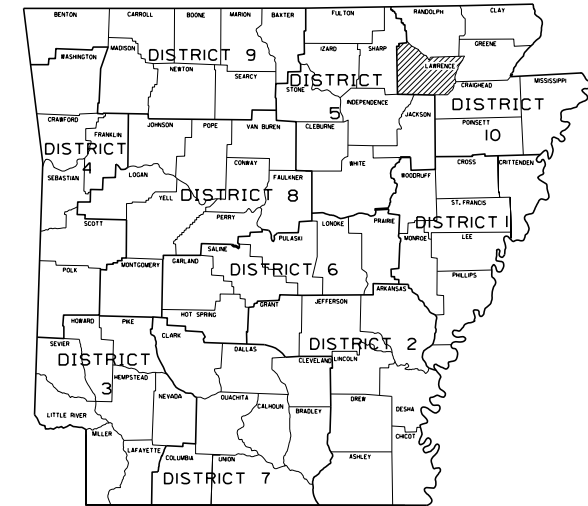


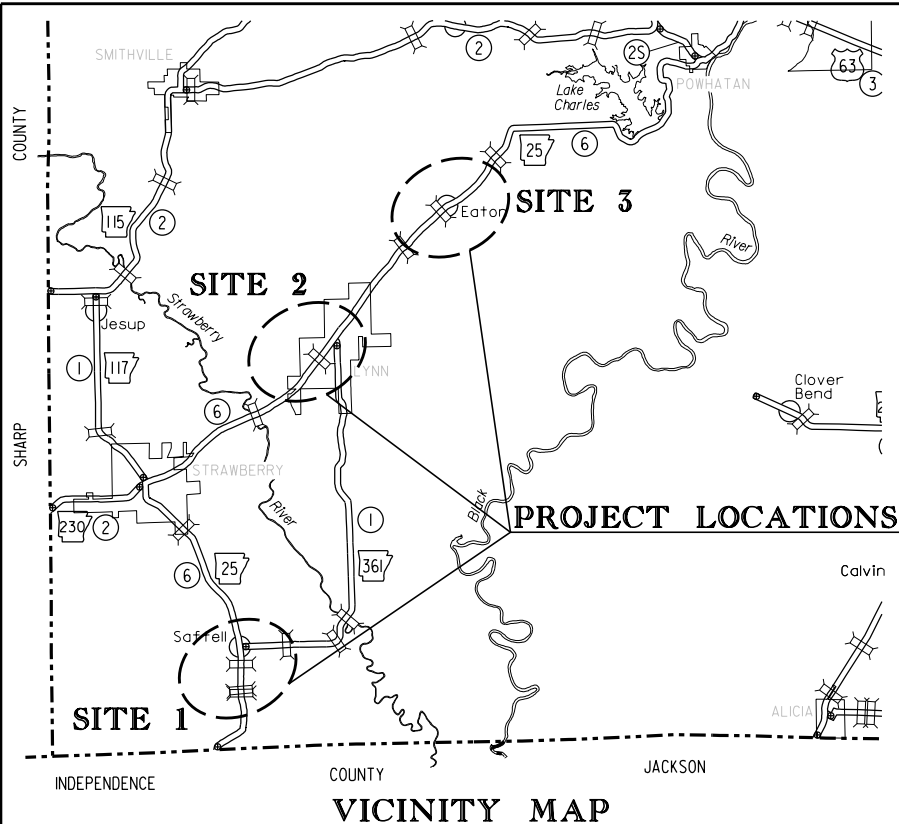
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				6	ARK.			
				JOB NO.	100991		1	90
				INDEPENDENCE CO. LINE - EATON STRS. & APPRS. (S)				

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS

INDEPENDENCE CO. LINE -
EATON STRS. & APPRS. (S)
LAWRENCE COUNTY
JOB 100991
ROUTE 25 SECTION 6
FED. AID PROJ. NHPP-0038(55)



ARKANSAS HIGHWAY DISTRICT 10



VICINITY MAP

NOT TO SCALE

R-3-W | R-2-W

STRUCTURES OVER 20'-0" SPAN

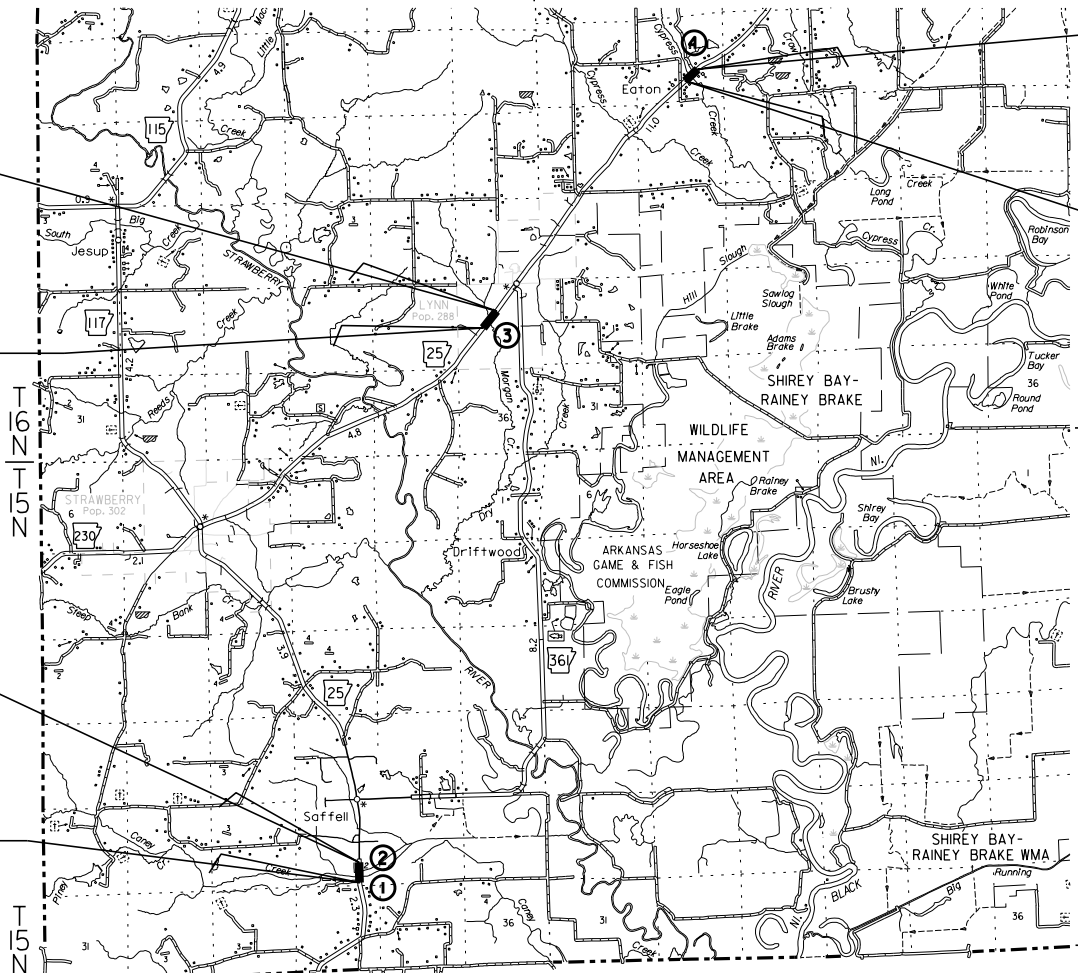
- ① STA. 113+00.00 CONSTRUCT QUINT. 12' X 12' X 76' R.C. BOX CULVERT WITH 3:1 WINGS LT. & RT. Q50 = 6660 CFS D.A. = 11456 ACRES SPAN = 64.50'
- ② STA. 114+00.00 CONSTRUCT QUAD. 10' X 8' X 72' R.C. BOX CULVERT WITH 3:1 WINGS LT. & RT. Q50 = 6660 CFS D.A. = 11456 ACRES SPAN = 43.33'
- ③ STA. 201+00.00 CONSTRUCT QUAD. 10' X 8' X 103' R.C. BOX CULVERT WITH 45° LT. FWD. SKEW WITH 3:1 WINGS LT. & RT. Q50 = 1620 CFS D.A. = 1254.4 ACRES SPAN = 61.28'
- ④ STA. 305+23.00 CONSTRUCT SEXT. 11' X 10' X 71' R.C. BOX CULVERT WITH 15° LT. FWD. SKEW WITH 3:1 WINGS LT. & RT. Q50 = 2610 CFS D.A. = 2266 ACRES SPAN = 73.33'

STA. 202+00.00
END SITE 2

STA. 200+00.00
BEGIN SITE 2
LOG MILE 10.48

STA. 125+96.69
END SITE 1

STA. 102+00.00
BEGIN JOB 100991
BEGIN SITE 1
LOG MILE 1.20



STA. 306+50.00
END SITE 3
END JOB 100991

STA. 303+00.00
BEGIN SITE 3
LOG MILE 14.25

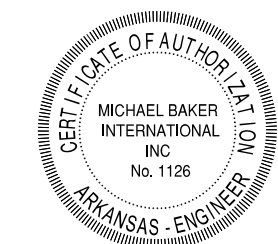
. DESIGN TRAFFIC DATA .

DESIGN YEAR-----	2044
2024 ADT-----	1700
2044 ADT-----	2100
2044 DHV-----	231
DIRECTIONAL DISTRIBUTION-----	0.60
TRUCKS-----	5%
DESIGN SPEED-----	55 MPH

SITE		BEGIN OF PROJECT	MID-POINT OF PROJECT	END PROJECT
SITE 1	LATITUDE	N 35°54'15"	N 35°54'27"	N 35°54'39"
	LONGITUDE	W 91°17'25"	W 91°17'25"	W 91°17'25"
SITE 2	LATITUDE	N 36°00'04"	N 36°00'05"	N 36°00'05"
	LONGITUDE	W 91°15'30"	W 91°15'29"	W 91°15'28"
SITE 3	LATITUDE	N 36°02'30"	N 36°02'32"	N 36°02'33"
	LONGITUDE	W 91°12'50"	W 91°12'48"	W 91°12'46"

LENGTH COMPUTED ALONG C.L. HWY. 25		
GROSS LENGTH OF PROJECT	2946.69 FEET	0.558 MILES
NET LENGTH OF ROADWAY	2704.25 FEET	0.512 MILES
NET LENGTH OF BRIDGES	242.44 FEET	0.046 MILES
NET LENGTH OF PROJECT	2946.69 FEET	0.558 MILES

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10-31-2023

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				6	ARK.			
						100991	2	90

2 INDEX OF SHEETS AND STANDARD DRAWINGS



10-31-2023

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS AND STANDARD DRAWINGS
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 6	TYPICAL SECTIONS OF IMPROVEMENT
7 - 19	SPECIAL DETAILS
20 - 33	TEMPORARY EROSION CONTROL DETAILS
34 - 49	MAINTENANCE OF TRAFFIC DETAILS
50 - 52	PERMANENT PAVEMENT MARKING DETAILS
53 - 55	QUANTITIES
56	SUMMARY OF QUANTITIES AND REVISIONS
57 - 60	SURVEY CONTROL DETAILS
61 - 67	PLAN AND PROFILE SHEETS
68 - 90	CROSS SECTIONS

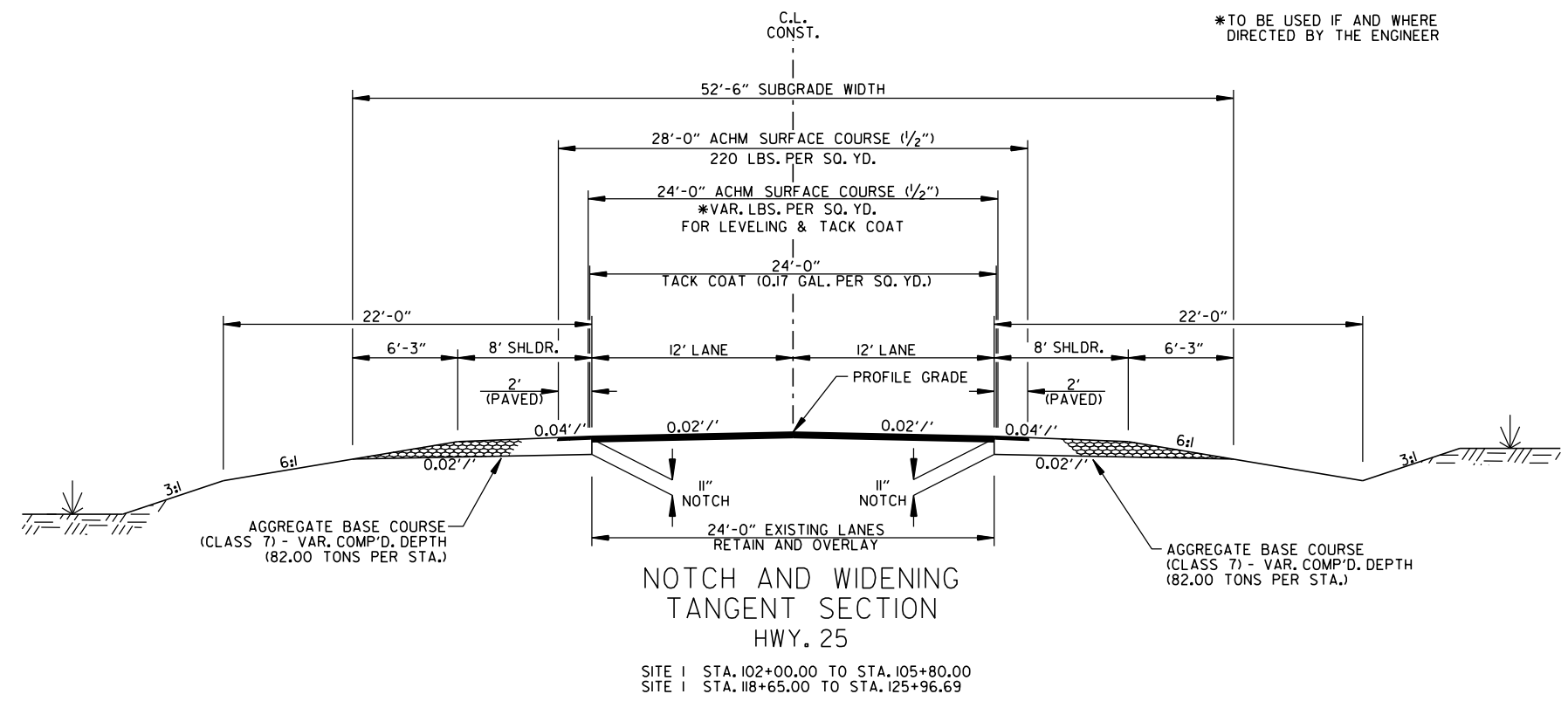
NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

ROADWAY STANDARD DRAWINGS

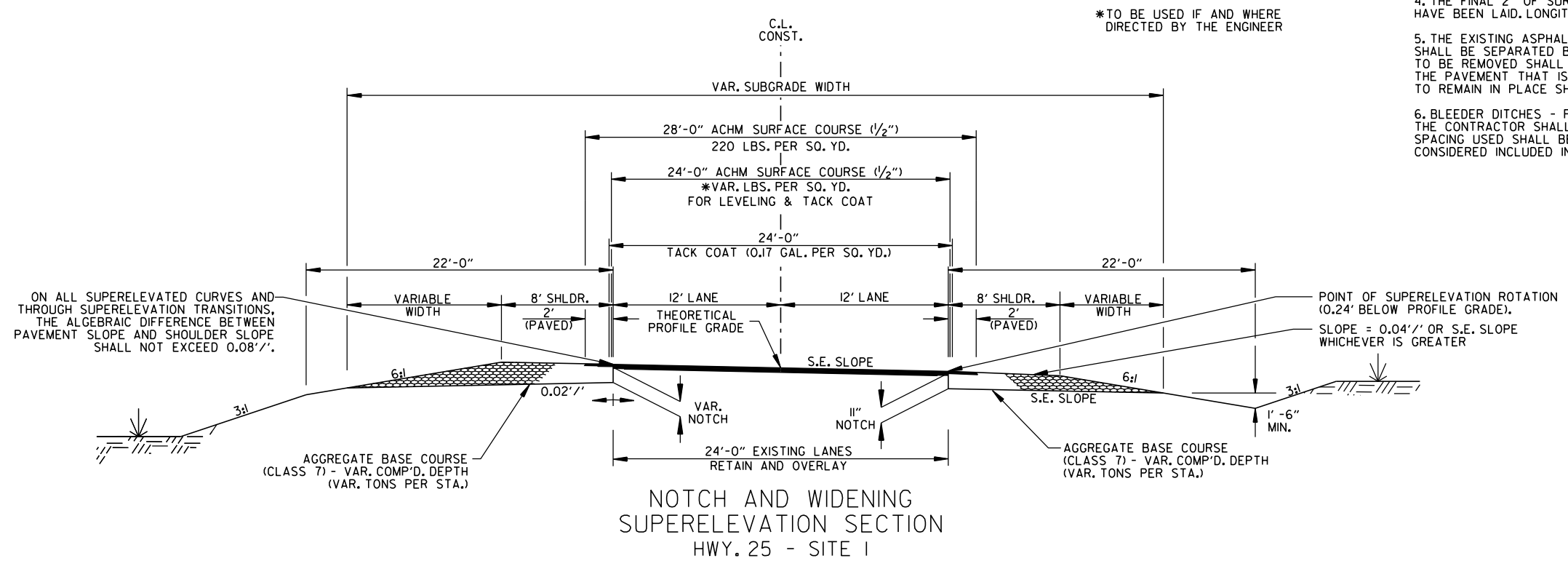
DRWG.NO.	TITLE	DATE
CDP-1	CONCRETE DITCH PAVING	12-08-16
DR-2	DETAILS OF DRIVEWAYS & STREET TURNOUTS	05-19-22
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
PBC-1	PRECAST CONCRETE BOX CULVERTS	01-28-15
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCP-1	PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)	02-27-14
PCP-2	PLASTIC PIPE CULVERT (PVC F949)	02-27-14
PCP-3	PLASTIC PIPE CULVERT (POLYPROPYLENE)	02-27-20
PM-1	PAVEMENT MARKING DETAILS	02-27-20
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	11-07-19
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-4	WIRE FENCE TYPE C AND D	08-22-02

