

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

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.	080422	I	135	
				② DOVER-NORTH (PASSING LANES) (S)				

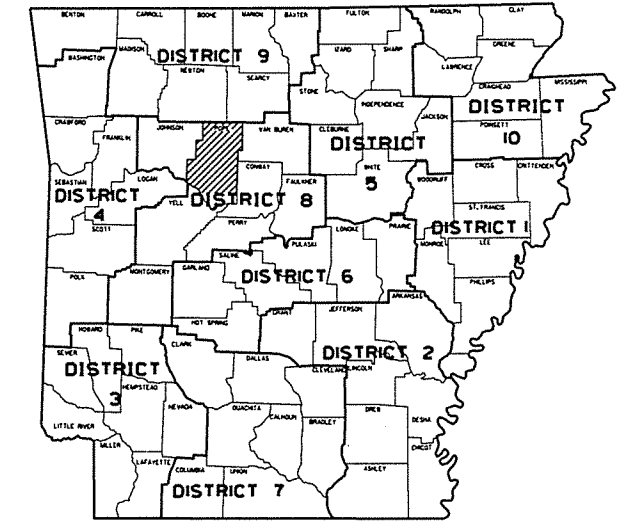
**DOVER - NORTH
(PASSING LANES) (S)**

POPE COUNTY

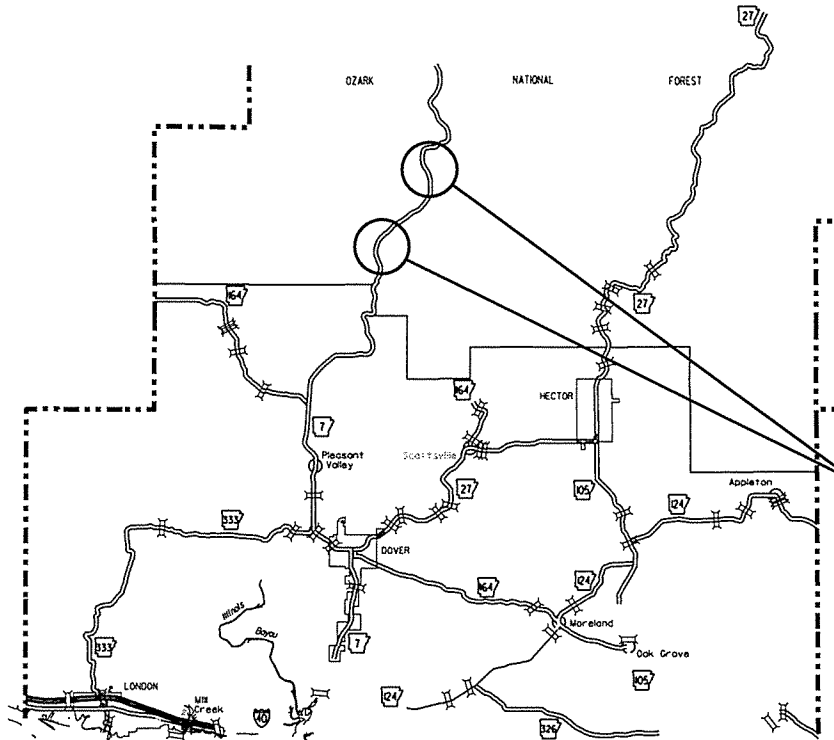
ROUTE 7 SECTION 16

JOB 080422

FED. AID PROJ. STP-0058(39)



ARK. HWY. DIST. NO. 8



VICINITY MAP

PROJECT
LOCATION

• DESIGN TRAFFIC DATA •

DESIGN YEAR	-----	2035
2015 ADT	-----	1000
2035 ADT	-----	1300
2035 DHV	-----	143
DIRECTIONAL DISTRIBUTION	-----	0.60
TRUCKS	-----	18%
AVERAGE RUNNING SPEED	-----	55 MPH

NOT TO SCALE

STA. 263+90.00
END SITE 1

STA. 559+40.00
END SITE 2 &
JOB 080422

STA. 202+50.00
BEGIN SITE 1
BEGIN JOB 080422
LOG MILE 2.05

BEGINNING OF SITE 1
LAT. = N 35°32' 01"
LONG. = W 93°05' 43"

BEGINNING OF SITE 2
LAT. = N 35°34' 11"
LONG. = W 93°03' 59"

MID-POINT OF SITE 1
LAT. = N 35°32' 41"
LONG. = W 93°05' 44"

MID-POINT OF SITE 2
LAT. = N 35°34' 55"
LONG. = W 93°04' 13"

END OF SITE 1
LAT. = N 35°32' 54"
LONG. = W 93°05' 28"

END OF SITE 2
LAT. = N 35°35' 09"
LONG. = W 93°05' 11"

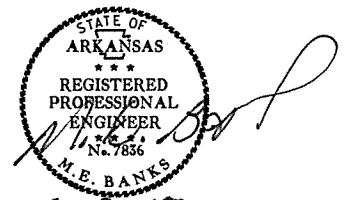
GROSS LENGTH OF PROJECT	12280.00	FEET	OR	2.326	MILES
NET " " ROADWAY	12280.00	"	"	2.326	"
NET " " BRIDGES	0.00	"	"	0.00	"
NET " " PROJECT	12280.00	"	"	2.326	"

STA. 498+00.00
BEGIN SITE 2
LOG MILE 5.35

P.E. 080376



APPROVED



6-29-15
DEPUTY DIRECTOR
AND CHIEF ENGINEER

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-01-15				6	ARK.			
						JOB NO. 080422	2	135

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81 - 135	CROSS SECTIONS		

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

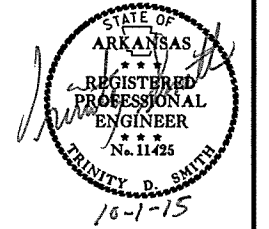
GENERAL NOTES

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 INSURE 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. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
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.

GOVERNING SPECIFICATIONS

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

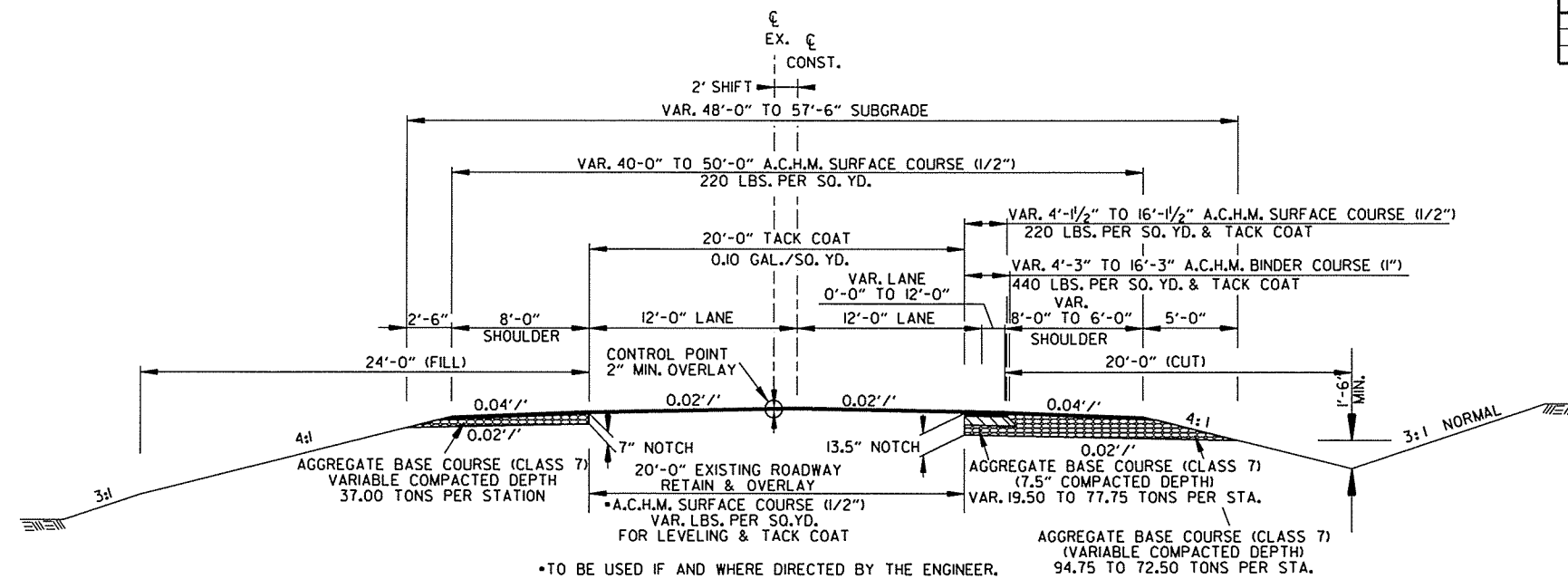
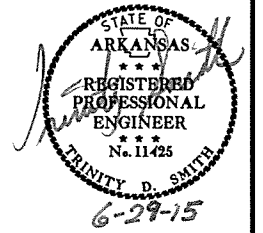
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 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
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL
606-1	PIPE CULVERTS FOR SIDE DRAINS
620-1	MULCH COVER
JOB 080422	BIDDING REQUIREMENTS AND CONDITIONS
JOB 080422	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 080422	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 080422	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 080422	EXTENSION FOR PIPE CULVERTS
JOB 080422	FOREST SERVICE REQUIREMENTS
JOB 080422	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 080422	MANDATORY ELECTRONIC CONTRACT
JOB 080422	OFF-SITE RESTRAINING CONDITIONS FOR BATS
JOB 080422	PARTNERING REQUIREMENTS
JOB 080422	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB 080422	PIPE CULVERTS
JOB 080422	PLASTIC PIPE
JOB 080422	RESTRAINING CONDITION
JOB 080422	ROCK FILL
JOB 080422	RUMBLE STRIPS
JOB 080422	SHORING FOR CULVERTS
JOB 080422	SOIL STABILIZATION
JOB 080422	SPECIAL CLEARING REQUIREMENTS
JOB 080422	SPECIAL SEEDING REQUIREMENTS
JOB 080422	STORM WATER POLLUTION PREVENTION PLAN
JOB 080422	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 080422	UTILITY ADJUSTMENTS
JOB 080422	VALUE ENGINEERING
JOB 080422	WARM MIX ASPHALT



2 INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES

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.	080422		3	135

2 TYPICAL SECTIONS OF IMPROVEMENT



TYPICAL SECTION OF IMPROVEMENT
 SITE I
 NOTCH AND WIDENING
 TANGENT SECTION - NORTHBOUND PASSING LANE
 STA. 202+50.00 - STA. 204+50.00

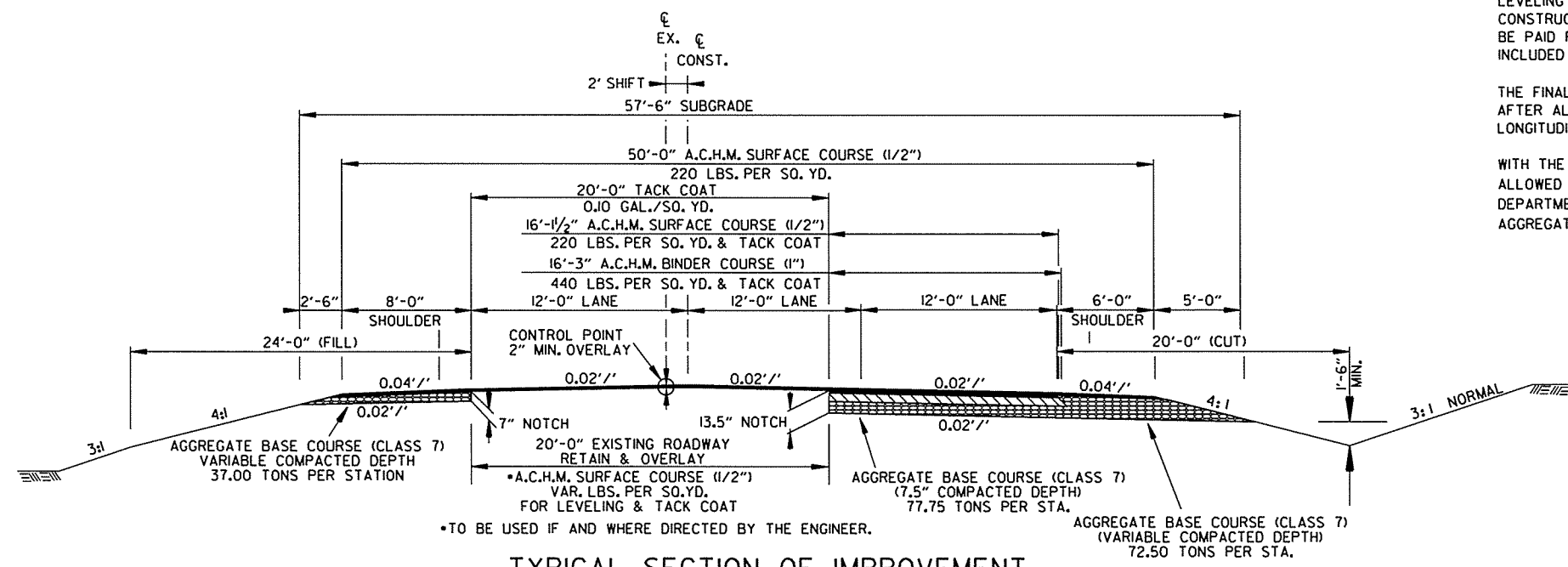
NOTES:
 REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

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.

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

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

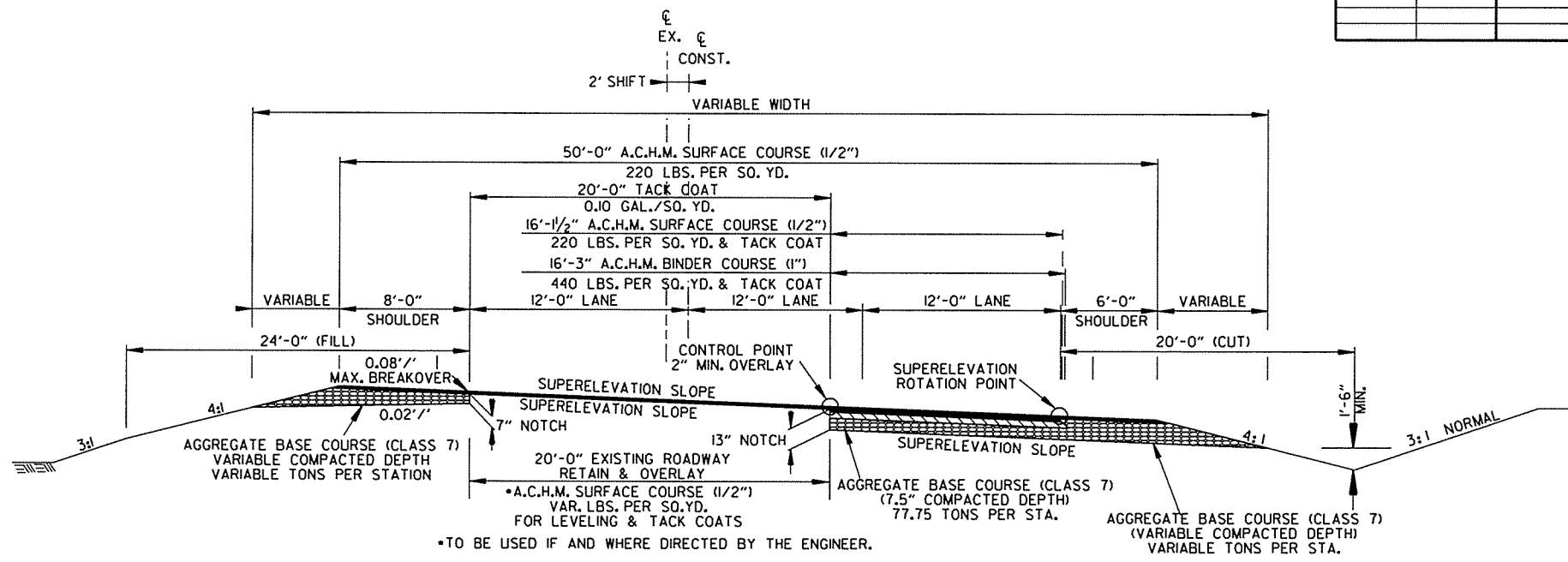
WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, THE FIRST LIFT OF ACHM SURFACE (1/2") IN LIEU OF AGGREGATE BASE COURSE ON THE SHOULDERS.



TYPICAL SECTION OF IMPROVEMENT
 SITE I
 NOTCH AND WIDENING
 TANGENT SECTION - NORTHBOUND PASSING LANE
 STA. 204+50.00 - STA. 213+00.30

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2 TYPICAL SECTIONS OF IMPROVEMENT



TYPICAL SECTION OF IMPROVEMENT
SITE I
NOTCH AND WIDENING
SUPERELEVATION SECTION - NORTHBOUND PASSING LANE
STA. 213+00.30 - STA. 257+30.00

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

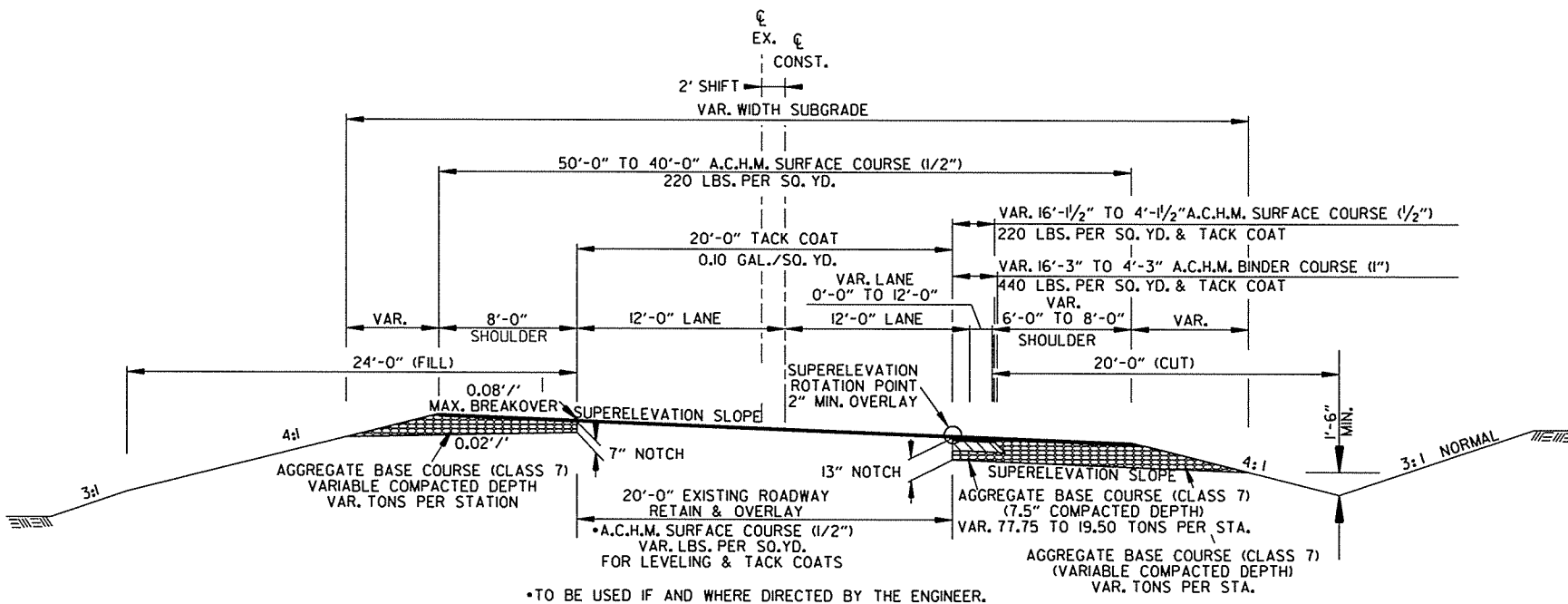
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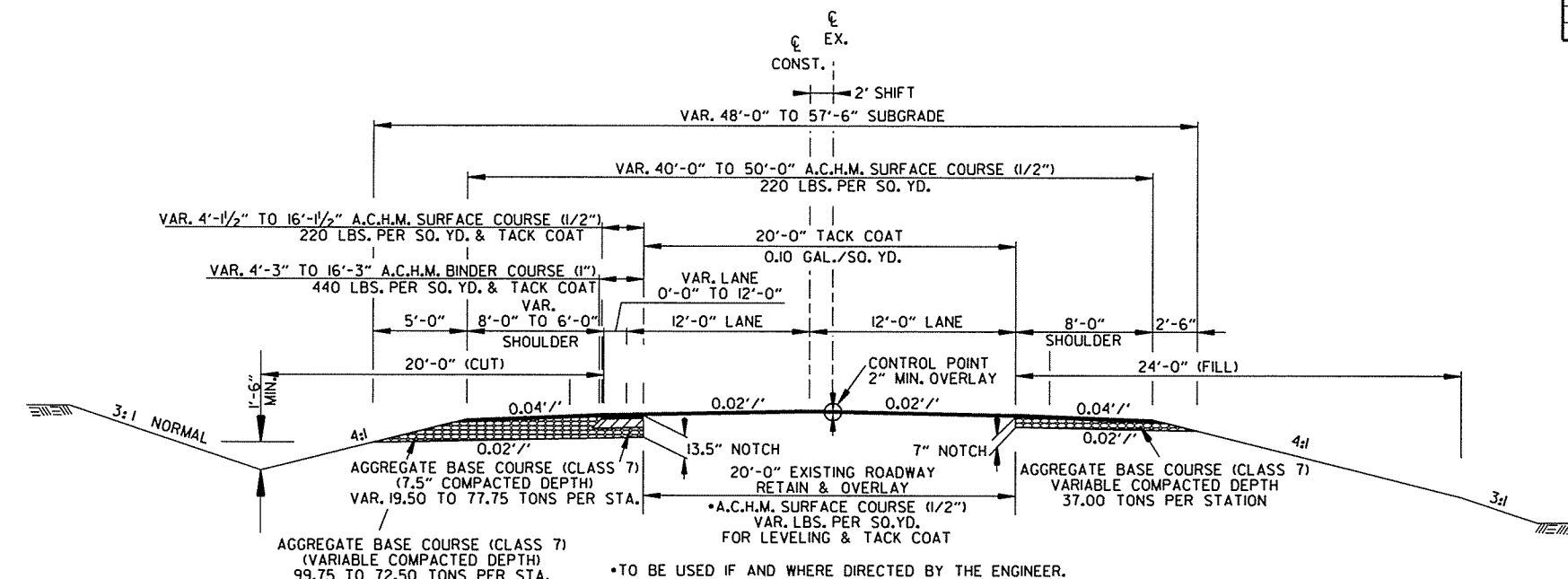
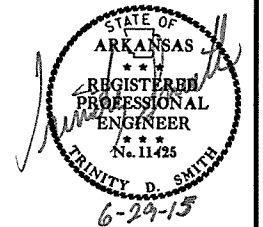


TYPICAL SECTION OF IMPROVEMENT
SITE I
NOTCH AND WIDENING
SUPERELEVATION SECTION - NORTHBOUND PASSING LANE
STA. 257+30.00 - STA. 263+90.00

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

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2 TYPICAL SECTIONS OF IMPROVEMENT



TYPICAL SECTION OF IMPROVEMENT
 SITE 2
 NOTCH AND WIDENING
 TANGENT SECTION - SOUTHBOUND PASSING LANE
 STA. 498+00.00 - STA. 504+60.00

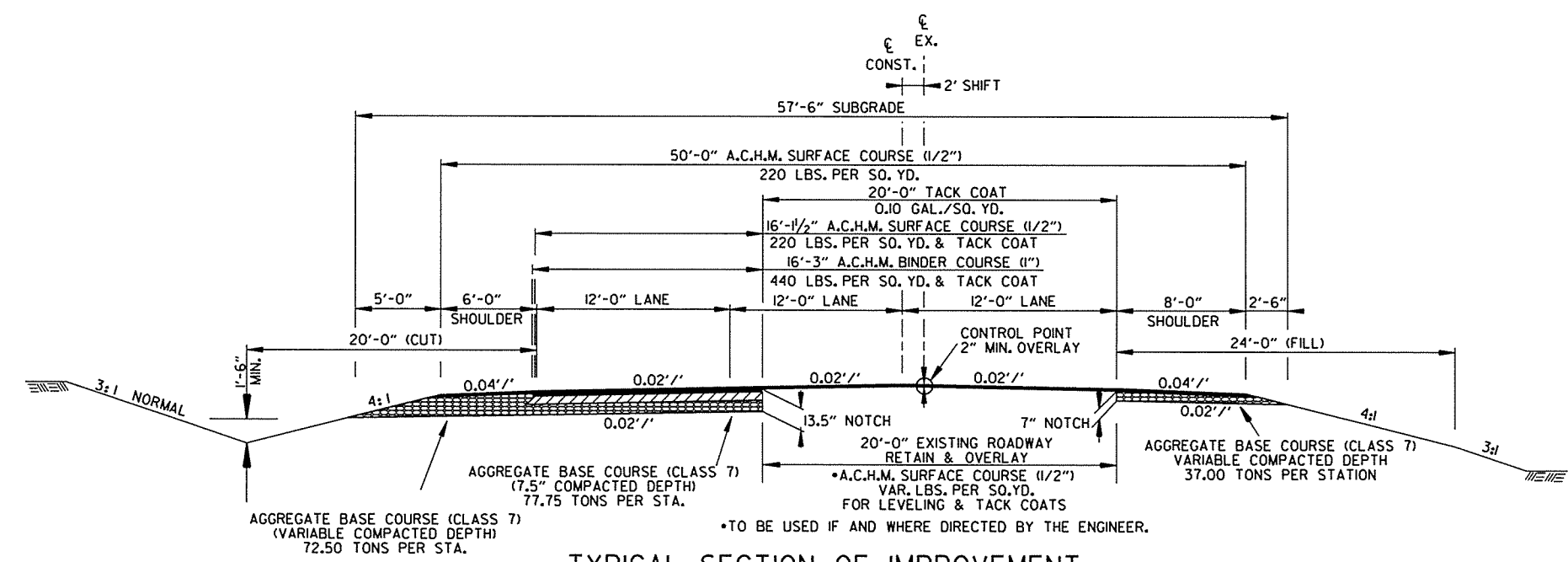
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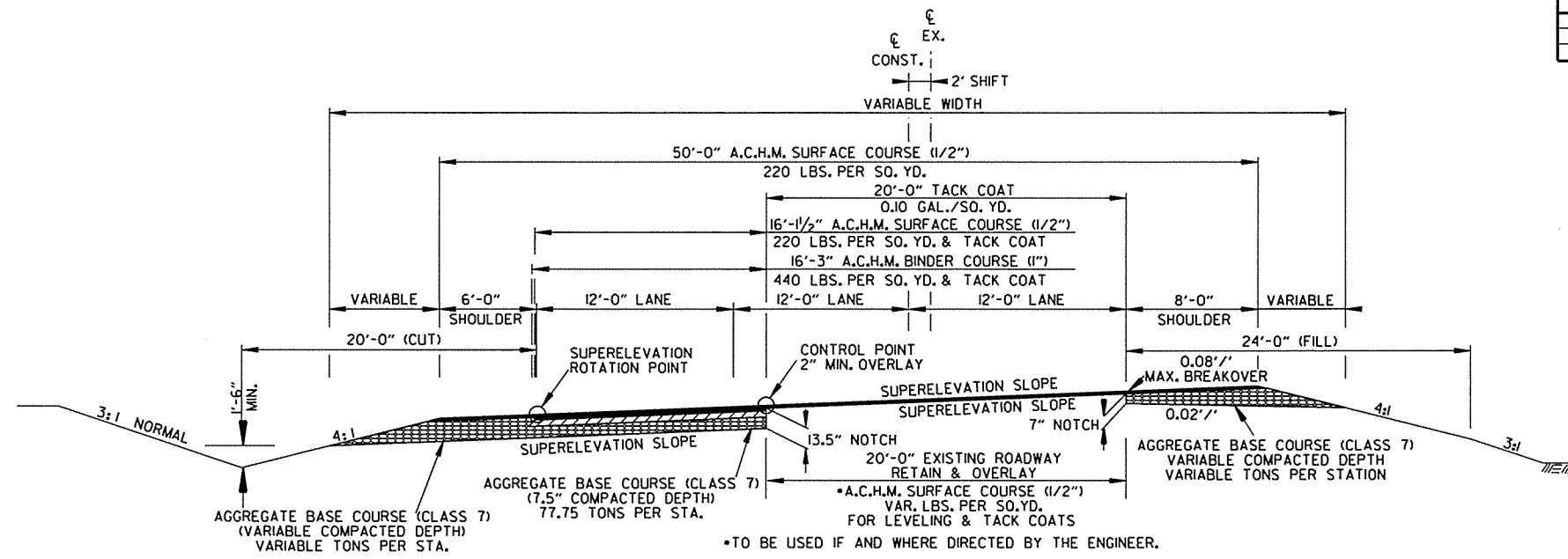
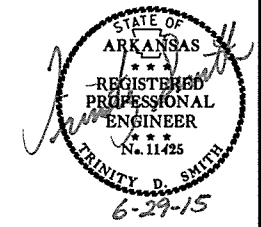
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TYPICAL SECTION OF IMPROVEMENT
 SITE 2
 NOTCH AND WIDENING
 TANGENT SECTION - SOUTHBOUND PASSING LANE
 STA. 504+60.00 - STA. 504+96.77
 STA. 522+82.69 - STA. 527+80.98

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2 TYPICAL SECTIONS OF IMPROVEMENT



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TYPICAL SECTION OF IMPROVEMENT
 SITE 2
 NOTCH AND WIDENING
 SUPERELEVATION SECTION - SOUTHBOUND PASSING LANE
 STA. 504+96.77 - STA. 522+82.69
 STA. 527+80.98 - STA. 556+40.00

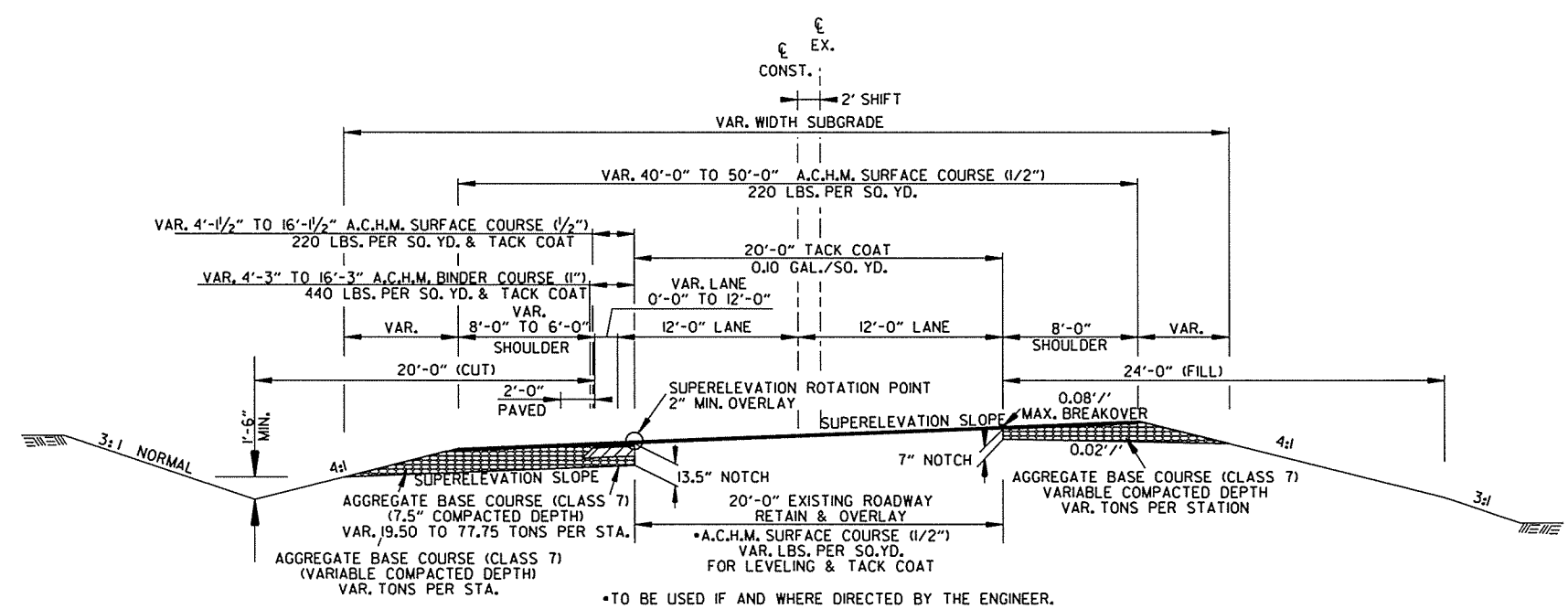
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TYPICAL SECTION OF IMPROVEMENT
 SITE 2
 NOTCH AND WIDENING
 SUPERELEVATION SECTION - SOUTHBOUND PASSING LANE
 STA. 556+40.00 - STA. 558+40.00

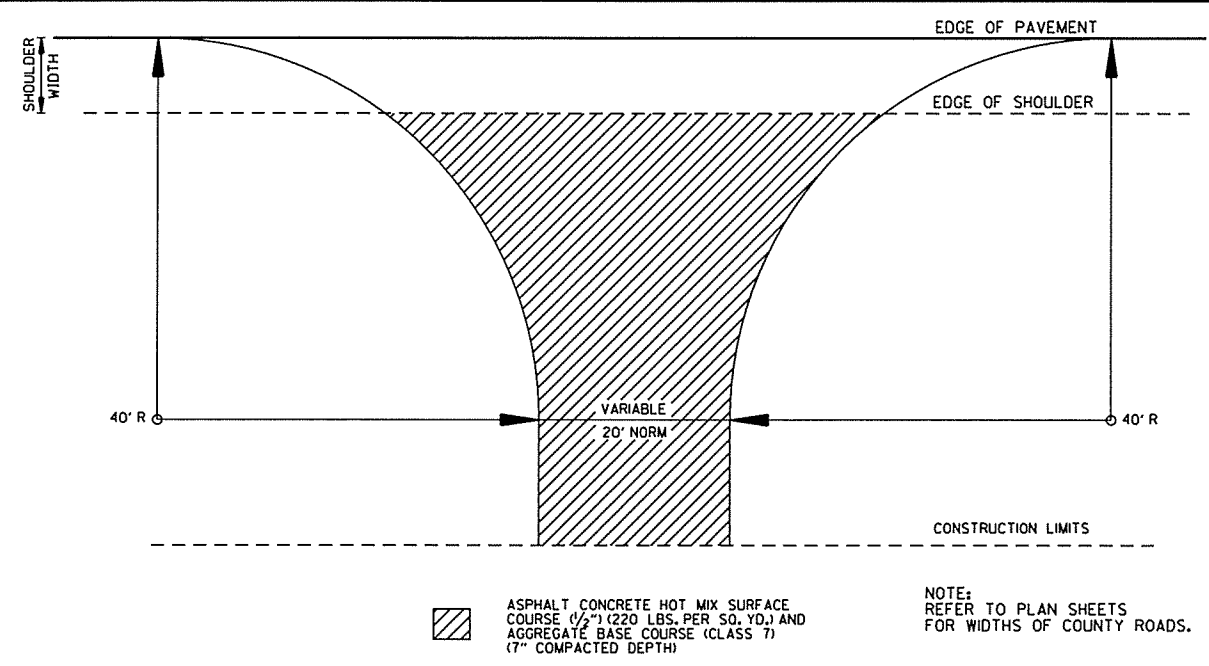
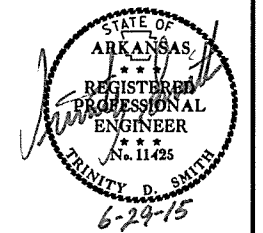
TYPICAL SECTIONS OF IMPROVEMENT

4/21/2015

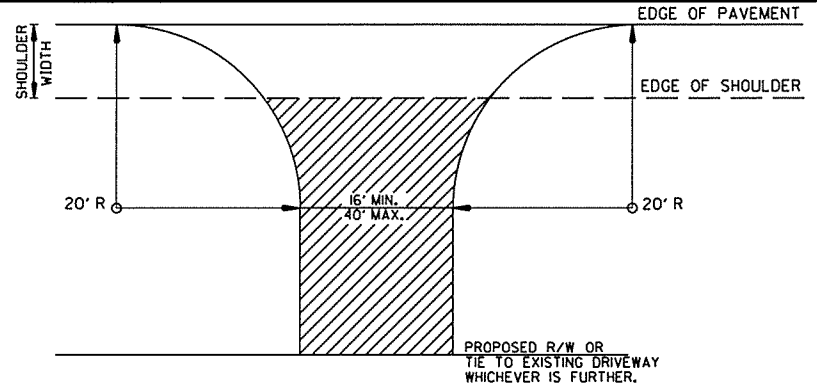
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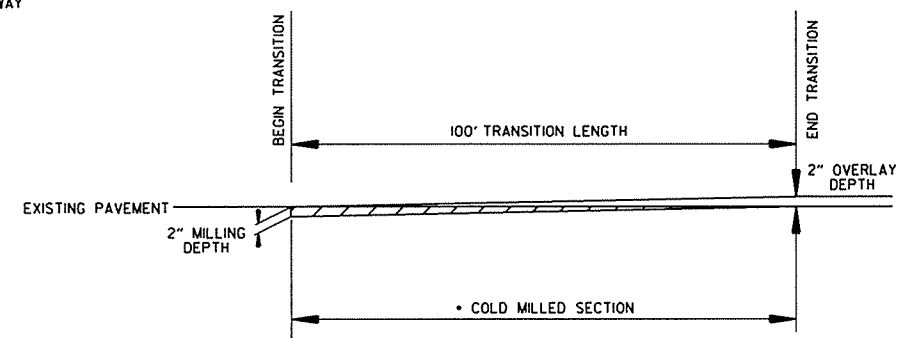
2 SPECIAL DETAILS



DETAIL FOR COUNTY ROAD TURNOUT

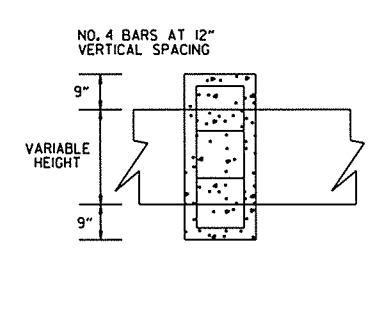
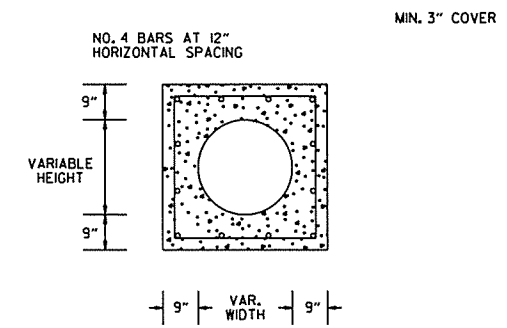
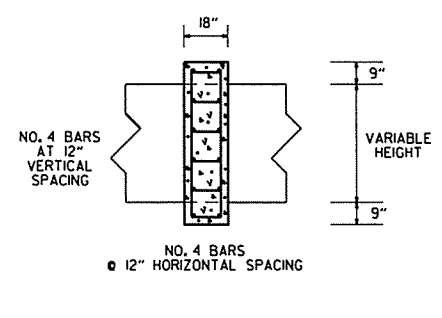
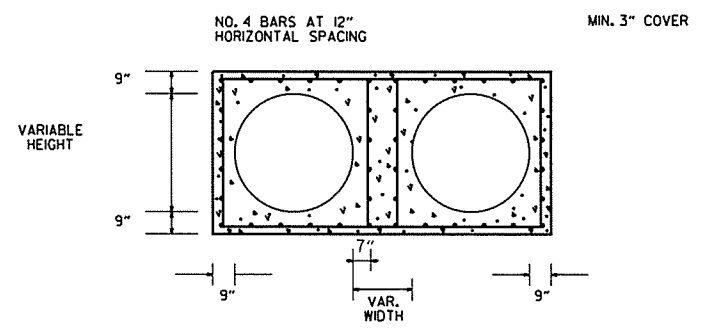
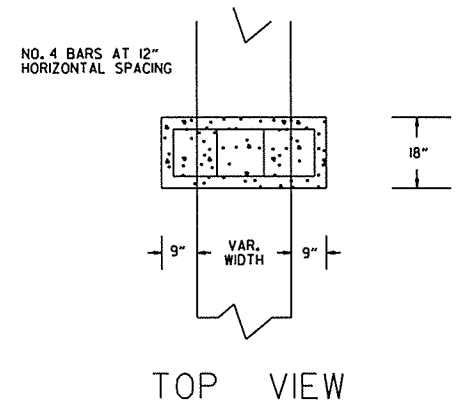
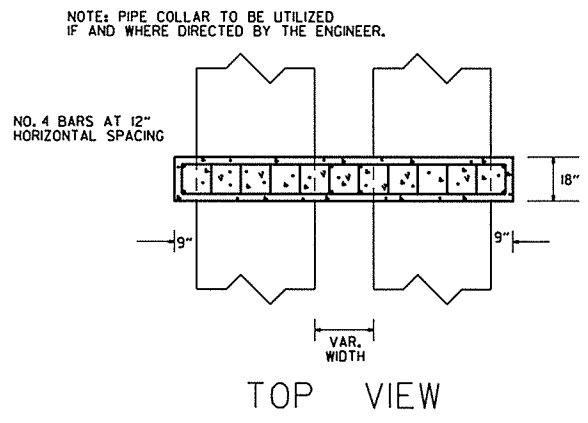


DETAIL FOR DRIVEWAY TURNOUTS



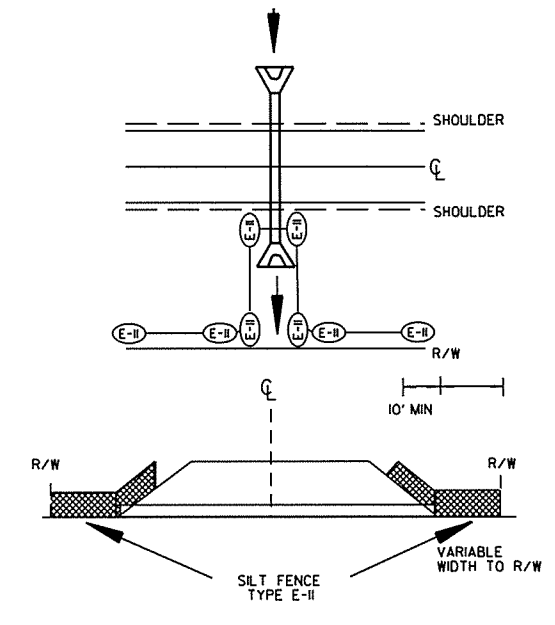
DETAIL SHOWING TRANSITION TO EXISTING PAVEMENT

• TO BE USED AS DIRECTED BY THE ENGINEER



PIPE EXTENSION REINFORCED CONCRETE COLLAR DETAIL

PIPE EXTENSION REINFORCED CONCRETE COLLAR DETAIL

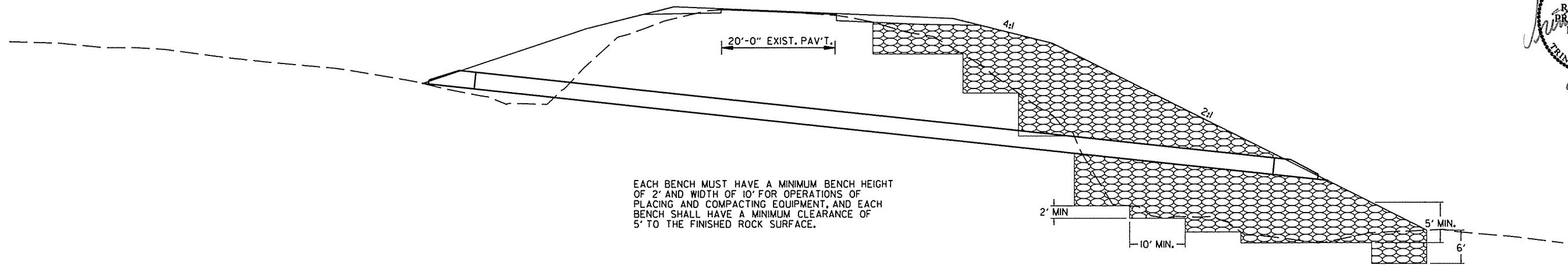


DETAILS OF SILT FENCE AT CROSS DRAINS

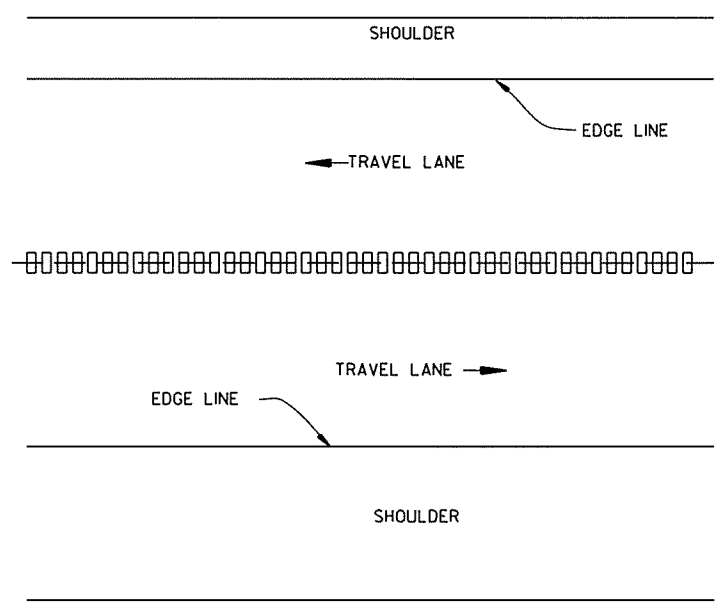
SPECIAL DETAILS

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. 080422							8	135

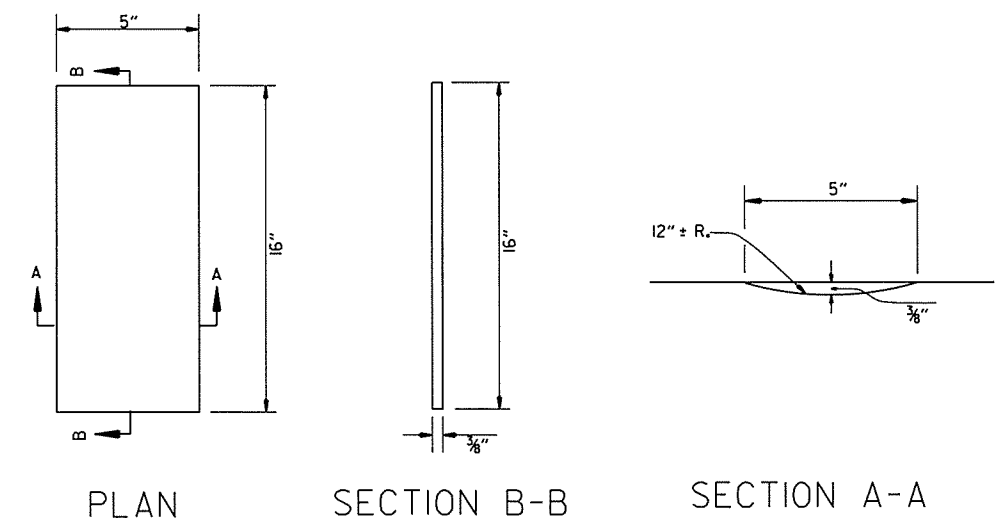
2 SPECIAL DETAILS



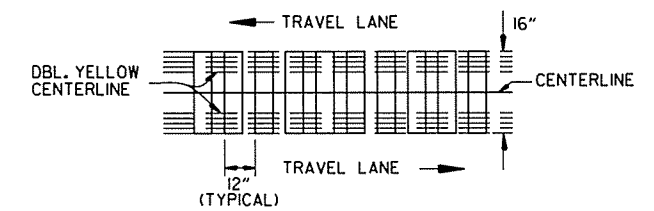
DETAIL FOR ROCK FILL



PLAN VIEW



PLAN SECTION B-B SECTION A-A



LOCATION PLAN OF CENTERLINE RUMBLE STRIPS

DETAILS OF CENTERLINE RUMBLE STRIPS

GENERAL NOTES

1. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPS 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.

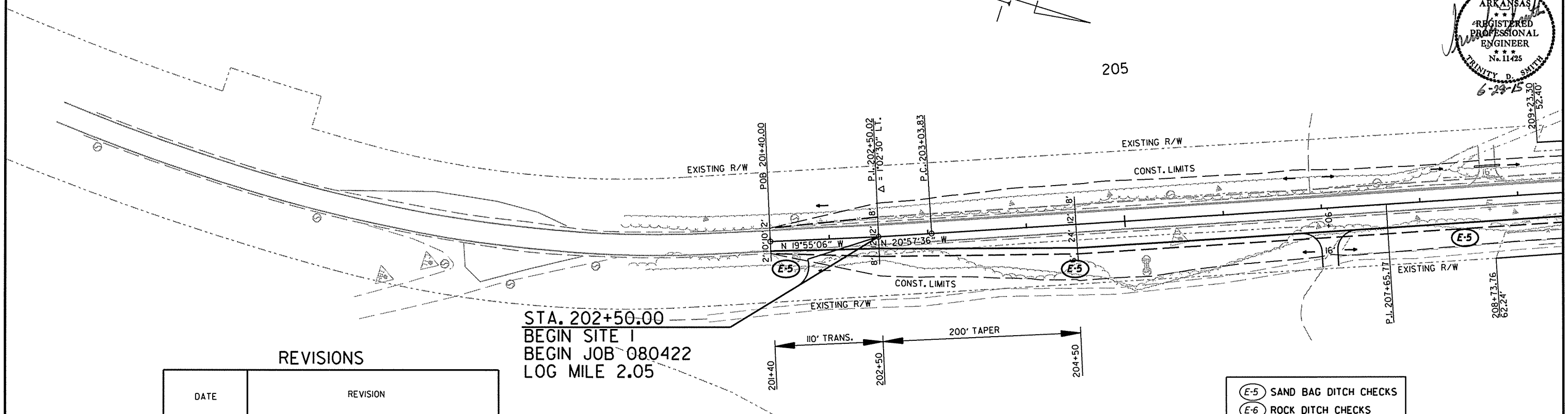
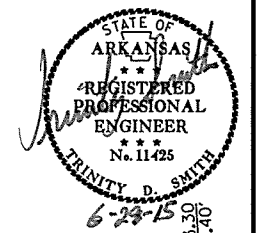
4/14/2015
R080422.DGN

CLEARING AND GRUBBING			
STA. 201+50	-	STA. 209+00	LT. & RT. 7.5 STA.

SAND BAG DITCH CHECKS (E-5)			
STA. 201+50	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 204+50	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 208+50	LT. & RT.	2 INSTALLATIONS	44 BAG

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							9	135

2 TEMPORARY EROSION CONTROL DETAILS



REVISIONS

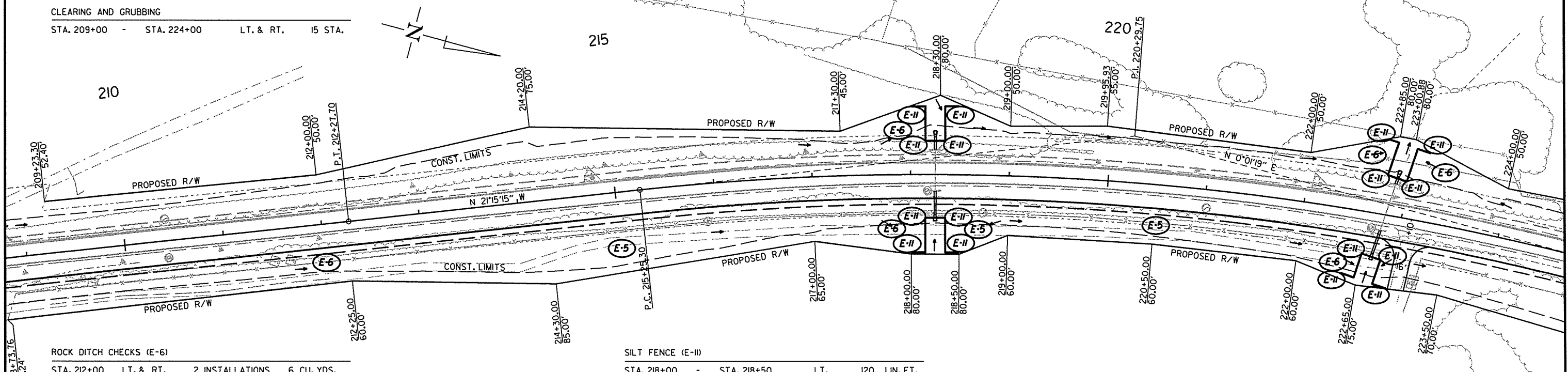
DATE	REVISION

STA. 202+50.00
 BEGIN SITE I
 BEGIN JOB 080422
 LOG MILE 2.05

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)			
STA. 215+00	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 218+50	RT.	1 INSTALLATION	22 BAG
STA. 220+50	LT. & RT.	2 INSTALLATIONS	44 BAG

CLEARING AND GRUBBING			
STA. 209+00	-	STA. 224+00	LT. & RT. 15 STA.



ROCK DITCH CHECKS (E-6)			
STA. 212+00	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 218+00	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 222+50	RT.	1 INSTALLATION	3 CU. YDS.
STA. 222+75	LT.	1 INSTALLATION	3 CU. YDS.
STA. 223+10	LT.	1 INSTALLATION	3 CU. YDS.

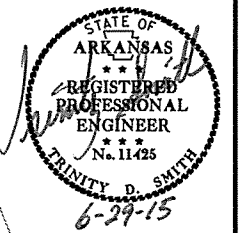
SILT FENCE (E-II)			
STA. 218+00	-	STA. 218+50	LT. 120 LIN. FT.
STA. 218+00	-	STA. 218+50	RT. 120 LIN. FT.
STA. 222+50	-	STA. 223+00	RT. 100 LIN. FT.
STA. 222+75	-	STA. 223+10	LT. 115 LIN. FT.

SITE I
 TEMPORARY EROSION CONTROL DETAILS
 STAGE I

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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							10	135

2 TEMPORARY EROSION CONTROL DETAILS



SAND BAG DITCH CHECKS (E-5)

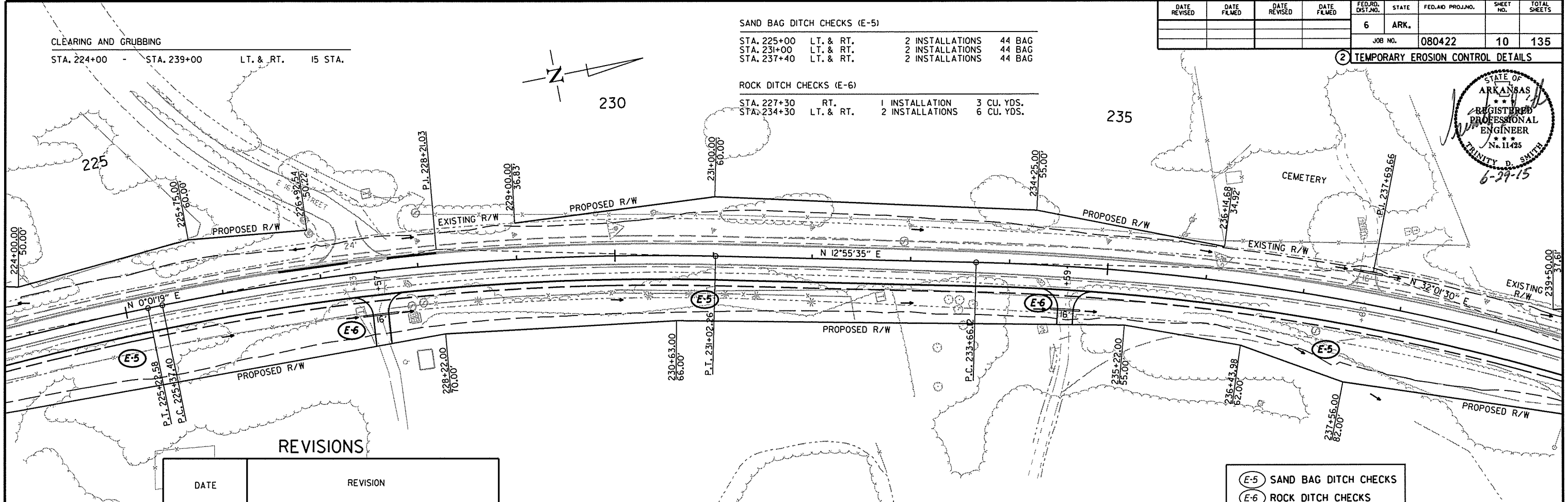
STA. 225+00	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 231+00	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 237+40	LT. & RT.	2 INSTALLATIONS	44 BAG

ROCK DITCH CHECKS (E-6)

STA. 227+30	RT.	1 INSTALLATION	3 CU. YDS.
STA. 234+30	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.

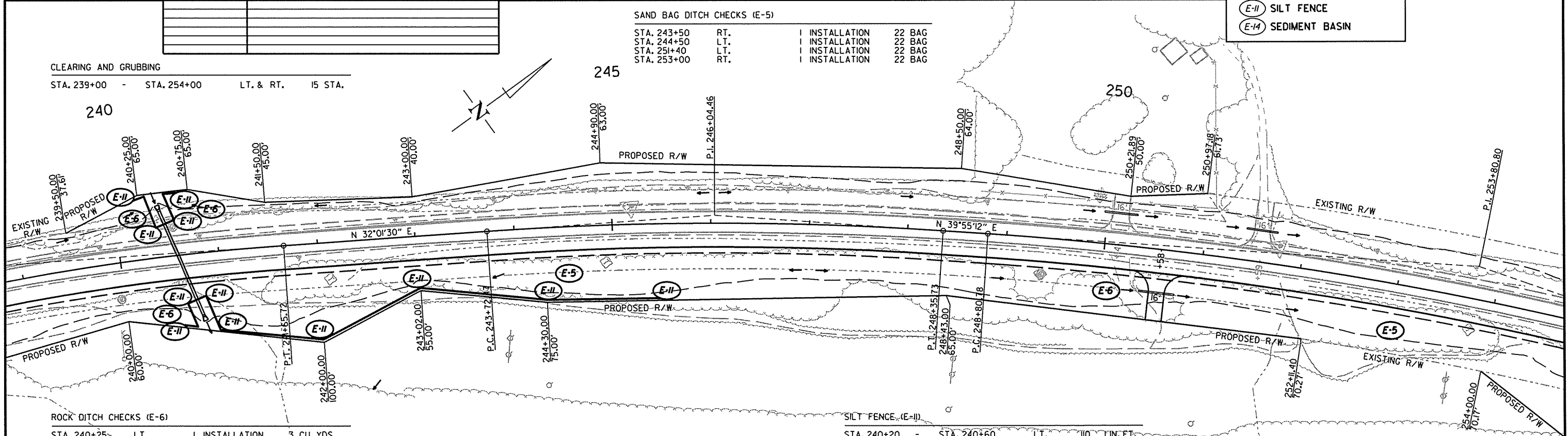
230

235



245

250



- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)

STA. 243+50	RT.	1 INSTALLATION	22 BAG
STA. 244+50	LT.	1 INSTALLATION	22 BAG
STA. 251+40	LT.	1 INSTALLATION	22 BAG
STA. 253+00	RT.	1 INSTALLATION	22 BAG

ROCK DITCH CHECKS (E-6)

STA. 240+25	LT.	1 INSTALLATION	3 CU. YDS.
STA. 240+50	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 249+95	LT.	1 INSTALLATION	3 CU. YDS.
STA. 250+40	RT.	1 INSTALLATION	3 CU. YDS.

SILT FENCE (E-11)

STA. 240+20	STA. 240+60	LT.	110 LIN. FT.
STA. 240+50	STA. 244+50	RT.	560 LIN. FT.

SITE I
TEMPORARY EROSION CONTROL DETAILS
STAGE I

3/18/2015 R080422.DGN

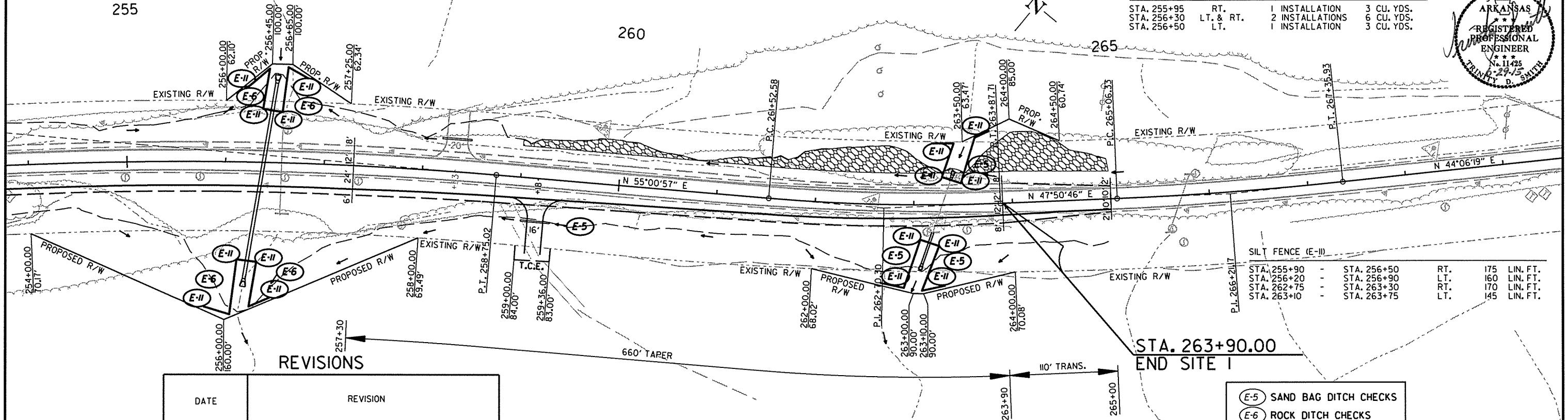
CLEARING AND GRUBBING
 STA. 254+00 - STA. 263+90 LT. & RT. 9.9 STA.

SAND BAG DITCH CHECKS (E-5)			
STA. 259+40	RT.	1 INSTALLATION	22 BAG
STA. 262+85	RT.	1 INSTALLATION	22 BAG
STA. 263+15	RT.	1 INSTALLATION	22 BAG
STA. 263+50	LT.	1 INSTALLATION	22 BAG

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		11	135

2 TEMPORARY EROSION CONTROL DETAILS

ROCK DITCH CHECKS (E-6)			
STA. 255+95	RT.	1 INSTALLATION	3 CU. YDS.
STA. 256+30	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 256+50	LT.	1 INSTALLATION	3 CU. YDS.



SILT FENCE (E-II)			
STA. 255+90	-	STA. 256+50	RT. 175 LIN. FT.
STA. 256+20	-	STA. 256+90	LT. 160 LIN. FT.
STA. 262+75	-	STA. 263+30	RT. 170 LIN. FT.
STA. 263+10	-	STA. 263+75	LT. 145 LIN. FT.

REVISIONS

DATE	REVISION

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-4) SEDIMENT BASIN

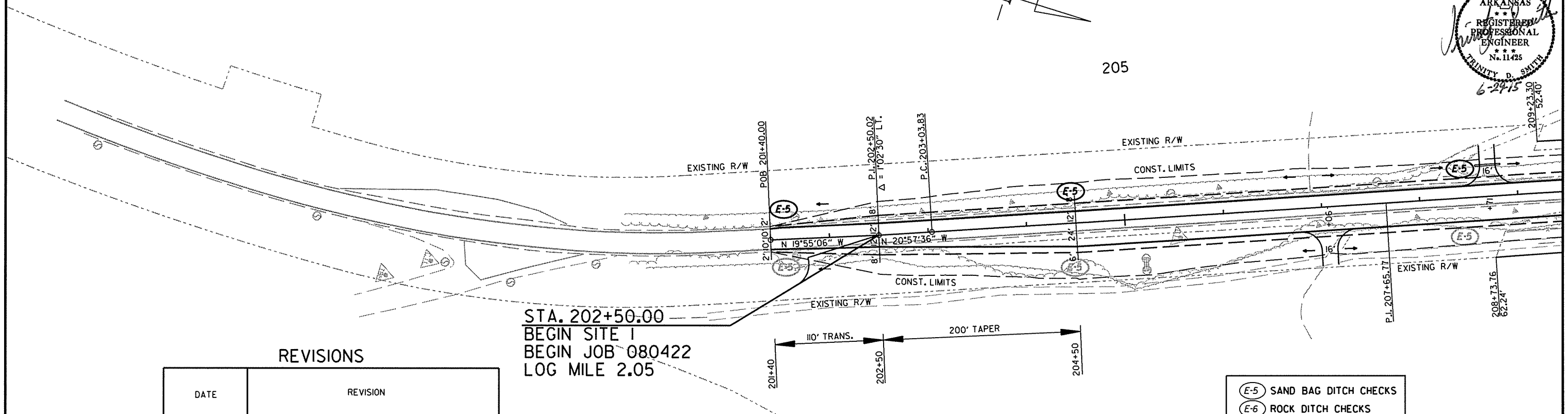
STA. 263+90.00
 END SITE I

CLEARING AND GRUBBING			
STA.	STA.	LT. & RT.	7.5 STA.
STA. 201+50	- STA. 209+00	LT. & RT.	7.5 STA.

SAND BAG DITCH CHECKS (E-5)			
STA.	LT. & RT.	INSTALLATIONS	BAG
STA. 201+50	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 204+50	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 208+50	LT. & RT.	2 INSTALLATIONS	44 BAG

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. 080422							12	135

2 TEMPORARY EROSION CONTROL DETAILS



REVISIONS

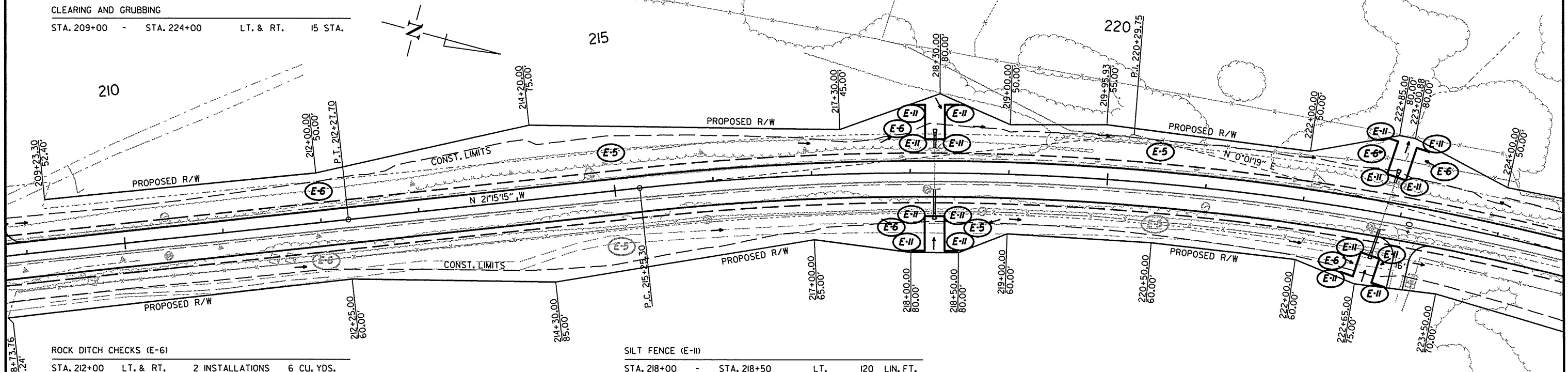
DATE	REVISION

STA. 202+50.00
 BEGIN SITE I
 BEGIN JOB 080422
 LOG MILE 2.05

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)			
STA.	LT. & RT.	INSTALLATIONS	BAG
STA. 215+00	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 218+50	RT.	1 INSTALLATION	22 BAG
STA. 220+50	LT. & RT.	2 INSTALLATIONS	44 BAG

CLEARING AND GRUBBING			
STA.	STA.	LT. & RT.	15 STA.
STA. 209+00	- STA. 224+00	LT. & RT.	15 STA.



ROCK DITCH CHECKS (E-6)			
STA.	LT. & RT.	INSTALLATIONS	CU. YDS.
STA. 212+00	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 218+00	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 222+50	RT.	1 INSTALLATION	3 CU. YDS.
STA. 222+75	LT.	1 INSTALLATION	3 CU. YDS.
STA. 223+10	LT.	1 INSTALLATION	3 CU. YDS.

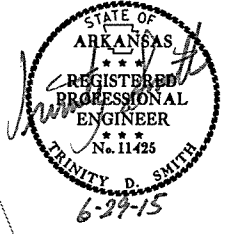
SILT FENCE (E-II)			
STA.	STA.	LT.	LIN. FT.
STA. 218+00	- STA. 218+50	LT.	120 LIN. FT.
STA. 218+00	- STA. 218+50	RT.	120 LIN. FT.
STA. 222+50	- STA. 223+00	RT.	100 LIN. FT.
STA. 222+75	- STA. 223+10	LT.	115 LIN. FT.

SITE I
 TEMPORARY EROSION CONTROL DETAILS
 STAGE 2

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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							13	135

2 TEMPORARY EROSION CONTROL DETAILS



SAND BAG DITCH CHECKS (E-5)

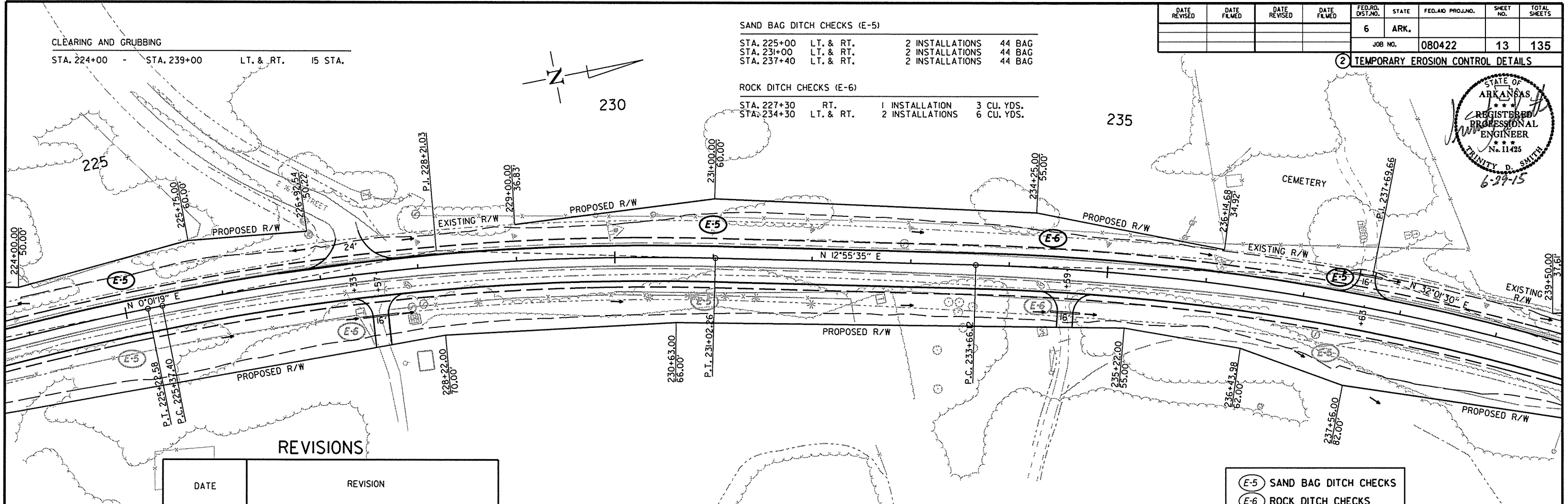
STA. 225+00	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 231+00	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 237+40	LT. & RT.	2 INSTALLATIONS	44 BAG

ROCK DITCH CHECKS (E-6)

STA. 227+30	RT.	1 INSTALLATION	3 CU. YDS.
STA. 234+30	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.

230

235



DATE	REVISION

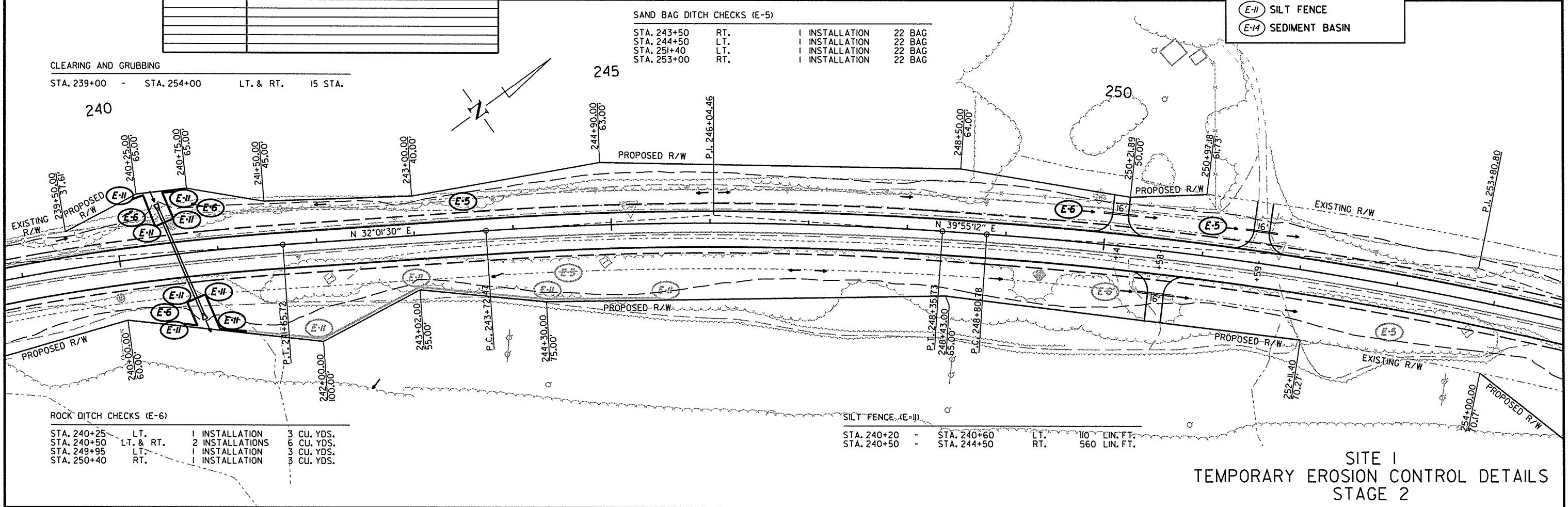
- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)

STA. 243+50	RT.	1 INSTALLATION	22 BAG
STA. 244+50	LT.	1 INSTALLATION	22 BAG
STA. 251+40	LT.	1 INSTALLATION	22 BAG
STA. 253+00	RT.	1 INSTALLATION	22 BAG

245

250



CLEARING AND GRUBBING

STA. 239+00 - STA. 254+00 LT. & RT. 15 STA.

ROCK DITCH CHECKS (E-6)

STA. 240+25	LT.	1 INSTALLATION	3 CU. YDS.
STA. 240+50	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 249+95	LT.	1 INSTALLATION	3 CU. YDS.
STA. 250+40	RT.	1 INSTALLATION	3 CU. YDS.

SILT FENCE (E-11)

STA. 240+20	-	STA. 240+60	LT.	110 LIN. FT.
STA. 240+50	-	STA. 244+50	RT.	560 LIN. FT.

SITE 1
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

3/18/2015

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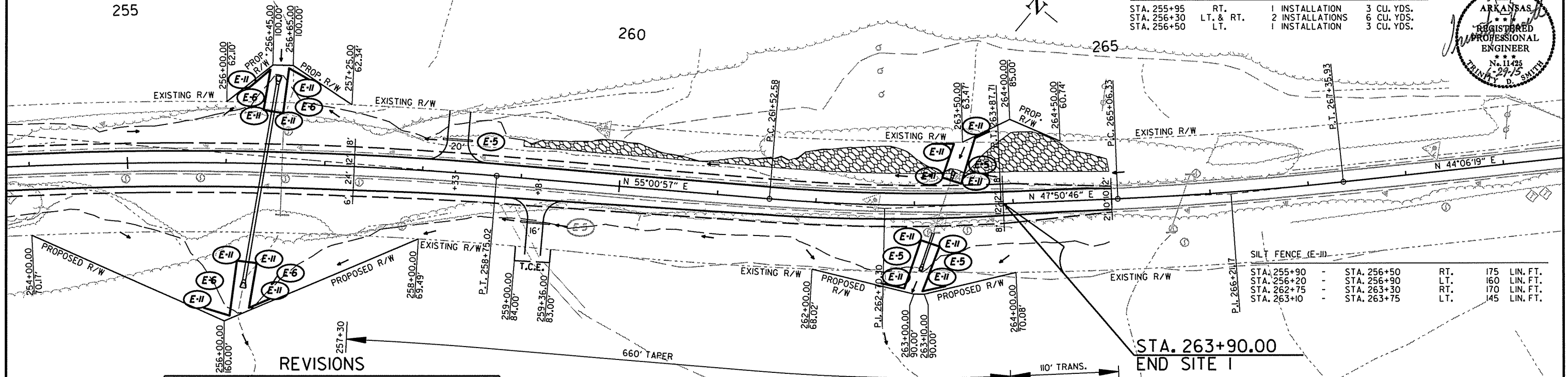
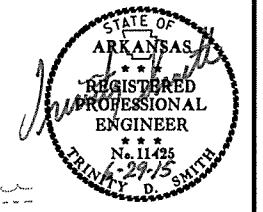
CLEARING AND GRUBBING
 STA. 254+00 - STA. 263+90 LT. & RT. 9.9 STA.

SAND BAG DITCH CHECKS (E-5)
 STA. 259+40 RT. 1 INSTALLATION 22 BAG
 STA. 262+85 RT. 1 INSTALLATION 22 BAG
 STA. 263+15 RT. 1 INSTALLATION 22 BAG
 STA. 263+50 LT. 1 INSTALLATION 22 BAG

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. 080422							14	135

2 TEMPORARY EROSION CONTROL DETAILS

ROCK DITCH CHECKS (E-6)
 STA. 255+95 RT. 1 INSTALLATION 3 CU. YDS.
 STA. 256+30 LT. & RT. 2 INSTALLATIONS 6 CU. YDS.
 STA. 256+50 LT. 1 INSTALLATION 3 CU. YDS.



SILT FENCE (E-II)

STA.	RT.	LT.	LIN. FT.
STA. 255+90	-	STA. 256+50	175
STA. 256+20	-	STA. 256+90	160
STA. 262+75	-	STA. 263+30	170
STA. 263+10	-	STA. 263+75	145

REVISIONS

DATE	REVISION

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

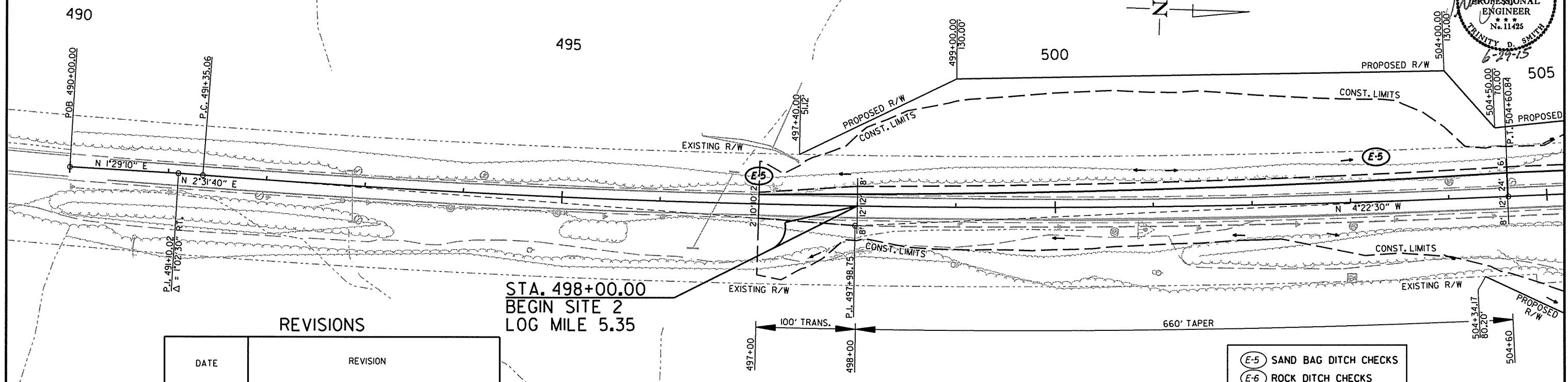
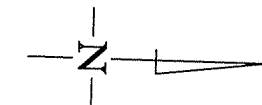
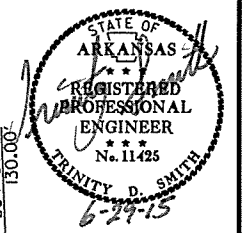
CLEARING AND GRUBBING
 STA. 497+00 - STA. 505+00 LT. & RT. 8 STA.

SAND BAG DITCH CHECKS (E-5)
 STA. 497+00 LT. & RT. 2 INSTALLATIONS 44 BAG
 STA. 500+00 RT. 1 INSTALLATION 22 BAG
 STA. 503+25 LT. 1 INSTALLATION 22 BAG

SILT FENCE (E-II)
 STA. 497+00 - STA. 505+00 RT. 825 LIN. FT.

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							15	135

2 TEMPORARY EROSION CONTROL DETAILS



STA. 498+00.00
 BEGIN SITE 2
 LOG MILE 5.35

REVISIONS

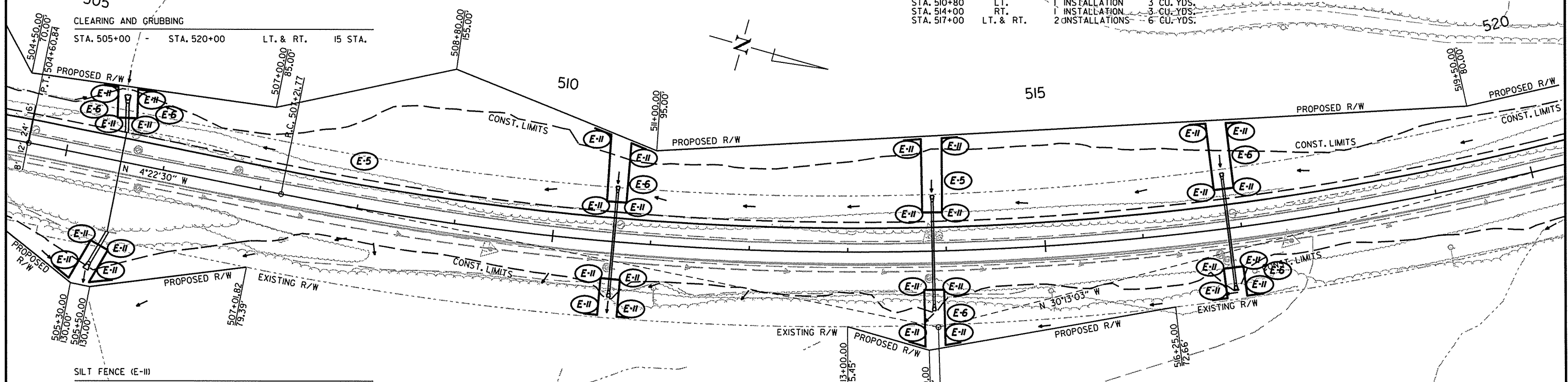
DATE	REVISION

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)
 STA. 508+00 LT. 1 INSTALLATION 22 BAG
 STA. 514+10 LT. 1 INSTALLATION 22 BAG

ROCK DITCH CHECKS (E-6)
 STA. 505+40 LT. 1 INSTALLATION 3 CU. YDS.
 STA. 505+70 LT. 1 INSTALLATION 3 CU. YDS.
 STA. 510+80 LT. 1 INSTALLATION 3 CU. YDS.
 STA. 514+00 RT. 1 INSTALLATION 3 CU. YDS.
 STA. 517+00 LT. & RT. 2 INSTALLATIONS 6 CU. YDS.

CLEARING AND GRUBBING
 STA. 505+00 - STA. 520+00 LT. & RT. 15 STA.



