DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	1	280
				(2)	CADDO VALLEY - GARLAND CO. LINE (PASSING LANES) (S)			

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

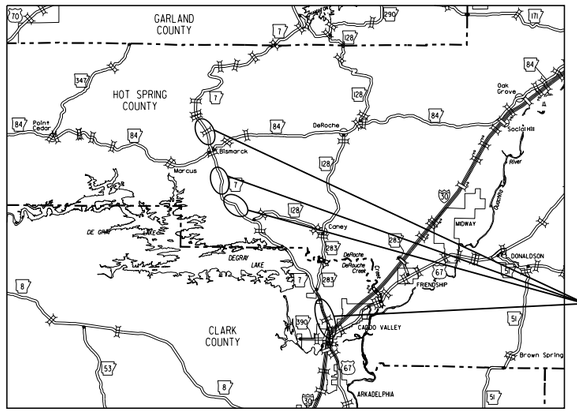
CADDO VALLEY - GARLAND CO. LINE (PASSING LANES) (S)

CLARK AND HOT SPRING COUNTIES

ROUTE 7 SECTIONS 7 & 8

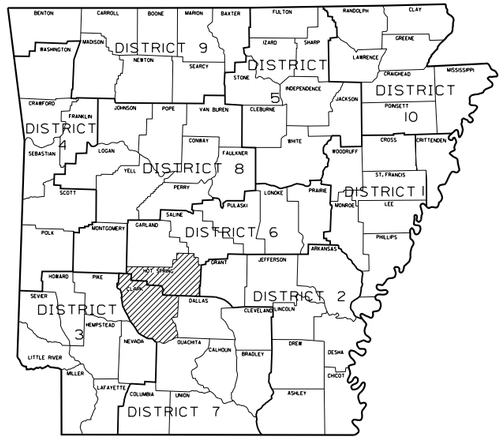
JOB 012275

FED. AID PROJECT STPF-0076(135)



PROJECT LOCATIONS

VICINITY MAP



ARKANSAS HIGHWAY DISTRICTS 6 & 7

STRUCTURES OVER 20'-0" SPAN

(1) HWY. 7 STA. 126+10 IN PLACE
TRP. 10' X 4' X 86' R.C. BOX CULVERT
WITH 3:1 WINGS LT. AND RT.
RETAIN AND EXTEND 9' RT.
FOR A COMPLETED LENGTH OF 95'
Q50 = 766 CFS DA = 647 ACRES
SPAN = 32'-8"

(2) HWY. 7 STA. 462+25 CONSTRUCT
TRP. 9' X 7' X 100' R.C. BOX CULVERT
3° LT. FWD. SKEW
WITH 3:1 WINGS LT. & RT.
Q50 = 1756 CFS D.A. = 531 ACRES
SPAN = 29'-9"

STA. 397+36.07
END SITE 3
L.M. 5.75

STA. 333+00.00
BEGIN SITE 3
L.M. 4.53

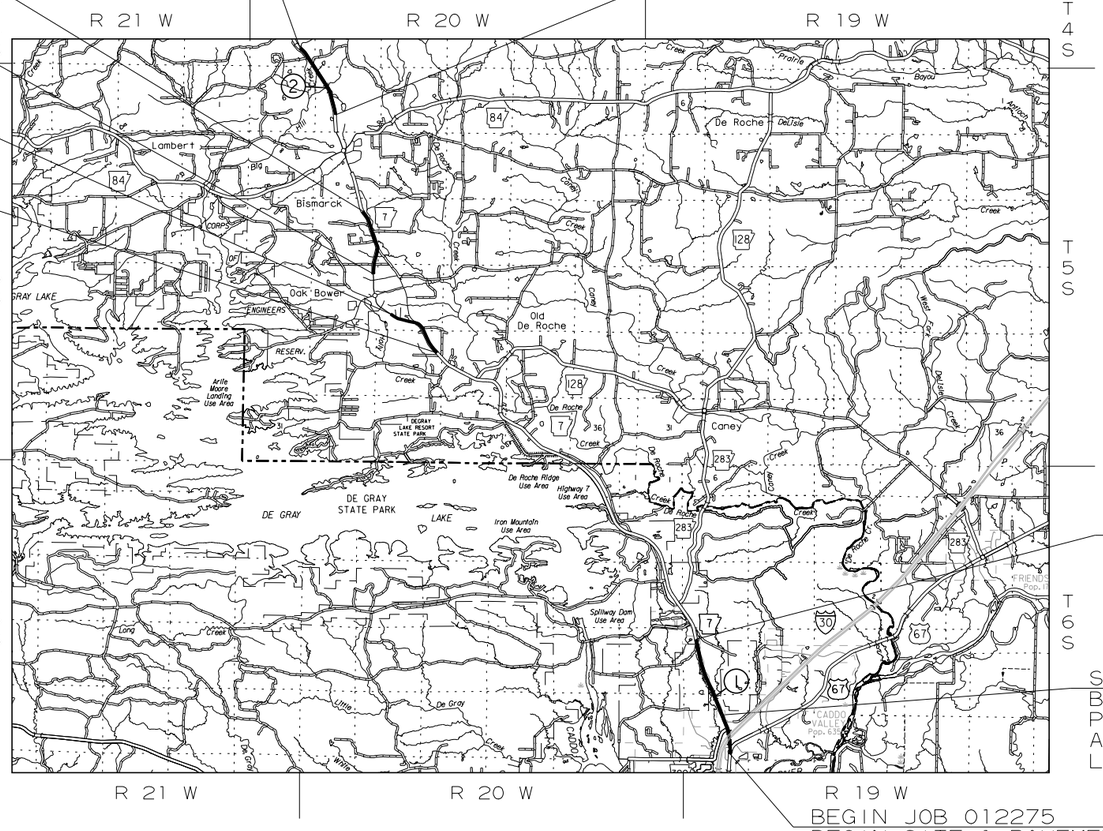
STA. 288+40.00
END SITE 2
L.M. 3.95

STA. 225+00.00
BEGIN SITE 2
L.M. 2.75

STA. 508+86.30
END SITE 4
END JOB 012275
L.M. 8.55

NOT TO SCALE

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30



STA. 176+40.10
END SITE 1
L.M. 1.80

STA. 113+00.00
BEGIN SITE 1
PROPOSED
ALIGNMENT
L.M. 0.60

BEGIN JOB 012275
BEGIN SITE 1 PAVEMENT
PRESERVATION
L.M. 0.00

DESIGN TRAFFIC DATA

DESIGN YEAR	2043
2023 ADT	6300
2043 ADT	7700
2043 DHV	847
DIRECTIONAL DISTRIBUTION	60%
TRUCKS	4%
AVERAGE RUNNING SPEED SITE 1	55 MPH
AVERAGE RUNNING SPEED SITE 2	50 MPH
AVERAGE RUNNING SPEED SITE 3	50 MPH
AVERAGE RUNNING SPEED SITE 4	50 MPH

SITE 1 PROJECT COORDINATES

	BEGIN	MID-POINT	END
LATITUDE	N 34°10'55"	N 34°11'42"	N 34°12'27"
LONGITUDE	W 93°04'13"	W 93°04'29"	W 93°04'44"
LOG MILE	0.00	0.90	1.80

SITE 2 PROJECT COORDINATES

	BEGIN	MID-POINT	END
LATITUDE	N 34°16'10"	N 34°16'36"	N 34°16'50"
LONGITUDE	W 93°08'40"	W 93°09'01"	W 93°09'33"
STATION	225+00.00	256+70.00	288+40.00

SITE 3 PROJECT COORDINATES

	BEGIN	MID-POINT	END
LATITUDE	N 34°17'17"	N 34°17'47"	N 34°18'17"
LONGITUDE	W 93°09'48"	W 93°09'42"	W 93°10'00"
STATION	333+00.00	365+18.04	397+36.07

SITE 4 PROJECT COORDINATES

	BEGIN	MID-POINT	END
LATITUDE	N 34°19'31"	N 34°20'01"	N 34°20'28"
LONGITUDE	W 93°10'23"	W 93°10'38"	W 93°11'01"
STATION	443+00.00	475+93.15	508+86.30

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF PROJECT	28,870.47	FEET OR	5.468	MILES
NET LENGTH OF ROADWAY	28,808.05	FEET OR	5.456	MILES
NET LENGTH OF BRIDGES	62.42	FEET OR	0.012	MILES
NET LENGTH OF PROJECT	28,870.47	FEET OR	5.468	MILES

GARVER LLC CERTIFICATE OF AUTHORIZATION No. 766 ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.13422 JOHN F. CANTABERRY

DIGITALLY SIGNED 08-09-2023

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	2	280
				(2)	INDEX OF SHEETS AND STANDARD DRAWINGS			

INDEX OF SHEETS

SHEET NO.		TITLE
1		TITLE SHEET
2		INDEX OF SHEETS AND STANDARD DRAWINGS
3		GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 14		TYPICAL SECTIONS OF IMPROVEMENT
15 - 30		SPECIAL DETAILS
31 - 72		TEMPORARY EROSION CONTROL DETAILS
73 - 107		MAINTENANCE OF TRAFFIC DETAILS
108 - 110		PERMANENT PAVEMENT MARKING DETAILS
111		SOIL BORING LOG
112 - 121		QUANTITIES
122		SUMMARY OF QUANTITIES AND REVISIONS
123 - 136		SURVEY CONTROL DETAILS
137 - 158		PLAN AND PROFILE SHEETS
159 - 161		DETOUR AND/OR STAGE CONSTRUCTION PLAN/PROFILE SHEETS
162 - 280		CROSS SECTIONS

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

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
DR-3	DETAILS OF DRIVEWAYS & STREET TURNOUTS (PAVEMENT PRESERVATION)	04-13-23
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
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
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
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
SE-2	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC	11-07-19
SI-1	DETAILS OF SPECIAL ITEMS	10-25-18
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-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-3	CHAIN LINK FENCE	11-17-10
WF-4	WIRE FENCE TYPE C AND D	08-22-02
W-X003-1	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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				JOB NO.		012275	3	280
				(2)	GOVERNING SPECIFICATIONS AND GENERAL NOTES			

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA_____	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273___	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273___	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273___	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273___	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273___	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273___	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273___	SUPPLEMENT - WAGE RATE DETERMINATION
100-3_____	CONTRACTOR'S LICENSE
100-4_____	DEPARTMENT NAME CHANGE
102-2_____	ISSUANCE OF PROPOSALS
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
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
501-2_____	CEMENT
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
620-1_____	MULCH COVER
634-1_____	CURBING
800-1_____	STRUCTURES
802-4_____	CEMENT
804-2_____	REINFORCING STEEL FOR STRUCTURES
JOB 012275__	BIDDING REQUIREMENTS AND CONDITIONS
JOB 012275__	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 012275__	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 012275__	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 012275__	CARGO PREFERENCE ACT REQUIREMENTS
JOB 012275__	COLD MILLING - MILL & INLAY
JOB 012275__	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 012275__	CONSTRUCTION PROJECT INFORMATION SIGN
JOB 012275__	COORDINATION OF WORK
JOB 012275__	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 012275__	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 012275__	ESTABLISHING CONTRACT TIME - WORKING DAY CONTRACT
JOB 012275__	EXTENSION FOR PIPE CULVERTS
JOB 012275__	FLEXIBLE BEGINNING OF WORK
JOB 012275__	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 012275__	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 012275__	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 012275__	MANDATORY ELECTRONIC CONTRACT
JOB 012275__	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 012275__	NESTING SITES OF MIGRATORY BIRDS
JOB 012275__	OFF-SITE RESTRAINING CONDITIONS FOR NORTHERN LONG-EARED BATS
JOB 012275__	PARTNERING REQUIREMENTS
JOB 012275__	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS (IRI)
JOB 012275__	PLASTIC PIPE
JOB 012275__	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 012275__	PRICE ADJUSTMENT FOR FUEL
JOB 012275__	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 012275__	RUMBLE STRIPS
JOB 012275__	SHORING FOR CULVERTS
JOB 012275__	SOIL STABILIZATION
JOB 012275__	SPECIAL SEEDING REQUIREMENTS
JOB 012275__	STORM WATER POLLUTION PREVENTION PLAN
JOB 012275__	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 012275__	TOTAL SOLAR ECLIPSE
JOB 012275__	UTILITY ADJUSTMENTS
JOB 012275__	VALUE ENGINEERING
JOB 012275__	WARM MIX ASPHALT
JOB 012275__	WATER POLLUTION CONTROL
JOB 012275__	WATTLES
JOB 012275__	WELLHEAD PROTECTION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERTSON

DIGITALLY SIGNED 08-18-2023

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT. AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
10. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
11. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 23 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

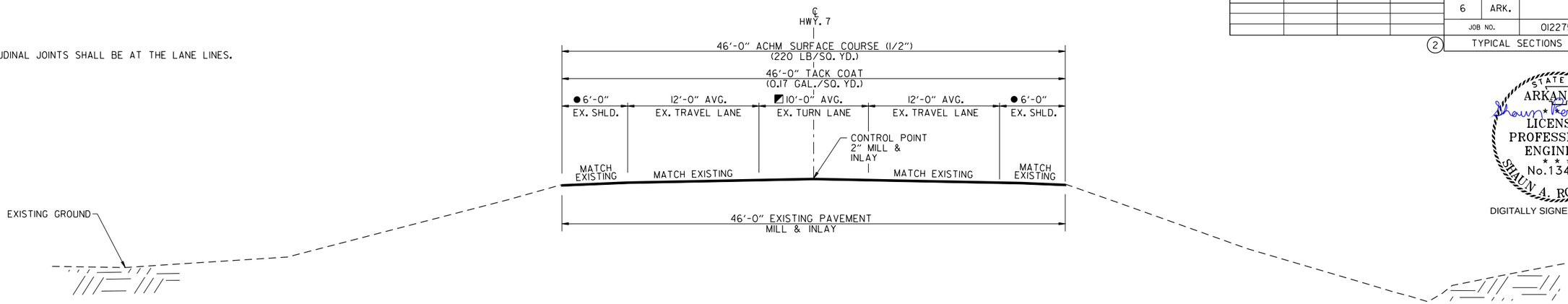
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				6	ARK.			
				JOB NO.		012275	4	280

(2) TYPICAL SECTIONS OF IMPROVEMENT

NOTES:

LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

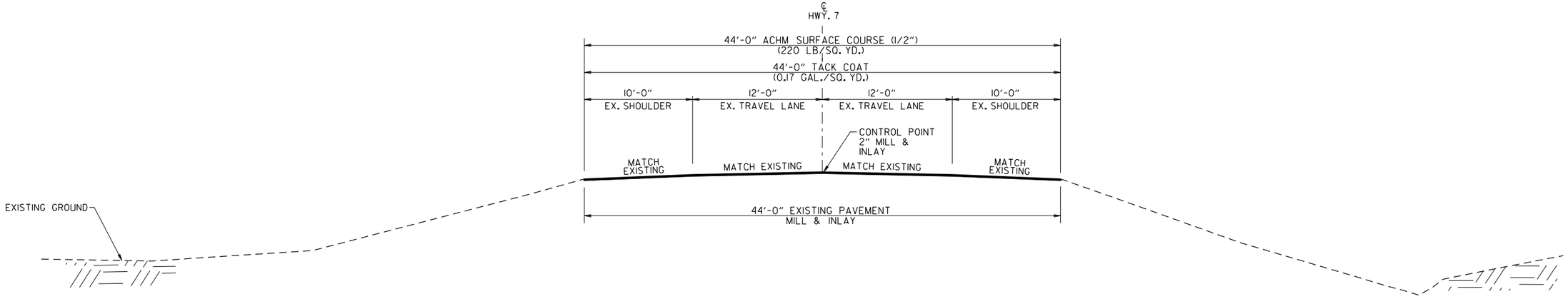


HWY. 7 MILL & OVERLAY 3 LANE SECTION

L.M. 0.00 TO L.M. 0.53

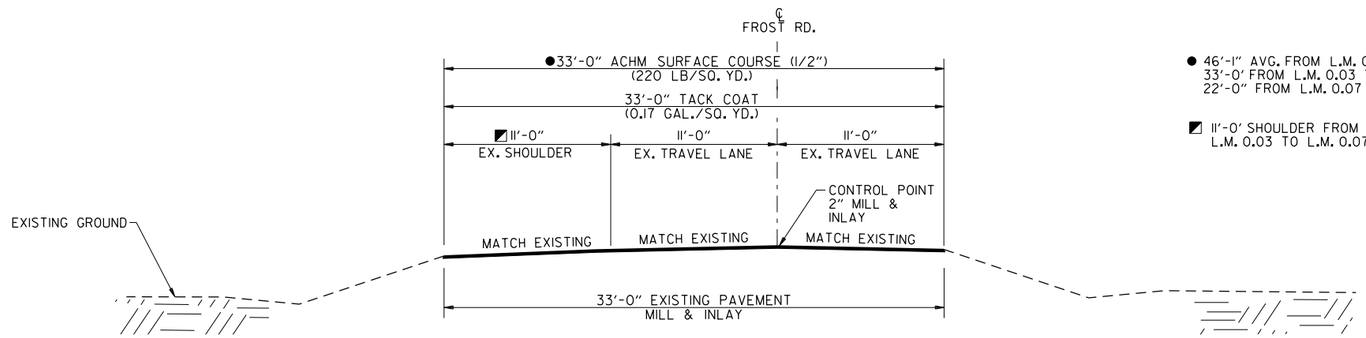
◪ TRANSITION LANE FROM 10'-0" AT L.M. 0.47 TO 0'-0" AT L.M. 0.53

● TRANSITION SHOULDER FROM 6'-0" AT L.M. 0.47 TO 10'-0" AT L.M. 0.53



HWY. 7 MILL & OVERLAY TYPICAL SECTION

L.M. 0.53 TO L.M. 0.60



● 46'-1" AVG. FROM L.M. 0.00 TO 0.03
33'-0' FROM L.M. 0.03 TO L.M. 0.07
22'-0" FROM L.M. 0.07 TO 0.20

◪ 11'-0' SHOULDER FROM L.M. 0.03 TO L.M. 0.07

FROST RD. MILL & OVERLAY TYPICAL SECTION

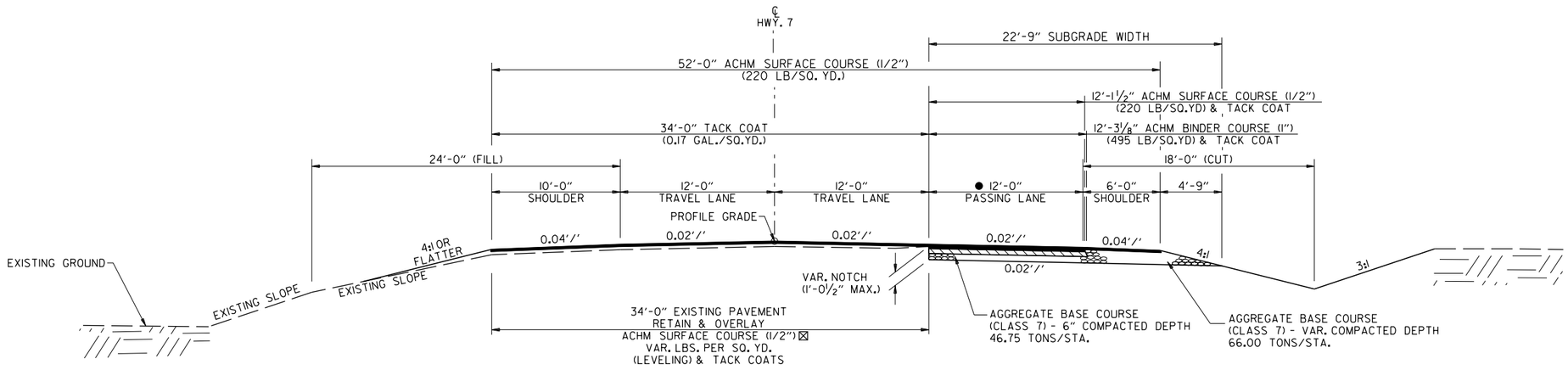
L.M. 0.00 TO L.M. 0.20

TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

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				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



TYPICAL SECTION OF IMPROVEMENT
SITE I
NOTCH AND WIDENING
NORTHBOUND PASSING LANE

STA. 113+00.00 TO STA. 127+60.00

● TRANSITION FROM 0' AT STA. 113+00.00 TO 12' AT STA. 115+00.00

⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

NOTES:

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

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

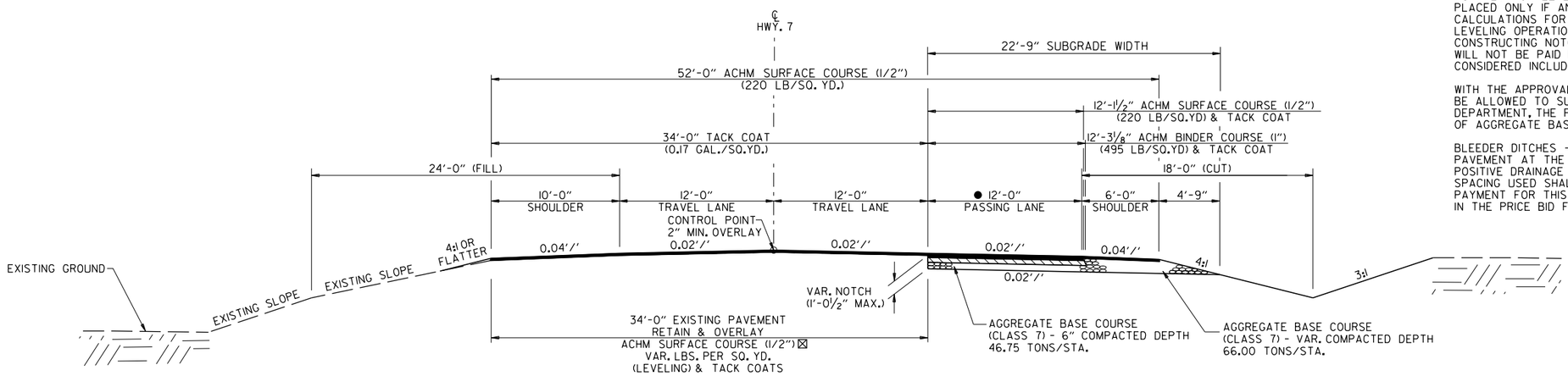
THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

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

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, THE FIRST LIFT OF ACHM SURFACE (1/2") IN LIEU OF AGGREGATE BASE COURSE ON THE SHOULDERS.

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.

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



TYPICAL SECTION OF IMPROVEMENT
SITE I
NOTCH AND WIDENING
NORTHBOUND PASSING LANE

STA. 127+60.00 TO STA. 136+82.32
STA. 161+15.19 TO STA. 176+40.10

● TRANSITION FROM 12' AT STA. 169+80.10 TO 0' AT STA. 176+40.10

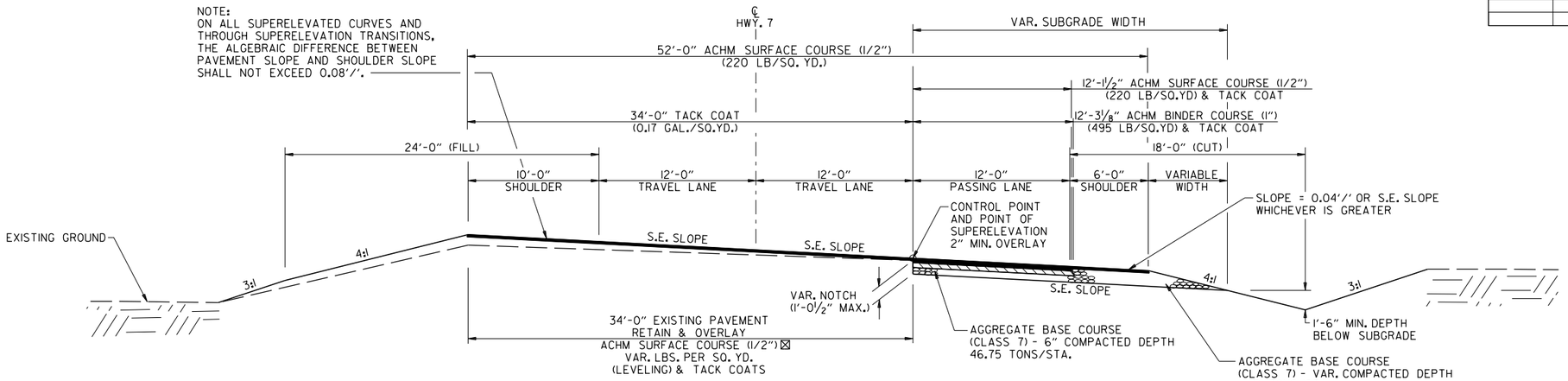
⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

TYPICAL SECTIONS OF IMPROVEMENT

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	6	280
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			

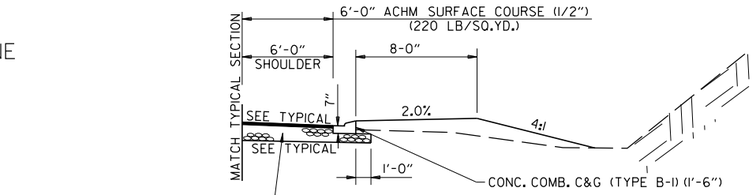
NOTE:
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⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

TYPICAL SECTION OF IMPROVEMENT
SITE 1
NOTCH AND WIDENING
SUPERELEVATION
NORTHBOUND PASSING LANE

STA. 136+82.32 TO STA. 161+15.19



STA. 140+80.00 TO STA. 144+00.00

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

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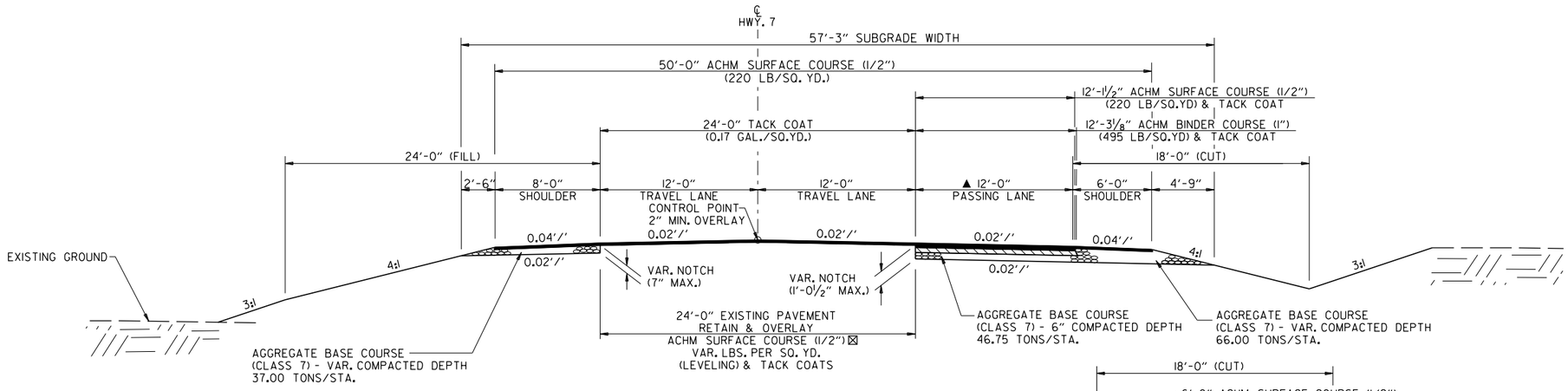
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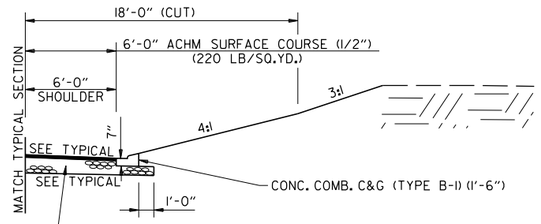


TYPICAL SECTION OF IMPROVEMENT
SITE 3
NOTCH AND WIDENING
NORTHBOUND PASSING LANE

STA. 333+00.00 TO STA. 340+53.79
STA. 349+79.36 TO STA. 353+58.61
STA. 363+98.89 TO STA. 368+35.03
STA. 378+08.09 TO STA. 378+59.32

▲ TRANSITION FROM 0' AT STA. 333+00.00 TO 12' AT STA. 335+00.00

⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

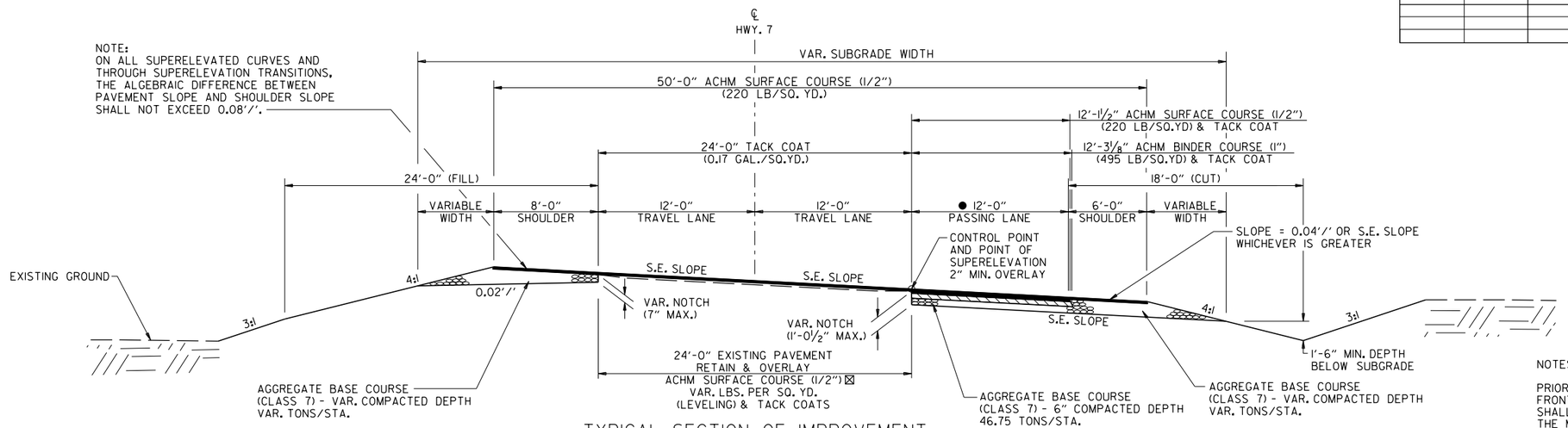


STA. 338+85.00 TO STA. 340+53.79
STA. 353+00.00 TO STA. 353+58.31

TYPICAL SECTIONS OF IMPROVEMENT

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				JOB NO.		012275	7	280
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



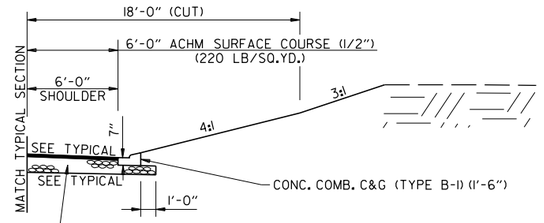
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⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

● TRANSITION FROM 12' AT STA. 390+76.07 TO 0' AT STA. 397+36.07

TYPICAL SECTION OF IMPROVEMENT
SITE 3
NOTCH AND WIDENING SUPERELEVATION
NORTHBOUND PASSING LANE

STA. 340+53.79 TO STA. 349+79.36
STA. 368+35.03 TO STA. 378+08.09
STA. 387+20.48 TO STA. 397+36.07



AGGREGATE BASE COURSE (CLASS 7) - VAR. COMPACTED DEPTH VAR. TONS/STA.

STA. 340+53.79 TO STA. 341+00.00
STA. 353+58.61 TO STA. 355+00.00
STA. 393+50.00 TO STA. 396+60.00

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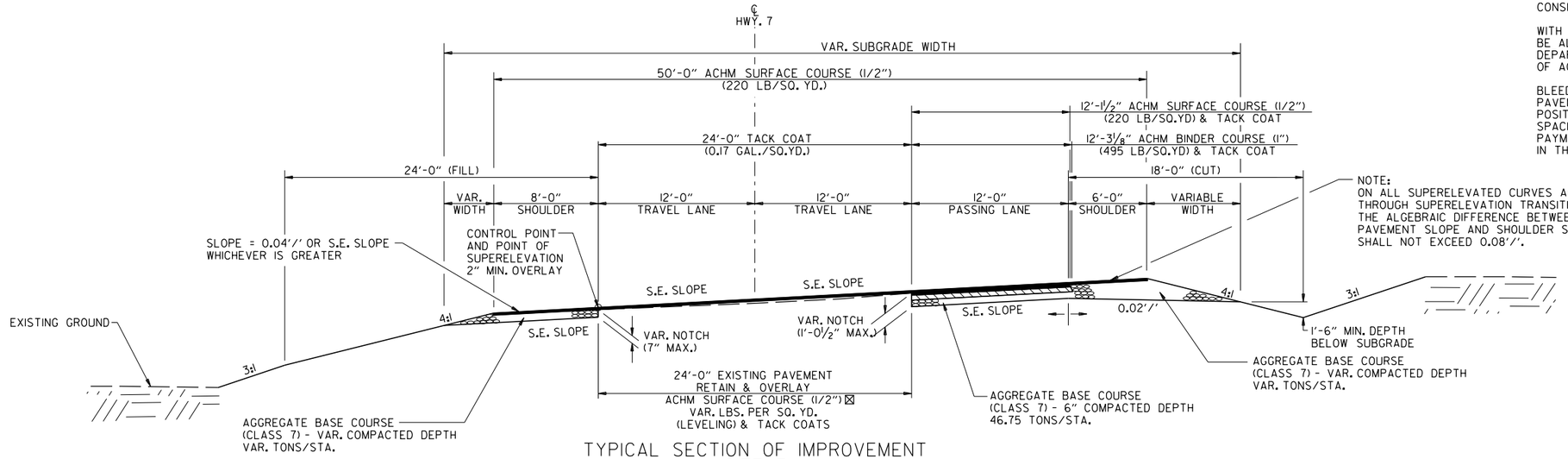
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STATE OF ARKANSAS
Shaun Roberson
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No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



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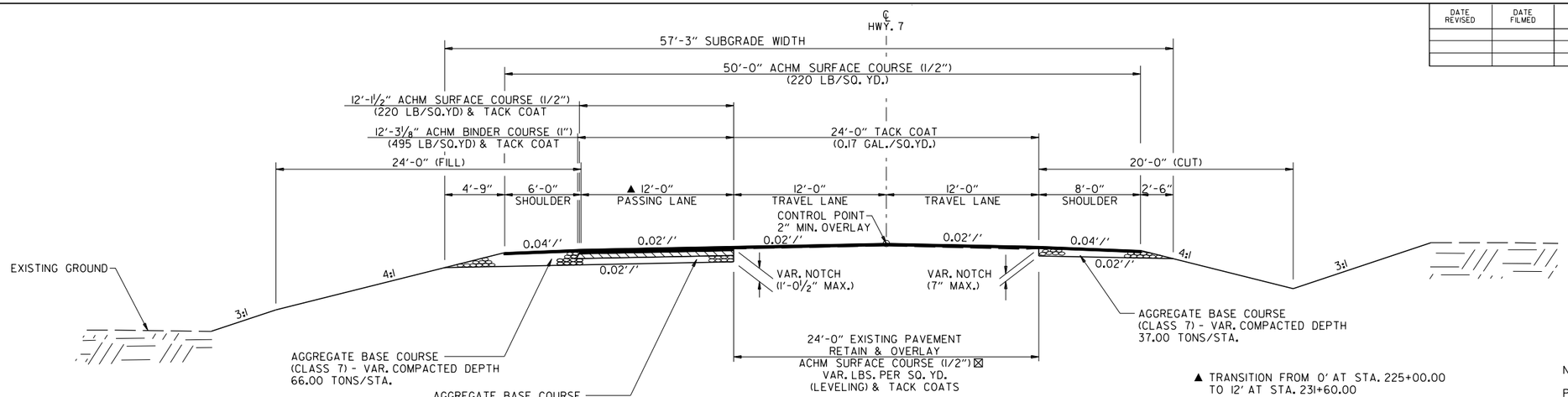
TYPICAL SECTION OF IMPROVEMENT
SITE 3
NOTCH AND WIDENING SUPERELEVATION
NORTHBOUND PASSING LANE

STA. 353+58.61 TO STA. 363+98.89
STA. 378+59.32 TO STA. 387+20.48

TYPICAL SECTIONS OF IMPROVEMENT

PJoseph 6/29/2023 4:33:18 PM
WORKSPACE: AHTD
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REVISED DATE:

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				6	ARK.			
				JOB NO.		012275	8	280
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



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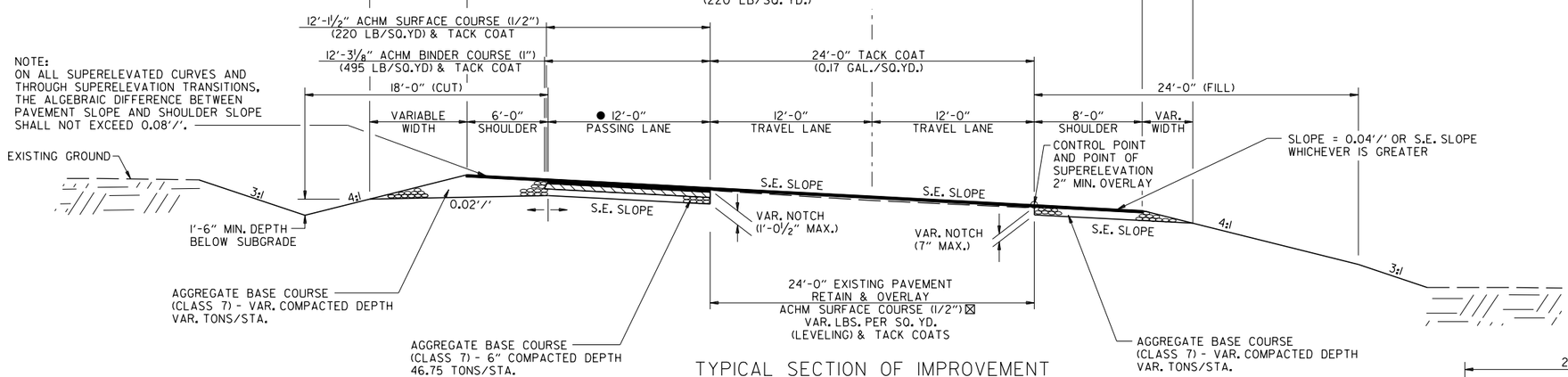
TYPICAL SECTION OF IMPROVEMENT
SITE 2 & 4
NOTCH AND WIDENING
SOUTHBOUND PASSING LANE

STA. 225+00.00 TO STA. 238+97.79
STA. 249+36.29 TO STA. 255+54.39
STA. 269+48.33 TO STA. 275+06.05
STA. 285+92.26 TO STA. 288+40.00
STA. 446+48.87 TO STA. 452+00.00

▲ TRANSITION FROM 0' AT STA. 225+00.00 TO 12' AT STA. 231+60.00

TRANSITION FROM 12' AT STA. 286+40.00 TO 0' AT STA. 288+40.00

TRANSITION FROM 0' AT STA. 443+00.00 TO 12' AT STA. 449+60.00

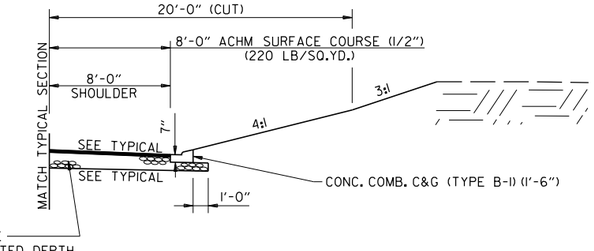


● TRANSITION FROM 12' AT STA. 505+37.65 TO 0' AT STA. 507+37.65

⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

TYPICAL SECTION OF IMPROVEMENT
SITE 2 & 4
NOTCH AND WIDENING
SUPERELEVATION
SOUTHBOUND PASSING LANE

STA. 238+97.79 TO STA. 249+36.29
STA. 275+06.05 TO STA. 285+92.26
STA. 500+33.54 TO STA. 508+86.30



STA. 242+65.00 TO STA. 245+70.00

TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
Shaun Roberson
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No.13436
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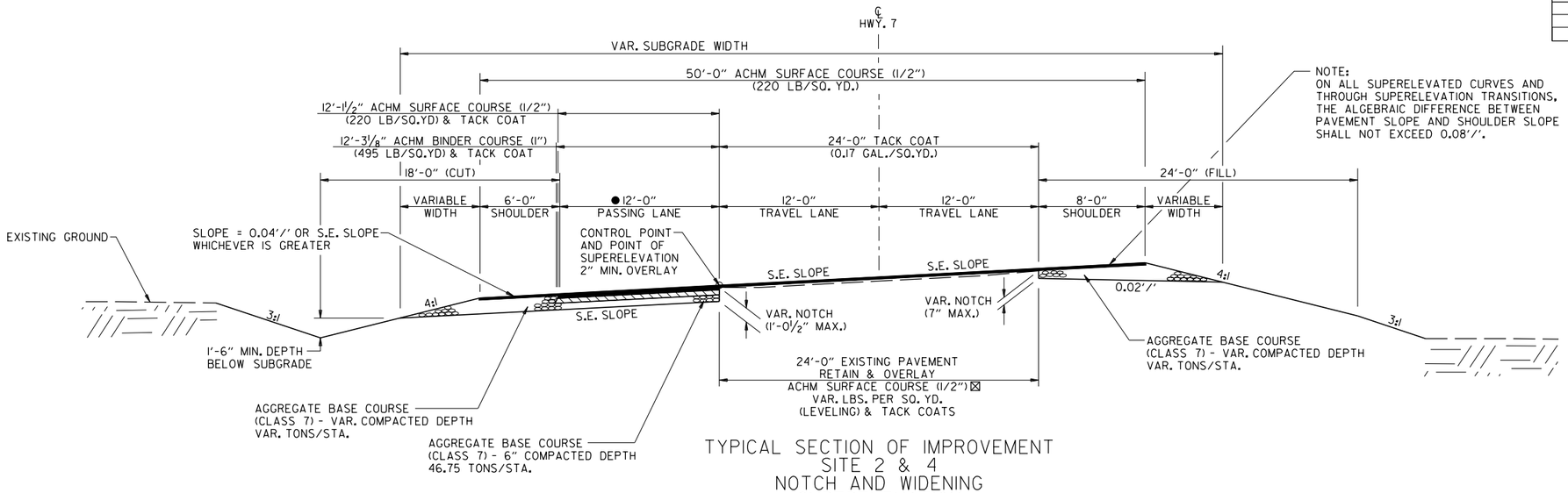
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PJoseph 6/29/2023 4:33:18 PM
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				JOB NO.		012275	9	280

(2) TYPICAL SECTIONS OF IMPROVEMENT



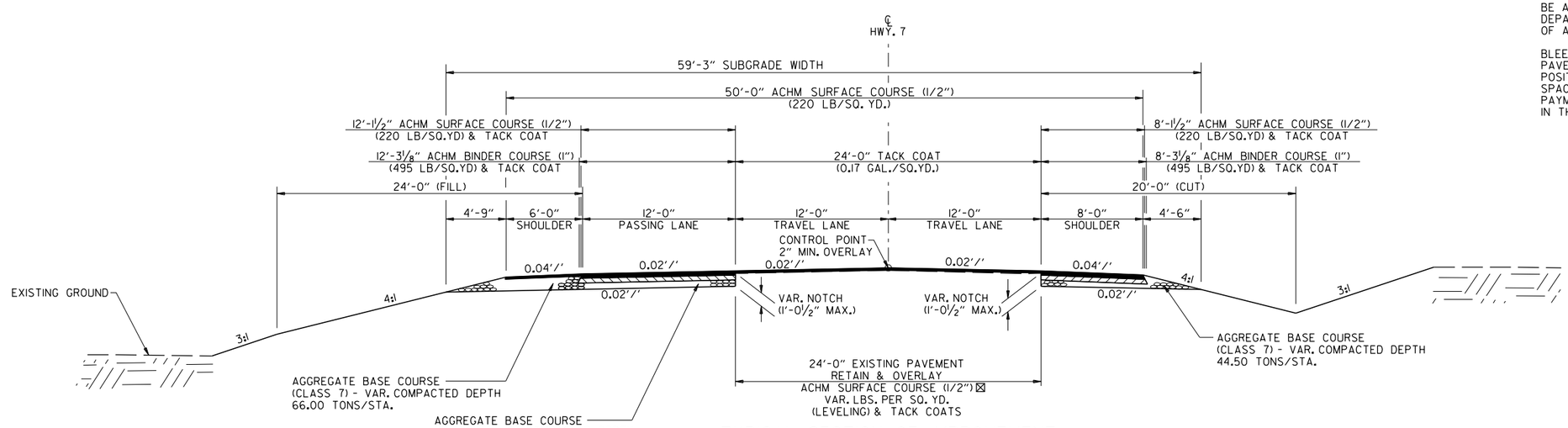
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TYPICAL SECTION OF IMPROVEMENT
SITE 2 & 4
NOTCH AND WIDENING
SOUTHBOUND PASSING LANE

● TRANSITION FROM 0' AT STA. 443+00.00 TO 12' AT STA. 449+60.00

⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

STA. 255+54.39 TO STA. 269+48.33
STA. 443+00.00 TO STA. 446+48.87
STA. 498+79.78 TO STA. 500+33.54



TYPICAL SECTION OF IMPROVEMENT
SITE 4
NOTCH AND WIDENING
SOUTHBOUND PASSING LANE

⊠ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

STA. 452+00.00 TO STA. 456+48.09

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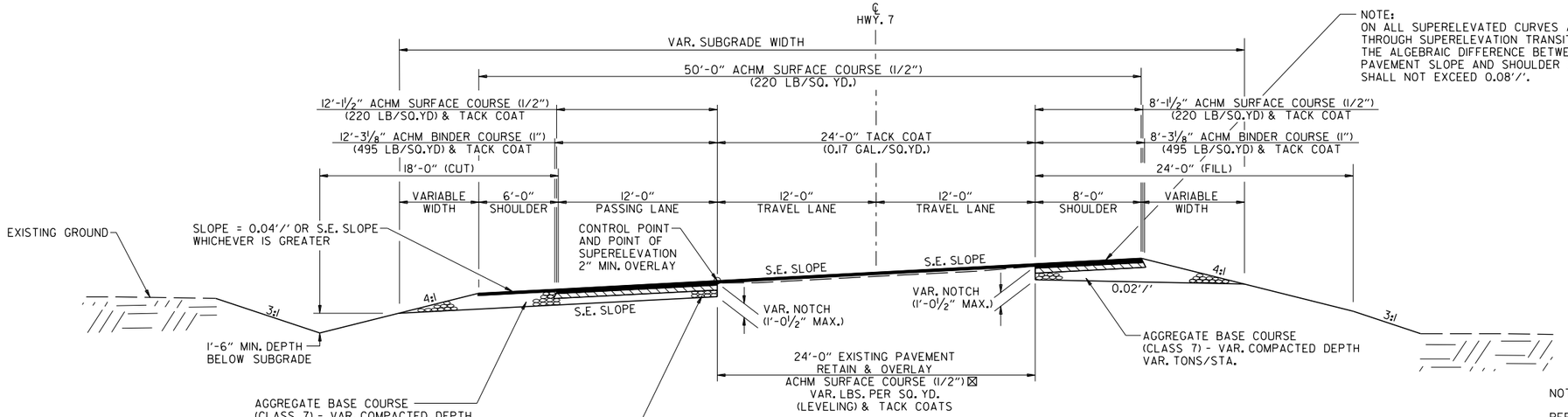
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TYPICAL SECTIONS OF IMPROVEMENT

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				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



NOTE:
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TYPICAL SECTION OF IMPROVEMENT
SITE 4
NOTCH AND WIDENING
SUPERELEVATION
SOUTHBOUND PASSING LANE

☒ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

STA. 456+48.09 TO STA. 456+90.00

STATE OF ARKANSAS
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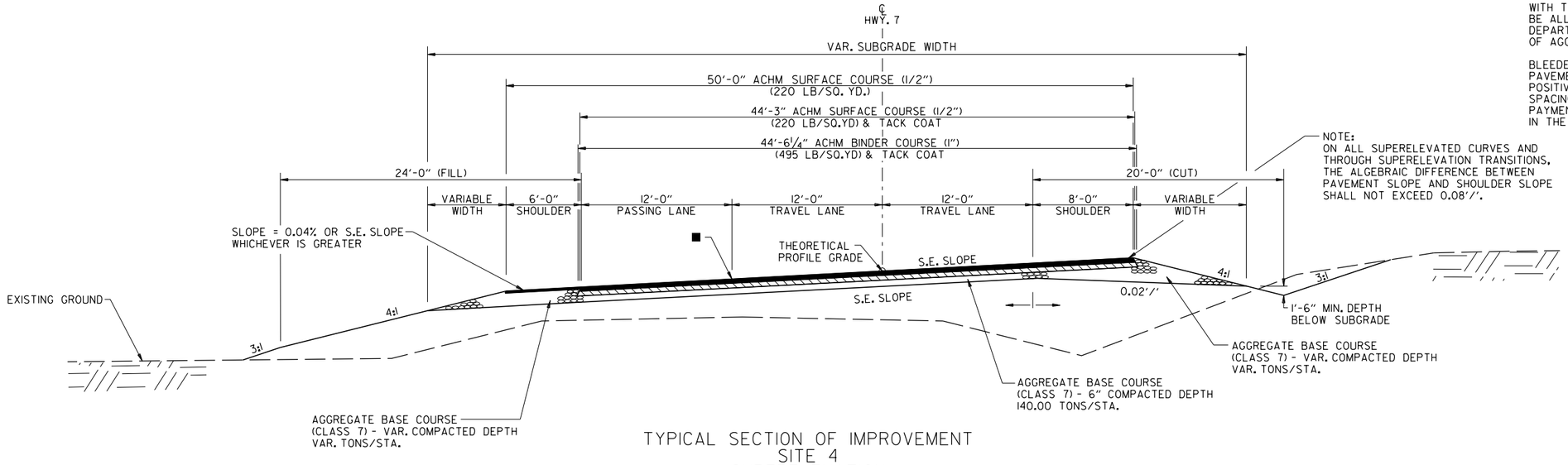
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TYPICAL SECTION OF IMPROVEMENT
SITE 4
SUPERELEVATION
SOUTHBOUND PASSING LANE

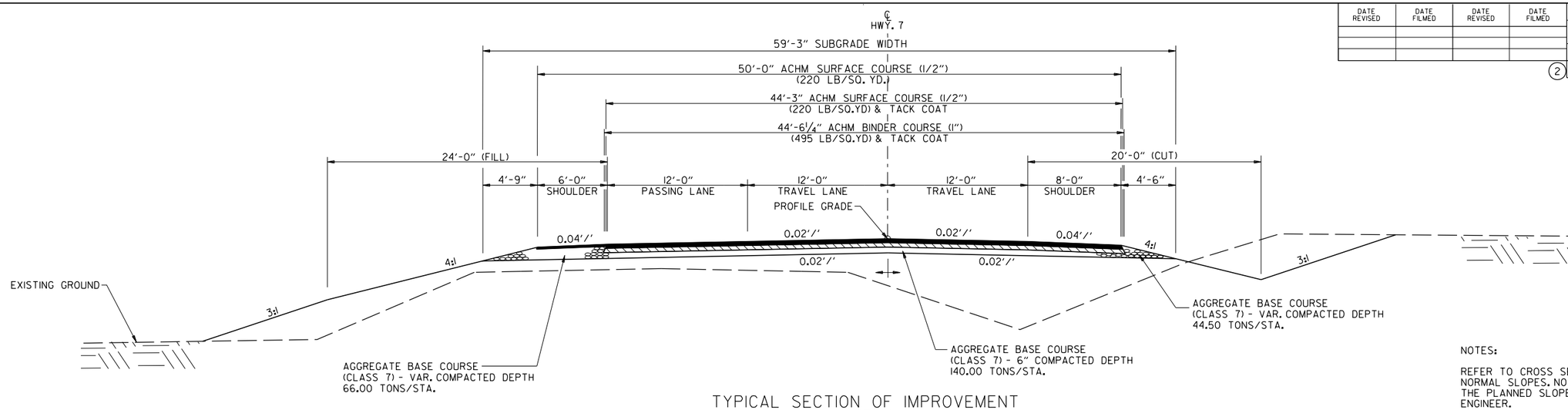
■ POINT OF SUPERELEVATION ROTATION (0.24' BELOW PROFILE GRADE)

STA. 456+90.00 TO STA. 466+50.73

TYPICAL SECTIONS OF IMPROVEMENT

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				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



TYPICAL SECTION OF IMPROVEMENT
SITE 4
SOUTHBOUND PASSING LANE

STA. 466+50.73 TO STA. 467+00.00

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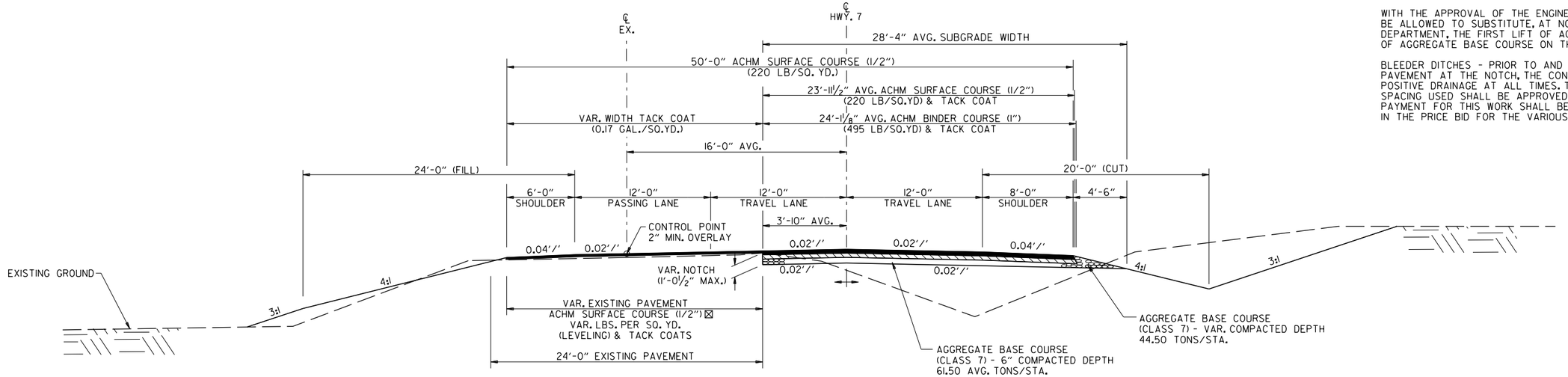
THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

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☒ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

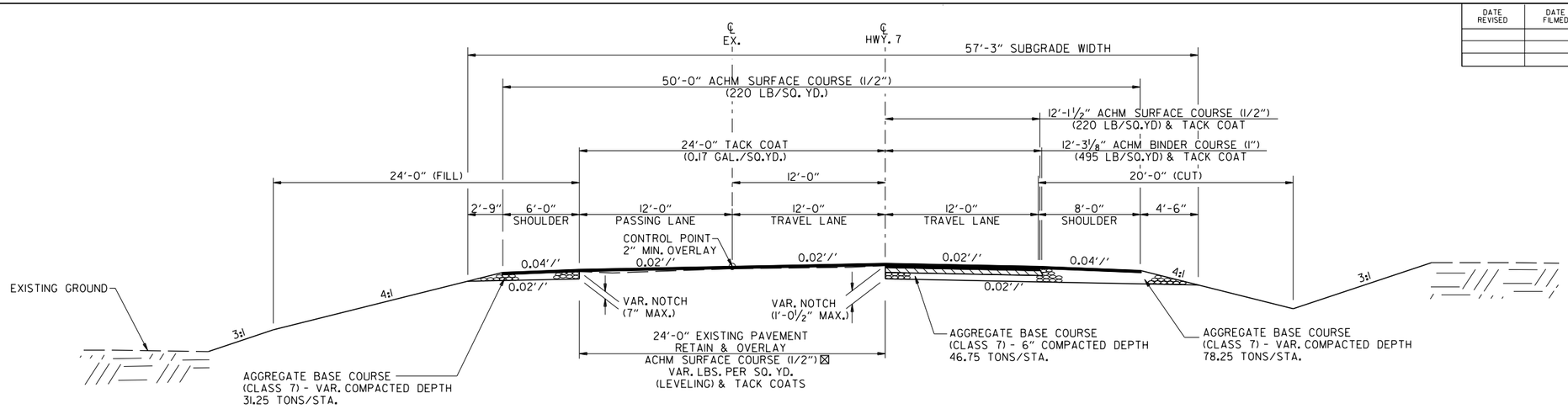
TYPICAL SECTION OF IMPROVEMENT
SITE 4
NOTCH AND WIDENING
SOUTHBOUND PASSING LANE

STA. 467+00.00 TO STA. 472+02.80

TYPICAL SECTIONS OF IMPROVEMENT

PJoseph 6/29/2023 4:33:19 PM
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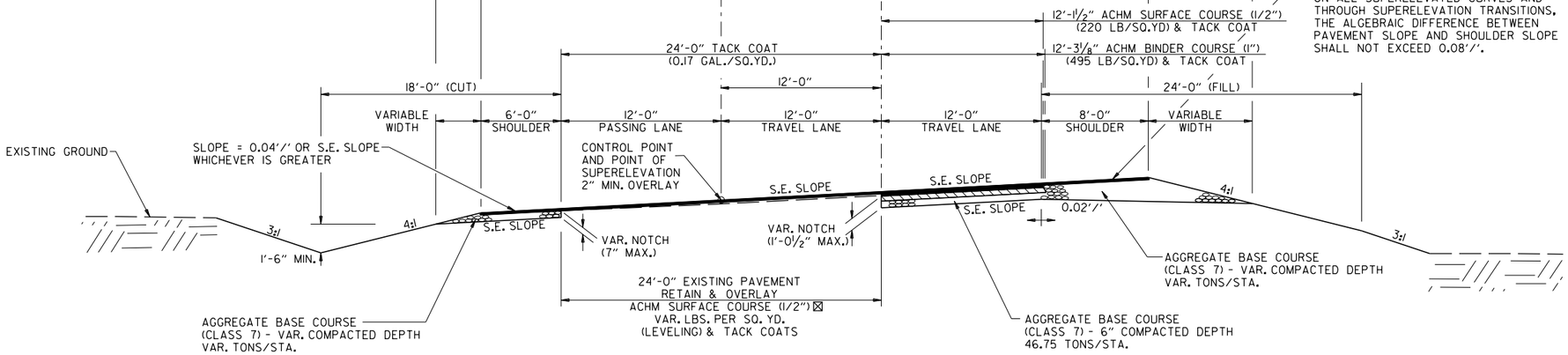
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				6	ARK.			
				JOB NO.		012275	12	280
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



☒ TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

TYPICAL SECTION OF IMPROVEMENT
SITE 4
NOTCH AND WIDENING
SOUTHBOUND PASSING LANE

STA. 472+02.80 TO STA. 491+39.79



NOTE:
ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08'/'.

TYPICAL SECTION OF IMPROVEMENT
SITE 4
NOTCH AND WIDENING
SUPERELEVATION
SOUTHBOUND PASSING LANE

STA. 491+39.79 TO STA. 494+96.74

NOTES:

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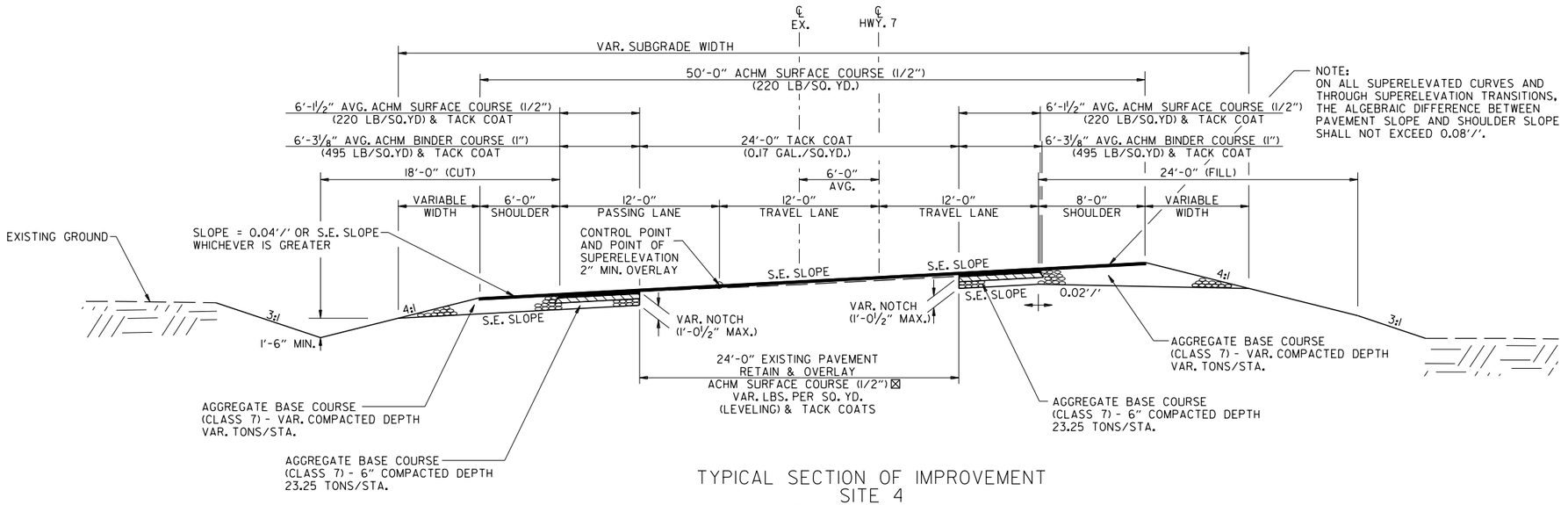
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STATE OF ARKANSAS
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LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

TYPICAL SECTIONS OF IMPROVEMENT

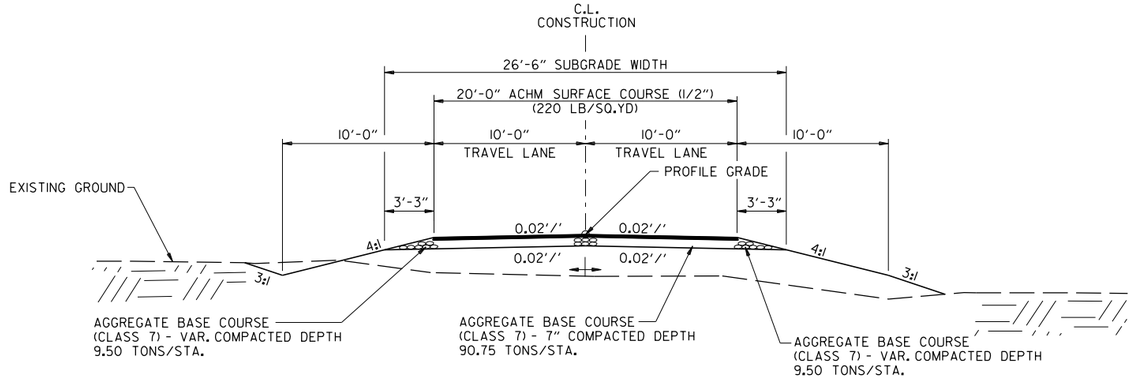
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				6	ARK.			
				JOB NO.		012275	13	280
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



TYPICAL SECTION OF IMPROVEMENT
SITE 4
NOTCH AND WIDENING
SUPERELEVATION
SOUTHBOUND PASSING LANE

STA. 494+96.74 TO STA. 498+79.78



TUPELO TRAIL SOUTH AND NORTH
TYPICAL SECTION

TUPELO TRAIL SOUTH STA. 10+12.00 TO STA. 11+65.00
TUPELO TRAIL NORTH STA. 10+24.00 TO STA. 12+00.00

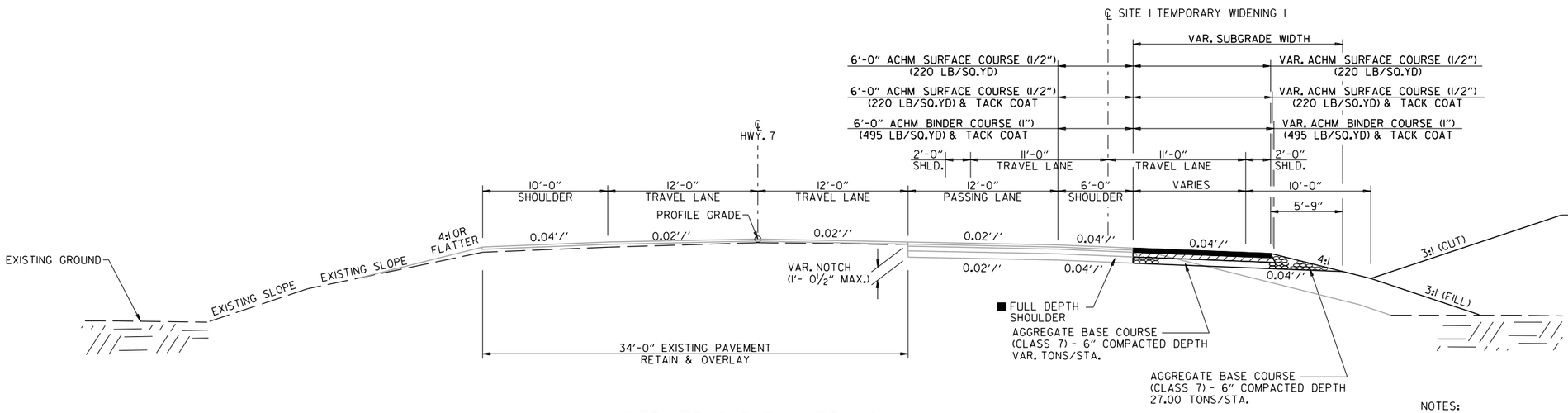
STATE OF ARKANSAS
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No. 13436
SHAUN A. ROBERSON
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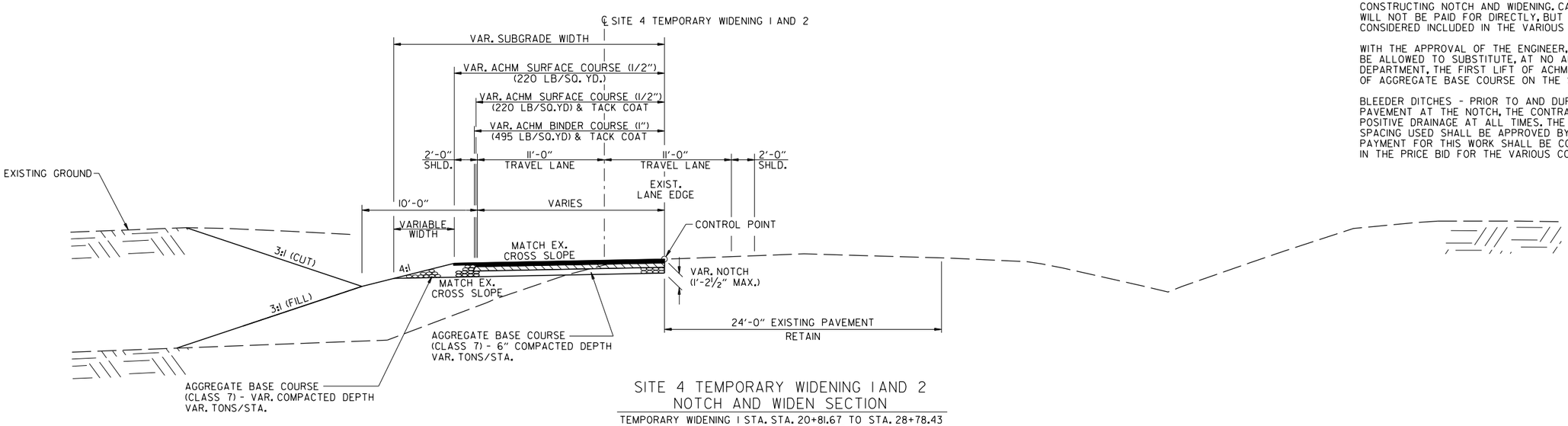
(2) TYPICAL SECTIONS OF IMPROVEMENT



SITE 1 TEMPORARY WIDENING 1 TYPICAL SECTION

SITE 1 TEMPORARY WIDENING STA. 12+76.02 TO STA. 17+69.33

■ SITE 1 STA. 122+74.00 TO STA. 129+11.63



SITE 4 TEMPORARY WIDENING 1 AND 2 NOTCH AND WIDEN SECTION

TEMPORARY WIDENING 1 STA. STA. 20+81.67 TO STA. 28+78.43
TEMPORARY WIDENING 2 STA. STA. 31+20.55 TO STA. 37+30.18

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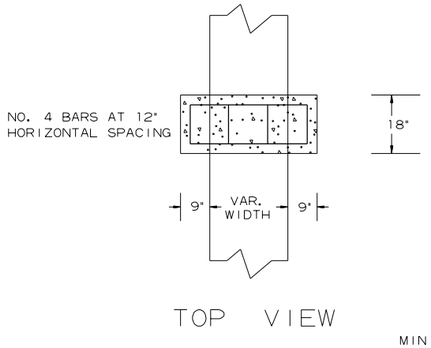
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				JOB NO.		012275	15	280
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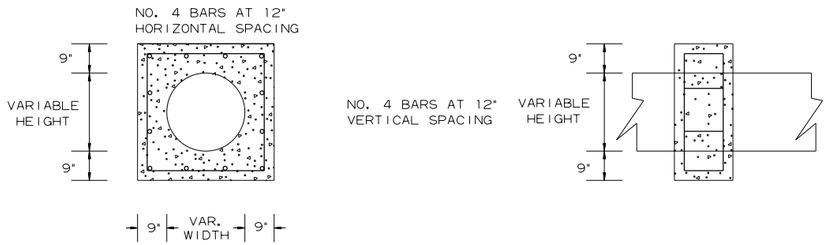
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

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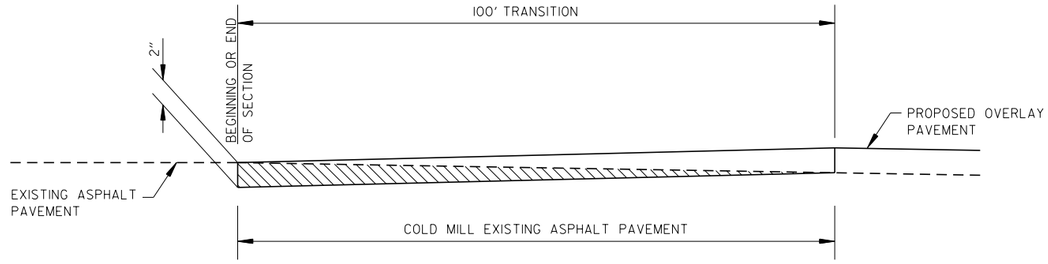
TOP VIEW

NOTE: PIPE COLLAR TO BE UTILIZED IF AND WHERE DIRECTED BY THE ENGINEER.



FRONT VIEW SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

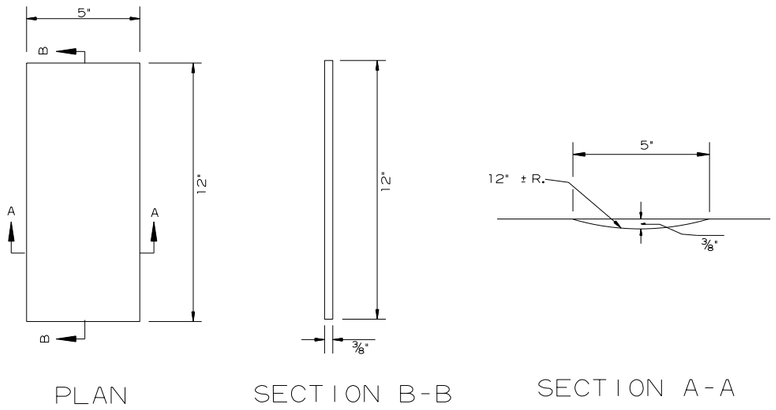


DETAIL FOR TRANSITIONS

SPECIAL DETAILS

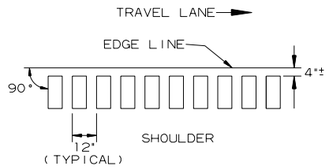
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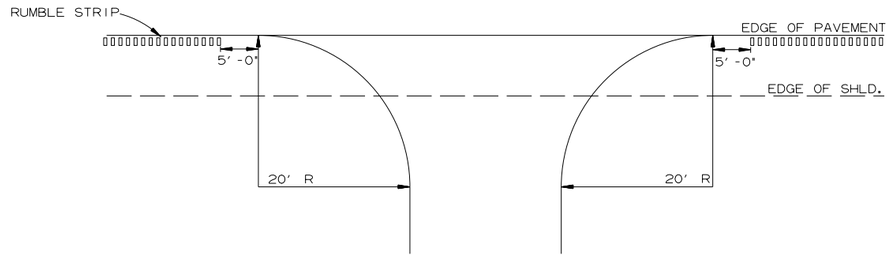


PLAN SECTION B-B SECTION A-A

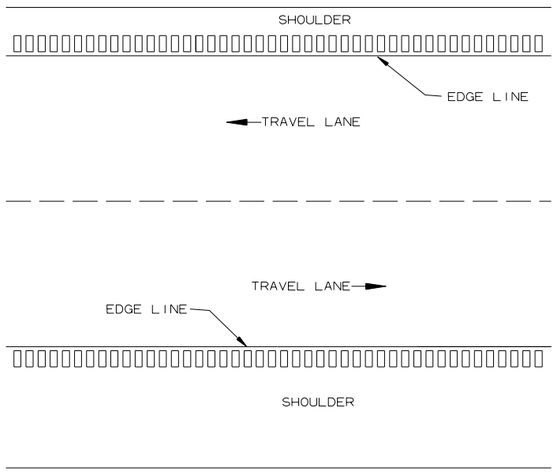
DETAILS OF RUMBLE STRIPS



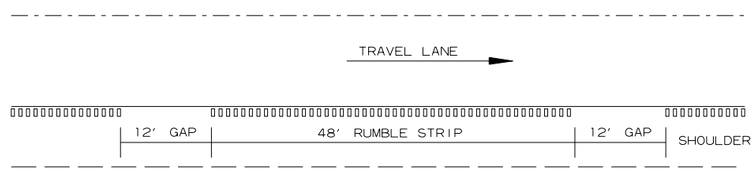
LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



DETAIL FOR RUMBLE STRIP GAP
AT DRIVEWAY TURNOUTS



PLAN VIEW



NOTE: GAP PATTERN SHALL BE ADJUSTED BY THE ENGINEER IN THE FIELD ALLOWING FOR DRIVEWAYS TO SERVE AS THE GAP.

DETAIL FOR GAP PATTERN RUMBLE STRIP

GENERAL NOTES

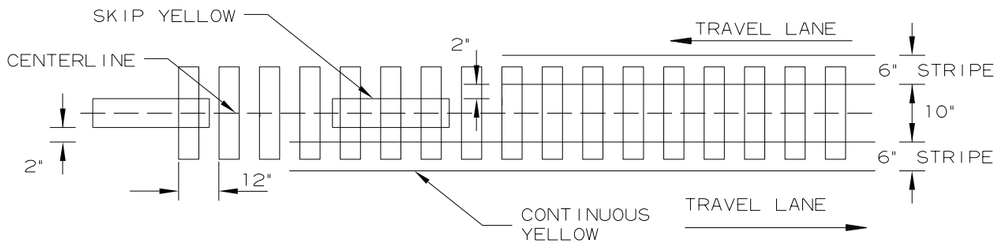
1. RUMBLE STRIPS SHALL NOT BE INSTALLED ON CURB SECTIONS, BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, RESIDENTIAL OR COMMERCIAL DRIVEWAYS OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPS SHALL NOT BE INSTALLED ON A PAVED SHOULDER THAT IS USED AS A DECELERATION LANE FOR THE LENGTH DEEMED APPROPRIATE BY THE ENGINEER.
3. THE 4" OFFSET FROM THE EDGE LINE MAY BE INCREASED TO AVOID LONGITUDINAL JOINTS. IN ALL CASES, THE LATERAL DEVIATION FROM THE PLANNED OFFSET SHOULD BE KEPT TO A MINIMUM.
4. RUMBLE STRIPS SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE SHOULDER. PAYMENT SHALL ONLY INCLUDE THAT PORTION OF THE SHOULDER ON WHICH RUMBLE STRIPS HAVE BEEN CONSTRUCTED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR GAPS, DRIVEWAYS, TURNOUTS, OR OTHER PUBLIC ROAD INTERSECTIONS WHERE RUMBLE STRIPS HAVE NOT BEEN CONSTRUCTED.
5. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 12" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.

STATE OF ARKANSAS
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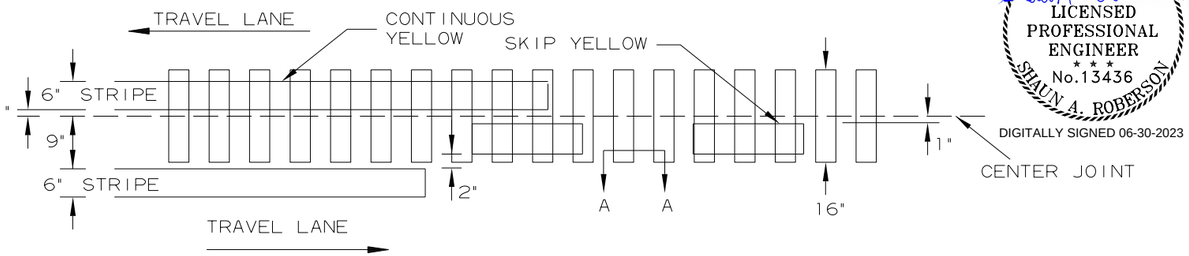
SPECIAL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		012275	17	280
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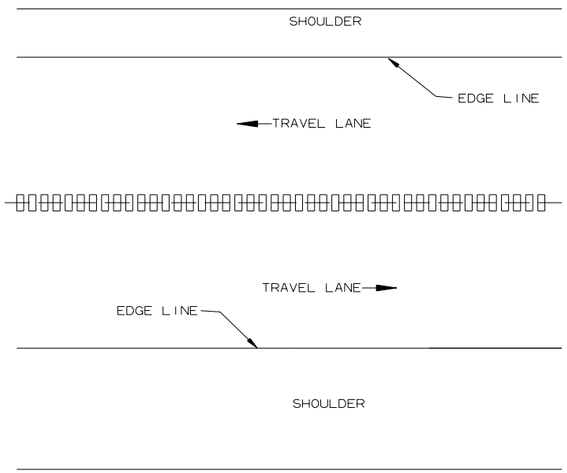
ASPHALT PAVEMENT



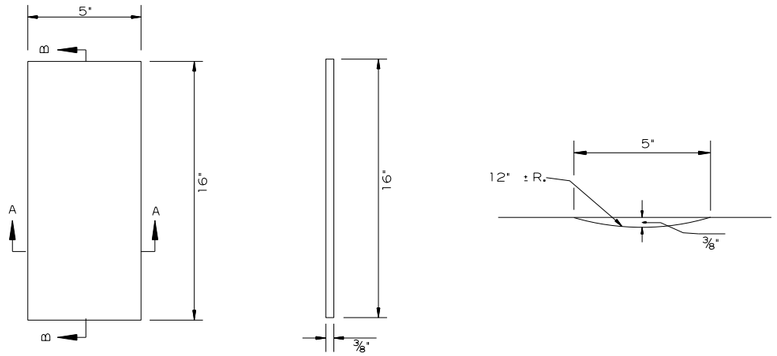
CONCRETE PAVEMENT

STATE OF ARKANSAS
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LOCATION PLAN OF CENTERLINE RUMBLE STRIPES



PLAN VIEW



PLAN SECTION B-B SECTION A-A

DETAILS OF CENTERLINE RUMBLE STRIPES

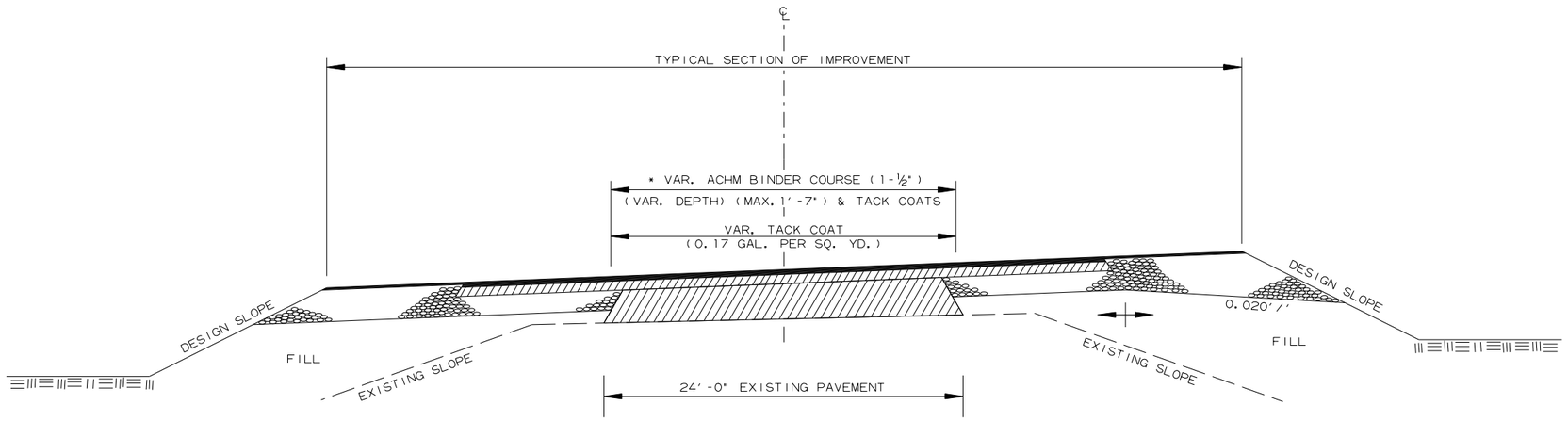
GENERAL NOTES

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2. RUMBLE STRIPES SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE CENTERLINE.
3. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SLOPE BREAKS MAY BE NECESSARY.

PJoseph 6/29/2023 4:33:20 PM
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				6	ARK.			
				JOB NO.		012275	18	280

(2) SPECIAL DETAILS



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

METHOD OF RAISING GRADE

STATE OF ARKANSAS
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NOTES:

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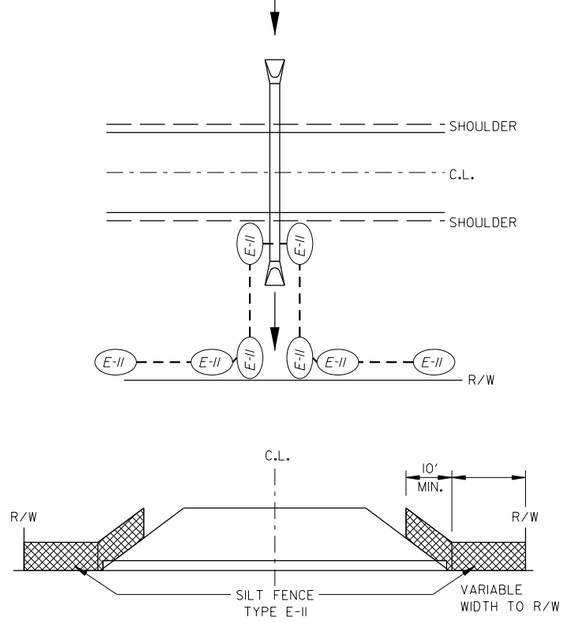
(2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.

(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.

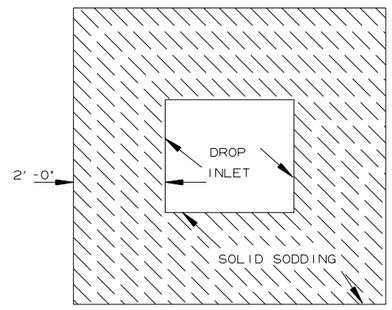


6.0" Radius, 1.3" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Mo Year" C 2K;
"Est Completion Mo Year" C 2K; "IDRIVE
ARKANSAS.COM " Arial;

CONSTRUCTION PROJECT INFORMATION SIGN



DETAILS OF SILT FENCE AT CROSS DRAINS



DETAIL FOR SOLID SODDING AROUND DROP INLETS

SPECIAL DETAILS

PJoseph 6/29/2023 4:33:20 PM
WORKSPACE: AHTD
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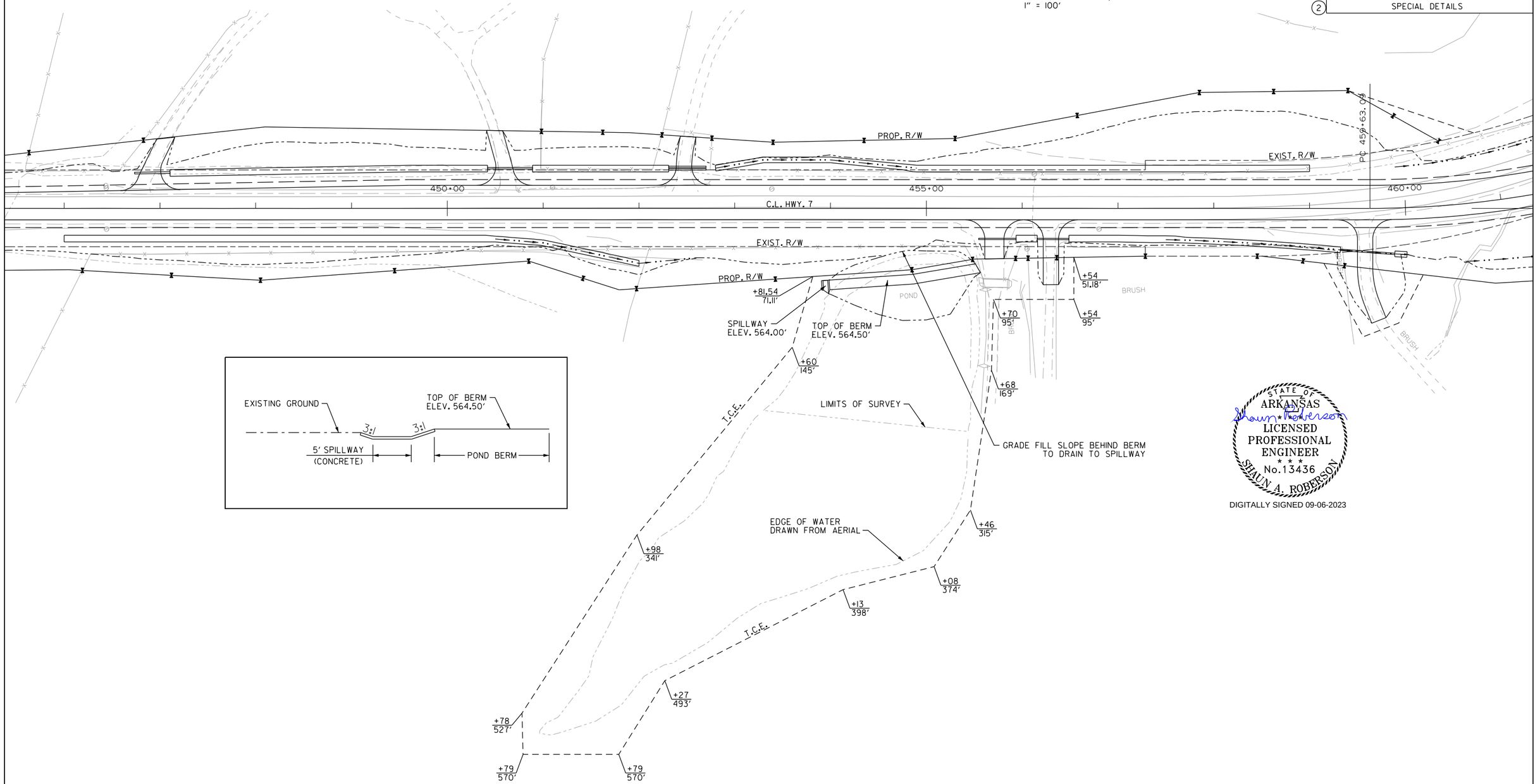
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09-06-2023			

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(2) SPECIAL DETAILS

N

1" = 100'



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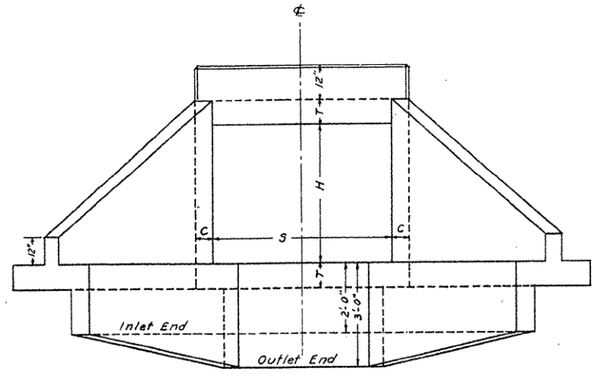
DIGITALLY SIGNED 09-06-2023

SITE 4 POND TCE DETAIL
SPECIAL DETAILS

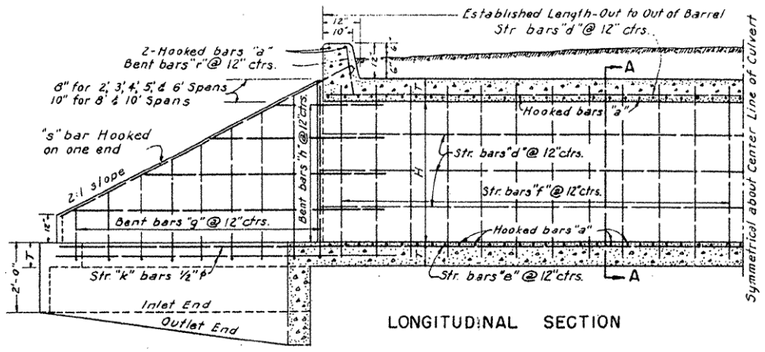
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	20	280

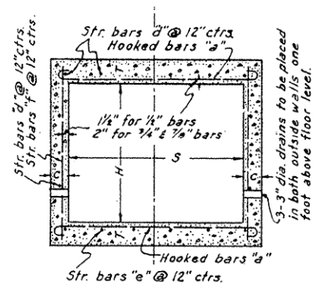
(2) SPECIAL DETAILS



END ELEVATION



LONGITUDINAL SECTION

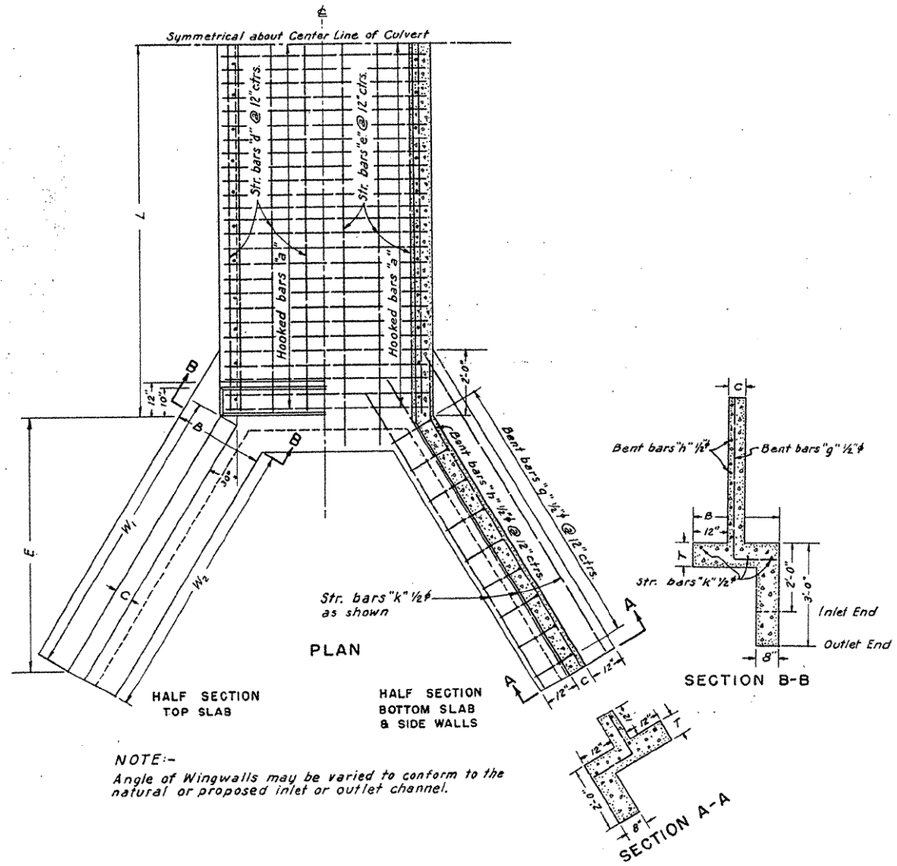


SECTION A-A

DIMENSIONS & QUANTITIES

SPAN	HEIGHT	AREA OF OPENING SQ. FT.	MINIMUM DEPTH OF COVER	THICKNESS OF TOP & BOTTOM SLAB	THICKNESS OF SIDE & WING WALLS	WIDTH OF FOOTING	LENGTH OF FOOTING	LENGTH OF WING WALLS	LENGTH OF BACK OF HEADWALL	CONCRETE CU. YD. HEADWALLS WINGWALLS & FOOTINGS	CONCRETE CU. YD. PER LINEAR FT. OF BARREL	STEEL LB. HEADWALLS WINGWALLS & FOOTING	STEEL LB. PER LINEAR FT. OF BARREL	STEEL LB. ADD. STEEL FOR SKEWS
S	H	A	D	T	C	B	W_2	W_1	E					
2	2	4	20'-0"	6½"	6"	2'-6"	3'-6¾"	3'-10"	3'-4"	2.38	.194	155	17.91	8.9
3	2	6	20'-0"	7"	6"	2'-6"	3'-6¾"	3'-10"	3'-4"	2.65	.247	164	22.77	11.1
	3	9			6"		5'-10½"	6'-2"	5'-4"	4.10	.284	243	25.43	13.4
4	2	8	16'-0"	7½"	6"	2'-6"	3'-6¾"	3'-10"	3'-4"	2.90	.306	173	28.28	13.4
	3	12			6"		5'-10½"	6'-2"	5'-4"	4.36	.343	257	30.94	15.6
	4	16			6"		8'-2"	8'-5½"	7'-4"	5.94	.380	332	33.50	17.8
5	2	10	10'-0"	8"	6"	2'-6"	3'-6¾"	3'-10"	3'-4"	3.15	.370	189	34.56	15.6
	3	15			6"		5'-10½"	6'-2"	5'-4"	4.60	.407	267	37.22	17.8
	4	20			6"		8'-2"	8'-5½"	7'-4"	6.20	.444	370	39.89	20.0
	5	25			7"	2'-9"	10'-8"	10'-9½"	9'-4"	8.78	.521	478	42.55	22.3
6	3	18	7'-0"	8½"	6"	2'-6"	5'-10½"	6'-2"	5'-4"	4.94	.478	278	41.88	20.0
	4	24			6"		8'-2"	8'-5½"	7'-4"	6.61	.515	383	44.54	22.3
	5	30			7"	2'-9"	10'-8"	10'-9½"	9'-4"	9.14	.592	492	47.20	24.5
	6	36			7"	3'-0"	13'-1"	13'-1"	11'-6"	11.58	.635	611	49.86	26.7
8	3	24	5'-0"	10½"	7"	2'-7"	6'-3½"	6'-6½"	5'-8"	6.28	.724	334	60.81	24.5
	4	32			7"	2'-7"	8'-7¼"	8'-10¼"	7'-8"	8.25	.767	429	63.47	26.7
	5	40			7"	2'-9"	11'-0¼"	11'-2"	9'-8"	10.52	.810	536	66.13	28.9
	6	48			7"	3'-0"	13'-5½"	13'-5½"	11'-8"	13.08	.853	673	68.80	31.2
	7	56			7"	3'-4"	16'-0"	13'-9½"	13'-8"	16.03	.897	976	71.46	33.4
	8	64			8"	3'-10"	18'-8"	18'-1"	15'-8"	20.69	1.000	1168	74.81	35.6
10	4	40	4'-0"	11¾"	7"	2'-7"	8'-7¼"	8'-10¼"	7'-8"	8.97	.883	505	90.62	31.2
	5	50			7"	2'-9"	11'-0¼"	11'-2"	9'-8"	11.33	1.026	611	93.28	33.4
	6	60			7"	3'-0"	13'-5½"	13'-5½"	11'-8"	13.99	1.067	749	95.94	35.5
	7	70			7"	3'-4"	16'-0"	15'-9½"	13'-8"	17.27	1.112	1060	98.60	37.9
	8	80			8"	3'-10"	18'-8"	18'-1"	15'-8"	21.88	1.217	1253	101.26	40.1
	9	90			9"	4'-3"	21'-2"	20'-4½"	17'-8"	27.55	1.334	1740	111.86	42.3
	10	100			10"	4'-9"	23'-9½"	22'-8½"	19'-8"	34.76	1.463	2181	115.27	44.5

LAP NOTE:
In computing quantities of steel from the above table add one lap for culverts up to 50' in length and one lap for each additional 25' in length.



PLAN

HALF SECTION TOP SLAB

HALF SECTION BOTTOM SLAB & SIDE WALLS

SECTION B-B

SECTION A-A

NOTE:-
Angle of Wingwalls may be varied to conform to the natural or proposed inlet or outlet channel.

STEEL SCHEDULE

For Culvert 32' in Length Out to Out of Barrel

LENGTH OF SPAN	HEIGHT	"a" bars: Size	"a" bars: Spacing	"a" bars: Number	"a" bars: Length	"a" bars: X	"d" bars: Number	"d" bars: Length	"e" bars: Number	"e" bars: Length	"f" bars: Size	"f" bars: Spacing	"f" bars: Number	"f" bars: Length	"g" bars: Size	"g" bars: Spacing	"g" bars: Number	"g" bars: Ave. Length	"g" bars: X Min.	"g" bars: X Max.	"g" bars: Y Min.	"g" bars: Y Max.	"h" bars: Number	"h" bars: Ave. Length	"h" bars: Z Min.	"h" bars: Z Max.	"k" bars: Number	"k" bars: Length	"r" bars: Number	"r" bars: Length	"s" bars: Number	"s" bars: Length
S	H																															
2	2	½" ℄	6½"	122	3'-7"	2'-9"	3				½" ℄	12"	64	2'-10"	½" ℄	12"	16	3'-4"	1'-4"	2'-9"	1'-3"	1'-3"	12	4'-7"	1'-4"	3'-8"	12	5'-4"	6	3'-2"	4	5'-3"
3	2	⅝" ℄	6"	132	4'-7"	3'-9"	6		4		½" ℄	12"	64	2'-11"	⅝" ℄	12"	16	3'-4½"	1'-4½"	2'-9½"	1'-3"	1'-3"	12	4'-7"	1'-4"	3'-8"	12	5'-4"	8	3'-2"	4	5'-3"
	3			132	4'-7"	3'-9"	8		4				64	3'-11"			24	3'-10½"	1'-6½"	3'-9½"	1'-3"	1'-3"	16	5'-11"	1'-4"	6'-0"	12	7'-8"	8	3'-2"	4	7'-9"
4	2	⅝" ℄	5¼"	144	5'-7"	4'-9"	7		5		½" ℄	12"	64	3'-0"	⅝" ℄	12"	16	3'-3"	1'-5"	2'-10"	1'-3"	1'-3"	12	4'-7"	1'-4"	3'-8"	12	5'-4"	10	3'-2"	4	5'-3"
	3			144	5'-7"	4'-9"	9		5				64	4'-0"			24	3'-11"	1'-7"	3'-10"	1'-3"	1'-3"	16	5'-11"	1'-4"	6'-0"	12	7'-8"	10	3'-2"	4	7'-9"
	4			144	5'-7"	4'-9"	11		5				64	5'-0"			36	4'-5"	1'-5"	4'-10"	1'-3"	1'-3"	20	7'-2"	1'-4"	8'-4"	12	10'-0"	10	3'-2"	4	10'-3"
5	2	½" ℄	5"	158	6'-7"	5'-9"	6		6		½" ℄	12"	64	3'-1"	⅝" ℄	12"	16	3'-6"	1'-7"	2'-11"	1'-3"	1'-3"	12	4'-7"	1'-4"	3'-8"	12	5'-4"	14	3'-6"	4	5'-3"
	3			158	6'-7"	5'-9"	10		6				64	4'-1"			28	3'-11"	1'-5"	3'-11"	1'-3"	1'-3"	16	5'-11"	1'-4"	6'-0"	12	7'-8"	14	3'-6"	4	7'-9"
	4			158	6'-7"	5'-9"	12		6				64	5'-1"			36	4'-6"	1'-6"	4'-11"	1'-3"	1'-3"	20	7'-2"	1'-4"	8'-4"	12	10'-0"	14	3'-6"	4	10'-3"
	5			158	6'-7"	5'-9"	14		6				64	6'-1"			44	5'-2"	1'-7"	5'-11"	1'-4"	1'-6"	24	8'-3"	1'-4"	10'-8"	12	12'-8"	14	3'-6"	4	12'-9"
6	3	⅝" ℄	5"	158	7'-7"	6'-9"	11		7		½" ℄	12"	64	4'-2"	⅝" ℄	12"	24	4'-1"	1'-2"	4'-3"	1'-3"	1'-3"	16	5'-11"	1'-4"	6'-0"	12	7'-8"	16	3'-6"	4	7'-9"
	4			158	7'-7"	6'-9"	13		7				64	5'-2"			36	4'-9"	1'-6"	5'-3"	1'-3"	1'-3"	20	7'-2"	1'-4"	8'-4"	12	10'-0"	16	3'-6"	4	10'-3"
	5			158	7'-7"	6'-9"	15		7				64	6'-2"			44	5'-4"	1'-7"	6'-3"	1'-4"	1'-6"	24	8'-5"	1'-4"	10'-8"	12	12'-8"	16	3'-6"	4	12'-9"
	6			158	7'-7"	6'-9"	17		7				64	7'-2"			52	5'-11"	1'-8"	7'-3"	1'-4"	1'-9"	28	9'-8"	1'-4"	13'-0"	12	14'-7"	16	3'-6"	4	15'-9"
8	3	⅝" ℄	5"	132	9'-8"	8'-10"	13		9		½" ℄	12"	64	4'-5"	⅝" ℄	12"	28	4'-4"	1'-8"	4'-6"	1'-4"	1'-6"	16	6'-6"	1'-8"	6'-5"	12	9'-0"	20	3'-6"	4	8'-3"
	4			132	9'-8"	8'-10"	15		9				64	5'-5"			36	4'-11"	1'-9"	5'-4"	1'-4"	1'-6"	20	7'-6"	1'-8"	8'-9"	12	10'-4"	20	3'-6"	4	10'-9"
	5			132	9'-8"	8'-10"	17		9				64	6'-5"			44	5'-5"	1'-8"	6'-4"	1'-4"	1'-6"	24	8'-9"	1'-8"	11'-0"	12	12'-8"	20	3'-6"	4	13'-3"
	6			132	9'-8"	8'-10"	19		9				64	7'-5"			56	6'-0"	1'-7"	7'-4"	1'-4"	1'-9"	28	10'-0"	1'-8"	13'-4"	12	15'-0"	20	3'-6"	4	15'-9"
	7			132	9'-8"	8'-10"	21		9				64	8'-5"	⅝" ℄	12"	64	6'-9"	1'-9"	8'-4"	1'-4"	2'-1"	32	11'-2"	1'-8"	15'-8"	12	17'-4"	20	3'-6"	4	18'-3"
	8			132	9'-10"	9'-0"	23		9				64	9'-5"			72	7'-5"	1'-7"	9'-4"	1'-5"	2'-6"	36	12'-5"	1'-8"	17'-11"	12	19'-8"	20	3'-6"	4	20'-9"
10	4	⅝" ℄	9½"	86	12'-4"	10'-10"	17		11		½" ℄	12"	64	5'-7"	½" ℄	12"	36	5'-0"	1'-10"	5'-6"	1'-4"	1'-6"	20	7'-7"	1'-8"	8'-8"	12	10'-4"	26	3'-6"	4	10'-9"
	5			86	12'-4"	10'-10"	19		11				64	6'-7"			44	5'-6"	1'-8"	6'-6"	1'-4"	1'-6"	24	8'-13"	1'-8"	11'-0"	12	12'-8"	26	3'-6"	4	13'-3"
	6			86	12'-4"	10'-10"	21		11				64	7'-7"			56	6'-7"	1'-8"	7'-6"	1'-4"	1'-9"	28	10'-0"	1'-9"	13'-4"	12	15'-0"	26	3'-6"	4	15'-9"
	7			86	12'-4"	10'-10"	23		11				64	8'-7"			64	6'-11"	1'-10"	8'-6"	1'-4"	2'-1"	32	11'-2"	1'-8"	15'-8"	12	17'-4"	26	3'-6"	4	18'-3"
	8			86	12'-6"	11'-0"	25		11				64	9'-7"			72	7'-7"	1'-8"	9'-6"	1'-5"	2'-6"	36	12'-5"	1'-8"	17'-11"	12	19'-8"	26	3'-6"	4	20'-9"
	9			86	12'-8"	11'-2"	27		11		⅝" ℄		64	10'-7"	⅝" ℄	12"	9"	108	8'-7"	1'-8"	10'-6"	1'-6"	3'-10"	40	13'-7"	1'-8"	20'-2"	12	22'-0"	26	3'-6"	4	23'-3"
	10			86	12'-10"	11'-4"	29		11				64	11'-7"			8"	136	9'-3"	1'-10"	11'-6"	1'-7"	3'-6"	44	14'-9"	1'-8"	22'-6"	12	24'-6"	26	3'-6"	4	25'-9"

NOTE: Lengths given above do not include lap.

SPECIFICATIONS:- Arkansas Standard Road and Bridge Specifications.

REINFORCING STEEL:- To be deformed bars of structural or intermediate grade.

CHAMFER:- All exposed corners to have ¾" Chamfer.

CONCRETE:- All Concrete to be Class "S"

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

ARKANSAS STATE HIGHWAY COMMISSION

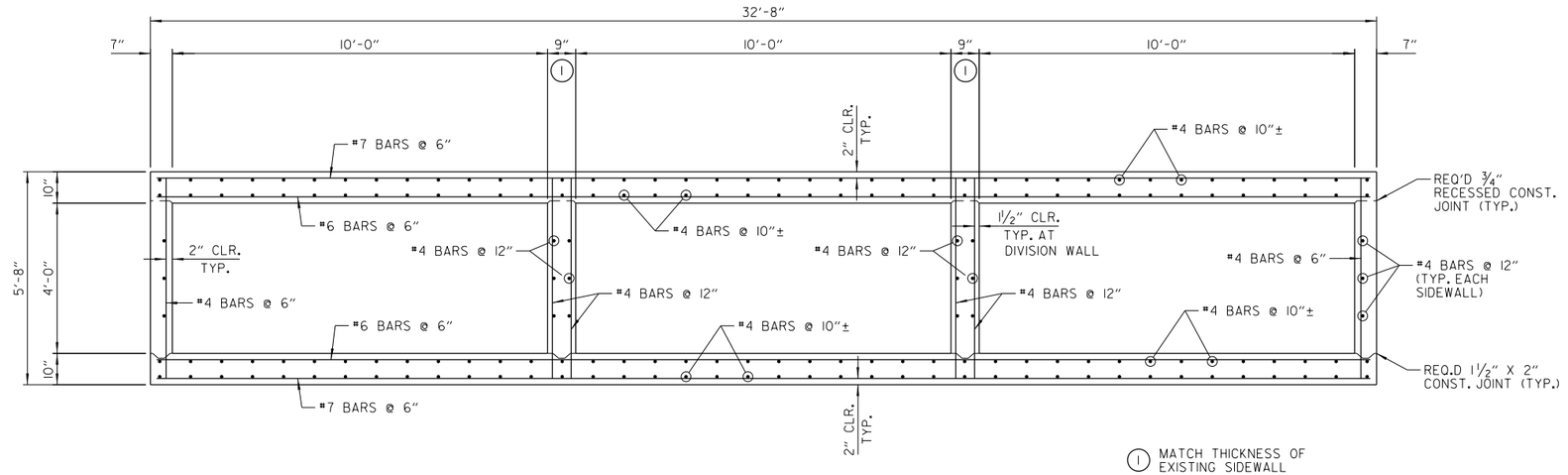
REINFORCED CONCRETE BOX CULVERTS

SINGLE

SPECIAL DETAILS

PJoseph 6/29/2023 4:33:22 PM
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L:\20\TN\TO17555 - 012275 Caddo Valley - Garland Co Line\Drawings\R012275_SD_ALL.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	21	280
				(2) SPECIAL DETAILS				



(1) MATCH THICKNESS OF EXISTING SIDEWALL

SECTION B-B

ESTIMATED QUANTITIES	
CONCRETE (CUBIC YARDS)	REINFORCEMENT (POUNDS)
27.62	5,808

DESIGN DATA	
CONCRETE (CLASS S)	fc = 3.5 Ksi
REINFORCING STEEL	fy = 60 Ksi

GENERAL NOTES:

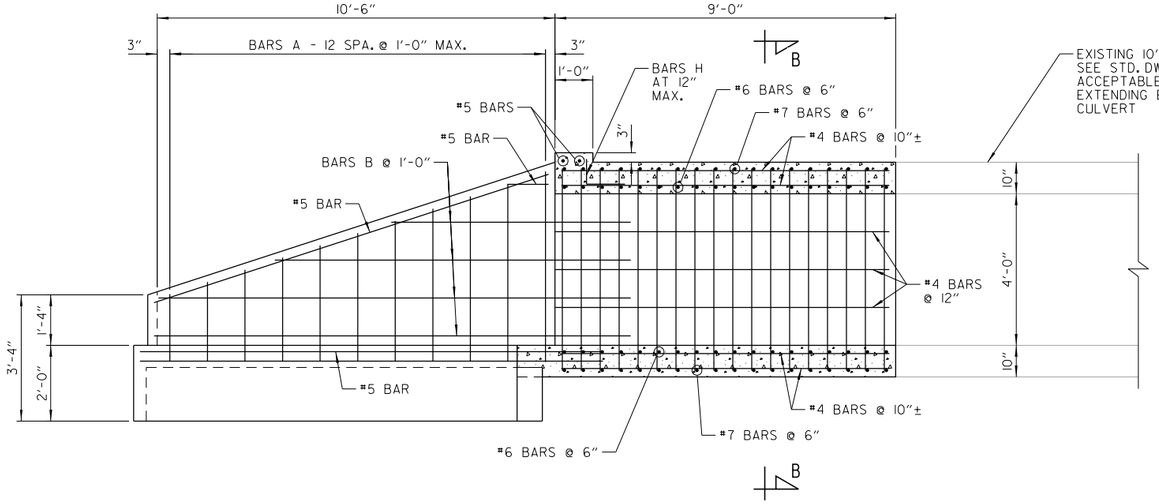
ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2014 EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

ALL CONCRETE SHALL BE CLASS S AND SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL HAVE ¾" CHAMFERS.

ALL REINFORCING STEEL SHALL BE GRADE 60 CONFORMING TO AASHTO M 31 OR M 322, TYPE A, WITH MILL TEST REPORTS.

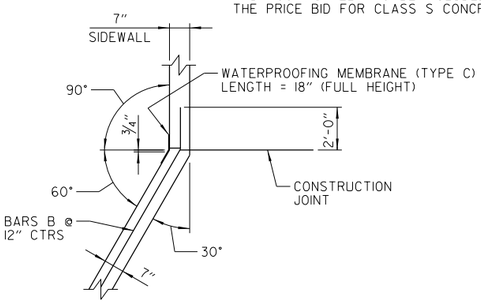
NOTE:

PAYMENT FOR WATERPROOFING MEMBRANE AND ROOFING FELT TO BE INCLUDED IN THE PRICE BID FOR CLASS S CONCRETE.

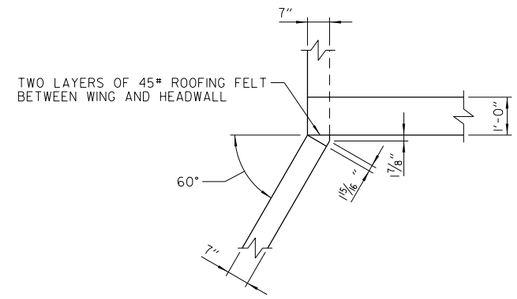


LONGITUDINAL SECTION

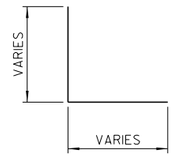
EXISTING 10' X 4' BOX CULVERT. SEE STD. DWG. RCB-3 FOR ACCEPTABLE METHODS EXTENDING EXISTING BOX CULVERT



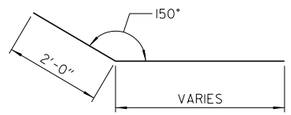
SECTIONS THRU CONSTRUCTION JOINTS



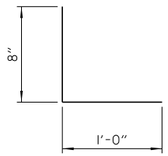
DETAIL AT TOP OF WING



BARS A - #5



BARS B - #5



BARS H - #4

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 8658
WILLIAM M. McENTIRE
DIGITALLY SIGNED 06/30/2023

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

TRIPLE BARREL BOX CULVERT
STA. 126+10

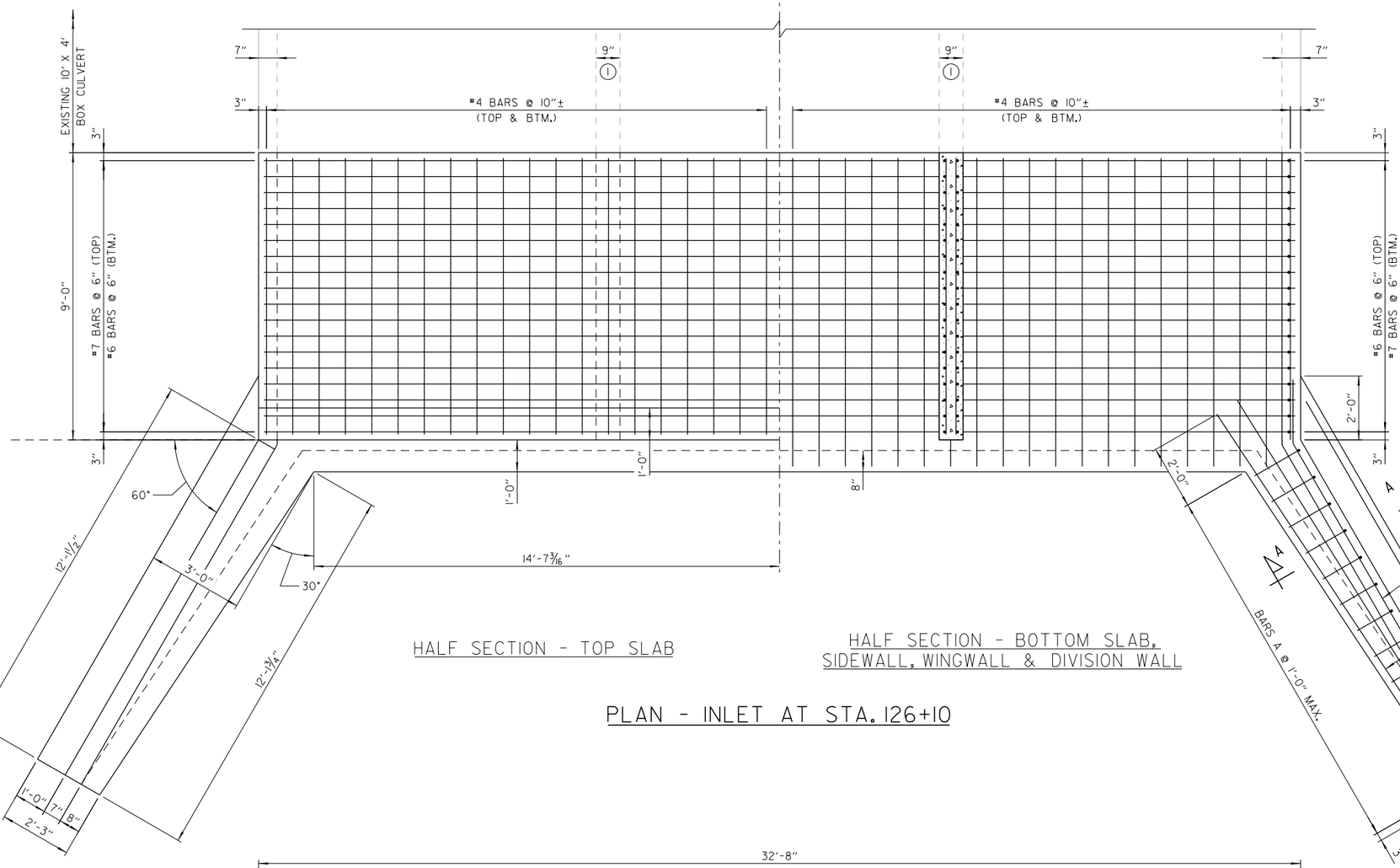
SPECIAL DETAILS

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	22	280

(2) SPECIAL DETAILS

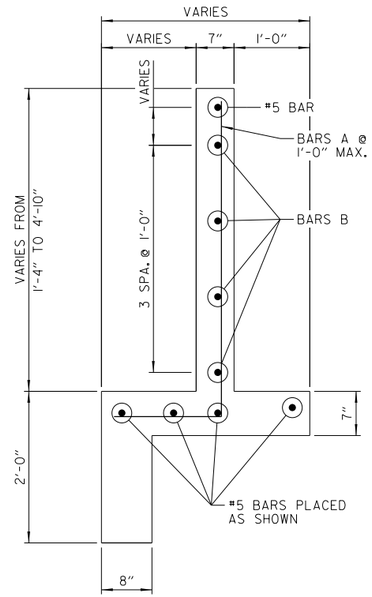
(1) MATCH THICKNESS OF EXISTING DIVISION WALL



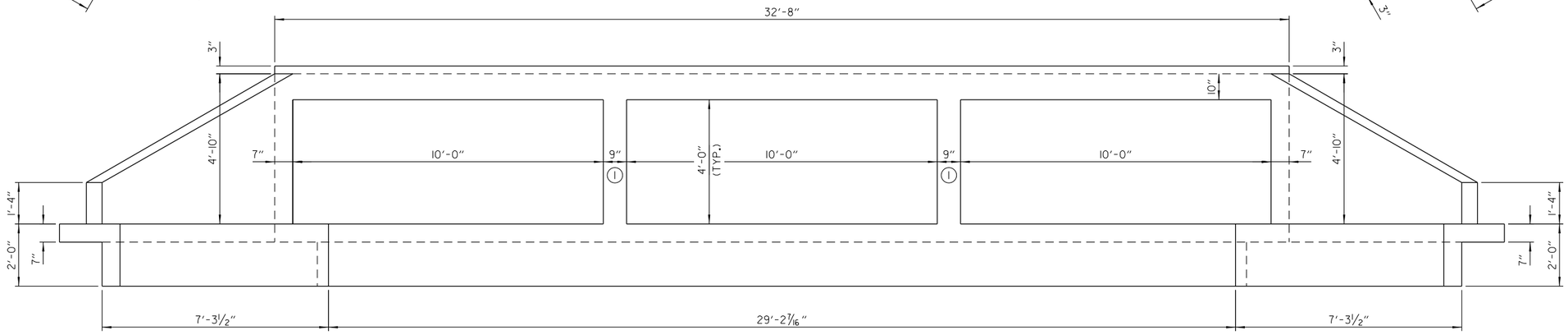
HALF SECTION - TOP SLAB

HALF SECTION - BOTTOM SLAB, SIDEWALL, WINGWALL & DIVISION WALL

PLAN - INLET AT STA. 126+10



SECTION A-A



END ELEVATION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8658
WILLIAM M. McENTIRE

DIGITALLY SIGNED 06/30/2023

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

TRIPLE BARREL BOX CULVERT
STA. 126+10

SPECIAL DETAILS

CGervasini 6/28/2023 9:16:22 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\R012275_SD_ALL.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	23	280
				(1)		SPECIAL DETAILS		

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 B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
11'-0"	5'-0"	0'-9"	0'-8"	0	3:1	10'-11"	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"	16'-9 5/8"	16'-9 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
6.11	610

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

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6 LENGTHS	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F8 LENGTHS	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	18	10	L Min	3'-3"	4	6	17'-8"	6	18	10	Min	1'-8"	-	-	-	Min -	4	2	14'-2"	4	2	15'-8"	6	12	5	L 3'-4"	305
				L Max	7'-3"																							
				X Min	1'-4"												Max										X 1'-8"	
				X Max	1'-4"												2'-6"											
				Y Min	2'-0"												-											
				Y Max	6'-0"																							
WING B	4	18	10	L Min	3'-3"	4	6	17'-8"	6	18	10	Min	1'-8"	-	-	-	Min -	4	2	14'-2"	4	2	15'-8"	6	12	5	L 3'-4"	305
				L Max	7'-3"																							
				X Min	1'-4"												Max										X 1'-8"	
				X Max	1'-4"												2'-6"											
				Y Min	2'-0"												-											
				Y Max	6'-0"																							

TABULAR DATA BY: JDB DATE: 07/22/2019
CHECKED BY: SAD DATE: 07/25/2019

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 2 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF SINGLE-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.

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "b" SIZE	"b" SPACEING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINFORCING STEEL "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH
SK	SL	D	S	H	LL	T	B	C	HD	OW	OH												
		0												Max				Max					
														Min				Min					

SKEW (DEGREE)	TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR	"k1", "k2" & "h" SIZE	"k1", "k2" & "h" NO. REQ'D	"k1", "k2" & "h" LENGTH	CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	REINFORCING STEEL (GR. 60) (Includes HDWL) LBS.
SK	"d"				"e"				"d1"				"k1", "k2" & "h"					
				Max				Max				LONG	"k1"					
													"k2"					
				Min				Min				SHORT	"h"			Y		

(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.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	"a" SPACING	"a" NO. REQ'D	"a" LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	"b" SPACING	"b" NO. REQ'D	"b" LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH
	D	S	H	T	B	C	OW	OH	SL												

TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	"d" SPACING	"d" NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	"e" SPACING	"e" NO. REQ'D	SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE	"d1" SPACING	"d1" NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
									TOTAL	
									0.10	34

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS			
HD	LBS	SIZE	Y	LENGTH	NO. REQ'D
3"	22	4	0'-6"	1'-6"	12

MID-SECTION

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	"a" SPACING	"a" NO. REQ'D	"a" LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	"b" SPACING	"b" NO. REQ'D	"b" LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH
	D	S	H	T	B	C	OW	OH	SL												
A	5	10	5	10	10	6	11'-0"	6'-8"	95.00	6	5	228	10'-8"	6	6	190	10'-8"	4	8.5	268	6'-4"

TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	"d" SPACING	"d" NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	"e" SPACING	"e" NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	"d1" SPACING	"d1" NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (Gr. 60) LBS.
4	11	12	4	11	12	4	12	10	82.10	10069

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"

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

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.

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT
SINGLE BARREL BOX CULVERT
STA. 125+65
SPECIAL DETAILS

P.Joseph 6/29/2023 4:33:24 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	24	280
				(1)		SPECIAL DETAILS		

OUTLET 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 B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
11'-0"	5'-0"	0'-9"	0'-8"	0	3:1	10'-11"	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"	16'-9 5/8"	16'-9 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
6.67	610

| WING | F1 BAR SIZE | F1 MAX. SPACING | F1 NO. REQ'D | F1 LENGTHS VARY | F1 | F2 BAR SIZE | F2 SPACING | F2 NO. REQ'D | F2 LENGTHS VARY | F2 | F3 BAR SIZE | F3 SPACING | F3 NO. REQ'D | F3 LENGTHS VARY | F3 | F4 BAR SIZE | F4 SPACING | F4 NO. REQ'D | F4 LENGTHS VARY | F4 | F5 BAR SIZE | F5 SPACING | F5 NO. REQ'D | F5 LENGTHS VARY | F5 | F6 BAR SIZE | F6 SPACING | F6 NO. REQ'D | F6 LENGTHS VARY | F6 | F7 BAR SIZE | F7 NO. REQ'D | F7 LENGTHS VARY | F7 | F8 BAR SIZE | F8 SPACING | F8 NO. REQ'D | F8 LENGTHS VARY | F8 | F9 BAR SIZE | F9 SPACING | F9 NO. REQ'D | F9 LENGTHS VARY | F9 | F10 BAR SIZE | F10 NO. REQ'D | F10 LENGTHS VARY | F10 | F11 BAR SIZE | F11 NO. REQ'D | F11 LENGTHS VARY | F11 | F12 BAR SIZE | F12 SPACING | F12 NO. REQ'D | F12 LENGTHS | | REINF. STEEL QTY. PER WING (LBS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	25	280
				(I)	SPECIAL DETAILS			

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 B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
29'-9"	7'-0"	0'-9"	0'-8"	3	3:1	28'-4 1/2"	2'-0"	7'-10"	2'-4"	27	33	3'-2"	3'-9 3/4"	4'-0 7/8"	0'-9 3/8"	1'-0 1/4"	18'-6"	19'-6"	21'-8 3/8"	22'-8 3/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
11.41	1068

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F1 LENGTHS	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
WING A	4	12	19	L	Min	3'-4"	L 3'-9"	4	12	4	L 3'-9"	-	-	-	L -	4	18	6	Min	4	18	4	18'-2"
					Max	9'-4"													3'-9"				
				X	Min	0'-9"	X 1'-4"				X 1'-4"				X -				Max				
					Max	1'-5"													13'-10"				
				Y	Min	2'-8"	Y 2'-6"				Y 2'-6"				Y -								
					Max	8'-0"																	
WING B	4	12	20	L	Min	3'-4"	L 3'-11"	4	12	4	L 3'-11"	-	-	-	L -	4	18	6	Min	4	18	4	19'-2"
					Max	9'-7"													4'-0"				
				X	Min	0'-9"	X 1'-6"				X 1'-6"				X -				Max				
					Max	1'-8"													14'-7"				
				Y	Min	2'-8"	Y 2'-6"				Y 2'-6"				Y -								
					Max	8'-0"																	

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			F6 LENGTHS	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	18	13	L	Min	4'-11"	L 18'-10"	4	8	22'-6"	6	18	12	Min	-	-	-	Min	4	2	18'-10"	4	2	19'-11"	6	12	7	L	3'-4"	520
					Max	10'-3"								2'-8"				-												
				X	Min	2'-4"	X 2'-4"							Max				Max										X	1'-8"	
					Max	2'-4"								3'-3"				-												
				Y	Min	2'-8"	Y 2'-8"																								
					Max	8'-0"																								
WING B	4	18	13	L	Min	5'-2"	L 19'-9"	4	8	23'-6"	6	18	13	Min	-	-	-	Min	4	2	19'-9"	4	2	21'-4"	6	12	7	L	3'-4"	548
					Max	10'-3"								2'-8"				-												
				X	Min	2'-4"	X 2'-4"							Max				Max										X	1'-8"	
					Max	2'-4"								3'-6"				-												
				Y	Min	2'-11"	Y 2'-8"																								
					Max	8'-0"																								

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
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

TABULAR DATA BY: JDB DATE: 07/22/2019
CHECKED BY: SAD DATE: 07/25/2019

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.

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

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
3	3:1	5	9	7	2'-9"	9.5	3	9.5	8.5	8	29'-9"	8'-7"

TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	"c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D
6	8	Max 29'-5"	1	5	4	Max 29'-5"	1
		Min 29'-0"				Min 29'-0"	
		29'-5"	3			29'-5"	6

BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	"f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
4	6	Max 29'-5"	1	4	7	Max 29'-5"	1
		Min 29'-0"				Min 29'-0"	
		29'-5"	4			29'-5"	4

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH
4	5	14	8'-3"

INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH
4	12	16	8'-3"

TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY
4	11	65	Max 3'-5"
			Min 1'-10"

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY
4	11	65	Max 3'-5"
			Min 1'-10"

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH
4	12	7	LONG 3'-4"
			SHORT 1'-10"

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
4	12	14	LONG 2'-10"
			SHORT 2'-4"

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	(I) REINFORCING STEEL (GR 60) (Includes HDWL) LBS.
7.43	1323

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D	"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D
4	29'-5"	6	4	29'-5"	6

"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D
4	1'-8"	0'-8"	31

INLET 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.)
	D	S	H	T	B	C	W	OW	OH	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 REINFORCING STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

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

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

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.)	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.)
	D	S	H	T	B	C	W	OW	OH	SL
A	5	9	7	9.5	9.5	8.5	8	29'-9"	8'-7"	100

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
4	29'-5"	8	29'-10"	5	29'-5"	14	65

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
4	29'-5"	4	29'-10"	4	29'-5"	12	100

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH
4	5	480	8'-3"

INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH
4	12	400	8'-3"

TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	11	65

BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	11	65

SIDE WALL REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	12	14

INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	12	28

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
245.76	33806

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT
TRIPLE BARREL BOX CULVERT
Sta. 462+25

SPECIAL DETAILS

LRFD

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	26	280

(1) SPECIAL DETAILS

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

TABULAR DATA BY: JDB DATE: 07/22/2019
CHECKED BY: SAD DATE: 07/25/2019

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
29'-9"	7'-0"	0'-9"	0'-8"	3	3:1	28'-4 1/2"	2'-0"	7'-10"	2'-4"	27	33	3'-2"	3'-9 3/4"	4'-0 7/8"	0'-9 3/8"	1'-0 1/4"	18'-6"	19'-6"	21'-8 3/8"	22'-8 3/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
12.52	1068

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
WING A	4	12	19	L	Min	3'-4"	4	12	4	L	3'-9"					L	-		4	18	6	Min
					Max	9'-4"																3'-9"
				X	Min	0'-9"				X	1'-4"		-	-	-	X	-					Max
					Max	1'-5"																13'-10"
				Y	Min	2'-8"				Y	2'-6"					Y	-					
					Max	8'-0"																
WING B	4	12	20	L	Min	3'-4"	4	12	4	L	3'-11"					L	-		4	18	6	Min
					Max	9'-7"																4'-0"
				X	Min	0'-9"				X	1'-6"		-	-	-	X	-					Max
					Max	1'-8"																14'-7"
				Y	Min	2'-8"				Y	2'-6"					Y	-					
					Max	8'-0"																

WING	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			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	18	4	18'-2"	4	18	13	X	Min	2'-4"	4	8	22'-6"	6	18	12	Min		-	-	-	Min			4	2	18'-10"	4	2	19'-11"	6	12	7	L	3'-4"		520
									Max	2'-4"								2'-8"				-														
								Y	Min	2'-8"								-				Max												X	1'-8"	
									Max	8'-0"								Max				3'-3"														
WING B	4	18	4	19'-2"	4	18	13	X	Min	2'-4"	4	8	23'-6"	6	18	13	Min		-	-	-	Min			4	2	19'-9"	4	2	21'-4"	6	12	7	L	3'-4"		548
									Max	2'-4"								2'-8"				-														
								Y	Min	2'-11"								-				Max												X	1'-8"	
									Max	8'-0"								Max				3'-6"														

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"

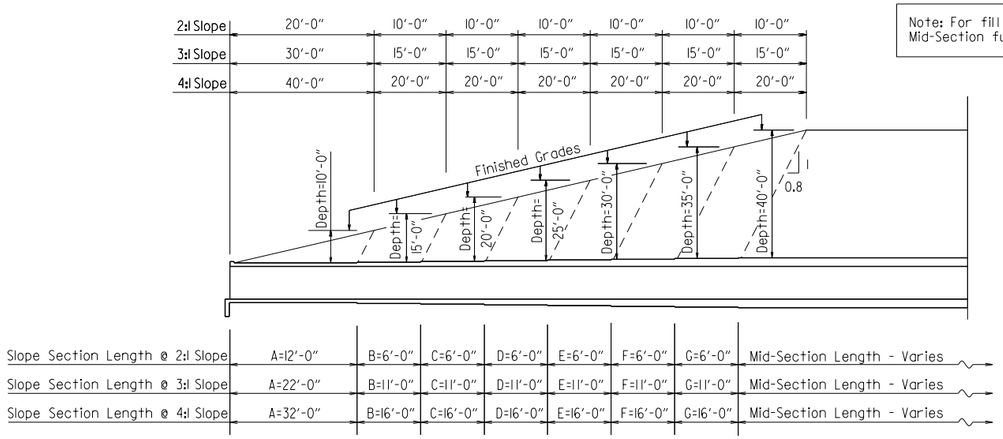
(1) Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

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 "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	TOP SLAB REINFORCING STEEL "c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH															

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	27	280

(1) SPECIAL DETAILS

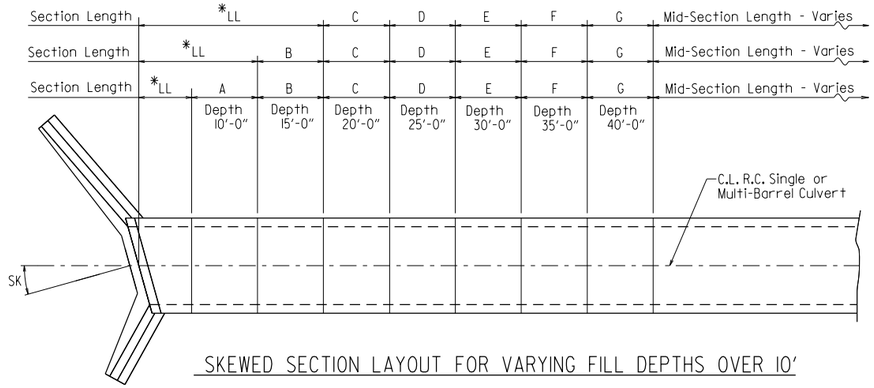


LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'

Lengths for Non-Skewed Boxes

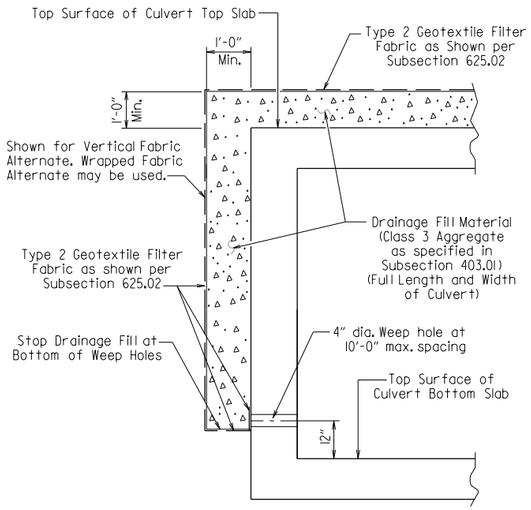
Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

*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.



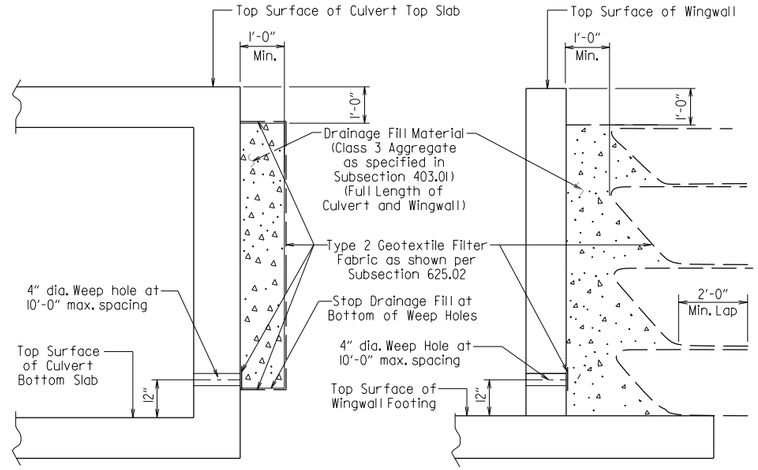
SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



CULVERT DRAINAGE DETAIL FOR ROCK FILL

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

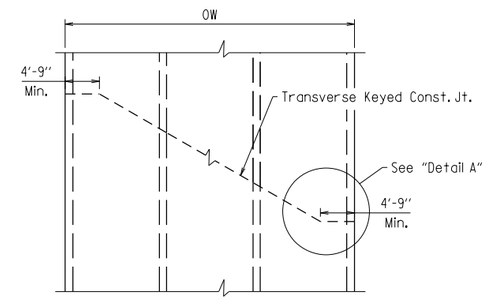


For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

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

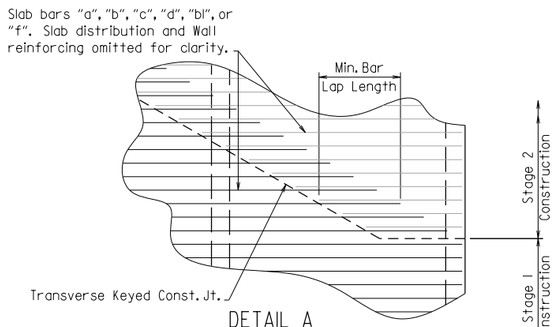
WRAPPED FABRIC ALTERNATE
(Shown for Wingwall, Similar for Culvert)

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.

SHEET 1 OF 4

GENERAL DETAILS OF R.C. BOX CULVERT

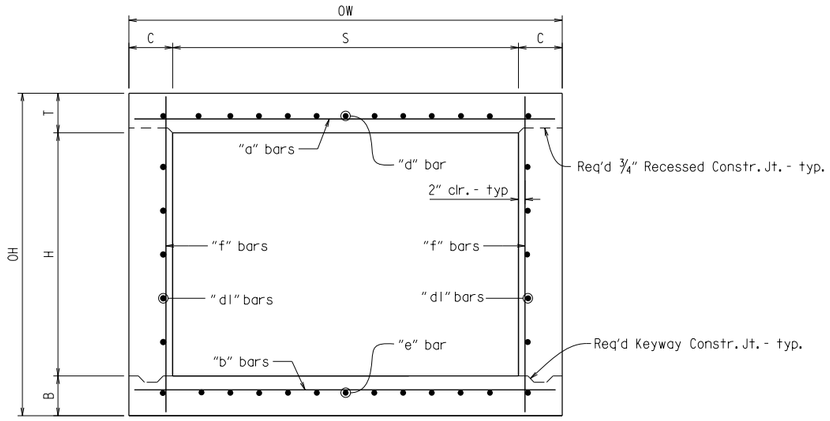
GENERAL NOTES &
LONGITUDINAL SECTION LENGTH SCHEDULE

SPECIAL DETAILS

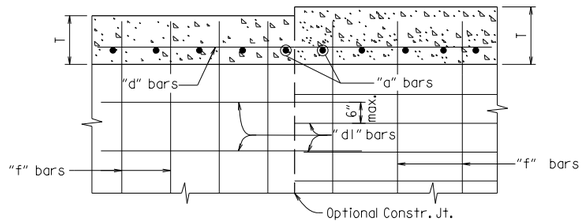
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	28	280
				(1)	SPECIAL DETAILS			

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



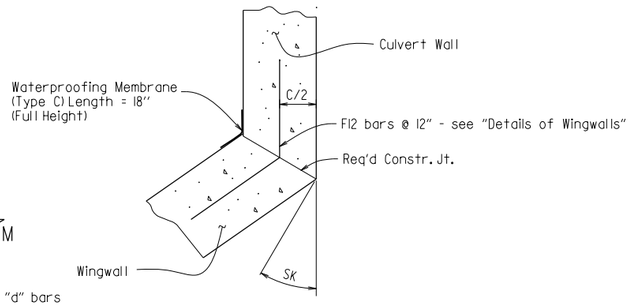
TYPICAL SECTION M-M



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

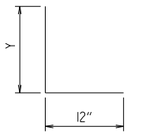
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

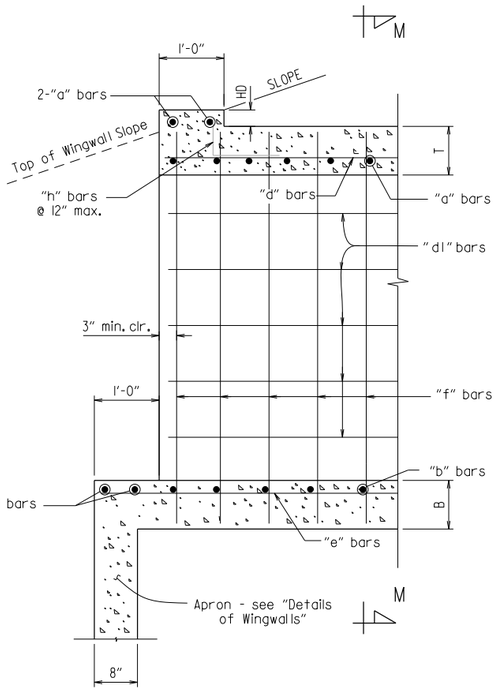


WINGWALL ATTACHMENT

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

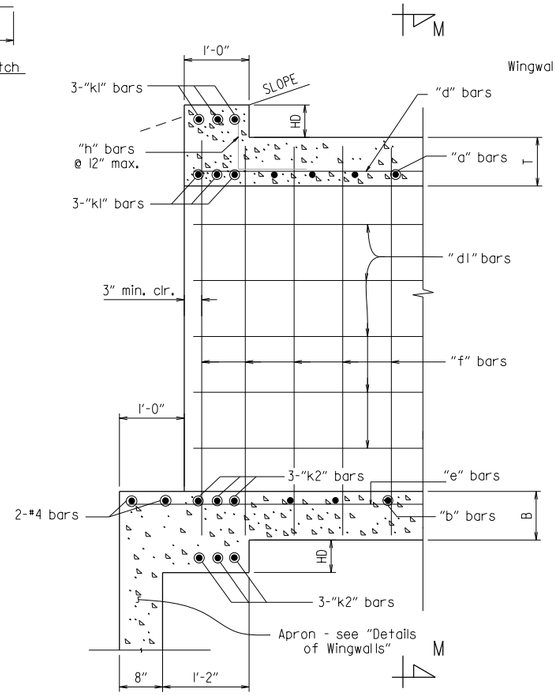


"h" bars sketch



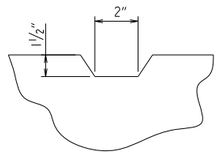
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



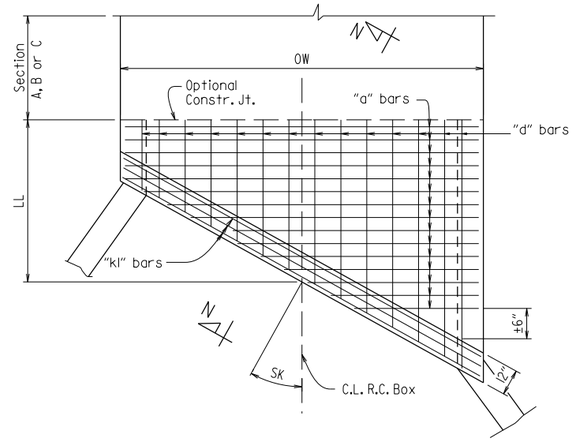
PART LONGITUDINAL SECTION N-N

(Skewed Ends)

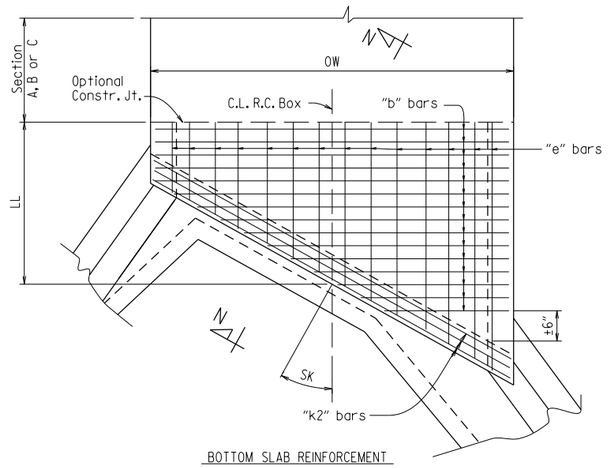


TYPICAL KEYWAY DETAIL

(All Construction Joints)



TOP SLAB REINFORCEMENT



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. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

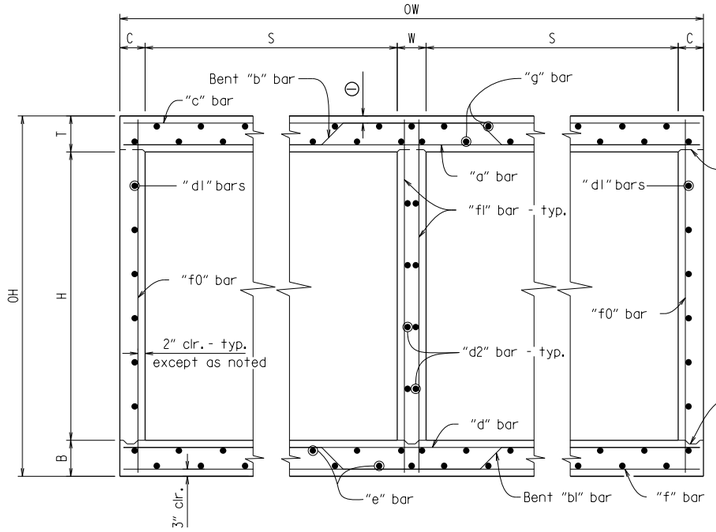
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	29	280

(1) 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.

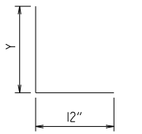
Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



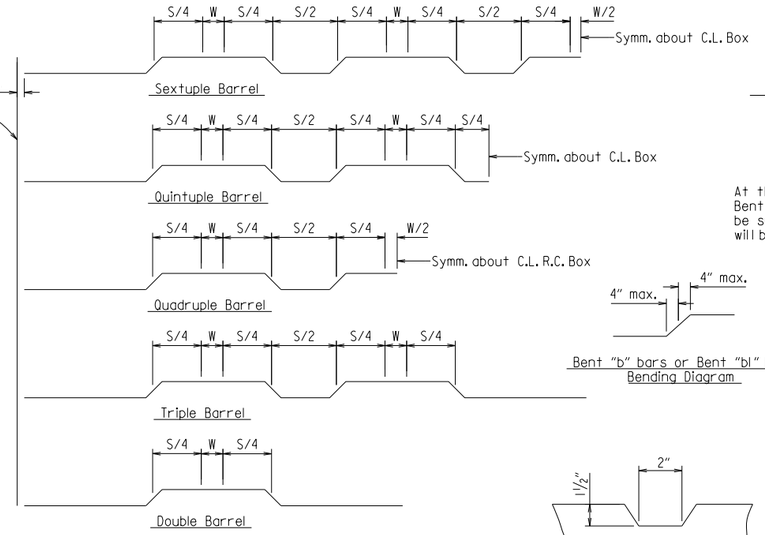
TYPICAL SECTION M-M

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

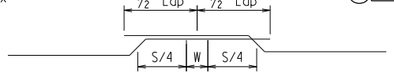
Bottom Slab
Straight "d" bars shall alternate with Bent "b1" bars in top.
Straight "f" bars shall alternate with Bent "b1" bars in bottom.



"h" bars sketch

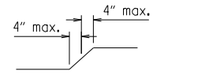


Bent "b" bars or Bent "b1" bars sketch

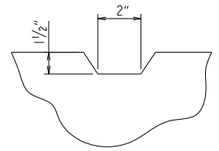


Lap Detail
For Bent "b" bars and Bent "b1" bars

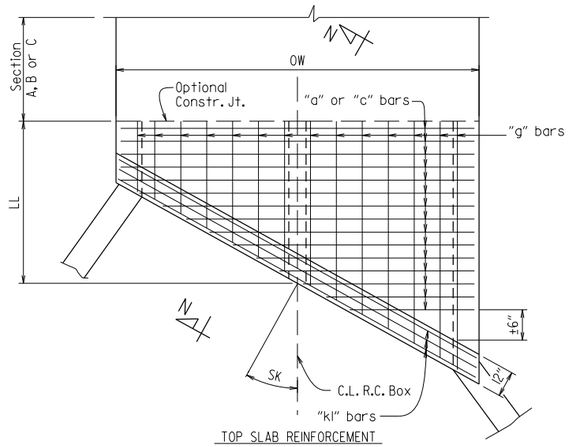
At the Contractor's option in lieu of providing Bent "b" or Bent "b1" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "b1" bar.



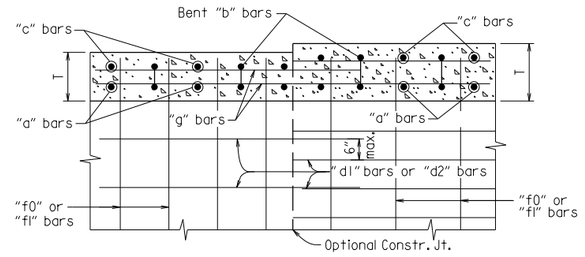
Bent "b" bars or Bent "b1" bars Bending Diagram



TYPICAL KEYWAY DETAIL
(All Construction Joints)

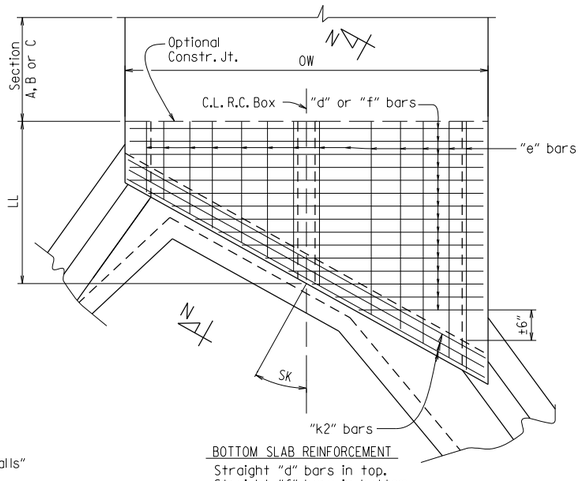


TOP SLAB REINFORCEMENT
Straight "c" bars in top.
Straight "a" bars in bottom.



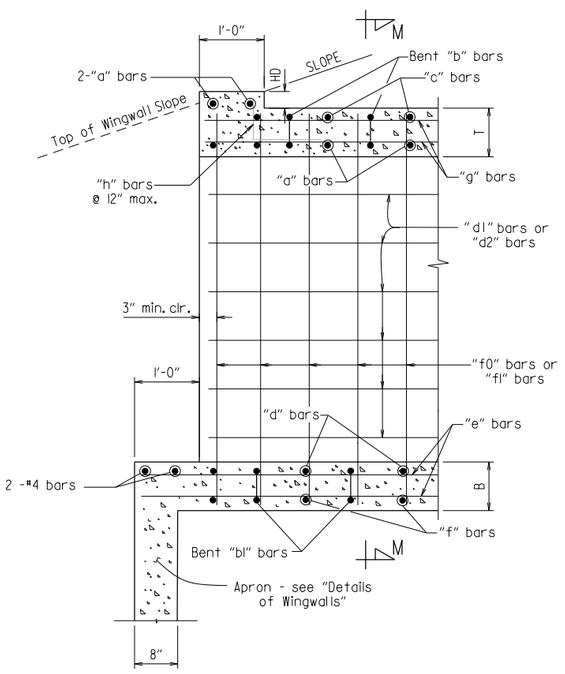
Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

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

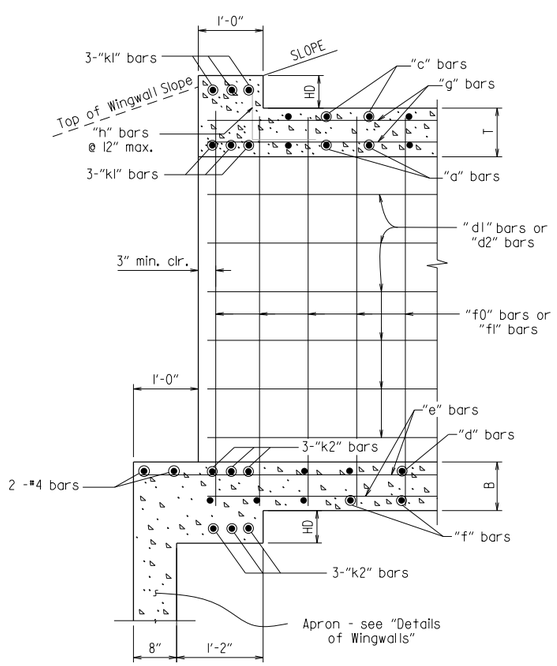


BOTTOM SLAB REINFORCEMENT
Straight "d" bars in top.
Straight "f" bars in bottom.

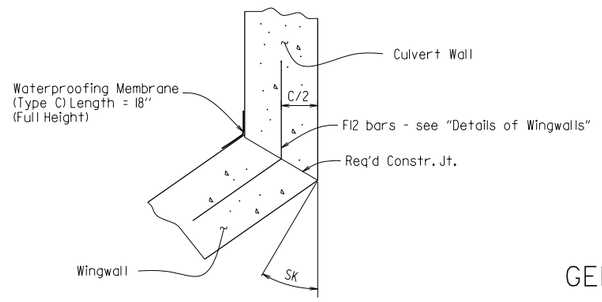
SKEWED END SECTION DETAILS



PART LONGITUDINAL SECTION
(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N
(Skewed Ends)



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

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

DETAILS OF MULTI-BARREL R.C. BOX CULVERT

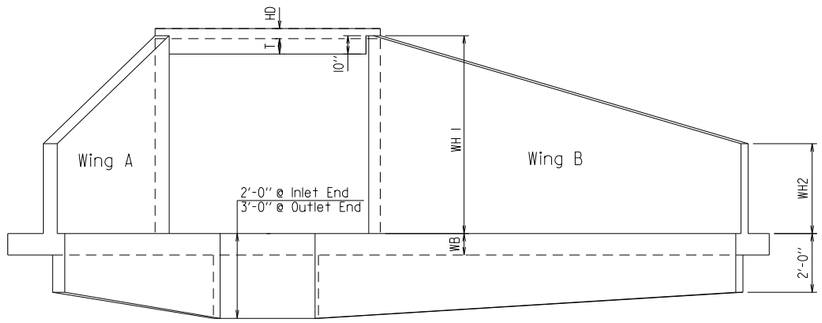
SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

PJoseph 6/29/2023 4:33:57 PM
WORKSPACE: AHTD
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REVISED DATE:

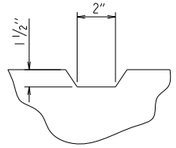
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				6	ARK.			
				JOB NO.		012275	30	280

(1) SPECIAL DETAILS



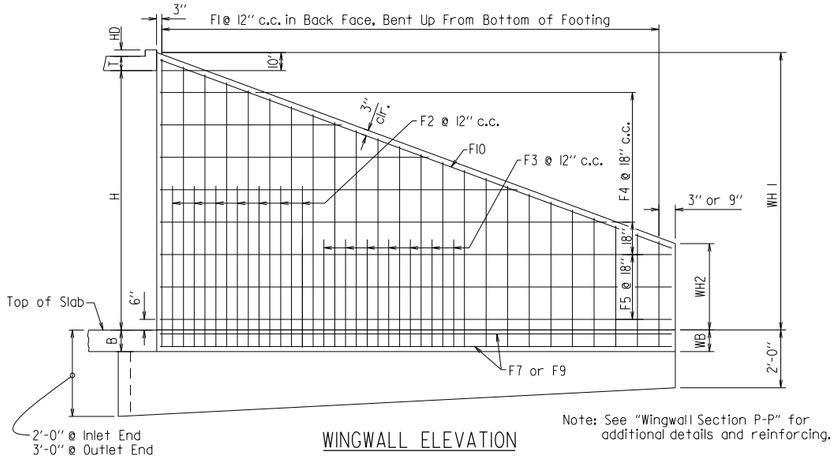
END ELEVATION

Flared Wingwalls Shown



TYPICAL KEYWAY DETAIL

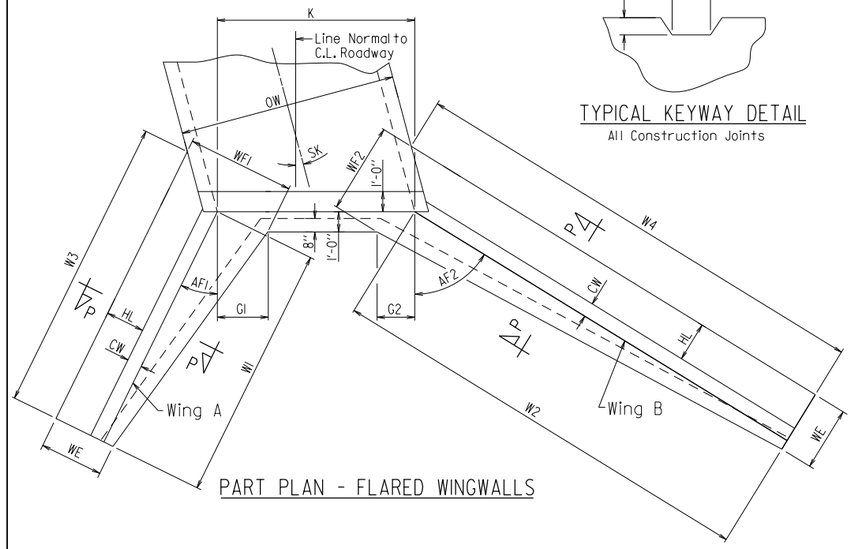
All Construction Joints



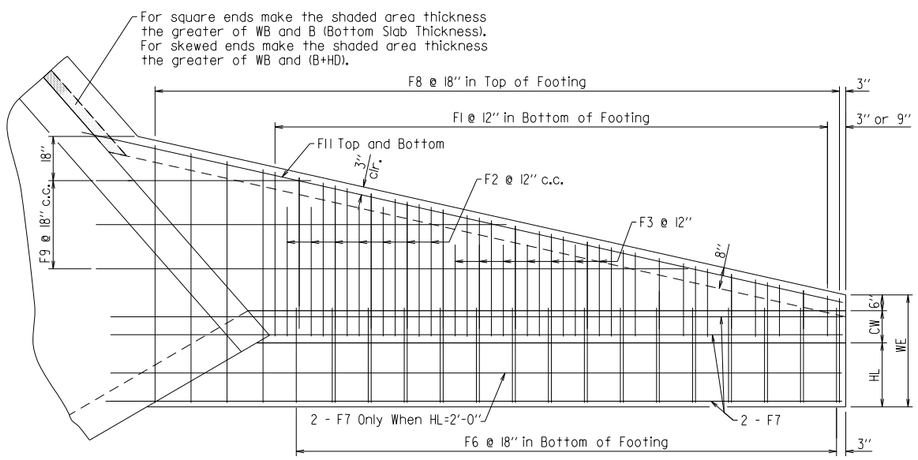
WINGWALL ELEVATION

Showing Back Face Reinforcement

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

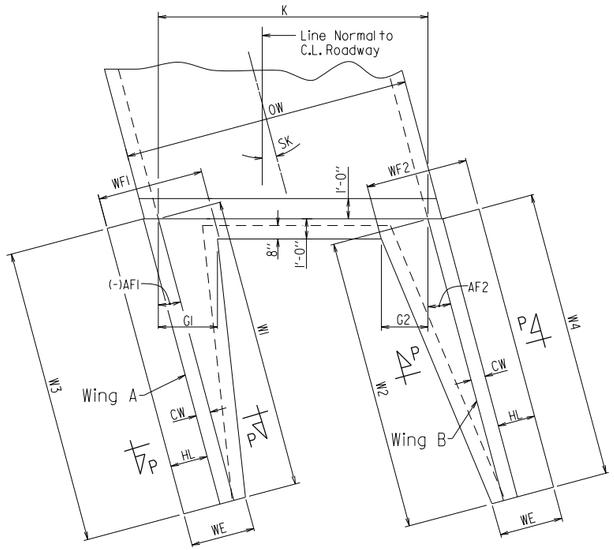


PART PLAN - FLARED WINGWALLS

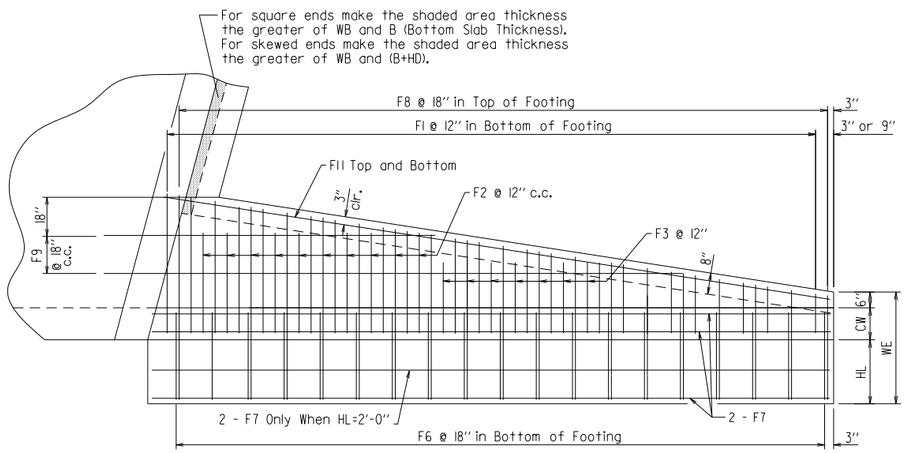


PLAN - FLARED WINGWALLS

Showing Footing Reinforcement

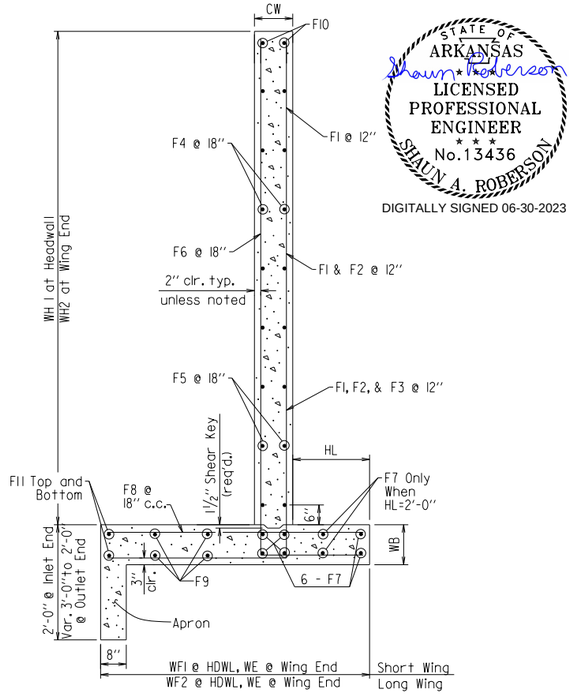


PART PLAN - PARALLEL WINGWALLS

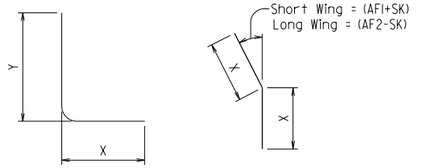


PLAN - PARALLEL WINGWALLS

Showing Footing Reinforcement



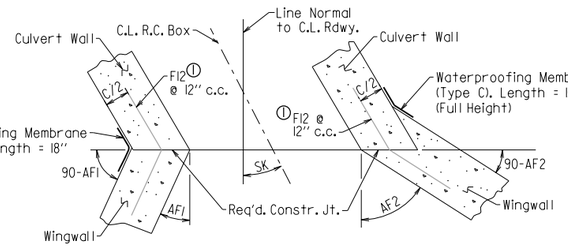
WINGWALL SECTION P-P



F1, F2, F3, & F6 BARS

(1) F12 BAR

(1) F12 is a straight bar for parallel wingwalls



CONSTRUCTION JOINTS

Flared Wingwalls Shown

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SHEET 4 OF 4

GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF WINGWALLS

SPECIAL DETAILS

LRFD

PJoseph 6/29/2023 4:33:57 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	31	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 112+00	LT.	1
STA. 112+30	RT.	1
STA. 117+70	LT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 113+65	LT.	1
STA. 119+90	LT.	1
STA. 122+35	LT.	1

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 114+85 TO 117+70	LT.	390
STA. 117+80 TO 119+90	LT.	220
STA. 118+80 TO 119+40	RT.	60
STA. 120+15 TO 122+15	LT.	210
STA. 120+90 TO 122+15	RT.	130
STA. 122+70 TO 125+00	LT.	240
STA. 122+70 TO 125+00	RT.	250

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SHAUN A. ROBERSON
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STA. 113+00.00
BEGIN SITE 1 PROPOSED ALIGNMENT
L.M. 0.60

110+00 115+00 120+00 125+00
C.L. HWY. 7
EXIST. R/W
PROP. R/W
25' NATURAL BUFFER
T.C.E.
P1 117+76.84
Δ = 00°04'08" RT.

LEGEND

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

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

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 125+00 TO 125+40	LT.	60
STA. 125+00 TO 125+40	RT.	50
STA. 126+40 TO 133+60	RT.	735
STA. 126+45 TO 140+00	LT.	1380
STA. 138+45 TO 139+30	RT.	90

125+00 130+00 135+00 140+00
C.L. HWY. 7
EXIST. R/W
PROP. R/W
25' NATURAL BUFFER
P.D.E.
T.C.E.
PC 126+24.53
P1 129+06.44
P1 131+88.23
PC 139+52.32

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 125+75	LT.	1
STA. 125+75	RT.	1
STA. 126+45	LT.	1
STA. 126+45	RT.	1
STA. 138+55	RT.	1

SITE 1
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:41:42 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_CG_SITE1_01.dgn
REVISED DATE:

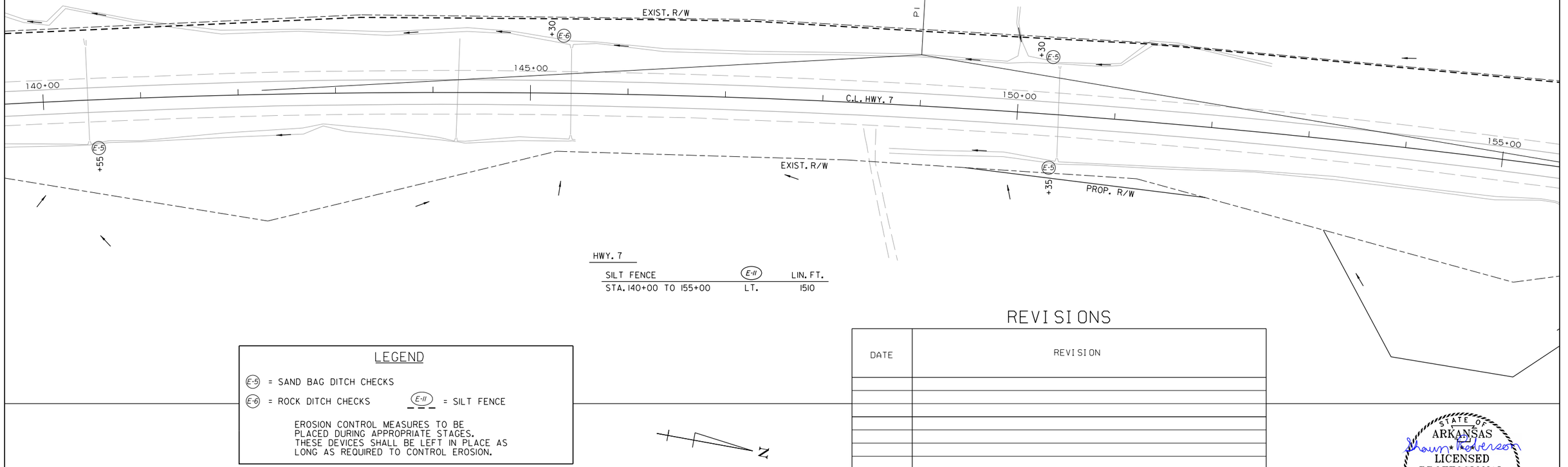
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				6	ARK.			
				JOB NO.		012275	32	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 145+30	LT.	1

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 140+55	RT.	1
STA. 150+30	LT.	1
STA. 150+35	RT.	1



HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 140+00 TO 155+00	LT.	1510

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

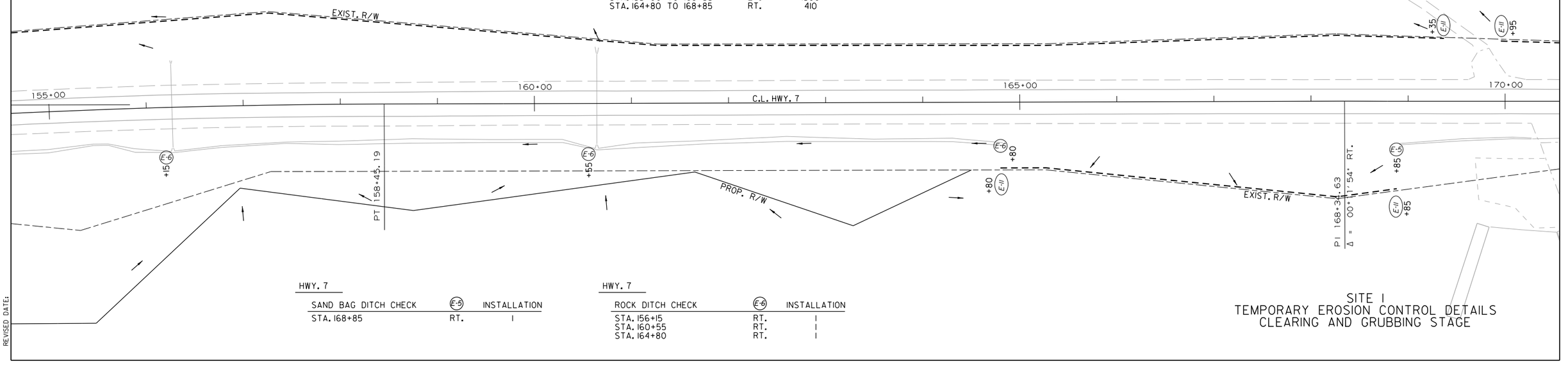
REVISIONS

DATE	REVISION

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 155+00 TO 169+35	LT.	1500
STA. 164+80 TO 168+85	RT.	410



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 168+85	RT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 156+15	RT.	1
STA. 160+55	RT.	1
STA. 164+80	RT.	1

SITE 1
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:41:42 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	33	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

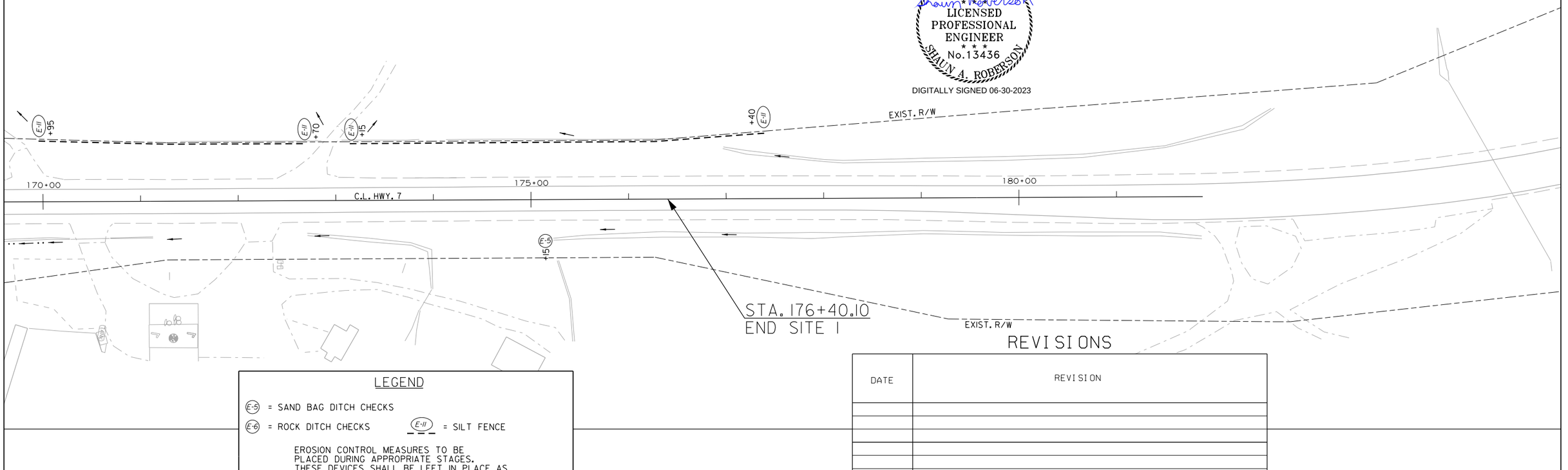
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 175+15	RT.	1

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 169+95 TO 172+70	LT.	300
STA. 173+15 TO 177+40	LT.	455

N

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SHAUN A. ROBERSON
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LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

SITE 1
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:41:42 AM
WORKSPACE: AHTD
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REVISED DATE:

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				6	ARK.			
				JOB NO.		012275	34	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

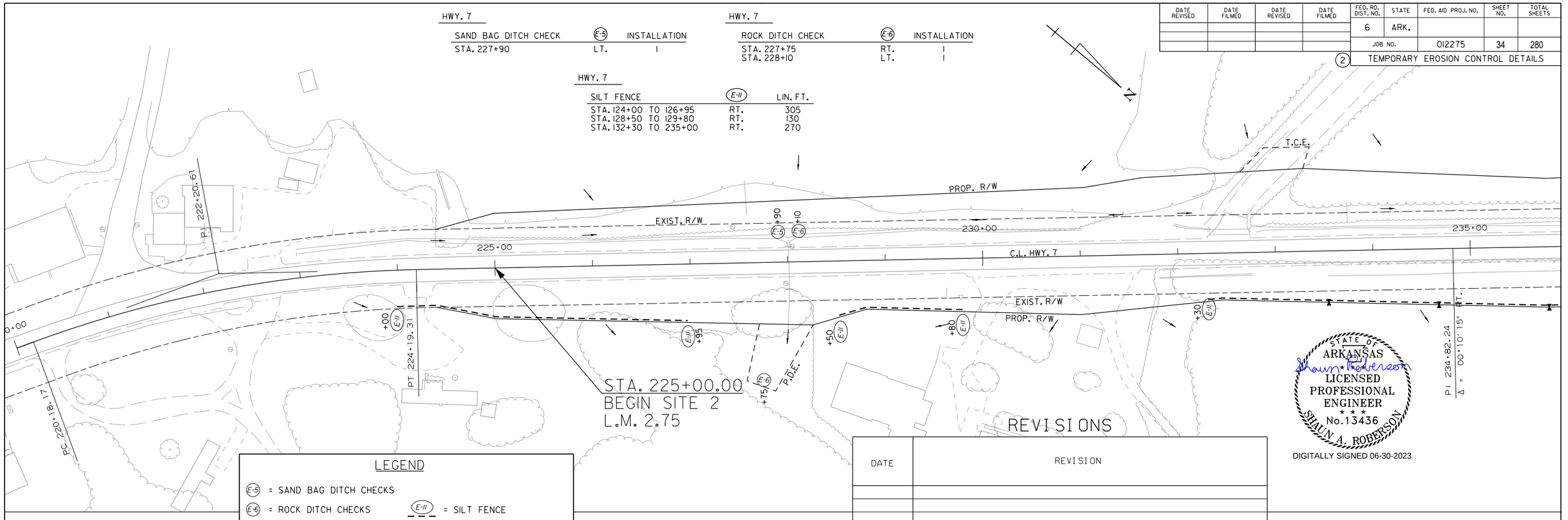
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 227+90	LT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 227+75	RT.	1
STA. 228+10	LT.	1

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 124+00 TO 126+95	RT.	305
STA. 128+50 TO 129+80	RT.	130
STA. 132+30 TO 235+00	RT.	270



LEGEND

(E-5) = SAND BAG DITCH CHECKS

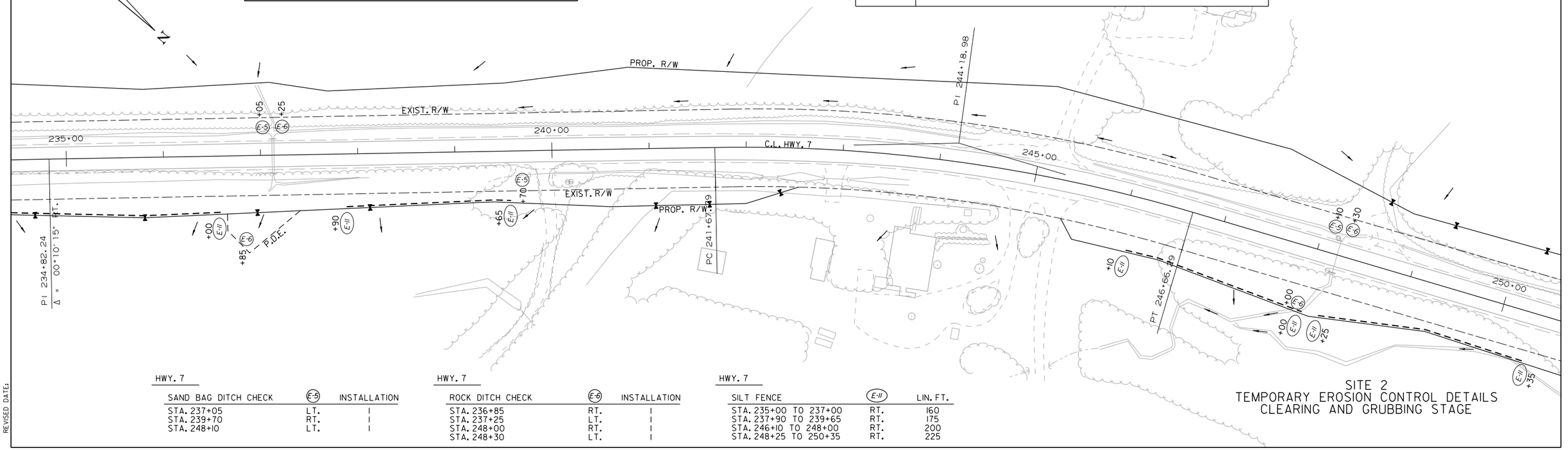
(E-6) = ROCK DITCH CHECKS (E-11) = SILT FENCE

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

REVISIONS

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 237+05	LT.	1
STA. 239+70	RT.	1
STA. 248+10	LT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 236+85	RT.	1
STA. 237+25	LT.	1
STA. 248+00	RT.	1
STA. 248+30	LT.	1

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 235+00 TO 237+00	RT.	160
STA. 237+90 TO 239+65	RT.	175
STA. 246+10 TO 248+00	RT.	200
STA. 248+25 TO 250+35	RT.	225

SITE 2
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:41:42 AM
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	35	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 252+40	RT.	I
STA. 254+95	LT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 253+90 TO 254+75	LT.	86

STATE OF ARKANSAS
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N

LEGEND

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

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

250+00
EXIST. R/W
E-11 +90
E-11 +75
PI 255+06.13
Δ = 00°32'11" LT.
E-5 +95
255+00
PC 258+69.39
PROP. R/W
260+00
C.L. HWY. 7
E-11 +35
E-5 +40
EXIST. R/W
PROP. R/W
T.C.E.
265+00
PI 262+79.42
T.C.E.

