

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

LITTLE CYPRESS CREEK
STR. & APPRS. (S)

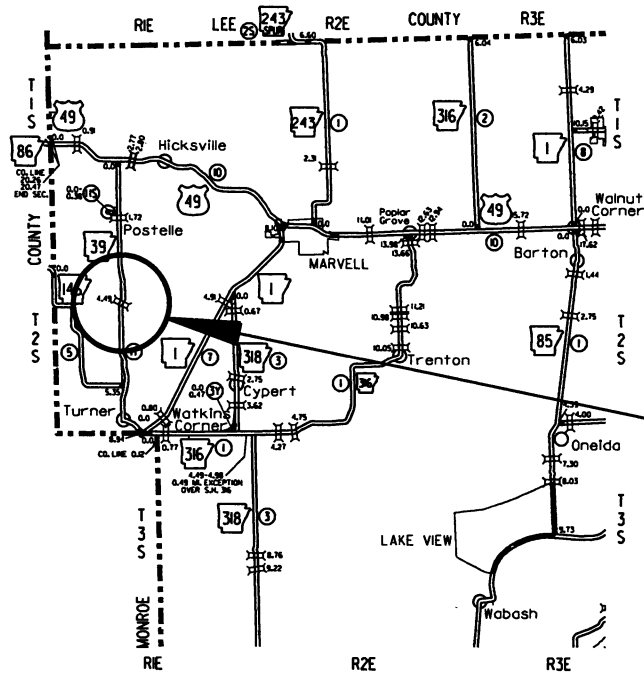
PHILLIPS COUNTY
ROUTE 39 SECTION 11
F.A.P. NHPP-0054(21)

JOB 110619

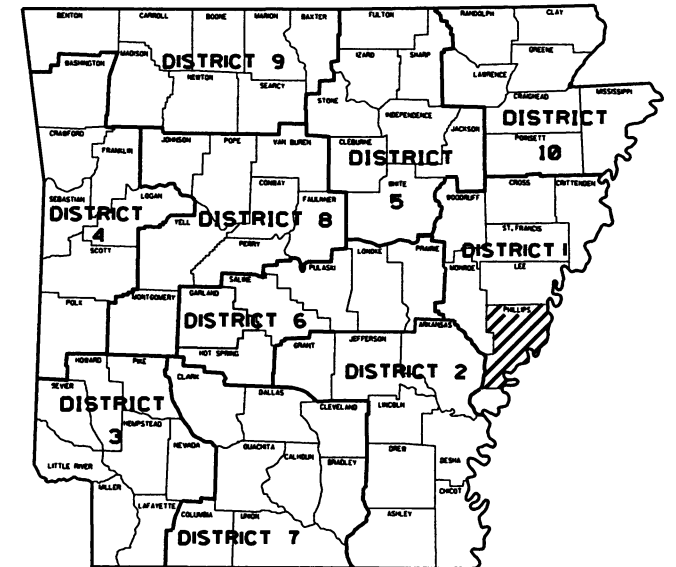
NOT TO SCALE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		1	34

② LITTLE CYPRESS CREEK STR. & APPRS. (S)



VICINITY MAP



ARKANSAS HWY. DIST. 1

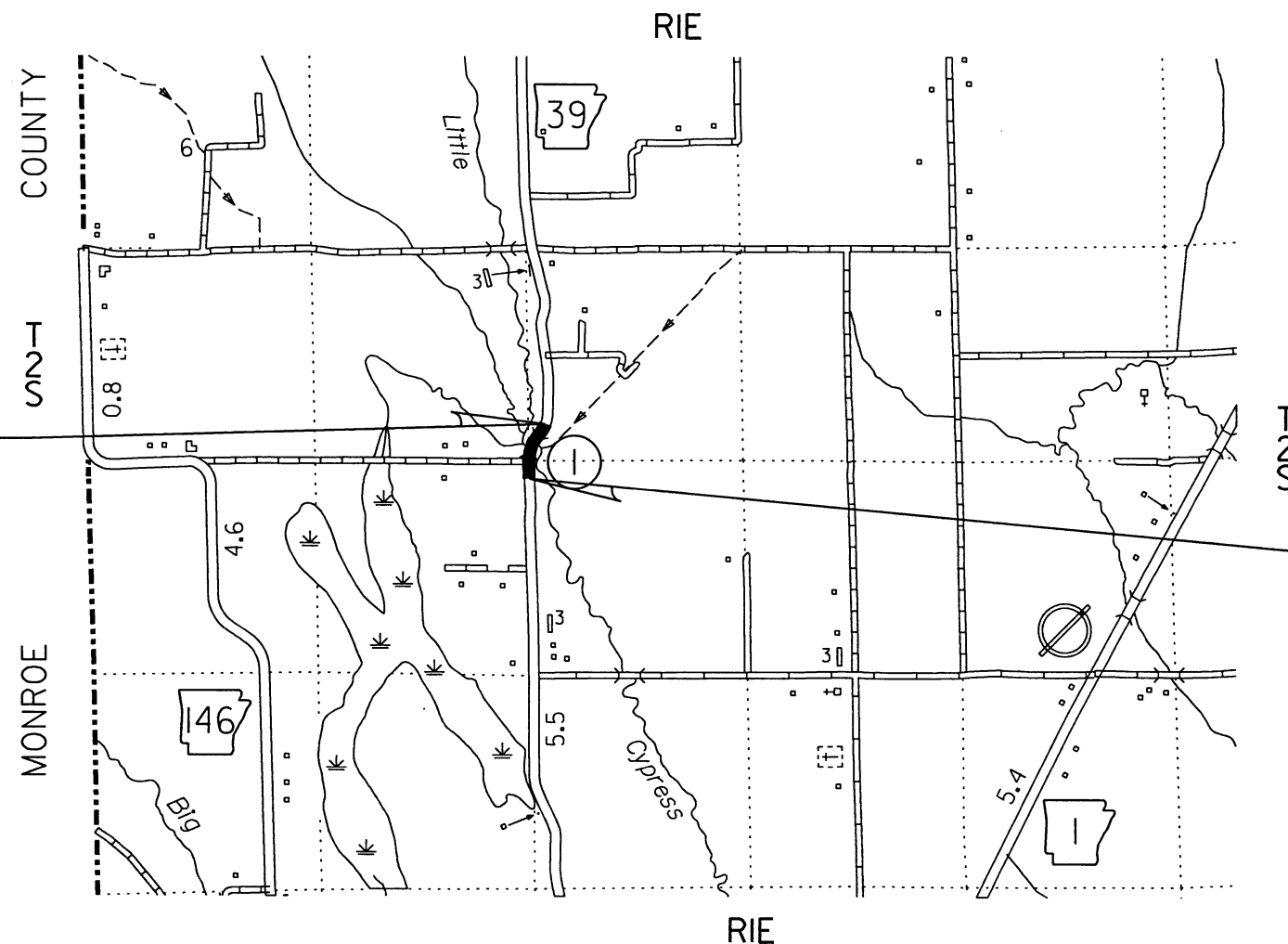
• DESIGN TRAFFIC DATA •

DESIGN YEAR	2039
2019 ADT	210
2039 ADT	220
2039 DHV	24
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	11%
AVERAGE RUNNING SPEED	50 MPH

STRUCTURES OVER 20'-0" SPAN

- ① STA. 205+10.00 - CONSTRUCT QUINT. 12' X 7' X 72' R.C. BOX CULVERT ON 30° RT. FWD. SKEW WITH 3:1 WINGS LT. & RT. Q25 = 1780 CFS D.A. = 31.7 SQ. MI. SPAN = 64.67'

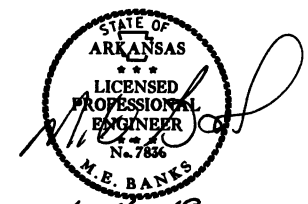
STA. 200+00.00
BEGIN JOB 110619
LOG MILE 4.40



STA. 213+00.00
END JOB 110619



APPROVED



DEPUTY DIRECTOR
AND CHIEF ENGINEER

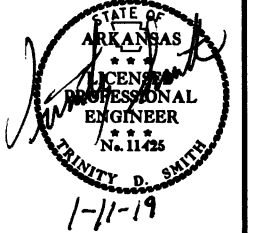
P.E. JOB 110619

PROJECT LENGTH CALCULATED ALONG C.L. CONSTRUCTION
GROSS LENGTH OF PROJECT 1300.00 FEET OR 0.246 MILES
NET LENGTH OF ROADWAY 1235.33 FEET OR 0.234 MILES
NET LENGTH OF BRIDGES 64.67 FEET OR 0.012 MILES
NET LENGTH OF PROJECT 1300.00 FEET OR 0.246 MILES

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N34°31'48"	N34°31'43"	N34°31'36"
LONGITUDE	W91°00'58"	W91°01'00"	W91°01'02"

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				6	ARK.			
						JOB NO. 110619	2	34

② INDEX OF SHEETS & STANDARD DRAWINGS



INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS AND STANDARD DRAWINGS
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 5	TYPICAL SECTIONS OF IMPROVEMENT
6 - 9	SPECIAL DETAILS
10 - 12	TEMPORARY EROSION CONTROL DETAILS
13 - 15	MAINTENANCE OF TRAFFIC DETAILS
16	PERMANENT PAVEMENT MARKING DETAILS
17 - 20	QUANTITIES
21	SUMMARY OF QUANTITIES AND REVISIONS
22 - 24	SURVEY CONTROL DETAILS
25 - 26	PLAN AND PROFILE SHEETS
27 - 34	CROSS SECTIONS

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
PBC-1	PRECAST CONCRETE BOX CULVERTS	01-28-15
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PM-1	PAVEMENT MARKING DETAILS	06-01-17
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
RCB-1	REINFORCED CONCRETE BOX CULVERT DETAILS	07-26-12
RCB-2	EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS	11-20-03
SE-2	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC	10-18-96
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	04-13-17
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	09-02-15
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	09-02-15
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	02-27-14
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	10-15-09
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94

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2 GOVERNING SPECIFICATIONS & GENERAL NOTES



GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
600-2	INCIDENTAL CONSTRUCTION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
620-1	MULCH COVER
JOB 110619	BIDDING REQUIREMENTS AND CONDITIONS
JOB 110619	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 110619	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 110619	CARGO PREFERENCE ACT REQUIREMENTS
JOB 110619	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 110619	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 110619	FLEXIBLE BEGINNING OF WORK
JOB 110619	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 110619	MANDATORY ELECTRONIC CONTRACT
JOB 110619	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 110619	NESTING SITES OF MIGRATORY BIRDS
JOB 110619	PRECAST REINFORCED CONCRETE BOX CULVERTS
JOB 110619	SETTLEMENT AGREEMENTS
JOB 110619	SHORING FOR CULVERTS
JOB 110619	SOIL STABILIZATION
JOB 110619	STORM WATER POLLUTION PREVENTION PLAN
JOB 110619	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 110619	UTILITY ADJUSTMENTS
JOB 110619	WARM MIX ASPHALT

GENERAL NOTES

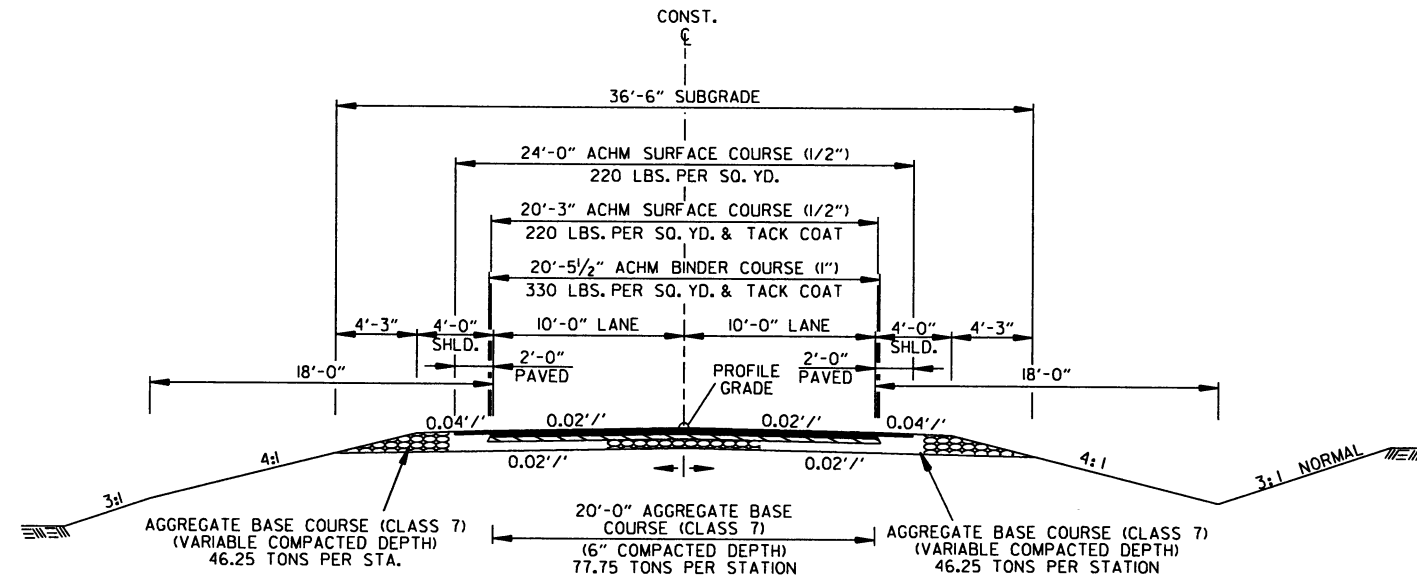
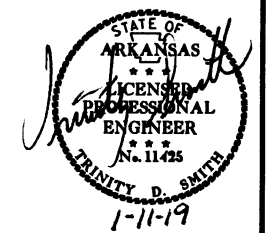
- GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
- ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- 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.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- 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.
- 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.
- THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
- THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 23 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
- 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.

12/7/2018

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				6	ARK.			
							JOB NO. 110619	4 34

2 TYPICAL SECTIONS OF IMPROVEMENT



HWY. 39 - TANGENT
STA. 200+00.00 TO STA. 201+67.91

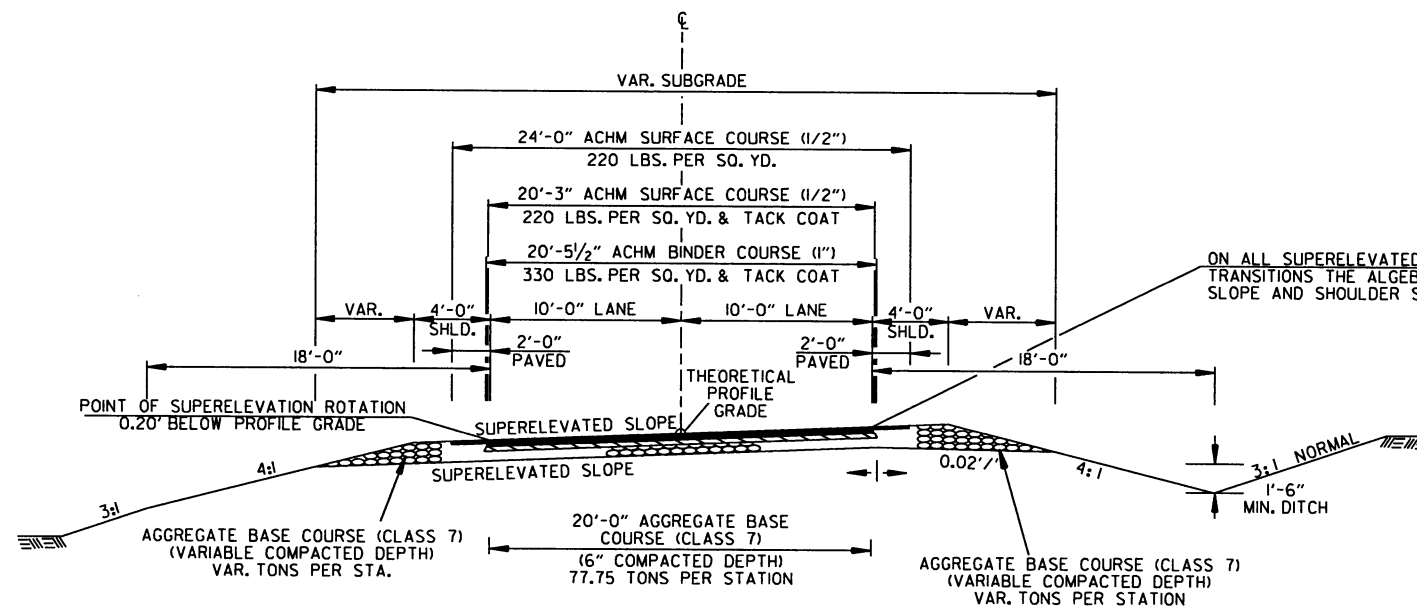
NOTES:

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.