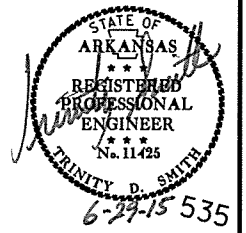
SILT FENCE (E-II)
 STA. 505+00 - STA. 514+10 RT. 1220 LIN. FT.
 STA. 505+25 - STA. 505+75 LT. 110 LIN. FT.
 STA. 510+40 - STA. 510+90 LT. 185 LIN. FT.
 STA. 513+60 - STA. 514+10 LT. 205 LIN. FT.
 STA. 516+75 - STA. 520+25 RT. 430 LIN. FT.
 STA. 516+75 - STA. 517+10 LT. 190 LIN. FT.

SITE 2
 TEMPORARY EROSION CONTROL DETAILS
 STAGE I

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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. 080422							16	135

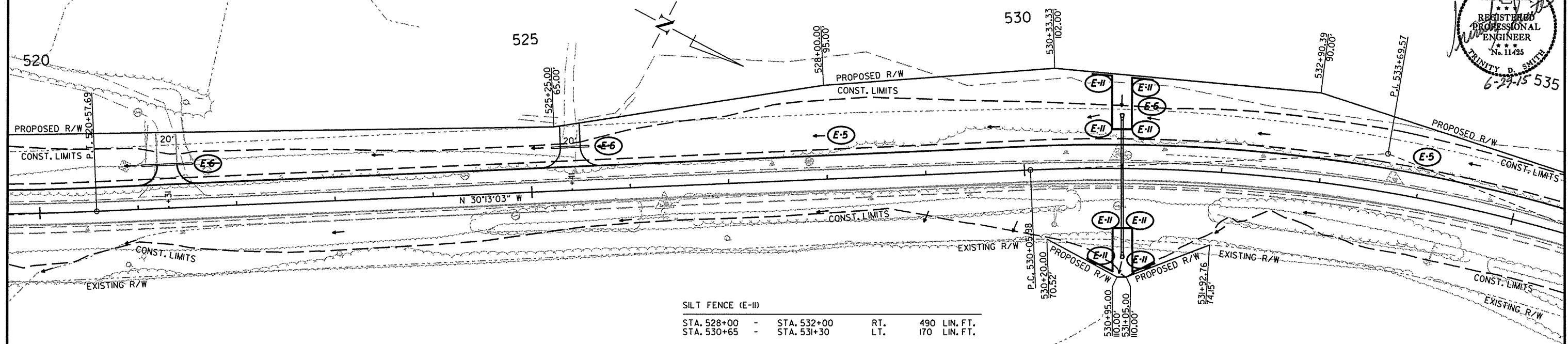
2 TEMPORARY EROSION CONTROL DETAILS



CLEARING AND GRUBBING
STA. 520+00 - STA. 535+00 LT. & RT. 15 STA.

SAND BAG DITCH CHECKS (E-5)
STA. 523+00 RT. 1 INSTALLATION 22 BAG
STA. 528+25 LT. 1 INSTALLATION 22 BAG
STA. 534+00 LT. & RT. 2 INSTALLATIONS 44 BAG

ROCK DITCH CHECKS (E-6)
STA. 520+50 LT. 1 INSTALLATION 3 CU. YDS.
STA. 525+60 LT. & RT. 2 INSTALLATIONS 6 CU. YDS.
STA. 530+15 LT. 1 INSTALLATION 3 CU. YDS.
STA. 531+00 RT. 1 INSTALLATION 3 CU. YDS.



SILT FENCE (E-II)
STA. 528+00 - STA. 532+00 RT. 490 LIN. FT.
STA. 530+65 - STA. 531+30 LT. 170 LIN. FT.

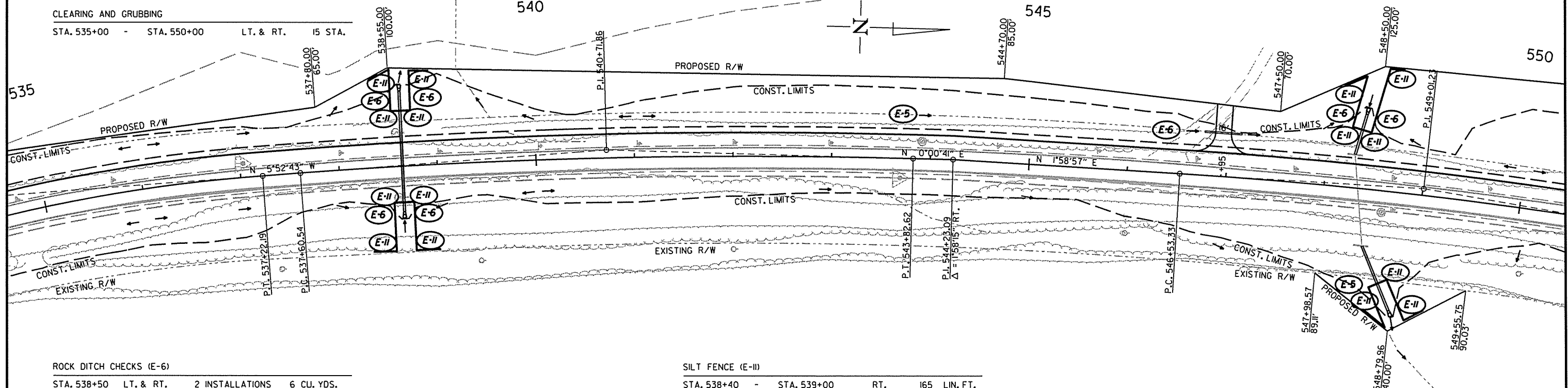
REVISIONS

DATE	REVISION

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)
STA. 543+75 LT. & RT. 2 INSTALLATIONS 44 BAG
STA. 546+50 RT. 1 INSTALLATION 22 BAG
STA. 548+50 RT. 1 INSTALLATION 22 BAG

CLEARING AND GRUBBING
STA. 535+00 - STA. 550+00 LT. & RT. 15 STA.



ROCK DITCH CHECKS (E-6)
STA. 538+50 LT. & RT. 2 INSTALLATIONS 6 CU. YDS.
STA. 538+85 LT. & RT. 2 INSTALLATIONS 6 CU. YDS.
STA. 545+75 LT. 1 INSTALLATION 3 CU. YDS.
STA. 548+15 LT. 1 INSTALLATION 3 CU. YDS.
STA. 548+50 LT. 1 INSTALLATION 3 CU. YDS.

SILT FENCE (E-II)
STA. 538+40 - STA. 539+00 RT. 165 LIN. FT.
STA. 538+40 - STA. 539+00 LT. 150 LIN. FT.
STA. 548+00 - STA. 548+75 LT. 180 LIN. FT.
STA. 548+50 - STA. 550+50 RT. 310 LIN. FT.

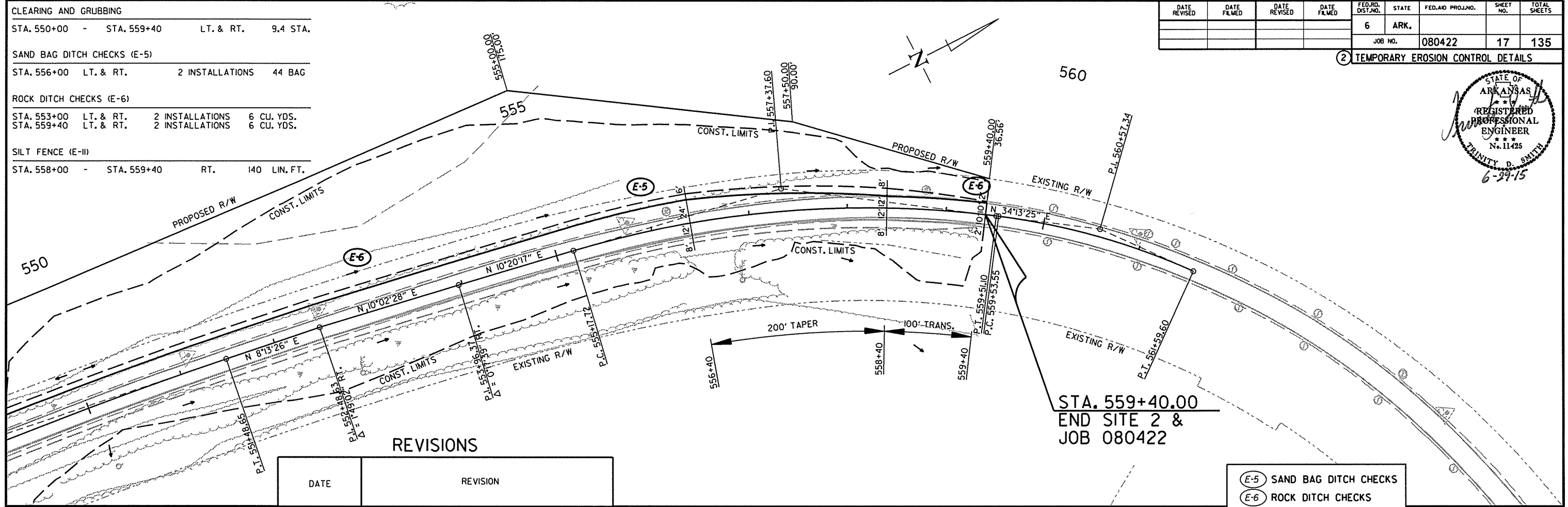
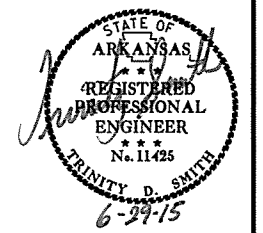
SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 1

3/18/2015
R080422.DGN

CLEARING AND GRUBBING			
STA. 550+00 - STA. 559+40	LT. & RT.	9.4 STA.	
SAND BAG DITCH CHECKS (E-5)			
STA. 556+00	LT. & RT.	2 INSTALLATIONS	44 BAG
ROCK DITCH CHECKS (E-6)			
STA. 553+00	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 559+40	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
SILT FENCE (E-II)			
STA. 558+00 - STA. 559+40	RT.	140 LIN. FT.	

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							17	135

2 TEMPORARY EROSION CONTROL DETAILS



STA. 559+40.00
END SITE 2 &
JOB 080422

REVISIONS

DATE	REVISION

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

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SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 1

CLEARING AND GRUBBING

STA. 497+00 - STA. 505+00 LT. & RT. 8 STA.

SAND BAG DITCH CHECKS (E-5)

STA. 497+00 LT. & RT. 2 INSTALLATIONS 44 BAG
 STA. 500+00 RT. 1 INSTALLATION 22 BAG
 STA. 503+25 LT. 1 INSTALLATION 22 BAG

SILT FENCE (E-II)

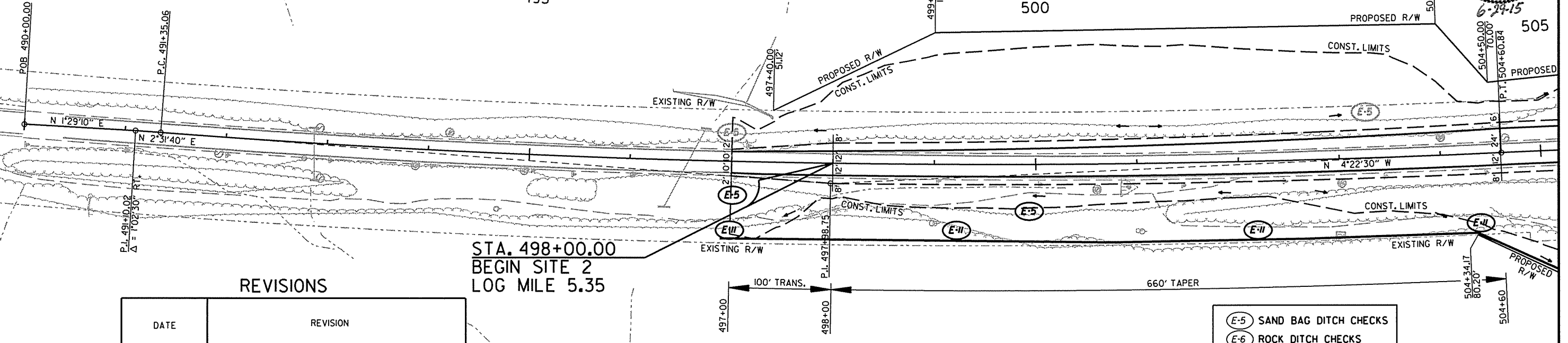
STA. 497+00 - STA. 505+00 RT. 825 LIN. FT.

490

495

500

505



STA. 498+00.00
 BEGIN SITE 2
 LOG MILE 5.35

REVISIONS

DATE	REVISION

SAND BAG DITCH CHECKS (E-5)

STA. 508+00 LT. 1 INSTALLATION 22 BAG
 STA. 514+10 LT. 1 INSTALLATION 22 BAG

ROCK DITCH CHECKS (E-6)

STA. 505+40 LT. 1 INSTALLATION 3 CU. YDS.
 STA. 505+70 LT. 1 INSTALLATION 3 CU. YDS.
 STA. 510+80 LT. 1 INSTALLATION 3 CU. YDS.
 STA. 514+00 RT. 1 INSTALLATION 3 CU. YDS.
 STA. 517+00 LT. & RT. 2 INSTALLATIONS 6 CU. YDS.

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-IV) SEDIMENT BASIN

505

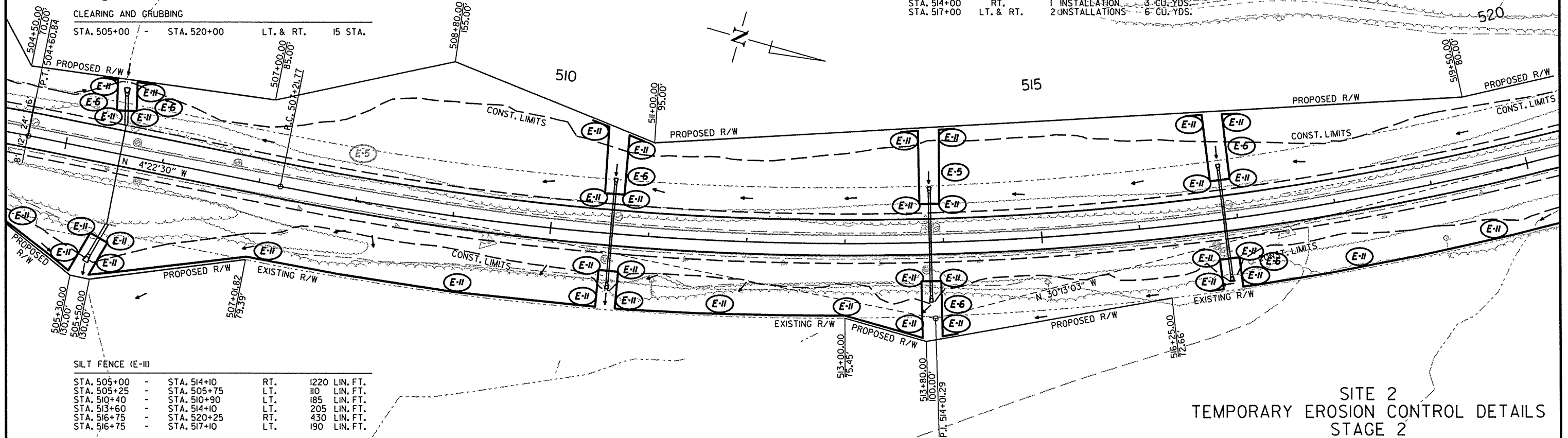
CLEARING AND GRUBBING

STA. 505+00 - STA. 520+00 LT. & RT. 15 STA.

510

515

520



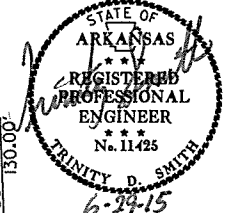
SILT FENCE (E-II)

STA. 505+00 - STA. 514+10 RT. 1220 LIN. FT.
 STA. 505+25 - STA. 505+75 LT. 110 LIN. FT.
 STA. 510+40 - STA. 510+90 LT. 185 LIN. FT.
 STA. 513+60 - STA. 514+10 LT. 205 LIN. FT.
 STA. 516+75 - STA. 520+25 RT. 430 LIN. FT.
 STA. 516+75 - STA. 517+10 LT. 190 LIN. FT.

SITE 2
 TEMPORARY EROSION CONTROL DETAILS
 STAGE 2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		18	135
JOB NO. 080422							18	135

2 TEMPORARY EROSION CONTROL DETAILS

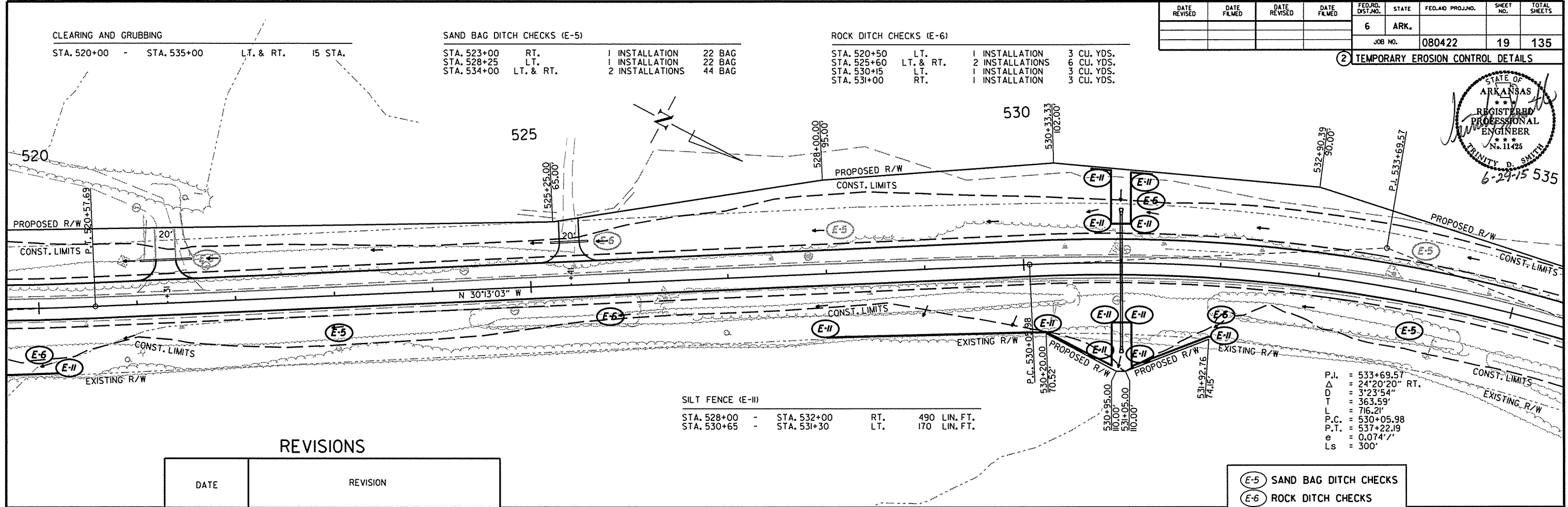


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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							19	135

2 TEMPORARY EROSION CONTROL DETAILS



SILT FENCE (E-II)

STA. 528+00	-	STA. 532+00	RT.	490 LIN. FT.
STA. 530+65	-	STA. 531+30	LT.	170 LIN. FT.

Curve Data:

P.I.	=	533+69.57
Δ	=	24°20'20" RT.
D	=	3°23'54"
T	=	363.59'
L	=	716.21'
P.C.	=	530+05.98
P.T.	=	537+22.19
e	=	0.074' /'
Ls	=	300'

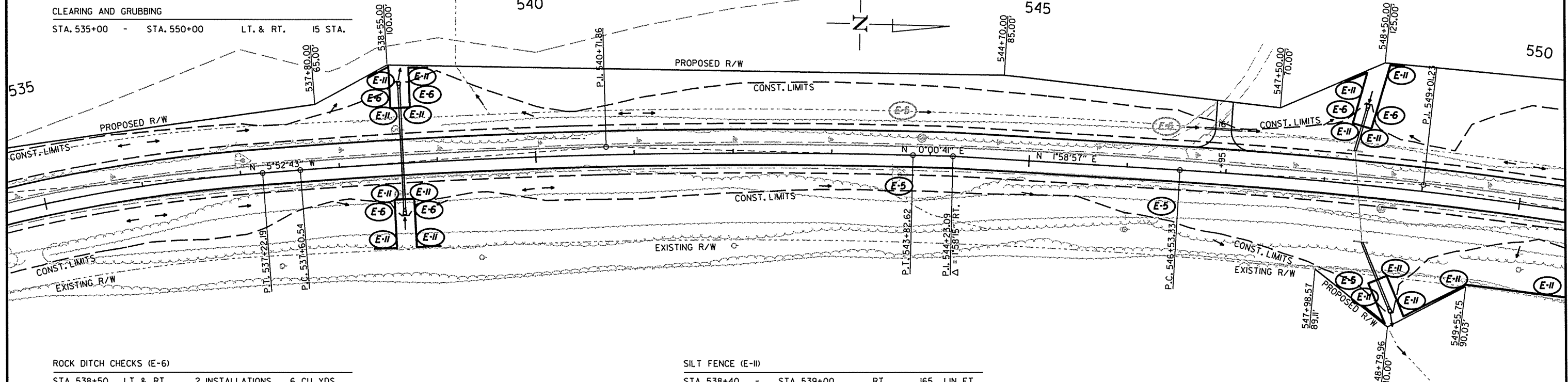
REVISIONS

DATE	REVISION

- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-1A) SEDIMENT BASIN

SAND BAG DITCH CHECKS (E-5)

STA. 543+75	LT. & RT.	2 INSTALLATIONS	44 BAG
STA. 546+50	RT.	1 INSTALLATION	22 BAG
STA. 548+50	RT.	1 INSTALLATION	22 BAG



ROCK DITCH CHECKS (E-6)

STA. 538+50	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 538+85	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 545+75	LT.	1 INSTALLATION	3 CU. YDS.
STA. 548+15	LT.	1 INSTALLATION	3 CU. YDS.
STA. 548+50	LT.	1 INSTALLATION	3 CU. YDS.

SILT FENCE (E-II)

STA. 538+40	-	STA. 539+00	RT.	165 LIN. FT.
STA. 538+40	-	STA. 539+00	LT.	150 LIN. FT.
STA. 548+00	-	STA. 548+75	LT.	180 LIN. FT.
STA. 548+50	-	STA. 550+50	RT.	310 LIN. FT.

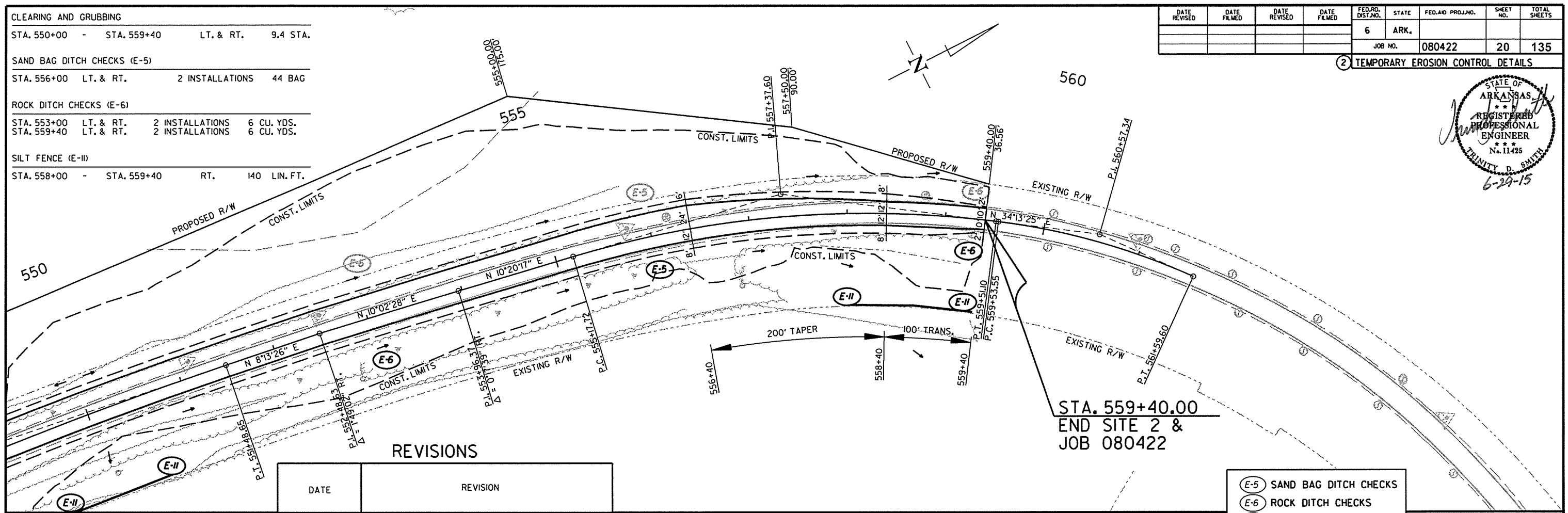
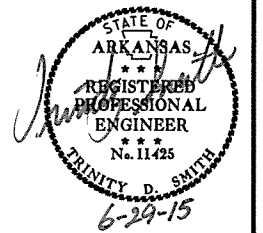
SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

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CLEARING AND GRUBBING			
STA. 550+00 - STA. 559+40	LT. & RT.	9.4 STA.	
SAND BAG DITCH CHECKS (E-5)			
STA. 556+00	LT. & RT.	2 INSTALLATIONS	44 BAG
ROCK DITCH CHECKS (E-6)			
STA. 553+00	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
STA. 559+40	LT. & RT.	2 INSTALLATIONS	6 CU. YDS.
SILT FENCE (E-II)			
STA. 558+00 - STA. 559+40	RT.	140 LIN. FT.	

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. 080422							20	135

2 TEMPORARY EROSION CONTROL DETAILS



STA. 559+40.00
END SITE 2 &
JOB 080422

REVISIONS

DATE	REVISION

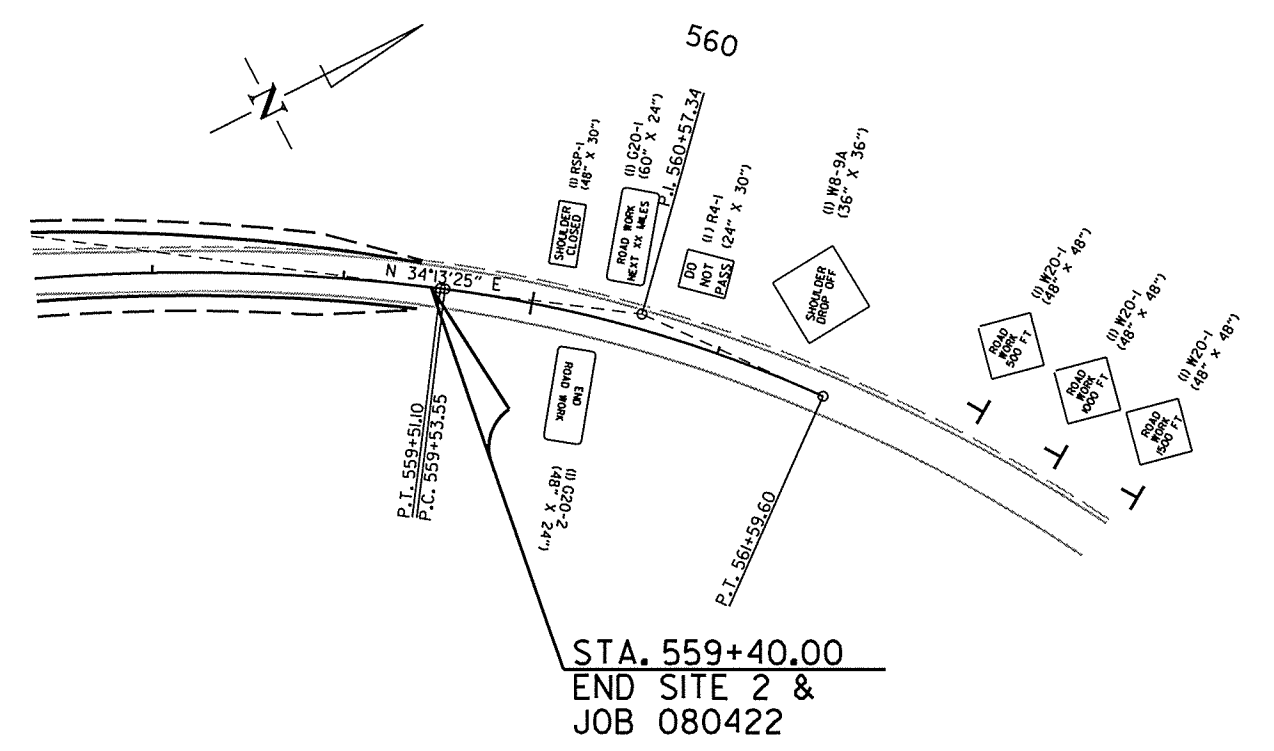
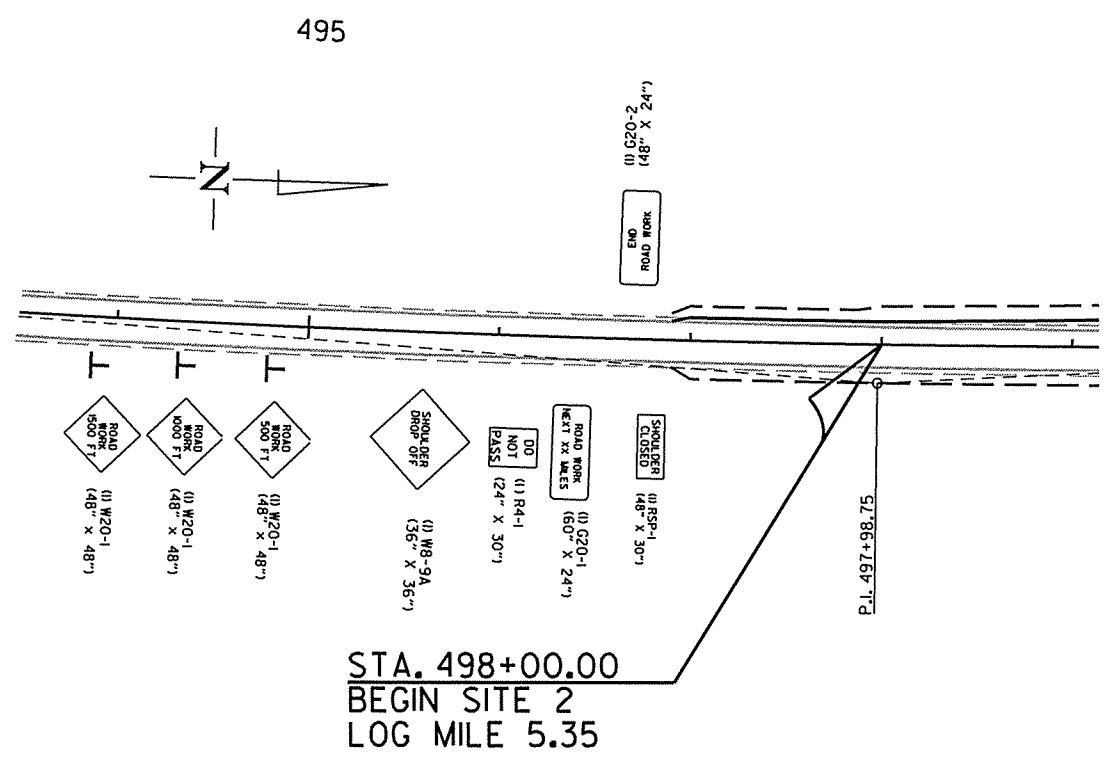
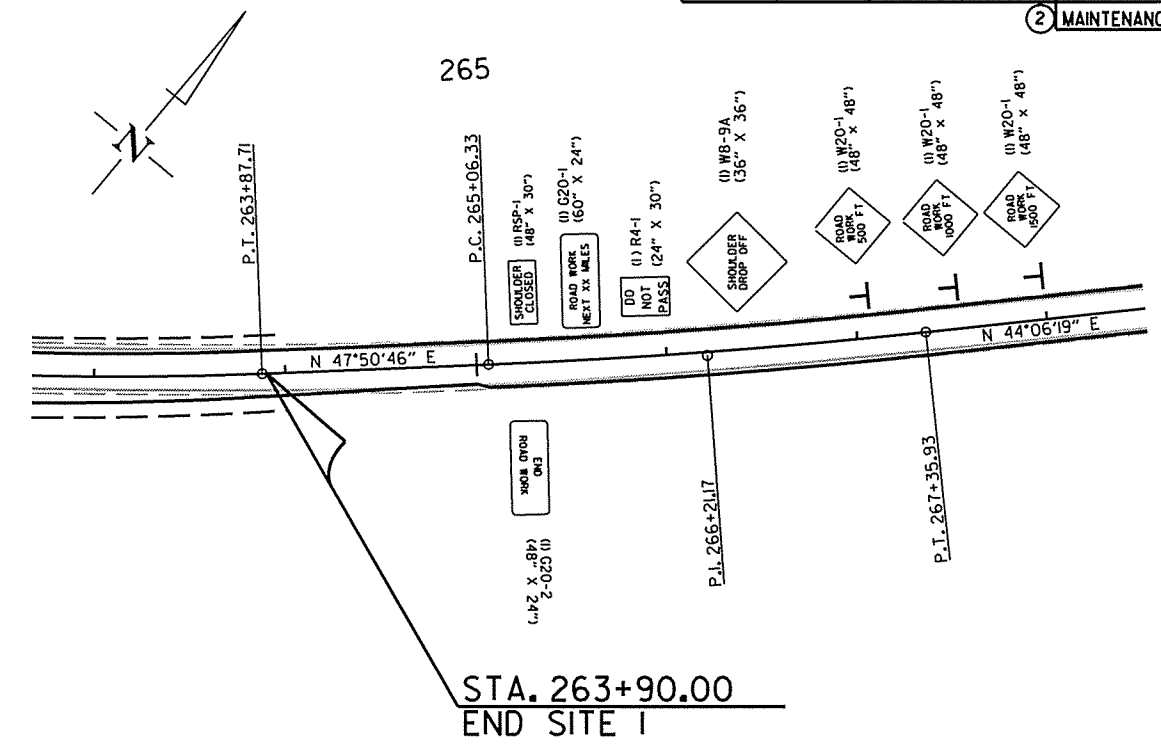
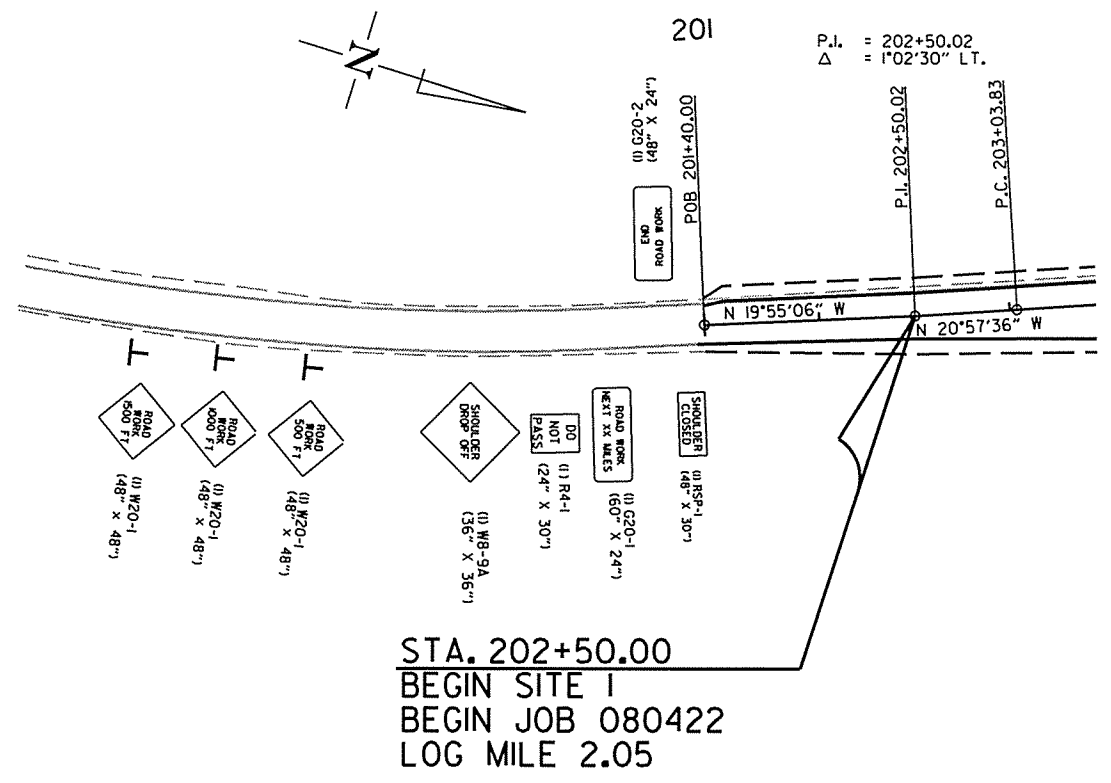
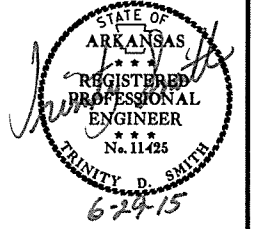
- (E-5) SAND BAG DITCH CHECKS
- (E-6) ROCK DITCH CHECKS
- (E-II) SILT FENCE
- (E-14) SEDIMENT BASIN

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SITE 2
TEMPORARY EROSION CONTROL DETAILS
STAGE 2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. PROJ. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		21	135

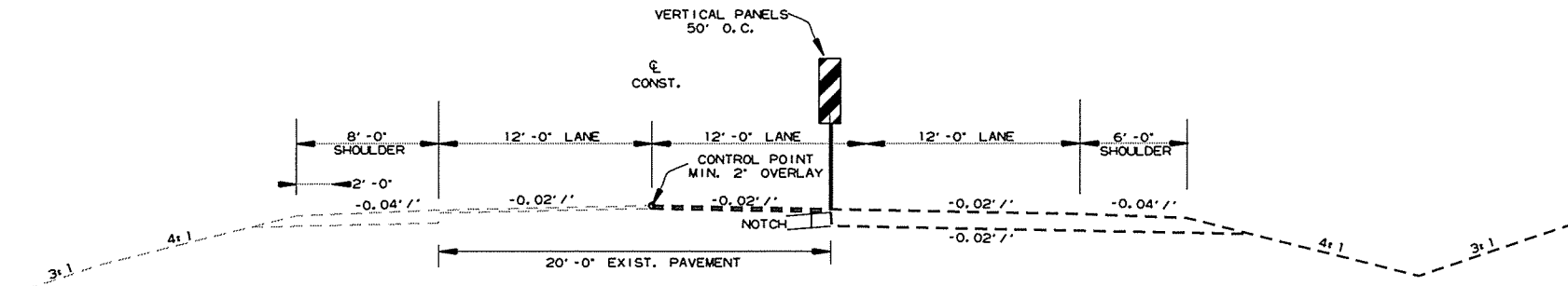
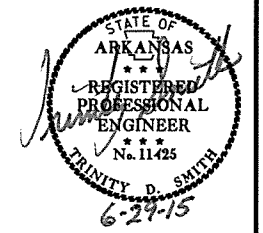
2 MAINTENANCE OF TRAFFIC DETAILS



MAINTENANCE OF TRAFFIC DETAILS

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. 080422							22	135

② MAINTENANCE OF TRAFFIC DETAILS



OVERLAY TANGENT - NORTHBOUND (RIGHT SIDE) WIDENING
STAGE 1

STA. 202+50.00 - STA. 263+90.00

SEQUENCING:

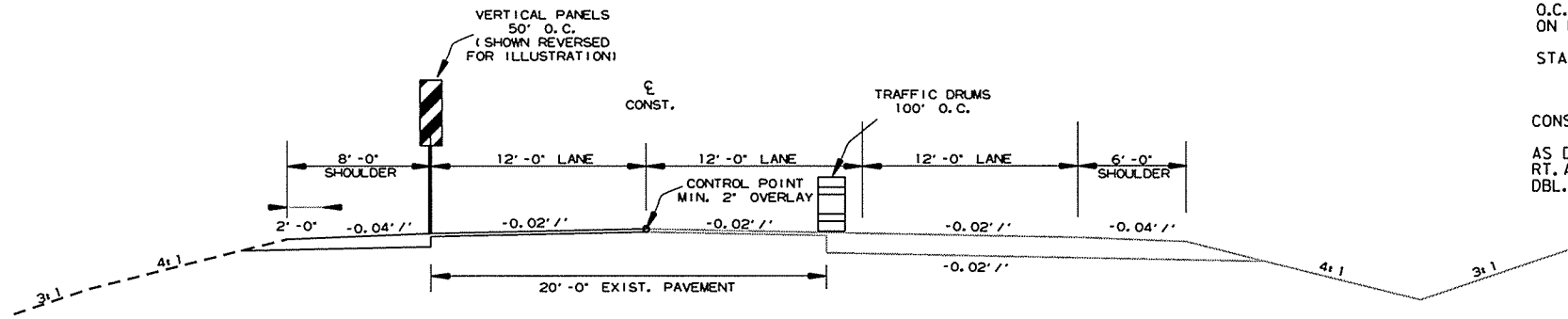
STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY, EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS, PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS, NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON RT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.

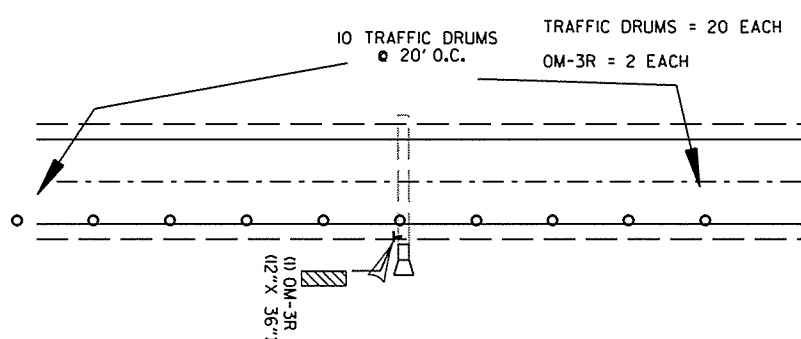
CONSTRUCTION PAVEMENT MARKINGS - SITE 1

AS DIRECTED BY THE ENGINEER OVER LEVELING COURSE:
RT. AND LT. EDGE LINES = 12280 LIN. FT.
DBL. CENTERLINE = 12280 LIN. FT.



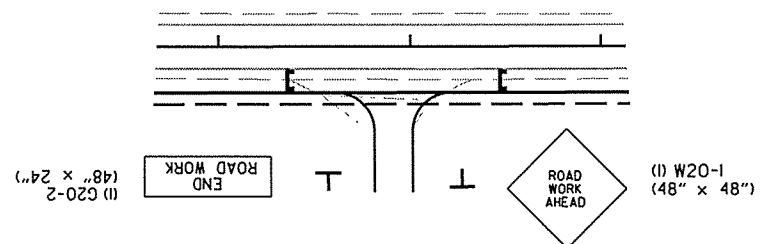
OVERLAY TANGENT - NORTHBOUND FINAL SURFACING
STAGE 2

STA. 202+50.00 - STA. 263+90.00



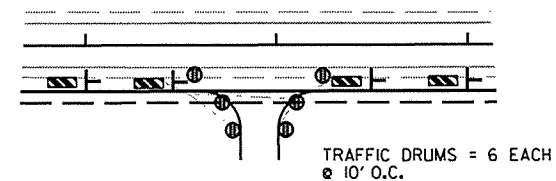
TRAFFIC DRUMS ON EXISTING SHOULDER
FOR EXTENDING PIPE CULVERTS LT. AND RT.

STA. 218+25 STA. 222+85
STA. 240+60 STA. 256+59



COUNTY ROAD, STATE HIGHWAY,
AND CITY STREET DETAIL

STA. 227+45



DRIVEWAY/TRAFFIC DRUM DETAIL

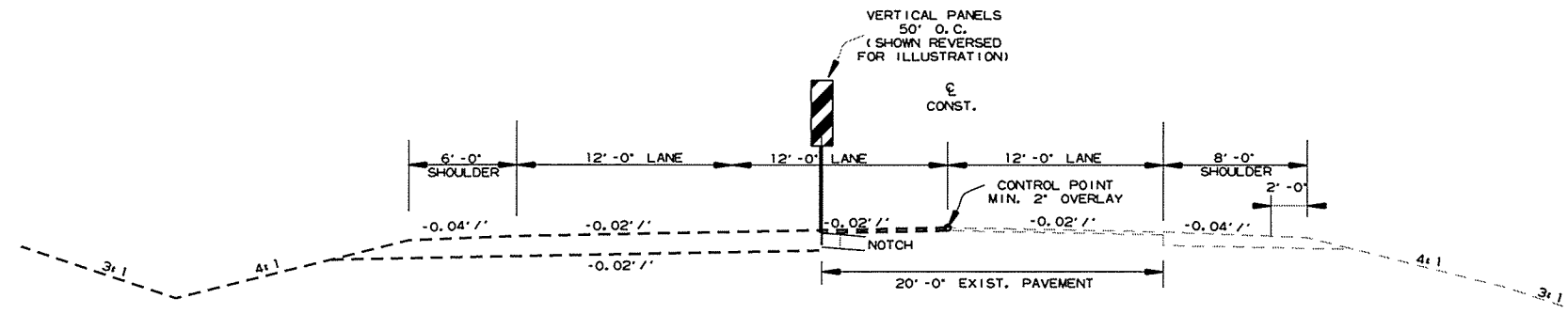
TRAFFIC DRUMS = 6 EACH
@ 10' O.C.

MAINTENANCE OF TRAFFIC DETAILS
SITE 1

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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.	080422		23	135

② MAINTENANCE OF TRAFFIC DETAILS



OVERLAY TANGENT - SOUTHBOUND (LEFT SIDE) WIDENING
STAGE 2

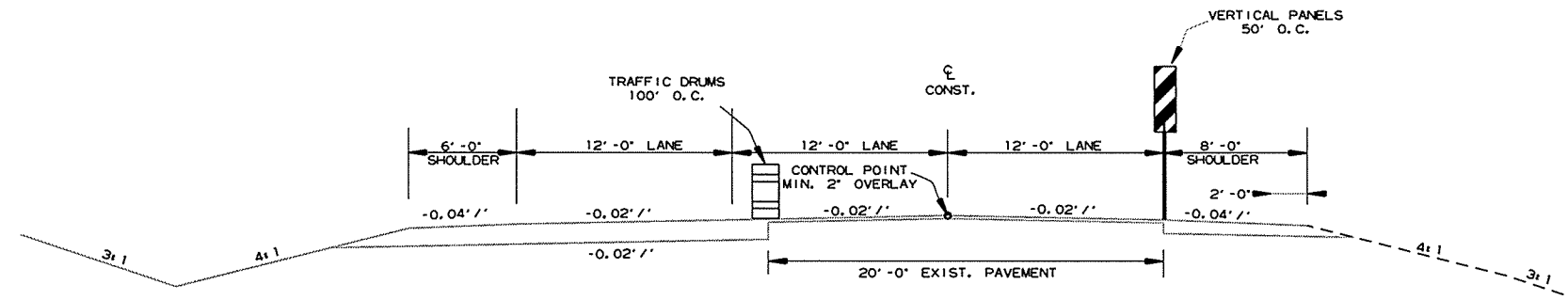
STA. 498+00.00 - STA. 559+40.00

SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS, NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON LT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.

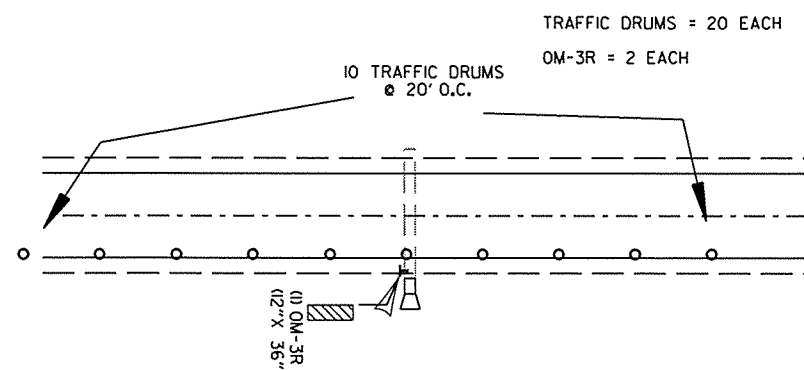


OVERLAY TANGENT - SOUTHBOUND FINAL SURFACING
STAGE 2

STA. 498+00.00 - STA. 559+40.00

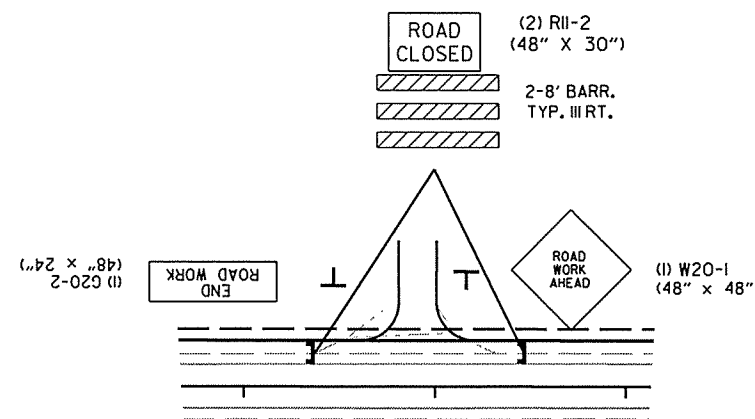
CONSTRUCTION PAVEMENT MARKINGS - SITE 2

AS DIRECTED BY THE ENGINEER OVER LEVELING COURSE:
RT. AND LT. EDGE LINES = 12080 LIN. FT.
DBL. CENTERLINE = 12080 LIN. FT.



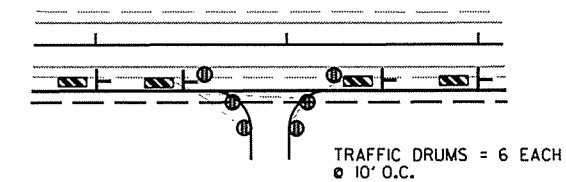
TRAFFIC DRUMS ON EXISTING SHOULDER
FOR EXTENDING PIPE CULVERTS LT. AND RT.

STA. 505+57 STA. 510+62 STA. 513+87
STA. 516+87 STA. 531+00 STA. 538+65
STA. 548+36



COUNTY ROAD, STATE HIGHWAY,
AND CITY STREET DETAIL

STA. 521+31



DRIVEWAY/TRAFFIC DRUM DETAIL

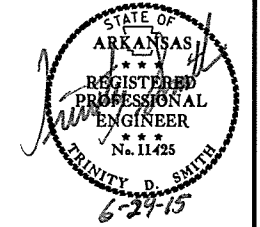
MAINTENANCE OF TRAFFIC DETAILS
SITE 2

3/19/2015

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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
							JOB NO. 080422	24	135

2 MAINTENANCE OF TRAFFIC DETAILS

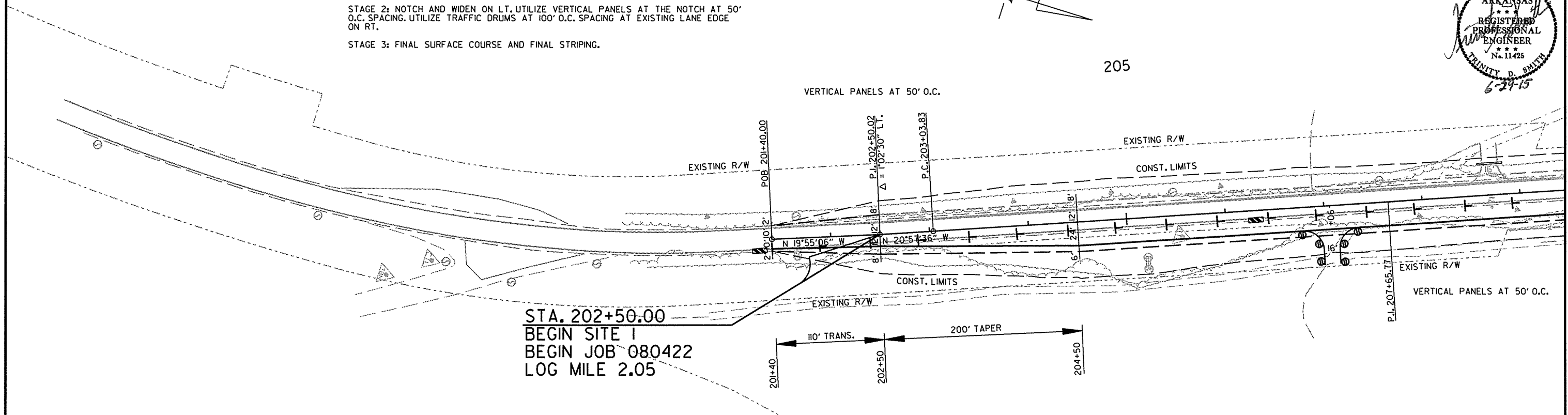


SEQUENCING:

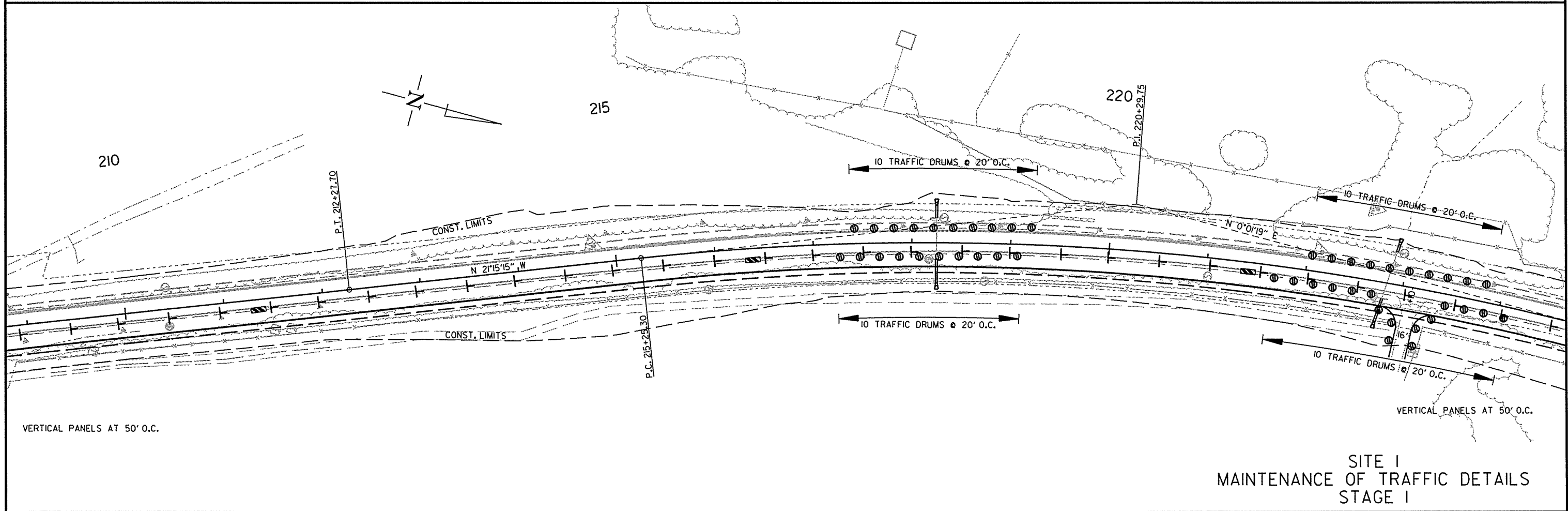
STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON RT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



STA. 202+50.00
 BEGIN SITE I
 BEGIN JOB 080422
 LOG MILE 2.05



SITE I
 MAINTENANCE OF TRAFFIC DETAILS
 STAGE I

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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		25	135

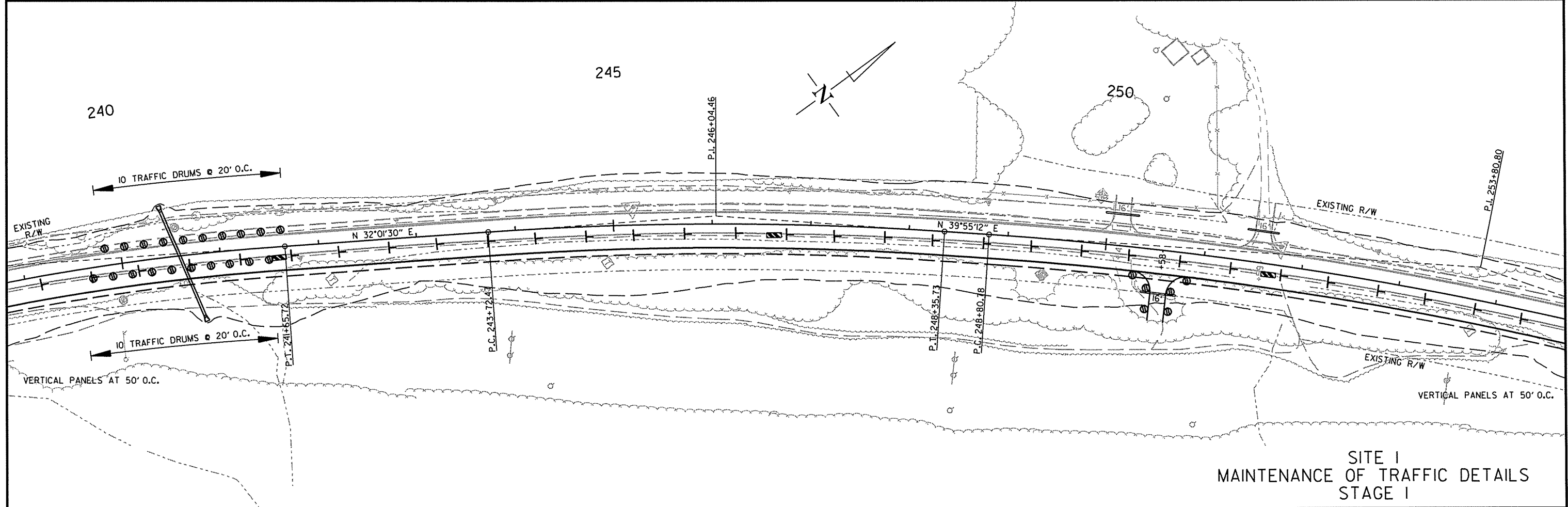
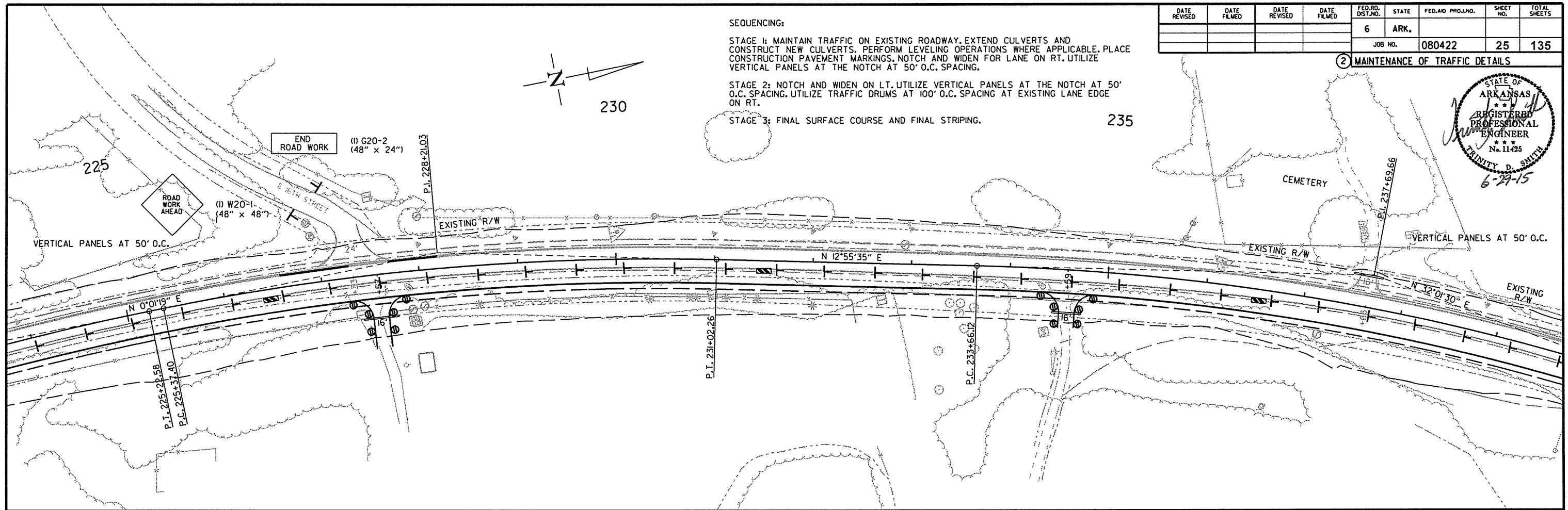
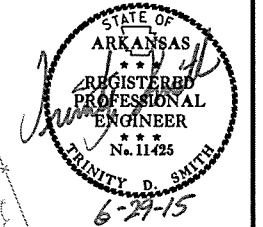
SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON RT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.

② MAINTENANCE OF TRAFFIC DETAILS



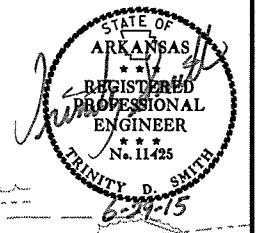
SITE I
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

3/19/2015

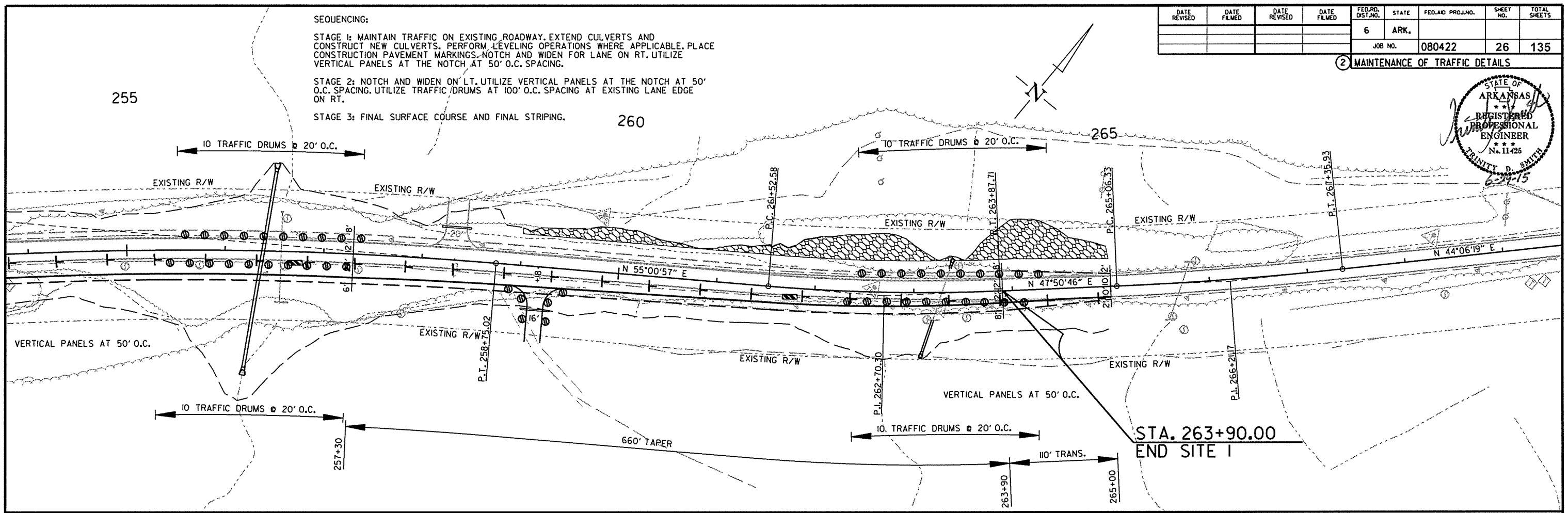
R080422.DGN

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. 080422							26	135

② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCING:
 STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS, NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.
 STAGE 2: 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 EXISTING LANE EDGE ON RT.
 STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



STA. 263+90.00
 END SITE I

3/19/2015
 R080422.DGN

SITE I
 MAINTENANCE OF TRAFFIC DETAILS
 STAGE 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. 080422	27	135

② MAINTENANCE OF TRAFFIC DETAILS

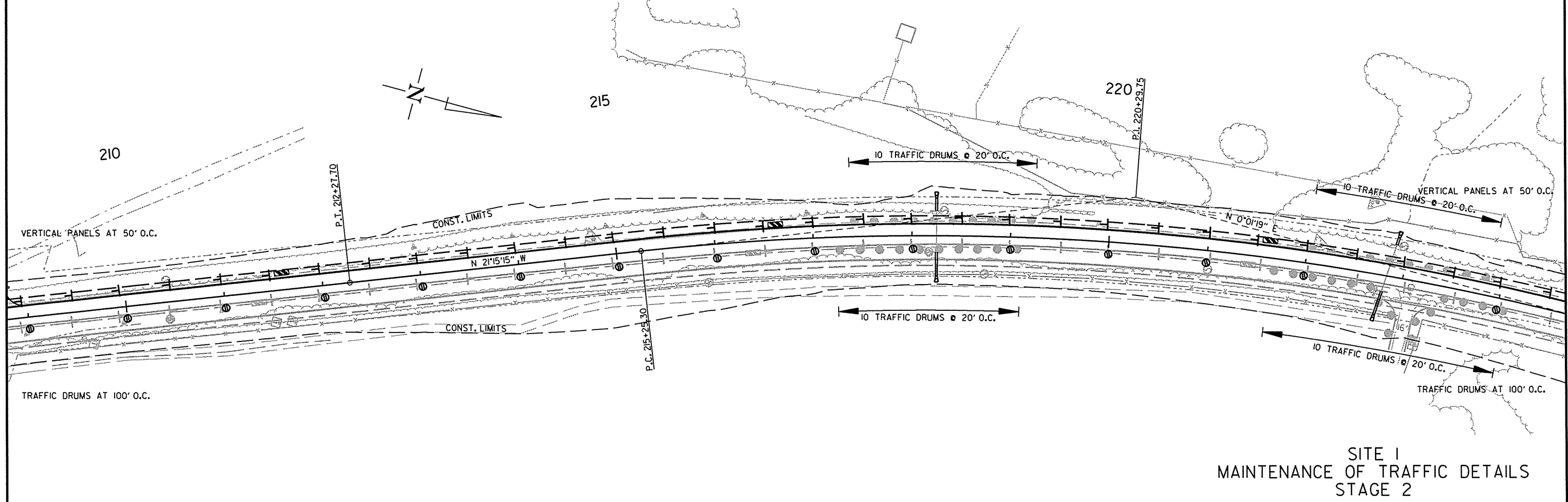
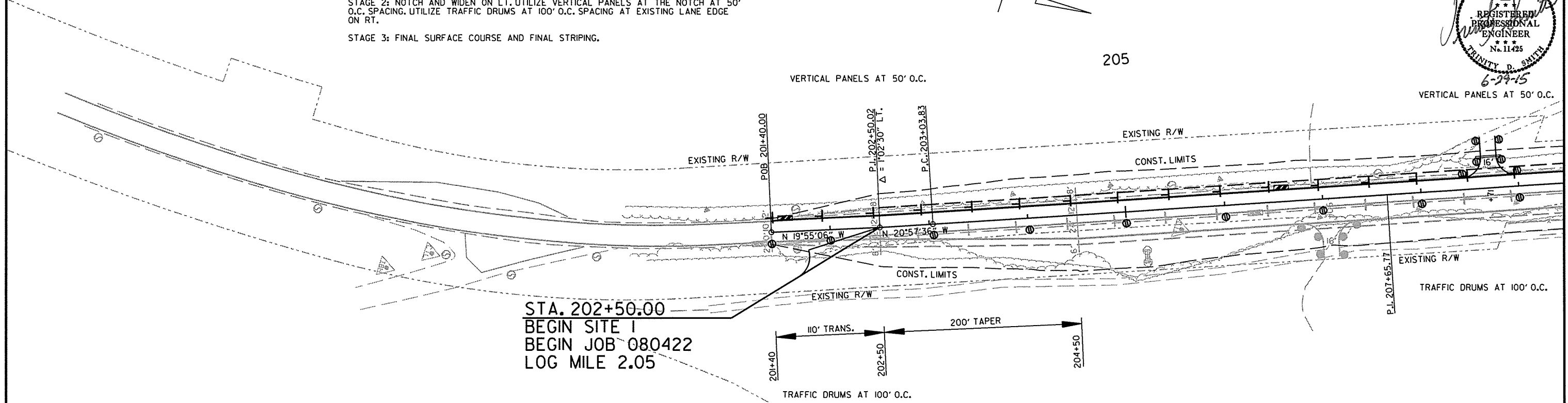


SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY, EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS, PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS, NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON RT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



SITE 1
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

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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.	080422		28	135

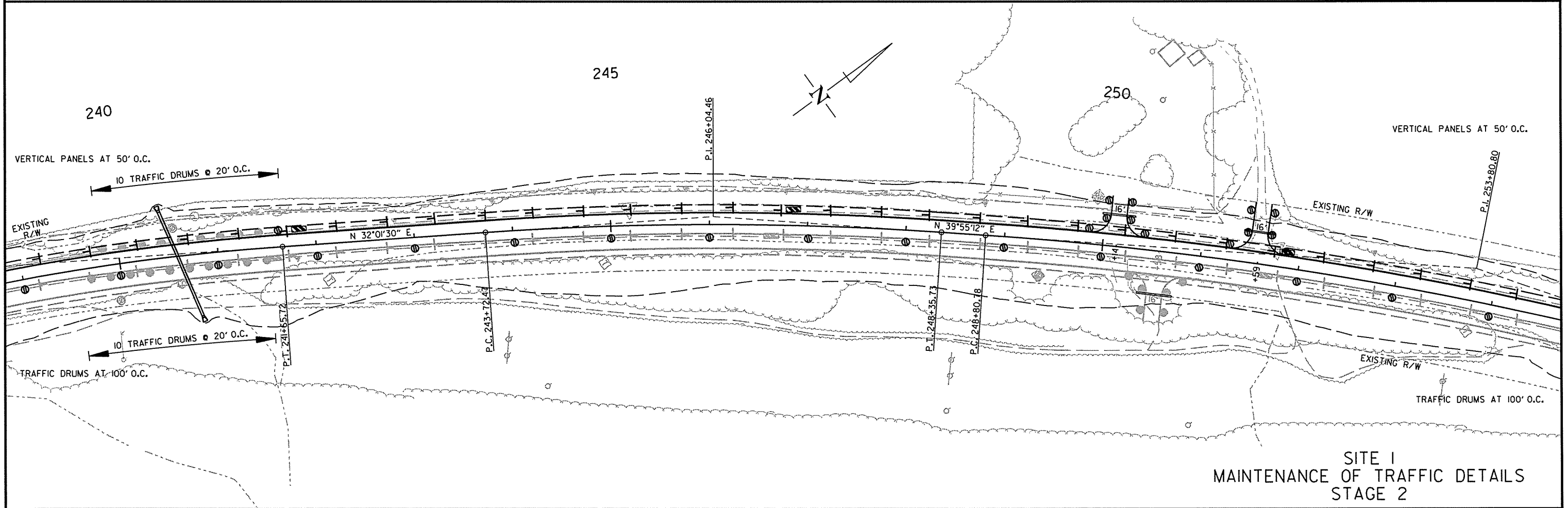
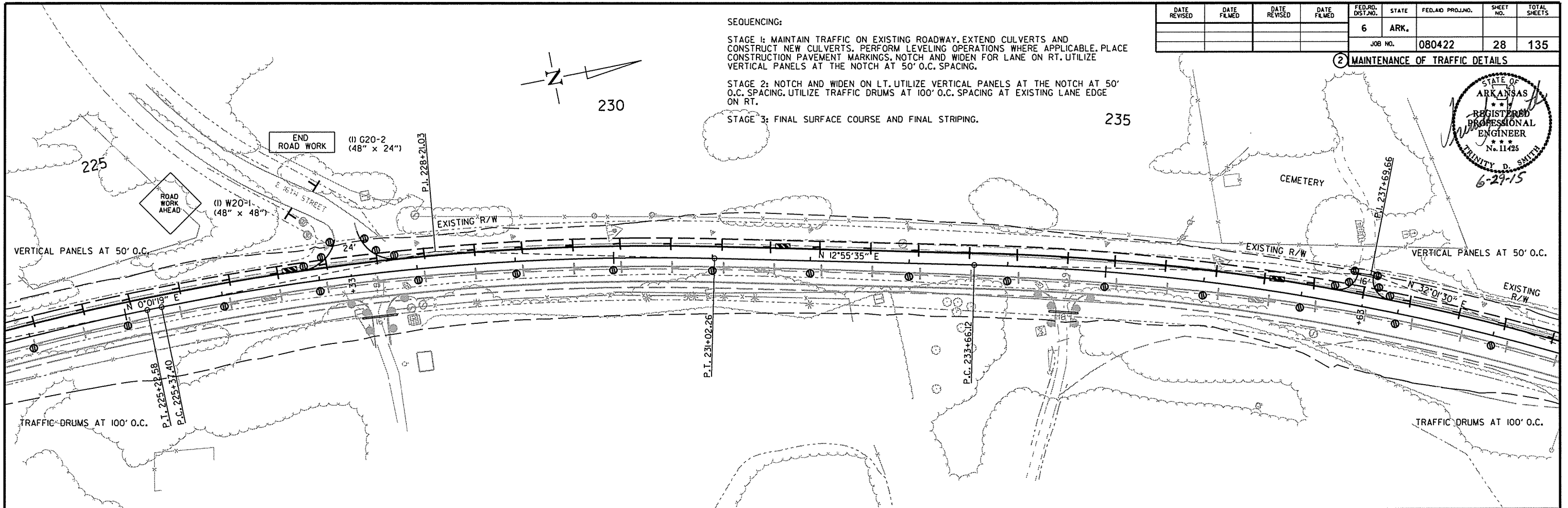
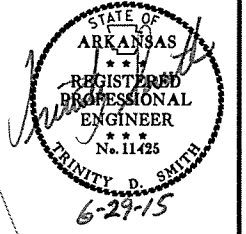
SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON RT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.

② MAINTENANCE OF TRAFFIC DETAILS



SITE I
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

3/19/2015

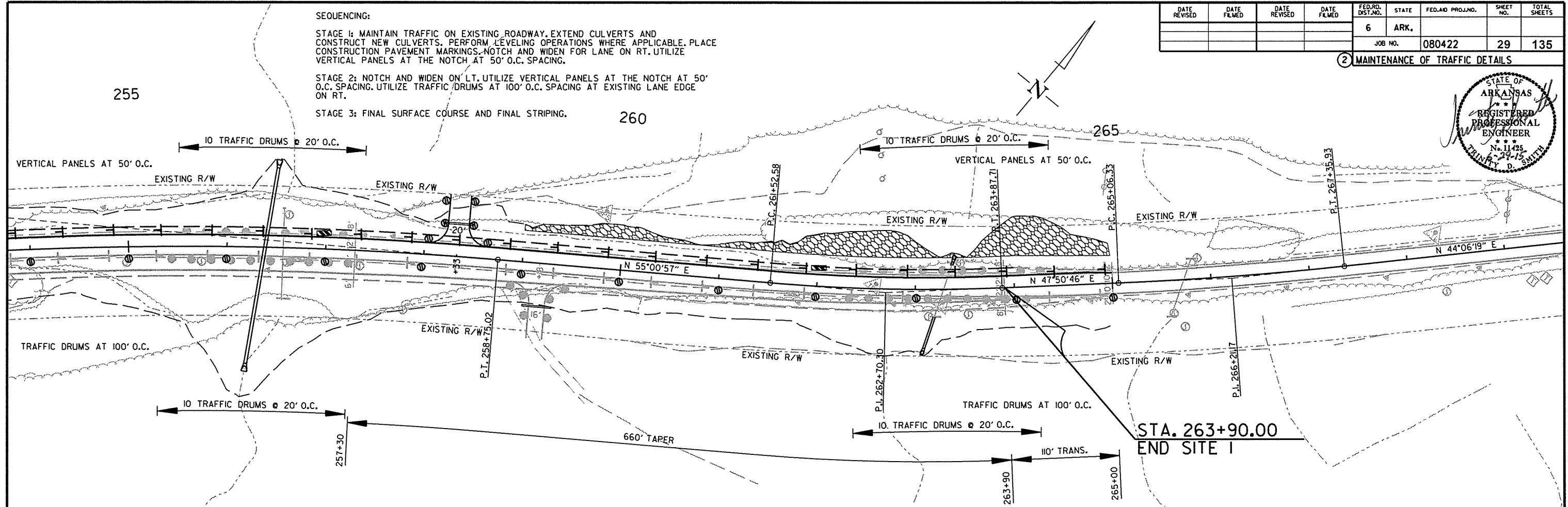
R080422.DGN

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. 080422	29	135

② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCING:
 STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON RT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.
 STAGE 2: 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 EXISTING LANE EDGE ON RT.
 STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



3/19/2015
 R080422.DGN

SITE I
 MAINTENANCE OF TRAFFIC DETAILS
 STAGE 2

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. 080422							30	135

② MAINTENANCE OF TRAFFIC DETAILS

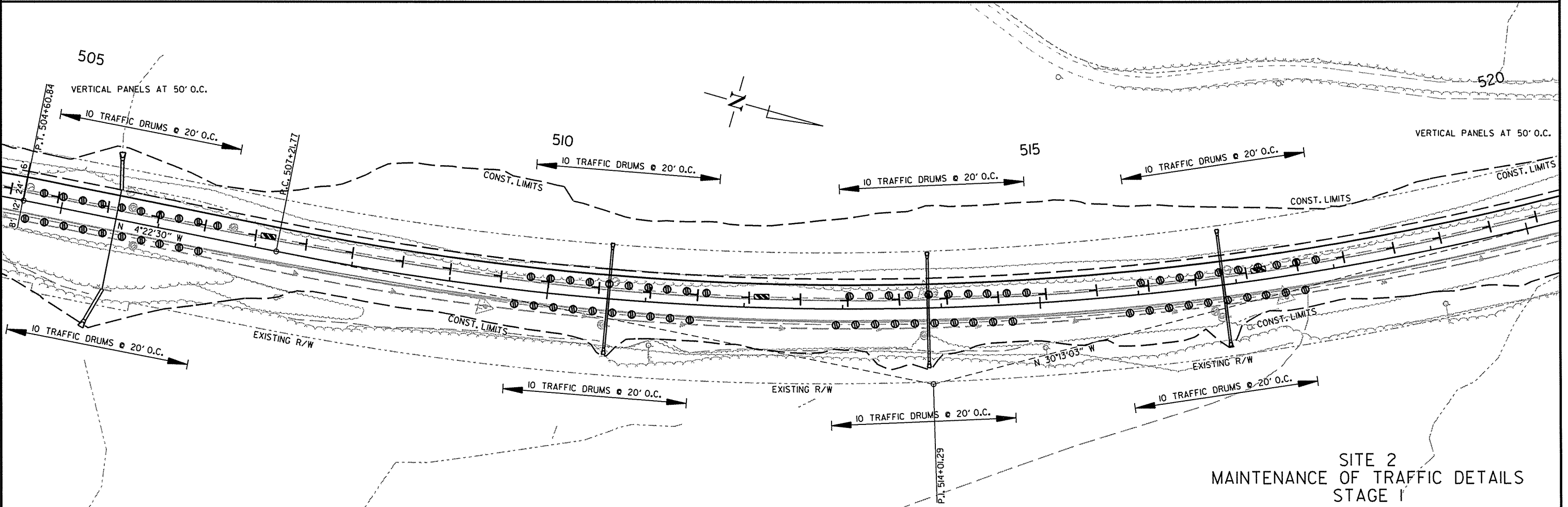
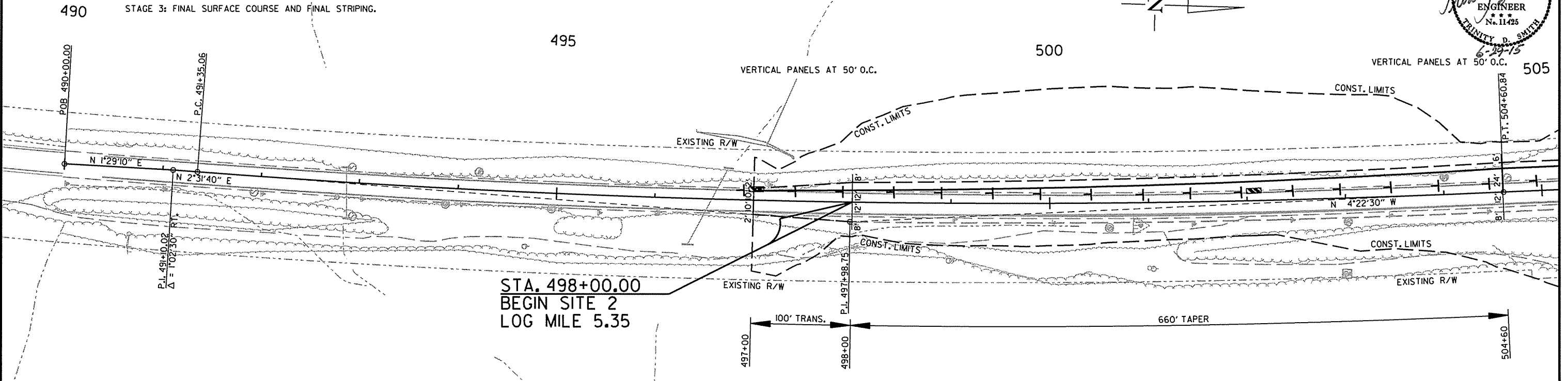


SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY, EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS, PERFORM LEVELING OPERATIONS WHERE APPLICABLE, PLACE CONSTRUCTION PAVEMENT MARKINGS, NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON LT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE I

3/19/2015

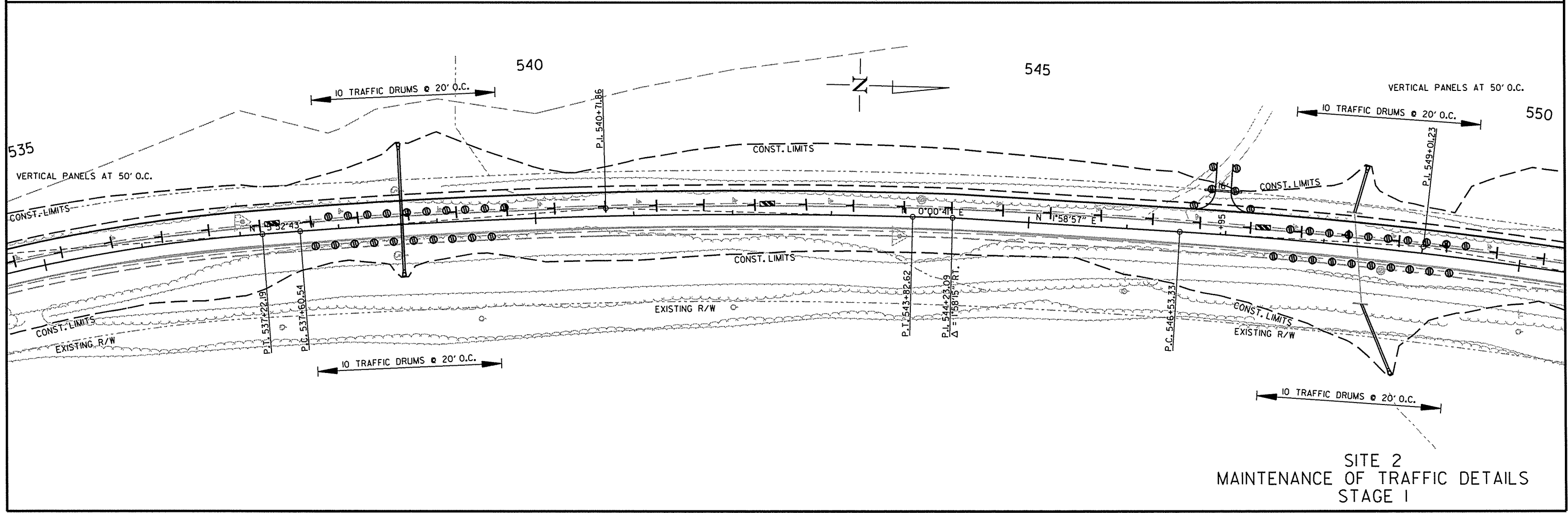
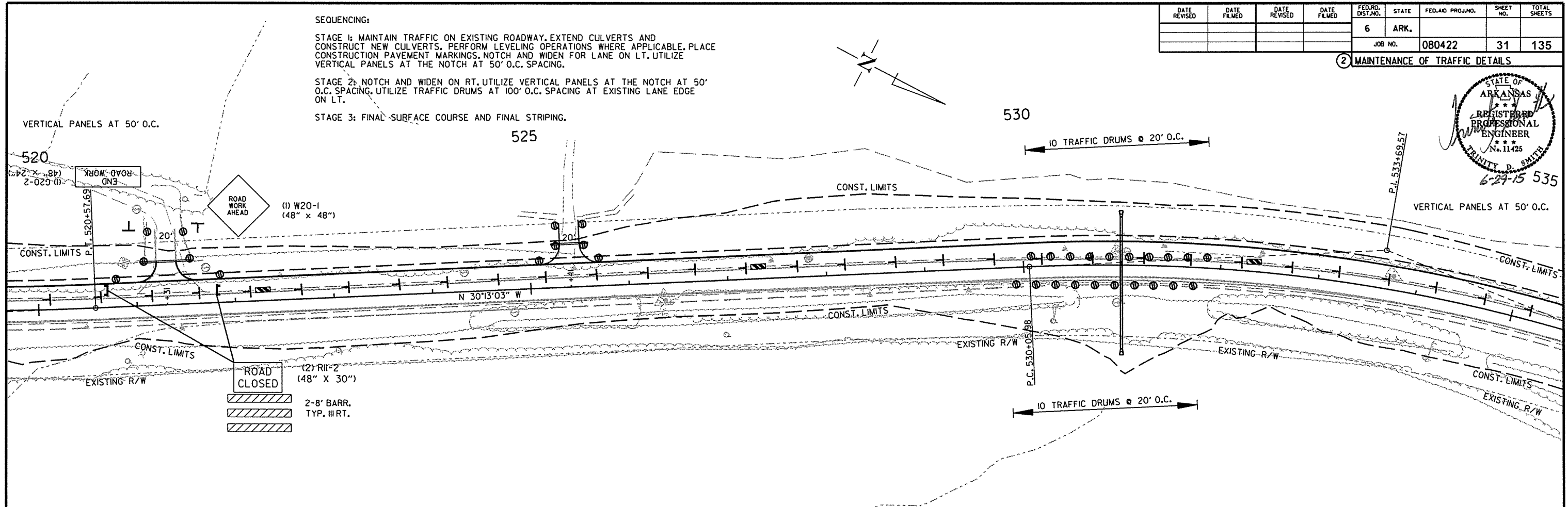
R080422.DGN

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. 080422	31	135

② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCING:
 STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY, EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS, PERFORM LEVELING OPERATIONS WHERE APPLICABLE, PLACE CONSTRUCTION PAVEMENT MARKINGS, NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.
 STAGE 2: 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 EXISTING LANE EDGE ON LT.
 STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



SITE 2
 MAINTENANCE OF TRAFFIC DETAILS
 STAGE 1

3/19/2015
 R080422.DGN

SEQUENCING:

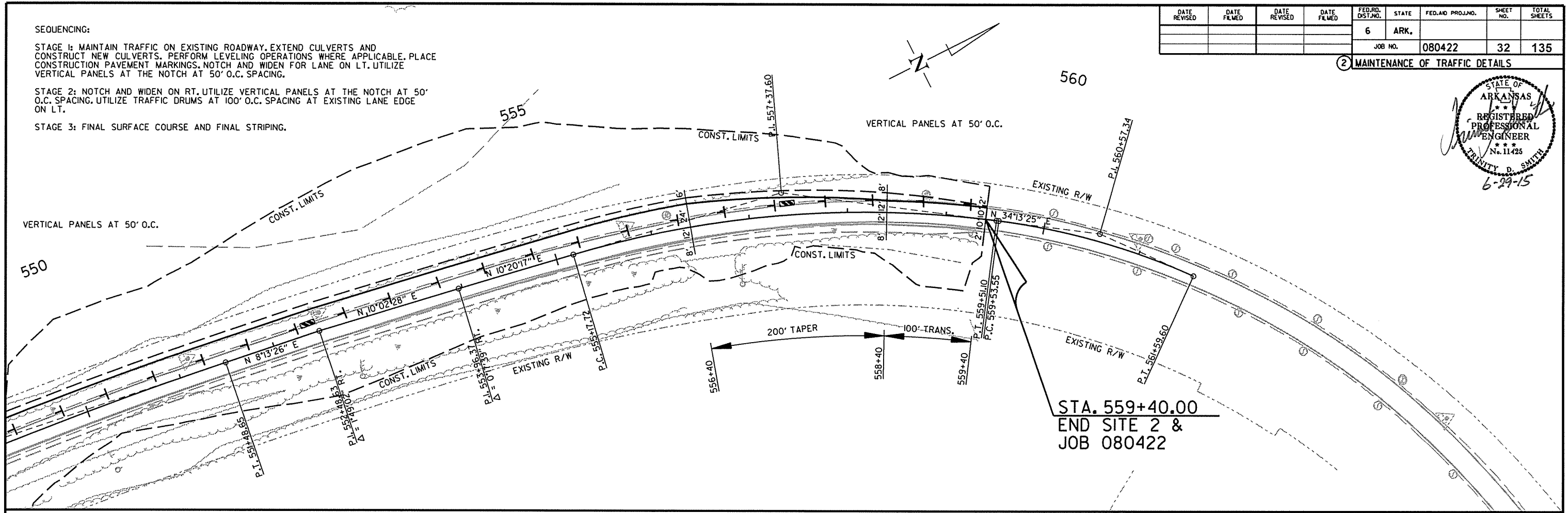
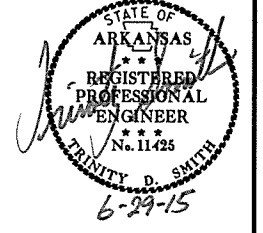
STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON LT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.