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				JOB NO.	100991	4	90	
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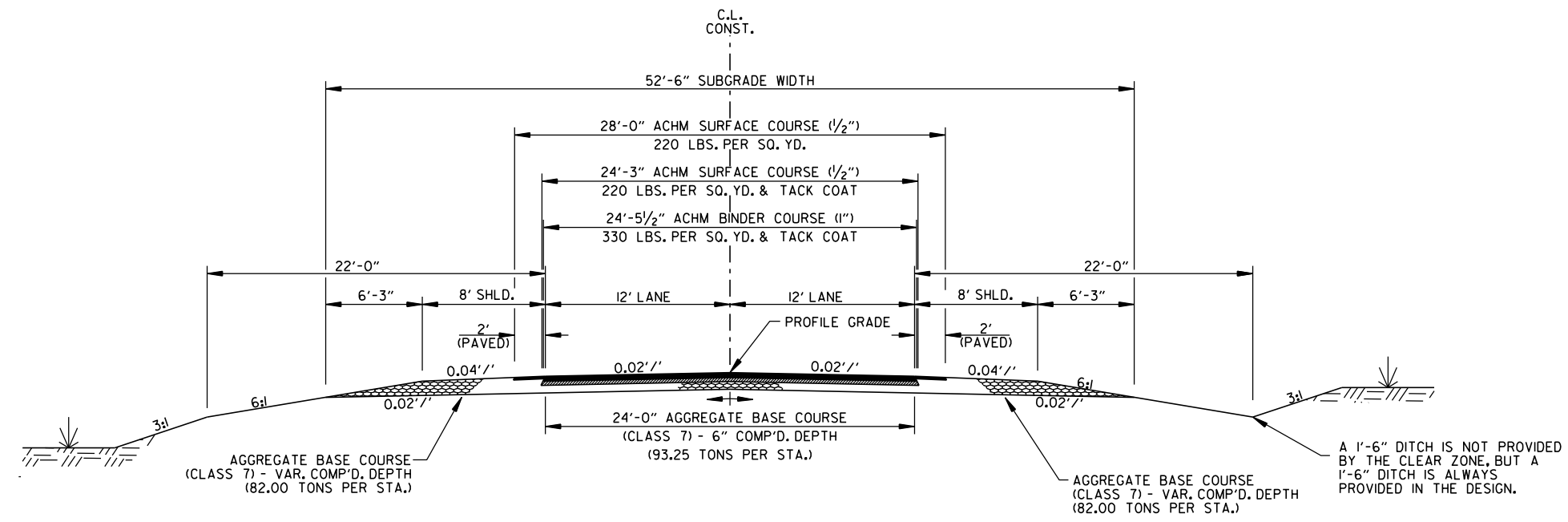


- NOTES:
- REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
 - THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE 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 LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
 - THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.
 - 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.
 - BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



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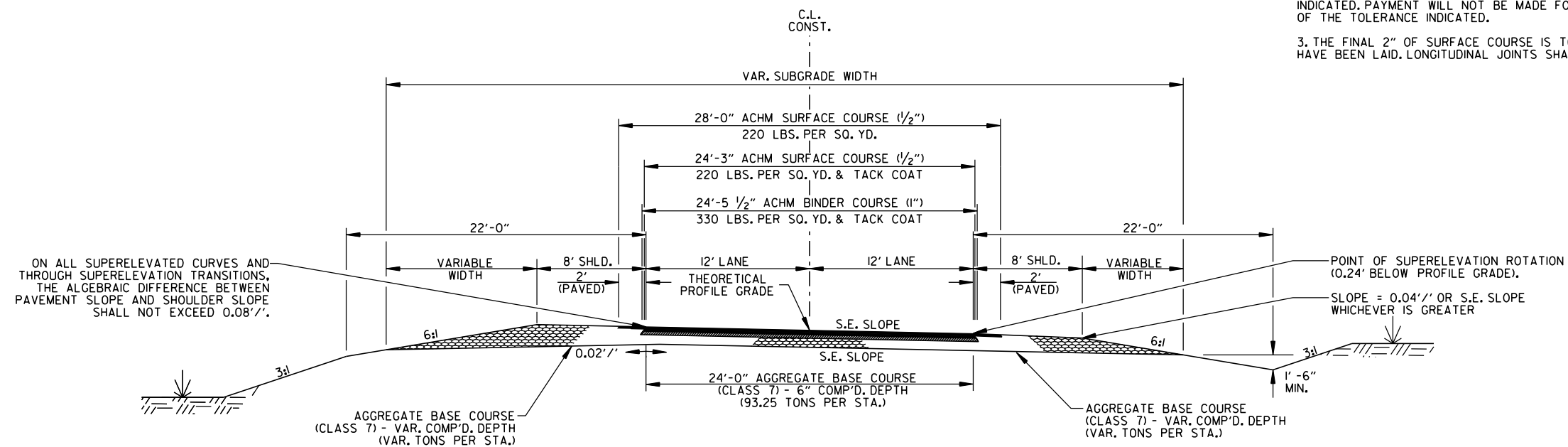


**TANGENT SECTION
HWY. 25**

SITE 1 STA. 105+80.00 TO STA. 118+65.00
SITE 2 STA. 200+00.00 TO STA. 202+00.00
SITE 3 STA. 303+00.00 TO STA. 306+50.00

NOTES:

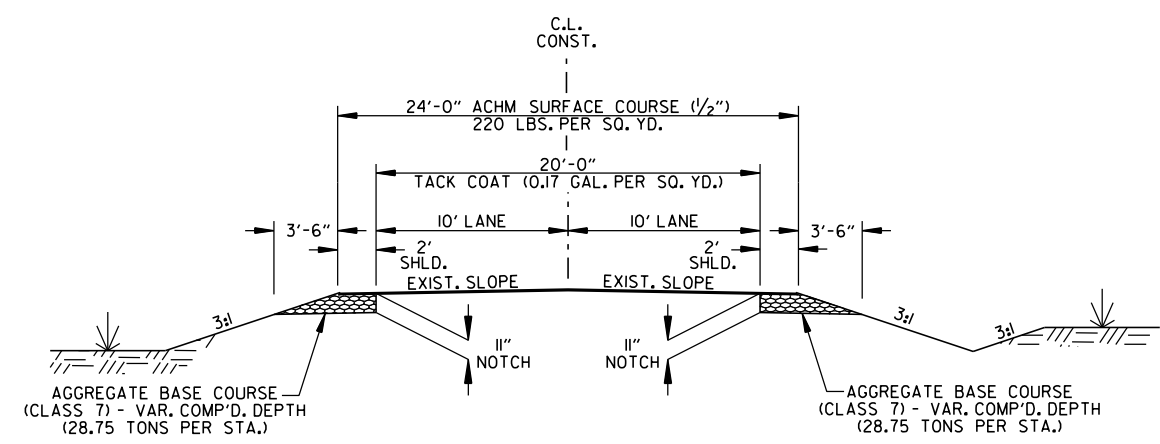
1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.



**SUPERELEVATION SECTION
HWY. 25**

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② TYPICAL SECTIONS OF IMPROVEMENT								

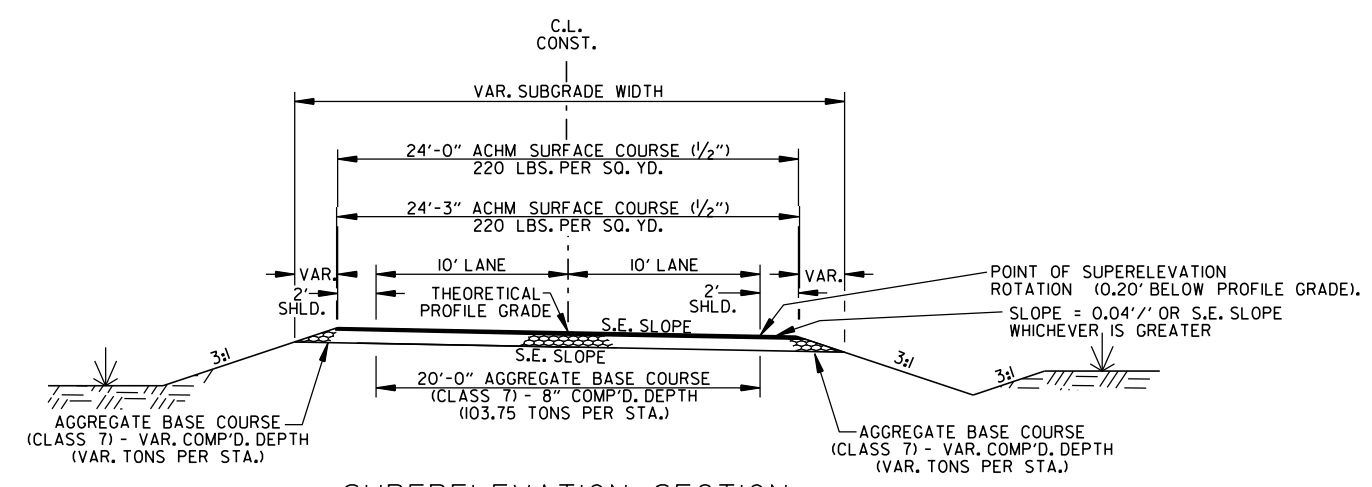


**NOTCH AND WIDEN
TANGENT SECTION
HWY. 25**

SITE 2 STA. 196+00.00 TO STA. 198+00.00
SITE 2 STA. 203+00.00 TO STA. 206+00.00

NOTE:

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



**SUPERELEVATION SECTION
TEMP. DETOUR**

SITE 2 STA. 19+04.39 TO STA. 28+93.51
SITE 3 STA. 3+60.99 TO STA. 12+89.27

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

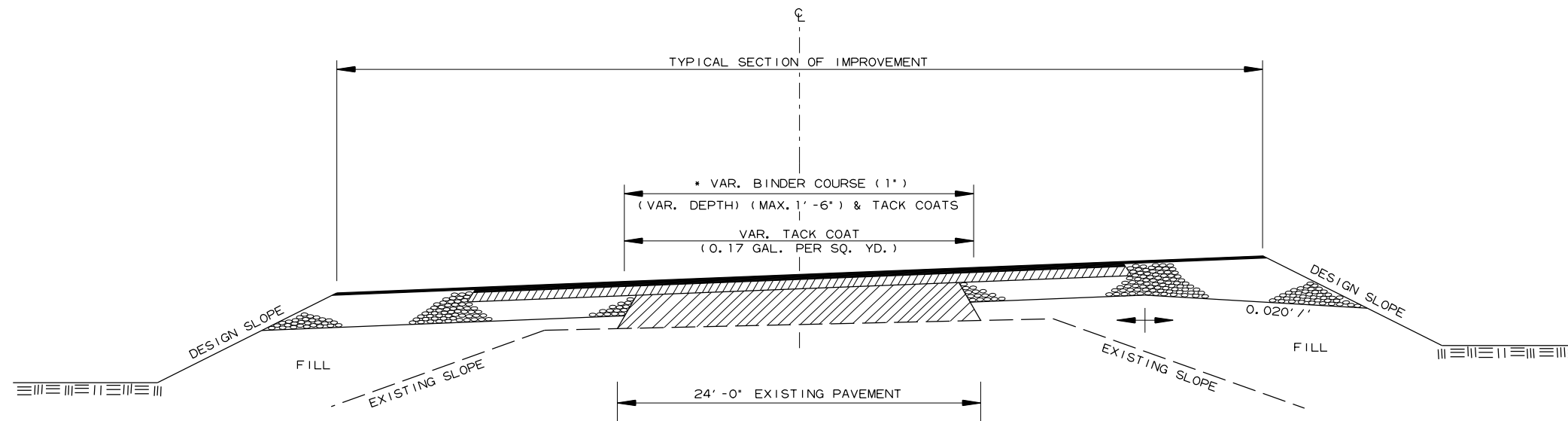
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2 SPECIAL DETAILS



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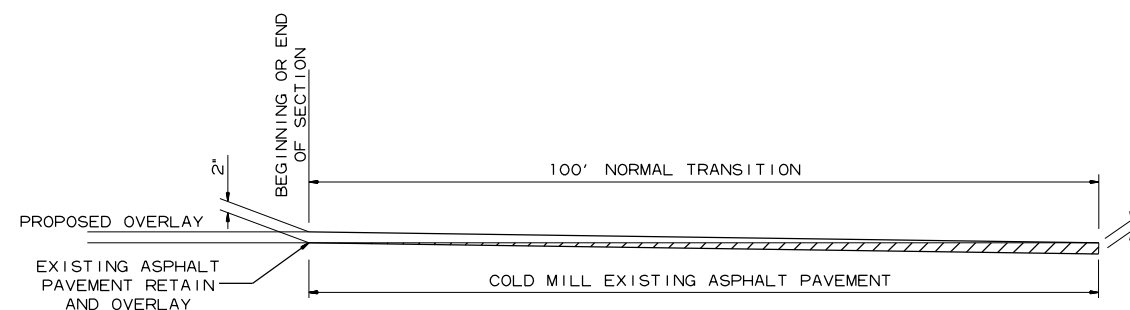


* 6" AGGREGATE BASE COURSE (CLASS 7)
TO BE REPLACED WITH ACHM BINDER COURSE (1")

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.

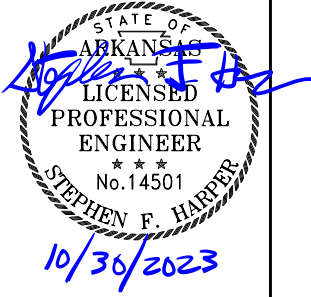


DETAIL FOR TRANSITIONS

SPECIAL DETAILS

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				JOB NO.		100991	8	90

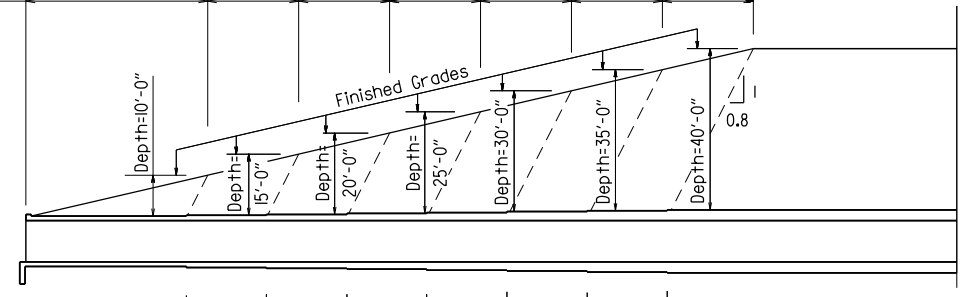
2 SPECIAL DETAILS



2:1 Slope	20'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
3:1 Slope	30'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
4:1 Slope	40'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"

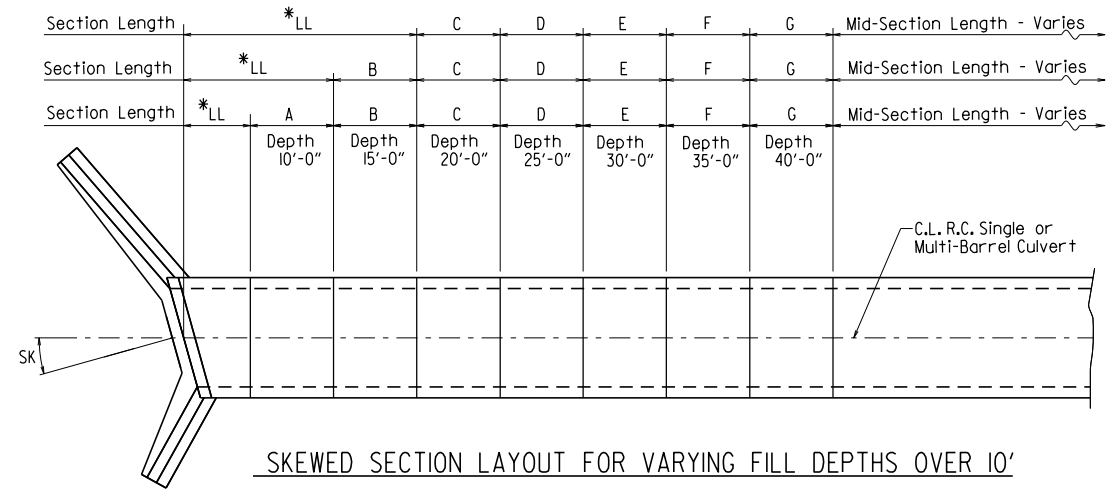
Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

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



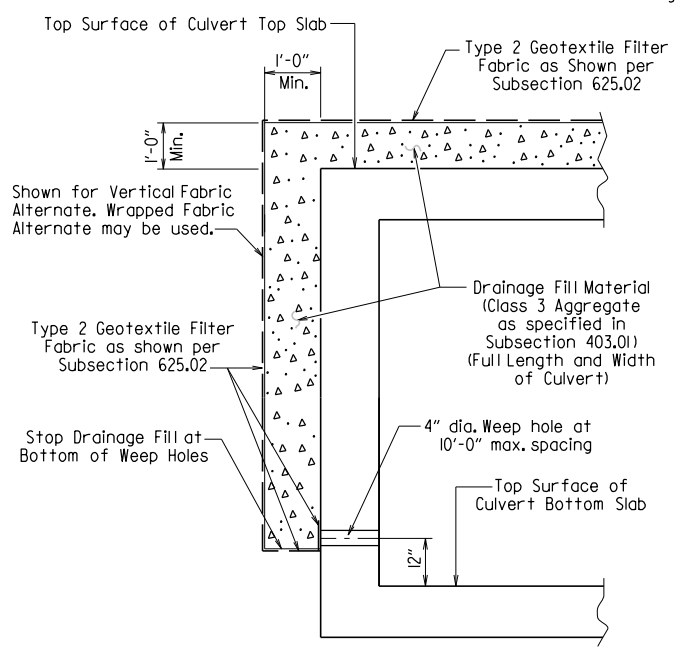
Slope Section Length @ 2:1 Slope	A=12'-0"	B=6'-0"	C=6'-0"	D=6'-0"	E=6'-0"	F=6'-0"	G=6'-0"	Mid-Section Length - Varies
Slope Section Length @ 3:1 Slope	A=22'-0"	B=11'-0"	C=11'-0"	D=11'-0"	E=11'-0"	F=11'-0"	G=11'-0"	Mid-Section Length - Varies
Slope Section Length @ 4:1 Slope	A=32'-0"	B=16'-0"	C=16'-0"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

LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'



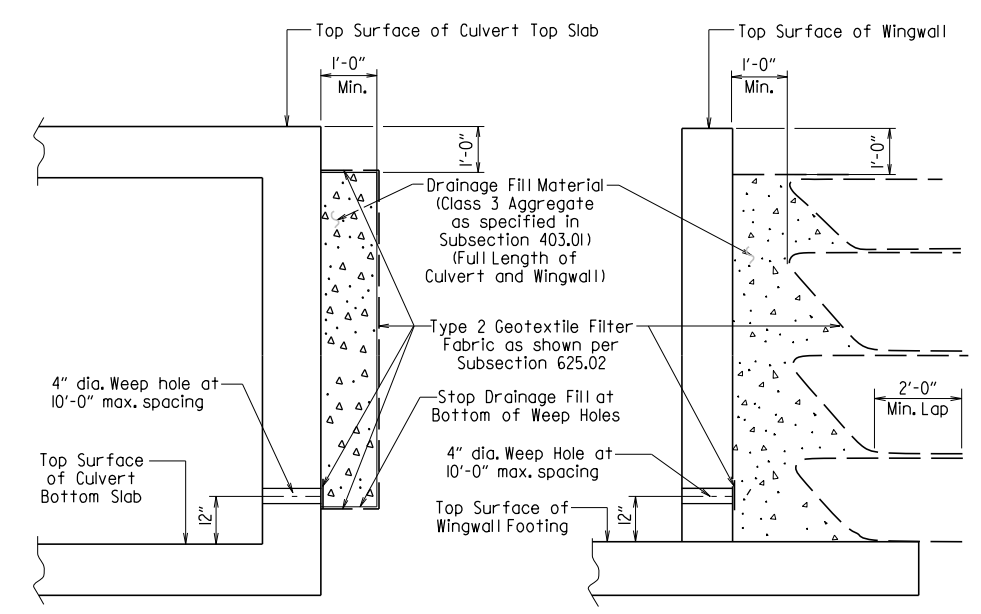
SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'

Lengths for Non-Skewed Boxes



CULVERT DRAINAGE DETAIL FOR ROCK FILL

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

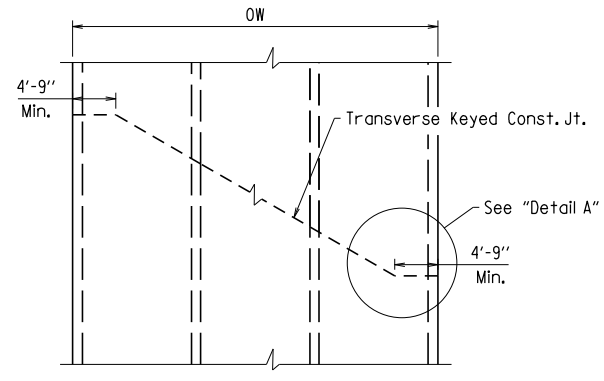


VERTICAL FABRIC ALTERNATE

WRAPPED FABRIC ALTERNATE

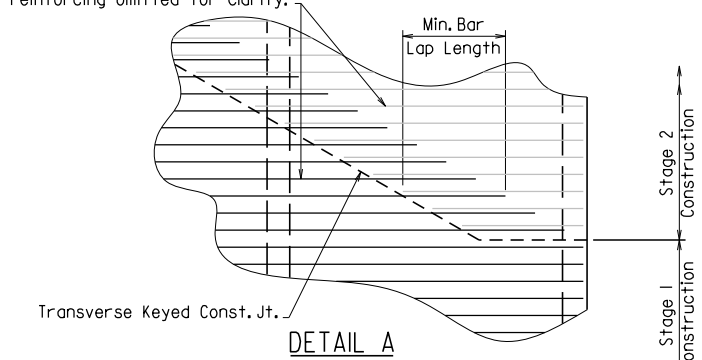
WINGWALL & CULVERT DRAINAGE DETAIL

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



SKEWED TRANSVERSE JOINT DETAIL

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



DETAIL A

See Tabular Data Sheets for Minimum Bar Lap Lengths.

