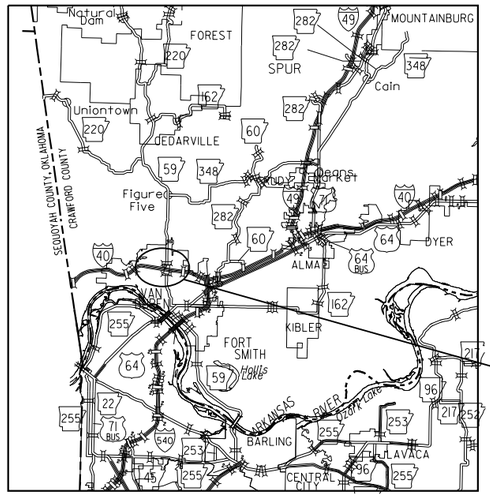
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	1	248
		I-40/HWY. 59 INTERCHANGE IMPVTS. (VAN BUREN) (S)				

"A FULLY CONTROLLED ACCESS FACILITY"
ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

I-40/HWY. 59
INTERCHANGE IMPVTS. (VAN BUREN) (S)

CRAWFORD COUNTY
ROUTE 40 SECTION 11
ROUTE 59 SECTION 5
JOB 040714
FED. AID PROJ. NHFP-9429(15)



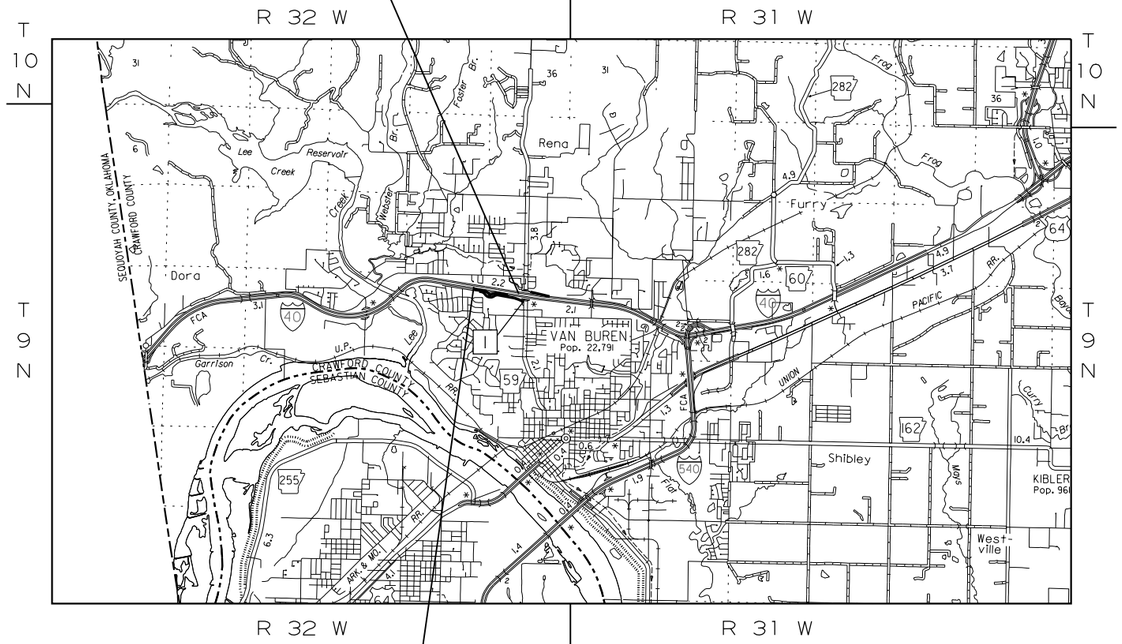
VICINITY MAP



ARKANSAS HIGHWAY DISTRICT 4

STA. 275+38.82
END JOB 040714

NOT TO SCALE



STA. 244+11.30
BEGIN JOB 040714
L.M. 4.60

STRUCTURES OVER 20'-0" SPAN

[1] ACCESS ROAD STA. 130+60.00 CONSTRUCT QUADRUPLE 10' X 5' X 162' R.C. BOX CULVERT
15° RT. FWD. SKEW
WITH 3:1 WINGS LT. & RT.
Q50 = 1,656 CFS D.A. = 550 ACRES
SPAN = 43'-0"

PROJECT COORDINATES

	BEGIN	MID-POINT	END
LATITUDE	N 35°27'52"	N 35°27'49"	N 35°27'47"
LONGITUDE	W 94°22'05"	W 94°21'46"	W 94°21'28"
STATION	244+11.30	259+75.06	275+38.82

NO LENGTH INVOLVED

GROSS LENGTH OF	PROJECT	0000.00	FEET OR	0.000	MILES
NET " "	ROADWAY	0000.00	"		"
NET " "	BRIDGES	0000.00	"		"
NET " "	PROJECT	0000.00	"		"

DESIGN TRAFFIC DATA ACCESS ROAD

DESIGN YEAR	2045
2025 ADT	13,750
2045 ADT	16,650
2045 DHV	1,830
DIRECTIONAL DISTRIBUTION	63%
TRUCKS	2%
DESIGN SPEED	40 MPH

DESIGN TRAFFIC DATA I-40

DESIGN YEAR	2045
2025 ADT	34,600
2045 ADT	43,950
2045 DHV	4,835
DIRECTIONAL DISTRIBUTION	52%
TRUCKS	24%
DESIGN SPEED	70 MPH

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
DUSTIN L. TACKETT
LICENSED PROFESSIONAL ENGINEER
No. 14994

DIGITALLY SIGNED 04/03/2025

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	2	248
		INDEX OF SHEETS AND STANDARD DRAWINGS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

DIGITALLY SIGNED 04/11/2025

INDEX OF SHEETS

SHEET NO.	TITLE	STR. NO.	DRWG.NO.
1	TITLE SHEET		
2	INDEX OF SHEETS AND STANDARD DRAWINGS		
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
4 - 12	TYPICAL SECTIONS OF IMPROVEMENT		
13 - 26	SPECIAL DETAILS		
27 - 44	TEMPORARY EROSION CONTROL DETAILS		
45 - 67	MAINTENANCE OF TRAFFIC DETAILS		
68 - 72	PERMANENT PAVEMENT MARKING DETAILS		
73	SOIL BORING LOG		
74 - 78	QUANTITIES		
79	SUMMARY OF QUANTITIES AND REVISIONS		
80 - 89	SURVEY CONTROL DETAILS		
90 - 107	PLAN AND PROFILE SHEETS		
108	SUMMARY OF TRAFFIC SIGNAL QUANTITIES		
109	TRAFFIC SIGNAL NOTES		
110	SYSTEM MAP		
111	TRAFFIC SIGNAL STREET NAME SIGNS		
112	GROUNDING ARRAY DETAIL		
112A	PEDESTRIAN PUSH BUTTON DETAIL		
113	PUSH BUTTON PLACEMENT DETAIL		
114	PTZ DETAIL (WB RAMP)		
115	TRAFFIC SIGNAL QUANTITIES - I-40 SERVICE RD.		
116 - 119	SIGNALIZATION PLAN SHEET		
120	TRAFFIC SIGNAL QUANTITIES - EB RAMP		
121	TRAFFIC SIGNAL QUANTITIES - WB RAMP		
122 - 157	SIGNALIZATION PLAN SHEET		
158	ITS GENERAL NOTES		
159	ITS SYSTEM MAP		
160	ITS QUANTITIES		
161 - 162	ITS PLAN AND ELEVATION SHEETS		
163	ITS VOLTAGE DROP CALCULATIONS		
164	ITS SYSTEM POWER DIAGRAMS		
165	ITS WIRING DIAGRAM		
166	ITS BLOCK DIAGRAM		
167	ITS DETAIL		
168 - 169	ITS TEE-MOUNT STANDARD DETAIL		
170	DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 1 OF 5)	TM-040-17-28	55862
171	DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 2 OF 5)	TM-040-17-28	55863
172	DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 3 OF 5)	TM-040-17-28	55864
173	DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 4 OF 5)	TM-040-17-28	55865
174	DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 5 OF 5)	TM-040-17-28	55866
175 - 184	SIGN PLACEMENT SHEETS		
185	SIGN QUANTITY SHEETS		
186 - 187	ELECTRICAL GENERAL NOTES AND LEGEND		
188 - 190	LIGHTING LAYOUT SHEETS		
191	PTZ DETAIL (ROUNDABOUT)		
192 - 197	ELECTRICAL DETAILS		
198 - 248	CROSS SECTIONS		

NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

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	05-19-22
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-9D	DETAILS OF DROP INLETS	08-22-02
FPC-9E	DETAILS OF DROP INLETS (TYPE C)	08-22-02
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
FPC-9S	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)	07-26-12
GR-5	GUARDRAIL DETAILS	11-07-19
GR-6	GUARDRAIL DETAILS	05-19-22
GR-8	GUARDRAIL DETAILS	11-07-19
GR-9	GUARDRAIL DETAILS	11-07-19
GR-10	GUARDRAIL DETAILS	11-07-19
GR-11	GUARDRAIL DETAILS	11-07-19
GRT-1	GUARDRAIL DETAILS	11-07-19
MB-1	MAILBOX DETAILS	11-18-04
PBC-1	PRECAST CONCRETE BOX CULVERTS	01-28-15
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
PCP-3	PLASTIC PIPE CULVERT (POLYPROPYLENE)	02-27-20
PM-1	PAVEMENT MARKING DETAILS	02-27-20
PM-2	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	05-14-20
RCB-1	REINFORCED CONCRETE BOX CULVERT DETAILS	07-26-12
RCB-2	EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS	11-20-03
RCB-3	METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS	10-12-95
SD-5	CONTROLLER CABINET UTILITY DRAWER	09-12-13
SD-6	HEAVY DUTY PULL BOX	02-13-24
SD-7	SPAN WIRE ASSEMBLY WOOD POLE	02-13-24
SD-8	SIGNAL HEAD PLACEMENT	12-08-16
SD-9	SERVICE POINT	11-07-19
SD-11	STEEL POLE WITH MAST ARM	02-13-24
SD-12	SERVICE POINT INSTALLATION WITH SUPPLEMENTAL GROUNDING ARRAY	11-07-19
SD-16	OVERHEAD SIGN DETAILS (OVERHEAD SIGN MOUNTED ON STEEL POLE WITH MAST ARM)	09-12-13
SE-1	TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC	11-07-19
SHS-1	STANDARD HIGHWAY SIGNS AND SUPPORTS ASSEMBLIES	09-12-13
SHS-2	U-CHANNEL POST ASSEMBLIES	07-25-19
SHS-3	DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS	05-19-22
SHS-4	DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS	09-12-13
SHS-5	DETAILS OF GUIDE SIGN PANELS	09-12-13
SHS-6	MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS	09-12-13
SHS-7	DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS	09-12-13
SHS-8	TYPICAL DELINEATOR PLACEMENT ALONG THE INTERSTATE SYSTEM	11-16-17
SI-1	DETAILS OF SPECIAL ITEMS	10-25-18
SI-2	REINFORCED CONCRETE RETAINING WALL (WITHOUT LIVE LOAD SURCHARGE)	05-14-20
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-1	WIRE FENCE TYPE A AND B	08-22-02
WF-2	WIRE FENCE WATER GAPS	04-20-79
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05
WR-2	WHEELCHAIR RAMPS ALTERATIONS ONLY	10-09-03
W-X004-1	DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS	05-10-66
R-100X-0	DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS	02-08-63

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	3	248
		GOVERNING SPECIFICATIONS AND GENERAL NOTES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

DIGITALLY SIGNED 04/11/2025

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA_____	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273___	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273___	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273___	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273___	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273___	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273___	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273___	SUPPLEMENT - WAGE RATE DETERMINATION
FHWA-1273___	SUPPLEMENT - TRAINING PROGRAM - JOB NUMBER 040714
100-3_____	CONTRACTOR'S LICENSE
100-4_____	DEPARTMENT NAME CHANGE
102-2_____	ISSUANCE OF PROPOSALS
102-3_____	PREQUALIFICATION OF BIDDERS
103-2_____	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4_____	MAINTENANCE DURING CONSTRUCTION
107-2_____	RESTRAINING CONDITIONS
108-1_____	LIQUIDATED DAMAGES
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
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
606-1_____	PIPE CULVERTS FOR SIDE DRAINS
617-1_____	GUARDRAIL TERMINAL (TYPE 2)
617-2_____	GUARDRAIL DELINEATORS
619-1_____	FENCES
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
700-2_____	TRAFFIC CONTROL FACILITIES
723-1_____	GENERAL REQUIREMENTS FOR SIGNS
730-1_____	BREAKAWAY SIGN SUPPORT
800-1_____	STRUCTURES
802-5_____	CONCRETE FOR STRUCTURES
804-2_____	REINFORCING STEEL FOR STRUCTURES
JOB 040714___	ACCESSIBLE PEDESTRIAN SIGNAL (APS)
JOB 040714___	ACTUATED CONTROLLER
JOB 040714___	ARCHEOLOGICAL MONITORING
JOB 040714___	ARCHITECTURAL FINISH (CAST-IN PLACE RETAINING WALLS)
JOB 040714___	ASPHALT MIXTURES WITH PG 76-22 BINDER
JOB 040714___	ASSESSMENT OF WORKING DAYS – MAINTENANCE OF TRAFFIC
JOB 040714___	BASIC ELECTRICAL REQUIREMENTS
JOB 040714___	BIDDING REQUIREMENTS AND CONDITIONS
JOB 040714___	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 040714___	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 040714___	CABINET DRAWER ASSEMBLY
JOB 040714___	CARGO PREFERENCE ACT REQUIREMENTS
JOB 040714___	COLD MILLING - MILL & INLAY
JOB 040714___	CONCRETE BARRIER WALL
JOB 040714___	CONCRETE DITCH PAVING
JOB 040714___	CONCRETE PULL BOX

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
JOB 040714___	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 040714___	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 040714___	DESIGN OF ASPHALT MIXTURES - AGGREGATES
JOB 040714___	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 040714___	DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES
JOB 040714___	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 040714___	ELECTRICAL CONDUCTORS FOR LUMINAIRES (TRAFFIC SIGNAL)
JOB 040714___	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 040714___	ELECTRICAL CONDUCTORS-IN-CONDUIT (TRAFFIC SIGNAL)
JOB 040714___	EMERGENCY BATTERY BACKUP SYSTEM INSTALLATION
JOB 040714___	ENHANCED THERMOPLASTIC PAVEMENT MARKING
JOB 040714___	EXTENSION FOR PIPE CULVERTS
JOB 040714___	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 040714___	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 040714___	GROUNDING AND BONDING
JOB 040714___	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
JOB 040714___	LED LUMINAIRE ASSEMBLY (BUG U0 TYPE)
JOB 040714___	LED ROADWAY ILLUMINATION POLE
JOB 040714___	LED TRAFFIC SIGNAL HEAD
JOB 040714___	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 040714___	LONGITUDINAL TINING
JOB 040714___	LOUVERS FOR SIGNAL HEADS
JOB 040714___	MAINTENANCE OF TRAFFIC
JOB 040714___	MANDATORY ELECTRONIC CONTRACT
JOB 040714___	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 040714___	MOBILE SPEED NOTIFICATION SYSTEM (SPECIAL)
JOB 040714___	NEMA ENCLOSURE
JOB 040714___	NESTING SITES OF MIGRATORY BIRDS
JOB 040714___	NONDESTRUCTIVE TESTING OF DRILLED SHAFTS FOR STEEL SIGN STRUCTURES
JOB 040714___	OFF-SITE RESTRAINING CONDITIONS FOR AMERICAN BURYING BEETLE
JOB 040714___	OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 040714___	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT
JOB 040714___	OVERHEAD DYNAMIC MESSAGE SIGN ASSEMBLY
JOB 040714___	PAN-TILT-ZOOM CAMERA SYSTEM
JOB 040714___	PARTNERING REQUIREMENTS
JOB 040714___	PEDESTAL TYPE SERVICE POINT ASSEMBLY
JOB 040714___	PLASTIC PIPE
JOB 040714___	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 040714___	PRICE ADJUSTMENT FOR FUEL
JOB 040714___	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 040714___	RADAR VEHICLE DETECTION SYSTEM
JOB 040714___	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB 040714___	RESTRAINING CONDITIONS
JOB 040714___	RETROREFLECTIVE BACKPLATES
JOB 040714___	SEQUENCE OF CONSTRUCTION
JOB 040714___	SERVICE POINT ASSEMBLY (ITS DEVICES)
JOB 040714___	SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 040714___	SERVICE POINT ASSEMBLY (UNDERGROUND SECONDARY SERVICE, ROADWAY LIGHTING)
JOB 040714___	SHORING FOR CULVERTS
JOB 040714___	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB 040714___	SOIL STABILIZATION
JOB 040714___	SPECIAL SAFETY REQUIREMENTS FOR OVERHEAD SIGNS
JOB 040714___	STEEL SIGN STRUCTURES
JOB 040714___	STORM WATER POLLUTION PREVENTION PLAN
JOB 040714___	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 040714___	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 040714___	SYSTEM LOCAL CONTROLLER
JOB 040714___	TESTING AND INTEGRATION
JOB 040714___	THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)
JOB 040714___	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 040714___	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)
JOB 040714___	UTILITY ADJUSTMENTS
JOB 040714___	VALUE ENGINEERING
JOB 040714___	VIDEO DETECTION SYSTEM
JOB 040714___	WARM MIX ASPHALT
JOB 040714___	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS

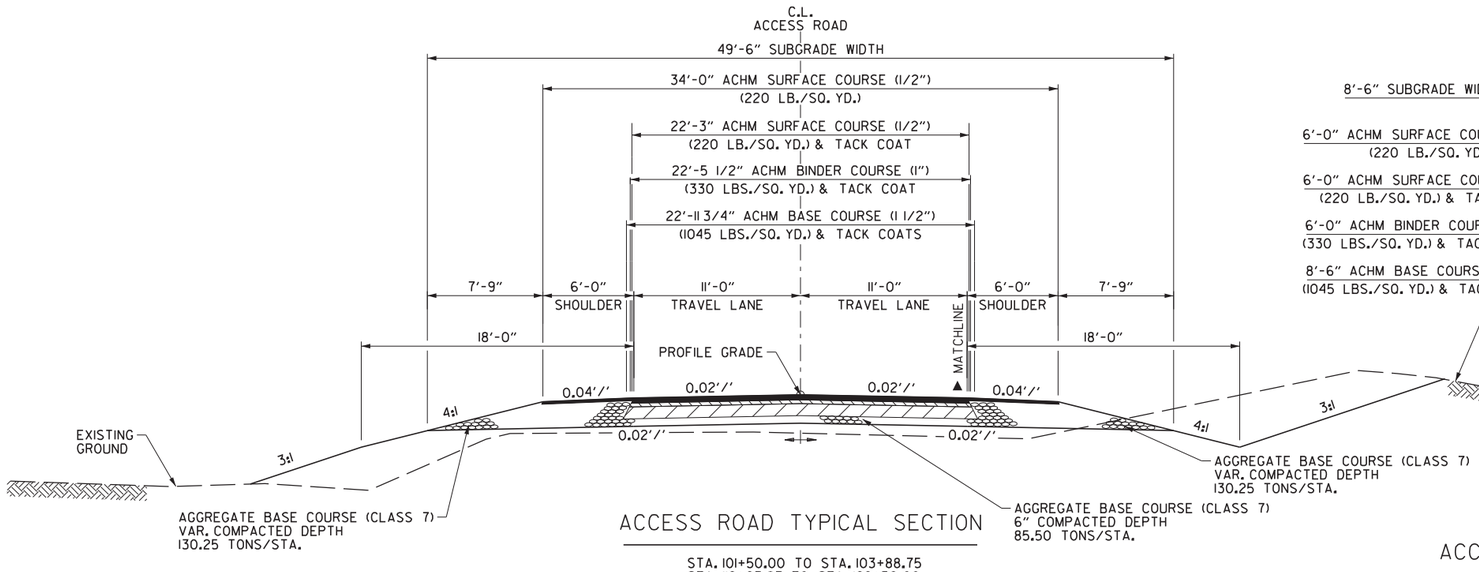
GENERAL NOTES

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. THE PROJECT IS PERMITTED UNDER A SECTION 404 NATIONWIDE 23 PERMIT. ALL COMPLIANCE MEASURES REQUIRED FOR THE SECTION 404 NATIONWIDE 23 PERMIT ARE INCLUDED IN THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.

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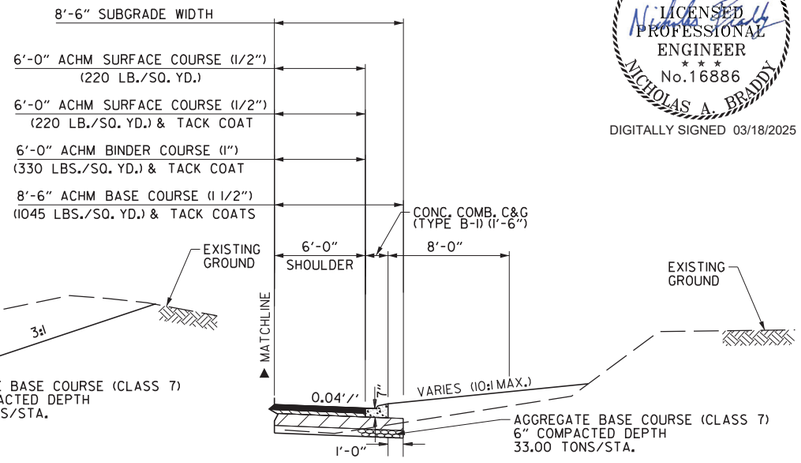
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	4	248
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS ROAD TYPICAL SECTION

STA. 101+50.00 TO STA. 103+88.75
STA. 112+63.83 TO STA. 122+50.00



ACCESS ROAD TYPICAL SECTION W/ CURB AND GUTTER

STA. 101+50.00 TO STA. 101+95.00 RT.

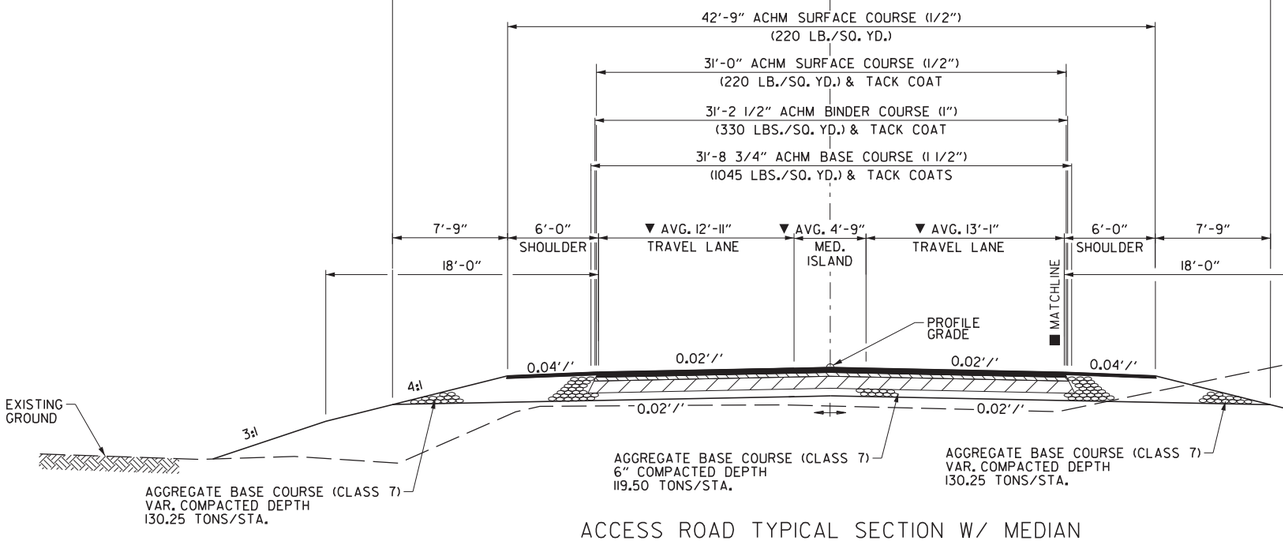
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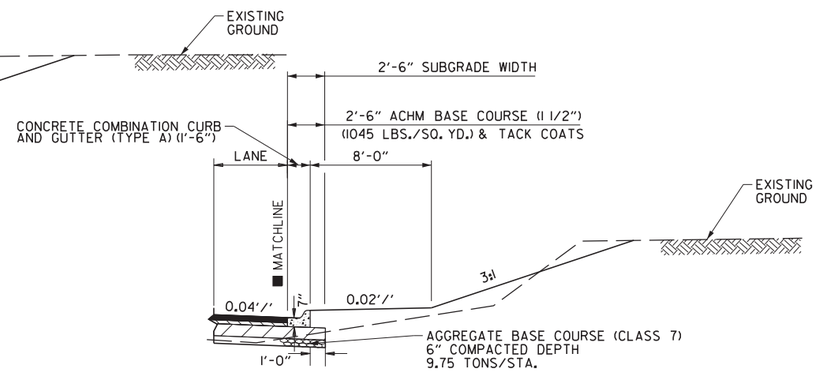


ACCESS ROAD TYPICAL SECTION W/ MEDIAN

STA. 103+88.75 TO STA. 105+28.77
STA. 111+23.83 TO STA. 112+63.83

▼ AVERAGE LANE AND/OR ISLAND WIDTHS IN AREA OF ROUNDABOUT

NOTE: SEE PLAN AND PROFILE SHEETS AND SPECIAL DETAILS FOR EXACT LIMITS OF CURB AND ISLAND LOCATIONS



ACCESS ROAD TYPICAL SECTION W/ CURB AND GUTTER

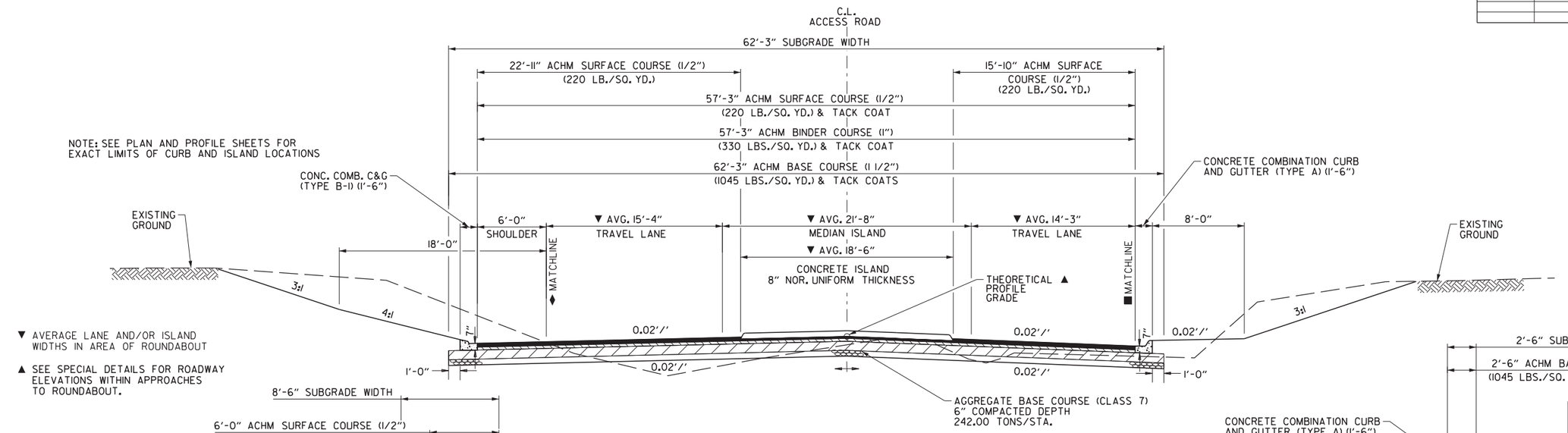
STA. 104+96.16 TO STA. 105+28.77 RT

TYPICAL SECTIONS OF IMPROVEMENT

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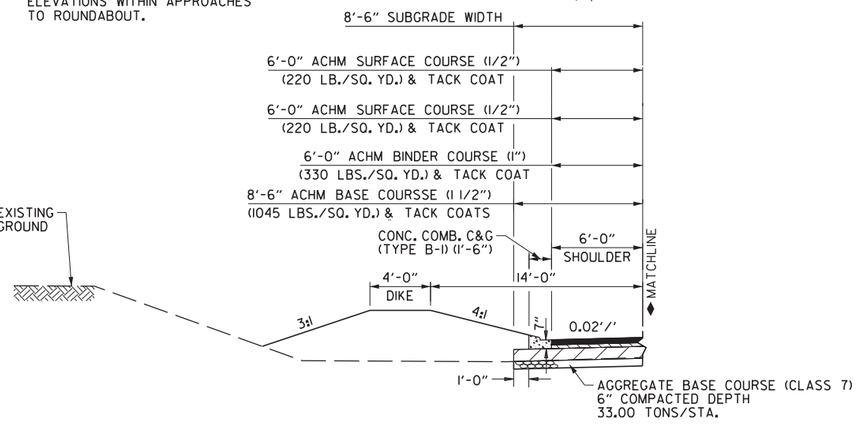
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		6	ARK.	040714	5	248
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
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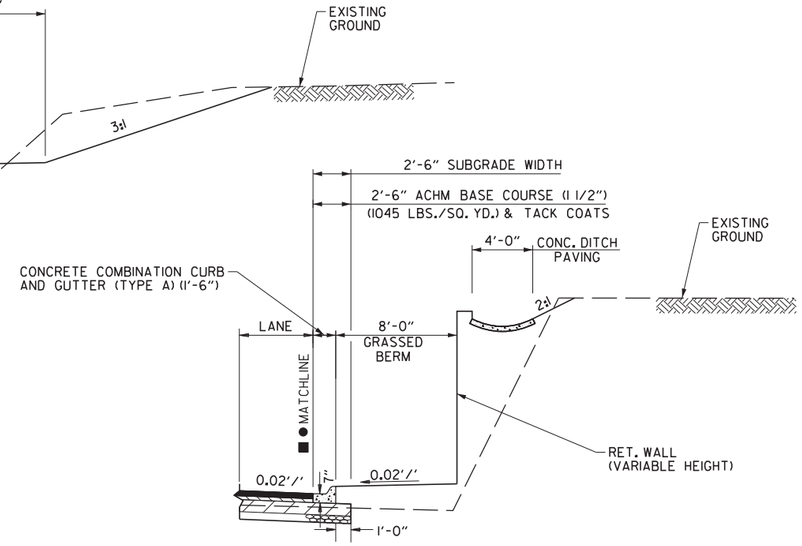
ACCESS ROAD TYPICAL SECTION

STA. 105+28.77 TO STA. 107+35.07
STA. 109+15.18 TO STA. 111+23.83



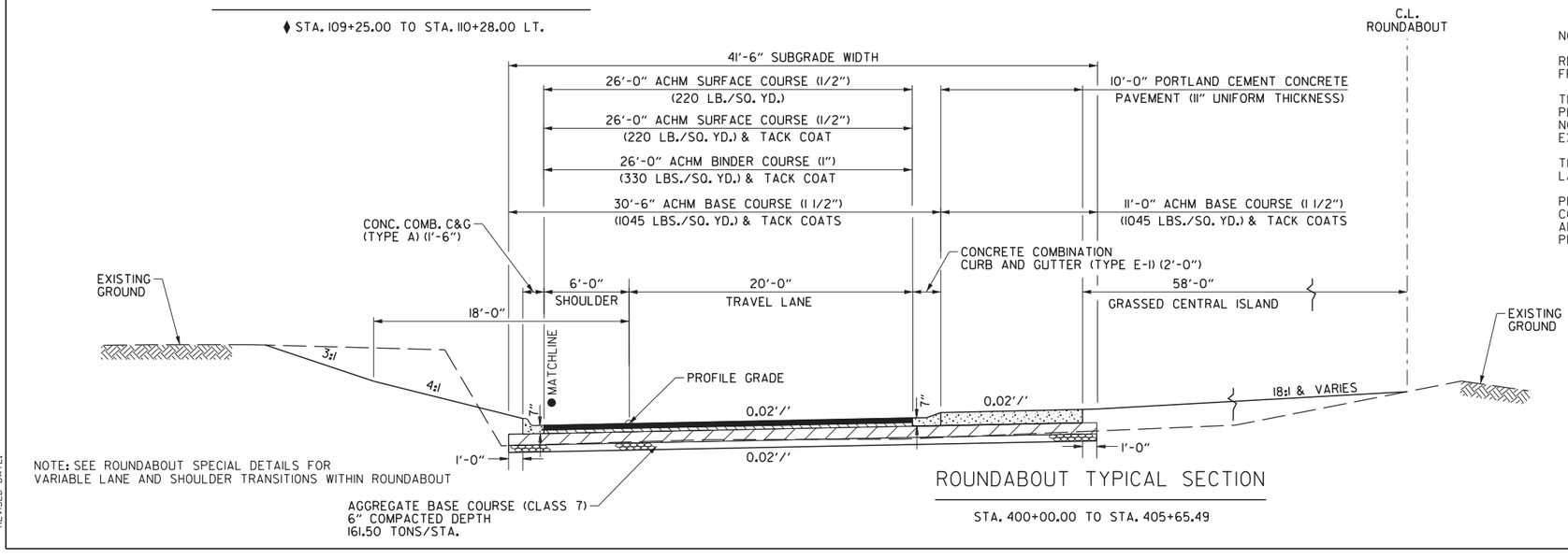
ACCESS ROAD TYPICAL SECTION W/ DIKE

◆ STA. 109+25.00 TO STA. 110+28.00 LT.



RETAINING WALL

■ STA. 105+79.30 TO STA. 107+35.07 RT.
● STA. 403+50.00 TO STA. 404+42.52



NOTE: SEE ROUNDABOUT SPECIAL DETAILS FOR VARIABLE LANE AND SHOULDER TRANSITIONS WITHIN ROUNDABOUT

ROUNDABOUT TYPICAL SECTION

STA. 400+00.00 TO STA. 405+65.49

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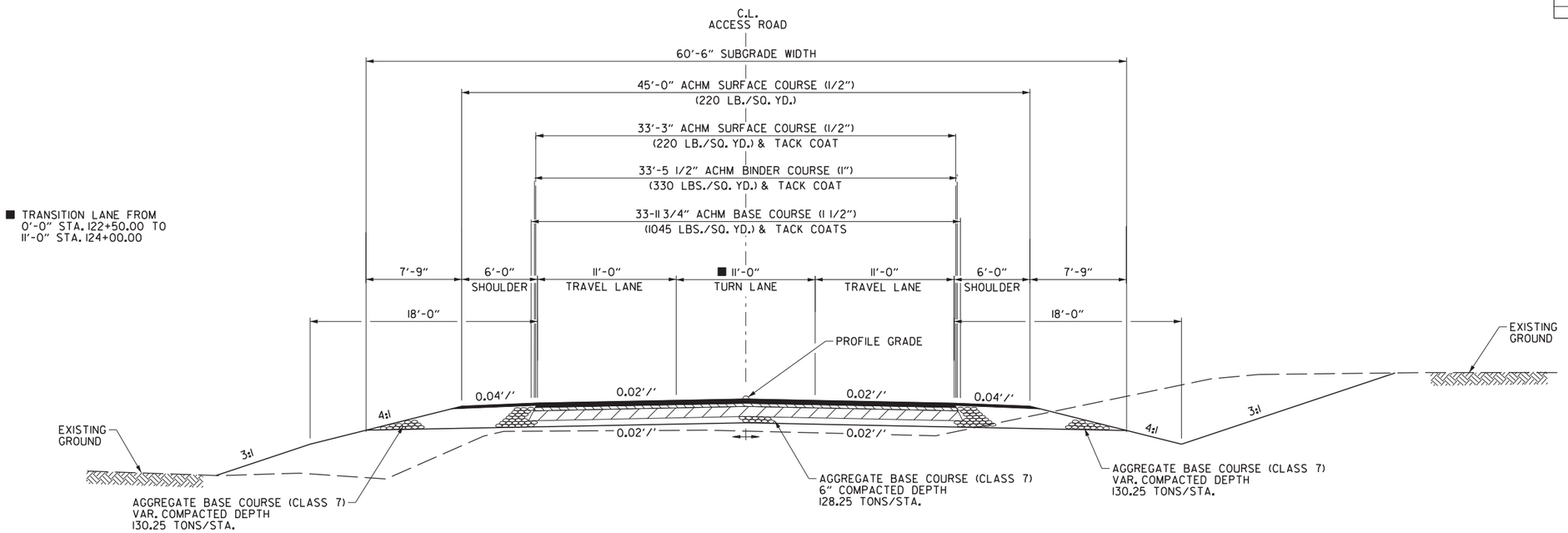
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	6	248
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS ROAD TYPICAL SECTION W/ TURN LANE

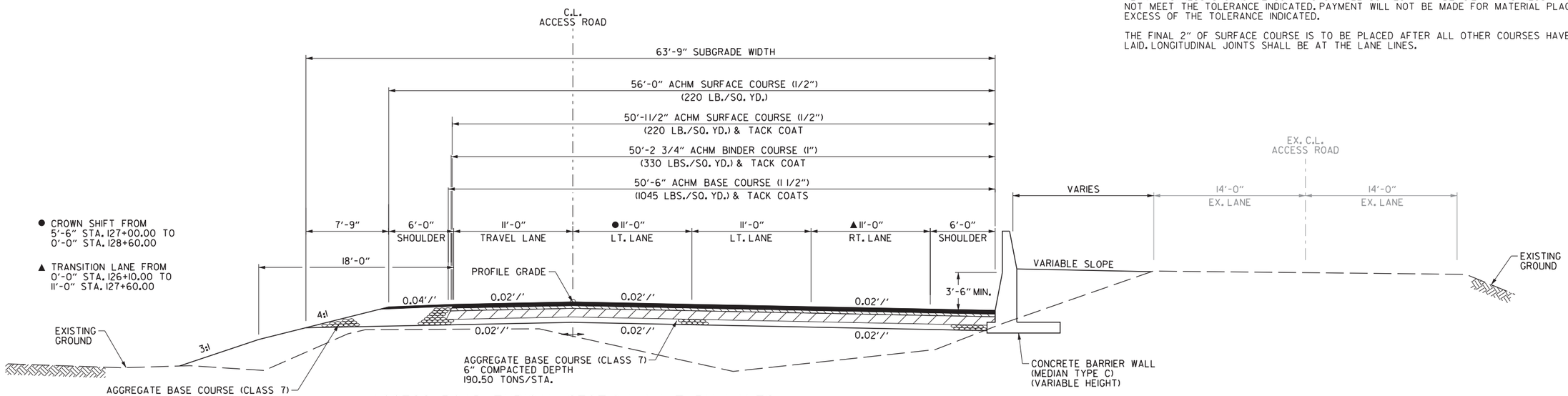
STA. 122+50.00 TO STA. 126+10.00

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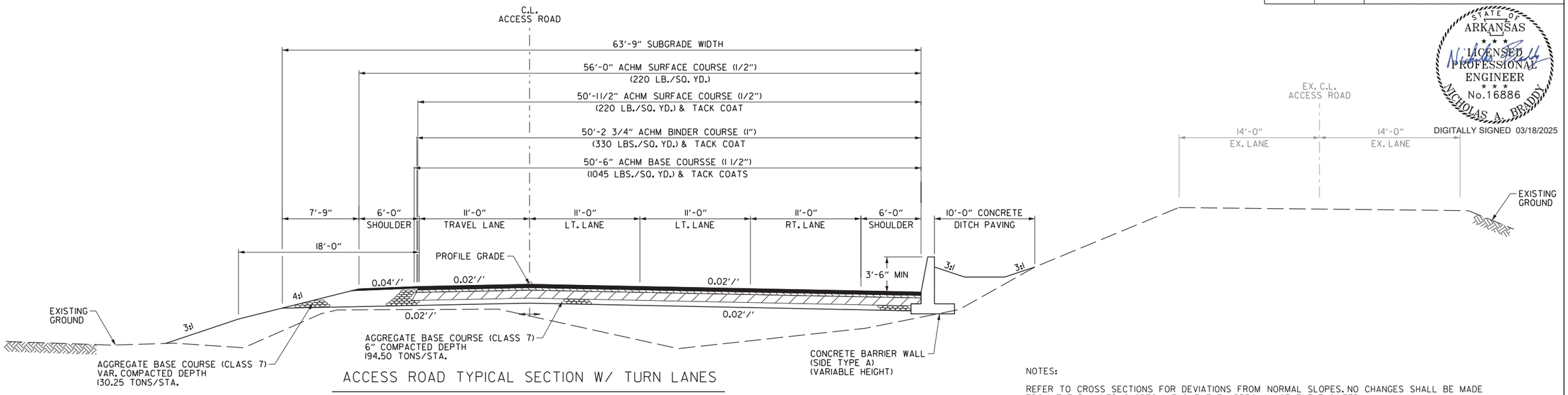
ACCESS ROAD TYPICAL SECTION W/ TURN LANES

STA. 126+10.00 TO STA. 128+55.00

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		6	ARK.	040714	7	248
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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DIGITALLY SIGNED 03/18/2025



ACCESS ROAD TYPICAL SECTION W/ TURN LANES

STA. 128+55.00 TO STA. 130+00.00

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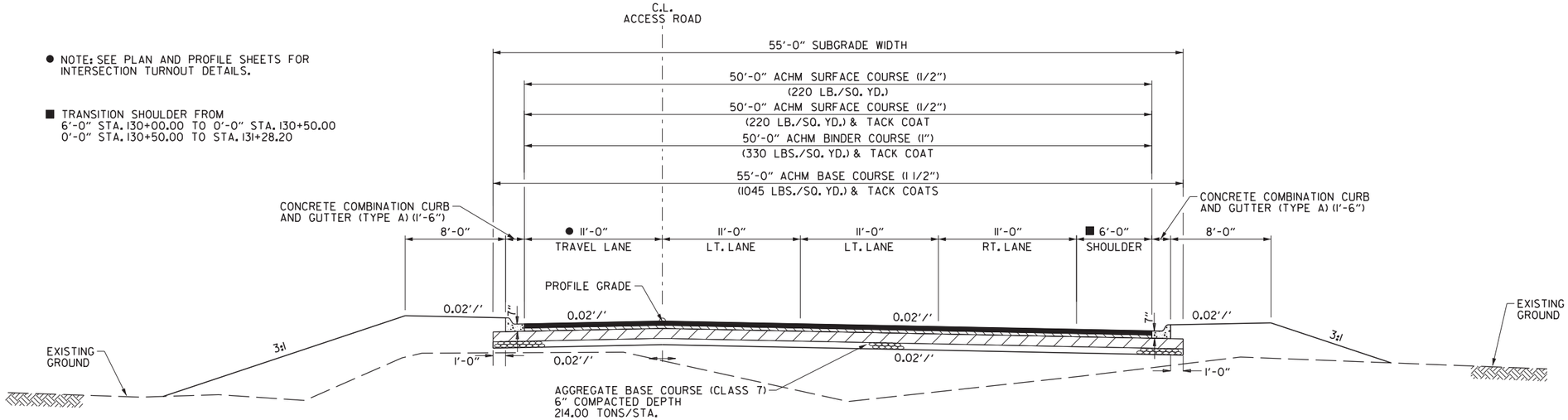
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● NOTE: SEE PLAN AND PROFILE SHEETS FOR INTERSECTION TURNOUT DETAILS.

■ TRANSITION SHOULDER FROM
6'-0" STA. 130+00.00 TO 0'-0" STA. 130+50.00
0'-0" STA. 130+50.00 TO STA. 131+28.20



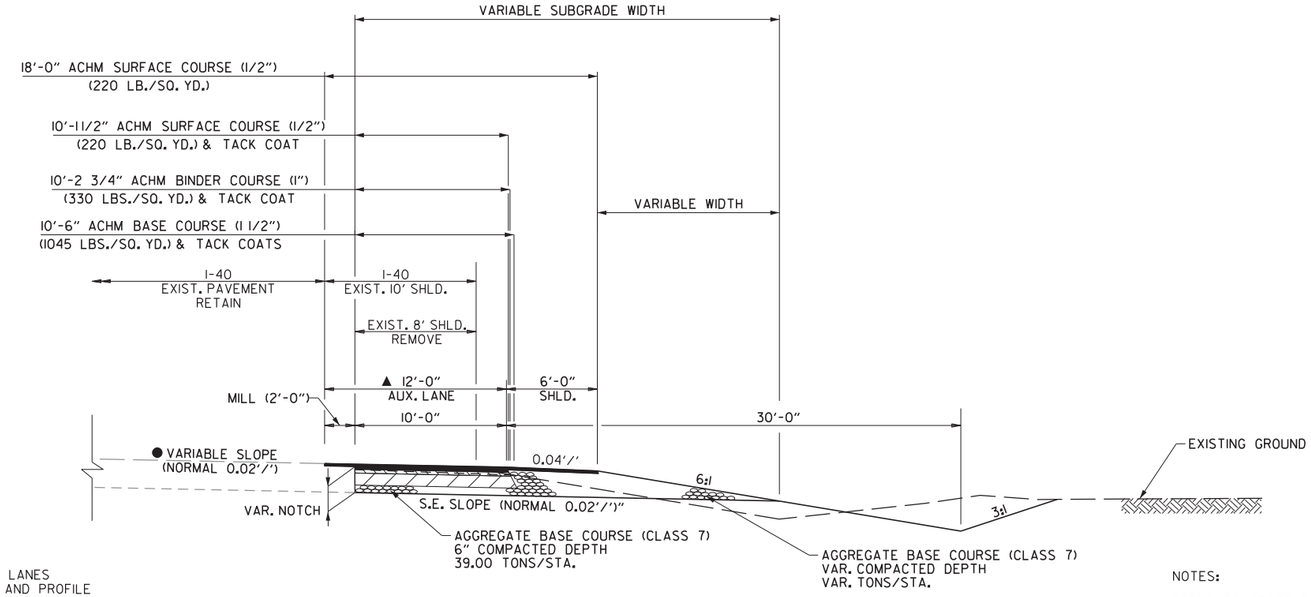
ACCESS ROAD TYPICAL SECTION W/ TURN LANES

STA. 130+00.00 TO STA. 131+28.20

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	8	248
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
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● SUPERELEVATION FOR AUXILIARY LANES IS DEFINED ON THE RAMP PLAN AND PROFILE SHEETS.

▲ STA. 244+11.30 TO STA. 247+11.30 TRANSITION 0' TO 12'-0"

▲ STA. 272+38.82 TO STA. 275+38.82 TRANSITION 12'-0" TO 0'

I-40 TYPICAL NOTCH & WIDEN SECTION W/ AUXILIARY LANE

(SHOWN IN DIRECTION OF TRAFFIC)
STA. 244+11.30 TO STA. 255+37.73
STA. 258+88.82 TO STA. 275+38.82

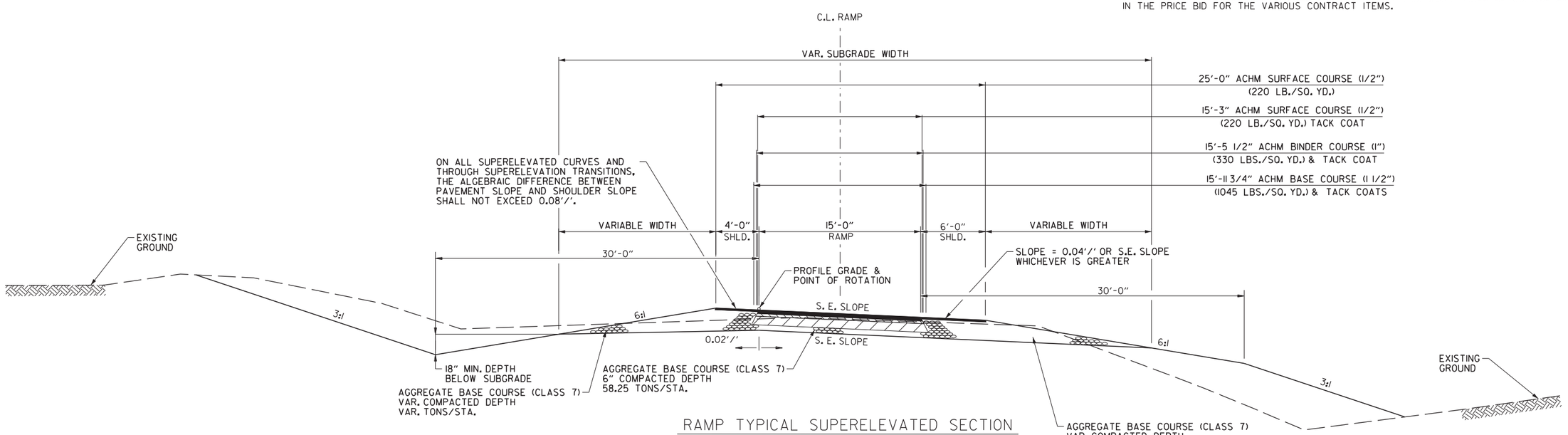
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RAMP TYPICAL SUPERELEVATED SECTION

(SHOWN IN THE DIRECTION OF TRAFFIC)

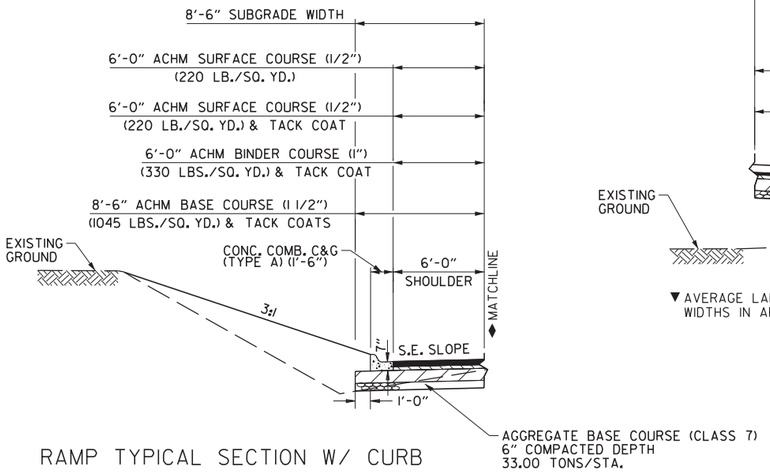
RAMP 1 STA. 255+37.00 TO STA. 257+13.06
RAMP 2A STA. 256+75.00 TO STA. 258+90.05

TYPICAL SECTIONS OF IMPROVEMENT

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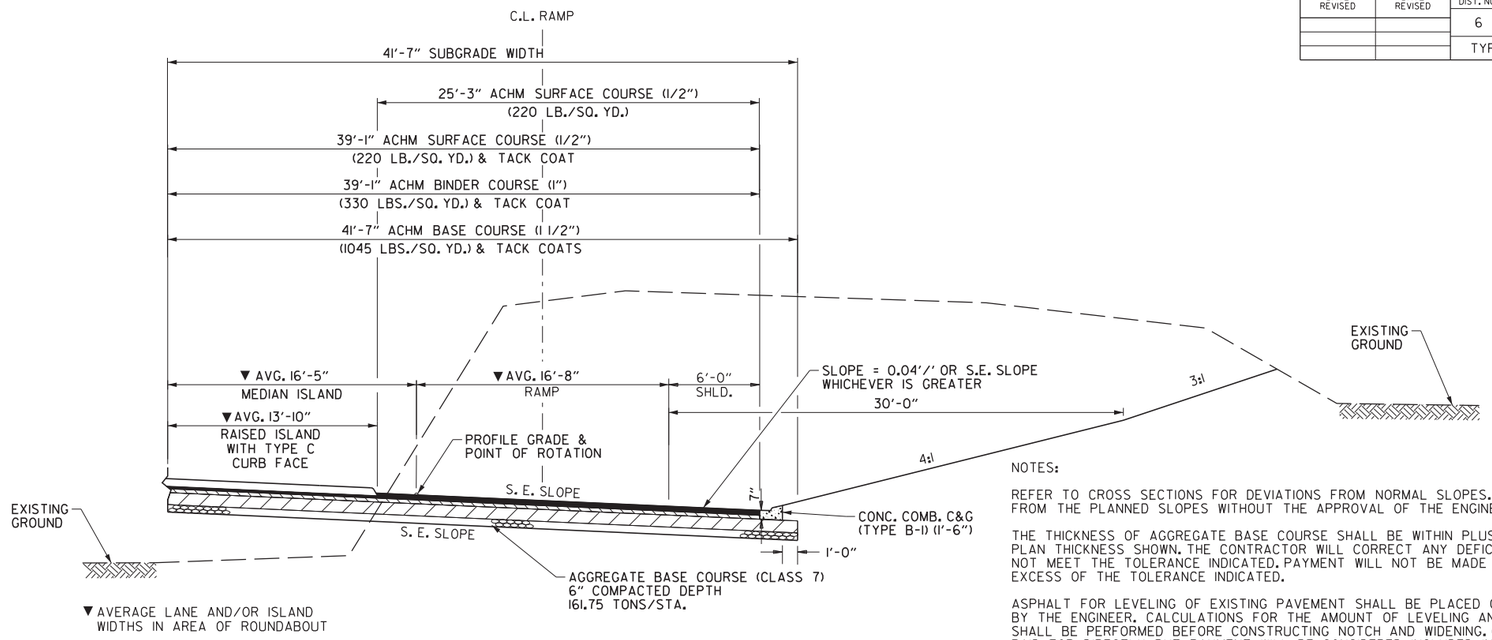
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		6	ARK.	040714	9	248
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STATE OF ARKANSAS
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DIGITALLY SIGNED 03/18/2025



RAMP TYPICAL SECTION W/ CURB

♦ STA. 278+80.12 TO STA. 284+85.00 LT



RAMP TYPICAL SUPERELEVATED SECTION

(SHOWN IN DIRECTION OF TRAFFIC)
RAMP 1 STA. 257+13.06 TO STA. 258+11.90
RAMP 2A STA. 255+76.13 TO STA. 256+75.00

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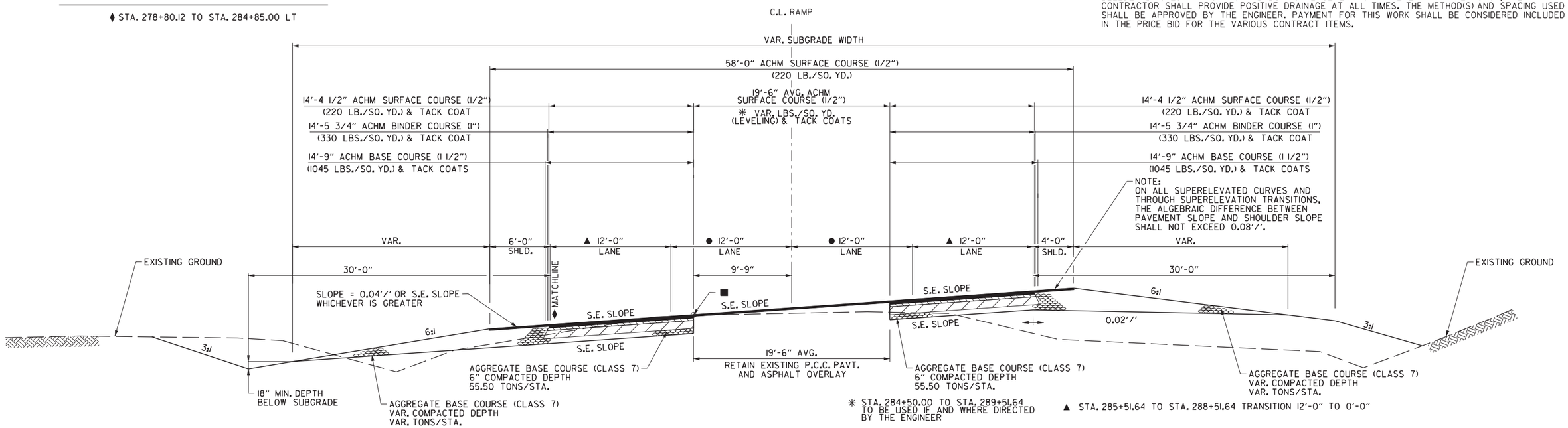
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✳ STA. 284+50.00 TO STA. 289+51.64 TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

▲ STA. 285+51.64 TO STA. 288+51.64 TRANSITION 12'-0" TO 0'-0"

● STA. 285+51.64 TO STA. 288+51.64 TRANSITION 12'-0" TO 7'-6"

■ CONTROL POINT WITH 2" MINIMUM OVERLAY AND POINT OF SUPERELEVATION ROTATION

RAMP TYPICAL SUPERELEVATED NOTCH & WIDEN SECTION

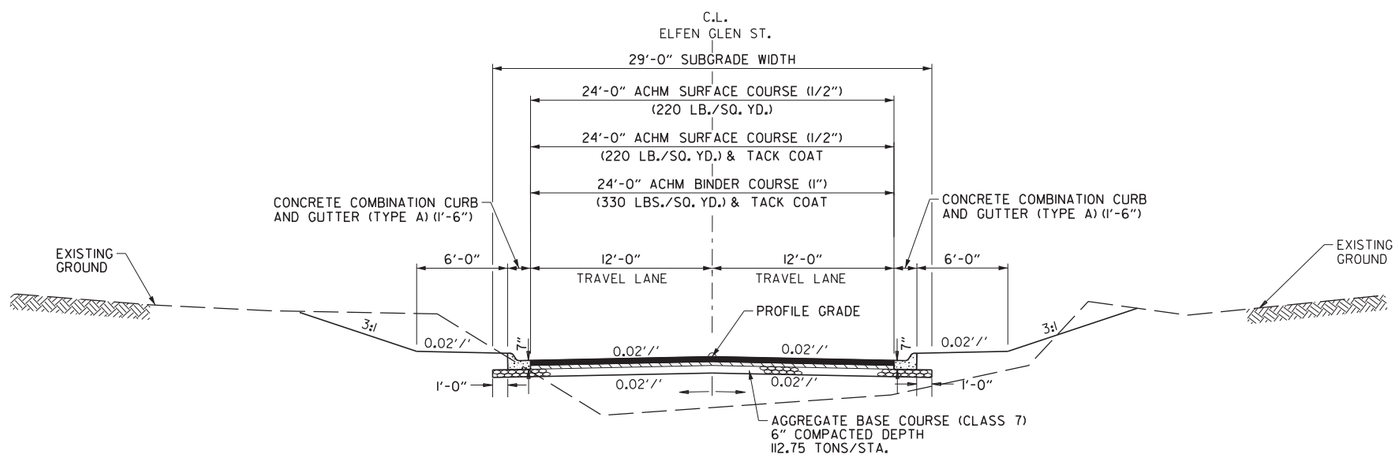
RAMP 3 STA. 278+80.12 TO STA. 288+51.64

TYPICAL SECTIONS OF IMPROVEMENT

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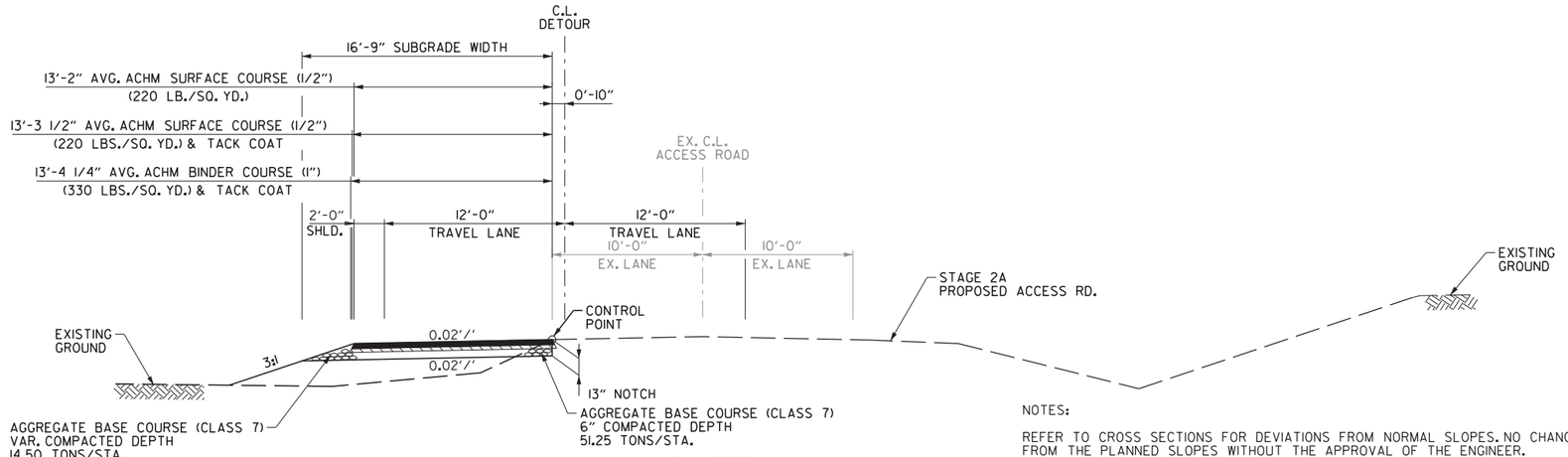
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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DIGITALLY SIGNED 03/18/2025



LOCAL ROAD TYPICAL SECTION

ELFEN GLEN ST. STA. 10+70.00 TO STA. 12+83.30



DETOUR
NOTCH AND WIDEN SECTION

DETOUR 1 STA. 10+00.00 TO STA. 11+28.00
DETOUR 1 STA. 14+65.00 TO STA. 16+00.85
DETOUR 2 STA. 20+00.00 TO STA. 21+35.00
DETOUR 2 STA. 30+20.00 TO STA. 31+24.79
DETOUR 3 STA. 40+09.00 TO STA. 41+65.00
DETOUR 3 STA. 50+34.00 TO STA. 51+64.00

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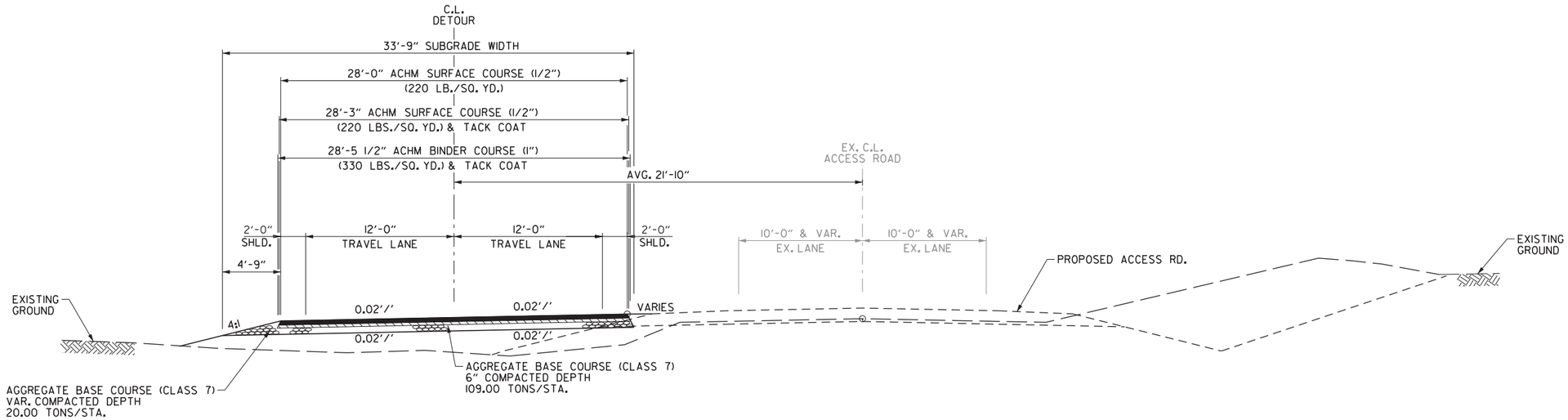
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DETOUR TYPICAL SECTION

DETOUR 1 STA. 11+28.00 TO STA. 14+65.00

NOTES:

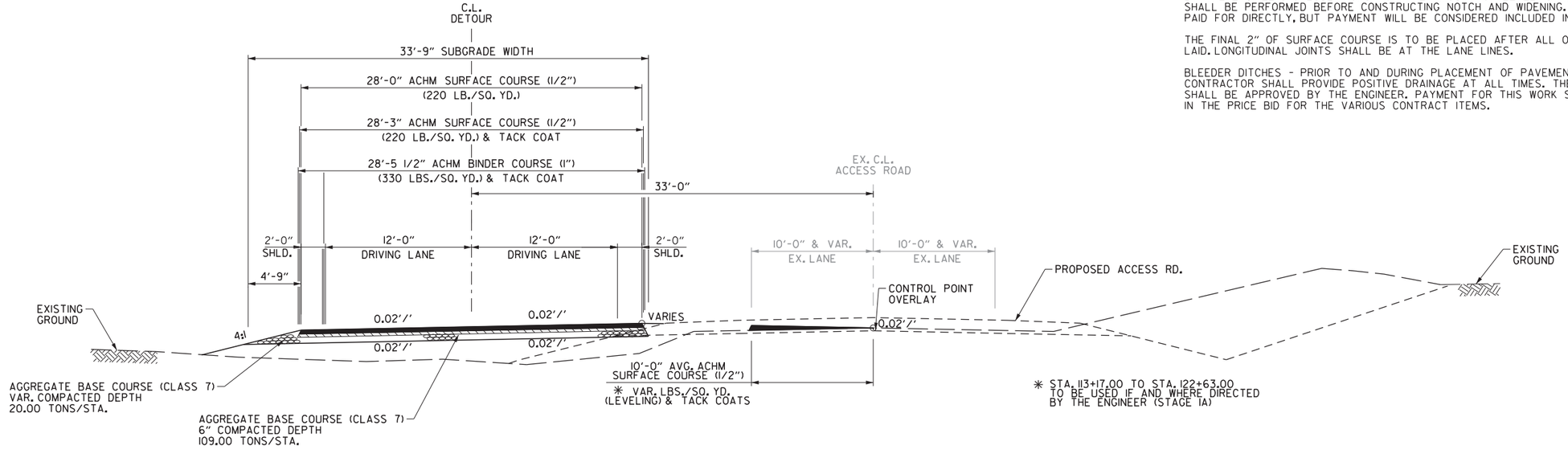
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THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



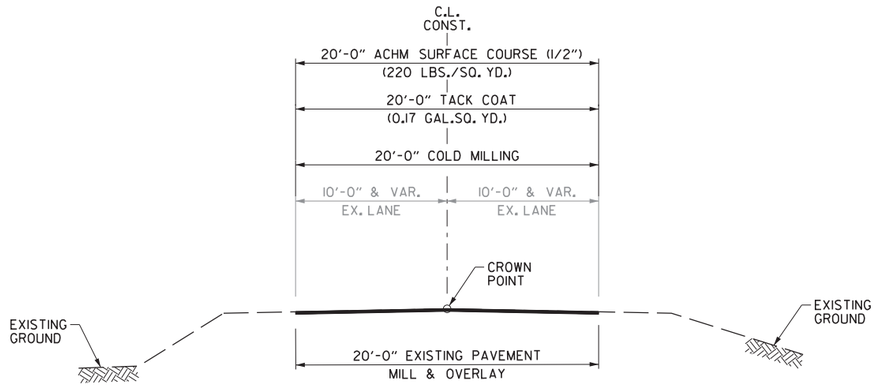
DETOUR TYPICAL SECTION

DETOUR 2 STA. 21+35.00 TO STA. 30+20.00
DETOUR 3 STA. 41+65.00 TO STA. 42+25.00
DETOUR 3 STA. 47+27.14 TO STA. 50+34.00

JATurner 3/18/2025 7:20:48 AM
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REVISED DATE:

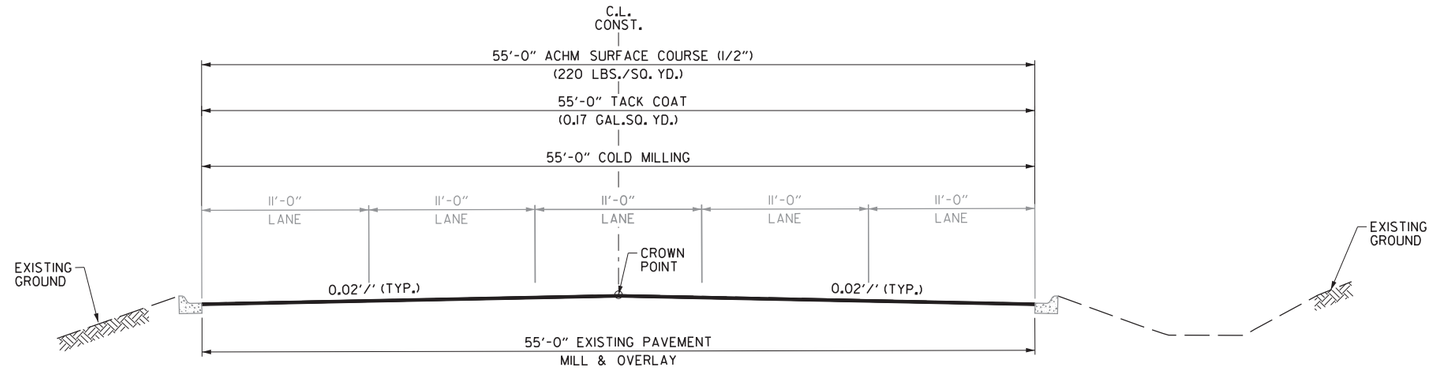
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		6	ARK.	040714	12	248
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
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NICHOLAS A. BRADDY
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TYPICAL OVERLAY SECTION ACCESS ROAD

STA. 76+25.00 TO STA. 100+50.00



TYPICAL OVERLAY SECTION HWY. 59

STA. 35+58.00 TO STA. 44+34.00

NOTES:

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

LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

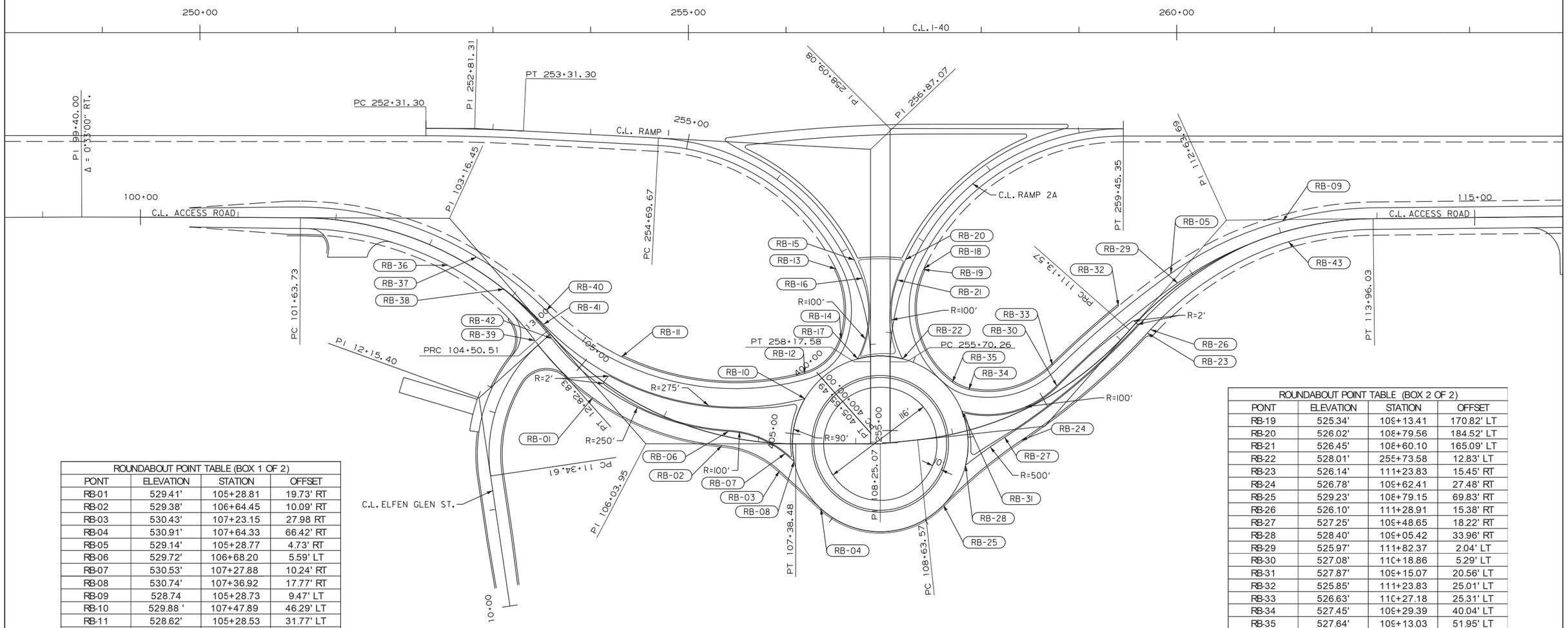
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	13	248
		SPECIAL DETAILS				

Scale: 1" = 100'

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ROUNDABOUT POINT TABLE (BOX 1 OF 2)			
PONT	ELEVATION	STATION	OFFSET
RB-01	529.41'	105+28.81	19.73' RT
RB-02	529.38'	106+64.45	10.09' RT
RB-03	530.43'	107+23.15	27.98 RT
RB-04	530.91'	107+64.33	66.42' RT
RB-05	529.14'	105+28.77	4.73' RT
RB-06	529.72'	106+68.20	5.59' LT
RB-07	530.53'	107+27.88	10.24' RT
RB-08	530.74'	107+36.92	17.77' RT
RB-09	528.74	105+28.73	9.47' LT
RB-10	529.88 '	107+47.89	46.29' LT
RB-11	528.62'	105+28.53	31.77' LT
RB-12	529.23'	107+47.81	71.98' LT
RB-13	525.21'	107+79.53	107.09' LT
RB-14	527.98'	107+84.86	107.09' LT
RB-15	525.75'	107+98.38	188.34' LT
RB-16	526.24'	108+06.62	169.52' LT
RB-17	528.57'	108+01.91	86.97' LT
RB-18	525.30'	109+15.17	171.87' LT

NOTE: ALL ROUNDABOUT POINTS BASED ON ACCESS ROAD ALIGNMENT

ROUNDABOUT POINT TABLE (BOX 2 OF 2)			
PONT	ELEVATION	STATION	OFFSET
RB-19	525.34'	109+13.41	170.82' LT
RB-20	526.02'	108+79.56	184.52' LT
RB-21	526.45'	108+60.10	165.09' LT
RB-22	528.01'	255+73.58	12.83' LT
RB-23	526.14'	111+23.83	15.45' RT
RB-24	526.78'	109+62.41	27.48' RT
RB-25	529.23'	108+79.15	69.83' RT
RB-26	526.10'	111+28.91	15.38' RT
RB-27	527.25'	109+48.65	18.22' RT
RB-28	528.40'	109+05.42	33.96' RT
RB-29	525.97'	111+82.37	2.04' LT
RB-30	527.08'	110+18.86	5.29' LT
RB-31	527.87'	109+15.07	20.56' LT
RB-32	525.85'	111+23.83	25.01' LT
RB-33	526.63'	110+27.18	25.31' LT
RB-34	527.45'	109+29.39	40.04' LT
RB-35	527.64'	109+13.03	51.95' LT
RB-36	527.70'	103+26.11	11.00' RT
RB-37	527.84'	103+47.70	11.00' LT
RB-38	528.33'	103+88.75	0.00
RB-39	528.40'	104+49.48	16.25 RT
RB-40	528.37'	104+34.57	13.15' LT
RB-41	528.65'	104+42.94	1.35' LT
RB-42	528.75'	104+59.20	1.99 RT

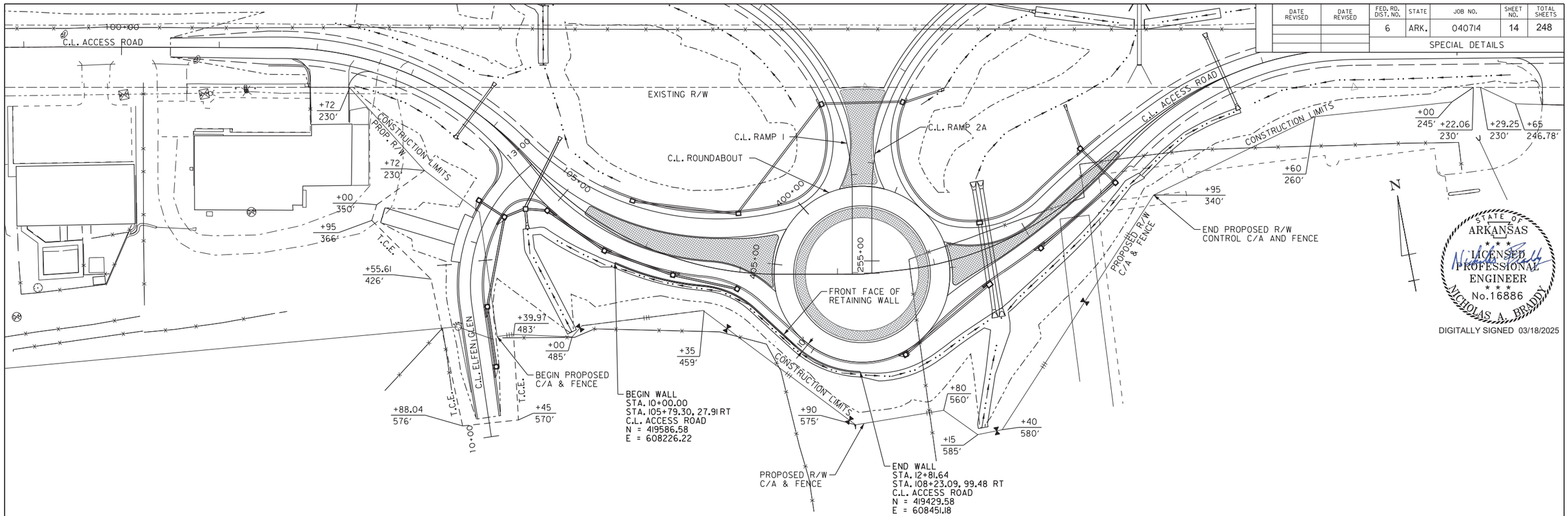
NOTE: ALL ROUNDABOUT POINTS BASED ON ACCESS ROAD ALIGNMENT

SPECIAL DETAILS - ROUNDABOUT

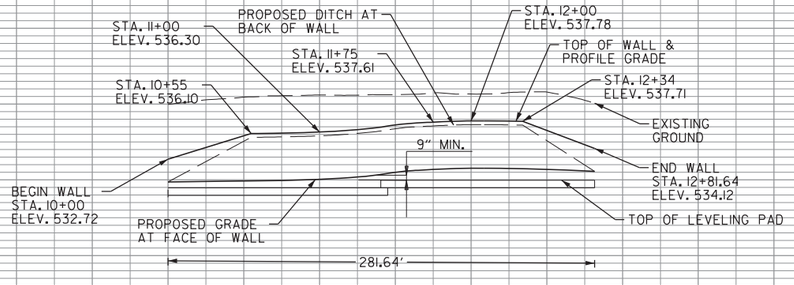
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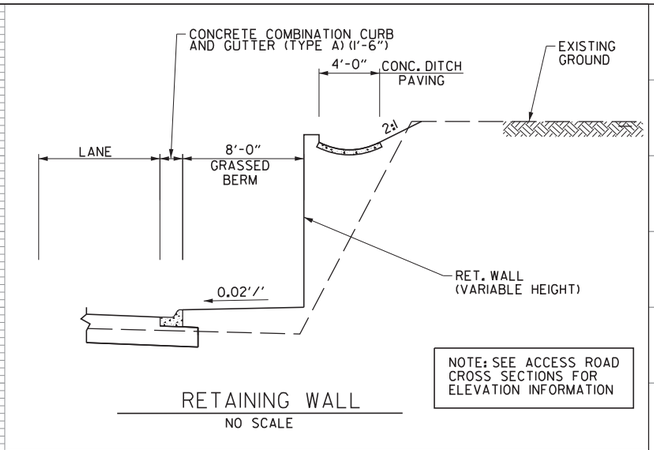
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SPECIAL DETAILS



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NICHOLAS A. BRADDY
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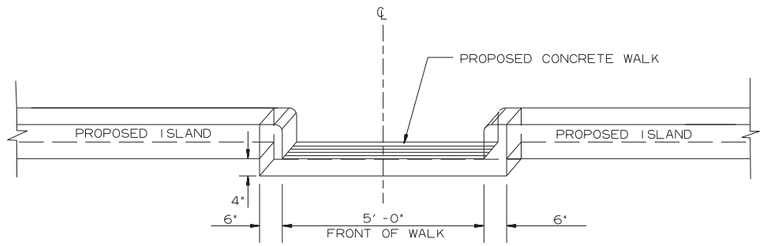
RETAINING WALL
NO SCALE

NOTE: SEE ACCESS ROAD CROSS SECTIONS FOR ELEVATION INFORMATION

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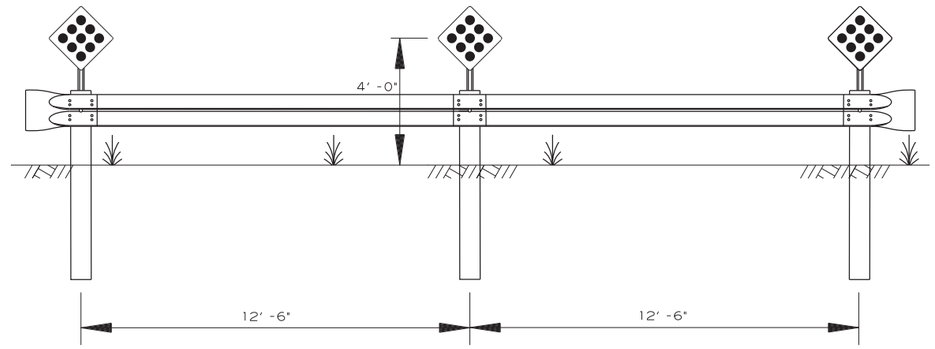
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FACE SHALL MEET REQUIREMENTS
OF TYPE B CURB

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

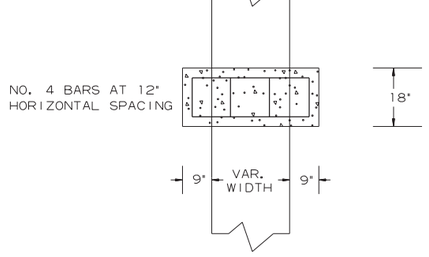
CONCRETE WALK THROUGH ISLAND



ROAD CLOSED DETAIL

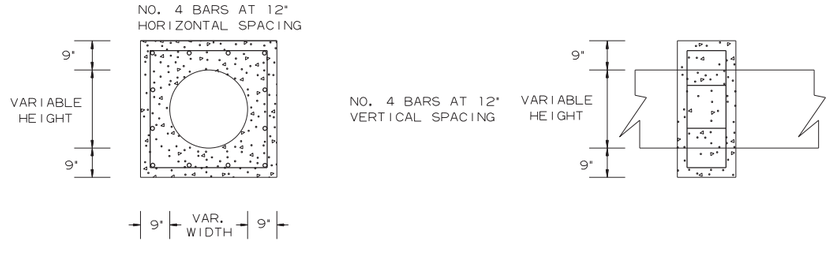
TO BE USED WHERE EXISTING ROADS WILL BE PERMANENTLY CLOSED. SEE PLAN SHEETS FOR LOCATIONS SEE STD. DWG. GR-5 FOR MORE DETAILS.

CONSTRUCT
25 LIN. FT. TYPE "C" GUARDRAIL
WITH 3 RED DIAMOND REFLECTORS
MOUNTED ON U-CHANNEL POSTS
DIRECTLY BEHIND THE GUARDRAIL
AT A HEIGHT OF 4'-0".



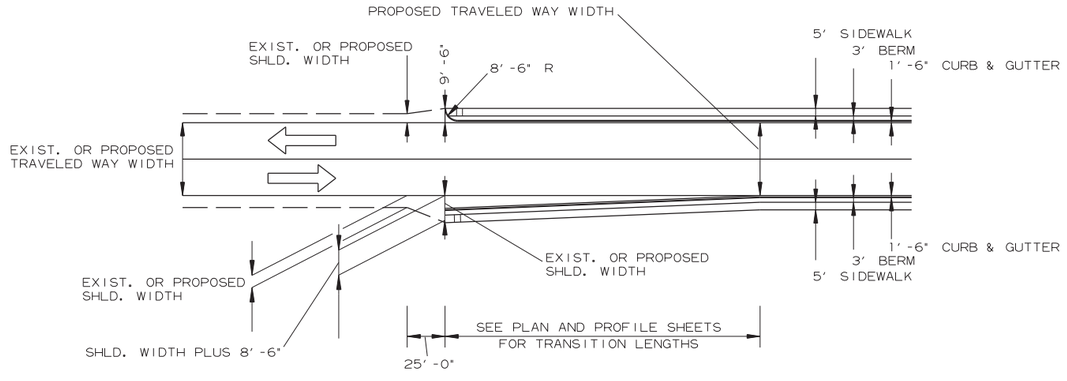
TOP VIEW

MIN 3" COVER



FRONT VIEW SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

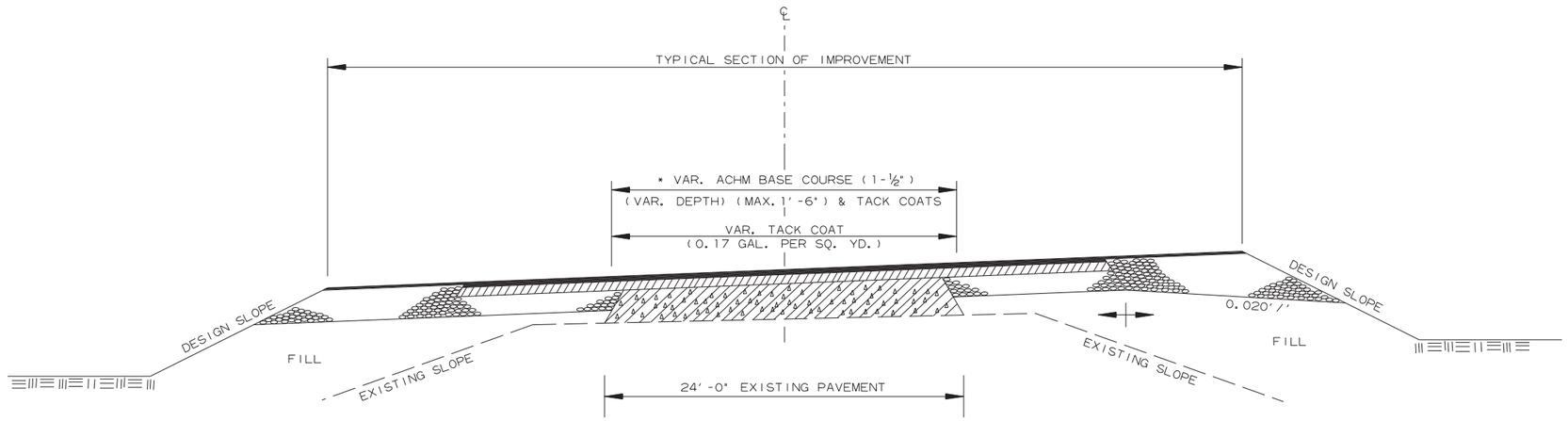


TRANSITION FROM OPEN SHOULDER TO CURB & GUTTER SECTION

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		SPECIAL DETAILS				

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* 6" AGGREGATE BASE COURSE (CLASS 7)
TO BE REPLACED WITH ACHM BASE COURSE (1-½")

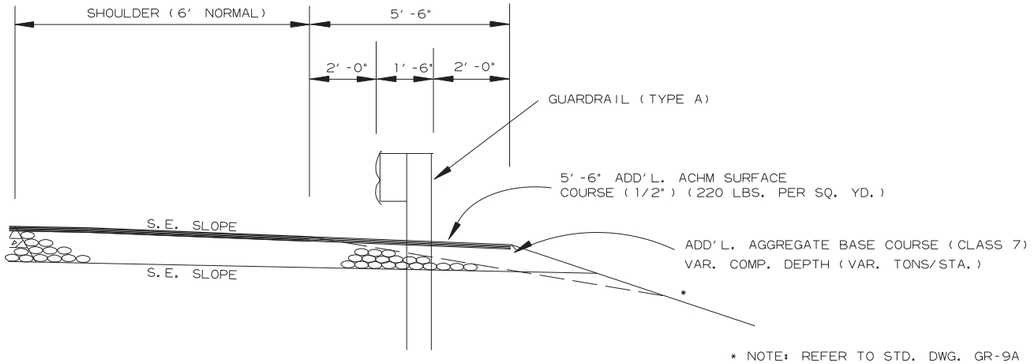
METHOD OF RAISING GRADE

NOTES:

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

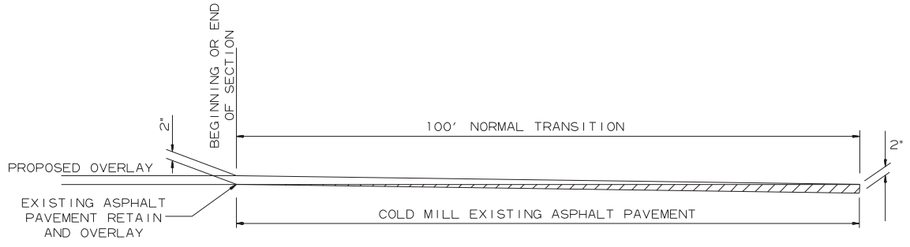
(2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.

(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.

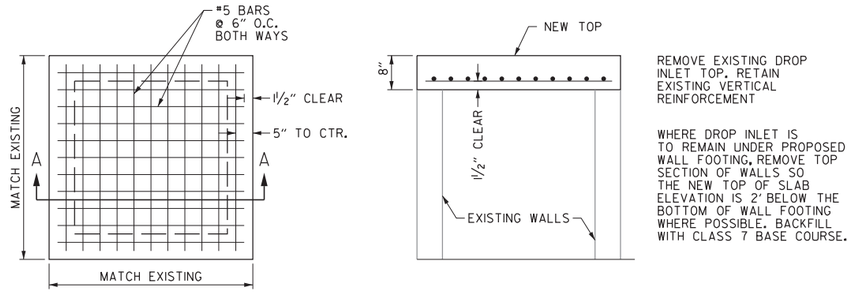


* NOTE: REFER TO STD. DWG. GR-9A AND CROSS SECTIONS FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.

WIDENING FOR GUARDRAIL



DETAIL FOR TRANSITIONS



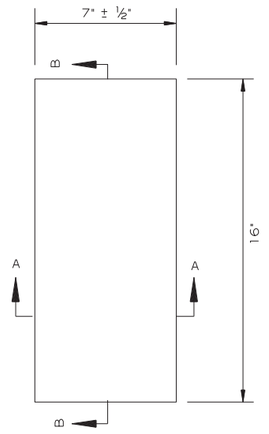
TOP VIEW SECTION A-A

DETAILS OF MODIFIED DROP INLET

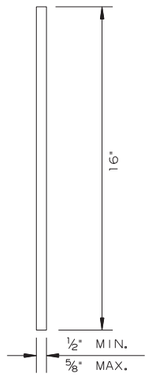
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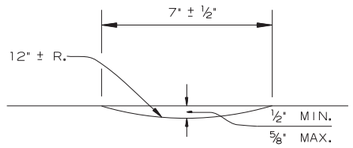
STATE OF ARKANSAS
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No.16886
NICHOLAS A. BRADDY
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PLAN

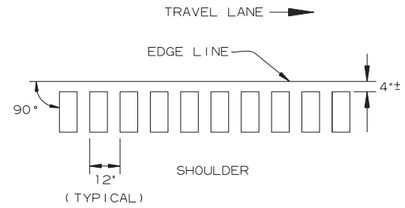


SECTION B-B

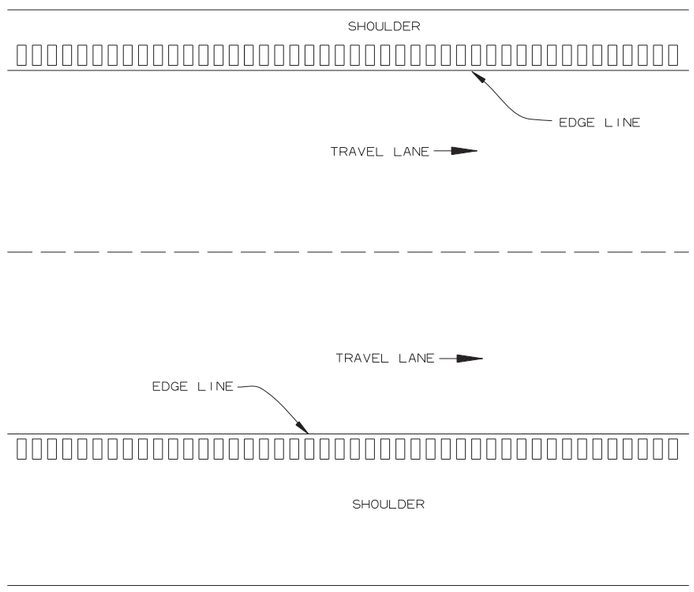


SECTION A-A

DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



PLAN VIEW

NOTES:

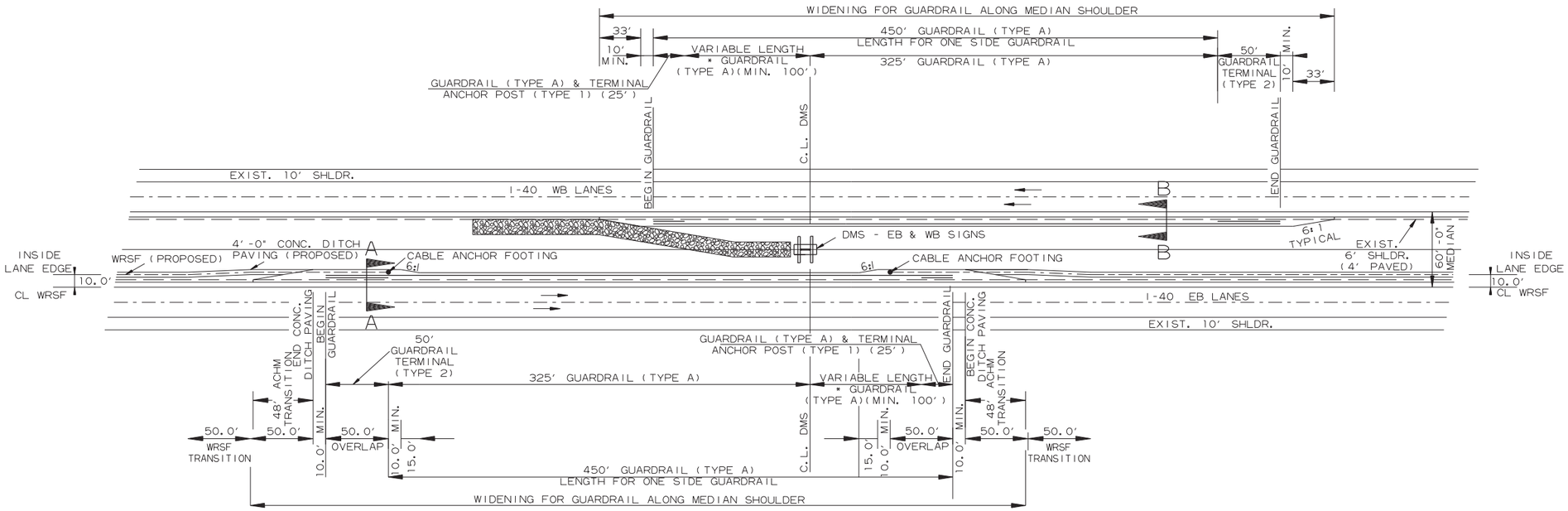
1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

SPECIAL DETAILS

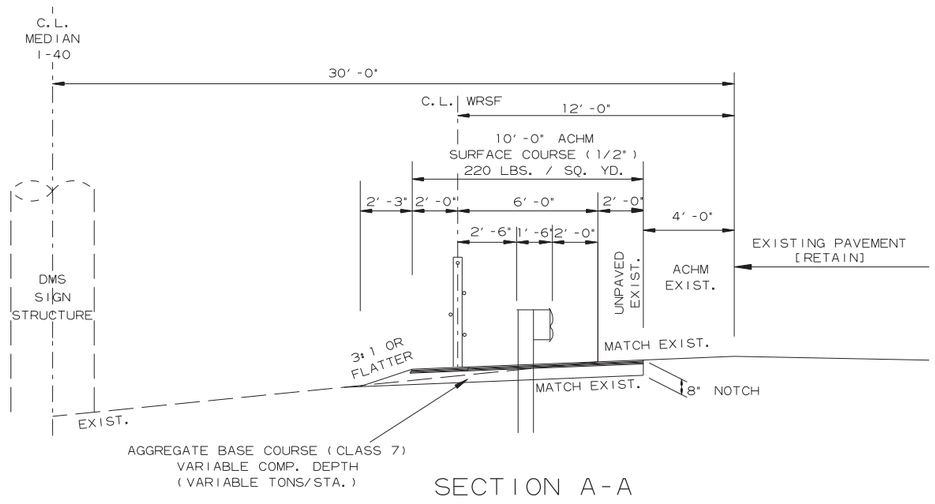
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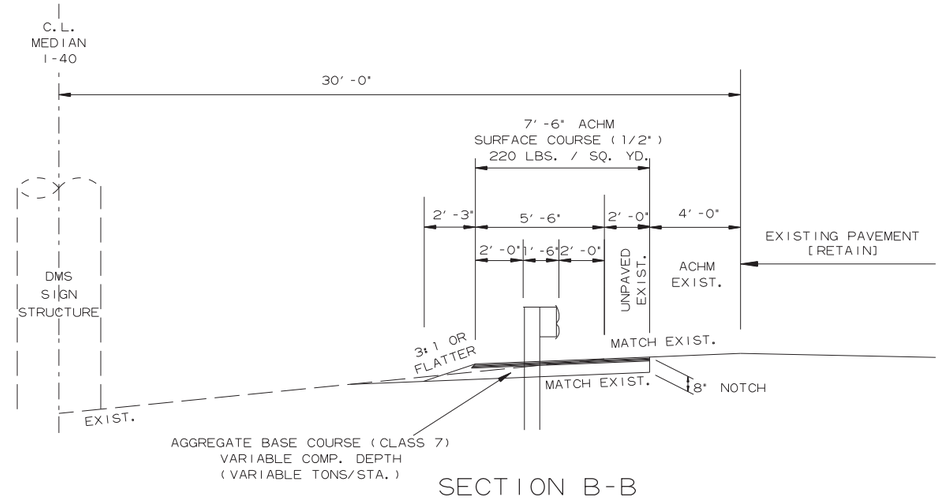
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DETAIL AT DMS STRUCTURE



SECTION A-A

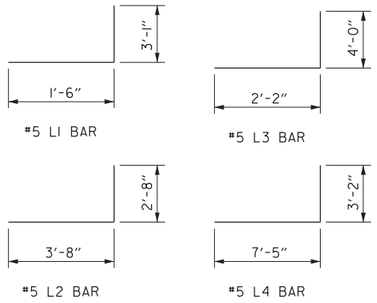


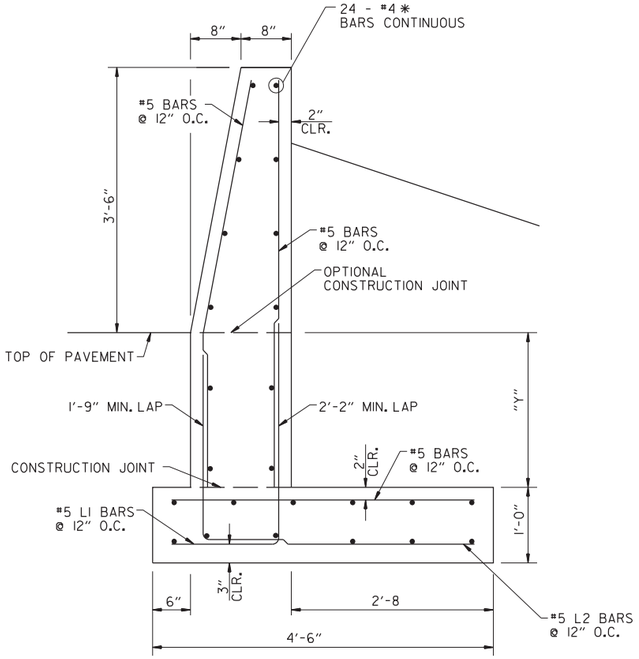
SECTION B-B

DETAILS OF SHOULDER WIDENING FOR GUARDRAIL AND OVERLAPS WITH ENDS OF WIRE ROPE SAFETY FENCE

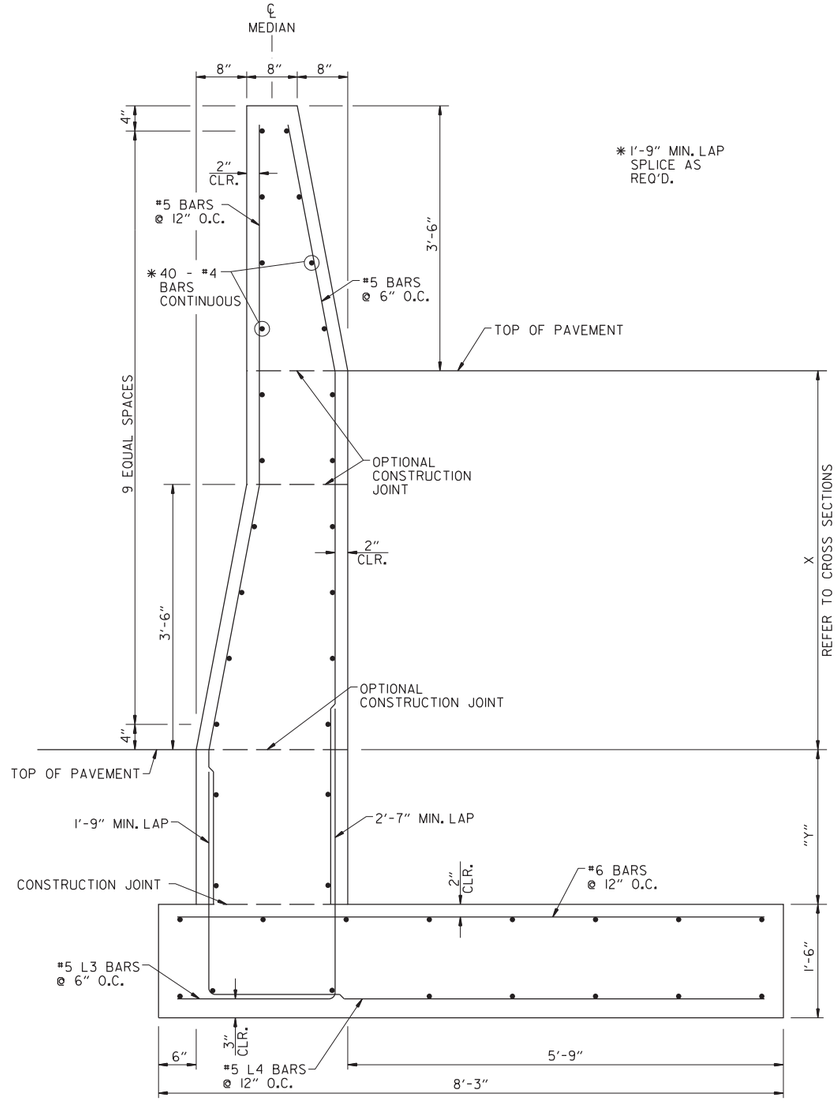
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		6	ARK.	040714	19	248
		SPECIAL DETAILS				





CONCRETE BARRIER WALL
(SIDE TYPE E; MASH TL-4)

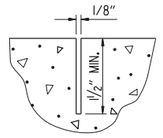


CONCRETE BARRIER WALL
(MEDIAN TYPE C; MASH TL-4)
X = 1'-0" TO 6'-7" MAX.

NOTE:
MAINTAIN 3" CLEARANCE ON ALL FOOTING REINFORCEMENT EXCEPT AS NOTED AND 2" CLEARANCE ON ALL OTHER REINFORCEMENT.

GENERAL NOTES FOR CONCRETE BARRIER WALL

1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 30'-0" MAXIMUM SPACING FOR BARRIER TYPE MEDIAN C & SP-2.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A 3/4" CHAMFER.
5. THE DESIGN OF BARRIER WALL (MEDIAN TYPE C) IS BASED ON A MINIMUM FOUNDATION BEARING CAPACITY OF ONE TON PER SQUARE FOOT. UNSTABLE FOUNDATION MATERIAL SHALL BE REMOVED AND REPLACED TO PROVIDE A FIRM FOUNDATION AS DIRECTED BY THE ENGINEER.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 120 FT. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.



CONTRACTION
JOINT DETAIL

"Y" = THICKNESS OF PAVEMENT AND SUBGRADE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8017
JOHN H. RUDDELL
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② For Wing B Dimensions and Reinforcement, see Sheet No. 26.

③ Includes Quantity for Wing B as Shown on Sheet No. 26.

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B②	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B②	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B②	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B②	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B②
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
43'-0"	5'-0"	0'-9"	0'-8"	30	3:1	48'-6"	1'-0"	5'-10"	1'-8"	30	~~30~~	2'-2"	2'-11 3/4"	~~2'-11 3/4"~~	0'-11 1/4"	~~0'-11 1/4"~~	14'-0"	~~14'-0"~~	14'-4 5/8"	~~13'-8 1/2"~~

CLASS "S" CONCRETE (Includes apron) INLET	REINFORCING STEEL (Includes apron and laps if required) INLET
CU.YD	LBS.
③ ~~8.18~~ 12.06	③ ~~638~~ 940

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS		F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS		F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY		
WING A	4	12	14	L	Min	2'-10"	-	-	-	L	-	-	-	-	L	-	4	18	6	Min	4	18	2	13'-8"	4	18	10	L	Min	3'-3"
					Max	7'-6"														2'-1"									Max	7'-3"
				X	Min	0'-9"				X	-				X	-				Max								X	Min	1'-4"
					Max	1'-7"														12'-2"									Max	1'-4"
				Y	Min	2'-2"				Y	-				Y	-												Y	Min	2'-0"
					Max	6'-0"																							Max	6'-0"
WING B ②	4	12	14	L	Min	2'-10"	-	-	-	L	-	-	-	-	L	-	4	18	6	Min	4	18	2	13'-8"	4	18	10	L	Min	3'-3"
					Max	7'-6"														2'-1"									Max	7'-3"
				X	Min	0'-9"				X	-				X	-				Max								X	Min	1'-4"
					Max	1'-7"														12'-2"									Max	1'-4"
				Y	Min	2'-2"				Y	-				Y	-												Y	Min	2'-0"
					Max	6'-0"																							Max	6'-0"

WING	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	6	15'-3"	6	18	10	Min	-	-	-	Min	4	2	14'-2"	4	2	15'-8"	6	12	5	L	3'-4"	323
							1'-8"				-												
							Max				Max										X	1'-8"	
							2'-6"				-												
WING B ②	4	6	13'-4"	6	18	10	Min	-	-	-	Min	4	2	14'-2"	4	2	15'-8"	6	12	5	L	3'-4"	315
							1'-8"				-												
							Max				Max										X	1'-8"	
							2'-6"				-												

MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.16886 NICHOLAS A. BRADY

DIGITALLY SIGNED 03/18/2025

TABULAR DATA BY: HBV DATE: 7/20/2021
CHECKED BY: NAB DATE: 9/20/2022

This drawing to be used in conjunction with SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE', SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT', SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH
30	3	5	10	5	14'-5"	12	3	12	6	8	43'-0"	7'-0"

TOP SLAB "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	"c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D	BOTTOM SLAB "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	"f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
5	6	Max 42'-8" Min 3'-0"	46	5	7.5	Max 42'-8" Min 3'-0"	37	4	5.5	Max 42'-8" Min 3'-0"	50	4	7.5	Max 42'-8" Min 3'-0"	37
		42'-8"	4			42'-8"	4			42'-8"	5			42'-8"	4

SIDE WALL "f0" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL "f1" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION "g" SIZE	SPACING	NO. REQ'D	LENGTHS VARY	BOTTOM SLAB DISTRIBUTION "e" SIZE	SPACING	NO. REQ'D	LENGTHS VARY
4	5.5	64	6'-8"	4	12	94	6'-8"	4	9	119	Max 26'-8" Min 1'-10"	4	9	119	Max 26'-8" Min 1'-10"

SIDE WALL DISTRIBUTION "d1" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL DISTRIBUTION "d2" SIZE	SPACING	NO. REQ'D	LENGTH	CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	① REINFORCING STEEL (GR 60) (Includes HDWL) LBS.
4	12	5	LONG 26'-6"	4	12	10	LONG 20'-5"	54.91	7740
		5	SHORT 2'-0"			10	MID 14'-3"		
						10	SHORT 8'-0"		

"k1" HDWL BARS SIZE	LENGTH	NO. REQ'D	"k2" HDWL BARS SIZE	LENGTH	NO. REQ'D	"h" HDWL BARS SIZE	LENGTH	Y	NO. REQ'D
4	25'-6"	12	4	25'-6"	12	4	1'-11"	0'-11"	51

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.) D	CLEAR SPAN (FT.) S	CLEAR HEIGHT (FT.) H	TOP SLAB THK. T	BOTTOM SLAB THK B	SIDE WALL THK C	INTERIOR WALL THK. W	OVER ALL WIDTH OW	OVER ALL HEIGHT OH	SECTION LENGTH (FT.) SL	TOP SLAB REINFORCING STEEL (LENGTH = OW - 4" + BENDS) "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D	BOTTOM SLAB REINFORCING STEEL (LENGTH = OW - 4" + BENDS) "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D

SIDE WALL REINFORCING STEEL "f0" (LENGTH = OH - 4") SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" (LENGTH = OH - 4") SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" (LENGTH = SL) SIZE	SPACING	NO. REQ'D

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.40	#VALUE!

HDWL DEPTH. HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	Y	LENGTH	NO. REQ'D

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.) D	CLEAR SPAN (FT.) S	CLEAR HEIGHT (FT.) H	TOP SLAB THK. T	BOTTOM SLAB THK. B	SIDE WALL THK. C	INTERIOR WALL THK. W	OVER ALL WIDTH OW	OVER ALL HEIGHT OH	SECTION LENGTH (FT.) SL	TOP SLAB REINFORCING STEEL (LENGTH = OW - 4" + BENDS) "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	'c" SIZE	'c" L	SPACING	NO. REQ'D	BOTTOM SLAB REINFORCING STEEL (LENGTH = OW - 4" + BENDS) "d' SIZE	"d' L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D
A	5	10	5	12	12	6	8	43'-0"	7'-0"	133.2	5	42'-8"	7	43'-9"	4	42'-8"	17	93	4	42'-8"	4	43'-8"	4	42'-8"	11	145

SIDE WALL REINFORCING STEEL "f0" (LENGTH = OH - 4") SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" (LENGTH = OH - 4") SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" (LENGTH = SL) SIZE	SPACING	NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
4	5.5	580	6'-8"	4	12	798	6'-8"	4	9	119	4	9	119	4	12	10	4	12	30	498.14	61141

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT

QUADRUPLE BARREL BOX CULVERT
STA. 130+60

SPECIAL DETAILS

JATurner 3/18/2025 7:21:04 AM
WORKSPACE: AHTD
L:\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_S0_05.dgn
REVISED DATE: V.1.17

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	21	248
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADY
DIGITALLY SIGNED 03/18/2025

TABULAR DATA BY: HBV DATE: 07/20/2021
CHECKED BY: NAB DATE: 9/20/2022

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT		WINGWALL ANGLE (DEGREE)		FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL		FOOTING DIMENSION PARALLEL WITH HDWL		LENGTH OF WINGWALLS		LENGTH OF FOOTING HEEL	
								AT HDWL	AT WING END	WING A	WING B		WING A	WING B	WING A	WING B	WING A	WING B	WING A	WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
43'-0"	5'-0"	0'-9"	0'-8"	30	3:1	48'-6"	1'-0"	5'-10"	1'-8"	30	30	2'-2"	2'-11 3/4"	2'-11 3/4"	0'-11 1/4"	0'-11 1/4"	14'-0"	14'-0"	14'-4 5/8"	13'-8 1/2"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
9.66	638

WING	F1					F2				F3				F4				F5				F6					F7			F8				F9				F10			F11			F12				REINF. STEEL QTY. PER WING (LBS)
	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS VARY		BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS VARY	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS VARY		BAR SIZE	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	NO. REQ'D	LENGTHS	BAR SIZE	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	
WING A	4	12	14	L	Min 2'-10"	-	-	-	-	-	-	-	-	4	18	6	Min	4	18	2	13'-8"	4	18	10	L	Min 3'-3"	4	6	15'-3"	6	18	10	Min	-	-	-	Min	4	2	14'-2"	4	2	15'-8"	6	12	5	L 3'-4"	323
					Max 7'-6"												2'-1"									Max 7'-3"							1'-8"			-										X 1'-8"	
				X	Min 0'-9"												Max								X	Min 1'-4"							Max			-										
					Max 1'-7"												12'-2"									Max 1'-4"							2'-6"			-										
				Y	Min 2'-2"																				Y	Min 2'-0"																				
					Max 6'-0"																					Max 6'-0"																				
WING B	4	12	14	L	Min 2'-10"	-	-	-	-	-	-	-	-	4	18	6	Min	4	18	2	13'-8"	4	18	10	L	Min 3'-3"	4	6	13'-4"	6	18	10	Min	-	-	-	Min	4	2	14'-2"	4	2	15'-8"	6	12	5	L 3'-4"	315
					Max 7'-6"												2'-1"									Max 7'-3"							1'-8"			-										X 1'-8"	
				X	Min 0'-9"												Max								X	Min 1'-4"							Max			-										
					Max 1'-7"												12'-2"									Max 1'-4"							2'-6"			-										
				Y	Min 2'-2"																				Y	Min 2'-0"																				
					Max 6'-0"																					Max 6'-0"																				

Min. Bar Lap Lergth	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

OUTLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL								BOTTOM SLAB REINFORCING STEEL								SIDE WALL REINFORCING STEEL				INTERIOR WALL REINFORCING STEEL				TOP SLAB DISTRIBUTION REINFORCING STEEL				BOTTOM SLAB DISTRIBUTION REINFORCING STEEL				SIDE WALL DISTRIBUTION REINFORCING STEEL				INTERIOR WALL DISTRIBUTION REINFORCING STEEL				CLASS "S" CONCRETE (Includes HDWL)	① REINFORCING STEEL (GR 60) (Includes HDWL)
													"a"				"c"				"d"				"f"				"f0"				"f1"				"g"				"e"				"d1"				"d2"					
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	CU. YDS.	LBS.
30	3:1	5	10	5	14'-5"	12	3	12	6	8	43'-0"	7'-0"	5	6	Max 42'-8" / Min 3'-0"	46	5	7.5	Max 42'-8" / Min 3'-0"	37	4	5.5	Max 42'-3" / Min 3'-C"	50	4	7.5	Max 42'-8" / Min 3'-0"	37	4	5.5	64	6'-8"	4	12	94	6'-8"	4	9	119	Max 26'-8" / Min 1'-10"	4	9	119	Max 26'-8" / Min 1'-10"	4	12	5	LONG 26'-6" / SHORT 2'-0'	4	12	10	LONG 20'-5" / MID 14'-3" / SHORT 8'-0"	54.91	7740

"k1" HDWL BARS			"k2" HDWL BARS			"h" HDWL BARS			
SIZE	LENGTH	NO. REQ'D	SIZE	LENGTH	NO. REQ'D	SIZE	LENGTH	Y	NO. REQ'D
4	25'-6"	12	4	25'-6"	12	4	1'-11"	0'-11"	51

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK	SIDE WALL THK	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS								BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS								SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4"				INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4"				TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL			BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL			SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL			INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL			CLASS "S" CONCRETE	REINFORCING STEEL (GR. 60)
											"a"		Bent "b"		"c"				"d"		Bent "b1"		"f"																													
	D	S	H	T	B	C	W	OW	OH	SL	SIZE	L	SIZE	L	SIZE	L	SPACING	NO. REQ'D	SIZE	L	SIZE	L	SIZE	L	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	SIZE	SPACING	NO. REQ'D	CU. YDS.	LBS.

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS			
HD	LBS.	SIZE	Y	LENGTH	NO. REQ'D

TOTAL	
0.40	#VALUE!

The required number of bars and lengths shown are for estimating purpose only.
The actual number and length required shall be determined in field.

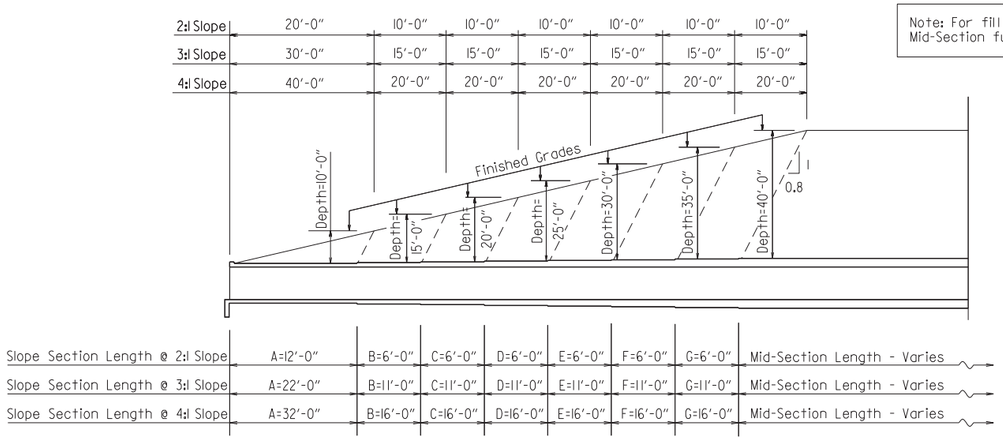
Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2
DETAILS OF R.C. BOX CULVERT
QUADRUPLE BARREL BOX CULVERT
STA. 130+60

SPECIAL DETAILS

JATurner 3/18/2025 7:20:13 AM
WORKSPACE: AHTD
L:\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_SD_05.dgn
REVISED DATE: V 1.17

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	22	248
		SPECIAL DETAILS				



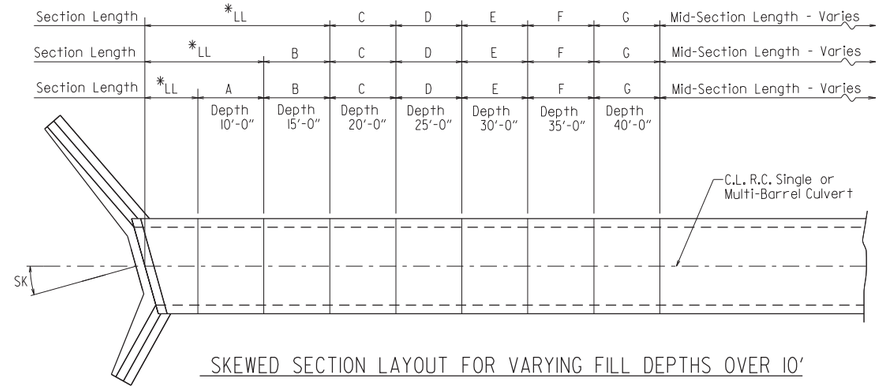
Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

* LL = Skewed End Section Length - See "Skewed End Section Details" Length LL varies with skew angle, overall box width and fill depth and may eliminate the need for some slope section lengths as shown.

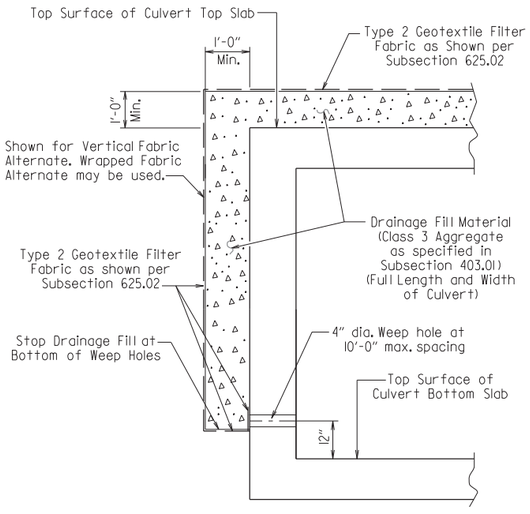
Slope Section Length @ 2:1 Slope	A=12'-0"	B=6'-0"	C=6'-0"	D=6'-0"	E=6'-0"	F=6'-0"	G=6'-0"	Mid-Section Length - Varies
Slope Section Length @ 3:1 Slope	A=22'-0"	B=11'-0"	C=11'-0"	D=11'-0"	E=11'-0"	F=11'-0"	G=11'-0"	Mid-Section Length - Varies
Slope Section Length @ 4:1 Slope	A=32'-0"	B=16'-0"	C=16'-0"	D=16'-0"	E=16'-0"	F=16'-0"	G=16'-0"	Mid-Section Length - Varies

LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'

Lengths for Non-Skewed Boxes

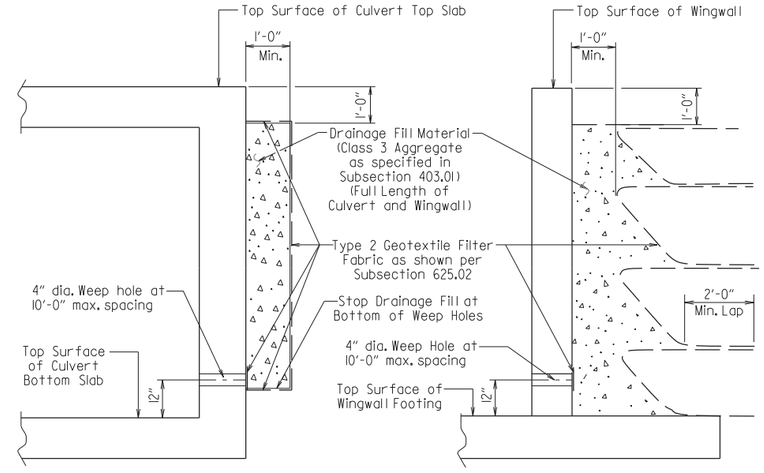


SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'



CULVERT DRAINAGE DETAIL FOR ROCK FILL

This detail shall be used when rock fill is specified for embankment construction.

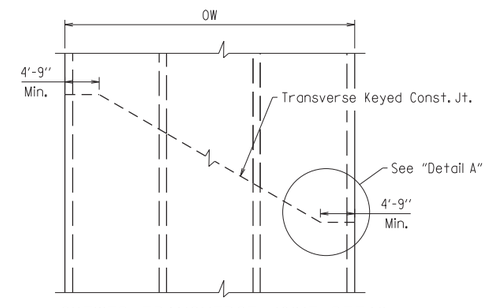


For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

VERTICAL FABRIC ALTERNATE
(Shown for Culvert, Similar for Wingwall)

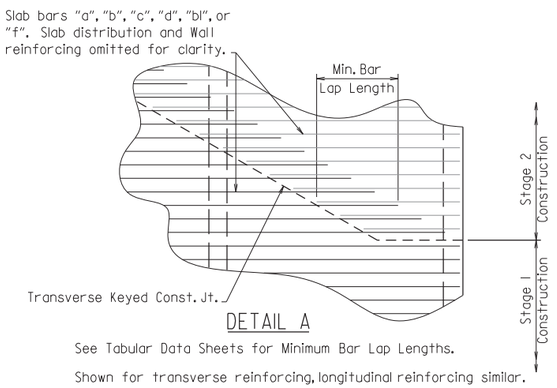
WRAPPED FABRIC ALTERNATE
(Shown for Wingwall, Similar for Culvert)

WINGWALL & CULVERT DRAINAGE DETAIL



SKEWED TRANSVERSE JOINT DETAIL

This detail shall be used to construct a skewed transverse joint only for Multi-Barrel Culverts and only when required by the Maintenance of Traffic Plans. Otherwise, transverse joints should be made normal to the centerline of the barrel.



DETAIL A

See Tabular Data Sheets for Minimum Bar Lap Lengths.

Shown for transverse reinforcing, longitudinal reinforcing similar.

GENERAL NOTES:

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

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010) with 2010 interim revisions.

LIVE LOADING: HL-93

All concrete shall be Class S with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have ¾" chamfers.

Reinforcing Steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports.

Reinforcing Steel Tolerances: The tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.

Excavation and backfilling shall be in accordance with the requirements of Section 801.

Membrane Waterproofing shall conform to the requirements of Section 815. Membrane Waterproofing shall be Type C and as directed by the Engineer applied to all construction joints in the top slab and the sidewalls of R.C. Box culverts and to the construction joint between wingwalls and R.C. Box culvert walls.

Weep Holes in box culvert walls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. The drain opening shall be 4" diameter and shall be placed 12" above the top of the bottom slab.

Weep Holes in wingwalls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. There shall be a minimum of two (2) weep holes in each wingwall. The drain opening shall be 4" diameter and shall be placed 12" above the top of the wingwall footing.

The barrel components of the culvert may be constructed using continuous pours. For longer culvert construction, the Contractor may use multiple pours with transverse construction joints spaced a minimum of 50 feet apart unless superseded by stage construction or site constraints as approved by the Engineer. Construction joints between footings and walls shall be made only where shown in the Plans. Joints shall be keyed and shall be normal to the centerline of barrel except as noted. Reinforcing shall be continuous through joints unless noted otherwise. Reinforcing through stage construction joints shall provide the minimum bar lap length shown on the Tabular Data Sheets. All longitudinal construction joints shall be submitted to the Engineer for approval.

Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class S Concrete.

When the top slab of the box culvert serves as finished roadway surface, curing and finishing shall be in accordance with subsections 802.17 and 802.20 for bridge roadway surface and a tine finish shall be applied in accordance with subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Curing and finishing shall not be paid for directly, but shall be considered incidental to the item "Class S Concrete-Roadway". Class 1 Protective Surface Treatment shall be applied to the roadway surface and this work shall be paid for under the unit price bid for "Class 1 Protective Surface Treatment".

When precast reinforced concrete box culverts are substituted for cast in place box culverts, they shall be manufactured according to ASTM C 1577 and meet the requirements of Section 607. When the top slab of the box culvert serves as the finished roadway surface, a precast reinforced concrete box culvert substitution is not allowed.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

SHEET 1 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

GENERAL NOTES &
LONGITUDINAL SECTION LENGTH SCHEDULE

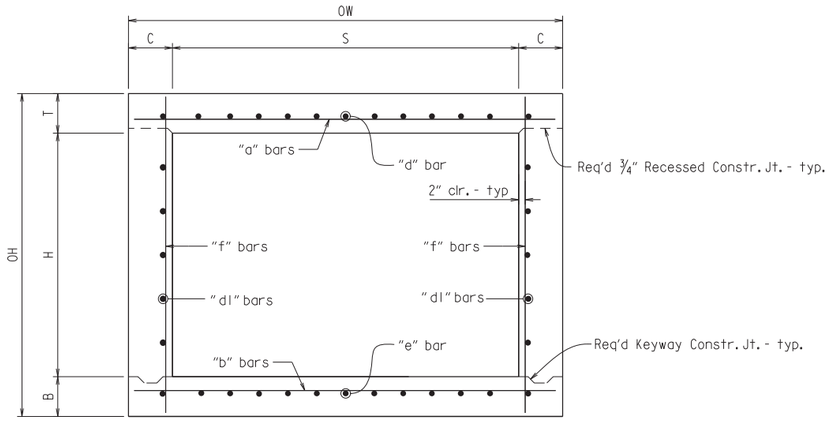
SPECIAL DETAILS

LRFD

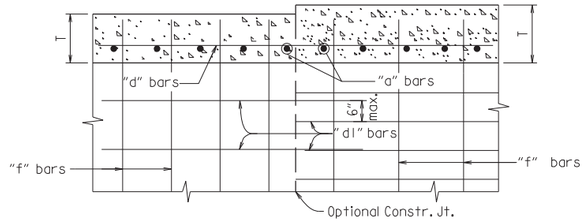
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	23	248
		SPECIAL DETAILS				

Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



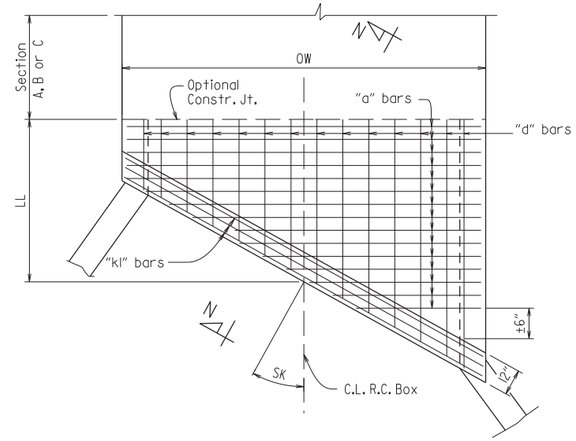
TYPICAL SECTION M-M



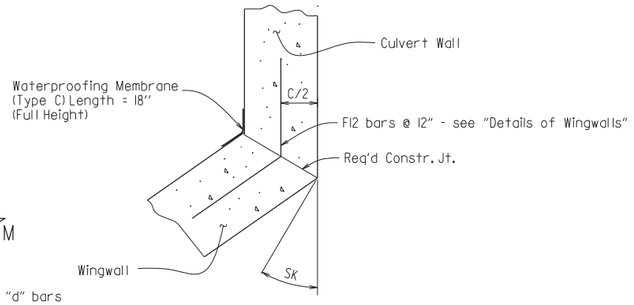
Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

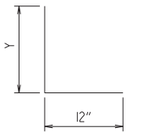


TOP SLAB REINFORCEMENT

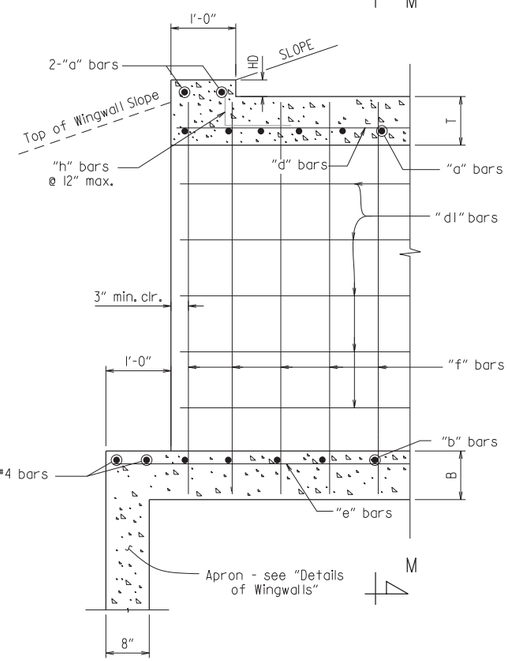


WINGWALL ATTACHMENT

See "Details of Wingwalls" for additional information and wingwall details.

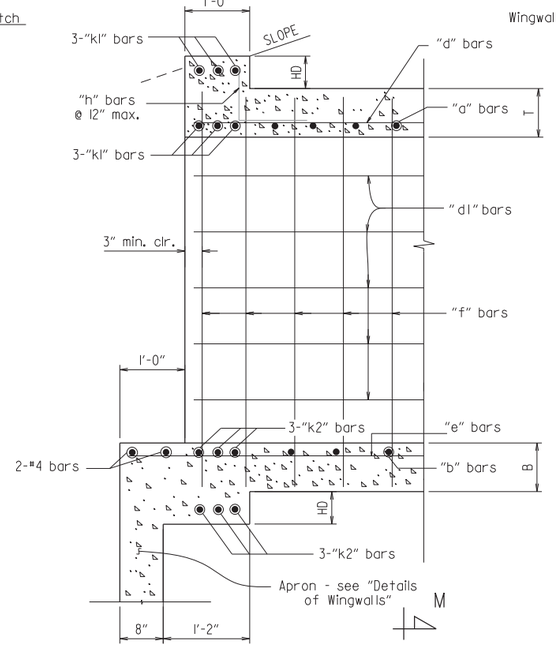


"h" bars sketch



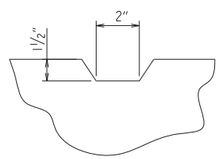
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



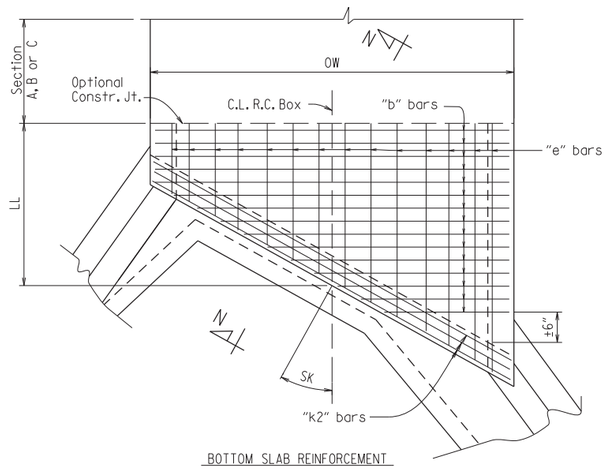
PART LONGITUDINAL SECTION N-N

(Skewed Ends)



TYPICAL KEYWAY DETAIL

(All Construction Joints)



BOTTOM SLAB REINFORCEMENT

SKEWED END SECTION DETAILS

SHEET 2 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF SINGLE BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

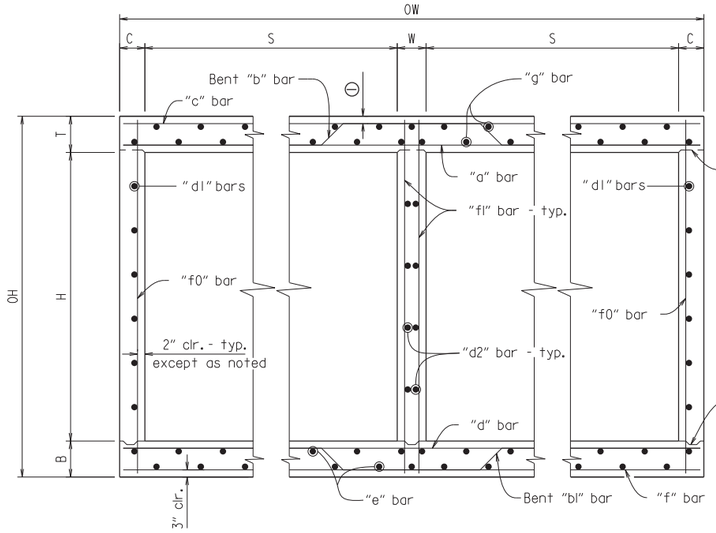
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	24	248
		SPECIAL DETAILS				

① 2" clr. for fill depth (D) greater than 2 ft.
2½" clr. for fill depth (D) equal to or less than 2 ft.

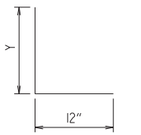
Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



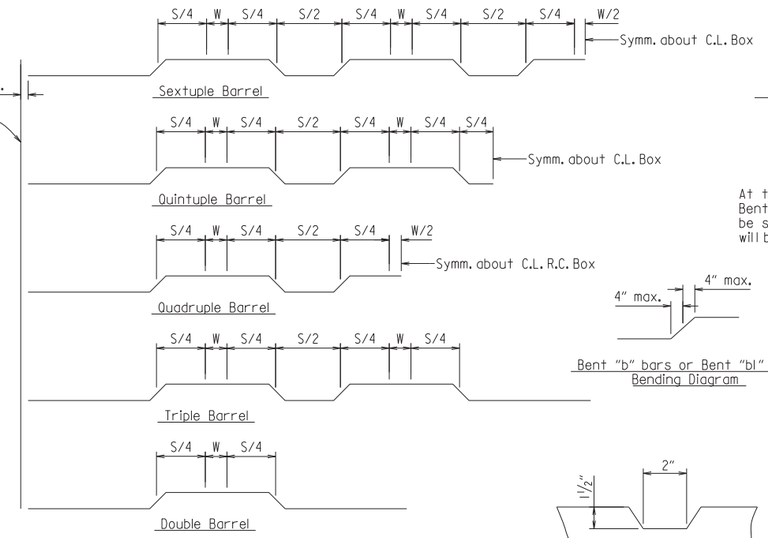
TYPICAL SECTION M-M

Top Slab
Straight "c" bars shall alternate with Bent "b" bars in top.
Straight "a" bars shall alternate with Bent "b" bars in bottom.

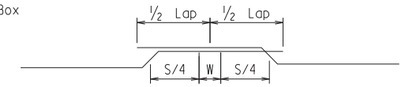
Bottom Slab
Straight "d" bars shall alternate with Bent "bl" bars in top.
Straight "f" bars shall alternate with Bent "bl" bars in bottom.



"h" bars sketch



Bent "b" bars or Bent "bl" bars sketch

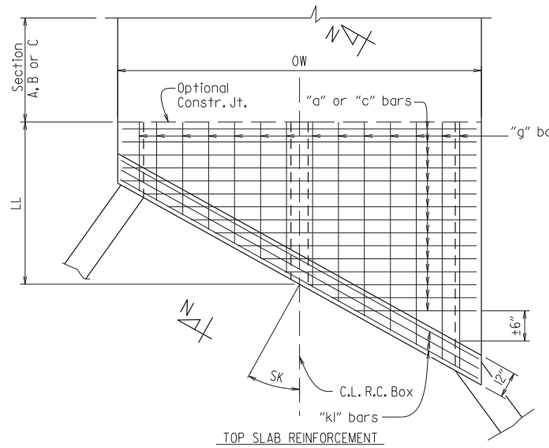


Lap Detail
For Bent "b" bars and Bent "bl" bars

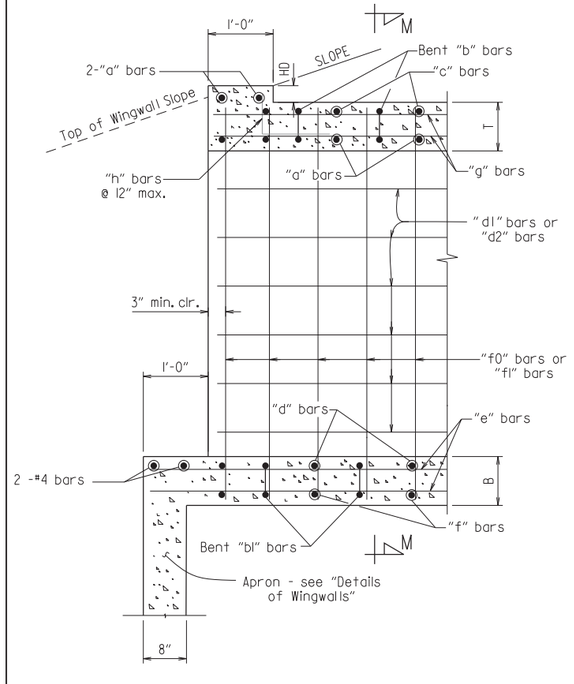
At the Contractor's option in lieu of providing Bent "b" or Bent "bl" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "bl" bar.

Bent "b" bars or Bent "bl" bars Bending Diagram

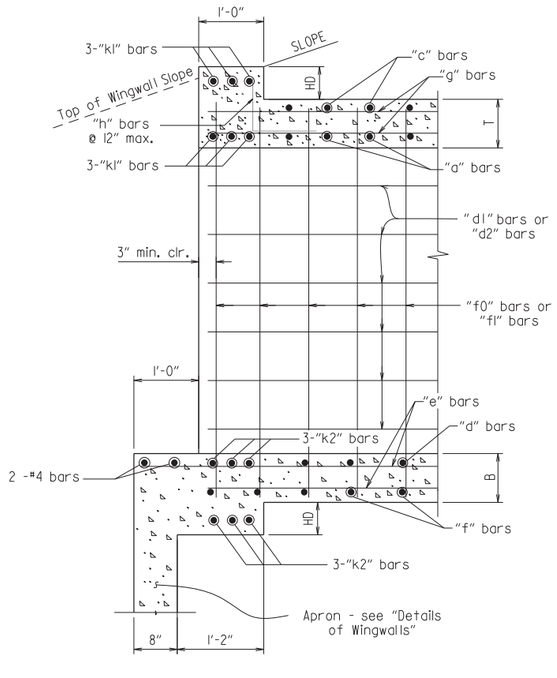
TYPICAL KEYWAY DETAIL
(All Construction Joints)



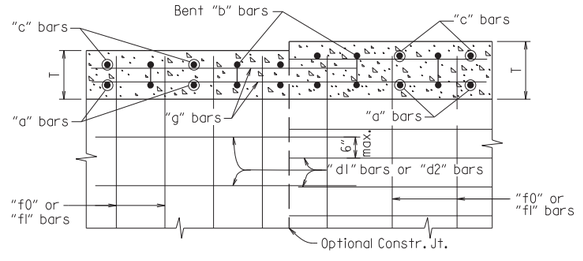
TOP SLAB REINFORCEMENT
Straight "c" bars in top.
Straight "a" bars in bottom.



PART LONGITUDINAL SECTION
(Non-Skewed Ends)

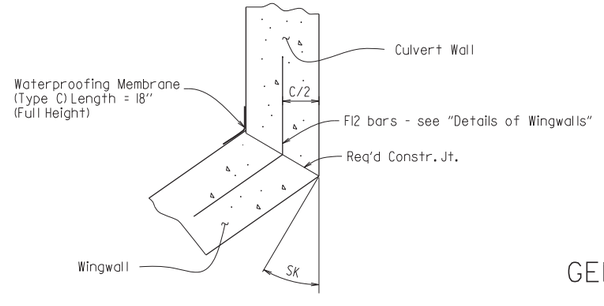


PART LONGITUDINAL SECTION N-N
(Skewed Ends)

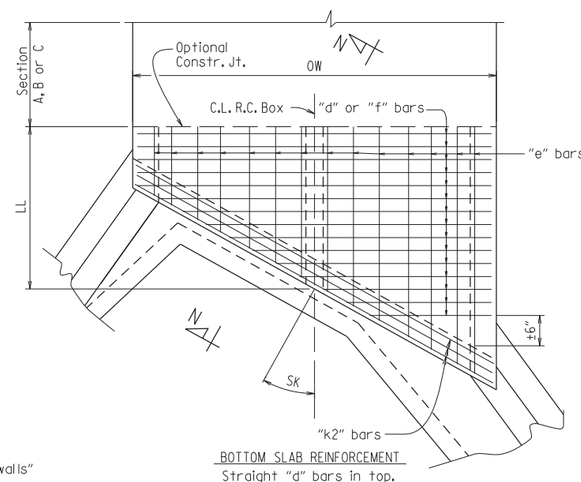


Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS
TOP SLAB SHOWN, BOTTOM SLAB SIMILAR



WINGWALL ATTACHMENT
See "Details of Wingwalls" for additional information and wingwall details.



BOTTOM SLAB REINFORCEMENT
Straight "d" bars in top.
Straight "f" bars in bottom.

SKEWED END SECTION DETAILS

SHEET 3 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

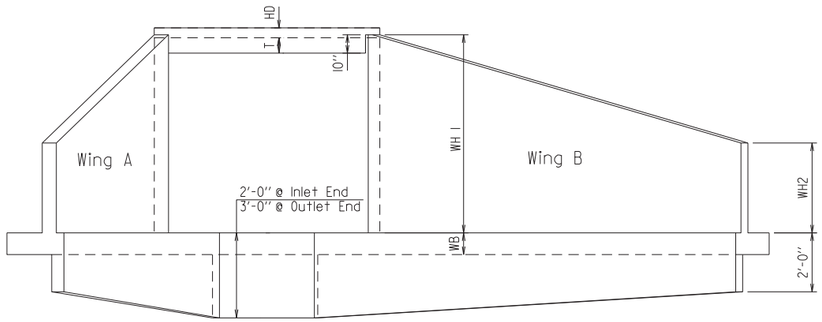
DETAILS OF MULTI-BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADY
DIGITALLY SIGNED 03/18/2025

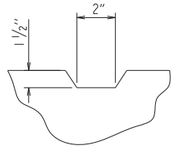
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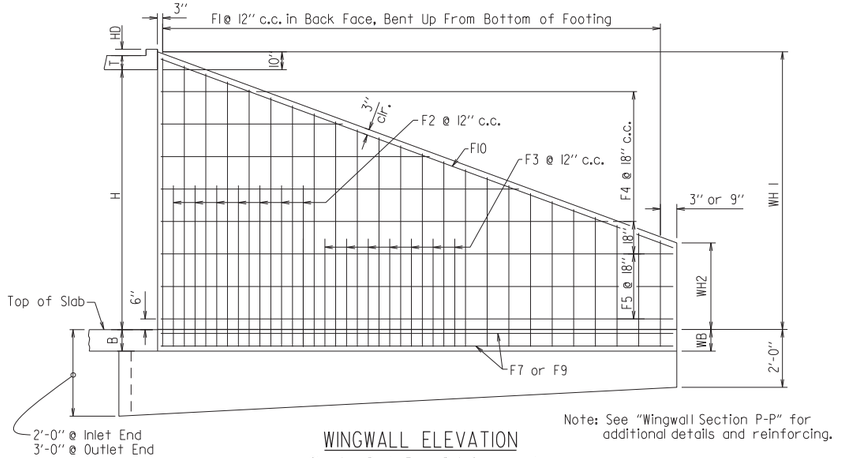
END ELEVATION

Flared Wingwalls Shown



TYPICAL KEYWAY DETAIL

All Construction Joints

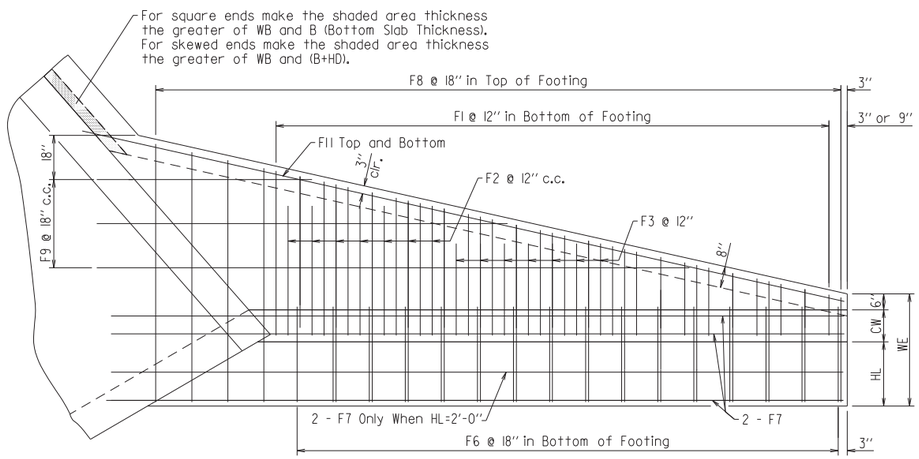


WINGWALL ELEVATION

Showing Back Face Reinforcement

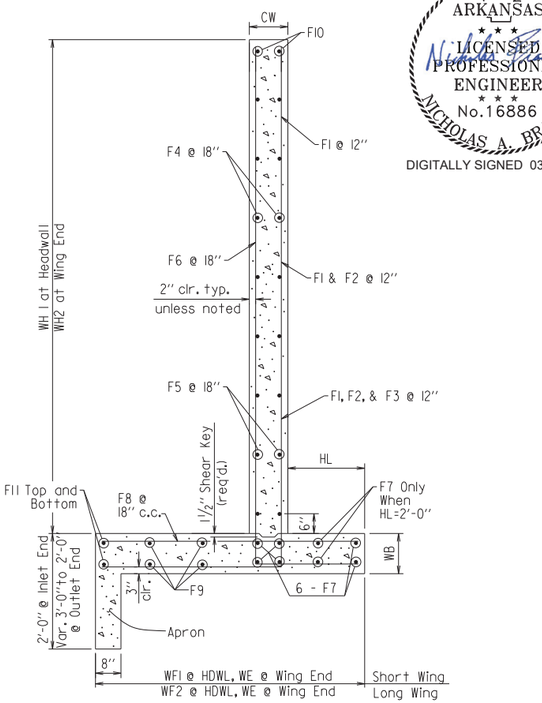
Note: See "Wingwall Section P-P" for additional details and reinforcing.

PART PLAN - FLARED WINGWALLS

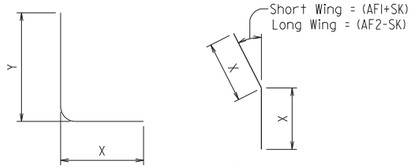


PLAN - FLARED WINGWALLS

Showing Footing Reinforcement



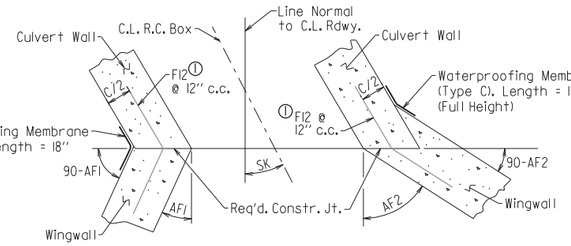
WINGWALL SECTION P-P



F1, F2, F3, & F6 BARS

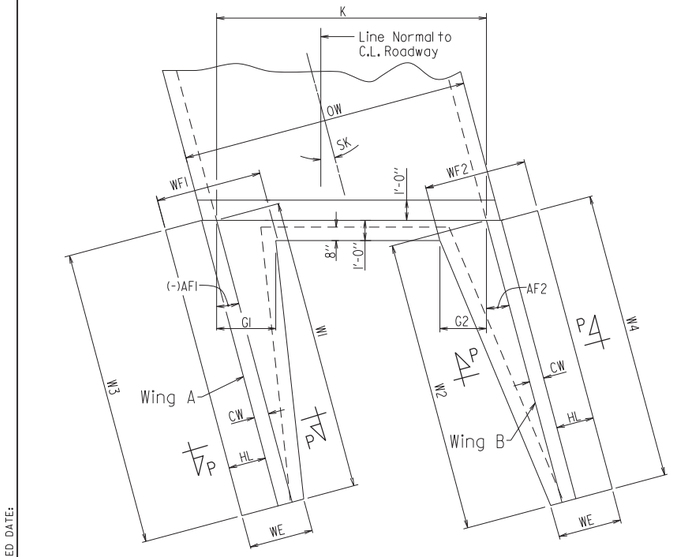
ⓘF12 BAR

ⓘF12 is a straight bar for parallel wingwalls

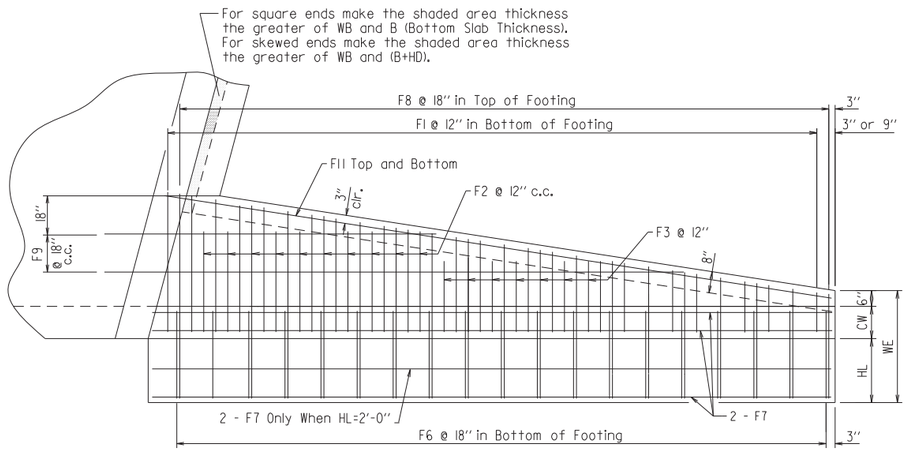


CONSTRUCTION JOINTS

Flared Wingwalls Shown



PART PLAN - PARALLEL WINGWALLS



PLAN - PARALLEL WINGWALLS

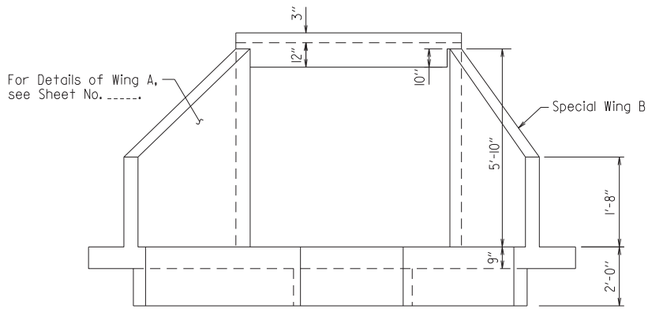
Showing Footing Reinforcement

SHEET 4 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
DETAILS OF WINGWALLS
SPECIAL DETAILS

STATE OF ARKANSAS
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No.16886
NICHOLAS A. BRADDY
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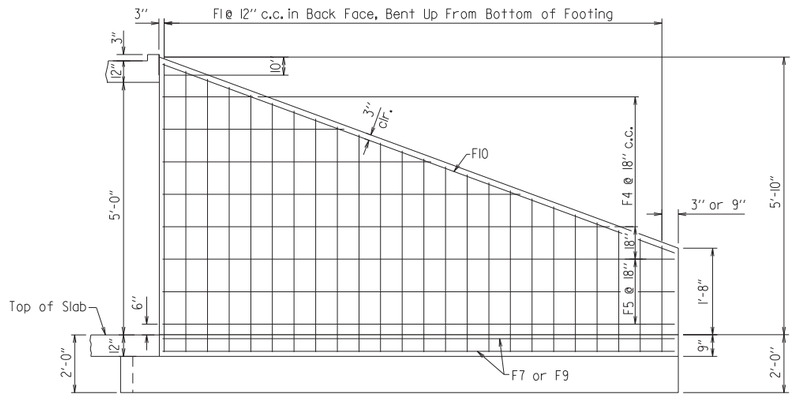
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	26	248
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END ELEVATION

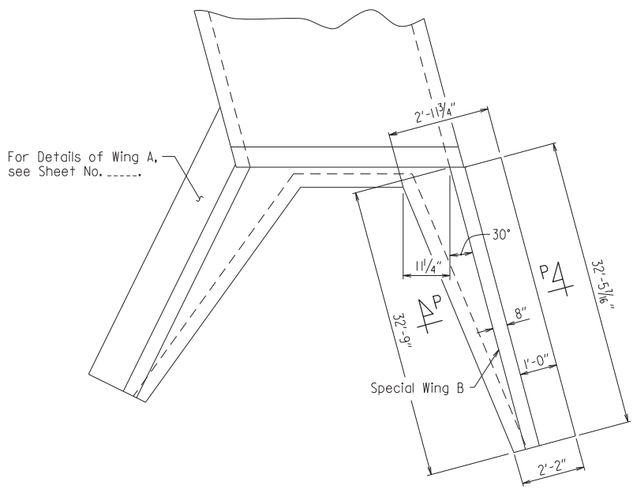
Flared Wingwalls Shown



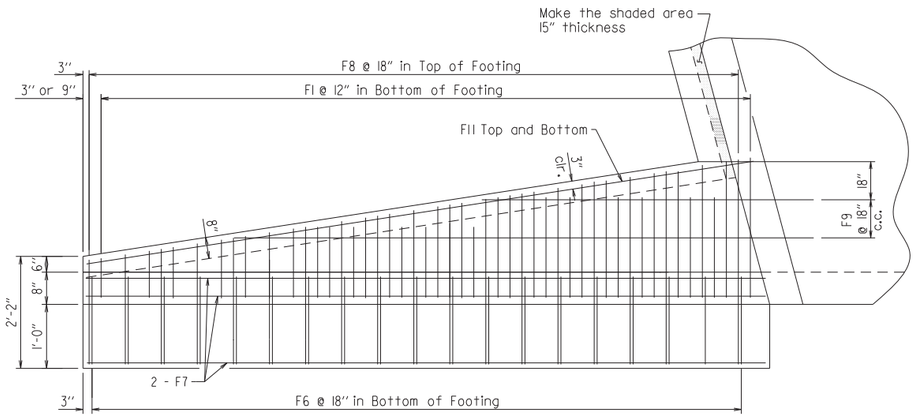
ELEVATION - WINGWALL B

Showing Back Face Reinforcement

Note:
See "Wingwall Section P-P" for additional details and reinforcing.

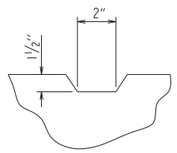


PART PLAN - PARALLEL WINGWALLS



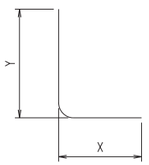
PLAN - WINGWALL B

Showing Footing Reinforcement

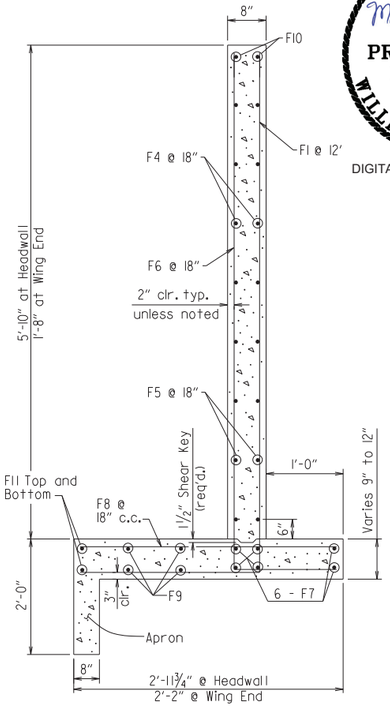


TYPICAL KEYWAY DETAIL

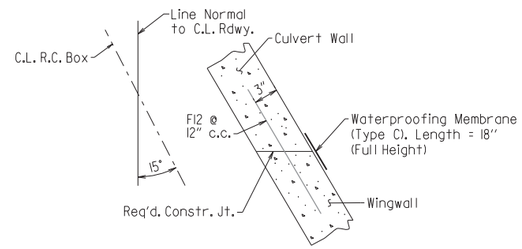
All Construction Joints



Fl & F6 BARS



WINGWALL SECTION P-P



CONSTRUCTION JOINT

WING	Fl						F4				F5				F6						F7			F8				F9				Fl0			Fll			Fl2				REINF. STEEL QTY. PER WING (LBS)
	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS VARY			BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS VARY			BAR SIZE	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS VARY	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	BAR SIZE	NO. REQ'D	LENGTHS	BAR SIZE	NO. REQ'D	LENGTHS	BAR SIZE	SPACING	NO. REQ'D	LENGTHS	
WING B	4	12	33	L	Min	2'-10"	4	18	6	Min	4	18	2	32'-5"	4	18	22	L	Min	3'-4"	4	6	32'-5"	6	18	22	Min	4	18	2	Min	4	2	32'-8"	4	2	33'-6"	6	12	6	3'-4"	601
					Max	8'-9"				8'-10"									Max	8'-1"							1'-10"				16'-5"										
				X	Min	10"				Max								X	Min	1'-4"							Max				Max										
					Max	2'-8"													Max	1'-4"																					
				Y	Min	2'-0"				20'-8"								Y	Min	2'-0"							2'-8"				16'-5"										
					Max	6'-1"													Max	6'-1"																					

STATE OF ARKANSAS
Mechanically Entire
LICENSED PROFESSIONAL ENGINEER
No.8658
WILLIAM M. McENTIRE
DIGITALLY SIGNED 03/18/2025

SHEET 1 OF 1

SPECIAL DETAILS OF R.C. BOX CULVERT

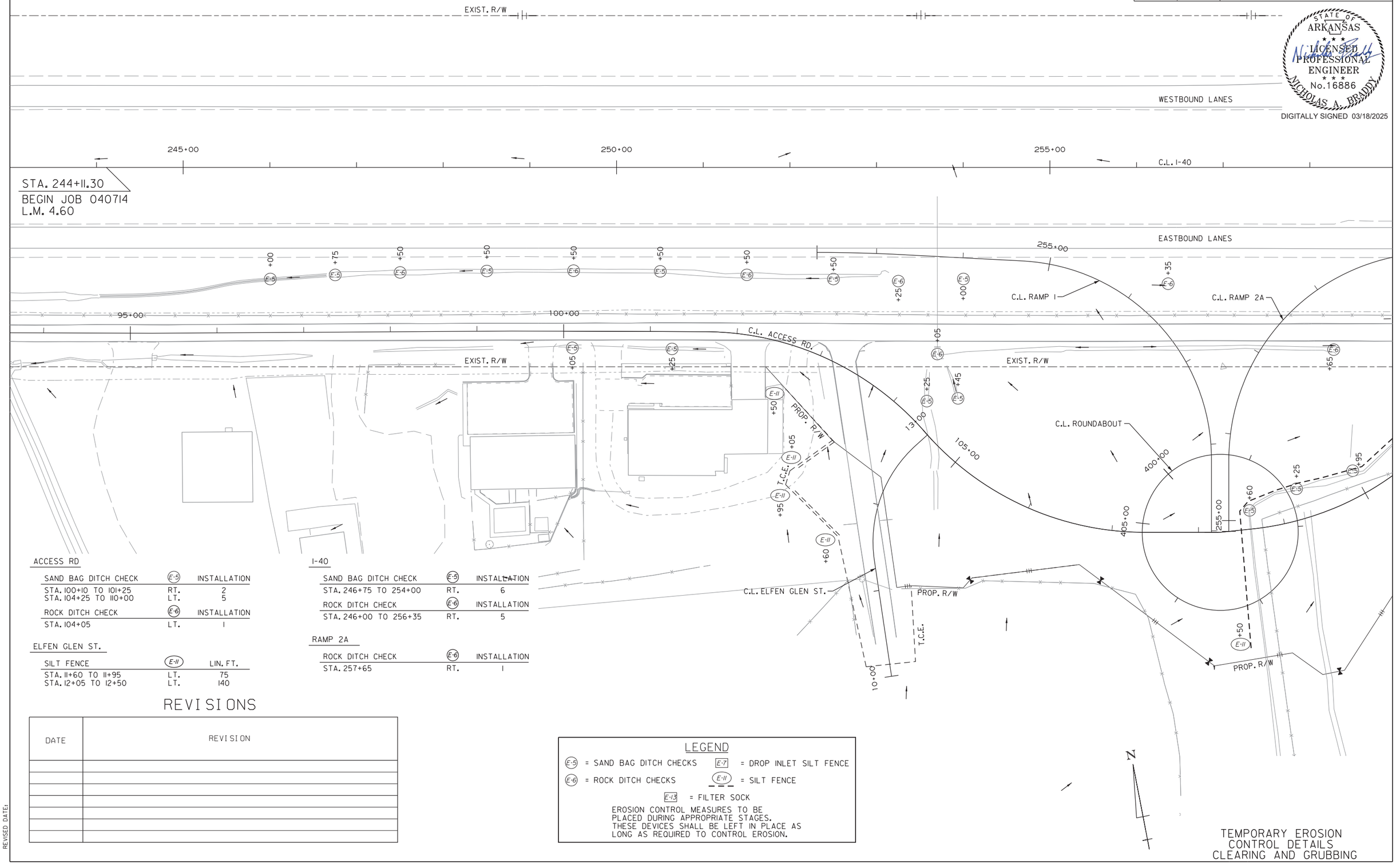
DETAILS OF SPECIAL WING B STA. 130+60

SPECIAL DETAILS

JATurner 3/18/2025 7:21:22 AM
WORKSPACE: AHTD
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REVISED DATE: Ver. 1.1.17

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	27	248
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS RD

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 100+10 TO 101+25	RT.	2
STA. 104+25 TO 110+00	LT.	5
ROCK DITCH CHECK	**(E-6)**	**INSTALLATION**
STA. 104+05	LT.	1

ELFEN GLEN ST.

SILT FENCE	(E-11)	LIN. FT.
STA. 11+60 TO 11+95	LT.	75
STA. 12+05 TO 12+50	LT.	140

I-40

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 246+75 TO 254+00	RT.	6
ROCK DITCH CHECK	**(E-6)**	**INSTALLATION**
STA. 246+00 TO 256+35	RT.	5

RAMP 2A

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 257+65	RT.	1

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

N

TEMPORARY EROSION CONTROL DETAILS CLEARING AND GRUBBING

JATurner 3/18/2025 7:21:23 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	28	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

EXIST. R/W
WESTBOUND LANES
260+00
265+00
270+00
C.L. I-40
EASTBOUND LANES
C.L. RAMP 2A
115+00
120+00
125+00
C.L. ACCESS ROAD
EXIST. R/W
PROP. R/W
EXIST. R/W

ACCESS RD

SILT FENCE	(E-11)	LIN. FT.
STA. 109+95 TO 112+10	LT.	230

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 110+70 TO 119+60	LT.	3
STA. 112+85 TO 125+55	RT.	9

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 111+85 TO 122+40	LT.	3
STA. 114+00 TO 125+00	RT.	5

DROP INLET SILT FENCE	[E-7]	INSTALLATION
STA. 112+60	LT.	1

RAMP 2A

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 259+35	RT.	1

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-6) = ROCK DITCH CHECKS
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

N

TEMPORARY EROSION CONTROL DETAILS CLEARING AND GRUBBING

JATurner 3/18/2025 7:21:24 AM
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\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_EC_CG_02.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	29	248
		TEMPORARY EROSION CONTROL DETAILS				

LEGEND

E-5 = SAND BAG DITCH CHECKS E-7 = DROP INLET SILT FENCE

E-6 = ROCK DITCH CHECKS E-11 = SILT FENCE

E-13 = FILTER SOCK

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

REVISIONS

DATE	REVISION

STA. 275+38.82
END JOB 040714

EXIST. R/W

WESTBOUND LANES

EASTBOUND LANES

C.L. I-40

C.L. RAMP 3

C.L. HWY. 59

C.L. RAMP 2B

C.L. ACCESS RD.

ACCESS RD.