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.	080422		32	135

② MAINTENANCE OF TRAFFIC DETAILS



STA. 559+40.00
END SITE 2 &
JOB 080422

3/19/2015
R080422.DGN

SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 1

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. 080422							33	135

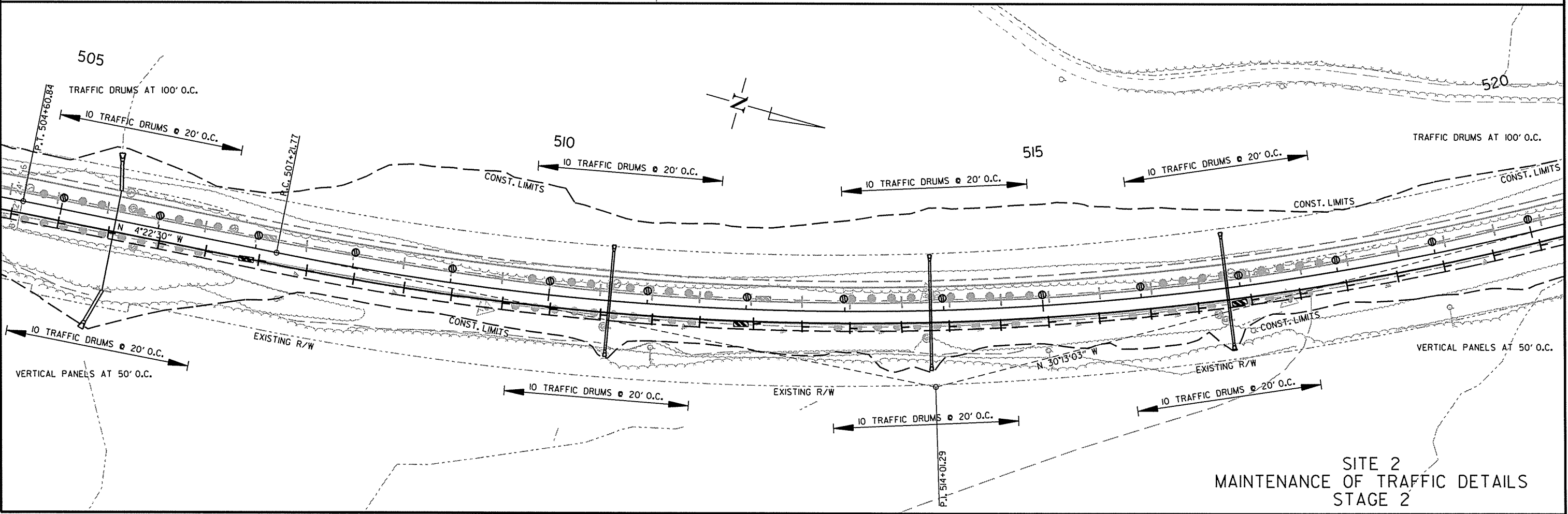
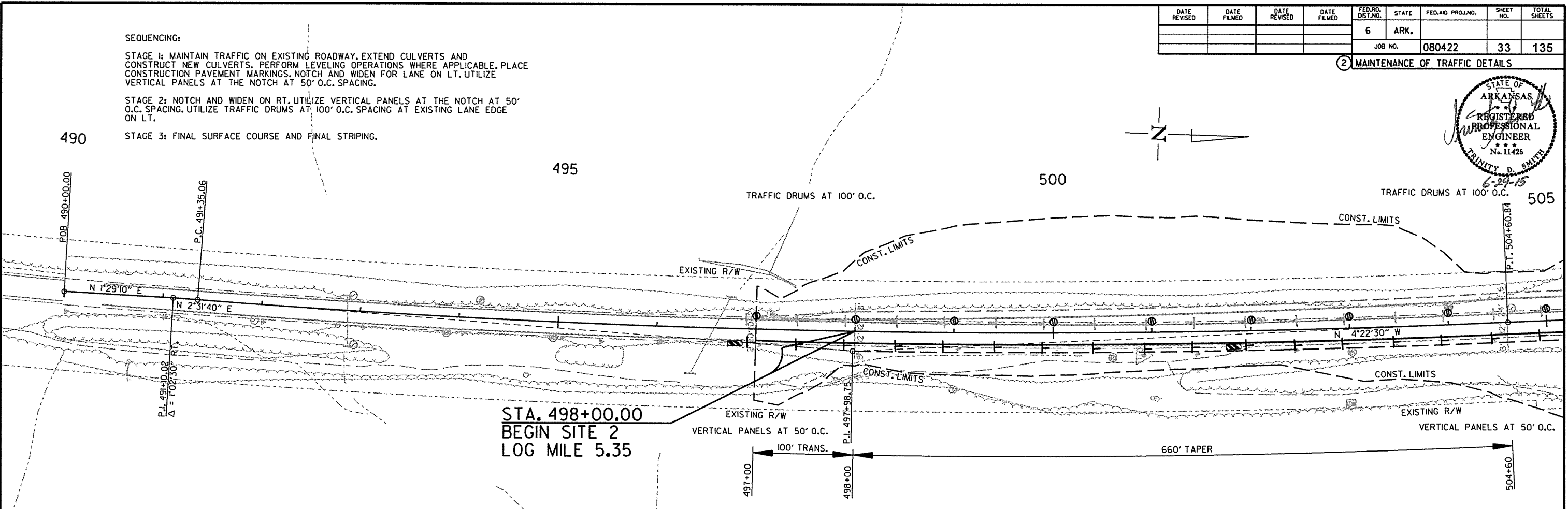
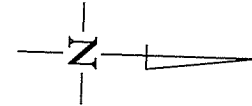
② MAINTENANCE OF TRAFFIC DETAILS

SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON LT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

3/19/2015

R080422.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		34	135

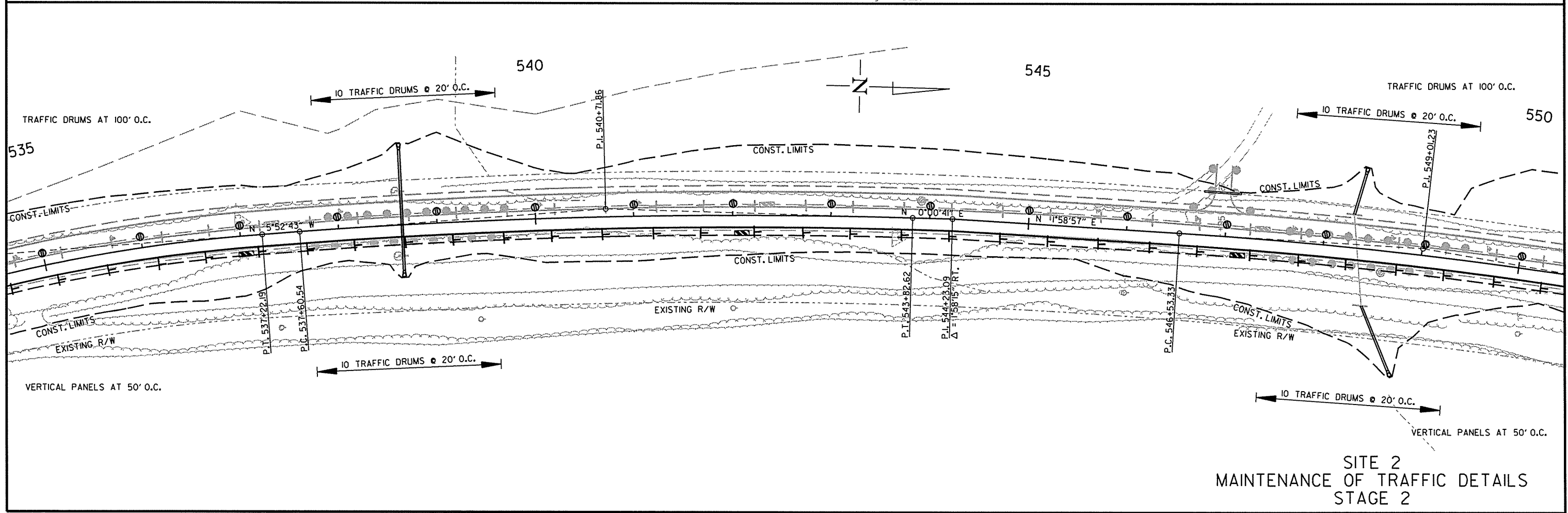
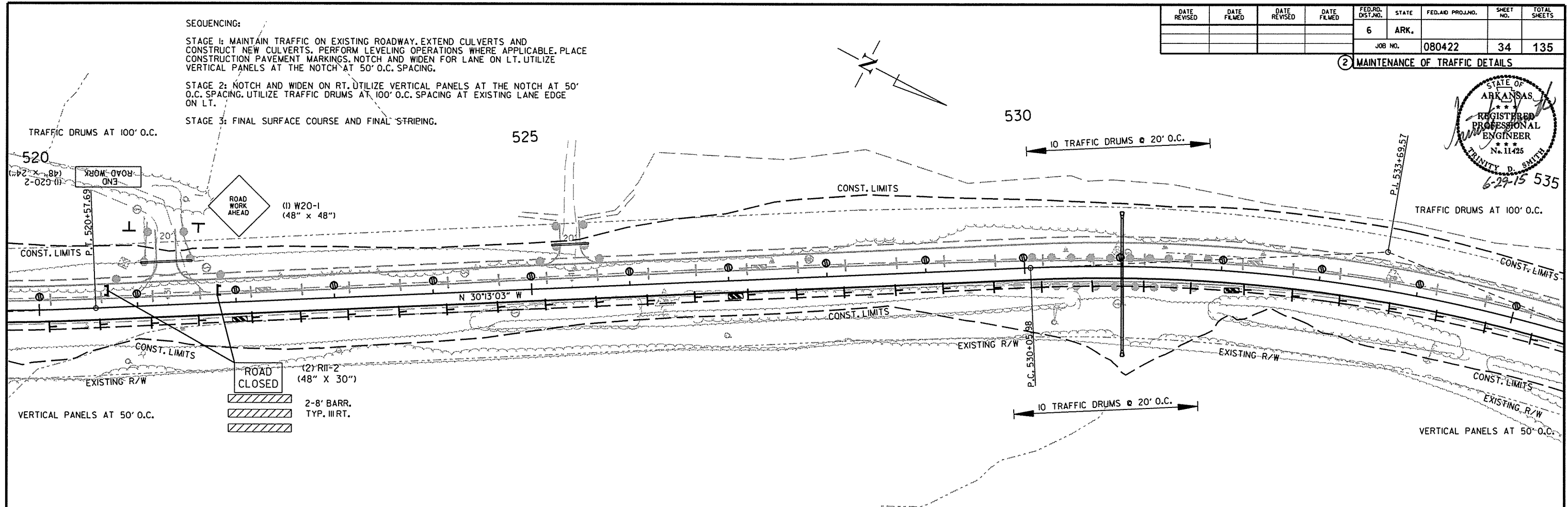
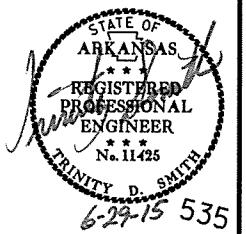
2 MAINTENANCE OF TRAFFIC DETAILS

SEQUENCING:

STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON LT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.



SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

3/19/2015

RO80422.DGN

SEQUENCING:

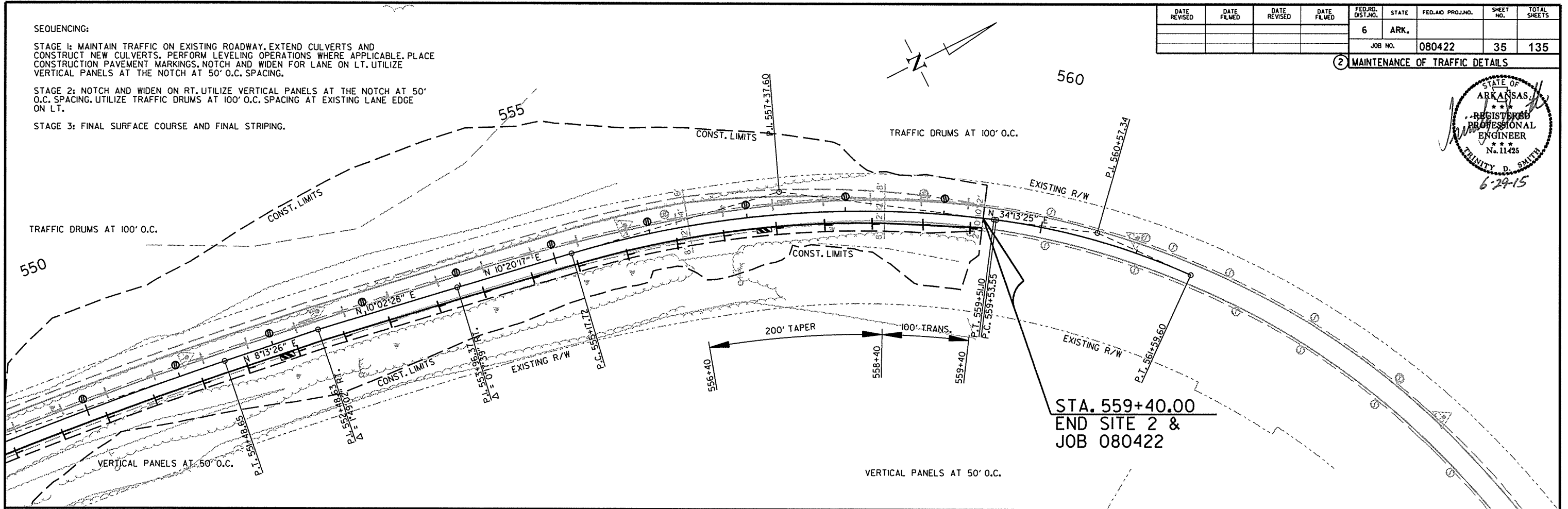
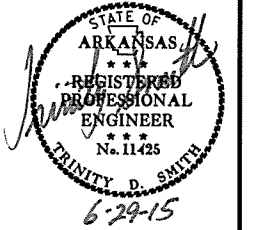
STAGE 1: MAINTAIN TRAFFIC ON EXISTING ROADWAY. EXTEND CULVERTS AND CONSTRUCT NEW CULVERTS. PERFORM LEVELING OPERATIONS WHERE APPLICABLE. PLACE CONSTRUCTION PAVEMENT MARKINGS. NOTCH AND WIDEN FOR LANE ON LT. UTILIZE VERTICAL PANELS AT THE NOTCH AT 50' O.C. SPACING.

STAGE 2: 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 EXISTING LANE EDGE ON LT.

STAGE 3: FINAL SURFACE COURSE AND FINAL STRIPING.

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.	080422		35	135

② MAINTENANCE OF TRAFFIC DETAILS



STA. 559+40.00
END SITE 2 &
JOB 080422

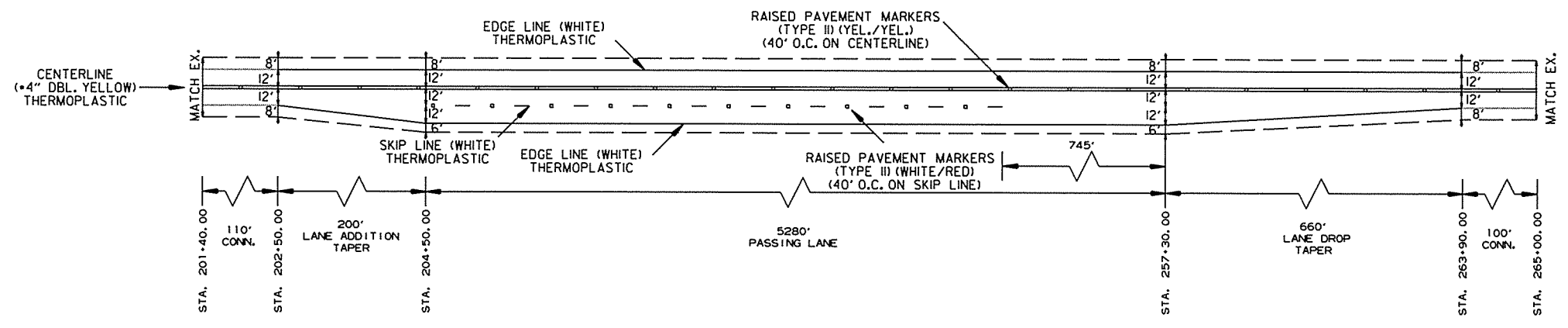
3/19/2015

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SITE 2
MAINTENANCE OF TRAFFIC DETAILS
STAGE 2

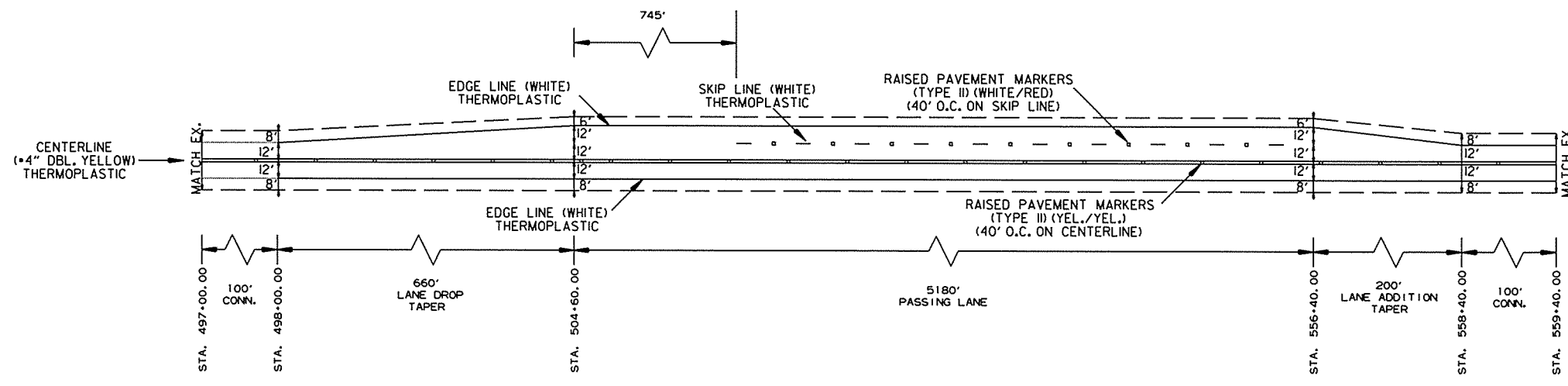
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							080422	36	135

2 PERMANENT PAVEMENT MARKING DETAILS



FINAL STRIPING - SITE 1:
THERMOPLASTIC PAVEMENT MARKINGS:
RT. AND LT. EDGE LINES = 12680 LIN. FT. WHITE
DBL. CENTERLINE = 12680 LIN. FT. YELLOW
SKIP LINE = 1134 LIN. FT. WHITE
RAISED PAVEMENT MARKERS:
TYPE II (YEL./YEL.) 40' O.C. ON CENTERLINE = 159 EACH
TYPE II (WHITE/RED) 40' O.C. ON SKIP LINE = 113 EACH

•THE 4" 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.
THE THERMOPLASTIC PAVEMENT MARKING YELLOW (4") QUANTITY IS ESTIMATED AND BASED ON THE PLACEMENT OF A DOUBLE YELLOW CENTERLINE FOR THE ENTIRE PROJECT. THE CONTRACTOR SHALL NOT PLACE ANY PERMANENT PAVEMENT MARKINGS UNTIL THE PASSING/NO PASSING ZONES HAVE BEEN ESTABLISHED BY THE MAINTENANCE DIVISION.



FINAL STRIPING - SITE 2:
THERMOPLASTIC PAVEMENT MARKINGS:
RT. AND LT. EDGE LINES = 12480 LIN. FT. WHITE
DBL. CENTERLINE = 12480 LIN. FT. YELLOW
SKIP LINE = 1109 LIN. FT. WHITE
RAISED PAVEMENT MARKERS:
TYPE II (YEL./YEL.) 40' O.C. ON CENTERLINE = 156 EACH
TYPE II (WHITE/RED) 40' O.C. ON SKIP LINE = 111 EACH

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.							080422	37	135

② QUANTITIES



ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	END OF JOB	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)
							NO.	SQ. FT.			
			LIN. FT. - EACH						EACH		
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4		4	4	64.0			
W20-1	ROAD WORK 1000 FT.	48"x48"	4	4		4	4	64.0			
W20-1	ROAD WORK 500 FT.	48"x48"	4	4		4	4	64.0			
W20-1	ROAD WORK AHEAD	48"x48"	5	5		5	5	80.0			
G20-2	END ROAD WORK	48"x24"	5	5		5	5	40.0			
G20-1	ROAD WORK NEXT xx MILES	60"x24"	4	4		4	4	40.0			
R11-2	ROAD CLOSED	48"x30"	2	2		2	2	20.0			
OM-3L	OBJECT MARKER	12"x36"	24	24	24	24	24	72.0			
OM-3R	OBJECT MARKER	12"x36"	24	24	24	24	24	72.0			
R4-1	DO NOT PASS	24"x30"	4	4		4	4	20.0			
RSP-1	SHOULDER CLOSED	48"x30"	4	4		4	4	40.0			
	VERTICAL PANELS		252	252		252			252		
	TRAFFIC DRUMS		294	456		456			456		
	TYPE III BARRICADE-RT. (8')		2	2		2				16	
TOTALS:								576.0	252	456	16

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

THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	END OF JOB	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING	
				TYPE II (WHITE)	TYPE II (YEL/YEL)	4"	
						WHITE	YELLOW
LIN. FT. - EACH			LIN. FT.	EACH		LIN. FT.	
CONSTRUCTION PAVEMENT MARKINGS	48720		48720				
RAISED PAVEMENT MARKERS TYPE II (WHITE)		224		224			
RAISED PAVEMENT MARKERS TYPE II (YEL/YEL)		315			315		
THERMOPLASTIC PAVEMENT MARKING WHITE (4")		27403				27403	
THERMOPLASTIC PAVEMENT MARKING YELLOW (4")		25160					25160
TOTALS:			48720	224	315	27403	25160

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

NOTE: THE 4" 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.

NOTE: THERMOPLASTIC PAVEMENT MARKINGS MAY BE SUBSTITUTED FOR INVERTED PROFILE PAVEMENT MARKINGS AT INTERSECTIONS, ISLANDS, TURNOUTS, AND OTHER SIMILAR LOCATIONS AS DIRECTED BY THE ENGINEER.

CENTERLINE RUMBLE STRIPS IN ASPHALT ROADWAY

STATION	STATION	LOCATION	* CENTERLINE RUMBLE STRIPS IN ASPHALT ROADWAY
			LIN. FT.
202+50	263+90	SITE 1 - CENTERLINE	6140
498+00	559+40	SITE 2 - CENTERLINE	6140
TOTAL:			12280

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

4/2/2015

RO80422.DGN

QUANTITIES

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.	080422	38	135	

PAVEMENT REPAIR OVER CULVERTS (CONCRETE)

STATION	LOCATION	WIDTH	LENGTH	CU.YD.
		FEET		
SITE 1 - NORTHBOUND				
240+60	CENTERLINE	8.50	22	8.7
SUBTOTAL SITE 1 - NB:				8.7
SITE 2 - SOUTHBOUND				
510+62	CENTERLINE	7.33	22	7.5
513+87	CENTERLINE	7.33	22	7.5
516+87	CENTERLINE	7.33	22	7.5
531+00	CENTERLINE	7.33	22	7.5
538+65	CENTERLINE	7.33	22	7.5
SUBTOTAL SITE 2 - SB:				37.5
TOTAL:				46.2

AVG. DEPTH = 15"

REMOVAL AND DISPOSAL OF FENCE & GATES

STATION	STATION	DESCRIPTION	FENCE	GATES
			LIN. FT.	EACH
SITE 1 - NORTHBOUND				
208+83	216+00	WIRE FENCE RT.	720	
219+56	223+85	WIRE FENCE LT.	430	
223+34	227+40	4 RAIL WOOD FENCE RT.	410	
227+55	233+85	4 RAIL WOOD FENCE RT.	630	
248+70	250+05	CHAIN LINK FENCE LT.	130	
250+15		METAL GATE RT.		1
250+30	251+10	CHAIN LINK FENCE LT.	80	
SUBTOTALS SITE 1 - NB:			2400	1
SITE 2 - SOUTHBOUND				
520+85	521+12	2 RAIL WOOD FENCE LT.	30	
521+35		METAL GATE LT.		2
521+52	521+72	2 RAIL WOOD FENCE LT.	20	
525+40		METAL GATE LT.		1
SUBTOTALS SITE 1 - SB:			50	3
TOTALS:			2450	4

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
* ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER			1000	8
TOTALS:			1000	8

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

REMOVAL AND DISPOSAL OF PIPE CULVERTS

STATION	DESCRIPTION	PIPE CULVERTS
		EACH
SITE 1 - NORTHBOUND		
223+10	REMOVE 15" X 28' C.M. PIPE CULVERT RT. SIDE DRAIN	1
227+45	REMOVE 15" X 40' C.M. PIPE CULVERT RT. SIDE DRAIN	1
234+52	REMOVE 18" X 24' R.C. PIPE CULVERT RT. SIDE DRAIN	1
237+63	REMOVE 12" X 16" X 24' ARCH C.M. PIPE CULVERT LT. SIDE DRAIN	1
240+60	REMOVE 24" X 56' R.C. PIPE CULVERT CROSS DRAIN	1
250+14	REMOVE 12" X 24' PLASTIC PIPE CULVERT LT. SIDE DRAIN	1
250+18	REMOVE 12" X 24' C.M. PIPE CULVERT RT. SIDE DRAIN	1
251+59	REMOVE 12" X 24' C.M. PIPE CULVERT LT. SIDE DRAIN	1
SUBTOTAL SITE 1 - NB:		8
SITE 1 - SOUTHBOUND		
510+62	REMOVE 15" X 46' R.C. PIPE CULVERT CROSS DRAIN	1
513+87	REMOVE 15" X 46' R.C. PIPE CULVERT CROSS DRAIN	1
516+87	REMOVE 15" X 50' R.C. PIPE CULVERT CROSS DRAIN	1
531+00	REMOVE 15" X 56' R.C. PIPE CULVERT CROSS DRAIN	1
538+65	REMOVE 15" X 68' R.C. PIPE CULVERT CROSS DRAIN	1
SUBTOTAL SITE 2 - SB:		5
TOTALS:		13

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

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
SITE 1 - NORTHBOUND				
202+50	263+90	ENTIRE PROJECT	62	62
SUBTOTALS SITE 1 - NB:			62	62
SITE 1 - SOUTHBOUND				
498+00	559+40	ENTIRE PROJECT	62	62
SUBTOTALS SITE 2 - SB:			62	62
TOTALS:			124	124

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

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

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

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	ROCK FILL	* SOIL STABILIZATION
			CU. YD.			TON
SITE 1 - NORTHBOUND						
200+50	263+90	MAIN LANES	25419	6306	17097	50
ENTIRE	PROJECT	APPROACHES		480		
SUBTOTALS SITE 1 - NB:			25419	6786	17097	50
SITE 2 - SOUTHBOUND						
498+00	558+40	MAIN LANES	92988	11051	17997	50
ENTIRE	PROJECT	APPROACHES		70		
SUBTOTALS SITE 2 - SB:			92988	11121	17997	50
ENTIRE	PROJECT	TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER				50
TOTALS:			118407	17907	35094	150

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

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	SIGN FOUNDATIONS	SIGNS
			EACH	EACH
SITE 1 - NORTHBOUND				
205+15		SIGN RT.	1	1
22740		SIGN RT.	2	1
TOTALS:			3	2

QUANTITIES

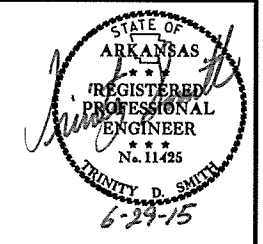
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080422	39	135

② QUANTITIES



DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH		ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS	STANDARD DRAWINGS
			FEET	SQ. YD.	TON	TON	18" LIN. FT.		
SITE 1 - NORTHBOUND									
207+06	RT.	CONSTRUCT APPROACH ON RT.	16	63.68	7.00		26.00		
208+71	LT.	INSTALL SIDE DRAIN ON LT.	16	72.57	7.98		29.63	28	PCC-1, PCM-1, PCP-1, PCP-2
223+10	RT.	CONSTRUCT APPROACH ON RT.	16	88.57	9.74		36.17	34	PCC-1, PCM-1, PCP-1, PCP-2
227+33	LT.	CONSTRUCT APPROACH ON LT.	24	147.04	16.17		60.04		
227+45	RT.	INSTALL SIDE DRAIN ON RT.	16	92.12	10.13		37.62	36	PCC-1, PCM-1, PCP-1, PCP-2
234+52	RT.	INSTALL SIDE DRAIN ON RT.	16	63.68	7.00		26.00	32	PCC-1, PCM-1, PCP-1, PCP-2
237+63	LT.	INSTALL SIDE DRAIN ON LT.	16	45.90	5.05		18.74	30	PCC-1, PCM-1, PCP-1, PCP-2
250+14	LT.	INSTALL SIDE DRAIN ON LT.	16	70.79	7.79		28.91	32	PCC-1, PCM-1, PCP-1, PCP-2
250+58	RT.	INSTALL SIDE DRAIN ON RT.	16	86.79	9.55		35.44	36	PCC-1, PCM-1, PCP-1, PCP-2
251+59	LT.	INSTALL SIDE DRAIN ON LT.	16	90.34	9.94		36.89	32	PCC-1, PCM-1, PCP-1, PCP-2
258+33	LT.	INSTALL SIDE DRAIN ON LT.	20	84.12	9.25		34.35	36	PCC-1, PCM-1, PCP-1, PCP-2
259+18	RT.	INSTALL SIDE DRAIN ON RT.	16	90.34	9.94		36.89	28	PCC-1, PCM-1, PCP-1, PCP-2
* ENTIRE PROJECT TEMPORARY DRIVES							132.00		
SUBTOTALS SITE 1 - NB:				995.94	241.54		406.68	324	
SITE 2 - SOUTHBOUND									
521+31	LT.	INSTALL SIDE DRAIN ON LT.	20	70.79	7.79		28.91	36	PCC-1, PCM-1, PCP-1, PCP-2
525+41	LT.	INSTALL SIDE DRAIN ON LT.	20	93.01	10.23		37.98	32	PCC-1, PCM-1, PCP-1, PCP-2
* ENTIRE PROJECT TEMPORARY DRIVES							22.00		
SUBTOTALS SITE 2 - SB:				163.80	40.02		66.89	68	
TOTALS:				1159.74	281.56		473.57	392	

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.6% MIN. AGGR.....5.4% ASPHALT BINDER
 MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

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

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.

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE D)	* 16'-0" GATES
			LIN. FT.	EACH
SITE 1 - NORTHBOUND				
209+87	223+00	RT.	1400	
219+47	223+76	LT.	447	
223+22	224+00	RT.	76	
224+00	227+47	RT.	337	
224+11	225+38	LT.	130	
227+67	232+45	RT.	468	
229+65	235+60	LT.	603	
SUBTOTAL SITE 1 - NB:			3461	
SITE 2 - SOUTHBOUND				
520+98	521+12	LT.	14	
521+35		LT.		2
521+48	521+69	LT.	21	
525+40		LT.		1
SUBTOTAL SITE 2 - SB:			35	3
TOTALS:			3496	3

* DENOTES ALTERNATE BID ITEM.

4/2/2015

R080422.DGN

QUANTITIES

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.	080422	40	135	

2 QUANTITIES

SOIL LOG

STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC						
SITE 1 - NORTHBOUND												
203+00	35	32	1.70	93	5	43.40	5' RT.	0-2Z	19	5	A-4 (0)	BROWN
203+00	35	32	1.70	93	5	43.20	15' RT.	0-1.5Z	-	-	A-2-4	BROWN
209+00	35	32	7.30	93	5	46.30	5' LT.	0-5	24	10	A-4 (3)	BR/RD
209+00	35	32	7.30	93	5	46.50	25' LT.	0-5	ND	NP	A-4 (0)	RED
209+00	35	32	7.30	93	5	46.50	25' LT.	0-6	23	7	A-4 (2)	RED
217+00	35	32	14.90	93	5	49.80	5' RT.	0-5	23	4	A-4 (0)	BROWN
217+00	35	32	15.00	93	5	49.60	27' RT.	0-5	20	4	A-4 (0)	BR/GR
225+00	35	32	22.60	93	5	51.40	5' LT.	0-5	24	5	A-4 (2)	BROWN
225+00	35	32	22.60	93	5	51.60	23' LT.	0-5	24	6	A-4 (2)	BROWN
233+00	35	32	30.20	93	5	50.10	5' RT.	0-5	20	4	A-4 (0)	BR/GR
233+00	35	32	30.20	93	5	50.00	20' RT.	0-5	28	11	A-6 (4)	RED
241+00	35	32	38.10	93	5	46.60	5' LT.	0-5	ND	NP	A-4 (0)	BR/GR
241+00	35	32	38.20	93	5	46.80	20' LT.	0-5	25	7	A-4 (2)	BROWN
249+00	35	32	45.80	93	5	39.50	5' RT.	0-5	25	7	A-4 (3)	BROWN
249+00	35	32	45.70	93	5	39.40	23' RT.	0-5	26	8	A-4 (2)	BR/RD
257+00	35	32	50.30	93	5	33.60	5' LT.	0-5	ND	NP	A-4 (0)	BROWN
257+00	35	32	50.40	93	5	33.80	28' LT.	0-5	ND	NP	A-4 (0)	BROWN
SITE 2 - SOUTHBOUND												
500+00	35	34	13.20	93	3	58.80	5' RT.	0-5	38	19	A-6 (16)	BROWN
500+00	35	34	13.20	93	3	58.50	20' RT.	0-5	38	20	A-6 (16)	BROWN
507+00	35	34	21.00	93	3	59.60	5' LT.	0-5	32	14	A-6 (7)	BR/RD
507+00	35	34	21.00	93	3	59.80	22' LT.	0-5	26	11	A-6 (3)	BR/RD
515+00	35	34	28.50	93	4	1.40	5' RT.	0-5	24	7	A-6 (3)	BROWN
515+00	35	34	28.60	93	4	1.10	32' RT.	0-5	31	11	A-6 (7)	BROWN
523+00	35	34	35.30	93	4	5.80	5' LT.	0-4.0Z	33	11	A-6 (4)	BR/RD
523+00	35	34	35.20	93	4	5.90	20' LT.	0-5	42	22	A-7-6 (16)	BR/RD
523+00	35	34	35.20	93	4	5.90	20' LT.	0-6	41	21	A-7-6 (12)	RED
531+00	35	34	42.10	93	4	10.50	5' RT.	0-5	27	12	A-6 (6)	BROWN
531+00	35	34	42.20	93	4	10.40	20' RT.	0-5	32	16	A-6 (6)	BROWN
539+00	35	34	49.90	93	4	13.40	5' LT.	0-5	23	8	A-4 (2)	BROWN
539+00	35	34	50.00	93	4	13.60	20' LT.	0-5	41	21	A-7-6 (12)	BR/RD
548+00	35	34	58.20	93	4	13.40	5' RT.	0-5	27	11	A-6 (3)	BROWN
548+00	35	34	58.30	93	4	13.30	20' RT.	0-3.0Z	30	14	A-6 (3)	BR/GR
553+00	35	35	3.40	93	4	12.90	5' LT.	0-3.5Z	24	10	A-4 (0)	BR/GR
553+00	35	35	3.40	93	4	13.10	17' LT.	0-1.0Z	26	10	A-4 (0)	BR/GR
561+00	35	35	11.00	93	4	9.20	5' RT.	0-5	38	19	A-6 (13)	BROWN
561+00	35	35	10.90	93	4	9.10	20' RT.	0-5	44	22	A-7-6 (14)	BROWN

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

CONCRETE DITCH PAVING

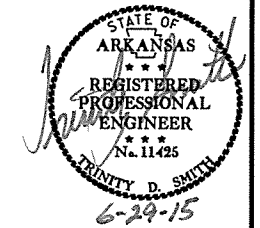
STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
ENTIRE PROJECT		IF AND WHERE DIRECTED BY THE ENGINEER	300.00	6	200.00	133.33	1.68
TOTALS:					200.00	133.33	1.68

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

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

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)
	EACH	
SITE 1 - NORTHBOUND		
ENTIRE PROJECT	1	1
SUBTOTALS SITE 1 - NB:	1	1
SITE 2 - SOUTHBOUND		
NO MAILBOXES ON SITE 2		
SUBTOTALS SITE 2 - SB:		
TOTALS:	1	1



COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
SITE 1 - NORTHBOUND				
201+40	202+50	MAIN LANES	20	244.44
263+90	265+00	MAIN LANES	20	244.44
SUBTOTAL SITE 1 - NB:				488.88
SITE 1 - NORTHBOUND				
497+00	498+00	MAIN LANES	20	222.22
558+40	559+40	MAIN LANES	20	222.22
SUBTOTAL SITE 1 - NB:				444.44
TOTAL:				933.32

NOTE: AVERAGE MILLING DEPTH 1".

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU. YD.
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	
	125
TOTAL:	
	125

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

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.	080422
								41
								135

2 QUANTITIES



STRUCTURES

STATION	DESCRIPTION	R.C. PIPE CULVERT		FLARED END SECTIONS		SOLID SODDING	WATER	STD. DWG. NOS.
		(CLASS III)	(CLASS V)	24"	36"			
		24"	36"	24"	36"	LIN. FT.	EACH	
SITE 1 - NORTHBOUND								
218+25	EXTEND 24" X 44' R.C. PIPE CULVERT 13' LT. & 24' RT. W/ F.E.S. LT. & RT.	41		2		16	0.20	PCC-1, FES-1 FES-2
222+85	EXTEND 24" X 52' R.C. PIPE CULVERT 8' LT. & 25' RT. W/ F.E.S. LT. & RT.	33		2		16	0.20	PCC-1, FES-1 FES-2
240+60	CONSTRUCT 24" X 114' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.	114		2		16	0.20	PCC-1, FES-1 FES-2
256+39	CONSTRUCT 36" X 100' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.		100	2		34	0.43	PCC-1, FES-1 FES-2
SUBTOTALS SITE 1 - NB:		188	100	6	2	82	1.03	
SITE 2 - SOUTHBOUND								
505+57	EXTEND 36" X 104' R.C. PIPE CULVERT 19' LT. & 23' RT. W/ F.E.S. LT. & RT.		42	2		34	0.43	PCC-1, FES-1 FES-2
510+62	CONSTRUCT 24" X 82' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.	82		2		16	0.20	PCC-1, FES-1 FES-2
513+87	CONSTRUCT 24" X 86' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.	86		2		16	0.20	PCC-1, FES-1 FES-2
516+87	CONSTRUCT 24" X 88' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.	88		2		16	0.20	PCC-1, FES-1 FES-2
531+00	CONSTRUCT 24" X 116' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.	116		2		16	0.20	PCC-1, FES-1 FES-2
538+65	CONSTRUCT 24" X 106' R.C. PIPE CULVERT W/ F.E.S. LT. & RT.	106		2		16	0.20	PCC-1, FES-1 FES-2
548+36	EXTEND 24" X 94' R.C. PIPE CULVERT 30' LT. & 54' RT. W/ F.E.S. LT. & RT.	84		2		16	0.20	PCC-1, FES-1 FES-2
SUBTOTALS SITE 2 - SB:		562	42	12	2	130	1.63	
TOTALS:		750	42	18	4	212	2.66	

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.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL									
			SPECIAL SEEDING	LIME	MULCH COVER	WATER	SPECIAL SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS	ROCK DITCH CHECKS	SILT FENCE	TRIANGULAR SILT DIKE	SEDIMENT BASIN	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
SITE 1 - NORTHBOUND																	
202+50	263+90	STAGE 1	4.01	8	4.01	409.0	4.01	4.01	4.01	81.8	330	48	1775			97	
202+50	263+90	STAGE 2	3.27	7	3.27	333.5	3.27	3.27	3.27	66.7	330	45	1340			80	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.														200	1000	1000	1000
SUBTOTALS SITE 1 - NB:			7.28	15	7.28	742.5	7.28	7.28	7.28	148.5	660	93	3115	200	1000	1000	1177
SITE 2 - SOUTHBOUND																	
498+00	558+40	STAGE 1	7.69	15	7.69	784.4	7.69	7.69	7.69	156.9	198	396	2235			110	
498+00	558+40	STAGE 2	4.26	9	4.26	434.5	4.26	4.26	4.26	86.9	198	396	4770			204	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.														200	1000	1000	1000
SUBTOTALS SITE 2 - SB:			11.95	24	11.95	1218.9	11.95	11.95	11.95	243.8	396	792	7005	200	1000	1000	1314
TOTALS:			19.23	39	19.23	1961.4	19.23	19.23	19.23	392.3	1056	885	10120	400	2000	2000	2491

BASIS OF ESTIMATE:
LIME2 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
TRIANGULAR SILT DIKE.....25 LIN. FT. / DITCH CHECK

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.

4/2/2015

RO80422.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		44	135

2 SURVEY CONTROL DETAILS



SURVEY CONTROL COORDINATES

Project Name: s080422
Date: 8/15/2012
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON USGS POINTS, TT 23 TX, AND TT 67 TX PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
50	438357.8780	986746.7971	1410.739	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 50
51	439076.3669	986496.4908	1426.994	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 51
52	439923.1830	986126.9811	1420.624	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 52
53	440637.1190	985940.9847	1411.300	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 53
54	441428.9077	985959.0075	1403.647	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 54
55	442824.5643	986545.7684	1385.171	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 55
56	443332.0051	986965.2805	1382.156	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 56
57	444025.6899	987885.3539	1404.340	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 57
58	444399.9515	988224.7352	1398.610	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 58
59	444874.6759	988758.0160	1363.573	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 59
60	445270.5697	989268.5444	1382.347	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 60
61	452191.0154	995380.2245	1303.547	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 61
62	453037.4232	995310.9004	1320.408	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 62
63	453816.6046	995082.0340	1368.403	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 63
64	454591.8645	994645.4228	1405.410	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 64
65	455235.3397	994281.0569	1443.509	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 65
66	455558.1184	994211.8751	1450.747	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 66
67	456224.9519	994208.0392	1443.871	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 67
68	456968.4711	994219.2147	1437.915	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 68
69	457426.6307	994301.1360	1418.460	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 69
70	457885.2570	994547.7269	1384.410	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 70
71	458080.4044	994850.8291	1388.061	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 71
72	458129.8660	995771.6895	1451.247	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 72
73	458338.8680	996499.6447	1493.874	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 73
74	458595.1284	996924.5058	1505.954	CTL	*5/8" REBAR WITH 2" ALUMINUM CAP STAMPED PN: 74
104	462349.4871	997354.9404	1794.341	GPS	*AHTD GPS #580022
105	461612.7410	998138.6810	1722.378	GPS	*AHTD GPS#580022A
106	442026.6068	986113.7105	1383.653	GPS	*AHTD GPS #580026
107	443878.4102	987564.8976	1397.179	GPS	*AHTD GPS #580026A
108	448504.8468	994123.2802	1314.176	GPS	*AHTD GPS #580027
109	449912.9132	995121.6250	1282.847	GPS	*AHTD GPS #580027A
920	459054.0804	998066.5440	1543.286	TBM	*SQUARE CUT IN HEADWALL
921	457107.9374	994237.3239	1437.480	BM	*SQUARE CUT IN ROCK OUTCROP
922	454976.8114	994387.6610	1429.372	BM	*SQUARE CUT IN CENTER HEADWALL
923	453465.1885	995174.9999	1350.854	BM	*SQUARE CUT IN CENTER OF HEADWALL
924	449482.8029	994741.1078	1277.598	TBM	*SQUARE CUT IN CENTER OF HEADWALL
925	447384.5605	992404.4828	1348.721	TBM	*SQUARE CUT IN CENTER OF HEADWALL
926	443996.6485	987821.8377	1403.401	TBM	*SQUARE CUT IN CENTER OF HEADWALL
927	440680.9677	985883.9708	1411.249	TBM	*ALUMINUM CAP IN CONCRETE
928	440680.9677	985883.9708	1408.080	TBM	*SQUARE CUT IN CENTER OF HEADWALL
929	438318.2300	986774.3342	1418.658	TBM	*8" NAIL IN 21" PINE

ALIGNMENT NAME: CONST 1

POINT NAME	TYPE	STATION	NORTHING	EASTING
8100	POB	201+40.00	438679.9712	986623.1174
8101	P.I.	202+50.02	438783.4079	986585.6362
8048	P.C.	203+03.83	438833.6897	986566.3866
8049	P.T.	212+27.70	439695.5479	986233.6896
8050	P.C.	215+25.30	439972.9024	986125.8095
8051	P.T.	225+22.58	440947.4875	985943.1377
8052	P.C.	225+37.40	440962.3073	985943.1433
8053	P.T.	231+02.26	441522.3829	986006.7003
8054	P.C.	233+66.12	441779.5543	986065.7255
8055	P.T.	241+65.72	442515.0082	986369.9951
8056	P.C.	243+72.47	442690.2873	986479.6278
8057	P.T.	248+35.73	443064.9067	986751.5302
8058	P.C.	248+80.78	443099.4602	986780.4420
8059	P.T.	258+75.02	443769.6287	987510.9810
8045	P.C.	261+52.58	443928.7677	987738.3883
8046	P.T.	263+87.71	444075.2674	987922.1085
8047	P.C.	265+06.33	444154.8736	988010.0439
8060	P.T.	267+35.93	444314.4054	988175.1037
8017	POE	272+33.73	444671.8593	988521.5648

ALIGNMENT NAME: CONST 2

POINT NAME	TYPE	STATION	NORTHING	EASTING
8104	POB	490+00.00	451098.2713	995352.3739
8105	P.I.	491+10.02	451208.2525	995355.2274
8200	P.C.	491+35.06	451233.2715	995356.3320
8202	P.T.	504+60.84	452558.0752	995334.9741
8203	P.C.	507+21.77	452818.2473	995315.0686
8205	P.T.	520+57.69	454082.9684	994921.2406
8206	P.C.	530+05.98	454902.4081	994443.9790
8208	P.T.	537+22.19	455578.2726	994223.7499
8209	P.C.	537+60.54	455616.4184	994219.8223
8211	P.T.	543+82.62	456237.4114	994187.9991
8212	P.I.	544+23.09	456277.8833	994188.0072
8213	P.C.	546+53.33	456507.9838	994195.9717
8215	P.T.	551+48.65	457001.0898	994240.0077
8108	P.I.	552+48.63	457100.0500	994254.3102
8107	P.I.	553+96.37	457245.5254	994280.0690
8216	P.C.	555+17.72	457364.9019	994301.8452
8218	P.T.	559+51.10	457763.0287	994464.9735
8219	P.C.	559+53.55	457765.0496	994466.3482
8221	P.T.	561+59.60	457915.7680	994605.7381
8222	POE	564+12.07	458073.6072	994802.7807

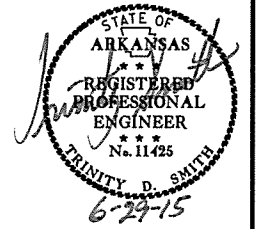
*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.9998592118 HAS BEEN USED TO COMPUTE 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. s080422gi.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

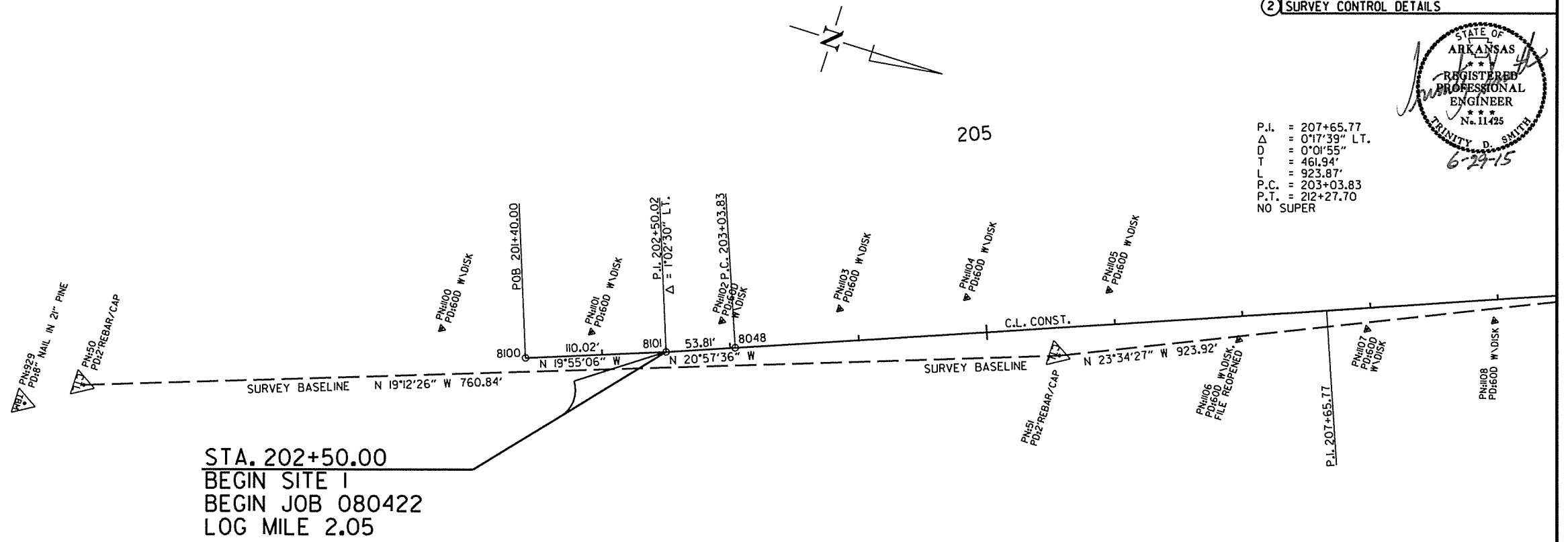
BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 580022 - 580022A, 580026 - 580026A, and 580027 - 580027A
CONVERGENCE ANGLE: 00 37 22 LEFT AT LT: 35-33-38.3 LG: 093-04-13.3
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

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.	080422		45	135

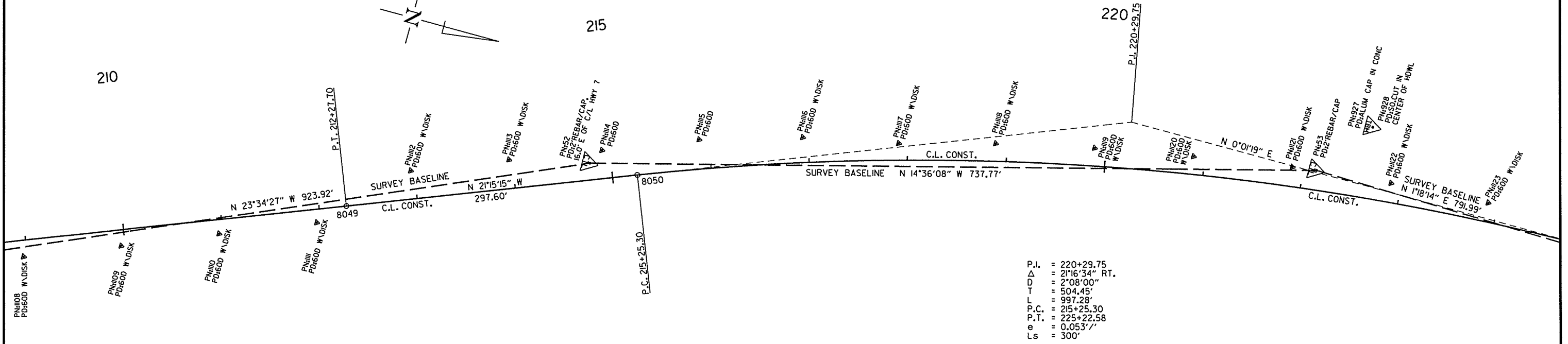
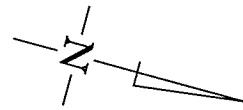
2 SURVEY CONTROL DETAILS



P.I. = 207+65.77
 Δ = 0°17'39" L.T.
D = 0°01'55"
T = 461.94'
L = 923.87'
P.C. = 203+03.83
P.T. = 212+27.70
NO SUPER



STA. 202+50.00
BEGIN SITE 1
BEGIN JOB 080422
LOG MILE 2.05



P.I. = 220+29.75
 Δ = 2°16'34" RT.
D = 2°08'00"
T = 504.45'
L = 997.28'
P.C. = 215+25.30
P.T. = 225+22.58
e = 0.053'/'
Ls = 300'

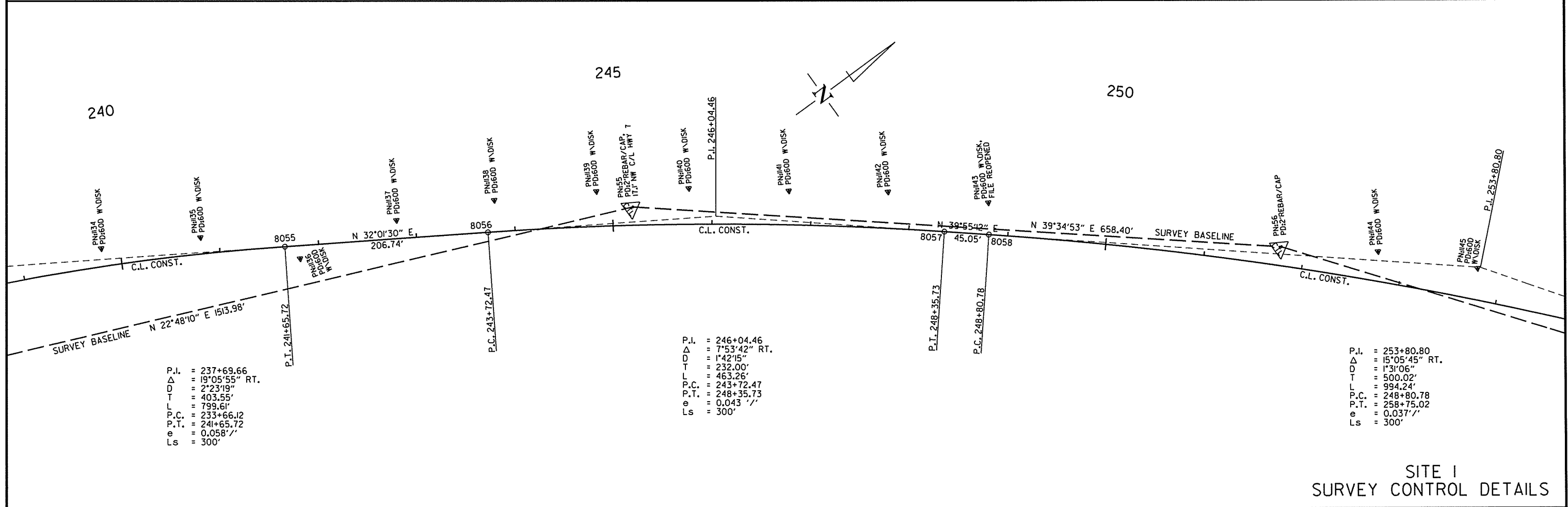
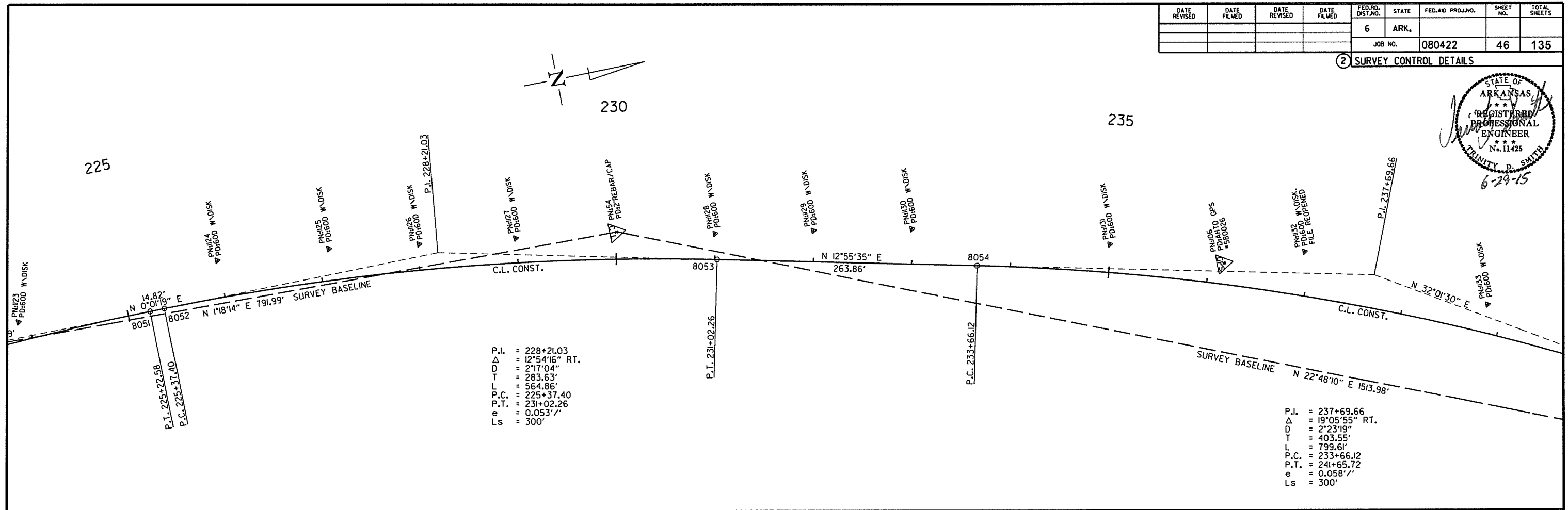
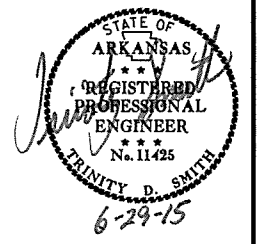
SITE 1
SURVEY CONTROL DETAILS

4/23/2015

R080422.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		46	135

2 SURVEY CONTROL DETAILS

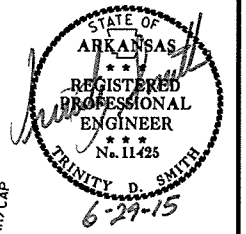


SITE I
SURVEY CONTROL DETAILS

4/23/2015
R080422.DGN

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.	080422		47	135

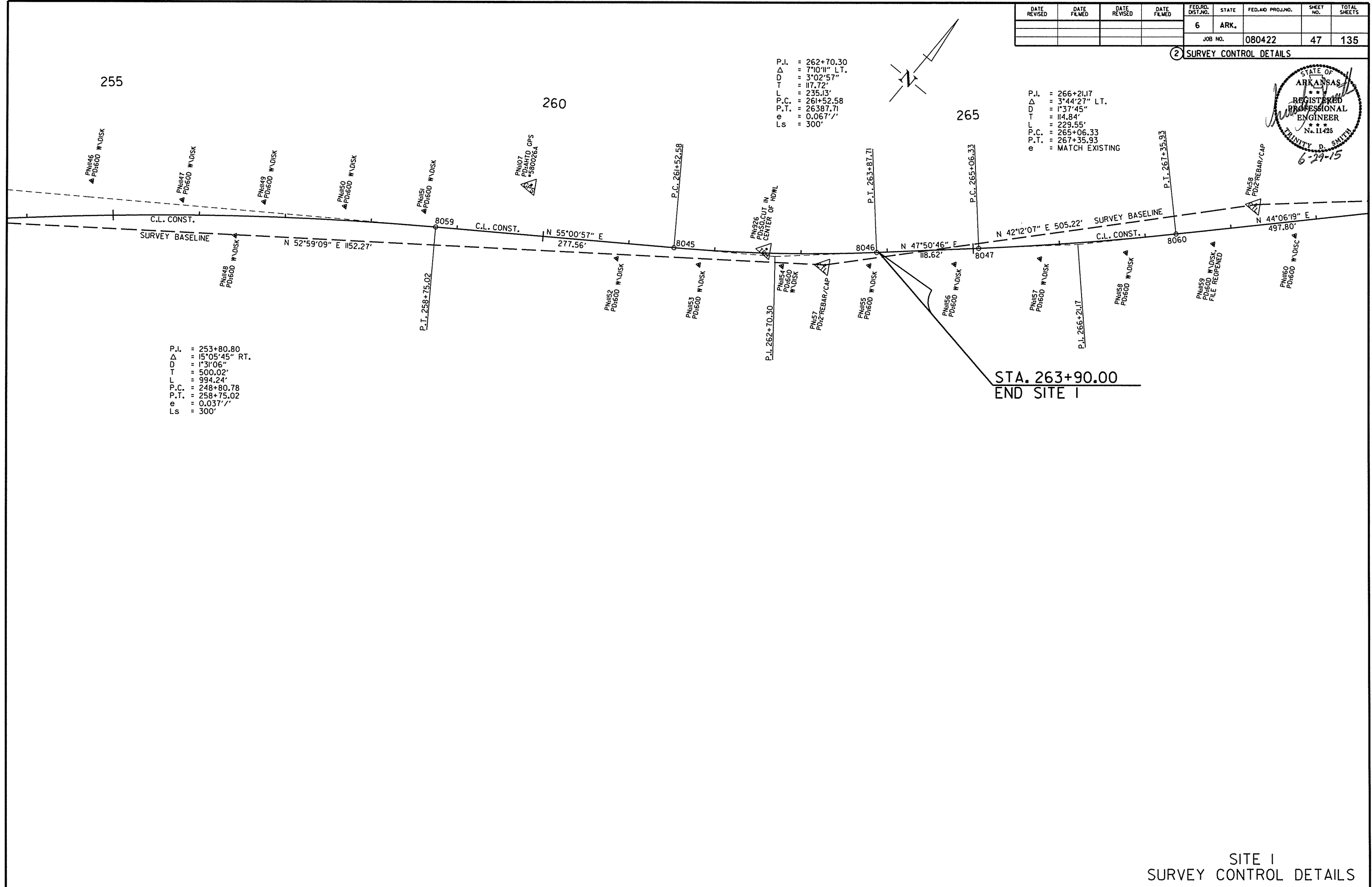
2 SURVEY CONTROL DETAILS



P.I. = 262+70.30
 Δ = 7'10"11" LT.
 D = 3'02'57"
 T = 117.72'
 L = 235.13'
 P.C. = 261+52.58
 P.T. = 26387.71
 e = 0.067'/'
 Ls = 300'

P.I. = 266+21.17
 Δ = 3'44'27" LT.
 D = 1'37'45"
 T = 14.84'
 L = 229.55'
 P.C. = 265+06.33
 P.T. = 267+35.93
 e = MATCH EXISTING

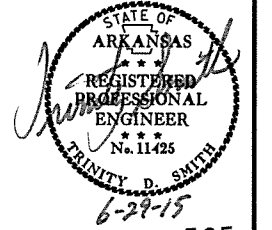
P.I. = 253+80.80
 Δ = 15'05'45" RT.
 D = 1'31'06"
 T = 500.02'
 L = 994.24'
 P.C. = 248+80.78
 P.T. = 258+75.02
 e = 0.037'/'
 Ls = 300'



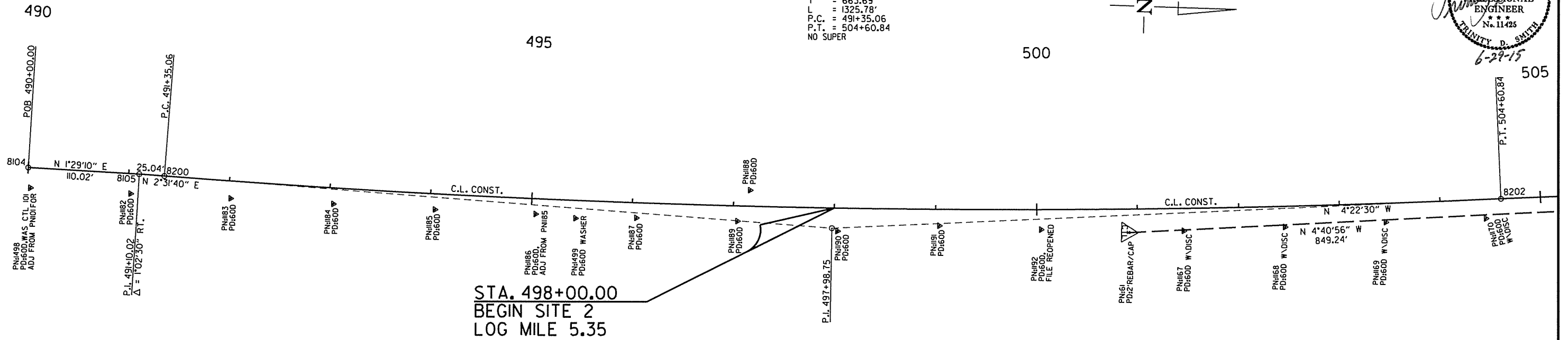
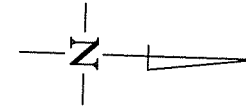
STA. 263+90.00
 END SITE I

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.	080422		48	135

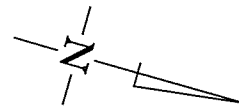
2 SURVEY CONTROL DETAILS



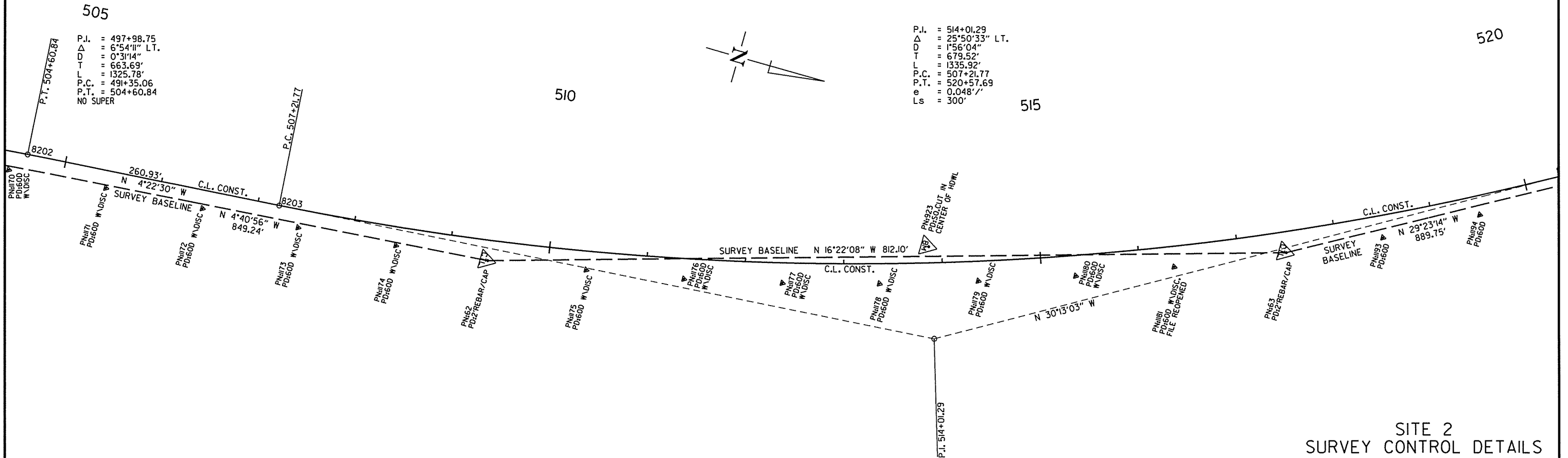
P.I. = 497+98.75
 Δ = 6°54'11" LT.
D = 0°31'14"
T = 663.69'
L = 1325.78'
P.C. = 491+35.06
P.T. = 504+60.84
NO SUPER



P.I. = 497+98.75
 Δ = 6°54'11" LT.
D = 0°31'14"
T = 663.69'
L = 1325.78'
P.C. = 491+35.06
P.T. = 504+60.84
NO SUPER



P.I. = 514+01.29
 Δ = 25°50'33" LT.
D = 1°56'04"
T = 679.52'
L = 1335.92'
P.C. = 507+21.77
P.T. = 520+57.69
e = 0.048' /'
Ls = 300'



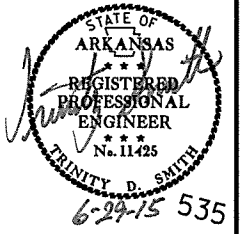
4/23/2015

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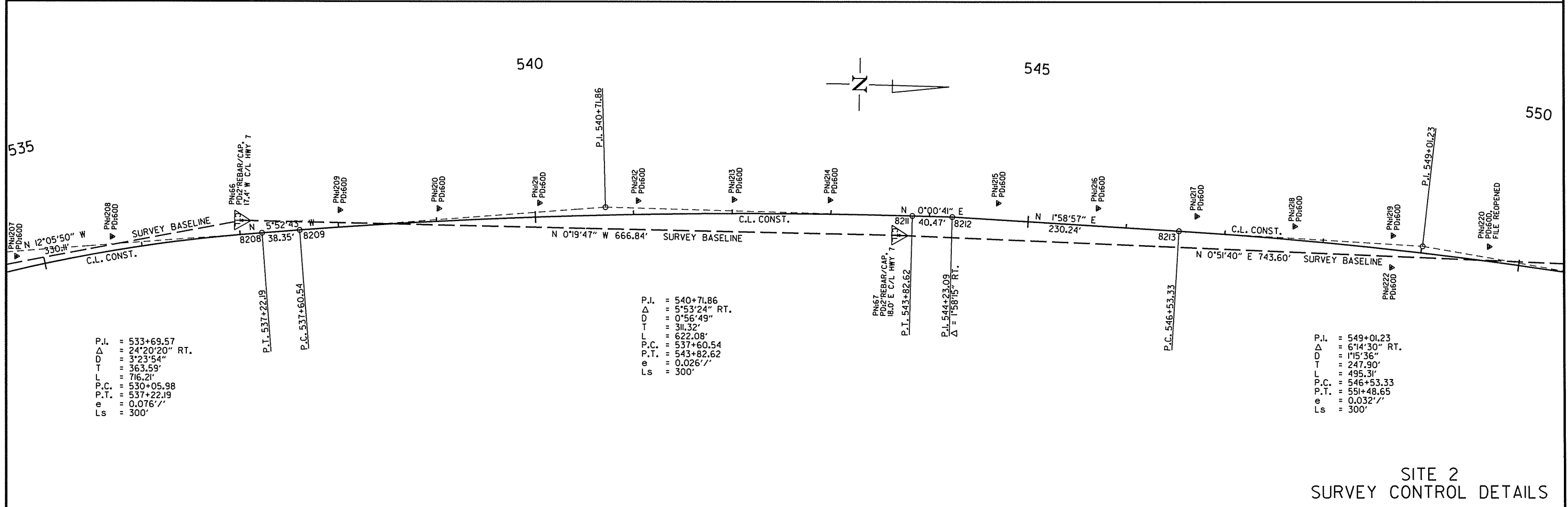
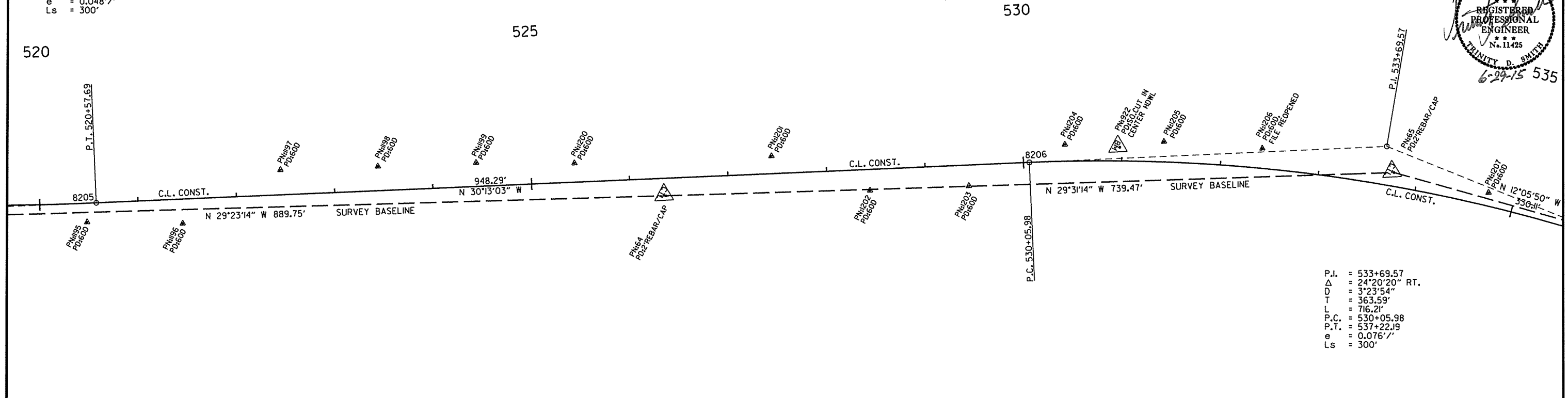
SITE 2
SURVEY CONTROL DETAILS

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.	080422		49	135

2 SURVEY CONTROL DETAILS



P.I. = 514+01.29
 Δ = 25°50'33" LT.
D = 1°56'04"
T = 679.52'
L = 1335.92'
P.C. = 507+21.77
P.T. = 520+57.69
e = 0.048'/'
Ls = 300'



SITE 2
SURVEY CONTROL 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
				6	ARK.			
				JOB NO.	080422		50	135

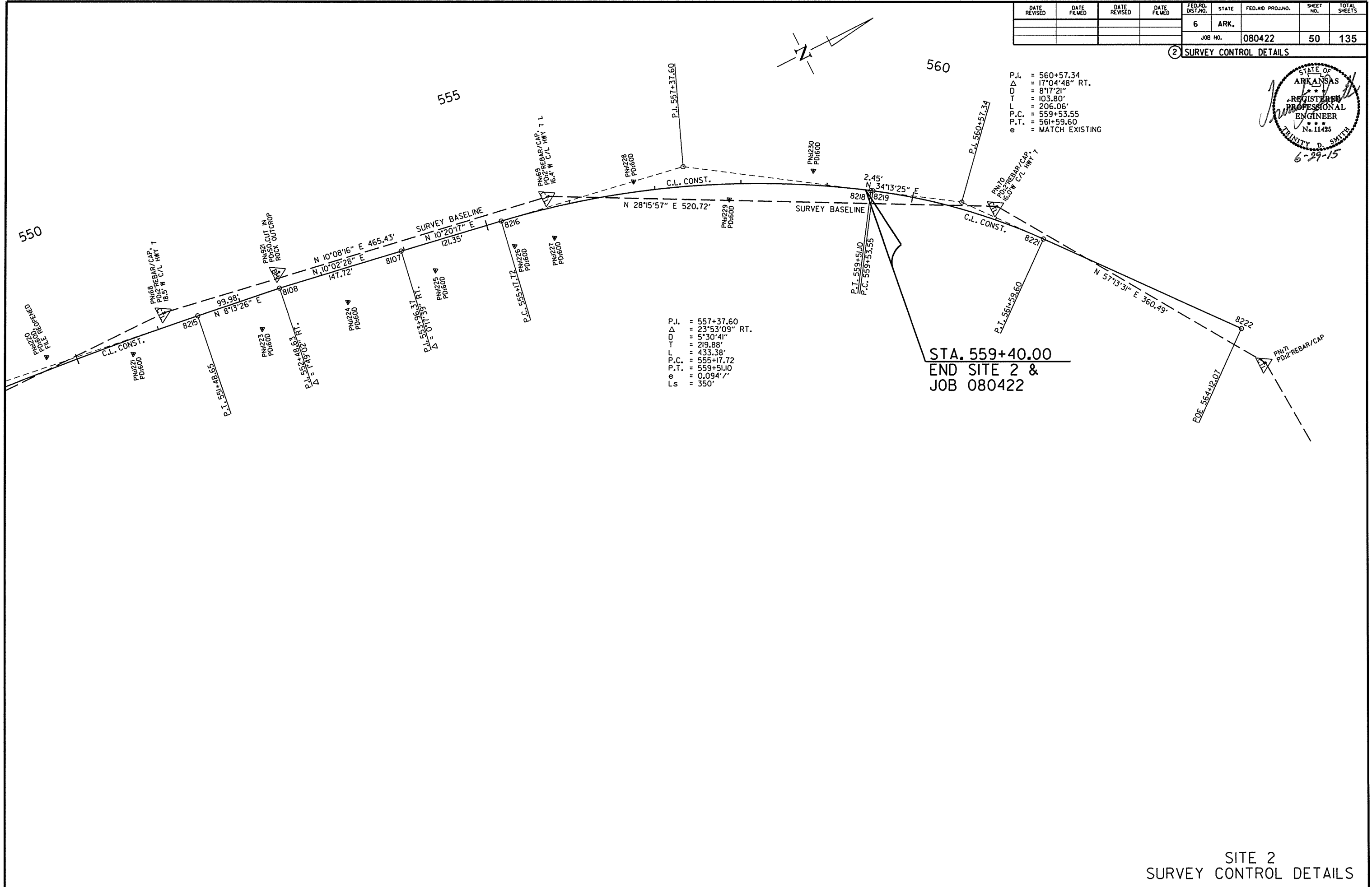
2 SURVEY CONTROL DETAILS



P.I. = 560+57.34
 Δ = 17°04'48" RT.
D = 8°17'21"
T = 103.80'
L = 206.06'
P.C. = 559+53.55
P.T. = 561+59.60
e = MATCH EXISTING

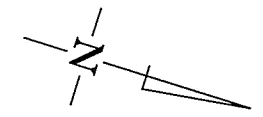
P.I. = 557+37.60
 Δ = 23°53'09" RT.
D = 5°30'41"
T = 219.88'
L = 433.38'
P.C. = 555+17.72
P.T. = 559+51.10
e = 0.0947'
Ls = 350'

STA. 559+40.00
END SITE 2 &
JOB 080422

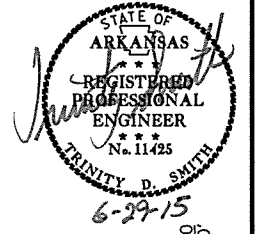


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		51	135

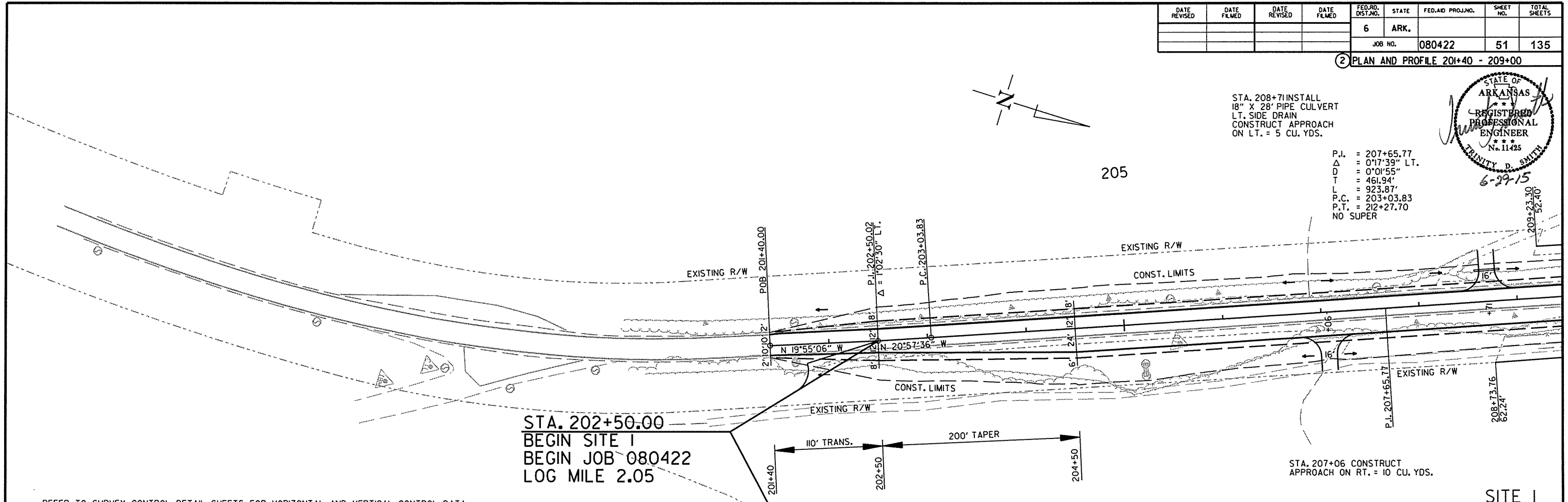
2 PLAN AND PROFILE 201+40 - 209+00



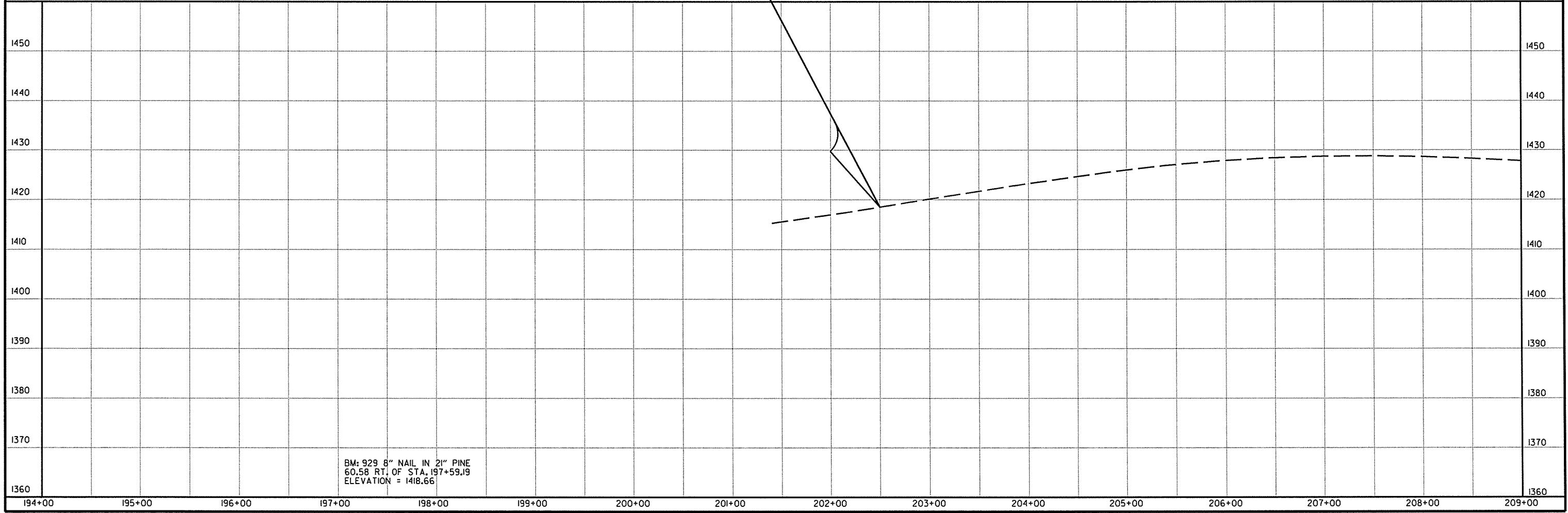
STA. 208+71 INSTALL
18" X 28' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
ON LT. = 5 CU. YDS.