Shown for transverse reinforcing, longitudinal reinforcing similar.

GENERAL NOTES:

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

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

LIVE LOADING: HL-93

All concrete shall be Class 5 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) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.

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

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

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

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

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

Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class 5 Concrete.

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

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

SHEET 1 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
GENERAL NOTES &
LONGITUDINAL SECTION LENGTH SCHEDULE

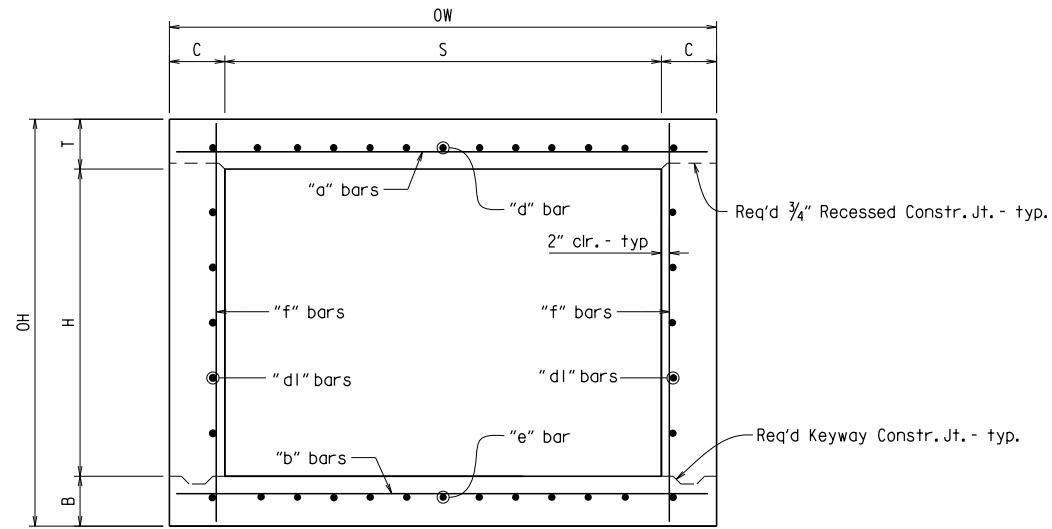
SPECIAL DETAILS



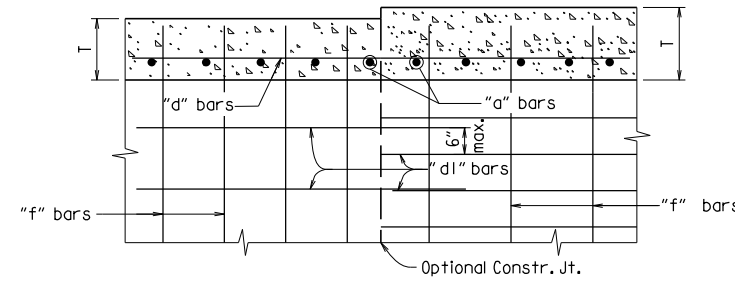
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				JOB NO.	100991		9	90
				SPECIAL DETAILS				

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

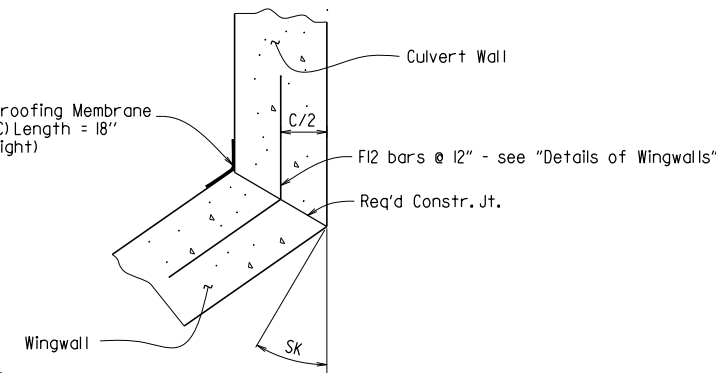


TYPICAL SECTION M-M



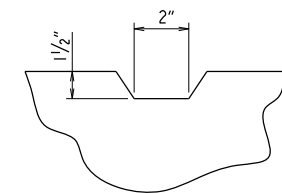
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR



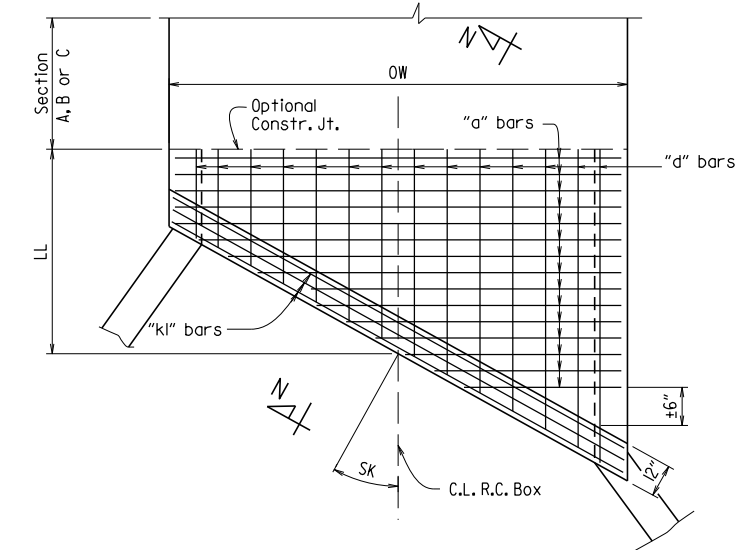
WINGWALL ATTACHMENT

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

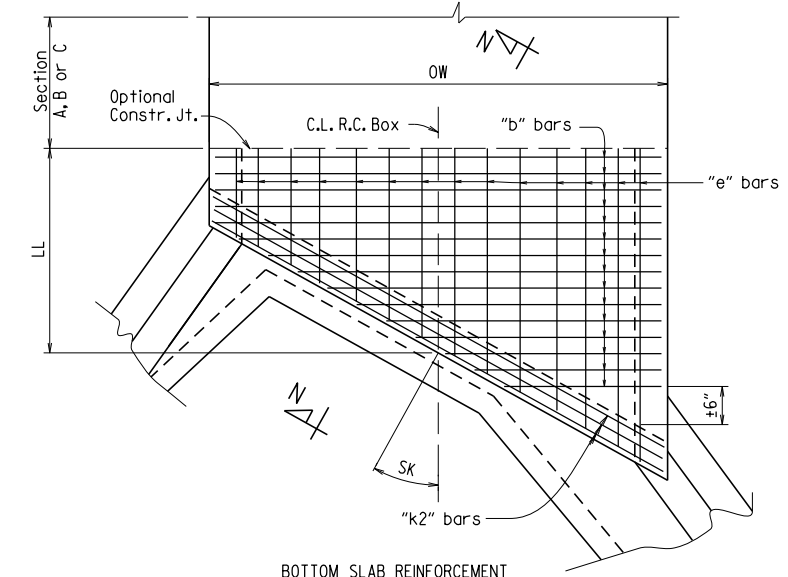


TYPICAL KEYWAY DETAIL

(All Construction Joints)



TOP SLAB REINFORCEMENT



BOTTOM SLAB REINFORCEMENT

SKewed END SECTION DETAILS

SHEET 2 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
DETAILS OF SINGLE BARREL
R.C. BOX CULVERT
SPECIAL DETAILS



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PART LONGITUDINAL SECTION

(Non-Skewed Ends)

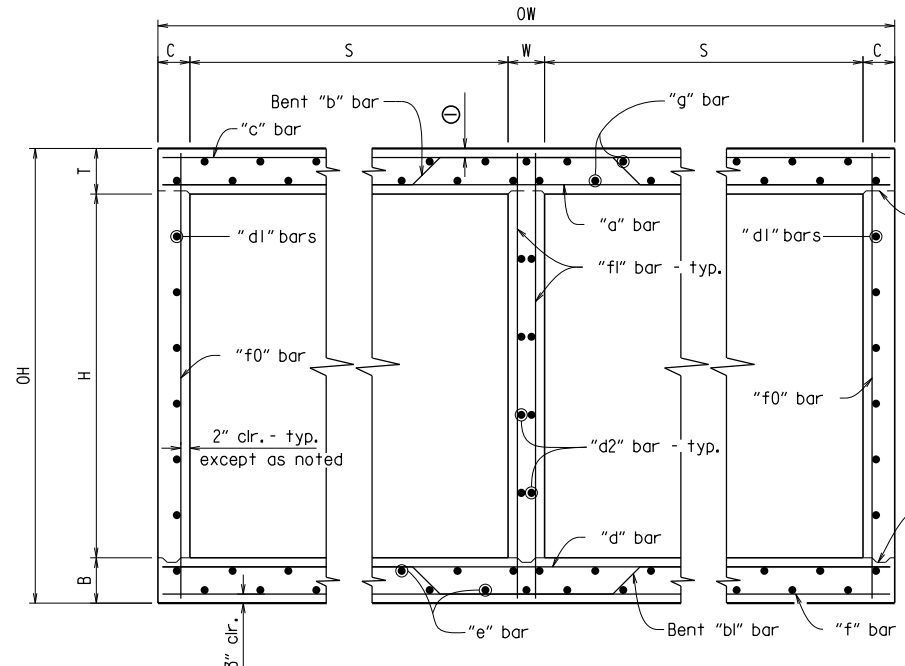
PART LONGITUDINAL SECTION N-N

(Skewed Ends)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		10	90
				JOB NO.	100991			

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

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

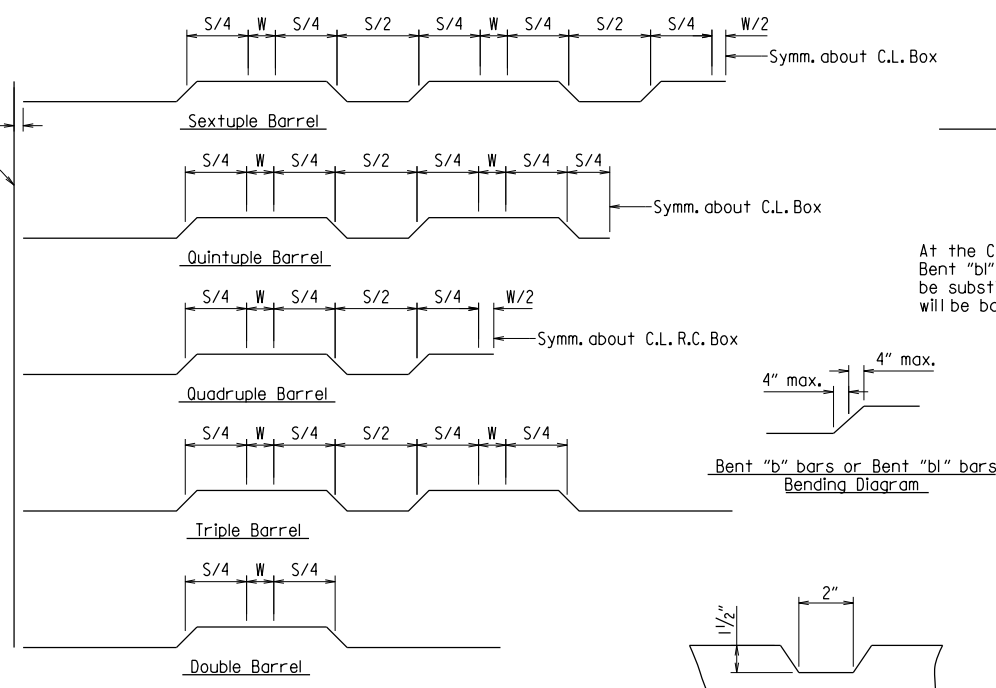


TYPICAL SECTION M-M

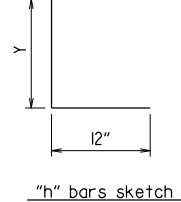
Top Slab
 Straight "c" bars shall alternate with Bent "b" bars in top.
 Straight "a" bars shall alternate with Bent "b" bars in bottom.

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

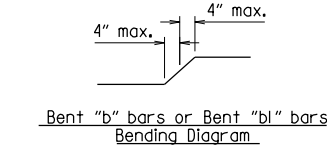
2" clr. - typ.
 Outside Face of R.C. Box
 Req'd 3/4" Recessed Constr. Jt. - typ.
 Req'd Keyway Constr. Jt. - typ.



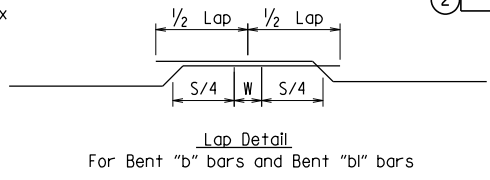
Bent "b" bars or Bent "bl" bars sketch



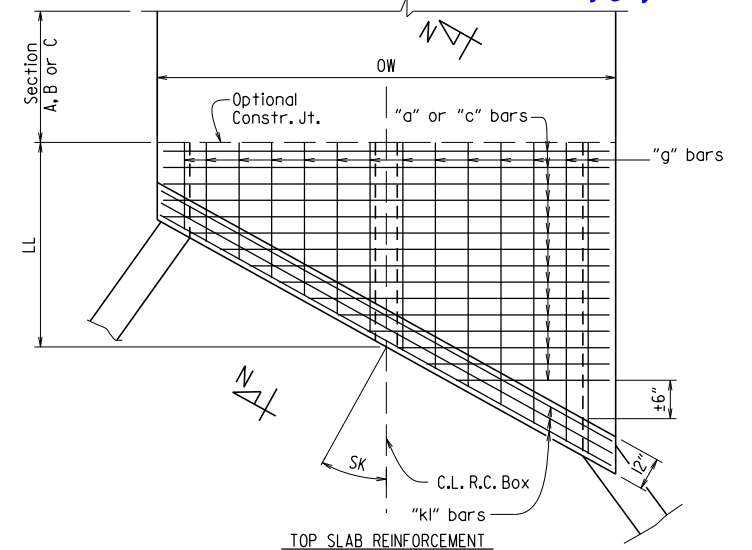
"h" bars sketch



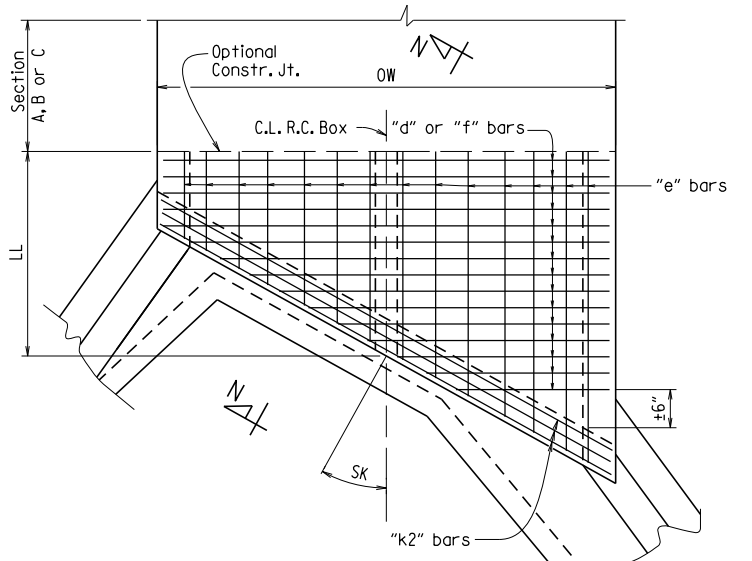
TYPICAL KEYWAY DETAIL (All Construction Joints)



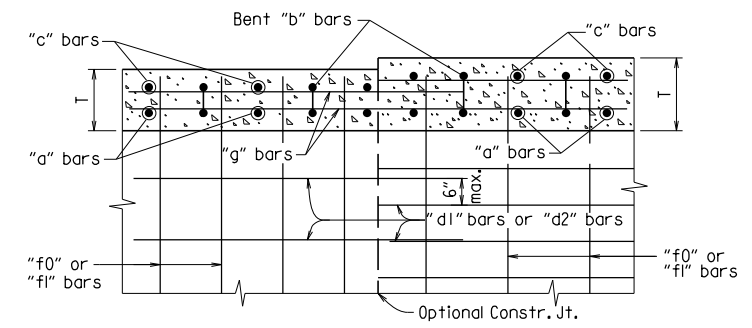
At the Contractor's option in lieu of providing Bent "b" or Bent "bl" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "bl" bar.