N

PT 266+33.33
265+00
E-6 +60
E-5 +80
270+00
00+00
PC 10+30.50
PROP. R/W
EXIST. R/W
C.L. HWY. 7
275+00
E-6 +05
E-5 +25
280+00
T.C.E.
PT 11+62.09
PI 11+03.13
E-6 +30
P.D.E.
PROP. R/W
T.C.E.
PI 275+14.99
Δ = 01°02'04" RT.
E-5 +05
E-6 +20
P.D.E.
PC 277+76.05

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 269+80	LT.	I
STA. 276+25	LT.	I
STA. 277+05	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 269+30	RT.	I
STA. 269+60	LT.	I
STA. 276+05	LT.	I
STA. 276+20	RT.	I

SITE 2
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:47:42 AM
WORKSPACE: AHTD
L:\201\7101\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_CG_SITE2_02.dgn
REVISED DATE:

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 287+55	RT.	1

HWY. 7

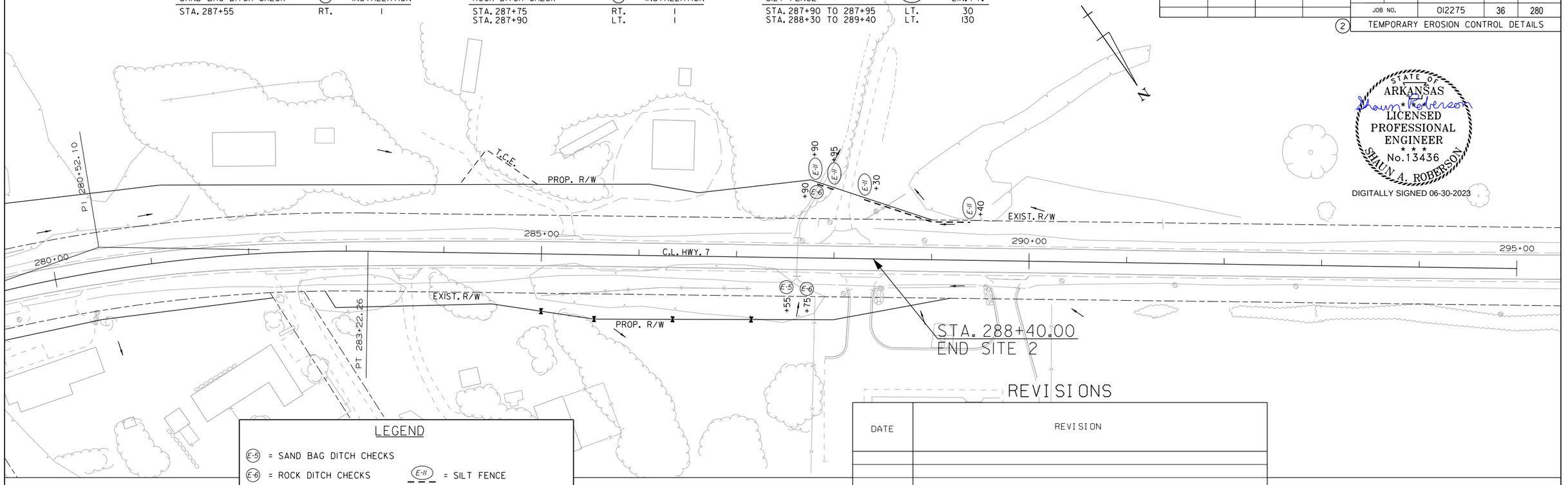
ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 287+75	RT.	1
STA. 287+90	LT.	1

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 287+90 TO 287+95	LT.	30
STA. 288+30 TO 289+40	LT.	130

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	36	280

(2) TEMPORARY EROSION CONTROL DETAILS



STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

SITE 2
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

PJoseph 6/21/2023 10:47:43 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	37	280
				(2) TEMPORARY EROSION CONTROL DETAILS				

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 333+80	LT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 333+80	RT.	1
STA. 334+10	LT.	1

STA. 333+00.00
BEGIN SITE 3
L.M. 4.53

PI 336+25.83
Δ = 00°04'47" LT.

330+00 335+00 340+00 345+00

C.L. HWY. 7

PROP. R/W EXIST. R/W T.C.E.

PI 345+17.75

PC 343+23.79

RET/WALL

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 332+00 TO 333+70	RT.	195

LEGEND

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

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

25' NATURAL BUFFER

PROP. R/W EXIST. R/W T.C.E.

PI 345+17.75

PC 356+73.61

PT 360+83.89

PC 10+28.68

PT 11+46.60

PI 10+92.54

PI 358+85.77

345+00 350+00 355+00 360+00

C.L. HWY. 7

RET/WALL

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 350+40 TO 351+15	LT.	81
STA. 357+55 TO 357+65	RT.	30
STA. 357+95 TO 358+35	RT.	80
STA. 359+30 TO 360+00	RT.	75

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 346+75	LT.	1
STA. 351+60	LT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 346+90	RT.	1
STA. 351+20	LT.	1
STA. 351+55	RT.	1

SITE 3
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:41:43 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	38	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

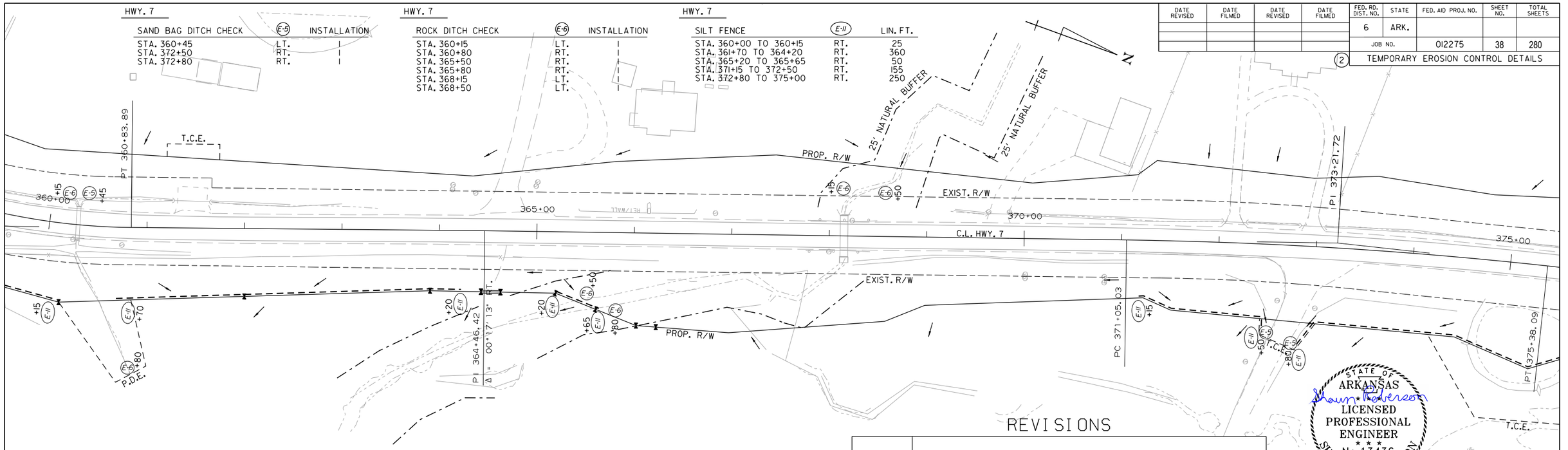
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 360+45	LT.	I
STA. 372+50	RT.	I
STA. 372+80	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 360+15	LT.	I
STA. 360+80	RT.	I
STA. 365+50	RT.	I
STA. 365+80	RT.	I
STA. 368+15	LT.	I
STA. 368+50	LT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 360+00 TO 360+15	RT.	25
STA. 361+70 TO 364+20	RT.	360
STA. 365+20 TO 365+65	RT.	50
STA. 371+15 TO 372+50	RT.	155
STA. 372+80 TO 375+00	RT.	250



LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

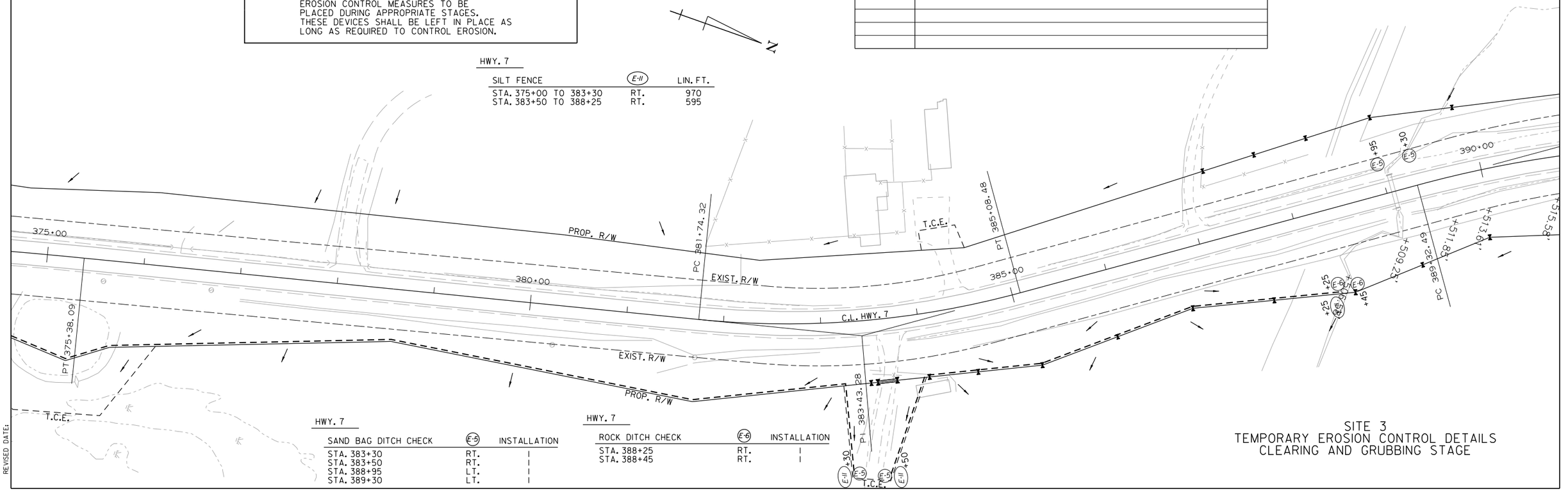
REVISIONS

DATE	REVISION

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 375+00 TO 383+30	RT.	970
STA. 383+50 TO 388+25	RT.	595



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 383+30	RT.	I
STA. 383+50	RT.	I
STA. 388+95	LT.	I
STA. 389+30	LT.	I

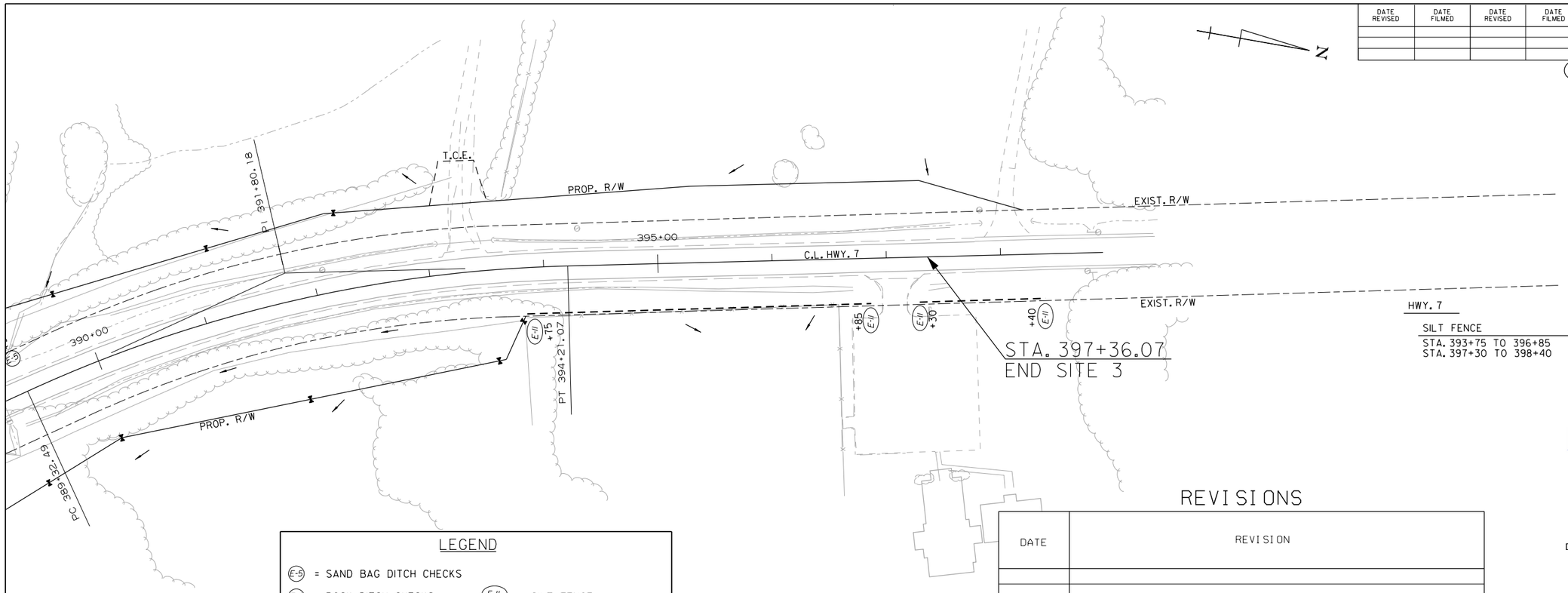
HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 388+25	RT.	I
STA. 388+45	RT.	I

SITE 3
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Puoseph 6/21/2023 10:47:43 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	39	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			



HWY. 7

SILT FENCE	E-11	LIN. FT.
STA. 393+75 TO 396+85	RT.	315
STA. 397+30 TO 398+40	RT.	110

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

LEGEND

E-5 = SAND BAG DITCH CHECKS

E-6 = ROCK DITCH CHECKS

E-11 = SILT FENCE

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

SITE 3
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

PJoseph 6/21/2023 10:47:43 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	40	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 442+00	LT.	1
STA. 442+00	RT.	1

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 444+60 TO 446+55	LT.	200
STA. 452+00 TO 455+55	RT.	360

N

PC 440+69.77

PT 443+33.87

PROP. R/W

EXIST. R/W

C.L. HWY. 7

440+00

445+00

450+00

455+00

PI 442+02.24

T.C.E.

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 461+85	RT.	1
STA. 461+90	LT.	1
STA. 462+50	RT.	1
STA. 462+55	LT.	1
STA. 470+60	LT.	1

25' NATURAL BUFFER

455+00

460+00

465+00

470+00

PC 459+63.09

PT 463+35.73

PI 469+41.41

PI 461+51.61

PC 466+79.93

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 455+80 TO 456+15	RT.	35
STA. 460+00 TO 460+50	RT.	50
STA. 460+65 TO 461+70	LT. & RT.	300
STA. 462+45 TO 462+55	RT. & LT.	200
STA. 462+55 TO 465+10	LT.	260
STA. 465+15 TO 465+90	LT.	80
STA. 469+50 TO 470+55	LT.	125

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 470+60	RT.	1

SITE 4
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

PJoseph 6/21/2023 10:47:44 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	41	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

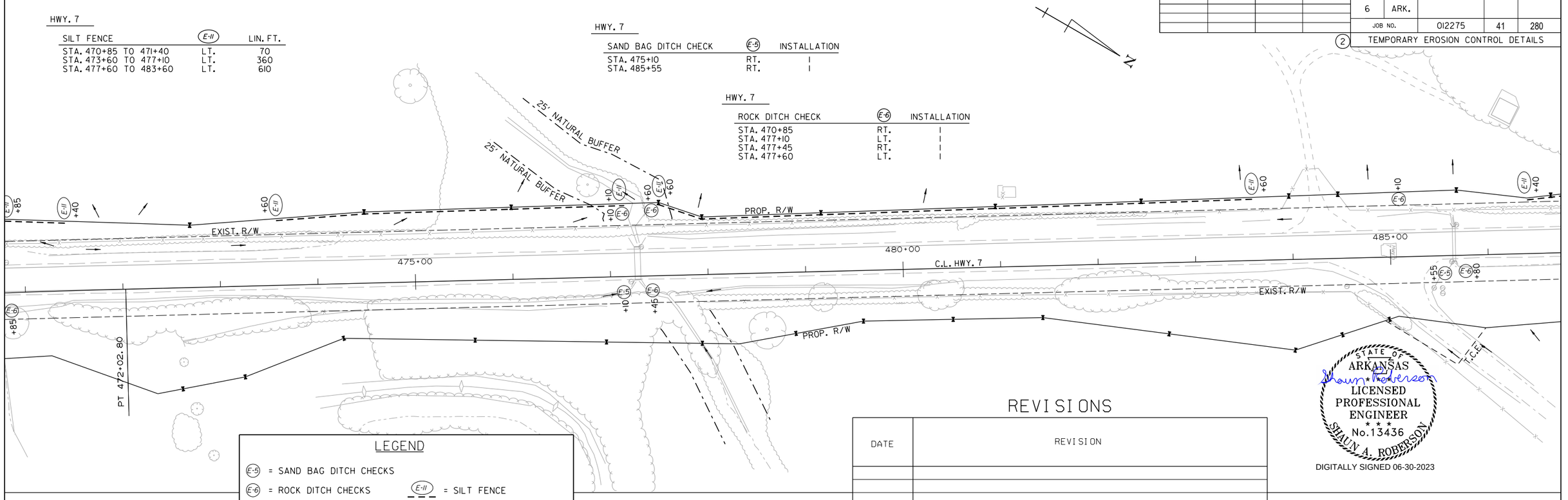
SILT FENCE	(E-11)	LIN. FT.
STA. 470+85 TO 471+40	LT.	70
STA. 473+60 TO 477+10	LT.	360
STA. 477+60 TO 483+60	LT.	610

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 475+10	RT.	1
STA. 485+55	RT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 470+85	RT.	1
STA. 477+10	LT.	1
STA. 477+45	RT.	1
STA. 477+60	LT.	1



LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

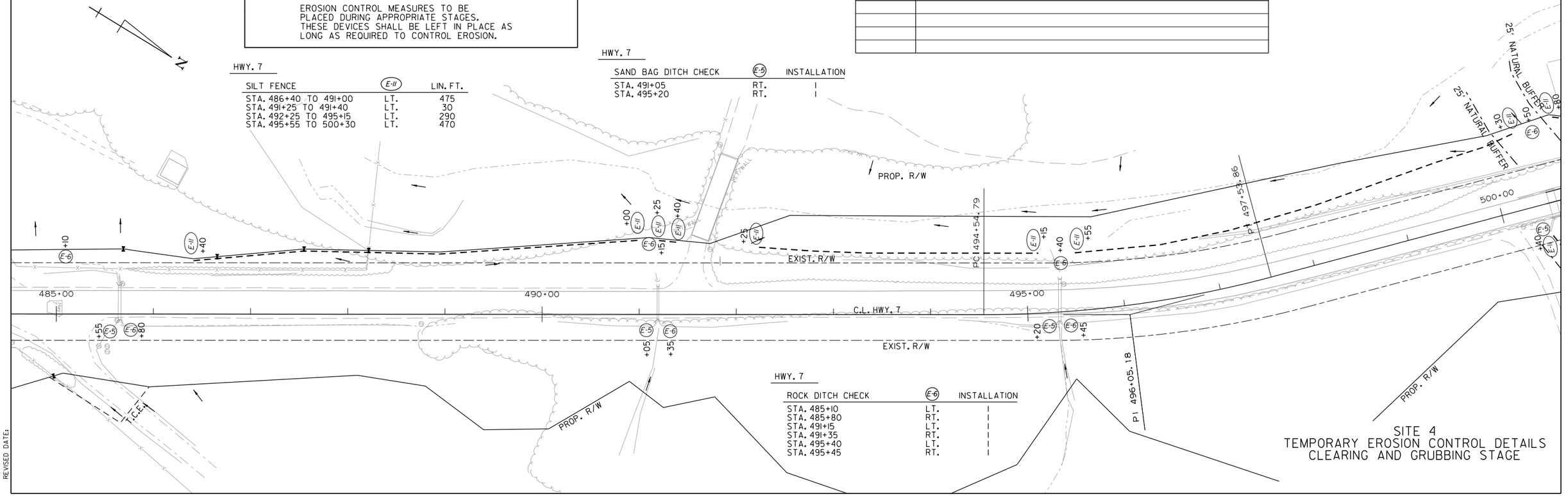
STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 486+40 TO 491+00	LT.	475
STA. 491+25 TO 491+40	LT.	30
STA. 492+25 TO 495+15	LT.	290
STA. 495+55 TO 500+30	LT.	470

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 491+05	RT.	1
STA. 495+20	RT.	1



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 485+10	LT.	1
STA. 485+80	RT.	1
STA. 491+15	LT.	1
STA. 491+35	RT.	1
STA. 495+40	LT.	1
STA. 495+45	RT.	1

SITE 4
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:41:44 AM
WORKSPACE: AHTD
L:\201\1101\555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275.EC.CG.SITE4_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	42	280

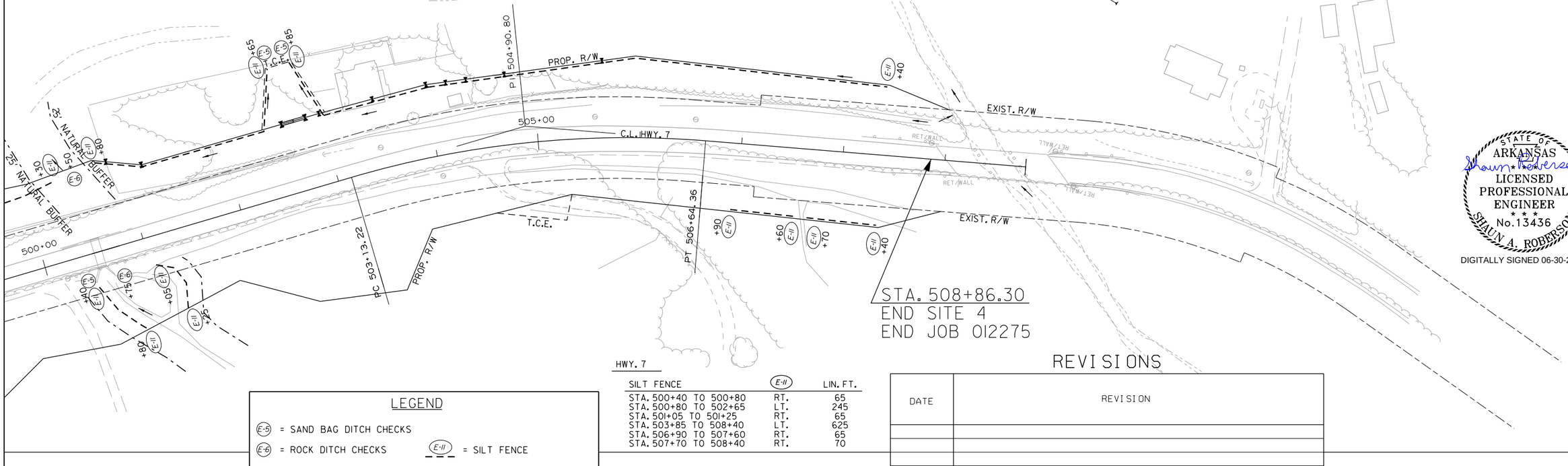
(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 500+40	RT.	1
STA. 502+65	LT.	1
STA. 502+85	LT.	1

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 500+50	LT.	1
STA. 500+75	RT.	1



HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 500+40 TO 500+80	RT.	65
STA. 500+80 TO 502+65	LT.	245
STA. 501+05 TO 501+25	RT.	65
STA. 503+85 TO 508+40	LT.	625
STA. 506+90 TO 507+60	RT.	65
STA. 507+70 TO 508+40	RT.	70

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SITE 4
TEMPORARY EROSION CONTROL DETAILS
CLEARING AND GRUBBING STAGE

Pjoseph 6/21/2023 10:47:44 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	43	280

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 113+00	RT.	I
STA. 113+60	LT.	I
STA. 113+85	RT.	I
STA. 117+15	RT.	I
STA. 119+90	LT.	I
STA. 120+15	RT.	I
STA. 122+15	LT.	I
STA. 122+70	RT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 114+85 TO 117+70	LT.	RETAIN
STA. 117+80 TO 119+90	LT.	RETAIN
STA. 118+80 TO 119+40	RT.	RETAIN
STA. 120+15 TO 122+15	LT.	RETAIN
STA. 120+90 TO 122+15	RT.	RETAIN
STA. 122+70 TO 125+00	LT.	RETAIN
STA. 122+70 TO 125+00	RT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 113+60	RT.	I
STA. 113+85	LT.	I
STA. 115+00	RT.	I
STA. 119+90	RT.	I
STA. 120+15	LT.	I
STA. 120+70	RT.	I
STA. 122+70	LT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 112+00	LT.	RETAIN
STA. 112+30	RT.	RETAIN
STA. 117+70	LT.	RETAIN

STA. 113+00.00
BEGIN SITE I
PROPOSED
ALIGNMENT
L.M. 0.60

N

110+00 115+00 120+00 10+00 125+00

C.L. HWY. 7

EXIST. R/W

CONSTRUCTION LIMITS

PROP. R.W

PI 117+76.84
Δ = 00°04'08" RT.

PI 11+17.90

PC 10+00.00

PRC 12+35.49

PI 13+53.39

PT 14+70.68

25' NATURAL BUFFER

T.C.E.

C.L. SITE I TEMPORARY WIDENING I

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 119+90	LT.	RETAIN
STA. 122+35	LT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 125+00 TO 125+40	LT.	RETAIN
STA. 125+00 TO 125+40	RT.	RETAIN
STA. 126+40 TO 133+60	RT.	RETAIN
STA. 126+45 TO 140+00	LT.	RETAIN
STA. 138+45 TO 139+30	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 125+40	RT.	I
STA. 126+40	RT.	I
STA. 134+40	RT.	I
STA. 136+10	RT.	I
STA. 138+35	RT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 133+60	RT.	I
STA. 135+15	RT.	I
STA. 137+15	RT.	I
STA. 138+55	RT.	I
STA. 139+00	RT.	I
STA. 139+75	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 125+75	LT.	RETAIN
STA. 126+45	LT.	RETAIN

N

125+00 15+00 20+00 130+00 135+00 140+00

EXIST. R/W

C.L. HWY. 7

CONSTRUCTION LIMITS

PROP. R/W

PROP. R/W

P.D.E.

25' NATURAL BUFFER

PT 14+70.98

PC 15+55.72

PRC 18+34.15

PI 19+33.82

PT 131+88.23

PI 129+06.44

PI 16+95.18

PT 20+33.30

PC 139+32.32

T.C.E.

C.L. SITE I TEMPORARY WIDENING I

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE I

PJoseph 6/21/2023 10:47:45 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STGI_SITEI_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	44	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

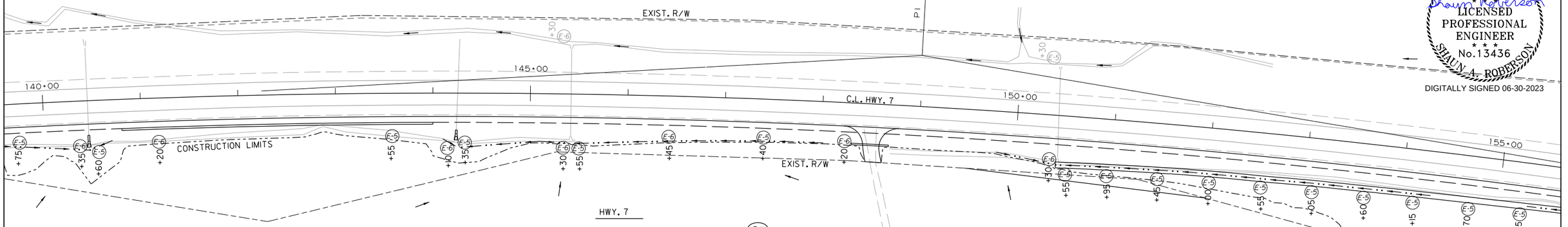
STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 145+30	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 150+30	LT.	RETAIN



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 140+35	RT.	I
STA. 141+20	RT.	I
STA. 144+10	RT.	I
STA. 145+30	RT.	I
STA. 146+45	RT.	I
STA. 148+20	RT.	I
STA. 150+30	RT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 140+00 TO 155+00	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 140+60	RT.	I
STA. 143+55	RT.	I
STA. 144+35	RT.	I
STA. 145+55	RT.	I
STA. 147+40	RT.	I
STA. 150+55	RT.	I
STA. 150+95	RT.	I
STA. 151+45	RT.	I
STA. 152+00	RT.	I
STA. 152+55	RT.	I
STA. 153+05	RT.	I
STA. 153+60	RT.	I
STA. 154+15	RT.	I
STA. 154+70	RT.	I

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

HWY. 7

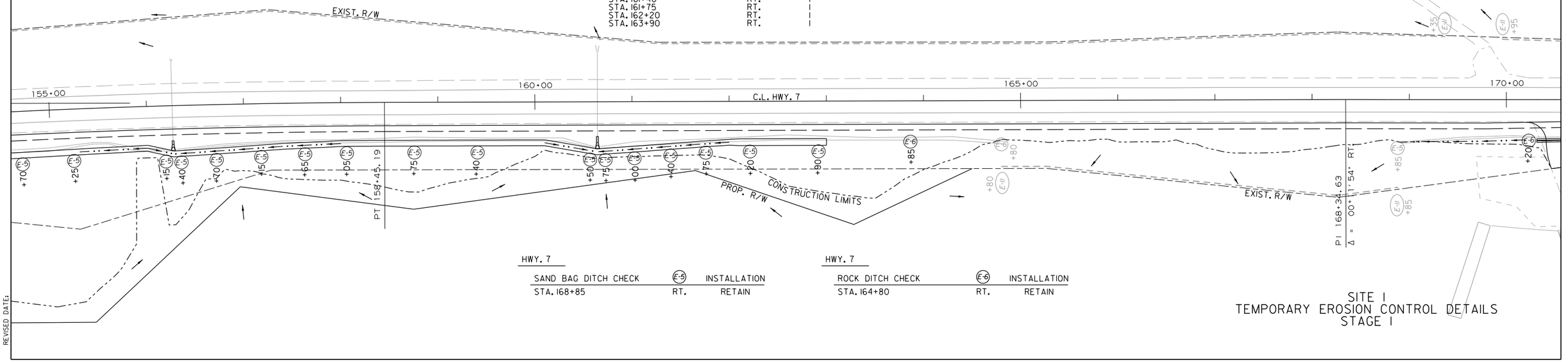
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 155+25	RT.	I
STA. 156+15	RT.	I
STA. 156+40	RT.	I
STA. 156+70	RT.	I
STA. 157+15	RT.	I
STA. 157+65	RT.	I
STA. 158+05	RT.	I
STA. 158+75	RT.	I
STA. 159+40	RT.	I
STA. 160+50	RT.	I
STA. 160+75	RT.	I
STA. 161+00	RT.	I
STA. 161+40	RT.	I
STA. 161+75	RT.	I
STA. 162+20	RT.	I
STA. 163+90	RT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 155+00 TO 169+35	LT.	RETAIN
STA. 164+80 TO 168+85	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 163+85	RT.	I



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 168+85	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 164+80	RT.	RETAIN

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE I

Pjoseph 6/21/2023 10:47:45 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STGI_SITE1_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	45	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 175+15	RT.	RETAIN

HWY. 7

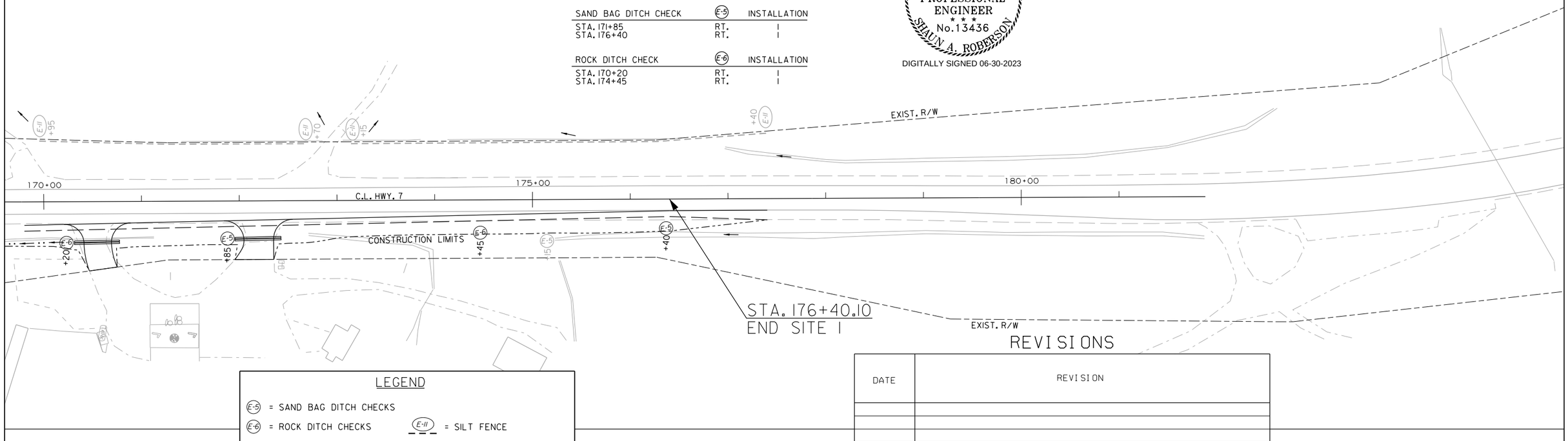
SILT FENCE	(E-11)	LIN. FT.
STA. 169+95 TO 172+70	LT.	RETAIN
STA. 173+15 TO 177+40	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 171+85	RT.	I
STA. 176+40	RT.	I

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 170+20	RT.	I
STA. 174+45	RT.	I

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

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LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE I

PJoseph 6/21/2023 10:47:45 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STGI_SITEI_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	46	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 124+00 TO 126+95	RT.	RETAIN
STA. 128+50 TO 129+80	RT.	RETAIN
STA. 132+30 TO 235+00	RT.	RETAIN

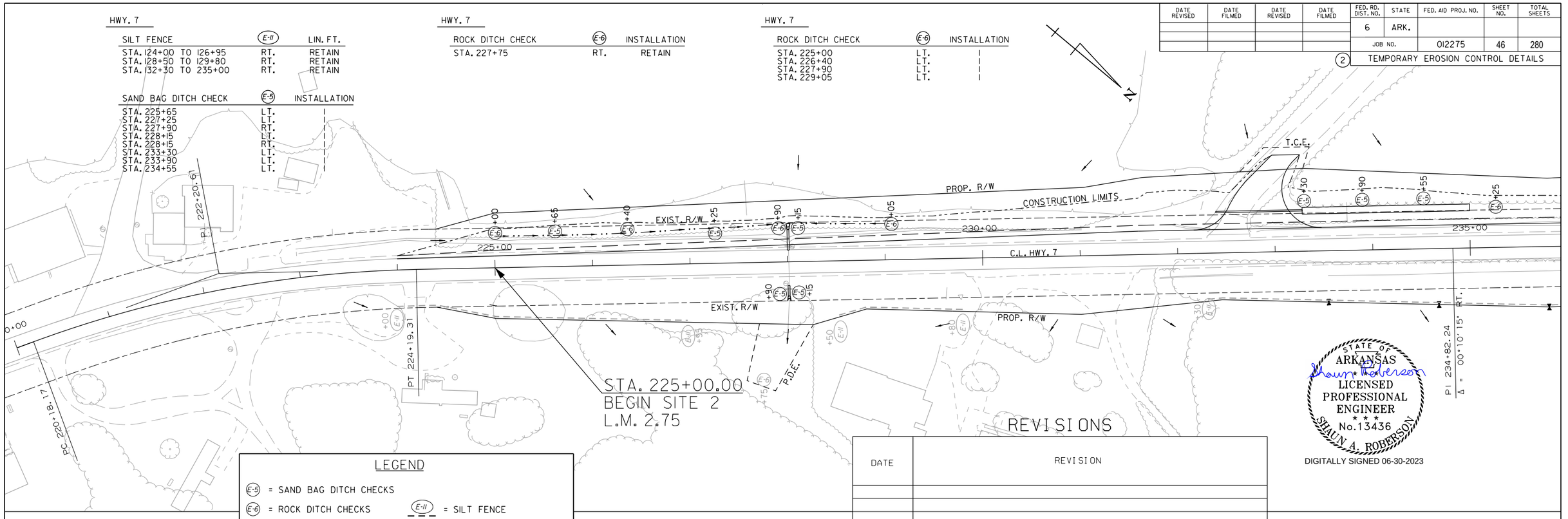
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 225+65	LT.	I
STA. 227+25	LT.	I
STA. 227+90	RT.	I
STA. 228+15	LT.	I
STA. 228+15	RT.	I
STA. 233+30	LT.	I
STA. 233+90	LT.	I
STA. 234+55	LT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 227+75	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 225+00	LT.	I
STA. 226+40	LT.	I
STA. 227+90	LT.	I
STA. 229+05	LT.	I



LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

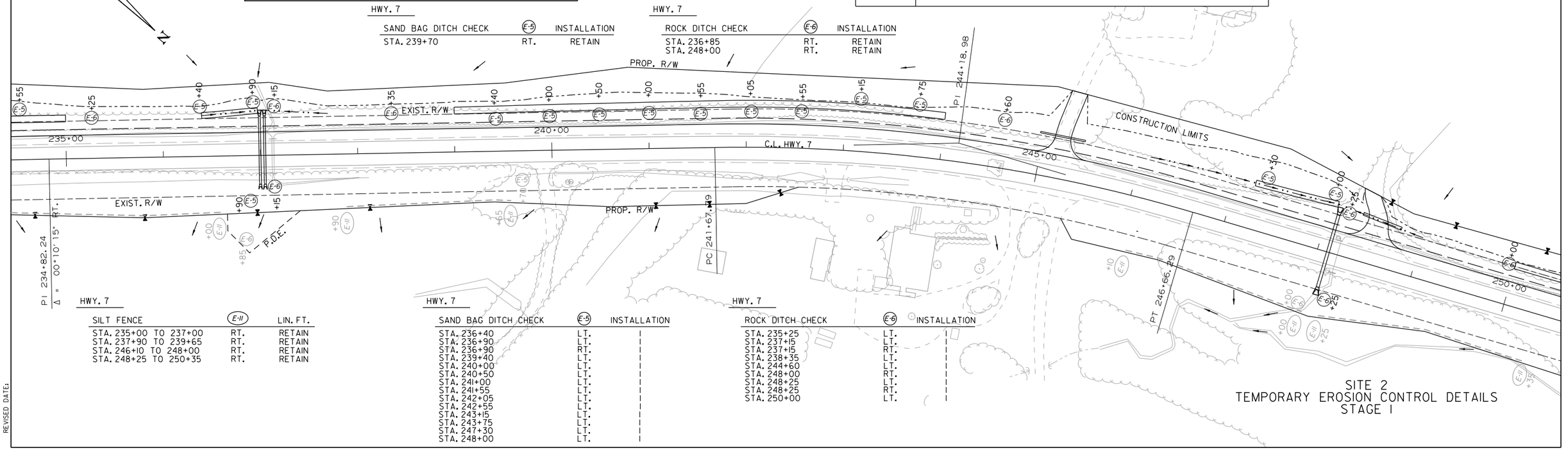
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 239+70	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 236+85	RT.	RETAIN
STA. 248+00	RT.	RETAIN



HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 235+00 TO 237+00	RT.	RETAIN
STA. 237+90 TO 239+65	RT.	RETAIN
STA. 246+10 TO 248+00	RT.	RETAIN
STA. 248+25 TO 250+35	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 236+40	LT.	I
STA. 236+90	LT.	I
STA. 236+90	RT.	I
STA. 239+40	LT.	I
STA. 240+00	LT.	I
STA. 240+50	LT.	I
STA. 241+00	LT.	I
STA. 241+55	LT.	I
STA. 242+05	LT.	I
STA. 242+55	LT.	I
STA. 243+15	LT.	I
STA. 243+75	LT.	I
STA. 247+30	LT.	I
STA. 248+00	LT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 235+25	LT.	I
STA. 237+15	LT.	I
STA. 237+15	RT.	I
STA. 238+35	LT.	I
STA. 244+60	LT.	I
STA. 248+00	RT.	I
STA. 248+25	LT.	I
STA. 248+25	RT.	I
STA. 250+00	LT.	I

SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE I

Pjoseph 6/21/2023 10:47:45 AM
WORKSPACE: AHTD
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REVISED DATE:

HWY. 7

SILT FENCE	E-11	LIN. FT.
STA. 253+90 TO 254+75	LT.	RETAIN

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 250+65	LT.	I
STA. 251+20	LT.	I
STA. 251+70	LT.	I
STA. 252+20	LT.	I
STA. 253+45	LT.	I
STA. 255+55	LT.	I
STA. 256+00	LT.	I
STA. 256+50	LT.	I
STA. 257+00	LT.	I
STA. 257+50	LT.	I
STA. 258+05	LT.	I
STA. 258+75	LT.	I
STA. 260+85	LT.	I
STA. 262+30	LT.	I

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 253+90	LT.	I
STA. 254+75	LT.	I
STA. 259+50	LT.	I
STA. 260+15	LT.	I
STA. 261+60	LT.	I
STA. 263+00	LT.	I

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 252+40	RT.	I

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	47	280

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

N

250+00 · +00 · +65 · +20 · +70 · +20 · +45 · +90 · EXIST. R/W · +75 · PI 255+06.13 · Δ = 00°32'11" LT. · T +55 · +00 · +50 · +05 · PC 258+69.39 · +75 · +50 · +45 · PROP. R/W · CONSTRUCTION LIMITS · +20 · +00 · 265+00 · T.C.E. · 255+00 · 260+00 · C.L. HWY. 7 · EXIST. R/W · PROP. R/W · T.C.E. · PI 262+79.42

LEGEND

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

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

N

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION	
STA. 277+05	RT.	RETAIN	

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 269+30	RT.	RETAIN
STA. 275+20	RT.	RETAIN

PT 266+33.33 · 265+00 · +85 · +95 · +50 · +70 · +75 · +75 · +80 · PROP. R/W · CONSTRUCTION LIMITS · EXIST. R/W · +75 · +05 · +30 · +85 · +65 · +30 · 270+00 · 275+00 · 280+00 · C.L. HWY. 7 · PC 10+30.50 · EXIST. R/W · PROP. R/W · T.C.E. · T.C.E. · PI 11+03.13 · PT 11+62.09 · P.O.E. · P.O.E. · PI 275+14.99 · Δ = 01°02'04" RT. · PC 277+76.05

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 267+85	LT.	I
STA. 269+50	LT.	I
STA. 269+70	RT.	I
STA. 270+75	LT.	I
STA. 272+80	LT.	I
STA. 277+85	LT.	I
STA. 278+30	LT.	I

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 268+95	LT.	I
STA. 269+50	RT.	I
STA. 269+70	LT.	I
STA. 271+75	LT.	I
STA. 274+75	LT.	I
STA. 276+05	LT.	I
STA. 276+05	RT.	I
STA. 276+30	LT.	I
STA. 276+30	RT.	I
STA. 277+65	LT.	I

SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE I

PJoseph 6/21/2023 10:47:46 AM
WORKSPACE: AHTD
L:\201\T101\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STGI_SITE2_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	48	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

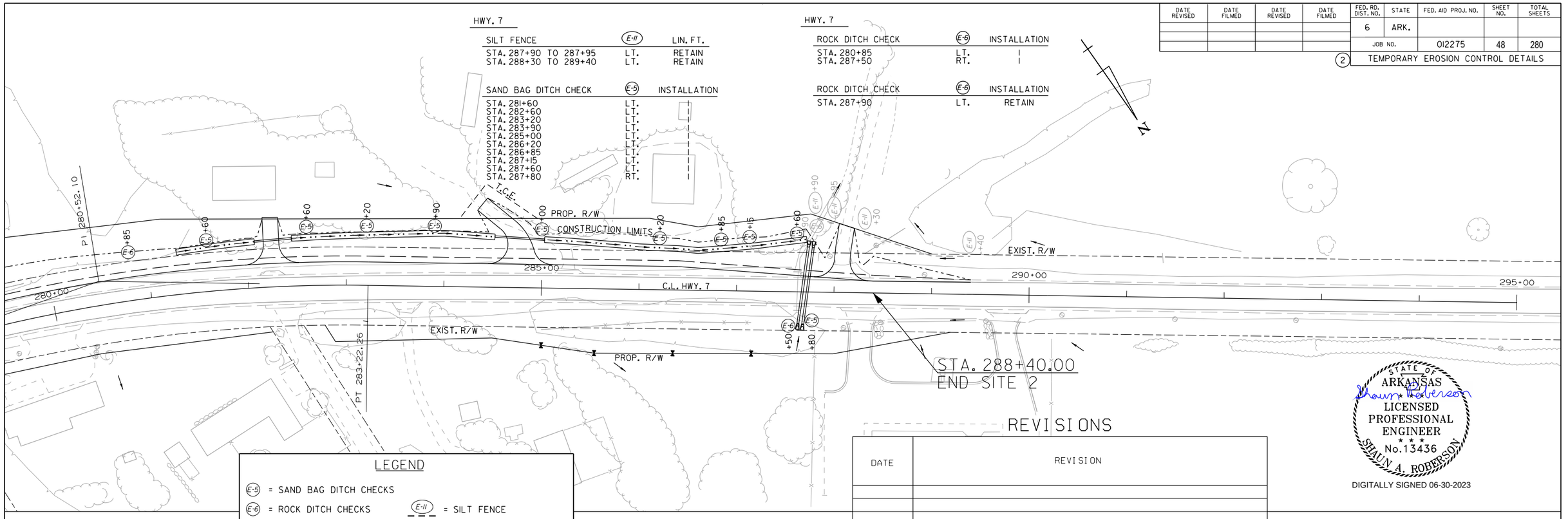
SILT FENCE	(E-11)	LIN. FT.
STA. 287+90 TO 287+95	LT.	RETAIN
STA. 288+30 TO 289+40	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 281+60	LT.	I
STA. 282+60	LT.	I
STA. 283+20	LT.	I
STA. 283+90	LT.	I
STA. 285+00	LT.	I
STA. 286+20	LT.	I
STA. 286+85	LT.	I
STA. 287+15	LT.	I
STA. 287+60	LT.	I
STA. 287+80	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 280+85	LT.	I
STA. 287+50	RT.	I

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 287+90	LT.	RETAIN



LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE I

PJoseph 6/21/2023 10:47:46 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG1_SITE2_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	49	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 332+00 TO 333+70	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 333+70	RT.	I
STA. 338+70	RT.	I
STA. 341+05	RT.	I

STA. 333+00.00
BEGIN SITE 3
L.M. 4.53

PI 336+25.83
Δ = 00°04'47" LT.

330+00 335+00 340+00 345+00

PROP. R/W EXIST. R/W C.L. HWY. 7 CONSTRUCTION LIMITS

T.C.E. RET. WALL

PC 343+23.35 PI 345+17.75

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 333+70	LT.	I
STA. 334+00	LT.	I
STA. 334+00	RT.	I
STA. 334+25	RT.	I
STA. 334+55	RT.	I
STA. 334+80	RT.	I
STA. 335+05	RT.	I
STA. 335+30	RT.	I
STA. 335+60	RT.	I
STA. 336+35	RT.	I
STA. 336+65	RT.	I
STA. 337+10	RT.	I
STA. 337+45	RT.	I
STA. 337+70	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 333+80	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 337+95	RT.	I
STA. 338+20	RT.	I
STA. 341+65	RT.	I
STA. 342+00	RT.	I
STA. 342+25	RT.	I
STA. 342+55	RT.	I
STA. 342+85	RT.	I
STA. 343+10	RT.	I
STA. 344+35	RT.	I
STA. 343+60	RT.	I
STA. 343+85	RT.	I
STA. 344+10	RT.	I
STA. 344+40	RT.	I
STA. 344+70	RT.	I

LEGEND

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

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 346+75	LT.	RETAIN
STA. 351+60	LT.	RETAIN

25' NATURAL BUFFER

T.C.E. PI 345+17.75 EXIST. R/W 345+00 350+00 355+00 C.L. HWY. 7 PROP. R/W

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 351+20	LT.	RETAIN
STA. 351+55	RT.	RETAIN

PC 356+73.61 PT 360+83.89 PI 358+95.27 PI 360+92.54 PT 11+46.76 PC 10+28.68

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 345+60	RT.	I
STA. 345+90	RT.	I
STA. 346+20	RT.	I
STA. 346+50	RT.	I
STA. 347+20	RT.	I
STA. 347+60	RT.	I
STA. 348+20	RT.	I
STA. 348+80	RT.	I
STA. 349+40	RT.	I
STA. 349+80	RT.	I
STA. 350+20	RT.	I
STA. 350+60	RT.	I
STA. 350+90	RT.	I
STA. 351+90	RT.	I
STA. 352+15	RT.	I
STA. 355+05	RT.	I

PT 347+09.36 RET. WALL

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 350+40 TO 351+15	LT.	RETAIN
STA. 357+55 TO 357+65	RT.	RETAIN
STA. 357+95 TO 358+35	RT.	RETAIN
STA. 359+30 TO 360+00	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 351+20	RT.	I
STA. 351+65	RT.	I
STA. 352+70	RT.	I
STA. 352+95	RT.	I
STA. 356+25	RT.	I
STA. 357+65	RT.	I
STA. 358+35	RT.	I
STA. 359+30	RT.	I
STA. 359+50	LT.	I
STA. 359+85	LT.	I

SITE 3
TEMPORARY EROSION CONTROL DETAILS
STAGE I

Pjoseph 6/21/2023 10:41:46 AM
WORKSPACE: AHTD
L:\201\1701\555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_ECL_STGI_SITE3.01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	50	280
				2	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

SILT FENCE	E-11	LIN. FT.
STA. 360+00 TO 360+15	RT.	RETAIN
STA. 361+70 TO 364+20	RT.	RETAIN
STA. 365+20 TO 365+65	RT.	RETAIN
STA. 371+15 TO 372+50	RT.	RETAIN
STA. 372+80 TO 375+00	RT.	RETAIN

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 367+50	RT.	I
STA. 367+95	RT.	I
STA. 368+35	RT.	I
STA. 368+60	RT.	I
STA. 368+85	RT.	I

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 360+20	RT.	I
STA. 360+55	RT.	I
STA. 364+20	RT.	I
STA. 366+80	RT.	I
STA. 369+30	RT.	I
STA. 370+40	RT.	I

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 360+45	LT.	RETAIN
STA. 372+50	RT.	RETAIN
STA. 372+80	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 360+15	LT.	RETAIN
STA. 360+80	RT.	RETAIN
STA. 365+50	RT.	RETAIN
STA. 365+80	RT.	RETAIN
STA. 368+15	LT.	RETAIN
STA. 368+50	LT.	RETAIN

LEGEND

E-5 = SAND BAG DITCH CHECKS

E-6 = ROCK DITCH CHECKS

E-11 = SILT FENCE

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

STATE OF ARKANSAS
Shaun Robberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	E-11	LIN. FT.
STA. 375+00 TO 383+30	RT.	RETAIN
STA. 383+50 TO 388+25	RT.	RETAIN

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 388+40	RT.	I
STA. 388+05	RT.	I
STA. 388+30	LT.	I
STA. 388+30	RT.	I
STA. 388+60	RT.	I
STA. 390+05	RT.	I

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 389+05	LT.	I

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 383+30	RT.	RETAIN
STA. 383+50	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 388+25	RT.	RETAIN
STA. 388+45	RT.	RETAIN

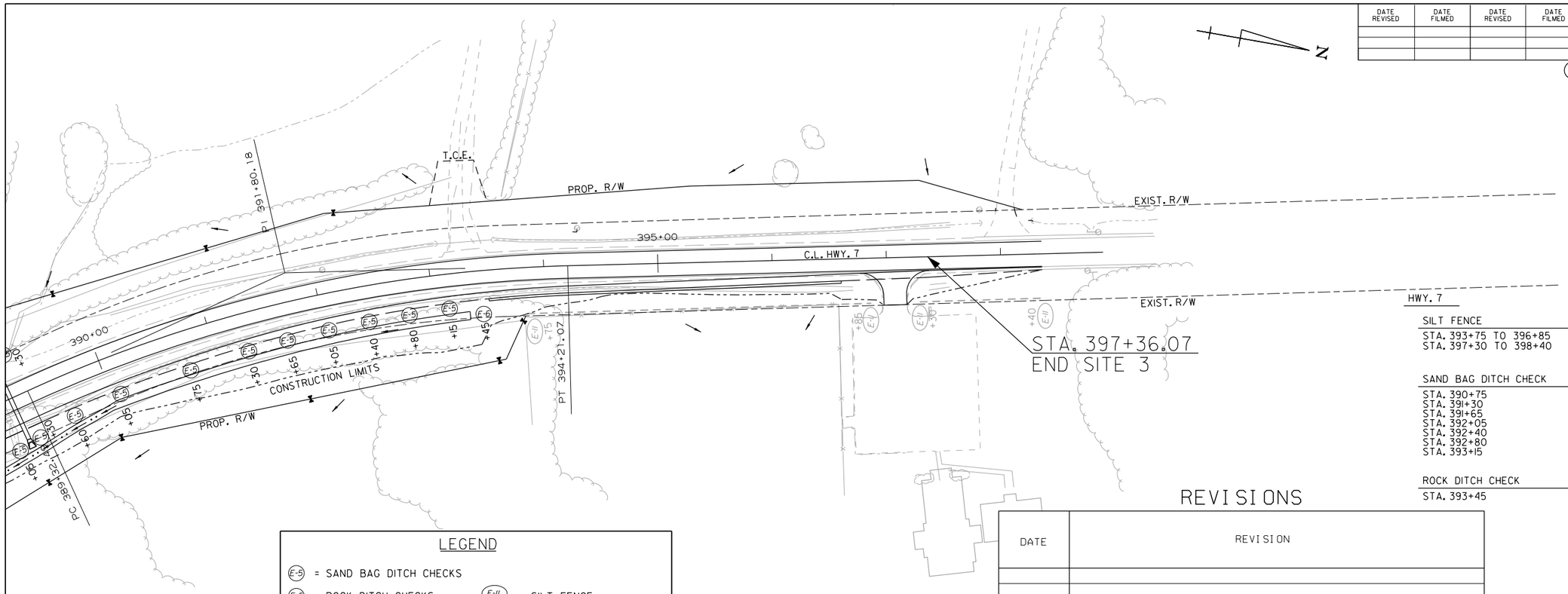
SITE 3
TEMPORARY EROSION CONTROL DETAILS
STAGE I

Puoseph 6/21/2023 10:41:47 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	51	280

(2) TEMPORARY EROSION CONTROL DETAILS



STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SILT FENCE	E-11	LIN. FT.
STA. 393+75 TO 396+85	RT.	RETAIN
STA. 397+30 TO 398+40	RT.	RETAIN

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 390+75	RT.	I
STA. 391+30	RT.	I
STA. 391+65	RT.	I
STA. 392+05	RT.	I
STA. 392+40	RT.	I
STA. 392+80	RT.	I
STA. 393+15	RT.	I

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 393+45	RT.	I

LEGEND

E-5 = SAND BAG DITCH CHECKS

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

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

SITE 3
TEMPORARY EROSION CONTROL DETAILS
STAGE I

Pjoseph 6/21/2023 10:47:47 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG1_SITE3_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	52	280
				(2) TEMPORARY EROSION CONTROL DETAILS				

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 444+60 TO 446+55	LT.	RETAIN
STA. 452+00 TO 455+55	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 443+00	LT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 447+40	LT.	I
STA. 447+65	LT.	I
STA. 448+00	LT.	I
STA. 448+30	LT.	I
STA. 448+65	LT.	I
STA. 449+00	LT.	I
STA. 449+30	LT.	I
STA. 449+65	LT.	I
STA. 450+00	LT.	I
STA. 450+30	LT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 451+90	LT.	I
STA. 451+25	LT.	I
STA. 451+55	LT.	I
STA. 451+90	LT.	I
STA. 452+20	LT.	I
STA. 452+80	LT.	I
STA. 453+05	LT.	I
STA. 453+30	LT.	I
STA. 453+65	LT.	I
STA. 454+00	LT.	I
STA. 454+80	LT.	I

N

PC 440+69.77

PI 443+33.87

EXIST. R/W

445+00

C.L. HWY. 7

PROP. R/W

CONSTRUCTION LIMITS

450+00

C.L. SITE 4 TEMPORARY WIDENING I

PC 20+00.00

20+00

PT 22+23.58

455+00

PI 21+11.92

EXIST. R/W

PC 22+28.89

PI 442+02.24

T.C.E.

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 442+00	LT.	RETAIN
STA. 442+00	RT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

N

PT 22+23.58

PT 23+36.33

C.L. SITE 4 TEMPORARY WIDENING I

PROP. R/W

CONSTRUCTION LIMITS

455+00

25' NATURAL BUFFER

PC 22+28.89

PC 26+55.83

PC 459+63.04

T.C.E.

PT 24+48.55

EXIST. R/W

460+00

PT 29+19.93

PT 463+35.73

EXIST. R/W

PT 469+41.41

PROP. R/W

470+00

465+00

C.L. HWY. 7

PI 461+51.61

PT 27+88.80

PROP. R/W

PC 466+79.93

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 470+85	LT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 455+80 TO 456+15	RT.	RETAIN
STA. 460+00 TO 460+50	RT.	RETAIN
STA. 460+65 TO 461+70	LT. & RT.	RETAIN
STA. 462+45 TO 462+55	RT. & LT.	RETAIN
STA. 462+55 TO 465+10	LT.	RETAIN
STA. 465+15 TO 465+90	LT.	RETAIN
STA. 469+50 TO 470+55	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 455+25	LT.	I
STA. 455+60	LT.	I
STA. 455+90	LT.	I
STA. 456+25	LT.	I
STA. 456+60	LT.	I
STA. 456+95	LT.	I
STA. 457+25	LT.	I
STA. 457+70	LT.	I
STA. 458+15	LT.	I
STA. 458+45	LT.	I
STA. 458+90	LT.	I
STA. 459+45	LT.	I
STA. 470+55	RT.	I
STA. 470+85	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 461+85	RT.	RETAIN
STA. 461+90	LT.	RETAIN
STA. 462+50	RT.	RETAIN
STA. 462+55	LT.	RETAIN
STA. 470+60	LT.	RETAIN

SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE I

PJoseph 6/21/2023 10:47:47 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275.EC.STG1.SITE4.01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	53	280

2 TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 470+85 TO 471+40	LT.	RETAIN
STA. 473+60 TO 477+10	LT.	RETAIN
STA. 477+60 TO 483+60	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 472+20	LT.	I
STA. 473+60	LT.	I

HWY. 7

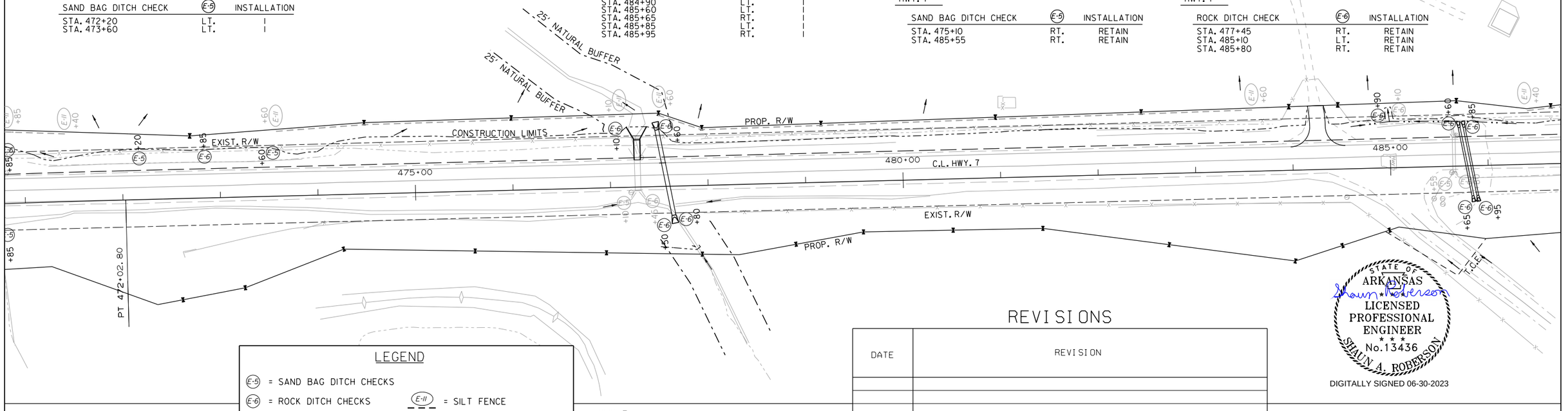
ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 472+85	LT.	I
STA. 477+10	LT.	I
STA. 477+50	RT.	I
STA. 477+60	LT.	I
STA. 477+80	RT.	I
STA. 484+90	LT.	I
STA. 485+60	LT.	I
STA. 485+65	RT.	I
STA. 485+85	LT.	I
STA. 485+95	RT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 475+10	RT.	RETAIN
STA. 485+55	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 477+45	RT.	RETAIN
STA. 485+10	LT.	RETAIN
STA. 485+80	RT.	RETAIN



LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

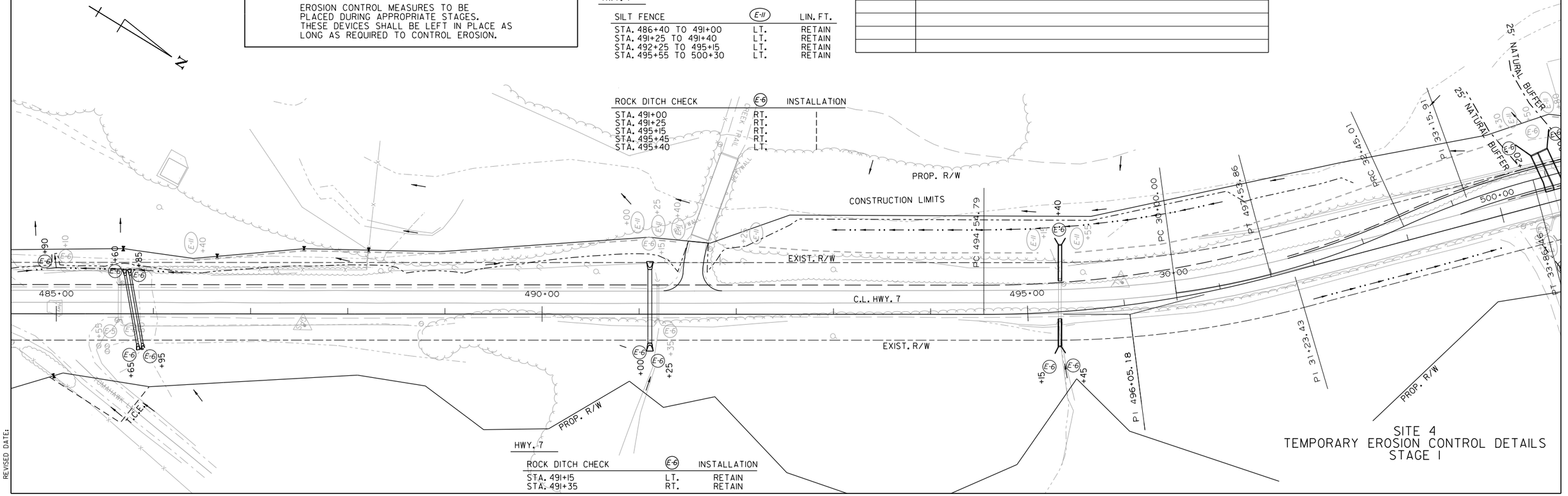
STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 486+40 TO 491+00	LT.	RETAIN
STA. 491+25 TO 491+40	LT.	RETAIN
STA. 492+25 TO 495+15	LT.	RETAIN
STA. 495+55 TO 500+30	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 491+00	RT.	I
STA. 491+25	RT.	I
STA. 495+15	RT.	I
STA. 495+45	RT.	I
STA. 495+40	LT.	I



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 491+15	LT.	RETAIN
STA. 491+35	RT.	RETAIN

SITE 4 TEMPORARY EROSION CONTROL DETAILS STAGE I

PJoseph 6/21/2023 10:41:48 AM
WORKSPACE: AHTD
L:\201\1701\555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STGI_SITE4_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	54	280

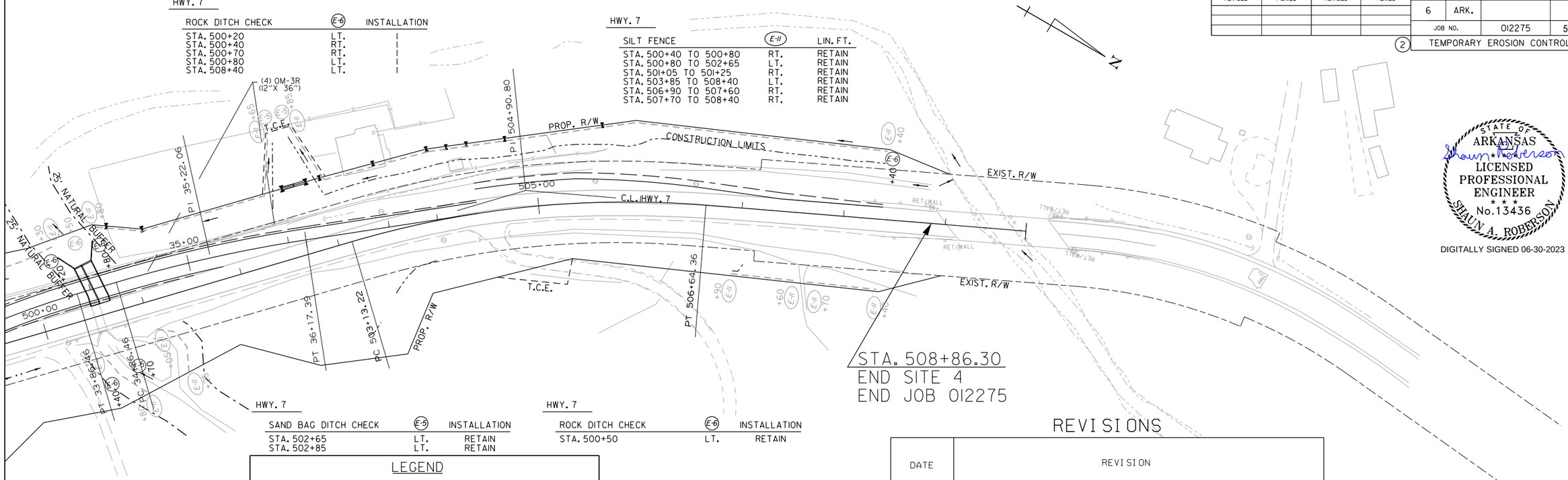
(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 500+20	LT.	I
STA. 500+40	RT.	I
STA. 500+70	RT.	I
STA. 500+80	LT.	I
STA. 508+40	LT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 500+40 TO 500+80	RT.	RETAIN
STA. 500+80 TO 502+65	LT.	RETAIN
STA. 501+05 TO 501+25	RT.	RETAIN
STA. 503+85 TO 508+40	LT.	RETAIN
STA. 506+90 TO 507+60	RT.	RETAIN
STA. 507+70 TO 508+40	RT.	RETAIN



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 502+65	LT.	RETAIN
STA. 502+85	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 500+50	LT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE I

PJoseph 6/21/2023 10:47:48 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	55	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE (E-11)		LIN. FT.
STA. 114+85 TO 117+70	LT.	RETAIN
STA. 117+80 TO 119+90	LT.	RETAIN
STA. 118+80 TO 119+40	RT.	RETAIN
STA. 120+15 TO 122+15	LT.	RETAIN
STA. 120+90 TO 122+15	RT.	RETAIN
STA. 122+70 TO 125+00	LT.	RETAIN
STA. 122+70 TO 125+00	RT.	RETAIN

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 113+05	LT.	1

HWY. 7

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 112+00	LT.	RETAIN
STA. 112+30	RT.	RETAIN
STA. 113+60	RT.	RETAIN
STA. 113+85	LT.	RETAIN
STA. 115+00	RT.	RETAIN
STA. 117+70	LT.	RETAIN
STA. 119+90	RT.	RETAIN
STA. 120+15	LT.	RETAIN
STA. 120+70	RT.	RETAIN
STA. 122+70	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK (E-6)		INSTALLATION
STA. 113+00	RT.	RETAIN
STA. 113+60	LT.	RETAIN
STA. 113+85	RT.	RETAIN
STA. 117+15	RT.	RETAIN
STA. 119+90	LT.	RETAIN
STA. 119+90	LT.	RETAIN
STA. 120+15	RT.	RETAIN
STA. 122+15	LT.	RETAIN
STA. 122+35	LT.	RETAIN
STA. 122+70	RT.	RETAIN

STA. 113+00.00
BEGIN SITE 1
PROPOSED
ALIGNMENT
L.M. 0.60

25' NATURAL BUFFER

EXIST. R/W

CONSTRUCTION LIMITS

110+00 115+00 120+00 125+00

C.L. HWY. 7

PROP. R/W

PI 117+76.84
Δ = 00°04'08" RT.

EXIST. R/W

T.C.E.

C.L. SITE 1 TEMPORARY WIDENING 1

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

HWY. 7

SILT FENCE (E-11)		LIN. FT.
STA. 125+00 TO 125+40	LT.	RETAIN
STA. 125+00 TO 125+40	RT.	RETAIN
STA. 126+40 TO 133+60	RT.	RETAIN
STA. 126+45 TO 140+00	LT.	RETAIN
STA. 138+45 TO 139+30	RT.	RETAIN

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 125+40	LT.	1

25' NATURAL BUFFER

P.D.E.

PROP. R/W

PC 126+24.53

PI 131+88.23

EXIST. R/W

CONSTRUCTION LIMITS

125+00 130+00 135+00 140+00

C.L. HWY. 7

T.C.E.

PROP. R/W

PI 129+06.44

C.L. SITE 1 TEMPORARY WIDENING 1

EXIST. R/W

PROP. R/W

PC 139+52.32

HWY. 7

SAND BAG DITCH CHECK (E-5)		INSTALLATION
STA. 133+60	RT.	RETAIN
STA. 135+15	RT.	RETAIN
STA. 137+15	RT.	RETAIN
STA. 138+55	RT.	RETAIN
STA. 139+00	RT.	RETAIN
STA. 139+75	RT.	RETAIN

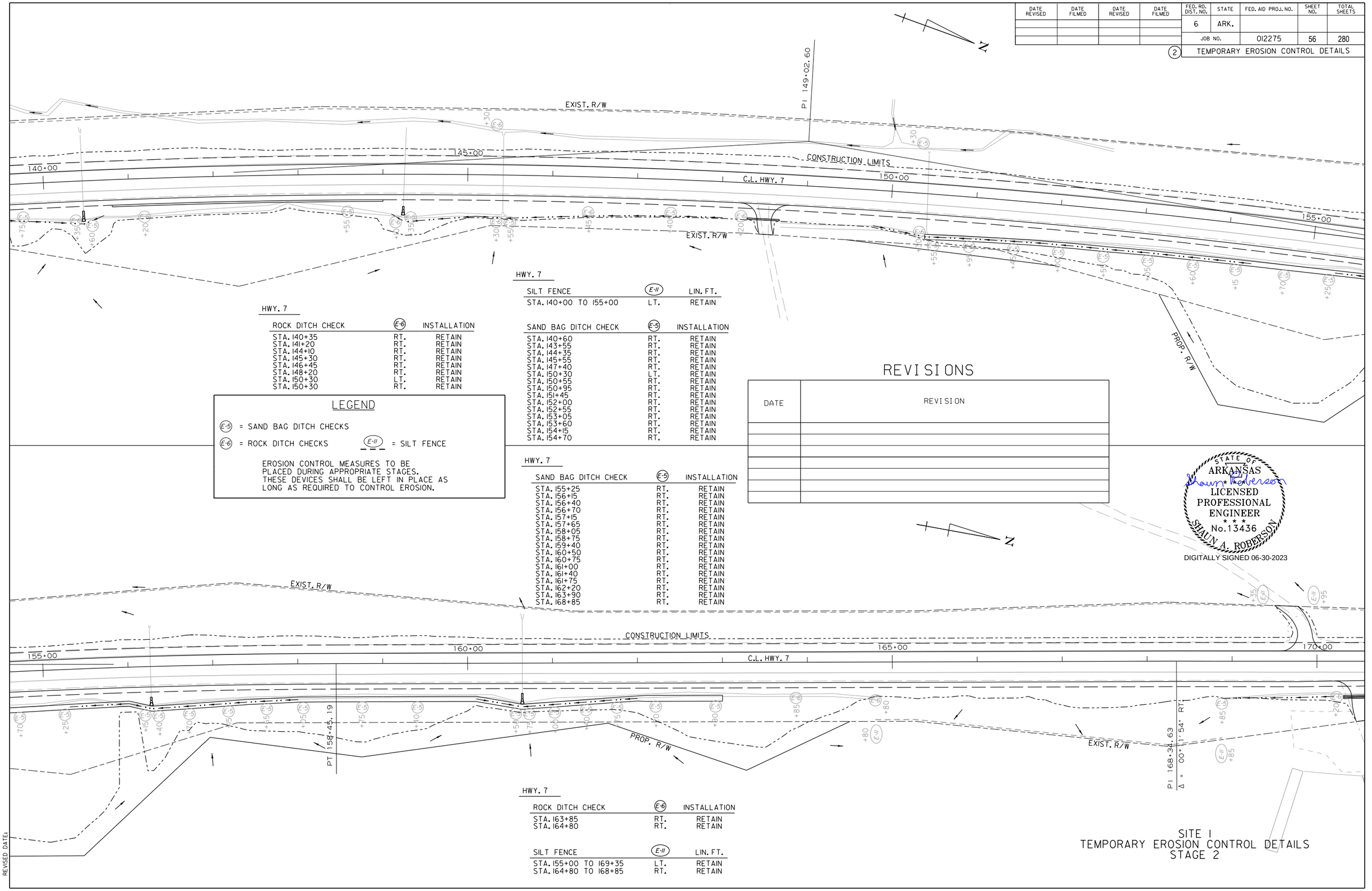
HWY. 7

ROCK DITCH CHECK (E-6)		INSTALLATION
STA. 125+40	RT.	RETAIN
STA. 126+40	RT.	RETAIN
STA. 126+45	LT.	RETAIN
STA. 134+40	RT.	RETAIN
STA. 136+10	RT.	RETAIN
STA. 138+35	RT.	RETAIN

SITE 1
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:48 AM
WORKSPACE: AHTD
L:\201\T101\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG2_SITE1_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	56	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 140+35	RT.	RETAIN
STA. 141+20	RT.	RETAIN
STA. 144+10	RT.	RETAIN
STA. 145+30	RT.	RETAIN
STA. 146+45	RT.	RETAIN
STA. 148+20	RT.	RETAIN
STA. 150+30	LT.	RETAIN
STA. 150+30	RT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 140+00 TO 155+00	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 140+60	RT.	RETAIN
STA. 143+55	RT.	RETAIN
STA. 144+35	RT.	RETAIN
STA. 145+55	RT.	RETAIN
STA. 147+40	RT.	RETAIN
STA. 150+30	LT.	RETAIN
STA. 150+55	RT.	RETAIN
STA. 150+95	RT.	RETAIN
STA. 151+45	RT.	RETAIN
STA. 152+00	RT.	RETAIN
STA. 152+55	RT.	RETAIN
STA. 153+05	RT.	RETAIN
STA. 153+60	RT.	RETAIN
STA. 154+15	RT.	RETAIN
STA. 154+70	RT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 155+25	RT.	RETAIN
STA. 156+15	RT.	RETAIN
STA. 156+40	RT.	RETAIN
STA. 156+70	RT.	RETAIN
STA. 157+15	RT.	RETAIN
STA. 157+65	RT.	RETAIN
STA. 158+05	RT.	RETAIN
STA. 158+75	RT.	RETAIN
STA. 159+40	RT.	RETAIN
STA. 160+50	RT.	RETAIN
STA. 160+75	RT.	RETAIN
STA. 161+00	RT.	RETAIN
STA. 161+40	RT.	RETAIN
STA. 161+75	RT.	RETAIN
STA. 162+20	RT.	RETAIN
STA. 163+90	RT.	RETAIN
STA. 168+85	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 163+85	RT.	RETAIN
STA. 164+80	RT.	RETAIN

SILT FENCE	(E-11)	LIN. FT.
STA. 155+00 TO 169+35	LT.	RETAIN
STA. 164+80 TO 168+85	RT.	RETAIN

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SITE 1
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Puoseph 6/21/2023 10:47:49 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG2_SITE1_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	57	280

(2) TEMPORARY EROSION CONTROL DETAILS

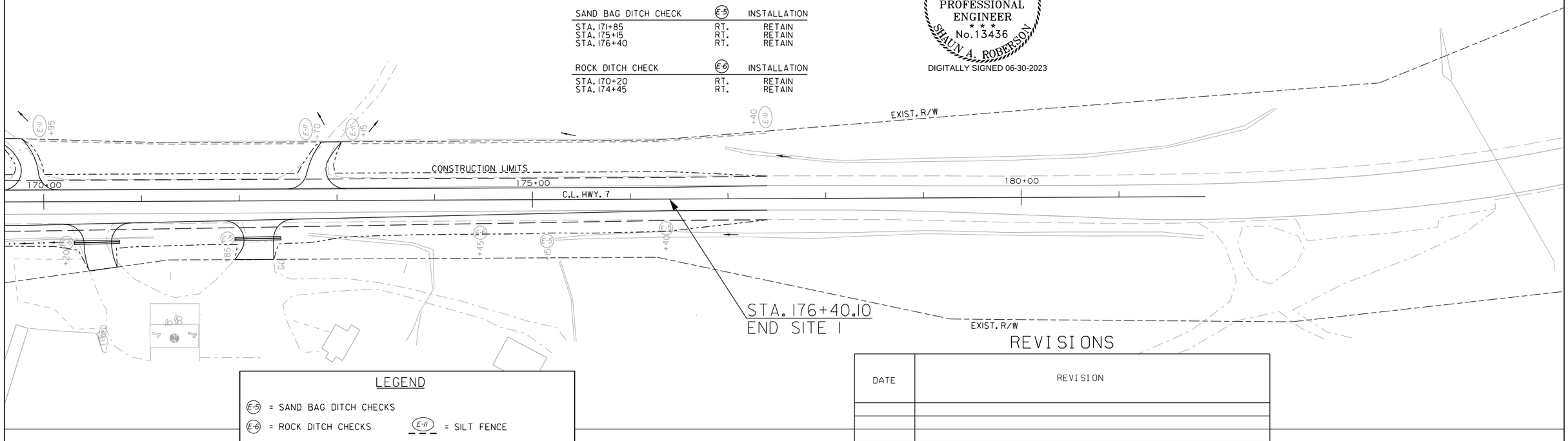
HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 169+95 TO 172+70	LT.	RETAIN
STA. 173+15 TO 177+40	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 171+85	RT.	RETAIN
STA. 175+15	RT.	RETAIN
STA. 176+40	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 170+20	RT.	RETAIN
STA. 174+45	RT.	RETAIN

STATE OF ARKANSAS
Shaun Robertson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:49 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG2_SITE1_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	58	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 124+00 TO 126+95	RT.	RETAIN
STA. 128+50 TO 129+80	RT.	RETAIN
STA. 132+30 TO 235+00	RT.	RETAIN

HWY. 7

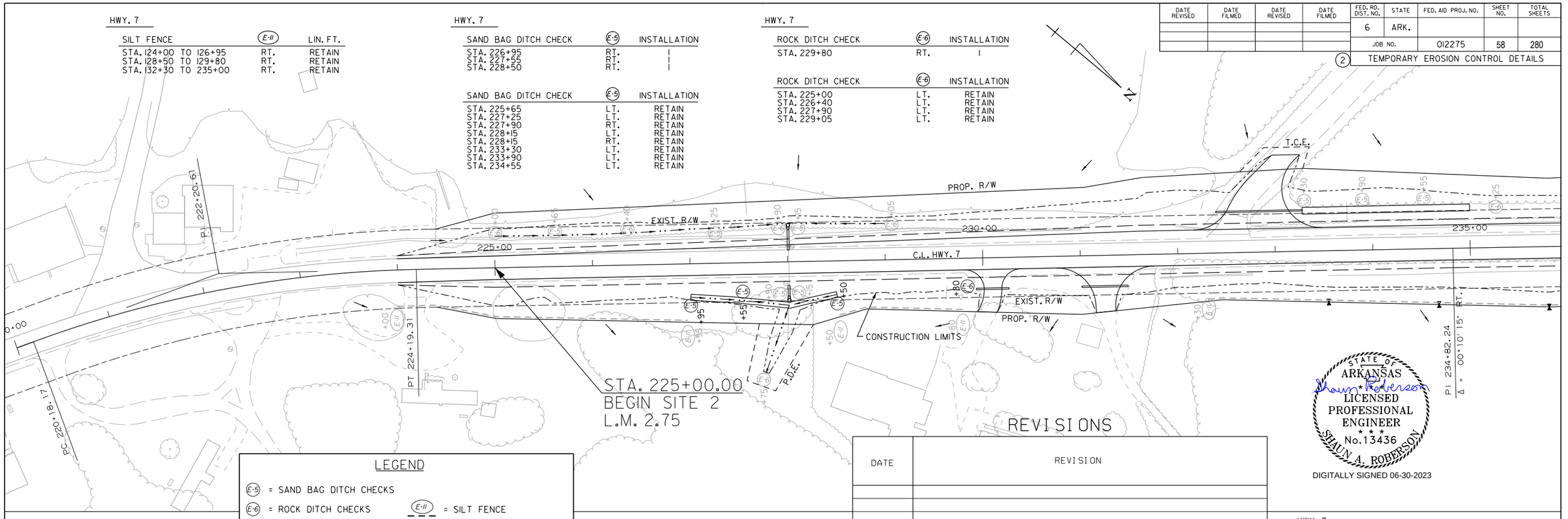
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 226+95	RT.	I
STA. 227+55	RT.	I
STA. 228+50	RT.	I

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 225+65	LT.	RETAIN
STA. 227+25	LT.	RETAIN
STA. 227+90	RT.	RETAIN
STA. 228+15	LT.	RETAIN
STA. 228+15	RT.	RETAIN
STA. 233+30	LT.	RETAIN
STA. 233+90	LT.	RETAIN
STA. 234+55	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 229+80	RT.	I

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 225+00	LT.	RETAIN
STA. 226+40	LT.	RETAIN
STA. 227+90	LT.	RETAIN
STA. 229+05	LT.	RETAIN



LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

REVISIONS

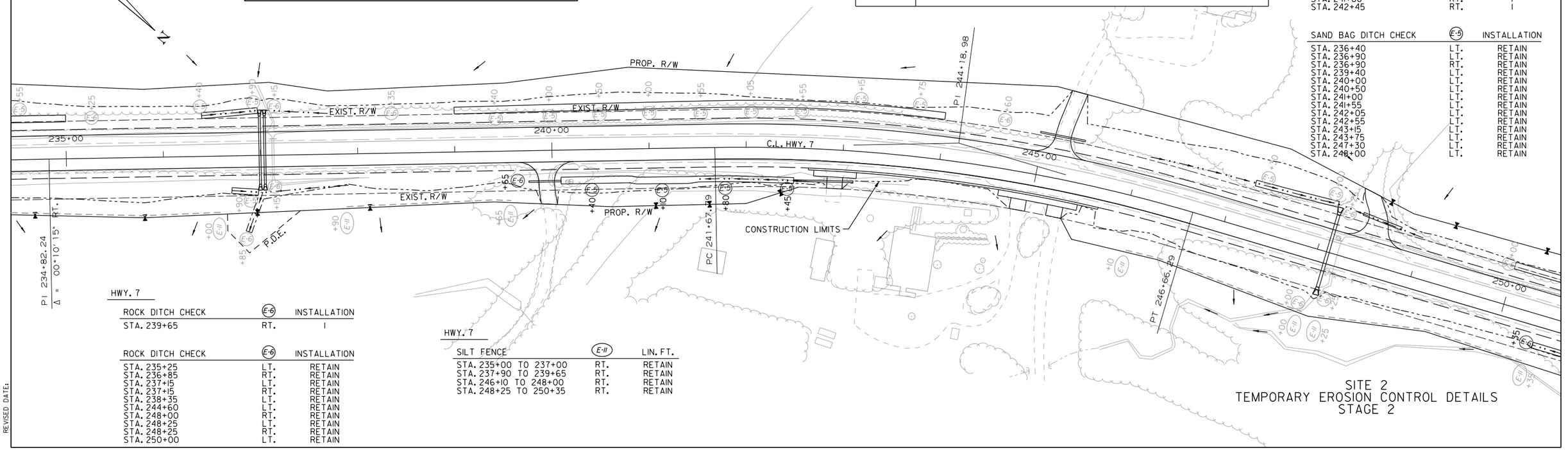
DATE	REVISION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 240+40	RT.	I
STA. 241+10	RT.	I
STA. 241+80	RT.	I
STA. 242+45	RT.	I

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 236+40	LT.	RETAIN
STA. 236+90	LT.	RETAIN
STA. 236+90	RT.	RETAIN
STA. 239+40	LT.	RETAIN
STA. 240+00	LT.	RETAIN
STA. 240+50	LT.	RETAIN
STA. 241+00	LT.	RETAIN
STA. 241+55	LT.	RETAIN
STA. 242+05	LT.	RETAIN
STA. 242+55	LT.	RETAIN
STA. 243+15	LT.	RETAIN
STA. 243+75	LT.	RETAIN
STA. 247+30	LT.	RETAIN
STA. 248+00	LT.	RETAIN



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 239+65	RT.	I

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 235+25	LT.	RETAIN
STA. 236+85	RT.	RETAIN
STA. 237+15	LT.	RETAIN
STA. 237+15	RT.	RETAIN
STA. 238+35	LT.	RETAIN
STA. 244+60	LT.	RETAIN
STA. 248+00	RT.	RETAIN
STA. 248+25	LT.	RETAIN
STA. 248+25	RT.	RETAIN
STA. 250+00	LT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 235+00 TO 237+00	RT.	RETAIN
STA. 237+90 TO 239+65	RT.	RETAIN
STA. 246+10 TO 248+00	RT.	RETAIN
STA. 248+25 TO 250+35	RT.	RETAIN

SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:49 AM
WORKSPACE: AHTD
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REVISED DATE:

HWY. 7

SILT FENCE	E-11	LIN. FT.
STA. 253+90 TO 254+75	LT.	RETAIN

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 250+35	RT.	I
STA. 262+70	RT.	I
STA. 263+40	RT.	I
STA. 264+65	RT.	I

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 253+90	LT.	RETAIN
STA. 254+75	LT.	RETAIN
STA. 259+50	LT.	RETAIN
STA. 260+15	LT.	RETAIN
STA. 261+60	LT.	RETAIN
STA. 263+00	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 250+65	LT.	RETAIN
STA. 251+20	LT.	RETAIN
STA. 251+70	LT.	RETAIN
STA. 252+20	LT.	RETAIN
STA. 253+45	LT.	RETAIN
STA. 255+55	LT.	RETAIN
STA. 256+00	LT.	RETAIN
STA. 256+50	LT.	RETAIN
STA. 257+00	LT.	RETAIN
STA. 257+50	LT.	RETAIN
STA. 258+05	LT.	RETAIN
STA. 258+75	LT.	RETAIN
STA. 260+85	LT.	RETAIN
STA. 262+30	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 251+10	RT.	I
STA. 251+80	RT.	I
STA. 252+35	RT.	I
STA. 253+90	RT.	I
STA. 253+40	RT.	I
STA. 254+90	RT.	I
STA. 254+40	RT.	I
STA. 254+90	RT.	I
STA. 255+45	RT.	I
STA. 256+45	RT.	I
STA. 256+95	RT.	I
STA. 257+35	RT.	I
STA. 258+15	RT.	I
STA. 258+50	RT.	I
STA. 259+50	RT.	I
STA. 260+10	RT.	I
STA. 260+75	RT.	I
STA. 261+40	RT.	I
STA. 262+00	RT.	I

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	59	280

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
Shaun A Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

LEGEND

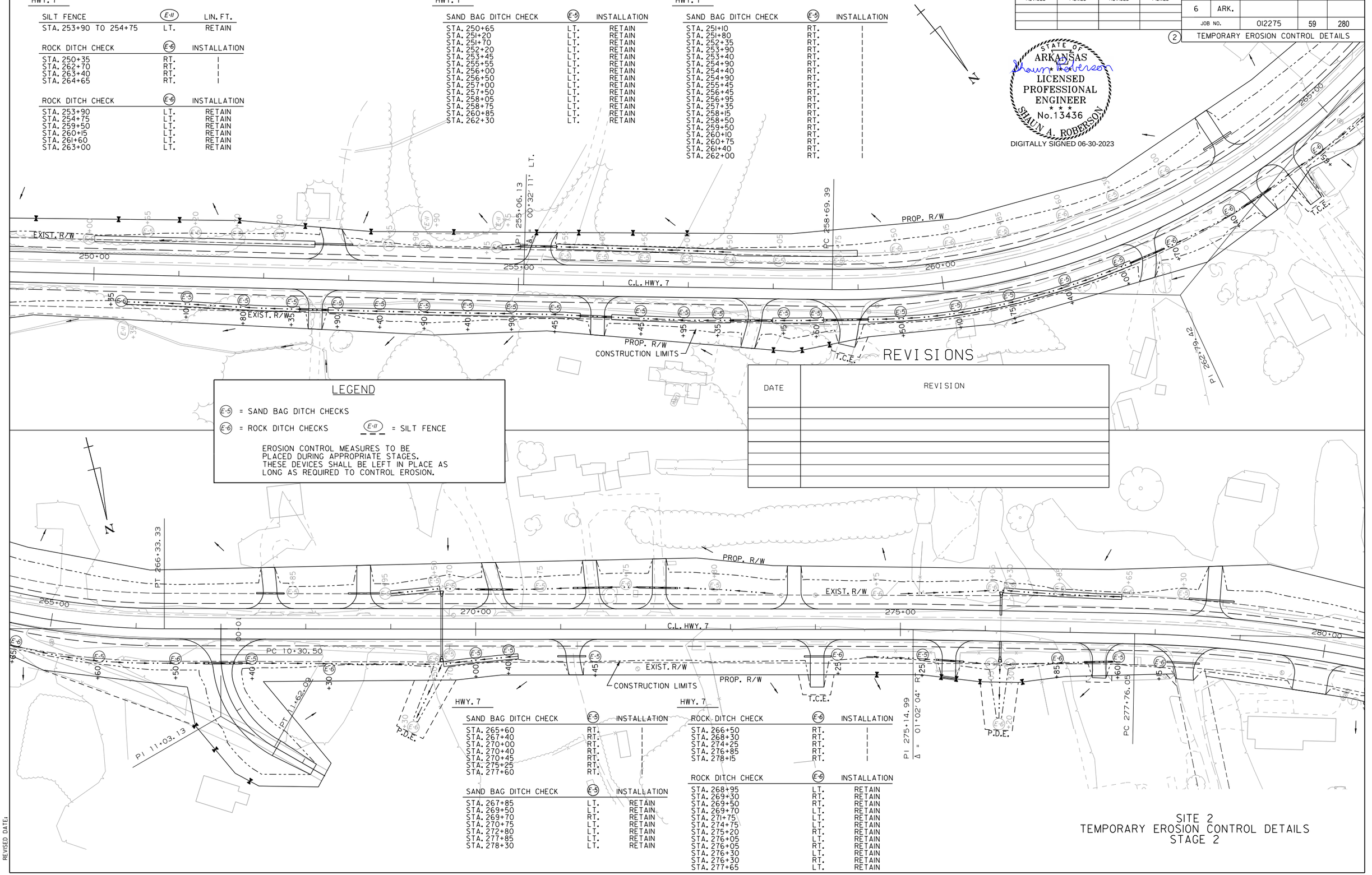
E-5 = SAND BAG DITCH CHECKS

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

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



HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 265+60	RT.	I
STA. 267+40	RT.	I
STA. 270+00	RT.	I
STA. 270+40	RT.	I
STA. 270+45	RT.	I
STA. 275+25	RT.	I
STA. 277+60	RT.	I

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 267+85	LT.	RETAIN
STA. 269+50	LT.	RETAIN
STA. 269+70	RT.	RETAIN
STA. 270+75	LT.	RETAIN
STA. 272+80	LT.	RETAIN
STA. 277+85	LT.	RETAIN
STA. 278+30	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 266+50	RT.	I
STA. 268+30	RT.	I
STA. 274+25	RT.	I
STA. 276+85	RT.	I
STA. 278+15	RT.	I

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 268+95	LT.	RETAIN
STA. 269+30	RT.	RETAIN
STA. 269+50	RT.	RETAIN
STA. 269+70	LT.	RETAIN
STA. 271+75	LT.	RETAIN
STA. 274+75	LT.	RETAIN
STA. 275+20	RT.	RETAIN
STA. 276+05	LT.	RETAIN
STA. 276+05	RT.	RETAIN
STA. 276+30	LT.	RETAIN
STA. 276+30	RT.	RETAIN
STA. 277+65	LT.	RETAIN

SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

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WORKSPACE: AHTD
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REVISED DATE:

HWY. 7

SILT FENCE	E-11	LIN. FT.
STA. 287+90 TO 287+95	LT.	RETAIN
STA. 288+30 TO 289+40	LT.	RETAIN

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 280+60	RT.	I
STA. 282+15	RT.	I
STA. 284+70	RT.	I
STA. 286+90	RT.	I

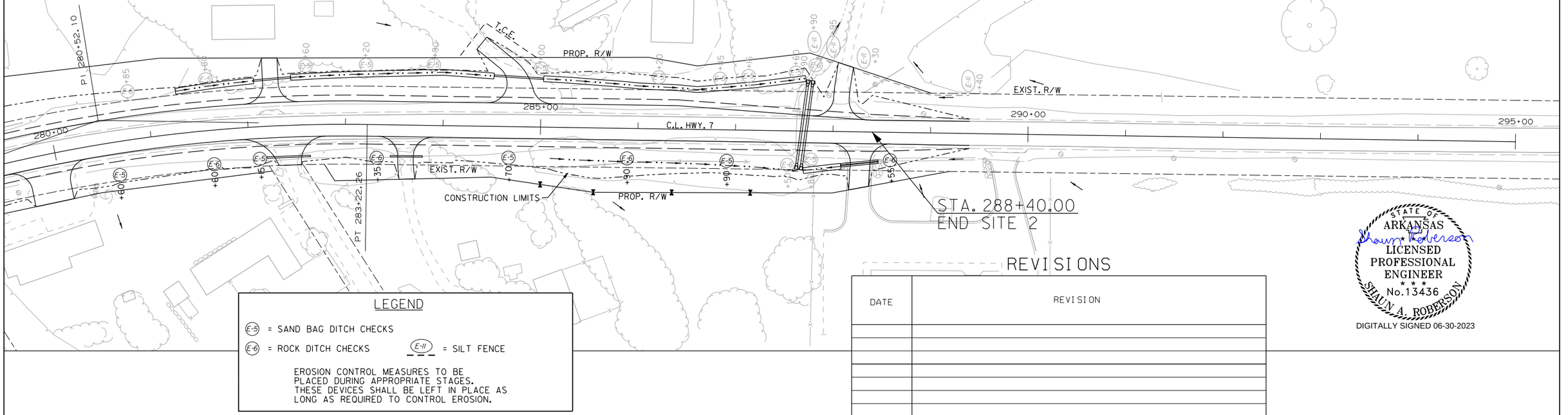
HWY. 7

SAND BAG DITCH CHECK	E-5	INSTALLATION
STA. 281+60	LT.	RETAIN
STA. 282+60	LT.	RETAIN
STA. 283+20	LT.	RETAIN
STA. 283+90	LT.	RETAIN
STA. 285+00	LT.	RETAIN
STA. 286+20	LT.	RETAIN
STA. 286+85	LT.	RETAIN
STA. 287+15	LT.	RETAIN
STA. 287+60	LT.	RETAIN
STA. 287+80	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 281+60	RT.	I
STA. 283+35	RT.	I
STA. 286+90	RT.	I
STA. 288+55	RT.	I

ROCK DITCH CHECK	E-6	INSTALLATION
STA. 280+85	LT.	RETAIN
STA. 287+50	RT.	RETAIN
STA. 287+90	LT.	RETAIN



LEGEND

E-5 = SAND BAG DITCH CHECKS

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

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	60	280

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:50 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	61	280

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

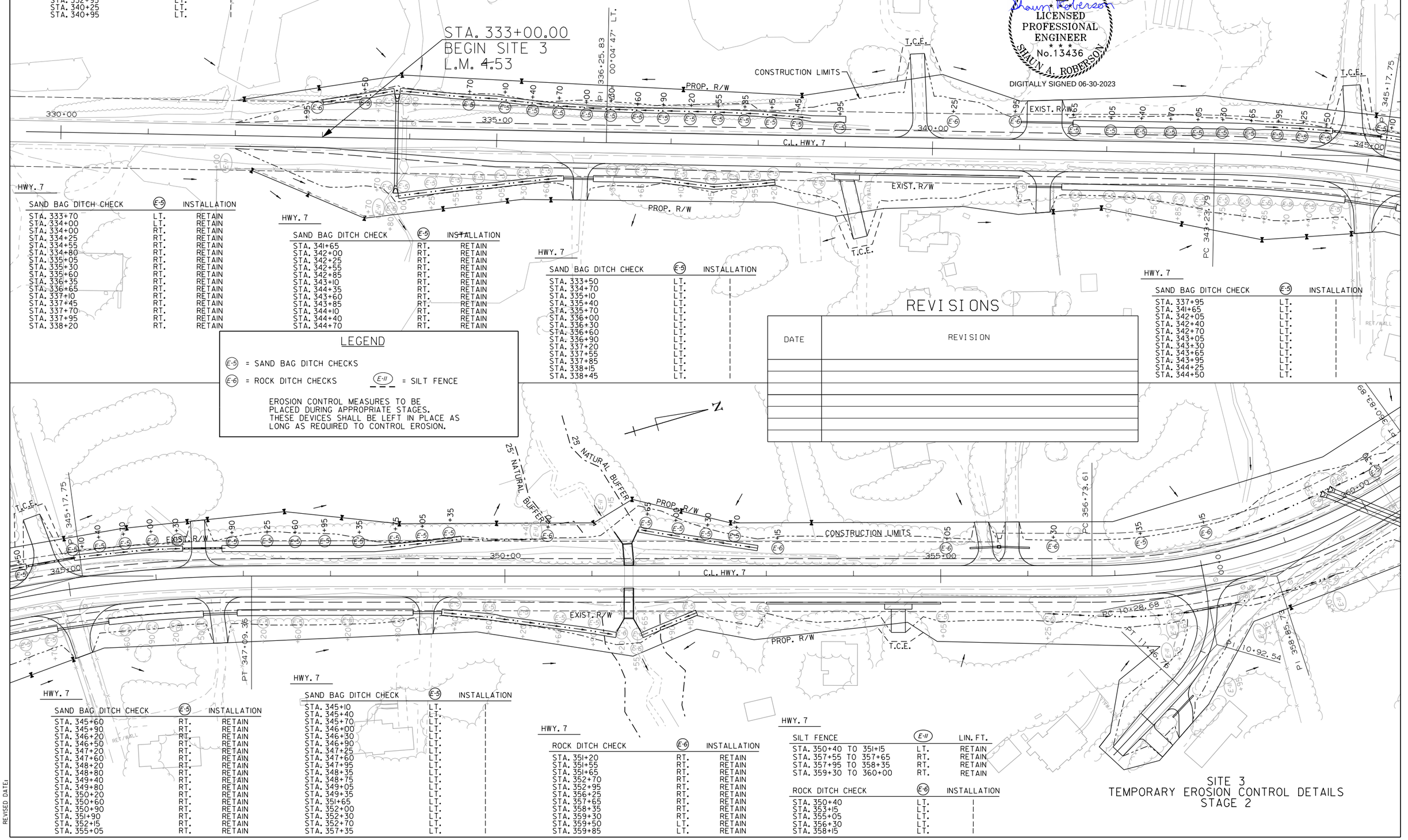
HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 332+00 TO 333+70	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 332+95	LT.	I
STA. 340+25	LT.	I
STA. 340+95	LT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 333+70	RT.	RETAIN
STA. 333+80	RT.	RETAIN
STA. 338+70	RT.	RETAIN
STA. 341+05	RT.	RETAIN



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 333+70	LT.	RETAIN
STA. 334+00	LT.	RETAIN
STA. 334+00	RT.	RETAIN
STA. 334+25	RT.	RETAIN
STA. 334+55	RT.	RETAIN
STA. 334+80	RT.	RETAIN
STA. 335+05	RT.	RETAIN
STA. 335+30	RT.	RETAIN
STA. 335+60	RT.	RETAIN
STA. 336+35	RT.	RETAIN
STA. 336+65	RT.	RETAIN
STA. 337+10	RT.	RETAIN
STA. 337+45	RT.	RETAIN
STA. 337+70	RT.	RETAIN
STA. 337+95	RT.	RETAIN
STA. 338+20	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 341+65	RT.	RETAIN
STA. 342+00	RT.	RETAIN
STA. 342+25	RT.	RETAIN
STA. 342+55	RT.	RETAIN
STA. 342+85	RT.	RETAIN
STA. 343+10	RT.	RETAIN
STA. 343+35	RT.	RETAIN
STA. 343+60	RT.	RETAIN
STA. 343+85	RT.	RETAIN
STA. 344+10	RT.	RETAIN
STA. 344+40	RT.	RETAIN
STA. 344+70	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 333+50	LT.	I
STA. 334+70	LT.	I
STA. 335+10	LT.	I
STA. 335+40	LT.	I
STA. 335+70	LT.	I
STA. 336+00	LT.	I
STA. 336+30	LT.	I
STA. 336+60	LT.	I
STA. 336+90	LT.	I
STA. 337+20	LT.	I
STA. 337+55	LT.	I
STA. 337+85	LT.	I
STA. 338+15	LT.	I
STA. 338+45	LT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 337+95	LT.	I
STA. 341+65	LT.	I
STA. 342+05	LT.	I
STA. 342+40	LT.	I
STA. 342+70	LT.	I
STA. 343+05	LT.	I
STA. 343+30	LT.	I
STA. 343+65	LT.	I
STA. 343+95	LT.	I
STA. 344+25	LT.	I
STA. 344+50	LT.	I

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 345+10	LT.	I
STA. 345+40	LT.	I
STA. 345+70	LT.	I
STA. 346+00	LT.	I
STA. 346+30	LT.	I
STA. 346+90	LT.	I
STA. 347+25	LT.	I
STA. 347+60	LT.	I
STA. 347+95	LT.	I
STA. 348+35	LT.	I
STA. 348+75	LT.	I
STA. 349+05	LT.	I
STA. 349+35	LT.	I
STA. 351+65	LT.	I
STA. 352+00	LT.	I
STA. 352+30	LT.	I
STA. 352+70	LT.	I
STA. 357+35	LT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 345+60	RT.	RETAIN
STA. 345+90	RT.	RETAIN
STA. 346+20	RT.	RETAIN
STA. 346+50	RT.	RETAIN
STA. 347+20	RT.	RETAIN
STA. 347+60	RT.	RETAIN
STA. 348+20	RT.	RETAIN
STA. 348+80	RT.	RETAIN
STA. 349+40	RT.	RETAIN
STA. 349+80	RT.	RETAIN
STA. 350+20	RT.	RETAIN
STA. 350+60	RT.	RETAIN
STA. 350+90	RT.	RETAIN
STA. 351+90	RT.	RETAIN
STA. 352+15	RT.	RETAIN
STA. 355+05	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 351+20	RT.	RETAIN
STA. 351+55	RT.	RETAIN
STA. 351+65	RT.	RETAIN
STA. 352+70	RT.	RETAIN
STA. 352+95	RT.	RETAIN
STA. 356+25	RT.	RETAIN
STA. 357+65	RT.	RETAIN
STA. 358+35	RT.	RETAIN
STA. 359+30	RT.	RETAIN
STA. 359+50	LT.	RETAIN
STA. 359+85	LT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 350+40 TO 351+15	LT.	RETAIN
STA. 357+55 TO 357+65	RT.	RETAIN
STA. 357+95 TO 358+35	RT.	RETAIN
STA. 359+30 TO 360+00	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 350+40	LT.	I
STA. 353+15	LT.	I
STA. 355+05	LT.	I
STA. 356+30	LT.	I
STA. 358+15	LT.	I

SITE 3
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	62	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

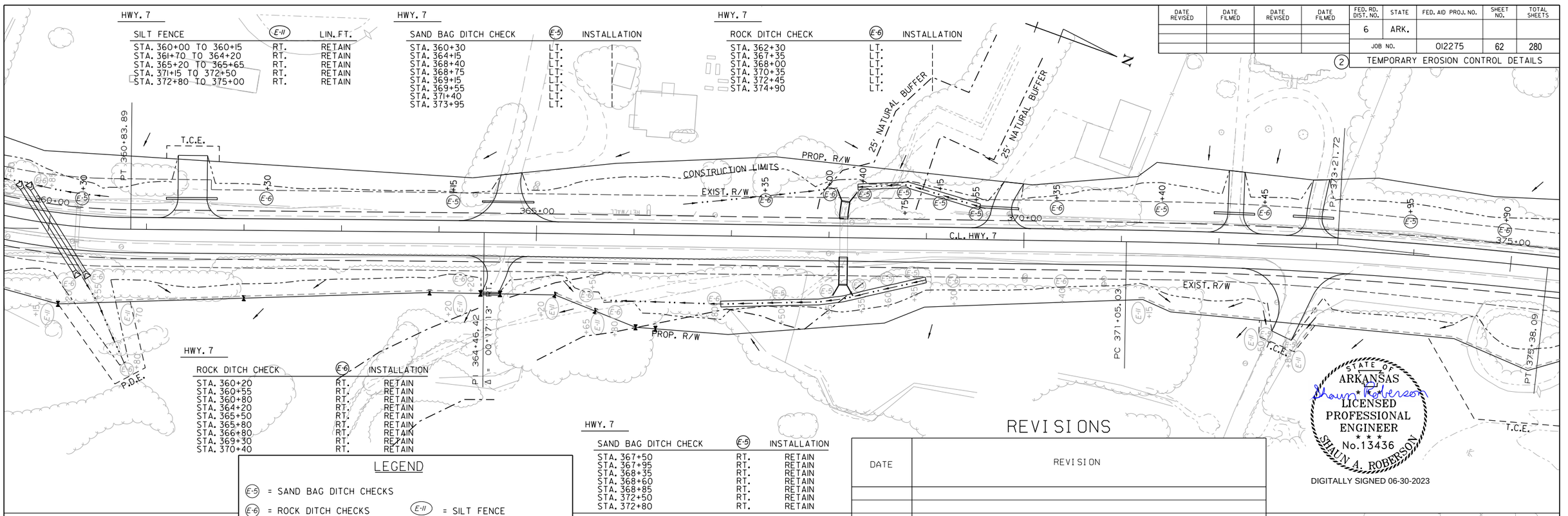
SILT FENCE	(E-11)	LIN. FT.
STA. 360+00 TO 360+15	RT.	RETAIN
STA. 361+70 TO 364+20	RT.	RETAIN
STA. 365+20 TO 365+65	RT.	RETAIN
STA. 371+15 TO 372+50	RT.	RETAIN
STA. 372+80 TO 375+00	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 360+30	LT.	I
STA. 364+15	LT.	I
STA. 368+40	LT.	I
STA. 368+75	LT.	I
STA. 369+15	LT.	I
STA. 369+55	LT.	I
STA. 371+40	LT.	I
STA. 373+95	LT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 362+30	LT.	I
STA. 367+35	LT.	I
STA. 368+00	LT.	I
STA. 370+35	LT.	I
STA. 372+45	LT.	I
STA. 374+90	LT.	I



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 360+20	RT.	RETAIN
STA. 360+55	RT.	RETAIN
STA. 360+80	RT.	RETAIN
STA. 364+20	RT.	RETAIN
STA. 365+50	RT.	RETAIN
STA. 365+80	RT.	RETAIN
STA. 366+80	RT.	RETAIN
STA. 369+30	RT.	RETAIN
STA. 370+40	RT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 367+50	RT.	RETAIN
STA. 367+95	RT.	RETAIN
STA. 368+35	RT.	RETAIN
STA. 368+60	RT.	RETAIN
STA. 368+85	RT.	RETAIN
STA. 372+50	RT.	RETAIN
STA. 372+80	RT.	RETAIN

REVISIONS

DATE	REVISION

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

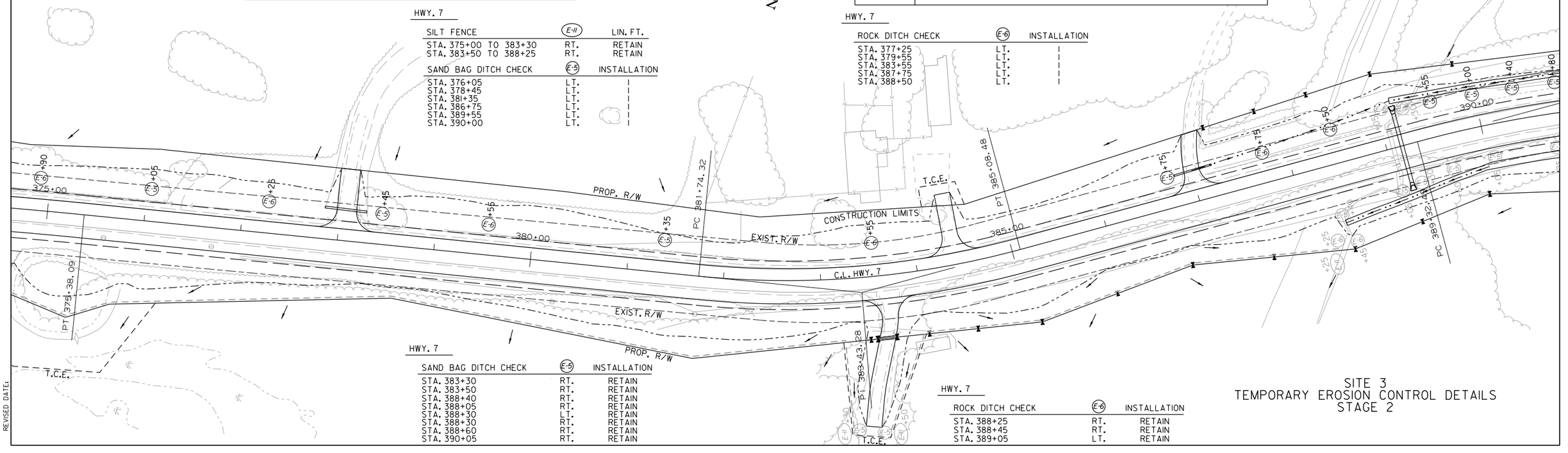
SILT FENCE	(E-11)	LIN. FT.
STA. 375+00 TO 383+30	RT.	RETAIN
STA. 383+50 TO 388+25	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 376+05	LT.	I
STA. 378+45	LT.	I
STA. 381+35	LT.	I
STA. 386+75	LT.	I
STA. 389+55	LT.	I
STA. 390+00	LT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 377+25	LT.	I
STA. 379+55	LT.	I
STA. 383+55	LT.	I
STA. 387+75	LT.	I
STA. 388+50	LT.	I



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 383+30	RT.	RETAIN
STA. 383+50	RT.	RETAIN
STA. 388+40	RT.	RETAIN
STA. 388+05	RT.	RETAIN
STA. 388+30	LT.	RETAIN
STA. 388+30	RT.	RETAIN
STA. 388+60	RT.	RETAIN
STA. 390+05	RT.	RETAIN

HWY. 7

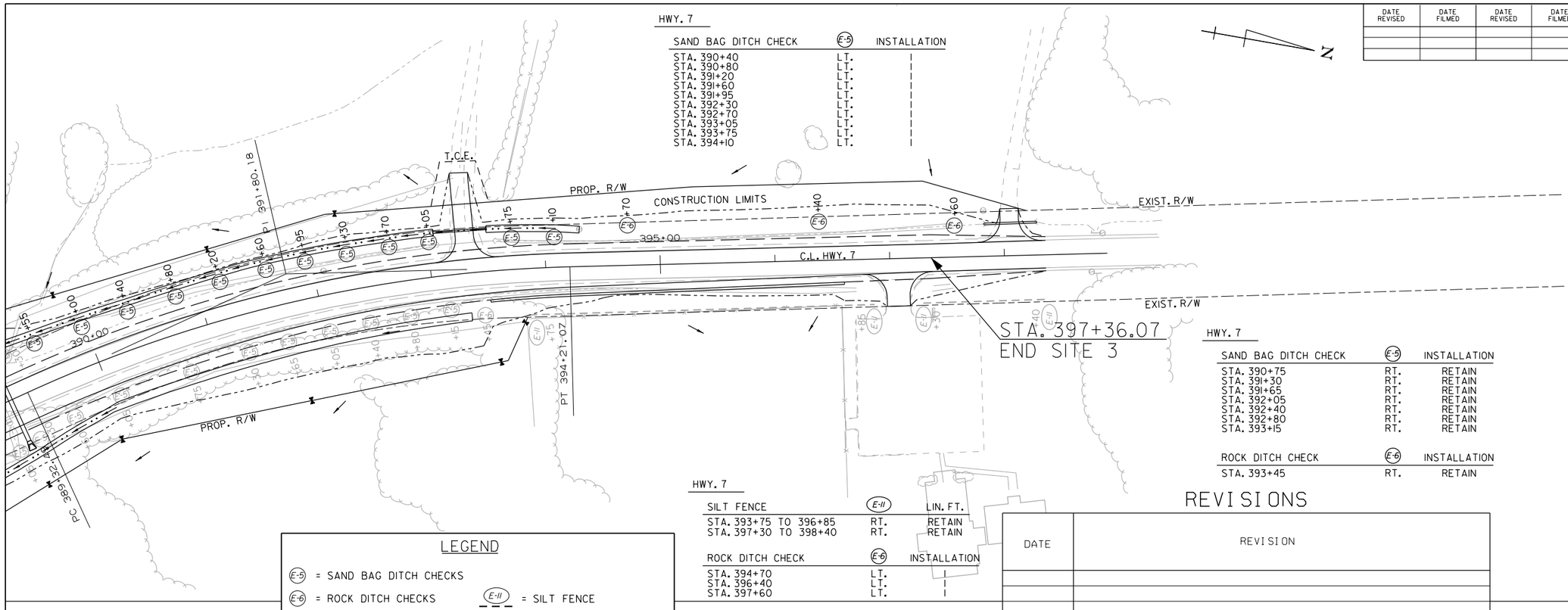
ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 388+25	RT.	RETAIN
STA. 388+45	RT.	RETAIN
STA. 389+05	LT.	RETAIN

SITE 3
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:50 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	63	280

(2) TEMPORARY EROSION CONTROL DETAILS



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 390+40	LT.	I
STA. 390+80	LT.	I
STA. 391+20	LT.	I
STA. 391+60	LT.	I
STA. 391+95	LT.	I
STA. 392+30	LT.	I
STA. 392+70	LT.	I
STA. 393+05	LT.	I
STA. 393+75	LT.	I
STA. 394+10	LT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 390+75	RT.	RETAIN
STA. 391+30	RT.	RETAIN
STA. 391+65	RT.	RETAIN
STA. 392+05	RT.	RETAIN
STA. 392+40	RT.	RETAIN
STA. 392+80	RT.	RETAIN
STA. 393+15	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 393+45	RT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 393+75 TO 396+85	RT.	RETAIN
STA. 397+30 TO 398+40	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 394+70	LT.	I
STA. 396+40	LT.	I
STA. 397+60	LT.	I

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

REVISIONS

DATE	REVISION

SITE 3
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:51 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG2_SITE3_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	64	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 444+60 TO 446+55	LT.	RETAIN
STA. 452+00 TO 455+55	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 443+20	RT.	I
STA. 445+35	RT.	I
STA. 452+50	RT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 451+90	LT.	RETAIN
STA. 451+25	LT.	RETAIN
STA. 451+55	LT.	RETAIN
STA. 451+90	LT.	RETAIN
STA. 452+20	LT.	RETAIN
STA. 452+80	LT.	RETAIN
STA. 453+05	LT.	RETAIN
STA. 453+30	LT.	RETAIN
STA. 453+65	LT.	RETAIN
STA. 454+00	LT.	RETAIN
STA. 454+80	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 442+00	LT.	RETAIN
STA. 447+40	LT.	RETAIN
STA. 447+65	LT.	RETAIN
STA. 448+00	LT.	RETAIN
STA. 448+30	LT.	RETAIN
STA. 448+65	LT.	RETAIN
STA. 449+00	LT.	RETAIN
STA. 449+30	LT.	RETAIN
STA. 449+65	LT.	RETAIN
STA. 450+00	LT.	RETAIN
STA. 450+30	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 443+00	LT.	RETAIN
STA. 454+00	RT.	RETAIN

C.L. SITE 4 TEMPORARY WIDENING I

PROP. R/W

EXIST. R/W

C.L. HWY. 7

CONSTRUCTION LIMITS

PC 440+69.77

PT 443+33.87

PI 442+02.24

T.C.E.

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 442+00	RT.	I
STA. 445+10	RT.	I
STA. 446+65	RT.	I
STA. 447+10	RT.	I
STA. 447+45	RT.	I
STA. 447+80	RT.	I
STA. 448+15	RT.	I
STA. 448+50	RT.	I
STA. 448+85	RT.	I
STA. 449+15	RT.	I
STA. 449+50	RT.	I
STA. 449+85	RT.	I
STA. 450+15	RT.	I
STA. 450+50	RT.	I
STA. 450+75	RT.	I
STA. 451+00	RT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 451+25	RT.	I
STA. 451+50	RT.	I
STA. 451+75	RT.	I
STA. 452+00	RT.	I

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 461+90	LT.	RETAIN
STA. 462+55	LT.	RETAIN
STA. 470+60	LT.	RETAIN
STA. 470+85	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 455+45	RT.	I
STA. 460+00	RT.	I
STA. 460+50	RT.	I
STA. 461+80	RT.	I
STA. 462+45	RT.	I
STA. 463+30	RT.	I
STA. 464+20	RT.	I
STA. 465+10	RT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 455+80 TO 456+15	RT.	RETAIN
STA. 460+00 TO 460+50	RT.	RETAIN
STA. 460+65 TO 461+70	LT. & RT.	RETAIN
STA. 462+45 TO 462+55	RT. & LT.	RETAIN
STA. 462+55 TO 465+10	LT.	RETAIN
STA. 465+15 TO 465+90	LT.	RETAIN
STA. 469+50 TO 470+55	LT.	RETAIN

C.L. SITE 4 TEMPORARY WIDENING I

25' NATURAL BUFFER

PC 459+63.04

PT 463+35.73

PI 461+51.6

PC 466+79.93

PI 469+41.41

EXIST. R/W

PROP. R/W

C.L. HWY. 7

CONSTRUCTION LIMITS

T.C.E.

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 456+05	RT.	I
STA. 456+15	RT.	I
STA. 457+20	RT.	I
STA. 457+80	RT.	I
STA. 458+30	RT.	I
STA. 459+80	RT.	I
STA. 459+20	RT.	I
STA. 466+00	RT.	I
STA. 466+25	RT.	I
STA. 466+50	RT.	I
STA. 467+00	RT.	I
STA. 467+45	RT.	I
STA. 468+95	RT.	I
STA. 468+55	RT.	I
STA. 469+50	RT.	I
STA. 469+90	RT.	I
STA. 470+30	RT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 455+25	LT.	RETAIN
STA. 455+60	LT.	RETAIN
STA. 455+90	LT.	RETAIN
STA. 456+25	LT.	RETAIN
STA. 456+60	LT.	RETAIN
STA. 456+95	LT.	RETAIN
STA. 457+25	LT.	RETAIN
STA. 457+70	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 458+15	LT.	RETAIN
STA. 458+45	LT.	RETAIN
STA. 458+90	LT.	RETAIN
STA. 459+45	LT.	RETAIN
STA. 470+55	RT.	RETAIN
STA. 470+85	RT.	RETAIN

SITE 4 TEMPORARY EROSION CONTROL DETAILS STAGE 2

PJoseph 6/21/2023 10:47:51 AM
WORKSPACE: AHTD
L:\2017\170755 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275.EC.ST02.SITE4.01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	65	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 470+85 TO 471+40	LT.	RETAIN
STA. 473+60 TO 477+10	LT.	RETAIN
STA. 477+60 TO 483+60	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 472+60	RT.	I
STA. 473+30	RT.	I
STA. 473+90	RT.	I
STA. 474+35	RT.	I
STA. 474+80	RT.	I
STA. 475+25	RT.	I

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 472+20	LT.	RETAIN
STA. 473+60	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 475+85	RT.	I
STA. 476+60	RT.	I
STA. 477+10	RT.	I
STA. 478+50	RT.	I
STA. 481+10	RT.	I
STA. 483+35	RT.	I

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 472+85	LT.	RETAIN
STA. 477+10	LT.	RETAIN
STA. 477+50	RT.	RETAIN
STA. 477+60	LT.	RETAIN
STA. 477+80	RT.	RETAIN
STA. 484+90	LT.	RETAIN
STA. 485+10	LT.	RETAIN
STA. 485+60	LT.	RETAIN
STA. 485+65	RT.	RETAIN
STA. 485+85	LT.	RETAIN
STA. 485+95	RT.	RETAIN

25' NATURAL BUFFER

25' NATURAL BUFFER

EXIST. R/W

PROP. R/W

475+00

C.L. HWY. 7

480+00

485+00

CONSTRUCTION LIMITS

PROP. R/W

EXIST. R/W

PT 472+02.80

T.C.E.

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 486+40 TO 491+00	LT.	RETAIN
STA. 491+25 TO 491+40	LT.	RETAIN
STA. 492+25 TO 495+15	LT.	RETAIN
STA. 495+55 TO 500+30	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 487+35	RT.	I
STA. 491+60	RT.	I
STA. 491+90	RT.	I

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 489+20	RT.	I
STA. 492+40	RT.	I
STA. 493+20	RT.	I
STA. 494+10	RT.	I
STA. 499+90	RT.	I

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 491+00	RT.	RETAIN
STA. 491+15	LT.	RETAIN
STA. 491+25	RT.	RETAIN
STA. 495+15	RT.	RETAIN
STA. 495+40	LT.	RETAIN
STA. 495+45	RT.	RETAIN

25' NATURAL BUFFER

25' NATURAL BUFFER

PROP. R/W

CONSTRUCTION LIMITS

EXIST. R/W

PC 494+54.79

PT 496+05.98

PI 496+05.18

485+00

490+00

495+00

500+00

C.L. HWY. 7

C.L. HWY. 7

CONSTRUCTION LIMITS

PROP. R/W

T.C.E.

SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:51 AM
WORKSPACE: AHTD
L:\201\1701\555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG2_SITE4_02.dgn
REVISED DATE:

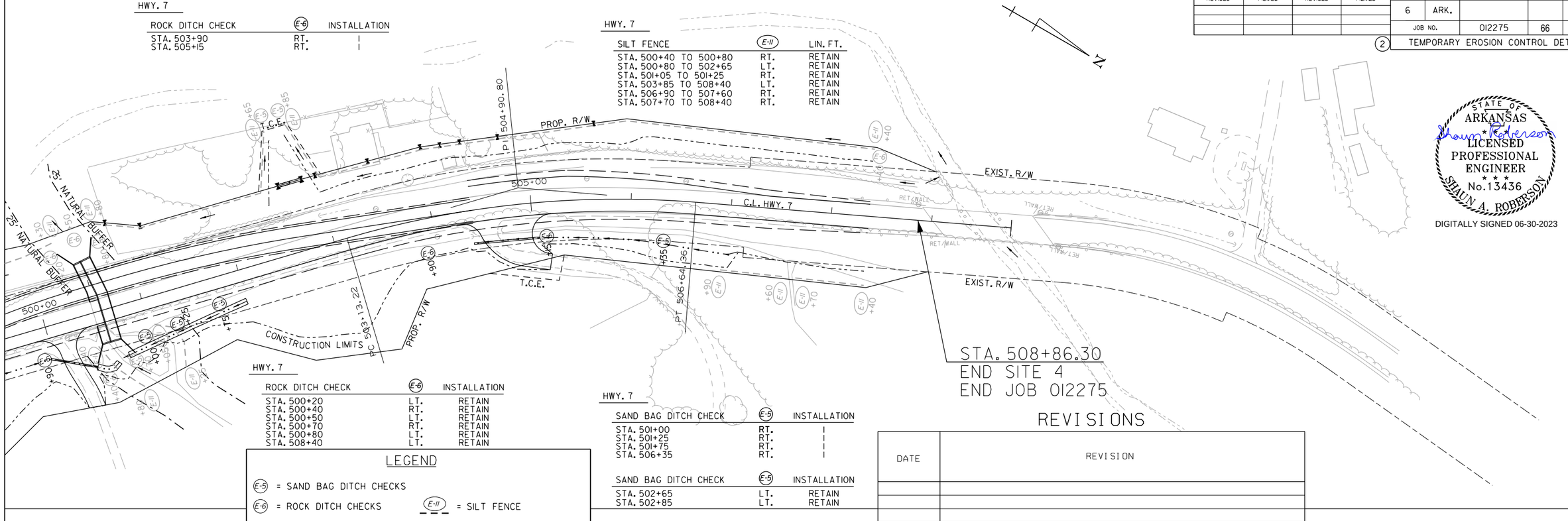
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	66	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 503+90	RT.	I
STA. 505+15	RT.	I

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 500+40 TO 500+80	RT.	RETAIN
STA. 500+80 TO 502+65	LT.	RETAIN
STA. 501+05 TO 501+25	RT.	RETAIN
STA. 503+85 TO 508+40	LT.	RETAIN
STA. 506+90 TO 507+60	RT.	RETAIN
STA. 507+70 TO 508+40	RT.	RETAIN



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 500+20	LT.	RETAIN
STA. 500+40	RT.	RETAIN
STA. 500+50	LT.	RETAIN
STA. 500+70	RT.	RETAIN
STA. 500+80	LT.	RETAIN
STA. 508+40	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 501+00	RT.	I
STA. 501+25	RT.	I
STA. 501+75	RT.	I
STA. 506+35	RT.	I

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 502+65	LT.	RETAIN
STA. 502+85	LT.	RETAIN

STA. 508+86.30
END SITE 4
END JOB 012275

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

REVISIONS

DATE	REVISION

SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:52 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	67	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 113+00	RT.	RETAIN
STA. 113+60	LT.	RETAIN
STA. 113+85	RT.	RETAIN
STA. 117+15	RT.	RETAIN
STA. 119+90	LT.	RETAIN
STA. 119+90	LT.	RETAIN
STA. 120+15	RT.	RETAIN
STA. 122+15	LT.	RETAIN
STA. 122+35	LT.	RETAIN
STA. 122+70	RT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 114+85 TO 117+70	LT.	RETAIN
STA. 117+80 TO 119+90	LT.	RETAIN
STA. 118+80 TO 119+40	RT.	RETAIN
STA. 120+15 TO 122+15	LT.	RETAIN
STA. 120+90 TO 122+15	RT.	RETAIN
STA. 122+70 TO 125+00	LT.	RETAIN
STA. 122+70 TO 125+00	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 112+30	RT.	RETAIN
STA. 113+05	LT.	RETAIN
STA. 113+60	RT.	RETAIN
STA. 113+85	LT.	RETAIN
STA. 115+00	RT.	RETAIN
STA. 119+90	RT.	RETAIN
STA. 120+15	LT.	RETAIN
STA. 120+70	RT.	RETAIN
STA. 122+70	LT.	RETAIN

STA. 113+00.00
BEGIN SITE 1
PROPOSED
ALIGNMENT
L.M. 0.60

25' NATURAL BUFFER
EXIST. R/W
110+00
115+00
120+00
125+00
C.L. HWY. 7
CONSTRUCTION LIMITS
EXIST. R/W
T.C.E.
PROP. R.W
PI 117+76.84
Δ = 00°04'08" RT.

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 125+00 TO 125+40	LT.	RETAIN
STA. 125+00 TO 125+40	RT.	RETAIN
STA. 126+40 TO 133+60	RT.	RETAIN
STA. 126+45 TO 140+00	LT.	RETAIN
STA. 138+45 TO 139+30	RT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 127+00	RT.	1

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 128+25	RT.	1

25' NATURAL BUFFER
P.O.E.
PROP. R/W
PC 126+24.53
PI 129+06.44
PI 131+88.23
EXIST. R/W
125+00
130+00
135+00
140+00
C.L. HWY. 7
CONSTRUCTION LIMITS
EXIST. R/W
T.C.E.
PROP. R/W
PC 139+52.32

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 125+40	RT.	RETAIN
STA. 126+45	LT.	RETAIN
STA. 126+40	RT.	RETAIN
STA. 126+90	LT.	RETAIN
STA. 134+40	RT.	RETAIN
STA. 136+10	RT.	RETAIN
STA. 138+35	RT.	RETAIN

HWY. 7

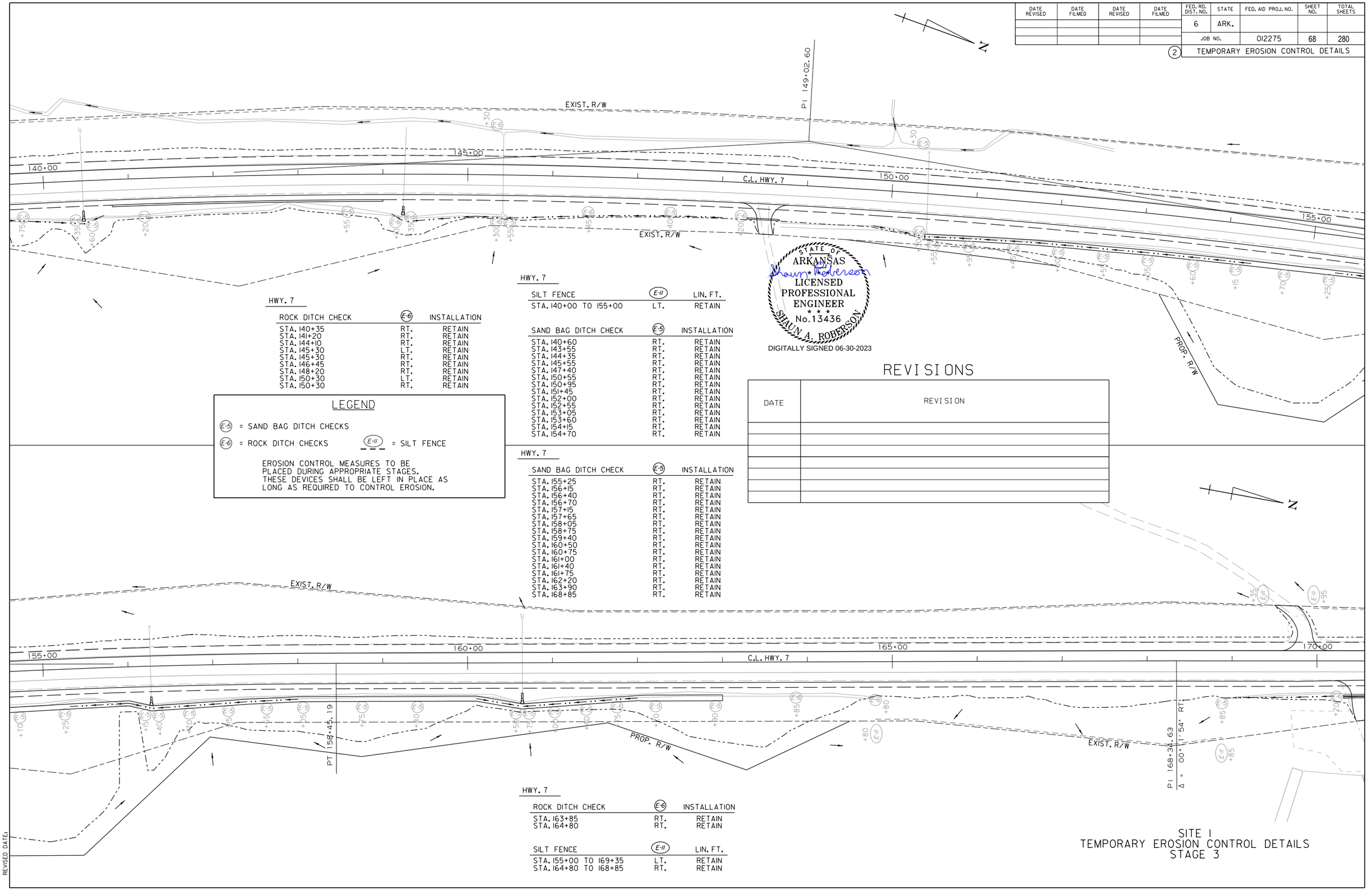
SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 125+40	LT.	RETAIN
STA. 133+60	RT.	RETAIN
STA. 135+15	RT.	RETAIN
STA. 137+15	RT.	RETAIN
STA. 138+55	RT.	RETAIN
STA. 139+00	RT.	RETAIN
STA. 139+75	RT.	RETAIN

SITE 1
TEMPORARY EROSION CONTROL DETAILS
STAGE 3

PJoseph 6/21/2023 10:47:52 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_EC_ST03_SITE1_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	68	280

(2) TEMPORARY EROSION CONTROL DETAILS



HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 140+35	RT.	RETAIN
STA. 141+20	RT.	RETAIN
STA. 144+10	RT.	RETAIN
STA. 145+30	LT.	RETAIN
STA. 145+30	RT.	RETAIN
STA. 146+45	RT.	RETAIN
STA. 148+20	RT.	RETAIN
STA. 150+30	LT.	RETAIN
STA. 150+30	RT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 140+00 TO 155+00	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 140+60	RT.	RETAIN
STA. 143+55	RT.	RETAIN
STA. 144+35	RT.	RETAIN
STA. 145+55	RT.	RETAIN
STA. 147+40	RT.	RETAIN
STA. 150+55	RT.	RETAIN
STA. 150+95	RT.	RETAIN
STA. 151+45	RT.	RETAIN
STA. 152+00	RT.	RETAIN
STA. 152+55	RT.	RETAIN
STA. 153+05	RT.	RETAIN
STA. 153+60	RT.	RETAIN
STA. 154+15	RT.	RETAIN
STA. 154+70	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 155+25	RT.	RETAIN
STA. 156+15	RT.	RETAIN
STA. 156+40	RT.	RETAIN
STA. 156+70	RT.	RETAIN
STA. 157+15	RT.	RETAIN
STA. 157+65	RT.	RETAIN
STA. 158+05	RT.	RETAIN
STA. 158+75	RT.	RETAIN
STA. 159+40	RT.	RETAIN
STA. 160+50	RT.	RETAIN
STA. 160+75	RT.	RETAIN
STA. 161+00	RT.	RETAIN
STA. 161+40	RT.	RETAIN
STA. 161+75	RT.	RETAIN
STA. 162+20	RT.	RETAIN
STA. 163+90	RT.	RETAIN
STA. 168+85	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 163+85	RT.	RETAIN
STA. 164+80	RT.	RETAIN

SILT FENCE	(E-11)	LIN. FT.
STA. 155+00 TO 169+35	LT.	RETAIN
STA. 164+80 TO 168+85	RT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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

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
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

REVISIONS

DATE	REVISION

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE 3

PJoseph 6/21/2023 10:47:52 AM
WORKSPACE: AHTD
L:\201\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG3_SITE1_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	69	280
				(2)	TEMPORARY EROSION CONTROL DETAILS			

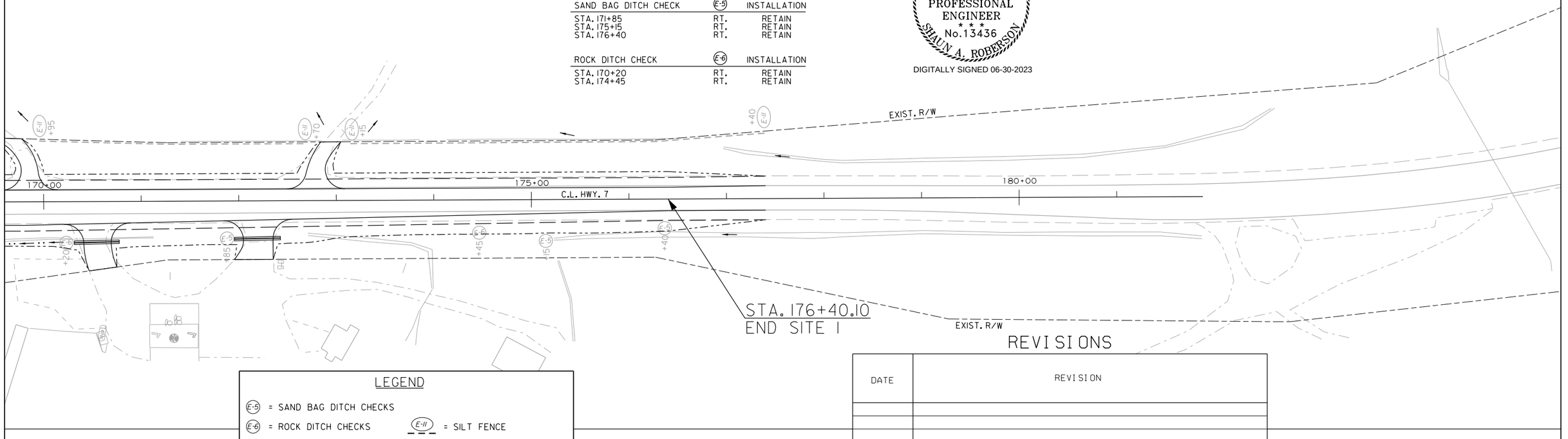
HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 169+95 TO 172+70	LT.	RETAIN
STA. 173+15 TO 177+40	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 171+85	RT.	RETAIN
STA. 175+15	RT.	RETAIN
STA. 176+40	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 170+20	RT.	RETAIN
STA. 174+45	RT.	RETAIN

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE 3

Pjoseph 6/21/2023 10:47:53 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_STG3_SITE1_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	70	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 444+60 TO 446+55	LT.	RETAIN
STA. 452+00 TO 455+55	RT.	RETAIN

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 443+00	LT.	RETAIN
STA. 443+20	RT.	RETAIN
STA. 445+35	RT.	RETAIN
STA. 452+50	RT.	RETAIN
STA. 454+00	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 442+00	LT.	RETAIN
STA. 447+40	LT.	RETAIN
STA. 447+65	LT.	RETAIN
STA. 448+00	LT.	RETAIN
STA. 448+30	LT.	RETAIN
STA. 448+80	LT.	RETAIN
STA. 448+65	LT.	RETAIN
STA. 449+00	LT.	RETAIN
STA. 449+30	LT.	RETAIN
STA. 449+65	LT.	RETAIN
STA. 450+00	LT.	RETAIN
STA. 450+30	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 451+90	LT.	RETAIN
STA. 451+25	LT.	RETAIN
STA. 451+55	LT.	RETAIN
STA. 451+90	LT.	RETAIN
STA. 452+20	LT.	RETAIN
STA. 452+80	LT.	RETAIN
STA. 453+05	LT.	RETAIN
STA. 453+30	LT.	RETAIN
STA. 453+65	LT.	RETAIN
STA. 454+00	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 454+80	LT.	
STA. 455+15	LT.	
STA. 455+50	LT.	
STA. 455+80	LT.	

PC 440+69.77

PT 443+33.87

PI 442+02.24

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

EXIST. R/W

PROP. R/W

CONSTRUCTION LIMITS

C.L. HWY. 7

T.C.E.

445+00

450+00

455+00

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 442+00	RT.	RETAIN
STA. 446+10	RT.	RETAIN
STA. 446+65	RT.	RETAIN
STA. 447+10	RT.	RETAIN
STA. 447+45	RT.	RETAIN
STA. 447+80	RT.	RETAIN
STA. 448+15	RT.	RETAIN
STA. 448+50	RT.	RETAIN
STA. 448+85	RT.	RETAIN
STA. 449+15	RT.	RETAIN
STA. 449+50	RT.	RETAIN
STA. 449+85	RT.	RETAIN
STA. 450+15	RT.	RETAIN
STA. 450+50	RT.	RETAIN
STA. 450+75	RT.	RETAIN
STA. 451+00	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 451+25	RT.	RETAIN
STA. 451+50	RT.	RETAIN
STA. 451+75	RT.	RETAIN
STA. 452+00	RT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 456+05	RT.	RETAIN
STA. 456+75	RT.	RETAIN
STA. 457+20	RT.	RETAIN
STA. 457+80	RT.	RETAIN
STA. 458+30	RT.	RETAIN
STA. 459+80	RT.	RETAIN
STA. 459+20	RT.	RETAIN
STA. 466+00	RT.	RETAIN
STA. 466+25	RT.	RETAIN
STA. 466+50	RT.	RETAIN
STA. 467+00	RT.	RETAIN
STA. 467+45	RT.	RETAIN
STA. 468+95	RT.	RETAIN
STA. 468+55	RT.	RETAIN
STA. 469+50	RT.	RETAIN
STA. 469+90	RT.	RETAIN
STA. 470+30	RT.	RETAIN
STA. 470+55	RT.	RETAIN
STA. 470+85	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 459+70	LT.	
STA. 461+15	LT.	
STA. 461+85	LT.	
STA. 462+50	LT.	
STA. 465+90	LT.	

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 455+45	RT.	RETAIN
STA. 460+00	RT.	RETAIN
STA. 460+50	RT.	RETAIN
STA. 461+80	RT.	RETAIN
STA. 462+45	RT.	RETAIN
STA. 463+30	RT.	RETAIN
STA. 464+20	RT.	RETAIN
STA. 465+10	RT.	RETAIN
STA. 470+60	LT.	RETAIN
STA. 470+85	LT.	RETAIN

CONSTRUCTION LIMITS

PROP. R/W

EXIST. R/W

T.C.E.

455+00

460+00

465+00

470+00

PC 459+63.04

PT 463+35.73

PI 461+51.6

PC 466+79.93

PI 469+41.41

25' NATURAL BUFFER

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 455+80 TO 456+15	RT.	RETAIN
STA. 460+00 TO 460+50	RT.	RETAIN
STA. 460+65 TO 461+85	LT.	RETAIN
STA. 462+55 TO 462+55	LT.	RETAIN
STA. 462+55 TO 465+10	LT.	RETAIN
STA. 465+15 TO 465+90	LT.	RETAIN
STA. 469+50 TO 470+55	LT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 456+15	LT.	
STA. 456+50	LT.	
STA. 456+90	LT.	
STA. 457+30	LT.	
STA. 457+75	LT.	
STA. 458+30	LT.	

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 458+90	LT.	
STA. 460+45	LT.	
STA. 466+55	LT.	
STA. 467+15	LT.	
STA. 467+75	LT.	
STA. 468+30	LT.	

SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE 3

Pjoseph
6/21/2023 10:47:53 AM
WORKSPACE: AHTD
L:\20IT\170I7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_EC_ST03_SITE4_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	71	280

(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

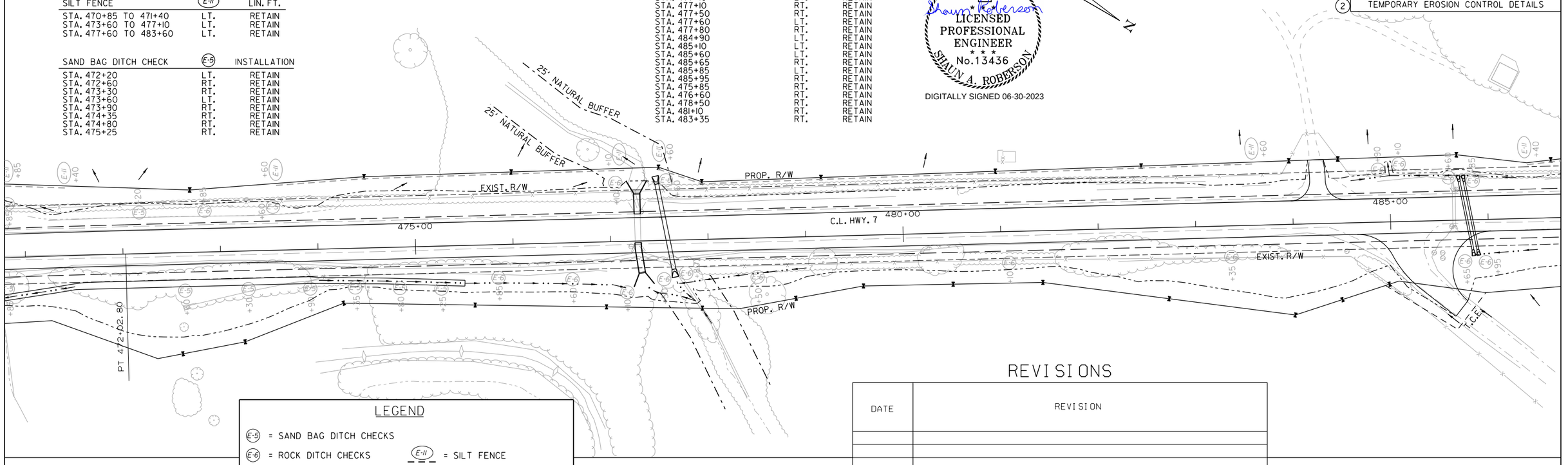
SILT FENCE	(E-11)	LIN. FT.
STA. 470+85 TO 471+40	LT.	RETAIN
STA. 473+60 TO 477+10	LT.	RETAIN
STA. 477+60 TO 483+60	LT.	RETAIN

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 472+20	LT.	RETAIN
STA. 472+60	RT.	RETAIN
STA. 473+30	RT.	RETAIN
STA. 473+60	LT.	RETAIN
STA. 473+90	RT.	RETAIN
STA. 474+35	RT.	RETAIN
STA. 474+80	RT.	RETAIN
STA. 475+25	RT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 472+85	LT.	RETAIN
STA. 477+10	LT.	RETAIN
STA. 477+10	RT.	RETAIN
STA. 477+50	RT.	RETAIN
STA. 477+60	LT.	RETAIN
STA. 477+80	RT.	RETAIN
STA. 484+90	LT.	RETAIN
STA. 485+10	LT.	RETAIN
STA. 485+60	LT.	RETAIN
STA. 485+65	RT.	RETAIN
STA. 485+85	LT.	RETAIN
STA. 485+95	RT.	RETAIN
STA. 475+85	RT.	RETAIN
STA. 476+60	RT.	RETAIN
STA. 478+50	RT.	RETAIN
STA. 481+10	RT.	RETAIN
STA. 483+35	RT.	RETAIN

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



LEGEND

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

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

HWY. 7

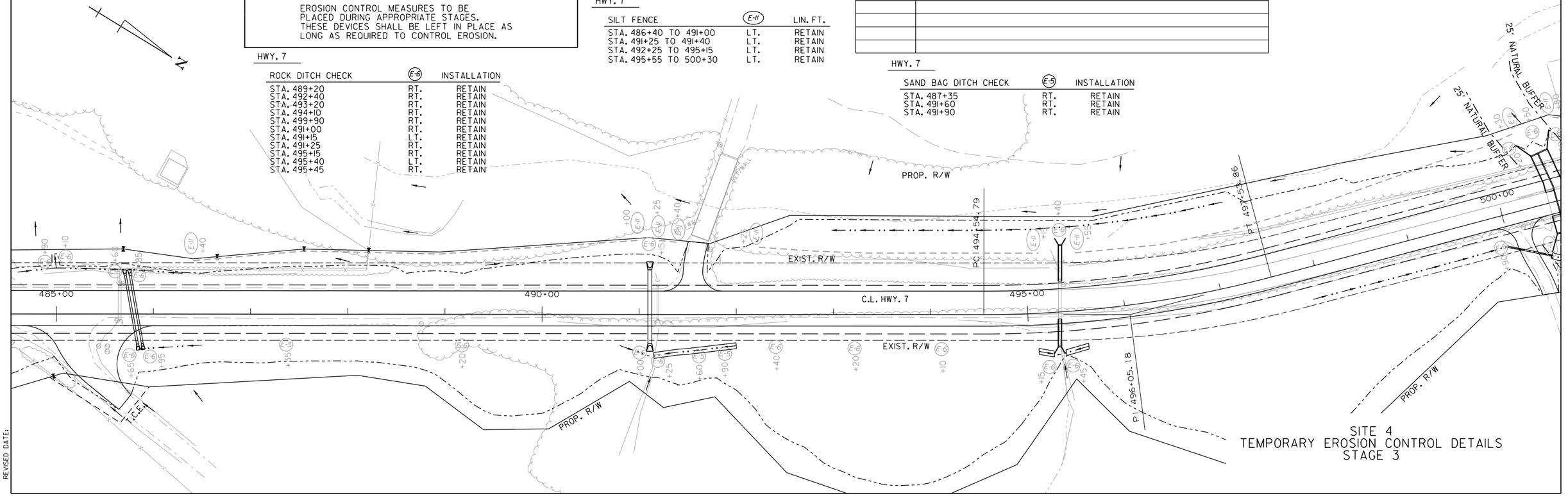
SILT FENCE	(E-11)	LIN. FT.
STA. 486+40 TO 491+00	LT.	RETAIN
STA. 491+25 TO 491+40	LT.	RETAIN
STA. 492+25 TO 495+15	LT.	RETAIN
STA. 495+55 TO 500+30	LT.	RETAIN

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 489+20	RT.	RETAIN
STA. 492+40	RT.	RETAIN
STA. 493+20	RT.	RETAIN
STA. 494+10	RT.	RETAIN
STA. 499+90	RT.	RETAIN
STA. 491+00	RT.	RETAIN
STA. 491+15	LT.	RETAIN
STA. 491+25	RT.	RETAIN
STA. 495+15	RT.	RETAIN
STA. 495+40	LT.	RETAIN
STA. 495+45	RT.	RETAIN

HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 487+35	RT.	RETAIN
STA. 491+60	RT.	RETAIN
STA. 491+90	RT.	RETAIN



SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE 3

PJoseph 6/21/2023 10:47:54 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	72	280

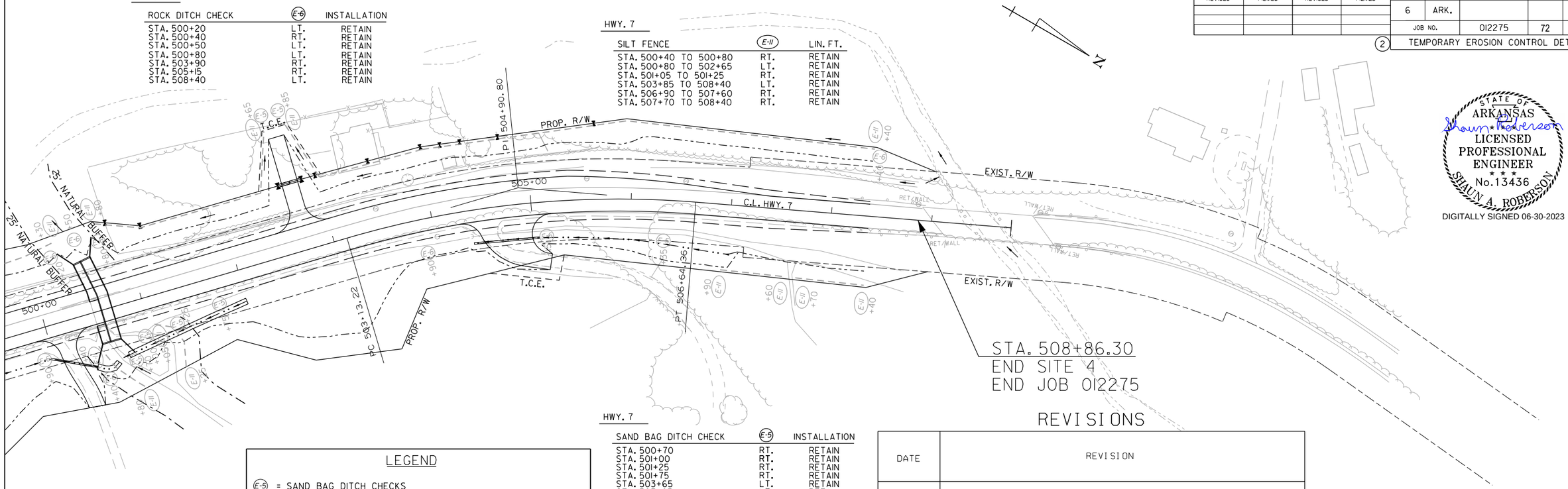
(2) TEMPORARY EROSION CONTROL DETAILS

HWY. 7

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 500+20	LT.	RETAIN
STA. 500+40	RT.	RETAIN
STA. 500+50	LT.	RETAIN
STA. 500+80	LT.	RETAIN
STA. 503+90	RT.	RETAIN
STA. 505+15	RT.	RETAIN
STA. 508+40	LT.	RETAIN

HWY. 7

SILT FENCE	(E-11)	LIN. FT.
STA. 500+40 TO 500+80	RT.	RETAIN
STA. 500+80 TO 502+65	LT.	RETAIN
STA. 501+05 TO 501+25	RT.	RETAIN
STA. 503+85 TO 508+40	LT.	RETAIN
STA. 506+90 TO 507+60	RT.	RETAIN
STA. 507+70 TO 508+40	RT.	RETAIN



HWY. 7

SAND BAG DITCH CHECK	(E-5)	INSTALLATION
STA. 500+70	RT.	RETAIN
STA. 501+00	RT.	RETAIN
STA. 501+25	RT.	RETAIN
STA. 501+75	RT.	RETAIN
STA. 503+65	LT.	RETAIN
STA. 503+85	LT.	RETAIN
STA. 506+35	RT.	RETAIN

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

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

STATE OF ARKANSAS
Shaun Robberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBBERSON
DIGITALLY SIGNED 06-30-2023

SITE 4
TEMPORARY EROSION CONTROL DETAILS
STAGE 3

Pjoseph 6/21/2023 10:47:54 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	73	280

(2) MAINTENANCE OF TRAFFIC DETAILS

SEE STANDARD DRAWING TC-2 (FIGURE E) FOR MAINTENANCE OF TRAFFIC FOR THE MILL AND OVERLAY SECTION AS SHOWN PER THE LOG MILES IN THE TYPICAL SECTIONS.

THE MILL AND OVERLAY SEGMENT OUTSIDE OF THE WIDENING SECTION IS ASSUMED TO OCCUR IN STAGE 3 ONCE ALL OTHER MAJOR CONSTRUCTION HAS BEEN FINALIZED AND THE FINAL SURFACE COURSE HAS BEEN PLACED.

QUANTITY FOR TRAFFIC DRUMS FOR THIS OPERATION PROVIDE FOR A 0.5 MILE WORK AREA.

TRAFFIC DRUMS = 60 EACH

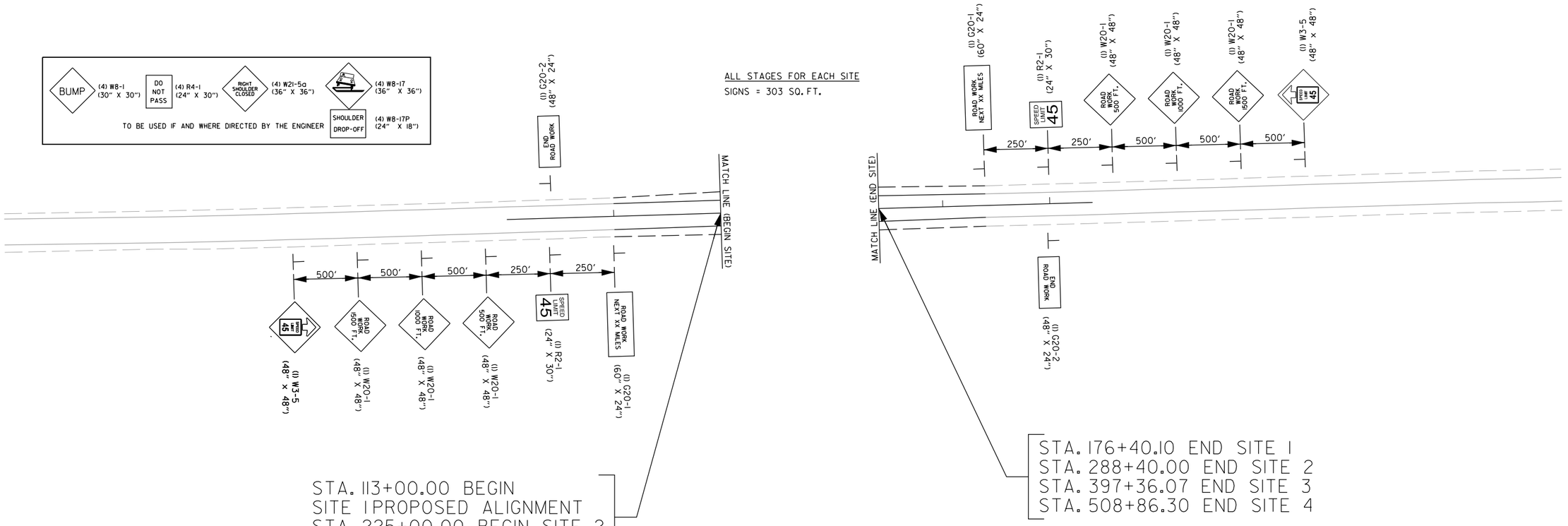
MILL AND OVERLAY SECTION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

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ALL STAGES FOR EACH SITE

SIGNS = 303 SQ. FT.



ADVANCE WARNING SIGNS - ALL STAGES

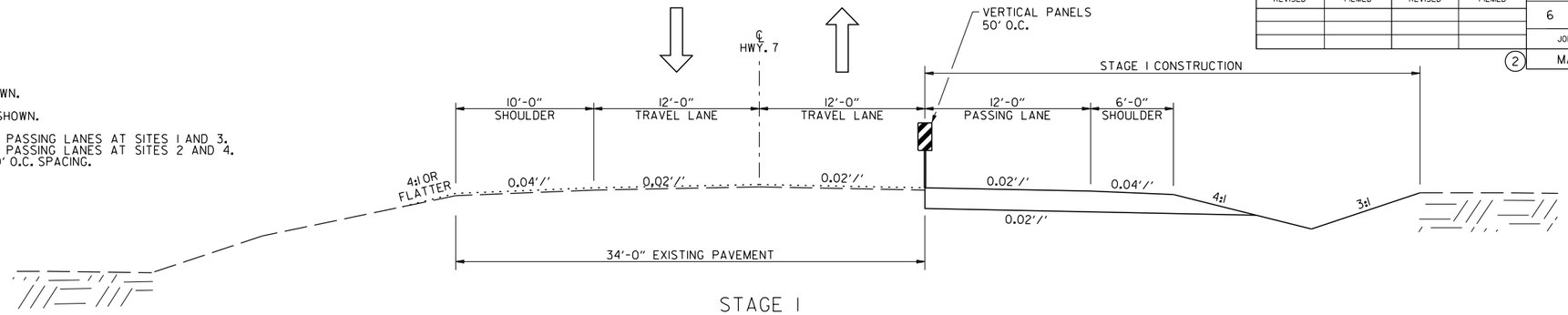
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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	74	280

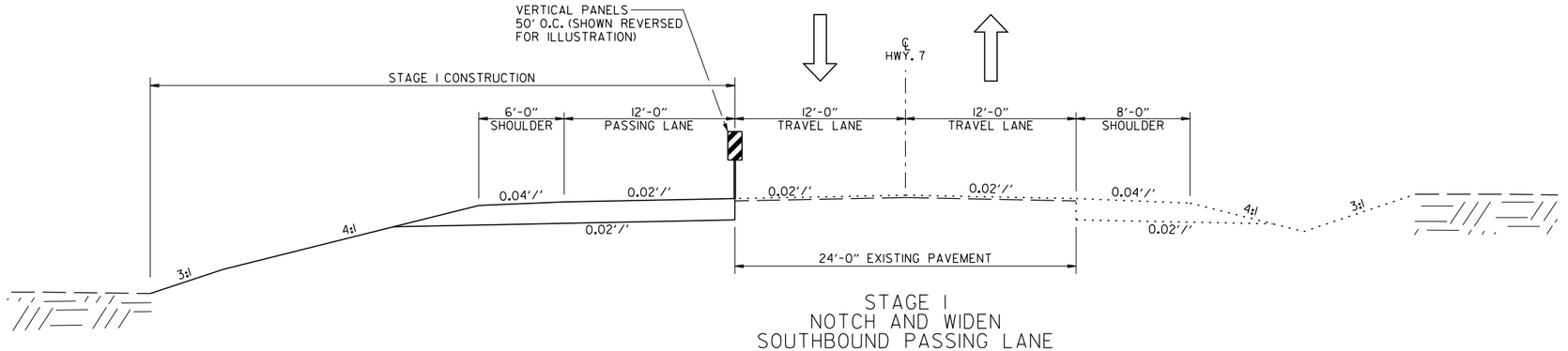
(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE I CONSTRUCTION SEQUENCE NOTES

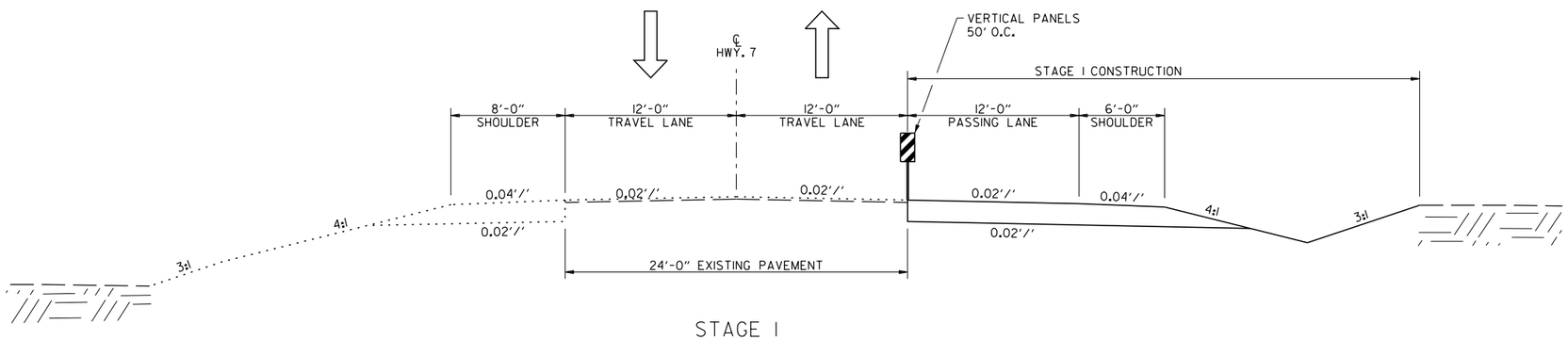
1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN. PERFORM LEVELING OPERATIONS AS APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN.
4. NOTCH AND WIDEN ON RT. FOR THE NORTHBOUND PASSING LANES AT SITES 1 AND 3. NOTCH AND WIDEN ON LT. FOR THE SOUTHBOUND PASSING LANES AT SITES 2 AND 4. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.



STAGE I
NOTCH AND WIDEN
NORTHBOUND PASSING LANE
SITE 1



STAGE I
NOTCH AND WIDEN
SOUTHBOUND PASSING LANE
SITE 2 & 4



STAGE I
NOTCH AND WIDEN
NORTHBOUND PASSING LANE
SITE 3

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

MAINTENANCE OF TRAFFIC DETAILS
STAGE I

P.Joseph 6/21/2023 10:47:54 AM
WORKSPACE: AHTD
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REVISED DATE:

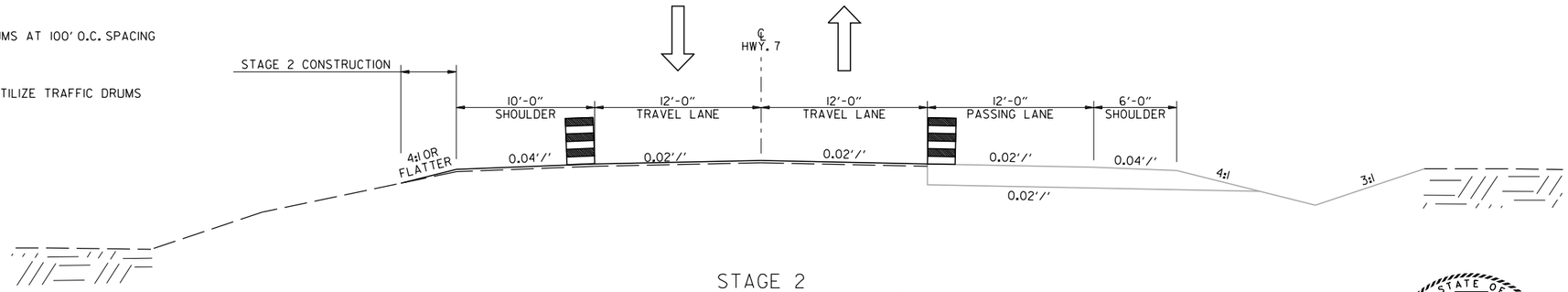
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	75	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

STAGE 2
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.

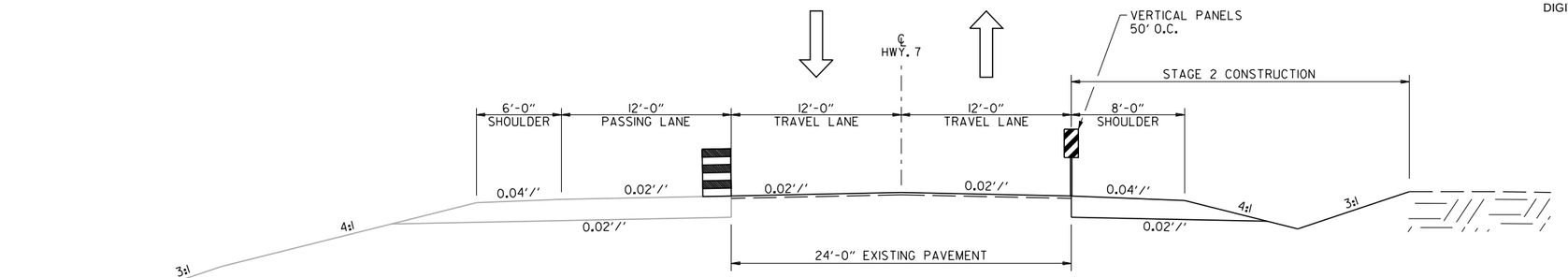
   CONSTRUCT THE LT. FORESLOPE AT SITE 1. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LT. AND RT. EDGE OF LANE.

   NOTCH AND WIDEN ON RT. AT SITES 2 AND 4.
   NOTCH AND WIDEN ON LT. AT SITE 3.
   UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LANE EDGE PREVIOUSLY WIDENED.
4. PLACE FINAL SURFACE COURSE AND FINAL STRIPING.