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 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 COURSE (1/2") IN LIEU OF AGGREGATE BASE COURSE ON THE SHOULDERS.



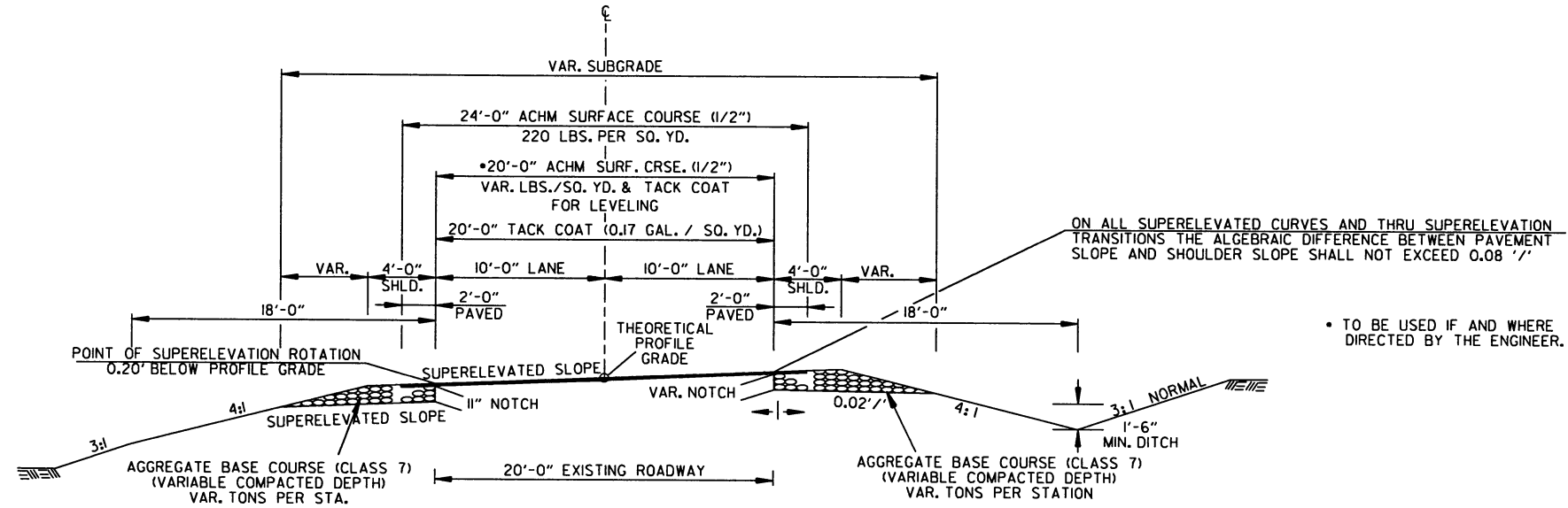
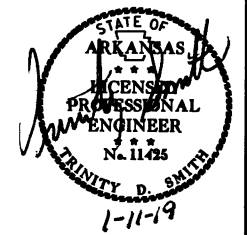
HWY. 39 - SUPERELEVATION
STA. 201+67.91 TO STA. 207+73.51

12/6/2017

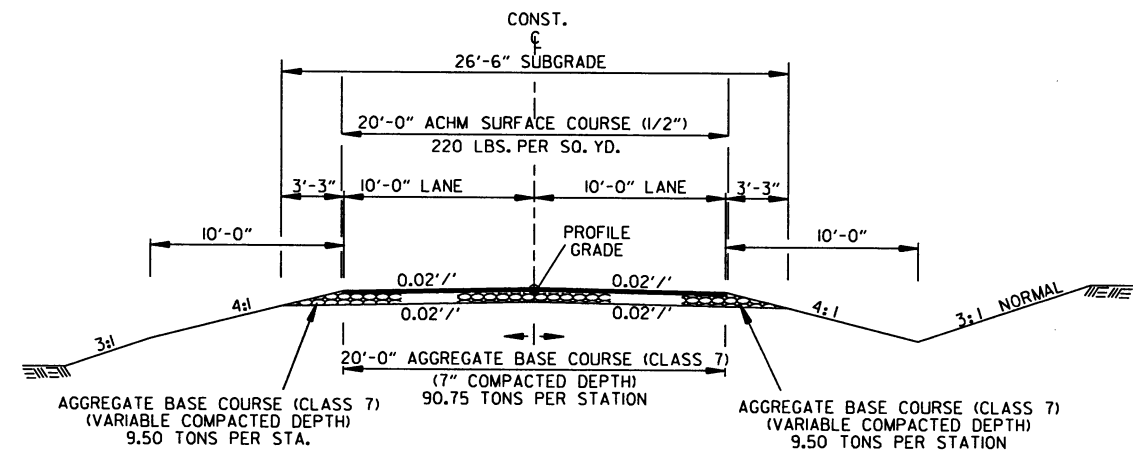
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				6	ARK.			
JOB NO. #0619							5	34

2 TYPICAL SECTIONS OF IMPROVEMENT



HWY. 39 - SUPERELEVATION NOTCH & WIDEN
 STA. 200+00.00
 STA. 207+73.51 - STA. 213+00.00



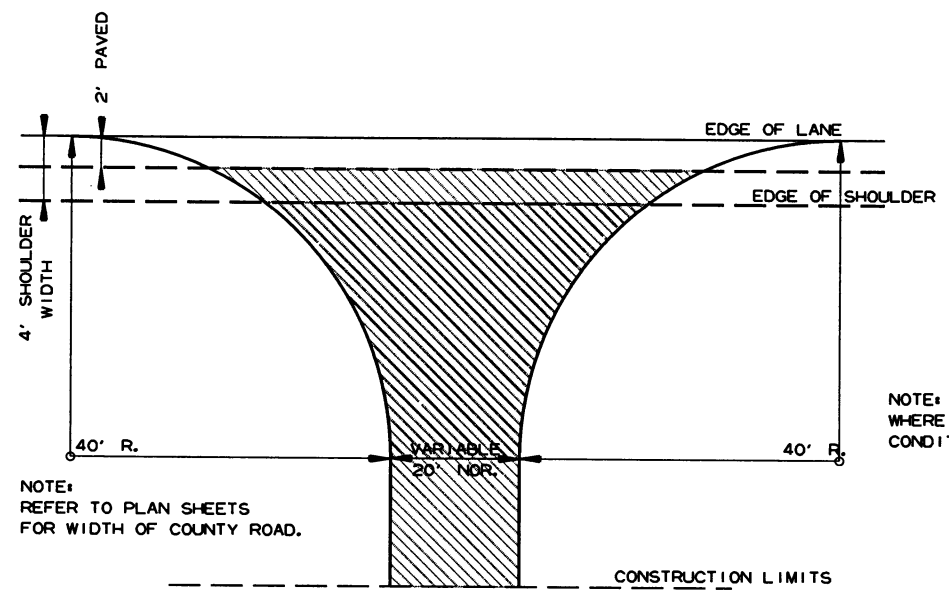
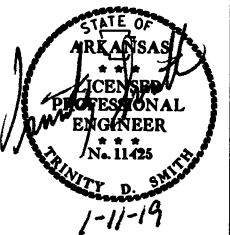
CO. RD. 658 - TANGENT
 STA. 10+12.50 TO STA. 12+85.93

- NOTES:
- 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.
 - 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 FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
 - ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/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 PAY ITEMS.
 - WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, THE FIRST LIFT OF AC/ASPH SURFACE COURSE (1/2") IN LIEU OF AGGREGATE BASE COURSE ON THE SHOULDERS.

12/6/2017
 R110619.DGN

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				6	ARK.			
JOB NO. 110619							6	34

2 SPECIAL DETAILS

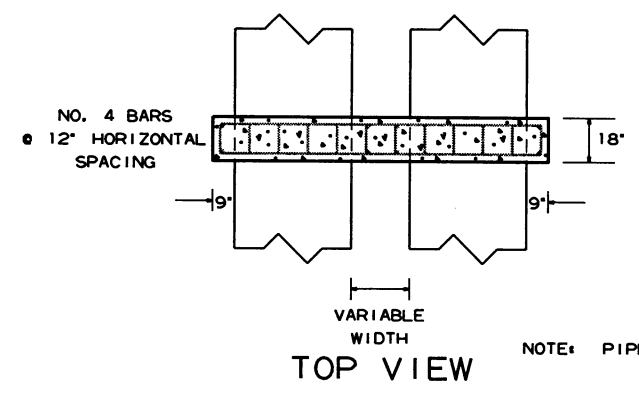


NOTE: REFER TO PLAN SHEETS FOR WIDTH OF COUNTY ROAD.

NOTE: TURNOUTS SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

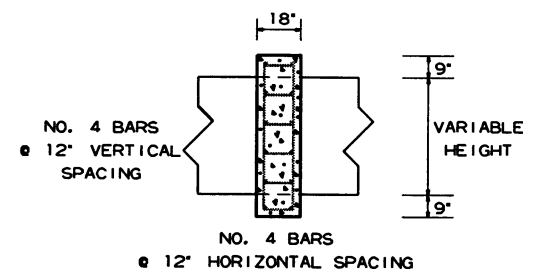
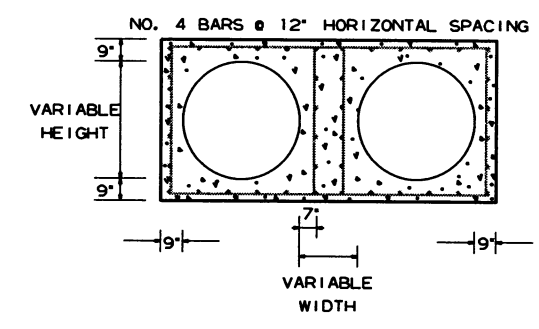
ACHM SURFACE COURSE (1/2") (220 LBS. PER SQ. YD.) AND AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH

DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



NOTE: PIPE COLLAR TO BE UTILIZED AS APPROVED BY THE ENGINEER.

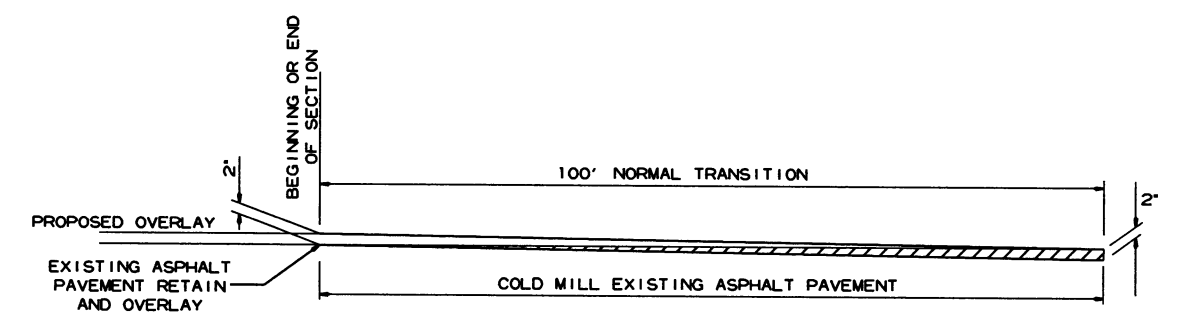
MIN. 3" COVER



FRONT VIEW

SIDE VIEW

PIPE EXTENSION REINFORCED CONCRETE COLLAR DETAIL



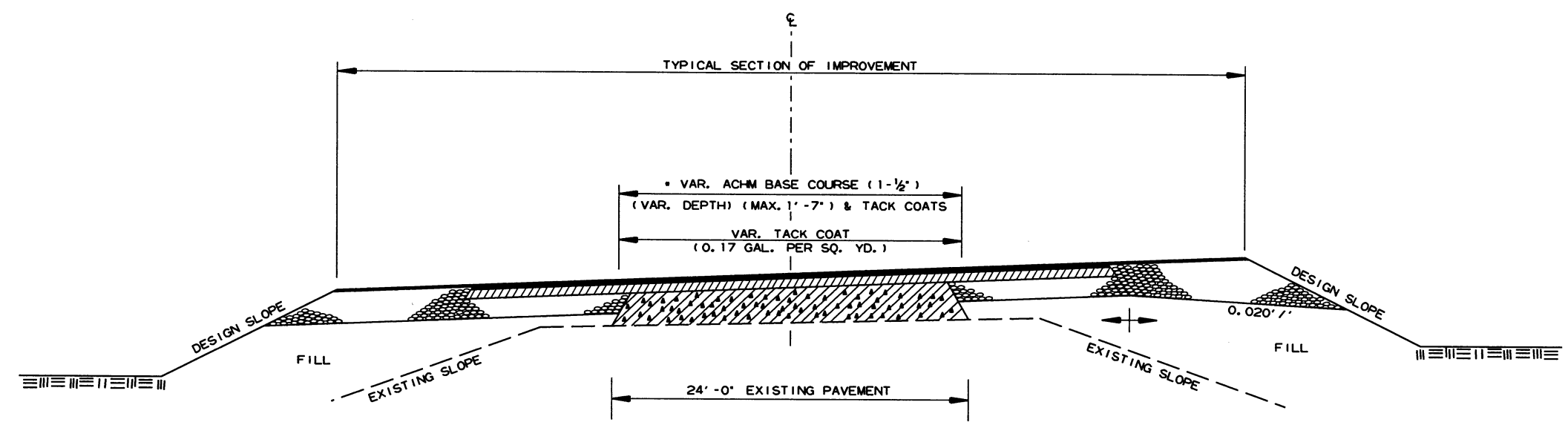
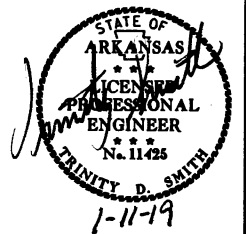
DETAIL FOR TRANSITIONS

12/12/2018

R110619.DGN

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				6	ARK.				
JOB NO.							110619	7	34

2 SPECIAL DETAILS



• 7" AGGREGATE BASE COURSE (CLASS 7)
TO BE REPLACED WITH AC-11M BASE COURSE (1-1/2")

METHOD OF RAISING GRADE

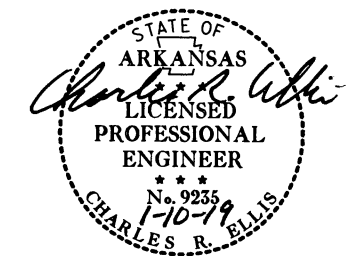
NOTES:

- (1) THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.
- (2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.
- (3) IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09, OF THE STANDARD SPECIFICATIONS.

12/12/2018

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				6	ARK.	110619	8	34
SPECIAL DETAILS								



TABULAR DATA BY: NAC DATE: 12/19/2018
 CHECKED BY: LJB DATE: 1-3-19

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT		WINGWALL ANGLE (DEGREE)		FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL		FOOTING DIMENSION PARALLEL WITH HDWL		LENGTH OF WINGWALLS		LENGTH OF FOOTING HEEL		CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)					
								AT HDWL	AT WING END	WING A	WING B		WING A	WING B	WING A	WING B	WING A	WING B									
								WH1	WH2	AF1	AF2		WE	WF1	WF2	G1	G2	W1	W2	W3			W4				
68'-8"	7'-0"	0'-9"	0'-8"	30	3:1	77'-9"	2'-0"	7'-10"	2'-4"	0	60	3'-2"	3'-5 3/4"	4'-2 1/4"	0'-9 3/4"	1'-3 5/8"	16'-6"	33'-0"	19'-9 3/8"	36'-3 3/8"	17.25	1400					
WING		F1		F2		F3		F4		F5		F6		F7		F8		F9		F10		F11		F12		REINF. STEEL QTY. PER WING (LBS)	
BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS VARY	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING		NO. REQ'D
WING A	4	12	17	L	Min 3'-4" Max 9'-0"	4	12	3	L	3'-5"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	475
WING B	4	12	33	X	Min 0'-9" Max 1'-1"	4	12	6	Y	1'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	925	

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT		WINGWALL ANGLE (DEGREE)		FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL		FOOTING DIMENSION PARALLEL WITH HDWL		LENGTH OF WINGWALLS		LENGTH OF FOOTING HEEL		CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)					
								AT HDWL	AT WING END	WING A	WING B		WING A	WING B	WING A	WING B	WING A	WING B									
								WH1	WH2	AF1	AF2		WE	WF1	WF2	G1	G2	W1	W2	W3			W4				
68'-8"	7'-0"	0'-9"	0'-8"	30	3:1	77'-9"	2'-0"	7'-10"	2'-4"	0	60	3'-2"	3'-5 3/4"	4'-2 1/4"	0'-9 3/4"	1'-3 5/8"	16'-6"	33'-0"	19'-9 3/8"	36'-3 3/8"	19.73	1400					
WING		F1		F2		F3		F4		F5		F6		F7		F8		F9		F10		F11		F12		REINF. STEEL QTY. PER WING (LBS)	
BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS VARY	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS	BAR SIZE	MAX. SPACING		NO. REQ'D
WING A	4	12	17	L	Min 3'-4" Max 9'-0"	4	12	3	L	3'-5"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	475	
WING B	4	12	33	X	Min 0'-9" Max 1'-1"	4	12	6	Y	1'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	925	

GENERAL NOTES

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

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

All concrete shall be Class S with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have 3/4" chamfers.