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 127+60 TO 130+30	RT.	4

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 126+45 TO 129+80	RT.	5

HWY. 59

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 35+40 TO 38+70	LT.	2
STA. 35+80 TO 125+55	RT.	5

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 36+35 TO 39+25	LT.	2

FILTER SOCK	E-13	INSTALLATION
STA. 36+35 TO 40+85	LT.	3
STA. 36+30 TO 43+50	RT.	5

RAMP 2B

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 279+65 TO 281+85	RT.	2

DROP INLET SILT FENCE	E-7	INSTALLATION
STA. 280+20	LT.	1

TEMPORARY EROSION CONTROL DETAILS CLEARING AND GRUBBING

JATurner
3/18/2025 7:21:24 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_EC_CG_03.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	30	248
		TEMPORARY EROSION CONTROL DETAILS				

RAMP 3

SILT FENCE	E-11	LIN. FT.
STA. 284+25 TO 289+15	LT.	490

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 279+40 TO 284+75	LT.	5
STA. 279+30 TO 287+00	RT.	10

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 280+05 TO 286+45	LT.	5
STA. 280+50 TO 286+50	RT.	7

FILTER SOCK	E-7	INSTALLATION
STA. 287+75	RT.	1

LEGEND

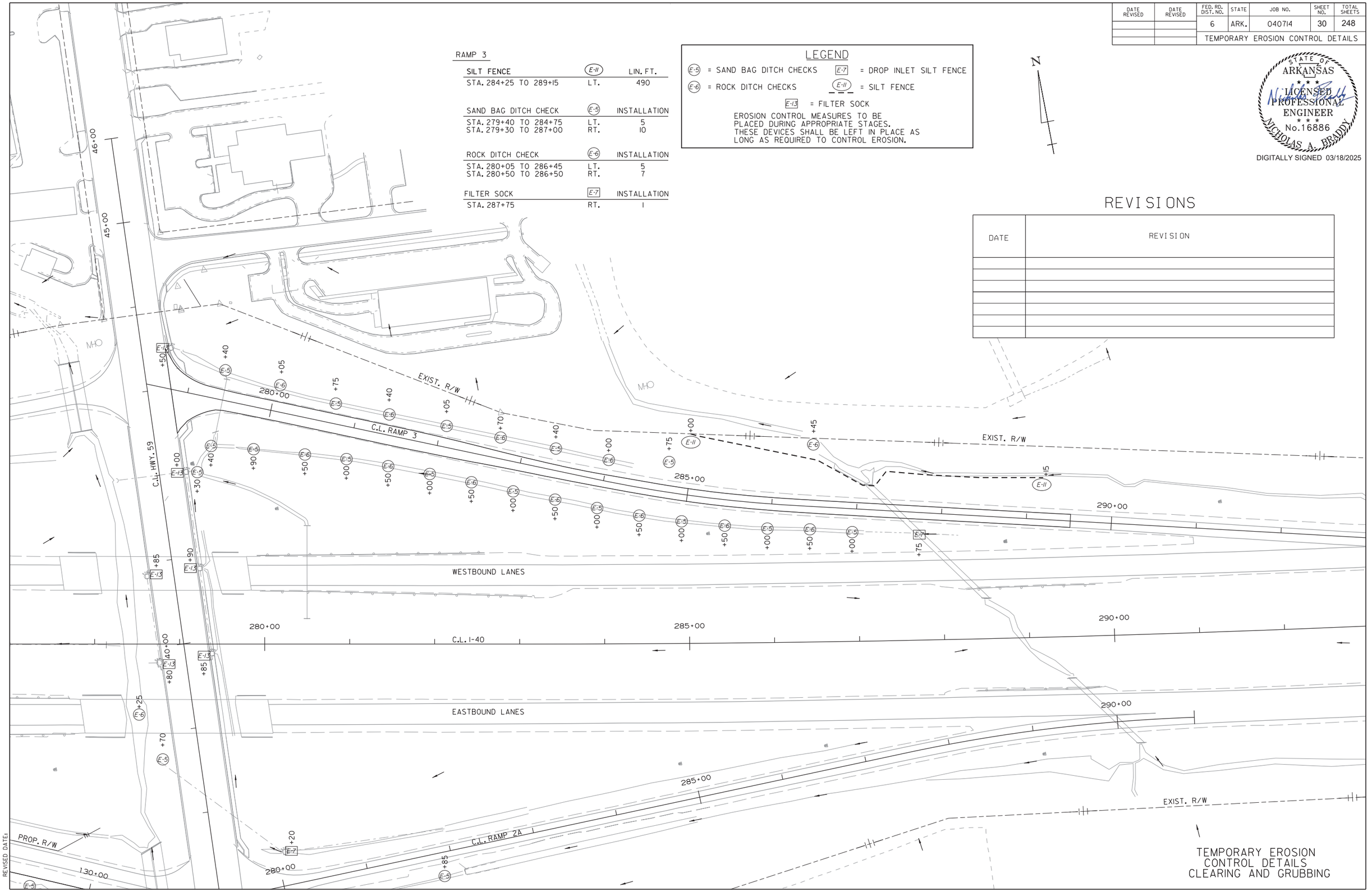
E-5 = SAND BAG DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-6 = ROCK DITCH CHECKS
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

REVISIONS

DATE	REVISION

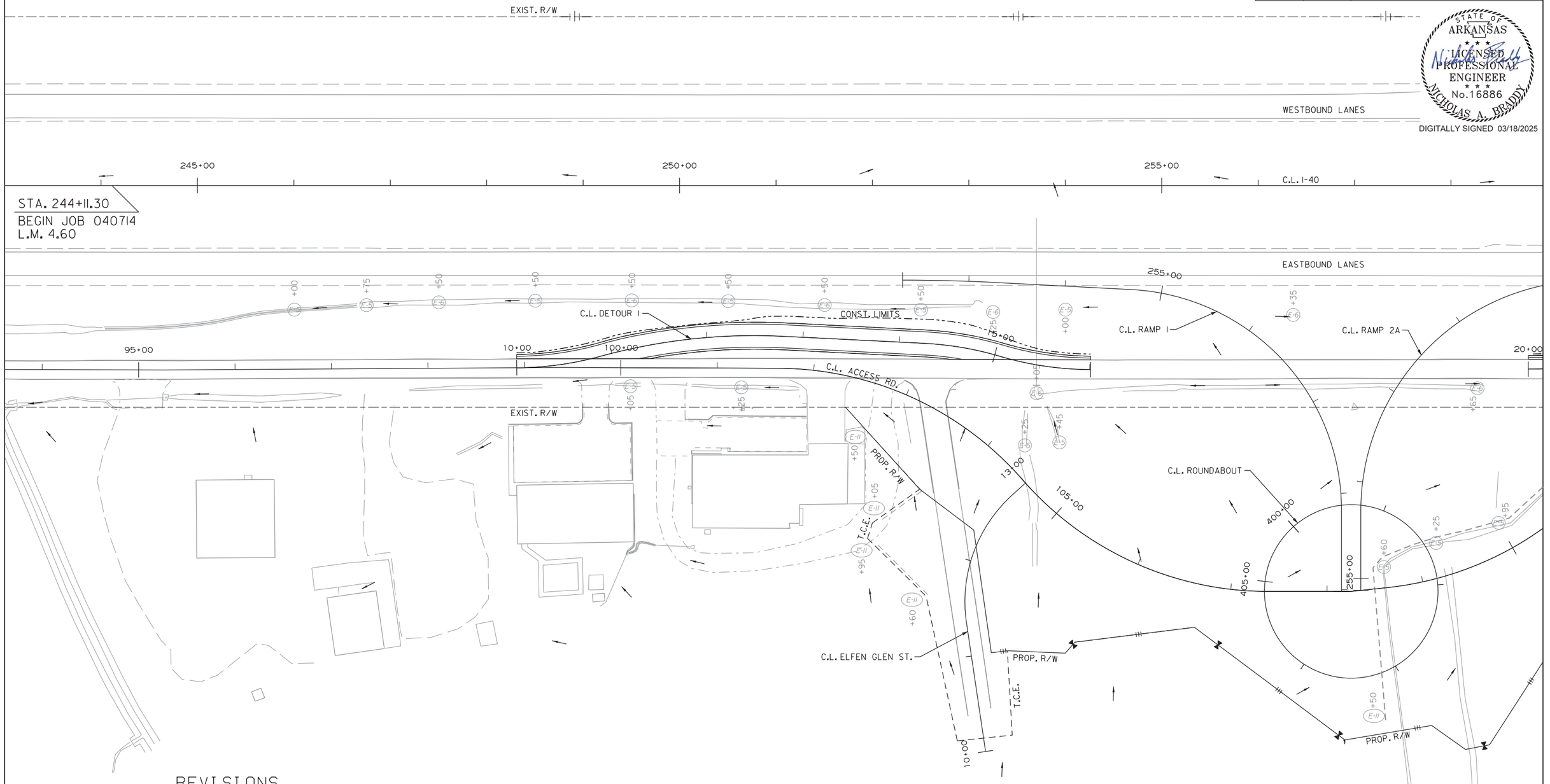


TEMPORARY EROSION CONTROL DETAILS CLEARING AND GRUBBING

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	31	248
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



REVISIONS

DATE	REVISION

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-6 = ROCK DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

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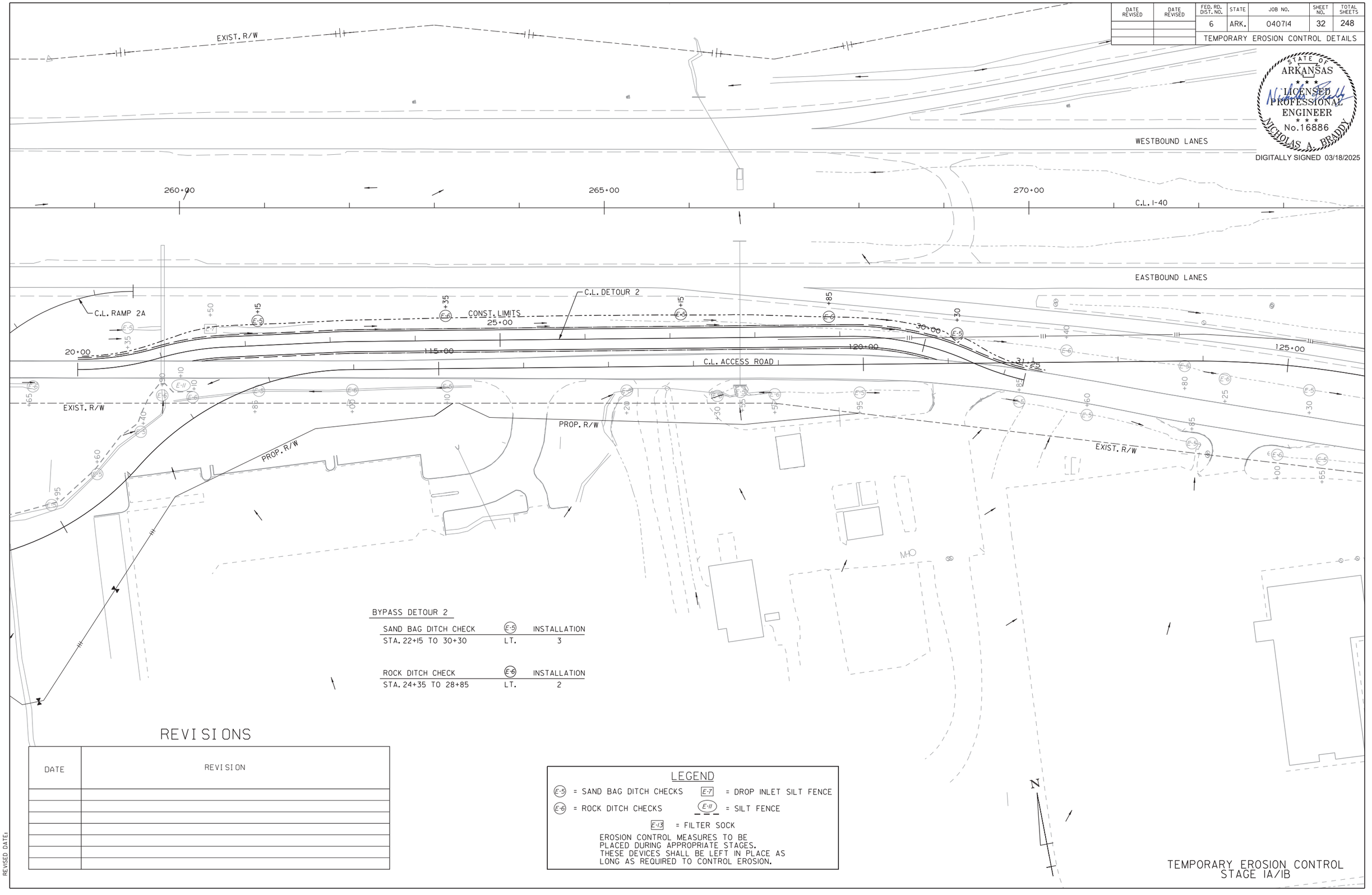
TEMPORARY EROSION CONTROL
STAGE IA/IB

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	32	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



BYPASS DETOUR 2

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 22+15 TO 30+30	LT.	3

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 24+35 TO 28+85	LT.	2

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

TEMPORARY EROSION CONTROL
STAGE 1A/1B

JATurner 3/18/2025 7:21:25 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	33	248
		TEMPORARY EROSION CONTROL DETAILS				

LEGEND

E-5 = SAND BAG DITCH CHECKS E-7 = DROP INLET SILT FENCE

E-6 = ROCK DITCH CHECKS E-11 = SILT FENCE

E-13 = FILTER SOCK

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

RAMP 3

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 279+35 TO 288+50	RT.	14

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 280+00 TO 287+00	RT.	3

REVISIONS

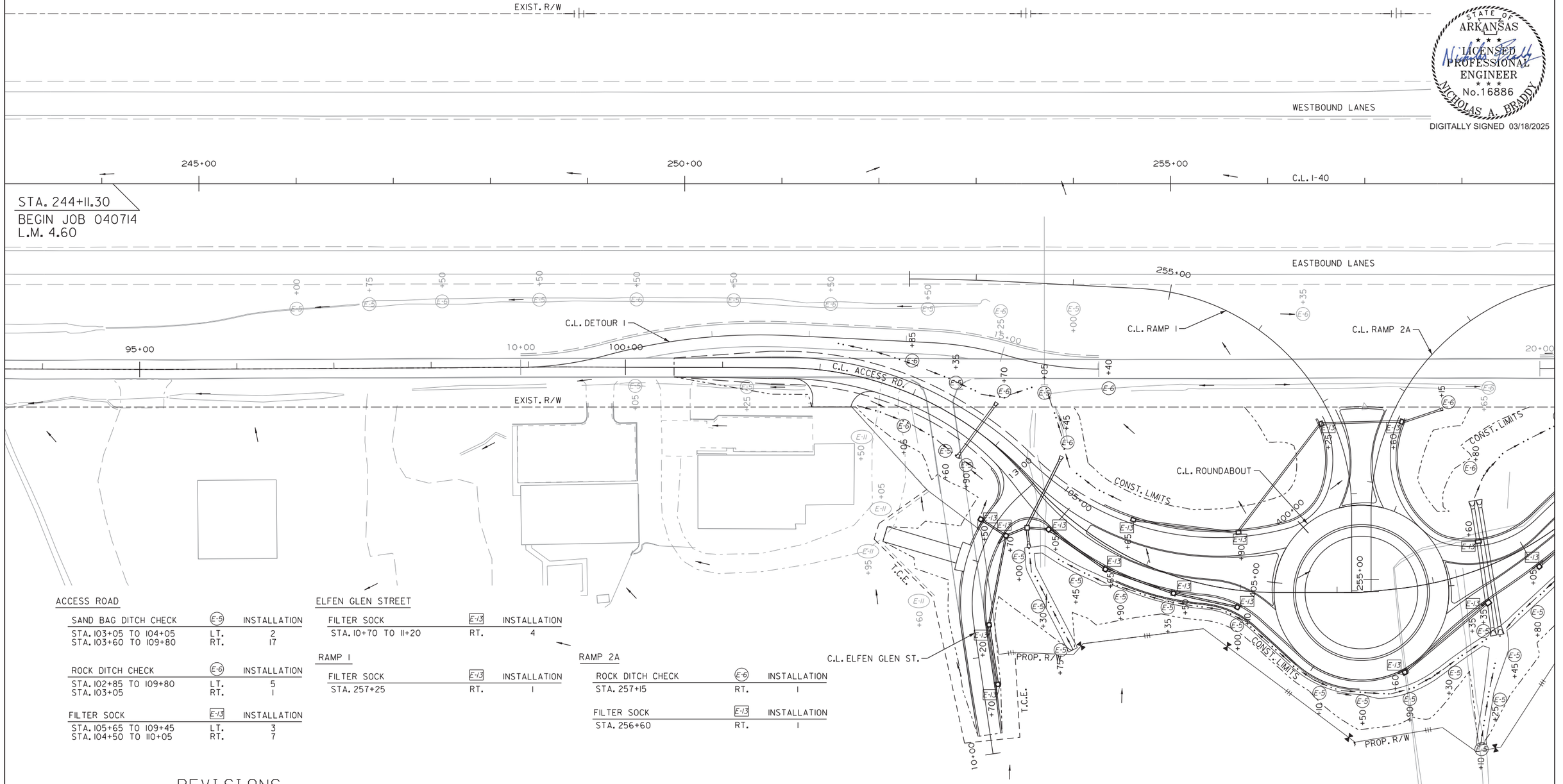
DATE	REVISION

C.L. HWY. 59
C.L. RAMP 3
C.L. RAMP 2B
C.L. I-40
EXIST. R/W
PROP. R/W
WESTBOUND LANES
EASTBOUND LANES
MHO
280+00
285+00
290+00
130+00
40+00
45+00

TEMPORARY EROSION CONTROL
STAGE IA/IB

JATurner
WORKSPACE: AHTD
\\gprverinc.local\gdata\Projects\2017\170176x8 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_EC_STGIAB_03.dgn
REVISED DATE: 3/18/2025 7:21:25 AM

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	34	248
		TEMPORARY EROSION CONTROL DETAILS				



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

ACCESS ROAD

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 103+05 TO 104+05	LT.	2
STA. 103+60 TO 109+80	RT.	17

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 102+85 TO 109+80	LT.	5
STA. 103+05	RT.	1

FILTER SOCK	E-13	INSTALLATION
STA. 105+65 TO 109+45	LT.	3
STA. 104+50 TO 110+05	RT.	7

ELFEN GLEN STREET

FILTER SOCK	E-13	INSTALLATION
STA. 110+70 TO 111+20	RT.	4

RAMP 1

FILTER SOCK	E-13	INSTALLATION
STA. 257+25	RT.	1

RAMP 2A

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 257+15	RT.	1

FILTER SOCK	E-13	INSTALLATION
STA. 256+60	RT.	1

REVISIONS

DATE	REVISION

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-6 = ROCK DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

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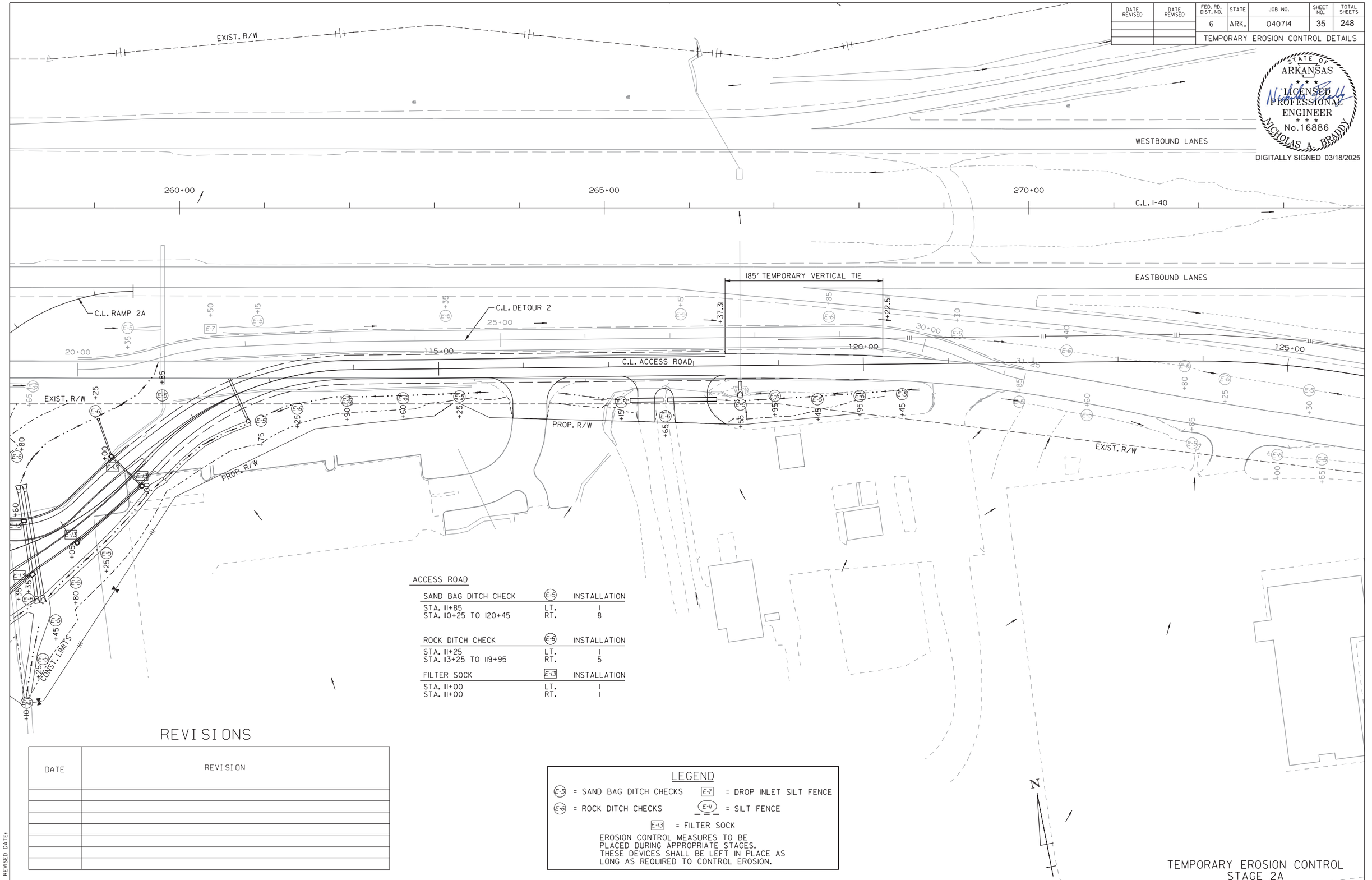
TEMPORARY EROSION CONTROL STAGE 2A

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	35	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS ROAD

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 111+85	LT.	1
STA. 110+25 TO 120+45	RT.	8

ROCK DITCH CHECK (E-6)		INSTALLATION
STA. 111+25	LT.	1
STA. 113+25 TO 119+95	RT.	5

FILTER SOCK (E-13)		INSTALLATION
STA. 111+00	LT.	1
STA. 111+00	RT.	1

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

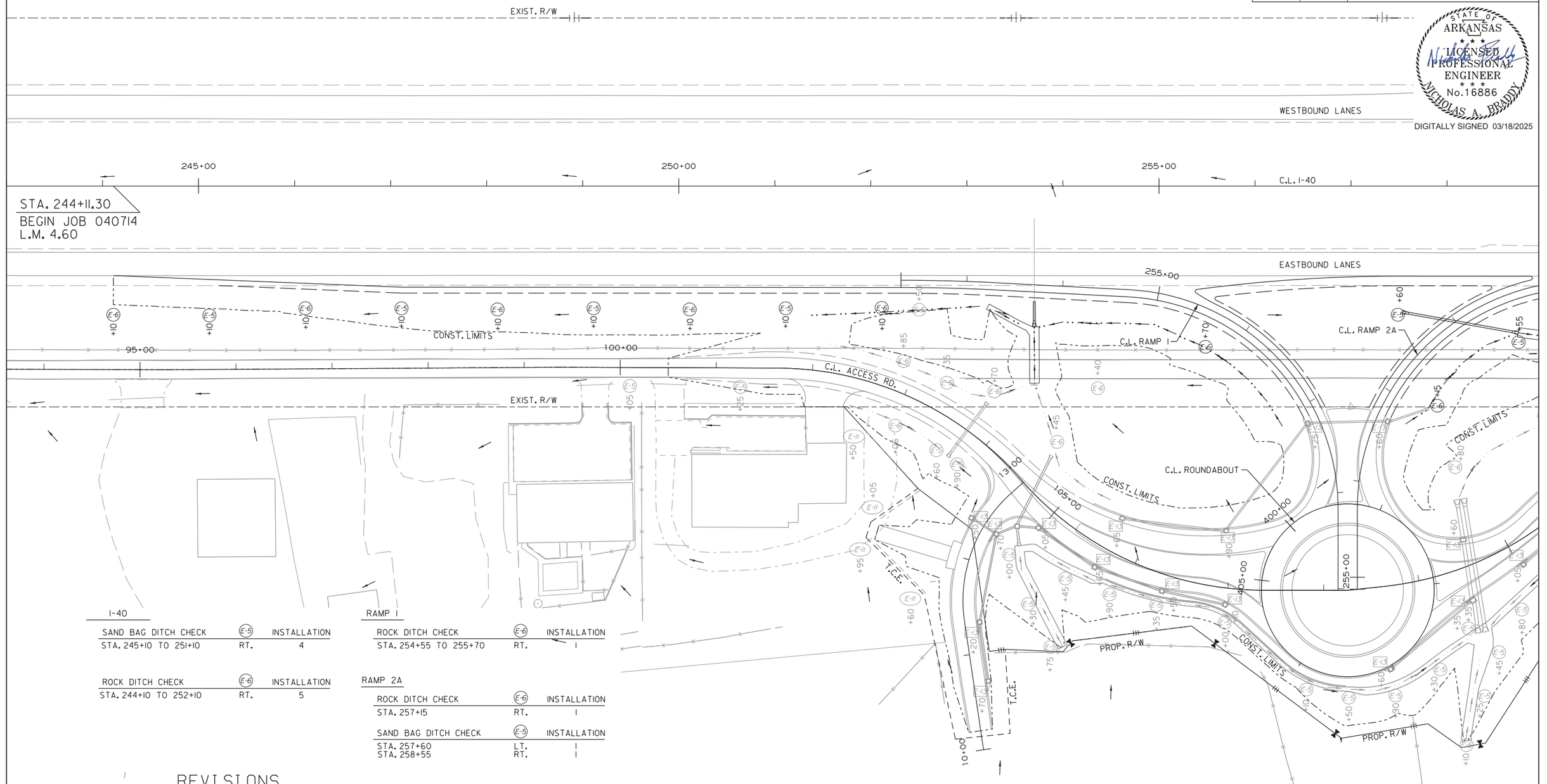
EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL STAGE 2A

JATurner
3/18/2025 7:12:26 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	36	248
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



I-40

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 245+10 TO 251+10	RT.	4

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 244+10 TO 252+10	RT.	5

RAMP 1

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 254+55 TO 255+70	RT.	1

RAMP 2A

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 257+15	RT.	1

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 257+60	LT.	1
STA. 258+55	RT.	1

REVISIONS

DATE	REVISION

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-6 = ROCK DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

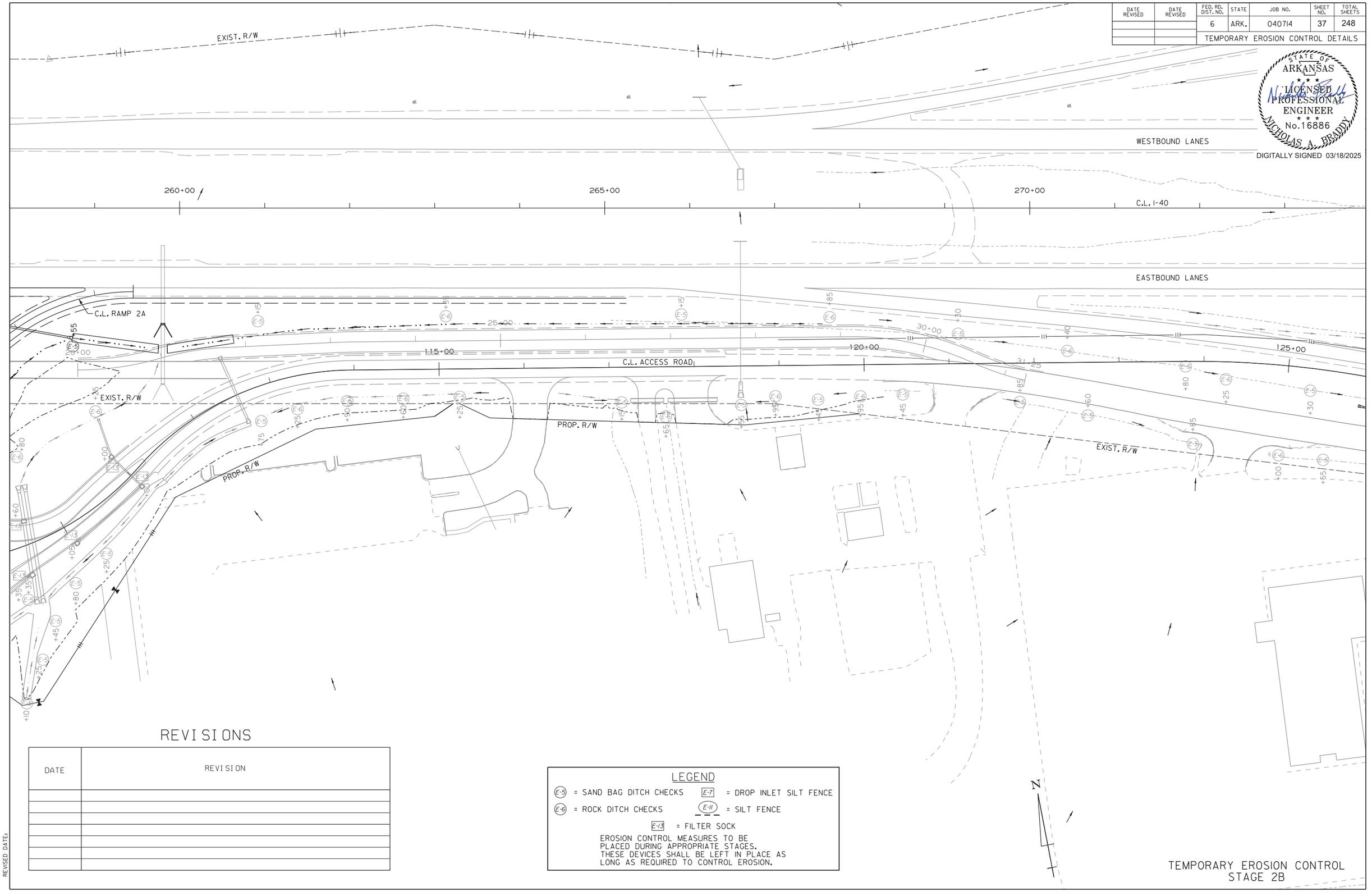
TEMPORARY EROSION CONTROL
STAGE 2B

JATurner 3/18/2025 7:21:26 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714.EC.ST02B.08.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	37	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-6) = ROCK DITCH CHECKS
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

TEMPORARY EROSION CONTROL
STAGE 2B

JATurner 3/18/2025 7:21:26 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_EC_STG2B_09.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	38	248
		TEMPORARY EROSION CONTROL DETAILS				

RAMP 3

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 280+00 TO 289+00	LT.	5

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 284+95 TO 289+50	LT.	4

FILTER SOCK	[E-13]	INSTALLATION
STA. 278+40 TO 282+00	LT.	8

LEGEND

(E-5) = SAND BAG DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-6) = ROCK DITCH CHECKS
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

REVISIONS

DATE	REVISION

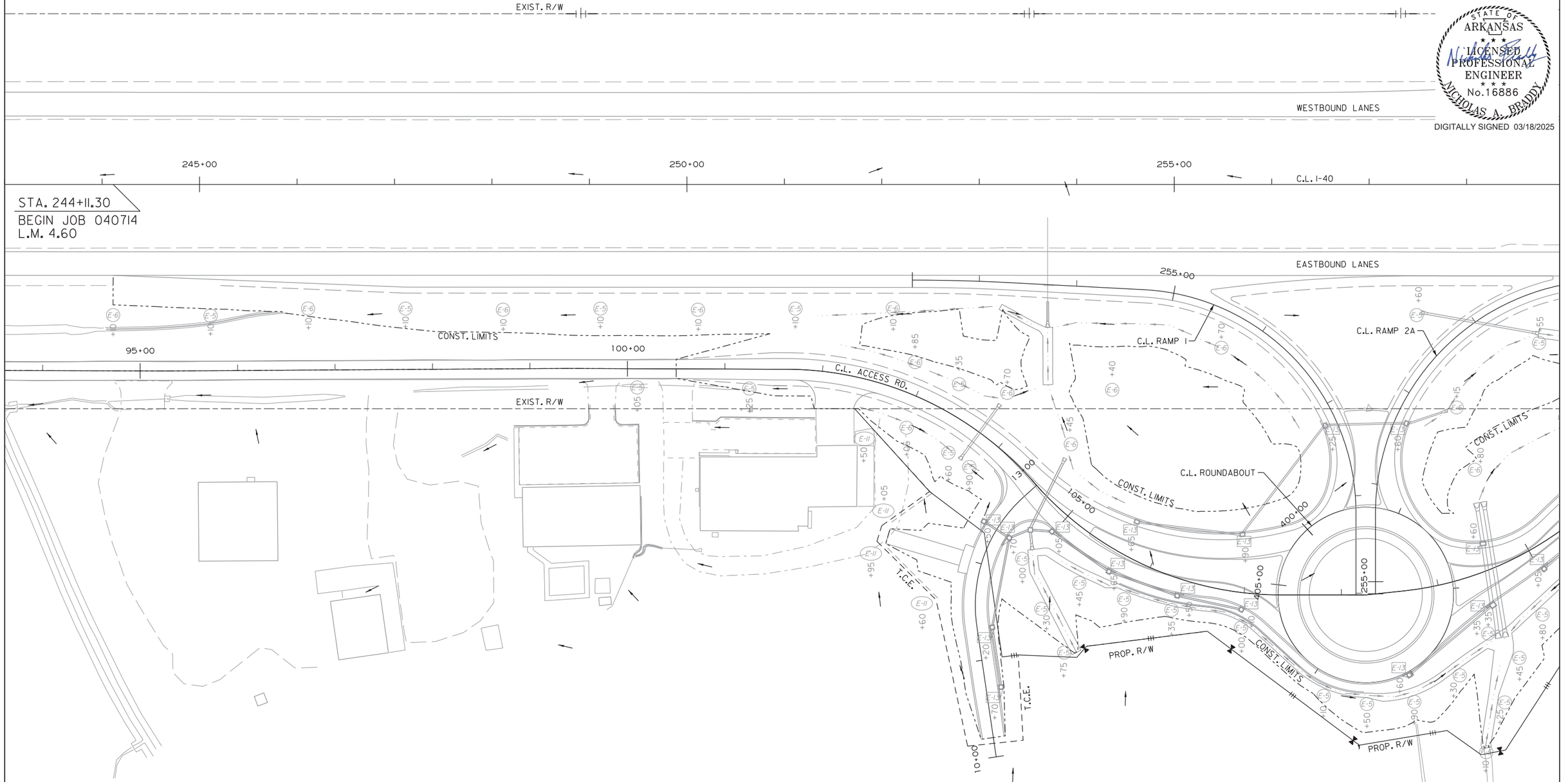
C.L. HWY. 59
C.L. RAMP 3
C.L. RAMP 2B
C.L. I-40
EXIST. R/W
WESTBOUND LANES
EASTBOUND LANES
MHO
280+00
285+00
290+00
46+00
45+00
40+00
130+00

TEMPORARY EROSION CONTROL
STAGE 2B

JATurner 3/18/2025 7:21:27 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_EC_STG2B_09B.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	39	248
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



REVISIONS

DATE	REVISION

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-6 = ROCK DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

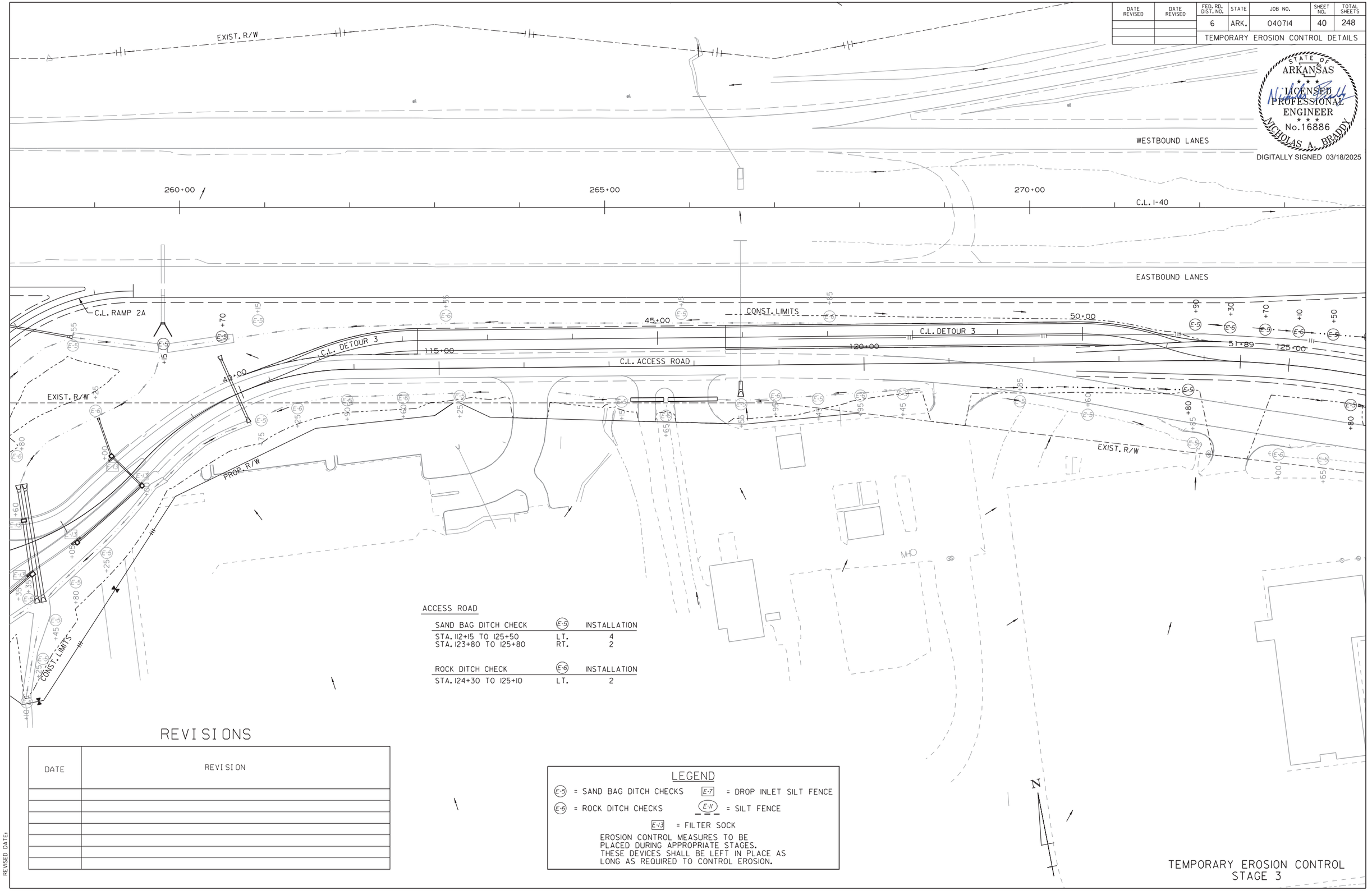
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TEMPORARY EROSION CONTROL
STAGE 3

JATurner 3/8/2025 7:21:27 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	40	248
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS ROAD

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 112+15 TO 125+50	LT.	4
STA. 123+80 TO 125+80	RT.	2

ROCK DITCH CHECK (E-6)		INSTALLATION
STA. 124+30 TO 125+10	LT.	2

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

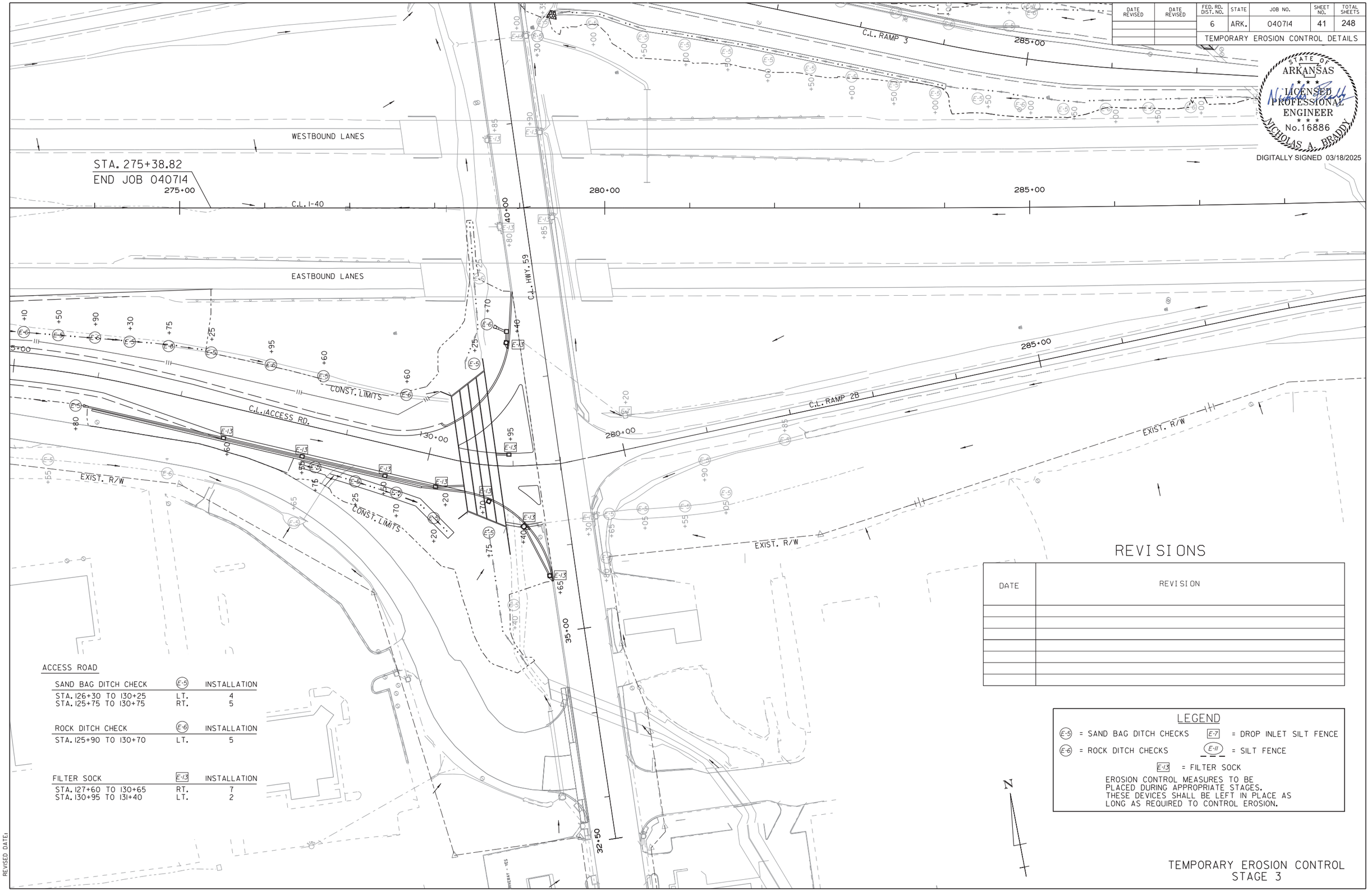
TEMPORARY EROSION CONTROL STAGE 3

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	41	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS ROAD

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 126+30 TO 130+25	LT.	4
STA. 125+75 TO 130+75	RT.	5

ROCK DITCH CHECK (E-6)		INSTALLATION
STA. 125+90 TO 130+70	LT.	5

FILTER SOCK (E-13)		INSTALLATION
STA. 127+60 TO 130+65	RT.	7
STA. 130+95 TO 131+40	LT.	2

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

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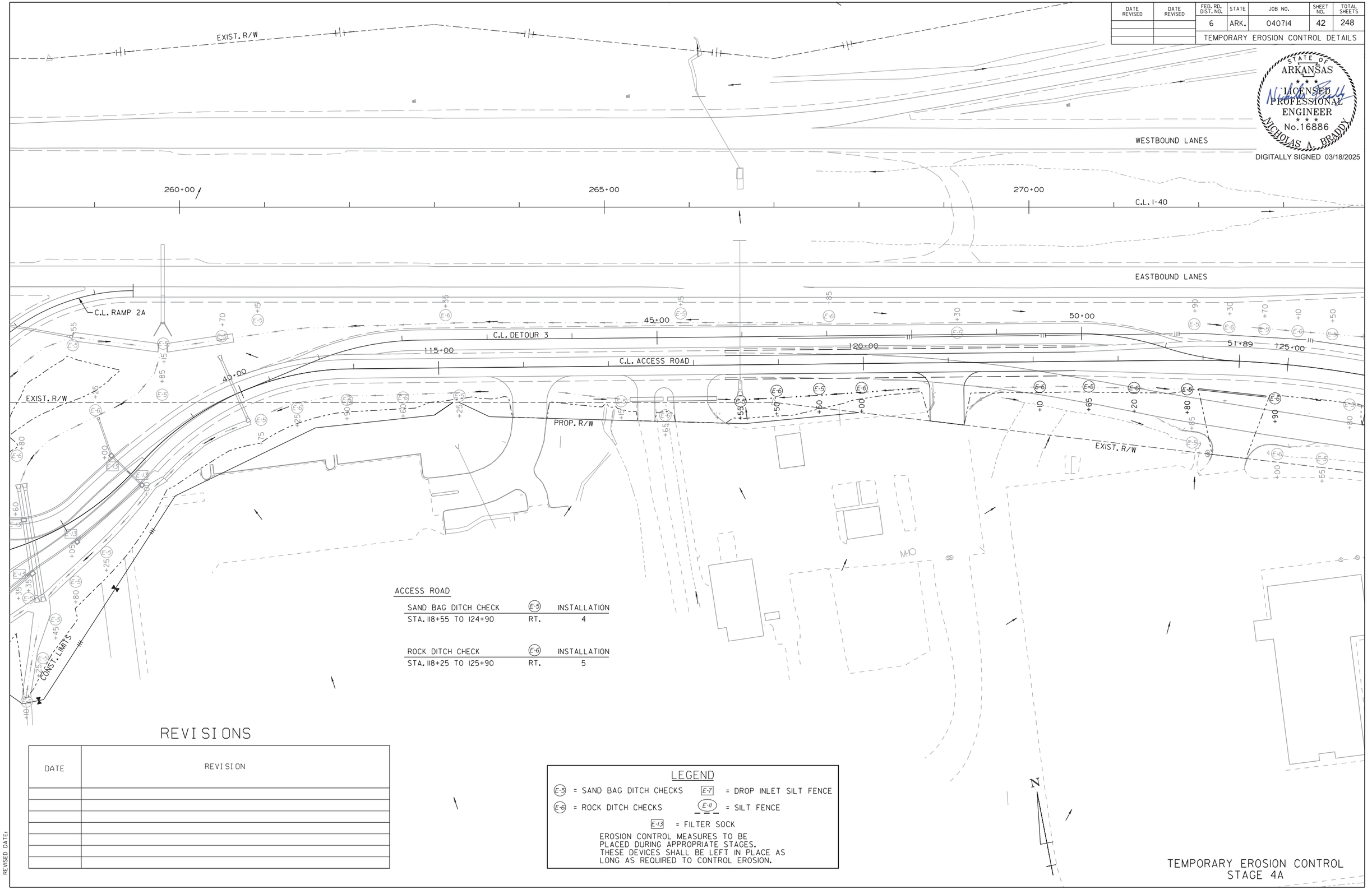
TEMPORARY EROSION CONTROL
STAGE 3

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	42	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



ACCESS ROAD

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 118+55 TO 124+90	RT.	4

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 118+25 TO 125+90	RT.	5

REVISIONS

DATE	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
[E-7] = DROP INLET SILT FENCE
(E-11) = SILT FENCE
[E-13] = FILTER SOCK

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

TEMPORARY EROSION CONTROL
STAGE 4A

JATurner 3/18/2025 7:21:28 AM
WORKSPACE: AHTD
\\garver-inc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_EC_STG4A_I4.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	43	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

STA. 275+38.82
END JOB 040714

WESTBOUND LANES
EASTBOUND LANES
C.L. I-40
C.L. HWY. 59
C.L. RAMP 3
C.L. RAMP 2B
C.L. ACCESS RD.
CONST. LIMITS
EXIST. R/W
40.00
35.00
32.50

RAMP 2B

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 280+00 TO 280+90	RT.	2

FILTER SOCK	E-13	INSTALLATION
STA. 280+50	RT.	1

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-6 = ROCK DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

N

TEMPORARY EROSION CONTROL STAGE 4A

REVISIONS

DATE	REVISION

JATurner
3/18/2025 7:21:28 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	44	248

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

STA. 275+38.82
END JOB 040714

WESTBOUND LANES

EASTBOUND LANES

C.L. I-40

C.L. HWY. 59

C.L. RAMP 3

C.L. RAMP 2B

C.L. ACCESS RD.

CONST. LIMITS

EXIST. R/W

35+00

32+50

RAMP 2B

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 281+40	LT.	1

ROCK DITCH CHECKS	E-6	INSTALLATION
STA. 280+70	LT.	1

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-6 = ROCK DITCH CHECKS
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE
E-13 = FILTER SOCK

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

REVISIONS

DATE	REVISION

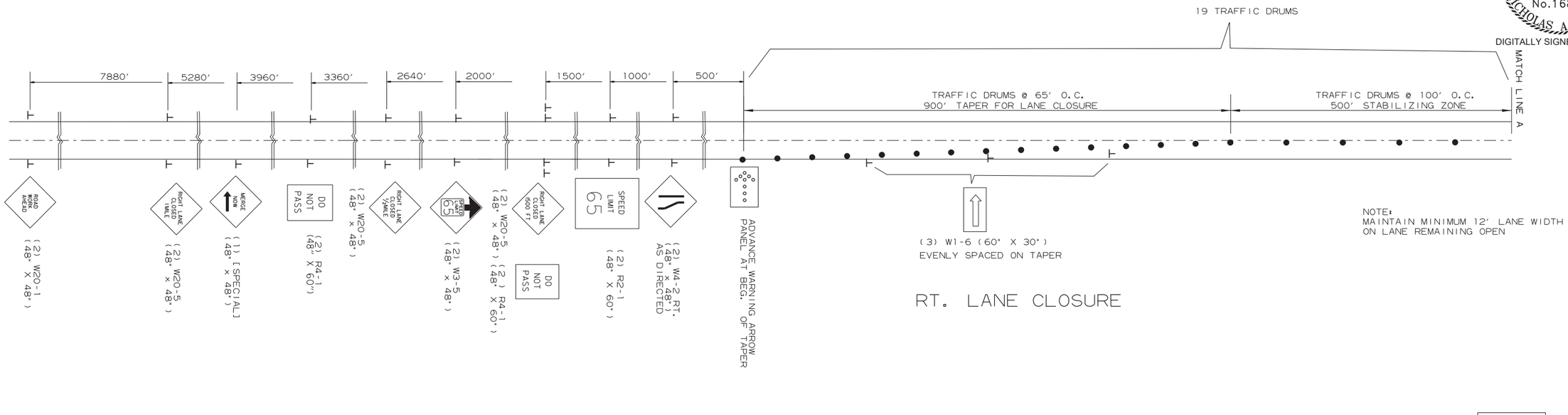
TEMPORARY EROSION CONTROL
STAGE 4B

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		MAINTENANCE OF TRAFFIC DETAILS				

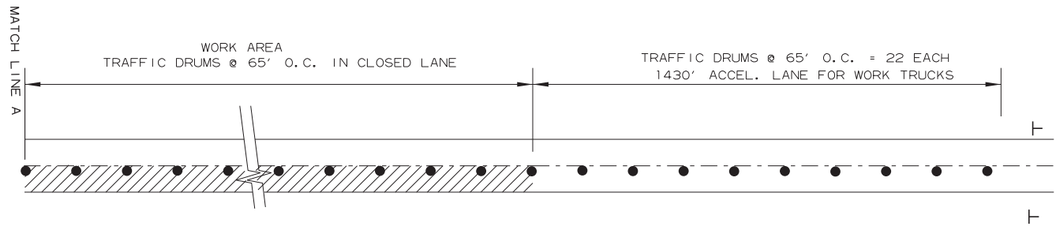
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

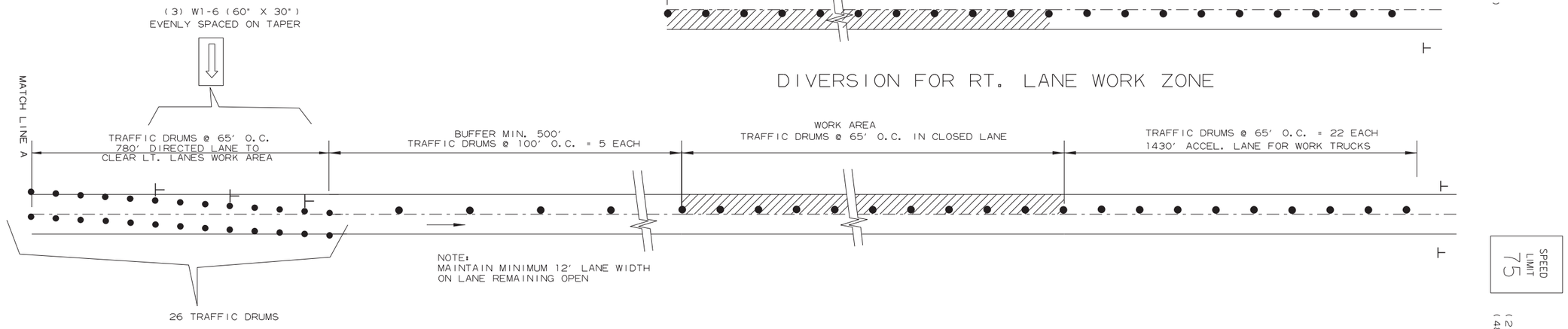


RT. LANE CLOSURE

SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMPS WITHIN THE WORK ZONE.



DIVERSION FOR RT. LANE WORK ZONE



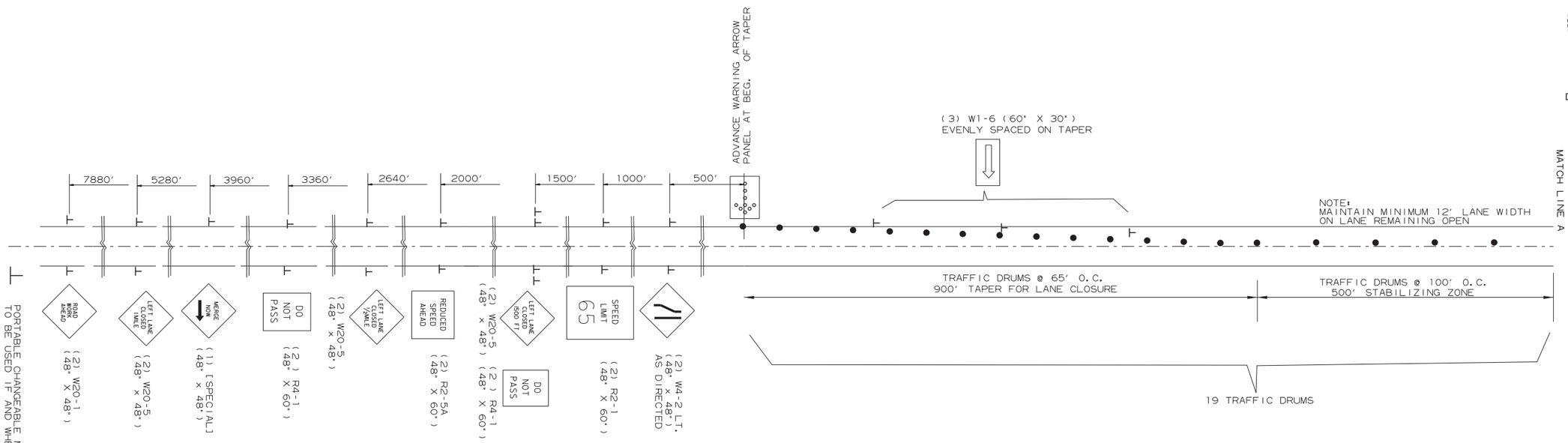
DIVERSION FOR LT. LANE WORK ZONE

MAINTENANCE OF TRAFFIC DETAILS
I-40 LANE CLOSURE

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REVISED DATE:

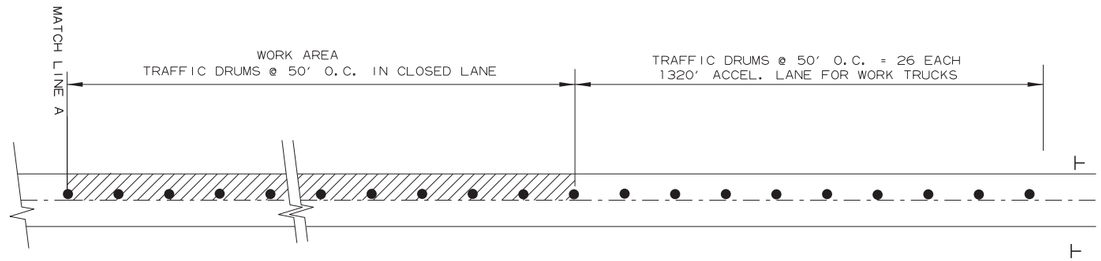
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	46	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



LEFT LANE CLOSURE

PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER



DIVERSION FOR LT. LANE WORK ZONE

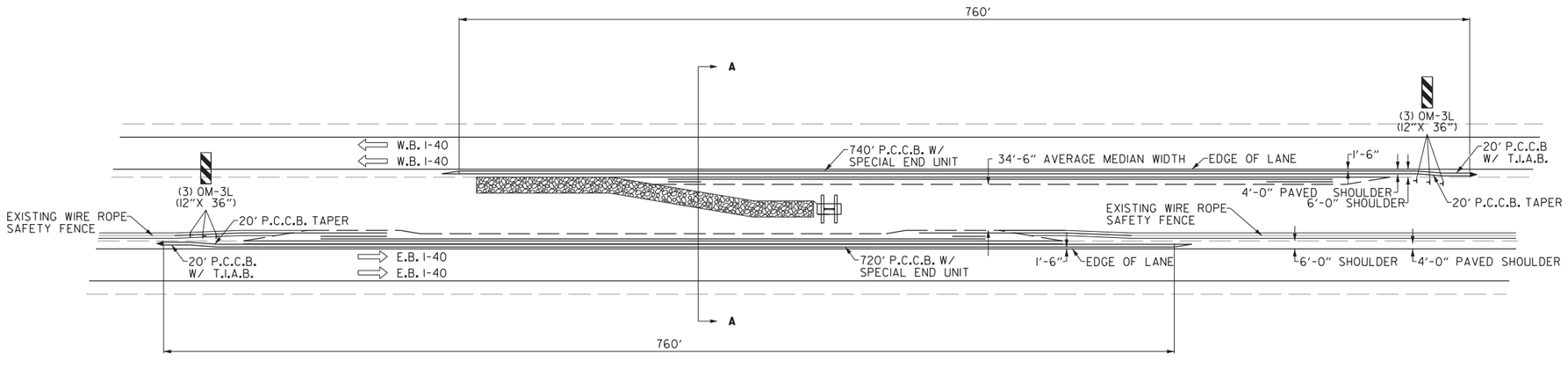
SPEED LIMIT 75
(2) R2-1 (48" X 60")

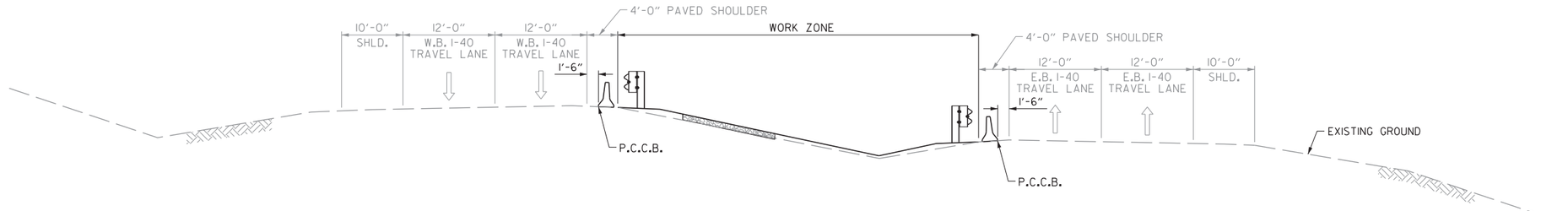
MAINTENANCE OF TRAFFIC DETAILS
I-40 LANE CLOSURE

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	47	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025





SECTION A-A

ITS WORK ZONE DETAIL

JATurner
WORKSPACE: AHTD
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3/18/2025 7:21:30 AM
REVISED DATE:

ITS WORK ZONE
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	48	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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No.16886
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245+00 250+00 C.L. I-40 255+00

STA. 244+11.30
BEGIN JOB 040714
L.M. 4.60

TEMPORARY CONSTRUCTION LIMITS
C.L. DETOUR 1

(1) G20-2 (48" X 24")
END ROAD WORK

ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
(16') BARR. TYP. III LT.

ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
(16') BARR. TYP. III RT.

95+00 10+00 100+00 +92 +89 +17 255+00 20+00

595' NOTCH AND WIDENING

43 TRAFFIC DRUMS AT 25' O.C.

500' 500' 500'

ROAD WORK 1500 FT
(1) W20-1 (48" X 48")

ROAD WORK 1000 FT
(1) W20-1 (48" X 48")

ROAD WORK 500 FT
(1) W20-1 (48" X 48")

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

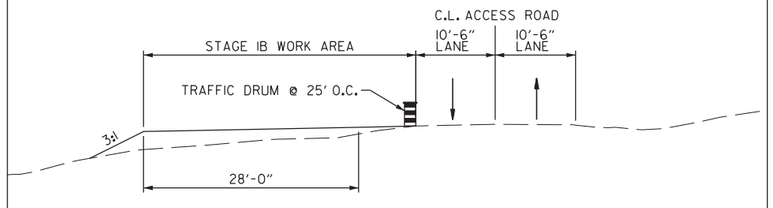
C.L. RAMP 1
C.L. RAMP 2A
C.L. ACCESS ROAD
C.L. LELFEN GLEN ST.
13+00 105+00 400+00 405+00 255+00 10+00

ROAD WORK AHEAD
(1) W20-1 (48" X 48")

(2) W21-5A (48" X 48")
RIGHT SHOULDER CLOSED
(2) W20-7 (48" X 48")
TO BE USED IF AND WHERE BY THE ENGINEER

STAGE IA/IB CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON EXISTING ALIGNMENTS.
2. CONSTRUCT ACCESS ROAD REVERSE CROWN CORRECTION UNDER TRAFFIC TO ASSIST DRAINAGE IN FUTURE STAGES.
3. CONSTRUCT TEMPORARY DETOUR 1 AND 2.
4. CONSTRUCT SOUTH PORTION OF PROPOSED RAMP 3.



STAGE IB - TYPICAL SECTION

STAGE 1 TRAFFIC
STAGE 1 VERTICAL PANEL
STAGE 1 TRAFFIC DRUM
STAGE IA PAVING UNDER TRAFFIC
STAGE IB PROPOSED PAVING
STAGE IB TEMPORARY PAVING

N

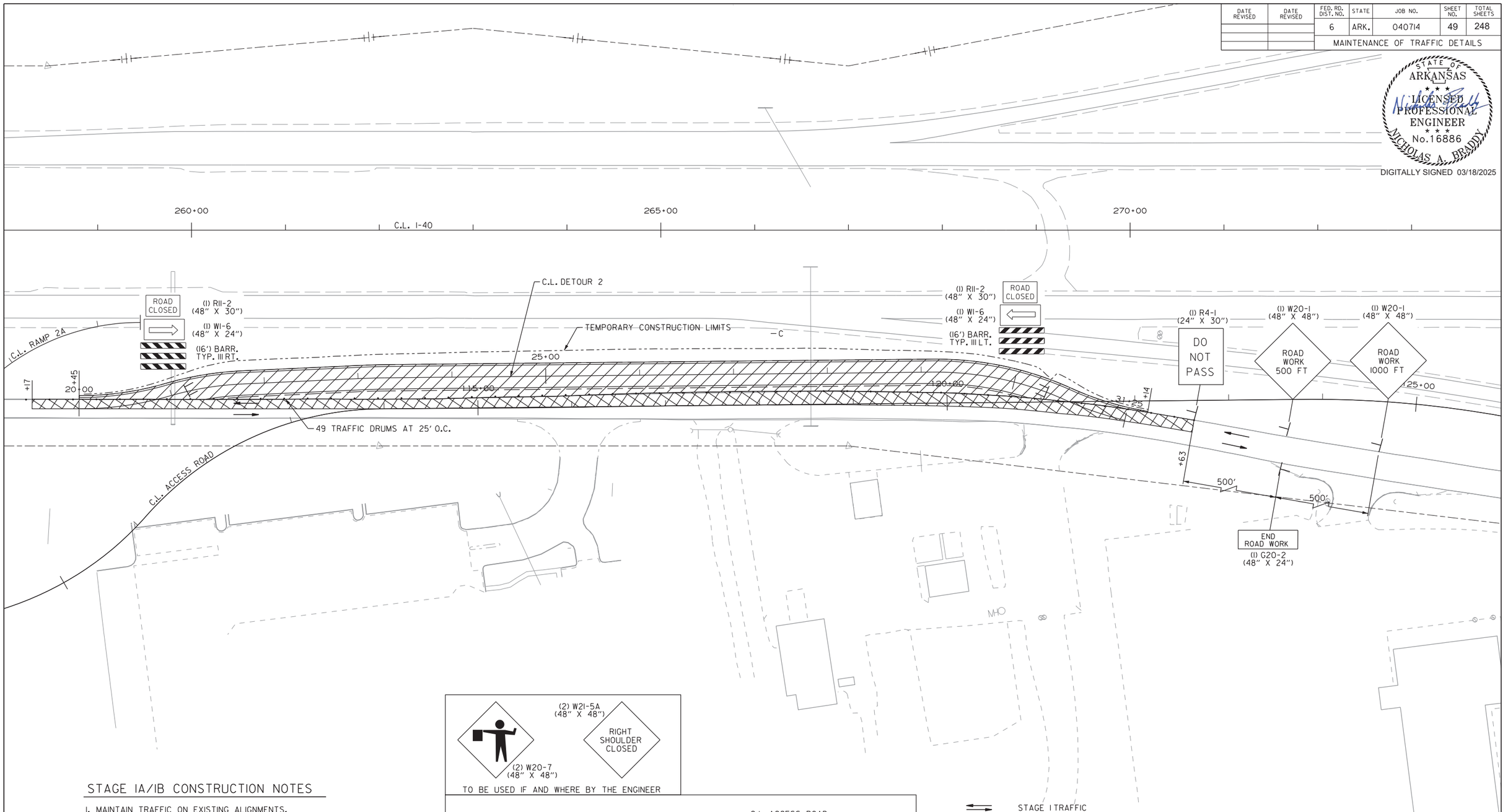
MAINTENANCE OF TRAFFIC DETAILS - STAGE IA & IB

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	49	248

MAINTENANCE OF TRAFFIC DETAILS

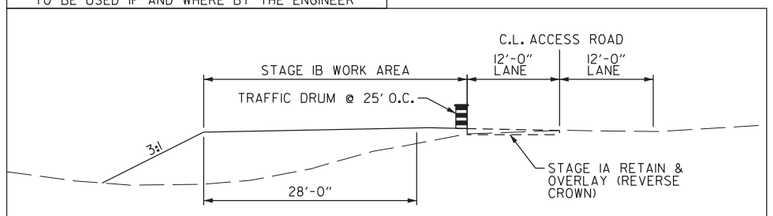
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE IA/IB CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON EXISTING ALIGNMENTS.
2. CONSTRUCT ACCESS ROAD REVERSE CROWN CORRECTION UNDER TRAFFIC TO ASSIST DRAINAGE IN FUTURE STAGES.
3. CONSTRUCT TEMPORARY DETOUR 1 AND 2.
4. CONSTRUCT SOUTH PORTION OF PROPOSED RAMP 3.

TO BE USED IF AND WHERE BY THE ENGINEER



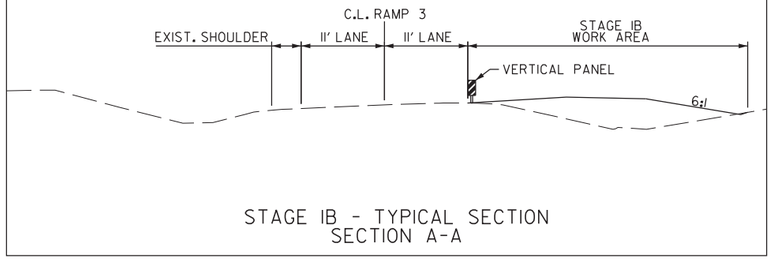
STAGE IB - TYPICAL SECTION

STAGE I TRAFFIC
STAGE I VERTICAL PANEL
STAGE I TRAFFIC DRUM
STAGE IA PAVING UNDER TRAFFIC
STAGE IB PROPOSED PAVING
STAGE IB TEMPORARY PAVING

MAINTENANCE OF TRAFFIC DETAILS - STAGE IA & IB

JATurner 3/18/2025 7:21:31 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	50	248
		MAINTENANCE OF TRAFFIC DETAILS				



STAGE IB - TYPICAL SECTION
SECTION A-A

STAGE IA/IB CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON EXISTING ALIGNMENTS.
2. CONSTRUCT ACCESS ROAD REVERSE CROWN CORRECTION UNDER TRAFFIC TO ASSIST DRAINAGE IN FUTURE STAGES.
3. CONSTRUCT TEMPORARY DETOUR 1 AND 2.
4. CONSTRUCT SOUTH PORTION OF PROPOSED RAMP 3.



STATE OF ARKANSAS
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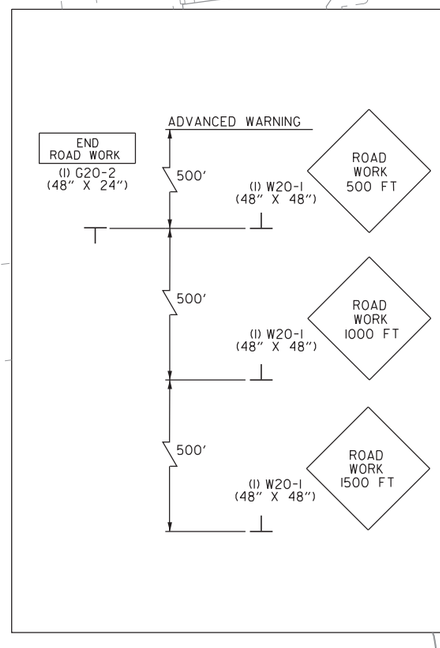
STAGE 1 TRAFFIC
STAGE 1 VERTICAL PANEL
STAGE 1 TRAFFIC DRUM
STAGE IA TEMPORARY PAVING
STAGE IB PROPOSED PAVING
STAGE IB TEMPORARY PAVING

MAINTENANCE OF TRAFFIC DETAILS - STAGE IA & IB

JATurner
3/18/2025 7:21:31 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	51	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025





STAGE I TRAFFIC

STAGE I VERTICAL PANEL

STAGE I TRAFFIC DRUM

STAGE IA TEMPORARY PAVING

STAGE IB PROPOSED PAVING

STAGE IB TEMPORARY PAVING

STAGE IA/IB CONSTRUCTION NOTES

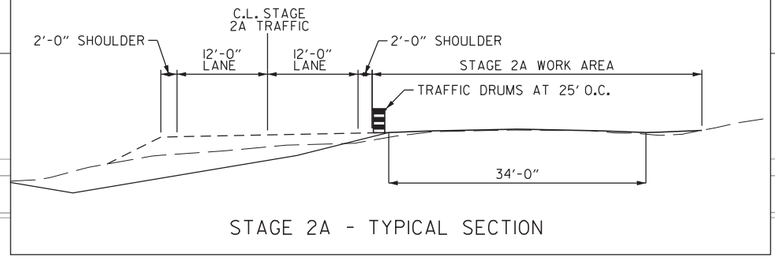
1. MAINTAIN TRAFFIC ON EXISTING ALIGNMENTS.
2. CONSTRUCT ACCESS ROAD REVERSE CROWN CORRECTION UNDER TRAFFIC TO ASSIST DRAINAGE IN FUTURE STAGES.
3. CONSTRUCT TEMPORARY DETOUR 1 AND 2.
4. CONSTRUCT SOUTH PORTION OF PROPOSED RAMP 3.

MAINTENANCE OF TRAFFIC DETAILS - STAGE IA & IB

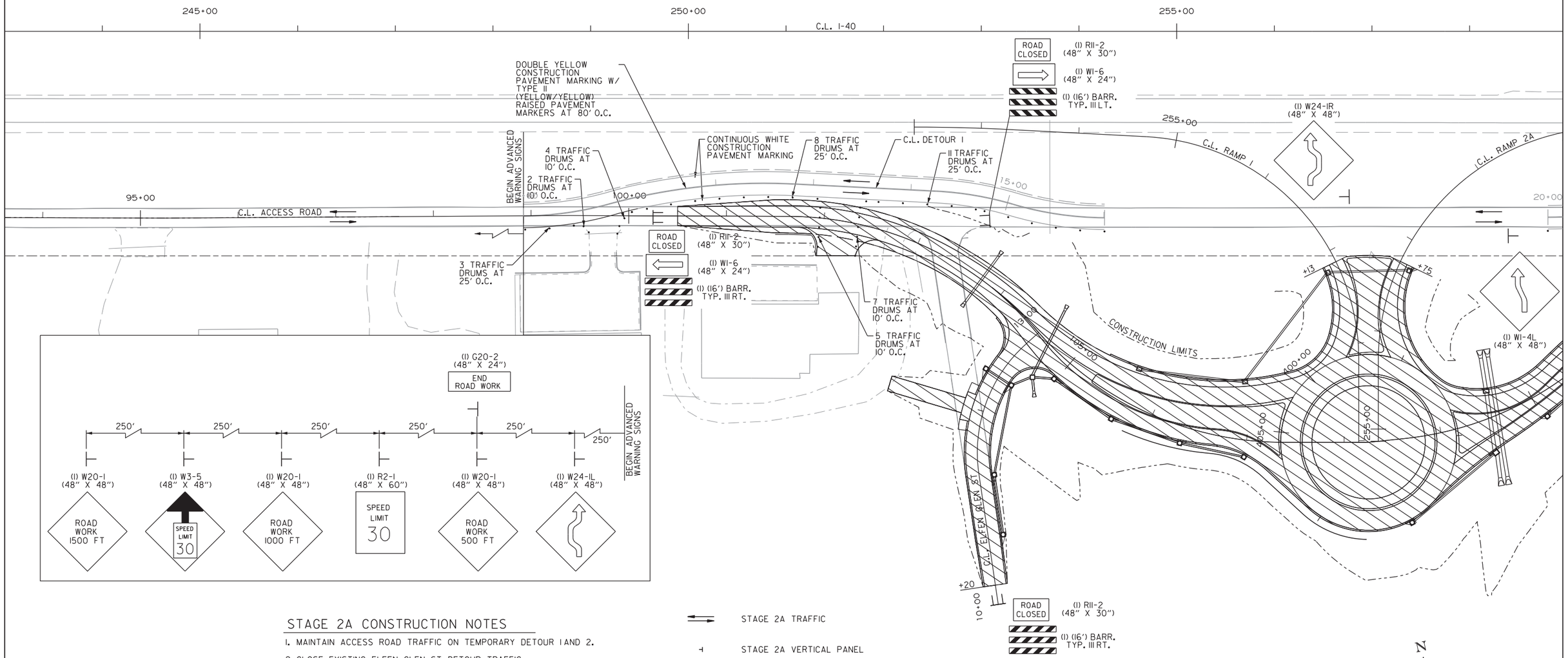
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	52	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE 2A - TYPICAL SECTION



STAGE 2A CONSTRUCTION NOTES

1. MAINTAIN ACCESS ROAD TRAFFIC ON TEMPORARY DETOUR 1 AND 2.
2. CLOSE EXISTING ELFEN GLEN ST. DETOUR TRAFFIC.
3. CONSTRUCT PROPOSED ACCESS ROAD, ROUNDABOUT AND APPROACHES, ELFEN GLEN STREET, AND TEMPORARY VERTICAL TIE FROM PROPOSED TO EXISTING ACCESS ROAD.
4. CONSTRUCT RAMP 3 LEVELING COURSE UNDER TRAFFIC. MAINTAIN TWO LANES OF RAMP 3 TRAFFIC.

- STAGE 2A TRAFFIC
- STAGE 2A VERTICAL PANEL
- STAGE 2A TRAFFIC DRUM
- STAGE 2A PAVING UNDER TRAFFIC
- STAGE 2A PROPOSED PAVING
- STAGE 2A TEMPORARY PAVING

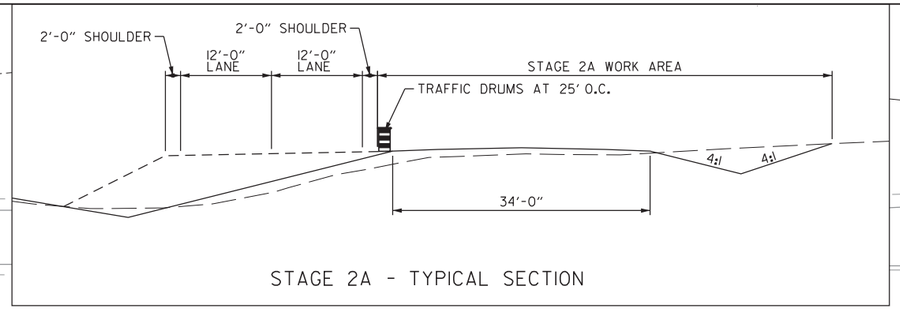
MAINTENANCE OF TRAFFIC DETAILS - STAGE 2A

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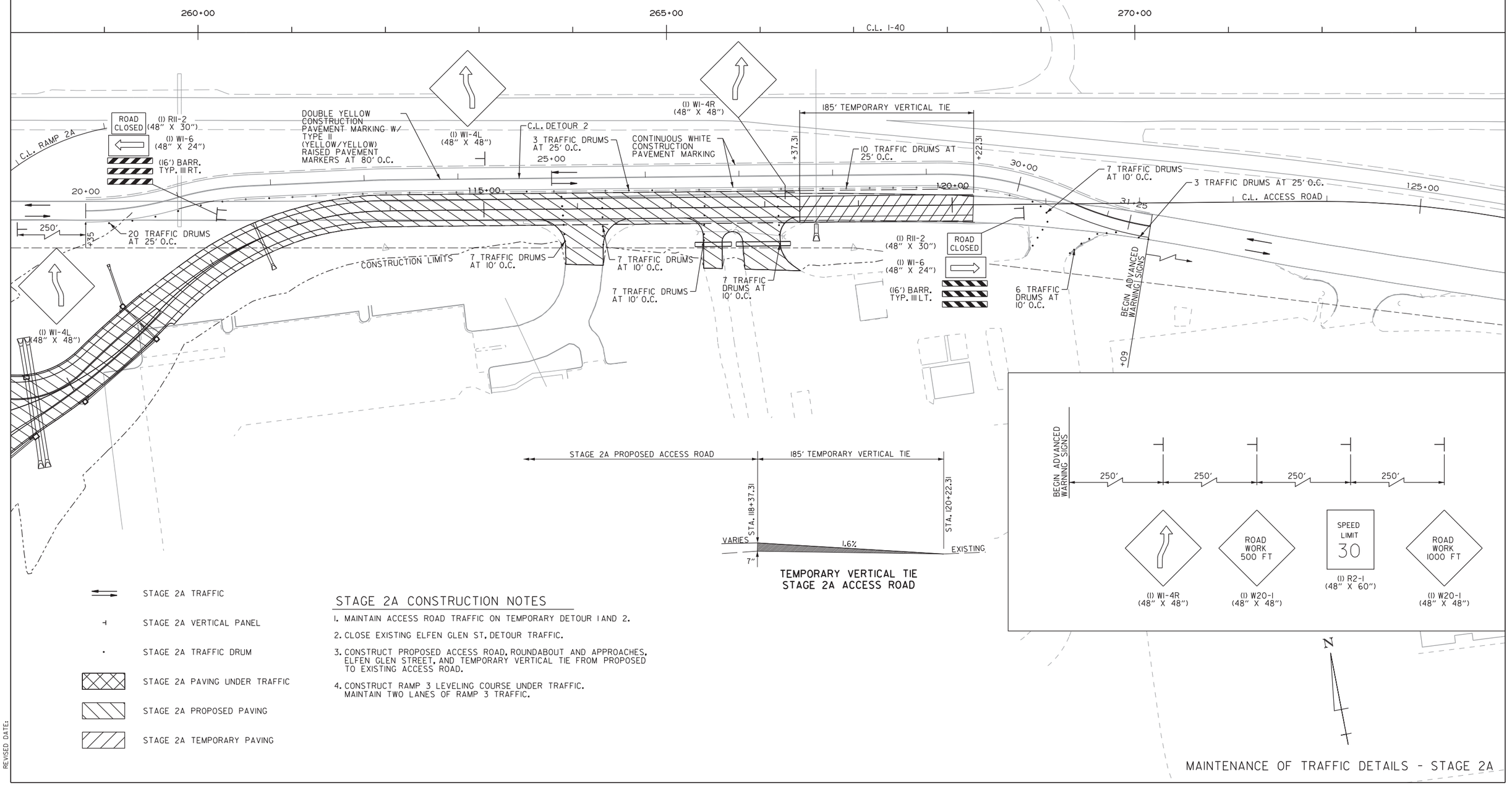
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	53	248

MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE 2A - TYPICAL SECTION



TEMPORARY VERTICAL TIE
STAGE 2A ACCESS ROAD

STAGE 2A TRAFFIC

STAGE 2A VERTICAL PANEL

STAGE 2A TRAFFIC DRUM

STAGE 2A PAVING UNDER TRAFFIC

STAGE 2A PROPOSED PAVING

STAGE 2A TEMPORARY PAVING

STAGE 2A CONSTRUCTION NOTES

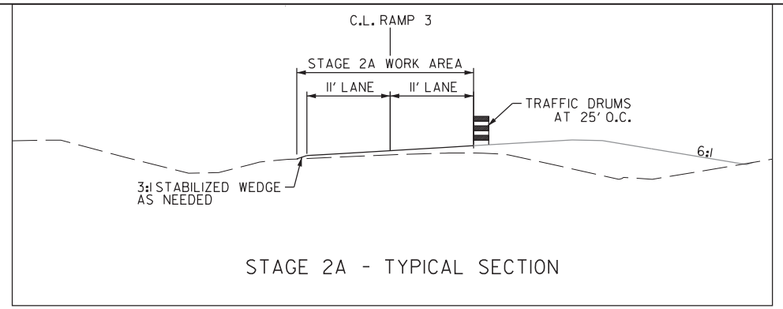
1. MAINTAIN ACCESS ROAD TRAFFIC ON TEMPORARY DETOUR 1 AND 2.
2. CLOSE EXISTING ELFEN GLEN ST, DETOUR TRAFFIC.
3. CONSTRUCT PROPOSED ACCESS ROAD, ROUNDABOUT AND APPROACHES, ELFEN GLEN STREET, AND TEMPORARY VERTICAL TIE FROM PROPOSED TO EXISTING ACCESS ROAD.
4. CONSTRUCT RAMP 3 LEVELING COURSE UNDER TRAFFIC. MAINTAIN TWO LANES OF RAMP 3 TRAFFIC.

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MAINTENANCE OF TRAFFIC DETAILS - STAGE 2A

JATurner
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	54	248
		MAINTENANCE OF TRAFFIC DETAILS				



STAGE 2A - TYPICAL SECTION

STAGE 2A TRAFFIC

STAGE 2A VERTICAL PANEL

STAGE 2A TRAFFIC DRUM

STAGE 2A PAVING UNDER TRAFFIC

STAGE 2A PROPOSED PAVING

STAGE 2A TEMPORARY PAVING

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

STAGE 2A CONSTRUCTION NOTES

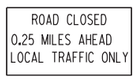
1. MAINTAIN ACCESS ROAD TRAFFIC ON TEMPORARY DETOUR 1 AND 2.
2. CLOSE EXISTING ELFEN GLEN ST, DETOUR TRAFFIC.
3. CONSTRUCT PROPOSED ACCESS ROAD, ROUNDABOUT AND APPROACHES, ELFEN GLEN STREET, AND TEMPORARY VERTICAL TIE FROM PROPOSED TO EXISTING ACCESS ROAD.
4. CONSTRUCT RAMP 3 LEVELING COURSE UNDER TRAFFIC. MAINTAIN TWO LANES OF RAMP 3 TRAFFIC.

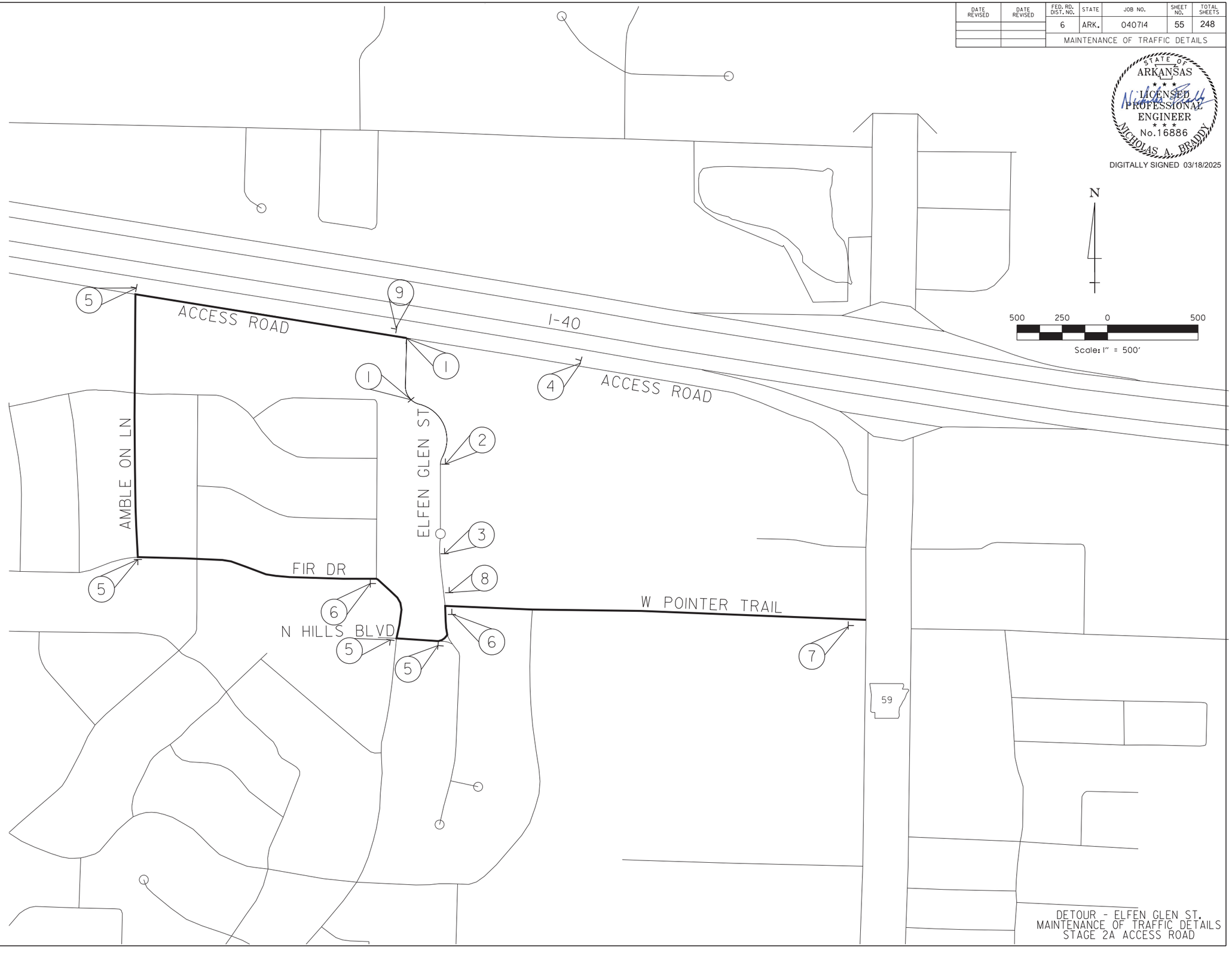
MAINTENANCE OF TRAFFIC DETAILS - STAGE 2A

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WORKSPACE: AHTD
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REVISED DATE: 3/18/2025 7:21:32 AM

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	55	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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No.16886
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DIGITALLY SIGNED 03/18/2025

1		(2) RII-2 (48" X 30") 8' BARR. TYP. III LT. 8' BARR. TYP. III RT.
2		(1) W20-3 (48" X 48")
3		(1) W20-3 (48" X 48")
4		(1) SPECIAL (48" X 36")
5		(1) M4-10L (30" X 24")
6		(1) M4-9R (30" X 24")
7		(1) G20-2 (48" X 24")
8		(1) RII-3A (60" X 30")
9		(1) M4-9S (30" X 24")



N

500 250 0 500

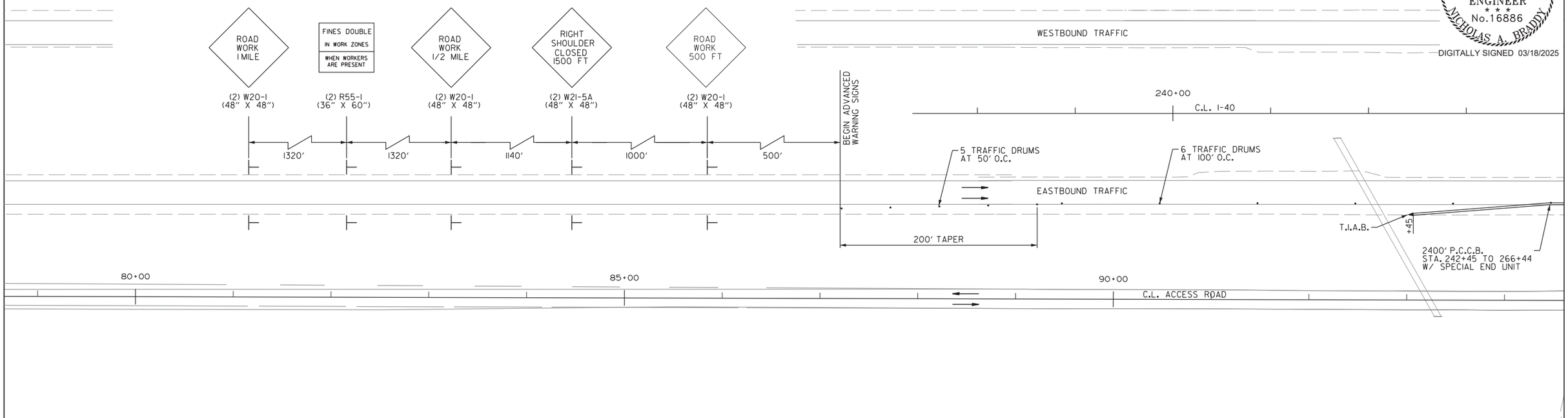
Scale: 1" = 500'

DETOUR - ELFEN GLEN ST.
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2A ACCESS ROAD

JATurner 3/18/2025 7:21:33 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	56	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE 2B TRAFFIC

STAGE 2B VERTICAL PANEL

STAGE 2B TRAFFIC DRUM

STAGE 2B PAVING UNDER TRAFFIC

STAGE 2B PROPOSED PAVING

STAGE 2B TEMPORARY PAVING

STAGE 2B CONSTRUCTION NOTES

1. MAINTAIN ACCESS ROAD TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP REMAINS OPEN.
3. CONSTRUCT I-40 WIDENING, RAMP 1, RAMP 2A, AND REMAINING PORTION OF RAMP 3.
4. PLACE FINAL LIFT OF SURFACE COURSE AND PERMANENT STRIPING

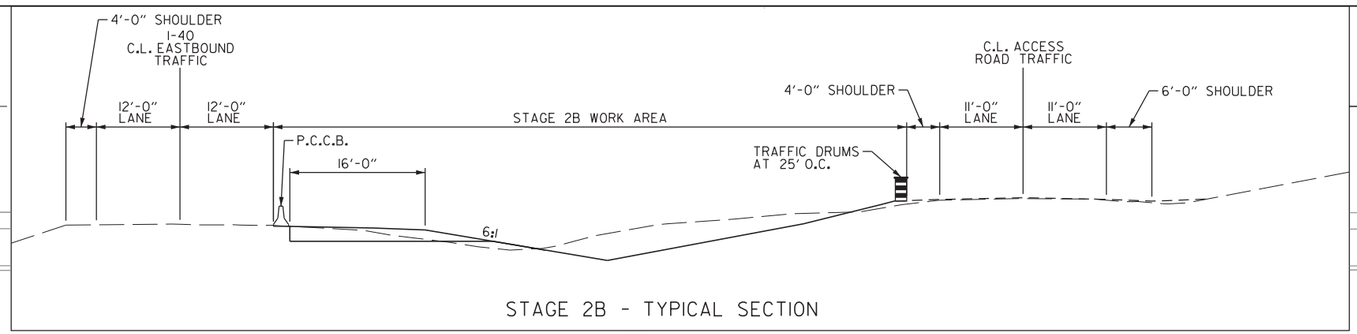
MAINTENANCE OF TRAFFIC DETAILS - STAGE 2B

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	57	248

MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADDY
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STAGE 2B - TYPICAL SECTION

WESTBOUND TRAFFIC

STA. 244+11.30
BEGIN JOB 040714
L.M. 4.60

245+00 250+00 255+00 C.L. I-40

+45' 98' LT.

EASTBOUND TRAFFIC

(I) G20-2 (48" X 24") END ROAD WORK

2400' P.C.C.B. STA. 242+45 TO STA. 266+44 W/ SPECIAL END UNIT

17 TRAFFIC DRUMS AT 25' O.C.

95+00 100+00 255+00

C.L. ACCESS ROAD

C.L. RAMP 1

C.L. RAMP 2A

250' 250' 500' 500'

(I) W3-5 (48" X 48") SPEED LIMIT 30

(I) R2-1 (48" X 48") SPEED LIMIT 30

(I) W20-1 (48" X 48") ROAD WORK 1000 FT

(I) W20-1 (48" X 48") ROAD WORK 500 FT

(I) R11-2 (48" X 30") ROAD CLOSED

(16') BARR. TYP. III LT.

(I) R11-2 (48" X 30") ROAD CLOSED

(16') BARR. TYP. III LT.

13+00 105+00 CONSTRUCTION LIMITS 400+00 405+00 255+00 C.L. ACCESS ROAD

10+00 C.L. ELFEN GLEN ST.

(I) W20-1 (48" X 48") ROAD WORK AHEAD

STAGE 2B CONSTRUCTION NOTES

1. MAINTAIN ACCESS ROAD TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP REMAINS OPEN.
3. CONSTRUCT I-40 WIDENING, RAMP 1, RAMP 2A, AND REMAINING PORTION OF RAMP 3. MAINTAIN TWO LANES OF RAMP 3 TRAFFIC.
4. PLACE FINAL LIFT OF SURFACE COURSE AND PERMANENT STRIPING

STAGE 2B TRAFFIC

STAGE 2B VERTICAL PANEL

STAGE 2B TRAFFIC DRUM

STAGE 2B PAVING UNDER TRAFFIC

STAGE 2B PROPOSED PAVING

STAGE 2B TEMPORARY PAVING

N

MAINTENANCE OF TRAFFIC DETAILS - STAGE 2B

JATurner 3/18/2025 7:21:33 AM
WORKSPACE: AHTD
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REVISED DATE:

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		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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No.16886
NICHOLAS A. BRADDY
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260+00 265+00 270+00 C.L. I-40

2400' P.C.C.B.
STA. 242+60 TO
STA. 266+44 W/
SPECIAL END UNIT

EXIT ONLY
(1) E5-3 (48" X 36")
(1) M6-2 (30" X 21")

+21' 95'LT.
+41' 94'LT.
+44

5 TRAFFIC DRUMS AT 50' O.C.

C.L. RAMP 2A
20+00 25+00 115+00 120+00 30+00 125+00
C.L. ACCESS ROAD
31 25

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

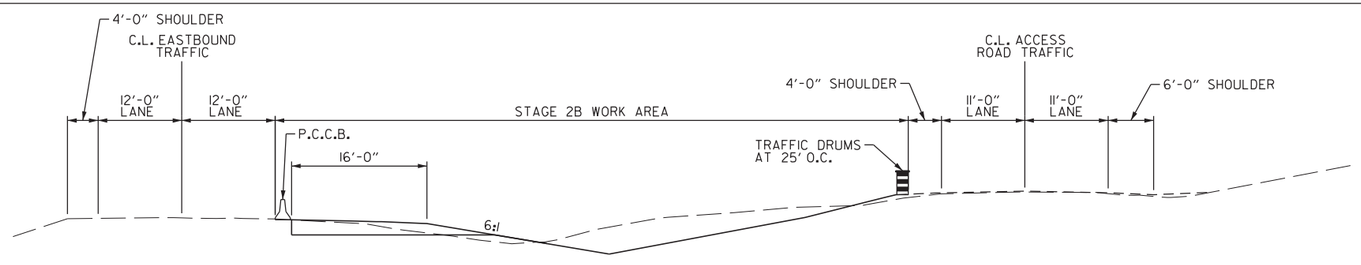
CONSTRUCTION LIMITS

STAGE 2B CONSTRUCTION NOTES

1. MAINTAIN ACCESS ROAD TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP REMAINS OPEN.
3. CONSTRUCT I-40 WIDENING, RAMP 1, RAMP 2A, AND REMAINING PORTION OF RAMP 3. MAINTAIN TWO LANES OF RAMP 3 TRAFFIC.
4. PLACE FINAL LIFT OF SURFACE COURSE AND PERMANENT STRIPING

STAGE 2B TRAFFIC
STAGE 2B VERTICAL PANEL
STAGE 2B TRAFFIC DRUM
STAGE 2B PAVING UNDER TRAFFIC
STAGE 2B PROPOSED PAVING
STAGE 2B TEMPORARY PAVING

END ADVANCED WARNING SIGNS I-40 EASTBOUND STA. 281+00
END ROAD WORK
(1) G20-2 (48" X 24")
500'



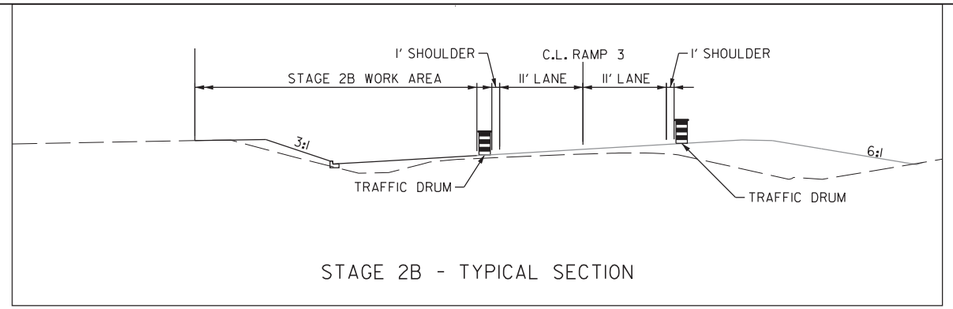
STAGE 2B - TYPICAL SECTION

MAINTENANCE OF TRAFFIC DETAILS - STAGE 2B

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REVISED DATE:

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		6	ARK.	040714	59	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE 2B - TYPICAL SECTION

- STAGE 2B TRAFFIC
- STAGE 2B VERTICAL PANEL
- STAGE 2B TRAFFIC DRUM
- STAGE 2B PAVING UNDER TRAFFIC
- STAGE 2B PROPOSED PAVING
- STAGE 2B TEMPORARY PAVING

N

STAGE 2B CONSTRUCTION NOTES

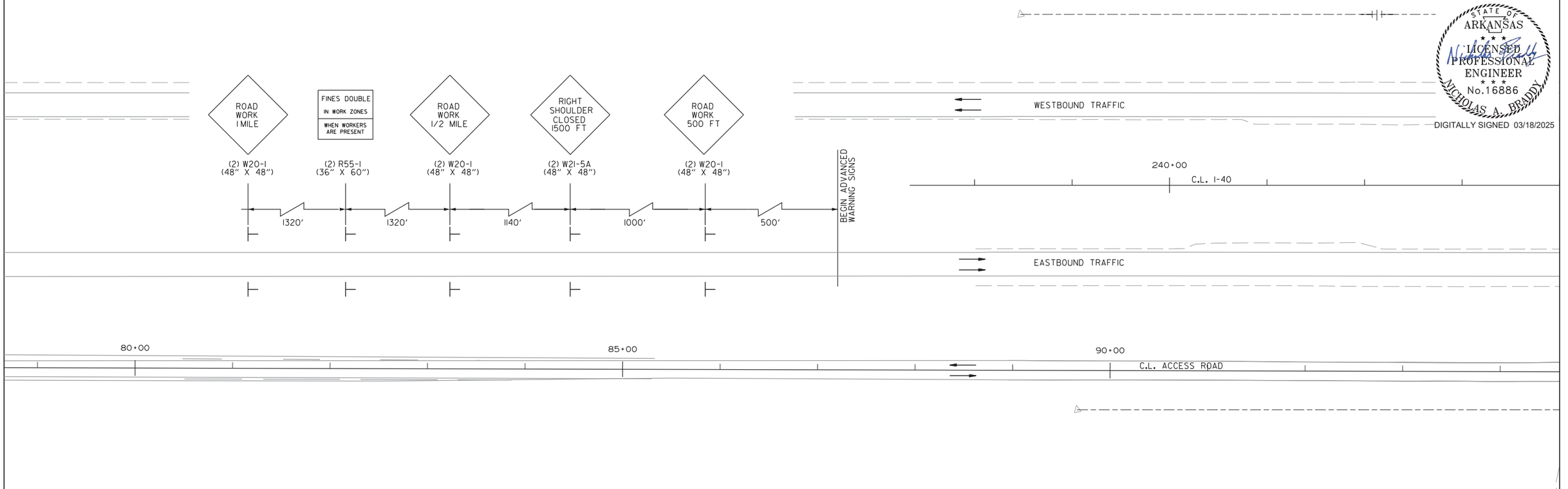
1. MAINTAIN ACCESS ROAD TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP REMAINS OPEN.
3. CONSTRUCT I-40 WIDENING, RAMP 1, RAMP 2A, AND REMAINING PORTION OF RAMP 3. MAINTAIN TWO LANES OF RAMP 3 TRAFFIC.
4. PLACE FINAL LIFT OF SURFACE COURSE AND PERMANENT STRIPING

MAINTENANCE OF TRAFFIC DETAILS - STAGE 2B

JATurner 3/18/2025 7:21:34 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	60	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE 3 TRAFFIC

STAGE 3 VERTICAL PANEL

STAGE 3 TRAFFIC DRUM

STAGE 3 PAVING UNDER TRAFFIC

STAGE 3 PROPOSED PAVING

STAGE 3 TEMPORARY PAVING

STAGE 3 CONSTRUCTION NOTES

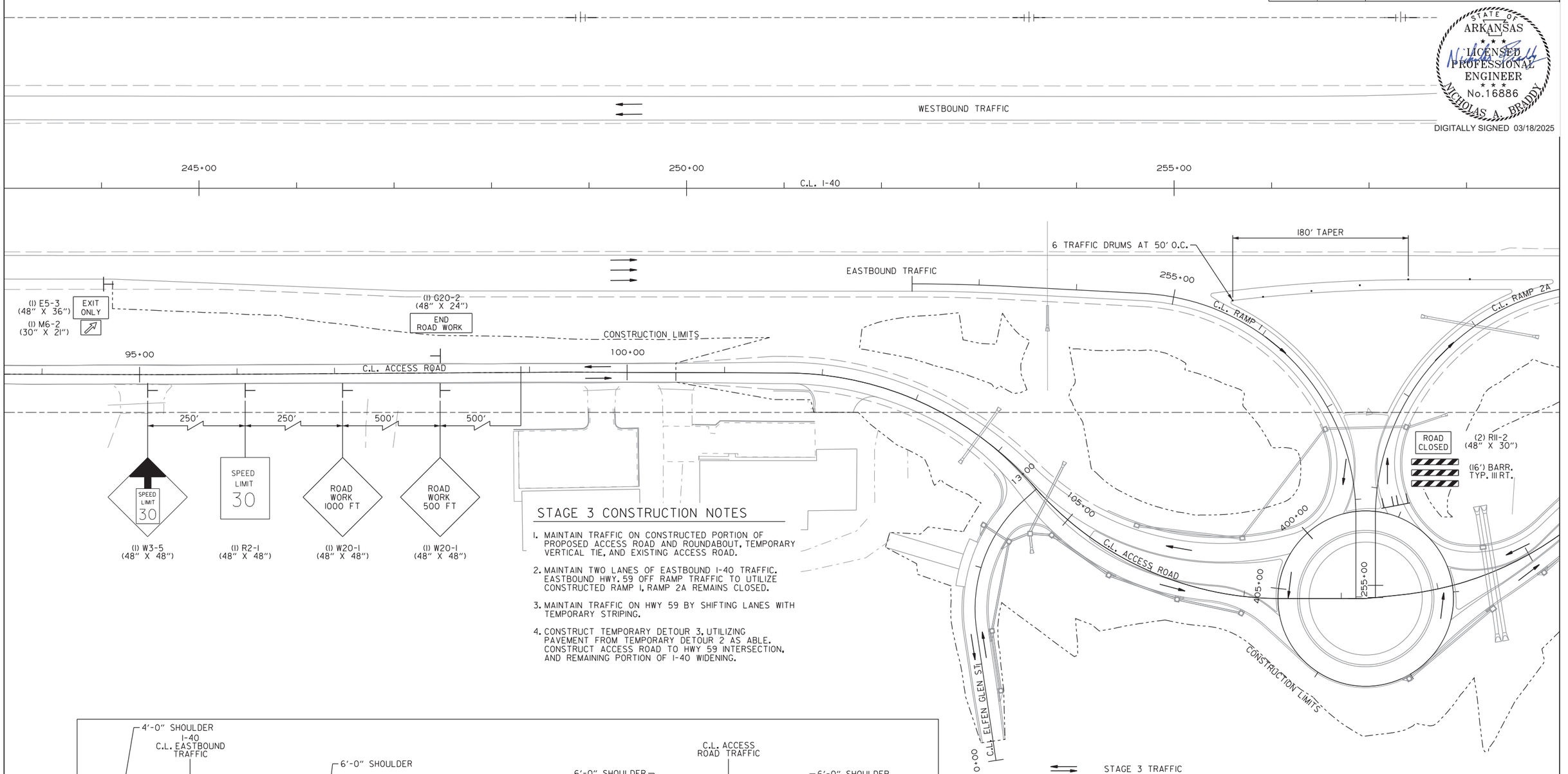
1. MAINTAIN TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP TRAFFIC TO UTILIZE CONSTRUCTED RAMP 1, RAMP 2A REMAINS CLOSED.
3. MAINTAIN TRAFFIC ON HWY 59 BY SHIFTING LANES WITH TEMPORARY STRIPING.
4. CONSTRUCT TEMPORARY DETOUR 3, UTILIZING PAVEMENT FROM TEMPORARY DETOUR 2 AS ABLE. CONSTRUCT ACCESS ROAD TO HWY 59 INTERSECTION, AND REMAINING PORTION OF I-40 WIDENING.

MAINTENANCE OF TRAFFIC DETAILS - STAGE 3

JATurner 3/18/2025 7:21:34 AM
WORKSPACE: AHTD
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REVISED DATE:

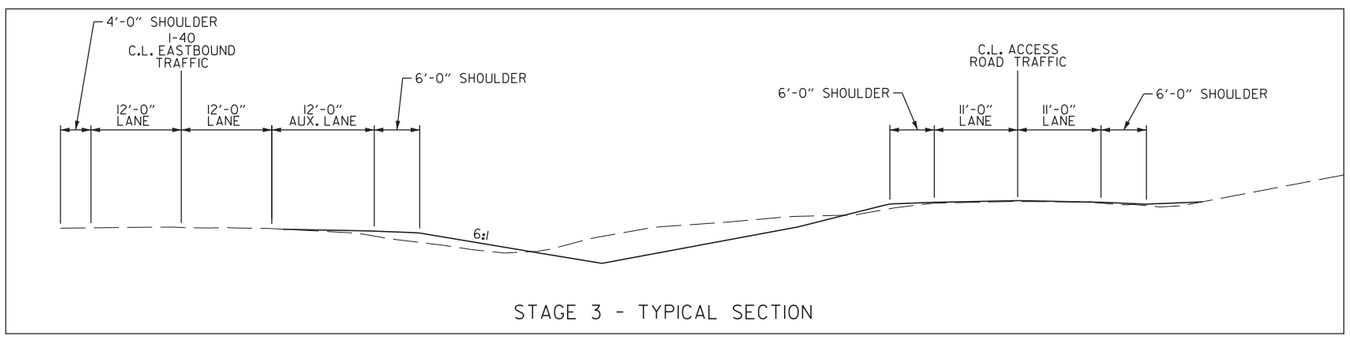
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		6	ARK.	040714	61	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025



STAGE 3 CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP TRAFFIC TO UTILIZE CONSTRUCTED RAMP 1, RAMP 2A REMAINS CLOSED.
3. MAINTAIN TRAFFIC ON HWY 59 BY SHIFTING LANES WITH TEMPORARY STRIPING.
4. CONSTRUCT TEMPORARY DETOUR 3, UTILIZING PAVEMENT FROM TEMPORARY DETOUR 2 AS ABLE. CONSTRUCT ACCESS ROAD TO HWY 59 INTERSECTION, AND REMAINING PORTION OF I-40 WIDENING.



STAGE 3 - TYPICAL SECTION

MAINTENANCE OF TRAFFIC DETAILS - STAGE 3

JATurner 3/18/2025 7:21:34 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	62	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
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DIGITALLY SIGNED 03/18/2025

260+00 C.L. I-40 265+00 270+00

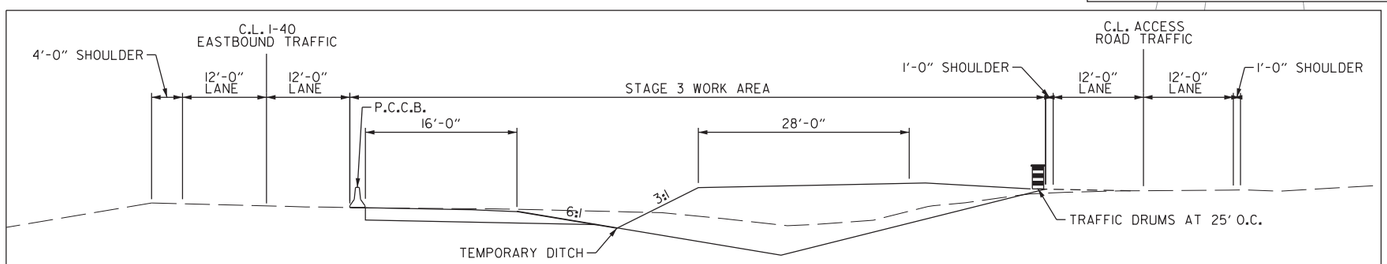
(1) RII-2 (48" X 30") ROAD CLOSED
(1) WI-6 (48" X 24")
(16') BARR. TYP. III LT.
7 TRAFFIC DRUMS AT 100' O.C.
C.L. RAMP 2A
T.I.A.B.
+15
+25
45+00
TEMPORARY CONSTRUCTION LIMITS
1300' P.C.C.B. STA. 263+15 TO STA. 276+15 W/ SPECIAL END UNIT
50+00
C.L. DETOUR 3
51+89
125+00
120+00
115+00
C.L. ACCESS ROAD
40+00
C.L. DETOUR 3
54 TRAFFIC DRUMS AT 25' O.C.
+50
+09
BEGIN ADVANCED WARNING SIGNS

STAGE 3 CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP TRAFFIC TO UTILIZE CONSTRUCTED RAMP 1, RAMP 2A REMAINS CLOSED.
3. MAINTAIN TRAFFIC ON HWY 59 BY SHIFTING LANES WITH TEMPORARY STRIPING.
4. CONSTRUCT TEMPORARY DETOUR 3, UTILIZING PAVEMENT FROM TEMPORARY DETOUR 2 AS ABLE. CONSTRUCT ACCESS ROAD TO HWY 59 INTERSECTION, AND REMAINING PORTION OF I-40 WIDENING.

BEGIN ADVANCED WARNING SIGNS
500' 250' 250'
ROAD WORK 500 FT — (1) W20-1 (48" X 48")
SPEED LIMIT 30 — (1) R2-1 (48" X 60")
ROAD WORK 1000 FT — (1) W20-1 (48" X 48")

STAGE 3 TRAFFIC
STAGE 3 VERTICAL PANEL
STAGE 3 TRAFFIC DRUM
STAGE 3 PAVING UNDER TRAFFIC
STAGE 3 PROPOSED PAVING
STAGE 3 TEMPORARY PAVING



STAGE 3 - TYPICAL SECTION

N

MAINTENANCE OF TRAFFIC DETAILS - STAGE 3

JATurner
3/18/2025 7:21:35 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	63	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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ADVANCED WARNING (SEE STAGE 1A/1B)

C.L. RAMP 3

275+00 | 280+00 | 285+00

C.L. I-40

40+00 | +08

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

DASHED WHITE CONSTRUCTION PAVEMENT MARKING

SOLID - DASHED YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

+38.82

5 TRAFFIC DRUMS AT 25' O.C.

1300' P.C.C.B. STA. 263+15 TO STA. 276+15 W/ SPECIAL END UNIT

20 TRAFFIC DRUMS AT 10' O.C.

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

CONTINUOUS WHITE STOP LINE CONSTRUCTION PAVEMENT MARKING

SPECIAL END UNIT

T.L.A.B.

60' P.C.C.B. TO REMAIN UNTIL STAGE 4A

280+00

C.L. RAMP 2B

285+00

END ADVANCED WARNING SIGNS STA. 281+00

(2) G20-2 (48" X 24") END ROAD WORK

500'

5+00

C.L. ACCESS ROAD

130+00

CONTINUOUS WHITE STOP LINE CONSTRUCTION PAVEMENT MARKING

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

18 TRAFFIC DRUMS @ 25' O.C.

DASHED WHITE CONSTRUCTION PAVEMENT MARKING

160' P.C.C.B. STA. 35+80 TO STA. 37+40 W/ SPECIAL END UNIT

3 TRAFFIC DRUMS @ 10' O.C.

SOLID - DASHED YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

35+00

CONTINUOUS WHITE STOP LINE CONSTRUCTION PAVEMENT MARKING

BEGIN ADVANCED WARNING SIGNS

32+50

(1) G20-2 (48" X 24") END ROAD WORK

BEGIN ADVANCED WARNING SIGNS

500' | 500' | 500'

ROAD NARROWS (1) W5-1 (48" X 48")

ROAD WORK 1000 FT (1) W20-1 (48" X 48")

ROAD WORK 1500 FT (1) W20-1 (48" X 48")

STAGE 3 CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON CONSTRUCTED PORTION OF PROPOSED ACCESS ROAD AND ROUNDABOUT, TEMPORARY VERTICAL TIE, AND EXISTING ACCESS ROAD.
2. MAINTAIN TWO LANES OF EASTBOUND I-40 TRAFFIC. EASTBOUND HWY. 59 OFF RAMP TRAFFIC TO UTILIZE CONSTRUCTED RAMP 1, RAMP 2A REMAINS CLOSED.
3. MAINTAIN TRAFFIC ON HWY 59 BY SHIFTING LANES WITH TEMPORARY STRIPING.
4. CONSTRUCT TEMPORARY DETOUR 3, UTILIZING PAVEMENT FROM TEMPORARY DETOUR 2 AS ABLE. CONSTRUCT ACCESS ROAD TO HWY 59 INTERSECTION, AND REMAINING PORTION OF I-40 WIDENING.

STAGE 3 TRAFFIC

STAGE 3 VERTICAL PANEL

STAGE 3 TRAFFIC DRUM

STAGE 3 PAVING UNDER TRAFFIC

STAGE 3 PROPOSED PAVING

STAGE 3 TEMPORARY PAVING

N

C.L. HWY. 59

1'-0" SHOULDER | STAGE 3 WORK AREA | 10'-6" LANE | 10'-6" LANE | 10'-6" LANE | 10'-6" LANE | 10'-6" LANE

P.C.C.B.

EXISTING CURB FACE

STAGE 3 - TYPICAL SECTION

MAINTENANCE OF TRAFFIC DETAILS - STAGE 3

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	64	248
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

260+00 265+00 C.L. I-40 270+00

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

13 TRAFFIC DRUMS AT 25' O.C.

C.L. RAMP 2A

(I) WI-4L (48" X 48")

45+00

C.L. DETOUR 3

115+00

40+00

+64

ROAD CLOSED

(I) RII-2 (48" X 30")

(I) WI-6 (48" X 24")

(16') BARR. TYP. III RT.

9 TRAFFIC DRUMS AT 10' O.C.

9 TRAFFIC DRUMS AT 10' O.C.

3 TRAFFIC DRUMS AT 25' O.C.

7 TRAFFIC DRUMS AT 10' O.C.

12 TRAFFIC DRUMS AT 10' O.C.

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

(I) WI-4R (48" X 48")

120+00

23 TRAFFIC DRUMS AT 25' O.C.

50+00

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

51+89

125+00

(I) RII-2 (48" X 30")

(I) WI-6 (48" X 24")

ROAD CLOSED

(16') BARR. TYP. III LT.

12 TRAFFIC DRUMS AT 10' O.C.

16 TRAFFIC DRUMS AT 10' O.C.

C.L. ACCESS ROAD

250'

(I) WI-4L (48" X 48")

250'

ROAD WORK 250 FT

(I) W20-1 (48" X 48")

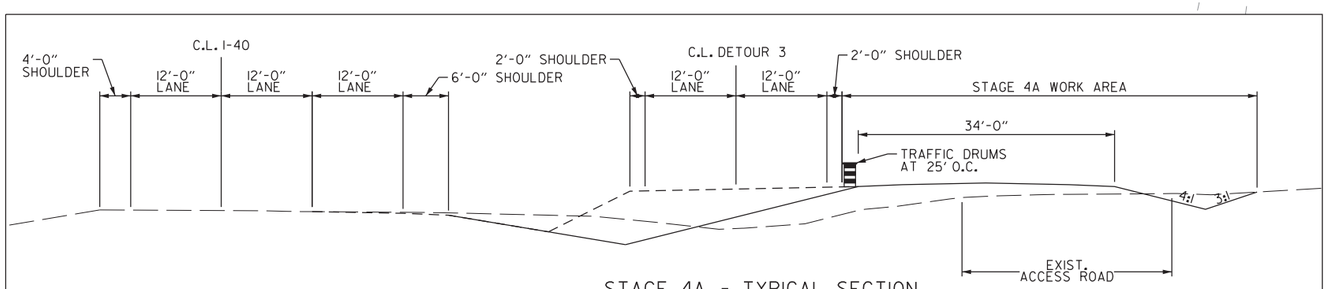
SPEED LIMIT 30

(I) R2-1 (48" X 60")

STAGE 4A CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON CONSTRUCTED ACCESS ROAD AND SHIFT TRAFFIC TO TEMPORARY DETOUR 3.
2. MAINTAIN HWY 59 TRAFFIC BY SHIFTING LANES WITH TEMPORARY STRIPING.
3. CONSTRUCT REMAINING PORTION OF PROPOSED ACCESS ROAD, AND CONSTRUCT RAMP 2B WIDENING.

- STAGE 4A TRAFFIC
- STAGE 4A VERTICAL PANEL
- STAGE 4A TRAFFIC DRUM
- STAGE 4A PAVING UNDER TRAFFIC
- STAGE 4A PROPOSED PAVING
- STAGE 4A TEMPORARY PAVING



STAGE 4A - TYPICAL SECTION

N

MAINTENANCE OF TRAFFIC DETAILS - STAGE 4A

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		6	ARK.	040714	65	248

MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

STAGE 4A CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC ON CONSTRUCTED ACCESS ROAD AND SHIFT TRAFFIC TO TEMPORARY DETOUR 3.
2. MAINTAIN HWY 59 TRAFFIC BY SHIFTING LANES WITH TEMPORARY STRIPING.
3. CONSTRUCT REMAINING PORTION OF PROPOSED ACCESS ROAD, AND CONSTRUCT RAMP 2B WIDENING.

ADVANCED WARNING (SEE STAGE 1A/1B)

275+00 | 280+00 | 285+00 | C.L. I-40

40+00

DASHED WHITE CONSTRUCTION PAVEMENT MARKING

+65

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

SOLID - DASHED YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

CONTINUOUS WHITE STOP LINE CONSTRUCTION PAVEMENT MARKING

SPECIAL END UNIT

60' P.C.C.B. TO REMAIN UNTIL STAGE 4A

39 TRAFFIC DRUMS AT 10' O.C.

285+00 C.L. RAMP 3

BEGIN ADVANCED WARNING SIGNS

(1) W1-4R (48" X 48") — (1) W20-1 (48" X 48") — ROAD WORK 300 FT — SPEED LIMIT 30 — (1) R2-1 (48" X 60")

200' | 100' | 100' | 100'

5+00

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

CONTINUOUS WHITE STOP LINE CONSTRUCTION PAVEMENT MARKING

C.L. ACCESS ROAD

130+00

285+00 C.L. RAMP 2B

15 TRAFFIC DRUMS AT 25' O.C.

CONSTRUCTION LIMITS

120' P.C.C.B. W/ SPECIAL END UNIT

T.I.A.B.

CONTINUOUS WHITE CONSTRUCTION PAVEMENT MARKING

DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

ROAD CLOSED — (2) R11-2 (48" X 30") — (2) (16') BARR. TYP. IMLT.

35+00

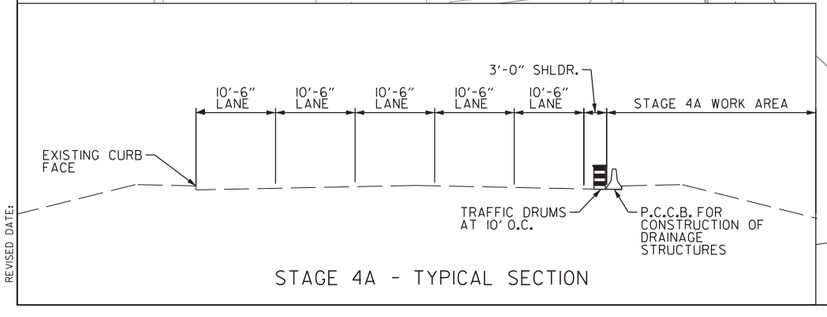
DASHED WHITE CONSTRUCTION PAVEMENT MARKING

SOLID - DASHED YELLOW CONSTRUCTION PAVEMENT MARKING W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.

32+50 C.L. HWY 59

BEGIN ADVANCED WARNING SIGNS

STAGE 4A - TYPICAL SECTION



BEGIN ADVANCED WARNING SIGNS

(1) G20-2 (48" X 24") END ROAD WORK

500' — ROAD NARROWS (1) W5-1 (48" X 48")

500' — ROAD WORK 1000 FT (1) W20-1 (48" X 48")

500' — ROAD WORK 1500 FT (1) W20-1 (48" X 48")

STAGE 4A TRAFFIC

STAGE 4A VERTICAL PANEL

STAGE 4A TRAFFIC DRUM

STAGE 4A PAVING UNDER TRAFFIC

STAGE 4A PROPOSED PAVING

STAGE 4A TEMPORARY PAVING

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MAINTENANCE OF TRAFFIC DETAILS - STAGE 4A

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		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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260+00 C.L. I-40 265+00 270+00

C.L. RAMP 2B

REMOVE DETOUR 2 AND 3 FOR FINAL GRADING

51 TRAFFIC DRUMS AT 25' O.C.

45+00 50+00 51+83 115+00 120+00 125+00 40+00

C.L. ACCESS ROAD

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

STAGE 4B CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC IN PROPOSED CONDITION.
2. CONSTRUCT MILL AND OVERLAY OF PAVEMENT ON HWY. 59 AND RAMP 2B UNDER TRAFFIC.
3. COMPLETE FINAL GRADING OPERATIONS, PLACE FINAL 2" ACHM SURFACE COURSE AND PERMANENT PAVEMENT MARKINGS

STAGE 4B TRAFFIC

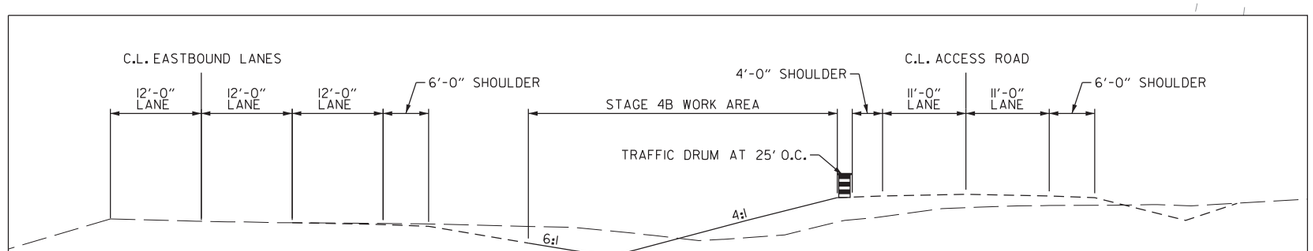
STAGE 4B VERTICAL PANEL

STAGE 4B TRAFFIC DRUM

STAGE 4B PAVING UNDER TRAFFIC

STAGE 4B PROPOSED PAVING

STAGE 4B TEMPORARY PAVING



STAGE 4B - TYPICAL SECTION

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MAINTENANCE OF TRAFFIC DETAILS - STAGE 4B

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MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

STAGE 4B CONSTRUCTION NOTES

1. MAINTAIN TRAFFIC IN PROPOSED CONDITION.
2. CONSTRUCT MILL AND OVERLAY OF PAVEMENT ON HWY. 59 AND RAMP 2B UNDER TRAFFIC.
3. COMPLETE FINAL GRADING OPERATIONS, PLACE FINAL 2" ACHM SURFACE COURSE AND PERMANENT PAVEMENT MARKINGS

STAGE 4B TRAFFIC

STAGE 4B VERTICAL PANEL

STAGE 4B TRAFFIC DRUM

STAGE 4B PAVING UNDER TRAFFIC

STAGE 4B PROPOSED PAVING

STAGE 4B TEMPORARY PAVING

N

ADVANCED WARNING (SEE STAGE 1A/1B)

C.L. HWY 59

45+00

MHO

280+00

C.L. RAMP 3

C.L. I-40

280+00

40+00

CONSTRUCTION LIMITS

130+00

CONSTRUCTION LIMITS

280+00

20 TRAFFIC DRUMS AT 10' O.C.

REMOVE EXISTING ACCESS ROAD

00

40+00

280+00

C.L. ACCESS ROAD

130+00

CONSTRUCTION LIMITS

280+00

C.L. RAMP 2B

CONSTRUCTION LIMITS

35+00

C.L. HWY 59

32+50

ADVANCED WARNING (SEE STAGE 1A/1B)

MAINTENANCE OF TRAFFIC DETAILS - STAGE 4B

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		6	ARK.	040714	68	248
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

THERMOPLASTIC PAVEMENT MARKING WHITE (6")

STA.	STA.	LOCATION	LIN. FT.
76+00	107+86	ACCESS ROAD LT.	3181
76+00	101+89	ACCESS ROAD RT.	2588
102+47	104+45	ACCESS ROAD RT.	204
400+08	400+42	ROUNDABOUT C.L.	9
400+42	400+89	ROUNDABOUT C.L.	47
401+33	401+73	ROUNDABOUT C.L.	10
401+73	402+29	ROUNDABOUT C.L.	56
404+15	404+72	ROUNDABOUT C.L.	14
404+72	405+38	ROUNDABOUT C.L.	66
108+80	130+09	ACCESS ROAD LT.	2162
111+29	115+75	ACCESS ROAD RT.	436
116+39	117+28	ACCESS ROAD RT.	89
118+22	120+72	ACCESS ROAD RT.	251
121+24	123+95	ACCESS ROAD RT.	271
124+60	126+10	ACCESS ROAD LT.	151
124+76	130+50	ACCESS ROAD RT.	575
127+60	131+09	ACCESS ROAD RT.	352
127+60	131+30	ACCESS ROAD RT.	377
130+13	131+27	ACCESS ROAD LT.	111
130+13	131+18	ACCESS ROAD LT.	140
130+77	131+34	ACCESS ROAD RT.	75
35+64	36+54	HWY. 59 RT.	97
35+67	36+67	HWY. 59 RT.	100
36+35	36+76	HWY. 59 LT.	41
36+42	36+64	HWY. 59 RT.	28
36+42	37+55	HWY. 59 RT.	113
37+09	38+17	HWY. 59 LT.	107
39+45	42+19	HWY. 59 RT.	274
43+44	44+33	HWY. 59 RT.	99

THERMOPLACTIC PAVEMENT MARKING (ARROWS)

STA.	LOCATION	EACH
400+83	ROUNDABOUT LT.	1
402+28	ROUNDABOUT LT.	1
403+44	ROUNDABOUT LT.	1
405+32	ROUNDABOUT LT.	1
124+83	ACCESS ROAD C.L.	1
125+86	ACCESS ROAD C.L.	1
127+84	ACCESS ROAD RT.	3
128+84	ACCESS ROAD RT.	3
129+84	ACCESS ROAD RT.	3
130+66	ACCESS ROAD RT.	1
130+80	ACCESS ROAD RT.	2
279+38	RAMP 3 LT.	2
279+44	RAMP 3 RT.	2
280+44	RAMP 3 C.L.	4
281+44	RAMP 3 C.L.	4
282+44	RAMP 3 C.L.	4
283+44	RAMP 3 C.L.	4
284+44	RAMP 3 C.L.	4
285+39	RAMP 3 C.L.	4
35+71	HWY. 59 C.L.	1
36+41	HWY. 59 C.L.	1
39+53	HWY. 59 C.L.	1
40+63	HWY. 59 C.L.	1
41+73	HWY. 59 C.L.	1

THERMOPLACTIC PAVEMENT MARKING (WORDS)

STA.	LOCATION	EACH
107+24	ACCESS ROAD RT.	1
109+30	ACCESS ROAD LT.	1
257+99	RAMP 1RT.	1
125+34	ACCESS ROAD C.L.	1
128+36	ACCESS ROAD RT.	3
129+36	ACCESS ROAD RT.	3
130+19	ACCESS ROAD LT.	1
130+30	ACCESS ROAD RT.	1
130+35	ACCESS ROAD RT.	2
131+18	ACCESS ROAD RT.	1
279+92	RAMP 3 C.L.	4
280+92	RAMP 3 C.L.	4
281+92	RAMP 3 C.L.	4
282+92	RAMP 3 C.L.	4
283+92	RAMP 3 C.L.	4
284+92	RAMP 3 C.L.	4
36+08	HWY. 59 C.L.	1
40+10	HWY. 59 C.L.	1
41+20	HWY. 59 C.L.	1

ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")

STA.	STA.	LOCATION	LIN. FT.
244+11	256+58	I-40 RT.	1383
257+37	275+39	I-40 RT.	1947
279+73	280+07	RAMP 2B RT.	40
279+83	281+50	RAMP 2B RT.	174
278+94	289+52	RAMP 3 LT.	1058
279+07	285+52	RAMP 3 LT.	644
279+05	285+52	RAMP 3 C.L.	696
279+07	285+52	RAMP 3 RT.	645
279+07	285+52	RAMP 3 LT.	645
279+67	288+52	RAMP 3 LT.	881

ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")

STA.	STA.	LOCATION	LIN. FT.
255+60	258+15	RAMP 1LT.	264
255+74	258+48	RAMP 2A LT.	284
280+07	281+49	RAMP 2B LT.	143
279+13	289+52	RAMP 3 RT.	1047

ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")

STA.	STA.	LOCATION	LIN. FT.
247+11	252+31	I-40 RT. (DOTTED)	130
252+31	259+07	I-40 RT.	676
259+07	275+17	I-40 RT. (DOTTED)	408
252+31	255+60	RAMP 1LT.	331
258+48	259+08	RAMP 2A LT.	62
279+13	279+11	RAMP 3 (STOP LINE)	75

THERMOPLASTIC PAVEMENT MARKING YELLOW (8")

STA.	STA.	LOCATION	LIN. FT.
104+21	105+26	ACCESS ROAD C.L.	127
111+30	112+50	ACCESS ROAD C.L.	79
122+70	124+00	ACCESS ROAD C.L.	120
126+24	128+49	ACCESS ROAD C.L.	119
37+55	38+94	HWY. 59 C.L.	152
43+67	44+47	HWY. 59 C.L.	133

THERMOPLASTIC PAVEMENT MARKING WHITE (12")

STA.	STA.	LOCATION	LIN. FT.
12+64		ELFEN GLEN STREET RT.	14
131+09		ACCESS ROAD RT.	22
36+61	CROSSWALK	HWY. 59 RT.	70
36+67		HWY. 59 RT.	33
37+57		HWY. 59 LT.	22
42+09		HWY. 59 C.L.	11
42+19		HWY. 59 RT.	22
43+66		HWY. 59 LT.	23
278+93	CROSSWALK	RAMP 3 C.L.	270

REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")

STA.	STA.	LOCATION	LIN. FT.
400+46	400+80	ROUNDABOUT LT.	40
401+76	402+16	ROUNDABOUT LT.	47
404+77	405+28	ROUNDABOUT LT.	58
130+34	131+23	ACCESS ROAD LT.	85
130+34	131+12	ACCESS ROAD LT.	106
131+07	131+26	ACCESS ROAD RT.	19
131+07	131+27	ACCESS ROAD RT.	33
36+52	36+74	HWY. 59 LT.	27
36+61	37+01	HWY. 59 RT.	41
37+14	37+94	HWY. 59 LT.	85

REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (10")

STA.	STA.	LOCATION	LIN. FT.
105+29	107+36	ACCESS ROAD LT.	196
105+29	107+33	ACCESS ROAD LT.	211
109+17	111+24	ACCESS ROAD RT.	215
109+19	111+24	ACCESS ROAD LT.	207
257+16	258+10	RAMP 1LT.	101
255+83	256+73	RAMP 2A LT.	96
279+53	280+04	RAMP 2B RT.	65

THERMOPLASTIC PAVEMENT MARKING WHITE (8")

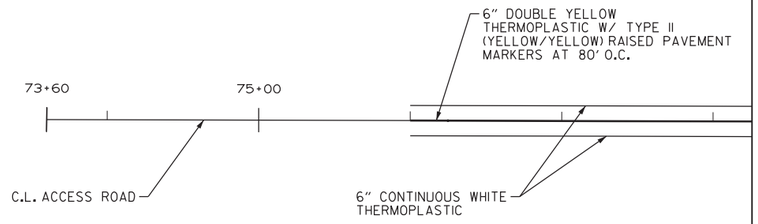
STA.	STA.	LOCATION	LIN. FT.
36+89	37+46	HWY. 59 C.L.	26
42+28	42+80	HWY. 59 C.L.	22
43+08	43+66	HWY. 59 RT.	26
279+05	279+51	RAMP 3 C.L.	26

RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)

STA.	STA.	LOCATION	EA.
76+00	103+89	ACCESS ROAD C.L.	35
111+23	131+09	ACCESS ROAD C.L.	30
34+67	36+67	HWY. 59 C.L.	3
37+57	42+19	HWY. 59 C.L.	6
43+66	44+52	HWY. 59 C.L.	3

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)

STA.	STA.	LOCATION	EA.
252+31	265+82	I-40 RT.	100
252+71	255+60	RAMP 1LT.	30
258+48	259+07	RAMP 2A LT.	7
34+67	36+67	HWY. 59 C.L.	6
37+57	42+19	HWY. 59 C.L.	12
43+66	44+52	HWY. 59 C.L.	3



THERMOPLASTIC PAVEMENT MARKING YELLOW (6")

STA.	STA.	LOCATION	LIN. FT.
76+00	103+89	ACCESS ROAD C.L.	5578
103+89	107+37	ACCESS ROAD RT.	356
103+89	107+48	ACCESS ROAD LT.	346
10+20	12+64	ELFEN GLEN STREET C.L.	486
109+05	111+23	ACCESS ROAD RT.	228
109+15	111+23	ACCESS ROAD LT.	208
111+23	112+64	ACCESS ROAD LT.	284
111+23	112+64	ACCESS ROAD RT.	280
112+64	124+00	ACCESS ROAD C.L.	2284
122+50	124+00	ACCESS ROAD LT.	304
124+60	131+09	ACCESS ROAD C.L.	1296
126+10	128+60	ACCESS ROAD LT.	502
34+67	36+67	HWY. 59 LT.	400
37+53	42+09	HWY. 59 LT.	920
37+53	39+15	HWY. 59 RT.	322
43+66	44+52	HWY. 59 RT.	184
43+66	44+52	HWY. 59 LT.	184

THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)

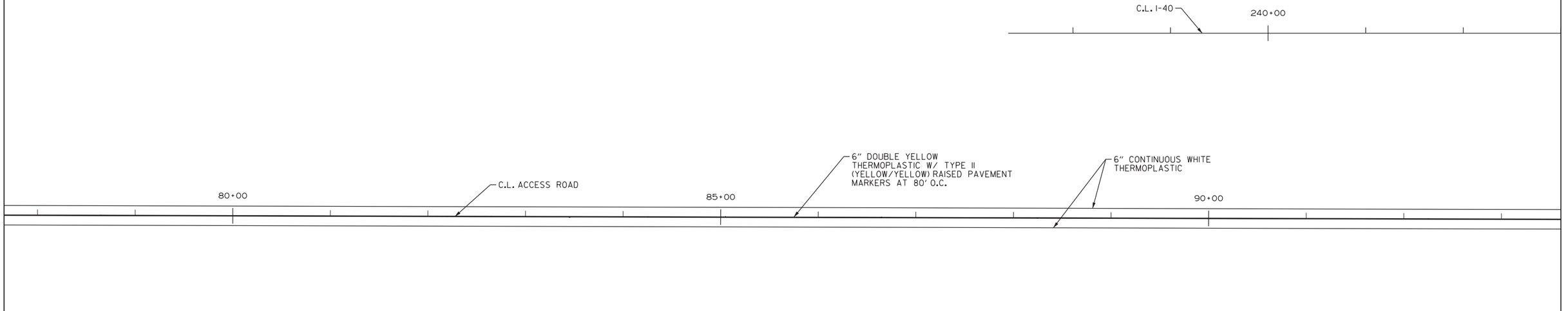
STA.	STA.	LOCATION	LIN. FT.
107+27	107+36	ACCESS ROAD RT.	15
107+87	107+97	ACCESS ROAD LT.	17
109+16	109+24	ACCESS ROAD LT.	15
130+06	130+16	ACCESS ROAD LT.	17
131+18	131+33	ACCESS ROAD RT.	19

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	69	248
		PERMANENT PAVEMENT MARKING DETAILS				



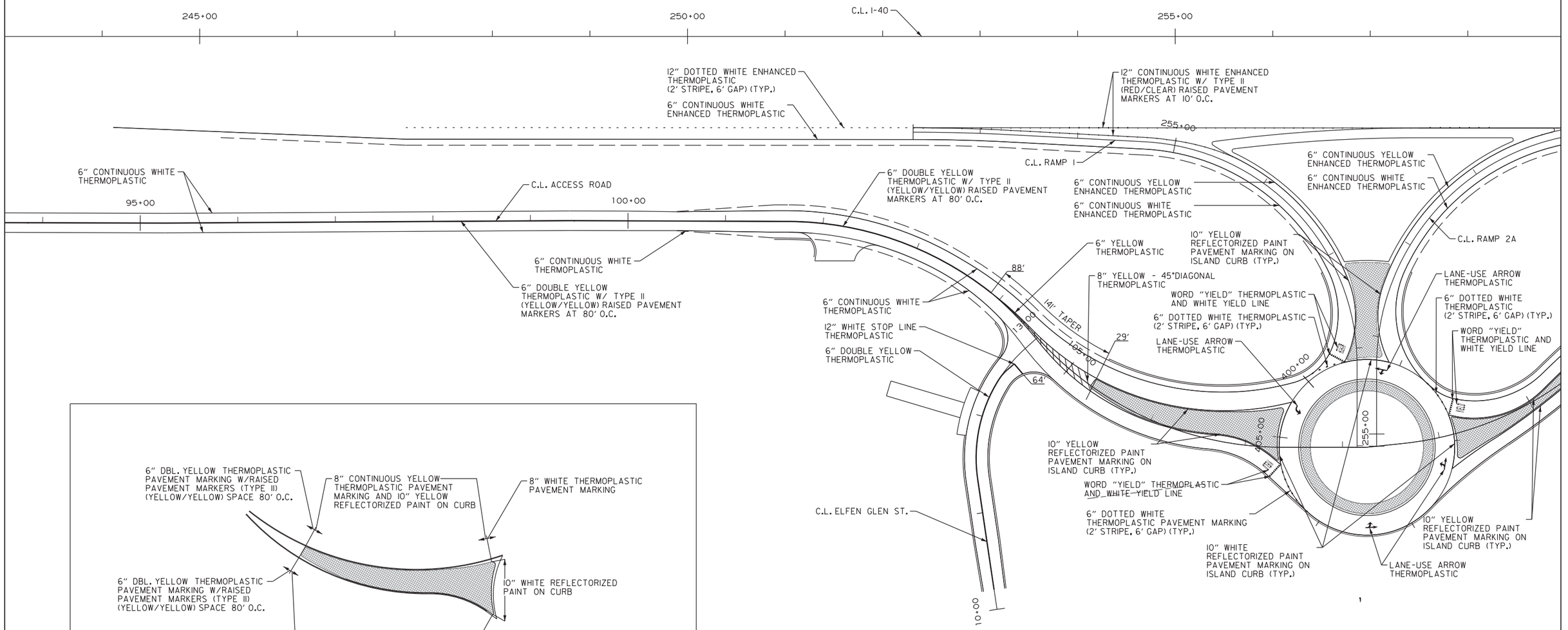
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	70	248
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
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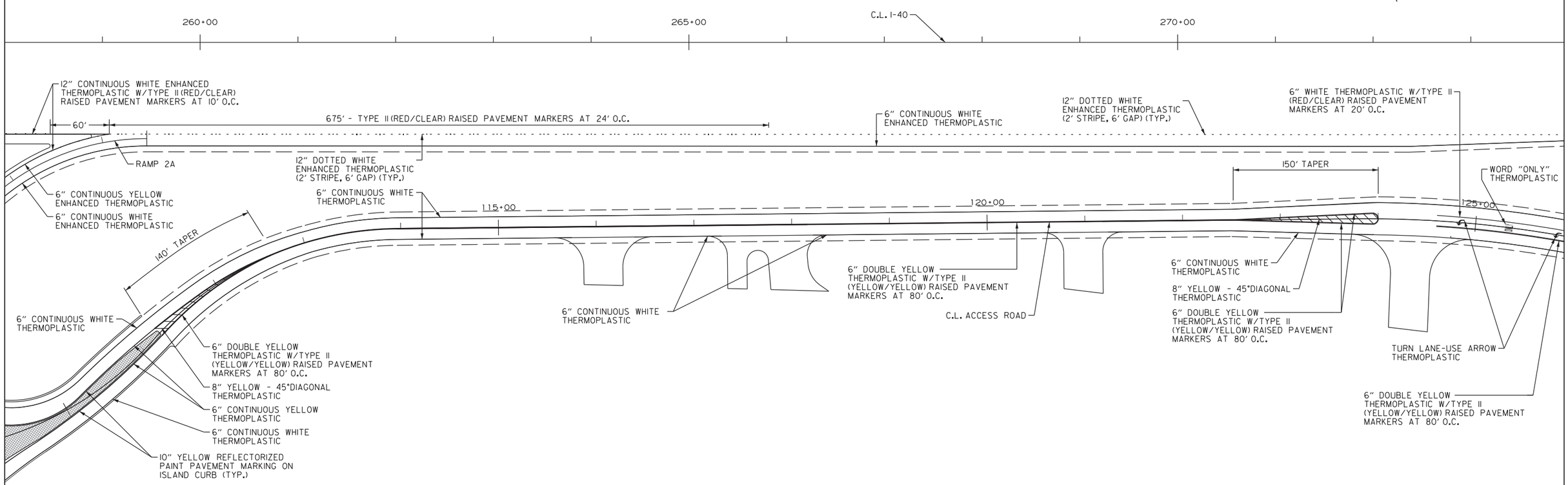
TYPICAL SPLITTER ISLAND STRIPING

PERMANENT PAVEMENT MARKING DETAILS

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	71	248
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	72	248
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
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N

C.L. HWY. 59
45+00
6" SKIP WHITE THERMOPLASTIC W/TYPE II (WHITE/RED) RAISED PAVEMENT MARKERS AT 80' O.C.
8" YELLOW - 45° DIAGONAL THERMOPLASTIC
6" DOUBLE YELLOW THERMOPLASTIC W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.
12" WHITE STOP LINE THERMOPLASTIC
8" DOTTED WHITE THERMOPLASTIC (2' STRIPE, 6' GAP) (TYP.)
12" WHITE STOP LINE THERMOPLASTIC
6" DOUBLE YELLOW THERMOPLASTIC W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.
6" SKIP WHITE THERMOPLASTIC W/TYPE II (WHITE/RED) RAISED PAVEMENT MARKERS AT 80' O.C.
TURN LANE-USE ARROW THERMOPLASTIC
6" CONTINUOUS WHITE THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
6" CONTINUOUS WHITE THERMOPLASTIC
12" WHITE CROSSWALK LINE (TYP.)
12" WHITE STOP LINE THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
8" CONTINUOUS WHITE THERMOPLASTIC
12" WHITE STOP LINE THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
280+00
TURN LANE-USE ARROW THERMOPLASTIC
6" CONTINUOUS YELLOW ENHANCED THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
6" CONTINUOUS WHITE ENHANCED THERMOPLASTIC
285+00
TURN LANE-USE ARROW THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
C.L. RAMP 3
275+00
C.L. I-40
TURN LANE-USE ARROW THERMOPLASTIC
280+00
285+00
40+00
12" DOTTED WHITE ENHANCED THERMOPLASTIC (2' STRIPE, 6' GAP) (TYP.)
6" CONTINUOUS WHITE ENHANCED THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
6" WHITE THERMOPLASTIC W/TYPE II (WHITE/RED) RAISED PAVEMENT MARKERS AT 20' O.C.
6" DOUBLE YELLOW THERMOPLASTIC W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.
5+00
100' TAPER
250' TAPER
TURN LANE-USE ARROW THERMOPLASTIC
6" DOUBLE YELLOW THERMOPLASTIC W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.
8" YELLOW - 45° DIAGONAL THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
WORD "ONLY" THERMOPLASTIC
6" CONTINUOUS YELLOW THERMOPLASTIC
10" WHITE REFLECTORIZED PAINT PAVEMENT MARKING ON ISLAND (TYP.)
10" YELLOW REFLECTORIZED PAINT PAVEMENT MARKING ON ISLAND (TYP.)
WORD "YIELD" THERMOPLASTIC AND WHITE YIELD LINE
WORD "ONLY" THERMOPLASTIC
10" WHITE REFLECTORIZED PAINT PAVEMENT MARKING ON ISLAND (TYP.)
10" YELLOW REFLECTORIZED PAINT PAVEMENT MARKING ON ISLAND (TYP.)
6" CONTINUOUS YELLOW THERMOPLASTIC
6" CONTINUOUS WHITE THERMOPLASTIC
WORD "YIELD" THERMOPLASTIC AND WHITE YIELD LINE
WORD "ONLY" THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
8" YELLOW - 45° DIAGONAL THERMOPLASTIC
6" DOUBLE YELLOW THERMOPLASTIC W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.
6" CONTINUOUS WHITE THERMOPLASTIC
12" WHITE STOP LINE THERMOPLASTIC
8" DOTTED WHITE THERMOPLASTIC (2' STRIPE, 6' GAP) (TYP.)
6" CONTINUOUS WHITE THERMOPLASTIC
C.L. RAMP 2B
285+00
10" WHITE REFLECTORIZED PAINT PAVEMENT MARKING ON ISLAND (TYP.)
6" CONTINUOUS YELLOW ENHANCED THERMOPLASTIC
280+00
130+00
6" CONTINUOUS WHITE ENHANCED THERMOPLASTIC
12" WHITE CROSSWALK LINE (TYP.)
10" YELLOW REFLECTORIZED PAINT PAVEMENT MARKING ON ISLAND (TYP.)
12" WHITE STOP LINE THERMOPLASTIC
TURN LANE-USE ARROW THERMOPLASTIC
6" CONTINUOUS WHITE THERMOPLASTIC
6" SKIP WHITE THERMOPLASTIC W/TYPE II (WHITE/RED) RAISED PAVEMENT MARKERS AT 80' O.C.
6" DOUBLE YELLOW THERMOPLASTIC W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS AT 80' O.C.
35+00

PERMANENT PAVEMENT MARKING DETAILS

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	73	248
		SOIL BORING LOG				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

DIGITALLY SIGNED 03/18/2025

SOIL BORING LOG

BORING NO.	ALIGNMENT	APPROX. STATION	SAMPLE	WATER	ATTERBERG LIMITS			PERCENT PASSING #200	AASHTO CLASS.
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY		
P1	RAMP 3	282+20, 5' LT.	2-3	14	NP	NP	NP	47	A-4
P2	ACCESS RD	100+10, 5' RT.	1.3-2.3	14	31	16	15	56	A-6
P2	ACCESS RD	100+10, 5' RT.	3.5-4.5	14	37	24	13	---	SHALE
P3	I-40	250+20, 100' RT.	2-2.5	11	22	16	6	---	A-4
P4	ROUNDABOUT	401+40, 10' RT.	0.5-1.5	15	20	17	3	61	A-4
P4	ROUNDABOUT	401+40, 10' RT.	2.5-3.5	20	34	19	15	69	A-6
P5	I-40	263+70, 100' RT.	2.5-3.5	30	57	33	24	94	A-7-5
P5	I-40	263+70, 100' RT.	4.5-5.5	18	40	28	12	---	SHALE
P7A	ACCESS RD	127+70, 10' LT.	1.5-2.5	15	25	16	9	57	A-4
P7A	ACCESS RD	127+70, 10' LT.	3.5-4.5	19	25	19	6	56	A-4
P8	ACCESS RD	129+80, 150' RT.	1.3-2.3	17	27	16	11	69	A-6

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

NP - NON-PLASTIC

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
5/12/2025		6	ARK.	040714	74	248
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 5/12/2025

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1A	STAGE 1B	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4A	STAGE 4B	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	VERTICAL PANELS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)	* ADVANCE WARNING ARROW PANEL	* PORTABLE CHANGEABLE MESSAGE SIGN	* MOBILE SPEED NOTIFICATION SYSTEM (SPECIAL)
															RIGHT	LEFT							
			LIN. FT. - EACH								NO.	SQ. FT.	EACH		LIN. FT.				EACH		DAY	WEEK	EACH
E5-3	EXIT ONLY	48"x36"				1	1			1	1	12.0											
G20-2	END ROAD WORK	48"x24"	2	4	3	4	3	2	2	4	4	32.0											
M4-8A	END DETOUR	24"x18"			1					1	1	3.0											
M4-9	DETOUR (LEFT)	30"x24"			4					4	4	20.0											
M4-9	DETOUR (RIGHT)	30"x24"			1					1	1	5.0											
M4-9	DETOUR (STRAIGHT)	30"x24"			2					2	2	10.0											
M6-2	DIRECTIONAL ARROW	30"x21"				1	1			1	1	4.4											
R11-2	ROAD CLOSED	48"x30"		8	6	2	2	4		8	8	80.0											
R11-3A	ROAD CLOSED - LOCAL TRAFFIC ONLY	60"x30"			1					1	1	12.5											
R2-1	SPEED LIMIT (30)	48"x60"			2	1		2		2	2	40.0											
R2-1	SPEED LIMIT (65)	48"x60"				2	2			2	2	40.0											
R4-1	DO NOT PASS	24"x30"	2	2						2	2	10.0											
R4-1	DO NOT PASS	48"x60"				4	4			4	4	80.0											
R55-1	FINES DOUBLE IN WORK ZONES WHEN WORKERS ARE PRESENT	36"x60"				2	2			2	2	30.0											
W1-4L	REVERSE CURVE (1 LANE, LEFT)	48"x48"			2			2		2	2	32.0											
W1-4R	REVERSE CURVE (1 LANE, RIGHT)	48"x48"			2			2		2	2	32.0											
W13-4P	ON RAMP	24"x24"		4	4	4				4	4	16.0											
W20-1	ROAD WORK (250 FT)	48"x48"						1		1	1	16.0											
W20-1	ROAD WORK (300 FT)	48"x48"						1		1	1	16.0											
W20-1	ROAD WORK (500 FT)	48"x48"	2	5	5	6	3	1	2	6	6	96.0											
W20-1	ROAD WORK (1000 FT)	48"x48"	2	5	5	4	2	2	2	5	5	80.0											
W20-1	ROAD WORK (1500 FT)	48"x48"	1	4	4	3	2	2	2	4	4	64.0											
W20-1	ROAD WORK (1/2 MILE)	48"x48"				2	2			2	2	32.0											
W20-1	ROAD WORK (1 MILE)	48"x48"				2	2			2	2	32.0											
W20-1	ROAD WORK (AHEAD)	48"x48"	1	2	1	3	3			3	3	48.0											
W20-3	ROAD CLOSED (500 FT)	48"x48"			1					1	1	16.0											
W20-3	ROAD CLOSED (1000 FT)	48"x48"			1					1	1	16.0											
W20-5	RIGHT LANE CLOSED 1500 FT	48"x48"				2	2			2	2	32.0											
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"				2	2			2	2	32.0											
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"				2	2			2	2	32.0											
* W20-7	FLAGGER	48"x48"	2	4						4	4	64.0											
* W21-5A	RIGHT SHOULDER CLOSED	48"x48"	2	4		2	2			4	4	64.0											
W24-1L	DOUBLE REVERSE CURVE (1 LANE, LEFT)	48"x48"			1					1	1	16.0											
W24-1R	DOUBLE REVERSE CURVE (1 LANE, RIGHT)	48"x48"			1					1	1	16.0											
W1-6	LEFT ARROW	60"x30"				3	3			3	3	37.5											
W3-5	REDUCED SPEED LIMIT AHEAD (30)	48"x48"			1	1				1	1	16.0											
W3-5	REDUCED SPEED LIMIT AHEAD (65)	48"x48"				2	2			2	2	32.0											
W4-2	MERGE LANE RT.	48"x48"				2	2			2	2	32.0											
W5-1	ROAD NARROWS	48"x48"				1	1	1		1	1	16.0											
W5-4	RAMP NARROWS	48"x48"		1	1	1				1	1	16.0											
W1-6	ONE-DIRECTION LARGE ARROW	48"x24"		8	4		1	2		8	8	64.0											
SPECIAL	MERGE NOW ARROW	48"x48"				1	1			1	1	16.0											
SPECIAL	ELFEN GLEN ST. DETOUR AHEAD	48"x36"			1					1	1	12.0											
	TRAFFIC DRUMS			128	114	131	146	158	71	158			158										
	VERTICAL PANELS			18						18				18									
	TYPE III BARRICADE (RT.) (16')			4	4	2	1	2		4					64								
	TYPE III BARRICADE (LT.) (16')			4	4	2	2	2		4						64							
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		60			2480				2480							2480						
	RELOCATING PRECAST CONCRETE BARRIER			60	60	60	1520	180		1520								1520					
	TEMPORARY IMPACT ATTENUATION BARRIER					2	2	1		2									2				
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)					2	2	1		2										2			
	ADVANCE WARNING ARROW PANEL					1	1			1											10		
	PORTABLE CHANGEABLE MESSAGE SIGN					1	1			1												2	
	MOBILE SPEED NOTIFICATION SYSTEM (SPECIAL)					1	1			1													1
TOTALS:												**1372.4**	**158**	**18**	**64**	**64**	**2480**	**1520**	**2**	**2**	**10**	**2**	**1**

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

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

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	75	248
		QUANTITIES				

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1A	STAGE 1B	STAGE 2A	STAGE 2B	STAGE 3	STAGE 4A	STAGE 4B	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS		REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		ENHANCED THERMOPLASTIC PAVEMENT MARKING			THERMOPLASTIC PAVEMENT MARKING							REFLECTORIZED PAINT PAVEMENT MARKING	
														TYPE II		6"		12"	6"		8"		12"				10"	
											WORDS	ARROWS		(WHITE/RED)	(YELLOW/YELLOW)	WHITE	YELLOW	WHITE	WHITE	YELLOW	WHITE	YELLOW	WHITE	WORDS	ARROWS	YIELD	WHITE	YELLOW
	LIN. FT. - EACH								LIN. FT.		EACH		LIN. FT.	EACH		LIN. FT.								EACH		LIN. FT.	LIN. FT.	
REMOVAL OF PERMANENT PAVEMENT MARKINGS		726		3341	1267				5334																			
CONSTRUCTION PAVEMENT MARKINGS	3714	6994	11538	4380	11684	6990				45300																		
CONSTRUCTION PAVEMENT MARKINGS (WORDS)			3		4						7																	
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)			6		4	1						11																
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		564	934		240	2437	360						4535															
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)				60	23	11		158						252														
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)	16	22	17		30	19		77							181													
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")								8113								8113												
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")								1738									1738											
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")								1682										1682										
THERMOPLASTIC PAVEMENT MARKING WHITE (6")								12024											12024									
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")								15271												15271								
THERMOPLASTIC PAVEMENT MARKING WHITE (8")								100													100							
THERMOPLASTIC PAVEMENT MARKING YELLOW (8")								729														729						
THERMOPLASTIC PAVEMENT MARKING WHITE (12")								488															488					
THERMOPLASTIC PAVEMENT MARKING (WORDS)								42																42				
THERMOPLASTIC PAVEMENT MARKING (ARROWS)								51																	51			
THERMOPLASTIC PAVEMENT MARKING (YELD LINE)								83																		83		
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")								541																			541	
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (10")								1090																				1090
TOTALS:									**5334**	**45300**	**7**	**11**	**4535**	**252**	**181**	**8113**	**1738**	**1682**	**12024**	**15271**	**100**	**729**	**488**	**42**	**51**	**83**	**541**	**1090**

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

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)
	EACH	
ACCESS RD. STA. 99+40 LT.	1	1
ACCESS RD. STA. 100+77 RT.	1	1
TOTALS:	**2**	**2**

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	CONCRETE DRIVEWAYS	CONCRETE DITCH PAVING	CONCRETE WALKS	SIGNS	BILLBOARDS
			LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH
247+50	247+50	I-40 - RT.						1	
255+00	255+00	I-40 - RT.						1	
265+60	265+60	I-40 - RT.						1	
270+30	270+30	I-40 - RT.						1	
272+85	272+85	I-40 - RT.						1	
102+20	102+20	ACCESS ROAD - RT.			136				
103+15	103+15	ACCESS ROAD - RT.							1
103+35	103+35	ACCESS ROAD - LT. & RT.	150						
103+42	103+42	ACCESS ROAD - LT.						1	
110+20	110+20	ACCESS ROAD - LT.							1
111+95	111+95	ACCESS ROAD - LT.							
119+70	119+70	ACCESS ROAD - RT.							1
120+25	120+25	ACCESS ROAD - LT.						1	
121+95	121+95	ACCESS ROAD - LT.						1	
123+00	123+00	ACCESS ROAD - LT.						1	
123+99	123+99	ACCESS ROAD - LT.						1	
124+10	124+10	ACCESS ROAD - LT.						1	
126+06	126+06	ACCESS ROAD - RT.						1	
126+10	126+10	ACCESS ROAD - LT.						1	
127+94	127+94	ACCESS ROAD - LT.						1	
127+97	127+97	ACCESS ROAD - LT.						1	
129+05	129+05	ACCESS ROAD - RT.				58			
130+70	130+70	ACCESS ROAD - LT.						1	
130+70	130+70	ACCESS ROAD - LT.							
130+85	130+85	ACCESS ROAD - RT.							
130+99	130+99	ACCESS ROAD - RT.						1	
131+10	131+10	ACCESS ROAD - LT.						1	
279+85	279+85	RAMP 2B - RT						1	
279+02	279+02	RAMP 3 - LT.						1	
279+12	279+12	RAMP 3 - RT.						1	
281+80	281+80	RAMP 3 - LT.						1	
281+82	281+82	RAMP 3 - RT.						1	
283+50	283+50	RAMP 3 - LT.						1	
286+44	286+44	RAMP 3 - LT.						1	
287+28	287+28	RAMP 3 - LT.						1	
35+60	37+07	HWY. 59 - LT.		160					
35+64	36+64	HWY. 59 - RT.					90		
35+64	36+64	HWY. 59 - RT.		95					
35+79	36+30	HWY. 59 - RT.				44			
37+50	39+04	HWY. 59 - LT.	160						
42+30	42+60	HWY. 59 - RT.					26		
42+30	42+40	HWY. 59 - RT.	15						
43+10	44+25	HWY. 59 - RT.					86		
43+10	44+35	HWY. 59 - RT.		125					
TOTALS:			**325**	**380**	**136**	**102**	**202**	**26**	**3**

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	BOX CULVERTS	CURB INLETS
		EACH	EACH	EACH
117+44	ACCESS RD - RT.	1		
117+96	ACCESS RD - RT.	1		
128+81	ACCESS RD - RT.	1		
130+66	ACCESS RD - LT.		1	
36+29	HWY 59 - RT. & LT.	2		2
43+47	HWY 59 - RT.	1		1
TOTALS:		**6**	**1**	**3**

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

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
100+00	122+00	STAGE 1B - ACCESS ROAD	119	4558
278+80	289+52	STAGE 1B - RAMP 3	964	983
101+50	118+37	STAGE 2A - ACCESS ROAD	35490	637
257+13	258+34	STAGE 2A - RAMP 1	2913	
255+54	256+75	STAGE 2A - RAMP 2A	2207	
10+70	12+60	STAGE 2A - ELFEN GLEN ST.	2764	
244+11	265+25	STAGE 2B - I-40	7658	228
255+37	257+13	STAGE 2B - RAMP 1	3998	32
256+75	258+45	STAGE 2B - RAMP 2A	3144	35
278+80	289+52	STAGE 2B - RAMP 3	2412	586
265+00	276+00	STAGE 3 - I-40	2613	535
121+00	131+13	STAGE 3 - ACCESS ROAD	3861	2639
120+23	131+13	STAGE 4A - ACCESS ROAD	817	418
279+83	281+50	STAGE 4A - RAMP 2B	566	81
248+00	272+00	STAGE 4B - I-40	7316	2
101+50	124+00	STAGE 4B - ACCESS ROAD	1418	
130+70.00		ACCESS ROAD - BRIDGE BOX	1795	6
ENTIRE	PROJECT	APPROACHES	90	
TOTALS:			**80145**	**10740**

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	100
TOTAL:	**100**

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

BENCH MARKS

STATION	LOCATION	BENCH MARKS (EACH)
130+25	ACCESS RD. R.C.B.C. HEADWALL LT.	1
TOTAL:		**1**

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

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE A) LIN. FT.
253+23	255+00	I-40 - RT.	138
255+00	260+92	I-40 - RT.	639
TOTAL:			**777**

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	200
TOTAL:			**200**

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

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE	BOARD FENCE
			LIN. FT.	
248+31	277+01	I-40 - RT.	2880	
253+04	253+18	I-40 - RT.	15	
254+00	254+40	I-40 - RT.		42
255+69	256+12	I-40 - RT.		58
257+65	260+94	I-40 - RT.	559	
TOTALS:			**3454**	**100**

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADY
DIGITALLY SIGNED 03/18/2025

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	76	248
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL									
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	WATTLE (18") DITCH CHECKS (E-1)	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	FILTER SOCK (18") (E-13)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN. FT.	BAG	CU. YD.	LIN. FT.	LIN. FT.	LIN. FT.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING						13.59	13.59	277.2		1144	102	60	935	160	123
ENTIRE	PROJECT	STAGE 1A-1B						1.09	1.09	22.2		374	15				22
ENTIRE	PROJECT	STAGE 2A						2.80	2.80	57.1		616	39			360	41
ENTIRE	PROJECT	STAGE 2B						3.20	3.20	65.3		220	33			160	21
ENTIRE	PROJECT	STAGE 3						2.51	2.51	51.2		330	21			180	22
ENTIRE	PROJECT	STAGE 4A						0.18	0.18	3.7		132	18			20	12
ENTIRE	PROJECT	STAGE 4B						0.77	0.77	15.7		22	3				2
* ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			10.35	21.00	10.35	1055.7	10.35	4.83	4.83	98.5	100	286	24	20	94	150	
TOTALS:			**10.35**	**21.00**	**10.35**	**1055.7**	**10.35**	**28.97**	**28.97**	**590.9**	**100**	**3124**	**255**	**80**	**1029**	**1030**	**243**

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
SAND BAG DITCH CHECKS .....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD. / LOCATION
FILTER SOCKS.....20 LIN. FT. / LOCATION

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

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

WIRE ROPE SAFETY FENCE

STATION	STATION	DESCRIPTION	WIRE ROPE SAFETY FENCE	SOLID SODDING	WATER
			LIN. FT.	SQ. YD.	M. GAL.
I-40 L.M. 9.603		I-40 DMS LOCATION - EASTBOUND	320	88.89	1.12
TOTALS:			**320**	**88.89**	**1.12**

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

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
244+11.30	255+37.73	I-40	2	250.32
258+88.82	275+38.82	I-40	2	366.67
76+25.00	100+50.00	ACCESS ROAD	19	5119.45
100+50.00	101+50.00	ACCESS ROAD	19	211.12
288+51.64	289+51.64	RAMP 3	25	277.78
35+58.00	44+34.00	HWY. 59	55	5353.34
DRIVEWAY STA 33+35		HWY. 59	40	157.38
10+20.00	10+70.00	ELFEN GLEN ST.	25	138.89
TOTAL:				**11874.95**

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

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	"B"	CONC. DITCH PAVING (TYPE A)	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	FEET	SQ. YD.	SQ. YD.	SQ. YD.	M. GAL.
253+21	253+70	I-40 - RT.	51	6			34.00	22.67	0.29
253+70	253+70	I-40 - RT.	59	10	4	65.56		26.22	0.33
258+74	259+75	I-40 - RT.	101	10	4	112.22		44.89	0.57
259+85	260+63	I-40 - RT.	78	10	4	86.67		34.67	0.44
104+98	105+79	ACCESS RD. - RT.	83	8	2	73.78		36.89	0.46
105+79	108+31	ACCESS RD. - RT.	305	4			135.56	135.56	1.71
108+31	109+34	ACCESS RD. - RT.	130	8	2	115.56		57.78	0.73
109+08	109+33	ACCESS RD. - RT.	85	10	4	94.44		37.78	0.48
109+33	109+45	ACCESS RD. - RT.	30	20	14	66.67		13.33	0.17
109+53	111+23	ACCESS RD. - RT.	197	8	2	175.11		87.56	1.10
111+23	112+59	ACCESS RD. - RT.	121	6			80.67	53.78	0.68
128+55	128+87	ACCESS RD. - RT.	32	8	2	28.44		14.22	0.18
128+87	130+42	ACCESS RD. - RT.	167	10	4	185.56		74.22	0.94
279+57	279+87	RAMP 2B - RT.	48	6			32.00	21.33	0.27
279+39	284+12	RAMP 3 - RT.	476	6			317.33	211.56	2.67
286+99	288+44	RAMP 3 - LT.	147	10	4	163.33		65.33	0.82
10+94	12+41	ELFEN GLEN - RT.	118	10			131.11	52.44	0.66
I-40 L.M. 9.603		I-40 DMS LOCATION - EASTBOUND	200	4			88.89		
TOTALS:						**1167.34**	**819.56**	**990.23**	**12.50**

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

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
100+50	131+28	ACCESS ROAD	31	31
255+38	258+12	RAMP 1	3	3
255+76	258+89	RAMP 2A	4	4
279+42	281+50	RAMP 2B	3	3
278+80	289+52	RAMP 3	11	11
10+20	12+83	ELFEN GLEN ST.	3	3
TOTALS:			**55**	**55**

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	50	100
TOTALS:	**50**	**100**

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

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1'-6")	TYPE B-1 (1'-6")	TYPE E-1 (2'-0")
			LIN. FT.		
I-40 RAMPS					
257+13	257+28	I-40 RAMP 1 RT.		127	
255+50	256+75	I-40 RAMP 2A RT.		131	
279+42	279+86	I-40 RAMP 2B RT.	94		
278+80	284+85	I-40 RAMP 3 LT.	670		
279+00	280+13	I-40 RAMP 3 RT.	123		
ACCESS ROAD					
101+50	101+95	ACCESS ROAD RT.		56	
104+96	107+64	ACCESS ROAD RT.	253		
105+29	107+48	ACCESS ROAD LT.		193	
108+79	111+24	ACCESS ROAD RT.	274		
109+13	111+24	ACCESS ROAD LT.		203	
130+00	131+40	ACCESS ROAD RT.	210		
130+05	131+10	ACCESS ROAD LT.	193		
ROUNDABOUT					
400+00	405+65	ROUNDABOUT CENTER APRON			440
402+33	404+51	ROUNDABOUT LT.	229		
HWY. 59					
32+74	33+01	HWY. 59 LT.	27		
33+69	34+34	HWY. 59 LT.	65		
37+01	37+55	HWY. 59 RT.	54		
44+09	44+33	HWY. 59 RT.	28		
LOCAL ROADS					
10+70	12+83	ELFEN GLEN ST. LT & RT.	550		
TOTALS:			**2770**	**710**	**440**

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS		STANDARD DRAWINGS
								18"	51"X31"	
			FEET	SQ. YD.	SQ. YD.	TON	TON	LIN. FT.		
102+18	RT.	ACCESS ROAD	40		81.10	8.93	33.12			DR-2
116+07	RT.	ACCESS ROAD	40		205.94	22.66	84.10			DR-2
117+44	RT.	ACCESS ROAD	20		111.35	12.25	45.47		39	DR-2, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
117+96	RT.	ACCESS ROAD	40		198.08	21.79	80.89		58	DR-2, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
120+98	RT.	ACCESS ROAD	40		245.57	27.02	100.28			DR-2
124+35	RT.	ACCESS ROAD	40		436.34	48.00	178.18	80		DR-2, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
33+35	LT.	HIGHWAY 59	40	60.45	156.18	17.18				DR-1
33+35	LT.	ELFEN GLEN ST.	16	39.12	156.45	17.21	63.89			DR-1
TOTALS:				**99.57**	**1591.01**	**175.04**	**585.93**	**80**	**97**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....93.7% MIN. AGGR.....6.3% ASPHALT BINDER

NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
244+11	253+30	I-40 - RT.	919
255+38	258+89	I-40 - RT.	351
259+07	275+39	I-40 - RT.	1632
TOTAL:			**2902**

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

RETAINING WALLS

STATION	STATION	LOCATION	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	ARCHITECTURAL FINISH
			CU.YD.	POUNDS	CU.YD.	SQ.FT.
10+00	12+82	ACCESS ROAD - RT.	140.99	13702	569	1961
TOTALS:			**140.99**	**13702**	**569**	**1961**

GUARDRAIL

STATION	STATION	LT/RT	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL (TYPE C)	TERMINAL ANCHOR POSTS (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
				LIN. FT.		EACH	
35+26.71		LT	HWY. 59/EXISTING ACCESS ROAD		25		
284+85.00	286+10.00	LT	RAMP 3	75		1	1
I-40 L.M. 9.603		LT	I-40 DMS LOCATION - WESTBOUND	450		1	1
I-40 L.M. 9.603		RT	I-40 DMS LOCATION - EASTBOUND	450		1	1
TOTALS:				**975**	**25**	**3**	**3**

NOTE: DIAMOND REFLECTORS SHOWN IN SPECIAL DETAIL ARE INCLUDED IN GUARDRAIL PRICE.

CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT (0.05 GAL. PER SQ. YD.)			ACHM BASE COURSE (1 1/2") 1045 LBS. PER SQ. YD.			PORTLAND CEMENT CONCRETE PAVEMENT		
				TON/ STATION	TON	AVG. WID.	SQ. YD.	GAL.	AVG. WID.	SQ. YD.	PG 70-22	AVG. WID.	11" U.T.	
			FEET			FEET			FEET		TON	FEET	SQ. YD.	
400+00.00	405+65.49	ROUNDABOUT - TRUCK APRON	565.49	42.75	241.75	22.00	1382.31	69.12	11.00	691.15	361.13	10.00	628.32	
TOTALS:					**241.75**		**1382.31**	**69.12**		**691.15**	**361.13**		**628.32**	

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2").....95.8% MIN. AGGR.....4.2% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	77	248
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 04/14/2025

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 18"	24"	30"	36"	42"	48"	PIPE CULVERT ALTERNATES 1, 2, & 3 18"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	24"	30"	36"	42"	48"	DROP INLETS TYPE MO	TYPE RM	EXT. 4'	EXT. 8'	JUNCT. BOXES (TYPE E)	MODIFYING DROP INLETS	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.							EACH						EACH					EACH		LIN. FT.		CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL.	
103+75	ACCESS RD		56							2																		16.00	0.20	FES-1, FES-2, PCC-1
104+82	ACCESS RD RT.		86							2								1										16.00	0.20	FES-1, FES-2, FPC-9, PCC-1
104+98	ACCESS RD RT.							18							1			1											FPC-9E, FPC-9M, PCC-1
105+65	ACCESS RD LT.							105								1													FPC-9D, FPC-9S, PCC-1
105+65	ACCESS RD RT.							67							1		1												FPC-9E, FPC-9M, PCC-1
106+35	ACCESS RD RT.							70							1		1												FPC-9E, FPC-9M, PCC-1
106+90	ACCESS RD LT.							133								1													FPC-9D, FPC-9S, PCC-1
107+00	ACCESS RD RT.							63							1														FPC-9E, FPC-9M, PCC-1
108+60	ACCESS RD RT.							107							1		1												FPC-9E, FPC-9M, PCC-1
109+45	ACCESS RD RT.					85							1		1		1												FPC-9E, FPC-9M, PCC-1
109+60	ACCESS RD					124							2														50.00	0.63	FES-1, FES-2, PCC-1
109+60	ACCESS RD LT.					33							1			1													FPC-9D, FPC-9S, PCC-1
110+04	ACCESS RD RT.							97							1		2												FPC-9E, FPC-9M, PCC-1
111+00	ACCESS RD RT.	46													1														FPC-9E, FPC-9M, PCC-1
111+00	ACCESS RD LT.	39							1						1		1										5.00	0.06	FES-1, FES-2, FPC-9E, FPC-9M, PCC-1
112+58	ACCESS RD			73							2																26.00	0.33	FES-1, FES-2, PCC-1
118+50	ACCESS RD						10							1													29.00	0.37	FES-1, FES-2, PCC-1
127+60	ACCESS RD RT.	161						91	1							1											5.00	0.06	FES-1, FES-2, FPC-9D, FPC-9S, PCC-1
128+55	ACCESS RD RT.							96								1													FPC-9D, FPC-9S, PCC-1
129+55	ACCESS RD RT.							57								1													FPC-9D, FPC-9S, PCC-1
130+16	ACCESS RD RT.							32								1													FPC-9D, FPC-9S, PCC-1
130+75	ACCESS RD RT.														1														FPC-9E, FPC-9M
130+95	ACCESS RD LT.	13														1													FPC-9D, FPC-9S, PCC-1
10+70	ELFEN GLEN ST. RT.							58							1			1											FPC-9E, FPC-9M, PCC-1
11+32	ELFEN GLEN ST. RT.							89							1			1											FPC-9E, FPC-9M, PCC-1
12+38	ELFEN GLEN ST. RT.							19							1			1											FPC-9E, FPC-9M, PCC-1
12+39	ELFEN GLEN ST. LT.	27													1			1											FPC-9E, FPC-9M, PCC-1
33+06	HWY 59 LT.																			1									SPECIAL DETAILS
35+67	HWY 59 LT.							61							1		1												FPC-9E, FPC-9M, PCC-1
36+29	HWY 59 RT.				28							1			1			1									17.00	0.21	FES-1, FES-2, FPC-9E, FPC-9M, PCC-1
36+30	HWY 59 LT.				39										1		1												FPC-9E, FPC-9M, PCC-1
38+45	HWY 59 LT.							9							1		1												FPC-9E, FPC-9M, PCC-1
38+59	HWY 59 LT.		8							1									1								8.00	0.10	FES-1, FES-2, FPC-9, PCC-1
43+83	HWY 59 RT.							42							1			1											FPC-9E, FPC-9M, PCC-1
257+20	RAMP 1 RT.	80														1													FPC-9D, FPC-9S, PCC-1
256+70	RAMP 2A RT.	37							1							1											5.00	0.06	FES-1, FES-2, FPC-9D, FPC-9S, PCC-1
258+00	RAMP 2A		110							2																	16.00	0.20	FES-1, FES-2, PCC-1
278+94	RAMP 3 LT.	20													1		1												FPC-9E, FPC-9M, PCC-1
279+15	RAMP 3 LT.	23													1		2												FPC-9E, FPC-9M, PCC-1
279+42	RAMP 3 LT.		27							1					1		1										8.00	0.10	FES-1, FES-2, FPC-9E, FPC-9M, PCC-1
279+80	RAMP 3 LT.	34													1		1												FPC-9E, FPC-9M, PCC-1
279+42	RAMP 3 RT.		16							1																	8.00	0.10	FES-1, FES-2, PCC-1
280+50	RAMP 3 LT.	70														1													FPC-9D, FPC-9S, PCC-1
281+00	RAMP 3 LT.	50														1													FPC-9D, FPC-9S, PCC-1
282+00	RAMP 3 LT.	100														1													FPC-9D, FPC-9S, PCC-1
287+46	RAMP 3 LT.																				6	6	30	21.71	1881	11	11.26	0.14	RCB-1, RCB-2, RCB-3, W-X004-1, R-100X-0
253+70	I-40		24							1																	8.00	0.10	FES-1, FES-2, PCC-1
259+80	I-40																				4	6	2	8.48	443		10.81	0.14	RCB-1, RCB-2, RCB-3, W-X004-1, R-100X-0
SUBTOTALS:		**700**	**327**	**73**	**67**	**242**	**10**	**1219**	**3**	**10**	**2**	**1**	**4**	**1**	**23**	**13**	**15**	**7**	**2**	**1**				**30.19**	**2324**	**11**	**239.07**	**3.00**	
STRUCTURES OVER 20' SPAN																													
130+60	QUAD. 10' X 5' X 162' R.C.B. - ACCESS RD																				10	5	162	631.00	78199	276	341.08	4.30	SPECIAL DETAILS, RCB-1, RCB-2
SUBTOTALS:																								**631.00**	**78199**	**276**	**341.08**	**4.30**	
TOTALS:		**700**	**327**	**73**	**67**	**242**	**10**	**1219**	**3**	**10**	**2**	**1**	**4**	**1**	**23**	**13**	**15**	**7**	**2**	**1**				**661.19**	**80523**	**287**	**580.15**	**7.30**	

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.

CONCRETE WALKS

	STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
				LIN. FT.	SQ.YD.
	32+74	33+01	HWY. 59 LT.	27	15
	33+69	34+34	HWY. 59 LT.	65	37
*	35+64	36+49	HWY. 59 RT.	82	55
	36+69	37+50	HWY. 59 RT.	76	46
	42+26	42+35	HWY. 59 RT.	7	4
	43+60	44+16	HWY. 59 RT.	57	32
	TOTAL:				**189**

* EXTRA WIDTH APPLIED TO PORTION OF THE LENGTH.
QUANTITY BASED ON 5' NORMAL WIDTH.

CONCRETE BARRIER WALL

STATION	STATION	LOCATION	SIDE TYPE E; MASH TL-4	MEDIAN TYPE C; MASH TL-4
			LIN. FT.	LIN. FT.
125+00	128+55	ACCESS ROAD - RT.		355
128+55	130+00	ACCESS ROAD - RT.	145	
TOTALS:			**145**	**355**

CONCRETE ISLAND

	STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND SQ.YD.
	257+13	I-40 RAMP 1	C	304
	279+75	I-40 RAMP 2B	C	122
	105+29	ACCESS ROAD	C	510
*	107+57	ACCESS ROAD	E-1	440
	1091+53	ACCESS ROAD	C	343
	130+32	ACCESS ROAD	C	365
	131+06	ACCESS ROAD	C	35
TOTAL:				**2119**

*NOTE: SEE ROUNDABOUT TYPICAL SECTION FOR SPECIALIZED THICKNESS.

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 3	TYPE 5
		SQ. YD.	SQ. YD.
36+45	HWY. 59 RT.	9.5	
36+69	HWY. 59 RT.		3.1
42+35	HWY. 59 RT.	4.5	
43+55	HWY. 59 RT.	5.3	
44+18	HWY. 59 RT.	4.9	
TOTALS:		**24.2**	**3.1**

SELECTED PIPE BEDDING

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

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

DUMPED RIPRAP AND FILTER BLANKET

STATION	LOCATION	DUMPED RIPRAP	DUMPED RIPRAP (GROUTED)	FILTER BLANKET
		CU. YD.	CU. YD.	SQ. YD.
103+75	ACCESS RD.	5		8
104+70	ACCESS RD.	5		8
109+60	ACCESS RD.		150	86
112+58	ACCESS RD.	8		13
117+44	ACCESS RD.	22		22
124+35	ACCESS RD.	3		5
279+42	RAMP 3	6		9
287+46	RAMP 3		258	144
TOTALS:		**49**	**408**	**295**

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

HBVinson 4/14/2025 8:15:02 AM
WORKSPACE: AHTD
L:\2017\1701648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_QTY.dgn
REVISED DATE:



DIGITALLY SIGNED 03/18/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	78	248
		QUANTITIES				

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE EASE 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 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	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	TON	FEET			TON	TON	FEET			TON	FEET			TON	TON
I-40 RAMP 1																														
244+11.30	247+11.30	I-40 RAMP TYPICAL NOˉCH & WIDEN SECTION W/ AUX. LANE - TRANS.	300.00	178.75	536.25	20.69	689.58	34.48	2.00	66.67	11.33	45.81	5.25	175.00	1045.00		91.44	5.13	170.83	330.00		28.19	5.06	168.75	220.00	18.56	13.00	433.33	220.00	47.67	66.23
247+11.30	255+37.73	I-40 RAMP TYPICAL NOˉCH & WIDEN SECTION W/ AUX. LANE	826.43	198.25	1638.40	41.38	3799.28	189.96	2.00	183.65	31.22	221.18	10.50	964.17	1045.00		503.78	10.25	941.21	330.00		155.30	10.13	929.73	220.00	102.27	18.00	1652.86	220.00	181.81	284.08
255+37.00	257+13.06	RAMP TYPICAL SUPERELEVATED SECTION	176.06	355.25	625.45	62.67	1225.93	61.30				61.30	15.98	312.60	1045.00		163.33	15.46	302.40	330.00		49.90	15.25	298.32	220.00	32.82	25.00	489.06	220.00	53.80	86.62
257+13.06	258+11.90	RAMP TYPICAL SUPERELEVATED SECTION	98.84	161.75	159.87	161.33	1771.80	88.59				88.59	41.58	456.68	1045.00		238.62	39.08	429.22	330.00		70.82	39.08	429.22	220.00	47.21	39.08	429.22	220.00	47.21	94.42
I-40 RAMP 2A																														
255+76.13	256+75.00	RAMP TYPICAL SUPERELEVATED SECTION	98.87	161.75	159.92	161.33	1772.34	88.62				88.62	41.58	456.82	1045.00		238.69	39.08	429.35	330.00		70.84	39.08	429.35	220.00	47.23	39.08	429.35	220.00	47.23	94.46
256+75.00	258+90.05	RAMP TYPICAL SUPERELEVATED SECTION	215.05	355.25	763.97	62.67	1497.43	74.87				74.87	15.98	381.83	1045.00		199.51	15.46	369.37	330.00		60.95	15.25	364.39	220.00	40.08	25.00	597.36	220.00	65.71	105.79
258+88.82	272+38.82	I-40 RAMP TYPICAL NOˉCH & WIDEN SECTION W/ AUX. LANE	1350.00	198.25	2676.38	41.38	6206.25	310.31	2.00	300.00	51.00	361.31	10.50	1575.00	1045.00		822.94	10.25	1537.50	330.00		253.69	10.13	1518.75	220.00	167.06	18.00	2700.00	220.00	297.00	464.06
272+38.82	275+38.82	I-40 RAMP TYPICAL NOˉCH & WIDEN SECTION W/ AUX. LANE - TRANS.	300.00	178.75	536.25	20.69	689.58	34.48	2.00	66.67	11.33	45.81	5.25	175.00	1045.00		91.44	5.13	170.83	330.00		28.19	5.06	168.75	220.00	18.56	13.00	433.33	220.00	47.67	66.23
I-40 RAMP 3																														
278+80.12	284+85.00	RAMP TYPICAL SUPERELEVATED SECTION W/ CUR3	604.88	281.25	1701.23	145.75	9795.70	489.79	19.50	1310.57	222.80	712.59	38.00	2553.94	1045.00		1334.43	35.00	2352.31	330.00		388.13	34.75	2335.51	220.00	256.91	58.00	3898.12	220.00	428.79	685.70
284+85.00	285+51.64	RAMP TYPICAL SUPERELEVATED NOTCH & WIDEN SECTION	66.64	410.50	273.56	116.71	864.17	43.21	19.50	144.39	24.55	67.76	29.50	218.43	1045.00		114.13	28.96	214.43	330.00		35.38	28.75	212.88	220.00	23.42	58.00	429.46	220.00	47.24	70.66
285+51.64	288+51.64	RAMP TYPICAL SUPERELEVATED NOTCH & WIDEN SECTION - TRANS.	300.00	355.00	1065.00	58.36	1945.17	97.26	19.50	650.00	110.50	207.76	14.75	491.67	1045.00		256.90	14.48	482.67	330.00		79.64	14.38	479.17	220.00	52.71	29.25	975.00	220.00	107.25	159.96
288+51.64	*289+51.64*	RAMP TYPICAL NOTCH& WIDEN SECTION _TRANS.	100.00						25.00	277.78	47.22	47.22															25.00	277.78	220.00	30.56	30.56
ROUNDABOUT																														
400+00.00	403+50.00	ROUNDABOUT TYPICAL SECTION	350.00	118.50	414.75	113.00	4394.44	219.72				219.72	30.50	1186.11	1045.00	619.74		26.00	1011.11	330.00	166.83		26.00	1011.11	220.00	111.22	26.00	1011.11	220.00	111.22	222.44
403+50.00	404+42.52	ROUNDABOUT TYPICAL SECTION - RETAINING WALL	92.52	118.50	169.64	113.00	1161.64	58.08				58.08	30.50	313.54	1045.00	163.82		26.00	267.28	330.00	44.10		26.00	267.28	220.00	29.40	26.00	267.28	220.00	29.40	58.80
404+42.52	405+65.49	ROUNDABOUT TYPICAL SECTION	122.97	118.50	145.72	113.00	1543.96	77.20				77.20	30.50	416.73	1045.00	217.74		26.00	355.25	330.00	58.62		26.00	355.25	220.00	39.08	26.00	355.25	220.00	39.08	78.16
ELFEN GLEN ST.																														
10+70.00	12+83.30	LOCAL ROAD TYPICAL SECTION	213.30	112.75	240.50	48.00	1137.60	56.88				56.88						24.00	568.80	330.00	93.85		24.00	568.80	220.00	62.57	24.00	568.80	220.00	62.57	125.14
HWY. 59																														
35+58.00	44+34.00	TYPICAL OVERLAY SECTION HWY. 59	876.00						55.00	5353.33	910.07	910.07															55.00	5353.33	220.00	588.87	588.87
ACCESS ROAD																														
76+25.00	100+50.00	TYPICAL OVERLAY SECTION ACCESS ROAD	2425.00						20.00	5388.89	916.11	916.11															20.00	5388.89	220.00	592.78	592.78
100+50.00	101+50.00	ACCESS ROAD TYPICAL SECTION - TRANS.	100.00	264.38	264.38				20.00	222.22	37.78	37.78															27.00	300.00	220.00	33.00	33.00
101+50.00	101+95.00	ACCESS ROAD TYPICAL SECTION W/ CURB AND GUTTER	45.00	248.75	111.94	119.71	598.55	29.93				29.93	31.50	157.50	1045.00	82.29		28.46	142.30	330.00	23.48		28.25	141.25	220.00	15.54	40.00	200.00	220.00	22.00	37.54
101+95.00	103+88.75	ACCESS ROAD TYPICAL SECTION	193.75	346.00	670.38	90.69	1952.35	97.62				97.62	22.98	494.71	1045.00	258.49		22.48	483.94	330.00	79.85		22.25	478.99	220.00	52.69	34.00	731.94	220.00	80.51	133.20
103+88.75	104+96.16	ACCESS ROAD TYPICAL SECTION W/ MEDIAN	107.41	381.00	409.23	125.67	1499.78	74.99				74.99	31.73	378.68	1045.00	197.86		31.21	372.45	330.00	61.45		31.00	369.97	220.00	40.70	42.75	510.20	220.00	56.12	96.82
104+96.16	105+28.77	ACCESS ROAD TYPICAL SECTION W/ MEDIAN & CURB AND GUTTER	32.61	260.50	84.95	130.71	473.60	23.68				23.68	34.25	124.10	1045.00	64.84		31.21	113.08	330.00	18.66		31.00	112.32	220.00	12.36	36.75	133.16	220.00	14.65	27.01
105+28.77	105+79.30	ACCESS ROAD TYPICAL SECTION W/ RETAINING WALL	50.53	242.00	122.28	239.00	1341.85	67.09				67.09	62.25	349.50	1045.00	182.61		57.25	321.43	330.00	53.04		57.25	321.43	220.00	35.36	38.75	217.56	220.00	23.93	59.29
105+79.30	107+35.07	ACCESS ROAD TYPICAL SECTION	155.77	242.00	376.96	239.00	4136.56	206.83				206.83	62.25	1077.41	1045.00	562.95		57.25	990.87	330.00	163.49		57.25	990.87	220.00	109.00	38.75	670.68	220.00	73.77	182.77
109+15.18	109+25.00	ACCESS ROAD TYPICAL SECTION	9.82	242.00	23.76	239.00	260.78	13.04				13.04	62.25	67.92	1045.00	35.49		57.25	62.47	330.00	10.31		57.25	62.47	220.00	6.87	38.75	42.28	220.00	4.65	11.52
109+25.00	110+28.00	ACCESS ROAD TYPICAL SECTION	103.00	242.00	249.26	239.00	2735.22	136.76				136.76	62.25	712.42	1045.00	372.24		57.25	655.19	330.00	108.11		57.25	655.19	220.00	72.07	38.75	443.47	220.00	48.78	120.85
110+28.00	111+23.83	ACCESS ROAD TYPICAL SECTION	95.83	242.00	231.91	239.00	2544.82	127.24				127.24	62.25	662.82	1045.00	346.32		57.25	609.59	330.00	100.58		57.25	609.59	220.00	67.05	38.75	412.60	220.00	45.39	112.44
111+23.83	112+63.83	ACCESS ROAD TYPICAL SECTION W/ MEDIAN	140.00	381.00	533.40	125.67	1954.84	97.74				97.74	31.73	493.58	1045.00	257.90		31.21	485.46	330.00	80.10		31.00	482.22	220.00	53.04	42.75	665.00	220.00	73.15	126.19
112+63.83	122+50.00	ACCESS ROAD TYPICAL SECTION	986.17	346.00	3412.15	90.67	9934.93	496.75				496.75	22.98	2518.02	1045.00	1315.67		22.46	2460.86	330.00	406.04		22.25	2438.03	220.00	268.18	34.00	3725.53	220.00	409.81	677.99
122+50.00	124+00.00	ACCESS ROAD TYPICAL SECTION W/ TURN LANE - TRANS.	150.00	367.38	551.06	112.71	1878.50	93.93				93.93	28.50	475.00	1045.00	248.19		27.96	466.00	330.00	76.89		27.75	462.50	220.00	50.88	39.50	658.33	220.00	72.42	123.30
124+00.00	126+10.00	ACCESS ROAD TYPICAL SECTION W/ TURN LANE	210.00	388.75	816.38	134.67	3142.30	157.12				157.12	33.98	792.87	1045.00	414.27		33.46	780.73	330.00	128.82		33.25	775.83	220.00	85.34	45.00	1050.00	220.00	115.50	200.84
126+10.00	127+60.00	ACCESS ROAD TYPICAL SECTION W/ TURN LANES - TRANS.	150.00	354.75	532.13	156.71	2611.83	130.59				130.59	39.50	658.33	1045.00	343.98		38.96	649.33	330.00	107.14		38.75	645.83	220.00	71.04	50.50	841.67	220.00	92.58	163.62
127+60.00	128+55.00	ACCESS ROAD TYPICAL SECTION W/ TURN LANES	95.00	320.75	304.71	201.36	2125.41	106.27				106.27	50.50	533.06	1045.00	278.52		50.23	530.21	330.00	87.48		50.13	529.10	220.00	58.20	56.00	591.11	220.00	65.02	123.22
128+55.00	130+00.00	ACCESS ROAD TYPICAL SECTION W/ TURN LANES	145.00	324.75	470.89	201.36	3244.05	162.20				162.20	50.50	813.61	1045.00	425.11		50.23	809.26	330.00	133.53		50.13	807.57	220.00	88.83	56.00	902.22	220.00	99.24	188.07
130+00.00	130+50.00	ACCESS ROAD TYPICAL SECTION W/ TURN LANES SHLDR - TRANS.	50.00	214.00	107.00	198.00	1100.00	55.00				55.00	52.00	288.89	1045.00	150.95		47.00	261.11	330.00	43.08		47.00	261.11	220.00	28.72	47.00	261.11	220.00	28.72	57.44
130+50.00	131+28.20	ACCESS ROAD TYPICAL SECTION W/ TURN LANES NO SHLDR	78.20	190.75	149.17	186.00	1616.13	80.81				80.81	49.00	425.76	1045.00	222.46		44.00	382.31	330.00	63.08		44.00	382.31	220.00	42.05	44.00	382.31	220.00	42.05	84.10
TEMP. BYPASS DETOURS																														
10+00.00	11+28.00	DETOUR NOTCH AND WIDEN SECTION	128.00	65.75	84.16	26.75	380.44	19.02				19.02						13.42	190.82	330.00	31.49		13.33	189.62	220.00	20.86	13.17	187.26	220.00	20.60	41.46
11+28.00	14+65.00	DETOUR TYPICAL SECTION	337.00	129.00	434.73	56.71	2123.41	106.17				106.17						28.46	1065.61	330.00	175.83		28.25	1057.81	220.00	116.36	28.00	1048.44	220.00	115.33	231.69
14+65.00	16+00.85	DETOUR NOTCH AND WIDEN SECTION	135.85	65.75	89.32	26.75	403.78	20.19				20.19						13.42	202.52	330.00	33.42		13.33	201.25	220.00	22.14	13.17	198.75	220.00	21.86	44.00
20+00.00	21+35.00	DETOUR NOTCH AND WIDEN SECTION	135.00	65.75	88.76	26.75	401.25	20.06				20.06						13.42	201.26	330.00	33.21		13.33	200.00	220.00	22.00	13.17	197.51	220.00	21.73	43.73
21+35.00	30+20.00	DETOUR TYPICAL SECTION	885.00	129.00	1141.65	56.71	5576.32	278.82				278.82						28.46	2798.40	330.00	461.74		28.25	2777.92	220.00	305.57	28.00	2753.33	220.00	302.87	608.44
30+20.00	31+24.79	DETOUR NOTCH AND WIDEN SECTION	104.79	65.75	68.90	26.75	311.46	15.57				15.57						13.42	156.22	330.00	25.78		13.33	155.24	220.00	17.08	13.17	153.31	220.00	16.86	33.94
40+09.00	41+65.00	DETOUR NOTCH AND WIDEN SECTION	156.00	65.75	102.57	26.75	463.67	23.18				23.18						13.42	232.56	330.00	38.37		13.33	231.11	220.00	25.42	13.17	228.23	220.00	25.11	50.53
41+65.00	42+25.00	DETOUR TYPICAL SECTION	60.00	129.00	77.40	56.71	378.06	18.90				18.90						28.46	189.72	330.00	31.30		28.25	188.33	220.00	20.72	28.00	186.67	220.00	20.53	41.25
47+27.14	50+34.00	DETOUR TYPICAL SECTION	306.86	129.00	395.85	56.71	1933.50	96.68				96.68						28.46	970.30	330.00	160.10		28.25	963.20	220.00	105.95	28.00	954.68	220.00	105.01	210.96
50+34.00	51+84.00	DETOUR NOTCH AND WIDEN SECTION	150.00	65.75	85.48	26.75	386.39	19.32				19.32						13.42	193.80	330.00	31.96		13.33	192.29	220.00	21.18	13.17	190.19	220.00	20.92	42.10
ADDITIONAL FOR LEVELING																														
113+17.00	122+63.00	EXISTING ACCESS ROAD STAGE 1A CROWN CORRECTION	946.00						10.00	1051.11	178.69	178.69															10.00	1051.11	VAR.	364.21	364.21
278+80.12	288+51.64	RAMP 3	971.52			19.50	2104.96	105.25				105.25															19.50	2104.96	VAR.	347.32	347.32
118+37.31	120+22.51	TEMPORARY VERTICAL TIE	185.20			56.00	1152.36	57.62	28.00	576.18	97.95	155.57															28.00	576.18	VAR.	211.05	211.05
ADDITIONAL FOR GUARDRAIL																														
284+50.00	286+53.00	RAMP 3 GUARDRAIL WDENING	203.00	60.00	121.80																						4.51	101.73	220.00	11.19	11.19
I-40 L.M. 9.603		I-40 DMS LOCATION - WESTBOUND	586.00	95.50	559.63																						7.19	468.15	220.00	51.50	51.50
I-40 L.M. 9.603		I-40 DMS LOCATION - EASTBOUND	616.00	105.00	646.80																						7.90	540.71	220.00	59.48	59.48
ADDITIONAL FOR SUPERELEVATION																														
252+44.67	255+37.73	I-40 RAMP TYPICAL NOˉCH & WIDEN SECTION W/ AUX. LANE	293.06	49.03	143.68																									
255+37.00	257+13.06	RAMP 1 TYPICAL SUPERELEVATED SECTION	176.06	101.88	179.36																									
256+20.82	258+90.05	RAMP 2A TYPICAL SUPERELEVATED SECTION	269.23	78.02	210.05																									
258+88.82	260+82.36	I-40 RAMP TYPICAL NOˉCH & WIDEN SECTION W/ AUX. LANE	193.54	31.63	61.21																									
281+65.94	284+85.00	RAMP 3 TYPICAL SECTON W/ CURB	319.06	28.61	91.29																									
284+85.00	288+51.64	RAMP 3 TYPICAL NOTCH & WIDEN SECTION	366.64	65.12	238.75																									
ADDITIONAL FOR RADIUS RETURNS																														
130+27.37	131+30.95	ACCESS ROAD RETURN RT.	103.58	VAR.	80.27	VAR.	1146.86	*57.34*				57.34	VAR.	229.37	1045.00	119.85		VAR.	229.37	330.00	37.85		VAR.	229.37	220.00	25.23	VAR.	229.37	220.00	25.23	50.46
129+38.45	131+27.04	ACCESS ROAD RETURN LT.	188.59	VAR.	312.39	VAR.	4747.23	237.36				237.36	VAR.	949.45	1045.00	496.09		VAR.	949.45	330.00	156.66		VAR.	949.45	220.00	104.44	VAR.	949.45	220.00	104.44	208.88
279+47.23	281+50.13	RAMP 2B RETURN RT.	202.90	VAR.	398.19	VAR.	1074.24	53.71				53.71	VAR.	214.85	1045.00		112.26	VAR.	214.85	330.00		35.45	VAR.	214.85	220.00	23.63	VAR.	214.85	220.00	23.63	47.26
279+47.23	281+50.13	RAMP 2B OVERLAY	202.90			VAR.			VAR.	528.22	89.80	89.80															VAR.	528.22	220.00	58.10	58.10
278+88.56	279+60.71	RAMP 3 RETURN RT.	72.15	VAR.	28.86	VAR.	412.46	20.62				20.62	VAR.	82.49	1045.00		43.10	VAR.	82.49	330.00		13.61	VAR.	82.49	220.00	9.07	VAR.	82.49	220.00	9.07	18.14
278+70.99	279+67.41	RAMP 3 RETURN LT.	96.42	VAR.	86.54	VAR.	1236.85	61.84				61.84	VAR.	247.37	1045.00		129.25	VAR.	247.37	330.00		40.82	VAR.	247.37	220.00	27.21	VAR.	247.37	220.00	27.21	54.42
252+31.30	256+70.86	RAMP 1 GORE	439.56	VAR.	188.79	VAR.	1560.44	78.02				78.02	VAR.	312.09	1045.00		163.07	VAR.	312.09	330.00		51.49	VAR.	312.09	220.00	34.33	VAR.	312.09	220.00	34.33	68.66
258+88.82	259+45.35	RAMP 2A GORE	56.53	VAR.	5.09	VAR.	72.86	3.64				3.64	VAR.	14.57	1045.00		7.61	VAR.	14.57	330.00		2.40	VAR.	14.57	220.00	1.60	VAR.	14.57	220.00	1.60	3.20
12+56.20	12+84.34	ELFEN GLEN ST. RETURN LT.	28.14	VAR.	12.03	VAR.	68.72	3.44				3.44						VAR.	34.36	330.00	5.67		VAR.	34.36	220.00	3.78	VAR.	34.36	220.00	3.78	7.56
12+41.81	12+82.64	ELFEN GLEN ST. RETURN RT.	40.83	VAR.	10.00	VAR.	57.43	2.87				2.87						VAR.	28.71	330.00	4.74		VAR.	28.71	220.00	3.16	VAR.	28.71	220.00	3.16	6.32
ADDITIONAL FOR DMS MAINTENANCE																														
I-40 L.M. 9.603		I-40 DMS LOCATION	250.00	70.00	175.00																									
TOTALS:					**26527.38**		**107639.06**	**5381.96**		**16119.68**	**2740.35**	**8122.31**		**22751.89**		**7377.38**	**4510.50**		**28493.62**		**3336.67**	**1364.80**		**28334.17**		**3116.75**		**52011.39**		**6233.27**	**9350.02**

BASIS OF ESTIMATE:

PG 70-22

ACHM BINDER COURSE (1").....95.6% MIN. AGGR.....4.4% ASPHALT BINDER

ACHM BASE COURSE (1 1/2").....95.8% MIN. AGGR.....4.2% ASPHALT BINDER

PG 76-22

ACHM SURFACE COURSE (1/2").....93.8% MIN. AGGR.....6.2% ASPHALT BINDER

ACHM BINDER COURSE (1").....95.6% MIN. AGGR.....4.4% ASPHALT BINDER

ACHM BASE COURSE (1 1/2").....96.4% MIN. AGGR.....3.6% ASPHALT BINDER

TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

JATurner 3/18/2025 7:22:14 AM
WORKSPACE: AHTD
L:\20FY\70\7648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_QTY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
5/12/2025		6	ARK.	040714	79	248
		SUMMARY OF QUANTITIES AND REVISIONS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 5/12/2025

SUMMARY OF QUANTITIES (BOX 1 OF 2)

	ITEM NUMBER	ITEM		QUANTITY	UNIT
	201	CLEARING		55	STATION
	201	GRUBBING		55	STATION
	202	REMOVAL AND DISPOSAL OF CURB INLETS		3	EACH
	202	REMOVAL AND DISPOSAL OF CURB		325	LIN. FT.
	202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		380	LIN. FT.
	202	REMOVAL AND DISPOSAL OF FENCE		3454	LIN. FT.
	202	REMOVAL AND DISPOSAL OF BOARD FENCE		100	LIN. FT.
	202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		136	SQ. YD.
	202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		6	EACH
	202	REMOVAL AND DISPOSAL OF BOX CULVERTS		1	EACH
	202	REMOVAL AND DISPOSAL OF CONCRETE WALKS		202	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING		102	SQ. YD.
	202	REMOVAL AND DISPOSAL OF BILLBOARDS		3	EACH
	202	REMOVAL AND DISPOSAL OF SIGNS		26	EACH
	SP, SS, & 2`0	UNCLASSIFIED EXCAVATION		80145	CU. YD.
	SP & 210	COMPACTED EMBANKMENT		10740	CU. YD.
	SP & 210	SOIL STABILIZATION		200	TON
	SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)		27355	TON
	SS & 401	TACK COAT		8291	GAL.
	SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")		11762	TON
	SP, SS, & 405	ASPHALT BINDER (PG 70-22) IN ACHM BASE COURSE (1 1/2")		325	TON
	SP, SS, & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")		162	TON
	SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		4495	TON
	SP, SS, & 406	ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1")		147	TON
	SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")		60	TON
	SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		8934	TON
	SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		11	TON
	SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")		580	TON
	SP & 412	COLD MILLING ASPHALT PAVEMENT		11875	SQ. YD.
	SP, SS, & 4`4	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		50	TON
	SP, SS, & 4`5	ACHM PATCHING OF EXISTING ROADWAY		100	TON
	SP, SS, & 501	PORTLAND CEMENT CONCRETE PAVEMENT (11" UNIFORM THICKNESS)		628	SQ. YD.
	SP, SS, & 505	PORTLAND CEMENT CONCRETE DRIVEWAY		99.57	SQ. YD.
	601	MOBILIZATION		1.00	LUMP SUM
	SP & 602	FURNISHING FIELD OFFICE		1	EACH
	SP, SS, & 603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
	SS & 604	SIGNS		1372	SQ. FT.
	SS & 604	BARRICADES		128	LIN. FT.
	SS & 604	TRAFFIC DRUMS		158	EACH
	SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		2480	LIN. FT.
	SS & 604	RELOCATING PRECAST CONCRETE BARRIER		1520	LIN. FT.
	604	CONSTRUCTION PAVEMENT MARKINGS		45300	LIN. FT.
	604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)		7	EACH
	604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)		11	EACH
	604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		4535	LIN. FT.
	604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		5334	LIN. FT.
	SS & 604	ADVANCE WARNING ARROW PANEL		10	DAY
	SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN		2	WEEK
	SS & 604	VERTICAL PANELS		18	EACH
	SP	MOBILE SPEED NOTIFICATION SYSTEM (SPECIAL)		1	EACH
	SP, SS, & 605	CONCRETE DITCH PAVING (TYPE A)		1167	SQ. YD.
	SP, SS, & 605	CONCRETE DITCH PAVING (TYPE B)		820	SQ. YD.
	SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		700	LIN. FT.
*	SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	1219	LIN. FT.
*	SS & 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	1219	LIN. FT.
*	SS & 606	18" SMOOTH SPIRAL RIB POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 3)	1219	LIN. FT.
	SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		327	LIN. FT.
	SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		73	LIN. FT.
	SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		67	LIN. FT.
	SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		242	LIN. FT.
	SS & 606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		10	LIN. FT.
	SP, SS, & 606	18" SIDE DRAIN		80	LIN. FT.
	SS & 606	51" X 31" SIDE DRAIN		97	LIN. FT.
	SS & 606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		3	EACH
	SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		10	EACH
	SS & 606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2	EACH
	SS & 606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
	SS & 606	42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		4	EACH
	SS & 606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
	SS & 606	SELECTED PIPE BEDDING		210	CU. YD.
	SS & 609	DROP INLETS (TYPE MO)		23	EACH
	SS & 609	DROP INLETS (TYPE RM)		13	EACH
	SS & 609	JUNCTION BOXES (TYPE E)		2	EACH
	SS & 609	DROP INLET EXTENSIONS (4')		15	EACH
	SS & 609	DROP INLET EXTENSIONS (6')		7	EACH
	SS & 617	GUARDRAIL (TYPE A)		975	LIN. FT.
	SS & 617	GUARDRAIL (TYPE C)		25	LIN. FT.
	SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)		3	EACH
	SS & 617	GUARDRAIL TERMINAL (TYPE 2)		3	EACH
	SP	WIRE ROPE SAFETY FENCE		320	LIN. FT.
	SS & 619	WIRE FENCE (TYPE A)		777	LIN. FT.
	620	LIME		21	TON
	620	SEEDING		10.35	ACRE
	SS & 620	MULCH COVER		39.32	ACRE
	620	WATER		1667.5	M. GAL.
	621	TEMPORARY SEEDING		28.97	ACRE
	621	SILT FENCE		1029	LIN. FT.
	621	SAND BAG DITCH CHECKS		3124	BAG
	621	DROP INLET SILT FENCE		80	LIN. FT.
	621	SEDIMENT REMOVAL AND DISPOSAL		243	CU. YD.
	621	ROCK DITCH CHECKS		255	CU. YD.
	SS & 621	FILTER SOCK (18")		1030	LIN. FT.
	621	WATTLE (18")		100	LIN. FT.
	623	SECOND SEEDING APPLICATION		10.35	ACRE
	624	SOLID SODDING		1659	SQ. YD.
	SS & 631	CONCRETE BARRIER WALL (MEDIAN TYPE C; MASH TL-4)		355	LIN. FT.
	SP, SS, & 631	CONCRETE BARRIER WALL (SIDE TYPE E; MASH TL-4)		145	LIN. FT.
	SP, SS, & 632	CONCRETE ISLAND		2119	SQ. YD.
	SP, SS, & 633	CONCRETE WALKS		189	SQ. YD.
	SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")		2770	LIN. FT.
	SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE B-1) (1' 6")		710	LIN. FT.
	SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE E-1) (2' 0")		440	LIN. FT.
	635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
	637	MAILBOXES		2	EACH
	SS & 637	MAILBOX SUPPORTS (SINGLE)		2	EACH
	SS & 640	MODIFYING DROP INLETS		1	EACH
	SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 3)		24	SQ. YD.
	SP, SS, & 641	WHEELCHAIR RAMPS (TYPE 5)		3	SQ. YD.
	642	RUMBLE STRIPS IN ASPHALT SHOULDERS		2902	LIN. FT.
**	SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)		2	EACH
	SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)		4	EACH

* DENOTES ALTERNATE BID ITEMS.
** NEW CONTROLLERS SHALL MATCH EXISTING CONTROLLER MODEL USED BY THE CITY OF VAN BUREN (PEEK/ORIUX ATC 1000).