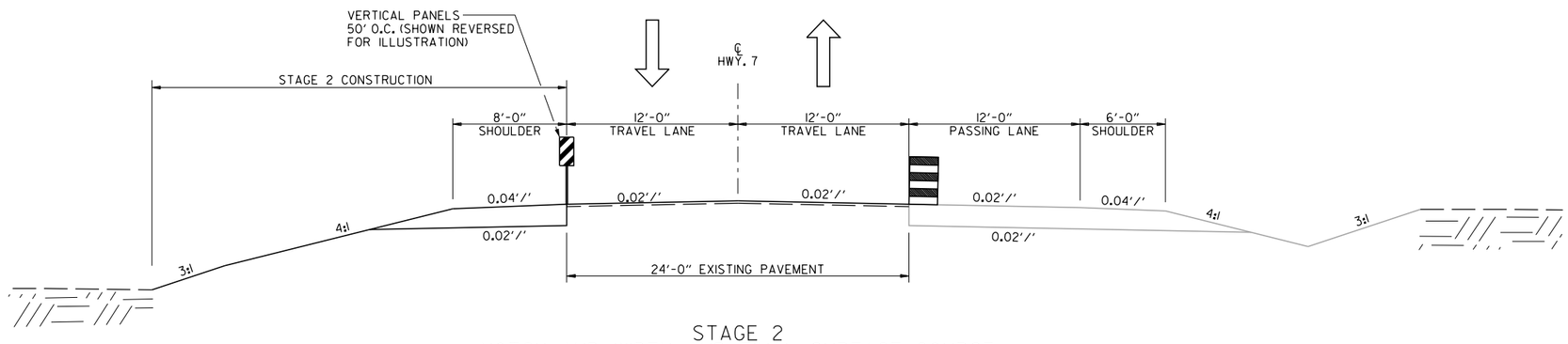


STAGE 2
LT. FORESLOPE CONSTRUCTION AND FINAL SURFACE COURSE
NORTHBOUND PASSING LANE
SITE 1

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
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STAGE 2
NOTCH AND WIDEN AND FINAL SURFACE COURSE
SOUTHBOUND PASSING LANE
SITE 2 & 4



STAGE 2
NOTCH AND WIDEN AND FINAL SURFACE COURSE
NORTHBOUND PASSING LANE
SITE 3

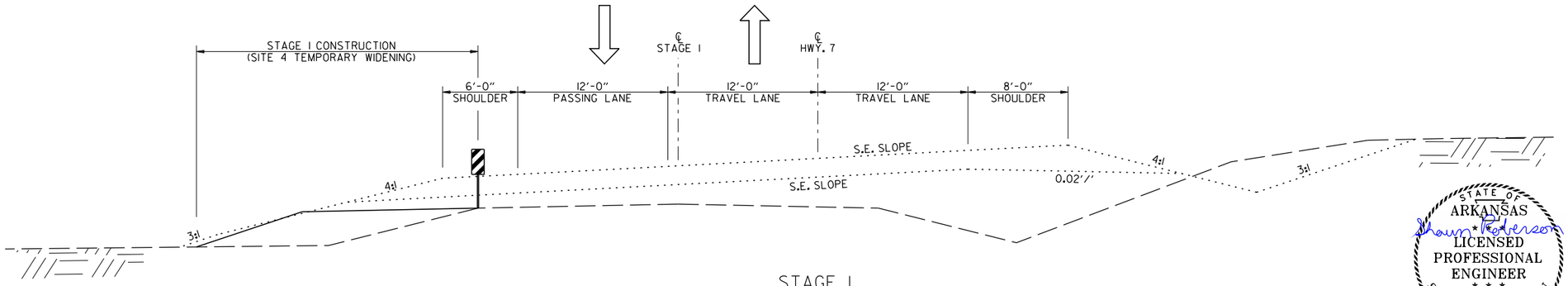
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

Pjoseph 6/21/2023 10:47:54 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	76	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

STAGE 1- SITE 4 BRIDGE REPLACEMENT
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. NOTCH AND CONSTRUCT SITE 4 TEMPORARY WIDENING ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C.

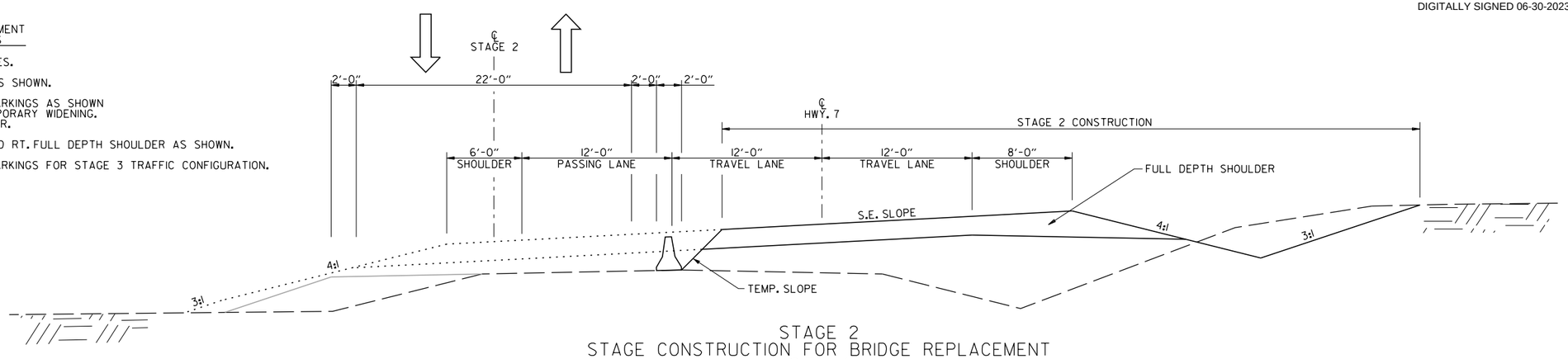


STAGE 1
TEMPORARY WIDENING FOR BRIDGE REPLACEMENT
SITE 4

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

STAGE 2 - SITE 4 BRIDGE REPLACEMENT
CONSTRUCTION SEQUENCE NOTES

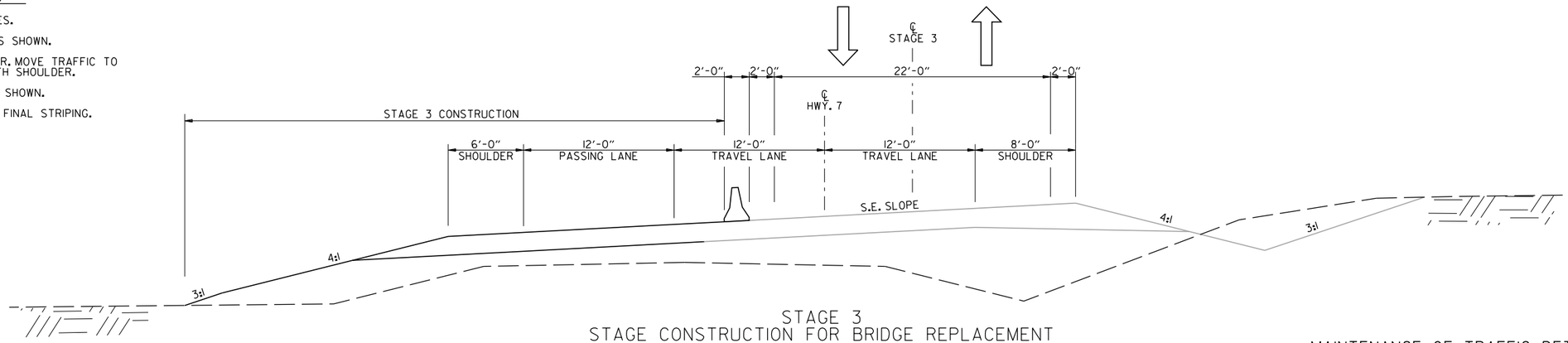
1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN AND MOVE TRAFFIC TO SITE 4 TEMPORARY WIDENING. INSTALL PRECAST CONCRETE BARRIER.
4. CONSTRUCT NORTHBOUND LANES AND RT. FULL DEPTH SHOULDER AS SHOWN.
5. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR STAGE 3 TRAFFIC CONFIGURATION.



STAGE 2
STAGE CONSTRUCTION FOR BRIDGE REPLACEMENT
SITE 4

STAGE 3 - SITE 4 BRIDGE REPLACEMENT
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. INSTALL PRECAST CONCRETE BARRIER. MOVE TRAFFIC TO NORTHBOUND LANES AND FULL DEPTH SHOULDER.
4. CONSTRUCT SOUTHBOUND LANES AS SHOWN.
5. PLACE FINAL SURFACE COURSE AND FINAL STRIPING.



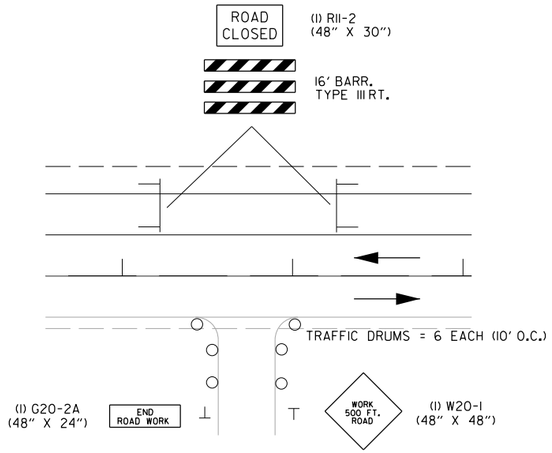
STAGE 3
STAGE CONSTRUCTION FOR BRIDGE REPLACEMENT
SITE 4

MAINTENANCE OF TRAFFIC DETAILS
BRIDGE REPLACEMENT
SITE 4

PJoseph 6/21/2023 10:47:54 AM
WORKSPACE: AHTD
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REVISED DATE:

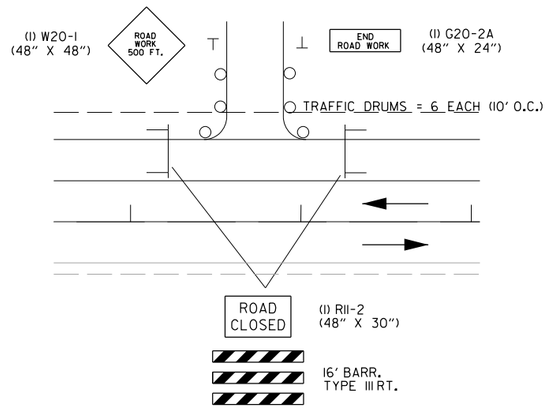
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	77	280

(2) MAINTENANCE OF TRAFFIC DETAILS



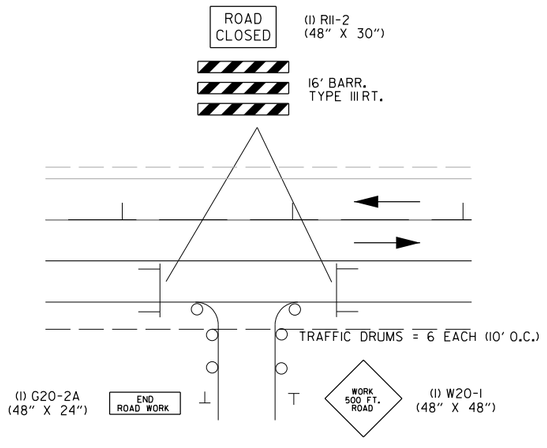
COUNTY ROAD, STATE HIGHWAY AND CITY STREET DETAIL SITE 2 AND 4

STA. 231+25
STA. 258+91
STA. 264+40
STA. 278+37
STA 282+41
STA. 485+00



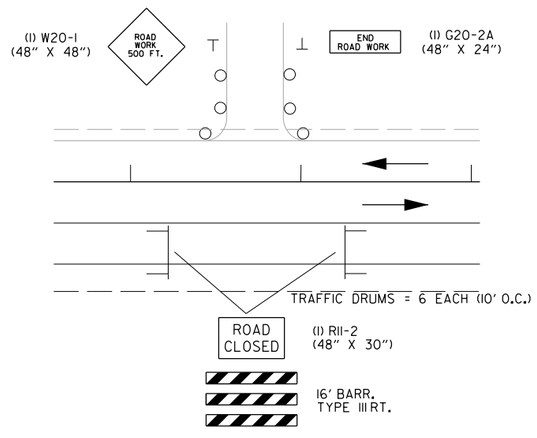
COUNTY ROAD, STATE HIGHWAY AND CITY STREET DETAIL SITE 2 AND 4

STA. 232+50
STA. 491+55



COUNTY ROAD, STATE HIGHWAY AND CITY STREET DETAIL SITE 3

STA. 344+88
STA. 358+00
STA. 372+96

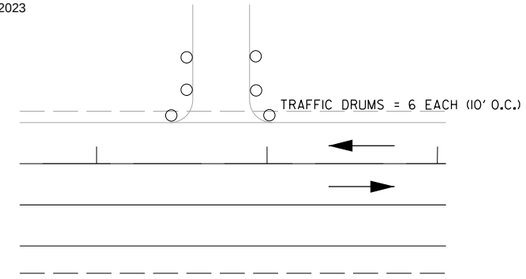


COUNTY ROAD, STATE HIGHWAY AND CITY STREET DETAIL SITE 3

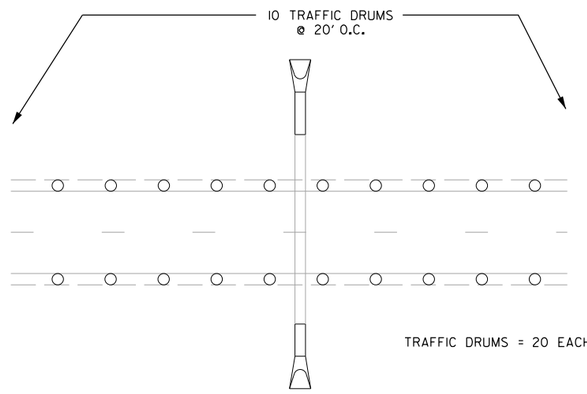
STA. 344+88
STA. 364+67

QUANTITIES FOR EACH STAGE
TRAFFIC DRUMS = 78 EACH SIGNS = 572 SQ. FT. BARRICADES = 416 LIN. FT.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



DRIVEWAY/TRAFFIC DRUM DETAIL



MAINTENANCE OF TRAFFIC DETAILS

PJoseph 6/21/2023 10:47:55 AM
WORKSPACE: AHTD
L:\201\701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_MOT_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	78	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE I
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.
   PERFORM LEVELING OPERATIONS AS APPLICABLE.
   PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN.
4. PERFORM METHOD OF RAISING GRADE UNDER TRAFFIC
   FROM STA. 113+00.00 TO STA. 127+60.00
   NOTCH AND WIDEN ON RT. FOR THE NORTHBOUND PASSING LANES.
   CONSTRUCT SITE I TEMPORARY WIDENING I.
   UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

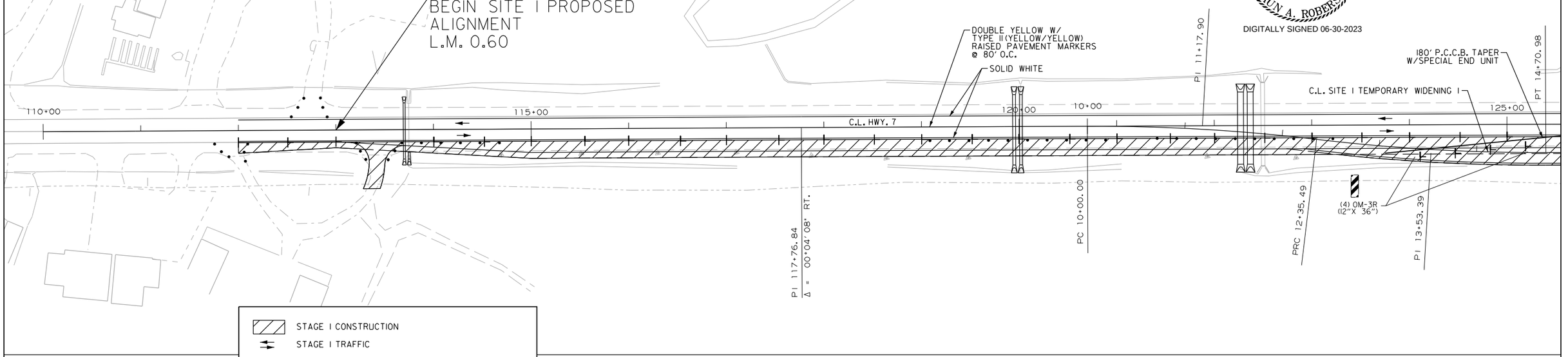
CONSTRUCTION PAVEMENT MARKINGS

4" DOUBLE YELLOW CENTERLINE = 13080 LIN. FT.
4" WHITE SOLID LINE = 13080 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 82 EA.

VERTICAL PANELS = 130 EACH
TRAFFIC DRUMS = 123 EACH
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 320 LIN. FT.

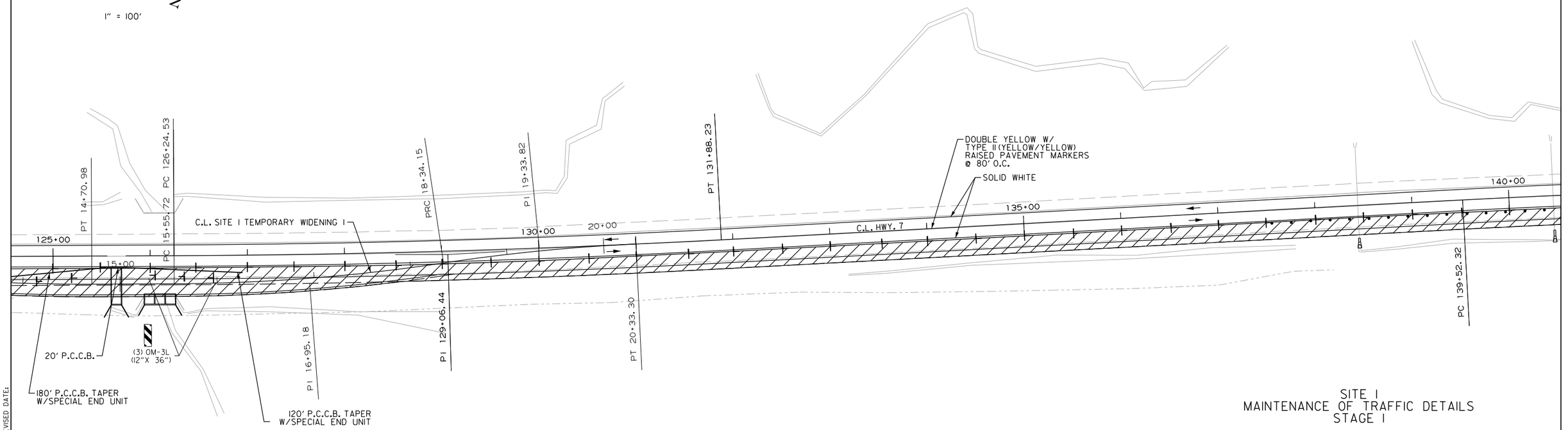
N
1" = 100'

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



STAGE I CONSTRUCTION
STAGE I TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

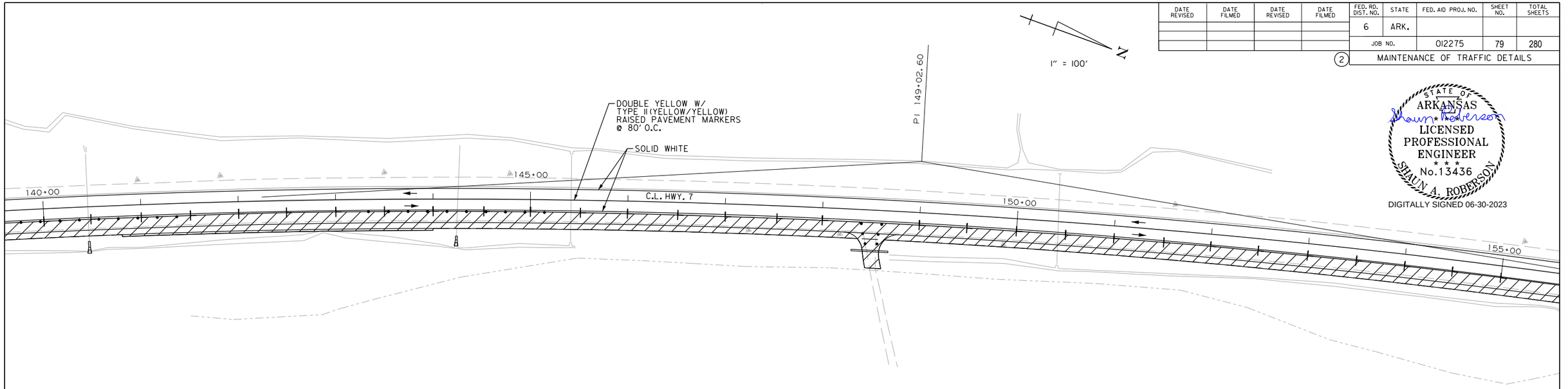
N
1" = 100'



SITE I
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

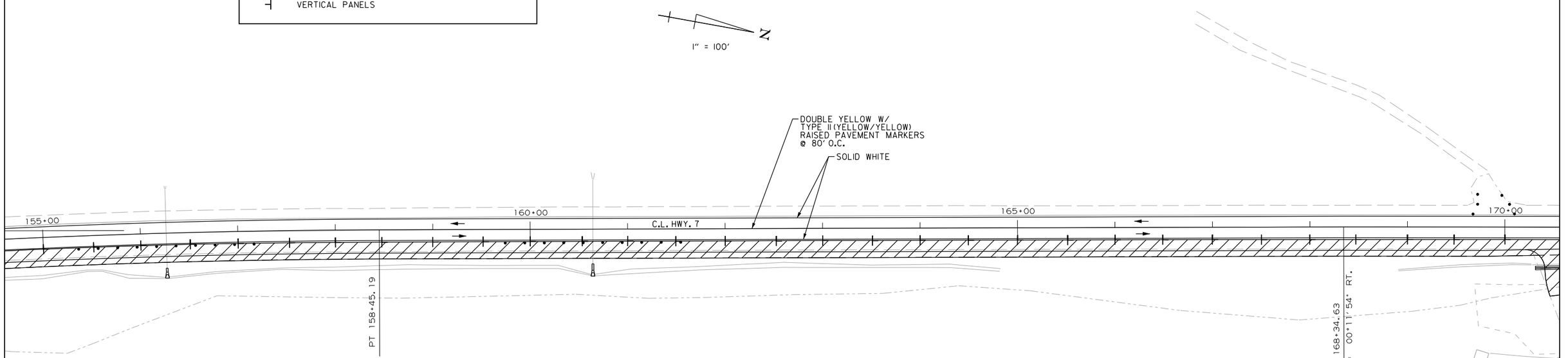
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	79	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			



STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

- STAGE I CONSTRUCTION
- STAGE I TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS



SITE I
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

PJoseph 6/21/2023 10:47:55 AM
WORKSPACE: AHTD
L:\2017\1701755 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275,MOT_STG1_SITE1_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	80	280

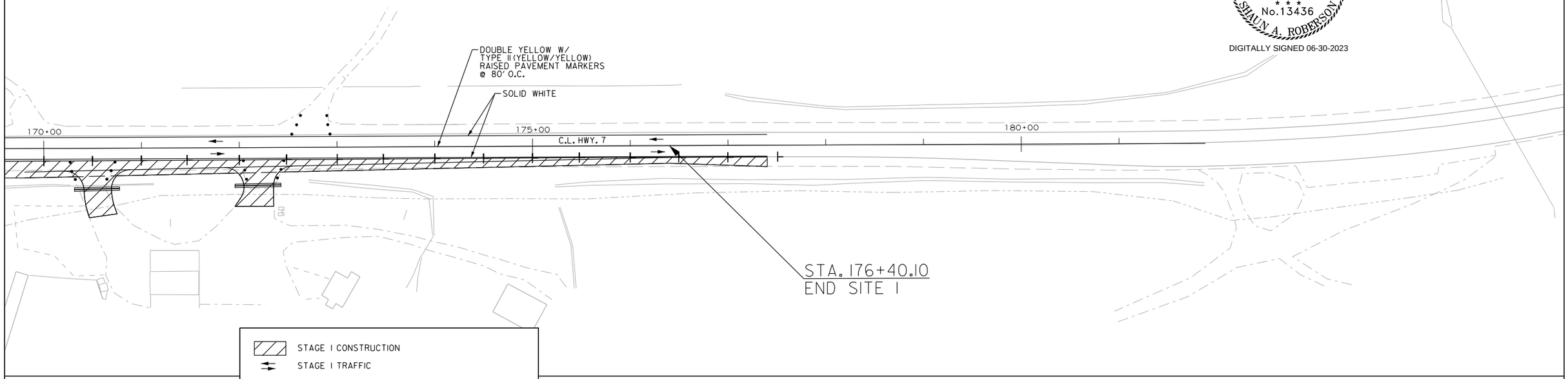
2 MAINTENANCE OF TRAFFIC DETAILS

N

1" = 100'

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023



- STAGE I CONSTRUCTION
- STAGE I TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

SITE 1
MAINTENANCE OF TRAFFIC DETAILS
STAGE 1

PJoseph 6/21/2023 10:47:55 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	81	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE I
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN. PERFORM LEVELING OPERATIONS AS APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN.
4. NOTCH AND WIDEN ON LT. FOR THE SOUTHBOUND PASSING LANES. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

CONSTRUCTION PAVEMENT MARKINGS

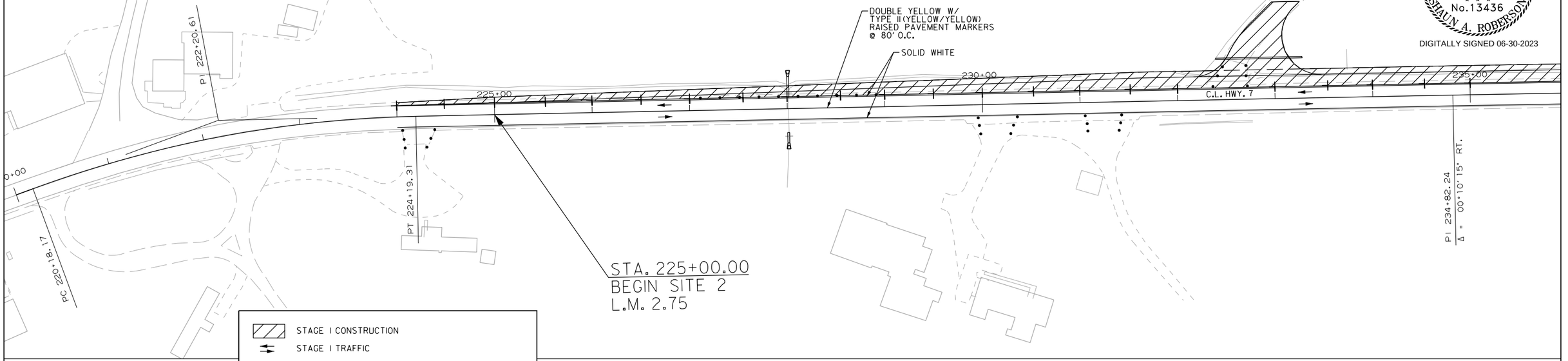
4" DOUBLE YELLOW CENTERLINE = 13080 LIN. FT.
4" WHITE SOLID LINE = 13080 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 82 EA.

VERTICAL PANELS = 127 EACH
TRAFFIC DRUMS = 283 EACH

N

1" = 100'

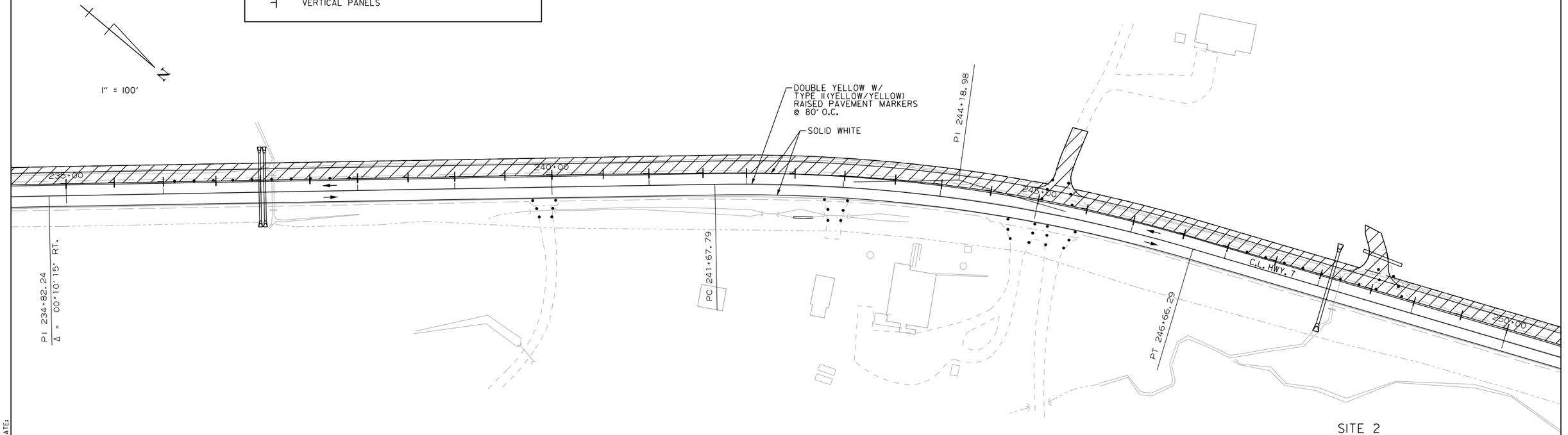
STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



- STAGE I CONSTRUCTION
- STAGE I TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

N

1" = 100'



SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

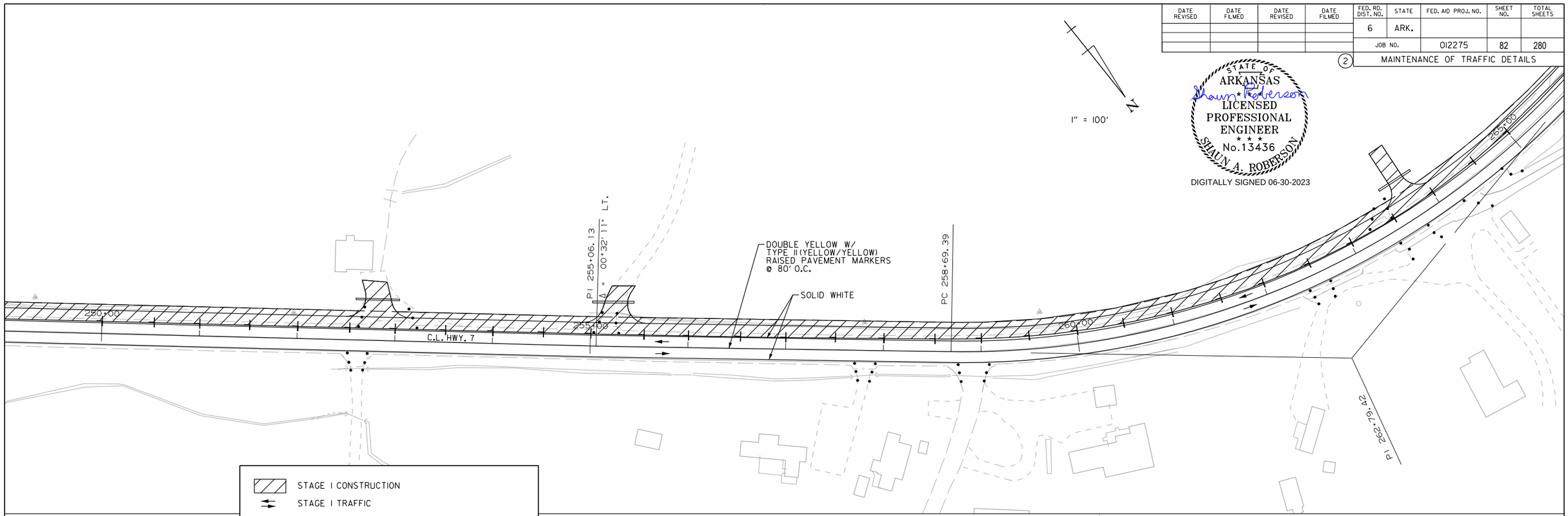
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REVISED DATE:

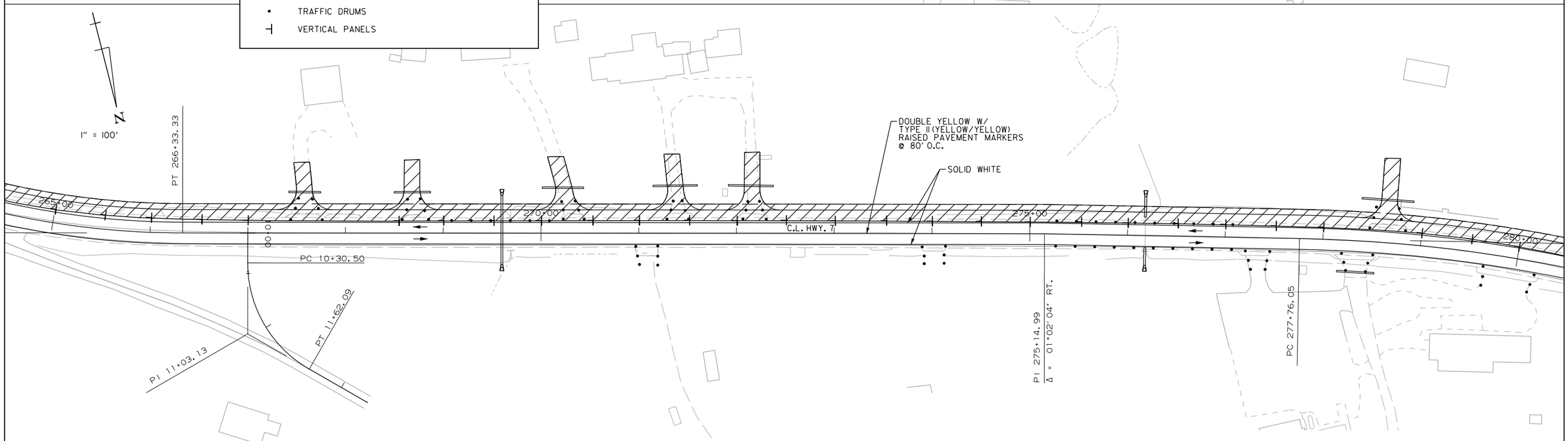
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	82	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

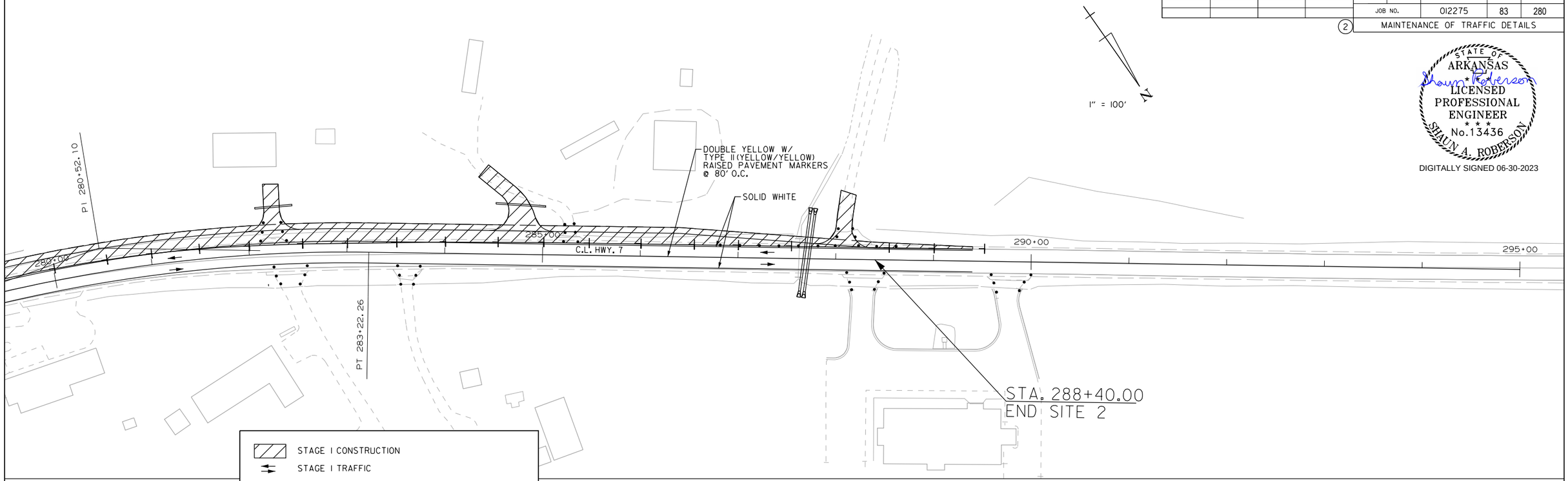




SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

PJoseph 6/21/2023 10:47:56 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	83	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			



STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

PJoseph 6/21/2023 10:47:56 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	84	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE I
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN. PERFORM LEVELING OPERATIONS AS APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN.
4. NOTCH AND WIDEN ON RT. FOR THE NORTHBOUND PASSING LANES. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

CONSTRUCTION PAVEMENT MARKINGS

4" DOUBLE YELLOW CENTERLINE = 13272 LIN. FT.
4" WHITE SOLID LINE = 13272 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 83 EA.

VERTICAL PANELS = 128 EACH
TRAFFIC DRUMS = 201 EACH
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 640 LIN. FT.

N

1" = 100'

STATE OF ARKANSAS
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STA. 333+00.00
BEGIN SITE 3
L.M. 4.53

PI 336+25.83
Δ = 00°04'47" LT.

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

SOLID WHITE

330+00 335+00 340+00 345+00

C.L. HWY. 7

PI 345+17.75

PC 343+23.79

- STAGE I CONSTRUCTION
- STAGE I TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

N

1" = 100'

PI 345+17.75

345+00 350+00 355+00 360+00

180' P.C.C.B. TAPER W/SPECIAL END UNIT

20' P.C.C.B.

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

SOLID WHITE

PC 356+73.61

C.L. HWY. 7

PT 347+09.36

(4) OM-3R (12" X 36")

(3) OM-3L (12" X 36")

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

PC 10+28.68

PT 11+46.76

PI 10+92.54

PI 358+85.73

PT 360+83.89

ROAD CLOSED

(1) R11-2 (48" X 30")

8' BARR. TYPE III LT.

8' BARR. TYPE III RT.

SITE 3
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

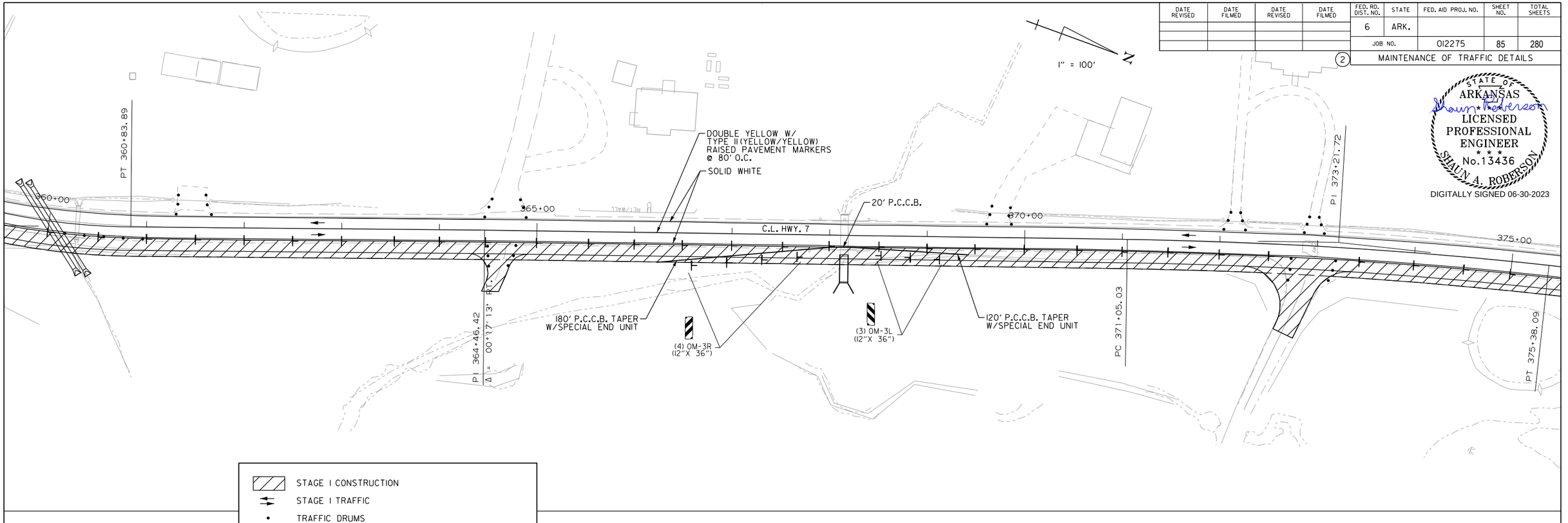
PJoseph 6/21/2023 10:47:56 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	85	280

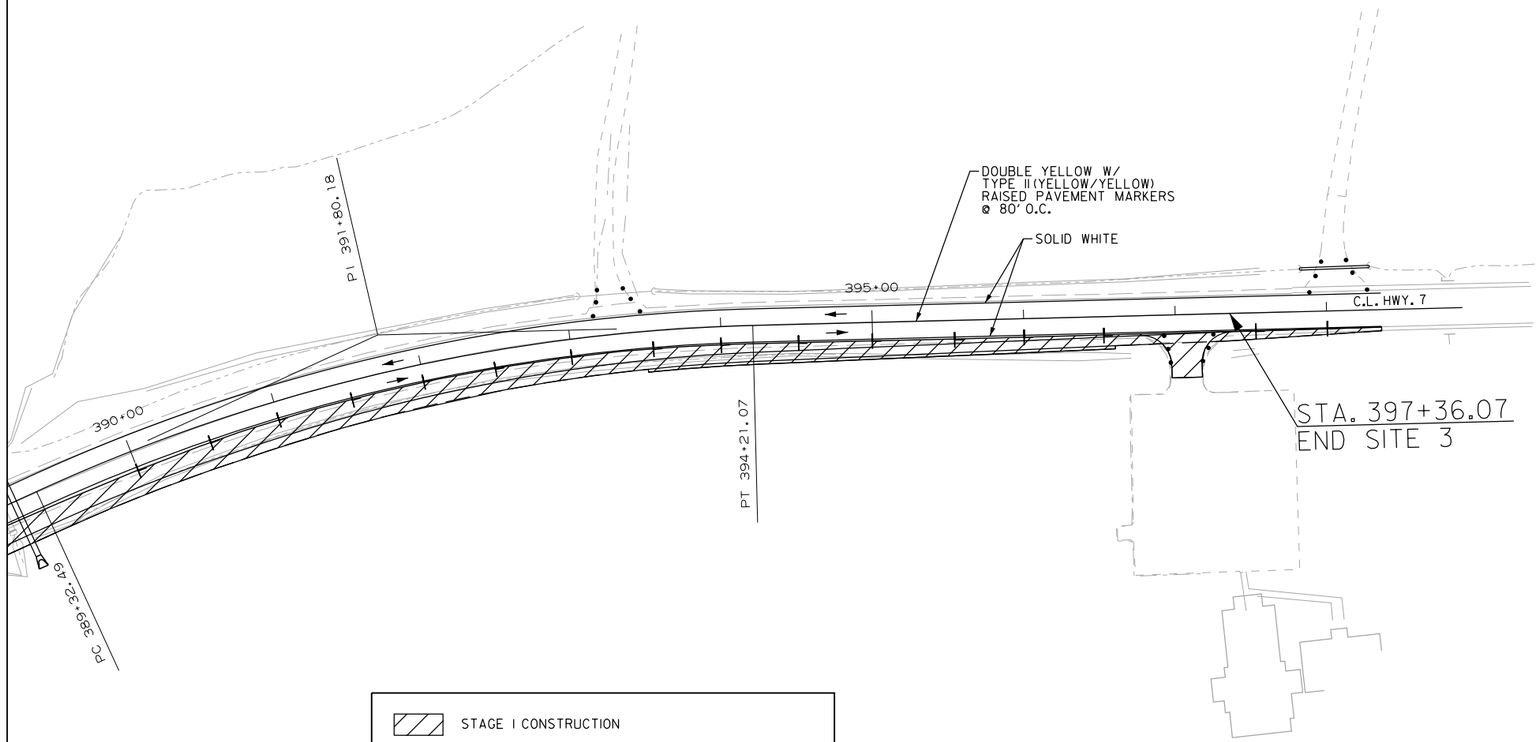
2 MAINTENANCE OF TRAFFIC DETAILS

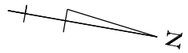
STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



SITE 3
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

PJoseph 6/21/2023 10:47:56 AM
WORKSPACE: AHTD
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REVISED DATE:





DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	86	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
Shaun Roberson
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No. 13436
SHAUN A. ROBERSON
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- STAGE I CONSTRUCTION
- STAGE I TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

SITE 3
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

PJoseph 6/21/2023 10:47:57 AM
WORKSPACE: AHTD
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REVISED DATE:

STAGE I
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.
   PERFORM LEVELING OPERATIONS AS APPLICABLE.
   PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN.
4. NOTCH AND WIDEN ON LT. FOR THE SOUTHBOUND PASSING LANES AND/OR SHOULDER.
   NOTCH AND CONSTRUCT SITE 4 TEMPORARY WIDENING 1 AND 2 ON LT.
   UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

CONSTRUCTION PAVEMENT MARKINGS

4" DOUBLE YELLOW CENTERLINE = 13276 LIN. FT.
4" WHITE SOLID LINE = 13276 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 83 EA.

VERTICAL PANELS = 112 EACH
TRAFFIC DRUMS = 136 EACH
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 1420 LIN. FT.

STATE OF ARKANSAS
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	87	280

(2) MAINTENANCE OF TRAFFIC DETAILS

N
1" = 100'

PC 440+69.77
PT 443+33.87
PI 442+02.24
445+00
C.L. HWY. 7
450+00
PC 20+00.00
20+00
C.L. SITE 4 TEMPORARY WIDENING 1
PT 22+23.58
455+00
PI 21+11.92
PC 22+28.89
SOLID WHITE
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

STAGE I CONSTRUCTION
STAGE I TEMPORARY WIDENING
STAGE I TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

PT 22+23.58
PI 23+36.33
C.L. SITE 4 TEMPORARY WIDENING 1
25+00
PC 22+28.89
PT 24+43.55
PC 26+55.33
PC 459+63.09
460+00
80' P.C.C.B. TAPER W/SPECIAL END UNIT
(3) OM-3L (12"X 36")
PT 29+19.93
40' P.C.C.B.
PT 463+35.73
PI 27+88.80
PI 461+51.61
465+00
C.L. HWY. 7
SOLID WHITE
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.
PC 466+79.93
N
1" = 100'
(3) OM-3L (12"X 36")
120' P.C.C.B. TAPER W/SPECIAL END UNIT
PI 469+41.41
20' P.C.C.B.
470+00

SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

PJoseph 6/21/2023 10:47:57 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	88	280

2 MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

1" = 100'

(4) OM-3R (12"X 36")
180' P.C.C.B. TAPER W/SPECIAL END UNIT
(3) OM-3L (12"X 36")
120' P.C.C.B. TAPER W/SPECIAL END UNIT
20' P.C.C.B.
(4) OM-3R (12"X 36")
180' P.C.C.B. TAPER W/SPECIAL END UNIT
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.
SOLID WHITE
475+00
480+00
485+00
C.L. HWY. 7
PT 472+02.80

STAGE I CONSTRUCTION
STAGE I TEMPORARY WIDENING
STAGE I TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

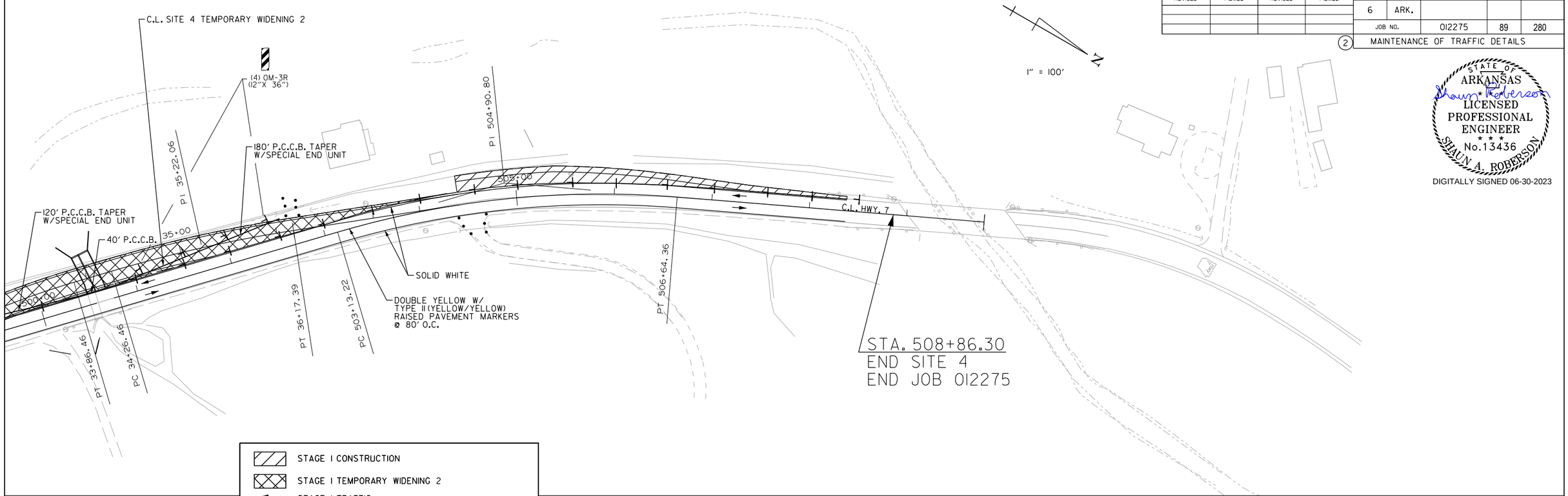
1" = 100'

C.L. SITE 4 TEMPORARY WIDENING 2
120' P.C.C.B. TAPER W/ SPECIAL END UNIT
(3) OM-3L (12"X 36")
(4) OM-3R (12"X 36")
180' P.C.C.B. TAPER W/SPECIAL END UNIT
(3) OM-3L (12"X 36")
120' P.C.C.B. TAPER W/SPECIAL END UNIT
20' P.C.C.B.
40' P.C.C.B.
RET.WALL
RET.WALL
PC 494+54.79
PC 30+00.00
PT 497+53.86
PRC 32+45.01
PI 33+15.19
PT 33+86.46
PI 31+23.43
PI 496+05.18
30+00
485+00
490+00
495+00
500+00
C.L. HWY. 7
SOLID WHITE
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

P.Joseph 6/21/2023 10:47:57 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_MOT_STG1_SITE4_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	89	280
				(2) MAINTENANCE OF TRAFFIC DETAILS				



STAGE I CONSTRUCTION
STAGE I TEMPORARY WIDENING 2
STAGE I TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

P.Joseph 6/21/2023 10:47:57 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_MOT_STG1_SITE4_03.dgn
REVISED DATE:

STAGE 2
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.

PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN AND MOVE TRAFFIC TO SITE I TEMPORARY WIDENING I.

CONSTRUCT THE LT. FORESLOPE. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LT. AND RT. EDGE OF LANE.

TRAFFIC CONTROL DEVICES

4" DOUBLE YELLOW CENTERLINE = 2066 LIN. FT.
4" WHITE SOLID LINE = 2066 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 13 EA.

TRAFFIC DRUMS = 182 EACH
RELOCATE PRECAST CONCRETE BARRIER = 320 LIN. FT.

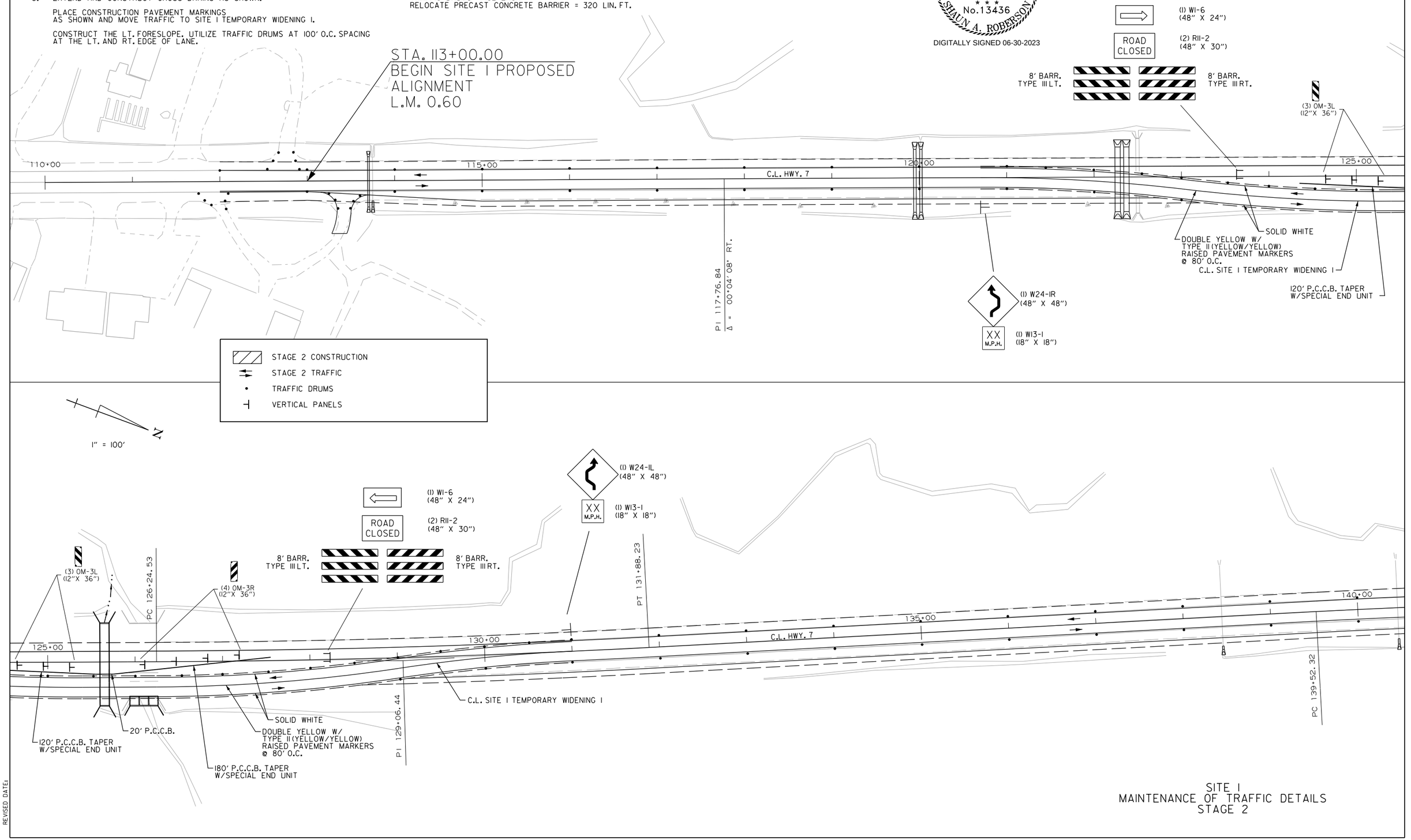
N

1" = 100'

STATE OF ARKANSAS
Shaun Roberson
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	90	280

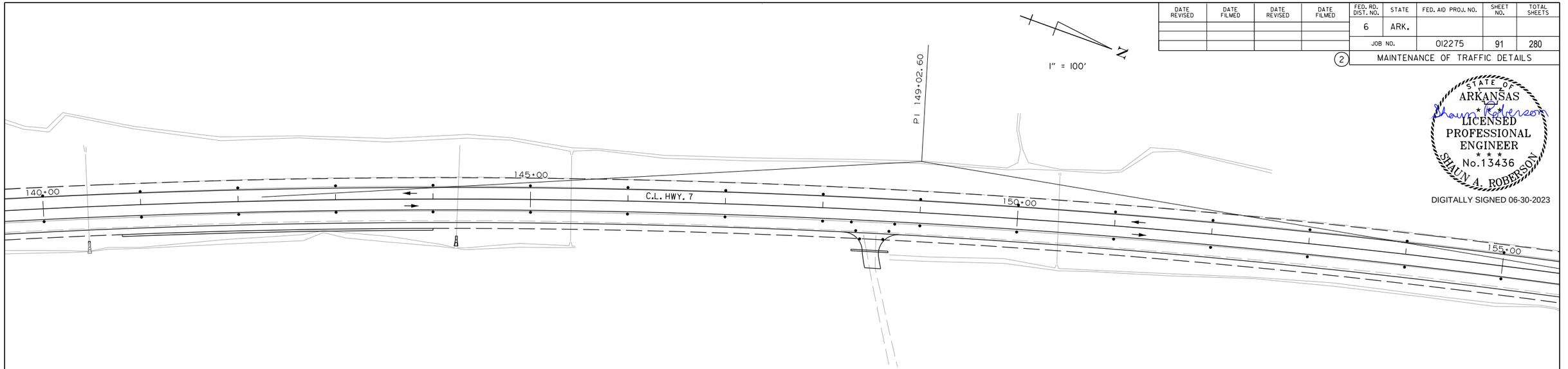
(2) MAINTENANCE OF TRAFFIC DETAILS



SITE I
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

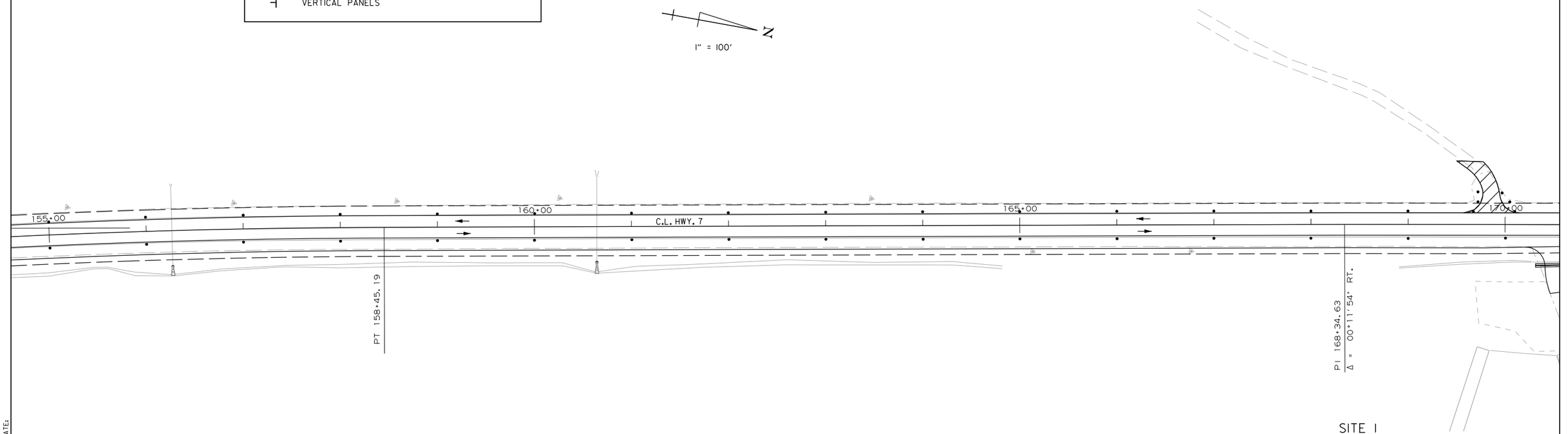
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	91	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			



STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

- STAGE 2 CONSTRUCTION
- STAGE 2 TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS



SITE 1
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:58 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	92	280

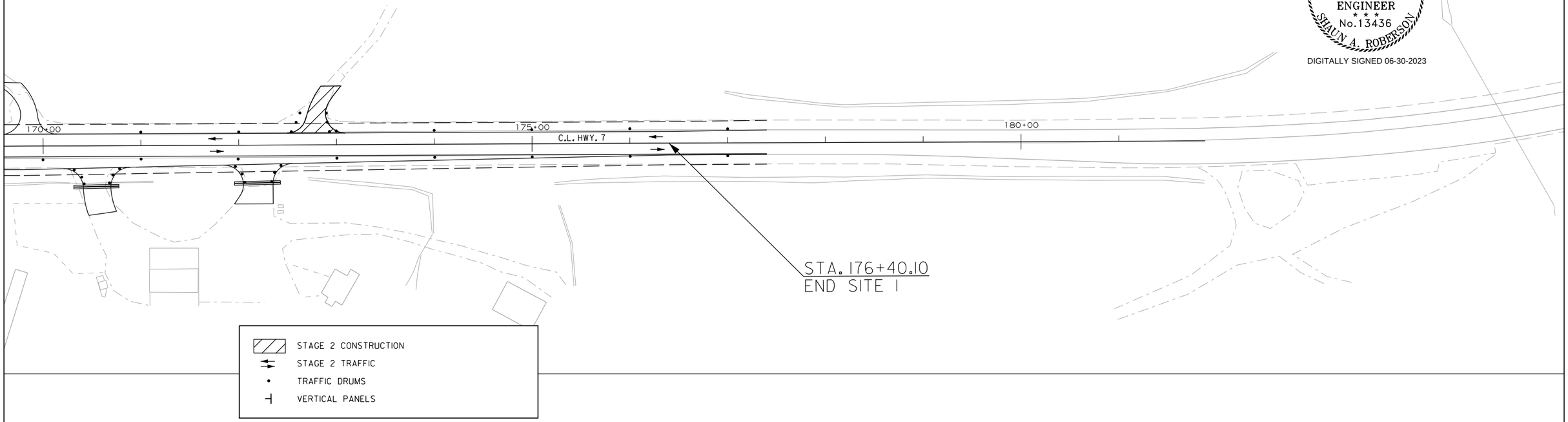
(2) MAINTENANCE OF TRAFFIC DETAILS

N

1" = 100'

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023



STAGE 2 CONSTRUCTION
STAGE 2 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

SITE 1
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:58 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_MOT_STG2_SITE1_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	93	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

STAGE 2
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.

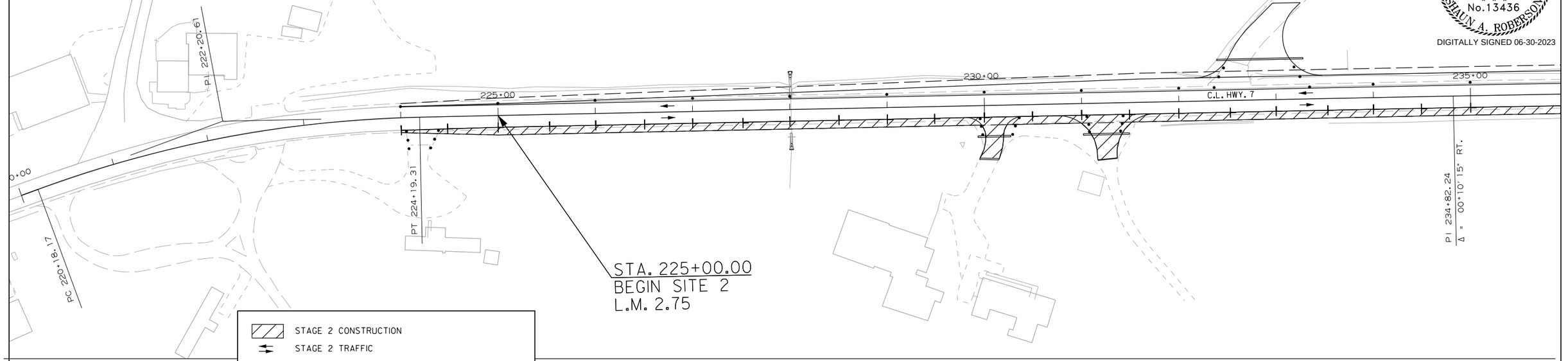
   NOTCH AND WIDEN ON RT.
   UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LANE EDGE PREVIOUSLY WIDENED.
4. PLACE FINAL SURFACE COURSE AND FINAL STRIPING

TRAFFIC CONTROL DEVICES

VERTICAL PANELS = 123 EACH
TRAFFIC DRUMS = 262 EACH

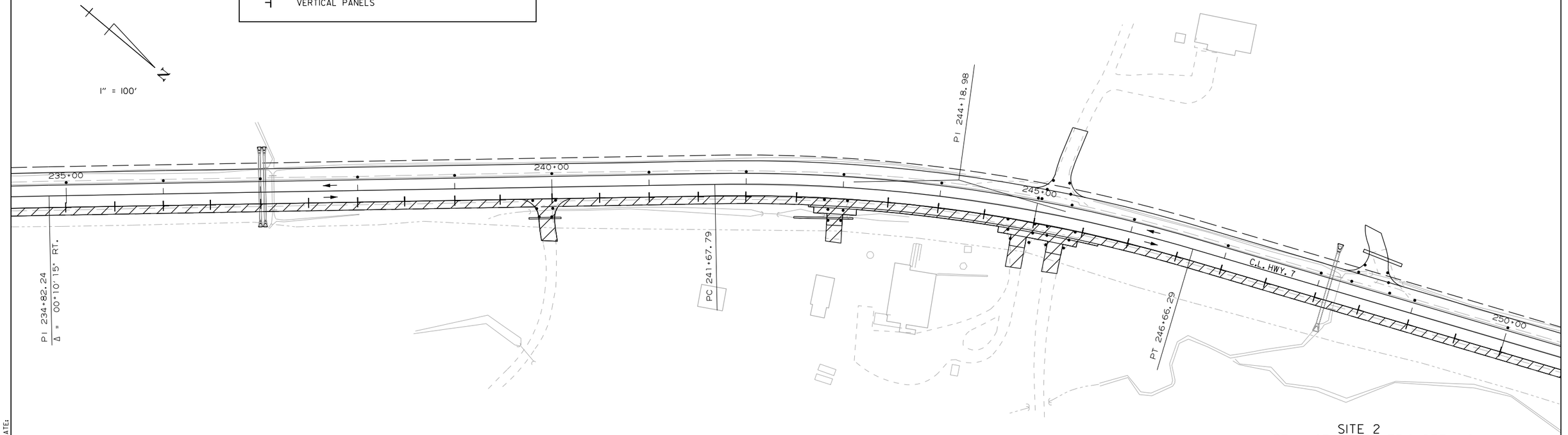
1" = 100'

STATE OF ARKANSAS
Shaun A Roberson
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SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



- STAGE 2 CONSTRUCTION
- STAGE 2 TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

1" = 100'



SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:58 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	94	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
Shaun Roberson
DIGITALLY SIGNED 06-30-2023

N
1" = 100'

P I 255+06.13
Δ = 00°32'11" LT.
PC 258+69.39
P I 262+79.24
250+00
255+00
260+00
265+00
C.L. HWY. 7

- STAGE 2 CONSTRUCTION
- STAGE 2 TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

N
1" = 100'

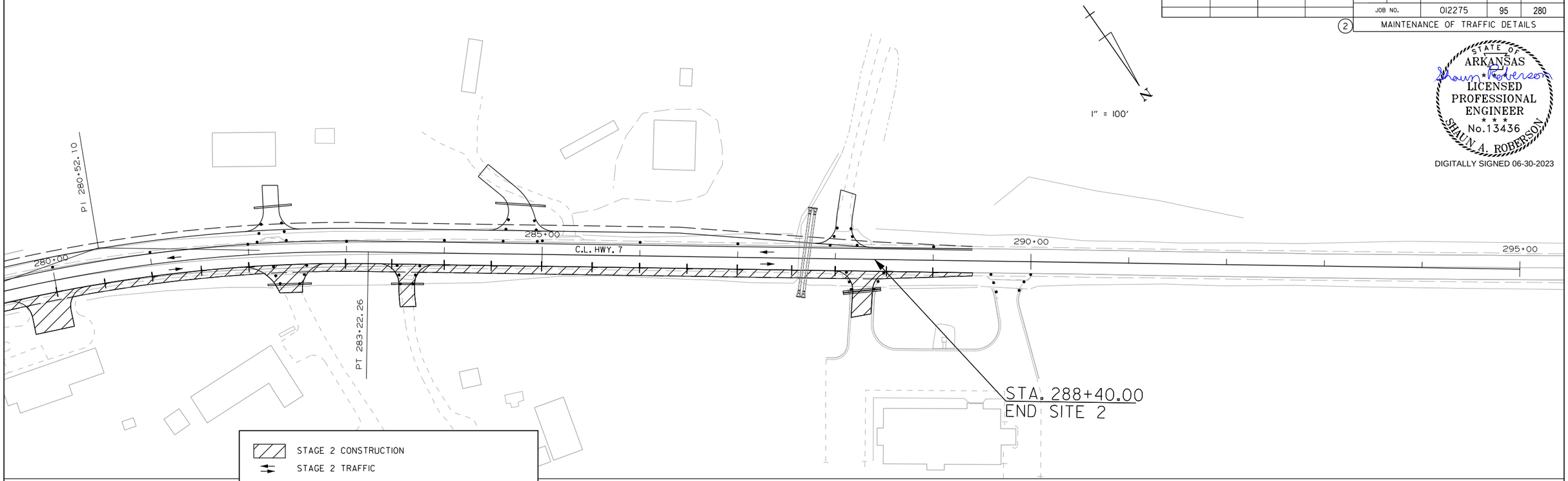
PT 266+33.33
265+00
270+00
275+00
280+00
C.L. HWY. 7
PC 10+30.50
PT 11+62.09
P I 11+03.13
P I 275+14.99
Δ = 01°02'04" RT.
PC 277+76.05
ROAD CLOSED
(1) R11-2 (48" X 30")
8' BARR. TYPE III LT.
8' BARR. TYPE III RT.

SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph
6/21/2023 10:47:58 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	95	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:58 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	96	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE 2
CONSTRUCTION SEQUENCE NOTES

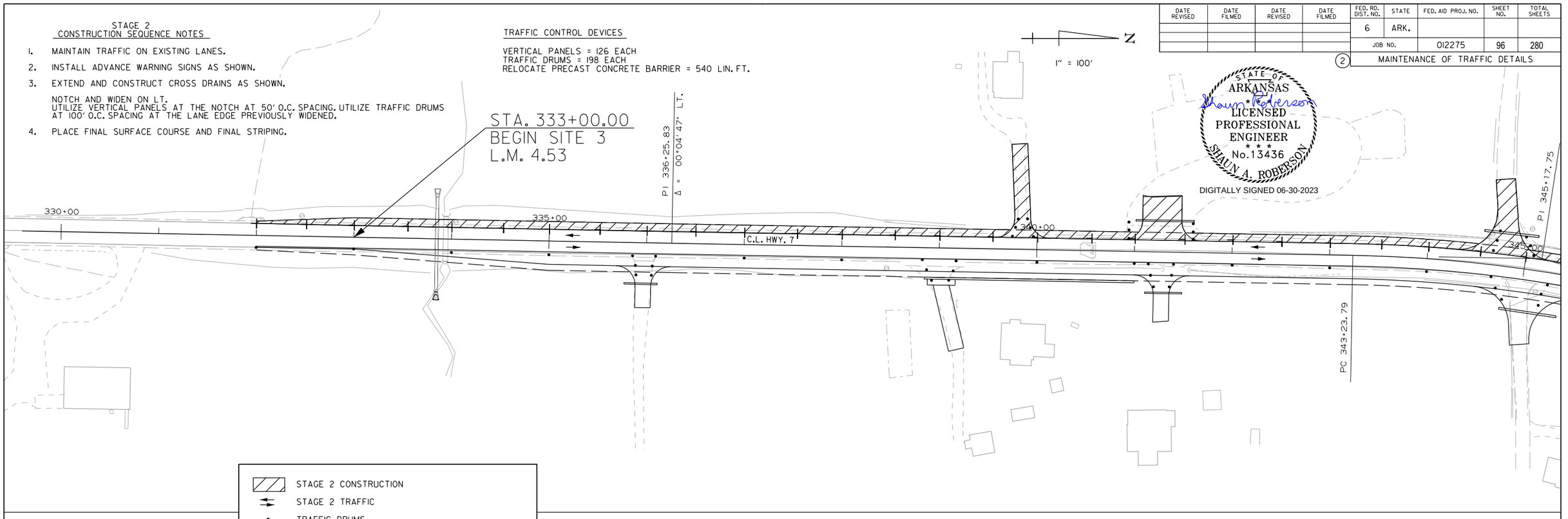
1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.

   NOTCH AND WIDEN ON LT.
   UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LANE EDGE PREVIOUSLY WIDENED.
4. PLACE FINAL SURFACE COURSE AND FINAL STRIPING.

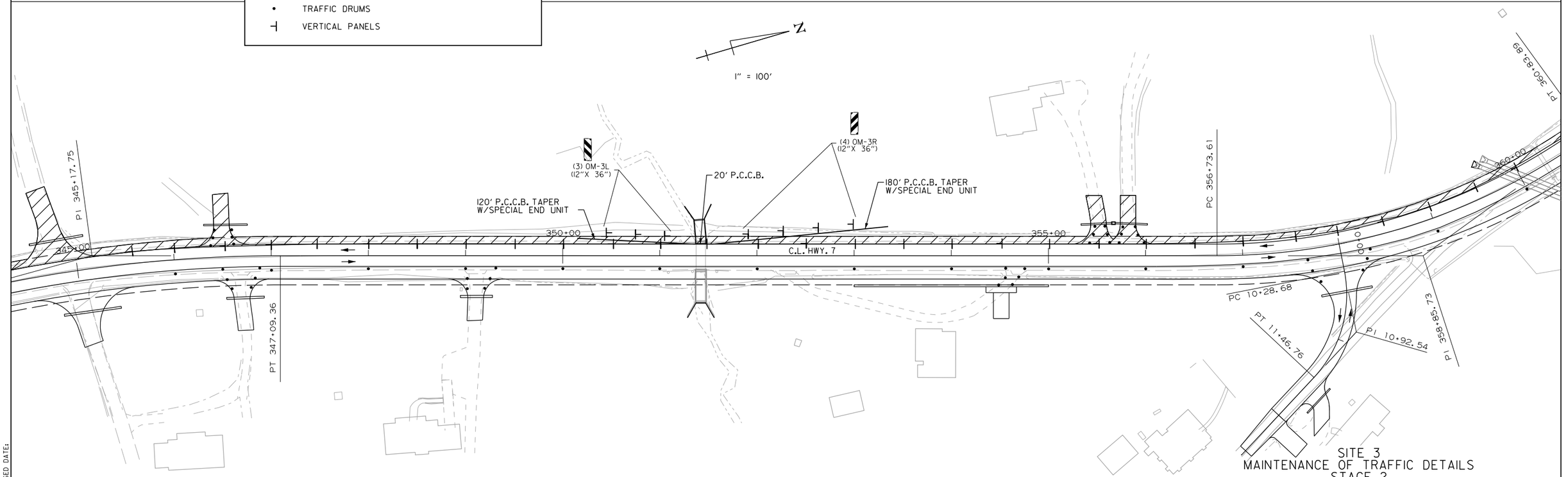
TRAFFIC CONTROL DEVICES

VERTICAL PANELS = 126 EACH
TRAFFIC DRUMS = 198 EACH
RELOCATE PRECAST CONCRETE BARRIER = 540 LIN. FT.

STATE OF ARKANSAS
Shaun A. Roberson
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STAGE 2 CONSTRUCTION
STAGE 2 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

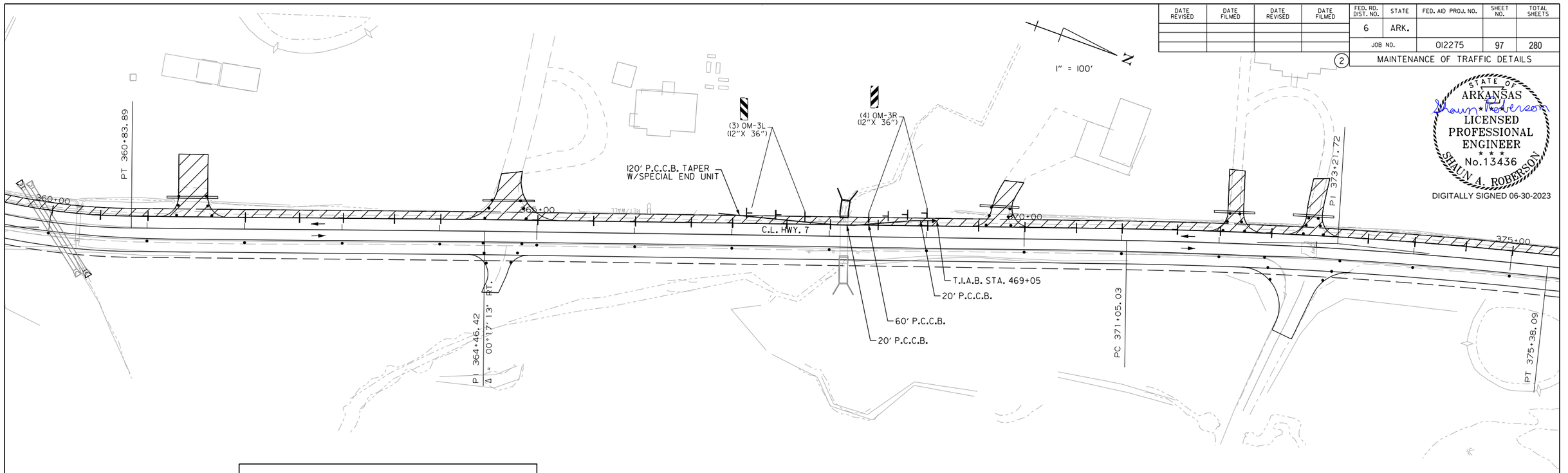


SITE 3
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:59 AM
WORKSPACE: AHTD
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REVISED DATE:

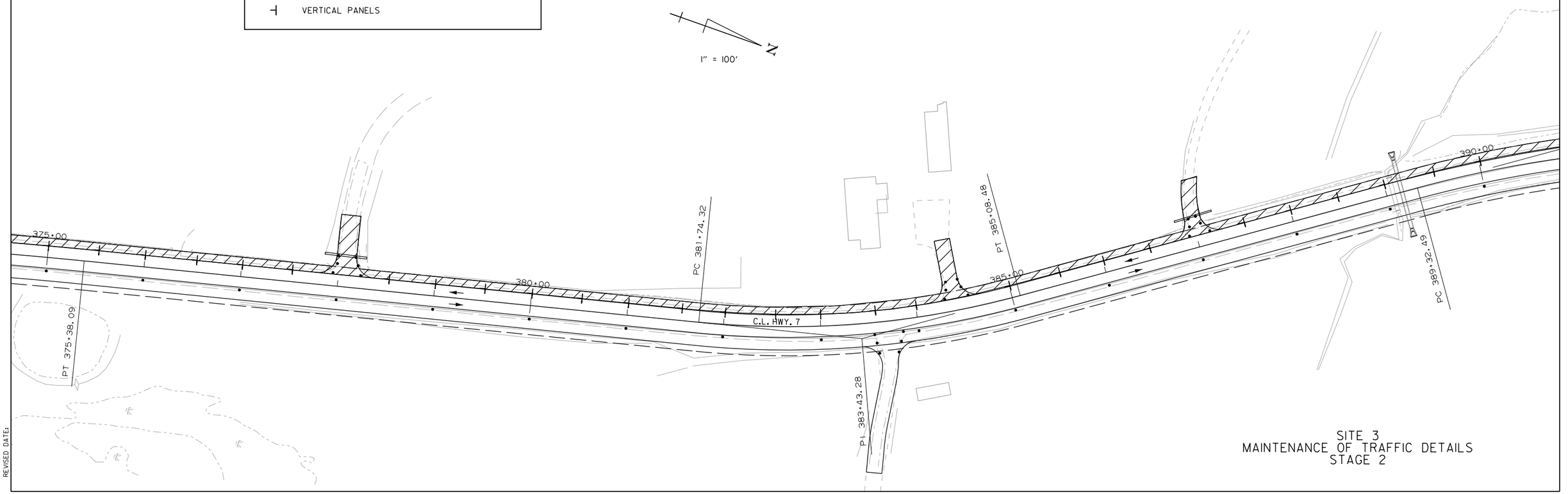
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	97	280

2 MAINTENANCE OF TRAFFIC DETAILS



STAGE 2 CONSTRUCTION
STAGE 2 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

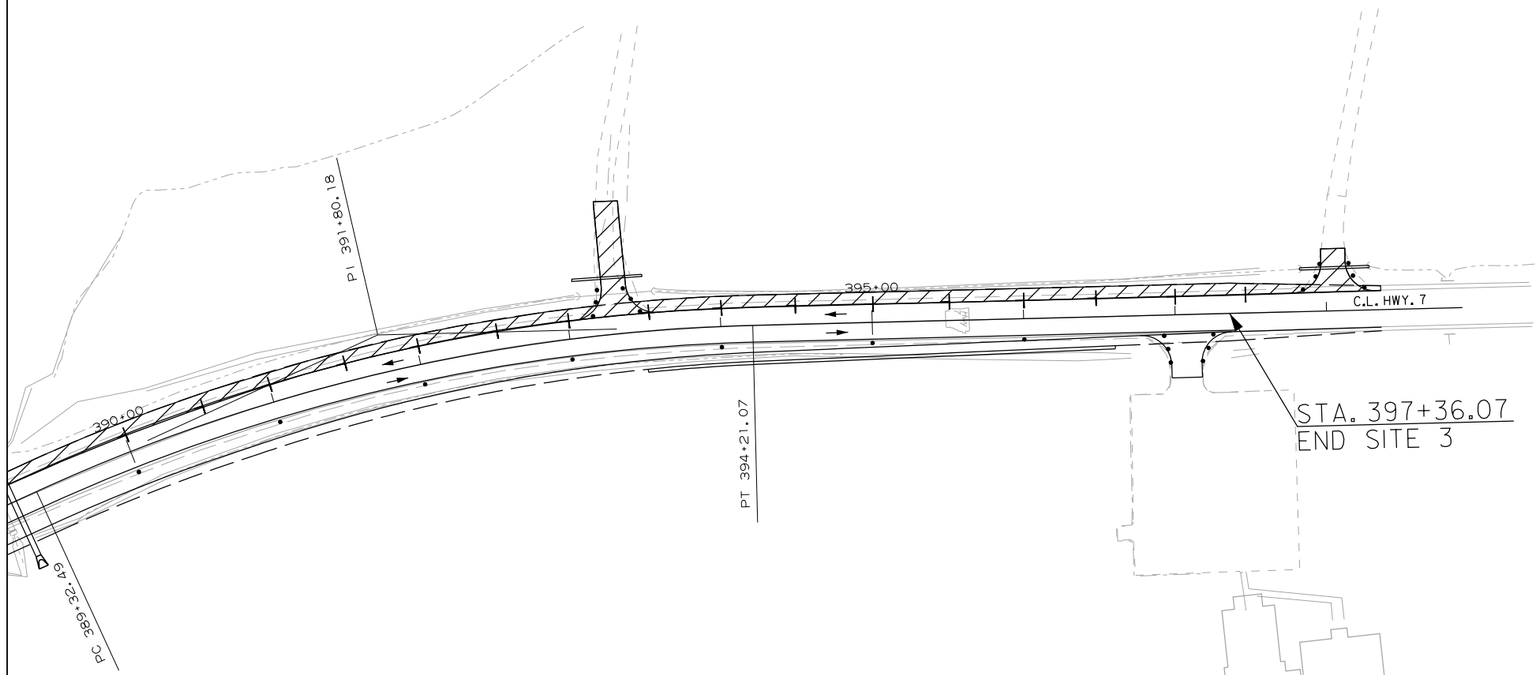
STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



SITE 3
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:59 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	98	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			



STATE OF ARKANSAS
Shaun Roberson
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No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

- STAGE 2 CONSTRUCTION
- STAGE 2 TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

SITE 3
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:59 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_MOT_STG2_SITE3_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	99	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

N

1" = 100'

STAGE 2
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. EXTEND AND CONSTRUCT CROSS DRAINS AS SHOWN.

   PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN AND MOVE TRAFFIC TO SITE 4 TEMPORARY WIDENING 1 AND 2.

   INSTALL PRECAST CONCRETE BARRIER. NOTCH AND WIDEN ON RT. AND CONSTRUCT NORTHBOUND LANES AND RT. FULL DEPTH SHOULDER AS SHOWN. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LANE EDGE PREVIOUSLY WIDENED.
4. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR STAGE 3 TRAFFIC CONFIGURATION.

DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.
SOLID WHITE
C.L. SITE 4 TEMPORARY WIDENING 1
C.L. HWY. 7

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

(1) W24-1L (48" X 48")
XX M.P.H.
(1) W13-1 (18" X 18")

CONSTRUCTION PAVEMENT MARKINGS

4" DOUBLE YELLOW CENTERLINE = 3378 LIN. FT.
4" WHITE SOLID LINE = 3378 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 22 EA.

VERTICAL PANELS = 86 EACH
TRAFFIC DRUMS = 166 EACH
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 290 LIN. FT.
RELOCATE PRECAST CONCRETE BARRIER = 1420 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 7 EACH

- STAGE 2 CONSTRUCTION
- STAGE 2 CONSTRUCTION - PROFILE GRADE CHANGE
- STAGE 1 TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS

(1) W1-6 (48" X 24")

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

16' BARR. TYPE III RT.

SOLID WHITE
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.
T.I.A.B. STA. 457+00
C.L. SITE 4 TEMPORARY WIDENING 1
230' P.C.C.B.
T.I.A.B. STA. 459+30 AND 459+80
200' P.C.C.B.
(3) OM-3L (12"X 36")
80' P.C.C.B. TAPER W/SPECIAL END UNIT
40' P.C.C.B.
T.I.A.B. STA. 461+80
C.L. HWY. 7

N

1" = 100'

20' P.C.C.B.
120' P.C.C.B. TAPER W/SPECIAL END UNIT
20' P.C.C.B.
60' P.C.C.B.
(4) OM-3R (12"X 36")
T.I.A.B. STA. 469+80

SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:47:59 AM
WORKSPACE: AHTD
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REVISED DATE:

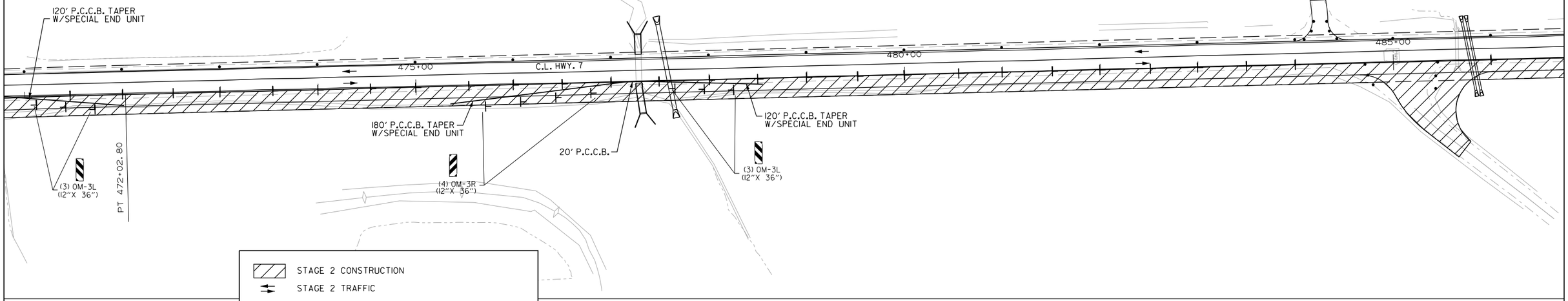
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FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	100	280

2 MAINTENANCE OF TRAFFIC DETAILS

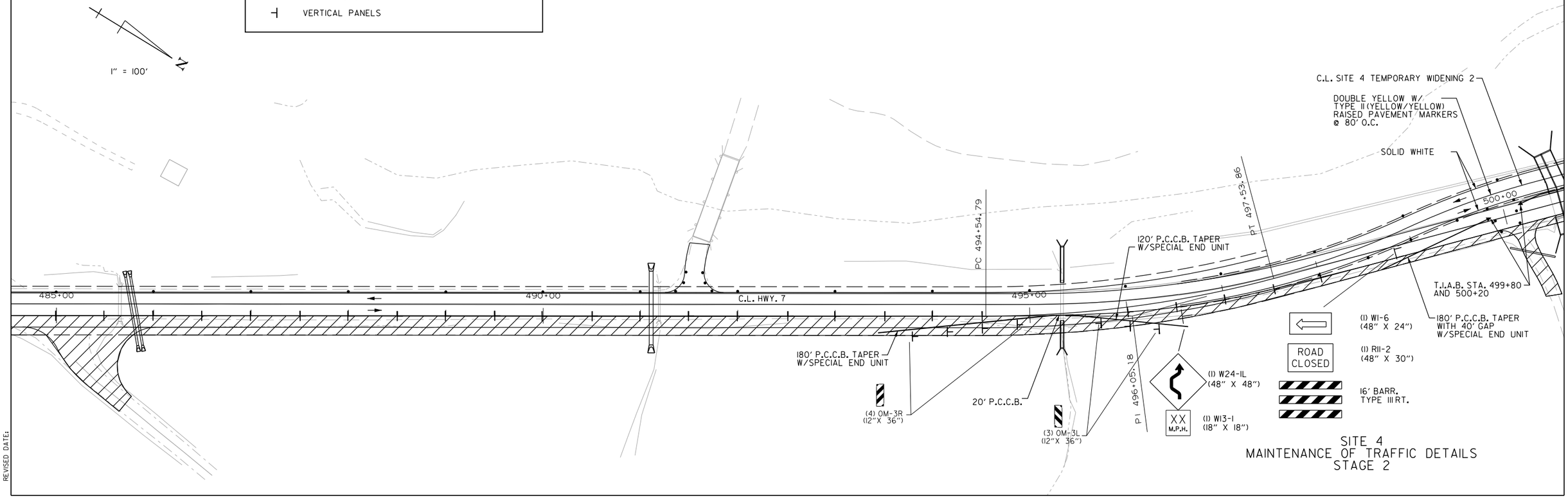
STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

1" = 100'



STAGE 2 CONSTRUCTION
STAGE 2 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

1" = 100'



SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

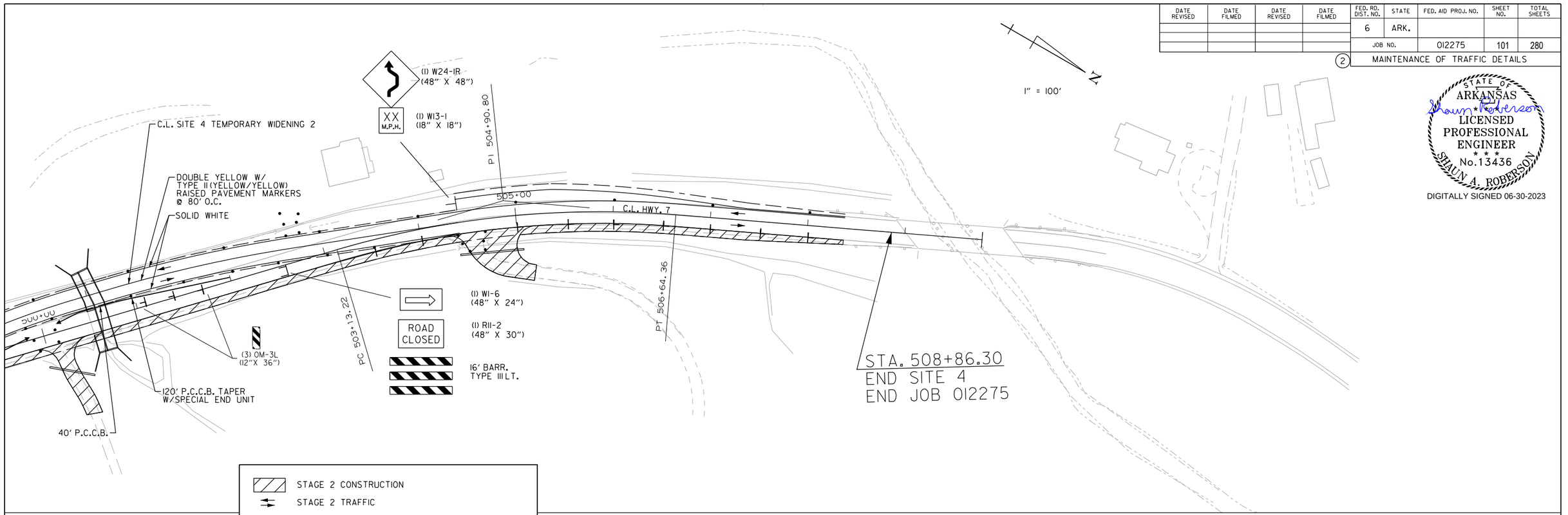
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6/21/2023 10:47:59 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	101	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

PJoseph 6/21/2023 10:48:05 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_MOT_STG2_SITE4_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	102	280

(2) MAINTENANCE OF TRAFFIC DETAILS

STAGE 3
CONSTRUCTION SEQUENCE NOTES

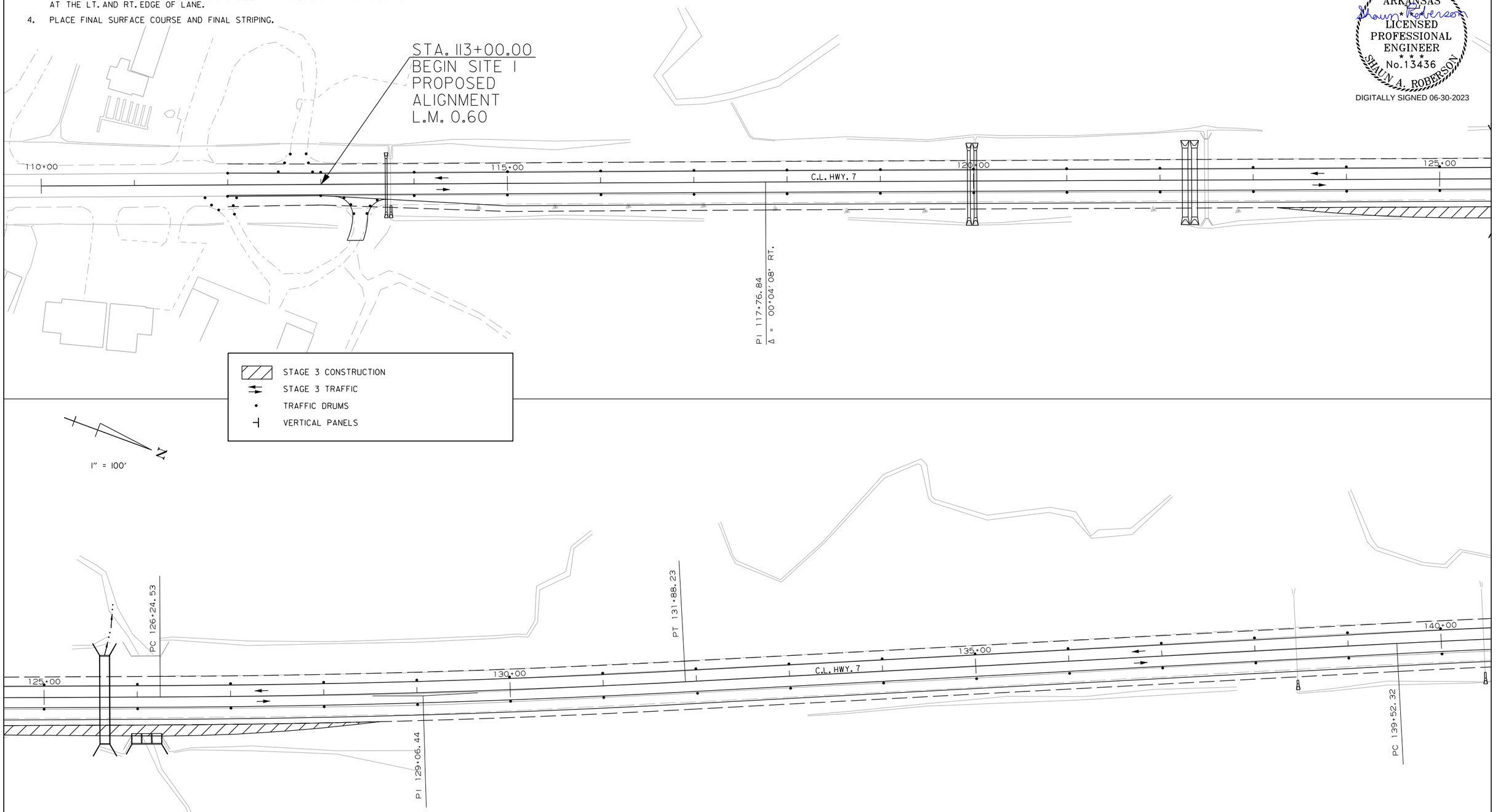
1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. REMOVE SITE I TEMPORARY WIDENING AND CONSTRUCT RT. FORESLOPE AT REMOVED TEMP. WIDENING LOCATION. UTILIZE TRAFFIC DRUMS AT 100' O.C. SPACING AT THE LT. AND RT. EDGE OF LANE.
4. PLACE FINAL SURFACE COURSE AND FINAL STRIPING.

TRAFFIC CONTROL DEVICES

TRAFFIC DRUMS = 179 EACH

N
1" = 100'

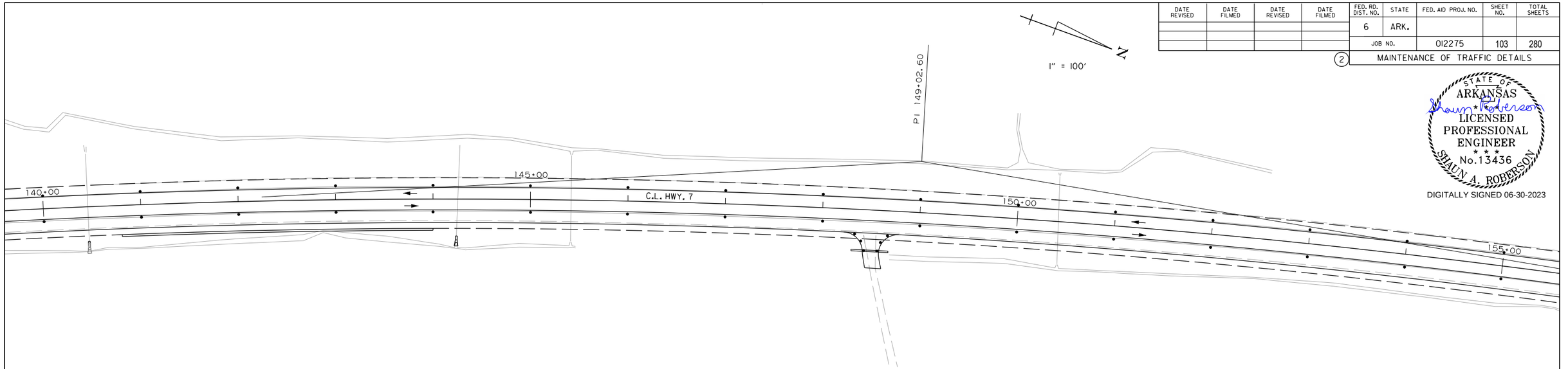
STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



SITE I
MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

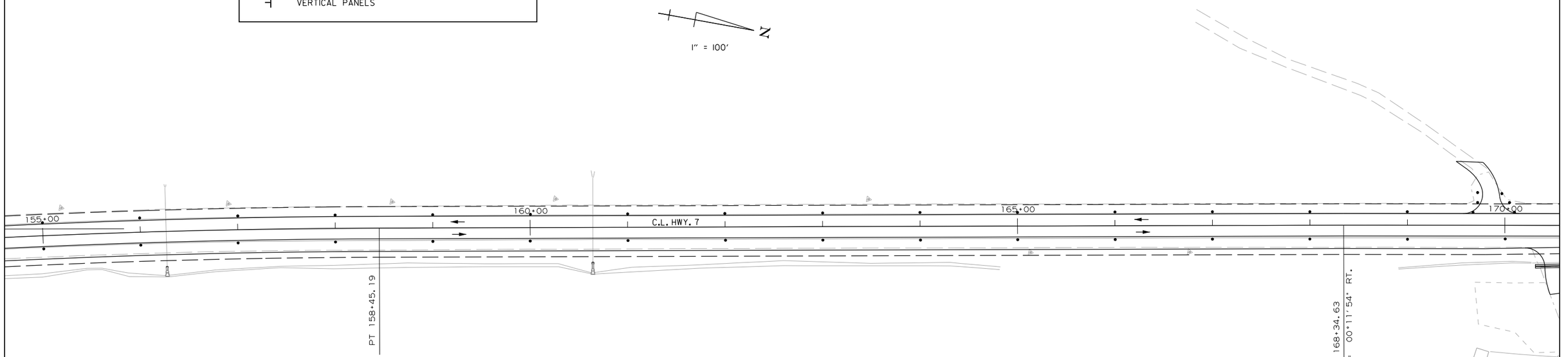
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	103	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			



STATE OF ARKANSAS
Shaun A. Roberson
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- STAGE 3 CONSTRUCTION
- STAGE 3 TRAFFIC
- TRAFFIC DRUMS
- VERTICAL PANELS



SITE 1
MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

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				JOB NO.		012275	104	280

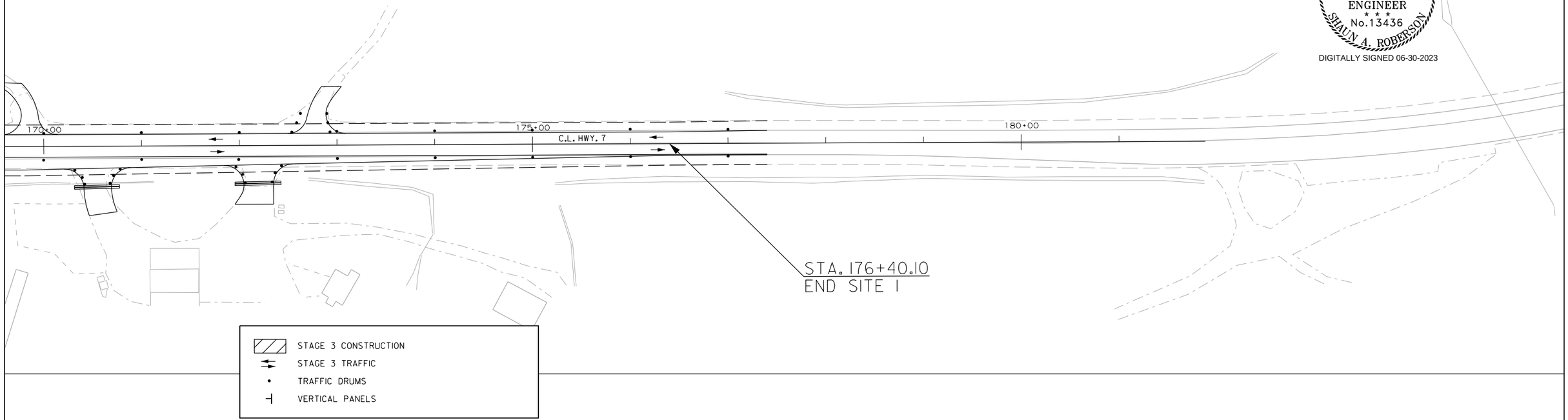
(2) MAINTENANCE OF TRAFFIC DETAILS

N

1" = 100'

STATE OF ARKANSAS
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STAGE 3 CONSTRUCTION
STAGE 3 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

SITE 1
MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

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				6	ARK.			
				JOB NO.		012275	105	280
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

STAGE 3
CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN TRAFFIC ON EXISTING LANES.
2. INSTALL ADVANCE WARNING SIGNS AS SHOWN.
3. INSTALL PRECAST CONCRETE BARRIER. MOVE TRAFFIC TO NORTHBOUND LANES AND FULL DEPTH SHOULDER.
4. CONSTRUCT SOUTHBOUND LANES AS SHOWN.
5. PLACE FINAL SURFACE COURSE AND FINAL STRIPING.

CONSTRUCTION PAVEMENT MARKINGS

4" DOUBLE YELLOW CENTERLINE = 6420 LIN. FT.
4" WHITE SOLID LINE = 6420 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 411 EA.

VERTICAL PANELS = 15 EACH
TRAFFIC DRUMS = 184 EACH
RELOCATE PRECAST CONCRETE BARRIER = 925 LIN. FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIER = 2 EACH

STATE OF ARKANSAS
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1" = 100'

PC 440+69.77
PT 443+33.87
PI 442+02.24
445+00
C.L. HWY. 7
450+00
455+00
400' TAPER

STA. 443+00.00
BEGIN SITE 4
L.M. 7.30

4" SOLID WHITE
4" DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

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

STAGE 3 CONSTRUCTION
STAGE 1 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

1" = 100'

400' TAPER
455+00
(3) OM-3L (12" X 36")
925' P.C.C.B.
PC 459+63.09
460+00
T.I.A.B. STA. 457+00
PI 461+51.61
PT 463+35.73
465+00
(3) OM-3R (12" X 36")
T.I.A.B. STA. 466+25
PC 466+79.93
SOLID WHITE
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.
PI 469+41.41
800' TAPER
470+00
C.L. HWY. 7

SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

P.Joseph 6/21/2023 10:48:06 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	106	280

2 MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
Shaun Roberson
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No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

(1) W1-6 (48" X 24")

(1) R11-2 (48" X 30")

ROAD CLOSED

16' BARR. TYPE III RT.

800' TAPER

475+00

480+00

485+00

C.L. HWY. 7

PT 472+02.80

SOLID WHITE

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

N

1" = 100'

STAGE 3 CONSTRUCTION
STAGE 3 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

N

1" = 100'

485+00

490+00

495+00

500+00

C.L. HWY. 7

PC 494+54.79

PT 497+53.86

PI 496+05.18

SOLID WHITE

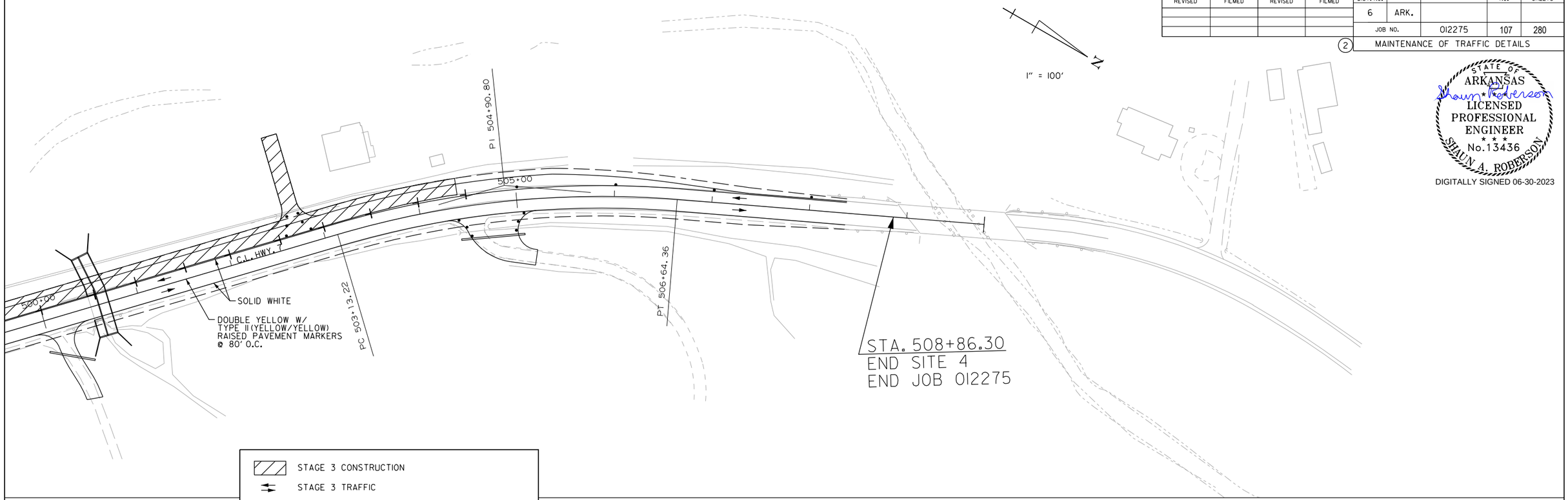
DOUBLE YELLOW W/ TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

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				6	ARK.			
				JOB NO.		012275	107	280

(2) MAINTENANCE OF TRAFFIC DETAILS



STAGE 3 CONSTRUCTION
STAGE 3 TRAFFIC
TRAFFIC DRUMS
VERTICAL PANELS

STATE OF ARKANSAS
Shaun A Roberson
LICENSED PROFESSIONAL ENGINEER
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SHAUN A. ROBERSON
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SITE 4
MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

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				JOB NO.		012275	108	280

(2) PERMANENT PAVEMENT MARKING DETAILS

BEGIN JOB 012275
BEGIN SITE 1 PAVEMENT PRESERVATION
L.M. 0.00

6" YELLOW SKIP THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

6" CONTINUOUS YELLOW THERMOPLASTIC PAVEMENT MARKING

HWY. 7

HWY. 67

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

6" YELLOW SKIP THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

EASTBOUND EXIT RAMP

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

12" WHITE THERMOPLASTIC PAVEMENT MARKING (STOP BAR)

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

WHITE THERMOPLASTIC PAVEMENT MARKING (WORDS)

WHITE THERMOPLASTIC PAVEMENT MARKING (ARROW)

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

EASTBOUND ENT. RAMP

I-30 EASTBOUND

I-30 WESTBOUND

N

PAVEMENT PRESERVATION

WHITE THERMOPLASTIC PAVEMENT MARKING (ARROW)

WHITE THERMOPLASTIC PAVEMENT MARKING (WORDS)

WESTBOUND ENT. RAMP

6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

HWY. 390

6" CONTINUOUS YELLOW THERMOPLASTIC PAVEMENT MARKING

I-30 EASTBOUND

I-30 WESTBOUND

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

12" WHITE THERMOPLASTIC PAVEMENT MARKING (STOP BAR)

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

WESTBOUND EXIT RAMP

WHITE THERMOPLASTIC PAVEMENT MARKING (ARROW)

WHITE THERMOPLASTIC PAVEMENT MARKING (WORDS)

THERMOPLASTIC PAVEMENT MARKING (PAID FOR AS WORDS)

6" YELLOW SKIP THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

PAVEMENT PRESERVATION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

N

6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

6" CONTINUOUS YELLOW THERMOPLASTIC PAVEMENT MARKING

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

6" YELLOW SKIP THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

12" WHITE THERMOPLASTIC PAVEMENT MARKING (STOP BAR)

FROST RD.

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

N

6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

6" CONTINUOUS WHITE THERMOPLASTIC PAVEMENT MARKING

STA. 113+00.00
BEGIN SITE 1 PROPOSED ALIGNMENT
L.M. 0.60

6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/TYPE II (YELLOW/YELLOW) RAISED PAVEMENT MARKERS @ 80' O.C.

PAVEMENT PRESERVATION

PERMANENT PAVING MARKING QUANTITIES - PAVEMENT PRESERVATION

THERMOPLASTIC PAVEMENT MARKING SOLID YELLOW (6") = 3820 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING YELLOW SKIP (6") = 3820 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING DOUBLE YELLOW (6") = 5004 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SOLID (6") = 8378 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SOLID (12") STOP BAR) = 68 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (ARROWS) = 3 EACH
THERMOPLASTIC PAVEMENT MARKING WHITE (WORDS) = 3 EACH
THERMOPLASTIC PAVEMENT MARKING (EMBLEM) = 1 EACH
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 79 EACH

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

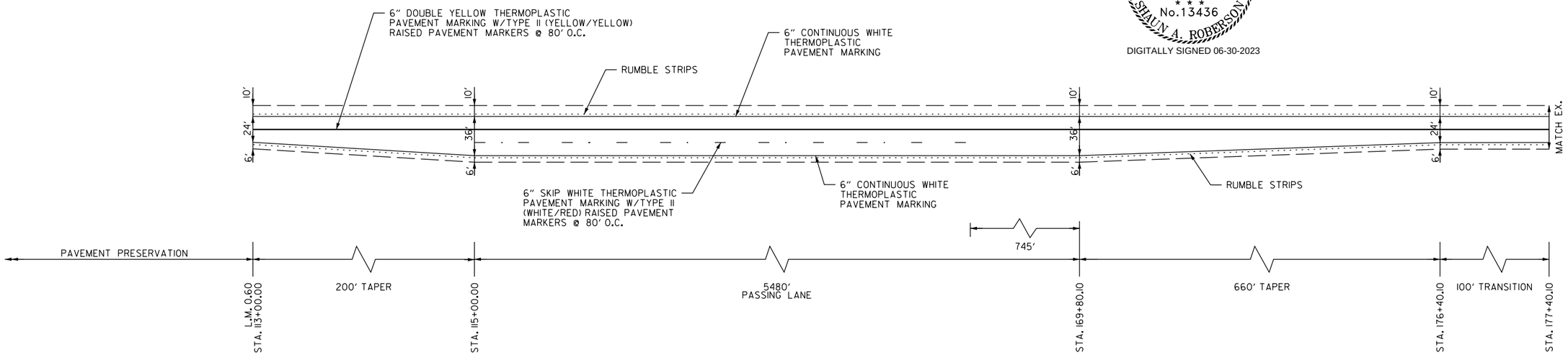
PERMANENT PAVEMENT MARKING DETAILS
PAVEMENT PRESERVATION

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	109	280

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

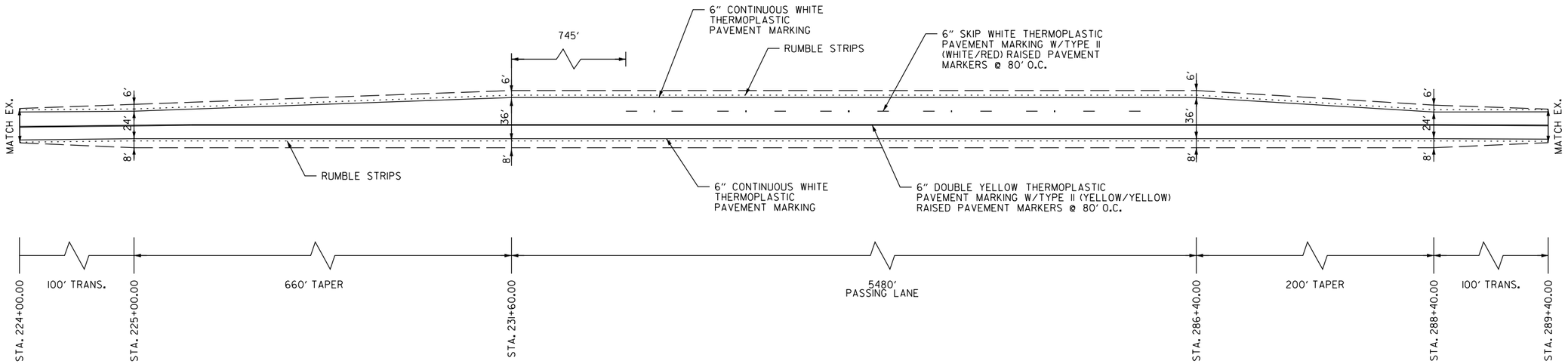


THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN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

SITE 1

PERMANENT PAVEMENT MARKING QUANTITES - SITE 1

THERMOPLASTIC PAVEMENT MARKING DOUBLE YELLOW (6") = 12880 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SOLID (6") = 12880 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SKIP (6") = 1184 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (WHITE/RED) = 60 EACH
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 82 EACH



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

SITE 2

PERMANENT PAVEMENT MARKING QUANTITES - SITE 2

THERMOPLASTIC PAVEMENT MARKING DOUBLE YELLOW (6") = 13080 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SOLID (6") = 13080 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SKIP (6") = 1184 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (WHITE/RED) = 60 EACH
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 82 EACH

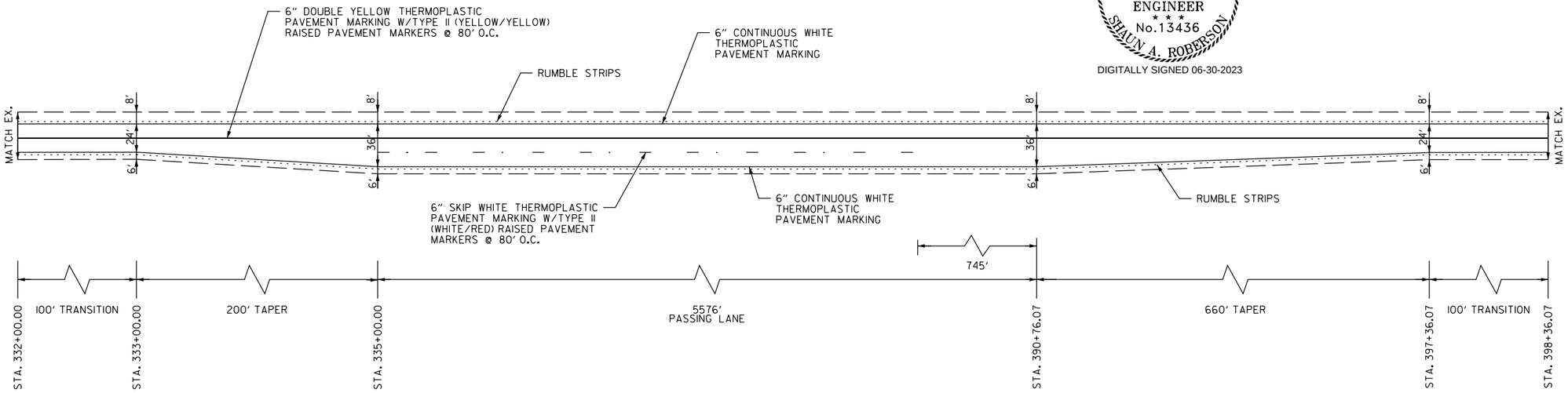
PERMANENT PAVEMENT MARKING DETAILS SITE 1 & 2

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REVISED DATE:

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				6	ARK.			
				JOB NO.		012275	110	280

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
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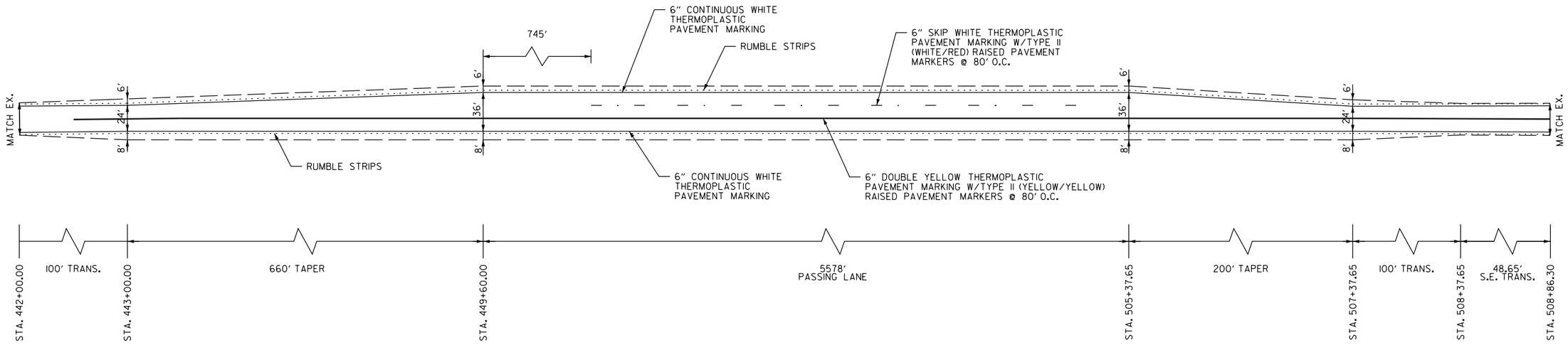


THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN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

SITE 3

PERMANENT PAVEMENT MARKING QUANTITES - SITE 3

THERMOPLASTIC PAVEMENT MARKING DOUBLE YELLOW (6") = 13272 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SOLID (6") = 13276 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SKIP (6") = 1208 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (WHITE/RED) = 61 EACH
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 83 EACH



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

SITE 4

PERMANENT PAVEMENT MARKING QUANTITES - SITE 4

THERMOPLASTIC PAVEMENT MARKING DOUBLE YELLOW (6") = 13276 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SOLID (6") = 13276 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE SKIP (6") = 1208 LIN. FT.
TYPE II RAISED PAVEMENT MARKERS (WHITE/RED) = 61 EACH
TYPE II RAISED PAVEMENT MARKERS (YELLOW/YELLOW) = 83 EACH

PERMANENT PAVEMENT MARKING DETAILS
SITE 3 & 4

PJoseph 6/21/2023 10:48:07 AM
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	111	280

(2) SOIL BORING LOG

STATE OF ARKANSAS
SHAUN A. ROBERSON
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

SOIL BORING LOG

LAB #	LOG MILE	APPROX. STATION	LOCATION	SAMPLE DEPTH (ft)	WATER CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING #200, %	UNIFIED CLASS.	AASHTO CLASS.	COLOR
						LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
RV85	1.60	165+80	35' RT	5.0	-	22	16	6	39		A-4(0)	RED
RV86	3.50	264+60	21' LT	5.0	-	22	17	5	61		A-4(1)	BROWN
RV87	4.53	333+00	21' RT	5.0	-	23	17	6	39		A-4(0)	BROWN
RV88	8.05	482+60	24' LT	5.0	-	ND	-	NP	48		A-4(0)	BROWN
S17	0.60	113+00	06' RT	5.0	12.3	ND	-	NP	53		A-4(0)	GRAY
S18	0.60	113+00	19' RT	5.0	13.9	ND	-	NP	45		A-4(0)	GRAY
S19	0.60	113+00	35' RT	5.0	14.4	ND	-	NP	52		A-4(0)	GRAY
S20	0.85	126+20	05' LT	5.0	13.8	ND	-	NP	40		A-4(0)	GRAY
S21	0.85	126+20	18' LT	5.0	14.3	ND	-	NP	21		A-2-4(0)	GRAY
S22	0.85	126+20	34' LT	5.0	13.0	ND	-	NP	33		A-2-4(0)	GRAY
S23	1.10	139+40	05' RT	5.0	11.6	43	20	23	91		A-7-6(22)	BROWN
S24	1.10	139+40	18' RT	5.0	11.2	35	20	15	94		A-6(14)	BROWN
S25	1.10	139+40	37' RT	5.0	23.4	33	17	16	65		A-6(8)	BROWN
S26	1.35	152+60	06' LT	5.0	33.6	33	19	14	76		A-6(9)	BROWN
S27	1.35	152+60	18' LT	5.0	22.4	32	19	13	69		A-6(7)	GRAY
S28	1.35	152+60	34' LT	5.0	19.6	26	17	9	74		A-4(4)	BROWN
S29	1.60	165+80	06' RT	5.0	18.5	49	25	24	75		A-7-6(18)	RED
S30	1.60	165+80	18' RT	5.0	18.0	50	26	24	84		A-7-6(22)	RED
S31	1.60	165+80	35' RT	5.0	16.4	36	21	15	80		A-6(11)	RED
S32	1.80	176+36	06' LT	5.0	21.2	34	18	16	66		A-6(7)	GRAY
S33	1.80	176+36	18' LT	5.0	20.4	30	17	13	70		A-6(7)	GRAY
S34	1.80	176+36	37' LT	5.0	25.2	ND	-	NP	58		A-4(0)	BROWN
S35	2.75	225+00	05' RT	5.0	17.6	29	19	10	83		A-4(7)	BROWN
S36	2.75	225+00	13' RT	5.0	16.8	21	16	5	64		A-4(1)	BROWN
S37	2.75	225+00	22' RT	5.0	17.9	ND	-	NP	47		A-4(0)	BROWN
S38	3.00	238+20	05' LT	5.0	15.7	19	14	5	58		A-4(0)	BROWN
S39	3.00	238+20	14' LT	5.0	14.9	19	14	5	50		A-4(0)	BROWN
S40	3.00	238+20	21' LT	5.0	17.4	ND	-	NP	45		A-4(1)	BROWN
S41	3.25	251+40	06' RT	5.0	10.2	20	15	5	70		A-4(0)	BROWN
S42	3.25	251+40	14' RT	5.0	18.3	ND	-	NP	69		A-4(0)	BROWN
S43	3.25	251+40	24' RT	5.0	15.3	ND	-	NP	51		A-4(0)	BROWN
S44	3.50	264+60	06' LT	5.0	20.1	20	16	4	49		A-4(0)	BROWN
S45	3.50	264+60	21' LT	5.0	17.9	21	18	3	44		A-4(0)	BROWN
S46	3.75	277+80	06' RT	5.0	15.5	ND	-	NP	66		A-4(0)	RD/BR
S47	3.75	277+80	24' RT	5.0	16.0	ND	-	NP	54		A-4(0)	RD/BR
S48	3.95	288+36	06' LT	5.0	19.7	21	16	5	66		A-4(1)	BROWN
S49	3.95	288+36	20' LT	5.0	20.5	ND	-	NP	30		A-2-4(0)	BROWN
S50	4.53	333+00	06' RT	3.5	13.4	27	15	12	63		A-6(5)	BROWN
S51	4.53	333+00	14' RT	5.0	14.1	20	15	5	56		A-4(0)	BROWN
S52	4.53	333+00	21' RT	5.0	16.2	ND	-	NP	50		A-4(0)	BROWN
S53	4.78	346+20	06' LT	4.0	5.7	19	13	6	58		A-4(1)	BROWN
S54	4.78	346+20	14' LT	4.0	11.0	ND	-	NP	42		A-4(0)	BROWN
S55	4.78	346+20	19' LT	1.0	7.2	ND	-	NP	36		A-4(0)	BROWN
S56	5.03	359+40	06' RT	5.0	21.1	20	15	5	70		A-4(1)	BROWN
S57	5.03	359+40	14' RT	5.0	23.1	22	15	7	65		A-4(2)	BROWN
S58	5.03	359+40	20' RT	5.0	18.6	ND	-	NP	39		A-4(0)	BROWN
S59	5.28	372+60	06' LT	4.0	9.5	47	23	24	83		A-7-6(21)	BROWN
S60	5.28	372+60	14' LT	2.5	17.5	ND	-	NP	28		A-2-4(0)	BROWN
S61	5.28	372+60	22' LT	2.5	17.4	ND	-	NP	43		A-4(0)	BROWN
S62	5.53	385+80	06' RT	3.5	20.3	41	19	22	77		A-7-6(6)	BROWN
S63	5.53	385+80	14' RT	5.0	15.9	23	14	9	55		A-4(2)	BROWN
S64	5.53	385+80	19' RT	5.0	23.1	23	15	8	37		A-4(0)	BROWN
S65	5.73	396+36	06' LT	3.5	18.0	29	16	13	69		A-6(7)	GRAY
S66	5.73	396+36	14' LT	5.0	18.7	33	19	14	75		A-6(9)	BROWN
S67	5.73	396+36	21' LT	5.0	14.9	23	17	6	37		A-4(0)	RED
S68	7.30	443+00	06' RT	5.0	18.3	30	17	13	81		A-6(9)	RED
S69	7.30	443+00	15' RT	5.0	25.5	28	17	11	63		A-6(4)	RED
S70	7.30	443+00	23' RT	5.0	19.3	21	6	15	64		A-6(5)	GRAY
S71	7.55	456+20	06' LT	5.0	25.4	42	22	20	60		A-7-6(10)	BR/GR
S72	7.55	456+20	15' LT	5.0	16.9	53	24	29	73		A-7-6(21)	BR/GR
S73	7.55	456+20	21' LT	2.0	15.7	ND	-	NP	27		A-2-4(0)	BR/GR
S74	7.80	469+40	05' RT	5.0	29.2	44	23	21	78		A-7-6(16)	BR/GR
S75	7.80	469+40	15' RT	5.0	26.4	58	28	30	79		A-7-6(26)	BR/GR
S76	7.80	469+40	25' RT	5.0	22.8	55	27	28	90		A-7-6(29)	BR/GR
S77	8.05	482+60	05' LT	5.0	14.8	22	15	7	62		A-4(2)	BROWN
S78	8.05	482+60	14' LT	5.0	15.9	19	15	4	53		A-4(0)	BR/GR
S79	8.05	482+60	24' LT	5.0	16.4	21	15	6	53		A-4(0)	BROWN
S80	8.30	495+80	05' RT	5.0	10.8	22	15	7	66		A-4(2)	BROWN
S81	8.30	495+80	15' RT	5.0	10.3	23	17	6	35		A-2-4(0)	BROWN
S82	8.30	495+80	22' RT	5.0	11.8	ND	-	NP	11		A-1-9(0)	BR/GR
S83	8.50	506+36	06' LT	5.0	22.2	28	18	10	64		A-4(4)	BR/GR
S84	8.50	506+36	15' LT	5.0	22.1	28	18	10	64		A-4(4)	BROWN

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMIT 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
ND - NOT DETERMINABLE

SOIL BORING LOG

PJoseph 6/21/2023 10:48:07 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	112	280

(2) QUANTITIES

ADVANCE WARNING SIGNS AND DEVICES

	SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		CONSTRUCTION PROJECT INFORMATION SIGN UPDATE	VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)
													RIGHT	LEFT				
				LIN. FT. - EACH				NO.	SQ. FT.	EACH	EACH				LIN. FT.		EACH	
	W16-2	XX FEET	48"x48"			2	2	2	32.0									
	W20-1	ROAD WORK 1500 FT.	48"x48"	8	8	5	8	8	128.0									
	W20-1	ROAD WORK 1000 FT.	48"x48"	8	8	4	8	8	128.0									
	W20-1	ROAD WORK 500 FT.	48"x48"	21	21	6	21	21	336.0									
	G20-2A	END ROAD WORK	48"x24"	21	21	8	21	21	168.0									
	G20-1	ROAD WORK NEXT xx MILES	60"x24"	8	8	4	8	8	80.0									
	W13-1	SPEED LIMIT (ADVISORY)	24"x24"		5		5	5	20.0									
	R11-2	ROAD CLOSED	48"x30"	27	34	5	34	34	340.0									
	OM-3L	OBJECT MARKER	12"x36"	21	24	9	24	24	72.0									
	OM-3R	OBJECT MARKER	12"x36"	24	24	9	24	24	72.0									
	W1-6	LARGE ARROW	48"x24"		7	2	7	7	56.0									
*	W3-5	REDUCED SPEED LIMIT AHEAD	48"x48"	8	8	4	8	8	128.0									
*	R4-1	DO NOT PASS	24"x30"	4	4	4	4	4	20.0									
*	W21-5a	RIGHT SHOULDER CLOSED	36"x36"	4	4	4	4	4	36.0									
*	W8-1	BUMP	30"x30"	4	4	4	4	4	25.0									
*	W8-17	SHOULDER DROP-OFF	36"X36"	4	4	4	4	4	36.0									
	W8-17P	SHOULDER DROP-OFF	24"x18"	4	4	4	4	4	12.0									
	W24-1R	DOUBLE REVERSE CURVE RT.	48"x48"		2		2	2	32.0									
	W24-1L	DOUBLE REVERSE CURVE LT.	48"x48"		3		3	3	48.0									
	W20-4	ONE LANE ROAD 1000 FT	36"x36"			1	1	1	9.0									
	W20-7a	FLAGGER	36"x36"			2	2	2	18.0									
	SPECIAL	CONSTRUCTION PROJECT INFORMATION SIGN	96"x48"															
		CONSTRUCTION PROJECT INFORMATION SIGN UPDATE								2								
		VERTICAL PANELS		497	335	15	497				497							
		TRAFFIC DRUMS		743	808	423	808					808						
		TYPE III BARRICADE-RT. (8')		1	3		3						24					
		TYPE III BARRICADE-LT. (8')		1	3		3							24				
		TYPE III BARRICADE-RT. (16')		10	13	10	13						208					
		TYPE III BARRICADE-LT. (15')		16	17	5	17							272				
		FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		2380	290		2670								2670			
		RELOCATING PRECAST CONCRETE BARRIER			2280	925	3205									3205		
		TEMPORARY IMPACT ATTENUATION BARRIER			8	2	10										10	
		TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)			8	2	10											10
	TOTALS:								1796.0	2	497	808	232	296	2670	3205	10	10

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB.

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	END OF JOB	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING				
						TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6" WHITE	6" YELLOW	12" WHITE	ARROWS	WORDS
	LIN. FT. - EACH				LIN. FT.	EACH		LIN. FT.			EACH	
CONSTRUCTION PAVEMENT MARKINGS	105416	10888	12840		129144							
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)				242		242						
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)	330	35	41	409			815					
THERMOPLASTIC PAVEMENT MARKING WHITE (6")				65670				65670				
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")				65152					65152			
THERMOPLASTIC PAVEMENT MARKING WHITE (12")				68						68		
THERMOPLASTIC PAVEMENT MARKING (ARROWS)				3							3	
THERMOPLASTIC PAVEMENT MARKING (WORDS)				4								4
TOTALS:					129144	242	815	65670	65152	68	3	4

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

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

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	136	273
DIRECTED BY THE ENGINEER		
TOTALS:	136	273

NOTE: QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC....25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC.....50 GAL./MILE

ACHM PATCHING OF EXISTING ROADWAY

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

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

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING STATION	GRUBBING STATION
SITE 1				
113+50	175+00	HWY. 7	62	62
SUBTOTALS SITE 1:			62	62
SITE 2				
225+00	270+00	HWY. 7	45	45
273+00	288+00	HWY. 7	15	15
SUBTOTALS SITE 2:			60	60
SITE 3				
332+00	362+00	HWY. 7	30	30
364+50	393+50	HWY. 7	29	29
SUBTOTALS SITE 3:			59	59
SITE 4				
443+50	445+00	HWY. 7	2	2
447+00	453+00	HWY. 7	6	6
456+00	479+00	HWY. 7	23	23
482+50	483+50	HWY. 7	1	1
489+00	509+00	HWY. 7	20	20
SUBTOTALS SITE 4:			52	52
TOTALS:			233	233

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH FEET	COLD MILLING ASPHALT PAVEMENT SQ. YD.
L.M. 0.00	L.M. 0.47	HWY. 7	46.00	12683.73
L.M. 0.47	L.M. 0.53	HWY. 7	45.00	1584.00
L.M. 0.53	L.M. 0.60	HWY. 7	44.00	1806.93
L.M. 0.00	L.M. 0.03	FROST RD.	61.91	1089.62
L.M. 0.03	L.M. 0.04	FROST RD.	33.00	193.60
L.M. 0.04	L.M. 0.20	FROST RD.	22.00	2065.07
176+40.10	177+40.10	HWY. 7	44.00	488.89
224+00.00	225+00.00	HWY. 7	33.00	366.67
288+40.00	289+40.00	HWY. 7	33.00	366.67
332+00.00	333+00.00	HWY. 7	33.00	366.67
397+36.07	398+36.07	HWY. 7	33.00	366.67
442+00.00	443+00.00	HWY. 7	34.00	377.78
507+37.65	508+37.65	HWY. 7	35.00	388.89
TOTAL:				22145.19

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

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REVISED DATE:

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
SITE 1				
112+00	177+40	HWY. 7 - STAGE 1	14831	2846
112+00	177+40	HWY. 7 - STAGE 2	72	571
112+00	177+40	HWY. 7 - STAGE 3	405	
ENTIRE SITE		DRIVEWAYS LT. & RT.		172
SUBTOTALS SITE 1:			**15308**	**3589**
SITE 2				
224+00	289+40	HWY. 7 - STAGE 1	11598	3473
224+00	289+40	HWY. 7 - STAGE 2	3947	2871
10+12	12+15	TUPELO TRAIL SOUTH	47	368
ENTIRE SITE		DRIVEWAYS LT. & RT.		1284
SUBTOTALS SITE 2:			**15592**	**7996**
SITE 3				
332+00	398+36	HWY. 7 - STAGE 1	9538	15001
332+00	398+36	HWY. 7 - STAGE 2	11679	4007
10+24	12+50	TUPELO TRAIL NORTH	247	569
ENTIRE SITE		DRIVEWAYS LT. & RT.		1514
SUBTOTALS SITE 3:			**21464**	**21091**
SITE 4				
442+00	508+86	HWY. 7 - STAGE 1	8194	10347
442+00	508+86	HWY. 7 - STAGE 2	47917	15756
442+00	508+86	HWY. 7 - STAGE 3	3007	10296
ENTIRE SITE		DRIVEWAYS LT. & RT.		608
SUBTOTALS SITE 4:			**59118**	**37007**
POND BERM				
453+99	455+54	POND BERM		1075
SUBTOTALS POND BERM:				**1075**
TOTALS:			**111482**	**70758**

REMOVAL AND DISPOSAL OF CULVERTS

STATION	DESCRIPTION	PIPE CULVERTS
		EACH
SITE 1		
120+02	HWY. 7	1
170+55	HWY. 7	1
SUBTOTAL SITE 1:		**2**
SITE 2		
232+50	HWY. 7 LT.	1
239+94	HWY. 7 RT.	1
242+93	HWY. 7 RT.	1
248+58	HWY. 7 LT.	1
252+62	HWY. 7 RT.	1
255+18	HWY. 7 LT.	1
255+94	HWY. 7 RT.	1
257+80	HWY. 7 RT.	1
258+91	HWY. 7 RT.	1
277+35	HWY. 7 RT.	1
278+37	HWY. 7 RT.	1
282+25	HWY. 7 LT.	1
282+41	HWY. 7 RT.	1
283+62	HWY. 7 RT.	1
284+86	HWY. 7 LT.	1
287+63	HWY. 7	1
288+30	HWY. 7 RT.	1
SUBTOTAL SITE 2:		**17**
SITE 3		
335+97	HWY. 7 RT.	1
344+88	HWY. 7 RT.	1
344+88	HWY. 7 LT.	1
346+50	HWY. 7 LT.	1
346+68	HWY. 7 RT.	1
349+11	HWY. 7 RT.	1
354+60	HWY. 7 RT.	1
361+47	HWY. 7 LT.	1
372+16	HWY. 7 LT.	1
372+96	HWY. 7 LT.	1
378+07	HWY. 7 LT.	1
393+32	HWY. 7 LT.	1
398+05	HWY. 7 LT.	1
SUBTOTAL SITE 3:		**13**
SITE 4		
442+44	HWY. 7 RT.	1
446+80	HWY. 7 LT.	1
450+64	HWY. 7 LT.	1
452+47	HWY. 7 LT.	1
459+58	HWY. 7 LT.	1
466+87	HWY. 7 LT.	1
504+51	HWY. 7 RT.	1
SUBTOTAL SITE 4:		**7**
TOTAL:		**39**

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

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE	GATES
			LIN. FT.	EACH
SITE 2				
233+54	235+00	HWY. 7 RT.	147	
235+00	238+11	HWY. 7 RT.	311	
241+06	242+36	HWY. 7 RT.	134	
242+00	242+10	HWY. 7 LT.	19	
248+60	250+00	HWY. 7 LT.	156	
250+00	255+20	HWY. 7 LT.	713	
255+70	256+98	HWY. 7 LT.	170	
258+05	258+40	HWY. 7 RT.	24	
258+40	260+00	HWY. 7 RT.	160	
262+44	262+50	HWY. 7 RT.	23	
266+73	267+35	HWY. 7 RT.	68	
272+76	272+81	HWY. 7 RT.	27	
274+55	276+44	HWY. 7 RT.	229	1
275+21	275+23	HWY. 7 LT.	34	
276+63	276+67	HWY. 7 RT.	19	
285+00	287+80	HWY. 7 RT.	310	
288+31	288+54	HWY. 7 LT.	28	
SUBTOTALS SITE 2:			**2572**	**1**
SITE 3				
332+00	338+50	HWY. 7 LT.	650	
332+20	335+85	HWY. 7 RT.	355	
341+40	344+92	HWY. 7 RT.	475	
345+00	353+52	HWY. 7 LT.	893	
345+13	345+19	HWY. 7 RT.	70	1
346+81	346+90	HWY. 7 RT.	50	
355+55		HWY. 7 LT.	10	
358+69		HWY. 7 LT.	6	
358+62	360+00	HWY. 7 RT.	138	1
360+00	366+26	HWY. 7 RT.	626	1
367+48	367+66	HWY. 7 RT.	91	
371+10	371+19	HWY. 7 LT.	26	
373+20	373+28	HWY. 7 LT.	27	
383+20	384+03	HWY. 7 RT.	83	1
384+50	390+00	HWY. 7 RT.	583	
387+21	390+00	HWY. 7 LT.	400	
390+00	393+81	HWY. 7 RT.	367	
390+00	392+30	HWY. 7 LT.	230	
SUBTOTALS SITE 3:			**5080**	**4**
SITE 4				
443+00	444+30	HWY. 7 RT.	130	
442+64	443+17	HWY. 7 LT.	51	
443+68	445+60	HWY. 7 LT.	192	
445+63	446+83	HWY. 7 LT.	158	
446+19	455+50	HWY. 7 RT.	1094	
450+90	452+24	HWY. 7 LT.	210	
452+60	455+00	HWY. 7 LT.	260	
455+00	460+80	HWY. 7 LT.	570	
460+80	465+13	HWY. 7 LT.	420	
455+50	456+06	HWY. 7 RT.	40	2
456+36	459+37	HWY. 7 RT.	334	
466+20	467+00	HWY. 7 RT.	112	
467+30	470+00	HWY. 7 LT.	305	2
470+00	483+98	HWY. 7 LT.	1435	
472+50	485+00	HWY. 7 RT.	1350	
484+48	485+00	HWY. 7 LT.	61	
485+00	488+21	HWY. 7 LT.	340	
500+86	509+00	HWY. 7 LT.	830	2
SUBTOTALS SITE 4:			**7892**	**6**
TOTALS:			**15544**	**11**

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE	650
		DIRECTED BY ENGINEER	
TOTAL:			**650**

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

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 09-06-2023

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09-06-2023				6	ARK.			
				JOB NO.		012275	113	280

(2) QUANTITIES

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	BUILDINGS	CATTLE GUARD	CONCRETE DRIVEWAYS	CONCRETE PAVEMENT	CURB AND GUTTER	GUARDRAIL	MAILBOXES	PLANTERS	POSTS	SIGNS	SIGN FOUNDATIONS	WALLS
			EACH	EACH	SQ. YD.	SQ. YD.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	LIN. FT.
SITE 1														
113+10		HWY. 7 LT.							1					
SUBTOTALS SITE 1:									**1**					
SITE 2														
227+59		HWY. 7 LT.										2	5	
230+60		HWY. 7 RT.							3					
231+77		HWY. 7 RT.										2	6	
232+25		HWY. 7 RT.										1	2	
232+49		HWY. 7 LT.				70								
240+18		HWY. 7 RT.							1					
244+79		HWY. 7 LT.							2					
245+05		HWY. 7 RT.							2					
252+50		HWY. 7 RT.							2					
255+00		HWY. 7 LT.							2					
260+10		HWY. 7 RT.	1											
260+75		HWY. 7 RT.	1											
262+69		HWY. 7 RT.							1					
264+50		HWY. 7 RT.	1											
268+70		HWY. 7 RT.							1					
271+82		HWY. 7 LT.							2					
274+83		HWY. 7 LT.										1	3	
277+80		HWY. 7 LT.								1		1	2	
278+85	281+20	HWY. 7 LT.												235
280+21		HWY. 7 RT.							1					
280+35		HWY. 7 RT.										2	4	
282+19		HWY. 7 LT.							1					
282+61		HWY. 7 RT.							1					
285+09		HWY. 7 RT.							3					
287+83		HWY. 7 LT.										1	2	
288+13		HWY. 7 RT.					30							
288+43		HWY. 7 RT.					27							
288+56	288+97	HWY. 7 RT.				14								
SUBTOTALS SITE 2:			**3**			**84**	**57**		**22**	**1**		**10**	**24**	**235**
SITE 3														
339+70		HWY. 7 LT.							1					
351+03	351+71	HWY. 7 RT.						68						
351+09	351+82	HWY. 7 LT.						73						
353+85		HWY. 7 LT.							1					
355+70		HWY. 7 LT.							2					
358+78		HWY. 7 LT.										1	2	
367+76	368+42	HWY. 7 RT.						66						
367+77	368+49	HWY. 7 LT.						72						
369+99		HWY. 7 RT.										1	2	
370+83		HWY. 7 RT.										1	2	
372+07		HWY. 7 LT.			69									
372+85		HWY. 7 LT.			70									
373+10		HWY. 7 LT.							1					
384+10		HWY. 7 LT.							1					
387+00		HWY. 7 LT.							1					
393+50		HWY. 7 LT.		1										
393+60		HWY. 7 LT.							1					
398+05		HWY. 7 LT.			71									
SUBTOTALS SITE 3:				**1**	**210**			**279**	**8**			**3**	**6**	
SITE 4														
443+37		HWY. 7 RT.										1	1	
444+00		HWY. 7 RT.							2			1	2	
445+36		HWY. 7 RT.										1	2	
446+65		HWY. 7 LT.									1			
446+99		HWY. 7 LT.									1			
455+70		HWY. 7 RT.		1										
456+20		HWY. 7 RT.							1					
459+60		HWY. 7 RT.							1					
461+24	462+03	HWY. 7 LT.						79						
461+36	462+05	HWY. 7 LT.						69						
462+45	463+15	HWY. 7 LT.						70						
462+46	463+21	HWY. 7 LT.						75						
469+30		HWY. 7 RT.							1					
485+50		HWY. 7 LT.										1	2	
491+84		HWY. 7 LT.										1	2	
500+16	500+89	HWY. 7 RT.						73						
500+20	500+88	HWY. 7 LT.						68						
505+20		HWY. 7 LT.										1	3	
SUBTOTALS SITE 4:				**1**				**434**	**5**		**2**	**6**	**12**	
TOTALS:			**3**	**2**	**210**	**84**	**57**	**713**	**36**	**1**	**2**	**19**	**42**	**235**

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

QUANTITIES

CGGervasini 9/6/2023 2:28:34 PM
WORKSPACE: AHTD
L:\20\T\10\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_QTY_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	114	280
				(2)		QUANTITIES		

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 24"	(CLASS IV) 24"	(CLASS IV) 36"	(CLASS IV) 42"	(CLASS IV) 48"	(CLASS IV) 51"X31"	(CLASS IV) 73"X45"	(CLASS V) 24"	SIDE DRAIN 18"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 24"	36"	42"	48"	51"X31"	73"X45"	DROP INLETS TYPE RM	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	LIN. FT.			CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL.	
SITE 1																										
113+75	HWY. 7 EXTEND 24" R.C. PIPE CULVERT 3' RT.								7		1													8	0.10	FES-1, FES-2, PCC-1
113+75	HWY. 7 CONST. 24" R.C. PIPE CULVERT								58		2													16	0.20	FES-1, FES-2, PCC-1
120+02	HWY. 7 CONST. DBL. 36" R.C. PIPE CULVERT			144								4												72	0.91	FES-1, FES-2, PCC-1
122+32	HWY. 7 CONST. DBL. 73"X45" R.C. ARCH PIPE CULVERT							148								4								268	3.38	FES-1, FES-2, PCC-2
125+65	HWY. 7 CONST. 10'X5' R.C. BOX CULVERT																	10	5	95	94.88	11638	49	19	0.24	SPECIAL DETAILS, RCB-1, RCB-2, RCB-3
138+44	HWY. 7 CONST. 24" F.E.S. RT.	4									1													8	0.10	FES-1, FES-2
140+46	HWY. 7 CONST. 24" F.E.S. RT.	6									1													8	0.10	FES-1, FES-2
144+26	HWY. 7 CONST. 24" F.E.S. RT.	4									1													8	0.10	FES-1, FES-2
156+27	HWY. 7 CONST. 24" F.E.S. RT.	4									1													8	0.10	FES-1, FES-2
160+64	HWY. 7 CONST. 24" F.E.S. RT.	6									1													8	0.10	FES-1, FES-2
SUBTOTALS SITE 1:		**24**		**144**				**148**	**65**		**8**	**4**				**4**					**94.88**	**11638**	**49**	**423**	**5.33**	
SITE 2:																										
228+01	HWY. 7 EXTEND 24" PIPE CULVERT 17' LT. & 7' RT.	32									2													16	0.20	FES-1, FES-2, PCC-1
237+02	HWY. 7 CONST. DBL. 24" R.C. PIPE CULVERT		140								4													32	0.40	FES-1, FES-2, PCC-1
248+11	HWY. 7 CONST. 36" R.C. PIPE CULVERT			77								2												36	0.45	FES-1, FES-2, PCC-1
269+60	HWY. 7 CONST. 24" R.C. PIPE CULVERT	71									2													16	0.20	FES-1, FES-2, PCC-1
276+18	HWY. 7 EXTEND 24" R.C. PIPE CULVERT 17' LT. & 14' RT.	39									2													16	0.20	FES-1, FES-2, PCC-1
287+70	HWY. 7 CONST. DBL. 24" R.C. PIPE CULVERT	160									4													18	0.23	FES-1, FES-2, PCC-1
SUBTOTALS SITE 2:		**302**	**140**	**77**							**14**	**2**												**134**	**1.68**	
SITE 3																										
333+85	HWY. 7 CONST. 36" R.C. PIPE CULVERT			97								2												34	0.43	FES-1, FES-2, PCC-1
351+43	HWY. 7 EXTEND 10'X6' R.C. BOX CULVERT 23' LT. & 34' RT.																	10	6	61	78.04	8795	38	21	0.26	W-X003-1, R-100X-0, RCB-1, RCB-2, RCB-3
355+67	HWY. 7 CONST. 18" SIDE DRAIN LT.									65							1									FPC-9D, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
360+00	HWY. 7 CONST. 51"X31" R.C. ARCH PIPE CULVERT						200								4									148	1.86	FES-1, FES-2, PCC-1
368+15	HWY. 7 EXTEND 8'X4' R.C. BOX CULVERT 21' LT. & 28' RT.																	8	4	53	45.00	5325	23	16	0.20	W-X003-1, R-100X-0, RCB-1, RCB-2, RCB-3
389+15	HWY. 7 CONST. 42" R.C. PIPE CULVERT				73								2											46	0.58	FES-1, FES-2, PCC-1
SUBTOTALS SITE 3:				**97**	**73**		**200**			**65**		**2**	**2**		**4**		**1**				**123.04**	**14120**	**61**	**265**	**3.33**	
SITE 4:																										
470+72	HWY. 7 EXTEND 2'X2' R.C. BOX CULVERT 23' LT. & 30' RT.																	2	2	57	13.15	1211	9	9	0.11	SPECIAL DETAILS, RCB-1, RCB-2, RCB-3
477+28	HWY. 7 EXTEND 6'X5' R.C. BOX CULVERT 19' LT. & 30' RT.																	6	5	53	38.53	4206	17	17	0.21	W-X003-1, R-100X-0, RCB-1, RCB-2, RCB-3
477+59	HWY. 7 CONST 48" R.C. PIPE CULVERT					89									2									58	0.73	FES-1, FES-2, PCC-1
485+81	HWY. 7 CONST. DBL. 24" R.C. PIPE CULVERT		142								4													36	0.45	FES-1, FES-2, PCC-1
491+11	HWY. 7 CONST. 48" R.C PIPE CULVERT					76									2									58	0.73	FES-1, FES-2, PCC-1
495+34	HWY. 7 EXTEND 3'X2' R.C. BOX CULVERT 35' LT. & 27' RT.																	3	2	67	19.32	1741	13	10	0.13	SPECIAL DETAILS, RCB-1, RCB-2, RCB-3
500+53	HWY. 7 EXTEND 7'X7' R.C. BOX CULVERT 40' LT. & 18' RT.																	7	7	62	56.05	6246	19	13	0.16	W-X003-1, R-100X-0, RCB-1, RCB-2, RCB-3
500+53	HWY. 7 CONST. 10'X7' R.C. BOX CULVERT																	10	7	87	107.03	13074	42	14	0.18	W-X003-1, R-100X-0, RCB-1, RCB-2, RCB-3
10+40	TUPELO TRAIL SOUTH CONST. 24" R.C. PIPE CULVERT	46																								FES-1, FES-2, PCC-1
10+50	TUPELO TRAIL NORTH CONST. 24" R.C. PIPE CULVERT	53																								PCC-1
SUBTOTALS SITE 4:		**99**	**142**			**165**					**4**				**4**						**234.08**	**26478**	**100**	**215**	**2.70**	
SUBTOTALS STRUCTURES LESS THAN 20' - 0" SPAN		**425**	**282**	**318**	**73**	**165**	**200**	**148**	**65**	**65**	**26**	**8**	**2**	**4**	**4**	**4**	**1**				**452.00**	**52236**	**210**	**1037**	**13.04**	
STRUCTURES OVER 20' - 0" SPAN																										
126+10	HWY. 7 EXTEND TRP. 10'X4' R.C. BOX CULVERT																	10	4	11	27.62	5808	12	13	0.16	SPECIAL DETAILS, RCB-1, RCB-2, RCB-3
462+25	HWY. 7 CONST. TRP. 9'X7' R.C. BOX CULVERT																	9	7	100	285.09	38732	107	32	0.40	SPECIAL DETAILS, RCB-1, RCB-2, RCB-3
SUBTOTALS:																					**312.71**	**44540**	**119**	**45**	**0.56**	
TOTALS:		**425**	**282**	**318**	**73**	**165**	**200**	**148**	**65**	**65**	**26**	**8**	**2**	**4**	**4**	**4**	**1**				**764.71**	**96776**	**329**	**1082**	**13.60**	

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.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	100
ENGINEER	
TOTAL:	**100**

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

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS LIN. FT.	UNDERDRAIN OUTLET PROTECTORS EACH
*		ENTIRE PROJECT TO BE USED IF AND	500	4
		WHERE DIRECTED BY THE ENGINEER		
TOTALS:			**500**	**4**

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

BENCH MARKS

STATION	LOCATION	BENCH MARKS EACH
SITE 1		
126+00	HWY. 7 NE. HEADWALL	1
SITE 3		
351+45	HWY. 7 NW. HEADWALL	1
SITE 4		
462+25	HWY. 7 NE. HEADWALL	1
TOTAL:		**3**

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

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09-06-2023				6	ARK.			
				JOB NO.		012275	115	280

(2) QUANTITIES

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE C)	WIRE FENCE (TYPE D)	WIRE FENCE (TYPE D-1)	* 6' CHAIN LINK FENCE	* 12'-0" GATES	* 16'-0" GATES	* 18'-0" GATES	* 20'-0" GATES
			LIN. FT.				EACH	EACH	EACH	EACH
SITE 2										
233+54	238+11	HWY. 7 RT.		458						
241+06	242+36	HWY. 7 RT.		130						
248+60	255+20	HWY. 7 LT.			660					
255+70	256+98	HWY. 7 LT.			128					
258+02	258+67	HWY. 7 RT.								
266+72	267+35	HWY. 7 RT.	89							
274+72	276+44	HWY. 7 RT.				172			1	
285+00	287+15	HWY. 7 RT.			216					
SUBTOTALS SITE 2:			**89**	**588**	**1004**	**172**			**1**	
SITE 3										
332+10	338+49	HWY. 7 LT.		643						
332+20	335+83	HWY. 7 RT.		355						
341+40	344+92	HWY. 7 RT.		346						
345+02	346+39	HWY. 7 LT.		143						
346+61	353+52	HWY. 7 LT.		705						
358+82	366+23	HWY. 7 RT.			771					1
383+46	384+03	HWY. 7 RT.								1
384+50	393+81	HWY. 7 RT.			928					
387+21	388+32	HWY. 7 LT.	110							
389+03	392+27	HWY. 7 LT.			342					
SUBTOTALS SITE 3:			**110**	**2192**	**2041**					**2**
SITE 4										
442+64	443+17	HWY. 7 LT.		51						
443+68	446+83	HWY. 7 LT.		196						
446+19	455+48	HWY. 7 RT.			936					
450+98	452+24	HWY. 7 LT.	126							
452+76	465+13	HWY. 7 LT.			1227					
455+93	456+06	HWY. 7 RT.			13					
456+36	459+36	HWY. 7 RT.	301							
466+17	466+98	HWY. 7 RT.			85					
467+56	483+97	HWY. 7 LT.			1546			2		
472+60	476+94	HWY. 7 RT.		443						
477+92	484+97	HWY. 7 RT.			714					
484+48	488+21	HWY. 7 LT.			375					
500+86	504+20	HWY. 7 LT.	348				2			
504+20	504+39	HWY. 7 LT.				20				
504+39	504+75	HWY. 7 LT.	38							
504+75	505+65	HWY. 7 LT.								
SUBTOTALS SITE 4:			**813**	**690**	**4996**	**20**	**2**	**2**		
TOTALS:			**1012**	**3470**	**8041**	**192**	**2**	**2**	**1**	**2**

* DENOTES ALTERNATE BID ITEM.

CHAIN LINK FENCE BEING PLACED ON PRIVATE PROPERTY SHALL INCLUDE A TOP RAIL. ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT OF CHAIN LINK FENCE.

PAVEMENT REPAIR OVER CULVERTS (CONCRETE)

STATION	LOCATION	WIDTH	LENGTH	CU.YD.
		FEET		
SITE 1				
113+75	HWY. 7	8.50	24	5.67
120+02	HWY. 7	17.33	24	11.56
122+32	HWY. 7	24.33	24	16.22
125+65	HWY. 7	13.00	24	8.67
SUBTOTAL SITE 1:				**42.12**
SITE 2				
237+02	HWY. 7	14.00	24	9.33
248+11	HWY. 7	9.67	24	6.44
269+60	HWY. 7	8.50	24	5.67
287+70	HWY. 7	14.00	24	9.33
SUBTOTAL SITE 2:				**30.77**
SITE 3				
333+85	HWY. 7	9.67	24	6.44
360+00	HWY. 7	19.67	32.5	17.75
389+15	HWY. 7	10.25	24	6.83
SUBTOTAL SITE 3:				**31.02**
SITE 4				
462+25	HWY. 7	33.00	24	22.00
477+59	HWY. 7	10.83	25	7.52
485+77	HWY. 7	14.00	24.5	9.53
491+11	HWY. 7	10.83	24	7.22
500+53	HWY. 7	10.00	24	6.67
SUBTOTAL SITE 4:				**52.94**
TOTAL:				**156.85**

AVG. DEPTH = 9"

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 09-06-2023

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL: SEEDING	SPECIAL SEEDING	LIME	MULCH COVER	SPECIAL MULCH COVER	WATER	SECOND SEEDING APPLICATION	SPECIAL SECOND SEEDING APPLICATION	TEMPORARY EROSION CONTROL: TEMPORARY SEEDING	SPECIAL TEMPORARY SEEDING	MULCH COVER	SPECIAL MULCH COVER	WATER	WATTLE (20") DITCH CHECKS (E-1)	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	SILT FENCE (E-11)	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	ACRE	TON	ACRE	ACRE	M.GAL.	ACRE	ACRE	ACRE		ACRE		M.GAL.	LIN. FT.	BAG	CU.YD.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
SITE 1																						
		CLEARING AND GRUBBING															176	36	7990			316
		STAGE 1															990	69				68
		STAGE 2															44					2
		STAGE 3															22	3				2
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			2.15	3.49	11.28	2.15	3.49	575.3	2.15	3.49	2.15	3.49	2.15	3.49	115.1					100	100	100
SUBTOTALS SITE 1:			**2.15**	**3.49**	**11.28**	**2.15**	**3.49**	**575.3**	**2.15**	**3.49**	**2.15**	**3.49**	**2.15**	**3.49**	**115.1**		**1232**	**108**	**7990**	**100**	**100**	**488**
SITE 2																						
		CLEARING AND GRUBBING															220	36	1711			85
		STAGE 1															1166	90				83
		STAGE 2															814	45				52
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			7.22		14.44	7.22		736.4	7.22		7.22		7.22		147.3					100	100	100
SUBTOTALS SITE 2:			**7.22**		**14.44**	**7.22**		**736.4**	**7.22**		**7.22**		**7.22**		**147.3**		**2200**	**171**	**1711**	**100**	**100**	**320**
SITE 3																						
		CLEARING AND GRUBBING															220	39	3261			144
		STAGE 1															1276	75				83
		STAGE 2															1474	66				89
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			8.75		17.50	8.75		892.5	8.75		8.75		8.75		178.5					100	100	100
SUBTOTALS SITE 3:			**8.75**		**17.50**	**8.75**		**892.5**	**8.75**		**8.75**		**8.75**		**178.5**		**2970**	**180**	**3261**	**100**	**100**	**416**
SITE 4																						
		CLEARING AND GRUBBING															220	54	5050			215
		STAGE 1															814	63				58
		STAGE 2															1100	72				74
		STAGE 3															352	15				21
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			11.18		22.36	11.18		1140.4	11.18		11.18		11.18		228.1					100	100	100
SUBTOTALS SITE 4:			**11.18**		**22.36**	**11.18**		**1140.4**	**11.18**		**11.18**		**11.18**		**228.1**		**2486**	**204**	**5050**	**100**	**100**	**468**
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.																500						
TOTALS:			**29.30**	**3.49**	**65.58**	**29.30**	**3.49**	**3344.6**	**29.30**	**3.49**	**29.30**	**3.49**	**29.30**	**3.49**	**669.0**	**500**	**8888**	**663**	**18012**	**400**	**400**	**1692**

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

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.