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

Reinforcing Steel Tolerances: The tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI).

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

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

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

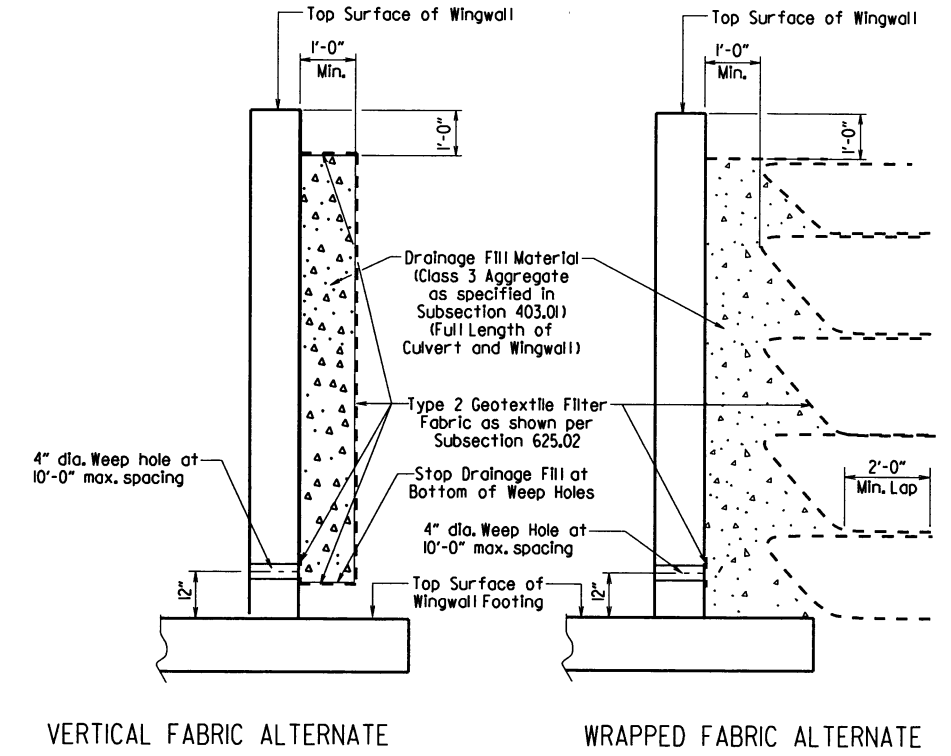
Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class S Concrete.

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

NOTES: Precast reinforced box culverts will be used. Overall Width (OW) and Headwall Length (K) shown are for estimating purposes only, actual dimensions shall be determined in the field.

The required number of bars and lengths shown are for estimating purposes only. The actual number of bars and lengths required shall be determined in field. Unless otherwise noted, all dimensions are in inches.

See Section 607 and Standard Drawing PBC-1 for additional information.

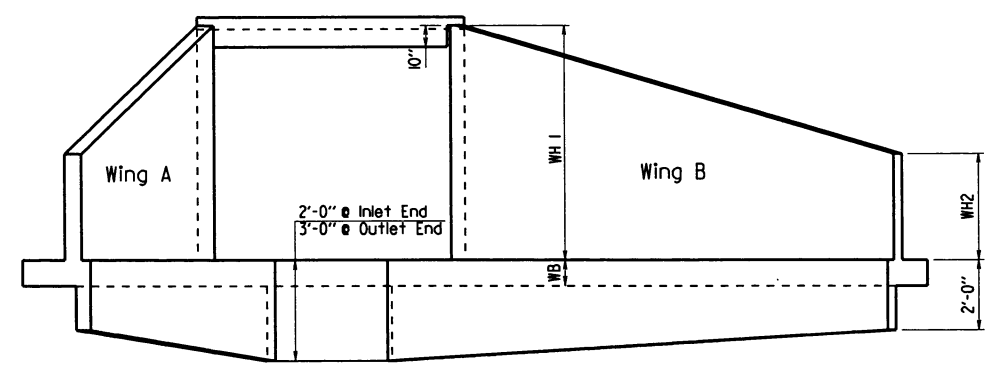
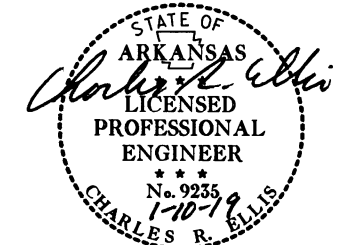


For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

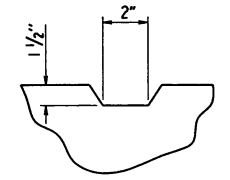
WINGWALL DRAINAGE DETAIL

SHEET 1 OF 2
 DETAILS OF WINGWALLS FOR PRECAST
 REINFORCED BOX CULVERTS
 QUINTUPLE BARREL BOX CULVERT
 Sta. 205+10
 SPECIAL DETAILS

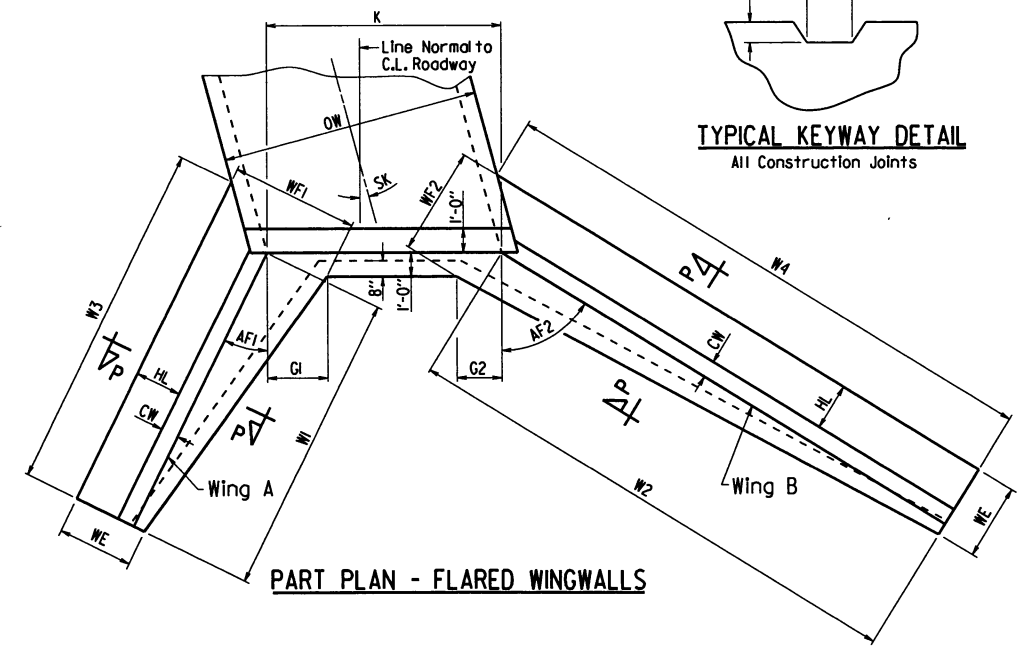
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				6	ARK.			
JOB NO. 110619							9	34



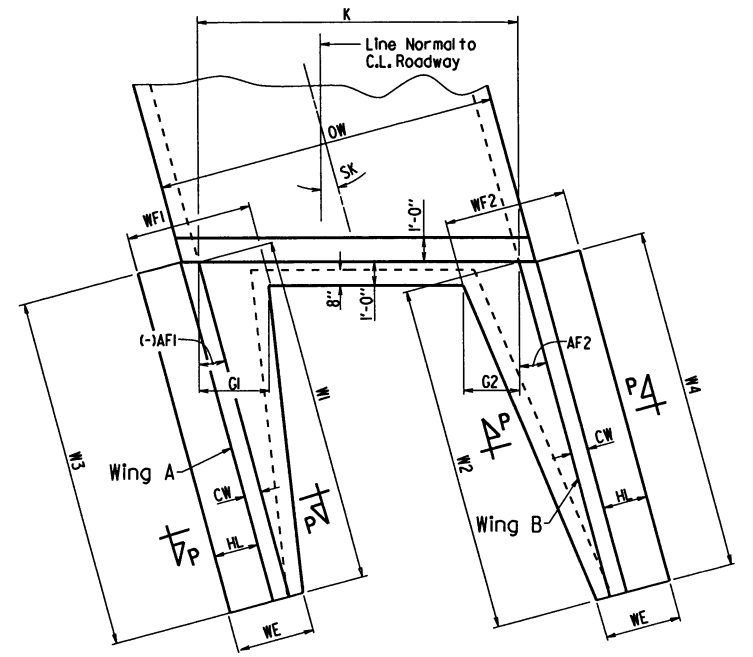
END ELEVATION
Flared Wingwalls Shown



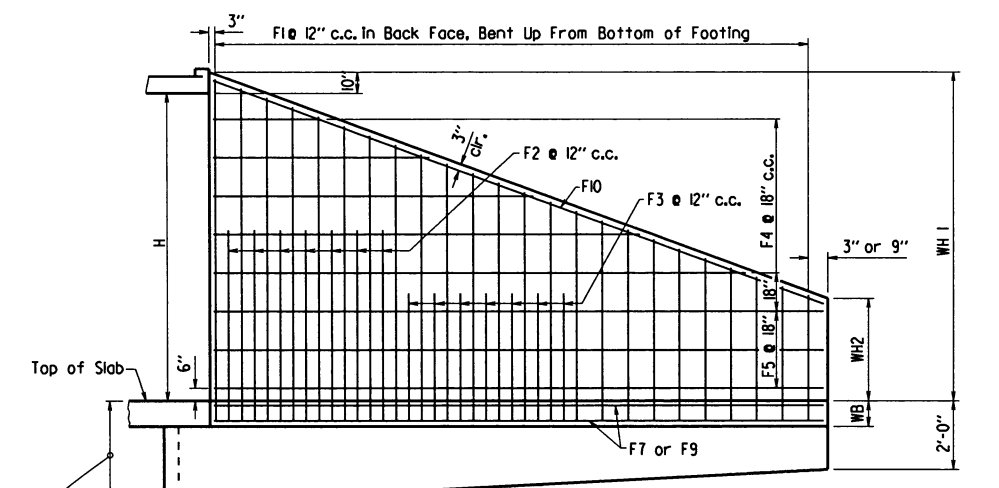
TYPICAL KEYWAY DETAIL
All Construction Joints



PART PLAN - FLARED WINGWALLS

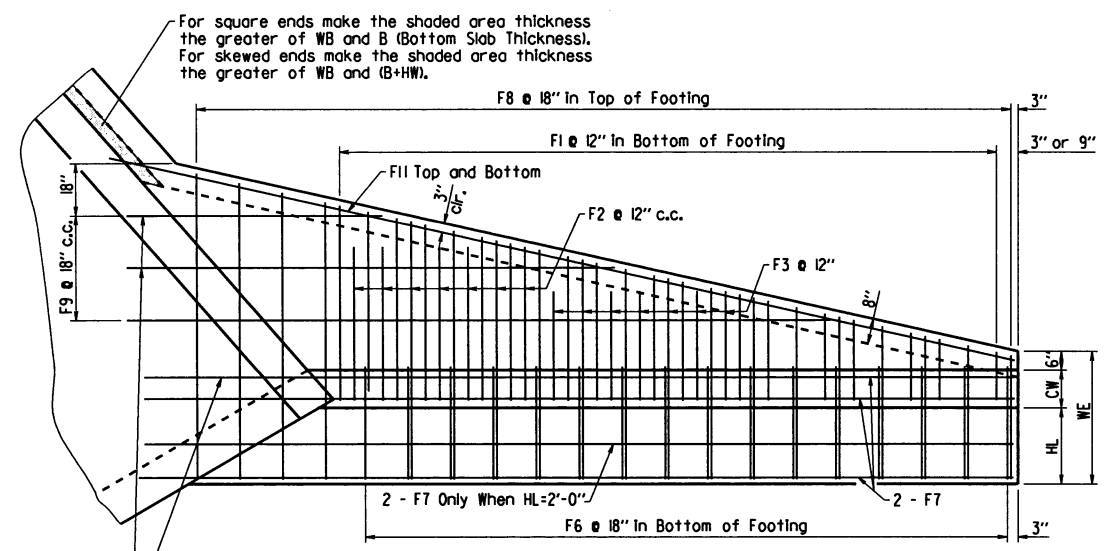


PART PLAN - PARALLEL WINGWALLS



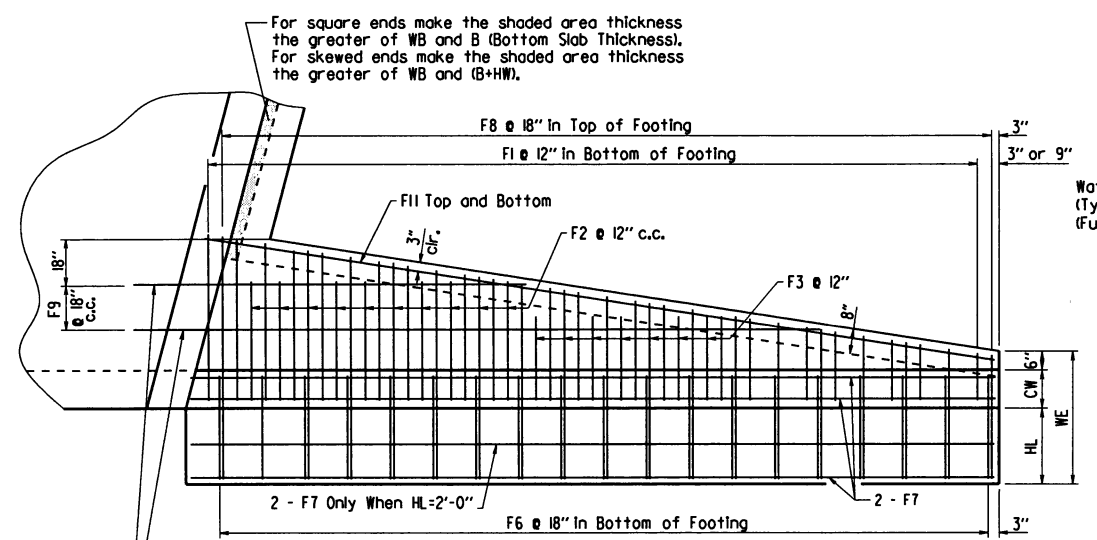
WINGWALL ELEVATION
Showing Back Face Reinforcement

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



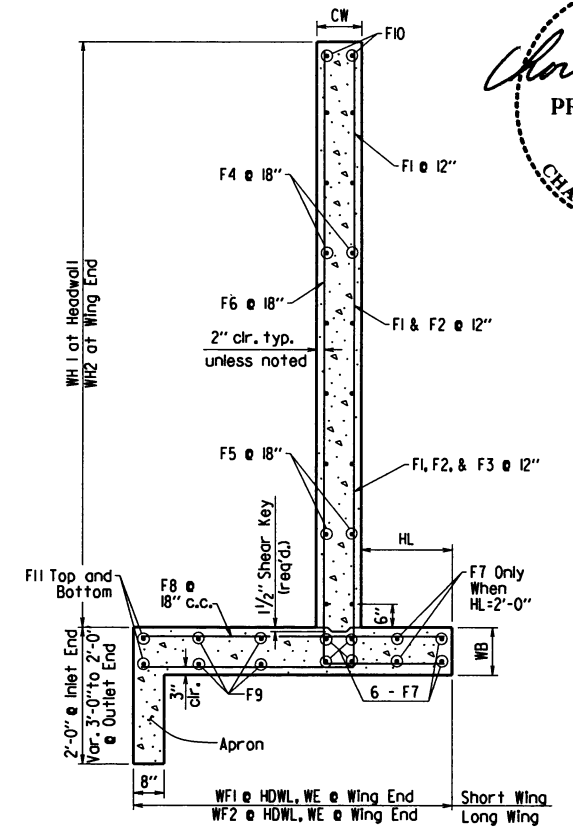
PLAN - FLARED WINGWALLS
Showing Footing Reinforcement

Footings bars that conflict with precast reinforced box culverts shall be trimmed as necessary