SUMMARY OF QUANTITIES (BOX 2 OF 2)

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	5	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	441	LIN. FT.
SP	CELLULAR MODEM	1	EACH
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	4	EACH
SP	BATTERY BACKUP SYSTEM	1	EACH
SP	PTZ CAMERA SYSTEM	4	EACH
SP	NEMA ENCLOSURE	2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	22	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	7	EACH
SP	LOUVERS	4	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	1209	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	2204	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	912	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	680	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	2387	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	1394	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	330	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	104	LIN. FT.
SP	ELECTRICAL CONDUCTORS IN CONDUIT (2C/6, A.W.G., E.G.C.)	2750	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/10 A.W.G., E.G.C.)	825	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/8 A.W.G., E.G.C.)	199	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/3 A.W.G. #8 E.G.C.)	160	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	3887	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	42	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	30	LIN. FT.
710	NON-METALLIC CONDUIT (2")	3854	LIN. FT.
710	NON-METALLIC CONDUIT (3")	1072	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	38	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	3	EACH
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	1	EACH
SP, SS, & 711	CONCRETE PULL BOX (TYPE 3 HD)	2	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (38')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (52')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	2	EACH
SP	LED LUMINAIRE ASSEMBLY	6	EACH
SP	LED ROADWAY ILLUMINATION POLE (17,400 LUMENS, T-BASE, 30', 4' ARM)	26	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	1	EACH
SP	SERVICE POINT ASSEMBLY (1 CIRCUIT)	1	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	2	EACH
SP	PEDESTAL TYPE SERVICE POINT (100 AMP)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	4	EACH
718	RETROREFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")	541	LIN. FT.
718	RETROREFLECTORIZED PAINT PAVEMENT MARKING YELLOW (10")	1090	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	12024	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	100	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	488	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	15271	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")	729	LIN. FT.
SP & 719	THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)	83	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	42	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	51	EACH
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	8113	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	1682	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	1738	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	433	EACH
SP	STEEL TEE MOUNT SIGN STRUCTURE (TM-040-17-28)	1	EACH
SS & 725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	1068	SQ. FT.
SS & 726	STANDARD SIGN	701	SQ. FT.
SP	18" STREET NAME SIGN	4	EACH
SS & 727	EXIT NUMBER PANEL (TYPE A)	35	SQ. FT.
SS & 730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	7858	POUND
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)	11	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1)	21	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)	11	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	2	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	2	EACH
SP & 733	VIDEO DETECTION SYSTEM	2	EACH
SP & 733	VIDEO CABLE	3802	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	2	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	580	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	171.18	CU. YD.
SP	ARCHITECTURAL FINISH	1961	SQ. FT.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	16026	POUND
SS & 816	FILTER BLANKET	295	SQ. YD.
SS & 816	DUMPED RIPRAP	49	CU. YD.
SS & 816	DUMPED RIPRAP (GROUTED)	408	CU. YD.
SP	OVERHEAD DMS ASSEMBLY	2	EACH
SP	RADAR DETECTION SYSTEM	2	EACH
	STRUCTURES OVER 20' SPAN		
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	276	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	631.00	CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	78199	POUND

REVISIONS

DATE	REVISION	SHEET NUMBER
5/12/2025	REVISED QUANTITY FOR ITEM 18" STREET NAME SIGN & ADDED QUANTITY FOR ITEM MOBILE SPEED NOTIFICATION SYSTEM (SPECIAL)	74, 79, 108, & 120

HBVinson 5/12/2025 4:30:30 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	80	248
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

SURVEY CONTROL COORDINATES

Project Name: s040714
Date: 6/11/2018
Coordinate System: ARKANSAS STATE PLANE – NORTH ZONE BASED ON GPS CONTROL, 170033 – 170005A
PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	419289.3951	610958.4704	517.202	CTL	ARDOT STD. MON. STAMPED PN:1
2	419214.3301	611584.1050	520.516	CTL	ARDOT STD. MON. STAMPED PN:2
3	419182.3845	612325.6825	530.074	CTL	ARDOT STD. MON. STAMPED PN:3
4	419022.6289	613113.6692	545.898	CTL	ARDOT STD. MON. STAMPED PN:4
5	418895.1814	614008.5758	573.154	CTL	ARDOT STD. MON. STAMPED PN:5
6	418814.8069	614913.8029	599.271	CTL	ARDOT STD. MON. STAMPED PN:6
7	418702.1988	615659.7142	610.405	CTL	ARDOT STD. MON. STAMPED PN:7
8	418682.0081	616223.4949	609.950	CTL	ARDOT STD. MON. STAMPED PN:8
9	418856.6664	615799.8836	609.352	CTL	ARDOT STD. MON. STAMPED PN:9
10	418925.0204	614985.4887	601.422	CTL	ARDOT STD. MON. STAMPED PN:10
11	419088.4052	614175.7414	577.221	CTL	ARDOT STD. MON. STAMPED PN:11
12	419189.3732	613468.5166	555.554	CTL	ARDOT STD. MON. STAMPED PN:12
13	419283.0402	612816.5992	538.243	CTL	ARDOT STD. MON. STAMPED PN:13
14	419429.5699	611988.3795	526.483	CTL	ARDOT STD. MON. STAMPED PN:14
15	419564.2874	611093.5576	519.056	CTL	ARDOT STD. MON. STAMPED PN:15
16	419699.1383	610383.7812	518.236	CTL	ARDOT STD. MON. STAMPED PN:16
17	419810.7679	609816.7121	518.062	CTL	ARDOT STD. MON. STAMPED PN:17
18	419995.4448	608877.3775	518.032	CTL	ARDOT STD. MON. STAMPED PN:18
19	420129.6183	608143.6698	516.151	CTL	ARDOT STD. MON. STAMPED PN:19
20	420283.3684	607341.2586	504.845	CTL	ARDOT STD. MON. STAMPED PN:20
21	420431.8592	606583.1585	493.544	CTL	ARDOT STD. MON. STAMPED PN:21
22	420553.4401	605947.0081	484.154	CTL	ARDOT STD. MON. STAMPED PN:22
23	420337.9372	605930.2957	489.197	CTL	ARDOT STD. MON. STAMPED PN:23
24	420140.8239	606950.4187	502.223	CTL	ARDOT STD. MON. STAMPED PN:24
25	419984.6622	607759.6612	517.788	CTL	ARDOT STD. MON. STAMPED PN:25
26	419829.4718	608558.5317	524.674	CTL	ARDOT STD. MON. STAMPED PN:26
27	419651.4348	609464.6194	521.993	CTL	ARDOT STD. MON. STAMPED PN:27
28	416708.7814	610618.4855	571.407	CTL	ARDOT STD. MON. STAMPED PN:28
29	417171.3494	610643.0799	581.135	CTL	ARDOT STD. MON. STAMPED PN:29
30	417906.8714	610682.6232	546.878	CTL	ARDOT STD. MON. STAMPED PN:30
31	418365.6023	610713.1171	530.342	CTL	ARDOT STD. MON. STAMPED PN:31
32	419082.2750	610745.4847	507.444	CTL	ARDOT STD. MON. STAMPED PN:32
33	419921.1856	610786.0423	505.744	CTL	ARDOT STD. MON. STAMPED PN:33
34	420817.2944	610748.9065	493.181	CTL	ARDOT STD. MON. STAMPED PN:34
35	421411.8462	610870.3069	493.203	CTL	ARDOT STD. MON. STAMPED PN:35
36	422191.2260	610892.9439	500.352	CTL	ARDOT STD. MON. STAMPED PN:36
37	422926.4468	610924.0701	531.079	CTL	ARDOT STD. MON. STAMPED PN:37
100	419495.4703	610263.5862	518.992	GPS	ARDOT GPS #170033
101	419847.4918	608737.6881	522.908	GPS	ARDOT GPS #170005A
901	418371.1874	610721.3136	530.325	TBM	CHSQ IN CB 12.5'S OF DW HWY. 59
902	419082.7589	610748.5977	507.548	TBM	CHSQ SIGN BASE
903	419915.7822	610784.4644	506.303	TBM	CHSQ IN CONT BASE TB
904	420806.8006	610748.5749	493.500	TBM	
905	421401.6693	610862.3414	491.162	TBM	CHSQ W END OF CONC HW HWY. 59
906	417455.1262	619349.4117	514.059	TBM	CHSQ IN NW COR OF BR ABUTMENT I-40
907	417605.6700	610672.8227	562.504	TBM	
999	417343.0205	619554.1540	487.466	BM	NGS 1ST ORDER BM J 311

*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).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.999917311472 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 s040714gi.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 – 0301–NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 170033 – 170005A
CONVERGENCE ANGLE: 01 22 19.66 LEFT AT PN:100 LT:N 35 27 45.5856 LG:W 94 21 28.8594
GRID AZIMUTH = ASTRONOMICAL AZIMUTH – CONVERGENCE ANGLE.

ALIGNMENT NAME : I-40

POINT	STATION	TYPE	NORTHING	EASTING
8000	237+33.66	POB	420312.2863	606624.4790
8001	283+11.98	PC	419444.5422	611119.8109
8002	294+20.42	PT	419260.8508	612212.8192
8011	310+96.72	POE	419023.0812	613872.1707

ALIGNMENT NAME : RAMP 1

POINT	STATION	TYPE	NORTHING	EASTING
8003	252+31.30	PC	419932.1216	608076.3808
8004	253+31.30	PT	419910.5696	608174.0191
8005	254+69.67	PC	419877.2182	608308.3080
8006	258+17.58	PT	419611.3543	608478.0964
8007	259+01.68	POE	419528.7770	608462.1563

ALIGNMENT NAME : RAMP 2A

POINT	STATION	TYPE	NORTHING	EASTING
8008	254+87.42	POB	419526.0373	608481.9966
8009	255+70.26	PC	419607.3770	608497.6978
8010	259+45.35	PT	419796.5170	608777.4406

ALIGNMENT NAME : RAMP 2B

POINT	STATION	TYPE	NORTHING	EASTING
8036	279+23.44	POB	419218.1065	610705.4170
8012	287+49.83	PC	419234.9684	611531.6315
8013	290+89.99	PT	419211.9023	611870.5714

ALIGNMENT NAME : RAMP 3

POINT	STATION	TYPE	NORTHING	EASTING
8014	278+50.49	POB	419830.2240	610734.9411
8015	283+90.94	PC	419620.2716	611232.9444
8016	286+26.64	PT	419545.5404	611456.2474
8017	294+45.53	POE	419345.3925	612250.2989

ALIGNMENT NAME : US-59

POINT	STATION	TYPE	NORTHING	EASTING
8018	32+50.00	POB	418772.8656	610685.6802
8019	35+25.07	PI	419047.6963	610697.1977
8020	46+00.00	POE	420121.3763	610748.9835

ALIGNMENT NAME : ACCESS ROAD

POINT	STATION	TYPE	NORTHING	EASTING
8021	73+60.00	POB	420402.0584	605180.7097
8022	95+25.00	PI	419986.0415	607305.3638
8023	99+40.00	PI	419909.8540	607713.3104
8025	101+63.73	PC	419866.6723	607932.8291
8026	104+50.51	PRC	419705.0966	608159.3081
8027	107+38.48	PT	419543.2925	608386.9594
8028	108+25.07	PI	419526.8817	608471.9751
8029	108+63.57	PC	419523.6490	608510.3431
8030	111+13.58	PRC	419592.7678	608744.6728
8031	113+96.03	PT	419657.6102	609011.1611
8032	123+77.38	PC	419481.5822	609976.5875
8033	126+52.71	PT	419400.2833	610238.9516
8034	130+27.37	PC	419247.2973	610580.9562
8035	131+12.92	PT	419223.8958	610662.9410
8036	131+55.79	POE	419218.1065	610705.4170

ALIGNMENT NAME : ROUNDABOUT

POINT	STATION	TYPE	NORTHING	EASTING
8037	400+00.00	POB	419604.2254	608425.9539
8037	405+65.49	POE	419604.2254	608425.9539

ALIGNMENT NAME : ELFEN GLEN STREET

POINT	STATION	TYPE	NORTHING	EASTING
8038	10+00.00	POB	419435.7438	608068.1141
8039	11+34.61	PC	419570.2217	608073.9855
8040	12+82.83	PT	419692.4128	608146.8521
8041	13+00.00	POE	419701.2258	608161.5882

ALIGNMENT NAME : DETOUR 1

POINT	STATION	TYPE	NORTHING	EASTING
8042	10+00.00	POB	419918.6399	607666.2663
8043	10+88.09	PRC	419913.9036	607753.9794
8044	12+79.72	PT	419898.2498	607944.1596
8045	14+25.79	PC	419863.3886	608086.0059
8046	15+05.71	PRC	419835.3339	608160.6402
8047	16+00.85	POE	419803.9812	608250.1338

ALIGNMENT NAME : DETOUR 2

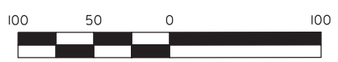
POINT	STATION	TYPE	NORTHING	EASTING
8048	20+00.00	POB	419718.5074	608695.9624
8049	20+96.77	PRC	419713.5837	608792.2742
8050	21+76.83	PT	419711.4849	608872.1142
8051	23+05.61	PC	419692.8712	608999.5426
8052	23+28.08	PT	419689.2307	609021.7200
8053	29+11.86	PC	419584.5160	609596.0288
8054	30+58.51	PRC	419528.1357	609730.1598
8055	31+24.79	POE	419495.4186	609787.6814

ALIGNMENT NAME : DETOUR 3

POINT	STATION	TYPE	NORTHING	EASTING
8056	40+00.00	POB	419655.5292	608879.7797
8057	40+91.12	PC	419673.9298	608969.0233
8058	42+20.44	PT	419675.4067	609097.5379
8059	49+89.48	PC	419537.4590	609854.1127
8060	50+99.28	PRC	419500.6739	609957.0441
8061	51+89.26	PT	419468.0115	610040.6071

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	81	248
		SURVEY CONTROL DETAILS				

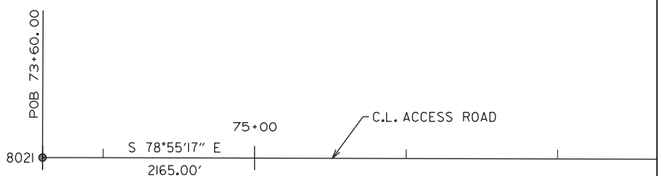


ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

DIGITALLY SIGNED 03/18/2025



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WORKSPACE: AHTD
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REVISED DATE:

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		SURVEY CONTROL DETAILS				

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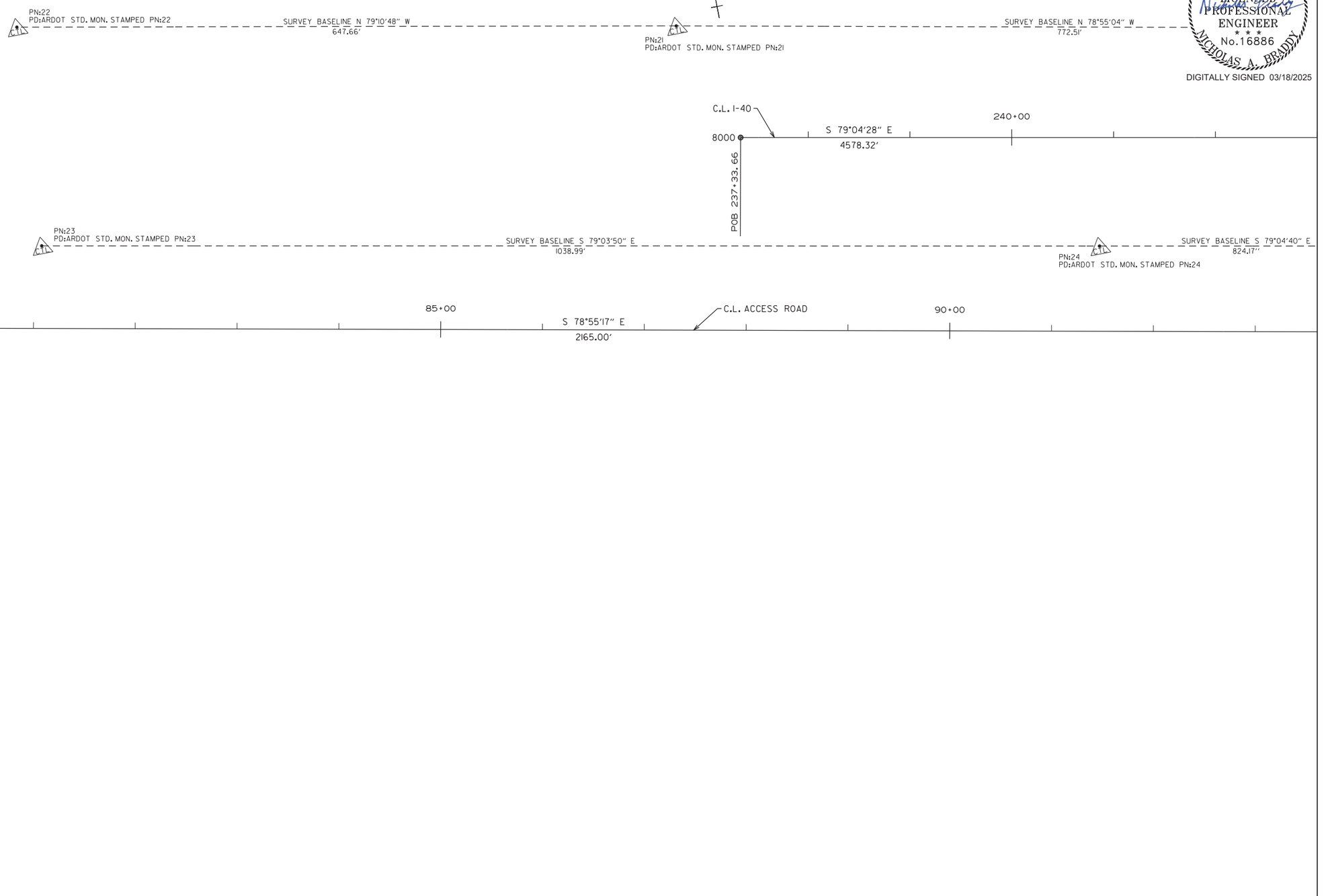
Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

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REVISED DATE:

SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	83	248
		SURVEY CONTROL DETAILS				

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
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N

STATE OF ARKANSAS
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NICHOLAS A. BRADDY
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PN:20
PD:ARDOT STD. MON. STAMPED PN:20

SURVEY BASELINE N 79°09'11" W
817.01'

PN:19
PD:ARDOT STD. MON. STAMPED PN:19

SURVEY BASELINE N 79°38'12" W
745.88'

245+00 250+00 255+00

STA. 244+11.30
BEGIN JOB 040714
L.M. 4.60

SURVEY BASELINE S 79°04'40" E
824.17'

PN:25
PD:ARDOT STD. MON. STAMPED PN:25

SURVEY BASELINE S 79°00'23" E
813.80'

C.L. I-40

S 79°04'28" E
4578.32'

C.L. RAMP I
PI = 252+81.31
Δ = 3°00'00" RT.
D = 3°00'00"
T = 50.01'
L = 100.00'
PC = 252+31.30
PRC = 253+31.30
e = NO SUPER

S 76°03'09" E
50.01'

PC 252+31.30

PI 252+81.31

S 76°03'09" E
50.01'

PT 253+31.30

8003 8004 8005

S 76°03'09" E
138.37'

255+00

S 76°03'09" E
217.41'

PI 258+09.08

PI 256+87.07

S 79°03'09" E
238.82'

SURVEY BASELINE N 84°15'23" E
180.06'

PN:26
PD:ARDOT STD. MON.
STAMPED PN:26

95+00 100+00

S 78°55'17" E
2165.00'

8022

S 79°25'17" E
415.00'

8023

S 78°52'17" E
223.73'

8025

S 78°52'17" E
152.71'

PI 103+16.45

S 30°07'07" E
152.71'

PC 254+69.67

C.L. RAMP I
PI = 256+87.07
Δ = 86°58'41" RT.
D = 25°00'00"
T = 217.41'
L = 347.91'
PC = 254+69.67
PRC = 258+17.58
e = 0.100'/'
Ls = 300'

N 10°55'32" E
217.41'

N 10°55'32" E
238.82'

C.L. RAMP 2A

C.L. RAMP 2A
PI = 258+09.08
Δ = 90°01'19" RT.
D = 24°00'00"
T = 238.82'
L = 375.09'
PC = 255+70.26
PT = 259+45.35
e = 0.098'/'
Ls = 300'

PI 95+25.00
Δ = 0°30'00" LT.

PI 99+40.00
Δ = 0°33'00" RT.

PC 101+63.73

C.L. ACCESS ROAD
PI = 103+16.44
Δ = 48°45'10" RT.
D = 17°00'00"
T = 152.71'
L = 286.78'
PC = 101+63.73
PRC = 104+50.51
e = NO SUPER

PRC 104+50.51

STA. 104+55.00 C.L. ACCESS RD. =
STA. 13+00.00 C.L. ELFEN GLEN ST.
∢ 90°00'00"

N 59°07'05" E
17.17'

8026

8041 105+00

C.L. ACCESS ROAD

PT 258+17.58

N 52°18'56" E
131.07'

PC 255+70.26

S 10°55'32" W
84.10'

N 10°55'32" E
82.84'

PI 12+15.40
Δ = 56°37'05" RT.

N 59°07'05" E
80.79'

8040

PT 12+82.83

S 30°07'07" E
153.43'

C.L. ROUNDABOUT

400+00
8037

PC 400+00.00

PT 405+65.49

405+00

S 79°04'28" E
153.43'

8027

S 79°04'28" E
86.59'

8006 8009

S 85°11'02" E
38.50'

8007 8028 8008 8029

S 85°11'02" E
131.07'

PI 109+94.64

N 2°30'00" E
80.79'

C.L. ELFEN GLEN ST
PI = 12+15.40
Δ = 56°37'05" RT.
D = 38°11'49.87"
T = 80.79'
L = 148.22'
PC = 11+34.61
PT = 12+82.83
e = NO SUPER

8039

PC 11+34.61

C.L. ACCESS ROAD
PI = 106+03.94
Δ = 48°57'21" LT.
D = 17°00'00"
T = 153.43'
L = 287.97'
PRC = 104+50.51
PT = 107+38.48
e = NO SUPER

PI 106+03.95

PT 107+38.48

PI 108+25.07

PC 108+63.57

C.L. ACCESS ROAD
PI = 109+94.64
Δ = 42°30'02" LT.
D = 17°00'00"
T = 131.07'
L = 250.01'
PC = 108+63.57
PRC = 111+13.58
e = NO SUPER

C.L. ELFEN GLEN ST.

N 2°30'00" E
134.61'

POB 10+00.00

8038

STA. 259+01.68 C.L. RAMP I =
STA. 404+89.58 C.L. ROUNDABOUT 80' RT.
∢ 90°00'00"

STA. 254+87.42 C.L. RAMP 2A =
STA. 401+97.25 C.L. ROUNDABOUT 79.94' RT.
∢ 90°00'00"

C.L. ROUNDABOUT
PI = N.A.
Δ = 360°00'00" LT.
D = 63°39'43"
T = N.A.
L = 565.49'
PC = 400+00.00
PT = 405+65.49
e = NO SUPER

SURVEY CONTROL DETAILS

JATurner 3/18/2025 7:22:35 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	84	248
		SURVEY CONTROL DETAILS				

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

SURVEY BASELINE N 78°38'12" W
745.88'

PN:18
PD:ARDOT STD. MON. STAMPED PN:18

SURVEY BASELINE N 78°52'38" W
957.32'

PN:17
PD:ARDOT STD. MON. STAMPED PN:17

SURVEY BASELINE N 78°51'49" W
577.95'

C.L. RAMP 2A

PI = 258+09.08
Δ = 90°01'19" RT.
D = 24°00'00"
T = 238.82'
L = 375.09'
PC = 255+70.26
PT = 259+45.35
e = 0.098'/'
Ls = 300'

260+00 265+00 S 79°04'28" E 4578.32' C.L. I-40 270+00

PN:101
PD:ARDOT GPS #170005A

SURVEY BASELINE S 84°15'23" E
180.06'

SURVEY BASELINE S 74°54'22" E
752.91'

PN:27
PD:ARDOT STD. MON. STAMPED PN:27

SURVEY BASELINE S 78°57'16" E
814.05'

S 79°03'09" E
238.82'

8010

C.L. RAMP 2A

PT 259+45.35

PI 112+63.70

S 79°40'00" E
150.12'

8031

115+00

C.L. ACCESS ROAD

120+00

S 79°40'00" E
981.34'

8032

PI 125+15.71

S 79°40'00" E
138.33'

S 65°54'00" E
138.33'

125+00

PC 123+77.38

C.L. ACCESS ROAD

PI = 125+15.71
Δ = 13°46'00" RT.
D = 5°00'00"
T = 138.33'
L = 275.33'
PC = 123+77.38
PT = 126+52.71
e = NO SUPER

PRC 111+13.58

N 52°18'56" E
150.12'

C.L. ACCESS ROAD

PI = 112+63.70
Δ = 48°01'04" RT.
D = 17°00'00"
T = 150.12'
L = 282.45'
PRC = 111+13.58
PT = 113+96.03
e = NO SUPER

PT 113+96.03

8030

N 52°18'56" E
131.07'

C.L. ACCESS ROAD

PI = 109+94.64
Δ = 42°30'02" LT.
D = 17°00'00"
T = 131.07'
L = 250.01'
PC = 108+63.57
PRC = 111+13.58
e = NO SUPER

S 85°11'02" E
131.07'

PI 109+94.64

JATurner 3/18/2025 7:22:35 AM
WORKSPACE: AHTD
L:\2017\1701648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_SC_05.dgn
REVISED DATE:

SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	85	248
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

100 50 0 100
Scale: 1" = 100'
ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

HWY. 59 INSET

MATCHLINE C.L. HWY 59
STA. 36+00
N 2°45'41" E
1074.93'
8019
PI 35+25.07
35+00
C.L. HWY. 59
N 2°23'59" E
225.07'
POB 32+50.00
32+50
8018

POE 46+00.00
8020
45+00
SURVEY BASELINE
N 02°22'23" W
896.88'
PN:33
PD:ARDOT STD. MON. STAMPED PN:33

STA. 43+08.51 C.L. HWY. 59 =
STA. 278+50.49 C.L. RAMP 3
∢ 69°54'06"
8014
280+00
C.L. RAMP 3
S 67°08'25" E
540.45'
PC 283+90.94
8015
S 67°08'25" E
118.08'
285+00
PT 286+26.64
8016
S 75°51'10" E
818.89'

C.L. RAMP 3
PI = 285+09.02
Δ = 8°42'45" LT.
D = 3°41'47"
T = 118.08'
L = 235.70'
PC = 283+90.94
PT = 286+26.64
e = 0.070'/'
Ls = 300'

PN:16
PD:ARDOT STD. MON. STAMPED PN:16
SURVEY BASELINE N 79°14'33" W
722.47'
PN:15
PD:ARDOT STD. MON. STAMPED PN:15
SURVEY BASELINE N 81°26'18" W
904.91'

STA. 275+38.82
END JOB 040714
275+00
N 2°45'41" E
1074.93'
40+00
280+00
C.L. I-40
S 79°04'28" E
4578.32'
PC 283+11.98
8001
PI 285+09.02
285+00
S 81°50'44" E
554.33'
S 79°04'28" E
554.33'
PC 287+49.83
PI 288+66.31
N 88°49'51" E
170.53'

C.L. I-40
PI = 288+66.31
Δ = 2°46'16" LT.
D = 0°15'00"
T = 554.33'
L = 1108.44'
PC = 283+11.98
PT = 294+20.42
e = NO SUPER

C.L. HWY. 59
SURVEY BASELINE N 02°46'04" E
839.89'
SURVEY BASELINE S 78°57'16" E
814.05'
PN:100
PD:ARDOT GPS #170033
S 79°40'00" E
138.33'
PI 125+15.71
S 65°54'00" E
138.33'
125+00
8033
C.L. ACCESS ROAD
S 65°54'00" E
374.66'
PT 126+52.71
SURVEY BASELINE S 73°28'54" E
724.80'
PC 130+27.37
PT 131+12.92
130+00
S 82°14'19" E
43.07'
8034
8035
8036
S 65°54'00" E
43.07'
S 82°14'19" E
42.87'
PI 130+70.44
MATCHLINE
C.L. HWY 59
STA. 36+00
PN:1
PD:ARDOT STD. MON. STAMPED PN:1
SURVEY BASELINE S 83°09'30" E
630.12'
280+00
N 88°49'51" E
826.39'
C.L. RAMP 2B
285+00
8012
PN:2
PD:ARDOT STD. MON. STAMPED PN:2
SURVEY BASELINE
S 87°32'00" E
742.27'

C.L. ACCESS ROAD
PI = 125+15.71
Δ = 13°46'00" RT.
D = 5°00'00"
T = 138.33'
L = 275.33'
PC = 123+77.38
PT = 126+52.71
e = NO SUPER

C.L. ACCESS ROAD
PI = 130+70.44
Δ = 16°20'19" LT.
D = 19°05'55"
T = 43.07'
L = 85.55'
PC = 130+27.37
PT = 131+12.92
e = NO SUPER

C.L. RAMP 2B
PI = 289+20.35
Δ = 10°07'29" RT.
D = 2°58'35"
T = 170.53'
L = 340.17'
PC = 287+49.83
PT = 290+89.99
e = NO SUPER

STA. 131+55.79 C.L. ACCESS RD. =
STA. 36+95.68 C.L. HWY. 59
∢ 85°00'00"
STA. 279+23.44 C.L. RAMP 2B =
STA. 36+95.68 C.L. HWY. 59
∢ 93°55'50"
PN:32
PD:ARDOT STD. MON. STAMPED PN:32
SURVEY BASELINE N 02°35'09" E
717.40'

SURVEY CONTROL DETAILS

JATurner 3/18/2025 7:22:36 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	86	248
		SURVEY CONTROL DETAILS				

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
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N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

DIGITALLY SIGNED 03/18/2025

290+00

SURVEY BASELINE N 81°26'18" W
904.91'

PN:14
PD:ARDOT STD. MON. STAMPED PN:14

C.L. RAMP 3

S 75°51'10" E
818.89'

8017

C.L. I-40

PI = 288+66.31
Δ = 2°46'16" LT.
D = 0°15'00"
T = 554.33'
L = 1108.44'
PC = 283+11.98
PT = 294+20.42
e = NO SUPER

PT 294+20.42

POE 294+45.53

SURVEY BASELINE N 79°58'01" W
841.08'

PN:13
PD:ARDOT STD. MON. STAMPED PN:13

SURVEY BASELINE N 81°49'25" W
658.61'

MATCHLINE
C.L. I-40
STA. 304+00.00

290+00

8002

295+00

C.L. I-40

300+00

S 81°50'44" E
1676.30'

S 81°50'44" E
554.33'

PI 289+20.35

S 81°02'40" E
170.53'

290+00

C.L. RAMP 2B

8013

SURVEY BASELINE S 87°32'00" E
742.27'

PT 290+89.99

C.L. RAMP 2B

PI = 289+20.35
Δ = 10°07'29" RT.
D = 2°58'35"
T = 170.53'
L = 340.17'
PC = 287+49.83
PT = 290+89.99
e = NO SUPER

PN:3
PD:ARDOT STD. MON. STAMPED PN:3

SURVEY BASELINE S 78°32'21" E
804.02'

PN:4
PD:ARDOT STD. MON. STAMPED PN:4

I-40 INSET

300+00

MATCHLINE C.L. I-40
STA. 304+00

305+00

C.L. I-40

S 81°50'44" E
1676.30'

310+00

POE 310+96.72

8011

SURVEY CONTROL DETAILS

JATurner
3/18/2025 7:22:36 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	87	248
		SURVEY CONTROL DETAILS				

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

PN:20
PD:ARDOT STD. MON. STAMPED PN:20

SURVEY BASELINE N 79°09'11" W
817.01'

PN:19
PD:ARDOT STD. MON. STAMPED PN:19

SURVEY BASELINE N 79°38'12" W
745.88'

245+00 250+00 C.L. I-40 S79°04'28"E 4578.32' 255+00

STA. 244+11.30
BEGIN JOB 040714
L.M. 4.60

SURVEY BASELINE S 79°04'40" E
824.17'

C.L. DETOUR 1
PI = 10+44.30
Δ = 14°58'32" LT.
D = 17°00'00"
T = 44.30'
L = 88.09'
PC = 10+00.00
PRC = 10+88.09
e = NO SUPER

POB 10+00.00

PRC 10+88.09

PN:25
PD:ARDOT STD. MON.
STAMPED PN:25

PI 11+84.72

SURVEY BASELINE S 79°00'23" E
813.80'

C.L. DETOUR 1
PI = 14+65.94
Δ = 13°35'11" RT.
D = 17°00'00"
T = 40.15'
L = 79.92'
PC = 14+25.79
PRC = 15+05.71
e = NO SUPER

PI 14+65.94

POE 16+00.85

SURVEY BASELINE N 84°15'23" E
180.06'

PN:26
PD:ARDOT STD. MON.
STAMPED PN:26

POB 20+00.00

20+00

8048

STA. 10+00.00 C.L. DETOUR 1 =
STA. 98+92.14 C.L. ACCESS ROAD

8042

S 79°29'17" E
44.30'

N 85°36'11" E
44.30'

8043

N 85°36'11" E
96.63'

S 76°11'32" E
96.63'

C.L. DETOUR 1

8044

S 76°11'32" E
146.07'

8045

S 76°11'32" E
40.15'

S 62°36'21" E
40.15'

15.00

8046

8047

S 78°46'48" E
47.89'

STA. 16+00.85 C.L. DETOUR 1 =
STA. 104+21.63 C.L. ACCESS
ROAD, 129.90' LT.

PI 10+44.30

PT 12+79.72

C.L. DETOUR 1
PI = 11+84.72
Δ = 18°12'17" RT.
D = 9°30'00"
T = 96.63'
L = 191.63'
PRC = 10+88.09
PT = 12+79.72
e = NO SUPER

PC 14+25.79

PRC 15+05.71

PI 15+53.60

S 62°36'21" E
47.89'

C.L. DETOUR 1
PI = 15+53.60
Δ = 16°10'27" LT.
D = 17°00'00"
T = 47.89'
L = 95.14'
PRC = 15+05.71
PT = 16+00.85
e = NO SUPER

SURVEY CONTROL DETAILS
DETOUR

JATurner 3/18/2025 7:22:36 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	88	248
		SURVEY CONTROL DETAILS				

100 50 0 100

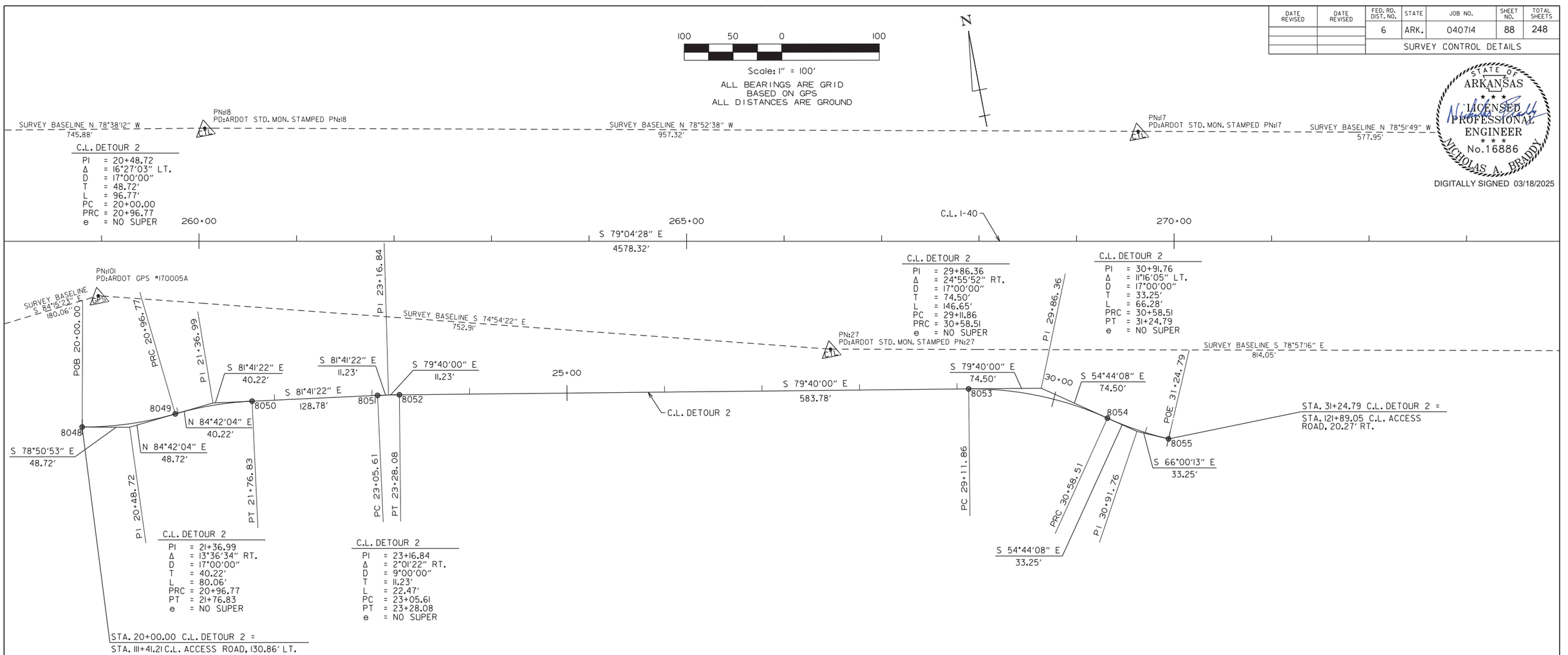
Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY

DIGITALLY SIGNED 03/18/2025



SURVEY CONTROL DETAILS
DETOUR

JATurner 3/18/2025 7:22:36 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	89	248
		SURVEY CONTROL DETAILS				

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

SURVEY BASELINE N 78°38'12" W
745.88'

PN:18
PD:ARDOT STD. MON. STAMPED PN:18

SURVEY BASELINE N 78°52'38" W
957.32'

PN:17
PD:ARDOT STD. MON. STAMPED PN:17

SURVEY BASELINE N 78°51'49" W
577.95'

260+00

265+00

S 79°04'28" E
4578.32'

C.L. I-40

270+00

PN:101
PD:ARDOT GPS #170005A

SURVEY BASELINE S 84°15'23" E
180.06'

SURVEY BASELINE S 74°54'22" E
752.91'

PI 41+56.58

PN:27
PD:ARDOT STD. MON. STAMPED PN:27

SURVEY BASELINE S 78°57'16" E
814.05'

PI 50+44.87

C.L. DETOUR 3
PI = 51+44.54
Δ = 15°17'52" LT.
D = 17°00'00"
T = 45.26'
L = 89.98'
PRC = 50+99.28
PT = 51+89.26
e = NO SUPER

POE 51+89.26

POB 40+00.00

N 78°20'59" E
65.46'

S 79°40'00" E
65.46'

45+00

S 79°40'00" E
769.04'

50+00

S 61°00'07" E
55.39'

S 79°40'00" E
55.39'

8056

8057

N 78°20'59" E
91.12'

8058

8059

8060

8061

C.L. DETOUR 3

PT 42+20.44

PC 40+91.12

C.L. DETOUR 3
PI = 41+56.58
Δ = 21°59'01" RT.
D = 17°00'00"
T = 65.46'
L = 129.32'
PC = 40+91.12
PT = 42+20.44
e = NO SUPER

C.L. DETOUR 3
PI = 50+44.87
Δ = 18°39'53" RT.
D = 17°00'00"
T = 55.39'
L = 109.80'
PC = 49+89.48
PRC = 50+99.28
e = NO SUPER

PC 49+89.48

PRC 50+99.28

PI 51+44.54

S 76°17'59" E
45.26'

S 61°00'07" E
45.26'

STA. 40+00.00 C.L. DETOUR 3 =
STA. 112+63.79 C.L. ACCESS ROAD

STA. 51+89.26 C.L. DETOUR 3 =
STA. 124+42.83 C.L. ACCESS ROAD

JATurner 3/18/2025 7:22:37 AM
WORKSPACE: AHTD
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REVISED DATE:

SURVEY CONTROL DETAILS
DETOUR

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	90	248
		PLAN & PROFILE - I-40				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

N

STA. 244+11.30
BEGIN JOB 040714
L.M. 4.60

240+00 245+00 250+00 255+00

C.L. I-40

S 79°04'28" E

300' TAPER

520' DECELERATION LANE

+11.30 +11.30 +31.30

6' 6' 6' 36'

EXIST. 10' 24'

P.I. 95+25.00 Δ = 0°30'00" LT.

P.I. 99+40.00 Δ = 0°33'00" RT.

PC 252+31.30

P.I. 252+81.31

PT 253+31.30

STA 103+97
END SP. DT. RT. -2.30%
ELEV. 519.23

C.L. RAMP I

255+00

END EXISITNG C/A

S 30°07'07" E

EXIST. C/A

95+00 100+00

S 78°52'17" E S 79°25'17" E S 78°52'17" E S 78°52'17" E

C.L. ACCESS ROAD I

+18

EXIST. R/W

+72
230'

PC 101+63.73

PROP. R/W

N 59°07'05" E

+48.99
315'

P.I. 12+15.40

PROP. R/W

DUMPED RIPRAP

STA. 103+70
START SP. DT. RT. -2.30%
ELEV. 521.20

CONSTRUCTION LIMITS

105'00

I-40

C.L. ELFEN GLEN ST.

CONCRETE DITCH PAVING (TYPE A)

STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
253+70	253+70	RT. = 59 LIN. FT.	4' - 0"	10' - 0"	65.56

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
253+21	253+70	RT. = 51 LIN. FT.	6' - 0"	34.00

FENCING

STA.	STA.	SIDE	TYPE A FENCE
253+23	255+00	RT.	138 LIN. FT

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
248+31	255+00	RT.	670 LIN. FT.

OBLITERATE EXISTING ROADWAY

STA. 253+70 IN PLACE
24"x173' R.C. PIPE CULVERT
W/ HDWLS. LT. & RT.
REMOVE HDWL. AND 87' OF PIPE RT.
AND EXTEND R.C. PIPE 24' W/ FES RT.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 24 LIN. FT.
24" FES = 1 EACH
Q50 = 29 CFS DA = 6.3 ACRES

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

560 550 540 530 520 510 500 490 480 470

STA. 244+11.30

NOTCH AND WIDEN RT. LANES

EXISTING GROUND C.L. RT. MAIN LANES

STA. 244+11.30
BEGIN JOB 040714
ELEV. 508.84

1.60% RT. DITCH GRADE

-4.00% RT. DT. GRADE

0.30% RT. DITCH GRADE

+21.00 RT. 518.04

+20.00 RT. 521.23

+70.00 RT. 519.23

F.L. RT.=519.23

240+00 241+00 242+00 243+00 244+00 245+00 246+00 247+00 248+00 249+00 250+00 251+00 252+00 253+00 254+00 255+00

JATurner 3/18/2025 7:22:47 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	91	248

PLAN & PROFILE - I-40

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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CONCRETE DITCH PAVING (TYPE A)

STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
258+74	259+75	RT. = 101 LIN. FT.	4' - 0"	10' - 0"	112.22
259+85	260+63	RT. = 78 LIN. FT.	4' - 0"	10' - 0"	86.67

STA. 259+80 IN PLACE
4'x6'x163' R.C. BOX CULVERT
W/ 3:1 WINGS LT. AND RT.
REMOVE WINGS RT. AND 70' OF R.C. BOX
TO A COMPLETED LENGTH OF 93'
CONSTRUCT NEW 3:1 WINGS
Q50 = 162 CFS DA = 54.5 ACRES

255+00 S 79°04'28" E 260+00 C.L. I-40 265+00

N

1350' ACCELERATION LANE

S 79°03'09" E

S 76°03'9.09" E

80 60.282 PI

PI 256+87.07

+88.82

S 10°55'32" E

N 10°55'32" W

4' 36' 6' 6' 36' 6'

163' 11.2% 69

BEGIN EXISTING C/A

BEGIN PROPOSED C/A

EXIST. C/A

115+00 120+00

PC 254+69.87

C.L. RAMP 2A

PT 259+45.35

DUMPED RIPRAP

C.L. RAMP 1

EXIST. R/W

CONSTRUCTION LIMITS

N 52°18'16" E

PRC 11+13.13

SHOT UNDER LOW WIRE

140 SERVICE RD

EXIST. R/W

C.L. ROUNDABOUT

PT 258+17.58

PC 255+70.86

400'00

DUMPED RIPRAP

PROP. R/W

CONSTRUCTION LIMITS

PT 113+96.03

+00 245' +22.06 230'

+60 260'

+29.25 230'

+65 246.78'

PROP. R/W

DUMPED RIPRAP

+65 255'

+00 241.87'

EXIST. R/W

END PROPOSED C/A & FENCE

+95 340'

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
255+00	270+00	RT.	1500 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE A FENCE
255+00	260+95	RT.	639 LIN. FT

I-40

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

560 550 540 530 520 510 500 490 480 470

NOTCH AND WIDEN RT. LANES

EXISTING GROUND C.L. RT. MAIN LANES

0.30% RT. DITCH GRADE

+37.73 RT. 519.73

-4.20% RT. DT. GRADE

+64.00 RT. 518.61

F.L. RT.=513.75

5.00% RT. DT. GRADE

+78.76 RT. 513.98
+80.26 RT. 514.00

+63.09 RT. 518.19

0.30% RT. DITCH GRADE

2.00% RT. DITCH GRADE

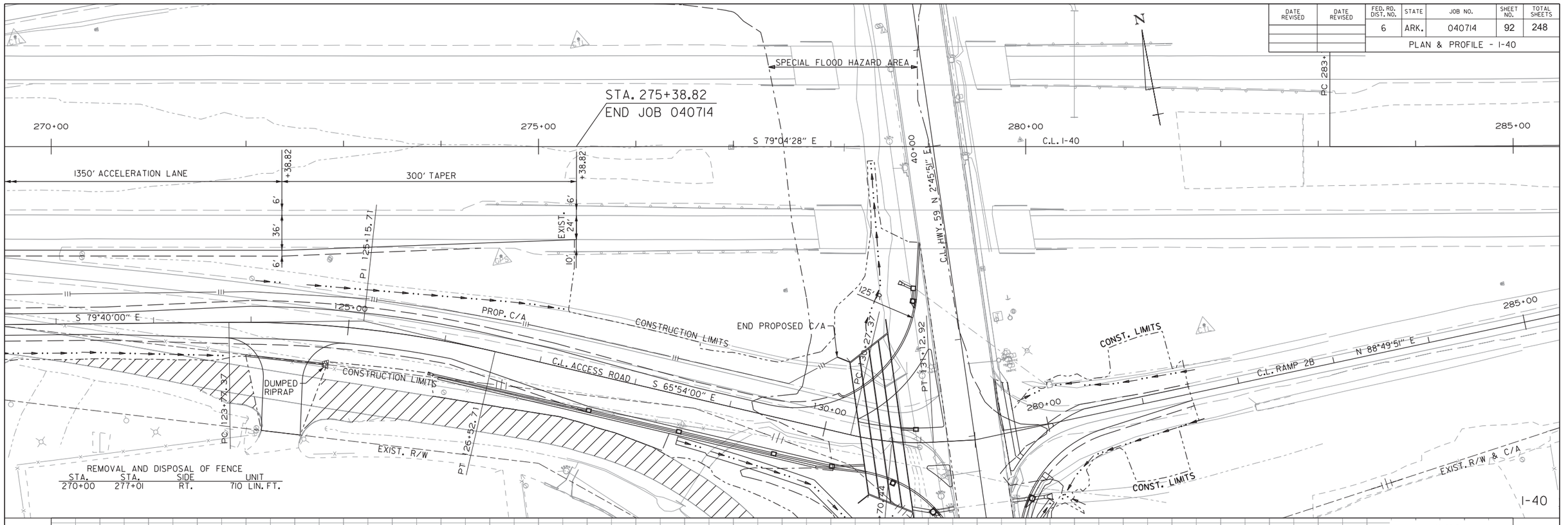
+60.00 RT. 519.98

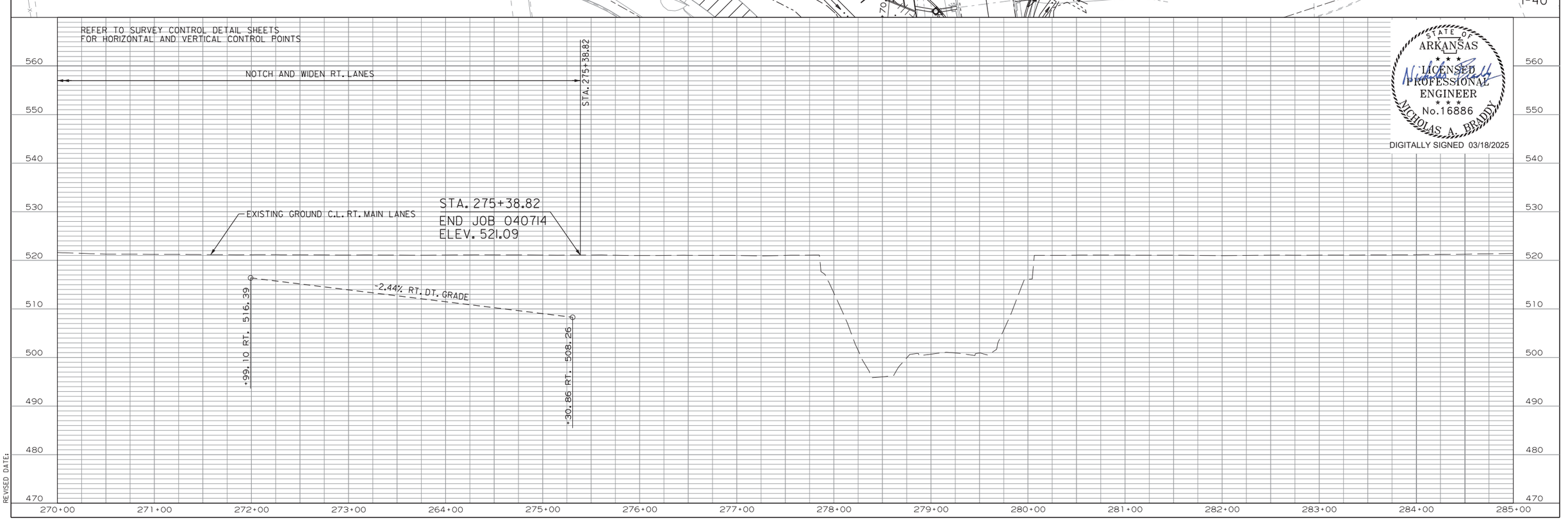
+60.00 RT. 517.98

255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00 266+00 267+00 268+00 269+00 270+00

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	92	248
		PLAN & PROFILE - I-40				

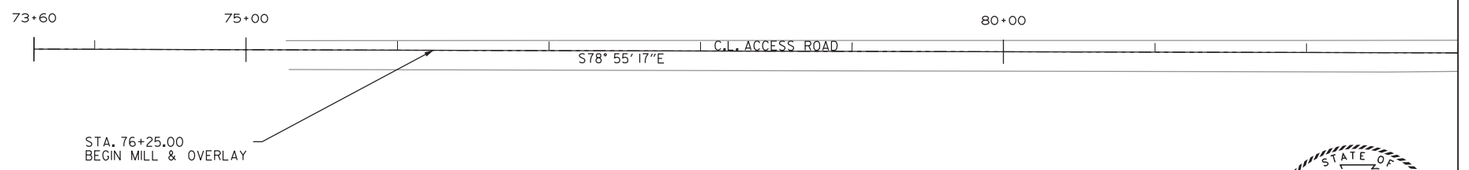




STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

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		PLAN & PROFILE - ACCESS ROAD				

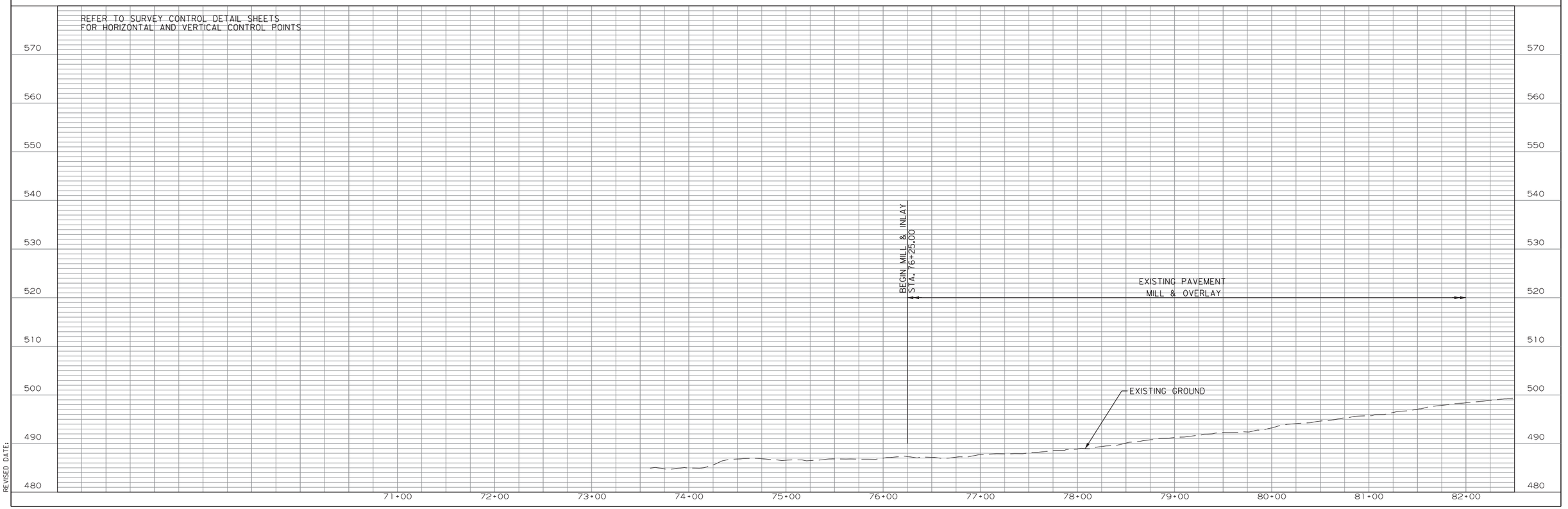


STATE OF ARKANSAS
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NICHOLAS A. BRADDY

DIGITALLY SIGNED 03/18/2025



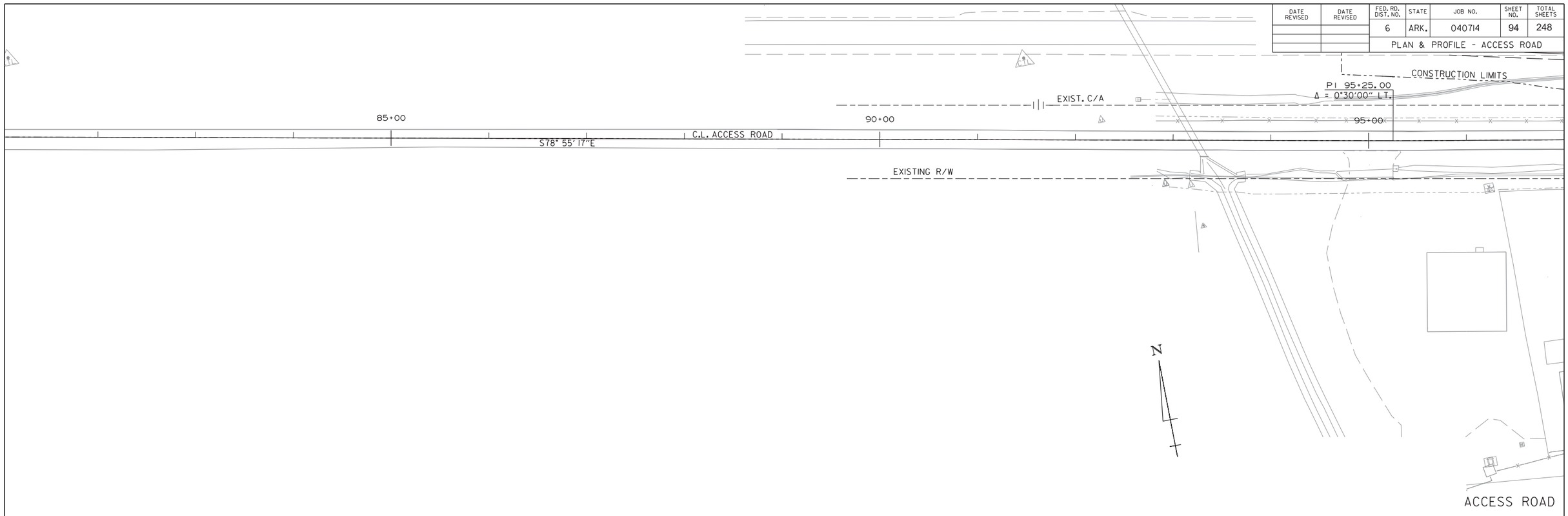
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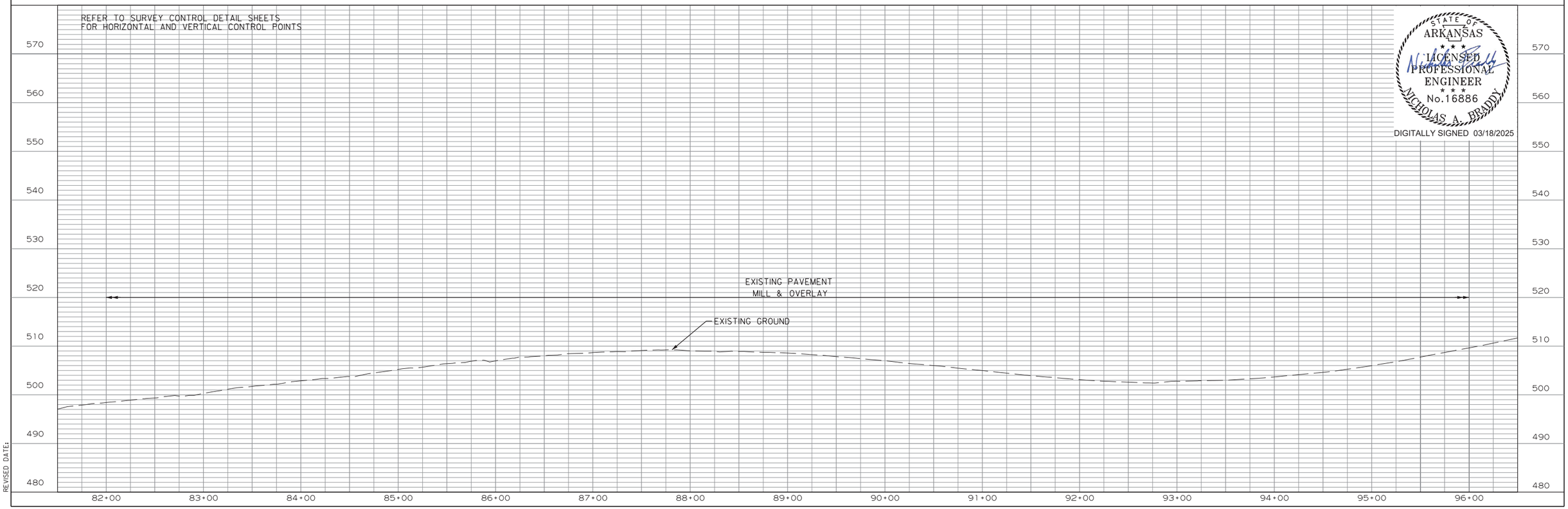
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PLAN & PROFILE - ACCESS ROAD



REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

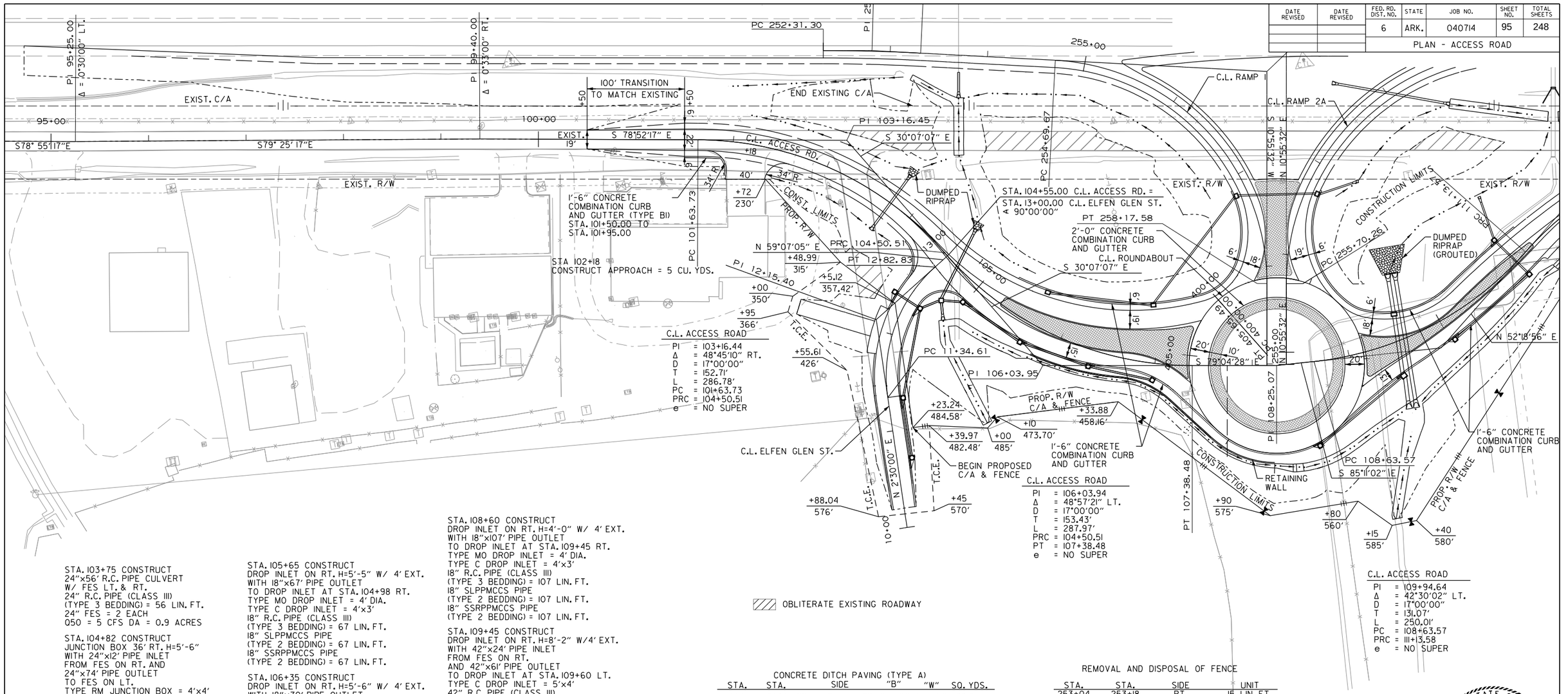
STATE OF ARKANSAS
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	95	248

PLAN - ACCESS ROAD



STA. 103+75 CONSTRUCT
24"x56' R.C. PIPE CULVERT
W/ FES LT. & RT.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 56 LIN. FT.
24" FES = 2 EACH
Q50 = 5 CFS DA = 0.9 ACRES

STA. 104+82 CONSTRUCT
JUNCTION BOX 36' RT. H=5'-6"
WITH 24"x12' PIPE INLET
FROM FES ON RT. AND
24"x74' PIPE OUTLET
TO FES ON LT.
TYPE RM JUNCTION BOX = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 12 LIN. FT.
24" R.C. PIPE (CLASS IV)
(TYPE 3 BEDDING) = 74 LIN. FT.
24" FES = 2 EACH
Q50 = 15 CFS DA = 3.4 ACRES

STA. 104+98 CONSTRUCT
DROP INLET ON RT. H=5'-6" W/ 8' EXT.
WITH 18"x18' PIPE OUTLET
TO JCT. BOX AT STA. 104+82, 36' RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 18 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 18 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 18 LIN. FT.

STA. 105+65 CONSTRUCT
DROP INLET ON LT. H=3'-4"
WITH 18"x105' PIPE OUTLET
TO DROP INLET AT STA. 106+90 LT.
TYPE ST DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 105 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 105 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 105 LIN. FT.

STA. 105+65 CONSTRUCT
DROP INLET ON RT. H=5'-5" W/ 4' EXT.
WITH 18"x67' PIPE OUTLET
TO DROP INLET AT STA. 104+98 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 67 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 67 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 67 LIN. FT.

STA. 106+35 CONSTRUCT
DROP INLET ON RT. H=5'-6" W/ 4' EXT.
WITH 18"x70' PIPE OUTLET
TO DROP INLET AT STA. 105+65 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 70 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 70 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 70 LIN. FT.

STA. 106+90 CONSTRUCT
DROP INLET ON LT. H=4'-6"
WITH 18"x138' PIPE OUTLET
TO DROP INLET AT
C.L. RAMP 1 STA. 257+20 RT.
TYPE ST DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 138 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 138 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 138 LIN. FT.

STA. 107+00 CONSTRUCT
DROP INLET ON RT. H=5'-9"
WITH 18"x63' PIPE OUTLET
TO DROP INLET AT STA. 106+35 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 63 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 63 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 63 LIN. FT.

STA. 108+60 CONSTRUCT
DROP INLET ON RT. H=4'-0" W/ 4' EXT.
WITH 18"x107' PIPE OUTLET
TO DROP INLET AT STA. 109+45 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 107 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 107 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 107 LIN. FT.

STA. 109+45 CONSTRUCT
DROP INLET ON RT. H=8'-2" W/4' EXT.
WITH 42"x24' PIPE INLET
FROM FES ON RT.
AND 42"x61' PIPE OUTLET
TO DROP INLET AT STA. 109+60 LT.
TYPE C DROP INLET = 5'x4'
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 85 LIN. FT.
42" FES = 1EACH
Q50 = 142 CFS DA = 47.5 ACRES

109+60 CONSTRUCT
DROP INLET ON LT. H=8'-1"
WITH 42"x33' PIPE OUTLET
TO FES ON LT.
TYPE ST DROP INLET = 5'x3'
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 33 LIN. FT.
42" FES = 1EACH
Q50 = 142 CFS DA = 47.5 ACRES

STA. 109+60 CONSTRUCT
42"x124' R.C. PIPE CULVERT
14°LT. FWD. SKEW
W/ FES ON LT. & RT.
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 124 LIN. FT.
42" FES = 2 EACH
Q50 = 142 CFS DA = 47.5 ACRES

STA. 110+04 CONSTRUCT
DROP INLET ON RT. H=3'-6"
W/ DBL. 4' EXT.
WITH 18"x97' PIPE OUTLET
TO DROP INLET AT STA. 111+00 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 97 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 97 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 97 LIN. FT.

OBLITERATE EXISTING ROADWAY

CONCRETE DITCH PAVING (TYPE A)

STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
104+98	105+79	RT. = 83 LIN. FT.	2' - 0"	8' - 0"	73.78
108+31	109+34	RT. = 130 LIN. FT.	2' - 0"	8' - 0"	115.56
109+08	109+33	RT. = 85 LIN. FT.	4' - 0"	10' - 0"	94.44
109+33	109+45	RT. = 30 LIN. FT.	14' - 0"	20' - 0"	66.67
109+53	111+23	RT. = 197 LIN. FT.	2' - 0"	8' - 0"	175.11

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
105+79	108+31	RT. = 305 LIN. FT.	4' - 0"	135.56

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
253+04	253+18	RT.	15 LIN. FT.
254+04	254+40	RT.	42 LIN. FT.

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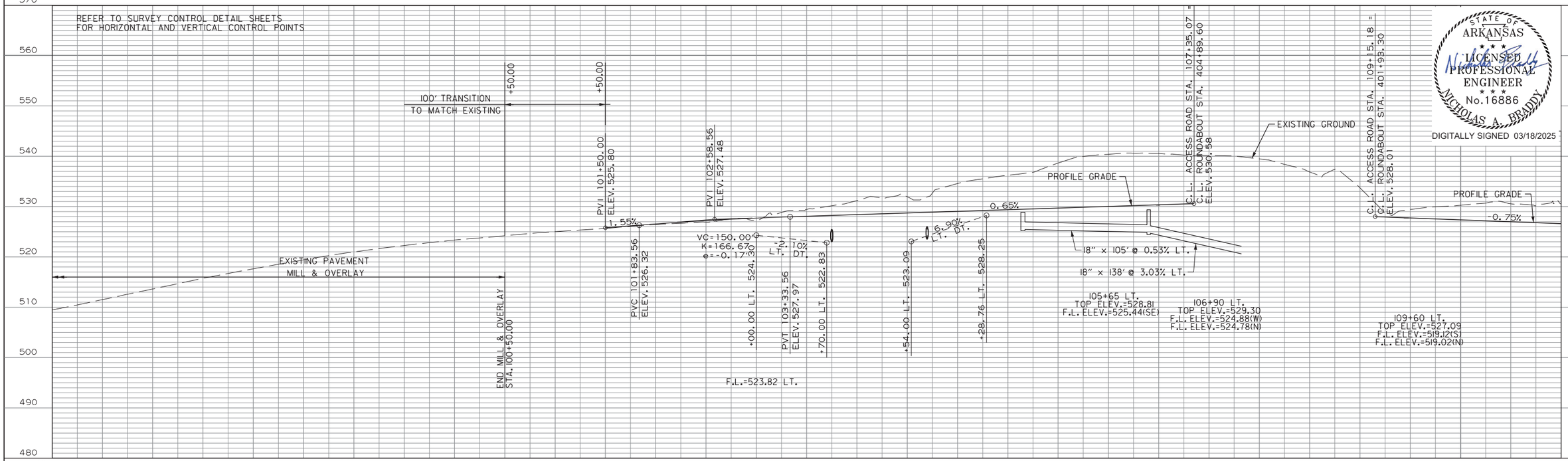
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PLAN & PROFILE - ACCESS ROAD

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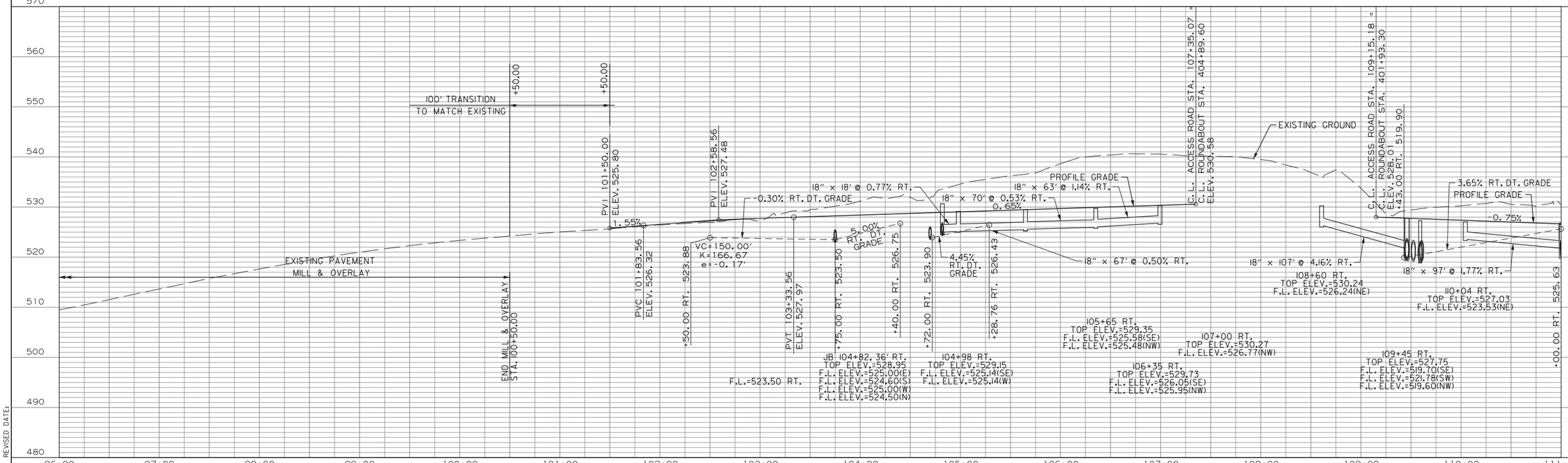
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		6	ARK.	040714	96	248
		PROFILE - ACCESS ROAD				

ACCESS ROAD LT. SIDE PROFILE



STATE OF ARKANSAS
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NICHOLAS A. BRADDY
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ACCESS ROAD RT. SIDE PROFILE



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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	97	248
		PLAN & PROFILE - ACCESS ROAD				

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
111+23	112+59	RT. = 121 LIN. FT.	6'-0"	80.67

OBLITERATE EXISTING ROADWAY

N

260+00 | 265+00 | 270+00

S 79°04'28" E

C.L. I-40

STA. 111+00 CONSTRUCT
DROP INLET ON LT. H=6'-5" W/ 4' EXT.
WITH 18"x39' PIPE OUTLET
TO FES ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 39 LIN. FT.
18" FES = 1 EACH

STA. 112+58 CONSTRUCT
30"x73' R.C. PIPE CULVERT
W/ FES LT. & RT.
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 73 LIN. FT.
30" FES = 2 EACH
Q50 = 17 CFS DA = 3.1 ACRES

S 79°03'09" E

C.L. RAMP 2A

BEGIN EXISTING C/A

DUMPED RIPRAP

EXIST. C/A

BEGIN PROPOSED C/A

C.L. ACCESS ROAD

S 79°40'00" E

150' TAPER LENGTH

PROPOSED C/A

PI 125+15.71

EXIST. R/W

PROP. R/W

CONST. LIMITS

DUMPED RIPRAP

150' TAPER

PC 123+77.37

PT 126+52.71

PT 113+96.03

PT 111+69.68

PT 253+45.35

N 52°18'56" E

END PROPOSED C/A & FENCE

1'-6" CONCRETE COMBINATION CURB AND GUTTER

PROP. R/W C/A & FENCE

STA 116+07
CONSTRUCT APPROACH = 65 CU. YDS.

STA 120+98
CONSTRUCT APPROACH = 70 CU. YDS.

C.L. ACCESS ROAD	
PI	= 109+94.64
Δ	= 42°30'02" LT.
D	= 17°00'00"
T	= 131.07'
L	= 250.01'
PC	= 108+63.57
PRC	= 111+13.58
e	= NO SUPER

C.L. ACCESS ROAD	
PI	= 112+63.70
Δ	= 48°01'04" RT.
D	= 17°00'00"
T	= 150.12'
L	= 282.45'
PRC	= 111+13.58
PT	= 113+96.03
e	= NO SUPER

C.L. ACCESS ROAD	
PI	= 125+15.71
Δ	= 13°46'00" RT.
D	= 5°00'00"
T	= 138.33'
L	= 275.33'
PC	= 123+77.38
PT	= 126+52.71
e	= NO SUPER

STA. 117+44 IN PLACE
18"x38' CM
PIPE CULVERT RT. SIDE DRAIN
REMOVE AND INSTALL
51"x31"x39' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 75 CU.YDS.

STA. 117+96 IN PLACE
24"x50' CM
PIPE CULVERT RT. SIDE DRAIN
REMOVE AND INSTALL
51"x31"x58' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 190 CU. YDS.

STA. 118+50 IN PLACE
48"x183' R.C. PIPE CULVERT
W/ HDWLS. LT. AND RT.
REMOVE HDWL. RT. AND EXTEND
R.C. PIPE 6' RT. W/ FES
48" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 10 LIN. FT.
48" FES = 1 EACH
Q50 = 83 CFS DA = 24.4 ACRES

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
255+69	256+12	RT.	58 LIN. FT.
257+65	260+94	RT.	559 LIN. FT.

STA. 124+35 INSTALL
18"x80' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 75 CU. YDS.

ACCESS ROAD

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 111+00 CONSTRUCT
DROP INLET ON RT. H=5'-1"
WITH 18"x46' PIPE OUTLET
TO DROP INLET AT STA. 111+00 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 46 LIN. FT.

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PVC 111+70.00 ELEV.=526.10
VC=200.00' K=114.29 e=0.44'
PVI 112+70.00 ELEV.=525.35
PVT 113+70.00 ELEV.=526.35
PVI 118+25.00 ELEV.=530.90
PVT 122+75.00 ELEV.=522.80
PVC 123+50.00 ELEV.=521.45
PVI 125+00.00 ELEV.=518.75
VC=900.00' K=321.43 e=3.15'
VC=300.00' K=250.00 e=0.45'

-0.75%
6.20% RT. DITCH GRADE
1.50% RT. DITCH GRADE
0.00%
-2.60% RT. DITCH GRADE
-1.20% RT. DITCH GRADE
-1.70% RT. DT. GRADE
1.05% RT. DITCH GRADE
-1.70% RT. DITCH GRADE
-1.80%
-3.00%

EXISTING GROUND
PROFILE GRADE

+25.00 RT. 522.93
+58.00 RT. 520.00
+85.00 RT. 524.90
+30.00 RT. 524.47
+25.00 RT. 522.00
+67.00 RT. 521.50
+55.00 RT. 520.00
+75.00 RT. 522.31
+20.00 RT. 521.68
+95.00 RT. 517.00

18" x 39' @ 9.45% LT.
ACCESS ROAD III+00 RT.
TOP ELEV.=526.79
F.L. ELEV.=521.81(SW)
F.L. ELEV.=521.71(NW)
ACCESS ROAD III+00 LT.
TOP ELEV.=526.39
F.L. ELEV.=520.06(SE)
F.L. ELEV.=519.96(N)

F.L. RT.=517.75
F.L. RT.=520.00

EX. ELEV.=512.40(LT.)
EX. ELEV.=518.73(RT.)
F.L. RT.=520.00

18" x 161' @ 4.23% RT.
F.L. IN=512.10 RT.

560 | 550 | 540 | 530 | 520 | 510 | 500 | 490 | 480 | 470

111+00 | 112+00 | 113+00 | 114+00 | 115+00 | 116+00 | 117+00 | 118+00 | 119+00 | 120+00 | 121+00 | 122+00 | 123+00 | 124+00 | 125+00 | 126+00

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	98	248
		PLAN & PROFILE-ACCESS RD. & RAMP 2B				

STA. 128+00 INSTALL OVERHEAD HIGHWAY SIGN ACCESS ROAD RT. LANES SEE SIGNING PLANS

ACCESS ROAD STA. 130+60 CONSTRUCT QUAD. 10'X5'X162' R.C. BOX CULVERT 15° RT. FWD. SKEW WITH 3:1 WINGS LT. & RT. Q50 = 1,656 D.A. = 550 ACRES SPAN 43'-0"

STA. 130+95 CONSTRUCT DROP INLET ON LT. H=5'-1" AND 18"x13' PIPE OUTLET CONNECT TO PR. R.C. BOX CULVERT TYPE ST DROP INLET = 4'x3' 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 13 LIN. FT.

SPECIAL FLOOD HAZARD AREA

STA. 130+79.33, 278.53' LT. END SPECIAL DITCH ELEV. 495.07

1'-6" CONCRETE COMBINATION CURB AND GUTTER

END PROPOSED C/A

PROP. C/A

150' TAPER LENGTH

CONST. LIMITS

C.L. ACCESS RD.

S 65°54'00" E

130+00

126+52.71

CONCRETE BARRIER WALL MEDIAN TYPE E, MASH TL-4

CONCRETE BARRIER WALL SIDE TYPE E, MASH TL-4

EXIST. R/W

C.L. ACCESS ROAD

PI	= 125+15.71
Δ	= 13°46'00" RT.
D	= 5°00'00"
T	= 138.33'
L	= 275.33'
PC	= 123+77.38
PT	= 126+52.71
e	= NO SUPER

STA. 128+89 IN PLACE 36"x47' R.C. PIPE CULVERT WITH HEADWALL RT. REMOVE

STA. 127+60 CONSTRUCT DROP INLET ON RT. H=5'-0" WITH 18"x16' PIPE INLET FROM FES AT STA 125+95 RT. AND 18"x91' PIPE OUTLET TO DROP INLET AT STA. 128+55 RT. TYPE ST DROP INLET = 4'x3' 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 161 LIN. FT. 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 91 LIN. FT. 18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 91 LIN. FT. 18" SSRPPMCCS PIPE (TYPE 2 BEDDING) = 91 LIN. FT. 18" FES = 1 EACH

STA. 130+79.33, 95.95' RT. END SPECIAL DITCH ELEV. 496.24

C.L. ACCESS ROAD

PI	= 130+70.44
Δ	= 16°20'19" LT.
D	= 19°05'55"
T	= 43.07'
L	= 85.55'
PC	= 130+27.37
PT	= 131+12.92
e	= NO SUPER

STA. 279+23.44 C.L. RAMP 2B ∢ 93°55'50" STA. 36+95.68 C.L. HWY. 59

BEGIN EXISTING C/A

1'-6" CONCRETE COMBINATION CURB AND GUTTER

C.L. HWY. 59

S 82°14'19" E

1'-6" CONCRETE COMBINATION CURB AND GUTTER

STA. 131+55.79 C.L. ACCESS RD. = STA. 36+95.68 C.L. HWY. 59 ∢ 85°00'00"

HWY. 59 STA. 36+69 CONSTRUCT TYPE 5 WHEELCHAIR RAMP ON RT. = 3.0 SQ. YDS.

CONST. LIMITS

5' CONCRETE WALK

N 88°49'51" E

C.L. RAMP 2B

285+00

EXIST. R/W & C/A

PC 284+69.83

280+00

95.48' TAPER

125' R

1'-6" CONCRETE COMBINATION CURB AND GUTTER

5' CONCRETE WALK

EXIST. R/W & C/A

3' SOLID SODDING

PI 130+70.44

N 2°45'41" E

EXIST. 55'

EXIST. R/W

PI 85+25.07

Δ = 0°22'42" RT.

N 2°23'59" E

35.00'

HWY. 59 STA. 36+39 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON RT. = 9.4 SQ. YDS.

STA. 131+07.97, 235.21' RT. BEGIN SPECIAL DITCH ELEV. 502.11

STA. 130+66 IN PLACE DBL. 13'x4'x68' R.C. BOX CULVERT WITH 3:1 WINGS LT. & RT. REMOVE

SPECIAL FLOOD HAZARD AREA

EXISTING GROUND

3:1 3:1 6'-0"

SPECIAL DITCH TYPICAL SECTION

STA. 131+07.97, 235.21' RT. TO STA. 130+79.33, 95.95' RT.
STA. 130+79.33, 95.95' RT. TO STA. 130+79.33, 278.53' LT.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.16886 NICHOLAS A. BRADDY

DIGITALLY SIGNED 04/03/2025

CONCRETE DITCH PAVING (TYPE A)

STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
128+55	128+87	RT. = 32	LIN. FT.	2' - 0"	8' - 0" 28.44
128+87	130+42	RT. = 167	LIN. FT.	4' - 0"	10' - 0" 185.56

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
279+57	279+87	RT. = 48	LIN. FT.	6' - 0" 32.00

OBLITERATE EXISTING ROADWAY

ACCESS ROAD & RAMP 2B

STA. 128+55 CONSTRUCT DROP INLET ON RT. H=5'-0" AND 18"x96' PIPE OUTLET TO DROP INLET AT STA. 129+55 RT. TYPE ST DROP INLET = 4'x3' 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 96 LIN. FT. 18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 96 LIN. FT. 18" SSRPPMCCS PIPE (TYPE 2 BEDDING) = 96 LIN. FT.

STA. 129+55 CONSTRUCT DROP INLET ON RT. H=5'-4" AND 18"x57' PIPE OUTLET TO DROP INLET AT STA. 130+16 RT. TYPE ST DROP INLET = 4'x3' 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 57 LIN. FT. 18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 57 LIN. FT. 18" SSRPPMCCS PIPE (TYPE 2 BEDDING) = 57 LIN. FT.

STA. 130+16 CONSTRUCT DROP INLET ON RT. H=5'-0" WITH 18"x32' PIPE OUTLET CONNECT TO PR. R.C. BOX CULVERT TYPE ST DROP INLET = 4'x3' 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 32 LIN. FT. 18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 32 LIN. FT. 18" SSRPPMCCS PIPE (TYPE 2 BEDDING) = 32 LIN. FT.

STA. 130+75 CONSTRUCT DROP INLET ON RT. H=5'-0" ON PR. R.C. BOX CULVERT TYPE MO DROP INLET = 4' DIA. TYPE C DROP INLET = 4'x3'

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL POINTS

PROFILE GRADE

EXISTING GROUND

-3.00%

18" x 16' @ 4.25% RT.

18" x 91' @ 3.00% RT.

+55.00 RT. 508.20

PVC 128+75.00 ELEV. 507.50

-4.80% RT. DITCH GRADE

VC=250.00' K=71.23 e=1.10'

PVT 131+25.00 ELEV. 504.39 C.L. ACCESS ROAD STA. 131+28.20 = EXISTING HWY. 59 STA. 3698+08. 27.49' LT ELEV. 504.40

0.51%

18" x 96' @ 2.86% RT.

18" x 57' @ 0.63% RT.

18" x 32' @ 0.54% RT.

18" x 13' @ 7.64% LT.

130+75 RT. TOP ELEV.=504.51

130+95 LT. TOP ELEV.=504.04 F.L. ELEV.=498.98(W)

PVT 126+50.00 ELEV. 514.25

PVI 130+00.00 ELEV. 503.75

+48.00 RT. 498.17

ACCESS ROAD 127+60 RT. TOP ELEV.=510.15 F.L. ELEV.=505.25(NW) F.L. ELEV.=505.15(SE)

ACCESS ROAD 128+55 RT. TOP ELEV.=507.32 F.L. ELEV.=502.42(NW) F.L. ELEV.=502.32(SE)

ACCESS ROAD 129+55 RT. TOP ELEV.=504.77 F.L. ELEV.=499.57(NW) F.L. ELEV.=499.47(SE)

ACCESS ROAD 130+16 RT. TOP ELEV.=504.01 F.L. ELEV.=499.11(NW) F.L. ELEV.=499.01(E)

F.L. ELEV.=498.84(W) AT BOX
F.L. ELEV.=498.00(E) AT BOX

EX. F.L.=497.03 LT. (REMOVE)
EX. F.L.=497.38 RT. (REMOVE)
F.L. LT.=495.67
F.L. RT.=496.15

NOTCH & WIDEN RIGHT

+42.14

+92.09 LT. 502.22

+14.09 LT. 501.64

-2.65% LT. DT. GRADE

1.85% LT. DT. GRADE

1.45% RT. DT. GRADE

2.15% RT. DT. GRADE

+48.66 LT. 504.12

+50.02

+00.00 RT. 501.26

+80.60 RT. 502.43

+50.02 RT. 503.92

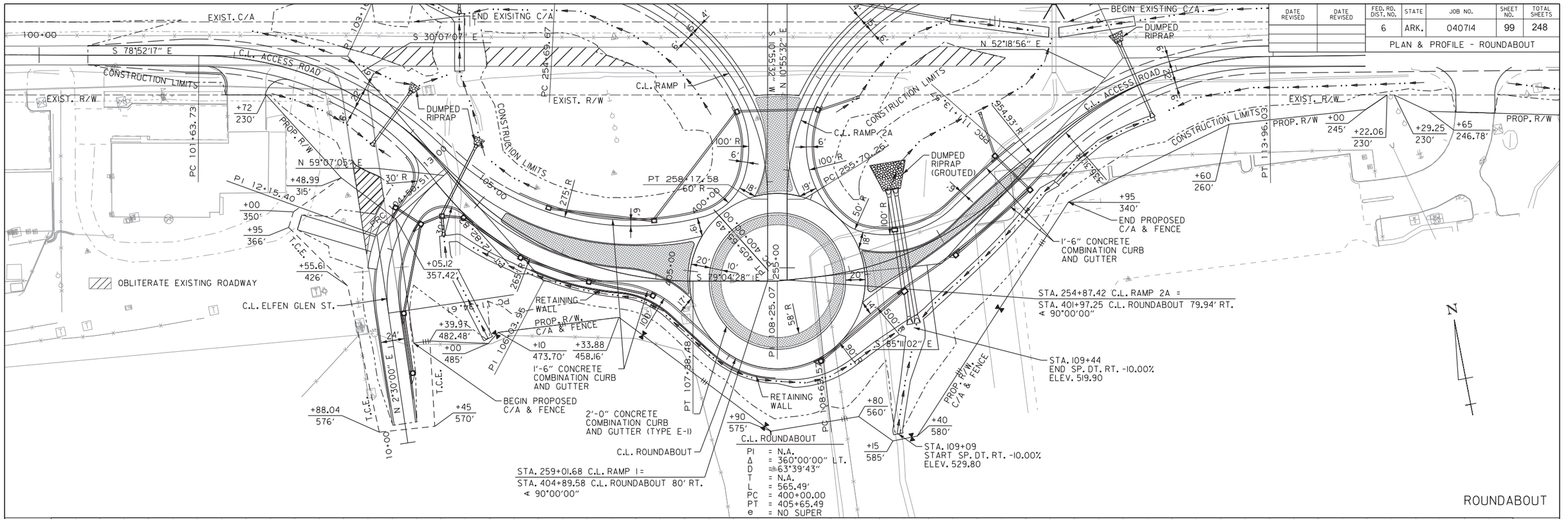
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126+00 127+00 128+00 129+00 130+00 131+00 280+00 281+00 282+00 283+00 283+00 284+00 285+00 286+00

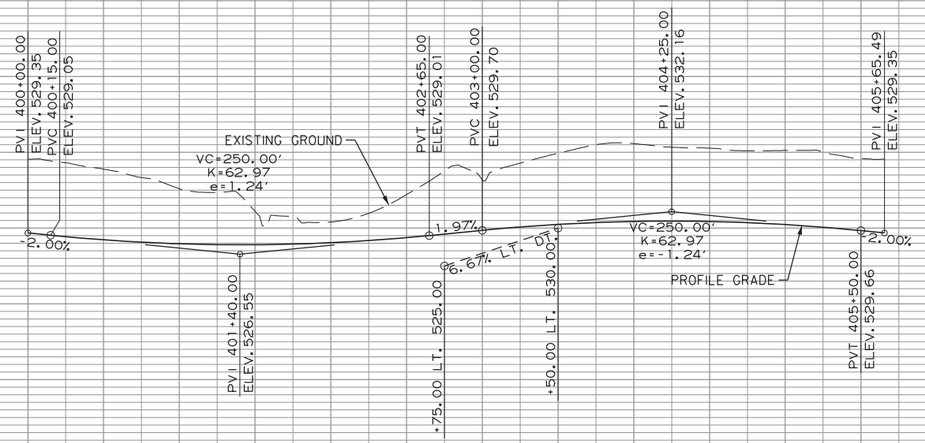
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	99	248

PLAN & PROFILE - ROUNDABOUT



REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

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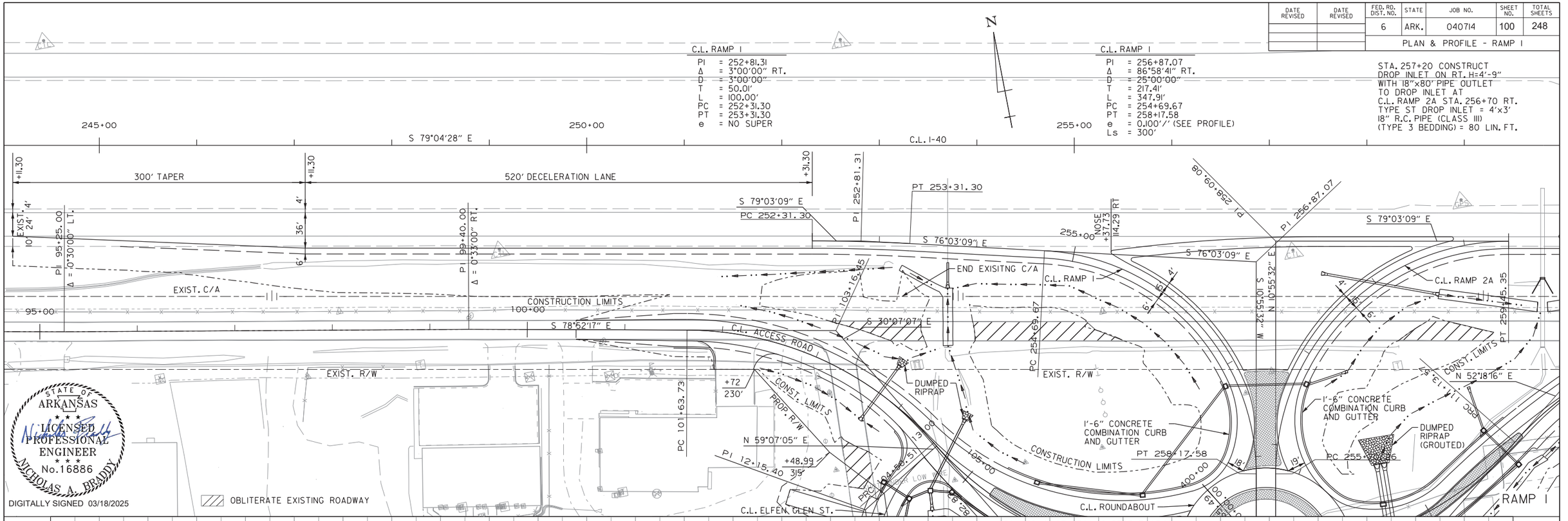
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		6	ARK.	040714	100	248

PLAN & PROFILE - RAMP I

C.L. RAMP I
PI = 252+81.31
Δ = 3°00'00" RT.
D = 3°00'00"
T = 50.01'
L = 100.00'
PC = 252+31.30
PT = 253+31.30
e = NO SUPER

C.L. RAMP I
PI = 256+87.07
Δ = 86°58'41" RT.
D = 25°00'00"
T = 217.41'
L = 347.91'
PC = 254+69.67
PT = 258+17.58
e = 0.100'/' (SEE PROFILE)
Ls = 300'

STA. 257+20 CONSTRUCT
DROP INLET ON RT. H=4'-9"
WITH 18"x80' PIPE OUTLET
TO DROP INLET AT
C.L. RAMP 2A STA. 256+70 RT.
TYPE ST DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 80 LIN. FT.

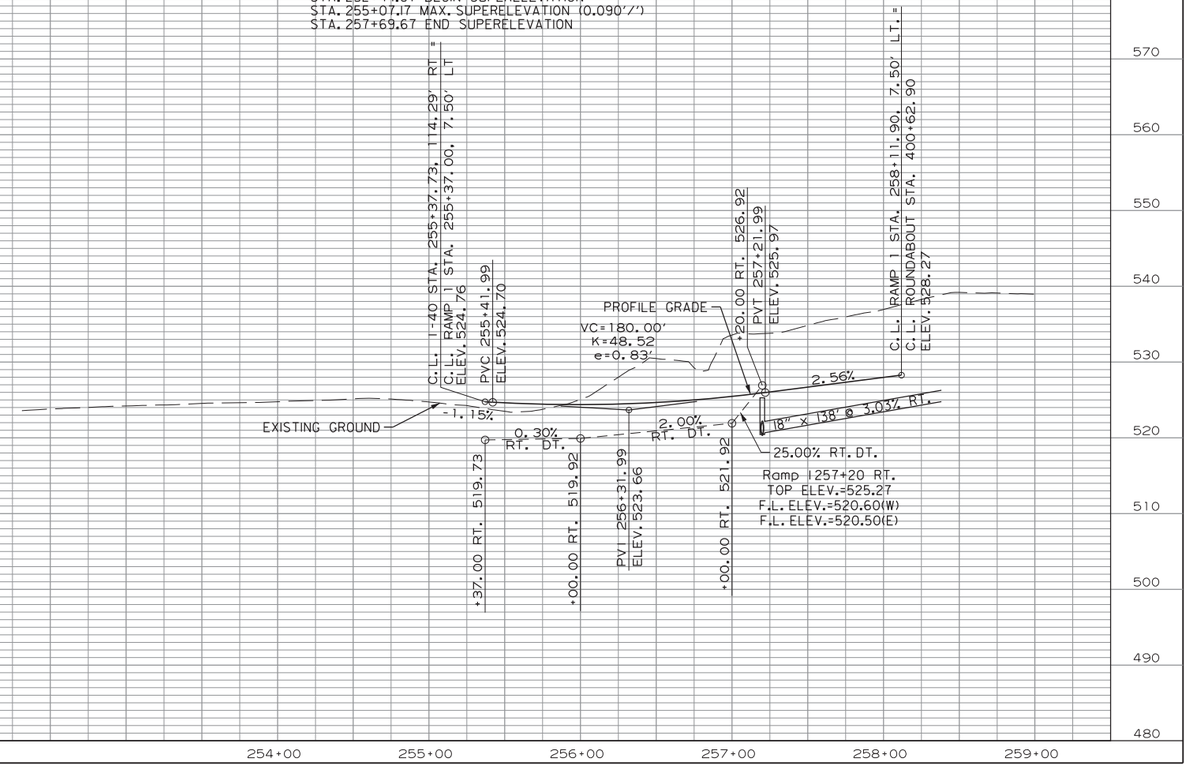


STATE OF ARKANSAS
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OBLITERATE EXISTING ROADWAY

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 252+44.67 BEGIN SUPERELEVATION
STA. 255+07.17 MAX. SUPERELEVATION (0.090'/')
STA. 257+69.67 END SUPERELEVATION



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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	101	248
		PLAN & PROFILE - RAMP 2A				

STA. 256+70 CONSTRUCT
DROP INLET ON RT. H=5'-6"
WITH 18"x37' PIPE OUTLET
TO FES ON RT.
TYPE ST DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 37 LIN. FT.
18" FES = 1EACH

260+00 265+00 270+00

S 79°04'28" E

C.L. RAMP 2A
PI = 258+09.08
Δ = 90°01'19" RT.
D = 24°00'00"
T = 238.82'
L = 375.09'
PC = 255+70.26
PT = 259+45.35
e = 0.098'/' (SEE PROFILE)
Ls = 300'

NOSE
+88.82
97.42 RT

BEGIN EXISTING C/A

STA. 258+00 CONSTRUCT
24"x110' R.C. PIPE CULVERT
45° RT. FWD. SKEW
W/ FES LT. & RT.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 110 LIN. FT.
24" FES = 2 EACH
Q50 = 5 CFS DA = 0.6 ACRES

C.L. I-40

1350' ACCELERATION LANE

4'
36'
6'

PI 258+89.49
PI 256+87.07
S 10°55'32" W
N 10°55'32" E
S 79°03'09" E
S 76°03'09" E
C.L. RAMP I
C.L. RAMP 2A
PT 259+45.35
PC 255+70.26
PT 258+17.58
400.00'
405.68'
PC 400+00.00
PT 405+68.49
255+00
205+00
5.07

C.L. ACCESS RD.
STA. 112+09
END SP. DT. LT. -2.10%
ELEV. 514.00

DUMPED RIPRAP

BEGIN PROPOSED C/A
PROPOSED C/A
EXIST. C/A
115+00
120+00
C.L. ACCESS ROAD
S 79°40'00" E
SHOT UNDER LOW WIRE
TRU SERVICE RD

CONSTRUCTION LIMITS
EXIST. R/W
N 52°18'16" E
PC 113+13.52
PT 113+96.03
PROP. R/W
CONSTRUCTION LIMITS
EXIST. R/W

1'-6" CONCRETE
COMBINATION CURB
AND GUTTER

C.L. ROUNDABOUT
DUMPED
RIPRAP
(GROUTED)

+60
260'
+00
245'
+22.06
230'
+29.25
230'
+65
246.78'
DUMPED
RIPRAP
+65
255'
+00
241.87'

+95
340'
END PROPOSED
C/A & FENCE

1'-6" CONCRETE
COMBINATION CURB
AND GUTTER

C.L. ACCESS RD.
STA. 109+75
START SP. DT. LT. -2.10%
ELEV. 518.70

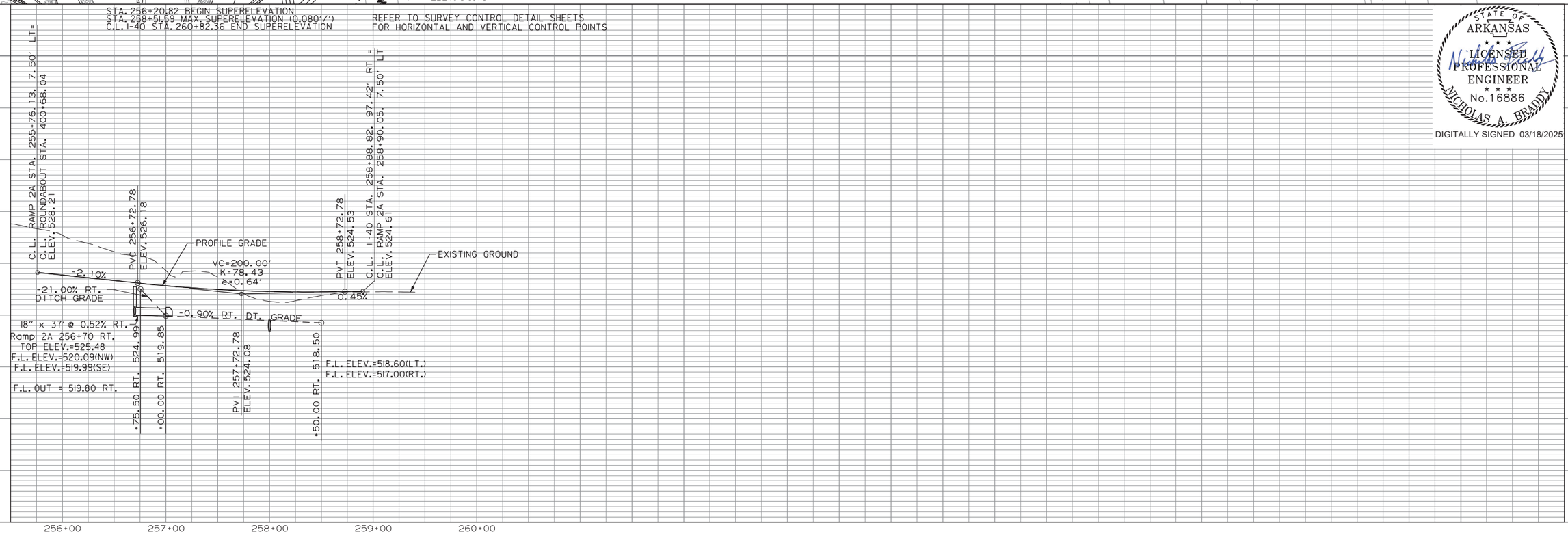
EXIST. R/W

N

RAMP 2A

STA. 256+20.82 BEGIN SUPERELEVATION
STA. 258+51.59 MAX. SUPERELEVATION (0.080'/')
C.L. I-40 STA. 260+82.36 END SUPERELEVATION

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS



STATE OF ARKANSAS
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	102	248
		PLAN & PROFILE - RAMP 3				

STA. 278+94 CONSTRUCT
DROP INLET ON LT. H=3'-7" W/ 4' EXT.
WITH 18"x20' PIPE OUTLET
TO DROP INLET AT STA. 279+15 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 20 LIN. FT.

HWY. 59 STA. 43+47 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 5.2 SQ. YDS.

EXIST. R/W & C/A

STA. 43+08.51 C.L. HWY. 59 =
STA. 278+50.49 C.L. RAMP 3
∠ 69°54'06"

1'-6" CONCRETE
COMBINATION CURB
AND GUTTER

STA. 280+50 CONSTRUCT
DROP INLET ON LT. H=4'-9"
WITH 18"x70' PIPE OUTLET
TO DROP INLET AT STA. 279+80 ON LT.
TYPE ST DROP INLET = 3'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 70 LIN. FT.

STA. 281+00 CONSTRUCT
DROP INLET ON LT. H=4'-9"
WITH 18"x50' PIPE OUTLET
TO DROP INLET AT STA. 280+50 ON LT.
TYPE ST DROP INLET = 3'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 50 LIN. FT.

SPECIAL FLOOD HAZARD AREA

S 79°04'28" E

40.00

C.L. HWY. 59

N 2°45'41" E

+05
429.03'

30' R

+25
397.03'

HWY. 59 STA. 44+15 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 4.9 SQ. YDS.

5' CONCRETE WALK

125' R

CONSTRUCTION LIMITS

EXIST. R/W & C/A

280+00

48'

4'

75' R

C.L. RAMP 3

S 67°08'25" E

DUMPED RIPRAP

5' CONCRETE WALK

HWY. 59 STA. 42+35 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP ON RT.
= 4.5 SQ. YDS.

STA. 279+42 IN PLACE
24" R.C. PIPE CULVERT
W/ HDWL. RT.
REMOVE HDWL RT. AND EXTEND 12' RT.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 16 LIN. FT.
24" FES = 1 EACH

STA. 282+00 CONSTRUCT
DROP INLET ON LT. H=4'-9"
WITH 18"x100' PIPE OUTLET
TO DROP INLET AT STA. 281+00 ON LT.
TYPE ST DROP INLET = 3'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 100 LIN. FT.

CONSTRUCTION LIMITS

PC 283+11.98

280+00

285+00

C.L. I-40

STA. 279+15 CONSTRUCT
DROP INLET ON LT. H=3'-9"
W/ DBL. 4' EXT.
WITH 18"x23' PIPE OUTLET
TO DROP INLET AT STA. 279+42 ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 23 LIN. FT.

STA. 279+42 CONSTRUCT
DROP INLET ON LT. H=5'-6" W/ 4' EXT.
WITH 24"x20' PIPE INLET
FROM FES ON LT.
AND 24"x7' PIPE OUTLET
TO EX. R.C. PIPE IN PLACE
TYPE C DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 27 LIN. FT.
24" FES = 1 EACH
Q50 = 8 CFS DA = 1.5 ACRES

STA. 279+80 CONSTRUCT
DROP INLET ON LT. H=5'-0" W/ 4' EXT.
WITH 18"x34' PIPE OUTLET
TO DROP INLET AT STA. 279+42 ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 34 LIN. FT.

STA. 285+10 INSTALL
OVERHEAD HIGHWAY SIGN
RAMP 3 LT. LANES
SEE SIGNING PLANS

C.L. RAMP 3

PI	= 285+09.02
Δ	= 8°42'45" LT.
D	= 3°41'47"
T	= 118.08'
L	= 235.70'
PC	= 283+90.94
PT	= 286+26.64
e	= 0.070'/'
Ls	= 300'

STA. 287+46 IN PLACE
6'x6'x193' R.C. BOX CULVERT
49° RT. FWD. SKEW
W/ 3:1 WINGS LT. & RT.
REMOVE WINGS LT. AND EXTEND 28' LT.
TO A COMPLETED LENGTH OF 221'
CONSTRUCT NEW 3:1 WINGS LT.
Q50 = 356 CFS DA = 162 ACRES

N

C.L. RAMP 3 STATIONING	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POSTS (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
STA. 284+85.00 TO STA. 286+10.00 RT. = 75 LIN. FT.		1 EACH	1 EACH

PC 283+90.94

PT 286+26.64

DUMPED RIPRAP (GROUTED)

EXIST. R/W & C/A

100' TRANSITION TO MATCH EXISTING

+51.64

290+00

4' EXIST. 6' 15'

S 75°51'10" E

300' TAPER LENGTH

DWE

4'

+5.64

CONCRETE DITCH PAVING (TYPE A)

STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
286+99	288+44	LT. = 147 LIN. FT.	4' - 0"	10' - 0"	163.33

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
279+39	284+12	RT. = 476 LIN. FT.	6' - 0"	317.33

290+00

S 81°50'44" E

PI 288+66.31

RAMP 3

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 281+65.94 BEGIN SUPERELEVATION
STA. 284+65.94 MAX. SUPERELEVATION (0.070'/')
STA. 285+51.64 MAX. SUPERELEVATION (0.070'/')
STA. 288+51.64 END SUPERELEVATION

NOTCH & WIDEN LEFT & RIGHT & OVERLAY

+80.12

18" x 20' @ 0.62% LT.
18" x 23' @ 0.86% LT.
18" x 34' @ 2.49% LT.

18" x 42'
@ 1.13% LT.

Hwy 59 43+83 RT.
TOP ELEV.=502.89
F.L. ELEV.=499.39(S)

Ramp 3 278+94 LT.
TOP ELEV.=502.41
F.L. ELEV.=498.92(N)
F.L. ELEV.=498.82(SE)

F.L. LT.=497.40
F.L. RT.=495.87

+00.00 RT. 497.12

3.40% RT. DT. GRADE

+42.00 RT. 495.69

Ramp 3 279+80 LT.
TOP ELEV.=502.77
F.L. ELEV.=499.25(NW)

Ramp 3 279+42 LT.
TOP ELEV.=502.47
F.L. ELEV.=497.10(NE)
F.L. ELEV.=498.40(SE)
F.L. ELEV.=498.40(NW)
F.L. ELEV.=497.00(SW)

Ramp 3 279+15 LT.
TOP ELEV.=502.36
F.L. ELEV.=498.70(NW)
F.L. ELEV.=498.60(SE)

PROFILE GRADE

EXISTING GROUND

4.00% RT. DITCH GRADE

2.40% RT. DITCH GRADE

+00.00 RT. 514.01

+50.00 LT. 511.33

-1.10% LT. DITCH GRADE

+00.00 RT. 518.81

1.20% RT. DITCH GRADE

+53.00 LT. 509.10

0.95% LT. DT. GRADE

+00.00 LT. 509.55

+50.00 RT. 520.61

+77.09 RT. 520.13

-1.76% RT. DITCH GRADE

3.80% RT. DT. GRADE

4.20% LT. DT. GRADE

+42.00 LT. 515.51

+51.64 RT. 522.22

+51.64

100' TRANSITION TO MATCH EXISTING

278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00

550 540 530 520 510 500 490 480 470 460

STATE OF ARKANSAS
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	103	248
		PLAN & PROFILE - HWY. 59				

STA. 35+67 CONSTRUCT
DROP INLET ON LT. H=3'-6" W/ 4' EXT.
WITH 18"x61' PIPE OUTLET
TO DROP INLET AT STA. 36+30 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 61 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 61 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 61 LIN. FT.

STA. 33+06 IN PLACE
DROP INLET LT
MODIFY TO GRADE

CONSTRUCT 25' TYPE C GUARDRAIL
WITH 3 RED DIAMOND REFLECTORS
SEE SPECIAL DETAILS

EXIST. R/W

C.L. HWY. 59

STA. 35+27.00, 190 LT
ROAD CLOSED

S 65°54'00" E
C.L. ACCESS ROAD

PROP. C/A

BEGIN EXISTING C/A

STA. 33+35 CONSTRUCT
APPROACH ON LT.

5' CONCRETE WALK

3' SOLID SODDING

SPECIAL FLOOD HAZARD AREA

STA. 35+58.00
BEGIN HWY. 59
CONSTRUCTION

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
35+78	36+23	RT. = 45 LIN. FT.	6'-0"	30

STA. 36+29 CONSTRUCT
DROP INLET ON RT. H=4'-10" W/ 8' EXT.
WITH 36"x18' PIPE OUTLET
TO EX. 36" R.C. PIPE
AND 36"x10' PIPE INLET
FROM FES ON RT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 5'x4'
36" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 28 LIN. FT.
36" FES = 1 EACH
Q50 = 20 CFS DA = 4.8 ACRES

STA. 36+30 CONSTRUCT
DROP INLET ON LT. H=6'-2" W/ 4' EXT.
WITH 36"x19' PIPE OUTLET
TO R.C. BOX CULVERT
AND 36"x20' PIPE INLET
FROM EX. 36" R.C. PIPE
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 5'x4'
36" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 39 LIN. FT.

STA. 279+23.44 C.L. RAMP 2B =
STA. 36+95.68 C.L. HWY. 59
∢ 93°55'50"

1'-6" CONCRETE
COMBINATION CURB
AND GUTTER

C.L. RAMP 2B

EXIST. R/W & C/A

CONSTRUCTION LIMITS

STA. 131+55.79 C.L. ACCESS RD. =
STA. 36+95.68 C.L. HWY. 59
∢ 85°00'00"

STA. 38+45 CONSTRUCT
DROP INLET ON LT. H=3'-5" W/ 4' EXT.
WITH 18"x9' PIPE OUTLET
TO JUNCTION BOX AT STA. 38+59 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 9 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 9 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 9 LIN. FT.

STA. 38+59 CONSTRUCT
JUNCTION BOX ON LT. H=3'-11"
WITH 24"x8' PIPE OUTLET
TO FES ON LT. AND
CONNECT TO EX R.C. PIPE IN PLACE
TYPE E JUNCTION BOX = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 8 LIN. FT.
24" FES = 1 EACH

END PROPOSED C/A

PI 130+70.44
PC 130+27.37
PT 131+12.92
125' R
26'

PI 85°25'07" RT.

S 82°14'19" E

N 2°23'59" E

N 2°45'41" E

STA. 43+08.51 C.L. HWY. 59 =
STA. 278+50.49 C.L. RAMP 3
∢ 69°54'06"

C.L. RAMP 3

DUMPED RIPRAP

1'-6" CONCRETE
COMBINATION CURB
AND GUTTER

CONSTR. LIMITS

EXIST. R/W & C/A

CONSTRUCTION LIMITS

STA. 44+34.00
END HWY. 59
CONSTRUCTION

POE 46+00.00

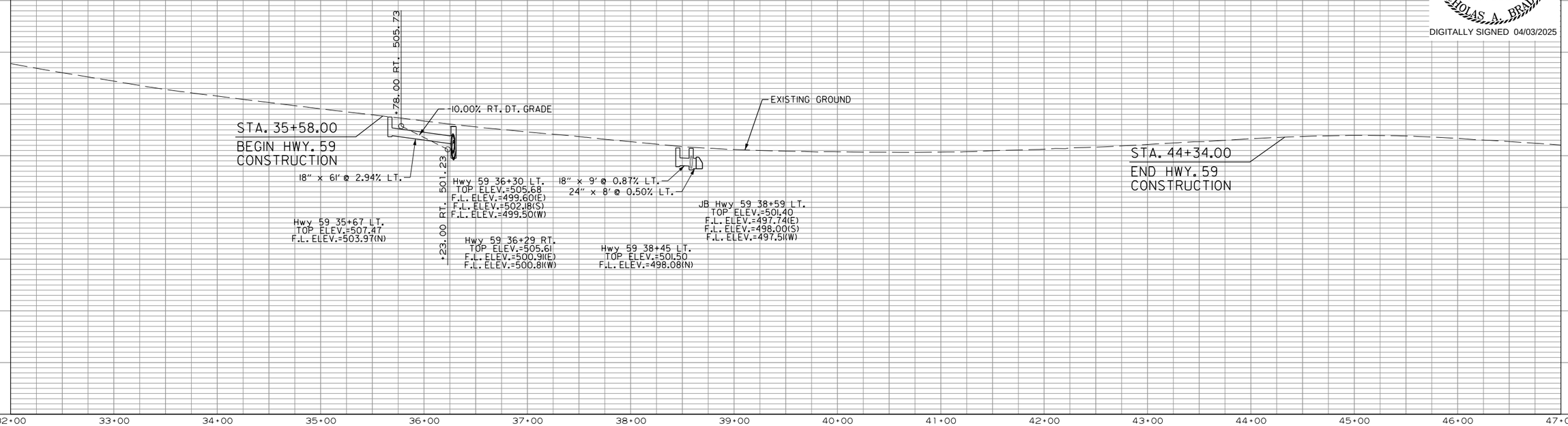
STA. 278+70 IN PLACE
3' CURB INLET
RT. CULVERT
REMOVE

STA. 43+83 CONSTRUCT
DROP INLET ON RT. H=3'-6" W/ 8' EXT.
WITH 18"x42' PIPE OUTLET
TO DROP INLET AT
C.L. RAMP 3 STA. 278+94 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 42 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 42 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 42 LIN. FT.

OBLITERATE EXISTING ROADWAY

HWY. 59

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 04/03/2025

HBVinson
4/3/2025 10:08:00 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_PP_Hwy. 59.0.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	104	248
		PLAN & PROFILE - ELFEN GLEN ST.				

OBLITERATE EXISTING ROADWAY

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
10+94	12+41	RT. = 118 LIN. FT.	10' - 0"	131.11

STA. 12+00.00
CONSTRUCT APPROACH = 90 CU. YDS.

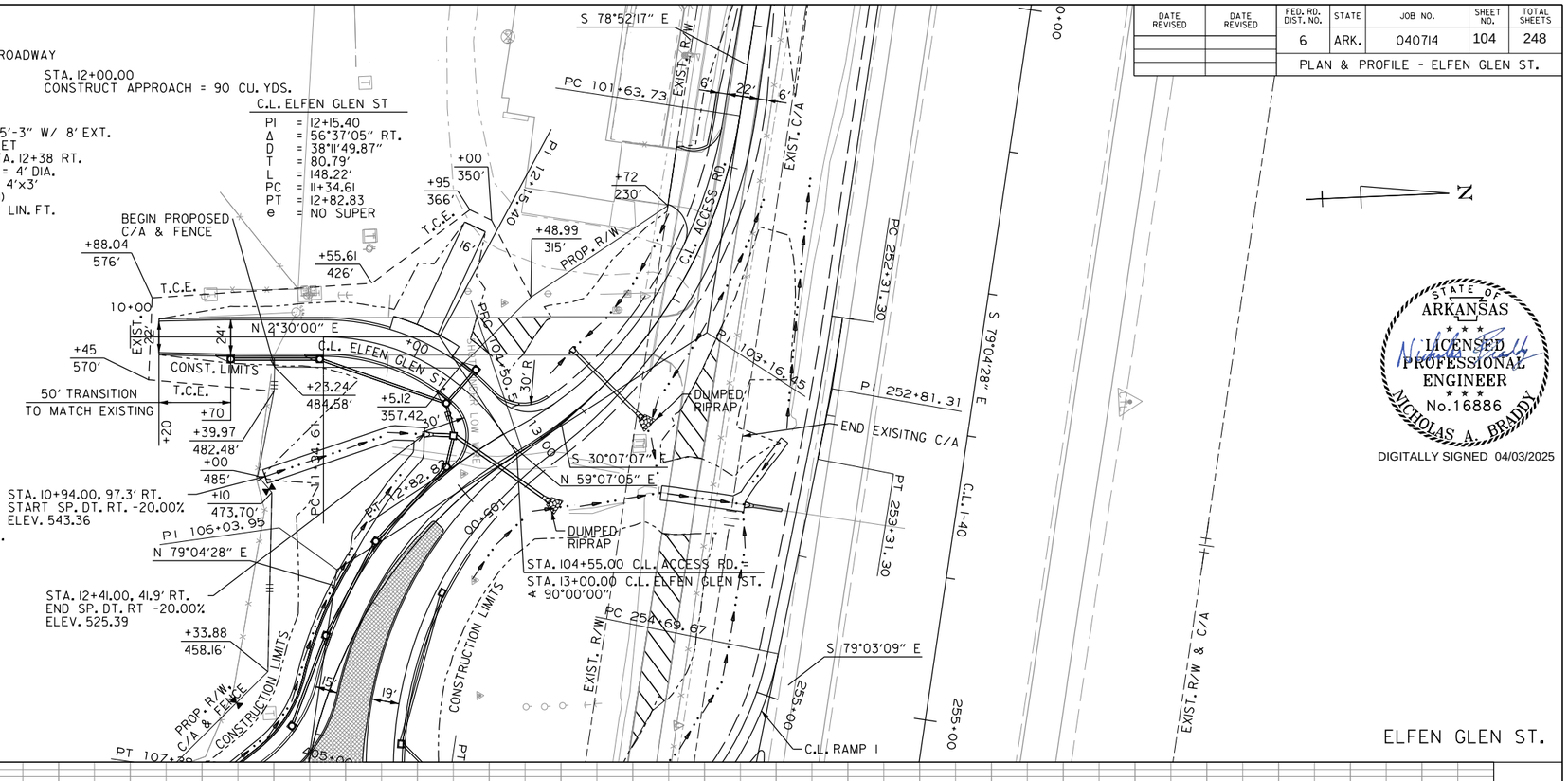
C.L. ELFEN GLEN ST
PI = 12+15.40
Δ = 56°37'05" RT.
D = 38°11'49.87"
T = 80.79'
L = 148.22'
PC = 11+34.61
PT = 12+82.83
e = NO SUPER

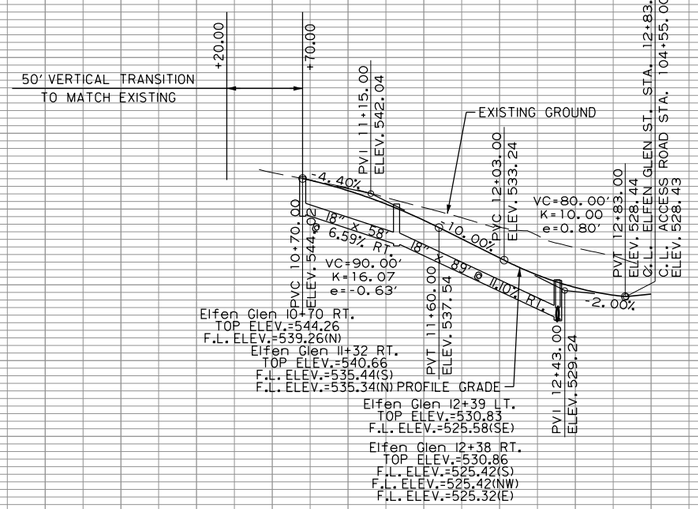
STA. 12+39 CONSTRUCT
DROP INLET ON LT. H=5'-3" W/ 8' EXT.
AND 18"x27' PIPE OUTLET
TO DROP INLET AT STA. 12+38 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 27 LIN. FT.

STA. 10+70 CONSTRUCT
DROP INLET ON RT. H=5'-0" W/ 8' EXT.
AND 18"x58' PIPE OUTLET
TO DROP INLET AT STA. 11+32 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 58 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 58 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 58 LIN. FT.

STA. 11+32 CONSTRUCT
DROP INLET ON RT. H=5'-4" W/ 8' EXT.
AND 18"x89' PIPE OUTLET
TO DROP INLET AT STA. 12+38 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 89 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 89 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 89 LIN. FT.

STA. 12+38 CONSTRUCT
DROP INLET ON RT. H=5'-6" W/ 8' EXT.
AND 18"x19' PIPE OUTLET
TO JUNCTION BOX AT
C.L. ACCESS RD. STA. 104+82, 36' RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 19 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 19 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 19 LIN. FT.





REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 04/03/2025

ELFEN GLEN ST.

HBVinson
4/3/2025 10:08:03 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	105	248

PLAN AND PROFILE - DETOUR 1

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

245+00 250+00 255+00 C.L. I-40

N

C.L. DETOUR 1
PI = 10+44.30
Δ = 14°58'32" LT.
D = 17°00'00"
T = 44.30'
L = 88.09'
PC = 10+00.00
PRC = 10+88.09
e = NO SUPER

C.L. DETOUR 1
PI = 14+65.94
Δ = 13°35'11" RT.
D = 17°00'00"
T = 40.15'
L = 79.92'
PC = 14+25.79
PRC = 15+05.71
e = NO SUPER

C.L. DETOUR 1
PI = 15+53.60
Δ = 16°10'27" LT.
D = 17°00'00"
T = 47.89'
L = 95.14'
PRC = 15+05.71
PT = 16+00.85
e = NO SUPER

POB 10+00.00
PRC 10+88.09
PI 11+84.72
PI 14+65.94
POE 16+00.85
N 85°36'11" E
S 62°36'21" E
TEMP. CONSTRUCTION LIMITS
S 76°11'32" E
100.00'
15.00'
STA. 16+00.85 C.L. DETOUR 1 =
STA. 104+21.63 C.L. ACCESS ROAD, 129.90' LT.
95+00
19' EX. LANES
S 79°25'17" E
C.L. DETOUR 1
S 78°46'48" E
EXIST. R/W
STA. 10+00.00 C.L. DETOUR 1 =
STA. 98+92.14 C.L. ACCESS ROAD
PI 10+44.30
C.L. DETOUR 1
PI = 11+84.72
Δ = 18°12'17" RT.
D = 9°30'00"
T = 96.63'
L = 191.63'
PRC = 10+88.09
PT = 12+79.72
e = NO SUPER
PT 12+79.72
+72
230'
PROP. R/W
PC 14+25.79
PRC 15+05.71
PI 15+53.60
+48.99
315'
105+00
+5.12
357.42'
C.L. ACCESS ROAD
T.C.E.
26' EX. LANES
DETOUR 1

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

PVI 10+77.86
ELEV. 522.54
PVC 11+25.00
ELEV. 522.99
VC=70.00'
K=107.69
e=0.06'
PVT 11+95.00
ELEV. 523.88
PROFILE GRADE
EXISTING GROUND
0.95%
1.60%
PVI 11+60.00
ELEV. 523.32
PVC 13+05.00
ELEV. 525.64
VC=60.00'
K=100.00
e=-0.05'
PVI 13+35.00
ELEV. 526.12
PVT 13+65.00
ELEV. 526.42
VC=60.00'
K=60.00
e=0.08'
PVC 13+70.00
ELEV. 526.47
PVI 14+00.00
ELEV. 526.77
PVT 14+30.00
ELEV. 527.37
1.00%
1.00%
2.00%
PVI 15+19.65
ELEV. 529.16

570 560 550 540 530 520 510 500 490 480

10+00 11+00 12+00 13+00 14+00 15+00 16+00

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WORKSPACE: AHTD
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3/18/2025 7:23:22 AM

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	106	248

PLAN AND PROFILE - DETOUR 2

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

EXIST. R/W

C.L. DETOUR 2
PI = 20+48.72
Δ = 16°27'03" LT.
D = 17°00'00"
T = 48.72'
L = 96.77'
PC = 20+00.00
PRC = 20+96.77
e = NO SUPER

260+00 C.L. I-40 265+00 270+00

STA. 20+00.00 C.L. DETOUR 2 =
STA. 111+41.21 C.L. ACCESS ROAD, 130.86' LT.

C.L. DETOUR 2
PI = 21+36.99
Δ = 13°36'34" RT.
D = 17°00'00"
T = 40.22'
L = 80.06'
PRC = 20+96.77
PT = 21+76.83
e = NO SUPER

C.L. DETOUR 2
PI = 23+16.84
Δ = 2°01'22" RT.
D = 9°00'00"
T = 11.23'
L = 22.47'
PC = 23+05.61
PT = 23+28.08
e = NO SUPER

C.L. DETOUR 2
PI = 29+86.36
Δ = 24°55'52" RT.
D = 17°00'00"
T = 74.50'
L = 146.65'
PC = 29+11.86
PRC = 30+58.51
e = NO SUPER

C.L. DETOUR 2
PI = 30+91.76
Δ = 11°16'05" LT.
D = 17°00'00"
T = 33.25'
L = 66.28'
PRC = 30+58.51
PT = 31+24.79
e = NO SUPER

STA. 31+24.79 C.L. DETOUR 2 =
STA. 121+89.05 C.L. ACCESS ROAD, 20.27' RT.

POB 20+00.00
PRC 20+96.77
PI 21+36.99
PI 23+16.84
PI 29+86.36
POE 31+24.79
TEMP. CONST. LIMITS
25+00
30+00
115+00
120+00
125+00
S 81°41'22" E
S 79°40'00" E
S 54°44'08" E
C.L. DETOUR 2
C.L. ACCESS ROAD
N 84°42'04" E
S 78°50'53" E
S 66°00'13" E
EXIST. R/W
PI 20+48.72
PT 21+76.83
PC 23+05.61
PT 23+28.08
PC 29+11.86
PRC 30+58.51
PI 30+91.76
+60
260'
PROP. R/W
+00
245'
+22.06
230'
+29.25
230'
+65
246.78'
PROP. R/W
+65
255'
+00
241.87'
EXIST. R/W

DETOUR 2

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

PVI 20+84.36
ELEV. 525.45
PVC 20+85.00
ELEV. 525.44
VC=230.00'
K=104.55
e=0.63'
-1.00%
1.20%
PVI 22+00.00
ELEV. 524.29
PVT 23+15.00
ELEV. 525.67
PVC 23+30.00
ELEV. 525.85
1.20%
PVI 25+05.00
ELEV. 527.95
PROFILE GRADE
VC=350.00'
K=218.75
e=-0.70'
EXISTING GROUND
-0.40%
PVT 26+80.00
ELEV. 527.25
PVC 27+80.00
ELEV. 526.85
PVI 28+30.00
ELEV. 526.65
VC=100.00'
K=71.43
e=-0.18'
PVT 28+80.00
ELEV. 525.75
-1.80%
PVC 29+40.00
ELEV. 524.67
VC=120.00'
K=100.00
e=0.18'
PVI 30+00.00
ELEV. 523.59
-0.60%
PVT 30+60.00
ELEV. 523.23
PVI 30+62.90
ELEV. 523.21

560 550 540 530 520 510 500 490 480 470

20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

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REVISED DATE:
3/18/2025 7:23:23 AM

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	107	248

PLAN AND PROFILE - DETOUR 3

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16886
NICHOLAS A. BRADDY
DIGITALLY SIGNED 03/18/2025

260+00 265+00 270+00 C.L. I-40

STA. 40+00.00 C.L. DETOUR 3 =
STA. 112+63.79 C.L. ACCESS ROAD

C.L. DETOUR 3
PI = 41+56.58
Δ = 21°59'01" RT.
D = 17°00'00"
T = 65.46'
L = 129.32'
PC = 40+91.12
PT = 42+20.44
e = NO SUPER

C.L. DETOUR 3
PI = 51+44.54
Δ = 15°17'52" LT.
D = 17°00'00"
T = 45.26'
L = 89.98'
PRC = 50+99.28
PT = 51+89.26
e = NO SUPER

STA. 51+89.26 C.L. DETOUR 3 =
STA. 124+42.83 C.L. ACCESS ROAD

TEMP. CONSTRUCTION LIMITS
C.L. DETOUR 3
C.L. ACCESS ROAD
EXIST. R/W
PROP. R/W
N 78°20'59" E
S 79°40'00" E
S 61°00'07" E
S 76°17'59" E
40+00
45+00
50+00
115+00
120+00
125+00
PI 41+56.58
PC 40+91.12
PT 42+20.44
PI 50+44.87
POT 51+89.26
PC 49+89.48
PRC 50+99.28
PI 51+44.54
+60 260'
+95 340'
+00 245'
+22.06 230'
+29.25 230'
+65 246.78'
+65 255'
+00 241.87'

C.L. DETOUR 3
PI = 50+44.87
Δ = 18°39'53" RT.
D = 17°00'00"
T = 55.39'
L = 109.80'
PC = 49+89.48
PRC = 50+99.28
e = NO SUPER

DETOUR 3

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

UTILIZE DETOUR 2 PAVEMENT IN PLACE

PROPOSED ACCESS ROAD
PVI 40+89.79
ELEV. 525.96
PVC 41+25.00
ELEV. 526.03
PVT 42+25.00
ELEV. 526.63
VC=100.00'
K=125.00
e=0.10'
0.20%
1.00%
PVI 41+75.00
ELEV. 526.13
EXISTING GROUND
PVI 47+27.14
ELEV. 525.22
PVC 47+35.00
ELEV. 525.09
VC=200.00'
K=285.71
e=0.17'
-1.60%
PVI 48+35.00
ELEV. 523.49
PVT 49+35.00
ELEV. 522.59
-0.90%
PVI 51+01.00
ELEV. 521.10
PROFILE GRADE
PROPOSED ACCESS ROAD

560 550 540 530 520 510 500 490 480 470
40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
5/12/2025		6	ARK.	040714	108	248
		SUMMARY OF TRAFFIC SIGNAL QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 5/12/2025

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	HWY. 59 AT I-40 SERVICE RD	HWY. 59 AT I-40 EB RAMP	HWY. 59 AT I-40 WB RAMP	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	1		2	EACH
SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)		3	1	4	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	1	1	3	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	50	166	125	341	LIN. FT.
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	1	1	3	EACH
SP	BATTERY BACKUP SYSTEM		1		1	EACH
SP	PTZ CAMERA SYSTEM		1	1	2	EACH
SP	NEMA ENCLOSURE			1	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	6	6	10	22	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	4	2	1	7	EACH
SP	LOUVERS			4	4	EACH
SP & 707	CENTRAL CONTROL UNIT			1	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY			2	2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED			2	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)			1209	1209	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	713	427	1064	2204	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	681	143	88	912	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)			680	680	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)		365	2022	2387	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	36	369	989	1394	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)		165	165	330	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	36	68		104	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES		530	2187	2717	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	14	14		28	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	30			30	LIN. FT.
710	NON-METALLIC CONDUIT (2")	25	58		83	LIN. FT.
710	NON-METALLIC CONDUIT (3")	6	365	1456	1827	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2)		1		1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1			1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)		5	3	8	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)		2	1	3	EACH
SS & 713	SPAN WIRE ASSEMBLY	1			1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')			1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')			1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (38')		1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')			1	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')		1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (52')		1		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')			1	1	EACH
SP	LED LUMINAIRE ASSEMBLY		3	3	6	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION			1	1	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	1		2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.33	0.34	0.33	1.00	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	4			4	EACH
SP	18" STREET NAME SIGN		3	1	4	EACH
SP & 733	VIDEO DETECTION SYSTEM	1	1		2	EACH
SP & 733	VIDEO CABLE	758	821	2223	3802	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	1		2	EACH

NOTES:

1. QUANTITIES FOR THE EB RAMP INTERSECTION INCLUDE ALL WIRING AND CONDUIT FROM POLES A, B, AND C, SERVICE POINT, AND BATTERY BACK-UP TO THE CONTROLLER AS WELL AS ALL PULL BOXES FROM SOUTH OF THE EB RAMP INTERSECTION TO THE PULL BOX NEAR POLE C.

2. QUANTITIES FOR THE WB RAMP INTERSECTION INCLUDE ALL WIRING FROM POLES D, E, F, AND G AND CONDUIT TO THE CONTROLLER AS WELL AS ALL PULL BOXES FROM NORTH OF THE PULL BOX NEAR POLE C TO NORTH OF THE WB RAMP INTERSECTION.

DATE: 05/06/2025 FILE NAME: t040714_QTY.dgn

LOCATION: 1-40 EB AND WB RAMPS AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: VA

HBVinson 5/12/2025 3:38:49 PM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_QTY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	109	248
		TRAFFIC SIGNAL NOTES				

TRAFFIC SIGNAL NOTES:

1. THE TRAFFIC SIGNAL SHALL NOT BE PUT INTO OPERATION OR SWITCHED TO THE NEXT CONSTRUCTION STAGE PRIOR TO THE FOLLOWING:

   A. ALL TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED ACCORDING TO THE PLANS, SPECIAL PROVISIONS, AND PROPERLY FUNCTIONAL. THIS INCLUDES BUT NOT LIMITED TO: CABINETS, PULL BOXES, JUNCTION BOXES, POLES, MAST ARMS, FOUNDATIONS, LUMINAIRES, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS, DETECTION SYSTEM, CONDUITS, CONDUCTORS, CABLES, TRAFFIC CONTROLLER, CONFLICT MONITOR, COMMUNICATION SYSTEM, SERVICE POINT, AND RAILROAD INTERCONNECT SYSTEM.

   B. THE DETECTION SYSTEM SHALL BE INSTALLED, SETUP, AND CONFIGURED BY THE CONTRACTOR OR THEIR SUPPLIER PER PLANS. A TRAFFIC OPERATIONS INSPECTOR SHALL INSPECT AND PROVIDE APPROVAL IN ORDER TO PUT THE TRAFFIC SIGNAL INTO OPERATION.

   C. THE TRAFFIC CONTROLLER AND CONFLICT MONITOR SHALL BE PROGRAMMED TO OPERATE AS REQUIRED PER THE PLANS (PHASING DIAGRAM, INTERVAL CHART, AND ANY ADDITIONAL NOTES), SPECIAL PROVISIONS AND ARDOT SPECIFICATIONS.

   D. TIMING SETTINGS HAVE BEEN PROGRAMMED AND APPROVED AS REQUIRED BY TSMO DIVISION.

   E. THE TRAFFIC SIGNAL HAS BEEN INSPECTED AND APPROVED BY A TRAFFIC OPERATIONS INSPECTOR.

   F. ALL REQUIRED DOCUMENTS RELATED TO THE TRAFFIC SIGNAL EQUIPMENT, THIS INCLUDES BUT NOT LIMITED TO: TEST RESULTS, CONFIGURATION/DATA REPORTS, WARRANTIES, AND ANY OTHER DOCUMENTATION REQUIRED PER PLANS AND SPECIAL PROVISIONS.

2. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGNNING WORK ON THIS PROJECT.

3. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHCUT THIS PRIOR NOTIFICATION.

4. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.

5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.

6. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.

7. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.

8. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.

9. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.

10. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.

11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

12. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.

13. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.

14. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.

15. ONE VIDEO PROGRAMMNG MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.

16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.

17. THE LOCAL RADIO WITH ANTENNA AND TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING COORDINATION SYSTEM IN THE CITY/COUNTY.

18. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.

19. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY, SIDEWALKS, AND DRIVEWAYS SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISHED GRADE. CONDUIT DEPTH MAY NEED TO INCREASE NEAR DRAINAGE STRUCTURES.

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

21. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.

22. ALL CONCRETE PULL BOXES SHALL BE SET ON A GRAVEL OR CRUSHED STONE BEDDING AS SPECIFIED IN SECTION 711, CONCRETE PULL BOX, OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.

23. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.
    EXAMPLES FOR CONDUIT IN SIDE CABINET: "TO POLE A AND B" OR "TO POLE C"
    EXAMPLES FOR CONDUIT IN PULL BOX: "TO POLE A" OR "TO TRAFFIC CABINET"

24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION (2001) WITH 2003 AND 2006 INTERIMS.

25. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED.

26. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025

27. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

28. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.

29. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.

30. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.

31. LED LUMINAIRE ASSEMBLIES SHALL HAVE A BUG RATING OF U0.

32. BACKPLATES SHALL BE SUPPLIED FOR ALL TRAFFIC SIGNAL HEADS, REFER TO THE RETROREFLECTIVE BACKPLATES SPECIAL PROVISION FOR REQUIREMENTS.

33. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.

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

35. ALL SIGNAL HEADS AND SIGNS ON THE TEMPORARY SPAN WIRE SHALL HAVE AN ADDITIONAL TETHER WIRE (NOT SHOWN ON SD-7) AT THE BOTTOM CHORD TO MINIMIZE MOVEMENT DUE TO WIND EFFECTS. THE BOTTOM TETHER, HARDWARE, BRACKETS, AND MATERIALS FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE TEMPORARY SIGNAL. THE BOTTOM TETHER SHALL BE INSTALLED BETWEEN THE MINIMUM AND MAXIMUM HEIGHT CLEARANCE ABOVE THE ROADWAY.

36. NEW TRAFFIC SIGNALS SHALL BE OPERATIONAL PRIOR TO REMOVAL OF EXISTING SIGNALS.

DATE: 03/10/2025 FILE NAME: t040714_GN.dgn

LOCATION:	I-40 EB AND WB RAMPS AND HWY. 59 / FAYETTEVILLE RD.
CITY:	VAN BUREN
COUNTY:	CRAWFORD
DISTRICT:	04 SCALE: N/A DRAWN BY: VA

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	110	248
		SYSTEM MAP				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

I-40 AT HWY. 59 WB RAMPS (FAYETTEVILLE DR.)
LOCAL RADIO WITH ANTENNA

N
124°

ANTENNA ORIENTATION
I-40 AT HWY. 59 WB RAMPS (FAYETTEVILLE DR.)

N
116°

ANTENNA ORIENTATION
I-40 SERVICE ROAD AT HWY. 59 (FAYETTEVILLE DR.)

I-40 AT HWY. 59 EB RAMPS (FAYETTEVILLE DR.)
LOCAL RADIO WITH ANTENNA

N
117°

ANTENNA ORIENTATION
I-40 AT HWY. 59 EB RAMPS (FAYETTEVILLE DR.)

I-40 SERVICE ROAD AT HWY. 59 (FAYETTEVILLE DR.)
LOCAL RADIO WITH ANTENNA (TEMPORARY)

WATER TOWER NEAR BUNKER HILL DR
MASTER RADIO WITH ANTENNA

VAN BUREN
Pop. 18,986

N
SCALE IN FEET
0 800 1600 3200

DATE: 03/10/2025 FILE NAME: t040714_SYS.dgn

LOCATION: I-40 EB AND WB RAMPS AT HWY. 59 (FAYETTEVILLE DR.)
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: AS SHOWN DRAWN BY: ALM

NOTE:
1. ANTENNA ORIENTATIONS SHALL BE VERIFIED BY THE CITY OF VAN BUREN.

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WORKSPACE: AHTD
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REVISED DATE:

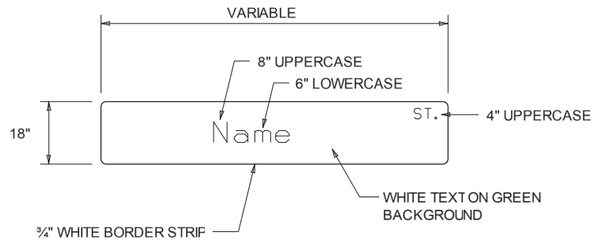
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		6	ARK.	040714	111	248
		TRAFFIC SIGNAL STREET NAME SIGNS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED

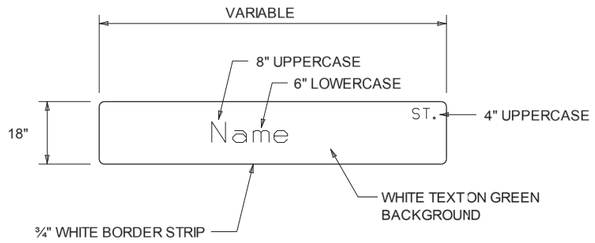
I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD. INTERSECTION







I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD. INTERSECTION





NOTES:

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL BE ALSO ALODIZED. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADII. PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY/ COUNTY.
3. WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM ON THE NEARSIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
4. THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

DATE: 03/10/2025 FILE NAME: t040714_Signs.dgn

LOCATION: I-40 EB AND WB RAMPS AND HWY. 59 / FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

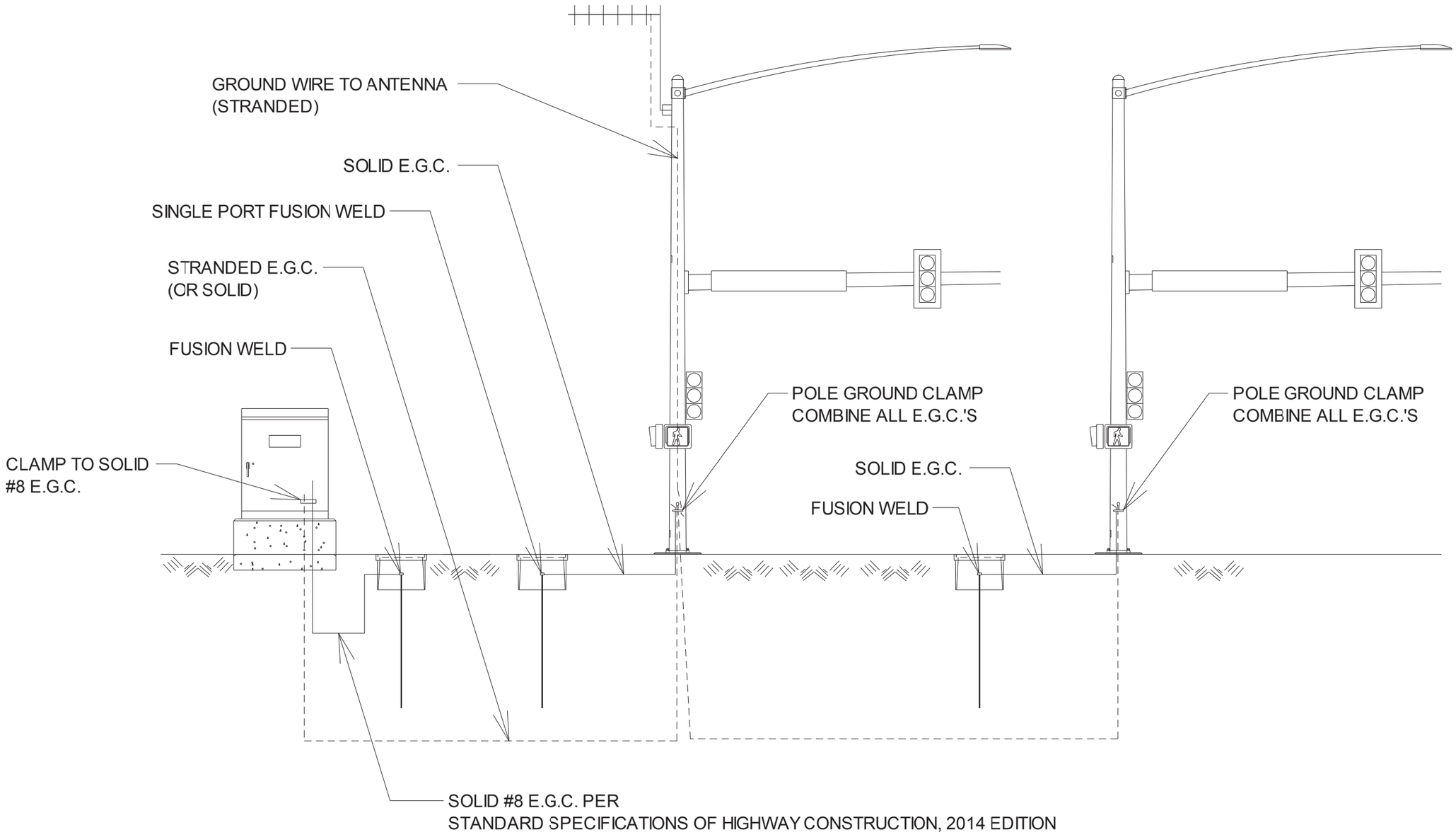
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	112	248
		GROUNDING ARRAY DETAIL				

GROUNDING ARRAY
SINGLE-PORT FUSION WELDS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025



LOCATION: I-40 EB AND WB RAMPS AND HWY. 59 / FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

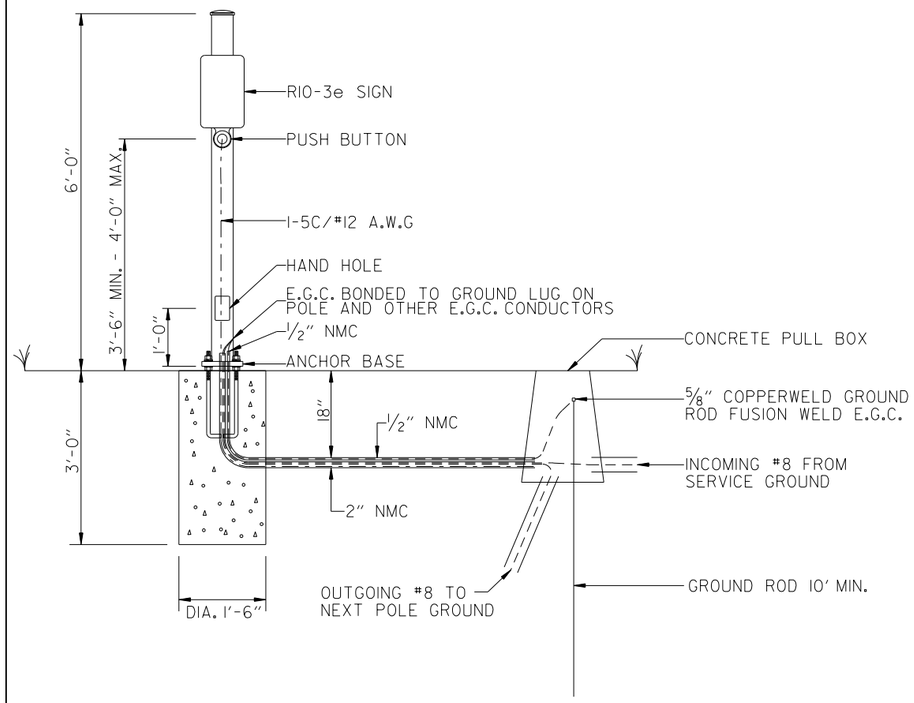
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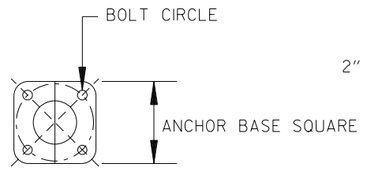
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	112A	248
		PEDESTRIAN PUSH BUTTON DETAIL				

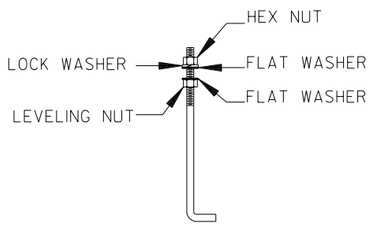
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

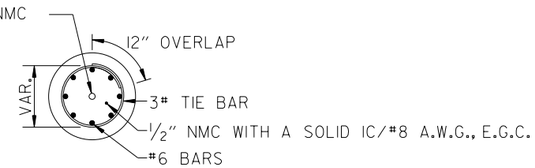


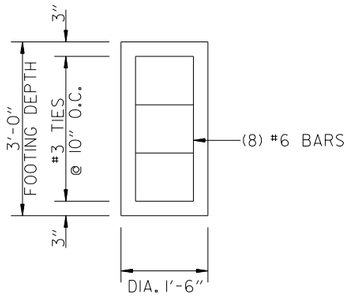


ANCHOR BASE
N.T.S.



ANCHOR BOLT
N.T.S.





PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL

NOTES:

EACH PEDESTRIAN PUSH BUTTON SHALL HAVE ONE R10-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209. ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

CONSTRUCTION SPECIFICATIONS:
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

POLE CAP - POLE CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

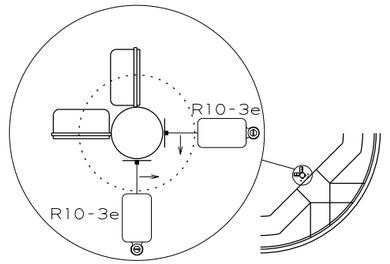
HAND HOLE - HAND HOLES SHALL BE 3 IN. X 5 IN. FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACUUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL.

NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.

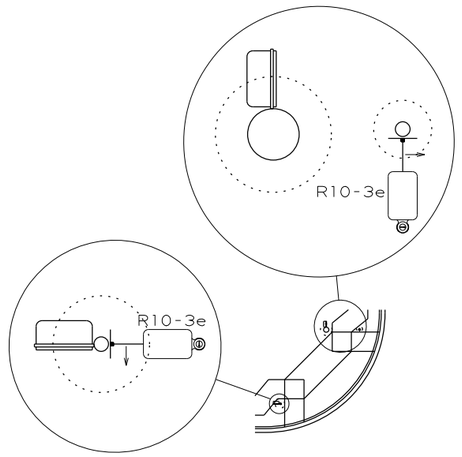
GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPARATELY.

POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A 1/4" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

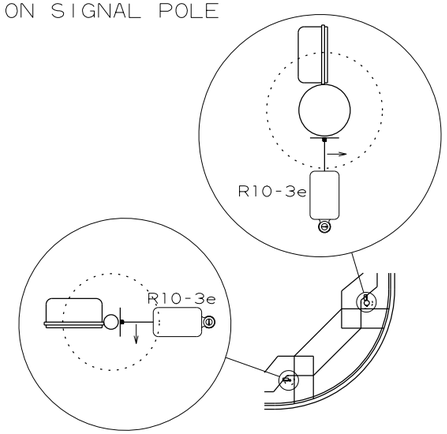
CONCRETE - ALL CONCRETE POLE FOUNDATION SHALL BE CLASS "S" OR GREATER.



TYPICAL MOUNTING PUSH BUTTON ON SIGNAL POLE



TYPICAL MOUNTING PUSH BUTTON ON PEDESTRIAN POLE AND PEDESTRIAN PUSH BUTTON POLE



TYPICAL MOUNTING PUSH BUTTON ON PEDESTRIAN POLE AND SIGNAL POLE

LOCATION: I-40 EB AND WB RAMPS AND HWY. 59 / FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 04/10/2025 FILE NAME: t040714_PPB.dgn

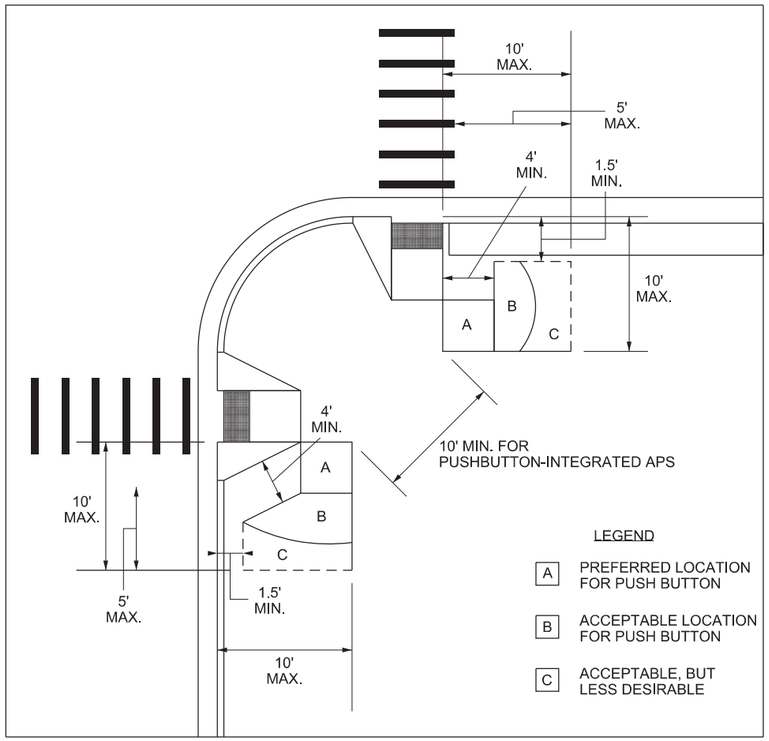
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	113	248
		PUSH BUTTON PLACEMENT DETAIL				

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LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

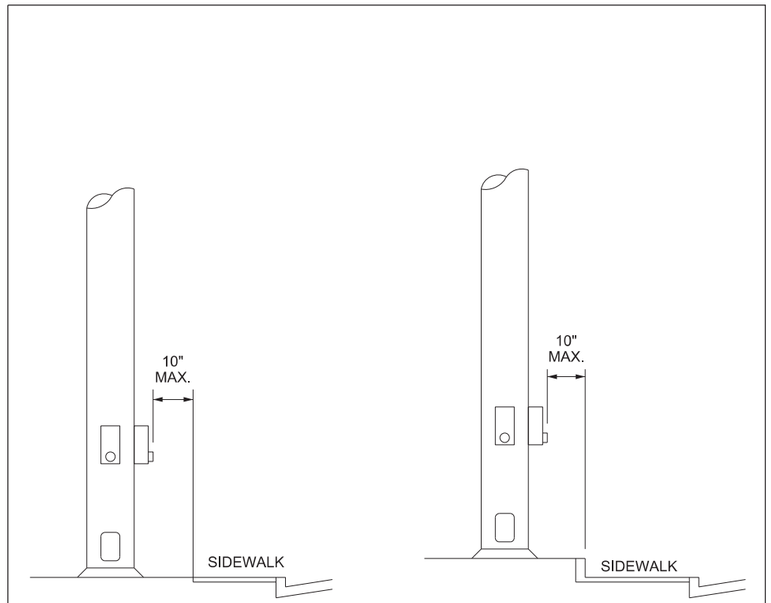
DIGITALLY SIGNED 03/18/2025

PREFERRED PUSH BUTTON LOCATION AREA



NOTES:
1. THE PUSH BUTTON DETECTOR SHOULD BE LOCATED 5 FEET OR LESS FROM THE OUTSIDE EDGE OF THE MARKED CROSSWALK FARTHEST FROM THE INTERSECTION.
2. THE PUSH BUTTON DETECTOR SHOULD BE LOCATED NO FARTHER FROM THE CROSSWALK THAN THE STOP LINE, IF ONE IS PRESENT.
3. A 4-FOOT MINIMUM UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE SHOULD BE MAINTAINED.
4. THE MAXIMUM (MAX.) AND MINIMUM (MIN.) DIMENSIONS SHOWN IN THIS FIGURE ARE RECOMMENDATIONS.
5. TWO PEDESTRAIN PUSH BUTTONS ON THE SAME CORNER SHOULD BE SEPARATED BY AT LEAST 10 FEET. THE 10-FOOT DIMENSION SHOWN IN THIS FIGURE IS IN REFERENCE TO THE PLACEMENT OF THE PUSH BUTTONS WITHIN THEIR RESPECTIVE AREAS.
6. THE FIGURE SHOWN ABOVE ILLUSTRATES FIGURE 4I-2 IN THE MUTCD, 11TH EDITION FOR PREFERRED PUSH BUTTON LOCATIONS.
7. THIS FIGURE IS NOT DRAWN TO SCALE.
8. SEE FIGURE 4I-3 IN THE MUTCD, 11TH EDITION FOR TYPICAL PUSH BUTTON LOCATIONS.

SIDE REACH DIAGRAM



NOTES:
IN THE EVENT THAT A PLAN TRAFFIC SIGNAL POLE LOCATION MUST BE ADJUSTED DUE TO UTILITY CONFLICT, CONSULT WITH PROJECT ENGINEER PRIOR TO MAKING ADJUSTMENTS.

DATE: 03/10/2025 FILE NAME: t040714_Push Button Detail.dgn

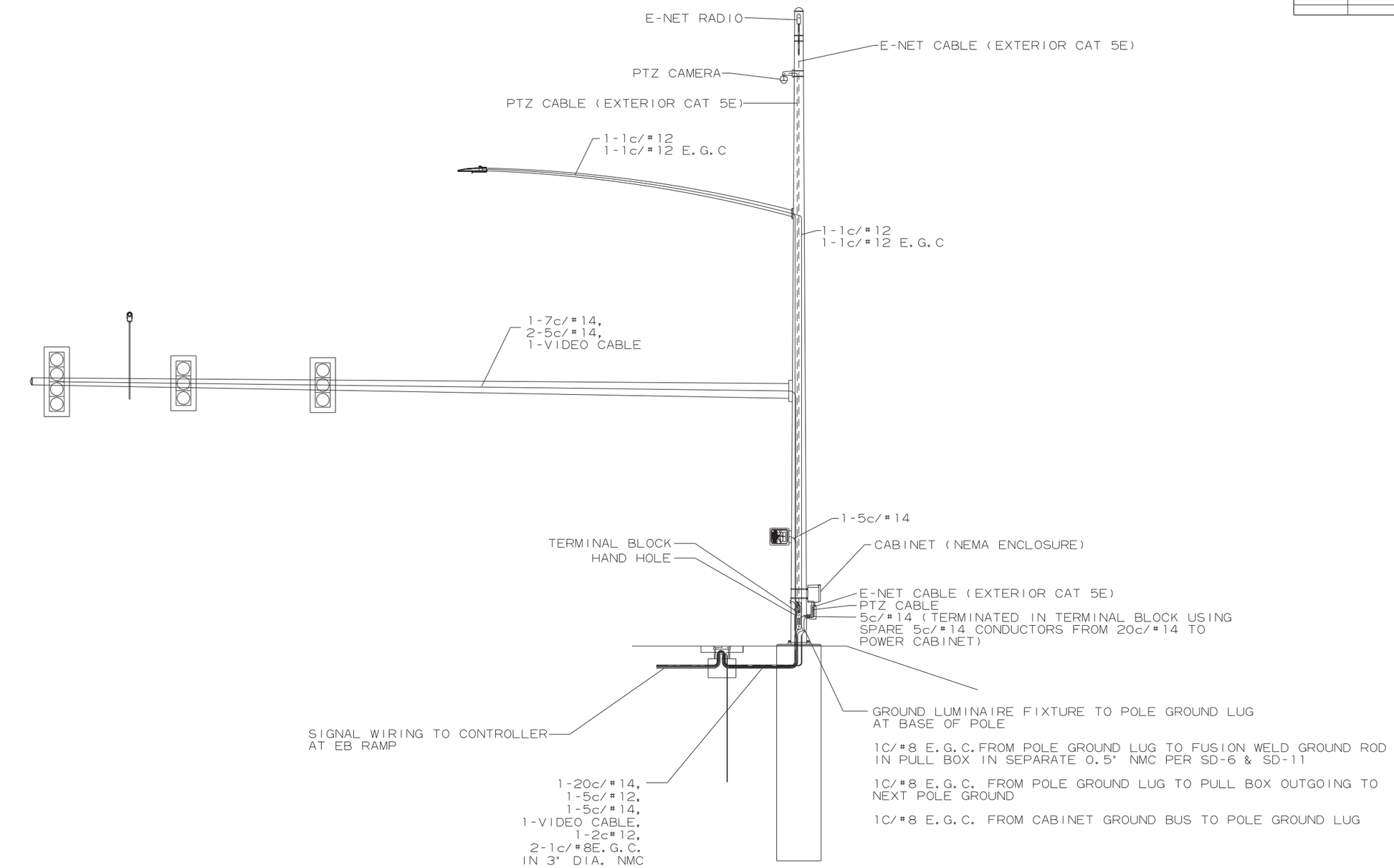
LOCATION: I-40 EB AND WB RAMPS AND HWY. 59 / FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	114	248
		PTZ DETAIL (WB RAMP)				

STATE OF ARKANSAS
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PTZ CAMERA AND LOCAL RADIO WITH ANTENNA DETAIL
TRAFFIC SIGNAL POLE F

LOCATION:	I-40 EB AND WB RAMPS AND HWY. 59 / FAYETTEVILLE RD.
CITY:	VAN BUREN
COUNTY:	CRAWFORD
DISTRICT:	04 SCALE: N/A DRAWN BY: VA

DATE: 03/10/2025 FILE NAME: t040714_PTZ_detail.dgn

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	115	248
		TRAFFIC SIGNAL QUANTITIES - I-40 SERVICE RD.				

STATE OF ARKANSAS
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No.8141
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STAGE 3 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	50	LIN. FT.
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	6	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	4	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	713	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	681	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	36	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	36	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	14	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	30	LIN. FT.
710	NON-METALLIC CONDUIT (2")	25	LIN. FT.
710	NON-METALLIC CONDUIT (3")	6	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	1	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
716	TREATED WOOD POLE (CLASS 2, 45')	4	EACH
SP & 733	VIDEO DETECTION SYSTEM	1	EACH
SP & 733	VIDEO CABLE	758	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH

NOTE: THE NUMBER OF VIDEO DETECTORS TO BE INSTALLED FOR THE TEMPORARY SIGNAL ARE FOUR (4).

STAGE 4A TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.33	LUMP SUM

STAGE 4A:
UPON OPENING OF ACCESS ROAD, TEMPORARY SIGNAL AT SERVICE ROAD SHALL BE REMOVED.

DATE: 03/10/2025 FILE NAME: t040714_QTY_Service.dgn

LOCATION: I-40 EB SERVICE ROAD AND HWY. 59 / FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

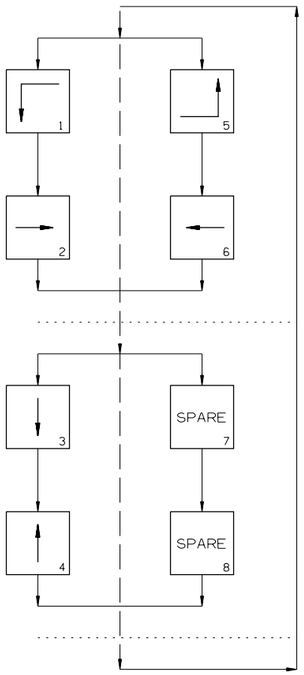
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	116	248
		SIGNALIZATION PLAN SHEET				

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NICCI D. TINER

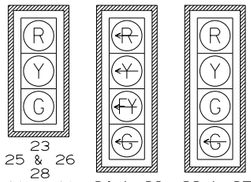
DIGITALLY SIGNED 04/11/2025

STAGE 3 PHASING DIAGRAM



STAGE 3 SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

STAGE 3 - DETECTOR SPACING CHART

I-40 SERVICE ROAD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
N/A	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

I-40 SERVICE ROAD AND HWY 59/FAYETTEVILLE RD STAGE 3 - POLE DIMENSIONS

POLE	CLASS	HEIGHT	*LUM. ARM	** LUM. ANGLE
M	2	45'	25'	272°
N	2	45'	N/A	N/A
O	2	45'	25'/25'	87°/355°
P	2	45'	N/A	N/A

ALL POLES ARE TREATED WOOD POLES
STANDARD GUY INSTALLATION (TYPICAL), IF SIDEWALK GUY INSTALLATION IS NECESSARY SEE STANDARD DRAWINGS SD-7.
* SEE TYPICAL WOOD POLE WITH LUMINARE ARM DETAIL ON SHEET 117.
** LUMINARE ARM ANGLE MEASURED FROM PLAN NORTH = 0° CLOCKWISE ROTATION.

NOTES TO CONTRACTOR:
1. V1, V3, V4D, AND V5C ARE VIDEO DETECTORS.
2. ADJUST DETECTION ZONES AS NEEDED WHEN LANES ARE SHIFTED.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01b_MOT3.dgn

STAGE 3

LOCATION: I-40 SERVICE ROAD AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:01:58 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	117	248
		SIGNALIZATION PLAN SHEET				

DESIGN PARAMETERS

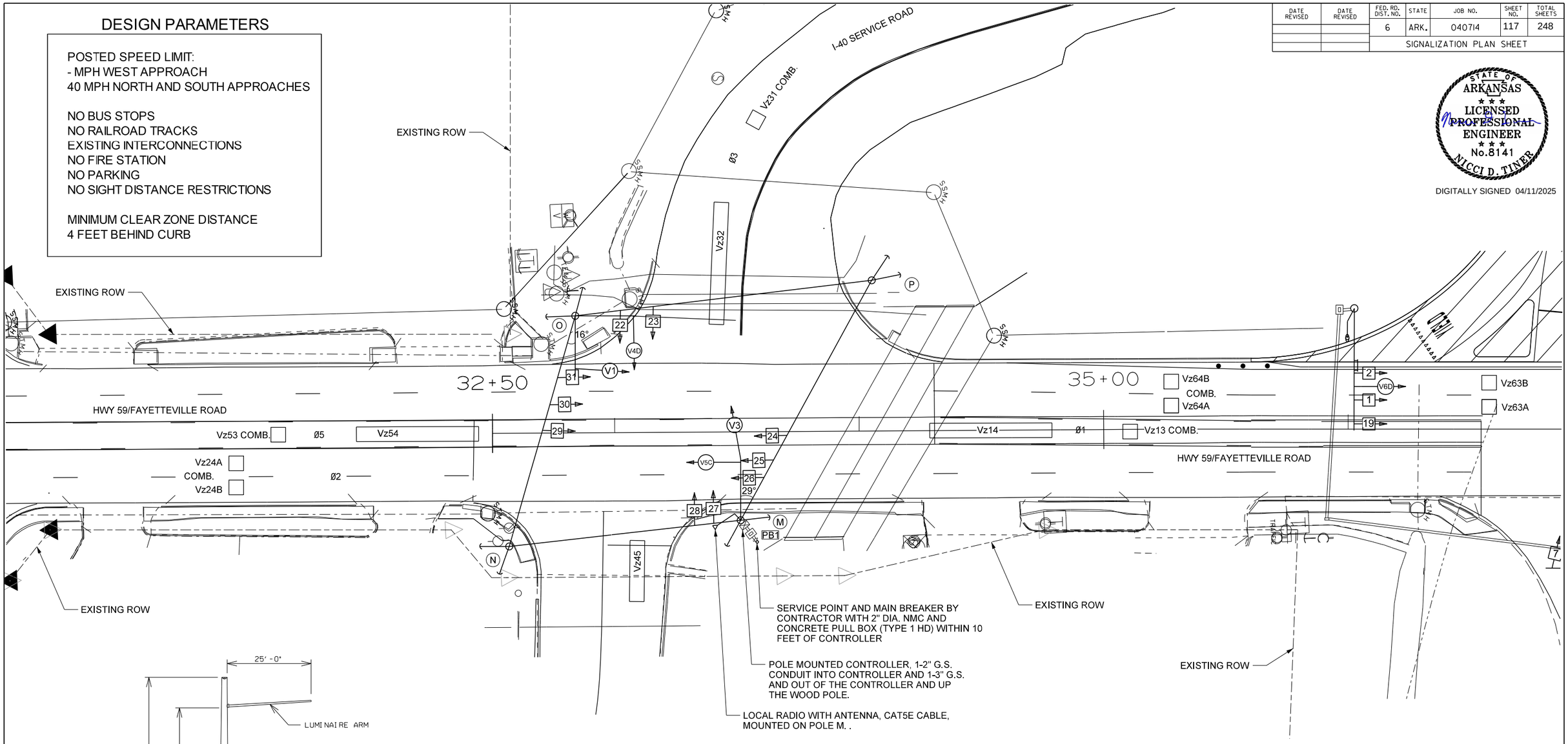
POSTED SPEED LIMIT:
- MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

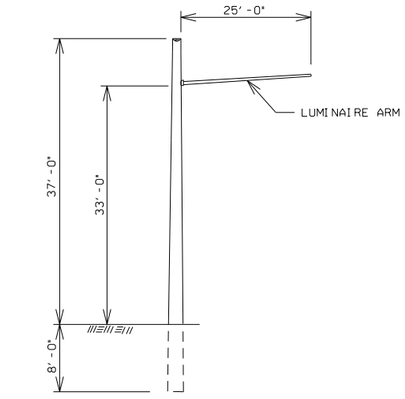
NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

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TYPICAL WOOD POLE WITH LUMINAIRE ARM

NOTE TO CONTRACTOR:
LUMINAIRE ARMS (OR APPROVED MOUNTING HARDWARE) SHALL BE USED TO MOUNT VIDEO DETECTORS. LUMINAIRE ARM SHALL NOT INCLUDE LUMINAIRE ASSEMBLIES. THE COST FOR LUMINAIRE ARMS, MOUNTING, AND ALL HARDWARE IS INCLUDED IN PRICE BID FOR ITEM 716 TREATED WOOD POLE.

I-40 SERVICE ROAD AND HWY 59/FAYETTEVILLE RD
STAGE 3-PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	1 HD	HWY. 59 - STA. 33+55.47	41.69' RT.	610731.75, 418876.50

* CENTER OF PULL BOX

ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

I-40 SERVICE ROAD AND HWY 59/FAYETTEVILLE RD
STAGE 3 - POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
M	HWY. 59 - STA. 33+51.30	36.18' RT.	610726.07, 418872.56
N	HWY. 59 - STA. 32+56.55	46.30' RT.	610732.21, 418777.47
O	HWY. 59 - STA. 32+84.14	47.90' LT.	610639.25, 418808.99
P	HWY. 59 - STA. 34+05.52	61.67' LT.	610630.57, 418930.83

N

SCALE IN FEET
0 20 40 80

DATE: 04/10/2025 FILE NAME: t040714_p02b_MOT3.dgn

STAGE 3

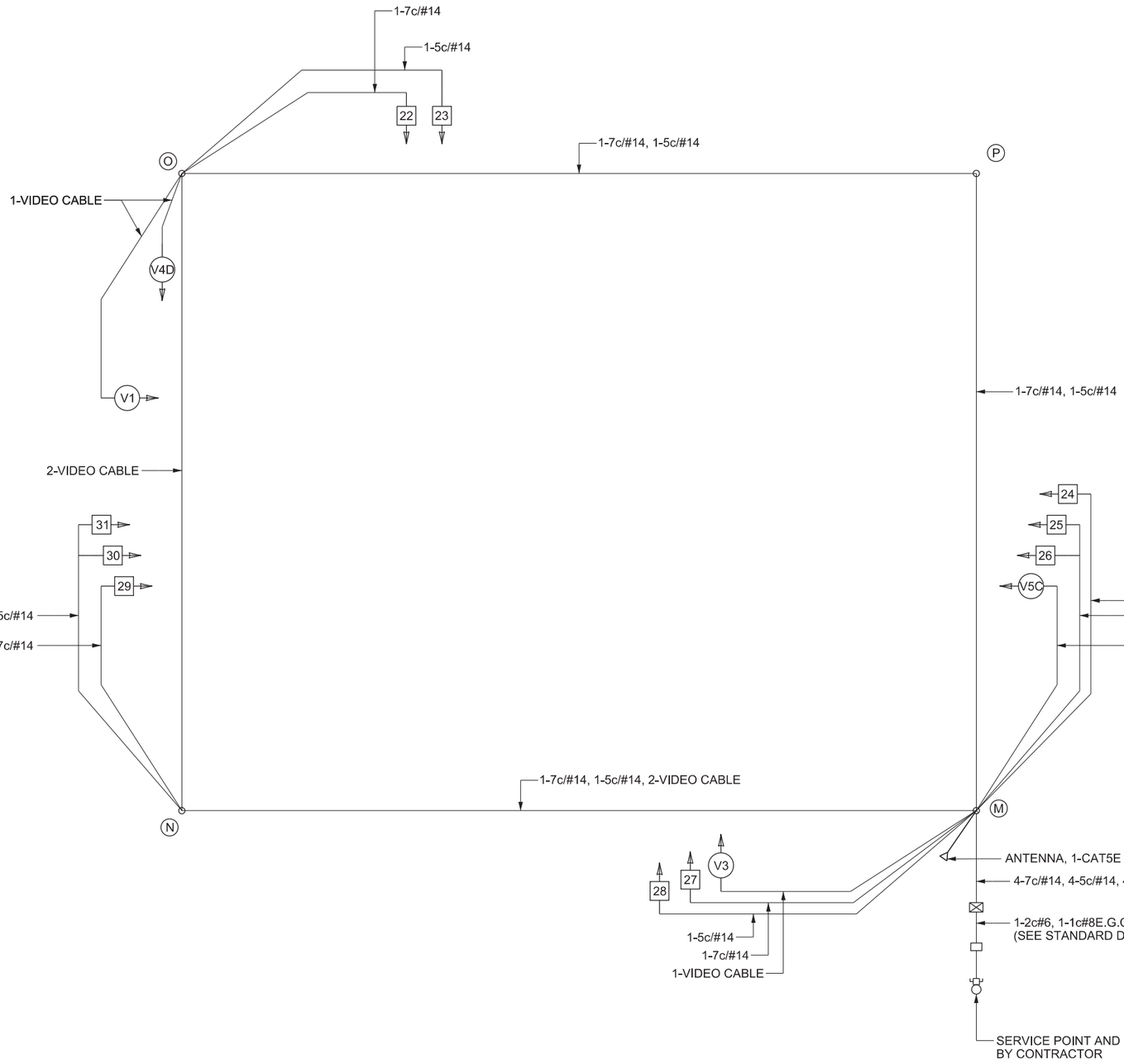
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	118	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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No.8141
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STAGE 3
WIRING DIAGRAM

NOTES TO CONTRACTOR:
1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
3. SEE SHEET NUMBER 112 FOR GROUNDING ARRAY DETAIL.

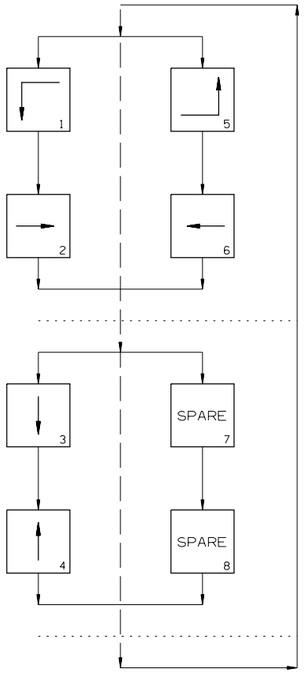
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STAGE 3

LOCATION: I-40 SERVICE ROAD AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

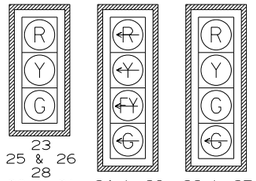
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REVISED DATE:

STAGE 3
PHASING DIAGRAM



STAGE 3
SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	119	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

STAGE 3 - DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040714											
SERVICE ROAD AND HWY 59/FAYETTEVILLE ROAD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz13	SB LT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz14	SB LT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz23 A&B	NB ADVANCE	LOCAL			5	V2	2			CAMERA V5C	23"
Vz24 A&B	NB NEAR	COMB.			6	V10	2	2		CAMERA V5C	23"
Vz31	EB ADVANCE	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32	EB NEAR	LOCAL			10	V3	3			CAMERA V3	23"
Vz45	WB LT TURN	LOCAL			13	V4	4			CAMERA V4D	23"
Vz53	NB LT TURN FAR	COMB.			7	V13	5	5		CAMERA V5C	23"
Vz54	NB LT TURN	LOCAL			8	V5	5			CAMERA V5C	23"
Vz63 A&B	SB ADVANCE	LOCAL			3	V6	6			CAMERA V1	23"
Vz64 A&B	SB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
					SPARE: 11, 12, 14, 15, & 16						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGE 3 - INTERVAL CHART

	SERVICE ROAD AND HWY 59/FAYETTEVILLE ROAD													FLASH
SIGNAL FACES	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.		SEQUENCE
22	R	R	R	R	R	R	R	R	R	R	~~G~~ / G	Y		R
23	R	R	R	R	R	R	R	R	R	R	G	Y		R
24	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~R~~
25 & 26	R	R	R	R	G	**	G	**	R	R	R	R		R
27	R	R	R	R	R	R	R	R	G / ~~G~~	Y	R	R		R
28	R	R	R	R	R	R	R	R	G	Y	R	R		R
29	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~R~~
30 & 31	R	R	G	**	R	R	G	**	R	R	R	R		R

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

STAGE 3

LOCATION: I-40 SERVICE ROAD AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 04/10/2025 FILE NAME: t040714_p06b_MOT3.dgn

HBVinson 4/10/2025 3:02:04 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
5/12/2025		6	ARK.	040714	120	248
		TRAFFIC SIGNAL QUANTITIES - WB RAMP				

NOTE:

1. QUANTITIES FOR THE WB RAMP INTERSECTION INCLUDE ALL WIRING AND CONDUIT FROM POLES D, E, F, AND G TO THE CONTROLLER AS WELL AS ALL PULL BOXES FROM NORTH OF THE PULL BOX NEAR POLE C TO NORTH OF THE WB RAMP INTERSECTION.

STATE OF ARKANSAS
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No.8141
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DIGITALLY SIGNED 5/12/2025

TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	125	LIN. FT.
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	EACH
SP	PTZ CAMERA SYSTEM	1	EACH
SP	NEMA ENCLOSURE	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	8	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	EACH
SP	LOUVERS	4	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	1209	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1064	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	88	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	680	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	2022	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	989	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	165	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	2187	LIN. FT.
710	NON-METALLIC CONDUIT (3")	1456	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	3	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	3	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	1	EACH
SP	18" STREET NAME SIGN	1	EACH
SP & 733	VIDEO CABLE	2223	LIN. FT.

(REFER TO PERMANENT TRAFFIC SIGNAL PLANS)

STAGE 1B TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.20	LUMP SUM

STAGE 1B:
PERMANENT SIGNAL EQUIPMENT TO BE INSTALLED AND UTILZED DURING STAGE CONSTRUCTION.
INSTALL TEMPORARY SIGNAL HEADS 20 AND 21.
REMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 1B TRAFFIC SIGNAL PLANS FOR STAGES 2A AND 2B ALSO.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

STAGE 3 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.13	LUMP SUM

STAGE 3:
TRAFFIC SIGNAL HEADS 10 AND 11 SHALL BE INSTALLED AND TRAFFIC SIGNAL HEADS 20 AND 21 SHALL BE REMOVED.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 3 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

DATE: 05/06/2025 FILE NAME: t040714_QTY_WB.dgn

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

HBVinson 5/12/2025 3:38:53 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	121	248
		TRAFFIC SIGNAL QUANTITIES - WB RAMP				

NOTE:

1. QUANTITIES FOR THE WB RAMP INTERSECTION INCLUDE ALL WIRING AND CONDUIT FROM POLES D, E, F, AND G TO THE CONTROLLER AS WELL AS ALL PULL BOXES FROM NORTH OF THE PULL BOX NEAR POLE C TO NORTH OF THE WB RAMP INTERSECTION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	125	LIN. FT.
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	EACH
SP	PTZ CAMERA SYSTEM	1	EACH
SP	NEMA ENCLOSURE	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	8	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	EACH
SP	LOUVERS	4	EACH
SP & 707	CENTRAL CONTROL UNIT	1	EACH
SP & 707	POLE MOUNTED ASSEMBLY	2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	1209	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1064	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	88	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	680	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	2022	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	989	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	165	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	2187	LIN. FT.
710	NON-METALLIC CONDUIT (3")	1456	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	3	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3 HD)	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (30')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	3	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	1	EACH
SP	18" STREET NAME SIGN	3	EACH
SP & 733	VIDEO CABLE	2223	LIN. FT.