CGervasini 9/6/2023 2:28:51 PM
WORKSPACE: AHTD
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REVISED DATE:

EROSION CONTROL MATTING

STATION	STATION	LOCATION	LENGTH	CLASS 3
			LIN. FT.	SQ. YD.
SITE 1				
113+00.00	114+00.00	HWY. 7 LT.	100.00	88.89
122+32.00	123+00.00	HWY. 7 LT.	68.00	60.44
113+00.00	113+30.00	HWY. 7 RT.	30.00	26.67
113+56.00	120+85.00	HWY. 7 RT.	729.00	648.00
122+32.00	123+00.00	HWY. 7 RT.	68.00	60.44
127+00.00	128+00.00	HWY. 7 RT.	100.00	88.89
134+00.00	138+43.00	HWY. 7 RT.	443.00	393.78
140+00.00	148+30.00	HWY. 7 RT.	830.00	737.78
148+72.00	150+41.00	HWY. 7 RT.	169.00	150.22
163+03.00	164+78.00	HWY. 7 RT.	175.00	155.56
165+90.00	166+60.00	HWY. 7 RT.	70.00	62.22
168+90.00	170+31.00	HWY. 7 RT.	141.00	125.33
170+78.00	171+95.00	HWY. 7 RT.	117.00	104.00
172+43.00	176+00.00	HWY. 7 RT.	357.00	317.33
SUBTOTALS SITE 1:				**3019.55**
SITE 2				
225+00.00	232+37.00	HWY. 7 LT.	737.00	655.11
235+03.00	236+39.00	HWY. 7 LT.	136.00	120.89
237+10.00	239+00.00	HWY. 7 LT.	190.00	168.89
244+00.00	244+98.00	HWY. 7 LT.	98.00	87.11
245+43.00	247+20.00	HWY. 7 LT.	177.00	157.33
248+77.00	250+00.00	HWY. 7 LT.	123.00	109.33
253+05.00	254+80.00	HWY. 7 LT.	175.00	155.56
259+00.00	263+53.00	HWY. 7 LT.	453.00	402.67
263+94.00	267+42.00	HWY. 7 LT.	348.00	309.33
267+75.00	268+50.00	HWY. 7 LT.	75.00	66.67
268+87.00	270+01.00	HWY. 7 LT.	114.00	101.33
270+44.00	271+23.00	HWY. 7 LT.	79.00	70.22
272+38.00	278+38.00	HWY. 7 LT.	600.00	533.33
278+89.00	281+30.00	HWY. 7 LT.	241.00	214.22
230+27.00	231+01.00	HWY. 7 RT.	74.00	65.78
231+49.00	232+30.00	HWY. 7 RT.	81.00	72.00
237+21.00	237+90.00	HWY. 7 RT.	69.00	61.33
262+57.00	263+56.00	HWY. 7 RT.	99.00	88.00
264+40.00	266+76.00	HWY. 7 RT.	236.00	209.78
267+25.00	269+54.00	HWY. 7 RT.	229.00	203.56
271+30.00	273+87.00	HWY. 7 RT.	257.00	228.44
274+18.00	275+43.00	HWY. 7 RT.	125.00	111.11
275+75.00	277+17.00	HWY. 7 RT.	142.00	126.22
277+50.00	278+15.00	HWY. 7 RT.	65.00	57.78
278+54.00	279+61.00	HWY. 7 RT.	107.00	95.11
280+15.00	282+23.00	HWY. 7 RT.	208.00	184.89
282+69.00	283+46.00	HWY. 7 RT.	77.00	68.44
283+79.00	287+66.00	HWY. 7 RT.	387.00	344.00
288+47.00	289+40.00	HWY. 7 RT.	93.00	82.67
SUBTOTALS SITE 2:				**5151.10**
SITE 3				
339+00.00	339+66.00	HWY. 7 LT.	66.00	58.67
340+01.00	340+98.00	HWY. 7 LT.	97.00	86.22
349+50.00	351+54.00	HWY. 7 LT.	204.00	181.33
352+91.00	355+34.00	HWY. 7 LT.	243.00	216.00
356+02.00	361+20.00	HWY. 7 LT.	518.00	460.44
361+72.00	364+44.00	HWY. 7 LT.	272.00	241.78
364+97.00	368+29.00	HWY. 7 LT.	332.00	295.11
369+94.00	371+94.00	HWY. 7 LT.	200.00	177.78
372+35.00	372+74.00	HWY. 7 LT.	39.00	34.67
373+16.00	377+84.00	HWY. 7 LT.	468.00	416.00
378+27.00	384+21.00	HWY. 7 LT.	594.00	528.00
384+57.00	386+82.00	HWY. 7 LT.	225.00	200.00
387+21.00	389+15.00	HWY. 7 LT.	194.00	172.44
394+10.00	398+36.00	HWY. 7 LT.	426.00	378.67
339+40.00	341+09.00	HWY. 7 RT.	169.00	150.22
341+00.00	341+11.00	HWY. 7 RT.	11.00	9.78
352+21.00	353+00.00	HWY. 7 RT.	79.00	70.22
355+00.00	357+71.00	HWY. 7 RT.	271.00	240.89
358+27.00	359+40.00	HWY. 7 RT.	113.00	100.44
365+70.00	366+90.00	HWY. 7 RT.	120.00	106.67
369+01.00	371+20.00	HWY. 7 RT.	219.00	194.67
397+33.00	398+36.00	HWY. 7 RT.	103.00	91.56
11+00.00	12+00.00	TUPELO TRAIL NORTH LT.	100.00	88.89
11+00.00	12+00.00	TUPELO TRIAL NORTH RT.	100.00	88.89
SUBTOTALS SITE 3:				**4589.34**
SITE 4				
443+00.00	443+32.00	HWY. 7 LT.	32.00	28.44
443+66.00	444+60.00	HWY. 7 LT.	94.00	83.56
459+00.00	462+02.00	HWY. 7 LT.	302.00	268.44
468+78.00	469+50.00	HWY. 7 LT.	72.00	64.00
471+40.00	473+60.00	HWY. 7 LT.	220.00	195.56
483+60.00	484+14.00	HWY. 7 LT.	54.00	48.00
484+38.00	486+40.00	HWY. 7 LT.	202.00	179.56
488+60.00	489+20.00	HWY. 7 LT.	60.00	53.33
442+00.00	442+10.00	HWY. 7 RT.	10.00	8.89
442+54.00	442+75.00	HWY. 7 RT.	21.00	18.67
443+10.00	444+52.00	HWY. 7 RT.	142.00	126.22
444+80.00	446+00.00	HWY. 7 RT.	120.00	106.67
452+00.00	452+60.00	HWY. 7 RT.	60.00	53.33
455+00.00	455+55.00	HWY. 7 RT.	55.00	48.89
459+88.00	469+04.00	HWY. 7 RT.	916.00	814.22
460+58.00	465+98.00	HWY. 7 RT.	540.00	480.00
475+50.00	484+98.00	HWY. 7 RT.	948.00	842.67
485+80.00	491+15.00	HWY. 7 RT.	535.00	475.56
492+00.00	495+08.00	HWY. 7 RT.	308.00	273.78
495+62.00	499+97.00	HWY. 7 RT.	435.00	386.67
502+00.00	504+38.00	HWY. 7 RT.	238.00	211.56
505+05.00	506+90.00	HWY. 7 RT.	185.00	164.44
SUBTOTALS SITE 4:				**4932.46**
TOTAL:				**17692.45**

NOTE: AVERAGE WIDTH = 8'-0"

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
SITE 1							
125+00.00	125+53.00	HWY. 7 LT.	53.00	6.00	35.33	23.56	0.30
138+44.00	139+00.00	HWY. 7 RT.	56.00	7.00	43.56	24.89	0.31
150+42.00	155+00.00	HWY. 7 RT.	458.00	6.00	305.33	203.56	2.56
155+00.00	158+00.00	HWY. 7 RT.	300.00	6.00	200.00	133.33	1.68
158+00.00	160+10.00	HWY. 7 RT.	210.00	6.00	140.00	93.33	1.18
160+10.00	162+00.00	HWY. 7 RT.	190.00	6.00	126.67	84.44	1.06
162+00.00	163+00.00	HWY. 7 RT.	100.00	7.00	77.78	44.44	0.56
SUBTOTALS SITE 1:					**928.67**	**607.55**	**7.65**
SITE 2							
227+00.00	228+50.00	HWY. 7 RT.	150.00	6.00	100.00	66.67	0.84
233+28.00	235+00.00	HWY. 7 LT.	172.00	7.00	133.78	76.44	0.96
236+40.00	236+97.00	HWY. 7 LT.	57.00	6.00	38.00	25.33	0.32
236+70.00	236+97.00	HWY. 7 RT.	27.00	6.00	18.00	12.00	0.15
239+00.00	244+00.00	HWY. 7 LT.	500.00	7.00	388.89	222.22	2.80
240+09.00	241+50.00	HWY. 7 RT.	141.00	7.00	109.67	62.67	0.79
241+50.00	242+50.00	HWY. 7 RT.	100.00	6.00	66.67	44.44	0.56
247+20.00	248+08.00	HWY. 7 LT.	88.00	6.00	58.67	39.11	0.49
250+00.00	252+59.00	HWY. 7 LT.	259.00	7.00	201.44	115.11	1.45
250+40.00	252+43.00	HWY. 7 RT.	203.00	6.00	135.33	90.22	1.14
252+77.00	255+73.00	HWY. 7 RT.	296.00	6.00	197.33	131.56	1.66
254+80.00	255+01.00	HWY. 7 LT.	21.00	6.00	14.00	9.33	0.12
255+44.00	257+50.00	HWY. 7 LT.	206.00	6.00	137.33	91.56	1.15
256+10.00	257+50.00	HWY. 7 RT.	140.00	6.00	93.33	62.22	0.78
257+50.00	259+00.00	HWY. 7 LT.	150.00	7.00	116.67	66.67	0.84
258+00.00	258+60.00	HWY. 7 RT.	60.00	6.00	40.00	26.67	0.34
259+11.00	262+16.00	HWY. 7 RT.	305.00	6.00	203.33	135.56	1.71
269+00.00	269+58.00	HWY. 7 LT.	58.00	6.00	38.67	25.78	0.32
269+62.00	270+50.00	HWY. 7 RT.	88.00	6.00	58.67	39.11	0.49
276+21.00	277+60.00	HWY. 7 LT.	139.00	6.00	92.67	61.78	0.78
281+30.00	282+08.00	HWY. 7 LT.	78.00	6.00	52.00	34.67	0.44
282+45.00	284+52.00	HWY. 7 LT.	207.00	6.00	138.00	92.00	1.16
285+03.00	287+71.00	HWY. 7 LT.	268.00	6.00	178.67	119.11	1.50
287+70.00	288+09.00	HWY. 7 RT.	39.00	6.00	26.00	17.33	0.22
SUBTOTALS SITE 2:					**2637.12**	**1667.56**	**21.01**
SITE 3							
333+00.00	333+81.00	HWY. 7 LT.	81.00	6.00	54.00	36.00	0.45
333+88.00	339+00.00	HWY. 7 LT.	512.00	6.00	341.33	227.56	2.87
333+88.00	335+78.00	HWY. 7 RT.	190.00	6.00	126.67	84.44	1.06
336+12.00	336+90.00	HWY. 7 RT.	78.00	7.00	60.67	34.67	0.44
336+90.00	338+20.00	HWY. 7 RT.	130.00	6.00	86.67	57.78	0.73
338+50.00	339+00.00	HWY. 7 LT.	50.00	7.00	38.89	22.22	0.28
341+49.00	344+79.00	HWY. 7 RT.	330.00	7.00	256.67	146.67	1.85
341+61.00	343+80.00	HWY. 7 LT.	219.00	7.00	170.33	97.33	1.23
343+80.00	344+56.00	HWY. 7 LT.	76.00	6.00	50.67	33.78	0.43
345+10.00	346+32.00	HWY. 7 LT.	122.00	6.00	81.33	54.22	0.68
345+40.00	346+52.00	HWY. 7 RT.	112.00	7.00	87.11	49.78	0.63
346+76.00	349+10.00	HWY. 7 LT.	234.00	7.00	182.00	104.00	1.31
346+92.00	348+95.00	HWY. 7 RT.	203.00	7.00	157.89	90.22	1.14
349+10.00	349+50.00	HWY. 7 LT.	40.00	6.00	26.67	17.78	0.22
349+28.00	350+00.00	HWY. 7 RT.	72.00	7.00	56.00	32.00	0.40
350+00.00	351+28.00	HWY. 7 RT.	128.00	6.00	85.33	56.89	0.72
351+54.00	352+90.00	HWY. 7 LT.	136.00	6.00	90.67	60.44	0.76
351+57.00	352+20.00	HWY. 7 RT.	63.00	6.00	42.00	28.00	0.35
366+90.00	369+00.00	HWY. 7 RT.	210.00	6.00	140.00	93.33	1.18
368+29.00	369+54.00	HWY. 7 LT.	125.00	6.00	83.33	55.56	0.70
388+40.00	390+00.00	HWY. 7 RT.	160.00	6.00	106.67	71.11	0.90
389+15.00	390+00.00	HWY. 7 LT.	85.00	6.00	56.67	37.78	0.48
390+00.00	393+06.00	HWY. 7 RT.	306.00	6.00	204.00	136.00	1.71
390+00.00	393+32.00	HWY. 7 RT.	332.00	7.00	258.22	147.56	1.86
393+51.00	394+30.00	HWY. 7 LT.	79.00	6.00	52.67	35.11	0.44
SUBTOTALS SITE 3:					**2896.46**	**1810.23**	**22.82**
SITE 4							
446+00.00	450+50.00	HWY. 7 RT.	450.00	7.00	350.00	200.00	2.52
447+11.00	450+42.00	HWY. 7 LT.	331.00	7.00	257.44	147.11	1.85
450+89.00	452+31.00	HWY. 7 LT.	142.00	7.00	110.44	63.11	0.80
450+50.00	452+00.00	HWY. 7 RT.	150.00	6.00	100.00	66.67	0.84
452+80.00	454+76.00	HWY. 7 LT.	196.00	6.00	130.67	87.11	1.10
454+76.00	455+00.00	HWY. 7 LT.	24.00	7.00	18.67	10.67	0.13
455+00.00	459+00.00	HWY. 7 LT.	400.00	7.00	311.11	177.78	2.24
455+94.00	456+16.00	HWY. 7 RT.	22.00	7.00	17.11	9.78	0.12
456+49.00	457+70.00	HWY. 7 RT.	121.00	7.00	94.11	53.78	0.68
457+70.00	459+32.00	HWY. 7 RT.	162.00	6.00	108.00	72.00	0.91
459+88.00	460+00.00	HWY. 7 RT.	12.00	6.00	8.00	5.33	0.07
462+49.00	463+00.00	HWY. 7 LT.	51.00	7.00	39.67	22.67	0.29
466+00.00	466+63.00	HWY. 7 LT.	63.00	6.00	42.00	28.00	0.35
466+00.00	466+50.00	HWY. 7 RT.	50.00	6.00	33.33	22.22	0.28
466+50.00	468+85.00	HWY. 7 RT.	235.00	7.00	182.78	104.44	1.32
467+04.00	468+39.00	HWY. 7 LT.	135.00	7.00	105.00	60.00	0.76
469+50.00	470+00.00	HWY. 7 RT.	50.00	6.00	33.33	22.22	0.28
470+00.00	471+50.00	HWY. 7 RT.	150.00	6.00	100.00	66.67	0.84
471+50.00	474+00.00	HWY. 7 RT.	250.00	7.00	194.44	111.11	1.40
474+00.00	475+50.00	HWY. 7 RT.	150.00	6.00	100.00	66.67	0.84
491+15.00	492+00.00	HWY. 7 RT.	85.00	6.00	56.67	37.78	0.48
495+10.00	495+24.00	HWY. 7 RT.	14.00	6.00	9.33	6.22	0.08
495+36.00	495+60.00	HWY. 7 RT.	24.00	6.00	16.00	10.67	0.13
500+39.00	500+61.00	HWY. 7 RT.	22.00	6.00	14.67	9.78	0.12
500+73.00	502+00.00	HWY. 7 RT.	127.00	6.00	84.67	56.44	0.71
SUBTOTALS SITE 4:					**2517.44**	**1518.23**	**19.14**
POND BERM							
453+90.53	453+99.20	HWY. 7 RT.	14.00	6.64	10.33	6.22	0.08
SUBTOTALS POND BERM:					**10.33**	**6.22**	**0.08**
TOTALS:					**8990.02**	**5609.79**	**70.70**

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

RUMBLE STRIPS

STATION	STATION	LOCATION	* CENTERLINE RUMBLE STRIPES IN ASPHALT ROADWAY	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.	LIN.FT.
SITE 1				
112+00	169+52	HWY. 7 LT.		5752
170+20	172+45	HWY. 7 LT.		225
173+14	177+40	HWY. 7 LT.		426
112+00	177+40	HWY. 7 C.L.	6540	
112+00	113+10	HWY. 7 RT.		110
113+76	148+18	HWY. 7 RT.		3442
148+85	170+16	HWY. 7 RT.		2131
170+94	171+79	HWY. 7 RT.		85
172+60	177+40	HWY. 7 RT.		480
SUBTOTAL SITE 1:			**6540**	**12651**
SITE 2				
224+00	232+12	HWY. 7 LT.		812
233+53	244+98	HWY. 7 LT.		1145
245+53	248+17	HWY. 7 LT.		264
248+89	252+45	HWY. 7 LT.		356
253+20	254+88	HWY. 7 LT.		168
255+62	263+41	HWY. 7 LT.		779
264+10	267+25	HWY. 7 LT.		315
267+91	268+35	HWY. 7 LT.		44
269+01	269+90	HWY. 7 LT.		89
270+58	271+05	HWY. 7 LT.		47
271+71	271+83	HWY. 7 LT.		12
272+49	278+33	HWY. 7 LT.		584
278+97	281+93	HWY. 7 LT.		296
282+57	284+40	HWY. 7 LT.		183
285+16	287+74	HWY. 7 LT.		258
288+40	289+40	HWY 7 LT		100
224+00	266+46	HWY. 7 C.L.	4246	
267+58	293+91	HWY. 7 C.L.	2633	
224+00	229+76	HWY. 7 RT.		576
230+44	230+70	HWY. 7 RT.		26
231+80	239+61	HWY. 7 RT.		781
240+27	242+59	HWY. 7 RT.		232
243+26	244+53	HWY. 7 RT.		127
245+60	252+29	HWY. 7 RT.		669
252+95	255+61	HWY. 7 RT.		266
256+27	257+47	HWY. 7 RT.		120
258+13	258+36	HWY. 7 RT.		23
259+43	262+16	HWY. 7 RT.		273
259+42	262+06	HWY. 7 RT.		264
262+73	263+44	HWY. 7 RT.		71
264+60	266+46	HWY. 7 RT.		186
267+58	270+81	HWY. 7 RT.		323
271+48	273+69	HWY. 7 RT.		221
274+35	275+25	HWY. 7 RT.		90
275+91	277+02	HWY. 7 RT.		111
277+68	277+81	HWY. 7 RT.		13
278+84	279+44	HWY. 7 RT.		60
280+36	281+90	HWY. 7 RT.		154
282+86	283+29	HWY. 7 RT.		43
283+95	287+96	HWY. 7 RT.		401
288+63	289+40	HWY. 7 RT.		77
SUBTOTAL SITE 2:			**6879**	**10559**
SITE 3				
332+00	339+52	HWY. 7 LT.		752
340+18	340+83	HWY. 7 LT.		65
341+73	344+23	HWY. 7 LT.		250
345+31	346+18	HWY. 7 LT.		87
346+82	355+19	HWY. 7 LT.		837
356+15	361+07	HWY. 7 LT.		492
361+87	364+16	HWY. 7 LT.		229
365+28	369+41	HWY. 7 LT.		413
370+12	371+83	HWY. 7 LT.		171
372+49	372+63	HWY. 7 LT.		14
373+29	377+72	HWY. 7 LT.		443
378+42	384+06	HWY. 7 LT.		564
384+74	386+67	HWY. 7 LT.		193
387+33	393+00	HWY. 7 LT.		567
393+64	398+36	HWY. 7 LT.		472
329+67	357+42	HWY. 7 C.L.	2775	
358+48	398+36	HWY. 7 C.L.	3968	
332+00	335+64	HWY. 7 RT.		364
336+30	338+80	HWY. 7 RT.		250
341+61	344+45	HWY. 7 RT.		284
345+62	346+35	HWY. 7 RT.		73
347+03	348+78	HWY. 7 RT.		175
349+44	353+00	HWY. 7 RT.		356
355+00	357+42	HWY. 7 RT.		242
358+48	364+25	HWY. 7 RT.		577
364+96	372+19	HWY. 7 RT.		723
373+42	383+36	HWY. 7 RT.		994
384+00	393+50	HWY. 7 RT.		950
396+60	396+72	HWY. 7 RT.		12
397+41	398+36	HWY. 7 RT.		95
SUBTOTAL SITE 3:			**6763**	**10644**
SITE 4				
442+00	443+17	HWY. 7 LT.		117
443+84	446+54	HWY. 7 LT.		270
447+26	450+26	HWY. 7 LT.		300
450+93	452+14	HWY. 7 LT.		121
452+80	466+55	HWY. 7 LT.		1375
467+21	468+22	HWY. 7 LT.		101
468+90	483+93	HWY. 7 LT.		1503
484+59	491+20	HWY. 7 LT.		661
491+90	502+41	HWY. 7 LT.		1051
503+07	508+86	HWY. 7 LT.		579
442+00	508+86	HWY. 7 C.L.	6686	
443+25	444+31	HWY. 7 RT.		106
445+01	455+36	HWY. 7 RT.		1035
456+63	459+25	HWY. 7 RT.		262
459+90	468+90	HWY. 7 RT.		900
469+46	484+60	HWY. 7 RT.		1514
486+08	499+83	HWY. 7 RT.		1375
500+49	504+21	HWY. 7 RT.		372
505+24	508+86	HWY. 7 RT.		362
SUBTOTAL SITE 4:			**6686**	**12004**
TOTAL:			**26868**	**45858**

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09-06-2023				6	ARK.			
				JOB NO.		012275	116	280

(2) QUANTITIES

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 09-06-2023

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE B-1 (1' 6")
			LIN. FT.
SITE 1			
140+80	144+00	HWY. 7 RT.	320
SUBTOTAL SITE 1:			**320**
SITE 2			
242+65	245+70	HWY. 7 RT.	305
SUBTOTAL SITE 2:			**305**
SITE 3			
338+85	341+00	HWY. 7 RT.	215
353+00	355+00	HWY. 7 RT.	200
393+50	396+60	HWY. 7 RT.	310
SUBTOTAL SITE 3:			**725**
TOTAL:			**1350**

MAILBOXES

STATION	LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE) EACH	MAILBOX SUPPORTS (DOUBLE)
SITE 1				
113+09	HWY. 7 LT.	1	1	
SUBTOTALS SITE 1:		**1**	**1**	
SITE 2				
230+60	HWY. 7 RT.	3	3	
240+18	HWY. 7 RT.	1	1	
244+80	HWY. 7 LT.	2		1
245+05	HWY. 7 RT.	2	2	
252+50	HWY. 7 RT.	2		1
255+00	HWY. 7 LT.	2	2	
262+69	HWY. 7 RT.	1	1	
268+70	HWY. 7 LT.	1	1	
271+82	HWY. 7 LT.	2		1
280+21	HWY. 7 RT.	1	1	
282+19	HWY. 7 LT.	1	1	
282+61	HWY. 7 RT.	1	1	
285+08	HWY. 7 LT.	3	3	
SUBTOTALS SITE 2:		**22**	**16**	**3**
SITE 3				
339+70	HWY. 7 LT.	1	1	
353+83	HWY. 7 LT.	1	1	
355+70	HWY. 7 LT.	2		1
373+10	HWY. 7 LT.	1	1	
384+10	HWY. 7 LT.	1	1	
387+00	HWY. 7 LT.	1	1	
393+60	HWY. 7 LT.	1	1	
SUBTOTALS SITE 3:		**8**	**6**	**1**
SITE 4				
440+00	HWY. 7 RT.	2	2	
456+20	HWY. 7 RT.	1	1	
459+60	HWY. 7 RT.	1	1	
469+30	HWY. 7 RT.	1	1	
SUBTOTALS SITE 4:		**5**	**5**	
TOTALS:		**36**	**28**	**4**

QUANTITIES

CGGervasini 9/6/2023 2:29:01 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	117	280
				(2)		QUANTITIES		

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

DRIVEWAYS & TURNOUTS (BOX 1 OF 2)

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS					STANDARD DRAWINGS
										18"	24"	36"	21"X15"	28"X20"	
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	LIN. FT.					
SITE 1															
113+42	RT.	HWY. 7	16				101.46	11.16	41.43						
148+50	RT.	HWY. 7	16				84.68	9.32	34.58	38					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
169+87	LT.	HWY. 7	16				130.42	14.35	53.26						
170+55	RT.	HWY. 7 (DBL. 18")	28				165.80	18.24	67.70	92					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
172+21	RT.	HWY. 7 (DBL. 18")	30				162.52	17.88	66.36	94					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
172+75	LT.	HWY. 7	16				120.41	13.25	49.17						
SUBTOTALS SITE 1:							**765.29**	**84.20**	**312.50**	**224**					
SITE 2															
230+10	RT.	HWY. 7	18				108.42	11.93	44.27	34					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
231+25	RT.	HWY. 7	20				179.18	19.71	73.16	47					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
232+50	LT.	HWY. 7	20				430.67	47.37	175.86	89					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
239+94	RT.	HWY. 7	16				96.36	10.60	39.35	33					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
242+93	RT.	HWY. 7	16	242+71	243+15	29.33				61					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
244+87	RT.	HWY. 7	16	244+65	245+09	27.47									
245+20	LT.	HWY. 7	16				139.81	15.38	57.09	47					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
245+26	RT.	HWY. 7	16	245+04	245+48	27.47									
248+58	LT.	HWY. 7	16				127.34	14.01	52.00			42			PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
252+60	RT.	HWY. 7	16				101.70	11.19	41.53		34				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
252+85	LT.	HWY. 7	24				123.17	13.55	50.29	45					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
255+18	LT.	HWY. 7	20				119.14	13.11	48.65		42				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
255+94	RT.	HWY. 7	16				100.98	11.11	41.23		37				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
257+80	RT.	HWY. 7	16				124.99	13.75	51.04		50				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
258+91	RT.	HWY. 7	16				194.66	21.41	79.48		53				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
262+45	RT.	HWY. 7	16				118.99	13.09	48.59	43					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
263+75	RT.	HWY. 7	16				110.09	12.11	44.95	41					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
263+75	LT.	HWY. 7	16				122.19	13.44	49.90		38				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
264+28	RT.	HWY. 7	16				139.51	15.35	56.97						
267+58	LT.	HWY. 7	16				105.39	11.59	43.03	33					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
268+68	LT.	HWY. 7	16				109.70	12.07	44.79	37					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
270+26	LT.	HWY. 7	16				121.24	13.34	49.51	42					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
271+14	RT.	HWY. 7	16				94.66	10.41	38.65	33					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
271+39	LT.	HWY. 7	16				121.74	13.39	49.71	45					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
272+16	LT.	HWY. 7	16				123.94	13.63	50.61	46					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
273+75	LT.	HWY. 7	16				109.28	12.02	44.62						
274+02	RT.	HWY. 7	16				118.49	13.03	48.38	32					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
275+58	RT.	HWY. 7	16				98.14	10.80	40.07	32					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
277+35	RT.	HWY. 7	16				91.73	10.09	37.46	33					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
278+37	RT.	HWY. 7	20				148.80	16.37	60.76	38					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
278+65	LT.	HWY. 7	16				124.96	13.75	51.02	53					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
279+90	RT.	HWY. 7	40				224.75	24.72	91.77						
282+25	LT.	HWY. 7	16				101.04	11.11	41.26	38					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
282+41	RT.	HWY. 7	20				131.91	14.51	53.86	44					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
283+62	RT.	HWY. 7	16				96.26	10.59	39.31	33					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
284+86	LT.	HWY. 7	16				189.00	20.79	77.18	51					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
288+08	LT.	HWY. 7	16				116.20	12.78	47.45						
288+30	RT.	HWY. 7 (DBL. 18")	20				120.82	13.29	49.34	76					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
SUBTOTALS SITE 2:						**84.27**	**4685.25**	**515.39**	**1913.14**	**1106**	**254**	**42**			
SUBTOTALS (BOX 1 OF 2):						**84.27**	**5450.54**	**599.59**	**2225.64**	**1330**	**254**	**42**			

** FOR INFORMATION ONLY

DRIVEWAYS & TURNOUTS (BOX 2 OF 2)

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS					STANDARD DRAWINGS
										18"	24"	36"	21"X15"	28"X20"	
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	LIN. FT.					
SITE 3															
335+97	RT.	HWY. 7	16				94.59	10.40	38.62	34					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
338+98	RT.	HWY. 7	16	338+76	339+20	19.00									
339+85	LT.	HWY. 7	16				190.28	20.93	77.70						
341+28	RT.	HWY. 7	16				103.25	11.36	42.16	38					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
341+28	LT.	HWY. 7	40				220.50	24.26	90.04	60					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
344+88	LT.	HWY. 7	20				251.91	27.71	102.86		56				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
344+88	RT.	HWY. 7	20				208.18	22.90	85.01		59				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
346+50	LT.	HWY. 7	16				112.49	12.37	45.93	45					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
346+68	RT.	HWY. 7	16				113.62	12.50	46.39		39				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
349+11	RT.	HWY. 7	16				94.78	10.43	38.70					33	PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
354+60	RT.	HWY. 7	16	354+38	354+82	20.87									
355+52	LT.	HWY. 7	16				106.94	11.76	43.67						
355+82	LT.	HWY. 7	16				106.01	11.66	43.29						
361+47	LT.	HWY. 7	30				233.58	25.69	95.38		52				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
364+67	LT.	HWY. 7	20				197.24	21.70	80.54	53					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
364+67	RT.	HWY. 7	16				100.61	11.07	41.08						
369+73	LT.	HWY. 7	18				125.64	13.82	51.30		40				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
372+16	LT.	HWY. 7	16			101.43					42				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
372+96	LT.	HWY. 7	16			94.17					42				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
372+96	RT.	HWY. 7	22				286.38	31.50	116.94						
378+07	LT.	HWY. 7	20				156.99	17.27	64.10		43				PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
383+69	RT.	HWY. 7	16				257.78	28.36	105.26						
384+40	LT.	HWY. 7	16				131.03	14.41	53.50						
387+00	LT.	HWY. 7	16				125.34	13.79	51.18	40					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
393+32	LT.	HWY. 7	16				153.24	16.86	62.57	46					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
397+07	RT.	HWY. 7	20				83.62	9.20	34.15						
398+05	LT.	HWY. 7	16			50.43				46					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
11+57	LT.	TUPELO TRAIL NORTH	16				79.58	8.75	32.49				34		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
12+11	LT.	TUPELO TRAIL NORTH	18				66.06	7.27							
SUBTOTALS SITE 3:						**285.90**	**3599.64**	**395.97**	**1442.86**	**362**	**373**		**34**	**33**	
SITE 4															
442+35	RT.	HWY. 7	16				70.42	7.75	28.76				44		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
442+92	RT.	HWY. 7	16				209.65	23.06	85.61				36		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
443+50	LT.	HWY. 7	16				92.61	10.19	37.82	34					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
444+66	RT.	HWY. 7	20				137.20	15.09	56.02						
446+80	LT.	HWY. 7	16				136.78	15.05	55.85				37		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
450+64	LT.	HWY. 7	16				127.56	14.03	52.09	47					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
452+47	LT.	HYW. 7 (DBL. 18")	16				110.24	12.13	45.02	78					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
455+71	RT.	HWY. 7	20				109.37	12.03	44.66				39		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
456+30	RT.	HWY. 7	16				139.30	15.32	56.88				33		PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
459+58	RT.	HWY. 7	16				209.38	23.03	85.50	57					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
466+87	LT.	HWY. 7	16				119.29	13.12	48.71	41					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
468+60	LT.	HWY. 7	16				147.35	16.21	60.17	39					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
469+13	RT.	HWY. 7	16				182.31	20.05	74.44						
484+26	LT.	HWY. 7	16				93.02	10.23	37.98						
485+00	RT.	HWY. 7	20				487.91	53.67	199.23						
491+55	LT.	HWY. 7	20				132.13	14.53	53.95						
500+15	RT.	HWY. 7	16				162.04	17.82	66.17	47					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
502+74	LT.	HWY. 7	16				183.43	20.18	74.90						
504+51	RT.	HWY. 7	16				284.07	31.25	116.00	65					PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
SUBTOTALS SITE 4:							**3134.06**	**344.74**	**1279.76**	**408**			**189**		
* ENTIRE PROJECT TEMPORARY DRIVES							500.00	55.00	204.17						
SUBTOTALS (BOX 2 OF 2):						**285.90**	**7233.70**	**795.71**	**2926.79**	**770**	**373**		**223**	**33**	
SUBTOTALS (BOX 1 OF 2):						**84.27**	**5450.54**	**599.59**	**2225.64**	**1330**	**254**	**42**			
TOTALS:						**370.17**	**12684.24**	**1395.30**	**5152.43**	**2100**	**627**	**42**	**223**	**33**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

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

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

** FOR INFORMATION ONLY

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.

PJoseph 6/21/2023 10:48:44 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	118	280
				(2)		QUANTITIES		

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

BASE AND SURFACING (BOX 1 OF 4)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT						TOTAL GALLONS	ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								TOTAL PG 64-22
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)				AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	
			FEET			TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON		FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																									
PAVEMENT PRESERVATION																									
L.M. 0.00	L.M. 0.47	HWY. 7 - MILL & OVERLAY	2478.00						46.00	12665.33	2153.11	2153.11									46.00	12665.33	220.00	1393.19	1393.19
L.M. 0.47	L.M. 0.53	HWY 7 - MILL & OVERLAY TRANSITION	330.00						45.00	1650.00	280.50	280.50									45.00	1650.00	220.00	181.50	181.50
L.M. 0.53	L.M. 0.60	HWY. 7 - MILL & OVERLAY	360.00						44.00	1760.00	299.20	299.20									44.00	1760.00	220.00	193.60	193.60
L.M. 0.00	L.M. 0.03	FROST RD. - MILL & OVERLAY	158.40						61.91	1089.62	185.23	185.23									61.91	1089.62	220.00	119.86	119.86
L.M. 0.03	L.M. 0.04	FROST RD. - MILL & OVERLAY	211.20						33.00	774.40	131.65	131.65									33.00	774.40	220.00	85.18	85.18
L.M. 0.04	L.M. 0.20	FROST RD. - MILL & OVERLAY	686.40						22.00	1677.87	285.24	285.24									22.00	1677.87	220.00	184.57	184.57
SITE 1																									
113+00.00	´15+00.00	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)	200.00	89.50	179.00	46.19	1026.50	51.33				51.33	6.13	136.23	495.00	33.72	6.06	134.72	220.00	14.82	48.00	1066.67	220.00	117.33	132.15
115+00.00	´22+74.00	HWY. 7 - NOTCH AND WIDEN	774.00	112.75	872.69	58.39	5021.14	251.06				251.06	12.26	1054.39	495.00	260.96	12.13	1042.75	220.00	114.70	52.00	4472.00	220.00	491.92	606.62
122+74.00	´27+60.00	HWY. 7 - NOTCH AND WIDEN (FULL DEPTH SHLDR.)	486.00	87.50	425.25	70.39	3800.81	190.04				190.04	18.26	986.06	495.00	244.05	18.13	978.75	220.00	107.66	52.00	2808.00	220.00	308.88	416.54
127+60.00	´29+11.63	HWY. 7 - NOTCH AND WIDEN (FULL DEPTH SHLDR.)	151.63	87.50	132.68	70.39	1185.84	59.29				59.29	18.26	307.65	495.00	76.14	18.13	305.37	220.00	33.59	52.00	876.08	220.00	96.37	129.96
129+11.63	´36+82.32	HWY. 7 - NOTCH AND WIDEN	770.69	112.75	868.95	58.39	4999.67	249.98				249.98	12.26	1049.89	495.00	259.85	12.13	1038.29	220.00	114.21	52.00	4452.88	220.00	489.82	604.03
136+82.32	´40+80.00	HWY. 7 - NOTCH AND WIDEN (S.E.)	397.68	112.75	448.38	58.39	2579.86	128.99				128.99	12.26	541.75	495.00	134.08	12.13	535.76	220.00	58.93	52.00	2297.71	220.00	252.75	311.68
140+80.00	´44+00.00	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(CURB & GTR.)	320.00	102.25	327.20	58.00	2062.22	103.11				103.11	12.00	426.67	495.00	105.60	12.00	426.67	220.00	46.93	52.00	1848.89	220.00	203.38	250.31
144+00.00	´61+15.19	HWY. 7 - NOTCH AND WIDEN (S.E.)	1715.19	112.75	1933.88	58.39	11126.89	556.34				556.34	12.26	2336.55	495.00	578.30	12.13	2310.74	220.00	254.18	52.00	9909.99	220.00	1090.10	1344.28
161+15.19	´69+80.10	HWY. 7 - NOTCH AND WIDEN	864.91	112.75	975.19	58.39	5610.90	280.55				280.55	12.26	1178.24	495.00	291.61	12.13	1165.23	220.00	128.17	52.00	4997.26	220.00	549.70	677.87
169+80.10	´76+40.10	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)	660.00	89.50	590.70	46.19	3387.46	169.37				169.37	6.13	449.55	495.00	111.26	6.06	444.58	220.00	48.90	48.00	3520.00	220.00	387.20	436.10
176+40.10	´77+40.10	TRANSITION	100.00	33.00	33.00				44.00	488.89	83.11	83.11									44.00	488.89	220.00	53.78	53.78
ADDITIONAL FOR LEVELING																									
113+00.00	´76+40.10	HWY. 7 - NOTCH AND WIDEN	6340.10						34.00	23951.49	4071.75	4071.75					34.00	23951.49	VAR.	5004.44					5004.44
ADDITIONAL FOR SUPERELEVATION																									
136+82.32	´40+09.59	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	327.27																						
140+09.59	´40+42.32	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	32.73	0.50	0.16																				
140+42.32	´40+80.00	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	37.68	0.75	0.28																				
140+80.00	´44+00.00	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(CURB & GTR.)	320.00	0.75	2.40																				
144+00.00	´57+55.19	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	1355.19	0.75	10.16																				
157+55.19	´57+87.92	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	32.73	0.50	0.16																				
157+87.92	´61+15.19	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	327.27																						
ADDITIONAL FOR TEMPORARY WIDENING 1																									
12+76.02	17+69.33	TEMPORARY WIDENING 1	493.31	VAR.	184.90	VAR.	1048.48	52.42				52.42	VAR.	528.29	495.00	130.75	VAR.	520.19	220.00	57.22	VAR	512.74	220.00	56.40	113.62
SUBTOTALS PAVEMENT PRESERVATION & SITE 1 (BOX 1 OF 4):					**6984.98**		**41849.77**	**2092.48**		**44057.60**	**7489.79**	**9582.27**		**8995.27**		**2226.32**		**32854.54**		**5983.75**		**56868.33**		**10571.33**	**12239.28**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE. (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER
ACHM BINDER COURSE. (1").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

PJoseph 6/21/2023 10:48:49 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_QTY_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	119	280
				(2)	QUANTITIES			

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

BASE AND SURFACING (BOX 2 OF 4)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
						(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)																
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	TOTAL PG 64-22
			FEET			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																									
SITE 2																									
224+00.00	225+00.00	TRANSITION	100.00	51.50	51.50				28.00	311.11	52.89	52.89			495.00						33.00	366.67	220.00	40.33	40.33
225+00.00	231+60.00	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)	660.00	126.50	834.90	36.19	2654.13	132.71				132.71	6.13	449.55	495.00	111.26	6.06	444.58	220.00	48.90	44.00	3226.67	220.00	354.93	403.84
231+60.00	238+97.79	HWY. 7 - NOTCH AND WIDEN	737.79	149.75	1104.84	48.39	3966.47	198.32				198.32	12.26	1005.07	495.00	248.75	12.13	993.97	220.00	109.34	50.00	4098.83	220.00	450.87	560.21
238+97.79	242+65.00	HWY. 7 - NOTCH AND WIDEN (S.E.)	367.21	149.75	549.90	48.39	1974.18	98.71				98.71	12.26	500.24	495.00	123.81	12.13	494.71	220.00	54.42	50.00	2040.06	220.00	224.41	278.82
242+65.00	245+70.00	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(CURB &GTR.)	305.00	181.75	554.34	48.00	1626.67	81.33				81.33	12.00	406.67	495.00	100.65	12.00	406.67	220.00	44.73	50.00	1694.44	220.00	186.39	231.12
245+70.00	249+36.29	HWY. 7 - NOTCH AND WIDEN (S.E.)	366.29	149.75	548.52	48.39	1969.23	98.46				98.46	12.26	498.98	495.00	123.50	12.13	493.47	220.00	54.28	50.00	2034.94	220.00	223.84	278.13
249+36.29	255+54.39	HWY. 7 - NOTCH AND WIDEN	618.10	149.75	925.60	48.39	3323.00	166.15				166.15	12.26	842.02	495.00	208.40	12.13	832.72	220.00	91.60	50.00	3433.89	220.00	377.73	469.33
255+54.39	269+48.33	HWY. 7 - NOTCH AND WIDEN (S.E.)	1393.94	149.75	2087.43	48.39	7494.04	374.70				374.70	12.26	1898.92	495.00	469.98	12.13	1877.95	220.00	206.57	50.00	7744.11	220.00	851.85	1058.43
269+48.33	275+06.05	HWY. 7 - NOTCH AND WIDEN	557.72	149.75	835.19	48.39	2998.39	149.92				149.92	12.26	759.76	495.00	188.04	12.13	751.37	220.00	82.65	50.00	3098.44	220.00	340.83	423.48
275+06.05	285+92.26	HWY. 7 - NOTCH AND WIDEN (S.E.)	1086.21	149.75	1626.60	48.39	5839.63	291.98				291.98	12.26	1479.71	495.00	366.23	12.13	1463.37	220.00	160.97	50.00	6034.50	220.00	663.80	824.77
285+92.26	286+40.00	HWY. 7 - NOTCH AND WIDEN	47.74	149.75	71.49	48.39	256.66	12.83				12.83	12.26	65.03	495.00	16.10	12.13	64.32	220.00	7.07	50.00	265.22	220.00	29.17	36.25
286+40.00	288+40.00	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)	200.00	126.50	253.00	36.19	804.28	40.21				40.21	6.13	136.23	495.00	33.72	6.06	134.72	220.00	14.82	44.00	977.78	220.00	107.56	122.38
288+40.00	289+40.00	TRANSITION	100.00	51.50	51.50				28.00	311.11	52.89	52.89			495.00						33.00	366.67	220.00	40.33	40.33
289+40.00	293+90.67	OVERLAY	450.67						28.00	1402.08	238.35	238.35									28.00	1402.08	220.00	154.23	154.23
ADDITIONAL FOR LEVELING																									
225+00.00	288+40.00	HWY. 7 - NOTCH AND WIDEN	6340.00						24.00	16906.67	2874.13	2874.13					24.00	16906.67	VAR.	2389.53					2389.53
ADDITIONAL FOR SUPERELEVATION																									
238+97.79	239+92.53	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	94.74	11.75	11.13																				
239+92.53	242+57.79	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	265.26	42.75	113.40																				
242+57.79	242+65.00	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	7.21	62.00	4.47																				
242+65.00	245+70.00	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(CURB &GTR.)	305.00	58.50	178.43																				
245+70.00	245+76.29	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	6.29	62.00	3.90																				
245+76.29	248+41.55	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	265.26	42.75	113.40																				
248+41.55	249+36.29	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	94.74	11.75	11.13																				
255+54.39	256+38.39	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	84.00	14.50	12.18																				
256+38.39	259+74.39	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	336.00	64.25	215.88																				
259+74.39	265+28.33	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	553.94	99.25	549.79																				
265+28.33	268+64.33	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	336.00	64.25	215.88																				
268+64.33	269+48.33	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	84.00	14.50	12.18																				
275+06.05	275+95.05	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	90.00	11.75	10.58																				
275+96.05	278+66.05	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	270.00	43.75	118.13																				
278+66.05	282+32.26	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	366.21	63.75	233.46																				
282+32.26	285+02.26	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	270.00	43.75	118.13																				
285+02.26	285+92.26	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	90.00	11.75	10.58																				
SIDE ROAD- TUPELO TRAIL SOUTH																									
10+20.00	11+65.00	TUPELO TRAIL SOUTH FULL WIDTH	145.00	109.75	159.14																20.00	322.22	220.00	35.44	35.44
11+65.00	12+15.00	TUPELO TRAIL SOUTH TRANS.	50.00	86.00	43.00				17.00	94.44	16.06	16.06									17.00	94.44	220.00	10.39	10.39
10+20.00	10+66.84	TUPELO TRAIL SOUTH ADDITIONAL FOR TURNOUT	46.84	VAR	16.70																VAR.	40.91	220.00	4.50	4.50
SUBTOTALS SITE 2 (BOX 2 OF 4):					**11646.30**		**32906.68**	**1645.32**		**19025.41**	**3234.32**	**4879.64**		**8042.18**		**1990.44**		**24884.52**		**3264.88**		**37241.87**		**4096.60**	**7361.51**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE. (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER
ACHM BINDER COURSE. (1").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

PJoseph 6/21/2023 10:48:53 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_QTY_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	120	280
				(2)		QUANTITIES		

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

BASE AND SURFACING (BOX 3 OF 4)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.) TOTAL WID.	SQ.YD.	GALLON	(0.17 GAL. PER SQ. YD.) TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	TOTAL PG 64-22
			FEET			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																									
SITE 3																									
329+66.65	332+00.00	OVERLAY	233.35						28.00	725.98	123.42	123.42									28.00	725.98	220.00	79.86	79.86
332+00.00	333+00.00	TRANSITION	100.00	51.50	51.50				28.00	311.11	52.89	52.89									33.00	366.67	220.00	40.33	40.33
333+00.00	335+00.00	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)	200.00	126.50	253.00	36.19	804.28	40.21				40.21	6.13	136.23	495.00	33.72	6.06	134.72	220.00	14.82	44.00	977.78	220.00	107.56	122.38
335+00.00	338+85.00	HWY. 7 - NOTCH AND WIDEN	385.00	149.75	576.54	48.39	2069.82	103.49				103.49	12.23	524.47	495.00	129.81	12.13	518.68	220.00	57.05	50.00	2138.89	220.00	235.28	292.33
338+85.00	340+53.79	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)	168.79	139.25	235.04	48.00	900.21	45.01				45.01	12.00	225.05	495.00	55.70	12.00	225.05	220.00	24.76	50.00	937.72	220.00	103.15	127.91
340+53.79	341+00.00	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)	46.21	139.25	64.35	48.00	246.45	12.32				12.32	12.00	61.61	495.00	15.25	12.00	61.61	220.00	6.73	50.00	256.72	220.00	28.24	35.02
341+00.00	349+79.36	HWY. 7 - NOTCH AND WIDEN (S.E.)	879.36	149.75	1316.84	48.39	4727.58	236.38				236.38	12.23	1197.92	495.00	296.49	12.13	1184.69	220.00	130.32	50.00	4885.33	220.00	537.39	667.70
349+79.36	353+00.00	HWY. 7 - NOTCH AND WIDEN	320.64	149.75	480.16	48.39	1723.81	86.19				86.19	12.23	436.80	495.00	108.11	12.13	431.97	220.00	47.52	50.00	1781.33	220.00	195.95	243.46
353+00.00	353+58.61	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)	58.61	139.25	81.61	48.00	312.59	15.63				15.63	12.00	78.15	495.00	19.34	12.00	78.15	220.00	8.60	50.00	325.61	220.00	35.82	44.41
353+58.61	355+00.00	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)	141.39	139.25	196.89	48.00	754.08	37.70				37.70	12.00	188.52	495.00	46.66	12.00	188.52	220.00	20.74	50.00	785.50	220.00	86.40	107.14
355+00.00	363+98.89	HWY. 7 - NOTCH AND WIDEN (S.E.)	898.89	149.75	1346.09	48.39	4832.57	241.63				241.63	12.23	1224.53	495.00	303.07	12.13	1211.00	220.00	133.21	50.00	4993.83	220.00	549.32	682.53
363+98.89	368+35.03	HWY. 7 - NOTCH AND WIDEN	436.14	149.75	653.12	48.39	2344.76	117.24				117.24	12.23	594.14	495.00	147.05	12.13	587.58	220.00	64.63	50.00	2423.00	220.00	266.53	331.16
368+35.03	378+08.09	HWY. 7 - NOTCH AND WIDEN (S.E.)	973.06	149.75	1457.16	48.39	5231.32	261.57				261.57	12.23	1325.57	495.00	328.08	12.13	1310.93	220.00	144.20	50.00	5405.89	220.00	594.65	738.85
378+08.09	378+59.32	HWY. 7 - NOTCH AND WIDEN	51.23	149.75	76.72	48.39	275.42	13.77				13.77	12.23	69.79	495.00	17.27	12.13	69.02	220.00	7.59	50.00	284.61	220.00	31.31	38.90
378+59.32	387+20.48	HWY. 7 - NOTCH AND WIDEN (S.E.)	861.16	149.75	1289.59	48.39	4629.73	231.49				231.49	12.23	1173.13	495.00	290.35	12.13	1160.17	220.00	127.82	50.00	4784.22	220.00	526.26	653.88
387+20.48	388+12.79	HWY. 7 - NOTCH AND WIDEN (S.E.)	92.31	149.75	138.23	48.39	496.27	24.81				24.81	12.23	125.75	495.00	31.12	12.13	124.36	220.00	13.68	50.00	512.83	220.00	56.41	70.09
388+12.79	390+76.07	HWY. 7 - NOTCH AND WIDEN (S.E.)	263.28	149.75	394.26	48.39	1415.43	70.77				70.77	12.23	358.66	495.00	88.77	12.13	354.70	220.00	39.02	50.00	1462.67	220.00	160.89	199.91
390+76.07	391+40.48	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	64.41	146.50	94.36	47.22	337.94	16.90				16.90	11.68	83.59	495.00	20.69	11.54	82.59	220.00	9.03	49.42	353.65	220.00	38.90	47.99
391+40.48	393+16.07	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(LANE TRANS.)	175.59	138.00	242.31	42.85	836.00	41.80				41.80	9.49	185.15	495.00	45.82	9.36	182.61	220.00	20.09	47.23	921.46	220.00	101.36	121.45
393+16.07	393+50.00	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	33.93	131.50	44.62	39.05	147.22	7.36				7.36	7.59	28.61	495.00	7.08	7.46	28.12	220.00	3.09	45.33	170.89	220.00	18.80	21.89
393+50.00	396+43.76	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)(LANE TRANS.)	293.76	109.50	321.67	32.70	1067.33	53.37				53.37	4.35	141.98	495.00	35.14	4.35	141.98	220.00	15.62	42.34	1381.93	220.00	152.01	167.63
396+43.76	396+60.00	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)(LANE TRANS.)	16.24	98.50	15.00	27.06	48.83	2.44				2.44	1.53	2.76	495.00	0.68	1.53	2.76	220.00	0.30	39.53	71.32	220.00	7.85	8.15
396+60.00	397+36.07	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	76.07	105.75	80.44	25.77	217.81	10.89				10.89	0.95	8.03	495.00	1.99	0.82	6.93	220.00	0.75	38.70	327.06	220.00	35.98	36.74
397+36.07	398+36.07	TRANSITION	100.00	68.50	68.50				28.00	311.11	52.89	52.89									33.00	366.67	220.00	40.33	40.33
ADDITIONAL FOR LEVELING																									
333+00.00	397+36.07	HWY. 7 - NOTCH AND WIDEN	6436.07						24.00	17162.85	2917.69	2917.69					24.00	17162.85	VAR.	2321.77					2321.77
ADDITIONAL FOR SUPERELEVATION																									
340+53.79	341+00.00	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)	46.21	12.50	5.78																				
341+00.00	341+40.54	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	40.54	27.00	10.95																				
341+40.54	344+13.79	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	273.25	56.00	153.02																				
344+13.79	346+19.36	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	205.57	82.75	170.11																				
346+19.36	348+92.61	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	273.25	56.00	153.02																				
348+92.61	349+79.36	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	86.75	14.50	12.58																				
353+58.61	354+42.61	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)	84.00	7.75	6.51																				
354+42.61	355+00.00	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)	57.39	20.50	11.76																				
355+00.00	357+78.61	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	278.61	57.25	159.50																				
357+78.61	359+78.89	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	200.28	77.25	154.72																				
359+78.89	363+14.89	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	336.00	50.50	169.68																				
363+14.89	363+98.89	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	84.00	11.75	9.87																				
368+35.03	370+60.03	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	225.00	14.50	32.63																				
370+60.03	371+95.03	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	135.00	34.75	46.91																				
371+95.03	374+48.09	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	253.06	40.50	102.49																				
374+48.09	375+83.09	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	135.00	34.75	46.91																				
375+83.09	378+08.09	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	225.00	14.50	32.63																				
378+59.32	379+43.56	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	84.24	11.75	9.90																				
379+43.56	382+38.40	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	294.84	47.50	140.05																				
382+38.40	383+41.40	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	103.00	71.25	73.39																				
383+41.40	386+36.24	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	294.84	47.50	140.05																				
386+36.24	387+20.48	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	84.24	11.75	9.90																				
387+20.48	388+12.79	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	92.31	14.50	13.38																				
388+12.79	390+76.07	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	263.28	54.25	142.83																				
390+76.07	391+40.48	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	64.41	85.25	54.91																				
391+40.48	393+16.07	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(LANE TRANS.)	175.59	92.25	161.98																				
393+16.07	393+50.00	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	33.93	87.00	29.52																				
393+50.00	396+43.76	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)(LANE TRANS.)	293.76	50.00	146.88																				
396+43.76	396+60.00	HWY. 7 - NOTCH AND WIDEN (CURB & GTR.)(S.E.)(LANE TRANS.)	16.24	27.00	4.38																				
396+60.00	397+36.07	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	76.07	12.50																					
SIDE ROAD- TUPELO TRAIL NORTH																									
10+30.00	12+00.00	TUPELO TRAIL NORTH FULL WIDTH	170.00	109.75	186.58																20.00	377.78	220.00	41.56	41.56
12+00.00	12+50.00	TUPELO TRAIL NORTH TRANS.	50.00	89.00	44.50				17.72	98.42	16.73	16.73									17.72	98.42	220.00	10.83	10.83
10+29.31	10+85.64	TUPELO TRAIL NORTH TRANS. ADDITIONAL FOR TUNROUT	56.33	VAR.	21.26																VAR.	52.08	220.00	5.73	5.73
SUBTOTALS SITE 3 (BOX 3 OF 4):					**11937.58**		**33419.45**	**1670.97**		**18609.47**	**3163.62**	**4834.59**		**8170.44**		**2022.19**		**25248.99**		**3211.25**		**37169.84**		**4088.70**	**7299.93**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE. (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER
ACHM BINDER COURSE. (1").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

PJoseph 6/21/2023 10:48:58 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_QTY_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	121	280
				(2)	QUANTITIES			

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

BASE AND SURFACING (BOX 4 OF 4)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
						(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)																
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	TOTAL PG 64-22
			FEET			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																									
SITE 4																									
442+00.00	443+00.00	TRANSITION (S.E.)	100.00	51.50	51.50				30.00	333.33	56.67	56.67									34.00	377.78	220.00	41.56	41.56
443+00.00	446+48.87	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)(S.E.)	348.87	115.50	402.94	30.73	1191.02	59.55				59.55	3.43	132.97	495.00	32.91	3.30	127.73	220.00	14.05	41.17	1595.89	220.00	175.55	189.60
446+48.87	449+60.00	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)	311.13	138.75	431.69	42.73	1477.02	73.85				73.85	9.43	326.01	495.00	80.69	9.30	321.33	220.00	35.35	47.17	1630.67	220.00	179.37	214.72
449+60.00	452+00.00	HWY. 7 - NOTCH AND WIDEN	240.00	149.75	359.40	48.39	1290.28	64.51				64.51	12.26	326.94	495.00	80.92	12.13	323.33	220.00	35.57	50.00	1333.33	220.00	146.67	182.23
452+00.00	456+48.09	HWY. 7 - NOTCH AND WIDEN (FULL DEPTH SHLDR.)	448.09	157.25	704.62	64.77	3224.75	161.24				161.24	20.52	1021.65	495.00	252.86	20.25	1008.20	220.00	110.90	50.00	2489.39	220.00	273.83	384.74
456+48.09	456+90.00	HWY. 7 - NOTCH AND WIDEN (S.E.)(FULL DEPTH SHLDR.)	41.91	157.25	65.90	64.77	301.61	15.08				15.08	20.52	95.55	495.00	23.65	20.25	94.30	220.00	10.37	50.00	232.83	220.00	25.61	35.98
456+90.00	466+50.73	HWY. 7 - NOTCH AND WIDEN (S.E.)(FULL WIDTH)(FULL DEPTH SHLDR.)	960.73	250.50	2406.63	88.77	9476.09	473.80				473.80	44.52	4752.50	495.00	1176.24	44.25	4723.59	220.00	519.59	50.00	5337.39	220.00	587.11	1106.71
466+50.73	467+00.00	HWY. 7 - NOTCH AND WIDEN (FULL WIDTH)(FULL DEPTH SHLDR.)	49.27	250.50	123.42	88.77	485.97	24.30				24.30	44.52	243.73	495.00	60.32	44.25	242.24	220.00	26.65	50.00	273.72	220.00	30.11	56.76
467+00.00	472+02.80	HWY. 7 - NOTCH AND WIDEN (FULL DEPTH SHLDR.)	502.80	106.00	532.97	72.05	4025.19	201.26				201.26	24.09	1345.83	495.00	333.09	23.96	1338.57	220.00	147.24	50.00	2793.33	220.00	307.27	454.51
472+02.80	491+39.79	HWY. 7 - NOTCH AND WIDEN	1936.99	156.25	3026.55	48.39	10413.56	520.68				520.68	12.26	2638.70	495.00	653.08	12.13	2609.56	220.00	287.05	50.00	10761.06	220.00	1183.72	1470.77
491+39.79	494+96.74	HWY. 7 - NOTCH AND WIDEN (S.E.)	356.95	156.25	557.73	48.39	1919.02	95.95				95.95	12.26	486.26	495.00	120.35	12.13	480.89	220.00	52.60	50.00	1983.06	220.00	218.14	271.03
494+96.74	498+79.78	HWY. 7 - NOTCH AND WIDEN (S.E.)	383.04	190.75	730.65	48.77	2075.65	103.78				103.78	12.52	532.85	495.00	131.88	12.25	521.36	220.00	57.35	50.00	2128.00	220.00	234.08	291.43
498+79.78	500+33.54	HWY. 7 - NOTCH AND WIDEN (S.E.)	153.76	149.75	230.26	48.39	826.64	41.33				41.33	12.26	209.46	495.00	51.84	12.13	207.15	220.00	22.79	50.00	854.22	220.00	93.96	116.75
500+33.54	505+37.65	HWY. 7 - NOTCH AND WIDEN (S.E.)	504.11	149.75	754.90	48.39	2710.17	135.51				135.51	12.26	686.73	495.00	169.97	12.13	679.15	220.00	74.71	50.00	2800.61	220.00	308.07	382.77
505+37.65	507+37.65	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	200.00	126.50	253.00	36.19	804.28	40.21				40.21	6.13	136.23	495.00	33.72	6.06	134.72	220.00	14.82	44.00	977.78	220.00	107.56	122.38
507+37.65	507+98.94	TRANSITION (S.E.)	61.29	83.25	51.02				24.00	163.44	27.78	27.78									36.16	246.25	220.00	27.09	27.09
507+98.94	508+37.65	TRANSITION (S.E.)	38.71	31.75	12.29				24.00	103.23	17.55	17.55									33.16	142.62	220.00	15.69	15.69
508+37.65	508+86.30	(S.E.)	48.65																						
ADDITIONAL FOR LEVELING																									
443+00.00	456+90.00	HWY. 7 - NOTCH AND WIDEN	1390.00						24.00	3706.67	630.13	630.13					24.00	3706.67	VAR.	39.70					39.70
467+00.00	508+86.30	HWY. 7 - NOTCH AND WIDEN	4186.30						24.00	11163.47	1897.79	1897.79					24.00	11163.47	VAR.	1556.06					1556.06
ADDITIONAL FOR SUPERELEVATION																									
442+00.00	443+00.00	TRANSITION (S.E.)	100.00	20.50	20.50																				
443+00.00	446+48.87	HWY. 7 - NOTCH AND WIDEN (LANE TRANS.)(S.E.)	348.87	20.50	71.52																				
456+48.09	456+90.00	HWY. 7 - NOTCH AND WIDEN (S.E.) (FULL DEPTH SHLDR.)	41.91	11.50	4.82																				
456+90.00	457+35.59	HWY. 7 - NOTCH AND WIDEN (S.E.)(FULL WIDTH)(FULL DEPTH SHLDR.)	45.59	33.25	15.16																				
457+35.59	460+68.09	HWY. 7 - NOTCH AND WIDEN (S.E.)(FULL WIDTH) (FULL DEPTH SHLDR.)	332.50	77.75	258.52																				
460+68.09	462+30.73	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)(FULL WIDTH) (FULL DEPTH SHLDR.)	162.64	111.75	181.75																				
462+30.73	465+63.23	HWY. 7 - NOTCH AND WIDEN (S.E.)(FULL WIDTH) (FULL DEPTH SHLDR.)	332.50	77.75	258.52																				
465+63.23	466+50.73	HWY. 7 - NOTCH AND WIDEN (S.E.)(FULL WIDTH) (FULL DEPTH SHLDR.)	87.50	22.00	19.25																				
491+39.79	492+32.10	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	92.31	8.00	7.38																				
492+32.10	494+96.74	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	264.64	47.75	126.37																				
494+96.74	495+59.79	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	63.05	44.50	28.06																				
495+59.79	496+13.54	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	53.75	50.25	27.01																				
496+13.54	498+79.78	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	266.24	26.50	70.55																				
498+79.78	499+41.23	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	61.45	36.50	22.43																				
499+41.23	500+33.54	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	92.31	14.50	13.38																				
500+33.54	501+20.90	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	87.36	11.75	10.26																				
501+20.90	504+31.05	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	310.15	47.75	148.10																				
504+31.05	504+88.79	HWY. 7 - NOTCH AND WIDEN (FULL S.E.)	57.74	72.00	41.57																				
504+88.79	505+37.65	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	48.86	68.00	33.22																				
505+37.65	507+37.65	HWY. 7 - NOTCH AND WIDEN (S.E.)(LANE TRANS.)	200.00	50.25	100.50																				
507+37.65	507+98.94	HWY. 7 - NOTCH AND WIDEN (S.E. TRANS.)	61.29	50.00	30.65																				
507+98.94	508+37.65	TRANSITION (S.E.)	38.71	31.50	12.19																				
508+37.65	508+86.30	(S.E. TRANS.)	48.65																						
ADDITIONAL FOR SITE 4 TEMPORARY WIDENING																									
20+81.67	28+78.43	TEMPORARY WIDENING 1	796.76	VAR.	208.25	VAR.	1216.60	60.83				60.83	VAR.	613.09	495.00	151.74	VAR.	603.51	220.00	66.39	VAR.	594.69	220.00	65.42	131.80
31+20.55	37+30.18	TEMPORARY WIDENING 2	609.63	VAR.	93.00	VAR.	545.81	27.29				27.29	VAR.	275.48	495.00	68.18	VAR.	270.33	220.00	29.74	VAR.	265.61	220.00	29.22	58.95
SUBTOTALS SITE 4 (BOX 4 OF 4):					**12498.43**		**41983.66**	**2099.17**		**15470.14**	**2629.92**	**4729.09**		**13823.98**		**3421.44**		**28556.10**		**3101.23**		**36818.23**		**4050.03**	**7151.23**
SUBTOTALS SITE 1 (BOX 1 OF 4):					6984.98		41849.77	2092.48		44057.60	7489.79	9582.27		8995.27		2226.32		32854.54		5983.75		56868.33		10571.33	12239.28
SUBTOTALS SITE 2 (BOX 2 OF 4):					11646.30		32906.68	1645.32		19025.41	3234.32	4879.64		8042.18		1990.44		24864.52		3264.88		37241.87		4096.60	7361.51
SUBTOTALS SITE 3 (BOX 3 OF 4):					11937.58		33419.45	1670.97		18609.47	3163.62	4834.59		8170.44		2022.19		25248.99		3211.25		37169.84		4088.70	7299.93
TOTALS (BOX 4 OF 4):					**43067.29**		**150159.56**	**7507.94**		**97162.62**	**16517.65**	**24025.59**		**39031.87**		**9660.39**		**111524.15**		**15561.11**		**168098.27**		**22806.66**	**34051.95**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE. (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER
ACHM BINDER COURSE. (1").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

PJoseph 6/21/2023 10:49:04 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_QTY.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09-06-2023				6	ARK.			
09-13-2023				JOB NO.		012275	122	280
				(2)	SUMMARY OF QUANTITIES & REVISIONS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 09-13-2023

SUMMARY OF QUANTITIES (BOX 1 OF 2)

	ITEM NUMBER	ITEM		QUANTITY	UNIT
	201	CLEARING		233	STATION
	201	GRUBBING		233	STATION
	202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		57	LIN. FT.
	202	REMOVAL AND DISPOSAL OF FENCE		15544	LIN. FT.
	202	REMOVAL AND DISPOSAL OF GATES		11	EACH
	202	REMOVAL AND DISPOSAL OF POSTS		2	EACH
	202	REMOVAL AND DISPOSAL OF WALLS		235	LIN. FT.
	202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT		84	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		210	SQ. YD.
	202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS		42	EACH
	202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		39	EACH
	202	REMOVAL AND DISPOSAL OF GUARDRAIL		713	LIN. FT.
	202	REMOVAL AND DISPOSAL OF BUILDINGS		3	EACH
	202	REMOVAL AND DISPOSAL OF CATTLE GUARD		2	EACH
	202	REMOVAL AND DISPOSAL OF SIGNS		19	EACH
	202	REMOVAL AND DISPOSAL OF PLANTERS		1	EACH
	202	REMOVAL AND DISPOSAL OF MAILBOXES		36	EACH
	SP, SS, & 210	UNCLASSIFIED EXCAVATION		111482	CU. YD.
	SP & 210	COMPACTED EMBANKMENT		70758	CU. YD.
	SP & 210	SOIL STABILIZATION		650	TON
	SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)		48220	TON
	SS & 401	TACK COAT		24299	GAL.
	SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		9274	TON
	SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")		386	TON
	SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		33710	TON
	SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		1737	TON
	SP & 412	COLD MILLING ASPHALT PAVEMENT		22145	SQ. YD.
	SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		136	TON
	SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY		100	TON
	SP, SS, & 505	PORTLAND CEMENT CONCRETE DRIVEWAY		370.17	SQ. YD.
	601	MOBILIZATION		1.00	LUMP SUM
	SP & 602	FURNISHING FIELD OFFICE		1	EACH
	SS & 603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
	SS & 604	SIGNS		1796	SQ. FT.
	SP, SS, & 604	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE		2	EACH
	SS & 604	BARRICADES		528	LIN. FT.
	SS & 604	TRAFFIC DRUMS		808	EACH
	SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		2670	LIN. FT.
	SS & 604	RELOCATING PRECAST CONCRETE BARRIER		3205	LIN. FT.
	604	CONSTRUCTION PAVEMENT MARKINGS		129144	LIN. FT.
	SS & 604	VERTICAL PANELS		497	EACH
	SP, SS, & 605	CONCRETE DITCH PAVING (TYPE B)		8990	SQ. YD.
	SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		425	LIN. FT.
	SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		282	LIN. FT.
	SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)		65	LIN. FT.
	SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		318	LIN. FT.
	SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		73	LIN. FT.
	SS & 606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		165	LIN. FT.
	SS & 606	51" X 31" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS IV)		200	LIN. FT.
	SS & 606	73" X 45" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS IV)		148	LIN. FT.
	SP, SS, & 606	18" SIDE DRAIN		2165	LIN. FT.
	SP, SS, & 606	24" SIDE DRAIN		627	LIN. FT.
	SP, SS, & 606	36" SIDE DRAIN		42	LIN. FT.
	SS & 606	21" X 15" SIDE DRAIN		223	LIN. FT.
	SS & 606	28" X 20" SIDE DRAIN		33	LIN. FT.
	SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		26	EACH
	SS & 606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		8	EACH
	SS & 606	42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2	EACH
	SS & 606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		4	EACH
	SS & 606	51" X 31" FLARED END SECTIONS FOR REINFORCED CONCRETE ARCH PIPE CULVERTS		4	EACH
	SS & 606	73" X 45" FLARED END SECTIONS FOR REINFORCED CONCRETE ARCH PIPE CULVERTS		4	EACH
	SS & 606	SELECTED PIPE BEDDING		100	CU. YD.
	SS & 609	DROP INLETS (TYPE RM)		1	EACH
	SS & 611	4" PIPE UNDERDRAINS		500	LIN. FT.
	SS & 611	UNDERDRAIN OUTLET PROTECTORS		4	EACH
	SS & 615	PAVEMENT REPAIR OVER CULVERTS (CONCRETE)		156.9	CU. YD.
	SS & 619	WIRE FENCE (TYPE C)		1012	LIN. FT.
	SS & 619	WIRE FENCE (TYPE D)		3470	LIN. FT.
	SS & 619	WIRE FENCE (TYPE D-1)		8041	LIN. FT.
*	SS & 619	6' STEEL CHAIN LINK FENCE	(ALTERNATE NO. 1)	192	LIN. FT.
*	SS & 619	6' ALUMINUM CHAIN LINK FENCE	(ALTERNATE NO. 2)	192	LIN. FT.
*	SS & 619	12' STEEL GATES	(ALTERNATE NO. 1)	2	EACH
*	SS & 619	16' STEEL GATES	(ALTERNATE NO. 1)	2	EACH
*	SS & 619	18' STEEL GATES	(ALTERNATE NO. 1)	1	EACH
*	SS & 619	20' STEEL GATES	(ALTERNATE NO. 1)	2	EACH
*	SS & 619	12' ALUMINUM GATES	(ALTERNATE NO. 2)	2	EACH
*	SS & 619	16' ALUMINUM GATES	(ALTERNATE NO. 2)	2	EACH
*	SS & 619	18' ALUMINUM GATES	(ALTERNATE NO. 2)	1	EACH
*	SS & 619	20' ALUMINUM GATES	(ALTERNATE NO. 2)	2	EACH

* DENOTES ALTERNATE BID ITEMS.

SUMMARY OF QUANTITIES (BOX 2 OF 2)

ITEM NUMBER	ITEM	QUANTITY	UNIT
620	LIME	66	TON
620	SEEDING	29.30	ACRE
SP & 620	SPECIAL SEEDING	3.49	ACRE
SS & 620	MULCH COVER	58.60	ACRE
SP, SS, & 620	SPECIAL MULCH COVER	6.98	ACRE
620	WATER	4097.9	M. GAL.
621	TEMPORARY SEEDING	29.30	ACRE
621	SILT FENCE	18012	LIN. FT.
621	SAND BAG DITCH CHECKS	8888	BAG
621	SEDIMENT BASIN	400	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN	400	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	1692	CU. YD.
621	ROCK DITCH CHECKS	663	CU. YD.
SP & 621	WATTLE (20")	500	LIN. FT.
SP & 621	SPECIAL TEMPORARY SEEDING	3.49	ACRE
623	SECOND SEEDING APPLICATION	29.30	ACRE
SP & 623	SPECIAL SECOND SEEDING APPLICATION	3.49	ACRE
624	SOLID SODDING	6692	SQ. YD.
626	EROSION CONTROL MATTING (CLASS 3)	17692	SQ. YD.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	1350	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
637	MAILBOXES	36	EACH
637	MAILBOX SUPPORTS (SINGLE)	28	EACH
637	MAILBOX SUPPORTS (DOUBLE)	4	EACH
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	45858	LIN. FT.
SP & 642	CENTERLINE RUMBLE STRIPES IN ASPHALT ROADWAYS	26868	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	65670	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	68	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	65152	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	4	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	3	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	1057	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	10	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	10	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	210	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	452.00	CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	52236	POUND
	STRUCTURES OVER 20' SPAN		
205	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 1)	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	119	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	312.71	CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	44540	POUND

REVISIONS

DATE	REVISION	SHEET NUMBER
9/6/2023	ADDED POND BERM AND ASSOCIATED QUANTITIES ON SITE 4 AT STATION 455+00	19, 113, 116, 122, 152, 249-250
	ADDED SPECIAL SEEDING REQUIREMENTS SP PAY ITEMS AND QUANTITIES	115, 122
9/13/2023	CHANGED PERFORMANCE GRADE OF ASPHALT BINDER IN ACHM SURFACE COURSE (1/2") FROM PG 76-22 TO PG 64-22	122

SUMMARY OF QUANTITIES & REVISIONS

PJoseph 9/13/2023 9:04:51 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_QTY_SUM.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	123	280
				(2)	SURVEY CONTROL DETAILS			

SURVEY CONTROL COORDINATES

Project Name: s012275
Date: 3/7/2018
Coordinate System: ARKANSAS STATE PLANE - SOUTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	1868680.9155	987987.7433	225.88	CTL	ARDOT STD. MON. STAMPED PN: 1
2	1870055.1856	987474.4885	236.91	CTL	ARDOT STD. MON. STAMPED PN: 2
3	1870644.0787	987233.7902	255.27	CTL	ARDOT STD. MON. STAMPED PN: 3
4	1871161.0446	987013.0357	265.28	CTL	ARDOT STD. MON. STAMPED PN: 4
5	1871830.1159	986758.6320	266.92	CTL	ARDOT STD. MON. STAMPED PN: 5
6	1872510.1179	986559.8894	284.05	CTL	ARDOT STD. MON. STAMPED PN: 6
7	1873272.7588	986407.8928	308.04	CTL	ARDOT STD. MON. STAMPED PN: 7
8	1874021.4748	986269.1327	320.76	CTL	ARDOT STD. MON. STAMPED PN: 8
9	1874780.7573	986130.0684	328.48	CTL	ARDOT STD. MON. STAMPED PN: 9
10	1875491.4041	985997.9293	351.10	CTL	ARDOT STD. MON. STAMPED PN: 10
11	1875931.8973	985810.7470	371.02	CTL	ARDOT STD. MON. STAMPED PN: 11
23	1907975.6987	961029.3875	497.17	CTL	ARDOT STD. MON. STAMPED PN: 23
24	1906286.4918	961219.5435	491.19	CTL	ARDOT STD. MON. STAMPED PN: 24
25	1905609.3696	960972.9062	514.42	CTL	ARDOT STD. MON. STAMPED PN: 25
26	1905071.1477	960956.9173	542.93	CTL	ARDOT STD. MON. STAMPED PN: 26
27	1904683.0711	960992.5804	525.95	CTL	ARDOT STD. MON. STAMPED PN: 27
28	1903992.2589	960940.8218	529.69	CTL	ARDOT STD. MON. STAMPED PN: 28
29	1903283.8112	960979.3007	508.06	CTL	ARDOT STD. MON. STAMPED PN: 29
30	1902600.8285	961096.8079	508.38	CTL	ARDOT STD. MON. STAMPED PN: 30
31	1902087.0079	961447.2921	508.72	CTL	ARDOT STD. MON. STAMPED PN: 31
32	1901711.9671	962045.3674	498.95	CTL	ARDOT STD. MON. STAMPED PN: 32
33	1901320.0662	962590.6464	503.62	CTL	ARDOT STD. MON. STAMPED PN: 33
34	1901023.3812	963075.1273	508.09	CTL	ARDOT STD. MON. STAMPED PN: 34
35	1900907.7882	963719.0560	505.28	CTL	ARDOT STD. MON. STAMPED PN: 35
36	1900661.1727	964486.8300	508.62	CTL	ARDOT STD. MON. STAMPED PN: 36
37	1900292.8766	964777.4124	493.74	CTL	ARDOT STD. MON. STAMPED PN: 37
38	1899670.8485	965008.4643	466.47	CTL	ARDOT STD. MON. STAMPED PN: 38
39	1898981.4750	965329.2922	458.28	CTL	ARDOT STD. MON. STAMPED PN: 39
40	1898389.8257	965794.6394	437.83	CTL	ARDOT STD. MON. STAMPED PN: 40
41	1898001.6713	966148.6402	450.08	CTL	ARDOT STD. MON. STAMPED PN: 41
42	1903094.8915	961133.0838	505.50	CTL	ARDOT STD. MON. STAMPED PN: 42
43	1903436.8108	962331.4456	481.41	CTL	ARDOT STD. MON. STAMPED PN: 43
45	1896826.5698	967676.9405	462.30	CTL	ARDOT STD. MON. STAMPED PN: 45
46	1909306.8964	960637.5659	521.86	CTL	ARDOT STD. MON. STAMPED PN: 46
47	1909775.3337	960282.4043	517.82	CTL	ARDOT STD. MON. STAMPED PN: 47
48	1910327.5598	960083.8956	540.69	CTL	ARDOT STD. MON. STAMPED PN: 48
49	1910818.9601	959984.4827	546.84	CTL	ARDOT STD. MON. STAMPED PN: 49
50	1907511.1613	961141.2589	490.87	CTL	ARDOT STD. MON. STAMPED PN: 50
51	1917499.9185	958287.9219	601.07	CTL	ARDOT STD. MON. STAMPED PN: 51
52	1918074.1470	958244.3048	623.52	CTL	ARDOT STD. MON. STAMPED PN: 52
53	1918509.4377	958078.0959	618.54	CTL	ARDOT STD. MON. STAMPED PN: 53
54	1919272.5030	957965.7488	569.02	CTL	ARDOT STD. MON. STAMPED PN: 54
55	1919784.1832	957791.9684	546.72	CTL	ARDOT STD. MON. STAMPED PN: 55
56	1921346.2281	956842.6340	549.00	CTL	ARDOT STD. MON. STAMPED PN: 56
57	1922809.9038	955943.5162	567.73	CTL	ARDOT STD. MON. STAMPED PN: 57
58	1923291.0069	955458.8251	568.81	CTL	ARDOT STD. MON. STAMPED PN: 58
59	1923705.0458	955182.9422	581.32	CTL	ARDOT STD. MON. STAMPED PN: 59
60	1924091.1458	955023.4705	584.70	CTL	ARDOT STD. MON. STAMPED PN: 60
100	1954154.8870	981612.1311	456.60	GPS	ARDOT GPS *260029
101	1952168.9394	981237.4622	421.36	GPS	ARDOT GPS *260029A
102	1941969.4834	975718.6861	527.45	GPS	ARDOT GPS *260030
103	1922115.1633	956420.8210	555.81	GPS	ARDOT GPS *300009
104	1920507.4801	957347.5256	570.72	GPS	ARDOT GPS *300009A
105	1909007.4175	960688.7573	516.40	GPS	ARDOT GPS *300010
106	1906819.8737	961383.4400	488.26	GPS	ARDOT GPS *300010A
107	1897269.3878	966808.9171	464.48	GPS	ARDOT GPS *300011
108	1896313.4486	968476.1759	480.78	GPS	ARDOT *300011A
112	1867881.9776	988291.2763	220.86	GPS	ARDOT GPS *100032
113	1869437.1195	987703.1113	231.75	GPS	ARDOT GPS *100032A
114	1876236.8546	985641.4317	385.59	GPS	ARDOT GPS *100033
115	1877418.9439	984773.0289	457.17	GPS	ARDOT GPS *100033A

Point Name	Northing	Easting	Elev	Feature	Description
900	1867871.2397	988332.8603	221.28	TBM	CHSQ IN HS
901	1869955.6682	987529.5546	234.98	TBM	CHSQ IN CTR OF HW 41' E OF C/L HWY. 7
902	1877311.1408	984824.4229	453.15	TBM	CHISELED SQUARE
913	1907803.3195	961083.9847	490.70	TBM	CHIS SQ. N. END HW
914	1906189.3049	961183.7770	487.94	TBM	CHIS SQ. HW
915	1904467.0103	960946.8354	513.22	TBM	CHIS SQ. CONC HW
916	1903339.4890	960970.3391	505.77	TBM	CHIS SQ. CONC HW
917	1902475.4511	961171.3661	504.04	TBM	CHIS SQ. CONC HW
918	1901560.7323	962253.6144	493.44	TBM	CHIS SQ. CONC HW
919	1901027.1726	963245.0842	504.31	TBM	CHIS SQ. CONC HW
920	1900865.9887	963875.2442	500.60	TBM	CHIS SQ. CONC HW
921	1900059.4816	964892.0172	480.80	TBM	CHIS SQ. TOP N. END
922	1899340.3774	965196.5933	456.21	TBM	CHIS SQ. CONC HW
923	1898440.8823	965817.3235	437.76	TBM	CHIS SQ. CONC HW NE. SIDE HWY. 7
924	1897754.6433	966428.8699	443.98	TBM	CHIS SQ. CONC HW NE. SIDE HWY. 7
925	1896714.8536	967864.6168	462.86	TBM	S. SIDE HWY. 7
926	1895990.9199	969325.4532	471.80	TBM	CONC HW S. SIDE OF HWY. 7
927	1895672.7928	970664.9314	433.35	TBM	18" RCP N. SIDE OF HWY. 7
928	1909717.0307	960319.7037	515.15	TBM	CHISELED SQUARE
929	1910654.6842	960053.3176	541.50	TBM	CHISELED SQUARE
930	1917445.9851	958272.9430	598.31	TBM	CHISELED SQUARE
931	1921213.7109	956923.1098	550.41	TBM	CHISELED SQUARE
932	1923838.6803	955155.1784	584.94	TBM	CHISELED SQUARE
998	1893466.6011	970867.2027	382.74	BM	NGS 3RD ORDER BM A 151 RESET
999	1906706.9987	961361.7085	492.62	BM	NGS 2ND ORDER BM Y 140 PID EJ1153

*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 0.999924438 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME s012275gi.ctl
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

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

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 100032 - 100032A, 100033 - 100033A, 300010 - 300010A, 300011 - 300011A, 300009 - 300009A
CONVERGENCE ANGLE: SEE NOTES FOR EACH SECTION IN CTL VIEW MODEL
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

PJoseph 6/21/2023 10:49:5 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	124	280
				(2)	SURVEY CONTROL DETAILS			

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

ALIGNMENT NAME: HWY. 7 - SITE 1

POINT	STATION	TYPE	NORTHING	EASTING
8000	110+00.00	POB	1868430.8506	988048.9763
8001	117+76.84	PI	1869159.3360	987779.1679
8002	126+24.53	PC	1869954.6021	987485.7149
8003	131+88.23	PT	1870478.4405	987277.6427
8004	139+52.32	PC	1871181.4115	986978.1977
8005	158+45.19	PT	1872990.1836	986433.3709
8006	168+34.63	PI	1873963.1987	986253.8506
8007	181+88.39	POE	1875295.3289	986012.8438

ALIGNMENT NAME: HWY. 7 - SITE 2

POINT	STATION	TYPE	NORTHING	EASTING
8100	220+00.00	POB	1897189.4061	966981.5155
8101	220+18.17	PC	1897198.4305	966965.7407
8102	224+19.31	PT	1897451.3339	966656.7513
8103	234+82.24	PI	1898251.4234	965956.9885
8104	241+67.79	PC	1898768.8009	965507.2050
8105	246+66.29	PT	1899188.6317	965242.0192
8106	255+06.13	PI	1899958.4969	964906.3951
8107	258+69.39	PC	1900290.1144	964758.1148
8108	266+33.33	PT	1900766.0000	964193.4895
8109	275+14.99	PI	1900984.3975	963339.3072
8110	277+76.05	PC	1901053.6199	963087.5966
8111	283+22.26	PT	1901288.5274	962597.7029
8112	295+00.00	POE	1901978.4476	961643.1925

ALIGNMENT NAME: HWY. 7 - SITE 3

POINT	STATION	TYPE	NORTHING	EASTING
8200	329+60.00	POB	1904030.1718	960961.2530
8201	336+25.83	PI	1904695.8791	960973.9395
8202	343+23.79	PC	1905393.7304	960986.2666
8203	347+09.36	PT	1905773.6914	961044.5676
8204	356+73.61	PC	1906698.5439	961317.3773
8205	360+83.89	PT	1907102.0056	961306.7067
8206	364+46.42	PI	1907443.8191	961185.9005
8207	371+05.03	PC	1908065.8806	960969.5477
8208	375+38.09	PT	1908481.0114	960846.8084
8209	381+74.32	PC	1909098.9661	960695.4306
8210	385+08.48	PT	1909402.0638	960559.1677
8211	389+32.49	PC	1909750.8672	960318.0965
8212	394+21.07	PT	1910197.3940	960128.1351
8213	398+89.78	POE	1910656.7848	960035.1559

ALIGNMENT NAME: HWY. 7 - SITE 4

POINT	STATION	TYPE	NORTHING	EASTING
8300	440+00.00	POB	1917798.2808	958234.6347
8301	440+69.77	PC	1917868.0316	958232.9007
8302	443+33.87	PT	1918129.7169	958200.6025
8303	459+63.09	PC	1919719.4048	957843.8650
8304	463+35.73	PT	1920059.5095	957696.9593
8305	466+79.93	PC	1920344.6061	957504.1152
8306	472+02.80	PT	1920784.2391	957221.1398
8307	494+54.79	PC	1922705.1824	956045.7962
8308	497+53.86	PT	1922937.1492	955858.3722
8309	503+13.22	PC	1923322.7968	955453.2013
8310	506+64.36	PT	1923605.6994	955248.5627
8311	509+79.36	POE	1923890.3766	955113.7151

ALIGNMENT NAME: TUPELO TRAIL SOUTH

POINT	STATION	TYPE	NORTHING	EASTING
8400	10+00.00	POB	1900782.5139	964128.9017
8401	10+30.50	PC	1900812.0637	964136.4570
8402	11+62.09	PT	1900932.9027	964102.2290
8403	12+30.50	POE	1900980.4534	964053.0369

ALIGNMENT NAME: TUPELO TRAIL NORTH

POINT	STATION	TYPE	NORTHING	EASTING
8500	10+00.00	POB	1906822.4602	961341.2514
8501	10+28.68	PC	1906819.7737	961369.8007
8502	11+46.76	PT	1906758.7629	961465.7955
8503	12+55.93	POE	1906664.7005	961521.1991

ALIGNMENT NAME: SITE 1 TEMPORARY WIDENING 1

POINT	STATION	TYPE	NORTHING	EASTING
8600	10+00.00	PC	1869434.3646	987677.6824
8601	12+35.49	PRC	1869659.7550	987609.9690
8602	14+70.98	PT	1869885.1454	987542.2557
8603	15+55.72	PC	1869964.6414	987512.9217
8604	18+34.15	PRC	1870217.9226	987397.8652
8605	20+33.30	PT	1870397.4035	987311.7953

ALIGNMENT NAME: SITE 4 TEMPORARY WIDENING 1

POINT	STATION	TYPE	NORTHING	EASTING
8700	20+00.00	PC	1919072.4068	957989.0560
8701	22+23.58	PT	1919287.2053	957927.4561
8702	22+28.89	PC	1919292.2112	957925.6976
8703	24+43.55	PT	1919498.3072	957866.0720
8704	26+55.33	PC	1919704.7297	957818.7352
8705	29+19.93	PT	1919948.6926	957719.2907
8706	29+45.77	POE	1919970.7360	957705.8153

ALIGNMENT NAME: SITE 4 TEMPORARY WIDENING 2

POINT	STATION	TYPE	NORTHING	EASTING
8800	30+00.00	PC	1922862.5107	955923.5032
8801	32+45.01	PRC	1923026.6632	955742.8475
8802	33+86.46	PT	1923114.8673	955632.4949
8803	34+26.46	PC	1923142.4449	955603.5212
8804	36+17.39	PT	1923282.8957	955474.3902
8805	37+88.68	POE	1923416.4307	955367.1140

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:15 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	125	280
				(2)	SURVEY CONTROL DETAILS			

0 100 200

1" = 100'

N

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

STA. 113+00.00
BEGIN SITE 1
PROPOSED
ALIGNMENT
L.M. 0.60

110+00 8000 N 20°19'23" W 776.84' 115+00 8001 C.L. HWY. 7 120+00 10+00 N 20°15'15" W 117.90' 8600 N 13°11'22" W 117.90' 8601 N 13°11'22" W 117.90' 125+00 N 20°15'15" W 847.68' 8602

N 20°48'10" W 854.65'

PN:1
PD:ARDOT STD. MON. STAMPED PN:1

N 20°37'34" W 808.00'

SURVEY BASELINE

PI 117+76.84
Δ = 00°04'08" RT.

N 20°17'58" W 658.99'

PN:113
PD:ARDOT GPS #100032A

PC 10+00.00

PI 11+17.90

PRC 12+35.49

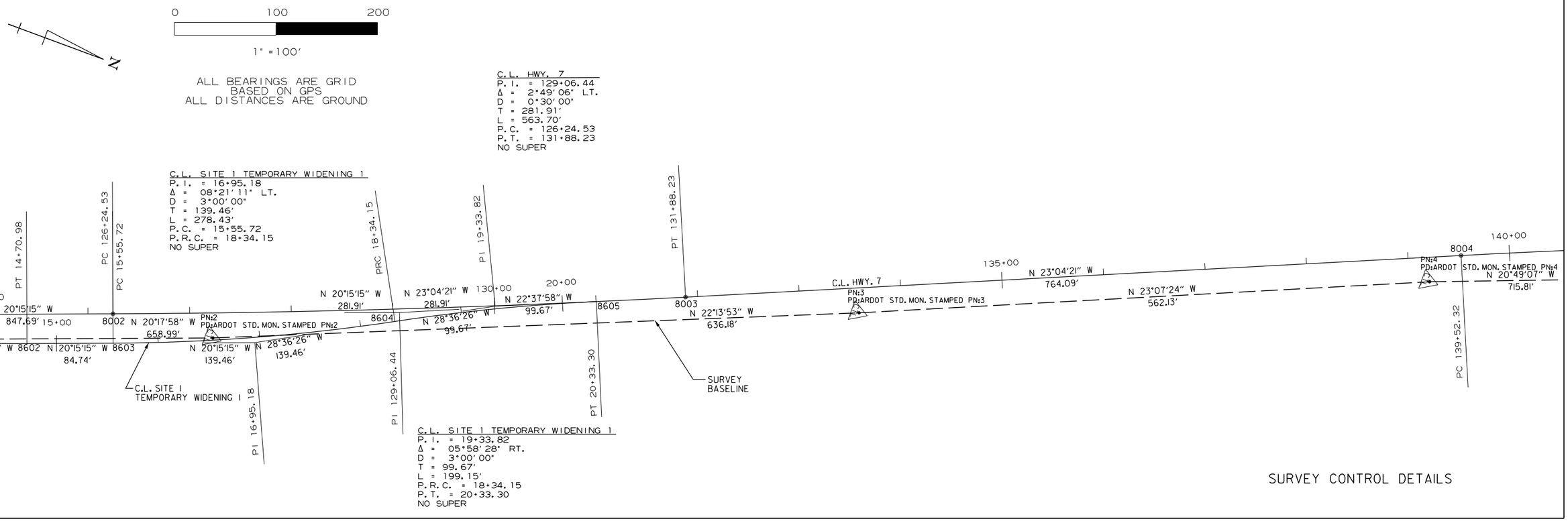
PI 13+53.39

PT 14+70.98

C.L. SITE 1 TEMPORARY WIDENING 1
P.I. = 11+17.90
Δ = 07°03'53" RT.
D = 3°00'00"
T = 117.90'
L = 235.49'
P.C. = 10+00.00
P.R.C. = 12+35.49
NO SUPER

C.L. SITE 1 TEMPORARY WIDENING 1
P.I. = 13+53.39
Δ = 07°03'53" LT.
D = 3°00'00"
T = 117.90'
L = 235.49'
P.R.C. = 12+35.49
P.T. = 14+70.98
NO SUPER

C.L. SITE 1
TEMPORARY WIDENING 1



SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:16 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_SITE1_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	126	280

(2) SURVEY CONTROL DETAILS

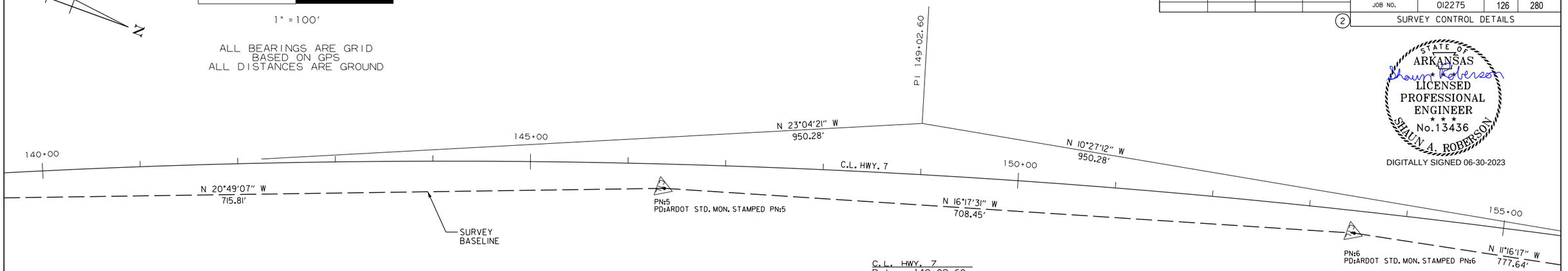
STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

0 100 200

1" = 100'

N

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND



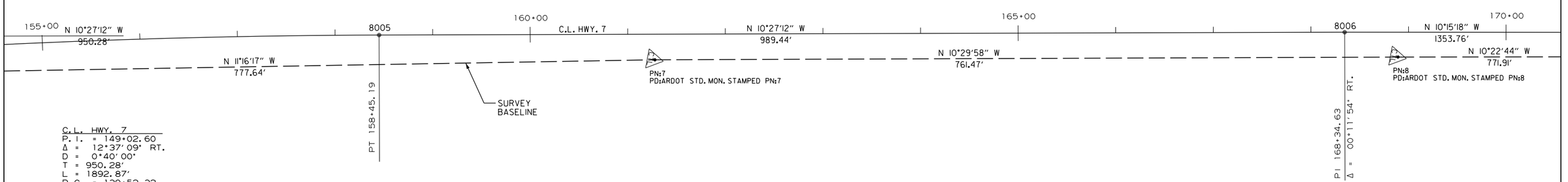
C. L. HWY. 7
P. I. = 149+02.60
Δ = 12°37'09" RT.
D = 0°40'00"
T = 950.28'
L = 1892.87'
P. C. = 139+52.32
P. T. = 158+45.19
e = 0.022'/'
Ls = 360'

0 100 200

1" = 100'

N

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND



C. L. HWY. 7
P. I. = 149+02.60
Δ = 12°37'09" RT.
D = 0°40'00"
T = 950.28'
L = 1892.87'
P. C. = 139+52.32
P. T. = 158+45.19
e = 0.022'/'
Ls = 360'

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:16 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_SITE1_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	127	280

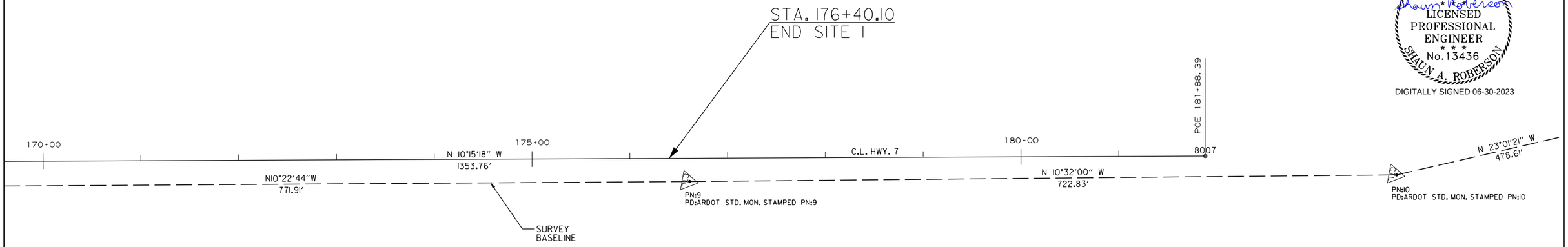
(2) SURVEY CONTROL DETAILS

0 100 200

1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
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SURVEY CONTROL DETAILS

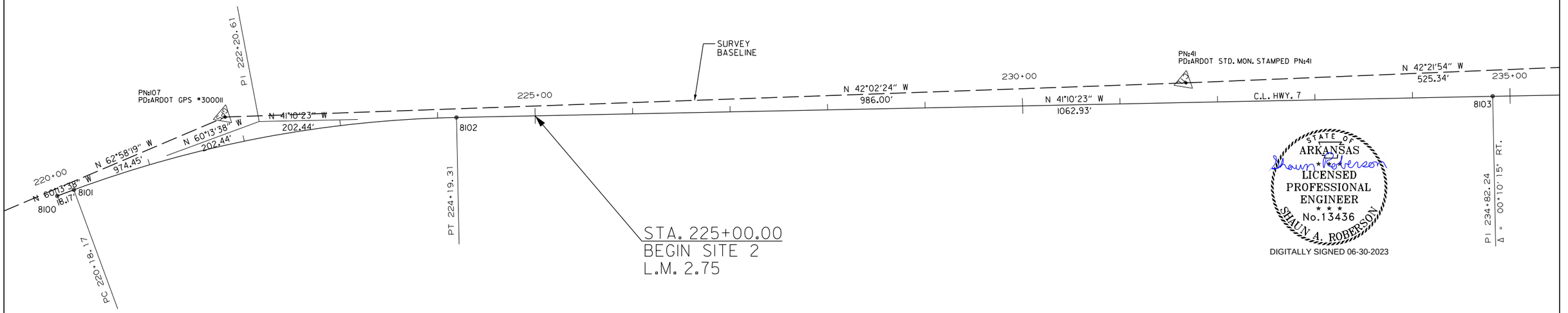
PJoseph 6/21/2023 10:49:16 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	128	280
				(2)	SURVEY CONTROL DETAILS			

C.L. HWY. 7
P.I. = 222+20.61
Δ = 19°03'15" RT.
D = 4°45'00"
T = 202.44'
L = 401.14'
P.C. = 220+18.17
P.T. = 224+19.31
e = MATCH EXISTING
Ls = MATCH EXISTING

0 100 200
1" = 100'

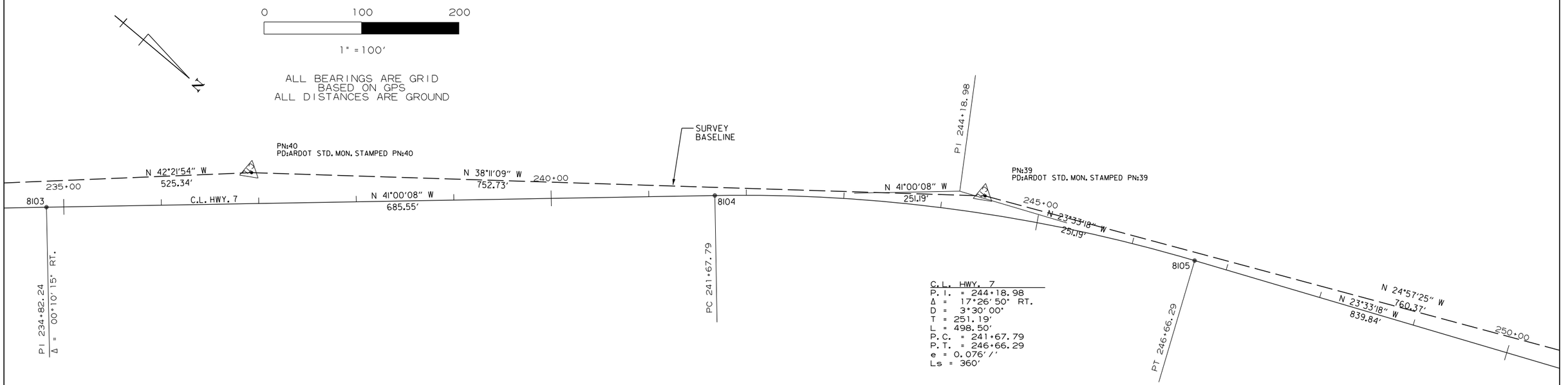
ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND



STATE OF ARKANSAS
Shaun A. Roberson
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SHAUN A. ROBERSON
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0 100 200
1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND



C.L. HWY. 7
P.I. = 244+18.98
Δ = 17°26'50" RT.
D = 3°30'00"
T = 251.19'
L = 498.50'
P.C. = 241+67.79
P.T. = 246+66.29
e = 0.076'/'
Ls = 360'

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:17 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_SITE2_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	129	280
				(2)	SURVEY CONTROL DETAILS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

0 100 200
1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

C.L. HWY. 7
P.I. = 262+79.42
Δ = 51°33'59" LT.
D = 6°45'00"
T = 410.03'
L = 763.94'
P.C. = 258+69.39
P.T. = 266+33.33
e = 0.100'/'
Ls = 420'

250+00
N 24°57'25" W
760.37'
PN:38
PD:ARDOT STD. MON. STAMPED PN:38
N 23°33'18" W
839.84'
C.L. HWY. 7
SURVEY BASELINE
PI 255+06.13
Δ = 00°32'11" LT.
255+00
8106
N 24°05'29" W
363.26'
PC 258+69.39
8107
N 20°22'39" W
663.55'
PN:37
PD:ARDOT STD. MON. STAMPED PN:37
260+00
N 24°05'29" W
410.03'
N 38°16'23" W
469.13'
PN:36
PD:ARDOT STD. MON. STAMPED PN:36
N 72°11'33" W
806.41'
265+00
N 75°39'28" W
410.03'
PI 292+17.22

C.L. HWY. 7
P.I. = 262+79.42
Δ = 51°33'59" LT.
D = 6°45'00"
T = 410.03'
L = 763.94'
P.C. = 258+69.39
P.T. = 266+33.33
e = 0.100'/'
Ls = 420'

PT 266+33.33
C.L. HWY. 7 STA. 267+00.00 =
C.L. TUPELO TRAIL SOUTH STA. 10+00.00
Δ = 90°00'00"
265+00
N 75°39'28" W
410.03'
8108
8400
N 14°20'32" E
30.50'
PC 10+30.50
8401
C.L. TUPELO TRAIL SOUTH
N 14°20'32" E
72.63'
PI 11+03.13
PT 11+62.09
N 45°58'19" W
72.63'
8402
N 45°58'19" W
68.41'
POE 12+30.50
8403
270+00
N 75°39'28" W
881.66'
C.L. HWY. 7
N 72°11'33" W
806.41'
PN:35
PD:ARDOT STD. MON. STAMPED PN:35
SURVEY BASELINE
275+00
8109
PI 275+14.99
Δ = 01°02'04" RT.
PC 277+76.05
N 79°49'23" W
654.22'
N 74°37'24" W
261.06'
8110
PN:34
PD:ARDOT STD. MON. STAMPED PN:34
N 58°31'04" W
568.11'
N 74°37'24" W
276.05'
280+00

C.L. TUPELO TRAIL SOUTH
P.I. = 11+03.13
Δ = 60°18'51" LT.
D = 45°50'12"
T = 72.63'
L = 131.59'
P.C. = 10+30.50
P.T. = 11+62.09
NO SUPER

C.L. HWY. 7
P.I. = 280+52.10
Δ = 20°28'58" RT.
D = 3°45'00"
T = 276.05'
L = 546.21'
P.C. = 277+76.05
P.T. = 283+22.26
e = 0.080'/'
Ls = 360'

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:17 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_SITE2_02.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	130	280
				(2)	SURVEY CONTROL DETAILS			

C.L. HWY. 7
P.I. = 280+52.10
Δ = 20°28'58" RT.
D = 3°45'00"
T = 276.05'
L = 546.21'
P.C. = 277+76.05
P.T. = 283+22.26
e = 0.080'/'
Ls = 360'

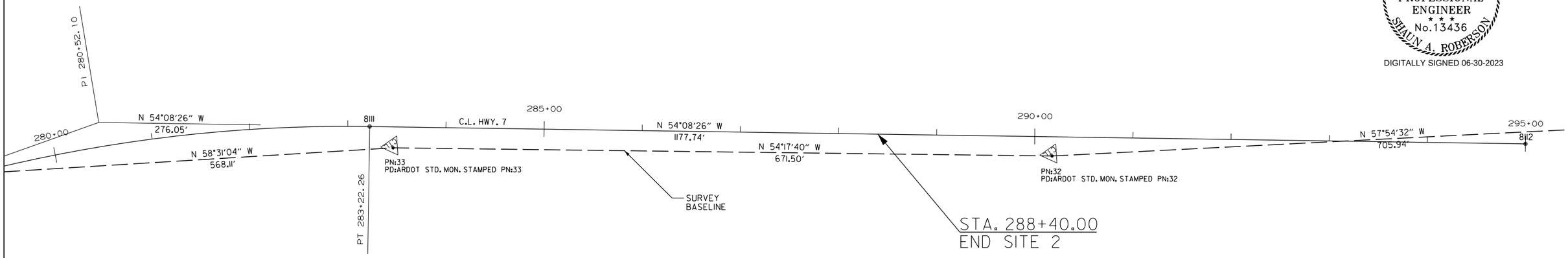
0 100 200

1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023



SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:17 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_SITE2_03.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	131	280

(2) SURVEY CONTROL DETAILS

0 100 200

1" = 100'

N

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

C.L. HWY. 7
P.I. = 345+17.75
Δ = 15°25'22" RT.
D = 4°00'00"
T = 193.96'
L = 385.57'
P.C. = 343+23.79
P.T. = 347+09.36
e = 0.083'/'
Ls = 360'

STA. 333+00.00
BEGIN SITE 3
L.M. 4.53

POB 329+60.00

330+00

8200

335+00

N 01°05'30" E
665.83'

N 04°17'05" E
692.75'

PI 336+25.83
Δ = 00°04'47" LT.

8201

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

N 05°15'02" W
389.71'

340+00

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

N 01°00'43" E
697.96'

C.L. HWY. 7

N 01°42'06" E
538.46'

SURVEY BASELINE

345+00

N 01°00'43" E
193.96'

PI 345+17.75

8202

PC 343+23.79

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0 100 200

1" = 100'

N

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BASED ON GPS
ALL DISTANCES ARE GROUND

C.L. HWY. 7
P.I. = 345+17.75
Δ = 15°25'22" RT.
D = 4°00'00"
T = 193.96'
L = 385.57'
P.C. = 343+23.79
P.T. = 347+09.36
e = 0.083'/'
Ls = 360'

PI 345+17.75

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

345+00

N 20°00'50" E
720.64'

N 16°26'05" E
193.96'

8203

PT 347+09.36

350+00

C.L. HWY. 7

N 16°26'05" E
964.25'

355+00

PN:24
PD:ARDOT STD. MON. STAMPED PN:24

N 17°04'52" E
557.99'

PC 356+73.61

8204

N 16°26'05" E
212.12'

C.L. HWY. 7
P.I. = 358+85.73
Δ = 35°53'58" LT.
D = 8°45'00"
T = 212.12'
L = 410.28'
P.C. = 356+73.61
P.T. = 360+83.89
e = 0.100'/'
Ls = 420'

8500

S 84°37'28" E
28.68'

8501

PC 10+28.68
PN:106
PD:ARDOT GPS "3000I0A

N 19°18'25" W
732.48'

N 19°27'53" W
212.12'

360+00

PT 360+83.89

SURVEY BASELINE

PT 11+46.76

S 30°29'55" E
63.86'

PI 10+92.54

PI 358+85.73

8502

C.L. TUPELO TRAIL NORTH

POE 12+55.93

S 30°29'55" E
109.17'

8503

C.L. TUPELO TRAIL NORTH
P.I. = 10+92.54
Δ = 54°07'33" RT.
D = 45°50'12"
T = 63.86'
L = 118.08'
P.C. = 10+28.68
P.T. = 11+46.76
NO SUPER

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:17 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_SC_SITE3_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	132	280

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

0 100 200

1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

C.L. HWY. 7
P.I. = 358+85.73
Δ = 35°53'58" LT.
D = 8°45'00"
T = 212.12'
L = 410.28'
P.C. = 356+73.61
P.T. = 360+83.89
e = 0.100'/'
Ls = 420'

PT 360+83.89

SURVEY BASELINE

360+00

N 19°18'25" W
732.48'

8205

N 19°27'53" W
362.53'

8206

PI 364+46.42
Δ = 00°17'13" RT.

PN:50
PD:ARDOT STD. MON. STAMPED PN:50

365+00

C.L. HWY. 7

N 13°32'25" W
477.82'

PN:23
PD:ARDOT STD. MON. STAMPED PN:23

370+00

N 19°10'40" W
658.61'

8207

PC 371+05.03

N 19°10'40" W
216.69'

PI 373+21.72

N 13°45'52" W
216.69'

375+00

8208

N 18°16'16" W
1086.50'

PT 375+38.09

C.L. HWY. 7
P.I. = 373+21.72
Δ = 05°24'48" RT.
D = 1°15'00"
T = 216.69'
L = 433.06'
P.C. = 371+05.03
P.T. = 375+38.09
e = 0.032'/'
Ls = 360'

0 100 200

1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

C.L. HWY. 7
P.I. = 373+21.72
Δ = 05°24'48" RT.
D = 1°15'00"
T = 216.69'
L = 433.06'
P.C. = 371+05.03
P.T. = 375+38.09
e = 0.032'/'
Ls = 360'

375+00

8208

PT 375+38.09

SURVEY BASELINE

N 18°16'16" W
1086.50'

380+00

PN:105
PD:ARDOT GPS #300010

N 13°45'52" W
636.23'

C.L. HWY. 7

8209

PC 381+74.32

N 09°42'00" W
303.82'

N 13°45'52" W
168.96'

PI 383+43.28

C.L. HWY. 7
P.I. = 383+43.28
Δ = 20°53'07" LT.
D = 6°15'00"
T = 168.96'
L = 334.16'
P.C. = 381+74.32
P.T. = 385+08.48
e = 0.100'/'
Ls = 420'

PT 385+08.48

385+00

8210

N 34°38'59" W
168.96'

PN:46
PD:ARDOT STD. MON. STAMPED PN:46

N 34°38'59" W
424.01'

C.L. HWY. 7
P.I. = 391+80.18
Δ = 23°12'28" RT.
D = 4°45'00"
T = 247.69'
L = 488.58'
P.C. = 389+32.49
P.T. = 394+21.07
e = 0.091'/'
Ls = 420'

PN:47
PD:ARDOT STD. MON. STAMPED PN:47

390+00

N 34°38'59" W
247.69'

N 37°10'08" W
587.85'

8211

PC 389+32.49

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:17 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

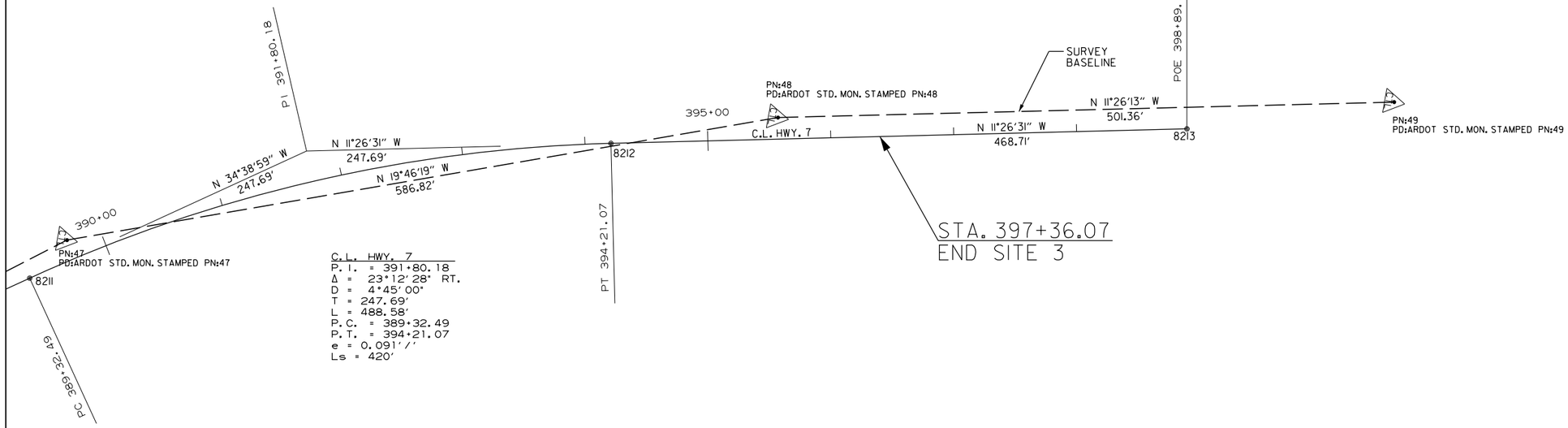
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	133	280
(2)	SURVEY CONTROL DETAILS			

0 100 200

1" = 100'

N

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND



C.L. HWY. 7
P.I. = 391+80.18
Δ = 23°12'28" RT.
D = 4°45'00"
T = 247.69'
L = 488.58'
P.C. = 389+32.49
P.T. = 394+21.07
e = 0.091'/'
Ls = 420'

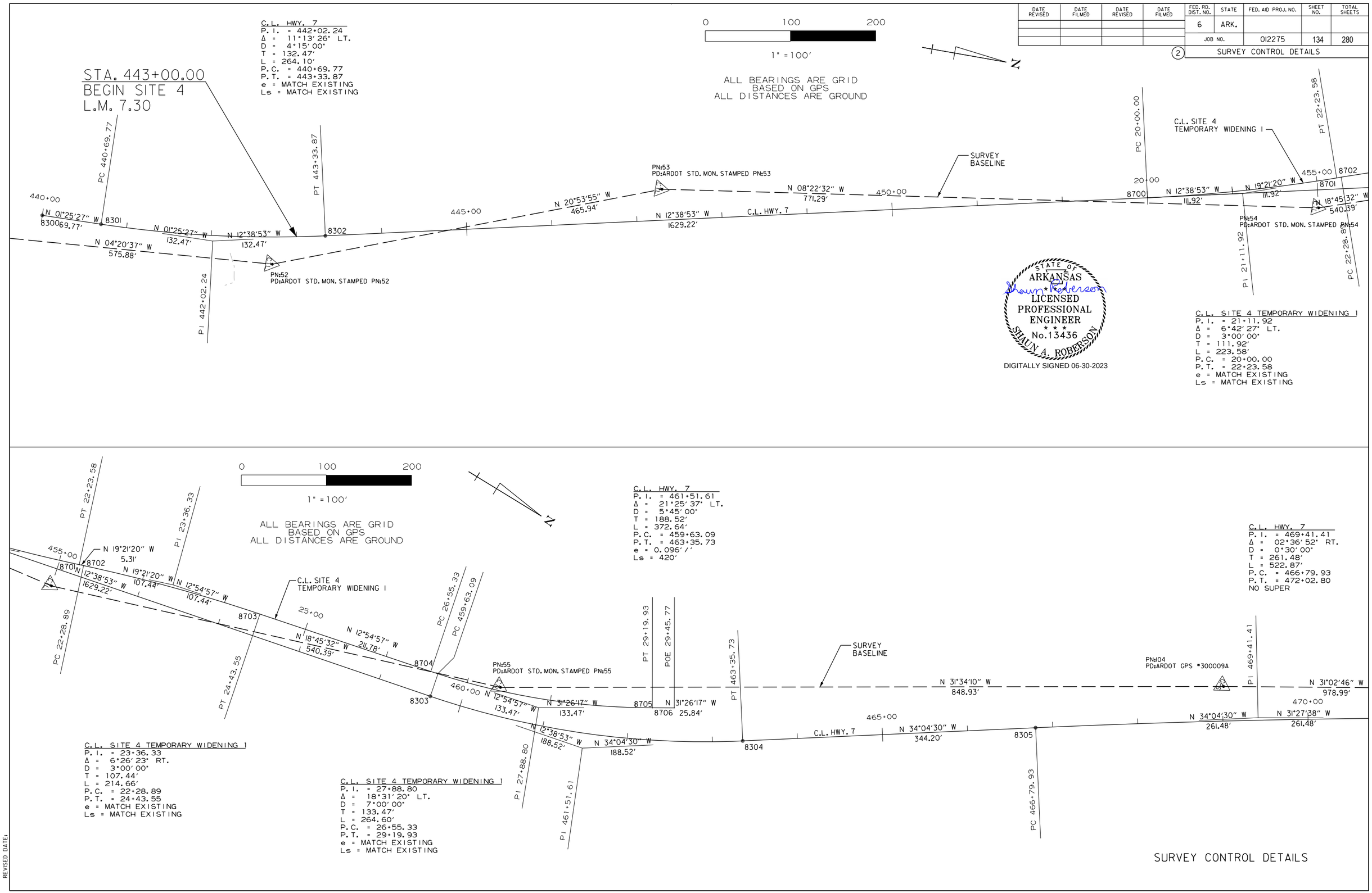
STATE OF
ARKANSAS
Shaun Roberson
LICENSED
PROFESSIONAL
ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:18 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	134	280
				(2)	SURVEY CONTROL DETAILS			



SURVEY CONTROL DETAILS

PJoseph 6/21/2023 10:49:18 AM
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	135	280

(2) SURVEY CONTROL DETAILS

0 100 200

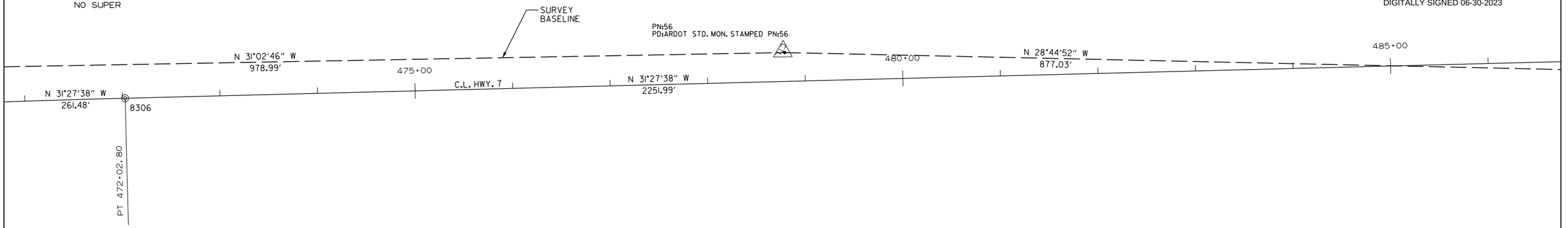
1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON

DIGITALLY SIGNED 06-30-2023

C.L. HWY. 7
P.I. = 469+41.41
Δ = 02°36'52" RT.
D = 0°30'00"
T = 261.48'
L = 522.87'
P.C. = 466+79.93
P.T. = 472+02.80
NO SUPER



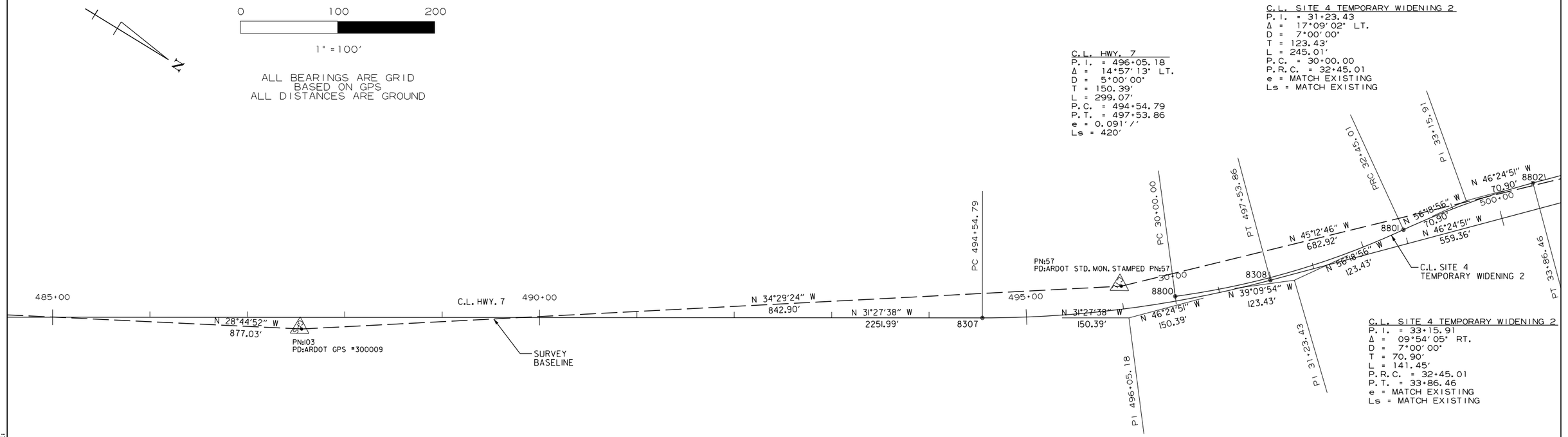
0 100 200

1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

C.L. HWY. 7
P.I. = 496+05.18
Δ = 14°57'13" LT.
D = 5°00'00"
T = 150.39'
L = 299.07'
P.C. = 494+54.79
P.T. = 497+53.86
e = 0.091'/'
Ls = 420'

C.L. SITE 4 TEMPORARY WIDENING 2
P.I. = 31+23.43
Δ = 17°09'02" LT.
D = 7°00'00"
T = 123.43'
L = 245.01'
P.C. = 30+00.00
P.R.C. = 32+45.01
e = MATCH EXISTING
Ls = MATCH EXISTING



C.L. SITE 4 TEMPORARY WIDENING 2
P.I. = 33+15.91
Δ = 09°54'05" RT.
D = 7°00'00"
T = 70.90'
L = 141.45'
P.R.C. = 32+45.01
P.T. = 33+86.46
e = MATCH EXISTING
Ls = MATCH EXISTING

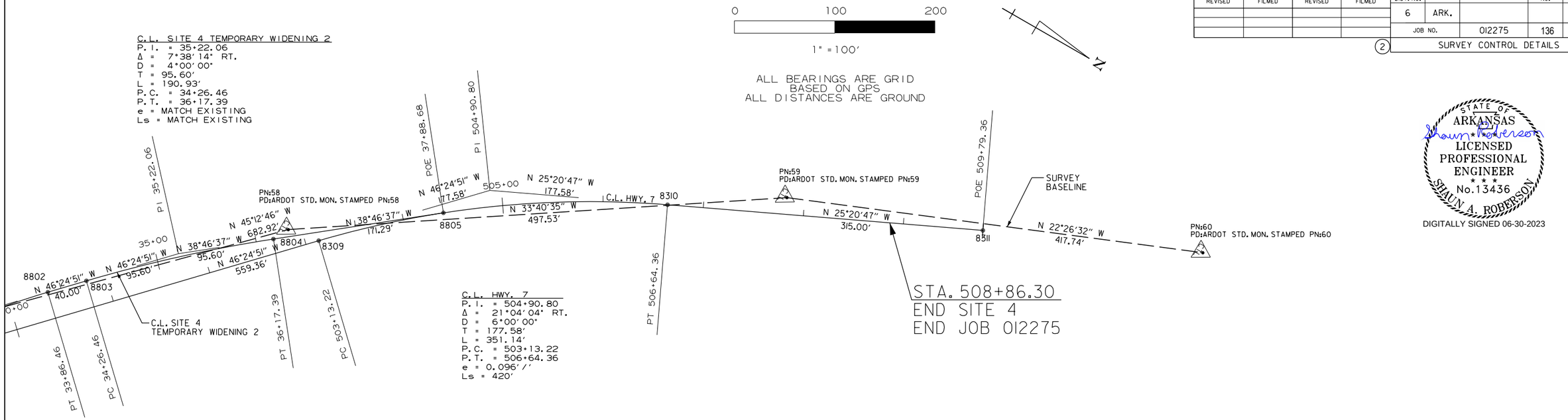
SURVEY CONTROL DETAILS

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	136	280

(2) SURVEY CONTROL DETAILS



STATE OF ARKANSAS
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SURVEY CONTROL DETAILS

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	137	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

▲ TOTAL DISCHARGE Q50 = 1337 CFS
TOTAL DISCHARGE INCLUDES WATER THROUGH STRUCTURES AT STA. 113+75, AT STA. 120+02, AT STA. 122+50, AT STA. 125+65, AND AT STA. 126+10

STA. 113+75 IN PLACE
24" X 55' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE HDWL. RT. & EXTEND R.C. PIPE 3' RT.
CLASS V (TYPE 3 BEDDING)
WITH F.E.S. RT.
CONSTRUCT 24" X 58' R.C. PIPE CULVERT
CLASS V (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 10 CFS DA = 647 ACRES ▲
24" R.C. PIPE = 65 LIN. FT.
24" F.E.S. = 3 EA.

STA. 120+02 IN PLACE
24" X 84' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE AND CONSTRUCT
DBL. 36" X 72' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 71CFS DA = 647 ACRES ▲
36" R.C. PIPE = 144 LIN. FT.
36" F.E.S. = 4 EA.

STA. 122+32 CONSTRUCT
DBL. 73" X 45" X 74' R.C. ARCH PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 168 CFS DA = 647 ACRES
73" X 45" R.C. ARCH PIPE = 148 LIN. FT. ▲
73" X 45" F.E.S. = 4 EA.

STA. 122+50 IN PLACE
4' X 2' X 87' R.C. BOX CULVERT
WITH 3:1 WINGS LT. AND RT.
REMOVE WINGS LT. AND RT.
AND PLUG AND ABANDON

STA. 113+00.00
BEGIN SITE 1
PROPOSED
ALIGNMENT
L.M. 0.60

APPROXIMATE FEMA 100 YR. FLOODPLAIN LIMITS

EXIST. R/W
CONST. LIMITS
N 20°19'23" W
C.L. HWY. 7
N 20°15'15" W
PROP. R/W
EXIST. R/W
T.C.E.

110+00 115+00 120+00 125+00

EXISTING 10' 24' 10'
10' 24' 10'
36'
6'

+00 EL. 226.18
+42
16'
+38.25 60.15'
+36.14 65.15'
+50 95'
+40 EL. 228.98
+00 EL. 230.74
+00 80'
+00 60.58'
+00 60.54'
+25 60.53'
+50 85'
+30 75'
+10 59.47'

STA. 112+00.00
STA. 113+00.00
STA. 115+00.00

MILL & INLAY
100' TRANSITION TO MATCH EXISTING
200' TAPER

STA. 113+42 CONSTRUCT
APPROACH ON RT. = 33 CU. YDS.

PI 117+76.84
Δ = 00°04'08" RT.

APPROXIMATE FEMA 100 YR. FLOODPLAIN LIMITS

STATE OF ARKANSAS
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HIGHWAY 7 - SITE 1

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

STA. 112+00.00
MILL & INLAY
100' VERTICAL TRANSITION TO MATCH EXISTING
VC=170.00'
K 425.00

STA. 113+00.00
BEGIN SITE 1
PROPOSED
ALIGNMENT
ELEV. 227.78

PVC 113+00.00 ELEV. 227.78
PVI 113+85.00 ELEV. 228.46
PVT 114+70.00 ELEV. 229.48
PVI 115+75.00 ELEV. 230.74
PVI 118+50.00 ELEV. 232.94
PVT 119+50.00 ELEV. 233.49

0.50% LEFT DITCH GRADE
0.80%
1.83% RIGHT DITCH GRADE
0.20%
VC=170.00'
K 425.00
0.80%
VC=200.00'
K 800.00
2.50% RIGHT DITCH GRADE
2.96% RIGHT DITCH GRADE
PROFILE GRADE
EXISTING GROUND
0.55%

PVC 114+90.00 ELEV. 229.72
PVT 116+60.00 ELEV. 231.42
PVC 117+50.00 ELEV. 232.14

+00.00 LT. 223.54
+50.00 RT. 224.57
+75.00 RT. 224.09
+76.00 LT. 223.92
+50.00 RT. 225.46
-1.92% RIGHT DITCH GRADE

+40.00 RT. 228.75
+02.00 RT. 227.20
+20.00 RT. 230.69
+00.00 LT. 233.38

+75
PROP. F.L. = 223.92 LT.
PROP. F.L. = 224.09 RT.

EX. F.L. = 223.94 LT.
EX. F.L. = 224.06 RT.
PROP. F.L. = 224.09 RT.

+02
PROP. F.L. = 226.82 LT.
PROP. F.L. = 227.20 RT.
EX. F.L. = 226.83 LT. (REMOVE)
EX. F.L. = 227.20 RT. (REMOVE)

+32
PROP. F.L. = 228.11 LT.
PROP. F.L. = 228.36 RT.
EX. F.L. = 228.06 LT. (REMOVE)
EX. F.L. = 228.33 RT. (REMOVE)

270 260 250 240 230 220 210 200 190 180

110+00 111+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

PJoseph
6/21/2023 10:49:24 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	138	280

(2) PLAN AND PROFILE - HIGHWAY 7

STA. 126+10 IN PLACE
TRP. 10' X 4' X 86' R.C. BOX CULVERT
WITH 3:1 WINGS LT. AND RT.
RETAIN AND EXTEND 9' RT.
FOR A COMPLETED LENGTH OF 95'
Q50 = 766 CFS DA = 647 ACRES ▲
SPAN = 32'-8"

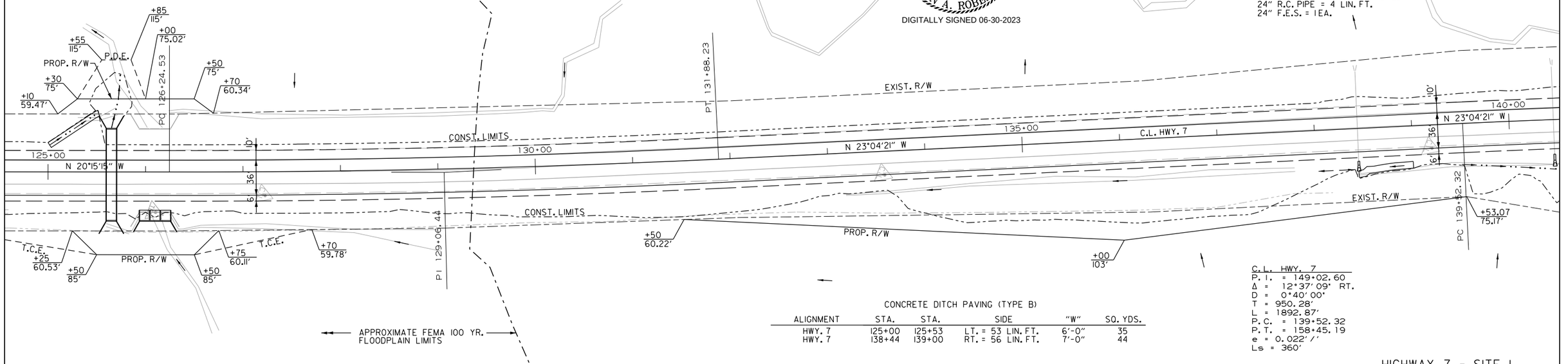
STA. 125+65 CONSTRUCT
10' X 5' X 95'
R.C. BOX CULVERT
WITH 3:1 WINGS LT. AND RT.
Q50 = 322 CFS DA = 647 ACRES ▲

C.L. HWY. 7
P.I. = 129+06.44
Δ = 2°49'06" LT.
D = 0°30'00"
T = 281.91'
L = 563.70'
P.C. = 126+24.53
P.T. = 131+88.23
NO SUPER

▲ TOTAL DISCHARGE Q50 = 1337 CFS
TOTAL DISCHARGE INCLUDES WATER THROUGH STRUCTURES AT STA. 113+75, AT STA. 120+02, AT STA. 122+50, AT STA. 125+65, AND AT STA. 126+10

STATE OF ARKANSAS
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STA. 138+44 IN PLACE
24" X 90' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 5 CFS DA = 1 ACRES
24" R.C. PIPE = 4 LIN. FT.
24" F.E.S. = 1 EA.



APPROXIMATE FEMA 100 YR. FLOODPLAIN LIMITS

CONCRETE DITCH PAVING (TYPE B)

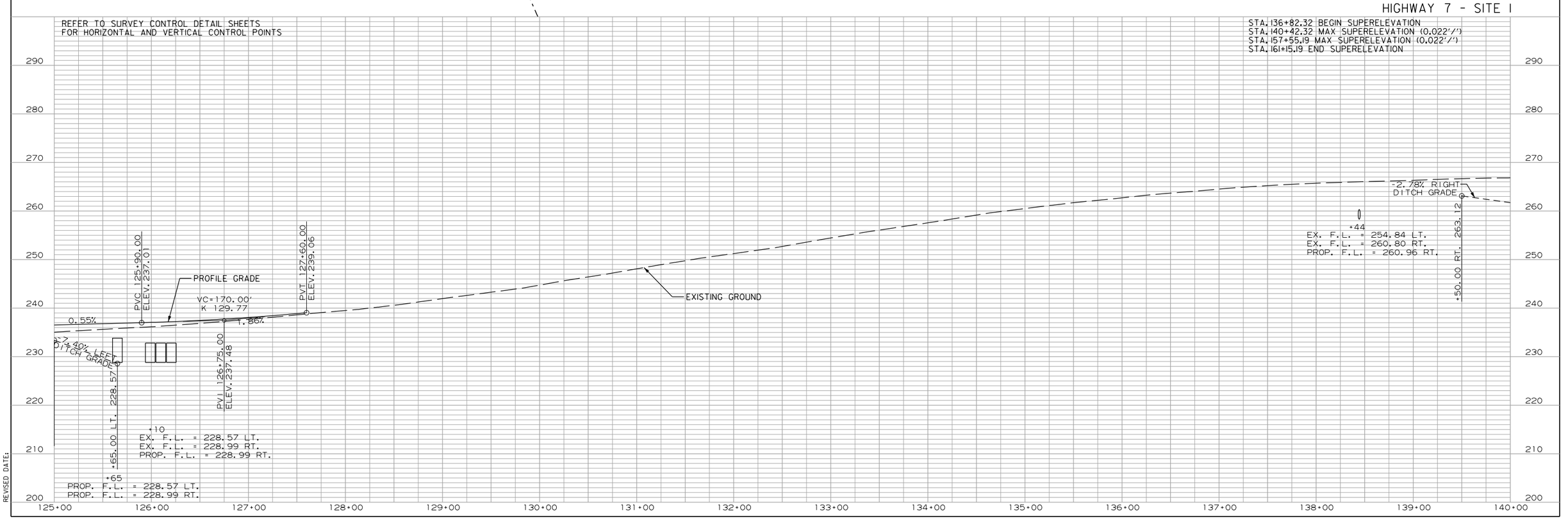
ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	125+00	125+53	LT. = 53 LIN. FT.	6'-0"	35
HWY. 7	138+44	139+00	RT. = 56 LIN. FT.	7'-0"	44

C.L. HWY. 7
P.I. = 149+02.60
Δ = 12°37'09" RT.
D = 0°40'00"
T = 950.28'
L = 1892.87'
P.C. = 139+52.32
P.T. = 158+45.19
e = 0.022'/'
Ls = 360'

HIGHWAY 7 - SITE I

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

STA. 136+82.32 BEGIN SUPERELEVATION
STA. 140+42.32 MAX SUPERELEVATION (0.022'/')
STA. 157+55.19 MAX SUPERELEVATION (0.022'/')
STA. 161+15.19 END SUPERELEVATION



PJoseph
6/21/2023 10:49:24 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	139	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

STA. 140+46 IN PLACE
24" X 87' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 8 CFS DA = 2 ACRES
24" R.C. PIPE = 6 LIN. FT.
24" F.E.S. = 1EA.

STA. 144+26 IN PLACE
24" X 94' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 4 CFS DA = 1 ACRES
24" R.C. PIPE = 4 LIN. FT.
24" F.E.S. = 1EA.

STA. 145+42 IN PLACE
24" X 82' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
RETAIN
Q50 = 23 CFS DA = 4 ACRES

STA. 150+42 IN PLACE
24" X 85' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
RETAIN
Q50 = 23 CFS DA = 4 ACRES

N

EXIST. R/W
PI 149+02.60
N 23°04'21" W
N 10°27'12" W
CONST. LIMITS
140+00
145+00
150+00
155+00
C.L. HWY. 7
+50
10'
36'
6'
DIKE
+10
EL. 263.00
+80
EL. 271.00
16'
EXIST. R/W
PROP. R/W
+50
60.47'
+00
72.22'
+25
93.39'
+10
215'
+40
220'

STA. 140+80.00 RT.
BEGIN CONCRETE COMBINATION
CURB AND GUTTER (TYPE B-I)

STA. 144+00.00 RT.
END CONCRETE COMBINATION
CURB AND GUTTER (TYPE B-I)

STA. 148+50 INSTALL
18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 8 CU. YDS.

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	150+42	155+00	RT. = 458 LIN. FT.	6'-0"	306

C.L. HWY. 7
P.I. = 149+02.60
Δ = 12°37'09" RT.
D = 0°40'00"
T = 950.28'
L = 1892.87'
P.C. = 139+52.32
P.T. = 158+45.19
e = 0.022'/'
Ls = 360'

STATE OF ARKANSAS
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HIGHWAY 7 - SITE I

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

STA. 136+82.32 BEGIN SUPERELEVATION
STA. 140+42.32 MAX SUPERELEVATION (0.022'/')
STA. 157+55.19 MAX SUPERELEVATION (0.022'/')
STA. 161+15.19 END SUPERELEVATION

EXISTING GROUND

-2.78% RIGHT DITCH GRADE
+46.00 RT. 260.45
+80.00 RT. 264.78
12.74% RIGHT DITCH GRADE
+46
EX. F.L. = 256.57 LT.
EX. F.L. = 260.14 RT.
PROP. F.L. = 260.46 RT.

-18.69% RIGHT DITCH GRADE
+00.00 RT. 264.30
+26.00 RT. 259.44
+26
EX. F.L. = 259.60 LT.
EX. F.L. = 259.45 RT.
PROP. F.L. = 259.44 RT.

-2.88% RIGHT DITCH GRADE
-1.97% RIGHT DITCH GRADE
+10.00 RT. 261.86
+42.00 RT. 261.23
2.05% RIGHT DITCH GRADE
+02.00 RT. 266.56
EX. F.L. = 260.75 LT.
EX. F.L. = 261.17 RT.

-2.55% RIGHT DITCH GRADE
+80.00 RT. 270.08
+42.00 RT. 268.50
3.76% RIGHT DITCH GRADE
EX. F.L. = 267.28 LT.
EX. F.L. = 268.47 RT.

310 300 290 280 270 260 250 240 230 220

140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00

PJoseph 6/21/2023 10:49:25 AM
WORKSPACE: AHTD
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REVISED DATE:

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				6	ARK.			
				JOB NO.		012275	140	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

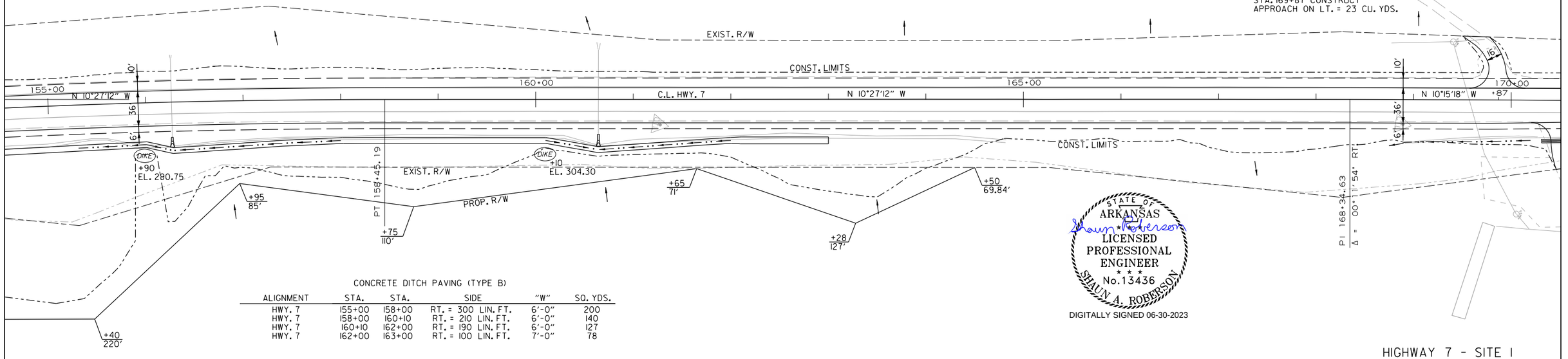
C.L. HWY. 7
P. I. = 149+02.60
Δ = 12°37'09" RT.
D = 0°40'00"
T = 950.28'
L = 1892.87'
P.C. = 139+52.32
P.T. = 158+45.19
e = 0.022'/'
Ls = 360'

STA. 156+27 IN PLACE
24" X 87' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE HDWL. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 21CFS DA = 4 ACRES
24" R.C. PIPE = 4 LIN. FT.
24" F.E.S. = 1EA.

STA. 160+64 IN PLACE
24" X 81' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 20 CFS DA = 4 ACRES
24" R.C. PIPE = 6 LIN. FT.
24" F.E.S. = 1EA.

N

STA. 169+87 CONSTRUCT
APPROACH ON LT. = 23 CU. YDS.



CONCRETE DITCH PAVING (TYPE B)

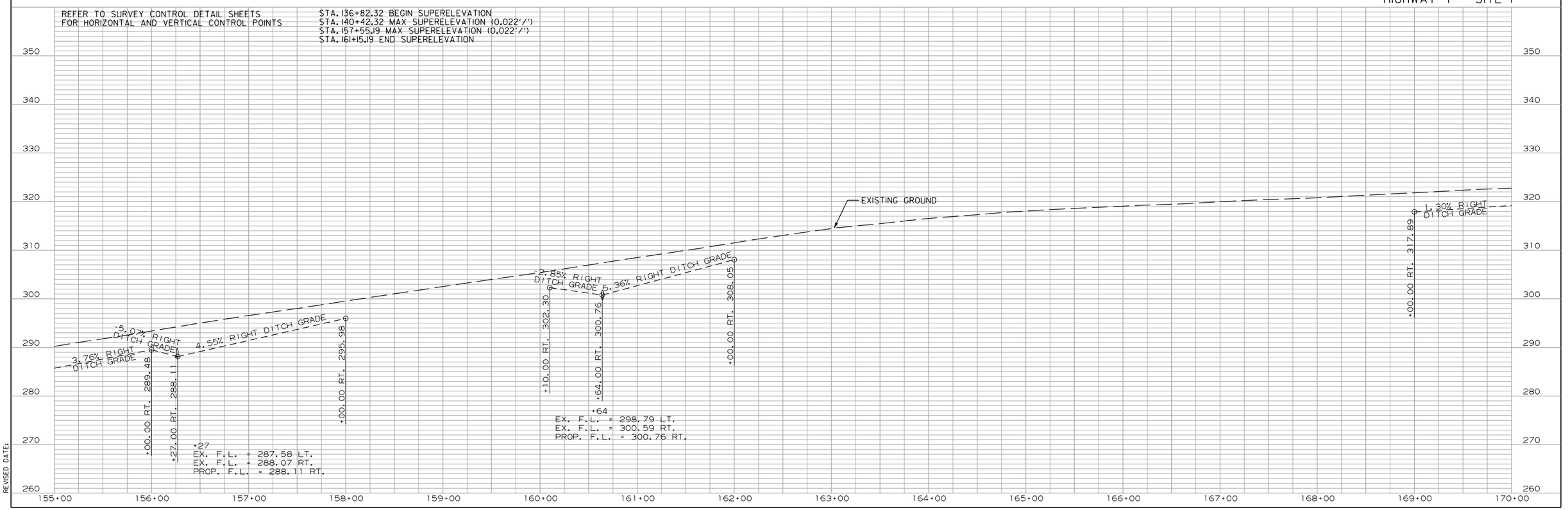
ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	155+00	158+00	RT. = 300 LIN. FT.	6'-0"	200
HWY. 7	158+00	160+10	RT. = 210 LIN. FT.	6'-0"	140
HWY. 7	160+10	162+00	RT. = 190 LIN. FT.	6'-0"	127
HWY. 7	162+00	163+00	RT. = 100 LIN. FT.	7'-0"	78

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HIGHWAY 7 - SITE I

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

STA. 136+82.32 BEGIN SUPERELEVATION
STA. 140+42.32 MAX SUPERELEVATION (0.022'/')
STA. 157+55.19 MAX SUPERELEVATION (0.022'/')
STA. 161+15.19 END SUPERELEVATION



PJoseph 6/21/2023 10:49:25 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	141	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

STA. 172+75 CONSTRUCT
APPROACH = 30 CU. YDS.

660' TAPER | 100' TRANSITION

STA. 169+80.10 | STA. 176+40.10 | STA. 177+40.10

EXIST. R/W

16' | 10' | CONST. LIMITS | 10' | EXISTING | 10'

170+00 | +55 | +21 | +75 | N 10°15'18" W | 175+00 | C.L. HWY. 7 | 180+00

36' | 24' | 24'

16' | CONST. LIMITS

28' | 30'

EXIST. R/W

STA. 170+55 IN PLACE
18" X 41' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
DBL. 18" X 46' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 46 CU. YDS.

STA. 172+21 INSTALL
DBL. 18" X 47' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 32 CU. YDS.

STA. 176+40.10
END SITE 1

HIGHWAY 7 - SITE 1

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

370 | 360 | 350 | 340 | 330 | 320 | 310 | 300 | 290 | 280

1.30% RIGHT DITCH GRADE

EXISTING GROUND

+20.00 RT. 319.45

STA. 176+40.10
END SITE 1

170+00 | 171+00 | 172+00 | 173+00 | 174+00 | 175+00 | 176+00 | 177+00 | 178+00 | 179+00 | 180+00 | 181+00 | 182+00

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REVISED DATE:

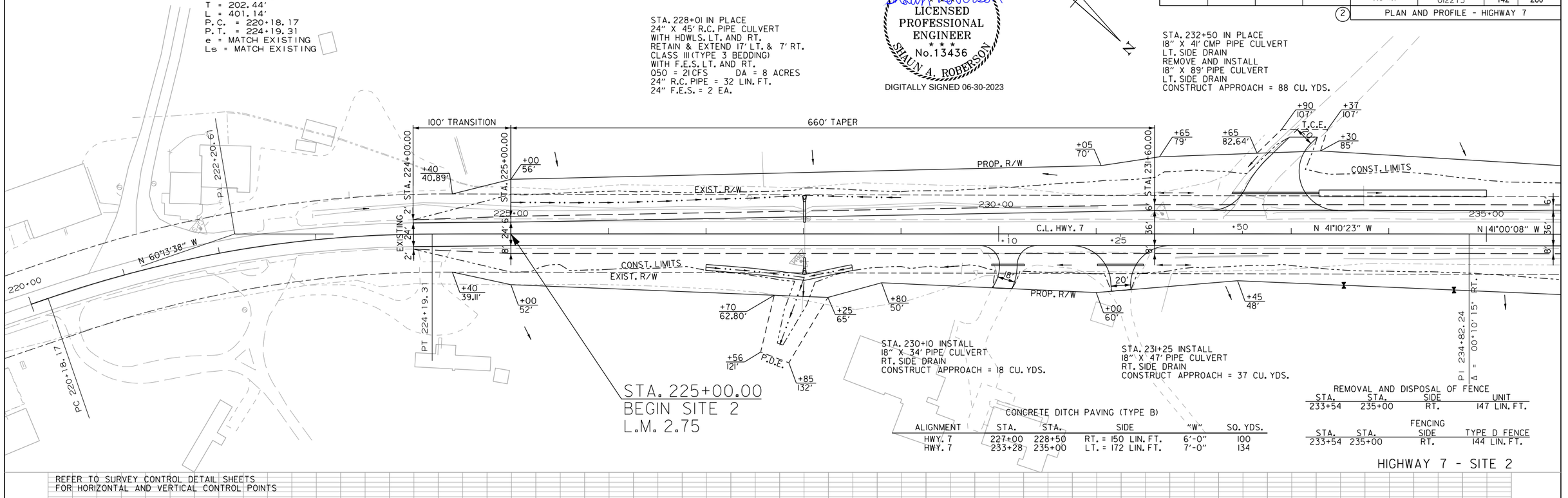
C.L. HWY. 7
P.I. = 222+20.61
Δ = 19°03'15" RT.
D = 4°45'00"
T = 202.44'
L = 401.14'
P.C. = 220+18.17
P.T. = 224+19.31
e = MATCH EXISTING
Ls = MATCH EXISTING

STATE OF ARKANSAS
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	142	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

STA. 228+01 IN PLACE
24" X 45' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
RETAIN & EXTEND 17' LT. & 7' RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 21 CFS DA = 8 ACRES
24" R.C. PIPE = 32 LIN. FT.
24" F.E.S. = 2 EA.

STA. 232+50 IN PLACE
18" X 41' CMP PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 89' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 88 CU. YDS.



STA. 225+00.00
BEGIN SITE 2
L.M. 2.75

STA. 230+10 INSTALL
18" X 34' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 18 CU. YDS.

STA. 231+25 INSTALL
18" X 47' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 37 CU. YDS.

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
233+54	235+00	RT.	147 LIN. FT.

FENCING

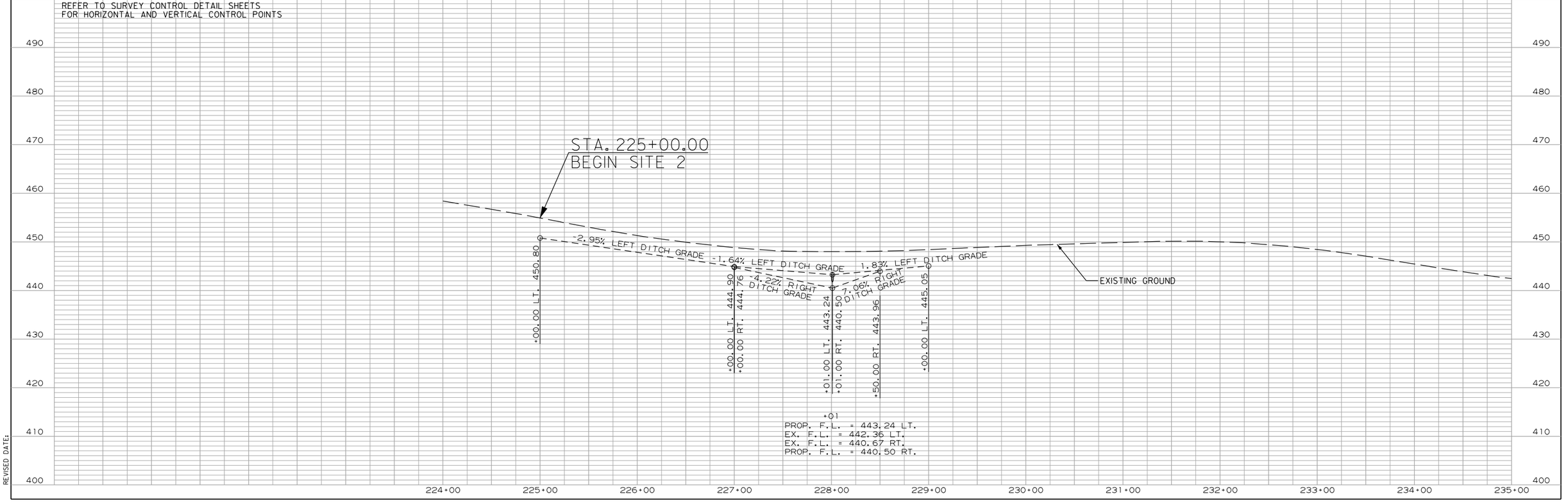
STA.	STA.	SIDE	TYPE D FENCE
233+54	235+00	RT.	144 LIN. FT.

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	227+00	228+50	RT. = 150 LIN. FT.	6'-0"	100
HWY. 7	233+28	235+00	LT. = 172 LIN. FT.	7'-0"	134

HIGHWAY 7 - SITE 2

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



PJoseph 6/21/2023 10:49:25 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	143	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
235+00	238+11	RT.	311 LIN. FT.
241+06	242+36	RT.	134 LIN. FT.
242+00	242+10	LT.	19 LIN. FT.
248+60	250+00	LT.	156 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE D FENCE	TYPE D-1FENCE
235+00	238+11	RT.	314 LIN. FT.	
241+06	242+36	RT.	130 LIN. FT.	
248+60	250+00	LT.		114 LIN. FT.

C.L. HWY. 7
P.I. = 244+18.98
Δ = 17°26'50" RT.
D = 3°30'00"
T = 251.19'
L = 498.50'
P.C. = 241+67.79
P.T. = 246+66.29
e = 0.076'/'
Ls = 360'

STA. 245+20 INSTALL
18" X 47' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 32 CU. YDS.

STA. 248+58 IN PLACE
24" X 32' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
36" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 28 CU. YDS.

STA. 242+65.00 RT.
BEGIN CONCRETE COMBINATION
CURB AND GUTTER (TYPE B-1)

STA. 237+13 IN PLACE
2' X 2' X 36' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
REMOVE WINGS LT. AND RT.
PLUG AND ABANDON

STA. 237+02 CONSTRUCT
DBL. 24" X 70' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 42 CFS DA = 16 ACRES
24" R.C. PIPE = 140 LIN. FT.
24" F.E.S. = 4 EA.

STA. 244+87 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.

STA. 245+26 CONSTRUCT
APPROACH ON RT. = 7 CU. YDS.

STA. 245+70.00 RT.
END CONCRETE COMBINATION
CURB AND GUTTER (TYPE B-1)

STA. 248+11 CONSTRUCT
36" X 77' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 42 CFS DA = 24 ACRES
36" R.C. PIPE = 77 LIN. FT.
36" F.E.S. = 2 EA.

STA. 248+21 IN PLACE
24" X 35' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE

STA. 242+93 IN PLACE
18" X 24' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 61' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 5 CU. YDS.

STA. 239+94 IN PLACE
18" X 24' PLASTIC PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 24 CU. YDS.

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	236+40	236+97	LT. = 57 LIN. FT.	6'-0"	38
HWY. 7	236+70	236+97	RT. = 27 LIN. FT.	6'-0"	18
HWY. 7	239+00	244+00	LT. = 500 LIN. FT.	7'-0"	389
HWY. 7	240+09	241+50	RT. = 141 LIN. FT.	7'-0"	110
HWY. 7	241+50	242+50	RT. = 100 LIN. FT.	6'-0"	67
HWY. 7	247+20	248+08	LT. = 88 LIN. FT.	6'-0"	59

STATE OF ARKANSAS
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HIGHWAY 7 - SITE 2

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

STA. 238+97.79 BEGIN SUPERELEVATION
STA. 242+57.79 MAX SUPERELEVATION (0.076'/')
STA. 245+76.29 MAX SUPERELEVATION (0.076'/')
STA. 249+36.29 END SUPERELEVATION

EXISTING GROUND

+40.00 LT. 436.26
+70.00 RT. 434.94
+02.00 LT. 434.33
+02.00 RT. 433.95
+70.00 LT. 435.81
+90.00 RT. 435.96
+50.00 RT. 444.94
+70.00 RT. 448.42
+10.00 LT. 459.13
+11.00 LT. 453.50
+01.00 LT. 455.05

PROP. F.L. = 434.33 LT.
PROP. F.L. = 433.95 RT.
EX. F.L. = 434.19 LT. (REMOVE)
EX. F.L. = 434.03 RT. (REMOVE)

PROP. F.L. = 453.50 LT.
PROP. F.L. = 449.39 RT.
EX. F.L. = 453.35 LT. (REMOVE)
EX. F.L. = 452.34 RT. (REMOVE)

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	144	280

(2) PLAN AND PROFILE - HIGHWAY 7

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	250+00	252+59	LT. = 259 LIN. FT.	7'-0"	202
HWY. 7	250+40	252+43	RT. = 203 LIN. FT.	6'-0"	136
HWY. 7	252+77	255+73	RT. = 296 LIN. FT.	6'-0"	198
HWY. 7	254+80	255+01	LT. = 21 LIN. FT.	6'-0"	14
HWY. 7	255+44	257+50	LT. = 206 LIN. FT.	6'-0"	138
HWY. 7	256+10	257+50	RT. = 140 LIN. FT.	6'-0"	94
HWY. 7	257+50	259+00	LT. = 150 LIN. FT.	7'-0"	117
HWY. 7	258+00	258+60	RT. = 60 LIN. FT.	6'-0"	40
HWY. 7	259+11	262+16	RT. = 305 LIN. FT.	6'-0"	204

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
250+00	255+20	LT.	713 LIN. FT.
255+70	256+98	LT.	170 LIN. FT.
258+05	258+40	RT.	24 LIN. FT.
258+40	260+00	RT.	160 LIN. FT.
262+44	262+50	RT.	23 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE D-1	6' WOOD PRIVACY FENCE
250+00	255+20	LT.	546 LIN. FT.	
255+70	256+98	LT.	128 LIN. FT.	
258+05	258+67	RT.		67 LIN. FT.

C.L. HWY. 7
P.I. = 262+79.42
Δ = 51°33'59" LT.
D = 6°45'00"
T = 410.03'
L = 763.94'
P.C. = 258+69.39
P.T. = 266+33.33
e = 0.100'/'
Ls = 420'

STA. 252+85 INSTALL
18" X 45' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 28 CU. YDS.

STA. 255+18 IN PLACE
18" X 24' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 20 CU. YDS.

STA. 263+75 INSTALL
24" X 38' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 44 CU. YDS.

STA. 263+75 INSTALL
18" X 41' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 57 CU. YDS.

STA. 264+28 CONSTRUCT
APPROACH ON RT.= 44 CU. YDS.

STA. 252+62 IN PLACE
18" X 20' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 34' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 19 CU. YDS.

STA. 255+94 IN PLACE
24" X 21' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 37' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

STA. 257+80 IN PLACE
18" X 24' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 50' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 70 CU. YDS.

STA. 258+91 IN PLACE
24" X 41' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 53' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 34 CU. YDS.

STA. 262+45 INSTALL
18" X 43' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 43 CU. YDS.

HIGHWAY 7 - SITE 2

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

STA. 255+54.39	BEGIN SUPERELEVATION
STA. 259+74.39	MAX SUPERELEVATION (0.100'/')
STA. 265+28.33	MAX SUPERELEVATION (0.100'/')
STA. 269+48.33	END SUPERELEVATION

3.06% RIGHT DITCH GRADE
3.90% RIGHT DITCH GRADE
0.50% LEFT DITCH GRADE
4.30% LEFT DITCH GRADE
5.20% RIGHT DITCH GRADE
3.14% RIGHT DITCH GRADE
2.10% RIGHT DITCH GRADE
EXISTING GROUND

+40.00 RT. 457.68
+00.00 RT. 462.58
-70.00 LT. 473.87
+10.00 LT. 474.07
+00.00 RT. 482.08
+50.00 LT. 484.39
+00.00 RT. 492.48
+30.00 RT. 502.84
+30.00 RT. 507.04

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	145	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

C.L. HWY. 7
P. I. = 262+79.42
Δ = 51°33'59" LT.
D = 6°45'00"
T = 410.03'
L = 763.94'
P. C. = 258+69.39
P. T. = 266+33.33
e = 0.100'/'
Ls = 420'

STA. 267+58 INSTALL
18" X 33' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 32 CU. YDS.

STA. 268+68 INSTALL
18" X 37' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 26 CU. YDS.

STA. 269+66 IN PLACE
24" X 33' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE

STA. 269+60 CONSTRUCT
24" X 71' R.C. PIPE CULVERT
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 12 CFS DA = 3 ACRES
24" R.C. PIPE = 71 LIN. FT.
24" F.E.S. = 2 EA.

STA. 270+26 INSTALL
18" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 45 CU. YDS.

STA. 271+39 INSTALL
18" X 45' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 60 CU. YDS.

STA. 271+14 INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

STA. 272+16 INSTALL
18" X 46' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 64 CU. YDS.

STA. 273+75 CONSTRUCT
APPROACH ON LT. = 38 CU. YDS.

STA. 274+02 INSTALL
18" X 32' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 19 CU. YDS.

STA. 275+58 INSTALL
18" X 32' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 22 CU. YDS.

STA. 276+18 IN PLACE
24" X 39' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
RETAIN & EXTEND 17' LT. & 14' RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 6 CFS DA = 2 ACRES
24" R.C. PIPE = 39 LIN. FT.
24" F.E.S. = 2 EA.

STA. 277+35 IN PLACE
18" X 36' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 19 CU. YDS.

STA. 278+37 IN PLACE
18" X 40' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 24 CU. YDS.

STA. 278+65 INSTALL
18" X 53' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 52 CU. YDS.

STA. 279+90 CONSTRUCT
APPROACH ON RT. = 57 CU. YDS.

C.L. HWY. 7
P. I. = 280+52.10
Δ = 20°28'58" RT.
D = 3°45'00"
T = 276.05'
L = 546.21'
P. C. = 277+76.05
P. T. = 283+22.26
e = 0.080'/'
Ls = 360'

PROP. R/W
EXIST. R/W
CONST. LIMITS
EXIST. R/W
PROP. R/W
CONST. LIMITS
EXIST. R/W
EXIST. R/W

265+00 266+33.33 270+00 275+00 277+76.05 280+00

N 75°39'28" W
C.L. HWY. 7
N 74°37'24" W
PC 10+30.50
PI 11+03.13
N 42°20'32" E
N 45°58'19" W
PI 275+14.99
Δ = 01°02'04" RT.
PC 277+76.05
T.C.E.
P.D.E.
P.D.E.
T.C.E.
T.C.E.
T.C.E.
TUPELO TRAIL SOUTH
EXIST. R/W
EXIST. R/W

+55 79' | +15 69' | +00 60' | +60.70 68.55' | +70 114' | +17 170' | +45 185' | +15 186' | +30 158'
+50 62' | +28 60.43' | +07 114' | +38 129' | +77 60' | +30 54'
+80 53.41' | +85 77' | +22 53.34' | +18 77'
+60 84' | +50 75' | +25 53' | +95 60' | +02 116' | +34 117'
+45 75' | +40 60' | +95 52' | +20 50.92' | +20 58' | +50 58' | +50 49.62' | +25 92'
+15 46.38' | +25 45.68' | +29 60.37' | +63.58 46' | +40.54 49'

C.L. TUPELO TRAIL SOUTH STA. 10+00.00
∢ = 90°00'00"

OBLITERATE EXISTING ROADWAY

REMOVAL AND DISPOSAL OF GATES

STA.	SIDE	UNIT
275+59	RT.	1 EACH

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
266+73	267+35	RT.	68 LIN. FT.
272+76	272+81	RT.	27 LIN. FT.
274+55	276+44	RT.	229 LIN. FT.
275+21	275+23	LT.	34 LIN. FT.
276+63	276+67	RT.	19 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE C	6' CHAIN LINK FENCE	18'-0" GATES
266+72	267+35	RT.	89 LIN. FT.		
274+72	276+44	RT.		172 LIN. FT.	1 EACH

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	269+00	269+58	LT. = 58 LIN. FT.	6'-0"	39
HWY. 7	269+62	270+50	RT. = 88 LIN. FT.	6'-0"	59
HWY. 7	276+21	277+60	LT. = 139 LIN. FT.	6'-0"	93

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HIGHWAY 7 - SITE 2

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

STA. 255+54.39 BEGIN SUPERELEVATION
STA. 259+74.39 MAX SUPERELEVATION (0.100'/')
STA. 265+28.33 MAX SUPERELEVATION (0.100'/')
STA. 269+48.33 END SUPERELEVATION

STA. 275+06.05 BEGIN SUPERELEVATION
STA. 278+66.05 MAX SUPERELEVATION (0.080'/')
STA. 282+32.26 MAX SUPERELEVATION (0.080'/')
STA. 285+92.26 END SUPERELEVATION

550 540 530 520 510 500 490 480 470 460

EXISTING GROUND

-2.20% RIGHT DITCH GRADE
3.28% LEFT DITCH GRADE
-1.26% RIGHT DITCH GRADE
5.03% RIGHT DITCH GRADE
1.89% LEFT DITCH GRADE
-0.80% LEFT DITCH GRADE
-2.20% RIGHT DITCH GRADE
3.60% LEFT DITCH GRADE
2.91% RIGHT DITCH GRADE

+70.00 RT. 497.36
+00.00 LT. 499.27
+60.00 LT. 497.30
+60.00 RT. 496.23
+50.00 RT. 500.76
+50.00 LT. 504.69
+60.00 RT. 503.55
+00.00 LT. 502.99
+18.00 LT. 502.05
+18.00 RT. 500.07
+60.00 LT. 507.16
+60.00 RT. 504.20

+60
PROP. F.L. = 497.30 LT.
PROP. F.L. = 496.23 RT.
EX. F.L. = 498.16 LT. (REMOVE)
EX. F.L. = 496.98 RT. (REMOVE)

+18
PROP. F.L. = 502.05 LT.
EX. F.L. = 501.37 LT.
EX. F.L. = 500.47 RT.
PROP. F.L. = 500.07 RT.

265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00 280+00

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	146	280

(2) PLAN AND PROFILE - HIGHWAY 7

C.L. HWY. 7
P.I. = 280+52.10
Δ = 20°28'58" RT.
D = 3°45'00"
T = 276.05'
L = 546.21'
P.C. = 277+76.05
P.T. = 283+22.26
e = 0.080'/'
Ls = 360'

STA. 282+25 IN PLACE
18" X 20' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 38' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 16 CU. YDS.

STA. 284+86 IN PLACE
18" X 24' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 51' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 65 CU. YDS.

STA. 287+63 IN PLACE
24" X 41' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE

STA. 287+70 CONSTRUCT
DBL. 24" X 80' R.C. PIPE CULVERT
7° LT. FWD. SKEW
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 29 CFS DA = 7 ACRES
24" R.C. PIPE = 160 LIN. FT.
24" F.E.S. = 4 EA.

STA. 288+08 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.

N

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

200' TAPER | 100' TRANSITION | OVERLAY

STA. 293+90.67
BEGIN ARDOT JOB 061309 - SITE 1

STA. 286+40.00 | STA. 288+40.00 | STA. 289+40.00

+42 106' | +15 69.76' | T.C.E. | +95 71.09' | +10 73' | +60 65' | +75 80' | +00 40.76'

+17.95 79' | PROP. R/W | 16' | 16' | CONST. LIMITS | 16' | EXIST. R/W

P.I. 280+52.10

280+00 | 285+00 | 290+00 | 295+00

N 74°37'24" W | C.L. HWY. 7 | N 54°08'26" W

+25 | +41 | +62 | +86 | +08 | +30

16' | 36' | 8' | 8' | 24' | 2' EXISTING

40' | +40.54 49' | +22.87 46' | +55.46 40.74' | +77.64 40.77' | 20' | CONST. LIMITS | 16' | +50 52' | +55 66' | +88.61 57.80' | PROP. R/W | 20' | +00 63' | +20 39.18' | EXIST. R/W

P.T. 283+22.26 | EXIST. R/W | EXIST. R/W

STA. 282+41 IN PLACE
18" X 22' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 44' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 34 CU. YDS.

STA. 283+62 IN PLACE
18" X 21' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

STA. 288+30 IN PLACE
18" X 50' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
DBL. 18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 35 CU. YDS.

STA. 288+40.00
END SITE 2

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	281+30	282+08	LT. = 78 LIN. FT.	6'-0"	52
HWY. 7	282+45	284+52	LT. = 207 LIN. FT.	6'-0"	138
HWY. 7	285+03	287+71	LT. = 268 LIN. FT.	6'-0"	179
HWY. 7	287+70	288+09	RT. = 39 LIN. FT.	6'-0"	26

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
285+00	287+80	RT.	310 LIN. FT.
288+31	288+54	LT.	28 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE D-1
285+00	287+15	RT.	216 LIN. FT.

HIGHWAY 7 - SITE 2

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

STA. 275+06.05 BEGIN SUPERELEVATION
STA. 278+66.05 MAX SUPERELEVATION (0.080'/')
STA. 282+32.26 MAX SUPERELEVATION (0.080'/')
STA. 285+92.26 END SUPERELEVATION

540 | 530 | 520 | 510 | 500 | 490 | 480 | 470 | 460 | 450

+30.00 LT. 509.67 | -4.30% LEFT DITCH GRADE | EXISTING GROUND | -2.89% RIGHT DITCH GRADE | -1.35% LEFT DITCH GRADE | +00.00 LT. 498.06 | +10.00 RT. 497.92 | +60.00 LT. 494.55 | -6.76% LEFT DITCH GRADE | 4.31% RIGHT DITCH GRADE | +65.00 RT. 490.55 | +76.00 LT. 486.71 | +40.00 RT. 493.78

STA. 288+40.00
END SITE 2

+90.67 | 100' VERTICAL TRANSITION | +90.67

+70
PROP. F.L. = 486.71 LT.
PROP. F.L. = 490.55 RT.
EX. F.L. = 488.11 LT. (REMOVE)
EX. F.L. = 489.64 RT. (REMOVE)

280+00 | 281+00 | 282+00 | 283+00 | 284+00 | 285+00 | 286+00 | 287+00 | 288+00 | 289+00 | 290+00 | 291+00 | 292+00 | 293+00 | 294+00 | 295+00

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	147	280

(2) PLAN AND PROFILE - HIGHWAY 7

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
332+00	338+50	LT.	650 LIN. FT.
332+20	335+85	RT.	355 LIN. FT.
341+40	344+92	RT.	475 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE D
332+10	338+49	LT.	643 LIN. FT.
332+20	335+63	RT.	355 LIN. FT.
341+40	344+92	RT.	346 LIN. FT.

STA. 333+93 IN PLACE
3' X 2' X 46' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
REMOVE WINGS LT. AND RT.
AND PLUG AND ABANDON

STA. 333+85 CONSTRUCT
36" X 97' R.C. PIPE CULVERT
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 49 CFS DA = 17 ACRES
36" R.C. PIPE = 97 LIN. FT.
36" F.E.S. = 2 EA.

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	333+00	333+81	LT. = 81 LIN. FT.	6'-0"	54
HWY. 7	333+88	339+00	LT. = 512 LIN. FT.	6'-0"	341
HWY. 7	333+88	335+78	RT. = 190 LIN. FT.	6'-0"	127
HWY. 7	336+12	336+90	RT. = 78 LIN. FT.	7'-0"	61
HWY. 7	336+90	338+20	RT. = 130 LIN. FT.	6'-0"	87
HWY. 7	338+50	339+00	LT. = 50 LIN. FT.	7'-0"	39
HWY. 7	341+49	344+79	RT. = 330 LIN. FT.	7'-0"	257
HWY. 7	341+61	343+80	LT. = 219 LIN. FT.	7'-0"	171
HWY. 7	343+80	344+56	LT. = 76 LIN. FT.	6'-0"	51

C.L. HWY. 7
P.I. = 345+17.75
Δ = 15°25'22" RT.
D = 4°00'00"
T = 193.96'
L = 385.57'
P.C. = 343+23.79
P.T. = 347+09.36
e = 0.083'/'
Ls = 360'

STA. 329+66.65
END ARDOT JOB 061309 - SITE 1

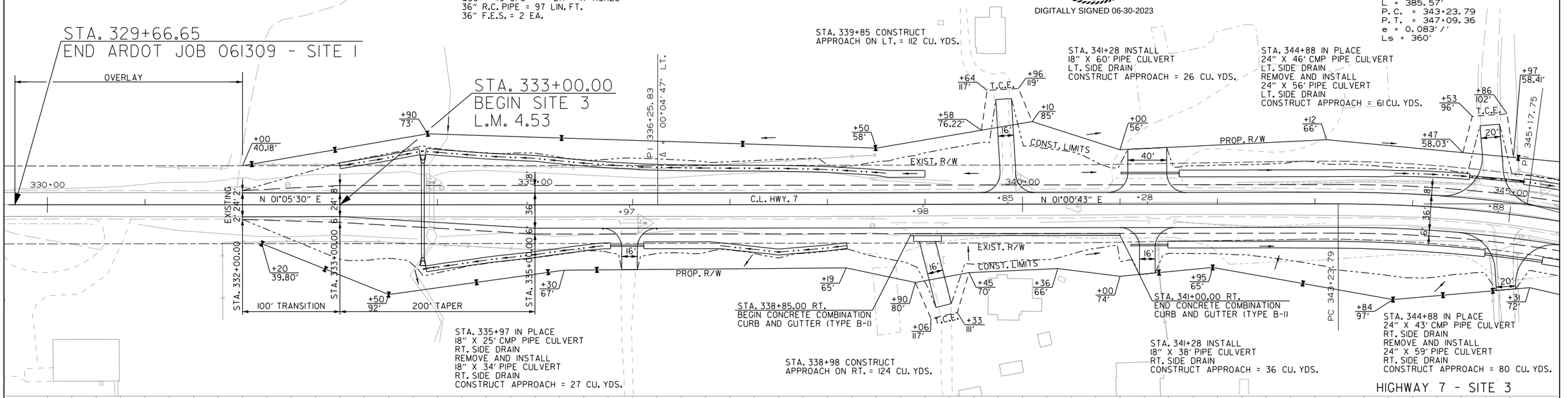
OVERLAY

STA. 333+00.00
BEGIN SITE 3
L.M. 4.53

STA. 339+85 CONSTRUCT
APPROACH ON LT. = 112 CU. YDS.

STA. 341+28 INSTALL
18" X 60' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 26 CU. YDS.

STA. 344+88 IN PLACE
24" X 46' CMP PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 56' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 61 CU. YDS.



STA. 335+97 IN PLACE
18" X 25' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 34' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 27 CU. YDS.

STA. 338+98 CONSTRUCT
APPROACH ON RT. = 124 CU. YDS.

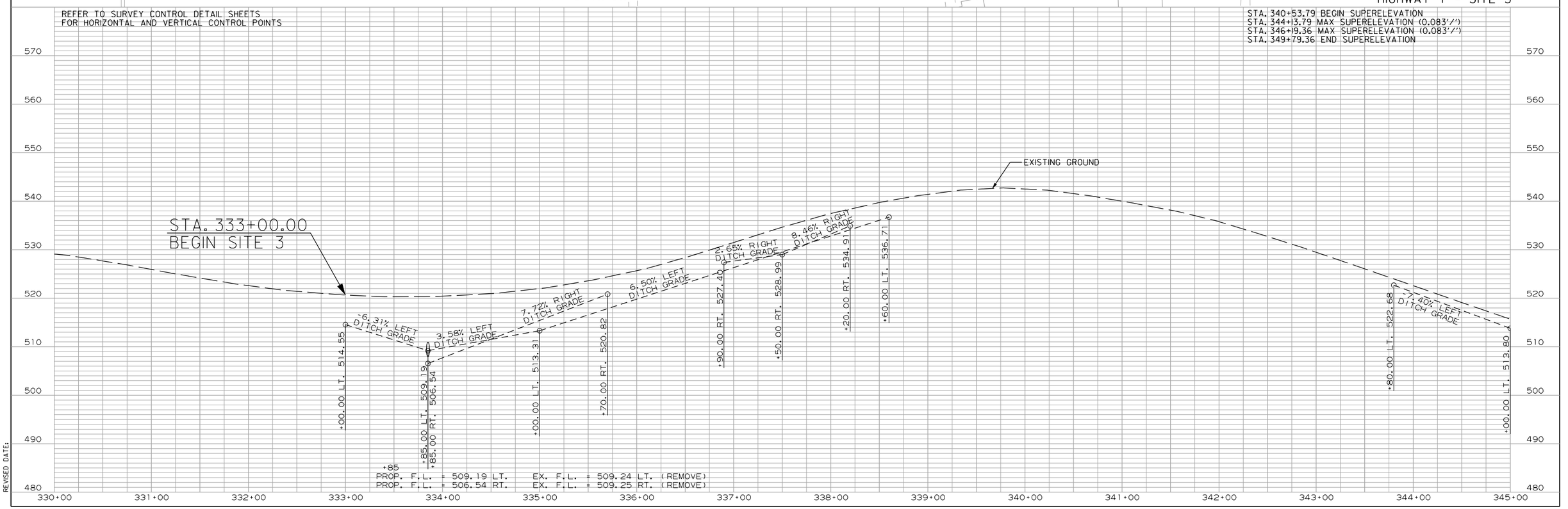
STA. 341+28 INSTALL
18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 36 CU. YDS.

STA. 344+88 IN PLACE
24" X 43' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 59' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 80 CU. YDS.

HIGHWAY 7 - SITE 3

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

STA. 340+53.79 BEGIN SUPERELEVATION
STA. 344+13.79 MAX SUPERELEVATION (0.083'/')
STA. 346+19.36 MAX SUPERELEVATION (0.083'/')
STA. 349+79.36 END SUPERELEVATION



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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	148	280

(2) PLAN AND PROFILE - HIGHWAY 7

C.L. HWY. 7
P.I. = 345+17.75
Δ = 15°25'22" RT.
D = 4°00'00"
T = 193.96'
L = 385.57'
P.C. = 343+23.79
P.T. = 347+09.36
e = 0.083'/'
Ls = 360'

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
345+00	353+52	LT.	893 LIN. FT.
345+13	345+19	RT.	70 LIN. FT.
346+81	346+90	RT.	50 LIN. FT.
355+55	355+55	LT.	10 LIN. FT.
358+69	358+69	LT.	6 LIN. FT.
358+62	360+00	RT.	138 LIN. FT.

REMOVAL AND DISPOSAL OF GATES

STA.	SIDE	UNIT
345+00	RT.	1 EACH
358+82	RT.	1 EACH

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	345+10	346+32	LT. = 122 LIN. FT.	6'-0"	82
HWY. 7	345+40	346+52	RT. = 112 LIN. FT.	7'-0"	87
HWY. 7	346+76	349+10	LT. = 234 LIN. FT.	7'-0"	175
HWY. 7	346+92	348+95	RT. = 203 LIN. FT.	7'-0"	158
HWY. 7	349+10	349+50	LT. = 40 LIN. FT.	6'-0"	34
HWY. 7	349+28	350+00	RT. = 72 LIN. FT.	7'-0"	56
HWY. 7	350+00	351+28	RT. = 128 LIN. FT.	6'-0"	85
HWY. 7	351+54	352+90	LT. = 136 LIN. FT.	6'-0"	91
HWY. 7	351+57	352+20	RT. = 63 LIN. FT.	6'-0"	42

▲ DEGREE OF CURVE IS BELOW AVERAGE RUNNING SPEED BUT MEETS 3R CRITERIA. CURVE SPEED IS 49 MPH PER GREEN BOOK CRITERIA.

STA. 355+52 CONSTRUCT APPROACH ON LT. = 33 CU. YDS.

STA. 355+82 CONSTRUCT APPROACH ON LT. = 37 CU. YDS.

C.L. HWY. 7
P.I. = 358+85.73
Δ = 35°53'58" LT.
▲ D = 8°45'00"
T = 212.12'
L = 410.28'
P.C. = 356+73.61
P.T. = 360+83.89
e = 0.100'/'
Ls = 420'

C.L. HWY. 7 STA. 358+00.00 = C.L. TUPELO TRAIL NORTH STA. 10+00.00
Δ = 90°00'00"

STA. 346+50 IN PLACE
18" X 25' CMP PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 45' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 50 CU. YDS.

STA. 351+43 IN PLACE
10' X 6' X 31' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 23' LT. AND 34' RT.
FOR A COMPLETED LENGTH OF 88'
Q50 = 285 CFS DA = 164 ACRES

STA. 355+67 CONSTRUCT
DROP INLET ON LT.
H = 2'-3", W/18" X 32'
PIPE OUTLET SOUTH AND
W/18" X 33' PIPE OUTLET NORTH
TYPE E 4'-0" X 3'-0" W/ GRATE
18" SIDE DRAIN = 65 LIN. FT.

+42.00
18.00' LT.
5° BEND LT.

T.C.E.
P.I. 345+17.75
N 01°00'43" E
PROP. R/W
EXIST. R/W
CONST. LIMITS
N 16°26'05" E
C.L. HWY. 7
P.C. 350+28.68
P.T. 347+09.36
P.C. 356+73.61
N 19°27'55" W
P.I. 359+85.73
P.C. 10+28.68
P.I. 11+46.76
S 71°09'34" E 110.92.54
TUPELO TRAIL NORTH
68°28'05" Rt.

FENCING

STA.	STA.	SIDE	TYPE D	TYPE D-1
345+02	346+39	LT.	143 LIN. FT.	
346+61	353+52	LT.	705 LIN. FT.	
358+82	360+00	RT.		121 LIN. FT.

STA. 346+68 IN PLACE
24" X 38' PLASTIC PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 39' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 39 CU. YDS.

STA. 349+11 IN PLACE
24" X 25' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
28" X 20" X 33' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

STA. 353+00.00 RT.
BEGIN CONCRETE COMBINATION CURB AND GUTTER (TYPE B-I)

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	UNIT
351+03	351+71	RT.	68 LIN. FT.
351+09	351+82	LT.	73 LIN. FT.

STA. 354+60 IN PLACE
18" X 24' METAL PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON RT. = 21 CU. YDS.

STA. 355+00.00 RT.
END CONCRETE COMBINATION CURB AND GUTTER (TYPE B-I)

OBLITERATE EXISTING ROADWAY

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HIGHWAY 7 - SITE 3

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

STA. 340+53.79 BEGIN SUPERELEVATION
STA. 344+13.79 MAX SUPERELEVATION (0.083'/')
STA. 346+19.36 MAX SUPERELEVATION (0.083'/')
STA. 349+79.36 END SUPERELEVATION

STA. 353+58.61 BEGIN SUPERELEVATION
STA. 357+78.61 MAX SUPERELEVATION (0.100'/')
STA. 359+78.89 MAX SUPERELEVATION (0.100'/')
STA. 363+98.89 END SUPERELEVATION

-6.45% LEFT DITCH GRADE
-7.00% LEFT DITCH GRADE
-1.72% LEFT DITCH GRADE
-5.35% RIGHT DITCH GRADE
15.36% RIGHT DITCH GRADE
7.14% LEFT DITCH GRADE
EXISTING GROUND
-2.14% RIGHT DITCH GRADE
-2.10% LEFT DITCH GRADE

+80.00 LT. 502.19
+60.00 LT. 491.56
+30.00 RT. 488.57
+50.00 LT. 485.26
+40.00 LT. 483.71
+28.00 RT. 477.97
+53.00 LT. 479.74
+56.00 RT. 477.97
+20.00 RT. 487.80
+90.00 LT. 489.52
+20.00 RT. 491.43
+40.00 LT. 484.59
+40.00 RT. 484.58
+69.00 LT. 481.88

+43
PROP. F.L. = 479.74 LT.
EX. F.L. = 479.66 LT.
EX. F.L. = 479.67 RT.
PROP. F.L. = 477.97 RT.

345+00 346+00 347+00 348+00 349+00 350+00 351+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359+00 360+00

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	149	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

C.L. HWY. 7
P.I. = 358+85.73
Δ = 35°53'58" LT.
D = 8°45'00"
T = 212.12'
L = 410.28'
P.C. = 356+73.61
P.T. = 360+83.89
e = 0.100'/'
Ls = 420'

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	366+90	369+00	RT. = 210 LIN. FT.	6'-0"	140
HWY. 7	368+29	369+54	LT. = 125 LIN. FT.	6'-0"	84

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
360+00	366+26	RT.	626 LIN. FT.
367+48	367+66	RT.	91 LIN. FT.
371+10	371+19	LT.	26 LIN. FT.
373+20	373+28	LT.	27 LIN. FT.

REMOVAL AND DISPOSAL OF GATES

STA.	SIDE	UNIT
364+68	RT.	1 EACH

FENCING

STA.	STA.	SIDE	TYPE D-1	20'-0" GATES
360+00	366+23	RT.	650 LIN. FT.	1 EACH

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

STA. 361+47 IN PLACE
18" X 37' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 52' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 99 CU. YDS.

STA. 364+67 INSTALL
18" X 53' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 38 CU. YDS.

STA. 369+73 INSTALL
24" X 40' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 33 CU. YDS.

STA. 372+16 IN PLACE
20" X 24' METAL PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 57 CU. YDS.

STA. 372+96 IN PLACE
18" X 25' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 50 CU. YDS.

STA. 360+29 IN PLACE
4' X 2' X 34' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
REMOVE WINGS LT. AND RT.
AND PLUG AND ABANDON

STA. 360+00 CONSTRUCT
DBL. 51" X 31" X 100' R.C. ARCH PIPE CULVERT
40° RT. FWD. SKEW
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 49 CFS DA = 16 ACRES
51" X 31" R.C. PIPE = 200 LIN. FT.
51" X 31" F.E.S. = 4 EA.

STA. 364+67 CONSTRUCT
APPROACH ON RT. = 20 CU. YDS.

STA. 368+15 IN PLACE
8' X 4' X 43' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 21' LT. AND 28' RT.
FOR A COMPLETED LENGTH OF 92'
Q50 = 232 CFS DA = 183 ACRES

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	UNIT
367+76	368+42	RT.	66 LIN. FT.
367+77	368+49	LT.	72 LIN. FT.

STA. 372+96 CONSTRUCT
APPROACH ON RT. = 61 CU. YDS.

C.L. HWY. 7
P.I. = 373+21.72
Δ = 05°24'48" RT.
D = 1°15'00"
T = 216.69'
L = 433.06'
P.C. = 371+05.03
P.T. = 375+38.09
e = 0.032'/'
Ls = 360'

HIGHWAY 7 - SITE 3

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

STA. 353+58.61 BEGIN SUPERELEVATION
STA. 357+78.61 MAX SUPERELEVATION (0.100'/')
STA. 359+78.89 MAX SUPERELEVATION (0.100'/')
STA. 363+98.89 END SUPERELEVATION

STA. 368+35.03 BEGIN SUPERELEVATION
STA. 371+95.03 MAX SUPERELEVATION (0.032'/')
STA. 374+48.09 MAX SUPERELEVATION (0.032'/')
STA. 378+08.09 END SUPERELEVATION

+00
PROP. F.L. = 481.88 LT.
PROP. F.L. = 481.54 RT.
EX. F.L. = 483.85 LT. (REMOVE)
EX. F.L. = 483.40 RT. (REMOVE)

+15
PROP. F.L. = 485.04 LT.
EX. F.L. = 484.35 LT.
EX. F.L. = 484.51 RT.
PROP. F.L. = 484.39 RT.