PLAN - PARALLEL WINGWALLS
Showing Footing Reinforcement

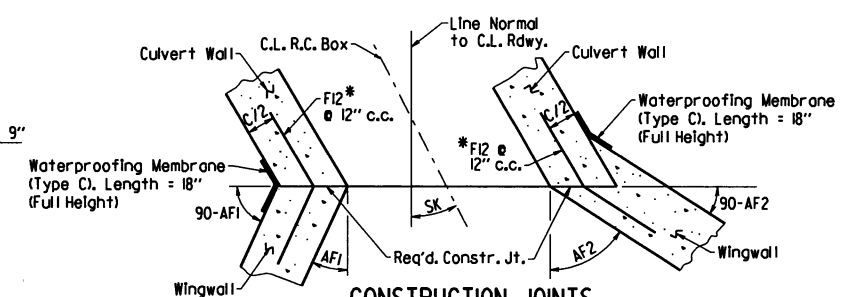
Footings bars that conflict with precast reinforced box culverts shall be trimmed as necessary



WINGWALL SECTION P-P

Short Wing = (AF1+SK)
Long Wing = (AF2-SK)

F1, F2, F3, & F6 BARS *F12 BAR



CONSTRUCTION JOINTS
Flared Wingwalls Shown

*F12 is a straight bar for parallel wingwalls.
Use F12 bars in lieu of M bars shown on Std. Dwg. PBC-1

SHEET 2 OF 2
DETAILS OF WINGWALLS FOR PRECAST
REINFORCED BOX CULVERTS
QUINTUPLE BARREL BOX CULVERT
Sta. 205+10

SPECIAL DETAILS



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		10	34
				JOB NO.		110619		

REVISIONS

DATE OF REVISION	REVISION

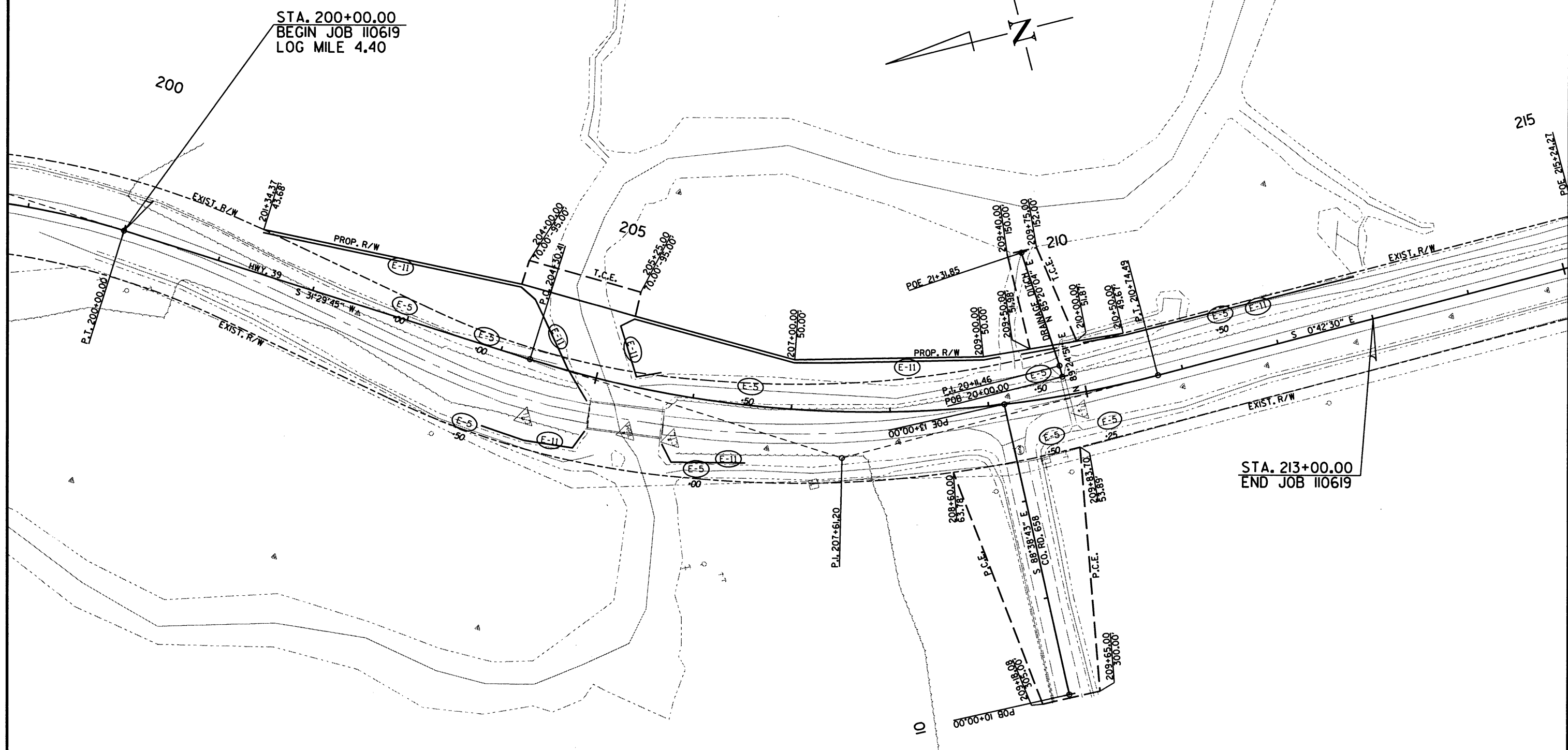
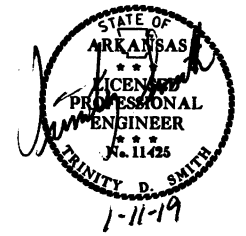
CLEARING & GRUBBING
 SAND BAG DITCH CHECKS (E-5)
 9 LOCATIONS = 198 BAGS
 SILT FENCE (E-11)
 5 LOCATIONS = 1450 LIN. FT.

LEGEND

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

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

TEMPORARY EROSION CONTROL DETAILS



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CLEARING AND GRUBBING TEMPORARY EROSION 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.		11	34
				JOB NO.	110619			

REVISIONS

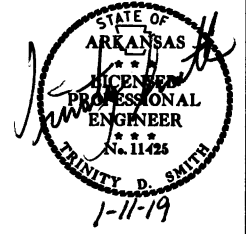
DATE OF REVISION	REVISION

LEGEND

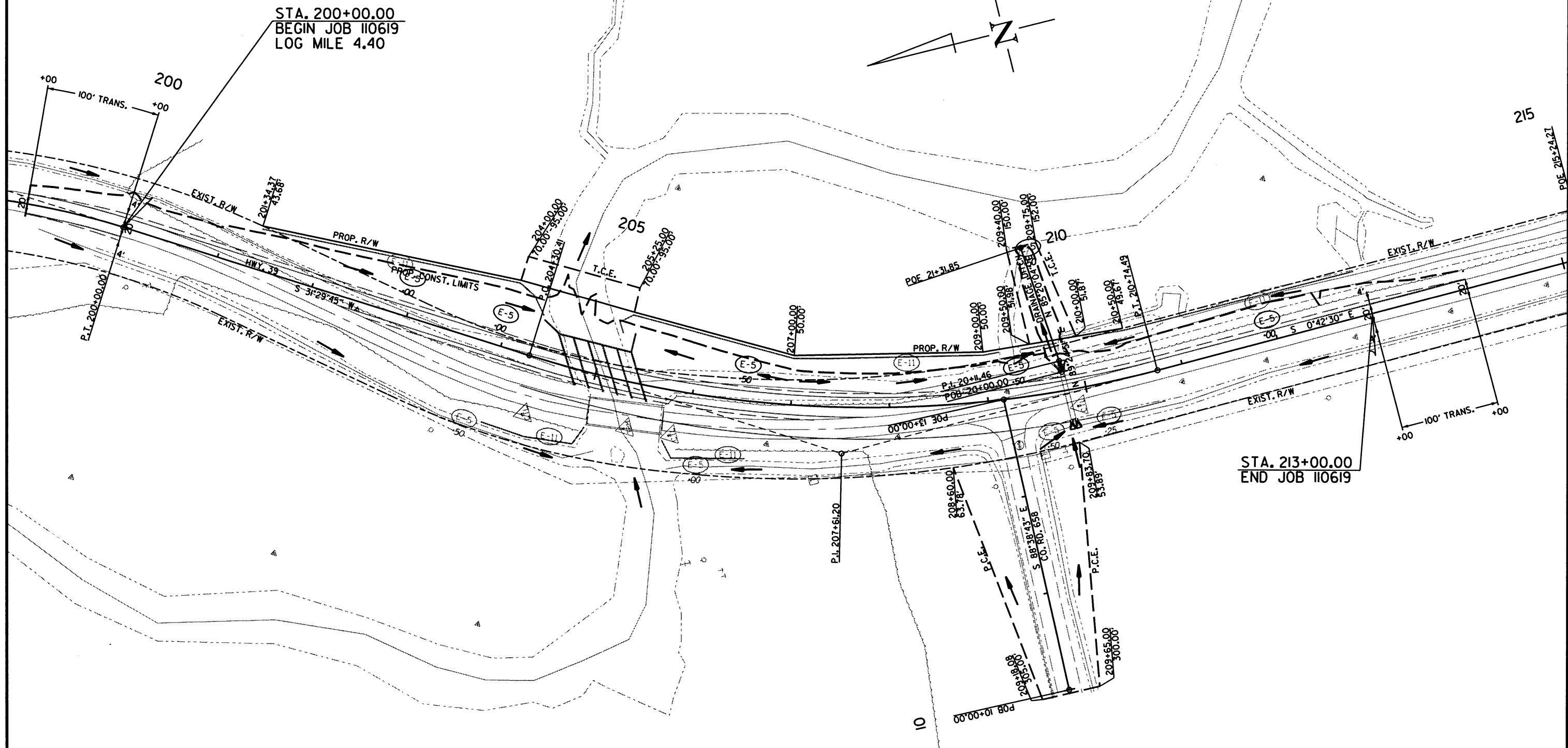
- (E-5) = SAND BAG DITCH CHECKS
- (E-11) = SILT FENCE

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

TEMPORARY EROSION CONTROL DETAILS



STAGE I
SAND BAG DITCH CHECKS (E-5)
6 LOCATIONS = 132 BAGS



STA. 213+00.00
END JOB 110619

12/6/2018

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		12	34
				JOB NO.	110619			

REVISIONS

DATE OF REVISION	REVISION

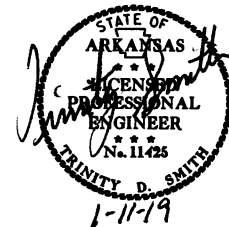
LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-II) = SILT FENCE

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

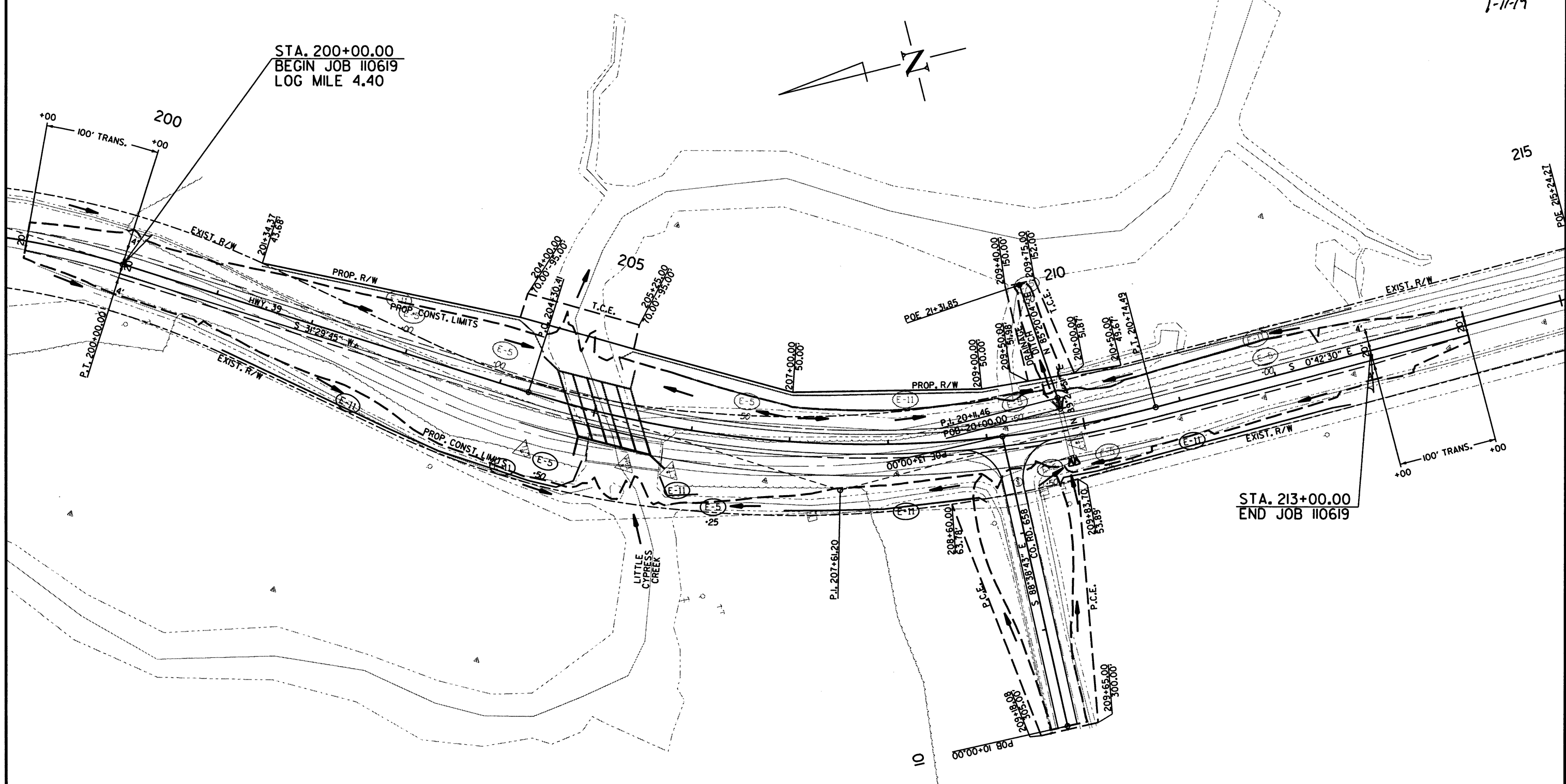
② TEMPORARY EROSION CONTROL DETAILS



STAGE 2
 SAND BAG DITCH CHECKS (E-5)
 2 LOCATIONS = 44 BAGS
 SILT FENCE (E-II)
 4 LOCATIONS = 1000 LIN. FT.