P.I. = 207+65.77
Δ = 0°17'39" LT.
D = 0°01'55"
T = 461.94'
L = 923.87'
P.C. = 203+03.83
P.T. = 212+27.70
NO SUPER



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

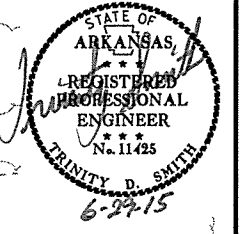


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BM: 929 8" NAIL IN 2" PINE
60.58 RT. OF STA. 197+59.19
ELEVATION = 1418.66

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. 080422							52	135

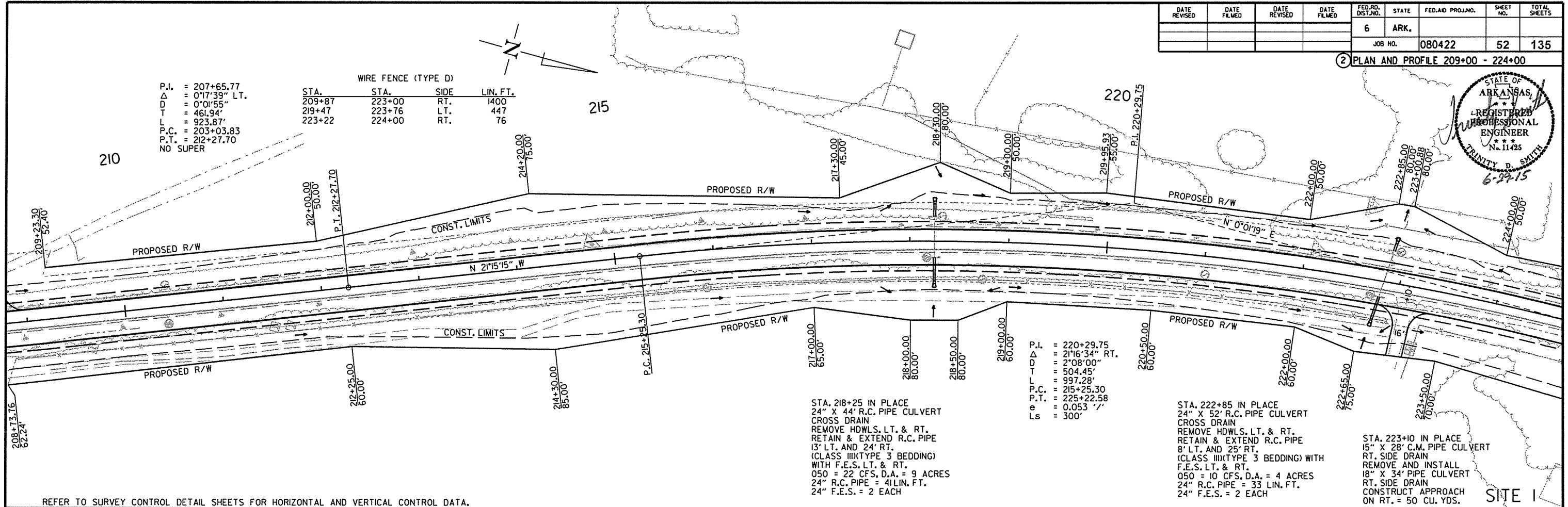
2 PLAN AND PROFILE 209+00 - 224+00



P.I. = 207+65.77
 Δ = 0°17'39" LT.
 D = 0°01'55"
 T = 461.94'
 L = 923.87'
 P.C. = 203+03.83
 P.T. = 212+27.70
 NO SUPER

WIRE FENCE (TYPE D)

STA.	STA.	SIDE	LIN. FT.
209+87	223+00	RT.	1400
219+47	223+76	LT.	447
223+22	224+00	RT.	76



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



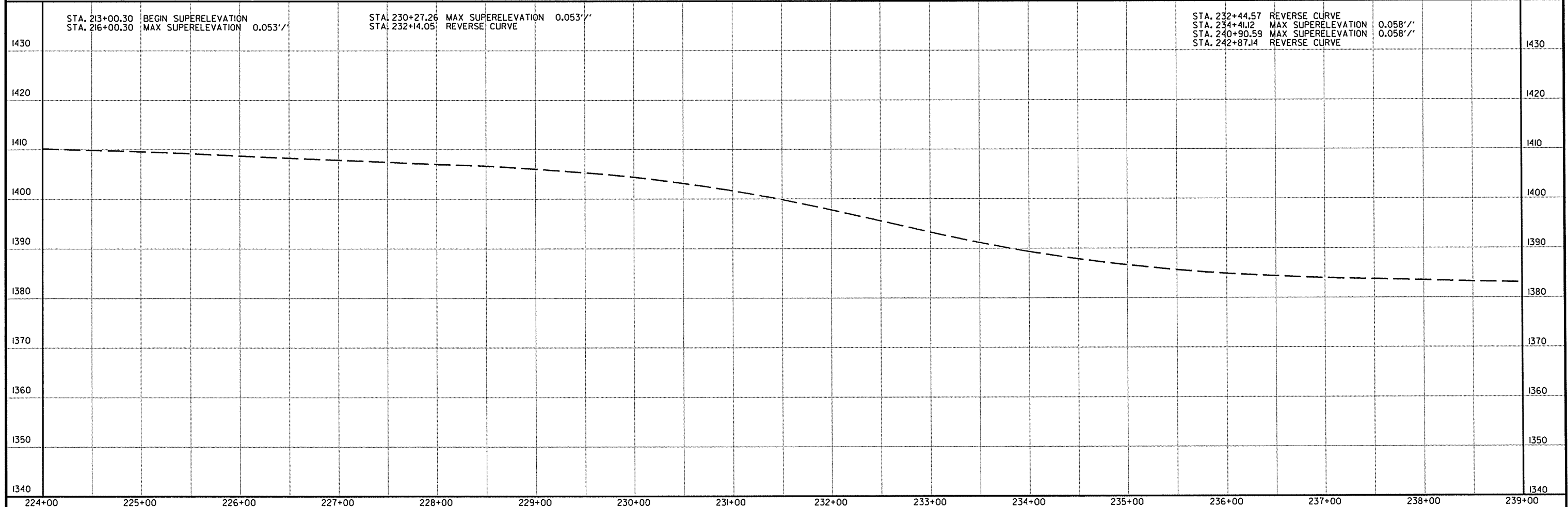
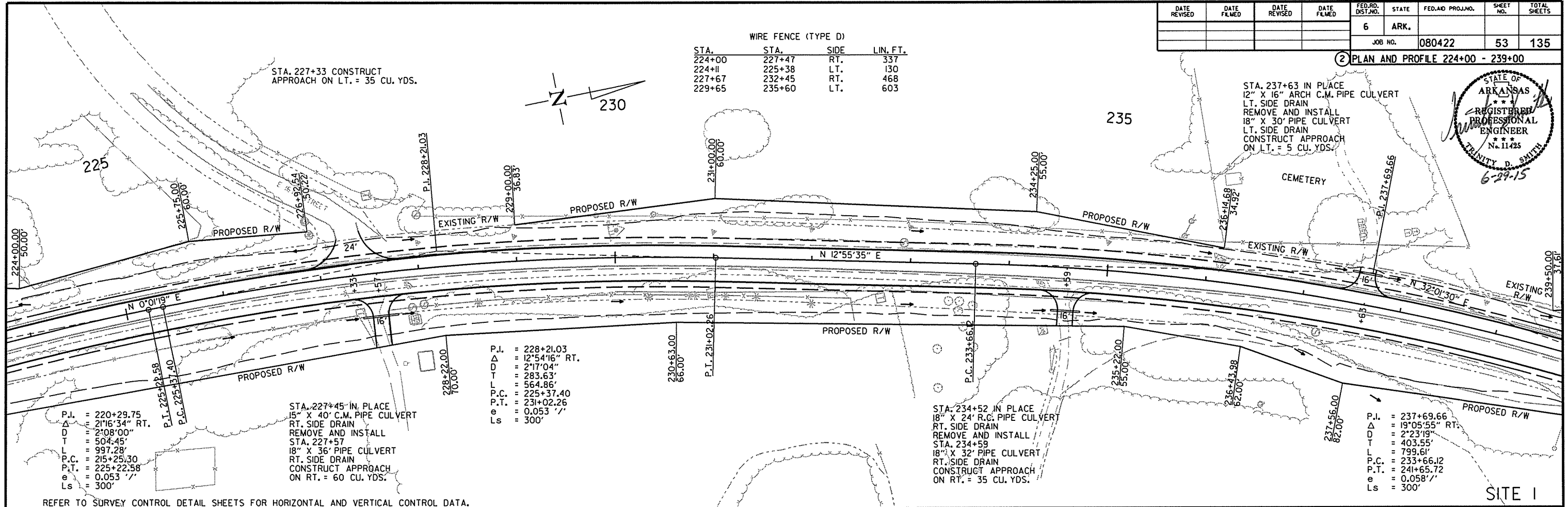
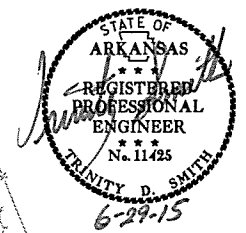
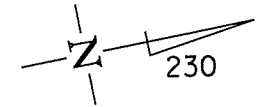
12/3/2014 R080422.DGN

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. 080422							53	135

2 PLAN AND PROFILE 224+00 - 239+00

WIRE FENCE (TYPE D)

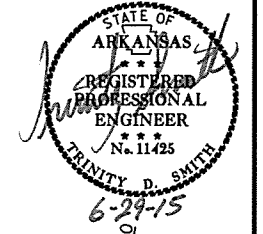
STA.	STA.	SIDE	LIN. FT.
224+00	227+47	RT.	337
224+11	225+38	LT.	130
227+67	232+45	RT.	468
229+65	235+60	LT.	603



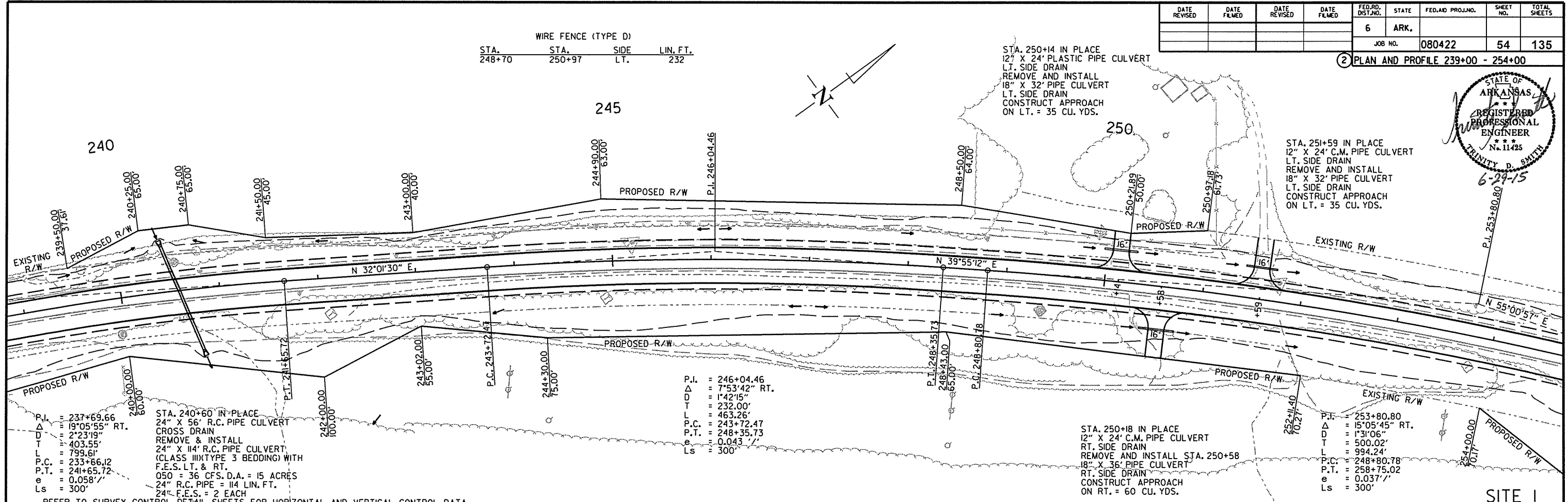
RO80422.DGN 12/3/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		54	135
				JOB NO.	080422			

2 PLAN AND PROFILE 239+00 - 254+00



WIRE FENCE (TYPE D)
 STA. 248+70 STA. 250+97 SIDE LT. LIN. FT. 232



P.I. = 237+69.66
 Δ = 19°05'55" RT.
 D = 2°23'19"
 T = 403.55'
 L = 799.61'
 P.C. = 233+66.12
 P.T. = 241+65.72
 e = 0.058'/'
 Ls = 300'

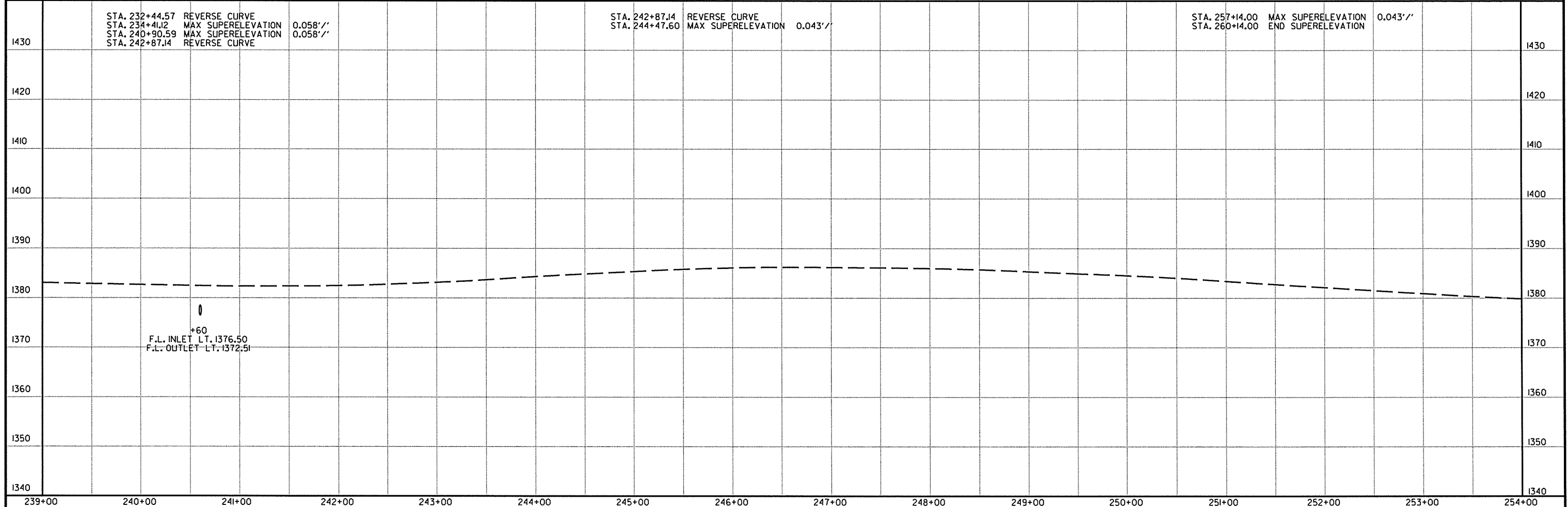
STA. 240+60 IN PLACE
 24" X 56" R.C. PIPE CULVERT
 CROSS DRAIN
 REMOVE & INSTALL
 24" X 14" R.C. PIPE CULVERT
 (CLASS III TYPE 3 BEDDING) WITH
 F.E.S. LT. & RT.
 050 = 36 CFS. D.A. = 15 ACRES
 24" R.C. PIPE = 14 LIN. FT.
 24" F.E.S. = 2 EACH

P.I. = 246+04.46
 Δ = 7°53'42" RT.
 D = 1°42'15"
 T = 232.00'
 L = 463.26'
 P.C. = 243+72.47
 P.T. = 248+35.73
 e = 0.043'/'
 Ls = 300'

STA. 250+18 IN PLACE
 12" X 24" C.M. PIPE CULVERT
 RT. SIDE DRAIN
 REMOVE AND INSTALL STA. 250+58
 18" X 36" PIPE CULVERT
 RT. SIDE DRAIN
 CONSTRUCT APPROACH
 ON RT. = 60 CU. YDS.

P.I. = 253+80.80
 Δ = 15°05'45" RT.
 D = 1°31'06"
 T = 500.02'
 L = 994.24'
 P.C. = 248+80.78
 P.T. = 258+75.02
 e = 0.037'/'
 Ls = 300'

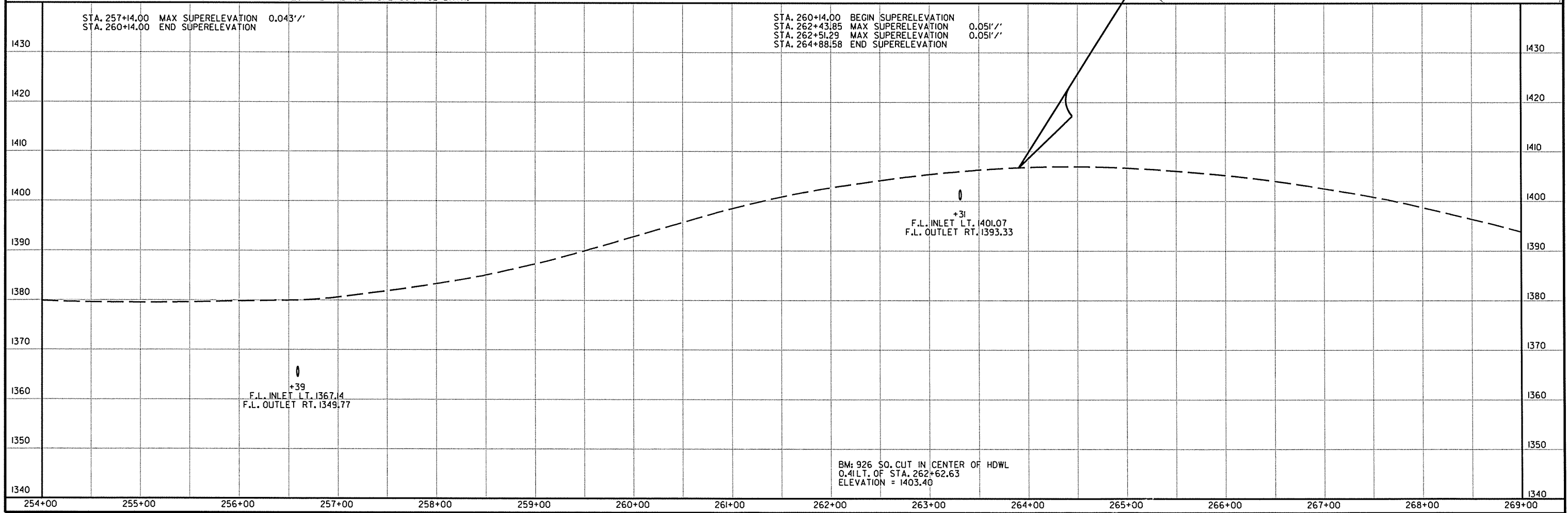
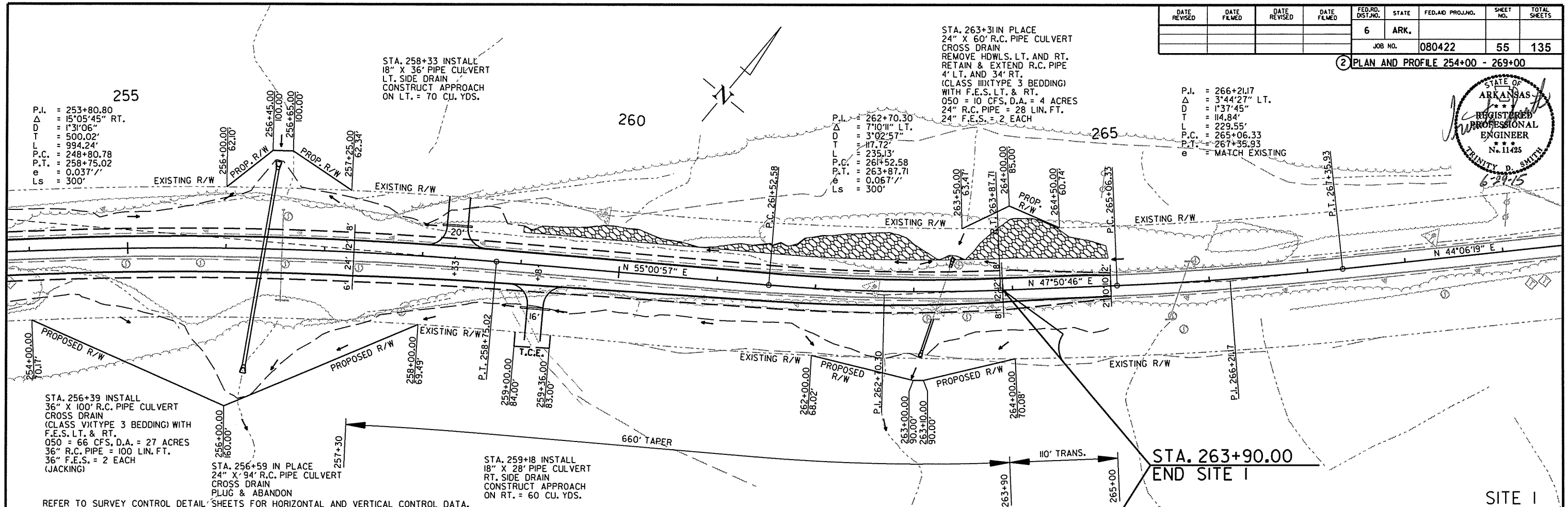
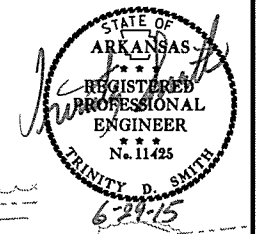
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO. 080422	55 135

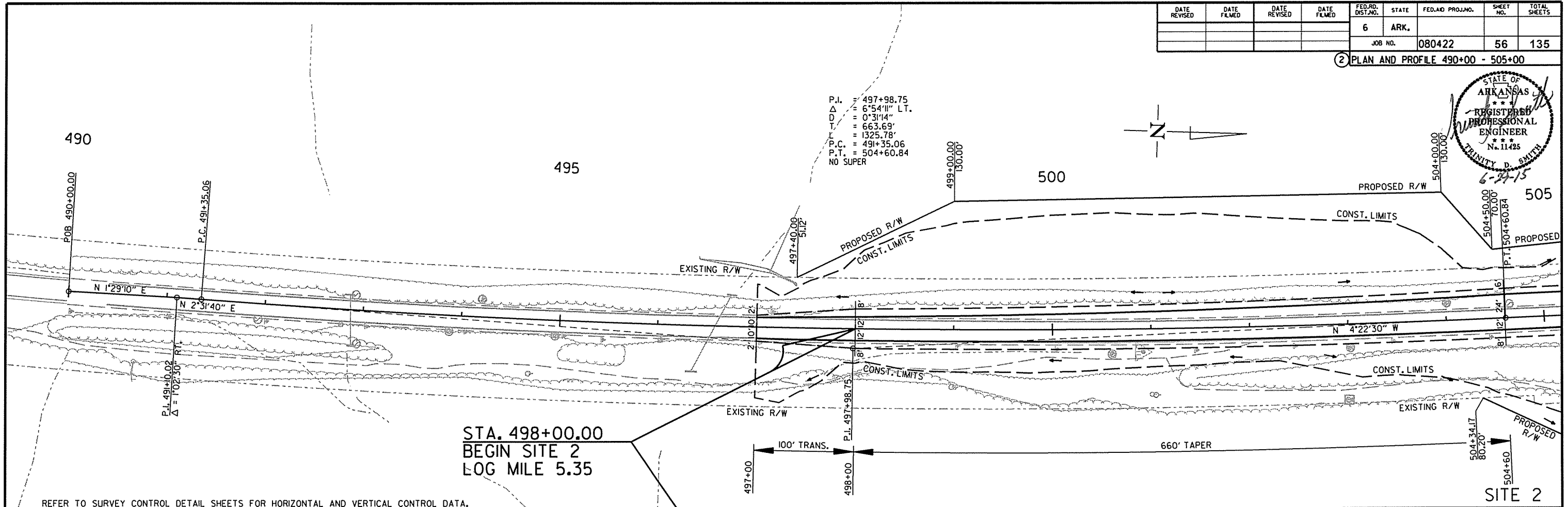
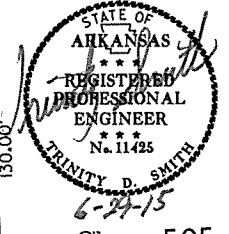
2 PLAN AND PROFILE 254+00 - 269+00



12/3/2014
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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.	080422		56	135

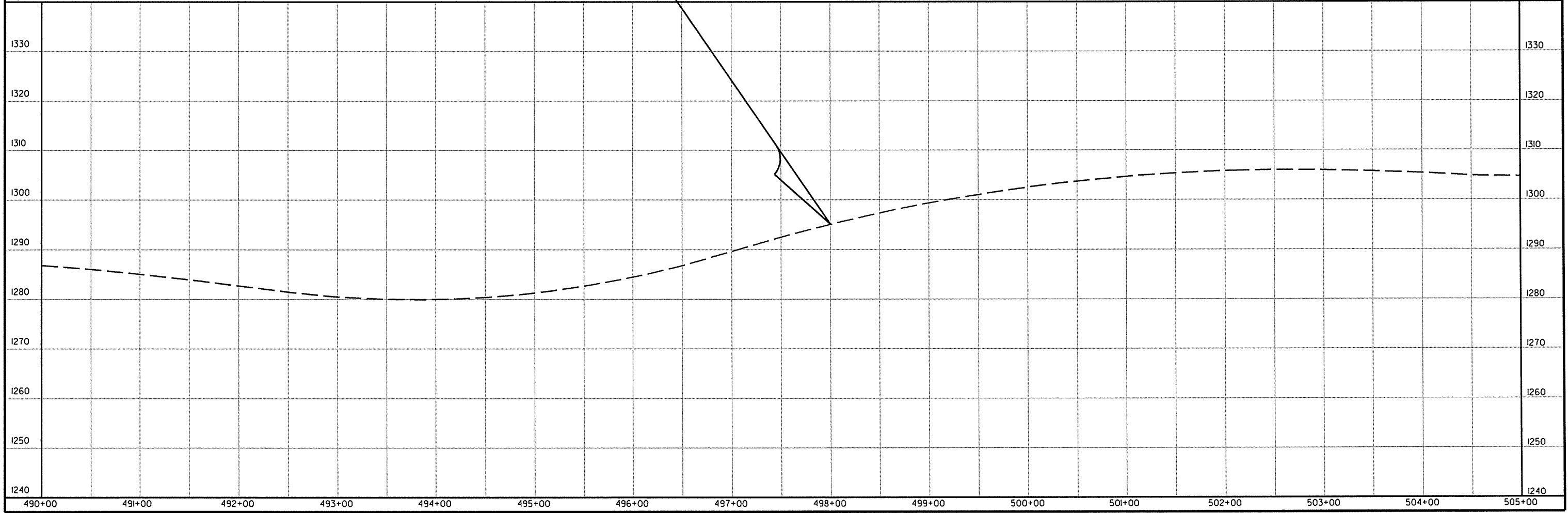
② PLAN AND PROFILE 490+00 - 505+00



P.I. = 497+98.75
 Δ = 6°54'11" LT.
 D = 0°31'14"
 T = 663.69'
 L = 1325.78'
 P.C. = 491+35.06
 P.T. = 504+60.84
 NO SUPER

STA. 498+00.00
 BEGIN SITE 2
 LOG MILE 5.35

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

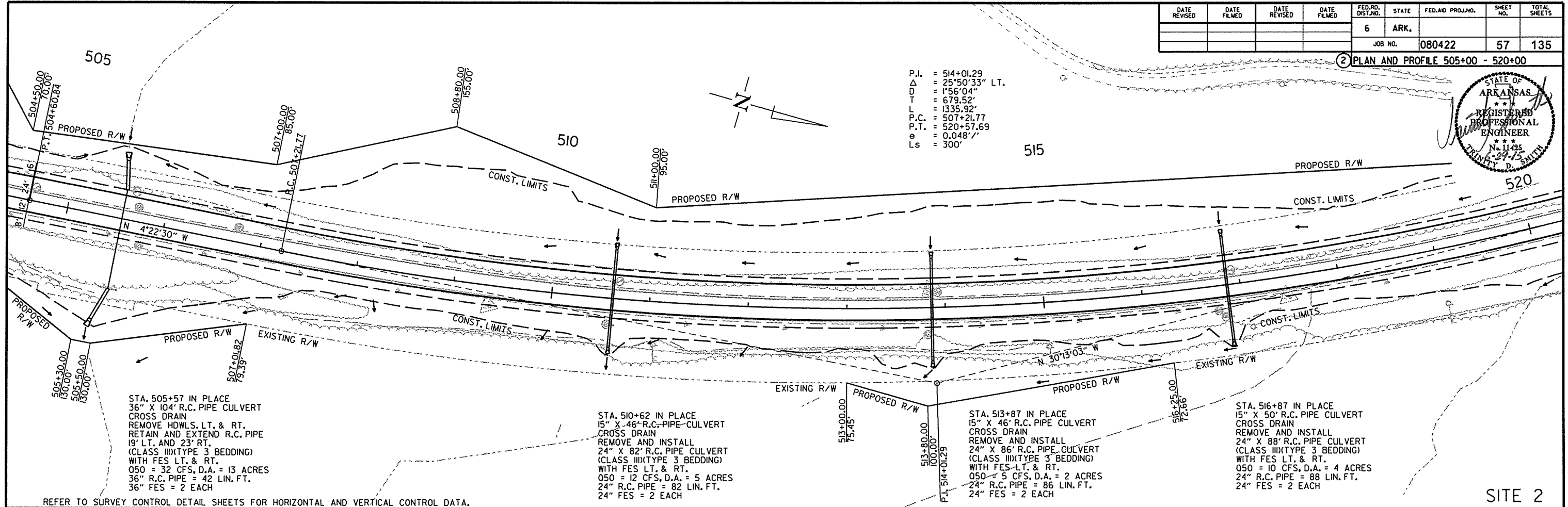


5/1/2014

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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. 080422							57	135

2 PLAN AND PROFILE 505+00 - 520+00



P.I. = 514+01.29
 Δ = 25°50'33" LT.
D = 1'56'04"
T = 679.52'
L = 1335.92'
P.C. = 507+21.77
P.T. = 520+57.69
e = 0.048'/'
Ls = 300'

STA. 505+57 IN PLACE
36" X 104' R.C. PIPE CULVERT
CROSS DRAIN
REMOVE HDWLS. LT. & RT.
RETAIN AND EXTEND R.C. PIPE
19' LT. AND 23' RT.
(CLASS III TYPE 3 BEDDING)
WITH FES LT. & RT.
O50 = 32 CFS, D.A. = 13 ACRES
36" R.C. PIPE = 42 LIN. FT.
36" FES = 2 EACH

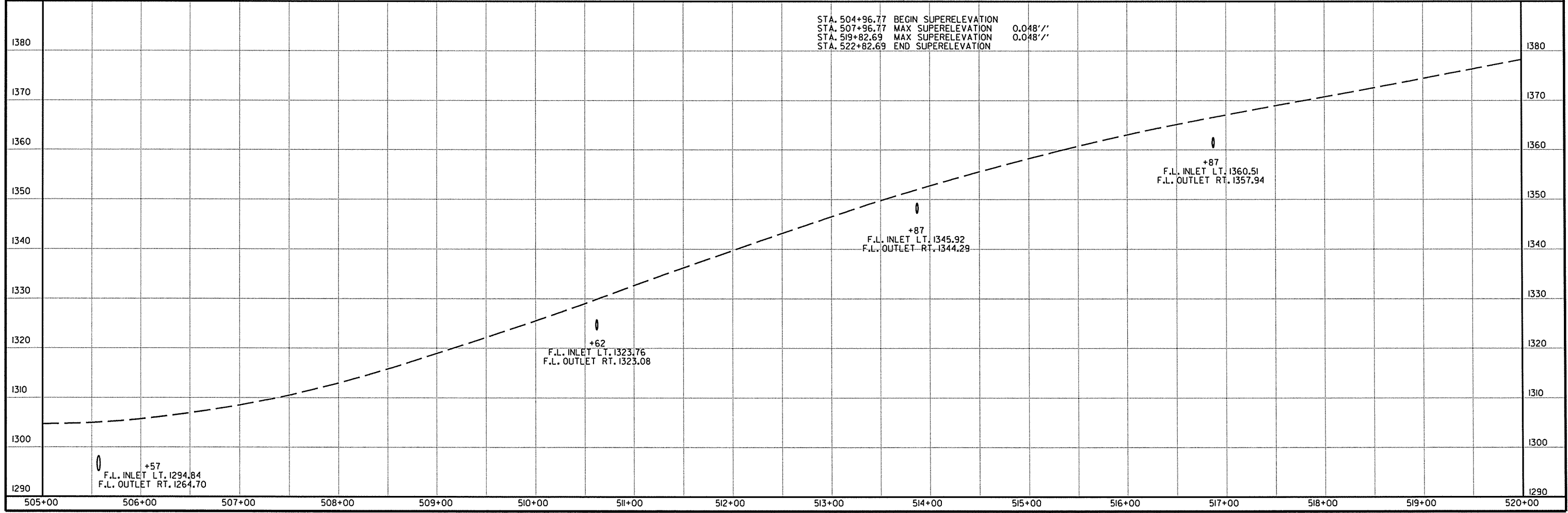
STA. 510+62 IN PLACE
15" X 46' R.C. PIPE CULVERT
CROSS DRAIN
REMOVE AND INSTALL
24" X 82' R.C. PIPE CULVERT
(CLASS III TYPE 3 BEDDING)
WITH FES LT. & RT.
O50 = 12 CFS, D.A. = 5 ACRES
24" R.C. PIPE = 82 LIN. FT.
24" FES = 2 EACH

STA. 513+87 IN PLACE
15" X 46' R.C. PIPE CULVERT
CROSS DRAIN
REMOVE AND INSTALL
24" X 86' R.C. PIPE CULVERT
(CLASS III TYPE 3 BEDDING)
WITH FES LT. & RT.
O50 = 5 CFS, D.A. = 2 ACRES
24" R.C. PIPE = 86 LIN. FT.
24" FES = 2 EACH

STA. 516+87 IN PLACE
15" X 50' R.C. PIPE CULVERT
CROSS DRAIN
REMOVE AND INSTALL
24" X 88' R.C. PIPE CULVERT
(CLASS III TYPE 3 BEDDING)
WITH FES LT. & RT.
O50 = 10 CFS, D.A. = 4 ACRES
24" R.C. PIPE = 88 LIN. FT.
24" FES = 2 EACH

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

SITE 2



STA. 504+96.77 BEGIN SUPERELEVATION
STA. 507+96.77 MAX SUPERELEVATION 0.048'/'
STA. 519+82.69 MAX SUPERELEVATION 0.048'/'
STA. 522+82.69 END SUPERELEVATION

+57
F.L. INLET LT. 1294.84
F.L. OUTLET RT. 1264.70

+62
F.L. INLET LT. 1323.76
F.L. OUTLET RT. 1323.08

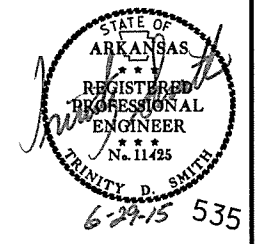
+87
F.L. INLET LT. 1345.92
F.L. OUTLET RT. 1344.29

+87
F.L. INLET LT. 1360.51
F.L. OUTLET RT. 1357.94

R080422.DGN 5/1/2014

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. 080422							58	135

2 PLAN AND PROFILE 520+00 - 535+00



P.I. = 514+01.29
 Δ = 25°50'33" LT.
D = 1°56'04"
T = 679.52'
L = 1335.92'
P.C. = 507+21.77
P.T. = 520+57.69
e = 0.048'/'
Ls = 300'

WIRE FENCE (TYPE D)

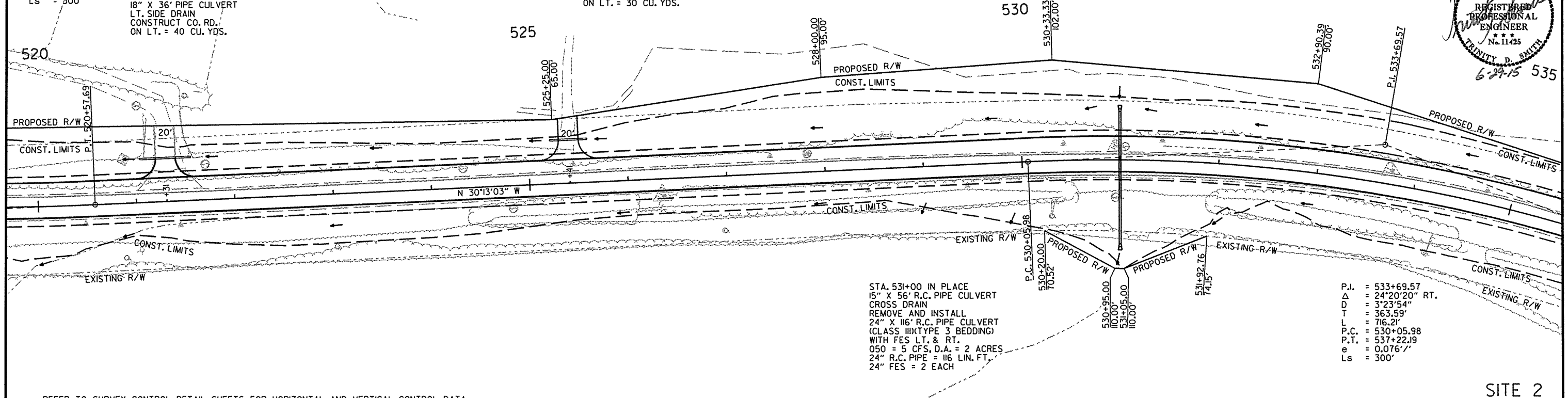
STA.	STA.	SIDE	LIN. FT.
209+87	223+00	RT.	1400
219+47	223+76	LT.	447
223+22	224+00	RT.	76

STA. 521+31 INSTALL
18" X 36' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT CO. RD.
ON LT. = 40 CU. YDS.

STA. 525+41 INSTALL
18" X 32' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
ON LT. = 30 CU. YDS.

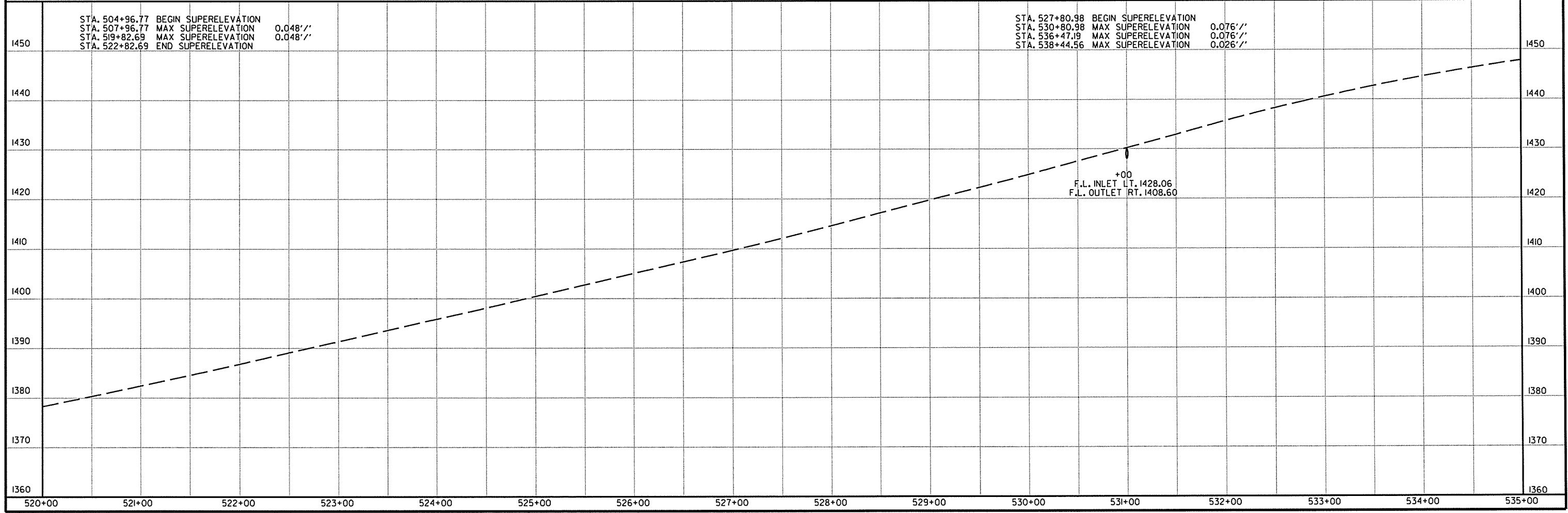
STA. 531+00 IN PLACE
15" X 56' R.C. PIPE CULVERT
CROSS DRAIN
REMOVE AND INSTALL
24" X 116' R.C. PIPE CULVERT
(CLASS III (TYPE 3 BEDDING)
WITH FES LT. & RT.
050 = 5 CFS, D.A. = 2 ACRES
24" R.C. PIPE = 116 LIN. FT.
24" FES = 2 EACH

P.I. = 533+69.57
 Δ = 24°20'20" RT.
D = 3°23'54"
T = 363.59'
L = 716.21'
P.C. = 530+05.98
P.T. = 537+22.19
e = 0.076'/'
Ls = 300'



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

SITE 2

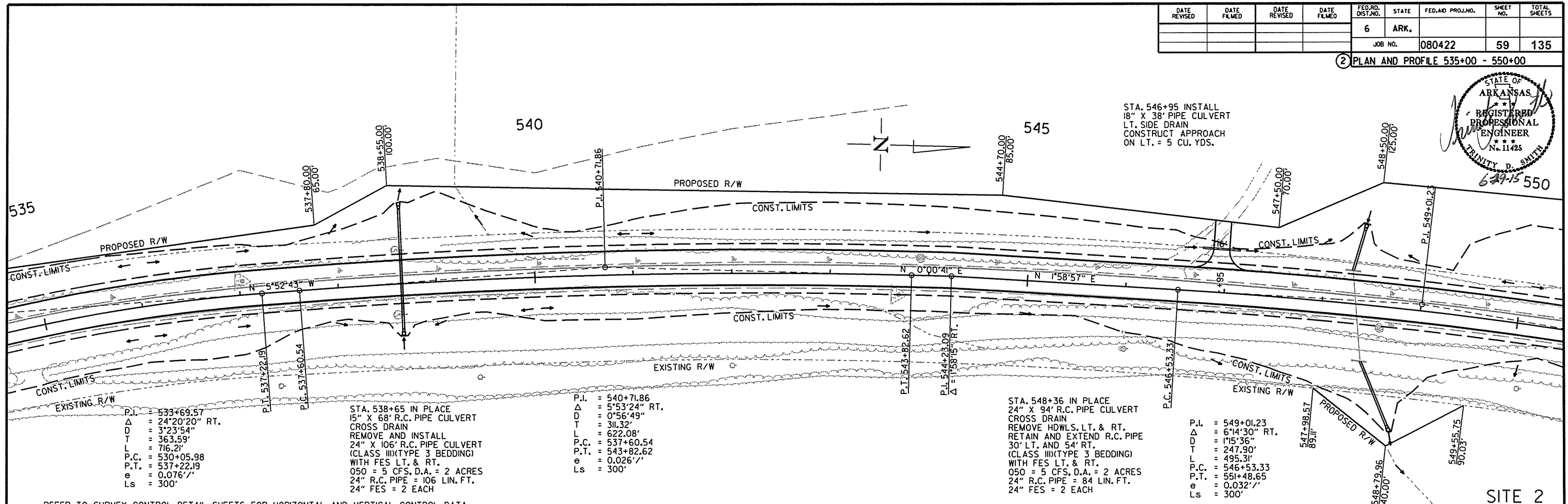
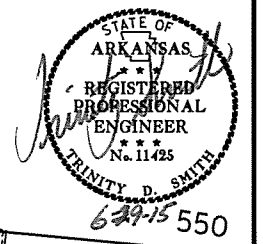


5/1/2014

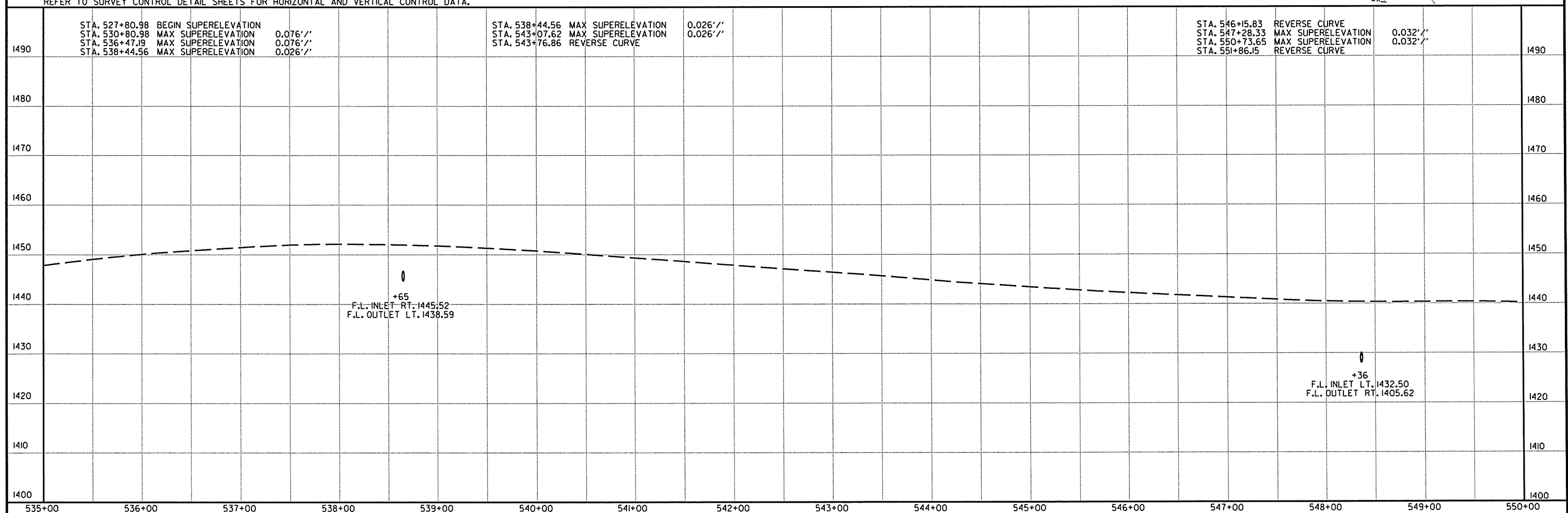
RO80422.DGN

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. 080422							59	135

② PLAN AND PROFILE 535+00 - 550+00



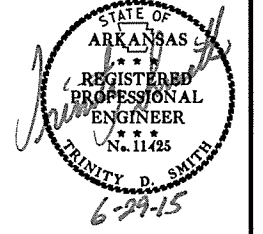
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



RO80422.DGN 5/1/2014

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		60	135

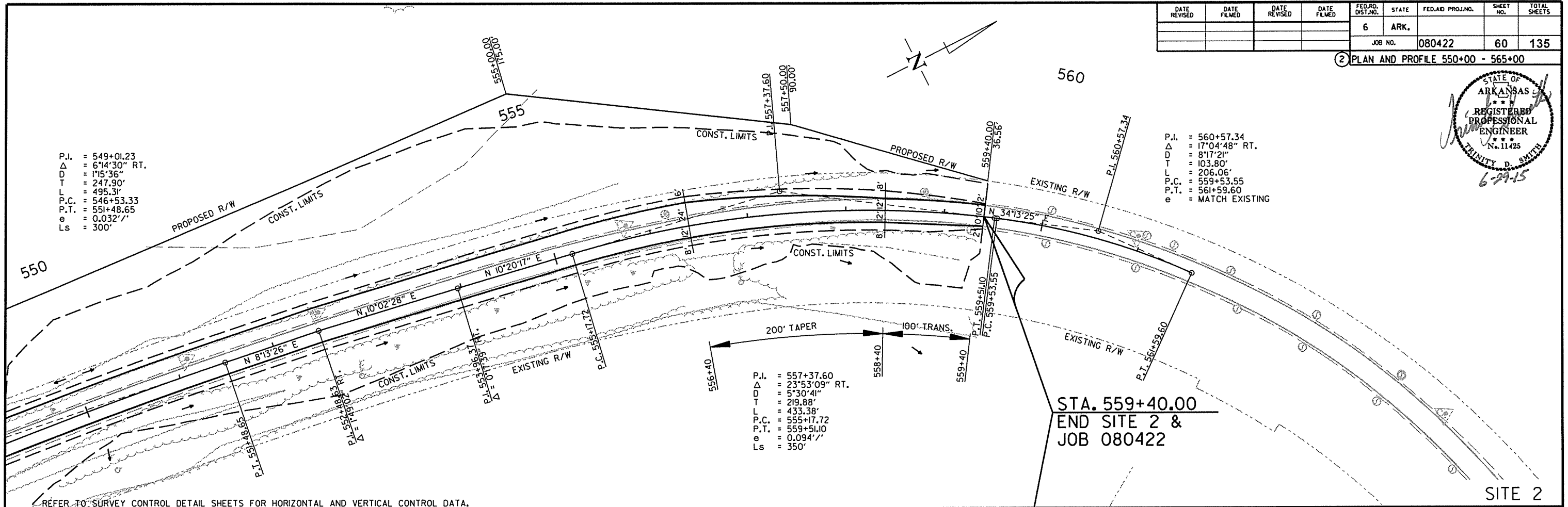
2 PLAN AND PROFILE 550+00 - 565+00



P.I. = 560+57.34
 Δ = 17°04'48" RT.
 D = 817'21"
 T = 103.80'
 L = 206.06'
 P.C. = 559+53.55
 P.T. = 561+59.60
 e = MATCH EXISTING

P.I. = 557+37.60
 Δ = 23°53'09" RT.
 D = 5°30'41"
 T = 219.88'
 L = 433.38'
 P.C. = 555+17.72
 P.T. = 559+51.10
 e = 0.094'/'
 Ls = 350'

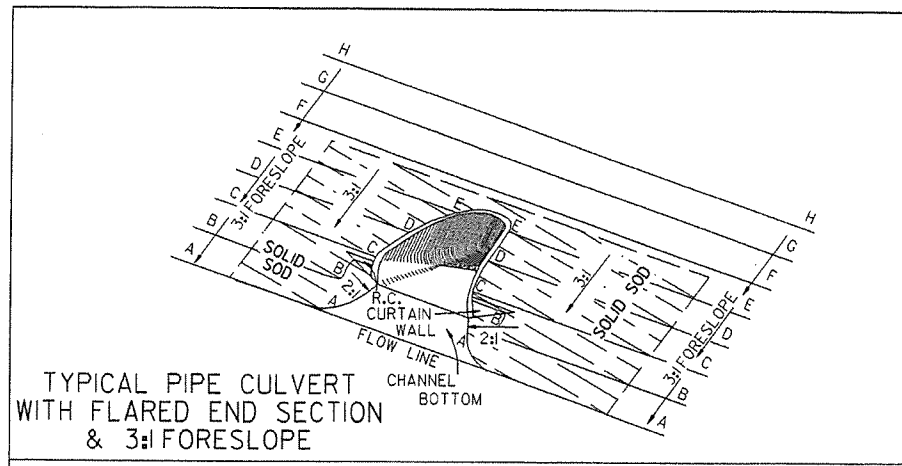
P.I. = 549+01.23
 Δ = 6°14'30" RT.
 D = 1°15'36"
 T = 247.90'
 L = 495.31'
 P.C. = 546+53.33
 P.T. = 551+48.65
 e = 0.032'/'
 Ls = 300'



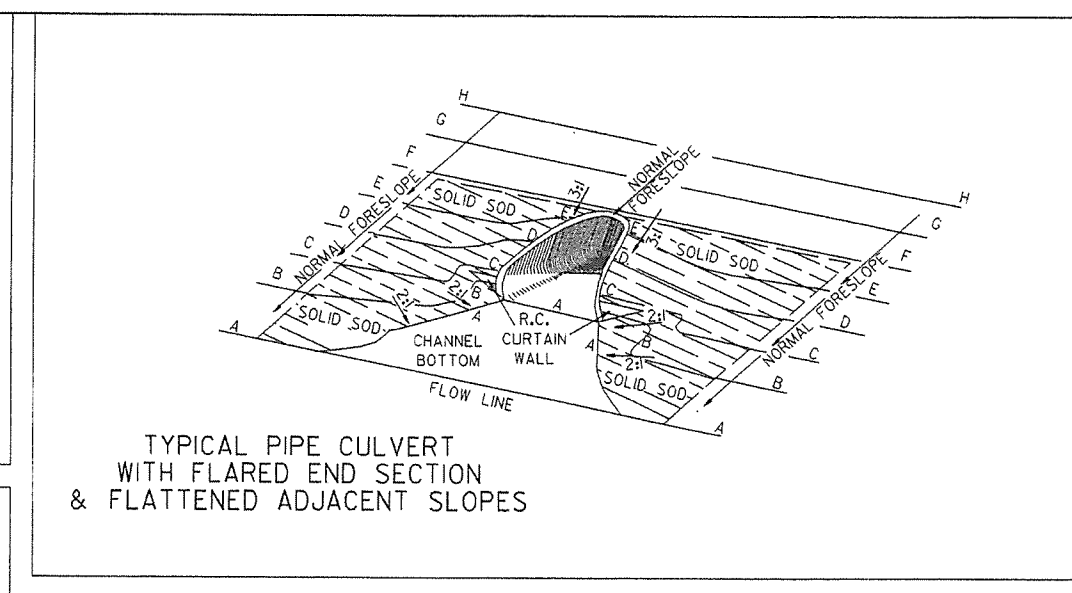
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



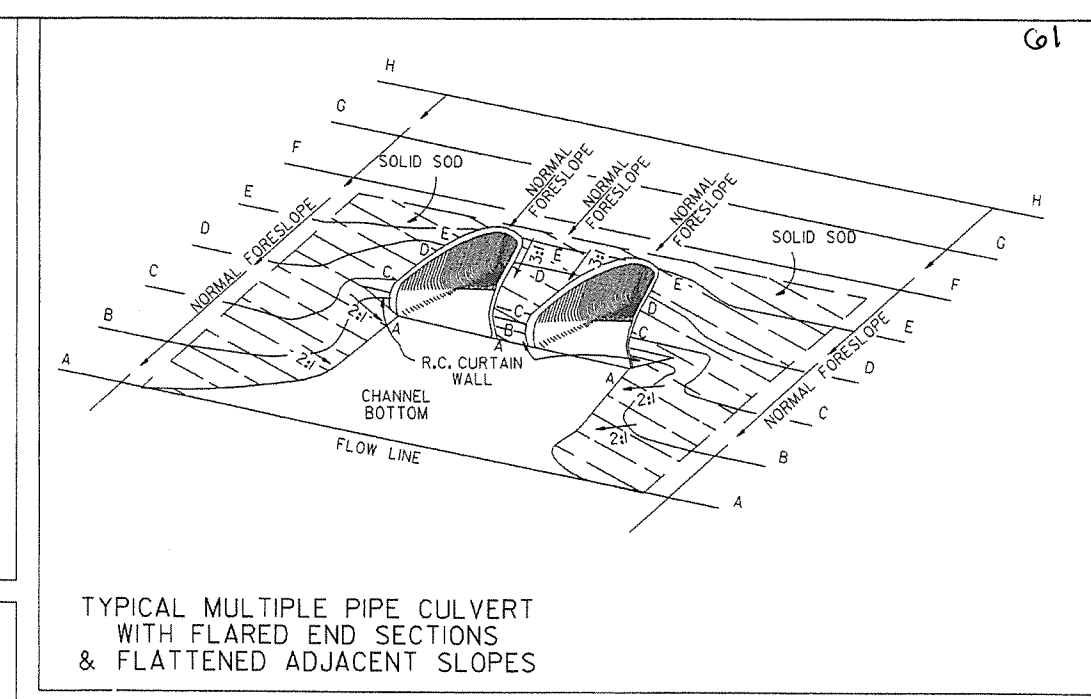
5/1/2014
 RO80422.DGN



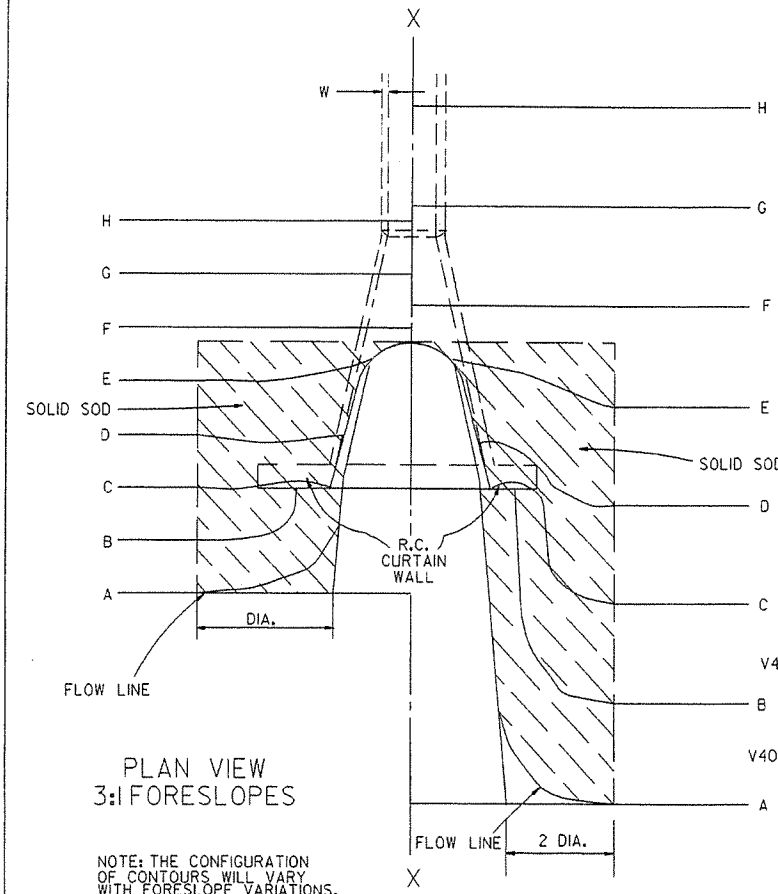
TYPICAL PIPE CULVERT WITH FLARED END SECTION & 3:1 FORESLOPE



TYPICAL PIPE CULVERT WITH FLARED END SECTION & FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT WITH FLARED END SECTIONS & FLATTENED ADJACENT SLOPES



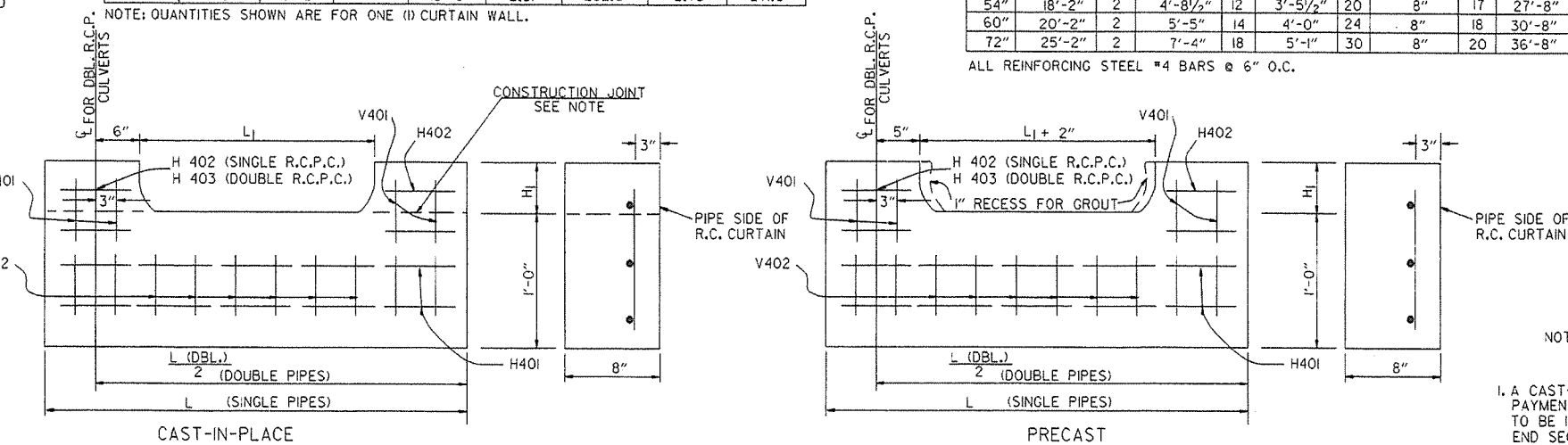
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

PIPE DIA.	H ₁	L ₁	L	L (DBL.) / 2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
18"	11 1/2"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0 1/2"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3 1/2"	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'-1 1/2"	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'-9 1/2"	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.



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.

R.C. CURTAIN WALL DETAILS

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT									
	H401		H402		V401		V402		H401		H403		V401		V402			
L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.			
18"	7'-8"	2	1'-11 1/2"	4	1'-7 1/2"	8	8"	8	12'-2"	2	1'-11 1/2"	4	8"	2	1'-7 1/2"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8 1/2"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8 1/2"	12	8"	18
30"	10'-8"	2	2'-4 1/2"	4	1'-11 1/2"	10	8"	12	17'-8"	2	2'-4 1/2"	4	8"	2	1'-11 1/2"	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'-9 1/2"	8	2'-9 1/2"	16	8"	15	23'-8"	2	3'-9 1/2"	8	8"	4	2'-9 1/2"	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'-8 1/2"	12	3'-5 1/2"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5 1/2"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

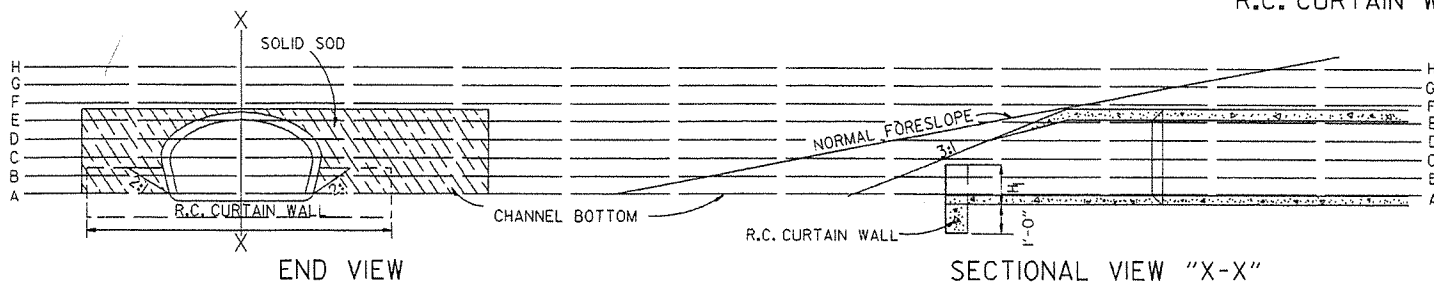
ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.			DOUBLE R.C.P.C.		
	3:1	4:1	6:1	3:1	4:1	6:1
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	72	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 3/4".
 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 W/10 x W/10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

SECTIONAL VIEW "X-X"

10-18-96	ADDED NOTE TO SOLID SODDING	10-18-96	ARKANSAS STATE HIGHWAY COMMISSION
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		
DATE	REVISION	FILMED	STANDARD DRAWING FES-1

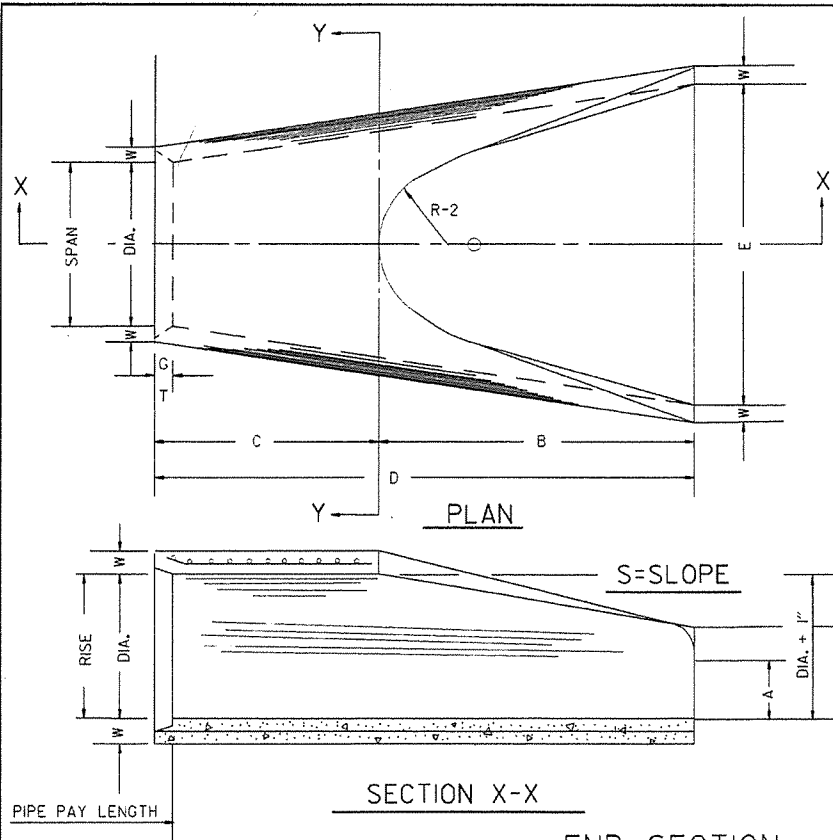
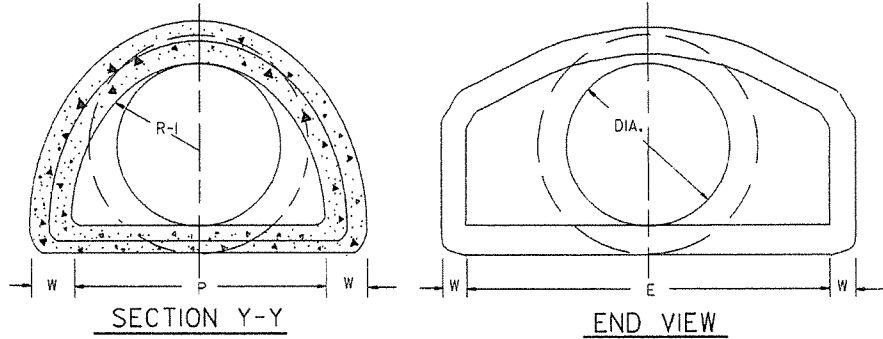


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. - 1"	P	R-1	R-2	G-T	WT.	h
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15 1/2"	12"	2"	1000	1'-0 1/2"
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3:1	25"	33 3/8"	16 1/8"	14"	2 1/2"	1600	1'-1 1/2"
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18 1/2"	15"	3 1/4"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 1/4"	6'-0"	3:1	37"	47 1/8"	24 5/8"	20"	3 1/2"	4100	1'-8"
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53 1/8"	27 1/2"	22"	3 1/2"	5380	2'-2 1/2"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56 1/2"	28 1/2"	22"	3 1/2"	6550	2'-6"
54"	5 1/2"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65 1/2"	33 1/8"	24"	4"	8750	2'-10 1/2"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72 1/2"	36 1/8"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 1/8"	38 1/8"	24"	5"	13250	4'-6"

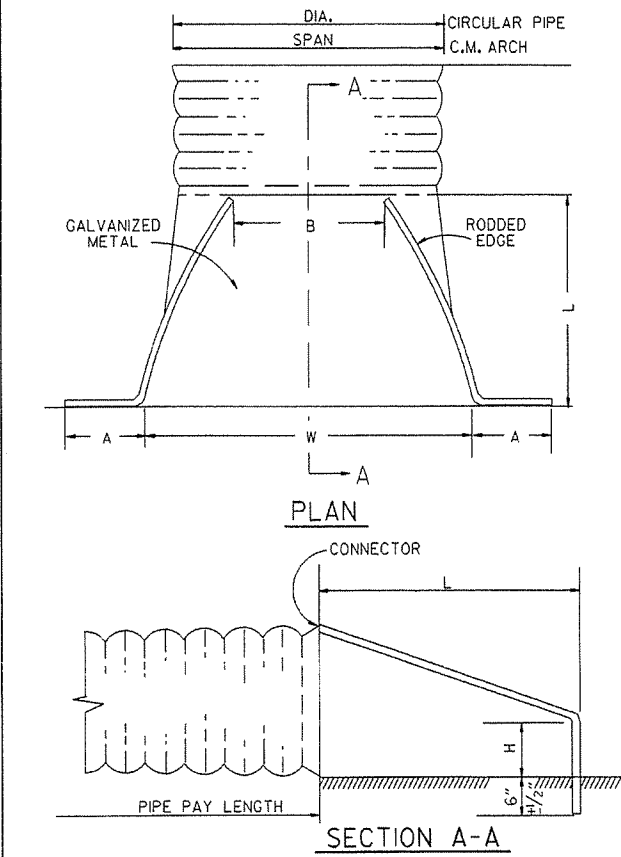
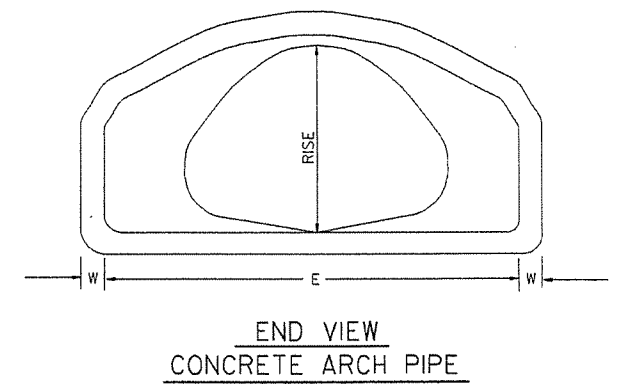


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

EQUIV. DIA.	SPAN		RISE		W	A	B	C	D	E	P	R2	G-T	S
	AASHTO M 206	AHD NOMINAL	AASHTO M 206	AHD NOMINAL										
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1 1/2"	2 1/2:1
18	22	22	13 1/2	14	2 1/2"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32 1/8"	13"	2 1/2"	2 1/2:1
21	26	26	15 1/2	16	2 3/4"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34 1/8"	14"	2 1/2"	2 1/2:1
24	28 1/2	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 1/8"	15"	2 1/2"	2 1/2:1
30	36 1/4	36	22 1/2	23	3 1/2"	10"	3'-0"	3'-0 1/2"	6'-1 1/2"	6'-0"	47 1/8"	20"	3"	2 1/2:1
36	43 3/4	44	26 5/8	27	4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	6'-6"	54 3/8"	22"	3 1/2"	2 1/2:1
42	51 1/8	51	31 1/8	31	4 1/2"	11 1/2"	4'-7"	1'-10 1/4"	6'-5 1/4"	7'-2"	59 3/8"	23"	3 3/4"	2 1/2:1
48	58 1/2	59	36	36	5"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	7'-10"	70 3/8"	24"	4 1/4"	2 1/2:1
54	65	65	40	40	5 1/2"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/8"	24"	4 3/4"	2 1/2:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/8"	24"	5"	2 1/2:1

* THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

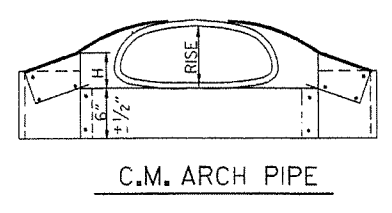
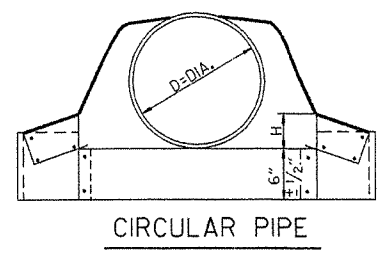


NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

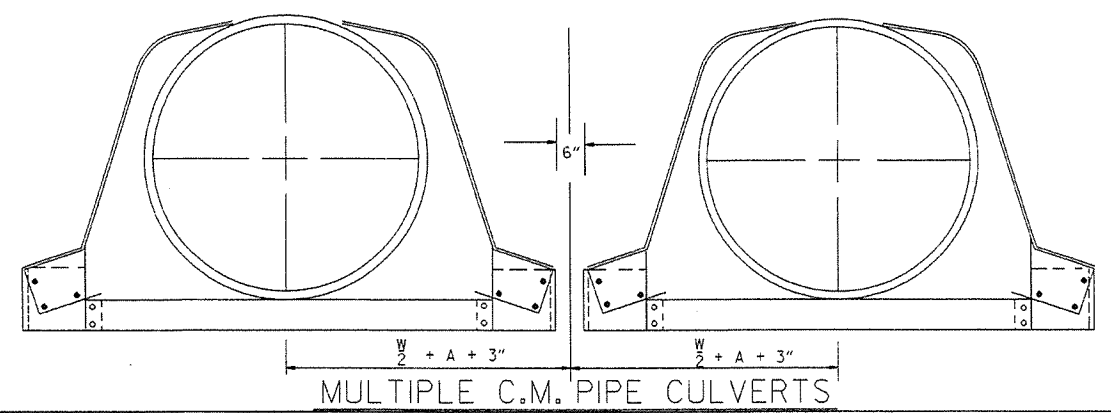
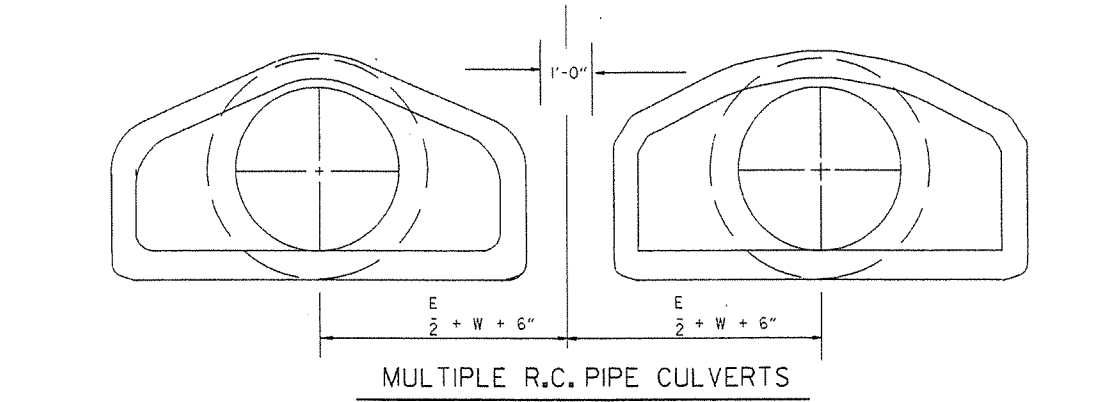
CIRCULAR PIPE

D. DIA.	GAUGE	A 1" ±	B MAX.	H 1" ±	L 1 1/2" ±	W 2" ±	S
INCHES							
12	16	6	6	6	21	24	2 1/2:1
15	16	7	8	6	26	30	2 1/2:1
18	16	8	10	6	31	36	2 1/2:1
21	16	9	12	6	36	42	2 1/2:1
24	16	10	13	6	41	48	2 1/2:1
30	14	12	16	8	51	60	2 1/2:1
36	14	14	19	9	60	72	2 1/2:1
42	12	16	22	11	69	84	2 1/2:1
48	12	18	27	12	78	90	2 1/2:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1 1/2:1
66	12	18	36	12	87	120	1 1/2:1
72	12	18	39	12	87	126	1 1/3:1

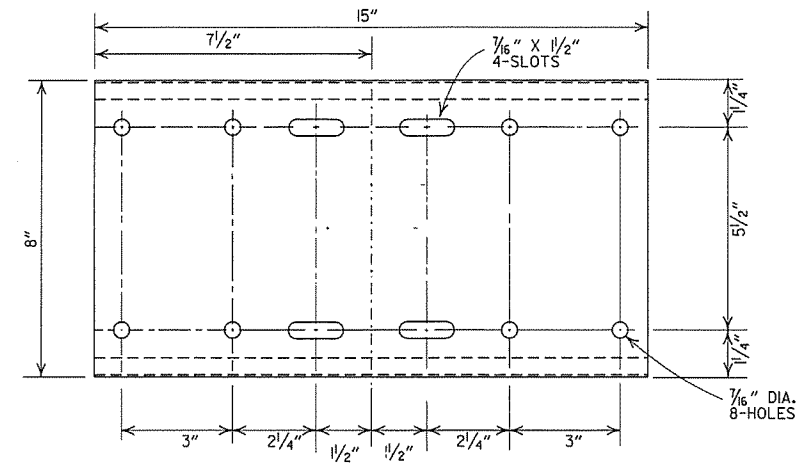


C.M. ARCH PIPE

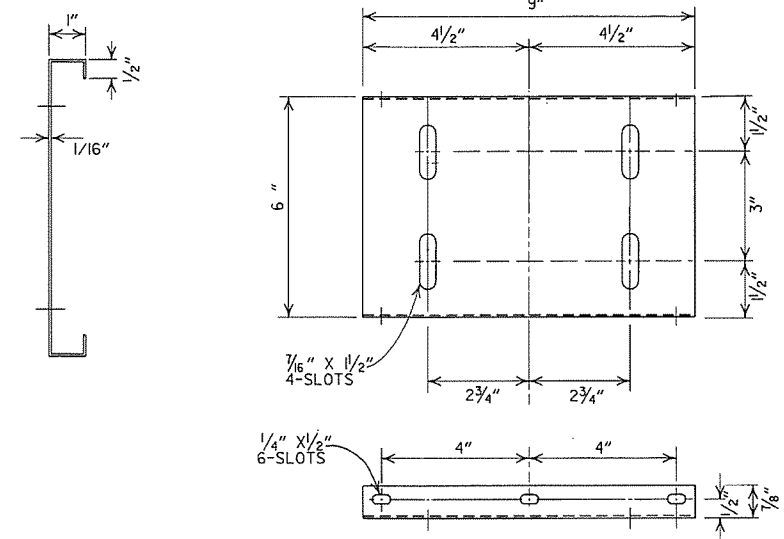
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1 1/2" ±	W 2" ±	S	GAUGE
INCHES									
15"	17	13	7	9	6	19	30	2 1/2:1	16
18"	21	15	7	10	6	23	36	2 1/2:1	16
21"	24	18	8	12	6	28	42	2 1/2:1	16
24"	28	20	9	14	6	32	48	2 1/2:1	16
30"	35	24	10	16	6	39	60	2 1/2:1	14
36"	42	29	12	18	8	46	75	2 1/2:1	14
42"	49	33	13	21	9	53	85	2 1/2:1	12
48"	57	38	18	26	12	63	90	2 1/2:1	12
54"	64	43	18	30	12	70	102	2 1/4:1	12
60"	71	47	18	33	12	77	114	2 1/4:1	12



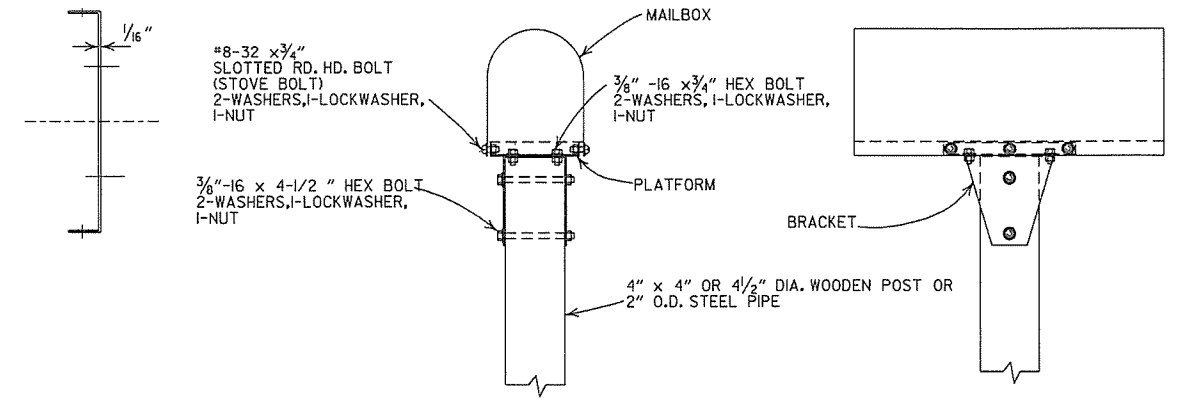
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96	ARKANSAS STATE HIGHWAY COMMISSION
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80	
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78	
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75	FLARED END SECTION
12-5-74	REMOVED NOTE 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	STANDARD DRAWING FES-2
DATE	REVISION	FILMED	



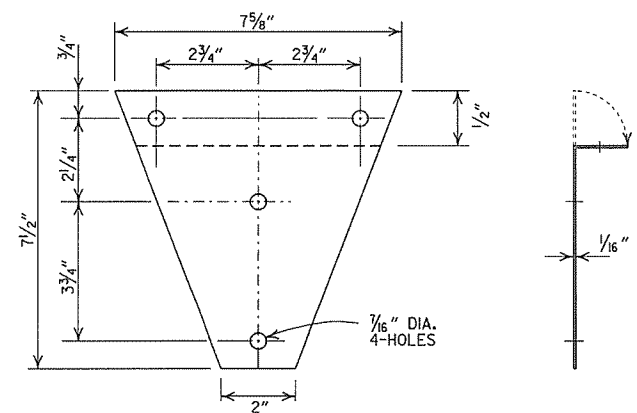
SHELF



PLATFORM

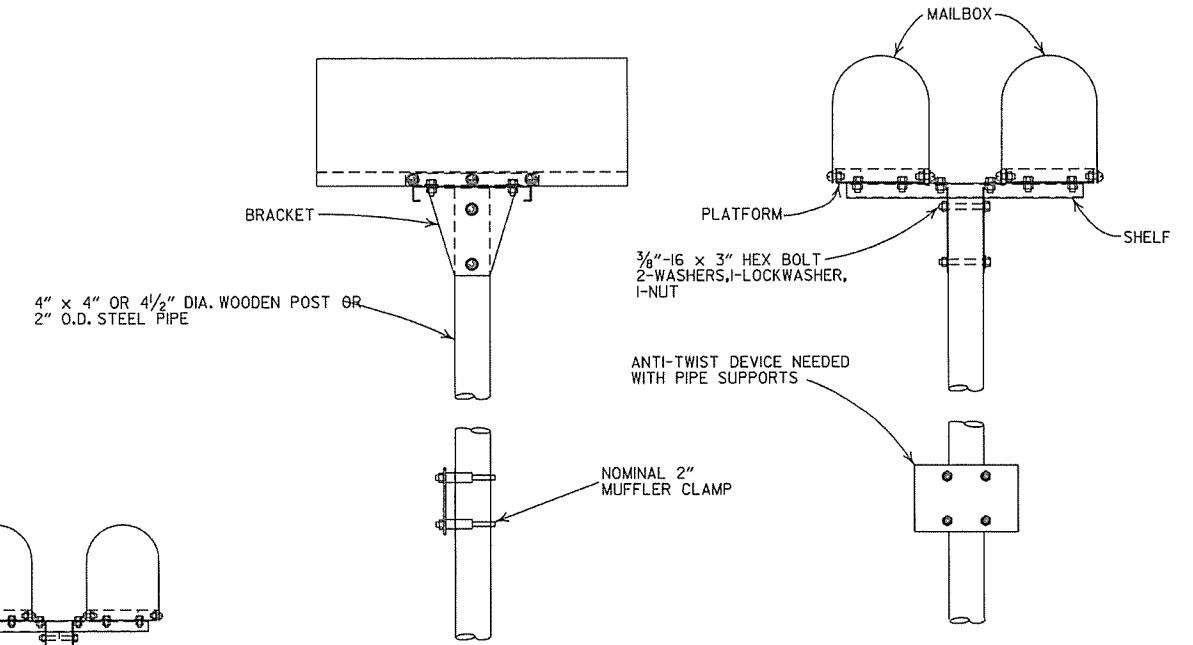


SINGLE INSTALLATION

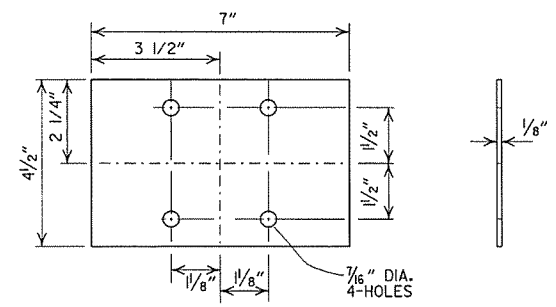


BRACKET

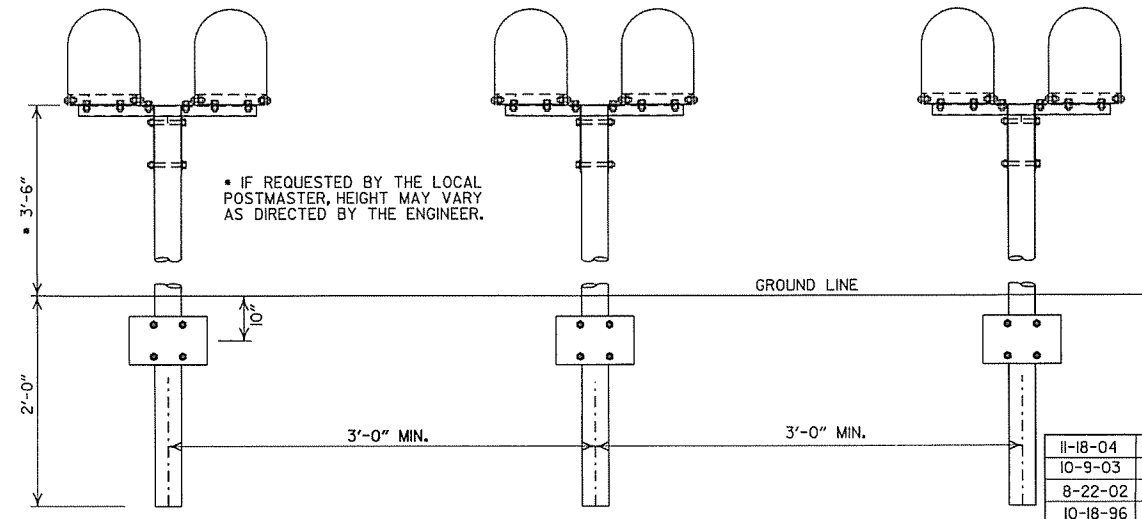
- GENERAL NOTES
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
 2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
 3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF 3/4" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 x 3/4" 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 AHTD QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



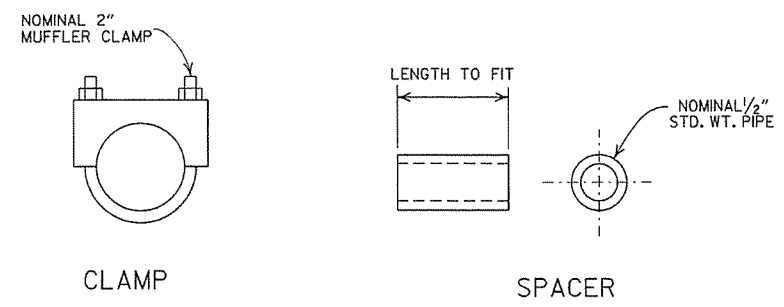
DOUBLE INSTALLATION



ANTI-TWIST PLATE



SPACING FOR MULTIPLE POST INSTALLATION



DATE	FILED	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	120-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS
STANDARD DRAWING MB-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13 1/2	14
21	26	26	15 1/2	16
24	28 1/2	29	18	18
30	36 1/4	36	22 1/2	23
36	43 3/8	44	26 5/8	27
42	51 1/8	51	31 1/6	31
48	58 1/2	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	77 1/2	77
108	138	138	87 1/8	87
120	154	154	98 5/8	97
132	168 3/4	169	106 1/2	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).