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	150	280

(2) PLAN AND PROFILE - HIGHWAY 7

C.L. HWY. 7
P.I. = 373+21.72
Δ = 05°24'48" RT.
D = 1°15'00"
T = 216.69'
L = 433.06'
P.C. = 371+05.03
P.T. = 375+38.09
e = 0.032'/'
Ls = 360'

FENCING

STA.	STA.	SIDE	TYPE C	TYPE D-I	5.5' PRIVACY FENCE	20'-0" GATES
383+46	384+03	RT.			60 LIN. FT.	1 EACH
384+50	390+00	RT.		555 LIN. FT.		
387+21	388+32	LT.	110 LIN. FT.			
389+03	390+00	LT.		95 LIN. FT.		

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
383+20	384+03	RT.	83 LIN. FT.
384+50	390+00	RT.	583 LIN. FT.
387+21	390+00	LT.	400 LIN. FT.

REMOVAL AND DISPOSAL OF GATES

STA.	SIDE	UNIT
383+65	RT.	1 EACH

STA. 378+07 IN PLACE
18" X 40' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 43' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 63 CU. YDS.

C.L. HWY. 7
P.I. = 383+43.28
Δ = 20°53'07" LT.
D = 6°15'00"
T = 168.96'
L = 334.16'
P.C. = 381+74.32
P.T. = 385+08.48
e = 0.100'/'
Ls = 420'

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

STA. 384+40 CONSTRUCT
APPROACH ON LT. = 54 CU. YDS.

STA. 387+00 INSTALL
18" X 40' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 46 CU. YDS.

STA. 383+69 CONSTRUCT
APPROACH ON RT. = 195 CU. YDS.

STA. 389+07 IN PLACE
4' X 2' X 35' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
REMOVE WINGS LT. AND RT.
AND PLUG AND ABANDON

STA. 389+15 CONSTRUCT
42" X 73' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 61 CFS DA = 28 ACRES
42" R.C. PIPE = 73 LIN. FT.
42" F.E.S. = 2 EA.

C.L. HWY. 7
P.I. = 391+80.18
Δ = 23°12'28" RT.
D = 4°45'00"
T = 247.69'
L = 488.58'
P.C. = 389+32.49
P.T. = 394+21.07
e = 0.091'/'
Ls = 420'

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	388+40	390+00	RT. = 160 LIN. FT.	6'-0"	107
HWY. 7	389+15	390+00	LT. = 85 LIN. FT.	6'-0"	57

HIGHWAY 7 - SITE 3

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

STA. 368+35.03 BEGIN SUPERELEVATION
STA. 371+95.03 MAX SUPERELEVATION (0.032'/')
STA. 374+48.09 MAX SUPERELEVATION (0.032'/')
STA. 378+08.09 END SUPERELEVATION

STA. 378+59.32 BEGIN SUPERELEVATION
STA. 382+38.40 MAX SUPERELEVATION (0.090'/')
STA. 383+41.40 MAX SUPERELEVATION (0.090'/')
STA. 387+20.48 END SUPERELEVATION

STA. 387+20.48 BEGIN SUPERELEVATION
STA. 391+40.48 MAX SUPERELEVATION (0.091'/')
STA. 393+16.07 MAX SUPERELEVATION (0.091'/')
STA. 397+36.07 END SUPERELEVATION

EXISTING GROUND

+00.00 LT. 515.56
-2.80% LEFT DITCH GRADE
+40.00 RT. 506.50
+15.00 LT. 509.54
+15.00 RT. 509.06
3.41% RIGHT DITCH GRADE
5.78% RIGHT DITCH GRADE
+00.00 RT. 513.97

+15
PROP. F.L. = 509.54 LT.
PROP. F.L. = 509.06 RT.

EX. F.L. = 511.28 LT. (REMOVE)
EX. F.L. = 511.24 RT. (REMOVE)

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	151	280

(2) PLAN AND PROFILE - HIGHWAY 7

REMOVAL AND DISPOSAL OF FENCE

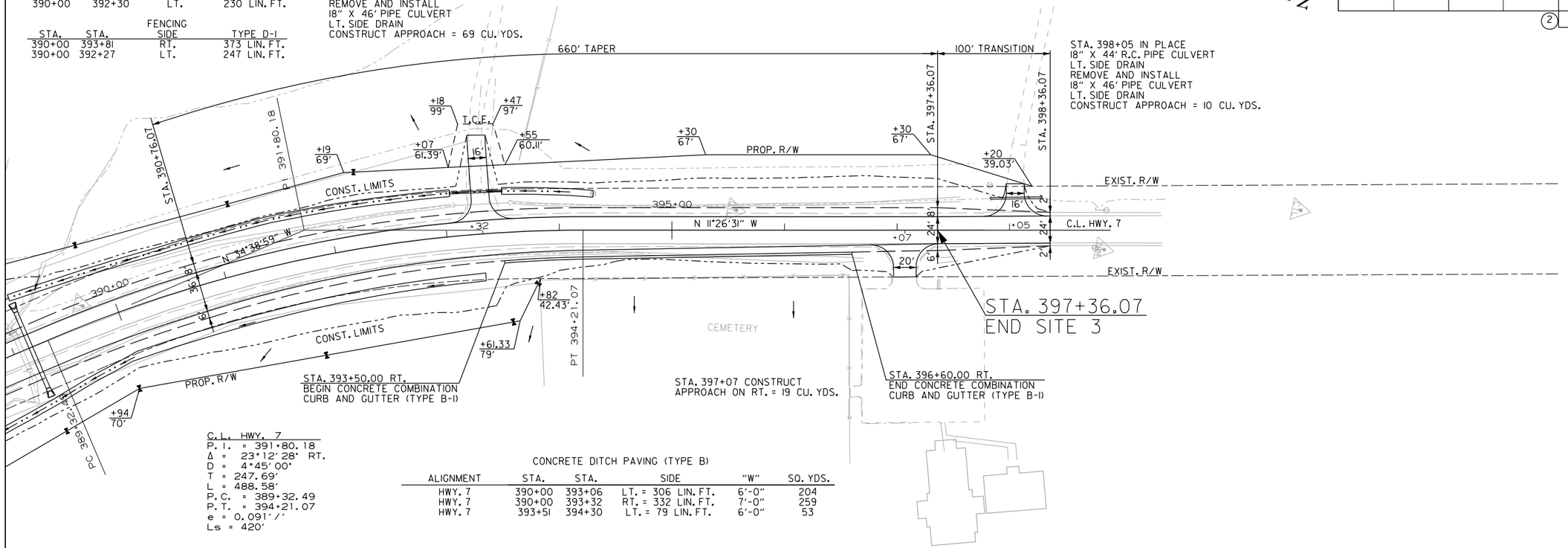
STA.	STA.	SIDE	UNIT
390+00	393+81	RT.	367 LIN. FT.
390+00	392+30	LT.	230 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE D-I
390+00	393+81	RT.	373 LIN. FT.
390+00	392+27	LT.	247 LIN. FT.

STA. 393+32 IN PLACE
18" X 48' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 46' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 69 CU. YDS.

STA. 398+05 IN PLACE
18" X 44' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 46' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 10 CU. YDS.



C. L. HWY. 7
P. I. = 391+80.18
Δ = 23°12'28" RT.
D = 4°45'00"
T = 247.69'
L = 488.58'
P. C. = 389+32.49
P. T. = 394+21.07
e = 0.091'/'
Ls = 420'

CONCRETE DITCH PAVING (TYPE B)

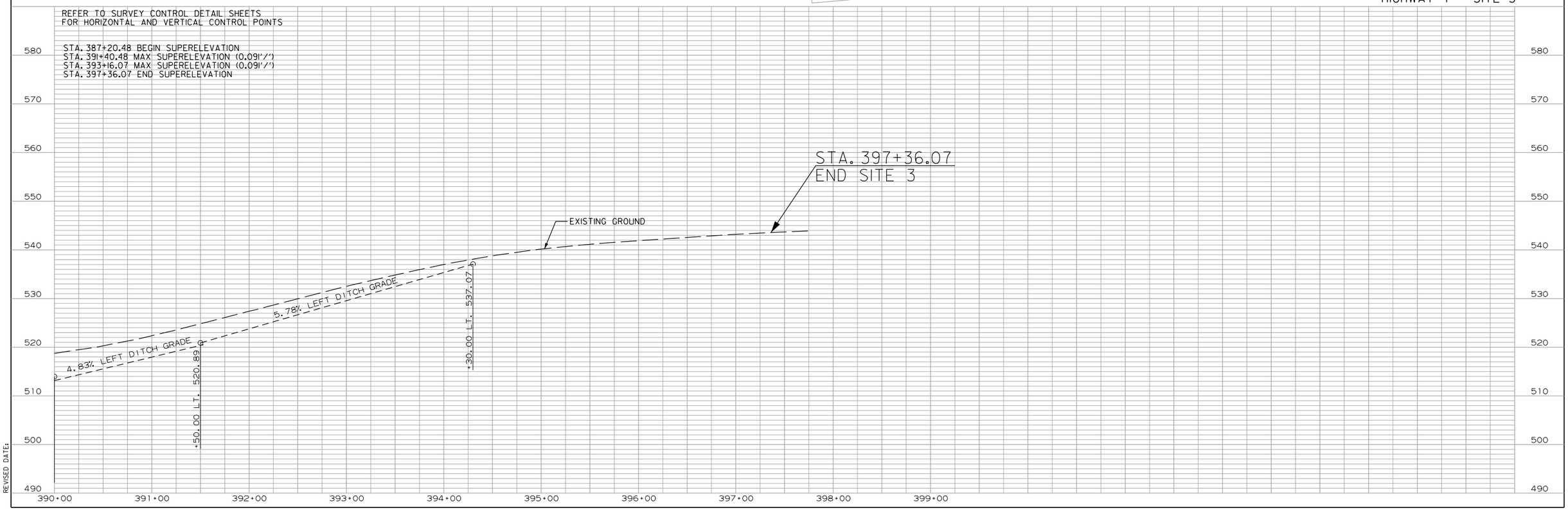
ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	390+00	393+06	LT. = 306 LIN. FT.	6'-0"	204
HWY. 7	390+00	393+32	RT. = 332 LIN. FT.	7'-0"	259
HWY. 7	393+51	394+30	LT. = 79 LIN. FT.	6'-0"	53

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HIGHWAY 7 - SITE 3

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

STA. 387+20.48 BEGIN SUPERELEVATION
STA. 391+40.48 MAX SUPERELEVATION (0.091'/')
STA. 393+16.07 MAX SUPERELEVATION (0.091'/')
STA. 397+36.07 END SUPERELEVATION



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REVISED DATE:

C.L. HWY. 7
P.I. = 442+02.24
Δ = 11°13'26" LT.
D = 4°15'00"
T = 132.47'
L = 264.10'
P.C. = 440+69.77
P.T. = 443+33.87
e = MATCH EXISTING
Ls = MATCH EXISTING

FENCING

STA.	STA.	SIDE	TYPE D
442+64	443+17	LT.	51 LIN. FT.
443+68	446+83	LT.	196 LIN. FT.

STA.	STA.	SIDE	TYPE C	TYPE D-I
446+19	455+00	RT.		887 LIN. FT.
450+98	452+24	LT.	126 LIN. FT.	
452+76	455+00	LT.		224 LIN. FT.

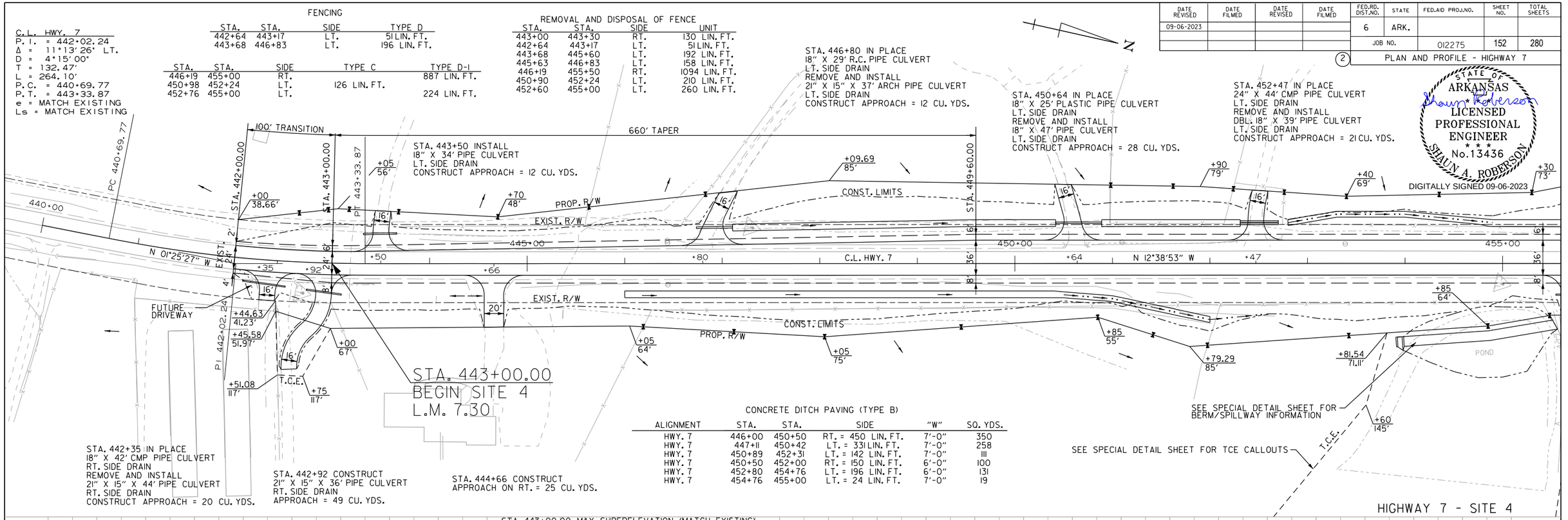
REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
443+00	443+30	RT.	130 LIN. FT.
442+64	443+17	LT.	51 LIN. FT.
443+68	445+60	LT.	192 LIN. FT.
445+63	446+83	LT.	158 LIN. FT.
446+19	455+50	RT.	1094 LIN. FT.
450+90	452+24	LT.	210 LIN. FT.
452+60	455+00	LT.	260 LIN. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
09-06-2023				6	ARK.			
				JOB NO.		012275	152	280

(2) PLAN AND PROFILE - HIGHWAY 7

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 09-06-2023



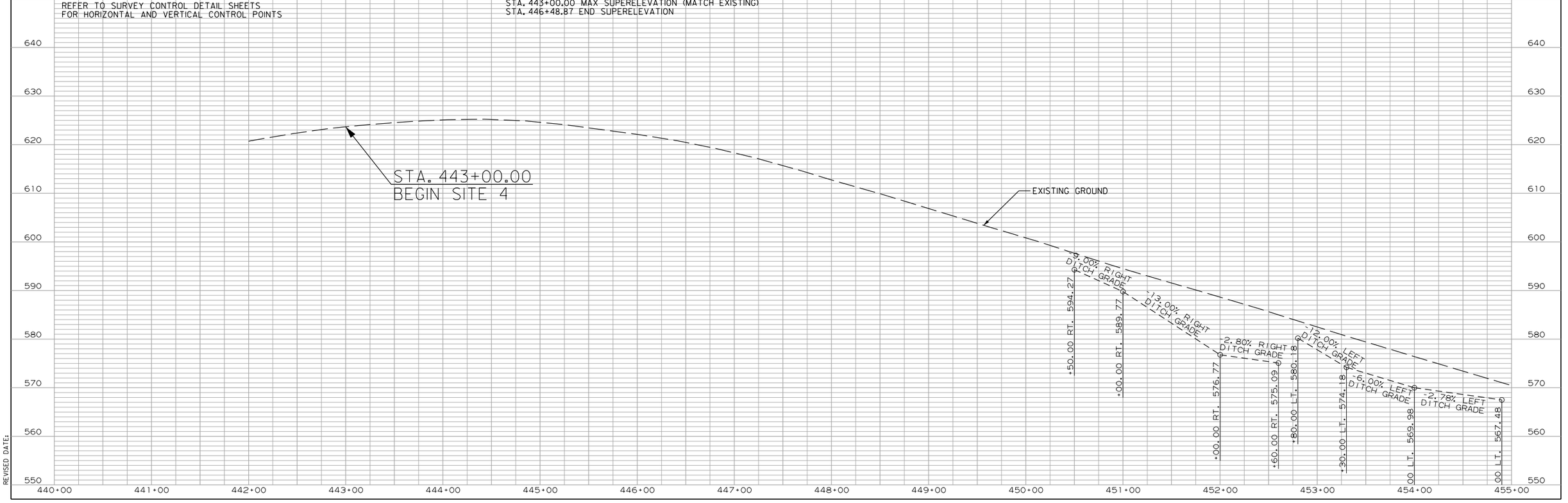
CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	446+00	450+50	RT. = 450 LIN. FT.	7'-0"	350
HWY. 7	447+11	450+42	LT. = 331 LIN. FT.	7'-0"	258
HWY. 7	450+89	452+31	LT. = 142 LIN. FT.	7'-0"	111
HWY. 7	450+50	452+00	RT. = 150 LIN. FT.	6'-0"	100
HWY. 7	452+80	454+76	LT. = 196 LIN. FT.	6'-0"	131
HWY. 7	454+76	455+00	LT. = 24 LIN. FT.	7'-0"	19

HIGHWAY 7 - SITE 4

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

STA. 443+00.00 MAX SUPERELEVATION (MATCH EXISTING)
STA. 446+48.87 END SUPERELEVATION



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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	153	280

(2) PLAN AND PROFILE - HIGHWAY 7

HIGHWAY 7 - SITE 4

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	UNIT
461+24	462+03	LT.	79 LIN. FT.
461+36	462+05	RT.	69 LIN. FT.
462+45	463+15	LT.	70 LIN. FT.
462+46	463+21	RT.	75 LIN. FT.

C.L. HWY. 7
P.I. = 461+51.61
Δ = 21°25'37" LT.
D = 5°45'00"
T = 188.52'
L = 372.64'
P.C. = 459+63.09
P.T. = 463+35.73
e = 0.096'/'
Ls = 420'

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	455+00	459+00	LT. = 400 LIN. FT.	7'-0"	312
HWY. 7	455+94	456+16	RT. = 22 LIN. FT.	7'-0"	18
HWY. 7	456+49	457+70	RT. = 121 LIN. FT.	7'-0"	94
HWY. 7	457+70	459+32	RT. = 162 LIN. FT.	6'-0"	108
HWY. 7	459+88	460+00	RT. = 12 LIN. FT.	6'-0"	8
HWY. 7	462+49	463+00	LT. = 51 LIN. FT.	7'-0"	40
HWY. 7	466+00	466+63	LT. = 63 LIN. FT.	6'-0"	42
HWY. 7	466+00	466+50	RT. = 50 LIN. FT.	6'-0"	34
HWY. 7	466+50	468+85	RT. = 235 LIN. FT.	7'-0"	183
HWY. 7	467+04	468+39	LT. = 135 LIN. FT.	7'-0"	105
HWY. 7	469+50	470+00	RT. = 50 LIN. FT.	6'-0"	33

STA. 466+87 IN PLACE
18" X 53' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 41' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 18 CU. YDS.

STATE OF ARKANSAS
Shaun A. Roberson
LICENSED PROFESSIONAL ENGINEER
No.13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
455+00	460+80	LT.	570 LIN. FT.
460+80	456+13	LT.	420 LIN. FT.
455+50	456+06	RT.	40 LIN. FT.
456+36	459+37	RT.	334 LIN. FT.
466+20	467+00	RT.	112 LIN. FT.
467+30	470+00	LT.	305 LIN. FT.

REMOVAL AND DISPOSAL OF GATES

STA.	SIDE	UNIT
455+70	RT.	2 EACH
468+51	LT.	2 EACH

BRIDGE NO. 962A IN PLACE 35'-0" X 30'-0"
BRIDGE CONSISTING OF A CONCRETE SUPERSTRUCTURE SUPPORTED BY A CONCRETE SUBSTRUCTURE. REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

STA. 468+60 INSTALL
18" X 39' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 37 CU. YDS.

SEE SPECIAL DETAIL SHEET FOR TCE CALLOUTS

STA. 456+30 INSTALL
21" X 15" X 33' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 9 CU. YDS.

STA. 455+71 INSTALL
21" X 15" X 39' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 11 CU. YDS.

STA. 459+58 IN PLACE
18" X 25' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 57' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 120 CU. YDS.

STA. 462+25 CONSTRUCT
TRP. 9' X 7' X 100' R.C. BOX CULVERT
3° LT. FWD. SKEW
WITH 31 WINGS LT. AND RT.
Q50 = 1756 CFS DA = 531 ACRES
SPAN = 29'-9"

FENCING

STA.	STA.	SIDE	TYPE C	TYPE D-1	16'-0" GATES
455+00	455+48	RT.		49 LIN. FT.	
455+00	465+13	LT.		1003 LIN. FT.	
455+93	456+06	RT.		13 LIN. FT.	
456+36	459+36	RT.	301 LIN. FT.		
466+17	466+38	RT.		85 LIN. FT.	
467+56	470+00	LT.		243 LIN. FT.	2 EACH

C.L. HWY. 7
P.I. = 469+41.41
Δ = 02°36'52" RT.
D = 0°30'00"
T = 261.48'
L = 522.87'
P.C. = 466+79.93
P.T. = 472+02.80
NO SUPER

STA. 469+13 CONSTRUCT
APPROACH ON RT. = 83 CU. YDS.

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

STA. 456+48.09 BEGIN SUPERELEVATION
STA. 460+68.09 MAX. SUPERELEVATION (0.096'/')
STA. 462+30.73 MAX. SUPERELEVATION (0.096'/')
STA. 466+50.73 END SUPERELEVATION

PVI 456+90.00
ELEV. 559.57
PVC 456+95.00
ELEV. 559.34
-4.65%
-4.08% RIGHT DITCH GRADE
+50.00 RT. 554.27
VC=510.00'
K 81.34
PROFILE GRADE
PVI 459+50.00
ELEV. 547.48
+50.00 RT. 546.11
-3.02% RIGHT DITCH GRADE
-3.12% LEFT DITCH GRADE
+90.00 LT. 546.03
+00.00 RT. 544.60
-1.64% RIGHT DITCH GRADE
+57.00 RT. 541.00
+00.00 LT. 539.48
+15.00 RT. 538.41
PVT 462+05.00
ELEV. 551.61
EXISTING GROUND
2.20% RIGHT DITCH GRADE
PVC 464+00.00
ELEV. 554.77
1.62%
VC=300.00'
K 84.27
PVI 465+50.00
ELEV. 557.20
+90.00 LT. 554.20
+00.00 RT. 546.88
5.18%
6.40% LEFT DITCH GRADE
24.50% RIGHT DITCH GRADE
PVT 467+00.00
ELEV. 564.97
+50.00 RT. 559.13
+00.00 LT. 561.24
-4.82% RIGHT DITCH GRADE
+50.00 RT. 567.96

+25
PROP. F.L. = 537.49 LT.
PROP. F.L. = 538.41 RT.

FOR THE CONSTRUCTION OF DETOURS, TEMPORARY WORK RAMPS OR HAUL ROADS, THIS STREAM IS CLASSIFIED AS A INTERMITTENT STREAM. THE STREAM BANK ELEVATION IS 539 FT. M.S.L. BETWEEN STATIONS 462+25 AND 462+50. REFER TO SECTION 110.06(c) OF THE 2014 STANDARD SPECIFICATIONS.

455+00 456+00 457+00 458+00 459+00 460+00 461+00 462+00 463+00 464+00 465+00 466+00 467+00 468+00 469+00 470+00

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	154	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

STA. 470+72 IN PLACE
2' X 2' X 34' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 23' LT. AND 30' RT.
FOR A COMPLETED LENGTH OF 87'
Q50 = 12 CFS DA = 3 ACRES

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
470+00	483+98	LT.	1435 LIN. FT.
472+50	485+00	RT.	1350 LIN. FT.
484+48	485+00	LT.	61 LIN. FT.

FENCING

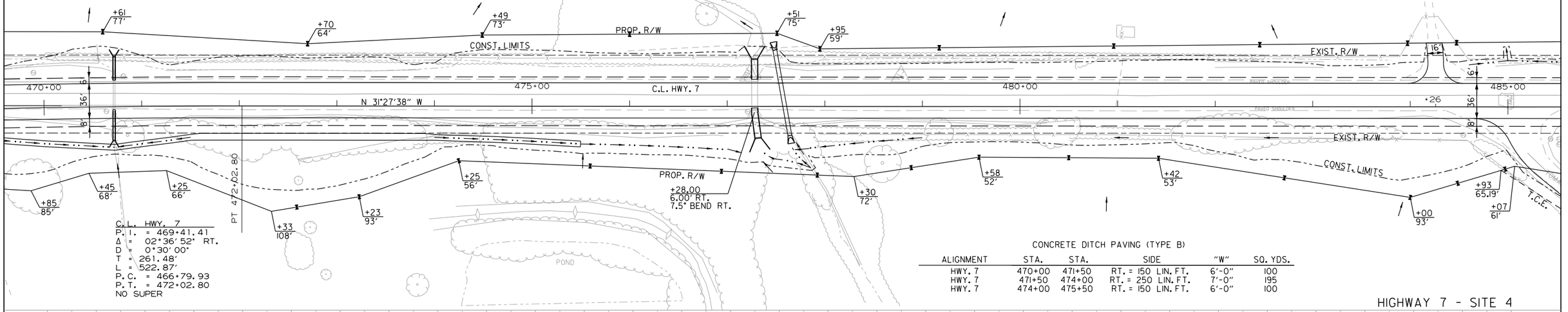
STA.	STA.	SIDE	TYPE D	TYPE D-I
470+00	483+97	LT.		1403 LIN. FT.
472+60	476+94	RT.	443 LIN. FT.	
477+95	484+97	RT.		714 LIN. FT.
484+48	485+00	LT.		52 LIN. FT.

STA. 477+28 IN PLACE
6' X 5' X 34' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 19' LT. AND 30' RT.
FOR A COMPLETED LENGTH OF 83'
Q50 = 240 CFS DA = 90 ACRES

STA. 477+59 CONSTRUCT
48" X 89' R.C. PIPE CULVERT
10° RT. FWD. SKEW
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 240 CFS DA = 90 ACRES
48" R.C. PIPE = 89 LIN. FT.
48" F.E.S. = 2 EA.

STATE OF ARKANSAS
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SHAUN A. ROBERSON
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STA. 484+26 CONSTRUCT
APPROACH ON LT. = 14 CU. YDS.



C. L. HWY. 7
P. I. = 469+41.41
Δ = 02°36'52" RT.
D = 0°30'00"
T = 261.48'
L = 522.87'
P. C. = 466+79.93
P. T. = 472+02.80
NO SUPER

PT 472+02.80

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	470+00	471+50	RT. = 150 LIN. FT.	6'-0"	100
HWY. 7	471+50	474+00	RT. = 250 LIN. FT.	7'-0"	195
HWY. 7	474+00	475+50	RT. = 150 LIN. FT.	6'-0"	100

HIGHWAY 7 - SITE 4

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



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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	155	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

STA. 485+66 IN PLACE
3' X 2' X 35' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
REMOVE WINGS LT. AND RT.
AND PLUG AND ABANDON

STA. 485+81 CONSTRUCT
DBL. 24" X 71' R.C. PIPE CULVERT
15° RT. FWD. SKEW
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 14 CFS DA = 2 ACRES
24" R.C. PIPE = 142 LIN. FT.
24" F.E.S. = 4 EA.

STA. 491+11 CONSTRUCT
48" X 76' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 37 CFS DA = 6 ACRES
48" R.C. PIPE = 76 LIN. FT.
48" F.E.S. = 2 EA.

STA. 491+20 IN PLACE
2' X 2' X 33' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
REMOVE WINGS LT. AND RT.
AND PLUG AND ABANDON

STA. 491+55 CONSTRUCT
APPROACH ON LT. = 11 CU. YDS.

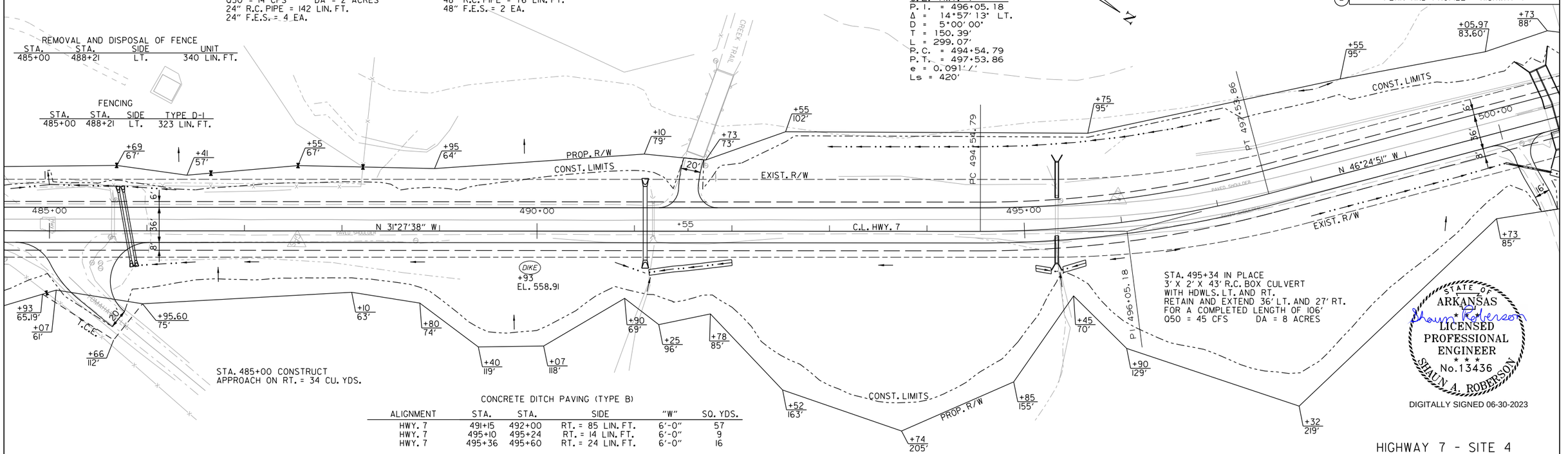
C.L. HWY. 7
P.I. = 496+05.18
Δ = 14°57'13" LT.
D = 5°00'00"
T = 150.39'
L = 299.07'
P.C. = 494+54.79
P.T. = 497+53.86
e = 0.091'/'
Ls = 420'

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
485+00	488+21	LT.	340 LIN. FT.

FENCING

STA.	STA.	SIDE	TYPE D-1
485+00	488+21	LT.	323 LIN. FT.



STA. 485+00 CONSTRUCT
APPROACH ON RT. = 34 CU. YDS.

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	491+15	492+00	RT. = 85 LIN. FT.	6'-0"	57
HWY. 7	495+10	495+24	RT. = 14 LIN. FT.	6'-0"	9
HWY. 7	495+36	495+60	RT. = 24 LIN. FT.	6'-0"	16

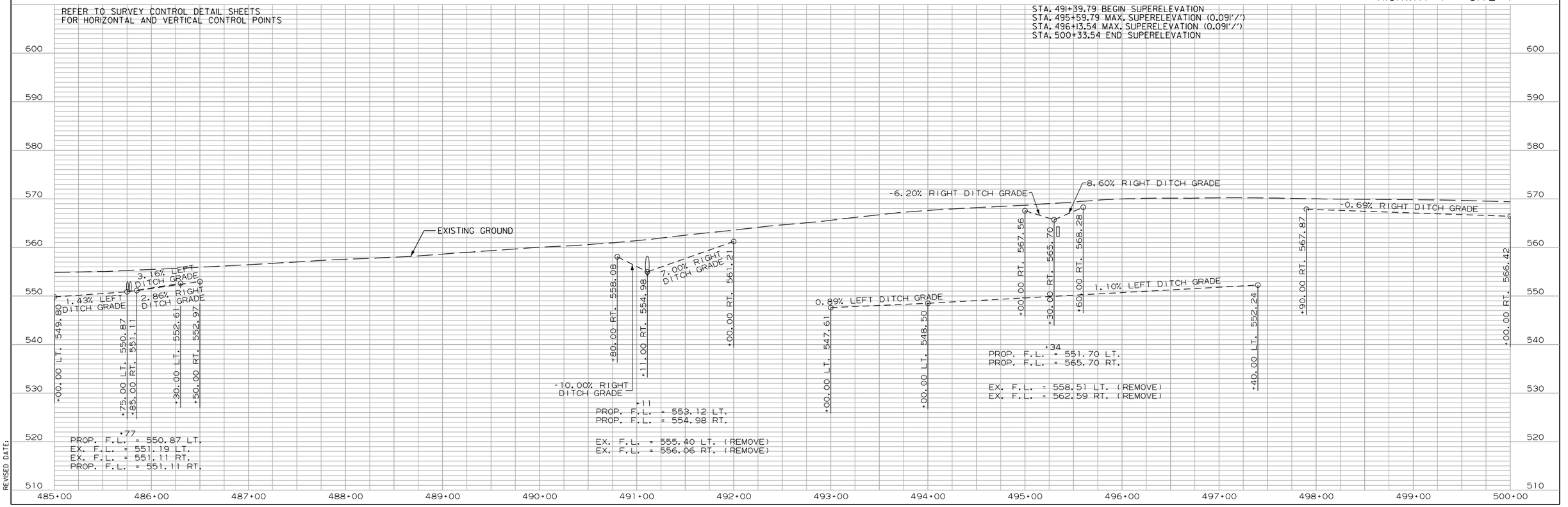
STA. 495+34 IN PLACE
3' X 2' X 43' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 36' LT. AND 27' RT.
FOR A COMPLETED LENGTH OF 106'
Q50 = 45 CFS DA = 8 ACRES

STATE OF ARKANSAS
Shaun Roberson
LICENSED PROFESSIONAL ENGINEER
No. 13436
SHAUN A. ROBERSON
DIGITALLY SIGNED 06-30-2023

HIGHWAY 7 - SITE 4

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

STA. 491+39.79 BEGIN SUPERELEVATION
STA. 495+59.79 MAX. SUPERELEVATION (0.091'/')
STA. 496+13.54 MAX. SUPERELEVATION (0.091'/')
STA. 500+33.54 END SUPERELEVATION



PJoseph 6/21/2023 10:49:29 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	156	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

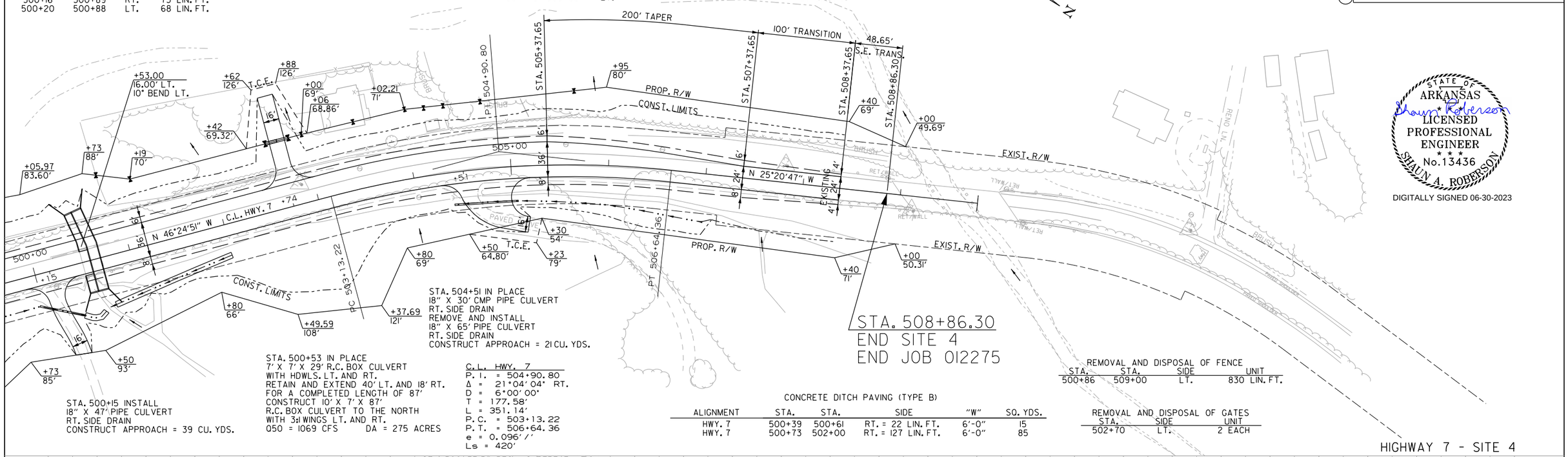
REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	UNIT
500+16	500+89	RT.	73 LIN. FT.
500+20	500+88	LT.	68 LIN. FT.

STA. 502+74 CONSTRUCT APPROACH ON LT. = 50 CU. YDS.

FENCING

STA.	STA.	SIDE	TYPE C	6' CHAIN LINK	6' WOOD PRIVACY FENCE	12'-0" GATES
500+86	504+20	LT.	348 LIN. FT.			2 EACH
504+20	504+39	LT.		20 LIN. FT.		
504+39	504+75	LT.	38 LIN. FT.			
504+75	505+65	LT.			97 LIN. FT.	



STA. 504+51 IN PLACE
18" X 30' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 65' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

STA. 500+53 IN PLACE
7' X 7' X 29' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 40' LT. AND 18' RT.
FOR A COMPLETED LENGTH OF 87'
CONSTRUCT 10' X 7' X 87'
R.C. BOX CULVERT TO THE NORTH
WITH 31 WINGS LT. AND RT.
Q50 = 1069 CFS DA = 275 ACRES

STA. 500+15 INSTALL
18" X 47' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 39 CU. YDS.

C.L. HWY. 7
P. I. = 504+90.80
Δ = 21°04'04" RT.
D = 6°00'00"
T = 177.58'
L = 351.14'
P. C. = 503+13.22
P. T. = 506+64.36
e = 0.096'/'
Ls = 420'

STA. 508+86.30
END SITE 4
END JOB 012275

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
500+86	509+00	LT.	830 LIN. FT.

CONCRETE DITCH PAVING (TYPE B)

ALIGNMENT	STA.	STA.	SIDE	"W"	SQ. YDS.
HWY. 7	500+39	500+61	RT. = 22 LIN. FT.	6'-0"	15
HWY. 7	500+73	502+00	RT. = 127 LIN. FT.	6'-0"	85

REMOVAL AND DISPOSAL OF GATES

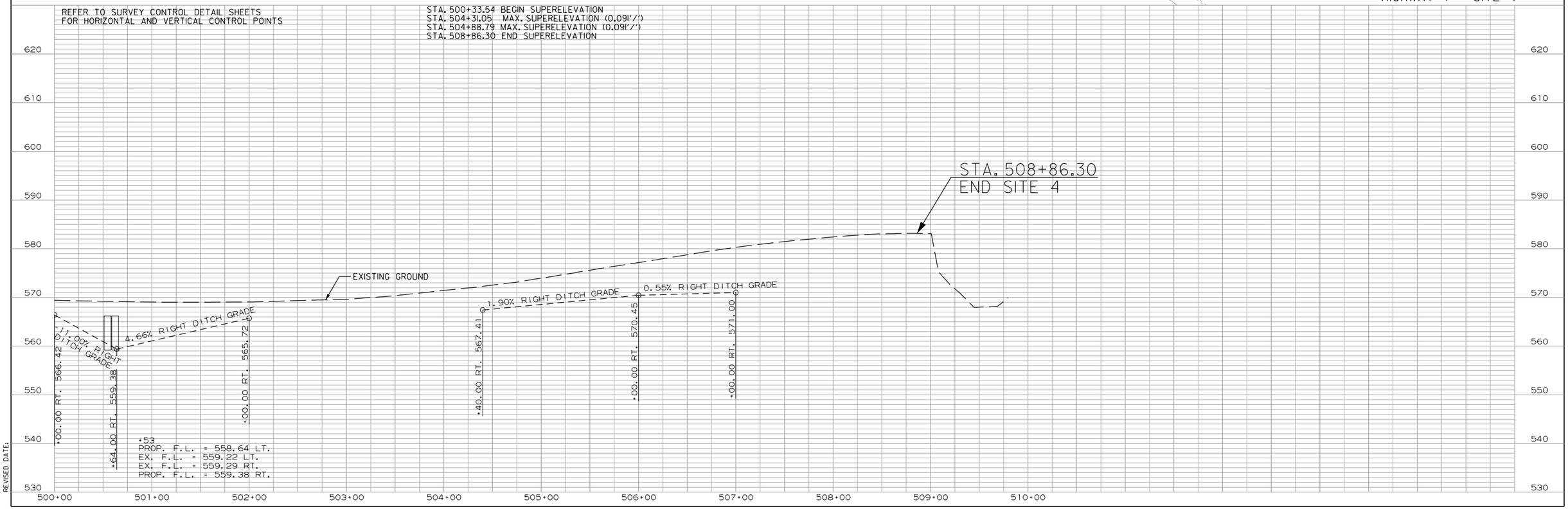
STA.	SIDE	UNIT
502+70	LT.	2 EACH

STATE OF ARKANSAS
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HIGHWAY 7 - SITE 4

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

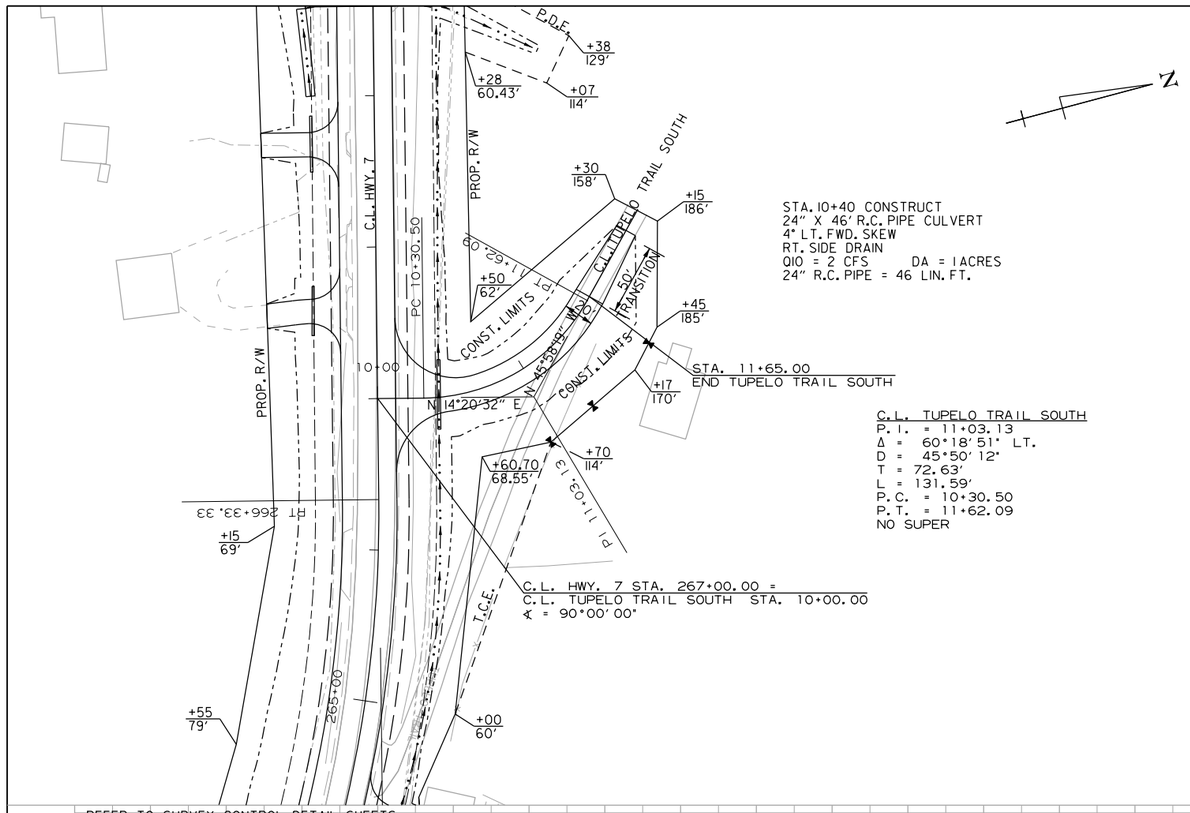
STA. 500+33.54 BEGIN SUPERELEVATION
STA. 504+31.05 MAX. SUPERELEVATION (0.091'/')
STA. 504+88.79 MAX. SUPERELEVATION (0.091'/')
STA. 508+86.30 END SUPERELEVATION



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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	157	280

(2) PLAN AND PROFILE - TUPELO TRAIL SOUTH



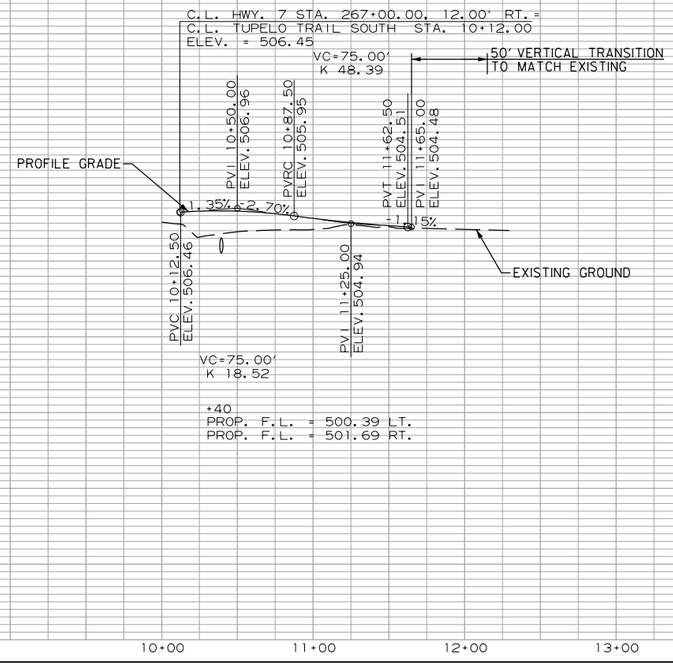
STA. 10+40 CONSTRUCT
24" X 46' R.C. PIPE CULVERT
4° LT. FWD. SKEW
RT. SIDE DRAIN
QIO = 2 CFS DA = 1 ACRES
24" R.C. PIPE = 46 LIN. FT.

C.L. TUPELO TRAIL SOUTH
P. I. = 11+03.13
Δ = 60°18'51" LT.
D = 45°50'12"
T = 72.63'
L = 131.59'
P.C. = 10+30.50
P.T. = 11+62.09
NO SUPER

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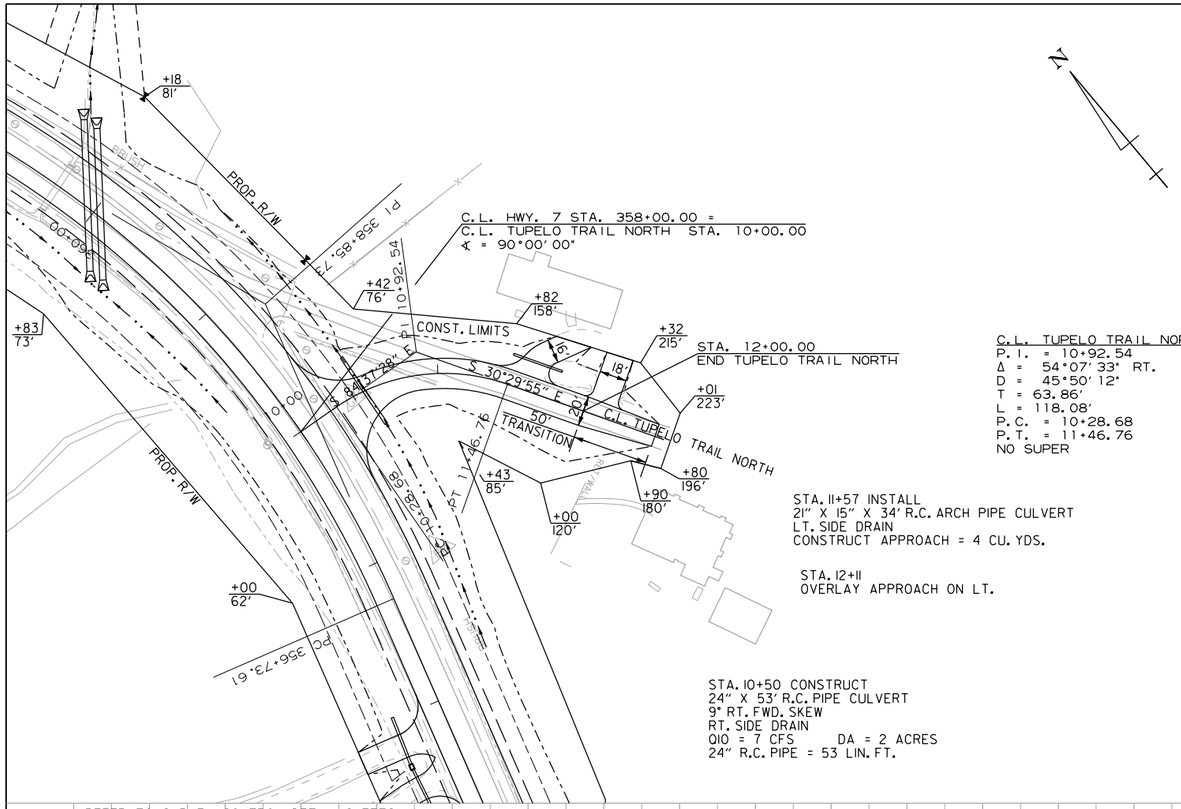
TUPELO TRAIL SOUTH

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



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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	158	280
				(2)	PLAN AND PROFILE - TUPELO TRAIL NORTH			



C.L. TUPELO TRAIL NORTH
P.I. = 10+92.54
Δ = 54°07' 33" RT.
D = 45°50' 12"
T = 63.86'
L = 118.08'
P.C. = 10+28.68
P.T. = 11+46.76
NO SUPER

C.L. HWY. 7 STA. 358+00.00 =
C.L. TUPELO TRAIL NORTH STA. 10+00.00
Δ = 90°00' 00"

STA. 11+57 INSTALL
21" X 15" X 34' R.C. ARCH PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 4 CU. YDS.

STA. 12+11
OVERLAY APPROACH ON LT.

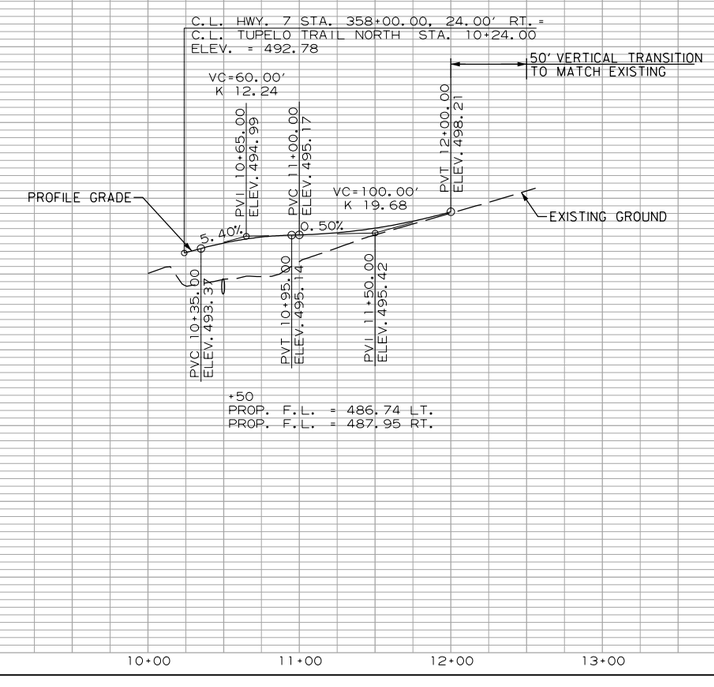
STA. 10+50 CONSTRUCT
24" X 53' R.C. PIPE CULVERT
9° RT. FWD. SKEW
RT. SIDE DRAIN
Q10 = 7 CFS DA = 2 ACRES
24" R.C. PIPE = 53 LIN. FT.

STATE OF
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TUPELO TRAIL NORTH

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



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	159	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

STATE OF ARKANSAS
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N

STA. 10+00.00
BEGIN SITE 1
TEMPORARY WIDENING 1

C.L. SITE 1 TEMPORARY WIDENING 1
P.I. = 13+53.39
Δ = 07°03'53" LT.
D = 3°00'00"
T = 117.90'
L = 235.49'
P.R.C. = 12+35.49
P.T. = 14+70.98
NO SUPER

C.L. SITE 1 TEMPORARY WIDENING 1
P.I. = 16+95.18
Δ = 08°21'11" LT.
D = 3°00'00"
T = 139.46'
L = 278.43'
P.C. = 15+55.72
P.R.C. = 18+34.15
NO SUPER

STA. 20+33.30
END SITE 1
TEMPORARY WIDENING 1

EXIST. R/W
CONST. LIMITS
C.L. HWY. 7
PROP. R/W
DIKE
EL. 228.98
EL. 230.74
T.C.E.
24'
6'
PI 117+76.84
Δ = 00°04'08" RT.
PI 11+17.90
PC 10+00.00
PRC 12+35.49
PI 13+53.39
PT 14+70.98
PC 15+55.72
PRC 18+34.15
PI 19+33.82
PT 131+88.23
PI 129+06.44
PI 16+95.18
PT 20+33.30
C.L. SITE 1 TEMPORARY WIDENING 1
N 20°15'15" W
N 13°11'22" W
N 22°37'58" W
N 23°04'21" W
N 28°36'26" W
+85 115'
+55 115'
+00 75.02'
+50 75'
+70 60.34'
+30 75'
+10 59.47'
+40
+00 60.58'
+00 80'
+00 60.54'
+25 60.53'
+50 85'
+75 60.11'
+70 59.78'
+50 60.22'
C.L. SITE 1 TEMPORARY WIDENING 1
P.I. = 19+33.82
Δ = 05°58'28" RT.
D = 3°00'00"
T = 99.67'
L = 199.15'
P.R.C. = 18+34.15
P.T. = 20+33.30
NO SUPER
C.L. SITE 1 TEMPORARY WIDENING 1
P.I. = 11+17.90
Δ = 07°03'53" RT.
D = 3°00'00"
T = 117.90'
L = 235.49'
P.C. = 10+00.00
P.R.C. = 12+35.49
NO SUPER
APPROXIMATE FEMA 100 YR. FLOODPLAIN LIMITS

HIGHWAY 7 - SITE 1 TEMPORARY WIDENING 1

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

NOTCH AND WIDEN
+76.02
+69.33
EXISTING GROUND

280 270 260 250 240 230 220 210 200 190
10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	160	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

C.L. SITE 4 TEMPORARY WIDENING 1
P.I. = 21+11.92
Δ = 6°42'27" LT.
D = 3°00'00"
T = 111.92'
L = 223.58'
P.C. = 20+00.00
P.T. = 22+23.58
e = NO SUPER

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C.L. SITE 4 TEMPORARY WIDENING 1
P.I. = 23+36.33
Δ = 6°26'23" RT.
D = 3°00'00"
T = 107.44'
L = 214.66'
P.C. = 22+28.89
P.T. = 24+43.55
e = MATCH EXISTING
Ls = MATCH EXISTING

C.L. SITE 4 TEMPORARY WIDENING 1
P.I. = 27+88.80
Δ = 18°31'20" LT.
D = 7°00'00"
T = 133.47'
L = 264.60'
P.C. = 26+55.33
P.T. = 29+19.93
e = MATCH EXISTING
Ls = MATCH EXISTING

STA. 20+00.00
BEGIN SITE 4
TEMPORARY WIDENING 1

STA. 29+19.93
END SITE 4
TEMPORARY WIDENING 1

HIGHWAY 7 - SITE 4 TEMPORARY WIDENING 1

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

NOTCH AND WIDEN
+81.67
+78.43
EXISTING GROUND

600 590 580 570 560 550 540 530 520 510
20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	161	280
				(2)	PLAN AND PROFILE - HIGHWAY 7			

C.L. SITE 4 TEMPORARY WIDENING 2
P.I. = 31+23.43
Δ = 17°09'02" LT.
D = 7°00'00"
T = 123.43'
L = 245.01'
P.C. = 30+00.00
P.R.C. = 32+45.01
e = MATCH EXISTING
Ls = MATCH EXISTING

STA. 30+00.00
BEGIN SITE 4
TEMPORARY WIDENING 2

C.L. SITE 4 TEMPORARY WIDENING 2
P.I. = 33+15.91
Δ = 09°54'05" RT.
D = 7°00'00"
T = 70.90'
L = 141.45'
P.R.C. = 32+45.01
P.T. = 33+86.46
e = NO SUPER

C.L. SITE 4 TEMPORARY WIDENING 2
P.I. = 35+22.06
Δ = 7°38'14" RT.
D = 4°00'00"
T = 95.60'
L = 190.93'
P.C. = 34+26.46
P.T. = 36+17.39
e = MATCH EXISTING
Ls = MATCH EXISTING

STA. 37+88.68
END SITE 4
TEMPORARY WIDENING 2

STA. 508+86.30
END SITE 4
END JOB 012275

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HIGHWAY 7 - SITE 4 TEMPORARY WIDENING 2

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

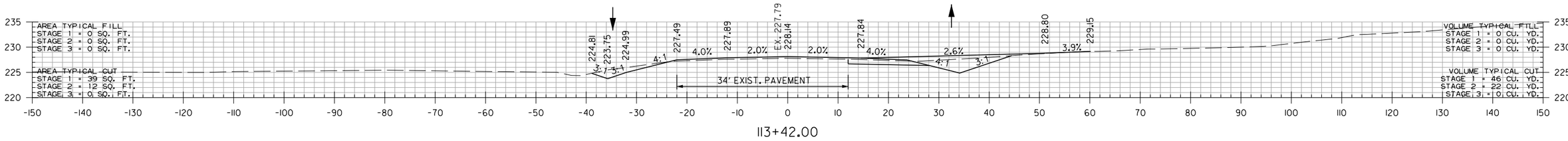
NOTCH AND WIDEN
+20.55
+30.18
EXISTING GROUND

600 590 580 570 560 550 540 530 520 510
30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

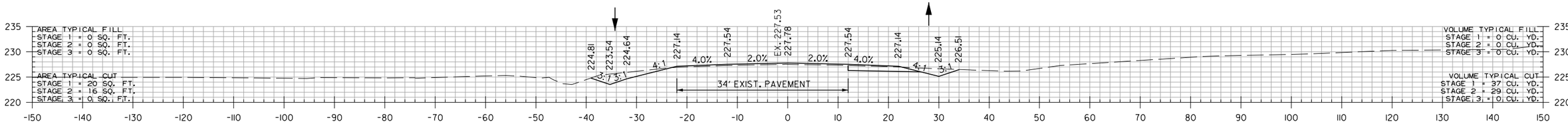
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	162	280
				(2)	CROSS SECTIONS			

STA. 113+42 CONSTRUCT
APPROACH ON RT. = 33 CU. YDS.



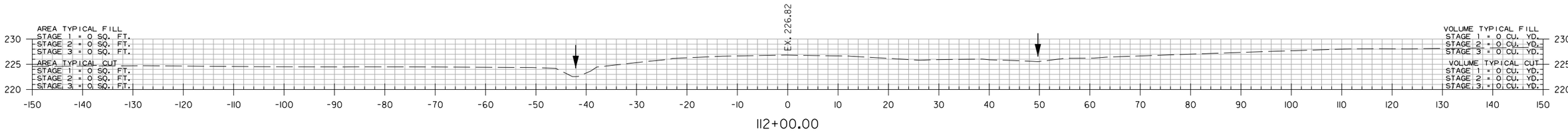
113+42.00



113+00.00

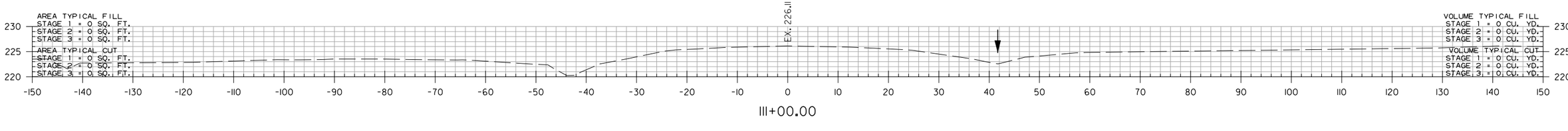
STA. 113+00
BEGIN SP. DT. LT. 0.50%
ELEV. 223.54

STA. 113+00.00
BEGIN SITE I
PROPOSED ALIGNMENT



112+00.00

STA. 112+00.00 BEGIN 100' TRANSITION



111+00.00

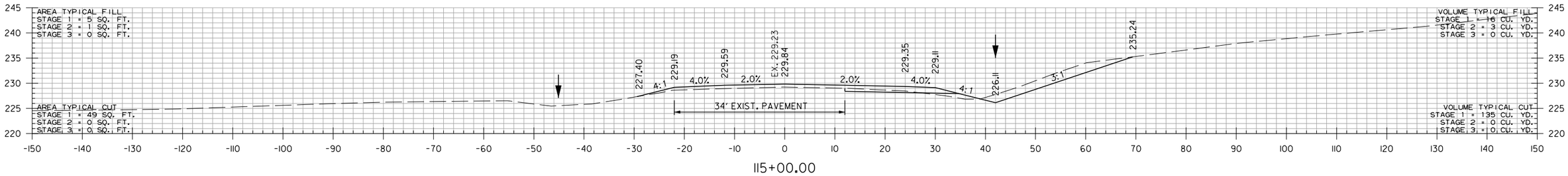
SITE I
STA. 111+00 TO STA. 113+42

PJoseph 6/21/2023 10:49:30 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

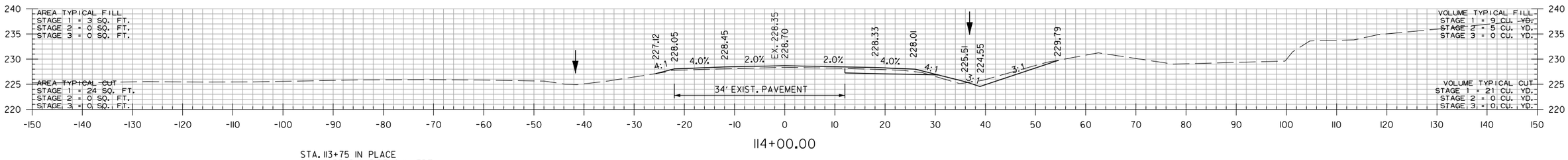
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	163	280

(2) CROSS SECTIONS



115+00.00

STA. 114+50
END SP. DT. RT. 1.83%
ELEV. 225.46



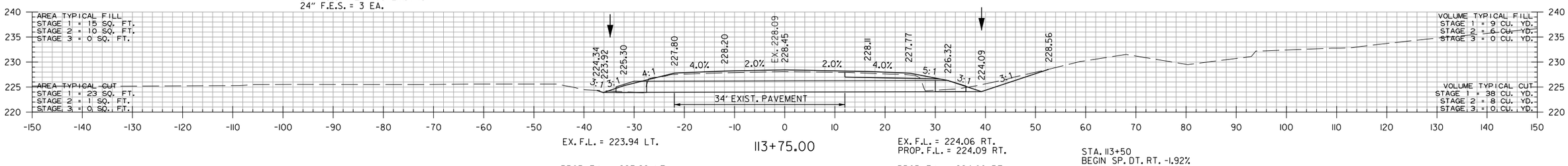
114+00.00

STA. 113+75 IN PLACE
24" X 55' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE HDWL. RT. & EXTEND R.C. PIPE 3' RT.
CLASS V (TYPE 3 BEDDING)
WITH F.E.S. RT.
CONSTRUCT 24" X 58' R.C. PIPE CULVERT
CLASS V (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 10 CFS DA = 647 ACRES
24" R.C. PIPE = 65 LIN. FT.
24" F.E.S. = 3 EA.

STA. 113+76
END SP. DT. LT. 0.50%
ELEV. 223.92

STA. 136+82.32 BEGIN SUPERELEVATION

STA. 113+75
END SP. DT. RT. -1.92%
BEGIN SP. DT. RT. 1.83%
ELEV. 224.09



EX. F.L. = 223.94 LT.

PROP. F.L. = 223.92 LT.

113+75.00

EX. F.L. = 224.06 RT.
PROP. F.L. = 224.09 RT.

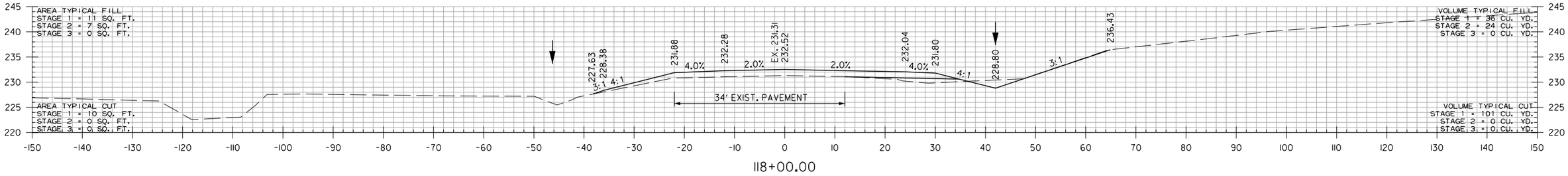
PROP. F.L. = 224.09 RT.

STA. 113+50
BEGIN SP. DT. RT. -1.92%
ELEV. 224.57

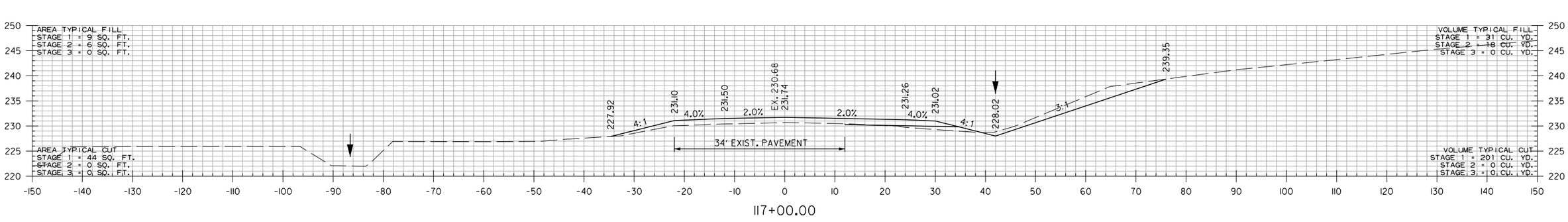
SITE 1
STA. 113+75 TO STA. 115+00

PJoseph 6/21/2023 10:49:31 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_1.dgn
REVISED DATE:

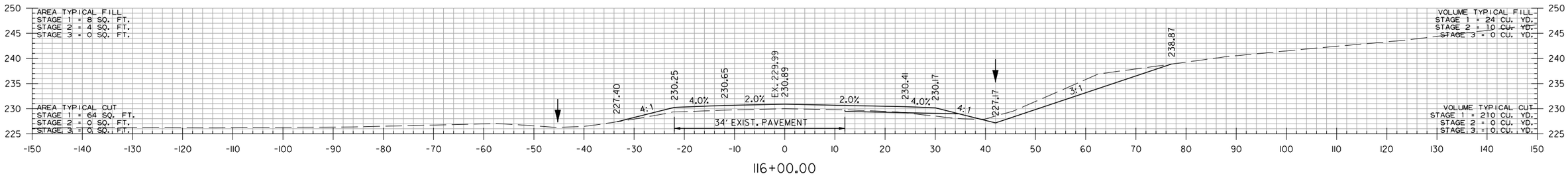
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	164	280
				(2)	CROSS SECTIONS			



118+00.00



117+00.00

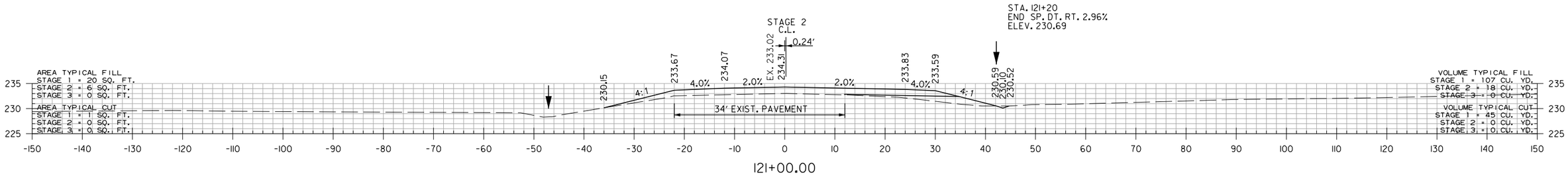


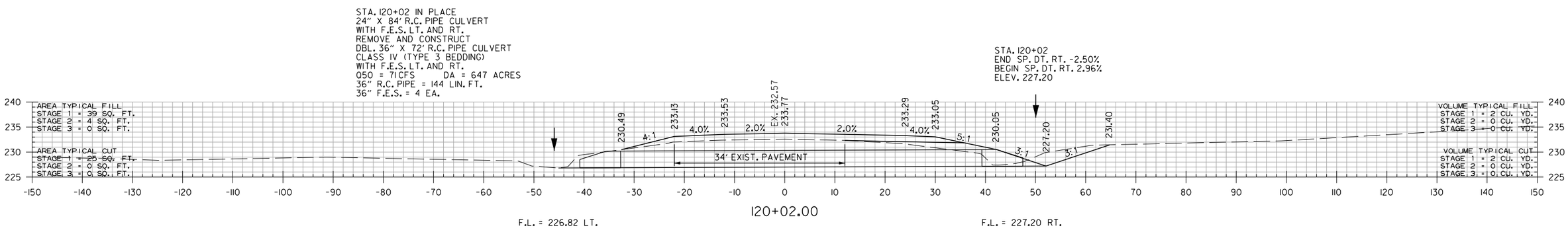
116+00.00

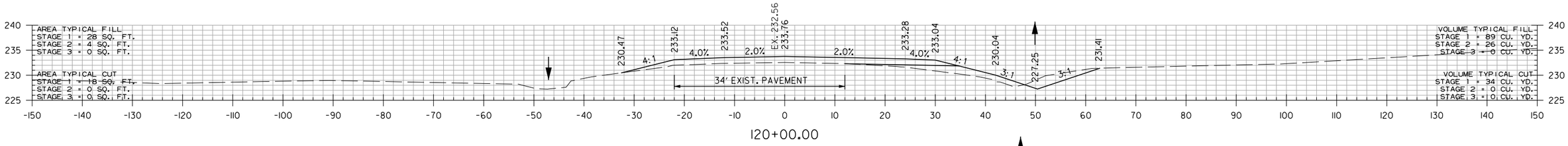
SITE 1
STA. 116+00 TO STA. 118+00

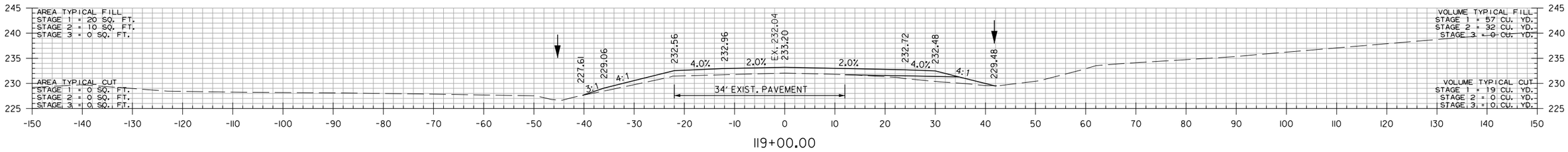
PJoseph 6/21/2023 10:49:31 AM
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	165	280
				(2)	CROSS SECTIONS			







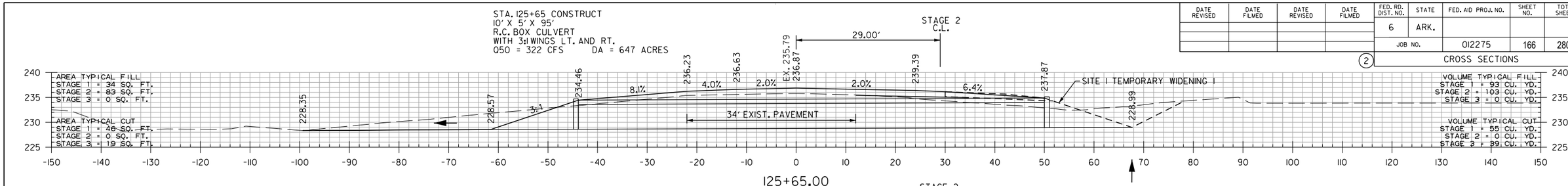


SITE 1
STA. 119+00 TO STA. 121+00

PJoseph 6/21/2023 10:49:31 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	166	280

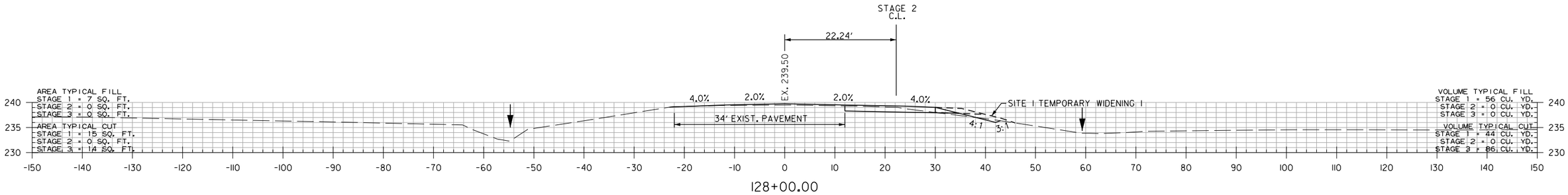
(2) CROSS SECTIONS



SITE I
STA. 122+00 TO STA. 125+00

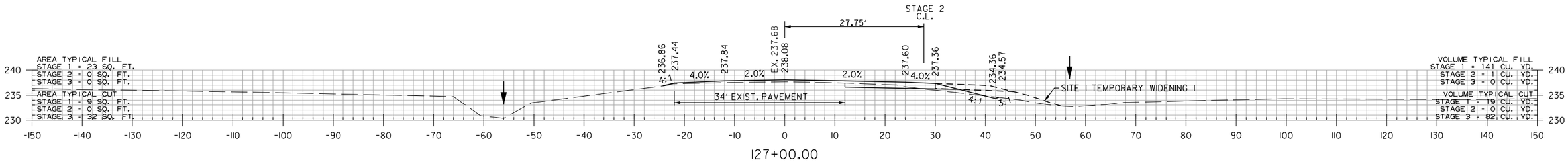
Pjoseph 6/21/2023 10:49:31 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	167	280
				(2)	CROSS SECTIONS			



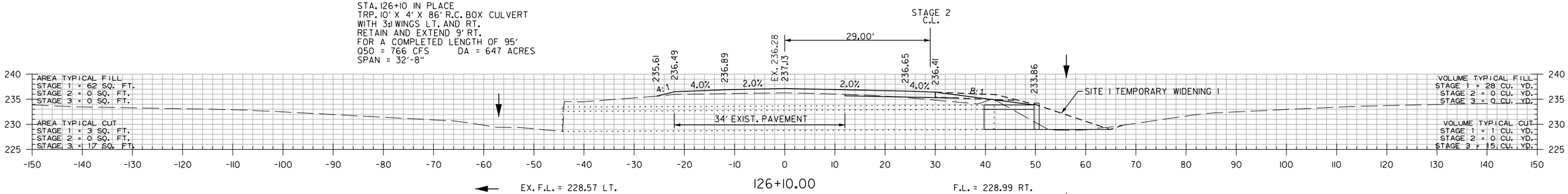
128+00.00

STA. 127+60.00 END PROFILE GRADE



127+00.00

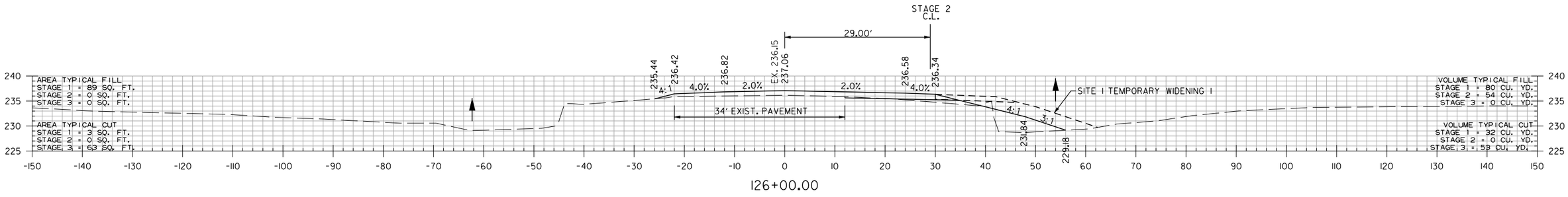
STA. 126+10 IN PLACE
TRP. 10' X 4' X 86' R.C. BOX CULVERT
WITH 3:1 WINGS LT. AND RT.
RETAIN AND EXTEND 9' RT.
FOR A COMPLETED LENGTH OF 95'
Q50 = 766 CFS DA = 647 ACRES
SPAN = 32'-8"



← EX. F.L. = 228.57 LT.

126+10.00

F.L. = 228.99 RT. →

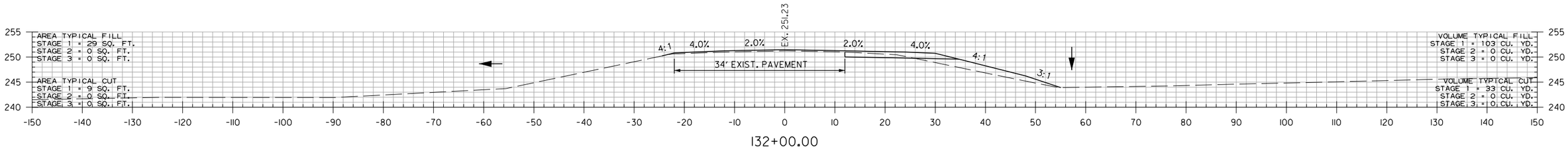


126+00.00

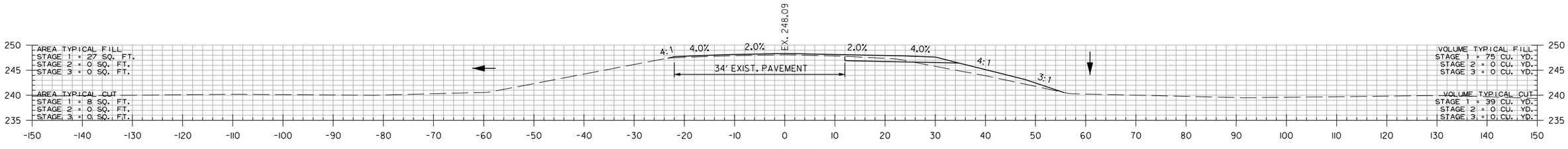
SITE I
STA. 126+00 TO STA. 128+00

PJoseph 6/21/2023 10:49:31 AM
WORKSPACE: AHTD
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REVISED DATE:

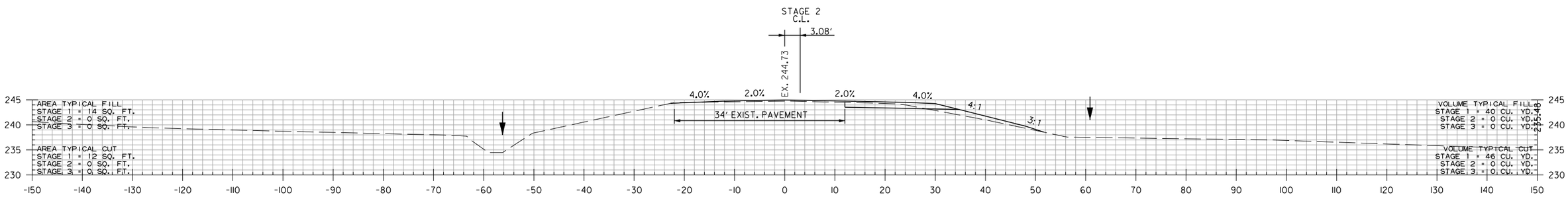
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	168	280
				(2)	CROSS SECTIONS			



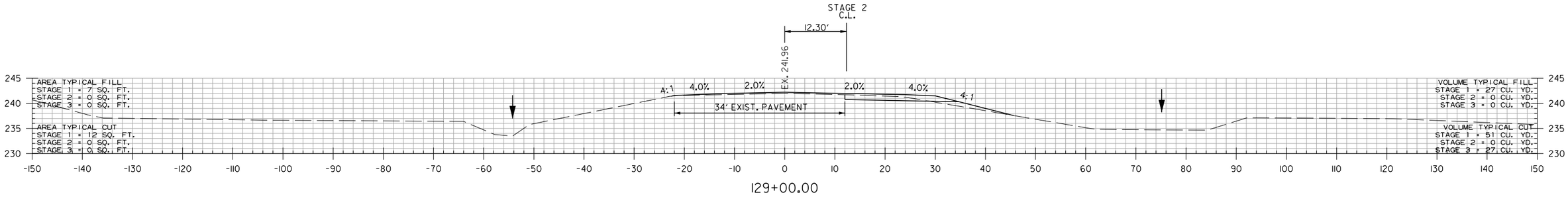
132+00.00



131+00.00



130+00.00



129+00.00

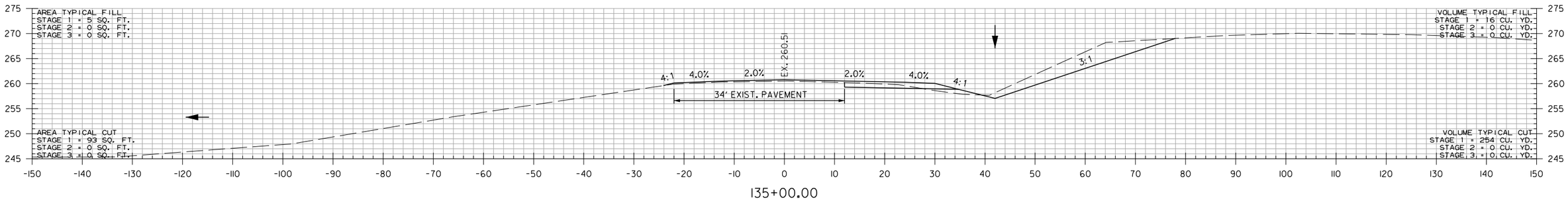
SITE 1
STA. 129+00 TO STA. 132+00

PJoseph
WORKSPACE: AHTD
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6/21/2023 10:49:31 AM
REVISED DATE:

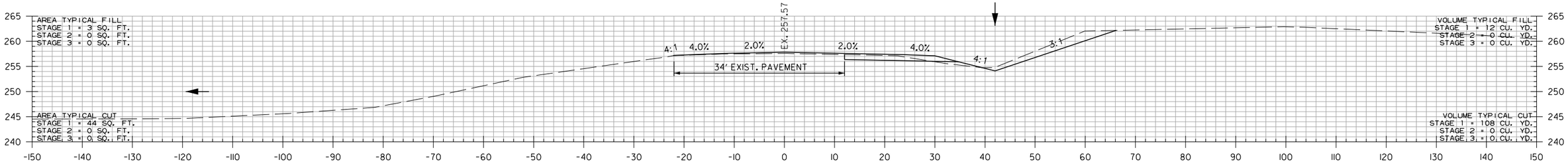
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	169	280

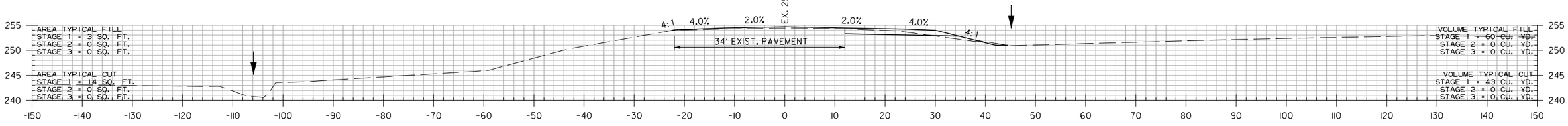
(2) CROSS SECTIONS



135+00.00



134+00.00

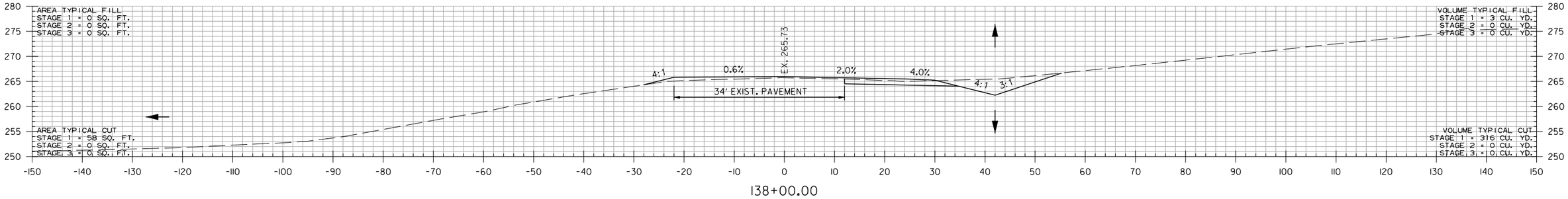


133+00.00

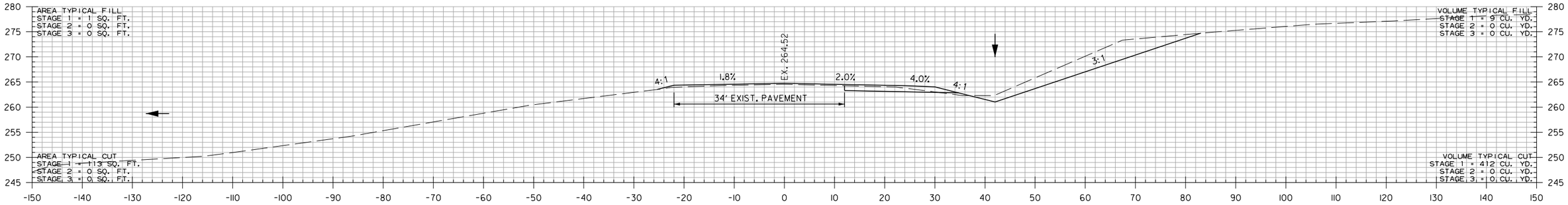
SITE 1
STA. 133+00 TO STA. 135+00

PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	170	280
				(2)	CROSS SECTIONS			

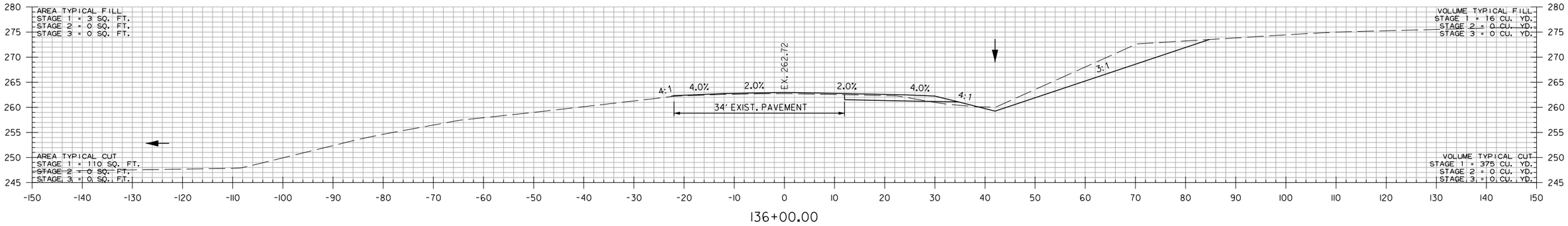


138+00.00



137+00.00

STA. 136+82.32 BEGIN SUPERELEVATION



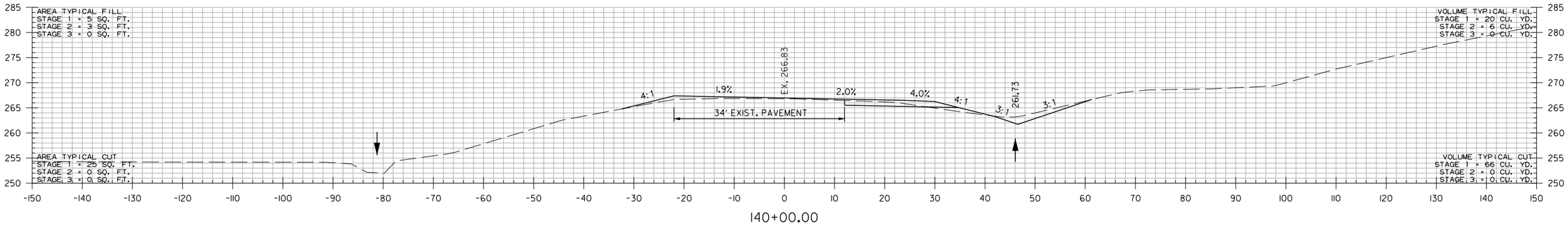
136+00.00

SITE 1
STA. 136+00 TO STA. 138+00

PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
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REVISED DATE:

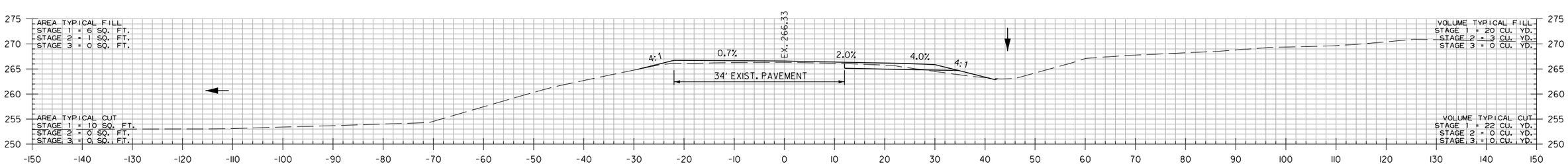
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	171	280
				(2)	CROSS SECTIONS			

STA. 140+42.32 MAX. SUPERELEVATION (0.022'/')



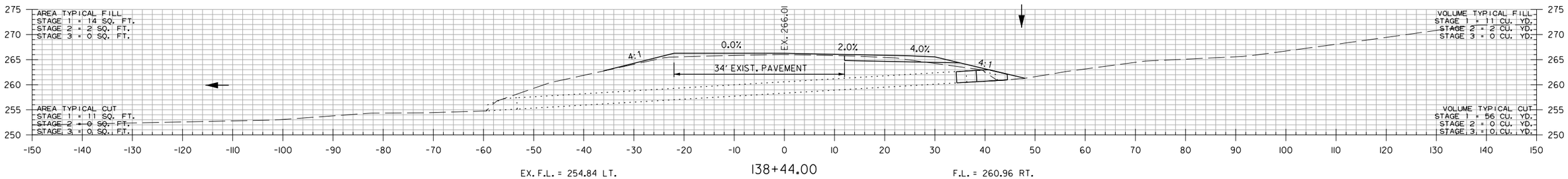
140+00.00

STA. 139+50
BEGIN SP. DT. RT. -2.78%
ELEV. 263.12



139+00.00

STA. 138+44 IN PLACE
24" X 90' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 5 CFS DA = 1 ACRES
24" R.C. PIPE = 4 LIN. FT.
24" F.E.S. = 1 EA.



EX. F.L. = 254.84 LT.

138+44.00

F.L. = 260.96 RT.

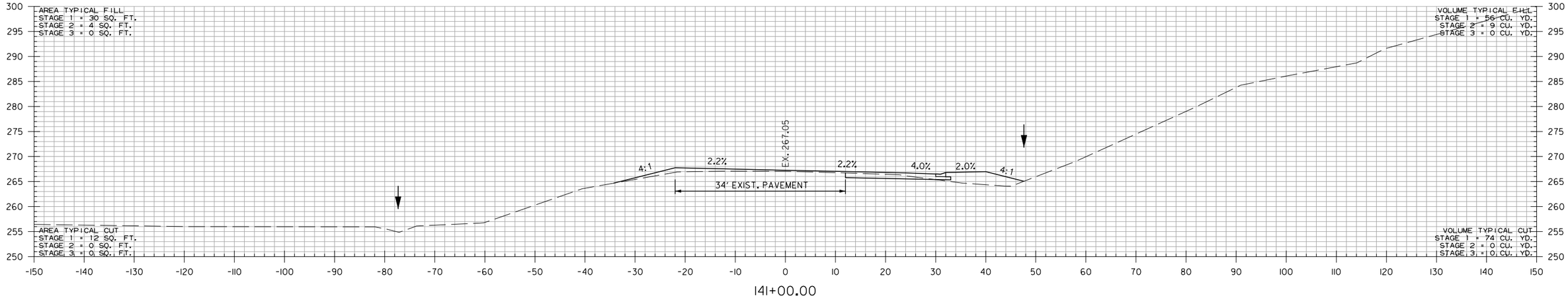
SITE 1
STA. 138+44 TO STA. 140+00

PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	172	280

(2) CROSS SECTIONS

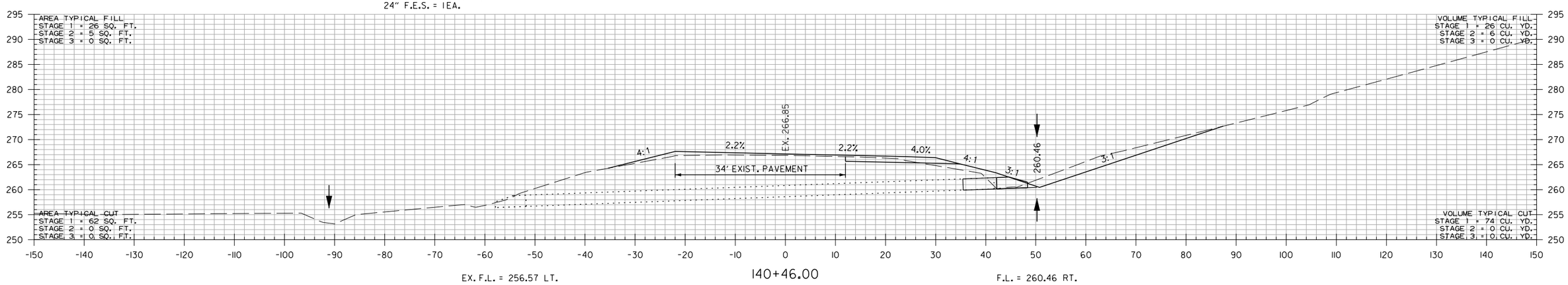


141+00.00

STA. 140+80
END SP. DT. RT. 12.74%
ELEV. 264.78

STA. 140+46
END SP. DT. RT. -2.78%
BEGIN SP. DT. RT. 12.74%
ELEV. 260.45

STA. 140+46 IN PLACE
24" X 87' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
050 = 8 CFS DA = 2 ACRES
24" R.C. PIPE = 6 LIN. FT.
24" F.E.S. = 1EA.



EX. F.L. = 256.57 LT.

140+46.00

F.L. = 260.46 RT.

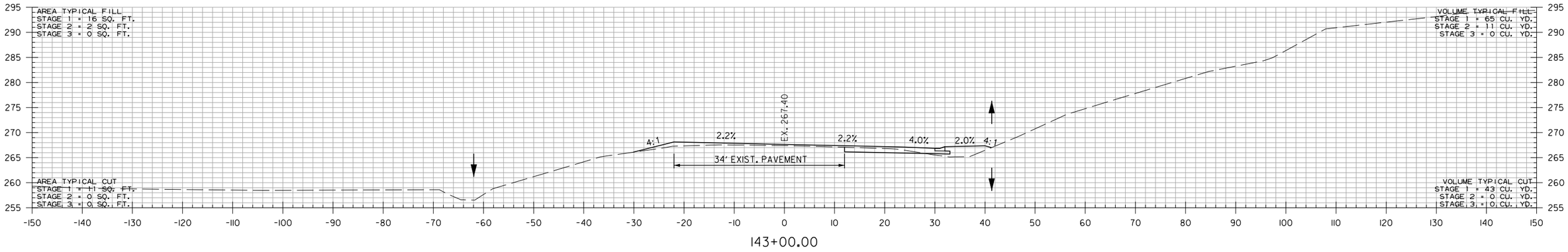
SITE 1
STA. 140+46 TO STA. 141+00

Pjoseph 6/21/2023 10:49:32 AM
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REVISED DATE:

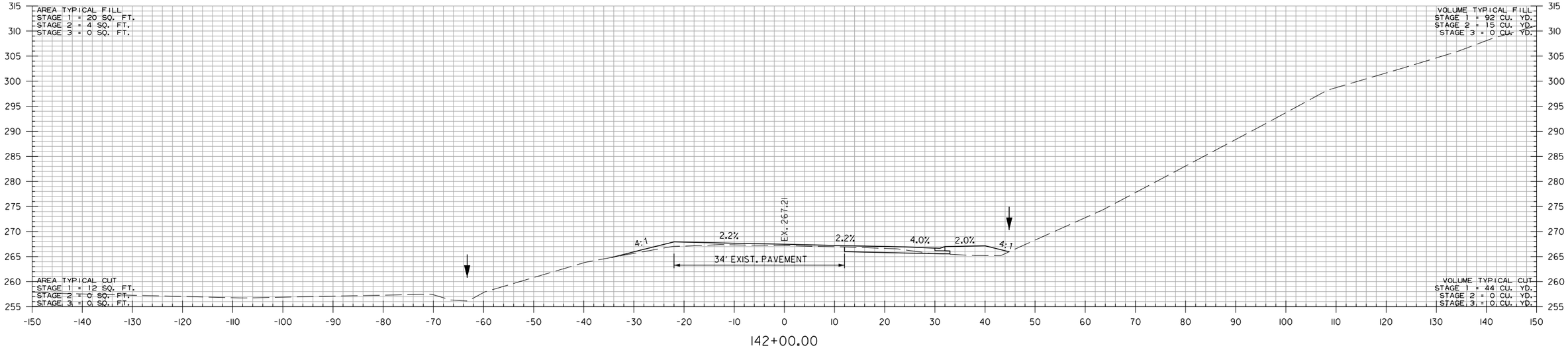
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	173	280

(2) CROSS SECTIONS



143+00.00



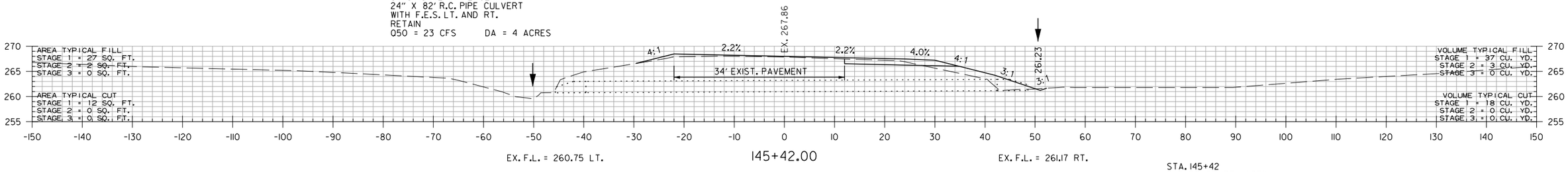
142+00.00

SITE 1
STA. 142+00 TO STA. 143+00

PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE1.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	174	280
				(2)	CROSS SECTIONS			

STA. 145+42 IN PLACE
24" X 82' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
RETAIN
Q50 = 23 CFS DA = 4 ACRES



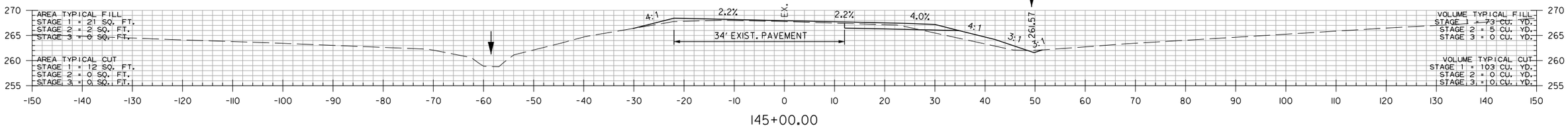
EX. F.L. = 260.75 LT.

145+42.00

EX. F.L. = 261.17 RT.

STA. 145+42
END SP. DT. RT. -1.97%
BEGIN SP. DT. RT. 2.05%
ELEV. 261.23

STA. 145+10
END SP. DT. RT. 2.88%
BEGIN SP. DT. RT. -1.97%
ELEV. 261.86



145+00.00

STA. 144+26 IN PLACE
24" X 94' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 4 CFS DA = 1 ACRES
24" R.C. PIPE = 4 LIN. FT
24" F.E.S. = 1 EA.

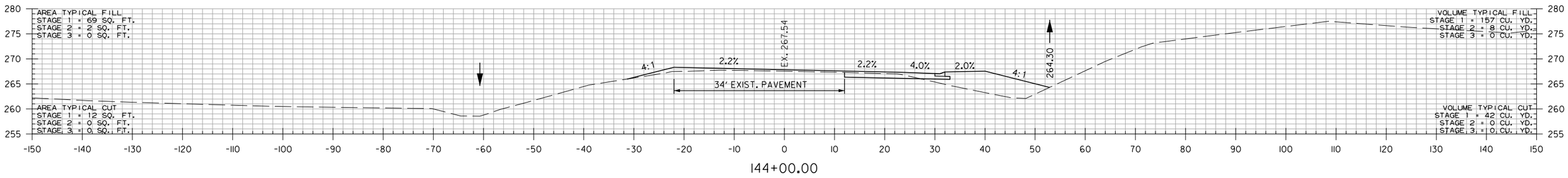


EX. F.L. = 259.60 LT.

144+26.00

F.L. = 259.44 RT.

STA. 144+26
END SP. DT. RT. -18.69%
BEGIN SP. DT. RT. 2.88%
ELEV. 259.44



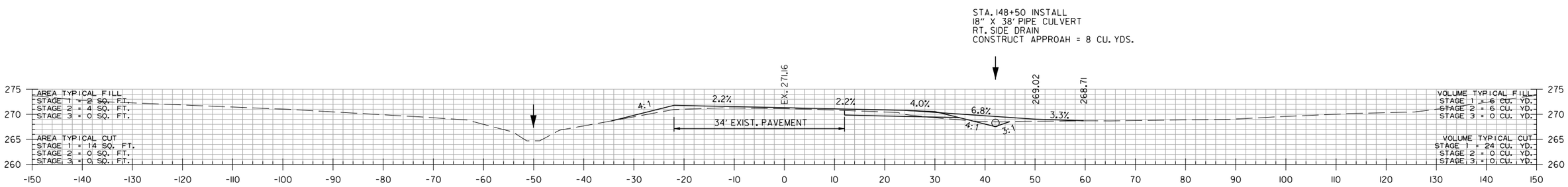
144+00.00

STA. 144+00
BEGIN SP. DT. RT. -18.69%
ELEV. 264.30

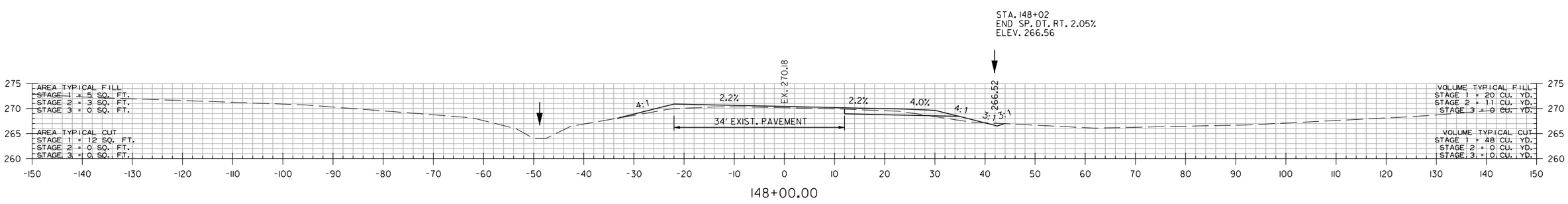
SITE 1
STA. 144+00 TO STA. 145+42

PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE1.dgn
REVISED DATE:

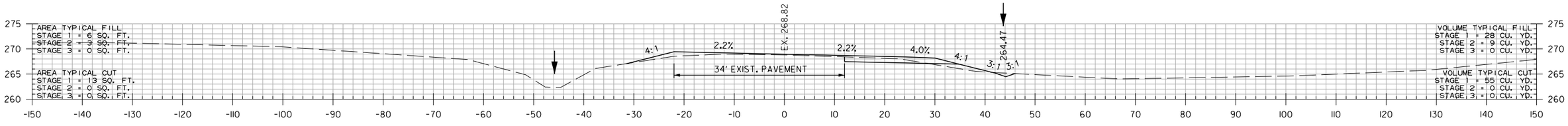
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	175	280
				(2)		CROSS SECTIONS		



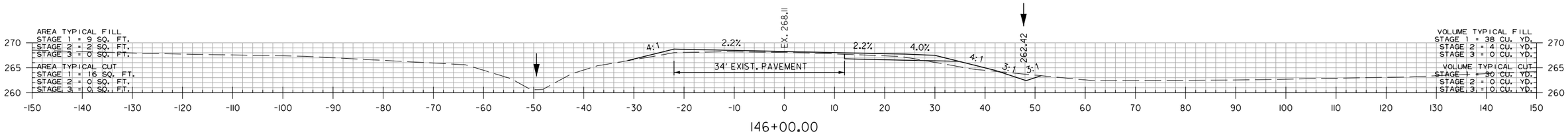
148+50.00



148+00.00



147+00.00



146+00.00

SITE 1
STA. 146+00 TO STA. 148+50

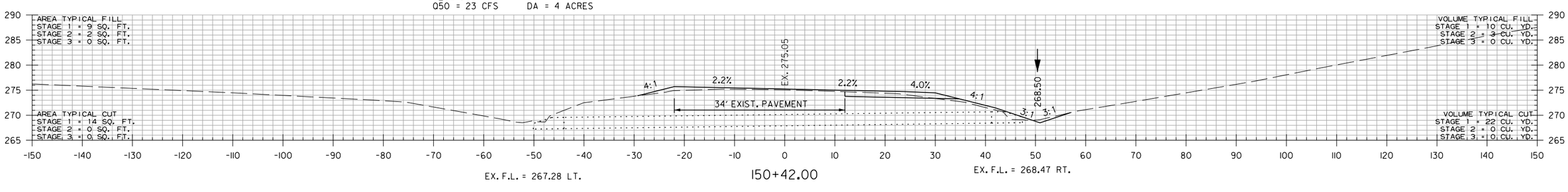
PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	176	280
(2)	CROSS SECTIONS			

STA. 150+42 IN PLACE
24" X 85' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
RETAIN
Q50 = 23 CFS DA = 4 ACRES

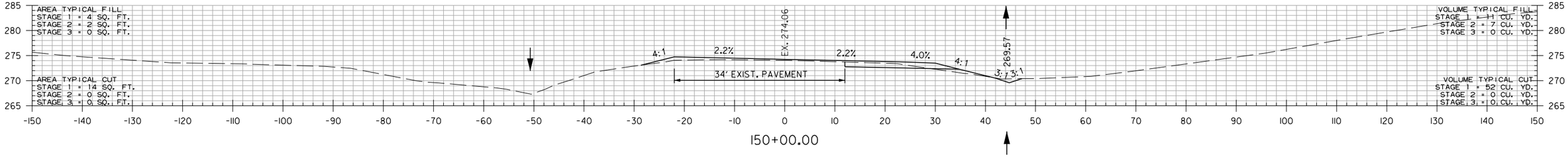
STA. 150+42
END SP. DT. RT. -2.55%
BEGIN SP. DT. RT. 3.76%
ELEV. 268.50



EX. F.L. = 267.28 LT.

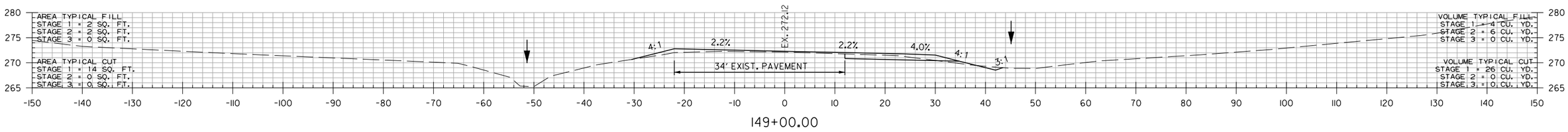
150+42.00

EX. F.L. = 268.47 RT.



150+00.00

STA. 149+80
BEGIN SP. DT. RT. -2.55%
ELEV. 270.08

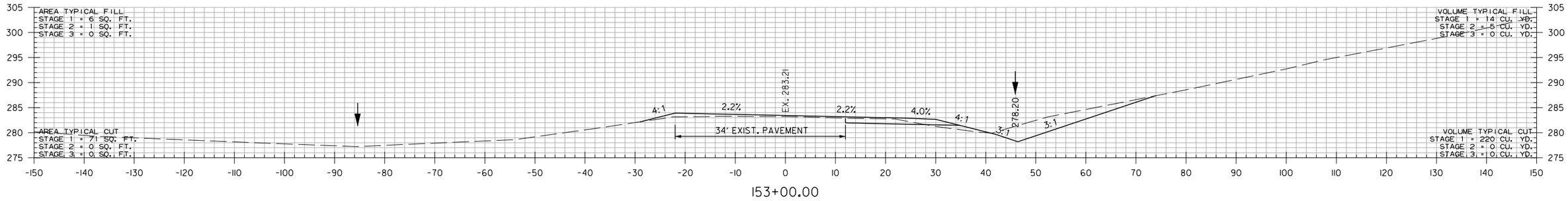


149+00.00

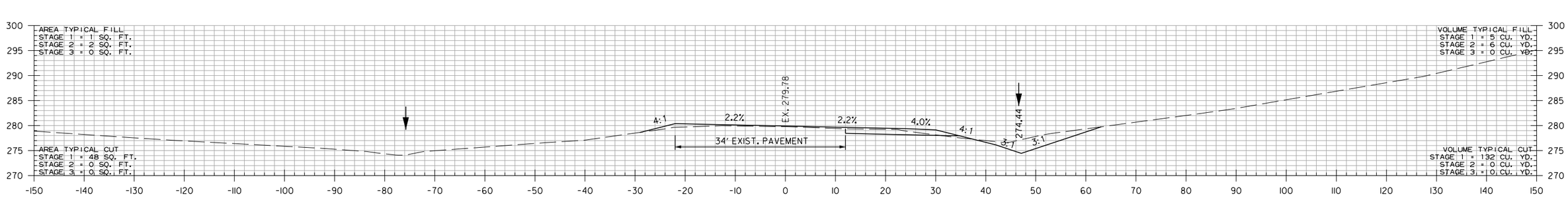
SITE 1
STA. 149+00 TO STA. 150+42

PJoseph 6/21/2023 10:49:32 AM
WORKSPACE: AHTD
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REVISED DATE:

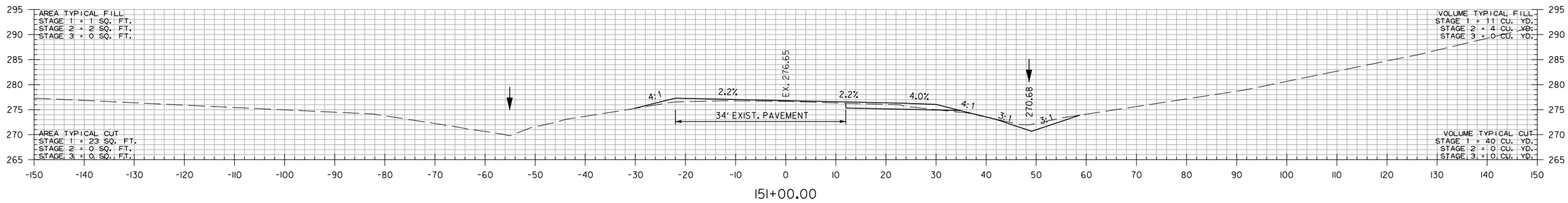
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	177	280
				(2)		CROSS SECTIONS		



153+00.00



152+00.00

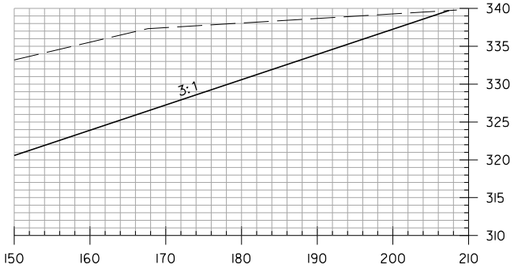


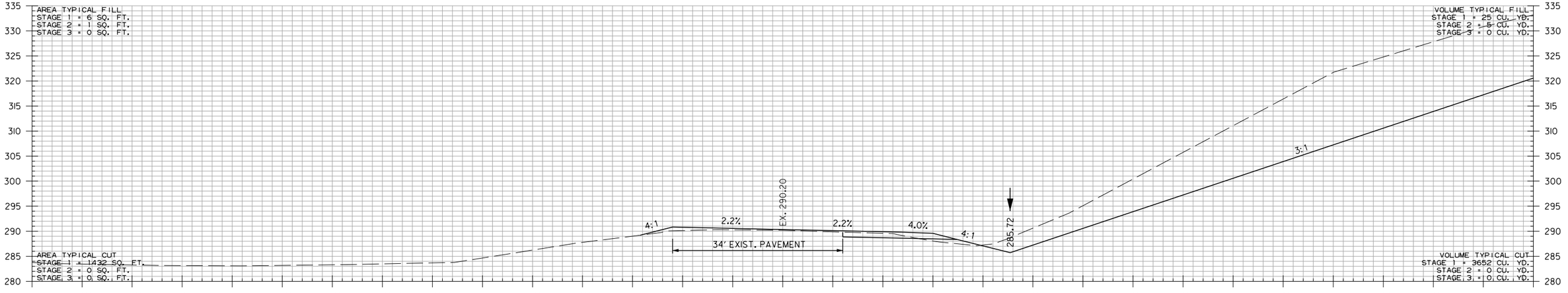
151+00.00

SITE 1
STA. 151+00 TO STA. 153+00

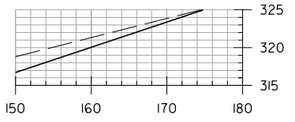
PJoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
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REVISED DATE:

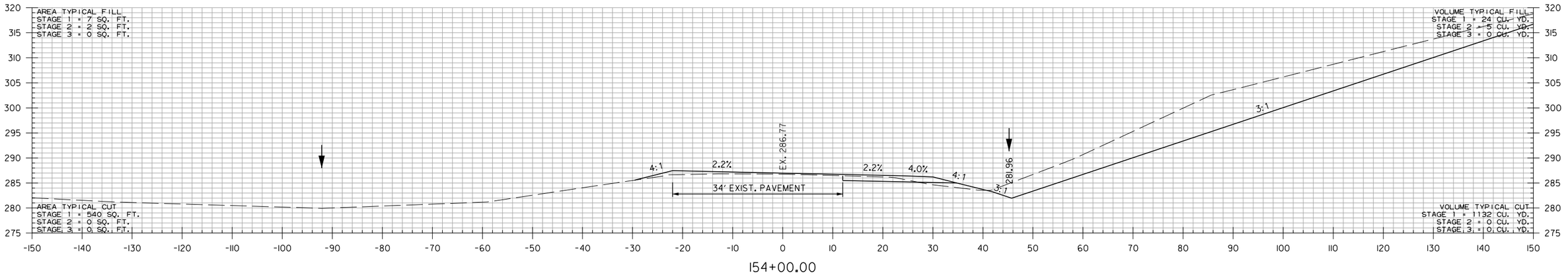
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	178	280
				(2)	CROSS SECTIONS			





155+00.00





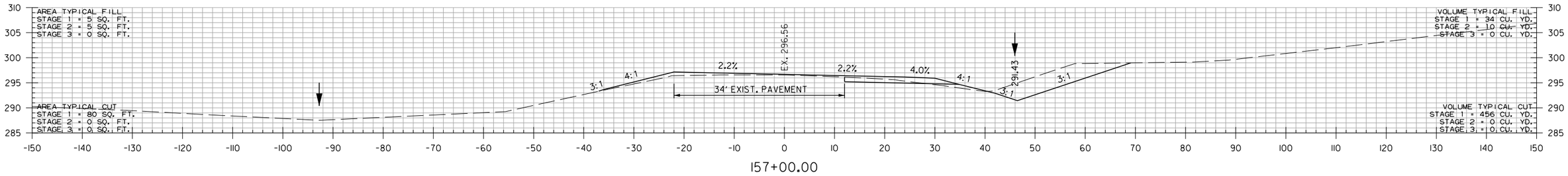
154+00.00

SITE 1
STA. 154+00 TO STA. 155+00

PJoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
L:\20\7\7017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_1.dgn
REVISED DATE:

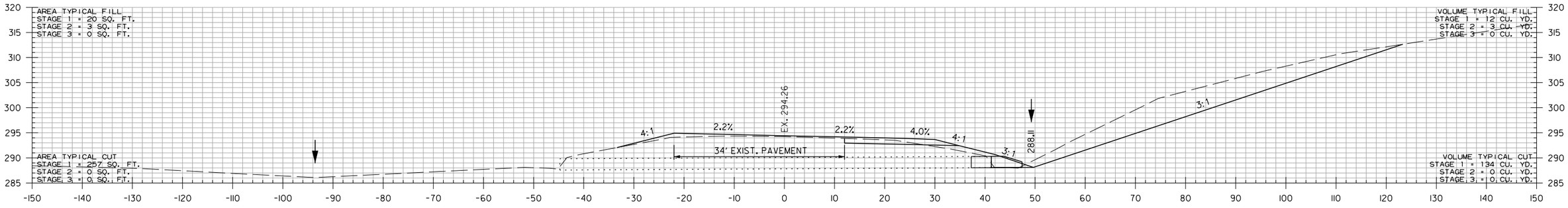
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	179	280
				(2)	CROSS SECTIONS			

STA. 157+55.19 MAX. SUPERELEVATION (0.022'/')



157+00.00

STA. 156+27
END SP. DT. RT. -5.07%
BEGIN SP. DT. RT. 4.55%
ELEV. 288.11

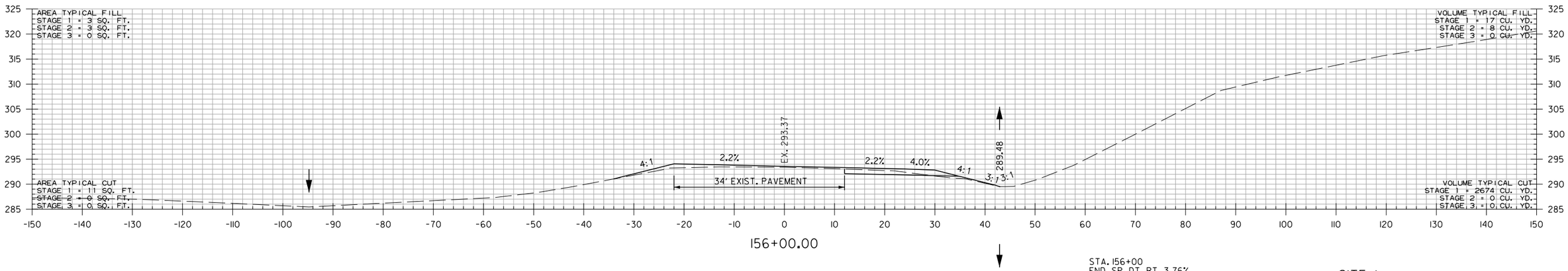


EX. F.L. = 287.58 LT.

STA. 156+27 IN PLACE
24" X 87' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
REMOVE HDWL. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 21CFS DA = 4 ACRES
24" R.C. PIPE = 4 LIN. FT.
24" F.E.S. = 1EA.

156+27.00

F.L. = 288.11 RT.



156+00.00

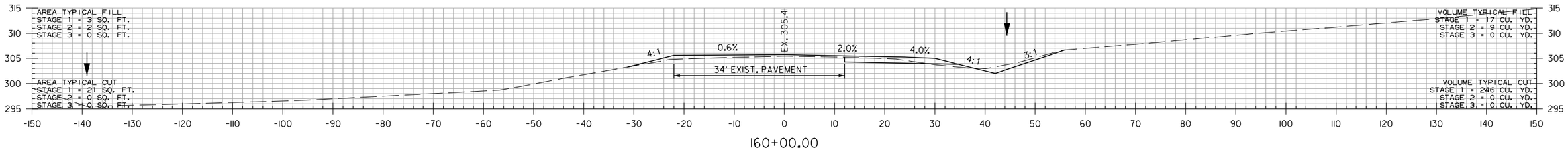
STA. 156+00
END SP. DT. RT. 3.76%
BEGIN SP. DT. RT. -5.07%
ELEV. 289.48

SITE 1
STA. 156+00 TO STA. 157+00

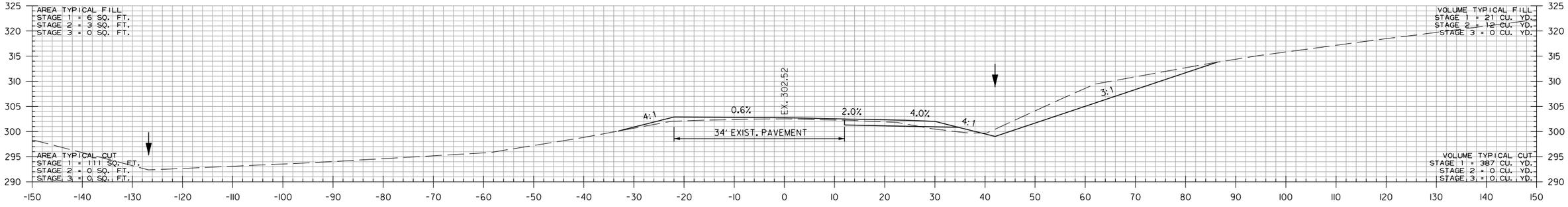
Pjoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	180	280
				(2)		CROSS SECTIONS		

STA. 160+10
BEGIN SP. DT. RT. -2.85%
ELEV. 302.30



160+00.00



159+00.00



158+00.00

STA. 158+00
END SP. DT. RT. 4.55%
ELEV. 295.98

SITE 1
STA. 158+00 TO STA. 160+00

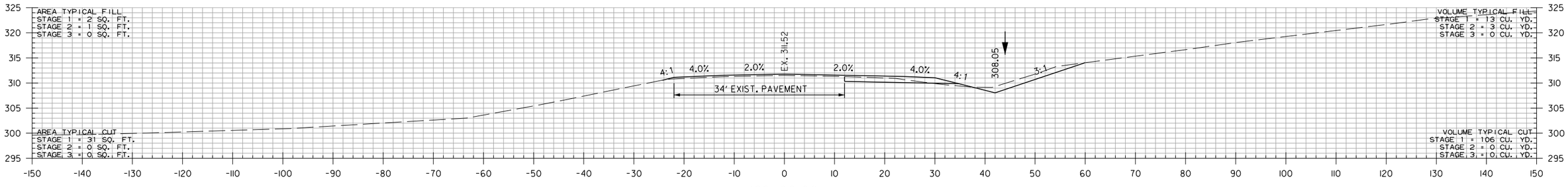
PJoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	181	280

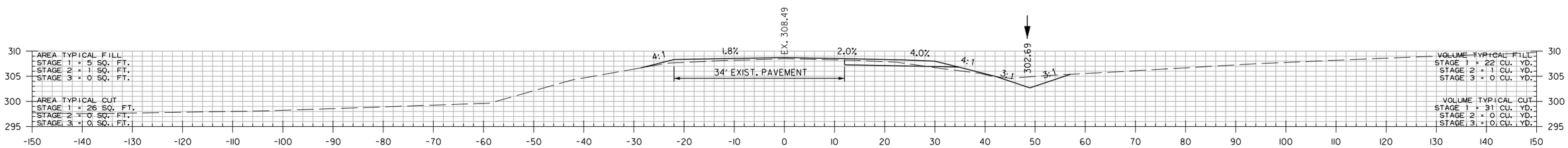
(2) CROSS SECTIONS

STA. 162+00
END SP. DT. RT. 5.36%
ELEV. 308.05



162+00.00

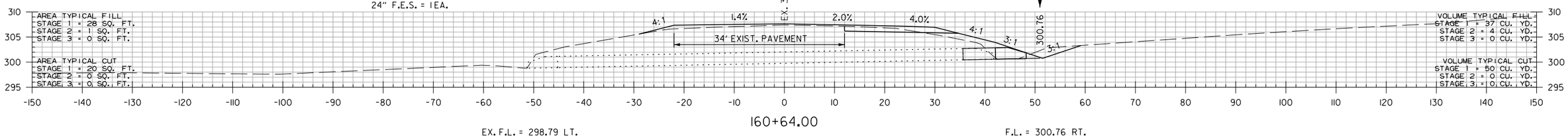
STA. 161+15.19 END SUPERELEVATION



161+00.00

STA. 160+64 IN PLACE
24" X 81' R.C. PIPE CULVERT
WITH F.E.S. LT. AND RT.
REMOVE F.E.S. RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. RT.
Q50 = 20 CFS DA = 4 ACRES
24" R.C. PIPE = 6 LIN. FT.
24" F.E.S. = 1EA.

STA. 160+64
END SP. DT. RT. -2.85%
BEGIN SP. DT. RT. 5.36%
ELEV. 300.76



160+64.00

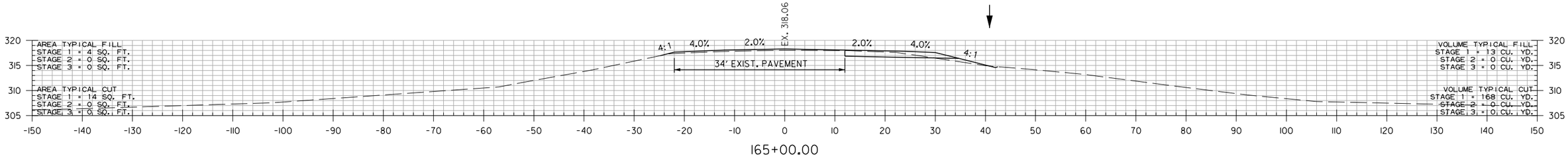
EX. F.L. = 298.79 LT.

F.L. = 300.76 RT.

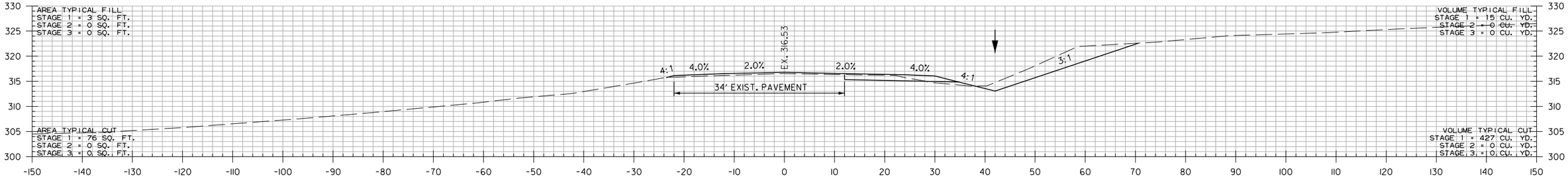
SITE 1
STA. 160+64 TO STA. 162+00

PJoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE1.dgn
REVISED DATE:

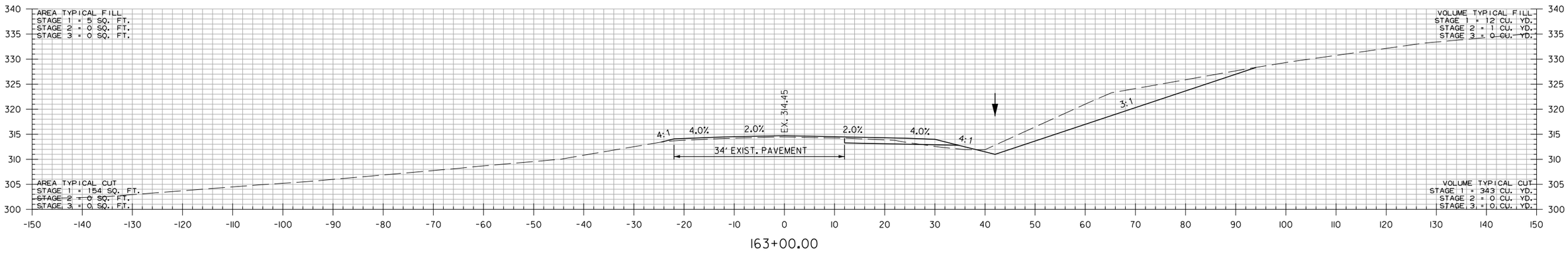
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	182	280
				(2)	CROSS SECTIONS			



165+00.00



164+00.00

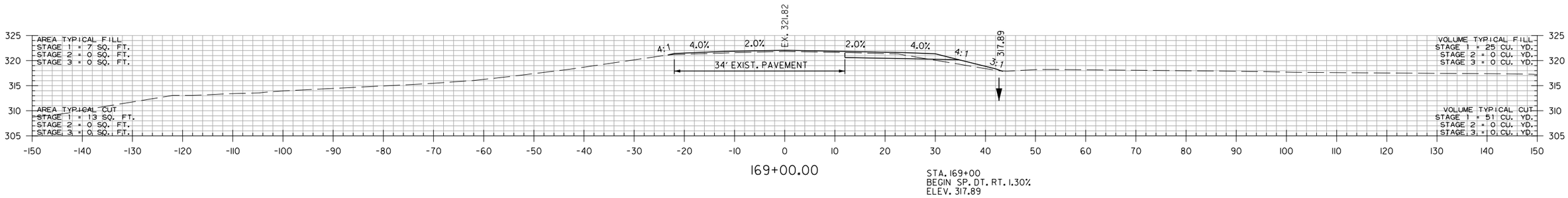


163+00.00

SITE 1
STA. 163+00 TO STA. 165+00

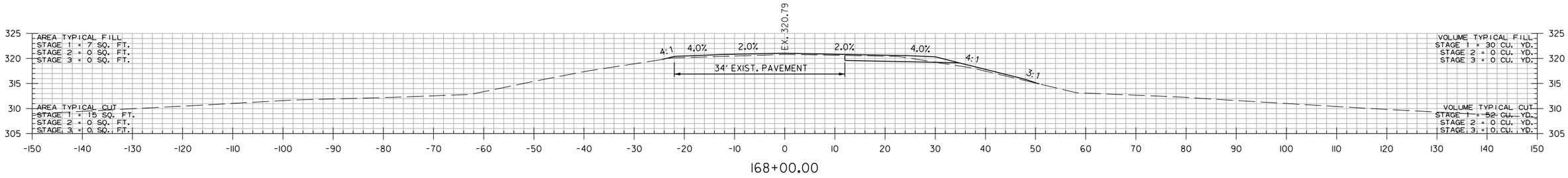
Pjoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	183	280
				(2)	CROSS SECTIONS			

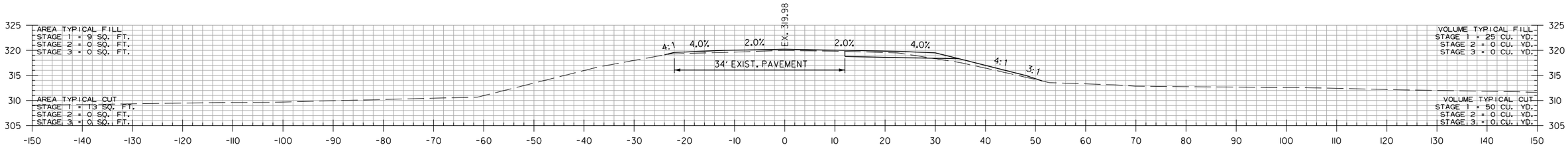


169+00.00

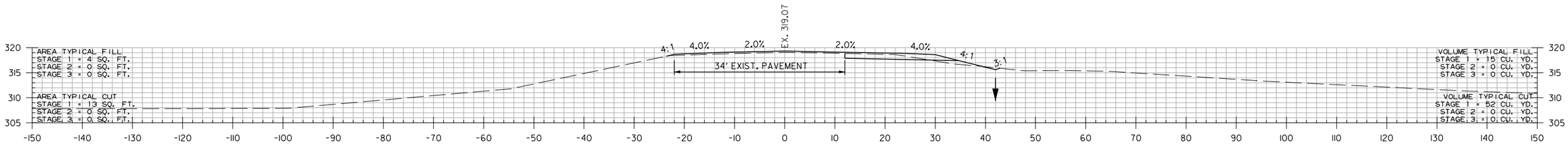
STA. 169+00
BEGIN SP. DT. RT. 1.30%
ELEV. 317.89



168+00.00



167+00.00

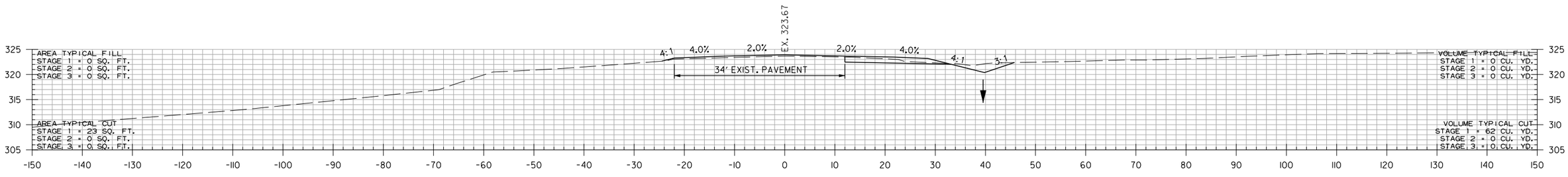


166+00.00

SITE 1
STA. 166+00 TO STA. 169+00

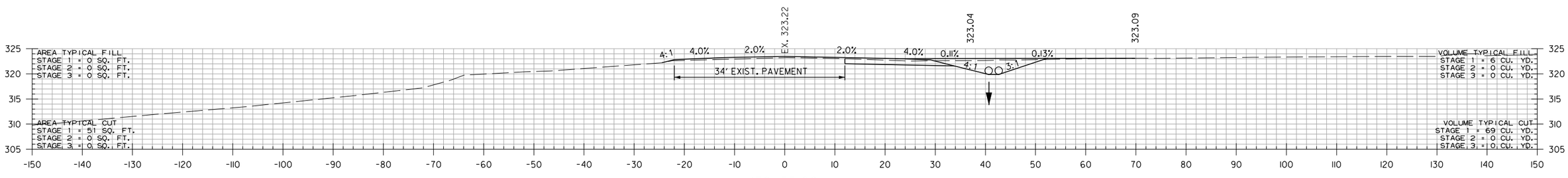
PJoseph
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE1.dgn
6/21/2023 10:49:33 AM
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	184	280
				(2)		CROSS SECTIONS		



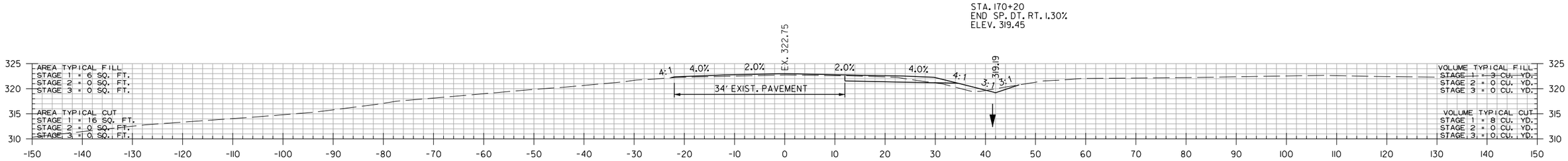
171+00.00

STA. 170+55 IN PLACE
18" X 41' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
DBL. 18" X 46' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 46 CU. YDS.



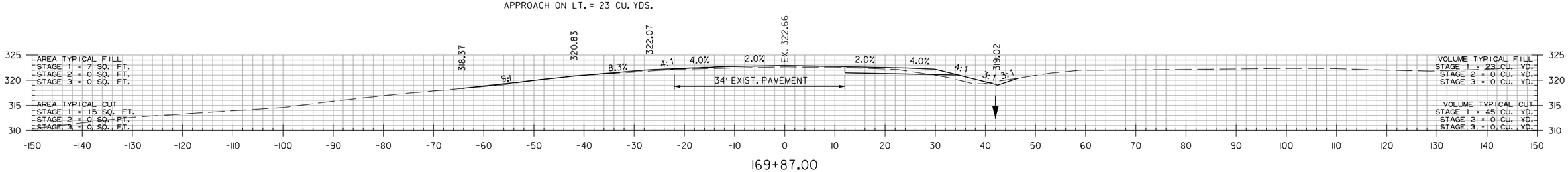
170+55.00

STA. 170+20
END SP. DT. RT. 1.30%
ELEV. 319.45



170+00.00

STA. 169+87 CONSTRUCT
APPROACH ON LT. = 23 CU. YDS.

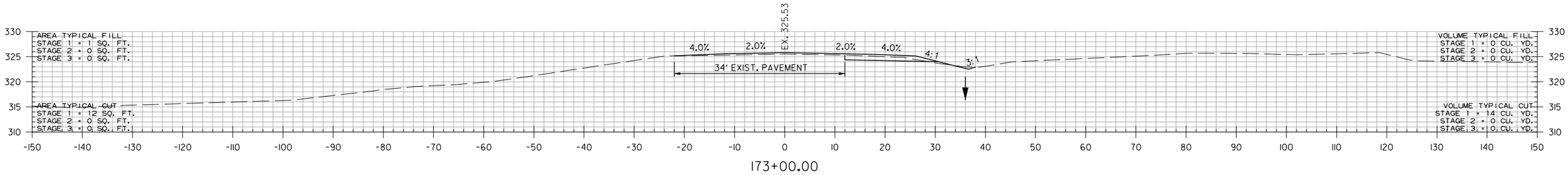


169+87.00

SITE 1
STA. 169+87 TO STA. 171+00

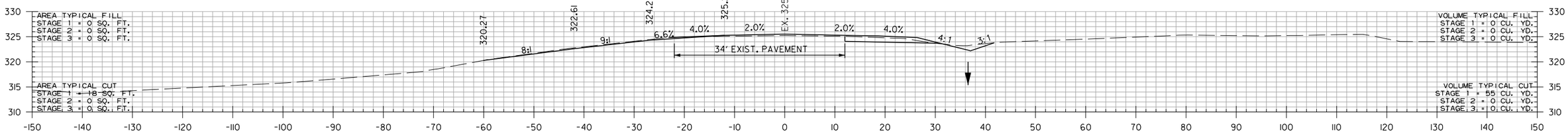
PJoseph 6/21/2023 10:49:33 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE1.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	185	280
				(2)	CROSS SECTIONS			



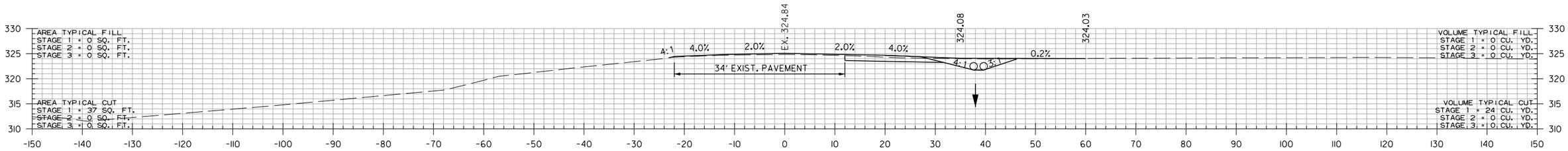
173+00.00

STA. 172+75 CONSTRUCT
APPROACH ON LT. = 30 CU. YDS.

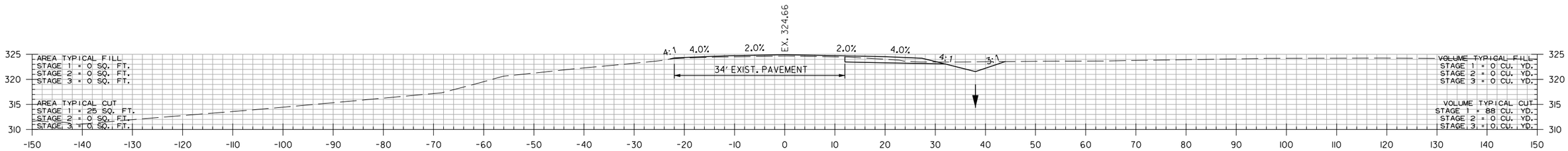


172+75.00

STA. 172+21 INSTALL
DBL. 18" X 47' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 32 CU. YDS.



172+21.00



172+00.00

SITE 1
STA. 172+00 TO STA. 173+00

PJoseph 6/21/2023 10:49:34 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE1.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	186	280
				(2)	CROSS SECTIONS			

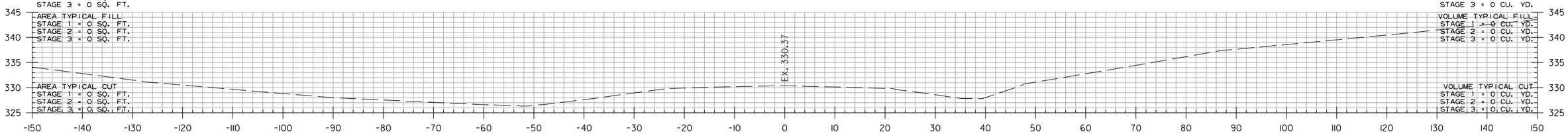
AREA TYPICAL FILL
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

VOLUME TYPICAL FILL
STAGE 1 = 0 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.

VOLUME TYPICAL CUT
STAGE 1 = 0 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.

STA. 177+40.10 END 100' TRANSITION



177+00.00

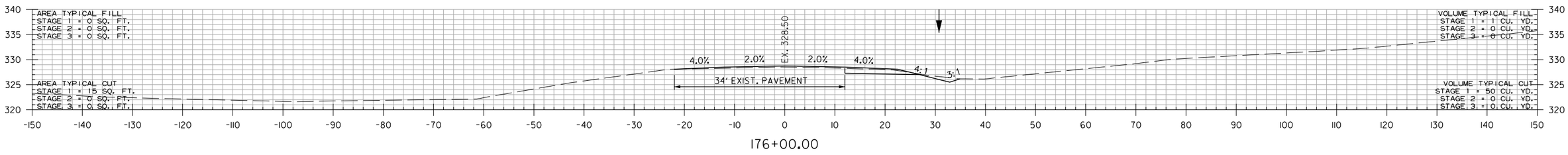
AREA TYPICAL FILL
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

VOLUME TYPICAL FILL
STAGE 1 = 0 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.

VOLUME TYPICAL CUT
STAGE 1 = 11 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.

STA. 176+40.10 END SITE 1



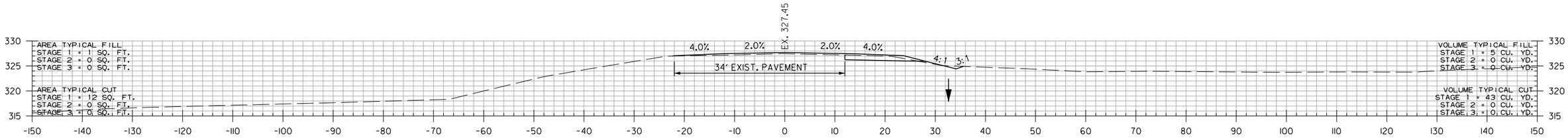
176+00.00

AREA TYPICAL FILL
STAGE 1 = 1 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 12 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

VOLUME TYPICAL FILL
STAGE 1 = 5 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.

VOLUME TYPICAL CUT
STAGE 1 = 43 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.



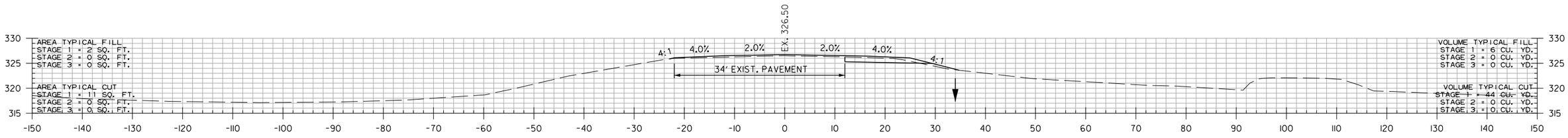
175+00.00

AREA TYPICAL FILL
STAGE 1 = 2 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 11 SQ. FT.
STAGE 2 = 0 SQ. FT.
STAGE 3 = 0 SQ. FT.

VOLUME TYPICAL FILL
STAGE 1 = 6 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.

VOLUME TYPICAL CUT
STAGE 1 = 44 CU. YD.
STAGE 2 = 0 CU. YD.
STAGE 3 = 0 CU. YD.



174+00.00

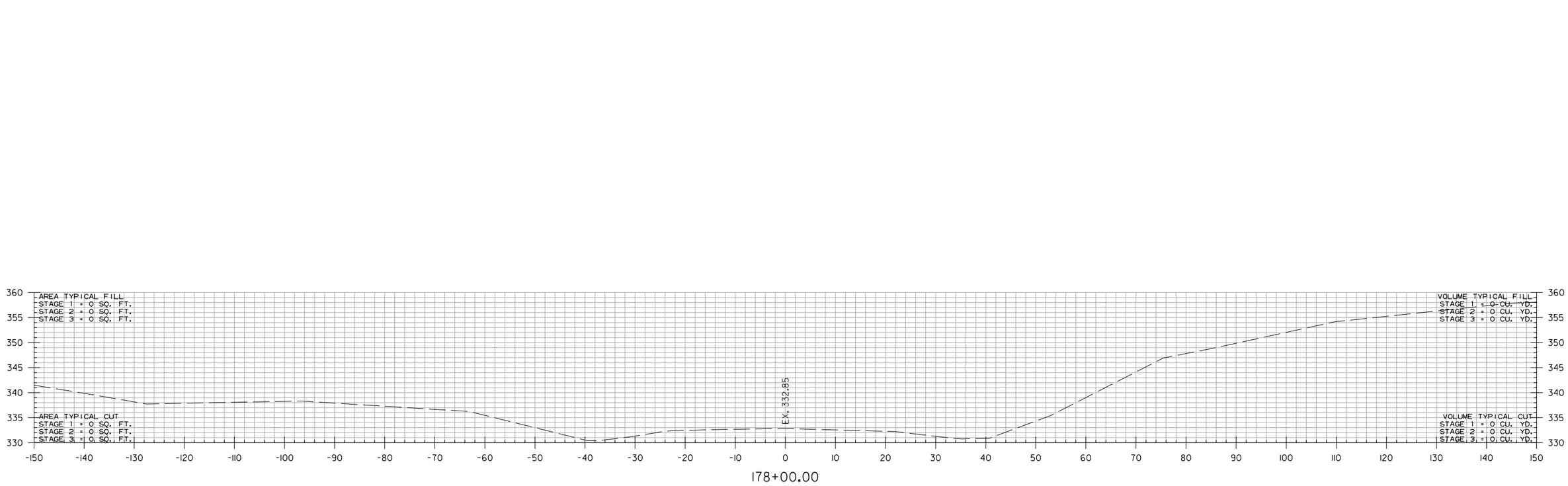
SITE 1
STA. 174+00 TO STA. 177+00

PJoseph 6/21/2023 10:49:34 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE1.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	187	280

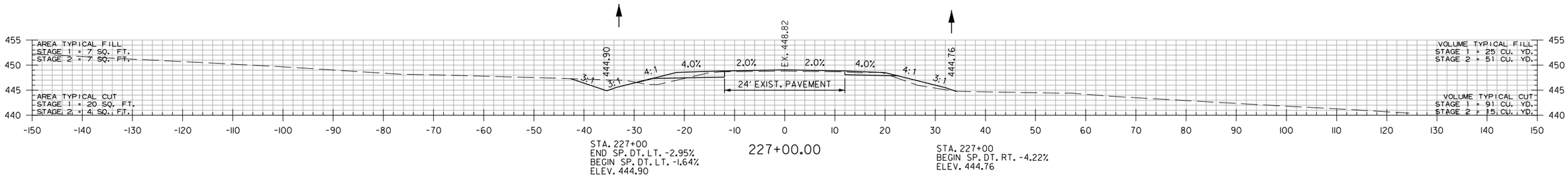
(2) CROSS SECTIONS

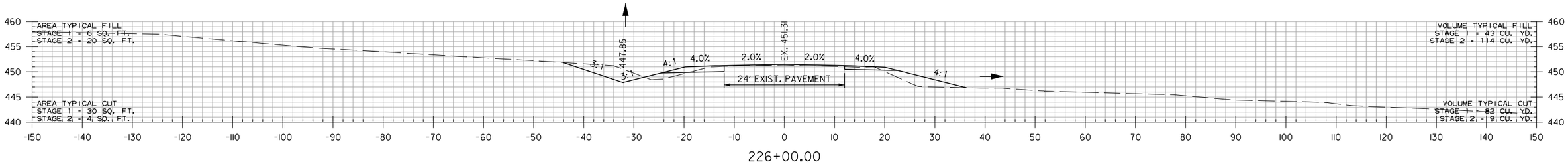


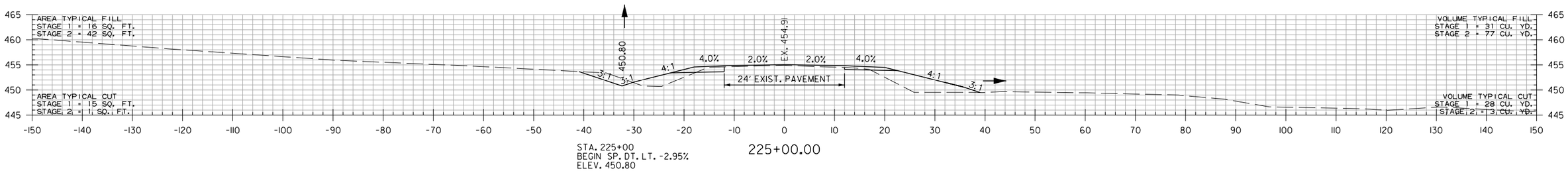
SITE 1
STA. 178+00 TO STA. 178+00

PJoseph 6/21/2023 10:49:34 AM
WORKSPACE: AHTD
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REVISED DATE:

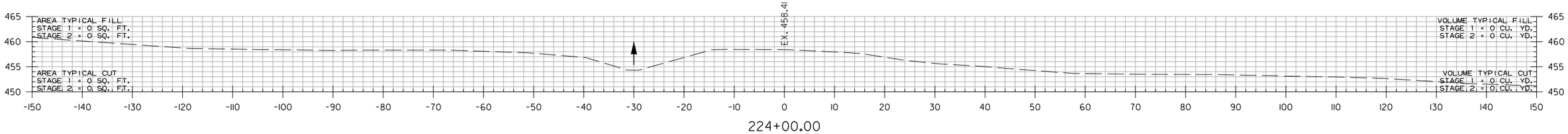
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	188	280
				(2)	CROSS SECTIONS			







STA. 225+00.000
BEGIN SITE 2

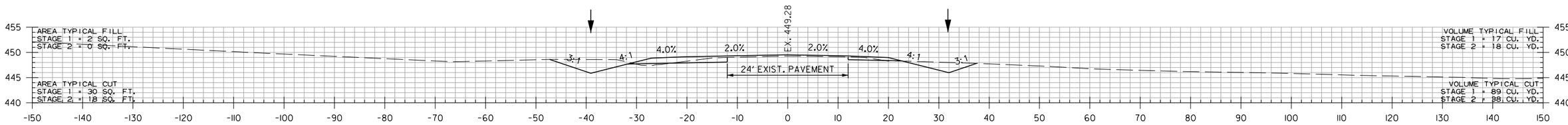


STA. 224+00.00 BEGIN 100' TRANSITION

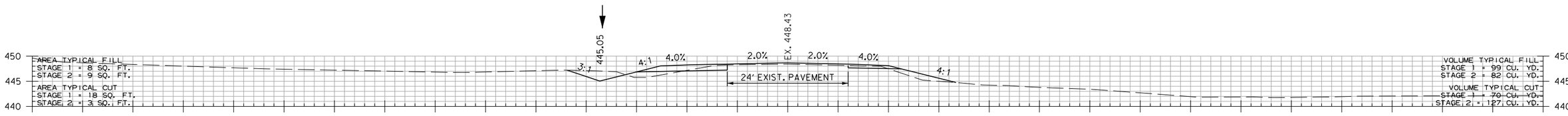
SITE 2
STA. 224+00 TO STA. 227+00

PJoseph 6/21/2023 10:49:34 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	189	280
				(2)	CROSS SECTIONS			



230+00.00

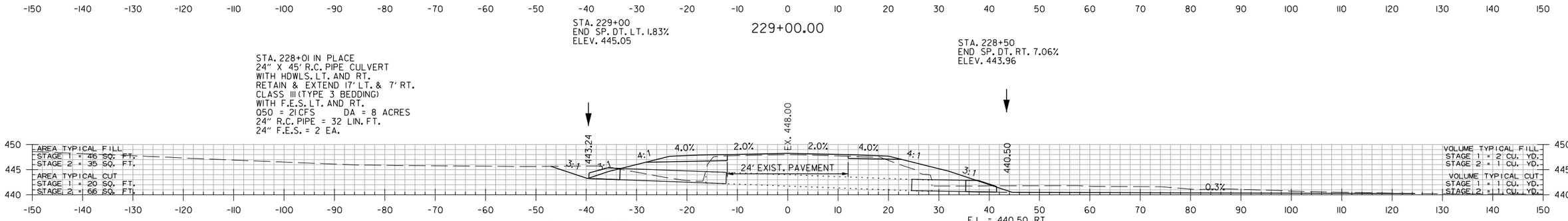


STA. 229+00
END SP. DT. LT. 1.83%
ELEV. 445.05

229+00.00

STA. 228+01 IN PLACE
24" X 45' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
RETAIN & EXTEND 17' LT. & 7' RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 21 CFS DA = 8 ACRES
24" R.C. PIPE = 32 LIN. FT.
24" F.E.S. = 2 EA.

STA. 228+50
END SP. DT. RT. 7.06%
ELEV. 443.96



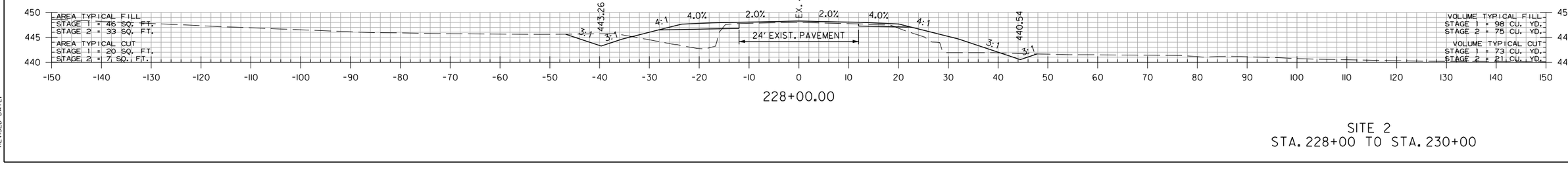
F.L. = 443.24 LT.

228+01.00

F.L. = 440.50 RT.

STA. 228+01
END SP. DT. LT. -1.64%
BEGIN SP. DT. LT. 1.83%
ELEV. 443.24

STA. 228+01
END SP. DT. RT. -4.22%
BEGIN SP. DT. RT. 7.06%
ELEV. 440.50

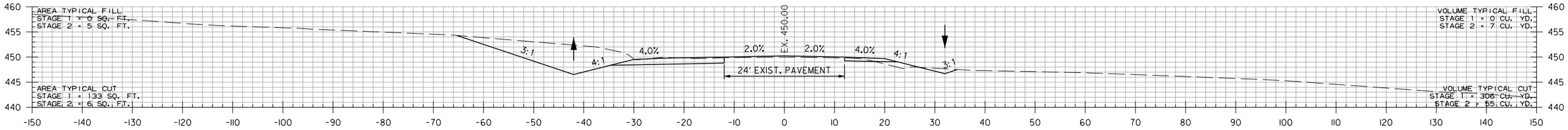


228+00.00

SITE 2
STA. 228+00 TO STA. 230+00

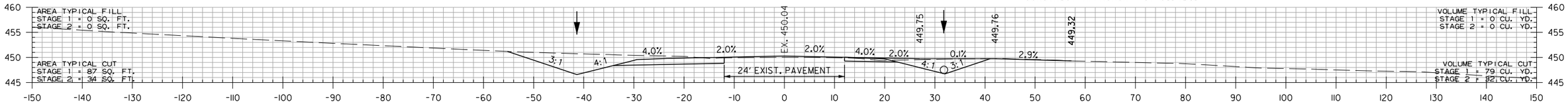
PJoseph 6/21/2023 10:49:34 AM
WORKSPACE: AHTD
L:\2017\170755 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	190	280
				(2)	CROSS SECTIONS			

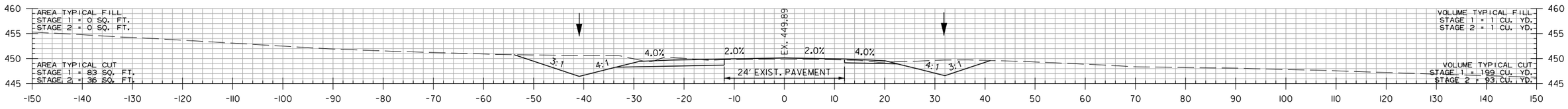


232+00.00

STA. 231+25 INSTALL
18" X 47' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 37 CU. YDS.

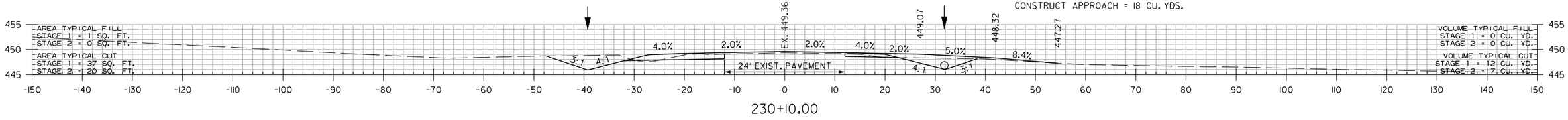


231+25.00



231+00.00

STA. 230+10 INSTALL
18" X 34' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 18 CU. YDS.



230+10.00

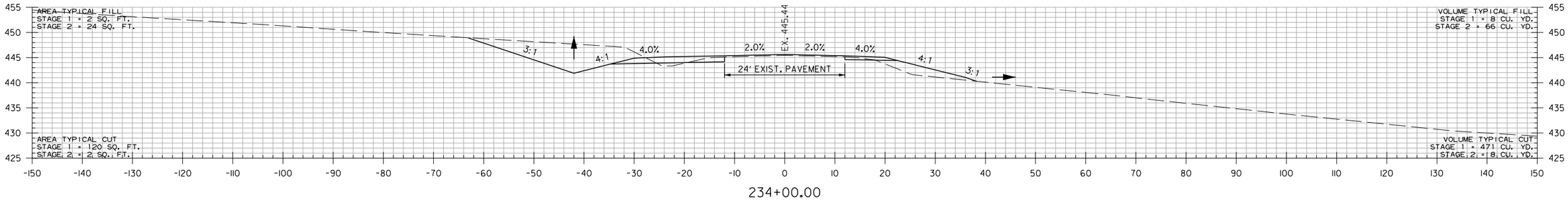
SITE 2
STA. 230+10 TO STA. 232+00

PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
L:\20T\T01T555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

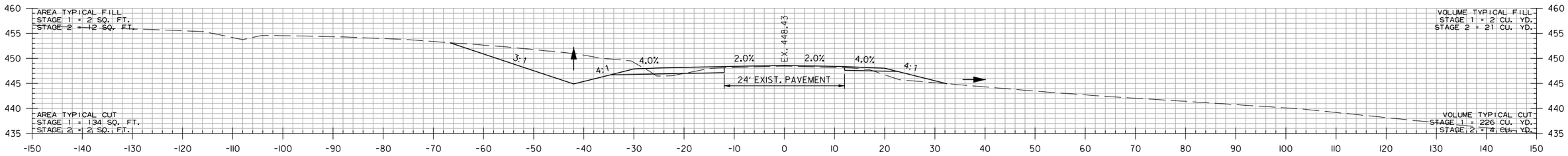
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	191	280

(2) CROSS SECTIONS

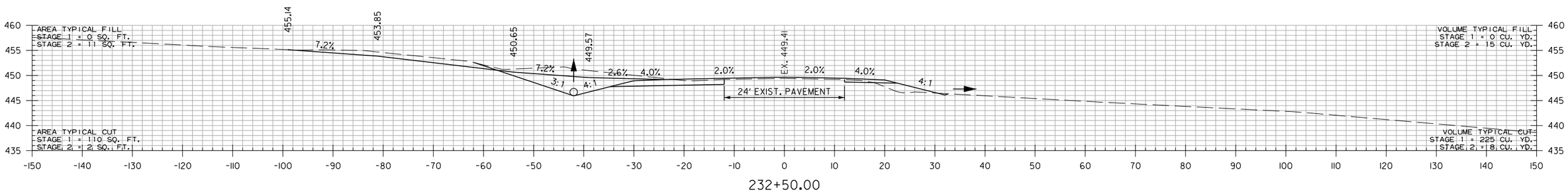


234+00.00



233+00.00

STA. 232+50 IN PLACE
18" X 41' CMP PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 89' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 88 CU. YDS.



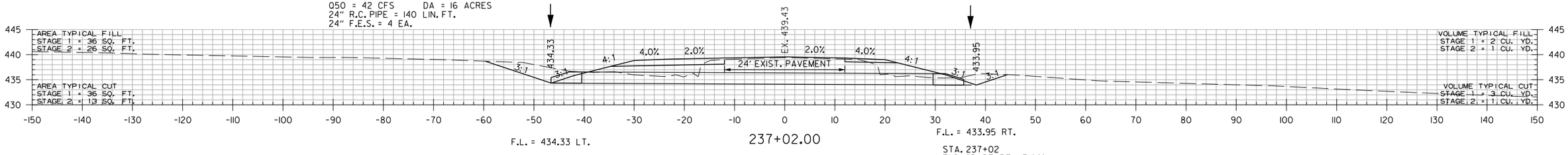
232+50.00

SITE 2
STA. 232+50 TO STA. 234+00

PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	192	280
				(2)	CROSS SECTIONS			

STA. 237+02 CONSTRUCT
DBL. 24" X 70' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 42 CFS DA = 16 ACRES
24" R.C. PIPE = 140 LIN. FT.
24" F.E.S. = 4 EA.



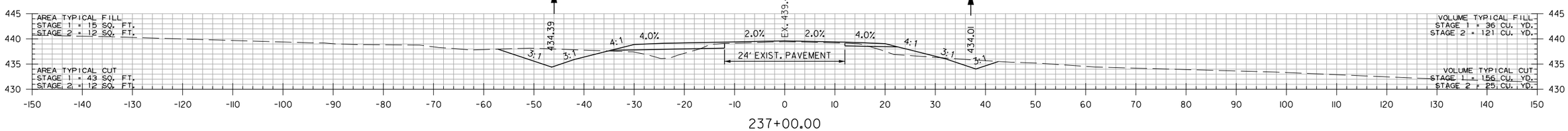
237+02.00

F.L. = 434.33 LT.

STA. 237+02
END SP. DT. LT. -3.11%
BEGIN SP. DT. LT. 2.18%
ELEV. 434.33

F.L. = 433.95 RT.

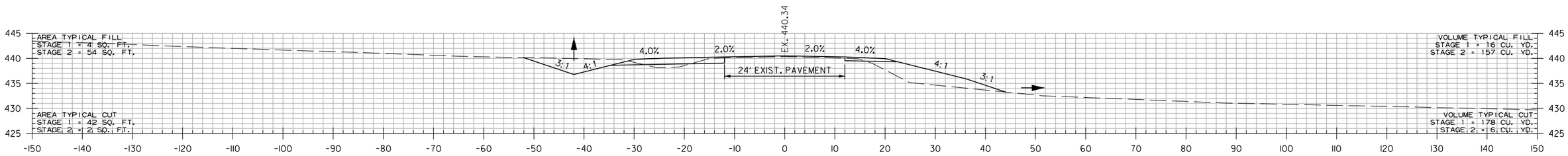
STA. 237+02
END SP. DT. RT. -3.09%
BEGIN SP. DT. RT. 2.28%
ELEV. 433.95



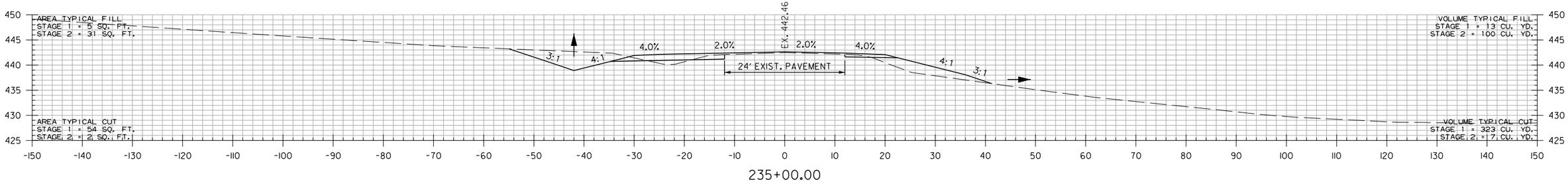
237+00.00

STA. 236+40
BEGIN SP. DT. LT. -3.11%
ELEV. 436.26

STA. 236+70
BEGIN SP. DT. RT. -3.09%
ELEV. 434.94



236+00.00



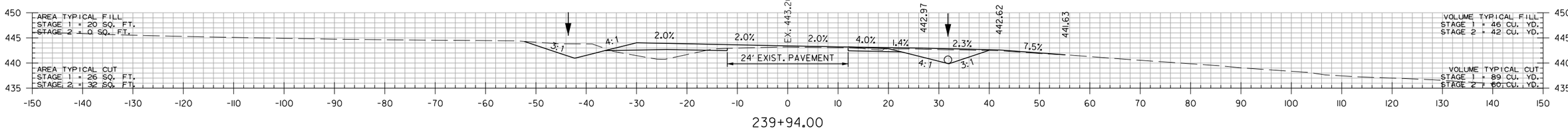
235+00.00

SITE 2
STA. 235+00 TO STA. 237+11

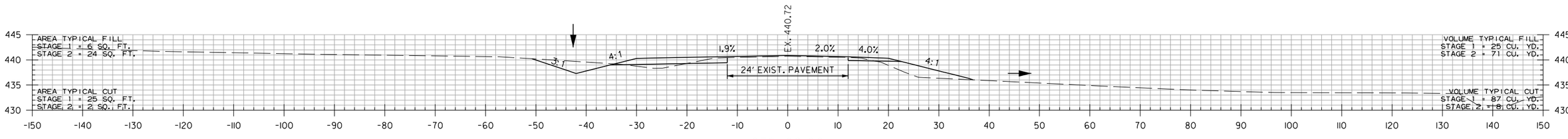
PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	193	280
				(2)	CROSS SECTIONS			

STA. 239+94 IN PLACE
18" X 24' PLASTIC PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 24 CU. YDS.

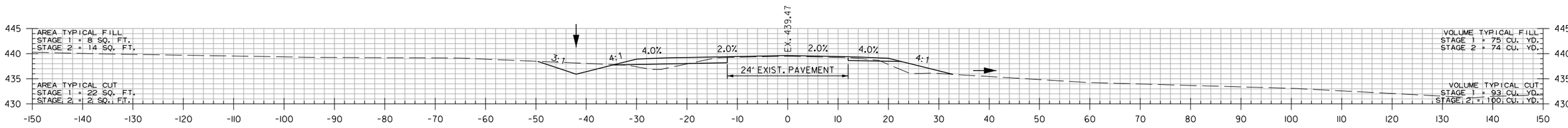


239+94.00



239+00.00

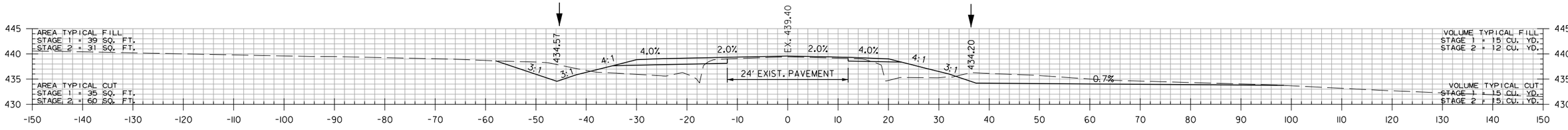
STA. 238+97.79 BEGIN SUPERELEVATION



238+00.00

STA. 237+90
END SP. DT. RT. 2.28%
ELEV. 435.96

STA. 237+70
END SP. DT. LT. 2.18%
ELEV. 435.81

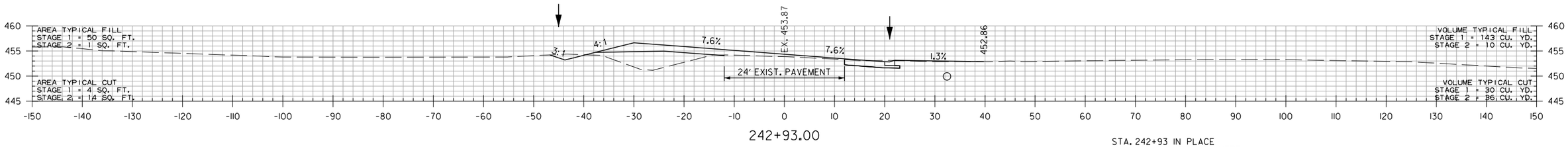


237+13.00

SITE 2
STA. 237+13 TO STA. 239+94

PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	194	280
				(2)	CROSS SECTIONS			

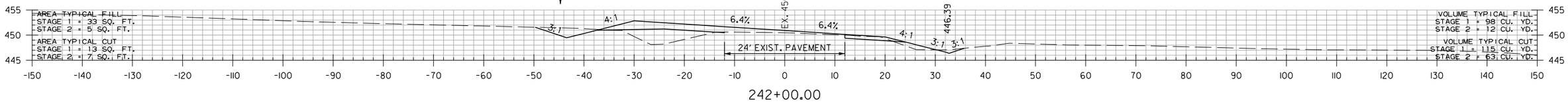


242+93.00

STA. 242+70
END SP. DT. RT. 2.90%
ELEV. 448.42

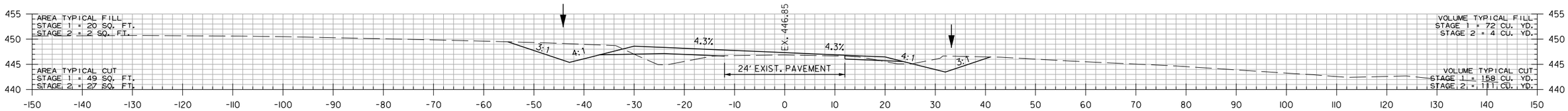
STA. 242+57.79 MAX. SUPERELEVATION (0.076'/')

STA. 242+93 IN PLACE
18" X 24' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 61' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 5 CU. YDS.