STA. 200+00.00
 BEGIN JOB 110619
 LOG MILE 4.40

STA. 213+00.00
 END JOB 110619



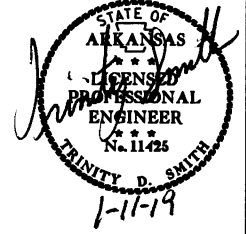
12/6/2018

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STAGE 2
 TEMPORARY EROSION 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. 110619	13	34

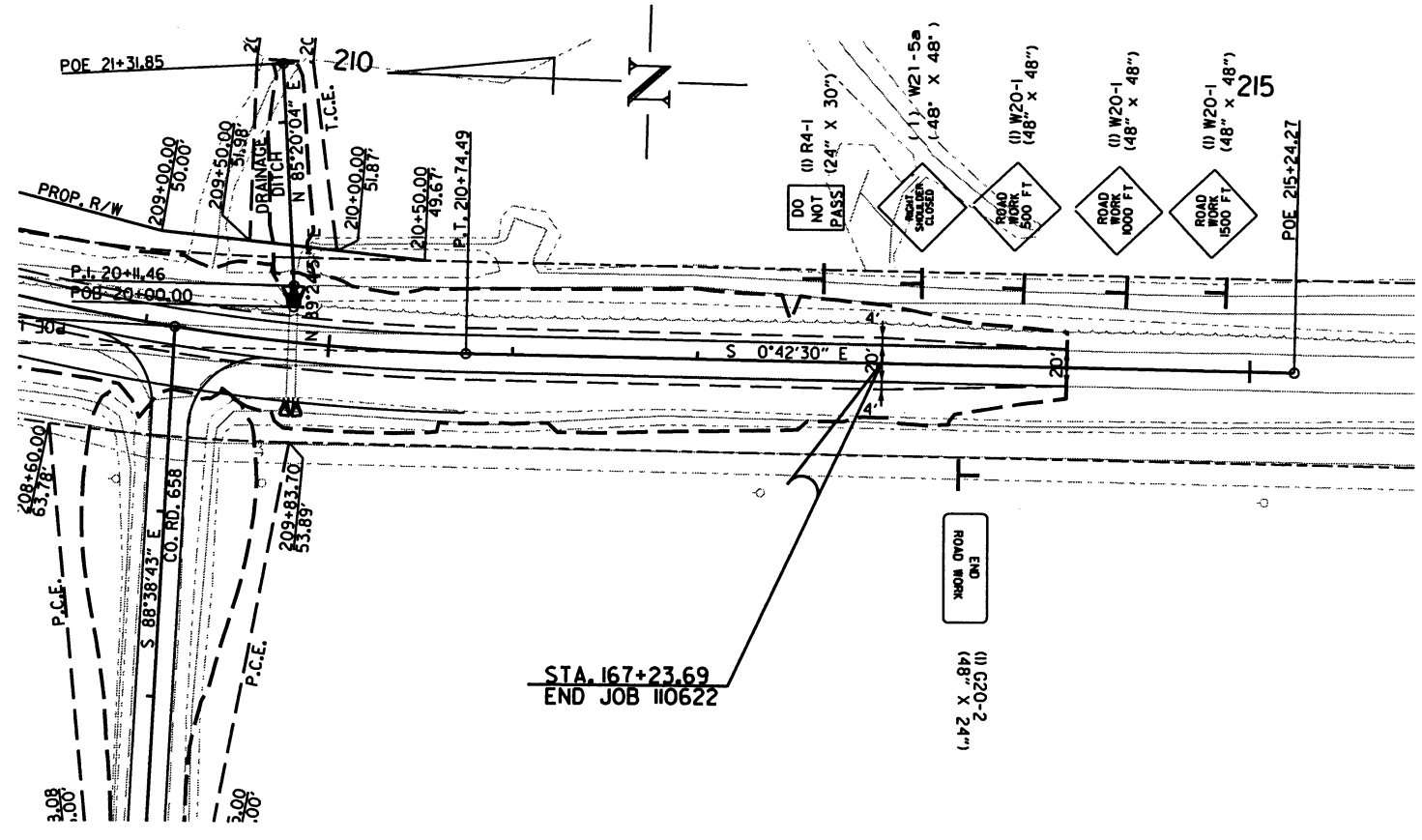
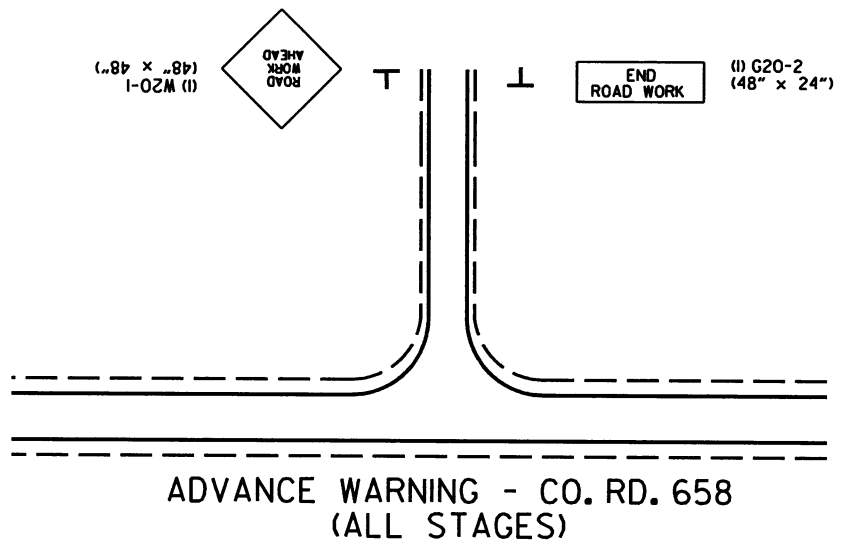
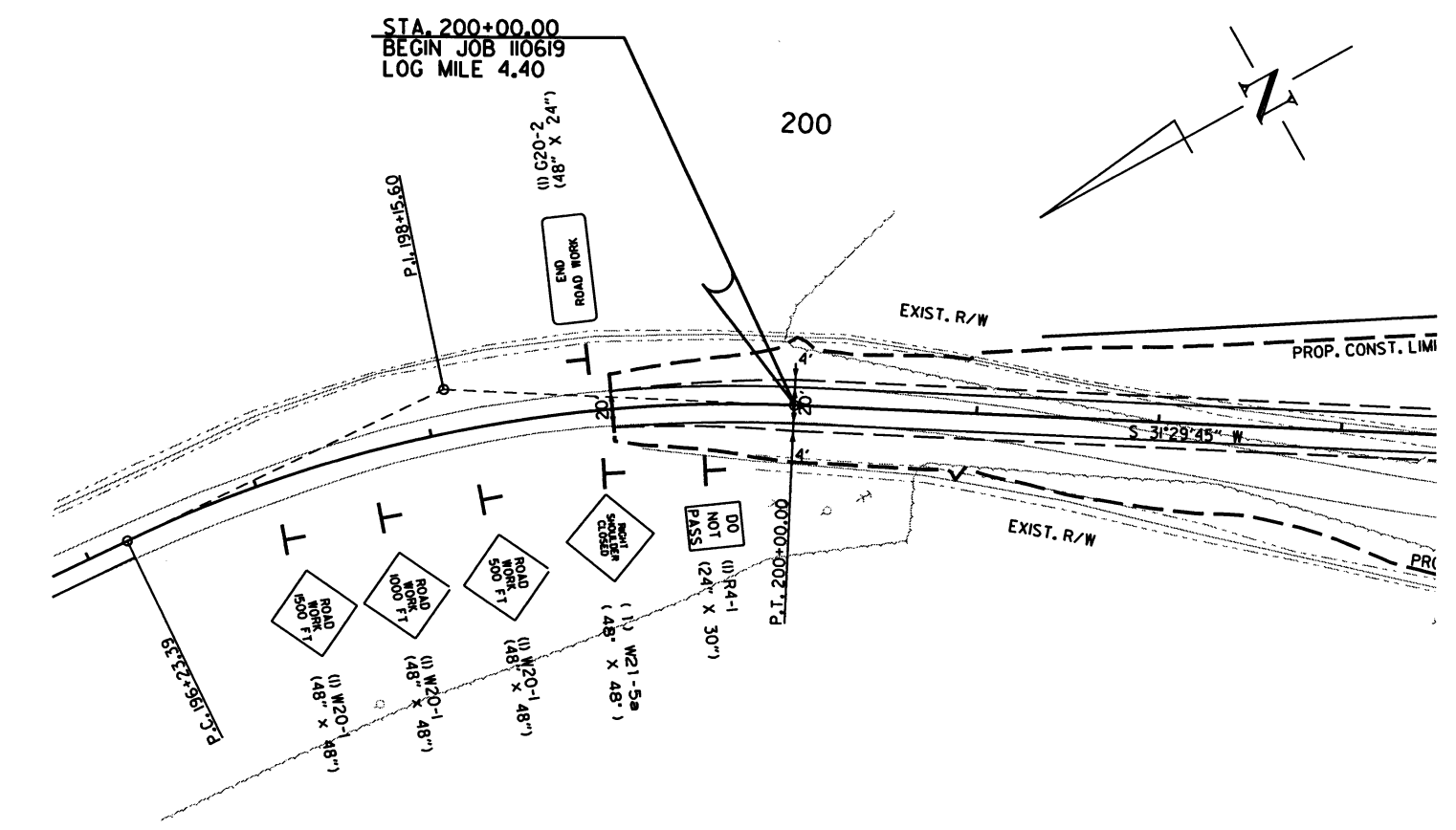
② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCE OF CONSTRUCTION

STAGE 1:
 MAINTAIN TRAFFIC ON EXISTING ROADWAY.
 CONSTRUCT PROPOSED HWY. 39 & DRAINAGE DITCH.
 CONSTRUCT BOX CULVERT LT.
 EXTEND PIPE CULVERTS LT.

STAGE 2:
 SHIFT TRAFFIC TO PROPOSED ROADWAY.
 CONSTRUCT RT. SHOULDER & RT. DITCHES
 CONSTRUCT CO. RD. 658.
 REMOVAL OF EXISTING BRIDGE.
 CONSTRUCT BOX CULVERT RT.
 EXTEND PIPE CULVERTS RT.
 PLACE FINAL SURFACE COURSE.
 PLACE PERMANENT PAVEMENT MARKINGS.

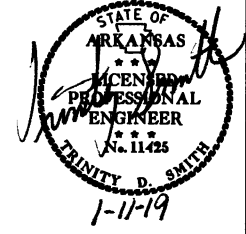


12/7/2018

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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.	110619		14	34

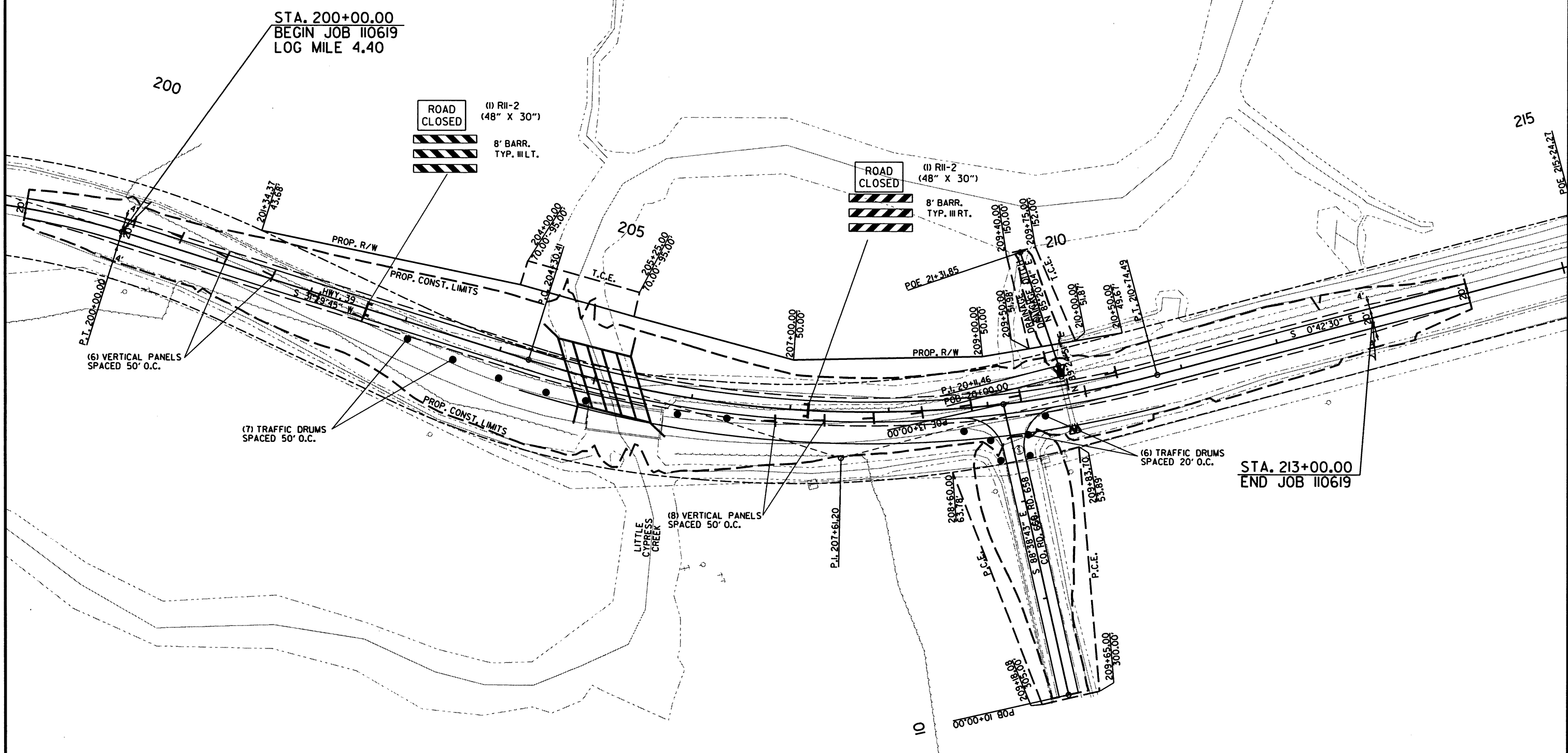
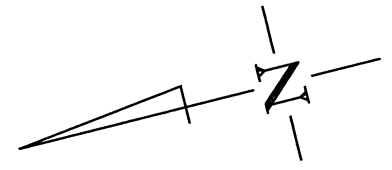
② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCE OF CONSTRUCTION

STAGE 1:
 MAINTAIN TRAFFIC ON EXISTING ROADWAY.
 CONSTRUCT PROPOSED HWY. 39 & DRAINAGE DITCH.
 CONSTRUCT BOX CULVERT LT.
 EXTEND PIPE CULVERTS LT.

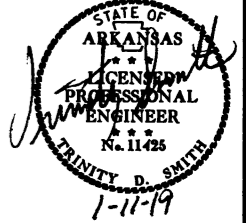
STAGE 2:
 SHIFT TRAFFIC TO PROPOSED ROADWAY.
 CONSTRUCT RT. SHOULDER & RT. DITCHES
 CONSTRUCT CO. RD. 658.
 REMOVAL OF EXISTING BRIDGE.
 CONSTRUCT BOX CULVERT RT.
 EXTEND PIPE CULVERTS RT.
 PLACE FINAL SURFACE COURSE.
 PLACE PERMANENT PAVEMENT MARKINGS.



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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. 110619	15	34

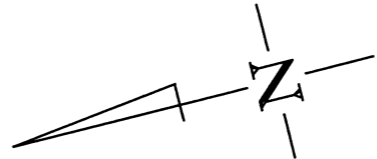
② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCE OF CONSTRUCTION

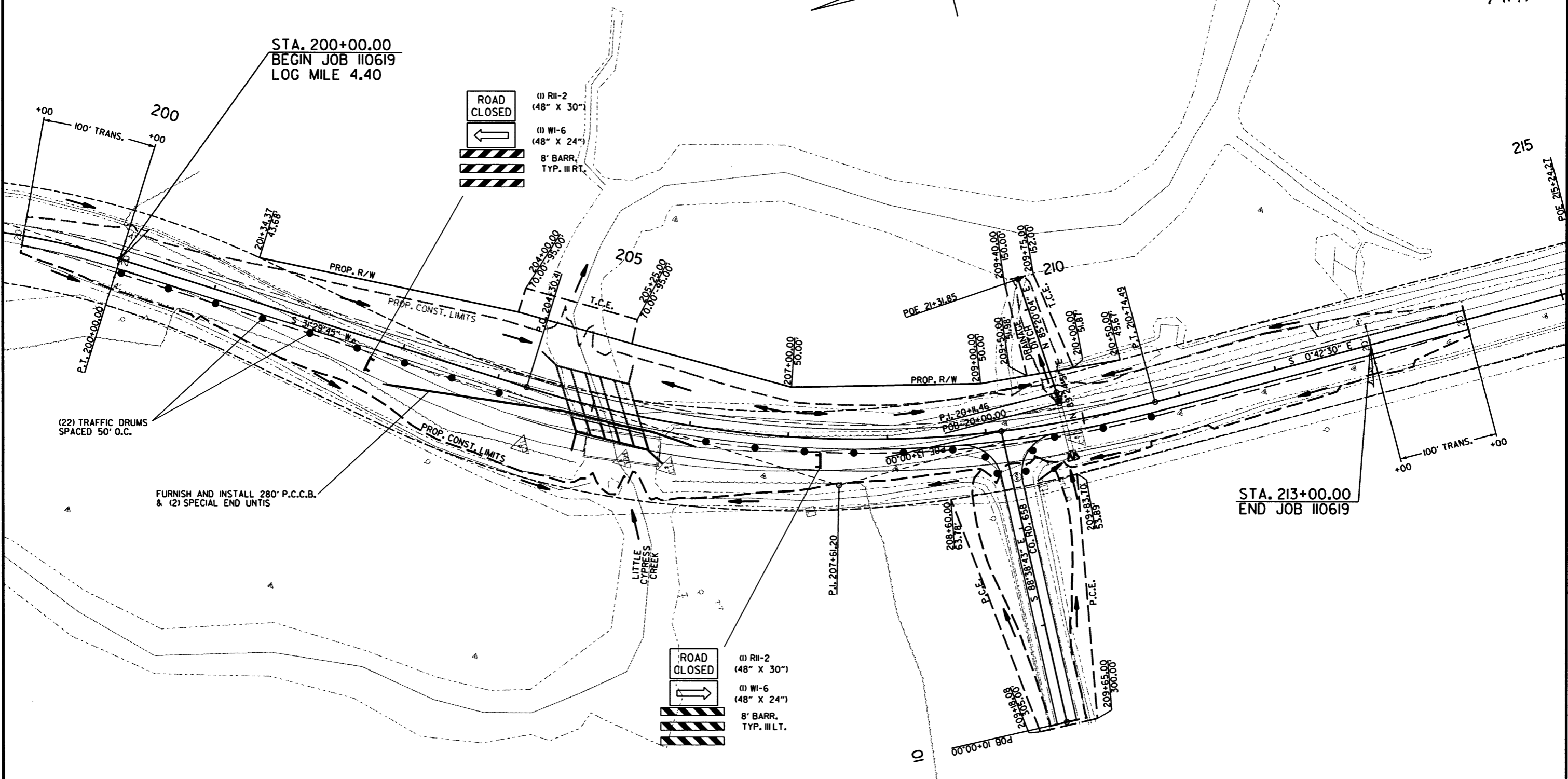
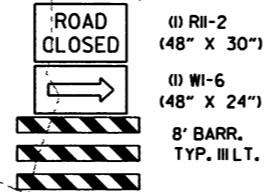
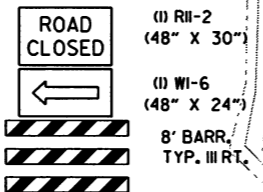
STAGE 1:
 MAINTAIN TRAFFIC ON EXISTING ROADWAY.
 CONSTRUCT PROPOSED HWY. 39 & DRAINAGE DITCH.
 CONSTRUCT BOX CULVERT LT.
 EXTEND PIPE CULVERTS LT.