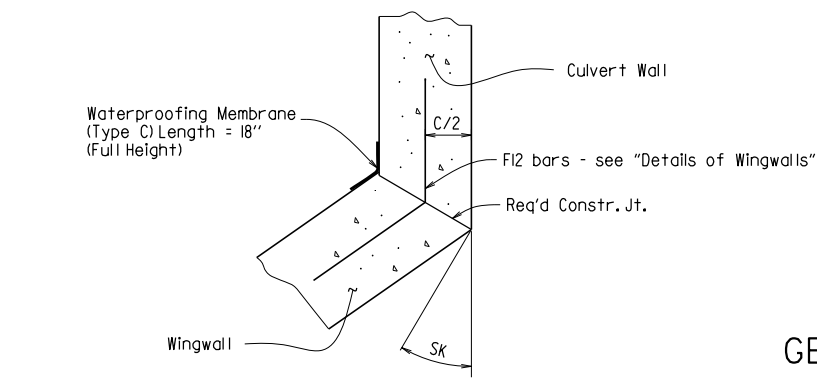
TOP SLAB REINFORCEMENT



BOTTOM SLAB REINFORCEMENT

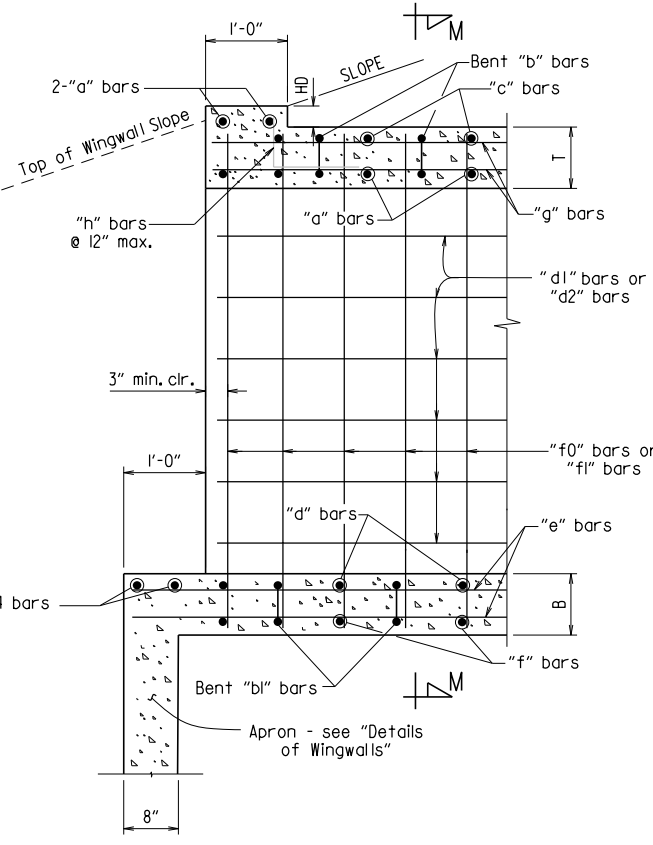


LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS
 TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

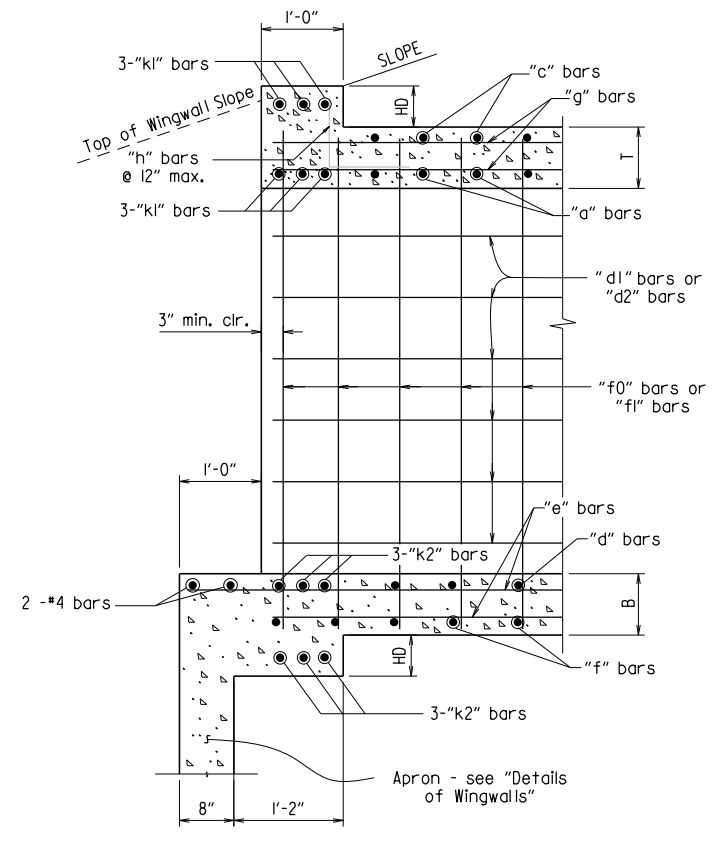


WINGWALL ATTACHMENT

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

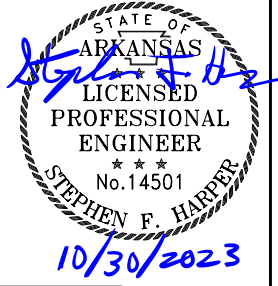


PART LONGITUDINAL SECTION (Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N (Skewed Ends)

SHEET 3 OF 4
 GENERAL DETAILS OF R.C. BOX CULVERT
 DETAILS OF MULTI-BARREL R.C. BOX CULVERT
 SPECIAL DETAILS



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TEMPORARY EROSION CONTROL GENERAL NOTES:

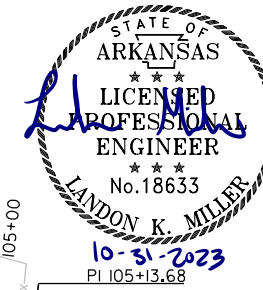
THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

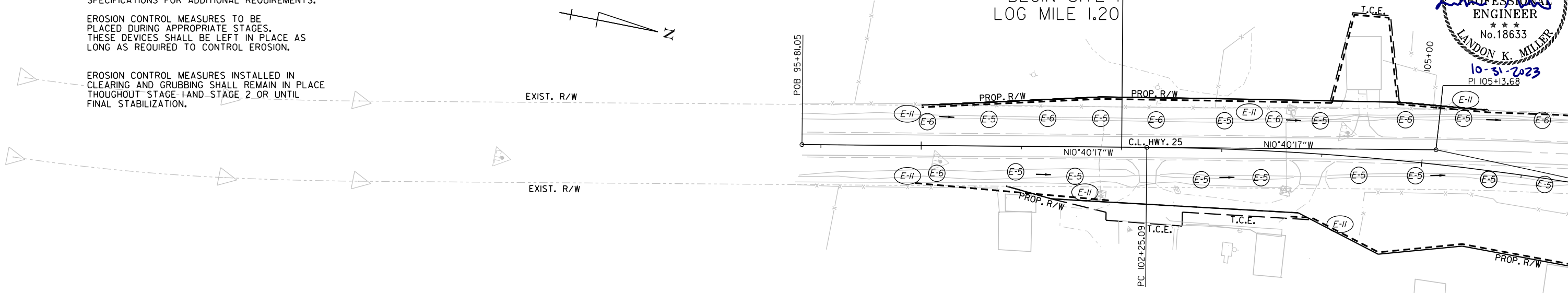
EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		20	90
				JOB NO.		100991		
				2		TEMPORARY EROSION CONTROL DETAILS		



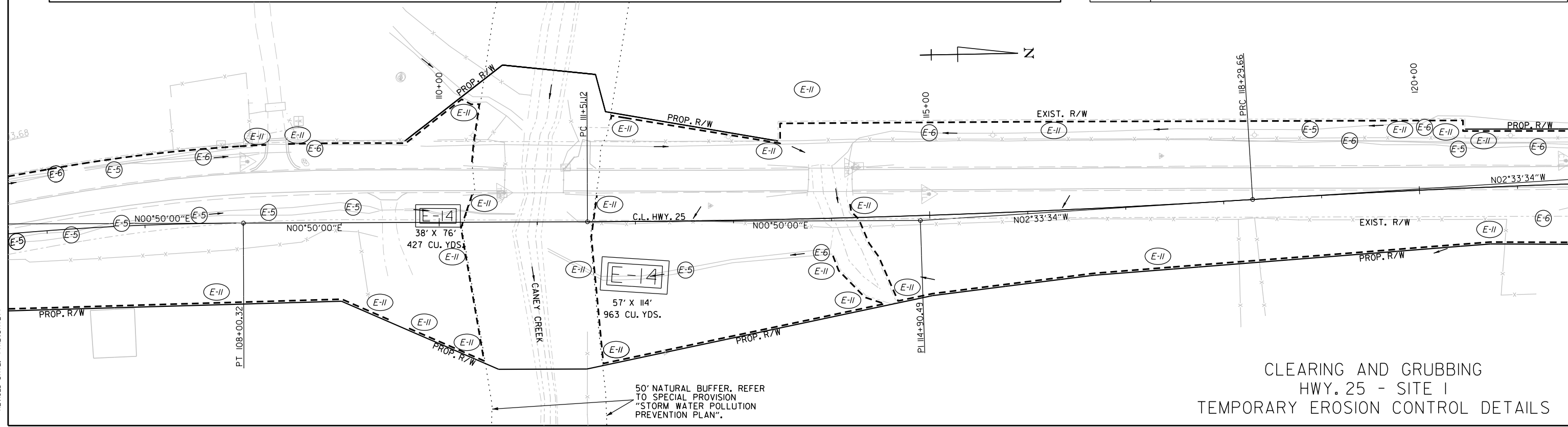
STA. 102+00.00
 BEGIN JOB 100991
 BEGIN SITE 1
 LOG MILE 1.20



REVISIONS

DATE OF REVISION	REVISION

LEGEND		SAND BAG DITCH CHECKS (E-5) INSTALLATION		SILT FENCE (E-11) LIN. FT.		SEDIMENT BASIN (E-14) CU. YD.	
(E-6)	= ROCK DITCH CHECK	STA. 100+67 TO STA. 106+71	LT. 6	STA. 100+00 TO STA. 108+24	LT. 983	STA. 110+28	RT. 427
(E-5)	= SAND BAG DITCH CHECK	STA. 108+92 TO STA. 120+41	LT. 2	STA. 108+46 TO STA. 108+67	LT. 21	STA. 111+69	RT. 963
(E-11)	= SILT FENCE	STA. 107+56 TO STA. 109+12	LT. 3	STA. 108+80 TO STA. 110+41	LT. 242		
(E-14)	= SEDIMENT BASIN	STA. 100+95 TO STA. 106+76	RT. 9	STA. 111+75 TO STA. 120+04	LT. 854		
		STA. 112+51	RT. 1	STA. 120+12 TO STA. 121+00	LT. 99		
				STA. 99+94 TO STA. 101+87	RT. 198		
				STA. 103+69 TO STA. 109+48	RT. 579		
				STA. 109+69 TO STA. 110+45	RT. 238		
				STA. 110+28 TO STA. 110+34	RT. 17		
				STA. 111+67 TO STA. 114+51	RT. 458		
				STA. 111+58 TO STA. 111+61	RT. 80		
				STA. 114+19 TO STA. 121+00	RT. 749		



CLEARING AND GRUBBING
 HWY. 25 - SITE 1
 TEMPORARY EROSION CONTROL DETAILS

50' NATURAL BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".

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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.	100991	21	90	
				(2) TEMPORARY EROSION CONTROL DETAILS				

LEGEND	
	= ROCK DITCH CHECK
	= SAND BAG DITCH CHECK
	= SILT FENCE

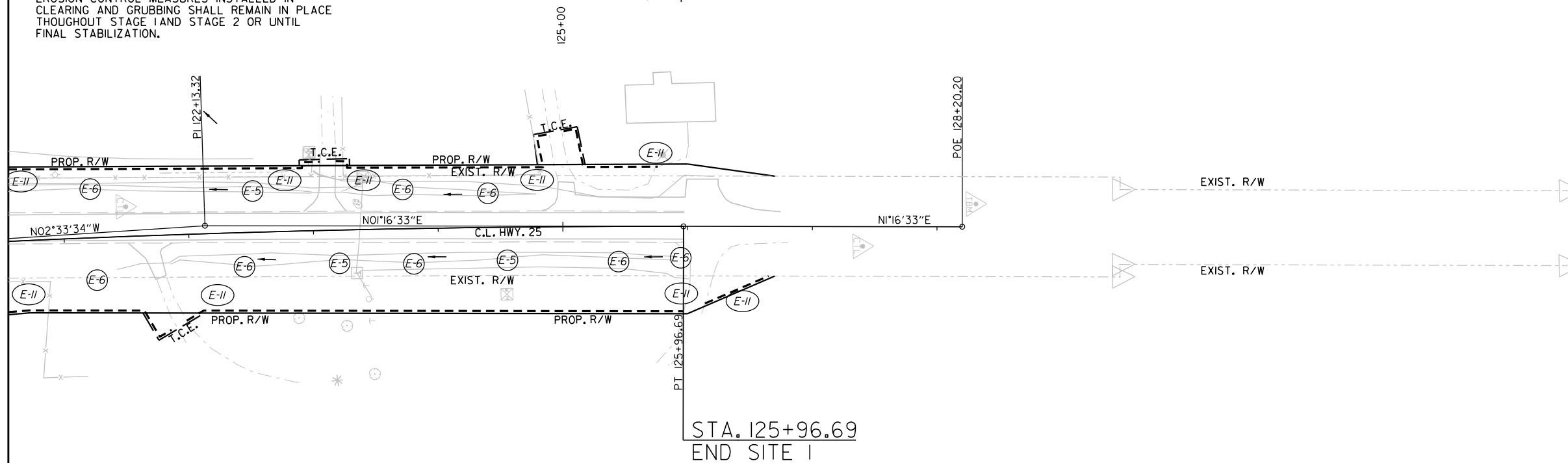
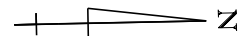
TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

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ROCK DITCH CHECKS		INSTALLATION
STA. 121+23 TO STA. 124+40	LT.	3
STA. 121+25 TO STA. 125+95	RT.	5
SAND BAG DITCH CHECKS		INSTALLATION
STA. 122+52	LT.	1
STA. 123+20 TO STA. 124+55	RT.	2
SILT FENCE		LIN. FT.
STA. 121+00 TO STA. 123+06	LT.	212
STA. 123+19 TO STA. 124+88	LT.	205
STA. 125+01 TO STA. 125+76	LT.	101
STA. 121+00 TO STA. 121+83	RT.	97
STA. 121+96 TO STA. 125+97	RT.	400
STA. 126+14 TO STA. 126+65	RT.	56

REVISIONS

DATE OF REVISION	REVISION

CLEARING AND GRUBBING
HWY. 25 - SITE 1
TEMPORARY EROSION CONTROL DETAILS

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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	22	90	

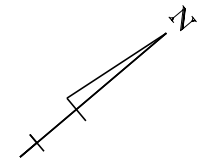
2 TEMPORARY EROSION CONTROL DETAILS

REVISIONS

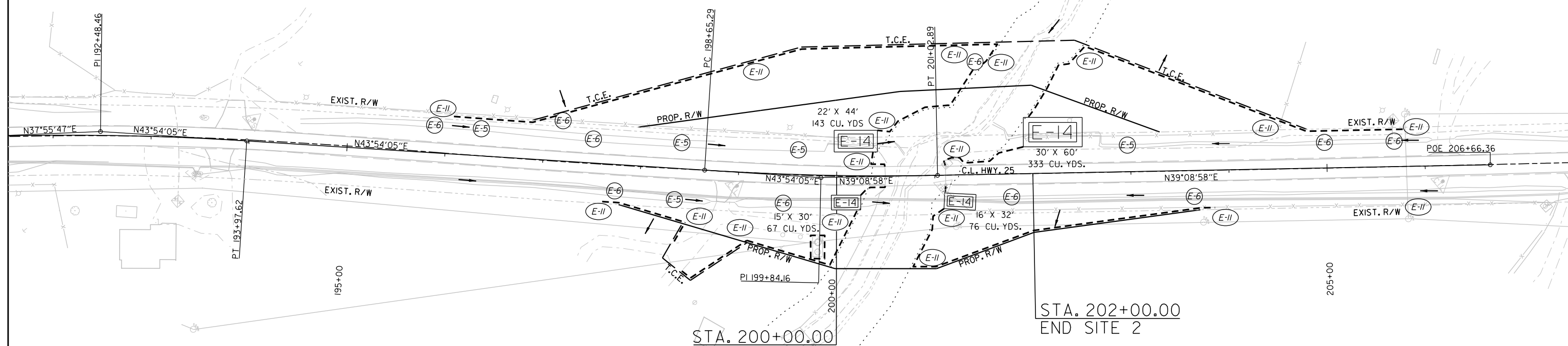
DATE OF REVISION	REVISION

LEGEND

- (E-6) = ROCK DITCH CHECK
- (E-5) = SAND BAG DITCH CHECK
- (E-11) = SILT FENCE
- [E-14] = SEDIMENT BASIN



25' NATURAL BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".



STA. 200+00.00
BEGIN SITE 2
LOG MILE 10.48

STA. 202+00.00
END SITE 2

TEMPORARY EROSION CONTROL GENERAL NOTES:

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ROCK DITCH CHECKS (E-6)	INSTALLATION
STA. 195+88	LT. 1
STA. 197+19	LT. 1
STA. 197+50	LT. 1
STA. 197+75	RT. 1
STA. 199+47	RT. 1
STA. 201+44	LT. 1
STA. 201+79 - 203+65	RT. 2
STA. 204+99 - 205+69	LT. 2

SEDIMENT BASIN (E-14)	CU. YD.
STA. 200+09	RT. 67
STA. 200+19	LT. 143
STA. 201+24	RT. 76
STA. 202+19	LT. 333

SAND BAG DITCH CHECKS (E-5)	INSTALLATION
STA. 196+36	LT. 1
STA. 198+36	RT. 1
STA. 198+41 TO STA. 199+61	LT. 2
STA. 202+98	LT. 1

SILT FENCE (E-11)	LIN. FT.
STA. 196+05 TO STA. 197+11	LT. 108
STA. 197+21 TO STA. 201+66	LT. 474
STA. 197+63 TO STA. 198+40	RT. 110
STA. 198+48 TO STA. 200+21	RT. 231
STA. 199+75 TO STA. 199+89	RT. 76
STA. 200+25 TO STA. 200+50	RT. 29
STA. 200+31 TO STA. 200+49	LT. 29
STA. 200+41 TO STA. 201+41	LT. 126
STA. 200+77 TO STA. 203+85	RT. 386
STA. 201+10 TO STA. 201+11	RT. 8
STA. 201+11 TO STA. 201+91	LT. 93
STA. 201+96 TO STA. 205+78	LT. 437

CLEARING AND GRUBBING
HWY. 25 - SITE 2
TEMPORARY EROSION CONTROL DETAILS

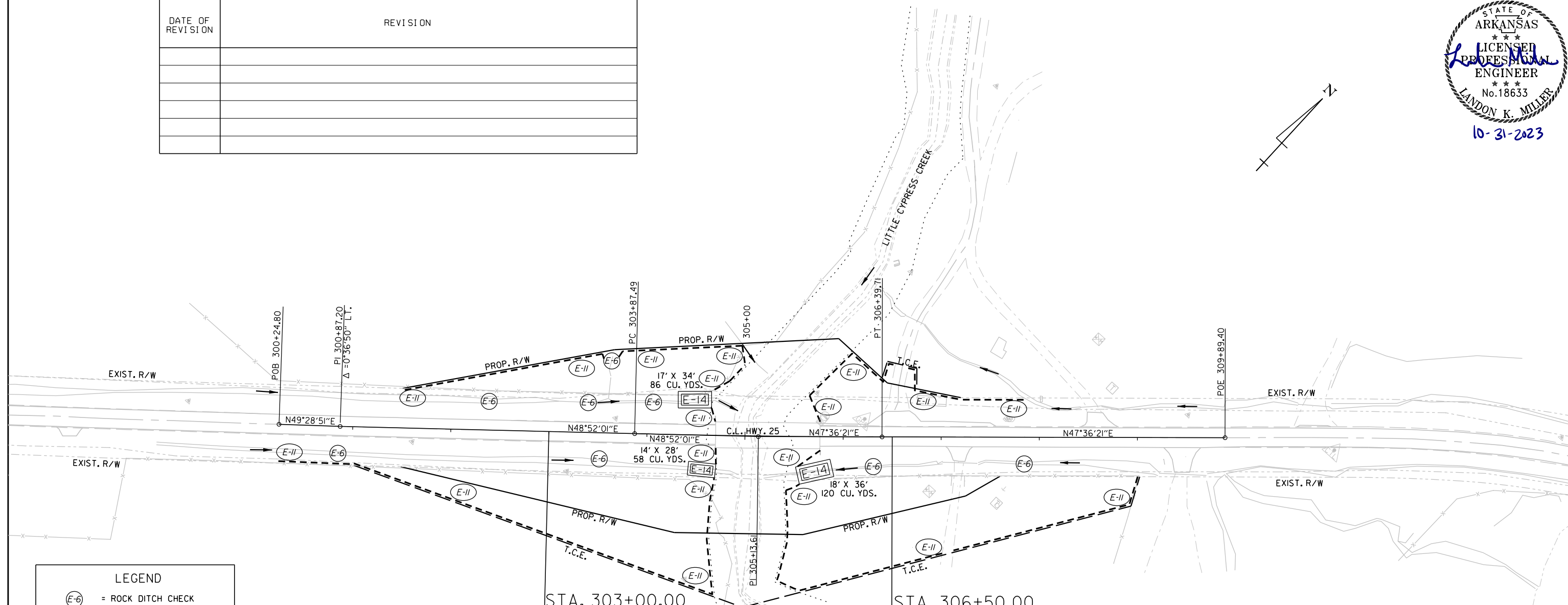
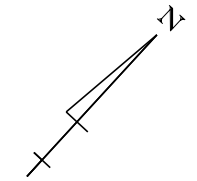
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	23	90	

REVISIONS

DATE OF REVISION	REVISION

2 TEMPORARY EROSION CONTROL DETAILS



LEGEND	
	= ROCK DITCH CHECK
	= SILT FENCE
	= SEDIMENT BASIN

TEMPORARY EROSION CONTROL GENERAL NOTES:

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EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

ROCK DITCH CHECKS		LIN. FT.
STA. 300+85 TO STA. 303+52	RT.	2
STA. 302+38 TO STA. 304+08	LT.	3
STA. 303+62	LT.	1
STA. 306+31 TO STA. 307+85	RT.	2
SILT FENCE		LIN. FT.
STA. 300+25 TO STA. 304+70	RT.	586
STA. 301+50 TO STA. 303+54	LT.	212
STA. 303+69 TO STA. 304+65	LT.	193
STA. 304+65 TO STA. 304+70	LT.	14
STA. 304+70 TO STA. 304+71	RT.	16
STA. 305+55 TO STA. 307+00	RT.	284
STA. 305+75 TO STA. 305+78	RT.	28
STA. 305+77 TO STA. 306+55	LT.	160
STA. 306+70 TO STA. 307+84	LT.	140
STA. 307+13 TO STA. 309+00	RT.	215
SEDIMENT BASIN		CU. YD.
STA. 304+50	LT.	86
STA. 304+55	RT.	58
STA. 305+71	RT.	120

STA. 309+00 RT.
A HISTORIC PROPERTY HAS BEEN IDENTIFIED AS ELIGIBLE FOR INCLUSION TO THE NATIONAL REGISTER OF HISTORIC PLACES. IMPACTS TO THIS PROPERTY SHOULD BE AVOIDED.