(REFER TO PERMANENT TRAFFIC SIGNAL PLANS)

STAGE 1B TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.20	LUMP SUM

STAGE 1B:
PERMANENT SIGNAL EQUIPMENT TO BE INSTALLED AND UTILZED DURING STAGE CONSTRUCTION.
INSTALL TEMPORARY SIGNAL HEADS 20 AND 21.
REMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 1B TRAFFIC SIGNAL PLANS FOR STAGES 2A AND 2B ALSO.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

STAGE 3 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.13	LUMP SUM

STAGE 3:
TRAFFIC SIGNAL HEADS 10 AND 11 SHALL BE INSTALLED AND TRAFFIC SIGNAL HEADS 20 AND 21 SHALL BE REMOVED.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 3 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

DATE: 04/10/2025 FILE NAME: t040714_QTY_WB.dgn

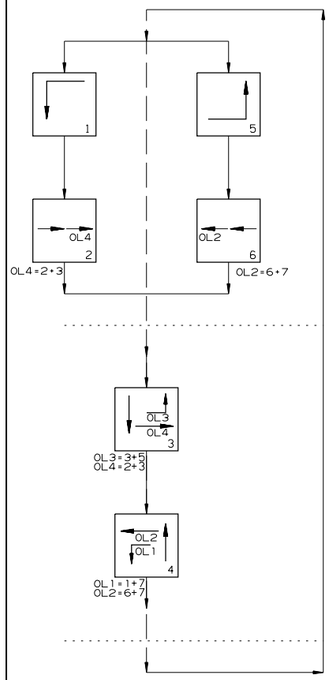
LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	122	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 04/11/2025

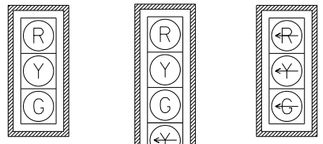
PHASING DIAGRAM



NOTE:
1. OVERLAPS 2 AND 4 TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.

SIGNAL FACES

12" LENSES



NOTES TO CONTRACTOR:

1. THE EXISTING SIGNALS SHALL REMAIN IN OPERATION DURING STAGE 1A.
2. WIRING DIAGRAM AND CHARTS SHEETS NOT INCLUDED FOR STAGE 1A CONSTRUCTION.
3. CROSSWALKS NOT SHOWN FOR CLARITY.

I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD.
STAGE 1A - POLE DIMENSIONS

POLE	MAST ARM	MAST ARM ANGLE	HAND HOLE	VERT. SHAFT	LUM. ARM	LUM. ANGLE
H	EXISTING SIGNAL POLE TO REMAIN					
I	EXISTING SIGNAL POLE TO REMAIN					
J	EXISTING SIGNAL POLE TO REMAIN					

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01a_MOT1a.dgn

STAGE 1A

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:02:18 PM
WORKSPACE: AHTD
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REVISED DATE:

DESIGN PARAMETERS

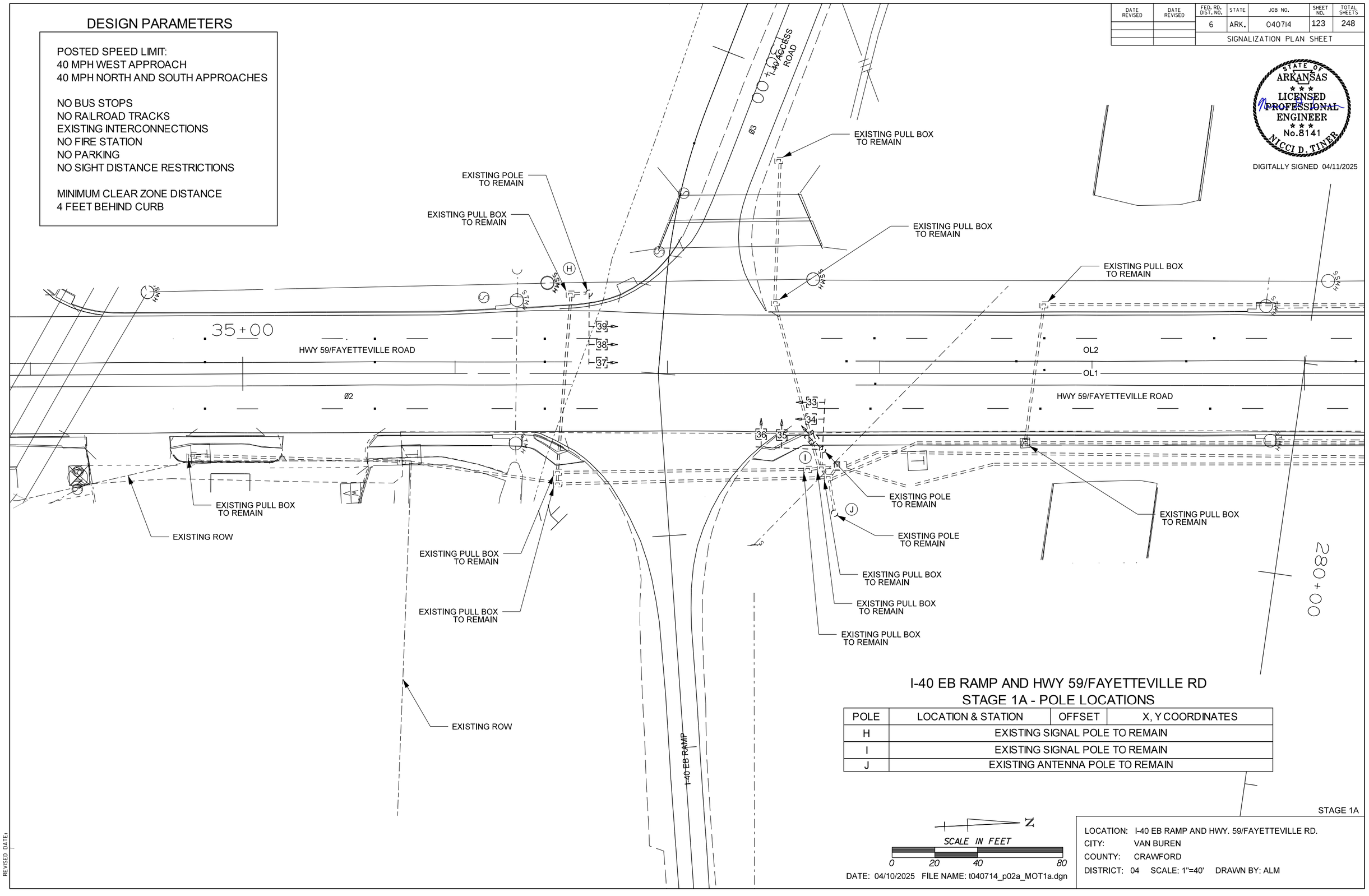
POSTED SPEED LIMIT:
40 MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	123	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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DIGITALLY SIGNED 04/11/2025



I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD
STAGE 1A - POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
H	EXISTING SIGNAL POLE TO REMAIN		
I	EXISTING SIGNAL POLE TO REMAIN		
J	EXISTING ANTENNA POLE TO REMAIN		

N

SCALE IN FEET
0 20 40 80

DATE: 04/10/2025 FILE NAME: t040714_p02a_MOT1a.dgn

STAGE 1A

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

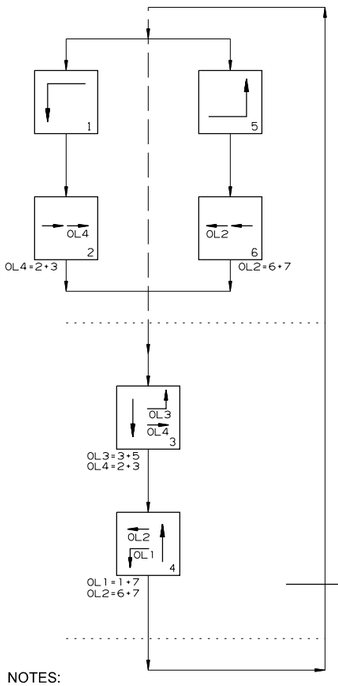
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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	124	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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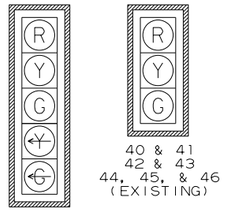
STAGE 1A PHASING DIAGRAM



NOTES:
1. OVERLAPS 2 AND 4 TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.

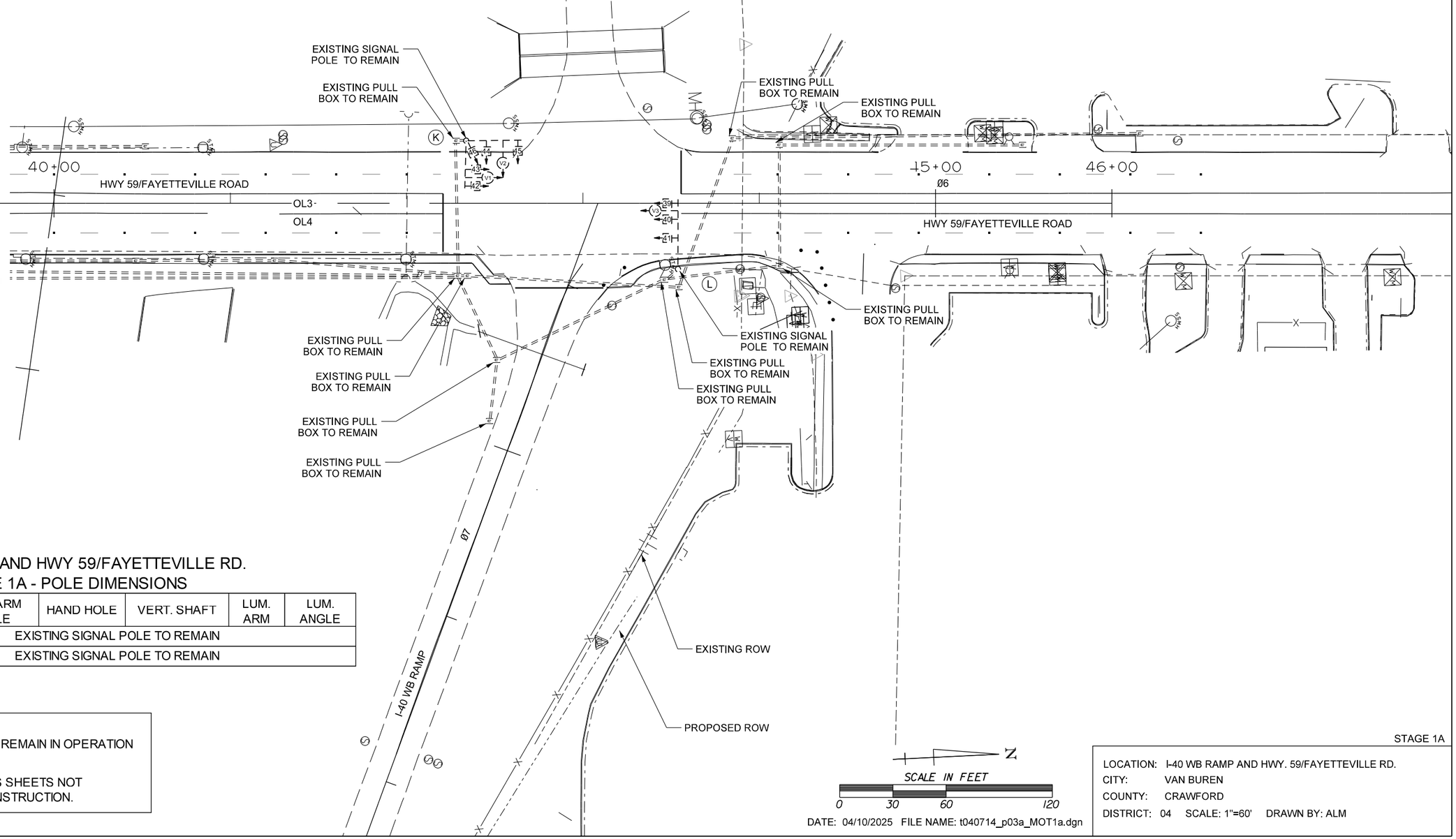
STAGE 1A SIGNAL FACES

12" LENSES



39
(EXISTING)

40 & 41
42 & 43
44, 45, & 46
(EXISTING)



I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD.
STAGE 1A - POLE DIMENSIONS

POLE	MAST ARM	MAST ARM ANGLE	HAND HOLE	VERT. SHAFT	LUM. ARM	LUM. ANGLE
K	EXISTING SIGNAL POLE TO REMAIN					
L	EXISTING SIGNAL POLE TO REMAIN					

NOTES TO CONTRACTOR:
1. THE EXISTING SIGNALS SHALL REMAIN IN OPERATION DURING STAGE 1A.
2. WIRING DIAGRAM AND CHARTS SHEETS NOT INCLUDED FOR STAGE 1A CONSTRUCTION.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a_MOT1a.dgn

STAGE 1A

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:02:24 PM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_p03a_MOT1a.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	125	248
		SIGNALIZATION PLAN SHEET				

DESIGN PARAMETERS

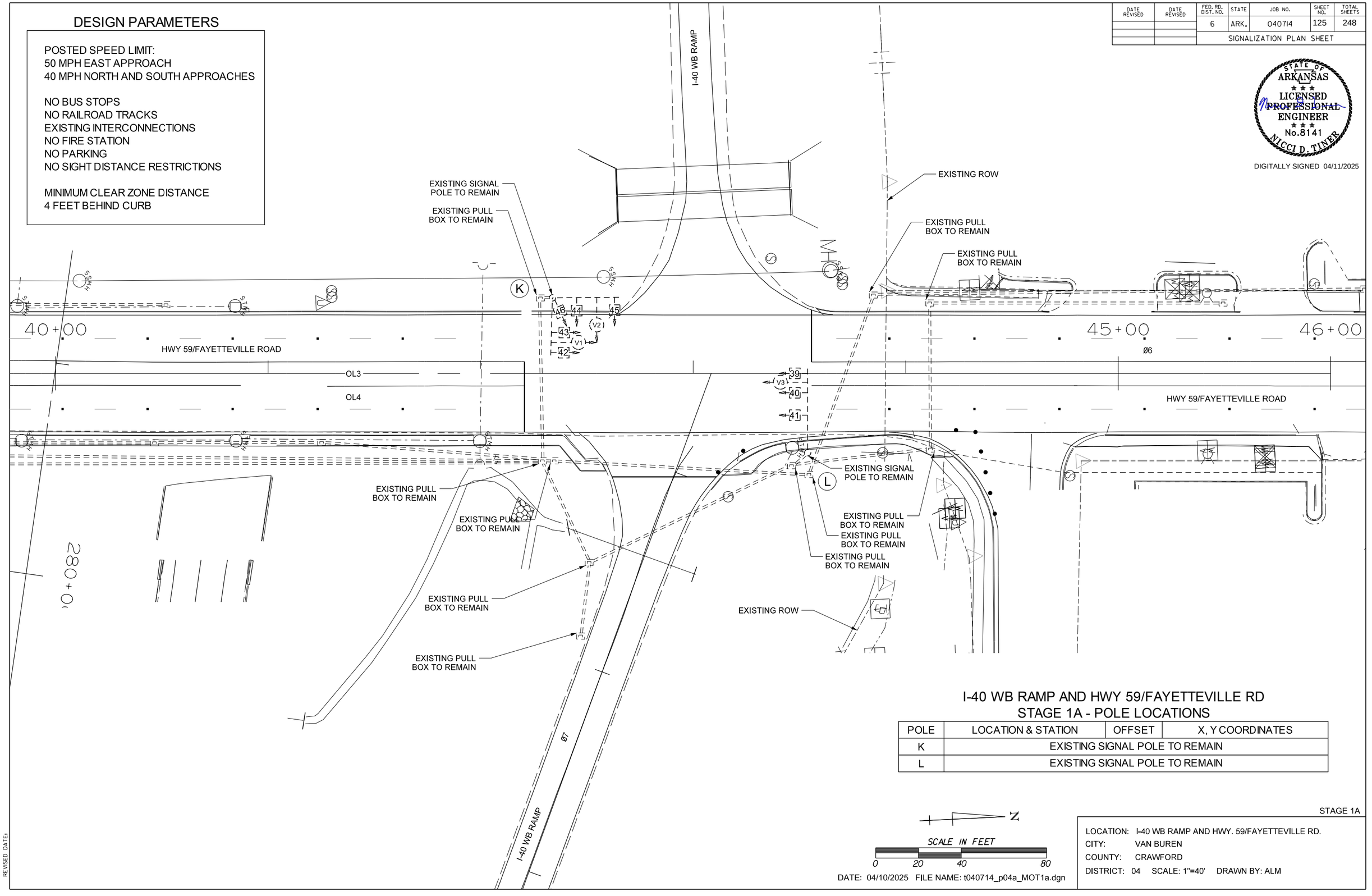
POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025



I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD
STAGE 1A - POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
K	EXISTING SIGNAL POLE TO REMAIN		
L	EXISTING SIGNAL POLE TO REMAIN		

N

SCALE IN FEET
0 20 40 80

DATE: 04/10/2025 FILE NAME: t040714_p04a_MOT1a.dgn

STAGE 1A

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

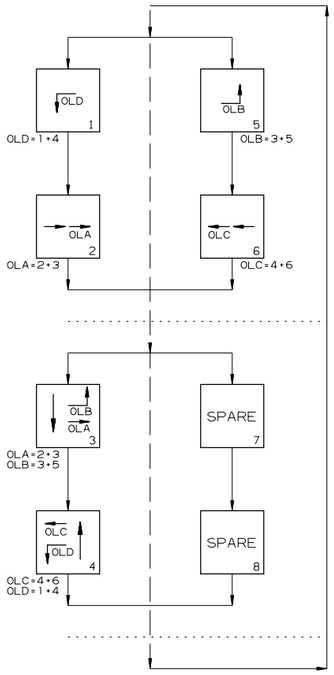
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	126	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

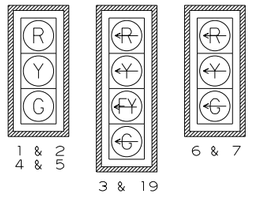
STAGES 1B, 2A & 2B PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B, 2A, 2B, 3, & 4A SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 19 IS TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
4. SIGNAL HEAD 3 SHALL BE BAGGED IN STAGES 1B-3.

STAGES 1B, 2A, 2B, 4A & 4B - DETECTOR SPACING CHART

I-40 ACCESS ROAD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD. STAGES 1B, 2A, 2B, 3, 4A & 4B POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	52'	183°	270°	50'	15'	183°
B	50'***	93°	180°	35'	15'	93°
C	38'	272°	90°	35'	15'	272°

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.
*** EXTRA MAST ARM LENGTH REQUIRED FOR STAGE CONSTRUCTION.

NOTES TO CONTRACTOR:
1. V3, V5, AND V6D ARE VIDEO DETECTORS.
2. CONTACT THE CITY OF VAN BUREN FOR ANTENNA ORIENTATION.
3. THE EXISTING TRAFFIC SIGNAL POLES, PULL BOXES AND CONTROLLER SHALL BE REMOVED DURING STAGE 1B. EXISTING CONDUITS SHALL BE ABANDONED.
4. THE NEW TRAFFIC SIGNAL MUST BE OPERATIONAL PRIOR TO REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT.
5. DETECTION ZONES VzOLC 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.
6. THE EB AND WB RAMPS INTERSECTIONS ARE OPERATED BY A SINGLE CONTROLLER LOCATED AT THE EB RAMP.

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01a_MOT1b2a.dgn

LOCATION: I-40 EB RAMP AT HWY. 59 (FAYETTEVILLE DR.)
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:02:38 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	127	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

CONTROLLER CABINET LOCATION

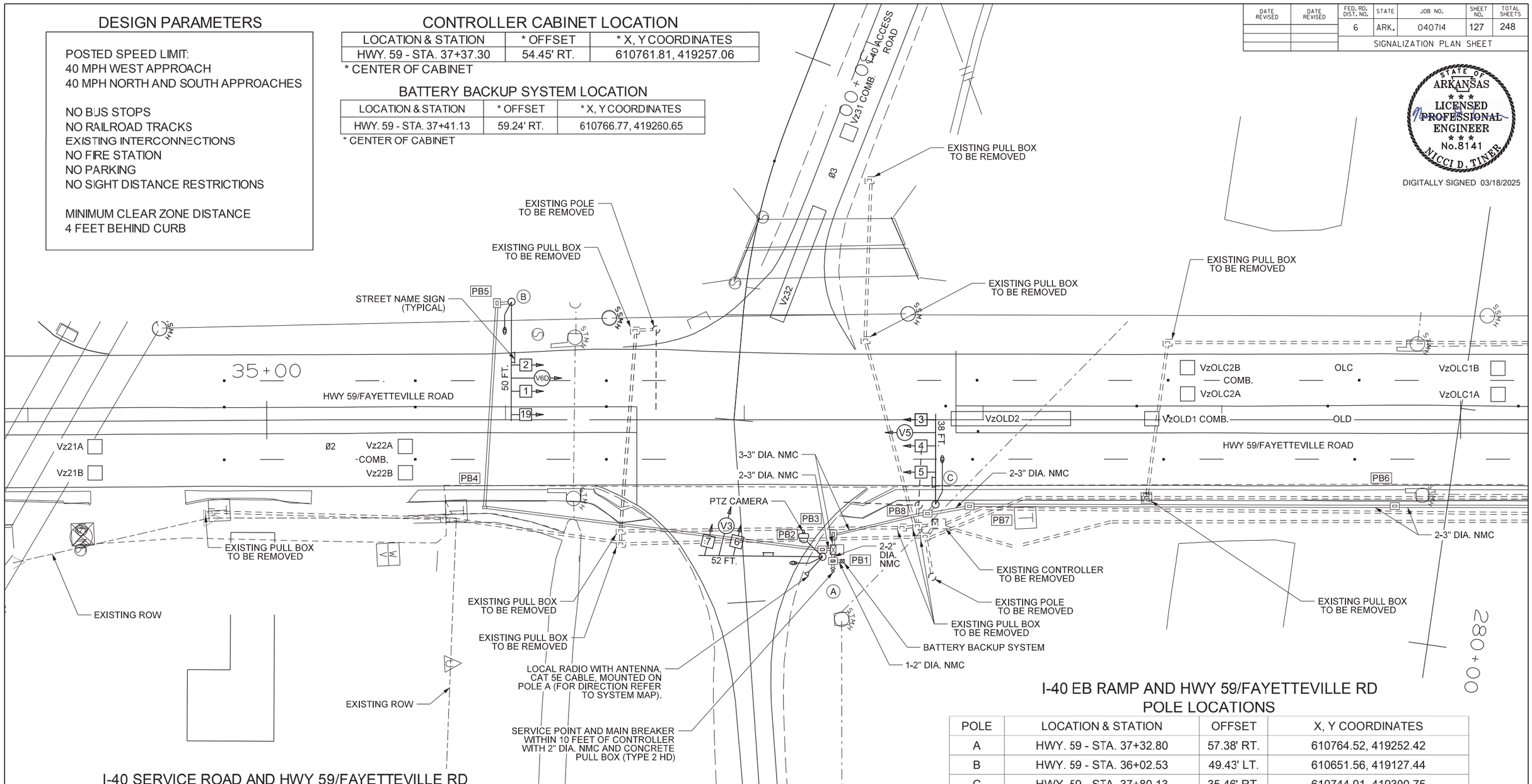
LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 59 - STA. 37+37.30	54.45' RT.	610761.81, 419257.06

* CENTER OF CABINET

BATTERY BACKUP SYSTEM LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 59 - STA. 37+41.13	59.24' RT.	610766.77, 419260.65

* CENTER OF CABINET



I-40 SERVICE ROAD AND HWY 59/FAYETTEVILLE RD
STAGE 3-PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	2 HD	HWY. 59 - STA. 37+37.18	59.14' RT.	610766.49, 419256.71
PB2	2 HD	HWY. 59 - STA. 37+32.74	54.36' RT.	610761.50, 419252.50
PB3	3 HD	HWY. 59 - STA. 37+37.29	48.06' RT.	610755.43, 419257.35
PB4	2	HWY. 59 - STA. 35+91.51	31.60' RT.	610731.96, 419112.53
PB5	2 HD	HWY. 59 - STA. 35+96.46	48.88' LT.	610651.81, 419121.36
PB6	2 HD	HWY. 59 - STA. 39+72.45	36.18' RT.	610725.89, 419492.81
PB7	2 HD	HWY. 59 - STA. 37+94.39	36.18' RT.	610725.89, 419492.83
PB8	3 HD	HWY. 59 - STA. 37+76.74	39.32' RT.	610748.60, 419297.18

* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 59 - STA. 37+32.80	57.38' RT.	610764.52, 419252.42
B	HWY. 59 - STA. 36+02.53	49.43' LT.	610651.56, 419127.44
C	HWY. 59 - STA. 37+80.13	35.46' RT.	610744.91, 419300.75

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.
TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

N
SCALE IN FEET
0 20 40 80

DATE: 03/10/2025 FILE NAME: t040714_p02a_MOT1b2a.dgn

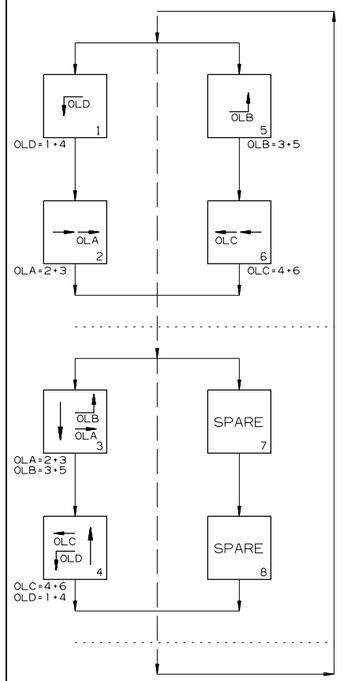
STAGES 1B & 2A

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

JATurner 3/18/2025 11:23:35 AM
WORKSPACE: AHTD
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REVISED DATE:

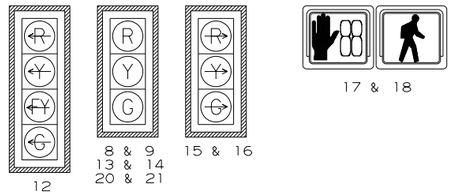
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	128	248
		SIGNALIZATION PLAN SHEET				

STAGES 1B, 2A & 2B PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B & 2A, & 2B SIGNAL FACES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. SIGNAL HEADS 20 AND 21 ARE TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
5. PEDESTRIAN SIGNAL HEADS 17 & 18 SHALL REMAIN BAGGED.
6. SIGNAL HEADS 15 & 16 SHALL REMAIN BAGGED.

STAGES 1B, 2A, 2B, 3, 4A & 4B - DETECTOR SPACING CHART

I-40 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
50 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230' *	100'

* NB FAR VIDEO ZONE LOCATIONS SHALL BE ADJUSTED DUE TO LIMITED VISION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

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I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD. STAGES 1B, 2A, 2B, 3, 4A & 4B POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
D	26'	94°	180°	35'	15'	94°
E	30'	180°	180°	35'	15'	180°
F	60'	272°	180°	50'	25'	272°
G	40'	239°	180°	21'	N/A	N/A
H	N/A	N/A	N/A	10'	N/A	N/A

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.

** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

NOTES TO CONTRACTOR:
1. V4, V5B, AND V6A ARE VIDEO DETECTORS.
2. THE EXISTING TRAFFIC SIGNAL POLES, PULL BOXES AND CONTROLLER SHALL BE REMOVED DURING STAGE 1B. EXISTING CONDUITS SHALL BE ABANDONED.
3. THE NEW TRAFFIC SIGNAL MUST BE OPERATIONAL PRIOR TO REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT.
4. DETECTION ZONES VzOLA 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.
5. THE EB AND WB RAMPS INTERSECTIONS ARE OPERATED BY A SINGLE CONTROLLER LOCATED AT THE EB RAMP.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a_MOT1b2a.dgn

STAGES 1B & 2A

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	129	248
		SIGNALIZATION PLAN SHEET				

DESIGN PARAMETERS

POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

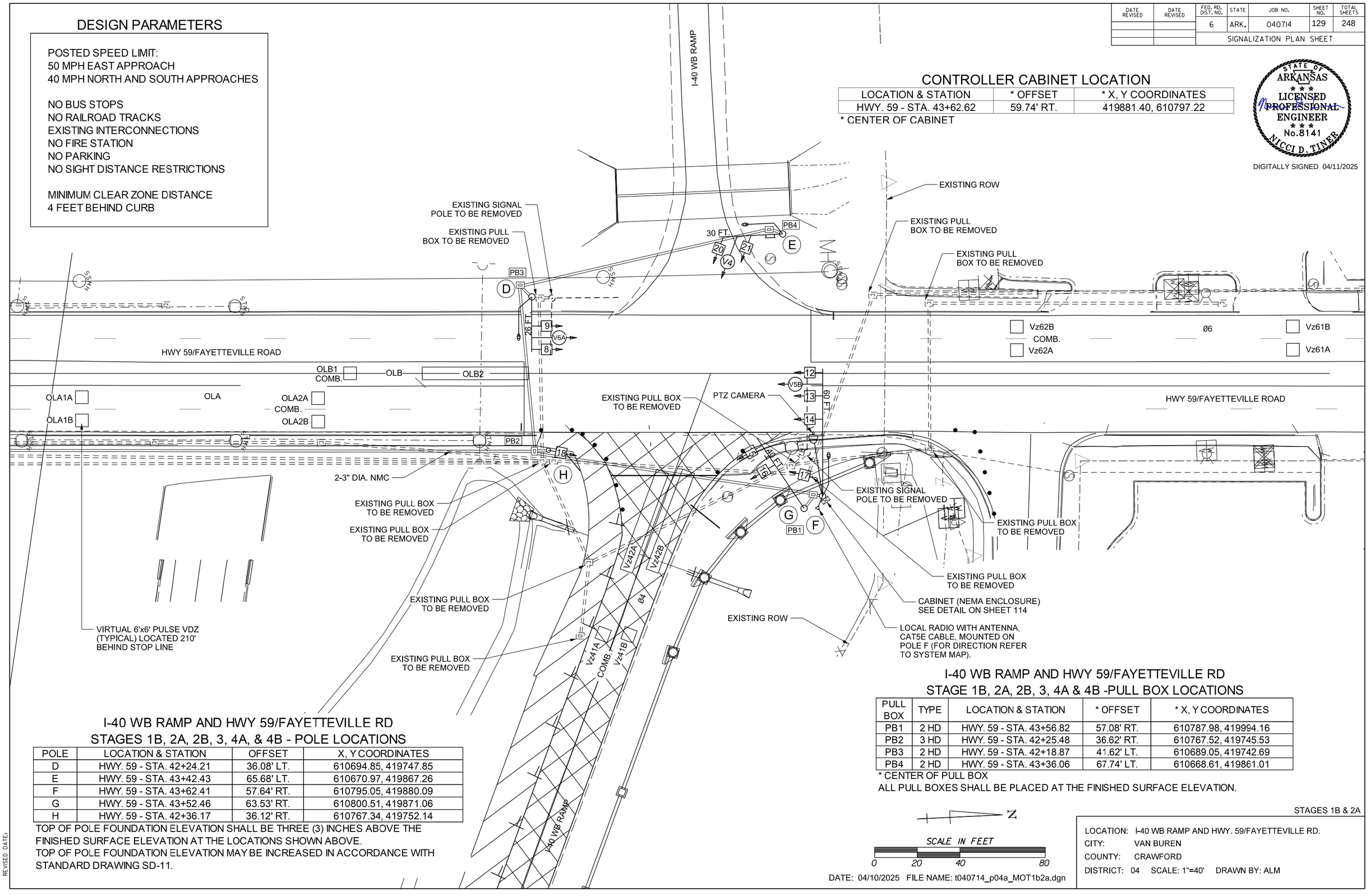
CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 59 - STA. 43+62.62	59.74' RT.	419881.40, 610797.22

* CENTER OF CABINET

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I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD
STAGES 1B, 2A, 2B, 3, 4A, & 4B - POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
D	HWY. 59 - STA. 42+24.21	36.08' LT.	610694.85, 419747.85
E	HWY. 59 - STA. 43+42.43	65.68' LT.	610670.97, 419867.26
F	HWY. 59 - STA. 43+62.41	57.64' RT.	610795.05, 419880.09
G	HWY. 59 - STA. 43+52.46	63.53' RT.	610800.51, 419871.06
H	HWY. 59 - STA. 42+36.17	36.12' RT.	610767.34, 419752.14

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.
TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD
STAGE 1B, 2A, 2B, 3, 4A & 4B -PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	2 HD	HWY. 59 - STA. 43+56.82	57.08' RT.	610787.98, 419994.16
PB2	3 HD	HWY. 59 - STA. 42+25.48	36.62' RT.	610767.52, 419745.53
PB3	2 HD	HWY. 59 - STA. 42+18.87	41.62' LT.	610689.05, 419742.69
PB4	2 HD	HWY. 59 - STA. 43+36.06	67.74' LT.	610668.61, 419861.01

* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

N

SCALE IN FEET
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DATE: 04/10/2025 FILE NAME: t040714_p04a_MOT1b2a.dgn

STAGES 1B & 2A

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

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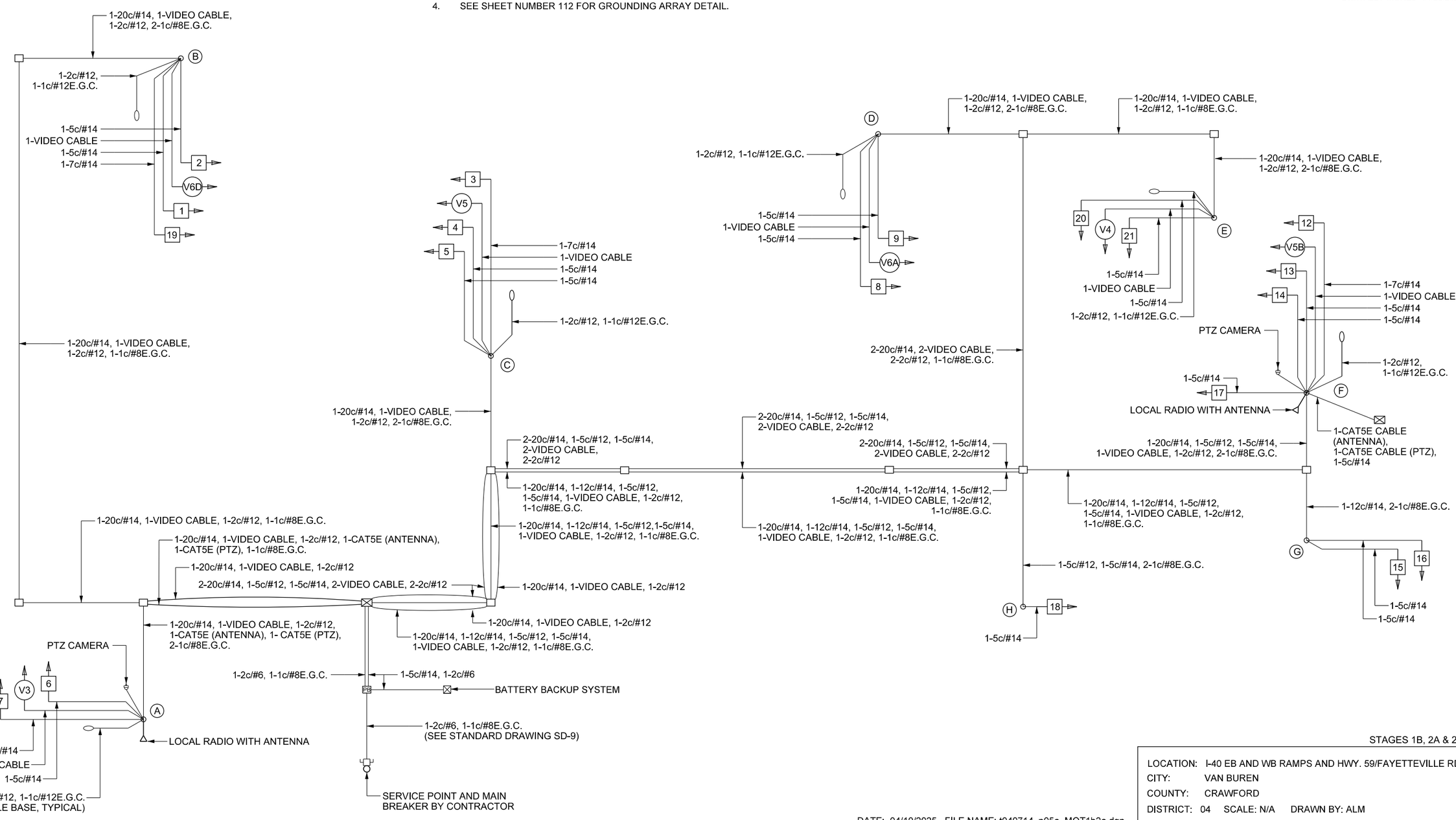
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	130	248
		SIGNALIZATION PLAN SHEET				

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STAGES 1B, 2A & 2B
WIRING DIAGRAM

NOTES TO CONTRACTOR:
1. ONE SEPARATE 1-5c/#12 IS RUN TO EACH POLE FOR THE ACCESSIBLE PEDESTRIAN PUSH BUTTON(S).
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
4. SEE SHEET NUMBER 112 FOR GROUNDING ARRAY DETAIL.



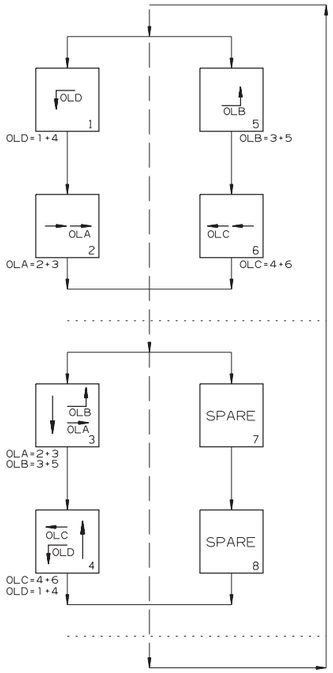
STAGES 1B, 2A & 2B

LOCATION: I-40 EB AND WB RAMPS AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 04/10/2025 FILE NAME: t040714_p05a_MOT1b2a.dgn

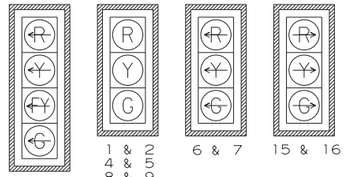
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REVISED DATE:

STAGES 1B, 2A & 2B PHASING DIAGRAM



STAGES 1B, 2A, & 2B SIGNAL FACES

12" LENSES



3, 12, & 19 | 1 & 2, 4 & 5, 8 & 9, 13 & 14, 20 & 21 | 6 & 7 | 15 & 16

ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. SIGNAL HEADS 20 AND 21 ARE TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY
5. PEDESTRIAN SIGNAL HEADS 17 & 18 SHALL REMAIN BAGGED
6. SIGNAL HEADS 15 & 16 SHALL REMAIN BAGGED

NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B, 2A & 2B - DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JO3 040714											
I-40 RAMPS AND HWY 59/FAYETTEVILLE RD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz21 A&B	NB ADVANCE (EB RAMP)	LOCAL			5	V2	2			CAMERA V5	74"
Vz22 A&B	NB NEAR (EB RAMP)	COMB.			6	V10	2	2		CAMERA V5	74"
Vz31	EB LT TURN FAR (EB RAMP)	COMB.			9	V11	3	3		CAMERA V3	37"
Vz32	EB LT TURN (EB RAMP)	LOCAL			10	V3	3			CAMERA V3	37"
Vz41 A&B	WB ADVANCE (WB RAMP)	COMB.			13	V15	4	7		CAMERA V4	37"
Vz42 A&B	WB NEAR (WB RAMP)	LOCAL			14	V7	4			CAMERA V4	37"
Vz61 A&B	SB ADVANCE (WB RAMP)	LOCAL			3	V6	6			CAMERA V6A	74"
Vz62 A&B	SB NEAR (WB RAMP)	COMB.			4	V14	6	6		CAMERA V6A	74"
VzOLA1 A&B	NB ADVANCE (WB RAMP)	LOCAL			21	V8	OLA			CAMERA V5B	74"
VzOLA2 A&B	NB NEAR (WB RAMP)	COMB.			22	V16	OLA	8		CAMERA V5B	74"
VzOLB1	NB LT TURN FAR (WB RAMP)	COMB.			23	V9	OLB	1		CAMERA V5B	74"
VzOLB2	NB LT TURN (WB RAMP)	LOCAL			24	V1	OLB			CAMERA V5B	74"
VzOLC1 A&B	SB ADVANCE (EB RAMP)	LOCAL			19	P1	OLC			CAMERA V6D	74"
VzOLC2 A&B	SB NEAR (EB RAMP)	COMB.			20	P3	OLC			CAMERA V6D	74"
VzOLD1	SB LT TURN FAR (EB RAMP)	COMB.			1	V9	OLD	1		CAMERA V6D	74"
VzOLD2	SB LT TURN (EB RAMP)	LOCAL			2	V1	OLD			CAMERA V6D	74"
					SPARE: 7, 8, 11, 12, 15, 16, 17 & 18						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGES 1B, 2A & 2B - INTERVAL CHART

SIGNAL FACES	I-40 RAMPS AND HWY 59/FAYETTEVILLE RD													FLASH SEQUENCE
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.		
1 & 2	R	R	G	**	R	R	G	**	R	R	G	Y		R
4 & 5	R	R	R	R	G	**	G	**	R	R	R	R		R
6 & 7	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~		~~R~~
8 & 9	R	R	G	**	R	R	G	**	R	R	R	R		R
12	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~G~~	~~Y~~	~~R~~	~~R~~		~~R~~
13 & 14	R	R	R	R	G	**	G	**	G	Y	R	R		R
19	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
20 & 21	R	R	R	R	R	R	R	R	R	R	G	Y		R

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	131	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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NICCI D. TINER

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STAGES 1B, 2A & 2B

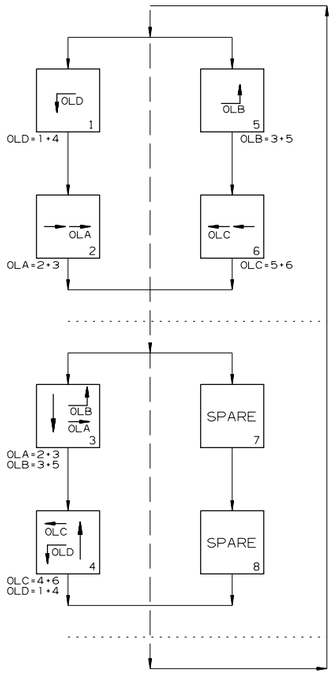
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		SIGNALIZATION PLAN SHEET				

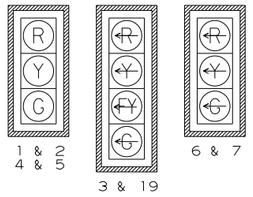
STAGES 1B, 2A & 2B PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B, 2A, 2B, 3, & 4A SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 19 IS TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
4. SIGNAL HEAD 3 SHALL REMAIN BAGGED.

STAGES 1B, 2A, 2B, 4A & 4B - DETECTOR SPACING CHART

I-40 ACCESS ROAD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

NOTES TO CONTRACTOR:
1. V3, V5, AND V6D ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLC 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01a_MOT2b.dgn

STAGE 2B

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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REVISED DATE:

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	133	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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DIGITALLY SIGNED 03/18/2025

STREET NAME SIGN (TYPICAL)
35+00
HWY 59/FAYETTEVILLE ROAD
50 FT.
38 FT.
52 FT.
Ø2
Ø3
Vz21A
Vz21B
Vz22A
-COMB.
Vz22B
Vz31 COMB.
Vz32
I-40 ACCESS ROAD
VzOLC2B
COMB.
VzOLC2A
OLC
VzOLC1B
VzOLC1A
VzOLD2
VzOLD1 COMB.
OLD
EXISTING ROW
EXISTING ROW
280+00
STAGE 2B

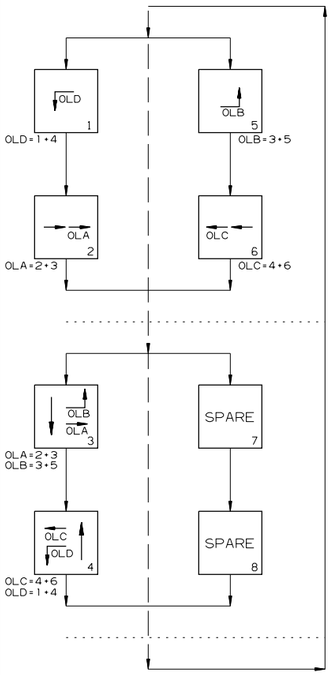
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	134	248
		SIGNALIZATION PLAN SHEET				

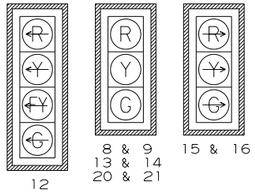
STAGES 1B, 2A & 2B PHASING DIAGRAM



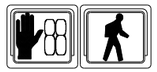
NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B, 2A & 2B SIGNAL FACES

12" LENSES



ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. SIGNAL HEADS 20 AND 21 ARE TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
5. PEDESTRIAN SIGNAL HEADS 17 & 18 SHALL BE BAGGED.
6. SIGNAL HEADS 15 & 16 SHALL BE BAGGED.
7. UPON COMPLETION OF STAGE 2B, SIGNAL HEADS 15 & 16 SHALL BE ACTIVATED AND SIGNAL HEADS 10 & 11 SHALL REPLACE SIGNAL HEADS 20 & 21. SEE FINAL PLANS FOR SIGNAL FACES.

STAGES 1B, 2A, 2B, 3, 4A & 4B - DETECTOR SPACING CHART

I-40 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
50 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230' *	100'

* NB FAR VIDEO ZONE LOCATIONS SHALL BE ADJUSTED DUE TO LIMITED VISION.

NOTES TO CONTRACTOR:
1. V4, V5B, AND V6A ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLA 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

STATE OF ARKANSAS
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SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a_MOT2b.dgn

STAGE 2B

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:02:54 PM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_p03a_MOT2b.dgn
REVISED DATE:

DESIGN PARAMETERS

POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	135	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

I-40 WB RAMP
EXISTING ROW
30 FT.
E
D
26 FT.
HWY 59/FAYETTEVILLE ROAD
OLB1
COMB.
OLB
OLB2
OLA1A
OLA1B
OLA
OLA2A
COMB.
OLA2B
Vz62B
COMB.
Vz62A
Ø6
Vz61B
Vz61A
12
V5B
13
60 FT.
14
HWY 59/FAYETTEVILLE ROAD
18
H
15
16
40 FT.
17
F
G
Vz42A
Vz42B
Ø4
Vz41A
COMB.
Vz41B
I-40 WB RAMP
EXISTING ROW

STAGE 2B

SCALE IN FEET
0 20 40 80

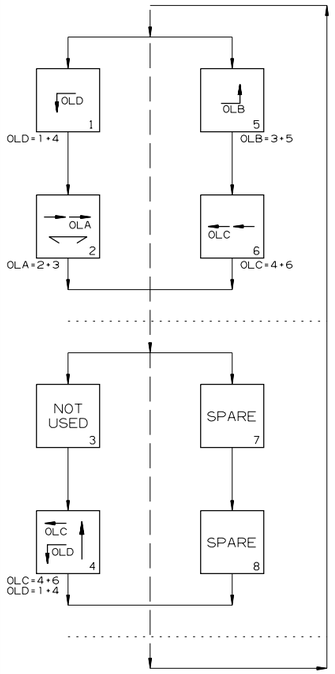
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LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	136	248
		SIGNALIZATION PLAN SHEET				

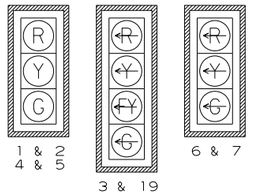
STAGE 3 PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B, 2A, 2B, 3, & 4A SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 19 IS TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
4. SIGNAL HEAD 3 SHALL BE BAGGED.
5. SIGNAL HEADS 6 AND 7 SHALL BE BAGGED.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

NOTES TO CONTRACTOR:
1. V3, V5, AND V6D ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLC 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

STAGE 3 - DETECTOR SPACING CHART

HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01a_MOT3.dgn

STAGE 3

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:02:56 PM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_p01a_MOT3.dgn
REVISED DATE:

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	137	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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I-40 ACCESS ROAD

80+00

35+00

HWY 59/FAYETTEVILLE ROAD

90 FT.

38 FT.

52 FT.

Ø2

Vz21A

Vz21B

Vz22A

COMB.

Vz22B

VzOLC2B

COMB.

VzOLC2A

OLC

VzOLC1B

VzOLC1A

VzOLD2

OLD

VzOLD1 COMB.

HWY 59/FAYETTEVILLE ROAD

EXISTING ROW

EXISTING ROW

280+00

STAGE 3

SCALE IN FEET
0 20 40 80

DATE: 03/10/2025 FILE NAME: t040714_p02a_MOT3.dgn

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

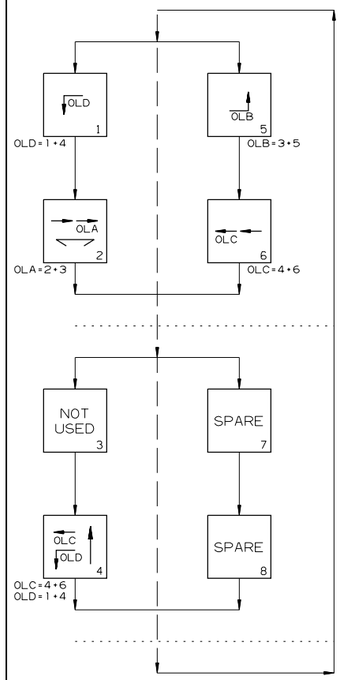
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	138	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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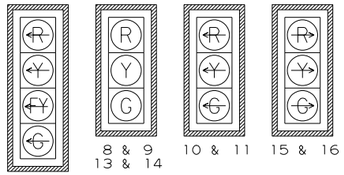
DIGITALLY SIGNED 04/11/2025

STAGE 3 PHASING DIAGRAM



STAGES 3, 4A & 4B SIGNAL FACES

12" LENSES



ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.
5. SIGNAL FACES 15 AND 16 SHALL HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

NOTES TO CONTRACTOR:
1. V4, V5B, AND V6A ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLA 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

STAGES 1B, 2A, 2B, 3, 4A & 4B - DETECTOR SPACING CHART

I-40 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
50 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230' *	100'

* NB FAR VIDEO ZONE LOCATIONS SHALL BE ADJUSTED DUE TO LIMITED VISION.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a_MOT3.dgn

STAGE 3

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:03:21 PM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_p03a_MOT3.dgn
REVISED DATE:

DESIGN PARAMETERS

POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	139	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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DIGITALLY SIGNED 03/18/2025

I-40 WB RAMP
EXISTING ROW
30 FT.
E
D
26 FT.
40+00
HWY 59/FAYETTEVILLE ROAD
OLB1
COMB.
OLB
OLB2
OLA1A
OLA
OLA2A
COMB.
OLA1B
OLA2B
3" DIA. NMC
45+00
Ø6
Vz62B
COMB.
Vz62A
46+00
Vz61B
Vz61A
HWY 59/FAYETTEVILLE ROAD
60 FT.
R10-5a
40 FT.
H
G
F
280+00
Vz42A
Vz42B
Vz44A
Vz44B
Ø4
Vz41A
COMB.
Vz41B
Vz43A
COMB.
Vz43B
I-40 WB RAMP
ONLY
EXISTING ROW
N
SCALE IN FEET
0 20 40 80
DATE: 03/10/2025 FILE NAME: t040714_p04a_MOT3.dgn
STAGE 3
LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

JATurner
WORKSPACE: AHTD
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3/18/2025 11:24:02 AM
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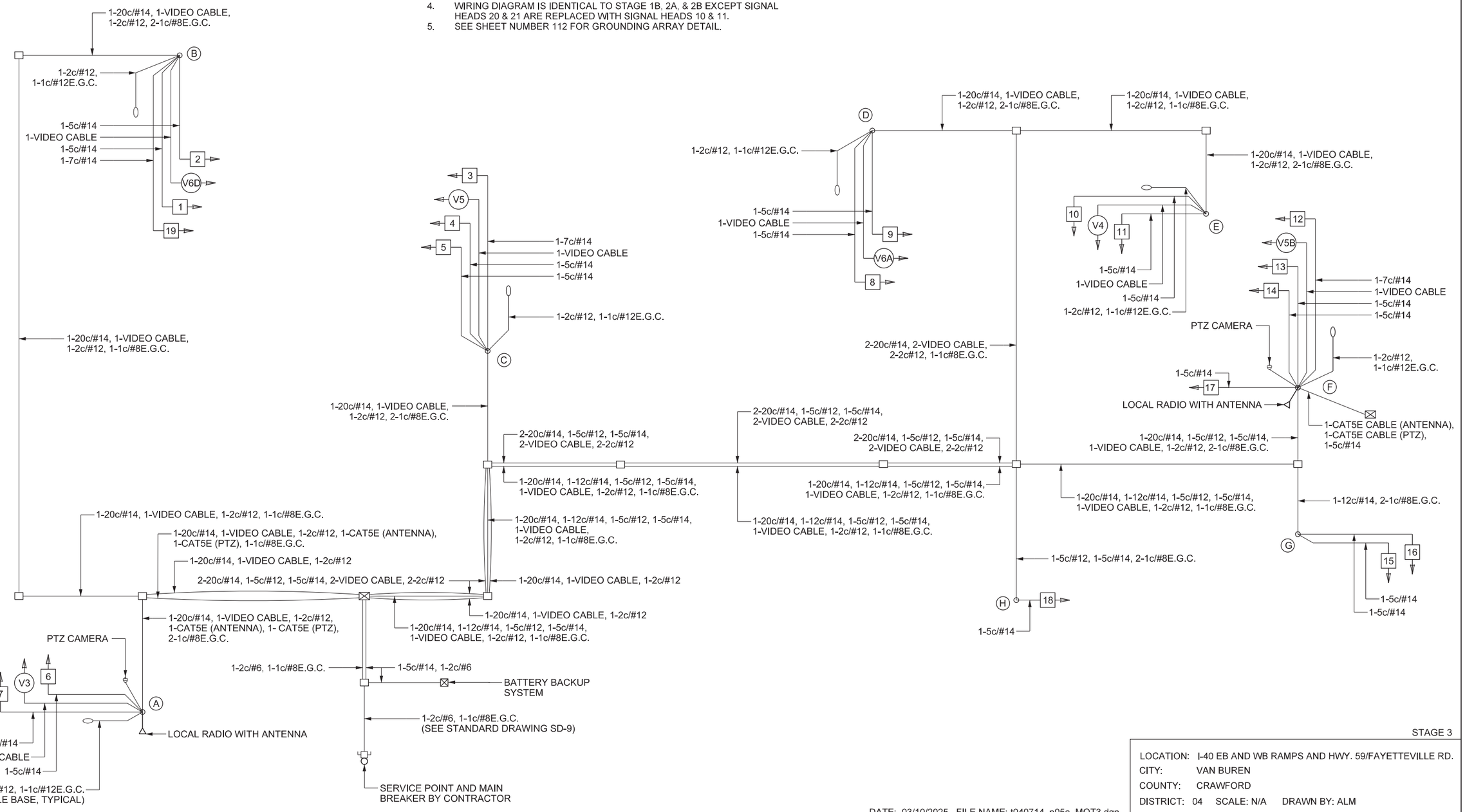
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	140	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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STAGE 3
WIRING DIAGRAM

NOTES TO CONTRACTOR:
1. ONE SEPARATE 1-5c/#12 IS RUN TO EACH POLE FOR THE ACCESSIBLE PEDESTRIAN PUSH BUTTON(S).
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
4. WIRING DIAGRAM IS IDENTICAL TO STAGE 1B, 2A, & 2B EXCEPT SIGNAL HEADS 20 & 21 ARE REPLACED WITH SIGNAL HEADS 10 & 11.
5. SEE SHEET NUMBER 112 FOR GROUNDING ARRAY DETAIL.



STAGE 3

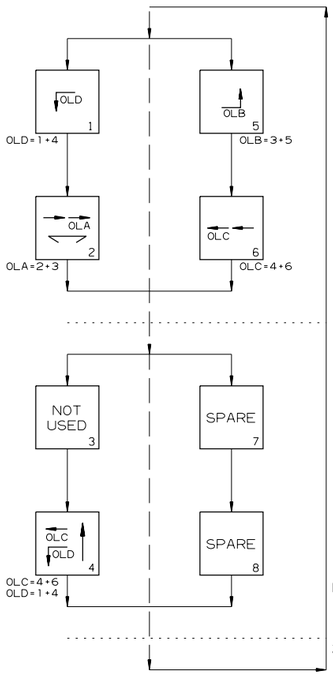
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 03/10/2025 FILE NAME: t040714_p05a_MOT3.dgn

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REVISED DATE:

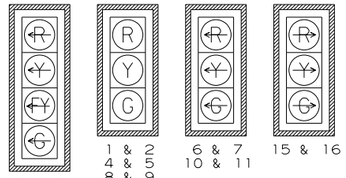
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	141	248
		SIGNALIZATION PLAN SHEET				

STAGE 3 PHASING DIAGRAM



STAGES 3 & 4A SIGNAL FACES

12" LENSES



ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.
5. SIGNAL HEAD 19 IS TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
6. SIGNAL HEAD 3 SHALL REMAIN BAGGED DURING STAGES 1B-3.
7. SIGNAL HEADS 6 & 7 SHALL REMAIN BAGGED DURING STAGE 3.
8. SIGNAL FACES 15 AND 16 SHALL HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGE 3 - DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040714											
I-40 RAMPS AND HWY 59/FAYETTEVILLE RD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz21 A&B	NB ADVANCE (EB RAMP)	LOCAL			5	V2	2			CAMERA V5	74"
Vz22 A&B	NB NEAR (EB RAMP)	COMB.			6	V10	2	2		CAMERA V5	74"
Vz41 A&B	WB LT TURN FAR (WB RAMP)	COMB.			13	V15	4	7		CAMERA V4	37"
Vz42 A&B	WB LT TURN (WB RAMP)	LOCAL			14	V7	4			CAMERA V4	37"
Vz43 A&B	WB RT TURN FAR (WB RAMP)	COMB.			15	V12	4	4		CAMERA V4	37"
Vz44 A&B	WB RT TURN (WB RAMP)	LOCAL			16	V4	4			CAMERA V4	37"
Vz61 A&B	SB ADVANCE (WB RAMP)	LOCAL			3	V6	6			CAMERA V6A	74"
Vz62 A&B	SB NEAR (WB RAMP)	COMB.			4	V14	6	6		CAMERA V6A	74"
VzOLA1 A&B	NB ADVANCE (WB RAMP)	LOCAL			21	V8	OLA			CAMERA V5B	74"
VzOLA2 A&B	NB NEAR (WB RAMP)	COMB.			22	V16	OLA	8		CAMERA V5B	74"
VzOLB1	NB LT TURN FAR (WB RAMP)	COMB.			23	V9	OLB	1		CAMERA V5B	74"
VzOLB2	NB LT TURN (WB RAMP)	LOCAL			24	V1	OLB			CAMERA V5B	74"
VzOLC1 A&B	SB ADVANCE (EB RAMP)	LOCAL			19	P1	OLC			CAMERA V6D	74"
VzOLC2 A&B	SB NEAR (EB RAMP)	COMB.			20	P3	OLC			CAMERA V6D	74"
VzOLD1	SB LT TURN FAR (EB RAMP)	COMB.			1	V9	OLD	1		CAMERA V6D	74"
VzOLD2	SB LT TURN (EB RAMP)	LOCAL			2	V1	OLD			CAMERA V6D	74"
PB2 A&B	(I-40 WB RAMP) E. LEG	PED.				P2	2				
					SPARE: 7, 8, 9, 10, 11, 12, 17, & 18						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION. THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE. EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

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STAGE 3 - INTERVAL CHART

	I-40 RAMPS AND HWY 59/FAYETTEVILLE RD											FLASH
SIGNAL FACES	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	4	CLR.		SEQUENCE
1 & 2	R	R	G	**	R	R	G	**	G	Y		R
4 & 5	R	R	R	R	G	**	G	**	R	R		R
8 & 9	R	R	G	**	R	R	G	**	R	R		R
10 & 11	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
12	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~R~~	~~R~~		~~R~~
13 & 14	R	R	R	R	G	**	G	**	R	R		R
15 & 16	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
17 & 18	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW		BLK
19	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~G~~	*		~~R~~

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

STAGE 3

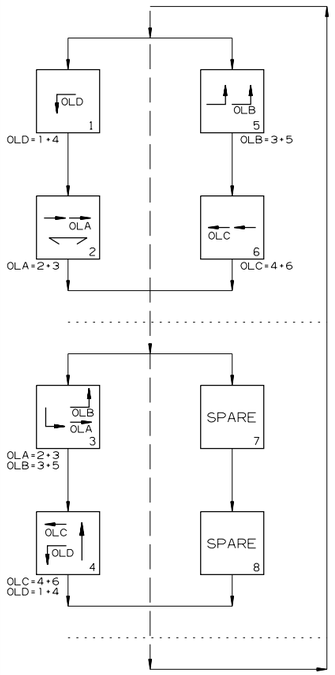
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 04/10/2025 FILE NAME: t040714_p06a_MOT3.dgn

HBVinson 4/10/2025 3:03:25 PM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	142	248
		SIGNALIZATION PLAN SHEET				

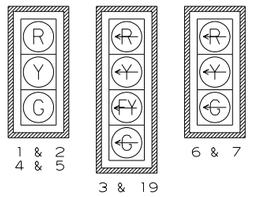
STAGE 4A PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 1B, 2A, 2B, 3, & 4A SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 19 IS TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
4. UPON OPENING OF ACCESS ROAD TEMPORARY SIGNAL AT SERVICE ROAD SHALL BE REMOVED.
5. FOR WIRING DIAGRAM, SEE STAGE 3.

STAGES 1B, 2A, 2B, 4A & 4B - DETECTOR SPACING CHART

I-40 ACCESS ROAD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

NOTES TO CONTRACTOR:
1. V3, V5, AND V6D ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLC 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01a_MOT4a.dgn

STAGE 4A

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 04/11/2025

HBVinson 4/10/2025 3:03:30 PM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_p01a_MOT4a.dgn
REVISED DATE:

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	143	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

I-40 ACCESS ROAD
Vz31B COMB. Vz31A
Ø3
YIELD
130 + 00
Vz32B
Vz32A
B
35+00
HWY 59/FAYETTEVILLE ROAD
50 FT.
2
V6D
1
19
Ø5
Vz52
Vz51 COMB.
Ø2
Vz21A
Vz21B
Vz22A
COMB.
Vz22B
VzOLC2B
COMB.
VzOLC2A
OLC
VzOLC1B
VzOLC1A
40+00
VzOLD2
3
V5
4
5
38 FT.
6
OLD
VzOLD1 COMB.
HWY 59/FAYETTEVILLE ROAD
V3
7
6
52 FT.
A
C
EXISTING ROW
EXISTING ROW
280+00

STAGE 4A

N

SCALE IN FEET
0 20 40 80

DATE: 03/10/2025 FILE NAME: t040714_p02a_MOT4a.dgn

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

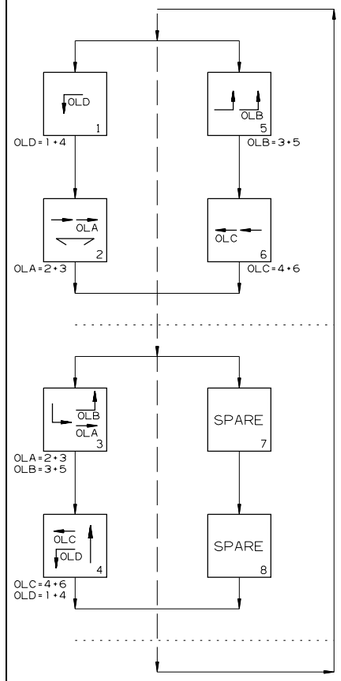
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	144	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

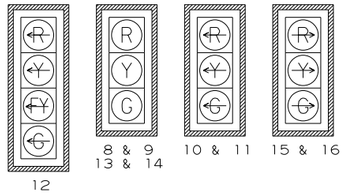
STAGE 4A PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGES 3, 4A & 4B SIGNAL FACES

12" LENSES



ONE SECTION (SOLID SYMBOL)



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACEDINTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.
5. SIGNAL FACES 15 AND 16 SHALL BE HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.
6. FOR WIRING DIAGRAM, SEE STAGE 3.

STAGES 1B, 2A, 2B, 3, 4A & 4B - DETECTOR SPACING CHART

I-40 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
50 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230' *	100'

* NB FAR VIDEO ZONE LOCATIONS SHALL BE ADJUSTED DUE TO LIMITED VISION.

NOTES TO CONTRACTOR:
1. V4, V5B, AND V6A ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLA 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a_MOT4a.dgn

STAGE 4A

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	145	248
		SIGNALIZATION PLAN SHEET				

DESIGN PARAMETERS

POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

I-40 WB RAMP
EXISTING ROW
30 FT.
26 FT.
60 FT.
40 FT.
R10-5a
2-3" DIA. NMC
HWY 59/FAYETTEVILLE ROAD
40+00
45+00
46+00
280+00
Ø6
Ø4
OLA1A
OLA1B
OLA
OLA2A
OLA2B
COMB.
OLB1
OLB
OLB2
Vz62B
Vz62A
Vz61B
Vz61A
Vz41A
Vz41B
Vz42A
Vz42B
Vz43A
Vz43B
Vz44A
Vz44B
ONLY
STAGE 4A

SCALE IN FEET
0 20 40 80
N

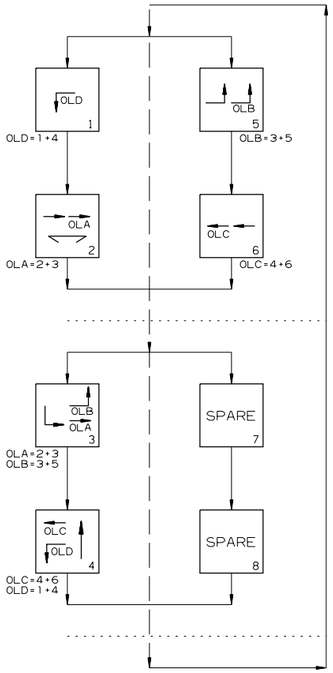
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LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

JATurner
WORKSPACE: AHTD
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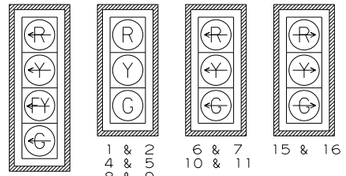
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	146	248
		SIGNALIZATION PLAN SHEET				

STAGE 4A PHASING DIAGRAM



STAGES 3 & 4A SIGNAL FACES

12" LENSES



ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 19 IS TEMPORARY AND SHALL BE USED FOR STAGE CONSTRUCTION ONLY.
4. SIGNAL FACES 15 AND 16 SHALL HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.
3. PHASE OLD FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLC TO AVOID YELLOW TRAP.

STAGE 4A - DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040714											
I-40 RAMPS AND HWY 59/FAYETTEVILLE RD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz21 A&B	NB ADVANCE (EB RAMP)	LOCAL			5	V2	2			CAMERA V5	74"
Vz22 A&B	NB NEAR (EB RAMP)	COMB.			6	V10	2	2		CAMERA V5	74"
Vz41 A&B	WB LT TURN FAR (WB RAMP)	COMB.			13	V15	4	7		CAMERA V4	37"
Vz42 A&B	WB LT TURN (WB RAMP)	LOCAL			14	V7	4			CAMERA V4	37"
Vz43 A&B	WB RT TURN FAR (WB RAMP)	COMB.			15	V12	4	4		CAMERA V4	37"
Vz44 A&B	WB RT TURN (WB RAMP)	LOCAL			16	V4	4			CAMERA V4	37"
Vz51	NB LT TURN FAR (EB RAMP)	COMB.			7	V13	5	5		CAMERA V5	74"
Vz52	NB LT TURN (EB RAMP)	LOCAL			8	V5	5			CAMERA V5	74"
Vz61 A&B	SB ADVANCE (WB RAMP)	LOCAL			3	V6	6			CAMERA V6A	74"
Vz62 A&B	SB NEAR (WB RAMP)	COMB.			4	V14	6	6		CAMERA V6A	74"
VzOLA1 A&B	NB ADVANCE (WB RAMP)	LOCAL			21	V8	OLA			CAMERA V5B	74"
VzOLA2 A&B	NB NEAR (WB RAMP)	COMB.			22	V16	OLA	8		CAMERA V5B	74"
VzOLB1	NB LT TURN FAR (WB RAMP)	COMB.			23	V9	OLB	1		CAMERA V5B	74"
VzOLB2	NB LT TURN (WB RAMP)	LOCAL			24	V1	OLB			CAMERA V5B	74"
VzOLC1 A&B	SB ADVANCE (EB RAMP)	LOCAL			19	P1	OLC			CAMERA V6D	74"
VzOLC2 A&B	SB NEAR (EB RAMP)	COMB.			20	P3	OLC			CAMERA V6D	74"
VzOLD1	SB LT TURN FAR (EB RAMP)	COMB.			1	V9	OLD	1		CAMERA V6D	74"
VzOLD2	SB LT TURN (EB RAMP)	LOCAL			2	V1	OLD			CAMERA V6D	74"
PB2 A&B	(I-40 WB RAMP) E. LEG	PED.				P2	2				
					SPARE: 9, 10, 11, 12, 17, & 18						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGE 4A - INTERVAL CHART

SIGNAL FACES	I-40 RAMPS AND HWY 59/FAYETTEVILLE RD											FLASH SEQUENCE
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.	
1 & 2	R	R	G	**	R	R	G	**	R	R	G	Y	R
3	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
4 & 5	R	R	R	R	G	**	G	**	R	R	R	R	R
6 & 7	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~
8 & 9	R	R	G	**	R	R	G	**	R	R	R	R	R
10 & 11	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
12	~~G~~	*	~~FY~~	***	~~G~~	*	~~FY~~	***	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~
13 & 14	R	R	R	R	G	**	G	**	G	Y	R	R	R
15 & 16	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
17 & 18	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW	BLK	BLK	BLK
19	~~G~~	*	~~G~~	*	~~FY~~	***	~~FY~~	***	~~R~~	~~R~~	~~G~~	*	~~R~~

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

STAGE 4A

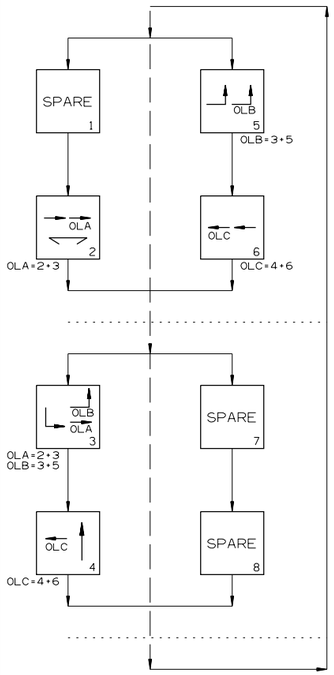
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 04/10/2025 FILE NAME: t040714_p06a_MOT4a.dgn

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		SIGNALIZATION PLAN SHEET				

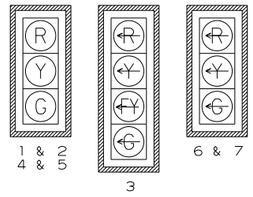
STAGE 4B PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.

STAGE 4B SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

NOTES TO CONTRACTOR:
1. V3, V5, AND V6D ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLC 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

STAGES 1B, 2A, 2B, 4A & 4B - DETECTOR SPACING CHART

I-40 ACCESS ROAD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

STAGE 4B

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

DATE: 04/10/2025 FILE NAME: t040714_p01a_MOT4b.dgn

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REVISED DATE:

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	148	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

I-40 ACCESS ROAD
130+00
YIELD
Vz31B
COMB.
Vz31A
Ø3
Vz32B
Vz32A
35+00
HWY 59/FAYETTEVILLE ROAD
50 FT.
Vz51
COMB.
Vz52
Ø5
Vz21A
Vz21B
Ø2
Vz22A
COMB.
Vz22B
38 FT.
52 FT.
VzOLC2B
COMB.
VzOLC2A
OLC
VzOLC1B
VzOLC1A
HWY 59/FAYETTEVILLE ROAD
280+00
EXISTING ROW
EXISTING ROW
STAGE 4B

SCALE IN FEET
0 20 40 80

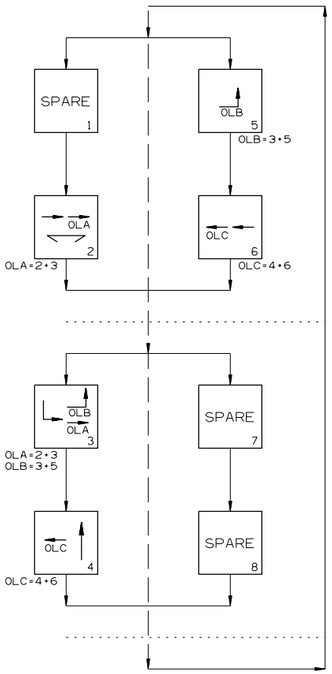
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	149	248
		SIGNALIZATION PLAN SHEET				

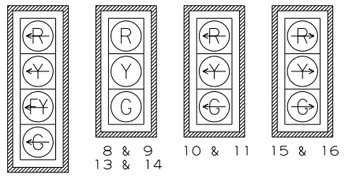
STAGE 4B PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.

STAGES 3, 4A & 4B SIGNAL FACES

12" LENSES



12 | 8 & 9, 13 & 14 | 10 & 11 | 15 & 16

ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACEDINTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.
5. SIGNAL FACES 15 AND 16 SHALL BE HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

STAGES 1B, 2A, 2B, 3, 4A & 4B - DETECTOR SPACING CHART

I-40 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
50 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230' *	100'

* NB FAR VIDEO ZONE LOCATIONS SHALL BE ADJUSTED DUE TO LIMITED VISION.

NOTES TO CONTRACTOR:
1. V4, V5B, AND V6A ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLA 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

STATE OF ARKANSAS
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SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a_MOT4b.dgn

STAGE 4B

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson 4/10/2025 3:03:46 PM
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REVISED DATE:

DESIGN PARAMETERS

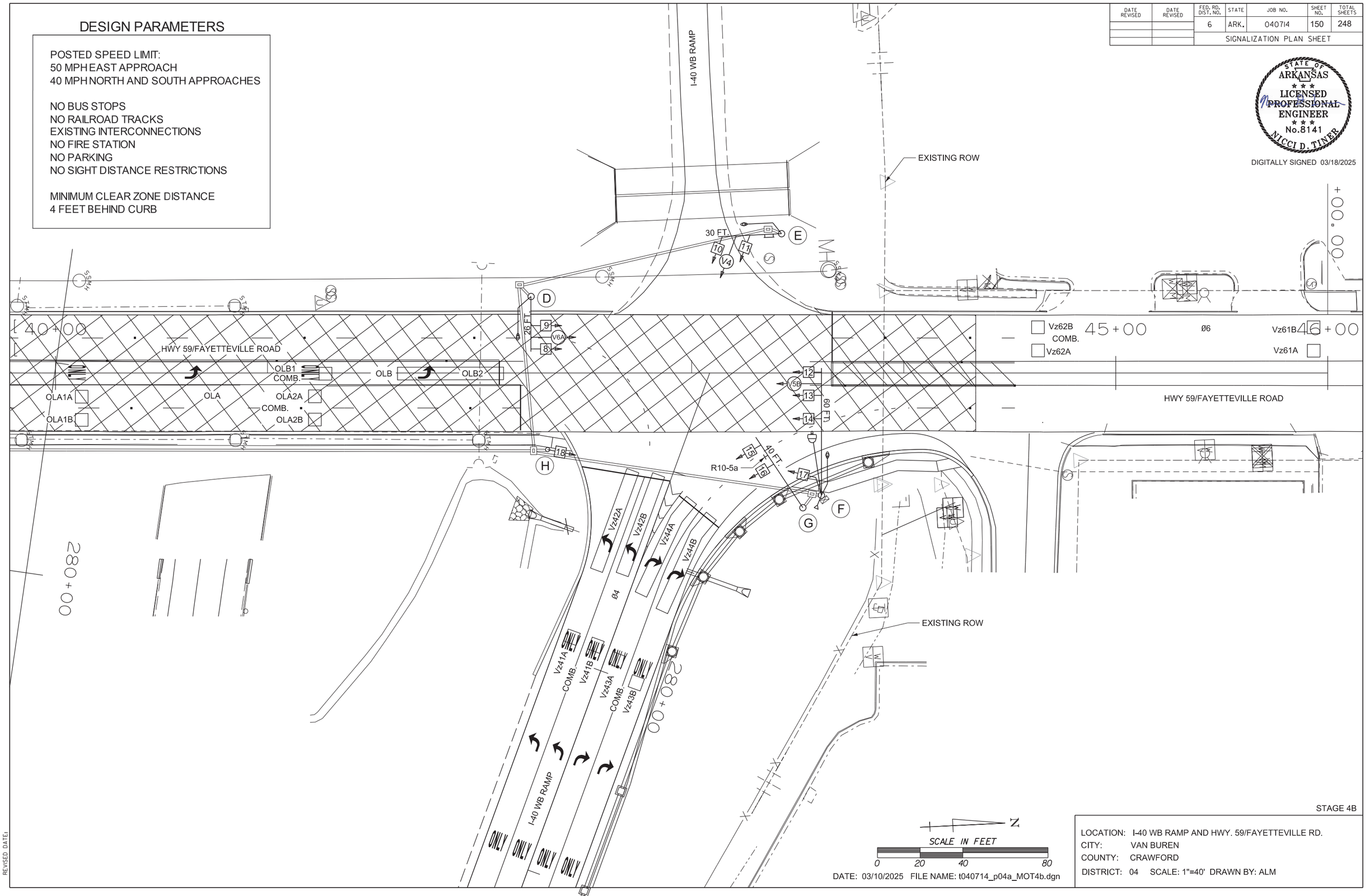
POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	150	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

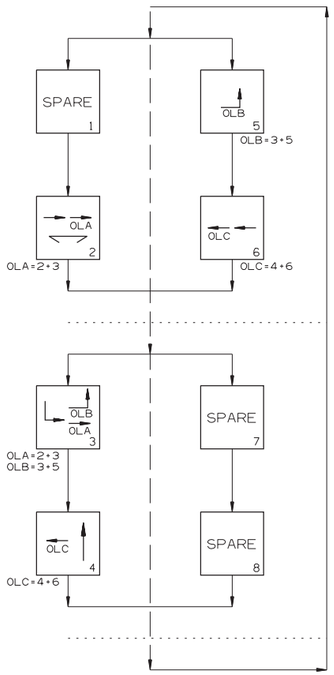


LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

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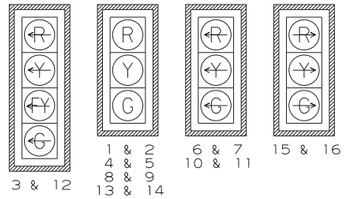
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	151	248
		SIGNALIZATION PLAN SHEET				

STAGE 4B PHASING DIAGRAM



STAGE 4B SIGNAL FACES

12" LENSES



ONE SECTION
(SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEET A.D.A.S. STANDARDS.
5. SIGNAL FACES 15 AND 16 SHALL HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.

STAGE 4B - DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040714											
I-40 RAMPS AND HWY 59/FAYETTEVILLE RD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPP_IER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	DETECTOR NUMBERS		
Vz21 A&B	NB ADVANCE (EB RAMP)	LOCAL			5	V2	2			CAMERA V5	74"
Vz22 A&B	NB NEAR (EB RAMP)	COMB.			6	V10	2	2		CAMERA V5	74"
Vz31 A&B	EB LT TURN FAR (EB RAMP)	COMB.			9	V11	3	3		CAMERA V3	37"
Vz32 A&B	EB LT TURN (EB RAMP)	LOCAL			10	V3	3			CAMERA V3	37"
Vz41 A&B	WB LT TURN FAR (WB RAMP)	COMB.			13	V15	4	7		CAMERA V4	37"
Vz42 A&B	WB LT TURN (WB RAMP)	LOCAL			14	V7	4			CAMERA V4	37"
Vz43 A&B	WB RT TURN FAR (WB RAMP)	COMB.			15	V12	4	4		CAMERA V4	37"
Vz44 A&B	WB RT TURN (WB RAMP)	LOCAL			16	V4	4			CAMERA V4	37"
Vz51	NB LT TURN FAR (EB RAMP)	COMB.			7	V13	5	5		CAMERA V5	74"
Vz52	NB LT TURN (EB RAMP)	LOCAL			8	V5	5			CAMERA V5	74"
Vz61 A&B	SB ADVANCE (WB RAMP)	LOCAL			3	V6	6			CAMERA V6A	74"
Vz62 A&B	SB NEAR (WB RAMP)	COMB.			4	V14	6	6		CAMERA V6A	74"
VzOLA1 A&B	NB ADVANCE (WB RAMP)	LOCAL			21	V8	OLA			CAMERA V5B	74"
VzOLA2 A&B	NB NEAR (WB RAMP)	COMB.			22	V16	OLA	8		CAMERA V5B	74"
VzOLB1	NB LT TURN FAR (WB RAMP)	COMB.			23	V9	OLB	1		CAMERA V5B	74"
VzOLB2	NB LT TURN (WB RAMP)	LOCAL			24	V1	OLB			CAMERA V5B	74"
VzOLC1 A&B	SB ADVANCE (EB RAMP)	LOCAL			19	P1	OLC			CAMERA V6D	74"
VzOLC2 A&B	SB NEAR (EB RAMP)	COMB.			20	P3	OLC			CAMERA V6D	74"
PB2 A&B	(I-40 WB RAMP) E. LEG	PED.				P2	2				
					SPARE: 1, 2, 11, 12, 17, & 18						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

STAGE 4B - INTERVAL CHART

SIGNAL FACES	I-40 RAMPS AND HWY 59/FAYETTEVILLE RD									FLASH SEQUENCE
	2+5	CLR	2+6	CLR.	3	CLR.	4	CLR.		
1 & 2	R	R	G	**	R	R	G	Y		R
3	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~		~~R~~
4 & 5	G	**	G	**	R	R	R	R		R
6 & 7	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~		~~R~~
8 & 9	R	R	G	Y	R	R	R	R		R
10 & 11	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
12	~~G~~	*	~~FY~~	***	~~G~~	*	~~R~~	~~R~~		~~R~~
13 & 14	G	**	G	**	G	**	R	R		R
15 & 16	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~		~~R~~
17 & 18	W	FDW	W	FDW	DW	DW	DW	DW		BLK

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025

STAGE 4B

LOCATION: I-40 EB AND WB RAMPS AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

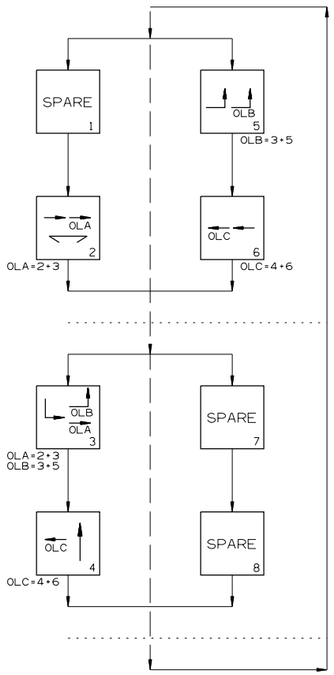
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	152	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 04/11/2025

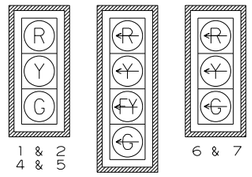
PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.

SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

DETECTOR SPACING CHART

I-40 ACCESS ROAD VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD. POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	52'	183°	270°	50'	15'	183°
B	50'***	93°	180°	35'	15'	93°
C	38'	272°	90°	35'	15'	272°

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.
*** EXTRA MAST ARM LENGTH REQUIRED FOR STAGE CONSTRUCTION.

NOTES TO CONTRACTOR:
1. V3, V5, AND V6D ARE VIDEO DETECTORS.
2. DETECTION ZONES VzOLC 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

N

SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p01a.dgn

FINAL

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ARM

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	153	248
		SIGNALIZATION PLAN SHEET				

I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 59 - STA. 37+32.80	57.38' RT.	610764.52, 419252.42
B	HWY. 59 - STA. 36+02.53	49.43' LT.	610651.56, 419127.44
C	HWY. 59 - STA. 37+80.13	35.46' RT.	610744.91, 419300.75

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

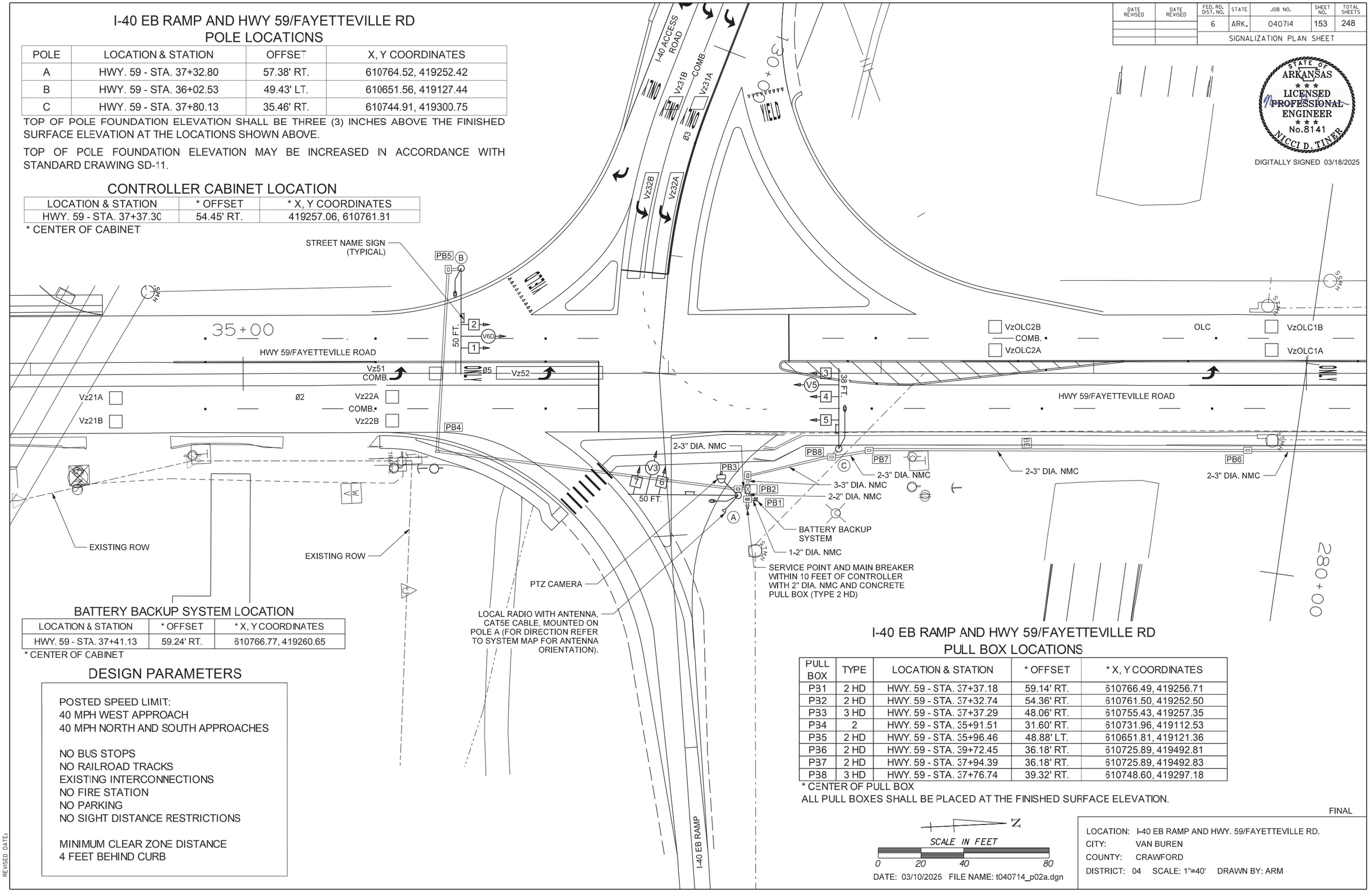
CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 59 - STA. 37+37.30	54.45' RT.	419257.06, 610761.31

* CENTER OF CABINET

STATE OF ARKANSAS
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BATTERY BACKUP SYSTEM LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 59 - STA. 37+41.13	59.24' RT.	610766.77, 419260.65

* CENTER OF CABINET

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH WEST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

I-40 EB RAMP AND HWY 59/FAYETTEVILLE RD
PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
P31	2 HD	HWY. 59 - STA. 37+37.18	59.14' RT.	610766.49, 419256.71
P32	2 HD	HWY. 59 - STA. 37+32.74	54.36' RT.	610761.50, 419252.50
P33	3 HD	HWY. 59 - STA. 37+37.29	48.06' RT.	610755.43, 419257.35
P34	2	HWY. 59 - STA. 35+91.51	31.60' RT.	610731.96, 419112.53
P35	2 HD	HWY. 59 - STA. 35+96.46	48.88' LT.	610651.81, 419121.36
P36	2 HD	HWY. 59 - STA. 39+72.45	36.18' RT.	610725.89, 419492.81
P37	2 HD	HWY. 59 - STA. 37+94.39	36.18' RT.	610725.89, 419492.83
P38	3 HD	HWY. 59 - STA. 37+76.74	39.32' RT.	610748.60, 419297.18

* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

FINAL

N
SCALE IN FEET
0 20 40 80

DATE: 03/10/2025 FILE NAME: t040714_p02a.dgn

LOCATION: I-40 EB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ARM

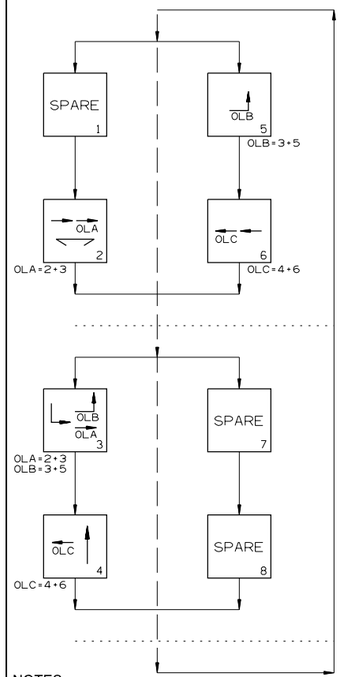
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	154	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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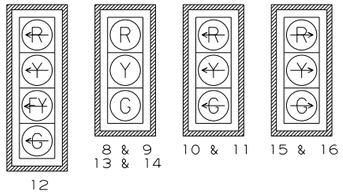
PHASING DIAGRAM



NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.

SIGNAL FACES

12" LENSES



12 | 8 & 9, 13 & 14 | 10 & 11 | 15 & 16

ONE SECTION (SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A.D.A.S. STANDARD.
5. SIGNAL FACES 15 AND 16 SHALL BE HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

NOTES TO CONTRACTOR:
1. V4, V5B, AND V6A ARE VIDEO DETECTORS.
2. CONTACT THE CITY OF VAN BUREN FOR ORIENTATION OF THE PTZ CAMERA AND LOCAL RADIO WITH ANTENNA.

DETECTOR SPACING CHART

I-40 WB RAMP		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
50 MPH	85'	N/A
HWY 59/FAYETTEVILLE RD. VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230' *	100'

* NB FAR VIDEO ZONE LOCATIONS SHALL BE ADJUSTED DUE TO LIMITED VISION.

NOTES:
1. DETECTION ZONES VzOLA 1A, 1B, 2A, AND 2B SHALL BE FIELD VERIFIED TO ENSURE NO OBSTRUCTION TO LINE OF SIGHT FROM THE VIDEO DETECTOR TO THE VIDEO ZONE.

I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD. POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
D	26'	94°	180°	35'	15'	94°
E	30'	180°	180°	35'	15'	180°
F	60'	272°	180°	50'	25'	272°
G	40'	239°	180°	21'	N/A	N/A
H	N/A	N/A	N/A	10'	N/A	N/A

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

FINAL

N
SCALE IN FEET
0 30 60 120

DATE: 04/10/2025 FILE NAME: t040714_p03a.dgn

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=60' DRAWN BY: ALM

HBVinson
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	155	248
		SIGNALIZATION PLAN SHEET				

I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD
POLE LOCATIONS

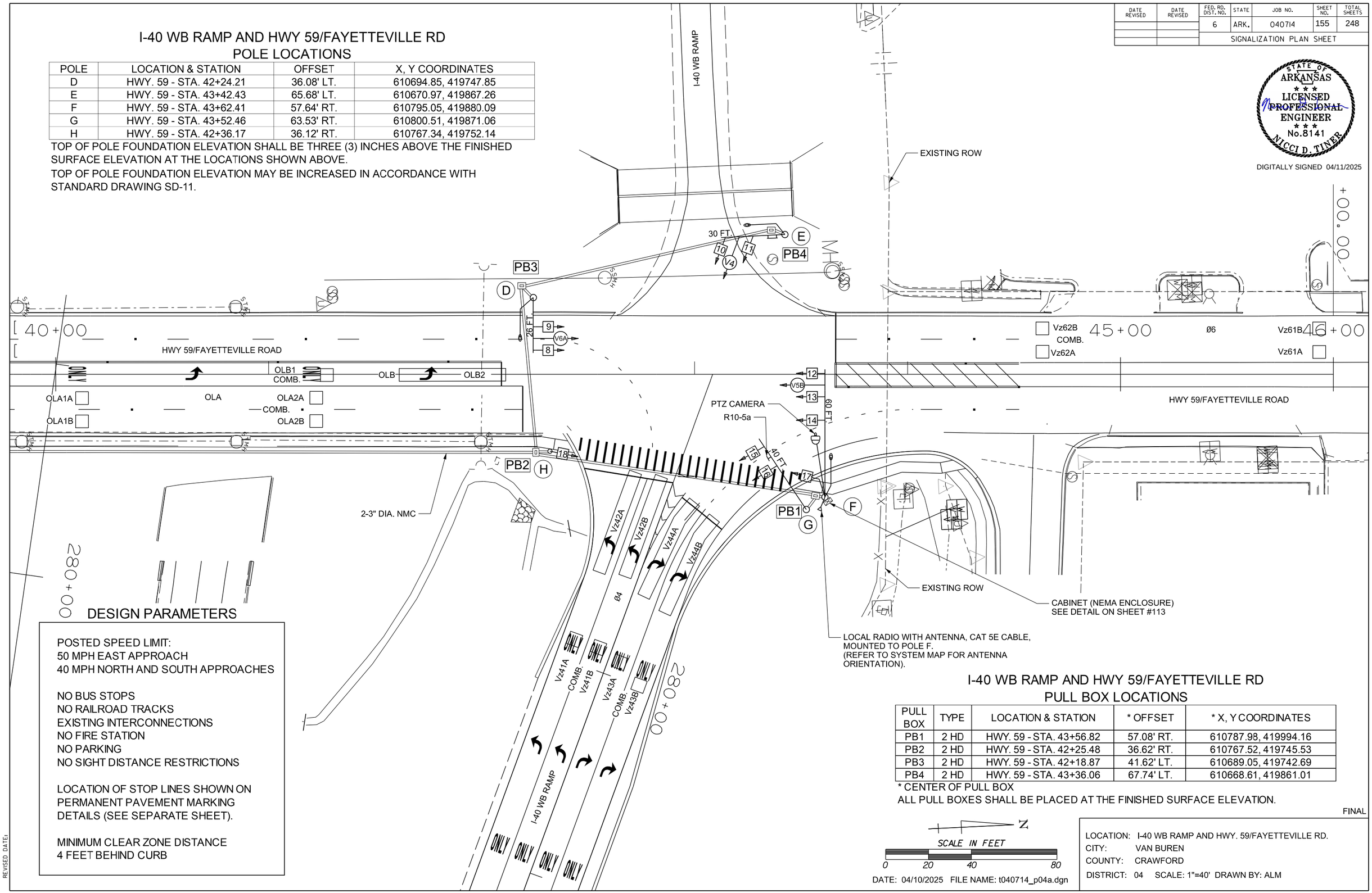
POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
D	HWY. 59 - STA. 42+24.21	36.08' LT.	610694.85, 419747.85
E	HWY. 59 - STA. 43+42.43	65.68' LT.	610670.97, 419867.26
F	HWY. 59 - STA. 43+62.41	57.64' RT.	610795.05, 419880.09
G	HWY. 59 - STA. 43+52.46	63.53' RT.	610800.51, 419871.06
H	HWY. 59 - STA. 42+36.17	36.12' RT.	610767.34, 419752.14

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025



DESIGN PARAMETERS

POSTED SPEED LIMIT:
50 MPH EAST APPROACH
40 MPH NORTH AND SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

I-40 WB RAMP AND HWY 59/FAYETTEVILLE RD
PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	2 HD	HWY. 59 - STA. 43+56.82	57.08' RT.	610787.98, 419994.16
PB2	2 HD	HWY. 59 - STA. 42+25.48	36.62' RT.	610767.52, 419745.53
PB3	2 HD	HWY. 59 - STA. 42+18.87	41.62' LT.	610689.05, 419742.69
PB4	2 HD	HWY. 59 - STA. 43+36.06	67.74' LT.	610668.61, 419861.01

* CENTER OF PULL BOX

ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

FINAL

N

SCALE IN FEET
0 20 40 80

DATE: 04/10/2025 FILE NAME: t040714_p04a.dgn

LOCATION: I-40 WB RAMP AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: 1"=40' DRAWN BY: ALM

HBVinson
WORKSPACE: AHTD
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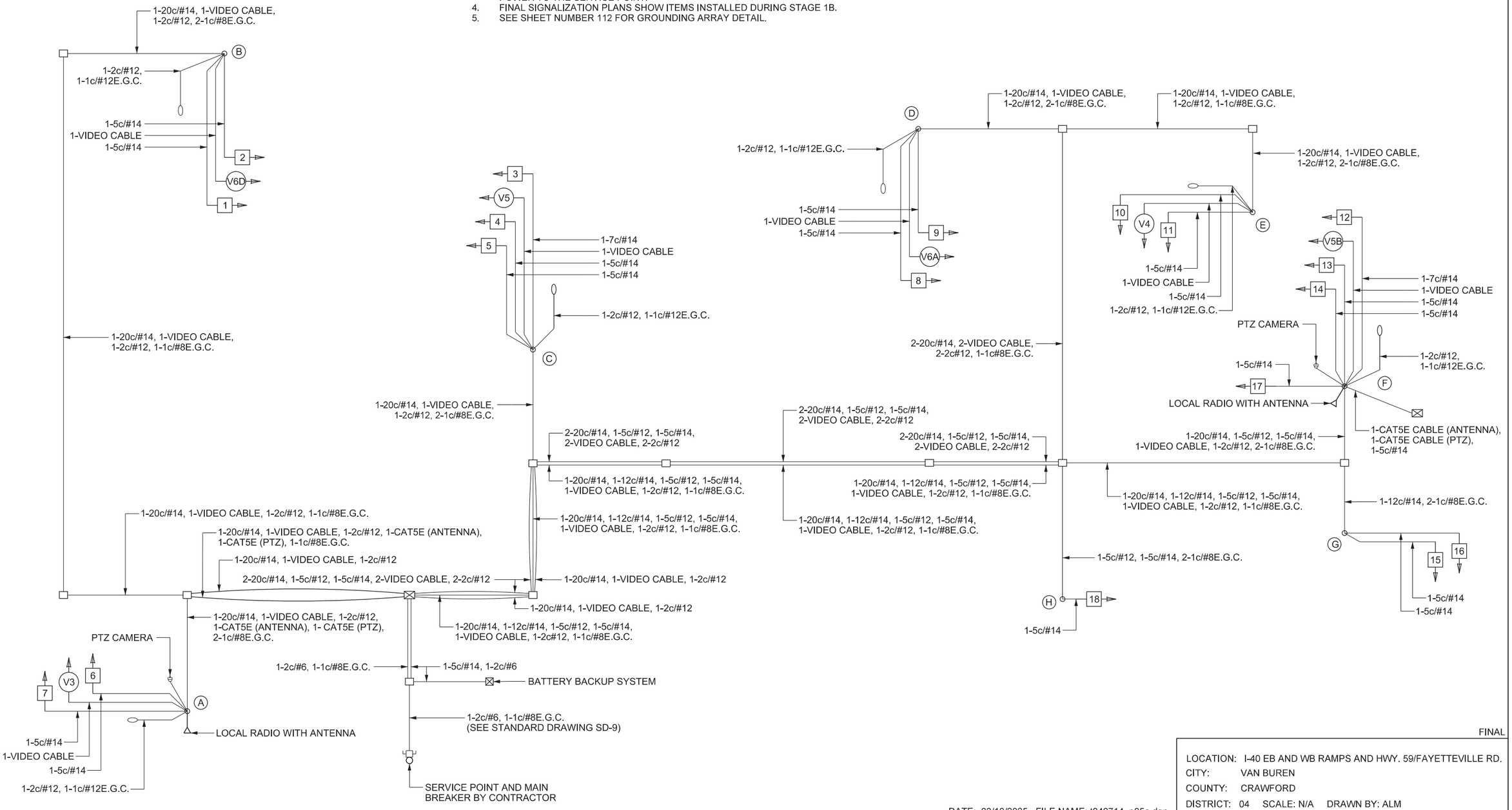
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	156	248
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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NICCI D. TINER

DIGITALLY SIGNED 03/18/2025

WIRING DIAGRAM

NOTES TO CONTRACTOR:
1. ONE SEPARATE 1-5c/#12 IS RUN TO EACH POLE FOR THE ACCESSIBLE PEDESTRIAN PUSH BUTTON(S).
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
4. FINAL SIGNALIZATION PLANS SHOW ITEMS INSTALLED DURING STAGE 1B.
5. SEE SHEET NUMBER 112 FOR GROUNDING ARRAY DETAIL.



FINAL

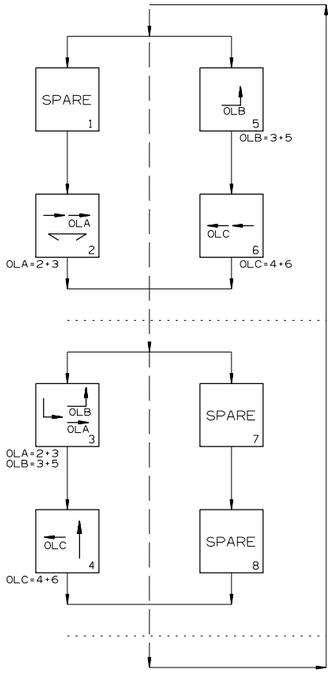
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CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

DATE: 03/10/2025 FILE NAME: t040714_p05a.dgn

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	157	248
		SIGNALIZATION PLAN SHEET				

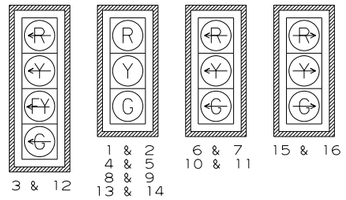
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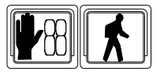
NOTES:
1. OVERLAPS A AND C TO HAVE A MINIMUM TRAILING GREEN OF 10 SECONDS.
2. PHASE OLB FYA SHALL BE TERMINATED WITH THE TRAILING OVERLAP OLA TO AVOID YELLOW TRAP.

SIGNAL FACES

12" LENSES



ONE SECTION
(SOLID SYMBOL)



17 & 18

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEET A.D.A.S. STANDARDS.
5. SIGNAL FACES 15 AND 16 SHALL HAVE LOUVERS FOR THE YELLOW AND GREEN BALLS ONLY SUCH THAT ONLY THE WB RIGHT TURN LANES CAN SEE THE INDICATIONS.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 04/11/2025

DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040714											
I-40 RAMPS AND HWY 59/FAYETTEVILLE RD DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS LOCAL		MASTER SYSTEM DETECTOR NUMBERS	COMMENTS	TUBE LENGTHS
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #			
Vz21 A&B	NB ADVANCE (EB RAMP)	LOCAL			5	V2	2			CAMERA V5	74"
Vz22 A&B	NB NEAR (EB RAMP)	COMB.			6	V10	2	2		CAMERA V5	74"
Vz31 A&B	EB LT TURN FAR (EB RAMP)	COMB.			9	V11	3	3		CAMERA V3	37"
Vz32 A&B	EB LT TURN (EB RAMP)	LOCAL			10	V3	3			CAMERA V3	37"
Vz41 A&B	WB LT TURN FAR (WB RAMP)	COMB.			13	V15	4	7		CAMERA V4	37"
Vz42 A&B	WB LT TURN (WB RAMP)	LOCAL			14	V7	4			CAMERA V4	37"
Vz43 A&B	WB RT TURN FAR (WB RAMP)	COMB.			15	V12	4	4		CAMERA V4	37"
Vz44 A&B	WB RT TURN (WB RAMP)	LOCAL			16	V4	4			CAMERA V4	37"
Vz51	NB LT TURN FAR (EB RAMP)	COMB.			7	V13	5	5		CAMERA V5	74"
Vz52	NB LT TURN (EB RAMP)	LOCAL			8	V5	5			CAMERA V5	74"
Vz61 A&B	SB ADVANCE (WB RAMP)	LOCAL			3	V6	6			CAMERA V6A	74"
Vz62 A&B	SB NEAR (WB RAMP)	COMB.			4	V14	6	6		CAMERA V6A	74"
VzOLA1 A&B	NB ADVANCE (WB RAMP)	LOCAL			21	V8	OLA			CAMERA V5B	74"
VzOLA2 A&B	NB NEAR (WB RAMP)	COMB.			22	V16	OLA	8		CAMERA V5B	74"
VzOLB1	NB LT TURN FAR (WB RAMP)	COMB.			23	V9	OLB	1		CAMERA V5B	74"
VzOLB2	NB LT TURN (WB RAMP)	LOCAL			24	V1	OLB			CAMERA V5B	74"
VzOLC1 A&B	SB ADVANCE (EB RAMP)	LOCAL			19	P1	OLC			CAMERA V6D	74"
VzOLC2 A&B	SB NEAR (EB RAMP)	COMB.			20	P3	OLC			CAMERA V6D	74"
PB2 A&B	(I-40 WB RAMP) E. LEG	PED.				P2	2				
					SPARE: 1, 2, 11, 12, 17, & 18						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACES	I-40 RAMPS AND HWY 59/FAYETTEVILLE RD 2+5	CLR.	2+6	CLR.	3	CLR.	4	CLR.	FLASH SEQUENCE
1 & 2	R	R	G	**	R	R	G	Y	R
3	~~G~~	*	~~FY~~	***	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
4 & 5	G	**	G	**	R	R	R	R	R
6 & 7	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~
8 & 9	R	R	G	Y	R	R	R	R	R
10 & 11	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
12	~~G~~	*	~~FY~~	***	~~G~~	*	~~R~~	~~R~~	~~R~~
13 & 14	G	**	G	**	G	**	R	R	R
15 & 16	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
17 & 18	W	FDW	W	FDW	DW	DW	DW	DW	BLK

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

FINAL

DATE: 04/10/2025 FILE NAME: t040714_p06a.dgn

LOCATION: I-40 EB AND WB RAMPS AND HWY. 59/FAYETTEVILLE RD.
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ALM

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	158	248
		ITS GENERAL NOTES				

NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRIC CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER TO ENSURE ARKANSAS STATE CODES (§17-28-101 ET SEQ. AND §20-31-101 ET SEQ.) ARE MET. THE DOCUMENTATION SHALL INCLUDE:

   a. THE ELECTRICIANS' LICENSE INFORMATION AND EXPIRATION DATE.

   b. THE RATIO OF LICENSED-ELECTRICIAN-TO APPRENTICE-ELECTRICIANS.

   c. PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (https://www.ark.org/labor/electrician/search.php). ALL LICENSES SHALL BE VALID AND CURRENT.

3. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.

4. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

5. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.

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

7. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.

8. CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO ITS RELATED WORK. NO WORK WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.

9. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULL BOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED, OR ENGRAVED WITH LETTERS ¼" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.

10. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE ITS EQUIPMENT IS OUT OF OPERATION.

11. ALL NON-METALLIC CONDUIT RUNS SHALL HAVE BELL RING FITTINGS INSTALLED ON THE TERMINATING ENDS OF THE CONDUIT. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS.

12. THE CONTRACTOR SHALL PROVIDE THE IMEI NUMBER OF THE CELLULAR MODEM PRIOR TO DROPPING THE MODEM OFF TO BE CONFIGURED. REFER TO THE OVERHEAD DMS ASSEMBLY SPECIAL PROVISION FOR MORE DETAILS.

13. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS ONE CALL CENTER IN ACCORDANCE WITH A.C.A. & 14-271 UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ARKANSAS ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE CALL CENTER.

14. UNDERGROUND UTILITIES MAY EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NO LONGER NECESSARY.

15. ITS EQUIPMENT SHOWN ON THESE PLANS ARE IN APPROXIMATE LOCATIONS. ALL EQUIPMENT SHALL BE FIELD LOCATED BY THE CONTRACTOR WITH PROPOSED LOCATIONS APPROVED BY THE ENGINEER TO VERIFY PROPER PLACEMENT AND BEST SIGHT DISTANCE FOR EQUIPMENT, ADEQUATE ROADSIDE PROTECTION, ETC. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT, PULL BOXES, AND CONDUIT WITHIN PUBLIC RIGHT-OF-WAY.

16. FINAL LOCATIONS OF ALL OVERHEAD DMS ASSEMBLIES, AND THEIR RESPECTIVE STRUCTURES SHALL BE SUBMITTED TO THE ITS MANAGEMENT SECTION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

17. FIELD LOCATION ADJUSTMENTS MAY BE REQUIRED AT TIME OF EQUIPMENT INSTALLATION DUE TO POTENTIAL CONFLICTS OR OTHER FACTORS THAT WERE UNIDENTIFIABLE DURING THE PROJECT DESIGN PHASE. ANY REQUIRED ADJUSTMENTS SHALL BE APPROVED BY THE PROJECT ENGINEER.

18. SEE STANDARD DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE SHEET 1 OF 5 FOR DETAILS AND NOTES ON OVERHEAD TEE MOUNT STRUCTURE AND STRUCTURAL REQUIREMENTS.

19. THE FOLLOWING REQUIREMENTS WILL NEED TO BE MET PRIOR TO ACCEPTANCE OF PAY ITEM OVERHEAD DMS ASSEMBLY:

   a. THE OVERHEAD DMS ASSEMBLY WILL NEED TO BE INSTALLED IN FULL WITH ALL ASSOCIATED EQUIPMENT AND PARTS LISTED WITHIN THE SPECIAL PROVISION.
   b. THE OVERHEAD DMS ASSEMBLY IS PERMANENTLY CONNECTED TO UTILITY POWER SERVICE POINT, POWERED ON, AND FUNCTIONING PROPERLY.
   c. THE OVERHEAD DMS ASSEMBLY IS TESTED, COMMISSIONED, AND APPROVED BY A MANUFACTURER REPRESENTATIVE. THE REPRESENTATIVE WILL NEED TO BE ON SITE AND PROVIDE A CERTIFIED DOCUMENT OF THE COMMISSIONED DMS.
   d. THE OVERHEAD DMS ASSEMBLY IS INSPECTED AND APPROVED BY ARDOT ITS MANAGEMENT INSPECTOR.
   e. UPON ARDOT ITS MANAGEMENT INSPECTOR APPROVAL, A THIRTY DAY PERFORMANCE TEST WILL COMMENCE. REFER TO SPS FOR MORE DETAILS ON THE THIRTY DAY PERFORMANCE TEST.

20. DMS SHALL BE COMMISSIONED AND PUT INTO OPERATION IN BATCHES NOT GREATER THAN FIVE OR AS DIRECTED AND APPROVED BY THE ENGINEER.

21. WHERE APPLICABLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE ITS LOCATIONS AND EQUIPMENT ARE INSTALLED AND OPERATIONAL PRIOR TO THE BEGINNING OF OTHER CONSTRUCTION PARTS OF THE PROJECT. LOCATIONS WHERE GUARDRAIL INSTALLATION IS REQUIRED, THE ITS EQUIPMENT SHALL BE INSTALLED AFTER THE REQUIRED GUARDRAIL IS IN PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE ITS WORK WITH THE DEPARTMENT'S ITS MANAGEMENT SECTION-MAINTENANCE DIVISION AND THE RESIDENT ENGINEER OFFICE.

22. FOR DYNAMIC MESSAGE SIGN CONNECTION TO STRUCTURE, SEE MANUFACTURER RECOMMENDATIONS.

    SEE SPECIAL PROVISION "OVERHEAD DYNAMIC MESSAGE SIGN ASSEMBLY" FOR ADDITIONAL DETAILS. DYNAMIC MESSAGE SIGN ASSEMBLIES ARE TO BE CENTERED ON THE TEE MOUNT STRUCTURE; PLACED AS SHOWN IN PLANS ON OVERHEAD SIGN STRUCTURE (OSS) AND AS DIRECTED BY THE ENGINEER.

23. IF THE SERVICE POINT IS MORE THAN 10 FEET FROM THE DMS CONTROLLER CABINET, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE DMS CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE WITH GROUND AS SPECIFIED ON THE PLANS, AND PERFORM WIRING TO TAP INTO ARDOT'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM SERVICE POINT ASSEMBLY.

24. MINIMUM OFFSET DISTANCE FROM EDGE OF GUARDRAIL TO ITS EQUIPMENT SHALL BE GREATER THAN 5'.

25. ROADWAY EDGE OF ABOVE GROUND ITS EQUIPMENT TO BE 30' MIN. FROM EDGE OF TRAVEL LANE. TO MAINTAIN CLEAR ZONE UNLESS PROTECTED BY GUARD RAIL, WIRE ROPE SAFETY FENCE SHALL BE USED AS APPROVED BY THE PROJECT ENGINEER.

26. ALL CONCRETE PULL BOXES SHALL BE TYPE 2 HD UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.

27. COPPER GROUND RODS SHALL BE EXOTHERMICALLY WELDED.

28. FOUR, 2 INCH CONDUITS FROM PULL BOX TO OH TEE-MOUNT SHALL BE USED; TWO (2) FOR POWER WIRING AND TWO (2) FOR COMMUNICATION (SIGNAL) CABLING. REFER TO ITS TEE-MOUNT STANDARD DETAIL SHEET.

STATE OF ARKANSAS
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29. WHERE RIGID METAL CONDUIT (RMC) IS SHOWN ON PLANS (TYPICALLY EXISTING OSS) THE RMC SUPPORT FITTING(S) SHALL BE SPACED NO MORE THAN 20' MAXIMUM ON OSS.

30. ALL ABOVE GROUND CONDUIT SHALL BE RMC. NMC SHALL NOT BE ALLOWED ABOVEGROUND UNLESS SPECIFICALLY NOTED ON PLANS.

31. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LTC) AND ITS PROPER FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICE BID FOR OVERHEAD DMS ASSEMBLY, NO SEPARATE PAYMENT SHALL BE MADE.

32. COMMUNICATION / POWER CABLES USED FOR CCTV, RDS, AND CELLULAR MODEM FROM NETWORK SWITCH TO EQUIPMENT SHALL BE COST ABSORBED, NO SEPARATE PAYMENT SHALL BE MADE.

33. DMS (SIGNAL/COMM) FIBER OPTIC REQUIREMENTS:
    50/125 um MM GRADED INDEX, OM3 STANDARD COMPLIANT LASER OPTIMIZED, STANDARD AND PREFERRED FOR MOST SYSTEMS. FIBER OPTIC CABLE SHALL BE 6 STRAND CORNING/95-050-99-X. FIBER OPTIC CABLE DIAMETER SHALL BE 50/125 um 6 FIBER OD, 0.195" (4.0MM) W-1489-DX. ALL ENDS SHALL HAVE UNICAM LC CONNECTORS WITH TWO STRANDS FOR REDUNDANT TX/RX AND TWO UNUSED FIBERS.

34. CONDUIT FOR FIBER OPTIC CABLE SHALL UTILIZE MINIMUM 6" RADIUS BENDS. NO ELBOW JOINTS ALLOWED.

35. A TRACER WIRE SHALL BE INSTALLED IN CONDUIT THAT CARRIES FIBER OPTIC AND/OR COMMUNICATION CABLE, COST TO BE ABSORBED, NO SEPARATE PAYMENT SHALL BE MADE.

36. CONTRACTOR SHALL FIELD VERIFY CAMERA SITE LOCATION AND ORIENTATION FOR COMPLETE COVERAGE OF ROADWAY PRIOR TO INSTALLING CCTV OR RDS. BRACKETS, LOCATIONS AND ORIENTATIONS TO BE APPROVED BY THE ENGINEER.

37. CONTRACTOR/SUPPLIER TO SIZE STAINLESS STEEL BANDING TO FIT THE OVERHEAD SIGN STRUCTURE (OSS) SUPPORT. RADAR VEHICLE DETECTION SYSTEM (RDS) AND BANDING ARE CONSIDERED SUBSIDIARY TO SPECIAL PROVISION "RADAR VEHICLE DETECTION SYSTEM", NO SEPARATE PAYMENT SHALL BE MADE.

38. CONTRACTOR/SUPPLIER TO SIZE PROVIDE SQUARE TUBING OR STRUT TUBING TO MOUNT THE APPROVED RADAR DETECTION SYSTEM (RDS). BANDING AND SUPPORT POLE ARE CONSIDERED SUBSIDIARY TO SPECIAL PROVISION "RADAR DETECTION SYSTEM", NO SEPARATE PAYMENT SHALL BE MADE.

39. BEFORE FINAL ACCEPTANCE OF ITS ITEMS, THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11"X17") AS BUILT ITS PLANS TO ARDOT ITS MANAGEMENT.

40. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISH GRADE. CONDUIT DEPTH MAY NEED TO INCREASE NEAR OTHER STRUCTURES.

41. ALL CABINETS SHALL BE INSTALLED DOWNSTREAM OF TRAFFIC. GROUND MOUNT CABINETS SHALL BE ORIENTED IN A WAY THAT THE BACK OF CABINET FACES THE TRAFFIC AND THE DOOR OPENS TOWARD THE DIRECTION OF TRAFFIC.

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

43. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

44. SLACK CABLES IN PULL BOXES SHALL BE 2 FEET MINIMUM.

45. ALL STRUCTURES SHALL BE BONDED TO EQUIPMENT GROUND CONDUCTOR. REFER TO NEC ARTICLE 250.

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	159	248
		ITS SYSTEM MAP				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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I-40 AT HWY. 59 (FAYETTEVILLE DR.)
PROJECT LOCATION

PROPOSED CCTV CAMERA
PROPOSED ROUNDABOUT
AT LUMINAIRE POLE 11

EXISTING CCTV CAMERA
W. OF I-540 INTERCHANGE
(EXIT 7)
LOOKING EAST

PROPOSED I-40 DMS EAST AND WEST
I-40 LM 9.60

EXISTING CCTV CAMERA
ARKANSAS WEIGH STATION
LOOKING WEST

Figure Five
Foster Br.
Reservoir
Webster Creek
Rena
Furry
Ball
Frog Bayou
VAN BUREN
Pop. 18,986
Shibley
Westville
KIBLER
Pop. 969
Curry Branch
Prairie Br.
Flat
Mays Branch
Frog
282
60
40
59
64
36
31
6
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REVISED DATE:

ITS SYSTEM MAP

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	160	248
		ITS QUANTITIES				

STATE OF ARKANSAS
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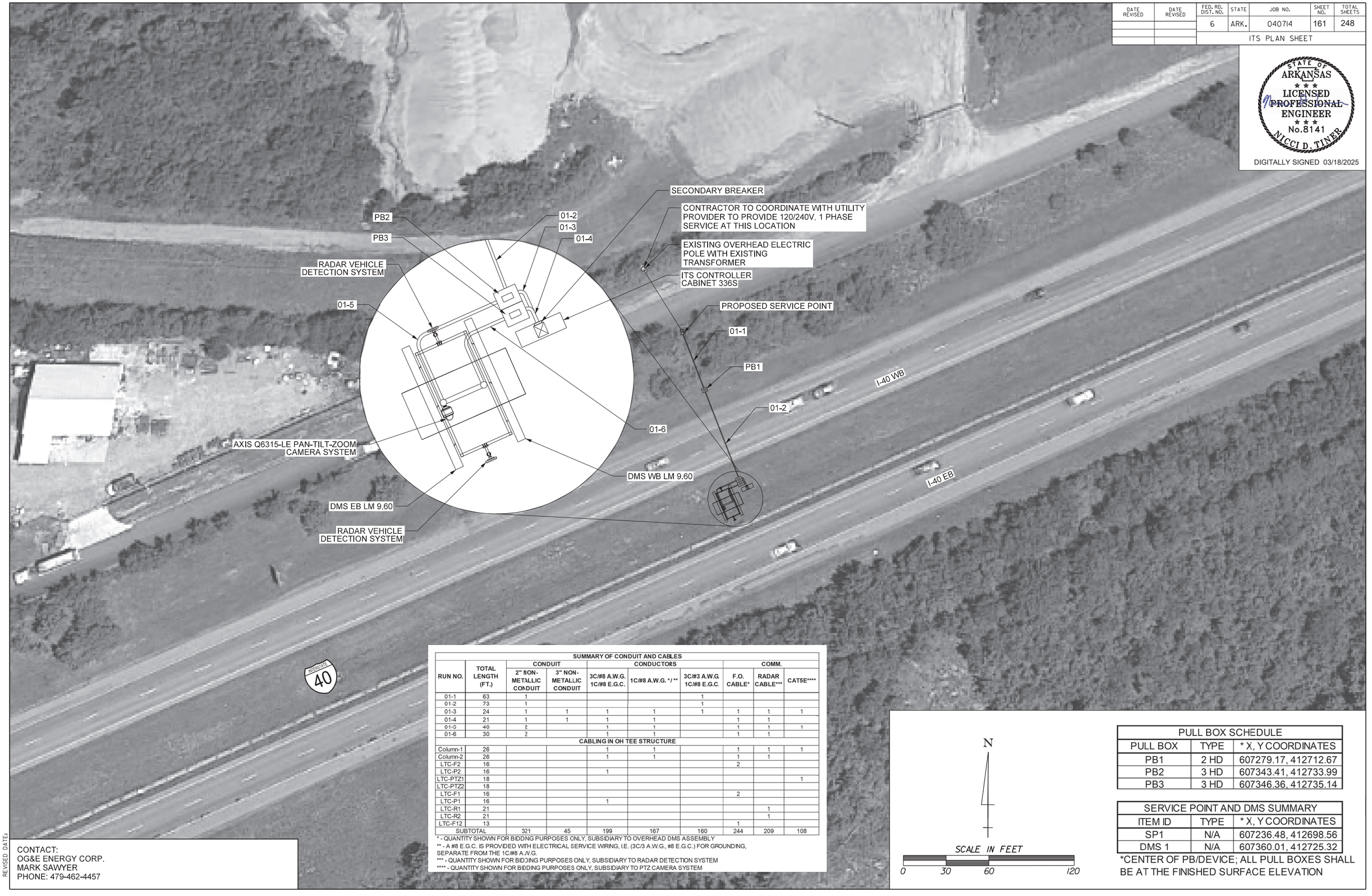
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ITS QUANTITIES			
ITEM NUMBER	**ITEM**	**TOTAL**	**UNIT**
SP	ETHERNET SWITCH, T100 HARDENED (8 PORT)	1	EACH
SP	CELLULAR MODEM	1	EACH
SP	PTZ CAMERA SYSTEM	1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/8 A.W.G., E.G.C.)	199	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/3 A.W.G., #8 E.G.C.)	160	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	14	LIN. FT.
710	NON-METALLIC CONDUIT (2")	321	LIN. FT.
710	NON-METALLIC CONDUIT (3")	45	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	1	EACH
SP, SS, & 711	CONCRETE PULL BOX (TYPE 3 HD)	2	EACH
SP	SERVICE POINT ASSEMBLY (1 CIRCUIT)	1	EACH
SP	STEEL TEE MOUNT SIGN STRUCTURE (TM-040-17-28)	1	EACH
SP	OVERHEAD DMS ASSEMBLY	2	EACH
SP	RADAR DETECTION SYSTEM	2	EACH

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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SUMMARY OF CONDUIT AND CABLES

RUN NO.	TOTAL LENGTH (FT.)	CONDUIT		CONDUCTORS			COMM.		
		2" NON-METALLIC CONDUIT	3" NON-METALLIC CONDUIT	3C/#8 A.W.G. 1C/#8 E.G.C.	1C/#8 A.W.G. */**	3C/#3 A.W.G. 1C/#8 E.G.C.	F.O. CABLE*	RADAR CABLE***	CAT5E****
01-1	63	1				1			
01-2	73	1				1			
01-3	24	1	1	1	1	1	1	1	1
01-4	21	1	1	1	1		1	1	
01-5	40	2		1	1		1	1	1
01-6	30	2		1	1		1	1	
CABLING IN OH TEE STRUCTURE									
Column-1	26			1	1		1	1	1
Column-2	26			1	1		1	1	
LTC-F2	16						2		
LTC-P2	16			1					
LTC-PTZ1	18								1
LTC-PTZ2	18								
LTC-F1	16						2		
LTC-P1	16			1					
LTC-R1	21							1	
LTC-R2	21							1	
LTC-F12	13						1		
SUBTOTAL		321	45	199	167	160	244	209	108

* - QUANTITY SHOWN FOR BIDDNG PURPOSES ONLY, SUBSIDIARY TO OVERHEAD DMS ASSEMBLY
** - A #8 E.G.C. IS PROVIDED WITH ELECTRICAL SERVICE WIRING, I.E. (3C/3 A.W.G., #8 E.G.C.) FOR GROUNDING, SEPARATE FROM THE 1C/#8 A.W.G.
*** - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO RADAR DETECTION SYSTEM
**** - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO PTZ CAMERA SYSTEM

CONTACT:
OG&E ENERGY CORP.
MARK SAWYER
PHONE: 479-462-4457

N

SCALE IN FEET
0 30 60 120

PULL BOX SCHEDULE		
PULL BOX	TYPE	* X, Y COORDINATES
PB1	2 HD	607279.17, 412712.67
PB2	3 HD	607343.41, 412733.99
PB3	3 HD	607346.36, 412735.14

SERVICE POINT AND DMS SUMMARY		
ITEM ID	TYPE	* X, Y COORDINATES
SP1	N/A	607236.48, 412698.56
DMS 1	N/A	607360.01, 412725.32

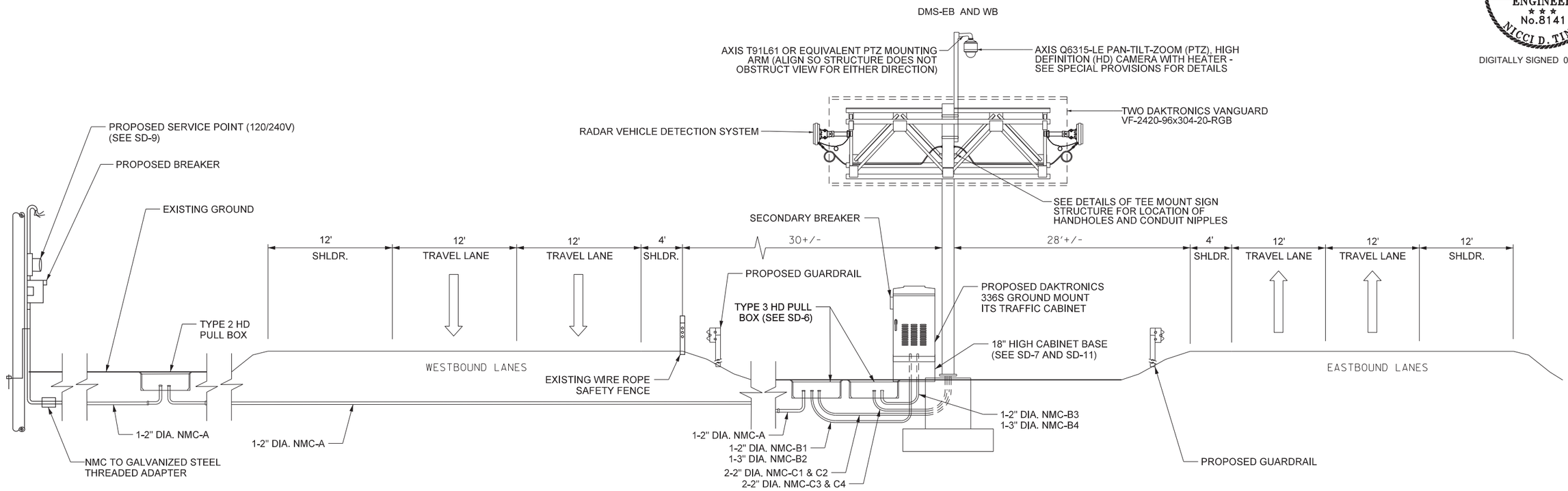
*CENTER OF PB/DEVICE; ALL PULL BOXES SHALL BE AT THE FINISHED SURFACE ELEVATION

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	162	248
		ITS ELEVATION SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

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JATurner 3/18/2025 11:25:06 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	163	248
		ITS VOLTAGE DROP CALCULATIONS				



DIGITALLY SIGNED 03/18/2025

VOLTAGE DROP CALCULATIONS

Site No.	Panel ID	ITS Equipment				# of Sets	Wire Size	One-Way Length (ft)	Line Current (Amps)	Voltage (Line-to-Line)	Phase	Power Factor (100% or 85%)	Wire Type	Conduit Type	Impedance (Ω/1000 ft)	Voltage Drop (Volts)	%VD
		DMS	CCTV	RDS	Comm												
1	I-40 LM 9.60	2	1	2	1	1	3	160	100	240	1	85%	Copper	PVC	0.23	7.36	3.07%

	POWER REQUIREMENTS			
	DMS	CCTV	RDS	Com
Power (Amps)	37.50	5.78	1.25	3.88

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REVISED DATE:

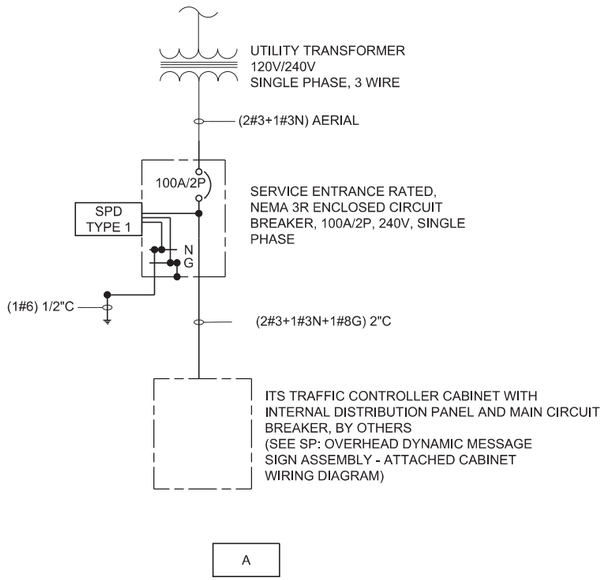
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	164	248
		ITS SYSTEM POWER DIAGRAMS				

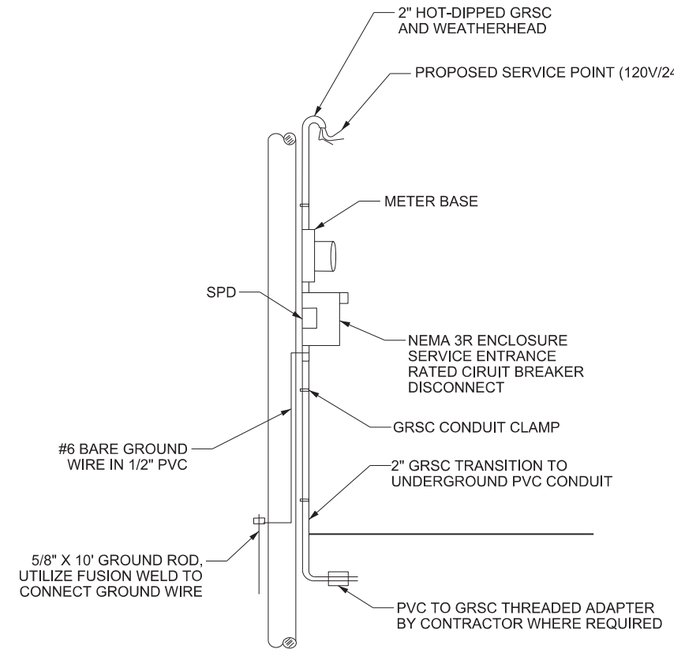
STATE OF ARKANSAS
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ONE LINE DIAGRAM FOR DUAL DMS SYSTEMS

SCALE: NONE





Site No.	Panel ID	One-Line Diagram	Wire Size	ITS Equipment			
				DMS	CCTV	RDS	Comm
1	I-40 LM 9.60	A	3	2	1	2	1

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	165	248
		ITS WIRING DIAGRAM				

GENERAL NOTES:

IT IS THE RESPONSIBILTY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE THAT ALL ELECTRICAL WORK PERFORMED ON SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRICAL CODES

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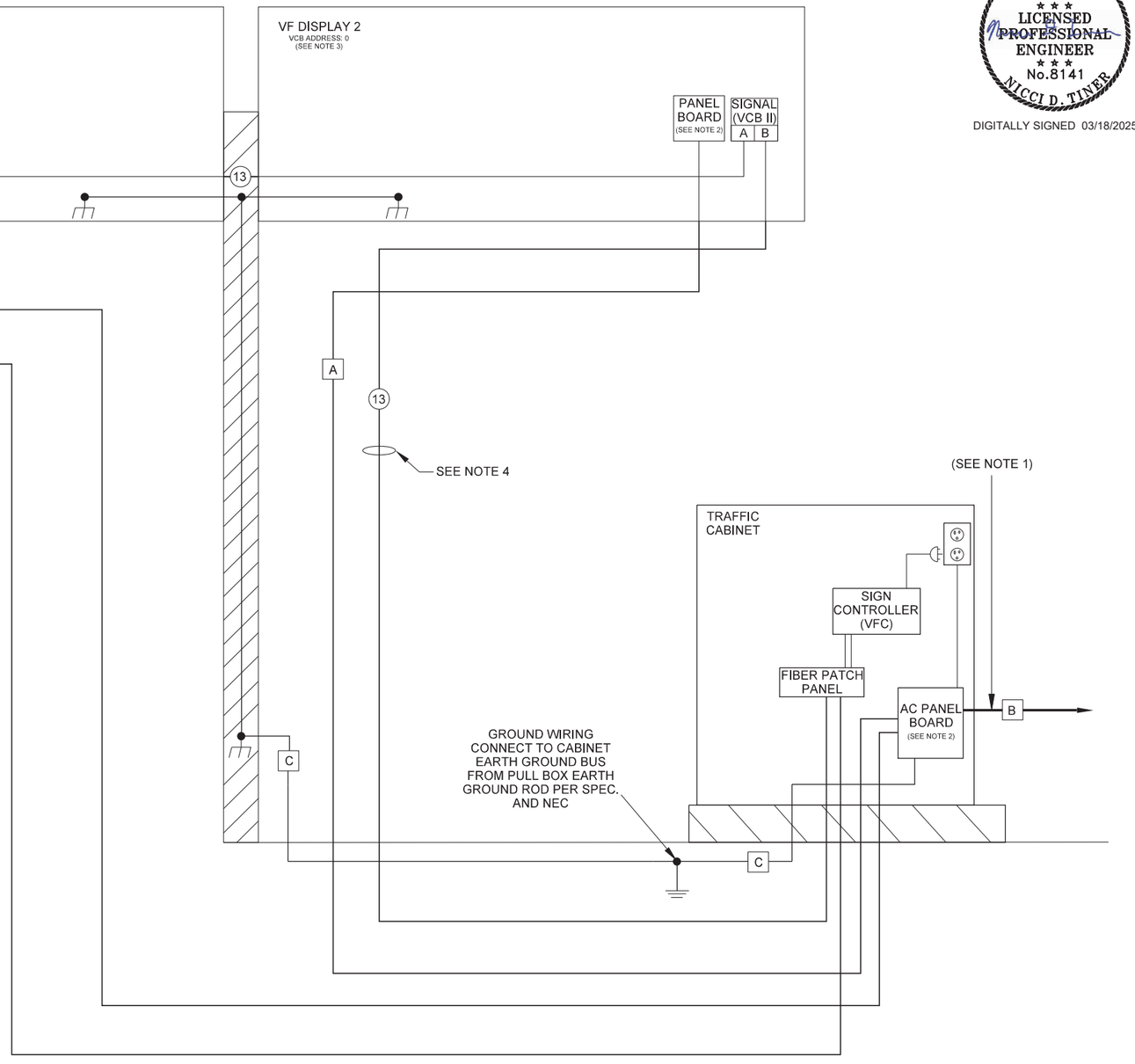
FIBER OPTIC REQUIREMENTS:

50/125 µ MM GRADED INDEX, OM3 STANDARD COMPLIANT LASER OPTIMIZED, STANDARD AND PREFERRED FOR MOST SYSTEMS. FIBER OPTIC CABLE SHALL BE 6 STRAND CORNING/95-050-99-X. FIBER OPTIC CABLE DIAMETER SHALL BE 50/125 µ 6 FIBER OD, 0.195" (4.0MM) W-1489-DX. ALL ENDS SHALL HAVE UNICAM LC CONNECTORS WITH TWO STRANDS FOR REDUNDANT TX/RX AND TWO UNUSED FIBERS.

SITE FIBER INTERCONNECT			
TRAFFIC CABINET		VF DISPLAY 1	VF DISPLAY 2
SIGN CONTROLLER (VFC)	FIBER PATCH PANEL	VCB II	VCB II
J5 FIBER A TX	FIBER A TX	J9 FIBER A RX	
J5 FIBER A RX	FIBER A RX	J9 FIBER A TX	
		J8 FIBER B RX	J9 FIBER A RX
		J8 FIBER B TX	J9 FIBER A TX
J6 FIBER B TX	FIBER B TX		J8 FIBER B RX
J6 FIBER B RX	FIBER B RX		J8 FIBER B TX

NOTES:

1. WIRE BETWEEN TRAFFIC CABINET PANEL BOARD AND MAIN DISCONNECT SIZED AS SPECIFIED. CONTACT DAKTRONICS PERSONNEL FOR SITE POWER NUMBER AND SIGN PARAMETERS.
2. DAKTRONICS SUPPLIED PANEL BOARDS IN THE TRAFFIC CABINET AND THE VF-2X20 (DMS) ACCEPTS 8 AWG TO 1 AWG WIRE.
3. SEE DISPLAY MANUAL FOR INSTRUCTIONS ON VCB ADDRESSING.
4. 6 STRAND MM F.O. CABLE, SEE F.O. REQUIREMENTS FOR ADDITIONAL INFORMATION.
5. LIQUID-TIGHT CONDUIT SHALL BE 1.5" FLEXIBLE WATER TIGHT CONDUIT CONNECTING FROM THE 1.5" THREADED CONDUIT NIPPLE OF THE OH TEE STRUCTURE TO THE 1.5" HUB CONNECTOR ON THE DMS FOR COMMUNICATION (SIGNAL) CABLING OR POWER WIRING.
6. SEE TEE MOUNT STRUCTURE CONDUIT RUNS (ISOMETRIC VIEW) TABLE ON SHEET 170 FOR MORE DETAILS.



WIRE DETAIL

ID TAG	DESCRIPTION	FUNCTION
13	F.O.CABLE, 6 STRAND, 50/125 uM, LC CONNECTORS (2 SPARE)	SIGNAL
A	3C/8 A.W.G. E.G.C.	120/240 VAC (FROM CABINET TO DMS)
B	FOR WIRING TYPE, SEE "SITE CONDUIT RUNS AND CABLING" TABLE	120/240 VAC (FROM SERV. POLE TO CABINET)
C *	1C/8 A.W.G. E.G.C.	SYSTEM GROUND INTERCONNECTION

* - GROUND BOND CONNECTION BETWEEN EQUIPMENT AND SERVICE POINT GROUND AS PER MANUFACTURER'S RECOMMENDATION, INSTALLATION OF GROUND BOND CONNECTION IS SUBSIDIARY TO PAY ITEM "OVERHEAD DMS ASSEMBLY".

WIRING DIAGRAM
DUAL DMS

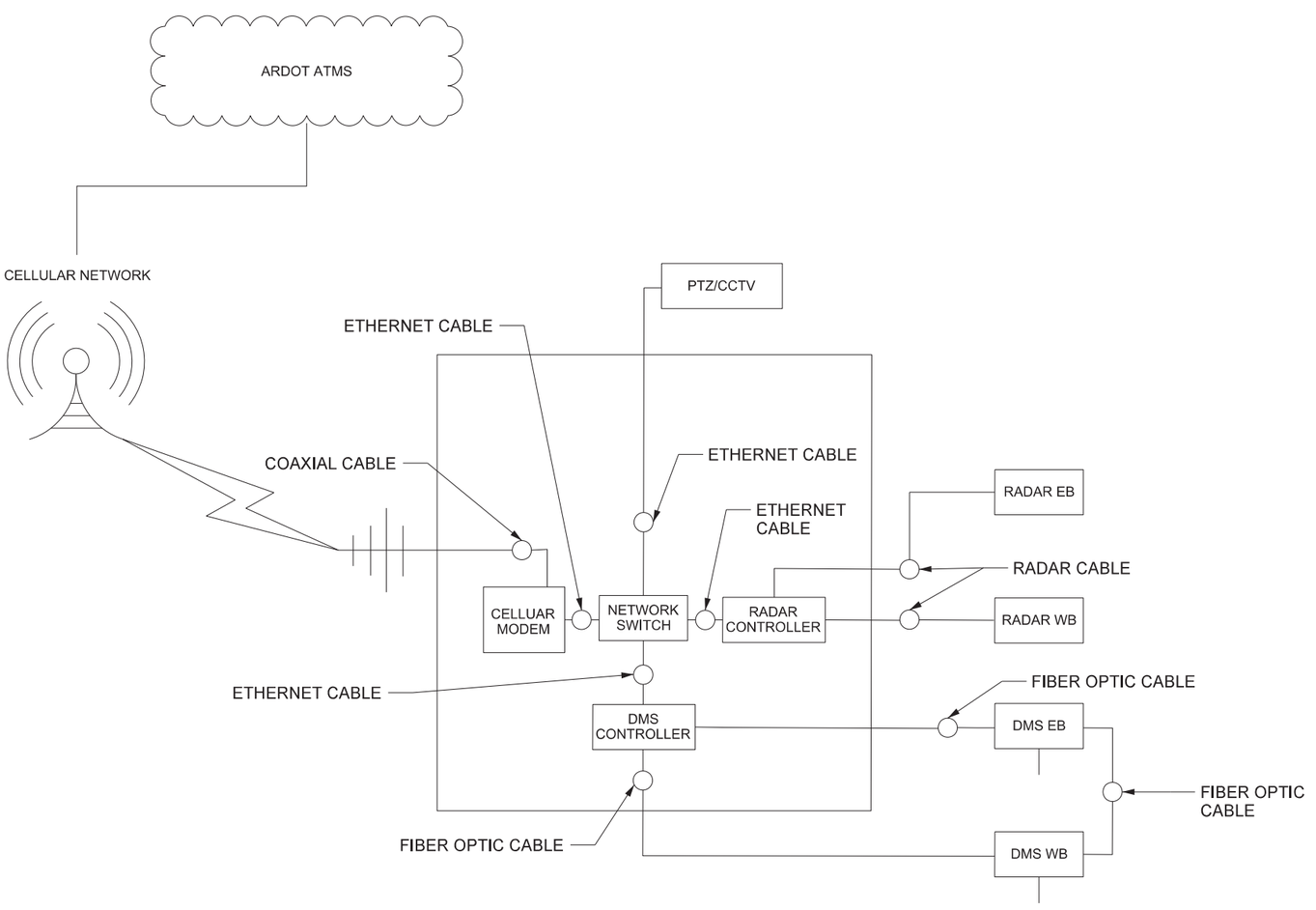
ITS WIRING DIAGRAM

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	166	248
		ITS BLOCK DIAGRAM				

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DUAL DMS BLOCK DIAGRAM

JATurner 3/18/2025 11:25:10 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	167	248
		ITS DETAIL				

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TEE-MOUNT STRUCTURE CONDUIT RUNS																							
SITE	LOCATION	DMS	PTZ	RDS	NMC-A (2" DIA.)	NMC-B1 (2" DIA.)	NMC-B2 (3" DIA.)	NMC-C1 (2" DIA.)	NMC-C2 (2' DIA.)	COLUMN 1	LTC-F1 (1.5" DIA.)	LTC-P1 (1.5" DIA.)	LTC-R1 (1.5" DIA.)	LTC-F12 (1.5" DIA.)	LTC-PTZ1 (1.5' DIA.)	LTC-PTZ2 (1.5"	NMC-B3 (2" DIA.)	NMC-B4 (3" DIA.)	NMC-C3 (2" DIA.)	NMC-C4 (2" DIA.)	COLUMN 2	LTC-F2 (1.5" DIA.)	LTC-P2 (1.5" DIA.)	LTC-R2 (1.5" DIA.)
1	I-40 LM 9.60	2	1	2	1-3C/3 A.W.G., #8 E.G.C.	1-F.O. CBL 1-CAT5E, 1-R CBL	1-3C/3 A.W.G., #8 E.G.C.,	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	2-F.O. CABLE	3C/8 A.W.G., #8 E.G.C.	1-R CABLE	1-F.O. CABLE	1-CA¯5E CBL	SPARE	1-F.O. CBL, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	1-F.O. CBL, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C.	2-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL
CONDUIT FILL (LARGEST FILL %)		N/A	N/A	N/A	8%	8%	10%	8%	2%	N/A	9%	3%	5%	5%	4%	N/A	5%	1%	5%	2%	N/A	9%	3%	5%

REFER TO ITS PLAN SHEETS FOR MORE DETAILS. 1-1C#8 A.W.G., E.G.C. - UTILIZED FOR DMS GROUNDING

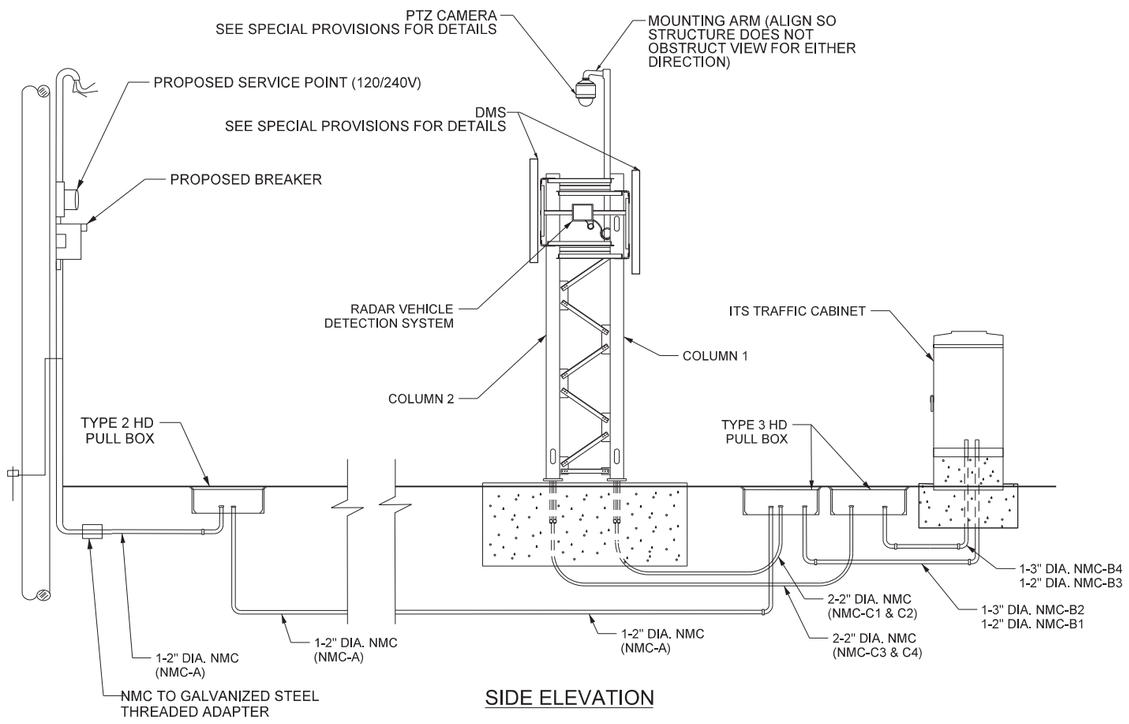
NOTES:

1. CONDUITS BETWEEN SERVICE POINT AND PULL BOXES ARE NUMBERED WITH LETTER A.
2. CONDUITS BETWEEN ITS CABINET AND PULL BOXES ARE NUMBERED WITH LETTER B.
3. CONDUITS BETWEEN DMS STRUCTURE AND PULL BOXES ARE NUMBERED WITH LETTER C.

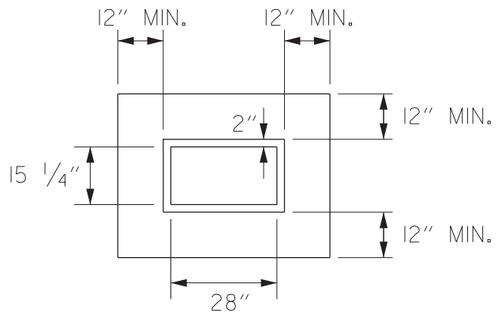
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	168	248
		ITS TEE-MOUNT STANDARD DETAIL				

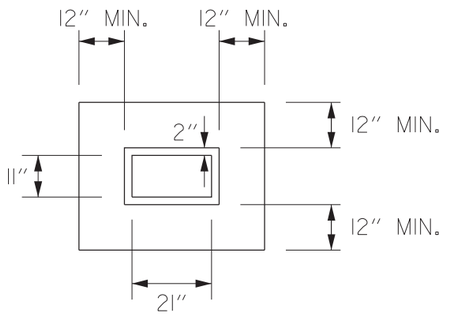
STATE OF ARKANSAS
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No.8141
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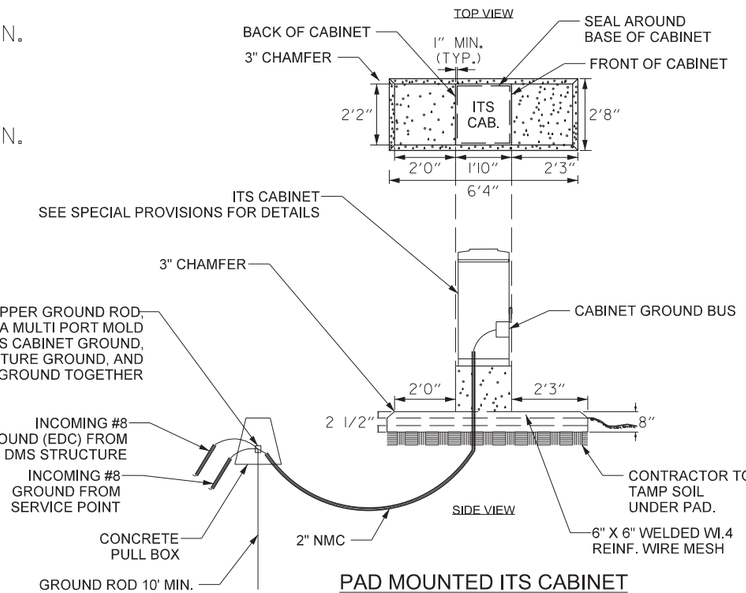
SIDE ELEVATION



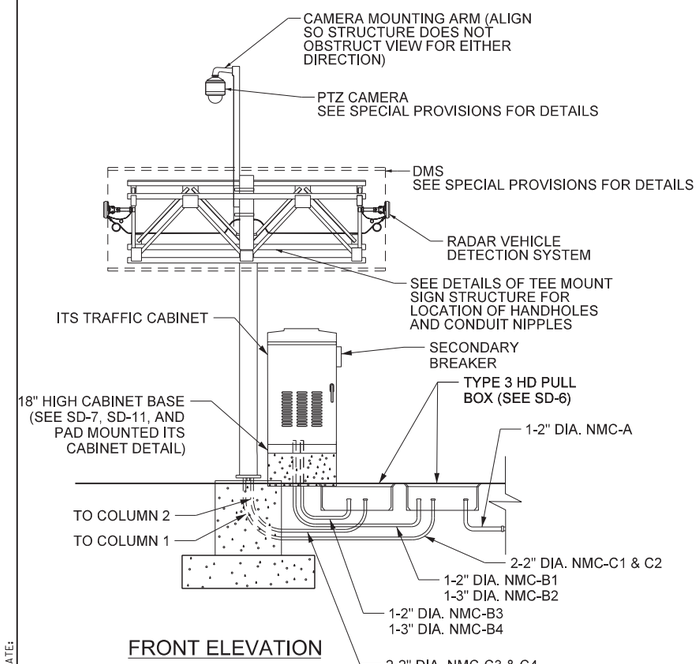
TYPE 3 HD PULL BOX



TYPE 2 HD PULL BOX



PAD MOUNTED ITS CABINET



FRONT ELEVATION

TEE-MOUNT STRUCTURE CONDUIT RUNS (STANDARD DETAIL)

SITE	LOCATION	DMS	PTZ	FDS	NMC-A (2" DIA.)	NMC-B1 (2" DIA.)	NMC-B2 (3" DIA.)	NMC-C1 (2" DIA.)	NMC-C2 (2" DIA.)	COLUMN1	LTC-F1 (1.5" DIA.)	LTC-P1 (1.5" DIA.)	LTC-R1 (1.5" DIA.)	LTC-F12 (1.5" DIA.)	LTC-PTZ1 (1.5" DIA.)	LTC-PTZ2 (1.5" DIA.)	NMC-B3 (2" DIA.)	NMC-B4 (3" DIA.)	NMC-C3 (2" DIA.)	NMC-C4 (2" DIA.)	COLUMN 2	LTC-F2 (1.5" DIA.)	LTC-P2 (1.5" DIA.)	LTC-R2 (1.5" DIA.)
#	STAND-ALONE DMS	1	1	1	*	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	1-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL	SPARE	1-CAT5E CBL	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
#	DUAL DMS (1 TEE MOUNT)	2	1	2	*	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	2-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL	1-F.O. CBL	1-CAT5E CBL	SPARE	1-F.O. CBL, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	1-F.O. CBL, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL	2-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL
#A*	(2) SEPARATE DMS STRUCTURES*	1	1	1	*	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	1-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL	SPARE	1-CAT5E CBL	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
#B*		1	1	N/A	*	1-F.O. CBL 1-CAT5E	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-CAT5E	1-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	SPARE	SPARE	1-CAT5E CBL	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
CONDUIT FILL (LARGEST FILL %)		N/A	N/A	N/A	*	8%	*	8%	2%	N/A	9%	3%	5%	5%	4%	N/A	5%	1%	5%	2%	N/A	9%	3%	5%

*REFER TO SITE LAYOUT SHEETS FOR MORE DETAILS ON POWER CONDUCTOR SIZING FROM ELECTRICAL SERVICE POINT

NOTES:
1. CONDUITS BETWEEN SERVICE POINT AND PULL BOXES ARE NUMBERED WITH LETTER A.
2. CONDUITS BETWEEN ITS CABINET AND PULL BOXES ARE NUMBERED WITH LETTER B.
3. CONDUITS BETWEEN DMS STRUCTURE AND PULL BOXES ARE NUMBERED WITH LETTER C.

LEGEND
DMS: DYNAMIC MESSAGING BOARD
NMC: NON-METALLIC CONDUIT
LTC: LIQUID TIGHT CONDUIT
F: FIBER OPTIC
PTZ: PAN-TILT-ZOOM CAMERA
P: POWER
R: RADAR DETECTION SENSOR

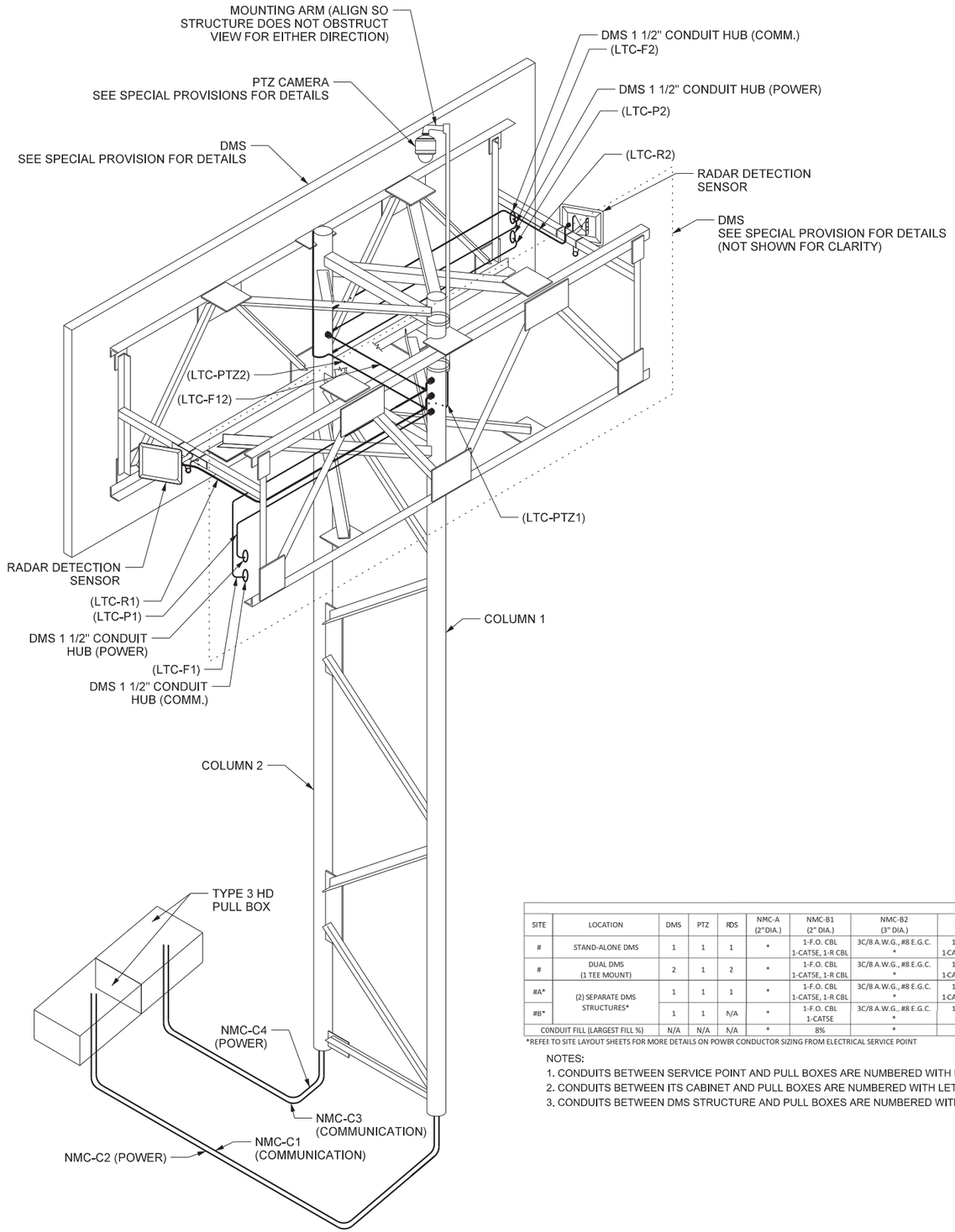
ITS TEE-MOUNT STANDARD DETAIL

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REVISED DATE:

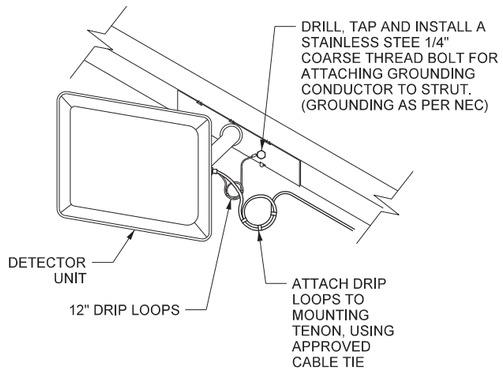
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	169	248
		ITS TEE-MOUNT STANDARD DETAIL				

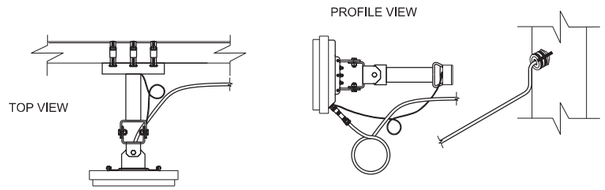
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025



ISOMETRIC VIEW
NOT TO SCALE





SENSOR MOUNTING BRACKET DETAILS
NOT TO SCALE

TEE-MOUNT STRJCTURE CONDUIT RUNS (STANDARD DETAIL)

SITE	LOCATION	DMS	PTZ	RDS	NMC-A (2"DIA.)	NMC-B1 (2" DIA.)	NMC-B2 (3" DIA.)	NMC-C1 (2" DIA.)	NMC-C2 (2" DIA.)	COLUMN 1	LTC-F1 (1.5"DIA.)	LTC-P1 (1.5" DIA.)	LTC-R1 (1.5" DIA.)	LTC-F12 (1.5" DIA.)	LTC-PTZ1 (1.5" DIA.)	LTC-PTZ2 (1.5" DIA.)	NMC-B3 (2" DIA.)	NMC-B4 (3" DIA.)	NMC-C3 (2" DIA.)	NMC-C4 (1" DIA.)	COLUMN 2	LTC-F2 (1.5" DIA.)	LTC-P2 (1.5" DIA.)	LTC-R2 (1.5" DIA.)
#	STAND-ALONE DMS	1	1	1	*	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	1-F.C. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL	SPARE	1-CAT5E CBL	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
#	DUAL DMS (1 TEE MOUNT)	2	1	2	*	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	2-F.C. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL	1-F.O. CBL	1-CAT5E CBL	SPARE	1-F.O. CBL, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	1-F.O. CBL, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL	2-F.O. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL
#A*	(2) SEPARATE DMS STRUCTURES*	1	1	1	*	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E, 1-R CBL	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E	1-F.C. CBL	3C/8 A.W.G., #8 E.G.C.	1-R CBL	SPARE	1-CAT5E CBL	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
#B*		1	1	N/A	*	1-F.O. CBL 1-CAT5E	3C/8 A.W.G., #8 E.G.C. *	1-F.O. CBL 1-CAT5E	3C/8 A.W.G., #8 E.G.C.	3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-CAT5E	1-F.C. CBL	3C/8 A.W.G., #8 E.G.C.	SPARE	SPARE	1-CAT5E CBL	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
CONDUIT FILL (LARGEST FILL %)		N/A	N/A	N/A	*	8%	*	8%	2%	N/A	9%	3%	5%	5%	4%	N/A	5%	1%	5%	2%	N/A	9%	3%	5%

*REFER TO SITE LAYOUT SHEETS FOR MORE DETAILS ON POWER CONDUCTOR SIZING FROM ELECTRICAL SERVICE POINT

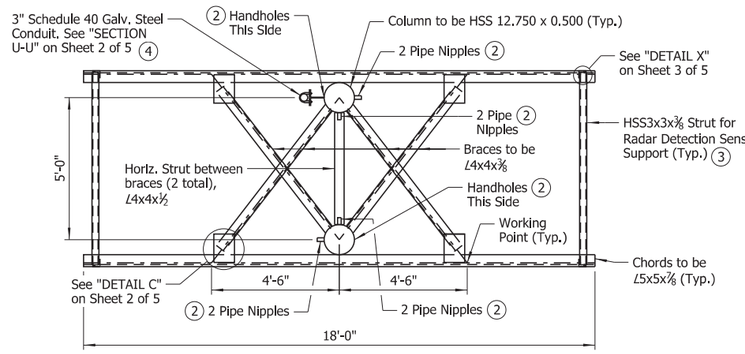
NOTES:
1. CONDUITS BETWEEN SERVICE POINT AND PULL BOXES ARE NUMBERED WITH LETTER A.
2. CONDUITS BETWEEN ITS CABINET AND PULL BOXES ARE NUMBERED WITH LETTER B.
3. CONDUITS BETWEEN DMS STRUCTURE AND PULL BOXES ARE NUMBERED WITH LETTER C.

LEGEND
DMS: DYNAMIC MESSAGING BOARD
NMC: NON-METALLIC CONDUIT
LTC: LIQUID TIGHT CONDUIT
F: FIBER OPTIC
PTZ: PAN-TILT-ZOOM CAMERA
P: POWER
R: RADAR DETECTION SENSOR

ITS TEE-MOUNT STANDARD DETAIL

JATurner 3/18/2025 11:25:13 AM
WORKSPACE: AHTD
L:\20IT\7017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\t040714_ITS_Tee Mount Detail_2.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		TM-040-17-28	TEE MOUNT SIGN STR.			65862

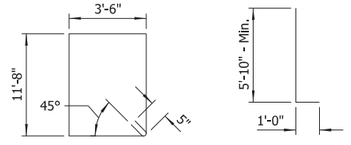


PLAN

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

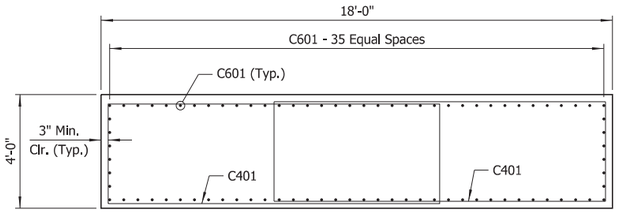
BAR LIST - FOUNDATION A1			
MARK	NO. REQ'D	LENGTH	P.D.
C401	10	30'-10"	2"
C601	84	6'-8"	4½"
F601	38	17'-6"	Str.
F602	70	9'-6"	Str.

BAR BENDING DIAGRAMS



NOTES:
Dimensions of bars are out-to-out.

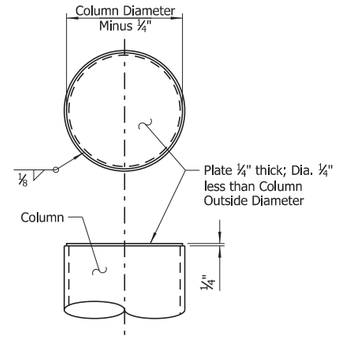
Number of bars shown is for one Foundation A1.



SECTION B-B

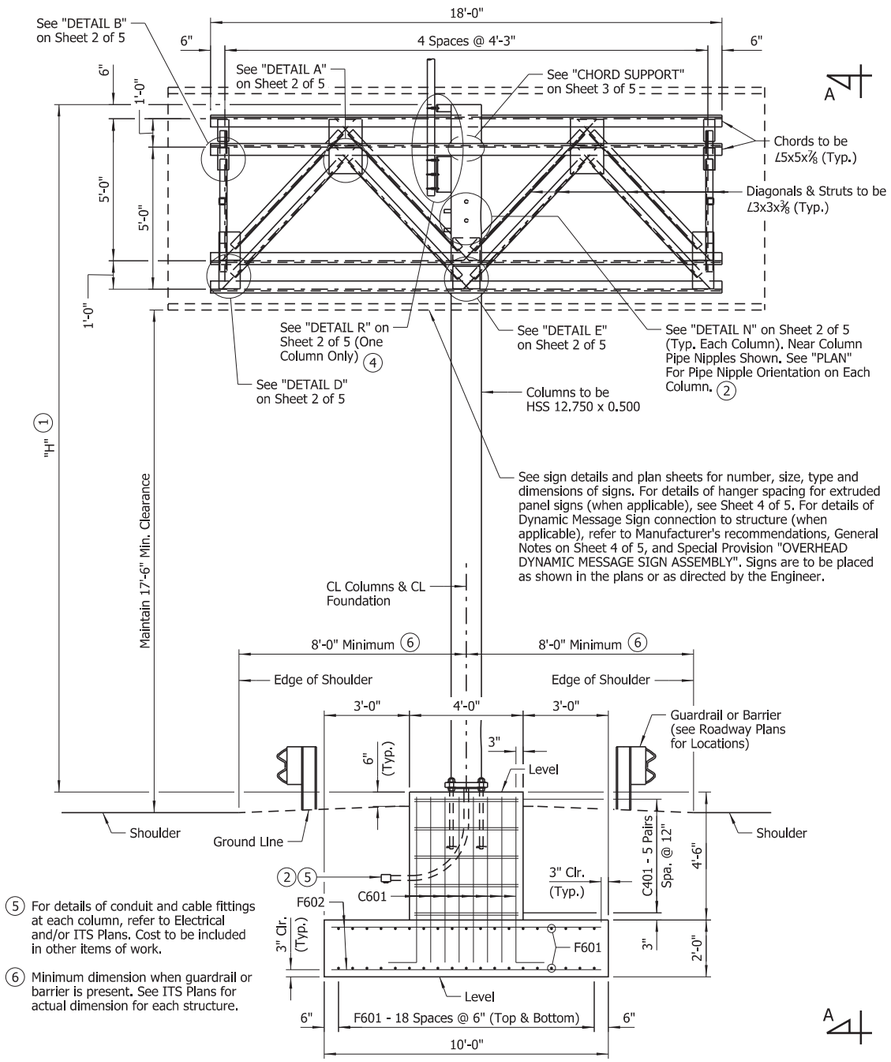
Scale: 3/8" = 1'-0"

STRUCTURE NO.	FOUNDATION TYPE
TM-040-17-28	A1 or A2



END CAP DETAIL

Scale: 1½" = 1'-0"

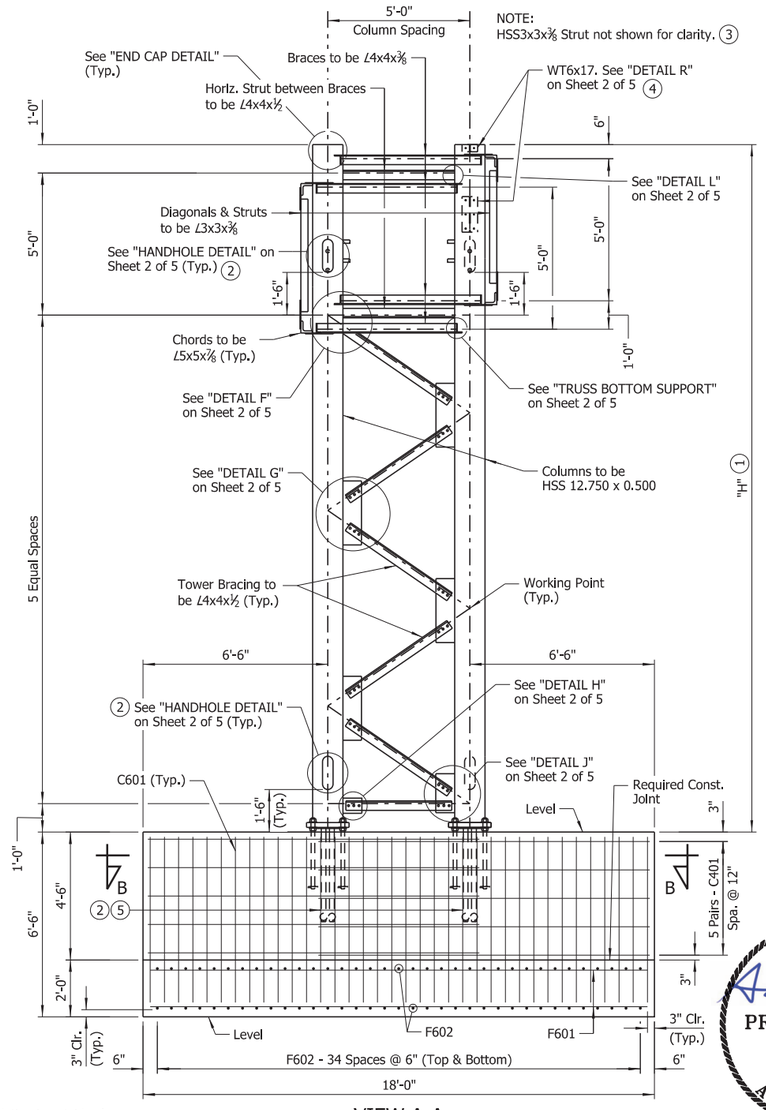


ELEVATION - FOUNDATION A1 (7)

No Scale

(5) For details of conduit and cable fittings at each column, refer to Electrical and/or ITS Plans. Cost to be included in other items of work.

(6) Minimum dimension when guardrail or barrier is present. See ITS Plans for actual dimension for each structure.



VIEW A-A

(Foundation A1)
No Scale

(7) Foundation A1 allowed only when foundation is outside clear zone or is protected by guardrail or barrier. For other foundation types and associated restrictions, see Sheets 4 and 5 of 5.

APPROX. QUANTITIES FOR FOUNDATION A1 (FOR INFORMATION ONLY)

CLASS S CONCRETE (CU. YDS.)	REINFORCING STEEL (LBS.)	EXCAVATION (CU. YDS.)
25.40	3,050	61

(1) The Contractor shall make field measurements to determine the column height ("H") that is required to maintain the minimum vertical clearance. The column height shall be shown on the shop drawings with a note stating that the Contractor has made the required field measurements. If the structure height ("H") exceeds 30'-0", contact the Engineer.

(2) Conduit, Handholes and Pipe Nipples only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer. Pipe Nipples shall be fitted with standard plugs until conduit is installed.

(3) HSS3x3x3/8 Strut only required when Radar Detection Sensor is to be attached to the structure or as directed by the Engineer. See ITS Plans.

(4) 3" Conduit and conduit support steel only required when necessary to support ITS equipment or as directed by the Engineer. See ITS Plans.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
DIGITALLY SIGNED 03/18/2025
BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

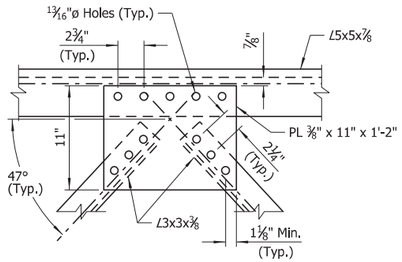
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: SEP. 2022 SCALE: As Shown
DESIGNED BY: CSW DATE: SEP. 2022

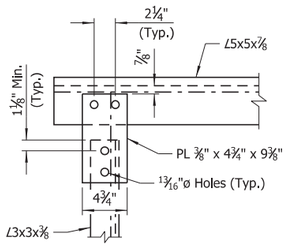
STR. NO. TM-040-17-28 DRAWING NO. 65862

ABHall
4/12/2024 431433 PM
WORKSPACE: ARDOT B4Dgn (2019)
C:\STRUCTURES\TM-040-17-28\SHEET SHEET 1 PHD and Insu 5\SDsheet\sgn\b040714_S001_TM.dgn
REVISED DATE:

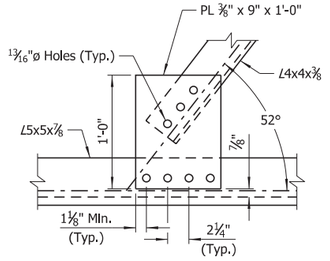
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	171	248
		TM-040-17-28	TEE MOUNT SIGN STR.			65863



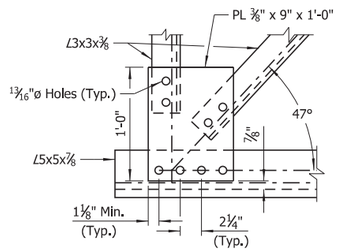
DETAIL A
Scale: 1½" = 1'-0"



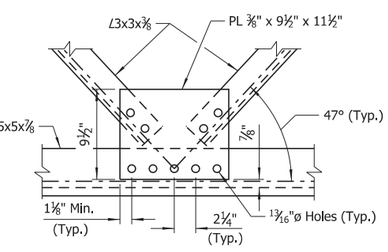
DETAIL B
Scale: 1½" = 1'-0"



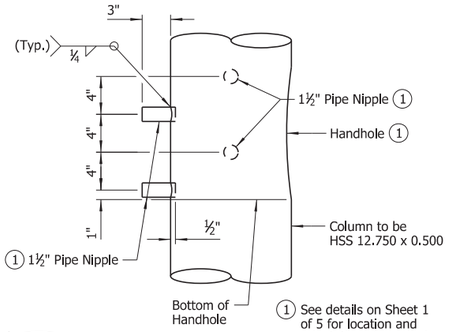
DETAIL C
Scale: 1½" = 1'-0"



DETAIL D
Scale: 1½" = 1'-0"



DETAIL E
Scale: 1½" = 1'-0"



DETAIL N (2)
Scale: 1½" = 1'-0"

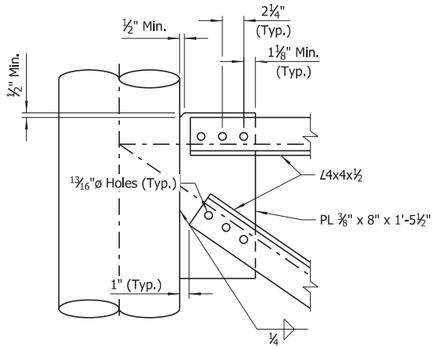
(1) See details on Sheet 1 of 5 for location and orientation of handholes and pipe nipples.

(2) Handholes and pipe nipples only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer. Pipe nipples shall be fitted with standard plugs until conduit is installed.

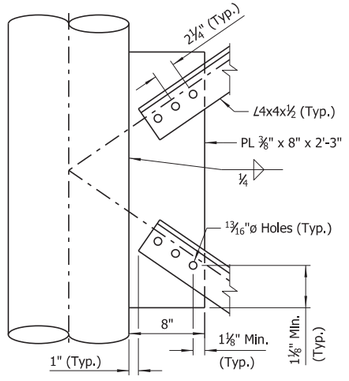
NOTE:
Provide handhole covers with chain, waterproof grommet, and tamperproof screws.

Handhole covers shall be galvanized and meet the requirements of ASTM A36 at a minimum.

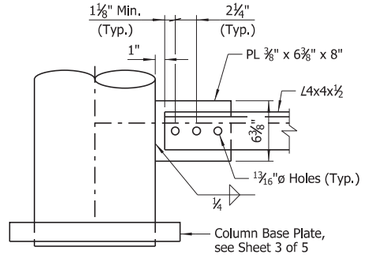
Tamperproof screws shall be galvanized and meet the requirements of ANSI/ASME B18.6.3.



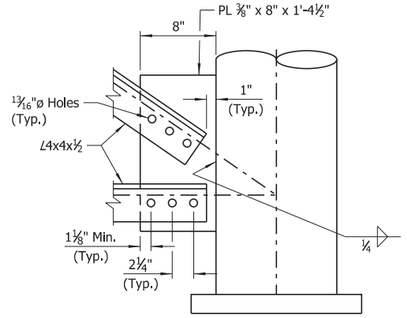
DETAIL F
Scale: 1½" = 1'-0"



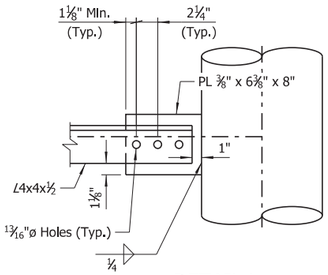
DETAIL G
Scale: 1½" = 1'-0"



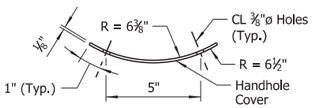
DETAIL H
Scale: 1½" = 1'-0"



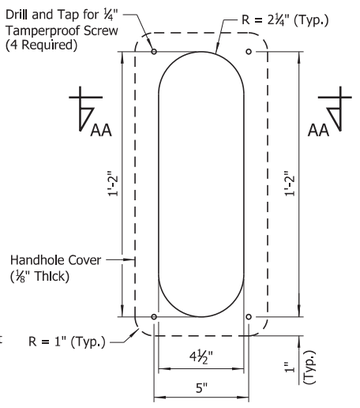
DETAIL J
Scale: 1½" = 1'-0"



DETAIL L
Scale: 1½" = 1'-0"

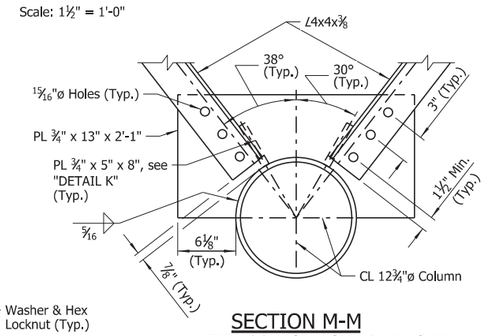


SECTION AA-AA
Scale: 3" = 1'-0"

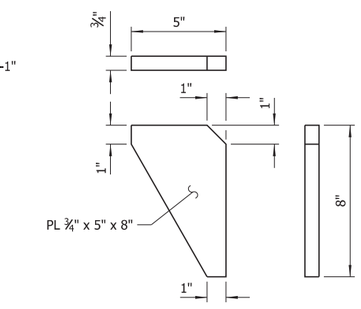


HANDHOLE DETAIL (1) (2)
Scale: 3" = 1'-0"

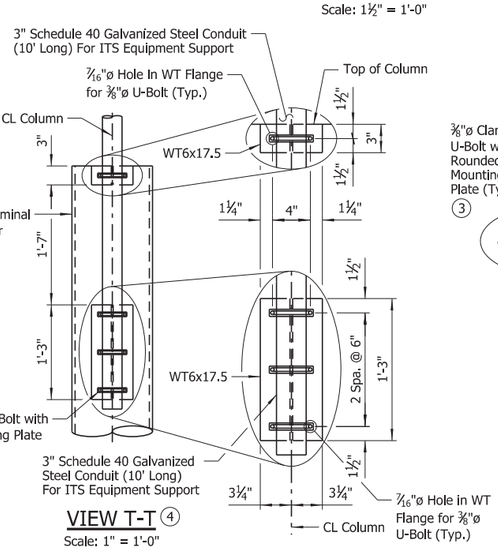
ELEVATION - TRUSS BOTTOM SUPPORT
(Bottom Connection shown, Top Connection similar)
Scale: 3" = 1'-0"



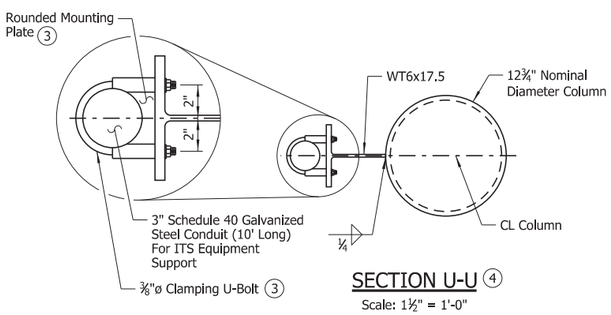
SECTION M-M
PLAN - TRUSS BOTTOM SUPPORT
Scale: 1½" = 1'-0"



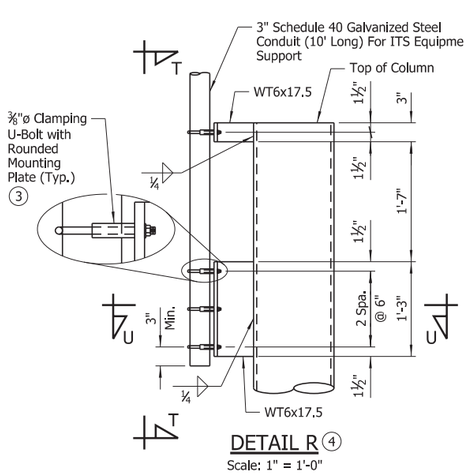
DETAIL K
Scale: 3" = 1'-0"



VIEW T-T (4)
Scale: 1" = 1'-0"



SECTION U-U (4)
Scale: 1½" = 1'-0"



DETAIL R (4)
Scale: 1" = 1'-0"

(3) Clamping U-Bolt with Rounded Mounting Plate Assembly product shall be included in shop drawings for approval. Assembly shall be galvanized and shall meet the requirements of ASTM A36 at a minimum. Install per Manufacturer's instructions.

(4) 3" Conduit and conduit support steel only required when necessary to support ITS equipment or as directed by the Engineer. See ITS Plans.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
DIGITALLY SIGNED 03/18/2025
BRIDGE ENGINEER

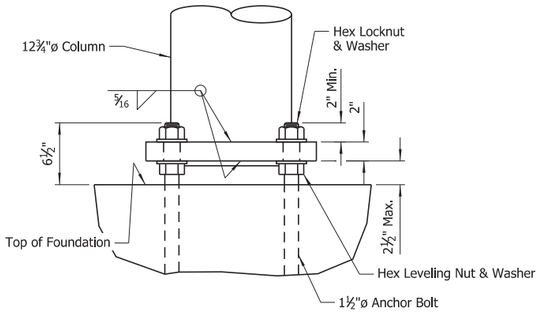
SHEET 2 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY:	CSW	DATE:	SEP. 2022		

STR. NO. TM-040-17-28 DRAWING NO. 65863

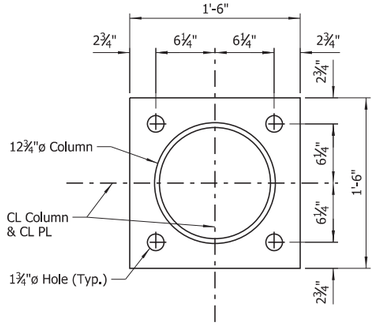
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WORKSPACE: ARDOT Bridge (2019)
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		TM-040-17-28	TEE MOUNT SIGN STR.			65864



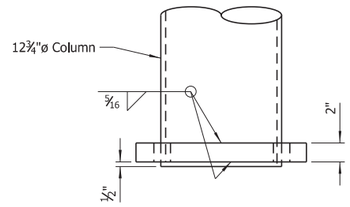
ELEVATION - COLUMN BASE

Scale: 1½" = 1'-0"



PLAN - COLUMN BASE

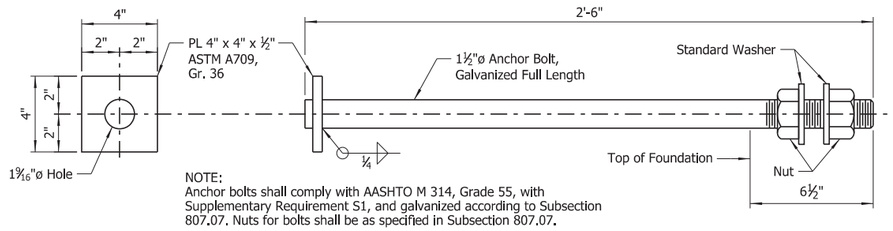
Scale: 1½" = 1'-0"



NOTE:
Diameter of hole in base plate to be ⅛" larger than column diameter.