STAGE 2:
 SHIFT TRAFFIC TO PROPOSED ROADWAY.
 CONSTRUCT RT. SHOULDER & RT. DITCHES
 CONSTRUCT CO. RD. 658.
 REMOVAL OF EXISTING BRIDGE.
 CONSTRUCT BOX CULVERT RT.
 EXTEND PIPE CULVERTS RT.
 PLACE FINAL SURFACE COURSE.
 PLACE PERMANENT PAVEMENT MARKINGS.



STA. 200+00.00
 BEGIN JOB 110619
 LOG MILE 4.40

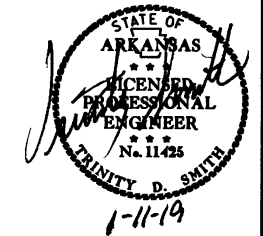
STA. 213+00.00
 END JOB 110619



12/7/2018
 R110619.DGN

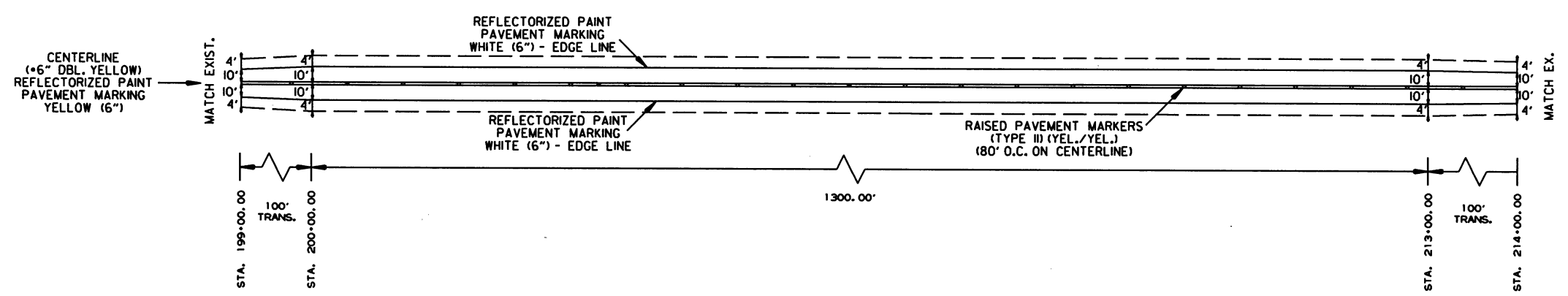
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 110619	16	34

② PERMANENT PAVEMENT MARKING DETAILS



HWY. 39
 PERMANENT PAVEMENT MARKINGS:
 REFLECTORIZED PAINT MARKING:
 RT. AND LT. EDGE LINES = 3000 LIN. FT. WHITE
 DBL. CENTERLINE = 3000 LIN. FT. YELLOW
 RAISED PAVEMENT MARKERS:
 TYPE II (YEL./YEL.) 80' O.C. = 19 EACH

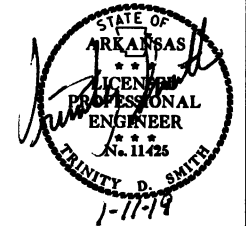
*THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN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



HWY. 39
 PERMANENT PAVEMENT MARKING DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	110619		17	34

② QUANTITIES



ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER
			LIN. FT. - EACH			NO.	SQ. FT.			EACH	RIGHT	
W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	2	32.0					
W20-1	ROAD WORK 1000 FT.	48"x48"	2	2	2	2	32.0					
W20-1	ROAD WORK 500 FT.	48"x48"	2	2	2	2	32.0					
W20-1	ROAD WORK AHEAD	48"x48"	1	1	1	1	16.0					
G20-2	END ROAD WORK	48"x24"	3	3	3	3	24.0					
R11-2	ROAD CLOSED	48"x30"	2	2	2	2	20.0					
W1-6	LARGE ARROW	48"x24"	2	2	2	2	16.0					
R4-1	DO NOT PASS	24"x30"	2	2	2	2	10.0					
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	2	2	2	2	18.0					
	VERTICAL PANELS		12		12			12				
	TRAFFIC DRUMS		27	28	28				28			
	TYPE III BARRICADE-RT. (8')		1	1	1					8		
	TYPE III BARRICADE-LT. (8')		1	1	1						8	
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER			280	280							280
TOTALS:							200.0	12	28	8	8	280

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 2	END OF JOB	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	REFLECTORIZED PAINT PAVEMENT MARKING	
				TYPE II (YELLOW/YELLOW)	6"	
					WHITE	YELLOW
LIN. FT. - EACH			LIN. FT.	LIN. FT.		
CONSTRUCTION PAVEMENT MARKINGS	6000		6000			
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)		19		19		
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")		3000			3000	
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")		3000				3000
TOTALS:			6000	19	3000	3000

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

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

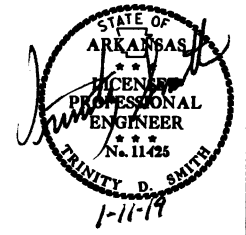
12/11/2018

R110619.DCN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 110619	18	34

2 QUANTITIES



CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
200+00	213+00	HWY. 39 - MAIN LANES LT. & RT.	13	13
TOTALS:			13	13

REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 1)

STATION	STATION	LOCATION	LUMP SUM
205+01	205+75	HWY. 39 - MAIN LANES (SITE NO. 1)	1.00

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
205+10	HWY. 39- HEADWALL ON RT.	1
TOTAL:		1

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

SOIL LOG

STATION	LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
		FEET				
101+00	RT.	0-5	ND	NP	A-4(0)	GRAY
101+00	RT.	0-5	20	5	A-4(1)	BROWN
101+00	RT.	0-5	ND	NP	A-4(0)	BROWN
108+00	LT.	0-5	ND	NP	A-4(0)	BROWN
116+00	LT.	0-5	39	22	A-6(15)	BROWN
122+00	LT.	0-5	34	16	A-6(13)	BR.GR
122+00	LT.	0-5	10	10	A-4(7)	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.
 NP - NON-PLASTIC
 ND - NOT DETERMINABLE

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL					
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS	SILT FENCE	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	(E-5) BAG	(E-11) LIN. FT.	CU. YD.
ENTIRE PROJECT		CLEARING AND GRUBBING											
ENTIRE PROJECT		STAGE 1	0.89	1.78	0.89	90.8	0.89	0.89	0.89	198	1450	63	
ENTIRE PROJECT		STAGE 2	1.45	2.90	1.45	147.9	1.45	1.45	18.2	110	1000	5	
									29.6	44		39	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			2.00	4.00	2.00	204.0	2.00	2.00	40.8	110	200	12	
TOTALS:			4.34	8.68	4.34	442.7	4.34	8.34	170.2	462	2650	119	

BASIS OF ESTIMATE:
 LIME 2 TONS / ACRE OF SEEDING
 WATER..... 102.0 M.G. / ACRE OF SEEDING
 WATER..... 20.4 M.G. / ACRE OF TEMPORARY SEEDING
 WATER..... 12.6 GAL. / SQ. YD. OF SOLID SODDING
 SAND BAG DITCH CHECKS..... 22 BAGS / LOCATION

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

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

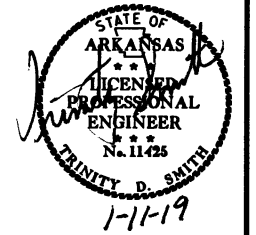
12/11/2018

R110619.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.	110619		19	34

② QUANTITIES



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			500	2
TOTALS:			500	2

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

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
199+00.00	200+00.00	MAIN LANES	20.00	222.22
213+00.00	214+00.00	MAIN LANES	20.00	222.22
TOTAL:				444.44

NOTE: AVERAGE MILLING DEPTH 1".

PRECAST REINFORCED CONCRETE BOX CULVERTS

STATION	DESCRIPTION	PRECAST REINFORCED CONCRETE BOX CULVERT (12'X7')
		LIN. FT.
205+10	QUINT. 12' x 7' x 72' R.C. BOX CULVERT - HWY. 39	360
TOTAL:		360

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	* SOIL STABILIZATION
			CU. YD.	CU. YD.	TON
ENTIRE PROJECT		STAGE 1-MAIN LANES	650	5680	
ENTIRE PROJECT		STAGE 2-MAIN LANES	2150	375	
10+00.00	13+00.00	STAGE 2-CO. RD. 658	40	1035	
205+10.00	205+10.00	CHANNEL CHANGE	333	110	
20+11.13	21+31.86	CHANNEL CHANGE	90	5	
* ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER					100
TOTALS:			3263	7205	100

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

NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	7
TOTAL:	7

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

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	10
TOTAL:	10

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

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III)	FLARED END SECTIONS FOR R.C. PIPE CULVERTS	UNCL. EXC. FOR STR.-ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		30"	30"				
		LIN. FT.	EACH				
209+80	DBL. 30" x 58' R.C. PIPE CULVERT	38	4		28	0.35	PCC-1, FES-1, FES-2
SUBTOTALS:		38	4		28	0.35	
STRUCTURES OVER 20' - 0" SPAN							
205+10	QUINT. 12' x 7' R.C. BOX CULVERT - HWY. 39			25	51	0.64	PBC-1, SPECIAL DETAILS
SUBTOTALS:				25	51	0.64	
TOTALS:		38	4	25	79	0.99	

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.

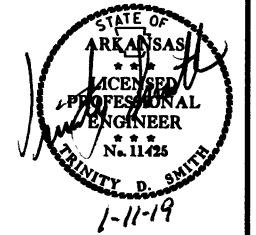
12/11/2018

R110619.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	110619		20	34

② QUANTITIES



BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH FEET	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT						ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")									
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	TOTAL PG 64-22 TON
						TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON														
MAIN LANES																									
199+00.00	200+00.00	HWY. 39 - TRANSITION	100.00			20.00	222.22	37.78	37.78																
200+00.00	202+30.56	HWY. 39 - NOTCH AND WIDEN	230.56	VAR.	277.02	VAR.	371.67	18.58	20.00	512.36	87.10	105.68	VAR.	186.89	330.00	30.84	VAR.	184.78	220.00	20.33	24.00	222.22	220.00	24.44	24.44
202+30.56	207+73.51	HWY. 39 - FULL DEPTH	542.95	170.25	924.37	40.71	2455.94	122.80				122.80	20.46	1234.31	330.00	203.66	20.25	1221.64	220.00	134.38	24.00	1447.87	220.00	159.27	293.65
207+73.51	213+00.00	HWY. 39 - NOTCH AND WIDEN	526.49	VAR.	587.00	VAR.	605.08	30.25	20.00	1169.98	198.90	229.15	VAR.	312.29	330.00	51.53	VAR.	292.79	220.00	32.21	24.00	1403.97	220.00	154.44	186.65
213+00.00	214+00.00	HWY. 39 - TRANSITION	100.00						20.00	222.22	37.78	37.78									20.00	222.22	220.00	24.44	24.44
10+12.50	12+55.73	CO. RD. 658	243.23	109.75	266.94																20.00	540.51	220.00	59.46	59.46
12+55.73	12+88.00	CO. RD. 658 - TURNOUT	32.27	VAR.	81.25																VAR.	175.75	220.00	19.33	19.33
ADDITIONAL FOR METHOD OF RAISING GRADE																									
205+75.00	208+00.00	HWY. 39	225.00														20.00	VAR.	VAR.	129.41					129.41
ADDITIONAL FOR LEVELING																									
210+74.49	213+00.00	HWY. 39 NOTCH AND WIDEN	225.51			20.00	501.13	25.06				25.06					20.00	501.13	VAR.	55.12					55.12
ADDITIONAL FOR SUPERELEVATION																									
201+67.91	205+17.91	HWY. 39 - SUPERELEVATION	350.00	21.63	75.71																				
205+17.91	209+86.99	HWY. 39 - SUPERELEVATION	469.08	43.25	202.88																				
209+86.99	213+36.99	HWY. 39 - SUPERELEVATION	350.00	21.63	75.71																				
TOTALS:					2490.88		3933.82	196.69		2126.78	361.56	558.25		1733.49		286.03		2200.34		371.45		4627.37		509.01	880.46

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
 ACHM BINDER COURSE (1").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
 MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
 TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

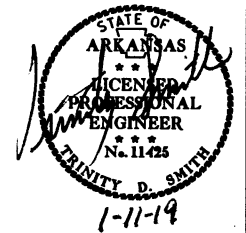
12/11/2018

R110619.DCN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 110619	22	34

② SURVEY CONTROL DETAILS



SURVEY CONTROL COORDINATES

Project Name: s110619
 Date: 10/4/2016
 Coordinate System: ARKANSAS STATE PLANE- 0302/SOUTH ZONE BASED ON GPS CONTROL,
 PROJECTED TO GROUND.
 Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	1990251.6013	1608390.6983	171.279	CTL	STD. AHTD MON. STAMPED PN: 1
2	1991042.4871	1608378.4446	172.067	CTL	STD. AHTD MON. STAMPED PN: 2
3	1991452.2767	1608450.1004	173.917	CTL	STD. AHTD MON. STAMPED PN: 3
4	1991590.8831	1608507.1384	174.034	CTL	STD. AHTD MON. STAMPED PN: 4
5	1992050.0563	1608863.8903	173.824	CTL	STD. AHTD MON. STAMPED PN: 5
6	1992770.7454	1608942.8815	174.369	CTL	STD. AHTD MON. STAMPED PN: 6
100	1988438.3485	1608356.3585	172.302	GPS	AHTD GPS MON 540015
101	1988489.1052	1606992.3744	176.311	GPS	AHTD GPS MON 540015A
900	1991494.3800	1608467.9404	174.478	TBM	CHISELED SQUARE WEST SIDE CENTER OF BRIDGE

*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 0.9999471588 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 s110619gi.cti
 HORIZONTAL DATUM: NAD 83 (1997)
 VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE
 AT A SPECIFIC POINT.

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

BASIS OF BEARING:
 ARKANSAS STATE PLANE GRID BEARINGS - 0302-SOUTH ZONE
 DETERMINED FROM GPS CONTROL POINTS: 540014-540014A
 CONVERGENCE ANGLE: 00 33 01 RIGHT AT LT: 34-31-44 LG: 091-01-02
 GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

HWY. 39

POINT NAME	TYPE	STATION	NORTHING	EASTING
8000	POB	192+94.72	1992619.6963	1608917.6505
8001	P.C.	196+23.39	1992291.5583	1608899.0175
8003	P.T.	200+00.00	1991935.7563	1608787.7005
8004	P.C.	204+30.41	1991568.7561	1608562.8393
8006	P.T.	210+74.49	1990955.9216	1608394.1085
8007	POE	215+24.27	1990506.1755	1608399.6688

CO. RD. 658

POINT NAME	TYPE	STATION	NORTHING	EASTING
8010	POB	10+00.00	1991121.1931	1608103.1901
8011	POE	13+00.00	1991114.1002	1608403.1062

DRAINAGE DITCH

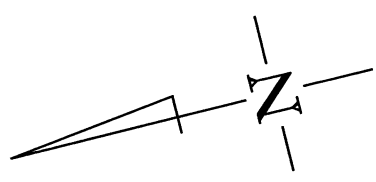
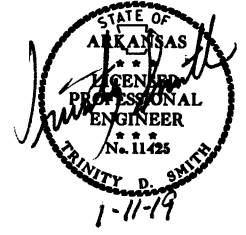
POINT NAME	TYPE	STATION	NORTHING	EASTING
8020	POB	20+00.00	1991050.2610	1608416.0576
8021	P.I.	20+11.46	1991050.3800	1608427.5100
8022	POE	21+31.82	1991060.1710	1608547.5116

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						110619	23	34

2 SURVEY CONTROL DETAILS



STA. 200+00.00
BEGIN JOB 110619
LOG MILE 4.40

P.I. = 207+61.20
Δ = 32°12'15" LT.
D = 5°00'00"
T = 330.80'
L = 644.08'
P.C. = 204+30.41
P.T. = 210+74.49
e = 0.091'/'
Ls = 350'

PN#111
4 PD#5/8" REBAR TRIG ELEV

P.I. = 198+15.60
Δ = 28°14'45" RT.
D = 7°30'00"
T = 192.21'
L = 376.61'
P.C. = 196+23.39
P.T. = 200+00.00
e = MATCH EXIST.