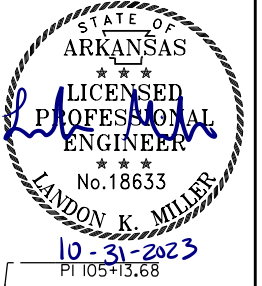
25' NATURAL BUFFER, REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".

CLEARING AND GRUBBING HWY. 25 - SITE 3 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.	100991
							SHEET NO.	24
							TOTAL SHEETS	90

2 TEMPORARY EROSION CONTROL DETAILS



STA. 102+00.00
 BEGIN JOB 100991
 BEGIN SITE 1
 LOG MILE 1.20

SILT FENCE		(E-11)	LIN. FT.
STA. 110+33 TO STA. 110+68	RT.		44
STA. 113+32 TO STA. 113+64	RT.		42
ROCK DITCH CHECKS		(E-6)	INSTALLATION
STA. 110+22 TO STA. 113+70	LT.		2
STA. 113+67 TO STA. 114+31	LT.		2
SAND BAG DITCH CHECKS		(E-5)	INSTALLATION
STA. 101+53 TO STA. 102+80	RT.		2
STA. 104+45 TO STA. 109+00	RT.		8
STA. 113+51 TO STA. 115+27	RT.		2
FILTER SOCKS		(E-13)	LIN. FT.
STA. 114+24 TO STA. 115+30	LT.		106
SEDIMENT BASIN		(E-14)	CU. YD.
STA. 110+46	RT.		427
STA. 113+77	RT.		963

- LEGEND**
- (E-6) = ROCK DITCH CHECK
 - (E-5) = SAND BAG DITCH CHECK
 - (E-13) = FILTER SOCK
 - (E-14) = SEDIMENT BASIN

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

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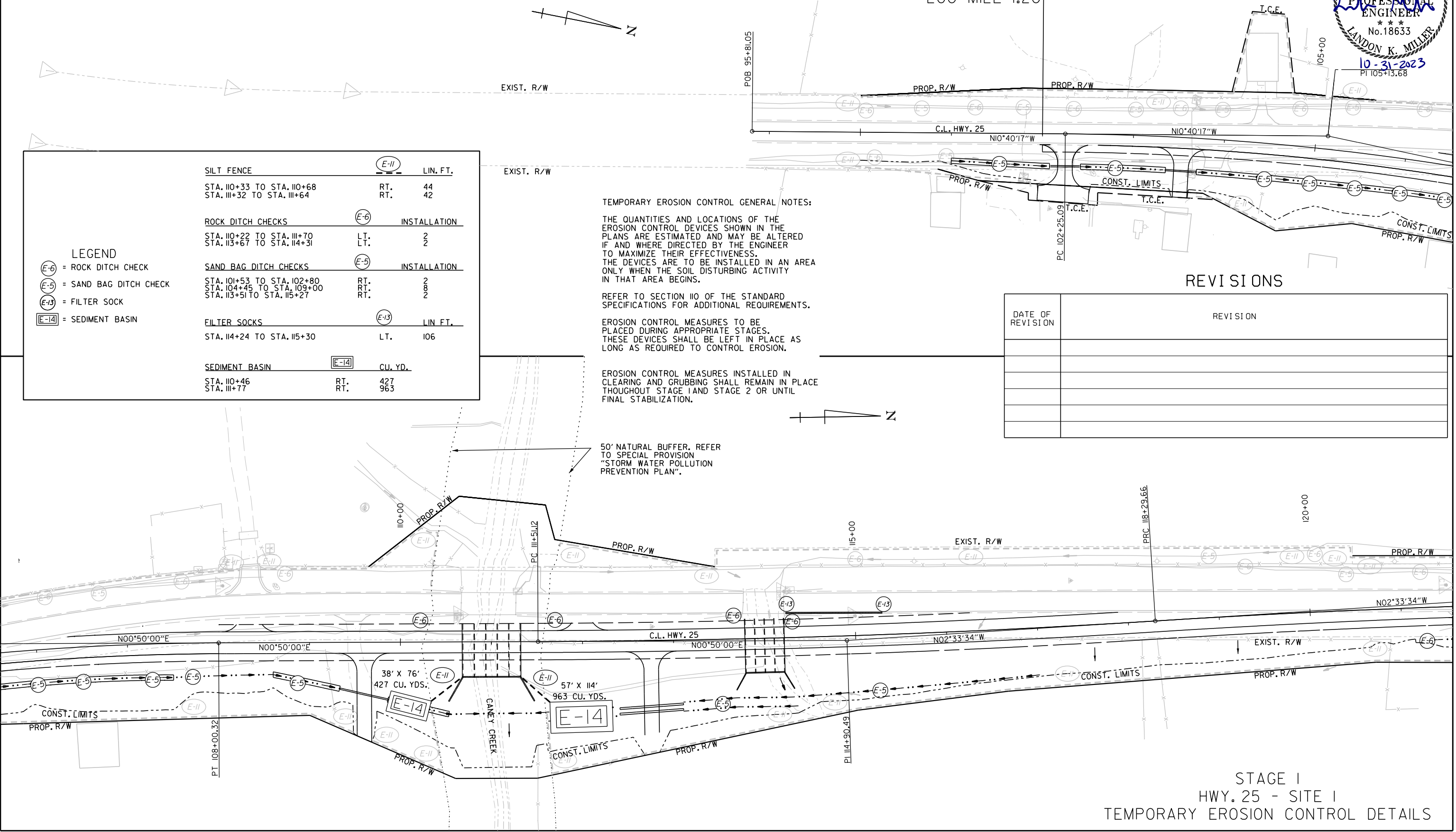
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REVISIONS

DATE OF REVISION	REVISION

50' NATURAL BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".



STAGE I
 HWY. 25 - SITE I
 TEMPORARY EROSION CONTROL DETAILS

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 Landon Miller - ARDOT
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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.	100991	25	90	

2 TEMPORARY EROSION CONTROL DETAILS



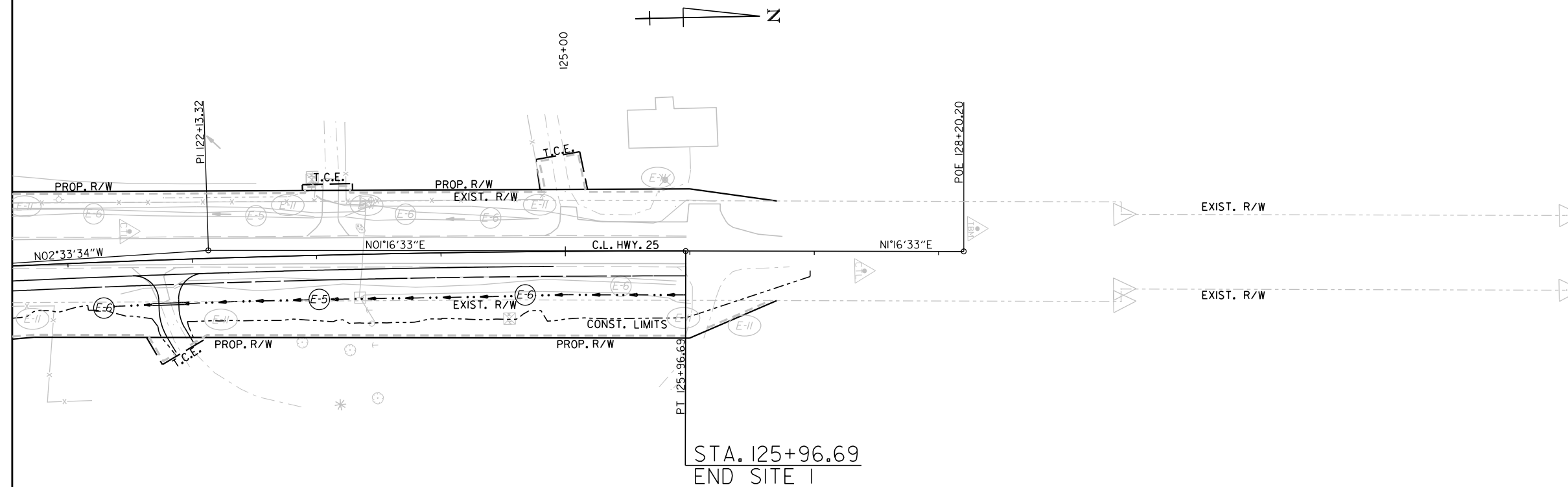
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EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.



STA. 125+96.69
END SITE 1

REVISIONS

DATE OF REVISION	REVISION

LEGEND	
(E-6)	= ROCK DITCH CHECK
(E-5)	= SAND BAG DITCH CHECK

SAND BAG DITCH CHECKS	(E-5)	INSTALLATION
STA. 122+99	RT.	1
ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 121+25	RT.	1
STA. 124+70	RT.	1

STAGE 1
HWY. 25 - SITE 1
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.	100991
							SHEET NO.	26
							TOTAL SHEETS	90

2 TEMPORARY EROSION CONTROL DETAILS



TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

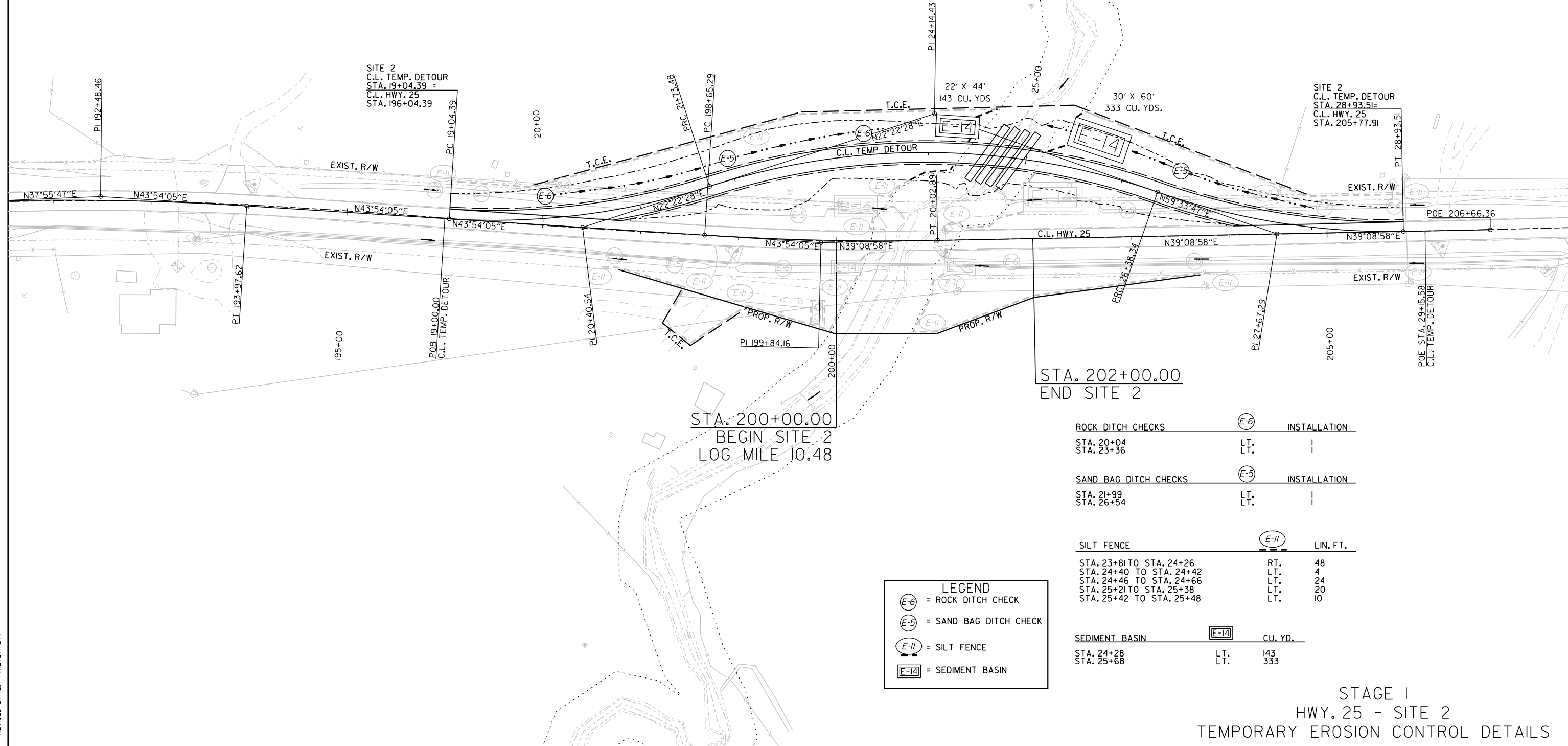
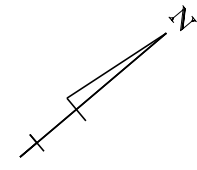
REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

REVISIONS

DATE OF REVISION	REVISION



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 REVISION DATE: **REVIDATE**

STA. 200+00.00
 BEGIN SITE 2
 LOG MILE 10.48

STA. 202+00.00
 END SITE 2

ROCK DITCH CHECKS	(E-6)	INSTALLATION
STA. 20+04	LT.	
STA. 23+36		
SAND BAG DITCH CHECKS	(E-5)	INSTALLATION
STA. 21+99	LT.	
STA. 26+54		
SILT FENCE	(E-II)	LIN. FT.
STA. 23+81 TO STA. 24+26	RT.	48
STA. 24+40 TO STA. 24+42	LT.	4
STA. 24+46 TO STA. 24+66	LT.	24
STA. 25+21 TO STA. 25+38	LT.	20
STA. 25+42 TO STA. 25+48	LT.	10
SEDIMENT BASIN	(E-14)	CU. YD.
STA. 24+28	LT.	143
STA. 25+68	LT.	333

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

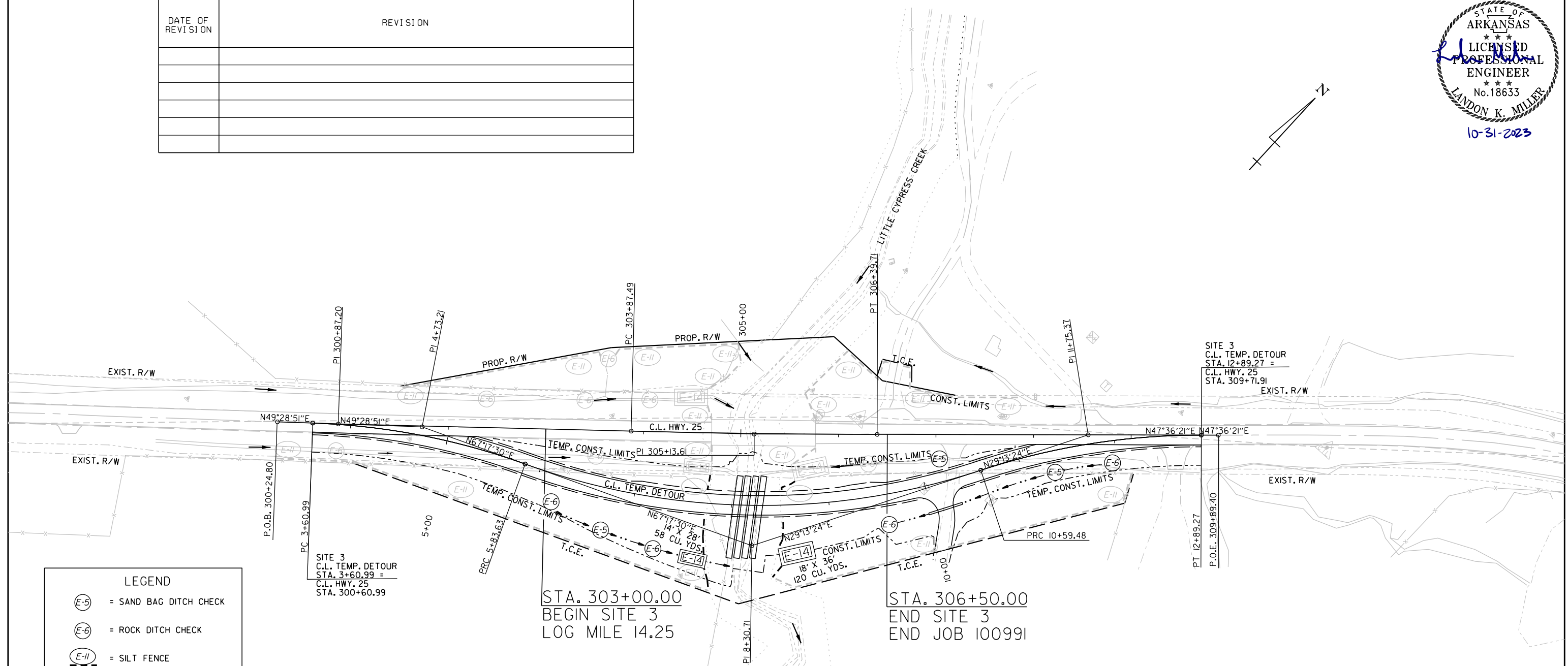
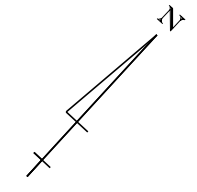
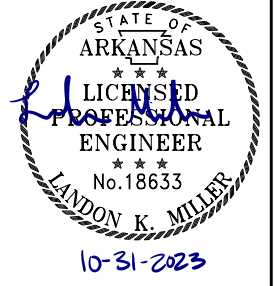
STAGE 1
 HWY. 25 - SITE 2
 TEMPORARY EROSION CONTROL DETAILS

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.	100991	27	90	

REVISIONS

DATE OF REVISION	REVISION

(2) TEMPORARY EROSION CONTROL DETAILS



DESCRIPTION	SYMBOL	QUANTITY	UNIT
SAND BAG DITCH CHECKS		EACH	
STA. 6+74	RT.	1	
STA. 10+22	LT.	1	
STA. 11+34	RT.	1	
ROCK DITCH CHECKS		EACH	
STA. 6+20 TO STA. 7+27	RT.	2	
STA. 9+57 TO STA. 11+95	RT.	2	
SILT FENCE		LIN. FT.	
STA. 7+73 TO STA. 7+76	RT.	40	
STA. 7+77 TO STA. 7+82	RT.	24	
STA. 7+74 TO STA. 7+76	LT.	16	
STA. 8+41 TO STA. 8+50	RT.	15	
STA. 8+47 TO STA. 8+52	RT.	33	
STA. 8+52 TO STA. 8+66	LT.	21	
SEDIMENT BASIN		CU. YD.	
STA. 7+64	RT.	58	
STA. 8+64	RT.	120	

TEMPORARY EROSION CONTROL GENERAL NOTES:

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 10 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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25' NATURAL BUFFER, REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".