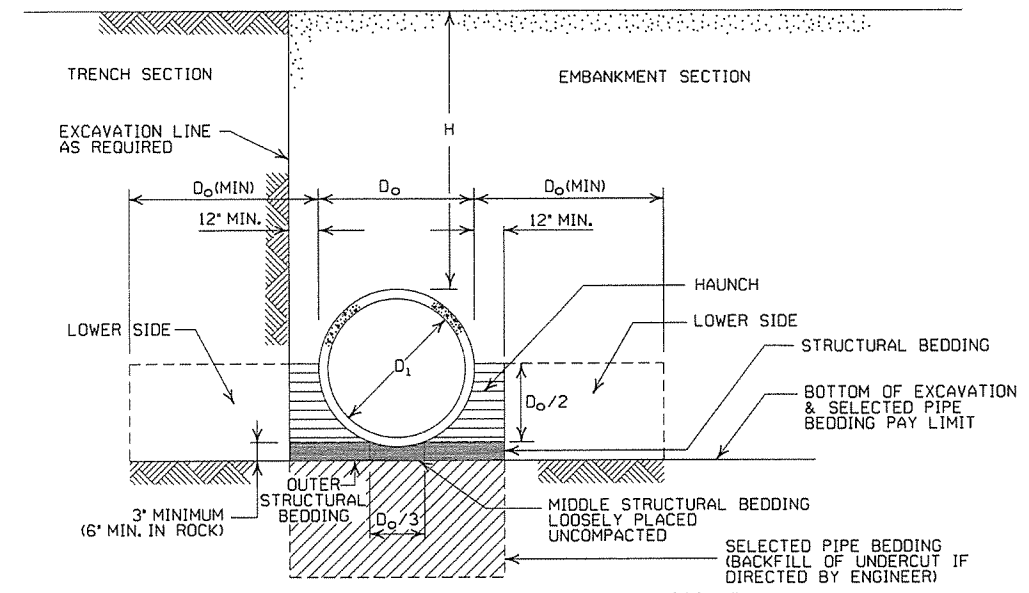
NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

- LEGEND -

- D_i = 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 STATE HIGHWAY AND TRANSPORTATION DEPARTMENT 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

INSTALLATION TYPE	CLASS OF PIPE			
	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
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
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
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	ISSUED	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 MINIMUM 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
2 1/2 INCH BY 1/2 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

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.

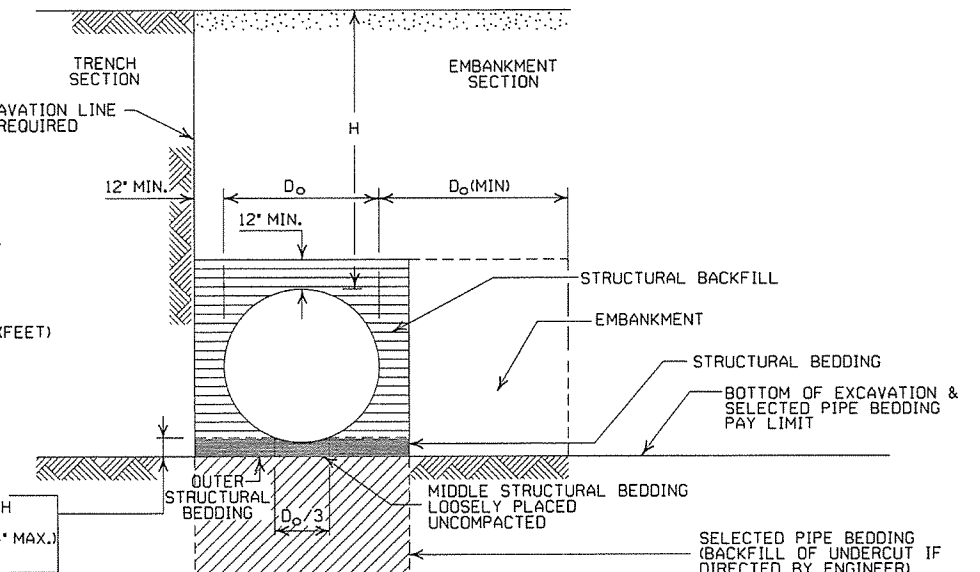
NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

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.

- LEGEND -

- D_o = OUTSIDE DIAMETER OF PIPE
- MAX. = MAXIMUM
- MIN. = MINIMUM
- [Symbol] = STRUCTURAL BACKFILL MATERIAL
- [Symbol] = 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. INSTALLATION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2 3/8" x 1/2" 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.

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINIMUM 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 1/2 INCH BY 1/2 INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM						
12	1	45	45	52		
18	2	30	30	39		
24	2	22	22	31	32	34
30	2		18	26	27	28
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

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)	MINIMUM CORNER RADIUS (INCHES)	STEEL				ALUMINUM			
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)			
				INSTALLATION			INSTALLATION			
				TYPE 1	TYPE 1		TYPE 1	TYPE 1		
2 1/2 INCH BY 1/2 INCH CORRUGATION RIVETED, WELDED, 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	3 1/2	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	0.135	3	14		
66	77x52	8	0.168	3	15	0.164	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

PIPE DIAMETER (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINIMUM CORNER RADIUS (INCHES)	MIN. THICKNESS	INSTALLATION		INSTALLATION	
				TYPE 2		TYPE 1	
				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 1/2" 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.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT 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

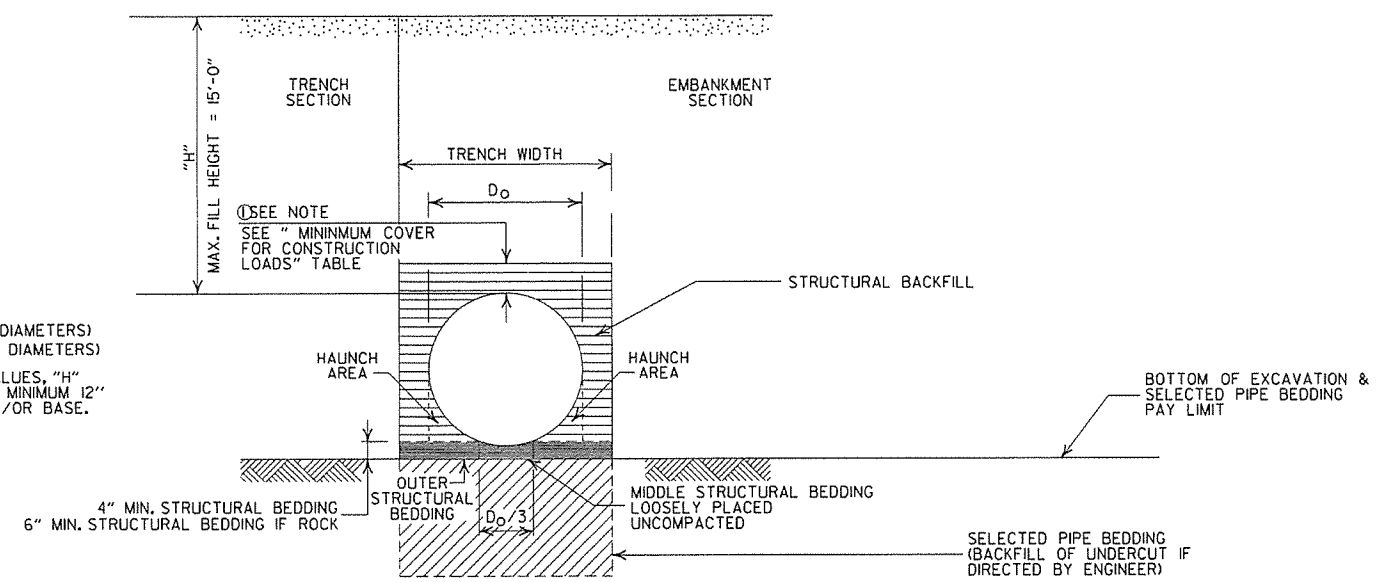
INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4)

- 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 1/2 INCH. 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.

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"

NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)
MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.



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.

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 COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	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"

MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.

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 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. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

- H = FILL HEIGHT (FT.)
- D_o = OUTSIDE DIAMETER OF PIPE
- MAX. = MAXIMUM
- MIN. = MINIMUM
- [Hatched pattern] = STRUCTURAL BACKFILL MATERIAL
- [Diagonal lines pattern] = 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 1/2 INCH. 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"

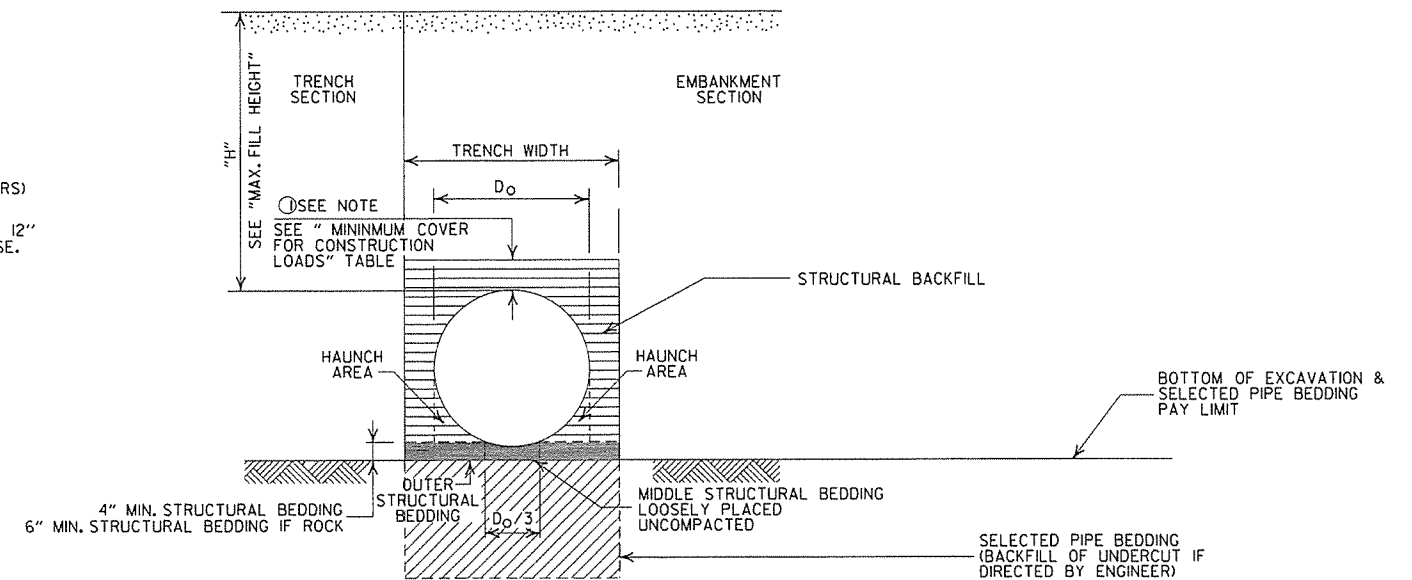
MULTIPLE INSTALLATION OF PVC PIPES

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.



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.

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"

- ② MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.

GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F949, CELL CLASS I2454. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE, IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

==== = STRUCTURAL BACKFILL MATERIAL
===== = UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL	
11-17-10	ISSUED	

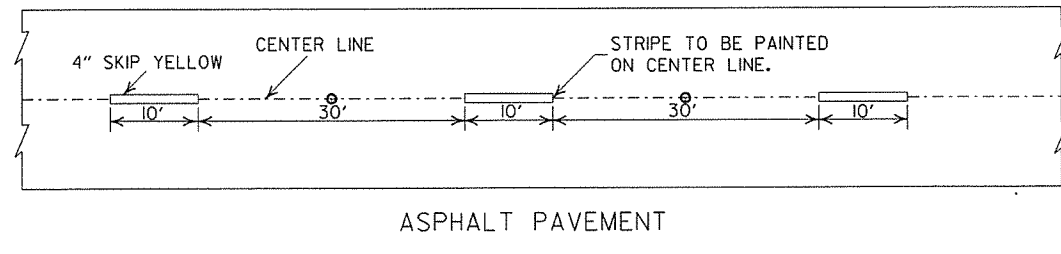
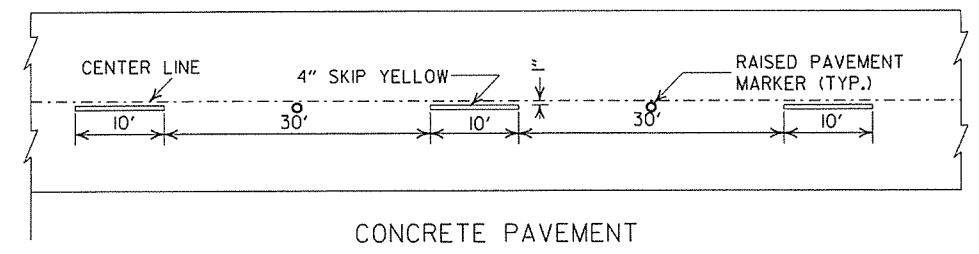
ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT
(PVC F949)

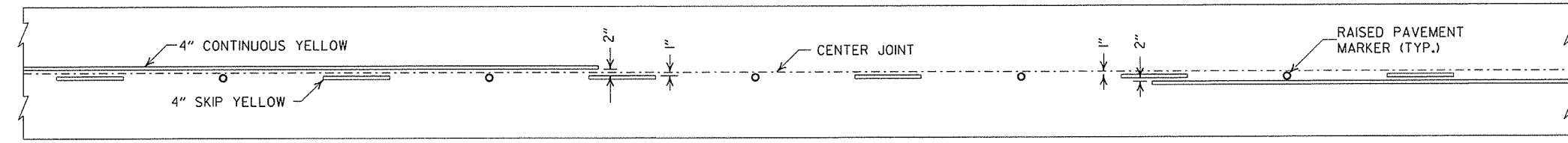
STANDARD DRAWING PCP-2

NOTES:

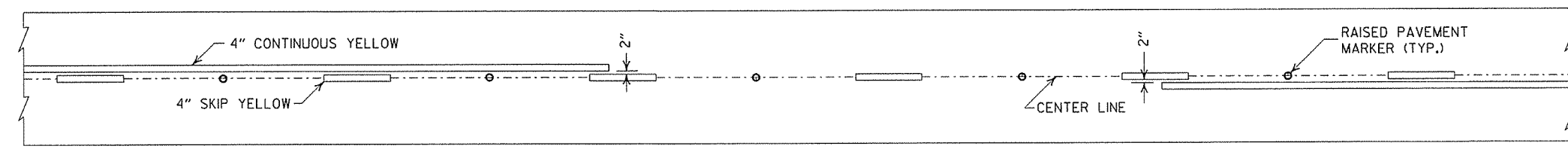
1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.



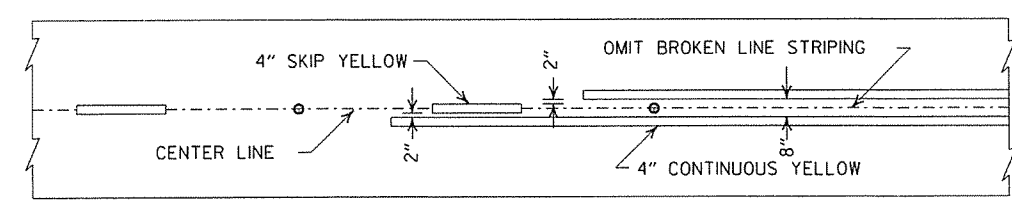
BROKEN LINE STRIPING



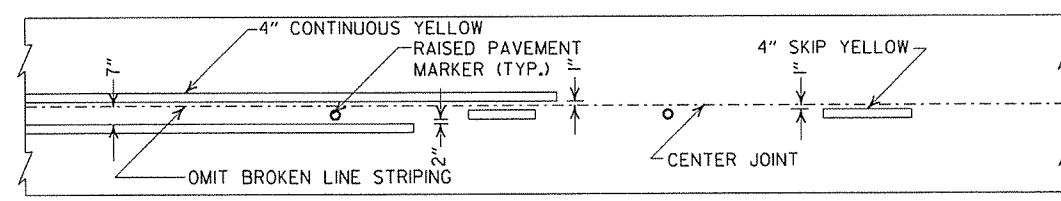
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

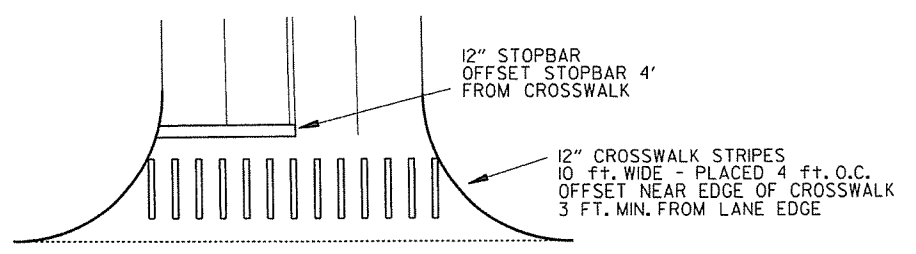


ASPHALT PAVEMENT



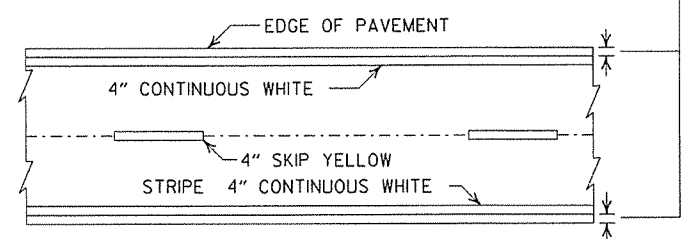
CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

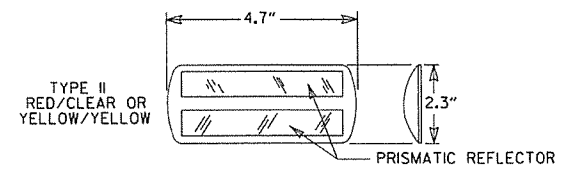


CROSSWALK AND STOPBAR DETAILS

2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



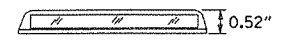
PAVEMENT EDGE LINE MARKING



TYPE II
RED/CLEAR OR
YELLOW/YELLOW

PRISMATIC REFLECTOR

NOTE:
THE RED LENS OF THE
TYPE II R.P.M. SHALL
FACE THE INCORRECT
TRAFFIC MOVEMENT.



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

GENERAL NOTES:
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

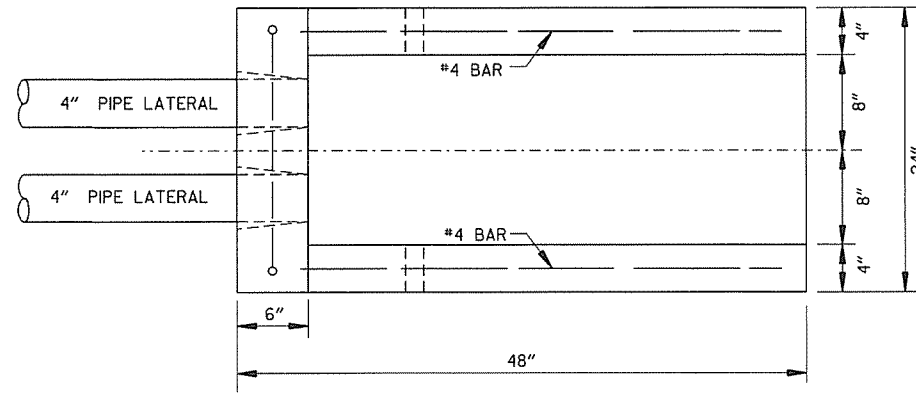
THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

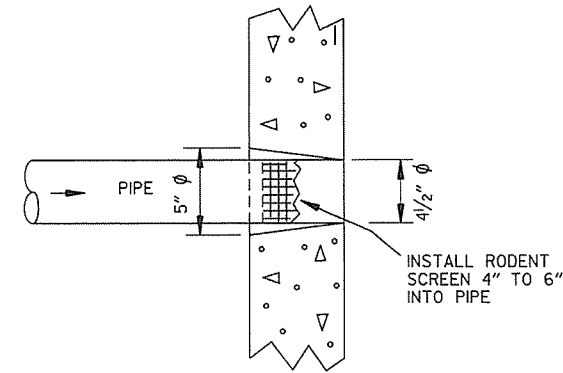
DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION	
PAVEMENT MARKING DETAILS	
STANDARD DRAWING PM-1	

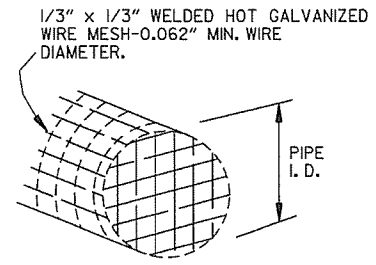
NOTE:
 1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.
 2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.
 3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



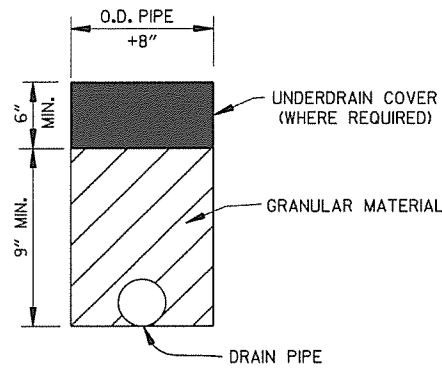
PLAN VIEW



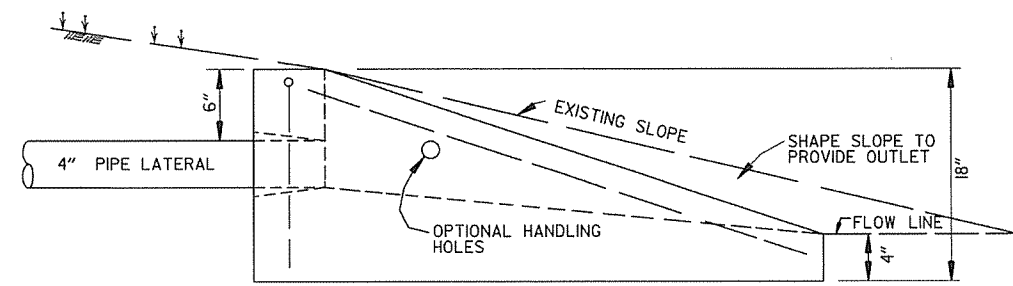
DETAIL OF HOLE FOR 4" PIPE



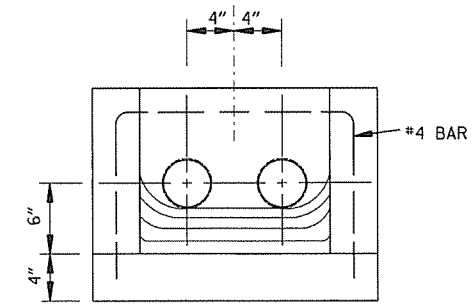
DETAIL OF RODENT SCREEN



DETAILS OF PIPE UNDERDRAIN



SIDE VIEW

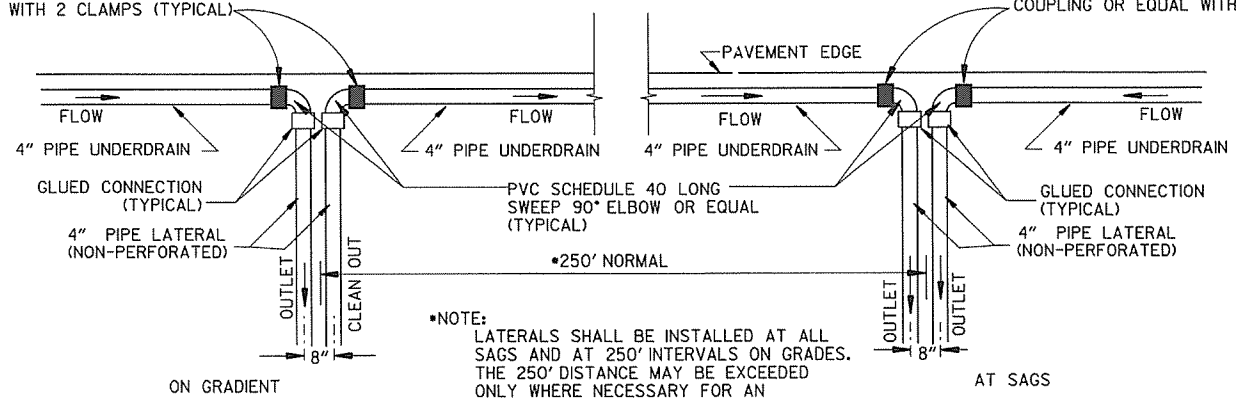


FRONT VIEW

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DI OR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DI OR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)

UNDERDRAIN OUTLET PROTECTORS



*NOTE:
 LATERALS SHALL BE INSTALLED AT ALL SAGS AND AT 250' INTERVALS ON GRADES. THE 250' DISTANCE MAY BE EXCEEDED ONLY WHERE NECESSARY FOR AN ACCEPTABLE OUTLET.

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.

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; 5 1/2" 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 POLYETHYLENE 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
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH		40 MPH		50 MPH		55 MPH		60 MPH		70 MPH	
	Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)		Ls (FT)	
	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE	MINIMUM	DESIRABLE
0° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
0° 30'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
0° 45'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 00'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 15'	N.C.		N.C.		N.C.		N.C.		N.C.		N.C.	
1° 30'	N.C.		0.021		0.031		0.037		0.043		0.054	
1° 45'	N.C.		0.025		0.036	200	0.043	225	0.049	250	0.062	300
2° 00'	R.C.		0.028	175	0.040	200	0.048	300	0.055	300	0.070	
2° 15'	R.C.		0.031		0.045	250	0.053		0.061		0.078	300
2° 30'	0.021		0.034		0.049		0.058		0.067		0.085	350
2° 45'	0.023		0.037		0.053		0.063		0.072		0.091	350
3° 00'	0.025	150	0.040	200	0.057		0.067	230	0.077	260	0.096	350
3° 15'	0.027		0.043		0.061		0.072	245	0.082	275	0.098	360
3° 30'	0.029		0.046		0.065	205	0.076	255	0.086	285	0.100	360
3° 45'	0.031		0.049		0.069	215	0.080	265	0.090	295		
4° 00'	0.033	200	0.051		0.072	225	0.083	270	0.093	305		
4° 30'	0.037		0.056		0.078	240	0.087	280	0.096	315		
5° 00'	0.040		0.061		0.083	250	0.091	295	0.098	320		
5° 30'	0.043		0.066	185	0.088	260	0.094	300				
6° 00'	0.046		0.070	190	0.092	270	0.096	305				
6° 30'	0.050		0.074	200	0.095	280	0.100	315				
7° 00'	0.053		0.078	210	0.098	285						
7° 30'	0.056		0.081	215	0.099	290						
8° 00'	0.058		0.084	220	0.100	290						
8° 30'	0.061		0.087	225								
9° 00'	0.063		0.089	230								
10° 00'	0.066	160	0.094	235								
11° 00'	0.072		0.097	240								
12° 00'	0.076		0.099	250								
13° 00'	0.080	180	0.100	250								
14° 00'	0.083	190										
15° 00'	0.086	195										
16° 00'	0.089	200										
17° 00'	0.091	200										
18° 00'	0.093	205										
19° 00'	0.095	210										
20° 00'	0.097	215										
21° 00'	0.098	215										
22° 00'	0.099	215										
23° 00'	0.099	215										
24° 00'	0.100	220										

D MAX = 24° 45'

ABBREVIATIONS

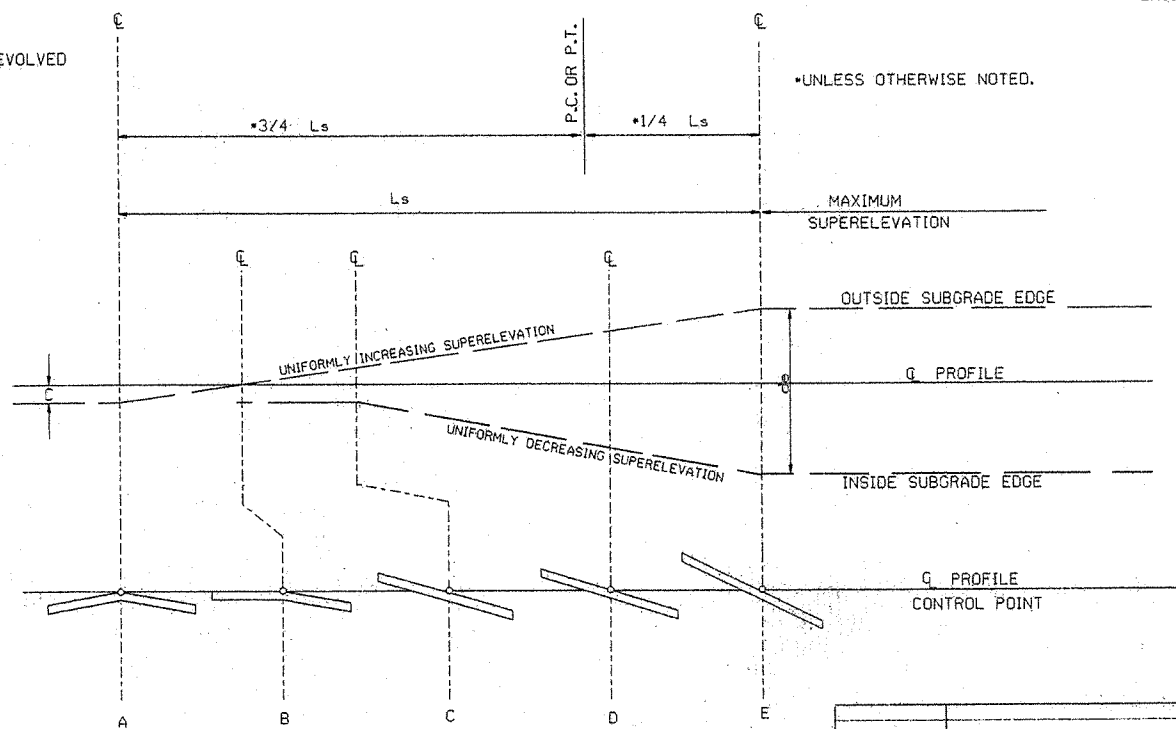
- NC - NORMAL CROWN
- RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
- e - RATE OF SUPERELEVATION (FT. PER FT.)
- Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
- L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
- d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
- c - NORMAL CROWN (FT.)

GENERAL NOTES

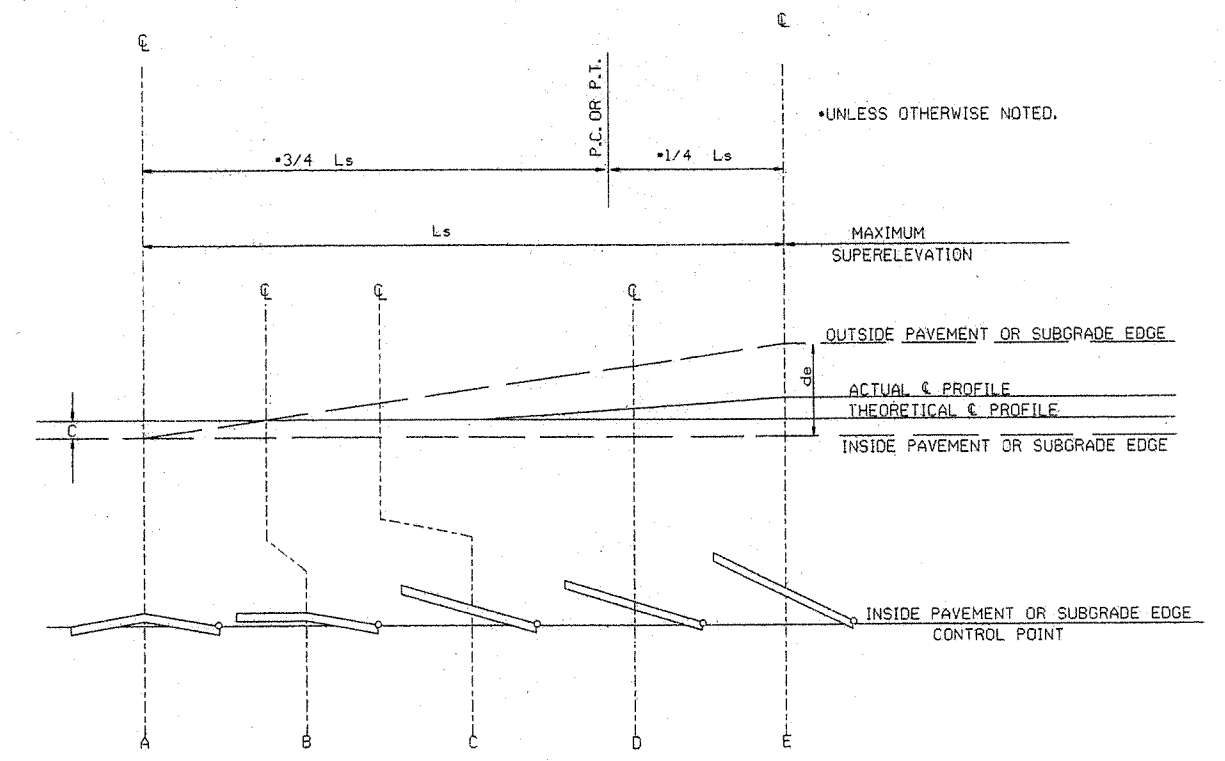
- ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
- SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
- LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
- PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

- 3 LANE UNDIVIDED ----- +20%
- 4 LANE UNDIVIDED ----- +50%
- 5 LANE UNDIVIDED ----- +80%
- 6 LANE UNDIVIDED ----- +100%

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.
RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

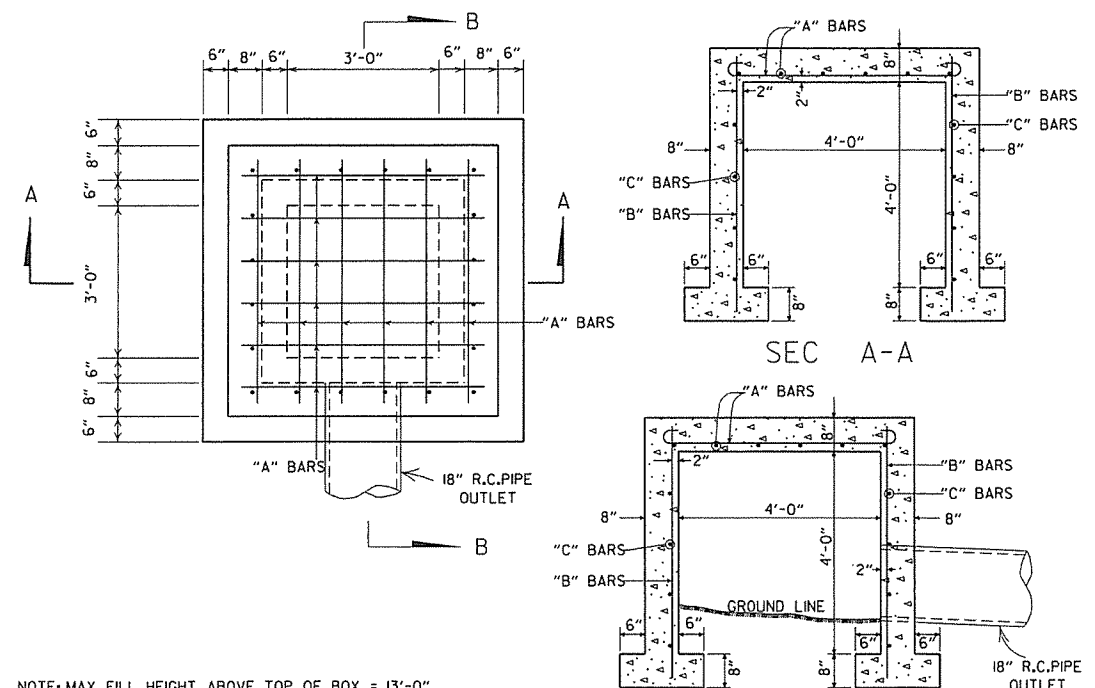
SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$

10-18-96	ADDED FORMULA	16-12-96
01-09-87	ISSUED	534-1-9-87
DATE	REVISION	DATE FILLED

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

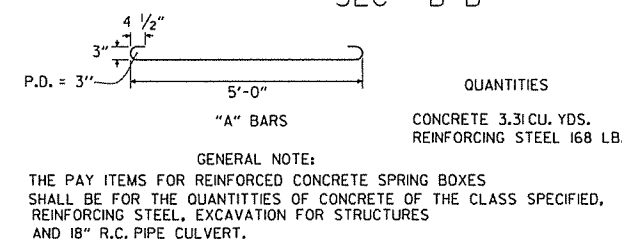
STANDARD DRAWING SE-2



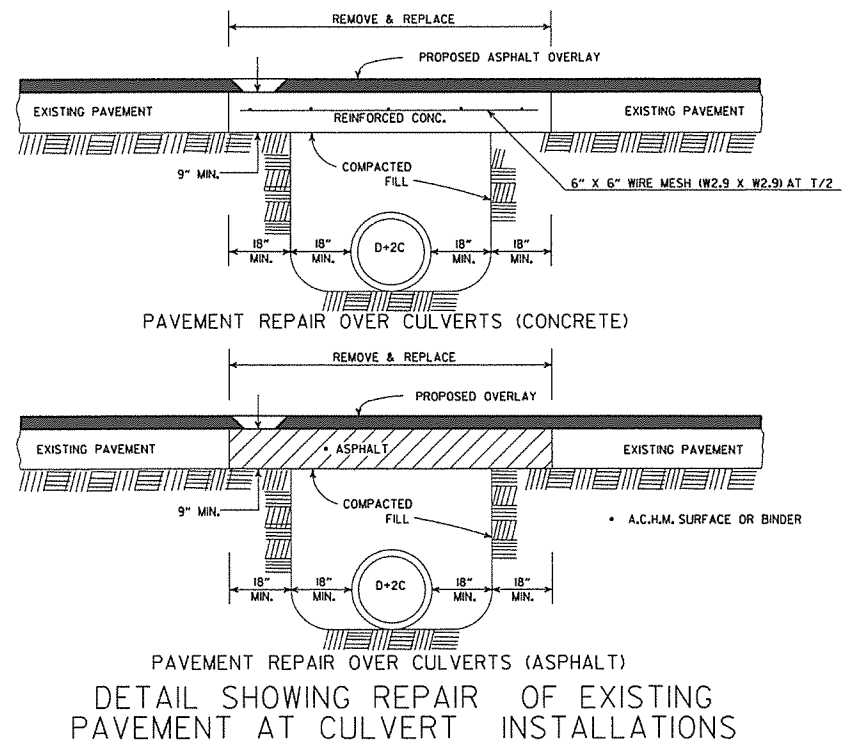
NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

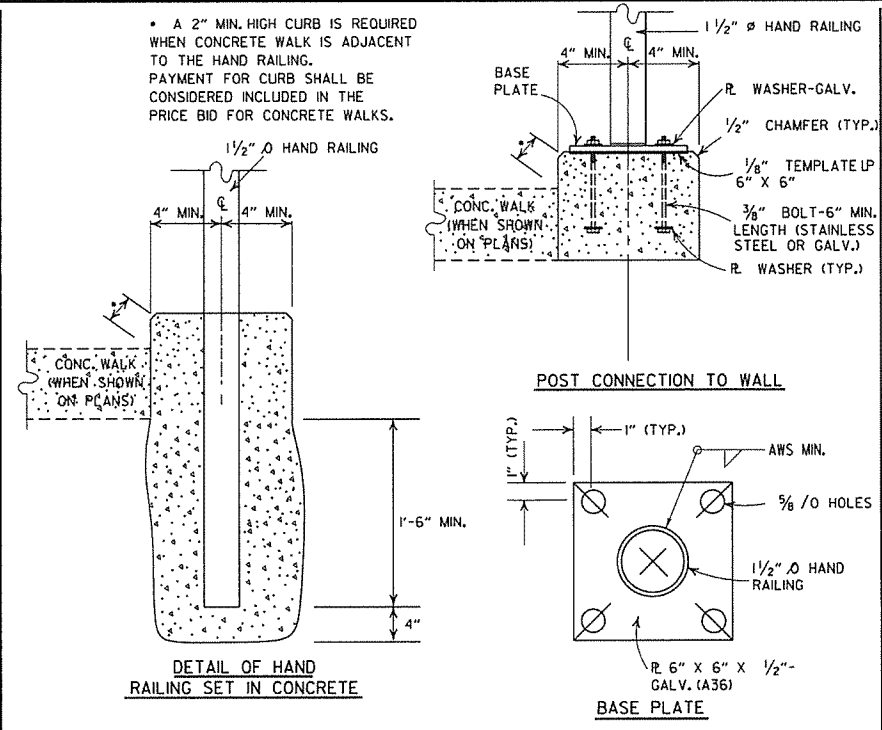
BAR	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 1/2"
"C"	16	5'-0"	12"



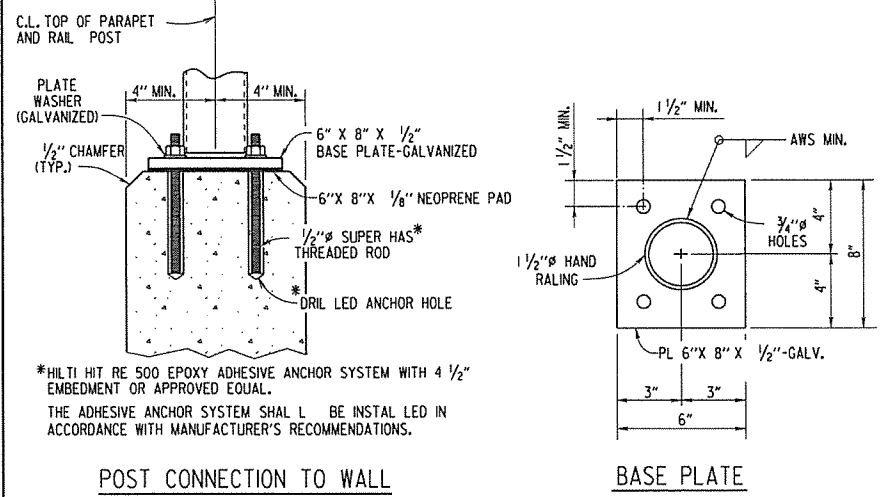
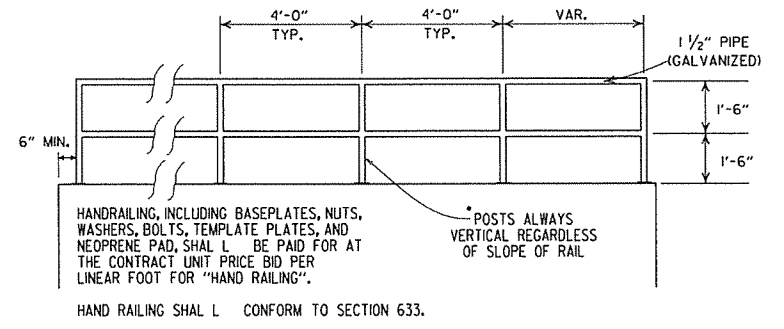
REINFORCED CONCRETE SPRING BOX



DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

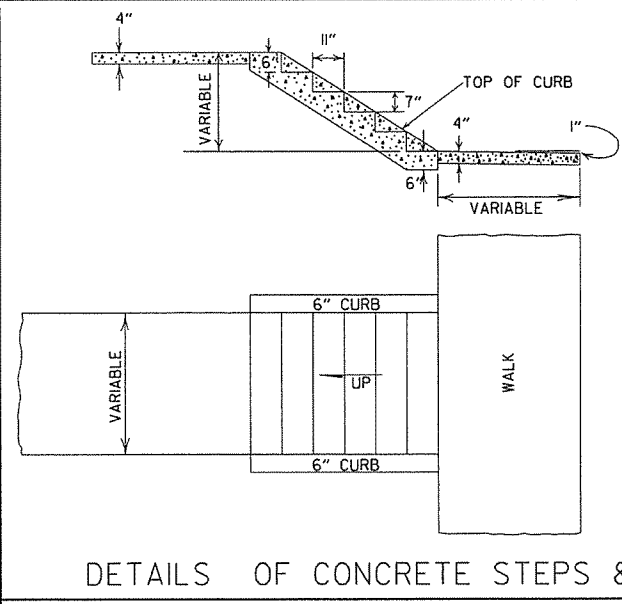


POST CONNECTION DETAILS



DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)


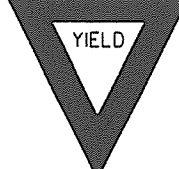
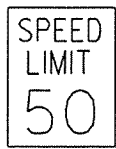


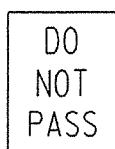

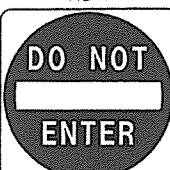

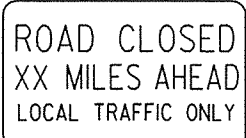
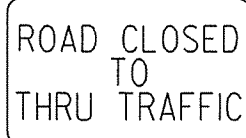

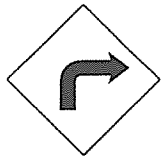

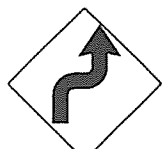

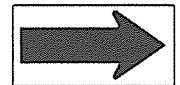
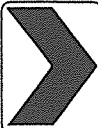
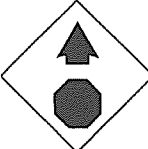
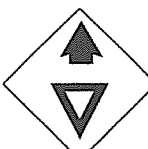
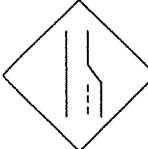

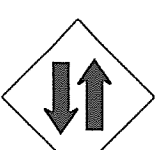











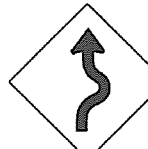



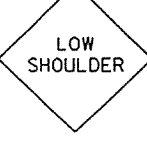
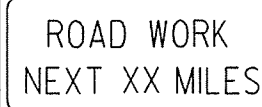
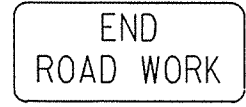
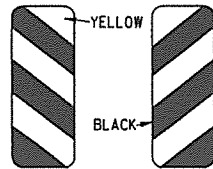
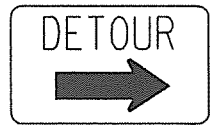

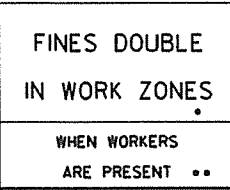
HAND RAILING DETAILS



DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-96	ADD WEEP HOLE, REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	10-1-92
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	8-15-91
8-15-91	DELETED HDWL MODIFICATION DETAIL	11-8-90
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-30-89
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	665-11-17-88
11-17-88	V. BARS BEHIND ARROW	649-7-15-88
7-15-88	REV. PAVEMENT REPAIR	
11-1-84	ADDED HDWL, MODS, DEL. PIPE UNDERDRAINS	510-11-1-84
1-4-83	REV. TRENCH FOR PIPE UNDERDRAIN	682-1-4-83
3-2-81	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	721-3-2-81
4-20-79	SPELLING OF "UNDERDRAIN"	674-4-20-79
2-2-76	REV. UNDERDRAIN DET & PAVEMENT REPAIR	919-2-2-76
4-10-75	12" MIN. GRAN. MAT'L. OVER PIPE	568-4-10-75-853
5-22-74	REM. SPECS. FOR GRAN. MAT'L.	567-5-22-74-740
10-2-72	GRANULAR MAT'L. TO BE SB-3	564-10-16-72
	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION
 DETAILS OF SPECIAL ITEMS
 STANDARD DRAWING SI - 1

<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>RSP-1</p>  <p>48"x30"</p>	<p>W1-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W1-3</p>  <p>STD. 48"x48"</p>	<p>W1-4</p>  <p>STD. 48"x48"</p>	<p>W1-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>W1-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>18" 500 FEET W6-2 24"</p> <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>W1-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60"</p> <p>• USE 6" C LETTERS •• USE 4" D LETTERS</p>

ADVANCE DISTANCES (XXXX)

500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE AHEAD

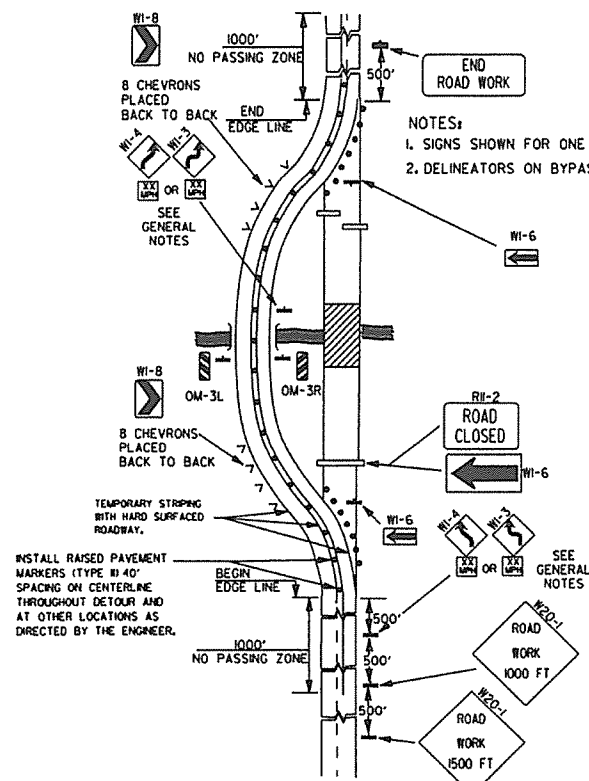
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- GENERAL NOTES:
- ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
 - 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.
 - 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.

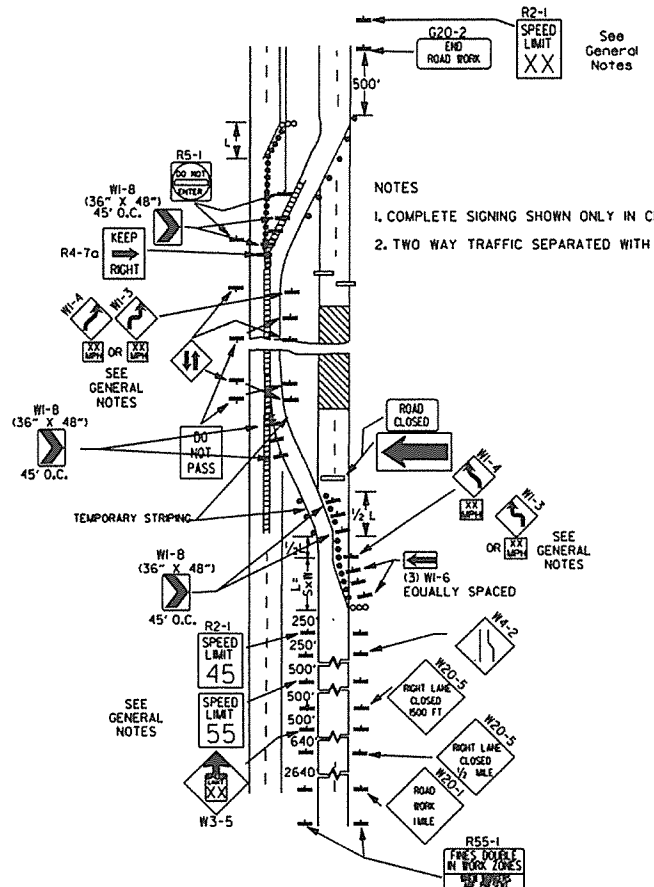
NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-1	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	
8-15-94	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

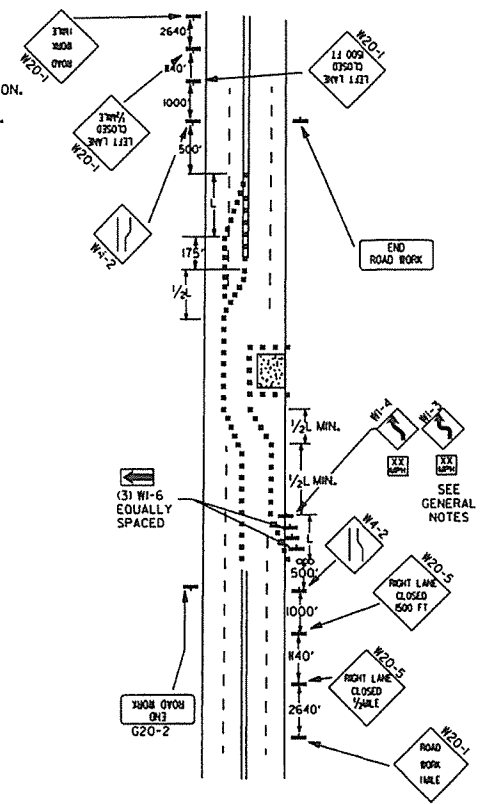
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



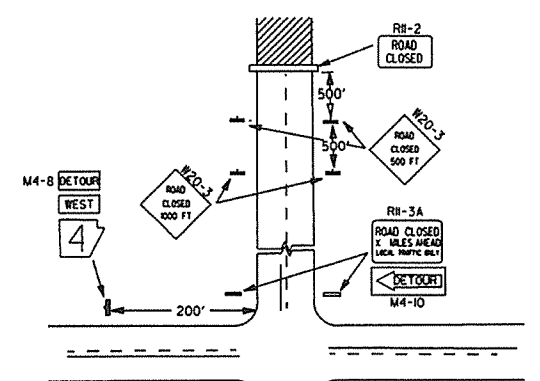
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.

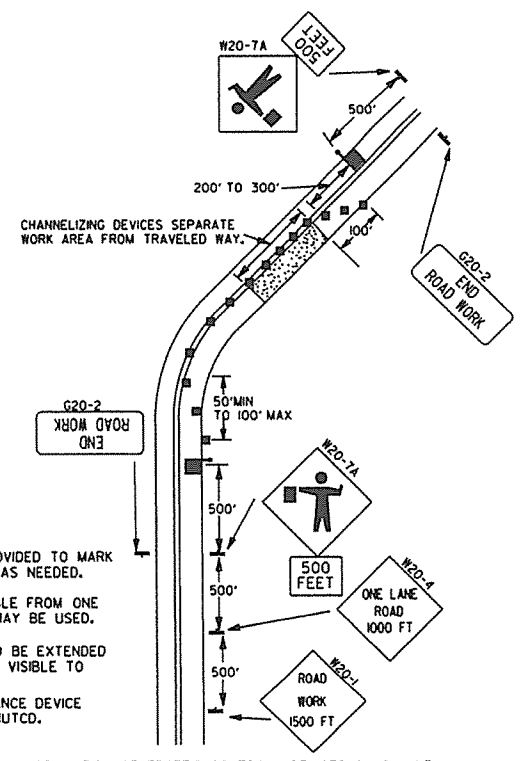


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



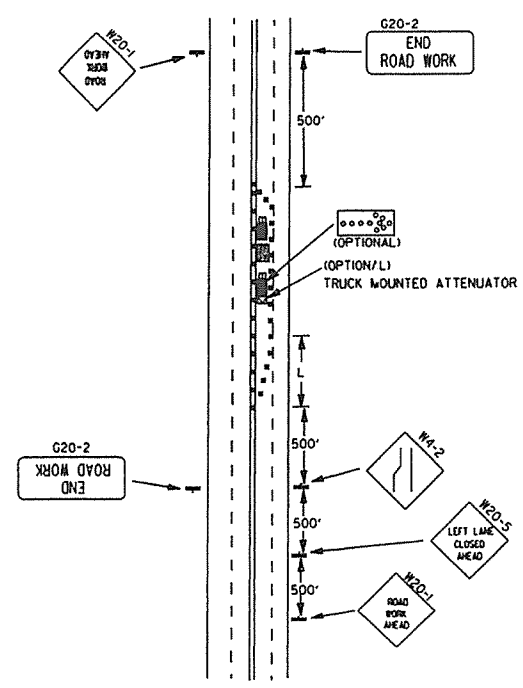
- NOTES:
- REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
 - STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



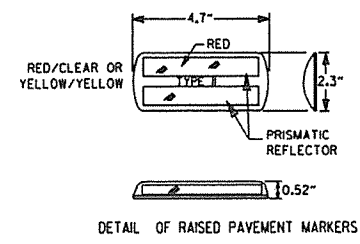
- NOTES:
- FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
 - IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
 - CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
 - AUTOMATED FLAGGER ASSISTANCE 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.

- KEY:
- FLAGGER
 - POSITIVE BARRIER
 - ARROW PANEL (IF REQUIRED)
 - TYPE III BARRICADE
 - CHANNELIZING DEVICE
 - TRAFFIC DRUM
 - RAISED PAVEMENT MARKER



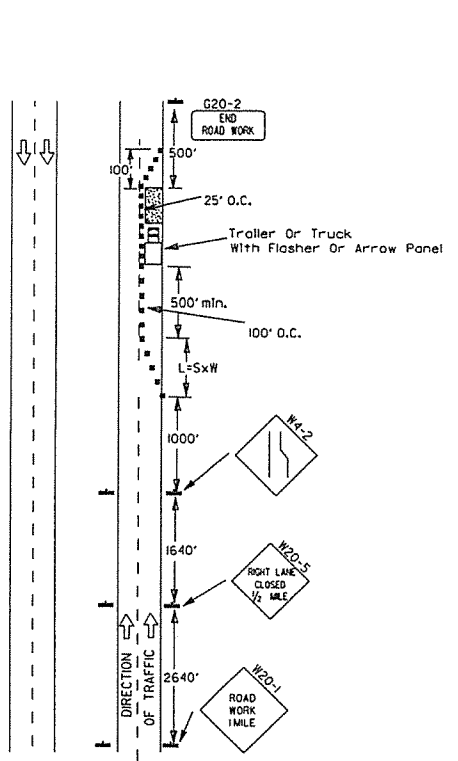
TYPICAL ADVANCE WARNING SIGN PLACEMENT

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.

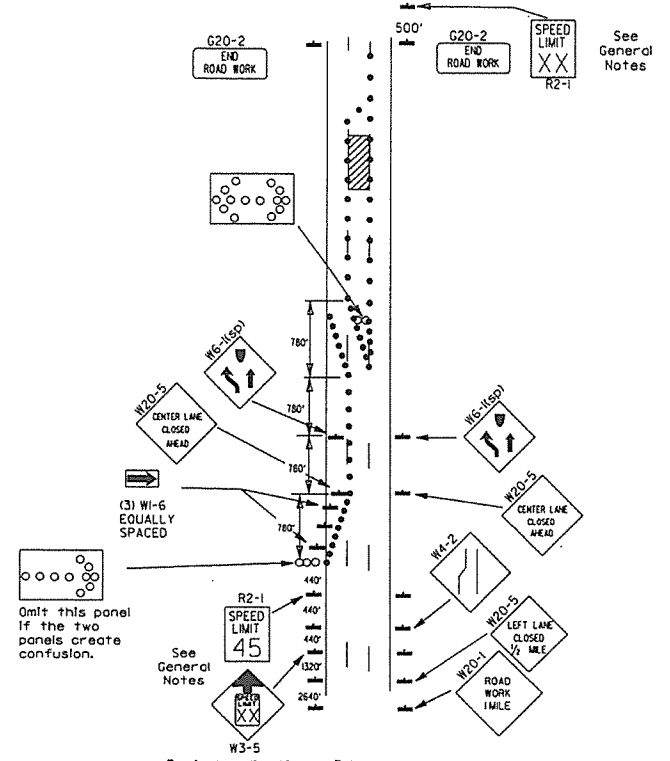
- GENERAL NOTES:
- ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 - WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(45) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(45) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(45) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(45) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - 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.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - 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.
 - 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 AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILED
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	
3-8-10	ADDED (AFAD)	
8-20-08	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



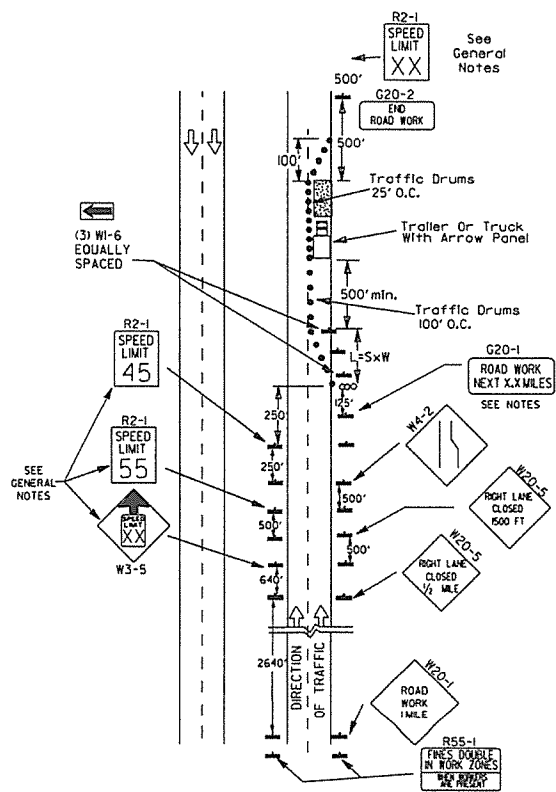
(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane one-way roadway where center lane is closed.

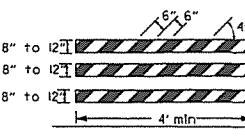
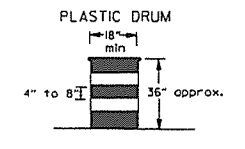
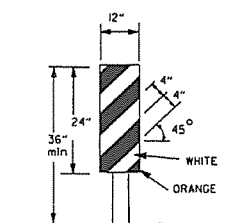
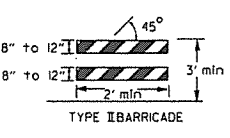
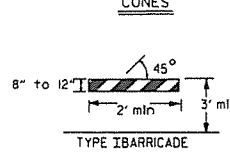
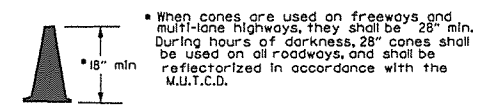
- KEY:
- ◻ Arrow Panel (if Required)
 - Channelizing Device
 - Traffic drum

- GENERAL NOTES:
- A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
 - 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(45) speed limit signs shall be installed at a maximum of 1/2 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
 - When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(65) shall be omitted. Additional R2-1(55) speed limit signs shall be installed at a maximum of 1/2 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
 - 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.
 - Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
 - Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
 - 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 1/2 mile in advance of the job limit. Additional W20-1 (1/2 MILE) signs are not required in advance of lane closures that begin inside the project limits.
 - Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
 - All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
 - 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.

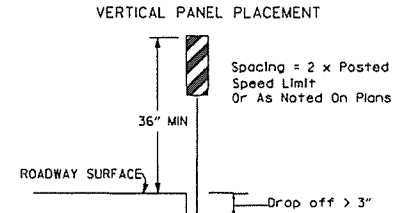


(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

Channelizing devices



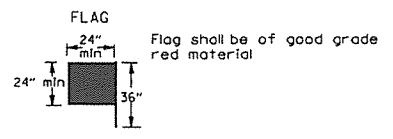
NOTE: For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



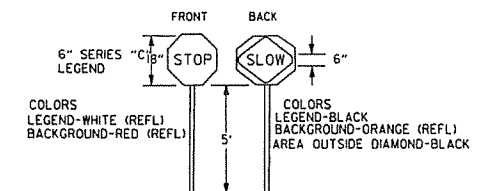
TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-land vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

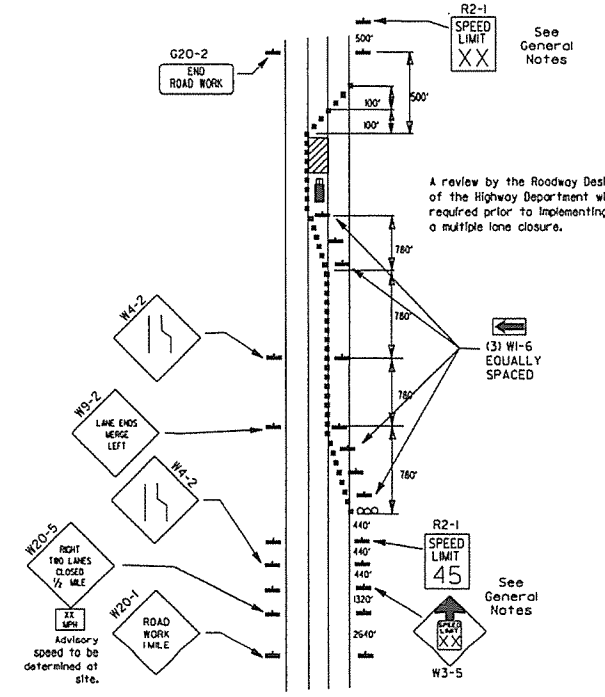
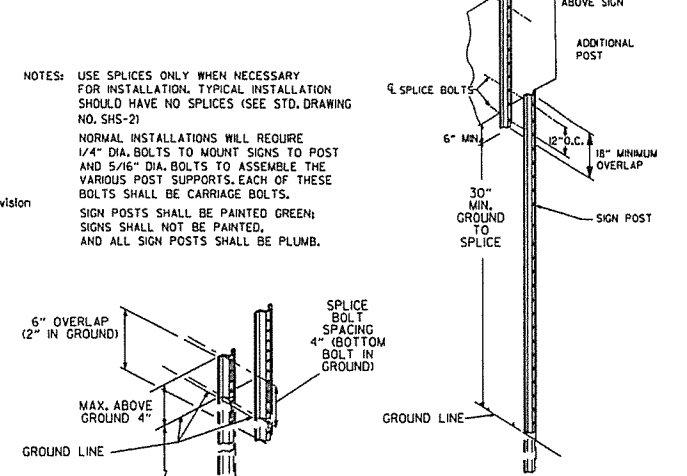
* When shown on the plans concrete barrier will be used. When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



STOP SLOW PADDLE



DETAIL OF SPLICES

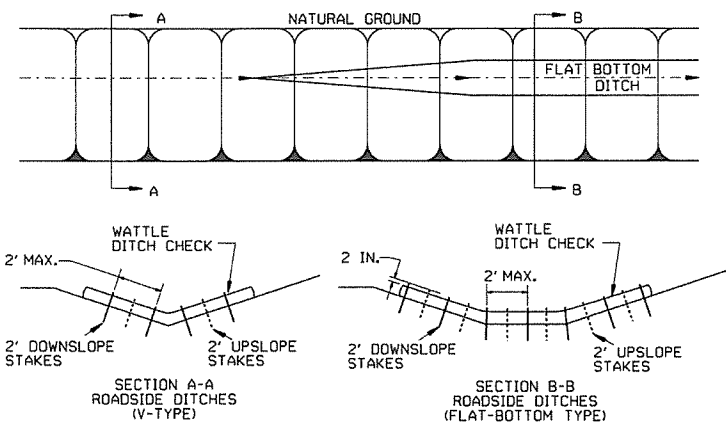


(D) Typical application - closing multiple lanes of a multilane highway.

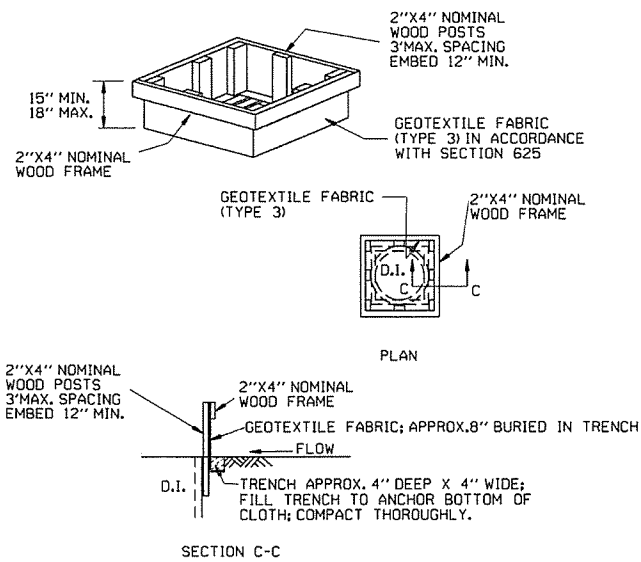
DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SPI TO W6-18 REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	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

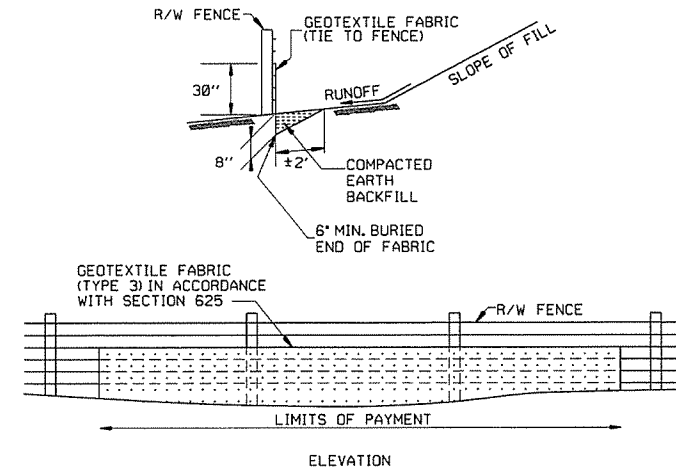
GENERAL NOTES
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



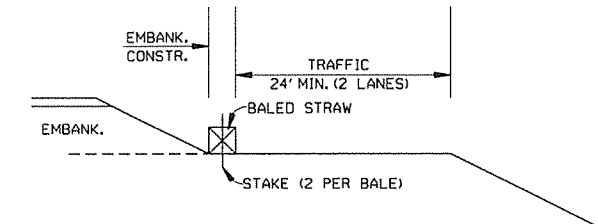
DROP INLET SILT FENCE (E-7)



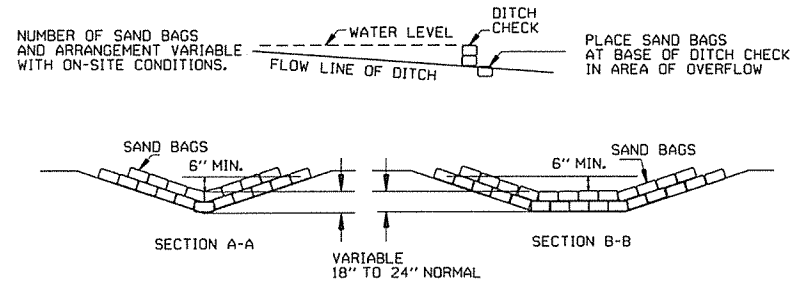
SILT FENCE ON R/W FENCE (E-4)

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.

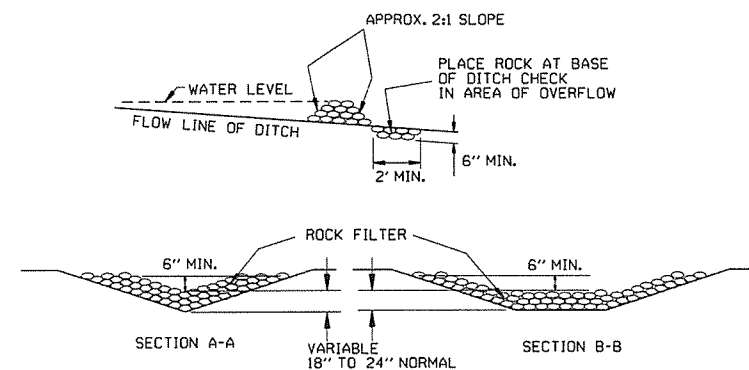
GENERAL NOTES
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
2. NO GAPS SHALL BE LEFT BETWEEN BALES.
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL 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.



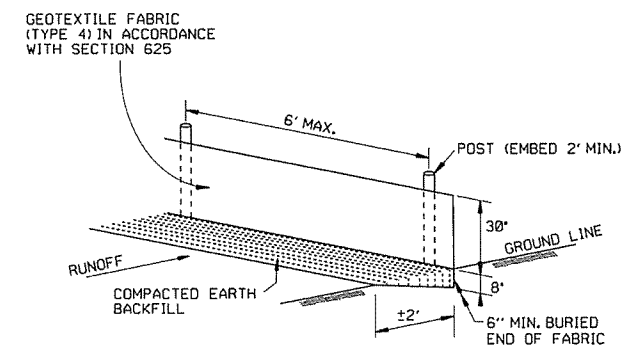
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



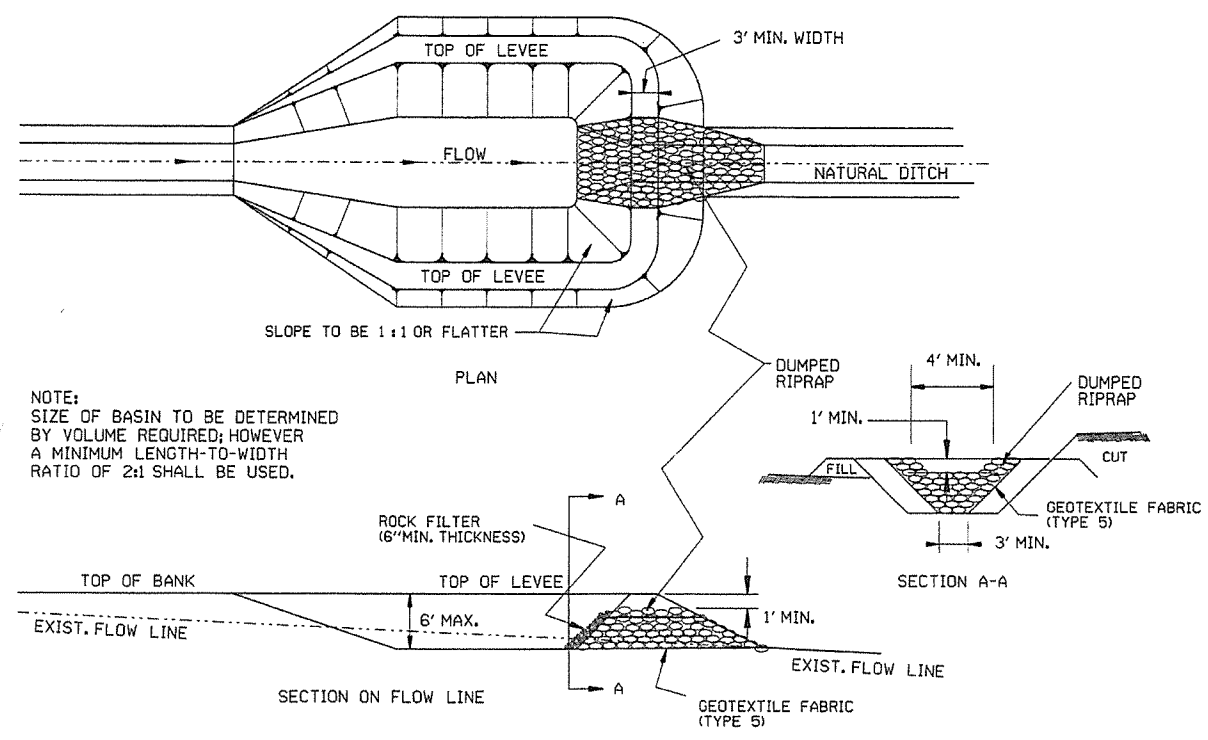
ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

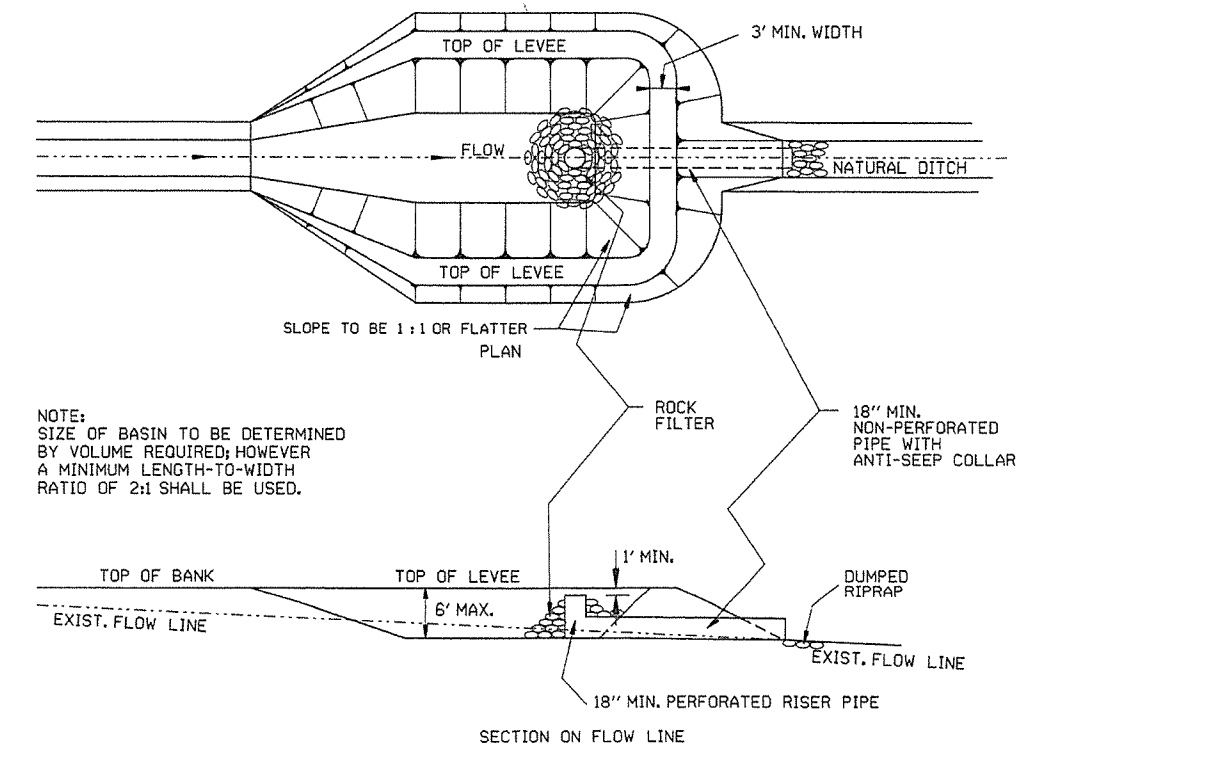
GENERAL NOTES
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK		ARKANSAS STATE HIGHWAY COMMISSION
11-18-98	ADDED NOTES		
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)		
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95	
7-15-94	REV. E-4 & E-11 MIN. 13\"/>		
6-2-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94	
4-1-93	REDRAWN		
10-1-92	REDRAWN		
8-2-76	ISSUED R.D.M.	298-7-28-76	
DATE	REVISION	FILMED	STANDARD DRAWING TEC-1



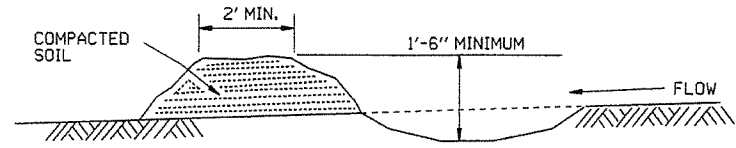
NOTE:
SIZE OF BASIN TO BE DETERMINED
BY VOLUME REQUIRED; HOWEVER
A MINIMUM LENGTH-TO-WIDTH
RATIO OF 2:1 SHALL BE USED.

SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)

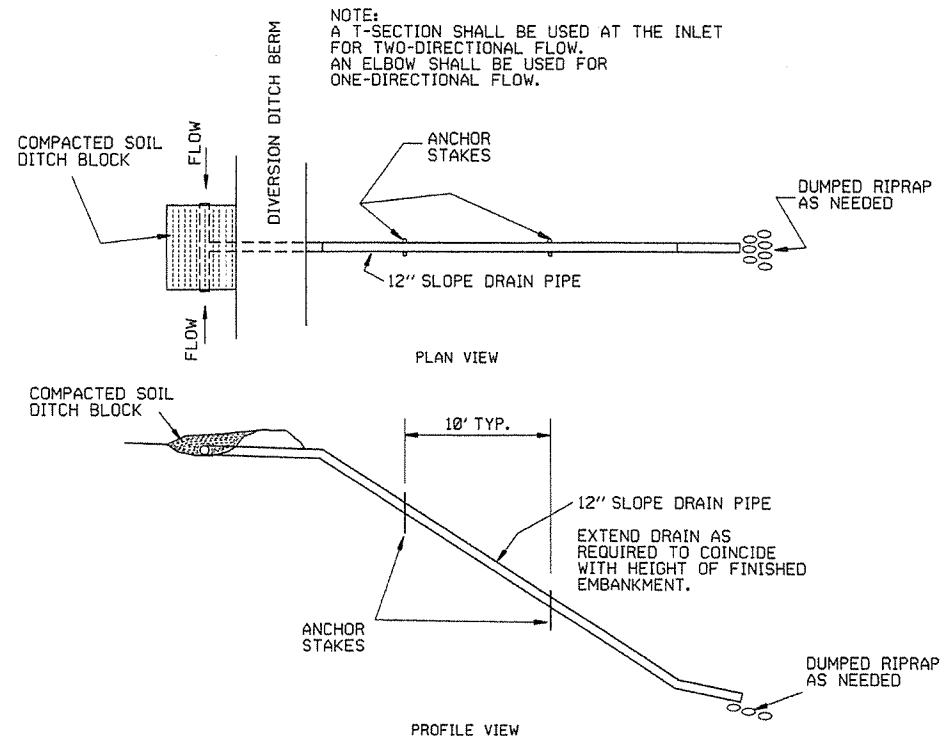


NOTE:
SIZE OF BASIN TO BE DETERMINED
BY VOLUME REQUIRED; HOWEVER
A MINIMUM LENGTH-TO-WIDTH
RATIO OF 2:1 SHALL BE USED.

SEDIMENT BASIN WITH PIPE OUTLET (E-10)

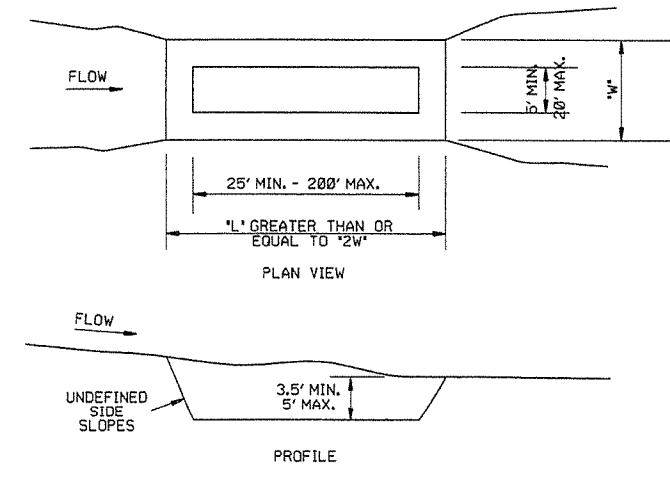


DIVERSION DITCH (E-8)



NOTE:
A T-SECTION SHALL BE USED AT THE INLET
FOR TWO-DIRECTIONAL FLOW.
AN ELBOW SHALL BE USED FOR
ONE-DIRECTIONAL FLOW.

SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

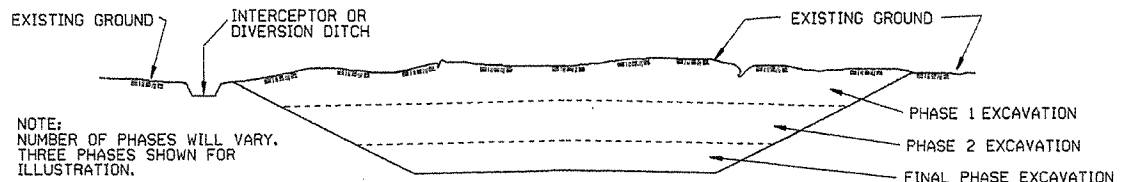
		ARKANSAS STATE HIGHWAY COMMISSION	
		TEMPORARY EROSION CONTROL DEVICES	
		STANDARD DRAWING TEC-2	
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13		
4-1-93	ISSUED		
DATE	REVISION		FILMED

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



NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR
ILLUSTRATION.

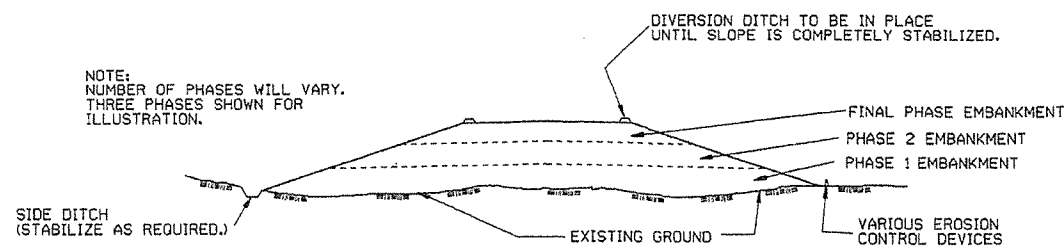
GENERAL NOTE

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



NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR
ILLUSTRATION.

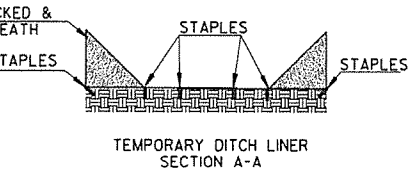
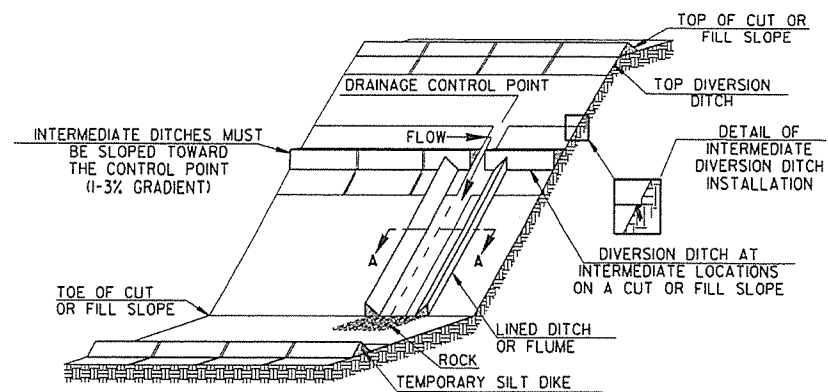
GENERAL NOTE

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.

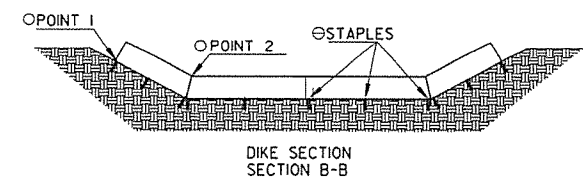
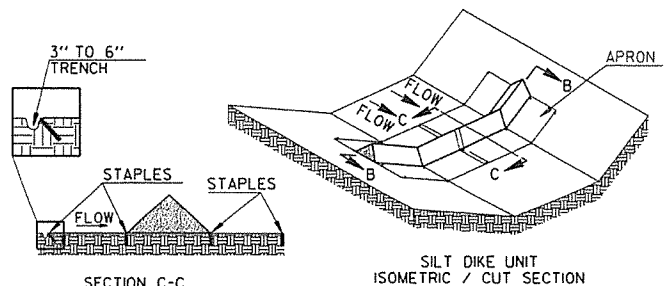
CONSTRUCTION SEQUENCE

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.

ARKANSAS STATE HIGHWAY COMMISSION		
TEMPORARY EROSION CONTROL DEVICES		
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94
DATE	REVISION	FILMED
STANDARD DRAWING TEC-3		

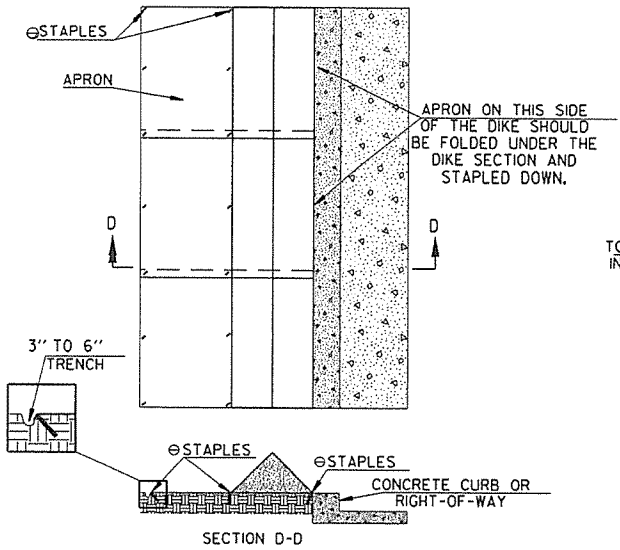


TRIANGULAR SILT DIKE INSTALLATION FOR DIVERSION DITCH AND/OR DITCH LINER

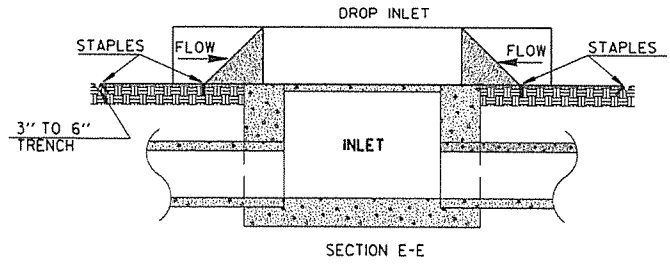
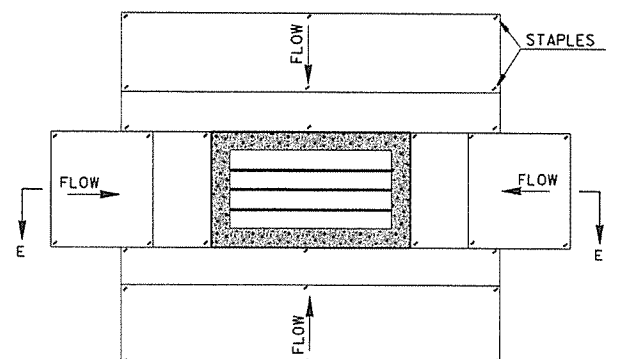


TRIANGULAR SILT DIKE INSTALLATION FOR ROADWAY DITCH OR DRAINAGE DITCH

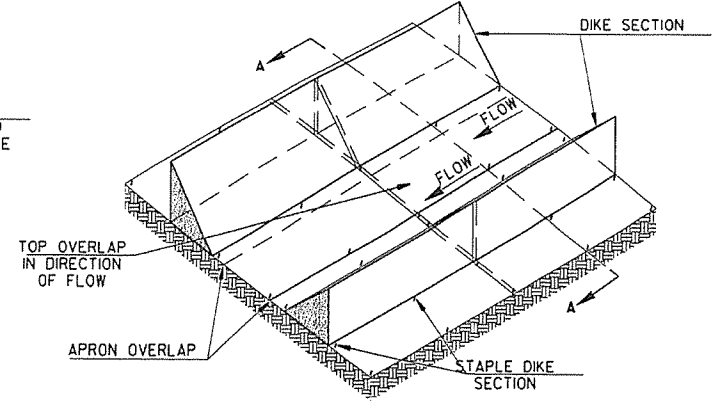
○ POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
 ⊗ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.



TRIANGULAR SILT DIKE INSTALLATION FOR CONTINUOUS BARRIER



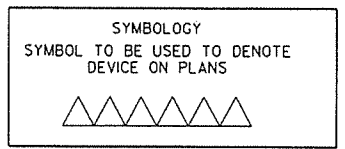
TRIANGULAR SILT DIKE INSTALLATION FOR DROP INLETS



TRIANGULAR SILT DIKE INSTALLATION FOR TEMPORARY DITCH LINER

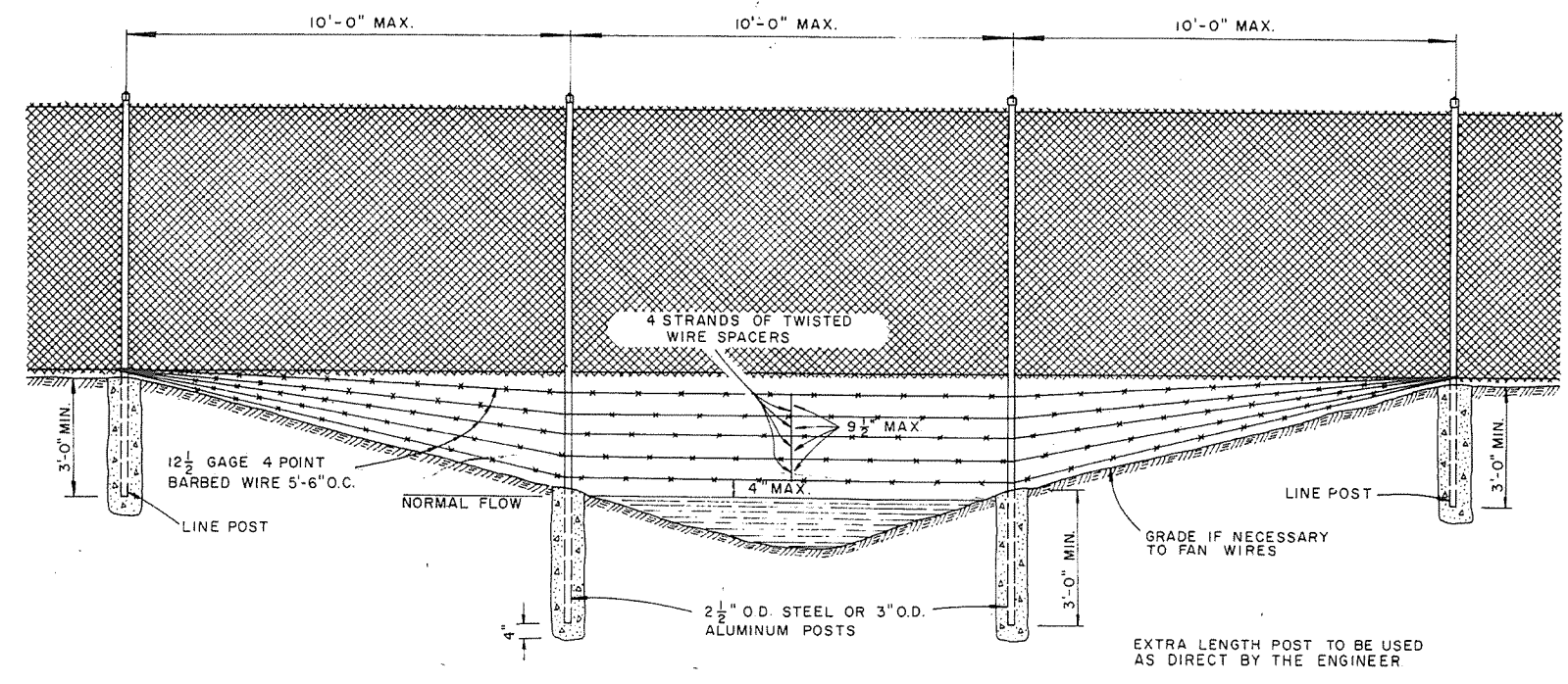
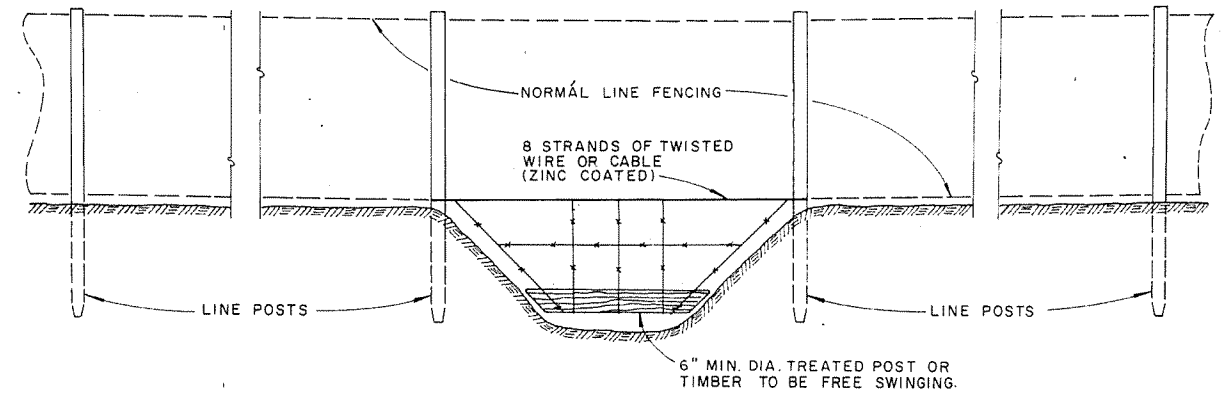
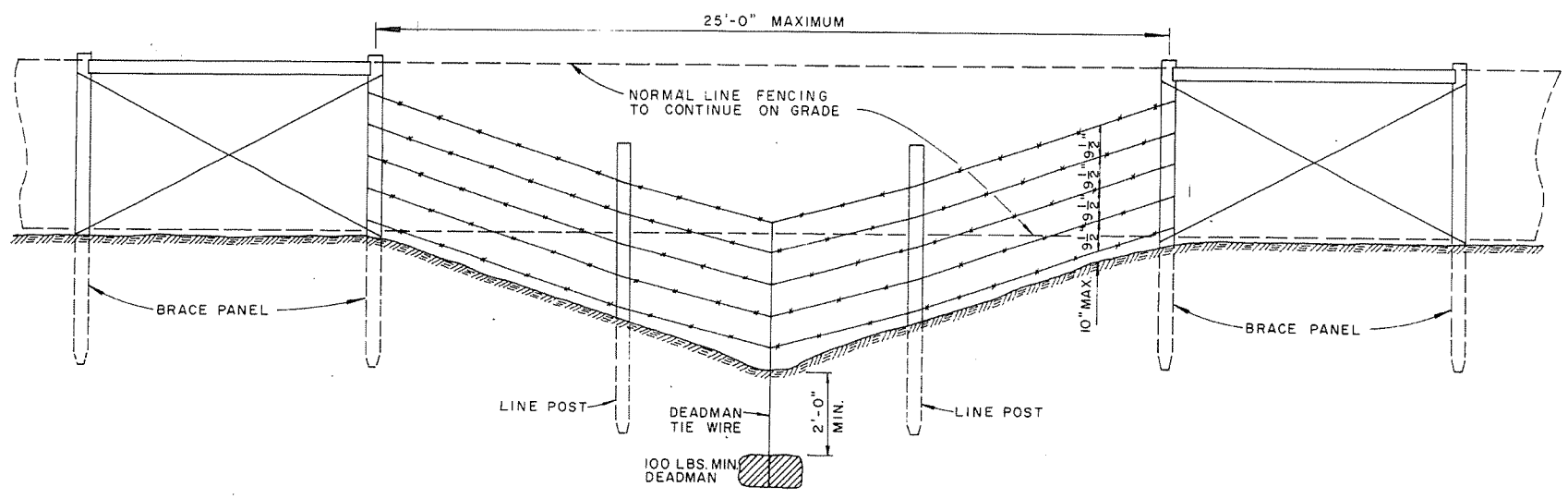
GENERAL NOTES

1. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE. THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER. THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.
2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. 11 GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.
3. THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER. ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.
3. ACCEPTED TRIANGULAR SILT DIKE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TRIANGULAR SILT DIKE. PRICE BID WILL INCLUDE THE COST OF FURNISHING THE DIKES, INSTALLING, MAINTAINING AND REMOVAL WHEN DIRECTED BY THE ENGINEER.



NOTE: SILT DIKE SHOULD ONLY BE USED FOR DROP INLETS IN SUMP LOCATIONS.

		ARKANSAS STATE HIGHWAY COMMISSION
		TEMPORARY EROSION CONTROL DEVICES
7-26-12	REVISED GENERAL NOTE 2.	
12-15-11	ISSUED	
DATE	REVISION	FILMED
		STANDARD DRAWING TEC-4



GENERAL NOTES:
 THESE INSTALLATIONS TO BE USED WHERE NORMAL FENCING INSTALLATION WOULD CAUSE THE COLLECTING OF DRIFT IN THE CHANNEL OR THE DEPRESSION WILL NOT PERMIT NORMAL INSTALLATION. INSTALLATIONS WILL BE MADE ONLY WHERE DIRECTED BY THE ENGINEER.
 WHEN A FENCE LINE APPROACHES A DITCH, GULLY OR DEPRESSION, THE LAST POST ON LEVEL GROUND SHALL BE PLACED CLOSE ENOUGH TO THE EDGE OF THE DROP OFF THAT THE FENCE MAY BE STRUNG TO THE POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.
 IN TERRAIN OF SUCH EXTREME IRREGULARITY THAT MINOR GRADING WILL NOT BE FEASIBLE, THE NORMAL FENCE SHALL CONTINUE ON GRADE AND THE GULLIES OR DEPRESSIONS TREATED BY AUXILIARY FENCES AS SHOWN.
 PAYMENT FOR THE TYPE INSTALLATION USED WILL NOT BE MADE DIRECTLY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR WIRE FENCE OR CHAIN LINK FENCE.

ARKANSAS STATE HIGHWAY COMMISSION		
WIRE FENCE WATER GAPS		
STANDARD DRAWING		
4-20-79	REVISED TOP RAIL & TENSION WIRE	696-4-20-79
10-2-72	REVISED & REDRAWN	529-10-2-72
DATE	REVISION	DATE FILMD.

WF-2

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.

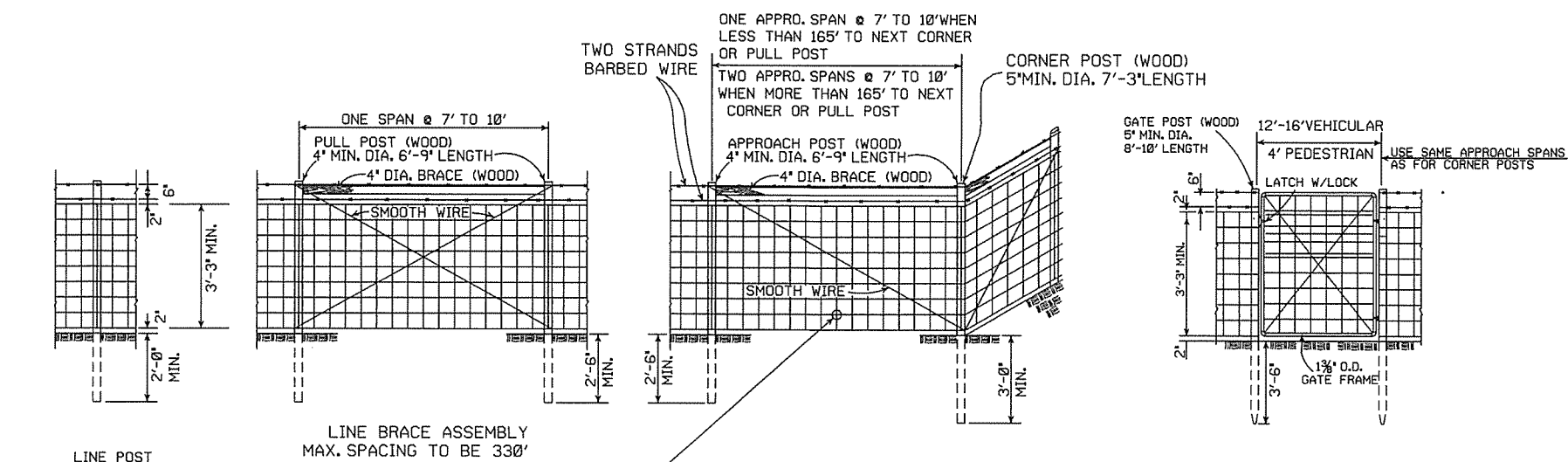
AT STREAM CROSSINGS, THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF THE BANK TO THE BRIDGE STRUCTURE A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

NOTE: USE 3/8" X 1 1/2" LAG BOLT & SHIELD OR AS APPROVED BY THE ENGINEER.

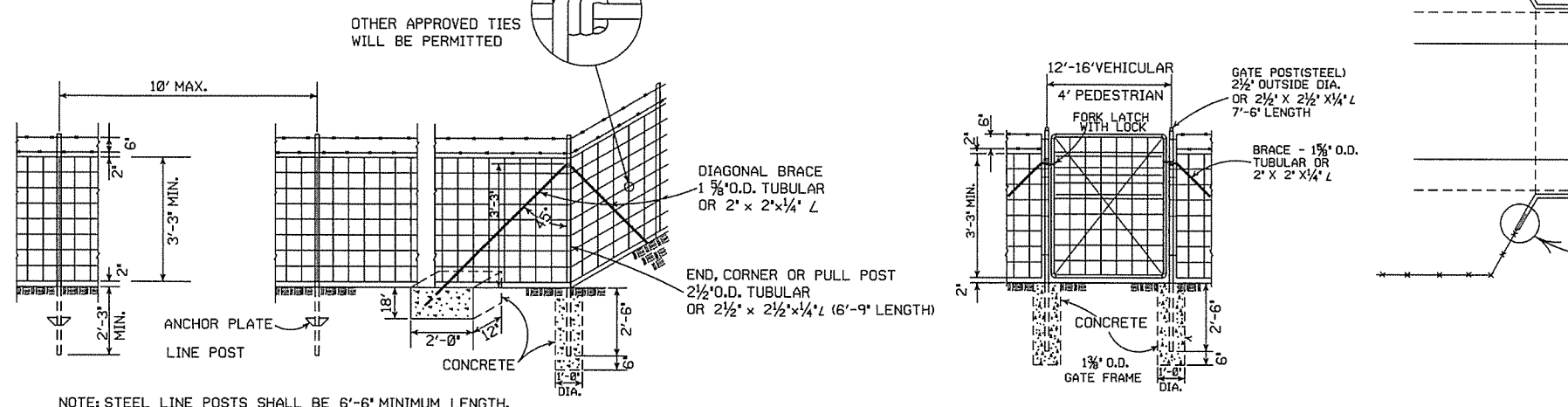
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE 'EYE METHOD' AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRES A MINIMUM OF 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.

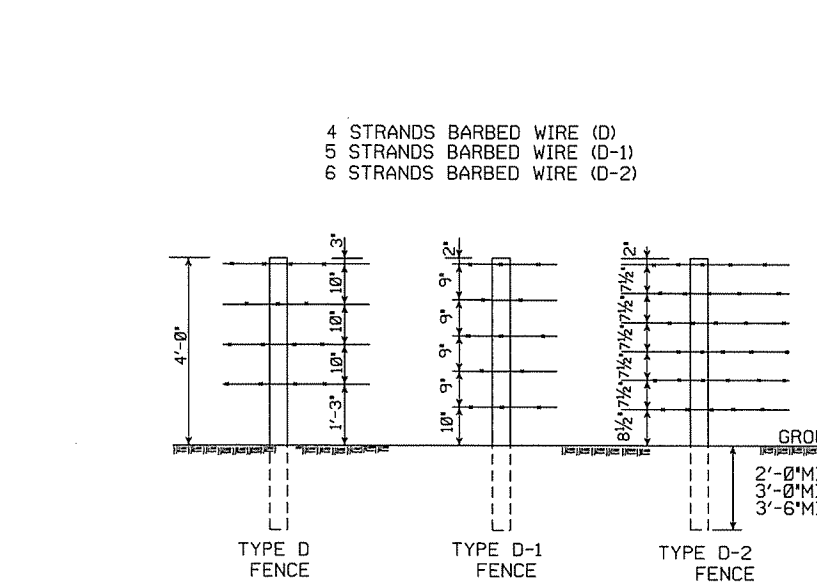
STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.



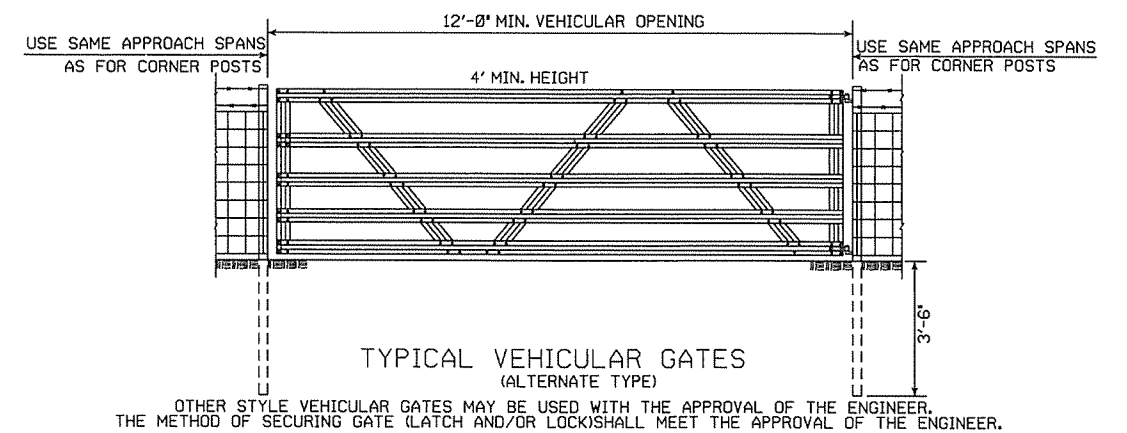
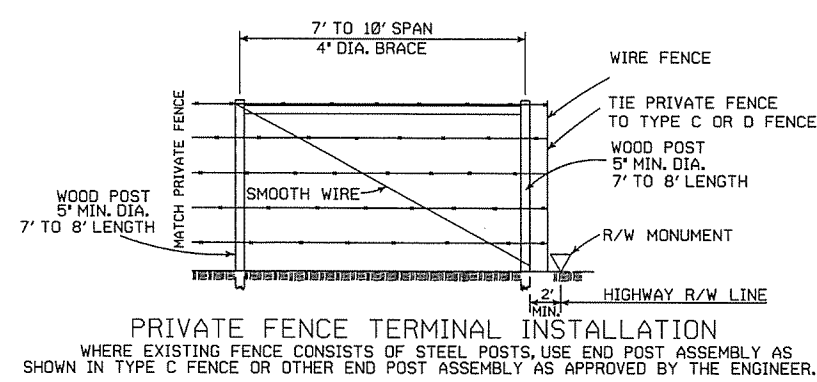
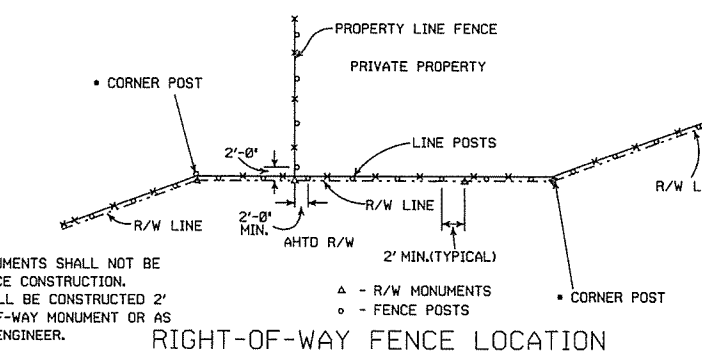
TYPE C FENCE (WOOD POSTS)



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.



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
DATE	REVISION	FILMED

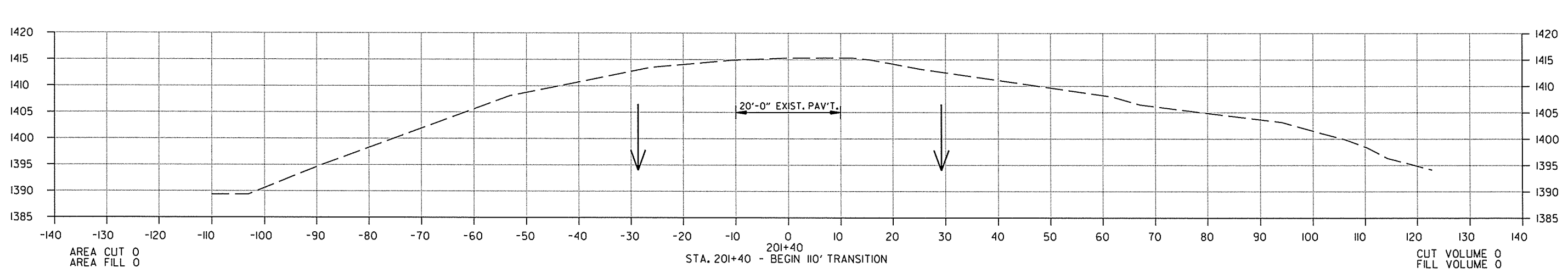
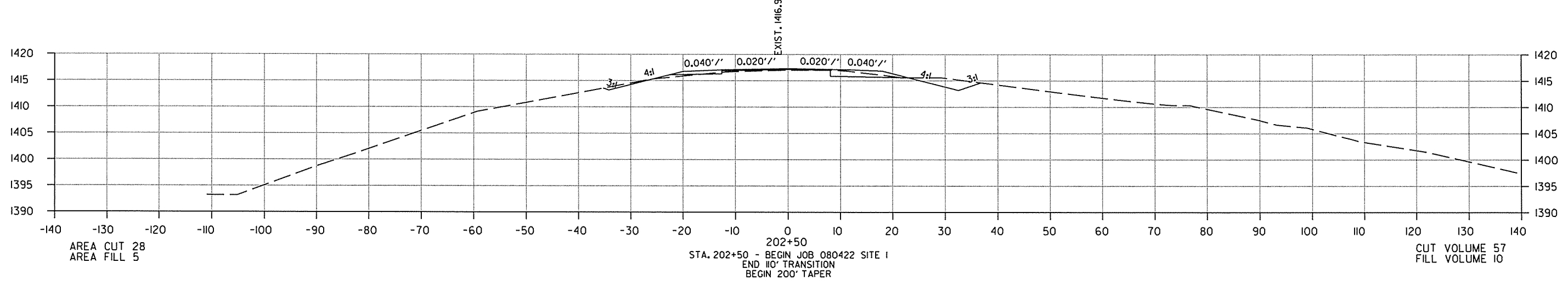
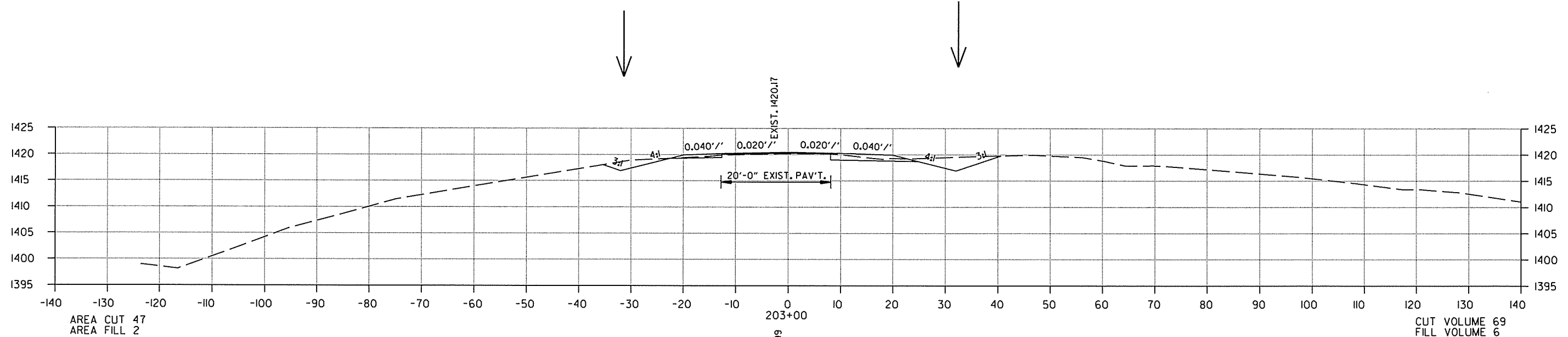
ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
 TYPE C AND D

STANDARD DRAWING WF-4

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. 080422	81	135

2 CROSS SECTIONS - SITE 1



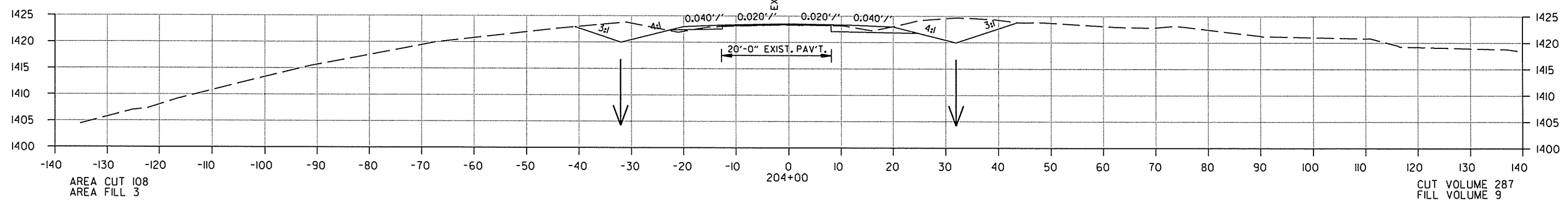
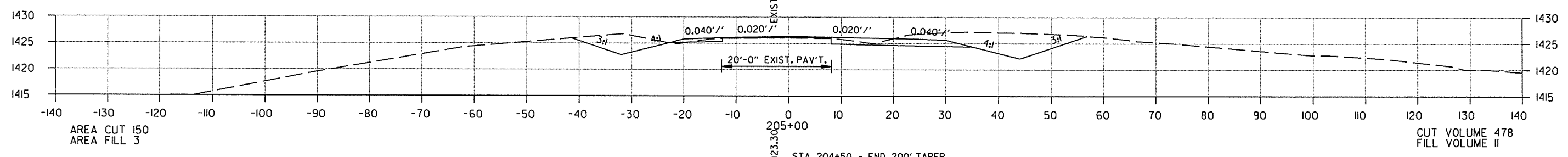
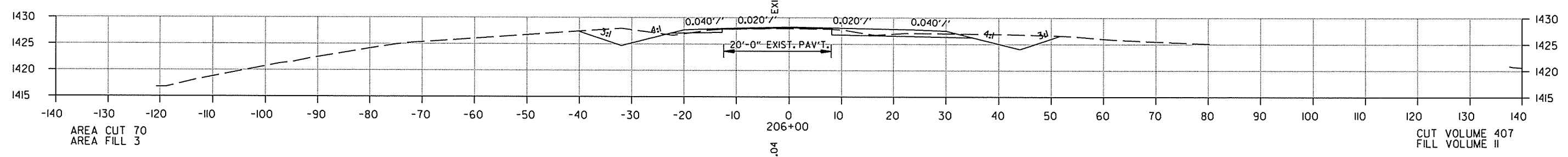
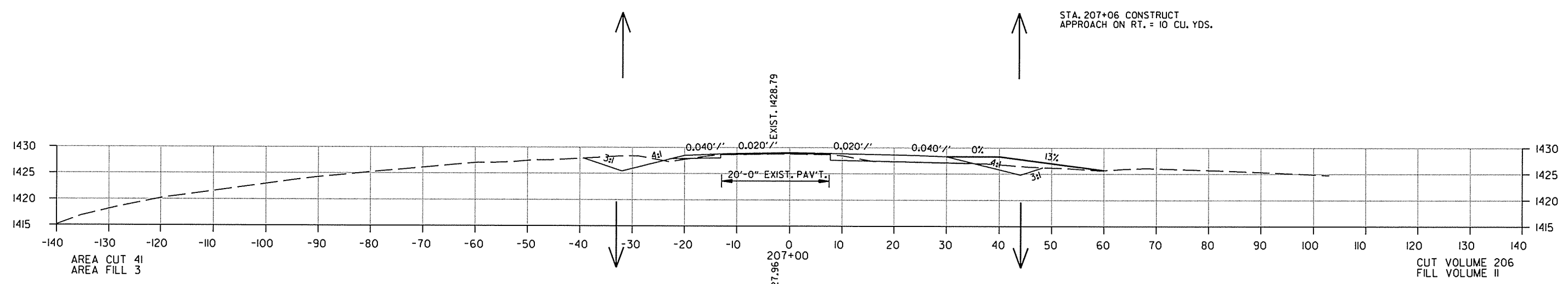
CROSS SECTION STA. 201+40 TO STA. 203+00

5/1/2014
R080422.DGN

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.	080422		82	135

2 CROSS SECTIONS - SITE I

STA. 207+06 CONSTRUCT
APPROACH ON RT. = 10 CU. YDS.

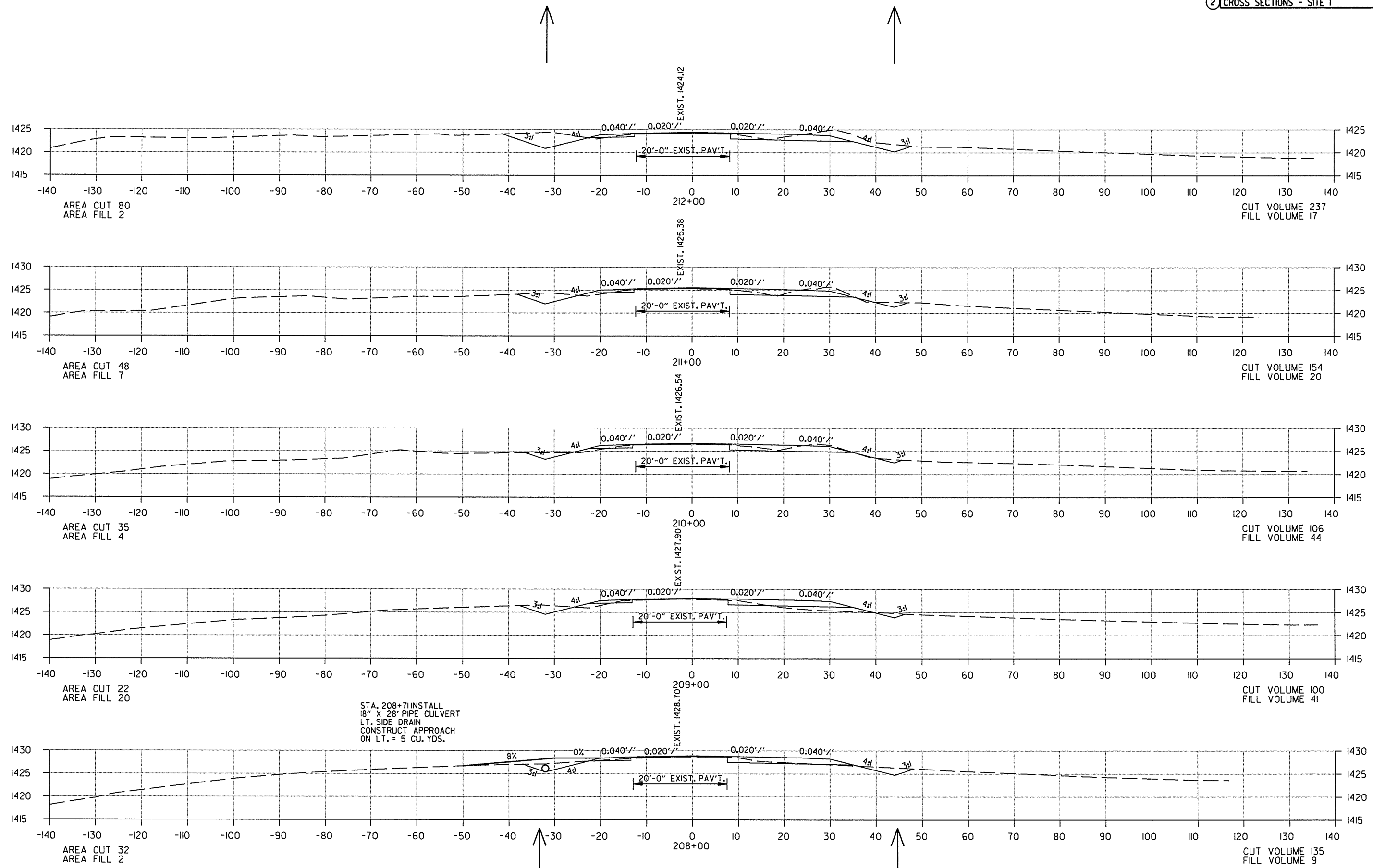


CROSS SECTION STA. 204+00 TO STA. 207+00

R080422.DGN 5/1/2014

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. 080422							83	135

2 CROSS SECTIONS - SITE 1



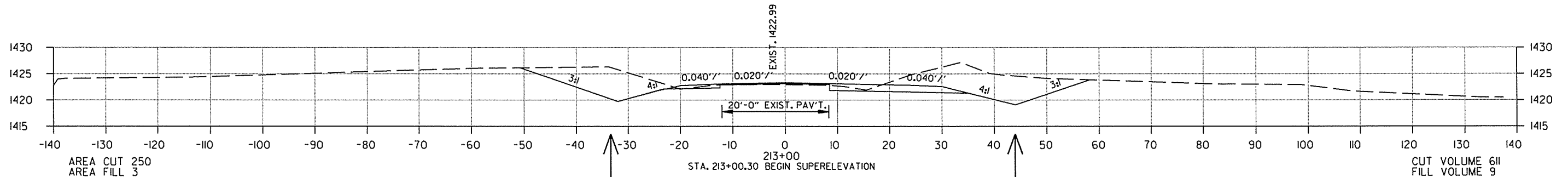
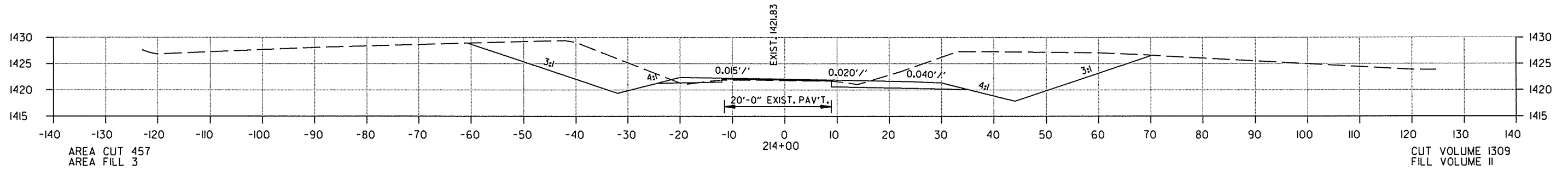
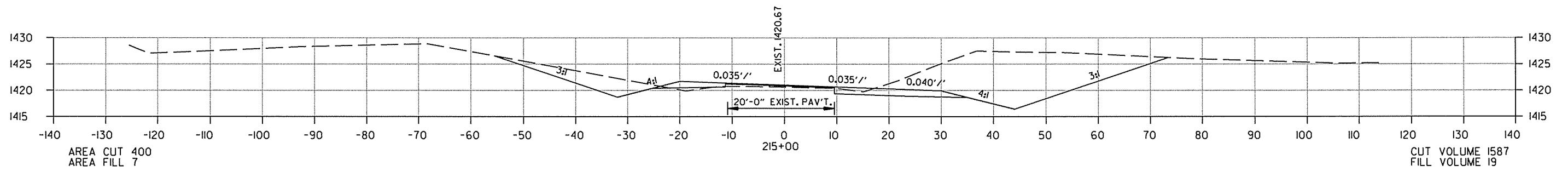
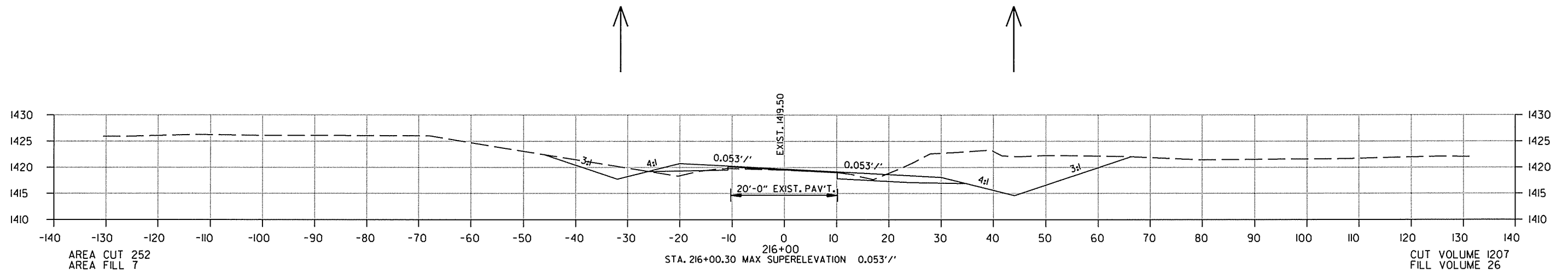
STA. 208+71 INSTALL
18" X 28' PIPE CULVERT
L.T. SIDE DRAIN
CONSTRUCT APPROACH
ON L.T. = 5 CU. YDS.

CROSS SECTION STA. 208+00 TO STA. 212+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
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				JOB NO.	080422		84	135

2 CROSS SECTIONS - SITE 1



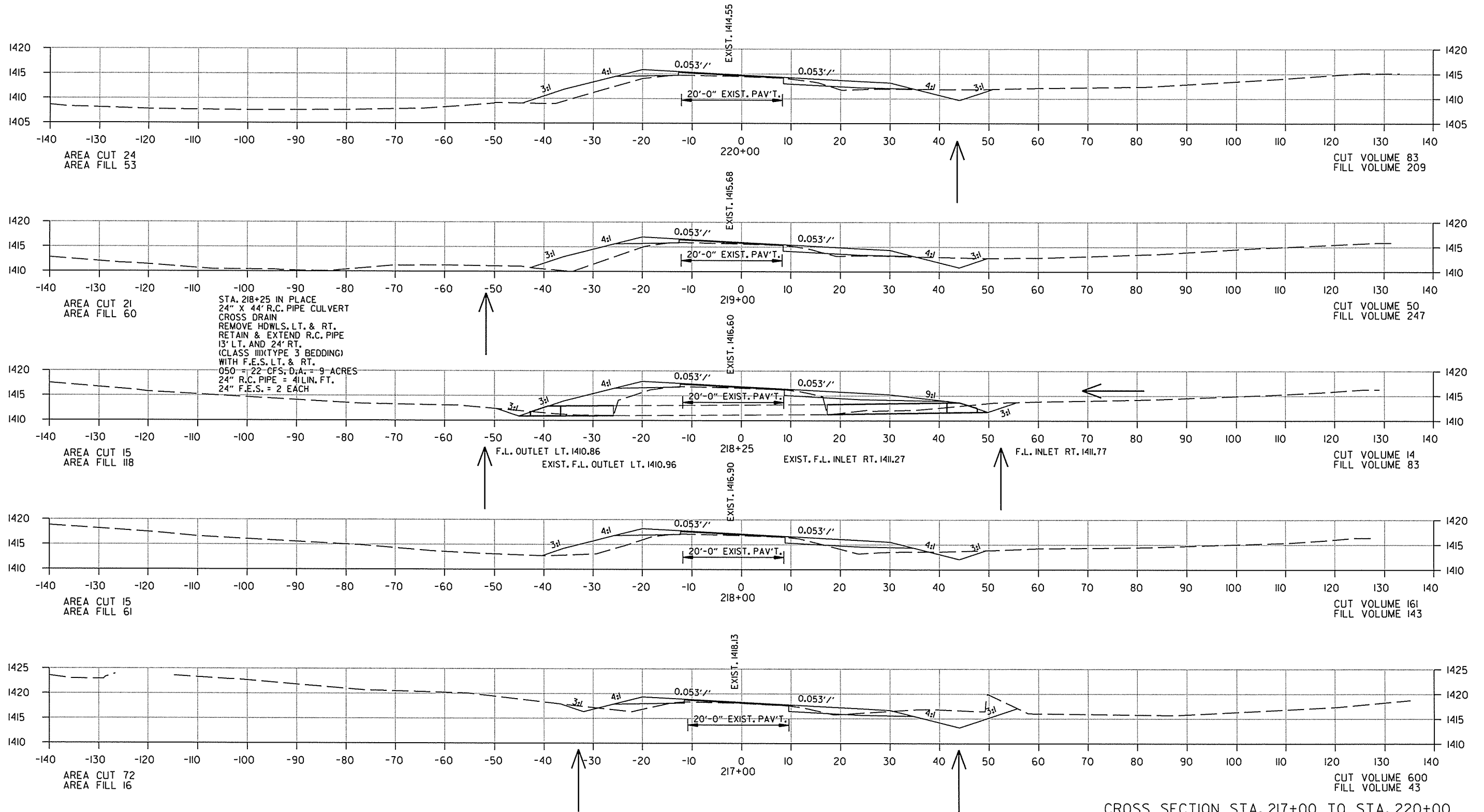
CROSS SECTION STA. 213+00 TO STA. 216+00

5/1/2014

RO80422.DGN

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.	080422		85	135

2 CROSS SECTIONS - SITE 1



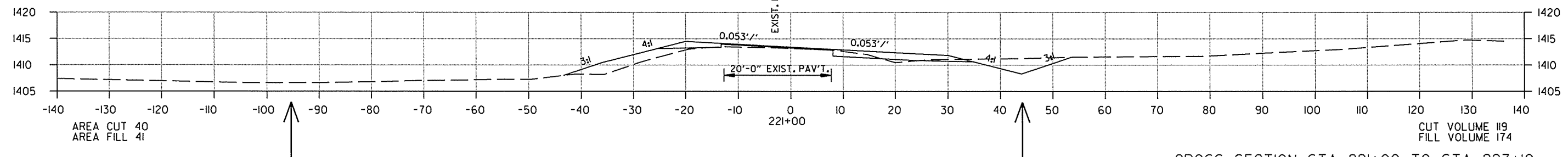
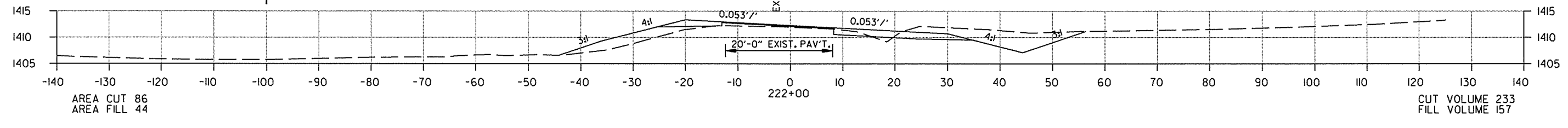
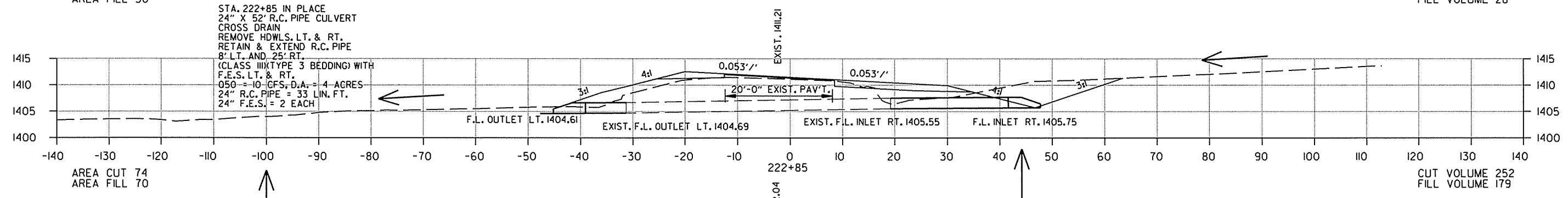
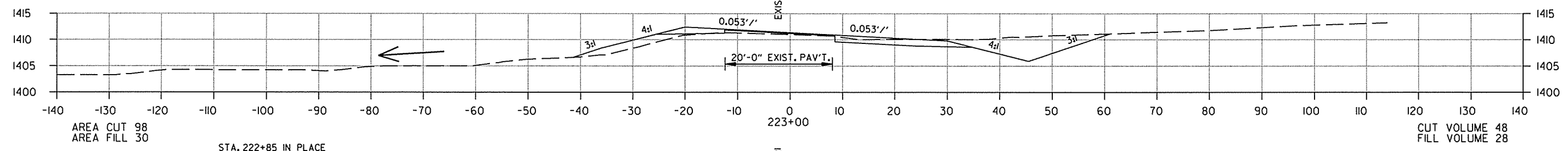
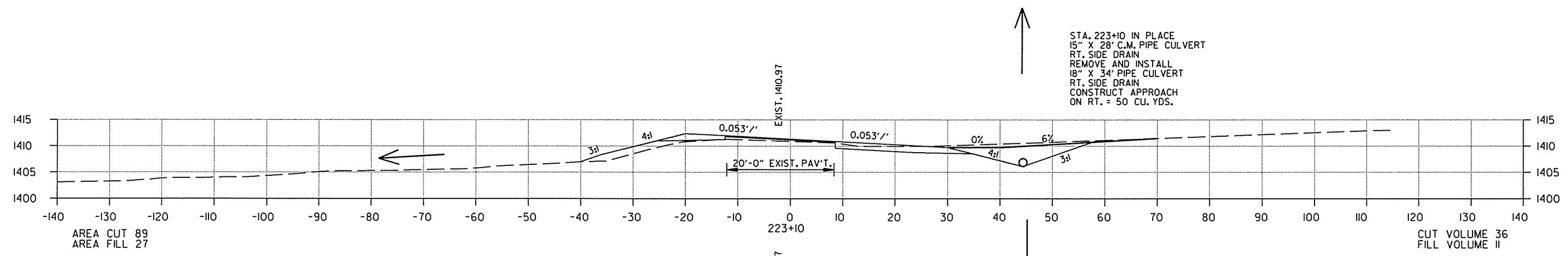
CROSS SECTION STA. 217+00 TO STA. 220+00

5/1/2014

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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.	080422		86	135

2 CROSS SECTIONS - SITE I

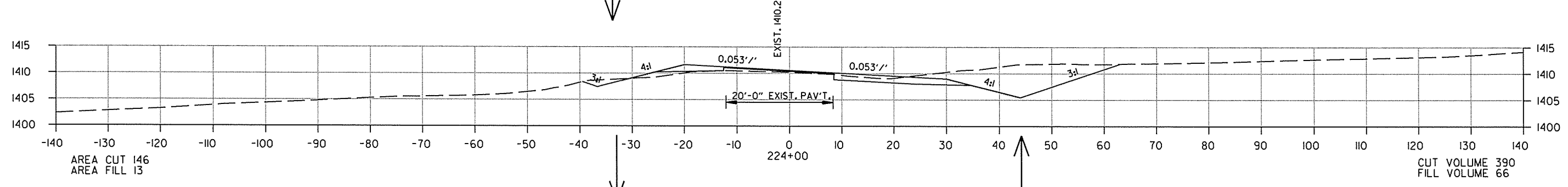
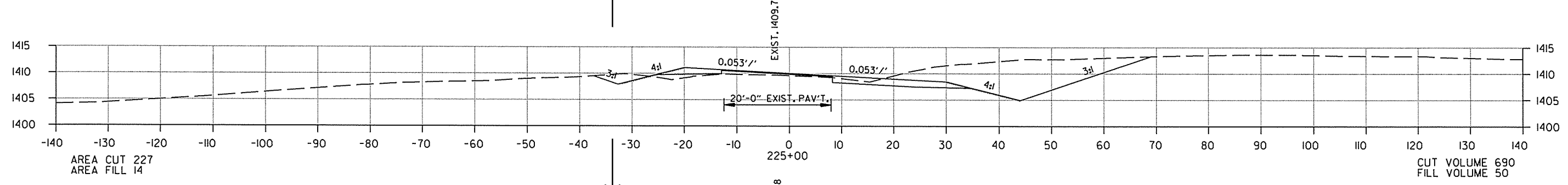
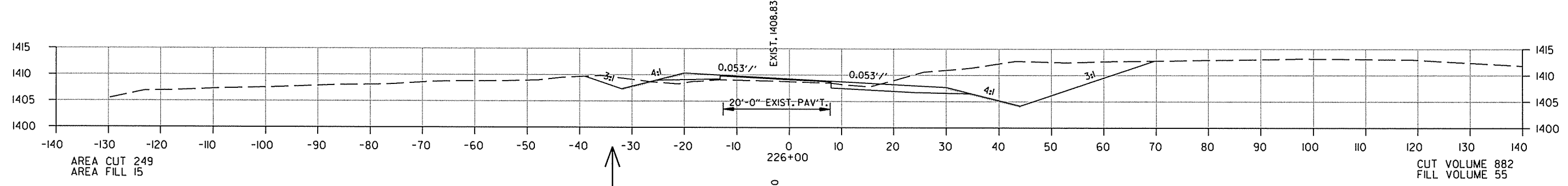
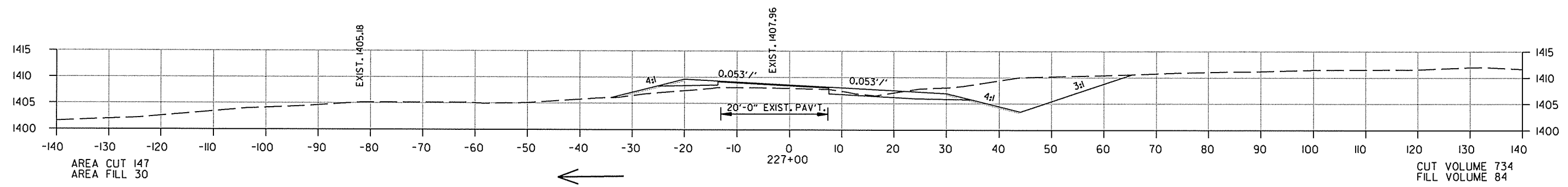


CROSS SECTION STA. 221+00 TO STA. 223+10

5/1/2014
R080422.DGN

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.	080422		87	135

2 CROSS SECTIONS - SITE 1

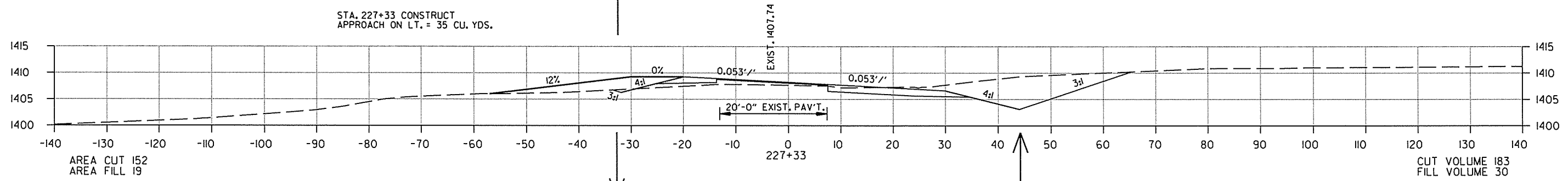
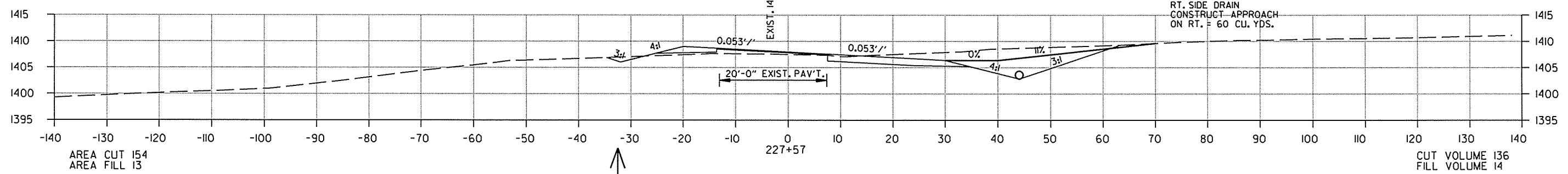
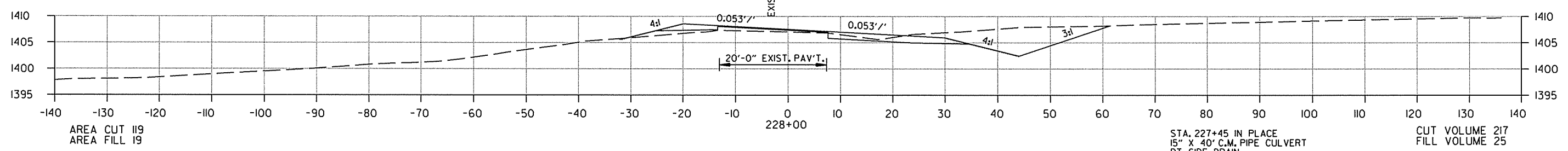
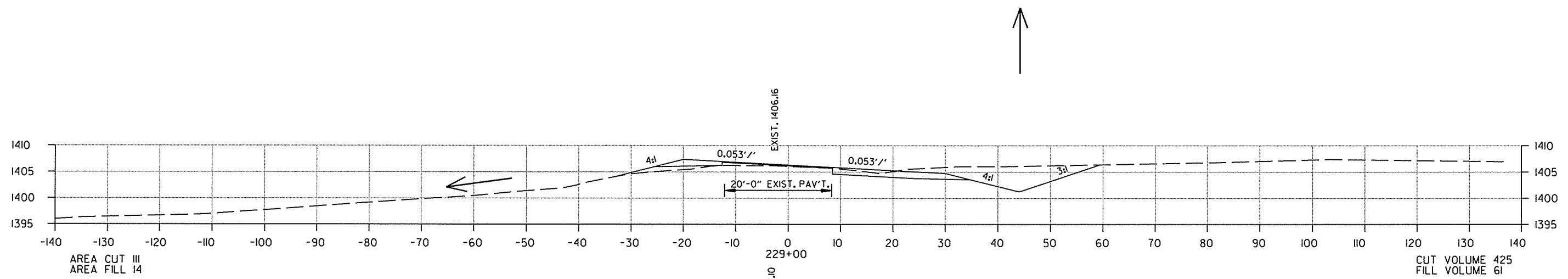


CROSS SECTION STA. 224+00 TO STA. 227+00

5/1/2014
R080422.DGN

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.	080422		88	135

2 CROSS SECTIONS - SITE 1

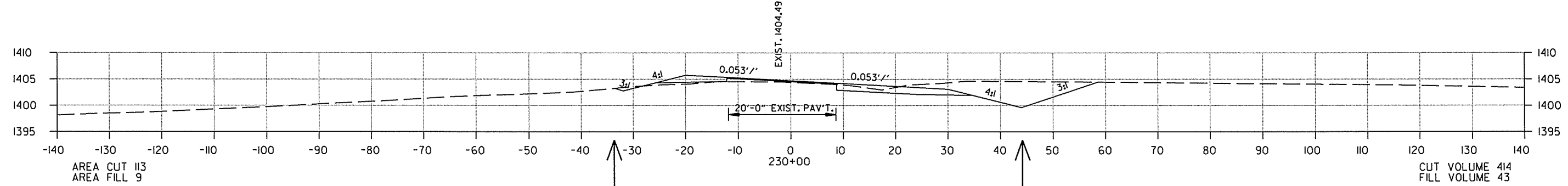
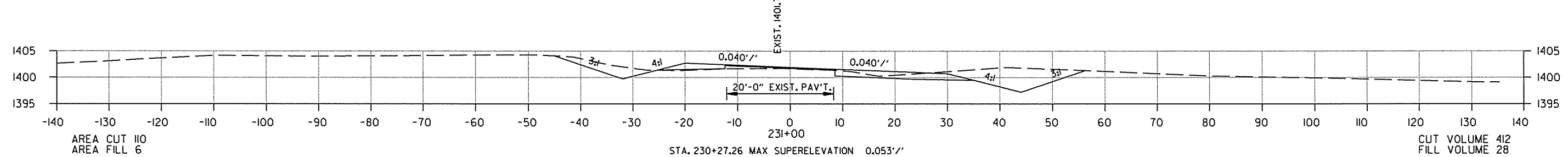
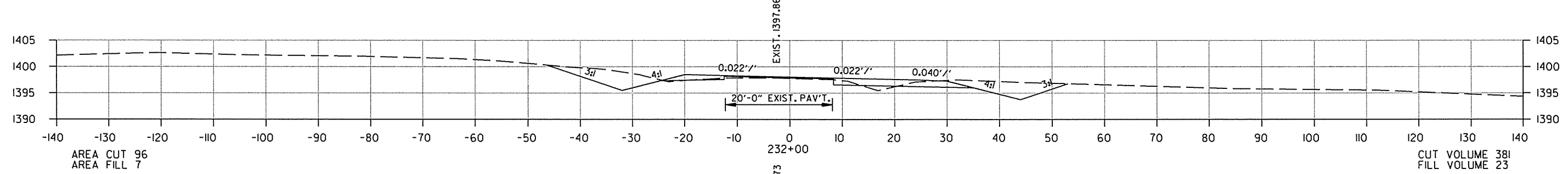
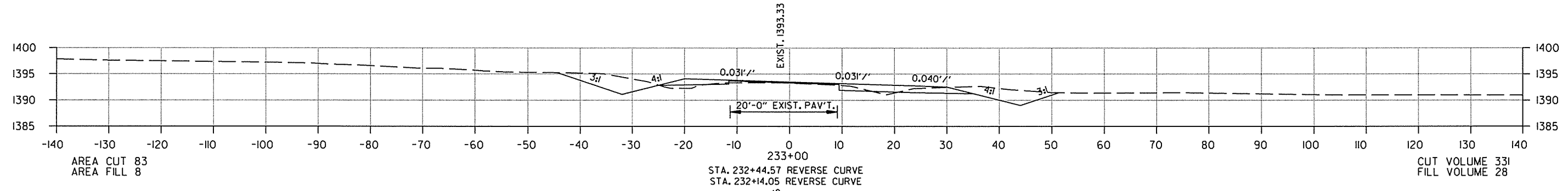
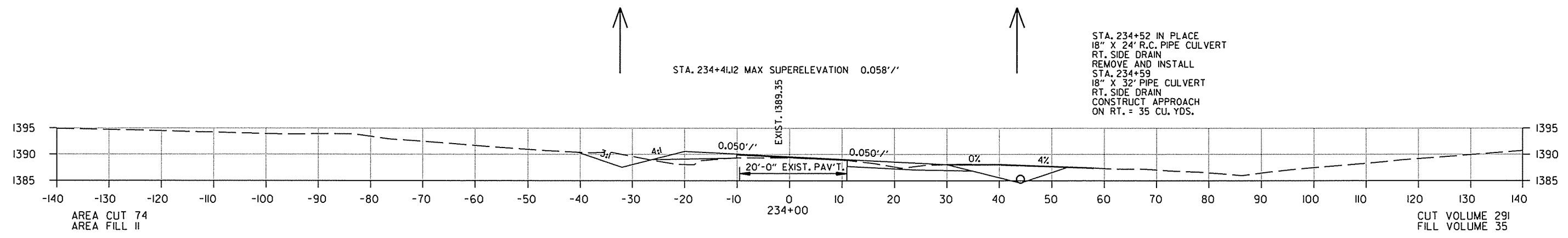


CROSS SECTION STA. 227+33 TO STA. 229+00

5/1/2014
R080422.DCN

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.	080422		89	135

2 CROSS SECTIONS - SITE I



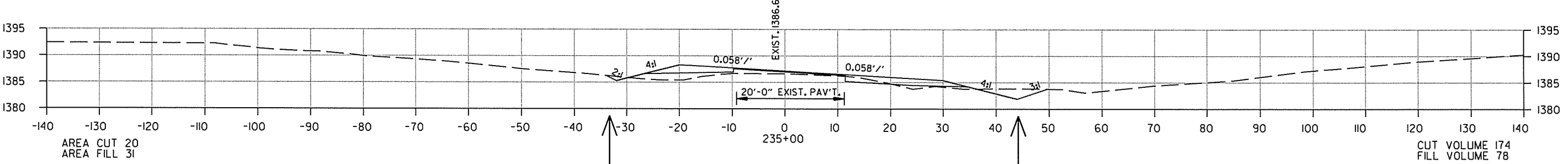
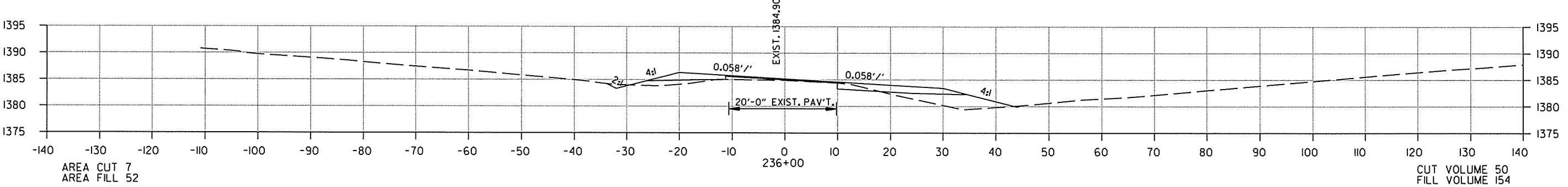
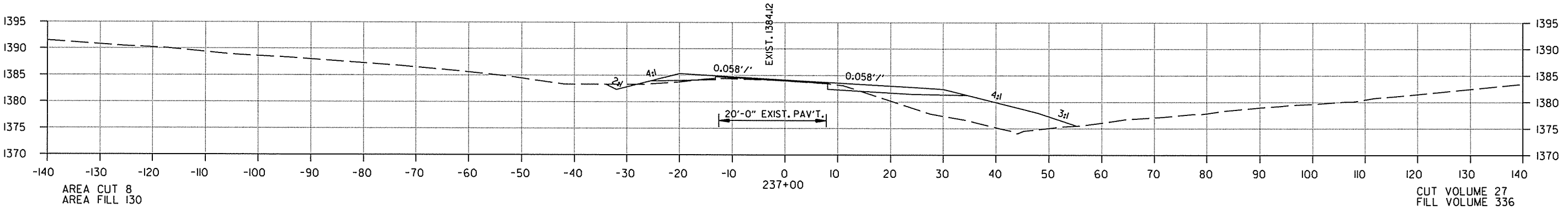
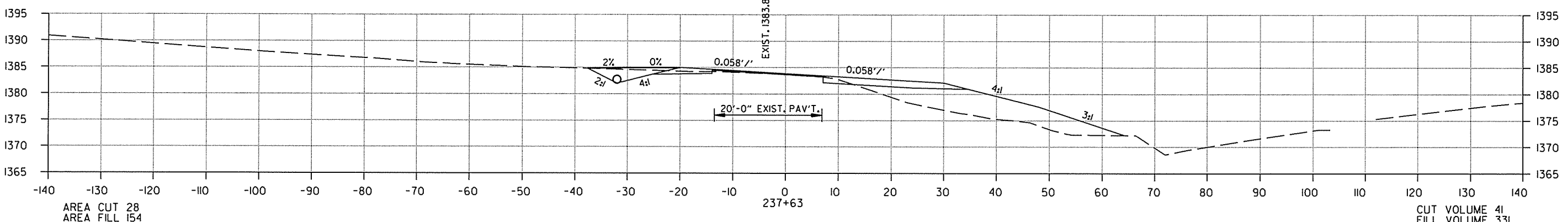
CROSS SECTION STA. 230+00 TO STA. 234+00

5/1/2014
R080422.DGN

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.	080422		90	135

2 CROSS SECTIONS - SITE 1

STA. 237+63 IN PLACE
 12" X 16" ARCH C.M. PIPE CULVERT
 LT. SIDE DRAIN
 REMOVE AND INSTALL
 18" X 30' PIPE CULVERT
 LT. SIDE DRAIN
 CONSTRUCT APPROACH
 ON LT. = 25 CU. YDS.