PN#115
4 PD#5/8" SPIKE TRIG ELEV

PN#113
4 PD#5/8" SPIKE TRIG ELEV

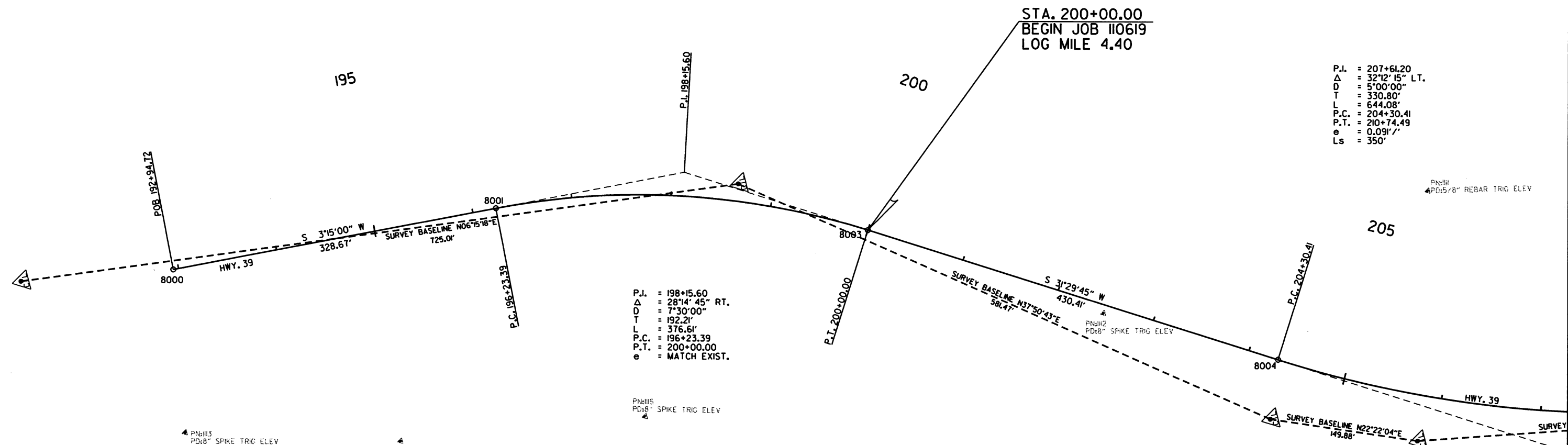
PN#114
4 PD#5/8" SPIKE TRIG ELEV

PN#116
4 PD#5/8" SPIKE TRIG ELEV

PN#117
4 PD#5/8" SPIKE TRIG ELEV

PN#118
4 PD#5/8" SPIKE TRIG ELEV

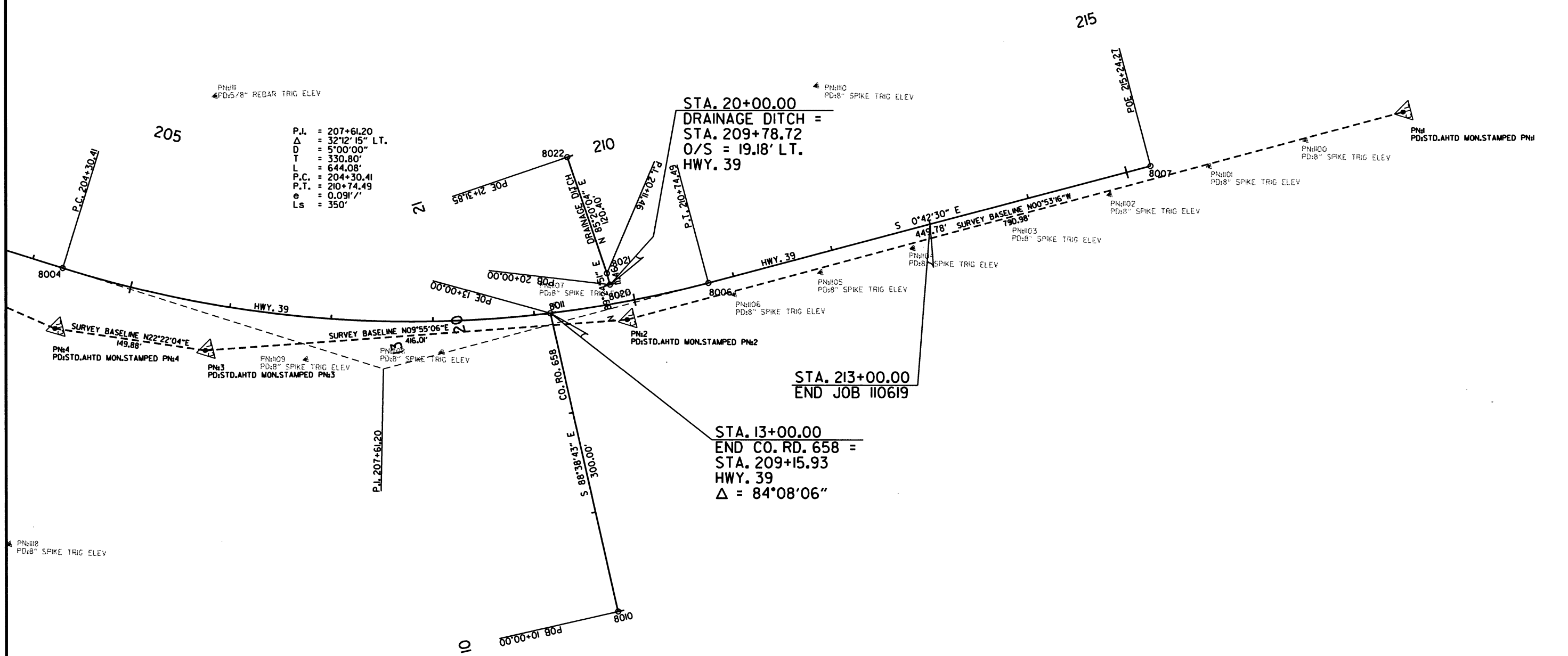
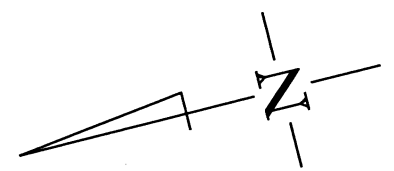
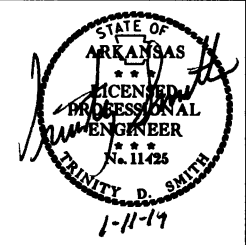
PN#119
4 PD#5/8" SPIKE TRIG ELEV



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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.	110619		24	34

2 SURVEY CONTROL DETAILS



P.I. = 207+61.20
 Δ = 32°12'15" LT.
 D = 5°00'00"
 T = 330.80'
 L = 644.08'
 P.C. = 204+30.41
 P.T. = 210+74.49
 e = 0.0917'
 Ls = 350'

STA. 20+00.00
 DRAINAGE DITCH =
 STA. 209+78.72
 O/S = 19.18' LT.
 HWY. 39

STA. 213+00.00
 END JOB 110619

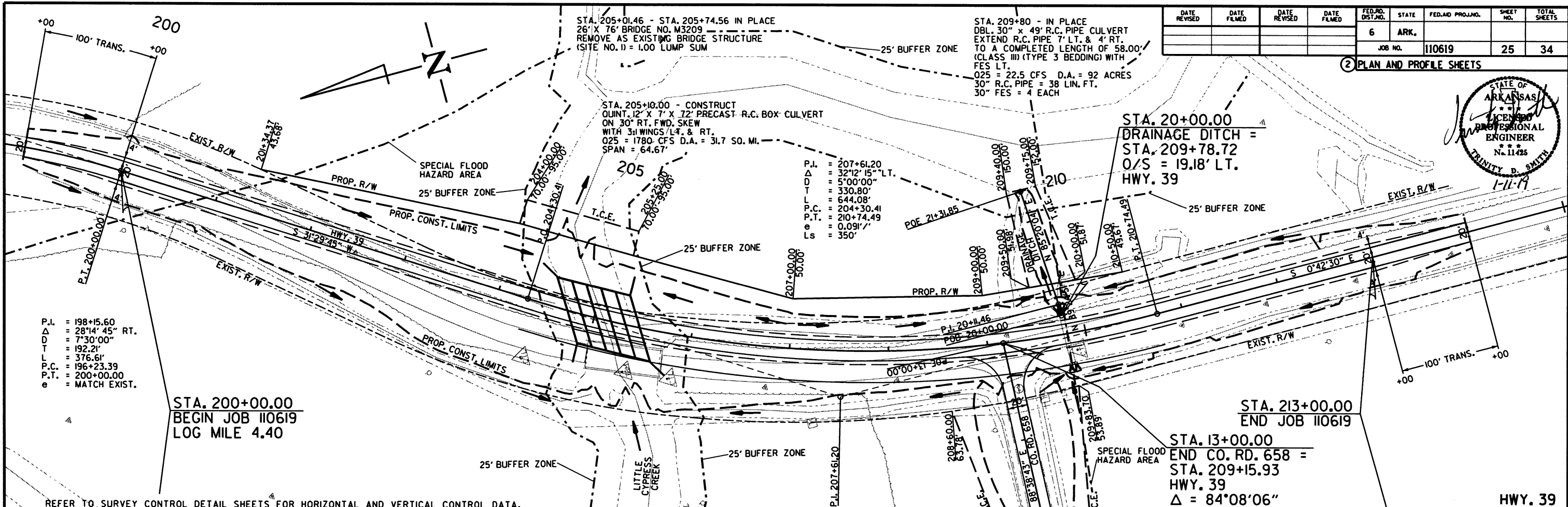
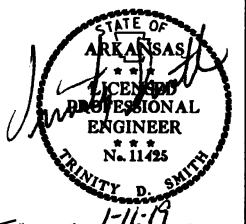
STA. 13+00.00
 END CO. RD. 658 =
 STA. 209+15.93
 HWY. 39
 Δ = 84°08'06"

12/7/2018

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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.	110619	25

2 PLAN AND PROFILE SHEETS



P.I. = 198+15.60
 Δ = 28°14' 45" RT.
D = 7°30' 00"
T = 192.21'
L = 376.61'
P.C. = 196+23.39
P.T. = 200+00.00
e = MATCH EXIST.

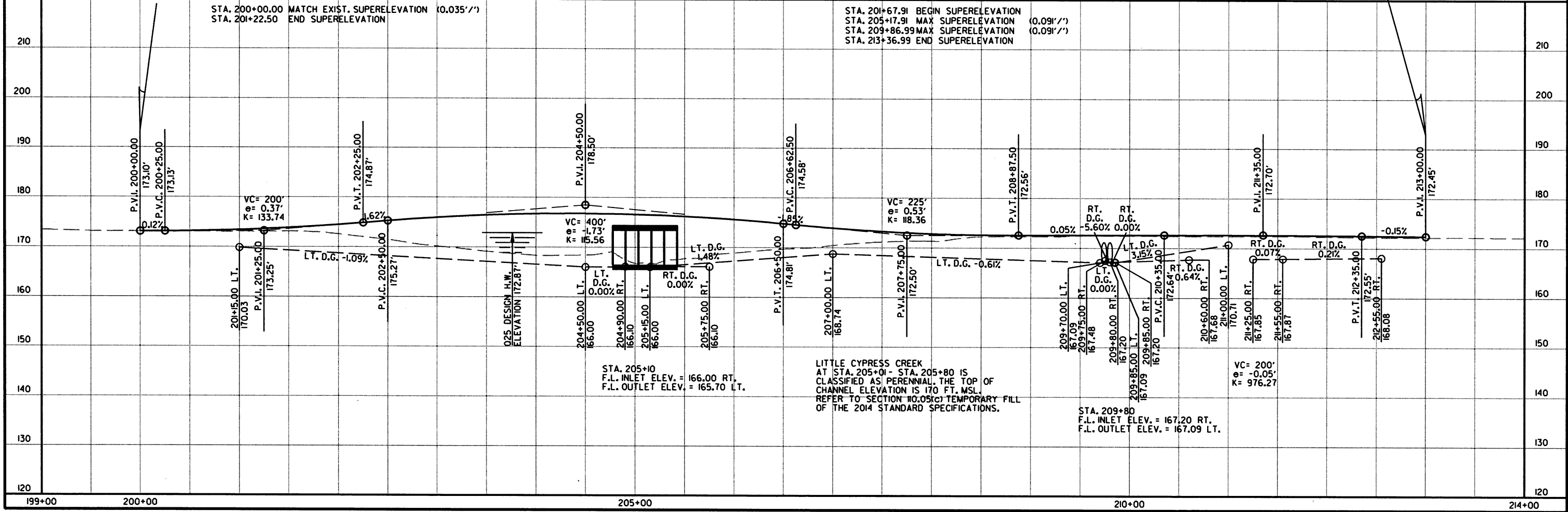
P.I. = 207+61.20
 Δ = 32°12' 15" LT.
D = 5°00' 00"
T = 330.80'
L = 644.08'
P.C. = 204+30.41
P.T. = 210+74.49
e = 0.091'/'
Ls = 350'

STA. 20+00.00
DRAINAGE DITCH =
STA. 209+78.72
O/S = 19.18' LT.
HWY. 39

STA. 200+00.00
BEGIN JOB 110619
LOG MILE 4.40

STA. 213+00.00
END JOB 110619
STA. 13+00.00
END CO. RD. 658 =
STA. 209+15.93
HWY. 39
 Δ = 84°08'06"

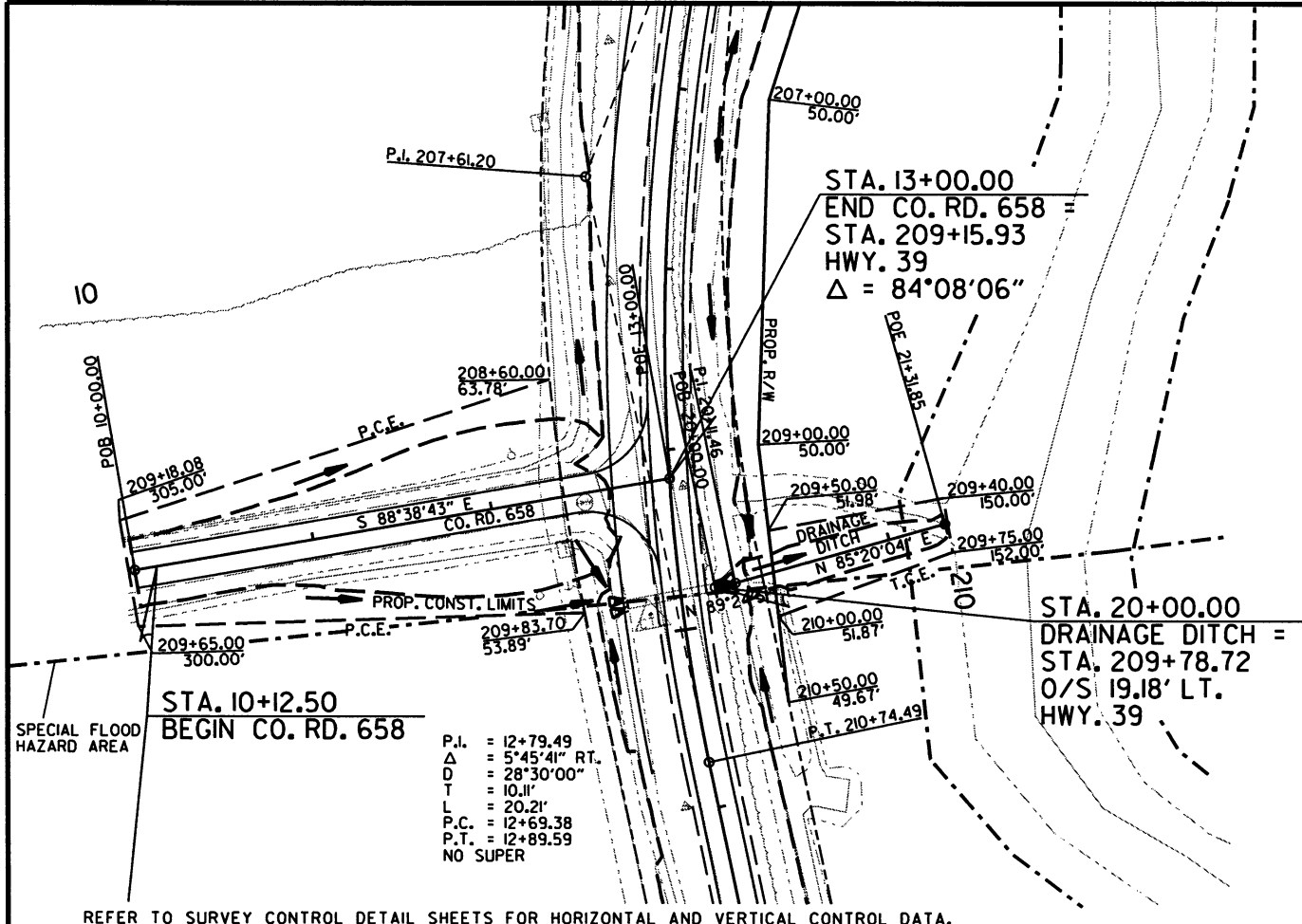
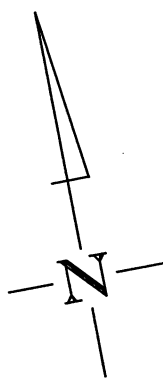
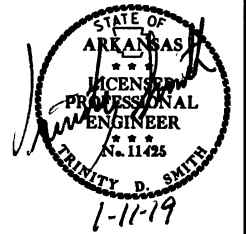
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