STA. 309+00 RT. A HISTORIC PROPERTY HAS BEEN IDENTIFIED AS ELIGIBLE FOR INCLUSION TO THE NATIONAL REGISTER OF HISTORIC PLACES. IMPACTS TO THIS PROPERTY SHOULD BE AVOIDED.

STAGE I HWY. 25 - SITE 3 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.		28	90
				JOB NO.		100991	28	90
				2 TEMPORARY EROSION CONTROL DETAILS				

TEMPORARY EROSION CONTROL GENERAL NOTES:

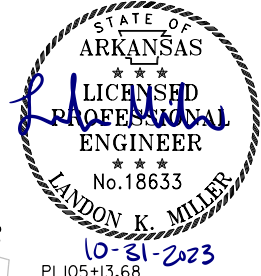
THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

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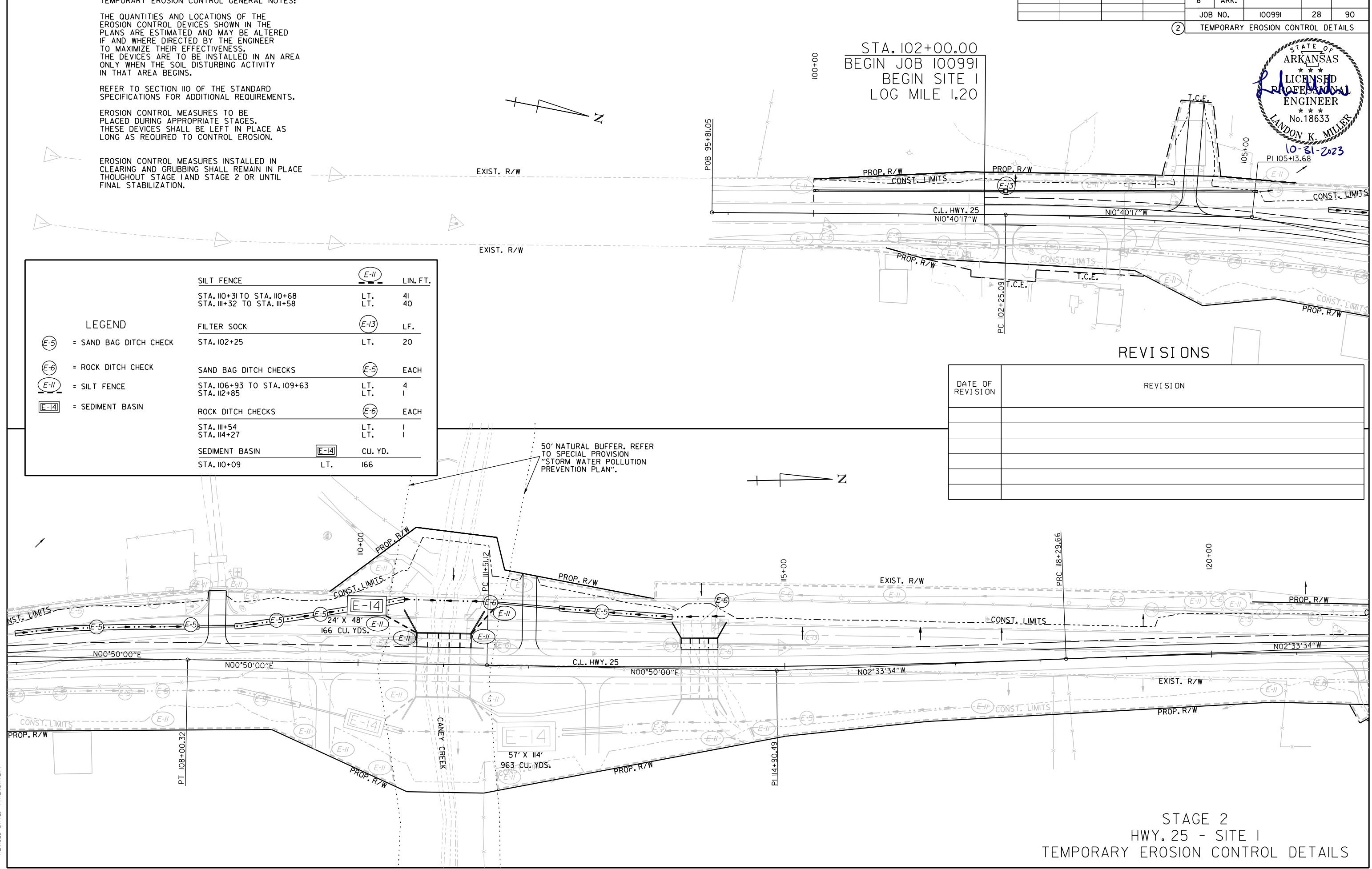
STA. 102+00.00
BEGIN JOB 100991
BEGIN SITE 1
LOG MILE 1.20



LEGEND			
(E-5)	= SAND BAG DITCH CHECK	(E-11)	SILT FENCE
(E-6)	= ROCK DITCH CHECK	(E-13)	FILTER SOCK
(E-11)	= SILT FENCE	(E-5)	SAND BAG DITCH CHECKS
(E-14)	= SEDIMENT BASIN	(E-6)	ROCK DITCH CHECKS
		(E-14)	SEDIMENT BASIN
		(E-11)	SILT FENCE
		(E-13)	FILTER SOCK
		(E-5)	SAND BAG DITCH CHECKS
		(E-6)	ROCK DITCH CHECKS
		(E-14)	SEDIMENT BASIN
		(E-11)	SILT FENCE
		(E-13)	FILTER SOCK
		(E-5)	SAND BAG DITCH CHECKS
		(E-6)	ROCK DITCH CHECKS
		(E-14)	SEDIMENT BASIN

REVISIONS	
DATE OF REVISION	REVISION

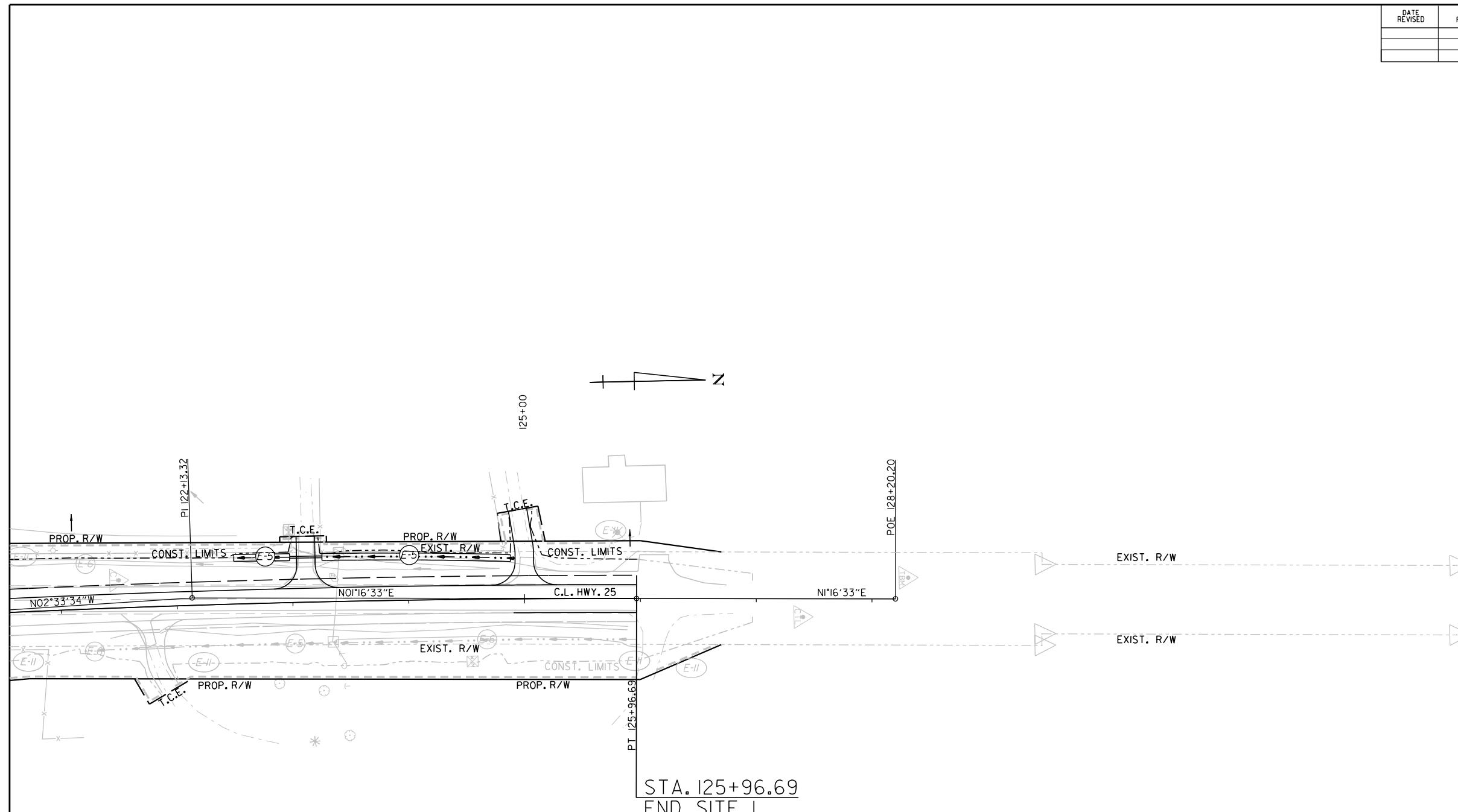
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STAGE 2
HWY. 25 - SITE 1
TEMPORARY EROSION CONTROL DETAILS

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.	100991	29	90	

2 TEMPORARY EROSION CONTROL DETAILS



TEMPORARY EROSION CONTROL GENERAL NOTES:

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SAND BAG DITCH CHECKS	(E-5)	INSTALLATION
STA. 122+77 TO STA. 124+01	LT.	2

REVISIONS

DATE OF REVISION	REVISION

LEGEND	
(E-5)	= SAND BAG DITCH CHECK

STAGE 2
HWY. 25 - SITE 1
TEMPORARY EROSION CONTROL DETAILS

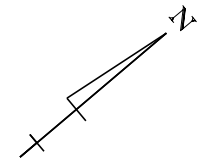
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 REVISION DATE: **REVISION**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	30	90	

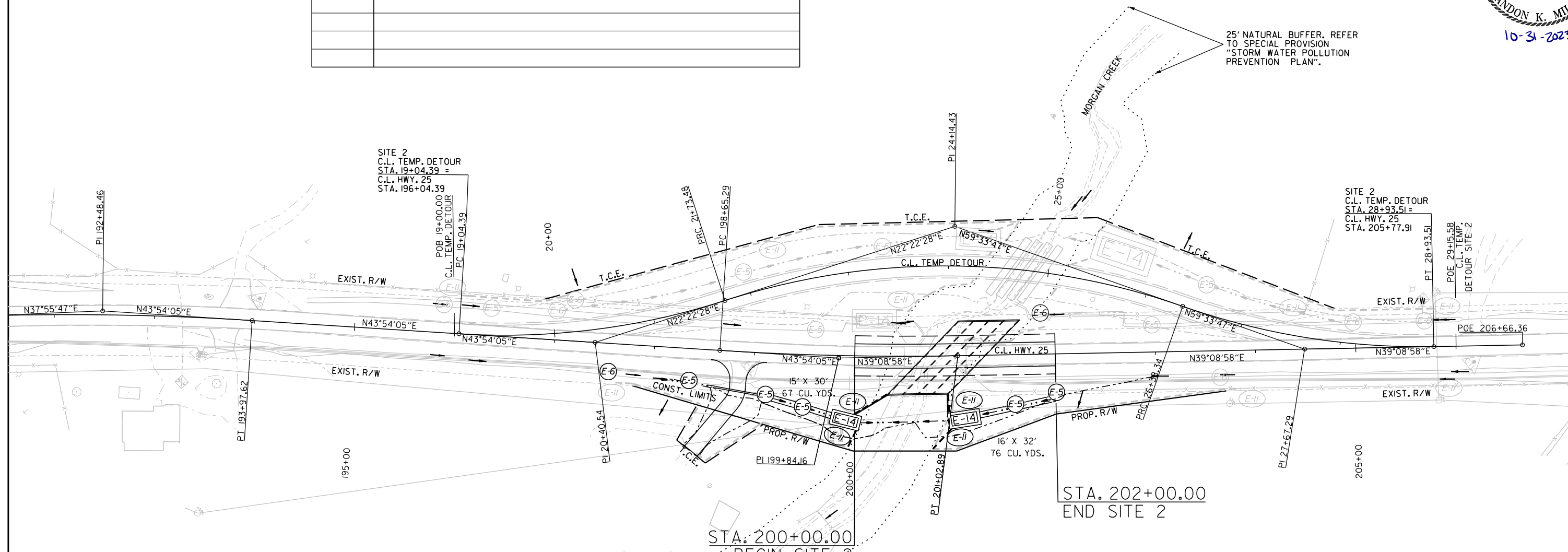
2 TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION



25' NATURAL BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".



STA. 200+00.00
BEGIN SITE 2
LOG MILE 10.48

STA. 202+00.00
END SITE 2

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

SAND BAG DITCH CHECKS (E-5) INSTALLATION	RT.	LT.
STA. 198+36	1	
STA. 199+13 TO STA. 199+50	2	
STA. 201+60 TO STA. 202+01	2	

ROCK DITCH CHECKS (E-6) INSTALLATION	RT.	LT.
STA. 197+56	1	
STA. 201+86	1	

SILT FENCE (E-11) LIN. FT.	RT.	LT.
STA. 199+95 TO STA. 200+03	19	
STA. 199+99 TO STA. 200+33	39	
STA. 200+77 TO STA. 200+95	27	
STA. 200+93 TO STA. 200+94	19	

SEDIMENT BASIN (E-14) CU. YD.	RT.	LT.
STA. 199+91	67	
STA. 201+07	76	

STAGE 2
HWY. 25 - SITE 2
TEMPORARY EROSION CONTROL DETAILS

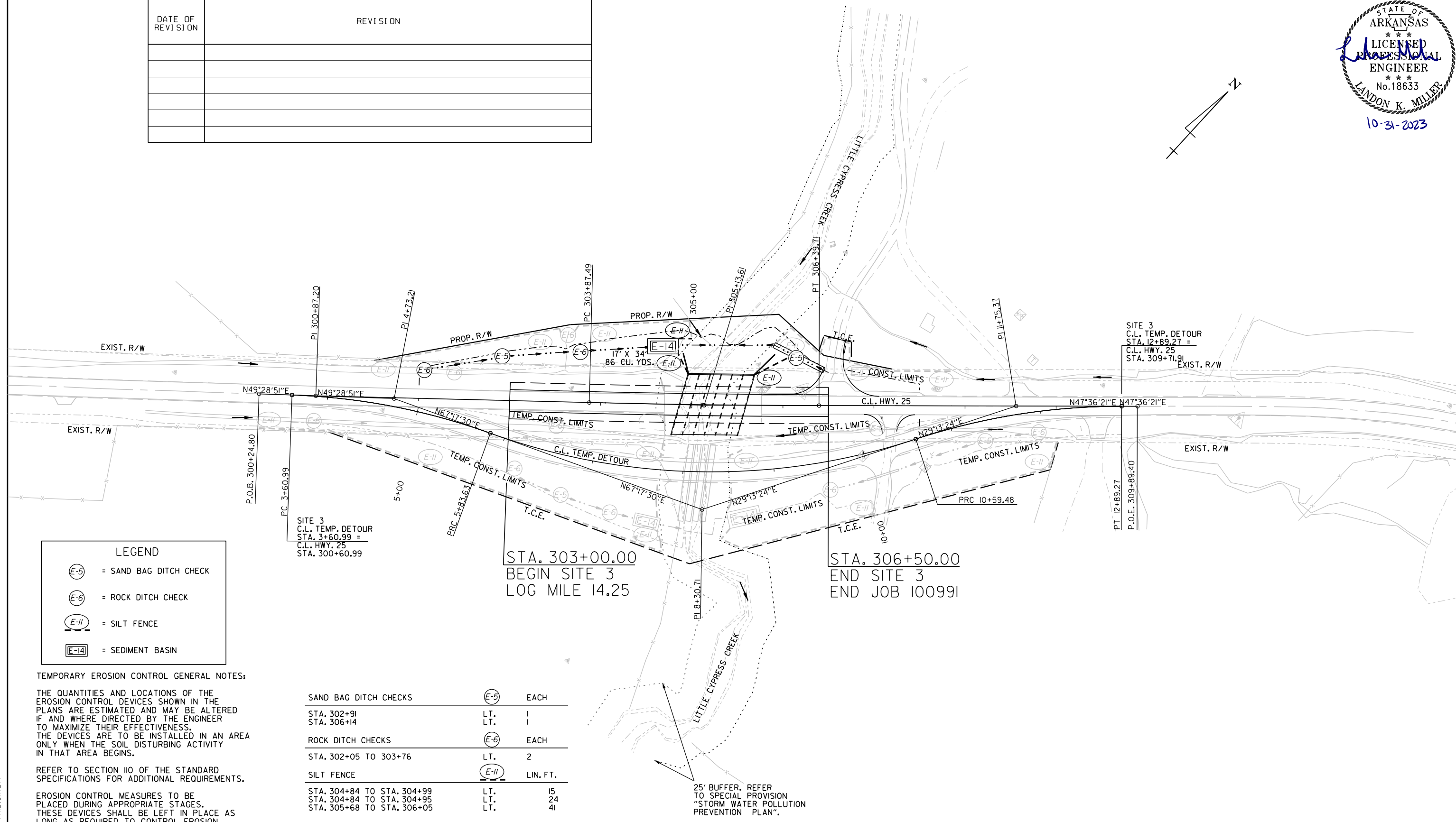
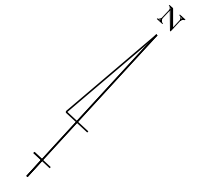
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	31	90	

REVISIONS

DATE OF REVISION	REVISION

2 TEMPORARY EROSION CONTROL DETAILS



LEGEND

- = SAND BAG DITCH CHECK
- = ROCK DITCH CHECK
- = SILT FENCE
- = SEDIMENT BASIN

TEMPORARY EROSION CONTROL GENERAL NOTES:

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SAND BAG DITCH CHECKS		EACH
STA. 302+91	LT.	1
STA. 306+14	LT.	1
ROCK DITCH CHECKS		EACH
STA. 302+05 TO 303+76	LT.	2
SILT FENCE		LIN. FT.
STA. 304+84 TO STA. 304+99	LT.	15
STA. 304+84 TO STA. 304+95	LT.	24
STA. 305+68 TO STA. 306+05	LT.	41
SEDIMENT BASIN		CU. YD.
STA. 304+67	LT.	86

25' BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".