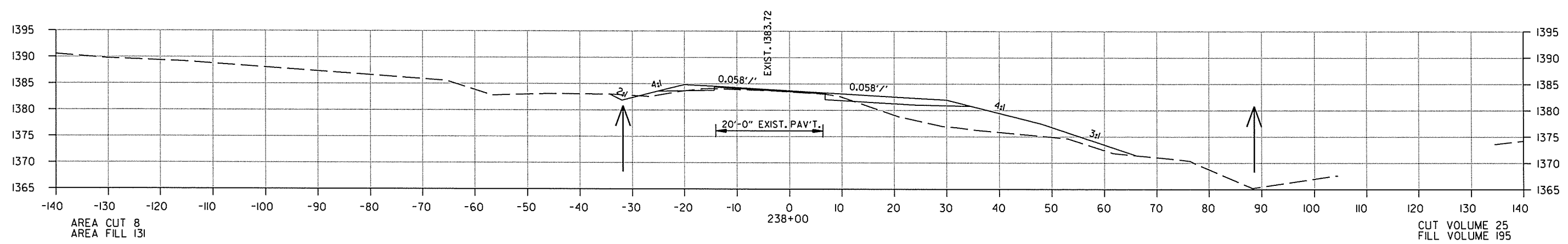
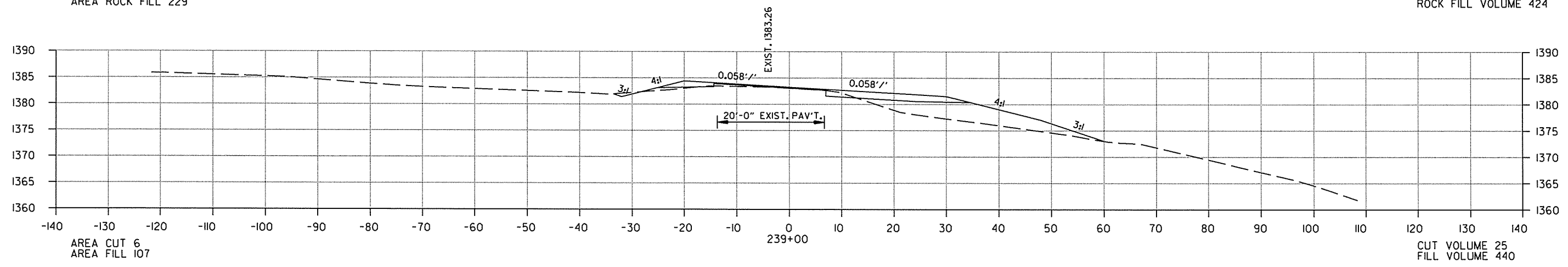
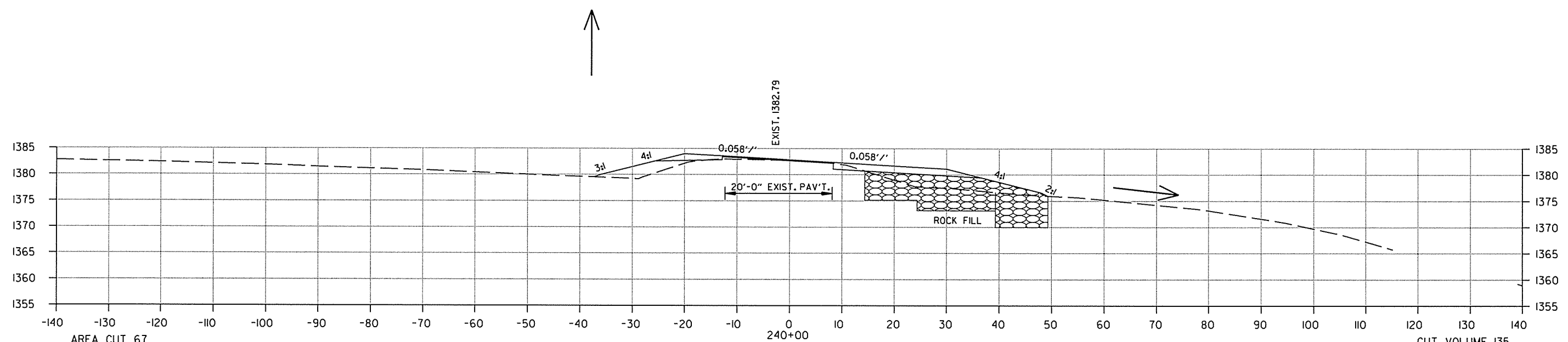


CROSS SECTION STA. 235+00 TO STA. 237+63

5/1/2014
R080422.DCN

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.	080422		91	135

2 CROSS SECTIONS - SITE I

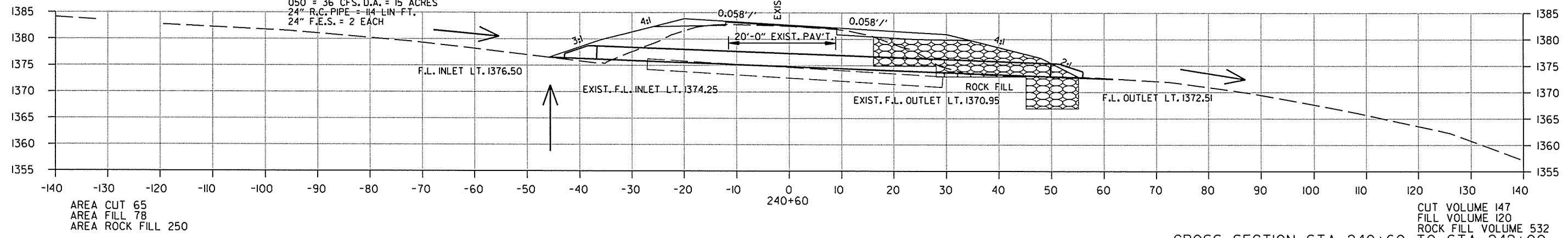
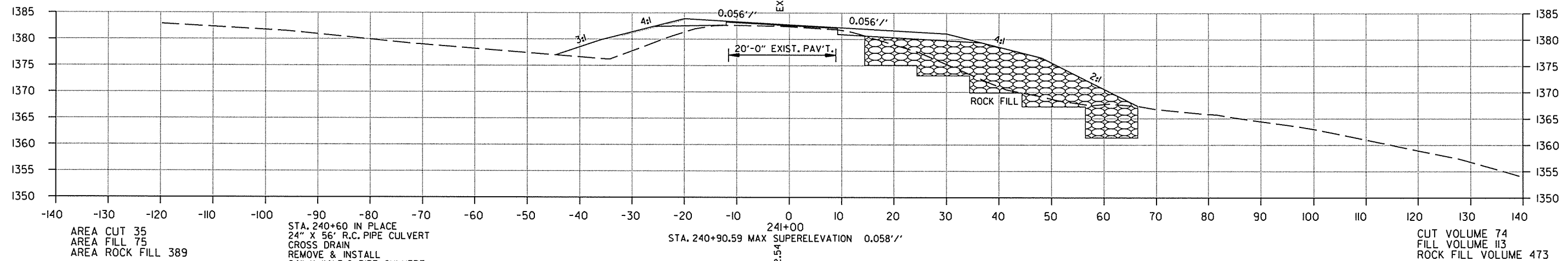
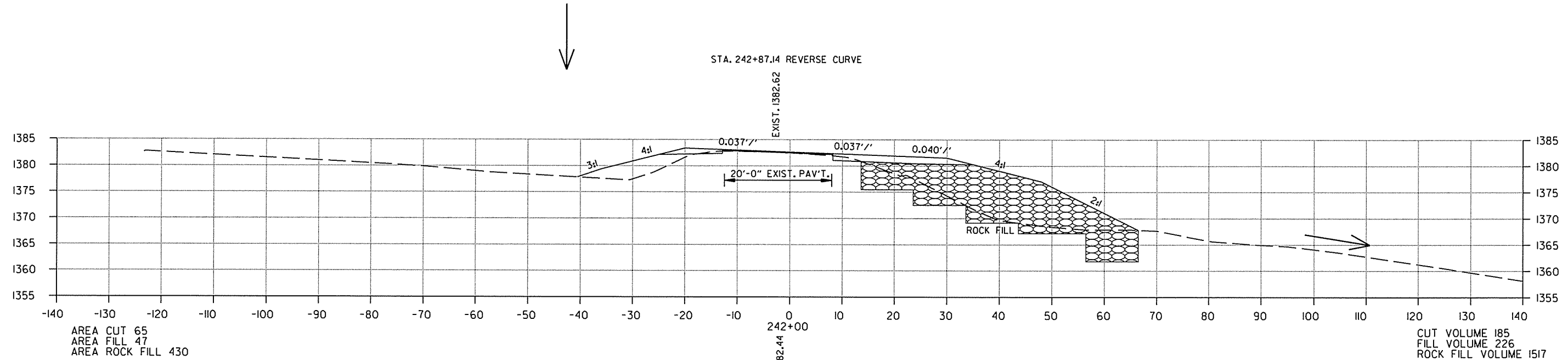


CROSS SECTION STA. 238+00 TO STA. 240+00

5/1/2014
R080422.DGN

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.	080422		92	135

2 CROSS SECTIONS - SITE 1

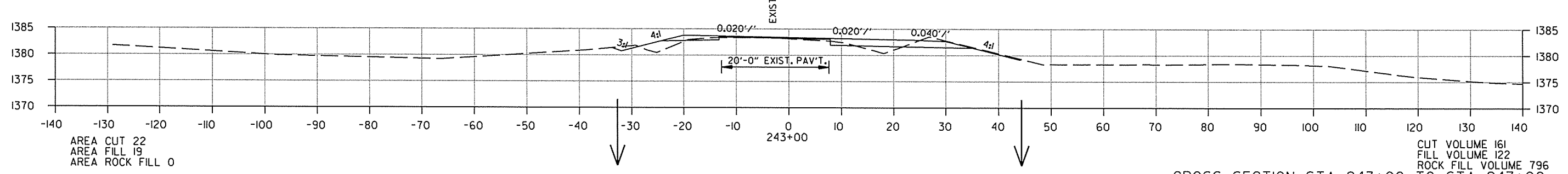
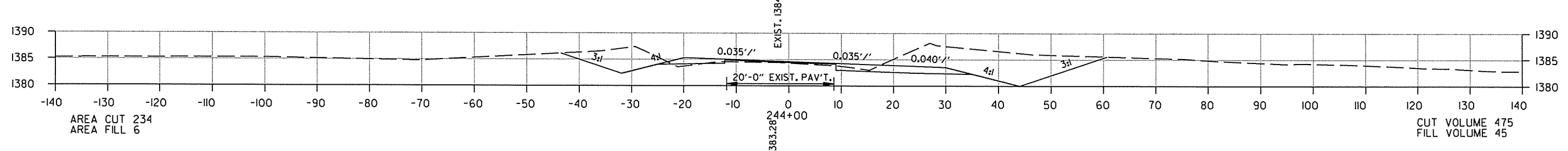
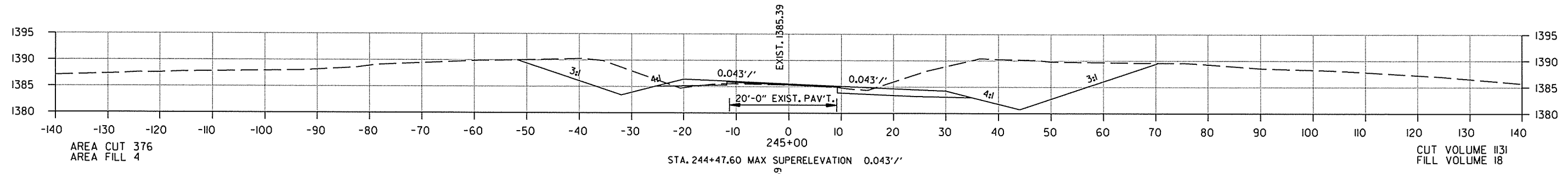
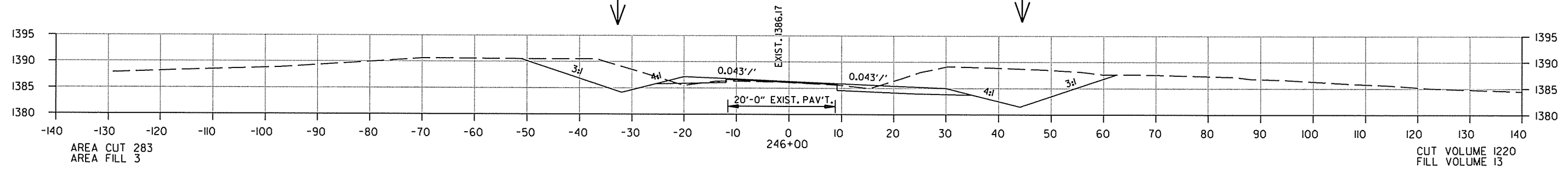
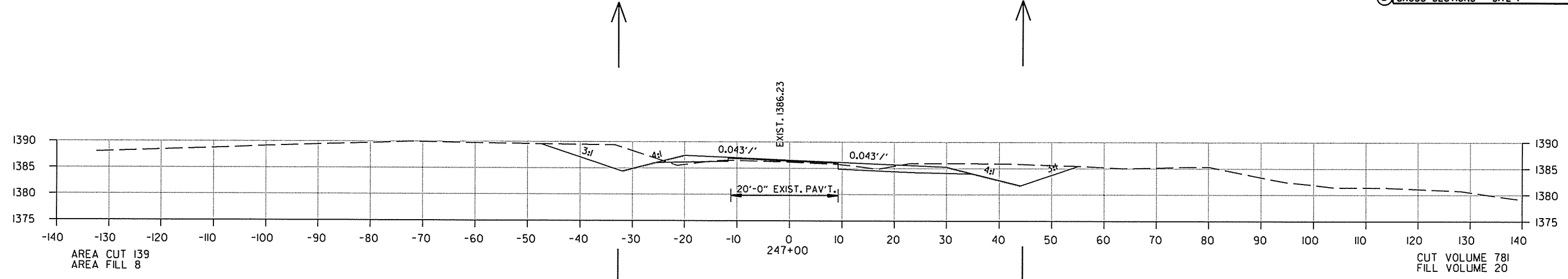


CROSS SECTION STA. 240+60 TO STA. 242+00

R080422.DGN 5/1/2014

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.	080422		93	135

2 CROSS SECTIONS - SITE I

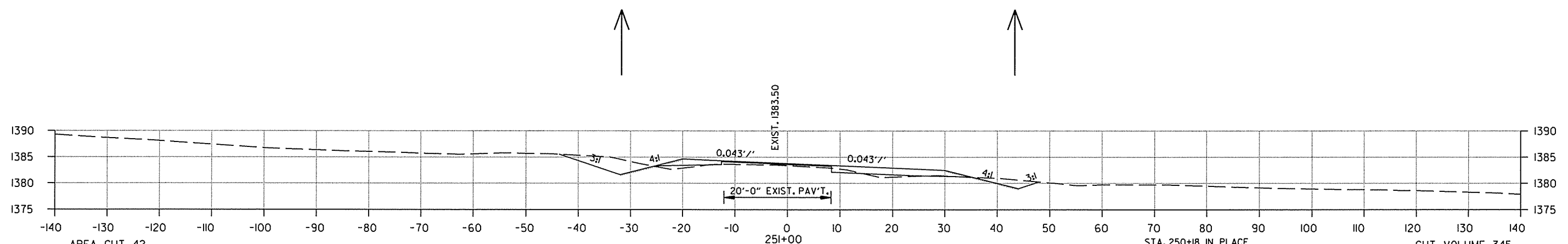


CROSS SECTION STA. 243+00 TO STA. 247+00

R080422.DGN 5/1/2014

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 080422	94	135

2 CROSS SECTIONS - SITE 1

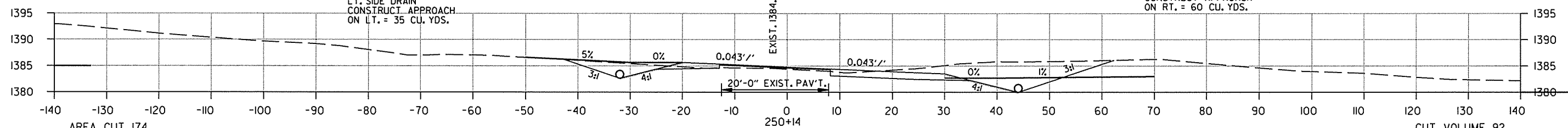


AREA CUT 42
AREA FILL 14

STA. 250+14 IN PLACE
12" X 24" PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 32" PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
ON LT. = 35 CU. YDS.

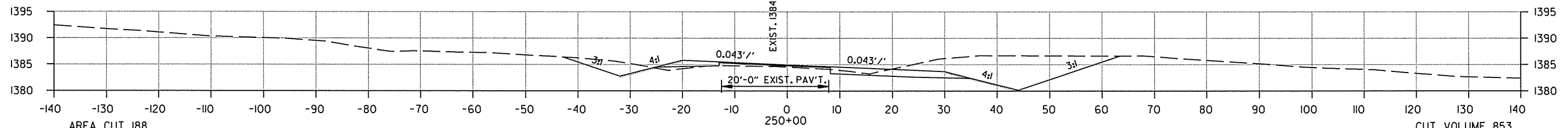
STA. 250+18 IN PLACE
12" X 24" C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL STA. 250+58
18" X 36" PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH
ON RT. = 60 CU. YDS.

CUT VOLUME 345
FILL VOLUME 33



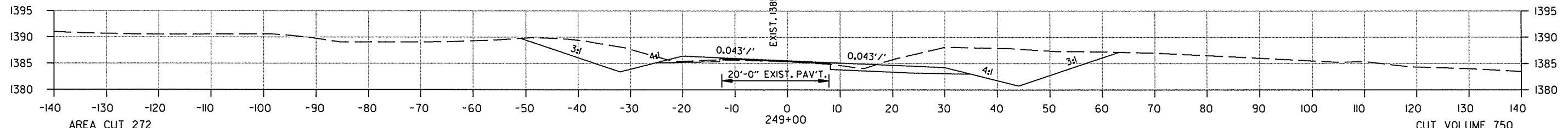
AREA CUT 174
AREA FILL 7

CUT VOLUME 92
FILL VOLUME 4



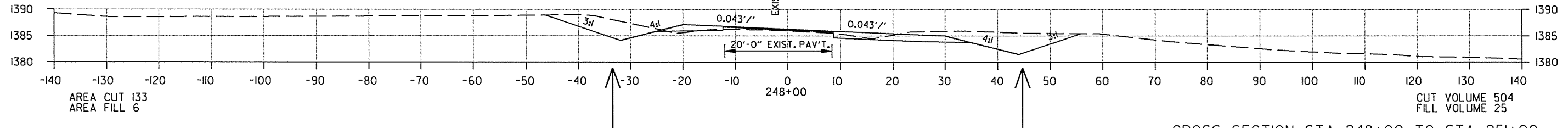
AREA CUT 188
AREA FILL 11

CUT VOLUME 853
FILL VOLUME 24



AREA CUT 272
AREA FILL 2

CUT VOLUME 750
FILL VOLUME 16



AREA CUT 133
AREA FILL 6

CUT VOLUME 504
FILL VOLUME 25

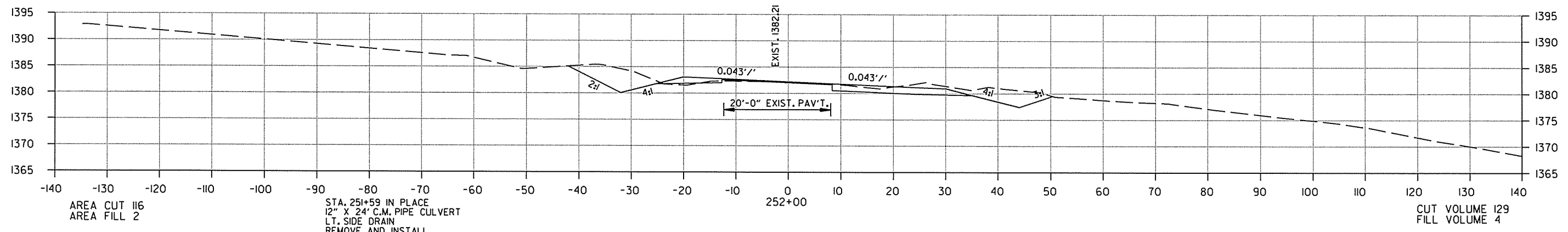
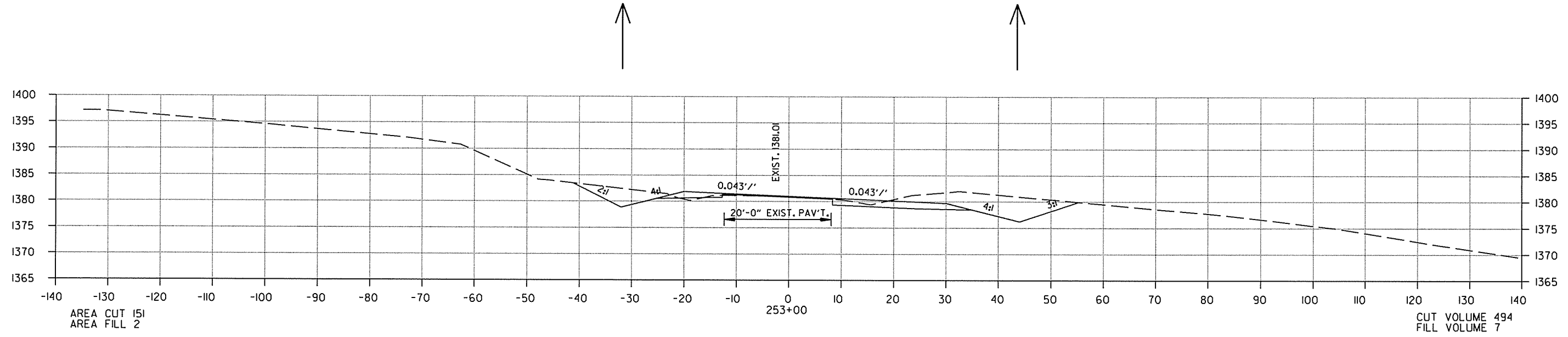
CROSS SECTION STA. 248+00 TO STA. 251+00

5/1/2014

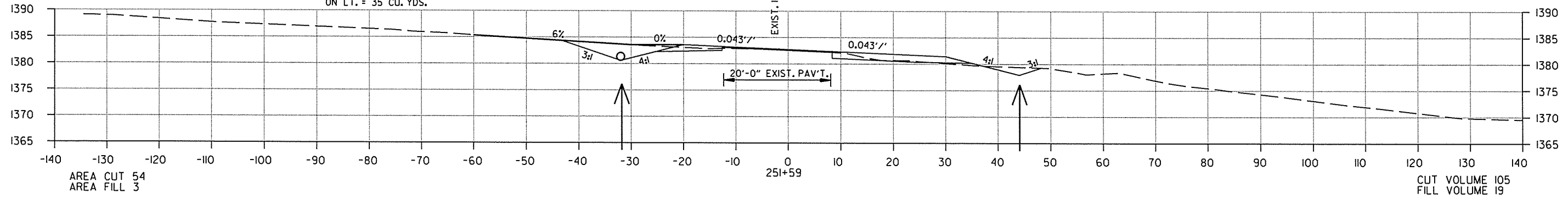
RO80422.DGN

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				6	ARK.			
				JOB NO.	080422		95	135

2 CROSS SECTIONS - SITE 1



STA. 251+59 IN PLACE
 12" X 24' C.M. PIPE CULVERT
 LT. SIDE DRAIN
 REMOVE AND INSTALL
 18" X 32' PIPE CULVERT
 LT. SIDE DRAIN
 CONSTRUCT APPROACH
 ON LT. = 35 CU. YDS.

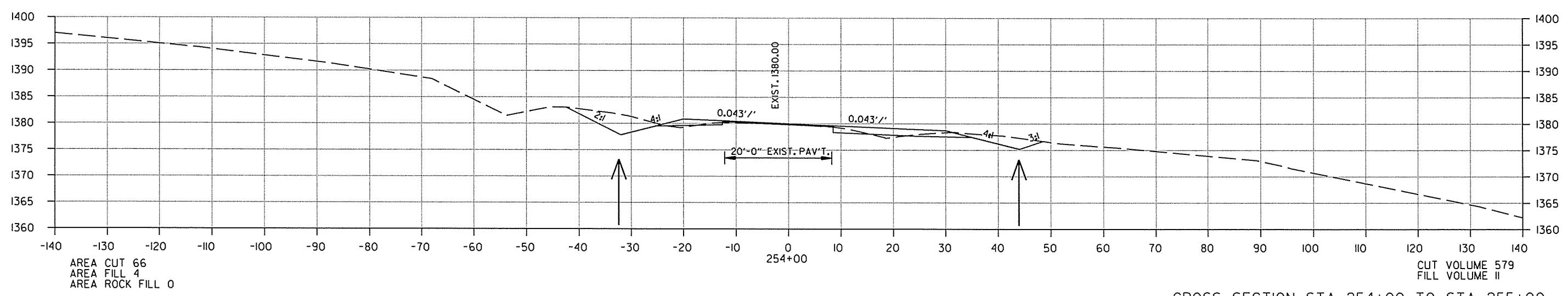
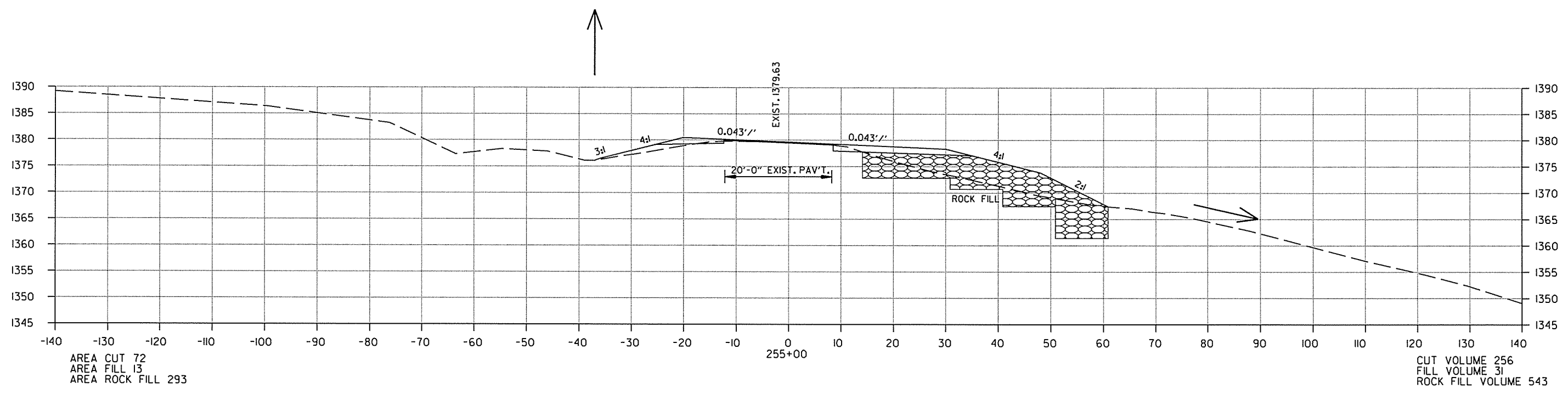


CROSS SECTION STA. 251+59 TO STA. 253+00

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 R080422.DGN

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				6	ARK.			
				JOB NO.	080422		96	135

2 CROSS SECTIONS - SITE 1



CROSS SECTION STA. 254+00 TO STA. 255+00

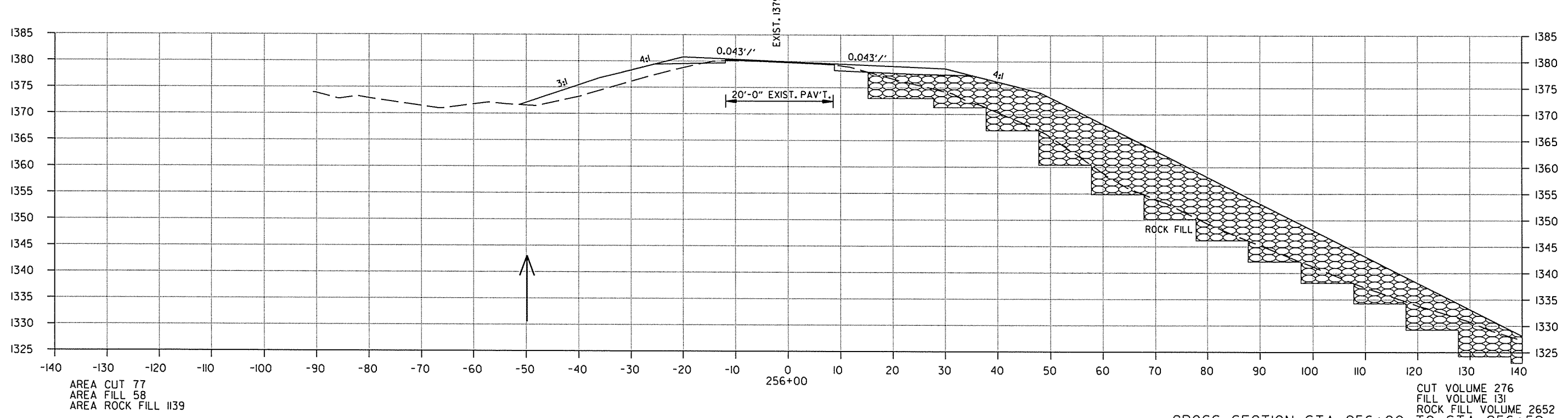
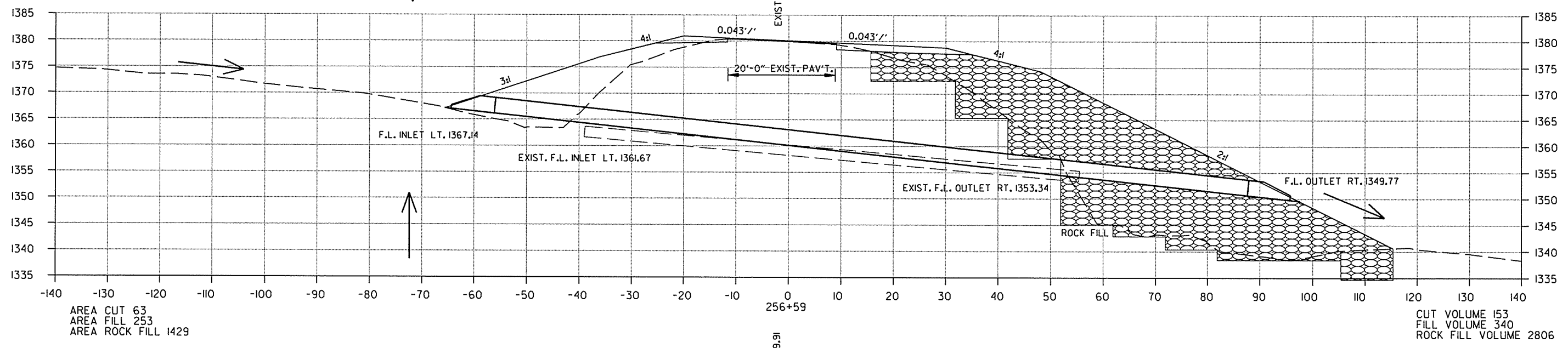
5/1/2014
R080422.DGN

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.	080422		97	135

2 CROSS SECTIONS - SITE I

STA. 256+39 INSTALL
 36" X 100' R.C. PIPE CULVERT
 CROSS DRAIN
 (CLASS V)(TYPE 3 BEDDING) WITH
 F.E.S. LT. & RT.
 050 = 66 CFS, D.A. = 27 ACRES
 36" R.C. PIPE = 100 LIN. FT.
 36" F.E.S. = 2 EACH
 (JACKING)

STA. 256+59 IN PLACE
 24" X 94' R.C. PIPE CULVERT
 CROSS DRAIN
 PLUG & ABANDON

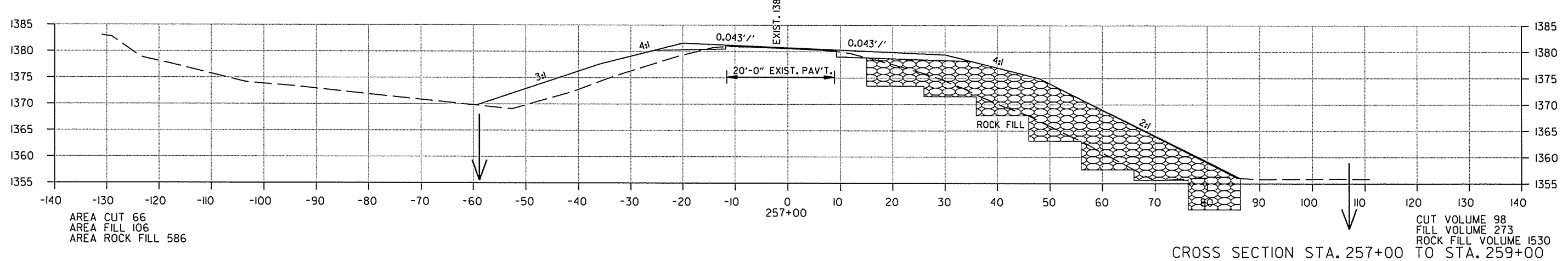
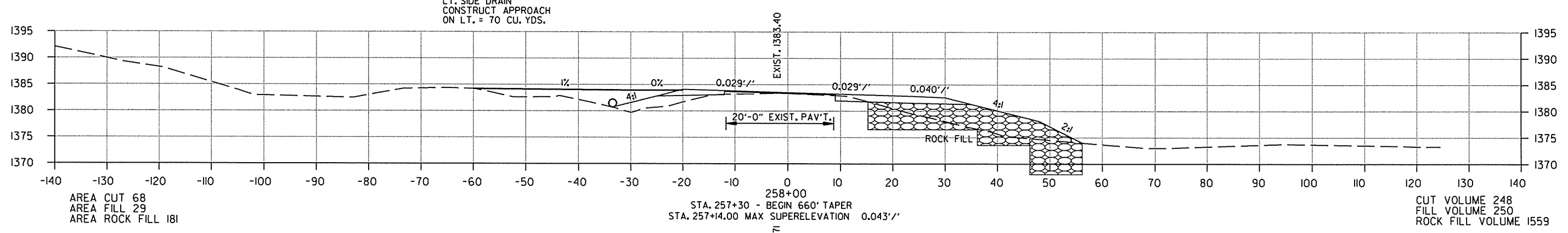
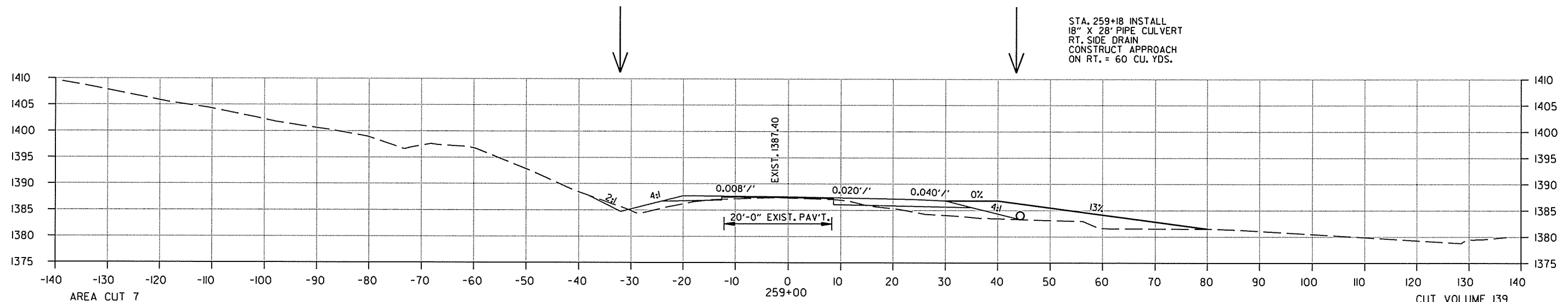


CROSS SECTION STA. 256+00 TO STA. 256+59

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				6	ARK.			
				JOB NO.	080422		98	135

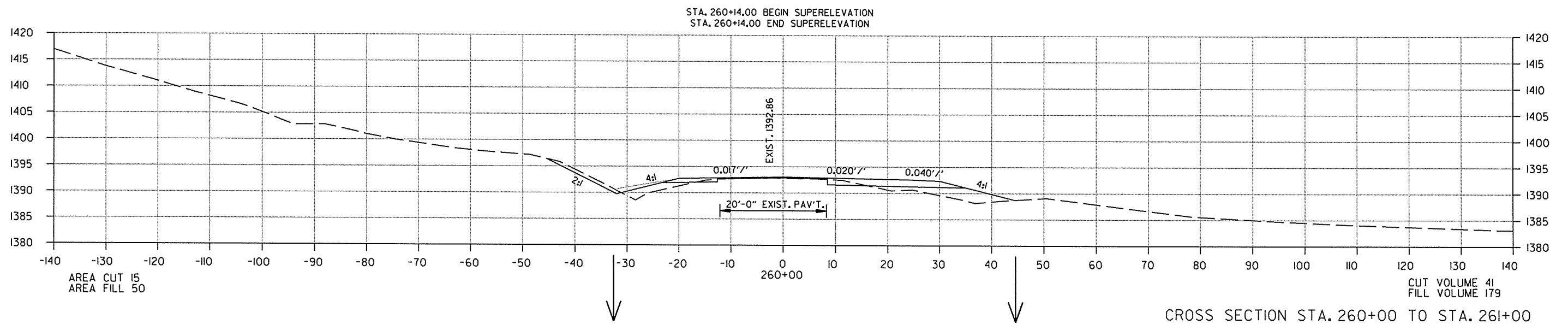
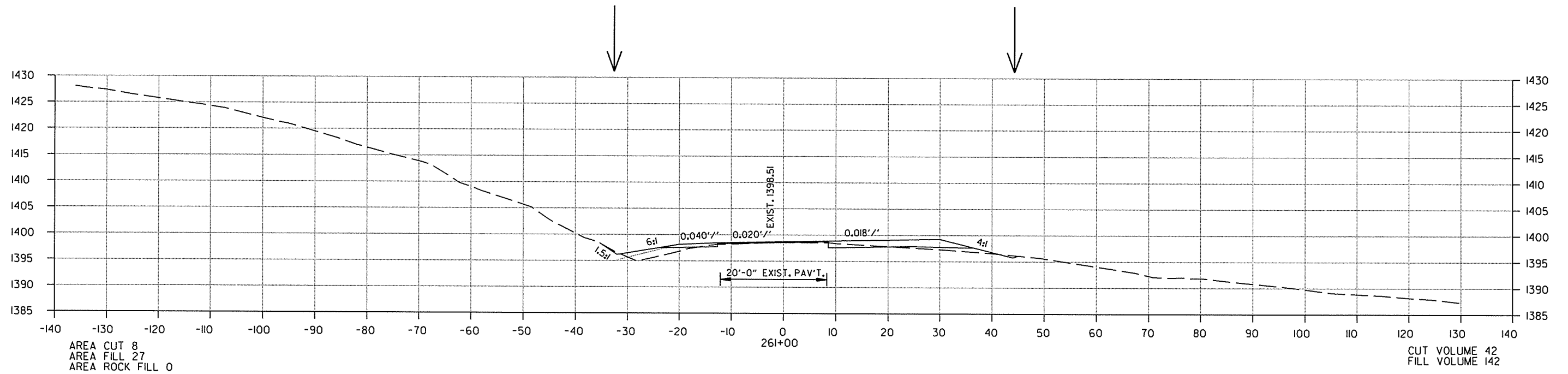
2 CROSS SECTIONS - SITE 1



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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.	080422		99	135

② CROSS SECTIONS - SITE 1



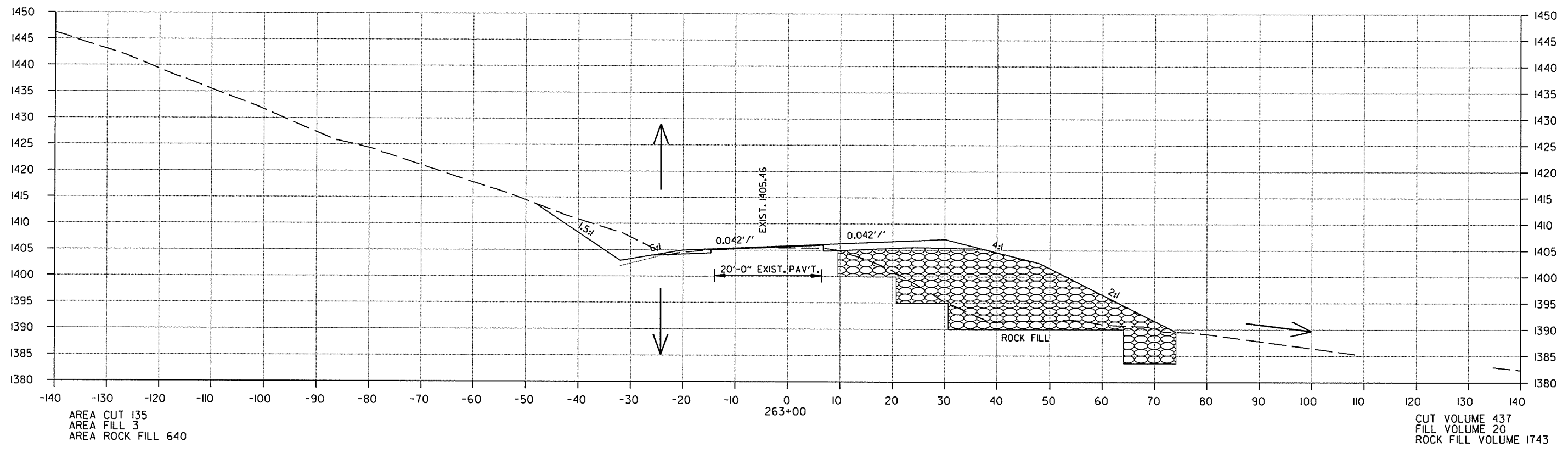
CROSS SECTION STA. 260+00 TO STA. 261+00

5/1/2014

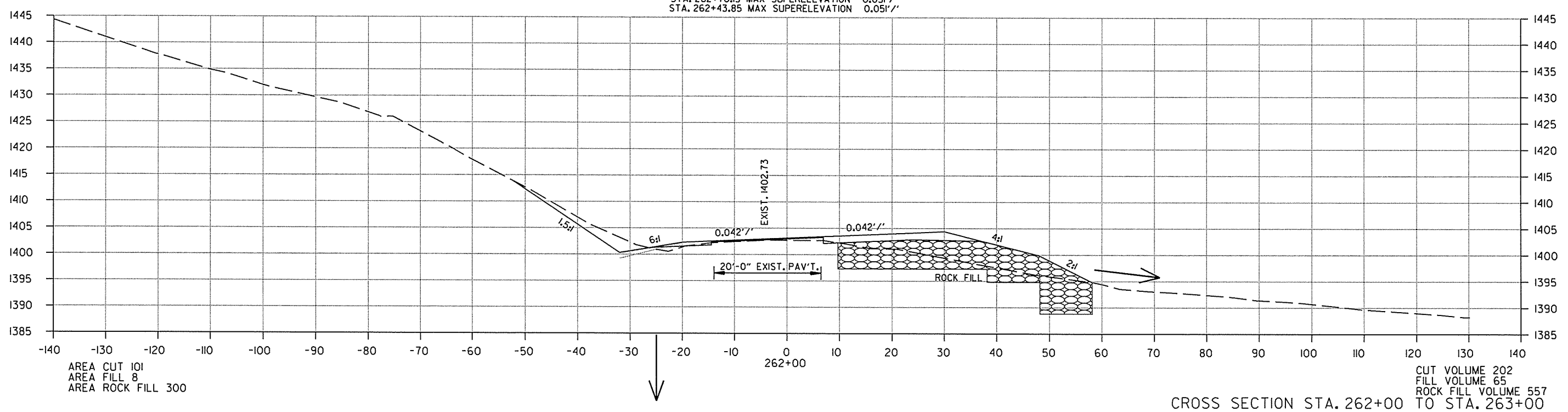
R080422.DGN

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.	080422		100	135

2 CROSS SECTIONS - SITE 1



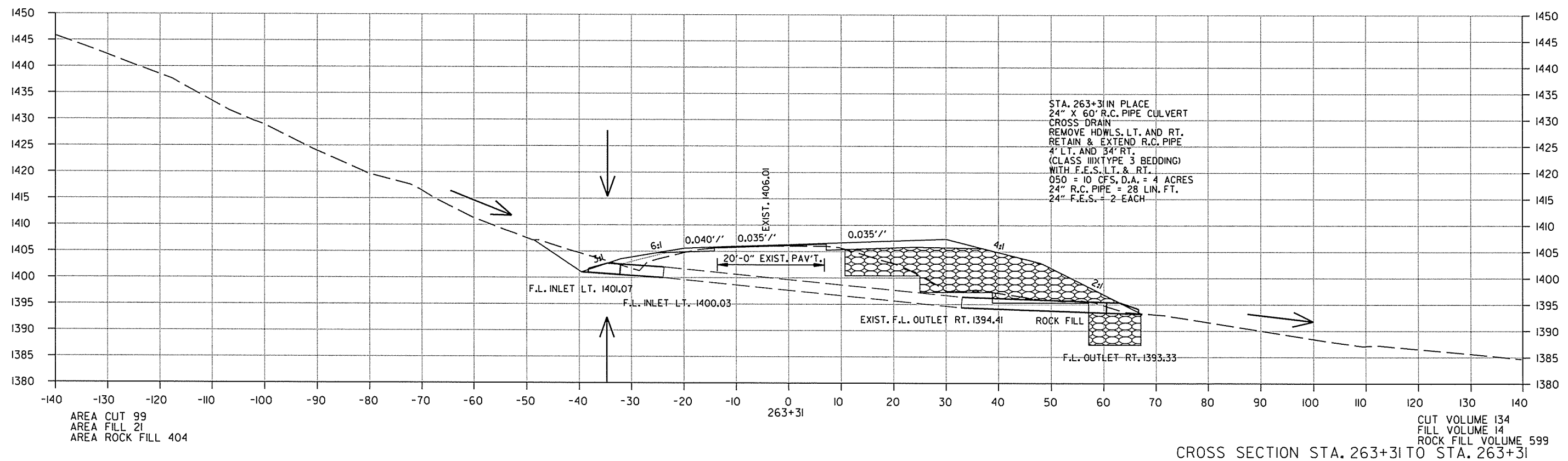
STA. 262+70.15 MAX SUPERELEVATION 0.051'/'
STA. 262+43.85 MAX SUPERELEVATION 0.051'/'



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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.	080422		101	135

2 CROSS SECTIONS - SITE 1

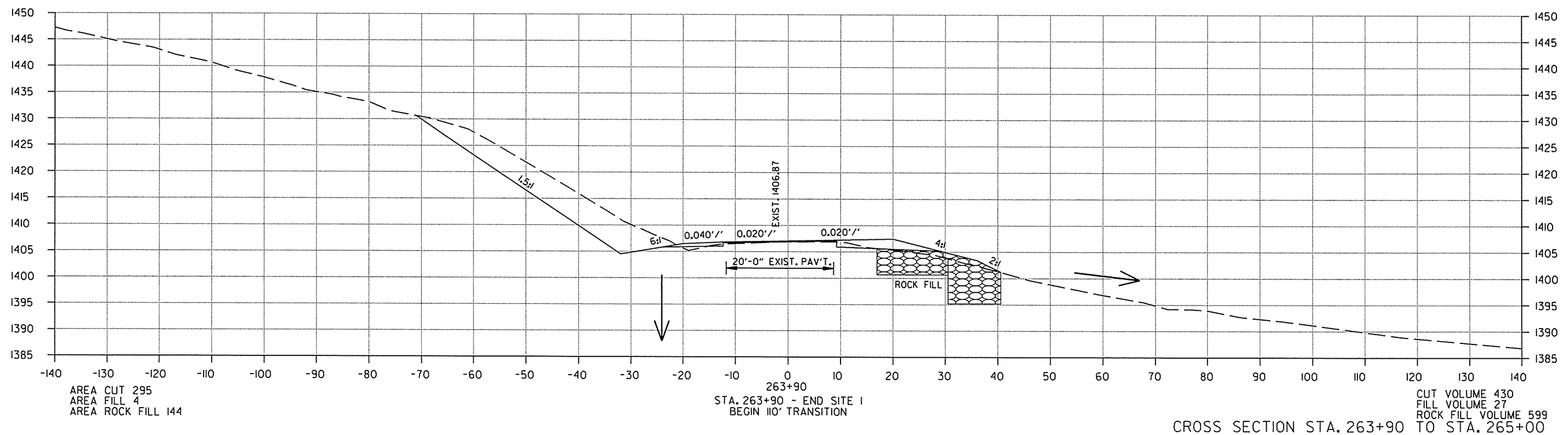
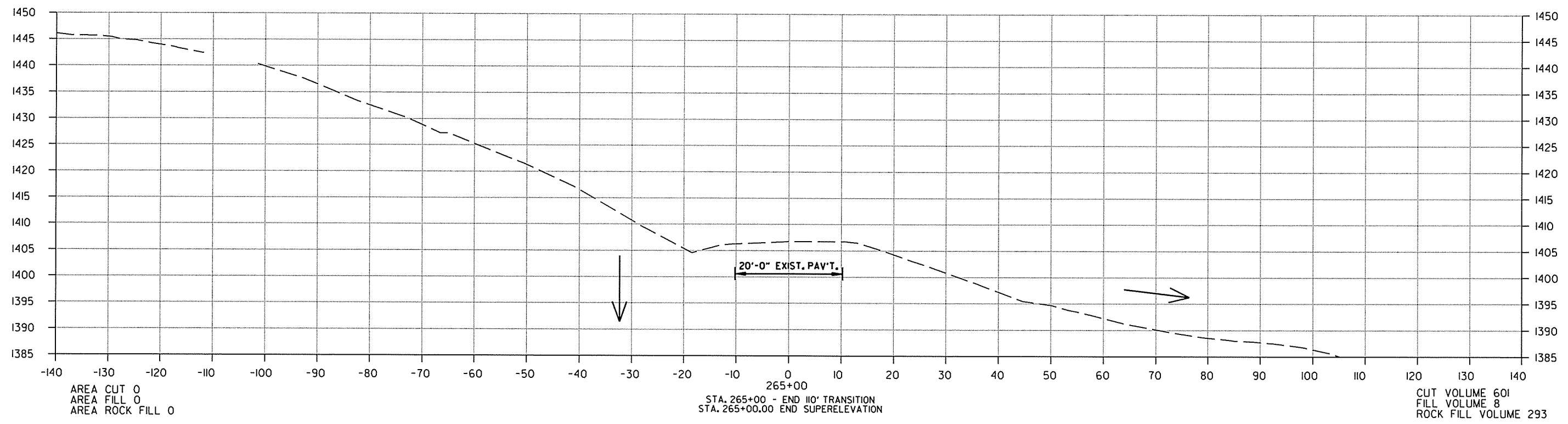


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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 080422							102	135

2 CROSS SECTIONS - SITE 1

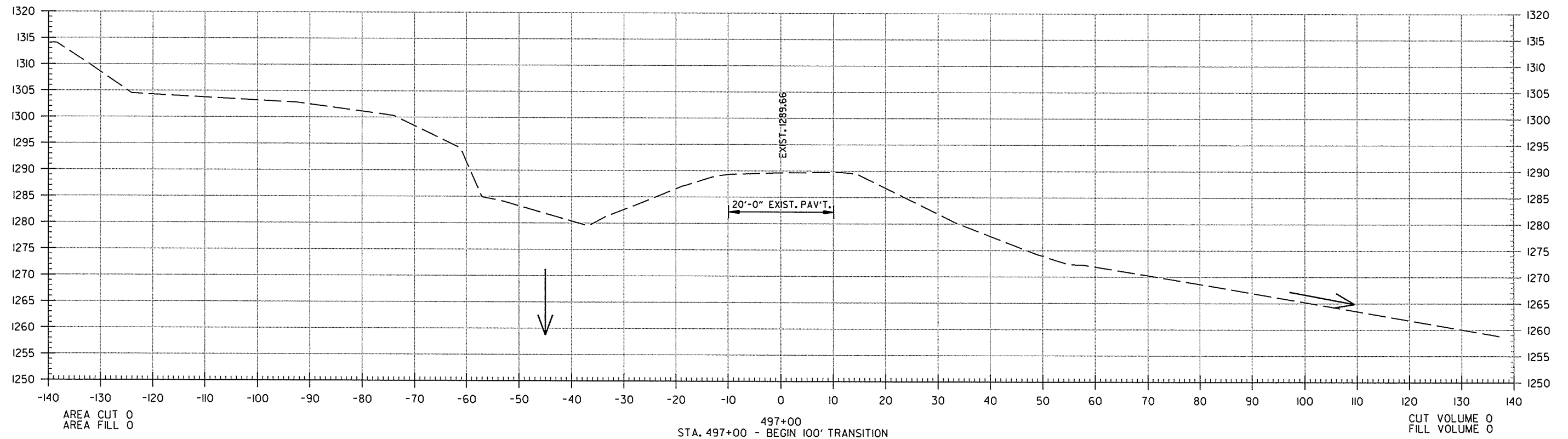


CROSS SECTION STA. 263+90 TO STA. 265+00

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R080422.DGN

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.	080422		103	135

2 CROSS SECTIONS - SITE 2



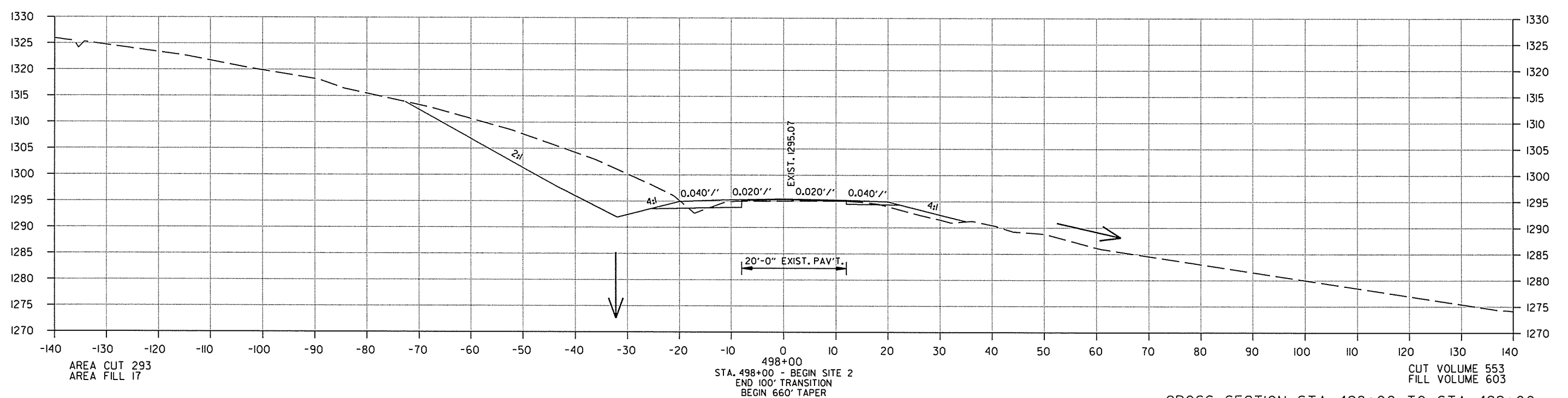
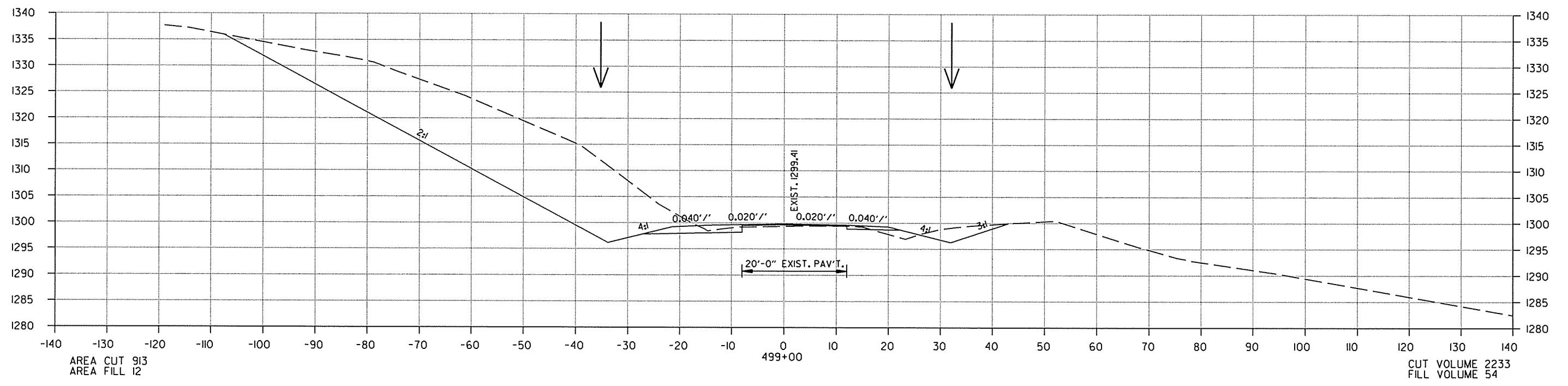
CROSS SECTION STA. 497+00 TO STA. 497+00

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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.	080422		104	135

2 CROSS SECTIONS - SITE 2

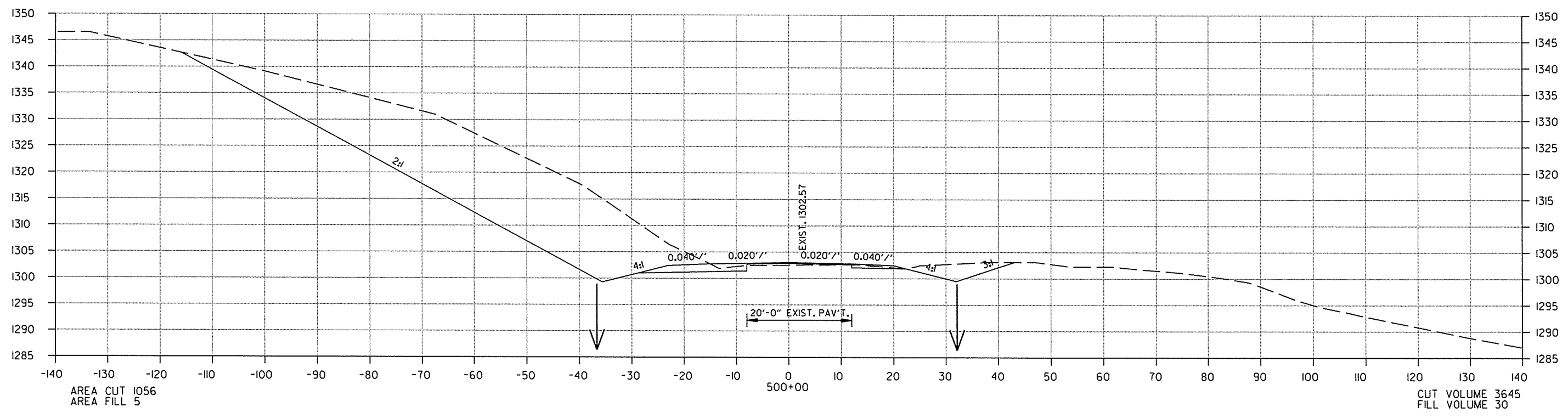
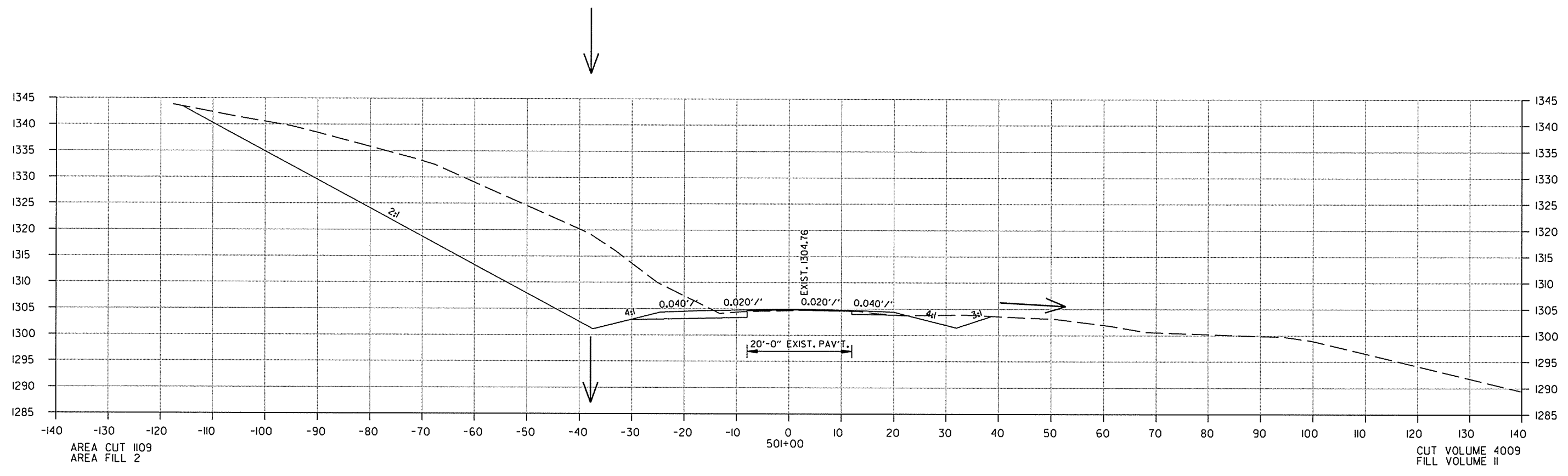


CROSS SECTION STA. 498+00 TO STA. 499+00

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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.	080422		105	135

2 CROSS SECTIONS - SITE 2

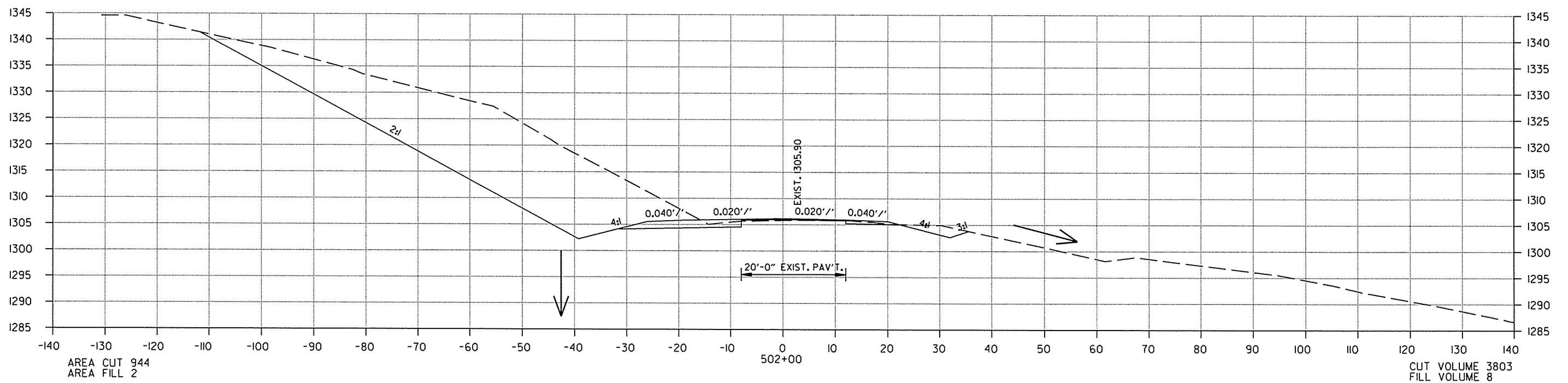
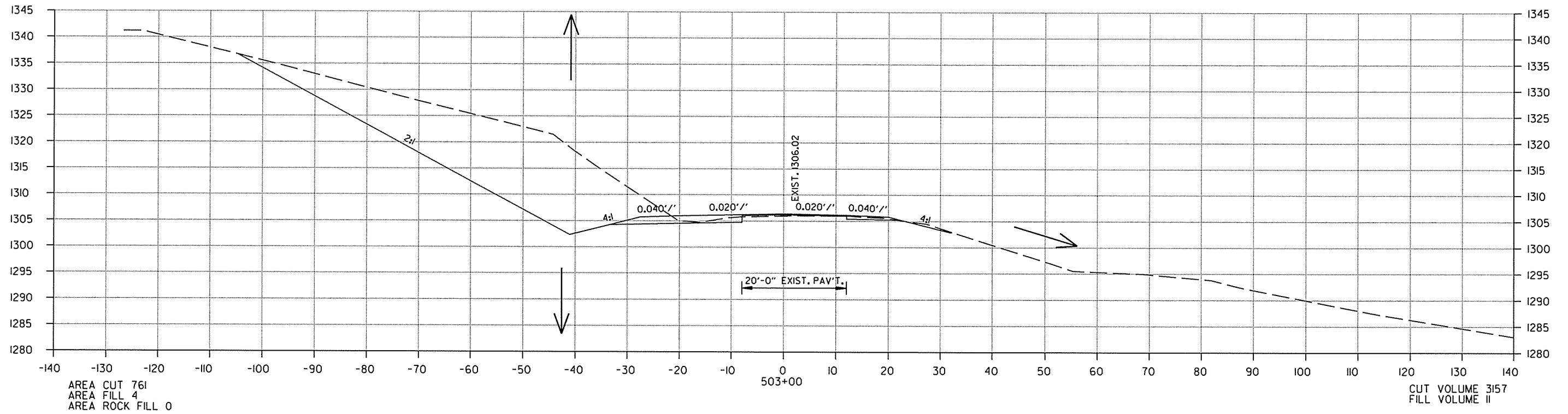


CROSS SECTION STA. 500+00 TO STA. 501+00

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R080422.DGN

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.	080422		106	135

2 CROSS SECTIONS - SITE 2



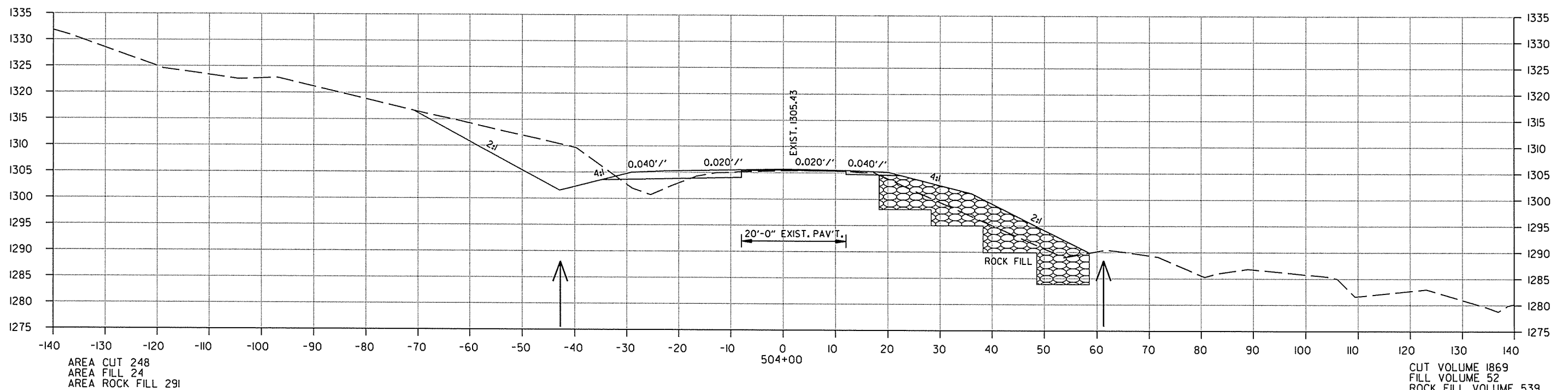
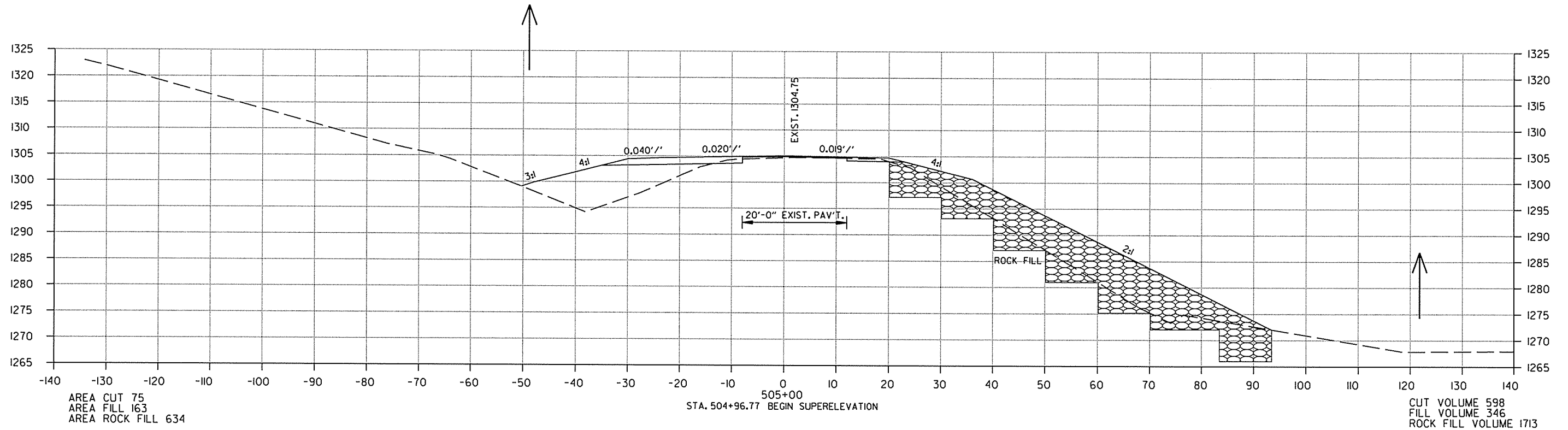
CROSS SECTION STA. 502+00 TO STA. 503+00

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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.							080422	107	135

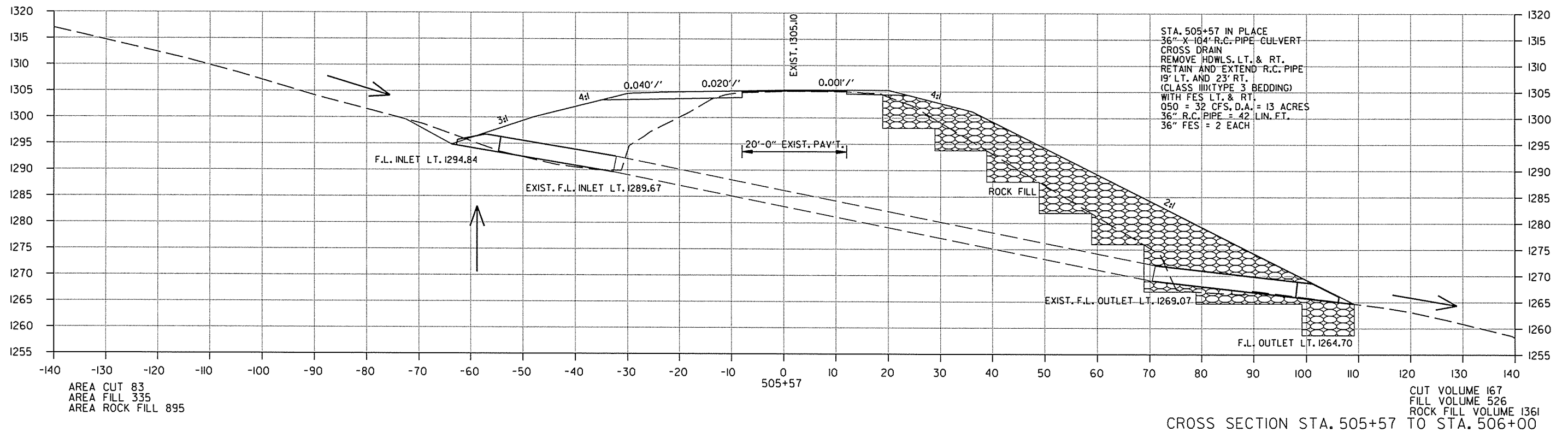
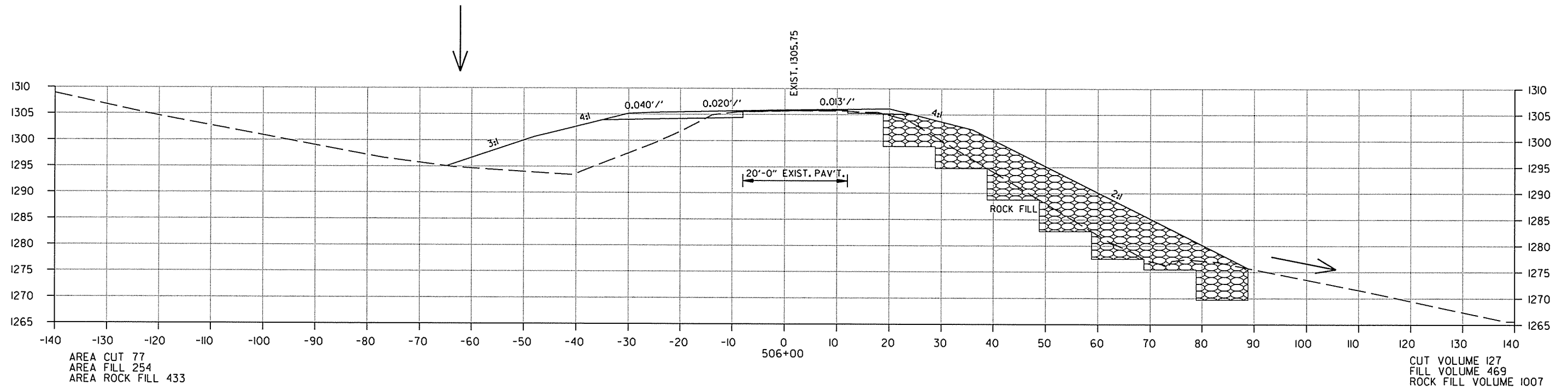
② CROSS SECTIONS - SITE 2



CROSS SECTION STA. 504+00 TO STA. 505+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		108	135
				JOB NO.	080422			

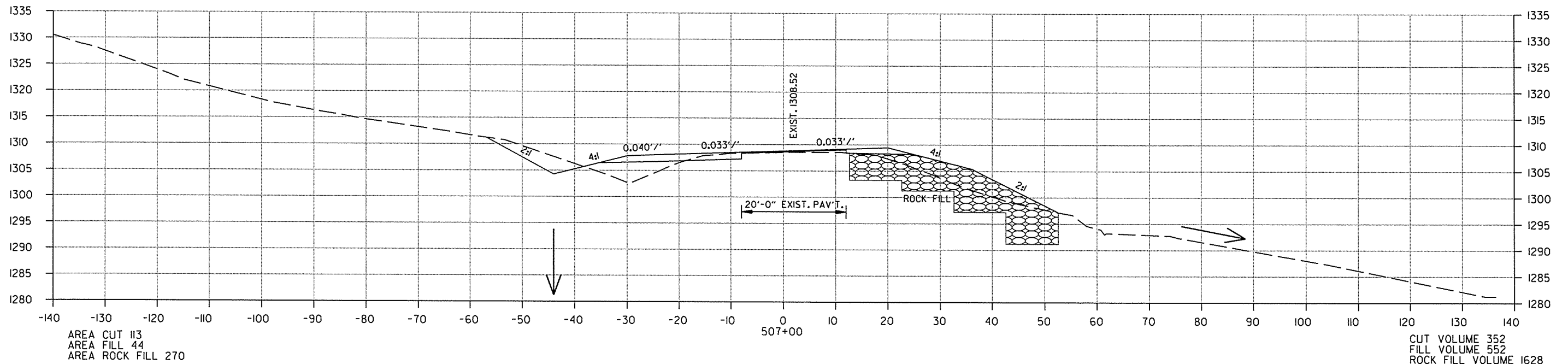
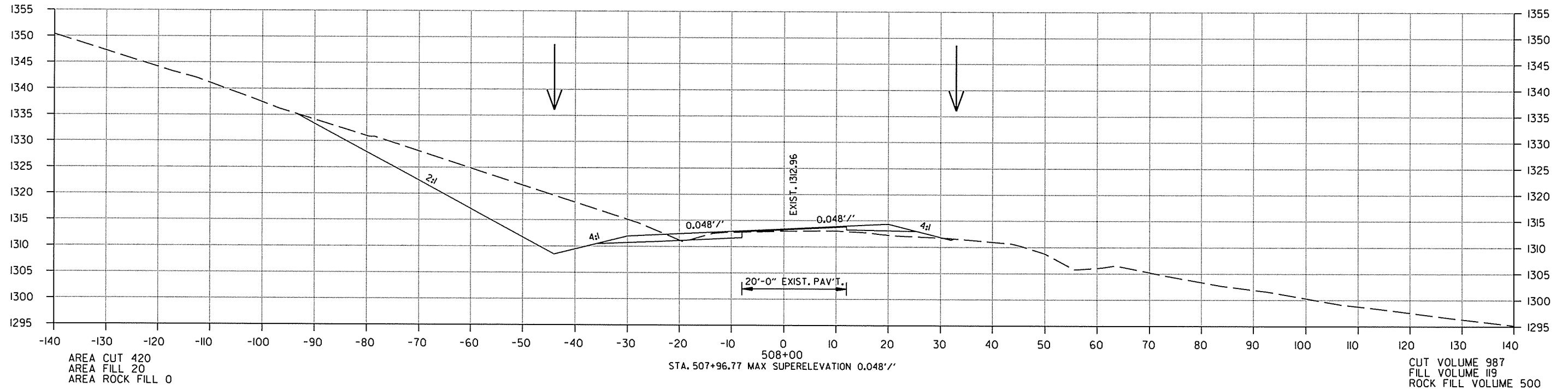
2 CROSS SECTIONS - SITE 2



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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.	080422
								109
								135

2 CROSS SECTIONS - SITE 2



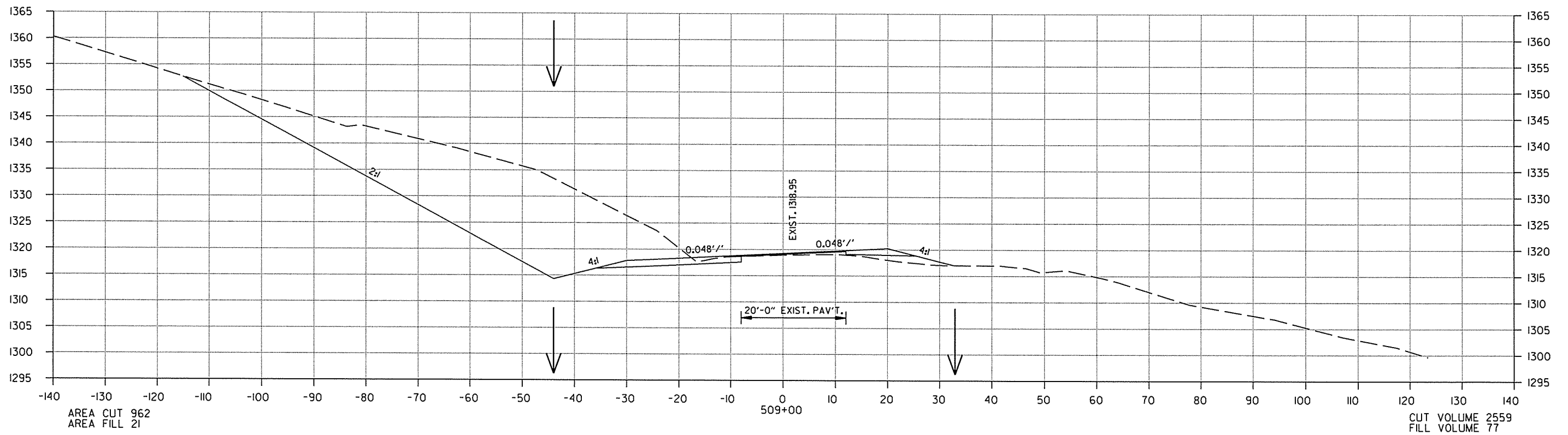
CROSS SECTION STA. 507+00 TO STA. 508+00

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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. 080422			110	135

② CROSS SECTIONS - SITE 2



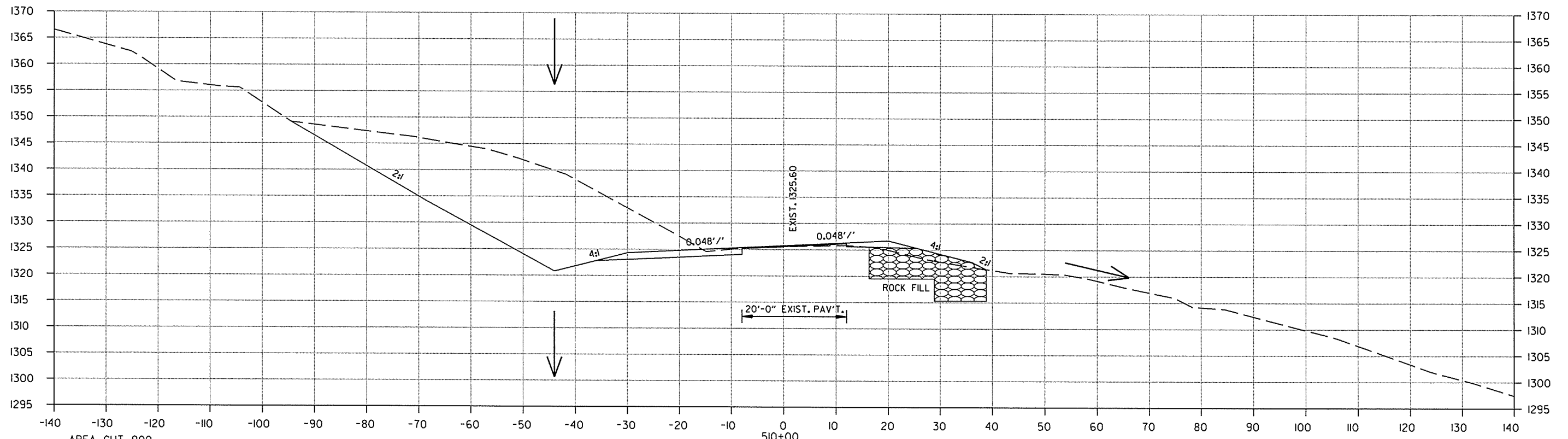
CROSS SECTION STA. 509+00 TO STA. 509+00

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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.	080422		111	135

② CROSS SECTIONS - SITE 2



AREA CUT 900
 AREA FILL 2
 AREA ROCK FILL 151

CUT VOLUME 3448
 FILL VOLUME 43
 ROCK FILL VOLUME 280

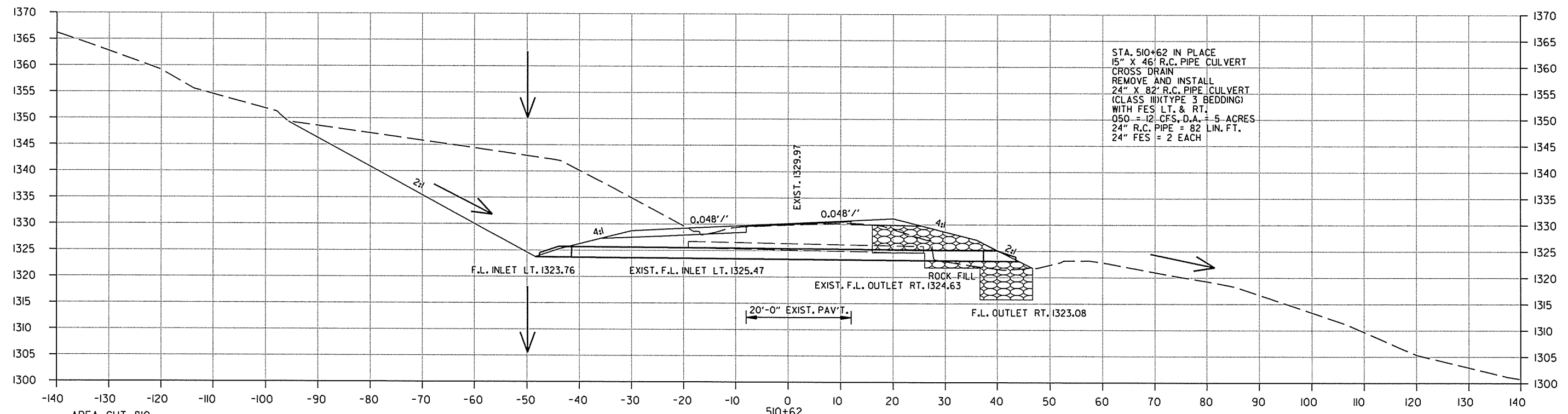
CROSS SECTION STA. 510+00 TO STA. 510+00

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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. 080422	112	135

② CROSS SECTIONS - SITE 2



STA. 50+62 IN PLACE
 15" X 46" R.C. PIPE CULVERT
 CROSS DRAIN
 REMOVE AND INSTALL
 24" X 82" R.C. PIPE CULVERT
 (CLASS III)(TYPE 3 BEDDING)
 WITH FES LT. & RT.
 050 = 12' CFS, D.A. = 5 ACRES
 24" R.C. PIPE = 82 LIN. FT.
 24" FES = 2 EACH

AREA CUT 810
 AREA FILL 3
 AREA ROCK FILL 207

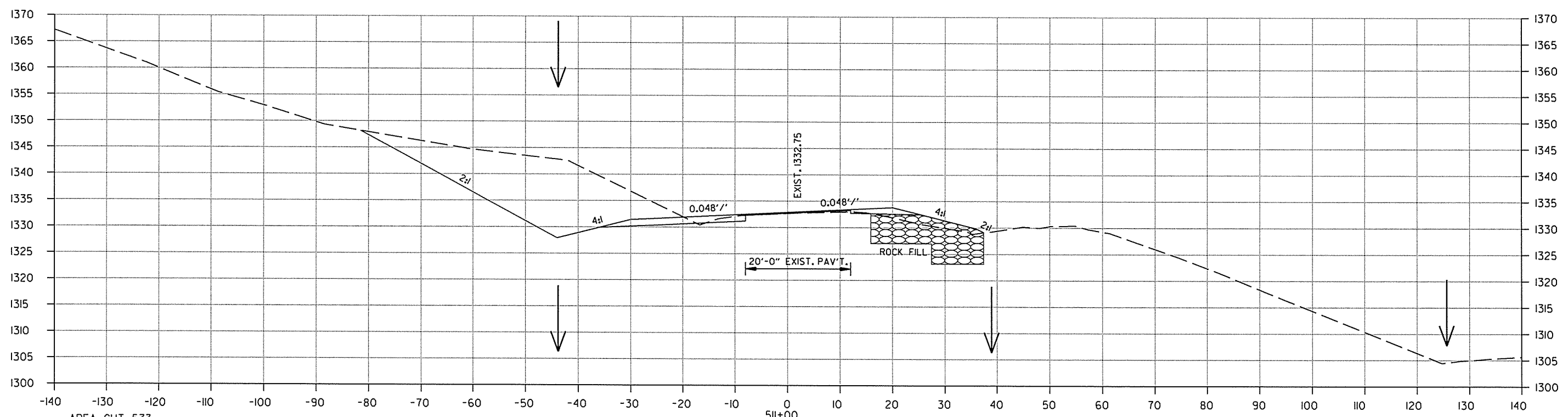
CUT VOLUME 1963
 FILL VOLUME 6
 ROCK FILL VOLUME 411

CROSS SECTION STA. 50+62 TO STA. 50+62

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				6	ARK.			
				JOB NO.		080422	113	135