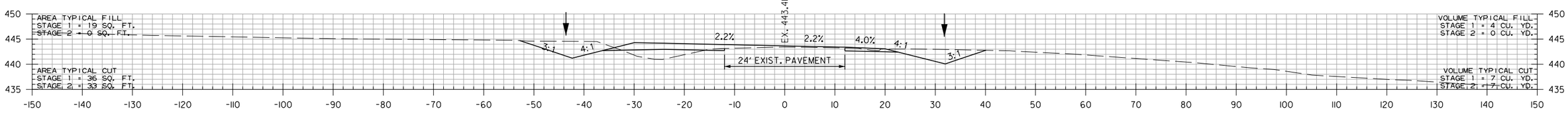


242+00.00

STA. 241+50
BEGIN SP. DT. RT. 2.90%
ELEV. 444.94



241+00.00

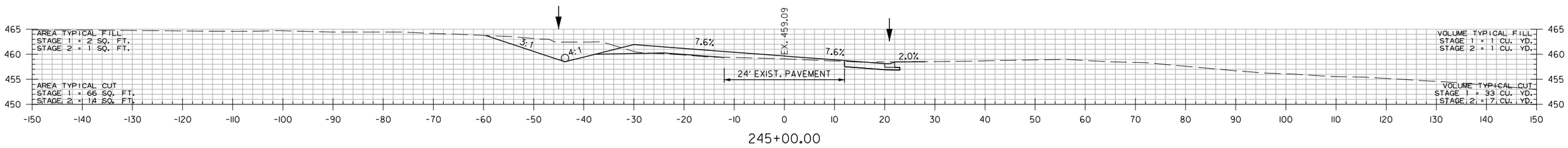


240+00.00

SITE 2
STA. 240+00 TO STA. 242+93

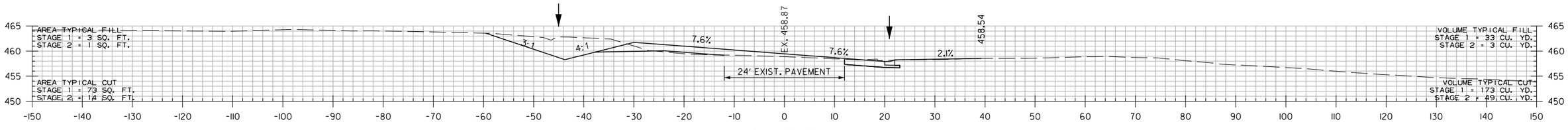
PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	195	280
				(2)	CROSS SECTIONS			

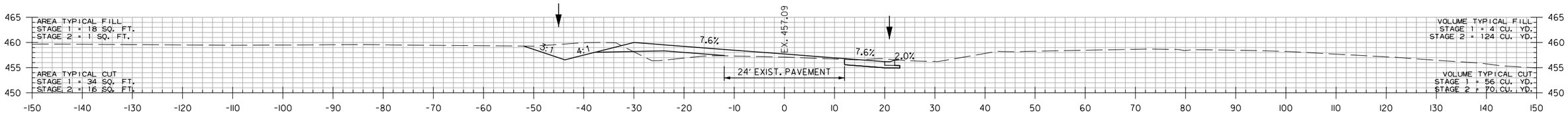


245+00.00

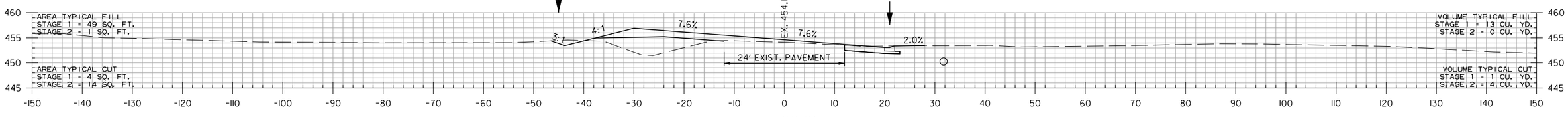
STA. 244+87 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.



244+87.00



244+00.00



243+00.00

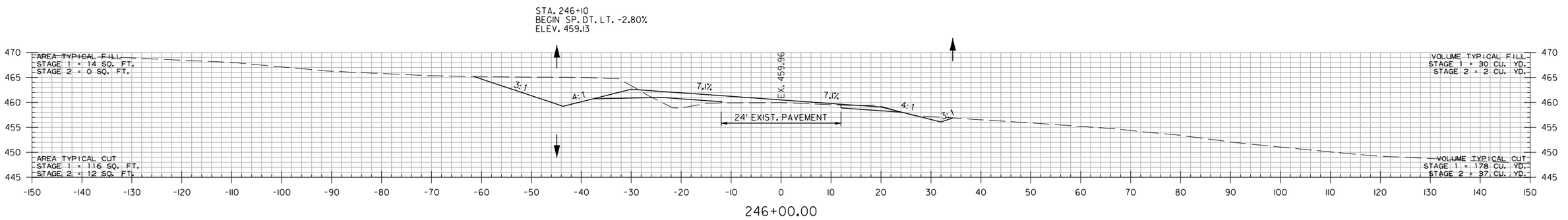
SITE 2
STA. 243+00 TO STA. 245+00

PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

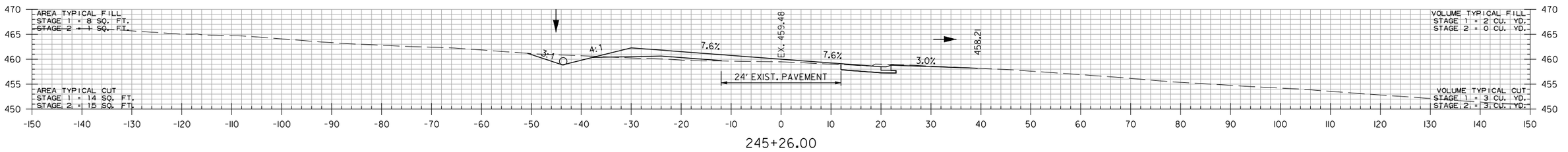
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

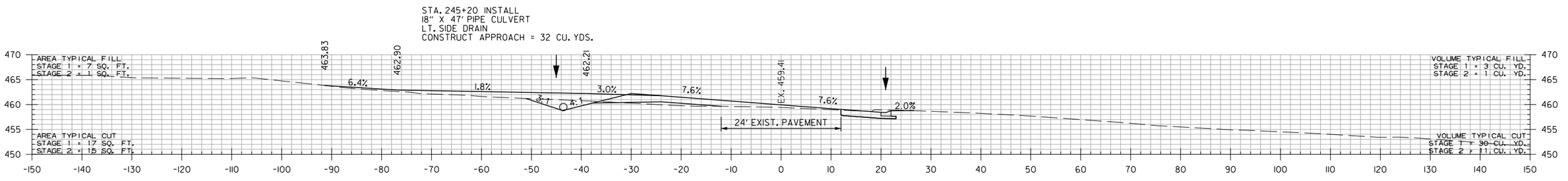
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	196	280

(2) CROSS SECTIONS



STA. 245+76.29 MAX. SUPERELEVATION (0.076'/')





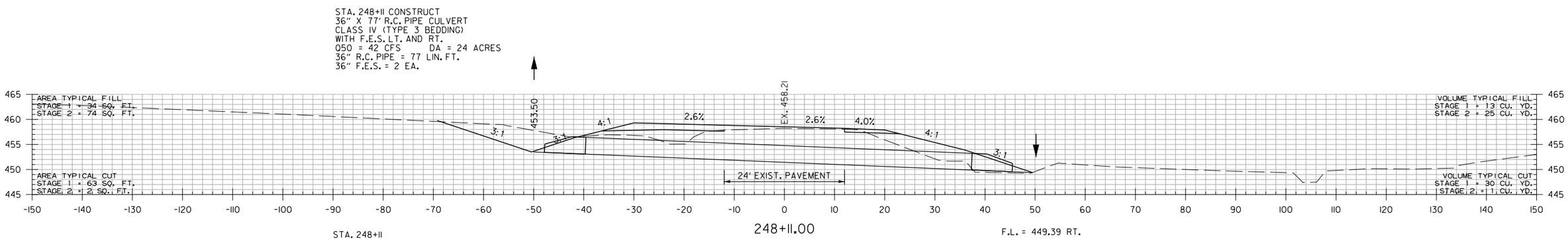
SITE 2
STA. 245+20 TO STA. 246+00

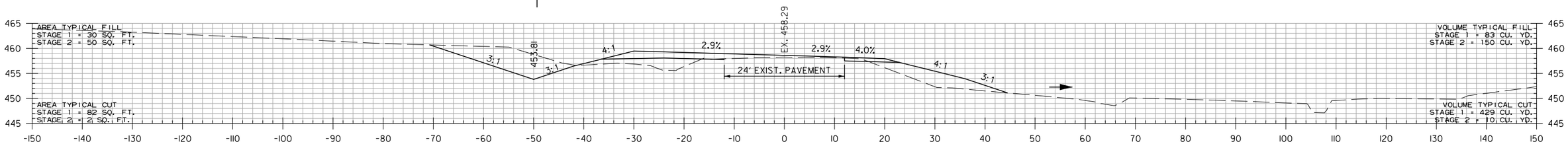
PJoseph 6/21/2023 10:49:35 AM
WORKSPACE: AHTD
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REVISED DATE:

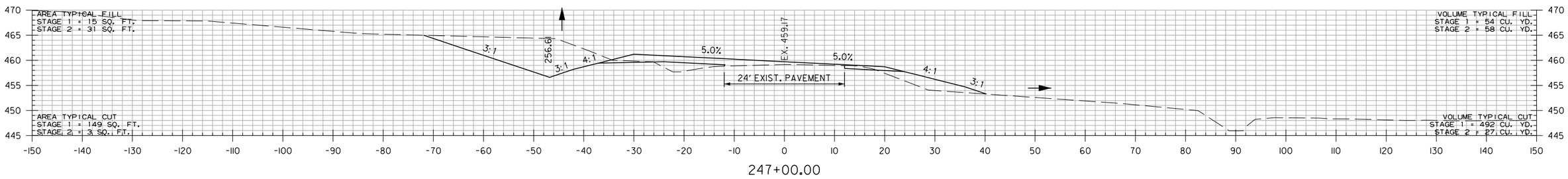
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	197	280

(2) CROSS SECTIONS





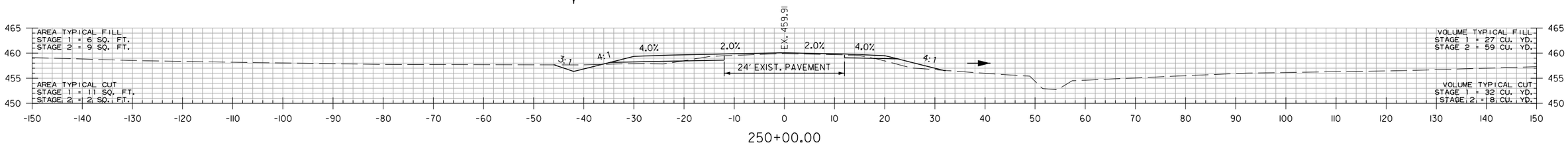


SITE 2
STA. 247+00 TO STA. 248+12

PJoseph 6/21/2023 10:49:36 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	198	280
				(2)		CROSS SECTIONS		

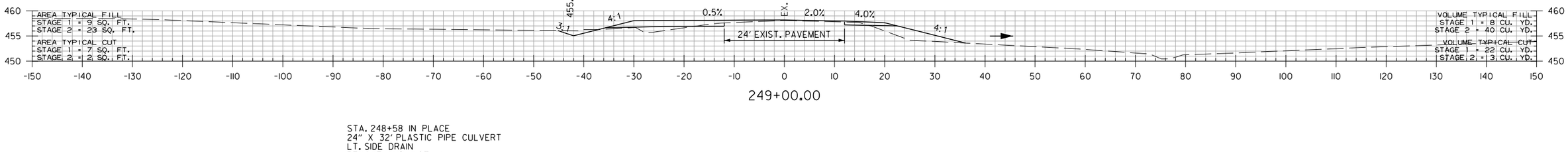
STA. 250+40
BEGIN SP. DT. RT. 3.06%
ELEV. 457.68



250+00.00

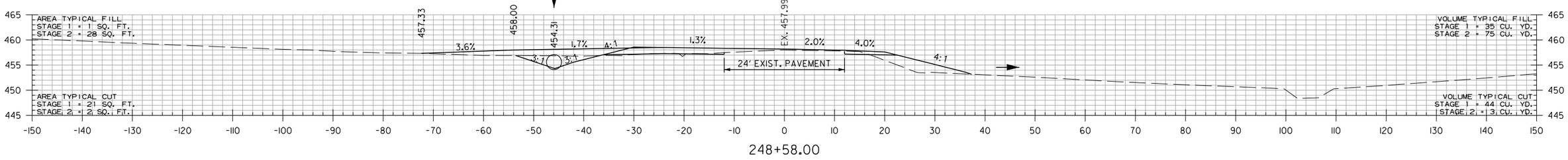
STA. 249+01
END SP. DT. LT. 1.72%
ELEV. 455.05

STA. 249+36.29 END SUPERELEVATION



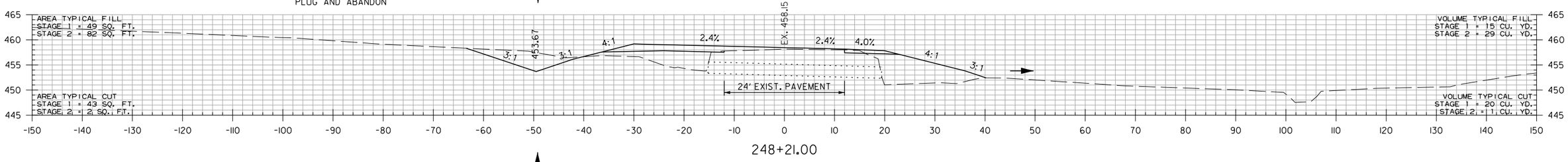
249+00.00

STA. 248+58 IN PLACE
24" X 32' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
36" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 28 CU. YDS.



248+58.00

STA. 248+21 IN PLACE
24" X 35' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
PLUG AND ABANDON



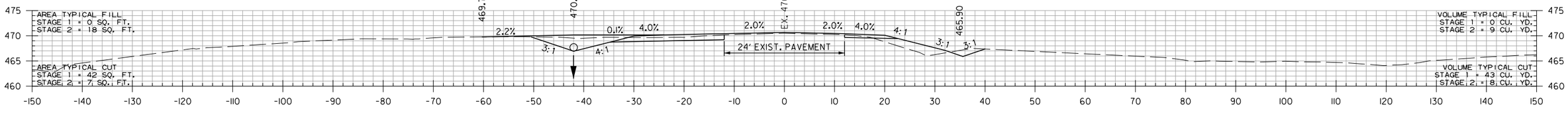
248+21.00

SITE 2
STA. 248+21 TO STA. 250+00

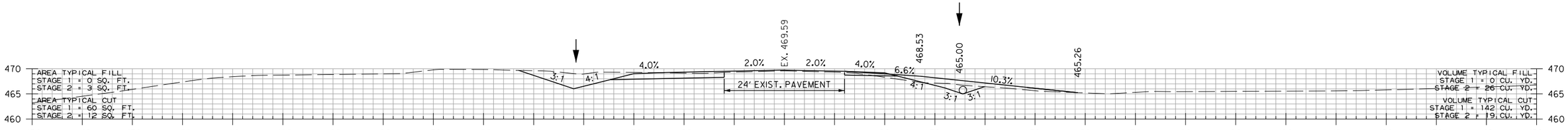
PJoseph 6/21/2023 10:49:36 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	199	280
				(2)	CROSS SECTIONS			

STA. 252+85 INSTALL
18" X 45' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 28 CU. YDS.

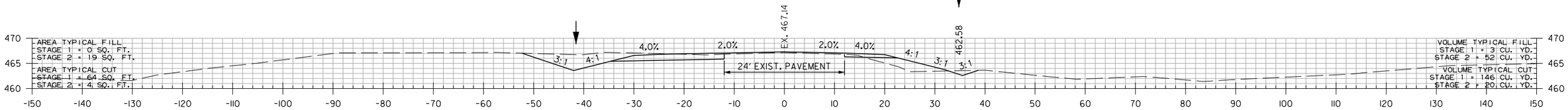


252+85.00



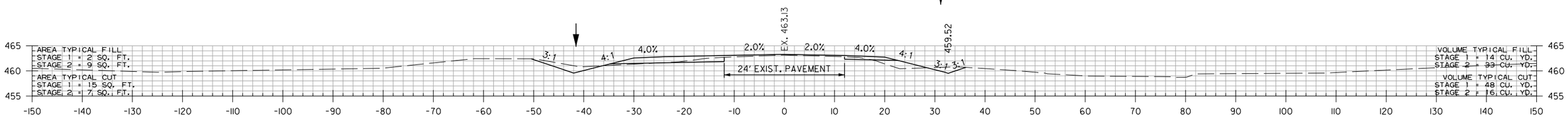
252+62.00

STA. 252+62 IN PLACE
18" X 20' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 34' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 19 CU. YDS.



252+00.00

STA. 252+00
END SP. DT. RT. 3.06%
BEGIN SP. DT. RT. 3.90%
ELEV. 462.58



251+00.00

SITE 2
STA. 251+00 TO STA. 252+85

PJoseph 6/21/2023 10:49:36 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_2.dgn
REVISED DATE:

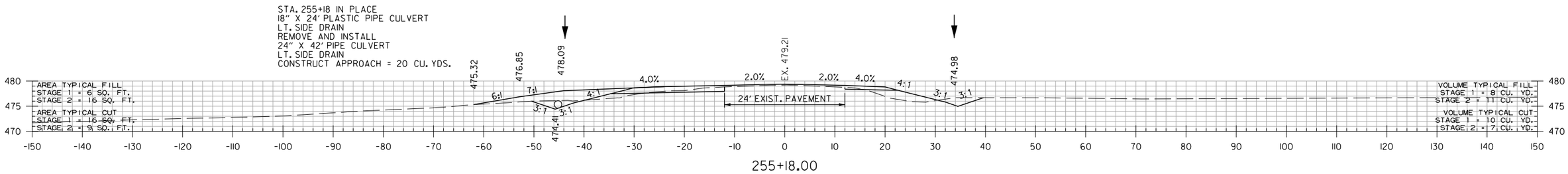
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	200	280

(2) CROSS SECTIONS

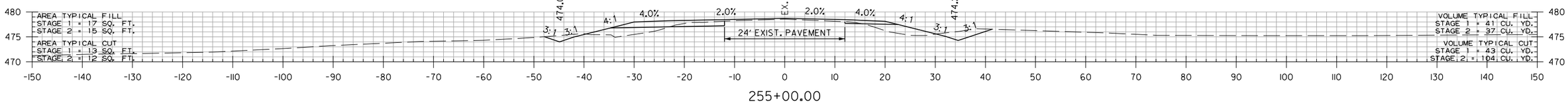
STA. 255+54.39 BEGIN SUPERELEVATION

STA. 255+18 IN PLACE
18" X 24' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 20 CU. YDS.



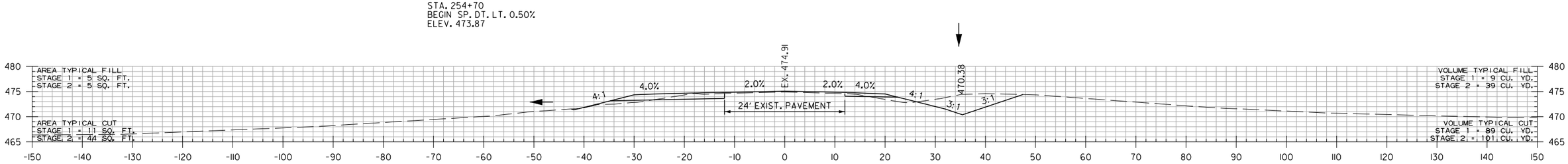
255+18.00

STA. 255+10
END SP. DT. LT. 0.50%
BEGIN SP. DT. LT. 4.30%
ELEV. 474.07

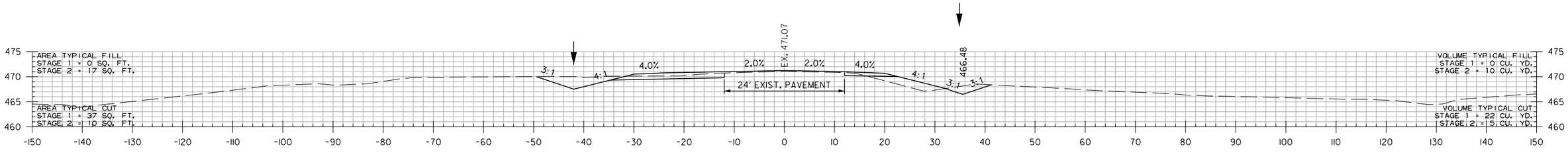


255+00.00

STA. 254+70
BEGIN SP. DT. LT. 0.50%
ELEV. 473.87



254+00.00

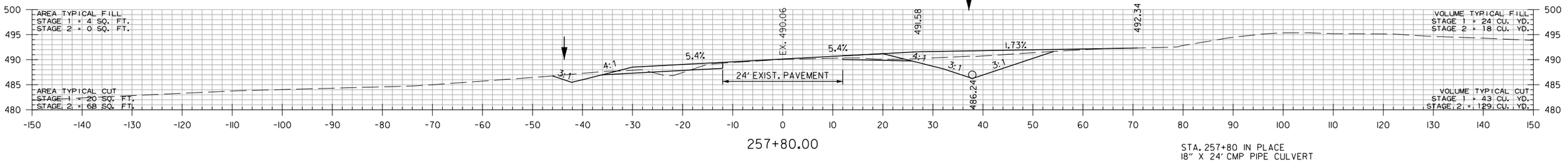


253+00.00

SITE 2
STA. 253+00 TO STA. 255+18

PJoseph 6/21/2023 10:49:36 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	201	280
				(2)		CROSS SECTIONS		

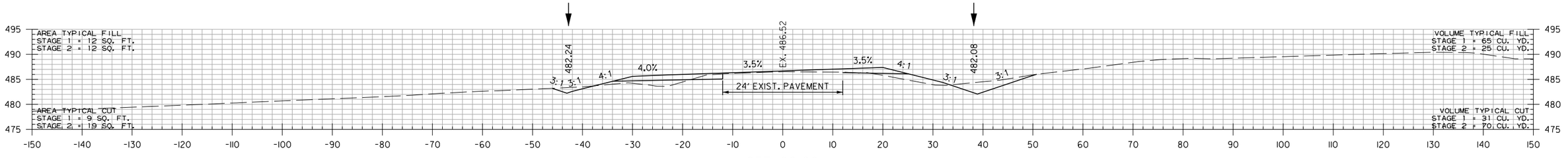


257+80.00

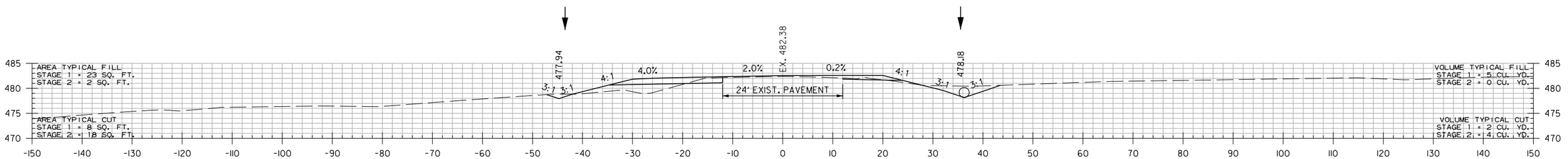
STA. 257+80 IN PLACE
18" X 24' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 50' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 70 CU. YDS.

STA. 257+50
END SP. DT. LT. 4.30%
ELEV. 484.39

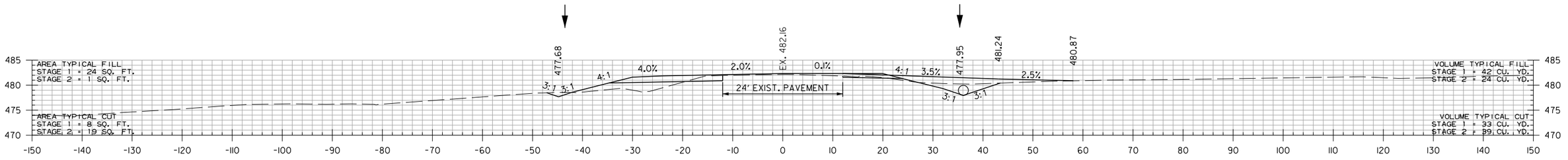
STA. 257+00
END SP. DT. RT. 3.90%
BEGIN SP. DT. RT. 5.20%
ELEV. 482.08



257+00.00



256+00.00



255+94.00

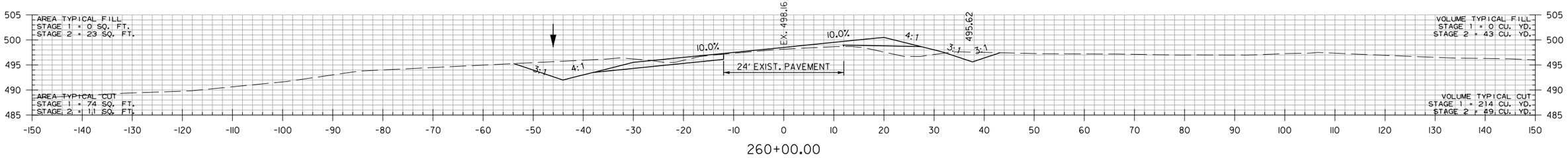
STA. 255+54.39 BEGIN SUPERELEVATION

STA. 255+94 IN PLACE
24" X 21' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 37' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

SITE 2
STA. 255+94 TO STA. 257+80

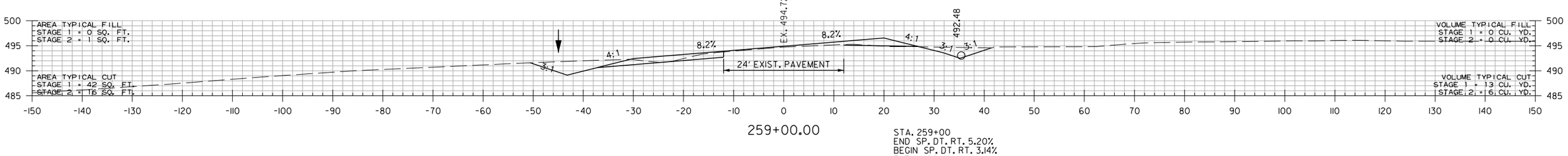
PJoseph 6/21/2023 10:49:40 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	202	280
				(2)	CROSS SECTIONS			



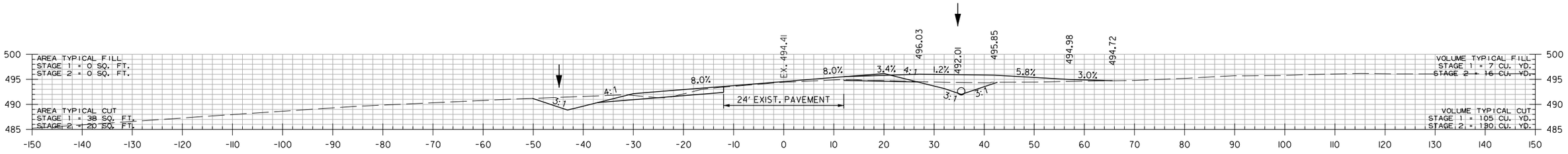
260+00.00

STA. 259+74.39 MAX. SUPERELEVATION (0.100'/')



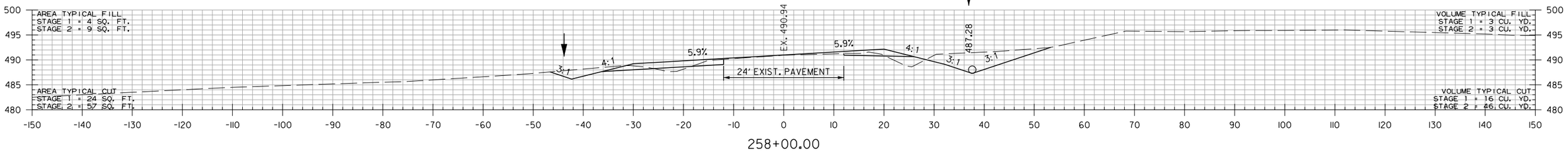
259+00.00

STA. 259+00
END SP. DT. RT. 5.20%
BEGIN SP. DT. RT. 3.14%
ELEV. 492.48



258+91.00

STA. 258+91 IN PLACE
24" X 41' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 53' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 34 CU. YDS.

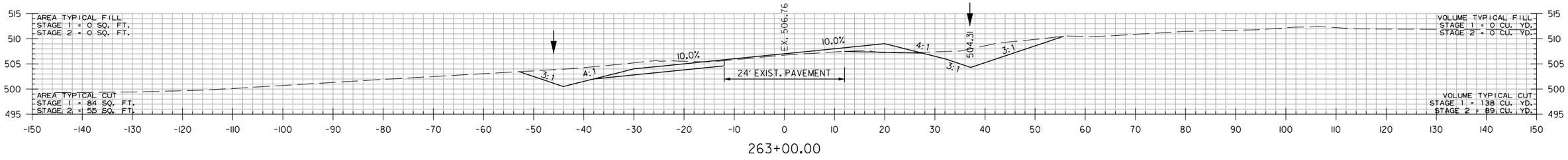


258+00.00

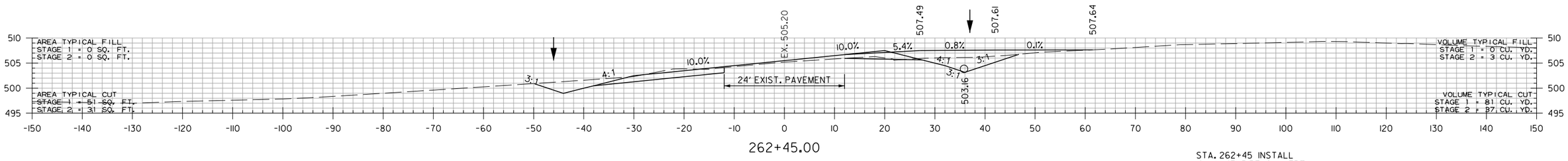
SITE 2
STA. 258+00 TO STA. 260+00

PJoseph 6/21/2023 10:49:40 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	203	280
				(2)	CROSS SECTIONS			



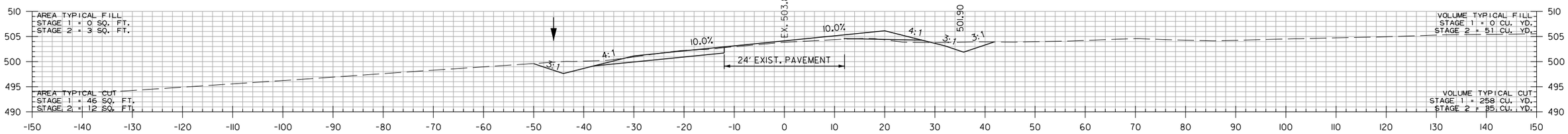
263+00.00



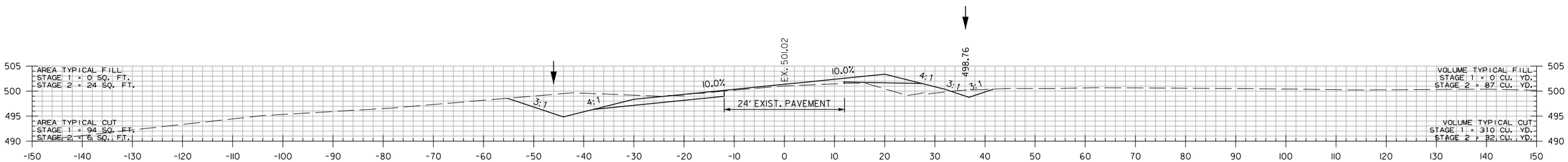
262+45.00

STA. 262+30
END SP. DT. RT. 3.14%
BEGIN SP. DT. RT. 2.10%
ELEV. 502.84

STA. 262+45 INSTALL
18" X 43' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 43 CU. YDS.



262+00.00



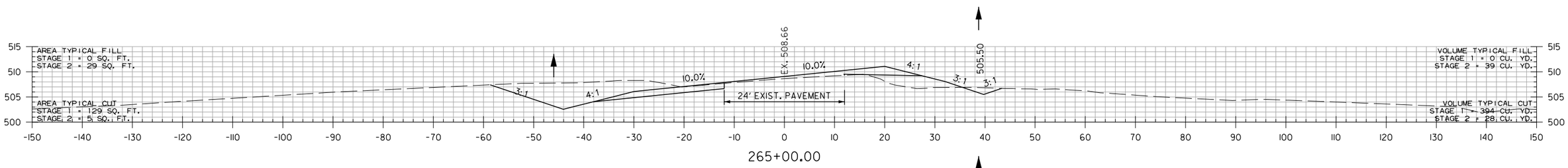
261+00.00

SITE 2
STA. 261+00 TO STA. 263+00

PJoseph
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
6/21/2023 10:49:40 AM
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	204	280
				(2)	CROSS SECTIONS			

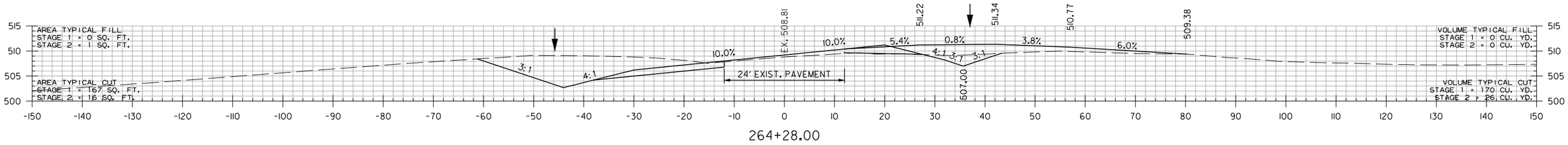
STA. 265+28.33 MAX. SUPERELEVATION (0.100'/')



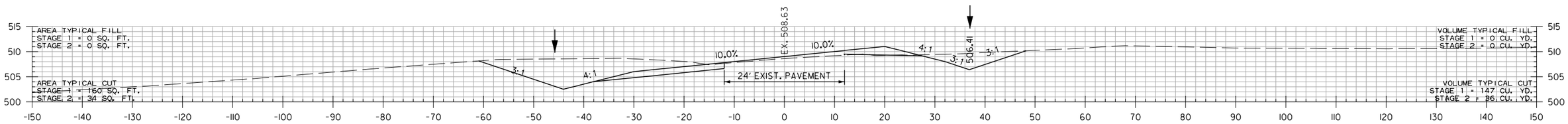
265+00.00

STA. 264+30
END SP. DT. RT. 2.10%
BEGIN SP. DT. RT. -2.20%
ELEV. 507.04

STA. 264+28 CONSTRUCT
APPROACH ON RT.= 44 CU. YDS.



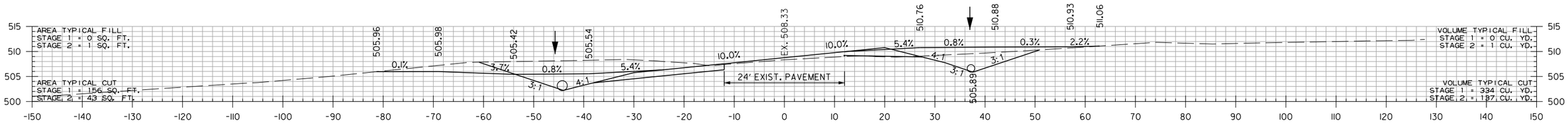
264+28.00



264+00.00

STA. 263+75 INSTALL
24" X 38' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 57 CU. YDS.

STA. 263+75 INSTALL
18" X 41' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 44 CU. YDS.

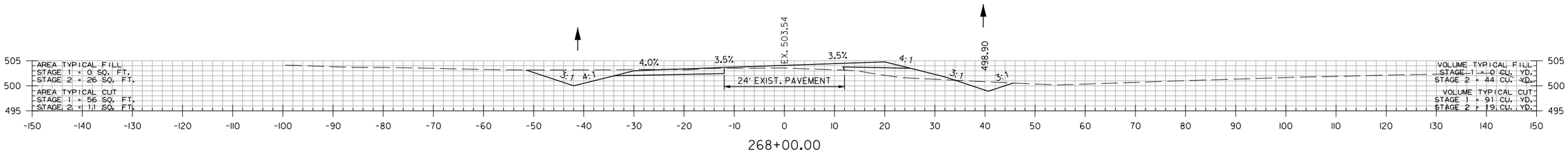


263+75.00

SITE 2
STA. 263+75 TO STA. 265+00

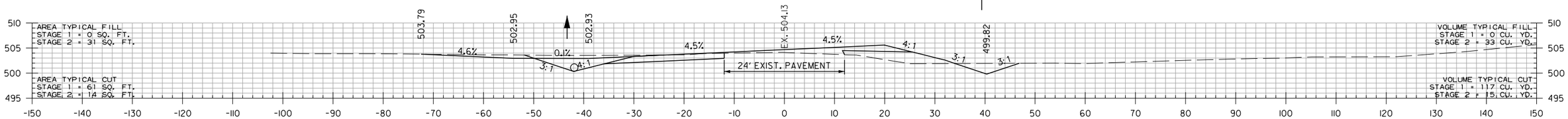
PJoseph 6/21/2023 10:49:40 AM
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	205	280
				(2)	CROSS SECTIONS			

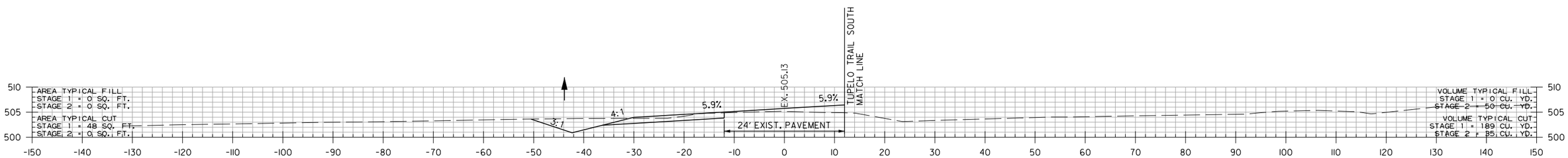


268+00.00

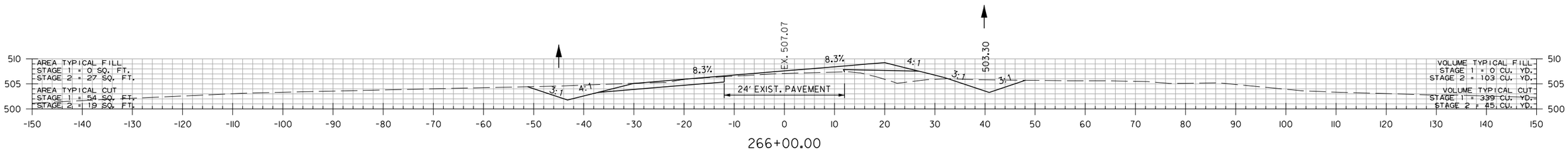
STA. 267+58 INSTALL
18" X 33' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 32 CU. YDS.



267+58.00



267+00.00



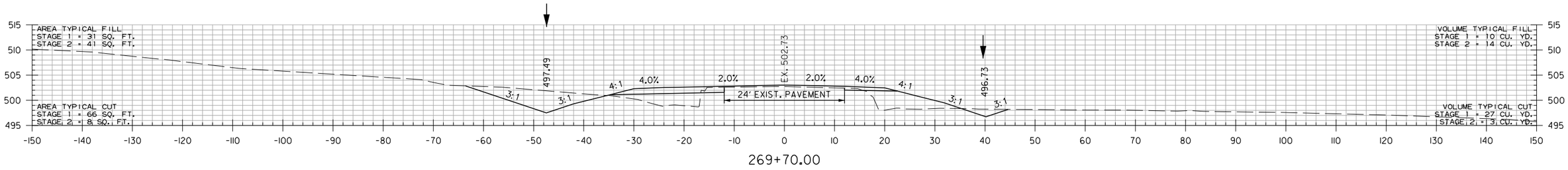
266+00.00

STA. 265+28.33 MAX. SUPERELEVATION (0.100'/')

SITE 2
STA. 266+00 TO STA. 268+00

PJoseph 6/21/2023 10:49:40 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_2.dgn
REVISED DATE:

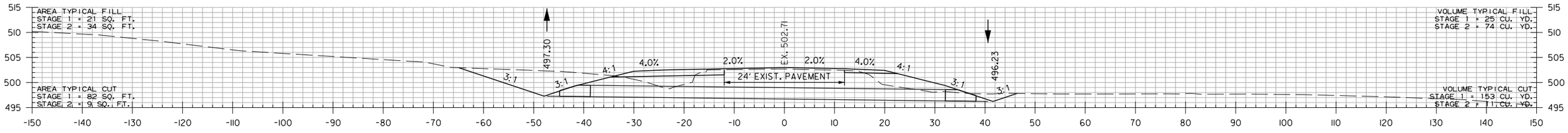
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				6	ARK.			
				JOB NO.		012275	206	280
				(2)	CROSS SECTIONS			



269+70.00

STA. 269+60
END SP. DT. RT. -1.26%
BEGIN SP. DT. RT. 5.03%
ELEV. 496.23

STA. 269+60 CONSTRUCT
24" X 71' R.C. PIPE CULVERT
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 12 CFS DA = 3 ACRES
24" R.C. PIPE = 71 LIN. FT.
24" F.E.S. = 2 EA.



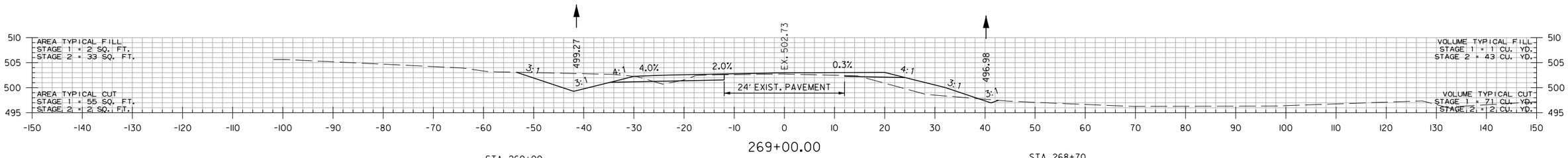
STA. 269+60
END SP. DT. LT. -3.28%
BEGIN SP. DT. LT. 1.89%
ELEV. 497.30

F.L. = 497.30 LT.

269+60.00

F.L. = 496.23 RT.

STA. 269+48.33 END SUPERELEVATION

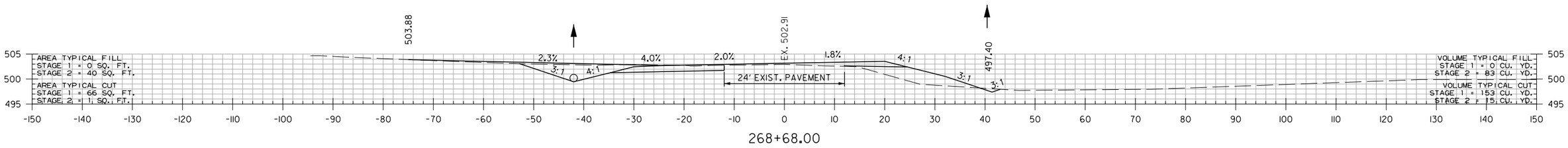


269+00.00

STA. 269+00
BEGIN SP. DT. LT. -3.28%
ELEV. 499.27

STA. 268+68 INSTALL
18" X 37' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 26 CU. YDS.

STA. 268+70
END SP. DT. RT. -2.20%
BEGIN SP. DT. RT. -1.26%
ELEV. 497.36

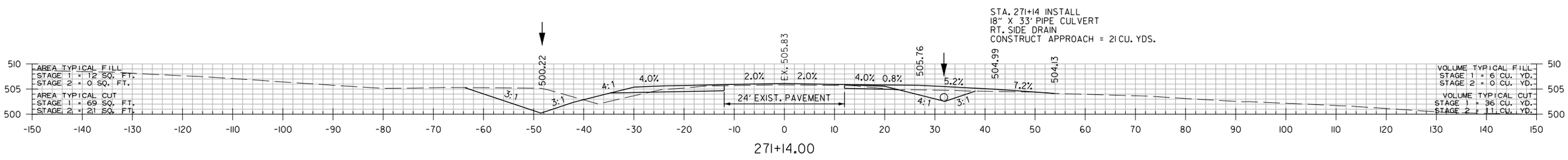


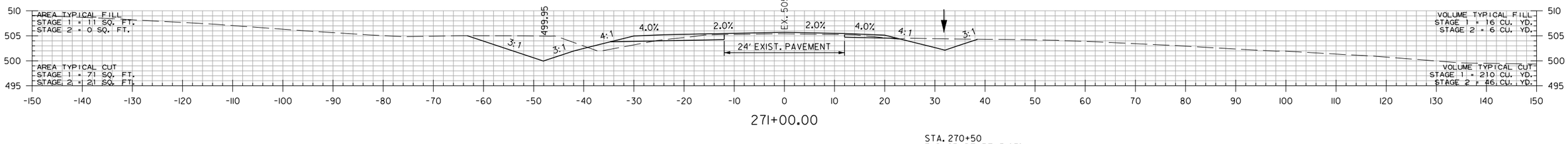
268+68.00

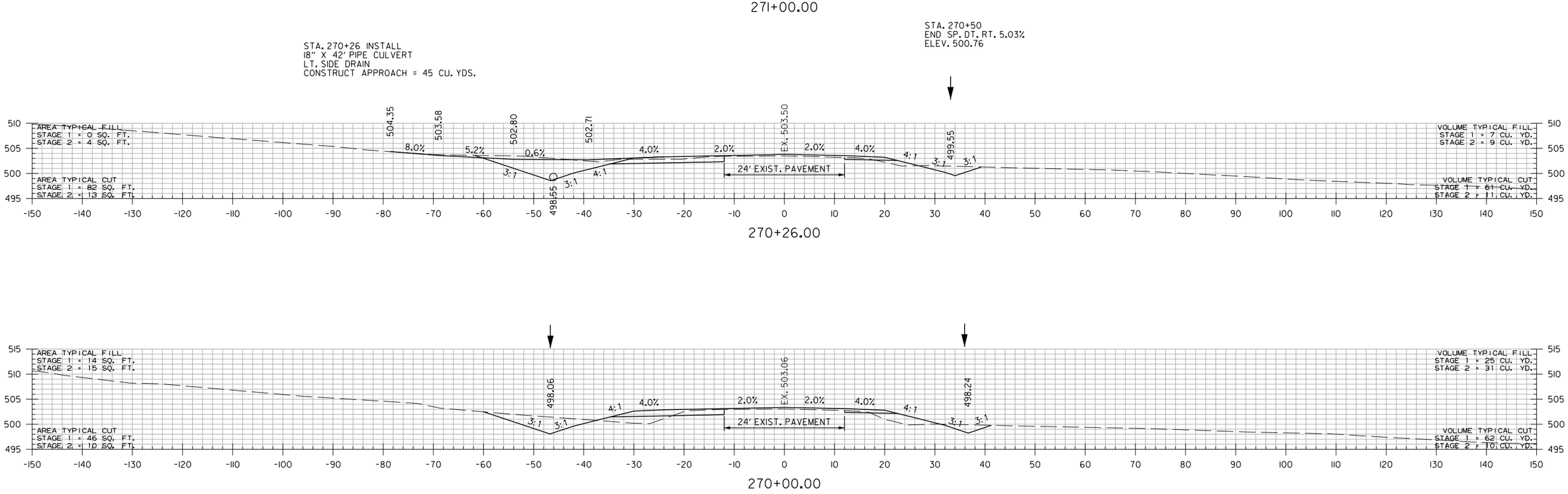
SITE 2
STA. 268+68 TO STA. 269+70

PJoseph 6/21/2023 10:49:40 AM
WORKSPACE: AHTD
L:\20IT\I70I555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	207	280
				(2)		CROSS SECTIONS		



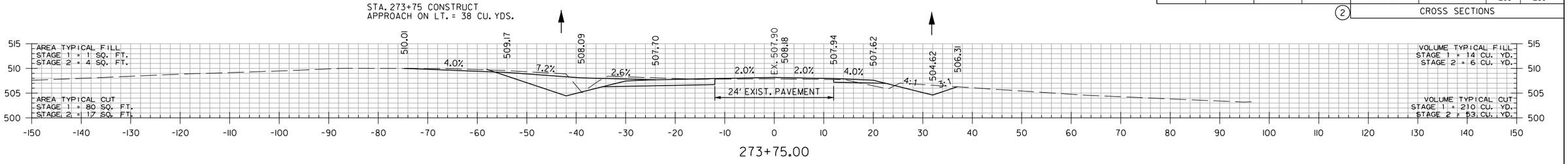


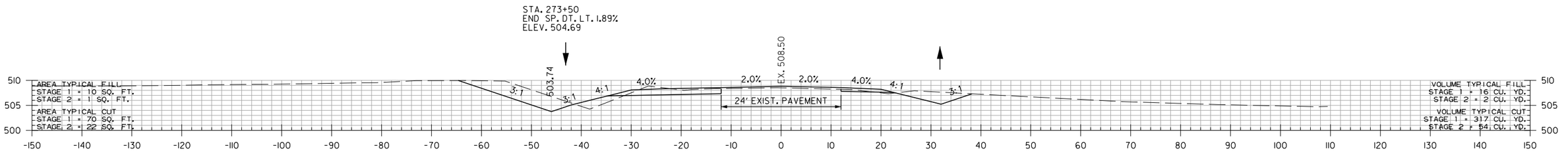


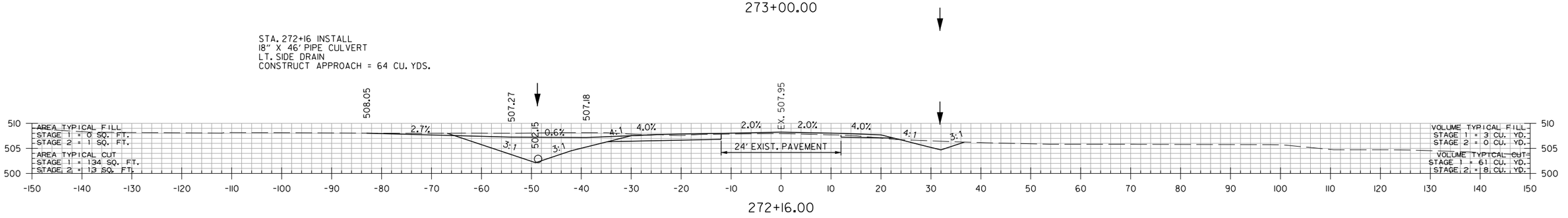
SITE 2
STA. 270+00 TO STA. 271+14

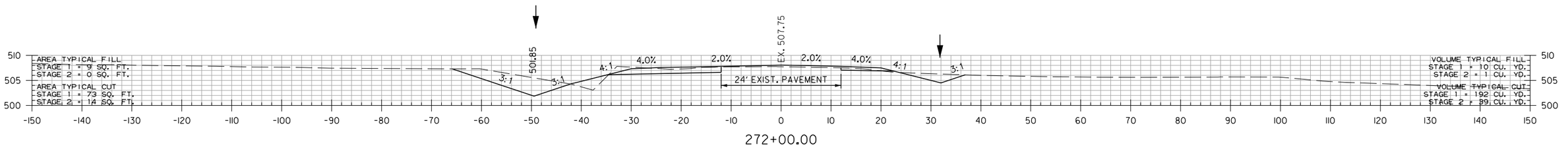
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6/21/2023 10:49:41 AM
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REVISED DATE:

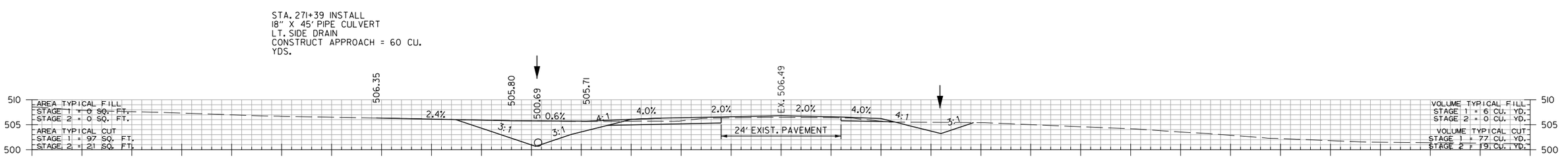
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	208	280
				(2)		CROSS SECTIONS		









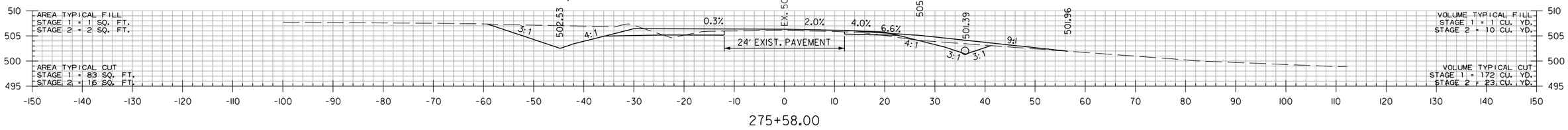


SITE 2
STA. 271+39 TO STA. 273+00

PJoseph 6/21/2023 10:49:41 AM
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REVISED DATE:

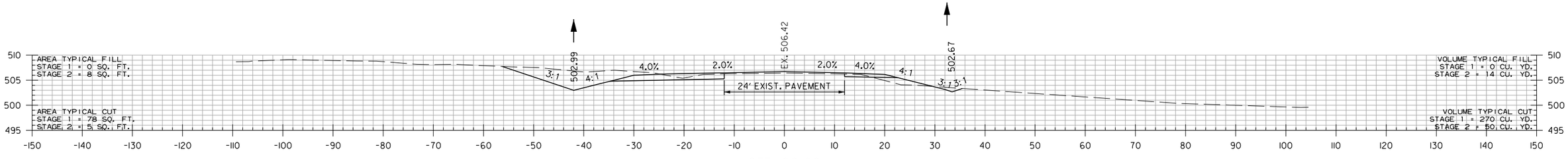
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	209	280
				(2)	CROSS SECTIONS			

STA. 275+58 INSTALL
18" X 32' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 22 CU. YDS.



275+58.00

STA. 275+06.05 BEGIN SUPERELEVATION

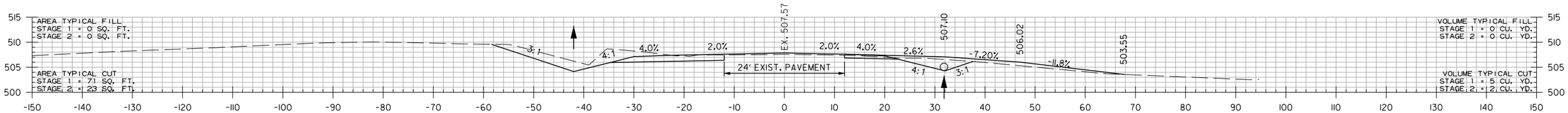


275+00.00

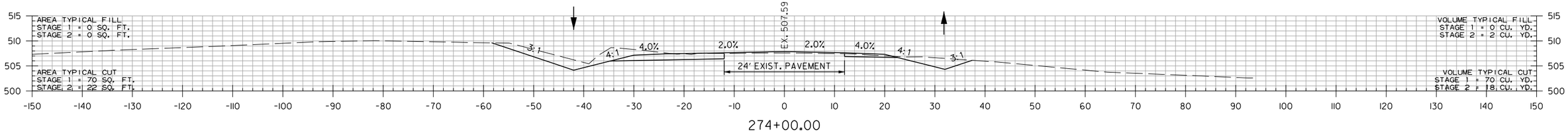
STA. 275+00
BEGIN SP. DT. LT. -0.80%
ELEV. 502.99

STA. 274+60
BEGIN SP. DT. RT. -2.20%
ELEV. 503.55

STA. 274+02 INSTALL
18" X 32' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 19 CU. YDS.



274+02.00



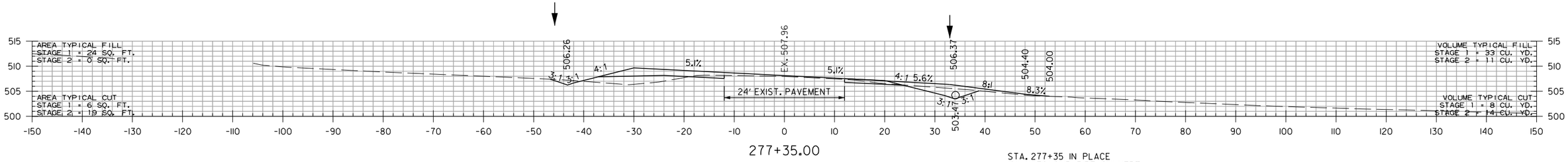
274+00.00

SITE 2
STA. 274+00 TO STA. 275+58

PJoseph 6/21/2023 10:49:41 AM
WORKSPACE: AHTD
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REVISED DATE:

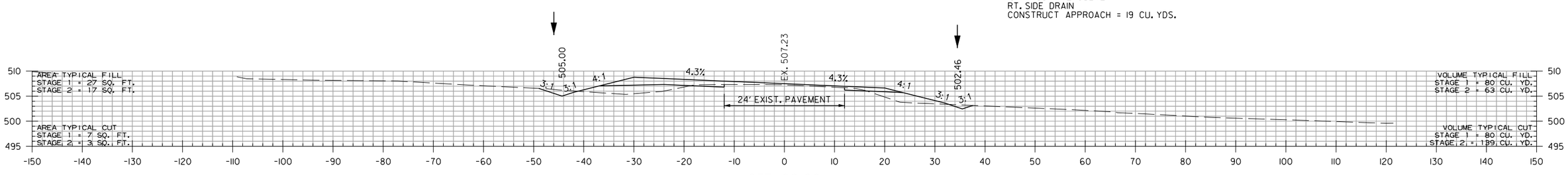
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	210	280
				(2)	CROSS SECTIONS			

STA. 277+60
END SP. DT. RT. 2.91%
ELEV. 504.20



277+35.00

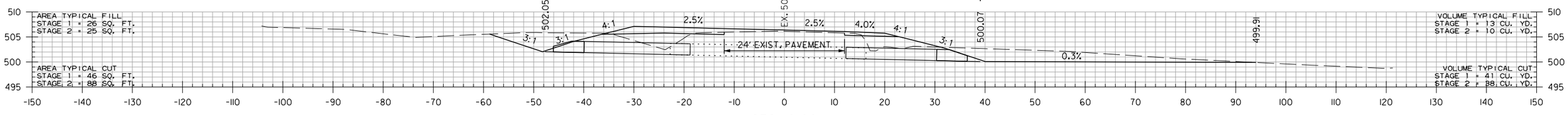
STA. 277+35 IN PLACE
18" X 36' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 19 CU. YDS.



277+00.00

STA. 276+18 IN PLACE
24" X 39' R.C. PIPE CULVERT
WITH HDWLS. LT. AND RT.
RETAIN & EXTEND 17' LT. & 14' RT.
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 6 CFS DA = 2 ACRES
24" R.C. PIPE = 39 LIN. FT.
24" F.E.S. = 2 EA.

STA. 276+18
END SP. DT. RT. -2.20%
BEGIN SP. DT. RT. 2.91%
ELEV. 500.07

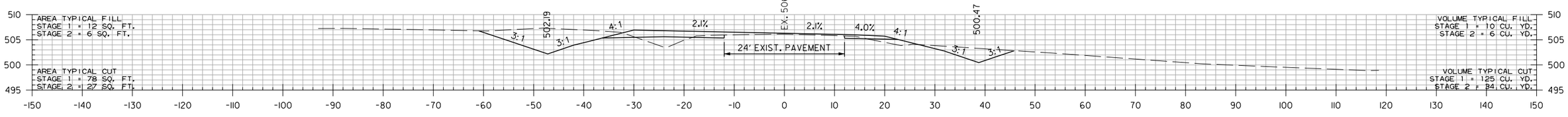


276+18.00

F.L. = 502.05 LT.

F.L. = 500.07 RT.

STA. 276+18
END SP. DT. LT. -0.80%
BEGIN SP. DT. LT. 3.60%
ELEV. 502.05

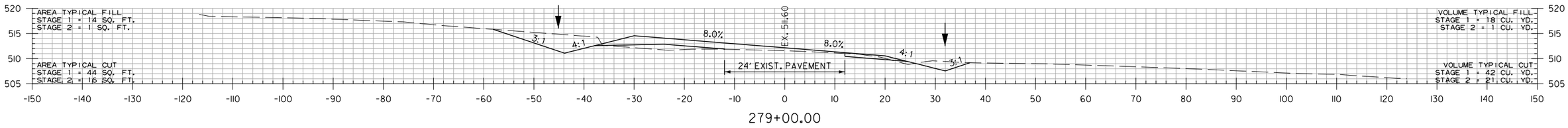


276+00.00

SITE 2
STA. 276+00 TO STA. 277+35

PJoseph 6/21/2023 10:49:41 AM
WORKSPACE: AHTD
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REVISED DATE:

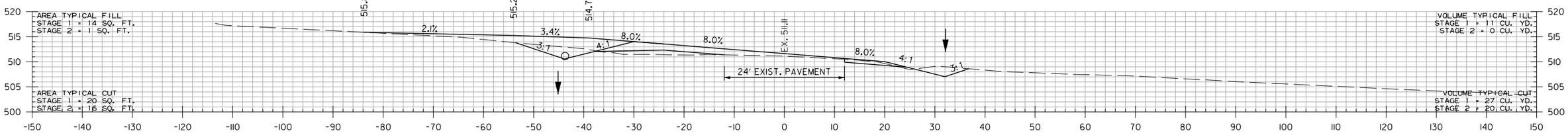
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	211	280
				(2)		CROSS SECTIONS		



279+00.00

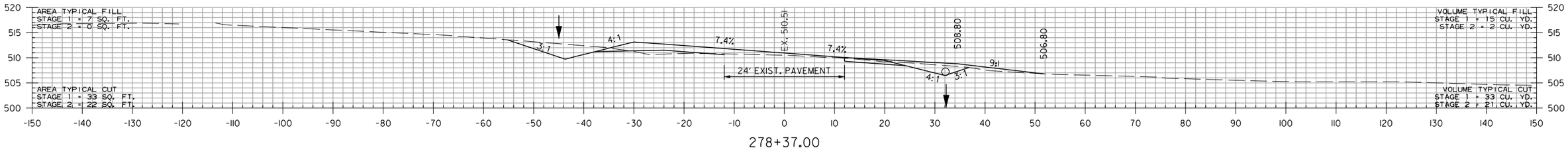
STA. 278+65 INSTALL
18" X 53' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 52 CU. YDS.

STA. 278+66.05 MAX. SUPERELEVATION (0.080'/')

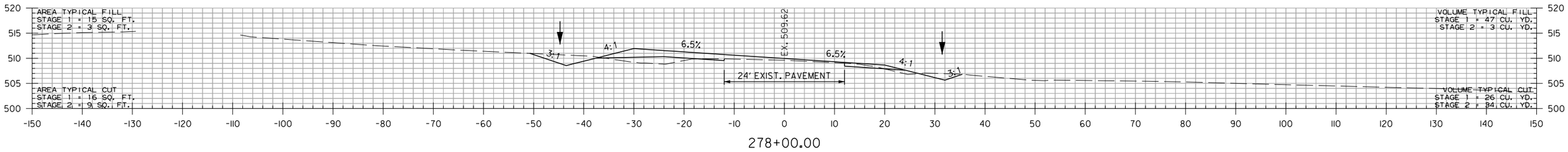


278+65.00

STA. 278+37 IN PLACE
18" X 40' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 24 CU. YDS.



278+37.00



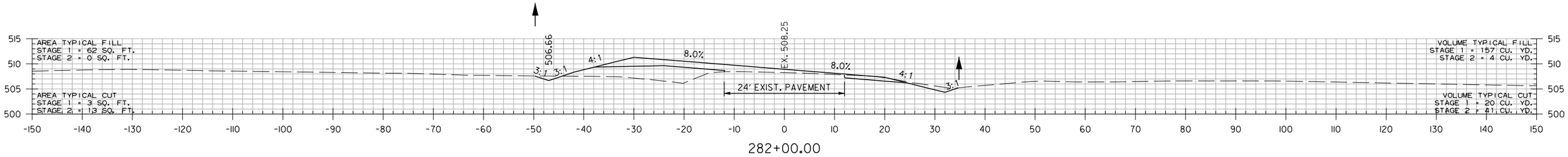
278+00.00

STA. 277+60
END SP. DT. LT. 3.60%
ELEV. 507.16

SITE 2
STA. 278+00 TO STA. 279+00

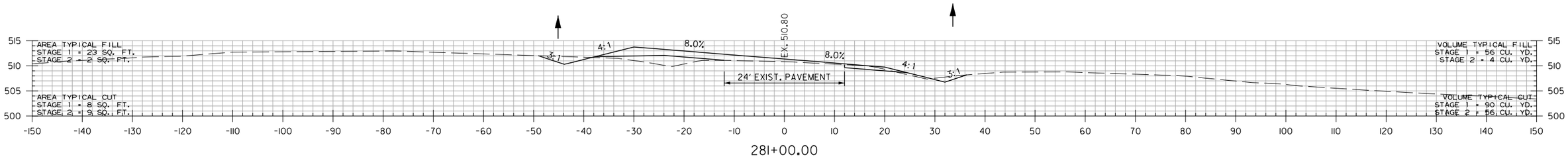
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	212	280
				(2)	CROSS SECTIONS			

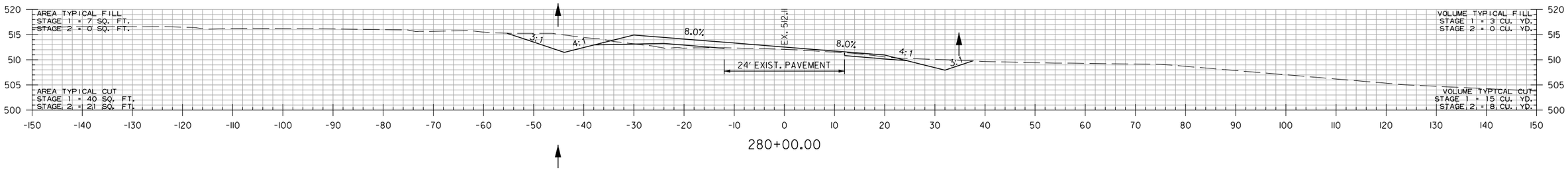


282+00.00

STA. 281+30
BEGIN SP. DT. LT. -4.30%
ELEV. 509.67

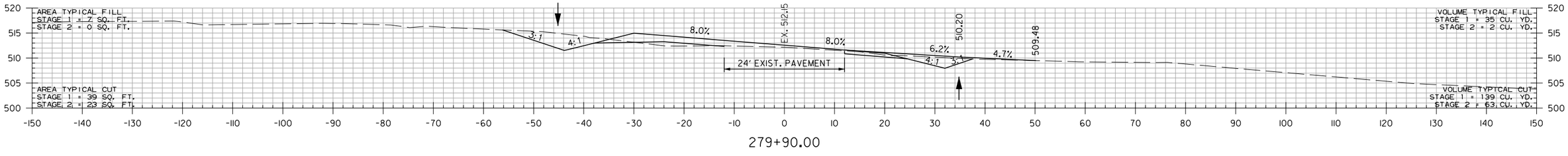


281+00.00



280+00.00

STA. 279+90 CONSTRUCT
APPROACH ON RT.= 57 CU. YDS.



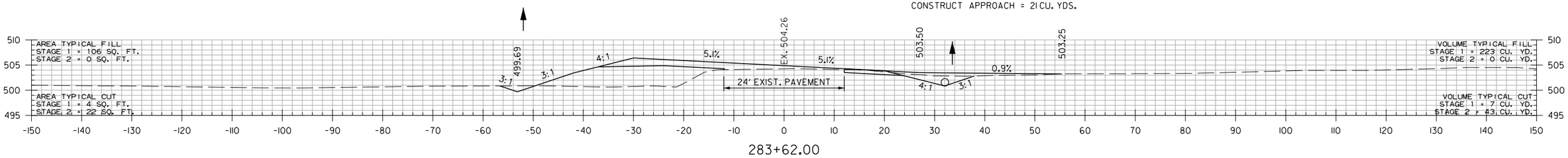
279+90.00

SITE 2
STA. 279+90 TO STA. 282+00

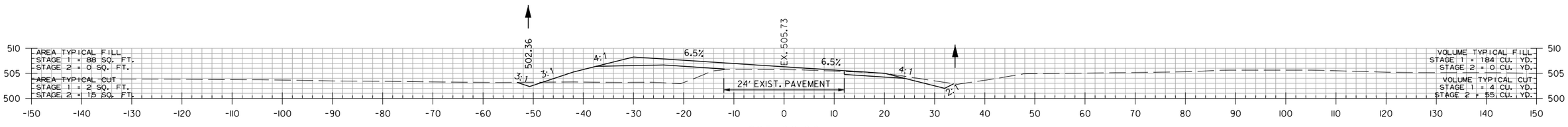
PJoseph 6/21/2023 10:49:41 AM
WORKSPACE: AHTD
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	213	280
				(2)	CROSS SECTIONS			

STA. 283+62 IN PLACE
18" X 21' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 33' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

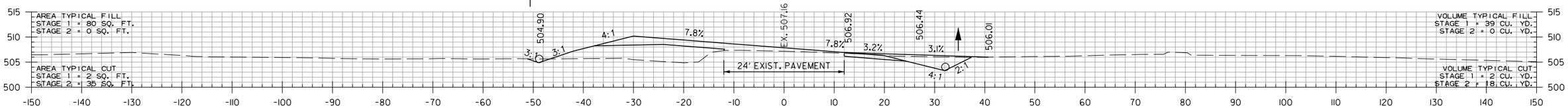


283+62.00



283+00.00

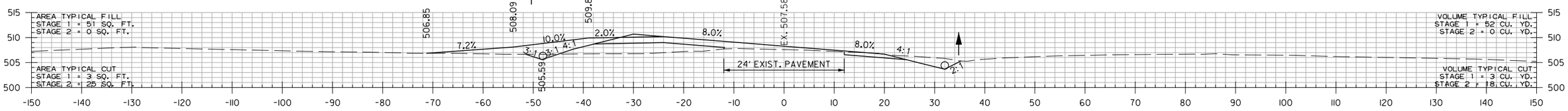
STA. 282+41 IN PLACE
18" X 22' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 44' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 34 CU. YDS.



282+41.00

STA. 282+32.26 MAX. SUPERELEVATION (0.080'/')

STA. 282+25 IN PLACE
18" X 20' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 38' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 16 CU. YDS.

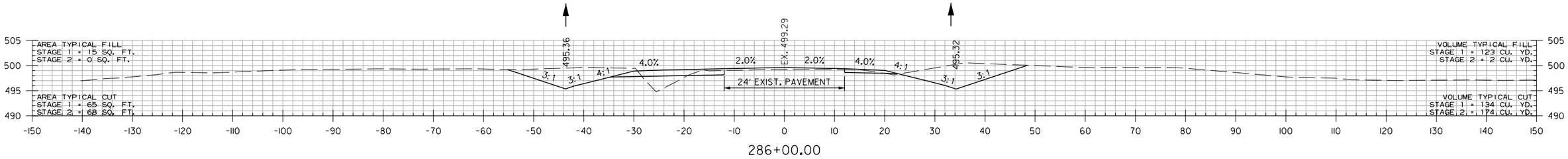


282+25.00

SITE 2
STA. 282+25 TO STA. 283+62

PJoseph 6/21/2023 10:49:41 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_2.dgn
REVISED DATE:

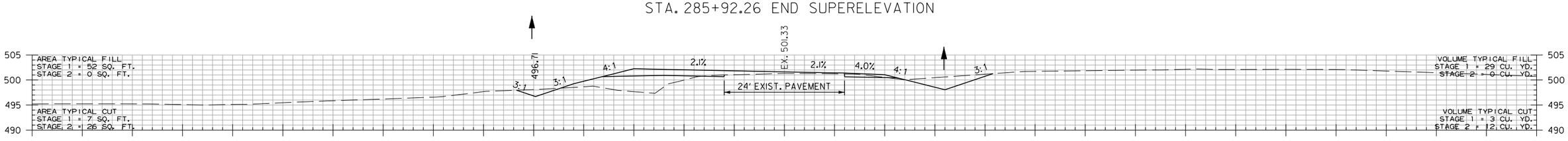
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	214	280
				(2)	CROSS SECTIONS			



286+00.00

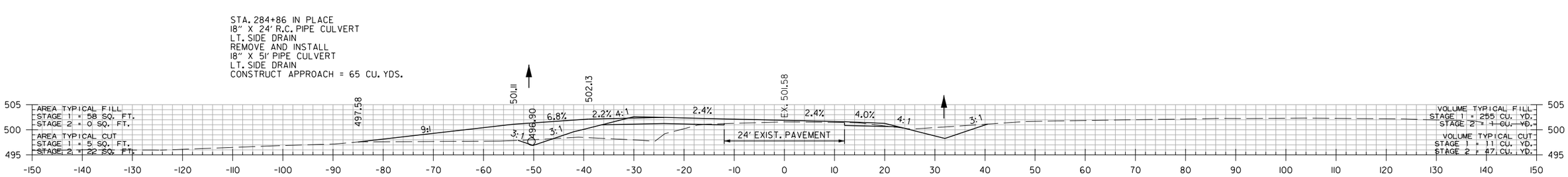
STA. 285+10
BEGIN SP. DT. RT. -2.89%
ELEV. 497.92

STA. 285+92.26 END SUPERELEVATION

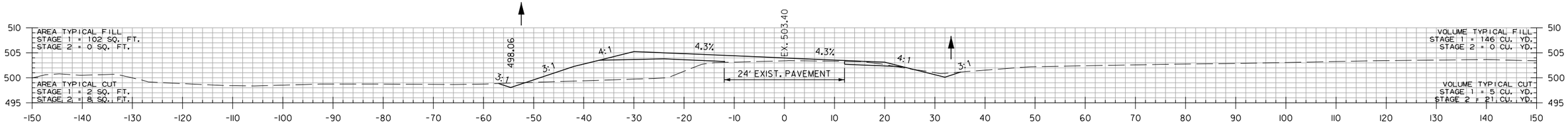


285+00.00

STA. 284+86 IN PLACE
18" X 24' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 51' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 65 CU. YDS.



284+86.00



284+00.00

STA. 284+00
END SP. DT. LT. -4.30%
BEGIN SP. DT. LT. -1.35%
ELEV. 498.06

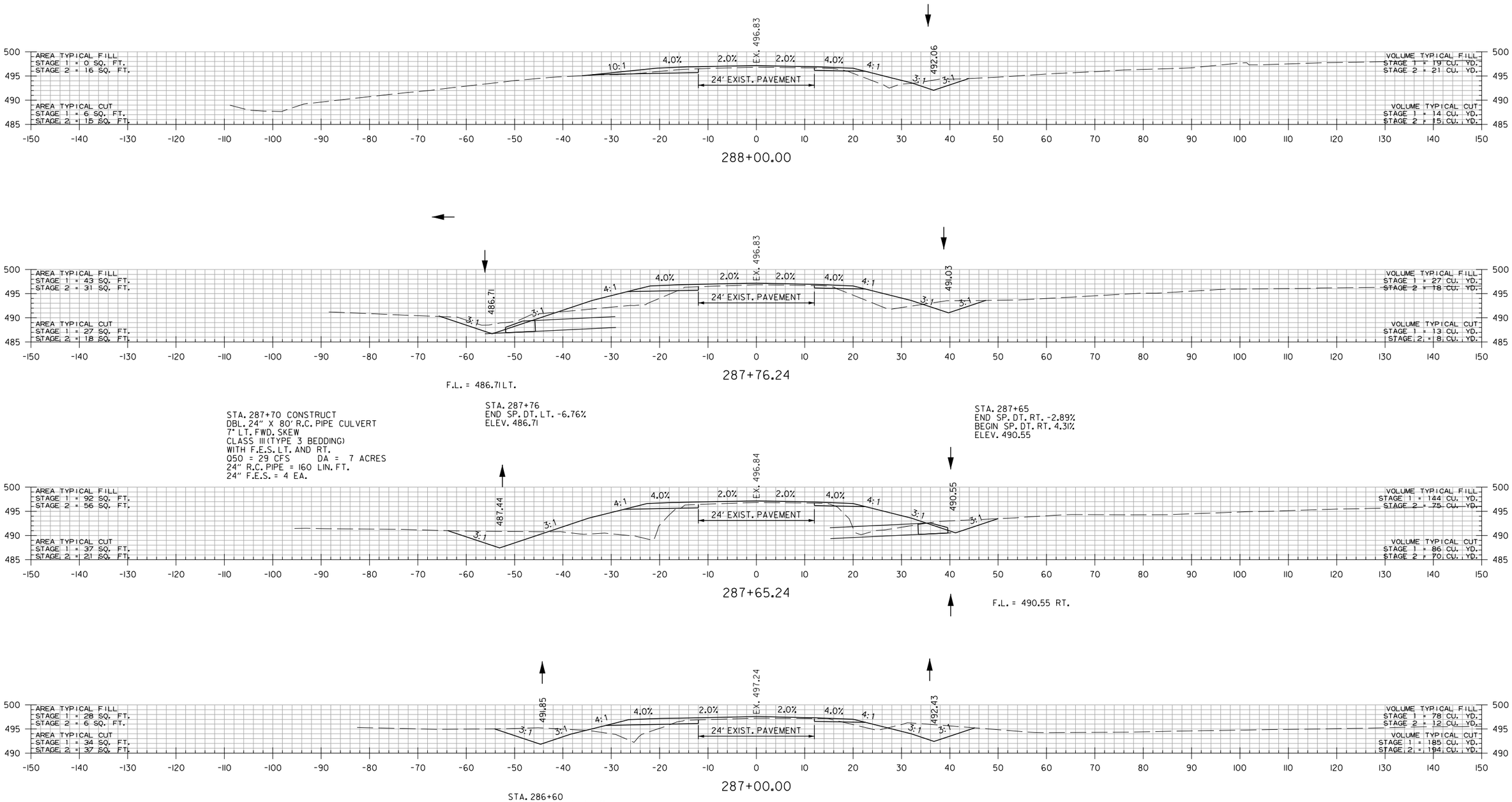
SITE 2
STA. 284+00 TO STA. 286+00

PJoseph 6/21/2023 10:49:42 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	215	280

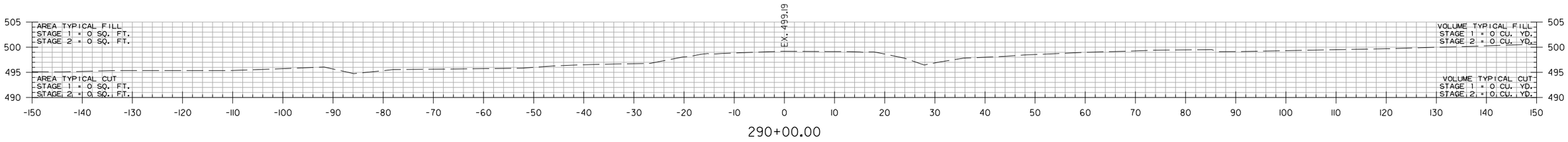
(2) CROSS SECTIONS



SITE 2
STA. 287+00 TO STA. 288+00

PJoseph 6/21/2023 10:49:42 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_2.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	216	280
				(2)	CROSS SECTIONS			



290+00.00

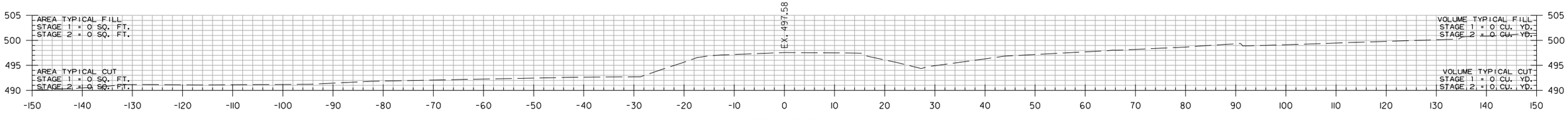
AREA TYPICAL FILL
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.

STA. 289+40 END 100' TRANSITION

VOLUME TYPICAL FILL
STAGE 1 = 0 CU. YD.
STAGE 2 = 0 CU. YD.

VOLUME TYPICAL CUT
STAGE 1 = 0 CU. YD.
STAGE 2 = 0 CU. YD.



289+00.00

STA. 288+40

AREA TYPICAL FILL
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.

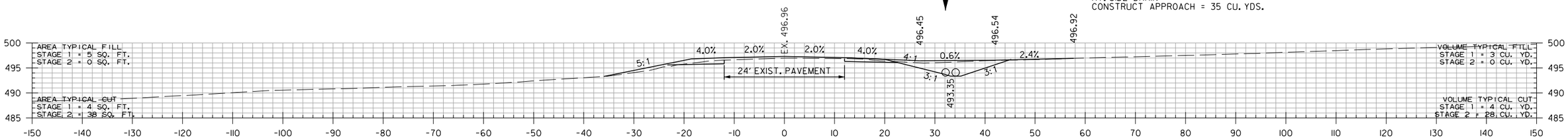
STA. 288+40
END SP. DT. RT. 4.31%
ELEV. 493.78

STA. 288+40.000
END SITE 2

STA. 288+30 IN PLACE
18" X 50' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
DBL. 18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 35 CU. YDS.

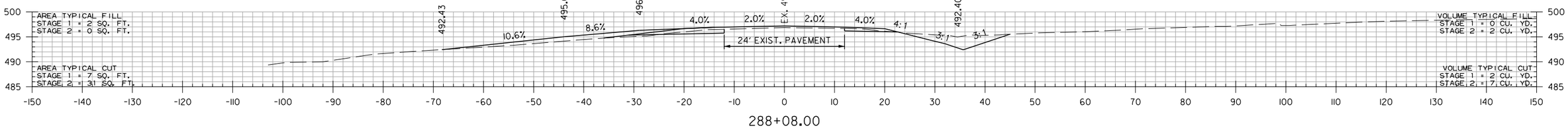
VOLUME TYPICAL FILL
STAGE 1 = 1 CU. YD.
STAGE 2 = 0 CU. YD.

VOLUME TYPICAL CUT
STAGE 1 = 1 CU. YD.
STAGE 2 = 7 CU. YD.



288+30.00

STA. 288+08 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.



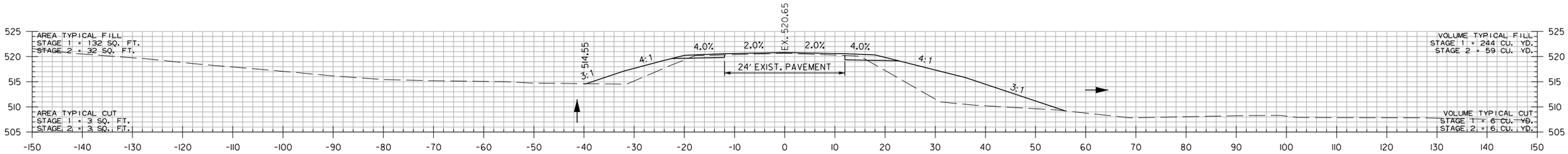
288+08.00

SITE 2
STA. 288+08 TO STA. 290+00

PJoseph 6/21/2023 10:49:42 AM
WORKSPACE: AHTD
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REVISED DATE:

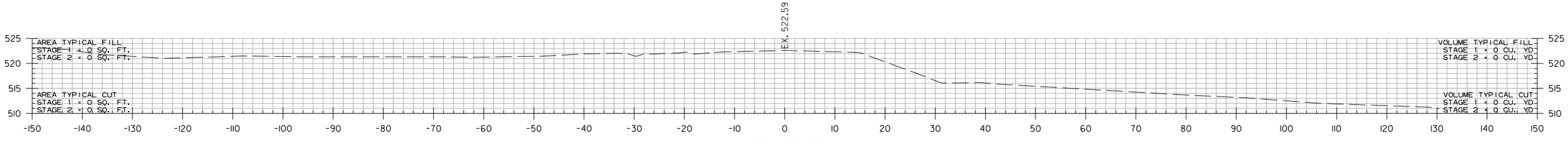
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	217	280
				(2)		CROSS SECTIONS		

STA. 333+00
BEGIN SP. DT. LT. -6.31%
ELEV. 514.55



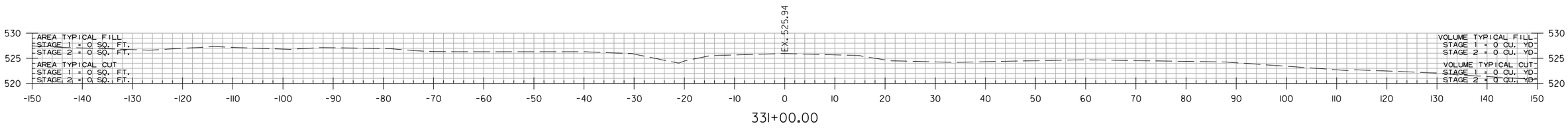
333+00.00

STA. 333+00.000
BEGIN SITE 3

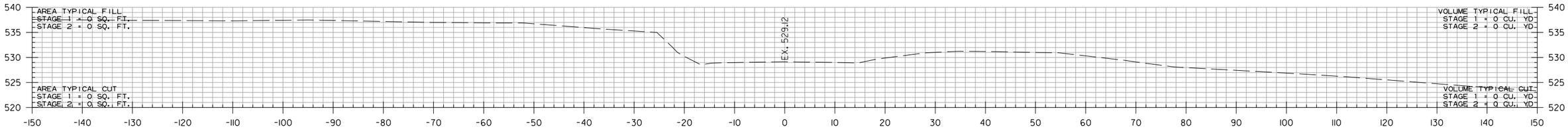


332+00.00

STA. 332+00.00 BEGIN 100' TRANSITION



331+00.00



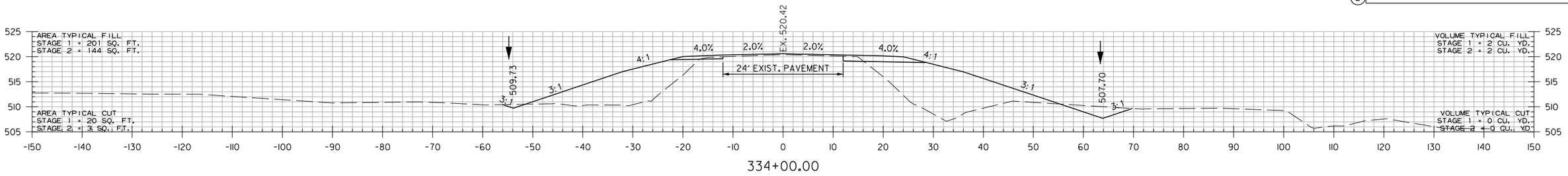
330+00.00

SITE 3
STA. 330+00 TO STA. 333+00

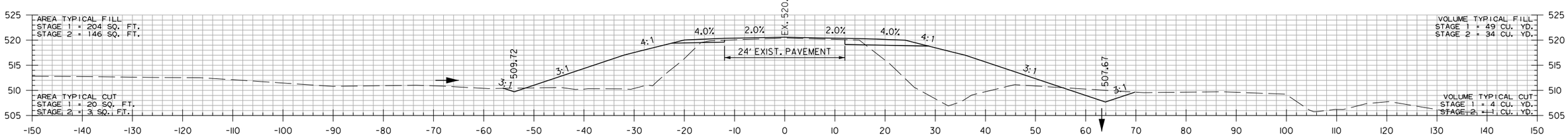
PJoseph 6/21/2023 10:49:42 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	218	280

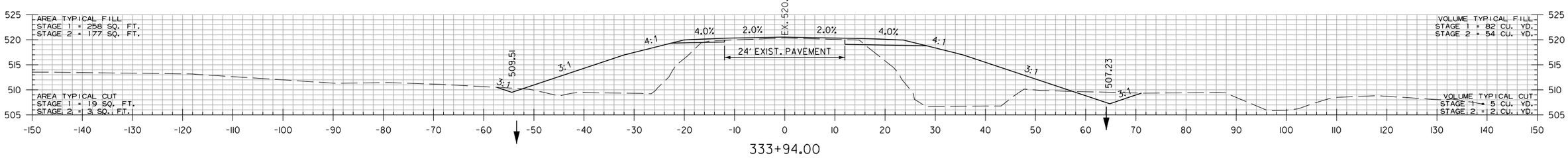
(2) CROSS SECTIONS



334+00.00

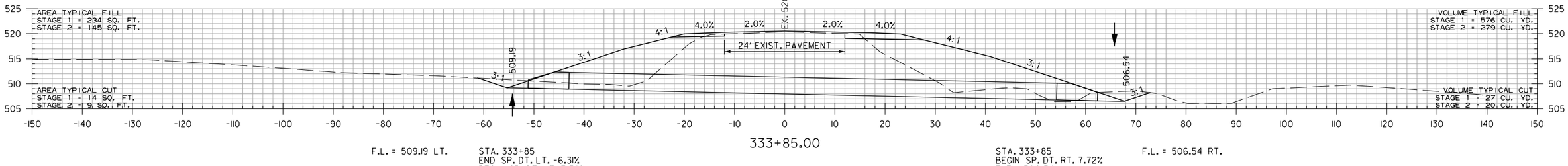


333+99.68



333+94.00

STA. 333+85 CONSTRUCT
36" X 97' R.C. PIPE CULVERT
CLASS III (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 49 CFS DA = 17 ACRES
36" R.C. PIPE = 97 LIN. FT.
36" F.E.S. = 2 EA.



333+85.00

F.L. = 509.19 LT.

STA. 333+85
END SP. DT. LT. -6.31%
BEGIN SP. DT. LT. 3.58%
ELEV. 509.19

STA. 333+85
BEGIN SP. DT. RT. 7.72%
ELEV. 506.54

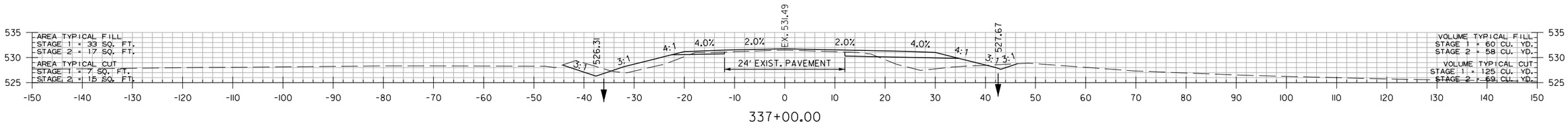
F.L. = 506.54 RT.

SITE 3
STA. 333+85 TO STA. 334+00

PJoseph 6/21/2023 10:49:42 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

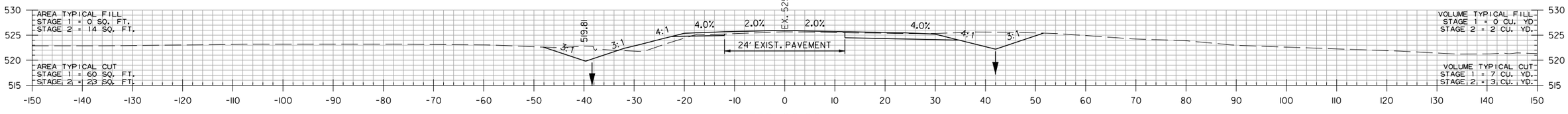
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	219	280
				(2)	CROSS SECTIONS			

STA. 337+50
END SP. DT. RT. 2.65%
BEGIN SP. DT. RT. 8.46%
ELEV. 528.99



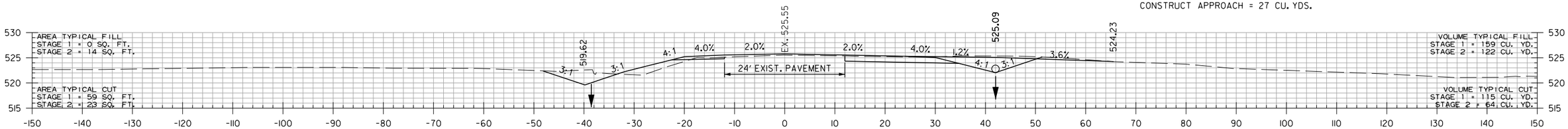
337+00.00

STA. 336+90
BEGIN SP. DT. RT. 2.65%
ELEV. 527.40



336+00.00

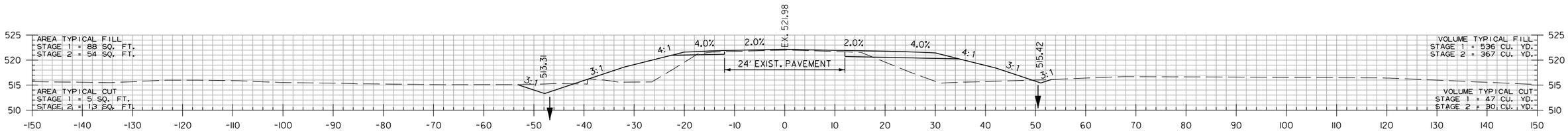
STA. 335+97 IN PLACE
18" X 25' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 34' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 27 CU. YDS.



335+97.00

STA. 335+00
END SP. DT. LT. 3.58%
BEGIN SP. DT. LT. 6.50%
ELEV. 513.31

STA. 335+70
END SP. DT. RT. 7.72%
ELEV. 520.82



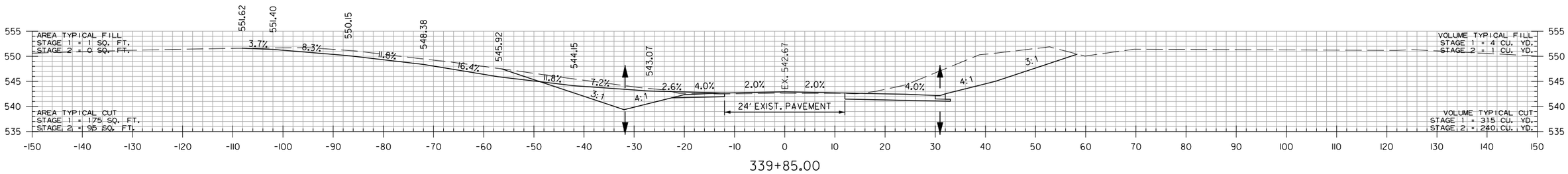
335+00.00

SITE 3
STA. 335+00 TO STA. 337+00

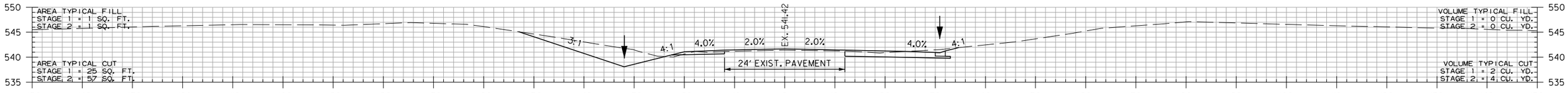
PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	220	280
				(2)	CROSS SECTIONS			

STA. 339+85 CONSTRUCT
APPROACH ON LT. = 112 CU. YDS.

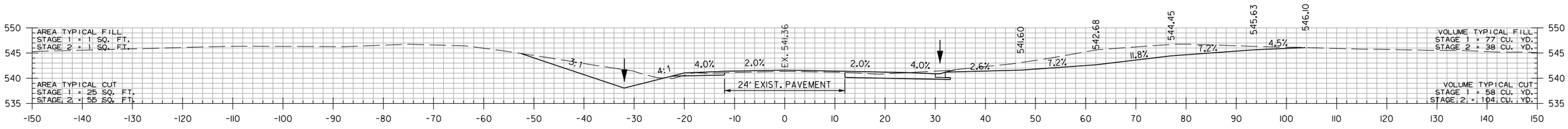


339+85.00



339+00.00

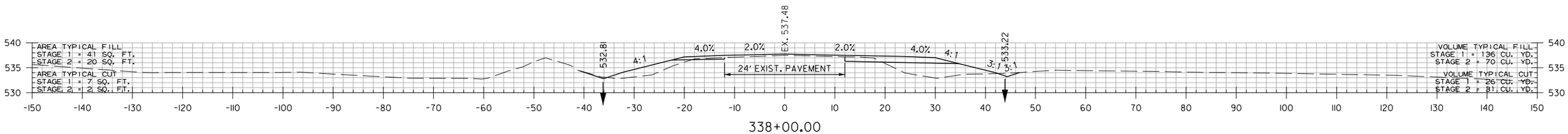
STA. 338+98 CONSTRUCT
APPROACH ON RT. = 124 CU. YDS.



338+98.00

STA. 338+60
END SP. DT. LT. 6.50%
ELEV. 536.71

STA. 338+20
END SP. DT. RT. 8.46%
ELEV. 534.91

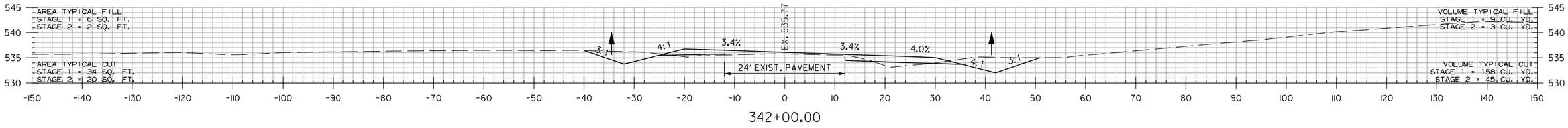


338+00.00

SITE 3
STA. 338+00 TO STA. 339+85

PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_3.dgn
REVISED DATE:

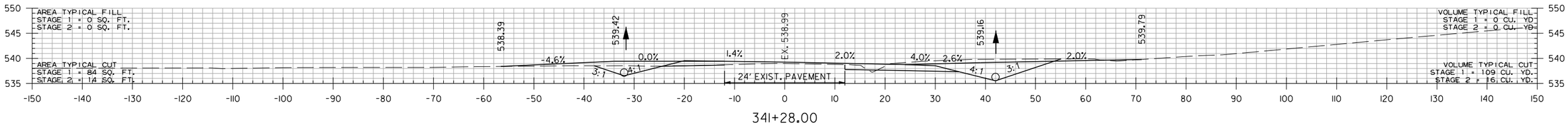
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	221	280
				(2)	CROSS SECTIONS			



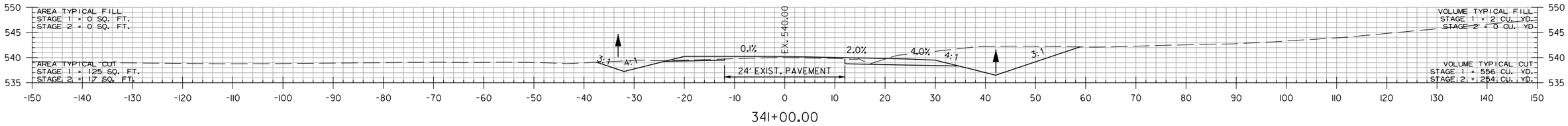
342+00.00

STA. 341+28 INSTALL
18" X 60' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 26 CU. YDS.

STA. 341+28 INSTALL
18" X 38' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 59 CU. YDS.

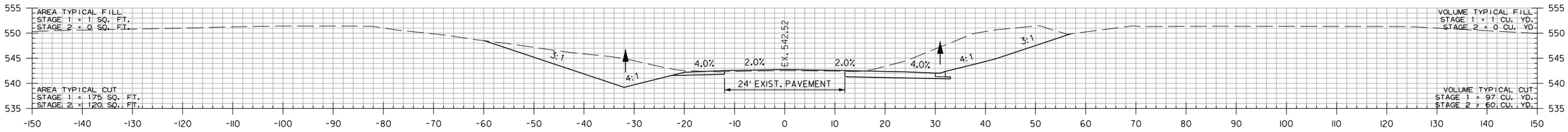


341+28.00



341+00.00

STA. 340+53.79 BEGIN SUPERELEVATION



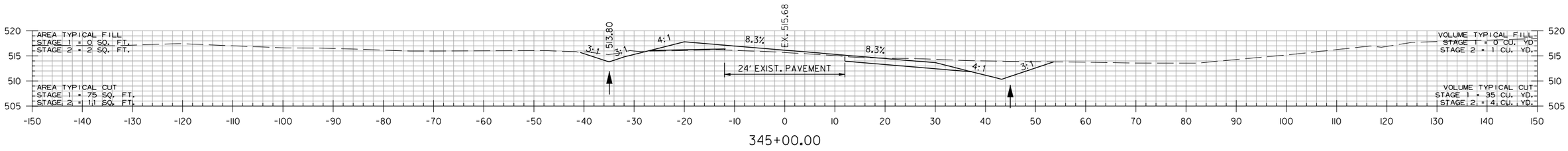
340+00.00

SITE 3
STA. 340+00 TO STA. 342+00

PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	222	280
				(2)		CROSS SECTIONS		

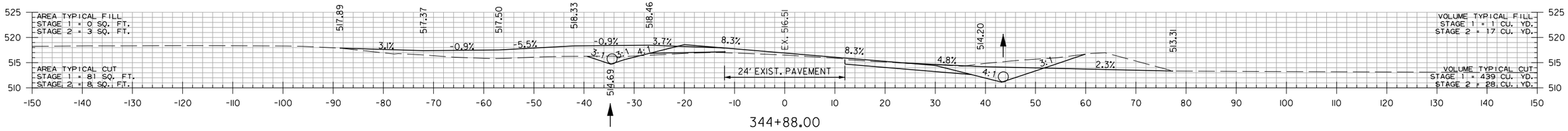
STA. 345+00
END SP. DT. LT. -7.40%
BEGIN SP. DT. LT. -6.45%
ELEV. 513.80



345+00.00

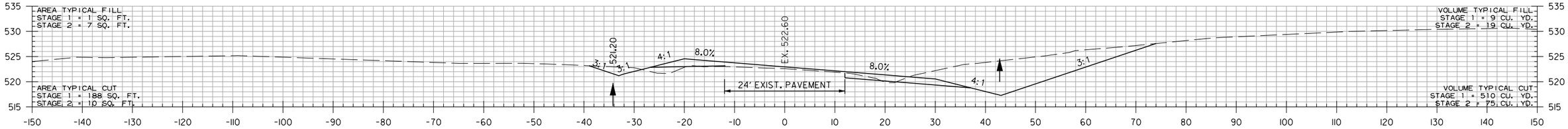
STA. 344+88 IN PLACE
24" X 46' CMP PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 56' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 61 CU. YDS.

STA. 344+88 IN PLACE
24" X 43' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 59' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 80 CU. YDS.



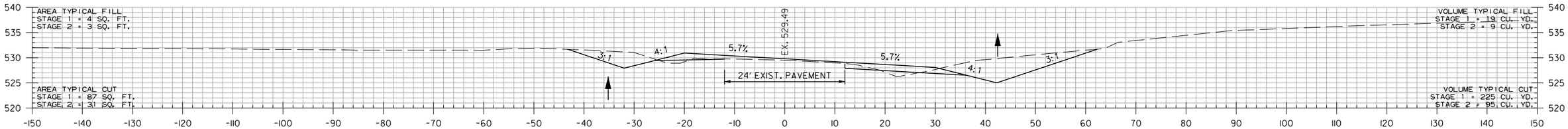
344+88.00

STA. 344+13.79 MAX. SUPERELEVATION (0.083'/')



344+00.00

STA. 343+80
BEGIN SP. DT. LT. -7.40%
ELEV. 522.68

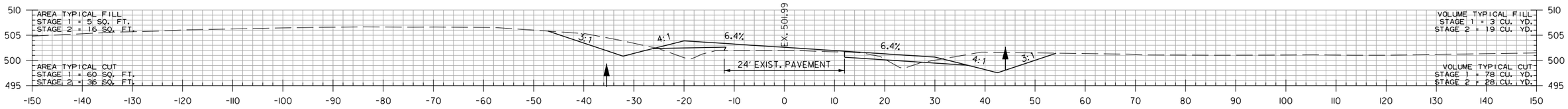


343+00.00

SITE 3
STA. 343+00 TO STA. 345+00

PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

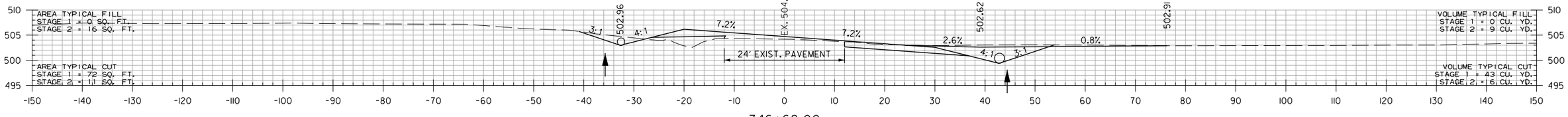
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	223	280
				(2)	CROSS SECTIONS			



347+00.00

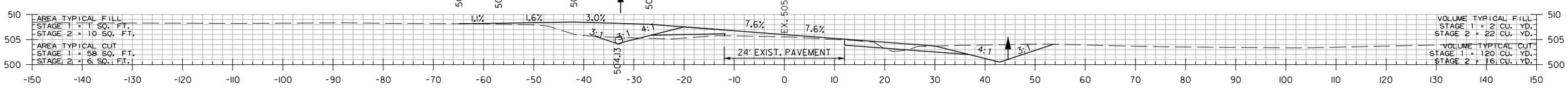
STA. 346+68 IN PLACE
24" X 38' PLASTIC PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
24" X 39' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 39 CU. YDS.

STA. 346+80
END SP. DT. LT. -6.45%
ELEV. 502.19



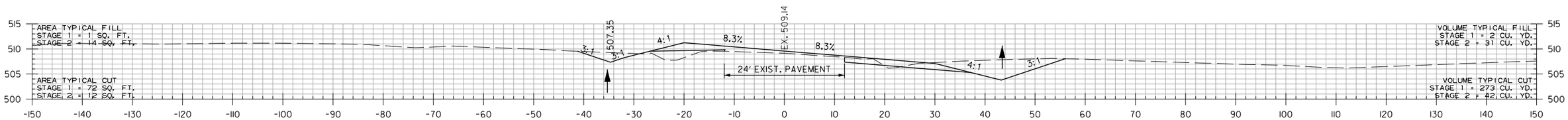
346+68.00

STA. 346+50 IN PLACE
18" X 25' CMP PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 45' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 50 CU. YDS.



346+50.00

STA. 346+19.36 MAX. SUPERELEVATION (0.083'/')



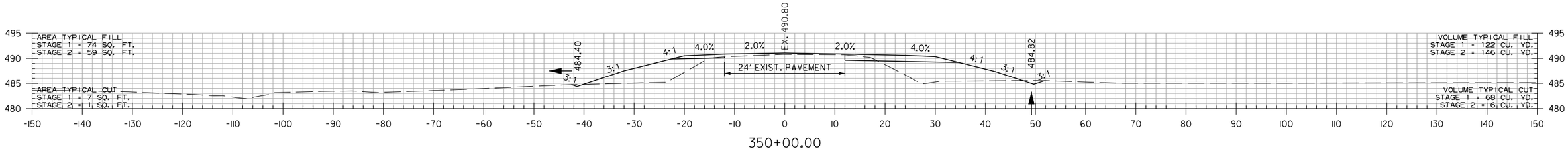
346+00.00

SITE 3
STA. 346+00 TO STA. 346+00

PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
L:\20\7\701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	224	280
				(2)	CROSS SECTIONS			

STA. 350+40
END SP. DT. LT. -1.72%
ELEV. 483.71



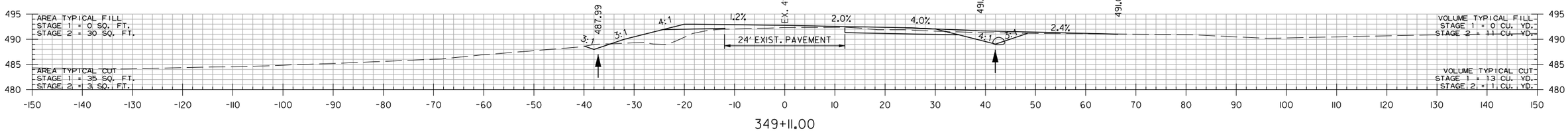
350+00.00

STA. 349+50
END SP. DT. LT. -7.00%
BEGIN SP. DT. LT. -1.72%
ELEV. 485.26

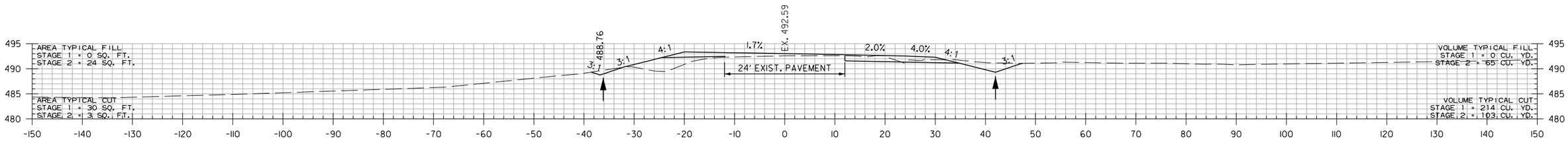
STA. 349+79.36 END SUPERELEVATION

STA. 349+30
BEGIN SP. DT. RT. -5.35%
ELEV. 488.57

STA. 349+11 IN PLACE
24" X 25' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
28" X 20" X 33' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.

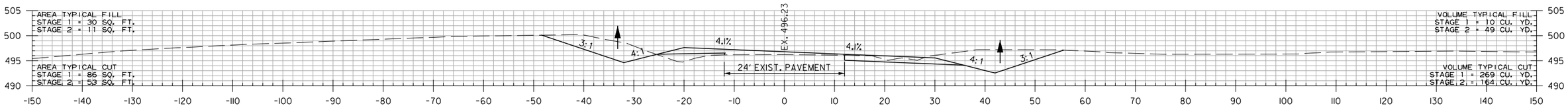


349+11.00



349+00.00

STA. 348+60
BEGIN SP. DT. LT. -7.00%
ELEV. 491.56



348+00.00

SITE 3
STA. 348+00 TO STA. 350+00

PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_3.dgn
REVISED DATE:

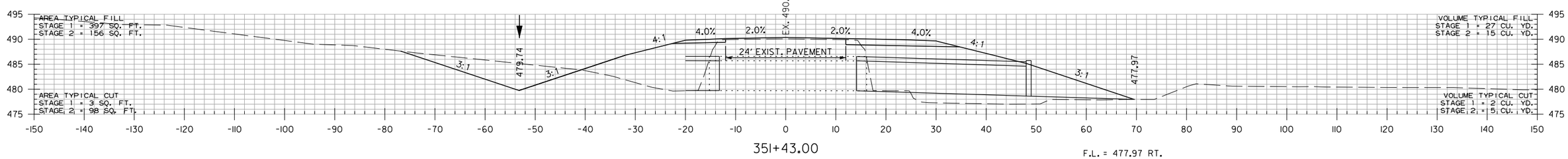
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	225	280
				(2)		CROSS SECTIONS		



352+00.00

STA. 351+56
BEGIN SP. DT. RT. 15.36%
ELEV. 477.97

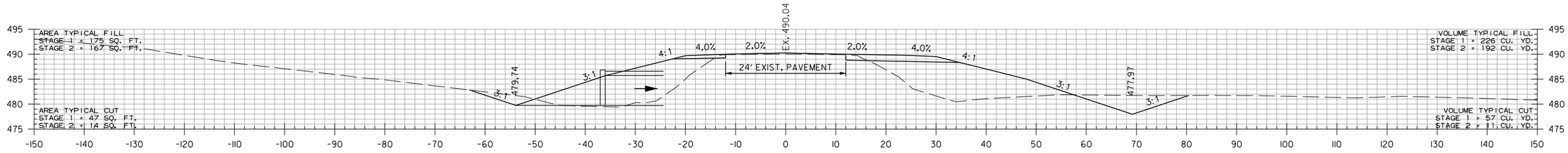
STA. 351+53
BEGIN SP. DT. LT. 7.14%
ELEV. 479.74



351+43.00

F.L. = 477.97 RT.

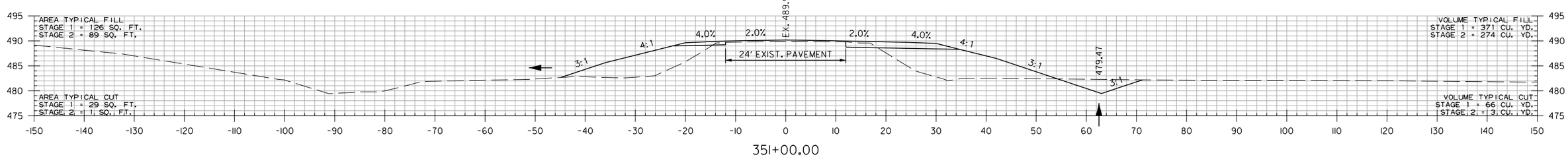
STA. 351+43 IN PLACE
10' X 6' X 31' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 23' LT. AND 34' RT.
FOR A COMPLETED LENGTH OF 88'
Q50 = 285 CFS DA = 164 ACRES



351+40.49

F.L. = 479.74 LT.

STA. 351+28
END SP. DT. RT. -5.35%
ELEV. 477.97

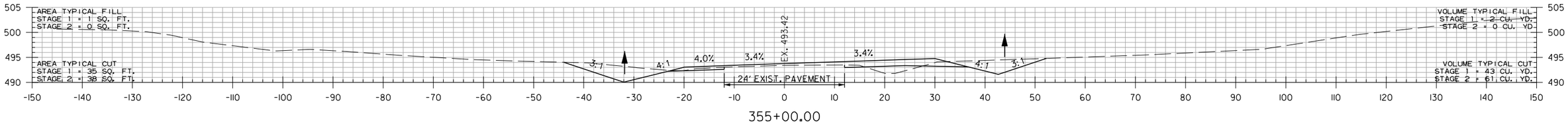


351+00.00

SITE 3
STA. 351+00 TO STA. 352+00

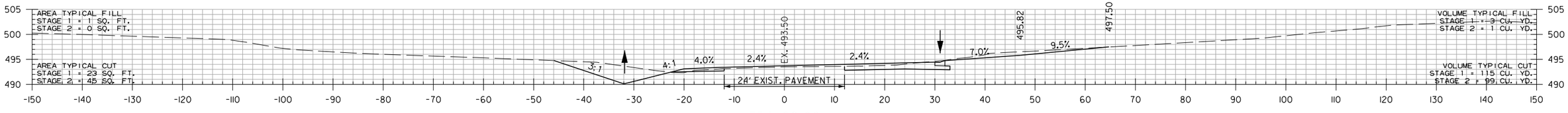
PJoseph 6/21/2023 10:49:43 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE 3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	226	280
				(2)	CROSS SECTIONS			

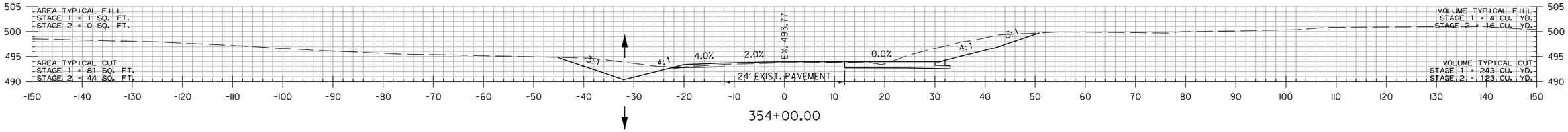


355+00.00

STA. 354+60 IN PLACE
18" X 24' METAL PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND CONSTRUCT
APPROACH ON RT. = 21 CU. YDS.

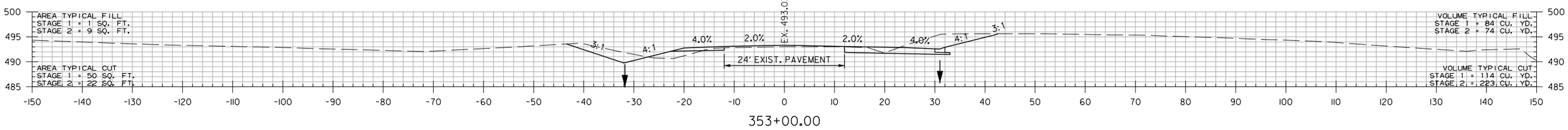


354+60.00



354+00.00

STA. 353+58.61 BEGIN SUPERELEVATION



353+00.00

STA. 352+90
END SP. DT. LT. 7.14%
ELEV. 489.52

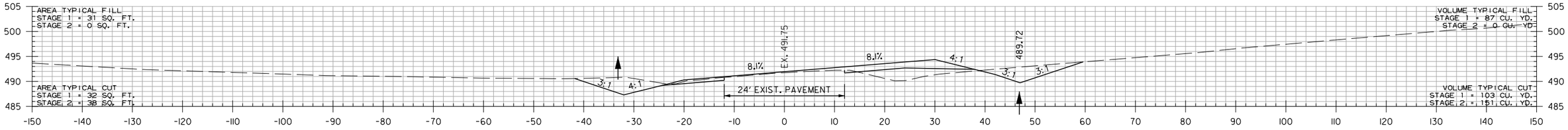
STA. 352+20
END SP. DT. RT. 15.36%
ELEV. 487.80

SITE 3
STA. 353+00 TO STA. 355+00

PJoseph 6/21/2023 10:49:44 AM
WORKSPACE: AHTD
L:\2017\170755 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

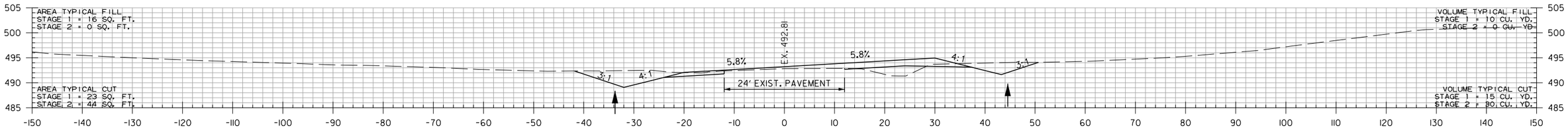
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	227	280
				(2)		CROSS SECTIONS		

STA. 357+78.61 MAX. SUPERELEVATION (0.100'/')



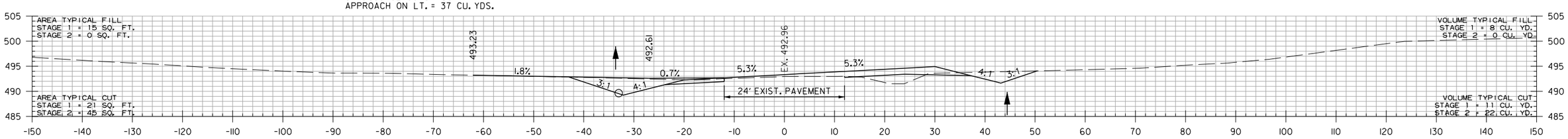
357+00.00

STA. 356+20
BEGIN SP. DT. RT. -2.14%
ELEV. 491.43



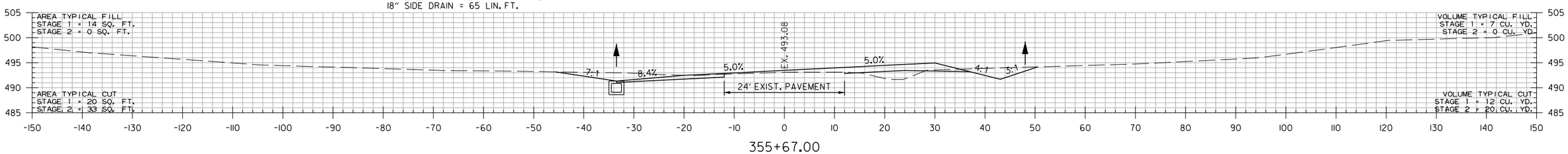
356+00.00

STA. 355+82 CONSTRUCT
APPROACH ON LT. = 37 CU. YDS.



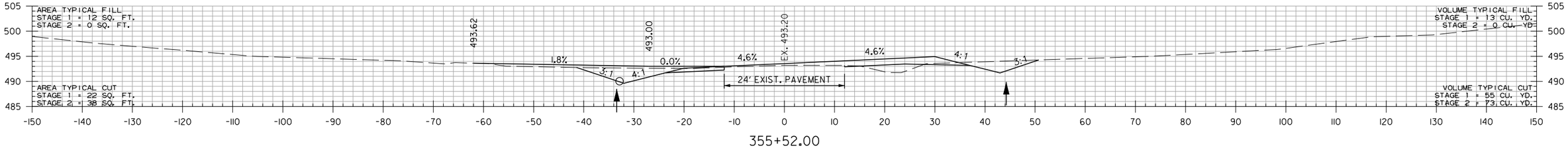
355+82.00

STA. 355+67 CONSTRUCT
DROP INLET ON LT.
H = 2'-3", W/18" X 32'
PIPE OUTLET SOUTH AND
W/18" X 33' PIPE OUTLET NORTH
TYPE E 4'-0" X 3'-0" W/ GRATE
18" SIDE DRAIN = 65 LIN. FT.



355+67.00

STA. 355+52 CONSTRUCT
APPROACH ON LT. = 33 CU. YDS.

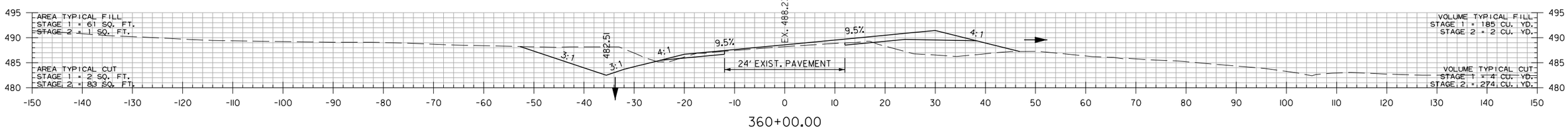


355+52.00

SITE 3
STA. 355+52 TO STA. 357+00

PJoseph 6/21/2023 10:49:44 AM
WORKSPACE: AHTD
L:\20\T\T01\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

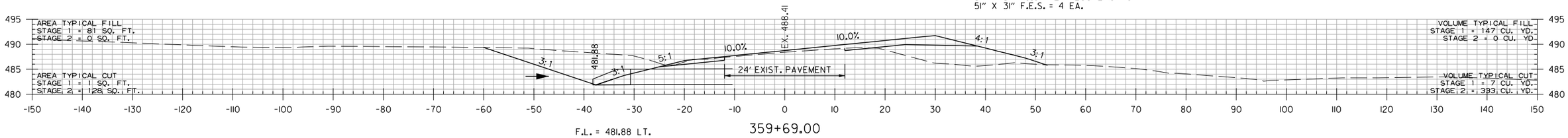
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	228	280
				(2)	CROSS SECTIONS			



360+00.00

STA. 359+78.89 MAX. SUPERELEVATION (0.100'/')

STA. 360+00 CONSTRUCT
DBL. 51" X 31" X 100' R.C. ARCH PIPE CULVERT
40° RT. FWD. SKEW
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 49 CFS DA = 16 ACRES
51" X 31" R.C. PIPE = 200 LIN. FT.
51" X 31" F.E.S. = 4 EA.

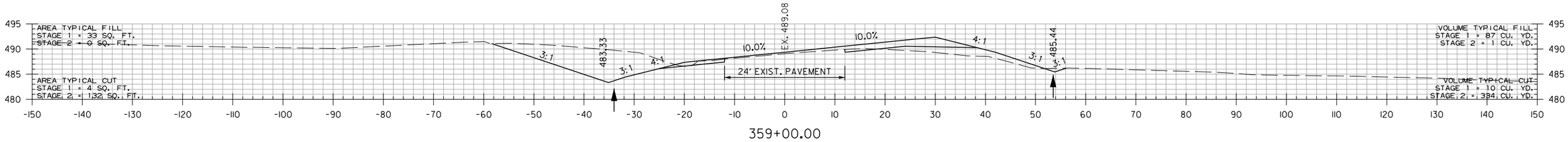


F.L. = 481.88 LT.

359+69.00

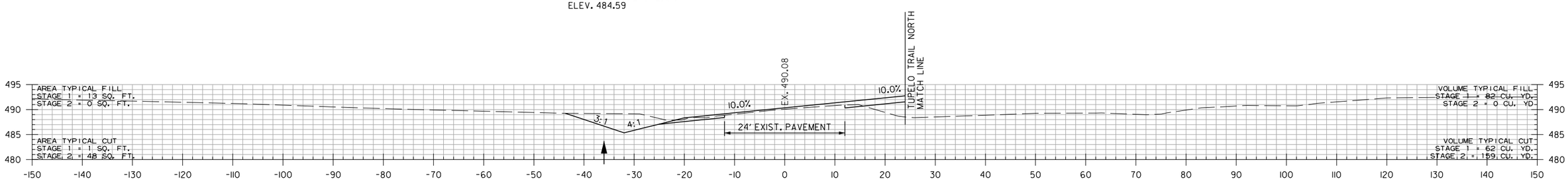
STA. 359+69
END SP. DT. LT. -2.10%
BEGIN SP. DT. LT. 2.03%
ELEV. 481.88

STA. 359+40
END SP. DT. RT. -2.14%
ELEV. 484.58



359+00.00

STA. 358+40
BEGIN SP. DT. LT. -2.10%
ELEV. 484.59

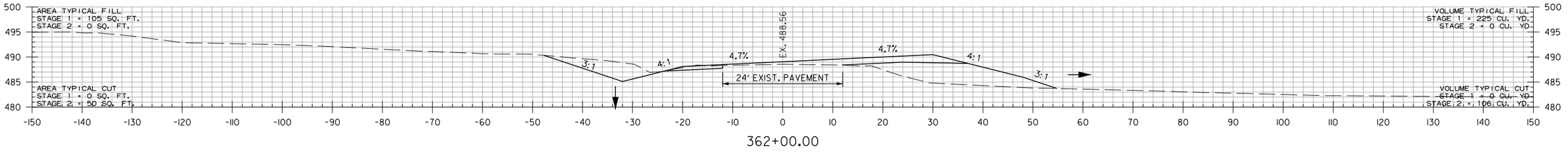


358+00.00

SITE 3
STA. 358+00 TO STA. 360+00

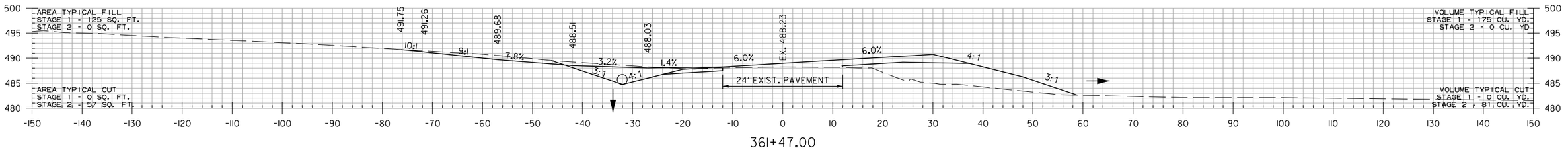
PJoseph 6/21/2023 10:49:44 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	229	280
				(2)	CROSS SECTIONS			

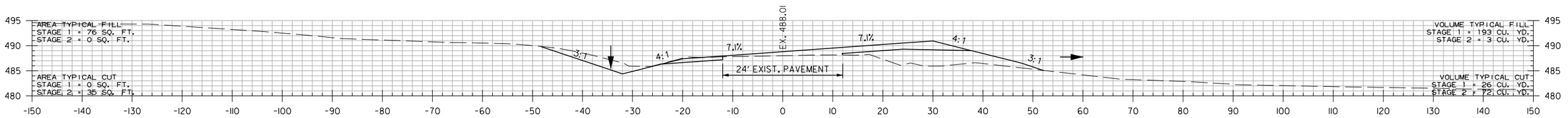


362+00.00

STA. 361+47 IN PLACE
18" X 37' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 52' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 99 CU. YDS.

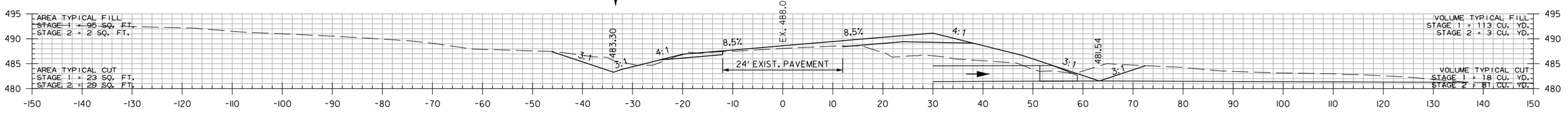


361+47.00



361+00.00

STA. 360+60
END SP. DT. LT. 2.03%
ELEV. 483.73



360+39.00

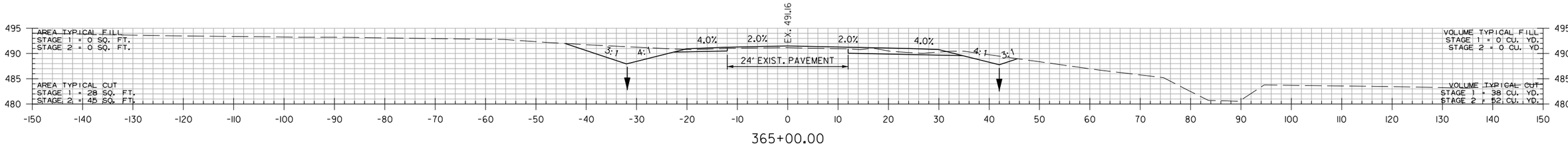
F.L. = 481.54 RT.

SITE 3
STA. 360+39 TO STA. 362+00

PJoseph 6/21/2023 10:49:44 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	230	280
				(2)		CROSS SECTIONS		

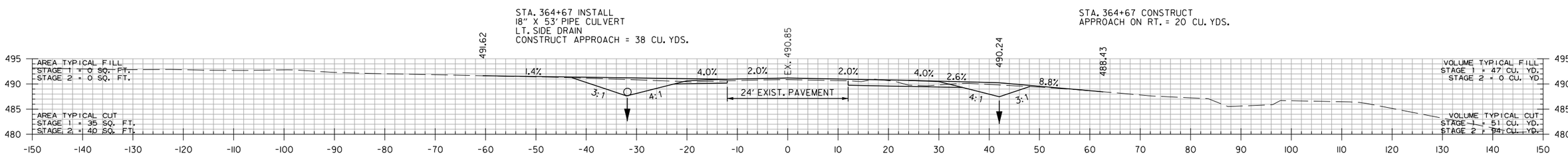
STA. 365+70
BEGIN SP. DT. RT. 0.40%
ELEV. 479.76



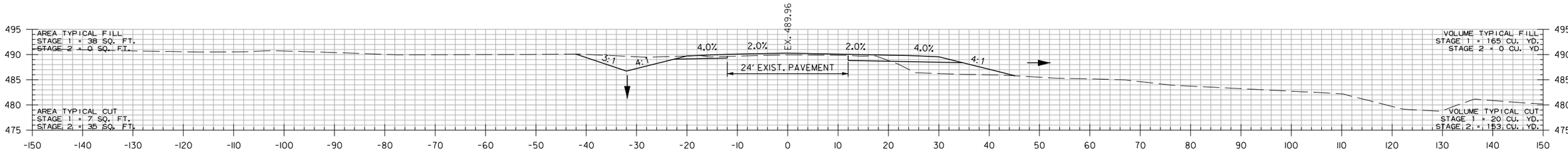
365+00.00

STA. 364+67 INSTALL
18" X 53' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 38 CU. YDS.

STA. 364+67 CONSTRUCT
APPROACH ON RT. = 20 CU. YDS.

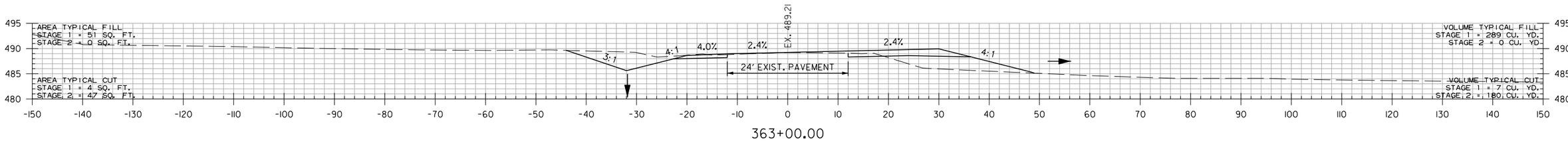


364+67.00



364+00.00

STA. 363+98.89 END SUPERELEVATION



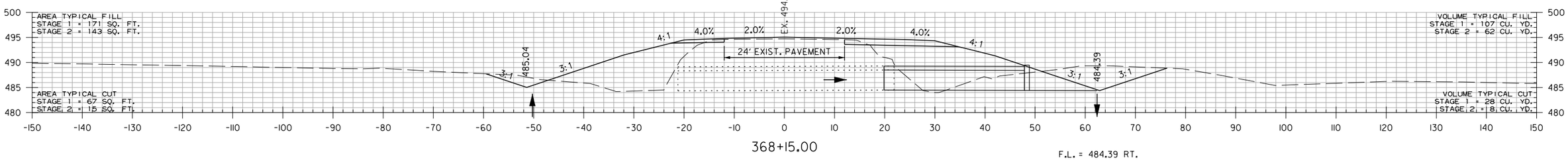
363+00.00

SITE 3
STA. 363+00 TO STA. 365+00

PJoseph 6/21/2023 10:49:44 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	231	280
				(2)	CROSS SECTIONS			

STA. 368+15 IN PLACE
8' X 4' X 43' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 21' LT. AND 28' RT.
FOR A COMPLETED LENGTH OF 92'
Q50 = 232 CFS DA = 183 ACRES

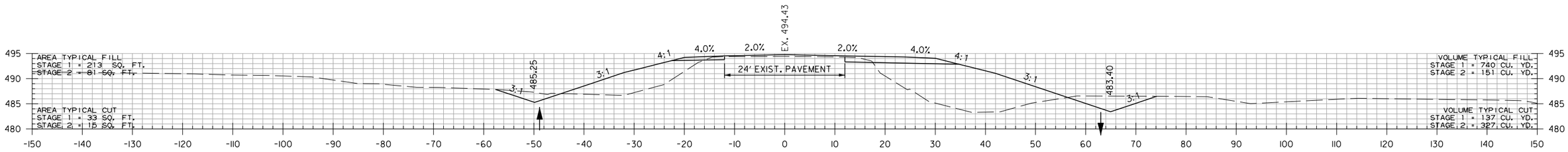


368+15.00

STA. 368+08
END SP. DT. LT. -2.68%
ELEV. 485.04

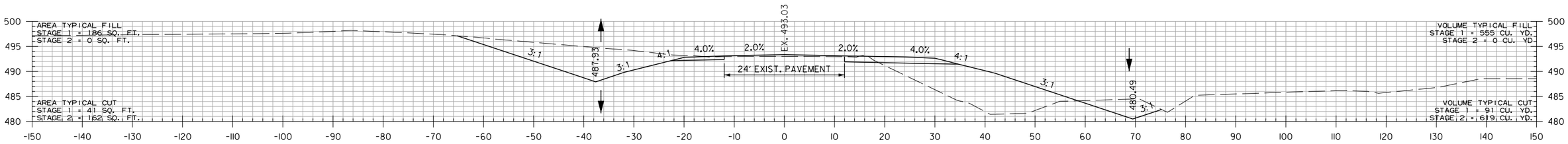
F.L. = 484.39 RT.

STA. 368+15
END SP. DT. RT. 6.60%
BEGIN SP. DT. RT. 10.00%
ELEV. 484.39



368+00.00

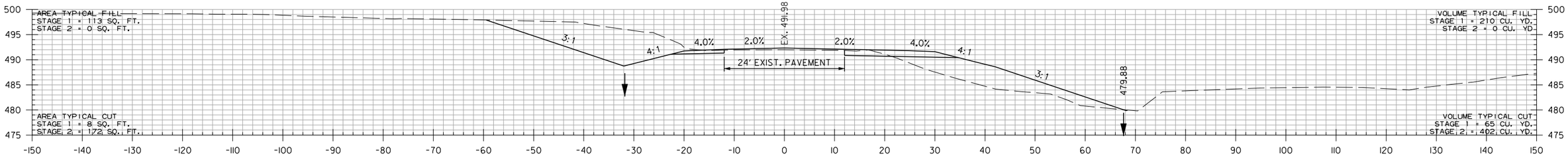
STA. 367+90
END SP. DT. RT. 2.50%
BEGIN SP. DT. RT. 6.60%
ELEV. 482.74



367+00.00

STA. 366+50
BEGIN SP. DT. LT. -2.68%
ELEV. 489.27

STA. 366+90
END SP. DT. RT. 0.40%
BEGIN SP. DT. RT. 2.50%
ELEV. 480.24

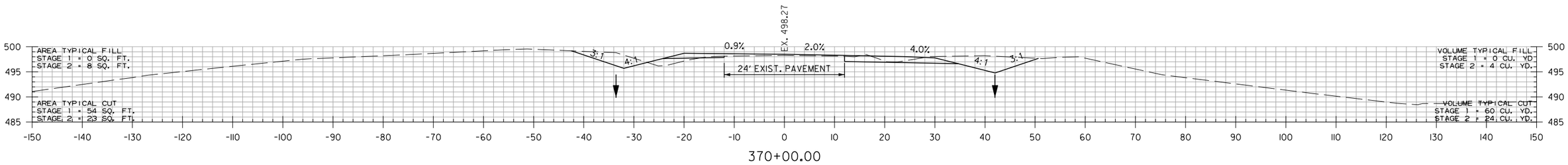


366+00.00

SITE 3
STA. 366+00 TO STA. 368+15

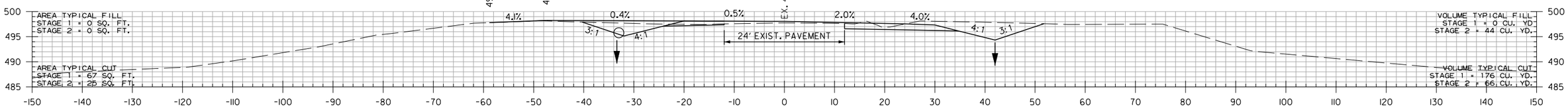
PJoseph 6/21/2023 10:49:44 AM
WORKSPACE: AHTD
L:\2017\170175S5 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	232	280
				(2)	CROSS SECTIONS			



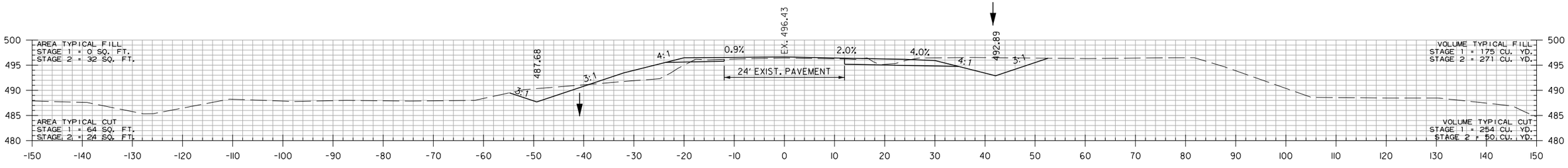
370+00.00

STA. 369+73 INSTALL
24" X 40' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 33 CU. YDS.



369+73.00

STA. 369+60
END SP. DT. LT. 11.92%
ELEV. 494.84



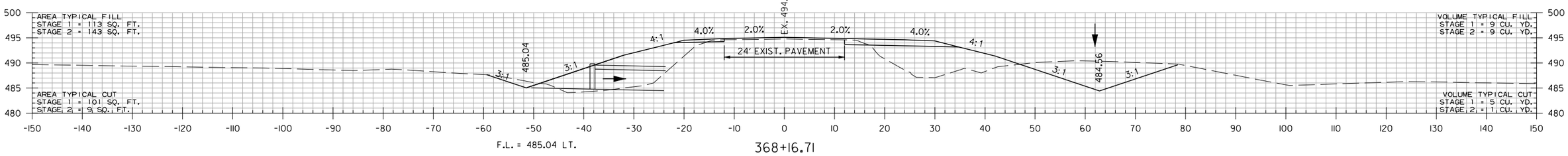
369+00.00

STA. 368+80
END SP. DT. LT. 0.51%
BEGIN SP. DT. LT. 11.92%
ELEV. 485.30

STA. 368+29
BEGIN SP. DT. LT. 0.51%
ELEV. 485.04

STA. 369+00
END SP. DT. RT. 10.00%
ELEV. 492.89

STA. 368+35.03 BEGIN SUPERELEVATION



F.L. = 485.04 LT.

368+16.71

SITE 3
STA. 368+16.71 TO STA. 370+00

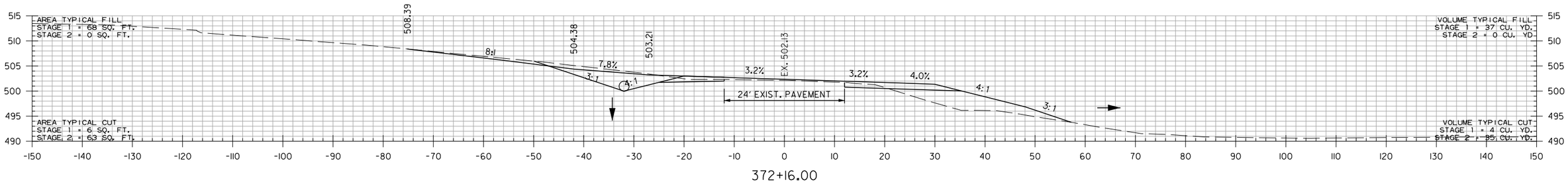
Pjoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

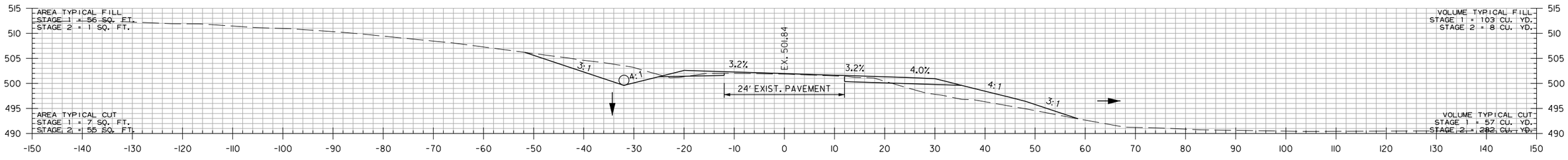
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	233	280

(2) CROSS SECTIONS

STA. 372+16 IN PLACE
20" X 24' METAL PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 57 CU. YDS.

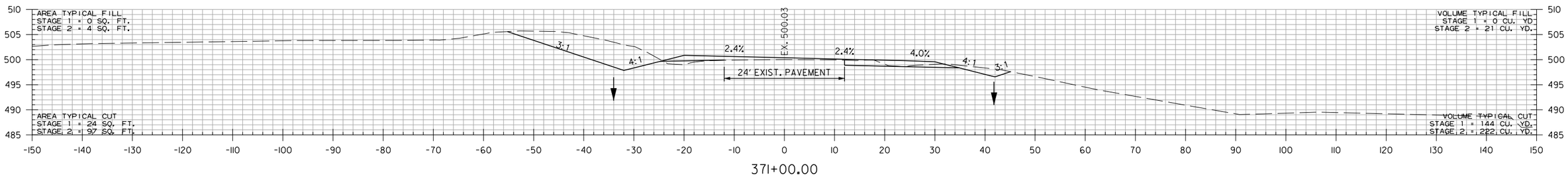


372+16.00



372+00.00

STA. 371+95.03 MAX. SUPERELEVATION (0.032'/')



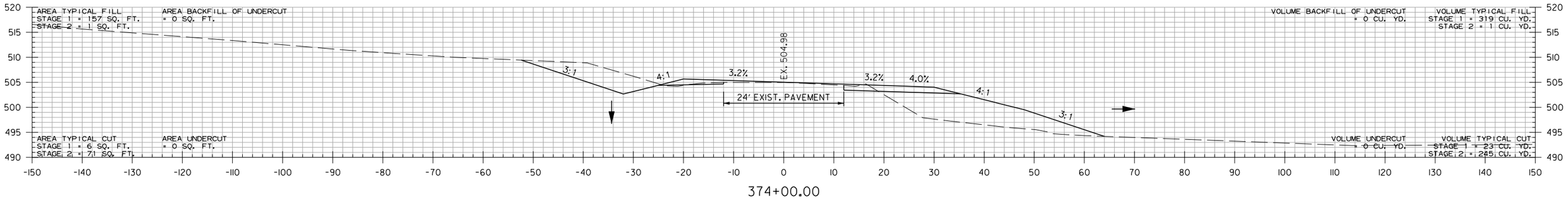
371+00.00

SITE 3
STA. 371+00 TO STA. 372+16

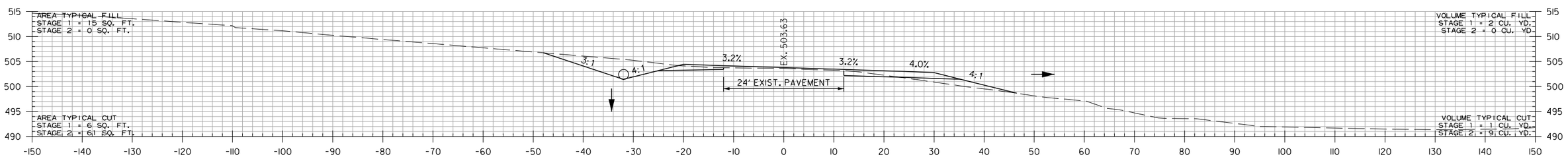
PJoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	234	280
				(2)	CROSS SECTIONS			

STA. 374+48.09 MAX. SUPERELEVATION (0.032'/')



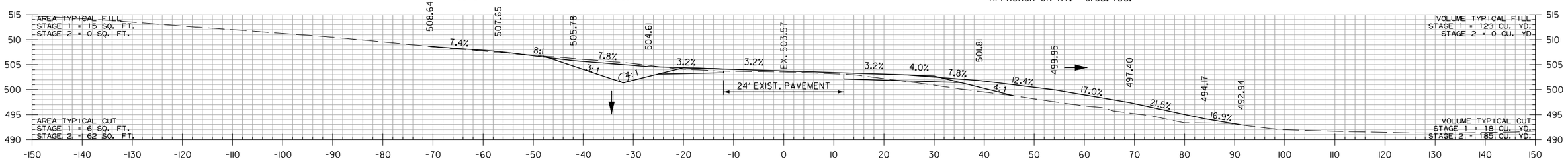
374+00.00



373+00.00

STA. 372+96 IN PLACE
18" X 25' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 42' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 50 CU. YDS.

STA. 372+96 CONSTRUCT
APPROACH ON RT. = 61 CU. YDS.



372+96.00

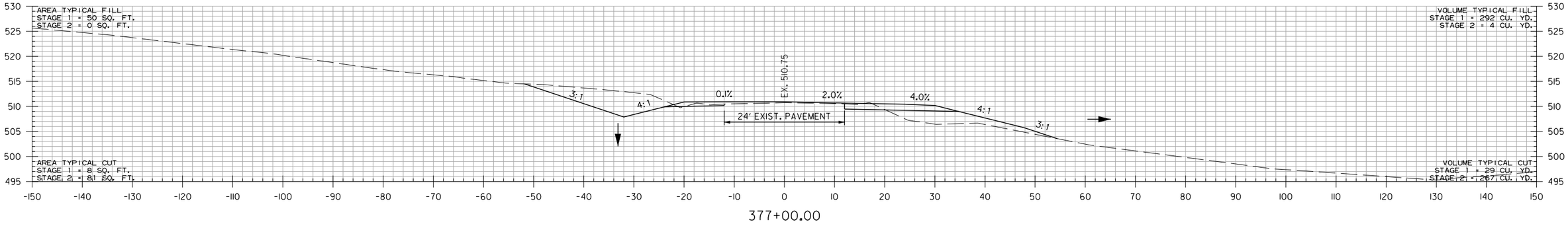
SITE 3
STA. 372+96 TO STA. 374+00

PJoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
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REVISED DATE:

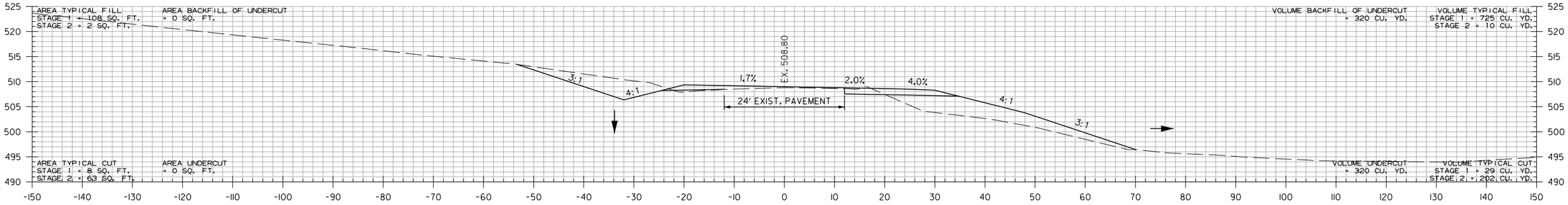
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	235	280

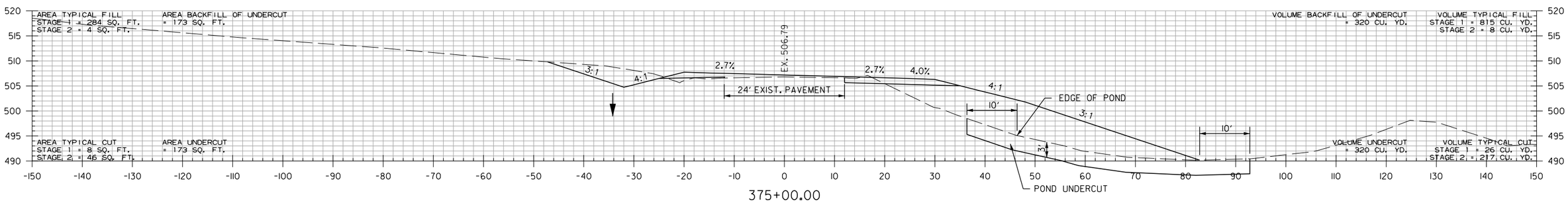
(2) CROSS SECTIONS



377+00.00



376+00.00

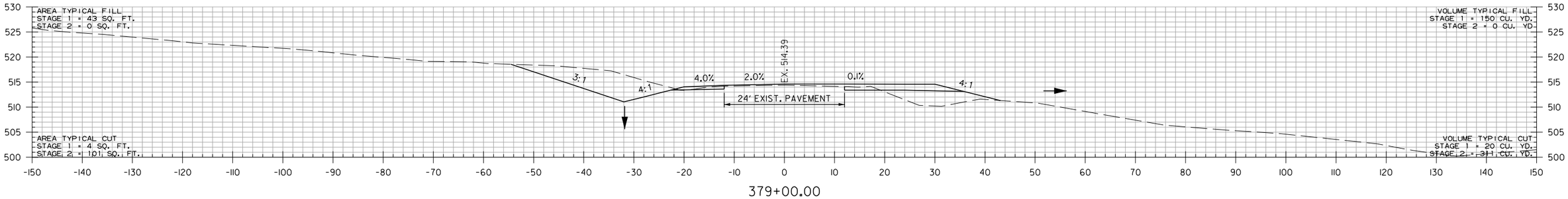


375+00.00

SITE 3
STA. 375+00 TO STA. 377+00

Pjoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
L:\20\7\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	236	280
				(2)	CROSS SECTIONS			

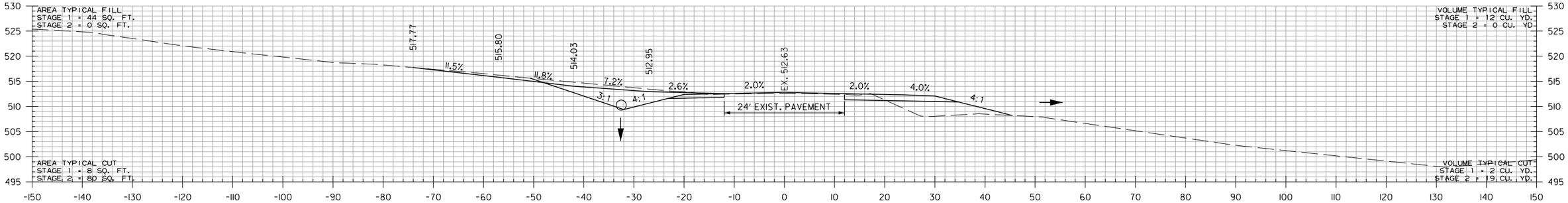


379+00.00

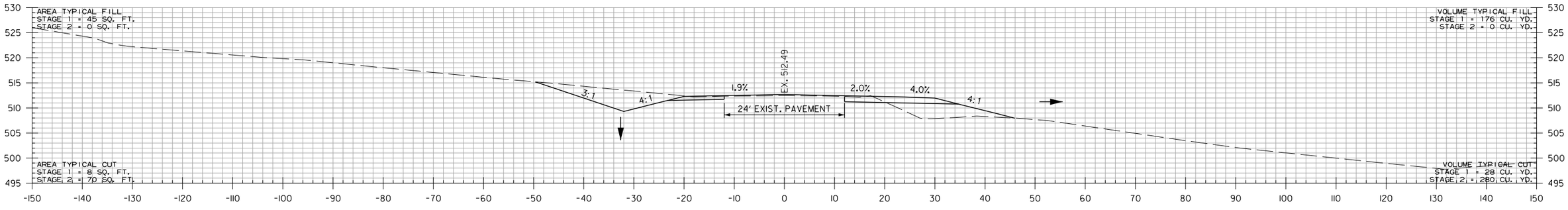
STA. 378+59.32 BEGIN SUPERELEVATION

STA. 378+07 IN PLACE
18" X 40' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
24" X 43' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 63 CU. YDS.

STA. 378+08.09 END SUPERELEVATION



378+07.00



378+00.00

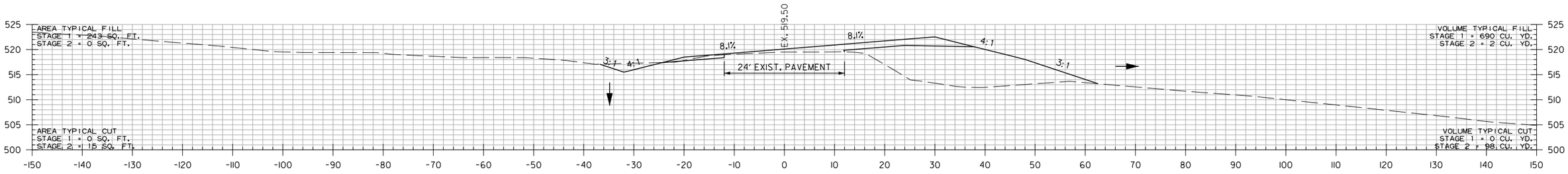
SITE 3
STA. 378+00 TO STA. 379+00

PJoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
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REVISED DATE:

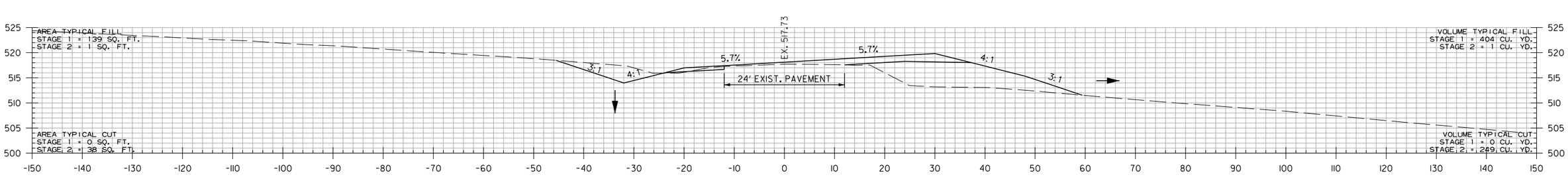
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	237	280
(2)	CROSS SECTIONS			

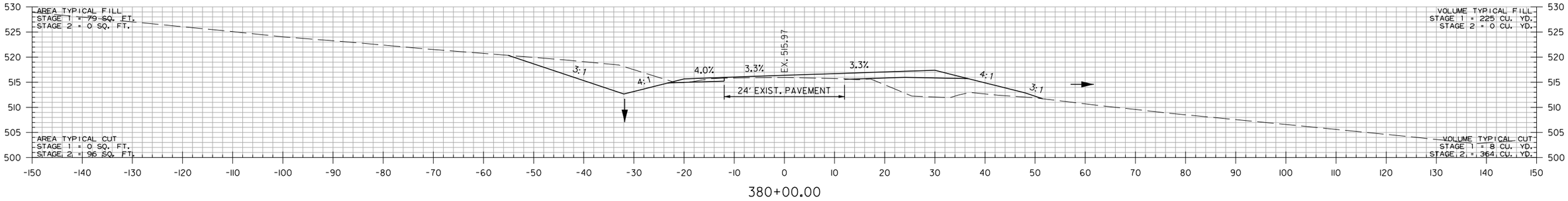
STA. 382+38.40 MAX. SUPERELEVATION (0.090'/')



382+00.00



381+00.00



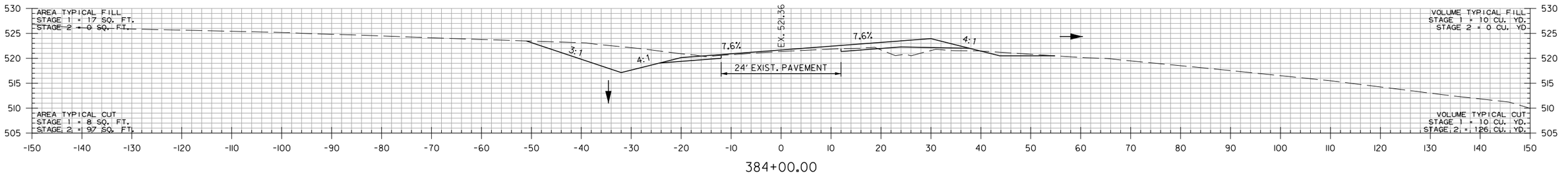
380+00.00

SITE 3
STA. 380+00 TO STA. 382+00

PJoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
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REVISED DATE:

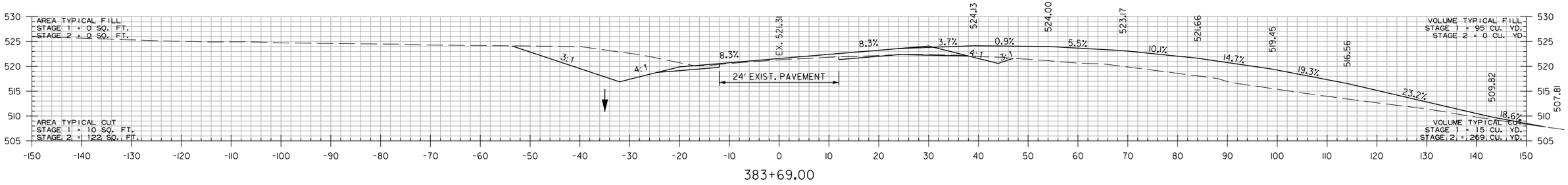
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	238	280
(2)	CROSS SECTIONS			



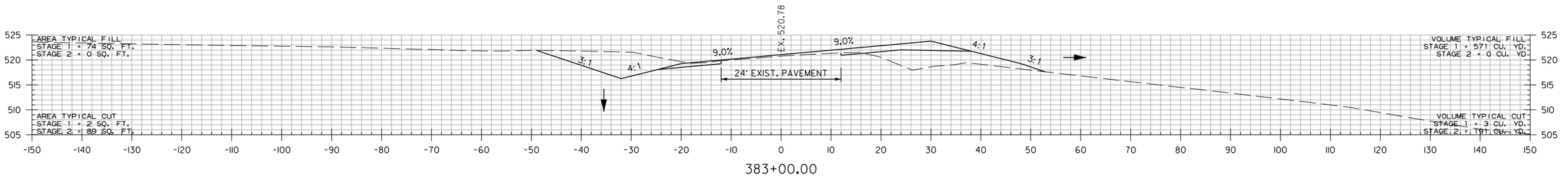
384+00.00

STA. 383+69 CONSTRUCT
APPROACH ON RT. = 195 CU. YDS.



383+69.00

STA. 383+41.40 MAX. SUPERELEVATION (0.090'/')



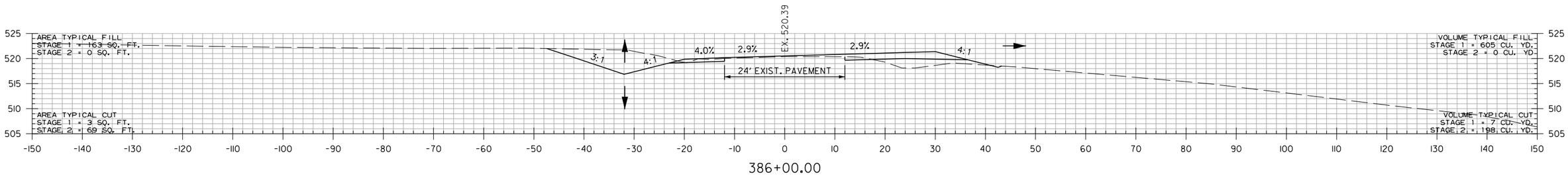
383+00.00

SITE 3
STA. 383+00 TO STA. 384+00

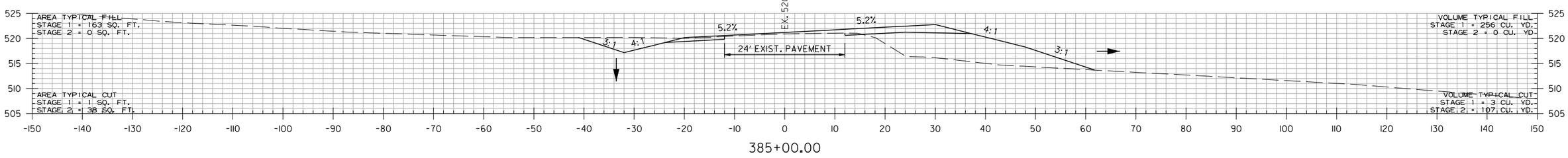
PJoseph
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
6/21/2023 10:49:45 AM
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	239	280
(2)	CROSS SECTIONS			

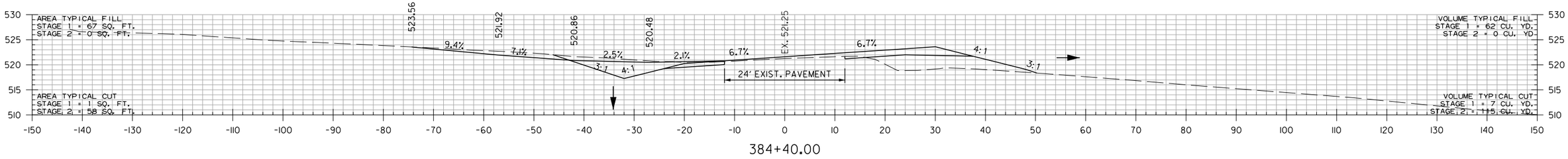


386+00.00



385+00.00

STA. 384+40 CONSTRUCT
APPROACH ON LT. = 54 CU. YDS.



384+40.00

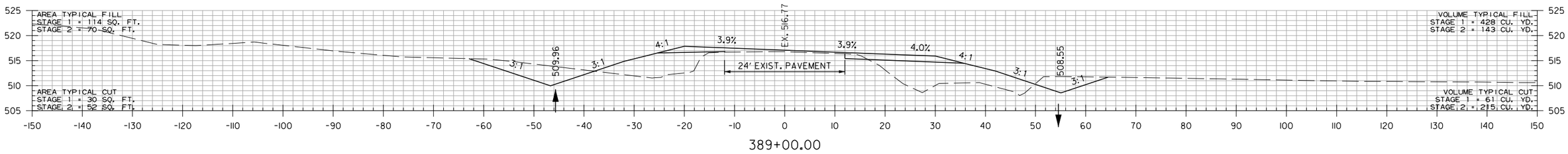
SITE 3
STA. 384+40 TO STA. 386+00

PJoseph 6/21/2023 10:49:45 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

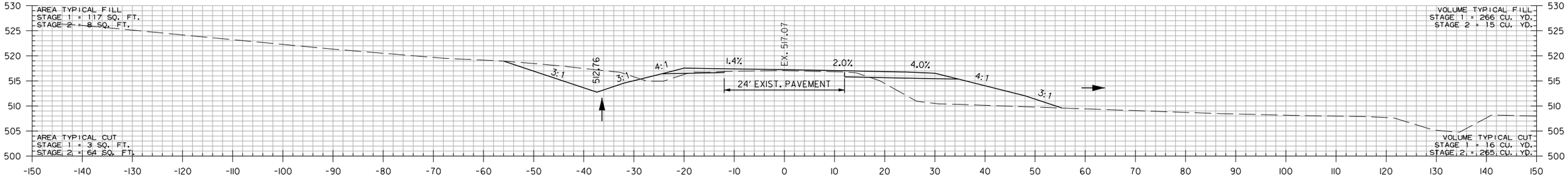
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	240	280

(2) CROSS SECTIONS



389+00.00

STA. 388+40
BEGIN SP. DT. RT. 3.41%
ELEV. 506.50

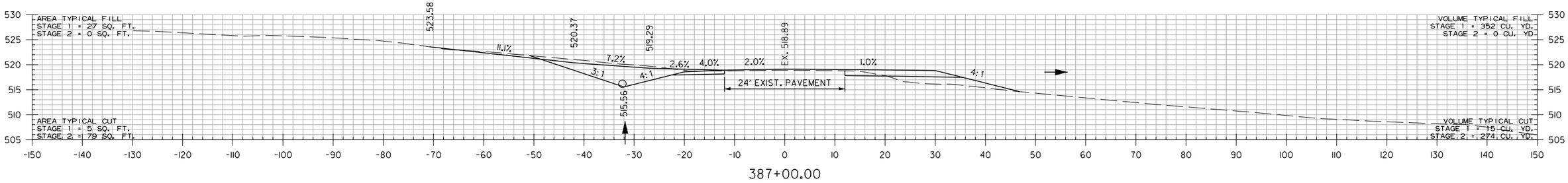


388+00.00

STA. 387+00 INSTALL
18" X 40' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 46 CU. YDS.

STA. 387+20.48 BEGIN SUPERELEVATION

STA. 387+20.48 END SUPERELEVATION



387+00.00

STA. 387+00
BEGIN SP. DT. LT. -2.80%
ELEV. 515.56

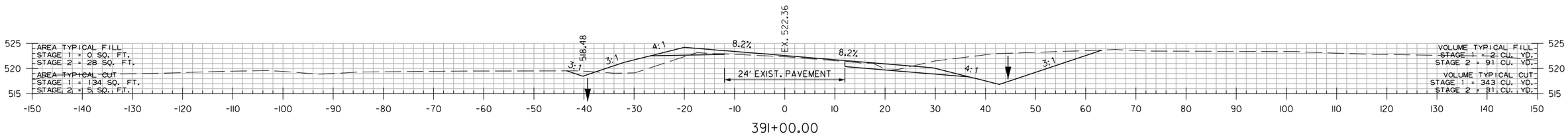
SITE 3
STA. 387+00 TO STA. 389+00

PJoseph 6/21/2023 10:49:46 AM
WORKSPACE: AHTD
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REVISED DATE:

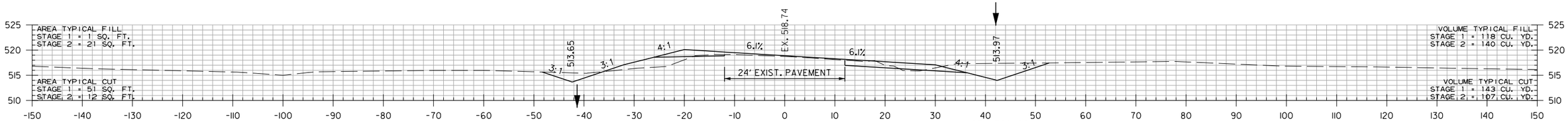
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	241	280
				(2)		CROSS SECTIONS		

STA. 391+40.48 MAX. SUPERELEVATION (0.091'/')

STA. 391+50
END SP. DT. LT. 4.83%
BEGIN SP. DT. LT. 5.78%
ELEV. 520.89



391+00.00



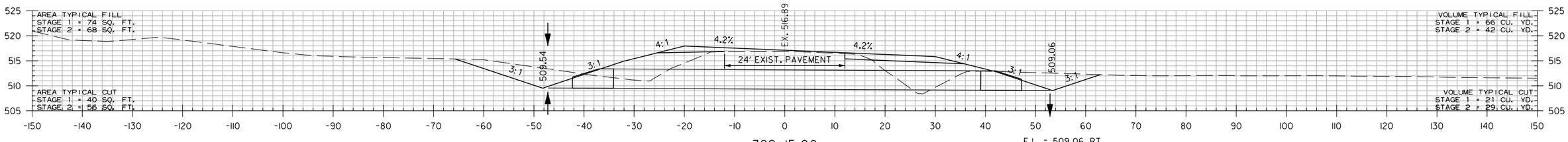
390+00.00

STA. 390+00
END SP. DT. RT. 5.78%
ELEV. 513.97

STA. 389+15
END SP. DT. LT. -2.80%
BEGIN SP. DT. LT. 4.83%
ELEV. 509.54

STA. 389+15
END SP. DT. RT. 3.41%
BEGIN SP. DT. RT. 5.78%
ELEV. 509.06

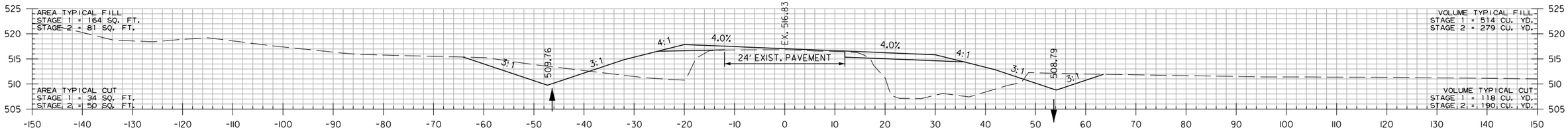
STA. 389+15 CONSTRUCT
42" X 73' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 61CFS DA = 28 ACRES
42" R.C. PIPE = 73 LIN. FT.
42" F.E.S. = 2 EA.



F.L. = 509.54 LT.

389+15.00

F.L. = 509.06 RT.



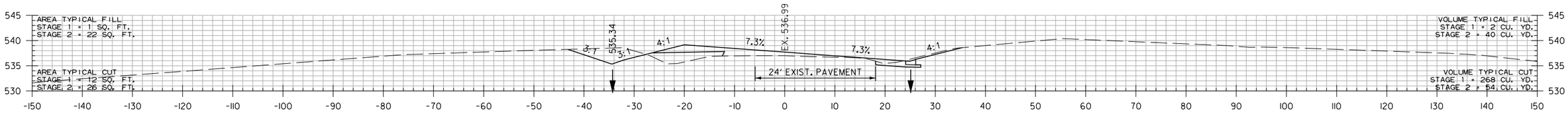
389+07.00

SITE 3
STA. 389+07 TO STA. 391+00

PJoseph 6/21/2023 10:49:46 AM
WORKSPACE: AHTD
L:\201\701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_3.dgn
REVISED DATE:

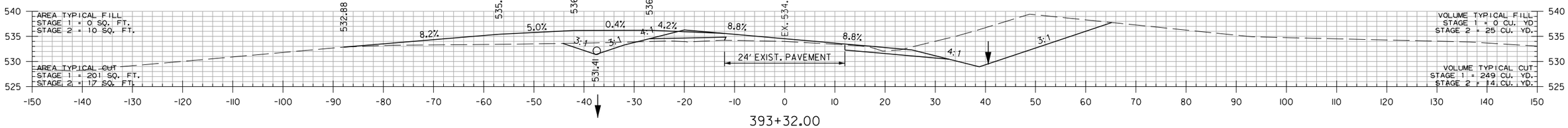
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	242	280
				(2)	CROSS SECTIONS			

STA. 394+30
END SP. DT. LT. 5.78%
ELEV. 537.07



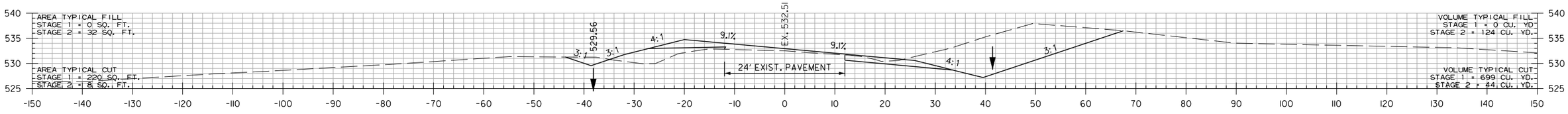
394+00.00

STA. 393+32 IN PLACE
18" X 48' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 46' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 69 CU. YDS.

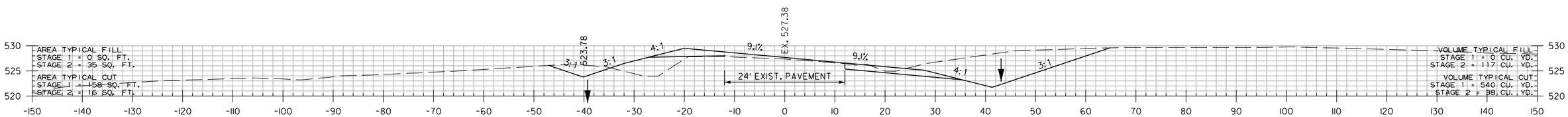


393+32.00

STA. 393+16.07 MAX. SUPERELEVATION (0.091'/')



393+00.00



392+00.00

SITE 3
STA. 392+00 TO STA. 394+00

PJoseph 6/21/2023 10:49:46 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_3.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	243	280
				(2)		CROSS SECTIONS		

AREA TYPICAL FILL
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.

AREA TYPICAL CUT
STAGE 1 = 0 SQ. FT.
STAGE 2 = 0 SQ. FT.

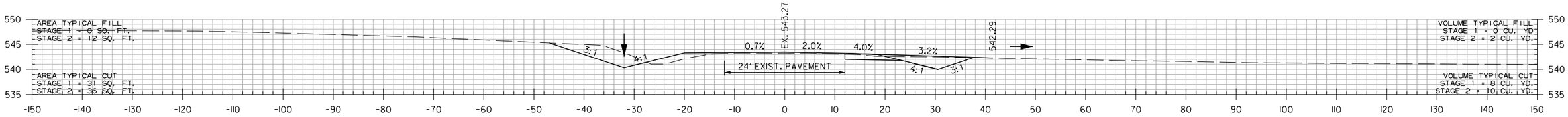
STA. 397+36.07
END SITE 3

STA. 397+36.07 END SUPERELEVATION

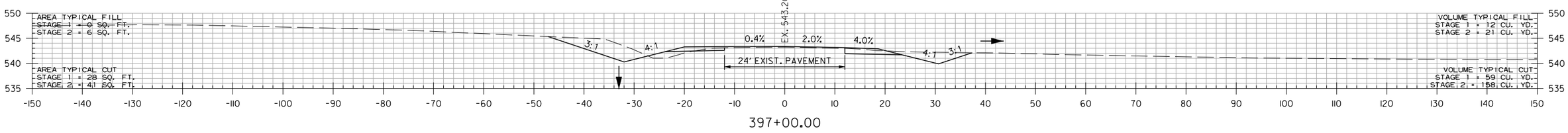
STA. 397+07 CONSTRUCT
APPROACH ON RT. = 19 CU. YDS.