STAGE 2
HWY. 25 - SITE 3
TEMPORARY EROSION CONTROL DETAILS

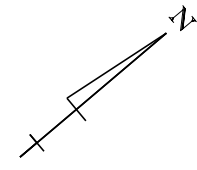
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				6	ARK.			
				JOB NO.	100991	32	90	

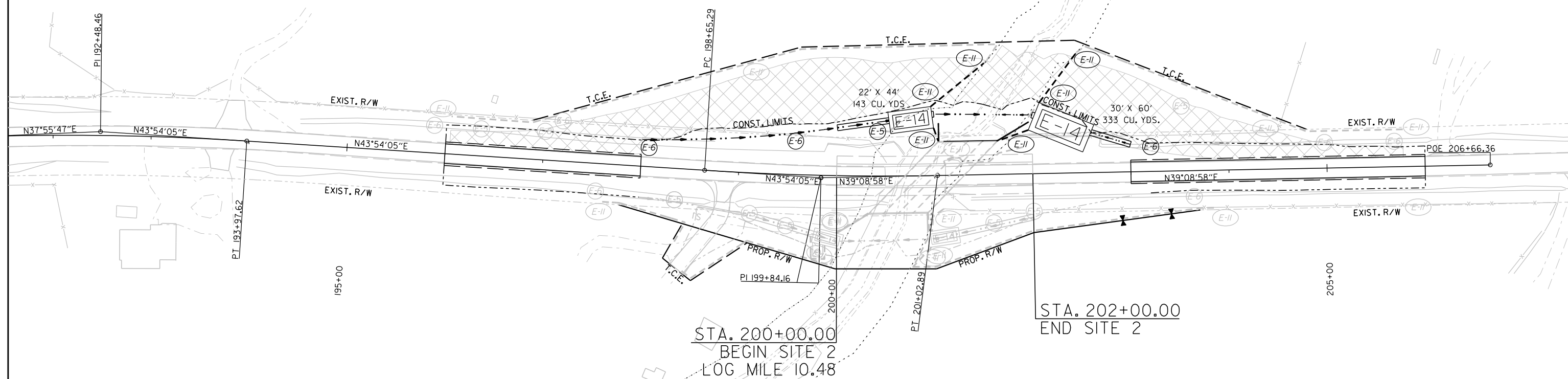
2 TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION



25' NATURAL BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".



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LEGEND	
(E-5)	= SAND BAG DITCH CHECK
(E-6)	= ROCK DITCH CHECK
(E-11)	= SILT FENCE
(E-14)	= SEDIMENT BASIN
[Cross-hatched box]	= TEMP. DETOUR REMOVAL

SAND BAG DITCH CHECKS (E-5)	INSTALLATION
STA. 200+42	LT. 1
ROCK DITCH CHECKS (E-6)	INSTALLATION
STA. 198+05	LT. 1
STA. 199+60	LT. 1
STA. 203+21	LT. 1
SILT FENCE (E-11)	LIN. FT.
STA. 200+97 TO STA. 201+52	LT. 70
STA. 201+00 TO STA. 201+04	LT. 14
STA. 201+65 TO STA. 201+96	LT. 33
STA. 202+08 TO STA. 202+47	LT. 64
SEDIMENT BASIN (E-14)	CU. YD.
STA. 200+74	LT. 143
STA. 202+27	LT. 333

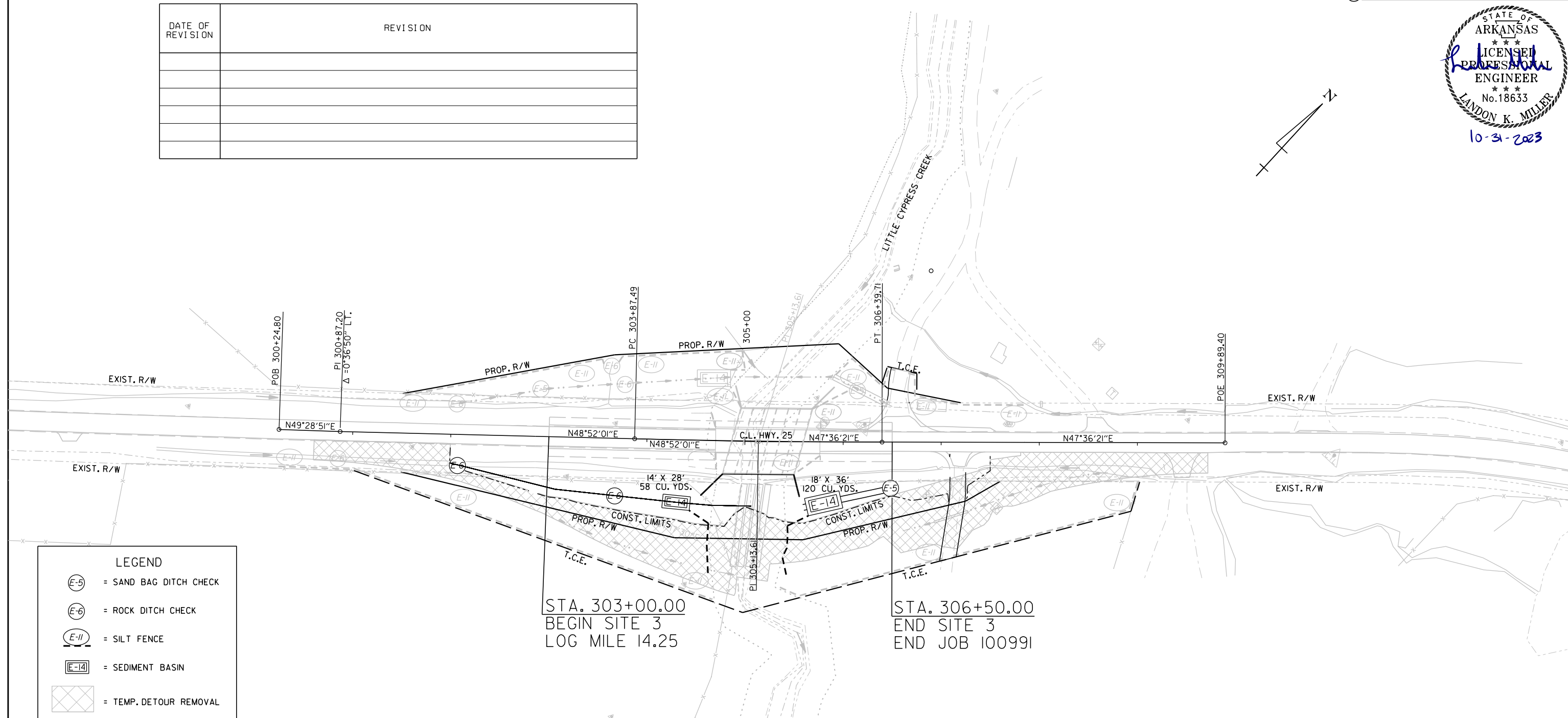
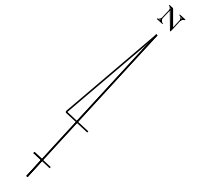
STAGE 3
HWY. 25 - SITE 2
TEMPORARY EROSION CONTROL DETAILS

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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	33	90	
				2 TEMPORARY EROSION CONTROL DETAILS				

REVISIONS

DATE OF REVISION	REVISION



LEGEND	
	= SAND BAG DITCH CHECK
	= ROCK DITCH CHECK
	= SILT FENCE
	= SEDIMENT BASIN
	= TEMP. DETOUR REMOVAL

TEMPORARY EROSION CONTROL GENERAL NOTES:

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SILT FENCE		LIN. FT.
STA. 304+44 TO STA. 304+65	LT.	78
STA. 305+40 TO STA. 305+65	LT.	75
SAND BAG DITCH CHECKS		EACH
STA. 302+88	RT.	1
STA. 306+48	RT.	1
ROCK DITCH CHECKS		EACH
STA. 302+08 TO 303+76	RT.	2
SEDIMENT BASIN		CU. YD.
STA. 304+31	RT.	58
STA. 305+81	RT.	120

25' NATURAL BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".

STAGE 3 HWY. 25 - SITE 3 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.	100991	34	90	
② MAINTENANCE OF TRAFFIC DETAILS								

CONSTRUCTION SEQUENCE - HWY. 25 - SITE 1

STAGE 1:
 INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.
 CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
 CONSTRUCT PORTIONS OF BOX CULVERT AND THE PROPOSED ROADWAY AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

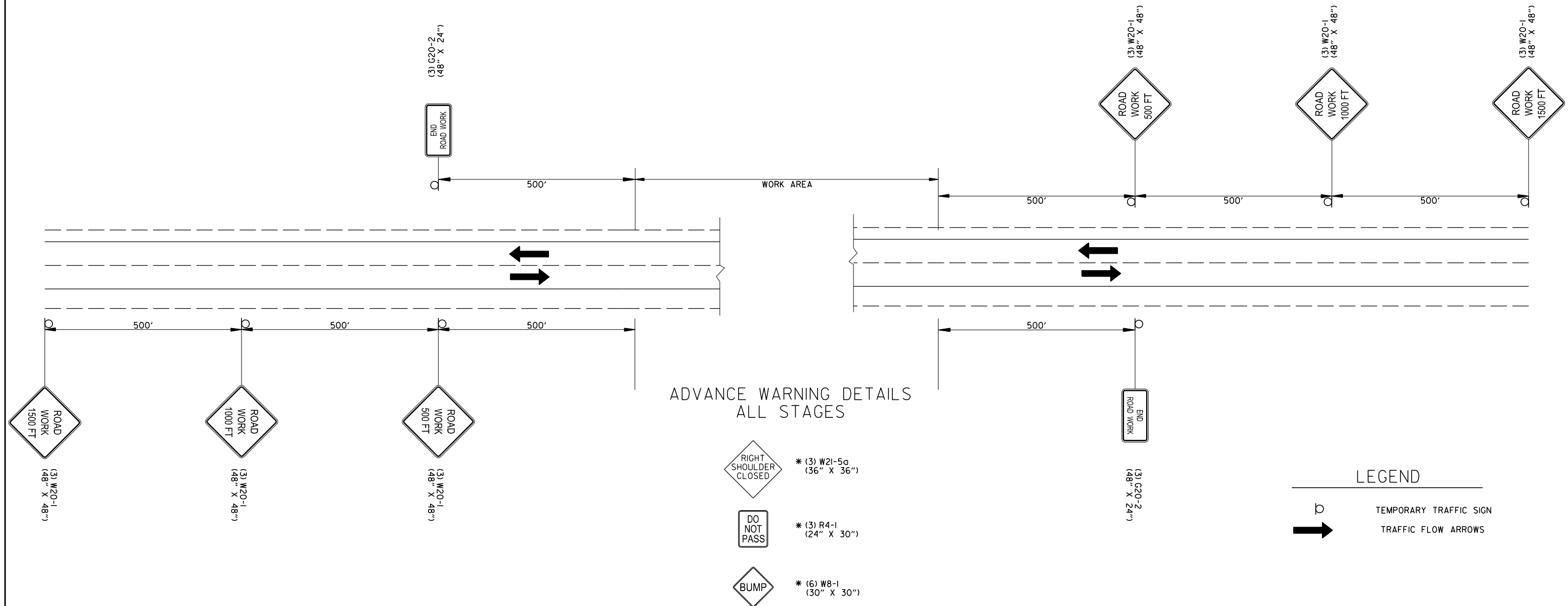
STAGE 2:
 SHIFT TRAFFIC TO THE PROPOSED ROADWAY, REMOVE EXISTING STRUCTURES, OBLITERATE THE EXISTING ROADWAY AND CONSTRUCT REMAINDER OF THE PROPOSED ROADWAY, DRAINAGE, AND BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCTION SEQUENCE - HWY. 25 - SITES 2 & 3




STAGE 1:
 INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.
 CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
 INSTALL TEMPORARY PIPE CULVERTS AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 2:
 SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY, DRAINAGE, AND BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3:
 SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.
 CONSTRUCT REMAINDER OF THE BOX CULVERT, ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, AND DRAINAGE UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



ADVANCE WARNING DETAILS ALL STAGES

-  * (3) W21-5a (36" X 36")
-  * (3) R4-1 (24" X 30")
-  * (6) W8-1 (30" X 30")

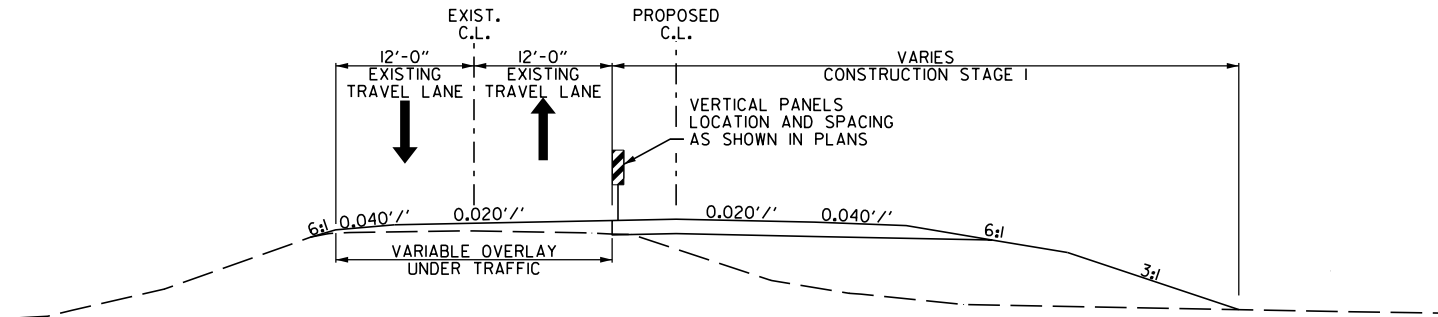
* IF AND WHERE DIRECTED BY THE ENGINEER

LEGEND

-  TEMPORARY TRAFFIC SIGN
-  TRAFFIC FLOW ARROWS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						100991	35	90

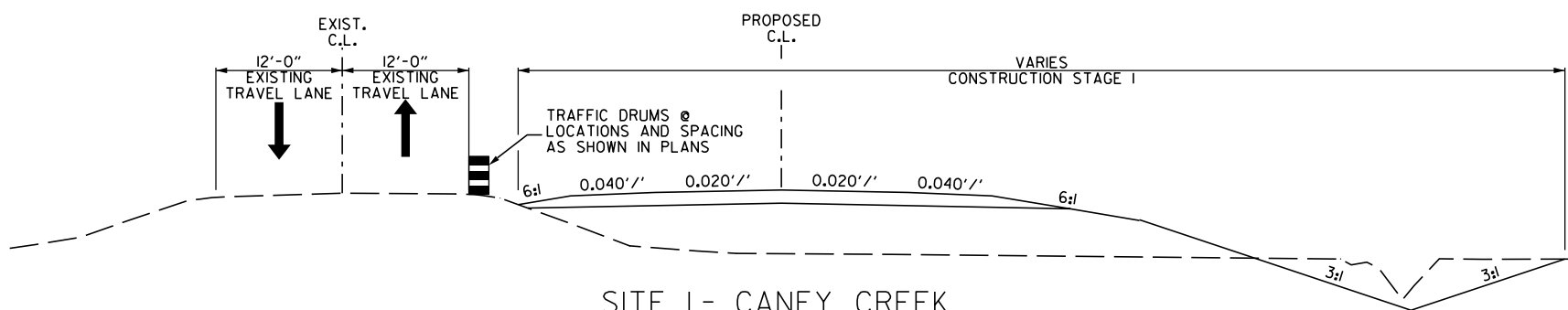
2 MAINTENANCE OF TRAFFIC DETAILS



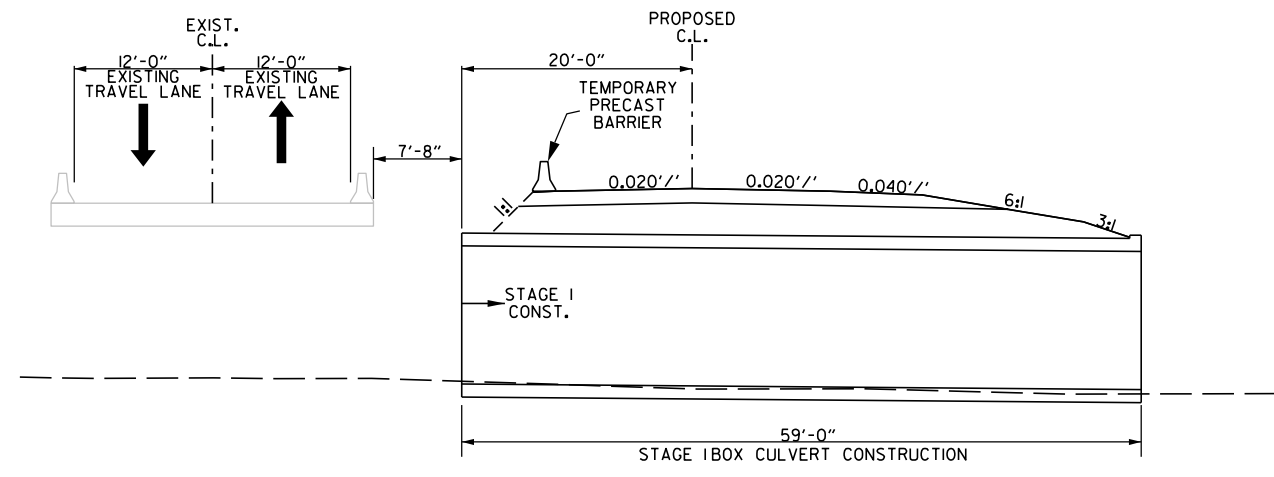
SITE I- CANEY CREEK
 STAGE I- NOTCH AND WIDEN
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION
 STA. 102+00.00 TO 105+80.00
 STA. 118+65.00 TO 125+96.69

CONSTRUCTION SEQUENCE - HWY. 25 - SITE I

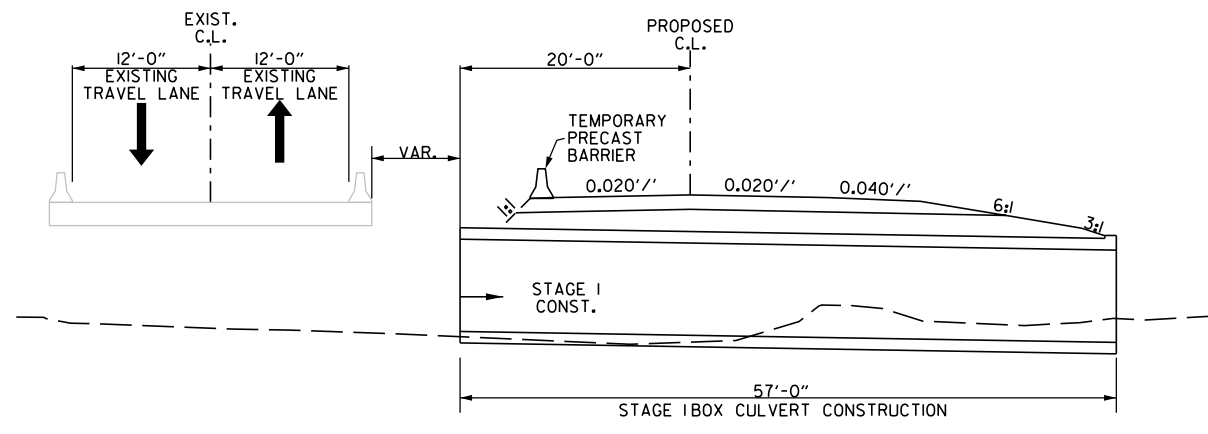
- STAGE 1:
 INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.
 CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
 CONSTRUCT PORTIONS OF BOX CULVERT AND THE PROPOSED ROADWAY AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 2:
 SHIFT TRAFFIC TO THE PROPOSED ROADWAY, REMOVE EXISTING STRUCTURES, OBLITERATE THE EXISTING ROADWAY AND CONSTRUCT REMAINDER OF THE PROPOSED ROADWAY, DRAINAGE, AND BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.



