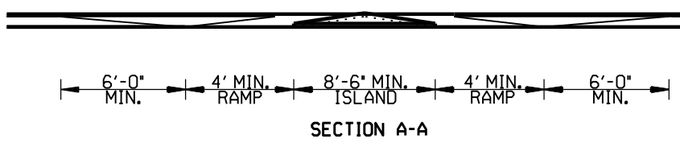


SLOPE TRANSITION DETAILS



TYPE 1 RAMP
(Walk adjacent to curb)

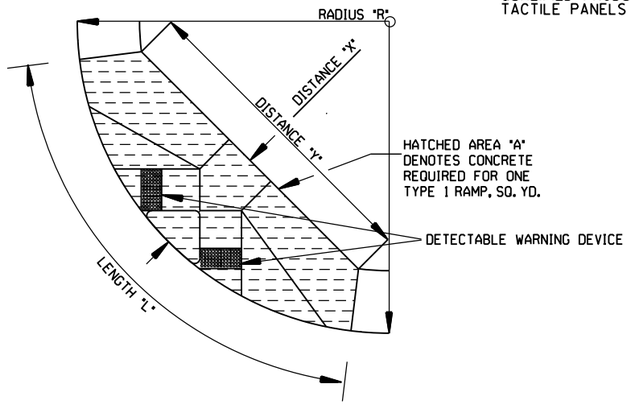




SECTION A-A

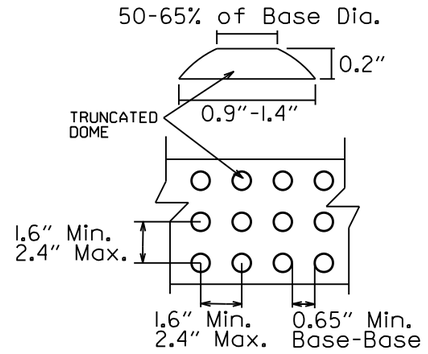
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

RADIUS "R" FEET	DISTANCE "X" FEET	DISTANCE "Y" FEET	LENGTH "L" FEET	RAMP AREA "A" SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80



GENERAL NOTES FOR DETECTABLE WARNING DEVICES

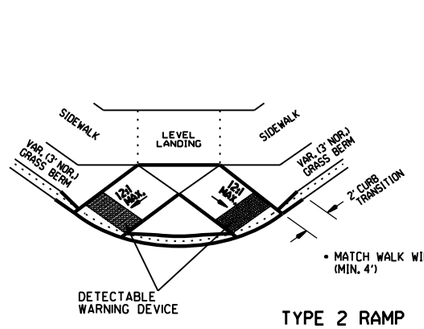
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
DETECTABLE WARNING DEVICE SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).



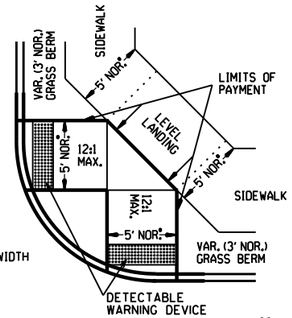
DETECTABLE WARNING DEVICE DETAIL

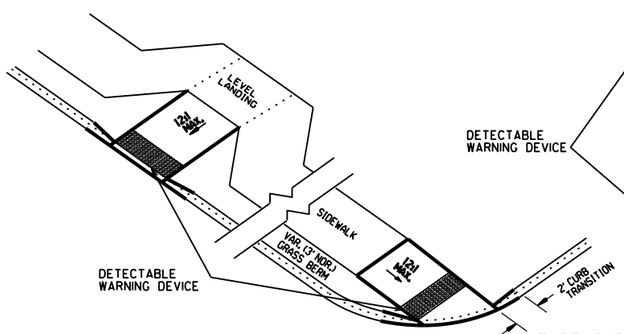
GENERAL NOTES:

IN NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED ON THE PLANS, WHEELCHAIR RAMPS ARE TO BE PROVIDED AT ALL CORNERS OF CURBED STREET INTERSECTIONS AND MID-BLOCK CROSSWALK LOCATIONS.
IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4".
THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE WALK WIDTH OR 36", WHICHEVER IS GREATER.
RAMPS SHALL BE MODIFIED AS NECESSARY TO INSURE THAT THEY ARE PARALLEL TO A LINE DRAWN FROM THE CENTER OF ONE RAMP TO THE CENTER OF THE RAMP ON THE OPPOSITE SIDE OF THE INTERSECTION.
THE DIMENSIONS AND QUANTITIES SHOWN ON THIS DRAWING ARE FOR A 90° INTERSECTION ONLY. DIMENSIONS AND QUANTITIES FOR SKEWED INTERSECTIONS WILL VARY, AND ARE TO BE DETERMINED BY THE ENGINEER.

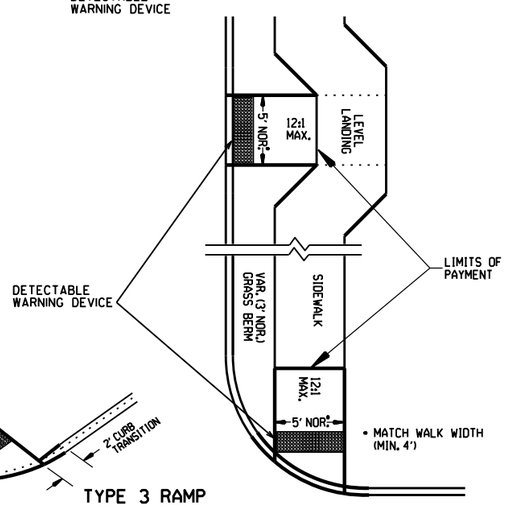


TYPE 2 RAMP

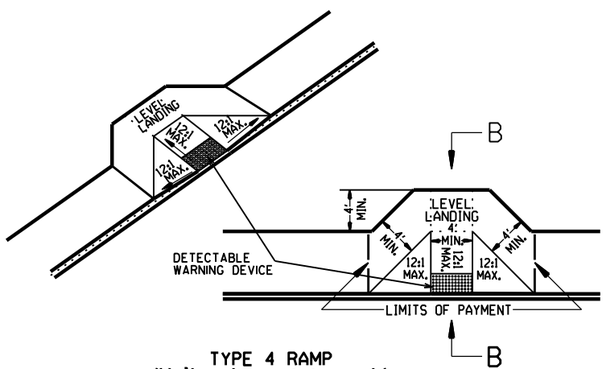




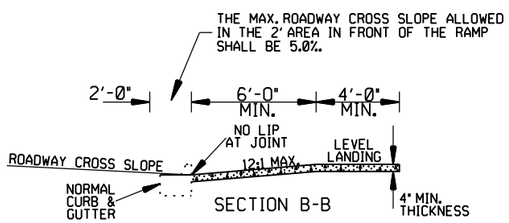
TYPE 3 RAMP



NOTE:
THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGTITUDINAL GRADE.



TYPE 4 RAMP
(Walk adjacent to curb)



SECTION B-B

RAMP SELECTION CRITERIA

FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.

AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD.SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM8#TO12#MAX.SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD."CONC. ISLD."IN PAY ITEM	------
6-02-76	ISSUED-P.M.D.	299-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS

STANDARD DRAWING WR-1