VOLUME TYPICAL FILL
STAGE 1 = 0 CU. YD.
STAGE 2 = 6 CU. YD.

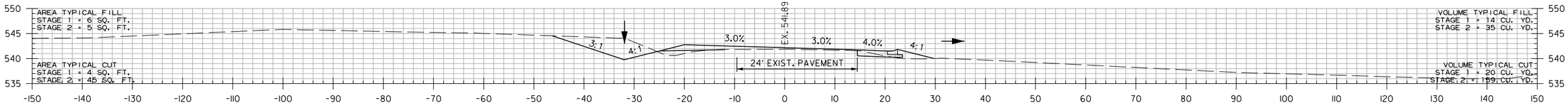
VOLUME TYPICAL CUT
STAGE 1 = 16 CU. YD.
STAGE 2 = 19 CU. YD.



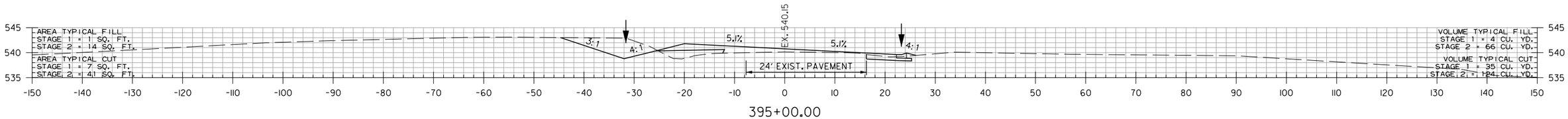
397+07.00



397+00.00



396+00.00



395+00.00

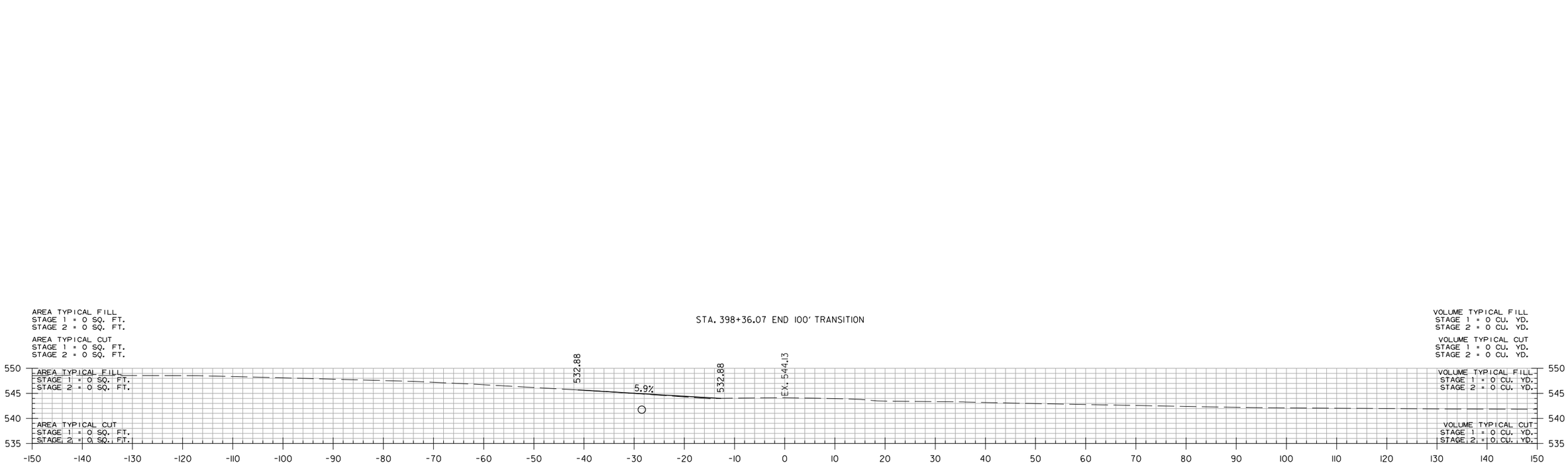
SITE 3
STA. 395+00 TO STA. 397+07

PJoseph 6/21/2023 10:49:46 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	244	280

(2) CROSS SECTIONS



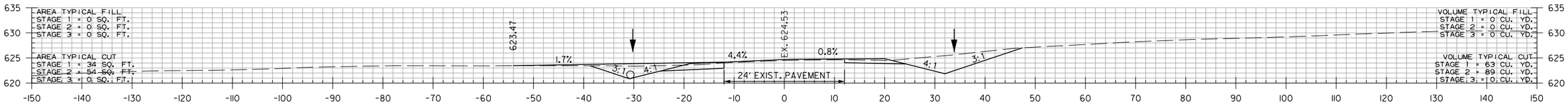
SITE 3
STA. 398+00 TO STA. 398+00

PJoseph 6/21/2023 10:49:46 AM
WORKSPACE: AHTD
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REVISED DATE:

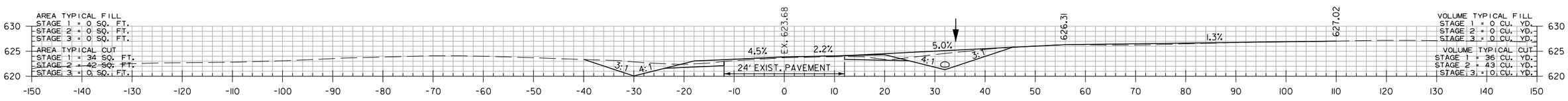
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	245	280

(2) CROSS SECTIONS

STA. 443+50 INSTALL
18" X 34' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 12 CU. YDS.



443+50.00

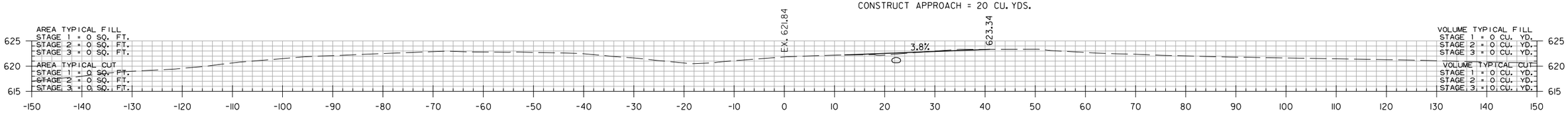


443+00.00

STA. 442+92 CONSTRUCT
21" X 15" X 36' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 49 CU. YDS.

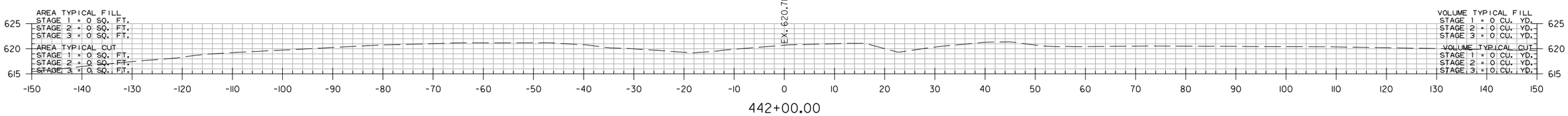
STA. 433+00.00
BEGIN SITE 4

STA. 442+35 IN PLACE
18" X 42' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
21" X 15" X 44' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 20 CU. YDS.

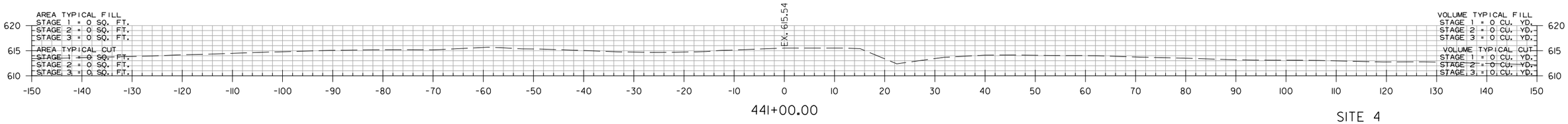


442+32.00

STA. 442+00.00 BEGIN 100' TRANSITION



442+00.00

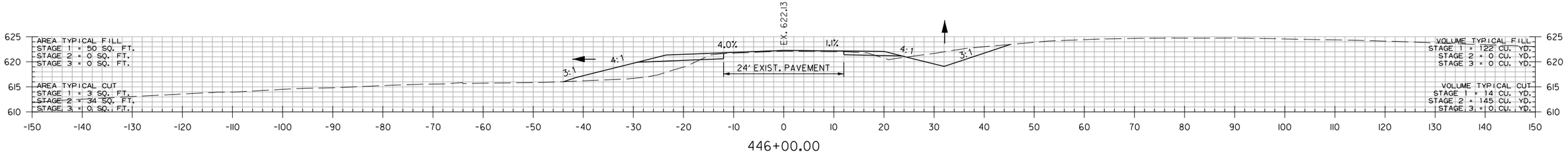


441+00.00

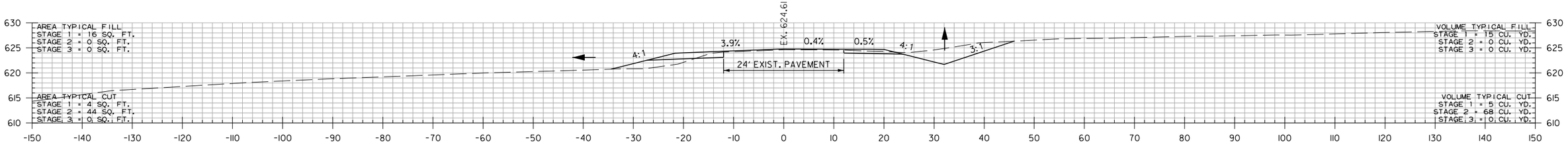
SITE 4
STA. 440+00 TO STA. 443+50

Pjoseph 6/21/2023 10:49:47 AM
WORKSPACE: AHTD
L:\201\1701\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	246	280
				(2)	CROSS SECTIONS			

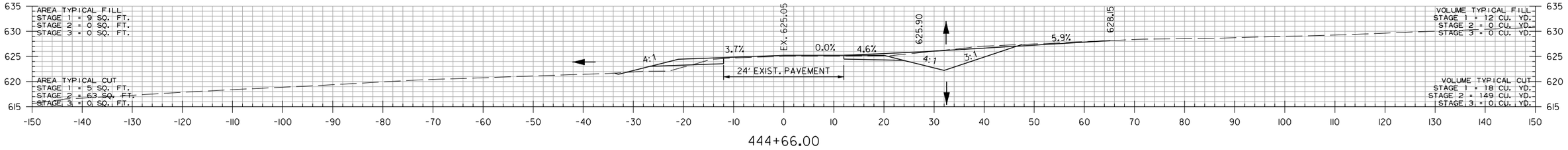


446+00.00

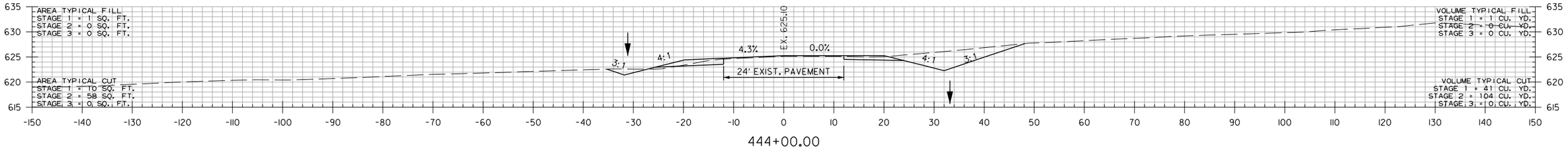


445+00.00

STA. 444+66 CONSTRUCT
APPROACH ON RT. = 25 CU. YDS.



444+66.00

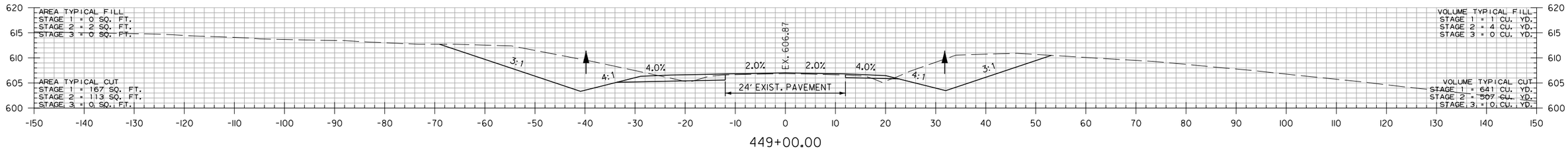


444+00.00

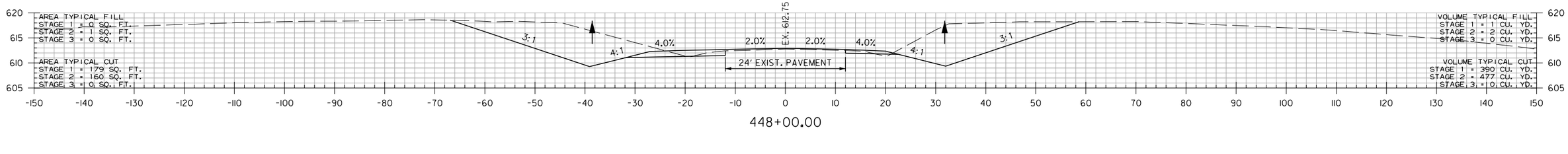
SITE 4
STA. 444+00 TO STA. 446+00

PJoseph 6/21/2023 10:49:47 AM
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REVISED DATE:

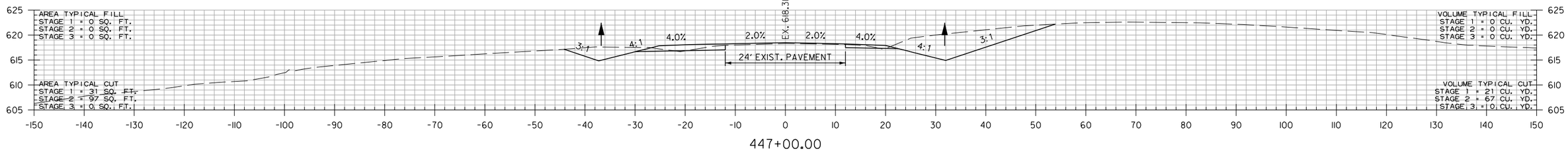
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	247	280
				(2)	CROSS SECTIONS			



449+00.00

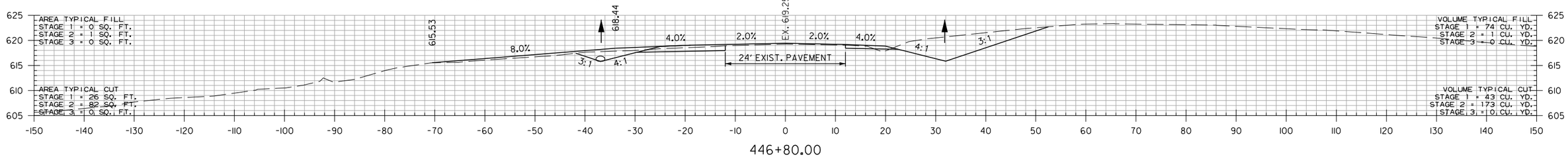


448+00.00



447+00.00

STA. 446+80 IN PLACE
18" X 29' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
21" X 15" X 37' ARCH PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 12 CU. YDS.

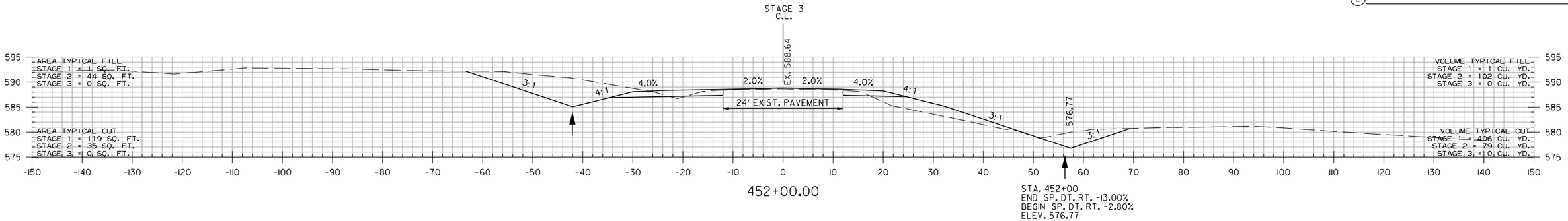


446+80.00

SITE 4
STA. 446+80 TO STA. 449+00

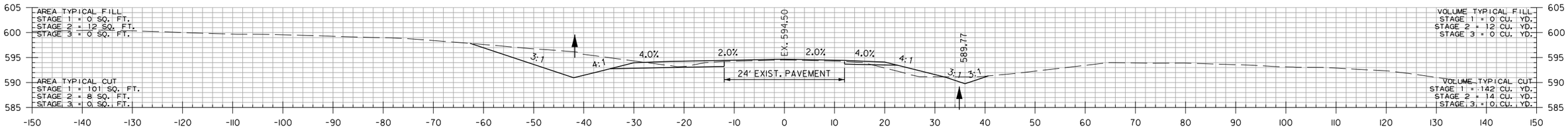
PJoseph 6/21/2023 10:49:47 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	248	280
				(2)	CROSS SECTIONS			



452+00.00

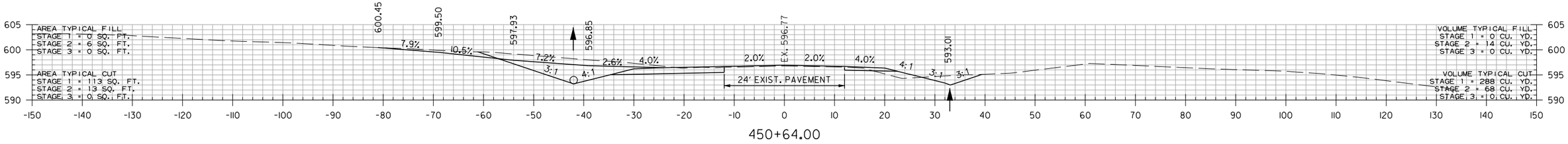
STA. 452+00
END SP. DT. RT. -13.00%
BEGIN SP. DT. RT. -2.80%
ELEV. 576.77



451+00.00

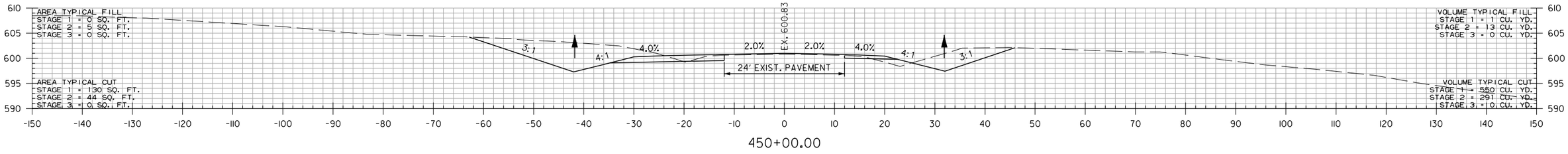
STA. 451+00
END SP. DT. RT. -9.00%
BEGIN SP. DT. RT. -13.00%
ELEV. 589.77

STA. 450+64 IN PLACE
18" X 25' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 47' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 28 CU. YDS.



450+64.00

STA. 450+50
BEGIN SP. DT. RT. -9.00%
ELEV. 594.27

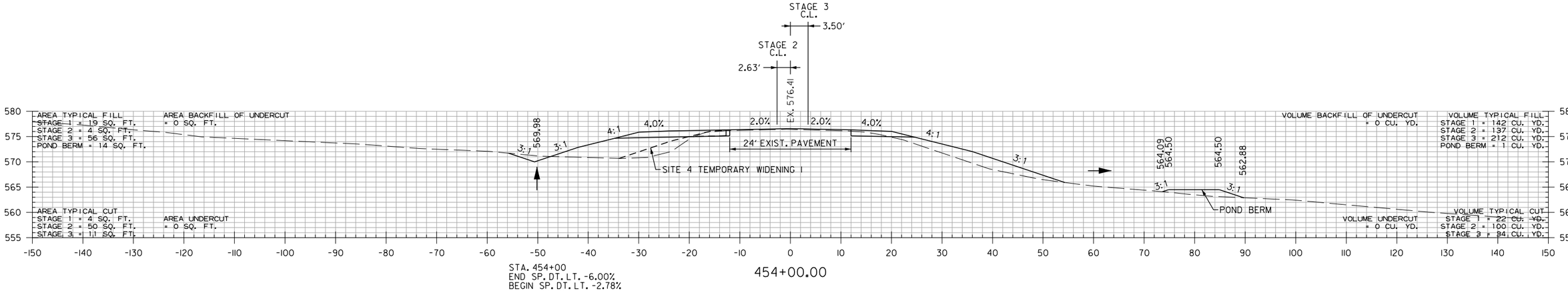


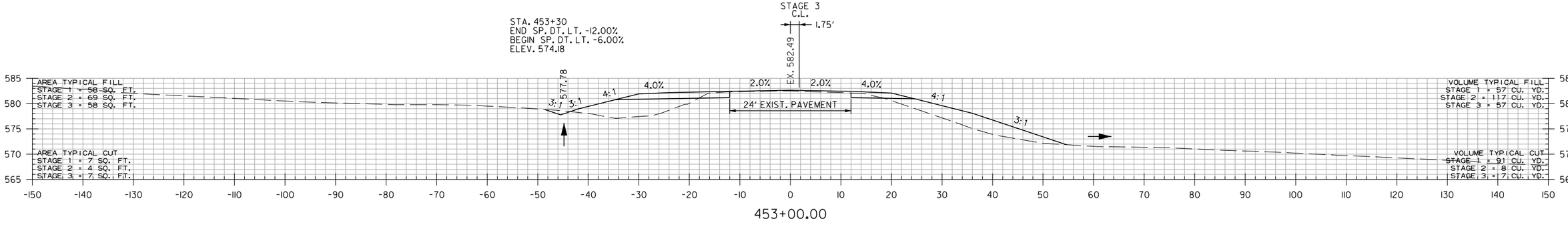
450+00.00

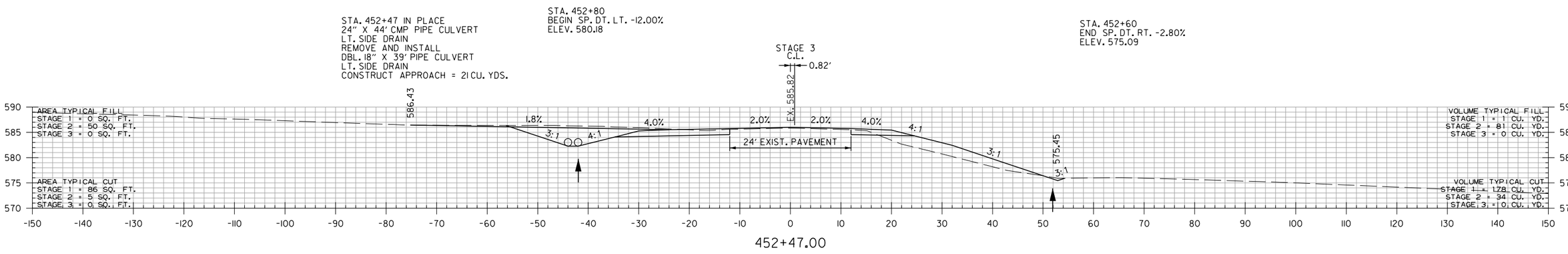
SITE 4
STA. 450+00 TO STA. 452+00

PJoseph 6/21/2023 10:49:47 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09-06-2023				6	ARK.			
				JOB NO.		012275	249	280
				(2)		CROSS SECTIONS		







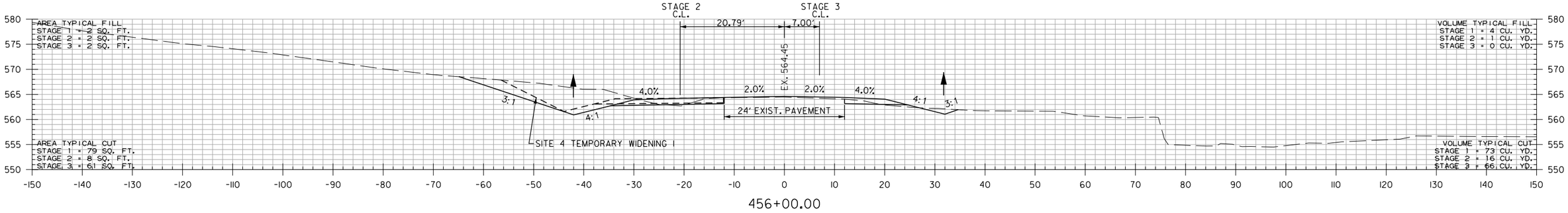
SITE 4
STA. 452+47 TO STA. 454+00

CGervasini 9/6/2023 2:30:53 PM
WORKSPACE: AHTD
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REVISED DATE:

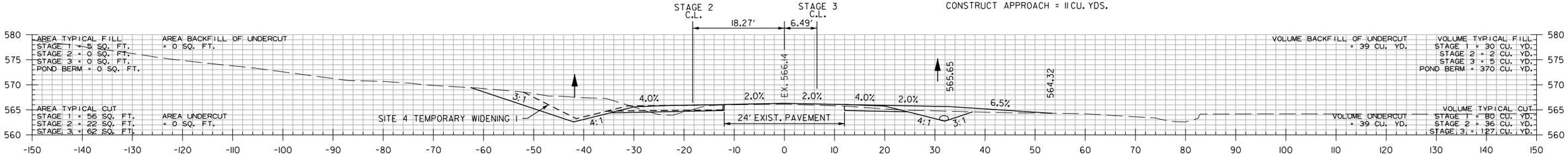
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
09-06-2023			

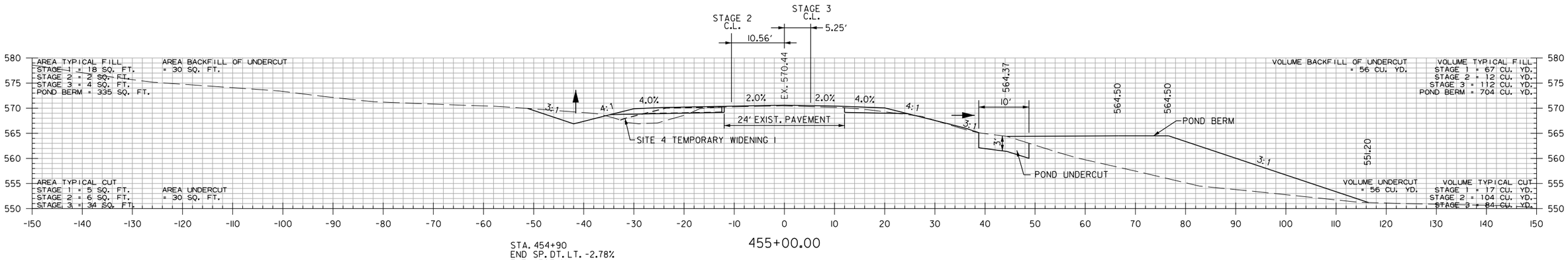
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	250	280

(2) CROSS SECTIONS



STA. 455+71 INSTALL
21" X 15" X 39' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 11 CU. YDS.



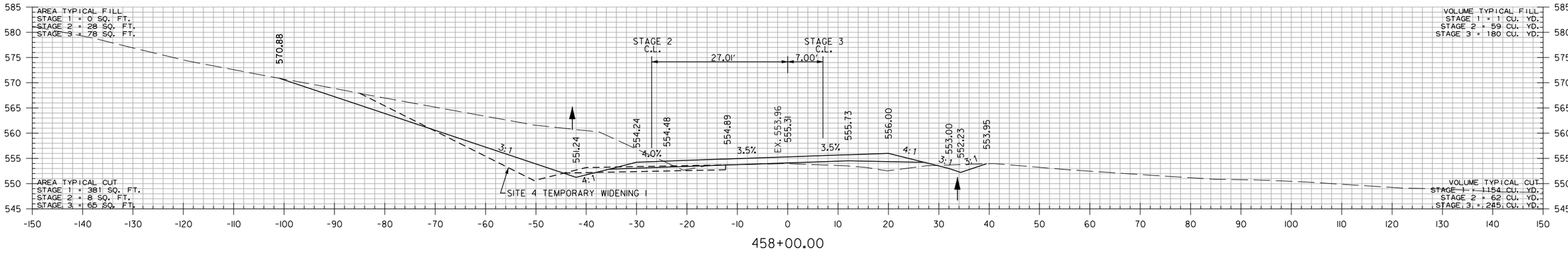


STA. 454+90
END SP. DT. LT. -2.78%
ELEV. 567.48

SITE 4
STA. 455+00 TO STA. 456+00

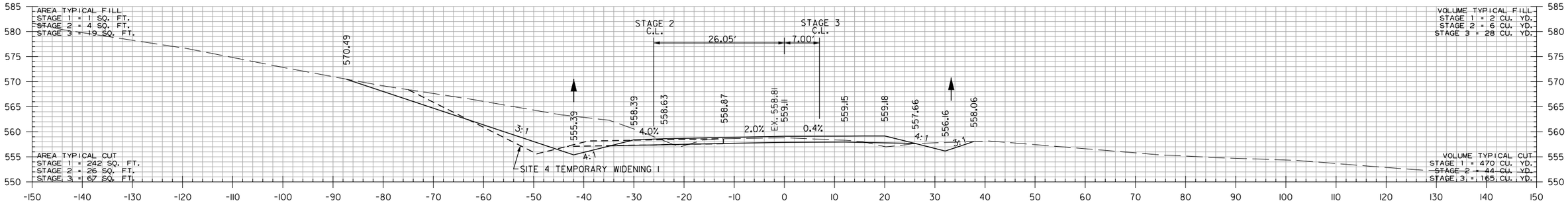
CGervasini 9/6/2023 2:30:53 PM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	251	280
				(2)	CROSS SECTIONS			



458+00.00

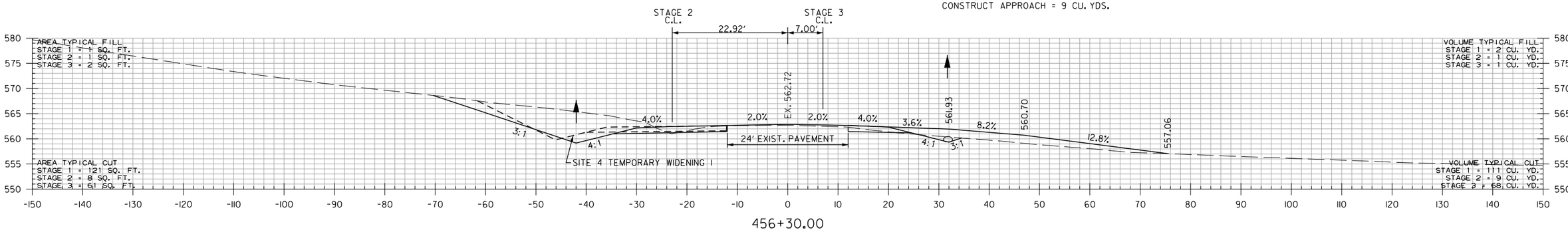
STA. 457+50
BEGIN SP. DT. RT. -4.08%
ELEV. 554.27



457+00.00

STA. 456+48.09 BEGIN SUPERELEVATION

STA. 456+30 INSTALL
21" X 15" X 33' ARCH PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 9 CU. YDS.



456+30.00

SITE 4
STA. 456+30 TO STA. 458+00

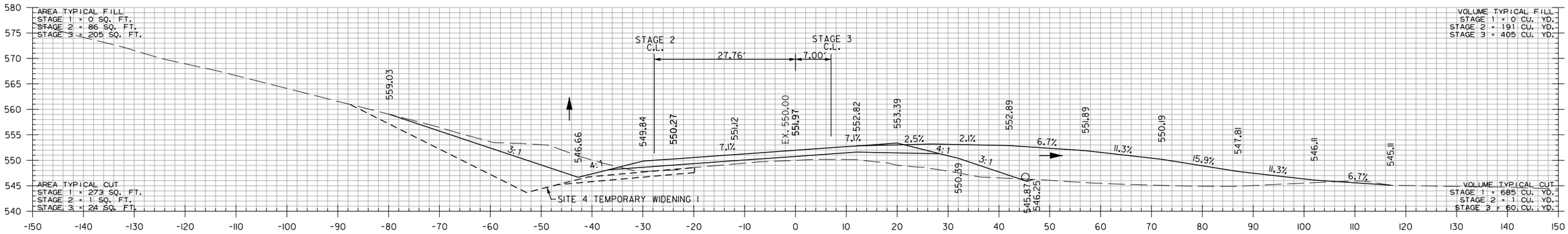
Pjoseph 6/21/2023 10:49:47 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	252	280

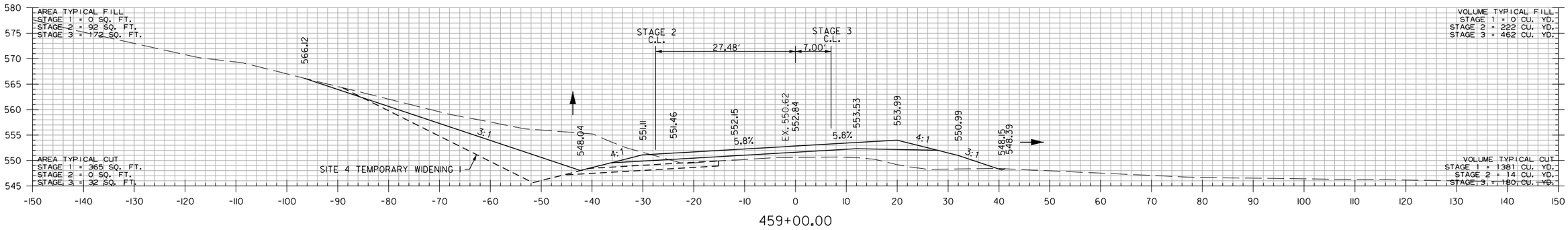
(2) CROSS SECTIONS

STA. 459+58 IN PLACE
18" X 25' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 57' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 120 CU. YDS.



459+58.00

STA. 459+50
END SP. DT. RT. -4.08%
BEGIN SP. DT. RT. -3.02%
ELEV. 546.11

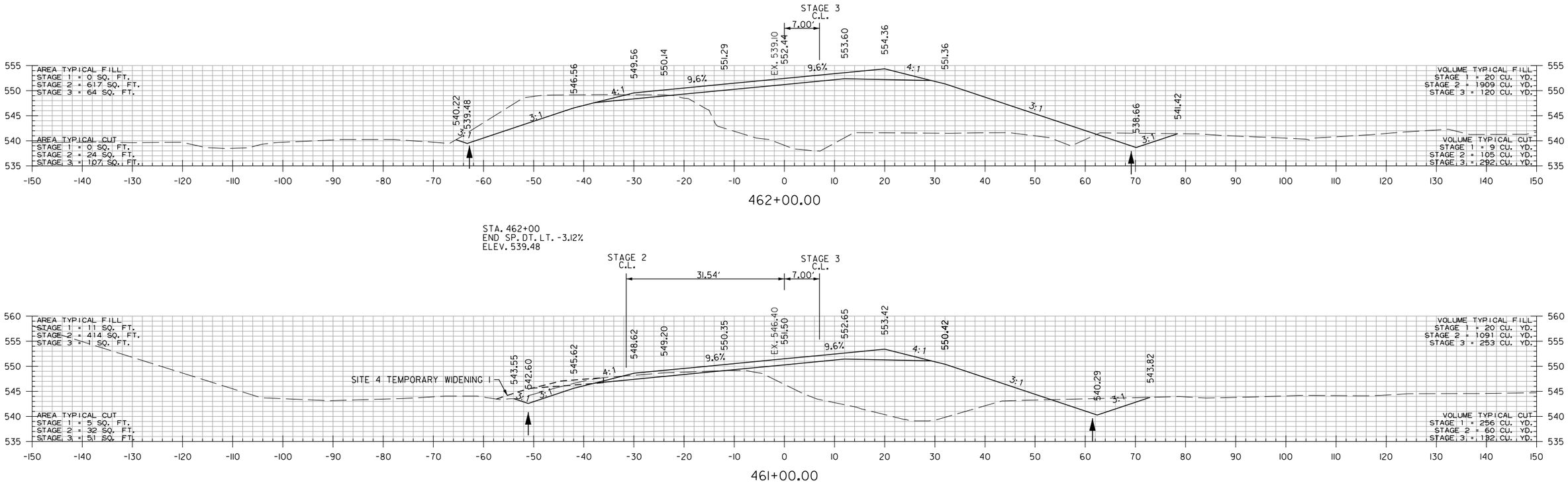


459+00.00

SITE 4
STA. 459+00 TO STA. 459+58

PJoseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	253	280
				(2)	CROSS SECTIONS			



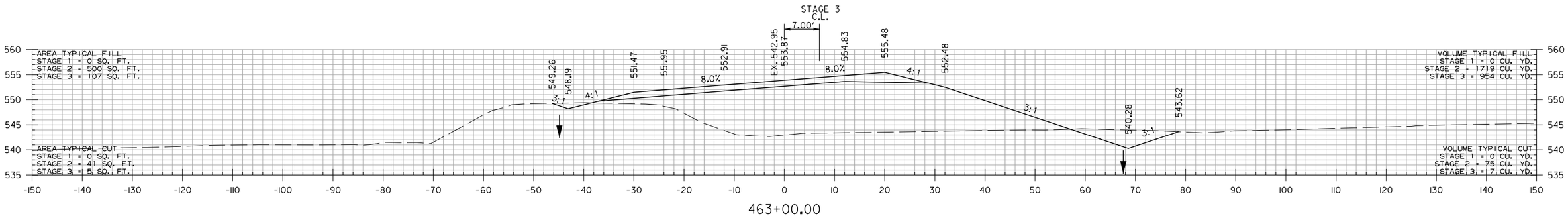
SITE 4
STA. 460+00 TO STA. 462+00

P.Joseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

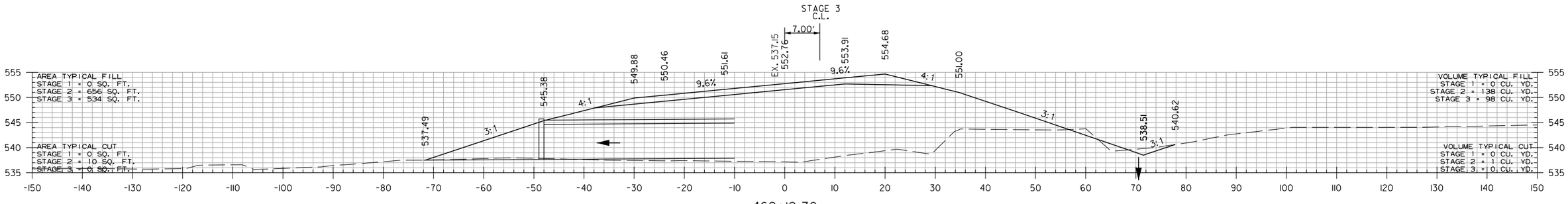
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	254	280

(2) CROSS SECTIONS



463+00.00

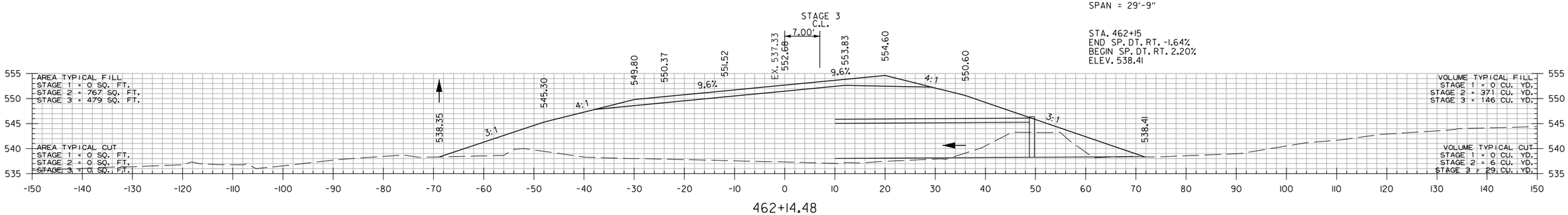
STA. 462+30.73 MAX. SUPERELEVATION (0.096'/')



462+19.70

F.L. = 537.49 LT.

STA. 462+25 CONSTRUCT
TRP. 9' X 7' X 100' R.C. BOX CULVERT
3° LT. FWD. SKEW
WITH 3:1 WINGS LT. AND RT.
Q50 = 1756 CFS DA = 531 ACRES
SPAN = 29'-9"



462+14.48

F.L. = 538.41 RT.

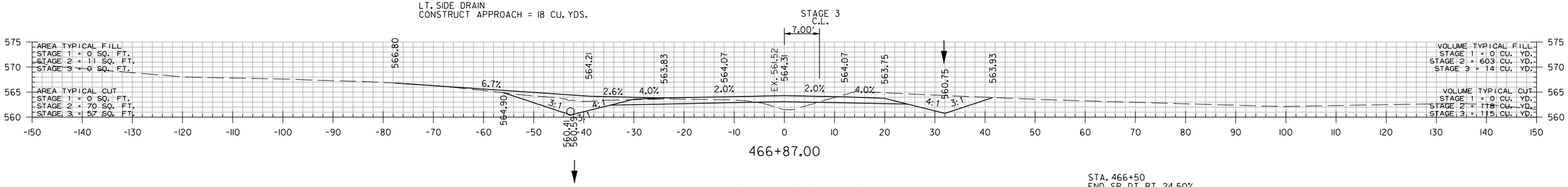
STA. 462+15
END SP. DT. RT. -1.64%
BEGIN SP. DT. RT. 2.20%
ELEV. 538.41

SITE 4
STA. 462+14 TO STA. 463+00

PJoseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	255	280
				(2)	CROSS SECTIONS			

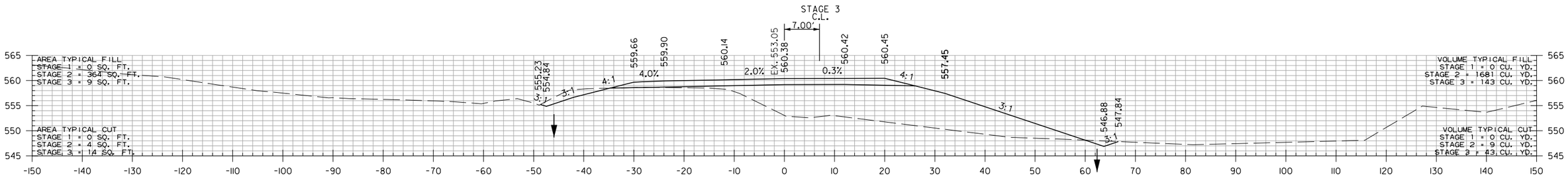
STA. 466+87 IN PLACE
18" X 53' R.C. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 41' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 18 CU. YDS.



466+87.00

STA. 466+50.73 END SUPERELEVATION

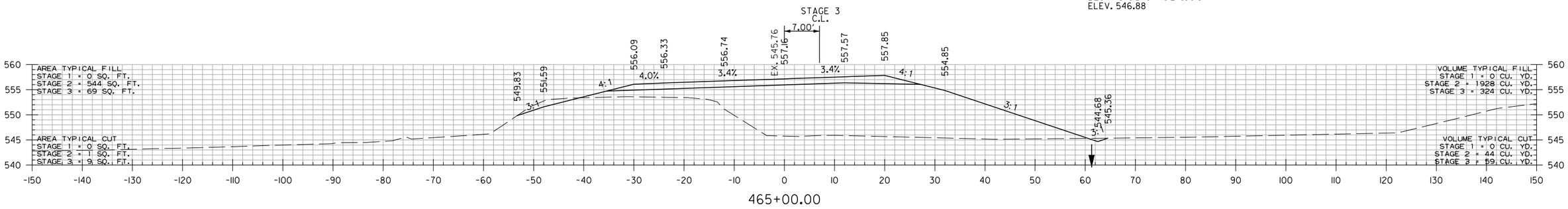
STA. 466+50
END SP. DT. RT. 24.50%
ELEV. 559.13



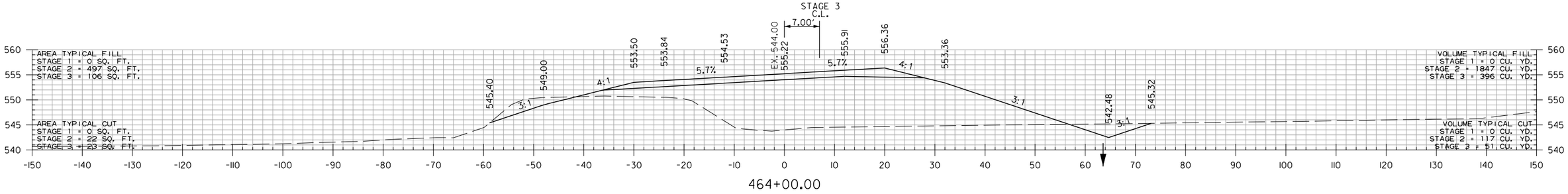
466+00.00

STA. 465+90
BEGIN SP. DT. LT. 6.40%
ELEV. 554.20

STA. 466+00
END SP. DT. RT. 2.20%
BEGIN SP. DT. RT. 24.50%
ELEV. 546.88



465+00.00

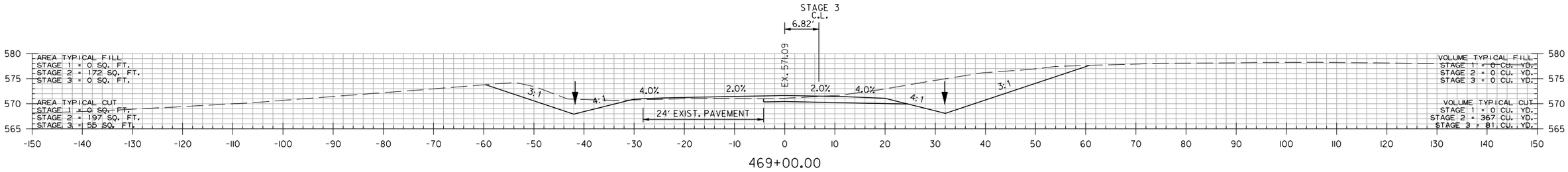


464+00.00

SITE 4
STA. 464+00 TO STA. 466+87

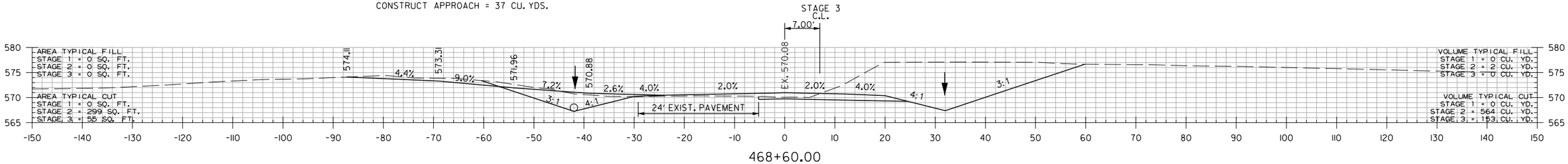
PJoseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	256	280
				(2)	CROSS SECTIONS			

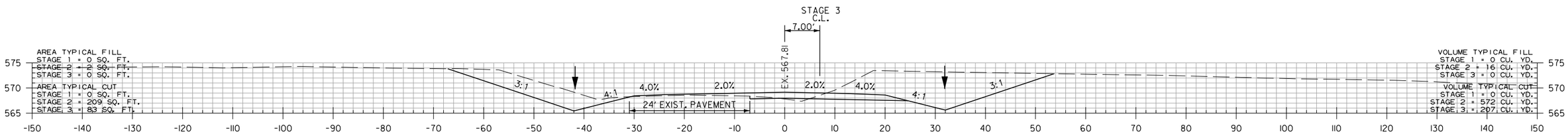


469+00.00

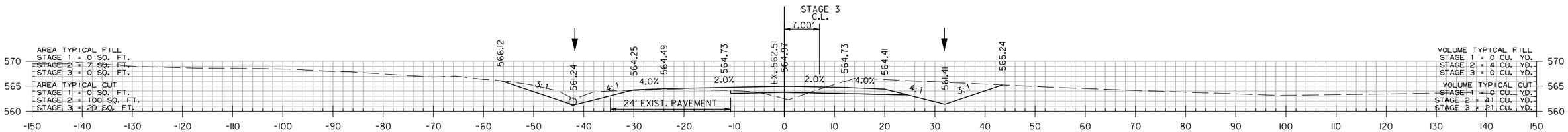
STA. 468+60 INSTALL
18" X 39' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 37 CU. YDS.



468+60.00



468+00.00



467+00.00

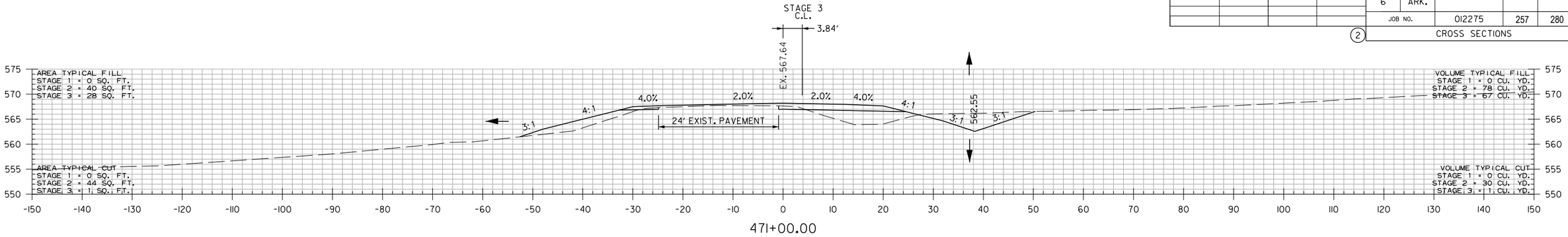
STA. 467+00
END SP. DT. LT. 6.40%
ELEV. 561.24

SITE 4
STA. 467+00 TO STA. 469+00

PJoseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\2017\170755 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	257	280

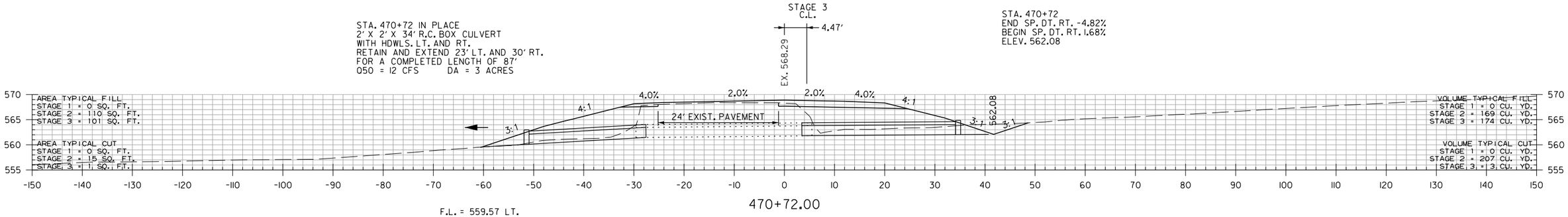
(2) CROSS SECTIONS



471+00.00

STA. 470+72 IN PLACE
2' X 2' X 34' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 23' LT. AND 30' RT.
FOR A COMPLETED LENGTH OF 87'
Q50 = 12 CFS DA = 3 ACRES

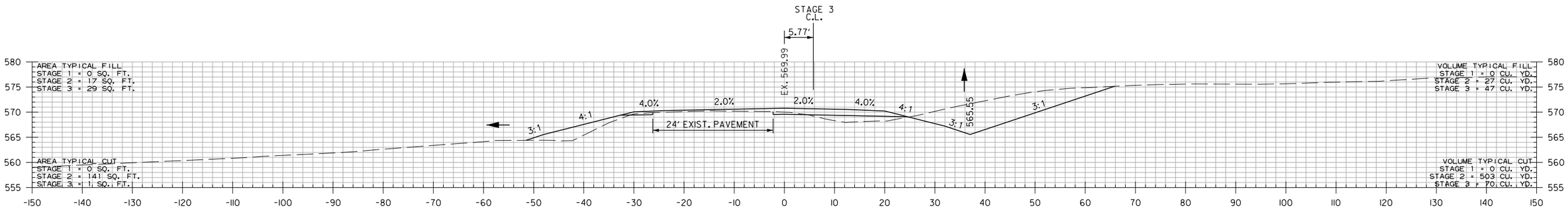
STA. 470+72
END SP. DT. RT. -4.82%
BEGIN SP. DT. RT. 1.68%
ELEV. 562.08



470+72.00

F.L. = 559.57 LT.

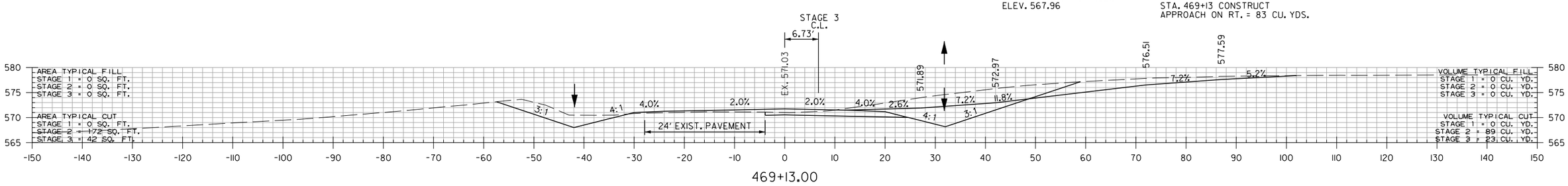
F.L. = 562.08 RT.



470+00.00

STA. 469+50
BEGIN SP. DT. RT. -4.82%
ELEV. 567.96

STA. 469+13 CONSTRUCT
APPROACH ON RT. = 83 CU. YDS.

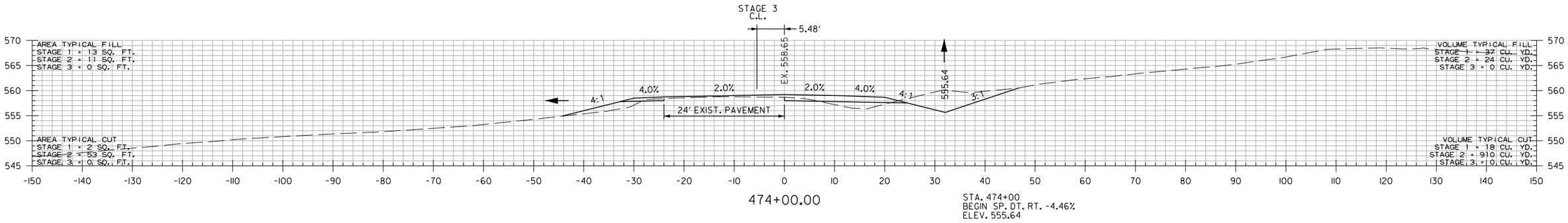


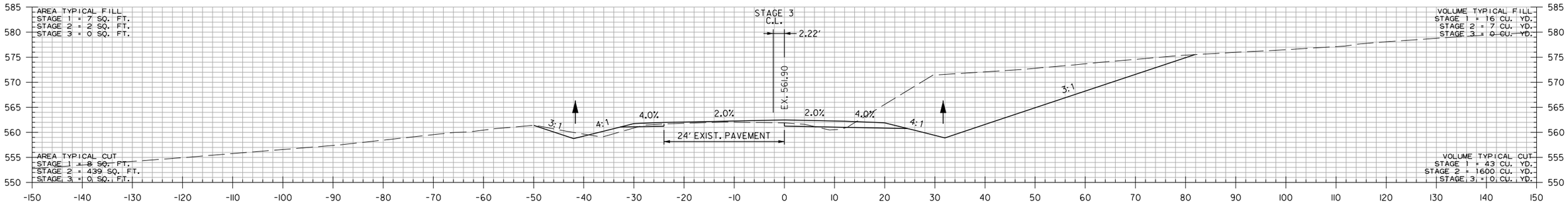
469+13.00

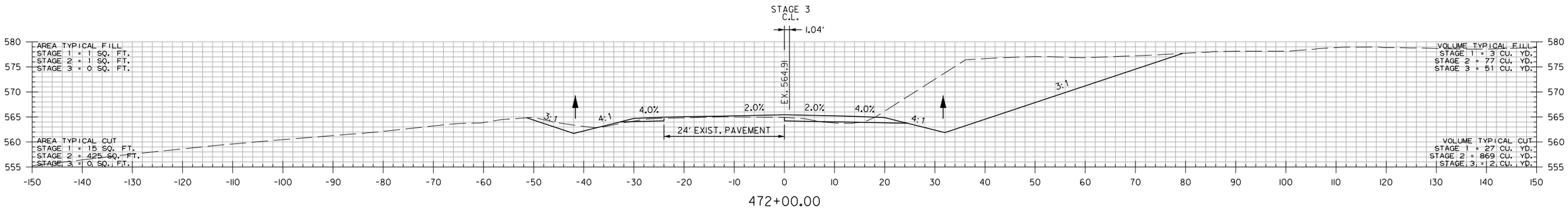
SITE 4
STA. 469+13 TO STA. 471+00

PJoseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\2017\17017555 - 02275 Caddo Valley - Garland Co Line\Drawings\r02275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	258	280
				(2)	CROSS SECTIONS			







STA. 471+50
END SP. DT. RT. 1.68%
ELEV. 563.39

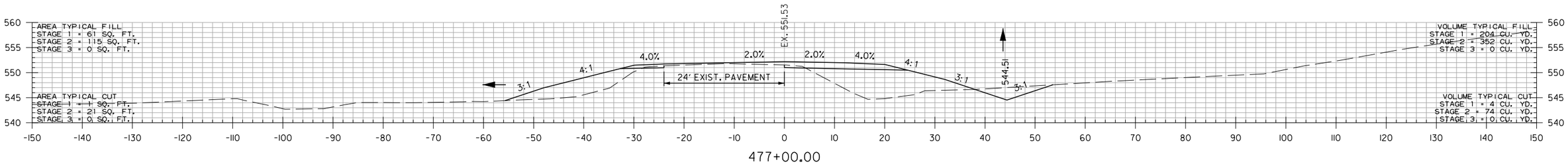
SITE 4
STA. 472+00 TO STA. 474+00

PJoseph 6/21/2023 10:49:48 AM
WORKSPACE: AHTD
L:\20\T\T01\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

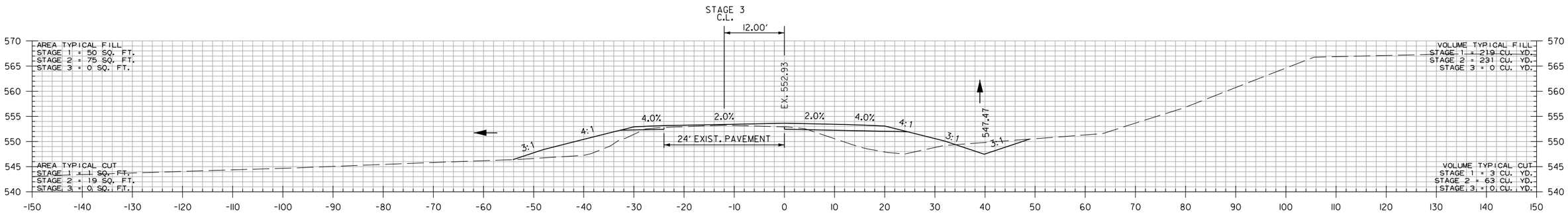
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	259	280

(2) CROSS SECTIONS

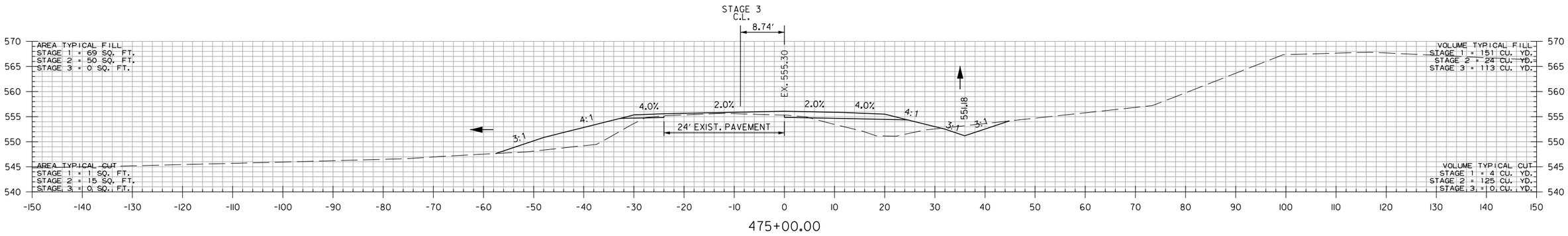


477+00.00



476+00.00

STA. 475+50
END SP. DT. RT. -4.46%
BEGIN SP. DT. RT. -2.96%
ELEV. 548.95



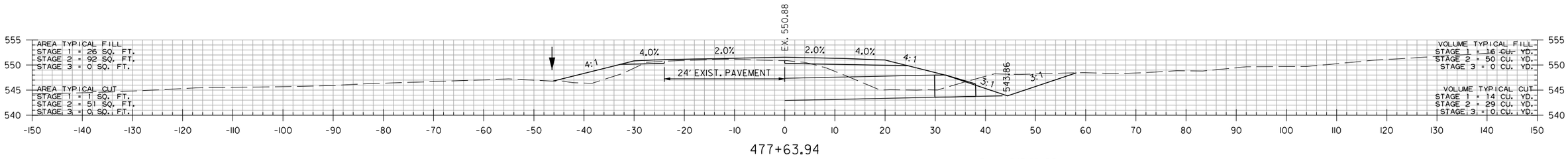
475+00.00

SITE 4
STA. 475+00 TO STA. 477+00

PJoseph 6/21/2023 10:49:49 AM
WORKSPACE: AHTD
L:\20\T\T01\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	260	280
				(2)	CROSS SECTIONS			

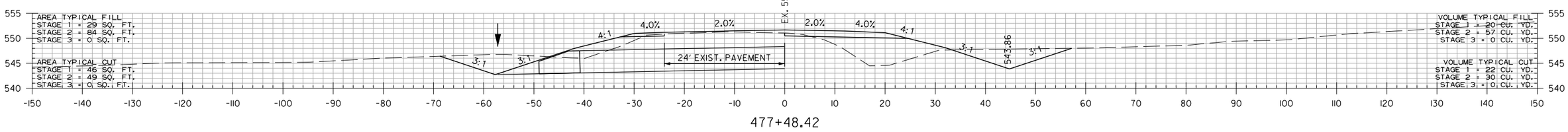
STA. 477+70
END SP. DT. RT. 0.00%
BEGIN SP. DT. RT. 2.60%
ELEV. 543.86



477+63.94

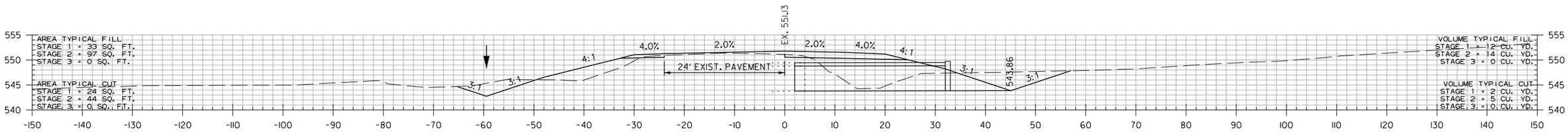
F.L. = 543.86 RT.

STA. 477+59 CONSTRUCT
48" X 89' R.C. PIPE CULVERT
10° RT. FWD. SKEW
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 240 CFS DA = 90 ACRES
48" R.C. PIPE = 89 LIN. FT.
48" F.E.S. = 2 EA.



477+48.42

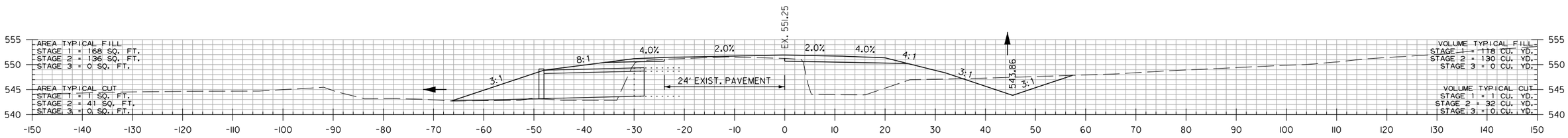
F.L. = 542.74 LT.



477+31.27

F.L. = 543.86 RT.

STA. 477+28 IN PLACE
6' X 5' X 34' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 19' LT. AND 30' RT.
FOR A COMPLETED LENGTH OF 83'
Q50 = 240 CFS DA = 90 ACRES



477+28.00

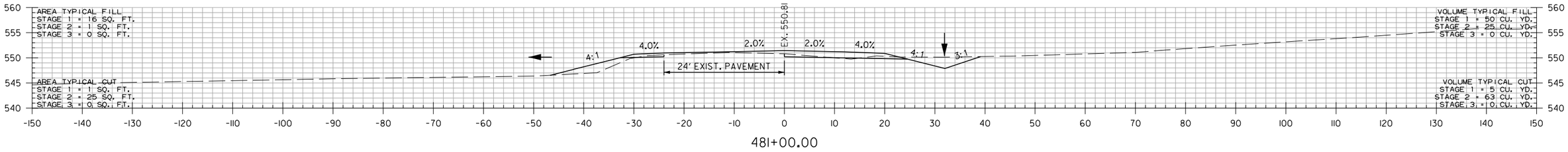
F.L. = 542.74 LT.

STA. 477+22
END SP. DT. RT. -2.96%
BEGIN SP. DT. RT. 0.00%
ELEV. 543.86

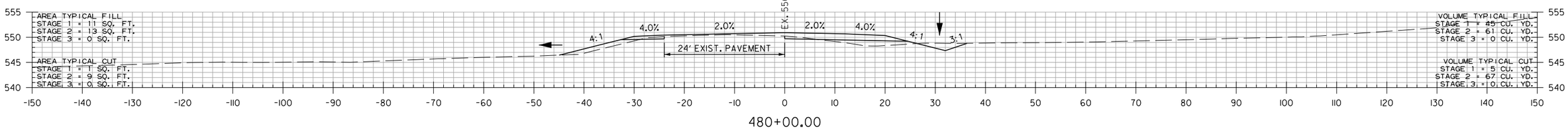
SITE 4
STA. 477+28 TO STA. 477+64

PJoseph 6/21/2023 10:49:49 AM
WORKSPACE: AHTD
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REVISED DATE:

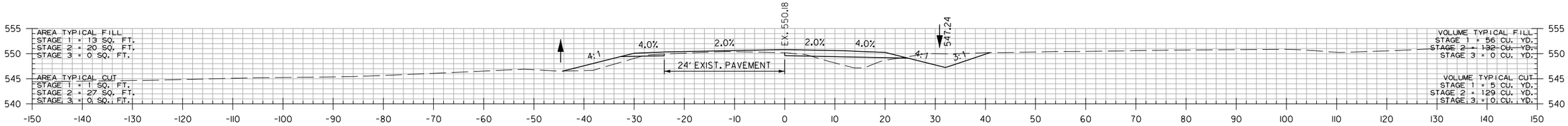
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	261	280
				(2)	CROSS SECTIONS			



481+00.00

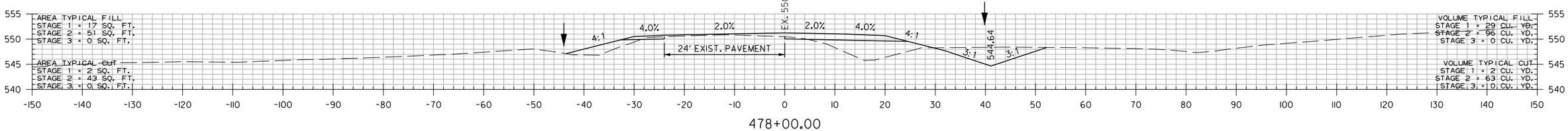


480+00.00



479+00.00

STA. 479+00
END SP. DT. RT. 2.60%
ELEV. 547.24



478+00.00

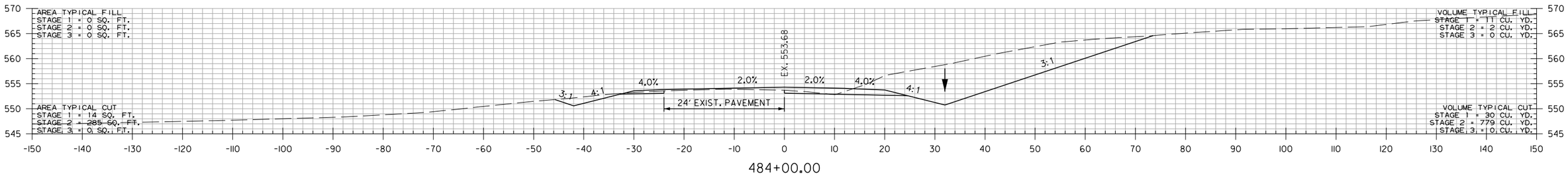
SITE 4
STA. 478+00 TO STA. 481+00

PJoseph 6/21/2023 10:49:49 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_4.dgn
REVISED DATE:

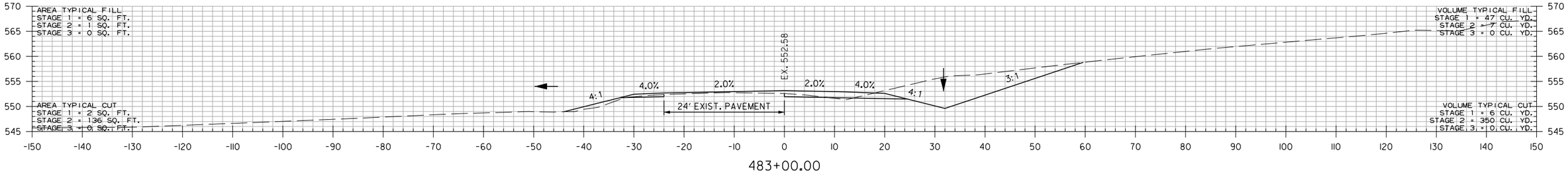
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	262	280

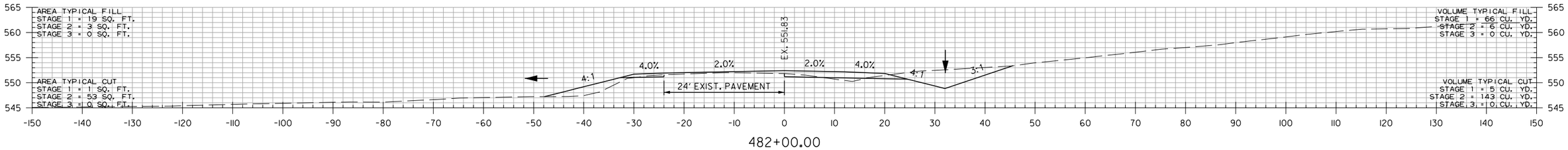
(2) CROSS SECTIONS



484+00.00



483+00.00



482+00.00

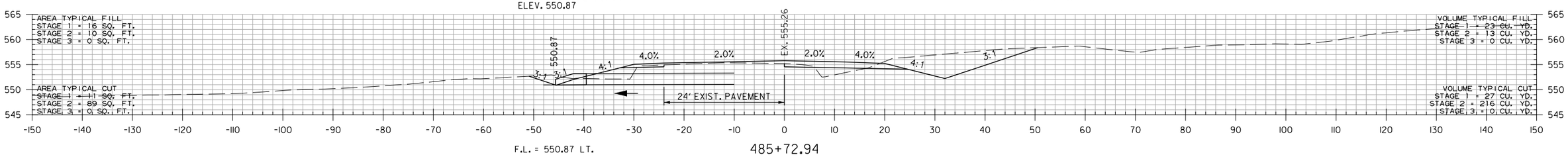
SITE 4
STA. 482+00 TO STA. 484+00

PJoseph 6/21/2023 10:49:49 AM
WORKSPACE: AHTD
L:\2017\170175S - 02275 Caddo Valley - Garland Co Line\Drawings\r02275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	263	280
				(2)	CROSS SECTIONS			

STA. 485+81 CONSTRUCT
DBL. 24" X 71' R.C. PIPE CULVERT
15° RT. FWD. SKEW
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 14 CFS DA = 2 ACRES
24" R.C. PIPE = 142 LIN. FT.
24" F.E.S. = 4 EA.

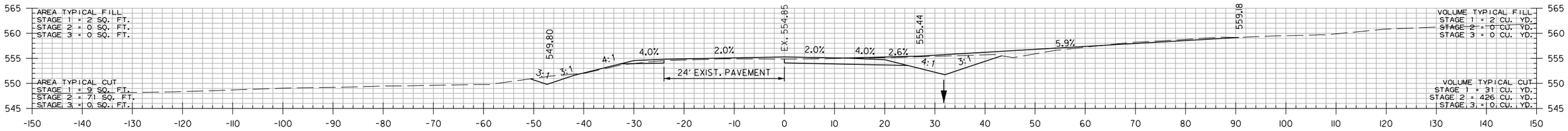
STA. 485+75
END SP. DT. LT. 1.43%
BEGIN SP. DT. LT. 3.16%
ELEV. 550.87



F.L. = 550.87 LT.

485+72.94

STA. 485+00 CONSTRUCT
APPROACH ON RT. = 34 CU. YDS.

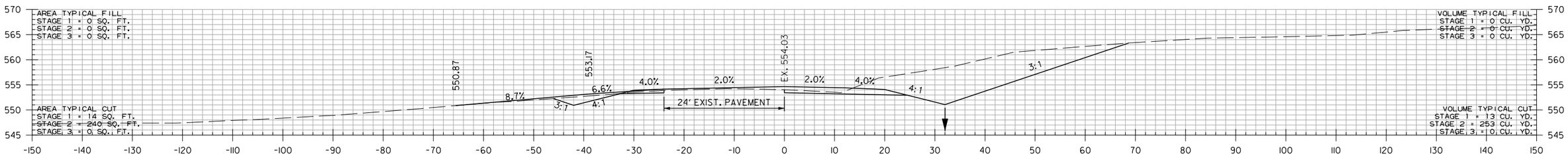


485+00.00

STA. 485+00
END SP. DT. LT. -2.78%
BEGIN SP. DT. LT. 1.43%
ELEV. 549.80

STA. 484+50
BEGIN SP. DT. LT. -2.78%
ELEV. 551.19

STA. 484+26 CONSTRUCT
APPROACH ON LT. = 14 CU. YDS.

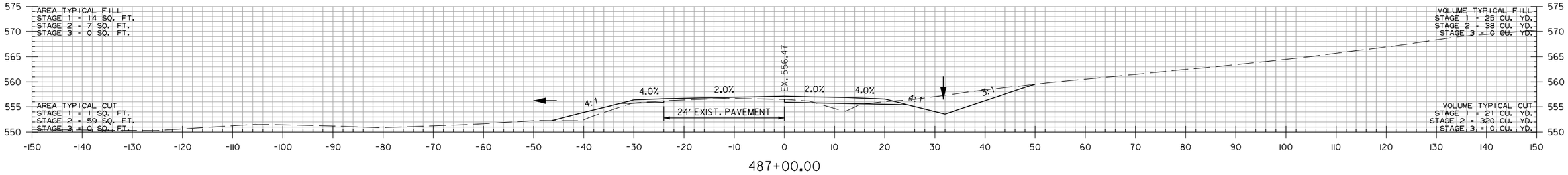


484+26.00

SITE 4
STA. 484+26 TO STA. 485+65

PJoseph 6/21/2023 10:49:49 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 02275 Caddo Valley - Garland Co Line\Drawings\r02275_CX_SITE_4.dgn
REVISED DATE:

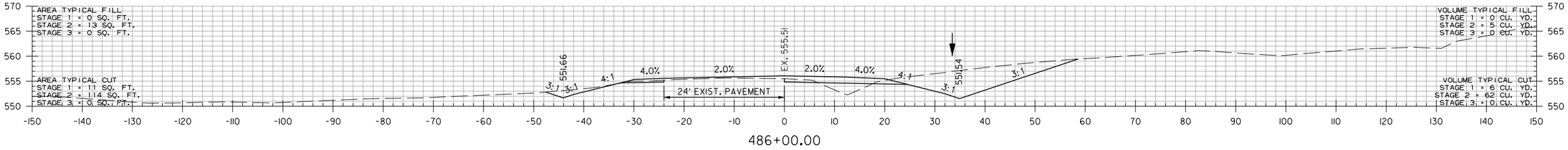
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	264	280
				(2)	CROSS SECTIONS			



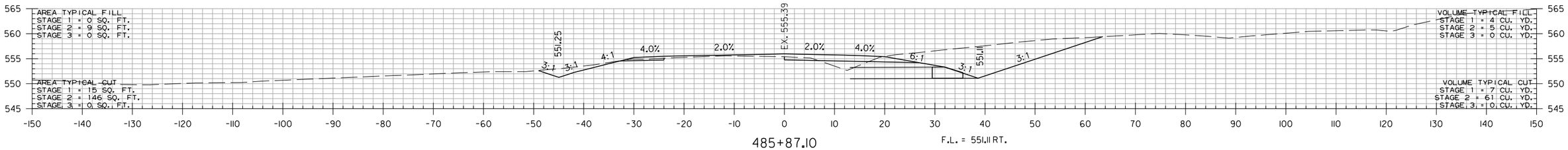
487+00.00

STA. 486+30
END SP. DT. LT. 3.16%
ELEV. 552.61

STA. 486+50
END SP. DT. RT. 2.86%
ELEV. 552.97



486+00.00



485+87.10

F.L. = 551.11 RT.

STA. 485+85
BEGIN SP. DT. RT. 2.86%
ELEV. 551.11

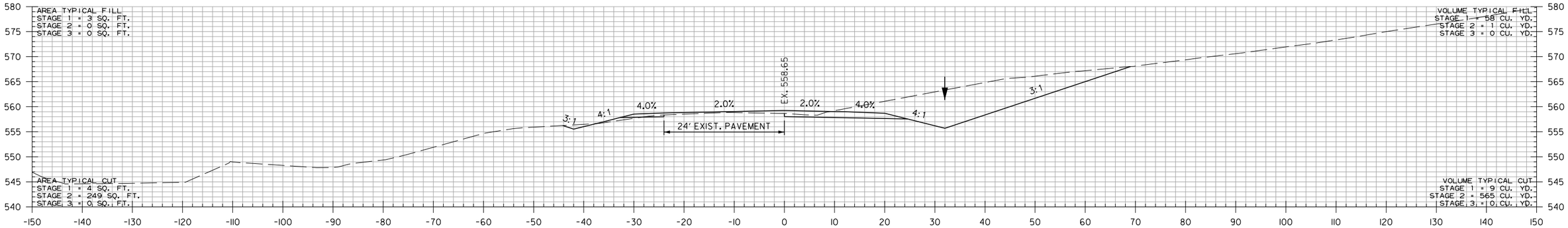
SITE 4
STA. 485+87 TO STA. 485+87

PJoseph 6/21/2023 10:49:49 AM
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REVISED DATE:

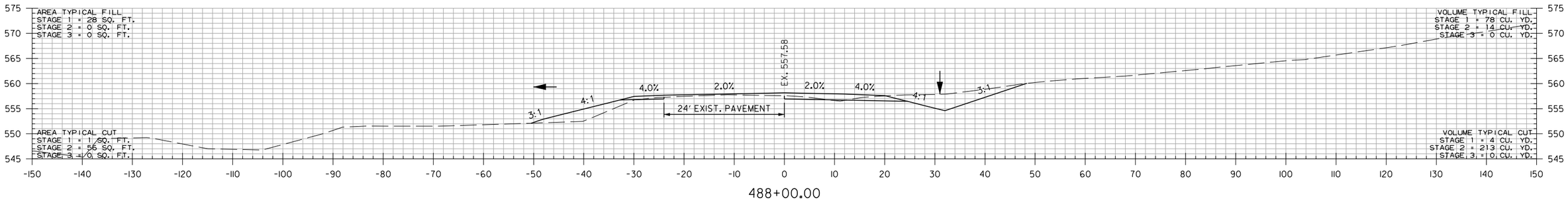
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	265	280

(2) CROSS SECTIONS



489+00.00



488+00.00

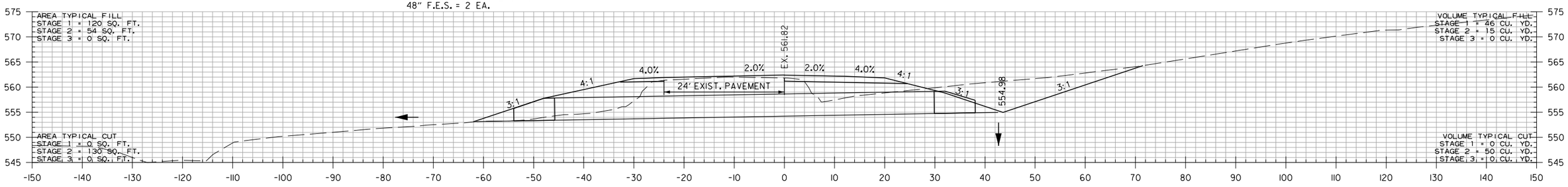
SITE 4
STA. 488+00 TO STA. 489+00

PJoseph 6/21/2023 10:49:49 AM
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	266	280
				(2)		CROSS SECTIONS		

STA. 491+11 CONSTRUCT
48" X 76' R.C. PIPE CULVERT
CLASS IV (TYPE 3 BEDDING)
WITH F.E.S. LT. AND RT.
Q50 = 37 CFS DA = 6 ACRES
48" R.C. PIPE = 76 LIN. FT.
48" F.E.S. = 2 EA.

STA. 491+39.79 BEGIN SUPERELEVATION

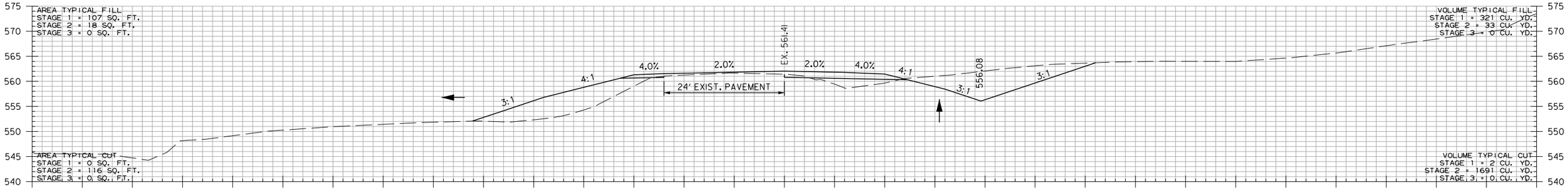


F.L. = 553.12 LT.

491+11.00

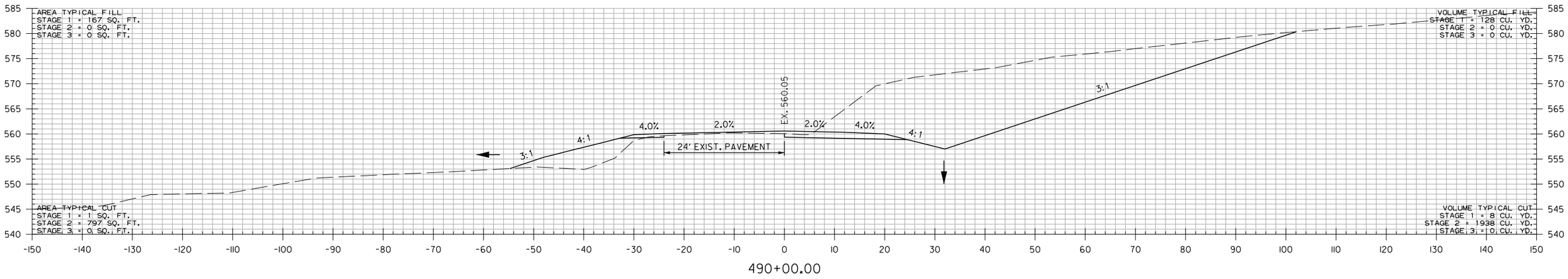
F.L. = 554.98 RT.

STA. 491+11
END SP. DT. RT. -10.00%
BEGIN SP. DT. RT. 7.00%
ELEV. 554.98



491+00.00

STA. 490+80
BEGIN SP. DT. RT. -10.00%
ELEV. 558.08



490+00.00

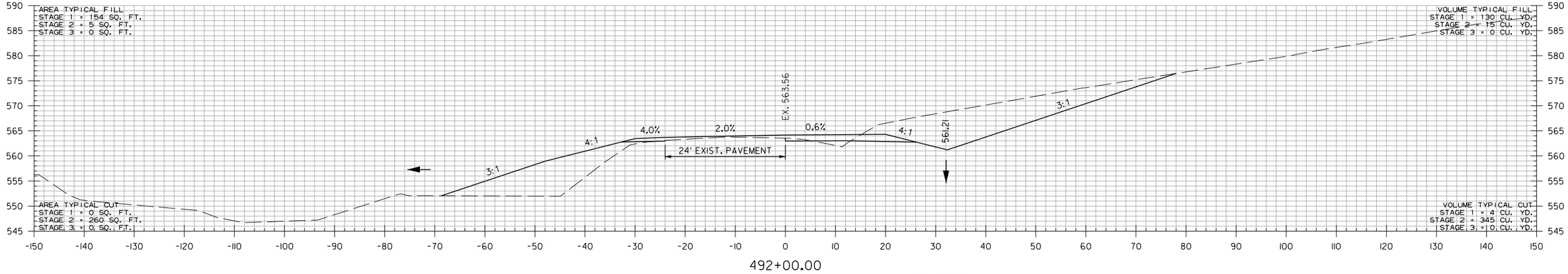
SITE 4
STA. 490+00 TO STA. 491+20

PJoseph 6/21/2023 10:49:49 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	267	280

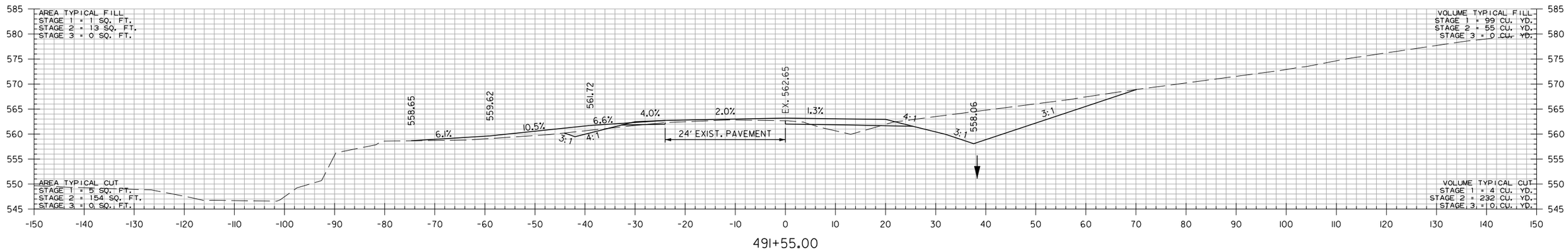
(2) CROSS SECTIONS



492+00.00

STA. 492+00
END SP. DT. RT. 7.00%
ELEV. 561.21

STA. 491+55 CONSTRUCT
APPROACH ON LT. = 11 CU. YDS.

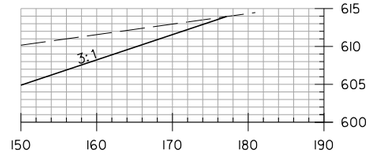


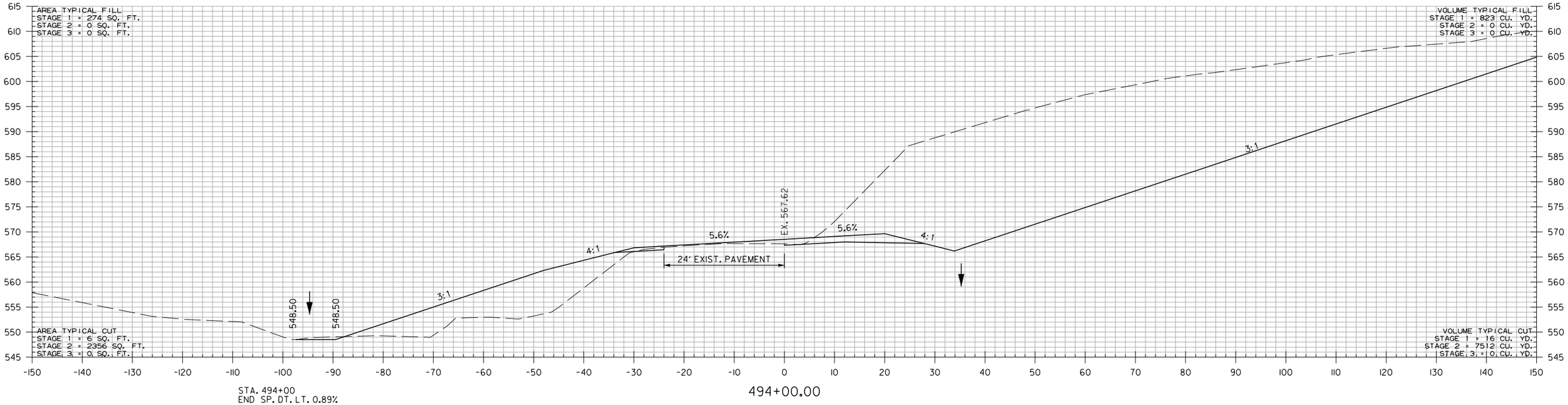
491+55.00

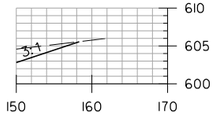
SITE 4
STA. 491+55 TO STA. 492+00

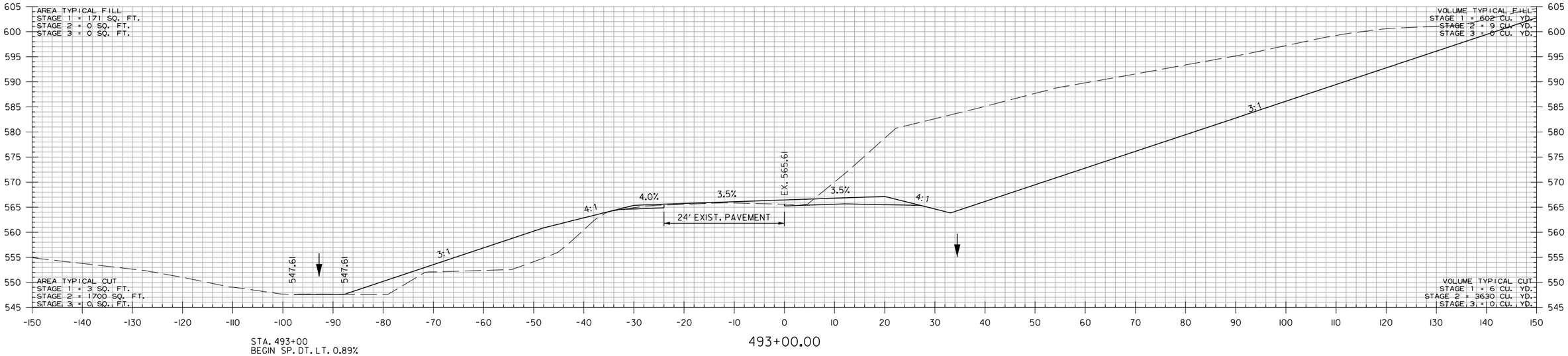
Pjoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	268	280
				(2)	CROSS SECTIONS			







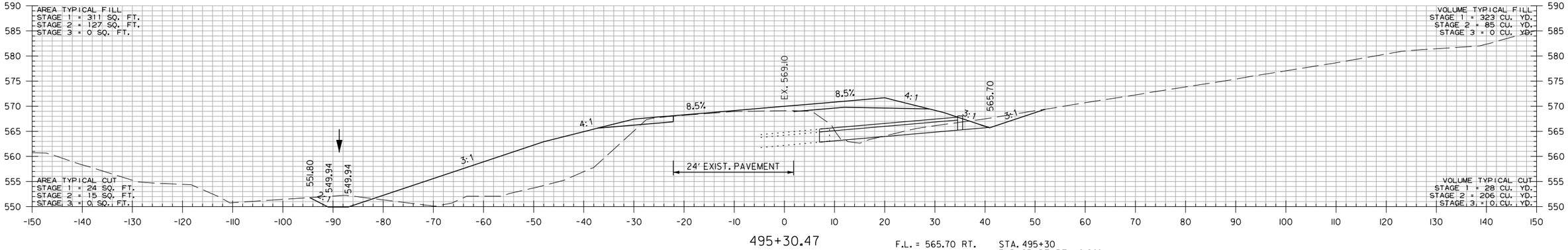


SITE 4
STA. 493+00 TO STA. 494+00

PJoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

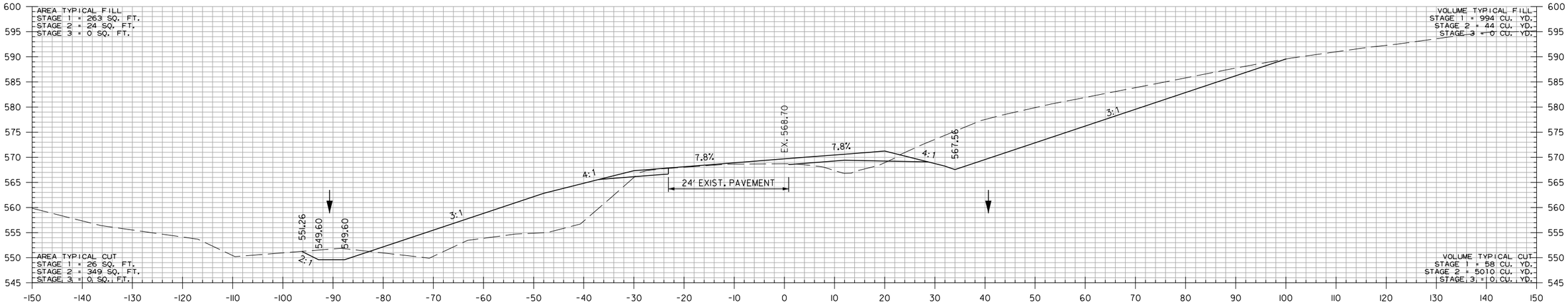
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	269	280
				(2)	CROSS SECTIONS			

STA. 495+34 IN PLACE
3' X 2' X 43' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 36' LT. AND 27' RT.
FOR A COMPLETED LENGTH OF 106'
Q50 = 45 CFS DA = 8 ACRES



495+30.47

F.L. = 565.70 RT. STA. 495+30
END SP. DT. RT. -6.20%
BEGIN SP. DT. RT. 8.60%
ELEV. 565.70



495+00.00

STA. 495+00
BEGIN SP. DT. RT. -6.20%
ELEV. 567.56

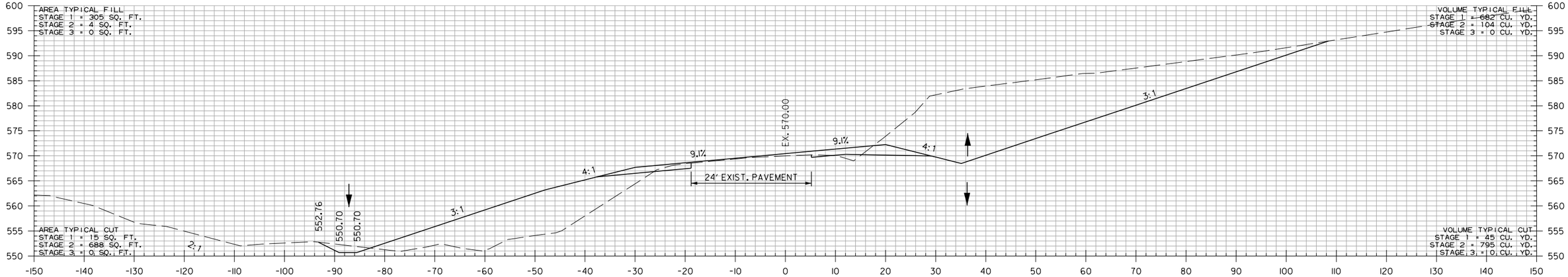
SITE 4
STA. 495+00 TO STA. 495+30

PJoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	270	280
(2)	CROSS SECTIONS			

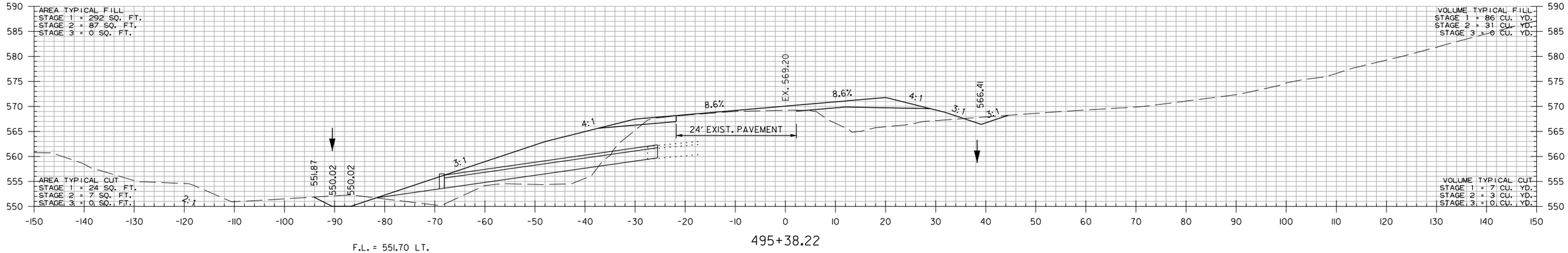
STA. 496+13.54 MAX. SUPERELEVATION (0.09'/')



496+00.00

STA. 495+60
END SP. DT. RT. 8.60%
ELEV. 568.28

STA. 495+59.79 MAX. SUPERELEVATION (0.09'/')



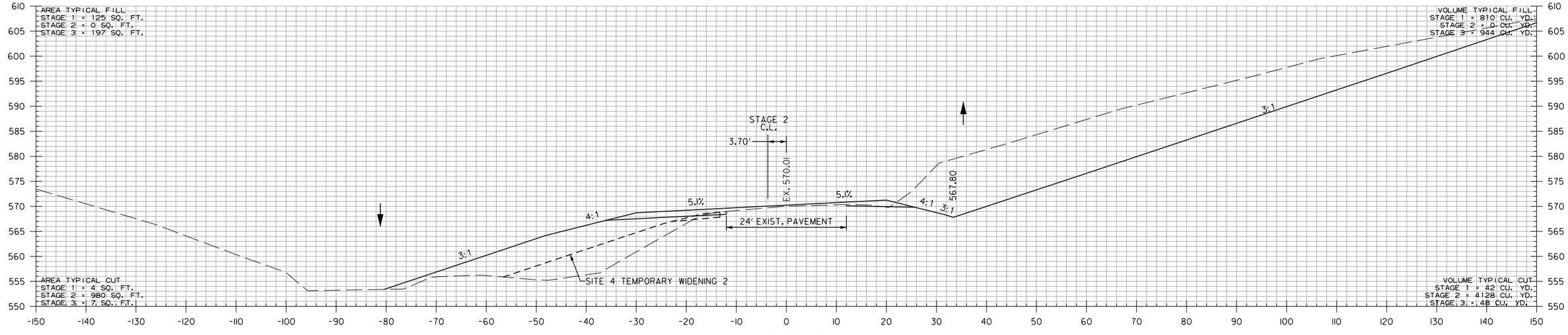
F.L. = 551.70 LT.

495+38.22

SITE 4
STA. 495+38 TO STA. 496+00

PJoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
L:\20\T\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	271	280
				(2)	CROSS SECTIONS			



SITE 4
STA. 497+00 TO STA. 498+00

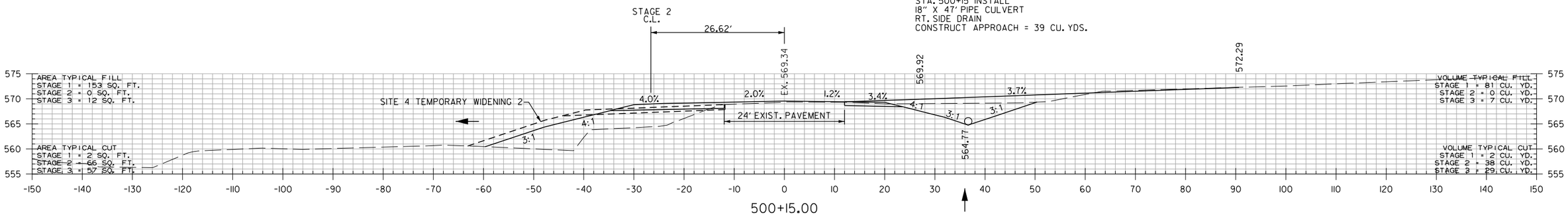
PJoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	272	280
				(2)		CROSS SECTIONS		

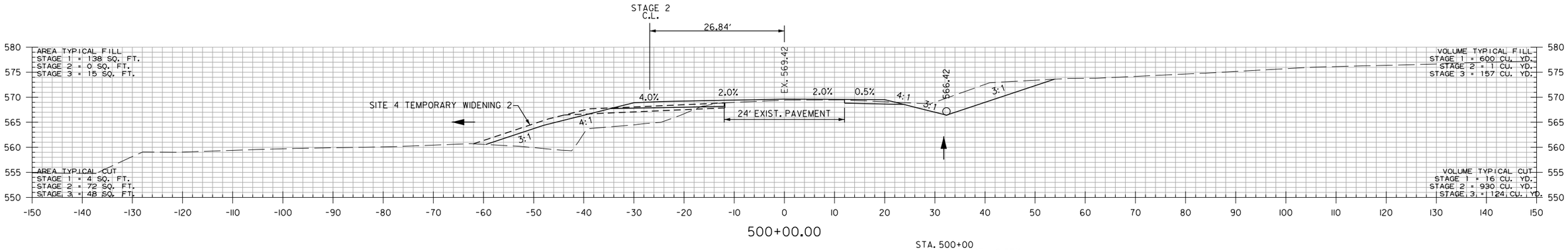
STA. 500+33.54 BEGIN SUPERELEVATION

STA. 500+33.54 END SUPERELEVATION

STA. 500+15 INSTALL
18" X 47' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 39 CU. YDS.

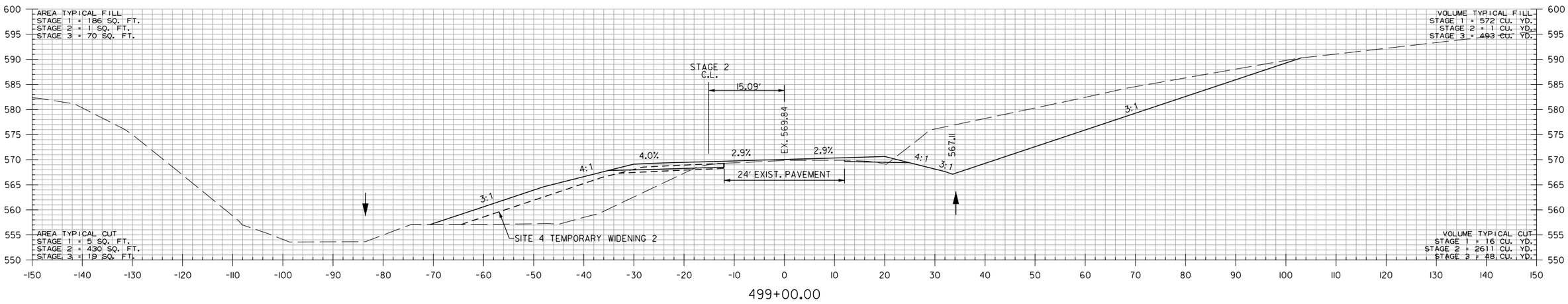


500+15.00



500+00.00

STA. 500+00
END SP. DT. RT. -0.69%
BEGIN SP. DT. RT. -11.00%
ELEV. 566.42

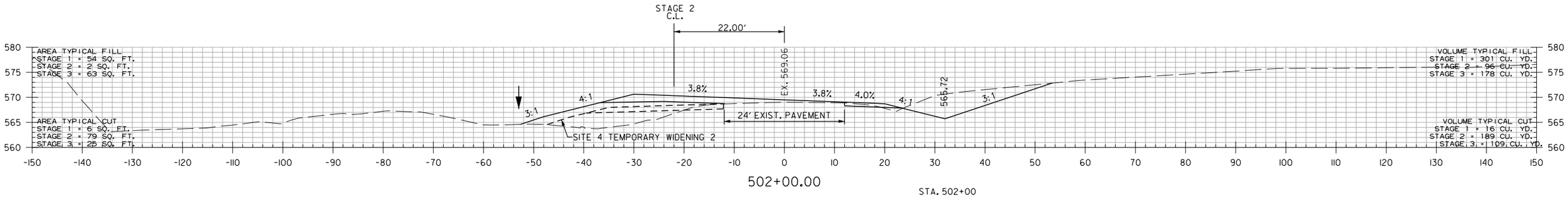


499+00.00

SITE 4
STA. 499+00 TO STA. 500+15

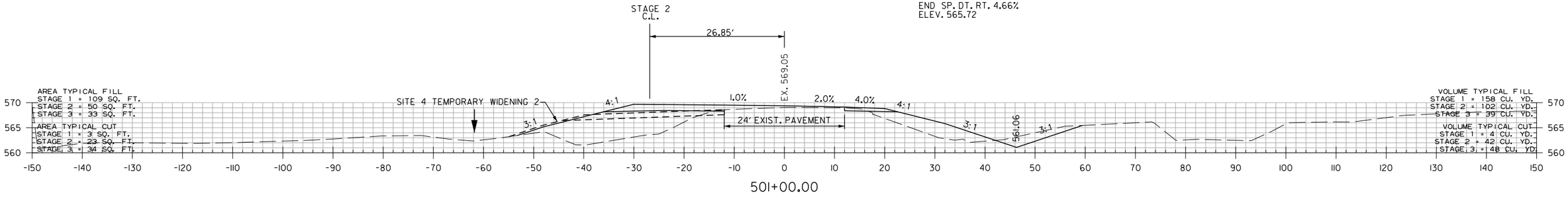
PJoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
L:\2017\1701555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	273	280
				(2)	CROSS SECTIONS			

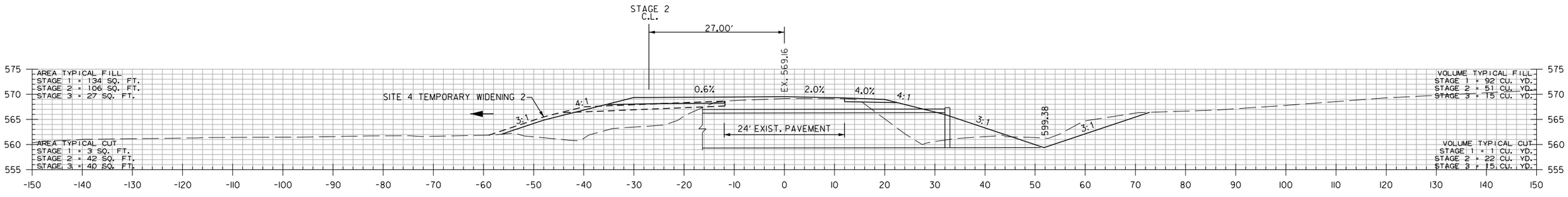


502+00.00

STA. 502+00
END SP. DT. RT. 4.66%
ELEV. 565.72



501+00.00

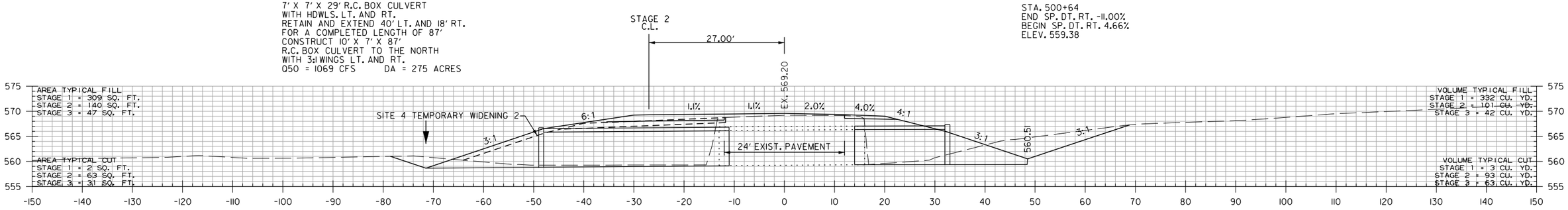


500+64.92

F.L. = 559.38 RT.

STA. 500+53 IN PLACE
7' X 7' X 29' R.C. BOX CULVERT
WITH HDWLS. LT. AND RT.
RETAIN AND EXTEND 40' LT. AND 18' RT.
FOR A COMPLETED LENGTH OF 87'
CONSTRUCT 10' X 7' X 87'
R.C. BOX CULVERT TO THE NORTH
WITH 3:1 WINGS LT. AND RT.
Q50 = 1069 CFS DA = 275 ACRES

STA. 500+64
END SP. DT. RT. -11.00%
BEGIN SP. DT. RT. 4.66%
ELEV. 559.38



500+53.75

F.L. = 558.64 LT.

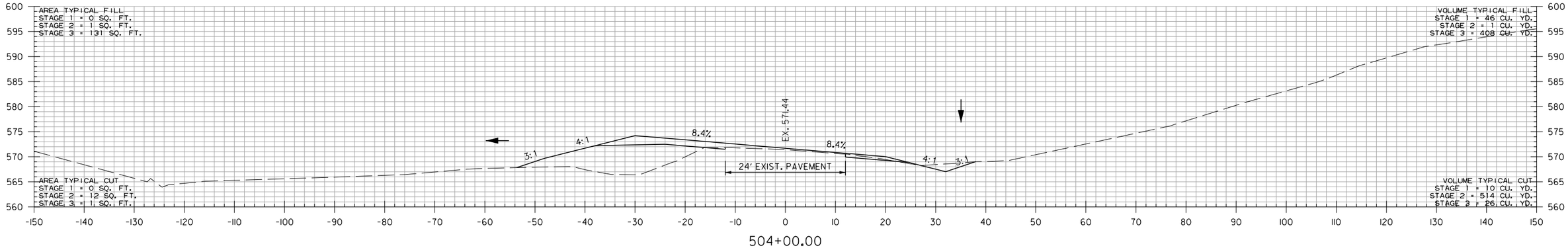
SITE 4
STA. 500+54 TO STA. 502+00

PJoseph 6/21/2023 10:49:50 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

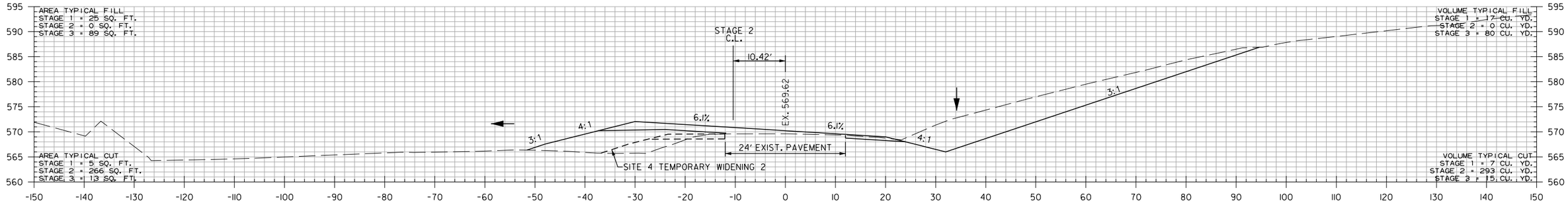
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	274	280

(2) CROSS SECTIONS

STA. 504+31.05 MAX. SUPERELEVATION (0.091'/')

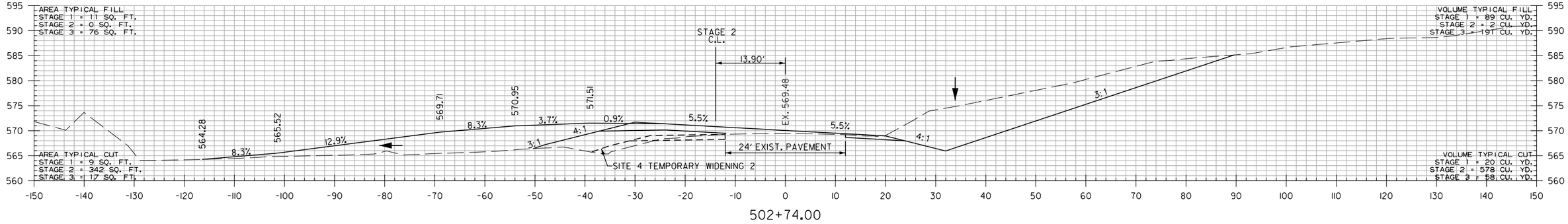


504+00.00



503+00.00

STA. 502+74 CONSTRUCT
APPROACH ON LT. = 50 CU. YDS.



502+74.00

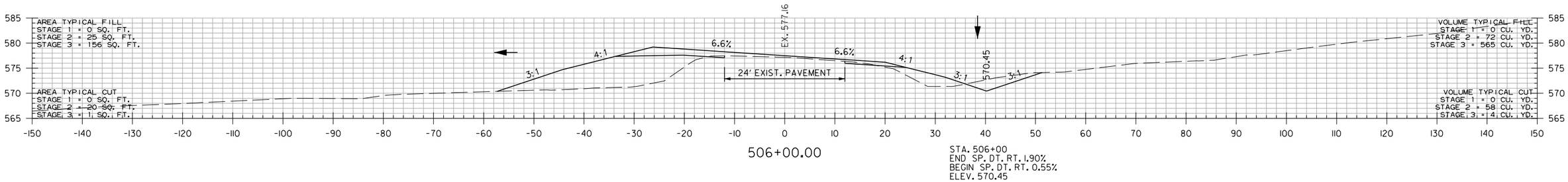
SITE 4
STA. 502+74 TO STA. 504+00

PJoseph 6/21/2023 10:49:51 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

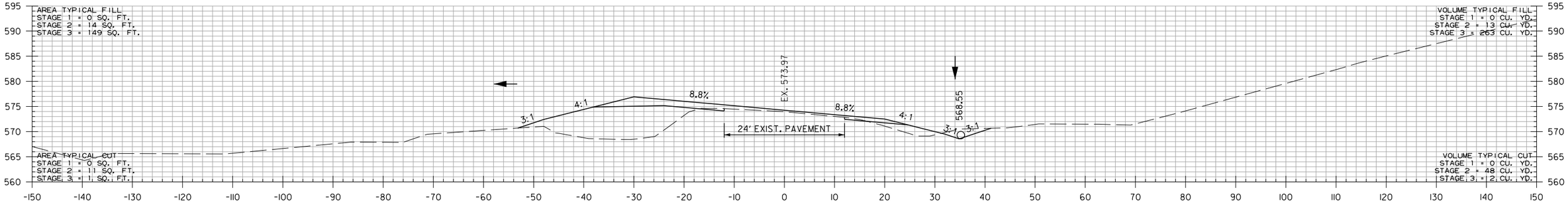
FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	275	280

(2) CROSS SECTIONS



506+00.00

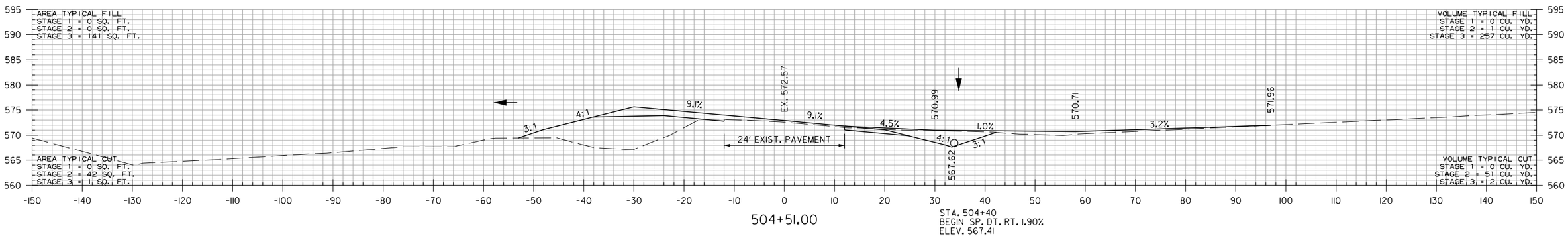
STA. 506+00
END SP. DT. RT. 1.90%
BEGIN SP. DT. RT. 0.55%
ELEV. 570.45



505+00.00

STA. 504+88.79 MAX. SUPERELEVATION (0.091'/')

STA. 504+51 IN PLACE
18" X 30' CMP PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 65' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 21 CU. YDS.



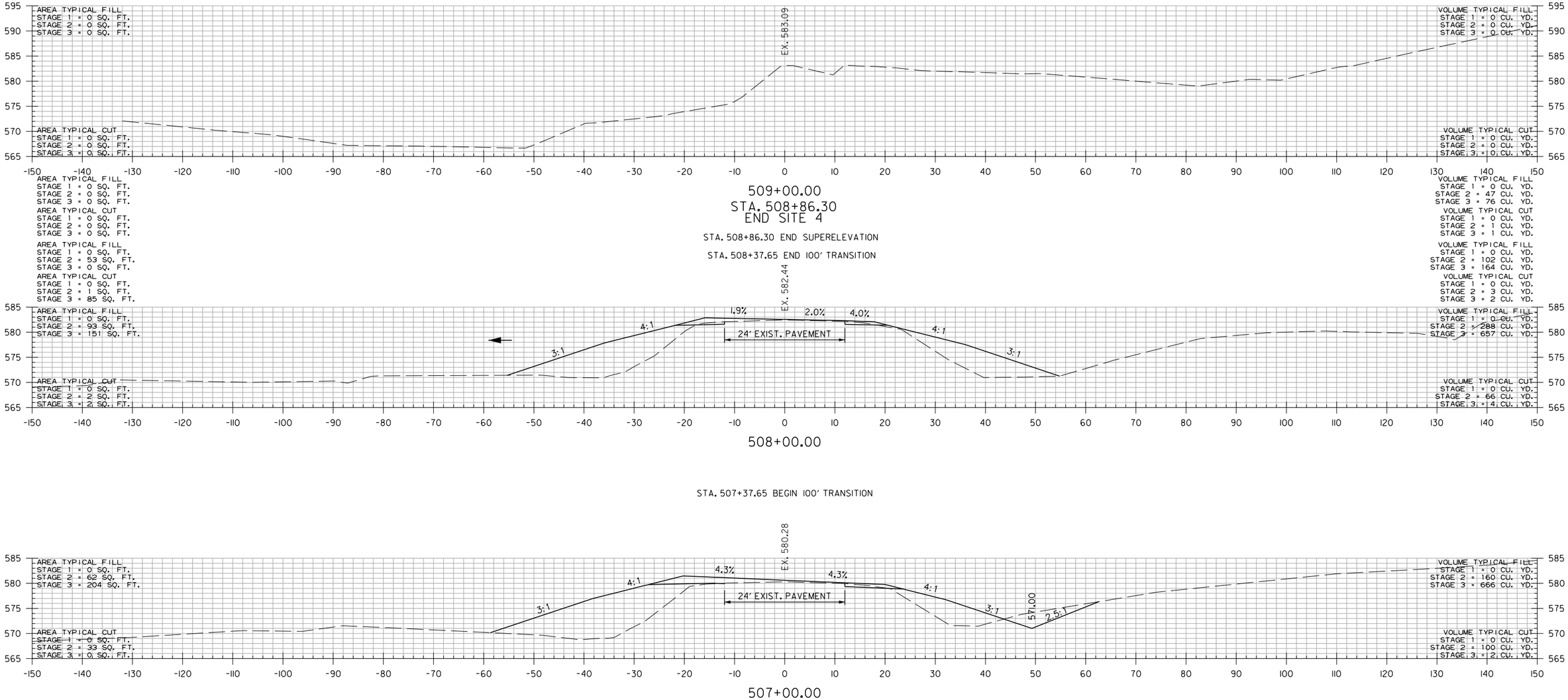
504+51.00

STA. 504+40
BEGIN SP. DT. RT. 1.90%
ELEV. 567.41

SITE 4
STA. 504+51 TO STA. 506+00

PJoseph 6/21/2023 10:49:51 AM
WORKSPACE: AHTD
L:\2017\170\7555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	276	280
				(2)		CROSS SECTIONS		



SITE 4
STA. 507+00 TO STA. 509+00

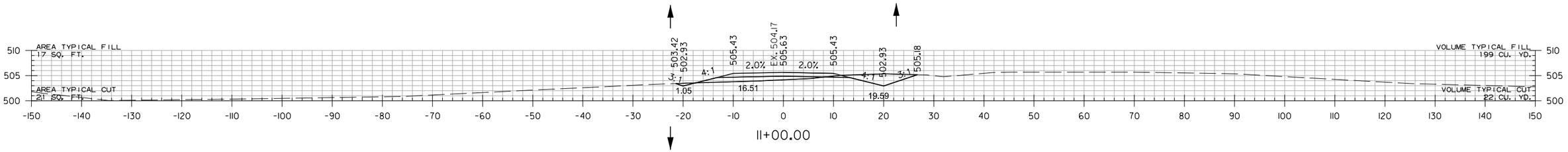
PJoseph 6/21/2023 10:49:51 AM
WORKSPACE: AHTD
L:\2017\170175555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_SITE_4.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012275	277	280
				(2)	CROSS SECTIONS			

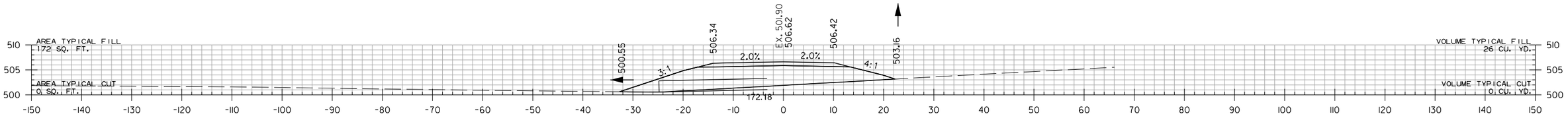
AREA TYPICAL FILL
0 SQ. FT.
AREA TYPICAL CUT
0 SQ. FT.

STA. 11+65.00
END TUPELO TRAIL SOUTH

VOLUME TYPICAL FILL
20 CU. YD.
VOLUME TYPICAL CUT
25 CU. YD.



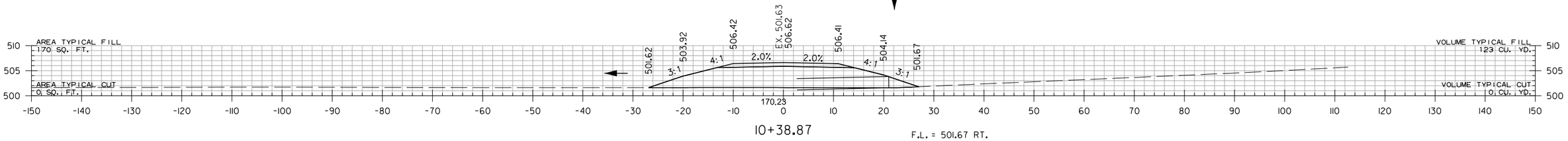
11+00.00



10+42.92

F.L. = 500.55 LT.

STA. 10+40 CONSTRUCT
24" X 46' R.C. PIPE CULVERT
4° LT. FWD. SKEW
RT. SIDE DRAIN
QIO = 2 CFS DA = 1 ACRES
24" R.C. PIPE = 46 LIN. FT.



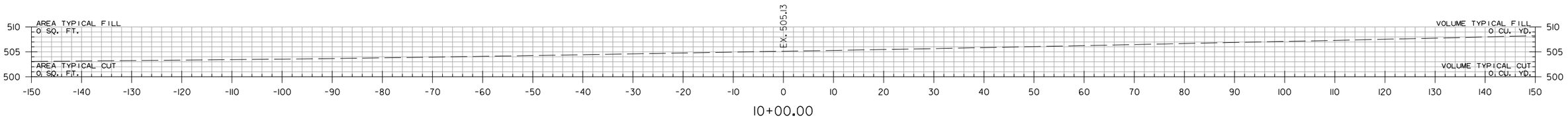
10+38.87

F.L. = 501.67 RT.

AREA TYPICAL FILL
0 SQ. FT.
AREA TYPICAL CUT
0 SQ. FT.

STA. 10+12.00
BEGIN TUPELO TRAIL SOUTH

VOLUME TYPICAL FILL
0 CU. YD.
VOLUME TYPICAL CUT
0 CU. YD.



10+00.00

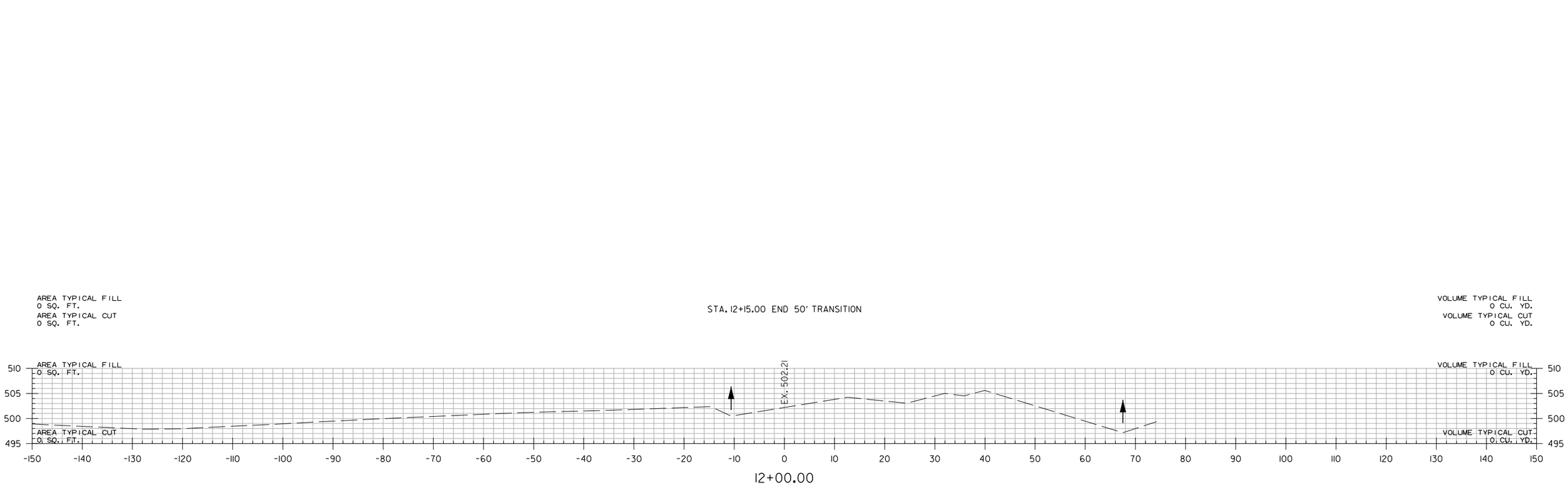
TUPELO TRAIL SOUTH
STA. 10+00 TO STA. 11+00

PJoseph 6/21/2023 10:49:51 AM
WORKSPACE: AHTD
L:\2017\17017555 - 012275 Caddo Valley - Garland Co Line\Drawings\r012275_CX_TUPELO_SOUTH_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	278	280

(2) CROSS SECTIONS



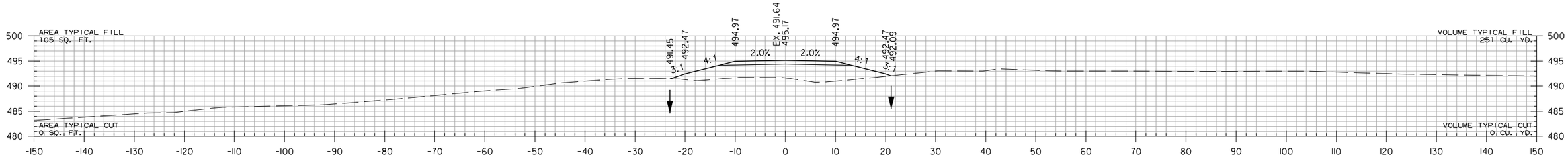
TUPELO TRAIL SOUTH
STA. 12+00 TO STA. 12+31

PJoseph
WORKSPACE: AHTD
L:\2017\170\7555 - 02275 Caddo Valley - Garland Co Line\Drawings\r02275_CX_TUPELO_SOUTH_01.dgn
6/21/2023 10:49:51 AM
REVISED DATE:

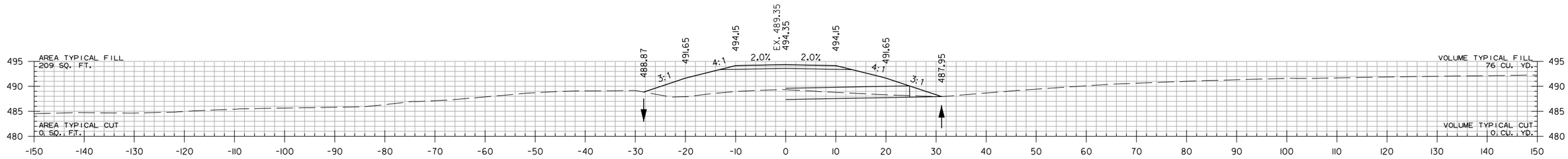
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	279	280

(2) CROSS SECTIONS



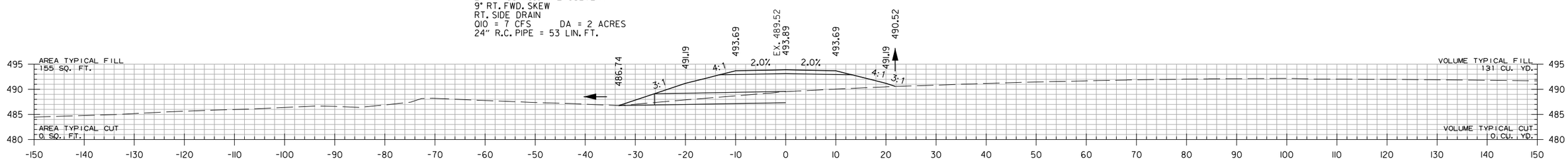
11+00.00



10+56.73

F.L. = 487.95 RT.

STA. 10+50 CONSTRUCT
24" X 53' R.C. PIPE CULVERT
9° RT. FWD. SKEW
RT. SIDE DRAIN
Q10 = 7 CFS DA = 2 ACRES
24" R.C. PIPE = 53 LIN. FT.



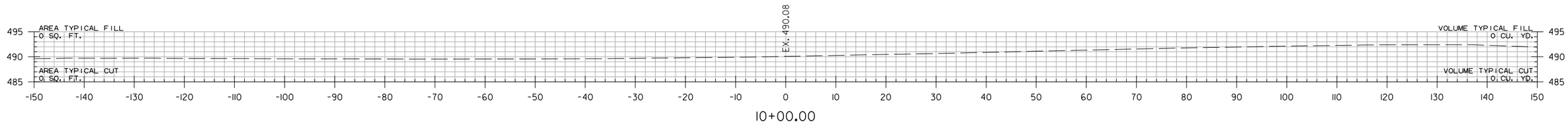
10+45.42

F.L. = 486.74 LT.

AREA TYPICAL FILL
0 SQ. FT.
AREA TYPICAL CUT
0 SQ. FT.

VOLUME TYPICAL FILL
0 CU. YD.
VOLUME TYPICAL CUT
0 CU. YD.

STA. 10+24.00
BEGIN TUPELO TRAIL NORTH



10+00.00

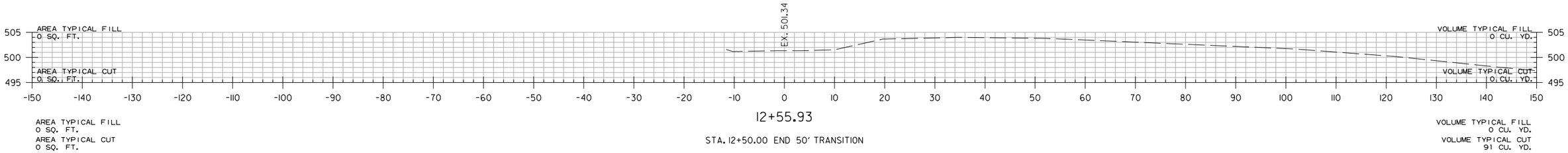
TUPELO TRAIL NORTH
STA. 10+00 TO STA. 11+00

PJoseph 6/21/2023 10:49:51 AM
WORKSPACE: AHTD
L:\2017\701\555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_TUPELO_NORTH_01.dgn
REVISED DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		012275	280	280

(2) CROSS SECTIONS



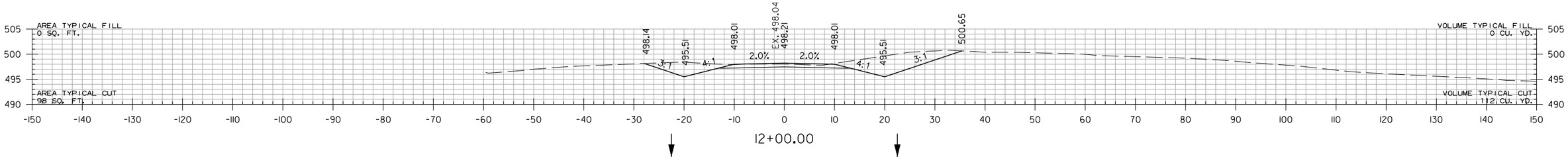
12+55.93

AREA TYPICAL FILL
0 SQ. FT.
AREA TYPICAL CUT
0 SQ. FT.

STA. 12+50.00 END 50' TRANSITION

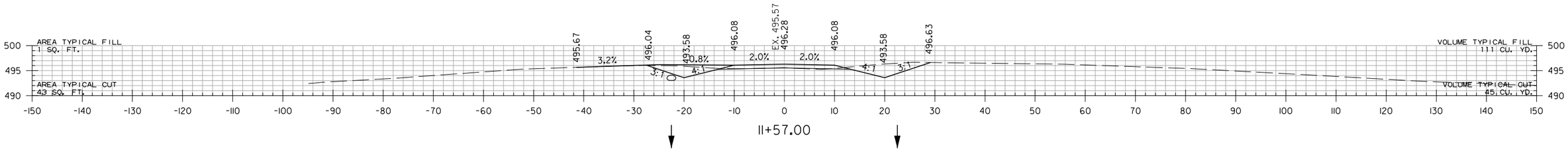
VOLUME TYPICAL FILL
0 CU. YD.
VOLUME TYPICAL CUT
91 CU. YD.

STA. 12+00.00
END TUPELO TRAIL NORTH



12+00.00

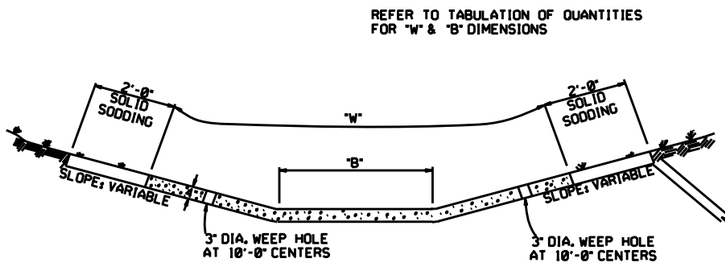
STA. 11+57 INSTALL
21" X 15" X 34' R.C. ARCH PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 4 CU. YDS.



11+57.00

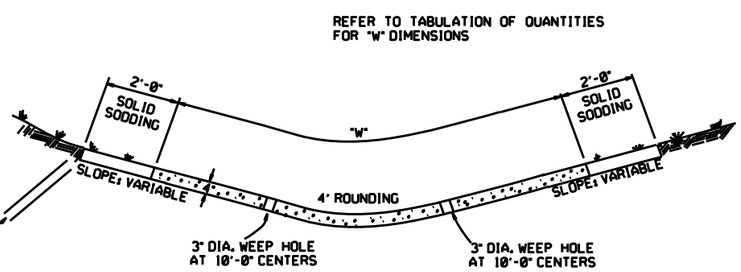
TUPELO TRAIL NORTH
STA. 11+57 TO STA. 12+56

PJoseph 6/21/2023 10:49:52 AM
WORKSPACE: AHTD
L:\20IT\I70I555 - 012275 Caddo Valley - Garland Co Line\Drawings\r-012275_CX_TUPELO_NORTH_01.dgn
REVISED DATE:



TYPE A

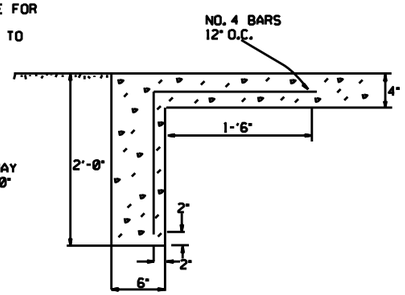
EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.



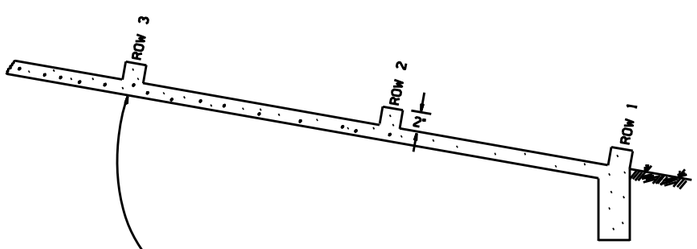
TYPE B

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

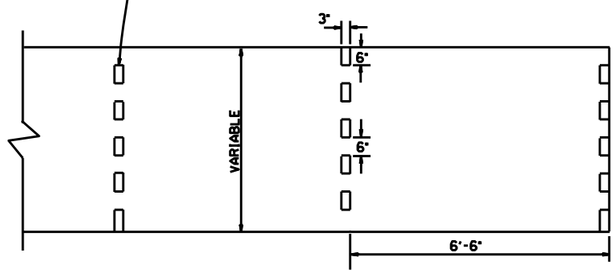


TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

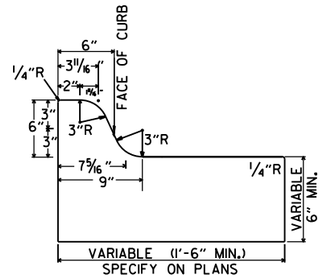
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45° INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
12-8-16	CORRECTED ENERGY DISSIPATOR DRAWING AND NOTE	
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

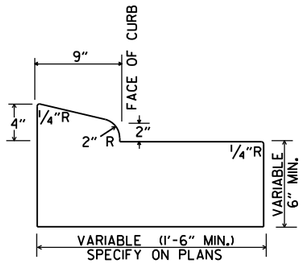
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

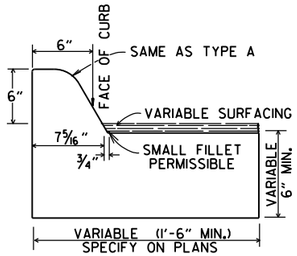
STANDARD DRAWING CDP-1



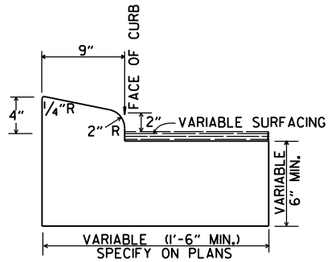
TYPE A



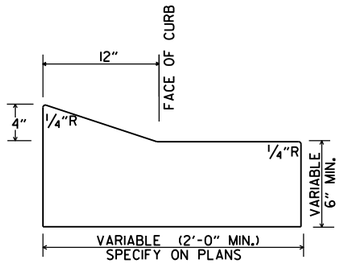
TYPE B-1



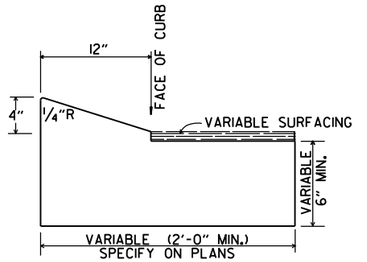
TYPE C



TYPE B-2

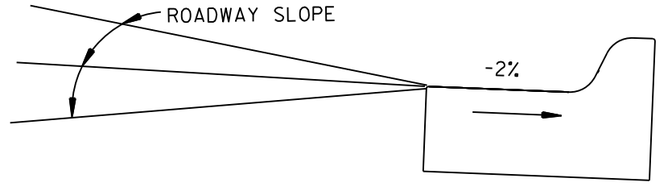


TYPE E-1



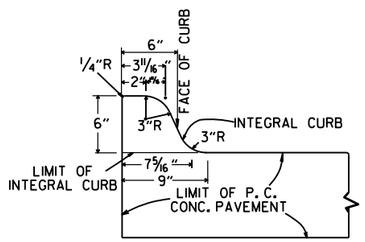
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

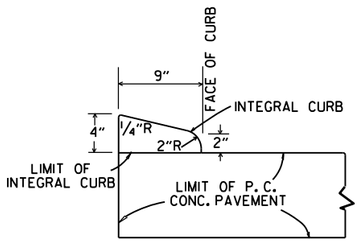


DETAIL OF GUTTER SLOPE

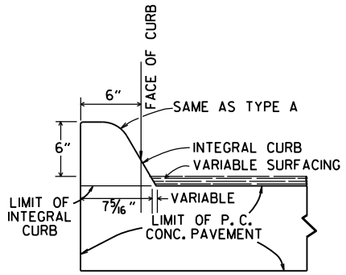
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

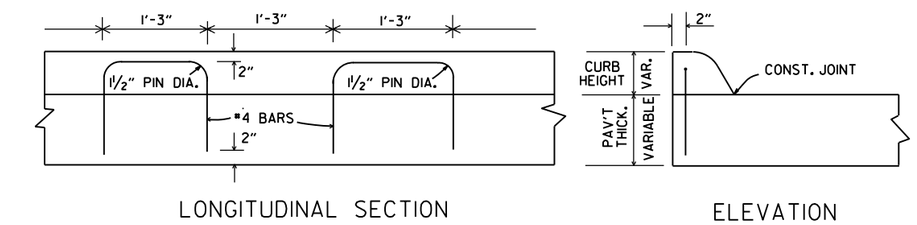


TYPE B



TYPE C

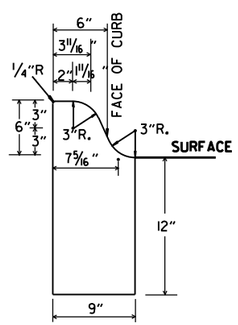
INTEGRAL CURB



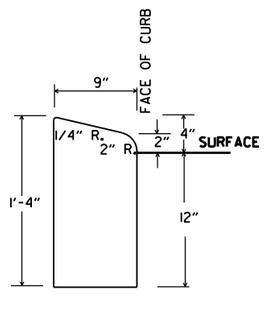
LONGITUDINAL SECTION

ELEVATION

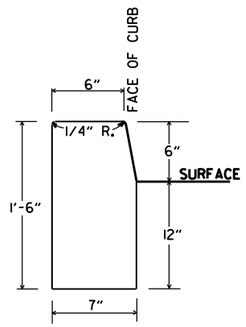
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



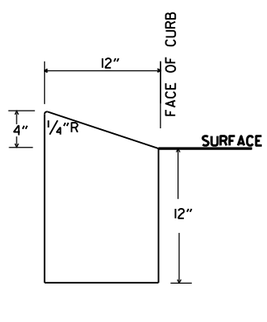
TYPE A



TYPE B

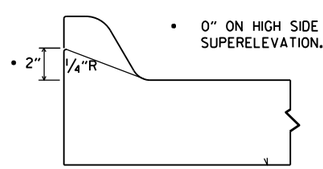


TYPE D



TYPE E

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

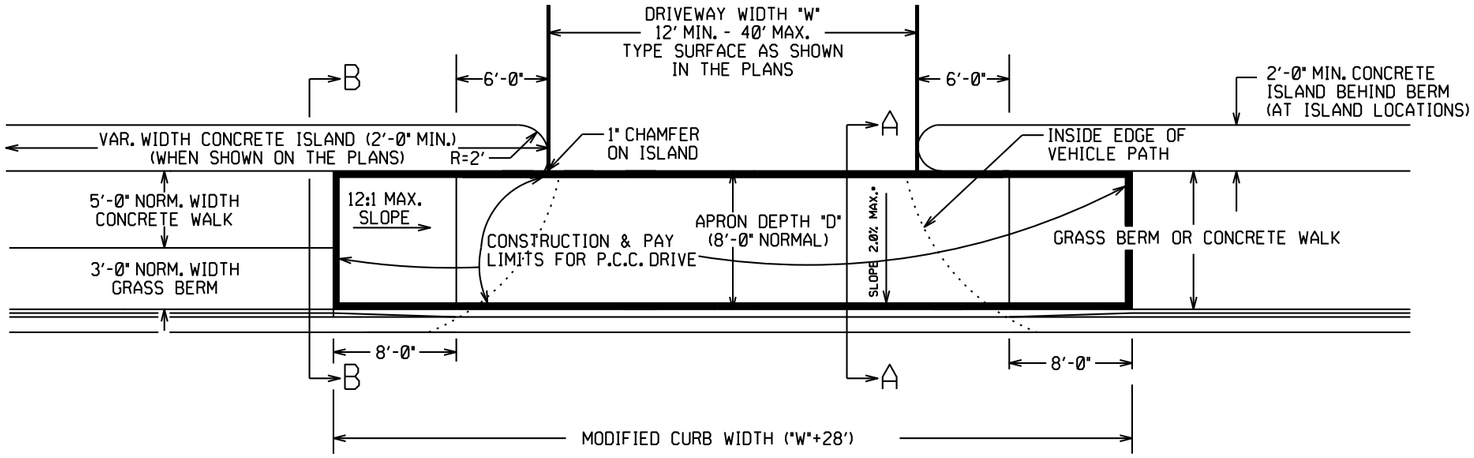
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIBLE DEPTH TYPE A & B I	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72

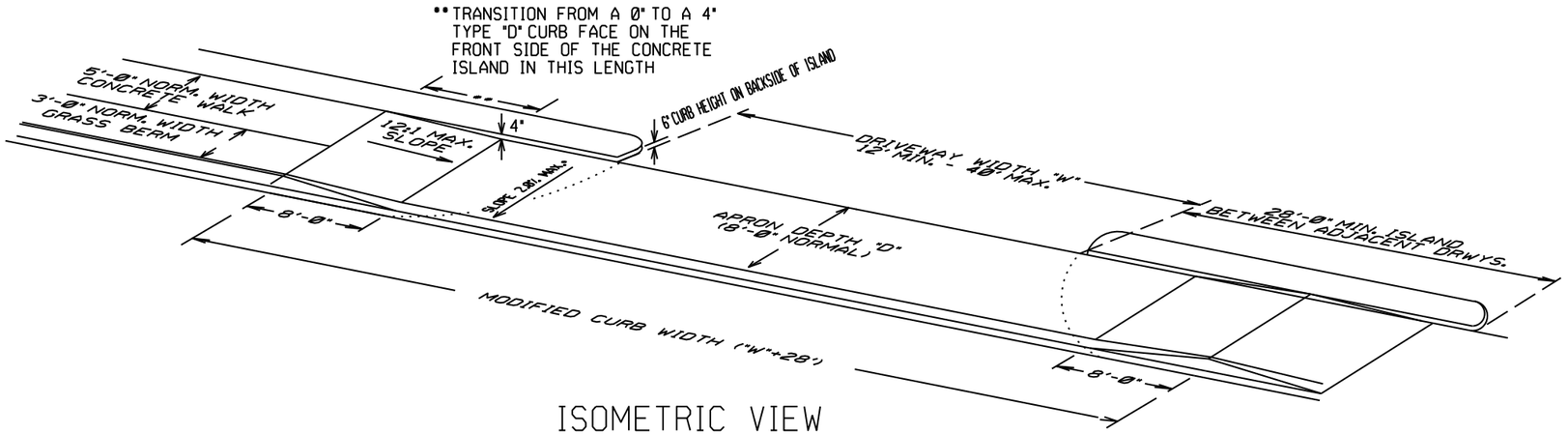
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

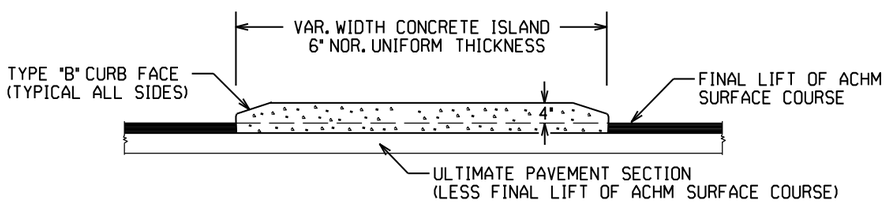
STANDARD DRAWING CG-1



PLAN VIEW



ISOMETRIC VIEW

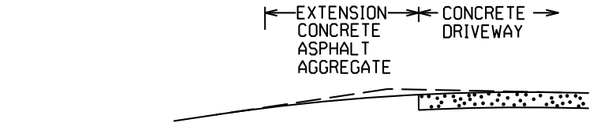


CURBED ISLANDS FOR CHANNELIZATION

CONCRETE ISLAND NOTES:

1. REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".

2. TRANSVERSE EXPANSION JOINTS, NOT LESS THAN 1/2" WIDE, SHALL BE PLACED AT MINIMUM INTERVAL OF 45'. TRANSVERSE JOINT SHALL BE CONSTRUCTED USING A JOINT FILLER COMPLYING WITH AASHTO M213.



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

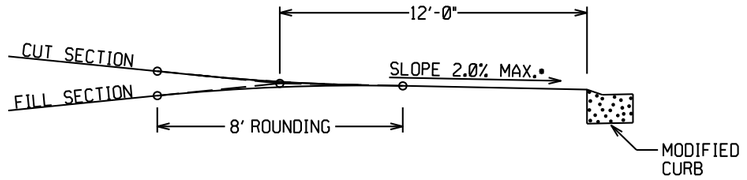
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

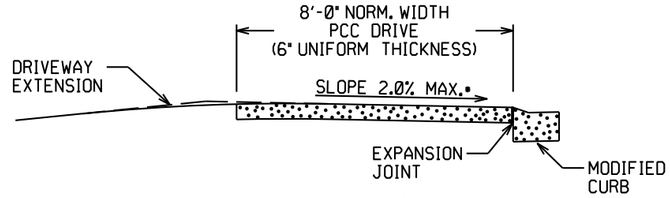
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

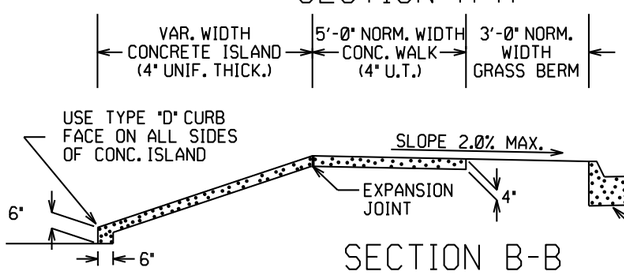


DRIVEWAY VERTICAL ALIGNMENT DETAILS

• NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



SECTION A-A



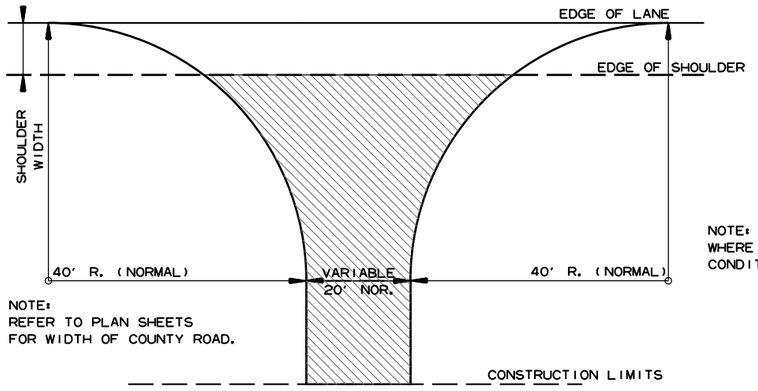
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	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

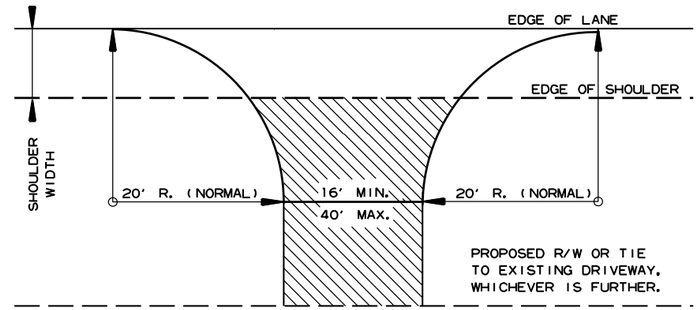
STANDARD DRAWING DR-1



NOTE: 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.

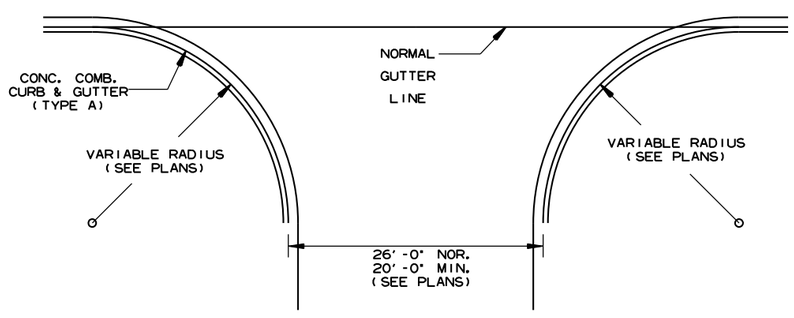
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



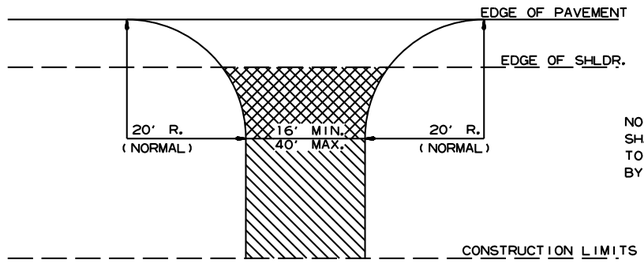
NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

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)



DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS & STATE HIGHWAYS CURB & GUTTER SECTION



NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ASPHALT CONCRETE HOT MIX SURFACE COURSE (220 LBS. PER SQ. YD.) AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR 6" CONCRETE IF CONCRETE DRIVE EXIST.

AGGREGATE BASE COURSE (CLASS 7) 9" COMP. DEPTH OR CONFORM TO EXISTING DRIVEWAY

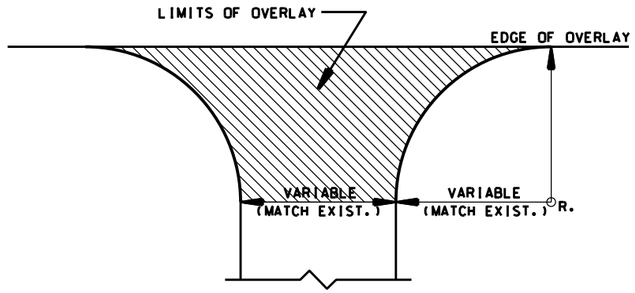
DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		ISSUED

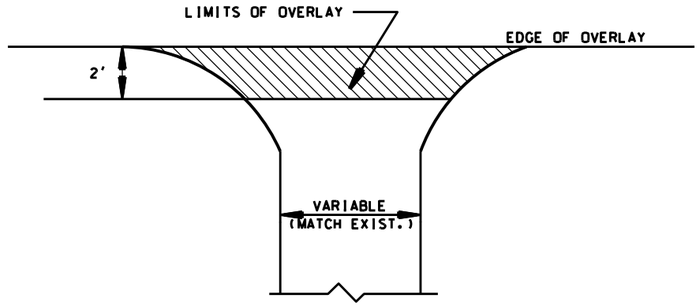
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS

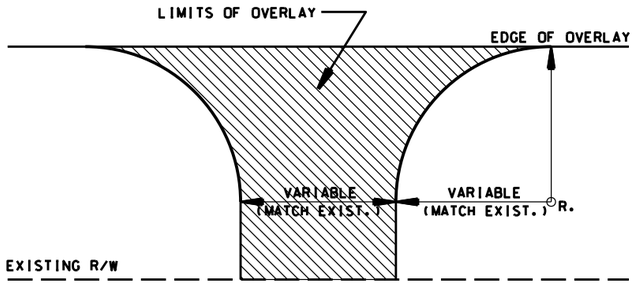
STANDARD DRAWING DR-2



DETAIL FOR STATE HIGHWAY TURNOUTS
(PAVEMENT PRESERVATION)



DETAIL FOR DRIVEWAY TURNOUTS
(PAVEMENT PRESERVATION)



DETAIL FOR CITY STREET
AND COUNTY ROAD TURNOUTS
(PAVEMENT PRESERVATION)

NOTES:

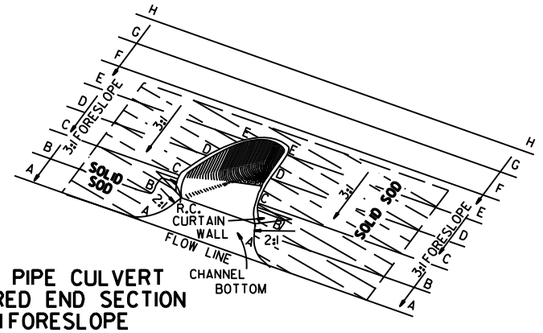
1. TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.
2. NORMAL ACHM SURFACE COURSE (1/2") (220 LBS PER SQ. YD.) SHALL BE USED ON DRIVEWAYS AND TURNOUTS UNLESS SHOWN OTHERWISE IN THE PLANS.
3. STATE HIGHWAY TURNOUTS SHALL BE PAVED TO THE BACK OF THE RADIUS.
4. CITY STREET AND COUNTY ROAD TURNOUTS SHALL BE PAVED TO THE RIGHT-OF-WAY LIMITS.

DATE REV	DATE FILMED	DESCRIPTION
4-13-23		REVISED PAVING AT TURNOUTS
5-19-22		ISSUED

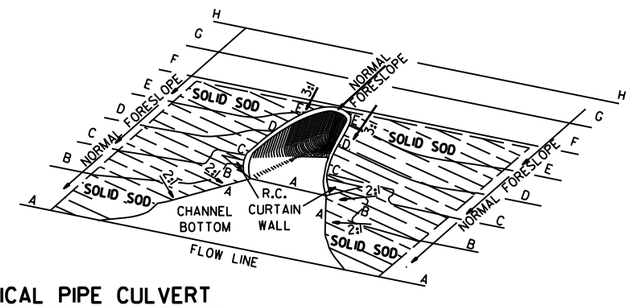
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS (PAVEMENT PRESERVATION)

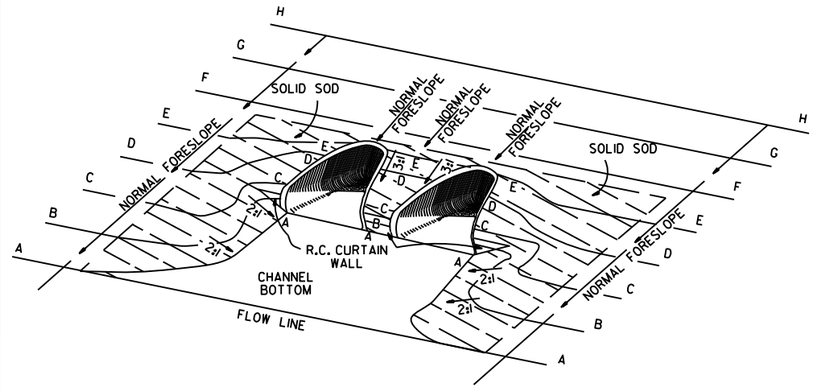
STANDARD DRAWING DR-3



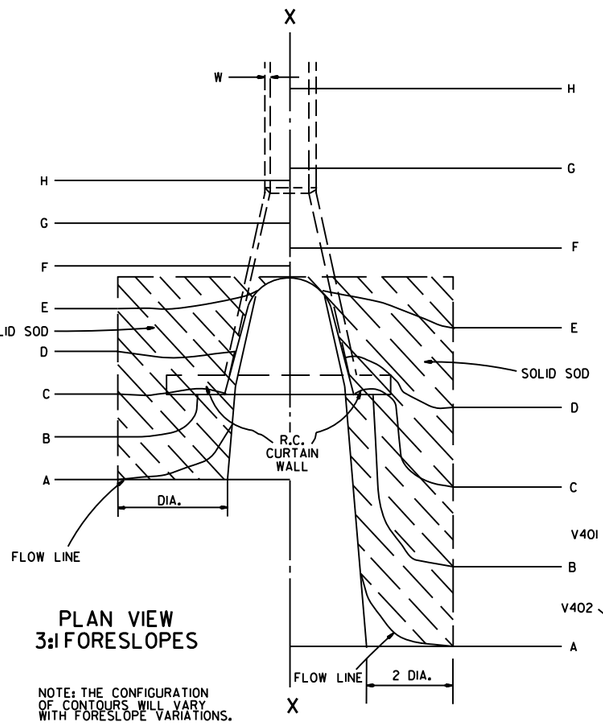
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES



PLAN VIEW
3:1 FORESLOPES

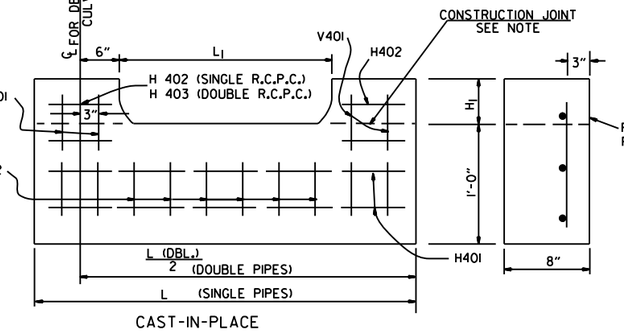
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

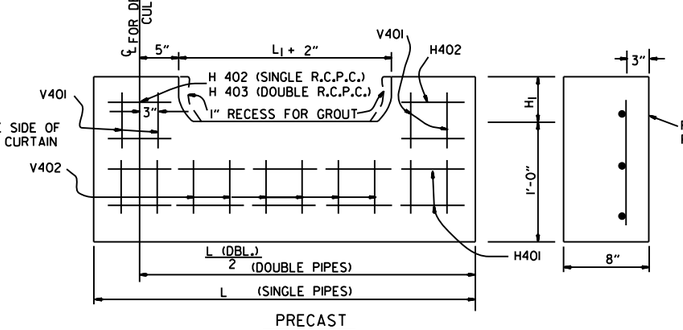
PIPE DIA.	H_1	L_1	L	L (DBL.) / 2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	1'-11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



CAST-IN-PLACE

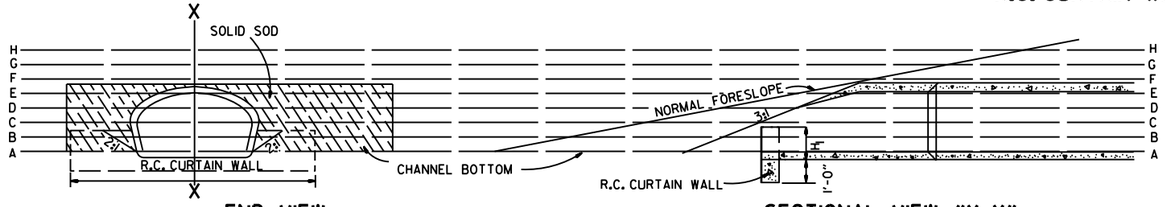
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS



END VIEW

SECTIONAL VIEW "X-X"

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 3:1	4:1	6:1
	SQ. YDS.			SQ. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

STANDARD DRAWING FES-1

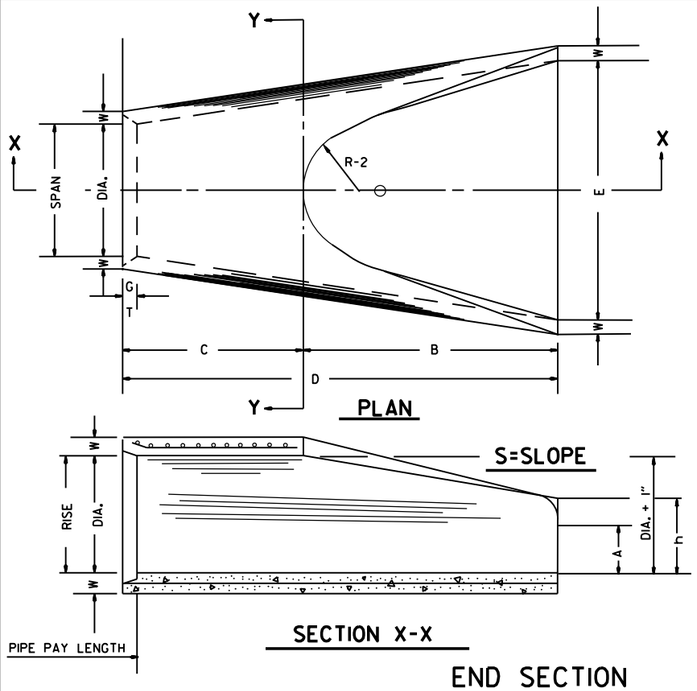
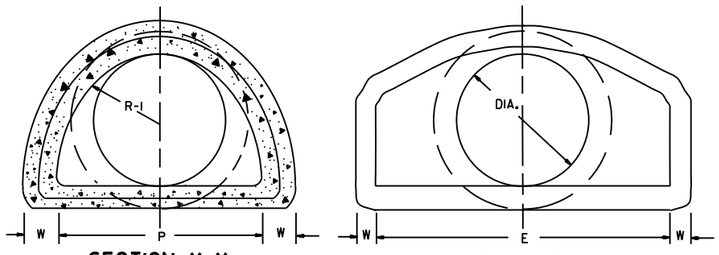


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3:1	25"	33 3/16"	16 15/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 13/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅞"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 13/16"	38 15/16"	24"	5"	13250	4'-6"

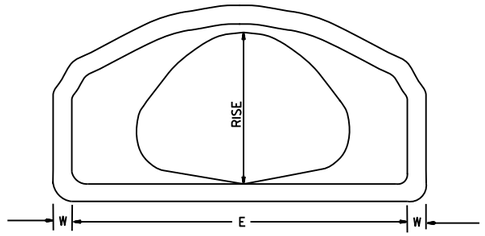


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

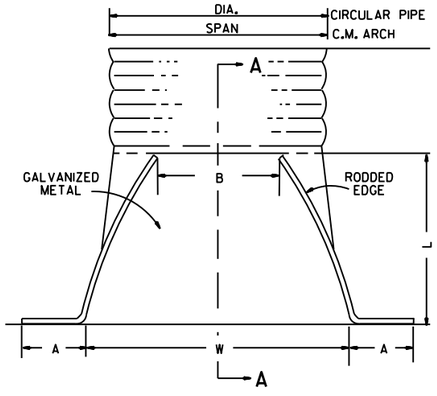
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 11/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 11/16"	20"	3"	2½:1
36	43¾	44	26⅜	27	4"	10½"	4'-0"	2'-11½"	6'-1½"	6'-6"	54 5/16"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

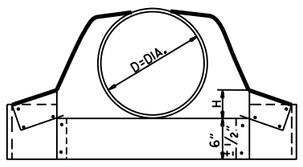
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



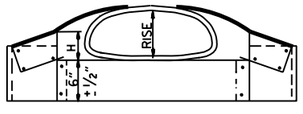
END VIEW
CONCRETE ARCH PIPE

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS





CIRCULAR PIPE



C.M. ARCH PIPE

CIRCULAR PIPE

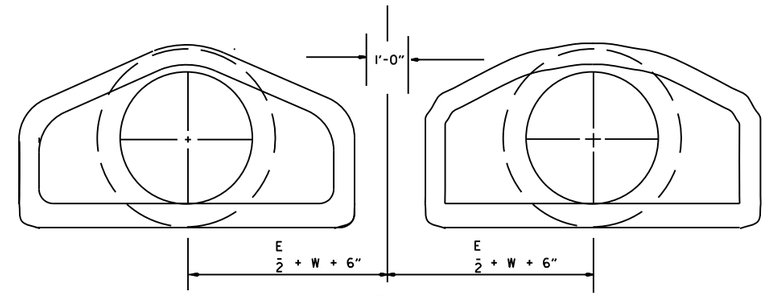
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

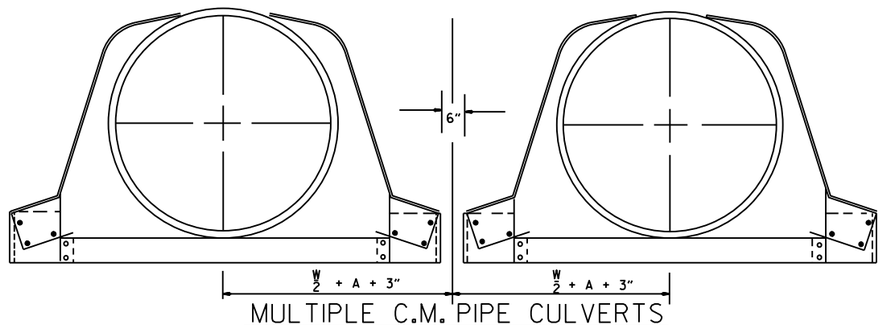
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



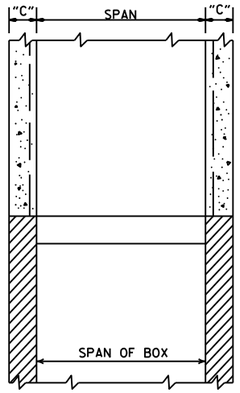
MULTIPLE C.M. PIPE CULVERTS

DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

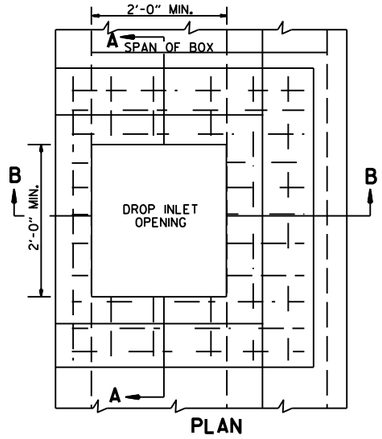
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

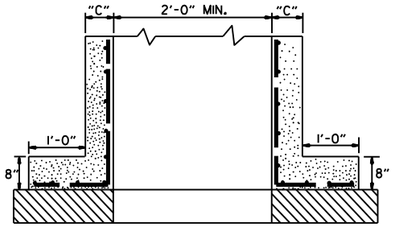
STANDARD DRAWING FES-2



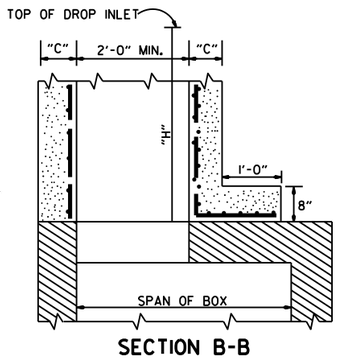
SECTION B-B



PLAN

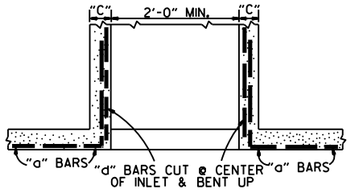


SECTION A-A

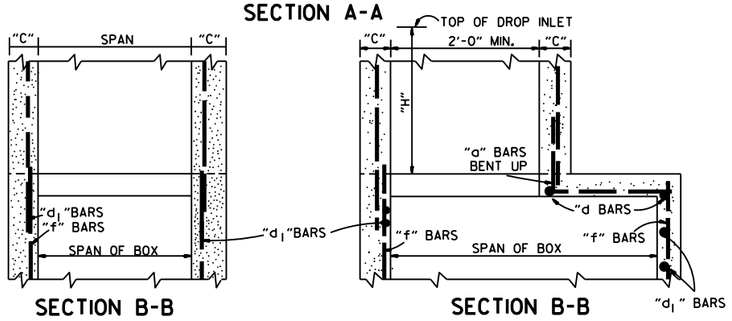


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



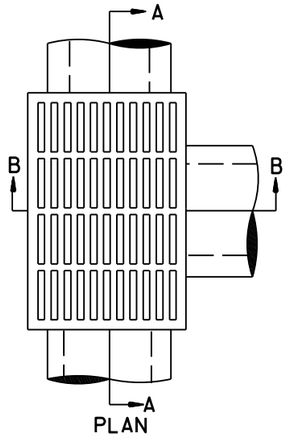
SECTION A-A



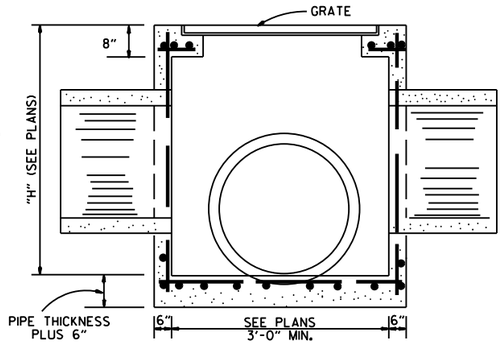
SECTION B-B SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.