DETAIL OF COLUMN CONNECTION TO BASE PLATE

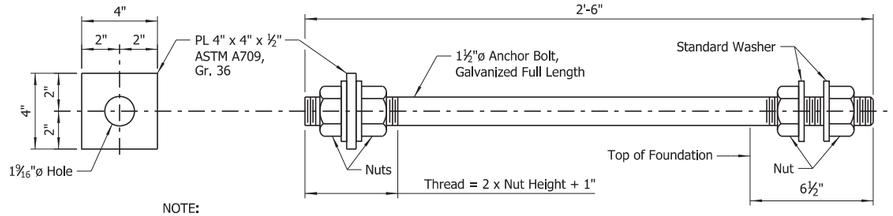
Scale: 1½" = 1'-0"



NOTE:
Anchor bolts shall comply with AASHTO M 314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.

ANCHOR BOLT DETAIL

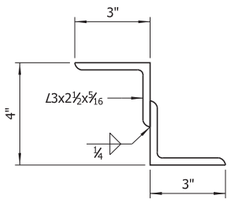
Scale: 3" = 1'-0"



NOTE:
Anchor bolts shall comply with AASHTO M 314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.

ALTERNATE ANCHOR BOLT DETAIL

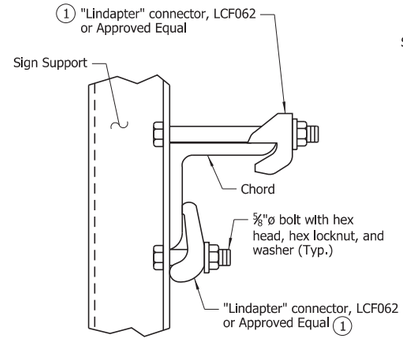
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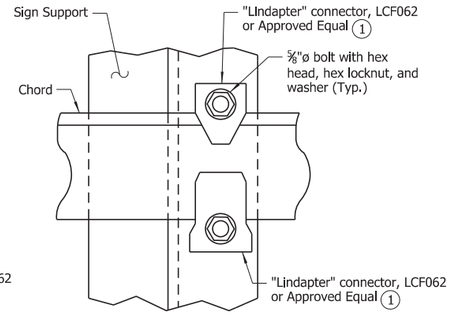


NOTE:
Structural Z support may be fabricated from angles as shown.

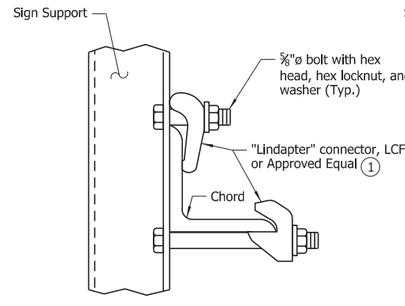
DETAILS OF ALTERNATE Z SUPPORT

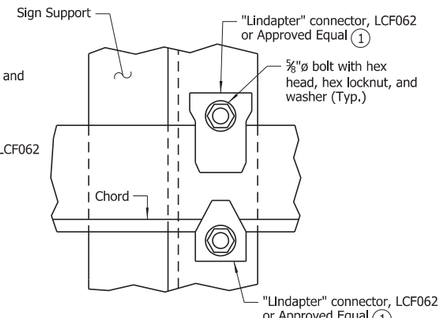
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TOP CHORD





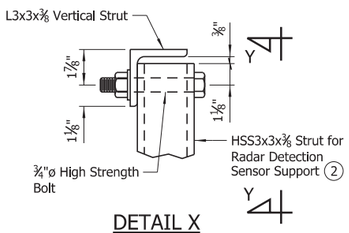
BOTTOM CHORD

1 All "Lindapter" connectors or approved equal shall be installed according to Manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

NOTE:
Install all support connectors clear of the gusset plates.

DETAILS OF SIGN SUPPORT CONNECTION TO TRUSS

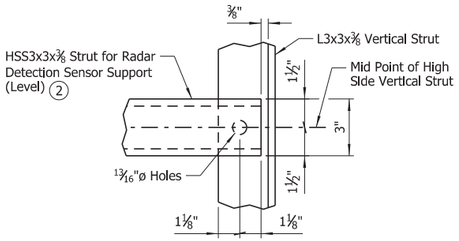
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DETAIL X

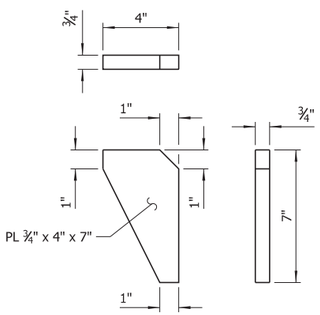
Scale: 3" = 1'-0"

2 HSS3x3x3/8 Strut only required when Radar Detection Sensor Is to be attached to the structure or as directed by the Engineer. See ITS Plans.



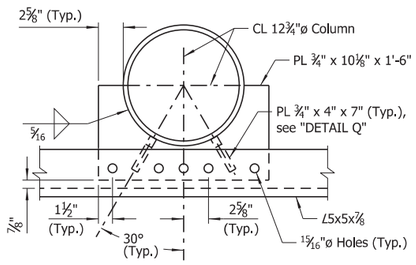
VIEW Y-Y

Scale: 3" = 1'-0"



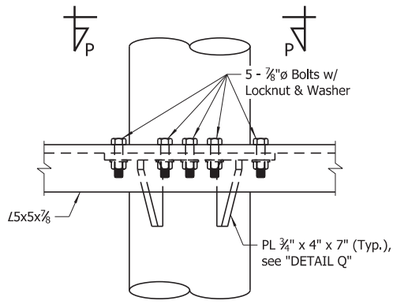
DETAIL Q

Scale: 3" = 1'-0"



SECTION P-P
PLAN - CHORD SUPPORT

(Top Chord Shown, Bottom Chord Similar)
Scale: 1½" = 1'-0"



ELEVATION - CHORD SUPPORT

(Top Chord Shown, Bottom Chord Similar)
Scale: 1½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

DIGITALLY SIGNED 03/18/2025
BRIDGE ENGINEER

SHEET 3 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY:	CSW	DATE:	SEP. 2022	FILENAME:	b040714_tm3.dgn
CHECKED BY:	ABH	DATE:	SEP. 2022	SCALE:	As Shown
DESIGNED BY:	CSW	DATE:	SEP. 2022		

STR. NO. TM-040-17-28 DRAWING NO. 65864

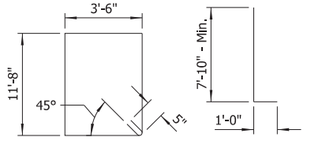
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4/17/2024 4:31:53 PM
WORKSPACE: ABDOT BRdgs (2019)
LSP: 2019 Roads and Bridges
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REVISED DATE

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	173	248
		TM-040-17-28	TEE MOUNT SIGN STR.			65865

BAR LIST - FOUNDATION B1

MARK	NO. REQ'D	LENGTH	P.D.
C401	10	30'-10"	2"
C601	84	8'-8"	4½"
F601	38	17'-6"	Str.
F602	70	9'-6"	Str.

BAR BENDING DIAGRAMS



APPROX. QUANTITIES FOR FOUNDATION B1 (FOR INFORMATION ONLY)

Class S Concrete (Cu. Yds.)	Reinforcing Steel (Lbs.)	Excavation (Cu. Yds.)
38.70	3,300	41

NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one Foundation B1.

GENERAL NOTES:

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

DESIGN SPECIFICATIONS: AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, First Edition, 2015 with current interim revisions

Basic Wind Speed = 120 mph
Fatigue Category: I

This structure is approved for 250 square feet of sign area and a maximum sign weight (total of all signs and hangers) of 6000 lbs. Use of additional sign area or a heavier sign must be approved by the Engineer. If the structure height ("H") exceeds 30'-0", contact the Engineer.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete — f'c = 3,500 psi
Reinforcing Steel (Gr. 60, AASHTO M 31 or M 322, Type A) — fy = 60,000 psi

Spread footings for the structure have been designed assuming a factored bearing resistance of 2.0 ksf. Contractor shall be responsible for evaluating and verifying that the foundation soils are adequate to achieve the assumed factored bearing capacity, utilizing SPT (Standard Penetration Test), CPT (Cone Penetration Test), DCP (Dynamic Cone Penetration) test, or other suitable means, prior to or after footing excavation, whichever is appropriate. If the foundation soils are verified to be adequate, then the footing shall be constructed in accordance with the planned dimensions. Otherwise, the Design Engineer shall be contacted. Costs for foundation soil evaluation and verification shall be included in the item "STEEL TEE MOUNT SIGN STRUCTURE (_)".

Structural steel sign support members shall comply with the following specifications:

Angles:	ASTM A709, Gr. 36 (Fy = 36,000 psi)
Plate, W-Section:	ASTM A709, Gr. 50 (Fy = 50,000 psi)
(1) Pipe:	ASTM A139, Gr. C, straight-seam welded (Fy = 42,000 psi), ASTM A500, Gr. B (Fy = 42,000 psi), ASTM A501, Gr. B (Fy = 50,000 psi)
Z-Shapes:	ASTM A709, Grade 36 (Fy = 36,000 psi)
Shim Plates:	ASTM A1011, SS, Grade 36, Type 2, or Grade 40
Square HSS Tubing:	ASTM A500, Gr. B (Fy = 46,000 psi), ASTM A501, Gr. B (Fy = 50,000 psi), ASTM A709, Gr. 36 (Fy = 36,000 psi)
Bolts:	ASTM F3125, Grade A325, Type 1
Locknuts - Approved Type:	ASTM A563, Grade DH or AASHTO M 292, Grade 2H
Washers:	ASTM F436
Nuts:	ASTM A563, Grade DH or AASHTO M 292, Grade 2H

(1) In addition to material requirements, all pipe used for welded applications shall have a maximum carbon equivalency (CE) of 0.4 using the following equation:

CE = %C + %Mn/6 + %Cu/40 + %Ni/20 + %Cr/10 - %Mo/50 - %V/10

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structure to the existing conditions.

Drawings show general features of design only. Shop drawings shall be made in accordance with Subsection 807.04, 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. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

All steel shall be galvanized according to Subsection 807.19. Steel completely encased in concrete may not be galvanized. Galvanized coating damaged during transport, handling or erection shall be field repaired in accordance with Subsection 807.88.

All main load carrying tension members greater than ½" in thickness shall conform to the requirements of the Longitudinal Charpy V-Notch test specified for Zone 1 minimum service temperature. This work and materials shall be paid for in accordance with Special Provision "STEEL SIGN STRUCTURES."

Truss field sections shall be shop assembled. Entire truss shall be fully assembled and lifted into place as one unit on to tower supports. All truss member connections shall be bolted connections.

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 temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval. All welding shall conform to Subsection 807.26 except welding of tubular sections shall conform to AWS D1.1 Structural Welding Code.

No circumferential butt welds will be allowed in any pipe sections.

All fillet welds of critical members shall be tested according to AWS D1.1 Structural Welding Code - Steel using the magnetic particle method. Critical welds shall include: column to base plate and truss bottom support to column.

Connections shall be bolted with high-strength bolts. Unless otherwise noted, bolts shall be ¾" diameter and open holes shall be $^{13}/_{16}$" diameter. Bolt spacing shall be 2¼" for ¾" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members.

All truss frame bolts shall comply with ASTM F3125, Grade A325, Type 1, galvanized according to Subsection 807.06. Nuts and washers for ASTM F3125, Grade A325, Type 1 bolts shall be furnished and galvanized in accordance with Subsection 807.06.

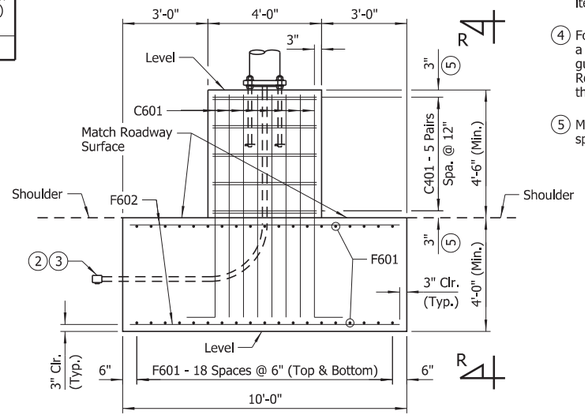
Locknuts shall be equipped with nylon locking inserts or other approved type locking system. Locknuts shall be installed according to Manufacturer's recommendations.

Anchor bolts shall comply with AASHTO M 314, Grade 55, including Supplementary Requirement S1, and shall be galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07. Anchor bolts shall be pretensioned in accordance with Special Provision "STEEL SIGN STRUCTURES."

Shoring may be required to protect existing shoulders or other elements during excavation. Any shoring required shall not be paid for directly, but shall be considered incidental to the item "STEEL TEE MOUNT SIGN STRUCTURE (_)". The excavations for the footings shall be backfilled before the structure is attached to the foundations.

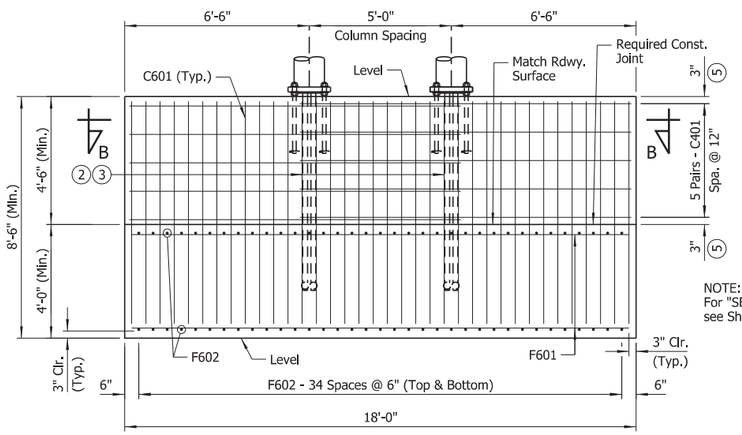
DYNAMIC MESSAGE SIGN (WHEN APPLICABLE): The Dynamic Message Sign (DMS) supplier shall be responsible for the attachment method and materials used to attach the DMS and its accessories to the structure. The method of attachment shall not facilitate any corrosion of the structure. For additional information regarding the DMS, see Special Provision "OVERHEAD DYNAMIC MESSAGE SIGN ASSEMBLY."

For location of each tee mount sign structure and associated foundation type to be used, refer to ITS and/or Sign Plans.



ELEVATION - FOUNDATION B1 (4)

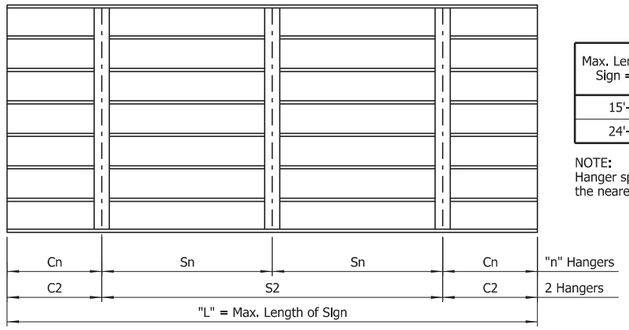
Scale: ⅜" = 1'-0"



NOTE:
For "SECTION B-B", see Sheet 1 of 5.

VIEW R-R

(Foundation B1)
Scale: ⅜" = 1'-0"



NOTE:
See sign details and plan sheets for number, size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

No Scale

HANGER VARIABLES

(For Extruded Panel Signs)

Max. Length of Sign = "L"	"n" Hangers	Cantilever Length "Cn"	Hanger Spacing "Sn"
15'-0"	2 Hangers	0.21 x "L"	0.58 x "L"
24'-0"	3 Hangers	0.145 x "L"	0.355 x "L"

NOTE:
Hanger spacing and cantilever length shall be rounded to the nearest inch.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

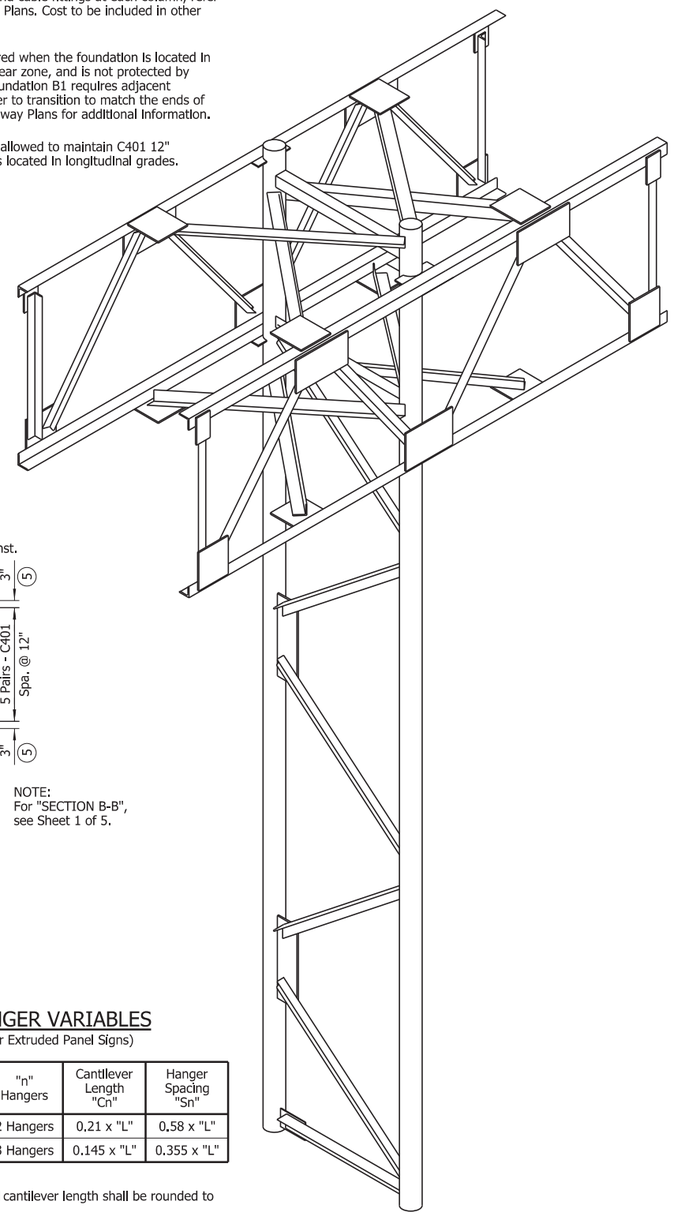
DIGITALLY SIGNED 03/18/2025
BRIDGE ENGINEER

(2) Conduit only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer.

(3) For details of conduit and cable fittings at each column, refer to Electrical and/or ITS Plans. Cost to be included in other items of work.

(4) Foundation B1 is required when the foundation is located in a median, within the clear zone, and is not protected by guardrail or barrier. Foundation B1 requires adjacent Roadway Median Barrier to transition to match the ends of the pedestal. See Roadway Plans for additional information.

(5) Minor adjustments are allowed to maintain C401 12" spacing for foundations located in longitudinal grades.



ISOMETRIC VIEW

No Scale

SHEET 4 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

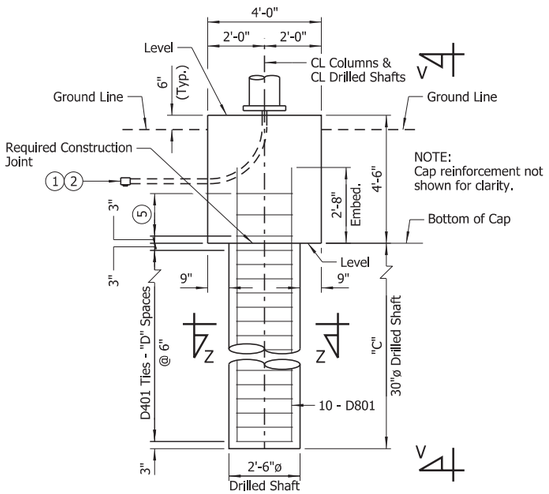
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: SEP. 2022

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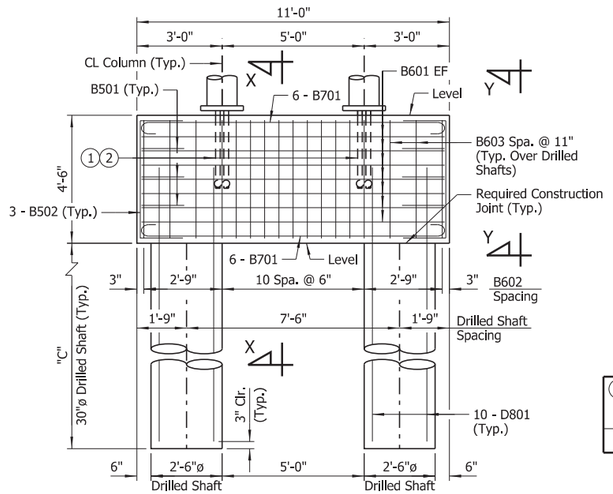
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REVISED DATE

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	174	248
		TM-040-17-28	TEE MOUNT SIGN STR.			65866



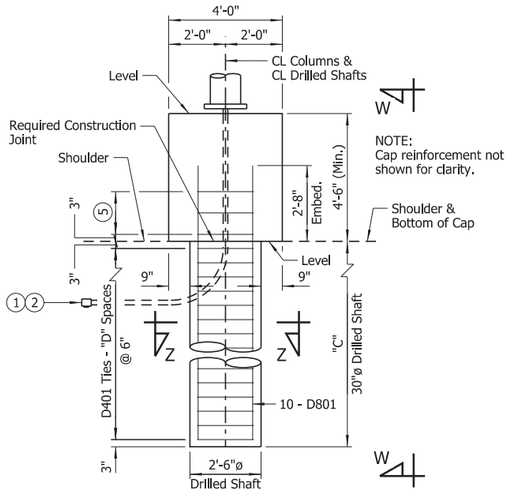
ELEVATION - FOUNDATION A2 (3)

Scale: ⅜" = 1'-0"



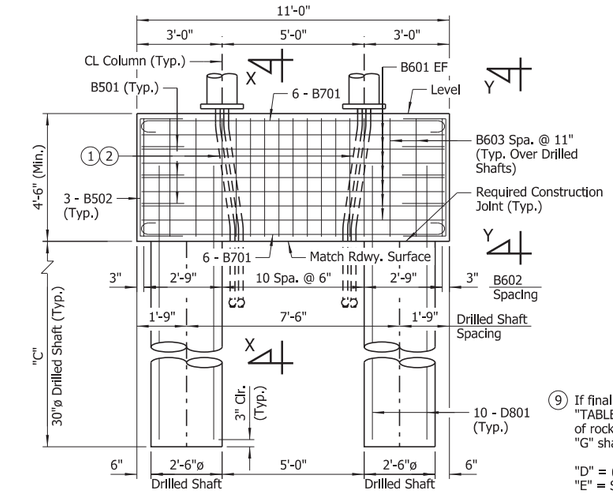
VIEW V-V

Scale: ⅜" = 1'-0"



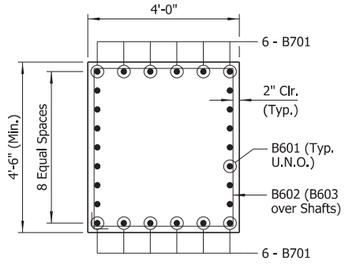
ELEVATION - FOUNDATION B2 (4)

Scale: ⅜" = 1'-0"



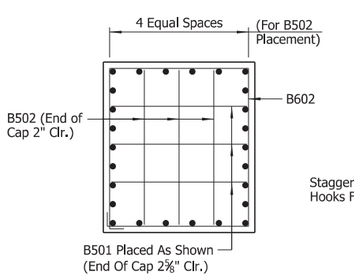
VIEW W-W

Scale: ⅜" = 1'-0"



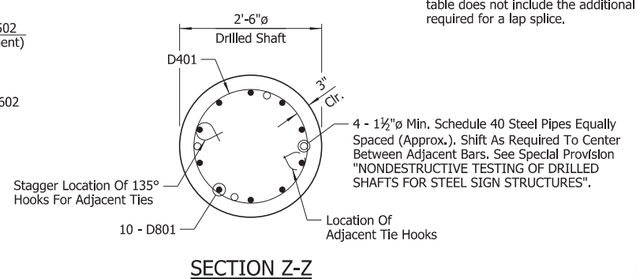
SECTION X-X

Scale: ½" = 1'-0"



VIEW Y-Y

Scale: ½" = 1'-0"



SECTION Z-Z

Scale: ¾" = 1'-0"

(1) Conduit only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer.

(2) For details of conduit and cable fittings at each column, refer to Electrical and/or ITS Plans. Cost to be included in other Items of work.

(3) Foundation A2 allowed only when foundation is outside clear zone or is protected by guardrail or barrier.

(4) Foundation B2 is required when the foundation is located in a median, within the clear zone, and is not protected by guardrail or barrier. Foundation B2 requires adjacent Roadway Median Barrier to transition to match the ends of the cap. See Roadway Plans for additional information.

(5) C401 Ties - 2 Spaces @ 9"

APPROX. QUANTITIES FOR FOUNDATION A2 (FOR INFORMATION ONLY)

(6) CLASS S CONCRETE (CU. YDS.)	(7) REINFORCING STEEL (LBS.)	EXCAVATION (CU. YDS.)	DRILLED SHAFT (30" DIA.) (LIN. FT.)	CROSSHOLE SONIC LOGGING (30" DIA.) (EACH)
7.40	1,040	15	"G"	1

APPROX. QUANTITIES FOR FOUNDATION B2 (FOR INFORMATION ONLY)

(6) CLASS S CONCRETE (CU. YDS.)	(7) REINFORCING STEEL (LBS.)	DRILLED SHAFT (30" DIA.) (LIN. FT.)	CROSSHOLE SONIC LOGGING (30" DIA.) (EACH)
7.40	1,040	"G"	1

(6) Does not include Class S Concrete for Drilled Shafts

(7) Does not include D401 and D801 Bars in Drilled Shafts

(8) Tabulated SPT N60 values are raw SPT N values corrected by SPT hammer efficiency and represent average values along the plan shaft penetration. If the SPT N60 values in the foundation soils within 2 shaft diameters below the plan tip elevation are less than the average SPT N60 values along the plan shaft penetration, the Engineer shall be contacted.

(9) If final drilled shaft length is not shown in "TABLE OF VARIABLES" due to the presence of rock or other factors, variables "D" through "G" shall be determined as follows:

"D" = (Shaft Length in Ft. - 0.5) / 0.5
"E" = Shaft Length in Ft. x 4
"F" = Shaft Length + 2'-5"
"G" = Shaft Length x 2

(10) If "F" exceeds 60'-0", a lap splice is required for each D801 bar at the midpoint of the drilled shaft. Min. lap splice length for D801 bar = 3'-6". Length shown in table does not include the additional length required for a lap splice.

DRILLED SHAFT NOTES (FOUNDATIONS A2 & B2)

Drilled shafts shall conform to Special Provision "DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES". Drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "STEEL TEE MOUNT SIGN STRUCTURE (_)". Temporary casing may be required. Unless approved by the Engineer, permanent steel casing shall not be used.

Crosshole Sonic Logging (CSL) shall be performed on one drilled shaft at each foundation and as directed by the Engineer. Testing shall be performed in accordance with Special Provision "NONDESTRUCTIVE TESTING OF DRILLED SHAFTS FOR STEEL SIGN STRUCTURES".

Concrete and reinforcing steel placed in drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "STEEL TEE MOUNT SIGN STRUCTURE (_)". No additional payment shall be made for spacers, additional splices or bracing needed for assembly, shipping, handling or erecting.

Concrete in drilled shafts shall be Class "S" as modified by Special Provision "DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES".

Drilled shaft lengths shall be determined based on the results of exploratory borings, which shall be performed by the Contractor prior to shaft excavation.

If competent rock is not encountered in the exploratory boring, the Standard Penetration Test (SPT) blow count corrected by the hammer efficiency, N60, shall be used to determine shaft lengths. See "TABLE OF VARIABLES".

If competent rock is encountered in the exploratory boring within 25'-0" of planned top of drilled shaft, the shafts shall be founded a minimum of 3'-0" into rock and have a minimum length of 25'-0".

If competent rock is encountered in the exploratory boring below 25'-0" from planned top of drilled shaft, the shafts shall be founded a minimum of 3'-0" into rock or to the depth based on the SPT N60 value and associated shaft length in the "TABLE OF VARIABLES", whichever is shallower.

Testing results shall be submitted to the Engineer for review. Final drilled shaft lengths shall be approved by the Engineer prior to construction.

The cost of performing exploratory borings and in-situ strength testing shall be included in the item "STEEL TEE MOUNT SIGN STRUCTURE (_)".

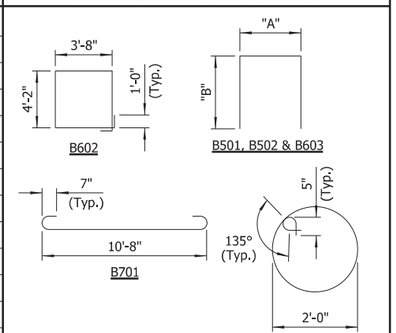
TABLE OF VARIABLES (9)

SPT N60 (8) (blows/ft.)	Min. Depth of Exploratory Boring	Drilled Shaft Length, "C"	"D"	"E"	"F" (10)	"G"
<5	-	Contact Engineer	-	-	-	-
5 To 7	72'-0"	67'-0"	133	268	69'-5"	134'-0"
7 To 9	60'-0"	55'-0"	109	220	57'-5"	110'-0"
9 To 11	45'-0"	40'-0"	79	160	42'-5"	80'-0"
11 To 13	36'-0"	31'-0"	61	124	33'-5"	62'-0"
>13	30'-0"	25'-0"	49	100	27'-5"	50'-0"

BAR LIST - FOUNDATION A2 OR B2

MARK	NO. REQ'D	LENGTH	"A"	"B"	P.D.
B501	6	6'-4"	3'-6"	1'-6"	2½"
B502	6	6'-10"	4'-0"	1'-6"	2½"
B601	14	10'-8"			Str.
B602	13	16'-10"			4½"
B603	4	11'-8"	3'-8"	4'-2"	4½"
B701	12	12'-4"			5¼"
C401	6	7'-4"			3"
D401	"E"	7'-4"			3"
D801	20	"F"			Str.

BAR BENDING DIAGRAMS



NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one Foundation A2 or one Foundation B2.

LEGEND

U.N.O. = Unless Noted Otherwise
EF = Each Face

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
DIGITALLY SIGNED 03/18/2025
BRIDGE ENGINEER

SHEET 5 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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REVISED DATE:

NOTES:
THE CONTRACTOR WILL VERIFY SIGN PLACEMENT AND MAKE ANY ADJUSTMENTS NECESSARY TO ALIGN SIGNS OVER INTENDED LANES.

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

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

EXISTING LOGOS WILL BE RELOCATED TO THE NEW LOGO SIGN BY THE CONTRACTOR. THE EXISTING SIGN SHALL BE REMOVED AND THE HOLES FILLED WITH A SUITABLE MATERIAL AND COMPACTED. THE LOGO INSTALLATION SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE OTHER ITEMS IN THE CONTRACT.

THE E MODIFIED AND SERIES C 2000 FONTS SHALL FOLLOW THE FHWA SPACING GUIDELINES. (HTTP://MUTCD.FHWA.DOT.GOV)

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	175	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025



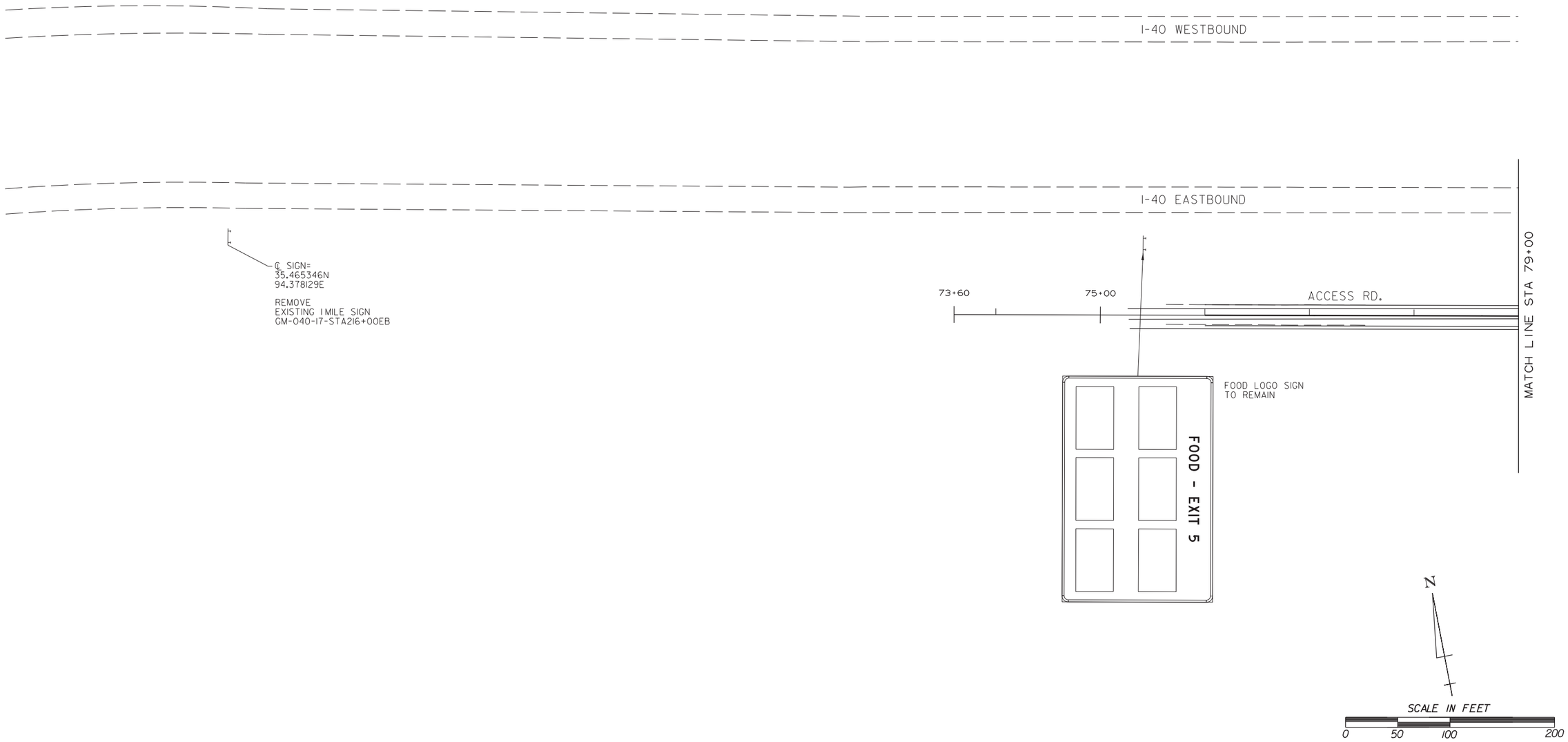
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	176	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
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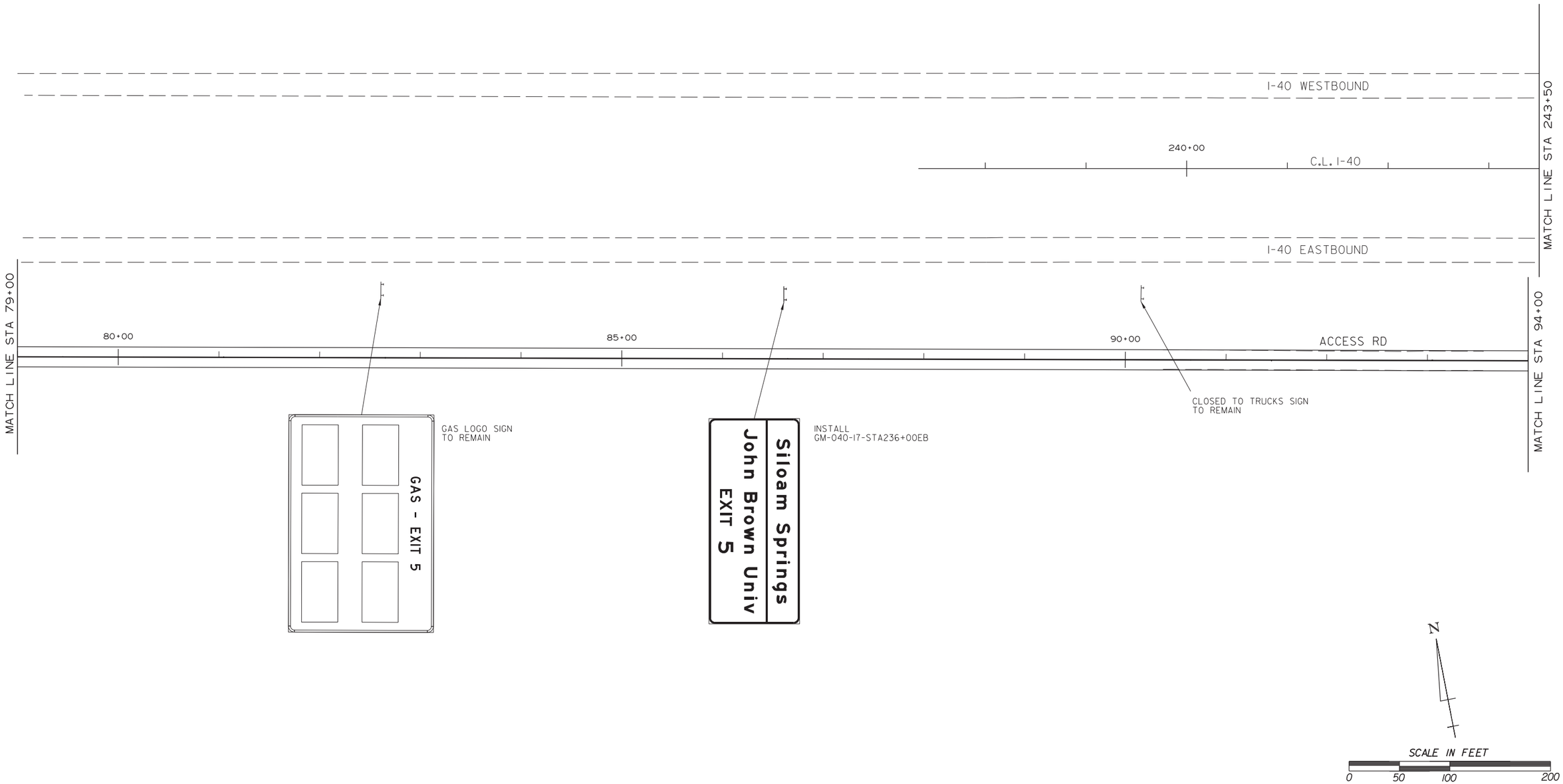
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		6	ARK.	040714	177	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025



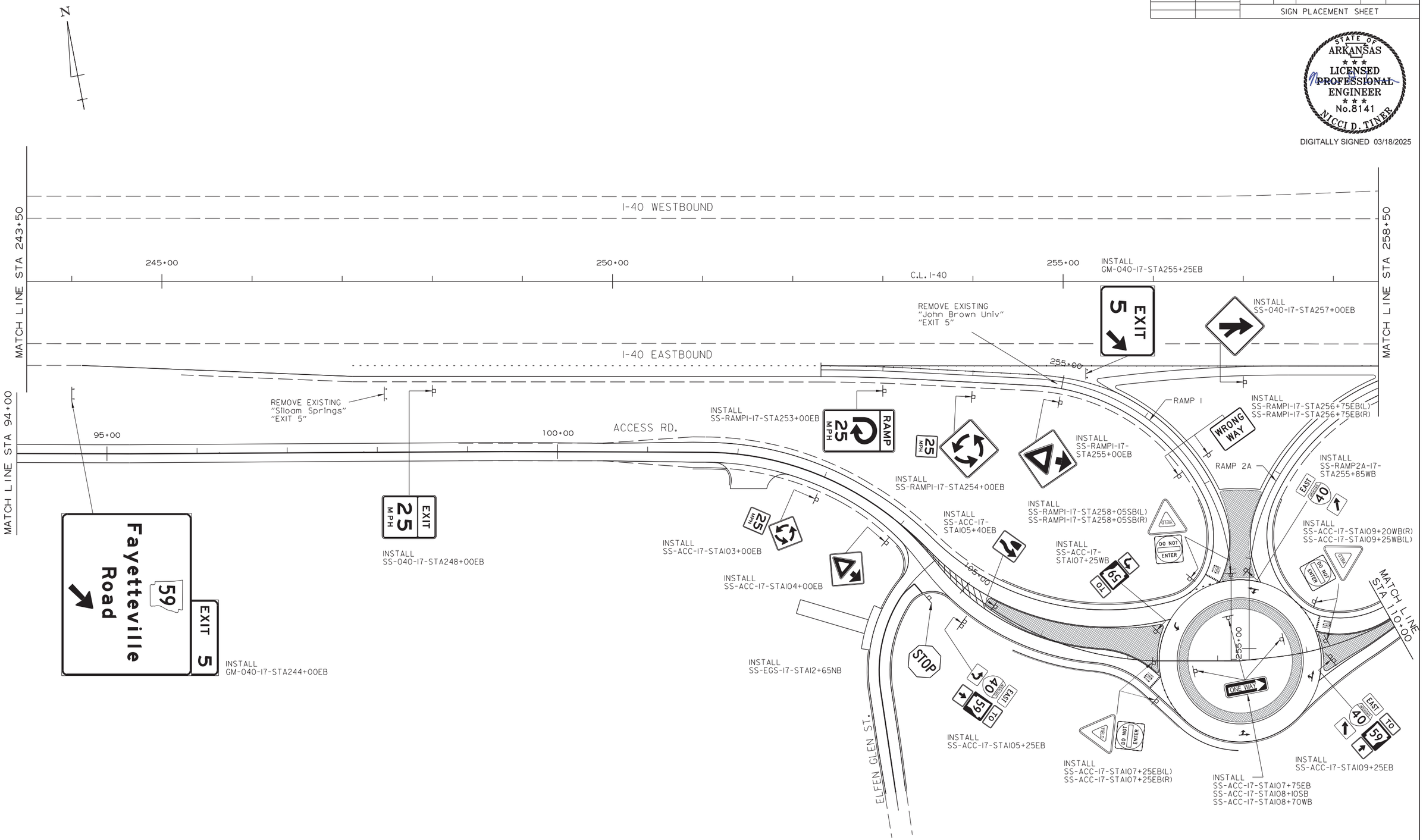
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		6	ARK.	040714	178	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025

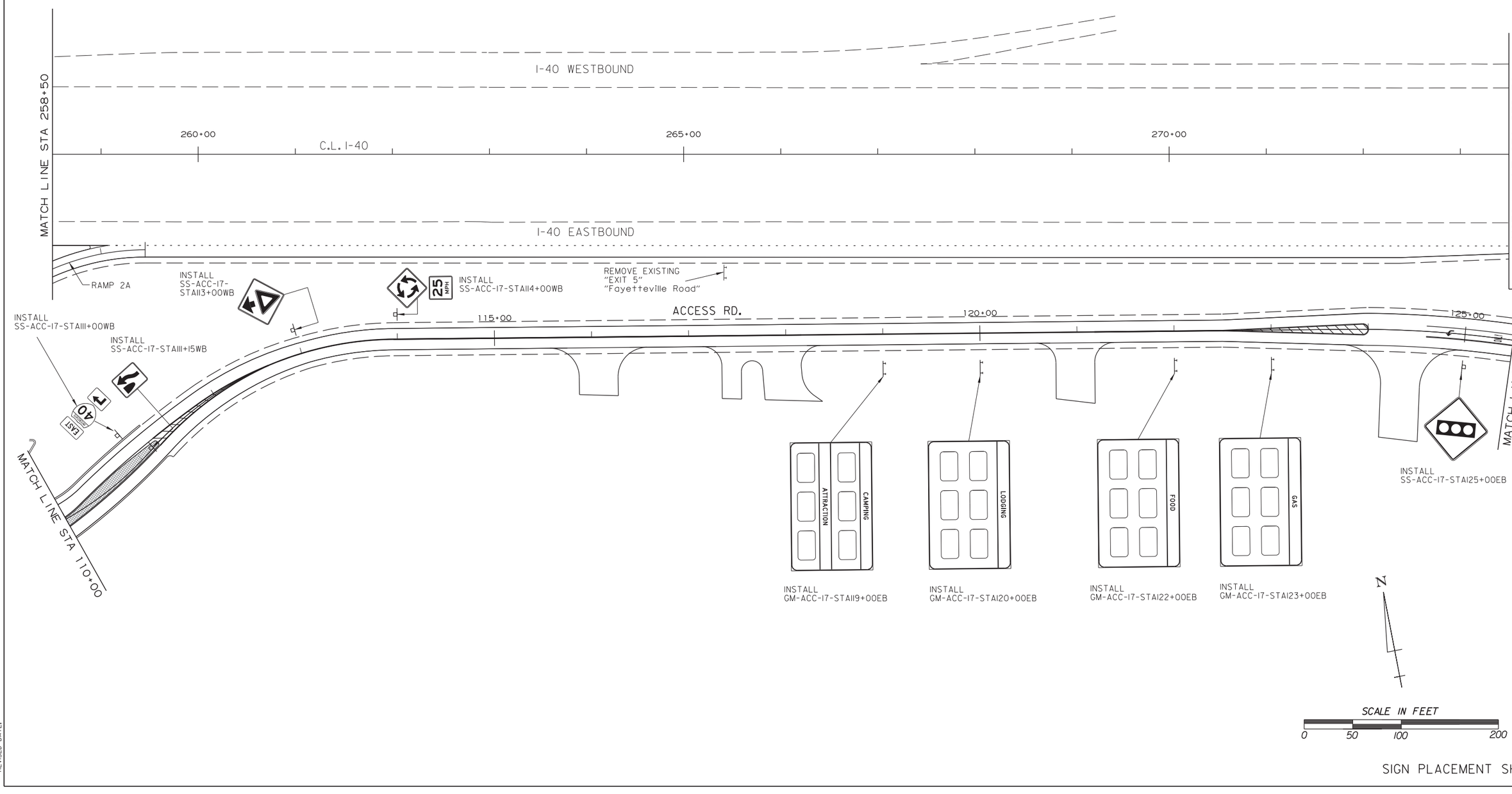


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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	179	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

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SIGN PLACEMENT SHEET

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		6	ARK.	040714	180	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

6th Street
45+00
HWY 59
INSTALL SS-HWY59-I7-STA44+00SB
INSTALL SS-HWY59-I7-STA43+40SB
INSTALL SS-RAMP3-I7-STA279+20WB(L)
INSTALL SS-RAMP3-I7-STA279+20WB(R)
INSTALL SS-RAMP3-I7-STA280+00WB
INSTALL GM-RAMP3-I7-STA282+00WB
INSTALL GM-RAMP3-I7-STA284+00WB
INSTALL SS-RAMP3-I7-STA285+10WB
INSTALL SS-RAMP3-I7-STA285+10WB
INSTALL SS-RAMP3-I7-STA285+10WB
INSTALL SS-RAMP3-I7-STA285+10WB
INSTALL SS-RAMP3-I7-STA286+00WB
GAS LOGO REMOVE & RESET STA287+30WB
FOOD LOGO TO REMAIN
280+00
285+00
RAMP 3
INSTALL SS-RAMP3-I7-STA282+00WB
INSTALL GM-HWY59-I7-STA41+15SB
INSTALL SS-HWY59-I7-STA41+75NB
I-40 WESTBOUND
MATCH LINE STA 273+50
275+00
280+00
285+00
C.L. I-40
40+00
INSTALL SS-HWY59-I7-STA39+50SB
I-40 EASTBOUND
INSTALL GM-HWY59-I7-STA38+85NB
MATCH LINE STA 125+50
ACCESS RD.
130+00
285+00
RAMP 2B
280+00
INSTALL SS-ACC-I7-STAI30+10EB
INSTALL SS-RAMP2B-I7-STA279+80EB
INSTALL SS-HWY59-I7-STA35+75NB
INSTALL GM-ACC-I7-STAI26+00EB
INSTALL SS-ACC-I7-STAI28+00EB
INSTALL SS-ACC-I7-STAI28+00EB
INSTALL SS-ACC-I7-STAI28+00EB
INSTALL SS-ACC-I7-STAI30+50EB
INSTALL GM-ACC-I7-STAI29+00EB
INSTALL SS-ACC-I7-STAI31+10EB
INSTALL GM-HWY59-I7-STA34+00NB
35+00
N
SCALE IN FEET
0 50 100 200

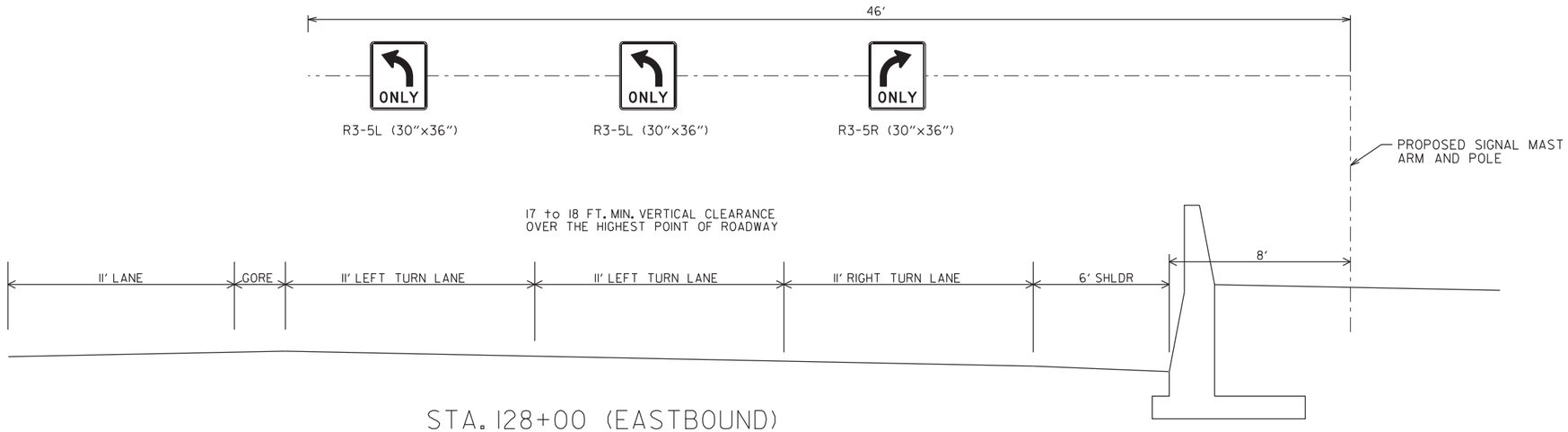
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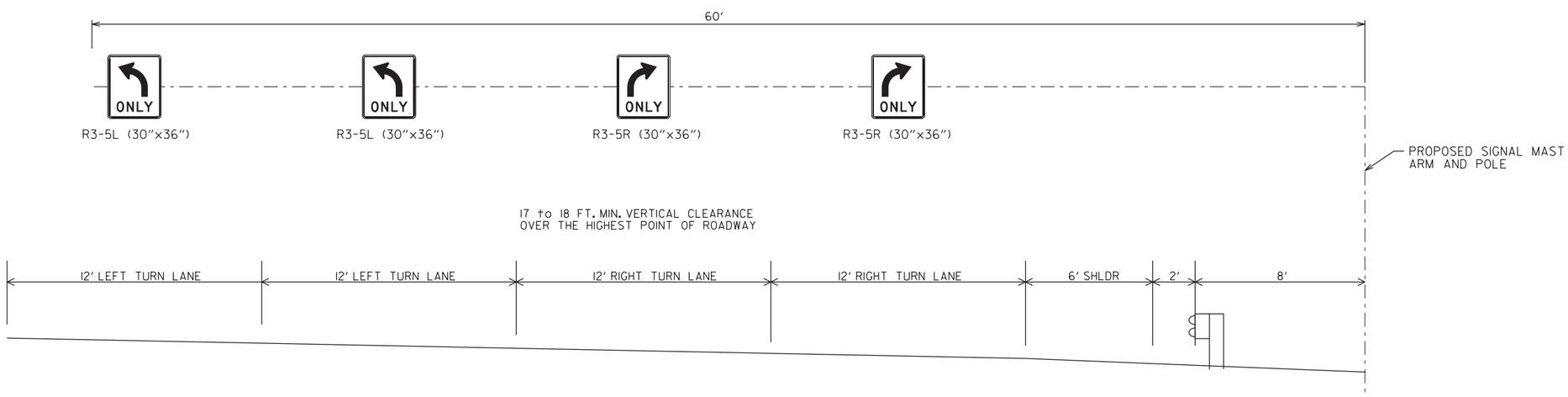
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	181	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025



STA. 128+00 (EASTBOUND)
ACCESS ROAD



STA. 285+10 (WESTBOUND)
RAMP 3

JATurner 3/18/2025 7:25:35 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	182	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER
DIGITALLY SIGNED 03/18/2025

M3-2 (24"x12") EAST TO M4-5 (24"x12")
MI-1 (24"x24") 40 59 MI-5 (24"x24")
M5-3 (21"x15") M6-3 (21"x15")

SS-ACC-I7-STAI05+25EB

M3-2 (24"x12") EAST TO M4-5 (24"x12")
MI-1 (24"x24") 40 59 MI-5 (24"x24")
M6-2L (21"x15") M6-3 (21"x15")

SS-ACC-I7-STAI09+25EB

EAST M3-2 (24"x12")
40 MI-1 (24"x24")
M6-2R (21"x15")

SS-RAMP2A-I7-STA255+85WB

EAST M3-2 (24"x12")
40 MI-1 (24"x24")
M5-1R (21"x15")

SS-ACC.RD-I7-STAIII+00WB

TO M4-5 (24"x12")
59 MI-5 (24"x24")
M5-3 (21"x15")

SS-ACC-I7-STAI07+25WB

M3-1 (24"x12") NORTH SOUTH M3-3 (24"x12")
MI-5 (24"x24") 59 59 MI-5 (24"x24")
M6-1 (21"x15") M6-1 (21"x15")

SS-ACC-I7-STAI30+50EB

M3-1 (24"x12") NORTH TO M4-5 (24"x12")
MI-5 (24"x24") 59 540 MI-1 (30"x24")
M6-3 (21"x15") M6-1 (21"x15")
M3-4 (24"x12") WEST EAST M3-2 (24"x12")
MI-1 (24"x24") 40 40 MI-1 (24"x24")
M6-3 (21"x15") M6-1 (21"x15")

SS-HWY59-I7-STA35+75NB

SOUTH M3-3 (24"x12")
59 MI-5 (24"x24")
M6-3 (21"x15")
M3-2 (24"x12") EAST TO M4-5 (24"x12")
MI-1 (24"x24") 40 540 MI-1 (30"x24")
M6-1 (21"x15") M6-1 (21"x15")

SS-HWY59-I7-STA39+50SB

SOUTH M3-3 (24"x12")
59 MI-5 (24"x24")
M6-3 (21"x15")
M3-2 (24"x12") EAST WEST M3-4 (24"x12")
MI-1 (24"x24") 40 40 MI-1 (24"x24")
M6-3 (21"x15") M6-1 (21"x15")

SS-HWY59-I7-STA44+00SB

M3-4 (24"x12") WEST NORTH M3-1 (24"x12")
MI-1 (24"x24") 40 59 MI-5 (24"x24")
M6-1 (21"x15") M6-3 (21"x15")

SS-HWY59-I7-STA41+75NB

YIELD RI-2 (48"x48"x48")

SS-HWY59-I7-STA43+40SB

M3-3 (24"x12") SOUTH NORTH M3-1 (24"x12")
MI-5 (24"x24") 59 59 MI-5 (24"x24")
M6-1 (21"x15") M6-1 (21"x15")

SS-RAMP3-I7-STA280+00WB

ENTER DO NOT R5-1 (30"x30")
YIELD RI-2 (48"x48"x48")

SS-ACC-I7-STAI07+25EB(L)
SS-ACC-I7-STAI07+25EB(R)
SS-ACC-I7-STAI09+25WB(L)
SS-ACC-I7-STAI09+20WB(R)
SS-RAMP-I7-STA258+05SB(L)
SS-RAMP-I7-STA258+05SB(R)

ENTER DO NOT R5-1 (36"x36")
YIELD RI-2 (48"x48"x48")

SS-ACC-I7-STAI30+10EB
SS-ACC-I7-STAI3I+10EB

STOP RI-1 (36"x36")

SS-EGS-I7-STAI2+65NB

HERE TO RI-5 (36"x36")

SS-RAMP2B-I7-STA279+80EB

ONLY R3-5L (30"x36")

SS-ACC-I7-STAI28+00EB
SS-ACC-I7-STAI28+00EB
SS-RAMP3-I7-STA285+10WB
SS-RAMP3-I7-STA285+10WB

ONLY R3-5R (30"x36")

SS-ACC-I7-STAI28+00EB
SS-RAMP3-I7-STA285+10WB
SS-RAMP3-I7-STA285+10WB

WRONG WAY R5-1a (42"x30")

SS-RAMPI-I7-STA256+75EB(L)
SS-RAMPI-I7-STA256+75EB(R)
SS-RAMP3-I7-STA282+00WB

R4-7 (24"x30")

SS-ACC-I7-STAI05+40EB
SS-ACC-I7-STAIII+15WB

ONE WAY ONE WAY R6-1R (48"x18")
R6-1L (48"x18")
DO NOT ENTER R5-1 (36"x36")

SS-RAMP3-I7-STA279+20WB(L)
SS-RAMP3-I7-STA279+20WB(R)

ONE WAY R6-1R (36"x12")

SS-ACC-I7-STAI07+75EB
SS-ACC-I7-STAI08+10SB
SS-ACC-I7-STAI08+70WB

W2-6 (48"x48")
25 MPH WI3-1 (24"x24")

SS-RAMPI-I7-STA254+00EB

W2-6 (36"x36")
25 MPH WI3-1 (24"x24")

SS-ACC-I7-STAI03+00EB
SS-ACC-I7-STAII4+00WB

W3-2 (48"x48")

SS-RAMPI-I7-STA255+00WB

W3-2 (36"x36")

SS-ACC-I7-STAI04+00EB
SS-ACC-I7-STAII3+00WB

W3-3 (48"x48")

SS-RAMP3-I7-STA286+00WB
SS-ACC-I7-STAI25+00EB

W4-1 (48"x48")

SS-040-I7-STA257+00EB

EXIT 25 MPH WI3-2 (48"x60")

SS-040-I7-STA248+00EB

RAMP 25 MPH WI3-7 (48"x84")

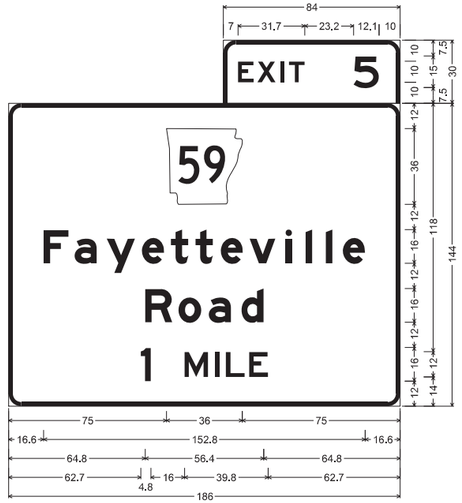
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	183	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

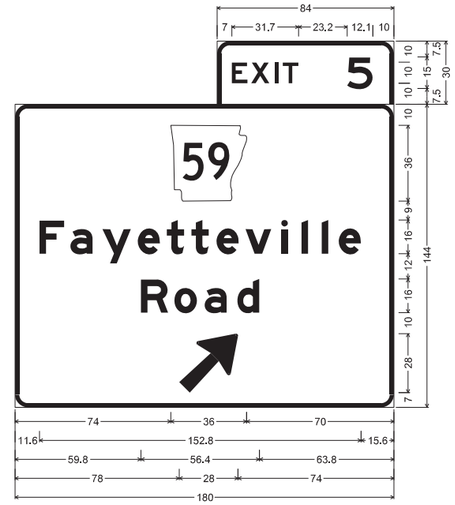
DIGITALLY SIGNED 03/18/2025



6.0" Radius, 2.0" Border, White on Green;
"EXIT", E 2K specified length: "5", E 2K;

6.0" Radius, 2.0" Border, White on Green;
"Fayetteville", E Mod 2K; "Road", E Mod 2K; "1", E 2K; "MILE", E 2K;

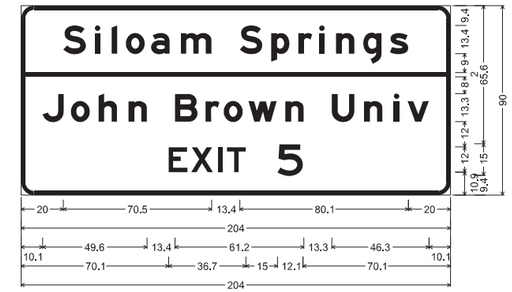
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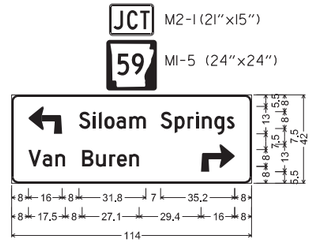
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"Fayetteville", E Mod 2K; "Road", E Mod 2K;
Arrow Custom - 35.6" 45°;

GM-040-I7-STA244+00EB



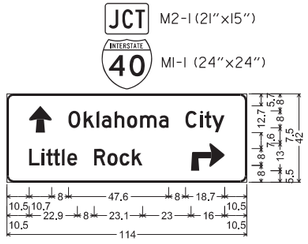
6.0" Radius, 2.0" Border, White on Green;
"Siloam Springs", E Mod 2K; "John Brown Univ", E Mod 2K; "EXIT", E 2K;
"5", E 2K;

GM-040-I7-STA236+00EB



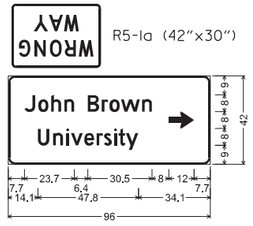
3.0" Radius, 1.0" Border, White on Green;
90 Deg Advance Turn Arrow 16.0" X 13.0";
"Siloam", D 2K; "Springs", D 2K;
"Van", D 2K; "Buren", D 2K;
90 Deg Advance Turn Arrow 16.0" X 13.0";

GM-ACC-I7-STAI27+50EB



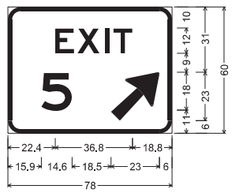
3.0" Radius, 1.0" Border, White on Green;
Arrow Custom - 12.7° 90°;
"Oklahoma", D 2K; "City", D 2K;
"Little", D 2K; "Rock", D 2K;
90 Deg Advance Turn Arrow 16.0" X 13.0";

GM-HWY59-I7-STA34+00NB



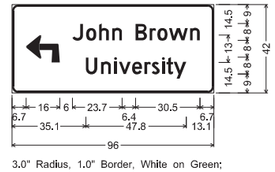
3.0" Radius, 1.0" Border, White on Green;
"John", D 2K; "Brown", D 2K;
"University", D 2K;
Standard Arrow Custom 12.0" X 8.0" 0°;

GM-RAMP3-I7-STA282+00WB



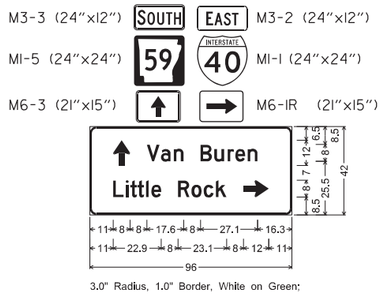
E5-1a_78x60;
6.0" Radius, 2.0" Border, White on Green;
"EXIT", E 2K; "5 ", E 2K;
Arrow Custom - 29.3" 45°;

GM-040-I7-STA255+25EB



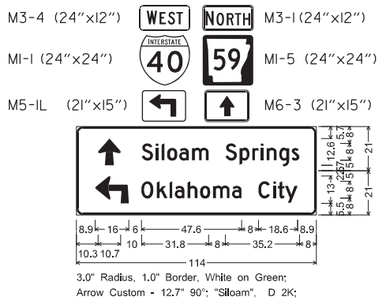
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"John", D 2K; "Brown", D 2K;
"University", D 2K;

GM-ACC-I7-STAI29+00EB



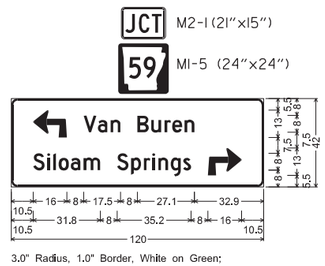
3.0" Radius, 1.0" Border, White on Green;
Standard Arrow Custom 12.0" X 8.0" 90°;
"Van", D 2K; "Buren", D 2K;
"Little", D 2K; "Rock", D 2K;
Standard Arrow Custom 12.0" X 8.0" 0°;

GM-HWY59-I7-STA41+15SB



3.0" Radius, 1.0" Border, White on Green;
Arrow Custom - 12.7° 90°; "Siloam", D 2K;
"Springs", D 2K;
90 Deg Advance Turn Arrow 16.0" X 13.0";
"Oklahoma", D 2K; "City", D 2K;

GM-HWY59-I7-STA38+85NB



3.0" Radius, 1.0" Border, White on Green;
90 Deg Advance Turn Arrow 16.0" X 13.0";
"Van", D 2K; "Buren", D 2K; "Siloam", D 2K;
"Springs", D 2K;
90 Deg Advance Turn Arrow 16.0" X 13.0";

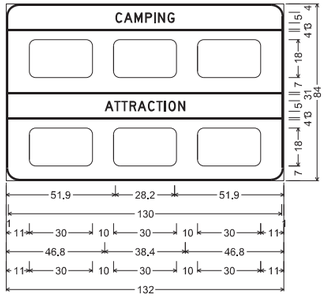
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REVISED DATE:

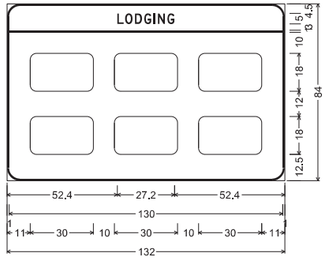
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	184	248
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

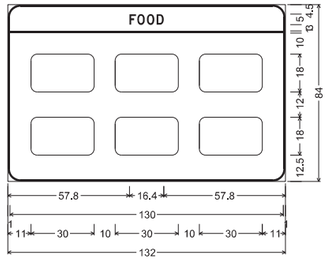
DIGITALLY SIGNED 03/18/2025



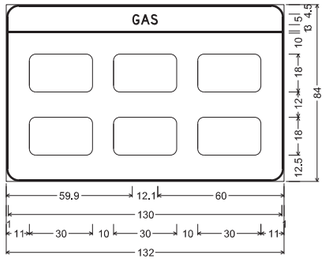
6,0" Radius, 1,0" Border, White on Blue;
"CAMPING", D 2K; Rounded Rectangle 3.0" Radius;
Rounded Rectangle 3,0" Radius;
"ATTRACTION", D 2K;
Rounded Rectangle 3.0" Radius;
GM-ACC-17-STA119+00EB



6,0" Radius, 1,0" Border, White on Blue;
"LODGING", D 2K; Rounded Rectangle 3,0" Radius;
Rounded Rectangle 3,0" Radius;
GM-ACC-17-STA120+00EB



6.0" Radius, 1.0" Border, White on Blue;
"FOOD", D 2K; Rounded Rectangle 3.0" Radius;
Rounded Rectangle 3.0" Radius;
GM-ACC-17-STA122+00EB



6.0" Radius, 1.0" Border, White on Blue;
"GAS", D 2K; Rounded Rectangle 3.0" Radius;
Rounded Rectangle 3.0" Radius;
GM-ACC-17-STA123+00EB

STANDARD SIGN QUANTITIES
OMNI-DIRECTIONAL POSTS (BOX 1 of 1)

SIGN NO./LOCATION	STANDARD ROADSIDE SIGNS TO BE MOUNTED	OMNI-DIRECTIONAL POST ASSEMBLIES				
		G-1	G-2	G2-1	G2-2	G2-3
		EACH	EACH	EACH	EACH	EACH
SS-040-17-STA248+00EB	W13-2			1		
SS-040-17-STA257+00EB	W4-1			1		
SS-RAMP1-17-STA253+00EB	W13-7	1				
SS-RAMP1-17-STA254+00EB	W2-6, W13-1P			1		
SS-RAMP1-17-STA255+00EB	W3-2			1		
SS-RAMP1-17-STA256+75EB(L)	R5-1a			1		
SS-RAMP1-17-STA256+75EB(R)	R5-1a			1		
SS-RAMP1-17-STA258+05SB(L)	R1-2, R5-1					1
SS-RAMP1-17-STA258+05SB(R)	R1-2, R5-1					1
SS-RAMP2A-17-STA255+85WB	M3-2, M1-1, M6-2R	1				
SS-ACC-17-STA103+00EB	W2-6, W13-1P			1		
SS-ACC-17-STA104+00EB	W3-2			1		
SS-ACC-17-STA105+25EB	M3-2, M1-1, M5-3, M4-5, M1-5, M6-3			1		
SS-ACC-17-STA105+40EB	R4-7	1				
SS-ACC-17-STA107+25EB(L)	R1-2, R5-1					1
SS-ACC-17-STA107+25EB(R)	R1-2, R5-1					1
SS-ACC-17-STA107+25WB	M4-5, M1-5, M5-3	1				
SS-ACC-17-STA107+75EB	R6-1R	1				
SS-ACC-17-STA108+10SB	R6-1R	1				
SS-ACC-17-STA108+70WB	R6-1R	1				
SS-ACC-17-STA109+20WB(R)	R1-2, R5-1					1
SS-ACC-17-STA109+25WB(L)	R1-2, R5-1					1
SS-ACC-17-STA109+25EB	M3-2, M1-1, M6-2L; M4-5, M1-5, M6-3			1		
SS-EGS-17-STA12+65NB	R1-1	1				
SS-ACC-17-STA111+00WB	M3-2, M1-1, M5-1R	1				
SS-ACC-17-STA111+15WB	R4-7	1				
SS-ACC-17-STA113+00WB	W3-2			1		
SS-ACC-17-STA114+00WB	W2-6, W13-1P			1		
SS-ACC-17-STA125+00EB	W3-3			1		
SS-ACC-17-STA130+10EB	R1-2, R5-1					1
SS-ACC-17-STA130+50EB	M3-1, M1-5, M6-1L; M3-3, M1-5, M6-1R			1		
SS-ACC-17-STA131+10EB	R1-2, R5-1					1
SS-HWY59-17-STA35+75NB	M3-1, M1-5, M6-3; M4-5, M1-1(30"), M6-1R M3-4, M1-1, M6-3; M3-2, M1-1, M6-1R			1		
SS-HWY59-17-STA39+50SB	M3-3, M1-5, M6-3 M3-2, M1-1, M6-1R; M4-5, M1-1(30"), M6-1R			1		
SS-HWY59-17-STA41+75NB	M3-4, M1-1, M6-1L; M3-1, M1-5, M6-3			1		
SS-HWY59-17-STA43+40SB	R1-2					1
SS-HWY59-17-STA44+00SB	M3-3, M1-5, M6-3 M3-2, M1-1, M6-3; M3-4, M1-1, M6-1R			1		
SS-RAMP2B-17-STA279+80EB	R1-5	1				
SS-RAMP3-17-STA279+20WB(L)	R5-1, R6-1L, R6-1R					1
SS-RAMP3-17-STA279+20WB(R)	R5-1, R6-1L, R6-1R					1
SS-RAMP3-17-STA280+00WB	M3-3, M1-5, M6-1L; M3-1, M1-5, M6-1R			1		
SS-RAMP3-17-STA282+00WB	R5-1a			1		
SS-RAMP3-17-STA286+00WB	W3-3			1		
TOTALS		11	0	21	0	11

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	185	248
		SIGN QUANTITY SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 03/18/2025

STANDARD ROADSIDE SIGN
SHEET ALUMINUM 0.100" THICKNESS (5 SF OR LESS)

SIGN NO.	SIZE OF SIGN	UNIT AREA (SQ. FT.)	QUANTITY REQUIRED	TOTAL SIGN AREA (SQ. FT.)	LEGEND/BACKGROUND
M1-1	24" x 24"	4.00	13	52.00	WHITE/BLUE
M1-1	30" x 24"	5.00	2	10.00	WHITE/BLUE
M1-5	24" x 24"	4.00	15	60.00	BLACK/WHITE
M2-1	21" x 15"	2.19	1	2.19	WHITE/BLUE
M2-1	21" x 15"	2.19	2	4.38	BLACK/WHITE
M3-1	24" x 12"	2.00	5	10.00	BLACK/WHITE
M3-2	24" x 12"	2.00	8	16.00	WHITE/BLUE
M3-3	24" x 12"	2.00	5	10.00	BLACK/WHITE
M3-4	24" x 12"	2.00	4	8.00	WHITE/BLUE
M4-5	24" x 12"	2.00	3	6.00	BLACK/WHITE
M4-5	24" x 12"	2.00	2	4.00	WHITE/BLUE
M5-1L	21" x 15"	2.19	1	2.19	WHITE/BLUE
M5-1R	21" x 15"	2.19	1	2.19	WHITE/BLUE
M5-3	21" x 15"	2.19	1	2.19	BLACK/WHITE
M5-3	21" x 15"	2.19	1	2.19	WHITE/BLUE
M6-1L	21" x 15"	2.19	2	4.38	BLACK/WHITE
M6-1L	21" x 15"	2.19	1	2.19	WHITE/BLUE
M6-1R	21" x 15"	2.19	2	4.38	BLACK/WHITE
M6-1R	21" x 15"	2.19	6	13.13	WHITE/BLUE
M6-2L	21" x 15"	2.19	1	2.19	WHITE/BLUE
M6-2R	21" x 15"	2.19	1	2.19	WHITE/BLUE
M6-3	21" x 15"	2.19	8	17.50	BLACK/WHITE
M6-3	21" x 15"	2.19	2	4.38	WHITE/BLUE
R4-7	24" x 30"	5.00	2	10.00	BLACK/WHITE
R6-1R	36" x 12"	3.00	3	9.00	BLACK/WHITE
W13-1P	30" x 24"	4.00	3	12.00	BLACK/YELLOW
TOTAL 0.100" THICKNESS				272.67	

STANDARD ROADSIDE SIGNS
SHEET ALUMINUM 0.125" THICKNESS (GREATER THAN 5 SF)

SIGN NO.	SIZE OF SIGN	UNIT AREA (SQ. FT.)	QUANTITY REQUIRED	TOTAL SIGN AREA (SQ. FT.)	LEGEND/BACKGROUND
R1-1	36" x 36"	7.46	1	7.46	WHITE/RED
R1-2	48" x 48" x 48"	6.93	9	62.37	RED/WHITE
R1-5	36" x 36"	9	1	9.00	WHITE/RED
R3-5L	30" x 36"	7.5	4	30.00	BLACK/WHITE
R3-5R	30" x 36"	7.5	3	22.50	BLACK/WHITE
R5-1	30" x 30"	6.25	6	37.50	WHITE/RED
R5-1	36" x 36"	9	4	36.00	WHITE/RED
R5-1a	42" x 30"	8.75	4	35.00	WHITE/RED
R6-1L	48" x 18"	6.00	2	12.00	BLACK/WHITE
R6-1R	48" x 18"	6.00	2	12.00	BLACK/WHITE
W2-6	36" x 36"	9	2	18.00	BLACK/YELLOW
W2-6	48" x 48"	16	1	16.00	BLACK/YELLOW
W3-2	36" x 36"	9	2	18.00	BLACK/YELLOW
W3-2	48" x 48"	16	1	16.00	BLACK/YELLOW
W3-3	48" x 48"	16	2	32.00	BLACK/YELLOW
W4-1R	48" x 48"	16	1	16.00	BLACK/YELLOW
W13-2	48" x 60"	20	1	20.00	BLACK/YELLOW
W13-7	48" x 84"	28	1	28.00	BLACK/YELLOW
TOTAL 0.125" THICKNESS				427.83	

SIGN NO./LOCATION	STRUCTURE TYPE	SIGN				BREAKAWAY SIGN SUPPORT										EXIT NUMBER PANEL			
			GUIDE SIGN			STEEL SECT. A-572		Sign Post Length		STUB POST		FOOTINGS			SIGN POST AND STUB	LEGEND	TYPE		
	TYPE	STANDARD SIGN	LENGTH	HEIGHT	AREA			H-1	H-2	H-1	H-2	DIA.	DEPTH	EMBED.			A	B	C
	G-2	SQ. FT.	FT.	FT.	SQ. FT.	BEAM	LBS	LIN FT		LIN FT		LIN FT			POUND		SQ. FT.		
GM-040-17-STA193+50EB	1		15.50	12.00	186.00	W8	18	18	20.5	3.66	3.66	1.5	5	3.33	824.89	EXIT 5	17.5		
GM-040-17-STA236+00EB	1		18.00	7.50	135.00	W8	18	15.75	18.5	3.66	3.66	1.5	5	3.33	748.39				
GM-040-17-STA244+00EB	1		15.00	12.50	187.50	W8	18	18.25	20.5	3.66	3.66	1.5	5	3.33	829.39	EXIT 5	17.5		
GM-040-17-STA255+25EB	1		6.50	5.00	32.50	W6	9	14.5	15.5	3.33	3.33	1.5	4.5	3.00	329.94				
GM-ACC-17-STA119+00EB	1		11.00	7.00	77.00	W8	18	15.5	17.25	3.66	3.66	1.5	5	3.33	721.39				
GM-ACC-17-STA120+00EB	1		11.00	7.00	77.00	W8	18	15.5	17.25	3.66	3.66	1.5	5	3.33	721.39				
GM-ACC-17-STA122+00EB	1		11.00	7.00	77.00	W8	18	15.5	17.25	3.66	3.66	1.5	5	3.33	721.39				
GM-ACC-17-STA123+00EB	1		11.00	7.00	77.00	W8	18	15.5	17.25	3.66	3.66	1.5	5	3.33	721.39				
GM-ACC-17-STA127+50EB	1		9.50	3.50	33.25	W6	9	13.75	15.25	3.33	3.33	1.5	4.5	3.00	320.94				
GM-ACC-17-STA129+00EB	1		8.00	3.50	28.00	W6	9	13.75	15	3.33	3.33	1.5	4.5	3.00	318.69				
GM-HWY59-17-STA34+00NB	1		9.50	3.50	33.25	W6	9	13.75	15.25	3.33	3.33	1.5	4.5	3.00	320.94				
GM-HWY59-17-STA38+85NB	1		9.50	3.50	33.25	W6	9	13.75	15.25	3.33	3.33	1.5	4.5	3.00	320.94				
GM-HWY59-17-STA41+15SB	1		8.00	3.50	28.00	W6	9	13.75	15	3.33	3.33	1.5	4.5	3.00	318.69				
GM-RAMP3-17-STA282+00WB	1		8.00	3.50	28.00	W6	9	13.75	15	3.33	3.33	1.5	4.5	3.00	318.69				
GM-RAMP3-17-STA284+00WB	1		10.00	3.50	35.00	W6	9	13.75	15.25	3.33	3.33	1.5	4.5	3.00	320.94				
TOTALS:	15				1067.75										7858.00		35.00	0.00	0.00

SUMMARY OF SIGN QUANTITIES

ITEM NUMBER	ITEM	UNIT	ESTIMATED QUANTITY
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46')	EACH	1
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (60')	EACH	1
SS & 725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	SQ. FT.	1068
SS & 726	STANDARD SIGN	SQ. FT.	701
SS & 727	EXIT NUMBER PANEL (TYPE A)	SQ. FT.	35
SS & 730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	POUND	7858
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT (TYPE G-1)	EACH	11
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT (TYPE G2-1)	EACH	21
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT (TYPE G2-3)	EACH	11

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	186	248
		ELECTRICAL GENERAL NOTES AND LEGEND - EN-1				

ELECTRICAL SYMBOLS LEGEND

- NEW SINGLE ARM LIGHT FIXTURE, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION.
- PB — TYPE 2 HD PULL BOX
- CONDUIT & WIRE AS NOTED IN NOTES AND IN SCHEDULES.
- RELAY CONTACT, NORMALLY OPEN.
- 20A/2P — CIRCUIT BREAKER, TRIP RATING SHOWN, 2-POLE UNLESS NOTED OTHERWISE.
- SPD — SURGE PROTECTIVE DEVICE WITH INDICATING LIGHTS.
- OR — 3/4" x 10' COPPER CLAD GROUND ROD.
- SP — SERVICE POINT LOCATION
- 20 AMP DUPLEX RECEPTACLE, WITH GROUND WIRE, "GFCI" INDICATES GROUND FAULT CIRCUIT INTERRUPTER.

ABBREVIATIONS

A	AMP
ABC	ABOVE COUNTER
ACS	ACCESS CONTROL SYSTEM
ACU	AIR CONDITIONING UNIT
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CAPACITY
AM	AMP-METER
ANN	ANNUNCIATOR
AP	AERIAL PRIMARY
AS	AERIAL SECONDARY
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
BFI	BLOWN FUSE INDICATOR
BI	BYPASS ISOLATION
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CGRS	PVC COATED GALVANIZED RIGID STEEL
CKT	CIRCUIT
COM	COMMON
CONT	CONTINUOUS
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CRI	COLOR RENDERING INDEX
CS	CORD SET
CU	COEFFICIENT OF UTILIZATION
DEB	DIRECT EARTH BURIED
EC	EMPTY OR EMBEDDED CONDUIT
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
EL	ELEVATION
EMT	ELECTRICAL METALLIC TUBING
ETM	ELASPED TIME METER
FC	FAN COIL
FDS	FUSED DISCONNECT SWITCH
FOC	FIBER OPTIC CABLE
FVNR	FULL VOLTAGE NON-REVERSING STARTER
FVR	FULL VOLTAGE REVERSING STARTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER OR HEAT PUMP
IDS	INTRUSION DETECTION SYSTEM
HR	HOUR
IG	ISOLATED GROUND
ISP	INDIVIDUALLY SHIELDED PAIR
JB	JUNCTION BOX
kVA	KILOVOLT-AMPERE
kVAR	KILOVOLT-AMPERE, REACTIVE
kW	KILOWATT
LA	LIGHTNING ARRESTER
LC	LIGHTING CONTACTOR
LLF	LIGHT LOSS FACTOR
LO	LUGS ONLY
LOR	LOCAL-OFF-REMOTE
LSI	LONG, SHORT, INSTANTANEOUS
LSIG	LONG, SHORT, INSTANTANEOUS, GROUND
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MN	MASS NOTIFICATION
MON	MONACO
MS	MOTOR STARTER
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NFDS	NON-FUSED DISCONNECT SWITCH
NL	NIGHT LIGHT
OH	OVERHEAD
OHP	OVERHEAD PRIMARY
OHS	OVERHEAD SECONDARY
OL	OVERLOAD
PB	PUSH BUTTON
PEC	PHOTO ELECTRIC CELL
PF	POWER FACTOR
PFCC	POWER FACTOR CORRECTION CAPACITOR
PL	PILOT LIGHT
PMR	PHASE MONITOR RELAY
PNL	PANEL
PTT	PUSH-TO-TEST
PTZ	PAN-TILT-ZOOM
PVC	SCHEDULE 40 POLYVINYL CONDUIT
RECPT	RECEPTACLE
RVAT	REDUCED VOLTAGE AUTO-TRANSFORMER STARTER
SA	SURGE ARRESTER
SDBC	SOFT DRAWN BARE COPPER
SE	SERVICE ENTRANCE
SN	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
STA	STATION
SW	SWITCH
TC	TIME CLOCK
TD	TIME DELAY
TDD	TIME DELAY ON DE-ENERGIZATION
TDE	TIME DELAY ON ENERGIZATION
TEL	TELEPHONE
THD	TOTAL HARMONIC DISTORTION
TMGB	TELECOMMUNICATIONS MAIN GROUND BAR
TGB	TELECOMMUNICATIONS GROUND BAR
TR	TAMPER RESISTANT
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UGP	UNDERGROUND PRIMARY
UGS	UNDERGROUND SECONDARY
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLT-AMP
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLT-METER
W	WATT OR WIRE
WAP	WIRELESS ACCESS POINT
WH	WEATHER HEAD
WM	WATT METER
WP	WEATHERPROOF
XFMR	TRANSFORMER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21842
JAMES K. SCRUGGS

LEGEND NOTES:

1. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET BUT NOT BE UTILIZED ON THE PROJECT.
2. LIGHTING LEGEND SHOWS EXAMPLE IDENTIFIERS. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS.

2 SETS ((3#8 + 1#8N + 1#10EG) 2" GRS)

- 2 SETS — NUMBER OF SETS
- (3#8 — PHASE (HOT) CONDUCTOR, NUMBER AND SIZE
- + 1#8N — GROUNDED (NEUTRAL) CONDUCTOR, NUMBER AND SIZE
- + 1#10EG) — GROUNDING (GROUND) CONDUCTOR, NUMBER AND SIZE
- 2" — CONDUIT SIZE
- GRS — CONDUIT TYPE (SEE ABBREVIATIONS) REFER TO SPECIFICATIONS IF NOT SHOWN

ADDL. *ITS* QUANTITIES ILLUMINATION

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	100	LIN. FT.
SP	LOCAL RADIO (E-NET 5.8) WITH ANTENNA	1	EACH
SP	PTZ CAMERA SYSTEM	1	EACH
SP	NEMA ENCLOSURE	1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G., E.G.C.)	2750	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/10 A.W.G., E.G.C.)	825	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1170	LIN. FT.
710	NON-METALLIC CONDUIT (2")	3450	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	30	EACH
SP	LED ROADWAY ILLUMINATION POLE (17,400 LUMENS, T-BASE, 30', 4' ARM)	26	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (100 AMP)	1	EACH

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

JATurner 3/18/2025 7:25:45 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	187	248

ELECTRICAL GENERAL NOTES AND LEGEND - EN-2

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21842
JAMES K. SCOGGIN

CONSTRUCTION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NFPA70, CURRENT EDITION), LIFE SAFETY CODE (NFPA 101, CURRENT EDITION), UNDERGROUND FACILITIES DAMAGE PREVENTION ACT (14-271-101ET SEQ.), AND LOCAL ELECTRICAL CODE. IN ADDITION, ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

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

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

4. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NO LONGER NECESSARY.

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

6. 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 NOTED.

7. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY A PUSHING OR BORING METHOD OR AS DIRECTED BY ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" AS PER NEC.

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

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

10. EACH ROADWAY ILLUMINATION POLE SHALL BE BONDED TO EQUIPMENT GROUNDING CONDUCTOR PER NEC. SEE ARTICLES 250 AND 410.

11. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

12. ALL LUMINAIRE ASSEMBLIES SHALL HAVE BUG RATING OF U-0.

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

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

15. ALL CONCRETE PULL BOXES SHALL BE TYPE 2 HD UNLESS OTHERWISE INDICATED ON THE PLANS.

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

17. CONDUCT A MINIMUM 14-DAY BURN TEST FOR THE COMPLETE LIGHTING SYSTEM. REPLACE BURNED OUT AND NOTICEABLY DIM LUMINAIRES; MALFUNCTIONING EQUIPMENT SHALL BE CORRECTED, AND RETEST THE SYSTEM. OTHERWISE REMOVE AND REPLACE WITH NEW EQUIPMENT.

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

19. ALL METAL POLES SHALL BE BONDED TO E.G.C. PER NEC 410 PART IV AND PART V.

20. THE CONTRACTOR SHALL LABEL ALL CONDUCTORS IN PULL BOXES AND AT SPLICE POINTS.

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

22. ALL SPLICES SHALL BE WATERTIGHT AND UL-LISTED FOR CONTINUOUS USE IN SUBMERSIBLE INSTALLATION.

23. E.G.C. SHALL BE EXOTHERMICALLY BONDED TO GROUND ROD.

24. 2C/_A.W.G.,"_E.G.C. INDICATES TWO CURRENT CARRYING CONDUCTORS AND ONE E.G.C.

25. POLE FOUNDATION/NON-BREAKAWAY FOUNDATIONS SHALL NOT PROTRUDE MORE THAN 4 INCHES ABOVE FINISH GRADE LEVEL.

26. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY (MAINTENANCE AUTHORITY) TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL PROVIDE THE SERVICE POINT ASSEMBLY PER PLANS SET AND CONTRACT PRIOR TO THE DATE ELECTRICAL COMPANIES PROVIDE SERVICE.

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

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

29. CONDUIT SHALL BE BURIED NOT LESS THAN 18" DEPTH BELOW THE FINAL GRADE, AND MINIMUM 24" DEPTH UNDER THE ROADWAY AND SIDEWALK, UNLESS OTHERWISE INDICATED ON THE PLANS.

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

31. IF ENGINEER DETERMINED THAT THE EQUIPMENT SUBMITTAL MEETS THE DESIGN CRITERIA, AN APPROVAL WILL BE PROVIDED. IF THE EQUIPMENT SUBMITTAL FOR USE IS REJECTED, THE CONTRACTOR SHALL RE-SUBMIT THE EQUIPMENT SUBMITTAL WITHIN FIFTEEN (15) DAYS OF NOTIFICATION OF EQUIPMENT REJECTION. THE EQUIPMENT RESUBMITTAL WILL BE CONSIDERED THE STARTING POINT OF A NEW APPROVAL CYCLE AS DESCRIBED.

32. ALL CONDUIT INSTALLED UNDER PAVED AREAS SHALL BE SCHEDULE 80 PVC CONDUIT.

33. ALL CONDUIT INSTALLED IN UNPAVED AREAS SHALL BE SCHEDULE 40 PVC CONDUIT.

34. INSTALL PULL BOX (TYPE 2 HD) WITHIN 5' OF POLE FOUNDATION, AND THE SERVICE POINT ASSEMBLY UNLESS SHOWN OTHERWISE ON THE PLANS.

35. THE DEGREE OF TILT ON LUMINAIRES SHALL BE ZERO.

36. EXPOSED CONDUIT SHALL BE COATED GALVANIZED RIGID STEEL.

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

JATurner 3/18/2025 7:25:46 AM
WORKSPACE: AHTD
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REVISED DATE:

GENERAL NOTES:

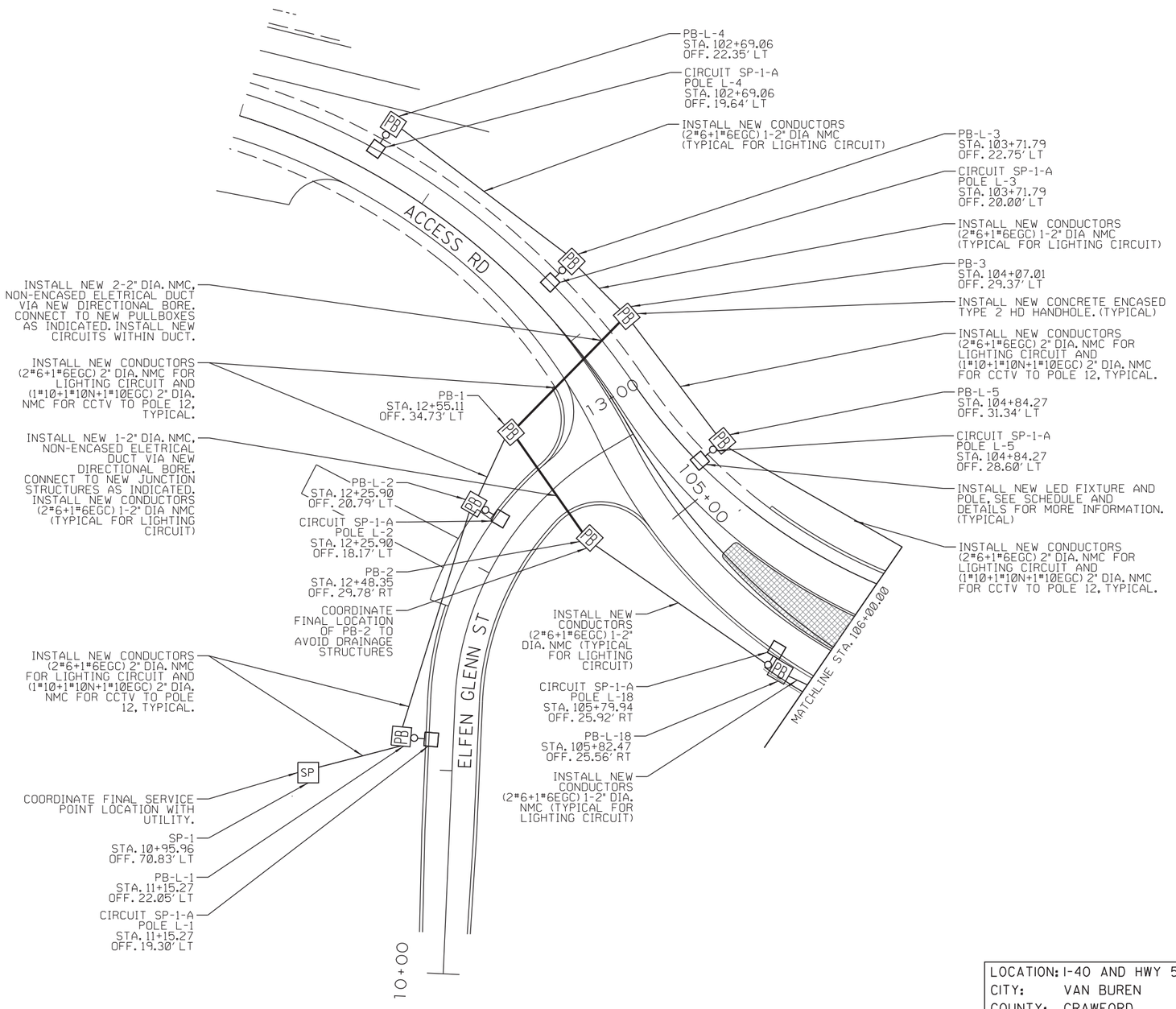
1. LIGHTING IS DESIGNED AROUND AMERICAN ELECTRIC LIGHTING AUTOBAHN MODEL ATBM-P40-MVOLT-R3. APPROVED EQUALS ARE ALLOWED, BUT SHALL BE REQUIRED TO MEET LIGHTING CHARACTERISTICS DETAILED IN ROADWAY ILLUMINATION POLES SP.
2. FIXTURES SHALL BE MOUNTED ON 30' STEEL POLES WITH INTEGRAL VIBRATION DAMPENERS.
3. LIGHT FIXTURE AND POLE COLORS SHALL BE COORDINATED WITH ENGINEER AND ARDOT PRIOR TO CONSTRUCTION DURING SHOP DRAWING AND SUBMITTAL REVIEWS.
4. AT L-18, L-19, AND L-20, COORDINATE LOCATION OF RESPECTIVE POLE BASE PULL BOXES TO BE ADJACENT TO LIGHT POLE BASES ON LOW SIDE OF RETAINING WALL. ROUTE CIRCUIT UNDERGROUND ADJACENT TO LIGHT BASES WITHIN GRASS BERM AT BASE OF RETAINING WALL. INSTALL LIGHT POLES AS CLOSE TO RETAINING WALL AS ABLE.
5. RUN SEPARATE CONDUIT FROM SERVICE POINT TO POLE 12 FOR DEDICATED PTZ CAMERA AND RADIO CIRCUIT.

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	188	248
		LIGHITNG LAYOUT PLAN I				

0' 15' 30' 60' 90'
(IN FEET)

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21642
JAMES K. SCRUTT



LEGEND

- NEW SINGLE ARM LIGHT FIXTURE, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION.
- PB TYPE 2 HD PULL BOX
- SP SERVICE POINT LOCATION

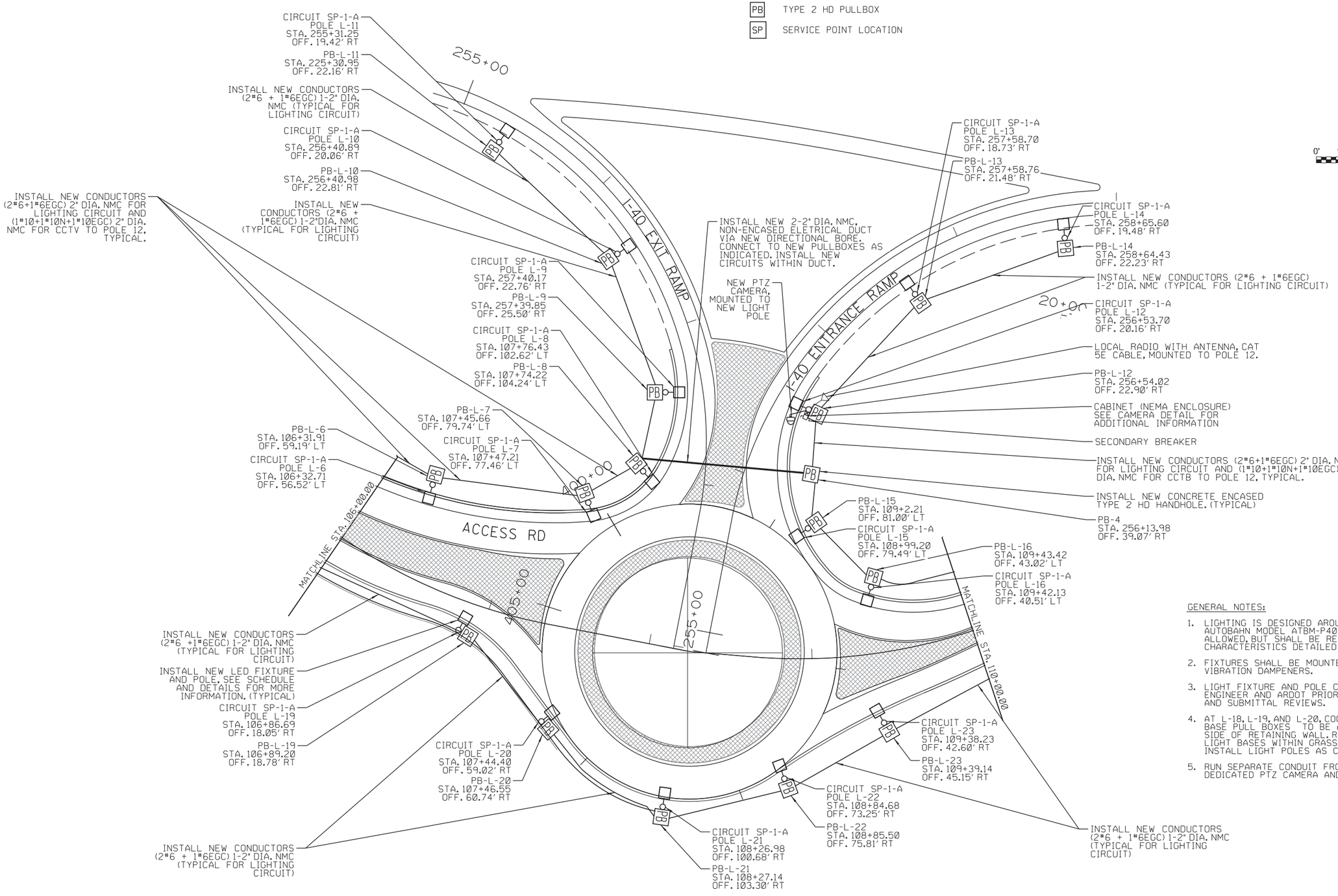
LOCATION:	I-40 AND HWY 59
CITY:	VAN BUREN
COUNTY:	CRAWFORD
DISTRICT: 04	SCALE: N/A DRAWN BY: ZJD

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	189	248
		LIGHTING LAYOUT PLAN 2				

LEGEND

- NEW SINGLE ARM LIGHT FIXTURE, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION
- PB — TYPE 2 HD PULLBOX
- SP — SERVICE POINT LOCATION



0' 15' 30' 60' 90'

(IN FEET)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21642
JAMES K. SCRUTT

GENERAL NOTES:

1. LIGHTING IS DESIGNED AROUND AMERICAN ELECTRIC LIGHTING AUTOBAHN MODEL ATBM-P40-MVOLT-R3. APPROVED EQUALS ARE ALLOWED, BUT SHALL BE REQUIRED TO MEET LIGHTING CHARACTERISTICS DETAILED IN ROADWAY ILLUMINATION POLES SP.
2. FIXTURES SHALL BE MOUNTED ON 30' STEEL POLES WITH INTEGRAL VIBRATION DAMPENERS.
3. LIGHT FIXTURE AND POLE COLORS SHALL BE COORDINATED WITH ENGINEER AND ARDOT PRIOR TO CONSTRUCTION DURING SHOP DRAWING AND SUBMITTAL REVIEWS.
4. AT L-18, L-19, AND L-20, COORDINATE LOCATION OF RESPECTIVE POLE BASE PULL BOXES TO BE ADJACENT TO LIGHT POLE BASES ON LOW SIDE OF RETAINING WALL. ROUTE CIRCUIT UNDERGROUND ADJACENT TO LIGHT BASES WITHIN GRASS BERM AT BASE OF RETAINING WALL. INSTALL LIGHT POLES AS CLOSE TO RETAINING WALL AS ABLE.
5. RUN SEPARATE CONDUIT FROM SERVICE POINT TO POLE 12 FOR DEDICATED PTZ CAMERA AND RADIO CIRCUIT.

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

JATurner 3/8/2025 7:25:47 AM
WORKSPACE: AHTD
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REVISED DATE:

GENERAL NOTES:

1. LIGHTING IS DESIGNED AROUND AMERICAN ELECTRIC LIGHTING AUTOBAHN MODEL ATBM-P40-MVOLT-R3. APPROVED EQUALS ARE ALLOWED, BUT SHALL BE REQUIRED TO MEET LIGHTING CHARACTERISTICS DETAILED IN ROADWAY ILLUMINATION POLES SP.
2. FIXTURES SHALL BE MOUNTED ON 30' STEEL POLES WITH INTEGRAL VIBRATION DAMPENERS.
3. LIGHT FIXTURE AND POLE COLORS SHALL BE COORDINATED WITH ENGINEER AND ARDOT PRIOR TO CONSTRUCTION DURING SHOP DRAWING AND SUBMITTAL REVIEWS.
4. AT L-18, L-19, AND L-20, COORDINATE LOCATION OF RESPECTIVE POLE BASE PULL BOXES TO BE ADJACENT TO LIGHT POLE BASES ON LOW SIDE OF RETAINING WALL. ROUTE CIRCUIT UNDERGROUND ADJACENT TO INSTALL LIGHT POLES AS CLOSE TO RETAINING WALL AS ABLE.
5. RUN SEPARATE CONDUIT FROM SERVICE POINT TO POLE 12 FOR DEDICATED PTZ CAMERA AND RADIO CIRCUIT.

LEGEND

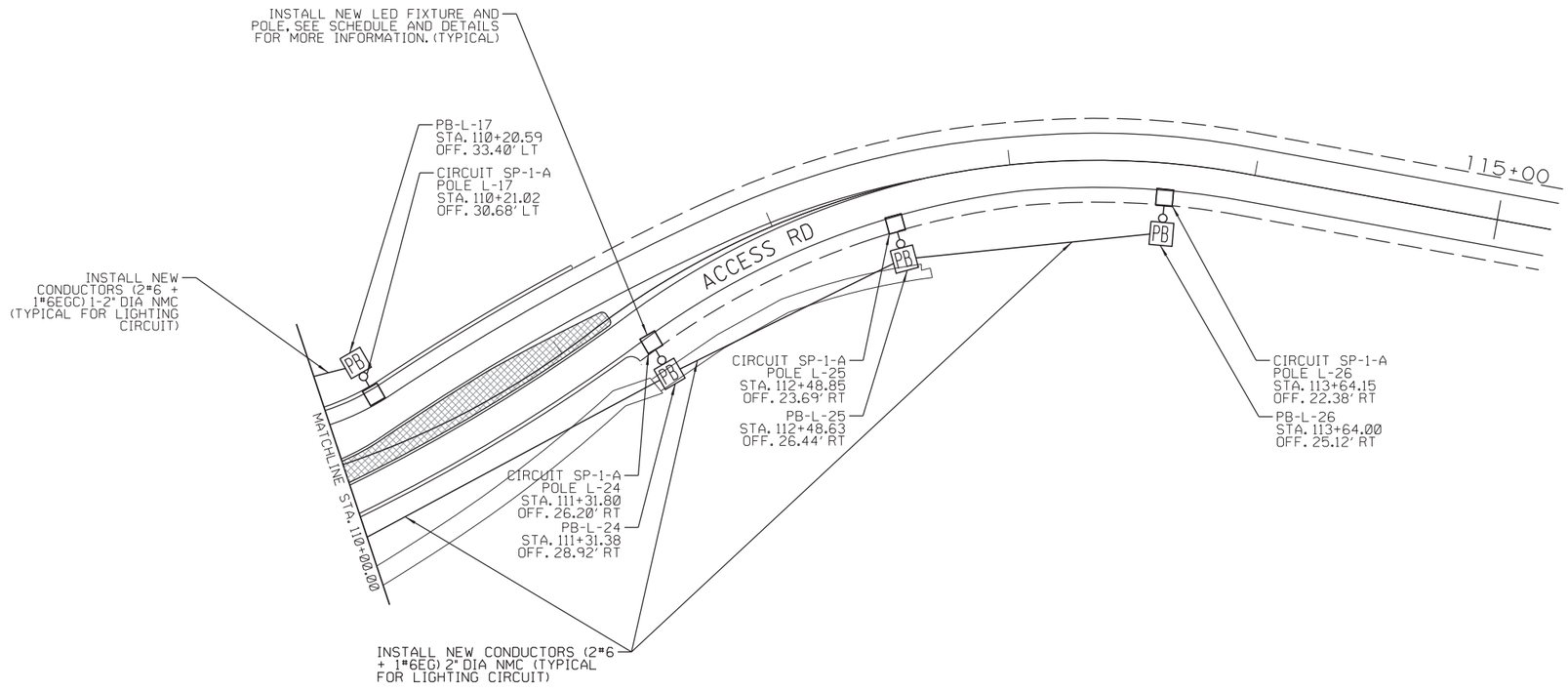
- NEW SINGLE ARM LIGHT FIXTURE, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION
- PB — TYPE 2 HD PULLBOX
- SP — SERVICE POINT LOCATION

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	190	248
		LIGHTING LAYOUT PLAN 3				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21642
JAMES K. SCRUTT

N

0' 15' 30' 60' 90'
(IN FEET)

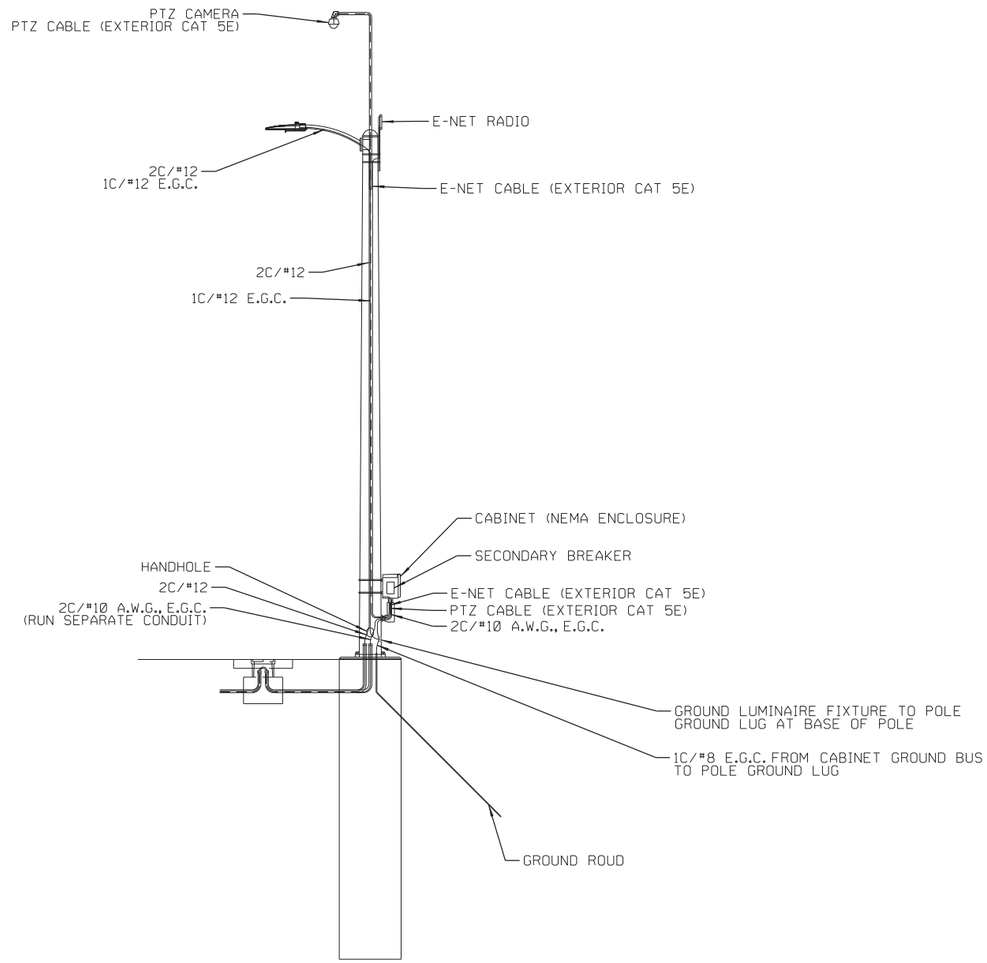


LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	191	248
		PTZ DETAIL (ROUNDABOUT)				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21642
JAMES K. SCRUTT



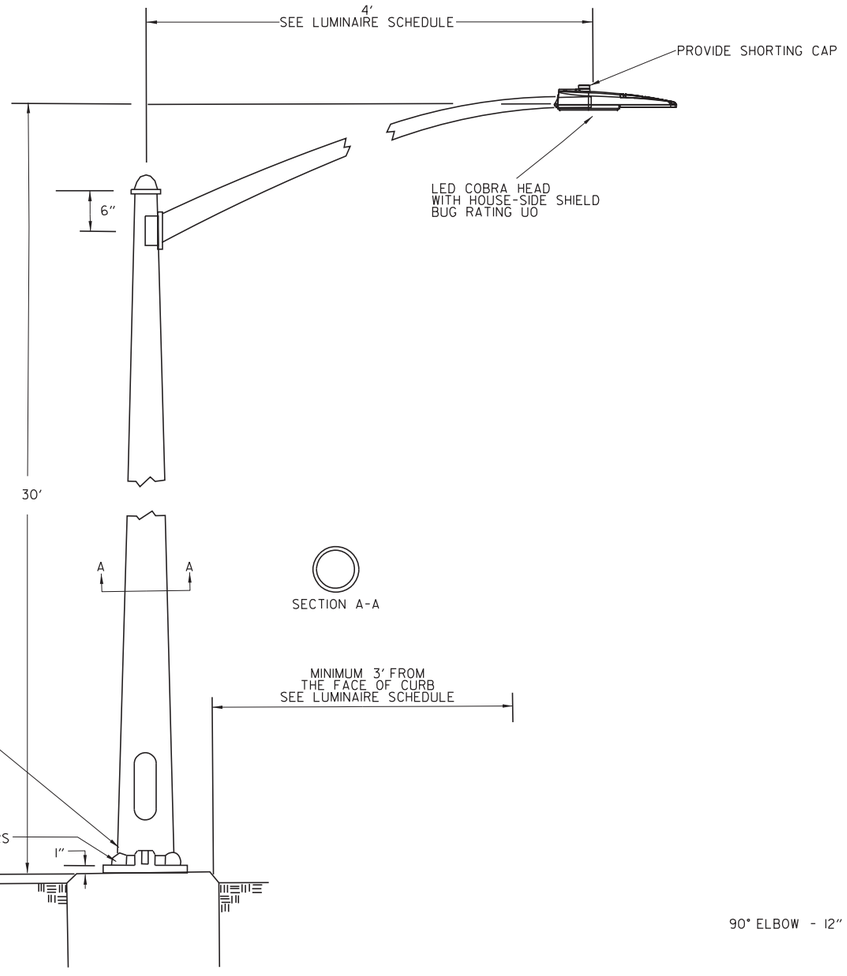
A PTZ CAMERA AND LOCAL RADIO WITH ANTENNA DETAIL (POLE 12)
SCALE: N.T.S.

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	192	248
		ELECTRICAL DETAILS 1- ED-1				

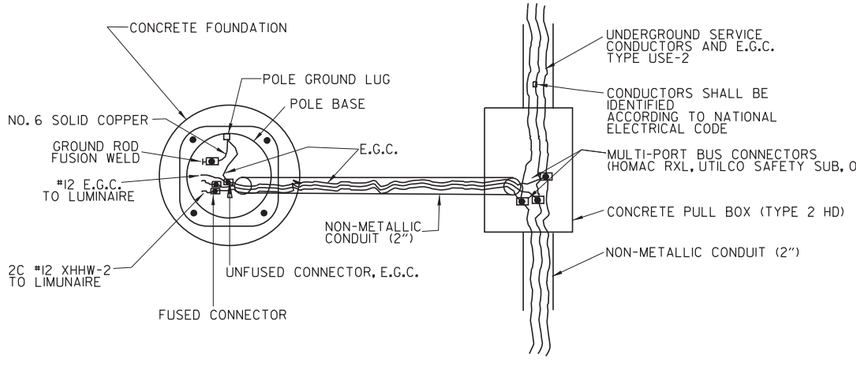




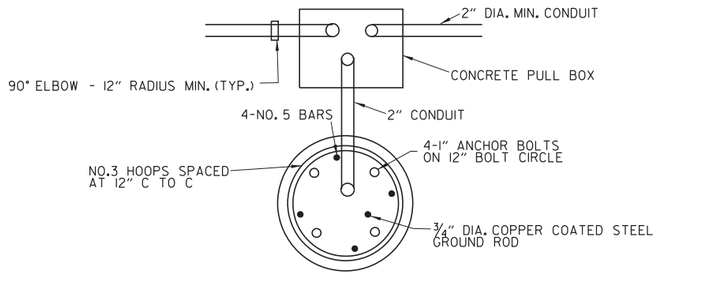
A COBRA HEAD LUMINAIRE WITH SHOE BASE
SCALE: N.T.S.

NOTES:

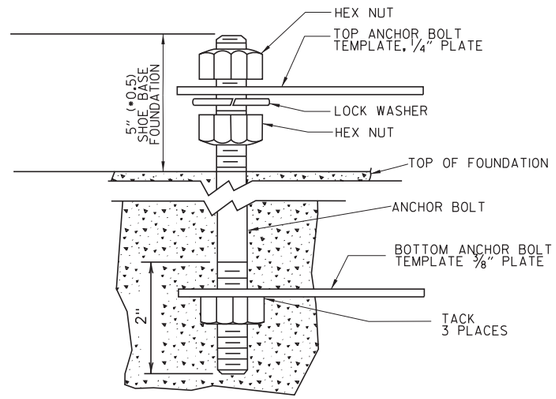
1. LUMINAIRE POLE SHALL MEET THE REQUIREMENTS OF 90 MPH WIND ZONE WITH 1.3 GUST FACTOR ON THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGN LUMINAIRES AND TRAFFIC SIGNALS, 2001EDITION WITH 2003 AND 2006 INTERIMS.
2. STEEL LUMINAIRE POLES SHALL BE A MINIMUM OF 11GAUGE.
   STEEL LUMINAIRE POLES SHALL BE HOT-DIPPED GALVANIZED.
   OTHER DIMENSIONS PER MANUFACTURER'S RECOMMENDATION AS NECESSARY TO MEET REQUIREMENTS OF THE SP - LED ROADWAY ILLUMINATION POLE.
3. POLE CAP OR TENON CAP SHALL BE PROVIDED.
4. ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF SECTION 714 OF THE STANDARD SPECIFICAIONS. THE TOP 9" OF ALL ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM M232. ANCHOR BOLTS IN FOUNDATIONS SHALL BE 1.25" X 30" FOR MOUNTING HEIGHT OF 40' OR GREATER, 1" X 30" FOR MOUNTING HEIGHT LESS THAN 40'. ANCHOR BOLTS SHALL HAVE TOP END THREADED NOT LESS THAN 5" AND FURNISHED WITH GALVANIZED HEX NUTS, LOCK WASHERS, AND TEMPLATE. THE LOWER END OF THE BOLT SHALL BE THREADED AND FURNISHED WITH HEX NUT AND TEMPLATE.
5. ALL METAL POLES SHALL BE BONDED TO E.G.C. PER NATIONAL ELECTRICAL CODE.



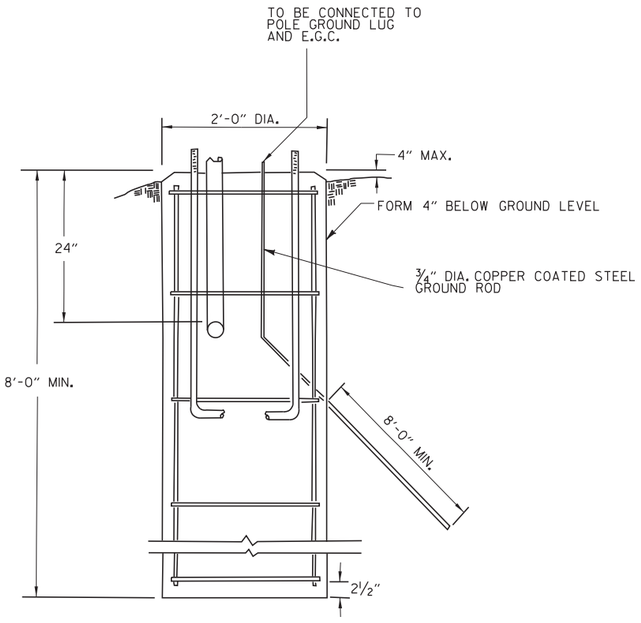
B POLE FOUNDATION/PULL BOX WIRING DETAIL
SCALE: N.T.S.



C POLE FOUNDATION/PULL BOX WIRING DETAILS - PLAN
SCALE: N.T.S.



D ANCHOR BOLT DETAIL
SCALE: N.T.S.



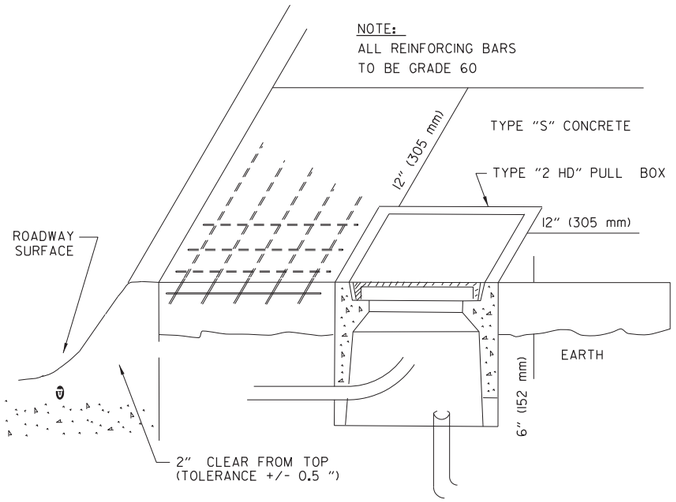
E ROADWAY LUMINAIRE POLE FOUNDATION
SCALE: N.T.S.

LOCATION:	I-40 AND HWY 59
CITY:	VAN BUREN
COUNTY:	CRAWFORD
DISTRICT: 04	SCALE: N/A DRAWN BY: ZJD

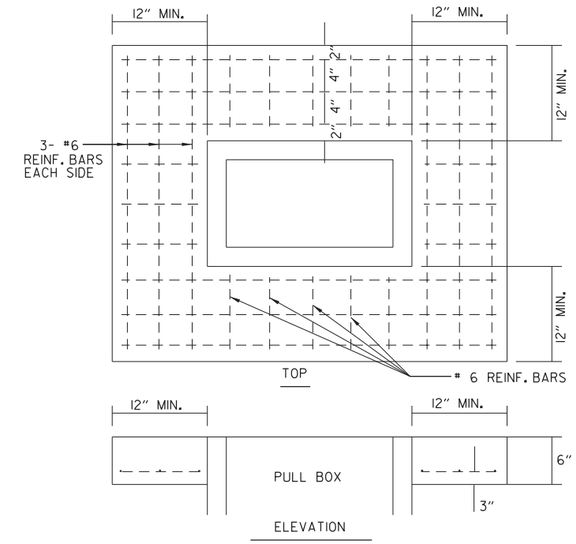
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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	193	248
		ELECTRICAL DETAILS 2 - ED-2				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21842
JAMES K. SCRUTT



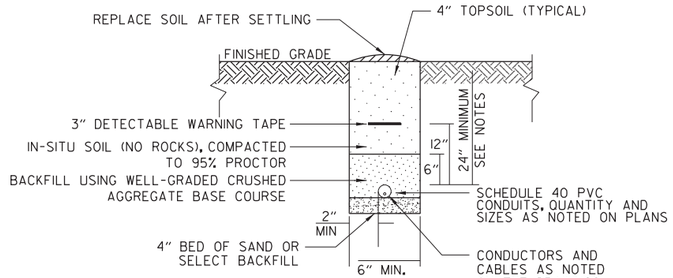
ISOMETRIC



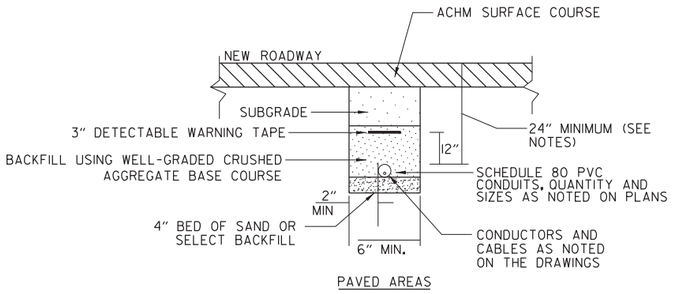
NOTES:

1. ALL TYPE HD PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" (305 MM) WIDE AND 6" (152 MM) IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD PULL BOX. PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S." THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE PULL BOX ARE REQUIRED IN CONCRETE.
2. UL LISTED PULL BOX AND EXTRA HEAVY-DUTY COVER SHALL BE DESIGNED FOR A TEST LOAD OF 33,750 LBS AND A DESIGN LOAD OF 22,500 LBS.
3. PULL BOX INTERIOR DIMENSIONS SHALL BE 24"L x 18"W x 18"D (OPEN BOTTOM).
4. PROVIDE MINIMUM 3' SLACK CABLE LOOP FOR EACH CABLE.
5. COLOR CODE, TAG AND IDENTIFY ALL CABLES IN UL LISTED PULL BOX.
6. EXACT LOCATION OF EACH UL LISTED PULL BOX SHALL BE APPROVED BY THE OWNER AND ENGINEER.

A CONCRETE PULL BOX (TYPE 2 HD) DETAIL
SCALE: N.T.S.



UNPAVED AREAS

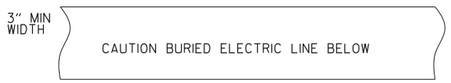


PAVED AREAS

ELECTRICAL DUCT NOTES:

1. CONTRACTOR SHALL STAKE THE DUCT INSTALLATION IN PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES. STAKING PLAN SHALL BE APPROVED BY OWNER AND ENGINEER PRIOR TO WORK.
2. CONTRACTOR SHALL ADJUST THE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING AND NEW UTILITIES.
3. SIMILAR CONSTRUCTION FOR OTHER DUCT SIZES.
4. INSTALL DUCT CONDUIT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING. UTILIZE LOCKING COLLARS OR HOLD DOWN BARS WITH ANCHORS TO PREVENT DUCT FLOTATION. (TYPICAL ALL DUCTS).
5. NO PVC SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB OR ENCASEMENT.
6. INSTALL CONDUCTORS AND CABLES AS NOTED ON DRAWING. INSTALL PULLWIRE IN ALL SPARE DUCTS/CONDUITS.
7. MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS, DRIVEWAYS AND PARKING LOTS SHALL BE 24".
8. VERTICAL AND HORIZONTAL DISTANCES BETWEEN CONDUITS SHALL BE 3" MINIMUM FOR DUCTS CONTAINING CIRCUITS OVER 600 VOLTS.
9. END BELLS OR COUPLINGS WITH REMOVABLE FACTORY PLUGS SHALL BE INSTALLED FLUSH WITH THE CONCRETE ENCASEMENT AT ACCESS POINTS.
10. ROCK REMOVAL SHALL BE CONSIDERED SUBSIDIARY TO DUCT INSTALLATION.

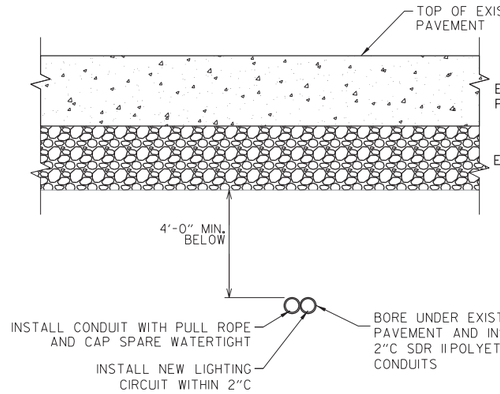
B NON-ENCASED ELECTRICAL DUCT BANK DETAILS
SCALE: N.T.S.



WARNING TAPE GENERAL NOTES:

1. POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND AND BLACK LETTERING.
2. TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND/OR EXCEEDING ALL INDUSTRY STANDARDS.

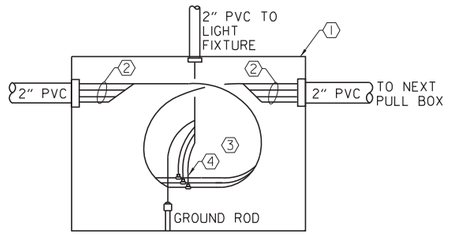
C UNDERGROUND DETECTABLE WARNING TAPE
SCALE: N.T.S.



BORING NOTE:

1. INSTALL PE TO PVC FITTING AND EXTEND PVC RACEWAY SYSTEM TO THE HAND HOLES AS INDICATED ON THE PLANS.

E DIRECTIONAL BORING CONDUITS
SCALE: N.T.S.



D INTERIOR PULLBOX VIEW
SCALE: N.T.S.

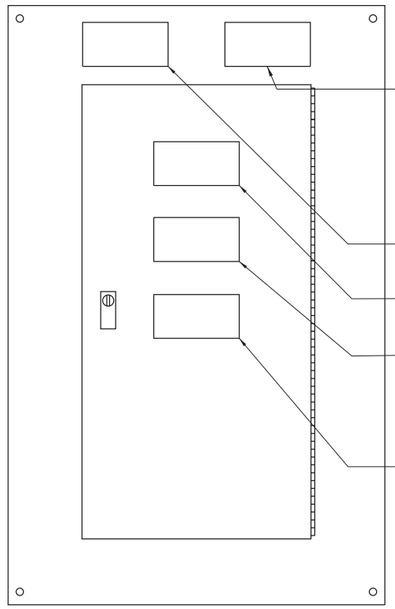
KEYED NOTES:

1. INSTALL TYPE "HD" PULL BOX AS PER ARDOT STANDARD SPECIFICATION 711 AND SP.
2. LOOP THE NEW LIGHTING CIRCUITS WITHIN EACH JUNCTION BOX, SLACK WIRE EQUAL TO ONE COMPLETE LOOP FOR FUTURE USE. NEATLY TRAIN AND LACE BRANCH CIRCUIT BUNDLES TOGETHER WITHIN THE BOX WITH A SEPARATE BUNDLE FOR EACH BRANCH CIRCUIT.
3. ALL CABLES, SPLICES, TERMINATIONS, ETC. SHALL BE RATED 600 VOLTS, WATERPROOF METHOD.
4. ALL CONDUCTORS SHALL BE CONTINUOUS FROM ORIGIN TO EQUIPMENT TERMINATION WITHOUT SPLICES. WHERE LIGHT FIXTURE TAPS ARE REQUIRED, TAPS SHALL BE MADE USING A SEALED, INSULATED PRESSURE CONNECTOR PROVIDING BOTH INSULATION AND JACKET EQUAL TO THE CABLE. CONNECTORS SHALL BE 600V RATED, 150 DEGREE C TEMPERATURE RATED, AND UL LISTED.

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

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WORKSPACE: AHTD
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REVISED DATE:

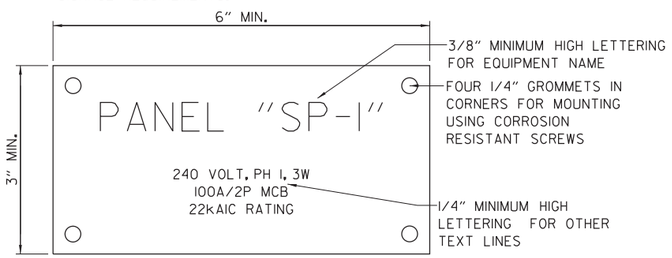
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	194	248
		ELECTRICAL DETAILS 3 - ED-3				



PANEL FRONT VIEW

NAMEPLATE GENERAL NOTES:

1. INSTALL ALL NAME PLATES AND WARNING SIGNS IN ACCORDANCE WITH NEC AND NFPA 70E REQUIREMENTS.
2. INSTALL NAME PLATES AND WARNING SIGNS ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SWITCHES, CONTROL PANELS AND MOTOR CONTROL CENTERS.
3. EXTERIOR EQUIPMENT SHALL HAVE WEATHER-RESISTANT, NON-FADING NAME PLATES AND SIGNAGE.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL NAME PLATE AND SIGNAGE REQUIREMENTS.



EQUIPMENT NAME PLATE NOTES:

1. INSTALL 2-PLEX ACRYLIC, WHITE ON BLACK CORE, MULTIPLE LINES TEXT, CUSTOM ENGRAVED NAME PLATES.
2. MOUNT WITH STAINLESS STEEL SCREWS.
3. SEAL SCREW HOLES WITH SILICONE RUBBER.
4. NAME PLATE INFORMATION SHALL INCLUDE:
   A. IDENTIFICATION NAME
   B. VOLTAGE SYSTEM
   C. AMPACITY RATING AND TYPE
   D. EQUIPMENT AIC RATING
   E. FEEDER DESCRIPTION

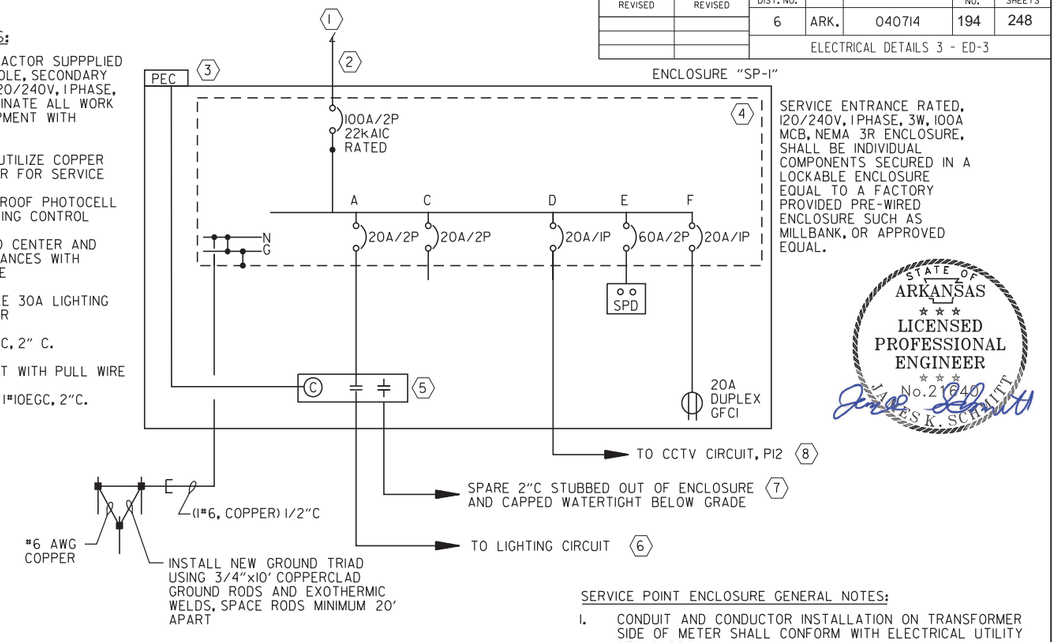
A ENGRAVED NAME PLATE AND SIGNAGE DETAIL
SCALE: N.T.S.

GENERAL NOTES:

1. ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2023) NATIONAL ELECTRICAL CODE, NFPA 101(2021) LIFE SAFETY CODE, STATE ELECTRICAL CODE, AND LOCAL ELECTRICAL CODE.
2. COORDINATE ELECTRICAL POWER SUPPLY WITH EQUIPMENT SUPPLIED.
3. COORDINATE ALL ELECTRICAL WORK AND POWER OUTAGES WITH CITY AND POWER UTILITY.
4. SERVICE WIRING SHALL BE MINIMUM TYPE THHN/THWN-2.
5. EQUIPMENT SHORT CIRCUIT CURRENT RATINGS AND AVAILABLE INTERRUPTING CURRENT RATINGS SHALL BE FULLY RATED TO INTERRUPT SYMMETRICAL SHORT CIRCUIT CURRENT AVAILABLE AT TERMINALS. SERIES RATED SYSTEMS SHALL NOT BE USED.
6. PHASE AND NEUTRAL BUSES SHALL BE COPPER 100% RATED UNLESS OTHERWISE NOTED.
7. GROUND BUSES SHALL BE COPPER UNLESS OTHERWISE NOTED.
8. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUITS.
9. INSTALL ALL CONDUCTORS AND CABLES IN CONDUIT UNLESS OTHERWISE NOTED.
10. INSTALL LUGS AND JUNCTION BOXES AS REQUIRED TO FIT WIRING.
11. INSTALL NEW TYPED PANEL SCHEDULES IN ALL ELECTRICAL PANELS INDICATING WORK PERFORMED.
12. CONDUIT FILL IS PER NEC 2023 CHAPTER 9 CALCULATIONS AND TABLES.

KEYED NOTES:

1. TO CONTRACTOR SUPPPLIED UTILITY POLE, SECONDARY SERVICE 120/240V, 1PHASE, 3W, COORDINATE ALL WORK AND EQUIPMENT WITH UTILITY
2. 3#2, 2"C, UTILIZE COPPER CONDUCTOR FOR SERVICE
3. WEATHERPROOF PHOTOCELL FOR LIGHTING CONTROL
4. 100A LOAD CENTER AND APPURTENANCES WITH ENCLOSURE
5. EIGHT POLE 30A LIGHTING CONTACTOR
6. 2#6, 1#6EGC, 2" C.
7. 2" CONDUIT WITH PULL WIRE
8. 1#10, 1#10N, 1#10EGC, 2"C.

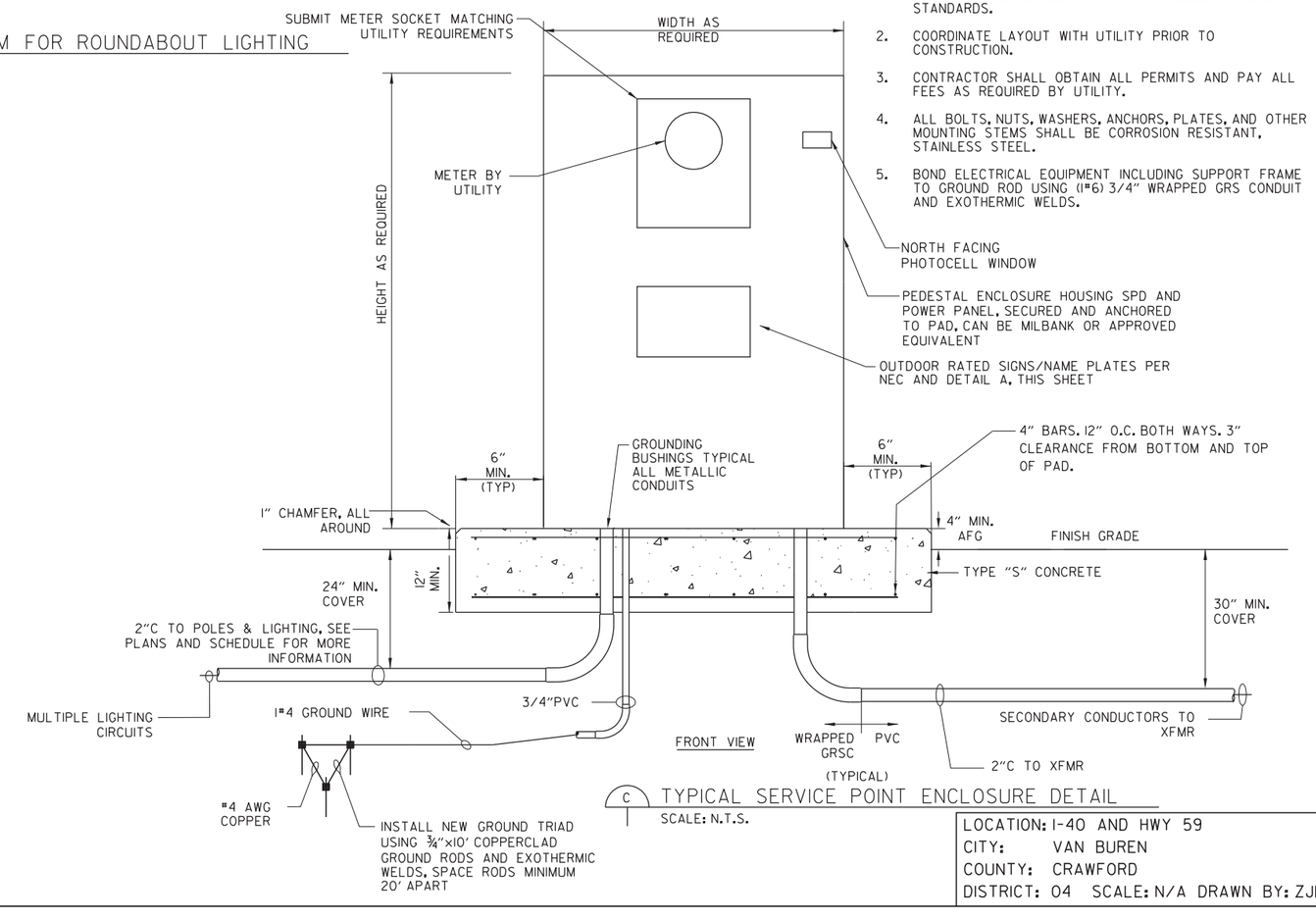


STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21042
JAMES K. SCRUTT

B PROPOSED ONE LINE DIAGRAM FOR ROUNDABOUT LIGHTING
SCALE: N.T.S.

SERVICE POINT ENCLOSURE GENERAL NOTES:

1. CONDUIT AND CONDUCTOR INSTALLATION ON TRANSFORMER SIDE OF METER SHALL CONFORM WITH ELECTRICAL UTILITY STANDARDS.
2. COORDINATE LAYOUT WITH UTILITY PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED BY UTILITY.
4. ALL BOLTS, NUTS, WASHERS, ANCHORS, PLATES, AND OTHER MOUNTING STEMS SHALL BE CORROSION RESISTANT, STAINLESS STEEL.
5. BOND ELECTRICAL EQUIPMENT INCLUDING SUPPORT FRAME TO GROUND ROD USING (1#6) 3/4" WRAPPED GRS CONDUIT AND EXOTHERMIC WELDS.



C TYPICAL SERVICE POINT ENCLOSURE DETAIL
SCALE: N.T.S.

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	195	248
		ELECTRICAL DETAILS 4 - ED-4				

I-540 - VOLTAGE DROP, CIRCUIT A, 2C/6AWG, EGC

PANEL ID	SEGMENT	VOLTAGE	PHASE	# OF SETS	WIRE SIZE	LINE CURRENT (AMPS)	IMPEDENCE (W/1000 FT)	LENGTH	POWER FACTOR	WIRE TYPE	CONDUIT TYPE	VOLTAGE DROP (VOLTS)	%VD
CIRCUIT A - BRANCH 1													
SP-1	SP TO PB-L-1	240	1	1	6	14.63	0.49	55	100%	COPPER	PVC	0.788	0.33%
SP-1	PB-L-1 TO PB-L-2	239	1	1	6	14.06	0.49	120	100%	COPPER	PVC	1.654	0.69%
SP-1	PB-L-2 TO PB-1	238	1	1	6	13.50	0.49	45	100%	COPPER	PVC	0.595	0.25%
SP-1	PB-1 TO PB-3	237	1	1	6	8.44	0.49	85	100%	COPPER	PVC	0.703	0.30%
SP-1	PB-3 TO PB-L-3	236	1	1	6	1.13	0.49	40	100%	COPPER	PVC	0.044	0.02%
SP-1	PB-L-3 TO PB-L-4	236	1	1	6	0.56	0.49	115	100%	COPPER	PVC	0.063	0.03%
SP-1	PB-L-4 TO L-4	236	1	1	12	0.56	2.00	45	100%	COPPER	PVC	0.101	0.04%
											CIRCUIT A BRANCH 1 VD TOTAL%		1.66%
CIRCUIT A - BRANCH 2													
SP-1	SP TO PB-L-1	240	1	1	6	14.63	0.49	55	100%	COPPER	PVC	0.788	0.33%
SP-1	PB-L-1 TO PB-L-2	239	1	1	6	14.06	0.49	120	100%	COPPER	PVC	1.654	0.69%
SP-1	PB-L-2 TO PB-1	238	1	1	6	13.50	0.49	45	100%	COPPER	PVC	0.595	0.25%
SP-1	PB-1 TO PB-3	237	1	1	6	8.44	0.49	85	100%	COPPER	PVC	0.703	0.30%
SP-1	PB-3 TO PB-L-5	236	1	1	6	7.31	0.49	80	100%	COPPER	PVC	0.573	0.24%
SP-1	PB-L-5 TO PB-L-6	236	1	1	6	6.75	0.49	130	100%	COPPER	PVC	0.860	0.36%
SP-1	PB-L-6 TO PB-L-7	235	1	1	6	6.19	0.49	100	100%	COPPER	PVC	0.606	0.26%
SP-1	PB-L-7 TO PB-L-8	234	1	1	6	5.63	0.49	40	100%	COPPER	PVC	0.221	0.09%
SP-1	PB-L-8 TO PB-L-9	234	1	1	6	1.69	0.49	60	100%	COPPER	PVC	0.099	0.04%
SP-1	PB-L-9 TO PB-L-10	234	1	1	6	1.13	0.49	90	100%	COPPER	PVC	0.099	0.04%
SP-1	PB-L-10 TO PB-L-11	234	1	1	6	0.56	0.49	100	100%	COPPER	PVC	0.055	0.02%
SP-1	PB-L-11 TO L-11	234	1	1	12	0.56	2.00	45	100%	COPPER	PVC	0.101	0.04%
											CIRCUIT A BRANCH 2 VD TOTAL %:		2.68%
CIRCUIT A - BRANCH 3													
SP-1	SP TO PB-L-1	240	1	1	6	14.63	0.49	55	100%	COPPER	PVC	0.788	0.33%
SP-1	PB-L-1 TO PB-L-2	239	1	1	6	14.06	0.49	120	100%	COPPER	PVC	1.654	0.69%
SP-1	PB-L-2 TO PB-1	238	1	1	6	13.50	0.49	45	100%	COPPER	PVC	0.595	0.25%
SP-1	PB-1 TO PB-3	237	1	1	6	8.44	0.49	85	100%	COPPER	PVC	0.703	0.30%
SP-1	PB-3 TO PB-L-5	236	1	1	6	7.31	0.49	80	100%	COPPER	PVC	0.573	0.24%
SP-1	PB-L-5 TO PB-L-6	236	1	1	6	6.75	0.49	130	100%	COPPER	PVC	0.860	0.36%
SP-1	PB-L-6 TO PB-L-7	235	1	1	6	6.19	0.49	100	100%	COPPER	PVC	0.606	0.26%
SP-1	PB-L-7 TO PB-L-8	234	1	1	6	5.63	0.49	40	100%	COPPER	PVC	0.221	0.09%
SP-1	PB-L-8 TO PB-4	234	1	1	6	3.38	0.49	120	100%	COPPER	PVC	0.397	0.17%
SP-1	PB-4 TO PB-L-12	234	1	1	6	1.69	0.49	40	100%	COPPER	PVC	0.066	0.03%
SP-1	PB-L-12 TO PB-L-13	234	1	1	6	1.13	0.49	95	100%	COPPER	PVC	0.105	0.04%
SP-1	PB-L-13 TO PB-L-14	233	1	1	6	0.56	0.49	95	100%	COPPER	PVC	0.052	0.02%
SP-1	PB-L-14 TO L-14	233	1	1	12	0.56	2.00	45	100%	COPPER	PVC	0.101	0.04%
											CIRCUIT A BRANCH 3 VD TOTAL %:		2.84%
CIRCUIT A - BRANCH 4													
SP-1	SP TO PB-L-1	240	1	1	6	14.63	0.49	55	100%	COPPER	PVC	0.788	0.33%
SP-1	PB-L-1 TO PB-L-2	239	1	1	6	14.06	0.49	120	100%	COPPER	PVC	1.654	0.69%
SP-1	PB-L-2 TO PB-1	238	1	1	6	13.50	0.49	45	100%	COPPER	PVC	0.595	0.25%
SP-1	PB-1 TO PB-3	237	1	1	6	8.44	0.49	85	100%	COPPER	PVC	0.703	0.30%
SP-1	PB-3 TO PB-L-5	236	1	1	6	7.31	0.49	80	100%	COPPER	PVC	0.573	0.24%
SP-1	PB-L-5 TO PB-L-6	236	1	1	6	6.75	0.49	130	100%	COPPER	PVC	0.860	0.36%
SP-1	PB-L-6 TO PB-L-7	235	1	1	6	6.19	0.49	100	100%	COPPER	PVC	0.606	0.26%
SP-1	PB-L-7 TO PB-L-8	234	1	1	6	5.63	0.49	40	100%	COPPER	PVC	0.221	0.09%
SP-1	PB-L-8 TO PB-4	234	1	1	6	3.38	0.49	120	100%	COPPER	PVC	0.397	0.17%
SP-1	PB-4 TO PB-L-15	234	1	1	6	1.69	0.49	50	100%	COPPER	PVC	0.083	0.04%
SP-1	PB-L-15 TO PB-L-16	234	1	1	6	1.13	0.49	50	100%	COPPER	PVC	0.055	0.02%
SP-1	PB-L-16 TO PB-L-17	233	1	1	6	0.56	0.49	120	100%	COPPER	PVC	0.066	0.03%
SP-1	PB-L-17 TO L-17	233	1	1	12	0.56	2.00	45	100%	COPPER	PVC	0.101	0.04%
											CIRCUIT A BRANCH 4 VD TOTAL %:		2.83%
CIRCUIT A BRANCH 5													
SP-1	SP TO PB-L-1	240	1	1	6	14.63	0.49	55	100%	COPPER	PVC	0.788	0.33%
SP-1	PB-L-1 TO PB-L-2	239	1	1	6	14.06	0.49	120	100%	COPPER	PVC	1.654	0.69%
SP-1	PB-L-2 TO PB-1	238	1	1	6	13.50	0.49	45	100%	COPPER	PVC	0.595	0.25%
SP-1	PB-1 TO PB-2	237	1	1	6	5.06	0.49	70	100%	COPPER	PVC	0.347	0.15%
SP-1	PB-2 TO PB-L-18	237	1	1	6	5.06	0.49	115	100%	COPPER	PVC	0.571	0.24%
SP-1	PB-L-18 TO PB-L-19	236	1	1	6	4.50	0.49	115	100%	COPPER	PVC	0.507	0.21%
SP-1	PB-L-19 TO PB-L-20	236	1	1	6	3.94	0.49	80	100%	COPPER	PVC	0.309	0.13%
SP-1	PB-L-20 TO PB-L-21	235	1	1	6	3.38	0.49	115	100%	COPPER	PVC	0.380	0.16%
SP-1	PB-L-21 TO PB-L-22	235	1	1	6	2.81	0.49	80	100%	COPPER	PVC	0.221	0.09%
SP-1	PB-L-22 TO PB-L-23	235	1	1	6	2.25	0.49	80	100%	COPPER	PVC	0.176	0.08%
SP-1	PB-L-23 TO PB-L-24	234	1	1	6	1.69	0.49	210	100%	COPPER	PVC	0.347	0.15%
SP-1	PB-L-24 TO PB-L-25	234	1	1	12	0.56	2.00	40	100%	COPPER	PVC	0.090	0.04%
SP-1	PB-L-25 TO PB-L-26	234	1	1	6	0.56	0.49	105	100%	COPPER	PVC	0.058	0.02%
SP-1	PB-L-26 TO L-26	234	1	1	12	0.56	2.00	45	100%	COPPER	PVC	0.101	0.04%
											CIRCUIT A BRANCH 5 VD TOTAL %:		2.59%

MAX INDIVIDUAL BRANCH VD %: 2.84%
BRANCH: BRANCH 3

Project: 17017648 - I-40 AND HWY 59

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
JAMES K. SCRUTT
No. 21844

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	196	248
		ELECTRICAL DETAILS 5 - ED-5				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21842
JAMES K. SCRUTT

PULLBOX SCHEDULE						
PB NO.	NORTHING	EASTING	STA.	OFFSET (FT.)	CENTERLINE	TYPE
PB-1	419703.05	608102.62	12+55.11	34.73' LT	ELFEN GLEN	TYPE 2 HD
PB-2	419651.02	608141.36	12+48.35	29.78' RT	ELFEN GLEN	TYPE 2 HD
PB-3	419760.05	608159.54	104.07.01	29.37' LT	ACCESS ROAD	TYPE 2 HD
PB-4	419635.91	608547.29	256.13.98	39.07' RT	RAMP 2A	TYPE 2 HD
PB-L-1	419552.82	608052.34	11+15.27	22.05' LT	ELFEN GLEN	TYPE 2 HD
PB-L-2	419666.08	608087.76	12+25.90	20.79' LT	ELFEN GLEN	TYPE 2 HD
PB-L-3	419784.53	608129.92	103.71.79	22.75' LT	ACCESS ROAD	TYPE 2 HD
PB-L-4	419851.43	608042.75	102+69.06	22.35' LT	ACCESS ROAD	TYPE 2 HD
PB-L-5	419696.2	608204.18	104+84.27	31.34' LT	ACCESS ROAD	TYPE 2 HD
PB-L-6	419632.15	608317.17	106+31.91	59.19' LT	ACCESS ROAD	TYPE 2 HD
PB-L-7	419621.06	608410.34	107+45.66	79.74' LT	ACCESS ROAD	TYPE 2 HD
PB-L-8	419639.79	608443.11	107+74.22	104.24' LT	ACCESS ROAD	TYPE 2 HD
PB-L-9	419685.88	608455.73	257+39.85	25.50' RT	RAMP 1	TYPE 2 HD
PB-L-10	419768.7	608426.92	256+40.98	22.81' RT	RAMP 1	TYPE 2 HD
PB-L-11	419836.23	608355.5	225+30.95	22.16' RT	RAMP 1	TYPE 2 HD
PB-L-12	419674.22	608548.37	256+54.02	22.90' RT	RAMP 2A	TYPE 2 HD
PB-L-13	419743.43	608612.35	257+58.76	21.48' RT	RAMP 2A	TYPE 2 HD
PB-L-14	419777.24	608702.31	258+64.43	22.23' RT	RAMP 2A	TYPE 2 HD
PB-L-15	419604.42	608547.69	109+2.21	81.00' LT	ACCESS ROAD	TYPE 2 HD
PB-L-16	419569.74	608584.62	109+43.42	43.02' LT	ACCESS ROAD	TYPE 2 HD
PB-L-17	419578.56	608653.00	110+20.59	33.40' LT	ACCESS ROAD	TYPE 2 HD
PB-L-18	419587.26	608231.63	105+82.47	25.56' RT	ACCESS ROAD	TYPE 2 HD
PB-L-19	419539.32	608334.49	106+89.20	18.78' RT	ACCESS ROAD	TYPE 2 HD
PB-L-20	419482.99	608384.32	107+46.55	60.74' RT	ACCESS ROAD	TYPE 2 HD
PB-L-21	419430.26	608456.55	108+27.14	103.30' RT	ACCESS ROAD	TYPE 2 HD
PB-L-22	419447.59	608532.07	108+85.50	75.81' RT	ACCESS ROAD	TYPE 2 HD
PB-L-23	419481.91	608593.27	109+39.14	45.15' RT	ACCESS ROAD	TYPE 2 HD
PB-L-24	419580.32	608776.71	111+31.38	28.92' RT	ACCESS ROAD	TYPE 2 HD
PB-L-25	419627.28	608872.98	112+48.63	26.44' RT	ACCESS ROAD	TYPE 2 HD
PB-L-26	419637.66	608978.50	113+64.00	25.12' RT	ACCESS ROAD	TYPE 2 HD

LUMINAIRE SCHEDULE AND POLE ASSEMBLY																		
POLE NO.	NORTHING	EASTING	STA.	OFFSET (FT.)	CENTERLINE	MOUNTING HT. (FT.)	POLE ARM (FT.)	BASE TYPE	WATTS	FIXTURE CURRENT	VOLTAGE	DELIVERED LUMENS	ORIENTATION ANGLE TRUE NORTH = 0, CW ROTATION	IES CLASSIFICATION	FIXTURE NAME	DAY		NIGHT	
																SWITCHED	POWER	SWITCHED	POWER
L-1	419552.57	608055.07	11+15.27	19.30' LT	ELFEN GLEN	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	95	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-2	419664.7	608090.14	12+25.90	18.17' LT	ELFEN GLEN	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	133	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-3	419782.57	608127.98	103+71.79	20.00' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	225	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-4	419849.18	608041.17	102+69.06	19.64' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	215	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-5	419694.38	608202.08	104+84.27	28.60' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	230	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-6	419629.48	608316.46	106+32.71	56.52' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	195	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-7	419618.53	608411.43	107+47.21	77.46' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	157	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-8	419637.69	608444.89	107+76.43	102.62' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	140	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-9	419685.88	608458.48	257+40.17	22.76' RT	RAMP 1	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	90	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-10	419770.28	608429.18	256+40.89	20.06' RT	RAMP 1	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	55	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-11	419838.48	608357.08	255+31.25	19.42' RT	RAMP 1	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	35	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-12	419675.38	608545.87	256+53.70	20.16' RT	RAMP 2A	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	295	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-13	419745.67	608610.77	257+58.70	18.73' RT	RAMP 2A	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	325	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-14	419779.98	608702.08	258+65.60	19.48' RT	RAMP 2A	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	355	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-15	419602.84	608545.43	108+99.20	79.49' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	235	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-16	419567.09	608583.89	109+42.13	40.51' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	196	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-17	419576.18	608654.37	110+21.02	30.68' LT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	150	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-18	419588.56	608229.21	105+79.94	25.92' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	30	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-19	419540.81	608332.19	106+86.69	18.05' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	30	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-20	419485.07	608382.82	107+44.40	59.02' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	60	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-21	419433.47	608494.07	108+26.98	100.68' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	8	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-22	419450.14	608531.06	108+84.68	73.25' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	340	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-23	419484.27	608591.87	109+38.23	42.60' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	330	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-24	419582.78	608775.48	111+31.80	26.20' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	330	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-25	419629.97	608872.48	112+48.85	23.69' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	345	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
L-26	419640.37	608978.87	113+64.15	22.38' RT	ACCESS ROAD	30	4	BREAKAWAY BASE	135W	0.56	240V	17,400	5	R3	ATBM-P40-MVOLT-R3	OFF	N/A	ON	100%
SP-1	419535.54	608002.75	10+95.96	70.83' LT	ELFEN GLEN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ILLUMINATION DESIGN CRITERIA			
DESCRIPTION	AVERAGE (FC)	MAX/MIN	AVG/MIN
APPROACHES	1.4	N/A	3.0:1
ROUNDABOUT	1.9	N/A	3.0:1
TRANSITION ZONES	0.9	6.0:1	3.5:1
SIDE STREET	0.9	6.0:1	3.5:1

NOTES:
1. LIGHTING CALCULATIONS WERE PERFORMED USING VISUAL LIGHTING VERSION 2.11.0094 SOFTWARE
2. DESIGN BASIS WAS AASHTO ROADWAY LIGHTING DESIGN GUIDE, 7TH ED. AND IES RP-8-22

ILLUMINATION STATISTICS			
DESCRIPTION	AVERAGE (FC)	MAX/MIN	AVG/MIN
ROUNDABOUT	2.8	3.4	2.0
EAST APPROACH	1.8	3.0	1.6
NORTH APPROACH	2.1	3.3	1.9
WEST APPROACH	2.1	3.3	1.9
EAST TRANSITION	1.9	2.5	1.7
NORTH TRANSITION	2.0	2.5	1.7
WEST TRANSITION	2.0	2.4	1.5
SIDE STREET	1.9	2.9	1.7

Note:
1. CALCULATIONS WERE BASED ON 0.79 LIGHT LOSS FACTOR

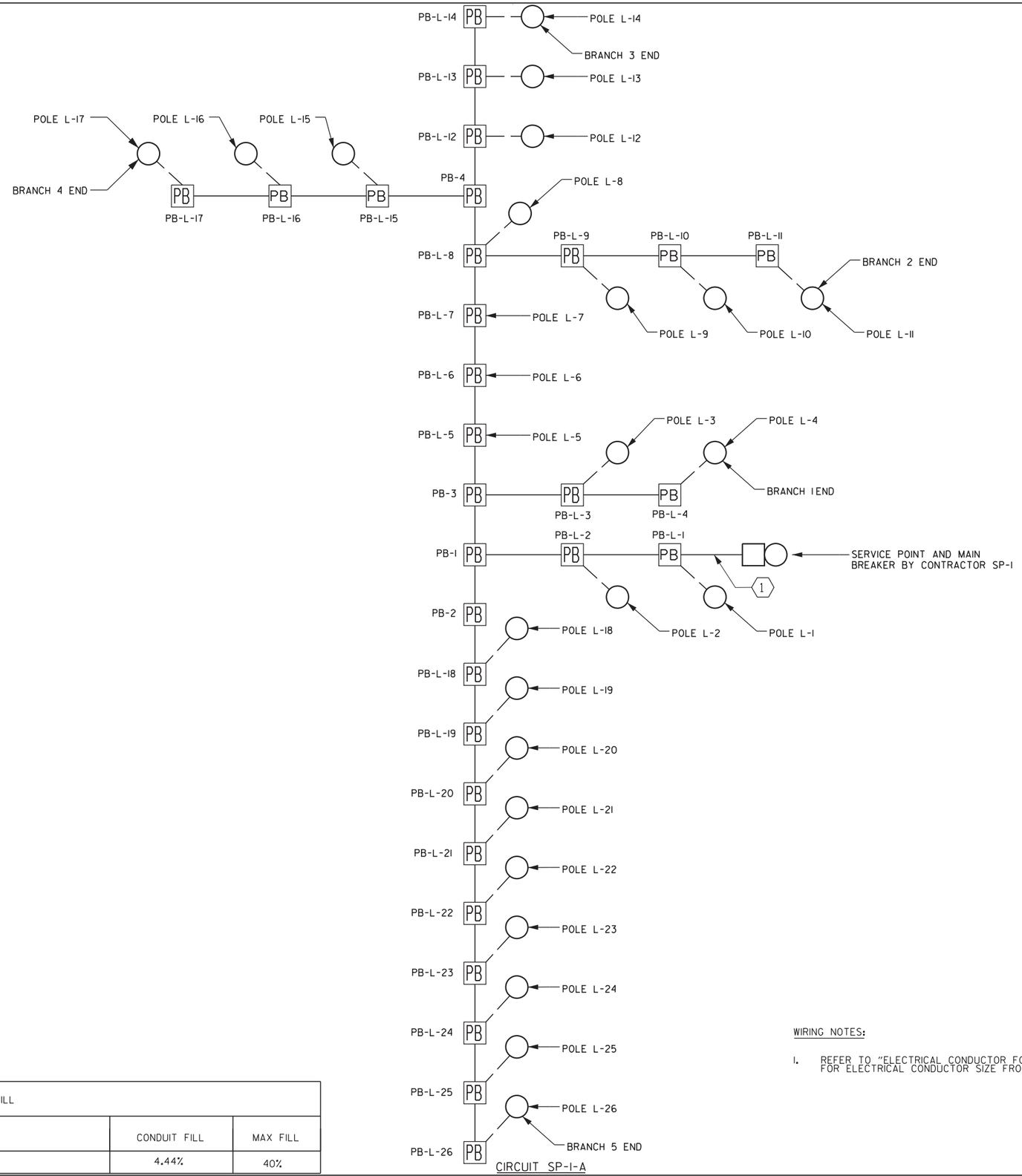
Electrical Service Data								
CIRCUIT ID	LOCATION	SERVICE VOLTAGE	SERVICE CONDUIT SIZE	SERVICE CONDUCTORS	MAIN CIRCUIT BREAKER	BRANCH CIRCUIT BREAKER	BRANCH CIRCUIT (AMPS)	KVA LOAD
SP-1								
SP-1-A	N/A	240V, SINGLE PHASE	2" NMC	2C/6 AWG, EGC	SP/100A	2P/20A	14.6	3.51

LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

JATurner 3/18/2025 7:25:49 AM
WORKSPACE: AHTD
L:\20\7\7017648 - AROOT 040714 I-40 and Hwy 59\Drawings\e040714_ED_05.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	197	248
		ELECTRICAL DETAILS 6 - ED-6				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21642
JAMES K. SCRUTT



CIRCUIT SP-1-A

CONDUCTOR FILL KEYED NOTES:

(1) 1 - 2C/#6 A.W.G., E.G.C. (4.44% CONDUIT FILL)

PB — INSTALL NEW TYPE 2 HD PULLBOX

— — — 2C/#12A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINARIE

——— ELECTRICAL CIRCUIT, SEE CALL-OUTS FOR CONDUCTOR NUMBER AND SIZES

CONDUIT FILL			
CONDUIT SIZE	CONDUCTORS	CONDUIT FILL	MAX FILL
2"	1 - 2C/#6 A.W.G., E.G.C.	4.44%	40%

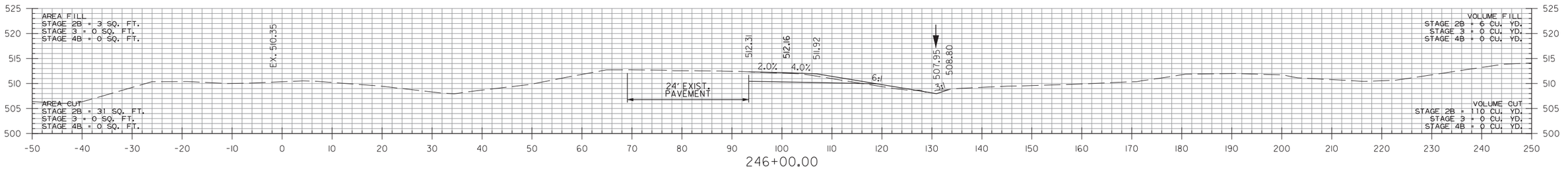
WIRING NOTES:

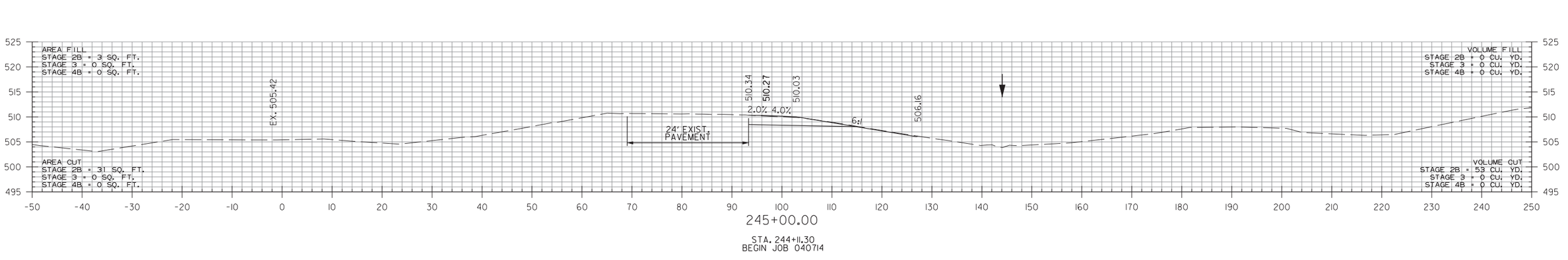
1. REFER TO "ELECTRICAL CONDUCTOR FOR LUMINAIRE" SPECIAL PROVISION FOR ELECTRICAL CONDUCTOR SIZE FROM PULL BOX TO LIGHT FIXTURE.