12/14/2016
R110619.DGN

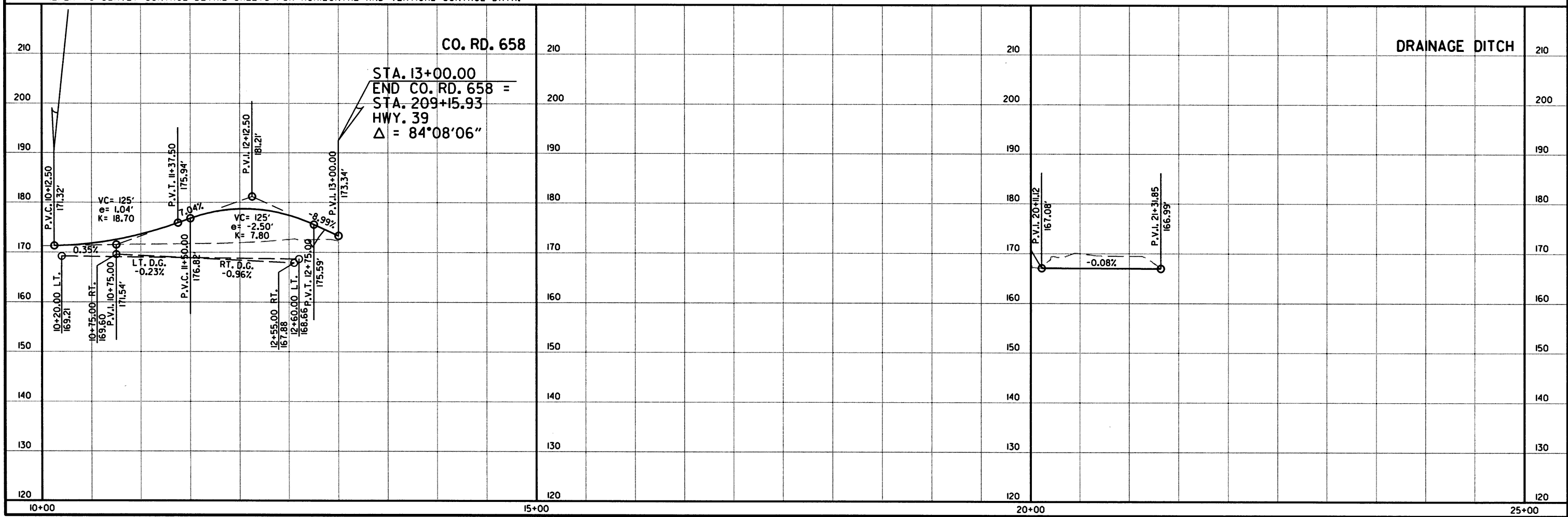
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				6	ARK.			
				JOB NO.	110619		26	34

② PLAN AND PROFILE SHEETS



P.I. = 12+79.49
 Δ = 5°45'41" RT.
D = 28°30'00"
T = 10.11'
L = 20.21'
P.C. = 12+69.38
P.T. = 12+89.59
NO SUPER

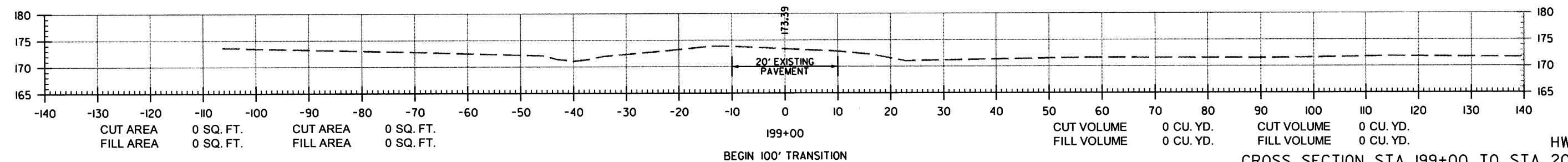
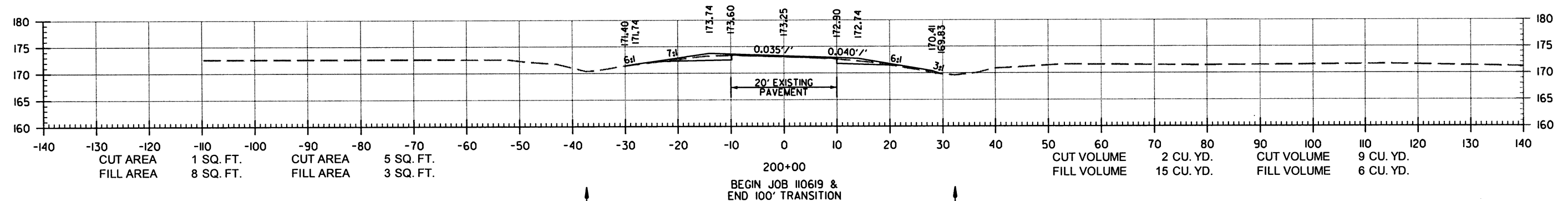
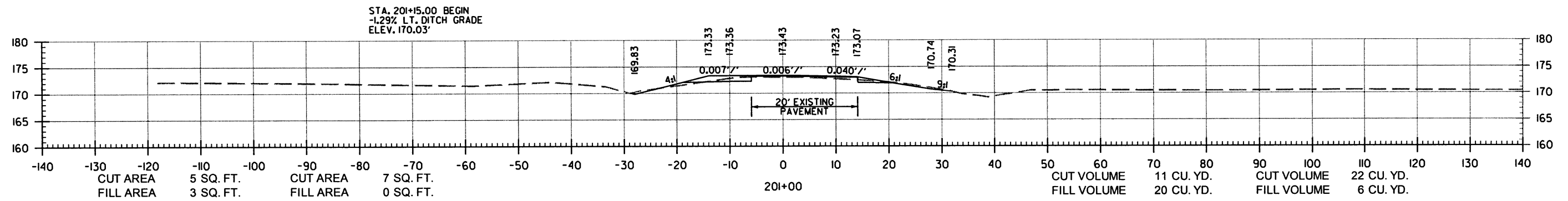
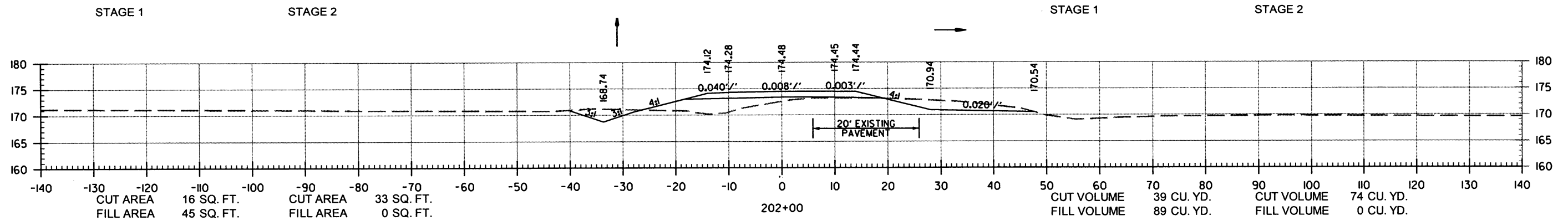
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	110619		27	34

2 CROSS SECTIONS



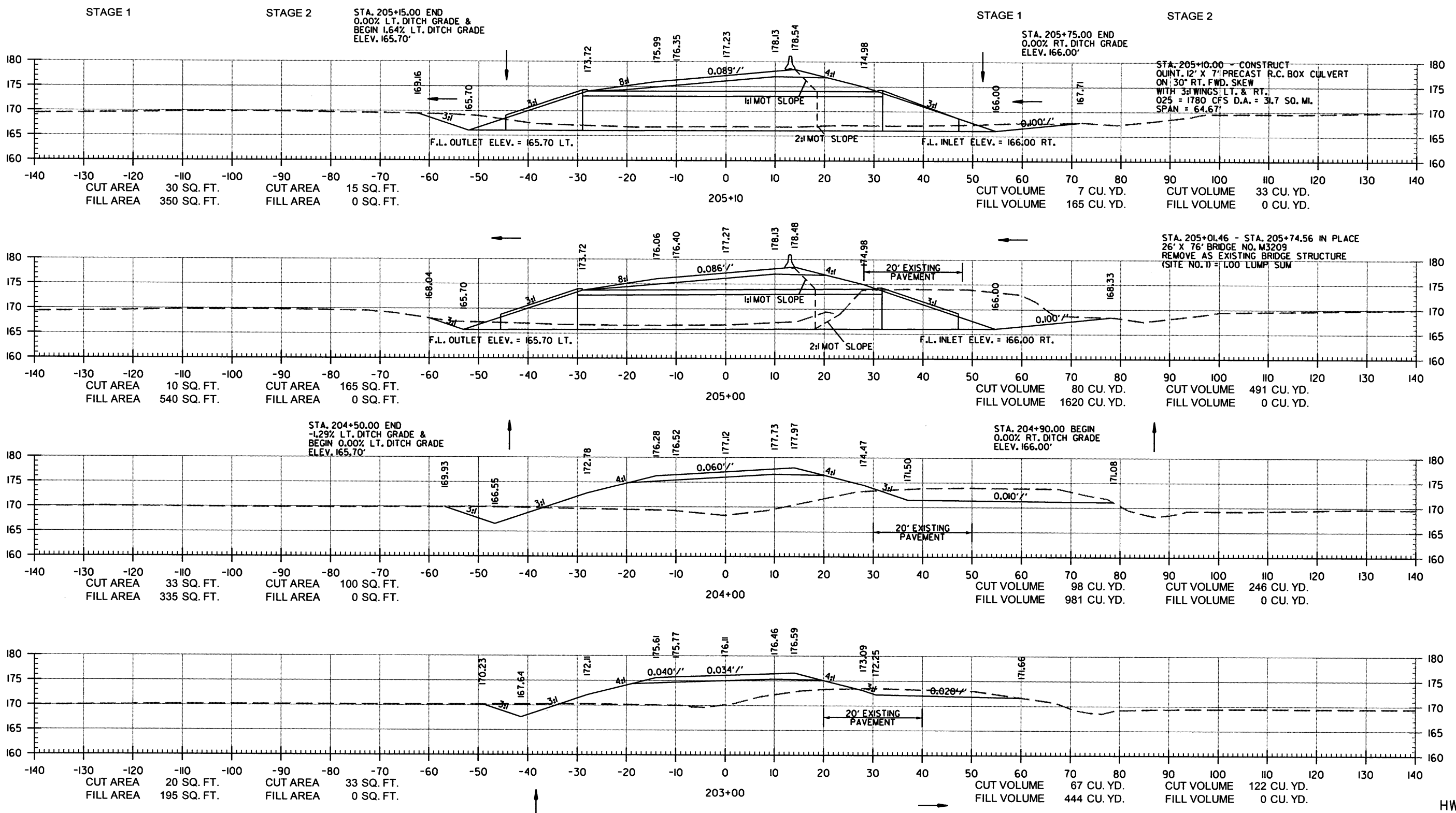
BEGIN JOB 110619 & END 100' TRANSITION
 BEGIN 100' TRANSITION
 HWY. 39
 CROSS SECTION STA. 199+00 TO STA. 202+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 110619	28	34

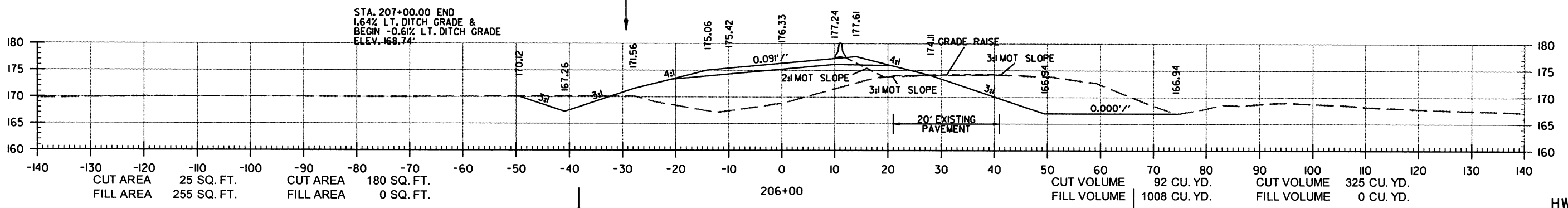
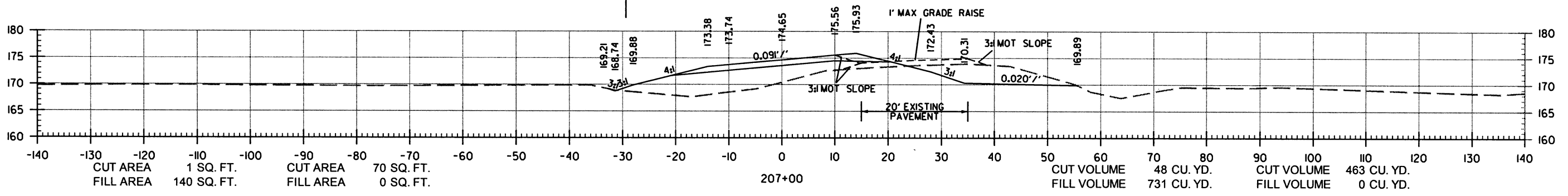
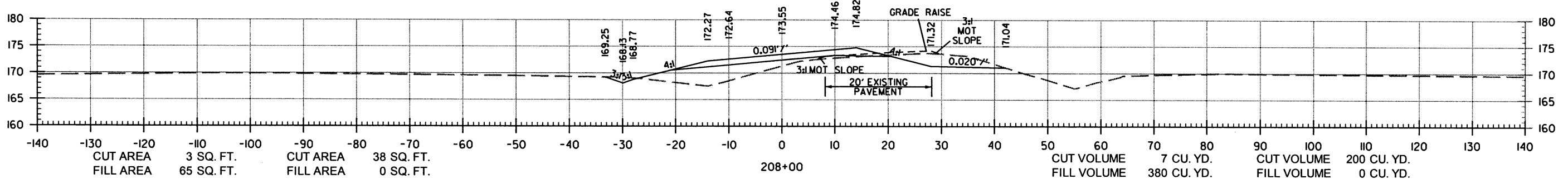
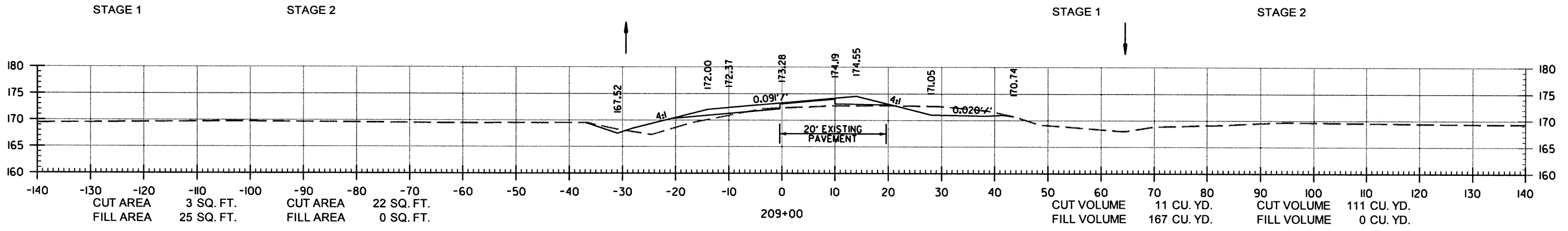
2 CROSS SECTIONS



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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.		29	34
				JOB NO.		110619		

② CROSS SECTIONS



11/28/2017
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