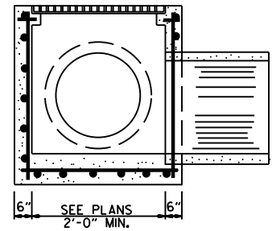


PLAN



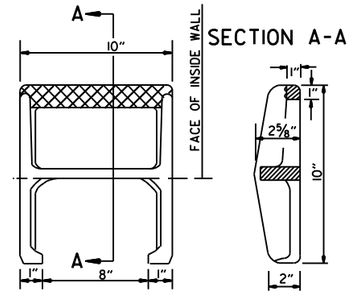
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

DROP INLET (TYPE E)

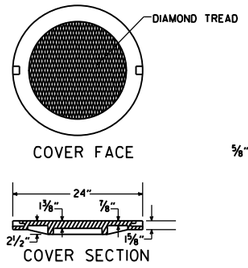


APPROX. WEIGHT = 11 LBS. (CAST IRON)

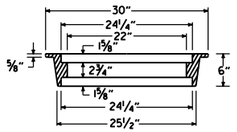
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



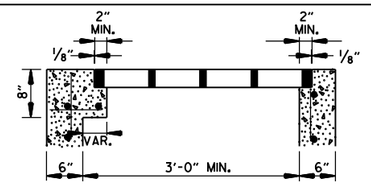
COVER SECTION



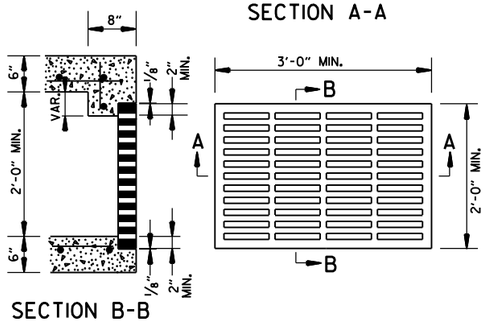
RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



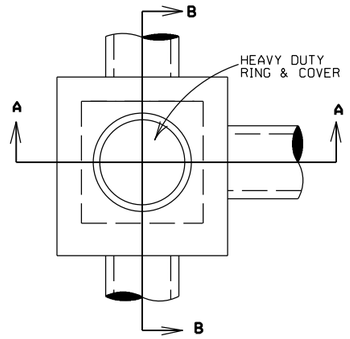
SECTION A-A



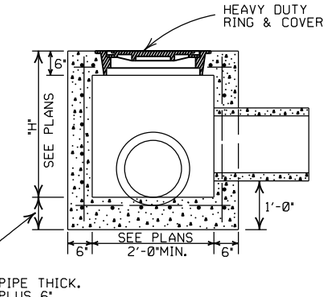
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

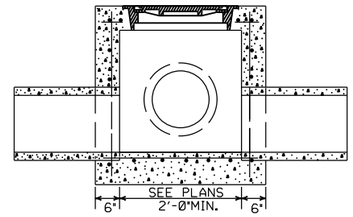


PLAN



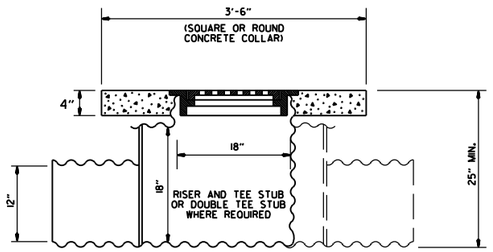
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

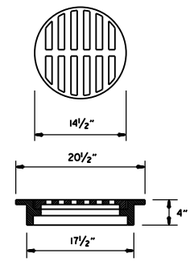


SECTION B-B

JUNCTION BOX (TYPE E)



NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".



USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

DETAIL OF YARD DRAIN

GENERAL NOTES:

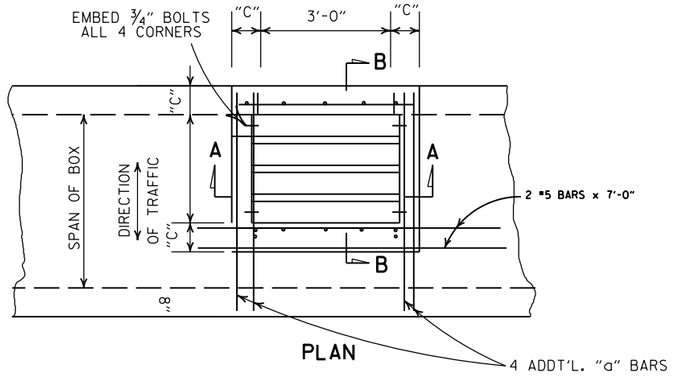
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
11-16-01	ADDED NOTE 10	
1-12-00	REVISED HEAVY DUTY RING & COVER	
7-02-98	CHANGED GRATE DETAIL, DELETED DI(TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97	ADDED DIMENSION TO TYPE IV-A	
10-18-96	ADDED DETAIL OF YARD DRAIN	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

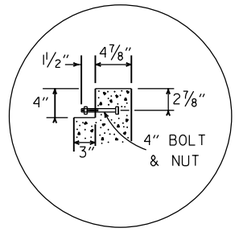
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

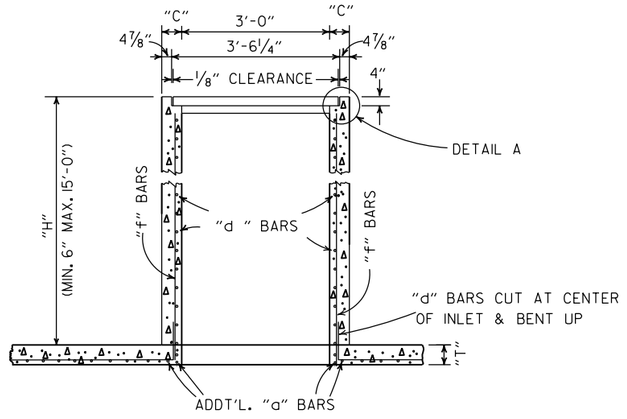
STANDARD DRAWING FPC-9



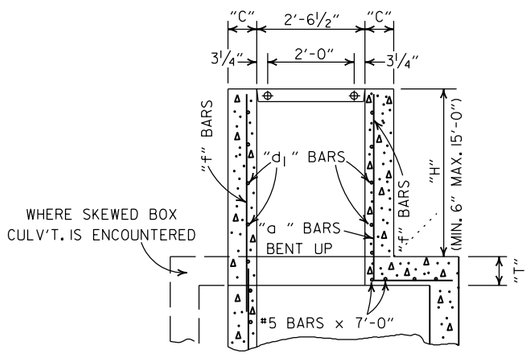
PLAN



DETAIL A



SECTION A-A

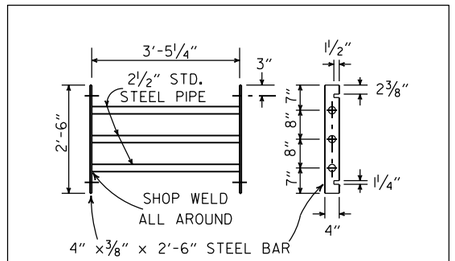


SECTION B-B

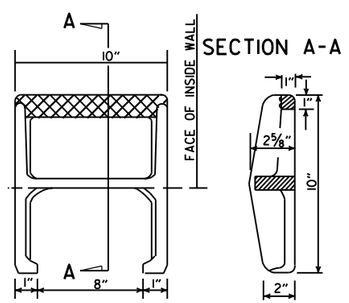
NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

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

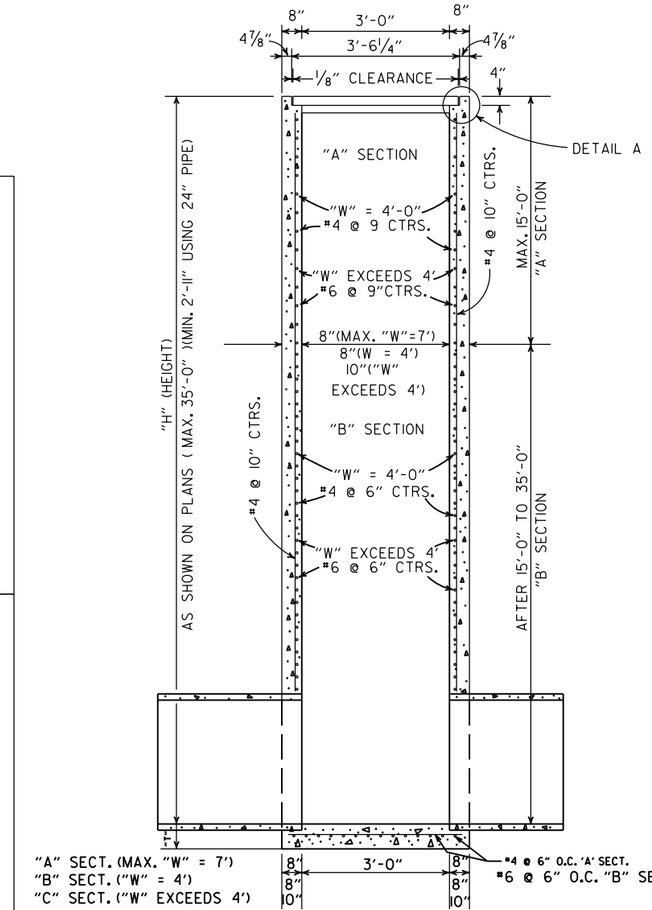
GENERAL NOTES:

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.

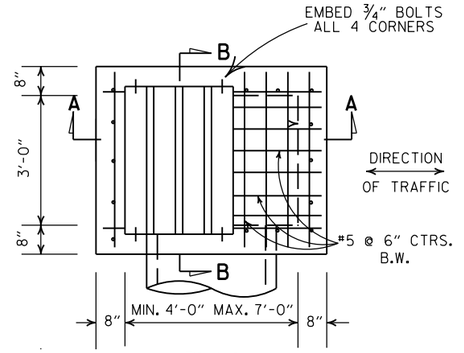
TABLE OF "W" DIMENSIONS

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"

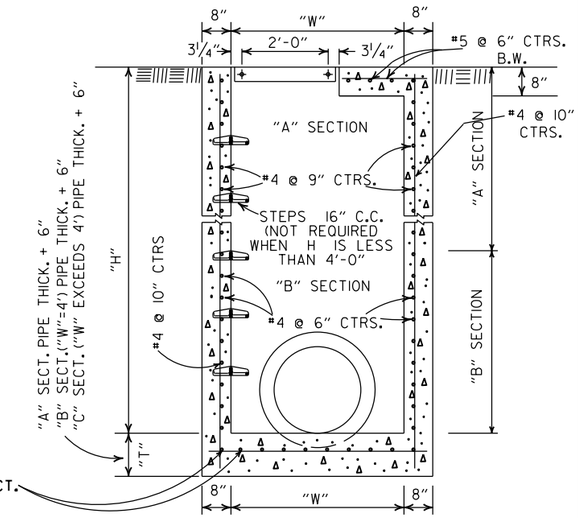
NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.



SECTION B-B



PLAN



SECTION A-A

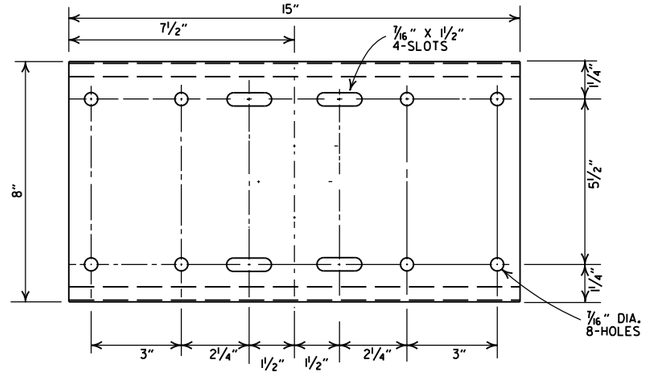
DROP INLET(TYPE RM)

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

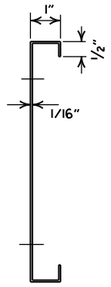
ARKANSAS STATE HIGHWAY COMMISSION

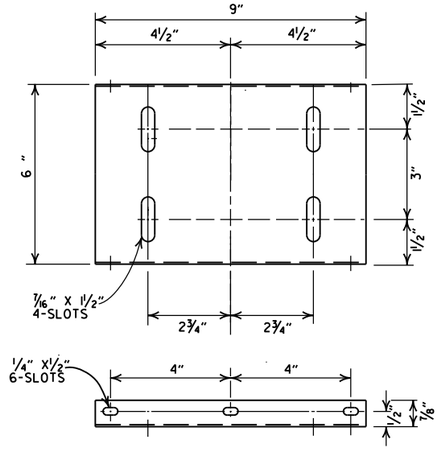
DETAILS OF DROP INLETS

STANDARD DRAWING FPC-9D

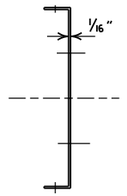


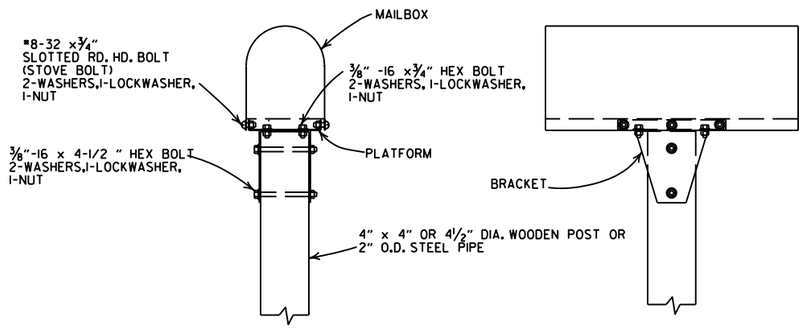
SHELF



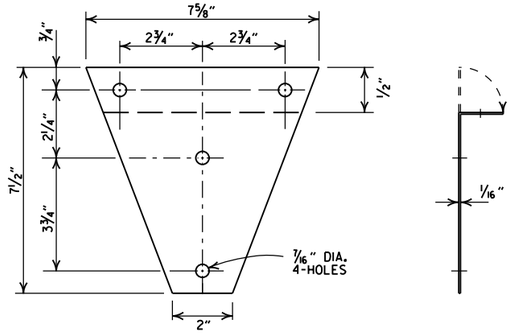


PLATFORM





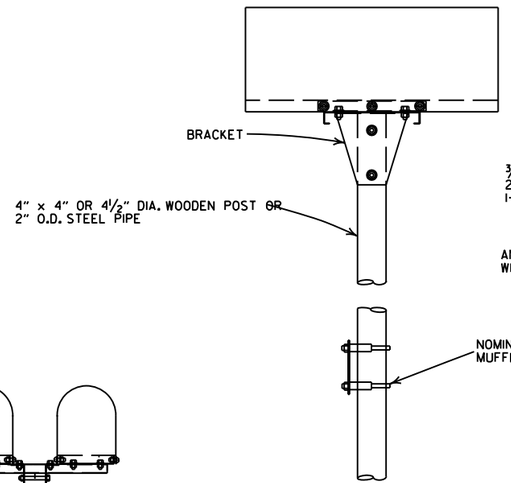
SINGLE INSTALLATION



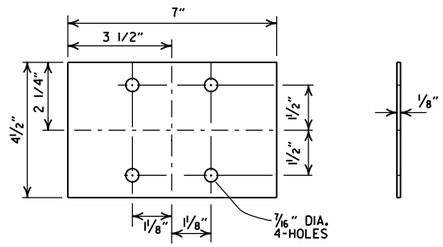
BRACKET

GENERAL NOTES

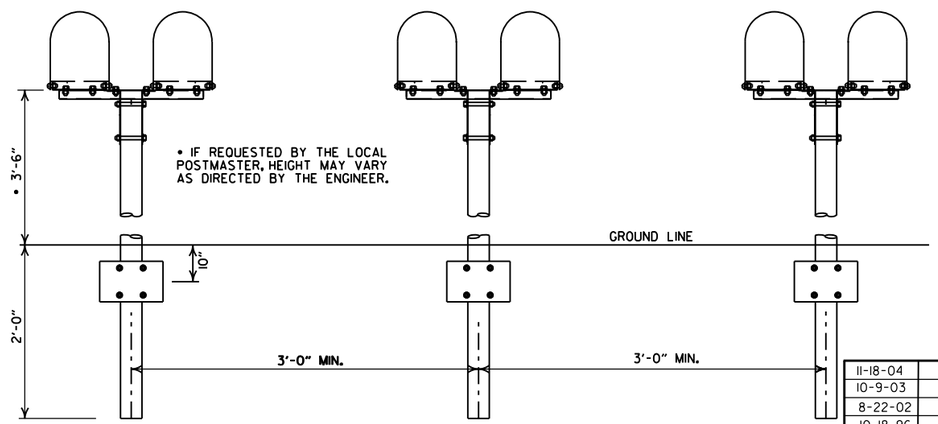
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED 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.



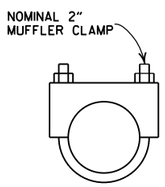
DOUBLE INSTALLATION



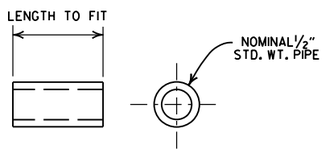
ANTI-TWIST PLATE



SPACING FOR MULTIPLE POST INSTALLATION



CLAMP



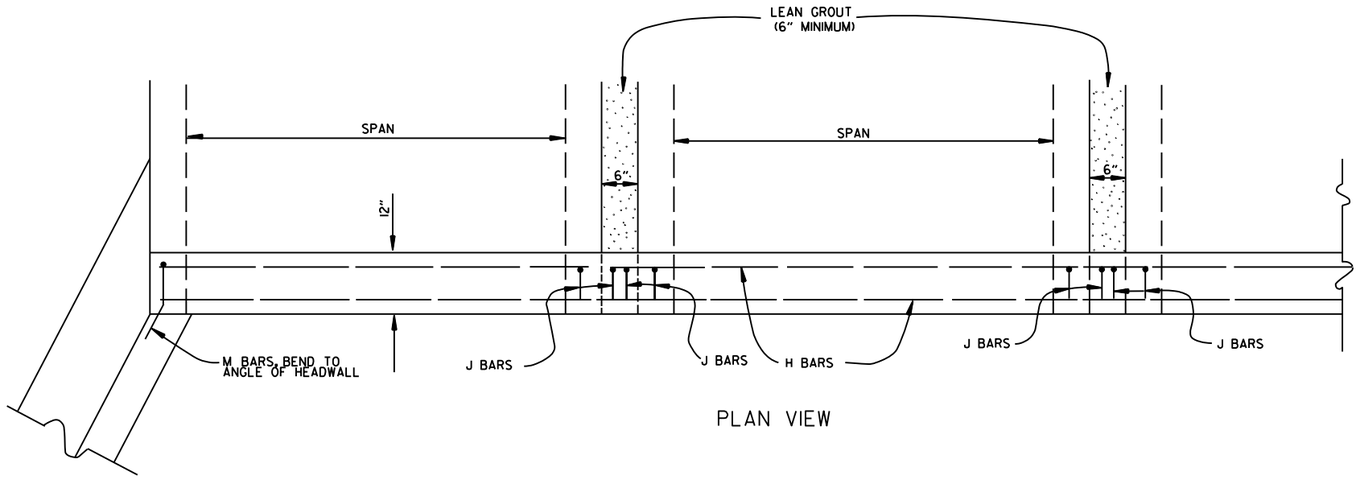
SPACER

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

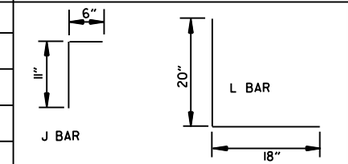
STANDARD DRAWING MB-1



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.

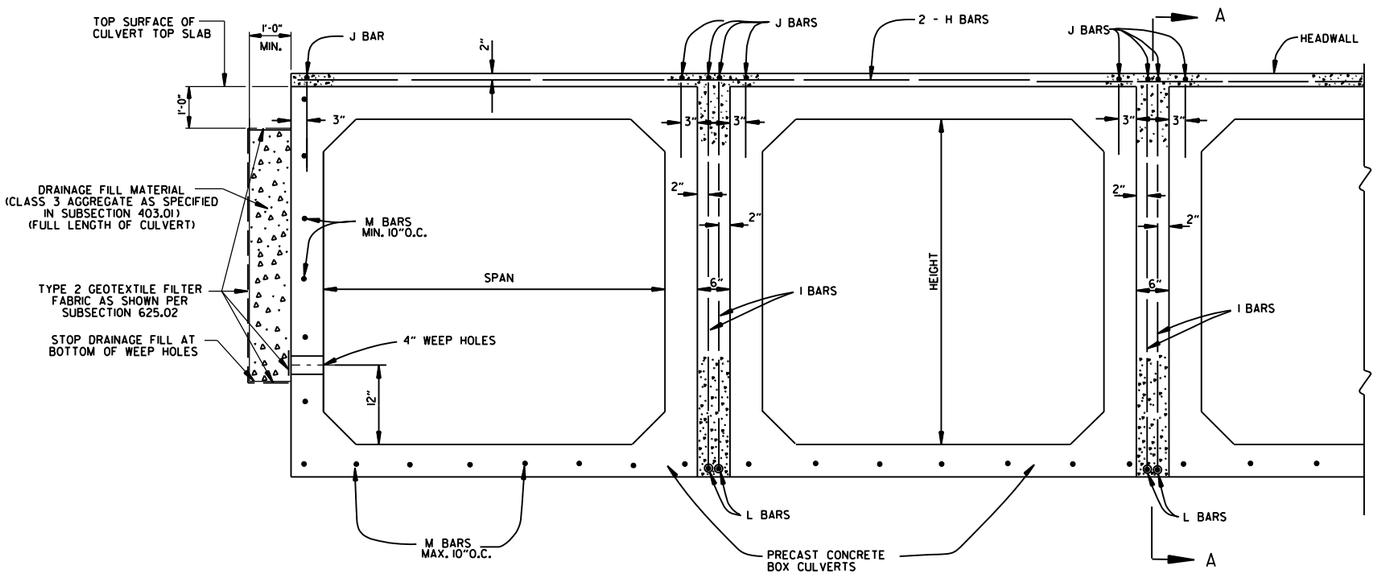
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

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.

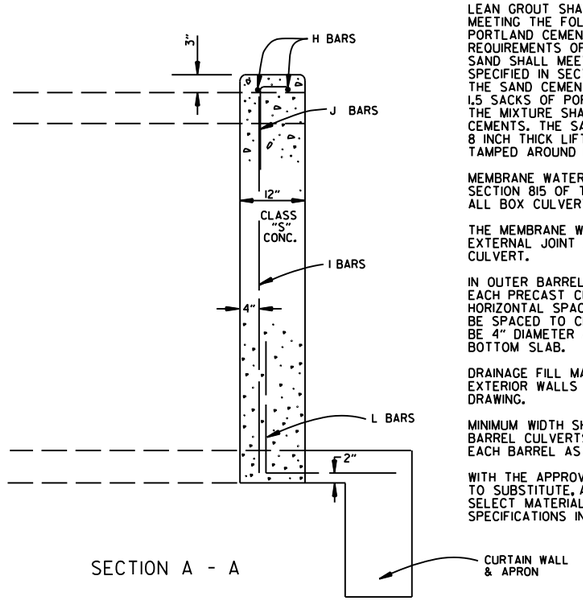
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

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	31⅜	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

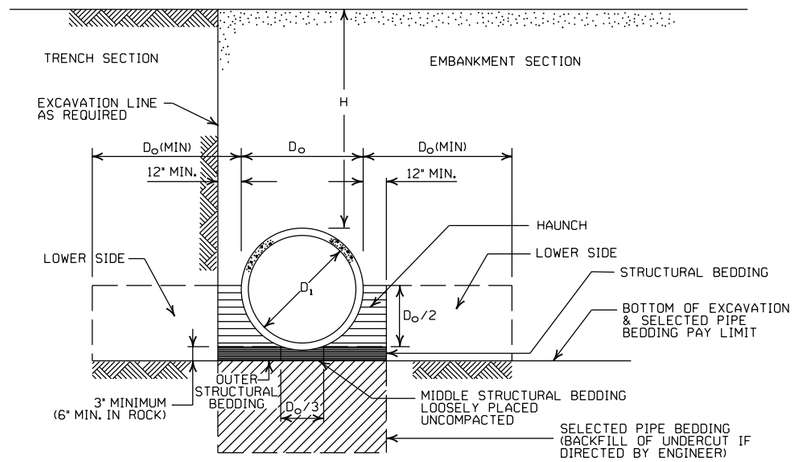
- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_O = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
= UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM						
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8

CORRUGATED METAL PIPE ARCHES

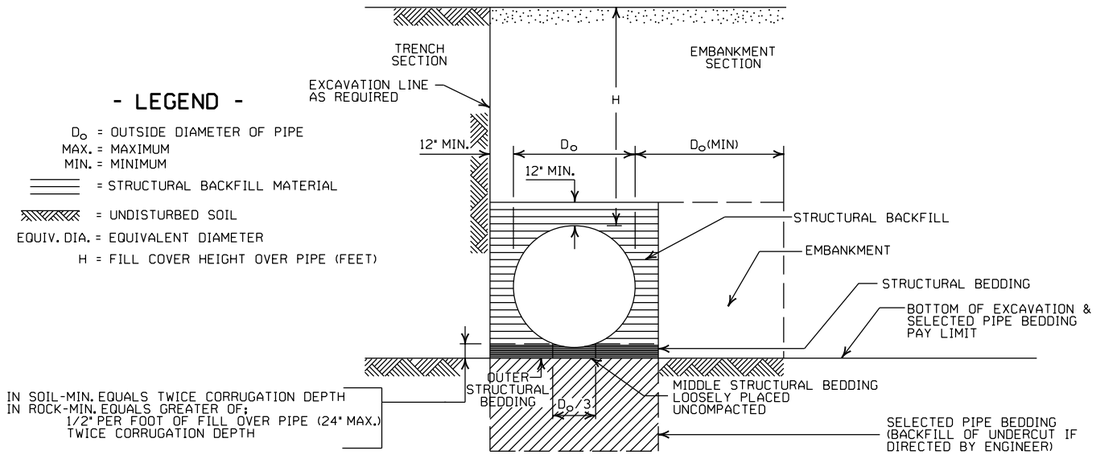
EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL				ALUMINUM			
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)		MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)	
				INSTALLATION	INSTALLATION			INSTALLATION	INSTALLATION	
				TYPE 1	TYPE 1			TYPE 1	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		INSTALLATION				
				TYPE 2	TYPE 1	TYPE 2	TYPE 1			
36	40x31	5	0.079	3	2	12	15			
42	46x36	6	0.079	3	2	13	15			
48	53x41	7	0.079	3	2	13	15			
54	60x46	8	0.079	3	2	13	15			
60	66x51	9	0.079	3	2	13	15			
66	73x55	12	0.079	3	2	15	15			
72	81x59	14	0.079	3	2	15	15			
78	87x63	14	0.079	3	2	15	15			
84	95x67	16	0.109	3	2	15	15			
90	103x71	16	0.109	3	2	15	15			
96	112x75	18	0.109	3	2	15	15			
102	117x79	18	0.109	3	2	15	15			
108	128x83	18	0.138	3	2	15	15			

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

- LEGEND -

D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HDPE PIPE.

MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"

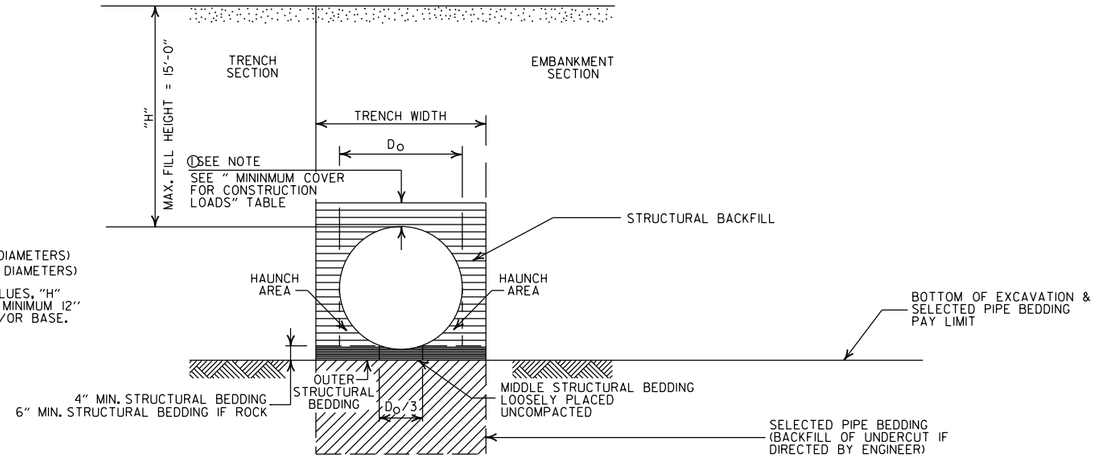
①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D = 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

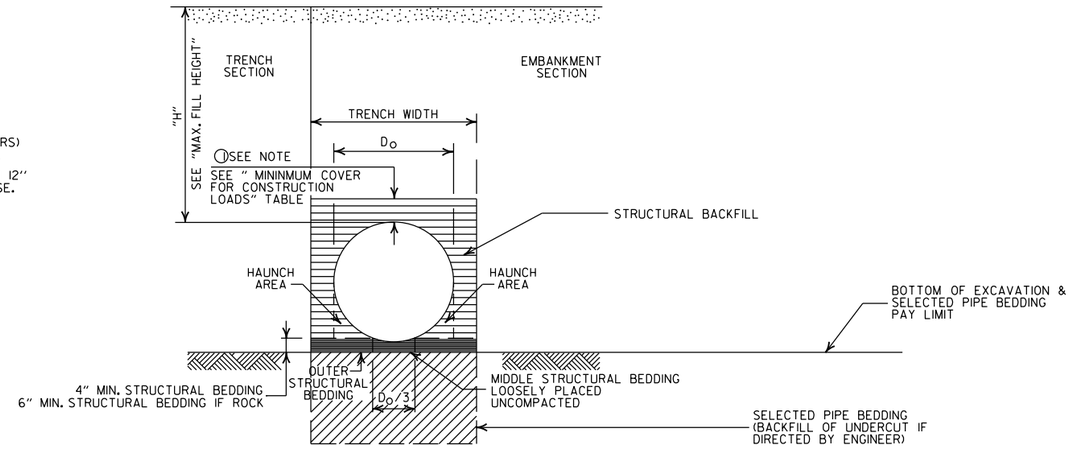
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

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"

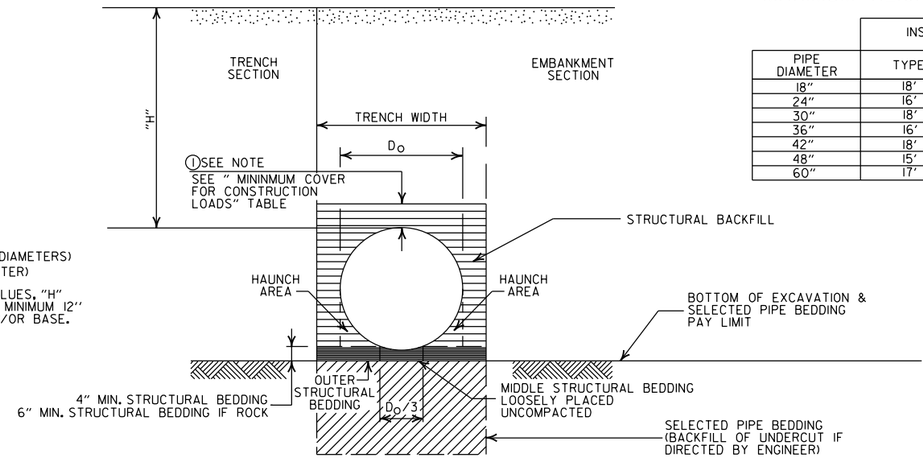
PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"
60"	10'-0"	15'-0"

①NOTE:
12" MIN. (18" - 42" DIAMETERS)
24" MIN. (60" DIAMETER)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

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'



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.

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

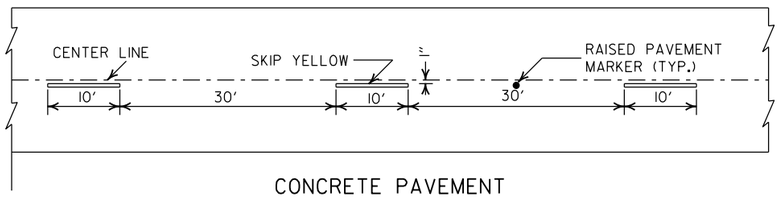
= UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
02-27-20	REVISED	
11-07-19	ISSUED	

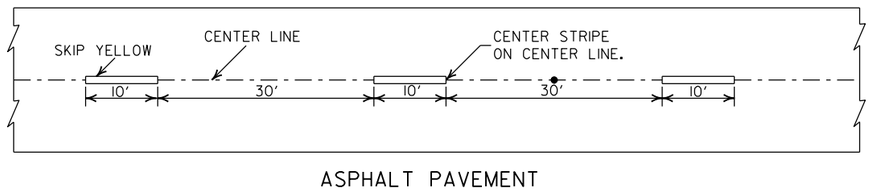
ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (POLYPROPYLENE)

STANDARD DRAWING PCP-3

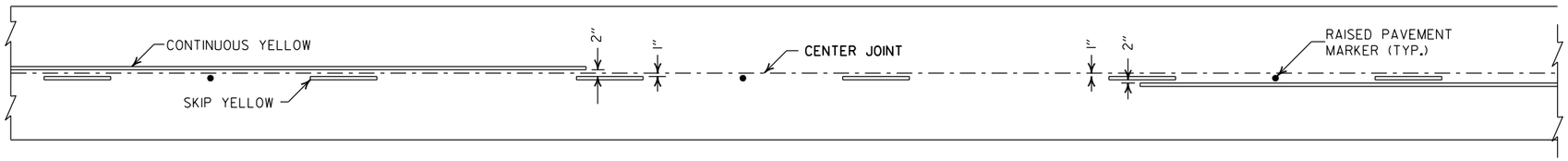


CONCRETE PAVEMENT

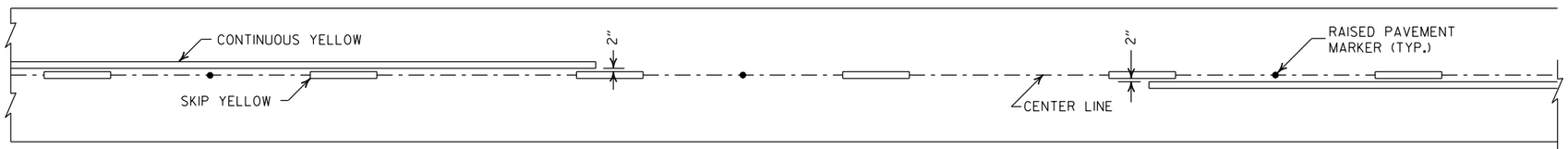


ASPHALT PAVEMENT

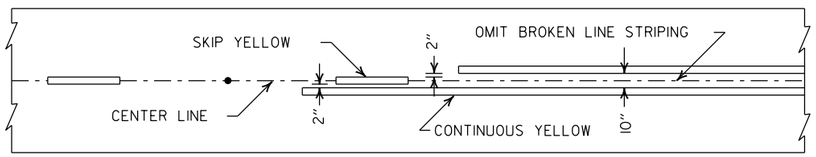
BROKEN LINE STRIPING



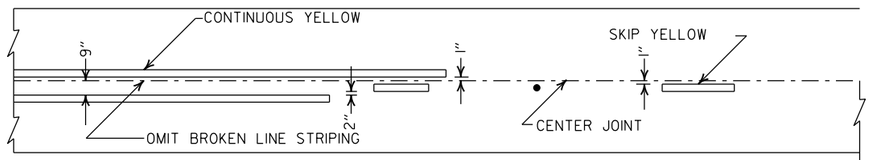
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

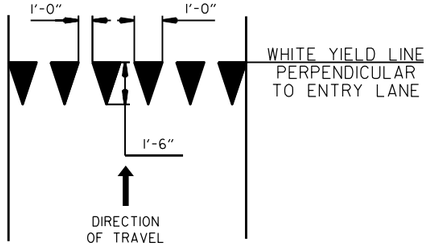


ASPHALT PAVEMENT

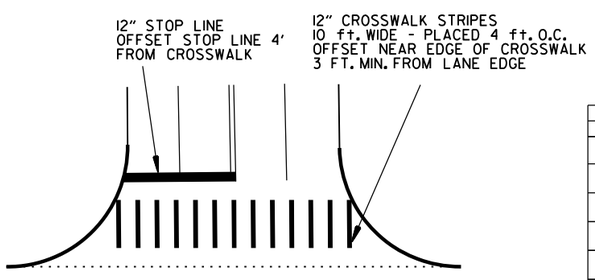


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

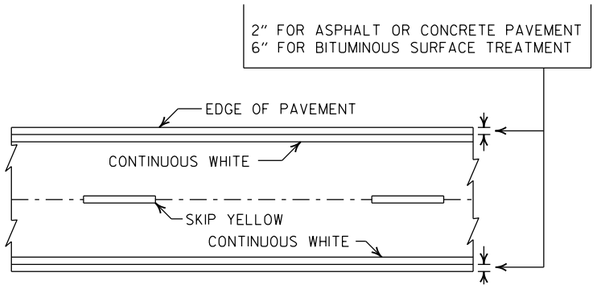


YIELD LINE DETAIL



CROSSWALK AND STOP LINE DETAILS

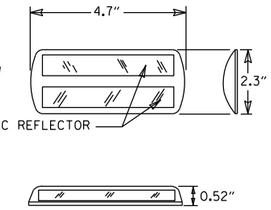
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.



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

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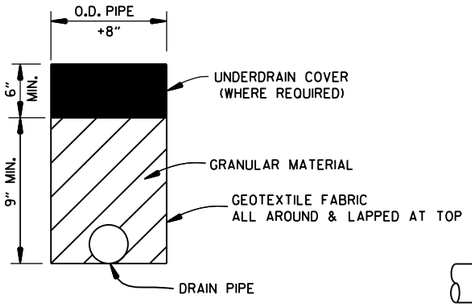
PAVEMENT MARKING DETAILS

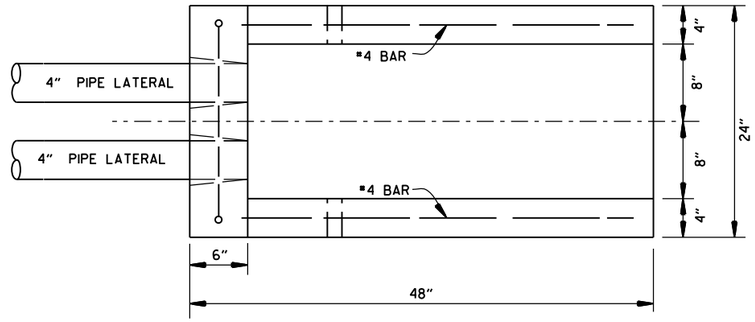
STANDARD DRAWING PM-1

NOTE:

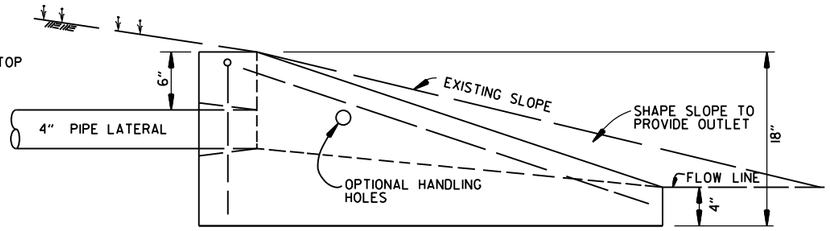
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

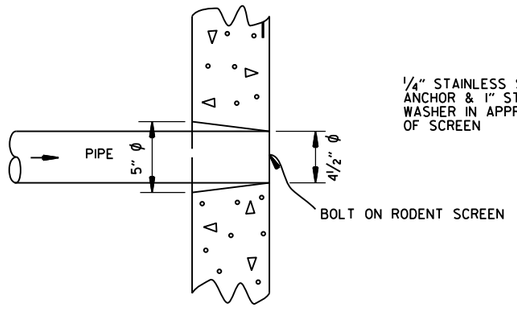




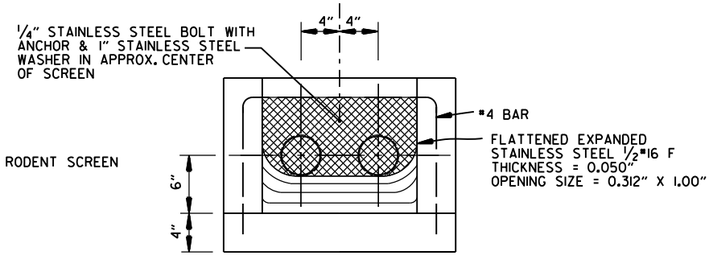
PLAN VIEW



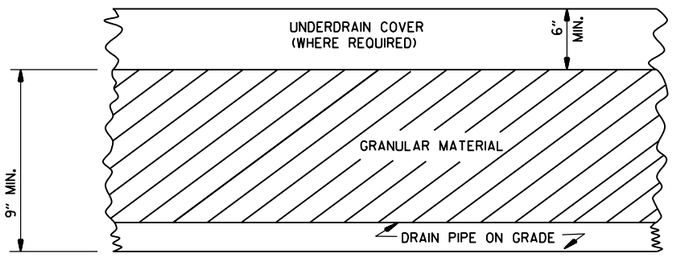
SIDE VIEW



DETAIL OF HOLE
FOR 4" PIPE



FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE 1. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

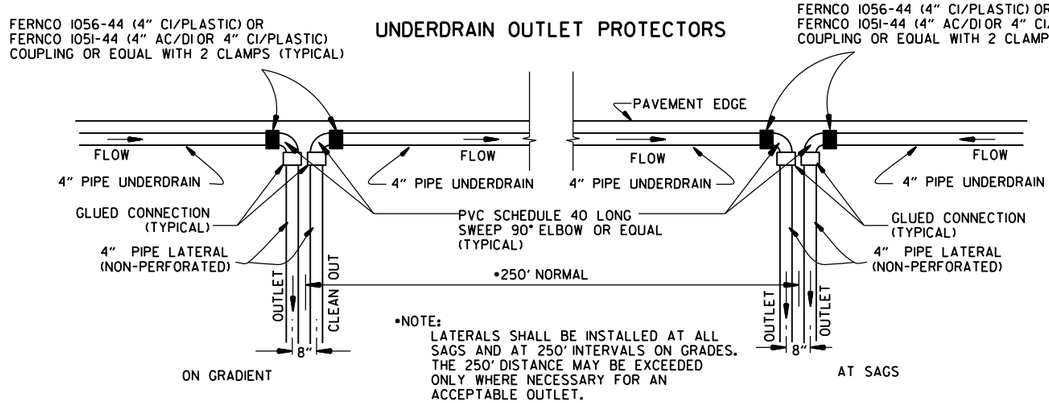
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS
WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

DATE	REVISION	DATE FILMED
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

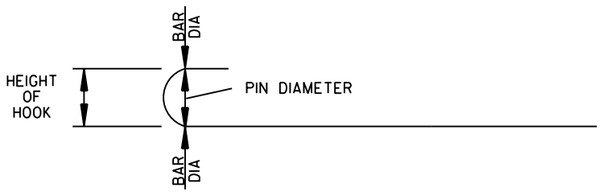
DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

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

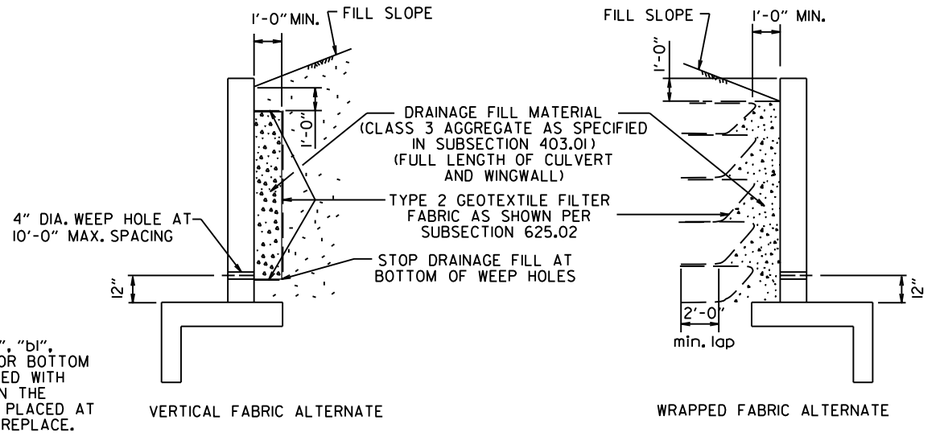
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

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.

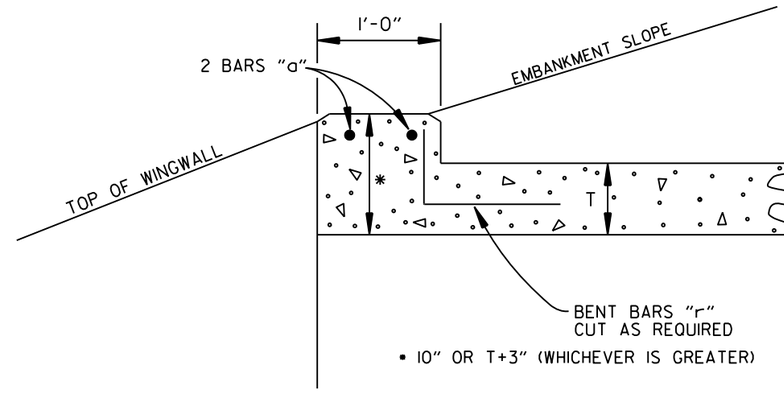
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

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.

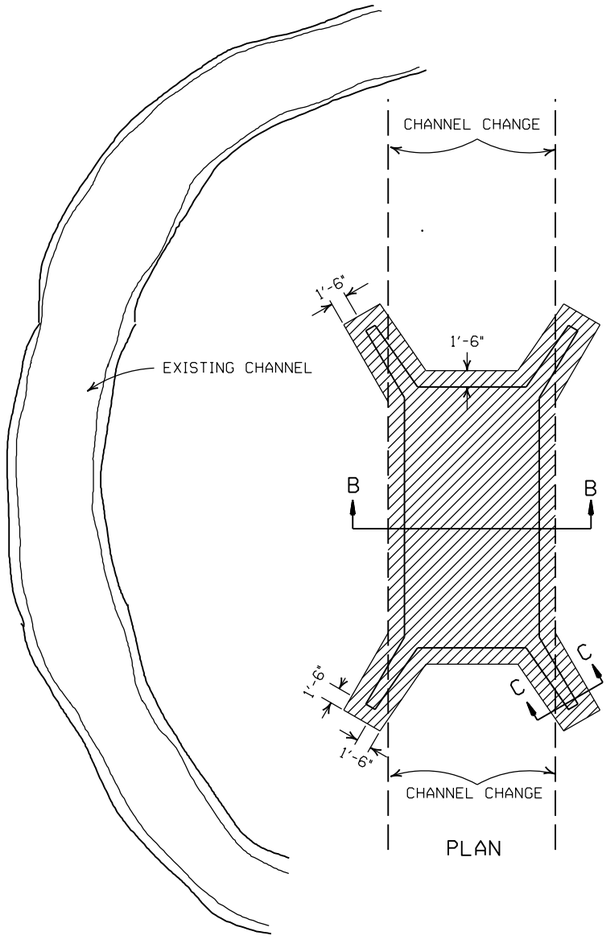
R.C. BOX CULVERT HEADWALL MODIFICATIONS

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	

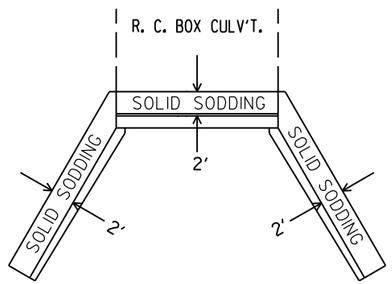
ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



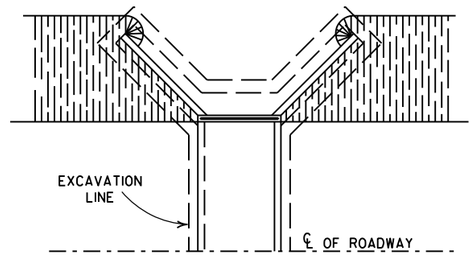
PLAN



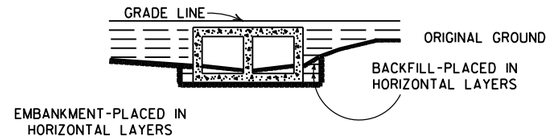
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

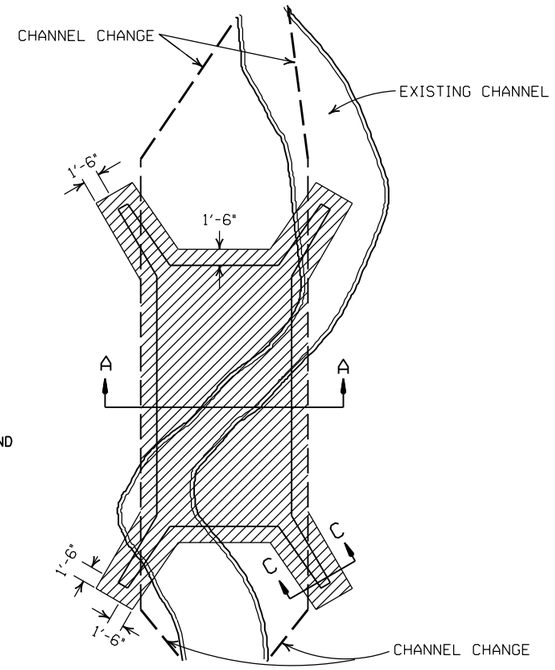


PLAN

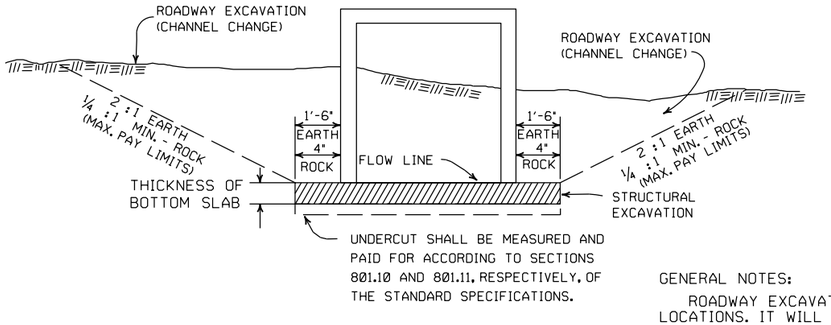


LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT

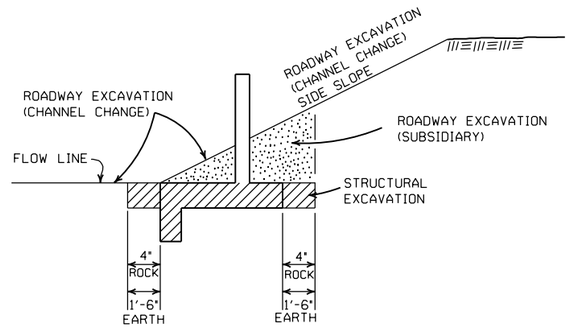


PLAN

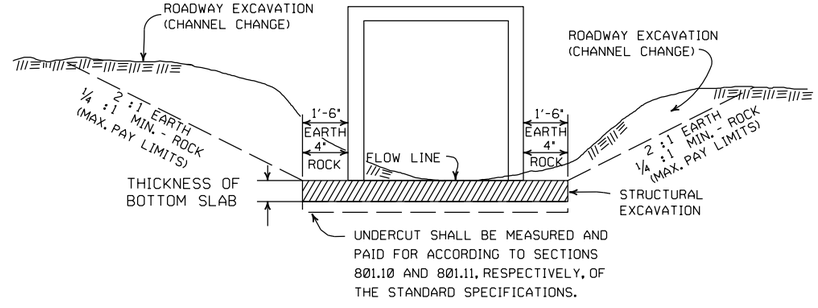


SECTION B-B

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.

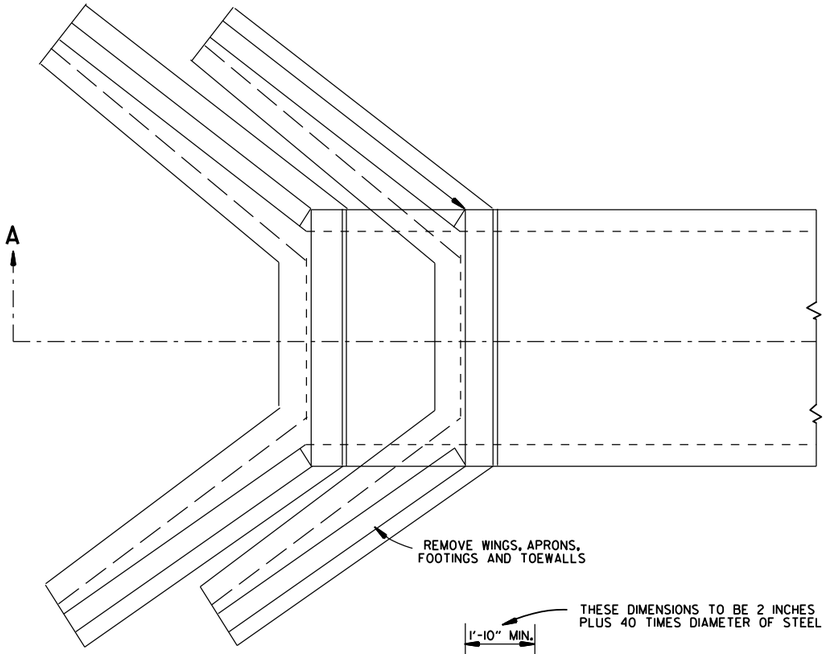
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

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

ARKANSAS STATE HIGHWAY COMMISSION

EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

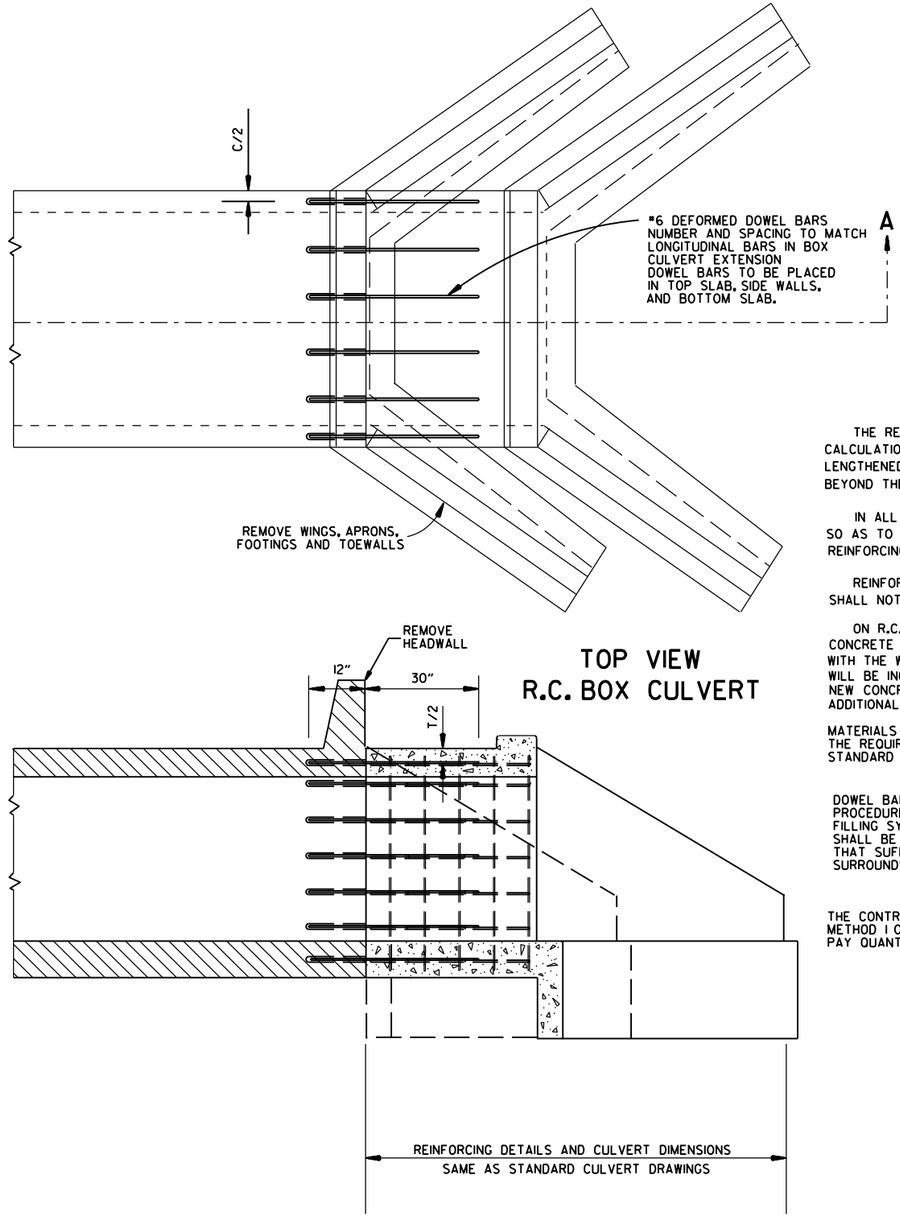
STANDARD DRAWING RCB-2



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

SUPERELEVATION TABLE FOR TWO - 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	96		RC	96		RC	96		0.022	101	
0° 45'	NC			NC			NC			NC			RC	96		RC	96		0.024	106		0.026	110		0.030	120		0.032	125	
1° 00'	NC			NC			NC			RC	90		0.022	101		0.026	110		0.030	120		0.034	130		0.038	139	300	0.042	149	300
1° 15'	NC			NC			RC	84		0.022	95		0.028	115		0.032	125		0.038	139		0.042	149		0.046	158		0.052	173	
1° 30'	NC			RC	78		0.022	88		0.028	108		0.032	125		0.038	139		0.044	154		0.050	168	300	0.056	182		0.062	197	
1° 45'	RC	72		RC	78		0.026	97		0.030	113		0.036	134		0.044	154		0.050	168	300	0.056	182		0.064	202		0.070	216	
2° 00'	RC	72		0.024	86		0.028	101		0.034	122		0.042	149		0.048	163		0.056	182		0.064	202		0.070	216		0.080	240	
2° 15'	RC	72		0.026	90		0.032	109		0.038	131		0.046	158		0.054	178	300	0.062	197		0.070	216		0.078	235	350	0.088	259	350
2° 30'	0.022	75		0.028	94		0.034	113		0.042	140		0.050	168		0.058	187		0.068	211		0.076	230		0.086	254		0.096	278	
2° 45'	0.024	79		0.030	98		0.038	122		0.046	149	200	0.054	178		0.064	202		0.072	221		0.082	245		0.092	269		0.100	288	400
3° 00'	0.026	83		0.034	105		0.040	126		0.050	158		0.058	187	250	0.068	211		0.078	235		0.088	259		0.098	283	400	D MAX = 2° 45'		
3° 15'	0.028	86		0.036	109		0.044	134		0.052	162		0.062	197		0.072	221		0.082	245		0.092	269		0.100	288				
3° 30'	0.030	90		0.038	113		0.046	139	200	0.056	171		0.066	206		0.076	230		0.086	254		0.096	278	350	D MAX = 3° 30'					
3° 45'	0.032	93		0.040	117		0.050	147		0.058	176		0.070	216		0.080	240		0.090	264		0.098	283							
4° 00'	0.034	97		0.042	121	200	0.052	151		0.062	185		0.072	221		0.084	250		0.094	274	350	0.100	288							
4° 15'	0.036	100		0.044	125		0.054	155		0.064	189		0.076	230		0.086	254	350	0.096	278		D MAX = 4° 15'								
4° 30'	0.036	100		0.046	129		0.056	160		0.068	198		0.078	235		0.090	264		0.098	283										
4° 45'	0.038	104	200	0.048	133		0.060	168		0.070	203		0.082	245		0.092	269		0.100	288										
5° 00'	0.040	108		0.050	137		0.062	172		0.072	207		0.084	250		0.094	274		D MAX = 5° 15'										
5° 30'	0.044	115		0.054	144		0.066	181		0.078	221	250	0.088	259		0.098	283												
6° 00'	0.046	119		0.058	152		0.070	189		0.082	230		0.092	269		0.100	288												
6° 30'	0.050	126		0.062	160		0.074	198		0.086	239		0.096	278	300	D MAX = 6° 30'													
7° 00'	0.052	130		0.064	164		0.078	206		0.090	248		0.098	283															
7° 30'	0.054	133		0.068	172		0.080	210		0.092	252		0.100	288															
8° 00'	0.058	140		0.070	176		0.084	219		0.094	257	300	D MAX = 8° 25'																
8° 30'	0.060	144		0.072	179		0.086	223	250	0.096	261																		
9° 00'	0.062	148		0.076	187		0.088	227		0.098	266																		
9° 30'	0.064	151		0.078	191		0.092	235		0.100	270																		
10° 00'	0.066	155		0.080	195		0.094	240		D MAX = 10° 30'																			
11° 00'	0.070	162		0.084	203		0.096	244																					
12° 00'	0.074	169		0.088	211	250	0.098	248																					
13° 00'	0.076	173		0.090	215		0.100	252	300	D MAX = 13° 45'																			
14° 00'	0.080	180		0.094	222																								
15° 00'	0.082	184		0.096	226																								
16° 00'	0.086	191		0.098	230																								
17° 00'	0.088	194		0.100	234																								
18° 00'	0.090	198	250	D MAX = 19° 30'																									
19° 00'	0.092	202																											
20° 00'	0.094	205																											
21° 00'	0.096	209																											
22° 00'	0.096	209																											
23° 00'	0.098	212																											
24° 00'	0.098	212																											
25° 00'	0.100	216																											
D MAX = 28° 30'																													

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)

GENERAL NOTES

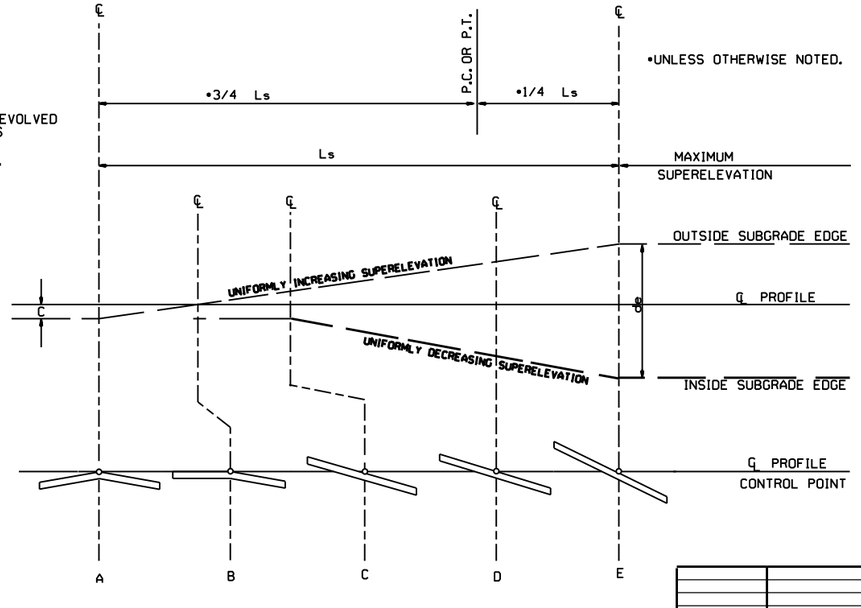
1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED - - - - - +20%
4 LANE UNDIVIDED - - - - - +50%
5 LANE UNDIVIDED - - - - - +80%
6 LANE UNDIVIDED - - - - - +100%

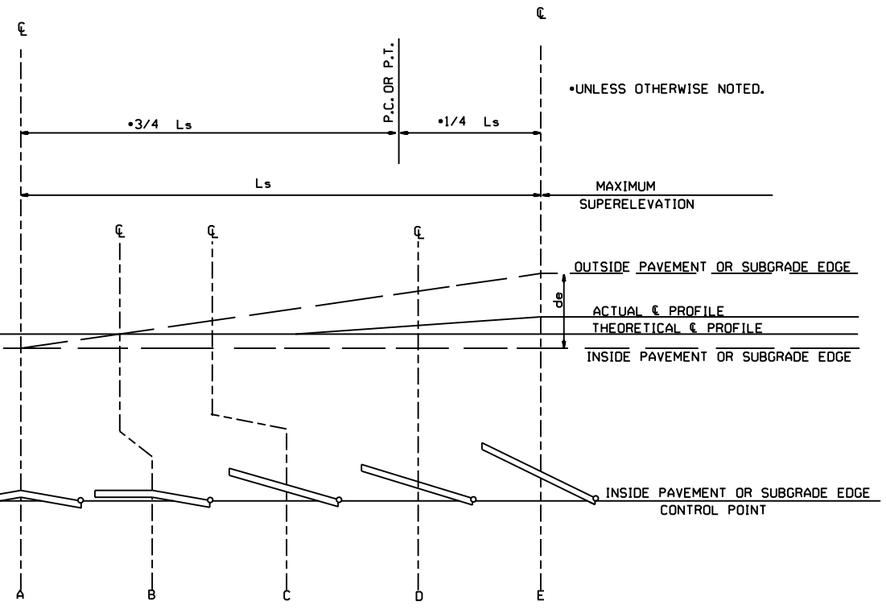
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

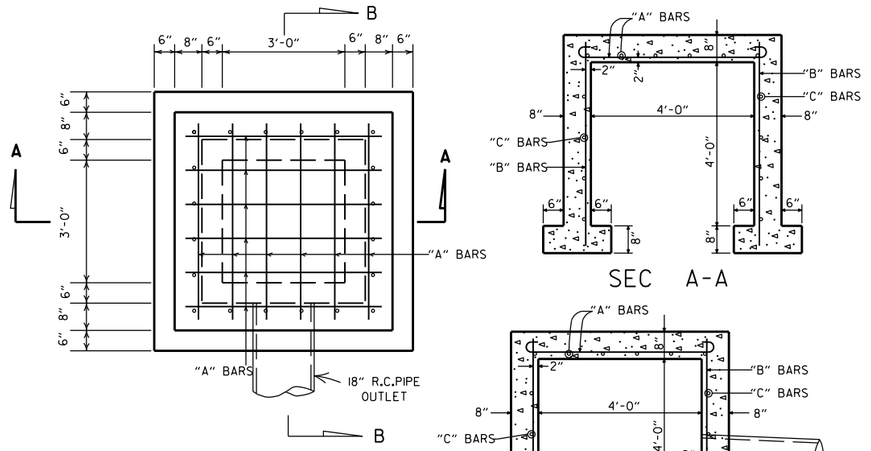
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

DATE	REVISION	DATE FILLMED
11-07-19	REVISED SUPERELEVATION TABLE	
10-18-96	ADDED FORMULA	
01-09-87	ISSUED	534-1-9-87

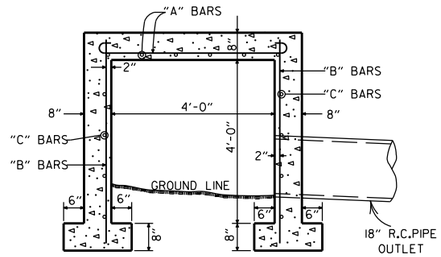
ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

STANDARD DRAWING SE-2



SEC A-A



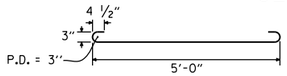
SEC B-B

NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 ½"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



"A" BARS

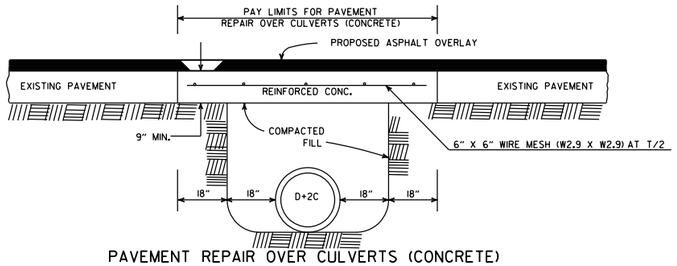
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

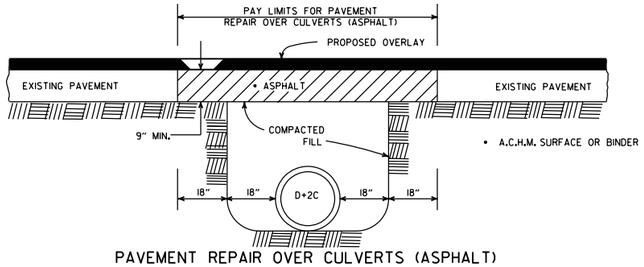
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



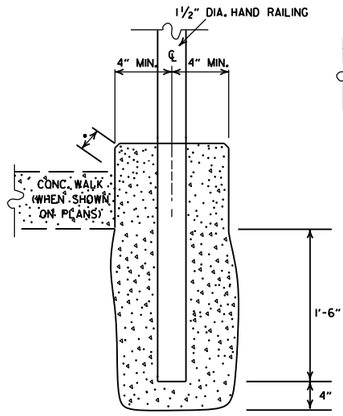
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



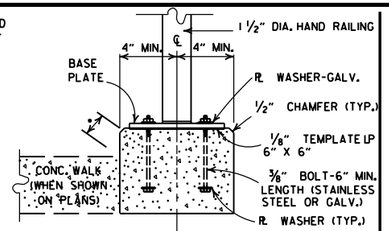
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

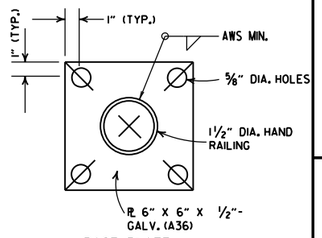
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

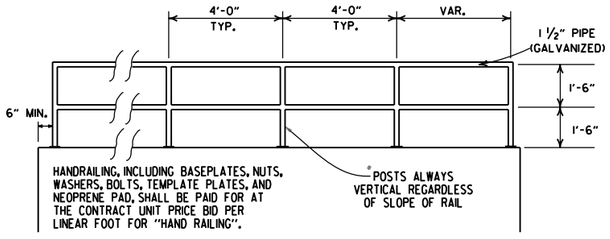


POST CONNECTION TO WALL

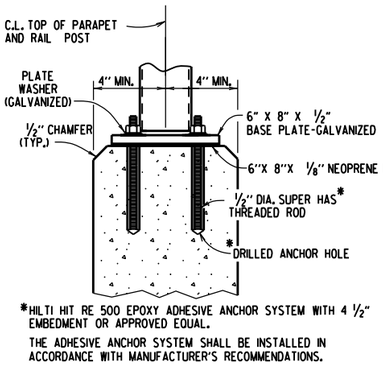


BASE PLATE

POST CONNECTION DETAILS



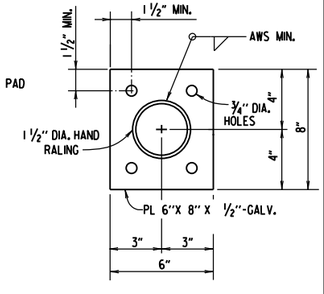
HAND RAILING SHALL CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

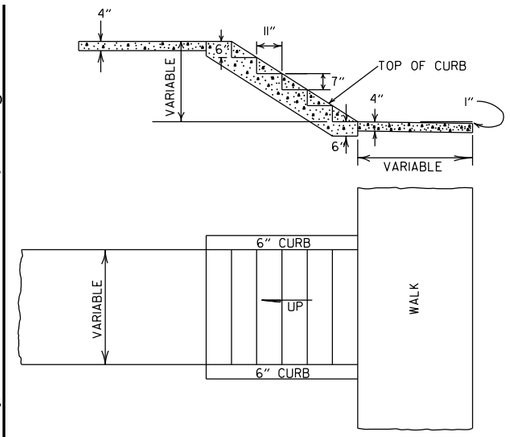
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS



GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
10-25-18	REVISED DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS	
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-94	ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	10-1-92
8-15-91	DELETED HDWL MODIFICATION DETAIL	8-15-91
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-8-90
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	11-30-89
11-17-88	V. BARS BEHIND ARROW	665-11-17-88
7-15-88	REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	649-7-15-88
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DET& PAVEMENT REPAIR	674-4-20-79
2-2-76	12"MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF SPECIAL ITEMS

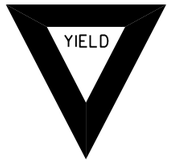
STANDARD DRAWING SI - 1

R1-1



STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5



STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a



STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



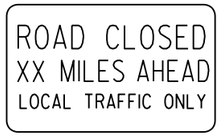
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

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



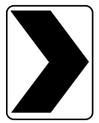
STD. 48"X48"

W1-6



STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



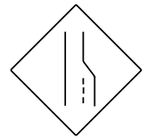
STD. 36"X36"
SPECIAL 48"X48"

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



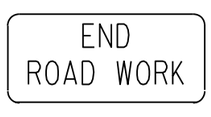
STD. 36"X36"
FWY. 48"X48"

G20-1



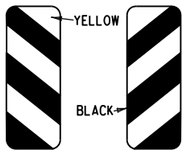
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

M4-9



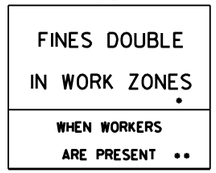
STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

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.

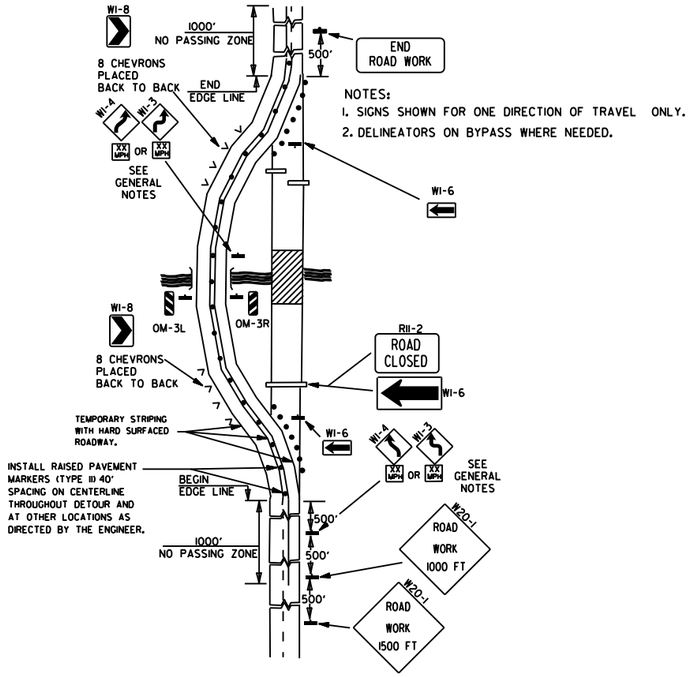
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED 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

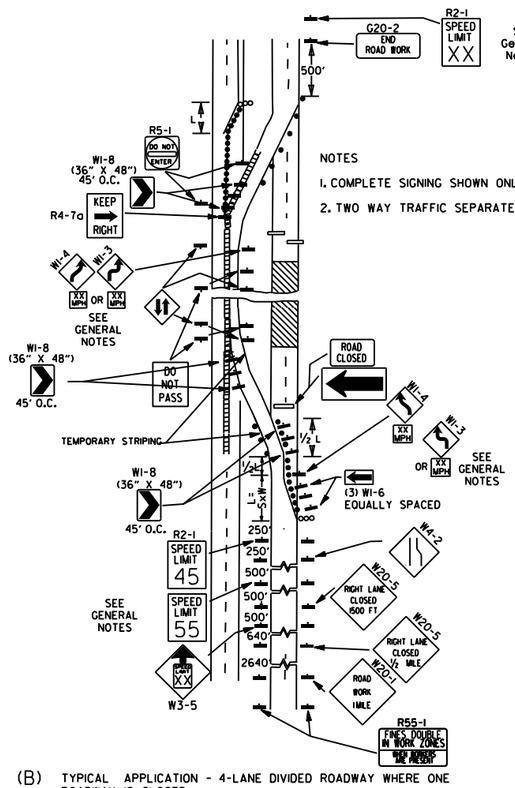
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



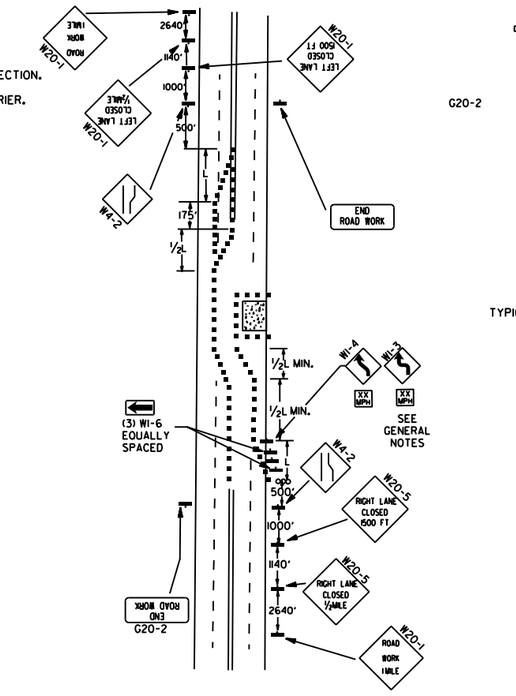
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

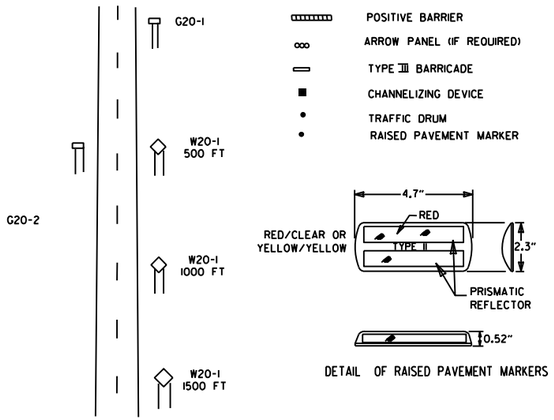


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(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.



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:

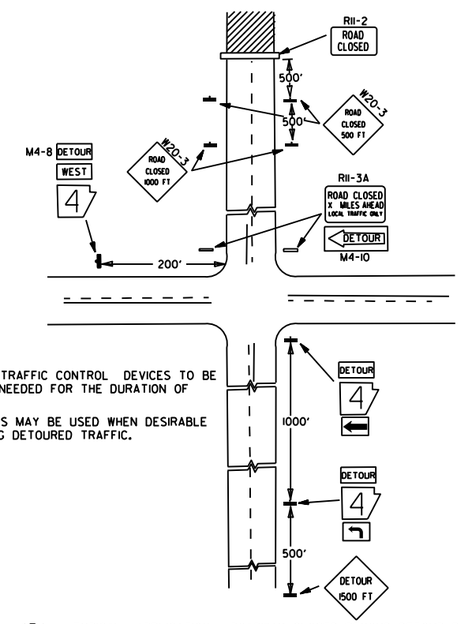
L= MINIMUM LENGTH OF TAPER.

S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

W= WIDTH OF OFFSET.

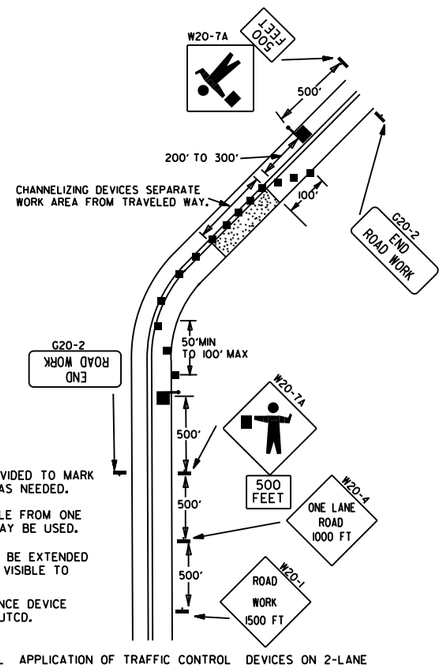
GENERAL NOTES:

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).



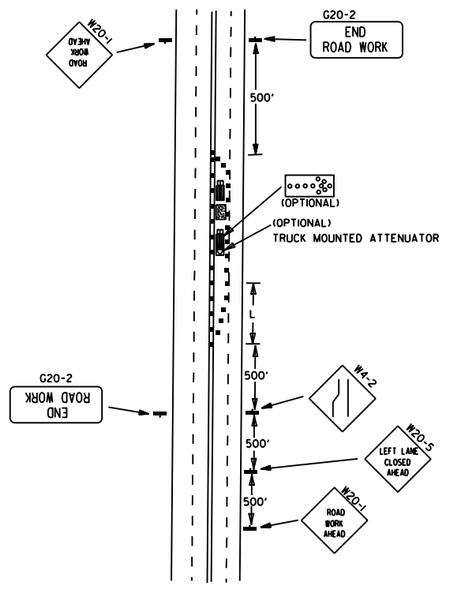
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(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.



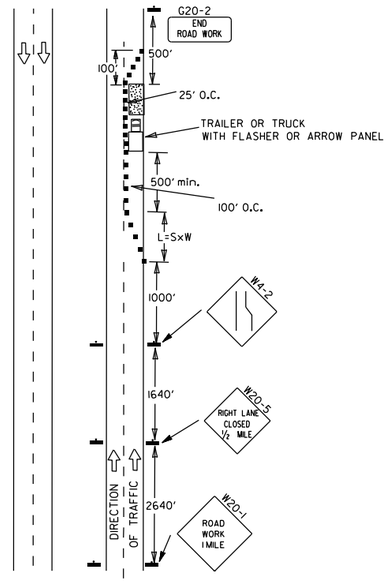
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

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	

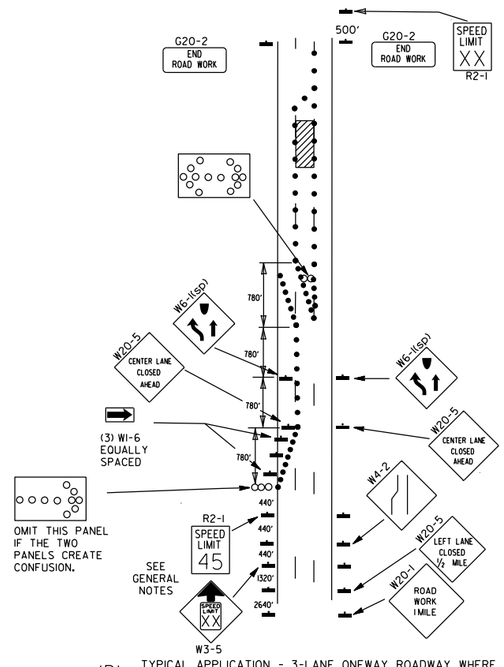
ARKANSAS STATE HIGHWAY COMMISSION

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.



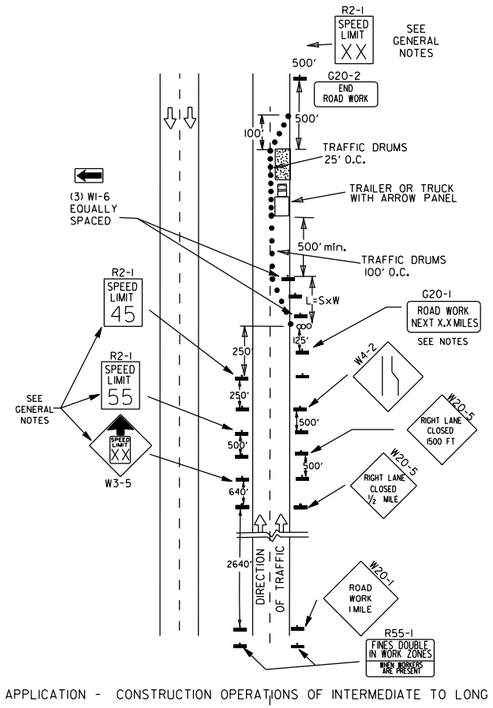
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

KEY:

- ARROW PANEL (IF REQUIRED)
- ■ CHANNELIZING DEVICE
- ● TRAFFIC DRUM

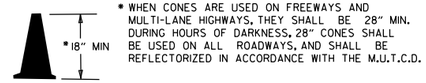
GENERAL NOTES:

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 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 R2-155MPH 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. 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).



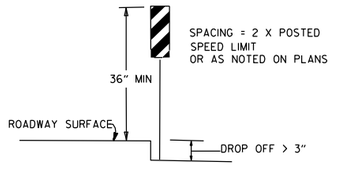
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

CHANNELIZING DEVICES

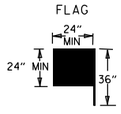


NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.

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

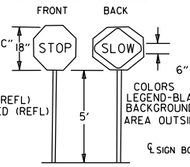
INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2]
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2]
> 6"	EDGE 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

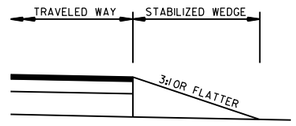
GENERAL NOTES:

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).

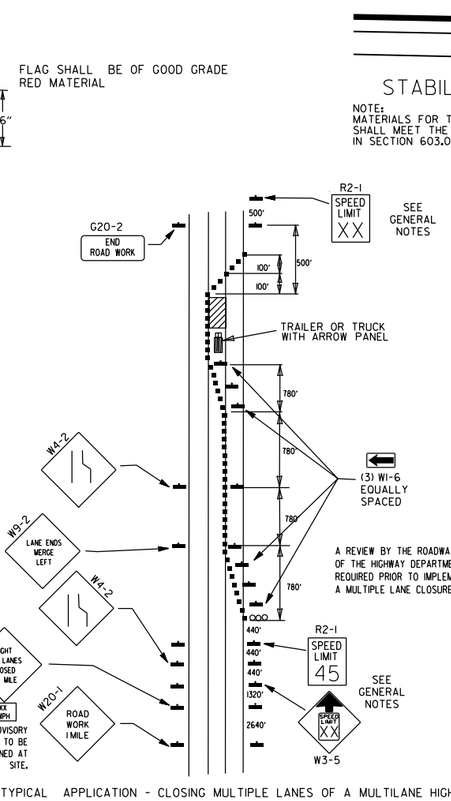
STOP SLOW PADDLE



STABILIZED WEDGE



NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.



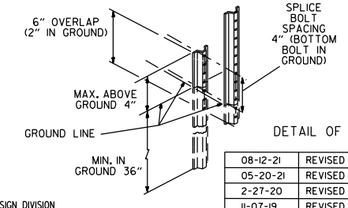
(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

A REVIEW BY THE ROADWAY DESIGN DIVISION OF THE HIGHWAY DEPARTMENT WILL BE REQUIRED PRIOR TO IMPLEMENTING A MULTIPLE LANE CLOSURE.

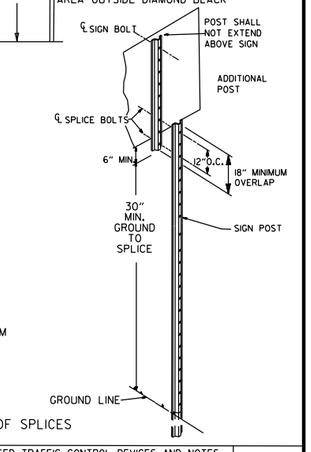
NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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



DATE	REVISION	FILMED
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	

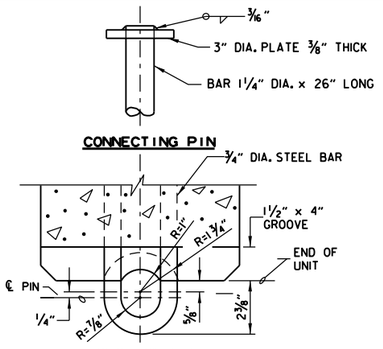
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

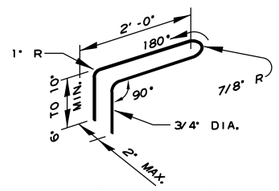
REINFORCING BAR TABLE PER BARRIER UNIT

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°; 1 1/2"; 9"; 2'-1 3/8"; 4 3/8"

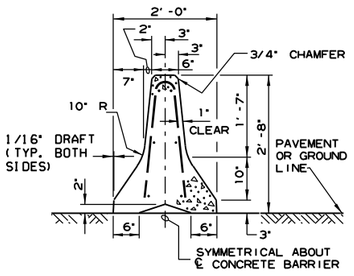


SECTION E-E

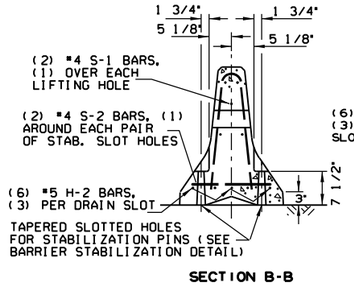
CONNECTION DETAILS



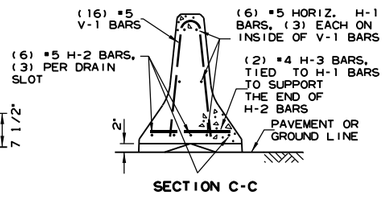
CONNECTION LOOP



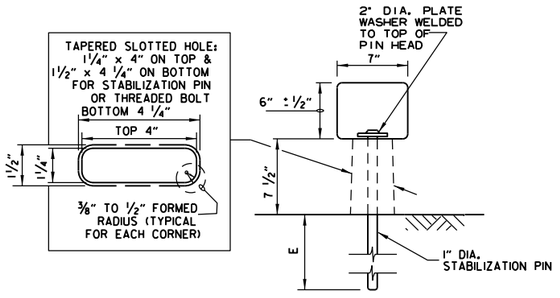
SECTION A-A



SECTION B-B



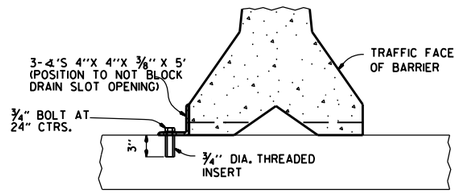
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

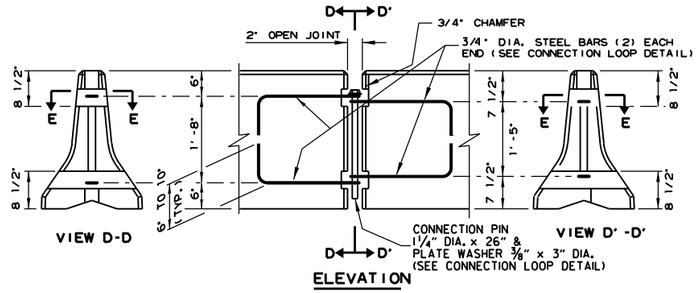
(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



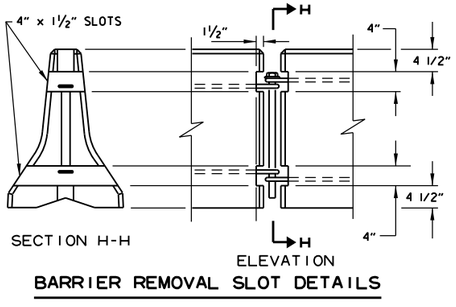
NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

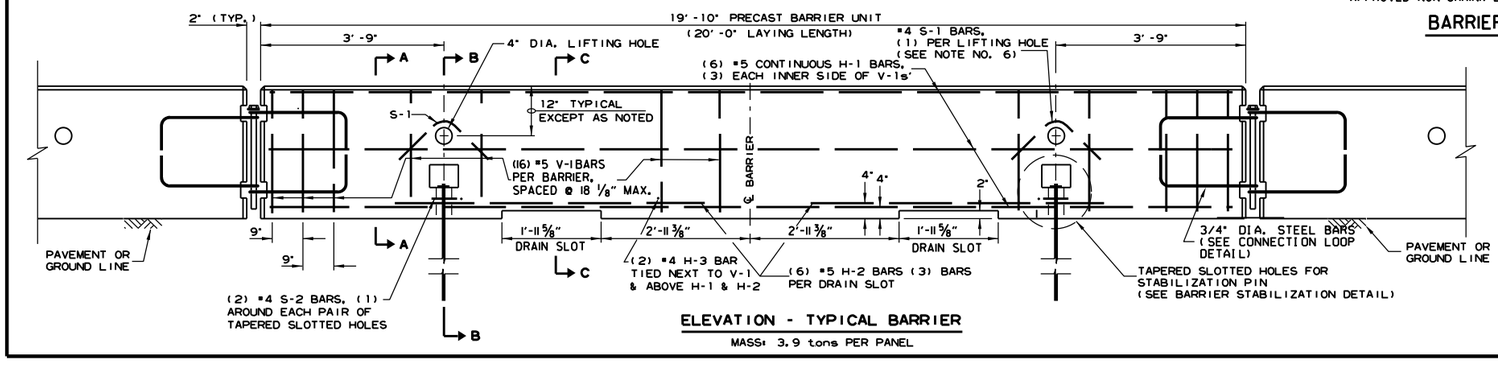
BRIDGE DECKS



ELEVATION



BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

GENERAL NOTES

(1) THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

(2) MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS.
DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.

(3) OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.

(4) DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.

(5) ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.

(6) A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

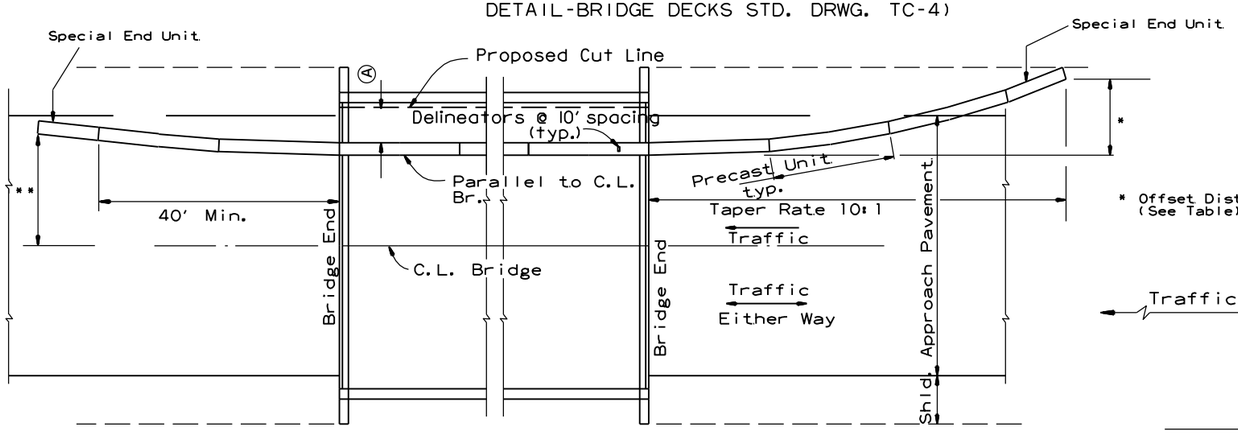
DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO WASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

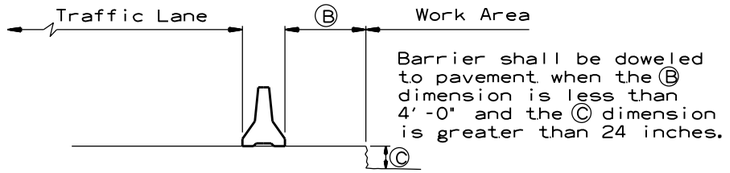
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



* Offset Distance (See Table)

BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

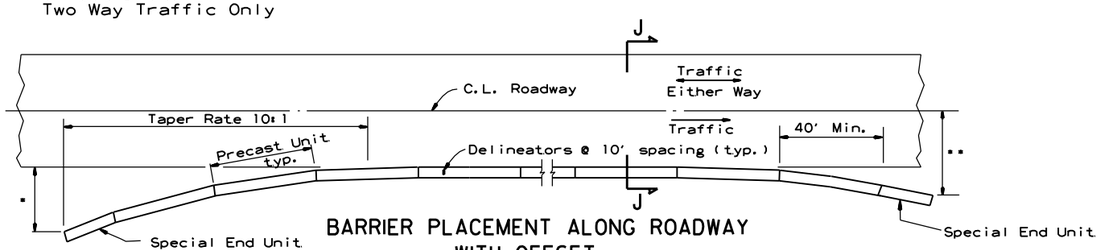


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

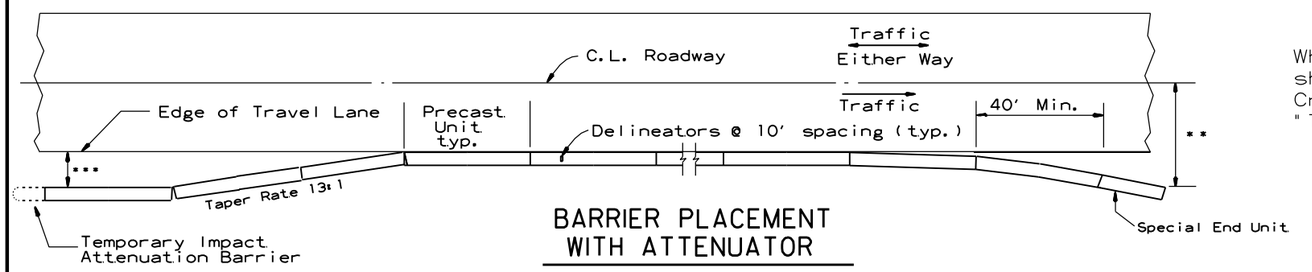
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.

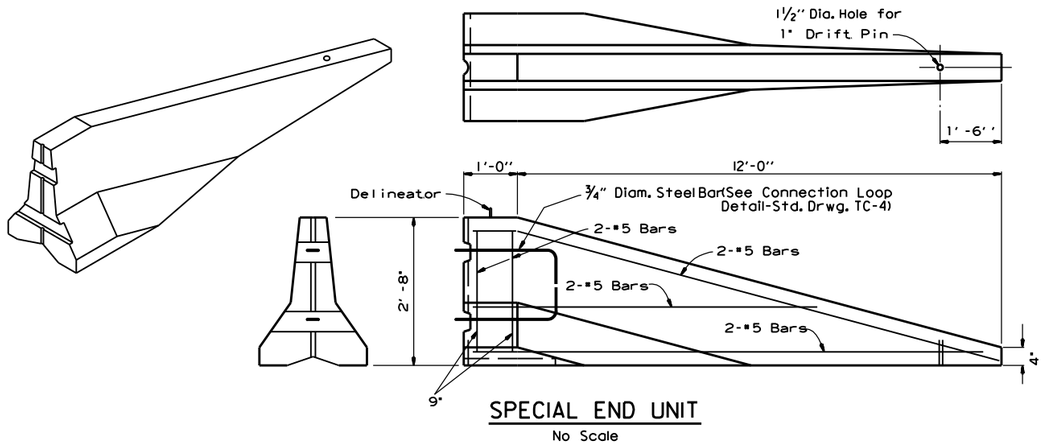


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator



SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

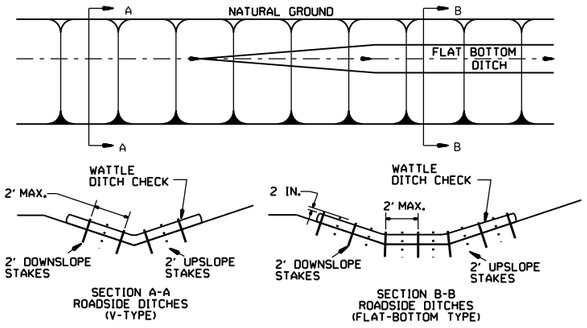
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

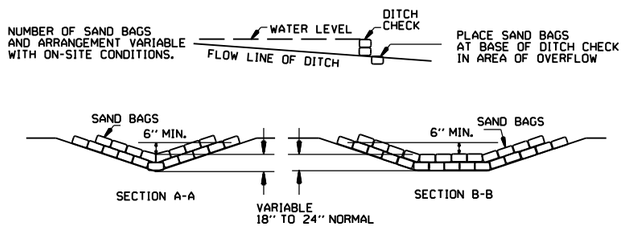
STANDARD DRAWING TC-5

GENERAL NOTES

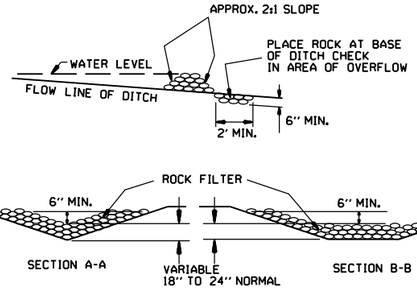
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

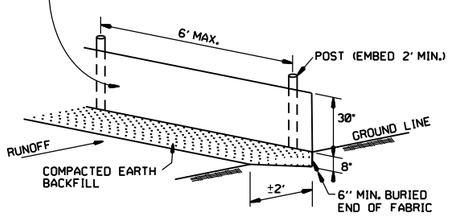


ROCK DITCH CHECK (E-6)

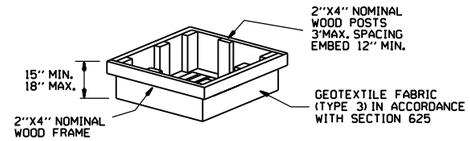
GENERAL NOTES

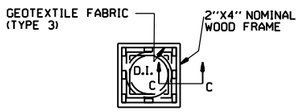
GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

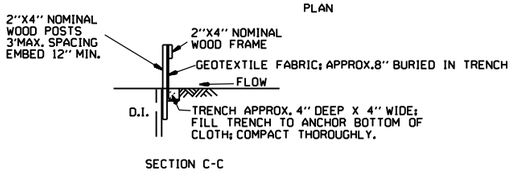
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



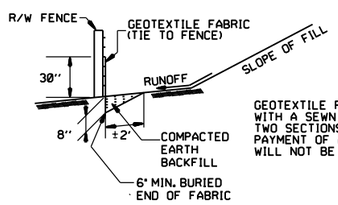
SILT FENCE (E-11)





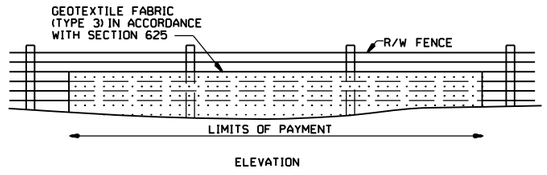


DROP INLET SILT FENCE (E-7)



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.



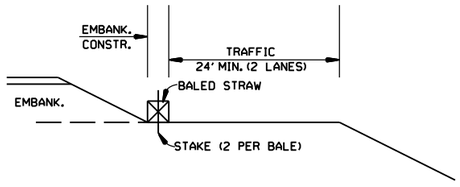
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

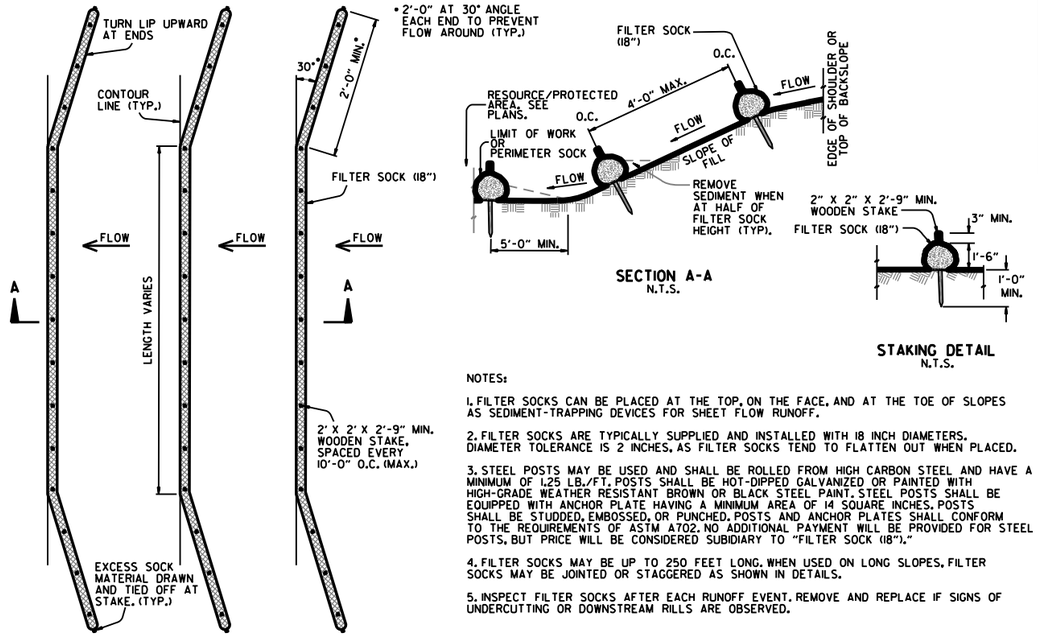
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

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.

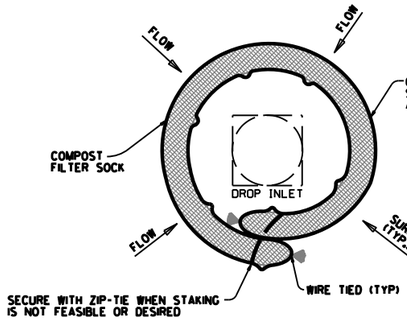
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

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")."

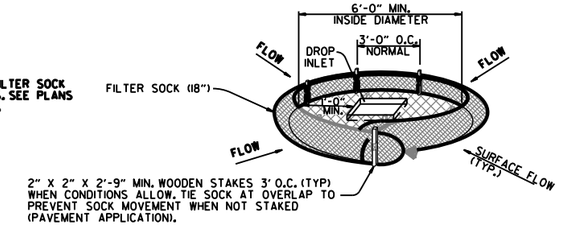
4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

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)



DROP INLET PLAN VIEW
N.T.S.



DROP INLET PERSPECTIVE VIEW
N.T.S.

NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

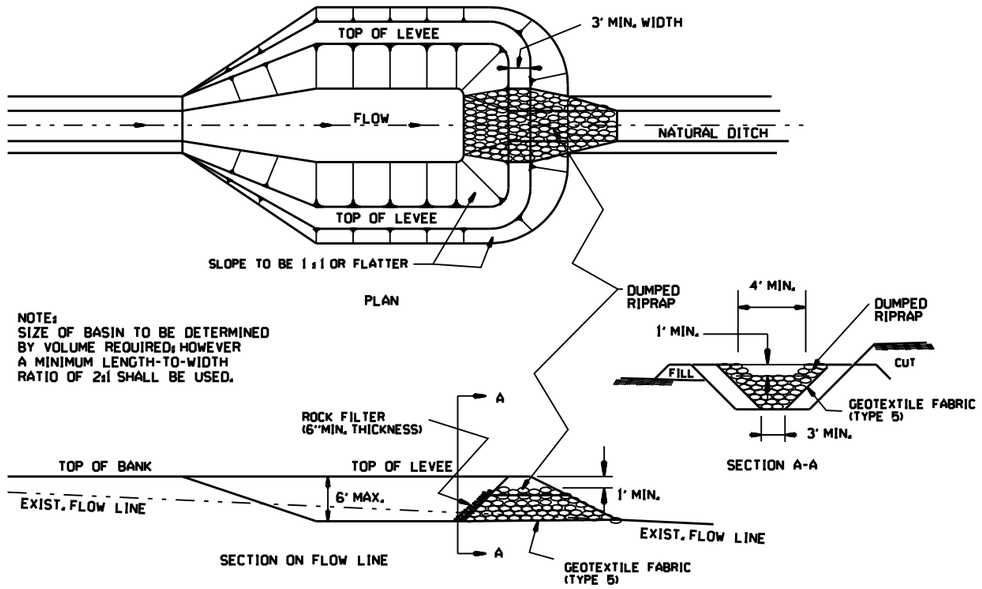
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION	FILMED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

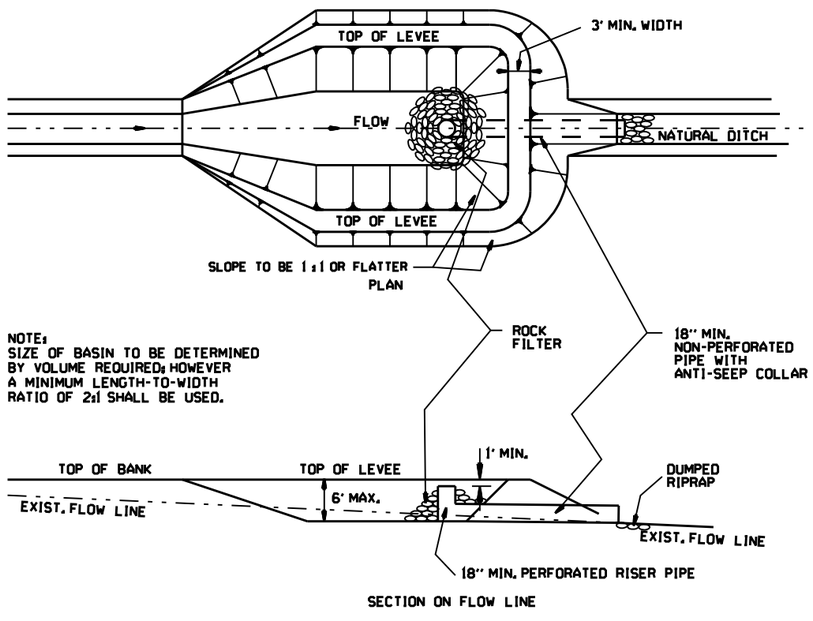
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

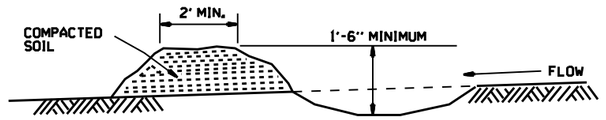
STANDARD DRAWING TEC-1



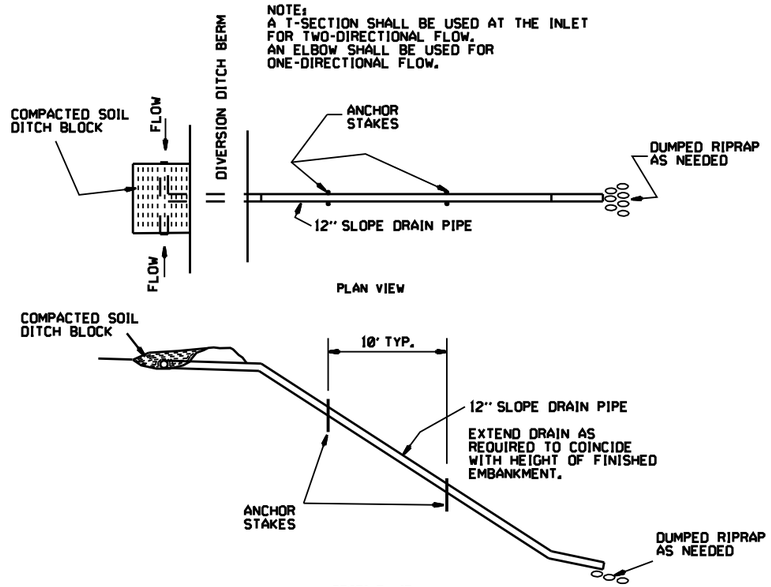
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



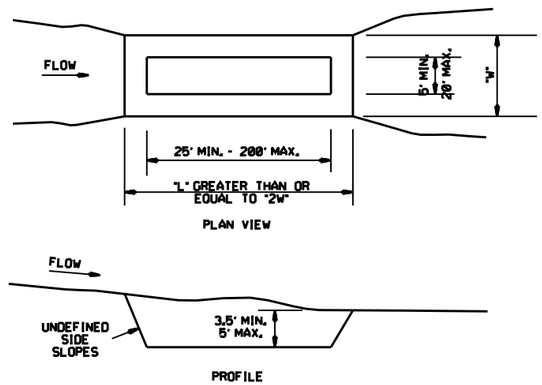
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

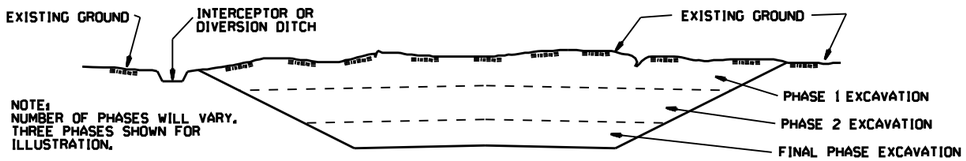
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



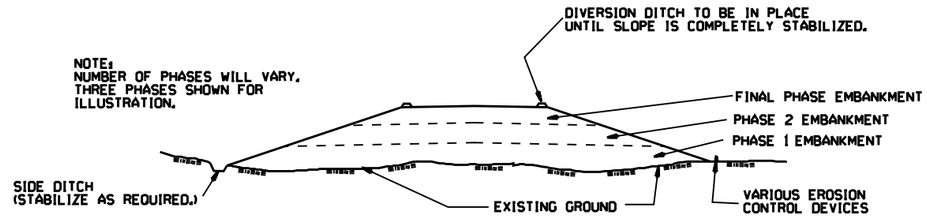
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

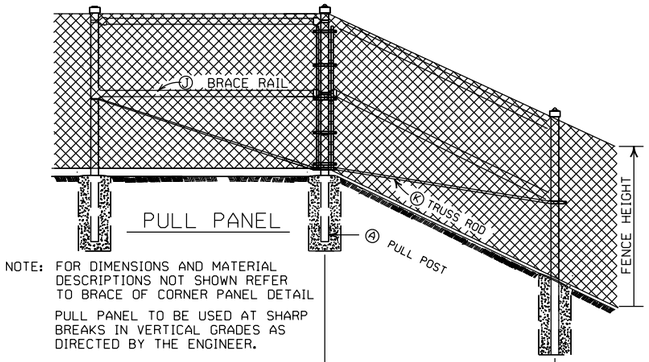
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

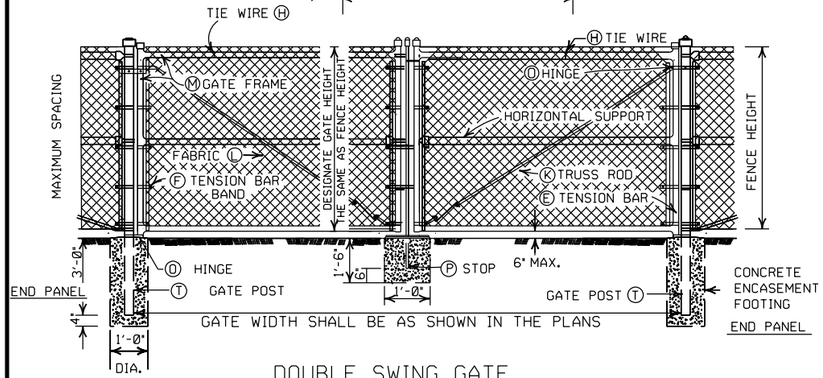
STANDARD DRAWING TEC-3



PULL PANEL

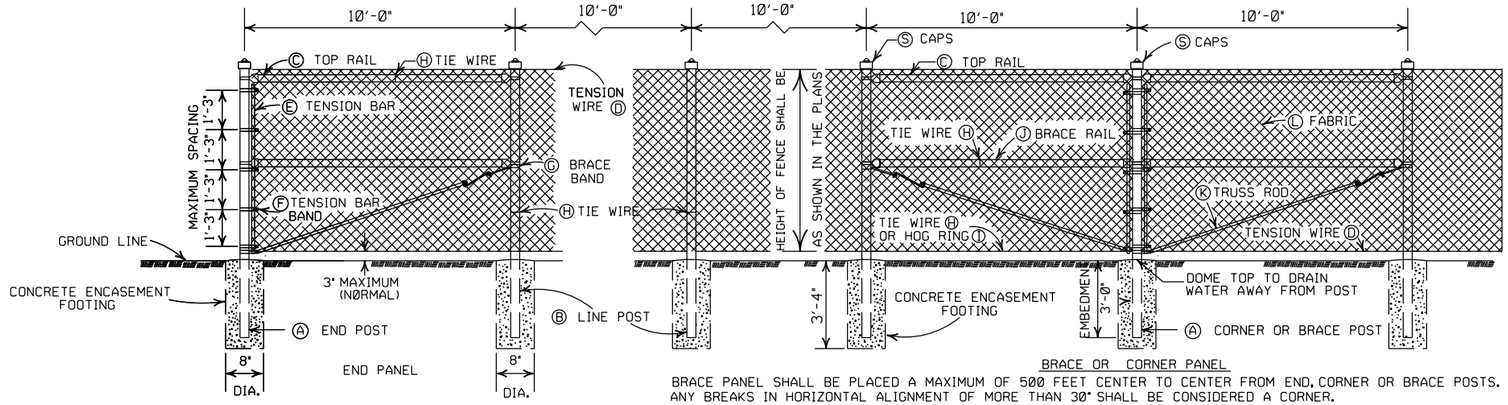
NOTE: FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN REFER TO BRACE OF CORNER PANEL DETAIL

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES AS DIRECTED BY THE ENGINEER.



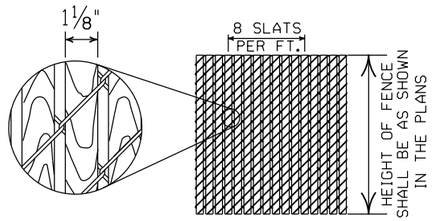
DOUBLE SWING GATE

POST SPACING DETAIL



BRACE OR CORNER PANEL

BRACE PANEL SHALL BE PLACED A MAXIMUM OF 500 FEET CENTER TO CENTER FROM END, CORNER OR BRACE POSTS. ANY BREAKS IN HORIZONTAL ALIGNMENT OF MORE THAN 30° SHALL BE CONSIDERED A CORNER.



1⅛" X ¼" REDWOOD SLATS(LENGTH TO MATCH HEIGHT OF FENCE)

DETAIL OF REDWOOD SLAT INSTALLATION

(WHERE APPLICABLE)

GENERAL NOTES:

(C) CHAIN LINK FENCE BEING PLACED ON PRIVATE PROPERTY SHALL INCLUDE A TOP RAIL. ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LIN. FT. OF CHAIN LINK FENCE.

(D) TENSION WIRE: SHALL BE SECURED TO ALL TERMINAL, PULL, BRACE OR CORNER POSTS WITH TENSION BAR BANDS.

(J) BRACE RAIL: BRACE RAILS SHALL BE PROVIDED AT ALL TERMINAL, PULL, BRACE OR CORNER POSTS HALFWAY BETWEEN THE TOP RAIL AND GROUND LEVEL WHEN TOPRAIL IS SPECIFIED AND TWELVE INCHES (12") DOWN FROM TOP OF FABRIC WHEN TOP TENSION WIRE IS SPECIFIED. BRACE RAIL SHALL EXTEND FROM SUCH POST TO THE FIRST ADJACENT LINE POST.

(L) FABRIC: SHALL CONFORM TO THE SPECIFICATIONS.

(M) GATE FRAMES: SHALL BE CONSTRUCTED OF TUBULAR MEMBERS ASSEMBLED BY USE OF HEAVY PRESSED STEEL, MALLEABLE FITTINGS OR BY WELDING. ALL GATES SHALL HAVE ONE HORIZONTAL SUPPORT EXTENDING THE WIDTH OF THE GATE AT THE MIDPOINTS OF VERTICAL FRAME MEMBERS. THE COMPLETE FRAME SHALL BE RIGID AND HAVE AMPLE STRENGTH TO BE FREE FROM SAG AND TWIST.

(O) HINGES: SHALL BE OF HEAVY PATTERN, OF ADEQUATE STRENGTH FOR GATE, AND WITH LARGE BEARING SURFACES FOR CLAMPING IN POSITION. THE HINGE SHALL BE OF THE PROPER TYPE TO ALLOW FOR THE DESIGNATED DEGREE OF SWING. THE HINGE SHALL NOT TWIST OR TURN UNDER THE ACTION OF THE GATE. THE GATES SHALL BE CAPABLE OF BEING OPENED AND CLOSED EASILY BY ONE PERSON.

(P) LATCHES AND STOPS: SHALL BE PROVIDED FOR ALL GATES. GATES SHALL HAVE A DROP BAR LATCH. LATCHES SHALL BE ARRANGED FOR LOCKING. THE STOP FOR DROP BAR LATCHES SHALL BE SET IN CONCRETE AND ENGAGE THE PLUNGER OF THE BAR LATCH.

(S) CAPS: ALL POSTS, EXCEPT ROLL FORMED POSTS AND "T" POSTS SHALL BE CAPPED OVER THE EXTERIOR OF THE POST, AND SHALL CONFORM TO ASTM F626.

CONCRETE REQUIRED FOR THE EMBEDMENT OF ALL POSTS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR CHAIN LINK FENCE.

POSTS SHALL BE SPACED EQUIDISTANT ON A MAXIMUM OF 10' CENTERS.

EXCAVATION FOR POSTS: IN OTHER THAN ROCK SHALL BE OF THE DIMENSIONS INDICATED. IF ROCK IS ENCOUNTERED BEFORE REACHING THE REQUIRED DEPTH, THE EXCAVATION SHALL BE CONTINUED TO THE DEPTH INDICATED OR 1'-6" INTO THE ROCK, WHICHEVER IS LESS, AND SHALL BE A MINIMUM OF 8 INCHES IN DIAMETER.

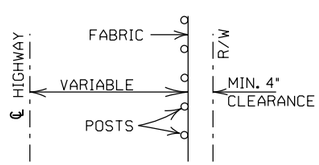
HEIGHT OF FENCE FABRIC	(A) END, PULL, CORNER OR BRACE POST	(B) LINE POSTS SIZE	(B) LINE POSTS TIE SPACING	(C) TOP RAIL SIZE	(C) TOP RAIL TIE SPACING	(C) TOP RAIL MIN. LENGTH	(D) TENSION WIRE SIZE	(D) TENSION WIRE TIE SPACING	(E) TENSION BAR SIZE	(E) TENSION BAR LENGTH	(F) TENSION BAR BAND SIZE	(F) TENSION BAR BAND BOLT SIZE	(F) TENSION BAR BAND SPACING	(G) BRACE BAND SIZE	(G) BRACE BAND BOLT SIZE
6' AND LESS	2½" O.D.	2" O.D.	1 TIE EVERY 1'-2" OF FABRIC HEIGHT	1⅝" O.D.	1 TIE EVERY 2'-0"	10'-0"	7 GAUGE COIL SPRING WIRE	1 TIE EVERY 1'-0"	MIN. OF ⅜" X ¾"	MIN. OF 2" LESS THAN FABRIC HEIGHT	MIN. OF ¾" X 0.074	⅝" X 1¼"	1 BAND AT TOP AND BOTTOM 15" MAX. INTERVAL BETWEEN BANDS	MIN. OF ¾" X 0.105	⅝" X 1¼"
OVER 6' TO 12' INCL.	3 " O.D.	2½" O.D.													

HEIGHT OF FENCE FABRIC	(H) TIE WIRE	(I) HOG RING	(J) BRACE RAIL SIZE	(J) BRACE RAIL TIE SPACING	(K) TRUSS ROD	(L) FABRIC SIZE	(L) FABRIC MESH	(L) FABRIC SELVAGE	(M) GATE FRAME SIZE	(M) GATE FRAME TIE SPACING	(N) HORIZONTAL SUPPORT SIZE	(N) HORIZONTAL SUPPORT TIE SPACING	(O) HINGE TYPE 180° SWING	(T) GATE POST GATE WIDTH 12' AND LESS	(T) GATE POST GATE WIDTH OVER 12' TO 24' INCL.
6' AND LESS	MIN. OF 12 GA. STEEL OR 9 GA. ALUM.	SAME GAUGE AS FABRIC	1⅝" O.D.	1 TIE EVERY 2'-0"	MIN. OF ⅝" ROUND WITH TIGHTNERS AND FITTINGS	9 GA.	2"	KNUCK -ING AND/OR TWIST -ING	2" O.D.	1 TIE EVERY 1'-0"	2" O.D.	1 TIE EVERY 1'-0"	OFFSET	3" O.D.	4" O.D.
OVER 6' TO 12' INCL.														4" O.D.	

NOTE: POST SIZES SHOWN ARE FOR STEEL. WHERE ALUMINUM IS PROVIDED, LINE POSTS SHALL HAVE AN OUT SIDE DIAMETER OF 2½" FOR FENCE HEIGHT OF 6' AND LESS, AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' TO 12'. END, PULL, CORNER OR BRACE POSTS SHALL HAVE AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' AND LESS; AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHTS OF 6' TO 12'. GATE POSTS WHERE GATE WIDTH IS 12' AND LESS SHALL HAVE AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHT OF 6' AND LESS. ALUMINUM TENSION WIRE SHALL BE 0.192" IN DIAMETER. MINIMUM THICKNESS OF MATERIAL FROM WHICH EXPANSION SLEEVES SHALL BE MADE WILL BE 0.078". POSTS AND RAILS MAY HAVE ANY CROSS-SECTIONAL SHAPE THAT WILL MEET THE SPECIFICATIONS.

OTHER DETAILS APPLY TO BOTH STEEL AND ALUMINUM FENCE.

ALL MISCELLANEOUS FITTINGS AND HARDWARE SHALL MEET THE REQUIREMENTS AND PRODUCTION TOLERANCES AS SET FORTH IN THE SPECIFICATIONS. 9 GAUGE ALUMINUM WIRE SHALL BE ACCEPTABLE FOR TIEING FABRIC TO TUBULAR AND ROLL FORMED MEMBERS OF STEEL FENCE.



INSTALLATION MAY BE MODIFIED AS SHOWN IN THE PLANS

TYPICAL INSTALLATION DIAGRAM

POSTS AND RAILS

SIZE O.D.	GRADE 1 AND ALUMINUM ALLOY O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT. STEEL	LBS. PER LINEAR FT. ALUMINUM	GRADE 2 O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT.
1⅝	1.660	0.140	2.27	0.786	1.660	0.111	1.84
2	1.900	0.145	2.72	0.940	1.900	0.120	2.28
2½	2.375	0.154	3.65	1.264	2.375	0.130	3.11
3	2.875	0.203	5.79	2.004	2.875	0.160	4.64
3½	3.500	0.216	7.58	2.621	3.500	0.160	5.71
4	4.000	0.226	9.11	3.151	4.000	0.160	6.56

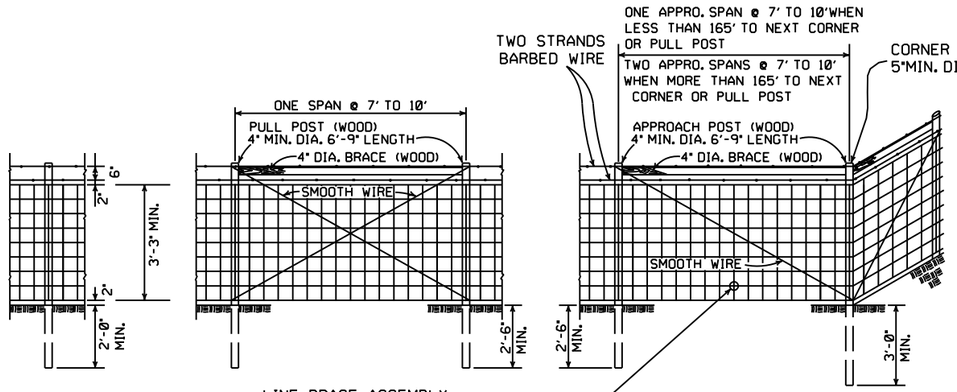
TOLERANCES ON DIMENSIONS AND WEIGHTS ACCORDING TO AASHTO M 181

DATE	REVISION	FILMED
11-17-10	REVISED TRUSS ROD	
12-10-09	REVISED POSTS & RAILS TABLE	
5-21-09	ADDED TABLE & GEN. NOTE (C)	
8-22-02	REVISED NOTES, REMOVED TABLE, & REMOVED FENCE ALTERNATE	
4-3-97	REVISED BRACE RAIL NOTE	
10-18-96	REVISED AASHTO & ASTM REF.	
11-3-94	REVISED NOTE (L)	
10-1-92	DELETED ALTERNATE POST	10-1-92
8-15-91	DELETED ROLL FORMED POST DETAIL & ADDED NOTE	8-15-91 8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
11-17-88	REVISED O.D. SIZES	668-11-17-88
10-30-87	GENERAL REVISIONS	548-10-30-87
4-20-79	REVISED TOP RAIL & TENSION WIRE	695-4-20-79
10-2-72	REVISED AND REDRAWN	530-10-2-72

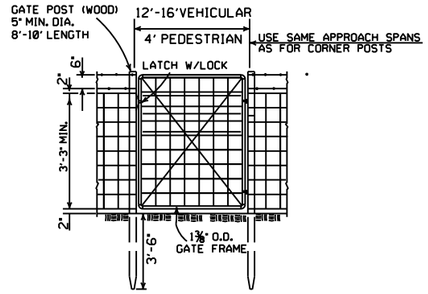
ARKANSAS STATE HIGHWAY COMMISSION

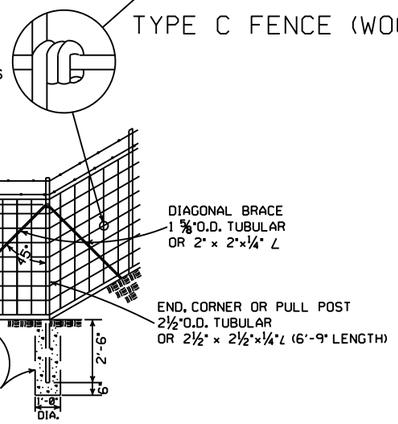
CHAIN LINK FENCE

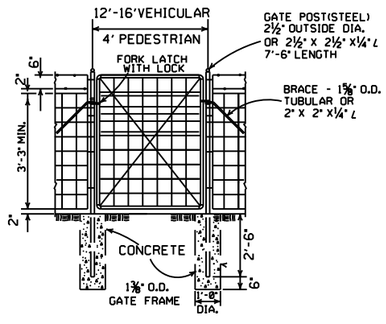
STANDARD DRAWING WF-3



TYPE C FENCE (WOOD POSTS)

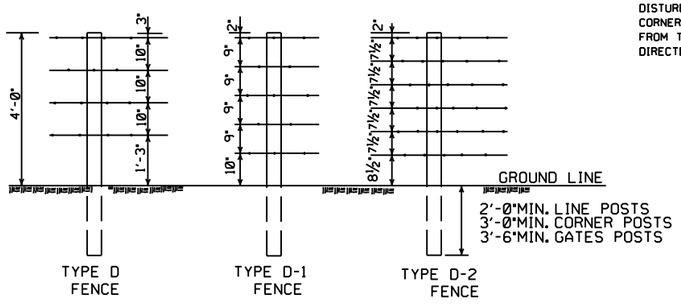




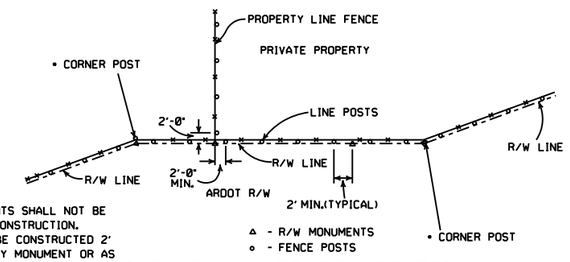


NOTE: STEEL LINE POSTS SHALL BE 6'-6" MINIMUM LENGTH.

TYPE C FENCE (STEEL POSTS)

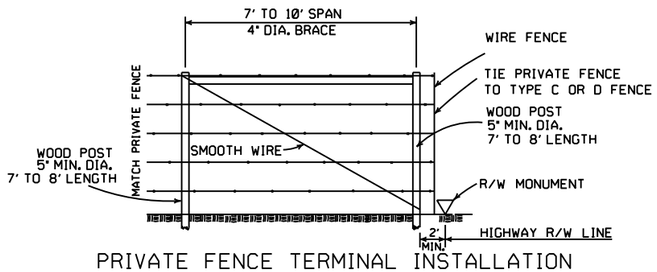


NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.



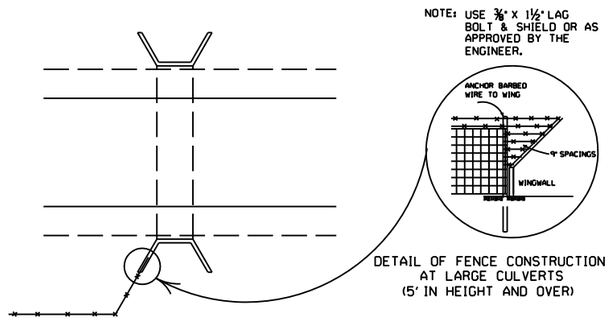
• NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

RIGHT-OF-WAY FENCE LOCATION

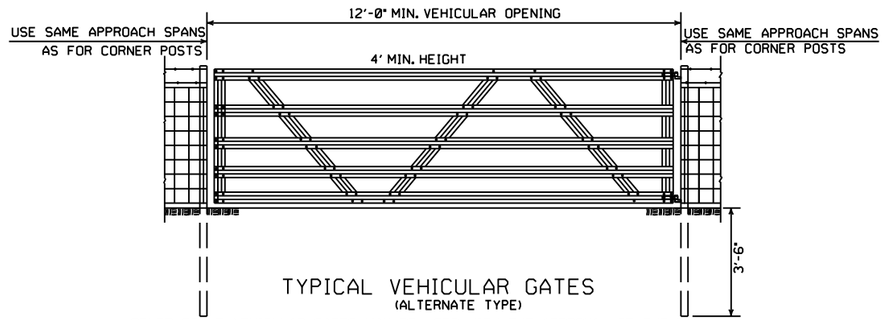


PRIVATE FENCE TERMINAL INSTALLATION

WHERE EXISTING FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN IN TYPE C FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.



DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)



TYPICAL VEHICULAR GATES

(ALTERNATE TYPE)

OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER. THE METHOD OF SECURING GATE (LATCH AND/OR LOCK)SHALL MEET THE APPROVAL OF THE ENGINEER.

GENERAL NOTES:

STEEL LINE POSTS SHALL BE PAINTED OR GALVANIZED. TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK). APPROVED ALTERNATES ARE ACCEPTABLE.
AN ACCEPTABLE TOLERANCE IN LENGTH OF TUBULAR OR WOODEN POSTS SHALL BE - 1" TO +2".
TUBULAR POSTS MUST BE PAINTED OR GALVANIZED.

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF TIMBER LINE POSTS OF 7 FOOT LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

DRIVEWAY GATES, EITHER SINGLE 12' TO 16' OR DOUBLE 6' TO 8' OPENING 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 OF MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON 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 THE 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 SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

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 WIRES A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

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.

STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

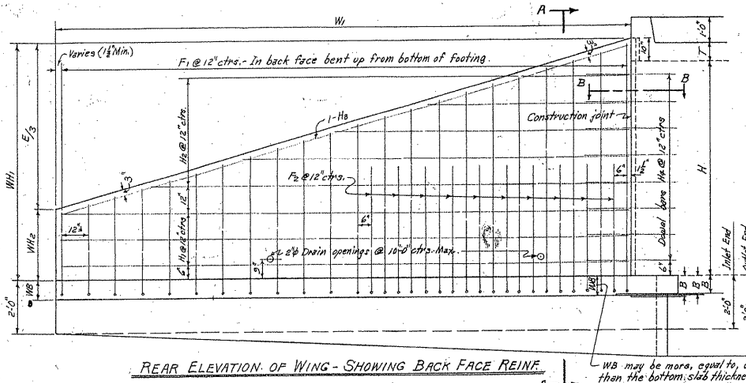
DATE	REVISION	FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	REVISED BARB WIRE AND ADDED CORNER POST NOTES	6-2-94
8-5-93	REVISED R/W INSTALLATION FENCE	8-5-93
10-1-92	ADDED STAPLE NOTE	10-1-92
8-15-91	ADDED TYPE D-2 FENCE	8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
7-15-88	ADDED SPLICE NOTE	700-7-15-88
10-30-87	GENERAL REVISIONS	549-10-30-87
11-1-84	MAX. POST SPACING MIN. WIRE GAUGE	507-11-1-84
1-4-83	MIN. DIA. LINE POST	648-1-4-83
3-2-81	TOLERANCE FOR POST LENGTH	722-3-2-81
12-1-72	ADDED D-1 & FENCE INSTALLATION	564-12-1-72
10-2-72	REVISED AND REDRAWN	540-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

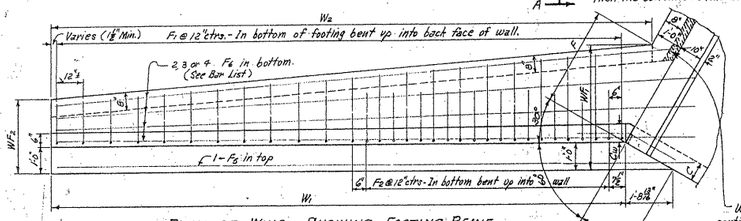
WIRE FENCE TYPE C AND D

STANDARD DRAWING WF-4

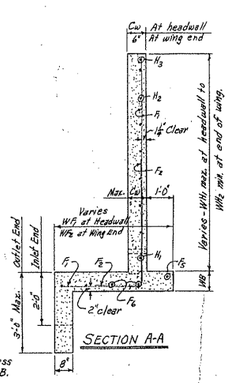
FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					



REAR ELEVATION OF WING - SHOWING BACK FACE REINF.

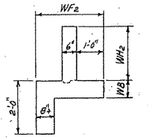


PLAN OF WING - SHOWING FOOTING REINF.



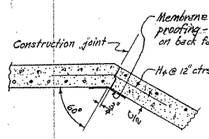
SECTION A-A

WB may be more, equal to, or less than the bottom slab thickness B.

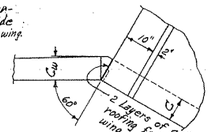


END VIEW OF WING

When B is more than WB, the shaded portion of the apron shall be made the same thickness as the barrel base B.



SECTION B-B THRU CONSTRUCTION JOINT



DETAIL AT TOP OF WING

NOTE:- Payment for membrane waterproofing and roofing felt to be included in the price bid for Class S Concrete.

WING DIMENSIONS

CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HEADWALL = C	WINGWALL HEIGHTS		WIDTHS OF WING FOOTINGS		PERPENDICULAR FOOTING DIMENSION	PERPENDICULAR DIST. FROM HDWL. TO END OF WING	LENGTH OF WING WALLS	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	Cw	WH1	WH2	WF1	WF2	F	E	W1	W2	Cu.Yd.	Cu.Yd.
2'	7"	6"	2'-10"	0'-8"	2'-4"	2'-0"	0'-11⅞"	6'-6"	7'-6"	7'-1½"	0.889	0.986
3'	7"	6"	3'-10"	1'-0"	2'-8"	2'-1⅛"	1'-1⅜"	8'-6"	9'-3⅜"	9'-2⅝"	1.338	1.466
4'	7"	6"	4'-10"	1'-2"	3'-0"	2'-3"	1'-3"	10'-6"	12'-1⅝"	12'-1⅝"	1.868	2.027
5'	7"	6"	5'-10"	1'-8"	3'-4"	2'-9⅜"	2'-1⅞"	12'-6"	14'-5⅝"	14'-7⅛"	2.478	2.668
		7"	5'-10"	1'-8"	3'-4"	2'-4⅞"	2'-1⅞"	12'-6"	14'-5⅝"	14'-7⅛"	2.582	2.772
6'	8"	7"	6'-10"	2'-0"	3'-8"	2'-6"	2'-2⅝"	14'-6"	16'-5"	16'-7⅛"	3.440	3.661
		7⅞"	6'-10"	2'-0"	3'-8"	2'-6"	2'-2⅝"	14'-6"	16'-5"	17'-1⅝"	3.511	3.732
		8"	6'-10"	2'-0"	3'-8"	2'-6"	2'-2⅝"	14'-6"	16'-5"	17'-1⅝"	3.582	3.803
7'	8⅝"	7⅞"	7'-10"	2'-4"	4'-2"	2'-7⅞"	3'-1⅜"	16'-6"	19'-0⅝"	19'-8⅜"	4.505	4.758
		8"	7'-10"	2'-4"	4'-2"	2'-7⅝"	3'-1⅜"	16'-6"	19'-0⅝"	19'-8⅜"	4.597	4.851
8'	9"	8"	8'-10"	2'-8"	4'-8"	2'-9"	3'-8"	18'-6"	21'-4⅝"	22'-0⅛"	5.761	6.047

* Quantity per wing does not include headwall or that portion of apron or toewall for the length W3.

APRON DIMENSION W3

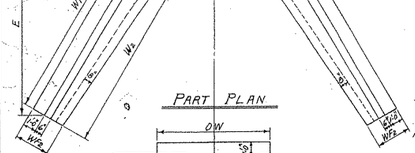
W3 = (OW - 2F)

CLEAR SPAN	CLEAR HEIGHT	2 x FOOTING 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'-11⅞"	5'-0"	3'-0⅛"	9'-8"	7'-8⅛"	14'-4"	12'-4⅛"	19'-0"	17'-0⅛"	23'-8"	21'-8⅛"
	3'	2'-8⅛"	5'-0"	2'-3⅜"	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'-2"
	5'	4'-3⅜"	5'-0"	0'-8⅝"	9'-8"	5'-4⅜"	14'-4"	10'-0⅜"	19'-0"	14'-8⅜"	23'-8"	19'-8⅜"
	6'	5'-0⅝"	5'-2"	0'-1⅛"	9'-11"	4'-10⅛"	14'-8"	9'-7⅛"	19'-5"	14'-4⅛"	24'-2"	19'-1⅛"
5'	3'	2'-8⅛"	6'-0"	3'-3⅜"	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'-8⅝"	11'-8"	7'-5⅜"	17'-4"	13'-0⅜"	23'-0"	18'-8⅜"	28'-8"	24'-8⅜"
	6'	5'-0⅝"	6'-2"	1'-1⅛"	11'-11"	6'-10⅛"	17'-8"	12'-7⅛"	23'-5"	18'-4⅛"	29'-2"	24'-1⅛"
	7'	6'-2⅛"	6'-5"	0'-0⅝"	12'-1"	5'-10⅝"	17'-11"	11'-8⅝"	23'-9"	17'-8⅝"	29'-7"	23'-6⅝"
6'	3'	2'-8⅛"	7'-0"	4'-3⅜"	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'-8⅝"	13'-8"	9'-5⅜"	20'-4"	16'-0⅜"	27'-0"	22'-8⅜"	33'-8"	29'-8⅜"
	6'	5'-0⅝"	7'-2"	2'-1⅛"	13'-11"	8'-10⅛"	20'-8"	15'-7⅛"	27'-5"	22'-2⅛"	34'-2"	29'-1⅛"
	7'	6'-2⅛"	7'-5"	1'-6"	14'-1"	7'-10⅝"	20'-11"	14'-8⅝"	27'-9"	21'-6⅝"	34'-7"	28'-6⅝"
	8'	7'-1⅝"	7'-8"	0'-10⅝"	14'-5"	6'-10⅛"	21'-0"	13'-8⅛"	27'-10"	20'-6⅛"	34'-8"	27'-10⅛"
8'	4'	3'-6"	9'-0"	5'-6"	17'-6"	14'-2"	26'-1"	22'-10"	35'-0"	31'-6"	43'-8"	40'-2"
	5'	4'-3⅜"	9'-2"	4'-10⅜"	17'-11"	13'-7⅜"	26'-8"	21'-11⅜"	35'-5"	31'-1⅜"	44'-2"	39'-10⅜"
	6'	5'-0⅝"	9'-2"	4'-1⅛"	17'-11"	12'-10⅛"	26'-8"	21'-1⅛"	35'-5"	30'-3⅛"	44'-2"	39'-1⅛"
	7'	6'-2⅛"	9'-5"	3'-0⅝"	18'-1"	11'-10⅝"	26'-11"	20'-0⅝"	35'-9"	29'-4⅝"	44'-7"	38'-0⅝"
	8'	7'-1⅝"	9'-9"	2'-0"	18'-2"	10'-11"	27'-0"	19'-0"	35'-10"	28'-6"	44'-8"	37'-11"
9'	5'	4'-3⅜"	10'-2"	5'-10⅜"	19'-11"	15'-7⅜"	29'-8"	25'-4⅜"	39'-5"	35'-1⅜"	49'-2"	44'-10⅜"
	6'	5'-0⅝"	10'-3"	5'-2⅛"	20'-1"	15'-0⅛"	29'-11"	24'-6⅛"	39'-9"	34'-3⅛"	49'-7"	44'-1⅛"
	7'	6'-2⅛"	10'-5"	4'-0⅝"	20'-1"	13'-10⅝"	29'-11"	23'-5⅝"	39'-9"	33'-4⅝"	49'-7"	43'-1⅝"
	8'	7'-1⅝"	10'-9"	3'-0"	20'-2"	12'-11"	29'-10"	22'-3"	39'-10"	32'-6"	49'-8"	42'-3"
10'	5'	4'-3⅜"	11'-2"	6'-10⅜"	21'-11"	17'-7⅜"	32'-8"	28'-4⅜"	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'-3⅛"	54'-7"	49'-1⅛"
	7'	6'-2⅛"	11'-5"	5'-0⅝"	22'-1"	15'-10⅝"	32'-11"	26'-5⅝"	43'-9"	37'-4⅝"	54'-7"	48'-1⅝"
	8'	7'-1⅝"	11'-9"	4'-0"	22'-2"	14'-11"	33'-0"	25'-3"	43'-10"	36'-6"	54'-8"	47'-4"
11'	6'	5'-0⅝"	12'-3"	7'-3⅛"	24'-2"	19'-1⅛"	36'-0"	30'-11⅛"	47'-10"	42'-3⅛"		
	7'	6'-2⅛"	12'-5"	6'-1⅝"	24'-2"	17'-11⅝"	36'-0"	29'-5⅝"	47'-10"	41'-1⅝"		
	8'	7'-1⅝"	12'-9"	5'-0"	24'-2"	16'-10"	36'-0"	28'-3"	47'-10"	40'-6"		
12'	6'	5'-0⅝"	13'-3"	8'-3⅛"	26'-2"	21'-1⅛"	39'-0"	33'-11⅛"	51'-10"	46'-3⅛"		
	7'	6'-2⅛"	13'-5"	7'-1⅝"	26'-2"	19'-11⅝"	39'-0"	32'-5⅝"	51'-10"	45'-1⅝"		
	8'	7'-1⅝"	13'-8"	6'-0"	26'-2"	18'-10"	39'-0"	31'-3"	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, TOEWALLS AND APRONS				
					SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT
S	H	Cw	WB	LB.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	CU.YD.
4'	2'	6"	7"	108.0	4.50	5.96	6.42	7.38	8.34
	3'	6"	7"	169.4	6.26	7.21	8.17	9.13	10.09
	4'	6"	7"	259.6	8.33	9.28	10.24	11.20	12.16
	5'	6"	7"	357.8	10.72	11.68	12.64	13.60	14.56
	6'	7"	8"	583.1	14.55	15.53	16.52	17.51	18.49
5'	3'	6"	7"	169.4	6.97	7.68	8.79	9.96	11.12
	4'	6"	7"	259.6	8.54	9.70	10.87	10.03	12.20
	5'	6"	7"	357.8	10.94	12.10	13.26	14.43	15.59
	6'	7"	8"	583.1	14.77	15.96	17.15	18.34	19.54
	7'	7⅞"	8⅝"	1139.6	18.94	20.15	21.37	22.59	23.80
6'	3'	6"	7"	169.4	6.68	8.06	9.42	10.80	12.18
	4'	6"	7"	259.6	8.75	10.12	11.49	12.87	14.25
	5'	7"	7"	357.8	11.15	12.53	13.89	15.27	16.65
	6'	7"	8"	583.1	14.98	16.39	17.78	19.18	20.59
	7'	7⅞"	8⅝"	1139.6	19.15	20.58	22.00	23.43	24.86
	8'	8"	9"	1925.6	25.09	25.53	26.96	28.39	29.83
7'	4'	6"	7"	259.6	8.97	10.58	12.15	13.76	15.35
	5'	6"	7"	357.8	11.36	12.97	14.58	16.15	17.75
	6'	7"	8"	583.1	15.20	16.82	18.42	20.04	21.66
	7'	7⅞"	8⅝"	1139.6	19.38	21.02	22.68	24.28	25.92
	8'	8"	9"	1925.6	24.32	25.97	27.60	29.25	30.89
8'	4'	6"	7"	259.6	9.19	11.03	12.82	14.65	16.45
	5'	7"	7"	357.8	12.03	13.89	15.70	17.55	19.34
	6'	7"	8"	583.1	15.92	17.27	19.09	20.93	22.75
	7'	7⅞"	8⅝"	1139.6	19.59	21.46	23.30	25.16	26.99
	8'	8"	9"	1925.6	24.54	26.41	28.28	30.11	31.96
9'	5'	7"	7"	357.8	12.26	14.39	16.87	18.95	20.97
	6'	7⅞"	8"	583.1	15.94	18.09	20.09	22.19	24.23
	7'	7⅞"	8⅝"	1139.6	19.81	21.91	23.96	26.06	28.10
	8'	8"	9"	1925.6	24.76	26.86	28.91	31.00	33.05
10'	5'	7"	7"	357.8	12.49	14.80	17.05	19.24	21.52
	6'	7⅞"	8"	583.1	16.17	18.50	20.77	22.99	25.28
	7'	7⅞"	8⅝"	1139.6	20.04	22.37	24.64	26.87	29.15
	8'	8"	9"	1925.6	24.98	27.31	29.58	31.81	34.10
11'	6'	8"	8"	583.1	16.69	19.27	21.76	24.23	
	7'	8"	8⅝"	1139.6	20.64	23.22	25.71	28.18	
	8'	8"	9"	1925.6	25.19	27.77	30.27	32.74	
12'	6'	8"	8"	583.1	16.92	19.75	22.45	25.18	
	7'	8"	8⅝"	1139.6	20.87	23.69	26.40	29.18	
	8'	8"	9"	1925.6	25.42	28.25	30.96	33.69	

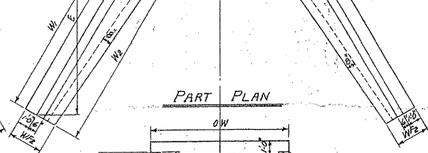
* For reinforcing steel in Headwalls and Aprons, See Details of Standard Barrel Sections for R.C. Box Culverts for the desired Span and Height.



PART PLAN

END ELEVATION

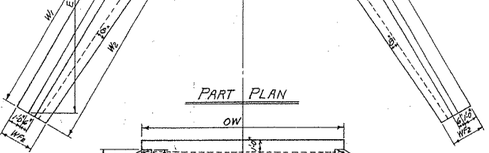
SINGLE BARREL CULVERT



PART PLAN

END ELEVATION

DOUBLE BARREL CULVERT

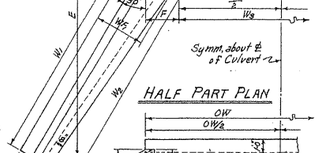


PART PLAN

END ELEVATION

TRIPLE BARREL CULVERT

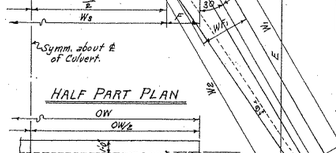
NOTE:- Plans and Elevations are not to scale.



HALF PART PLAN

HALF END ELEVATION

QUADRUPLE BARREL CULVERT



HALF PART PLAN

HALF END ELEVATION

QUINTUPLE BARREL CULVERT

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.

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. Alt. with F1 bars.						F5 Straight: Longitudinal in top of wing footing heel.			F6 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	BAR BENDING DIAGRAMS
				LENGTHS VARY																					LENGTHS VARY												
H	SIZE	SPACING	NO. REQD	MIN.	MAX.	X MIN.	X MAX.	Y MIN.	Y MAX.	SIZE	SPACING	NO. REQD	LENGTH	X	Y	SIZE	NO. REQD	LENGTH	SIZE	NO. REQD	LENGTH	SIZE	SPACING	NO. REQD	LENGTH	MAX.	MIN.	SIZE	NO. REQD	LENGTH	SIZE	SPACING	NO. REQD	LENGTH	X	LB.	
2'	#3	12"	8	1'-6"	3'-10"	0'-8"	1'-0"	0'-11"	2'-11"	—	—	—	—	—	—	#3	1	9'-8"	#3	2	8'-6"	#3	12"	1	7'-2"	—	—	#3	1	9'-6"	#3	12"	2	2'-8"	1'-9"	27.0	
3'	#3	12"	10	2'-2"	5'-2"	0'-10"	1'-3"	1'-5"	4'-0"	—	—	—	—	—	—	#3	1	12'-0"	#3	2	11'-0"	#3	12"	1	9'-6"	#3	12"	#3	1	7'-6"	#3	12"	3	2'-8"	1'-9"	41.1	
4'	#3	12"	13	2'-9"	6'-6"	0'-11"	1'-7"	1'-8"	5'-0"	—	—	—	—	—	—	#3	1	14'-9"	#3	3	13'-6"	#3	12"	1	11'-10"	#3	12"	#3	1	10'-11"	#3	12"	4	2'-8"	1'-9"	63.7	
5'	#3	12"	15	2'-11"	7'-10"	1'-1"	1'-11"	1'-11"	6'-0"	#3	12"	4	3'-6"	1'-1"	2'-6"	#3	1	16'-8"	#3	3	16'-0"	#3	12"	2	14'-2"	#3	12"	#3	1	14'-1"	#3	12"	5	2'-8"	1'-9"	89.5	
6'	#4	12"	17	3'-6"	9'-3"	1'-2"	2'-3"	2'-5"	7'-1"	#3	12"	4	4'-6"	1'-4"	3'-3"	#3	1	19'-0"	#3	3	18'-6"	#3	12"	2	16'-6"	#3	12"	#4	1	19'-5"	#3	12"	6	2'-8"	1'-9"	145.8	
7'	#4	12"	20	3'-9"	10'-9"	1'-3"	2'-9"	2'-7"	8'-1"	#4	12"	7	5'-6"	1'-7"	4'-0"	#4	1	21'-4"	#4	4	21'-0"	#4	12"	2	18'-9"	#4	12"	#5	1	17'-9"	#4	12"	7	3'-6"	1'-9"	283.7	
8'	#4	12"	22	4'-4"	12'-3"	1'-5"	3'-2"	3'-0"	9'-2"	#4	12"	10	6'-6"	1'-10"	4'-9"	#4	1	23'-8"	#4	4	23'-6"	#4	12"	3	21'-1"	#4	12"	#5	1	17'-9"	#4	12"	8	3'-6"	1'-9"	356.4	

NOTE:- Dimensions are to bar centers.

REVISIONS:- Membrane added. 5-10-66 W.C.H.

Designed By:- W.C.H. 8-20-62. Checked By:-
Drawn By:- W.C.H. 12-4-62. Checked By:- RMS. 1-31-63
Quantities By:- W.C.H. 12-14-62. Checked By:- RMS. 3-29-63
Rechecked By:-

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS

4', 5', 6', 7', 8', 9', 10', 11' & 12' SPANS — 3:1 SLOPES

SINGLES, DOUBLES, TRIPLES, QUADRUPLES & QUINTUPLES. — ALL DEPTHS OF COVER FOR H = 8'-0" OR LESS

STANDARD DRAWING NO. W-X003-1

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

Mylar

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

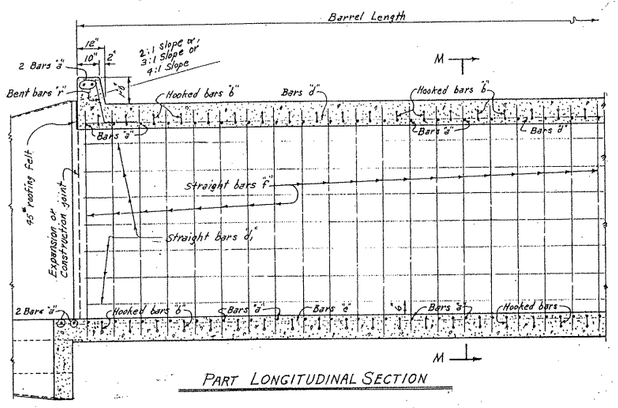
BAR LIST FOR BARREL SECTION 60'-0" IN LENGTH

DEPTH OF COVER	CLEAR SPAN	CLEAR HEIGHT	"a" bars STRAIGHT — In Top and Bottom Slabs of Barrel. 2 Add'l in Apron and Headwall- Each.					"b" bars BENT - See Diagram below. — In Top and Bottom Slabs of Barrel. Alternate with "a" bars.						"d" bars STRAIGHT — Longitudinal in Top Slab of Barrel				"d1" bars STRAIGHT — Longitudinal in Sidewalls				"e" bars. STRAIGHT — Longitudinal in Bottom Slab of Barrel				"f" bars STRAIGHT — Verticals in Sidewalls			
			SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	X	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTH	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'			120	120	4'-9"			110	110	5'-10"	4'-8"	#5	10½"	6		#4	16"	4		#4	12"	5		#4	12"	120	120	2'-11"	
		3'			120	120	4'-9"			110	110	5'-10"	4'-8"			6				6				5				120	120	3'-11"	
		4'			120	120	4'-9"			110	110	5'-10"	4'-8"			8				8				5				120	120	4'-11"	
		5'			120	120	4'-9"			110	110	5'-10"	4'-8"			10				10				5				120	120	6'-11"	
		6'			120	120	4'-11"			110	110	6'-0"	4'-10"			12				12				5				120	120	7'-11"	
	1 @ 5'	3'			120	120	5'-9"			110	110	6'-10"	5'-8"			7				7				6				120	120	5'-0"	
		4'			120	120	5'-9"			110	110	6'-10"	5'-8"			8				8				6				120	120	6'-0"	
		5'	#6	13"	120	120	5'-9"	#6	13"	110	110	6'-10"	5'-8"	#5	10½"	10		#4	12"	10		#4	12"	6		#4	12"	120	120	7'-0"	
		6'			120	120	5'-11"			110	110	7'-0"	5'-10"			12				12				6				120	120	8'-0"	
		7'			120	120	6'-0"			110	110	7'-1"	5'-11"			14				14				6				120	120	9'-0"	
	1 @ 6'	3'			128	128	6'-9"			118	118	7'-10"	6'-8"			8				8				7				120	120	4'-1"	
		4'			128	128	6'-9"			118	118	7'-10"	6'-8"			8				8				7				120	120	5'-1"	
		5'			128	128	6'-9"			118	118	7'-10"	6'-8"			10				10				7				120	120	6'-1"	
		6'	#6	12"	128	128	6'-11"	#6	12"	118	118	8'-1"	6'-10"	#5	10½"	12		#4	12"	12		#4	12"	7		#4	12"	120	120	7'-1"	
		7'			128	128	7'-0"			118	118	8'-1"	6'-11"			14				14				7				120	120	8'-1"	
		8'			128	128	7'-1"			118	118	8'-2"	7'-0"			16				16				7				120	120	9'-1"	
		4'			140	140	7'-9"			130	130	8'-10"	7'-8"			9				9				8				120	120	5'-2"	
		5'			140	140	7'-9"			130	130	8'-10"	7'-8"			9				9				8				120	120	6'-2"	
	1 @ 7'	6'	#6	11"	140	140	7'-11"	#6	11"	130	130	9'-1"	7'-10"	#5	10½"	9		#4	12"	9		#4	12"	8		#4	12"	120	120	7'-2"	
		7'			140	140	8'-0"			130	130	9'-2"	8'-0"			11				11				8				120	120	8'-2"	
		8'			140	140	8'-1"			130	130	9'-3"	8'-1"			14				14				8				120	120	9'-2"	
		9'			140	140	8'-3"			130	130	9'-4"	8'-2"			16				16				8				120	120	10'-2"	
		4'			128	128	8'-9"			118	118	9'-10"	8'-8"			8				8				9				120	120	5'-6"	
		5'			128	128	8'-11"			118	118	10'-0"	8'-10"			10				10				9				120	120	6'-6"	
	1 @ 8'	6'			128	128	8'-11"			118	118	10'-0"	8'-10"			12				12				9				120	120	7'-6"	
		7'	#7	12"	128	128	9'-0"	#6	12"	118	118	10'-1"	8'-11"	#5	10"	14		#4	12"	14		#4	12"	9		#4	12"	120	120	8'-6"	
		8'			128	128	9'-1"			118	118	10'-2"	9'-0"			16				16				9				120	120	9'-6"	
		9'			128	128	9'-3"			118	118	10'-4"	9'-2"			18				18				9				120	120	10'-6"	
		10'			128	128	9'-5"			118	118	10'-5"	9'-3"			20				20				9				120	120	11'-6"	
		5'			140	140	9'-11"			130	130	11'-0"	9'-10"			12				12				10				120	120	6'-6"	
		6'			140	140	10'-0"			130	130	11'-1"	9'-11"			12				12				10				120	120	7'-5"	
	1 @ 9'	7'			140	140	10'-0"			130	130	11'-1"	9'-11"			12				12				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"	12		#4	12"	10		#4	12"	144	144	9'-5"	
		9'			140	140	10'-3"			130	130	11'-4"	10'-2"			12				12				10				144	144	10'-4"	
		10'			140	140	10'-5"			130	130	11'-6"	10'-4"			12				12				10				144	144	11'-4"	
		11'			140	140	10'-7"			130	130	11'-8"	10'-6"			12				12				10				144	144	12'-4"	
		5'			128	128	10'-11"			118	118	12'-2"	10'-10"			13				10				11				120	120	6'-6"	
		6'			128	128	11'-0"			118	118	12'-3"	10'-11"			13				12				11				120	120	7'-6"	
	1 @ 10'	7'			128	128	11'-0"			118	118	12'-3"	10'-11"			13				14				11				120	120	8'-6"	
		8'	#7	12"	128	128	11'-1"	#7	12"	118	118	12'-4"	11'-0"	#5	10"	13		#4	12"	16		#4	12"	11		#4	12"	144	144	9'-6"	
		9'			128	128	11'-3"			118	118	12'-6"	11'-2"			13				18				11				144	144	10'-6"	
		10'			128	128	11'-5"			118	118	12'-8"	11'-4"			13				20				11				144	144	11'-6"	
		11'			128	128	11'-7"			118	118	12'-10"	11'-6"			13				22				11				144	144	12'-6"	
		12'			128	128	11'-9"			118	118	13'-0"	11'-8"			13				24				11				144	144	13'-6"	
		6'			140	140	12'-1"			130	130	13'-4"	12'-0"			15				12				12				120	120	7'-7"	
		7'			140	140	12'-1"			130	130	13'-4"	12'-0"			15				14				12				120	120	8'-7"	
	1 @ 11'	8'			140	140	12'-1"			130	130	13'-4"	12'-0"			15				16				12				144	144	9'-7"	
		9'	#7	11"	140	140	12'-3"	#7	11"	130	130	13'-6"	12'-2"	#5	9½"	15		#4	12"	18		#4	12"	12		#5	12"	144	144	10'-7"	
		10'			140	140	12'-5"			130	130	13'-8"	12'-4"			15				20				12				144	144	11'-7"	
		11'			140	140	12'-7"			130	130	13'-10"	12'-6"			15				22				12				144	144	12'-7"	
		12'			140	140	12'-9"			130	130	14'-0"	12'-8"			15				24				12				144	144	13'-7"	
		6'			128	128	13'-1"			118	118	14'-4"	13'-0"			16				12				13				120	120	7'-9"	
		7'			128	128	13'-1"			118	118	14'-4"	13'-0"			16				14				13				120	120	8'-9"	
	1 @ 12'	8'			128	128	13'-1"			118	118	14'-4"	13'-0"			16				16				13				144	144	9'-9"	
		9'	#8	12"	128	128	13'-3"	#7	12"	118	118	14'-6"	13'-2"	#5	9½"	16		#4	12"	18		#4	12"	13		#5	12"	144	144	10'-9"	
		10'			128	128	13'-5"			118	118	14'-8"	13'-4"			16				20				13				144	144	11'-9"	
		11'			128	128	13'-7"			118	118	14'-10"	13'-6"			16				22				13				144	144	12'-9"	
		12'			128	128	13'-9"			118	118	15'-0"	13'-8"			16				24				13				144	144	13'-9"	

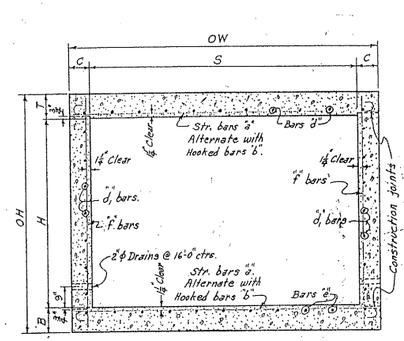
Note:- For details of wings and bar lists, see Drawing Nos. W-X002-1, W-X002-2, W-X003-1 or W-X003-2, and W-X004-1 or W-X004-2.

DIMENSIONS AND QUANTITIES

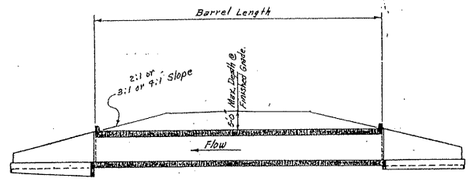
MAX. DESIGN DEPTH OF COVER	BARREL DIMENSIONS: CLEAR SPAN	CLEAR HEIGHT	SQ. FT. OPENING	OVERALL WIDTH	THICKNESS OF TOP SLAB	THICKNESS OF SIDEWALLS	THICKNESS OF BOTTOM SLAB	OVERALL HEIGHT	UNIT QUANTITIES: CLASS S CONC. PER LIN. FT. OF BARREL	REINFORCING STEEL PER LIN. FT. OF BARREL	ADDITIONAL PER LAP	ADDITIONAL TWO HEADWALLS & APRONS
D	S	H	A	OW	T	C	B	OH	CU.YD.	LB.	LB.	LB.
5'-0"	1 @ 4'	2'	8	5'-0"	7"	6"	6½"	3'-1½"	0.282	41.99	17.95	66.35
		3'	12	5'-0"		6"		4'-1⅝"	0.319	44.16	19.62	66.35
		4'	16	5'-0"		6"		5'-1⅞"	0.356	46.83	21.29	66.35
		5'	20	5'-0"		6"		6'-1⅞"	0.394	49.50	22.96	66.35
		6'	24	5'-2"		7"		7'-1⅞"	0.474	52.96	24.63	67.75
	1 @ 5'	3'	15	6'-0"	7"	6"	6½"	4'-2⅝"	0.380	55.55	22.19	101.27
		4'	20	6'-0"		6"		5'-2⅝"	0.417	58.23	23.86	101.27
		5'	25	6'-0"		6"		6'-2⅝"	0.454	60.90	25.53	101.27
		6'	30	6'-2"		7"		7'-2⅝"	0.535	64.99	27.20	103.27
		7'	35	6'-3"		7½"		8'-2⅝"	0.609	67.63	28.87	104.27
	1 @ 6'	3'	18	7'-0"	8"	6"	7½"	4'-3½"	0.496	66.29	29.76	118.96
		4'	24	7'-0"		6"		5'-3½"	0.483	68.96	26.93	118.96
		5'	30	7'-0"		6"		6'-3½"	0.520	71.64	28.10	118.96
		6'	36	7'-2"		7"		7'-3½"	0.602	75.31	29.77	120.96
		7'	42	7'-3"		7½"		8'-3½"	0.671	78.98	31.44	121.97
		8'	48	7'-4"		8"		9'-3½"	0.746	88.47	33.11	122.97
	1 @ 7'	4'	28	8'-0"	8½"	6"	8½"	5'-5"	0.568	81.32	29.01	136.88
		5'	35	8'-0"		6"		6'-5"	0.605	84.00	30.68	136.88
		6'	42	8'-2"		7"		7'-5"	0.688	87.76	32.35	138.88
		7'	49	8'-3"		7½"		8'-5"	0.757	90.98	34.02	139.88
		8'	56	8'-4"		8"		9'-5"	0.832	96.65	35.69	140.88
		9'	63	8'-6"		9"		10'-5"	0.996	105.59	37.36	142.89
	1 @ 8'	4'	32	9'-0"	9½"	7"	9½"	5'-7"	0.676	95.26	33.32	198.07
		5'	40	9'-2"		7"		6'-7"	0.758	99.12	34.99	196.80
		6'	48	9'-2"		7"		7'-7"	0.797	101.79	36.66	196.80
		7'	56	9'-3"		7½"		8'-7"	0.867	105.05	38.33	198.16
		8'	64	9'-4"		8"		9'-7"	0.942	110.81	40.00	199.52
		9'	72	9'-6"		9"		10'-7"	1.057	119.92	41.67	202.25
		10'	80	9'-8"		10"		11'-7"	1.186	126.67	43.34	204.97
	1 @ 9'	5'	45	10'-2"	10"	7"	10"	6'-8"	0.849	119.72	37.56	213.61
		6'	54	10'-3"		7½"		7'-8"	0.910	118.04	39.23	220.97
		7'	63	10'-3"		7½"		8'-8"	0.957	120.71	40.90	220.97
		8'	72	10'-4"		8"		9'-8"	1.033	126.54	42.57	222.33
		9'	81	10'-6"		9"		10'-8"	1.148	135.80	44.24	225.06
		10'	90	10'-8"		10"		11'-8"	1.276	142.68	45.91	227.78
		11'	99	10'-10"		11"		12'-8"	1.416	150.90	47.58	230.51
	1 @ 10'	5'	50	11'-2"	10½"	7"	11"	6'-9½"	0.957	130.64	40.13	242.64
		6'	60	11'-3"		7½"		7'-9½"	1.024	133.99	41.80	244.00
		7'	70	11'-3"		7½"		8'-9½"	1.071	136.66	43.47	244.00
		8'	80	11'-4"		8"		9'-9½"	1.147	142.55	45.14	245.36
		9'	90	11'-6"		9"		10'-9½"	1.263	151.92	96.81	248.09
		10'	100	11'-8"		10"		11'-9½"	1.391	158.89	98.98	250.81
		11'	110	11'-10"		11"		12'-9½"	1.532	166.71	50.15	253.54
		12'	120	12'-0"		12"		13'-9½"	1.685	178.67	51.82	256.26
	1 @ 11'	6'	66	12'-3"	11"	8"	11½"	7'-10½"	1.153	155.16	96.12	268.62
		7'	77	12'-3"		8"		8'-10½"	1.202	157.83	97.79	268.62
		8'	88	12'-4"		8"		9'-10½"	1.252	163.06	99.46	268.62
		9'	99	12'-6"		9"		10'-10½"	1.368	172.60	51.13	271.34
		10'	110	12'-8"		10"		11'-10½"	1.497	179.70	52.80	274.07
		11'	121	12'-10"		11"		12'-10½"	1.638	187.67	54.97	276.79
		12'	132	13'-0"		12"		13'-10½"	1.792	199.79	56.14	279.52
	1 @ 12'	6'	72	13'-3"	12"	8"	12½"	8'-0"	1.284	172.20	98.69	357.62
		7'	84	13'-3"		8"		9'-0"	1.333	174.87	50.36	357.62
		8'	96	13'-4"		8"		10'-0"	1.383	180.15	52.03	357.62
		9'	108	13'-6"		9"		11'-0"	1.500	189.85	58.70	361.18
		10'	120	13'-8"		10"		12'-0"	1.630	197.07	55.37	364.74
		11'	132	13'-10"		11"		13'-0"	1.772	205.16	57.04	368.30
		12'	144	14'-0"		12"		14'-0"	1.926	217.95	58.71	371.86



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.

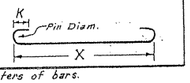
DESIGN LIVE LOAD

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 #/□"

BAR SIZE	PIN DIAM.	K	ADD FOR 2 HOOKS
#6	3"	5"	1'-2"
#7	3½"	5⅝"	1'-4"

BENDING DIAGRAM Bars "b"

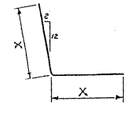


NOTE:- Dimensions are to centers of bars.

DOWEL BARS FOR TWO HEADWALLS

SPAN	SIZE	SPACING	NO. REQ'D	LENGTH	X
4'	#4	11"±	12	2'-6"	1'-3"
5'	#4	11"±	14	2'-7"	1'-3⅛"
6'	#4	11"±	16	2'-8"	1'-4"
7'	#4	11"±	18	2'-9"	1'-4⅛"
8'	#4	11⅛"±	20	2'-11"	1'-5⅛"
9'	#4	11⅛"±	22	3'-0"	1'-6"
10'	#4	11⅛"±	24	3'-1"	1'-6⅛"
11'	#4	12"±	26	3'-2"	1'-7"
12'	#4	12"±	28	3'-3"	1'-7⅛"

Bars "i" Dowel bars in Headwalls.



W-X002-1, W-X002-2, or W-X003-1, or W-X003-2, or W-X004-1, or W-X004-2.

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

Designed By:- W.C.H. 1-23-63. Checked By:- RBG. 5-8-63
Drawn By:- W.C.H. 2-8-63. Checked By:- RBG. 5-8-63
Quantities By:- W.C.H. 2-12-63. Checked By:- RBG. 5-24-63