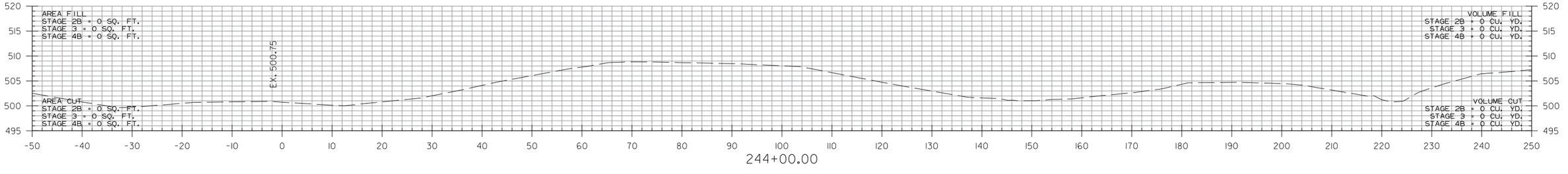
LOCATION: I-40 AND HWY 59
CITY: VAN BUREN
COUNTY: CRAWFORD
DISTRICT: 04 SCALE: N/A DRAWN BY: ZJD

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



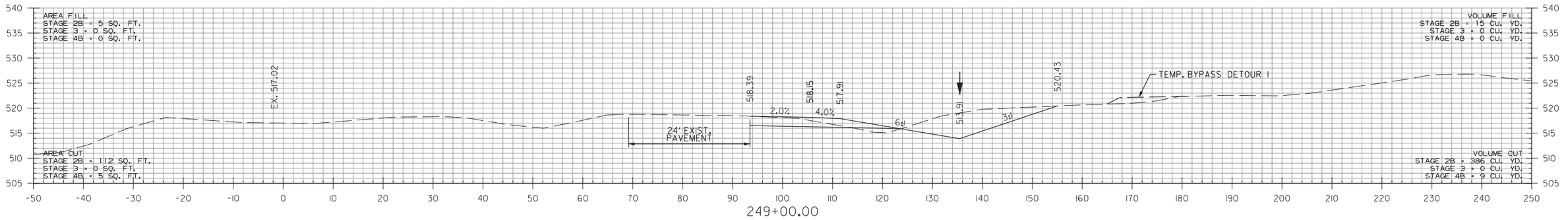


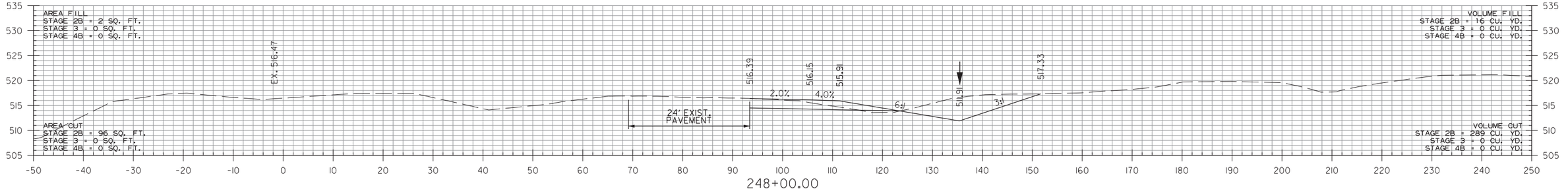


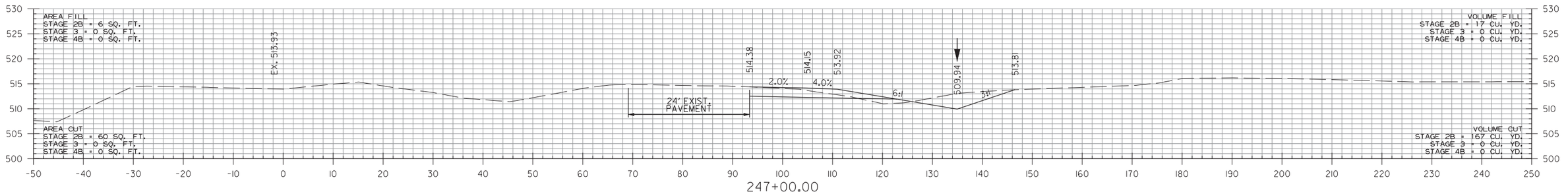
I-40
STA. 244+00 TO STA. 246+00

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



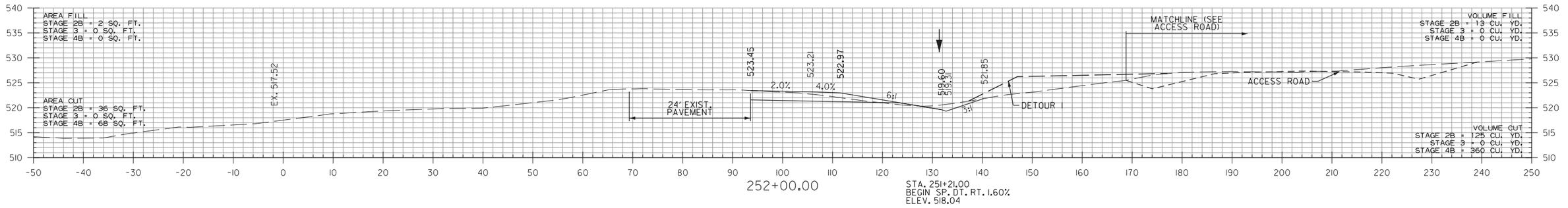


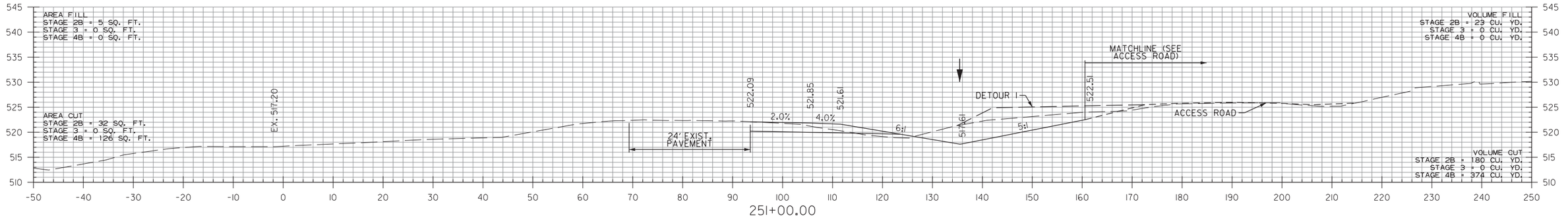


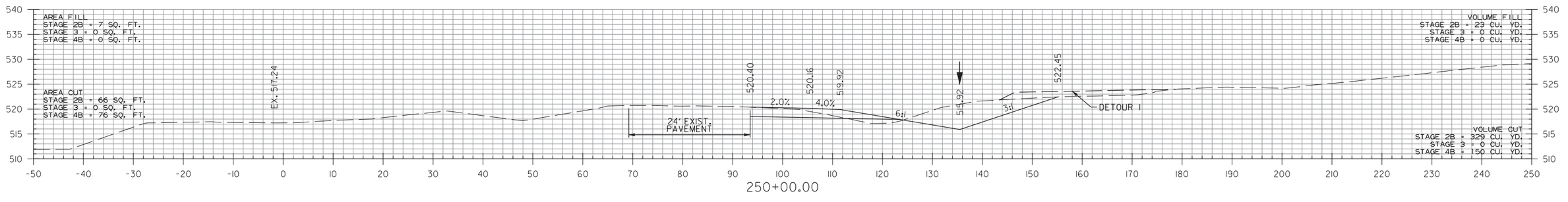
I-40
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



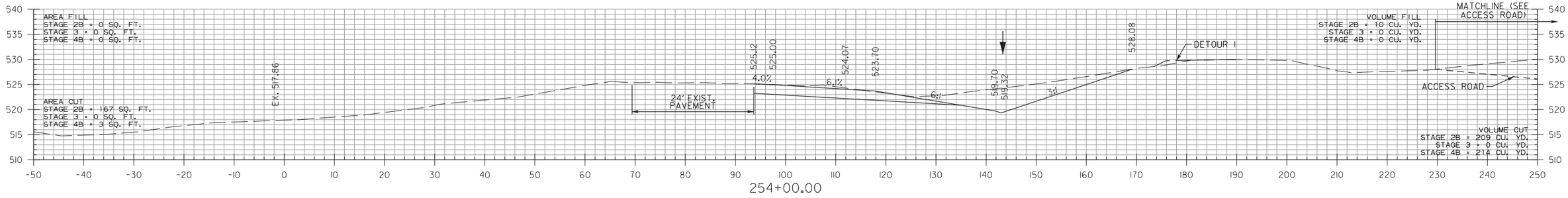




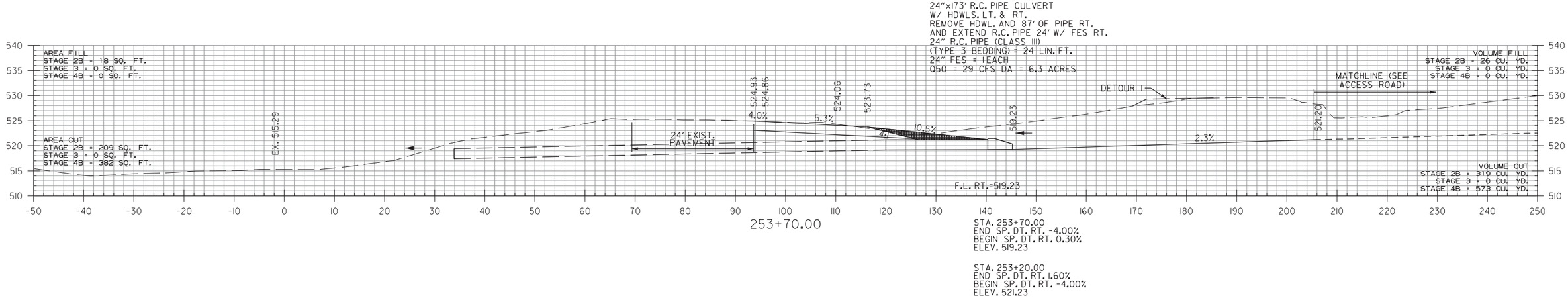
I-40
STA. 250+00 TO STA. 252+00

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				

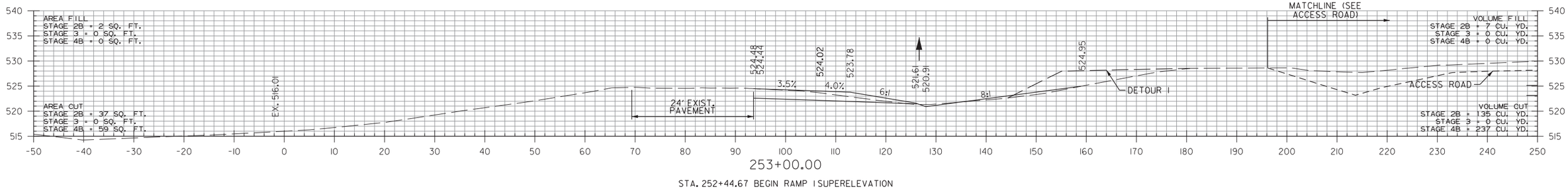


STA. 253+70 IN PLACE
24"x173' R.C. PIPE CULVERT
W/ HDWLS. LT. & RT.
REMOVE HDWL. AND 87' OF PIPE RT.
AND EXTEND R.C. PIPE 24' W/ FES RT.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 24 LIN. FT.
24" FES = 1 EACH
Q50 = 29 CFS DA = 6.3 ACRES



STA. 253+70.00
END SP. DT. RT. -4.00%
BEGIN SP. DT. RT. 0.30%
ELEV. 519.23

STA. 253+20.00
END SP. DT. RT. 1.60%
BEGIN SP. DT. RT. -4.00%
ELEV. 521.23

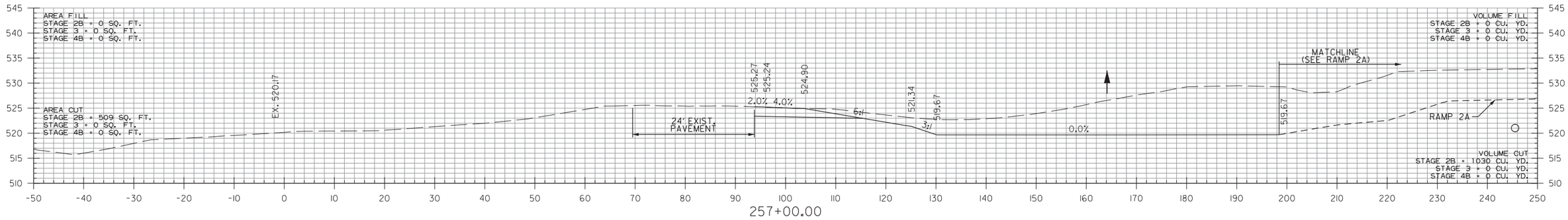


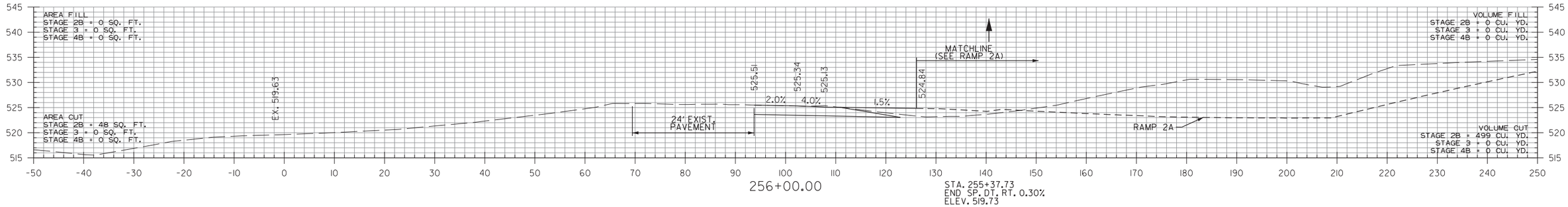
STA. 252+44.67 BEGIN RAMP I SUPERELEVATION

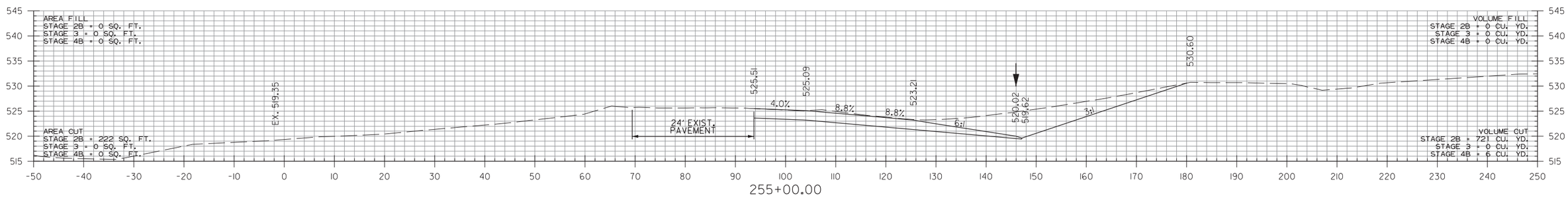
I-40
STA. 253+00 TO STA. 254+00

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	202	248
		CROSS SECTIONS				



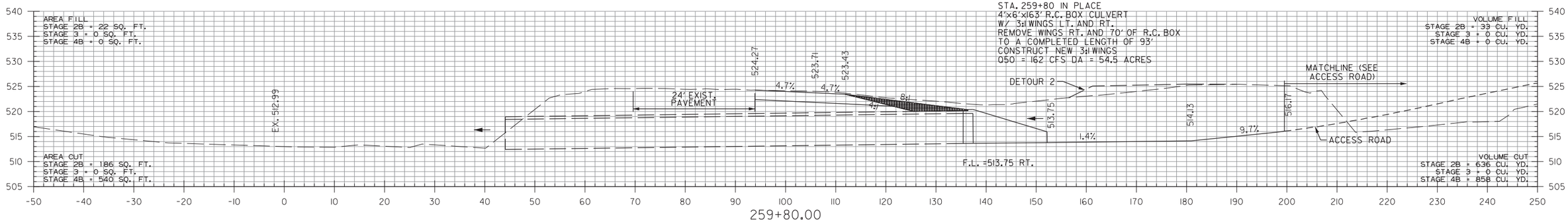


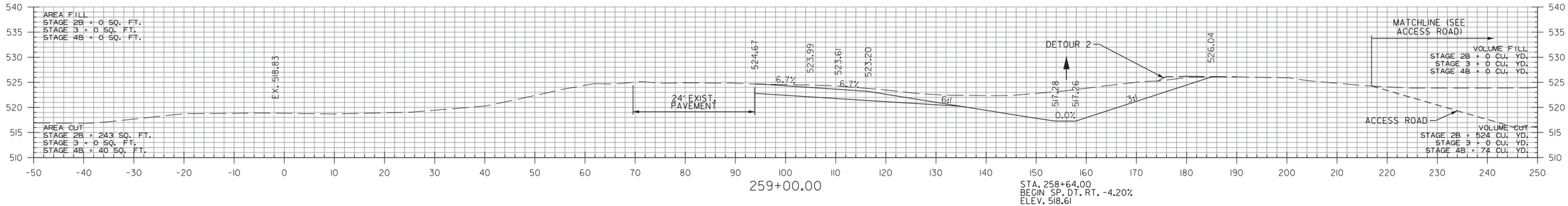


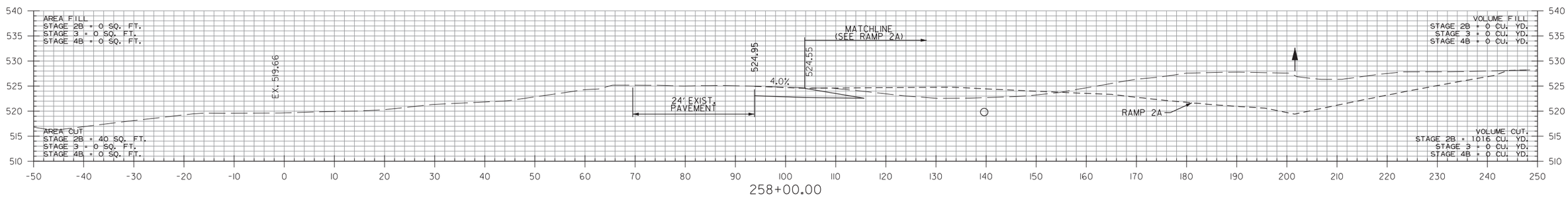
I-40
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	203	248
		CROSS SECTIONS				



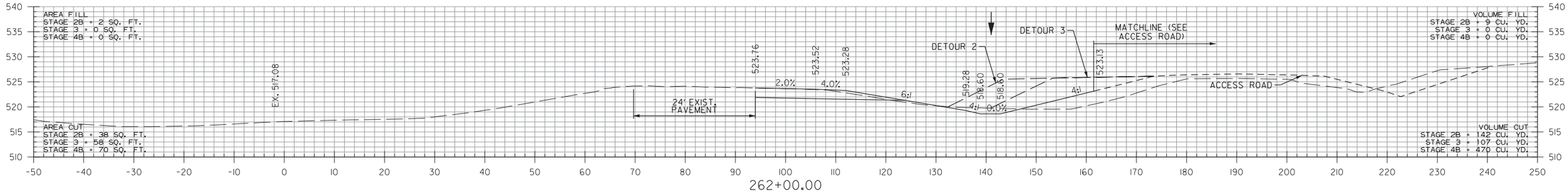


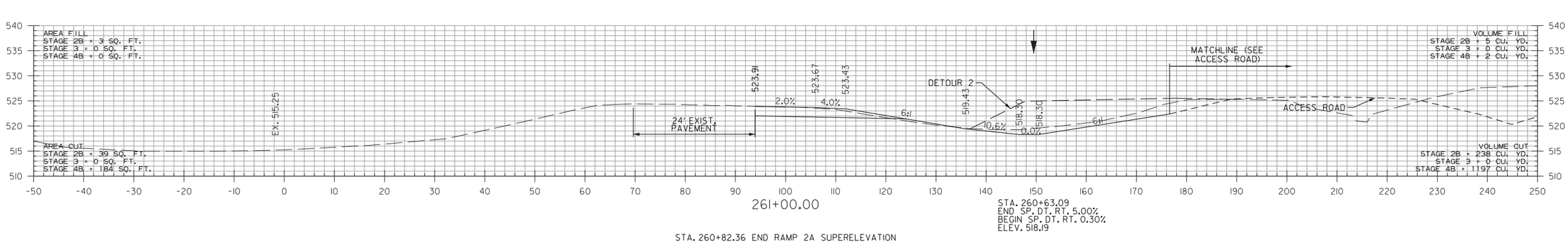


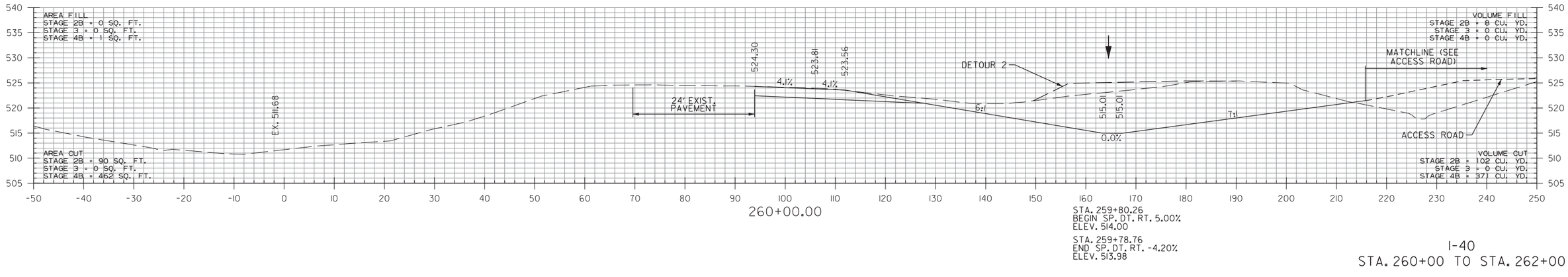
I-40
STA. 258+00 TO STA. 259+80

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	204	248
		CROSS SECTIONS				



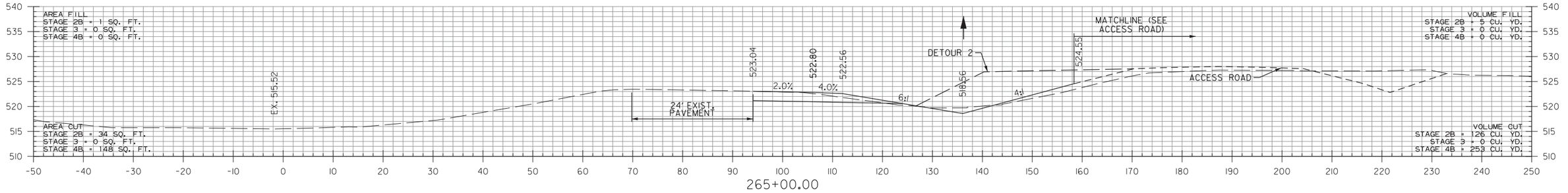


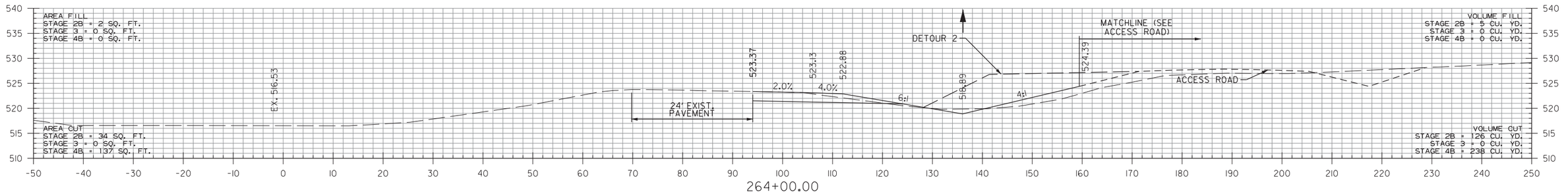


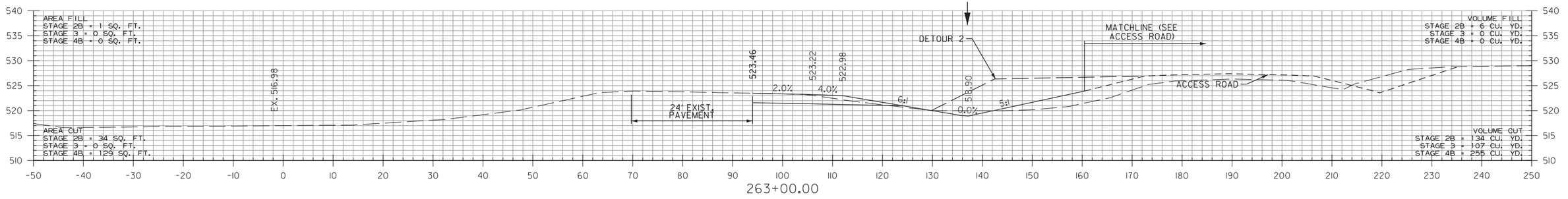
I-40
STA. 260+00 TO STA. 262+00

JATurner
3/18/2025 7:25:50 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_I-40.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	205	248
		CROSS SECTIONS				



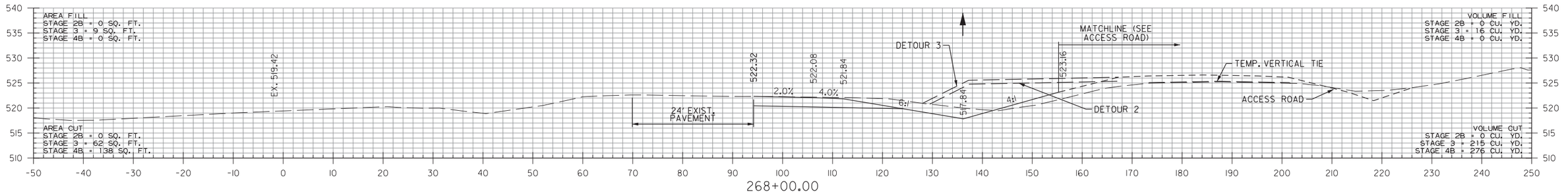


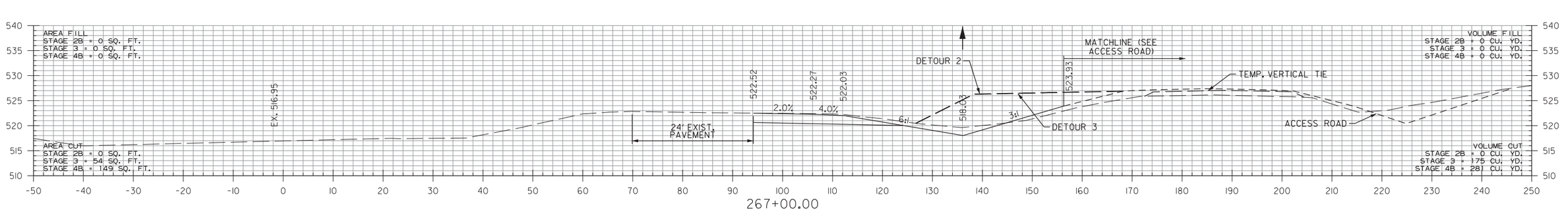


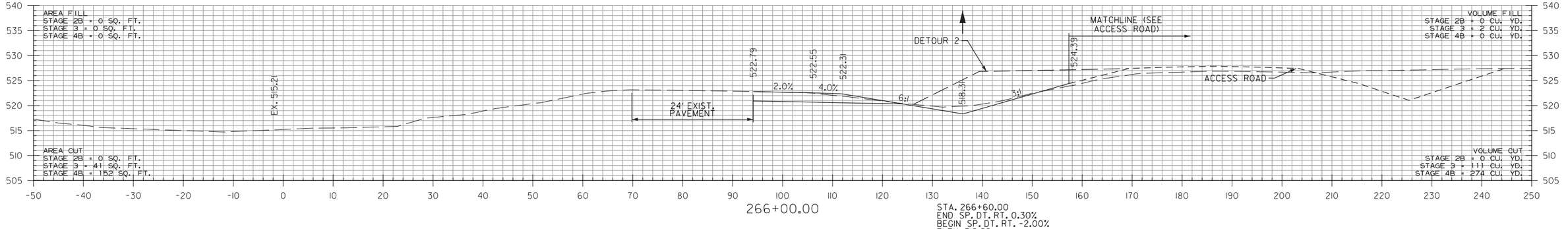
I-40
STA. 263+00 TO STA. 265+00

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	206	248
		CROSS SECTIONS				





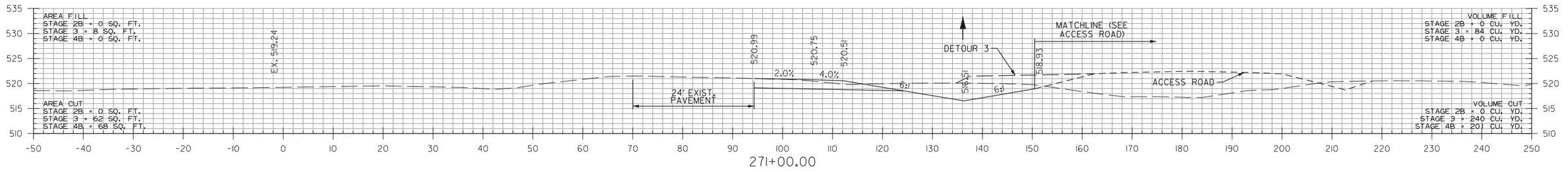


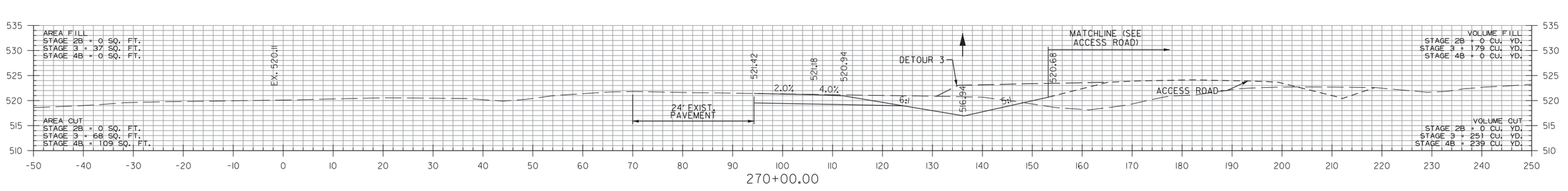
STA. 266+60.00
END SP. DT. RT. 0.30%
BEGIN SP. DT. RT. -2.00%
ELEV. 519.98

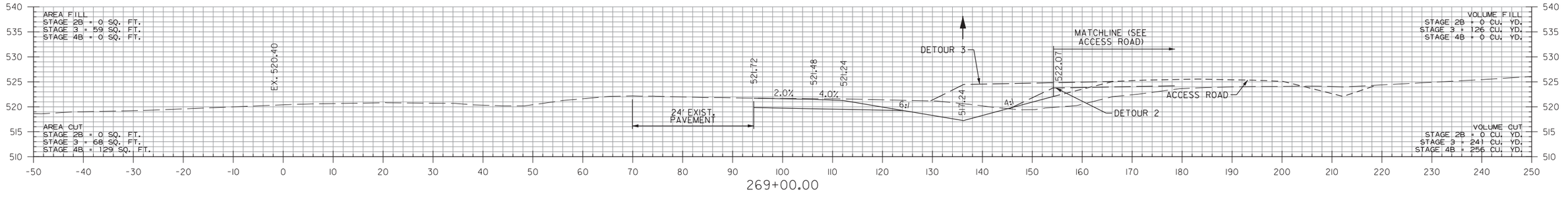
I-40
STA. 266+00 TO STA. 268+00

JATurner 3/18/2025 7:25:50 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	207	248
		CROSS SECTIONS				



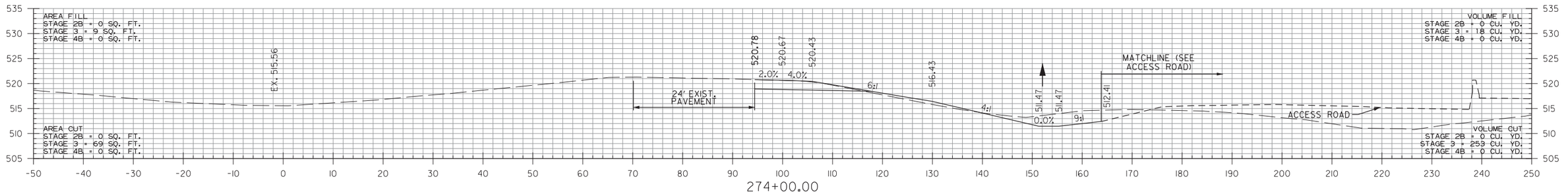


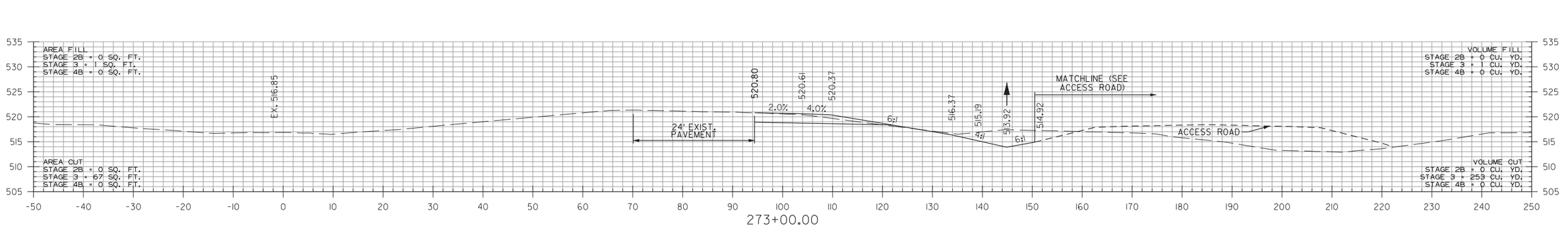


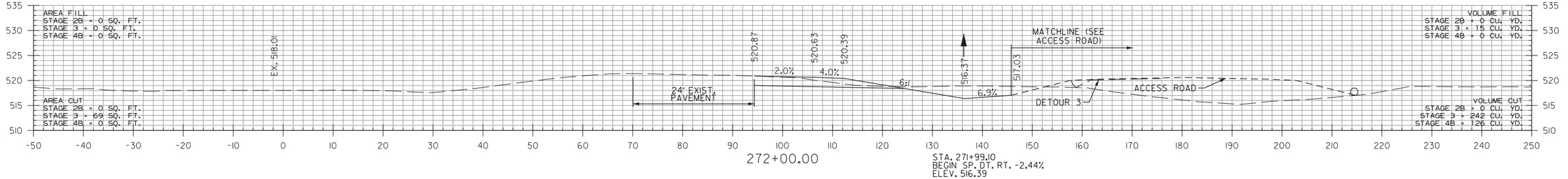
I-40
STA. 269+00 TO STA. 271+00

JATurner 3/18/2025 7:25:50 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	208	248
		CROSS SECTIONS				



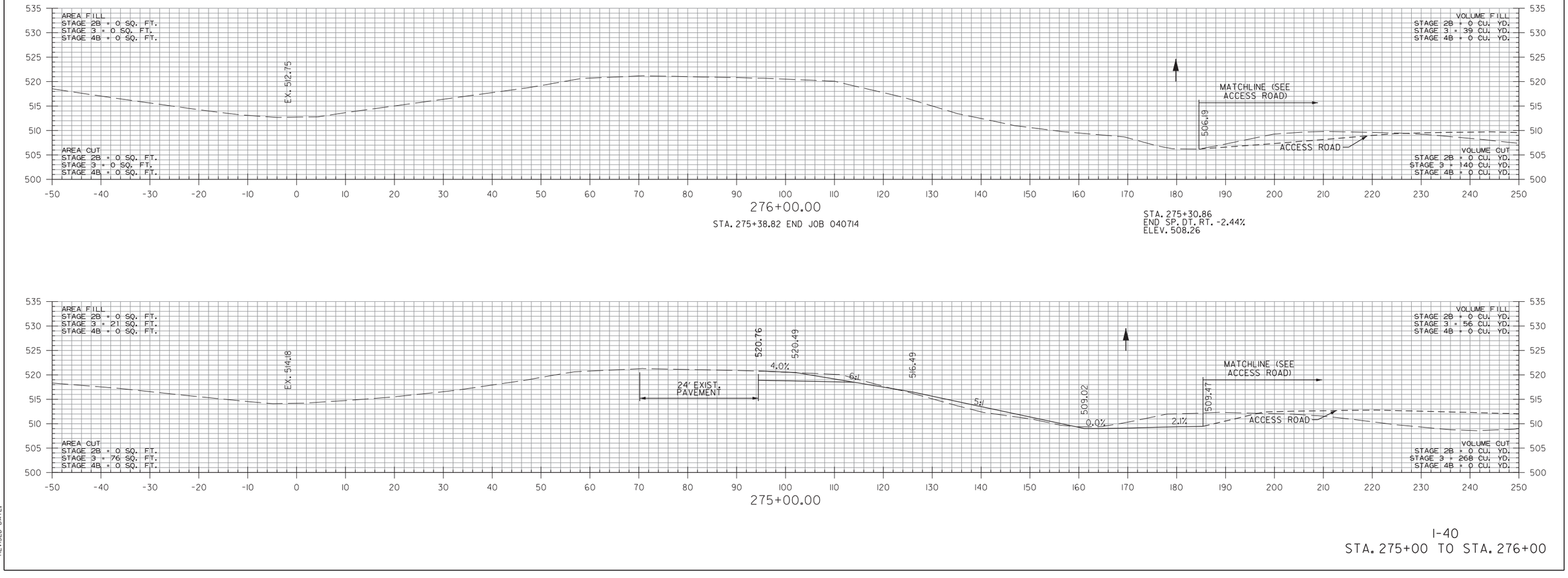




I-40
STA. 272+00 TO STA. 274+00

JATurner
3/18/2025 7:25:51 AM
WORKSPACE: AHTD
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REVISED DATE:

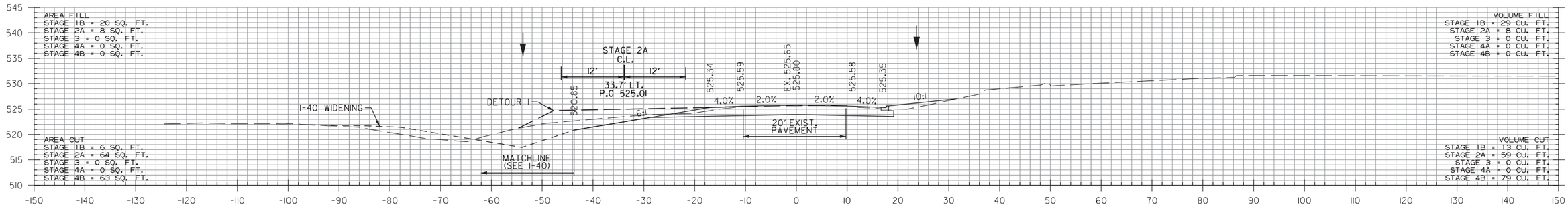
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	209	248
		CROSS SECTIONS				



I-40
STA. 275+00 TO STA. 276+00

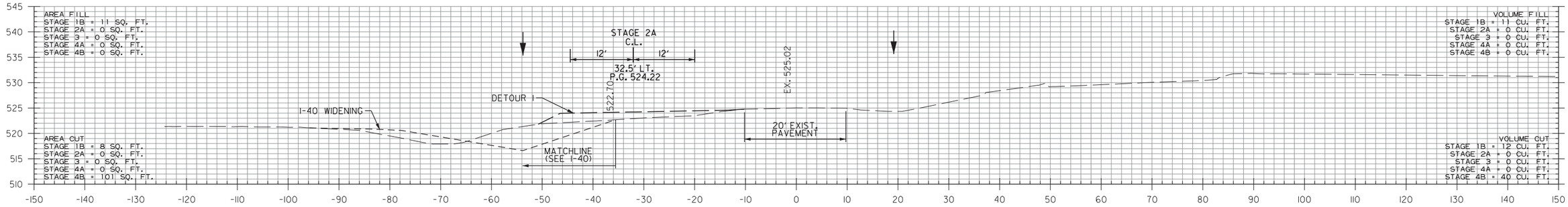
JATurner 3/18/2025 7:25:51 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	210	248
		CROSS SECTIONS				

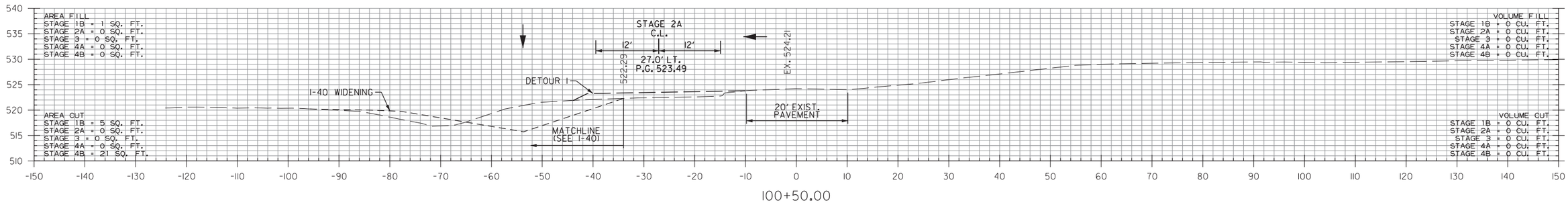


101+50.00

STA. 101+50.00 END 100' TRANSITION



101+00.00



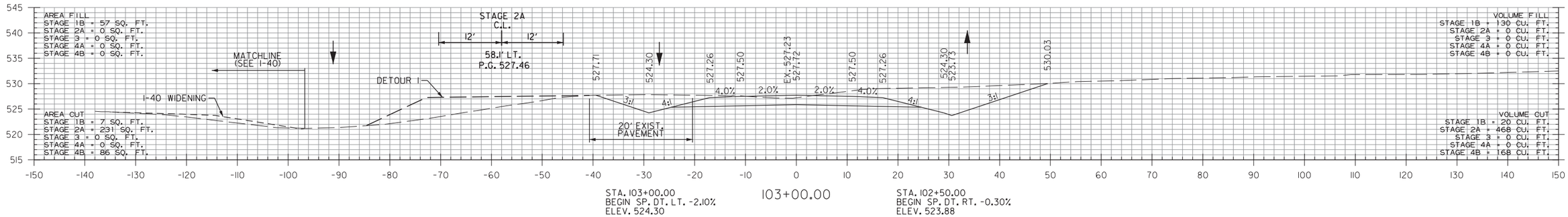
100+50.00

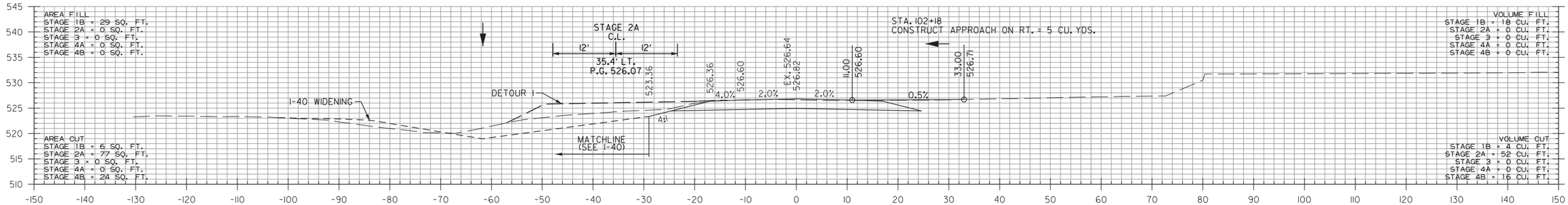
STA. 100+50.00 BEGIN 100' TRANSITION

ACCESS ROAD
STA. 100+50 TO STA. 101+50

JATurner 3/18/2025 7:25:59 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	211	248
		CROSS SECTIONS				

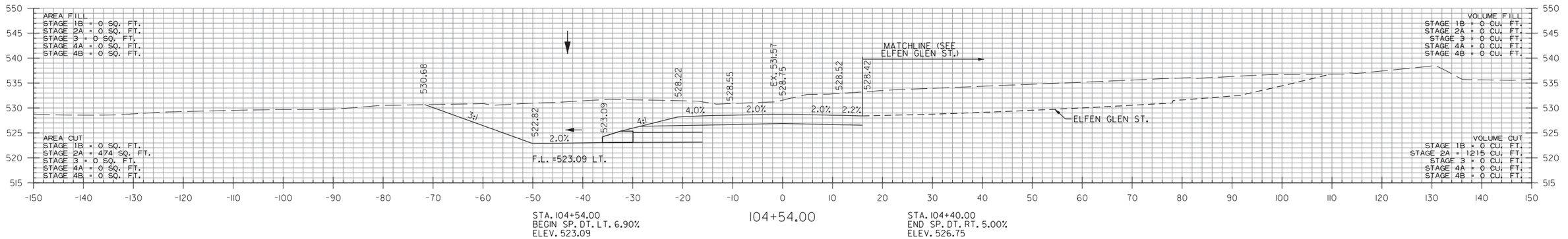


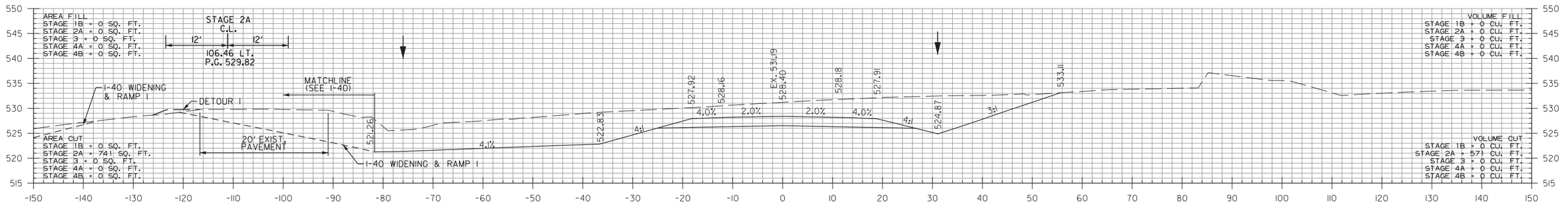


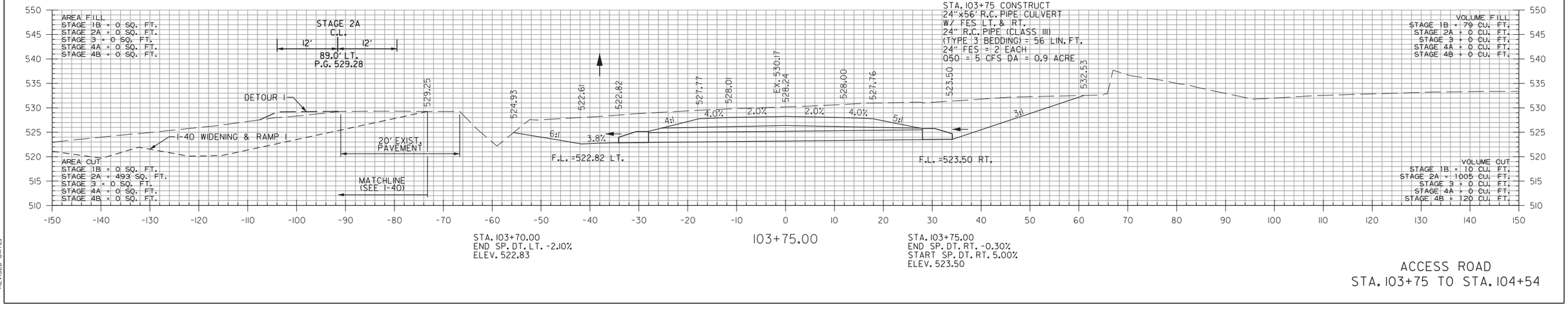
ACCESS ROAD
STA. 102+00 TO STA. 103+00

JATurner 3/18/2025 7:25:59 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	212	248
		CROSS SECTIONS				



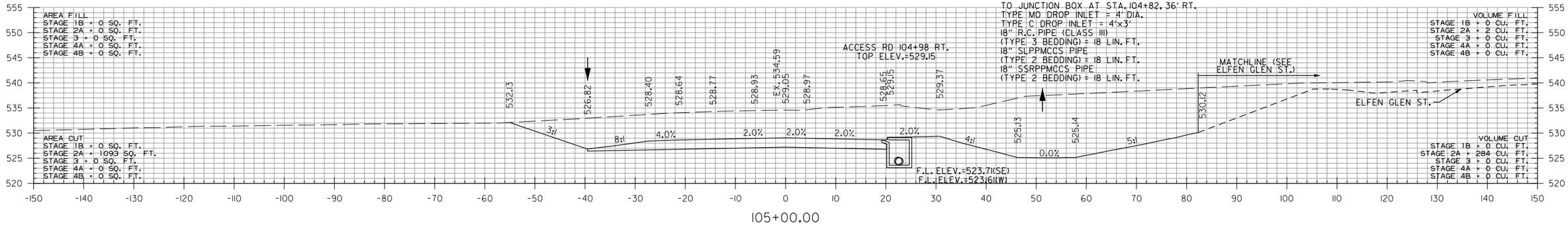


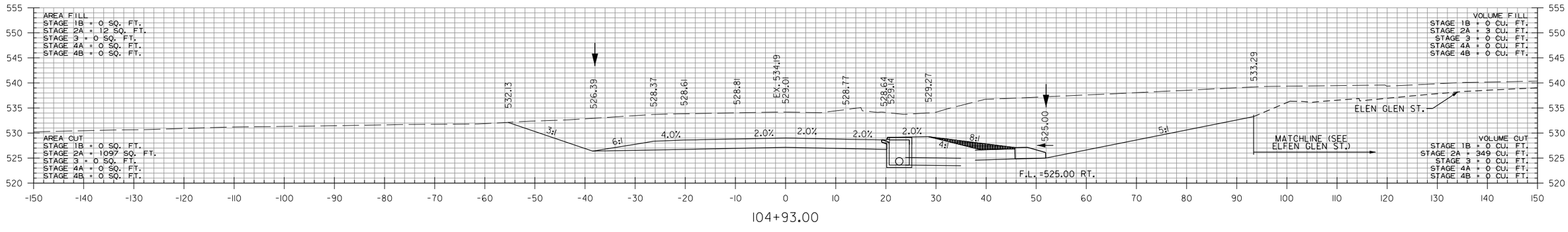


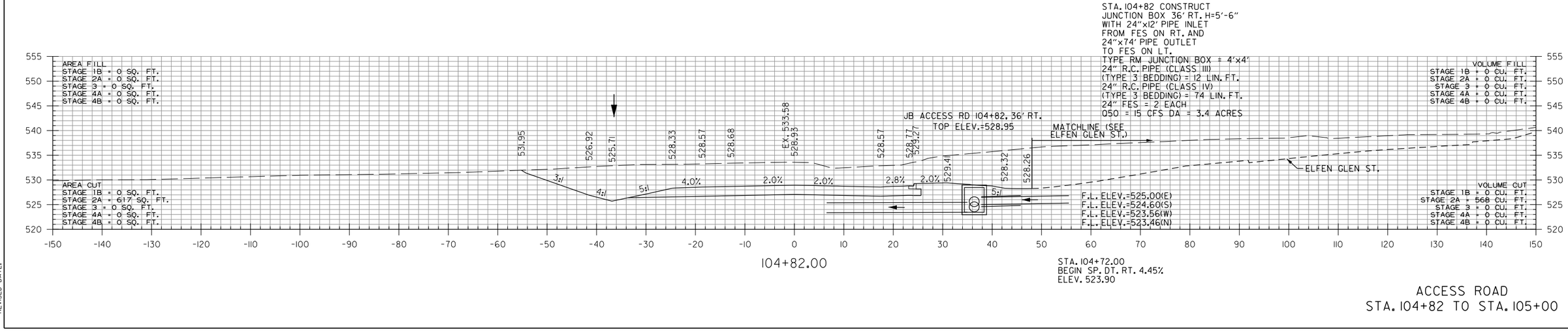
ACCESS ROAD
STA. 103+75 TO STA. 104+54

JATurner 3/18/2025 7:25:59 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



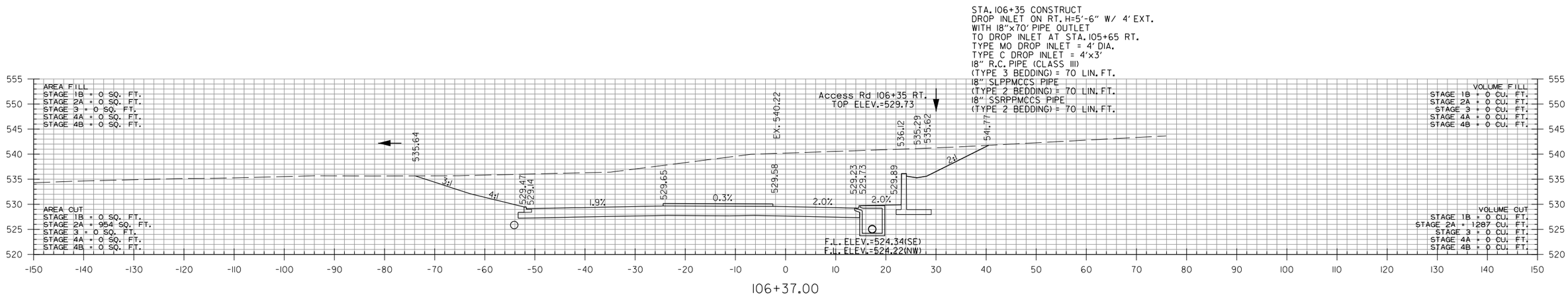


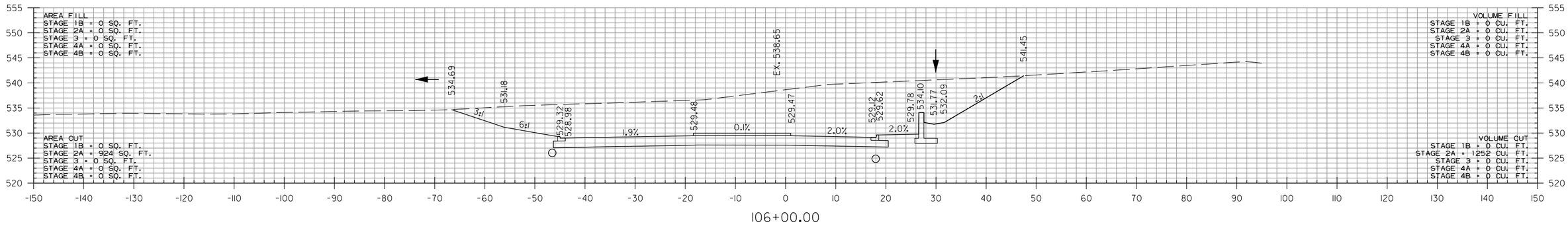


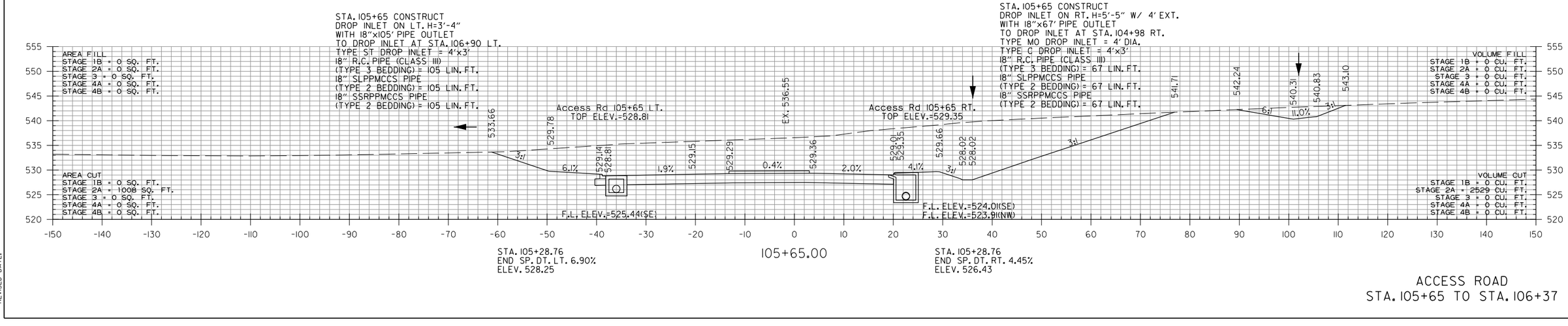
ACCESS ROAD
STA. 104+82 TO STA. 105+00

HBVinson 4/3/2025 10:08:07 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	214	248
		CROSS SECTIONS				



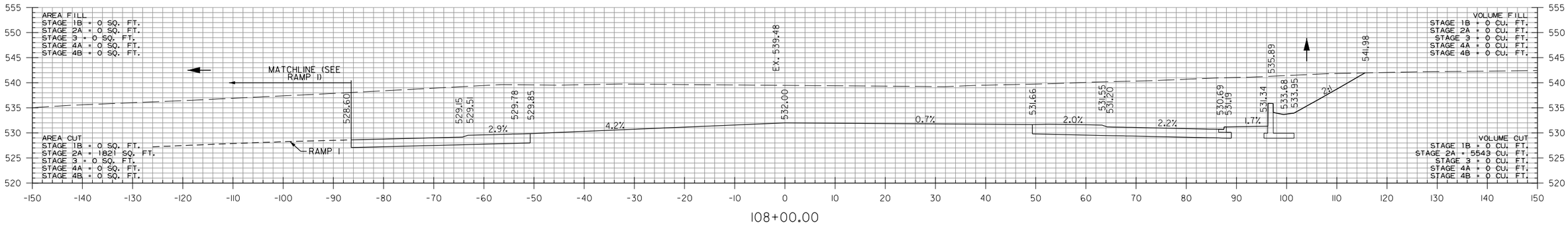


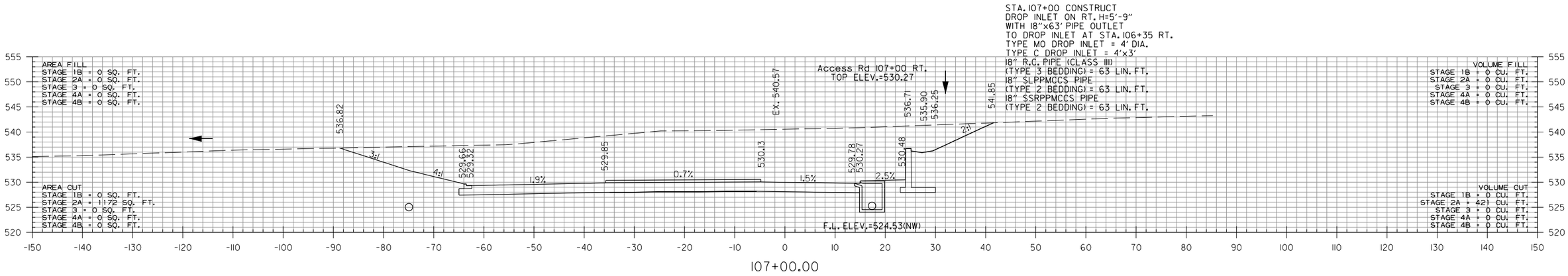


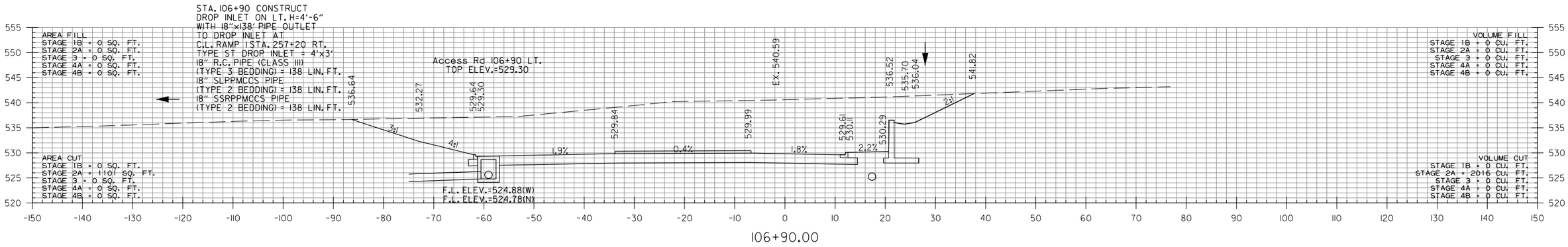
ACCESS ROAD
STA. 105+65 TO STA. 106+37

HBVinson 4/3/2025 10:08:07 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



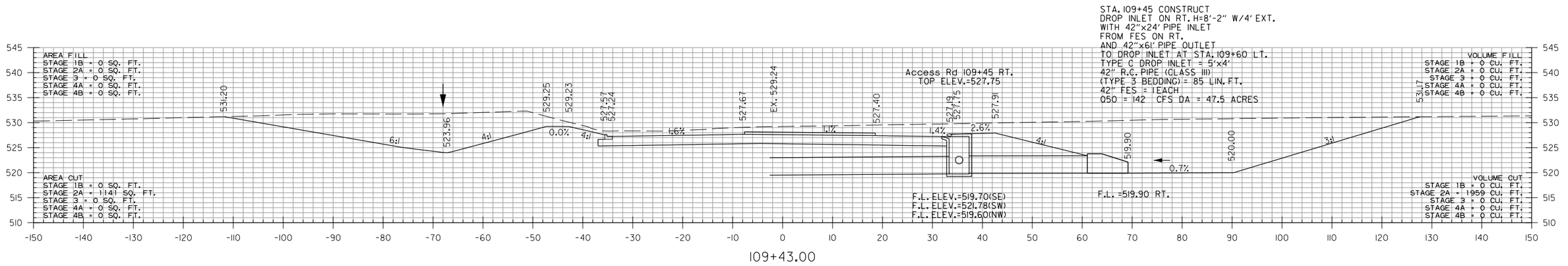




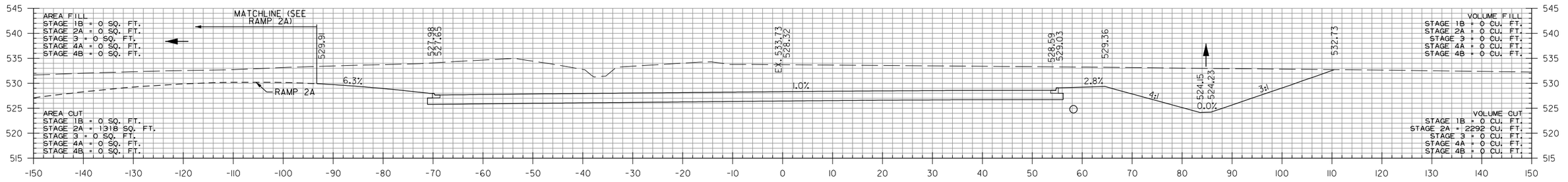
ACCESS ROAD
STA. 106+90 TO STA. 108+00

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WORKSPACE: AHTD
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REVISED DATE:

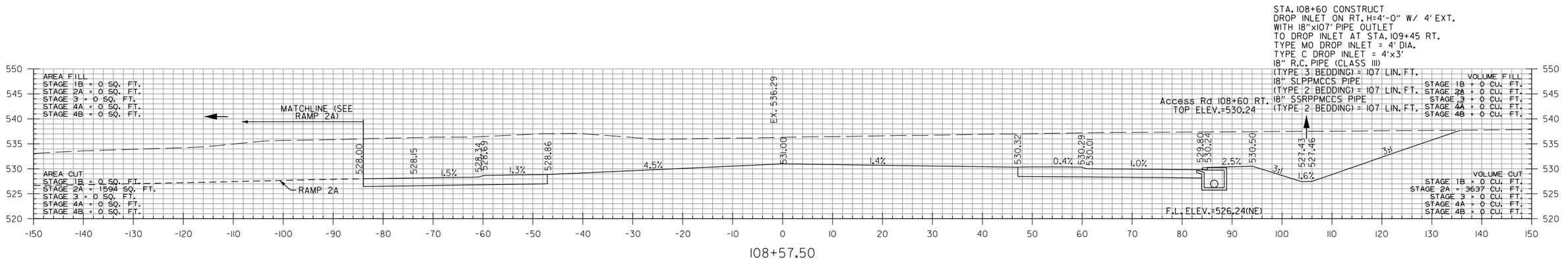
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



109+43.00



109+00.00

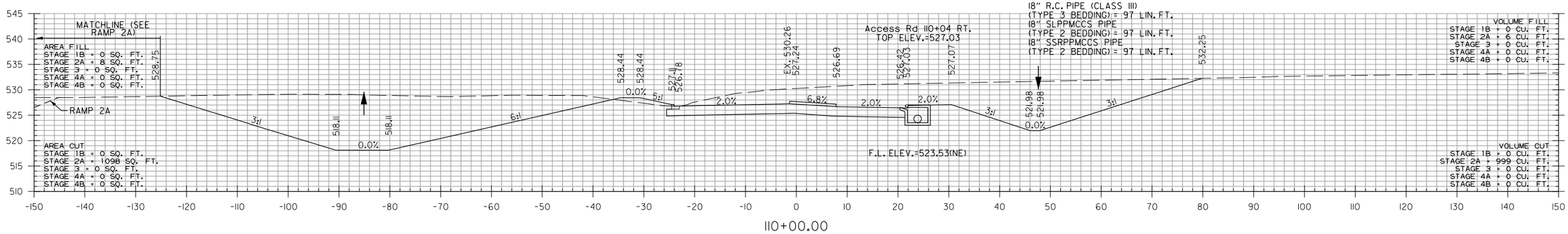


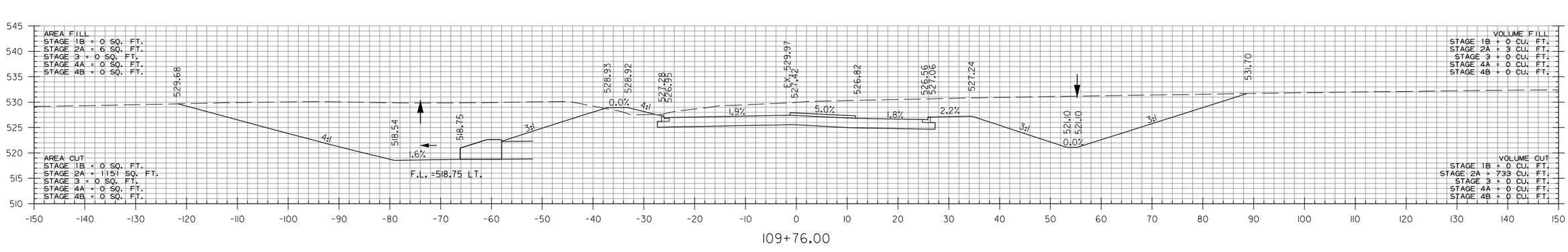
108+57.50

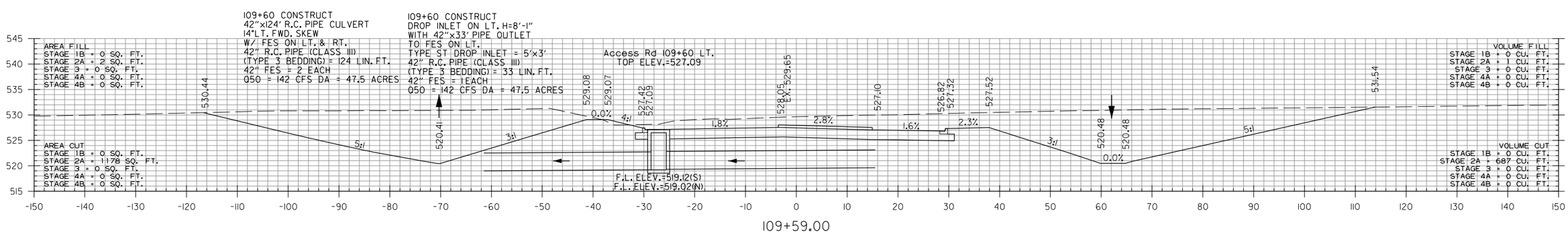
ACCESS ROAD
STA. 108+58 TO STA. 109+43

HBVinson 4/3/2025 10:08:07 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	217	248
		CROSS SECTIONS				



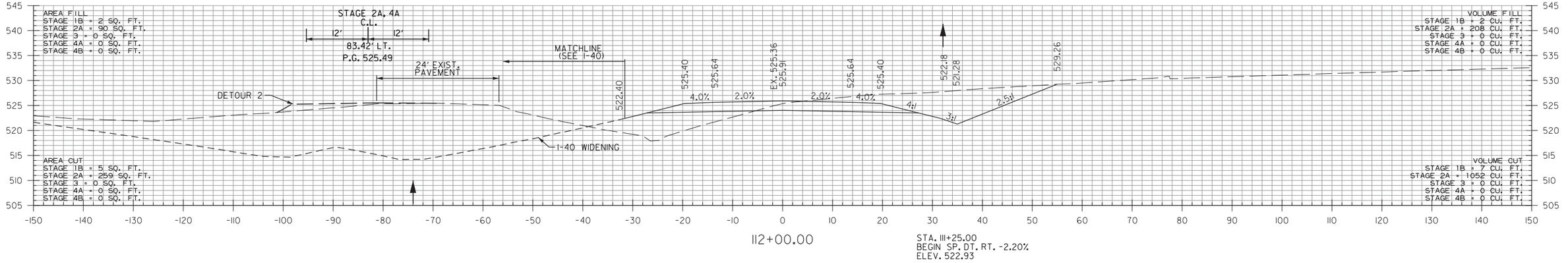


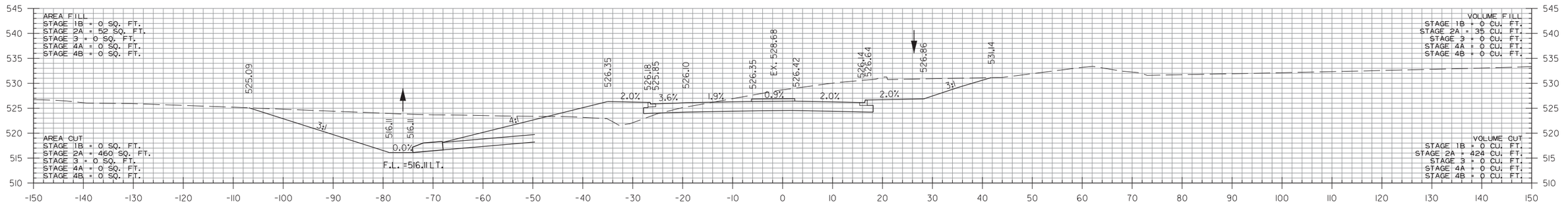


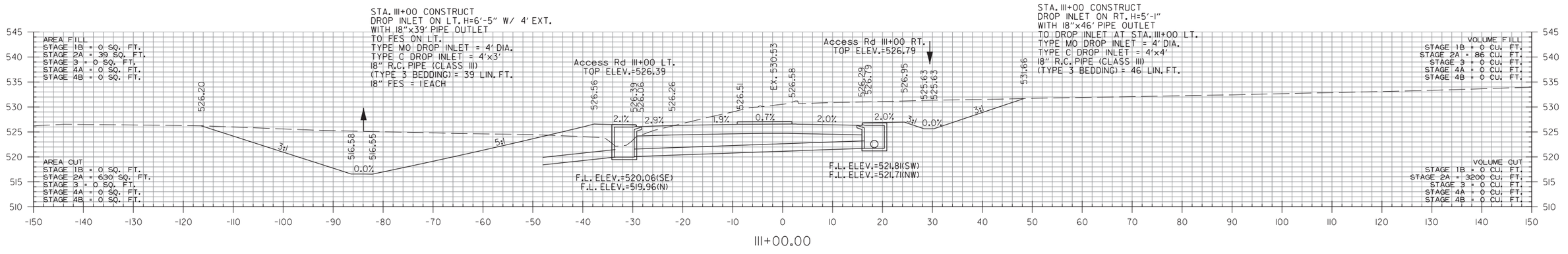
ACCESS ROAD
STA. 109+59 TO STA. 110+00

HBVinson 4/3/2025 10:08:07 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		CROSS SECTIONS				



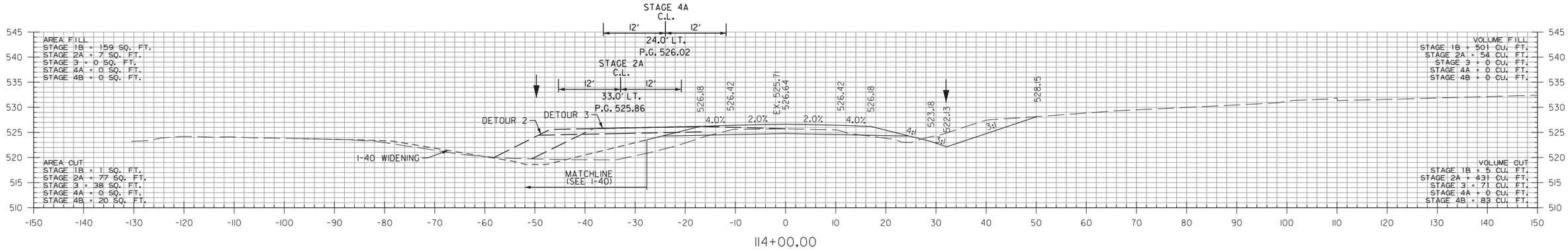




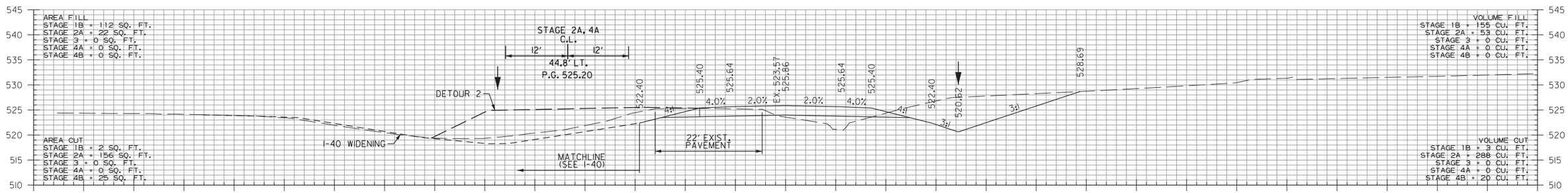
ACCESS ROAD
STA. 111+00 TO STA. 112+00

JATurner 3/18/2025 7:26:00 AM
WORKSPACE: AHTD
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REVISED DATE:

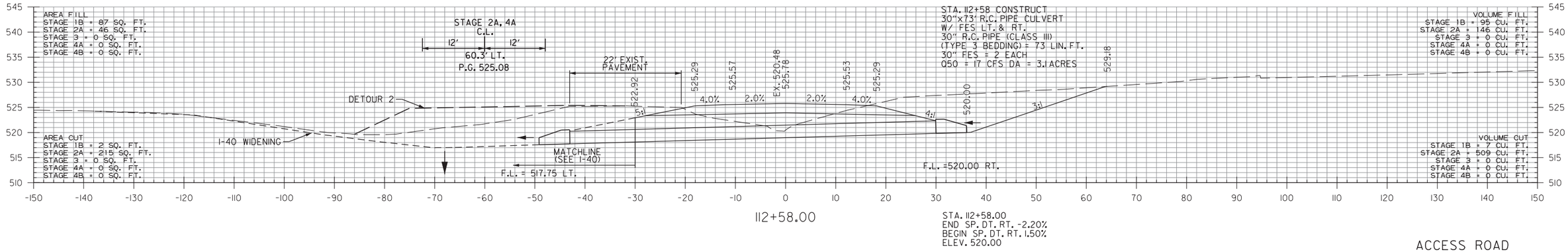
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	219	248
		CROSS SECTIONS				



114+00.00



113+00.00



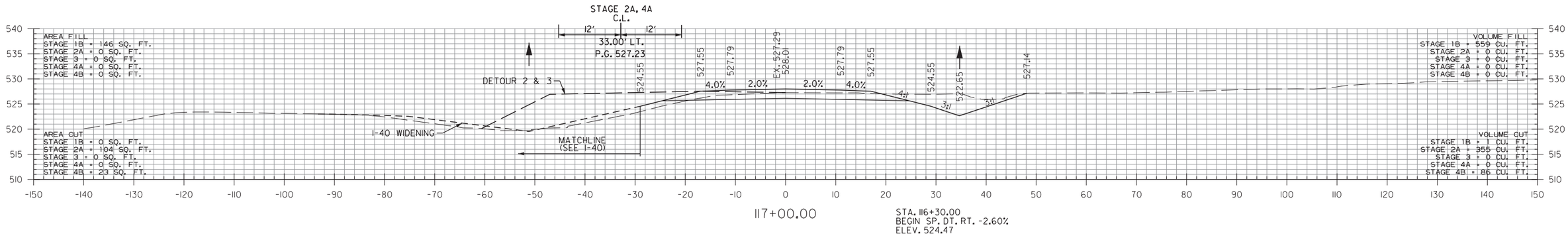
112+58.00

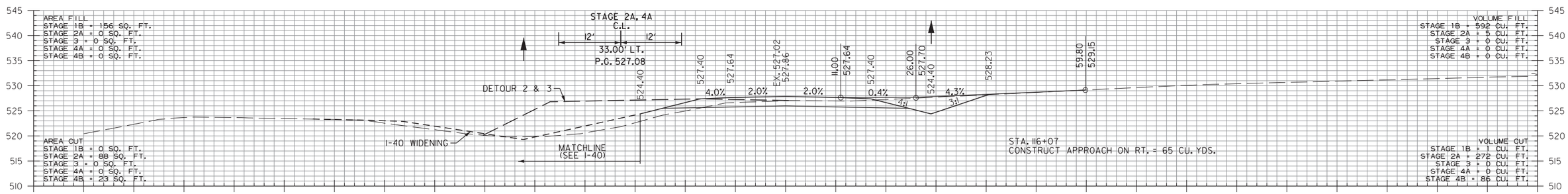
STA. 112+58.00
END SP. DT. RT. -2.20%
BEGIN SP. DT. RT. 1.50%
ELEV. 520.00

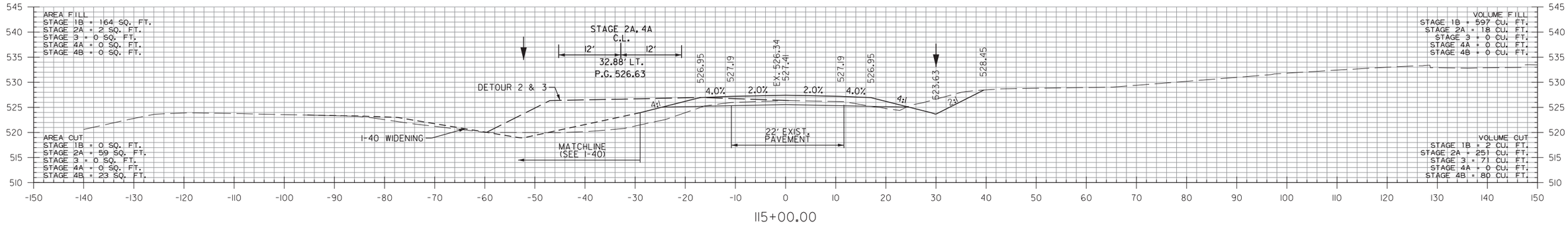
ACCESS ROAD
STA. 112+58 TO STA. 114+00

JATurner 3/18/2025 7:26:00 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	220	248
		CROSS SECTIONS				



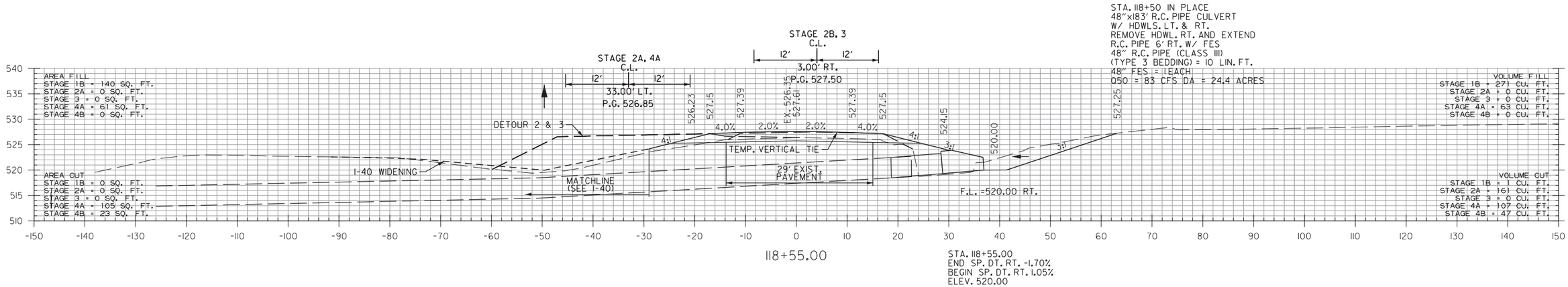




ACCESS ROAD
STA. 115+00 TO STA. 117+00

JATurner 3/18/2025 7:26:00 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

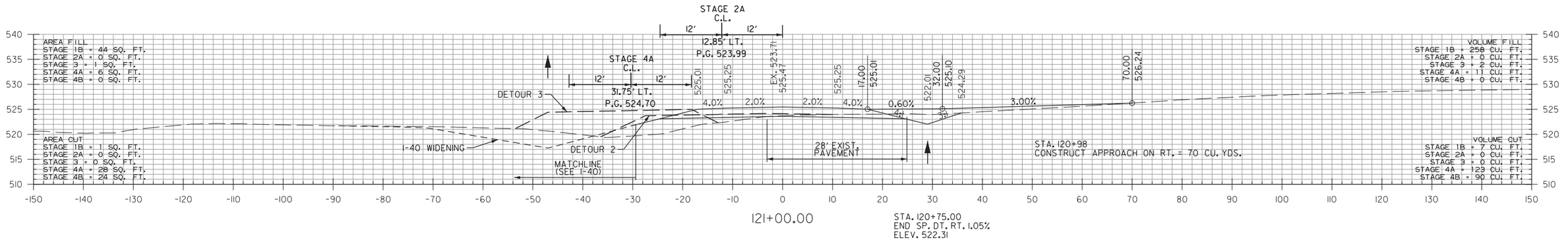
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	221	248
		CROSS SECTIONS				

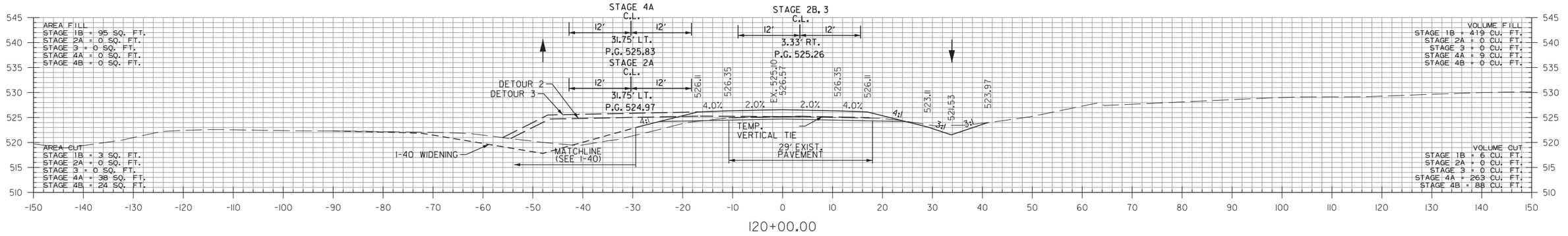


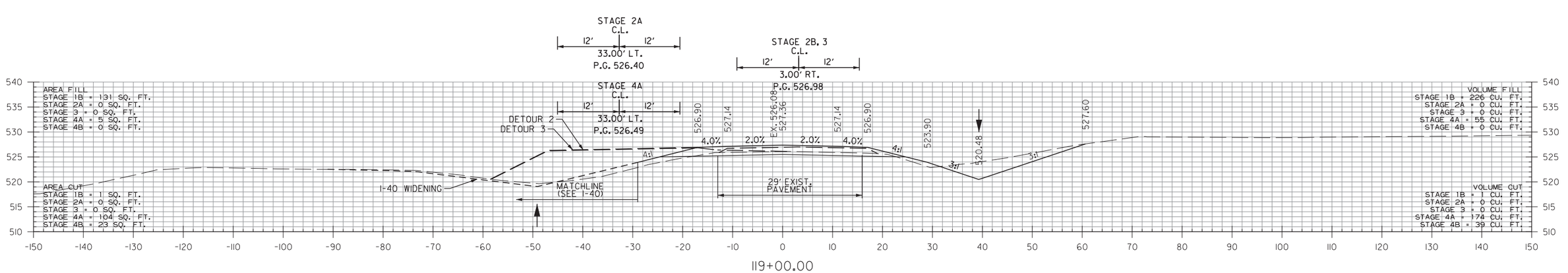
ACCESS ROAD
STA. 117+44 TO STA. 118+55

JATurner 3/18/2025 7:26:00 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\20IT\I70I7648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	222	248
		CROSS SECTIONS				



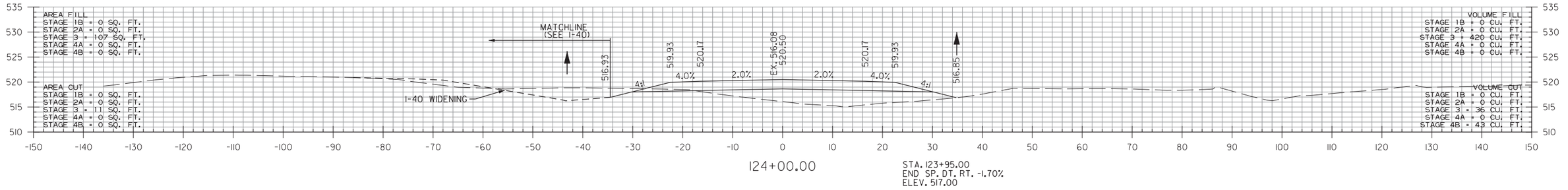




ACCESS ROAD
STA. 119+00 TO STA. 121+00

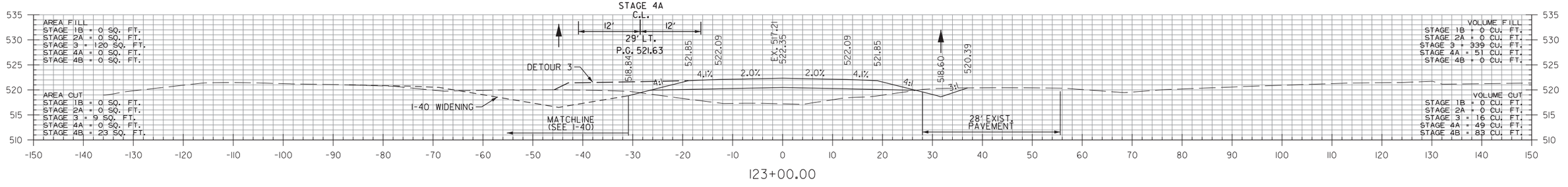
JATurner 3/18/2025 7:26:01 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	223	248
		CROSS SECTIONS				

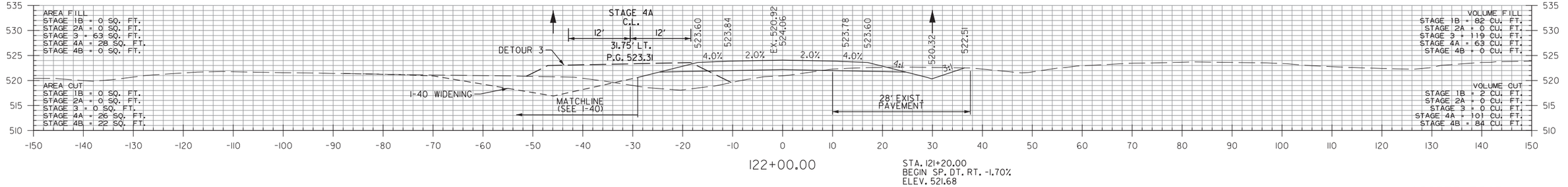


124+00.00

STA. 123+95.00
END SP. DT. RT. -1.70%
ELEV. 517.00



123+00.00



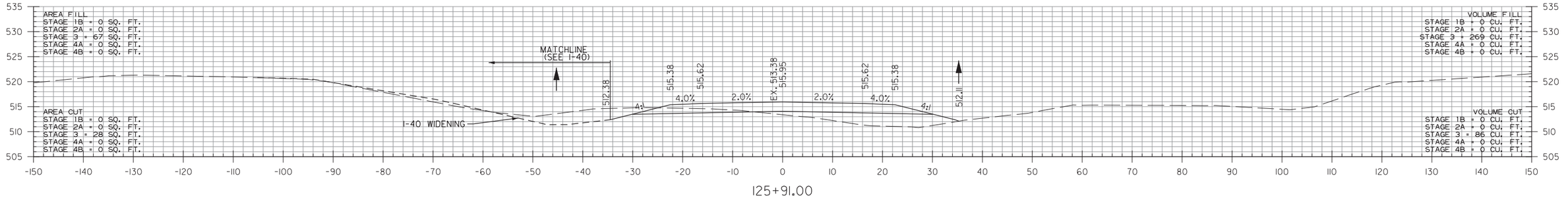
122+00.00

STA. 121+20.00
BEGIN SP. DT. RT. -1.70%
ELEV. 521.68

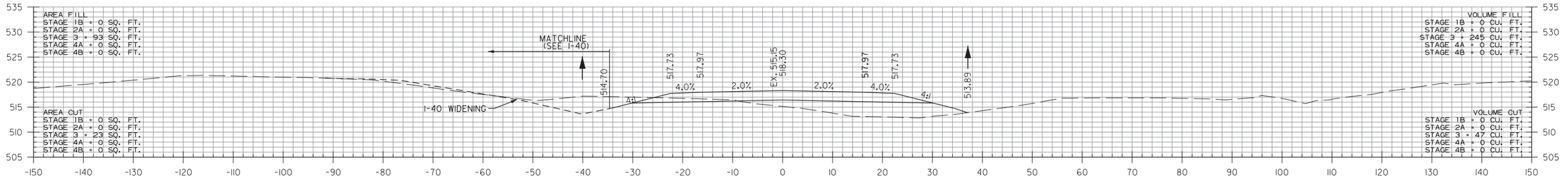
ACCESS ROAD
STA. 122+00 TO STA. 124+00

JATurner 3/18/2025 7:26:01 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\20ITN\170176\48 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

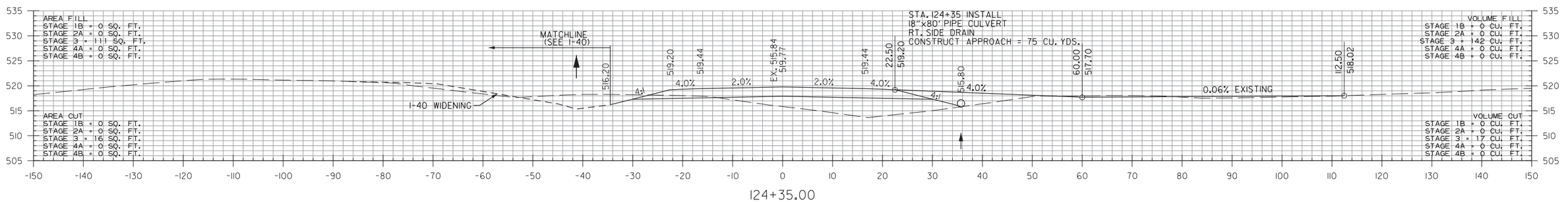
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	224	248
		CROSS SECTIONS				



125+91.00



125+00.00

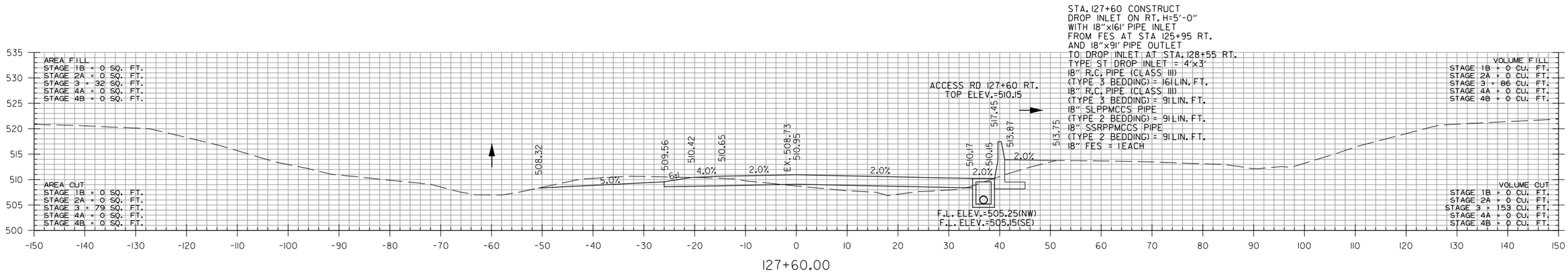


124+35.00

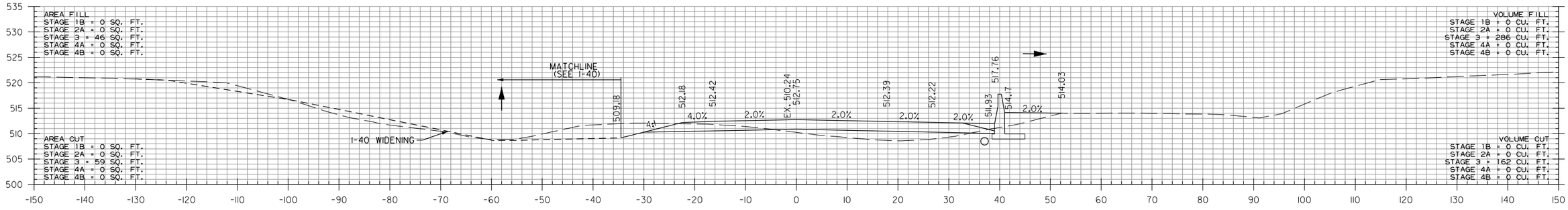
ACCESS ROAD
STA. 124+35 TO STA. 125+91

JATurner 3/18/2025 7:26:01 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

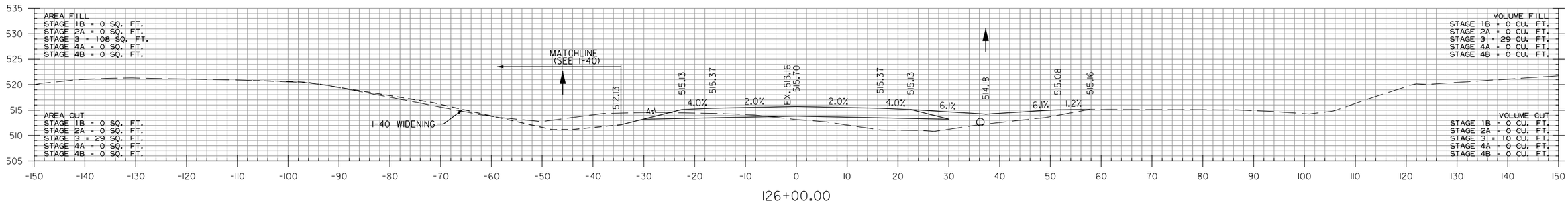
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	225	248
		CROSS SECTIONS				



127+60.00



127+00.00

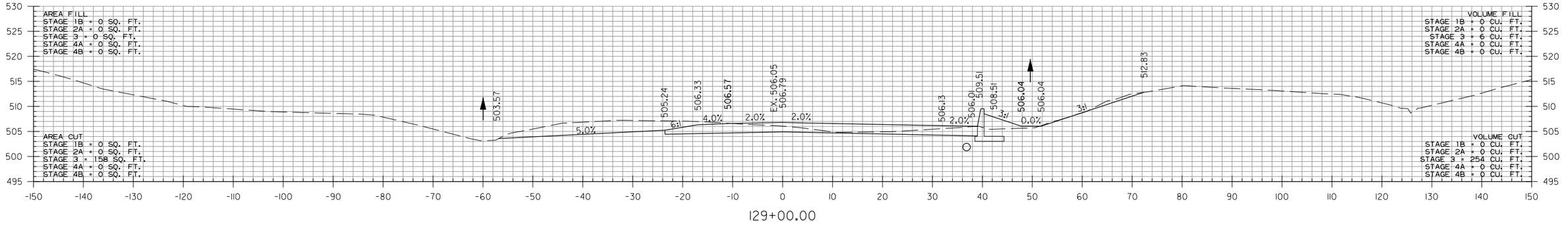


126+00.00

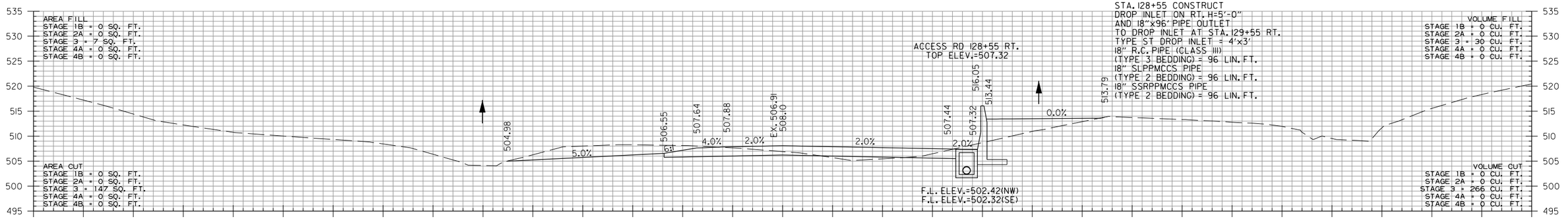
ACCESS ROAD
STA. 126+00 TO STA. 127+60

HBVinson 4/3/2025 10:08:08 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	226	248
		CROSS SECTIONS				

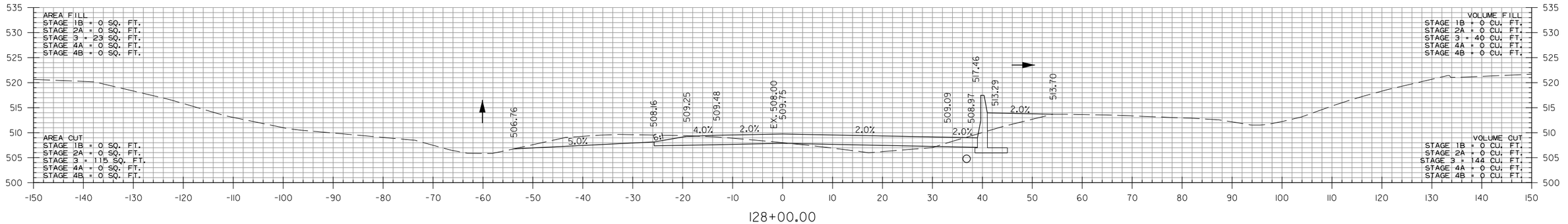


129+00.00



128+55.00

STA. 128+55.00
BEGIN SP. DT. RT -4.80%
ELEV. 508.20

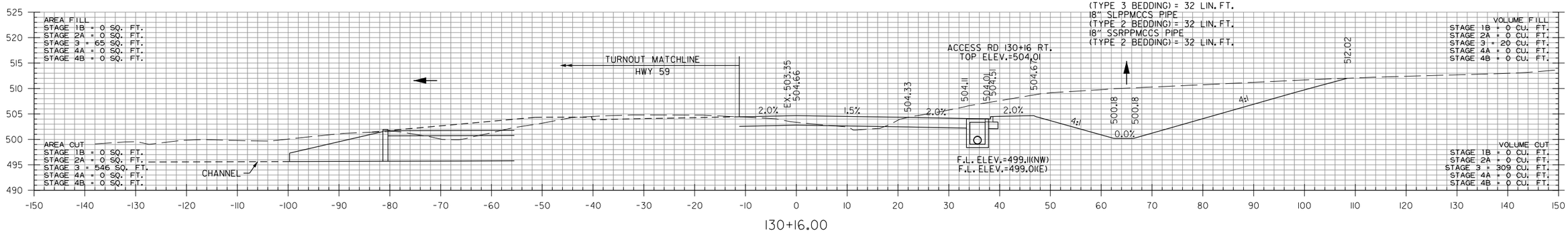


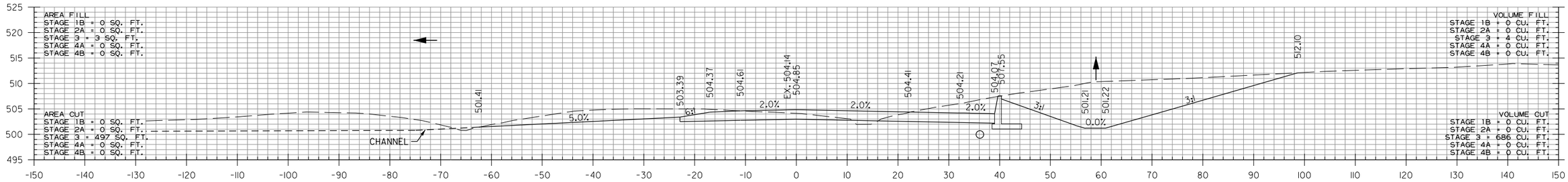
128+00.00

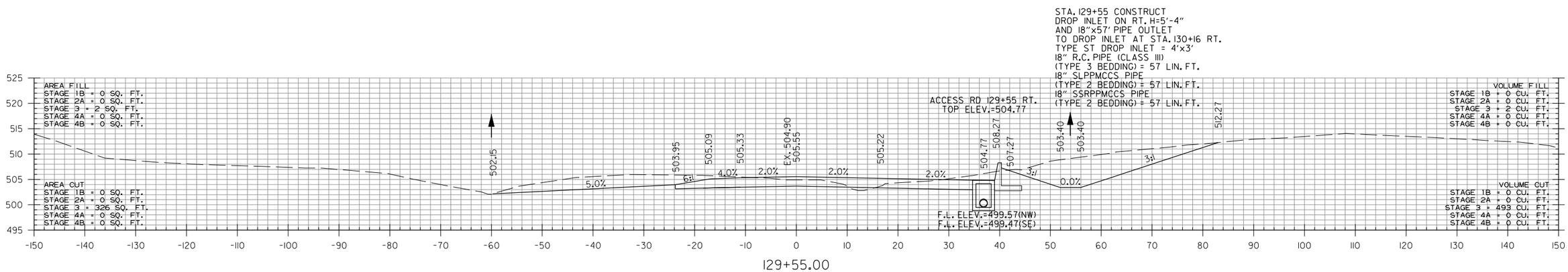
ACCESS ROAD
STA. 128+00 TO STA. 129+00

HBVinson
4/3/2025 10:08:08 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\20I\I70I648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	227	248
		CROSS SECTIONS				



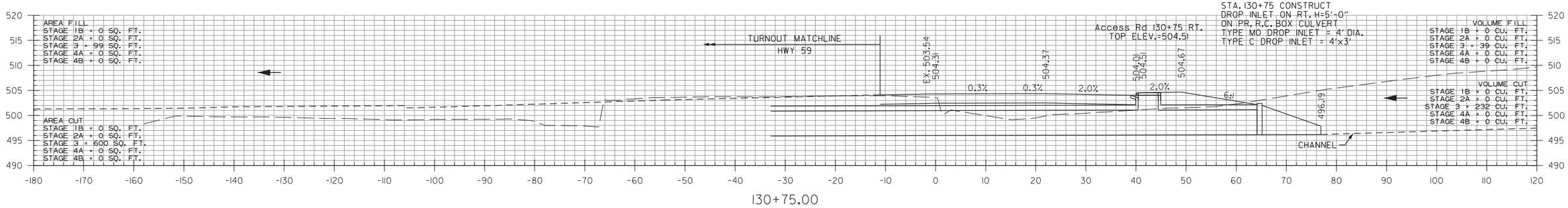




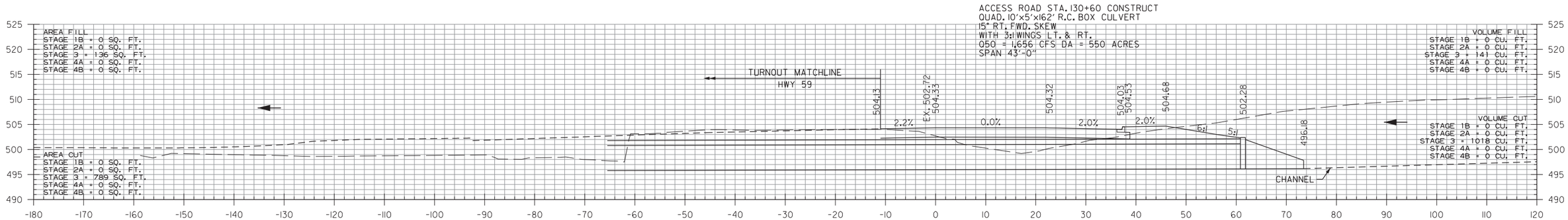
ACCESS ROAD
STA. 129+55 TO STA. 130+16

HBVinson
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
4/3/2025 10:08:08 AM
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	228	248
		CROSS SECTIONS				

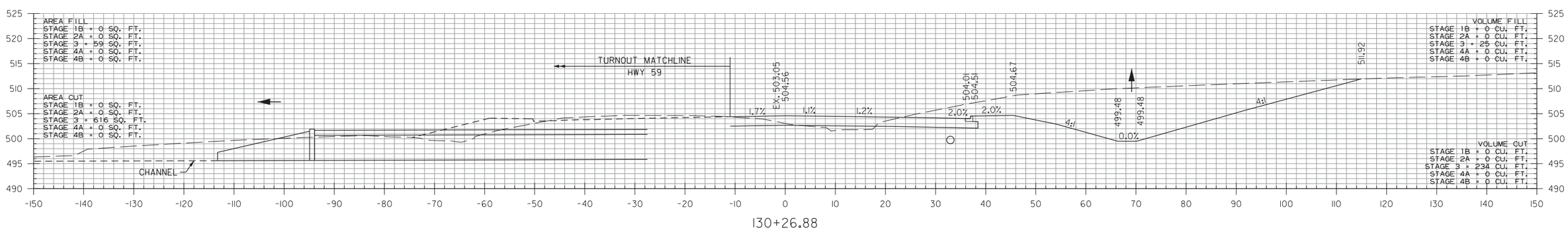


130+75.00



130+66.00

STA. 130+48.00
END SP. DT. RT -4.80%
ELEV. 503.72

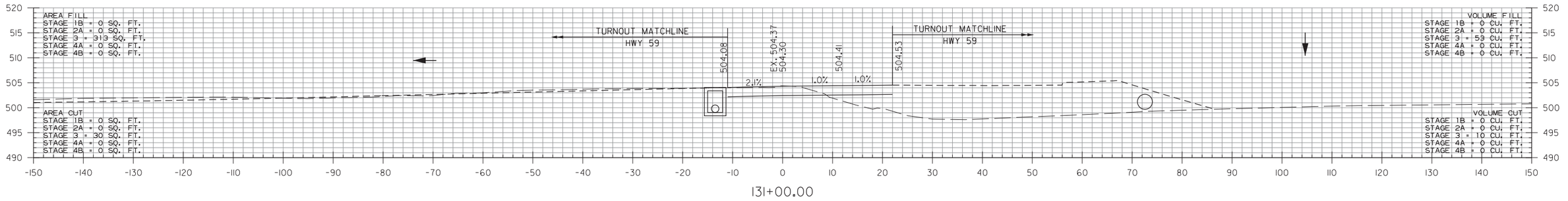


130+26.88

ACCESS ROAD
STA. 130+27 TO STA. 130+75

JATurner 3/18/2025 7:26:01 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

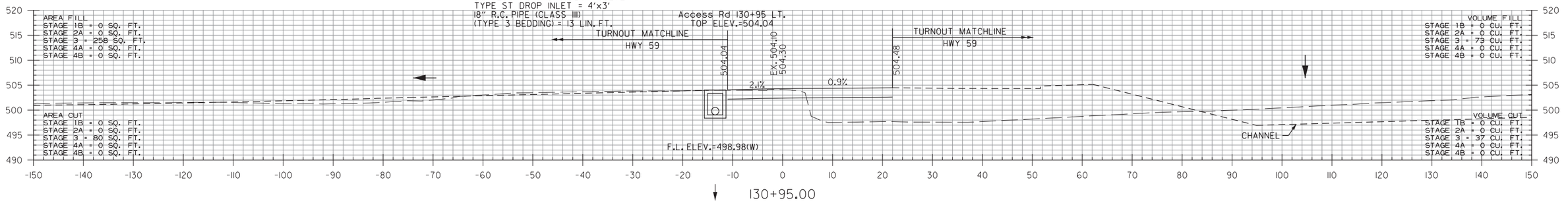
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	229	248
		CROSS SECTIONS				



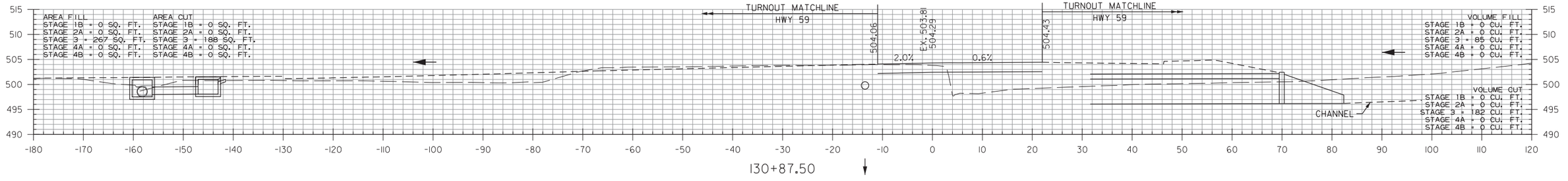
131+00.00

STA. 130+95 CONSTRUCT
DROP INLET ON LT. H=5'-1"
AND 18"x13' PIPE OUTLET
CONNECT TO PR. R.C. BOX CULVERT
TYPE ST DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 13 LIN. FT.

Access Rd 130+95 LT.
TOP ELEV.=504.04



130+95.00

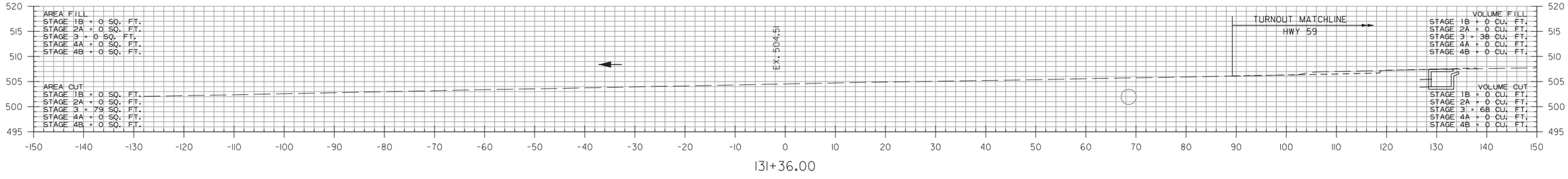


130+87.50

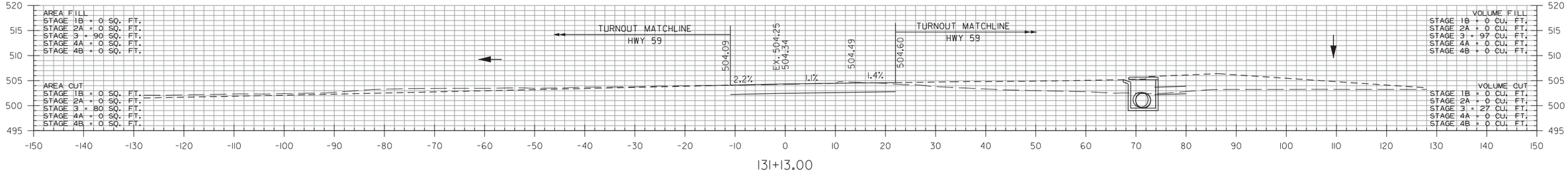
ACCESS ROAD
STA. 130+88 TO STA. 131+00

JATurner 3/18/2025 7:26:02 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	230	248
		CROSS SECTIONS				



131+36.00

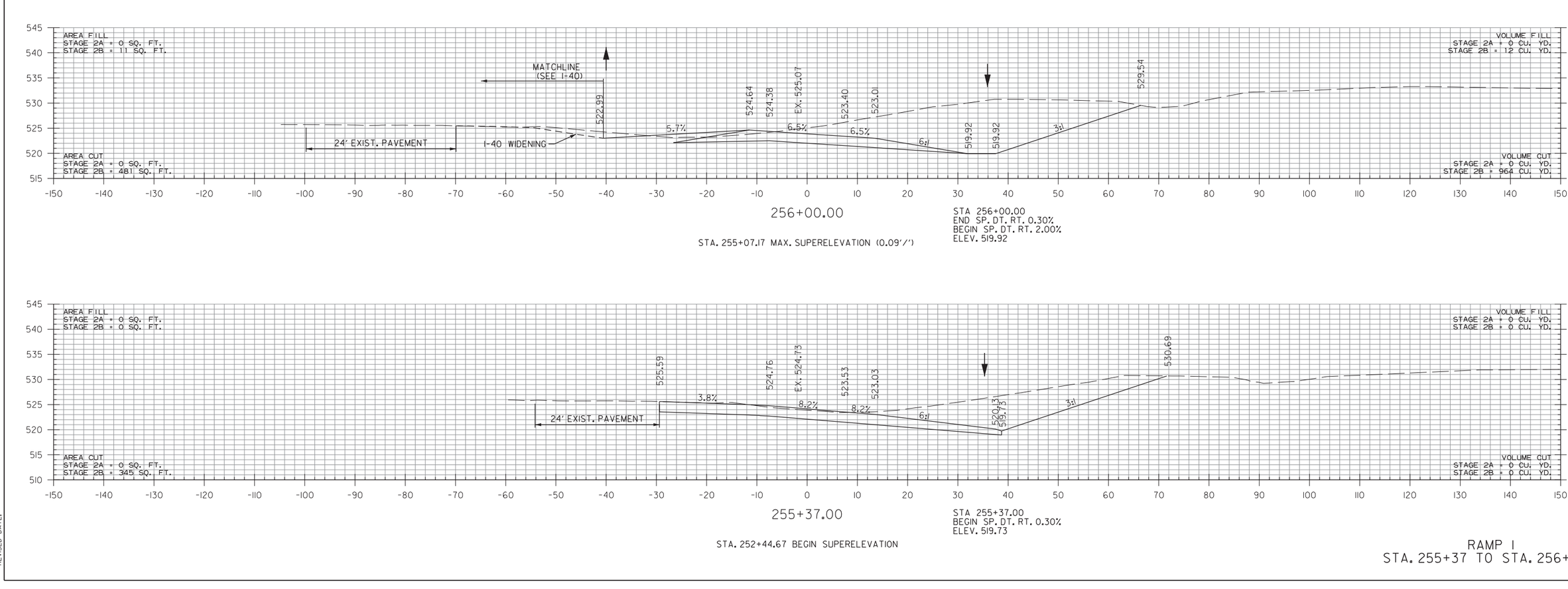


131+13.00

ACCESS ROAD
STA. 131+13 TO STA. 131+36

JATurner
3/18/2025 7:26:02 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Access Road.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	231	248
		CROSS SECTIONS				



256+00.00

STA 256+00.00
END SP. DT. RT. 0.30%
BEGIN SP. DT. RT. 2.00%
ELEV. 519.92

STA. 255+07.17 MAX. SUPERELEVATION (0.09'/')

255+37.00

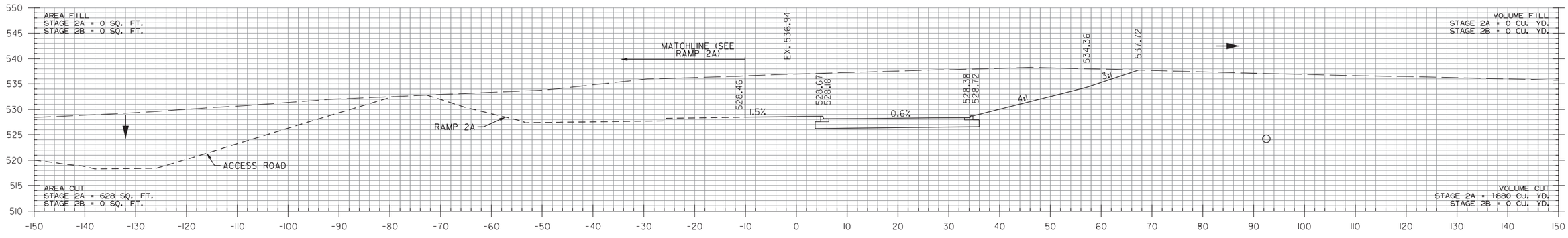
STA 255+37.00
BEGIN SP. DT. RT. 0.30%
ELEV. 519.73

STA. 252+44.67 BEGIN SUPERELEVATION

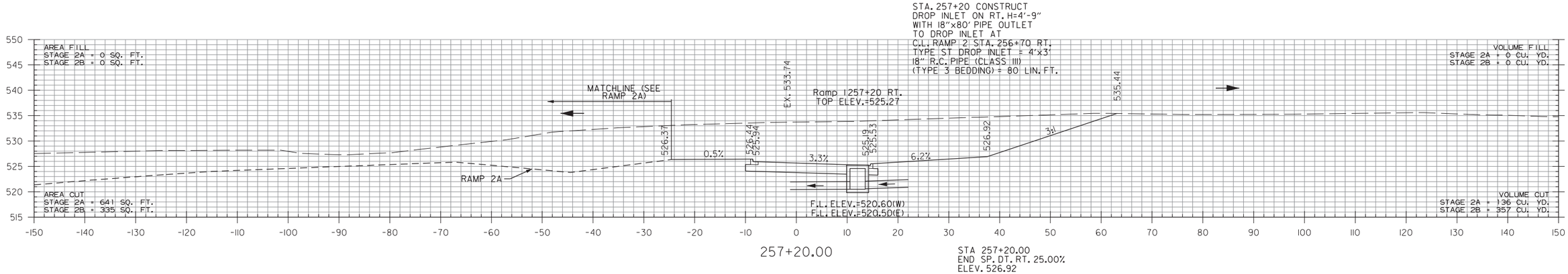
RAMP I
STA. 255+37 TO STA. 256+00

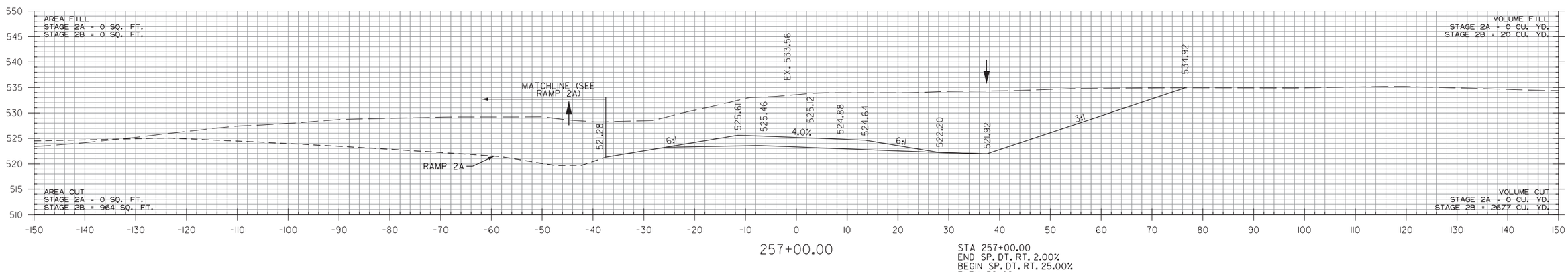
JATurner
3/18/2025 7:26:05 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp I.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	232	248
		CROSS SECTIONS				



STA. 257+69.67 END SUPERELEVATION

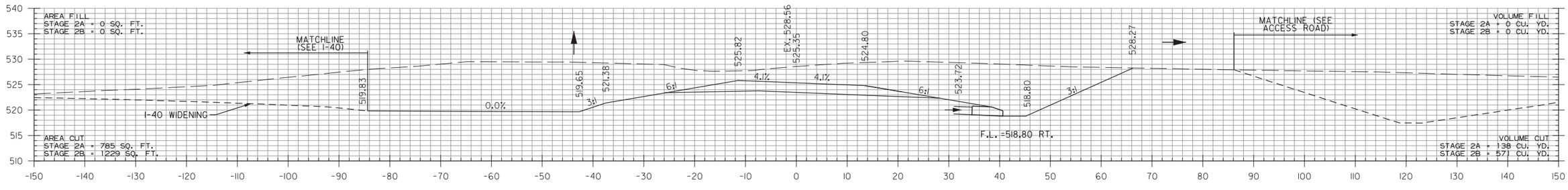




RAMP 1
STA. 257+00 TO STA. 258+00

JATurner
3/18/2025 7:26:05 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\20I\I7017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 1.dgn
REVISED DATE:

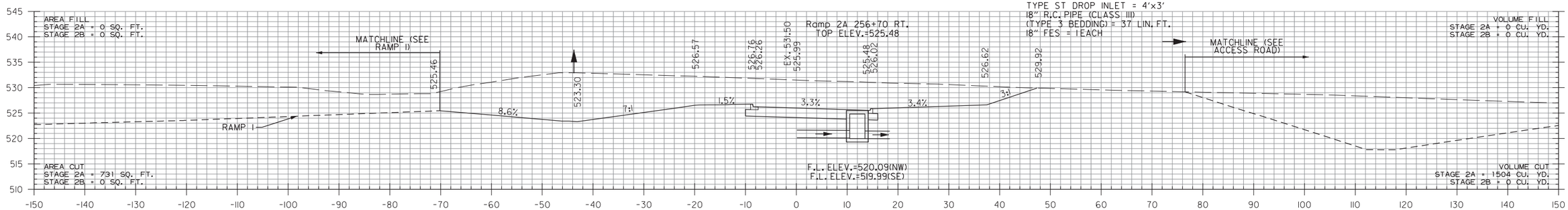
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	233	248
		CROSS SECTIONS				



257+00.00

STA. 257+00.00
END SP. DT. RT. -21.00%
BEGIN SP. DT. RT. -0.90%
ELEV. 519.85

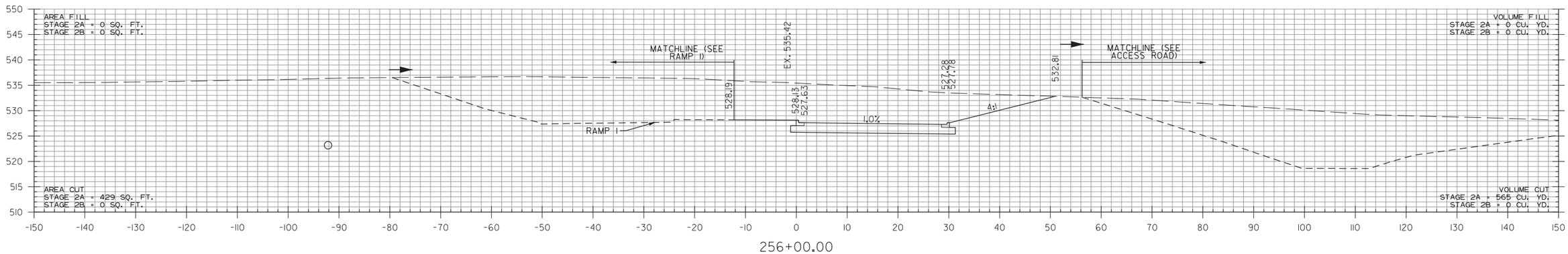
STA. 256+70 CONSTRUCT
DROP INLET ON RT. H=5'-6"
WITH 18"x37' PIPE OUTLET
TO FES ON RT.
TYPE ST DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 37 LIN. FT.
18" FES = 1 EACH



256+70.00

STA. 256+20.82 BEGIN SUPERELEVATION

STA. 256+75.50
BEGIN SP. DT. RT. -21.00%
ELEV. 524.99



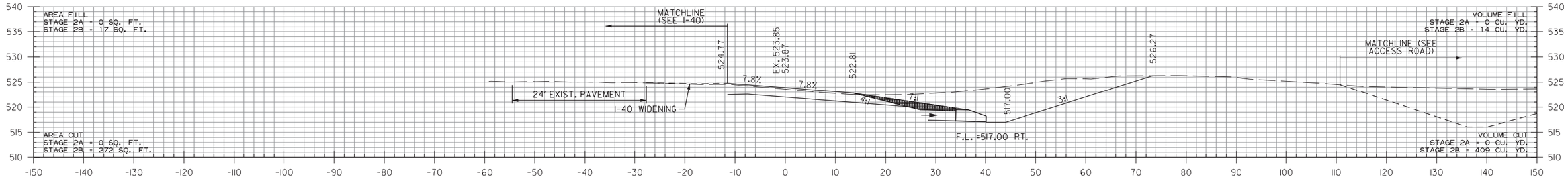
256+00.00

RAMP 2A
STA. 256+00 TO STA. 256+00

JATurner
3/18/2025 7:26:10 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\20\T\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 2A.dgn
REVISED DATE:

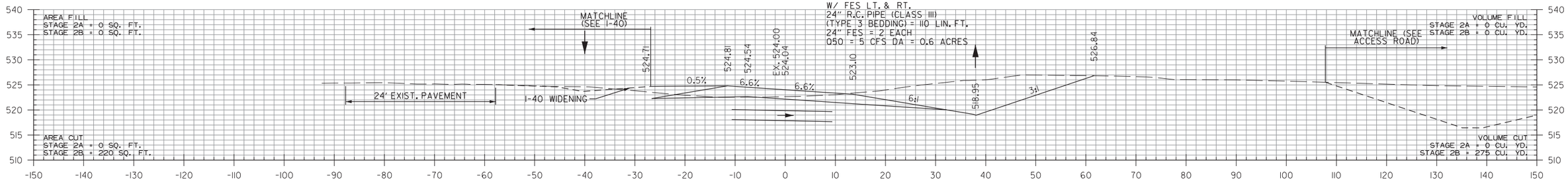
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	234	248
		CROSS SECTIONS				

C.L. I-40 STA. 260+82.36 END SUPERELEVATION
STA. 258+51.59 MAX. SUPERELEVATION (0.080'/')

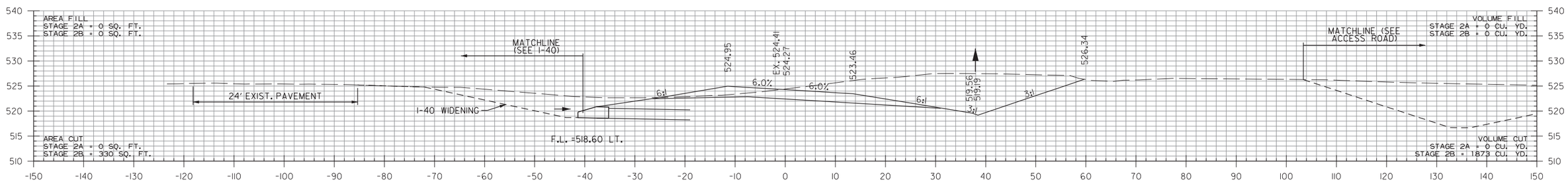


258+45.00

STA. 258+00 CONSTRUCT
24"x110' R.C. PIPE CULVERT
45° RT. FWD. SKEW
W/ FES LT. & RT.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 110 LIN. FT.
24" FES = 2 EACH
Q50 = 5 CFS DA = 0.6 ACRES



258+00.00

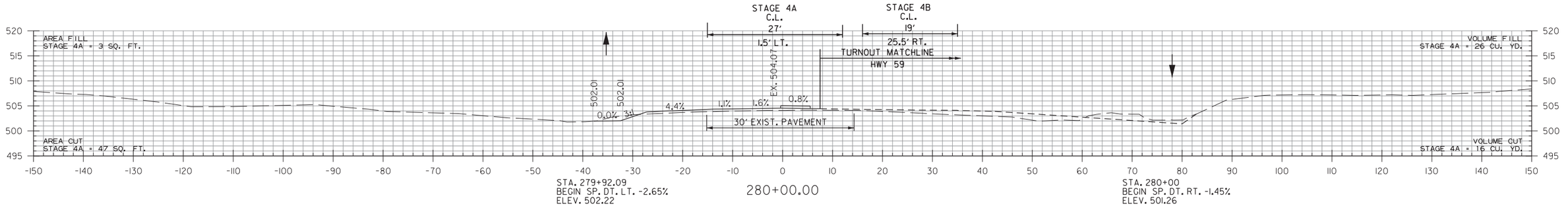


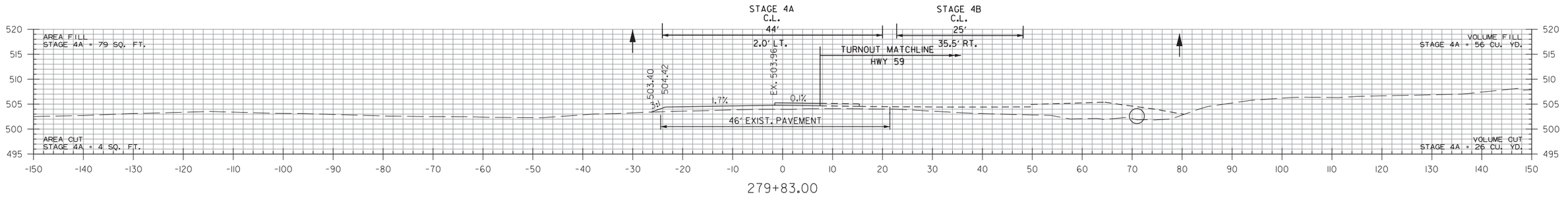
257+73.00

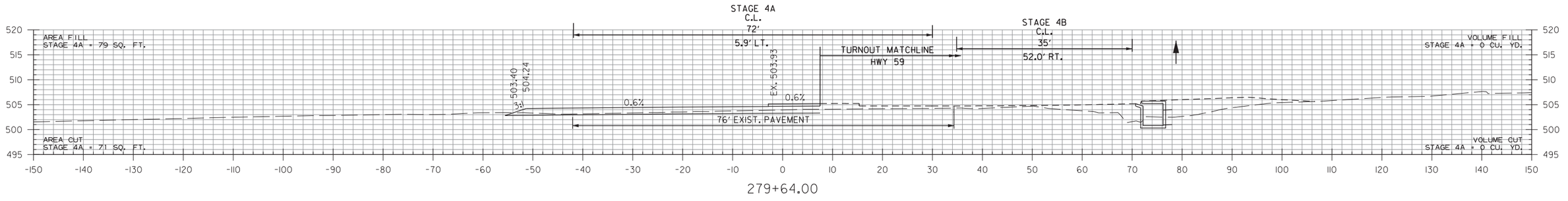
RAMP 2A
STA. 257+73 TO STA. 258+45

JATurner 3/18/2025 7:26:10 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 2A.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	235	248
		CROSS SECTIONS				



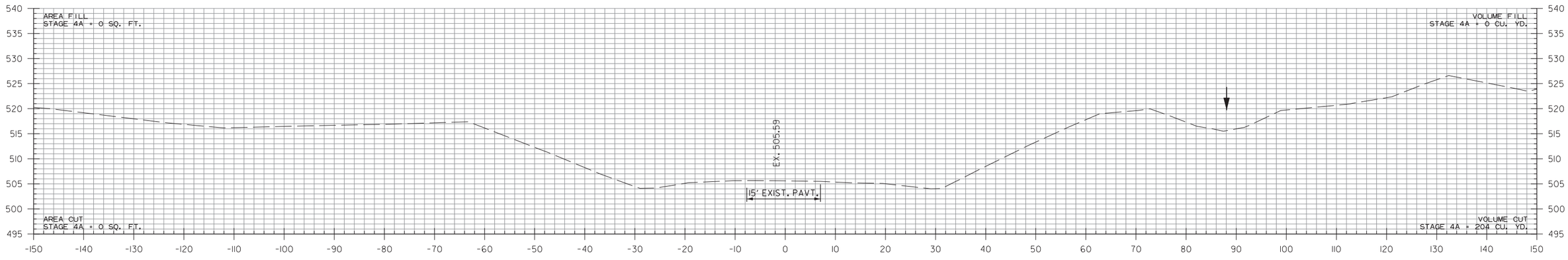




RAMP 2B
STA. 279+64 TO STA. 280+00

JATurner
3/18/2025 7:26:10 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 2B.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	236	248
		CROSS SECTIONS				

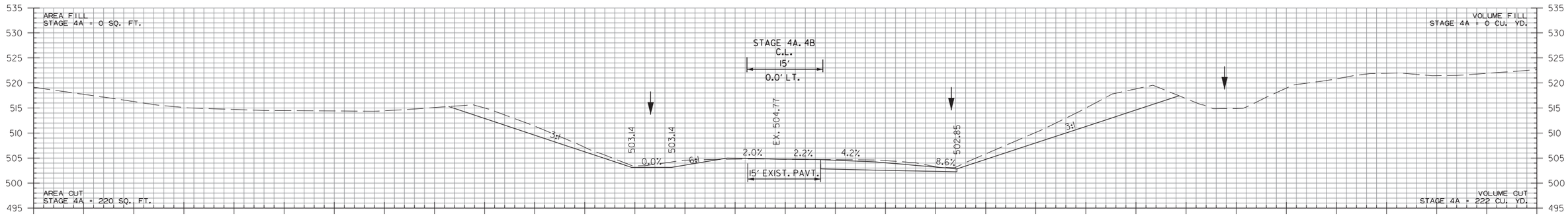


STA. 281+48.66
END SP. DT. LT. 1.85%
ELEV. 504.12

281+50.00

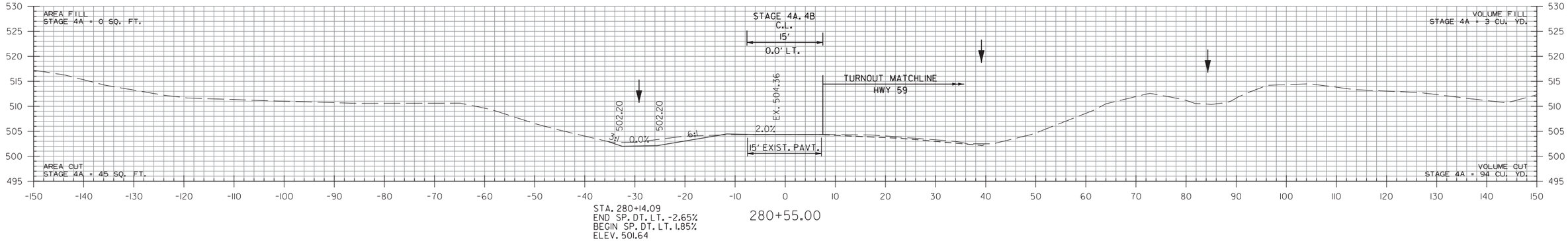
STA. 281+50.02
END SP. DT. RT. -2.15%
ELEV. 503.92

STA. 281+50.02 END RAMP 2B



281+00.00

STA. 280+80.60
END SP. DT. RT. -1.45%
BEGIN SP. DT. RT. -2.15%
ELEV. 502.43



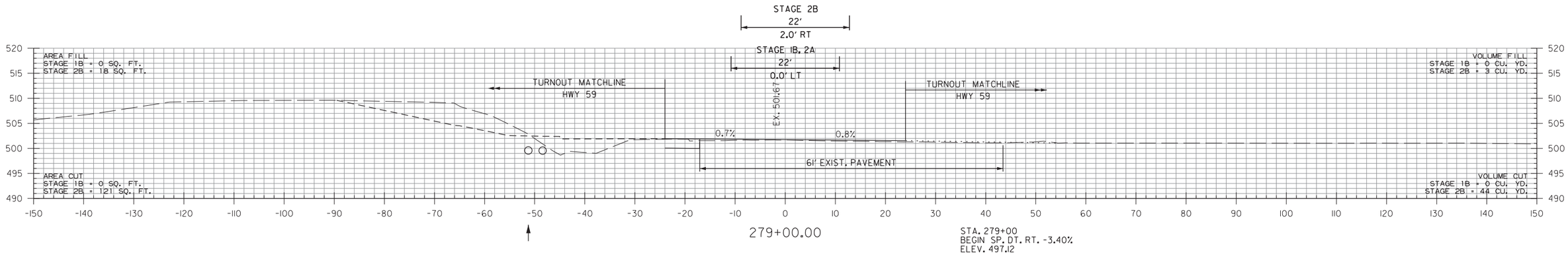
STA. 280+14.09
END SP. DT. LT. -2.65%
BEGIN SP. DT. LT. 1.85%
ELEV. 501.64

280+55.00

RAMP 2B
STA. 280+55 TO STA. 281+50

JATurner 3/18/2025 7:26:11 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 2B.dgn
REVISED DATE:

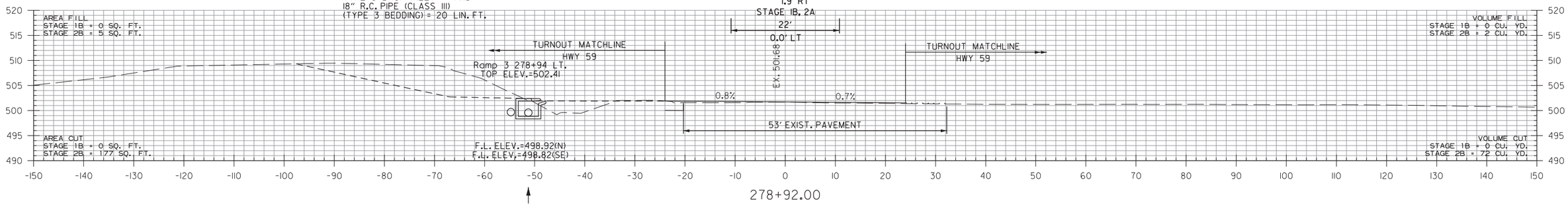
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	237	248
		CROSS SECTIONS				



279+00.00

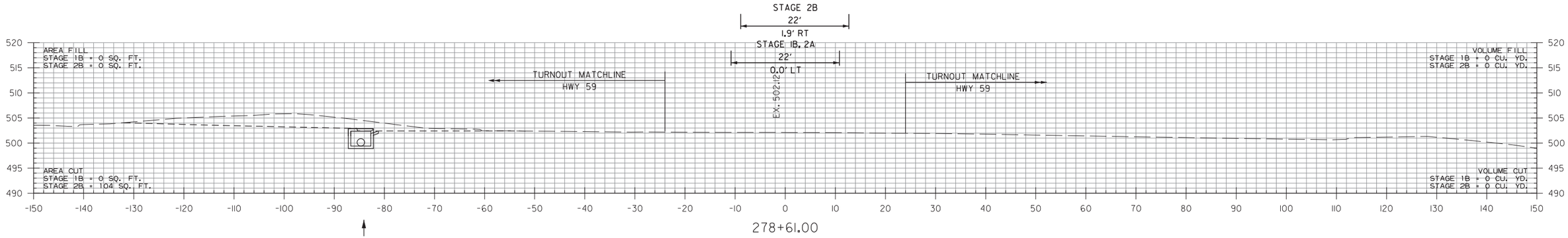
STA. 279+00
BEGIN SP. DT. RT. -3.40%
ELEV. 497.12

STA. 278+94 CONSTRUCT
DROP INLET ON LT. H=3'-7" W/ 4' EXT.
WITH 18"x20' PIPE OUTLET
TO DROP INLET AT STA. 279+15 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 20 LIN. FT.



278+92.00

STA. 278+80.12 BEGIN RAMP 3



278+61.00

RAMP 3
STA. 278+61 TO STA. 279+00

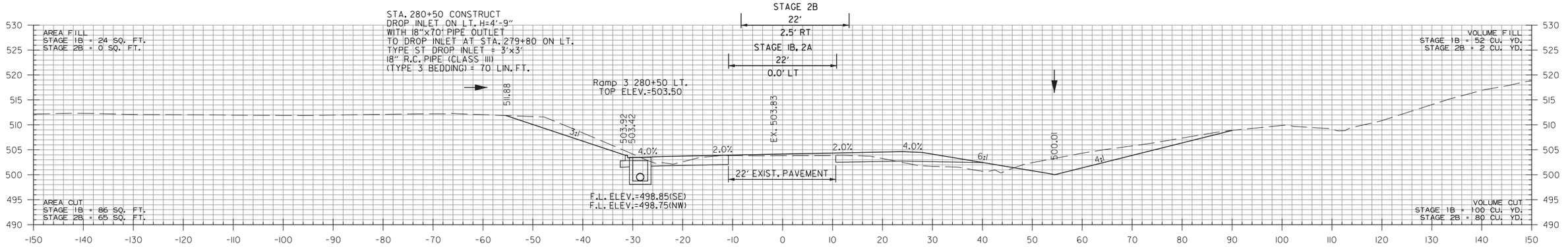
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3/18/2025 7:26:11 AM
WORKSPACE: AHTD
L:\20\T\T017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 3.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	238	248
		CROSS SECTIONS				

RAMP 3
STA. 279+15 TO STA. 279+82

JATurner 3/18/2025 7:26:11 AM
WORKSPACE: AHTD
L:\20I7\170I76\48 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_CX_Ramp 3.dgn
REVISED DATE:

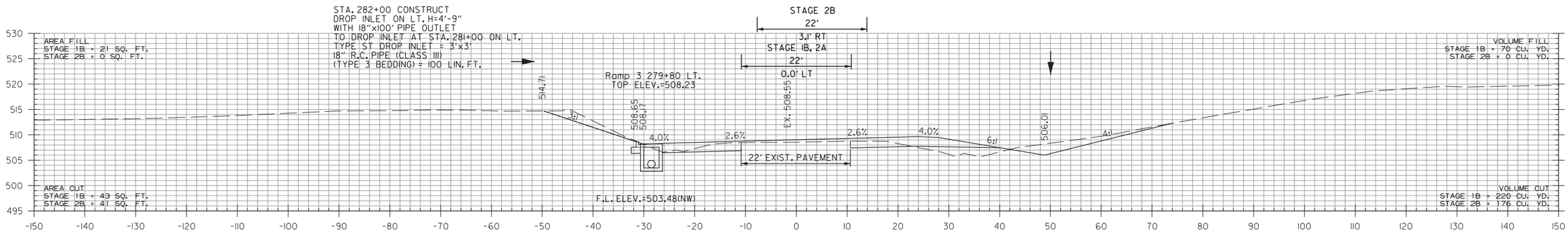
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	239	248
		CROSS SECTIONS				



RAMP 3
STA. 280+00 TO STA. 280+50

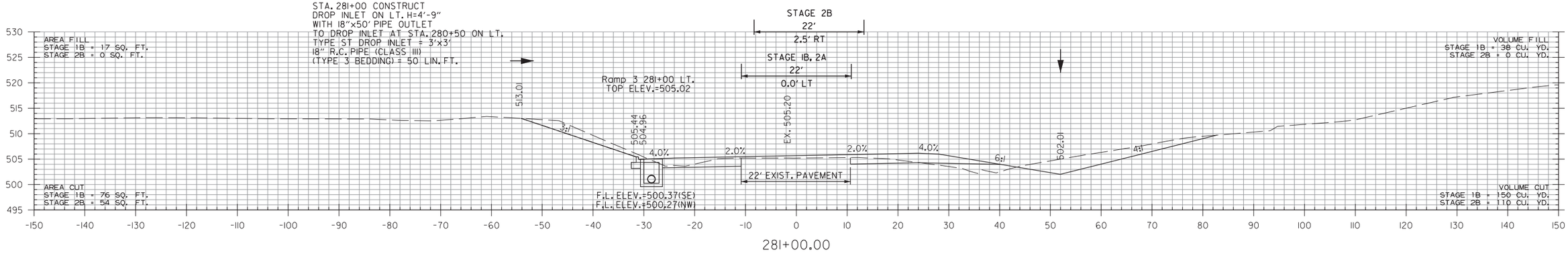
JATurner 3/18/2025 7:26:12 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	240	248
		CROSS SECTIONS				



282+00.00

STA. 281+65.94 BEGIN SUPERELEVATION

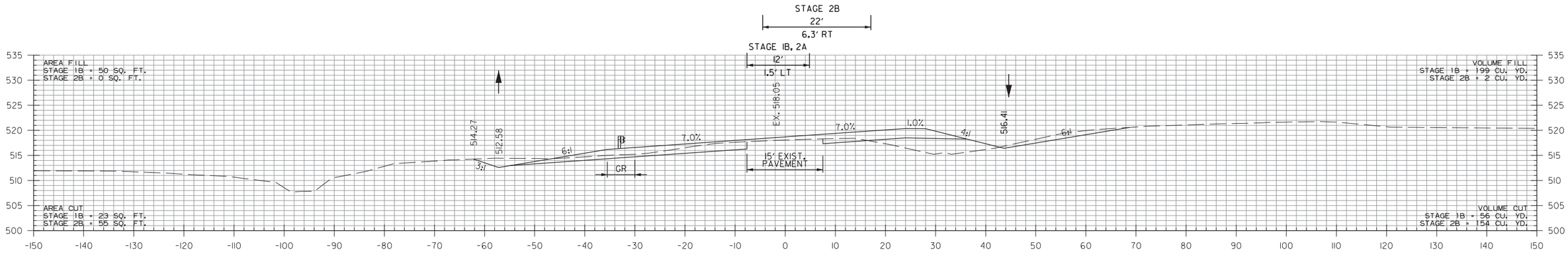


281+00.00

RAMP 3
STA. 281+00 TO STA. 282+00

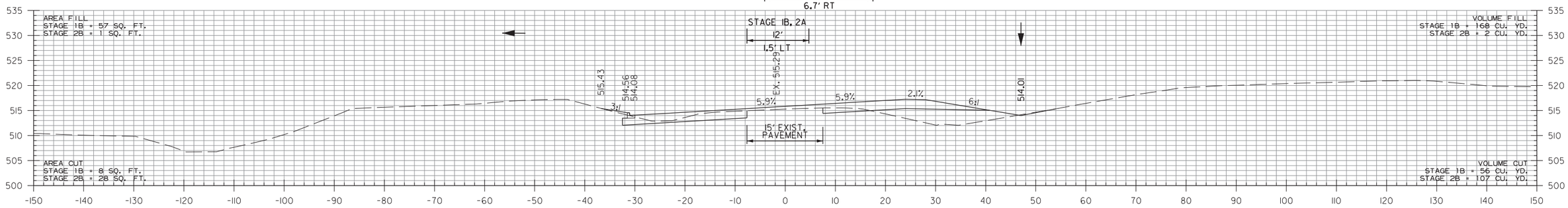
JATurner
3/18/2025 7:26:12 AM
WORKSPACE: AHTD
L:\2017\7017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_CX_Ramp 3.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	241	248
		CROSS SECTIONS				



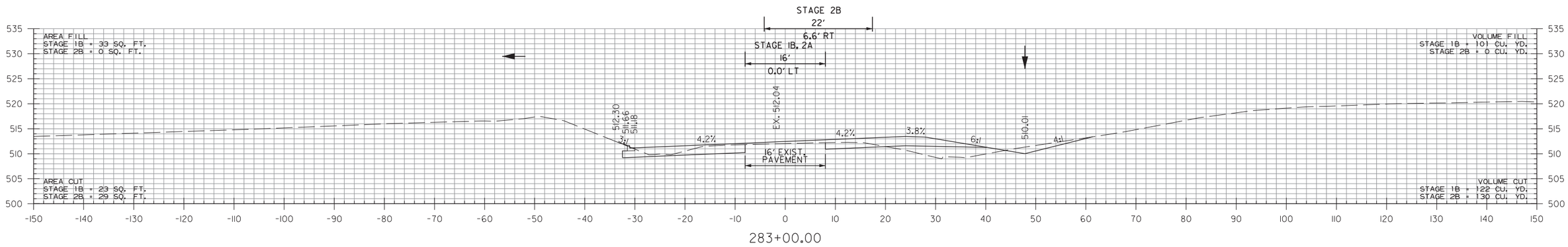
285+00.00

STA. 284+65.94 MAX. SUPERELEVATION (0.070'/')



284+00.00

STA. 284+00
END SP. DT. RT. 4.00%
BEGIN SP. DT. RT. 2.40%
ELEV. 514.01

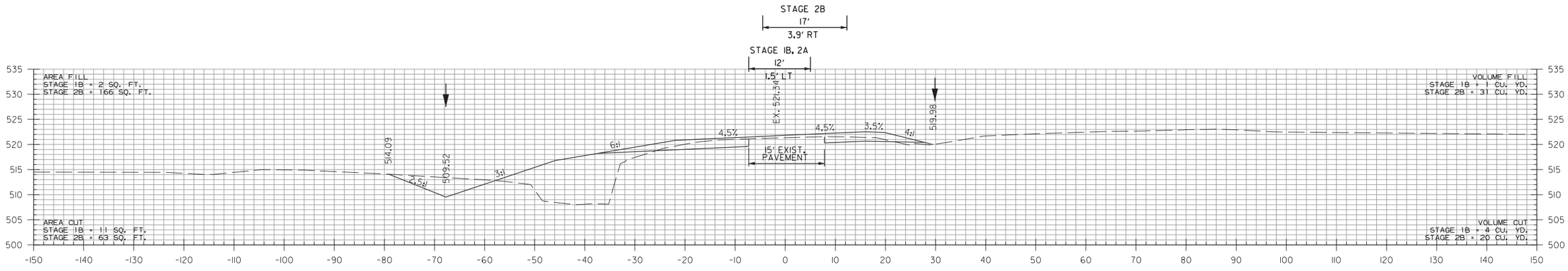


283+00.00

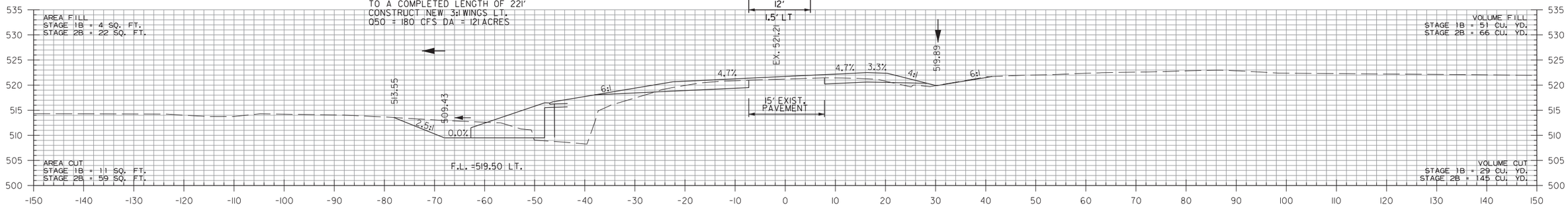
RAMP 3
STA. 283+00 TO STA. 285+00

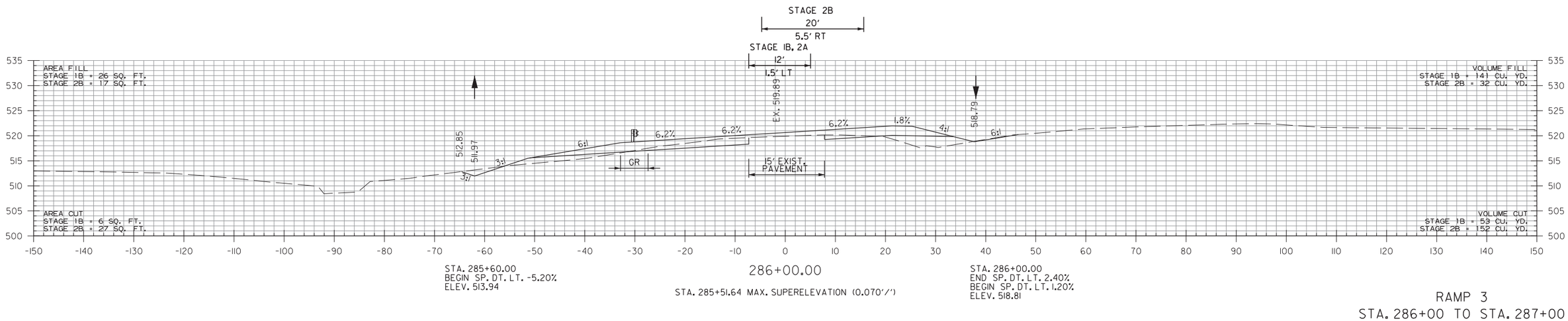
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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	242	248
		CROSS SECTIONS				



STA. 287+46 IN PLACE
6'x6'x193' R.C. BOX CULVERT
49° RT. FWD. SKEW
W/ 3:1 WINGS LT. & RT.
REMOVE WINGS LT. AND EXTEND 28' LT.
TO A COMPLETED LENGTH OF 221'
CONSTRUCT NEW 3:1 WINGS LT.
Q50 = 180 CFS DA = 121 ACRES

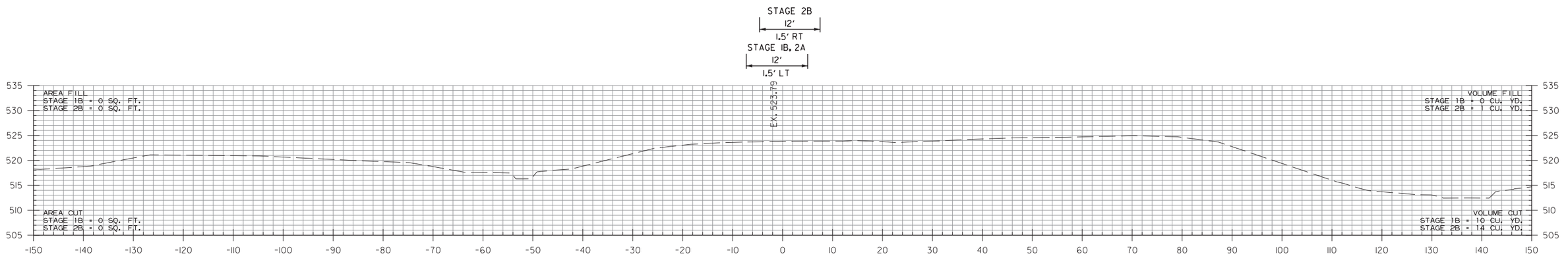




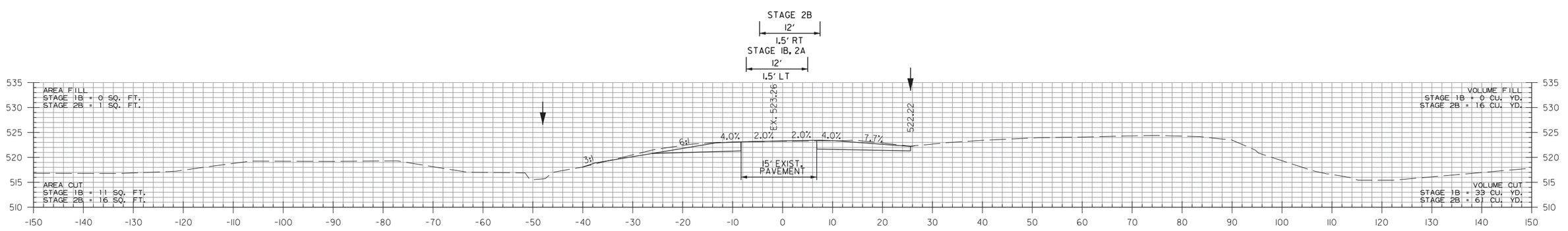
RAMP 3
STA. 286+00 TO STA. 287+00

JATurner 3/18/2025 7:26:12 AM
WORKSPACE: AHTD
L:\2017\7017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_CX_Ramp 3.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	243	248
		CROSS SECTIONS				



289+00.00

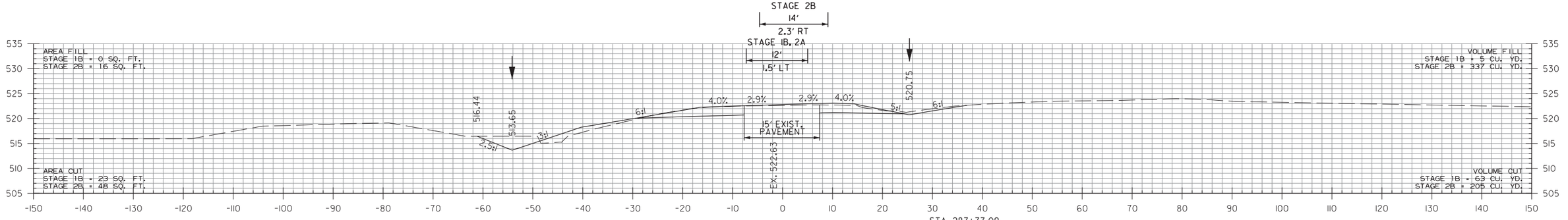


STA. 288+42.00
END SP. DT. LT. 4.20%
ELEV. 515.51

288+51.64

STA. 288+51.64 END RAMP 3
STA. 288+51.64 END SUPERELEVATION

STA. 288+51.64
END SP. DT. RT. 2.80%
ELEV. 522.22



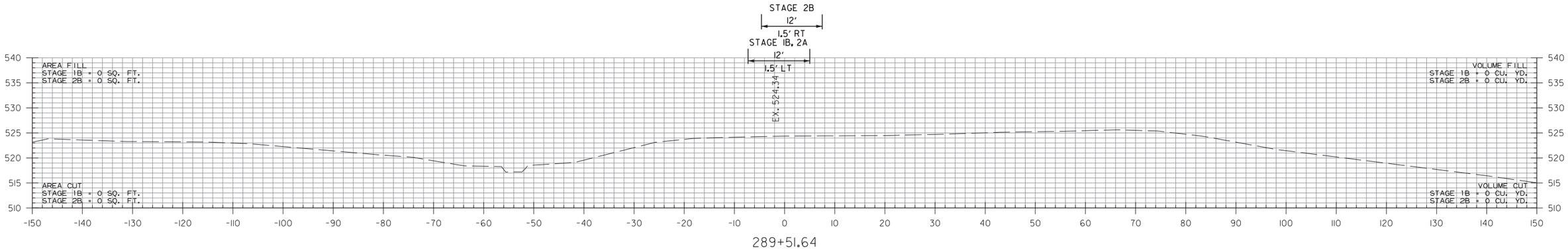
288+00.00

STA. 287+77.09
END SP. DT. RT. -1.76%
BEGIN SP. DT. RT. 2.80%
ELEV. 520.13
STA. 287+50.00
END SP. DT. RT. 1.20%
BEGIN SP. DT. RT. -1.76%
ELEV. 520.61

RAMP 3
STA. 288+00 TO STA. 289+00

JATurner 3/18/2025 7:26:12 AM
WORKSPACE: AHTD
L:\20\7\70\7648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Ramp 3.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	244	248
		CROSS SECTIONS				



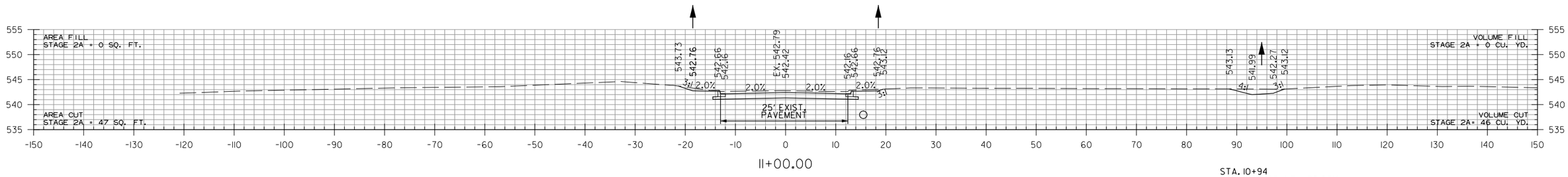
289+51.64

STA. 289+51.64 END 100' TRANSITION

RAMP 3
STA. 289+52 TO STA. 289+52

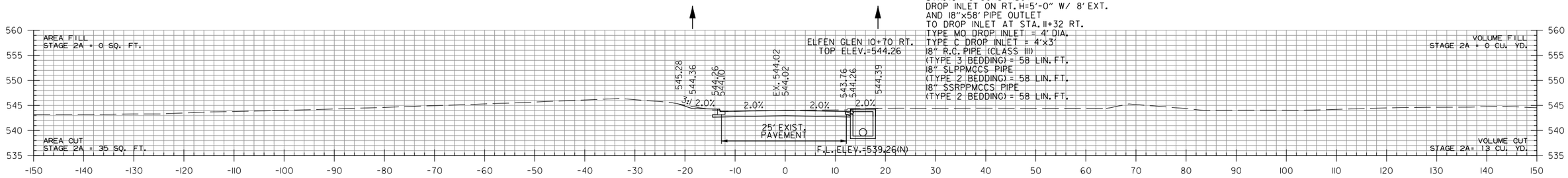
JATurner
WORKSPACE: AHTD
L:\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_CX_Ramp 3.dgn
3/18/2025 7:26:12 AM
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	245	248
		CROSS SECTIONS				



11+00.00

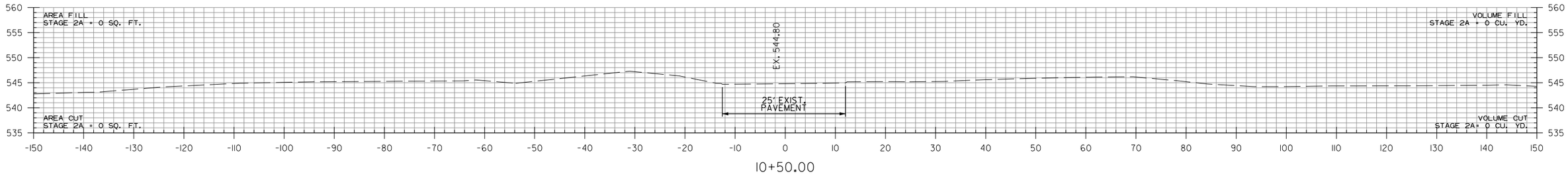
STA. 10+94
BEGIN SP. DT. LT. -20.00%
ELEV. 543.36



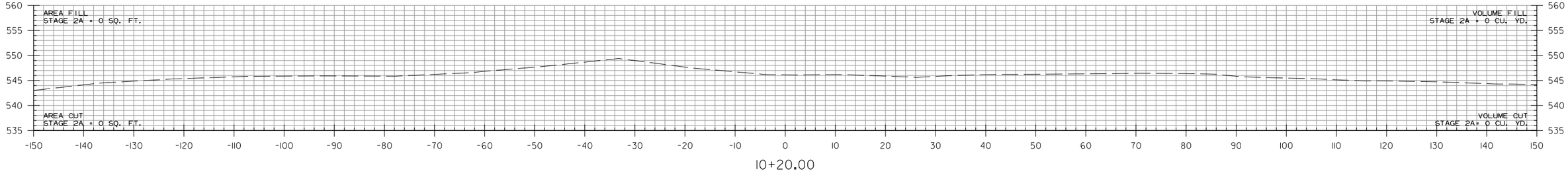
STA. 10+70 CONSTRUCT
DROP INLET ON RT. H=5'-0" W/ 8' EXT.
AND 18"x58' PIPE OUTLET
TO DROP INLET AT STA. 11+32 RT.
TYPE MQ DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 58 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 58 LIN. FT.
18" SSRPPMCCS PIPE
(TYPE 2 BEDDING) = 58 LIN. FT.

10+70.00

STA. 10+70.00 END 50' TRANSITION
BEGIN JOB 040714



10+50.00



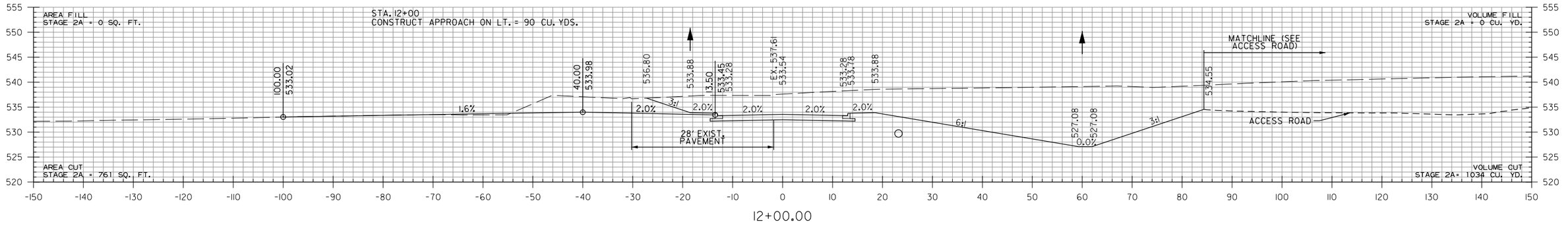
10+20.00

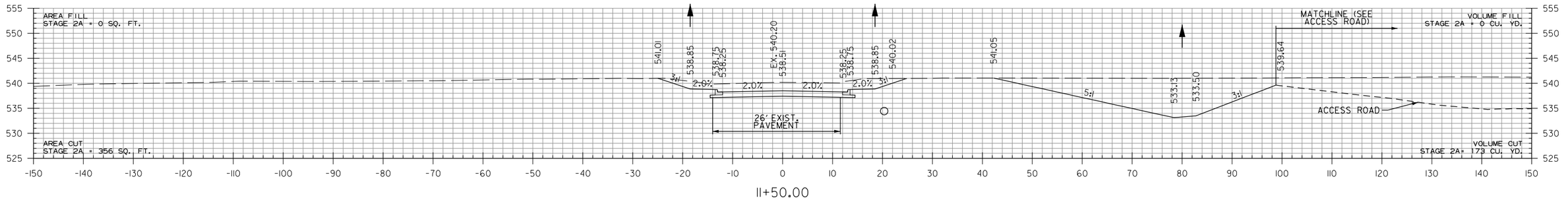
STA. 10+20.00 BEGIN 50' TRANSITION

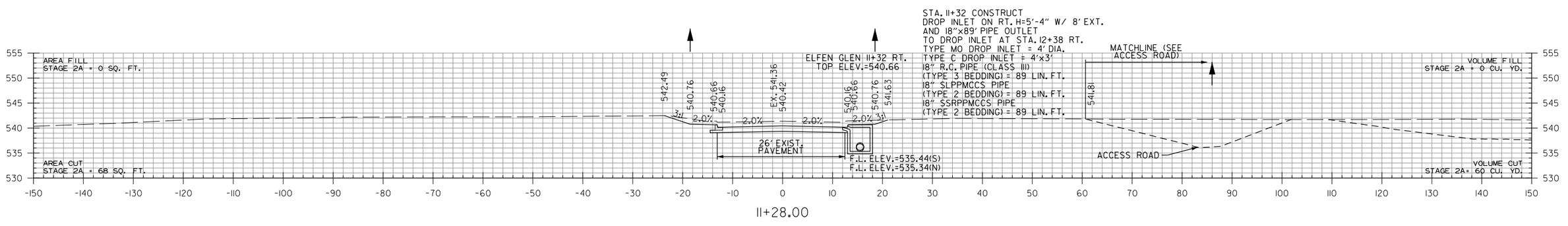
ELFEN GLEN ST.
STA. 10+20 TO STA. 11+00

HBVinson 4/3/2025 10:08:09 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Elfen Glen St.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	246	248
		CROSS SECTIONS				



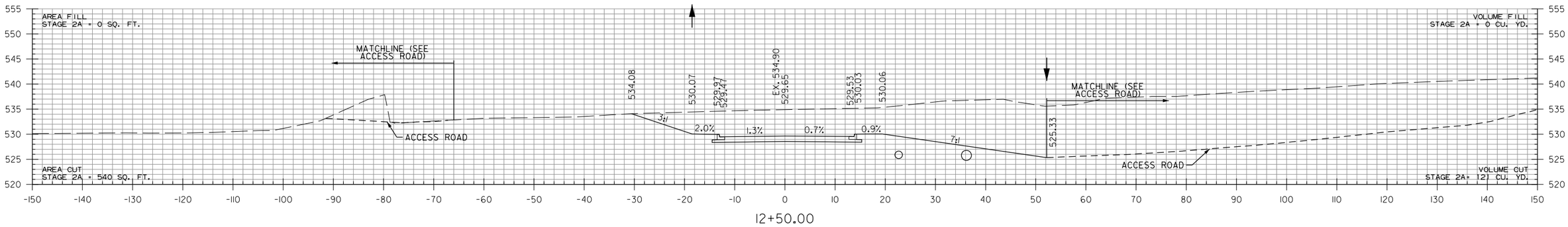




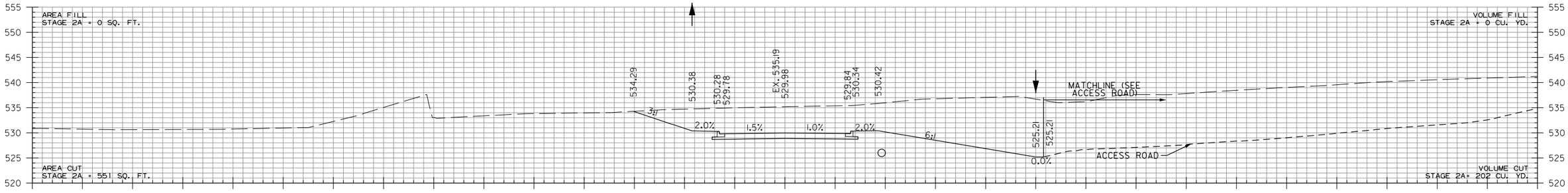
ELFEN GLEN ST.
STA. 11+28 TO STA. 12+00

HBVinson
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\20I\I70I648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Elfen Glen St.dgn
4/3/2025 10:08:10 AM
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	247	248
		CROSS SECTIONS				

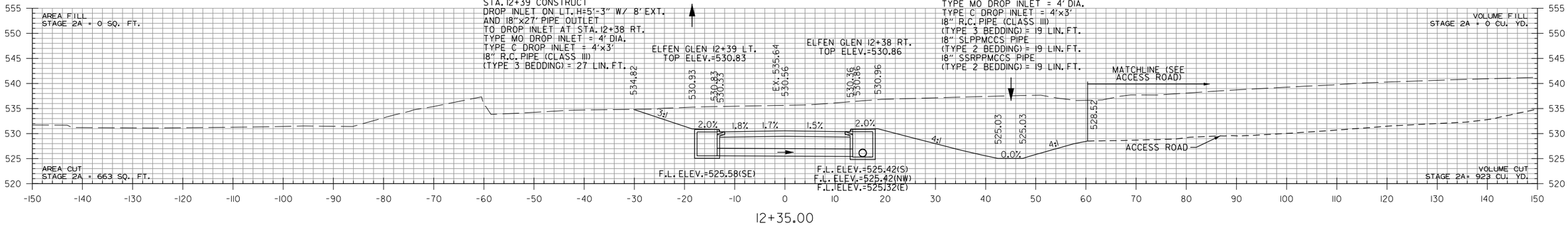


12+50.00



12+44.00

STA. 12+41
END SP. DT. LT. -20.00%
ELEV. 525.39

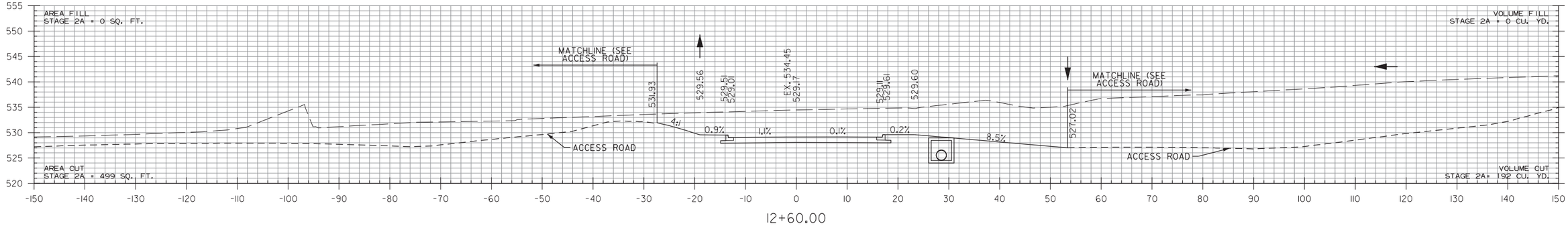


12+35.00

ELFEN GLEN ST.
STA. 12+35 TO STA. 12+50

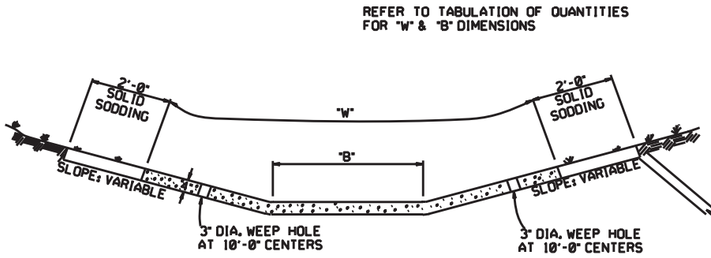
HBVinson 4/3/2025 10:08:10 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r040714_CX_Elfen Glen St.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040714	248	248
		CROSS SECTIONS				



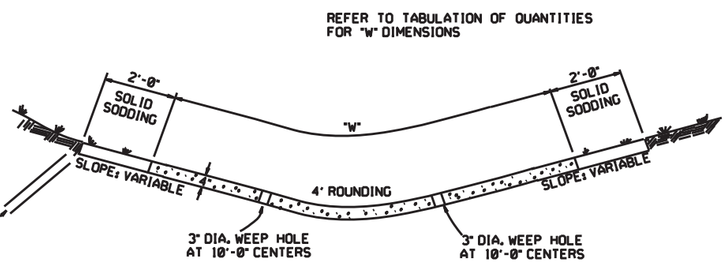
ELFEN GLEN ST.
STA. 12+60 TO STA. 12+60

JATurner
3/18/2025 7:26:13 AM
WORKSPACE: AHTD
\\garverinc.local\gdata\Projects\2017\17017648 - ARDOT 040714 I-40 and Hwy 59\Drawings\r-040714_CX_Elfen Glen St.dgn
REVISED DATE:



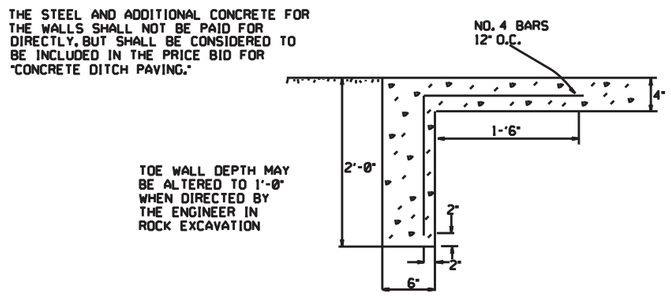
TYPE A

EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.



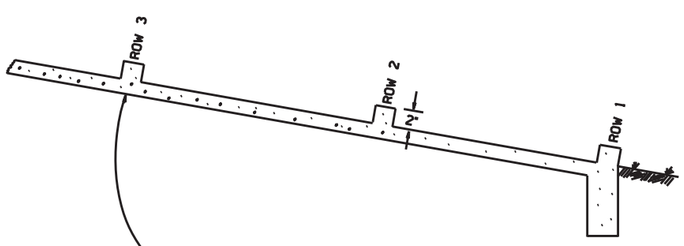
TYPE B

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."

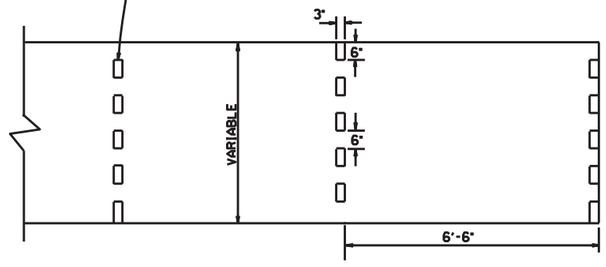


TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR
CONCRETE DITCH PAVING



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.

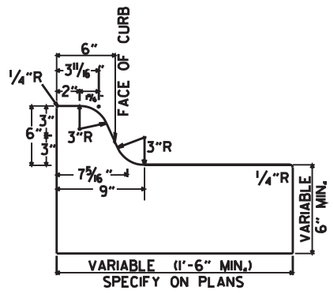
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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 TYPES A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

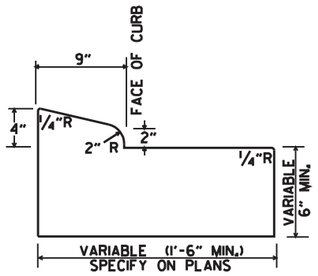
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

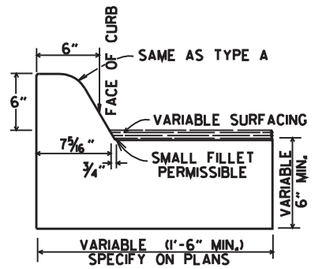
STANDARD DRAWING CDP-1



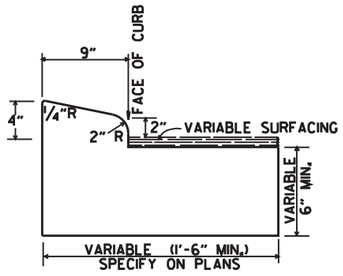
TYPE A



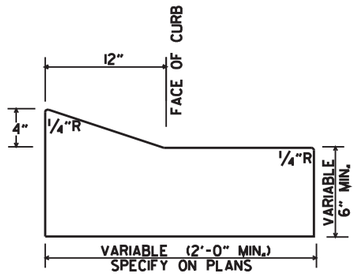
TYPE B-1



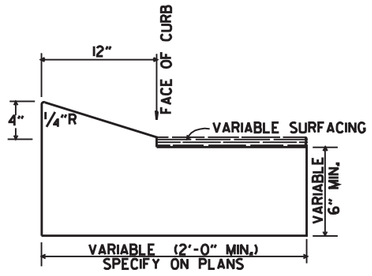
TYPE C



TYPE B-2

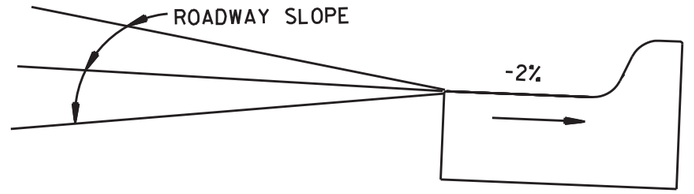


TYPE E-1



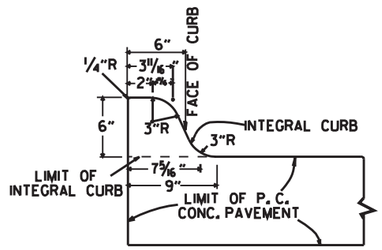
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

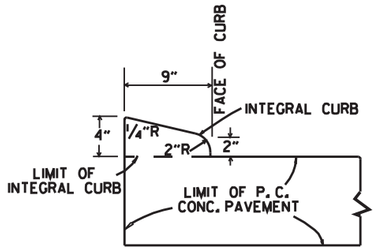


DETAIL OF GUTTER SLOPE

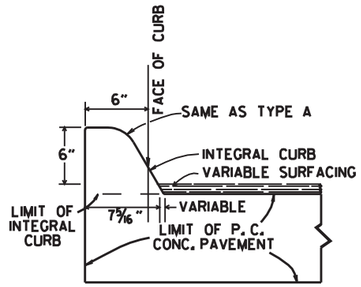
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

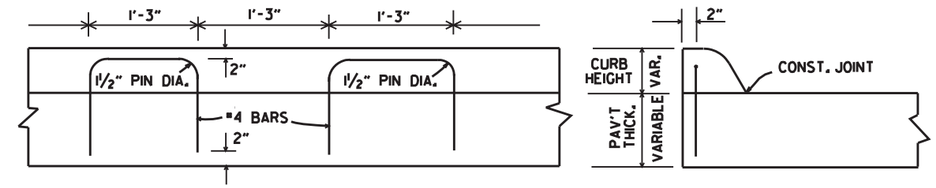


TYPE B

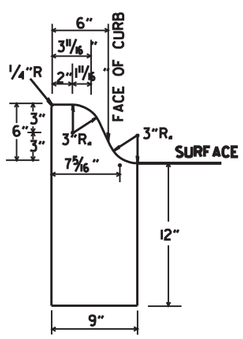


TYPE C

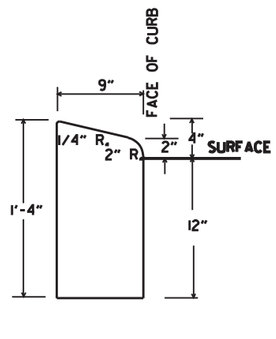
INTEGRAL CURB



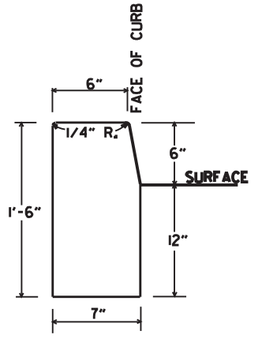
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



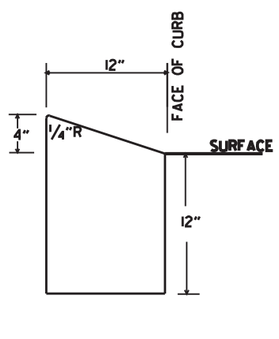
TYPE A



TYPE B

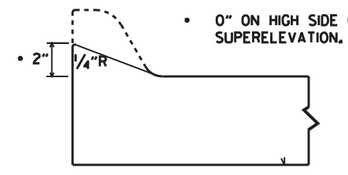


TYPE D



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.

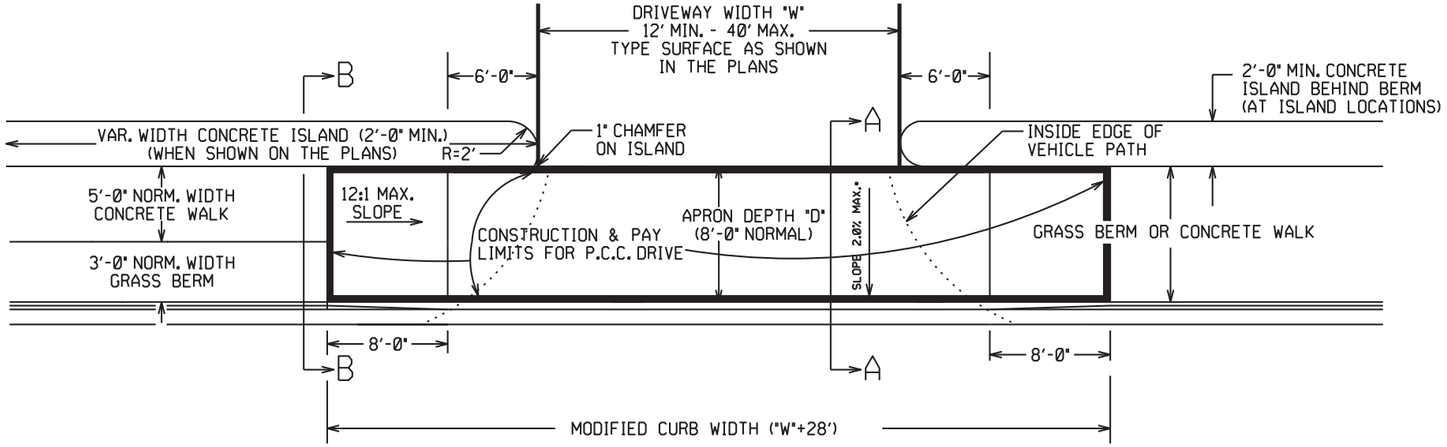
DETAILS OF MODIFIED CURB

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

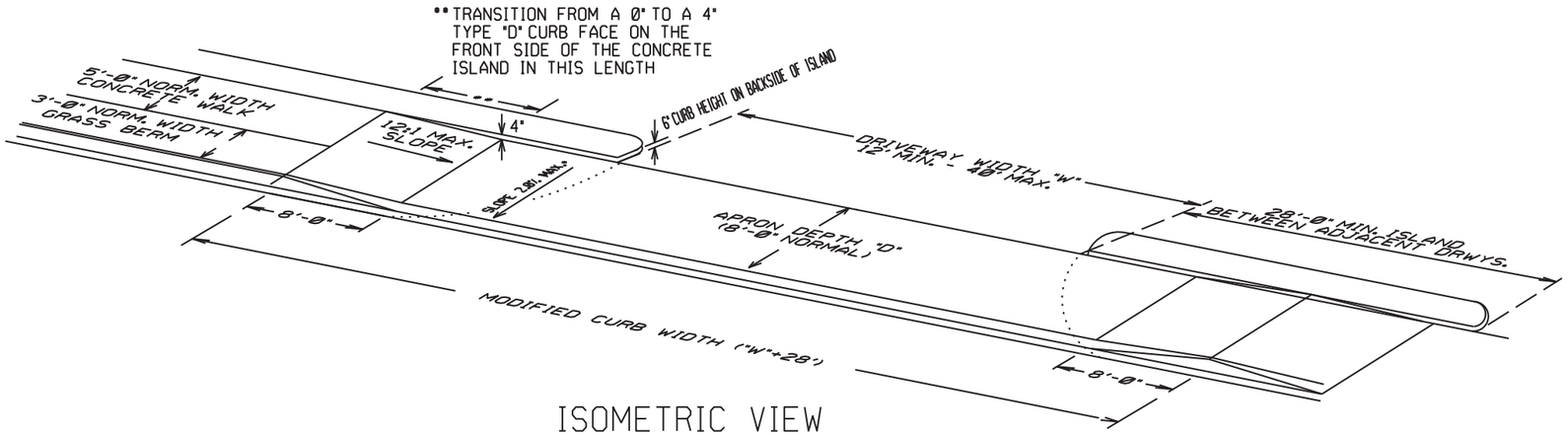
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

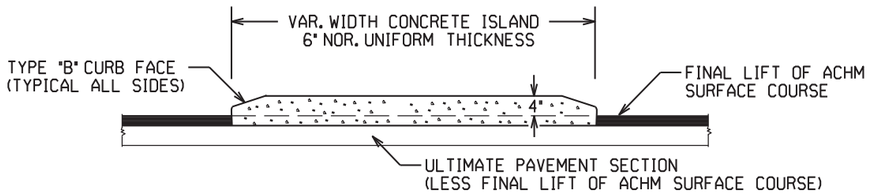
STANDARD DRAWING CG-1



PLAN VIEW



ISOMETRIC VIEW

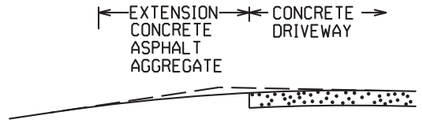


CURBED ISLANDS FOR CHANNELIZATION

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

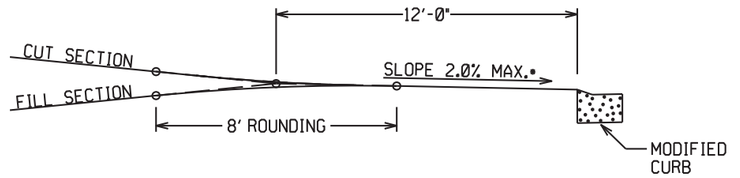
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

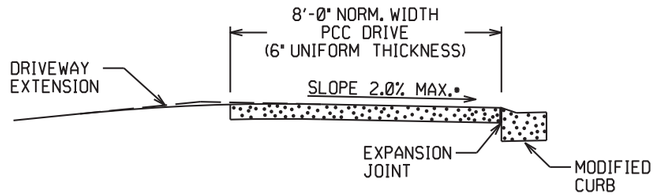
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

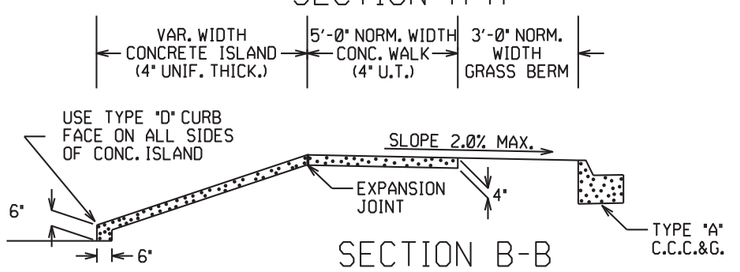


DRIVEWAY VERTICAL ALIGNMENT DETAILS

• NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



SECTION A-A



SECTION B-B

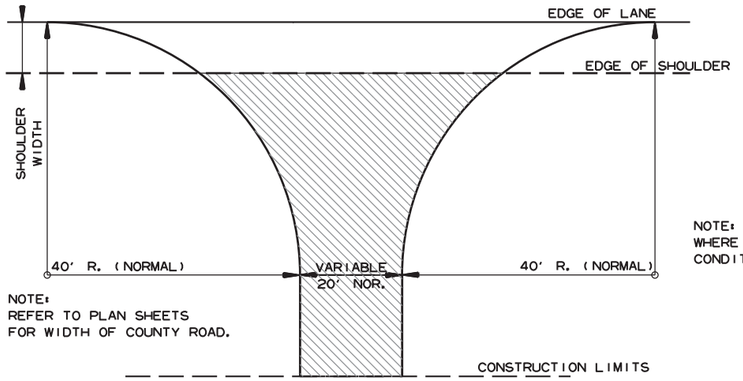
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		REVISED ISLAND NOTES
11-07-19		REVISED WALK DETAILS
2-27-14		REVISED PLAN & ISOMETRIC VIEW
11-29-07		ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL
11-10-05		REV. APRON SLOPE & DEPTH OF AGG. BASE.
8-22-02		ADDED ISLAND DETAILS & NOTES
3-30-00		REV. MOD. CURB WIDTH & TRANS. NOTE
11-19-98		REVISED NOTES
11-18-98		REDRAWN AND REISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

STANDARD DRAWING DR-1

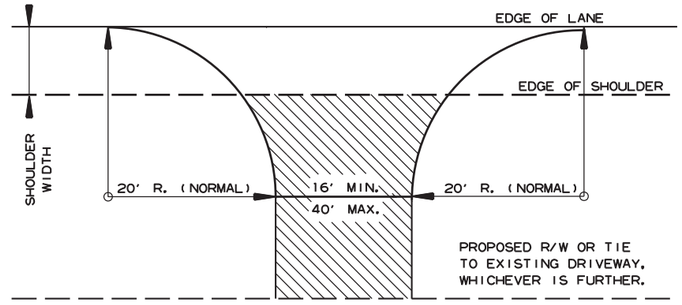


NOTE:
REFER TO PLAN SHEETS
FOR WIDTH OF COUNTY ROAD.

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.

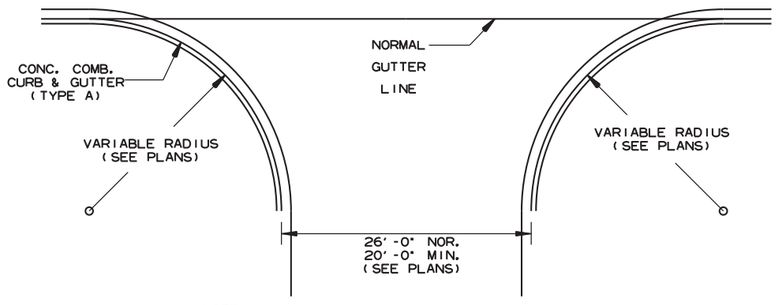
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

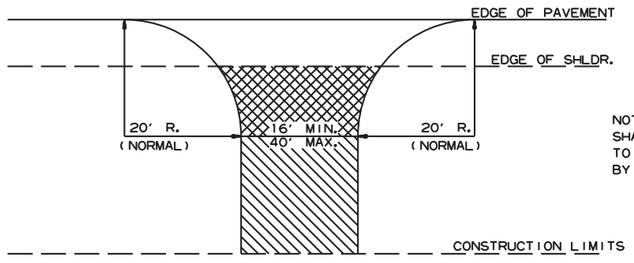
ACHM SURFACE COURSE (1/2") (220 LBS. PER SQ. YD.) AND AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH IF ASPHALT OR GRAVEL DRIVE EXISTING; OR 6" CONCRETE IF CONCRETE DRIVE EXISTING.

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

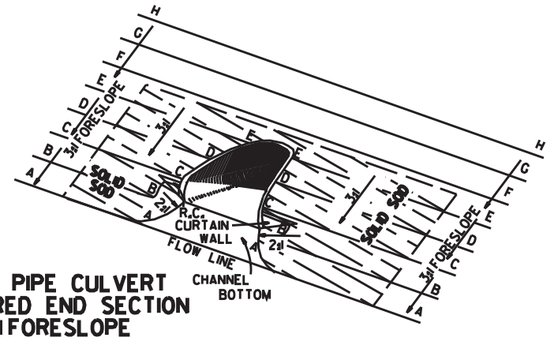
DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

5-19-22		ISSUED
DATE REV	DATE FILMED	DESCRIPTION

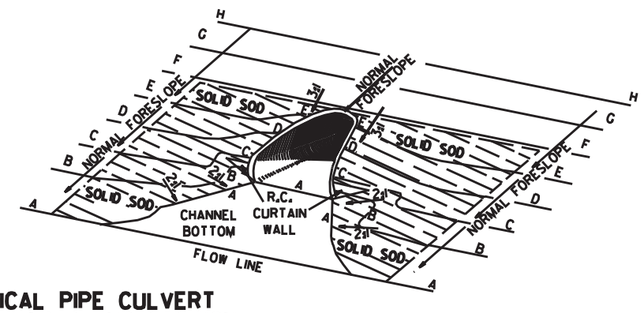
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS

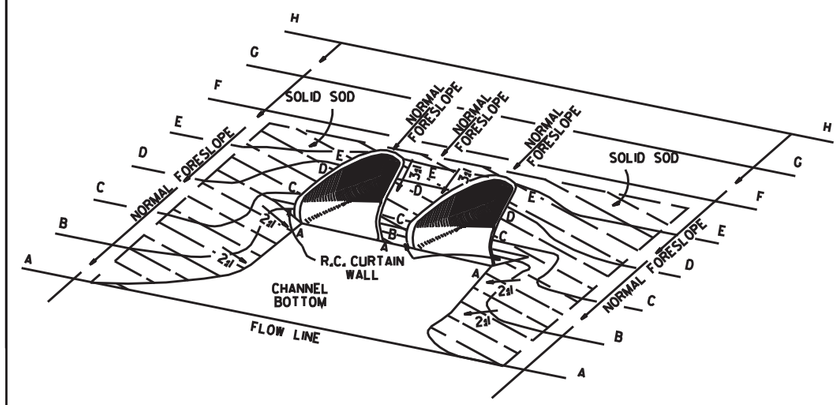
STANDARD DRAWING DR-2



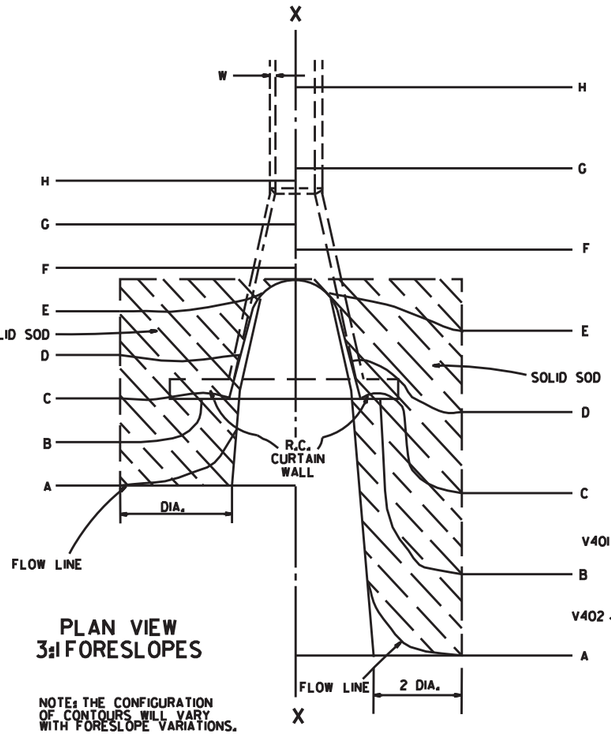
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



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

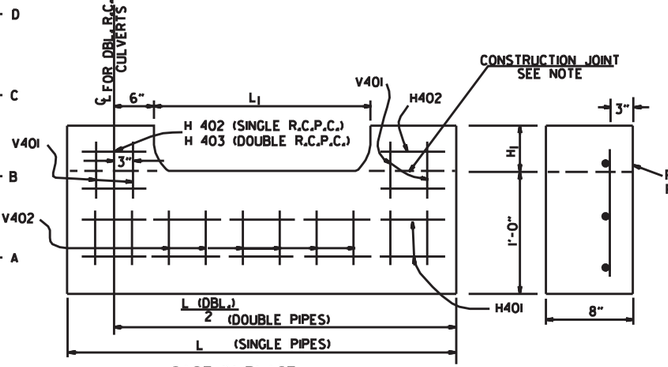
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

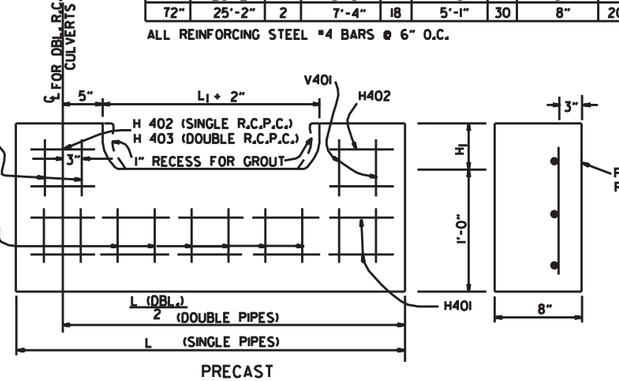
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	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

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT									
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	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.

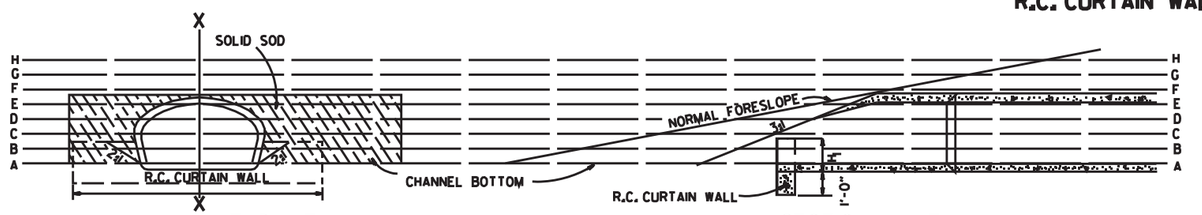
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.			DOUBLE R.C.P.C.		
	3:1	4:1	6:1	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.



END VIEW

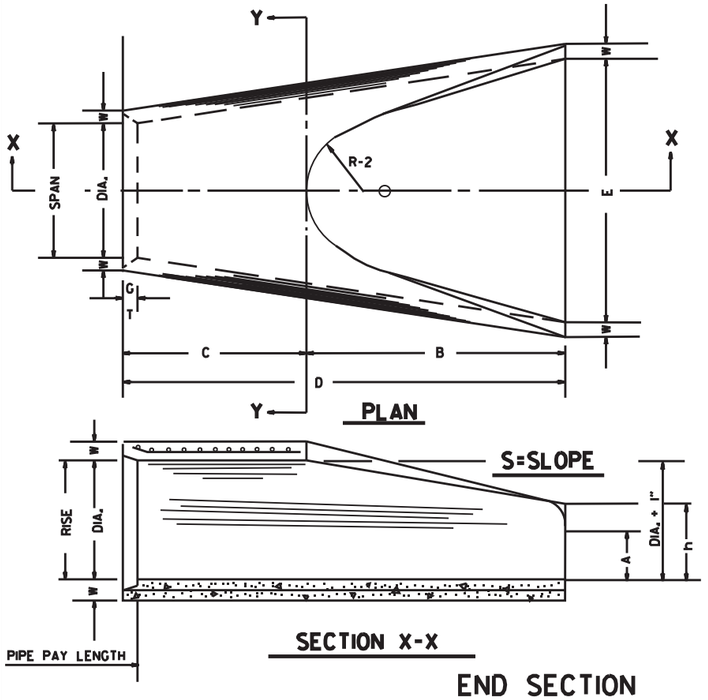
SECTIONAL VIEW "X-X"

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

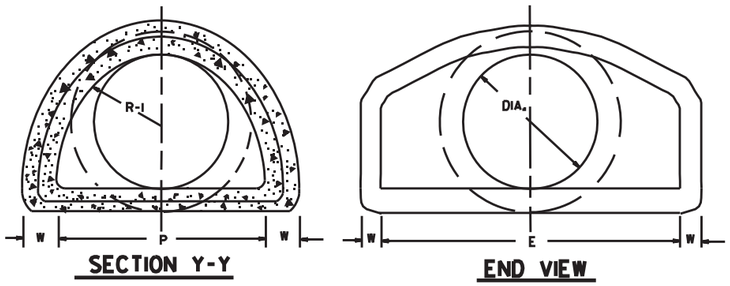
STANDARD DRAWING FES-1



END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

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"	3st	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3st	25"	33 3/16"	16 11/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3st	31"	37"	18½"	15"	3¼"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3st	37"	47 11/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3st	43"	53 7/8"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3st	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3st	55"	65½"	33 1/8"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3st	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3st	73"	77 11/16"	38 5/16"	24"	5"	13250	4'-6"

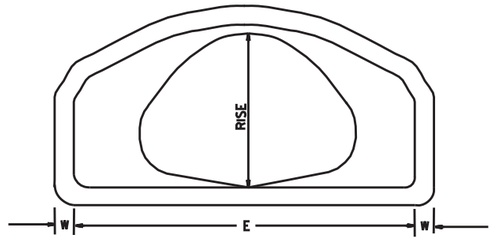


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

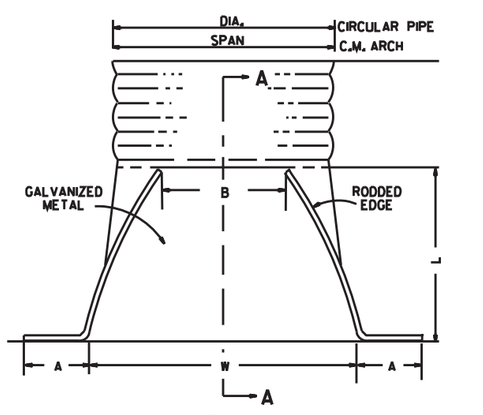
ARCH PIPE

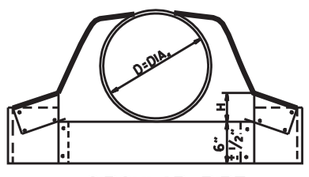
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½st
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32 1/8"	13"	2½"	2½st
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34 1/8"	14"	2½"	2½st
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 5/16"	15"	2½"	2½st
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 11/16"	20"	3"	2½st
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54 7/16"	22"	3½"	2½st
42	51⅛	51	31⅝	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½st
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 3/8"	24"	4¼"	2½st
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼st
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 11/16"	24"	5"	2¼st

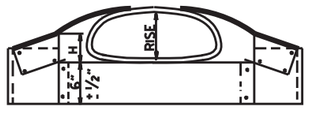
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



END VIEW
CONCRETE ARCH PIPE







CIRCULAR PIPE

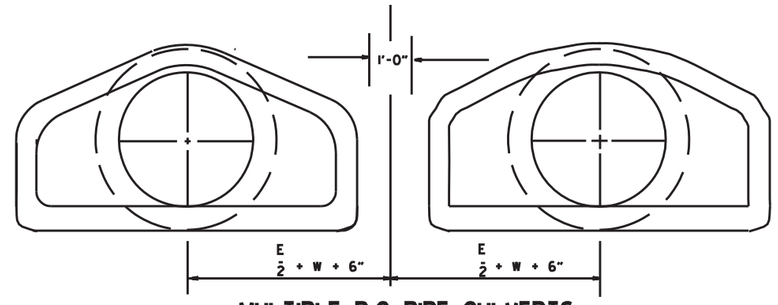
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½st
15	16	7	8	6	26	30	2½st
18	16	8	10	6	31	36	2½st
21	16	9	12	6	36	42	2½st
24	16	10	13	6	41	48	2½st
30	14	12	16	8	51	60	2½st
36	14	14	19	9	60	72	2½st
42	12	16	22	11	69	84	2½st
48	12	18	27	12	78	90	2½st
54	12	18	30	12	84	102	2st
60	12	18	33	12	87	114	1 3/4st
66	12	18	36	12	87	120	1½st
72	12	18	39	12	87	126	1 1/3st

C.M. ARCH PIPE

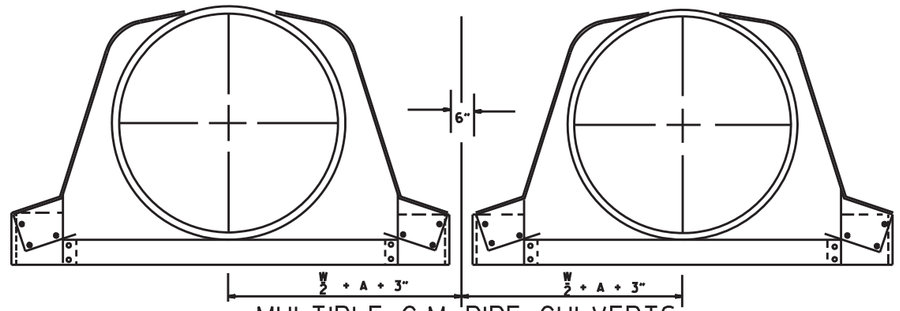
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½st	16
18"	21	15	7	10	6	23	36	2½st	16
21"	24	18	8	12	6	28	42	2½st	16
24"	28	20	9	14	6	32	48	2½st	16
30"	35	24	10	16	6	39	60	2½st	14
36"	42	29	12	18	8	46	75	2½st	14
42"	49	33	13	21	9	53	85	2½st	12
48"	57	38	18	26	12	63	90	2½st	12
54"	64	43	18	30	12	70	102	2½st	12
60"	71	47	18	33	12	77	114	2½st	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



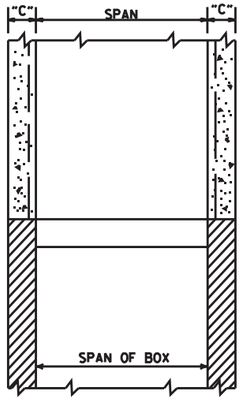
MULTIPLE C.M. PIPE CULVERTS

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

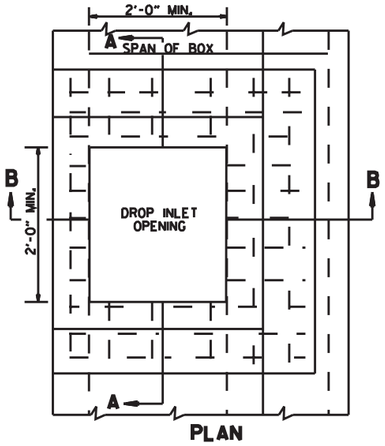
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

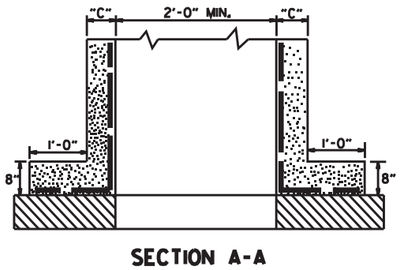
STANDARD DRAWING FES-2



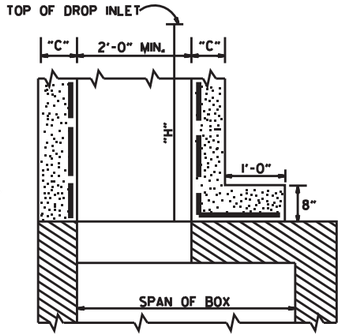
SECTION B-B



PLAN

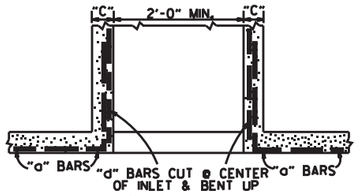


SECTION A-A

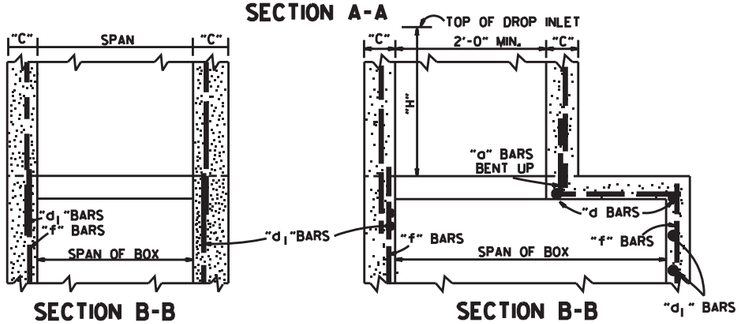


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



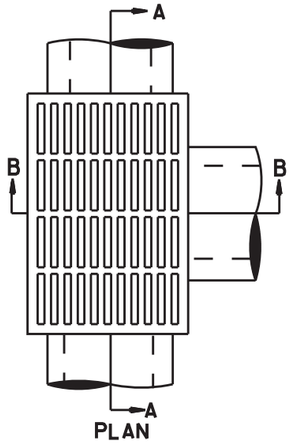
SECTION A-A



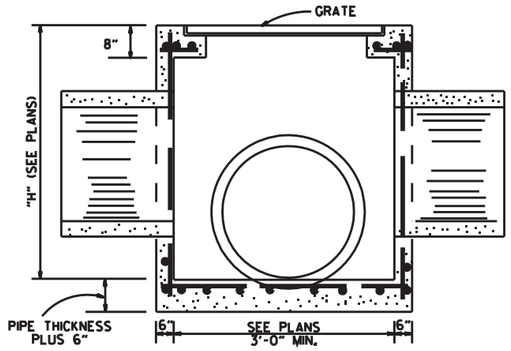
SECTION B-B SECTION B-B

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.