② CROSS SECTIONS - SITE 2



AREA CUT 533
 AREA FILL 2
 AREA ROCK FILL 139

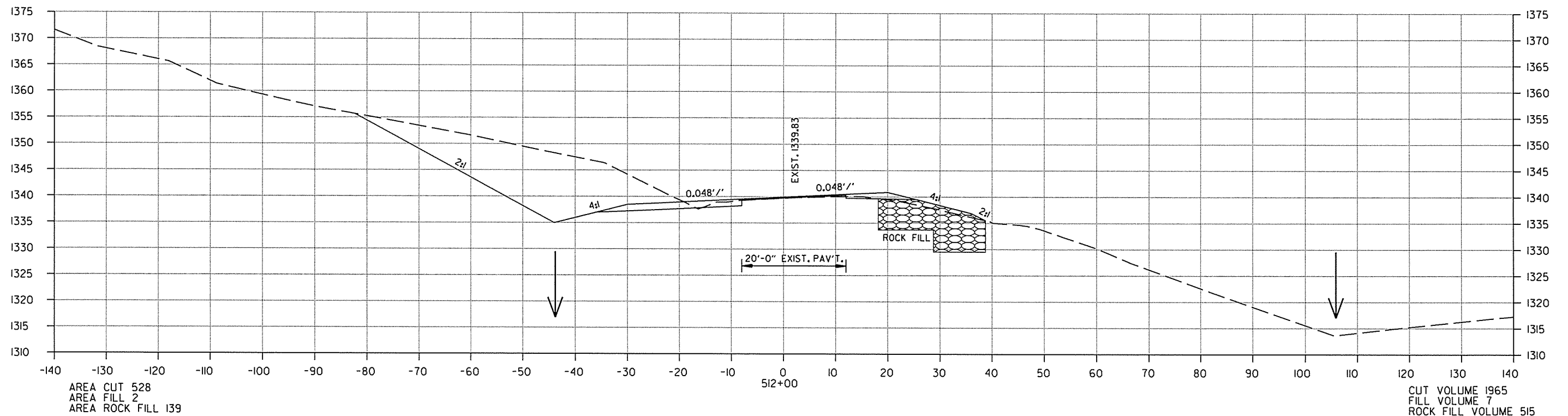
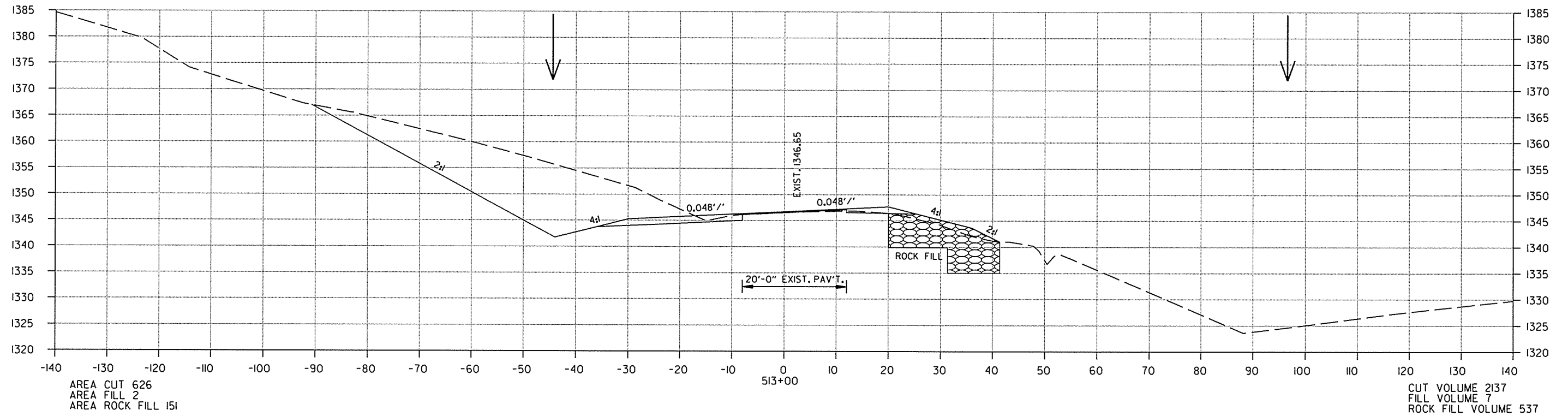
CUT VOLUME 945
 FILL VOLUME 4
 ROCK FILL VOLUME 243

CROSS SECTION STA. 511+00 TO STA. 511+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.	080422		114	135

2 CROSS SECTIONS - SITE 2

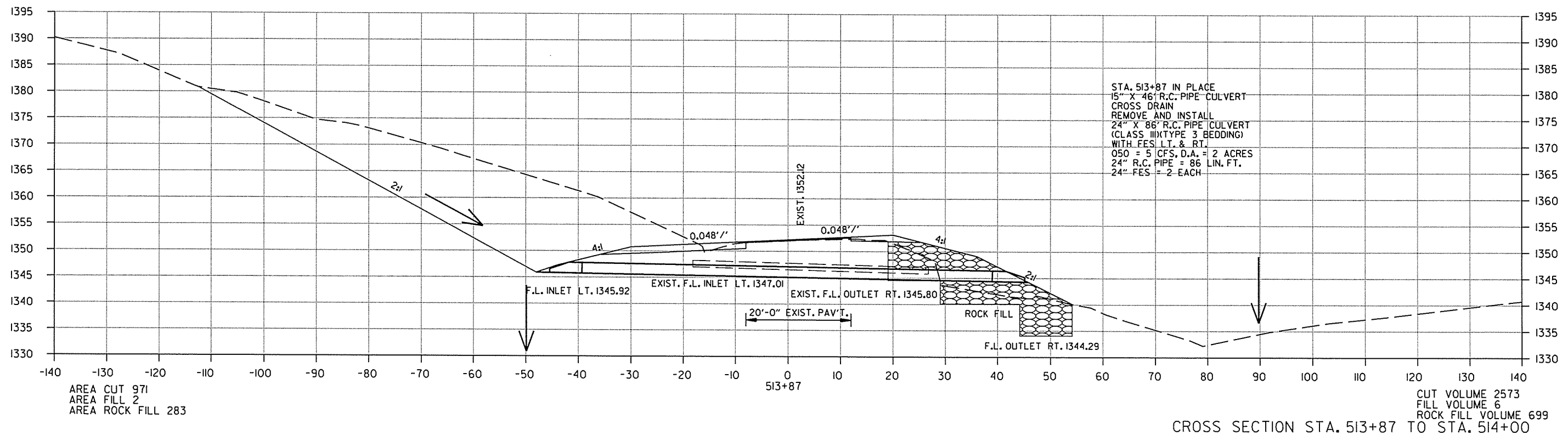
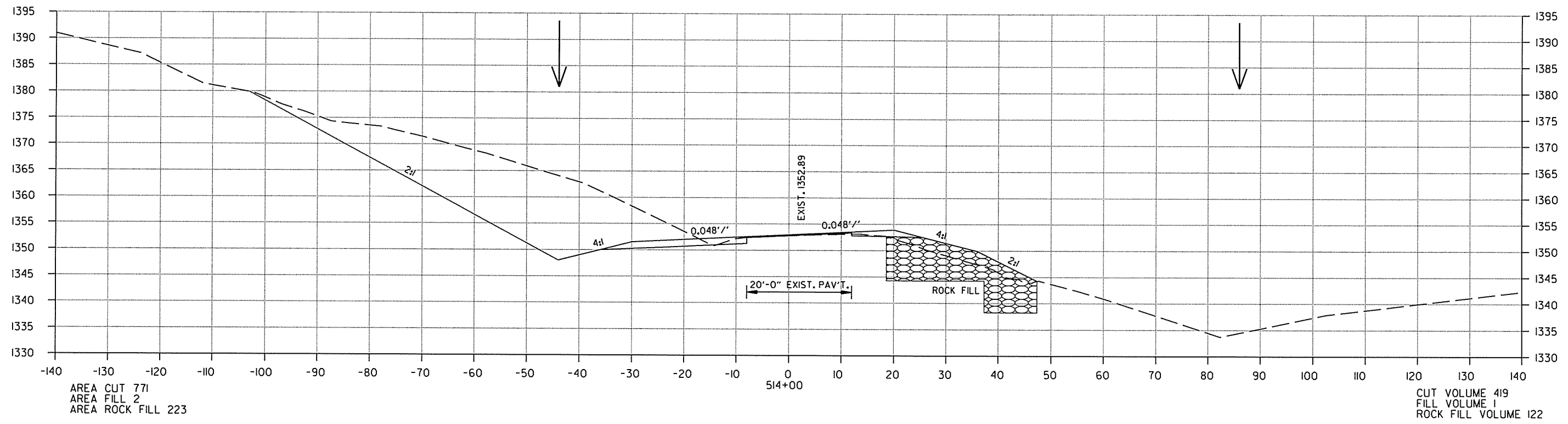


CROSS SECTION STA. 512+00 TO STA. 513+00

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				6	ARK.			
				JOB NO.	080422		115	135

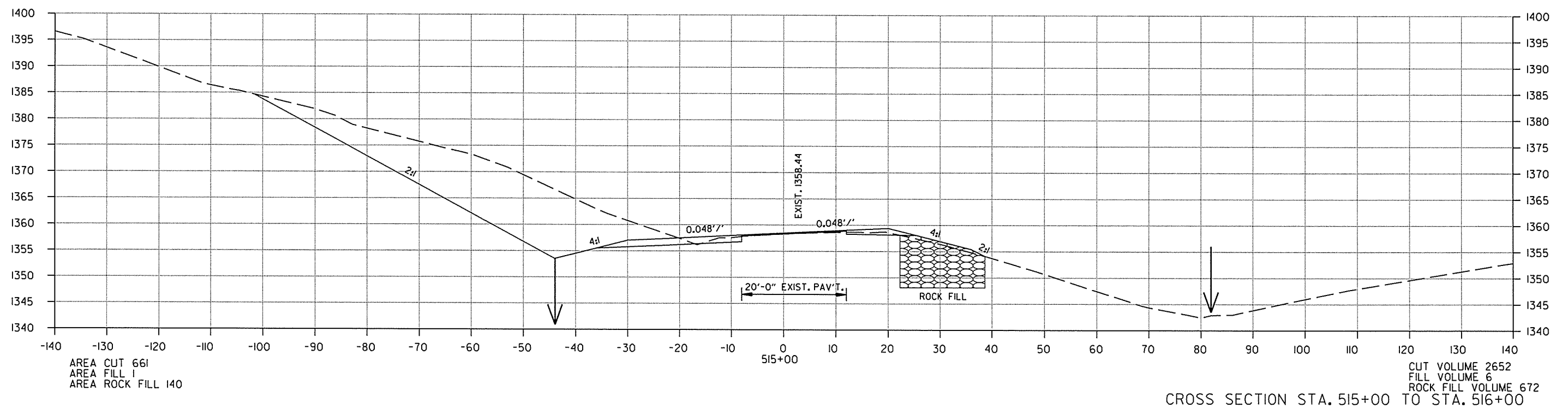
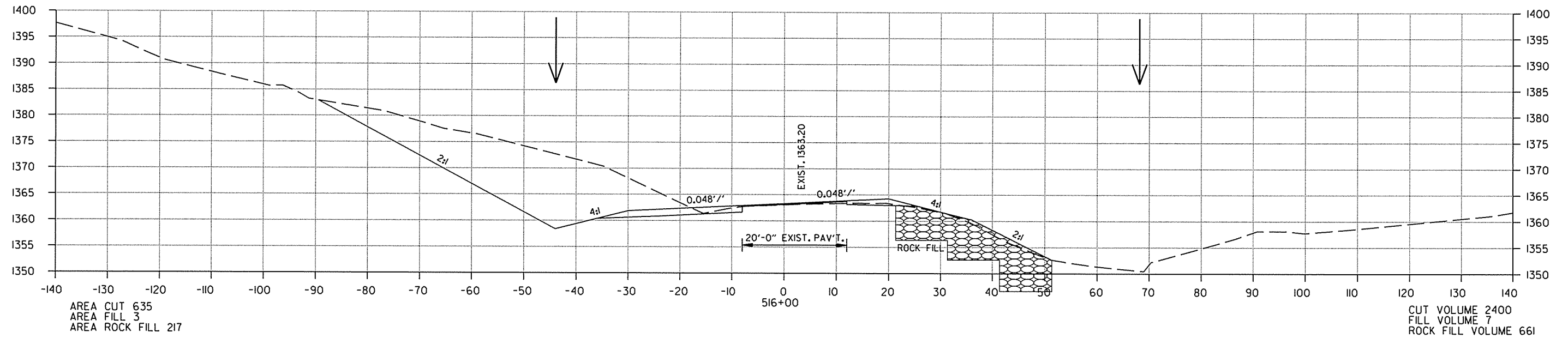
2 CROSS SECTIONS - SITE 2



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 R080422.DGN

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.	080422		116	135

2 CROSS SECTIONS - SITE 2

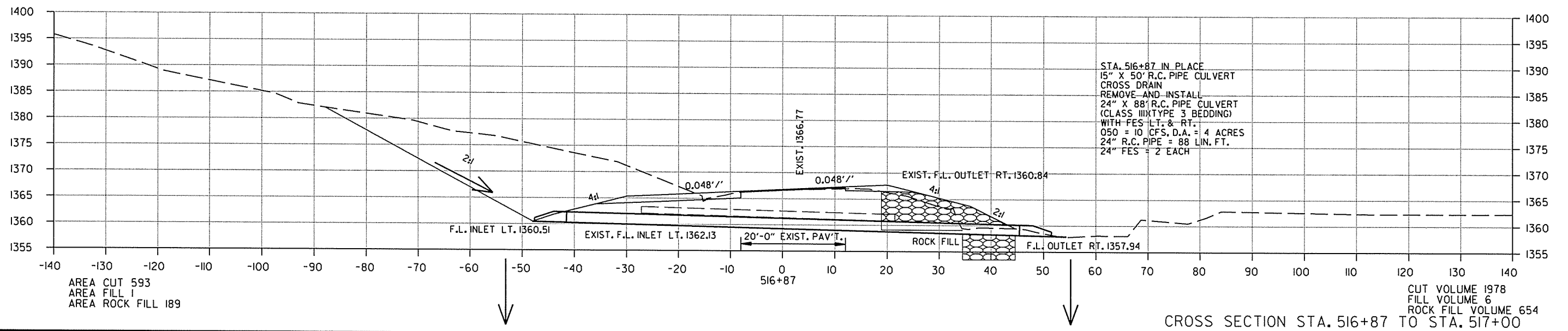
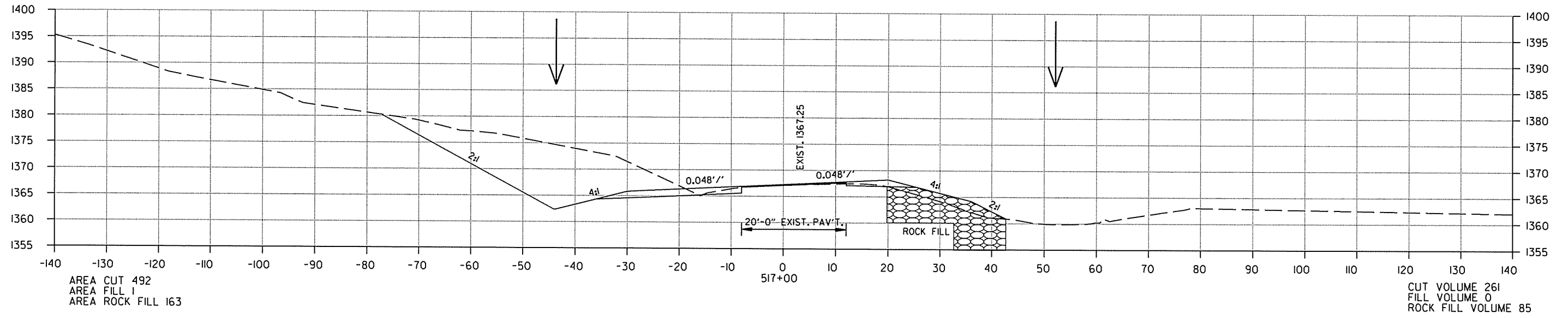


CROSS SECTION STA. 515+00 TO STA. 516+00

R080422.DGN 5/1/2014

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.	080422		117	135

② CROSS SECTIONS - SITE 2

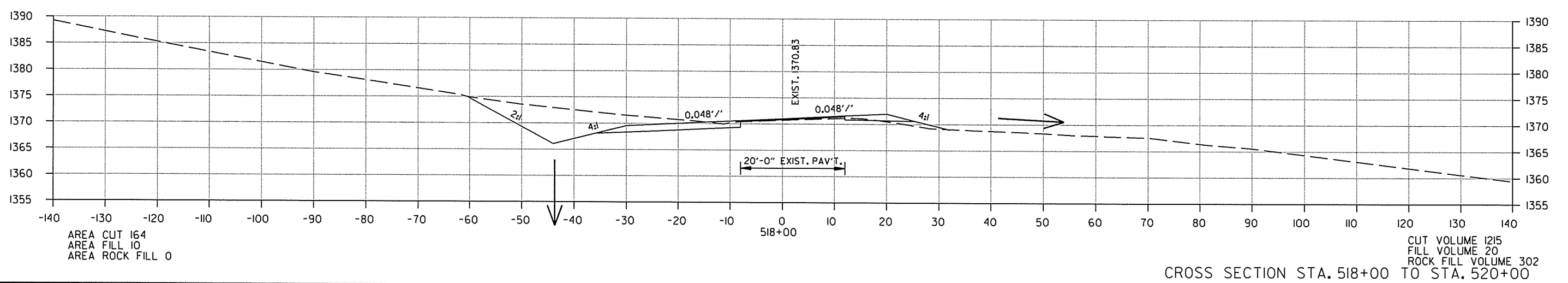
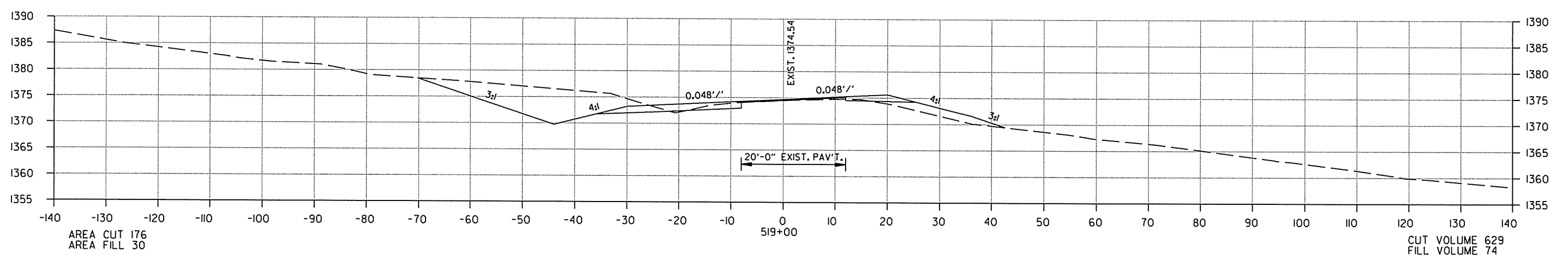
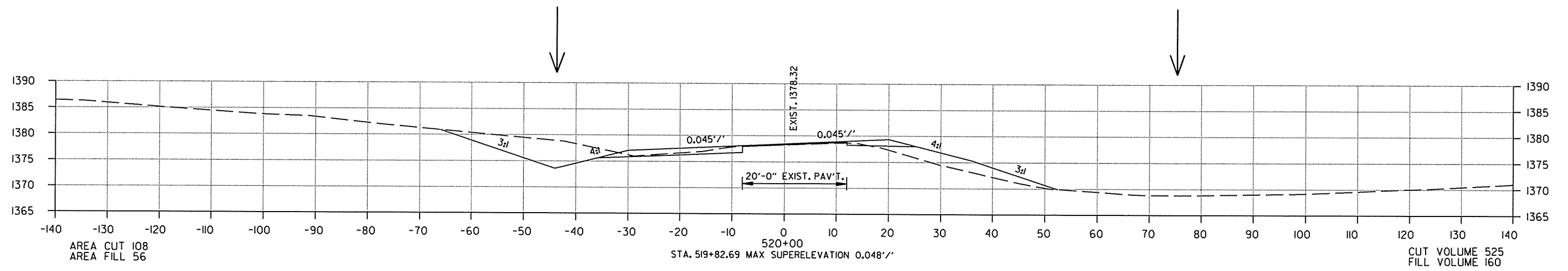


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CROSS SECTION STA. 516+87 TO STA. 517+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. RD. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 080422	118	135

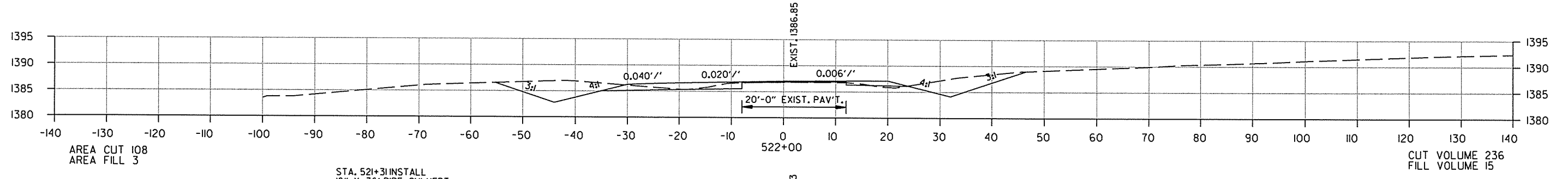
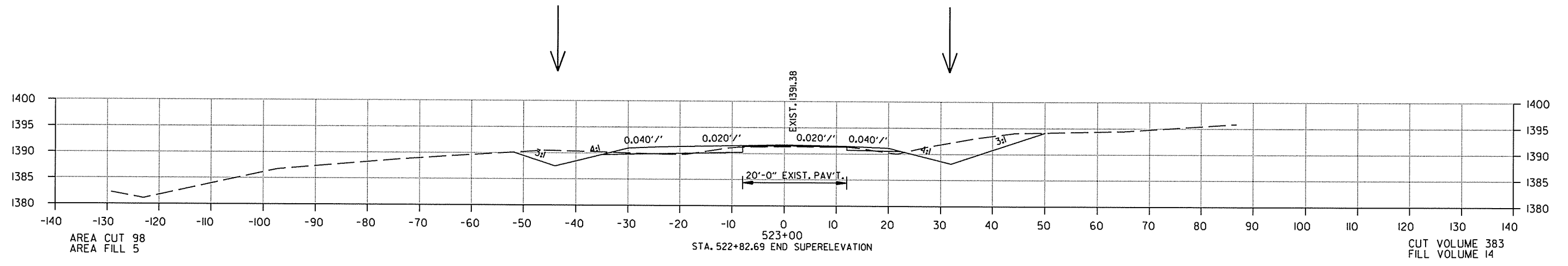
② CROSS SECTIONS - SITE 2



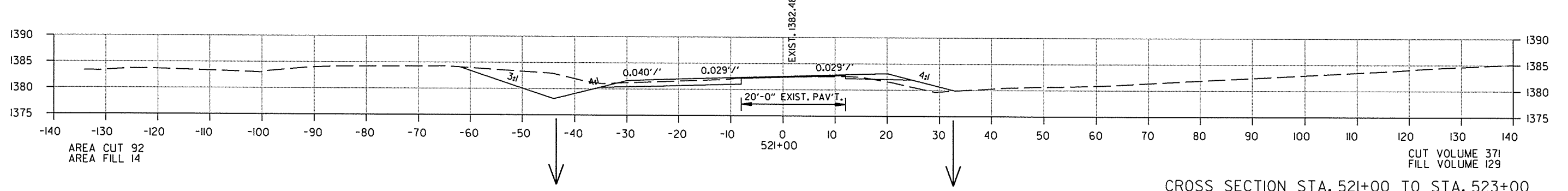
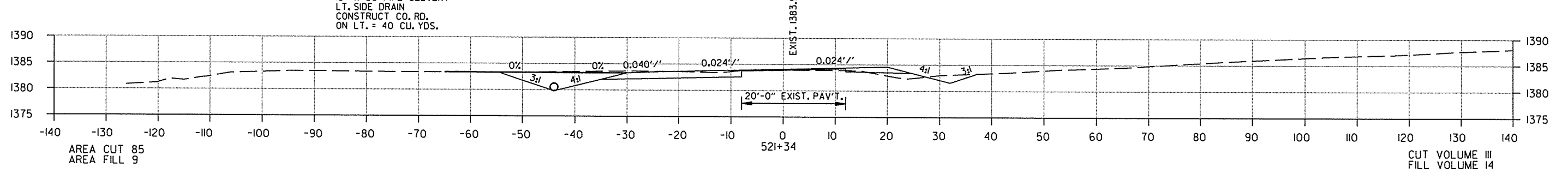
5/11/2014
R080422.DGN

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.	080422		119	135

② CROSS SECTIONS - SITE 2



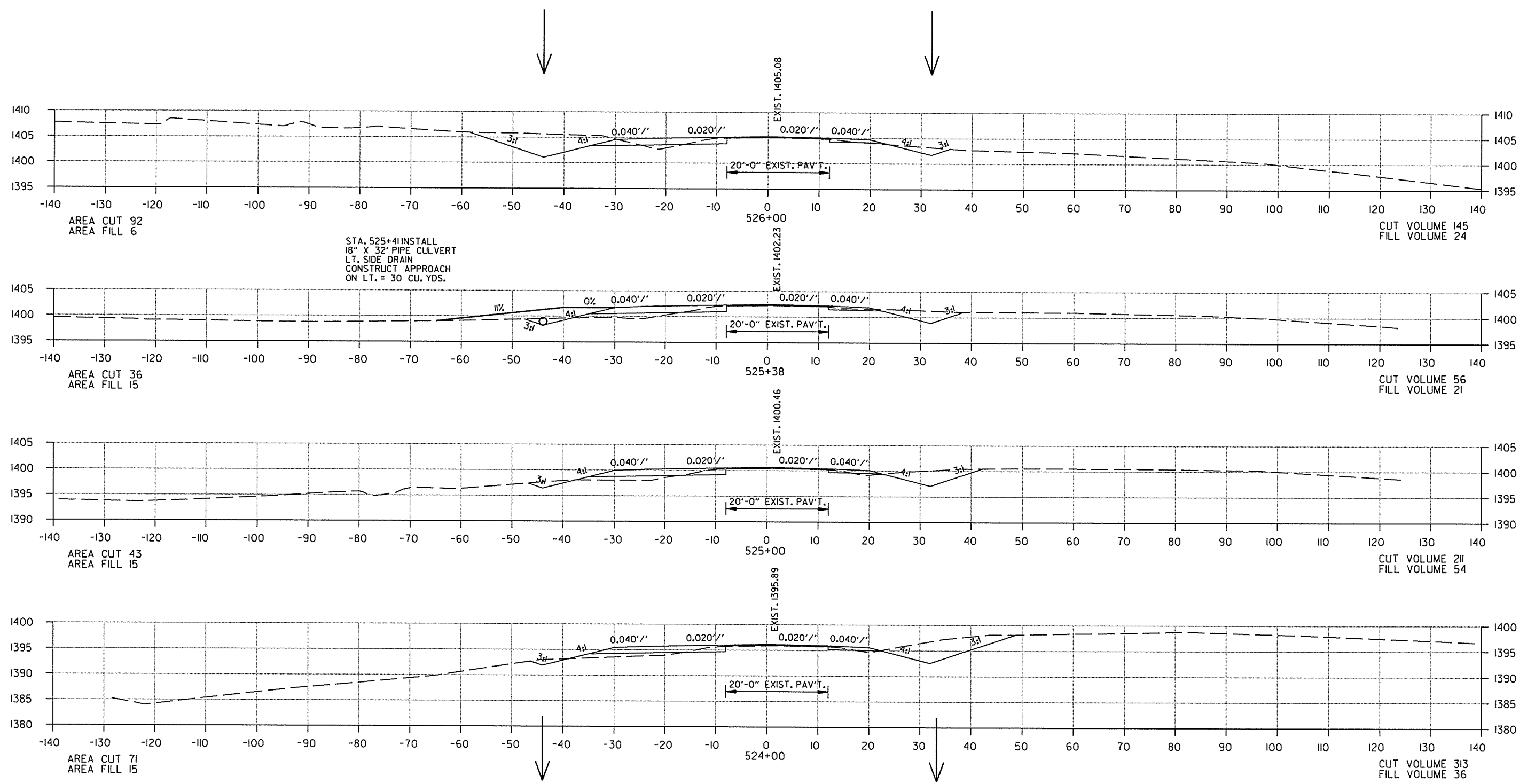
STA. 521+31 INSTALL
18" X 36" PIPE CULVERT
L.T. SIDE DRAIN
CONSTRUCT CO. RD.
ON L.T. = 40 CU. YDS.



CROSS SECTION STA. 521+00 TO STA. 523+00

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.	080422		120	135

② CROSS SECTIONS - SITE 2

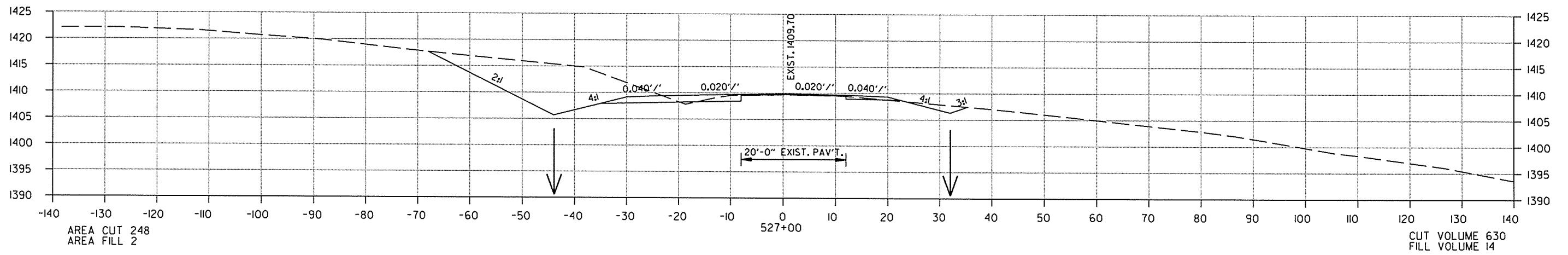
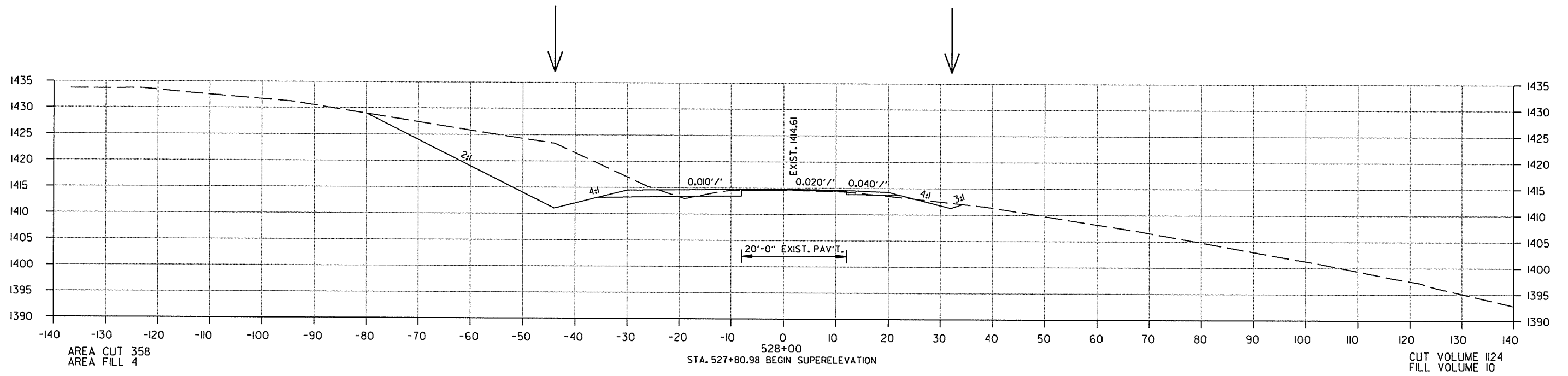


CROSS SECTION STA. 524+00 TO STA. 526+00

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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.	080422		121	135

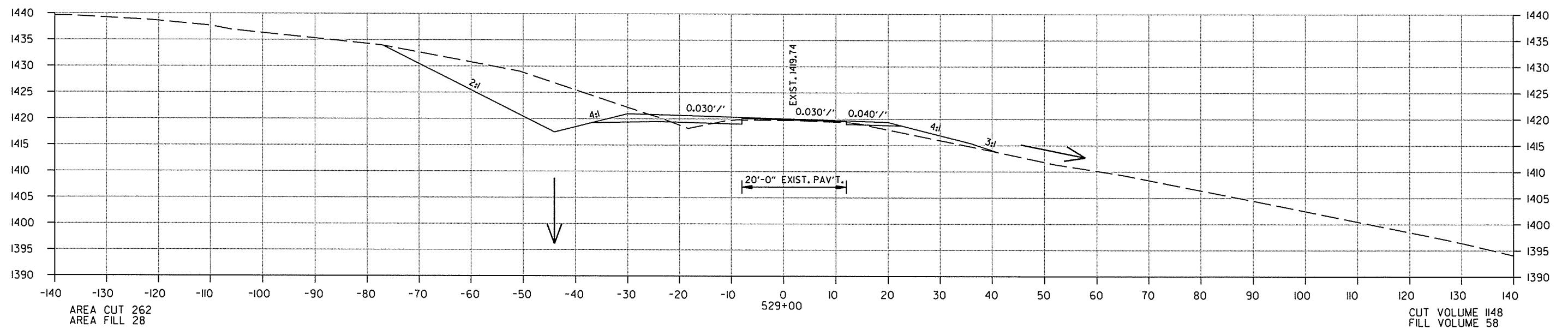
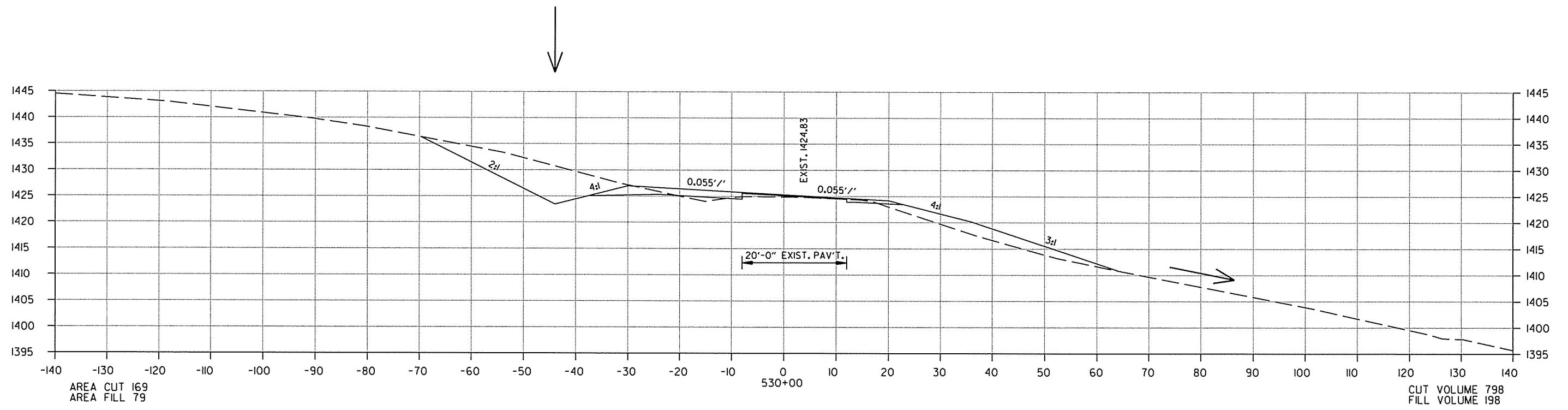
2 CROSS SECTIONS - SITE 2



CROSS SECTION STA. 527+00 TO STA. 528+00

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. 080422	122	135

② CROSS SECTIONS - SITE 2

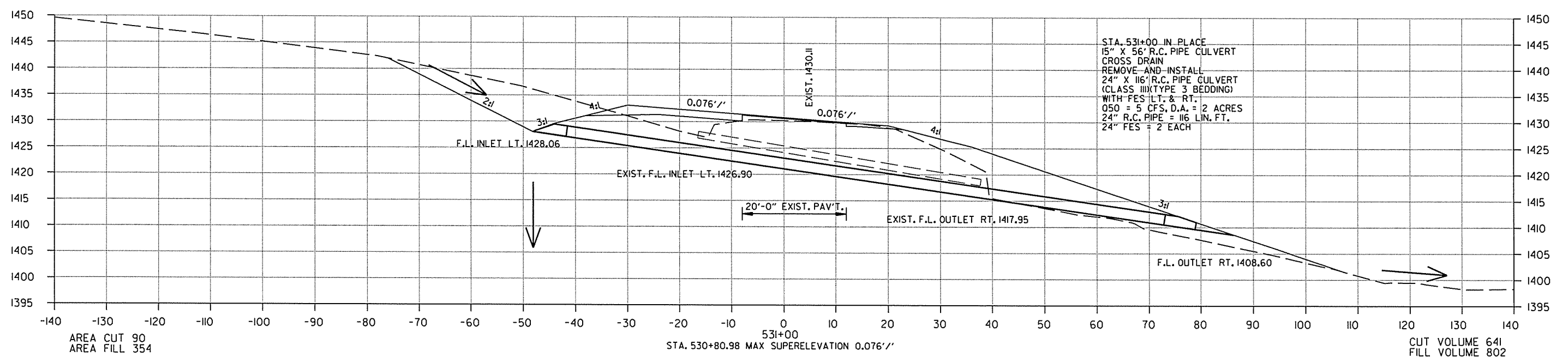
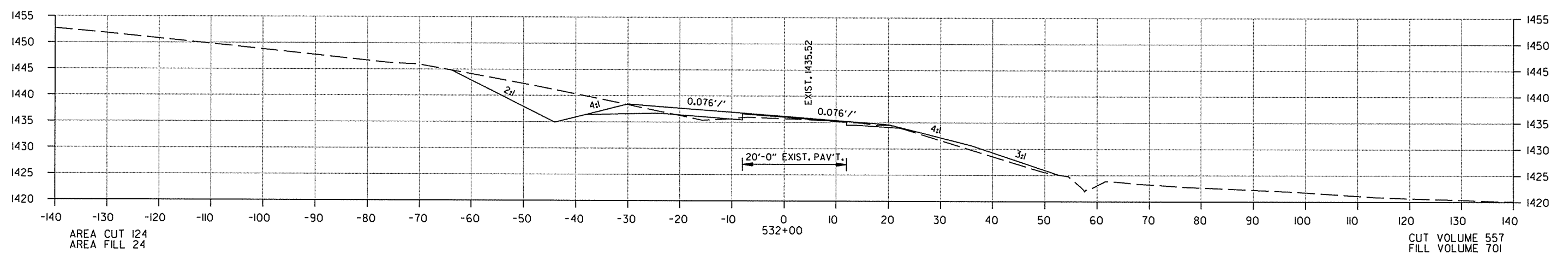
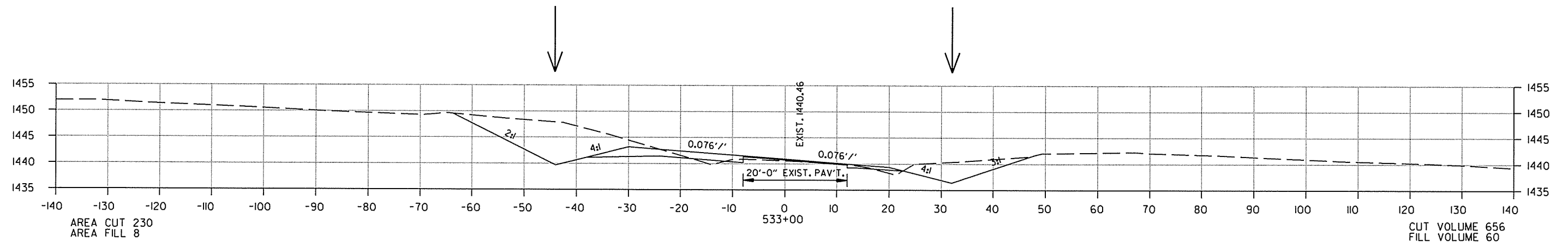


CROSS SECTION STA. 529+00 TO STA. 530+00

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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. 080422	123	135

② CROSS SECTIONS - SITE 2

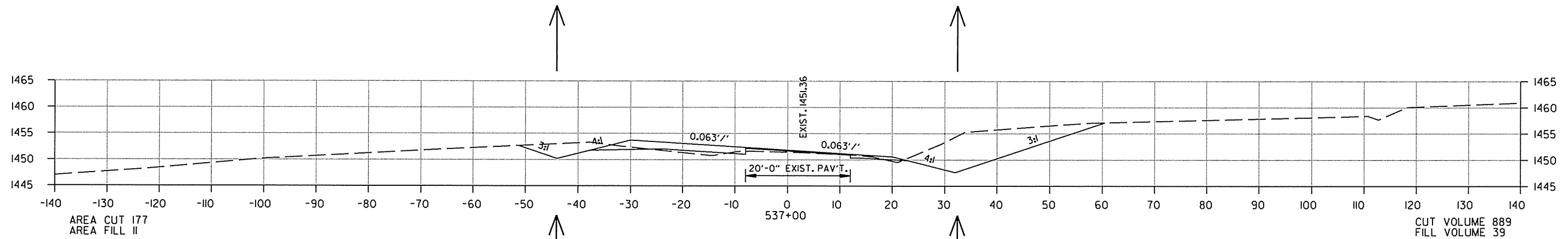


CROSS SECTION STA. 531+00 TO STA. 533+00

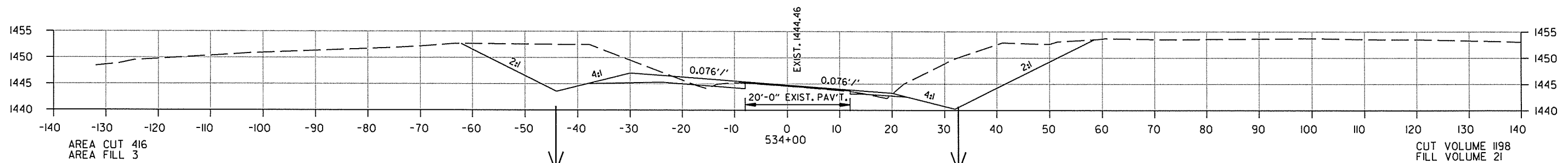
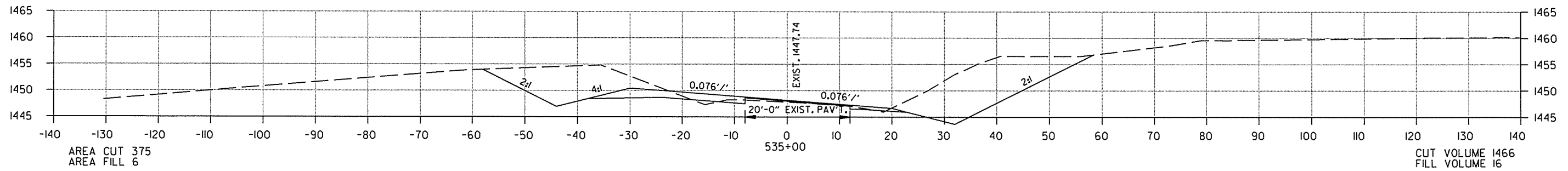
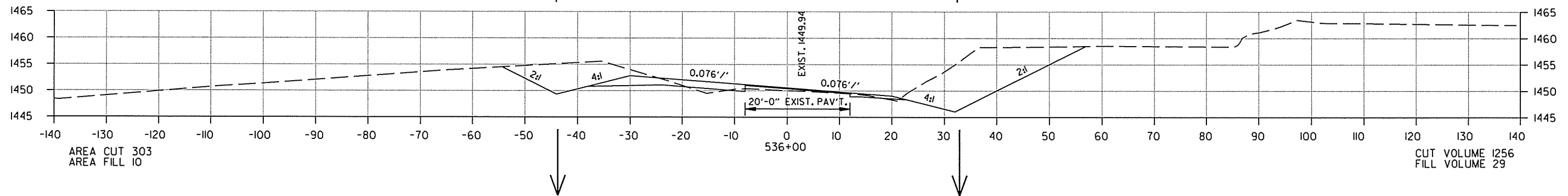
5/1/2014 R080422.DGN

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.	080422		124	135

② CROSS SECTIONS - SITE 2



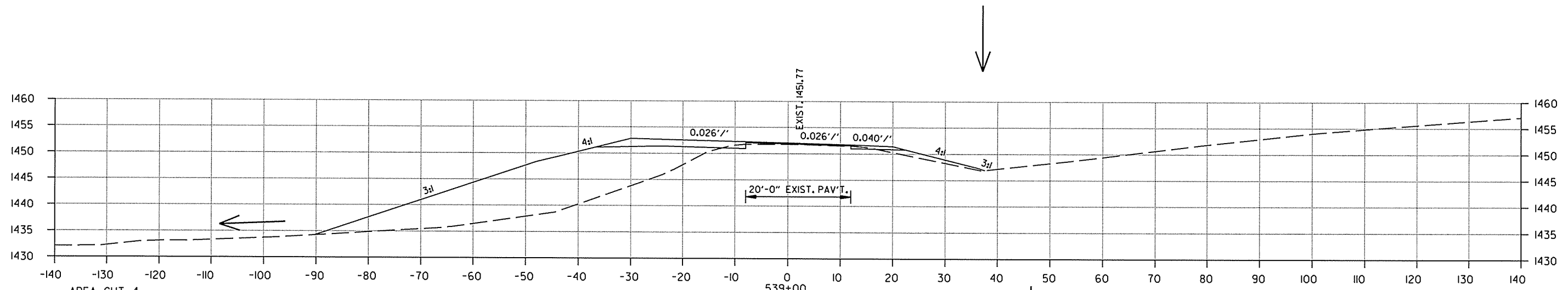
STA. 536+47.19 MAX SUPERELEVATION 0.076'/'



CROSS SECTION STA. 534+00 TO STA. 537+00

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.	080422		125	135

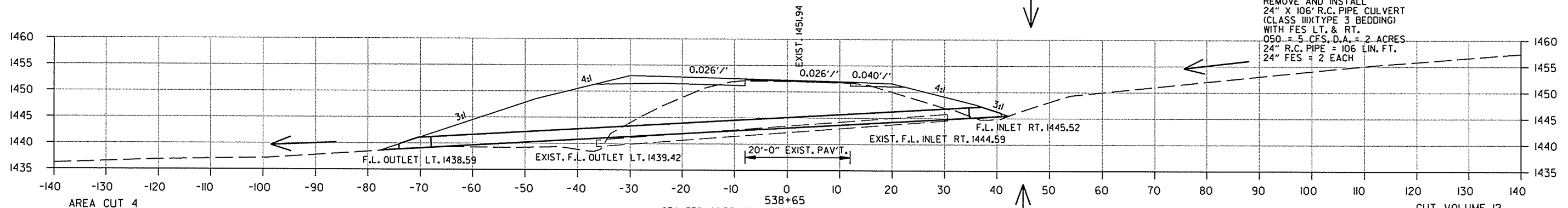
2 CROSS SECTIONS - SITE 2



AREA CUT 4
AREA FILL 487

STA. 538+65 IN PLACE
15" X 68" R.C. PIPE CULVERT
CROSS DRAIN
REMOVE AND INSTALL
24" X 106" R.C. PIPE CULVERT
(CLASS III TYPE 3 BEDDING)
WITH FES LT. & RT.
050 = 5 CFS, D.A. = 2 ACRES
24" R.C. PIPE = 106 LIN. FT.
24" FES = 2 EACH

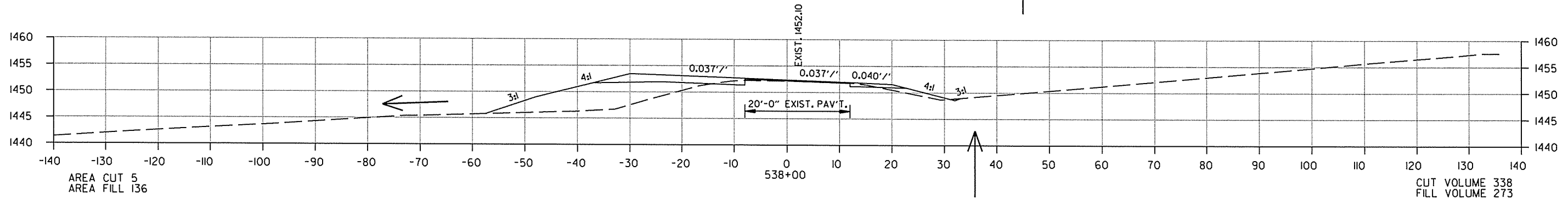
CUT VOLUME 5
FILL VOLUME 588



AREA CUT 4
AREA FILL 421

STA. 538+44.56 MAX SUPERELEVATION 0.026'/'

CUT VOLUME 12
FILL VOLUME 670



AREA CUT 5
AREA FILL 136

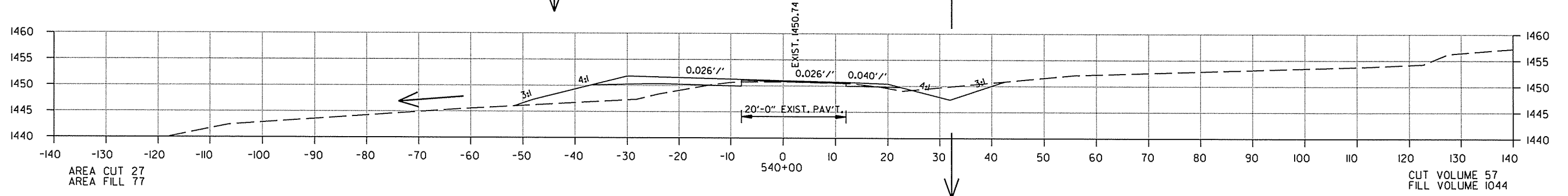
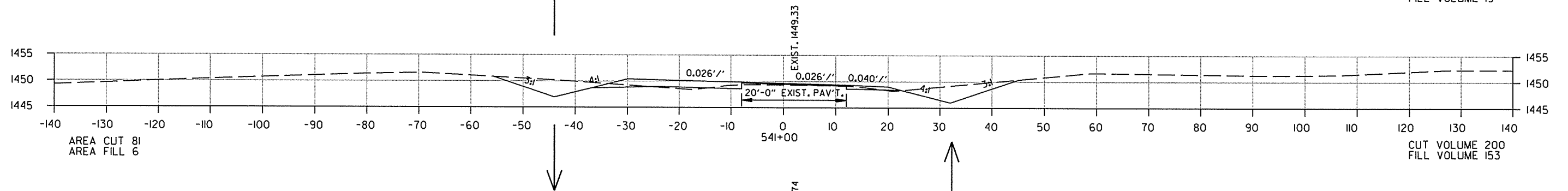
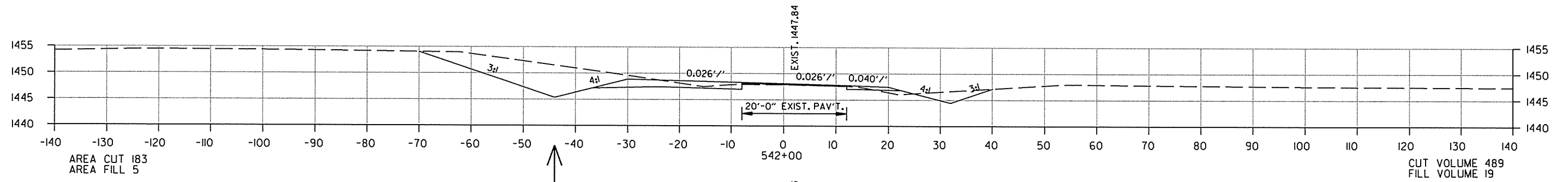
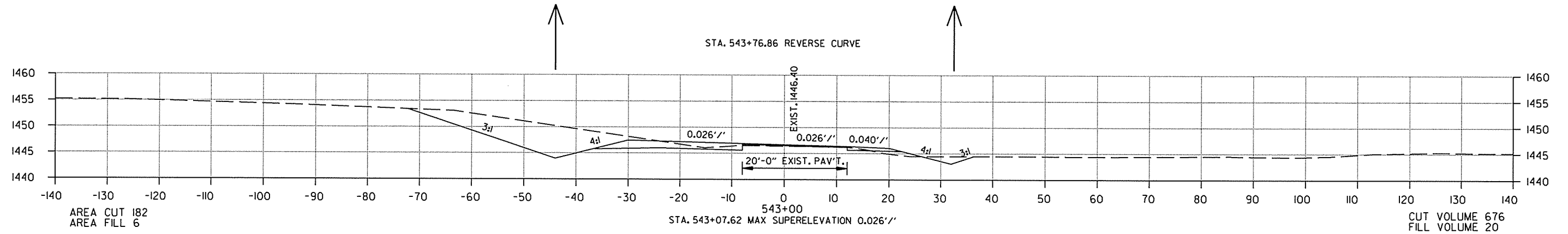
CUT VOLUME 338
FILL VOLUME 273

CROSS SECTION STA. 538+00 TO STA. 539+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. 080422	126	135

② CROSS SECTIONS - SITE 2

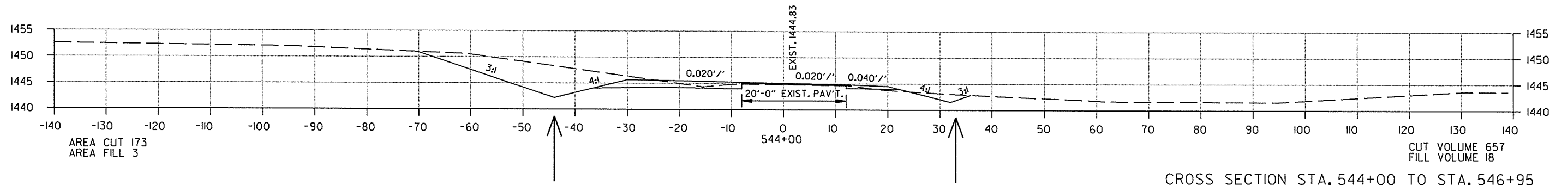
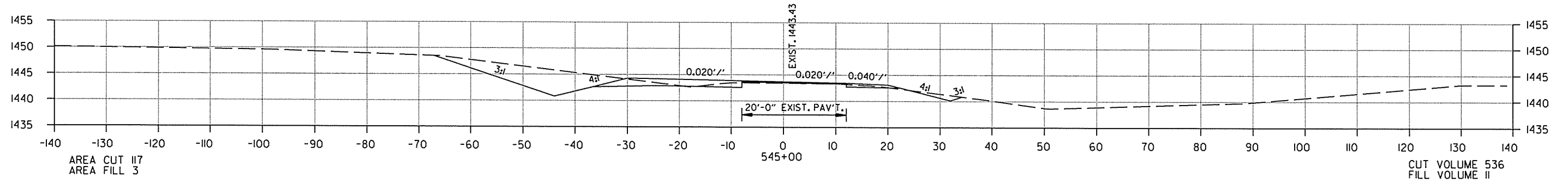
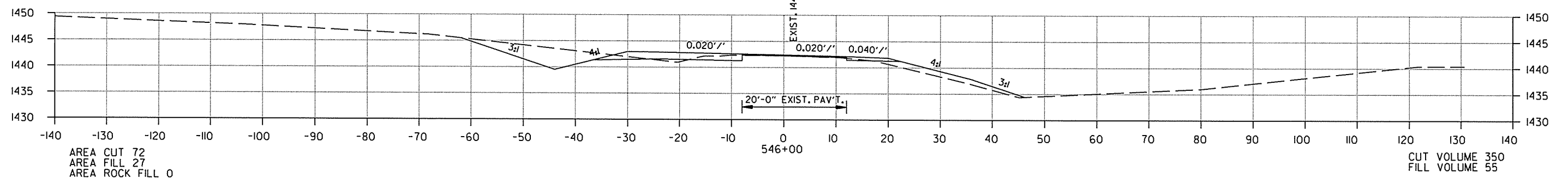
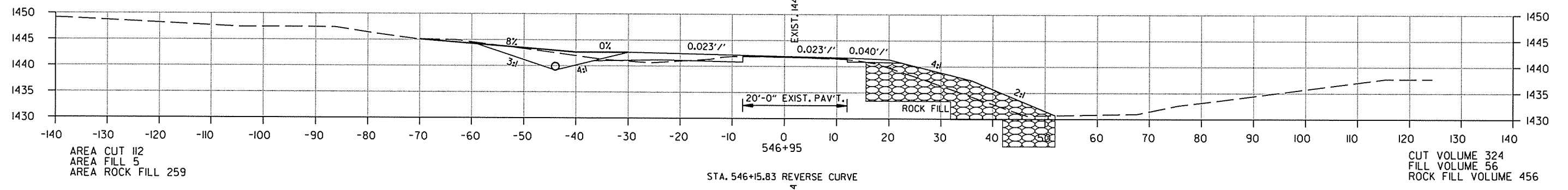


CROSS SECTION STA. 540+00 TO STA. 543+00

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.	080422		127	135

2 CROSS SECTIONS - SITE 2

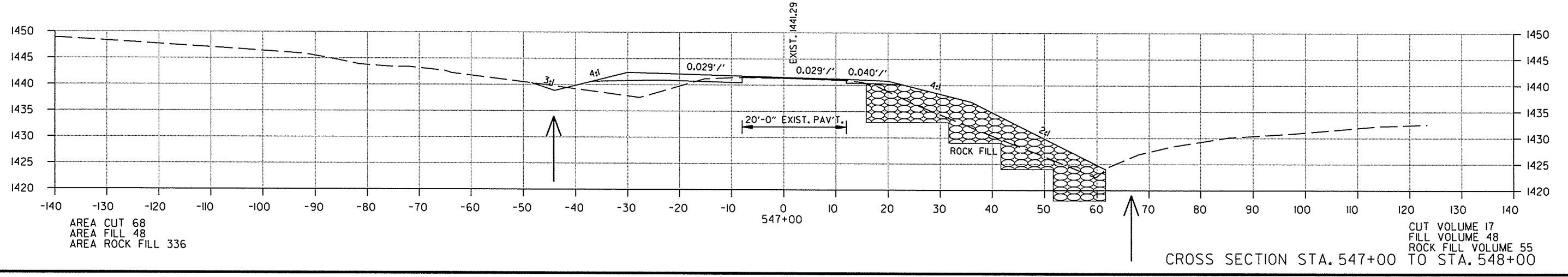
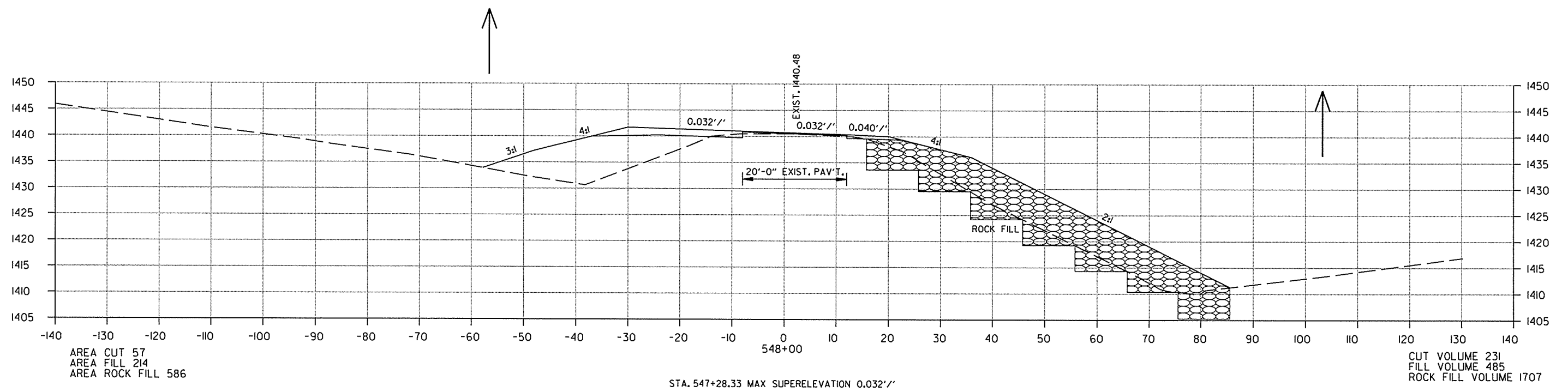
STA. 546+95 INSTALL
18" X 38" PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
ON LT. = 5 CU. YDS.



CROSS SECTION STA. 544+00 TO STA. 546+95

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.	080422		128	135

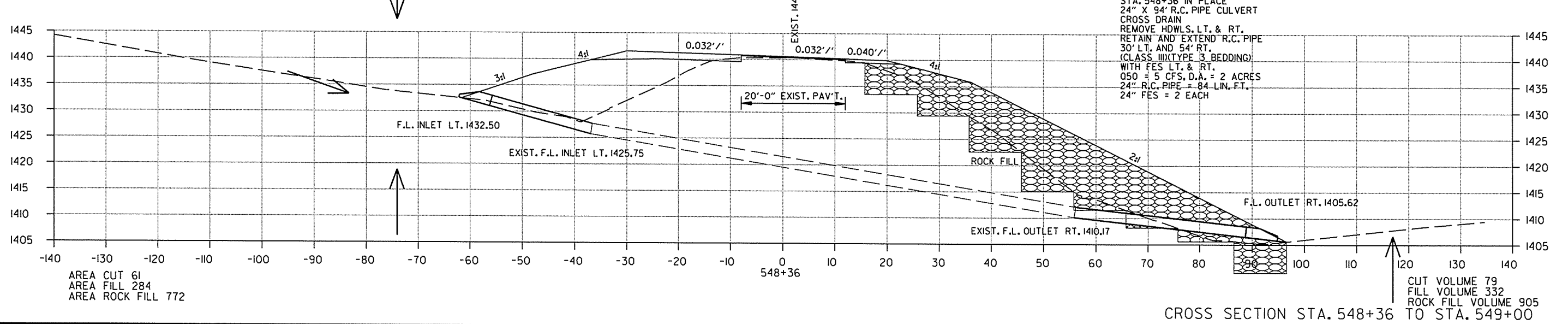
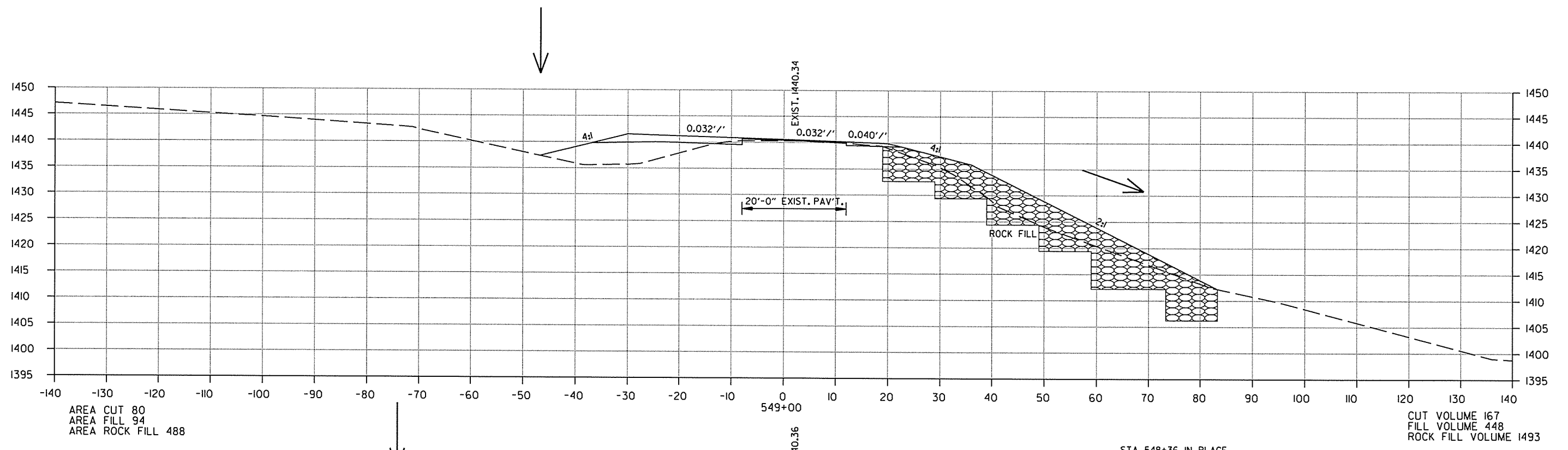
② CROSS SECTIONS - SITE 2



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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.	080422		129	135

② CROSS SECTIONS - SITE 2

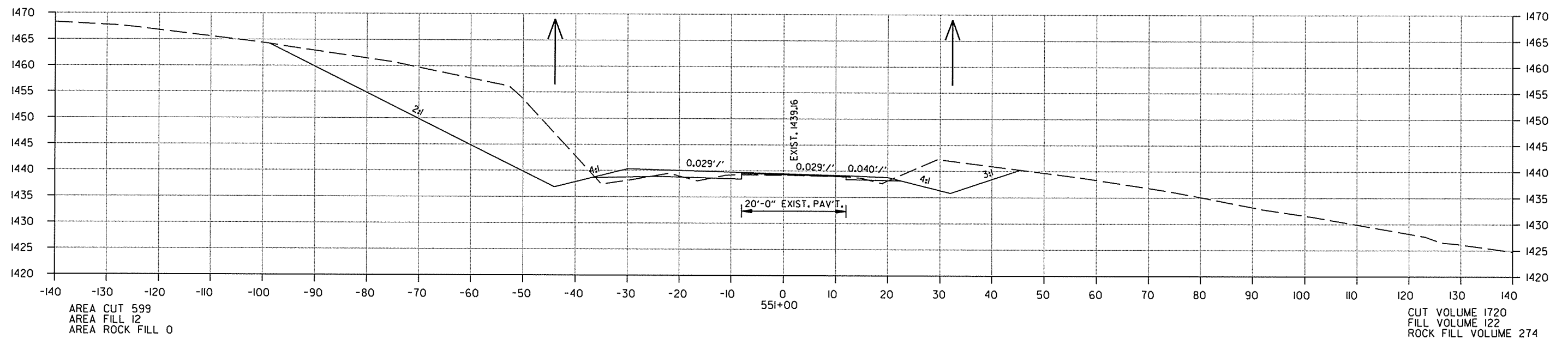


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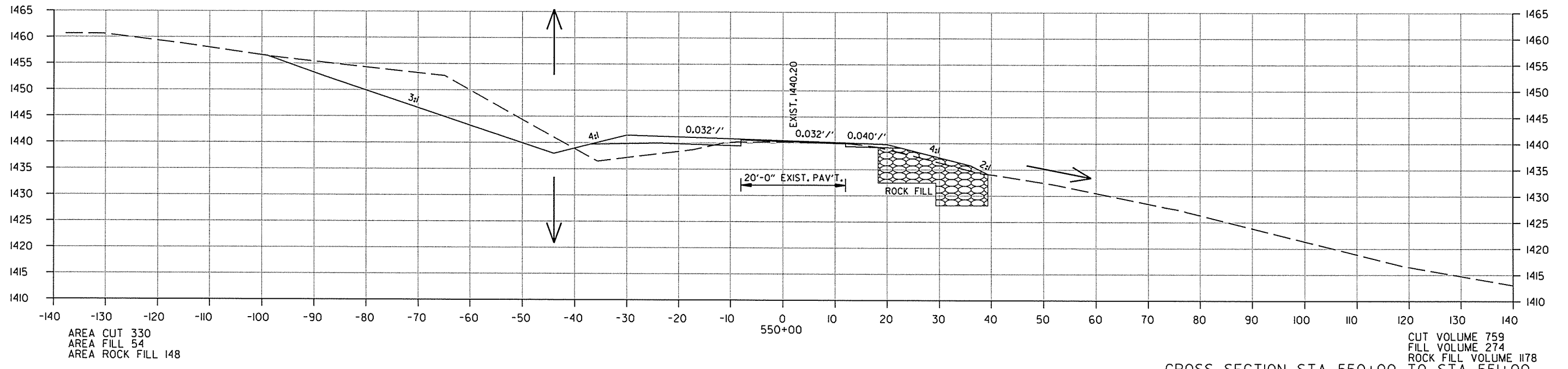
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		130	135

② CROSS SECTIONS - SITE 2

STA. 551+86.15 REVERSE CURVE



STA. 550+73.65 MAX SUPERELEVATION 0.032'/'

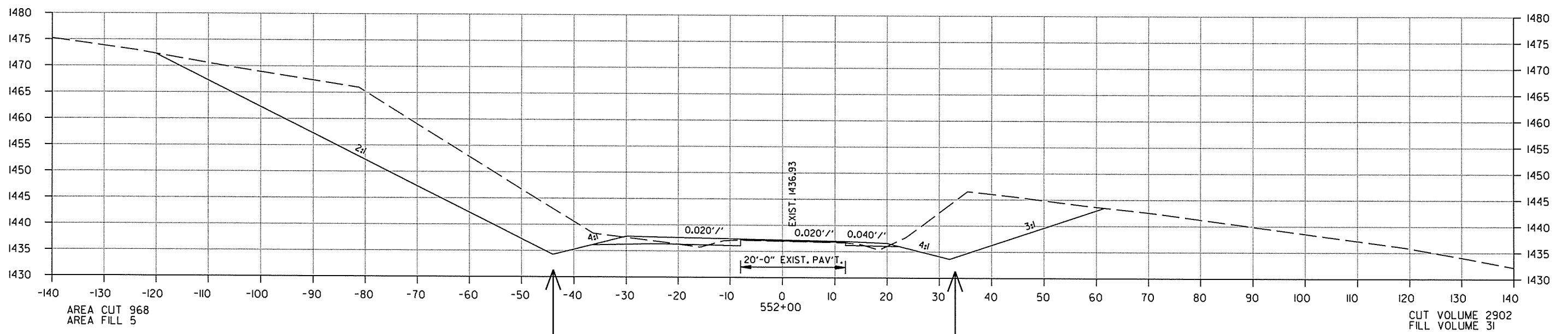
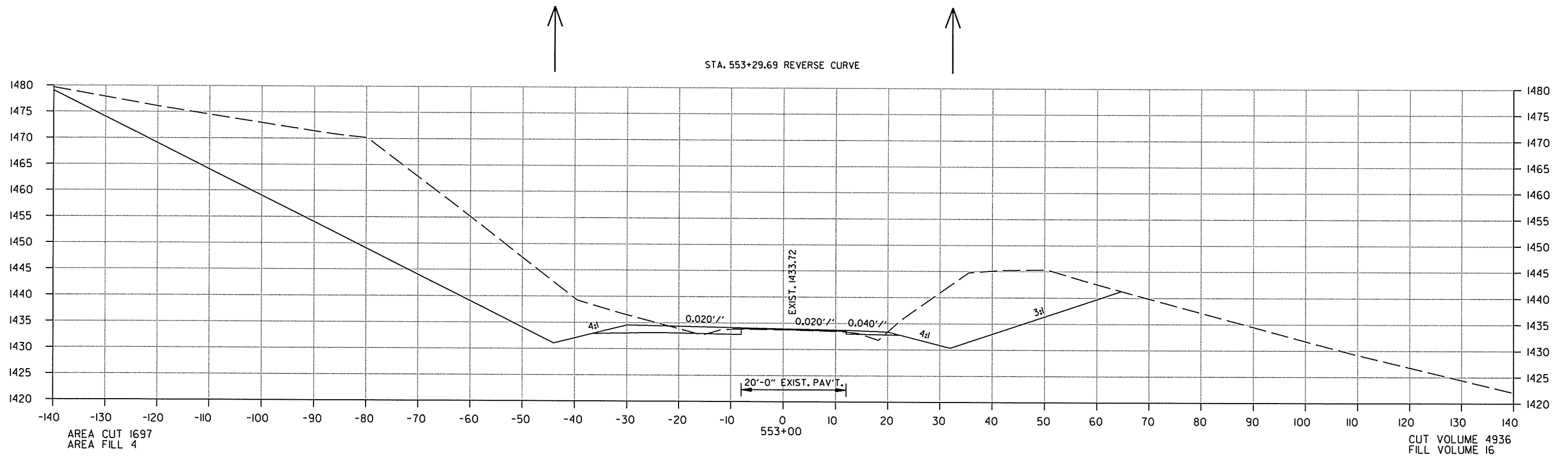


CROSS SECTION STA. 550+00 TO STA. 551+00

5/1/2014
R080422.DGN

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.	080422		131	135

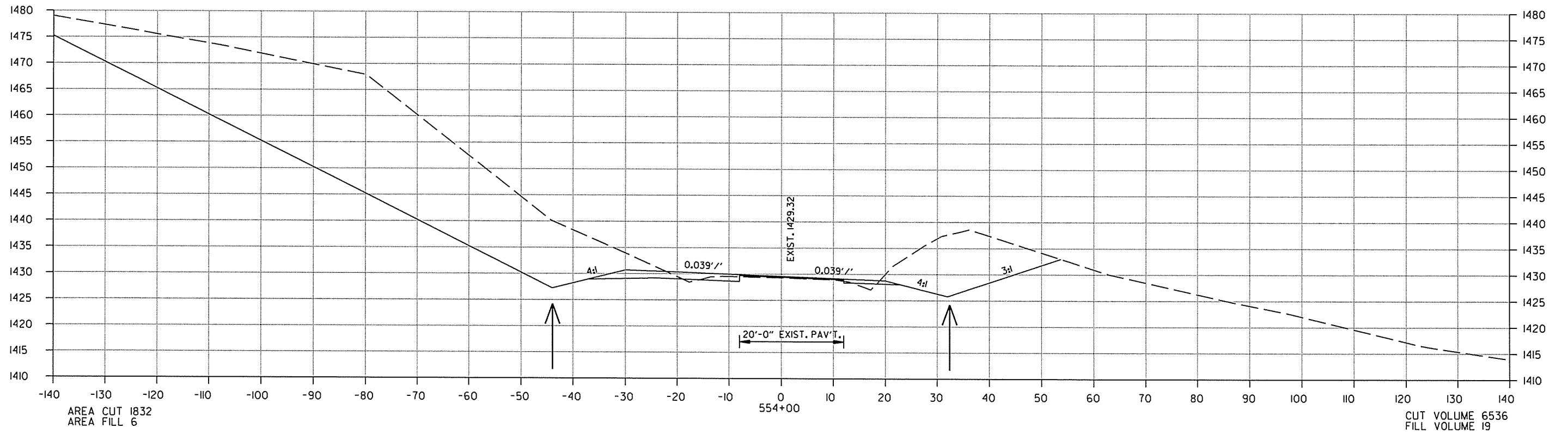
② CROSS SECTIONS - SITE 2



CROSS SECTION STA. 552+00 TO STA. 553+00

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.	080422		132	135

② CROSS SECTIONS - SITE 2



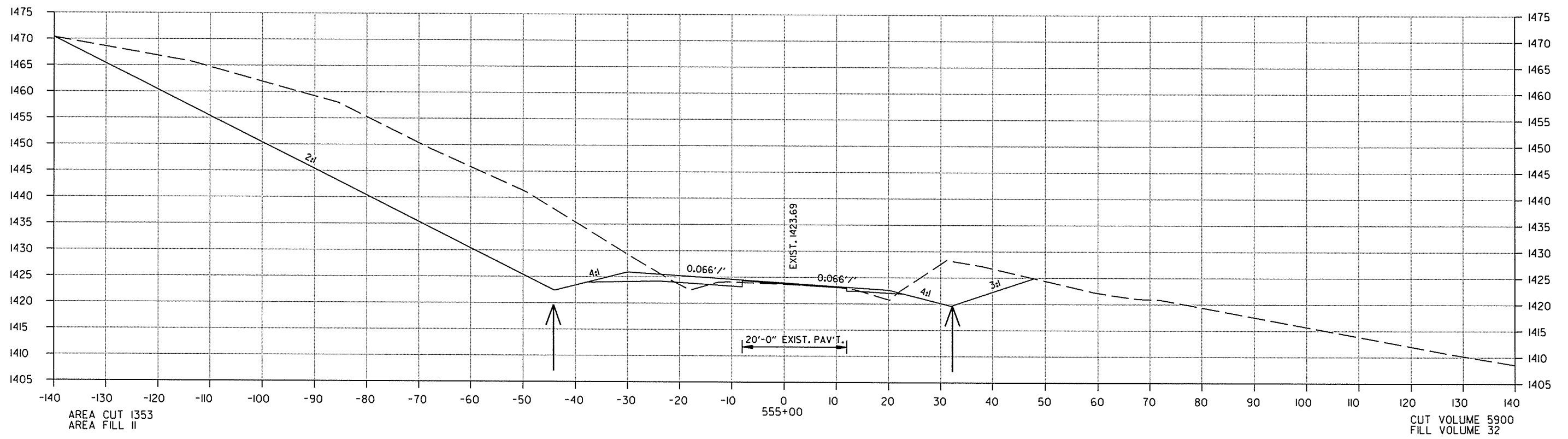
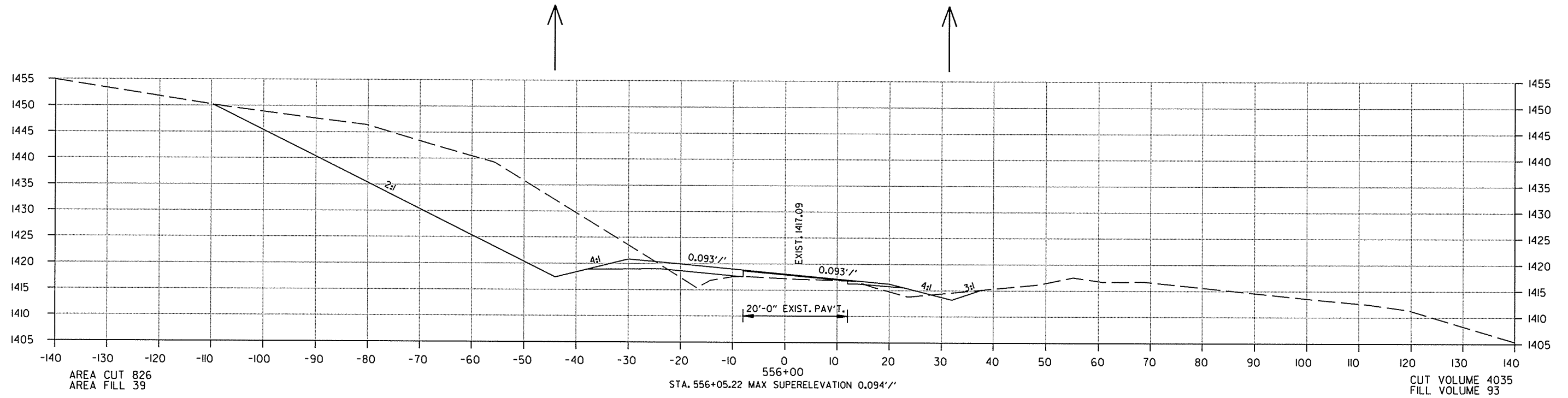
CROSS SECTION STA. 554+00 TO STA. 554+00

5/1/2014

R080422.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 080422	133	135

② CROSS SECTIONS - SITE 2

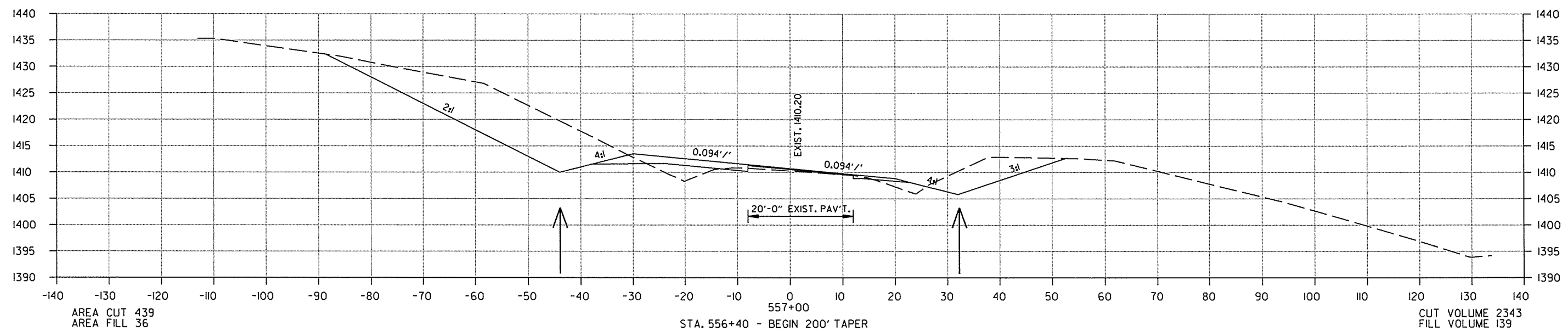
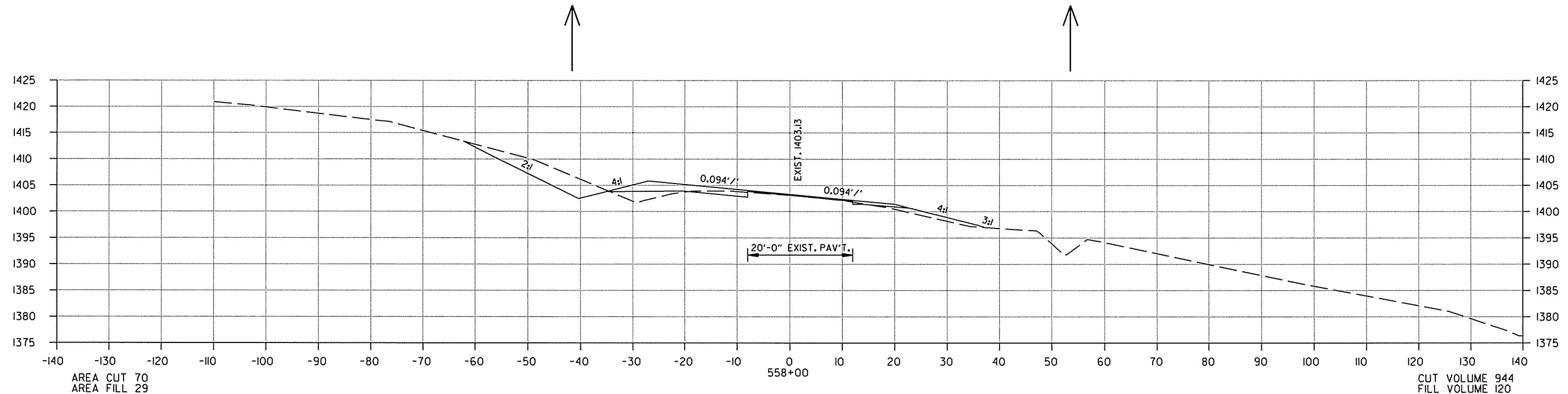


CROSS SECTION STA. 555+00 TO STA. 556+00

R080422.DGN 5/1/2014

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.	080422		134	135

② CROSS SECTIONS - SITE 2



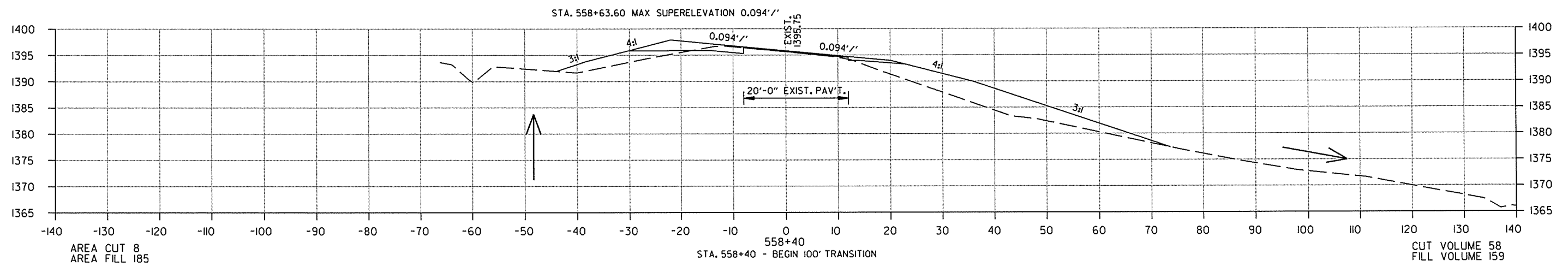
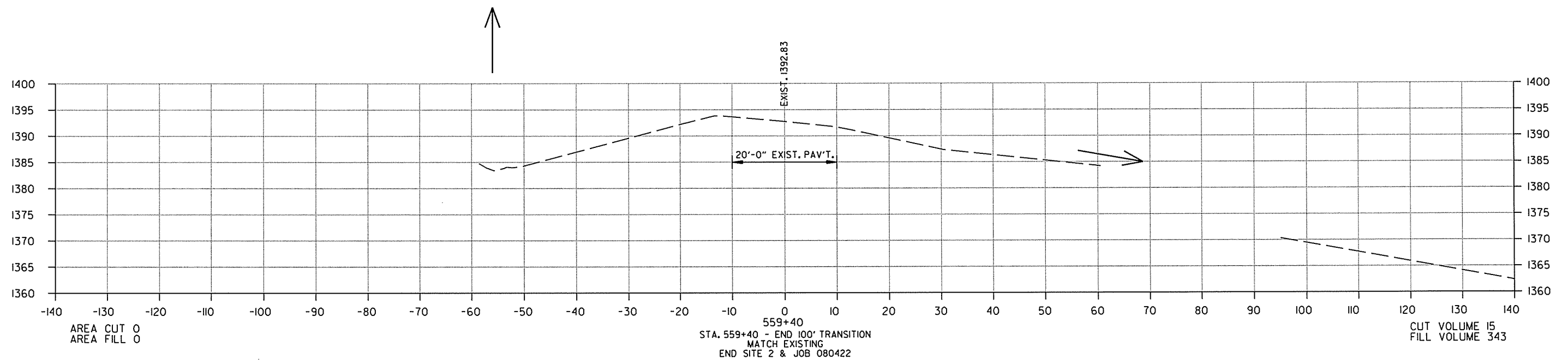
STA. 556+40 - BEGIN 200' TAPER

CROSS SECTION STA. 557+00 TO STA. 558+00

5/1/2014
R080422.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	080422		135	135

② CROSS SECTIONS - SITE 2



CROSS SECTION STA. 558+40 TO STA. 559+40

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