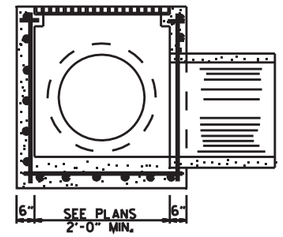


PLAN



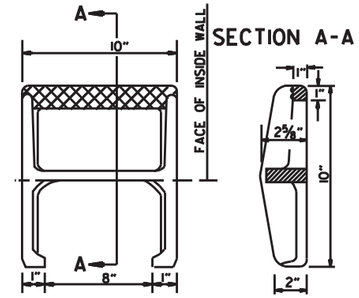
SECTION A-A

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)

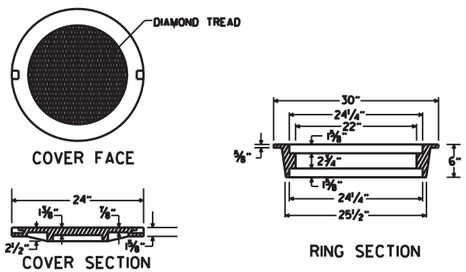


APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

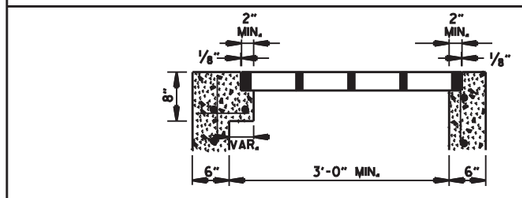
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

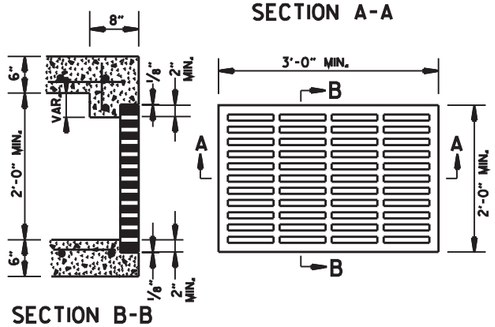


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



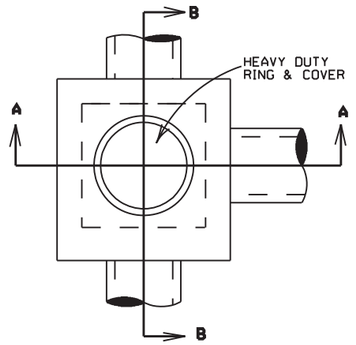
SECTION A-A



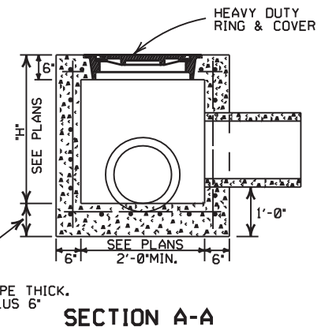
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

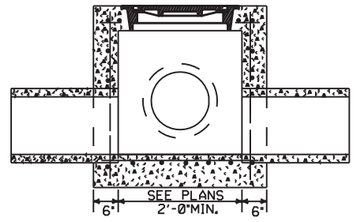


PLAN



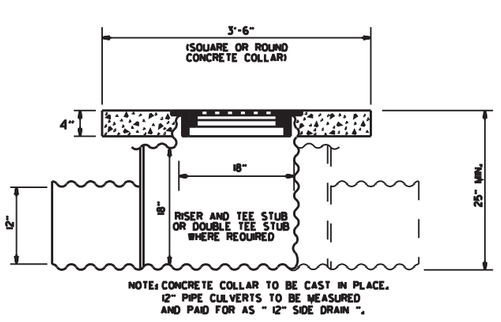
SECTION A-A

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.

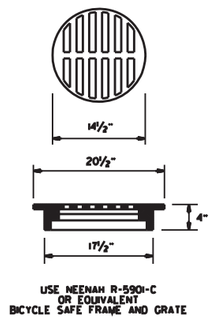


SECTION B-B

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:

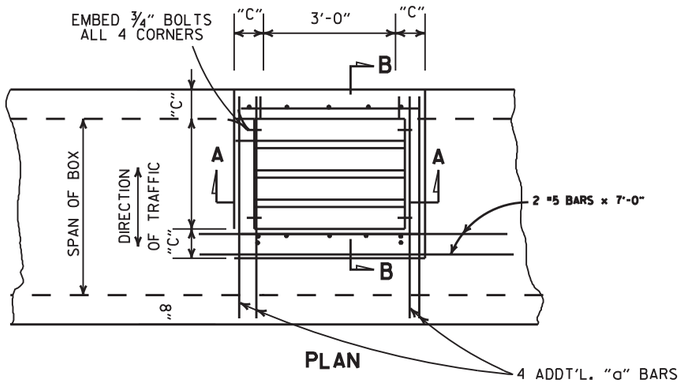
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS 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	

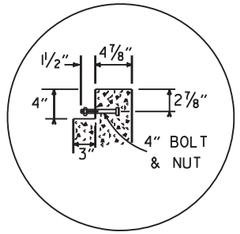
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

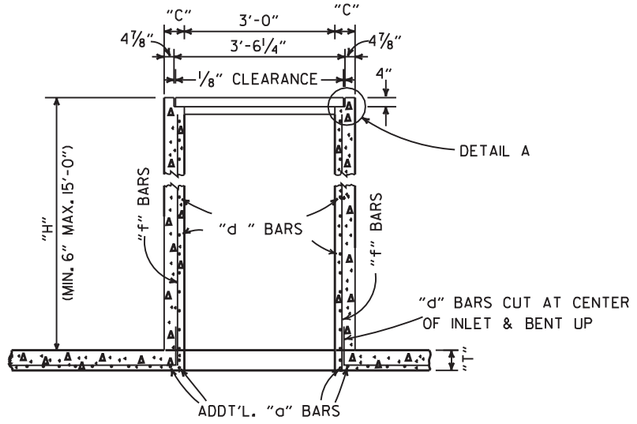
STANDARD DRAWING FPC-9



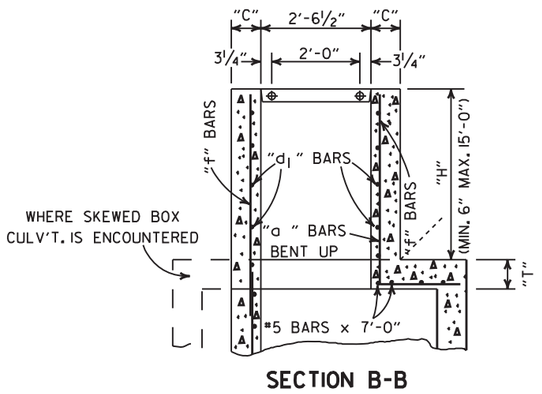
PLAN



DETAIL A



SECTION A-A

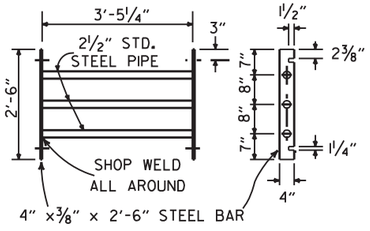


SECTION B-B

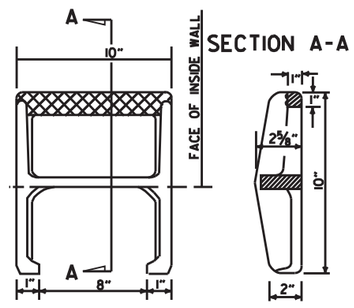
NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

DIMENSIONS & REINF. BARS FOR D.I. TO BE THE SAME AS THOSE SHOWN ON APPLICABLE STD. BARREL DRAWING FOR R.C. BOX CULVERTS.

DROP INLET TYPE "TM"
FOR REINFORCED CONC. BOX CULVERTS



GRATE DETAIL



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

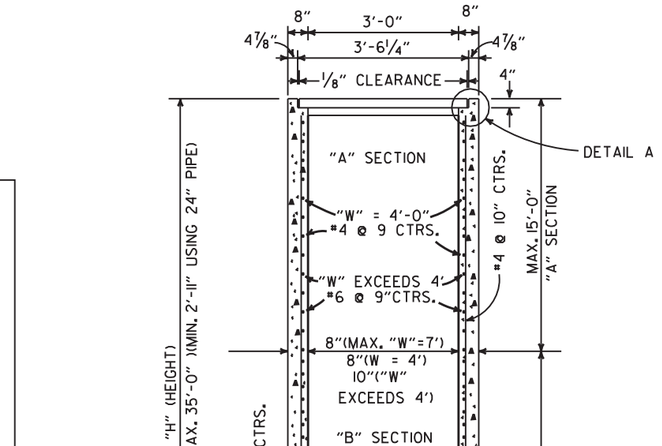
GENERAL NOTES:

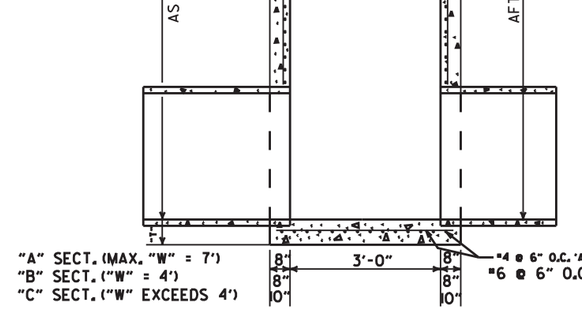
1. STEEL PIPE FOR GRATES AND BOLTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 807. BOLTS SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM A193, GRADE B8 CLASS 1 OR 2, ASTM A307 OR AASHTO M 164.
2. STEEL PIPE FOR GRATES SHALL BE "STANDARD WEIGHT" PIPE CONFORMING TO ASTM A53 NATIONAL STANDARD PIPE.
3. BOLTS, NUTS, WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 OR AASHTO M 298, CLASS 40 OR 50.
4. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
5. ALL #4 AND #5 REINFORCING BARS TO HAVE 1½" COVER. LARGER SIZES TO HAVE 2" COVER.
6. THE COMPLETE PIPE GRATE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

TABLE OF "W" DIMENSIONS

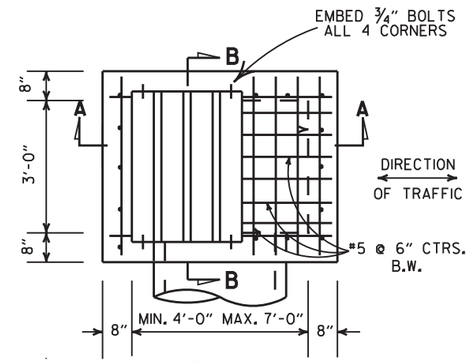
I.D. PIPE	SKEW OF CROSS DRAIN		
	STRAIGHT	30°	45°
	"W"	"W"	"W"
24"	4'-0"	4'-0"	4'-0"
30"	4'-0"	4'-0"	4'-5"
36"	4'-0"	4'-3"	5'-3"
42"	4'-3"	4'-11"	6'-1"
48"	4'-10"	5'-7"	6'-11"

NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.

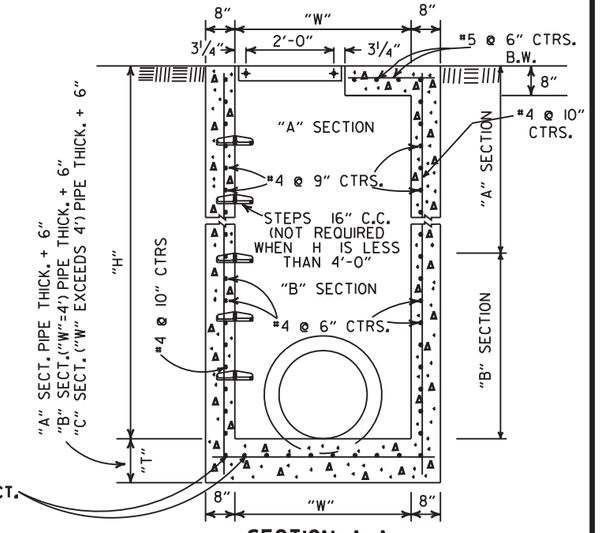




SECTION B-B



PLAN



SECTION A-A

DROP INLET(TYPE RM)

REVISED		DATE FILMED
8-22-02	ADDED & REVISED DIMENSION TO SECTION A-A	
1-12-00	CORRECTED DIMENSION ON SECTION B-B	
11-06-97	ADDED DIMENSION TO SECTION A-A	
10-18-96	REVISED ASTM REF. TO AASHTO AND ADDED NOTE TO TABLE OF "W" DIMENSIONS	
10-1-92	ADDED DIRECTION OF TRAFFIC	10-1-92
8-15-91	ADDED NOTE ABOUT PAINTING OF GRATE	8-15-91
11-30-89	ALTERED DETAIL A	11-30-89
7-15-88	REVISED STEP DETAIL,TM & RM D.I. & GRATE DETAIL	719-7-15-88
10-2-72	REVISED AND REDRAWN	542-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS

STANDARD DRAWING FPC-9D

4'-0" LENGTH DROP INLET

PIPE SIZE	MIN. WIDTH	HEIGHT 5'-0" CLASS A CONC. CU. YDS.	HEIGHT 5'-0" REINF. STEEL POUNDS	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC. CU. YDS.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL 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.

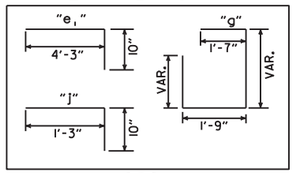
DROP INLET EXTENSION

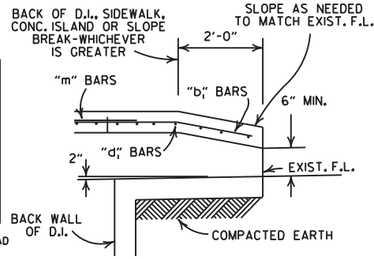
4'-0" CLASS A CONC. CU. YDS.	4'-0" REINF. STEEL POUNDS	8'-0" CLASS A CONC. CU. YDS.	8'-0" REINF. STEEL POUNDS
0.58	38	0.87	72
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.			
0.04	3		

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

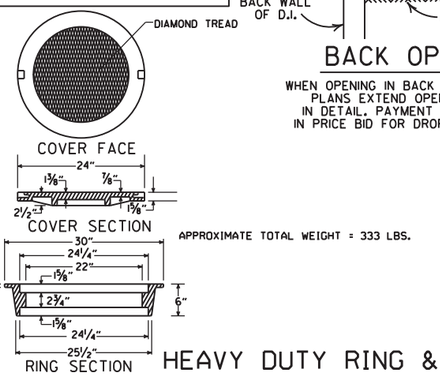
BAR DIAGRAM





BACK OPENING

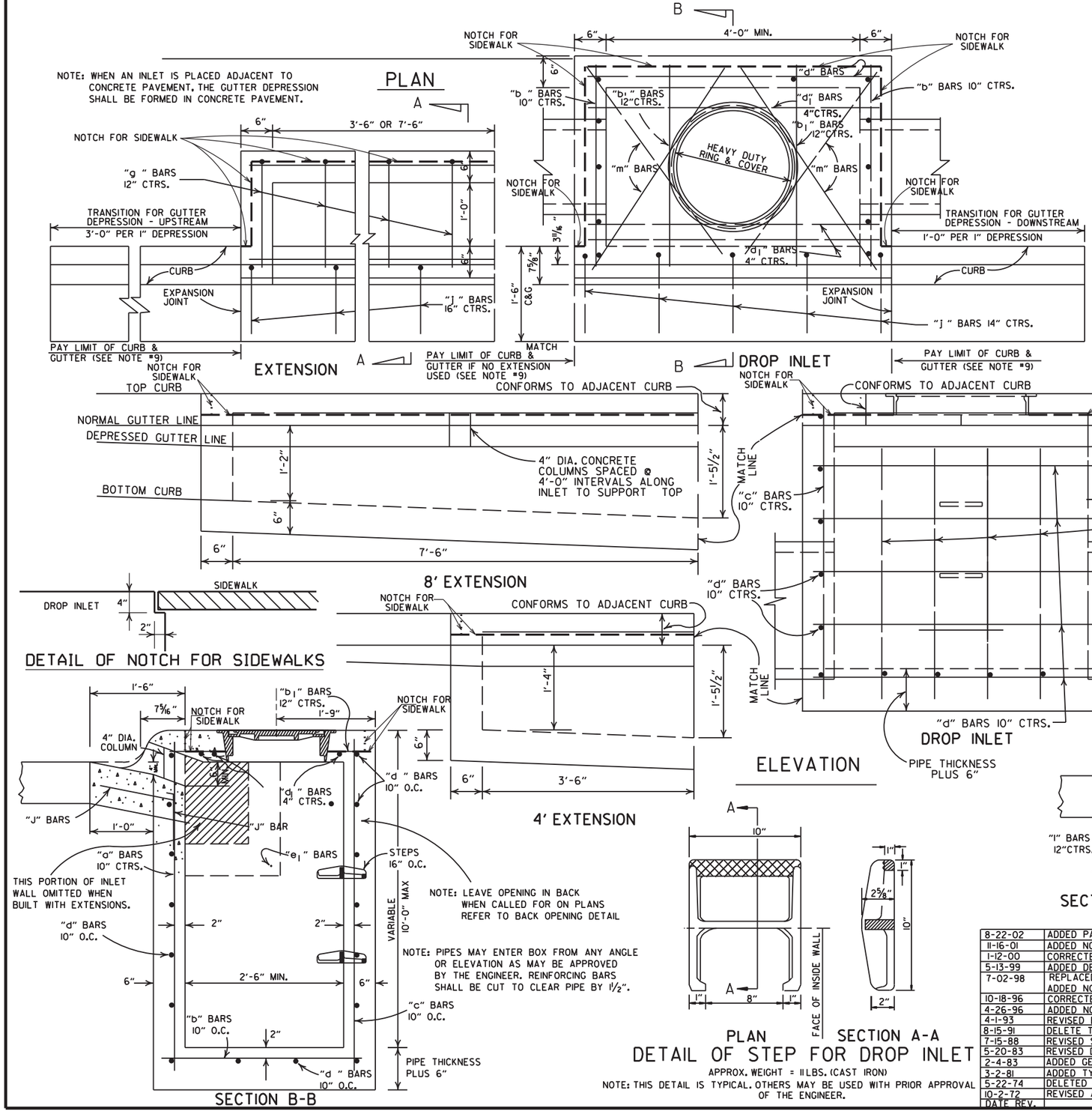
WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE C).



APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

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"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.

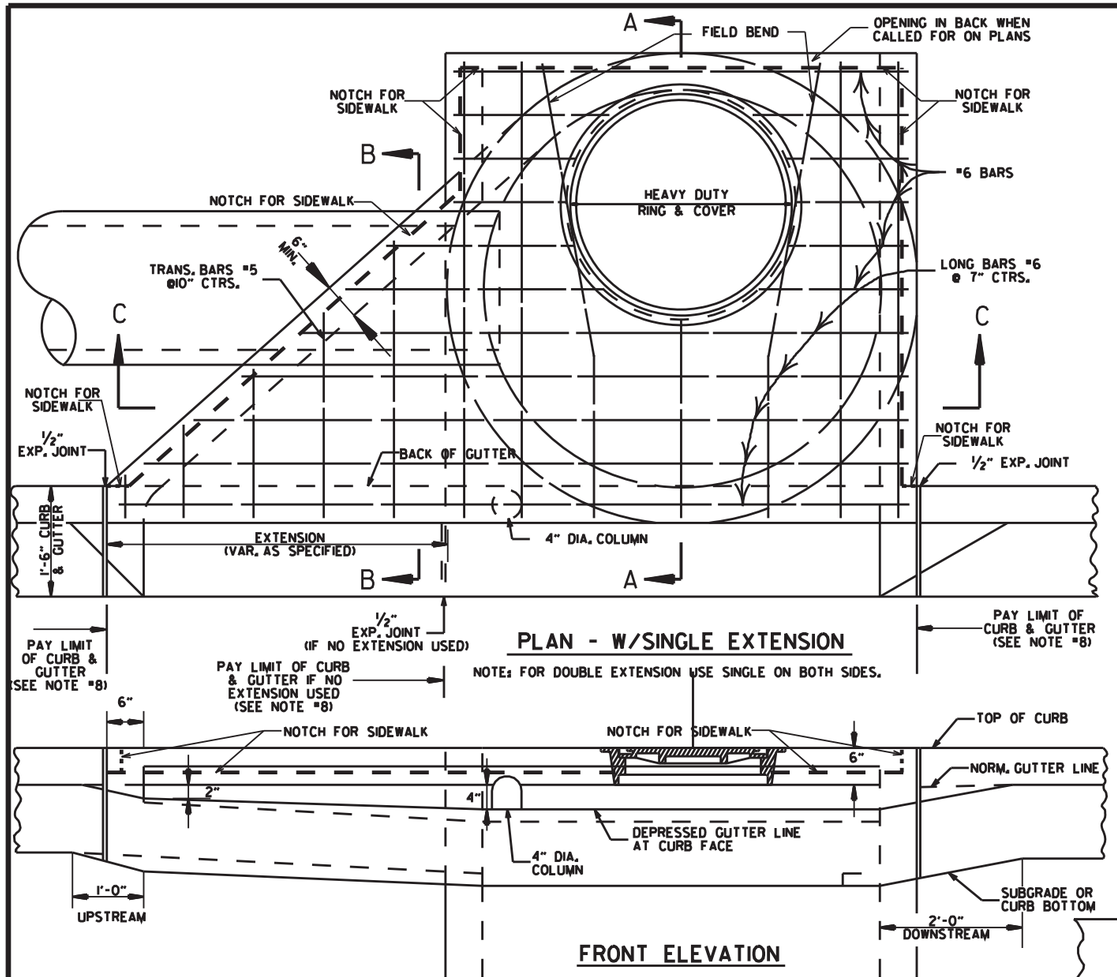


DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER 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)

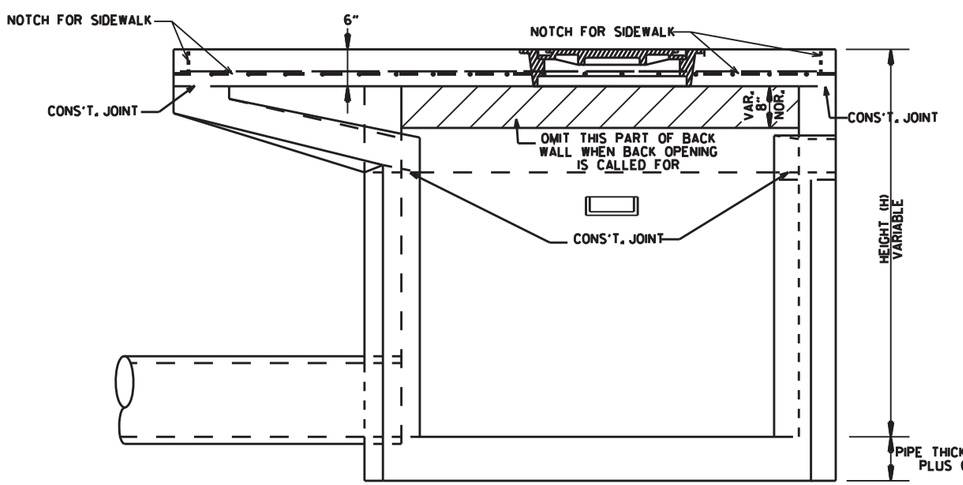
STANDARD DRAWING FPC-9E



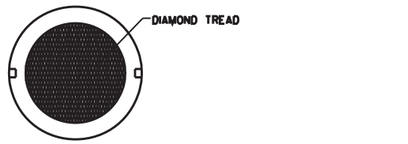
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

FRONT ELEVATION



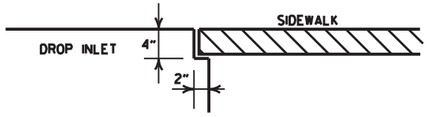
SECTION C-C



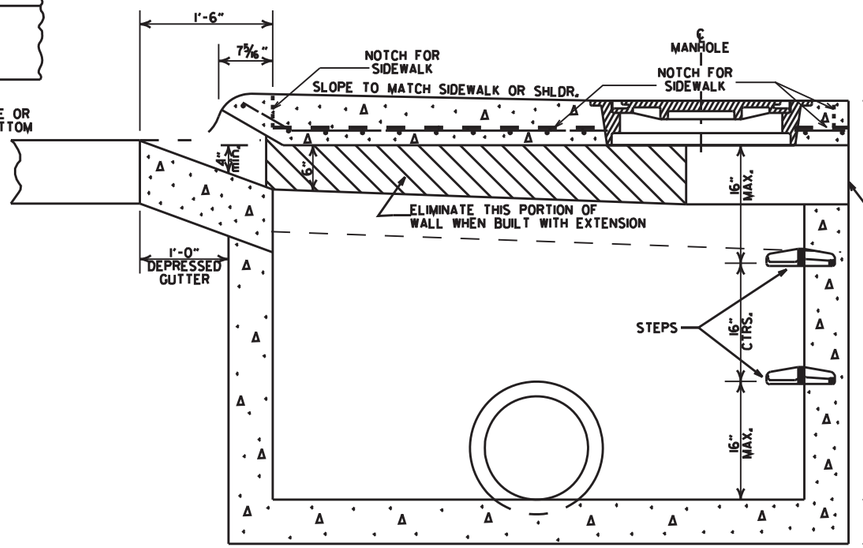
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

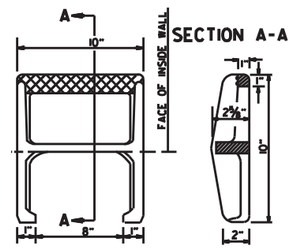
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS



SECTION A-A

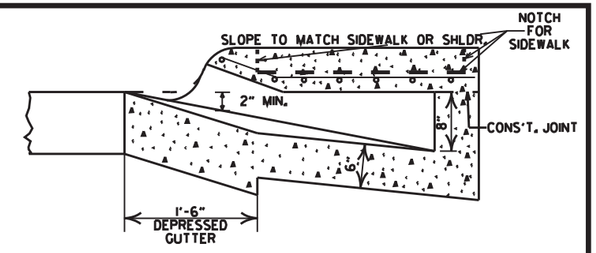


APPROX. WEIGHT = 11 LBS. (CAST IRON)

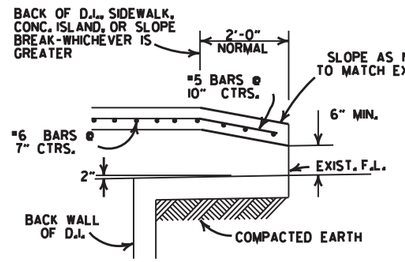
PLAN

NOTE: THIS DETAIL IS TYPICAL, OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



SECTION B-B



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 3/4" 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. 1/2" 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.

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

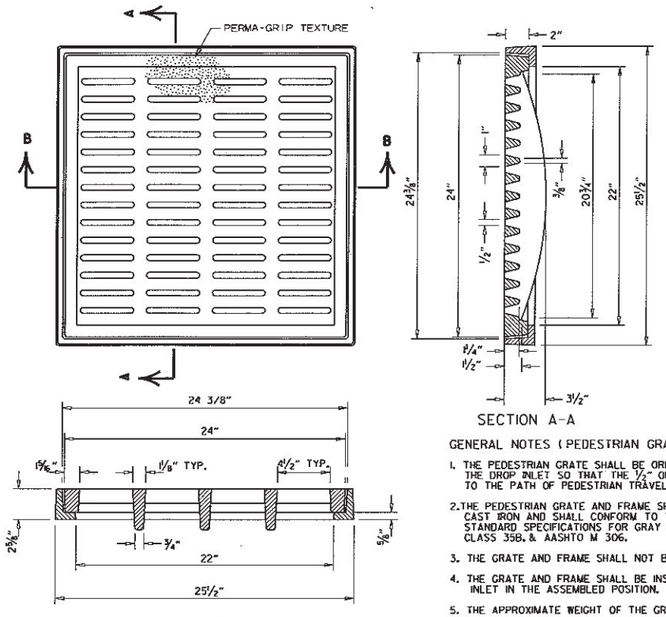
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

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, REV. 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 *5 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
8-14-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-14-91
11-30-89	ADDED NOTE NO. 12	11-30-89
11-21-89	ADDED NOTE 8 & MINIMUM WALL THICKNESS	ALL-11-21-89
7-25-88	ADDED EXTEND NOTE TO SECTION A-A	639-7-25-88
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



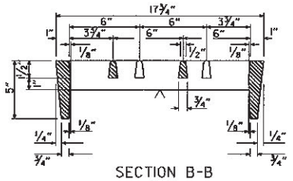
SECTION B-B

SECTION A-A

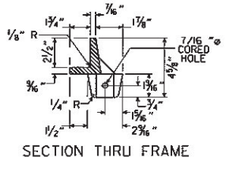
GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE ½" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN 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, & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 211 LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

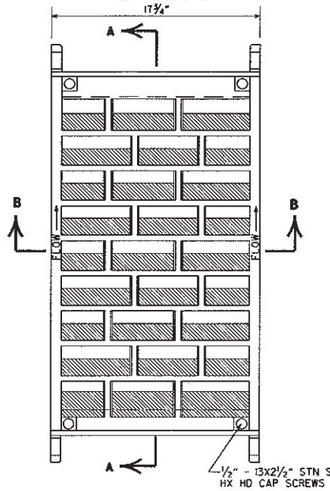
DETAILS OF PEDESTRIAN GRATE AND FRAME

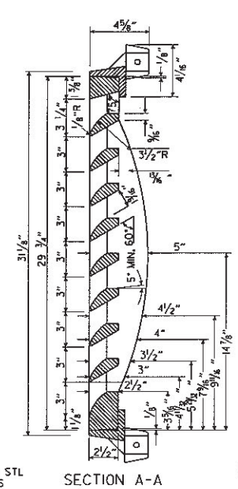


SECTION B-B



SECTION THRU FRAME



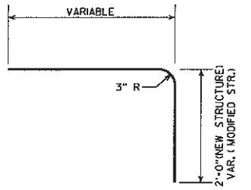


SECTION A-A

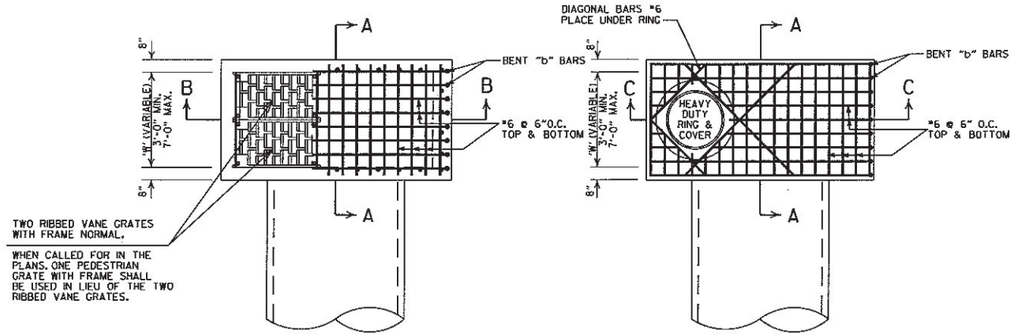
DETAILS OF RIBBED VANE GRATE AND FRAME

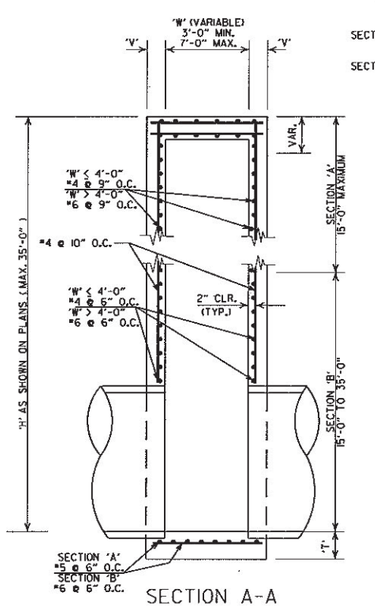
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

1. RIBBED VANE 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, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.



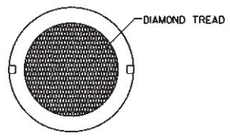
DETAIL OF BENT "b" BAR



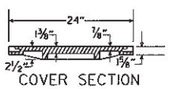


SECTION A-A

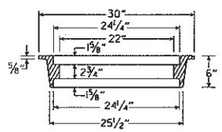
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



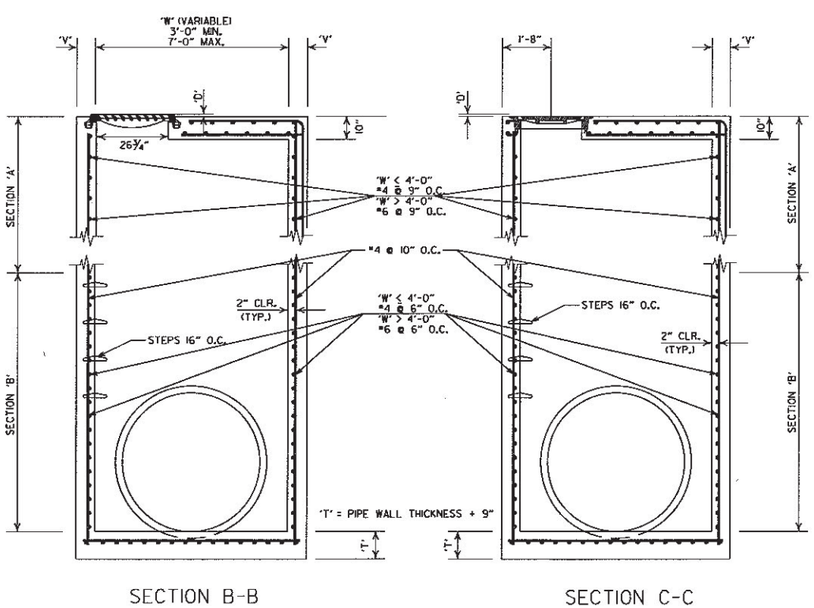
COVER SECTION



RING SECTION

HEAVY DUTY RING & COVER

APPROXIMATE TOTAL WEIGHT = 333 LBS.



SECTION B-B

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A ¾" CHAMFER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

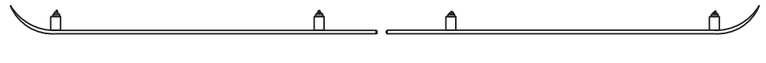
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. 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 REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED

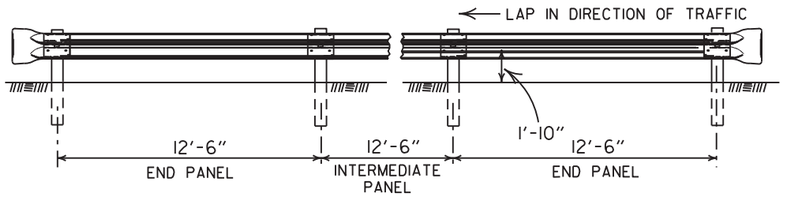
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

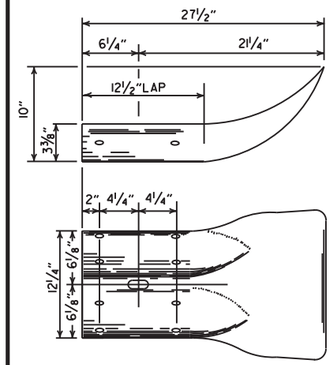
STANDARD DRAWING FPC-9S



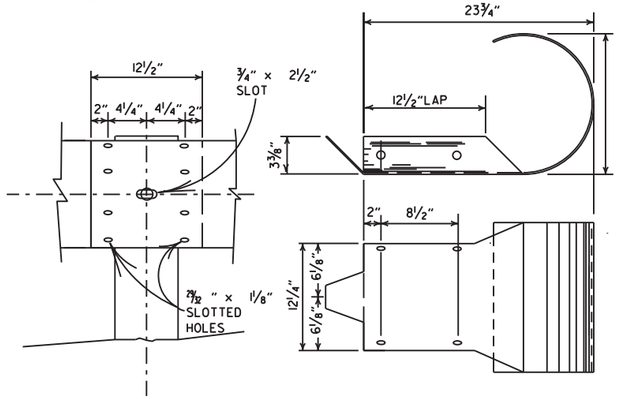
PLAN



ELEVATION

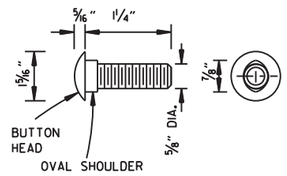


TERMINAL SECTION



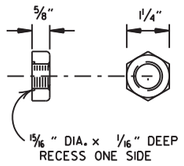
RAIL SPLICE

TERMINAL SECTION

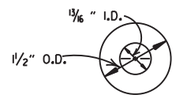


SPLICE BOLT

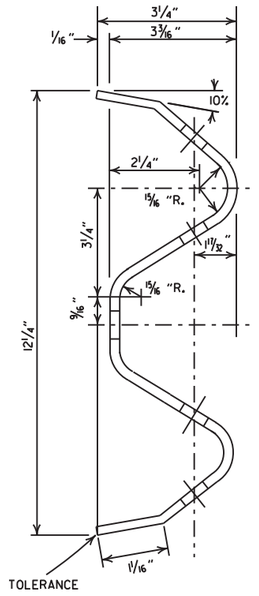
NOTE: POST BOLT SAME EXCEPT LENGTH.



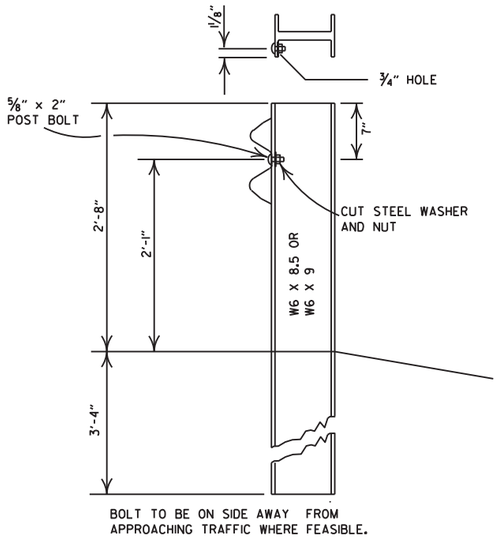
NUT



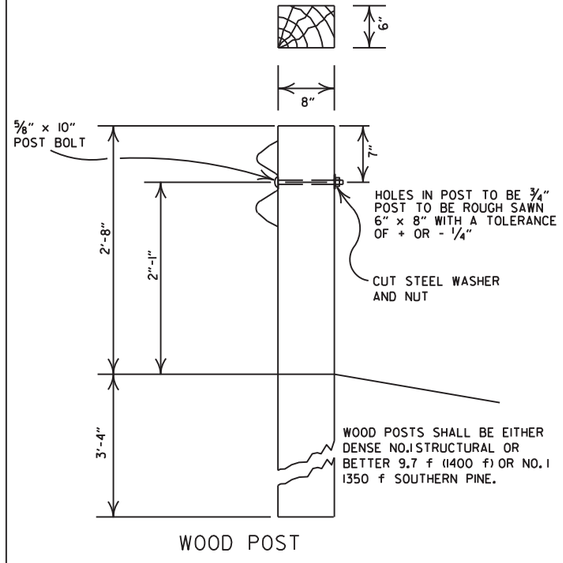
CUT STEEL WASHER



SECTION THRU RAIL



STEEL POST



WOOD POST

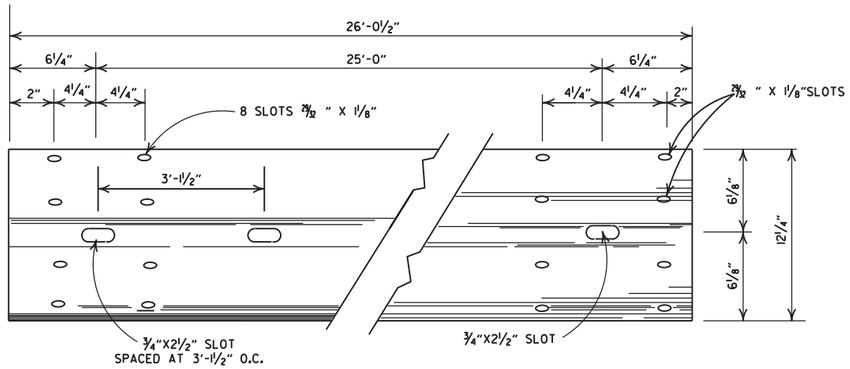
DETAILS OF POST CONNECTIONS

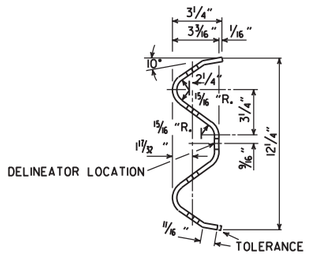
DATE	REVISION	FILMED
11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GUARDRAIL HEIGHT	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
08-22-02	REVISED DIMENSION ON STEEL POST	
11-16-01	REVISED STEEL AND WOOD POST	
08-12-98	REMOVED CONCRETE POST	
10-18-96	CHANGED WOOD POST NOTE	10-18-96
06-02-94	ADDED ALTERNATE STEEL POST SIZE	
08-05-93	REVISED STEEL POSTS SIZE	8-5-93
08-15-91	DELETE STEEL PLATE WASHER & ADDED TYPE C TO TITLE	8-15-91
10-30-87	REMOVED DET. PLCMNT. ON HWY.	555-11-20-87
01-04-83	GRADE FOR WOOD POSTS	679-1-4-83
10-01-77	HARDENED WASHER	922-10-1-72
10-02-72	REVISED & REDRAWN	521-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS (TYPE C) STREET / ROAD BARRICADE OR TEMPORARY INSTALLATION

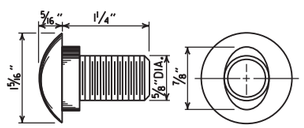
STANDARD DRAWING GR-5



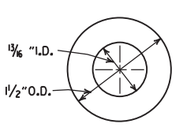


DETAILS OF W-BEAM GUARDRAIL

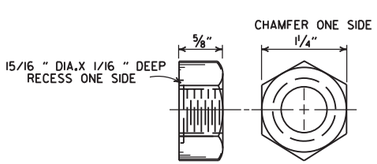
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



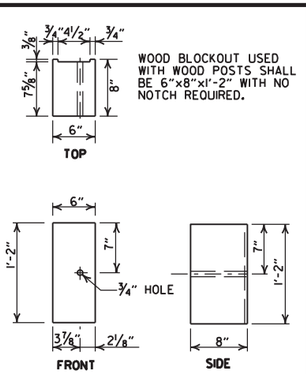
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

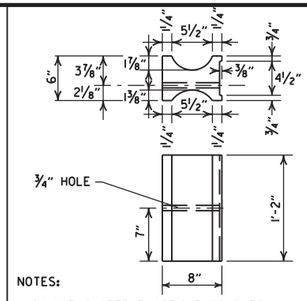


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

WOOD BLOCKOUT (W-BEAM)

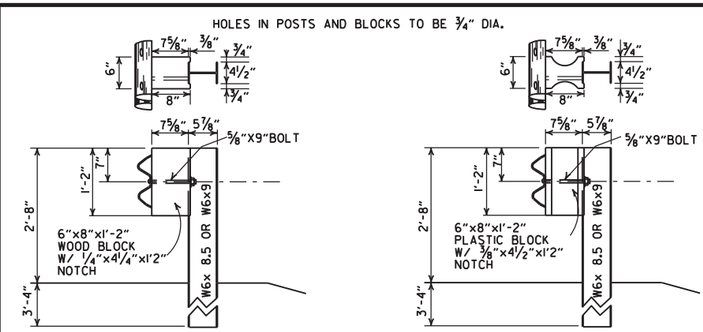


NOTES:

1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

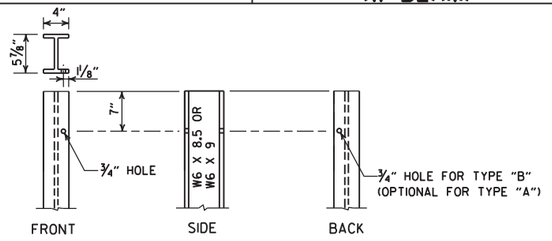
HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



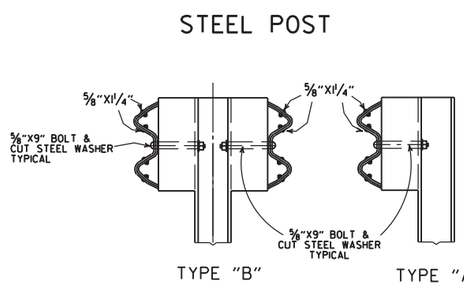
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



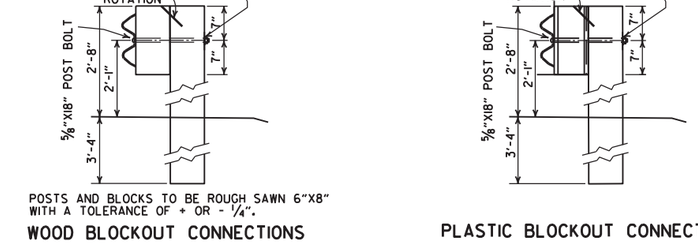
STEEL POST



TYPE "B" TYPE "A"

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARDRAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARDRAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

USE W-BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARDRAIL, W-BEAM GUARDRAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARDRAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARDRAIL.

DELINEATORS SHALL BE MOUNTED AT 37.5' SPACING ON THE FRONT FACE OF THE GUARDRAIL. SPACING MAY BE REDUCED IN CURVES, AS DIRECTED BY THE ENGINEER. COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR GUARDRAIL.

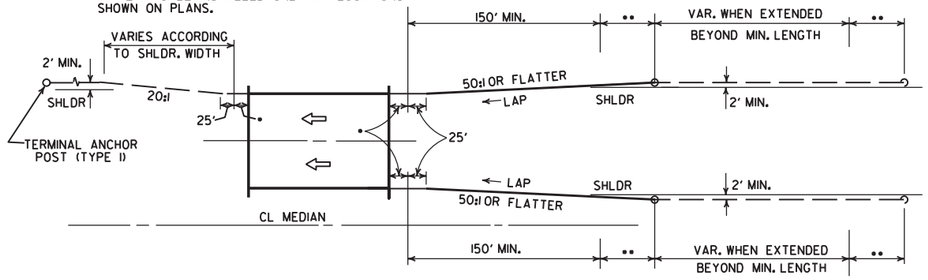
DATE	REVISION	FILMED
05-19-22	REVISED GENERAL NOTES. ADDED DELINEATOR LOCATION.	
11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARDRAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

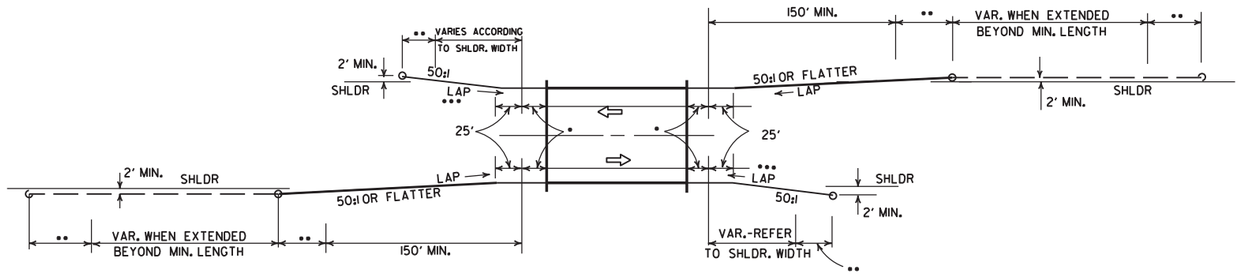
STANDARD DRAWING GR-6

NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

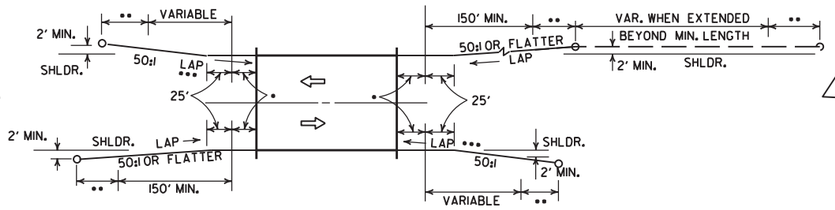
••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

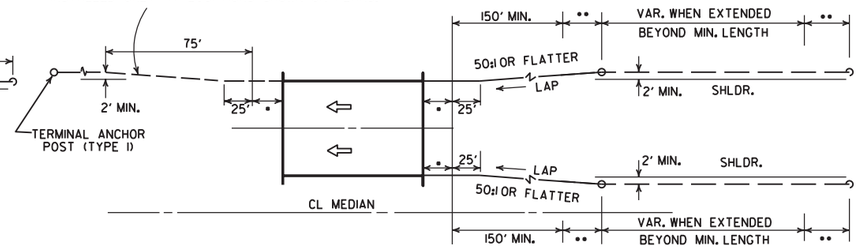
METHODS OF INSTALLATION OF GUARDRAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

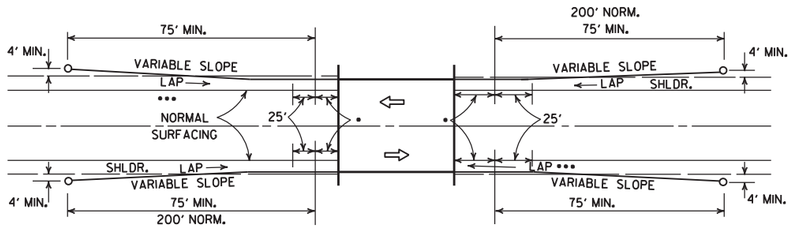
NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARDRAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



LEGEND

- • THRIE BEAM GUARDRAIL TERMINAL
- •• GUARDRAIL TERMINAL (TYPE 2)

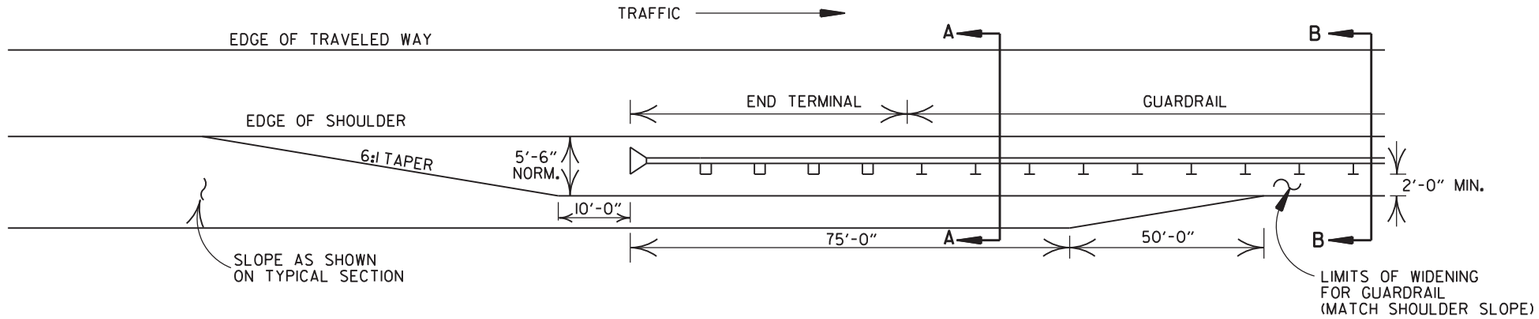
METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

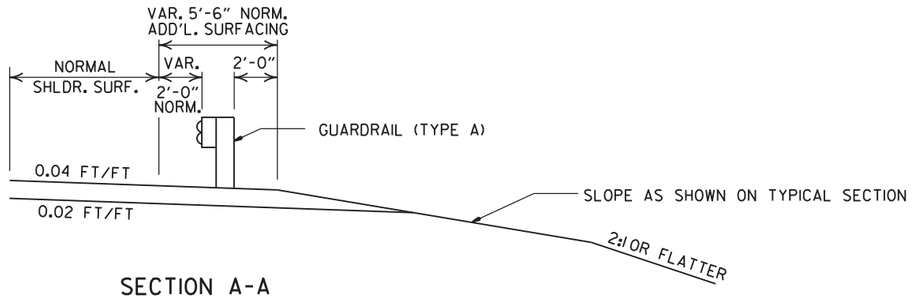
DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARDRAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

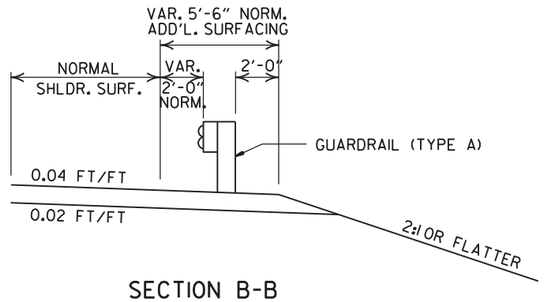
GUARDRAIL DETAILS

STANDARD DRAWING GR-8





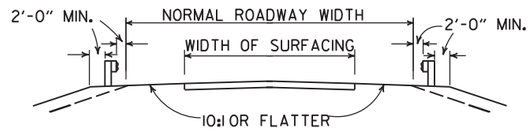
SECTION A-A



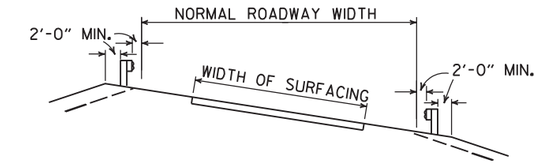
SECTION B-B

DETAILS OF WIDENING FOR GUARDRAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARDRAIL.

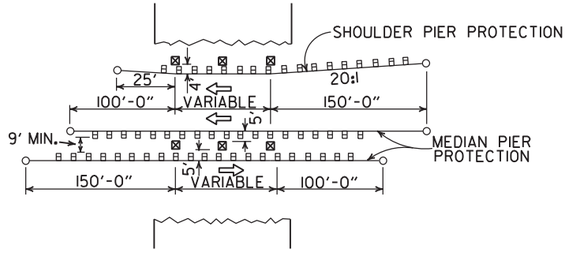


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY



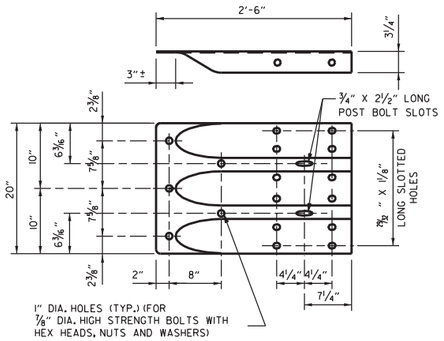
METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

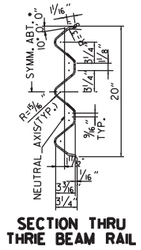
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

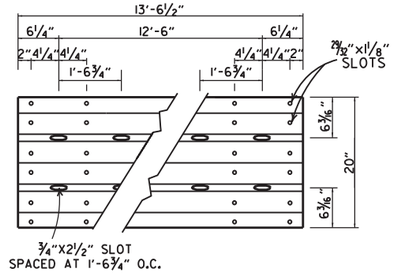
STANDARD DRAWING GR-9



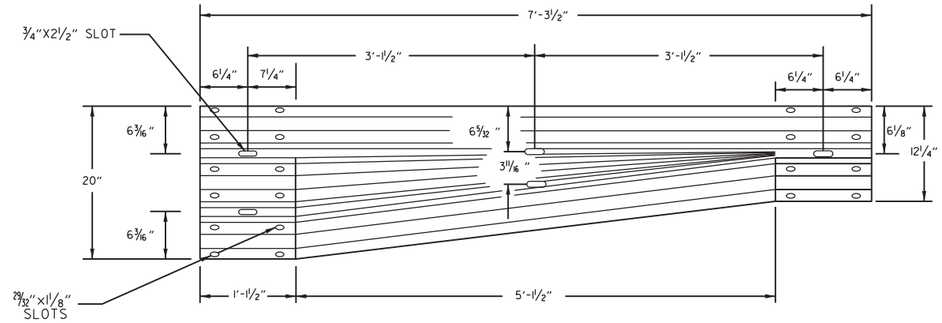
SPECIAL END SHOE



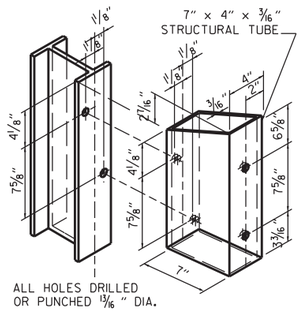
SECTION THRU THRIE BEAM RAIL



THRIE BEAM RAIL



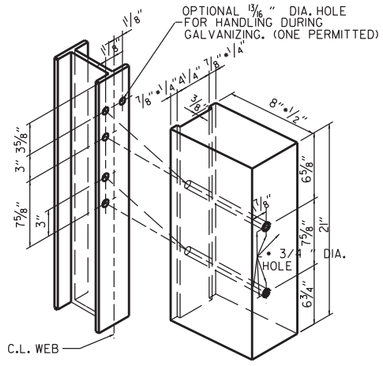
TRANSITION SECTION



ATTACH BLOCKOUT TO POST USING 5/8" DIA. HEX HEAD BOLTS WITH 1 1/2" O.D. CUT STEEL WASHERS AND NUT.

ALL HOLES DRILLED OR PUNCHED 13/16" DIA.

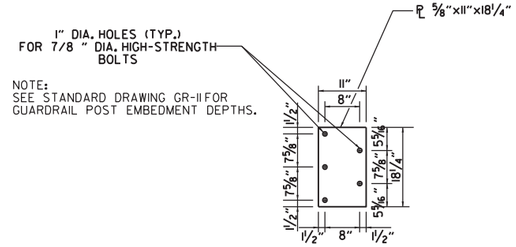
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

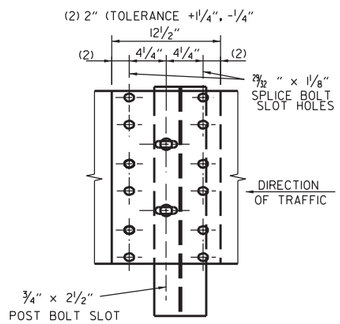
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



NOTE:
SEE STANDARD DRAWING GR-11 FOR GUARDRAIL POST EMBEDMENT DEPTHS.

CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING 7/8" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



THRIE BEAM RAIL SPLICE AT POST

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3"4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

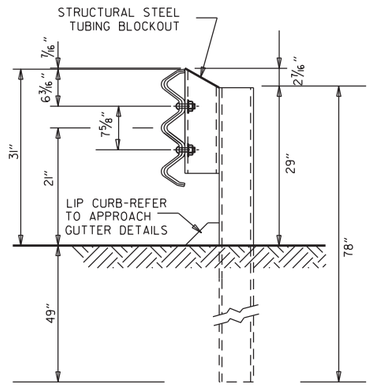
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED AND REVISED REFERENCES	
11-16-17	REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THRIE BEAM GUARD RAIL CONNECTIONS AT BRIDGES ENDS TO STD. DRWG. GR-12	
07-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-29-07	ADDED PLASTIC BLOCKOUTS	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-18-04	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED NOTE (2)	
06-29-00	MOVED DIMENSION LINES	
05-18-00	ADDED NOTE	
03-30-00	DRAWN & ISSUED	

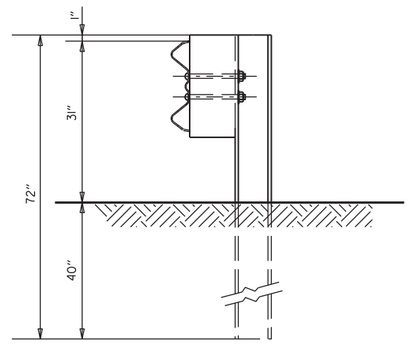
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

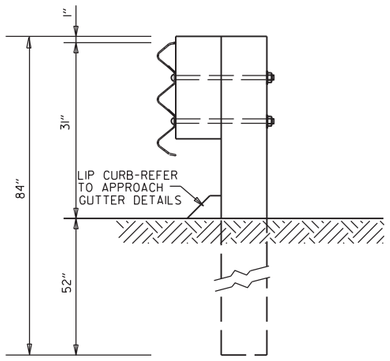
STANDARD DRAWING GR-10



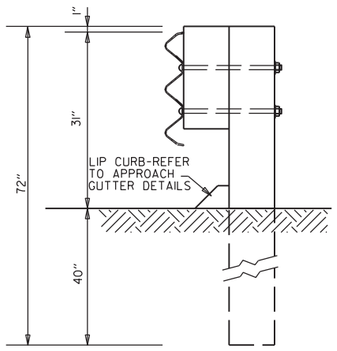
THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



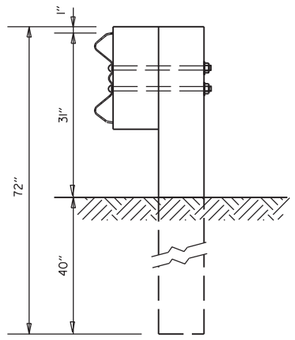
W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7



W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

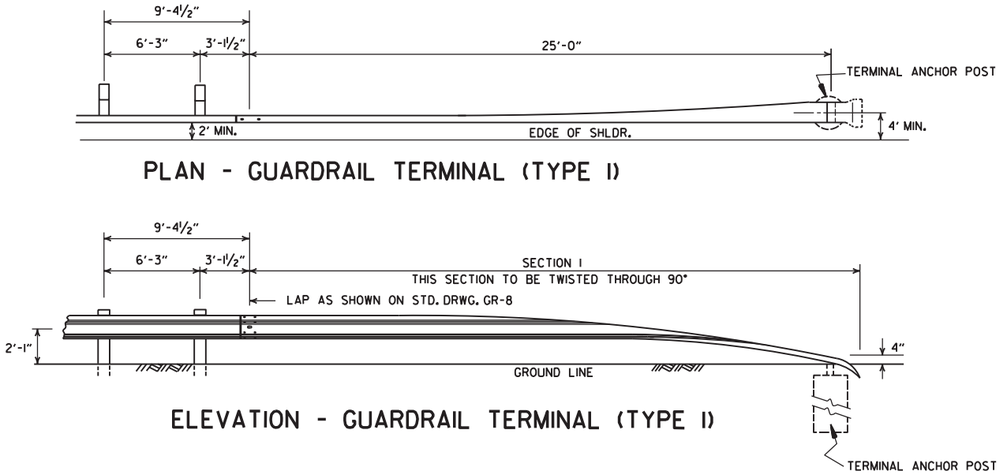
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED	
11-16-17	REVISED GUARDRAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-11	
07-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
08-22-02	REVISED LIP CURB NOTE	
03-30-00	DRAWN & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

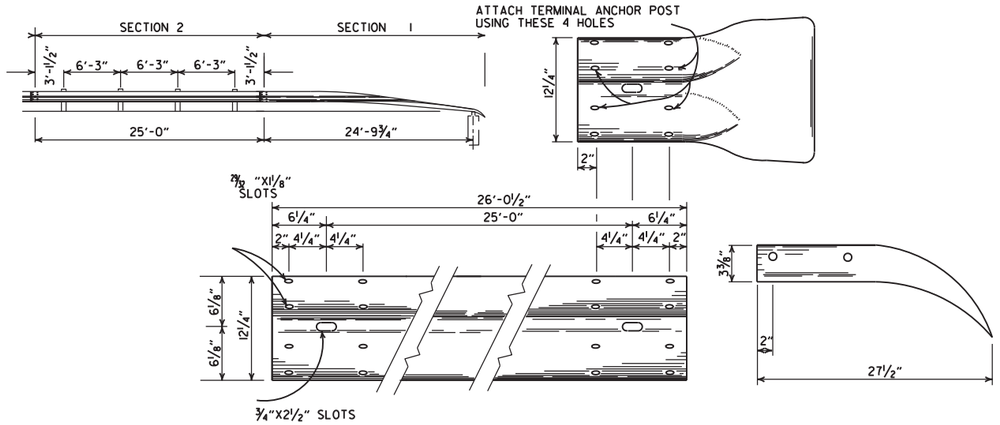
STANDARD DRAWING GR-11



PLAN - GUARDRAIL TERMINAL (TYPE I)

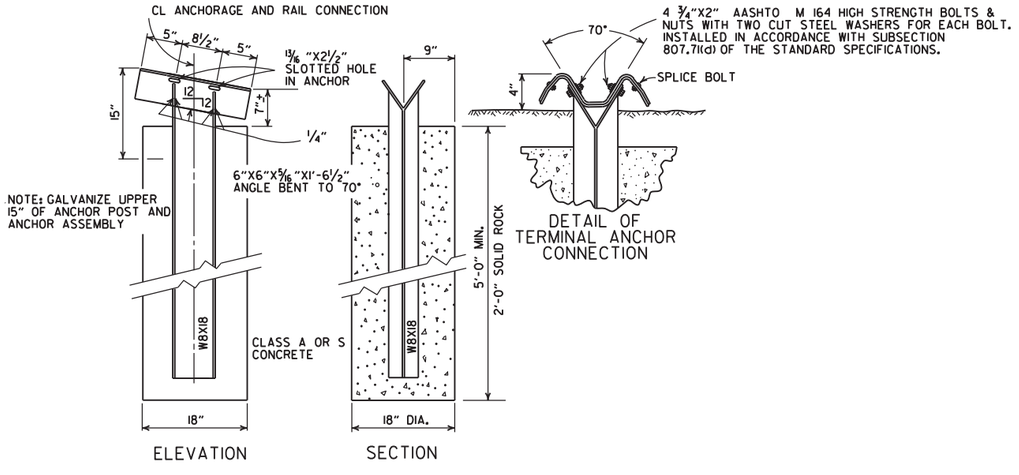
ELEVATION - GUARDRAIL TERMINAL (TYPE I)

NOTE:
SECTIONS I AND 2 OF GUARDRAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARDRAIL SPECIFIED.



SECTION I

TERMINAL SECTION



NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

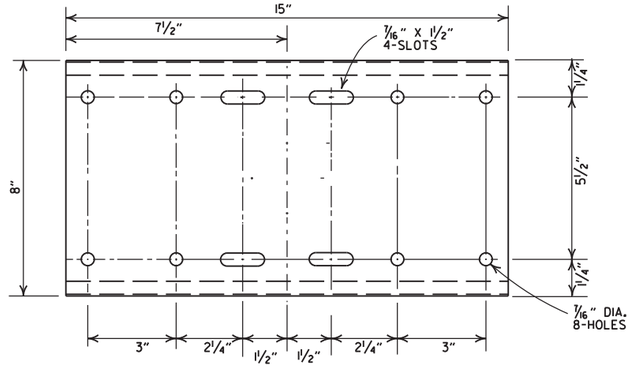
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

DATE	REVISION	FILMED
11-07-19	RENAMED & REVISED REFERENCE.	
11-16-17	REVISED GUARDRAIL HEIGHT AND LOCATION OF POSTS	
07-14-10	RAISED HEIGHT OF GUARDRAIL I"	
06-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-03-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-01-92	DRAWN & ISSUED	10-1-92

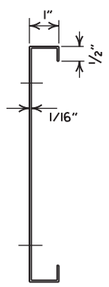
ARKANSAS STATE HIGHWAY COMMISSION

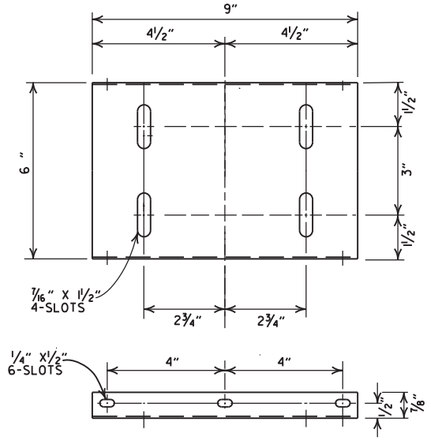
GUARDRAIL DETAILS

STANDARD DRAWING GRT-1

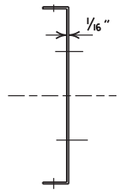


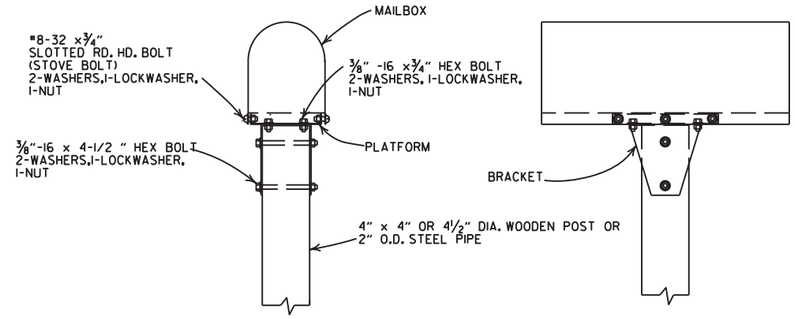
SHELF



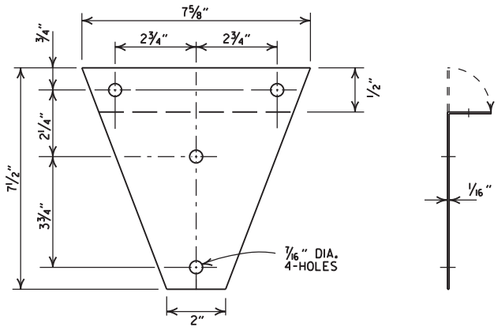


PLATFORM





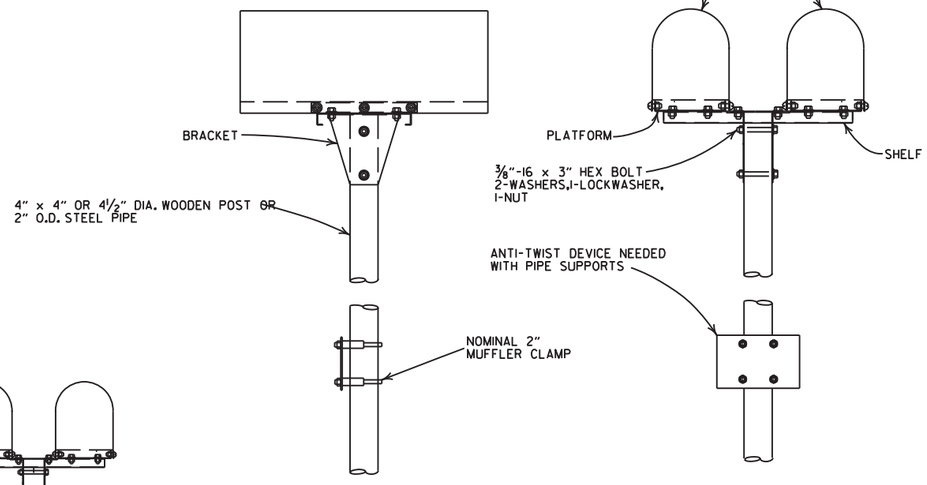
SINGLE INSTALLATION



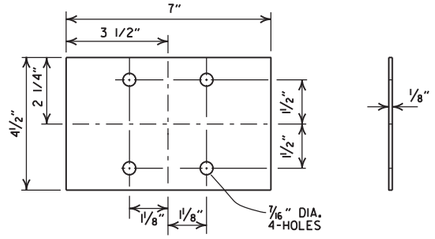
BRACKET

GENERAL NOTES

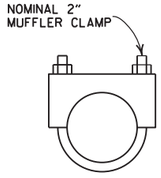
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED 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.



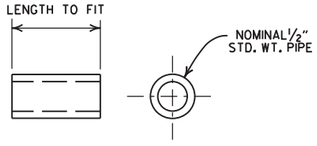
DOUBLE INSTALLATION



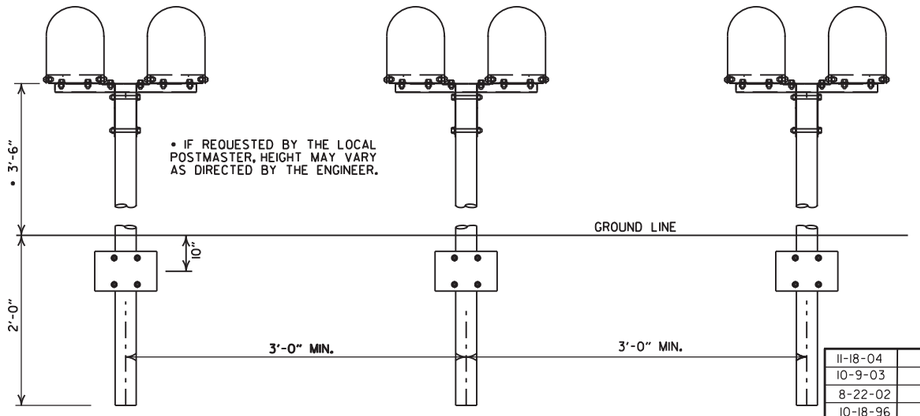
ANTI-TWIST PLATE



CLAMP



SPACER



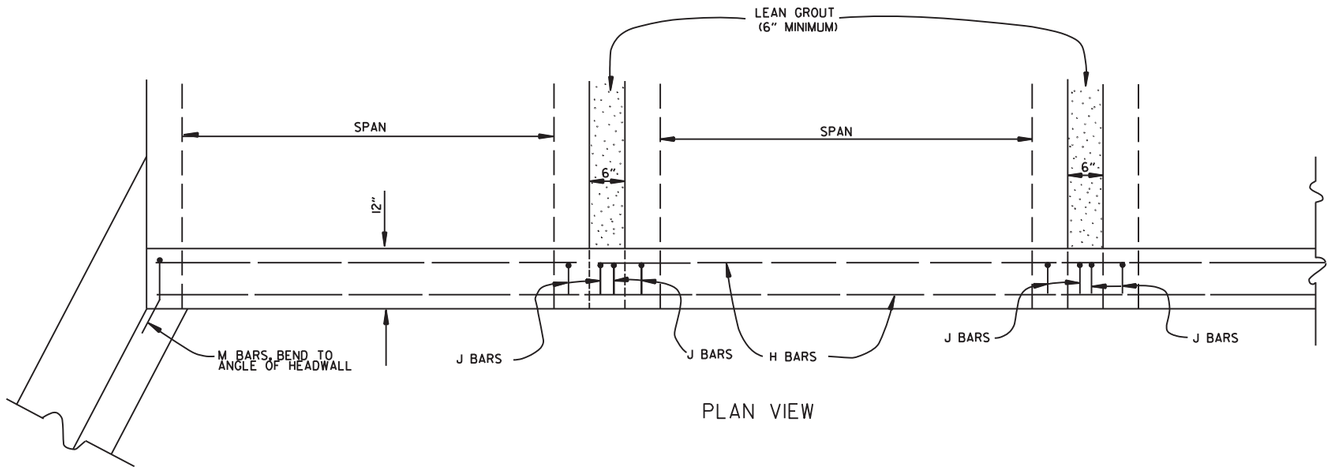
SPACING FOR MULTIPLE POST INSTALLATION

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

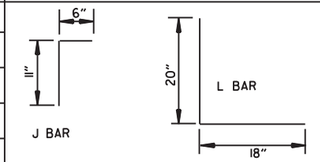
STANDARD DRAWING MB-1



PLAN VIEW

BAR LIST

BAR	NO.	SIZE	LENGTH	BAR BENDING DIAGRAM
H	2	#4	•	
I	•	#4	•	
J	•	#4	1'-5"	
L	•	#4	3'-2"	
M	•	#4	1'-8"	



• NOTE: LENGTH AND NUMBER OF BARS VARIES WITH SIZE OF CULVERT

GENERAL NOTES

WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY CASTING BARS IN CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING. J BARS AND M BARS SHALL BE EMBEDDED A MINIMUM OF 10" IN PRECAST BOX.

WINGS, FOOTINGS, APRONS AND CURTAIN WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WING DRAWING. STEEL AND CONCRETE QUANTITIES WILL BE ADJUSTED TO FIT THE IN-PLACE WIDTH & HEIGHT OF THE PRECAST CONCRETE BOX CULVERTS.

ALL EXPOSED CORNERS TO HAVE ¾" CHAMFERS.

WINGWALLS AND FOOTINGS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

ALL CONCRETE, REINFORCING STEEL, LEAN GROUT, MEMBRANE WATERPROOFING, DRAINAGE FILL MATERIAL, GEOTEXTILE FILTER FABRIC, LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR INSTALLING PRECAST BOX CULVERTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR THE ITEMS AS SPECIFIED IN SECTION 607 OF THE STANDARD SPECIFICATIONS.

LEAN GROUT SHALL CONSIST OF A SAND CEMENT MIXTURE MEETING THE FOLLOWING REQUIREMENTS:
PORTLAND CEMENT SHALL BE TYPE I AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
SAND SHALL MEET THE REQUIREMENTS OF FINE AGGREGATE AS SPECIFIED IN SECTION 802.02 OF THE STANDARD SPECIFICATIONS.
THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE.
THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENTS. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND THOROUGHLY RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL ALL VOIDS.

MEMBRANE WATERPROOFING CONFORMING TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO ALL BOX CULVERT JOINTS.

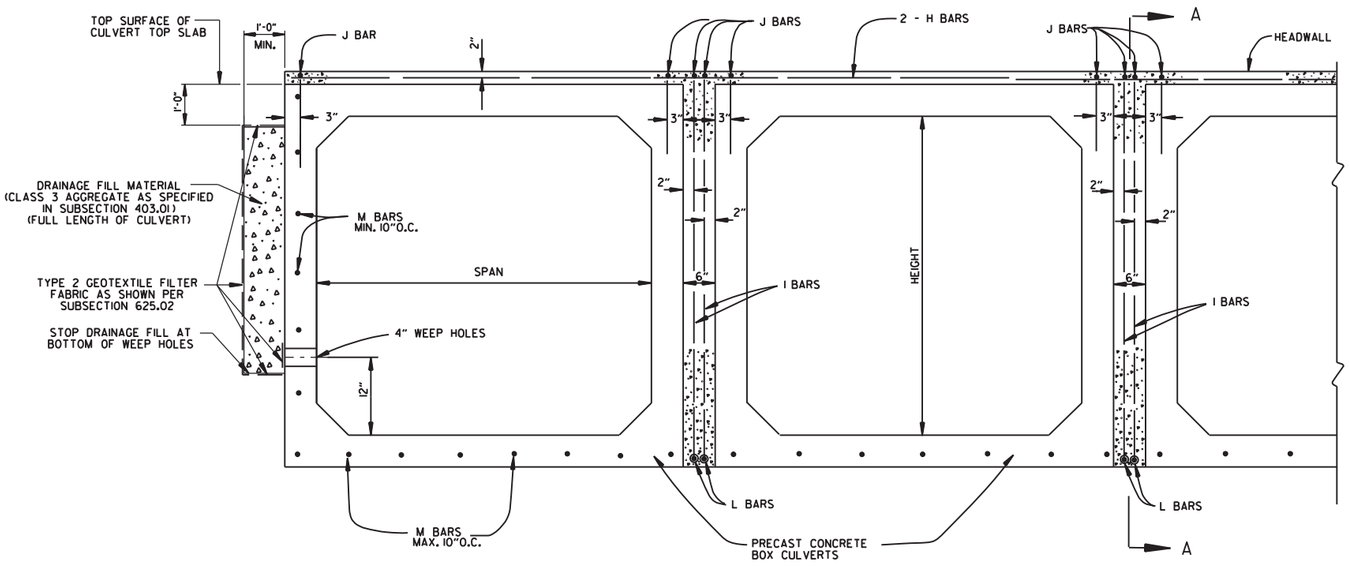
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

IN OUTER BARRELS, ONE WEEP HOLE IS REQUIRED IN EXTERIOR WALLS OF EACH PRECAST CULVERT SECTION. WEEP HOLES SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" IN THE ASSEMBLED CULVERT AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

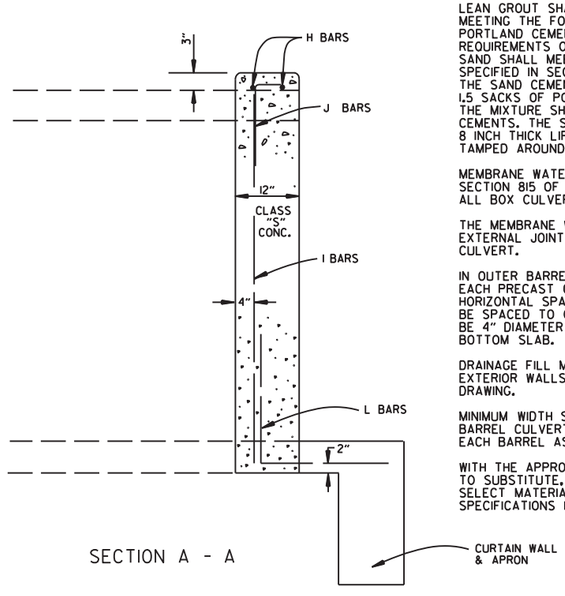
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT. SEE DETAILS ON THIS DRAWING.

MINIMUM WIDTH SHALL BE 12" (6" ON EACH SIDE OF JOINT). ON MULTIPLE BARREL CULVERTS, MEMBRANE WATERPROOFING SHALL BE APPLIED TO EACH BARREL AS DESCRIBED ABOVE.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, FLOWABLE SELECT MATERIAL CONFORMING TO SECTION 206 OF THE STANDARD SPECIFICATIONS IN LIEU OF LEAN GROUT.



END VIEW



SECTION A - A

DATE	REVISION	DATE FILMED
1-28-15	REVISED GEOTEXTILE FABRIC PLACEMENT	
12-15-11	ADDED NOTE & DTLS FOR WEEP HOLE AND DRAINAGE FILL	
10-15-09	ADDED GENERAL NOTE	
11-10-05	REVISED SPACING OF "M" BARS	
4-10-03	REVISED GENERAL NOTES	
10-18-96	CORRECTED AASHTO REF.	
10-1-92	ADDED NOTE FOR MEMBRANE WATERPROOFING	
8-15-91	ADDED NOTE FOR LEAN GROUT	
11- 8-90	REVISED FOR 1991 SPECS	
11-30-89	ISSUED: JABE	

ARKANSAS STATE HIGHWAY COMMISSION

PRECAST CONCRETE BOX CULVERTS

STANDARD DRAWING PBC-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	31⅝	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.

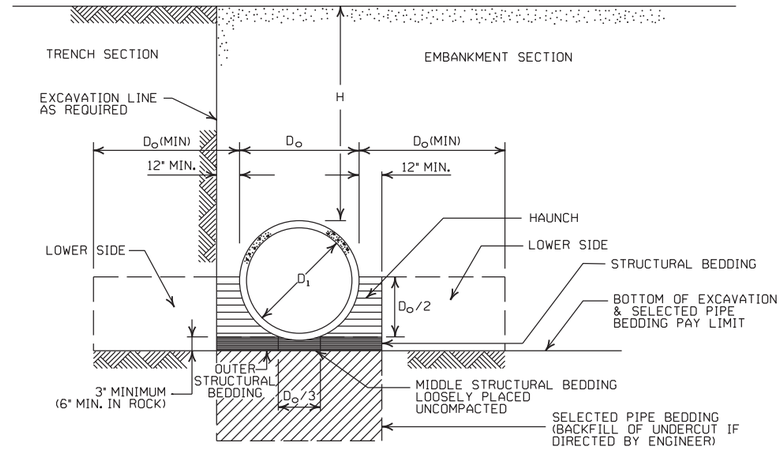
- LEGEND -

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

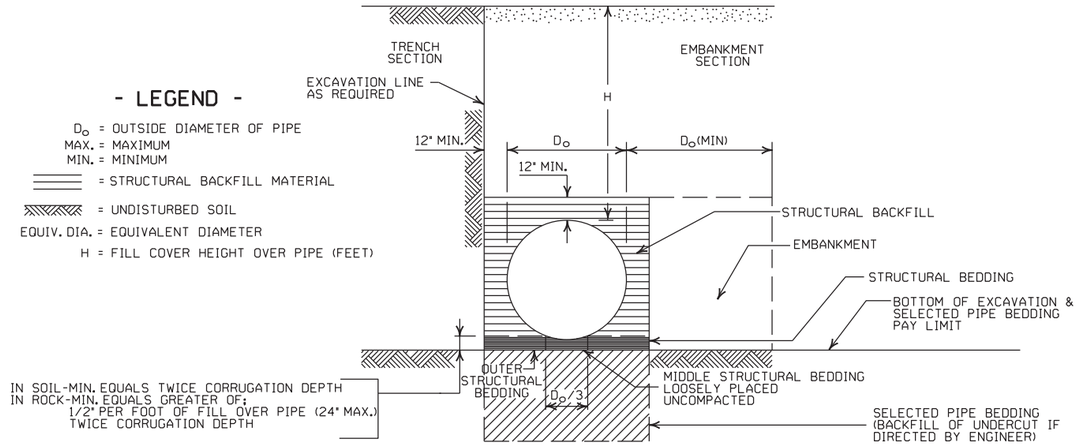
EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL			ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) 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

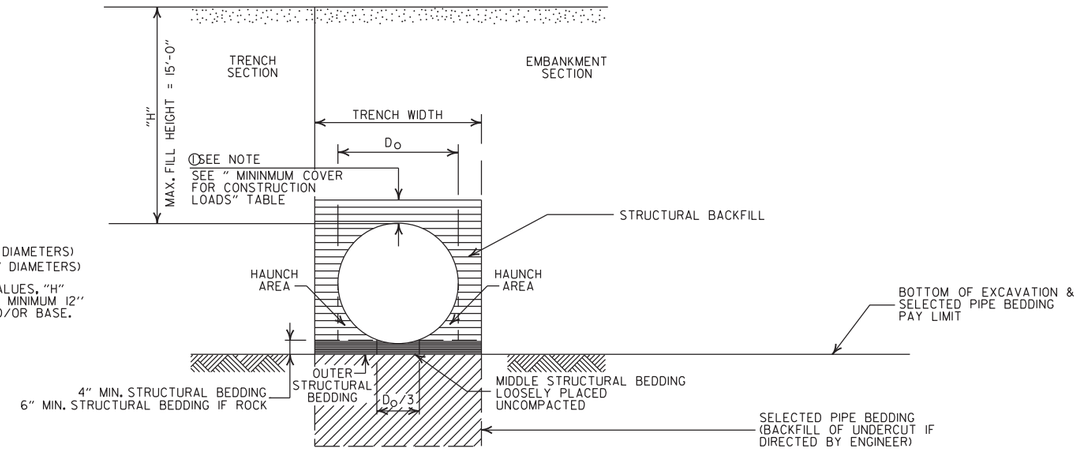
PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

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.)
Ø = 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

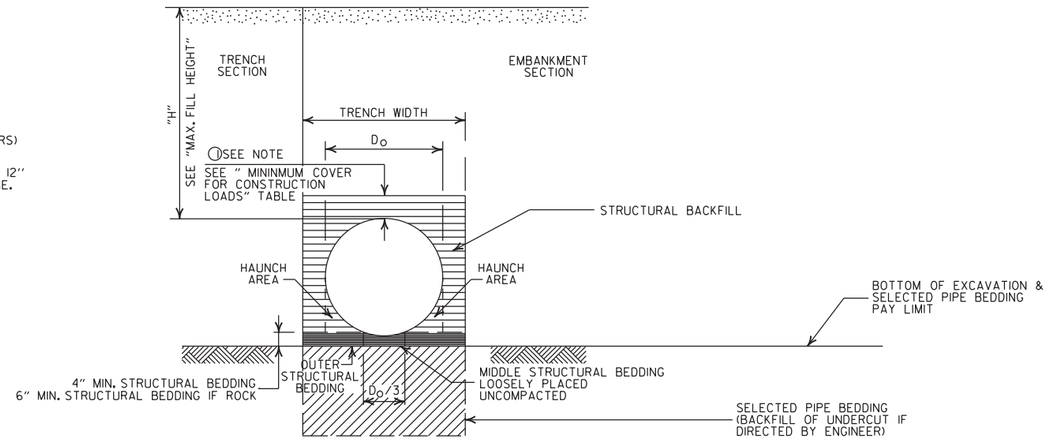
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

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

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

*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 POLYPROPYLENE PIPE.

MULTIPLE INSTALLATION OF POLYPROPYLENE 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"
60"	5'-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"
60"	10'-0"	15'-0"

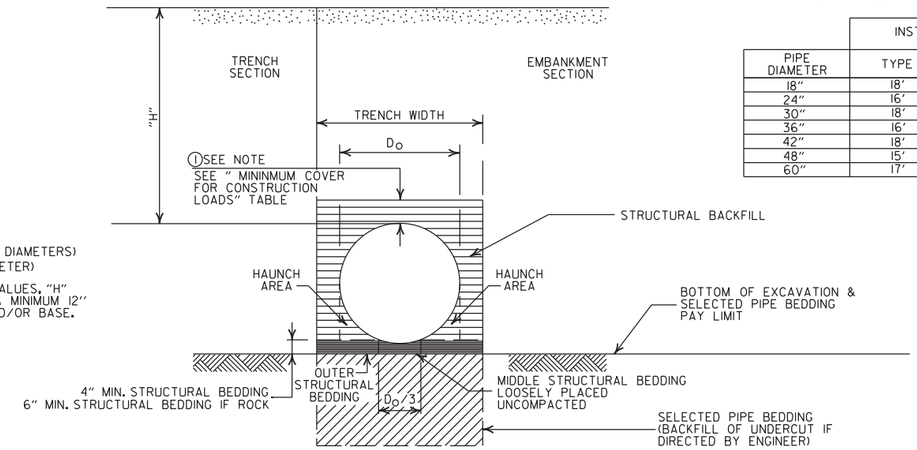
①NOTE:
12" MIN. (18" - 42" DIAMETERS)
24" MIN. (60" DIAMETER)

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)	110.0-150.0 (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.



MAXIMUM HEIGHT OF FILL "H"

PIPE DIAMETER	INSTALLATION TYPE	
	TYPE 1	TYPE 2
18"	18'	14'
24"	16'	12'
30"	18'	14'
36"	16'	12'
42"	18'	13'
48"	15'	11'
60"	17'	12'

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 M330, 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, SIXTH EDITION (2012) WITH 2013 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. POLYPROPYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR POLYPROPYLENE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN SECTION 26.4.2.4 AND 30.4.2 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 3RD EDITION (2010) WITH 2012 INTERIMS. 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

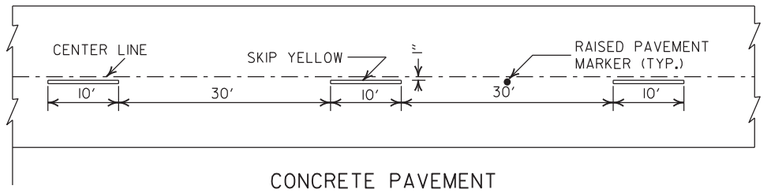
DATE	REVISION	DATE FILMED
02-27-20	REVISED	
11-07-19	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

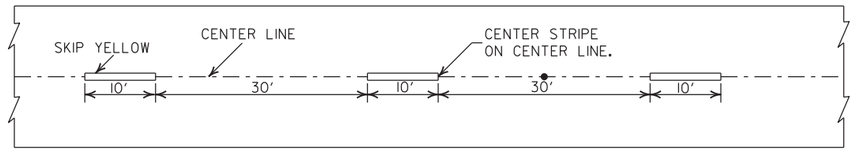
PLASTIC PIPE CULVERT (POLYPROPYLENE)

STANDARD DRAWING PCP-3

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.

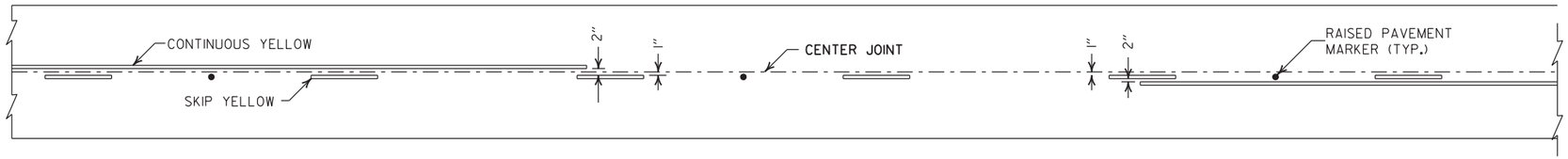


CONCRETE PAVEMENT

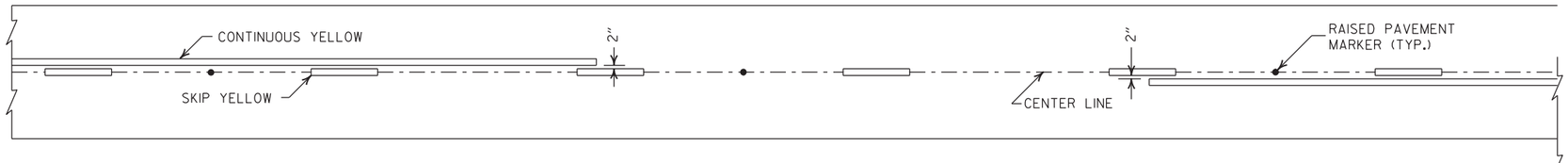


ASPHALT PAVEMENT

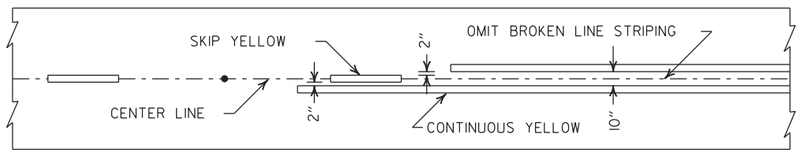
BROKEN LINE STRIPING



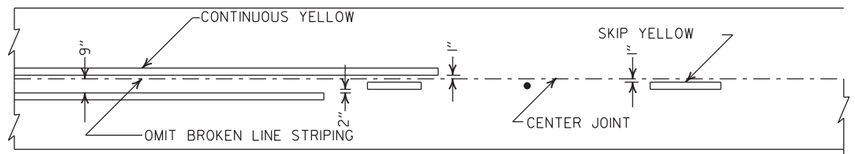
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

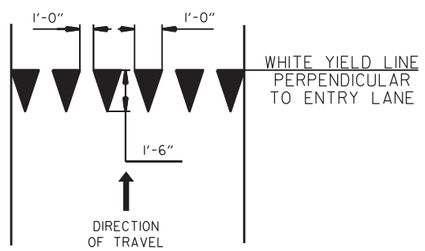


ASPHALT PAVEMENT

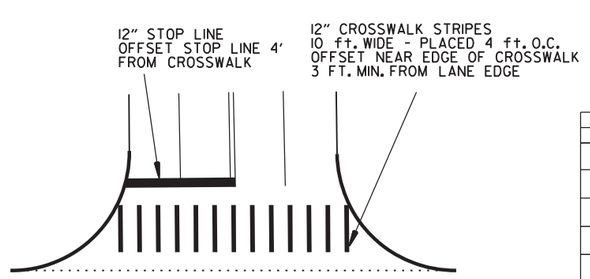


CONCRETE PAVEMENT

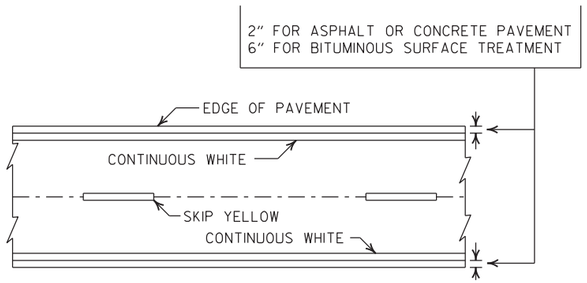
STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL



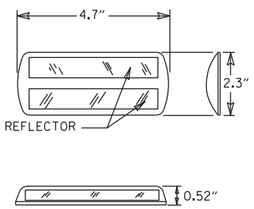
CROSSWALK AND STOP LINE DETAILS



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

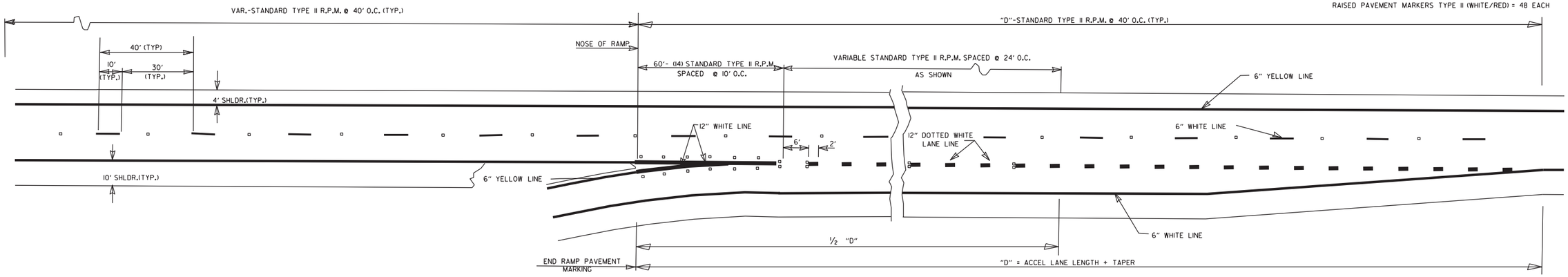
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

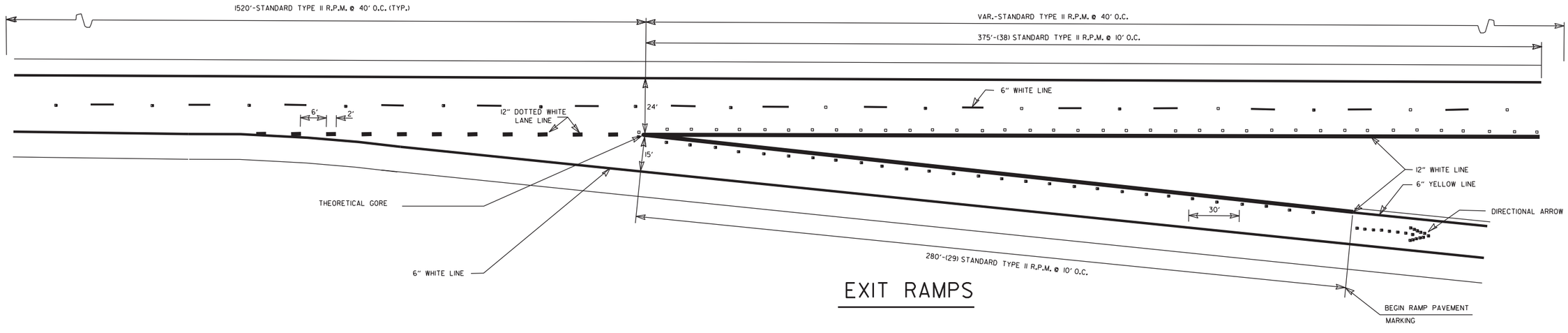
12" WHITE = 370 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

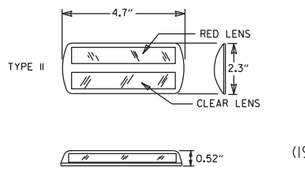
6" WHITE = 280 LIN. FT.
12" WHITE = 815 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH



ENTRANCE RAMPS

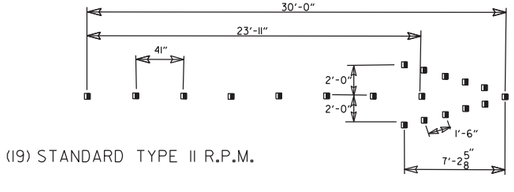


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

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.

DATE	REVISION	FILMED
05-14-20	REMOVED CROSSHATCH MARKINGS ON EXIT RAMPS	
11-07-19	REVISED DOTTED PAV'T MARKINGS; ADDED CROSSHATCH MARKINGS ON EXIT RAMPS	
12-8-16	REVISED RAISED PAV'T MARKERS FOR 80' SPACING; REVISED WIDTH OF STRIPING	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

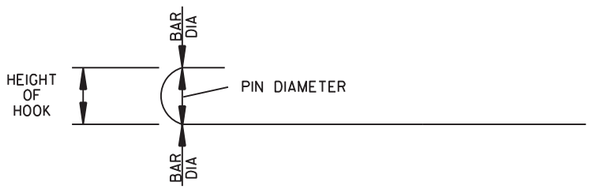
PAVEMENT MARKING DETAILS ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2¼"	4"
4	3 "	4½"
5	3¾"	5"
6	4½"	6"
7	5¼"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2¾ INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.



NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

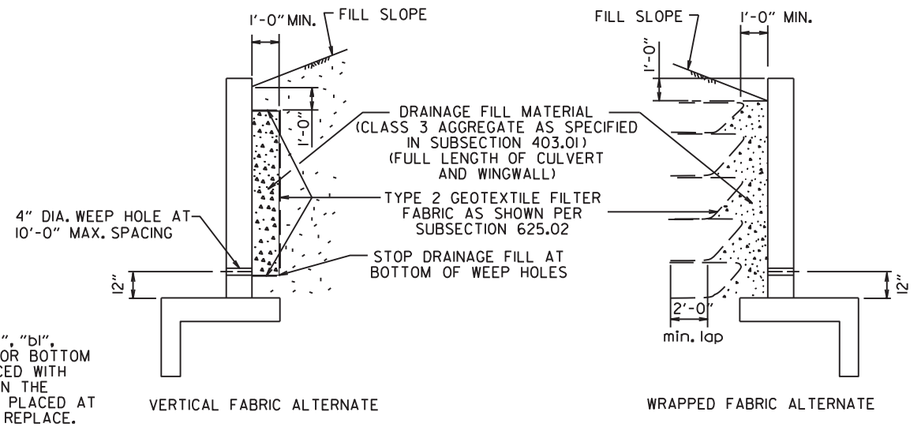
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "b1", "b2" OR "b3"	LENGTH OF HOOKED BAR	LENGTH OF STRAIGHT BAR
#4	L + 1' - 0"	SEE "c" BAR LENGTH
#5	L + 1' - 2"	SEE "c" BAR LENGTH
#6	L + 1' - 4"	SEE "c" BAR LENGTH
#7	L + 1' - 8"	SEE "c" BAR LENGTH
#8	L + 1' - 10"	SEE "c" BAR LENGTH
#9	L + 2' - 6"	SEE "c" BAR LENGTH

L = "OW" - 3 INCHES



WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

REINFORCING STEEL SHALL BE AASHTO M 31 OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

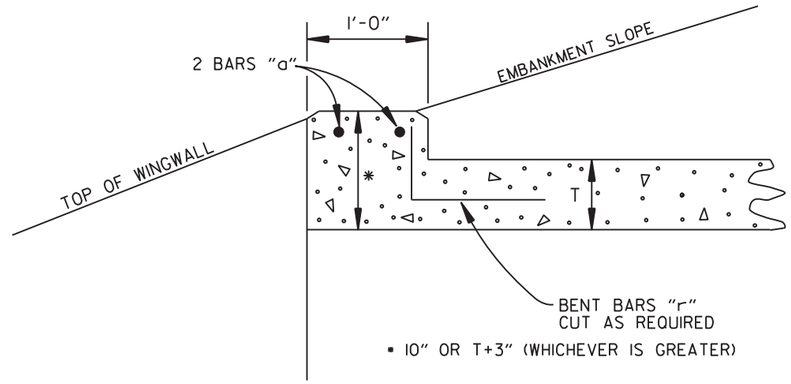
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS ½ INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.



NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

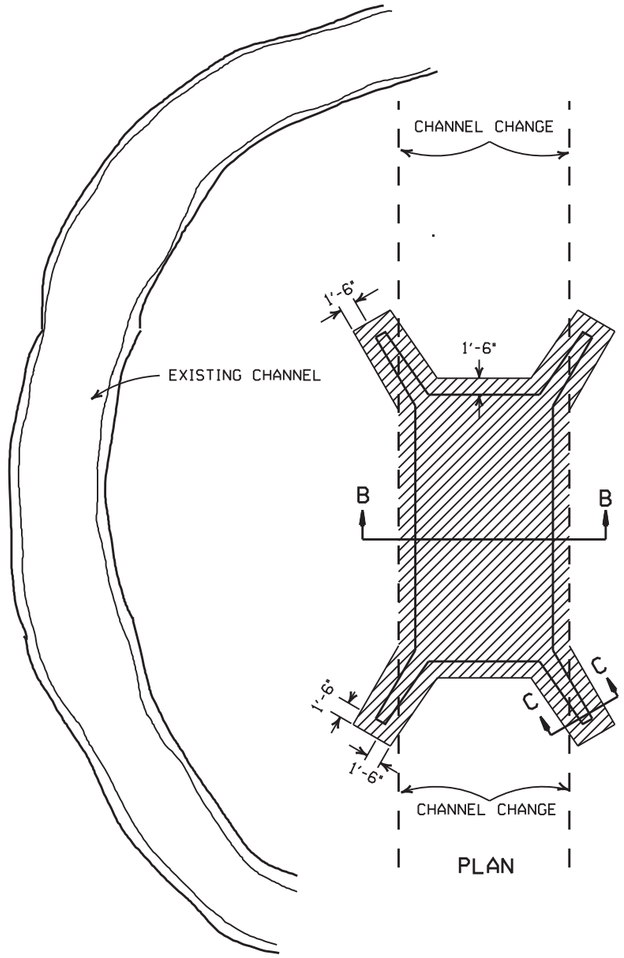
R.C. BOX CULVERT HEADWALL MODIFICATIONS

DATE	REVISION	DATE FILMED
7/26/12	REV. DRAINAGE FILL MATERIAL & DETAIL	
12/15/11	REQUIRE WEEP HOLES IN BOX CULVERT WALLS	
5-25-06	REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM	
11-16-01	ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES	
10-18-96	REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM	
10-12-95	MOVED SOLID SODDING DETAIL TO RCB-2	
6-2-94	ADDED SOLID SODDING PLAN DETAIL	
8-5-93	REVISED PIN DIAMETER TO SPECS.	
8-15-91	DRAWN AND ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

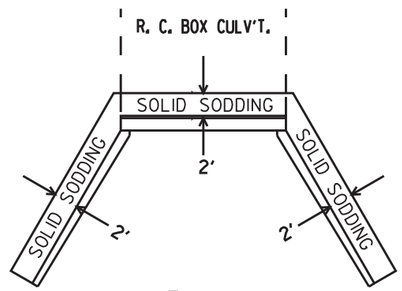
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



PLAN

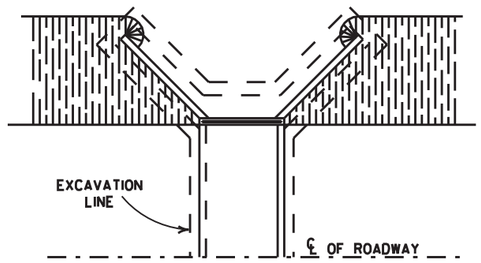
SOLID SODDING



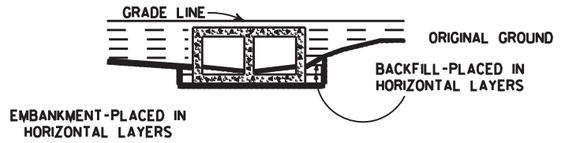
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

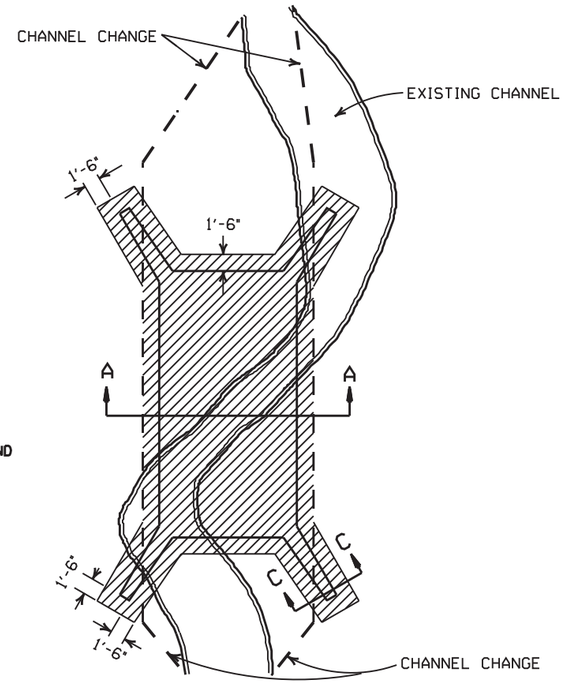


PLAN

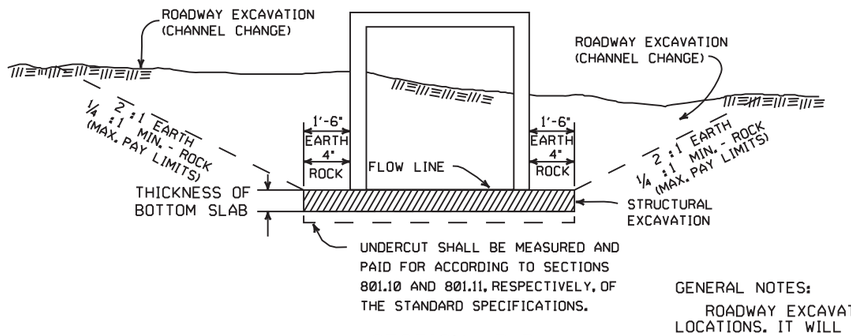


LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT

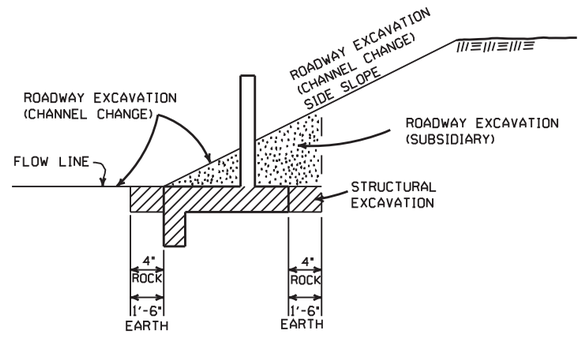


PLAN

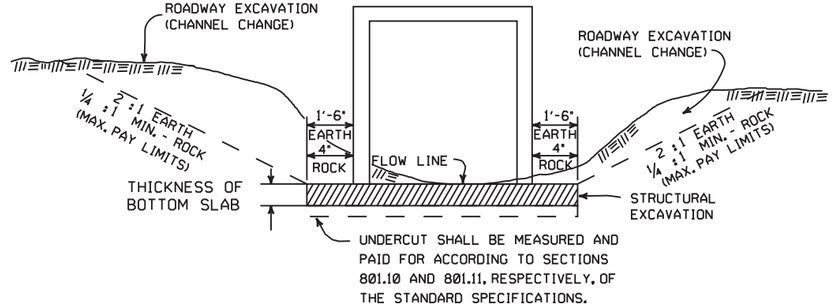


SECTION B-B

DETAILS FOR NEW CHANNELS



SECTION C-C



SECTION A-A

DETAILS THROUGH EXISTING CHANNELS

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

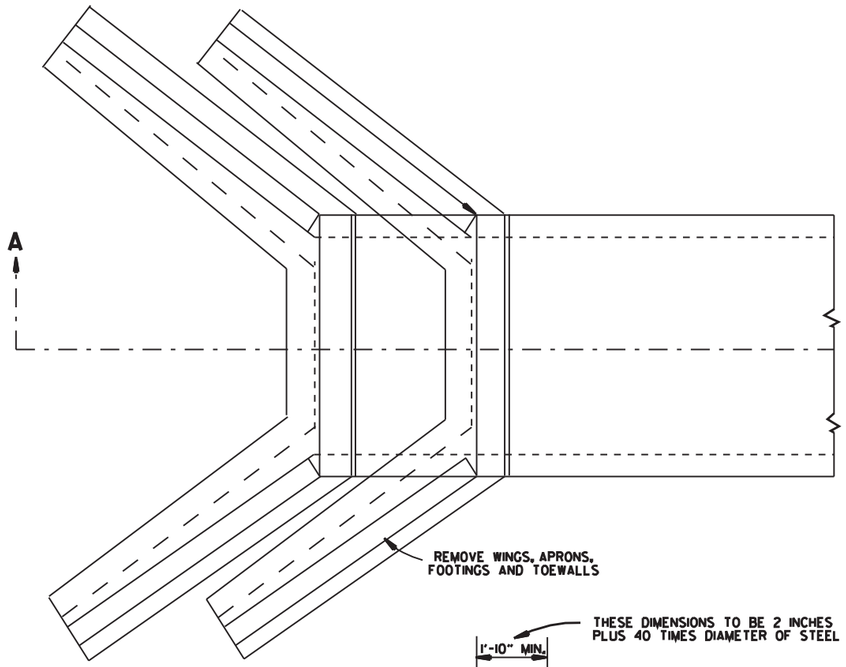
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

DATE	REVISION	FILMED
11-20-03	REVISED SECTION A-A NOTE	
8-22-02	REVISED SECTION B-B NOTE	
10-12-95	COMBINED 1891B AND 1888A	
1-4-83	REVISED GENERAL NOTES	674-1-4-83
	AND ADDED MAXIMUM PAY	
	LIMIT NOTES.	
2-2-76	EXCAV. PAY LIMITS	917-2-2-76
10-2-72	REVISED AND REDRAWN	564-10-16-72

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EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

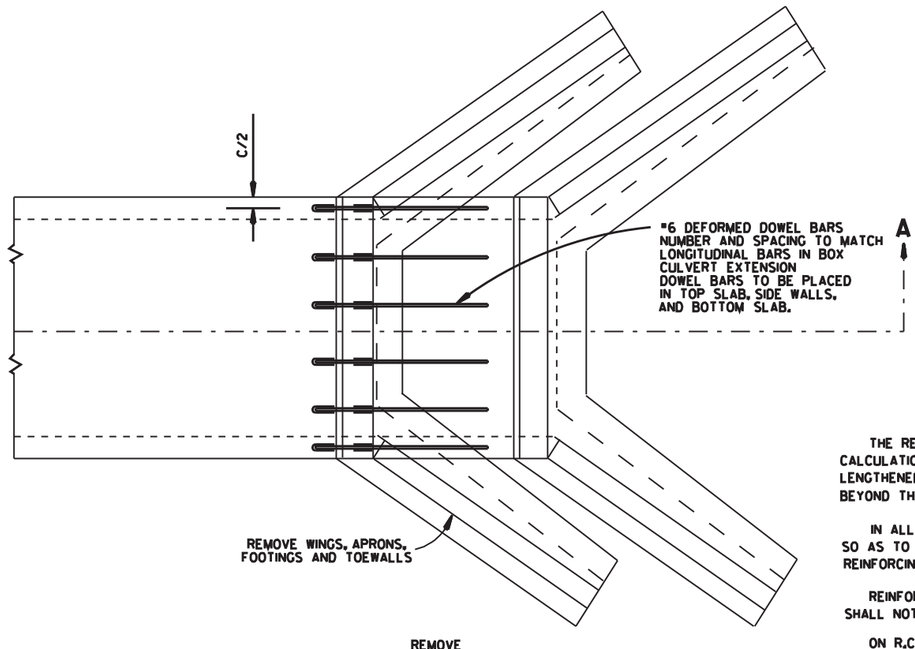
STANDARD DRAWING RCB-2



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 1



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 2

GENERAL NOTES

	USE FOR METHOD
THE RESIDENT ENGINEER WILL MAKE INDIVIDUAL CALCULATIONS OF QUANTITIES FOR EACH STRUCTURE LENGTHENED, MAKING NO ALLOWANCE FOR OVERBREAKAGE BEYOND THE LINES INDICATED.	1
IN ALL INSTANCES CONCRETE SHALL BE REMOVED SO AS TO PERMIT FULL 40 DIAMETER SPLICE OF REINFORCING STEEL.	1
REINFORCING STEEL REMOVED FROM EXISTING STRUCTURE SHALL NOT BE REUSED IN CONSTRUCTING EXTENSION.	1&2
ON R.C. BOX CULVERTS THAT HAVE AN EXISTING CONCRETE APRON, THE CONCRETE APRON SHALL BE REMOVED WITH THE WINGS. THE COST OF REMOVING ALL OLD CONCRETE WILL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR NEW CONCRETE OF THE CLASS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.	1&2
MATERIALS FOR SECURING DOWEL BARS SHALL MEET THE REQUIREMENTS OF SECTION 507.02 OF THE STANDARD SPECIFICATIONS.	2
DOWEL BARS SHALL BE INSTALLED AS FOLLOWS: THE DRILLING PROCEDURE SHALL BE APPROVED BY THE ENGINEER. THE FILLING SYSTEM SHALL BE APPROVED BY THE ENGINEER, AND SHALL BE AN INJECTION-TYPE SYSTEM WHICH WILL INSURE THAT SUFFICIENT MATERIAL IS INJECTED SO IT COMPLETELY SURROUNDS THE BARS AND FILLS THE HOLES.	2
THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER METHOD 1 OR METHOD 2, REGARDLESS OF WHICH METHOD IS USED, PAY QUANTITIES WILL BE CALCULATED BASED ON METHOD 1.	1&2

NOTE:
NO PART OF THIS STANDARD IS TO BE USED FOR ANY DETAILS RELATIVE TO NEW CONSTRUCTION.

SEE STANDARD DRAWING LISTED IN TABULATION OF STRUCTURES FOR ALL NEW CONSTRUCTION DETAILS.

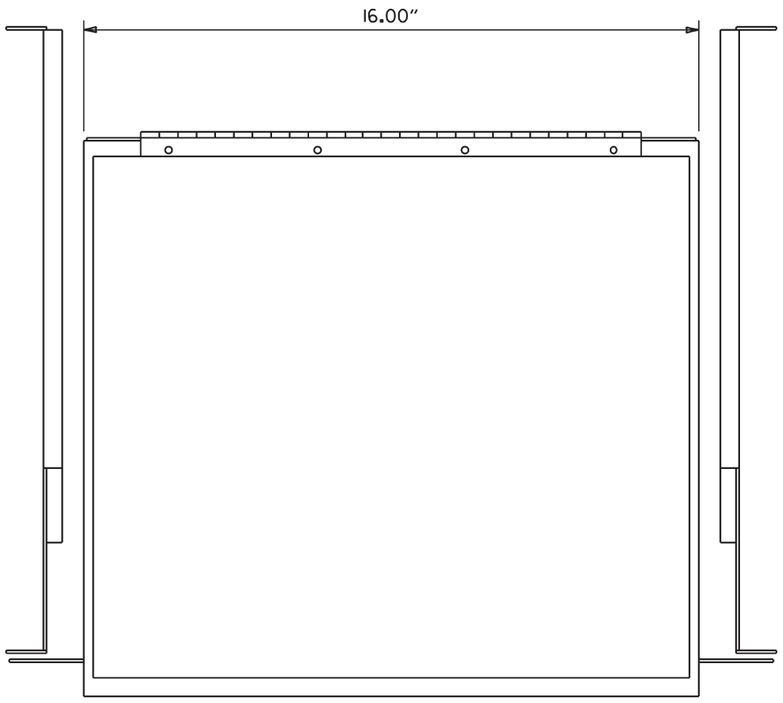
DATE	REVISION	DATE FILM
10-12-95	CHANGED DRAWING # FROM 144-A	
4-1-93	ADDED GENERAL NOTE	
10-1-92	ADDED ALT. METHOD OF EXTENSION	
11-30-89	REDRAWN	
1-4-83	ELIMINATED CONCRETE CLASS	
12-20-56	RETRACED	

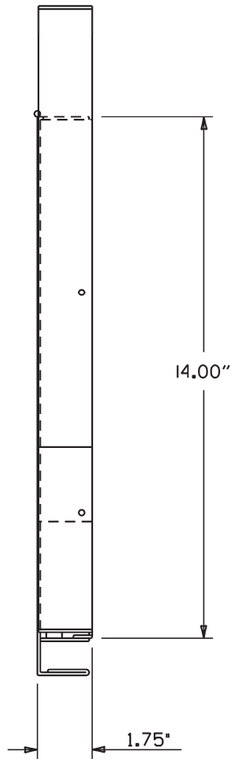
ARKANSAS STATE HIGHWAY COMMISSION

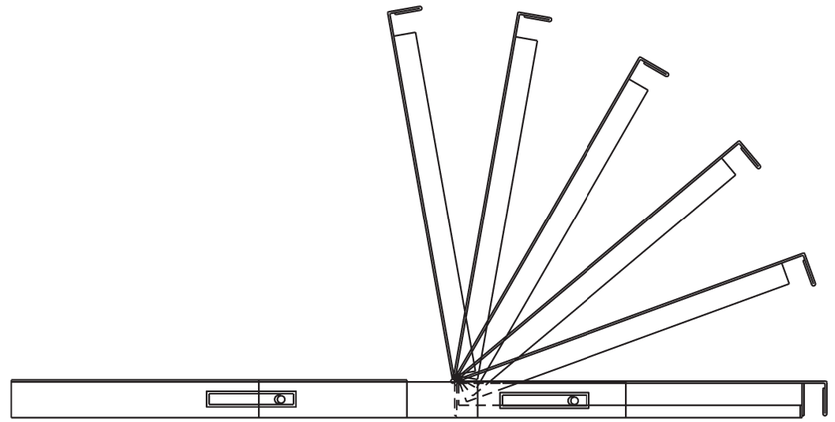
METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS

STANDARD DRAWING RCB-3

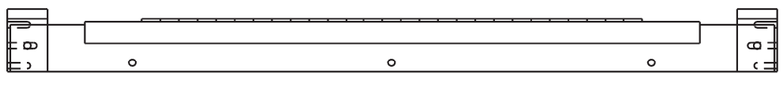
DRAWER PLAN VIEW



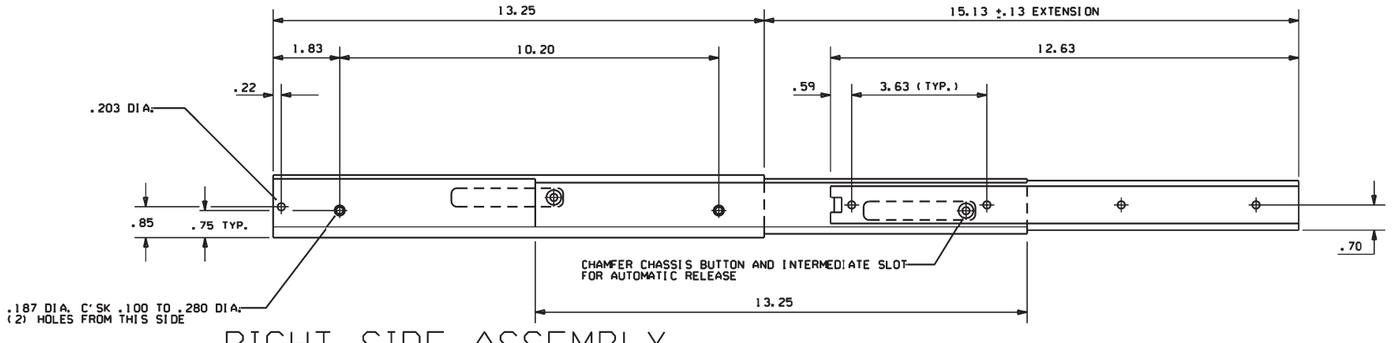




NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



FRONT VIEW



RIGHT SIDE ASSEMBLY

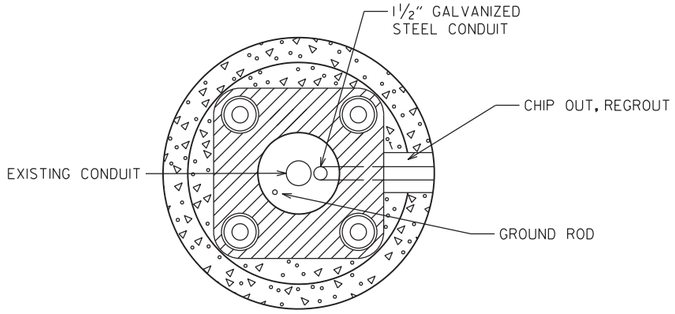
9-12-13	ISSUED AS STANDARD DRAWING	
6-15-05	ISSUED	
DATE	REVISION	DATE FILM

ARKANSAS STATE HIGHWAY COMMISSION

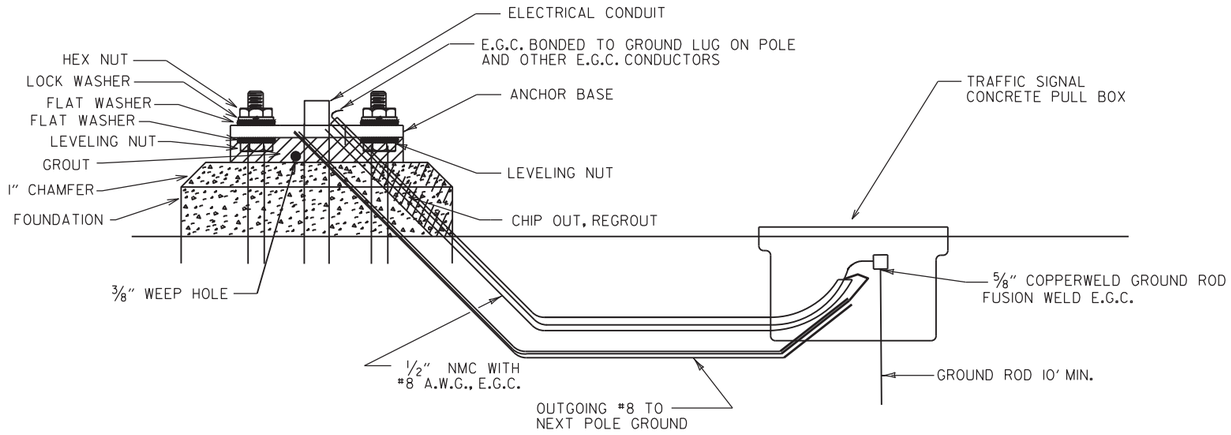
CONTROLLER CABINET UTILITY DRAWER

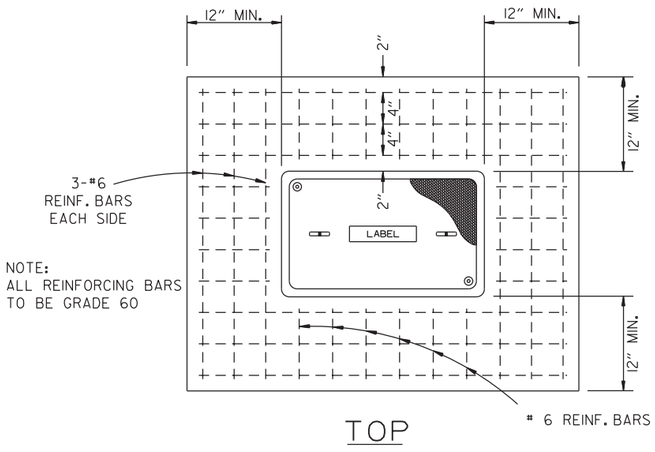
STANDARD DRAWING SD-5

CONDUIT ENTRY TO EXISTING POLE BASE

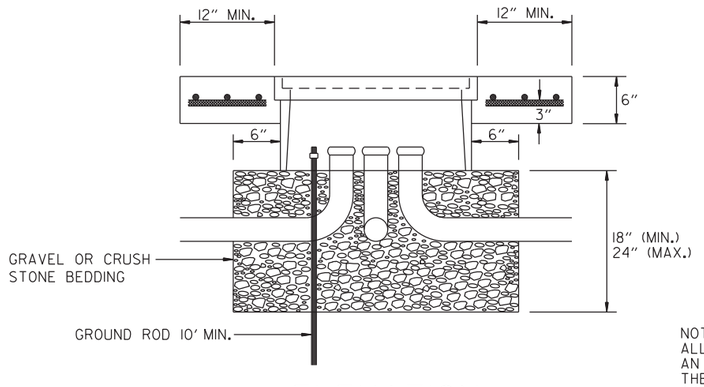


ANCHOR BASE



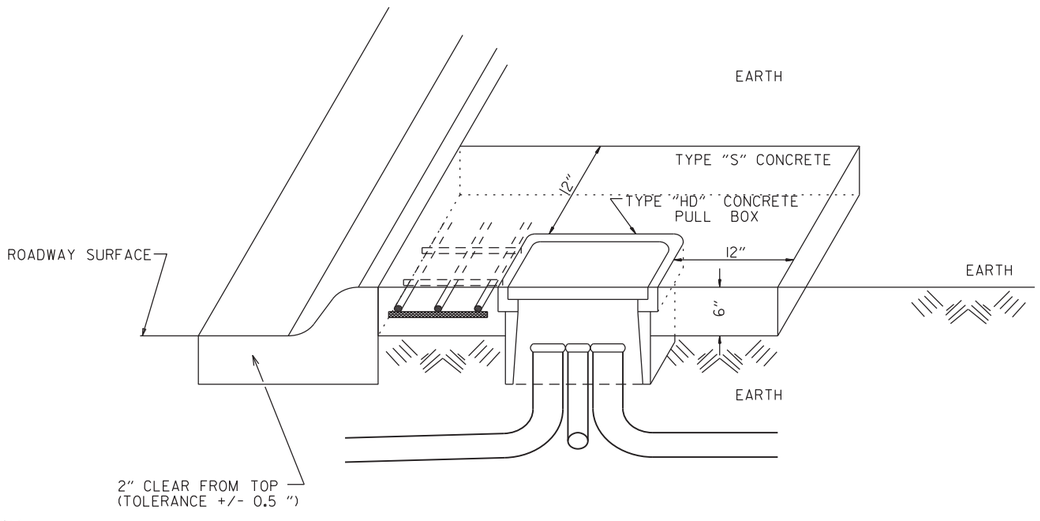


TOP



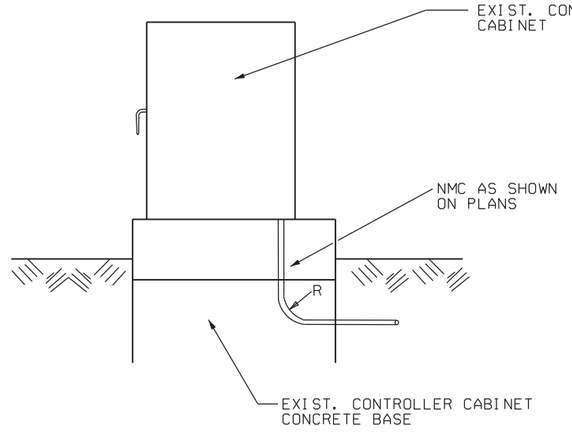
ELEVATION

TYPE "HD" CONCRETE PULL BOX DETAIL



NOTE:
ALL TYPE I HD, TYPE 2 HD, AND TYPE 3 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 6" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S". THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.

CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



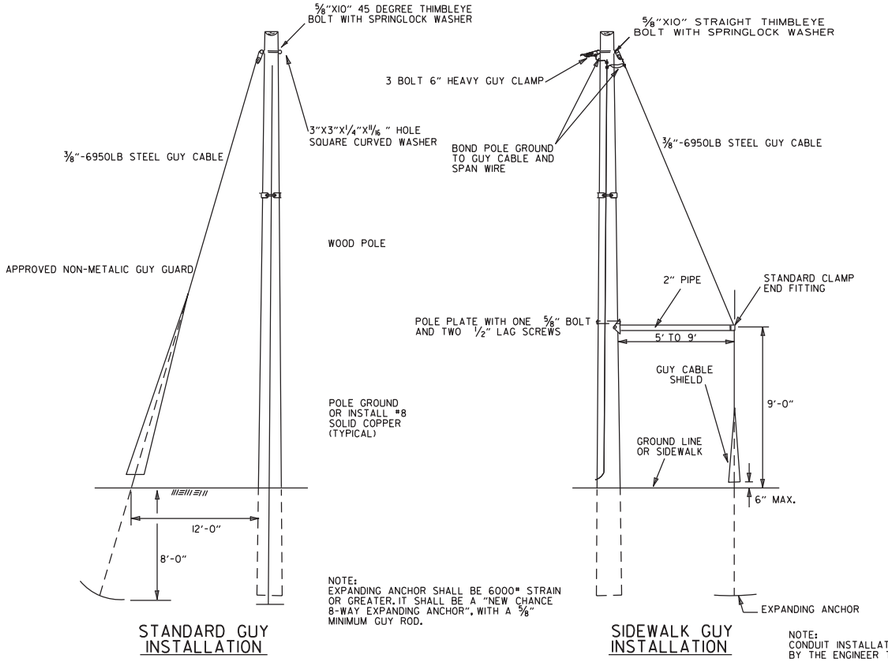
NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

DATE	REVISION	FILMED
02-13-24	REVISED NOTES AND TYPE "HD" CONCRETE PULL BOX DETAILS	
11-16-17	REVISED NOTES	
09-02-15	REVISED PULL BOX DEPTH	
09-12-13	ISSUED AS STANDARD DRAWING	
05-21-09	REVISED GROUNDING	
07-31-08	ADDED & REVISED CONDUIT ENTRY	
06-23-04	REVISED CLEARANCE AT CURB ENTRY	
01-04-02	ADDED REINFORCING TO BOX APRON	
07-02-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

HEAVY DUTY PULL BOX

STANDARD DRAWING SD-6

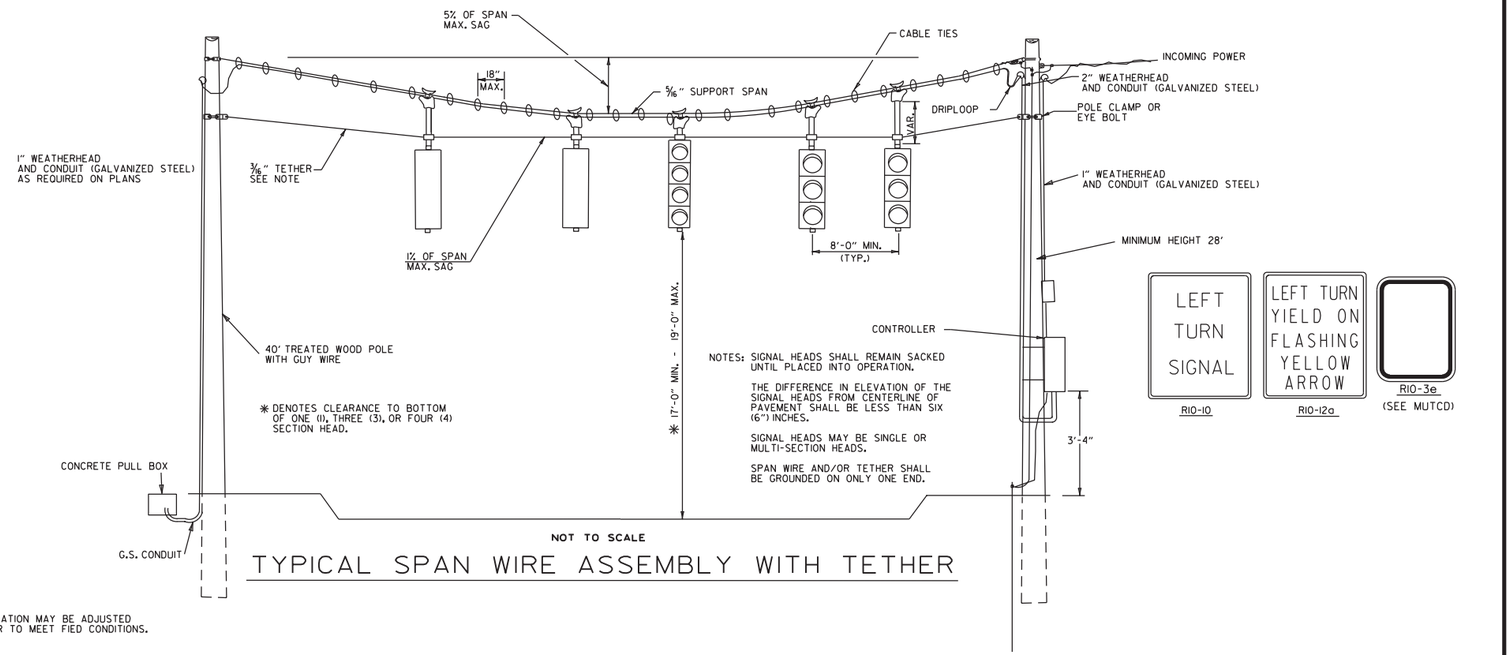


STANDARD GUY INSTALLATION

SIDEWALK GUY INSTALLATION

NOTE:
EXPANDING ANCHOR SHALL BE 6000# STRAIN OR GREATER. IT SHALL BE A "NEW CHANCE 8-WAY EXPANDING ANCHOR", WITH A 5/8" MINIMUM GUY ROD.

NOTE:
CONDUIT INSTALLATION MAY BE ADJUSTED BY THE ENGINEER TO MEET FIED CONDITIONS.



* DENOTES CLEARANCE TO BOTTOM OF ONE (1), THREE (3), OR FOUR (4) SECTION HEAD.

NOTES: SIGNAL HEADS SHALL REMAIN SACKED UNTIL PLACED INTO OPERATION.

THE DIFFERENCE IN ELEVATION OF THE SIGNAL HEADS FROM CENTERLINE OF PAVEMENT SHALL BE LESS THAN SIX (6") INCHES.

SIGNAL HEADS MAY BE SINGLE OR MULTI-SECTION HEADS.

SPAN WIRE AND/OR TETHER SHALL BE GROUNDED ON ONLY ONE END.

NOT TO SCALE

TYPICAL SPAN WIRE ASSEMBLY WITH TETHER

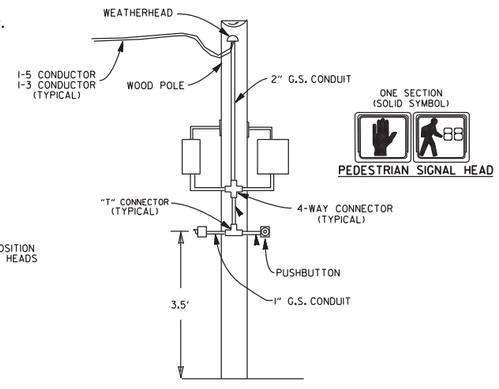
R10-3e
(SEE MUTCD)

NOTES:
SPAN WIRE POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

SPAN WIRE ASSEMBLIES WILL REQUIRE TETHER UNLESS OTHERWISE NOTED ON PLAN SHEETS.

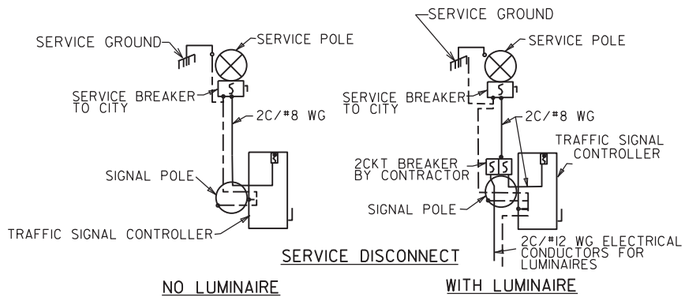
CABLE TIES SHALL BE SUITABLE FOR OUTSIDE USE (BLACK).

THE CONTROLLER POWER SUPPLY GROUND BUSS SHALL BE BONDED TO THE FOUNDATION GROUND ROD WITH A #8 A.W.G. SOLID COPPER WIRE. ON EXISTING FOUNDATIONS WITH NO GROUND ROD, CONTRACTOR SHALL INSTALL A 10' X 5/8" COPPERWELD GROUND ROD.



PEDESTRIAN SIGNAL HEAD

WOODEN POLE INSTALLATION OF PED HEADS



SERVICE DISCONNECT

NO LUMINAIRE

WITH LUMINAIRE

NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES

NOTES:

EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SIGN (R10-12a) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)", TO BE USED AS A LEFT TURN INDICATION ONLY, SHALL INCLUDE A SIGN (R10-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

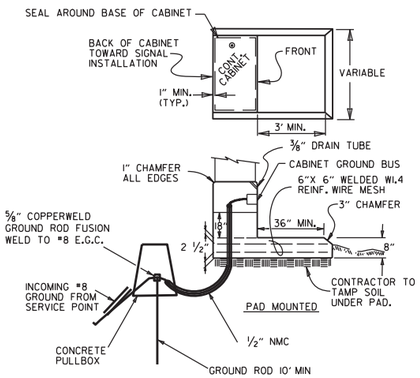
ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH A THICKNESS OF 0.100 INCH.

ALL SIGN FACES SHALL BE CONSTRUCTED OF HIGH INTENSITY SHEETING (TYPE III) WITH SILKSCREEN LEGEND AND BORDER.

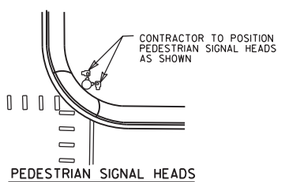
SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

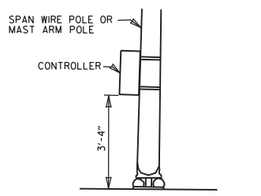
THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATIONS IN FLASH SEQUENCE.



CONCRETE BASE MOUNTED CABINET DETAILS



PEDESTRIAN SIGNAL HEADS



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED

CABINET NOTE:

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

MINIMUM STRUCTURAL REQUIREMENTS:

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH THICKNESS GREATER THAN 1/2" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

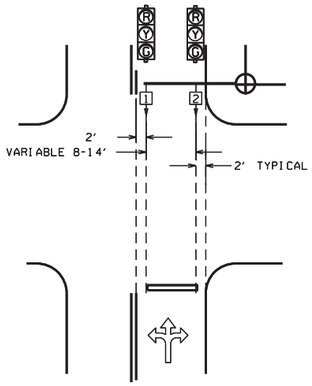
DATE	REVISION	FILMED
02-13-24	REVISED SPECIAL SIGN TO R10-12a SIGN	
11-16-17	REVISED NOTES, ADDED SPAN WIRE SUPPORT POLE DETAIL, ADDED PEDESTRIAN SIGNAL HEAD DETAIL	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED PEDESTRIAN SIGN & GROUNDING	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REV. CABINET ORIENTATION & SIGNAL OPERATION	
05-22-02	REV. TYP. SPAN WIRE ASSEMBLY	
12-27-99	REVISED	
11-18-98	REVISION TO NOTES	
11-21-95	ISSUED	

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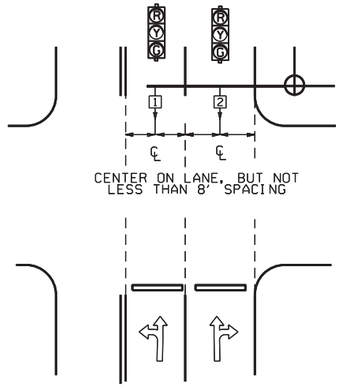
SPAN WIRE ASSEMBLY WOOD POLE

STANDARD DRAWING SD-7

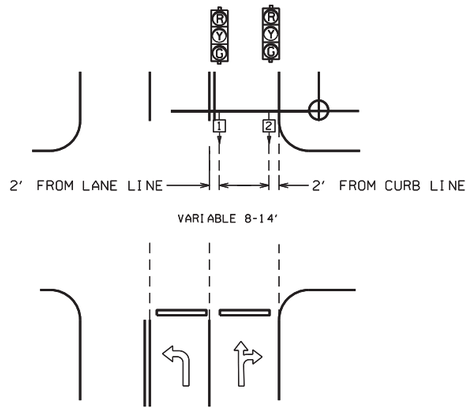
(A)



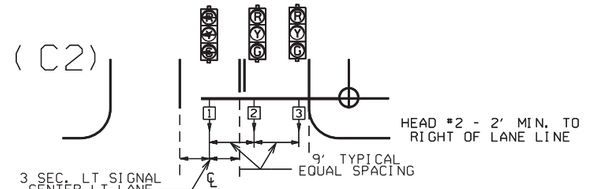
(B)



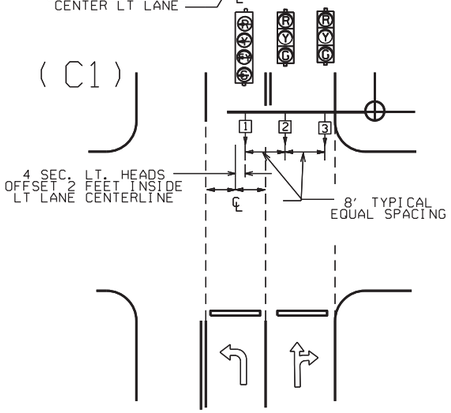
(C)



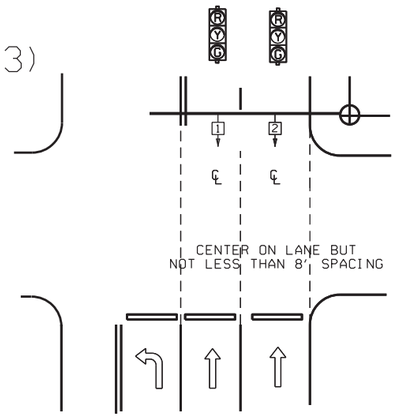
(C2)



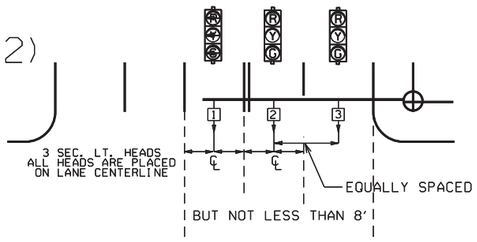
(C1)



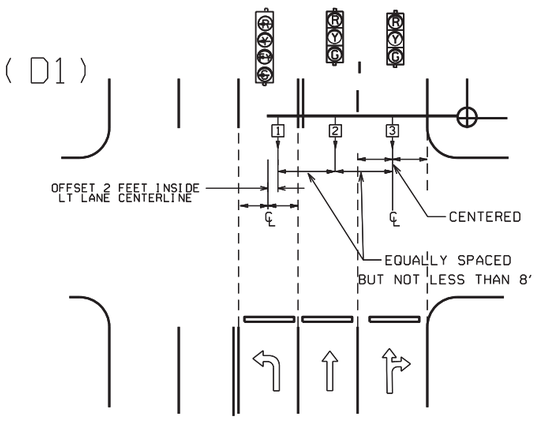
(C3)



(D2)

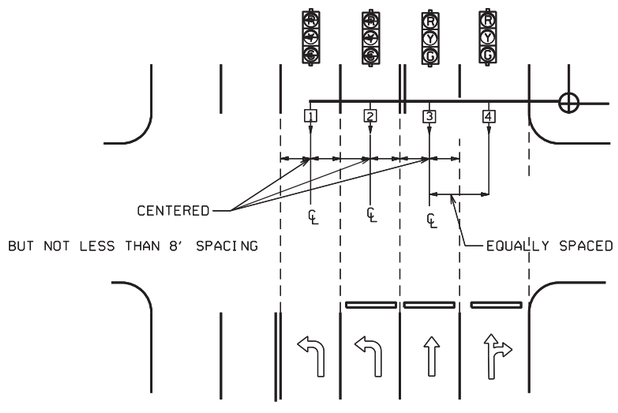


(D1)



NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON D1 AND D2) IS NOT CALLED FOR ON PLANS, MAST ARM LENGTH MAY STILL BE ALLOWED FOR FUTURE INSTALLATION. HEADS FOR THROUGH MOVEMENTS SHALL STILL BE ALIGNED WITH THROUGH LANES AS SHOWN ON DETAILS.

(E)



℄ = CENTER OF LANE FROM APPROACH SIDE

GENERAL NOTES:

1. FOUR SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE RIGHT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

2. THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

3. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET(S) RESULTING IN MAST ARM EXTENDING MORE THAN TWO FEET PAST (TO THE LEFT OF) THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, MAST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER, AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MAST ARM IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH.

5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.

6. MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-5 OF 2009 MUTCD.

12-8-16	REVISED NOTE 6	
9-12-13	ISSUED AS STANDARD DRAWING	
3-11-10	2009 MUTCD	
12-9-99	ISSUED	
DATE	REVISION	DATE FILM

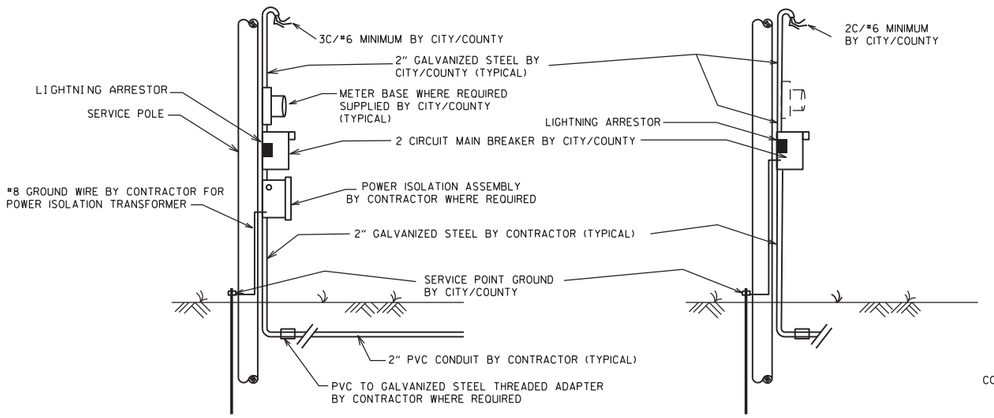
ARKANSAS STATE HIGHWAY COMMISSION

SIGNAL HEAD PLACEMENT

STANDARD DRAWING SD-8

MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

WITH POWER ISOLATION ASSEMBLY



WITHOUT POWER ISOLATION ASSEMBLY

NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION (CITY/COUNTY):

ELECTRICAL SERVICE TYPICALLY FALLS INTO TWO CATEGORIES:
MAIN BREAKER NEAR CONTROLLER CABINET; AND MAIN BREAKER NOT NEAR CONTROLLER CABINET. THE CONTRACTOR'S AND THE CITY'S/COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE DETAILS.

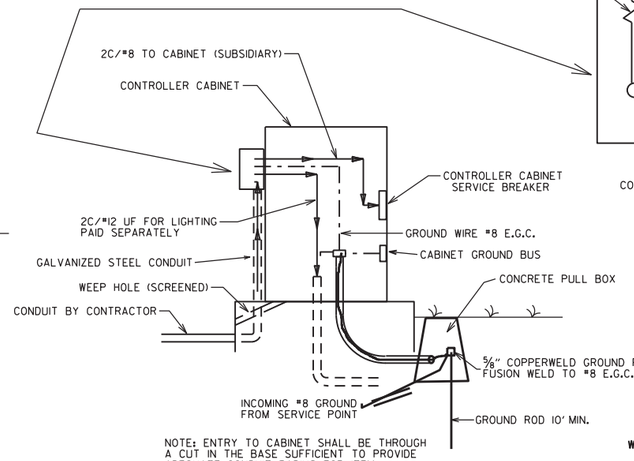
ALL SITUATIONS:
ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER) AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. SERVICE POINT INCLUDES GALVANIZED STEEL CONDUIT TO A POINT 18" BELOW GROUND LINE, TWO CIRCUIT MAIN BREAKER, LIGHTNING ARRESTOR, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY COMPANY, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION STREET LIGHTING CIRCUIT (2C/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT SEPARATE FROM THE CIRCUIT SERVING TRAFFIC SIGNAL. SERVICE WIRE AND WIRING FROM THE CONTROLLER TO MAIN BREAKER IS PROVIDED BY THE CONTRACTOR AS A PART OF THIS CONTRACT. WIRE AND WIRING FROM MAIN BREAKER, AND CONNECTION TO THE UTILITY IS THE RESPONSIBILITY OF THE CITY/COUNTY.

MAIN BREAKER NOT NEAR CONTROLLER CABINET:
THE MAIN BREAKER ASSEMBLY, GALVANIZED STEEL CONDUIT. WEATHERHEAD AND WIRE ABOVE MAIN BREAKER AND CONNECTION TO THE UTILITY SHALL BE PROVIDED BY CITY/COUNTY. CONTRACTOR SHALL PROVIDE AS PART OF CONTRACT SECONDARY BREAKER, CONDUIT, WIRE AND WIRING TO THE MAIN BREAKER.

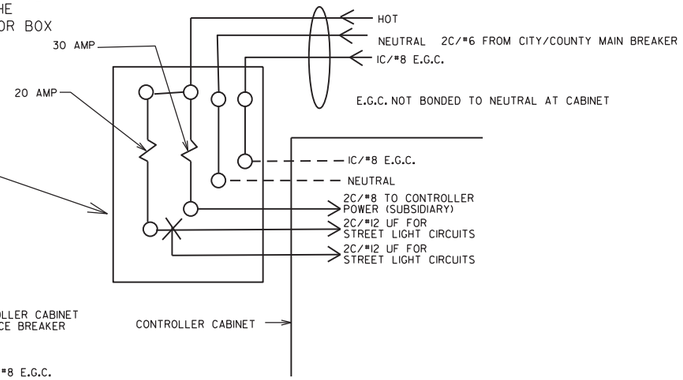
MAIN BREAKER NEAR CONTROLLER CABINET:
ALL COMPONENTS OF THE SERVICE POINT WITH THE EXCEPTION OF THE WIRE AND WIRING ABOVE THE MAIN BREAKER IS FURNISHED AND INSTALLED BY THE CONTRACTOR. WIRING FROM MAIN BREAKER INCLUDING CONNECTION TO THE UTILITY, IS THE RESPONSIBILITY OF THE CITY/COUNTY. IF METER LOOP IS REQUIRED, METER BASE AND HARDWARE IS PROVIDED BY THE CITY/COUNTY AND INSTALLED BY THE CONTRACTOR.

GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 701. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)



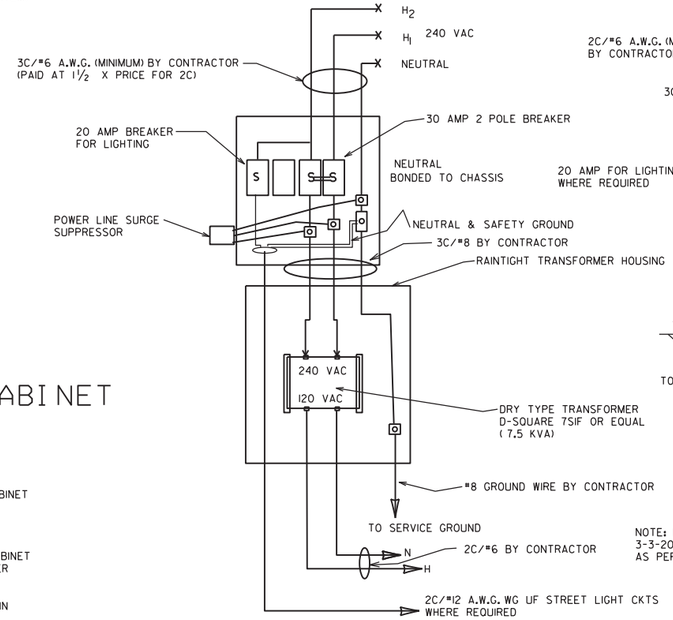
NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.



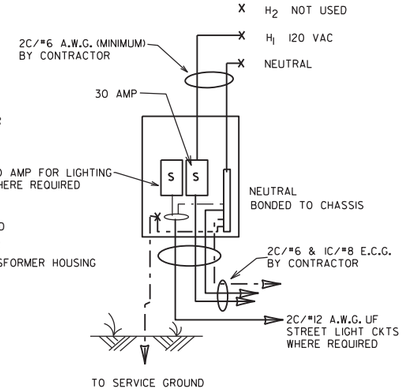
MAIN BREAKER WIRING (TYPICAL)

SERVICE GROUND IS TYPICALLY TIED TO NEUTRAL AT THE MAIN BREAKER. AS SUCH, CONTROLLER GROUND IS NOT TIED TO NEUTRAL AT SECONDARY BREAKER OR IN CONTROLLER CABINET.

WITH POWER ISOLATION ASSEMBLY
4 CIRCUIT MAIN BREAKER

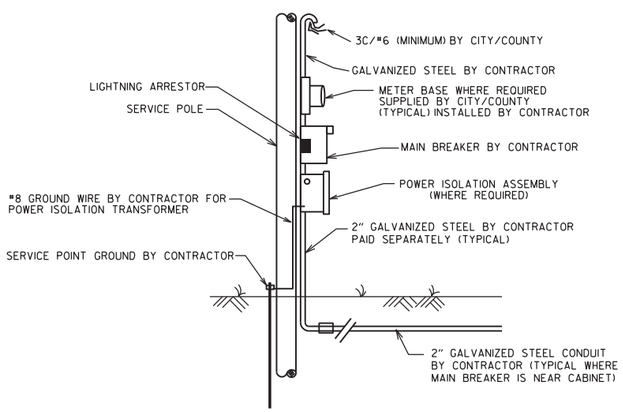


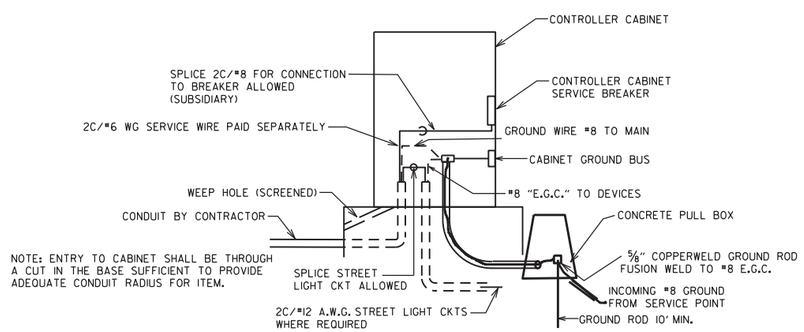
WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER



NOTE: ELECTRICAL GROUND CONDUCTOR (E.C.G.) ADDED 3-3-2003, CONSISTING OF A IC/#8 A.W.G. CU GREEN WIRE AS PER NATIONAL ELECT. CODES.

MAIN BREAKER NEAR CONTROLLER CABINET SECONDARY NOT REQUIRED





NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

DATE	REVISION	FILMED
11-07-19	REVISED	
11-16-17	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
04-18-13	ADDED LIGHTNING ARRESTOR	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
03-03-03	ADDED EGC NOTE	
09-26-01	REVISED	
12-27-99	REVISED	
07-28-99	REVISED	
02-05-99	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SERVICE POINT

STANDARD DRAWING SD-9

NOTES:
PEDESTRIAN AND TRAFFIC SIGNAL HEAD SIGNS:
EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SIGN (RIO-12a) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN THE SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)" TO BE USED AS A LEFT TURN INDICATION ONLY SHALL INCLUDE A SIGN (RIO-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

EACH PEDESTRIAN PUSHBUTTON SHALL HAVE ONE RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

GENERAL NOTES:
1. MAST ARM POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS SPECIFICATIONS CAN BE INSTALLED IN LIEU OF ROUND. ALL POLES AND ARMS IN A JOB MUST BE THE SAME SHAPE.

3. MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY I FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS 65 MPH AND GREATER AT THE STRUCTURE LOCATION AND ON ROUTES WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY II FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH MAST ARMS LESS THAN 60' AND ON ROUTES WHERE THE SPEED LIMITS OF 45 MPH AND LESS WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY III FOR ALL STRUCTURES WHERE THE SPEED LIMIT IS 45 MPH AND LESS AND MAST ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS:
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH.

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN ½" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DEAD LOAD: AS A MINIMUM, DESIGN SHALL BE BASED ON THE FIXED ATTACHMENTS SHOWN BELOW OR AS MODIFIED IN THE PLANS.

ALL SIGNAL HEADS TO BE ONE WAY, TWELVE (12") INCH AND HAVE FIVE (5") INCH BACK PLATES:

SIGNAL HEADS AT THE END OF MAST ARM - ONE 4 SEC., 85 LB., 14.5 SQ. FT., ONE SIGN MOUNTED 3 FEET FROM SIGNAL HEAD (2'-0" X 2'-6"; 20 LB.) REMAINING SIGNAL HEADS SPACED AT 8 FT. (3 SEC., 56 LB., 8.3 SQ. FT.):
DESIGN TO ACCOMMODATE:
2 SIGNAL HEADS FOR MAST ARMS 10 FT. TO 16 FT.
3 SIGNAL HEADS FOR MAST ARMS 18 FT. TO 24 FT.
4 SIGNAL HEADS FOR MAST ARMS OVER 26 FT.

STREET NAME SIGN - 72" X 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAT 12 FT. FROM POLE. DEPENDING UPON POSITION OF SIGNAL HEAD ADJACENT TO POLE, SIGN MAY OVERLAP POLE SHAFT.
ROADWAY LUMINAIRES (WHERE REQUIRED ON PLAN SHEET) - VARIABLE ARM LENGTH (MAX. WT. 75 LB., 3.3 SQ. FT.)
PEDESTRIAN SIGNALS - TWO 1 SEC., 12 INCH MOUNTED 8 FT. FROM BASE OF POLE. POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

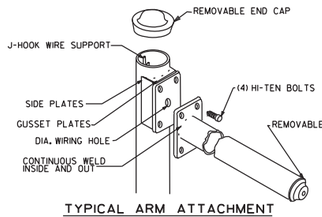
4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED. FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE - HAND HOLES SHALL BE 4 IN. X 6 IN. FOR STANDARD, AND 3 IN. X 5 IN. FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACCUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL. POLES GREATER THAN 21FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDED A HAND HOLE WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

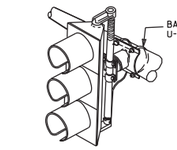
6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

MAST ARM CENTERLINE ANGLE AT ATTACHMENT POINT WITH POLE SHALL MAINTAIN NOT LESS THAN 0.5 DEGREES OR MORE THAN 4 DEGREES POSITIVE SLOPE WITH A LINE PERPENDICULAR TO THE POLE CENTERLINE. THE MAST ARM SHALL MAINTAIN A POSITIVE SLOPE AFTER IT IS PLACED UNDER LOAD.

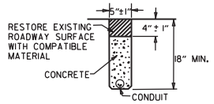
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



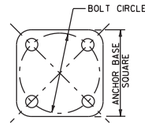
TYPICAL ARM ATTACHMENT



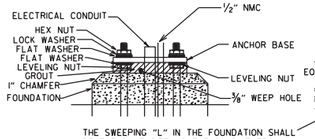
NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.

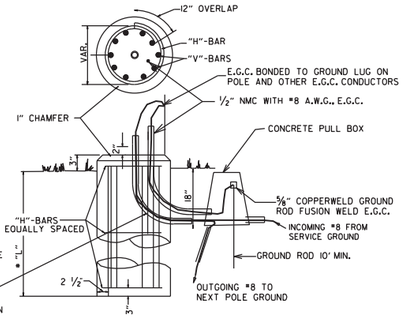


TRENCHING DETAIL
(FOR SAW CUT TRENCH IN ROADWAY)



ANCHOR BASE





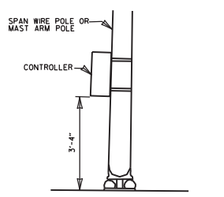
THE SWEEPING "L" IN THE FOUNDATION SHALL BE THE SAME SIZE AS THE CONDUIT FROM THE FOUNDATION TO THE PULL BOX AS SHOWN ON THE PLANS.

THE GROUND ROD SHALL BE FUSION WELDED TO A 1C/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE GROUND ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX.

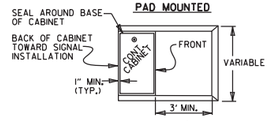
TYPICAL FOUNDATION DETAILS

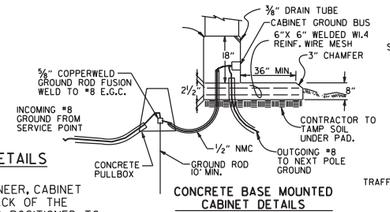
POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FOUNDATION DIAMETER	DEPTH "L"*	STEEL		
			VERTICAL	HORIZONTAL	O.C.
PED	30"	7'-0"	12-#7 (6'-6")	10-#4	8.44"
2' TO 12'	30"	10'-6"	12-#7 (10'-0")	15-#4	8.42"
OVER 12' TO 20'	30"	11'-6"	12-#7 (11'-0")	16-#4	8.66"
OVER 20' TO 35'	36"	12'-6"	13-#8 (12'-0")	17-#4	8.88"
OVER 35' TO 50'	36"	13'-6"	13-#8 (13'-0")	19-#4	8.56"
OVER 50' TO 72'	42"	14'-6"	18-#8 (14'-0")	20-#4	8.74"
TWINS TO 20'	30"	16'-0"	12-#6 (15'-6")	22-#4	8.76"
TWINS OVER 20' TO 44'	36"	16'-0"	13-#8 (15'-6")	22-#4	8.76"
TWINS OVER 44' TO 50'	42"	16'-0"	18-#8 (15'-6")	22-#4	8.76"
TWINS OVER 50' TO 72'	42"	16'-6"	18-#8 (16'-0")	23-#4	8.64"



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED





CONCRETE BASE MOUNTED CABINET DETAILS

CONTROLLER CABINET MOUNTING DETAILS

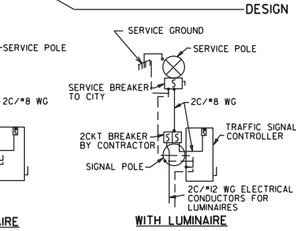
NOTE:
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

8. GROUND ROD - A 10' X ⅝" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND ½" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPERATELY.

9. POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A ¼" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

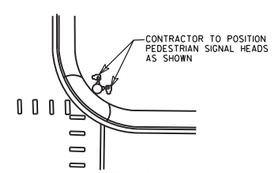
10. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.

11. PEDESTRIAN PHASES - PEDESTRIAN MOVEMENTS SHALL BE PUSH BUTTON ACTUATED AND CONCURRENTLY TIMED, UNLESS OTHERWISE INDICATED ON THE PLAN SHEET(S). FURNISHING AND INSTALLING PEDESTRIAN PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM 707 PEDESTRIAN SIGNAL HEAD.



NO LUMINAIRE — WITH LUMINAIRE

SERVICE DISCONNECT
NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES



PEDESTRIAN SIGNAL HEADS

* WHEN THE GROUND ELEVATION AT THE POLE IS LOWER THAN THE ROADWAY ELEVATION, THE LENGTH OF FOUNDATION ABOVE THE GROUND MAY BE INCREASED TO PROVIDE THE REQUIRED SIGNAL HEAD CLEARANCE ABOVE THE ROADWAY. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 18" OR LESS, NO INCREASE IN DEPTH "L" WILL BE REQUIRED. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 5'-6" OR LESS, INCREASE DEPTH "L" BY 1'-0". FOR LENGTHS GREATER THAN 5'-6", DEPTH "L" SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING, AS SHOWN IN THE TABLE, SHALL BE PROVIDED FOR THE LENGTH OF THE EXTENDED SHAFT AND #4 TIES SHALL BE PROVIDED AT A SPACING NOT TO EXCEED 9" ON CENTERS. PAYMENT WILL BE IN ACCORDANCE WITH SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS.

** IN LIEU OF DESIGNING THE STRUCTURE TO RESIST PERIODIC GALLOPING, A VIBRATORY MITIGATION DEVICE MAY BE PROVIDED BY THE POLE MANIFACTURER. THE VIBRATORY MITIGATION DEVICE SHALL BE AN ANTI-GALLOPING PANEL CONSISTING OF A 60" X 16" X 0.125" SIGN BLANK MOUNTED NEAR THE END OF THE MAST ARM NOT TO EXCEED ONE QUARTER OF THE LENGTH OF THE MAST ARM FROM THE END OF THE MAST ARM WITH THE LONG AXIS OF THE PANEL COLLINEAR WITH THE LONG AXIS OF THE MAST ARM. THE PANEL SHOULD BE MOUNTED AT SUCH THE HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OF SIGN PANEL LOCATED ON THE MAST ARM WITHIN THE LENGTH OF THE ANTI-GALLOPING PANEL.

TRUCK-INDUCED GUST LOADS SHALL BE EXCLUDED FOR FATIGUE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.

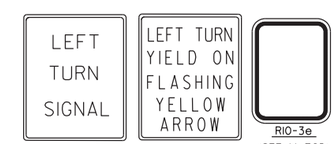
SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS OR AS DIRECTED BY THE ENGINEER. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATIONS IN FLASH SEQUENCE.

SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.

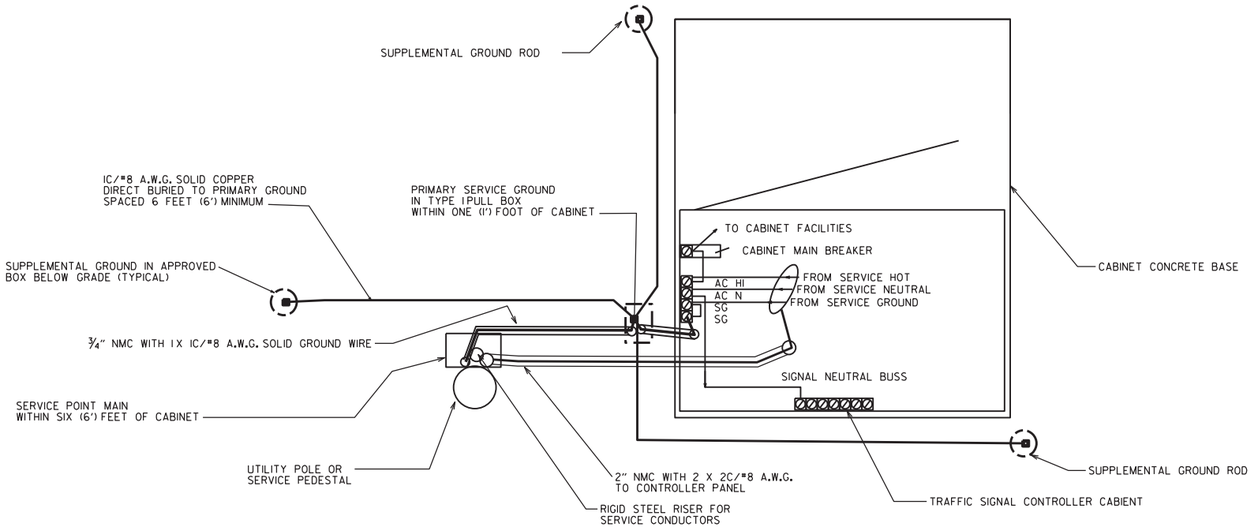
DATE	REVISION	FILMED
02-13-24	REVISED SPECIAL SIGN TO RIO-12a SIGN	
11-16-17	REVISED NOTES, ADDED PEDESTRIAN SIGNAL HEAD DETAIL, ADDED HANDHOLE TERMINAL DETAIL, ADDED TRENCHING DETAIL	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
12-08-16	REVISED NOTES	
02-27-14	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED VMD, SIGNAL HEADS	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
04-25-08	ADDED VIBRATORY MITIGATION DEVICE & NOTES	
04-18-08	REVISED AASHTO NOTES	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REVISED CABINET ORIENTATION	
06-23-04	REVISED	
05-11-04	REV. NOTE 3/AASHTO REQUIREMENTS	
06-11-01	REV. NOTES & POLE MAST ARM SLOPE	
04-11-01	REVISED POLE TAPERS	
04-25-00	REV. NOTES & SIGNAL HEAD PLACEMENT	
11-22-99	REVISED FOUNDATION DETAILS	
11-17-98	REVISED DETAILS AND NOTES	
11-21-95	ISSUED	

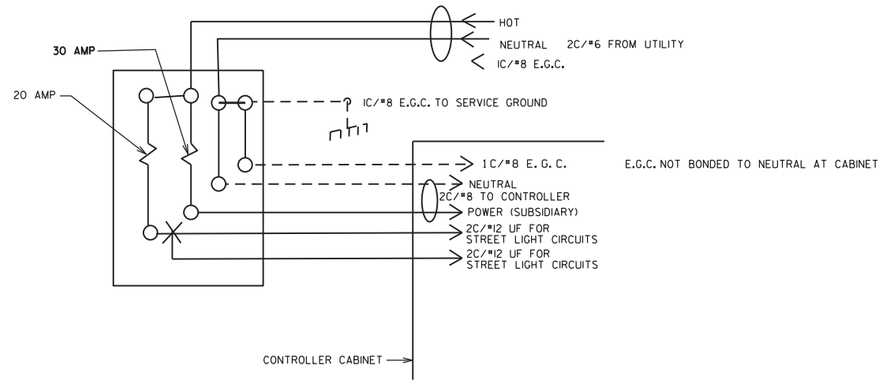


ARKANSAS STATE HIGHWAY COMMISSION

STEEL POLE WITH MAST ARM

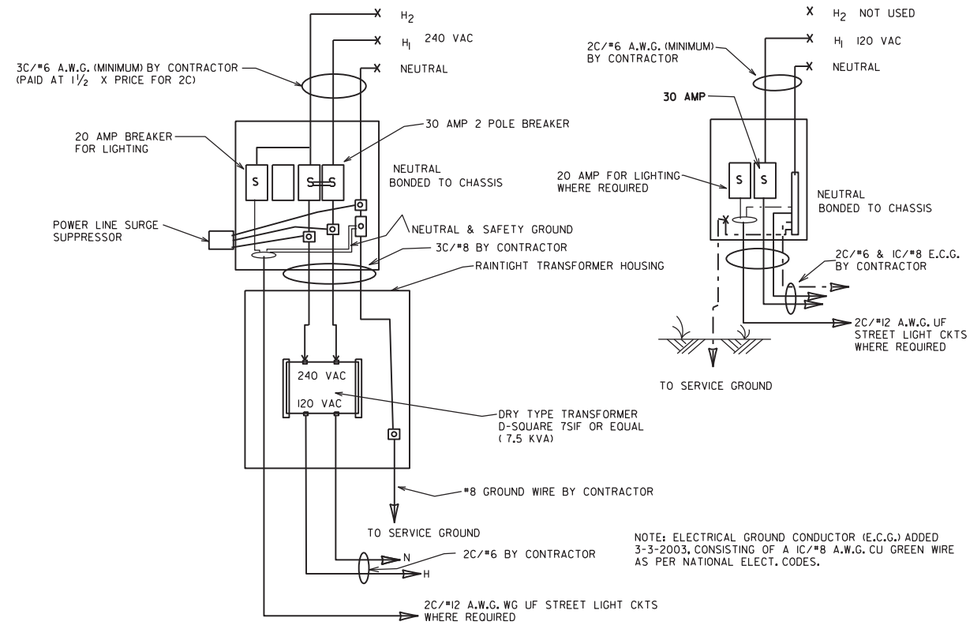
STANDARD DRAWING SD-11





MAIN BREAKER WIRING (TYPICAL)

SERVICE GROUND IS TYPICALLY TIED TO NEUTRAL AT THE MAIN BREAKER. AS SUCH, CONTROLLER GROUND IS NOT TIED TO NEUTRAL AT SECONDARY BREAKER OR IN CONTROLLER CABINET.



NOTES:

LOCATION OF SERVICE:
TO MEET THE REQUIREMENTS FOR SAFETY AND MAXIMIZE LIGHTNING PROTECTION. THE "SERVICE POINT MAIN" FROM THE UTILITY PRIMARY SERVICE POINT MUST BE WITHIN SIX (6') FEET OF THE TRAFFIC SIGNAL CONTROLLER CABINET. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE OR PEDESTAL WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER) AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. SERVICE POINT INCLUDES GALVANIZED STEEL CONDUIT TO A POLE 18" BELOW GROUND LINE, TWO CIRCUIT MAIN BREAKER, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY COMPANY, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2C/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT SEPARATE FROM THE CIRCUIT SERVING TRAFFIC SIGNAL. SERVICE WIRE AND WIRING FROM THE CONTROLLER TO MAIN BREAKER IS PROVIDED BY THE CONTRACTOR AS A PART OF THIS CONTRACT. WIRE AND WIRING FROM MAIN RESPONSIBILITY OF THE CITY/COUNTY.

METER LOOP:
ALL COMPONENTS OF THE SERVICE POINT WITH THE EXCEPTION OF THE WIRE AND WIRING ABOVE THE MAIN BREAKER IS FURNISHED AND INSTALLED BY THE CONTRACTOR. WIRING FROM MAIN BREAKER INCLUDING CONNECTION TO THE UTILITY, IS THE RESPONSIBILITY OF THE CITY/COUNTY. IF METER LOOP IS REQUIRED, METER BASE AND HARDWARE IS PROVIDED BY THE CITY/COUNTY AND ISTALLED BY THE CONTRACTOR.

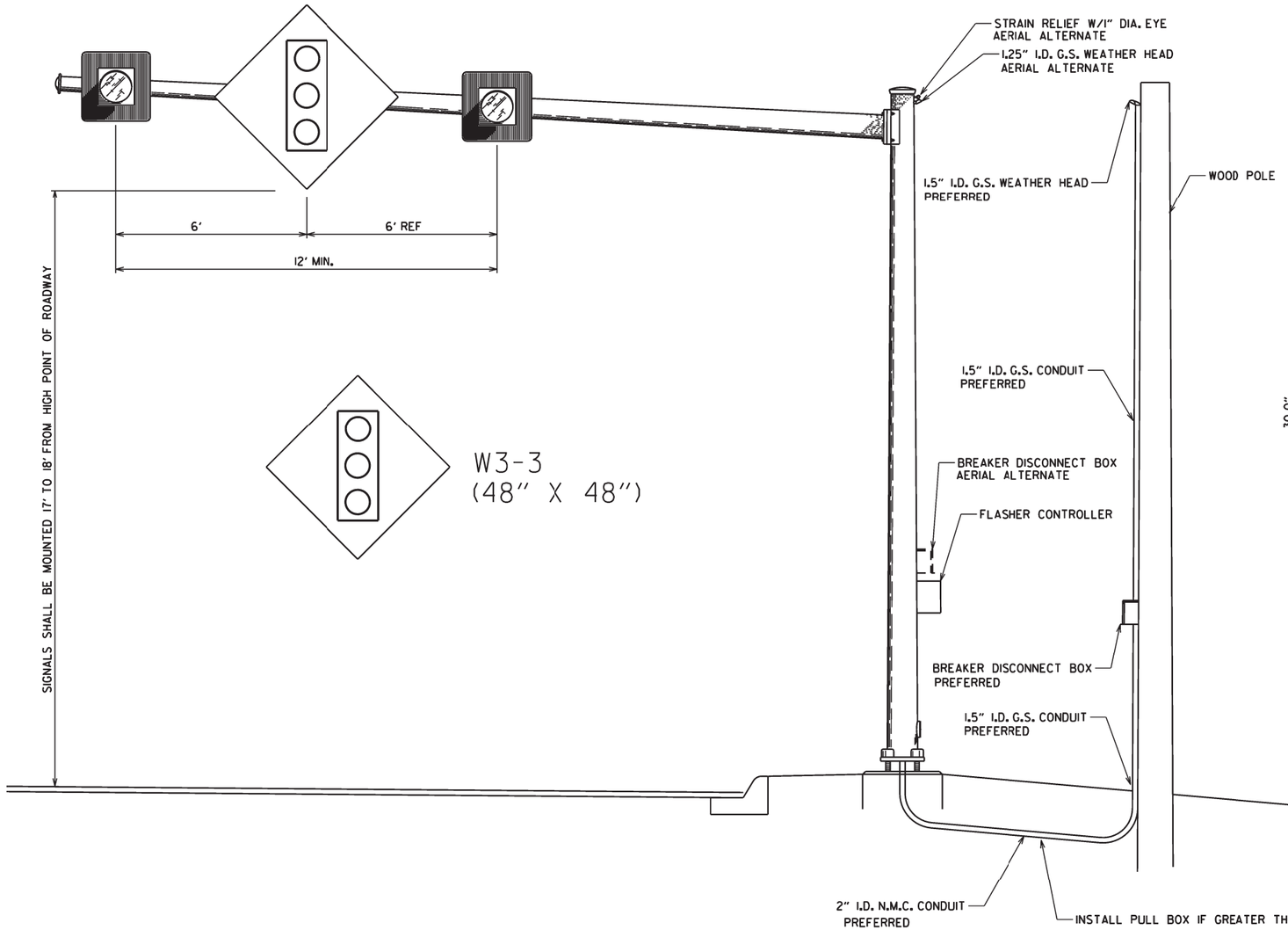
SUPPLEMENT GROUND RODS:
SUPPLEMENT GROUND RODS ARE FUSION WELDED TO IC/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO PRIMARY GROUND MAY BE AN APPROVED CLAMP. GROUND RODS ARE LOCATED IN A BOX APPROVED BY THE ENGINEER MEETING THE SAME LOADING REQUIREMENTS AS SECTION 711 CONCRETE PULL BOX OF THE STANDARD SPECIFICATIONS, WITH THE EXCEPTION TO DIMENSIONS. THE CONCRETE PULL BOX MAY BE EITHER ROUND OR SQUARE APPROXIMATELY SIX (6") INCHES MINIMUM INSIDE DIMENSIONS AND SIX (6") INCHES DEPTH. (STRONGWELL PC0608BA06 WITH PC0608CA00 LID OR EQUAL).

DATE	REVISION	FILMED
11-07-19	REVISED NOTES	
11-16-17	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
01-17-08	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SERVICE POINT INSTALLATION WITH SUPPLEMENT GROUNDING ARRAY

STANDARD DRAWING SD-12

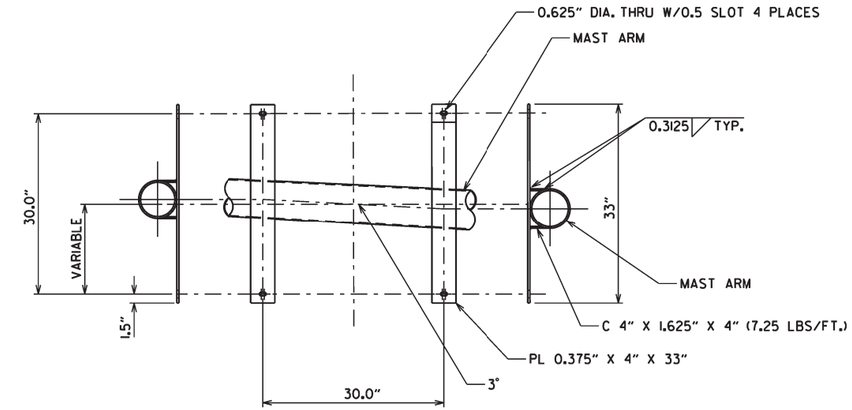


OVERHEAD SIGN MOUNTING DETAILS

N.T.S.

NOTES

1. THE SIGN MOUNTING BRACKET SHALL BE SUBSIDIARY TO THE PAY ITEM - TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION.
2. MAST ARM, POLE, HARDWARE, AND MOUNTING BRACKET SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 714.
3. A COMMERCIALLY MANUFACTURED MOUNTING PLATE OR BRACKET MAY BE SUBMITTED FOR APPROVAL IN LIEU OF THE MOUNTING PLATE SHOWN.
4. EACH SIGNAL HEAD SHALL HAVE A SEPARATE 5 CONDUCTOR SIGNAL CABLE.



MOUNTING BRACKET

N.T.S.

DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
4-17-08	MINOR REVISIONS	
6-21-06	REVISED	
4-14-03	REVISED	
7-14-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

OVERHEAD SIGN DETAILS
(OVERHEAD SIGN MOUNTED ON STEEL POLE WITH MAST ARM)

STANDARD DRAWING SD-16

SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

DEGREE OF CURVE	30 MPH			35 MPH			40 MPH			45 MPH			50 MPH			55 MPH			60 MPH			65 MPH			70 MPH			75 MPH		
	e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)	
		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE
0° 15'	NC			NC			NC			NC			NC			NC			NC			NC			NC			NC		
0° 30'	NC			NC			NC			NC			NC			NC			RC	115		RC	115		RC	115		0.022	121	
0° 45'	NC			NC			NC			NC			RC	115		RC	115		0.024	127		0.026	132		0.030	144		0.032	150	
1° 00'	NC			NC			NC			RC	108		0.022	121		0.026	132		0.030	144		0.034	156		0.038	167		0.042	179	350
1° 15'	NC			NC			RC	101		0.022	114		0.028	138		0.032	150		0.038	167		0.042	179		0.046	190	350	0.052	208	
1° 30'	NC			RC	94		0.022	106		0.028	130		0.032	150		0.038	167		0.044	185		0.050	202	350	0.056	218		0.062	236	
1° 45'	RC	86		RC	94		0.026	116		0.030	136		0.036	161		0.044	185		0.050	202	350	0.056	218		0.064	242		0.070	259	
2° 00'	RC	86		0.024	103		0.023	121		0.034	146		0.042	179		0.048	196		0.056	218		0.064	242		0.070	259		0.080	288	400
2° 15'	RC	86		0.026	108		0.032	131		0.038	157		0.046	190		0.054	214		0.062	236		0.070	259		0.078	282	400	0.088	311	
2° 30'	0.022	90		0.028	113		0.034	136		0.042	168		0.050	202		0.058	224		0.068	253		0.076	276		0.086	305		0.096	334	450
2° 45'	0.024	95		0.030	118		0.033	146		0.046	179		0.054	214		0.064	242		0.072	265		0.082	294		0.092	323		0.100	346	
3° 00'	0.026	100		0.034	126		0.040	151		0.050	190		0.058	224		0.068	253		0.078	282		0.088	311		0.098	340	450	D MAX = 2° 45'		
3° 15'	0.028	103		0.036	131		0.044	161		0.052	194		0.062	236		0.072	265		0.082	294		0.092	323		0.100	346				
3° 30'	0.030	108		0.038	136		0.046	167		0.056	205		0.066	247		0.076	276		0.086	305		0.096	334		D MAX = 3° 30'					
3° 45'	0.032	112		0.040	140		0.050	176		0.058	211		0.070	259		0.080	288		0.090	317		0.098	340							
4° 00'	0.034	116		0.042	145		0.052	181		0.062	222		0.072	265		0.084	300		0.094	329		0.100	346							
4° 15'	0.036	120		0.044	150		0.054	186		0.064	227		0.076	276		0.086	305		0.096	334		D MAX = 4° 15'								
4° 30'	0.036	120		0.046	155		0.056	192		0.068	238		0.078	282		0.090	317		0.098	340										
4° 45'	0.038	125		0.048	160		0.060	202		0.070	244		0.082	294		0.092	323		0.100	346										
5° 00'	0.040	130		0.050	164		0.062	206		0.072	248		0.084	300		0.094	329		D MAX = 5° 15'										
5° 30'	0.044	138	250	0.054	173		0.066	217		0.078	265		0.088	311		0.098	340												
6° 00'	0.046	143		0.058	182		0.070	227		0.082	276		0.092	323		0.100	346												
6° 30'	0.050	151		0.062	192		0.074	238		0.086	287		0.096	334		D MAX = 6° 30'													
7° 00'	0.052	156		0.064	197		0.078	247		0.090	298		0.098	340															
7° 30'	0.054	160		0.068	206		0.080	252		0.092	302		0.100	346															
8° 00'	0.058	168		0.070	211		0.084	263		0.094	308		D MAX = 8° 25'																
8° 30'	0.060	173		0.072	215		0.086	268		0.096	313																		
9° 00'	0.062	178		0.076	224		0.088	272		0.098	319																		
9° 30'	0.064	181		0.078	229		0.092	282		0.100	324																		
10° 00'	0.066	186		0.080	234		0.094	288		D MAX = 10° 30'																			
11° 00'	0.070	194		0.084	244		0.096	293																					
12° 00'	0.074	203		0.088	253	300	0.098	298																					
13° 00'	0.076	208		0.090	258		0.100	302	350																				
14° 00'	0.080	216		0.094	266		D MAX = 13° 45'																						
15° 00'	0.082	221		0.096	271																								
16° 00'	0.086	229		0.098	276																								
17° 00'	0.088	233		0.100	281																								
18° 00'	0.090	238		D MAX = 19° 30'																									
19° 00'	0.092	242																											
20° 00'	0.094	246																											
21° 00'	0.096	251	300																										
22° 00'	0.096	251																											
23° 00'	0.098	254																											
24° 00'	0.098	254																											
25° 00'	0.100	259																											
D MAX = 28° 30'																													

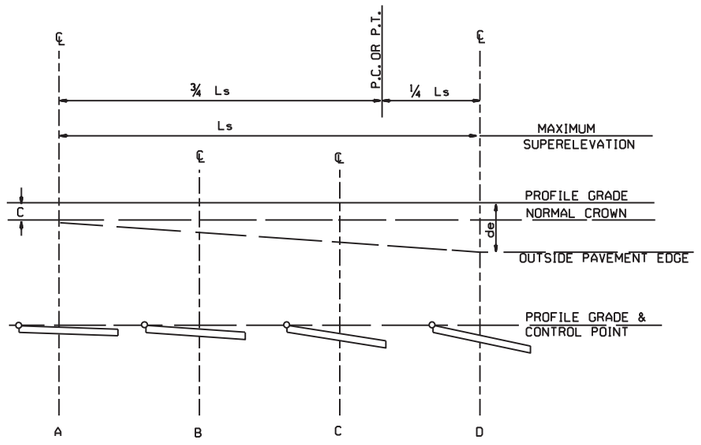
ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
S - SUPERELEVATION
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT
e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)

GENERAL NOTES

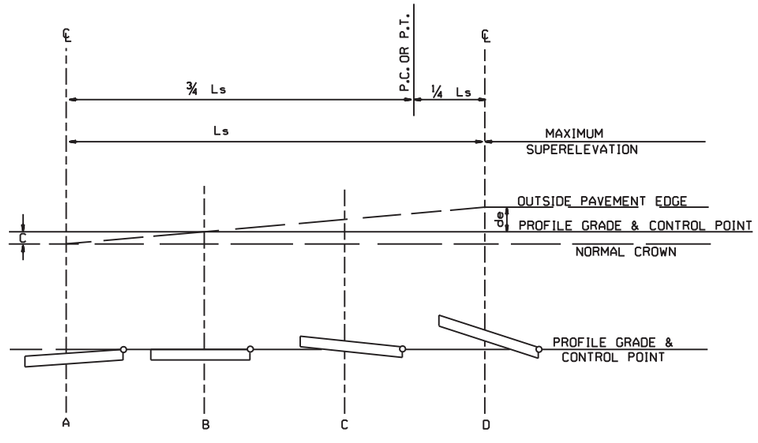
1. ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS:

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$



ONE-WAY TRAFFIC
OUTSIDE LANE

SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

DATE	REVISION	DATE FILMED
11-07-19	REVISED SUPERELEVATION TABLE	
01-09-87	ISSUED	578-1-15-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1



R1-1
30"X30"



W1-3
30"X30"
(LT. OR RT.)



W1-8
18"X24"



W2-5
30"X30"



W3-1
36"X36"



W5-1
36"X36"



M6-3
21"X15"



R1-2
36"X36"X36"



W1-4
30"X30"
(LT. or RT.)



W2-1
30"X30"



S1-1
36"X36"

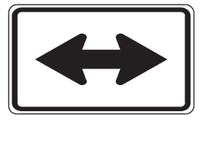


W3-2
36"X36"



County
Route Marker
M1-6
24"X24"

NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.



M6-4
21"X15"



R2-1
24"X30"



W1-5
30"X30"
(LT. or RT.)



W2-2
30"X30"



W5-2
36"X36"



W8-3
36"X36"



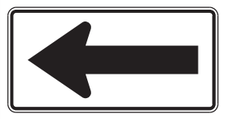
R1-3P
18"X6"



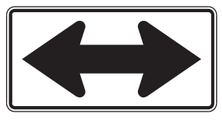
M6-5
21"X15"



W1-1
30"X30"
(LT. or RT.)



W1-6
48"X24"



W1-7
48"X24"



W2-3
30"X30"
(LT. or RT.)



W5-3
36"X36"

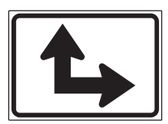


W13-1P
18"X18"



M6-1
21"X15"

NOTE: ALL M6 SIGNS TO BE MADE WITH REFLECTORIZED YELLOW ARROW & BORDER WITH BLUE BACKGROUND.



M6-6
21"X15"



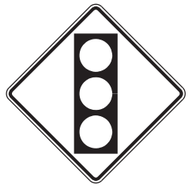
W1-2
30"X30"
(LT. or RT.)



W2-4
30"X30"



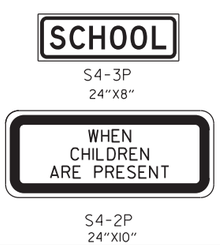
W10-1
36" DIAMETER



W3-3
36"X36"

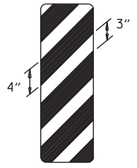


M6-2
21"X15"

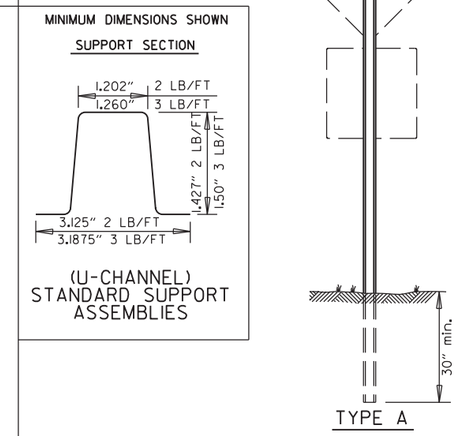


S4-3P
24"X8"

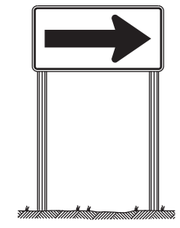
S4-2P
24"X10"



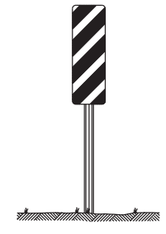
OM-3
12"X36"
(LT. or RT.)



NOTE: LENGTH OF SIGN POSTS SHALL BE DETERMINED SO AS TO PROVIDE FOR MINIMUM VERTICAL CLEARANCES AS CALLED FOR IN THE SPECIFICATIONS PLUS A MINIMUM VERTICAL PENETRATION OF 30" IN THE SOIL.



TYPE B



TYPE C

MINIMUM WEIGHT

TYPE A & B = 3 LBS./FT.
TYPE C = 2 LBS./FT.

STANDARD HIGHWAY SIGNS

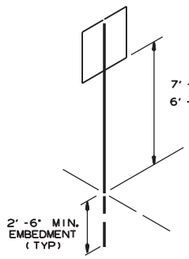
SUPPORT ASSEMBLIES

DATE	REVISION	DATE FILMED
9-12-13	DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P	
4-17-08	REVISED SIGN DESIGNATION - W3-1 & W3-2	
4-10-03	REVISED W5-2, W8-3, OM-3; ADDED WI-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED W14-3	877-9-15-78
9-2-76	POST WT.	623-9-3-76
5-3-76	STEEL POST WT. FROM 2#-3#; ADDED S4-2 & S4-3	504-5-3-76
8-12-74	REV. HT. TYPE "C" ASSEMBLY	500-8-21-74
12-21-72	ADDED M6-2,3,4,5,6	500-12-21-72
12-1-72	ISSUED	562-12-1-72

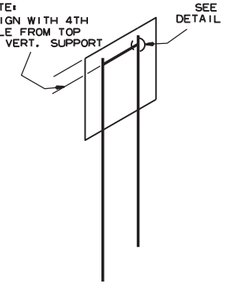
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

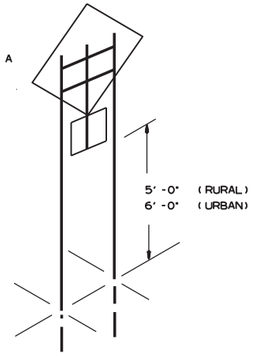
STANDARD DRAWING SHS-1



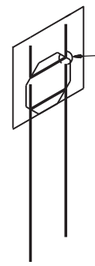
U-1



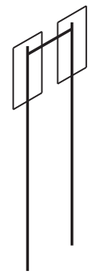
U-2



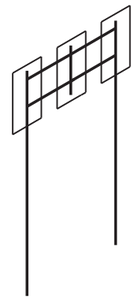
U-2 (A)



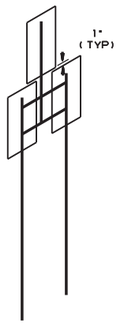
U-2 (B)



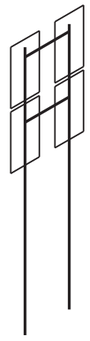
U-2 (1)



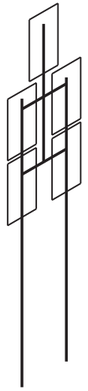
U-2 (2)



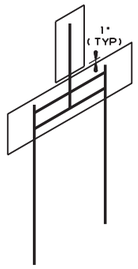
U-2 (3)



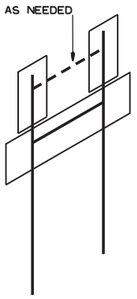
U-2 (4)



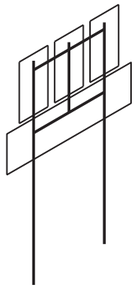
U-2 (5)



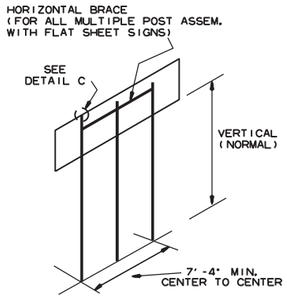
U-2 (6)



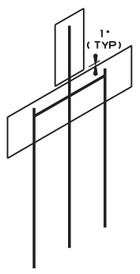
U-2 (7)



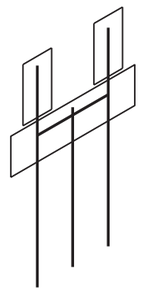
U-2 (8)



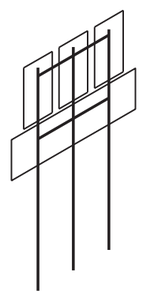
U-3



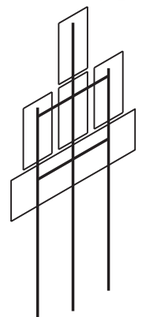
U-3 (1)



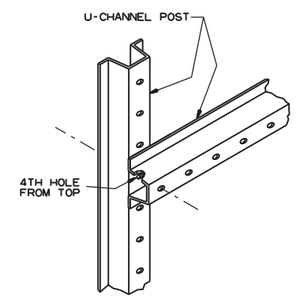
U-3 (2)



U-3 (3)

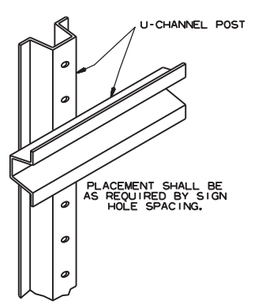


U-3 (4)



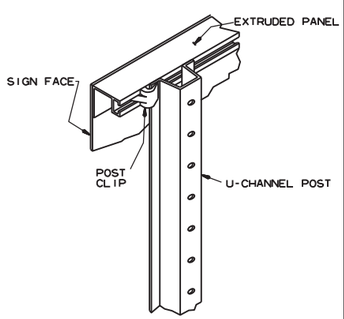
DETAIL A

SHOWING HORIZONTAL BRACE



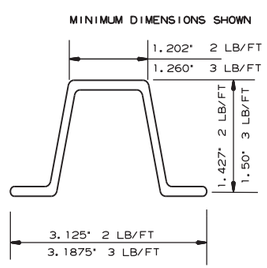
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



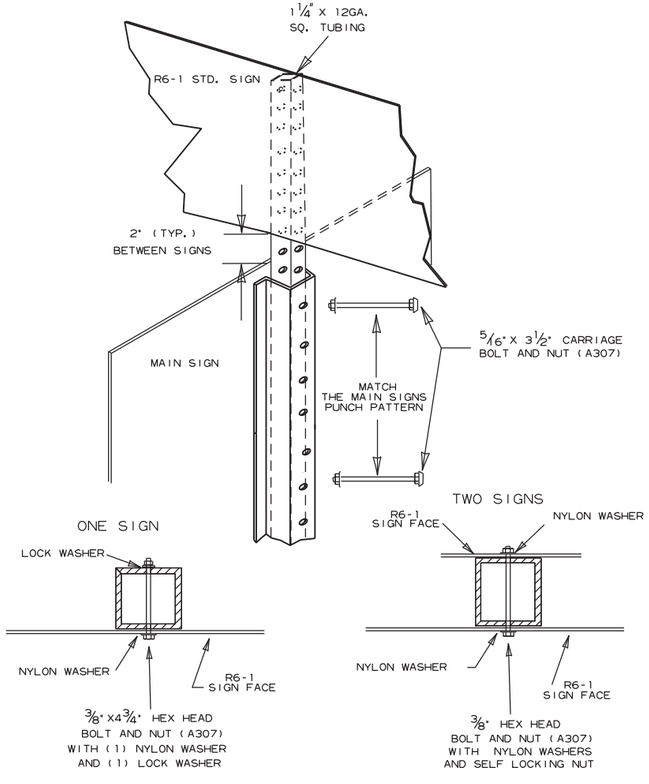
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



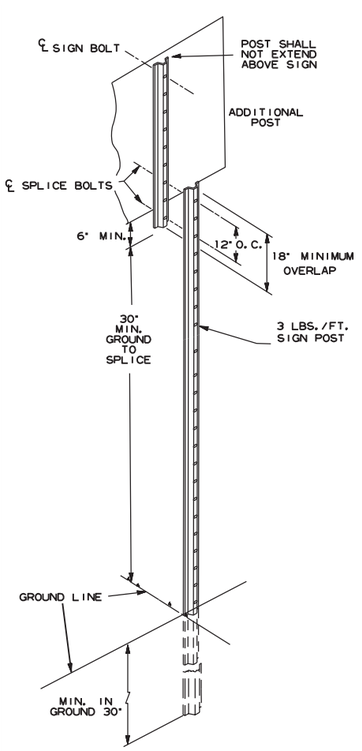
DETAIL C

U-CHANNEL POST



DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

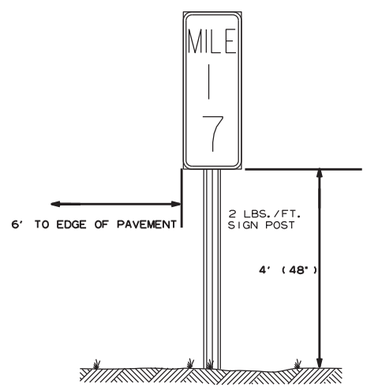
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL (F).

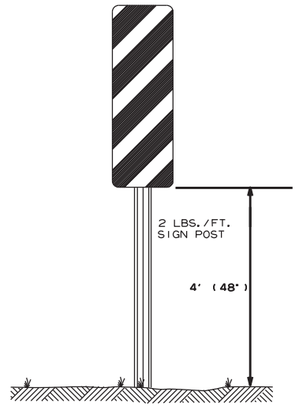
NORMAL INSTALLATIONS WILL REQUIRE 5/16" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

THE POST FOR "TYPE U" SUPPORTS SHALL BE HOT DIP GALVANIZED.



TYPICAL MILE MARKER INSTALLATION



TYPICAL OM-3 INSTALLATION AT EDGE OF OBSTRUCTION

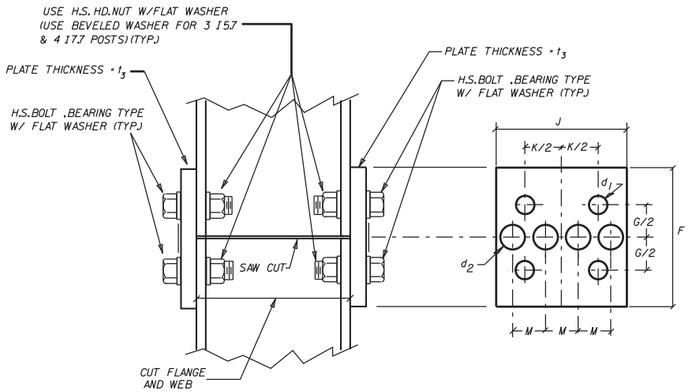
DATE	REVISION	FILMED
7-25-19	REVISED CARRIAGE BOLT WITH MATERIAL REQUIREMENT	
2-27-14	REVISED NOTES.	
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

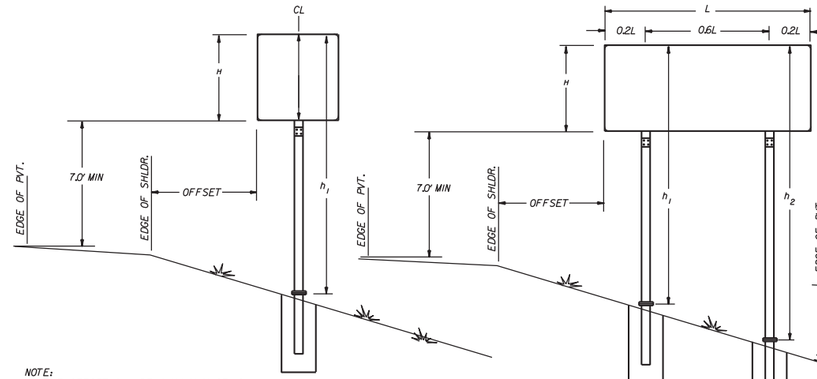
U-CHANNEL POST ASSEMBLIES

STANDARD DRAWING SHS-2

POST SIZE	BASE CONNECTION DATA											FUSE PLATE DATA										WT.OF EACH FUSE PLATE LBS.
	BOLT SIZE	BOLT TORQUE (INCH/LBS)	A	B	C	D	E	t_1	t_2	W	R	F	G		J	K	M	d_1	d_2	t_3	BOLT SIZE	
W 6X9												4¼"	2"		4"	2¼"	1"	9/16"	¾"	¼"	½" x 1½"	1.01
W 6X12	⅝" x 2¾"	450"-680"	5"	2"	1¼"	2¾"	1⅛"	¾"	½"	¼"	11/32"	5"	2½"		6"	3½"	1½"	11/16"	1¼"	⅜"	⅝" x 2¼"	2.51
W 6X15												5"	2½"		6"	3½"	1½"	11/16"	1¼"	⅜"	⅝" x 2¼"	2.51
W 8X18												5"	2½"		5¼"	2¾"	1¼"	13/16"	1¼"	⅜"	¾" x 2¼"	2.26
W 8X21												5½"	2½"		5¼"	2¾"	1¼"	13/16"	1"	½"	¾" x 2¼"	3.35
W 10X22	¾" x 3½"	750"-1050"	6"	2¼"	1⅜"	3½"	1¼"	1"	¾"	5/16"	11/32"	6"	3"		5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾" x 2¼"	4.03
W 10X26																						
W 12X26												6"	3"		6½"	3½"	1⅝"	13/16"	1⅝"	½"	¾" x 2¼"	4.47



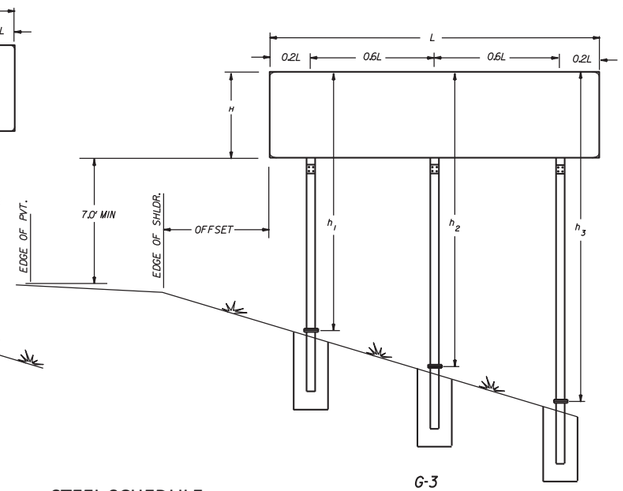
NOTE: USE H.S.HEX HEAD BOLTS,HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A36, ASTM-A441, ASTM-572 GRADE 50, OR ASTM-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.



NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

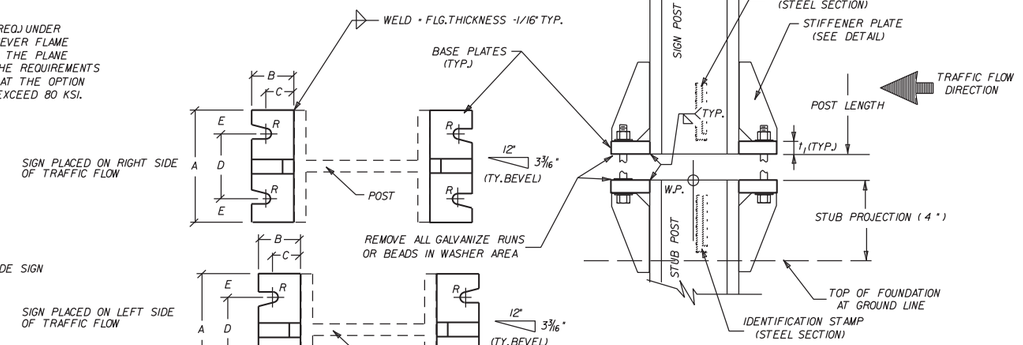
G-1

G-2

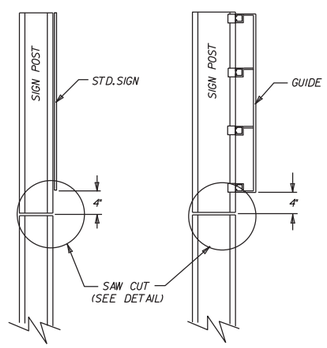


G-3

NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S.BOLTS WITH HEX HD.,HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT. SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC.IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST, THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR. THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.



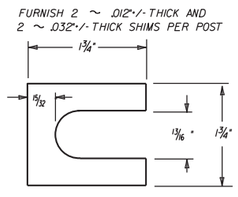
NOTE: BOLT HOLES, USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



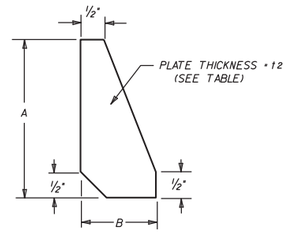
NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED. AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED. REPAIR OF CUT SURFACES AFTER GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A123.

STANDARD SIGNS GUIDE SIGNS

FUSE PLATE DETAILS



SHIM DETAIL



STIFFENER PLATE DETAIL

GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

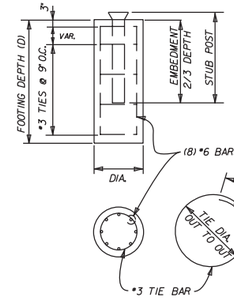
REFER TO THE PLANS FOR FOOTING DIMENSIONS.

EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

STEEL SCHEDULE

FOOTING DIAMETER	#3 TIE BARS		
	DIAMETER	BAR LENGTH	POUNDS
NCHES	INCHES	FEET	
18	12	4.39	1.65
24	18	5.96	2.24
30	24	7.53	2.83
36	30	9.1	3.42

FOOTINIG DEPTH	#6 STRAIGHT BARS		
	BAR LENGTH	NUMBER REQ'D.	POUNDS
FEET	FEET		
2.50	2.00	8	24.03
3.00	2.50	8	30.04
3.50	3.00	8	36.05
4.00	3.50	8	42.06
4.50	4.00	8	48.06
5.00	4.50	8	54.07
5.50	5.00	8	60.08
6.00	5.50	8	66.09
6.50	6.00	8	72.10
7.00	6.50	8	78.10
7.50	7.00	8	84.11
8.00	7.50	8	90.12

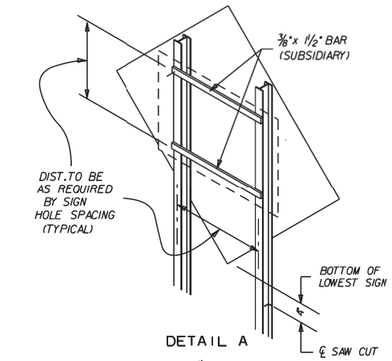


FOOTING QUANTITIES

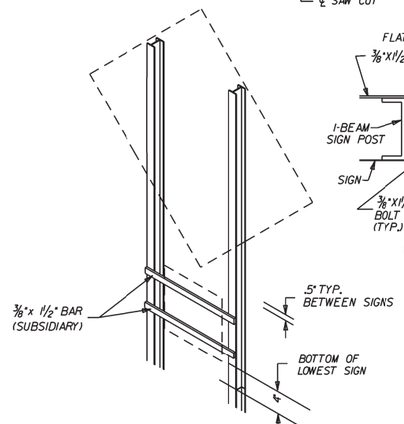
FOOTINIG DEPTH	NUMBER TIE BARS REQ'D	18" DIAMETER		24" DIAMETER		30" DIAMETER		36" DIAMETER	
		CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL
FEET		CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)
2.50	4	0.16	31						
3.00	4	0.20	37						
3.50	5	0.23	44						
4.00	6	0.26	52	0.47	56				
4.50	6	0.29	58	0.52	62				
5.00	7	0.33	66	0.58	70	0.91	74		
5.50	8			0.64	78	1.00	83		
6.00	8			0.70	84	1.09	89	1.57	93
6.50	9					1.18	98	1.70	103
7.00	10					1.27	106	1.83	112
7.50	10							1.96	118
8.00	11							2.09	128

SIGN POST AND STUB POST

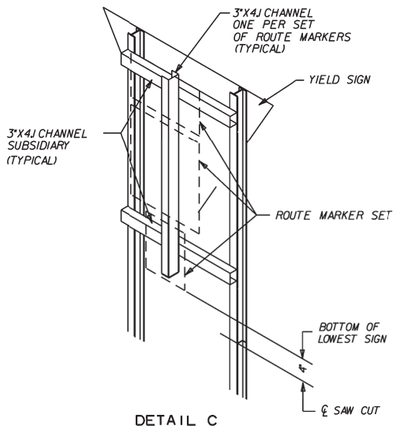
			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS
5-19-22	REVISED FUSE PLATE DETIALS' NOTE.		
9-12-13	ISSUED		STANDARD DRAWING SHS-3
DATE	REVISION	FILMED	



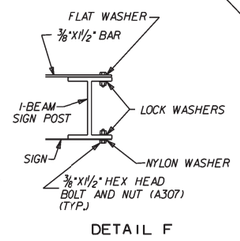
DETAIL A



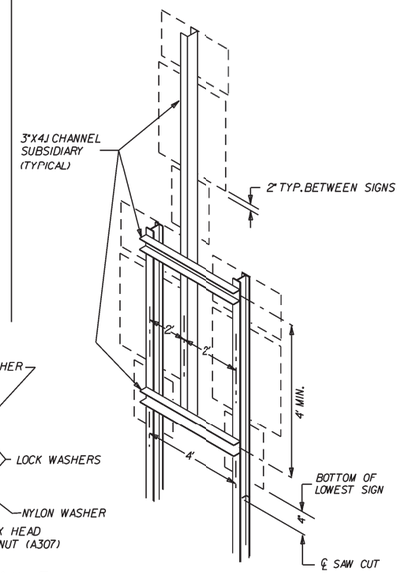
DETAIL B



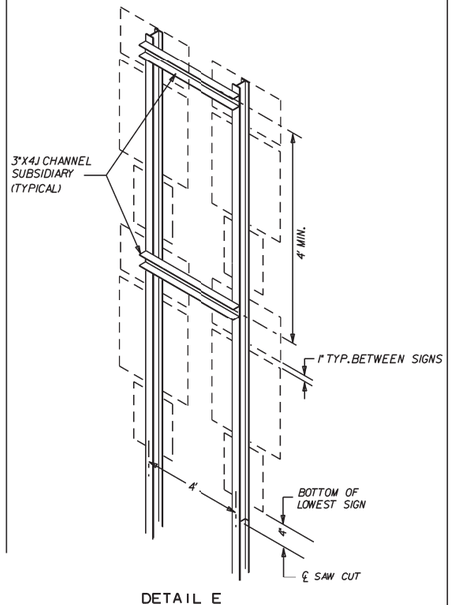
DETAIL C



DETAIL F



DETAIL D



DETAIL E

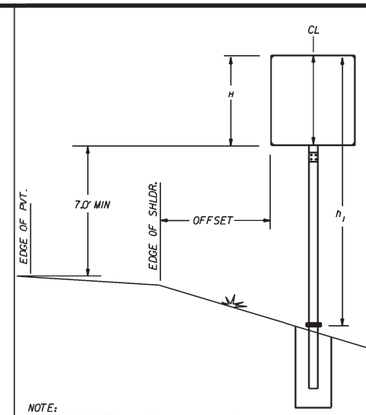
NOTE

ALL ADDITIONAL MOUNTING HARDWARE, BOLTS, NUTS, CHANNELS AND BAR STRAPS REQUIRED TO MOUNT SECONDARY SIGNS WILL BE CONSIDERED TO BE SUPPLEMENTAL TO THE MAIN SIGN SUPPORT SPECIFIED. PAYMENT WILL BE CONSIDERED SUBSIDIARY TO THE MAIN SUPPORT.

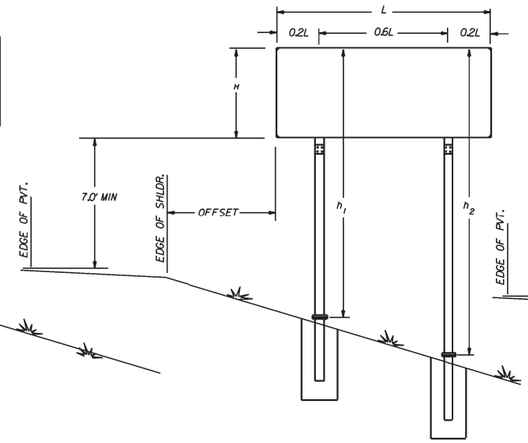
THE GALVANIZED STEEL CHANNEL AND BAR SUPPORTS MAY BE ASTM A-36.

REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

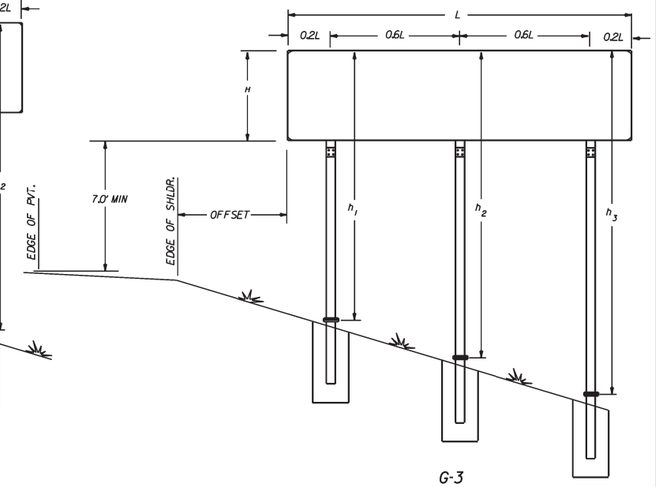
ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.



G-1

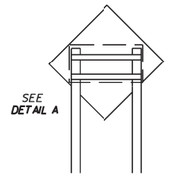


G-2

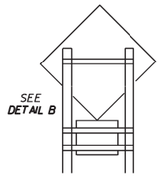


G-3

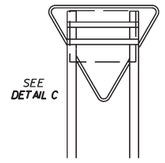
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.



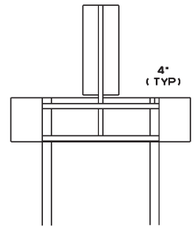
G2-1



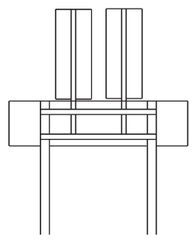
G2-2



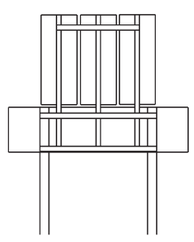
G2-3



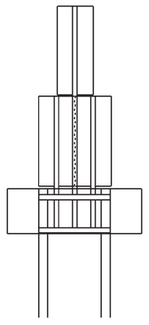
G2-4



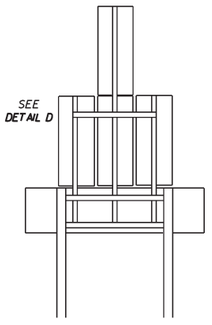
G2-5



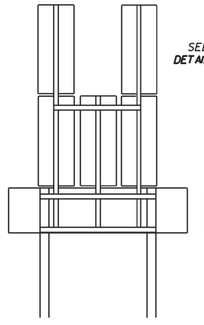
G2-6



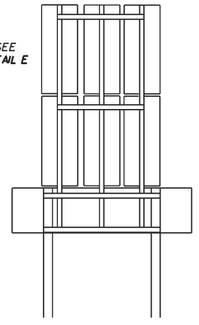
G2-7



G2-8



G2-9



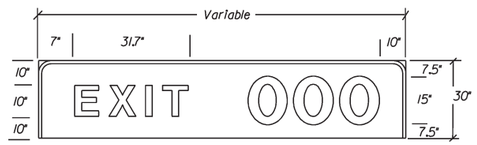
G2-10

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-4
DATE	REVISION	FILMED	



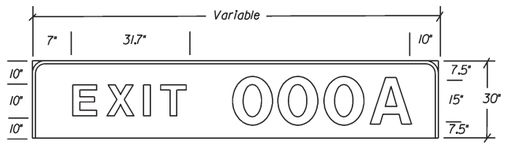
TYPICAL DETAIL

TYPE A



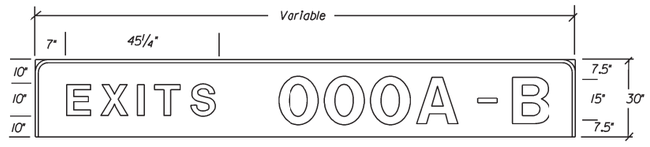
EXIT WITH 1 DIGIT 84"X30"=17.50 SF
EXIT WITH 2 DIGITS 96"X30"=20.0 SF
EXIT WITH 3 DIGITS 114"X30"=23.57 SF

TYPE B



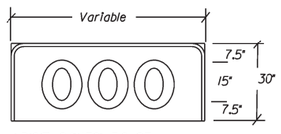
EXIT WITH 1 DIGIT PLUS "A"OR"B" 96"X30"=20.0 SF
EXIT WITH 2 DIGITS PLUS "A"OR"B" 114"X30"=23.57 SF
EXIT WITH 3 DIGITS PLUS "A"OR"B" 126"X30"=26.25 SF

TYPE C



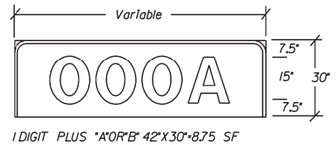
EXITS WITH 1 DIGIT PLUS "A"&"B" 132"X30"=27.50 SF
EXITS WITH 2 DIGITS PLUS "A"&"B" 150"X30"=31.25 SF
EXITS WITH 3 DIGITS PLUS "A"&"B" 168"X30"=35.00 SF

TYPE D



1 DIGIT 24"X30"=5.0 SF
2 DIGITS 42"X30"=8.75 SF
3 DIGITS 60"X30"=12.50 SF

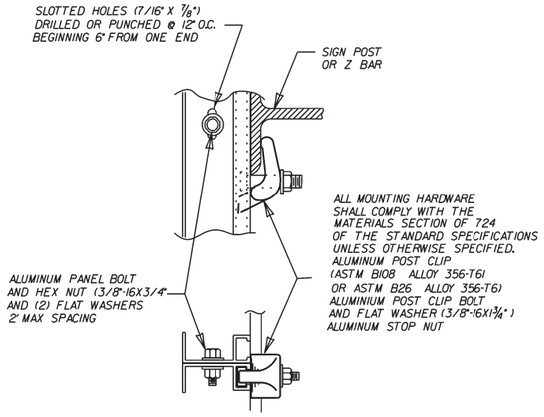
TYPE E

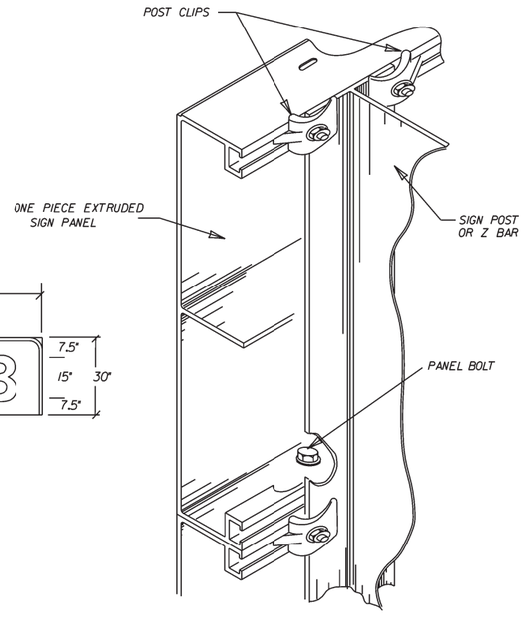


1 DIGIT PLUS "A"OR"B" 42"X30"=8.75 SF
2 DIGITS PLUS "A"OR"B" 60"X30"=12.50 SF
3 DIGITS PLUS "A"OR"B" 78"X30"=16.25 SF

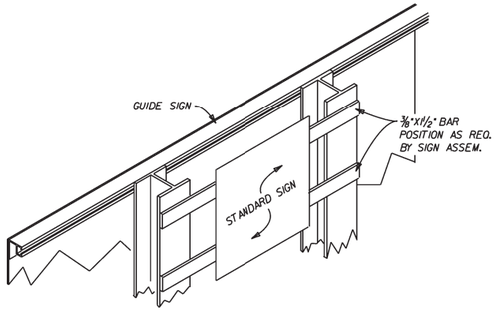
EXIT PANEL DETAILS

NOTE: EXIT NUMBER PANELS SHALL HAVE WHITE LEGENDS AND BORDERS. THE BACK GROUND COLOR WILL BE AS USE SPECIFIES. SHEETING TYPE WILL BE THE SAME AS THE GUIDE SIGN WHICH THE EXIT PANEL IS ATTACHED OR AS SPECIFIED IN THE PLANS. PAYMENT FOR ALL POST CLIPS, BOLTS, AND ANGLES SHALL BE SUBSIDIARY TO THE ITEM "EXIT NUMBER PANEL".

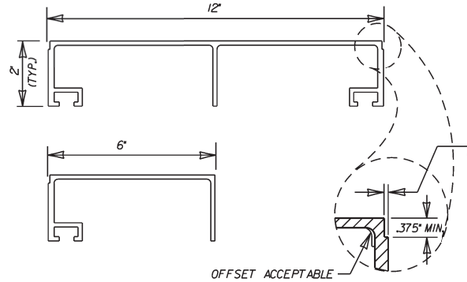




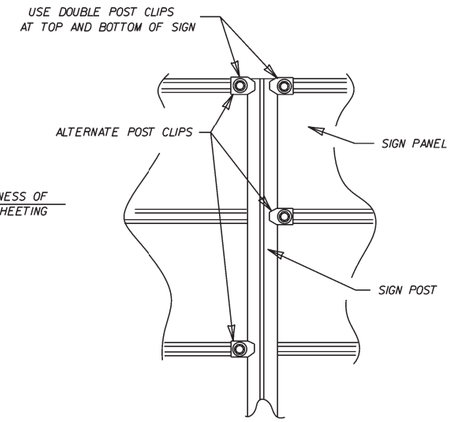
MOUNTING HARDWARE



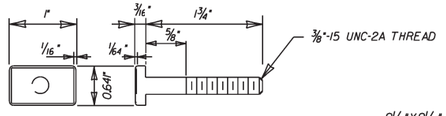
SECONDARY SIGN INSTALLATION ON BACKSIDE OF GUIDE SIGN



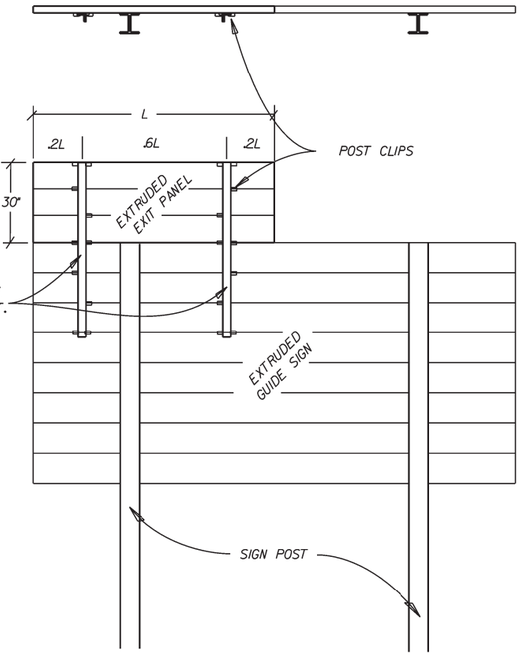
ONE PIECE EXTRUDED SIGN PANELS



POST CLIP PLACEMENT



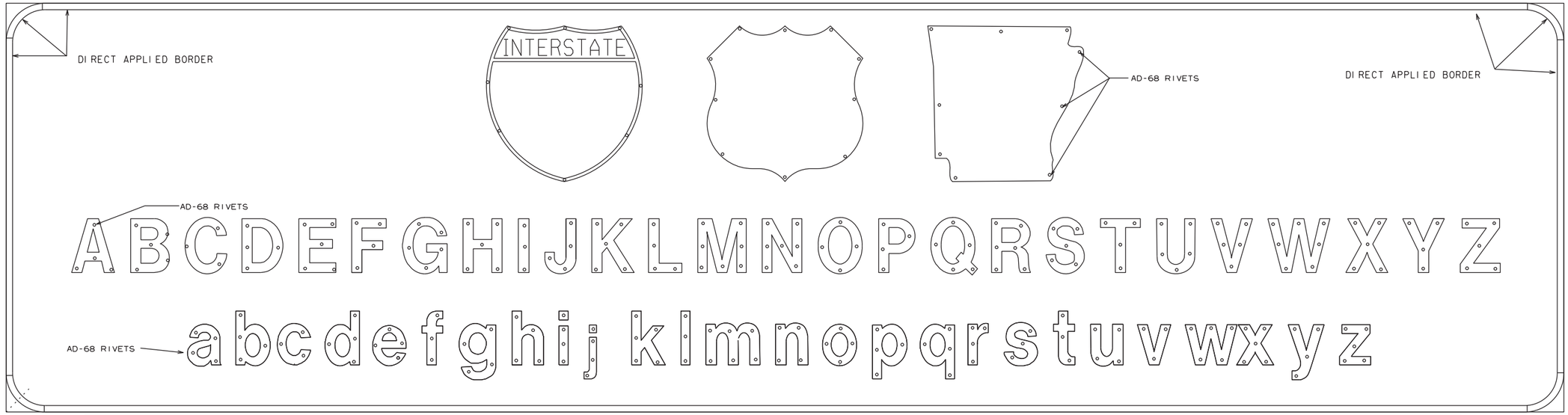
POST CLIP BOLT

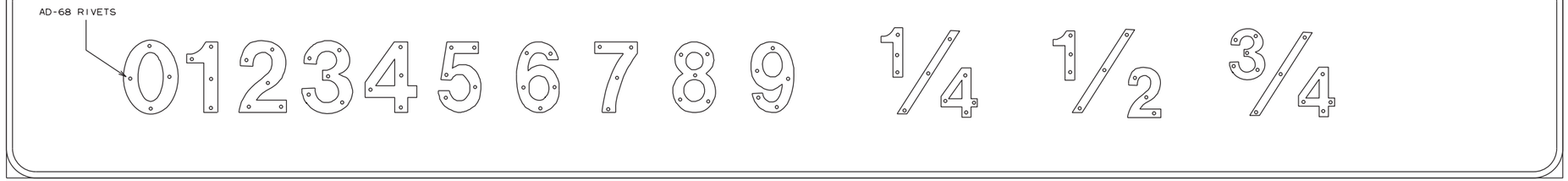


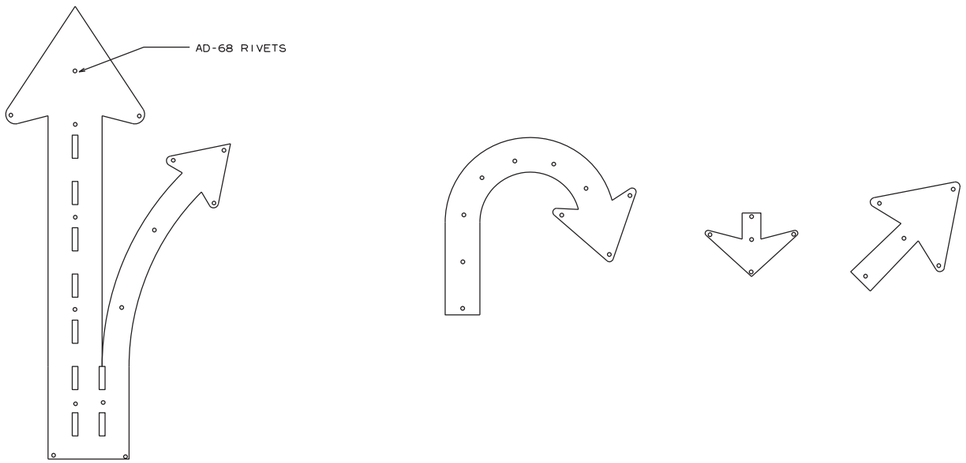
			ARKANSAS STATE HIGHWAY COMMISSION
			DETAILS OF GUIDE SIGN PANELS
9-12-13	ISSUED		STANDARD DRAWING SHS-5
DATE	REVISION	FILMED	

THE CONTRACTOR SHALL DRILL AND POP-RIVET LEGEND, SHIELDS, ARROWS, OR OTHER COPY AS SHOWN.

MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS







NOTES:

LEGEND ON GUIDE SIGNS ON THE MAIN LANES SHALL BE DEMOUNTABLE LEGEND. LEGEND ON GUIDE SIGNS ON CROSS ROADS AND RAMPS SHALL BE DIRECT APPLIED. THE DEMOUNTABLE AND DIRECT APPLIED LEGENDS SHALL BE TYPE IX SHEETING.

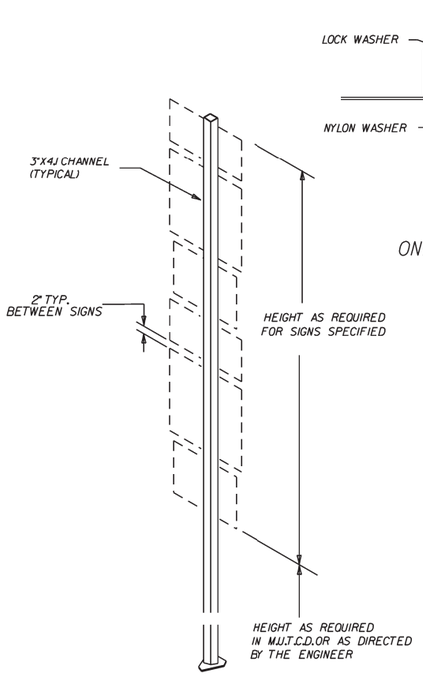
THE BACKGROUND ON ALL GUIDE SIGNS AND STANDARD SIGNS SHALL BE CONSTRUCTED USING TYPE III SHEETING.

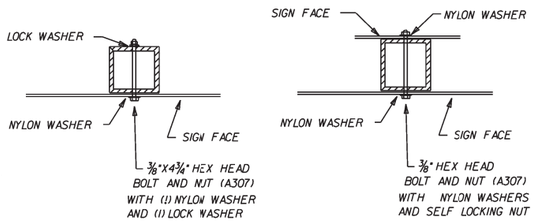
TYPE IX SHEETING FOR BORDER, LEGEND, SHIELDS, ARROWS, OR OTHER COPY SHALL BE ORIENTED VERTICALLY AS PER MANUFACTURERS' DATUM MARKS, ORIENTATION MARKS, OR OTHER RECOMMENDATIONS.

SIGN LEGEND, SHIELDS, ARROWS OR OTHER COPY SHALL BE APPLIED WITH RIVETS ONLY.

NO OTHER METHOD OF APPLYING CHARACTERS IS ALLOWED.

			ARKANSAS STATE HIGHWAY COMMISSION
			MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-6
DATE	REVISION	FILMED	





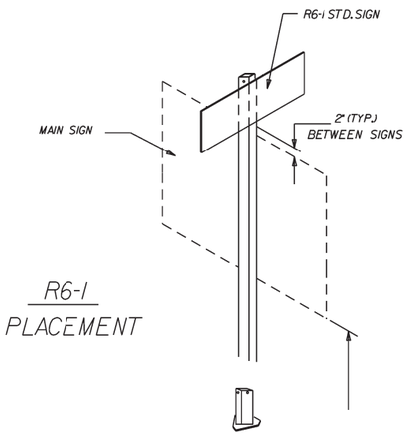
ONE SIGN TWO SIGNS

CHANNEL SHALL BE FULL LENGTH OF RECTANGULAR AND SQUARE SIGNS AND SHALL EXTEND 1½" BEYOND BOLT HOLES ON DIAMOND OR IRREGULAR SHAPED SIGNS.

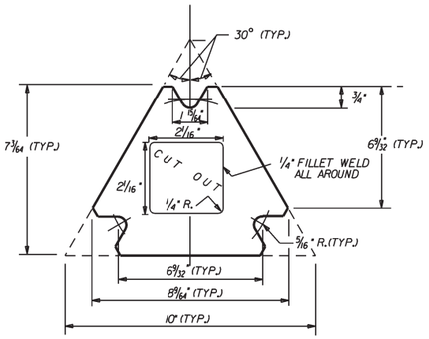
MOUNTING HARDWARE

TYPE-1

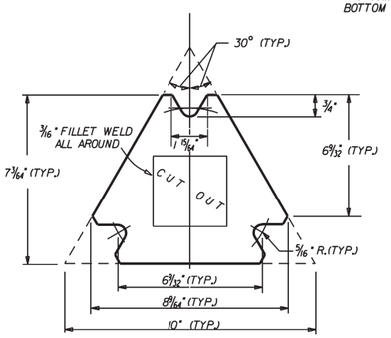
BASIS OF ESTIMATE
APPROX. 100 lbs STEEL



R6-1 PLACEMENT



TOP PLATE



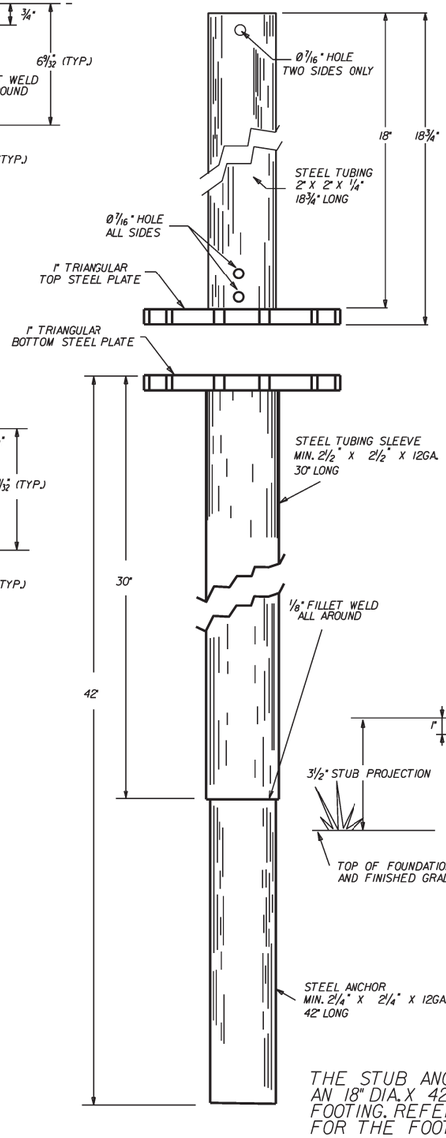
BOTTOM PLATE

GENERAL NOTES:

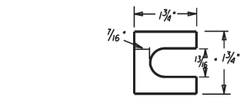
THE TOP PLATE OF TRIANGULAR SLIP BASES SHALL HAVE THE SAME EXTERIOR DIMENSIONS AS THE BOTTOM PLATE.

INSIDE DIAMETER OF THE SIGN POST SHALL BE CUT THROUGH THE CENTER OF THE TOP PLATE WITH THE HOLE EDGE BEVELED AS SHOWN. THE BEVEL END SHALL BE TANGENT TO THE BOLT HOLE . ANY MISALIGNMENT SHALL BE REMOVED BY GRINDING . FACE OF BEVEL SHALL BE FINISHED TO A MINIMUM SMOOTHNESS OF 1·500 .

OTHER MASH COMPLIANT BREAKAWAY SIGN SUPPORTS THAT HAVE THE SAME TOP PLATE DIMENSIONS AND SUPPORT 2¼" X 2¼" SQUARE TUBE SIGN POSTS MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.

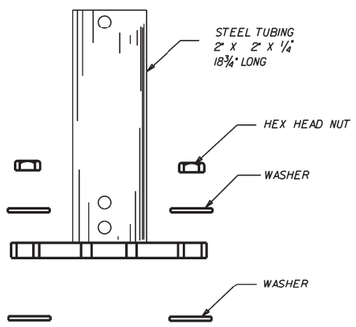


THE STUB ANCHOR SHALL BE SET IN AN 18" DIA. X 42" DEEP CONCRETE FOOTING. REFER TO STD. DRWG. SHS-3 FOR THE FOOTING DETAILS.

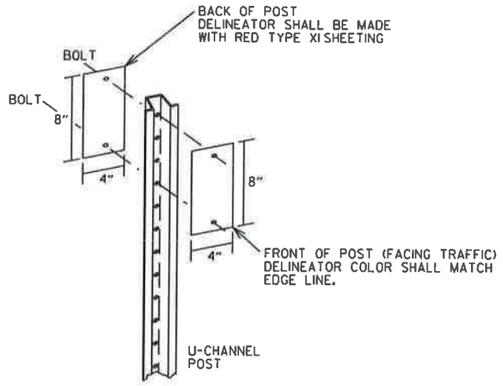


FURNISH (2) .012" THICK AND (2) .032" THICK SHIMS PER POST

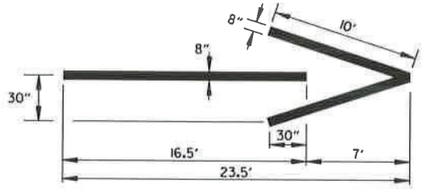
SHIM DETAIL



			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS
9-12-13	ISSUED		STANDARD DRAWING SHS-7
DATE	REVISION	FILMED	



TYPE 2 DELINEATOR DETAILS



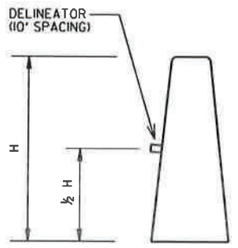
THERMOPLASTIC WRONG-WAY
PAVEMENT ARROWS

NOTE: THERMOPLASTIC WRONG-WAY PAVEMENT ARROWS TO BE PAID FOR AS THERMOPLASTIC PAVEMENT MARKING (ARROWS).

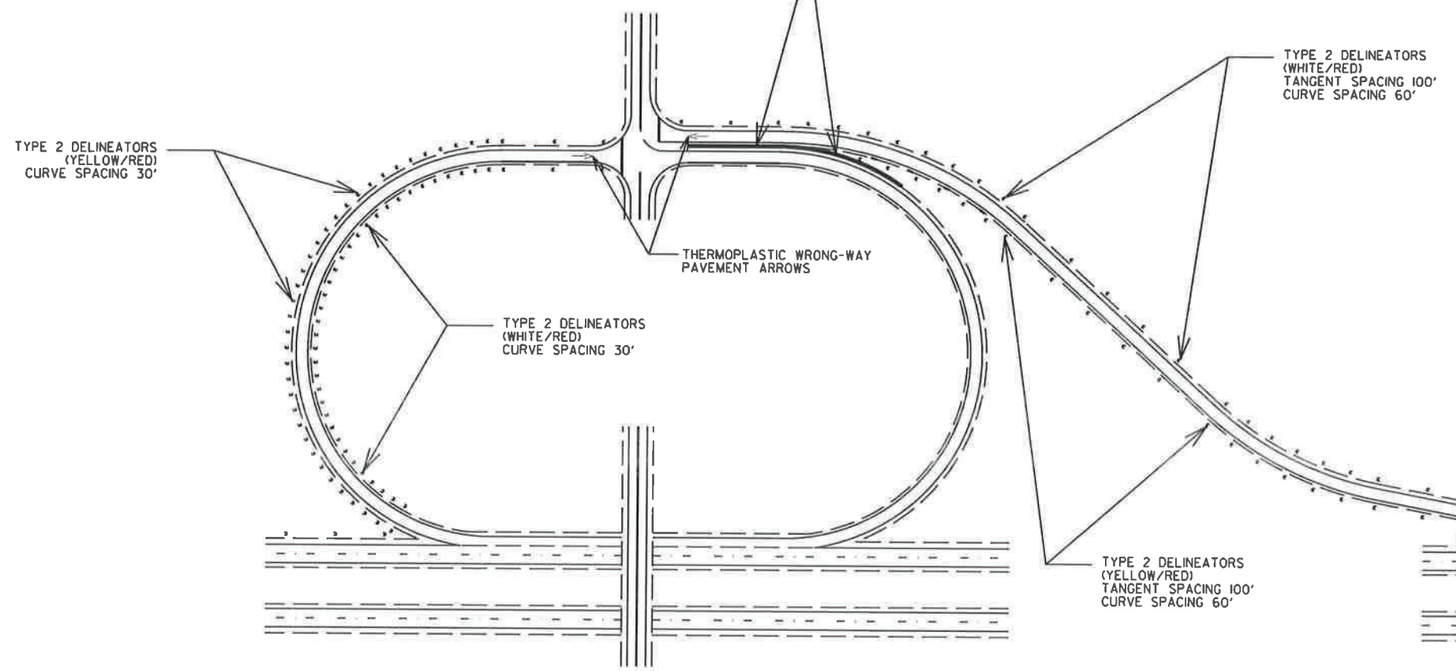
LEGEND

DELINEATOR

NOTE: WHEN UNIFORM SPACING IS INTERRUPTED BY ROADSIDE OBSTACLES, DELINEATORS ADJACENT TO THE ROADSIDE OBSTACLES MAY BE RELOCATED IN EITHER DIRECTION FOR A DISTANCE NOT EXCEEDING ONE QUARTER OF THE UNIFORM SPACING OR MAY BE ELIMINATED AS DIRECTED BY THE ENGINEER.



PERMANENT BARRIER WALL
DELINEATOR DETAIL

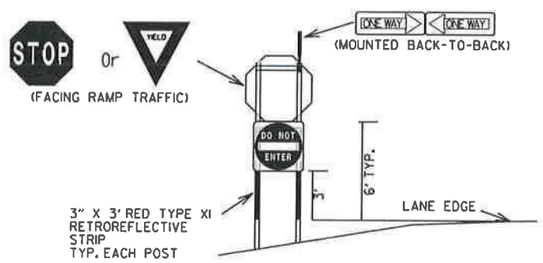


TYPICAL EXIT RAMP DELINEATOR PLACEMENT



WRONG-WAY SIGN ASSEMBLY DETAILS

NOTES
1. WRONG-WAY SIGNS MAY BE MOUNTED ON THE BACK SIDE OF EXISTING SIGN SUPPORTS WHERE POSSIBLE.
2. WRONG-WAY SIGNS ARE NORMALLY GATED, BUT MAY BE OFFSET WHEN BARRIER WALLS ARE PRESENT ON THE INSIDE SHOULDER. IN SUCH CASES, THE SIGN ON THE INSIDE SHOULDER SIDE MAY BE LOCATED PAST THE END OF THE BARRIER WALL. IN RARE CASES WHERE THE BARRIER WALL EXTENDS TO OR NEAR THE MAIN LANES, BOTH SIGNS MAY BE LOCATED ON THE OUTSIDE SHOULDER SIDE OF THE RAMP, WITH APPROXIMATELY 300' SPACING BETWEEN THE SIGNS.



RAMP INTERSECTION SIGN ASSEMBLY DETAILS

THE DELINEATORS SHALL BE PLACED AT A 4' HEIGHT MEASURED FROM THE PAVEMENT EDGE TO THE BOTTOM OF THE DELINEATOR. DELINEATOR POSTS SHALL BE PLACED 2 TO 8 FT. OUTSIDE THE OUTER EDGE OF THE SHOULDER, OR IF APPROPRIATE, IN LINE WITH THE ROADSIDE BARRIER THAT IS 8 FT. OR LESS OUTSIDE THE OUTER EDGE OF THE SHOULDER.

DELINEATOR SPACING IN CURVES SHALL BE REDUCED TO 30' WHEN THE RAMP ADVISORY SPEED IS 30 MPH OR LESS.

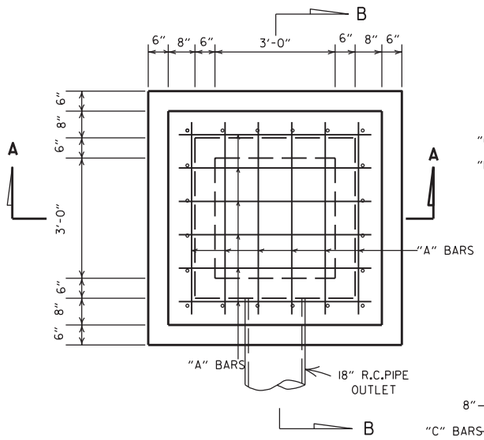
IF MULTIPLE LANES EXIST AT THE RAMP TERMINAL, THE THERMOPLASTIC WRONG-WAY ARROW SHALL BE PLACED AS CLOSE TO THE RAMP TERMINAL TURNOUT AS POSSIBLE.

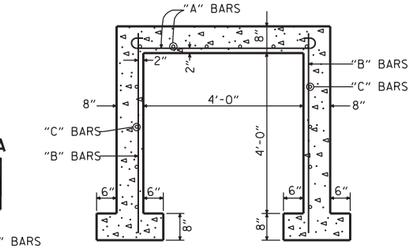
DATE	REVISION	FILMED
11-16-17	ADDED NOTES	
06-01-17	RE-DRAWN	
09-12-13	ISSUED AS STANDARD DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

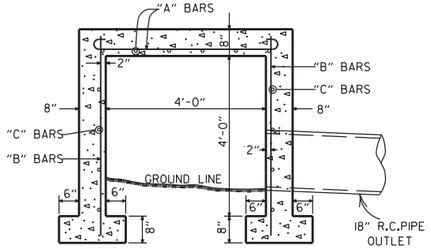
TYPICAL EXIT RAMP SIGN AND DELINEATOR DETAILS

STANDARD DRAWING SHS-8





SEC A-A



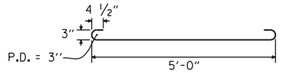
SEC B-B

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



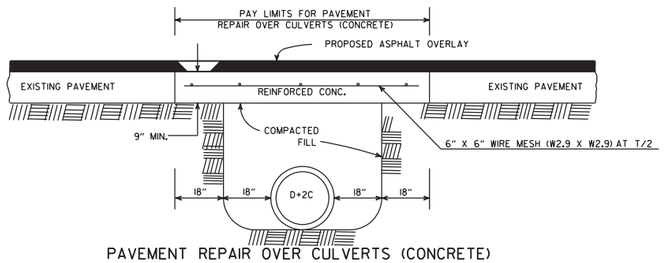
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

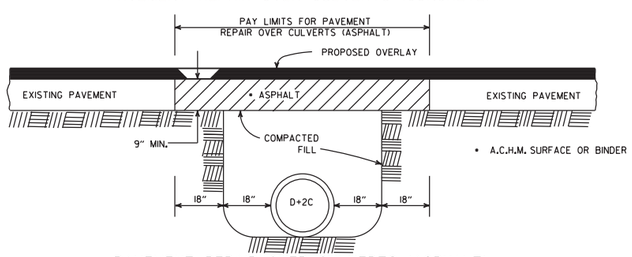
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITTIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



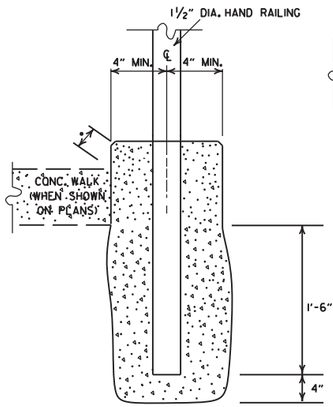
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



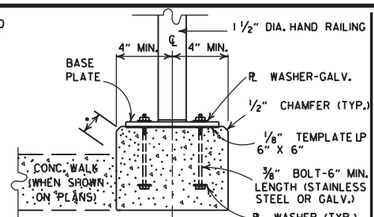
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

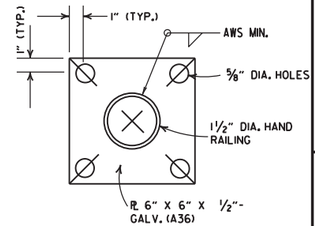
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

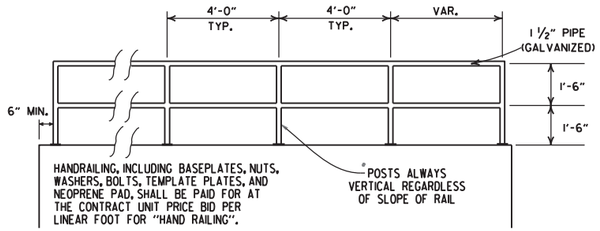


POST CONNECTION TO WALL

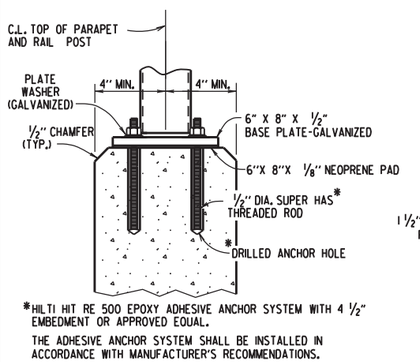


BASE PLATE

POST CONNECTION DETAILS



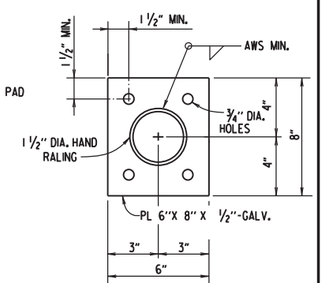
HAND RAILING SHALL CONFORM TO SECTION 633.



*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.

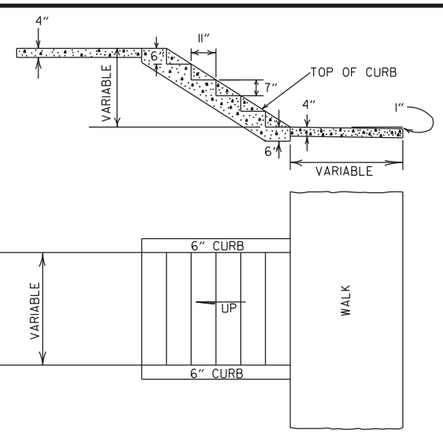
POST CONNECTION TO WALL



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.

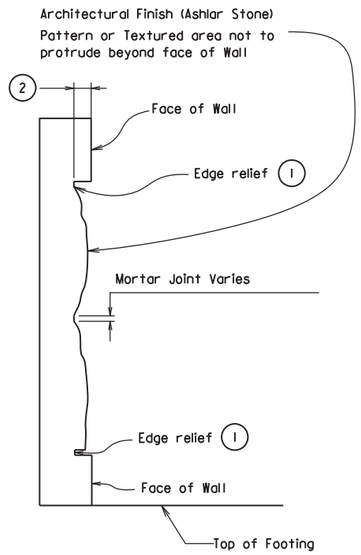
DETAILS OF CONCRETE STEPS & WALKS

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	
4-26-96	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

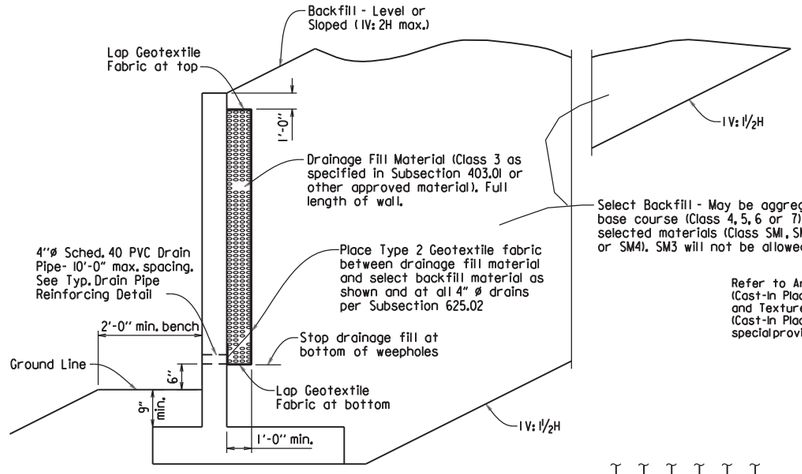


ARCHITECTURAL FINISH DETAILS

N.T.S.

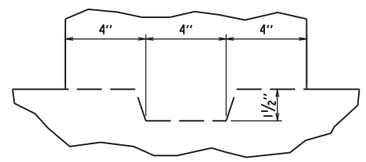
(1) Provide edge relief around perimeter of Texture. Edge relief dimensions shall match manufacturers edge distance.

(2) Depth of Ashlar Stone pattern approx. 1 5/8". See SP "Architectural Finish".



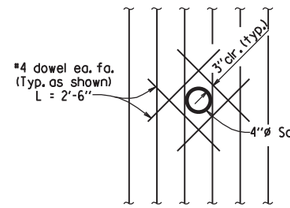
TYPICAL DRAINAGE & BACKFILL DETAILS

N.T.S



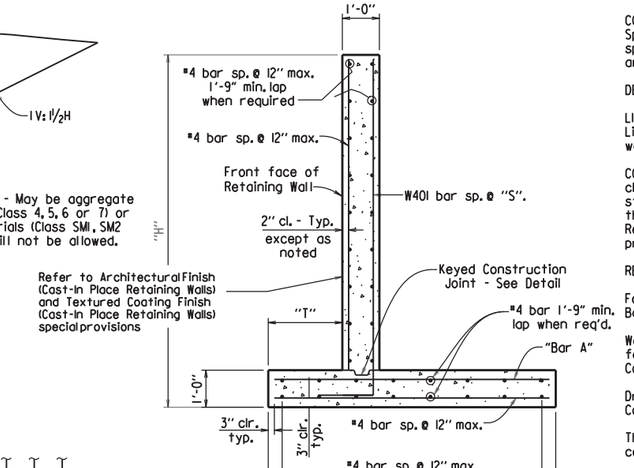
KEYED CONSTRUCTION JOINT DETAIL

N.T.S



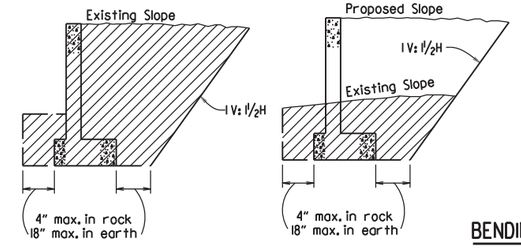
TYPICAL DRAIN PIPE REINFORCING DETAIL

N.T.S



TYPICAL SECTION

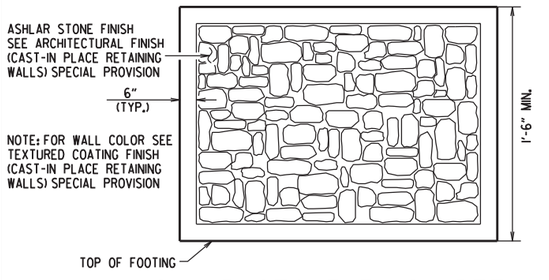
N.T.S



NOTE: Hatched area denotes maximum limits of pay excavation.

DETAILS OF EXCAVATION

N.T.S



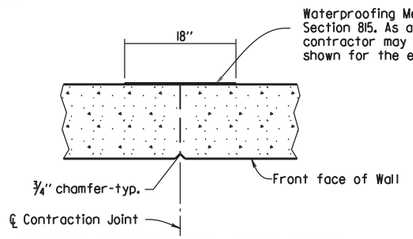
ASHLAR STONE FINISH DETAIL

NOTES:

Wall pattern shall be applied to the exposed surfaces of wall in accordance with SP "Architectural Finish (Cast-in Place Retaining Walls)" and as shown in the plans. Care shall be taken with form liner handling and installation to ensure aesthetic quality of the wall texturing is maintained. Where form liner panels require modification to conform to the location, dimensions and lines shown in the plans, the Contractor shall provide edge relief matching that of the unaltered form liner. Payment for wall texturing shall be in accordance with SP "Architectural Finish (Cast-in Place Retaining Walls)".

No adjustments will be made in concrete volume due to the use of "Architectural Finish". Class "S" Concrete shall be measured in accordance with Subsection 802.24(a). Care shall be taken in placing concrete to avoid segregation and to eliminate flow lines.

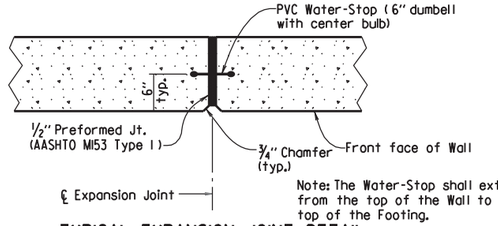
Class 3 Textured Coating Finish shall be applied to wall surfaces as specified in SP "Textured Coating Finish (Cast-in Place Retaining Walls)" and in accordance with Subsection 802.19(b)(3).



TYPICAL CONTRACTION JOINT DETAIL

N.T.S.

Note: 20'-0" Max. Spacing between Contraction Joints. Horizontal reinforcement shall be continuous through Contraction joints.

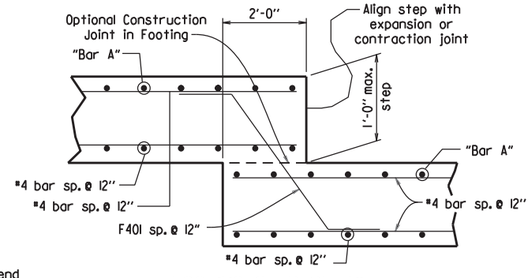


Note: The Water-Stop shall extend from the top of the Wall to the top of the Footing.

TYPICAL EXPANSION JOINT DETAIL

N.T.S.

Note: 60'-0" Max. Spacing between Expansion Joints. Horizontal reinforcing shall stop 2" from ℄ Expansion Joint.



FOOTING STEP DETAIL

N.T.S.

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: 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.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Sixth Edition (2012).

LIVE LOAD: Live Load Surcharge is not included in the design of these walls. Vehicular Live Load shall not be allowed within a distance equal to one-half the height of the wall.

CONCRETE: Concrete shall be poured in the dry and all exposed corners to be chamfered ½". All concrete shall be Class S with a minimum 28 day compressive strength f'c = 3,500 psi. A Class 2 Surface finish shall be used on all surfaces of the concrete unless otherwise noted. Refer to Architectural Finish (Cast-in Place Retaining Walls) and Textured Coating Finish (Cast-in Place Retaining Walls) special provisions.

REINFORCING STEEL: All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Foundations for footings shall be prepared in accordance with subsection 801.04. Backfill for retaining walls shall be in accordance with subsection 801.08.

Waterproof Membrane (Type C), waterstops, preformed joints, weep holes & geotextile fabric shall not be paid for directly, but shall be considered subsidiary to Class S Concrete.

Drainage fill material (Class 3) and select backfill shall be measured and paid for as Compacted Embankment.

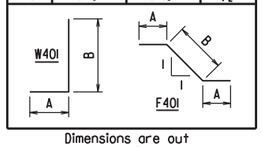
These details are not intended for use along streams or ditches without consideration for scour.

TABLE OF RETAINING WALL VARIABLES (SLOPED BACKFILL) (1V: 2H MAX.)

"H"	"T"	"B"	"S"	"Bar A" Size @ Spacing
3'-0"	9"	2'-6"	12"	#4 @ 12"
4'-0"	9"	3'-6"	12"	#4 @ 12"
5'-0"	9"	4'-6"	12"	#4 @ 12"
6'-0"	9"	5'-6"	12"	#4 @ 6"
7'-0"	9"	6'-6"	12"	#5 @ 6½"
8'-0"	1'-6"	8'-0"	7½"	#6 @ 6"
9'-0"	1'-11"	9'-6"	5"	#8 @ 6"

BENDING DIAGRAMS

MARK	A	B	P.D.
W401	8"	"H" - 6"	3"
F401	1'-6"	1'-10"	2½"



Dimensions are out to out of bars.

TABLE OF RETAINING WALL VARIABLES (LEVEL BACKFILL)

"H"	"T"	"B"	"S"	"Bar A" Size @ Spacing
3'-0"	9"	2'-6"	12"	#4 @ 12"
4'-0"	9"	3'-6"	12"	#4 @ 12"
5'-0"	9"	4'-0"	12"	#4 @ 12"
6'-0"	9"	4'-6"	12"	#4 @ 12"
7'-0"	9"	5'-6"	12"	#4 @ 10"
8'-0"	9"	6'-0"	12"	#5 @ 10"
9'-0"	1'-0"	7'-0"	12"	#5 @ 6½"

SEISMIC ZONE: These walls have been designed for the following site adjusted peak ground accelerations (A_S):
Level Backfill - $A_S \leq .40g$
Sloped Backfill (1V: 2H max.) - $A_S \leq .30g$

DATE	REVISION	DATE FILMED
5-14-20	ADDED ASHLAR STONE FINISH DETIAL AND NOTES. REVISED TYP. SECTION AND GEN. NOTES.	
5-12-16	REVISED SLOPES FOR SELECT BACKFILL	
2-27-14	REVISED GENERAL NOTES	
7-26-12	DRAWING ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE RETAINING WALL (WITHOUT LIVE LOAD SURCHARGE)

STANDARD DRAWING SI - 2

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"

R5-1



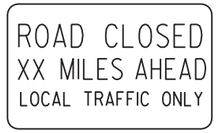
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



48"X30"

R11-3A



60"X30"

R11-4



60"X30"

W21-5a



STD. 36"X36"
FWY. 48"X48"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2



STD. 36"X36"
FWY. 48"X48"

W1-3



STD. 48"X48"

W1-4



STD. 48"X48"

W1-6



STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



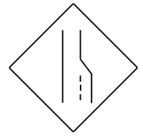
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1



STD. 36"X36"
SPECIAL 48"X48"

W6-3



EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7



EXPWY. 36"X36"
FWY. 48"X48"

W9-2



STD. 36"X36"
FWY. 48"X48"

W13-1



STD. 24"X24"

W20-1



STD. 48"X48"

W20-2



STD. 48"X48"

W20-3



STD. 48"X48"

W20-4



STD. 48"X48"

W20-5



STD. 48"X48"

W20-7a



STD. 36"X36"
FWY. 48"X48"

W21-2



STD. 30"X30"
SPECIAL 36"X36"

W21-5



STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b



STD. 48"X48"

R56-1



STD. 18"X18"

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"

R55-1

36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE AHEAD

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. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

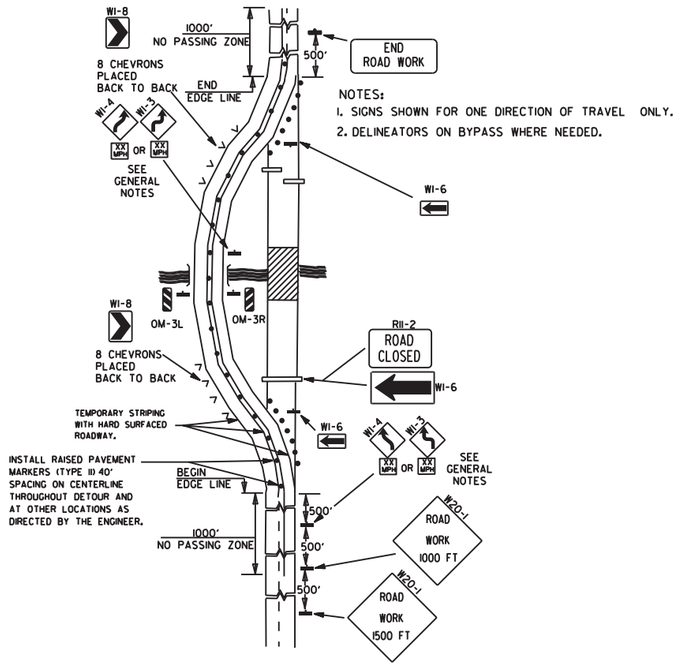
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

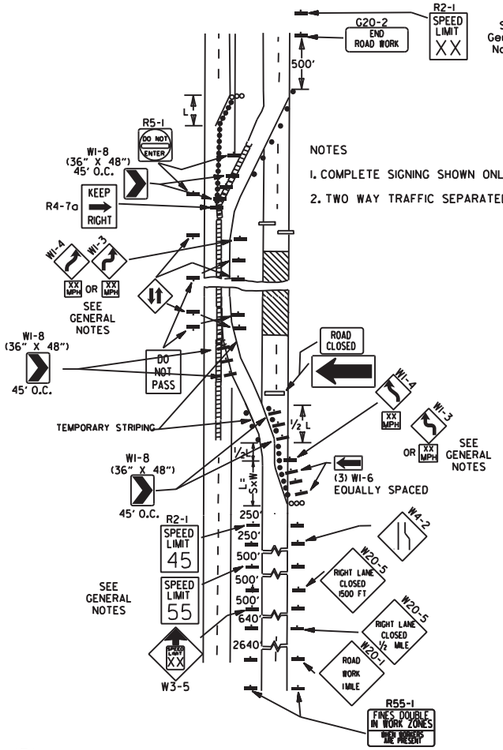
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



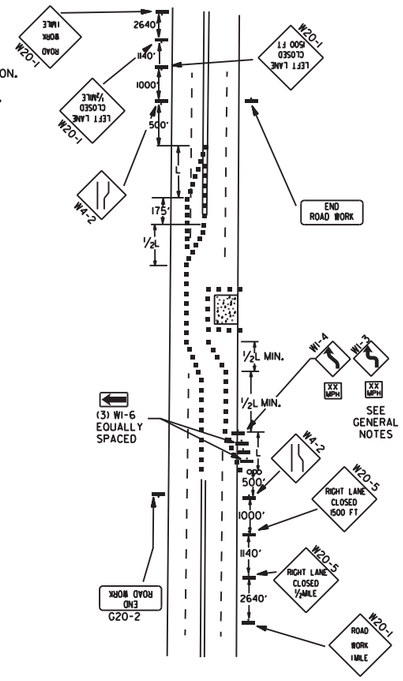
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

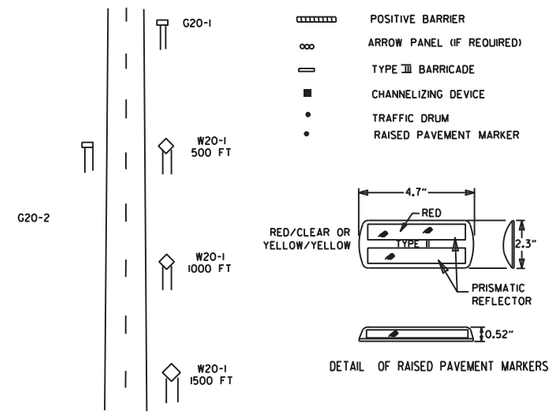


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(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:

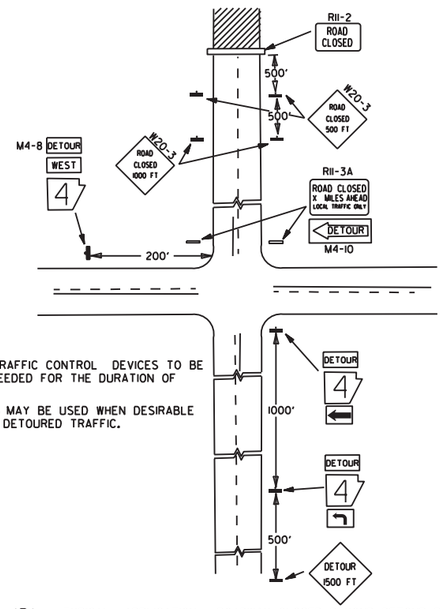
L= MINIMUM LENGTH OF TAPER.

S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

W= WIDTH OF OFFSET.

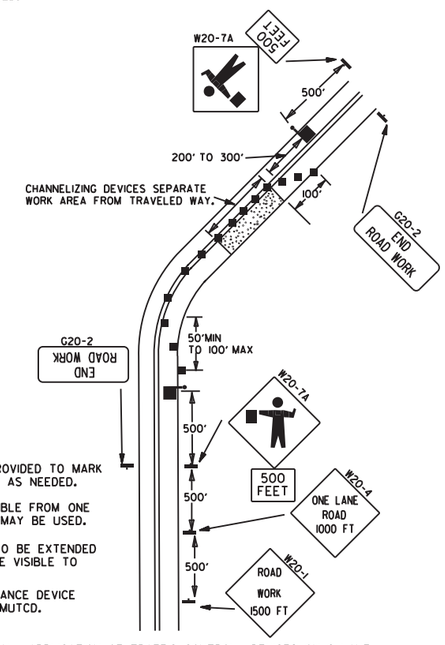
GENERAL NOTES:

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 WI-3 OR WI-4 CURVE WARNING SIGNS. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-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).



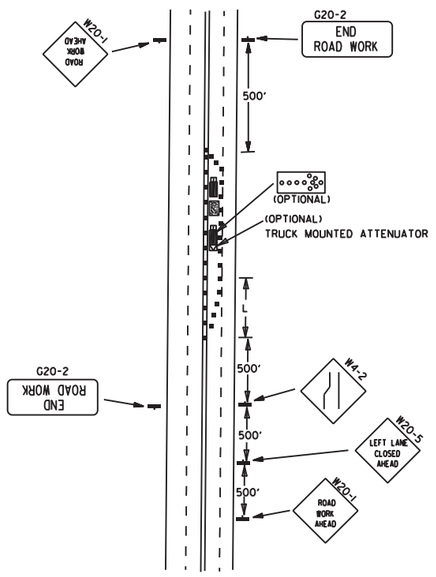
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



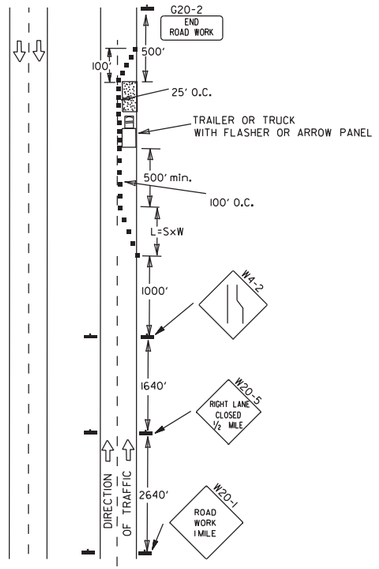
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
05-20-21	REVISED NOTE 7	
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

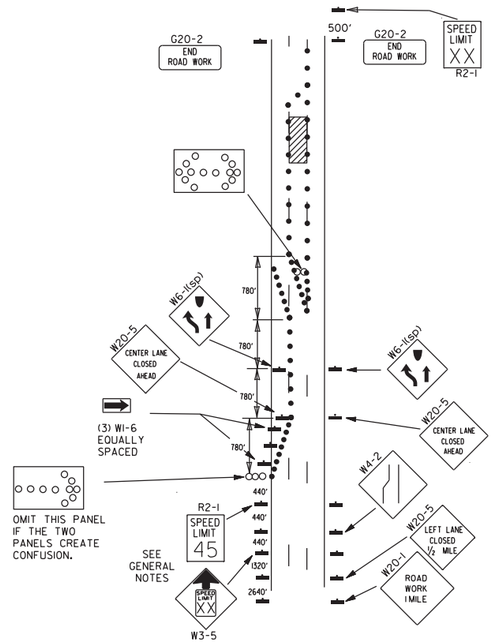
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2



(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

KEY:

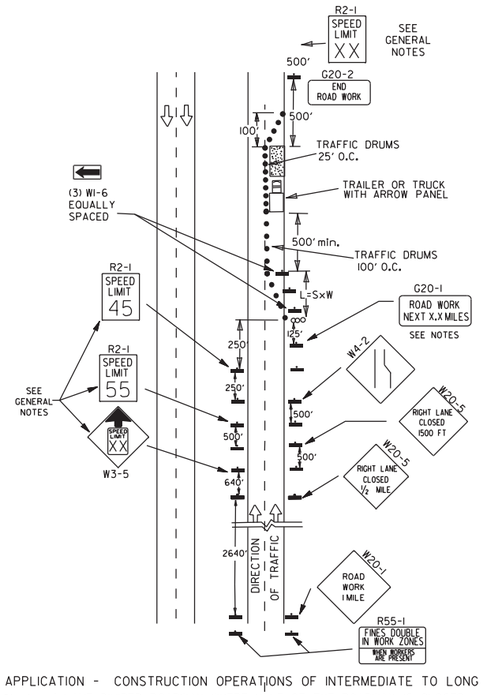
○○○ ARROW PANEL (IF REQUIRED)

■ CHANNELIZING DEVICE

● TRAFFIC DRUM

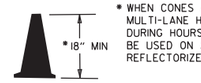
GENERAL NOTES:

1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(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 1 MILE 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 1 MILE 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. THE G20-1 SIGN WILL BE REQUIRED 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.
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).



(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

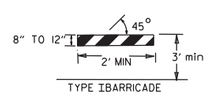
CHANNELIZING DEVICES

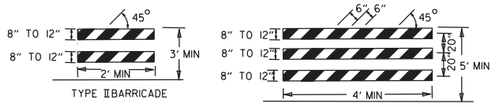


* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

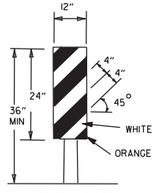
CONES

PLASTIC DRUM

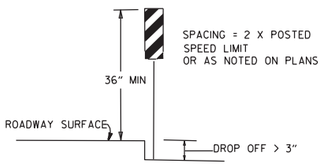




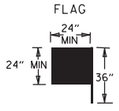
NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.



VERTICAL PANEL PLACEMENT



FLAG



FLAG SHALL BE OF GOOD GRADE RED MATERIAL

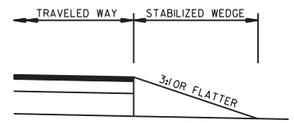
TRAFFIC CONTROL DEVICES			
NON-INTERSTATE			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE[6]	STANDARD LANE CLOSURE[6]
≤ 3"	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:

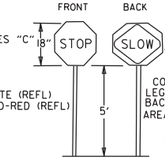
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL 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).

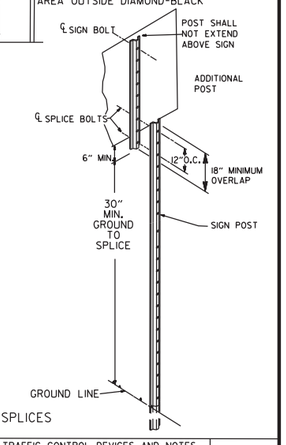


STABILIZED WEDGE

NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

STOP SLOW PADDLE

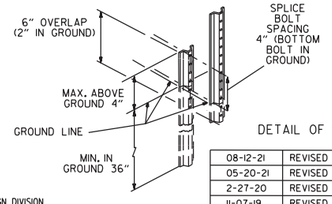




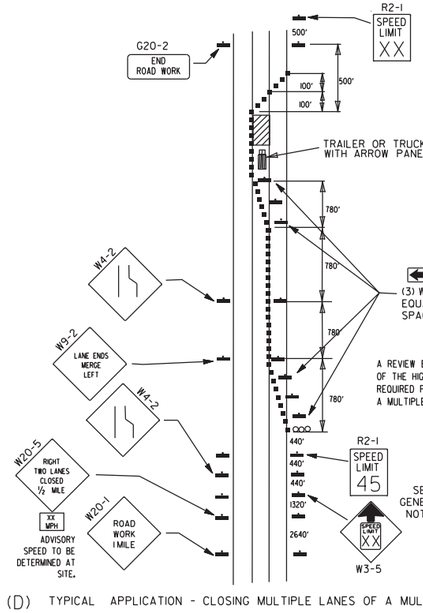
NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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.



DETAIL OF SPLICES



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.

08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES	
05-20-21	REVISED NOTE 10	
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE 11	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

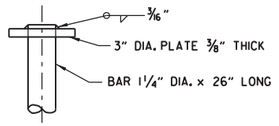
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

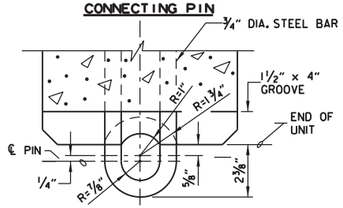
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2. TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", LIFTING HOLE, 90°, 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9", 2 3/16" R, 12°, 9 1/2", 2'-1 3/8", 4 3/8"

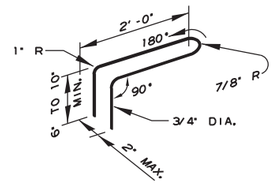


CONNECTING PIN

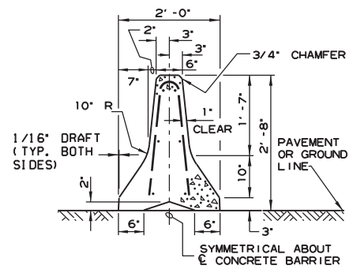


SECTION E-E

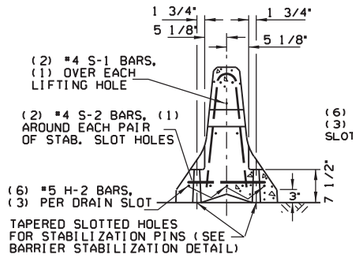
CONNECTION DETAILS



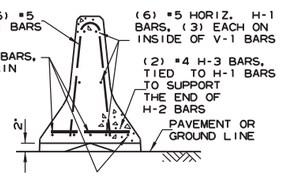
CONNECTION LOOP



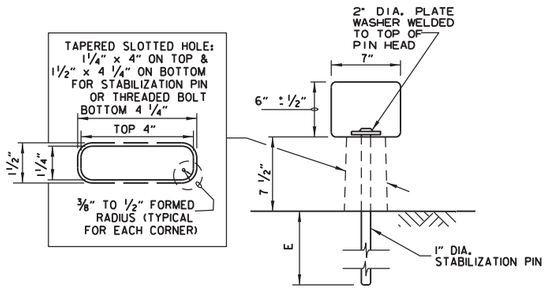
SECTION A-A



SECTION B-B



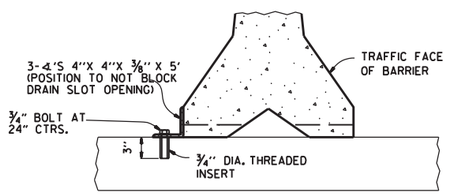
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

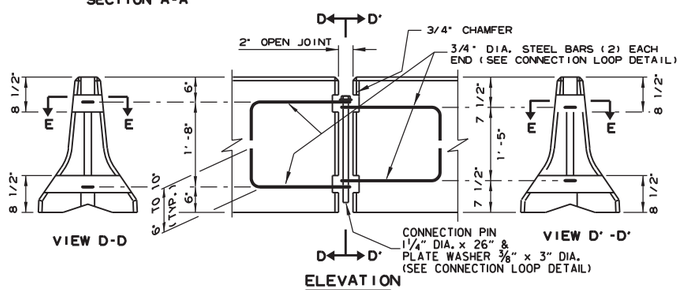
(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

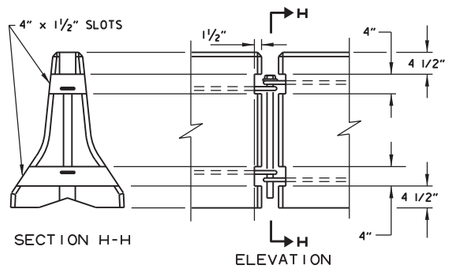
BRIDGE DECKS



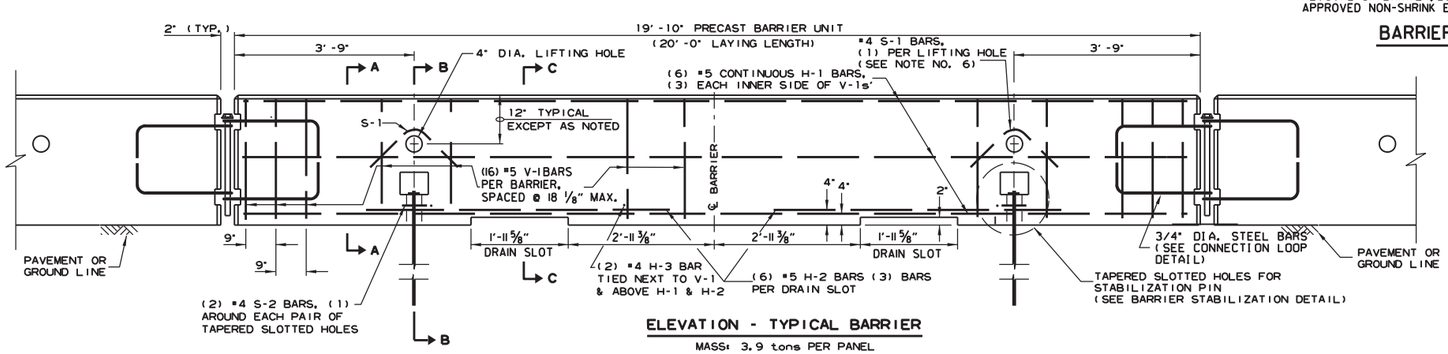
VIEW D-D

VIEW D'-D'

ELEVATION



BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

2. MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
   CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
   REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
   STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
   DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

   IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS.
   DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.

3. OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.

4. DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.

5. ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.

6. A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

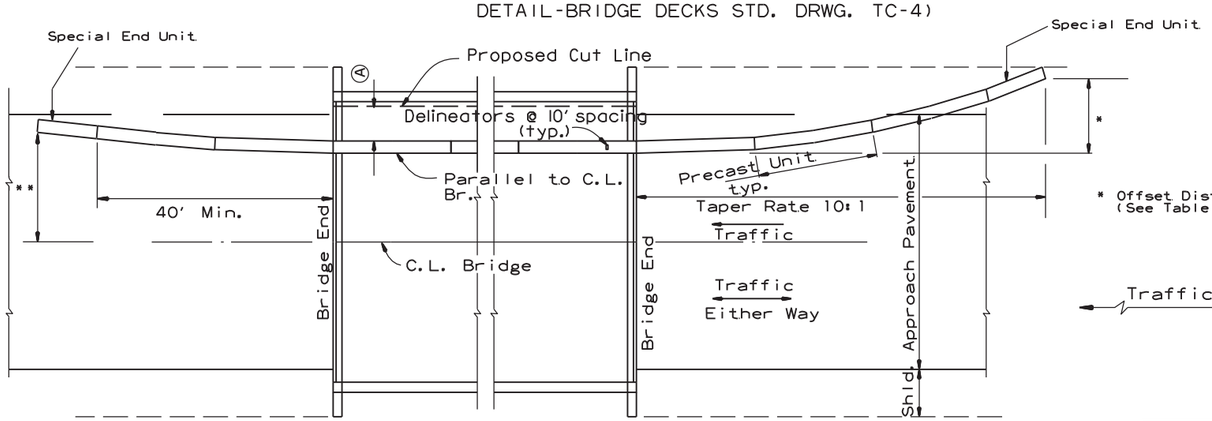
DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)

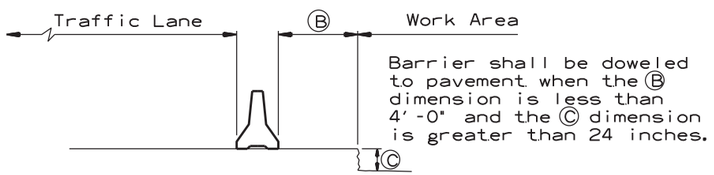


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

** Offset Distance for Two Way Traffic Only

* Offset Distance (See Table)



Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

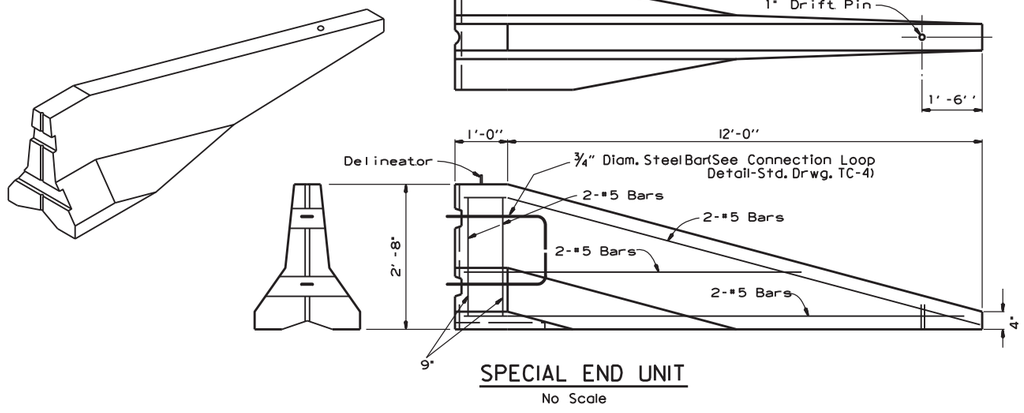
** Offset Distance For Two Way Traffic Only

* Offset Distance (See Table)

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.



SPECIAL END UNIT

No Scale

BARRIER PLACEMENT WITH ATTENUATOR

No Scale

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator

** Offset Distance For Two Way Traffic Only

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

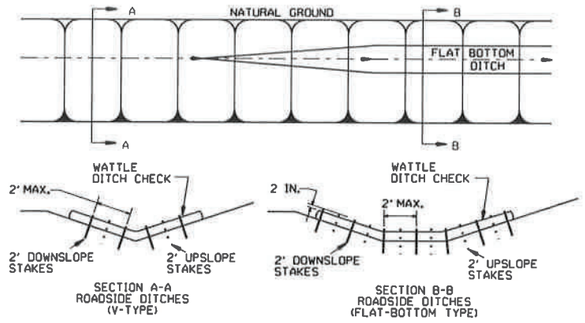
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

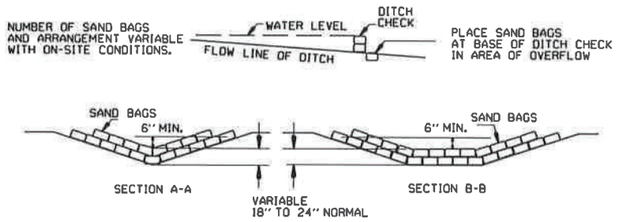
STANDARD DRAWING TC-5

GENERAL NOTES

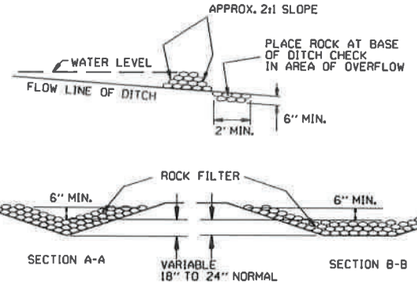
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

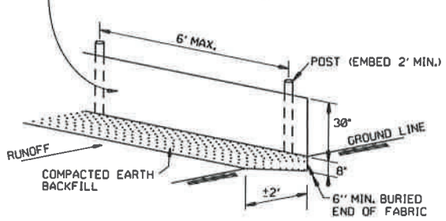


ROCK DITCH CHECK (E-6)

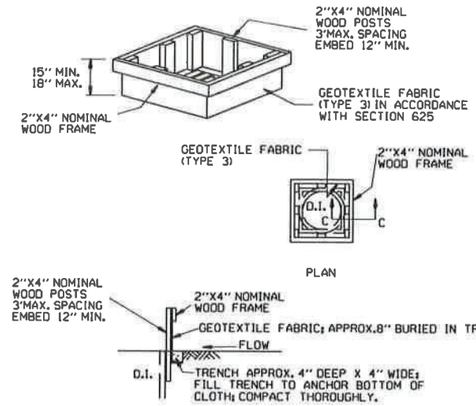
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

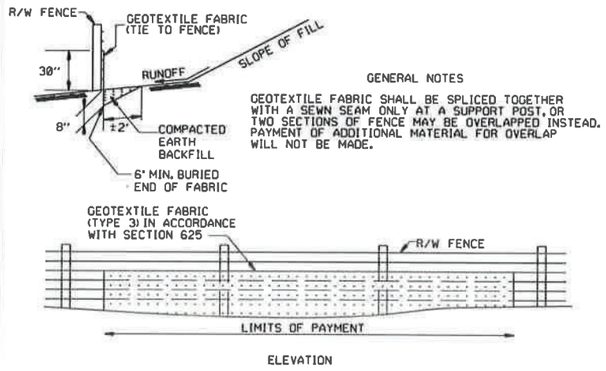
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



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.

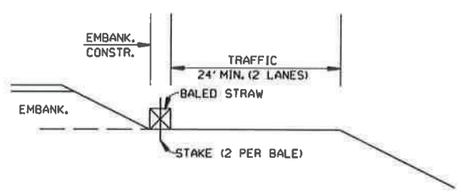
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

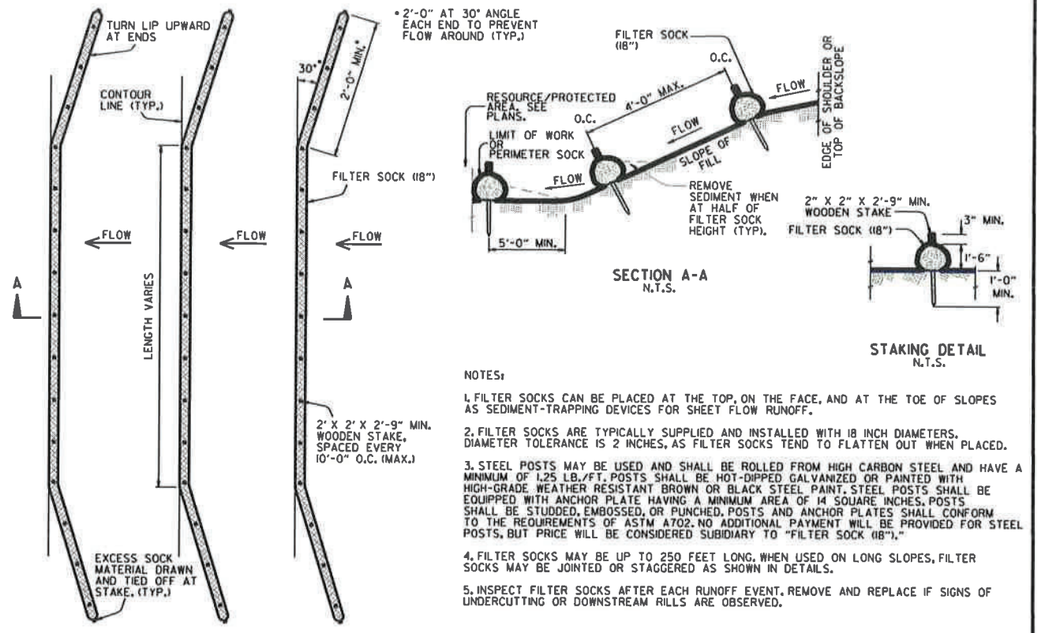
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

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.

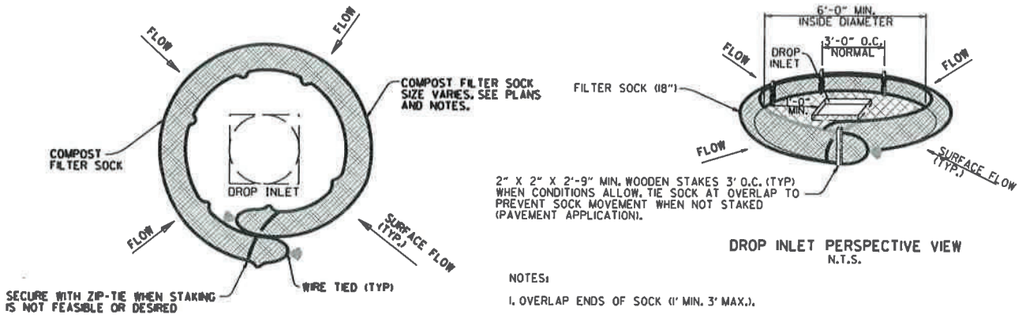
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

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

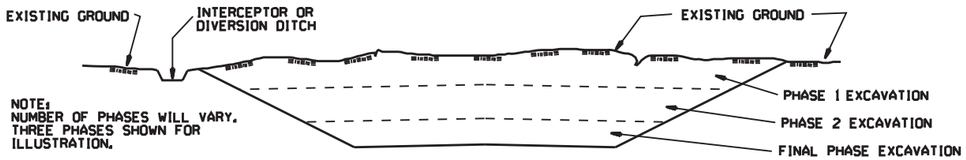
STANDARD DRAWING TEC-1

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



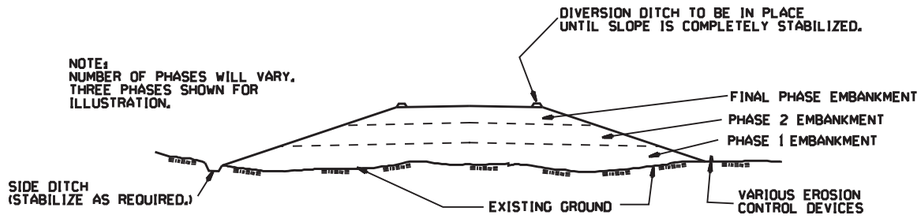
GENERAL NOTE

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

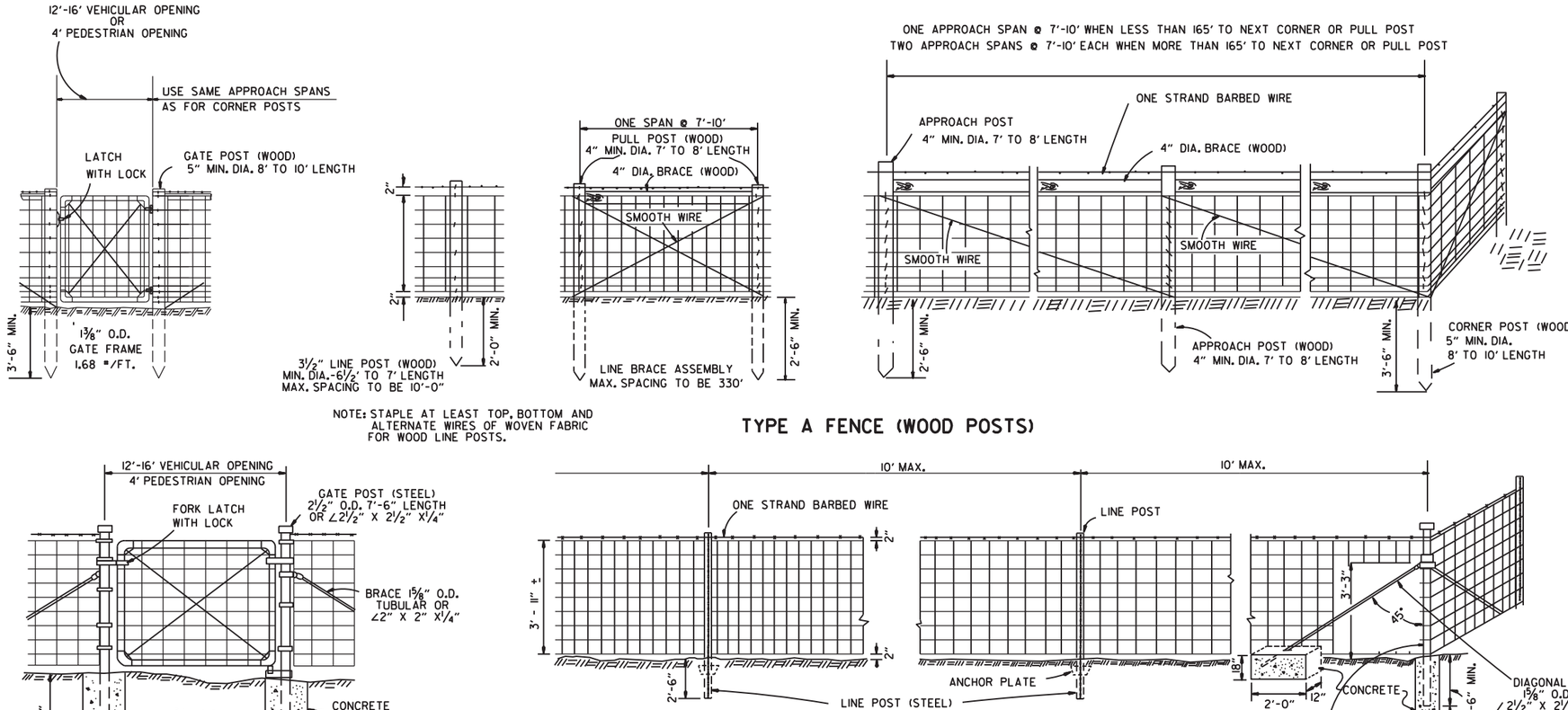
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD 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.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

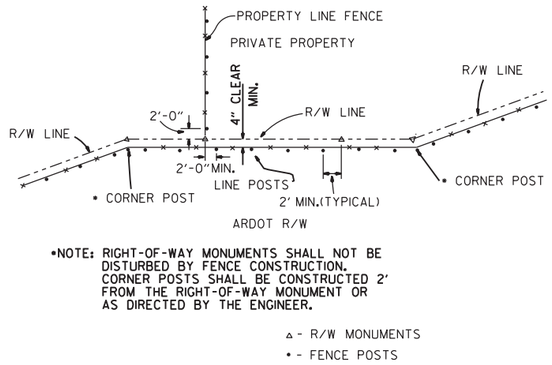
STANDARD DRAWING TEC-3



NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE A FENCE (WOOD POSTS)

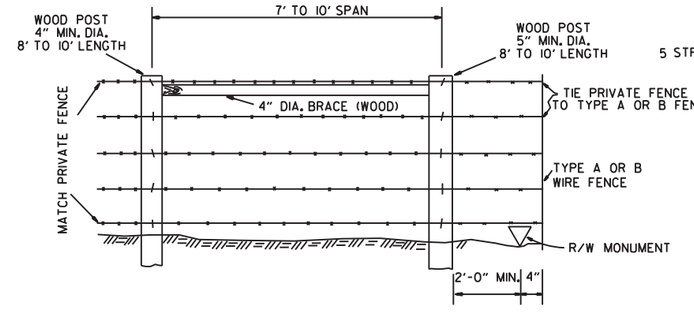
TYPE A FENCE (STEEL POSTS)



*NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

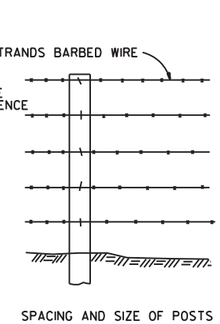
△ - R/W MONUMENTS
• - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION



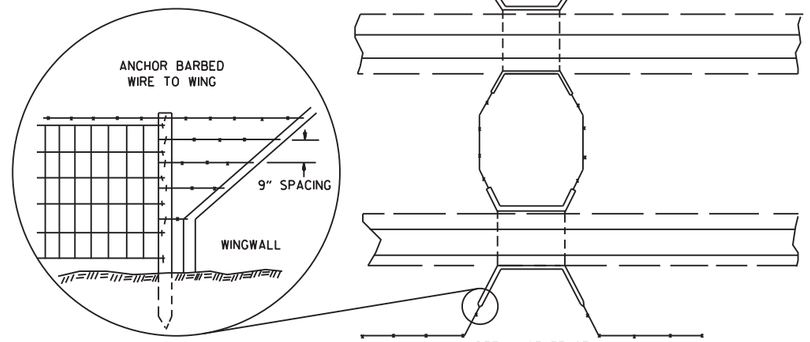
WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

PRIVATE FENCE TERMINAL INSTALLATION



SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE



DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFIEICNT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

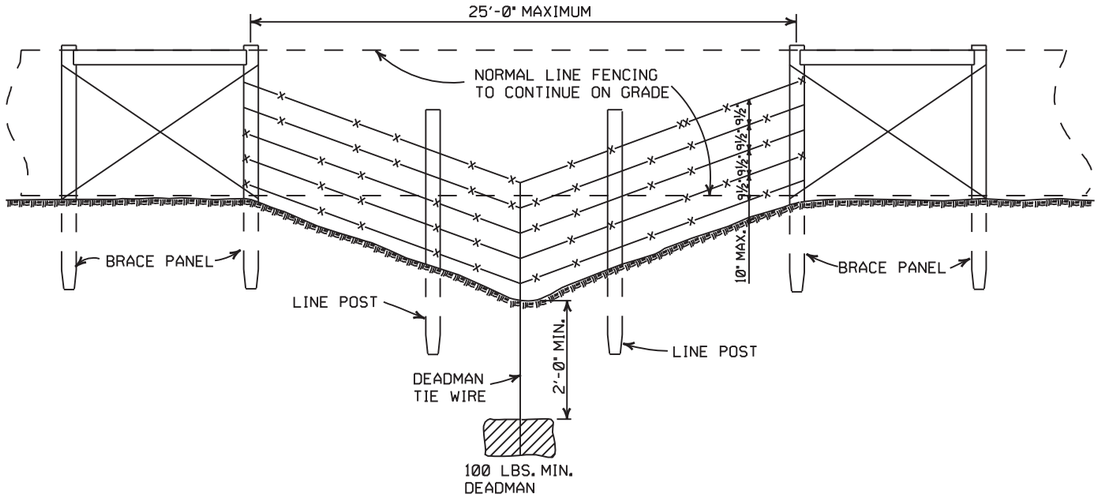
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

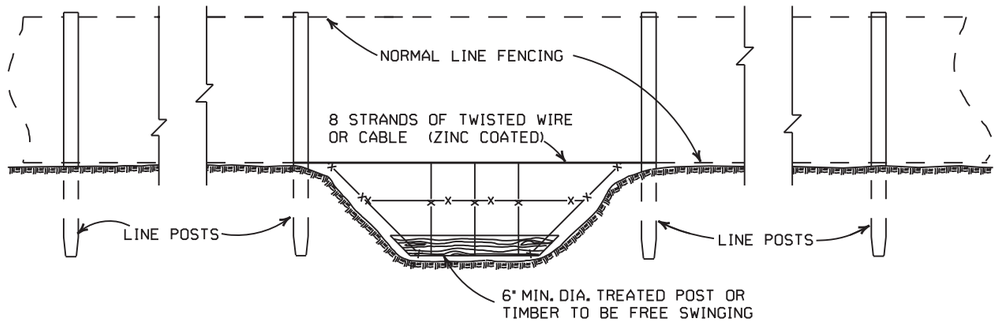
DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES	
	AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

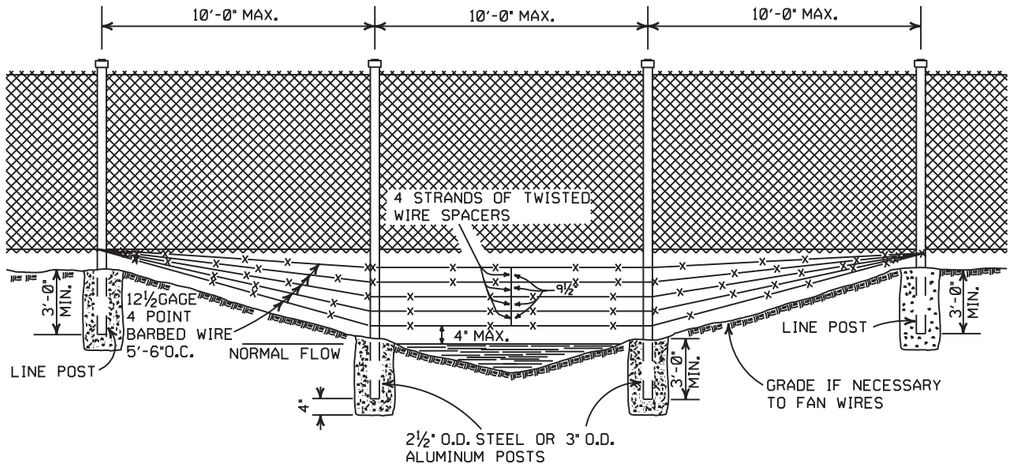
ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE A AND B

STANDARD DRAWING WF-1







GENERAL NOTES:

THESE INSTALLATIONS TO BE USED WHERE NORMAL FENCING INSTALLATION WOULD CAUSE THE COLLECTING OF DRIFT IN THE CHANNEL OR THE DEPRESSION WILL NOT PERMIT NORMAL INSTALLATION. INSTALLATIONS WILL BE MADE ONLY WHERE DIRECTED BY THE ENGINEER.

WHEN A FENCE LINE APPROACHES A DITCH, GULLY OR DEPRESSION, THE LAST POST ON LEVEL GROUND SHALL BE PLACED CLOSE ENOUGH TO THE EDGE OF THE DROP OFF THAT THE FENCE MAY BE STRUNG TO THE POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.

IN TERRAIN OF SUCH EXTREME IRREGULARITY THAT MINOR GRADING WILL NOT BE FEASIBLE, THE NORMAL FENCE SHALL CONTINUE ON GRADE AND THE GULLIES OR DEPRESSIONS TREATED BY AUXILIARY FENCES AS SHOWN.

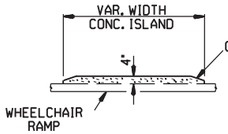
PAYMENT FOR THE TYPE INSTALLATION USED WILL NOT BE MADE DIRECTLY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR WIRE FENCE OR CHAIN LINK FENCE.

DATE	REVISION	FILMED
4-20-79	REVISED TOP RAIL & TENSION WIRE	696-4-20-79
10-2-72	REVISED AND REDRAWN	529-10-2-72

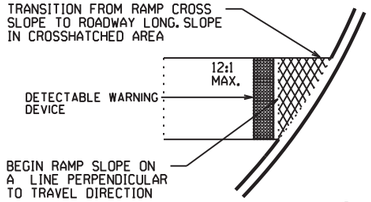
ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE WATER GAPS

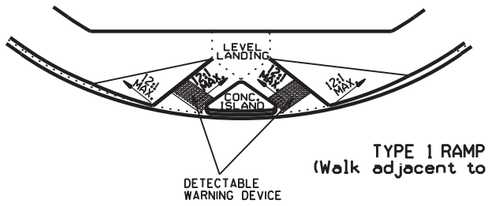
STANDARD DRAWING WF-2



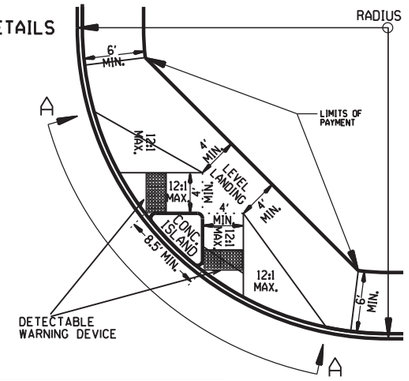
CONCRETE ISLAND DETAIL



SLOPE TRANSITION DETAILS



TYPE 1 RAMP
(Walk adjacent to curb)



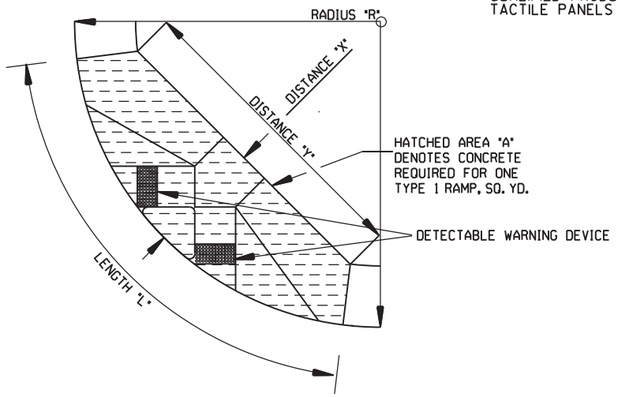


6'-0" MIN. | 4' MIN. RAMP | 8'-6" MIN. ISLAND | 4' MIN. RAMP | 6'-0" MIN.

SECTION A-A

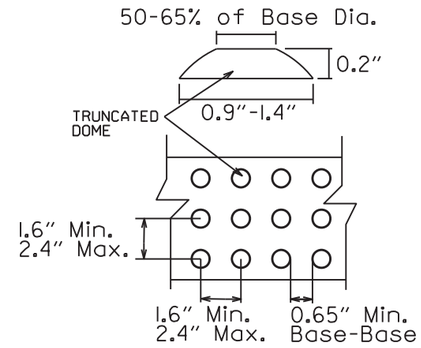
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

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

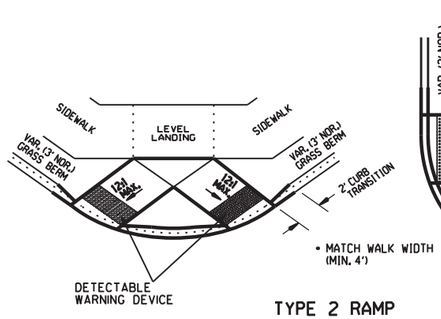
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT 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).



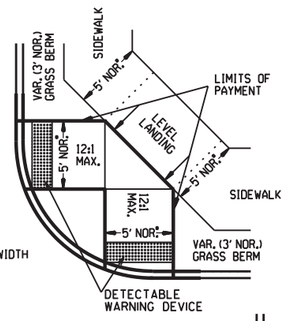
DETECTABLE WARNING DEVICE DETAIL

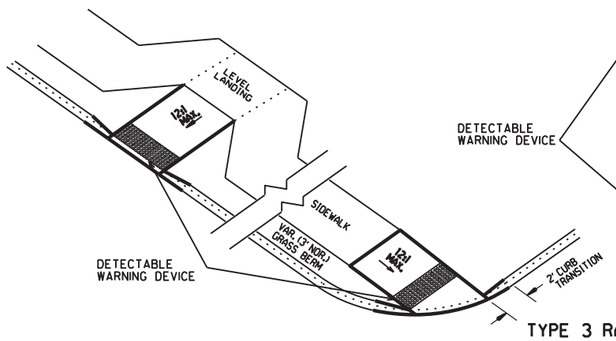
GENERAL NOTES:

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.

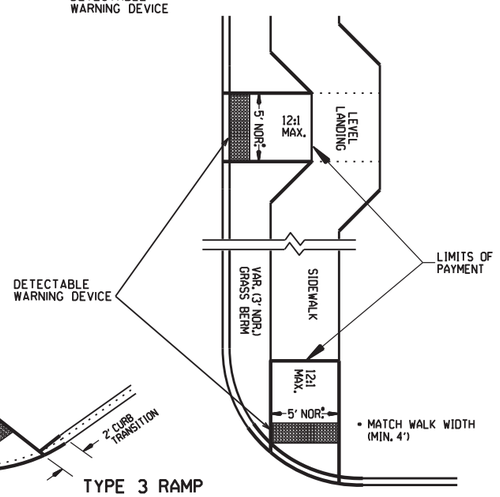


TYPE 2 RAMP

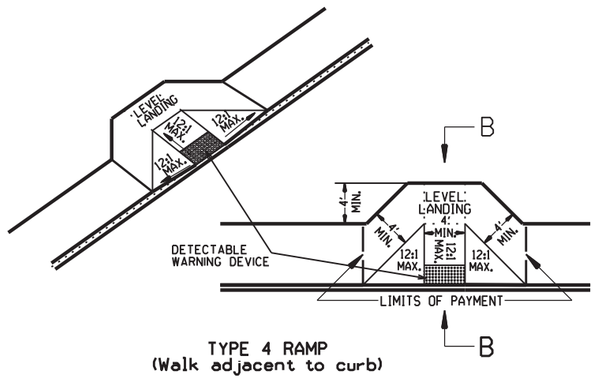




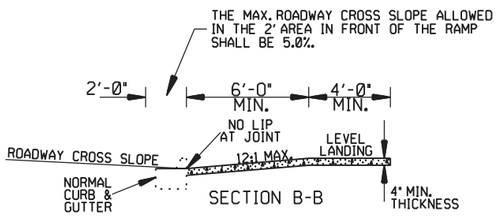
TYPE 3 RAMP



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.

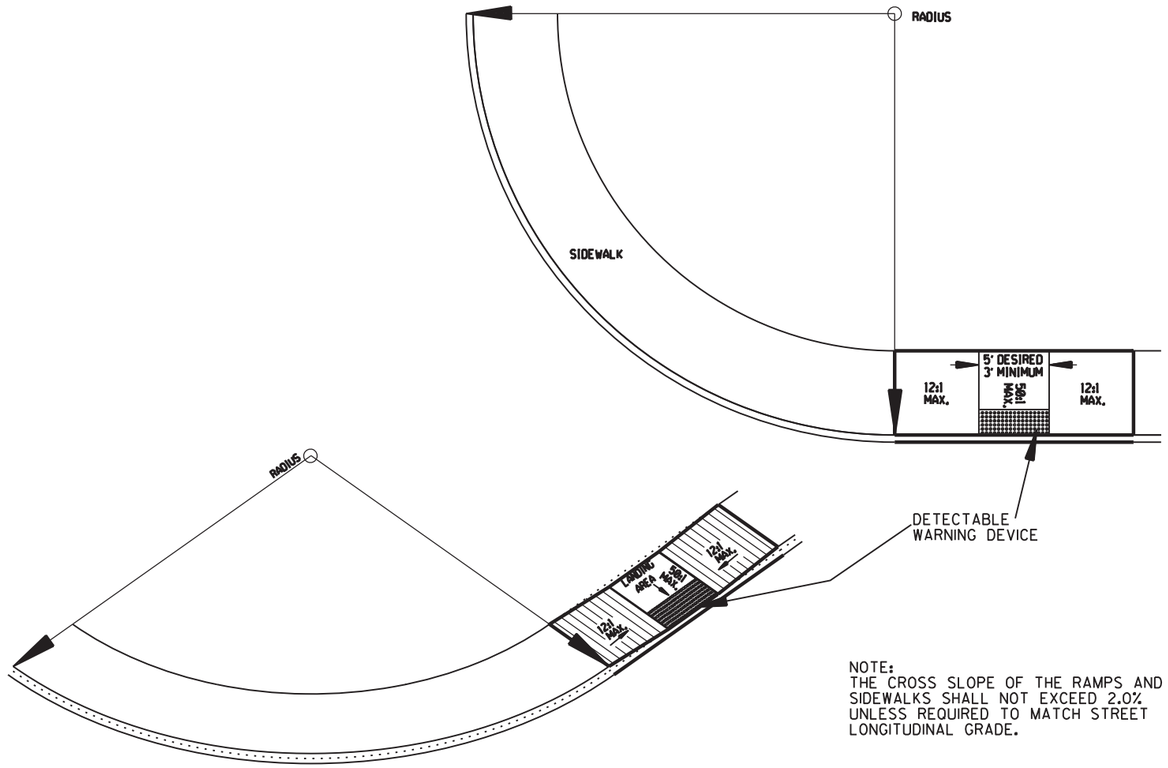
AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION 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	FROM 8:1 TO 12:1 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.H.D.	299-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

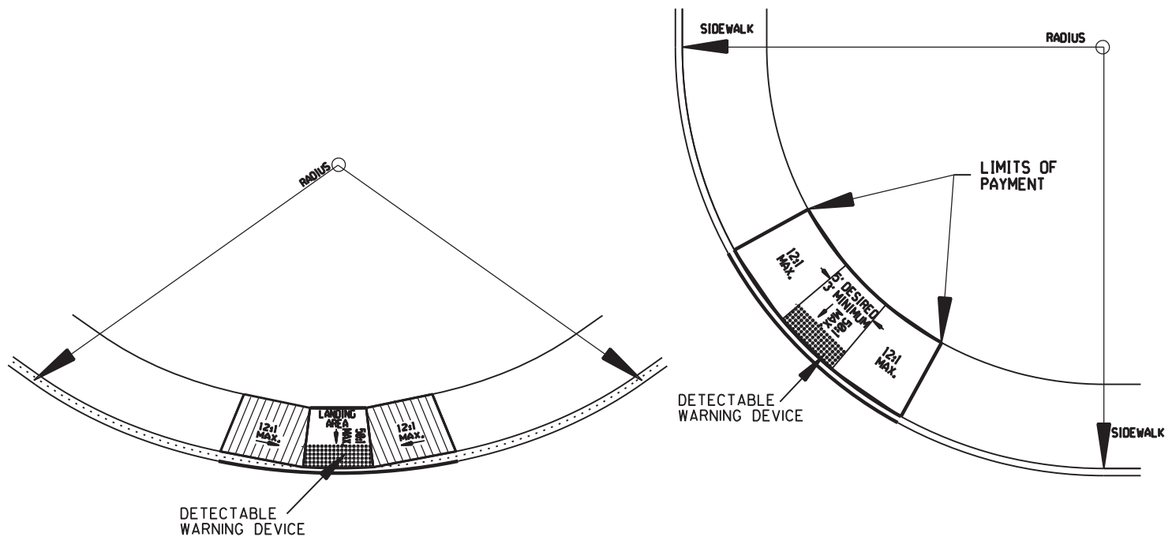
WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS

STANDARD DRAWING WR-1



NOTE:
THE CROSS SLOPE OF THE RAMPS AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGITUDINAL GRADE.

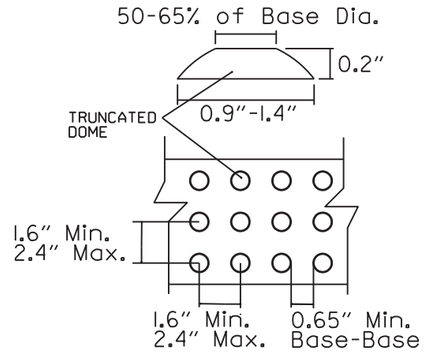
TYPE 5 RAMP



TYPE 6 RAMP

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 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 EXISTING WALK WIDTH OR 36", WHICHEVER IS GREATER.
MINOR MODIFICATIONS OF THESE DETAILS, AS APPPROVED BY THE ENGINEER, MAY BE MADE TO ADJUST TO LOCAL CONDITIONS.

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.

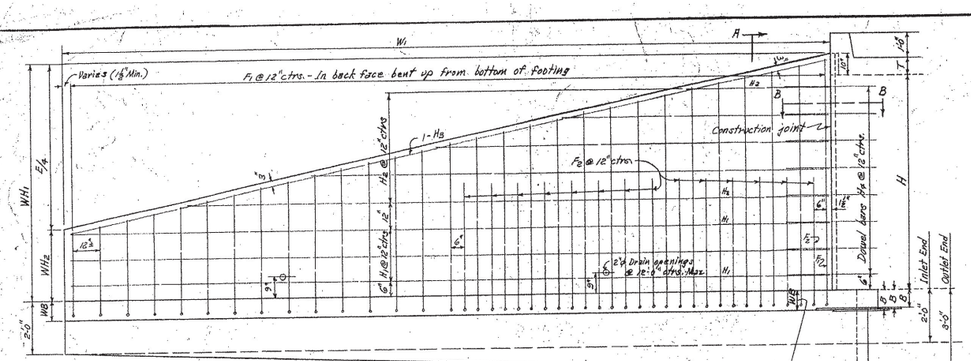
DATE	REVISION	DATE FILM
10-9-03	REVISED GENERAL NOTES & ADDED NOTE.	
4-10-03	REVISED DETECTABLE WARNING DEVICE DETAIL	
8-22-02	ADDED DETECTABLE WARNING DEVICES DETAILS	
11-18-98	REV. FOURTH CHOICE NOTE	
8-12-98	REVISED TEXTURE	
7-02-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

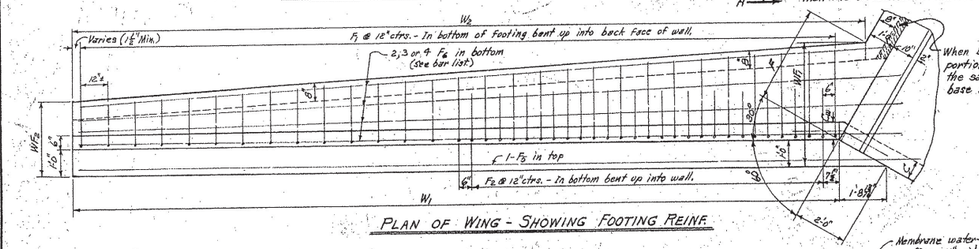
WHEELCHAIR RAMPS ALTERATIONS ONLY

STANDARD DRAWING WR-2

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB. No.					



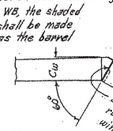
REAR ELEVATION OF WING - SHOWING BACK FACE REINF.



PLAN OF WING - SHOWING FOOTING REINF.

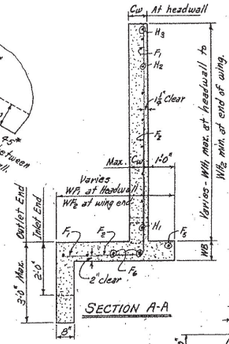
WB may be more, equal to, or less than the bottom slab thickness B.

When B is more than WB, the shaded portion of the apron shall be made the same thickness as the barrel base B.

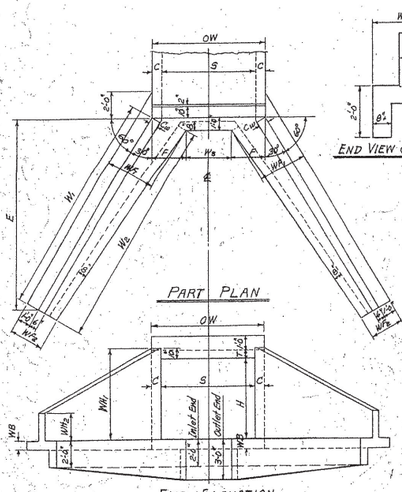


DETAIL AT TOP OF WING

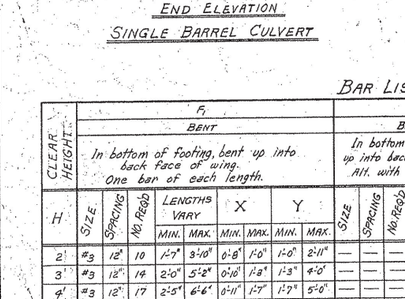
Note:- Payment for membrane waterproofing and roofing felt to be included in price bid for Class S Concrete.



SECTION A-A

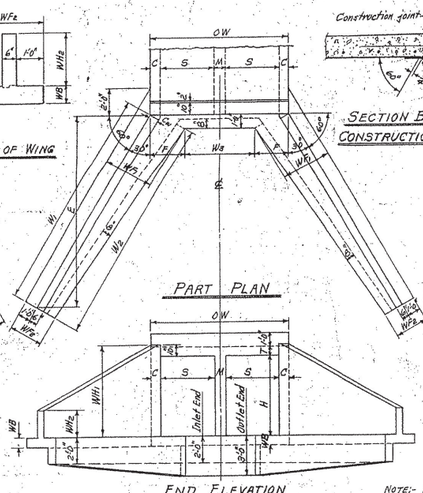


PART PLAN

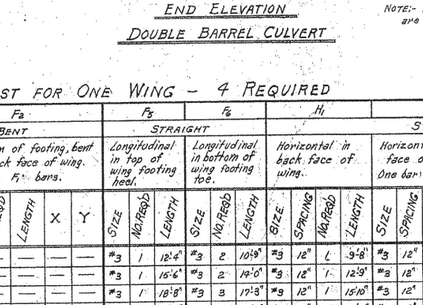


END ELEVATION
SINGLE BARREL CULVERT

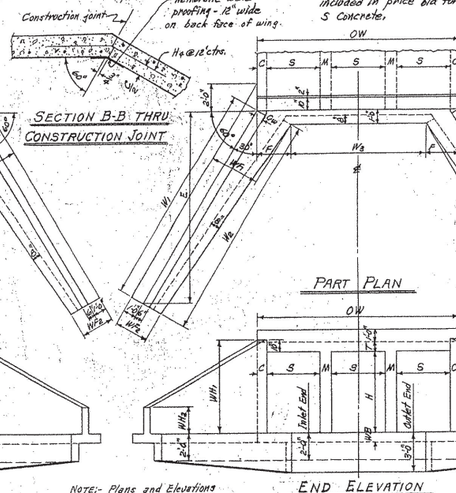
END VIEW OF WING



PART PLAN

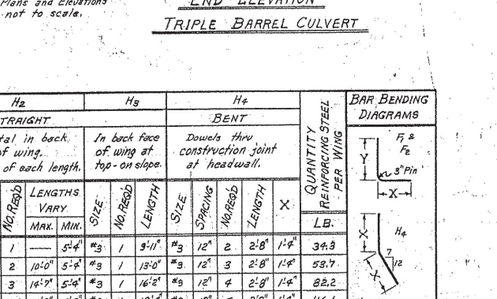


END ELEVATION
DOUBLE BARREL CULVERT

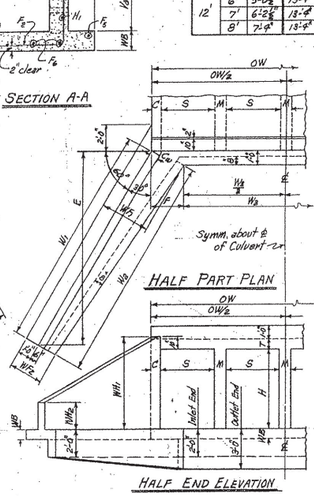


SECTION B-B THRU CONSTRUCTION JOINT

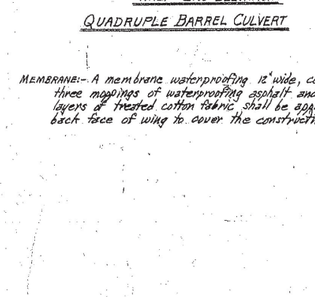
PART PLAN



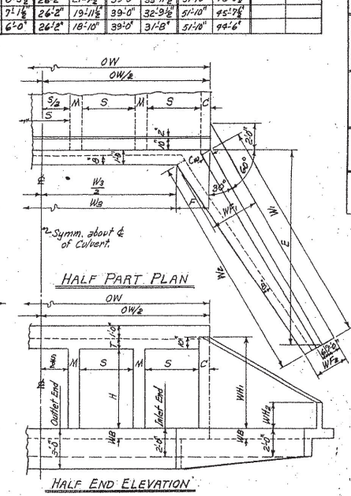
END ELEVATION
TRIPLE BARREL CULVERT



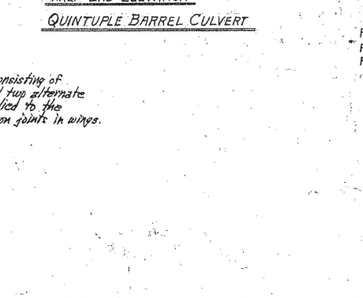
HALF PART PLAN



HALF END ELEVATION
QUADRUPLE BARREL CULVERT



HALF PART PLAN



HALF END ELEVATION
QUINTUPLE BARREL CULVERT

Note:- Plans and Elevations are not to scale.

WING DIMENSIONS

CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	WINGWALL HEIGHTS AT HEADWALL'S ℄		WIDTHS OF WING FOOTINGS AT HEADWALL		PERPENDICULAR FOOTING DIMENSION	PERPENDICULAR DIST. FROM HDWL. TO END OF WING	LENGTH OF WINGWALLS	INSIDE FOOTING DIMENSION	* QUANTITY PER WING CLASS S CONCRETE	
		AT HEADWALL	AT END OF WING	AT HEADWALL	AT END OF WING					INLET END	OUTLET END
H	WB	C_W	WH1	WH2	WF5	WF6	F	E	W1	W2	CU.YD.	CU.YD.
2'	7"	6"	2'-10"	0'-8"	2'-4"	2'-0"	0'-11⅝"	8'-8"	10'-0"	9'-7⅞"	1.174	1.308
3'	7"	6"	3'-10"	1'-0"	2'-8"	2'-1⅝"	1'-0⅝"	11'-0"	13'-1"	12'-10⅜"	1.768	1.937
4'	7"	6"	4'-10"	1'-4"	3'-0"	2'-3"	1'-3"	13'-0"	16'-2"	15'-12"	2.969	2.678
5'	7"	6"	5'-10"	1'-8"	3'-4"	2'-4½"	2'-1⅜"	14'-8"	19'-3"	19'-5⅝"	3.277	3.526
		7"	5'-10"	1'-8"	3'-4"	2'-4⅝"	2'-1⅜"	14'-8"	19'-3"	19'-5⅝"	3.914	3.664
6'	8"	7"	6'-10"	2'-0"	3'-8"	2'-6"	2'-6⅛"	19'-0"	22'-5"	22'-8⅝"	4.550	4.890
		7⅞"	6'-10"	2'-0"	3'-8"	2'-6"	2'-6⅛"	19'-0"	22'-5"	22'-8⅝"	4.699	4.939
		8"	6'-10"	2'-0"	3'-8"	2'-6"	2'-6⅛"	19'-0"	22'-5"	22'-8⅝"	4.737	5.027
7'	8½"	7⅞"	7'-10"	2'-4"	4'-2"	2'-7⅛"	3'-1⅛"	22'-0"	25'-4⅝"	26'-1"	5.960	6.291
		8"	7'-10"	2'-4"	4'-2"	2'-7⅛"	3'-1⅛"	22'-0"	25'-4⅝"	26'-1"	6.081	6.913
8'	9"	8"	8'-10"	2'-8"	4'-8"	2'-9"	3'-0"	24'-8"	28'-5⅝"	29'-5⅝"	7.621	7.995

* Quantity per wing does not include headwall or that portion of apron or toewall for the length Ws.

APRON DIMENSION W3

W3 = (OW - 2F)

CLEAR SPAN	CLEAR HEIGHT	2 F DIMENSION	SINGLE BARREL CULVERT		DOUBLE BARREL CULVERT		TRIPLE BARREL CULVERT		QUADRUPLE BARREL CULVERT		QUINTUPLE BARREL CULVERT	
S	H	2F	OW	W3	OW	W3	OW	W3	OW	W3	OW	W3
4'	2'	1'-11⅝"	5'-0"	3'-0⅝"	9'-8"	7'-8⅝"	14'-4"	12'-8⅝"	19'-0"	17'-0⅝"	23'-8"	21'-8⅝"
	3'	2'-8⅝"	5'-0"	2'-3⅛"	9'-8"	6'-11⅛"	14'-4"	11'-7⅛"	19'-0"	16'-3⅛"	23'-8"	20'-11⅛"
	4'	3'-6"	5'-0"	1'-6"	9'-8"	6'-2"	14'-4"	10'-10"	19'-0"	15'-6"	23'-8"	20'-0"
	5"	4'-3⅜"	5'-0"	0'-8⅜"	9'-8"	5'-9⅜"	14'-4"	10'-0⅜"	19'-0"	14'-8⅜"	23'-8"	19'-9⅜"
	6'	5'-0⅝"	5'-2"	0'-1⅝"	9'-11"	4'-10⅝"	14'-8"	9'-7⅝"	19'-5"	14'-9⅝"	24'-2"	19'-1⅝"
5'	3'	2'-8⅝"	6'-0"	3'-3⅛"	11'-8"	8'-11⅛"	17'-4"	14'-7⅛"	23'-0"	20'-3⅛"	28'-8"	25'-11⅛"
	4'	3'-6"	6'-0"	2'-6"	11'-8"	8'-2"	17'-4"	13'-10"	23'-0"	19'-6"	28'-8"	25'-2"
	5'	4'-3⅜"	6'-0"	1'-8⅜"	11'-8"	7'-9⅜"	17'-4"	13'-0⅜"	23'-0"	18'-8⅜"	28'-8"	24'-9⅜"
	6'	5'-0⅝"	6'-2"	1'-1⅝"	11'-11"	6'-10⅝"	17'-8"	12'-7⅝"	23'-5"	18'-9⅝"	29'-2"	24'-1⅝"
	7'	5'-8⅛"	6'-3"	0'-10⅛"	12'-1"	5'-10⅛"	17'-11"	11'-8⅛"	23'-9"	17'-9⅛"	29'-7"	23'-4⅛"
6'	3'	2'-8⅝"	7'-0"	4'-3⅛"	13'-8"	10'-11⅛"	20'-4"	17'-7⅛"	27'-0"	24'-3⅛"	33'-8"	30'-11⅛"
	4'	3'-6"	7'-0"	3'-6"	13'-8"	10'-2"	20'-4"	16'-10"	27'-0"	23'-6"	33'-8"	30'-2"
	5'	4'-3⅜"	7'-0"	2'-8⅜"	13'-8"	9'-9⅜"	20'-4"	16'-0⅜"	27'-0"	22'-8⅜"	33'-8"	29'-9⅜"
	6'	5'-0⅝"	7'-2"	2'-1⅝"	13'-11"	9'-10⅝"	20'-8"	15'-7⅝"	27'-5"	22'-9⅝"	34'-2"	29'-1⅝"
	7'	5'-8⅛"	7'-3"	1'-10⅛"	14'-1"	9'-10⅛"	20'-11"	14'-8⅛"	27'-9"	21'-9⅛"	34'-7"	28'-4⅛"
	8'	7'-4"	7'-4"	0'-10"	14'-2"	8'-10"	21'-0"	13'-8"	27'-10"	20'-10"	34'-8"	27'-8"
7'	4'	3'-6"	8'-0"	4'-6"	15'-8"	12'-2"	23'-4"	19'-10"	31'-0"	27'-6"	38'-8"	35'-2"
	5'	4'-3⅜"	8'-0"	3'-8⅜"	15'-8"	11'-4⅜"	23'-4"	19'-0⅜"	31'-0"	26'-8⅜"	38'-8"	34'-4⅜"
	6'	5'-0⅛"	8'-2"	3'-1⅛"	15'-11"	10'-10⅛"	23'-8"	18'-7⅛"	31'-5"	26'-4⅛"	39'-2"	34'-1⅛"
	7'	6'-2⅝"	8'-3"	2'-1⅝"	16'-1"	9'-10⅝"	23'-11"	17'-8⅝"	31'-9"	25'-4⅝"	39'-7"	33'-4⅝"
	8'	7'-4"	8'-4"	1'-0"	16'-2"	8'-10"	24'-0"	16'-8"	31'-10"	24'-6"	39'-8"	32'-8"
8'	4'	3'-6"	9'-0"	5'-6"	17'-8"	14'-2"	26'-4"	22'-10"	35'-0"	31'-6"	43'-8"	40'-2"
	5'	4'-3⅜"	9'-2"	4'-10⅜"	17'-11"	13'-7⅜"	26'-8"	22'-1⅜"	35'-5"	31'-1⅜"	44'-2"	39'-10⅜"
	6'	5'-0⅝"	9'-2"	4'-1⅝"	18'-0"	12'-10⅝"	26'-8"	21'-2⅝"	35'-5"	30'-4⅝"	44'-2"	39'-1⅝"
	7'	6'-2⅝"	9'-3"	3'-0⅝"	18'-1"	11'-10⅝"	26'-11"	20'-3⅝"	35'-9"	29'-4⅝"	44'-7"	38'-4⅝"
	8'	7'-4"	9'-4"	2'-0"	18'-2"	10'-10"	27'-0"	19'-8"	35'-10"	28'-6"	44'-8"	37'-8"
9'	5'	4'-3⅜"	10'-2"	5'-10⅜"	19'-11"	15'-7⅜"	29'-8"	25'-6⅜"	39'-5"	35'-1⅜"	49'-2"	44'-10⅜"
	6'	5'-0⅝"	10'-3"	5'-2⅛"	20'-1"	15'-0⅛"	29'-11"	24'-10⅛"	39'-9"	34'-6⅛"	49'-7"	44'-2⅛"
	7'	6'-2⅝"	10'-3"	4'-0⅝"	20'-1"	13'-10⅝"	29'-11"	23'-8⅝"	39'-9"	33'-4⅝"	49'-7"	43'-0⅝"
	8'	7'-4"	10'-9"	3'-0"	20'-2"	12'-10"	30'-0"	22'-8"	39'-10"	32'-6"	49'-8"	42'-2"
10'	5'	4'-3⅜"	11'-2"	6'-10⅜"	21'-11"	17'-7⅜"	32'-8"	28'-6⅜"	43'-5"	39'-1⅜"	54'-2"	49'-10⅜"
	6'	5'-0⅝"	11'-3"	6'-2⅛"	22'-1"	17'-0⅛"	32'-11"	27'-10⅛"	43'-9"	38'-8⅛"	54'-7"	49'-2⅛"
	7'	6'-2⅝"	11'-3"	5'-0⅝"	22'-1"	15'-10⅝"	32'-11"	26'-8⅝"	43'-9"	37'-6⅝"	54'-7"	48'-0⅝"
	8'	7'-4"	11'-8"	4'-0"	22'-2"	14'-10"	33'-0"	25'-8"	43'-10"	36'-6"	54'-8"	47'-8"
11'	6'	5'-0⅝"	12'-1"	7'-3⅛"	24'-2"	19'-1⅛"	36'-0"	30'-11⅛"	47'-10"	42'-3⅛"		
	7'	6'-2⅝"	12'-2"	6'-1⅛"	24'-2"	17'-11⅛"	36'-0"	29'-9⅛"	47'-10"	41'-1⅛"		
	8'	7'-4"	12'-3"	5'-0"	24'-2"	16'-10"	36'-0"	28'-8"	47'-10"	40'-6"		
12'	6'	5'-0⅝"	13'-0"	8'-3⅛"	26'-2"	21'-1⅛"	39'-0"	33'-11⅛"	51'-10"	46'-3⅛"		
	7'	6'-2⅝"	13'-0"	7'-1⅛"	26'-2"	19'-11⅛"	39'-0"	32'-9⅛"	51'-10"	45'-1⅛"		
	8'	7'-4"	13'-5"	6'-0"	26'-2"	18'-10"	39'-0"	31'-8"	51'-10"	44'-6"		

QUANTITIES

CLEAR SPAN	CLEAR HEIGHT	THICKNESS OF WING AT HEADWALL	THICKNESS OF WING FOOTING	REINFORCING ® STEEL - FOR 4 WINGS	CLASS S CONCRETE - 4 WINGS					
					HEADWALLS, WINGWALLS, FOOTINGS, TOE WALLS AND APRONS					
					SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT	
S	H'	C_W	WB	LB.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	
4'	2'	6"	7"	137.1	5.71	6.66	7.62	8.58	9.54	
	3'	6"	7"	214.7	8.06	9.01	9.97	10.93	11.89	
	4'	6"	7"	329.0	10.83	11.79	12.75	13.71	14.67	
	5'	6"	7"	464.3	14.09	14.99	15.95	16.91	17.87	
	6'	7"	8"	765.8	19.18	20.11	21.10	22.08	23.07	
5'	3'	6"	7"	214.7	8.27	9.93	10.59	11.76	12.93	
	4'	6"	7"	329.0	11.05	12.21	13.37	14.54	15.70	
	5'	6"	7"	464.3	14.25	15.41	16.58	17.74	18.91	
	6'	7"	8"	765.8	19.84	20.83	21.73	22.92	24.12	
	7'	7⅞"	8½"	1467.6	24.91	26.18	27.34	28.54	29.78	
6'	3'	6"	7"	214.7	8.98	9.86	11.22	12.60	13.98	
	4'	6"	7"	329.0	11.26	12.69	14.00	15.38	16.75	
	5'	6"	7"	464.3	14.46	15.86	17.20	18.59	19.96	
	6'	7"	8"	765.8	19.56	20.96	22.36	23.74	25.17	
	7'	7⅞"	8½"	1467.6	25.13	26.56	27.98	29.50	30.83	
	8'	8"	9"	1867.6	31.71	33.15	34.57	36.01	37.84	
7'	4'	6"	7"	329.0	11.97	13.08	14.65	16.24	17.86	
	5'	6"	7"	464.3	14.68	16.28	17.86	19.47	21.06	
	6'	7"	8"	765.8	19.78	21.90	22.99	24.62	26.23	
	7'	7⅞"	8½"	1467.6	25.85	26.99	28.62	30.26	31.89	
	8'	8"	9"	1867.6	31.93	33.59	35.21	36.86	38.51	
8'	4'	6"	7"	329.0	11.70	13.53	15.33	17.16	18.95	
	5'	7"	7"	464.3	15.98	17.33	19.15	21.00	22.81	
	6'	7"	8"	765.8	20.00	21.85	23.66	25.51	27.33	
	7'	7⅞"	8½"	1467.6	25.57	27.45	29.27	31.14	32.97	
	8'	8"	9"	1867.6	32.15	34.02	35.86	37.73	39.57	
9'	5'	7"	7"	464.3	15.20	17.79	19.82	21.90	23.92	
	6'	7⅞"	8"	765.8	20.61	22.71	24.76	26.85	29.39	
	7'	7⅞"	8½"	1467.6	25.79	27.89	29.99	32.03	34.07	
	8'	8"	9"	1867.6	32.87	34.97	36.52	38.61	40.66	
10'	5'	7"	7"	464.3	15.93	18.24	20.49	22.70	24.97	
	6'	7⅞"	8"	765.8	20.83	23.16	25.43	27.66	29.95	
	7'	7⅞"	8½"	1467.6	26.01	28.39	30.61	32.84	35.13	
	8'	8"	9"	1867.6	32.59	34.92	37.20	39.43	41.71	
11'	6'	8"	8"	765.8	21.44	24.03	26.52	28.99		
	7'	8"	8½"	1467.6	26.78	29.31	31.80	34.28		
	8'	8"	9"	1867.6	32.81	35.39	37.88	40.36		
12'	6'	8"	8"	765.8	21.67	24.50	27.21	29.93		
	7'	8"	8½"	1467.6	26.96	29.79	32.50	35.22		
	8'	8"	9"	1867.6	33.03	35.86	38.57	41.20		

® For reinforcing steel in Headwalls and Aprons, See Details of Standard Barrel Sections for R.C. Box Culverts for the desired Span and Height.

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾" chamfers.

REINFORCING STEEL:- Reinforcing steel to be deformed bars of intermediate or hard grade.

CONSTRUCTION JOINTS:- Construction joints between wingwall, footings and sidewalls, shall be only where shown on plans.

SPECIFICATIONS:- Arkansas State Highway Commission standard Specifications for Highway Construction and applicable Special Provisions.

UNIT STRESSES:-

Class S Concrete (n=10) 1200#
Reinforcing Steel 20,000#

NOTE:- This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos. as listed below.

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-100X-0	R-200X-0	R-300X-0	R-400X-0	R-500X-0
R-100X-X1	R-200X-X1	R-300X-X1	R-400X-X1	R-500X-X1
R-100X-X2	R-200X-X2	R-300X-X2	R-400X-X2	
	R-200X-X3	R-300X-X3		

CLASS S CONCRETE

BAR LIST FOR ONE WING - 4 REQUIRED

CLEAR HEIGHT	F1 BENT: In bottom of footing, bent up into back face of wing. One bar of each length.							F2 BENT: In bottom of footing, bent up into back face of wing. All with F1 bars.						F3 STRAIGHT: Longitudinal in top of wing footing heel.			F4 STRAIGHT: Longitudinal in bottom of wing footing toe.			H1 STRAIGHT: Horizontal in back face of wing.			H2 STRAIGHT: Horizontal in back face of wing. One bar of each length.						H3 STRAIGHT: In back face of wing at top - on slope.			H4 BENT: Dowels thru construction joint at headwall.					QUANTITY REINFORCING STEEL PER WING
	SIZE	SPACING	NO. REQD	LENGTHS VARY MIN.	LENGTHS VARY MAX.	X	Y	SIZE	SPACING	NO. REQD	LENGTH	X	Y	SIZE	NO. REQD	LENGTH	SIZE	NO. REQD	LENGTH	SIZE	NO. REQD	LENGTH	SIZE	SPACING	NO. REQD	LENGTH	LENGTHS VARY MAX.	LENGTHS VARY MIN.	SIZE	NO. REQD	LENGTH	SIZE	SPACING	NO. REQD	LENGTH	X	LB.
H				MIN.	MAX.	MIN.	MAX.																				MAX.	MIN.									
2'	#3	12"	10	1'-7"	3'-10"	0'-8"	1'-0"	1'-0"	2'-11"	—	—	—	—	#3	1	12'-6"	#3	2	10'-9"	#3	12"	L	3'-8"	#3	12"	1	——	5'-4"	#3	1	3'-11"	#3	12"	2	2'-8"	1'-4"	34.3
3'	#3	12"	14	2'-0"	5'-2"	0'-10"	1'-3"	1'-3"	4'-0"	—	—	—	—	#3	1	16'-6"	#3	2	14'-0"	#3	12"	1	12'-9"	#3	12"	2	10'-0"	5'-4"	#3	1	13'-0"	#3	12"	3	2'-8"	1'-4"	58.7
4'	#3	12"	17	2'-5"	6'-6"	0'-11"	1'-7"	1'-7"	5'-0"	—	—	—	—	#3	1	18'-8"	#3	3	17'-3"	#3	12"	1	15'-10"	#3	12"	3	14'-7"	5'-4"	#3	1	16'-2"	#3	12"	4	2'-8"	1'-4"	82.2
5'	#3	12"	20	2'-11"	7'-10"	1'-1"	1'-11"	1'-11"	6'-0"	#3	12"	5	3'-6"	1'-1"	2'-6"	#3	3	20'-6"	#3	12"	2	18'-11"	#3	12"	3	14'-7"	5'-4"	#3	1	19'-4"	#3	12"	5	2'-8"	1'-4"	116.1
6'	#4	12"	23	3'-5"	9'-3"	1'-2"	2'-3"	2'-4"	7'-1"	#3	12"	5	4'-6"	1'-4"	3'-3"	#4	1	23'-3"	#3	12"	2	22'-0"	#3	12"	4	19'-3"	5'-4"	#3	1	22'-6"	#3	12"	6	2'-8"	1'-4"	151.5
7'	#4	12"	26	3'-10"	10'-9"	1'-3"	2'-9"	2'-8"	8'-1"	#4	12"	9	5'-6"	1'-7"	4'-0"	#4	1	25'-10"	#3	12"	3	25'-1"	#3	12"	4	23'-10"	5'-4"	#3	1	25'-9"	#4	12"	7	3'-6"	1'-9"	186.9
8'	#4	12"	29	4'-4"	12'-3"	1'-5"	3'-2"	3'-0"	9'-2"	#4	12"	14	6'-6"	1'-10"	4'-9"	#4	1	28'-6"	#4	12"	4	28'-2"	#4	12"	5	25'-10"	5'-4"	#4	1	28'-8"	#4	12"	8	3'-6"	1'-9"	966.9

BAR BENDING DIAGRAMS

Note:- Dimensions are to bar centers.

MEMBRANE:- A membrane waterproofing 12" wide, consisting of three mopings of waterproofing asphalt and two alternate layers of treated cotton fabric, shall be applied to the back face of wing to cover the construction joints in wings.

REVISIONS:- Membrane added. 5-10-66 W.C.H.

Designed By:- W.C.H. 7-22-62
Drawn By:- W.C.H. 12-28-62
Quantities By:- W.C.H. 12-17-62
Checked By:- TAMS 3-29-63
Checked By:- TAMS 3-29-63

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS

4', 5', 6', 7', 8', 9', 10', 11' & 12' SPANS
SINGLES, DOUBLES, TRIPLES, QUADRUPLES & QUINTUPLES.

4:1 SLOPES
ALL DEPTHS OF COVER FOR H = 8'-0" OR LESS

STANDARD DRAWING NO. W-X004-1

5

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

BAR LIST FOR BARREL SECTION 60°0" IN LENGTH

DEPTH OF COVER	CLEAR SPAN	CLEAR HEIGHT	"a" bars STRAIGHT In Top and Bottom Slabs of Barrel. 2 Addl in Apron and Headwall- Each. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	"b" bars BENT - See Diagram below. Alternate with "a" bars. In Top and Bottom Slabs of Barrel. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	X	"d" bars STRAIGHT. Longitudinal in Top Slab of Barrel SIZE	SPACING	NO. REQ'D	LENGTH	"d1" bars STRAIGHT. Longitudinal in Sidewalls SIZE	SPACING	NO. REQ'D	LENGTH	"e" bars. STRAIGHT Longitudinal in Bottom Slab of Barrel SIZE	SPACING	NO. REQ'D	LENGTH	"f" bars STRAIGHT Verticals in Sidewalls SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH
D	S	H																												
0'0" TO 5'0" MAXIMUM	1 @ 4'	2'	#5	13"	120	120	4'9"	#6	13"	110	110	5'10"	4'8"	#5	10½"	6	#4	16"	4	#4	12"	5	#4	12"	5	#4	12"	120	120	2'11"
		3'			120	120	4'9"			110	110	5'10"	4'8"			6			6			5			5			120	120	3'11"
		4'			120	120	4'9"			110	110	5'10"	4'8"			6			8			5			5			120	120	4'11"
		5'			120	120	4'9"			110	110	5'10"	4'8"			6			10			5			5			120	120	6'11"
		6'			120	120	4'11"			110	110	6'-0"	4'10"			6			12			5			5			120	120	8'11"
	1 @ 5'	3'			120	120	5'9"			110	110	6'10"	5'8"			7			6			6			6	#4	12"	120	120	5'0"
		4'			120	120	5'9"			110	110	6'10"	5'8"			7			8			6			6			120	120	6'0"
		5'	#6	13"	120	120	5'9"	#6	13"	110	110	6'10"	5'8"	#5	10½"	7	#4	12"	10	#4	12"	6			6			120	120	7'0"
		6'			120	120	5'11"			110	110	7'0"	5'10"			7			12			6			6			120	120	8'0"
		7'			120	120	6'0"			110	110	7'1"	5'11"			7			14			6			6			120	120	9'0"
	1 @ 6'	3'			128	128	6'9"			118	118	7'10"	6'8"			8			6			7			7			120	120	4'1"
		4'			128	128	6'9"			118	118	7'10"	6'8"			8			8			7			7			120	120	5'1"
		5'			128	128	6'9"			118	118	7'10"	6'8"			8			10			7			7	#4	12"	120	120	6'1"
		6'	#6	12"	128	128	6'11"	#6	12"	118	118	8'0"	6'10"	#5	10½"	8	#4	12"	12	#4	12"	7			7			120	120	7'1"
		7'			128	128	7'0"			118	118	8'1"	6'11"			8			14			7			7			120	120	8'1"
		8'			128	128	7'1"			118	118	8'2"	7'0"			8			16			7			7	#5	12"	120	120	9'1"
	1 @ 7'	4'			140	140	7'9"			130	130	8'10"	7'8"			9			8			8			8			120	120	5'2"
		5'			140	140	7'9"			130	130	8'10"	7'8"			9			10			8			8	#4	12"	120	120	6'2"
		6'			140	140	7'11"			130	130	9'0"	7'10"			9			12			8			8			120	120	7'2"
		7'	#6	11"	140	140	8'0"	#6	11"	130	130	9'1"	7'11"	#5	10½"	9	#4	12"	14	#4	12"	8			8			120	120	8'2"
		8'			140	140	8'1"			130	130	9'2"	8'0"			9			16			8			8	10"	12"	144	144	9'2"
		9'			140	140	8'3"			130	130	9'4"	8'2"			9			18			8			8	#5	12"	120	120	10'2"
	1 @ 8'	4'			128	128	8'9"			118	118	9'10"	8'8"			11			8			9			9			120	120	5'6"
		5'			128	128	8'11"			118	118	10'0"	8'10"			11			10			9			9	#4	12"	120	120	6'6"
		6'			128	128	8'11"			118	118	10'0"	8'10"			11			12			9			9			120	120	7'6"
		7'			128	128	8'11"			118	118	10'0"	8'10"			11			14			9			9			120	120	8'6"
		8'	#7	12"	128	128	9'0"	#6	12"	118	118	10'1"	8'11"	#5	10"	11	#4	12"	16	#4	12"	9			9			120	120	9'6"
		9'			128	128	9'1"			118	118	10'2"	9'0"			11			18			9			9	10"	144	144	9'6"
		10'			128	128	9'3"			118	118	10'4"	9'2"			11			20			9			9	#6	12"	120	120	10'6"
		11'			128	128	9'5"			118	118	10'5"	9'4"			11			22			9			9	11"	132	132	11'9"
	1 @ 9'	5'			140	140	9'11"			130	130	11'0"	9'10"			12			10			10			10			120	120	6'5"
		6'			140	140	10'0"			130	130	11'1"	9'11"			12			12			10			10	#4	12"	120	120	7'5"
		7'			140	140	10'0"			130	130	11'1"	9'11"			12			14			10			10			120	120	8'5"
		8'	#7	11"	140	140	10'1"	#6	11"	130	130	11'2"	10'0"	#5	10"	12	#4	12"	16	#4	12"	10			10			144	144	9'5"
		9'			140	140	10'3"			130	130	11'-9"	10'2"			12			18			10			10	#5	11"	132	132	11'5"
		10'			140	140	10'5"			130	130	11'6"	10'4"			12			20			10			10	10"	144	144	12'5"
		11'			140	140	10'7"			130	130	11'8"	10'6"			12			22			10			10	#6	12"	120	120	13'6"
	1 @ 10'	6'			128	128	10'11"			118	118	12'2"	10'10"			13			10			11			11					
		7'			128	128	11'0"			118	118	12'3"	10'11"			13			12			11			11					
		8'			128	128	11'0"			118	118	12'3"	10'11"			13			14			11			11					
		9'	#7	12"	128	128	11'1"	#7	12"	118	118	12'4"	11'0"	#5	10"	13	#4	12"	16	#4	12"	11			11					
		10'			128	128	11'3"			118	118	12'6"	11'2"			13			18			11			11					
		11'			128	128	11'5"			118	118	12'8"	11'4"			13			20			11			11					
		12'			128	128	11'7"			118	118	12'10"	11'6"			13			22			11			11					
	1 @ 11'	6'			140	140	12'1"			130	130	13'4"	12'0"			15			12			12			12					
		7'			140	140	12'1"			130	130	13'4"	12'0"			15			14			12			12					
		8'			140	140	12'1"			130	130	13'4"	12'0"			15			16			12			12					
		9'	#7	11"	140	140	12'3"	#7	11"	130	130	13'6"	12'2"	#5	9½"	15	#4	12"	18	#4	12"	12	#4	12"	12					
		10'			140	140	12'5"			130	130	13'8"	12'4"			15			20			12			12					
		11'			140	140	12'7"			130	130	13'10"	12'6"			15			22			12			12					
		12'			140	140	12'9"			130	130	14'0"	12'8"			15			24			12			12					
	1 @ 12'	6'			128	128	13'1"			118	118	14'4"	13'0"			16			12			13			13					
		7'			128	128	13'1"			118	118	14'4"	13'0"			16			14			13			13					
		8'			128	128	13'1"			118	118	14'4"	13'0"			16			16			13			13					
		9'	#8	12"	128	128	13'3"	#7	12"	118	118	14'6"	13'2"	#5	9½"	16	#4	12"	18	#4	12"	13	#4	12"	13					
		10'			128	128	13'5"			118	118	14'8"	13'4"			16			20			13			13					
		11'			128	128	13'7"			118	118	14'10"	13'6"			16			22			13			13					
		12'			128	128	13'9"			118	118	15'0"	13'8"			16			24			13			13					

Designed By:- W.C.H. 1-23-63. Checked By:- EBS-5-8-63
Drawn By:- W.C.H. 2-8-63. Checked By:- EBS-5-24-63
Quantities By:- W.C.H. 2-12-63. Checked By:- EBS-5-24-63

BAR SIZE	PIN DIAM.	K	ADD FOR 2 HOOKS	BENDING DIAGRAM Bars "b"
#6	3"	5"	1'-2"	K, Pin Diam., X
#7	3⅞"	5¾"	1'-4"	

NOTE:- Dimensions are to centers of bars.

DOWEL BARS FOR TWO HEADWALLS

SPAN	SIZE	SPACING	NO. REQD	LENGTH	X
4'	#4	11"c	12	2'-6"	1'-3"
5'	#4	11"c	14	2'-7"	1'-3⅜"
6'	#4	11"c	16	2'-8"	1'-4"
7'	#4	11"c	18	2'-9"	1'-4⅜"
8'	#4	11⅛"c	20	2'-11⅛"	1'-5⅜"
9'	#4	11⅜"c	22	3'-0"	1'-6"
10'	#4	11⅝"c	24	3'-1⅛"	1'-6⅝"
11'	#4	12"c	26	3'-2"	1'-7"
12'	#4	12"c	28	3'-3"	1'-7½"

Bars "r" Dowel bars in Headwalls.

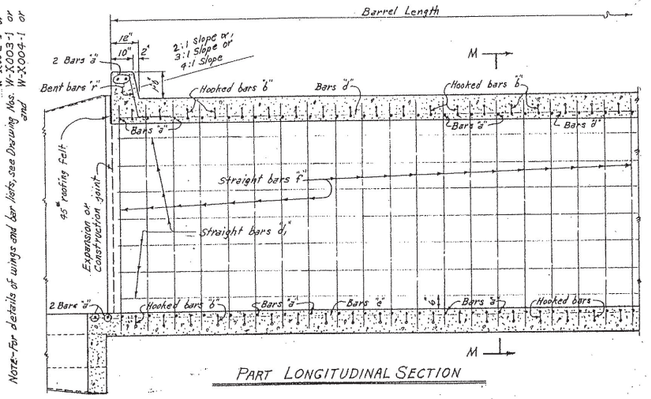
DIMENSIONS

MAX. DESIGN DEPTH OF COVER	BARREL DIMENSIONS CLEAR SPAN	CLEAR HEIGHT	SQ. FT. OPENING	OVERALL WIDTH	THICKNESS OF TOP SLAB	THICKNESS OF SIDEWALLS	THICKNESS OF BOTTOM SLAB	OVERALL HEIGHT
D	S	H	A	OW	T	C	B	OH
5'-0"	1 @ 4'	2'	8	5'-0"	7"	6"	6½"	3'-1½"
		3'	12	5'-0"		6"		4'-1⅜"
		4'	16	5'-0"		6"		5'-1⅜"
		5'	20	5'-0"		6"		6'-1⅜"
		6'	24	5'-2"		7"		7'-1⅜"
	1 @ 5'	3'	15	6'-0"	7"	6"	7"	4'-2⅝"
		4'	20	6'-0"		6"		5'-2⅝"
		5'	25	6'-0"		6"		6'-2⅝"
		6'	30	6'-2"		7"		7'-2⅝"
		7'	35	6'-3"	7½"		7½"	8'-2⅝"
	1 @ 6'	3'	18	7'-0"	8"	6"	7½"	4'-3½"
		4'	24	7'-0"		6"		5'-3½"
		5'	30	7'-0"		6"		6'-3½"
		6'	36	7'-2"		7"		7'-3½"
		7'	42	7'-3"		7½"		8'-3½"
		8'	48	7'-5"		8"		9'-3½"
	1 @ 7'	4'	28	8'-0"	8½"	6"	8½"	5'-4"
		5'	35	8'-0"		6"		6'-5"
		6'	42	8'-2"		7"		7'-5"
		7'	49	8'-3"		7½"		8'-5"
		8'	56	8'-5"		8"		9'-5"
		9'	63	8'-6"		9"		10'-5"
	1 @ 8'	4'	32	9'-0"	9½"	6"	9½"	5'-7"
		5'	40	9'-2"		7"		6'-7"
		6'	48	9'-2"		7½"		7'-7"
		7'	56	9'-3"		7½"		8'-7"
		8'	64	9'-5"		8"		9'-7"
		9'	72	9'-6"		9"		10'-7"
		10'	80	9'-8"		10"		11'-7"
	1 @ 9'	5'	45	10'-2"	10"	7"	10"	6'-8"
		6'	54	10'-3"		7½"		7'-8"
		7'	63	10'-3"		7½"		8'-8"
		8'	72	10'-4"		8"		9'-8"
		9'	81	10'-6"		9"		10'-8"
		10'	90	10'-8"		10"		11'-8"
		11'	99	10'-10"		11"		12'-8"
	1 @ 10'	5'	50	11'-2"	10½"	7"	11"	6'-9½"
		6'	60	11'-3"		7½"		7'-9½"
		7'	70	11'-3"		7½"		8'-9½"
		8'	80	11'-4"		8"		9'-9½"
		9'	90	11'-6"		9"		10'-9½"
		10'	100	11'-8"		10"		11'-9½"
		11'	110	11'-10"		11"		12'-9½"
		12'	120	12'-0"		12"		13'-9½"
	1 @ 11'	6'	66	12'-9"	11"	8"	11½"	7'-10⅝"
		7'	77	12'-8"		8"		8'-10⅝"
		8'	88	12'-8"		8"		9'-10⅝"
		9'	99	12'-6"		9"		10'-10⅝"
		10'	110	12'-8"		10"		11'-10⅝"
		11'	121	12'-10"		11"		12'-10⅝"
		12'	132	13'-0"		12"		13'-10⅝"
	1 @ 12'	6'	72	13'-9"	11¾"	8"	12¼"	8'-0"
		7'	84	13'-8"		8"		9'-0"
		8'	96	13'-9"		8"		10'-0"
		9'	108	13'-6"		9"		11'-0"
		10'	120	13'-8"		10"		12'-0"
		11'	132	13'-10"		11"		13'-0"
		12'	144	14'-0"		12"		14'-0"

QUANTITIES

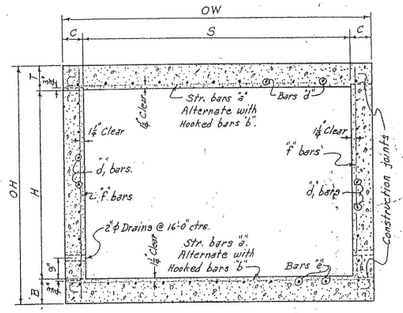
UNIT QUANTITIES CLASS S CONC. PER LIN. FT. OF BARREL CU.YD.	REINFORCING STEEL PER LIN. FT. OF BARREL LB.	ADDITIONAL PER LAP LB.	ADDITIONAL TWO HEADWALLS & APRONS LB.
0.282	41.99	17.95	66.35
0.319	44.16	19.62	66.35
0.356	46.83	21.29	66.35
0.398	49.50	22.96	66.35
0.474	52.96	24.63	67.75
0.380	55.55	22.19	101.27
0.417	58.23	23.86	101.27
0.454	60.90	25.53	101.27
0.535	64.99	27.20	103.27
0.609	67.63	28.87	104.27
0.496	66.29	29.76	118.96
0.483	68.96	26.93	118.96
0.520	71.64	28.10	118.96
0.602	75.31	29.77	120.96
0.671	78.98	31.44	121.97
0.746	88.47	33.11	122.97
0.568	81.32	29.01	136.88
0.605	84.00	30.68	136.88
0.688	87.76	32.35	138.88
0.757	90.38	34.02	139.88
0.832	96.65	35.69	140.88
0.996	105.59	32.36	142.89
0.676	95.26	33.32	198.07
0.758	99.12	34.99	196.80
0.797	101.79	36.66	196.80
0.867	105.05	38.33	198.16
0.942	110.81	40.00	199.52
1.057	119.92	41.67	202.23
1.184	126.67	43.34	204.97
0.849	119.72	37.56	219.61
0.910	118.04	39.23	220.97
0.957	120.71	40.90	220.97
1.033	126.54	42.57	222.33
1.148	135.80	44.24	225.06
1.276	142.68	45.91	227.78
1.416	150.90	47.58	230.51
0.957	130.64	40.13	242.64
1.024	133.99	41.80	244.00
1.071	136.66	43.47	244.00
1.147	142.55	45.14	245.36
1.263	151.92	46.81	248.09
1.391	158.89	48.48	250.81
1.532	166.71	50.15	253.54
1.685	178.67	51.82	256.26
1.153	155.16	46.12	268.62
1.202	157.83	47.79	268.62
1.252	163.06	49.46	268.62
1.368	172.60	51.13	271.34
1.497	179.70	52.80	274.07
1.638	187.67	54.47	276.79
1.792	199.79	56.14	279.52
1.284	172.20	48.69	357.62
1.333	174.87	50.36	357.62
1.383	180.15	52.03	357.62
1.500	189.85	53.70	361.18
1.630	197.07	55.37	364.74
1.772	205.16	57.04	368.30
1.926	217.95	58.71	371.86

W-X002-1, W-X003-2, and W-X004-2. or W-X003-1 or W-X004-1.

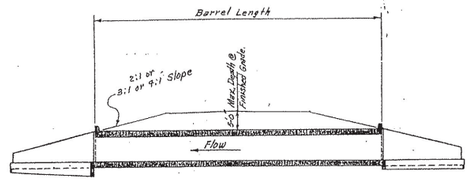


Note:- For details of wings and bar lists, see Drawing Nos.

PART LONGITUDINAL SECTION



TYPICAL SECTION M-M



LONGITUDINAL SECTION

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾" chamfers.

REINFORCING STEEL:- Reinforcing to be deformed bars of intermediate or hard grade.

BAR LAP:- In computing the quantities of steel from the tables add one lap for each additional 33'-0" length of barrel over 32'-0". Lap longitudinal bars 30 diameters.

CONSTRUCTION JOINTS:- Construction joints between wingwalls, sidewalls and slabs shall be only where shown on plans.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

DESIGN LIVE LOAD

H20-S16 LOADING A.A.S.H.O. 1961
AND
SPECIAL MILITARY LOADING
Two 24,000 Lb. Axles @ 4'-0" ctrs.

UNIT STRESSES:-
Class S Concrete (n=10) 1200 #/□"
Reinforcing Steel 20,000 #/□"

NOTE:- This drawing to be used in conjunction with Standard Drawing Nos. W-X003-1 or W-X003-2 and W-X004-1 or W-X004-2. Also Drawing Nos. W-X002-1 or W-X002-2.

CLASS S CONCRETE

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS

4',5',6',7',8',9',10',11' & 12' SPANS — 3:1 OR 4:1 SLOPES
SINGLES — UNDER 5'-0" COVER

STANDARD DRAWING NO. R-100X-0