SITE I- CANEY CREEK
 STAGE I- PROPOSED ROADWAY CONSTRUCTION
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION
 STA. 105+80.00 TO 110+67.75
 STA. 111+32.25 TO 113+18.33
 STA. 114+21.67 TO 118+65.00



SITE I- CANEY CREEK
 STAGE I- R.C. BOX AND DETOUR CONSTRUCTION
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION
 STA. 110+67.75 TO 111+32.25



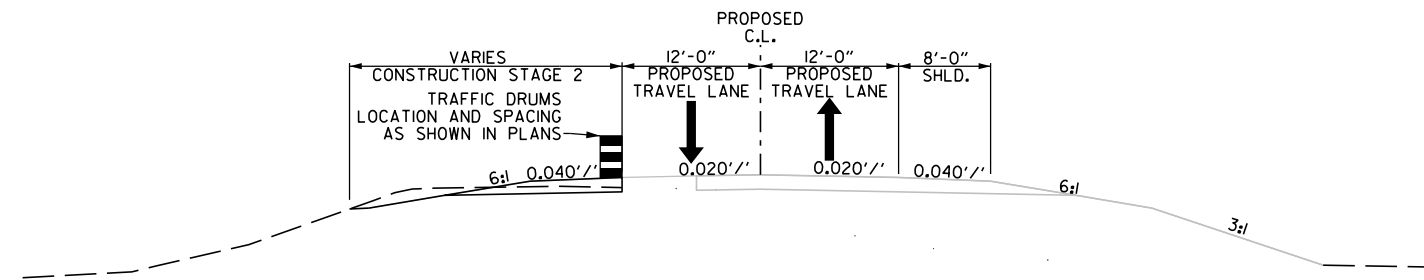
SITE I- CANEY CREEK RELIEF
 STAGE I- R.C. BOX AND DETOUR CONSTRUCTION
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION
 STA. 113+78.33 TO 114+21.67

HWY. 25 - SITE I
 STAGE I
 TYPICAL SECTION
 MAINTENANCE OF TRAFFIC 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.		100991	38	90

② MAINTENANCE OF TRAFFIC DETAILS



SITE I - CANEY CREEK
STAGE 2 - NOTCH AND WIDEN
MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

STA. 102+00.00 TO 105+80.00
STA. 118+65.00 TO 125+96.69

CONSTRUCTION SEQUENCE - HWY. 25 - SITE I

STAGE 1:

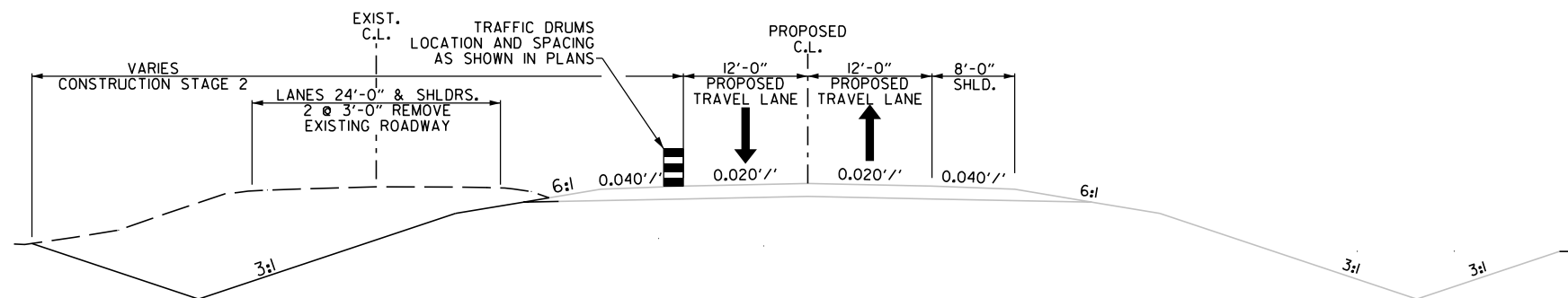
INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.

CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCT PORTIONS OF BOX CULVERT AND THE PROPOSED ROADWAY AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

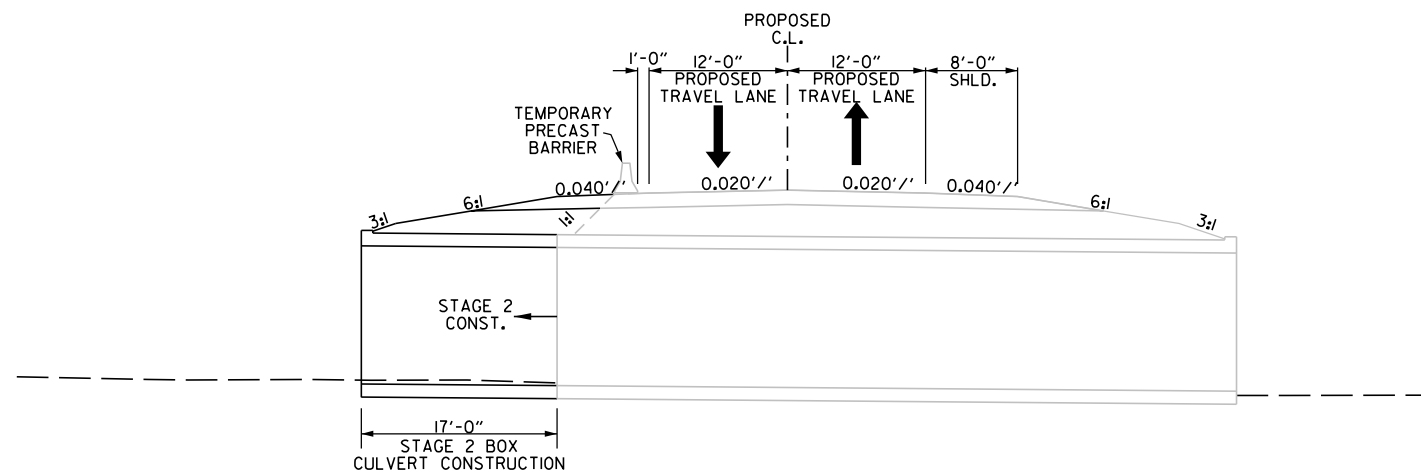
STAGE 2:

SHIFT TRAFFIC TO THE PROPOSED ROADWAY, REMOVE EXISTING STRUCTURES, OBLITERATE THE EXISTING ROADWAY AND CONSTRUCT REMAINDER OF THE PROPOSED ROADWAY, DRAINAGE, AND BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.



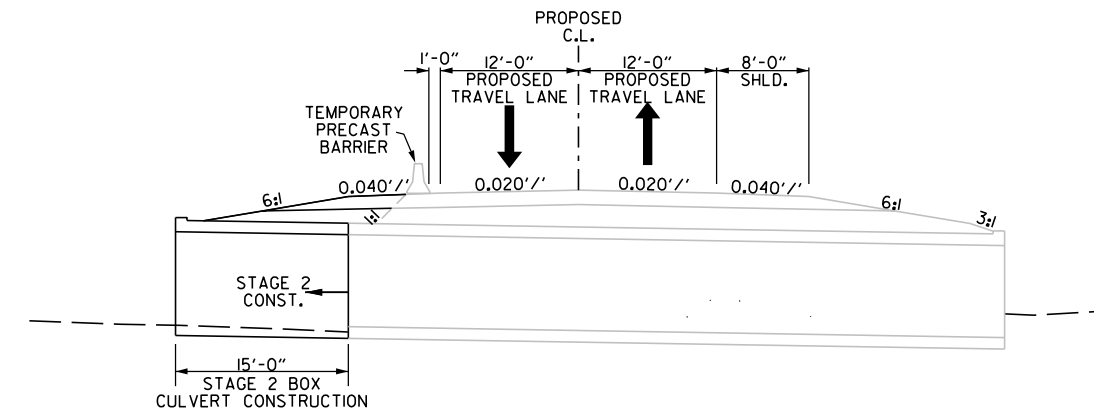
SITE I - CANEY CREEK
STAGE 2 - REMOVAL OF EXISTING ROADWAY
MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

STA. 105+80.00 TO 110+67.75
STA. 111+32.25 TO 113+78.33
STA. 114+21.67 TO 118+65.00



SITE I - CANEY CREEK
STAGE 2 - R.C. BOX CULVERT CONSTRUCTION
MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

STA. 110+67.75 TO 111+32.25



SITE I - CANEY CREEK RELIEF
STAGE 2 - R.C. BOX CULVERT CONSTRUCTION
MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

STA. 113+78.33 TO 114+21.67

HWY. 25 - SITE I
STAGE 2
TYPICAL SECTION
MAINTENANCE OF TRAFFIC DETAILS

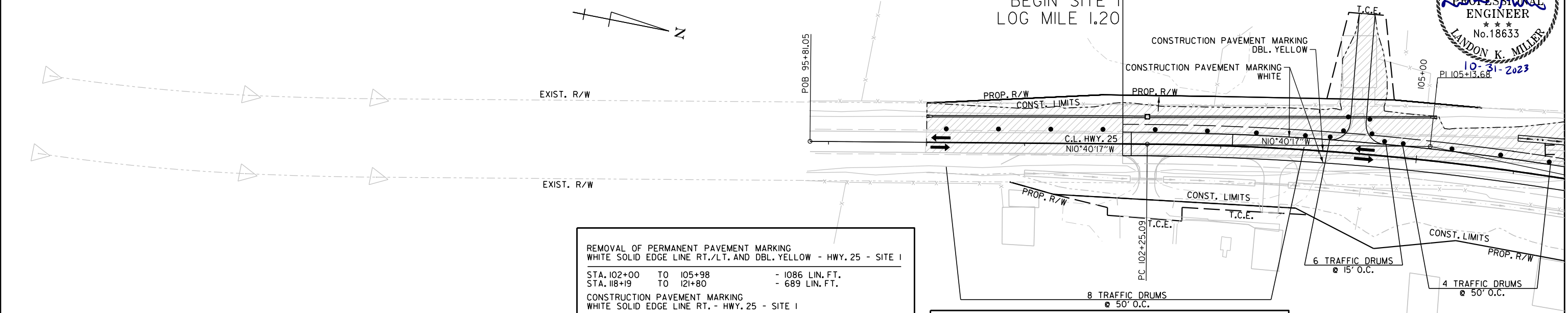
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				JOB NO.		100991	39	90

2 MAINTENANCE OF TRAFFIC DETAILS



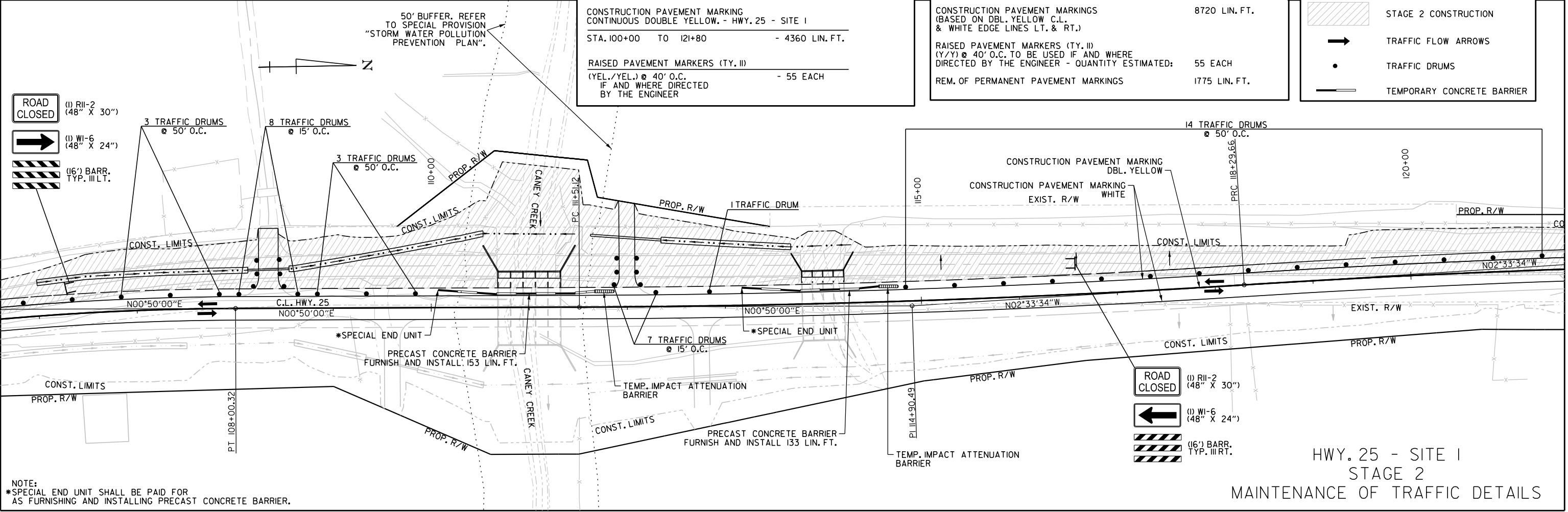
STA. 102+00.00
 BEGIN JOB 100991
 BEGIN SITE 1
 LOG MILE 1.20



REMOVAL OF PERMANENT PAVEMENT MARKING WHITE SOLID EDGE LINE RT./LT. AND DBL. YELLOW - HWY. 25 - SITE 1		
STA. 102+00 TO 105+98	-	1086 LIN. FT.
STA. 118+19 TO 121+80	-	689 LIN. FT.
CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 1		
STA. 100+00 TO 121+80	-	2180 LIN. FT.
CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 1		
STA. 100+00 TO 121+80	-	2180 LIN. FT.
CONSTRUCTION PAVEMENT MARKING CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 1		
STA. 100+00 TO 121+80	-	4360 LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. IF AND WHERE DIRECTED BY THE ENGINEER		
	-	55 EACH

HWY. 25 - SITE 1-STAGE 2 - QUANTITIES (STA. 100+00.00 TO STA. 121+80.00)	
TRAFFIC DRUMS	54 EACH
PRECAST CONCRETE BARRIER	286 LIN. FT.
TEMP. IMPACT ATTENUATION BARRIER	2 EACH
CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.)	8720 LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED:	55 EACH
REM. OF PERMANENT PAVEMENT MARKINGS	1775 LIN. FT.

LEGEND	
	TYPE 3 BARRICADE
	STAGE 2 CONSTRUCTION
	TRAFFIC FLOW ARROWS
	TRAFFIC DRUMS
	TEMPORARY CONCRETE BARRIER



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NOTE:
 *SPECIAL END UNIT SHALL BE PAID FOR
 AS FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER.

HWY. 25 - SITE 1
 STAGE 2
 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.		100991	40	90

② MAINTENANCE OF TRAFFIC DETAILS



LEGEND

- STAGE 2 CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUMS

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 1
STA. 121+80 TO 127+00 - 520 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 1
STA. 121+80 TO 127+00 - 520 LIN. FT.

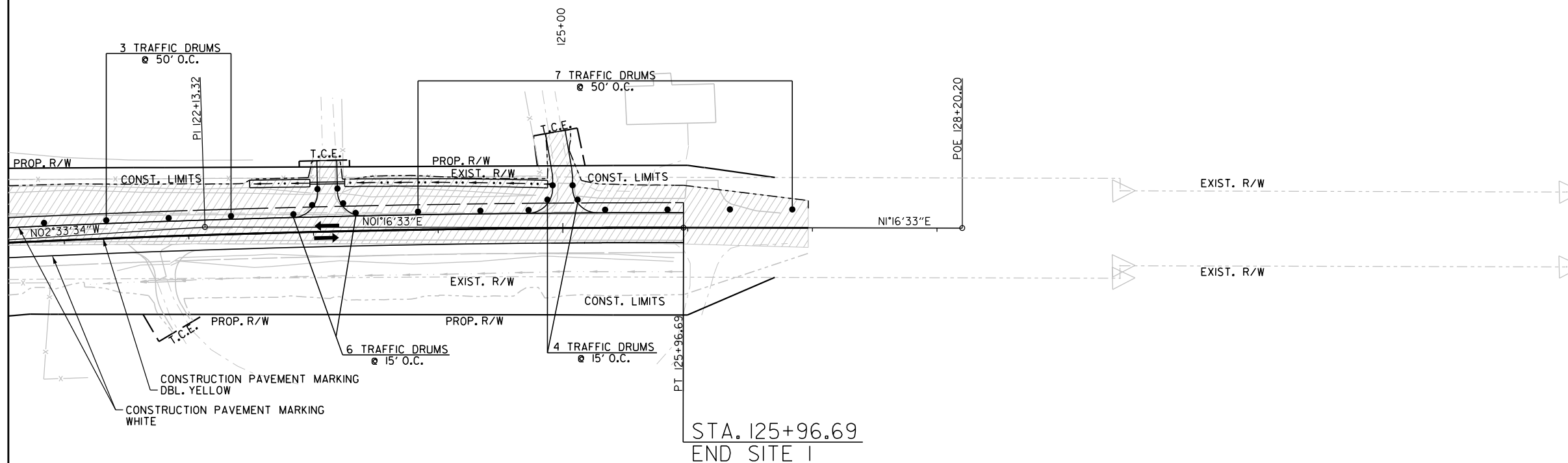
CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW. - HWY. 90 - SITE 1
STA. 121+80 TO 127+00 - 1040 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKING
WHITE SOLID EDGE LINE RT./LT. AND DBL. YELLOW - HWY. 25 - SITE 1
STA. 121+80 TO 125+96 - 1250 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)
(YEL./YEL.) @ 40' O.C. - 13 EACH
IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 25 - SITE 1 - STAGE 2 - QUANTITIES (STA. 121+80.00 TO STA. 127+00.00)

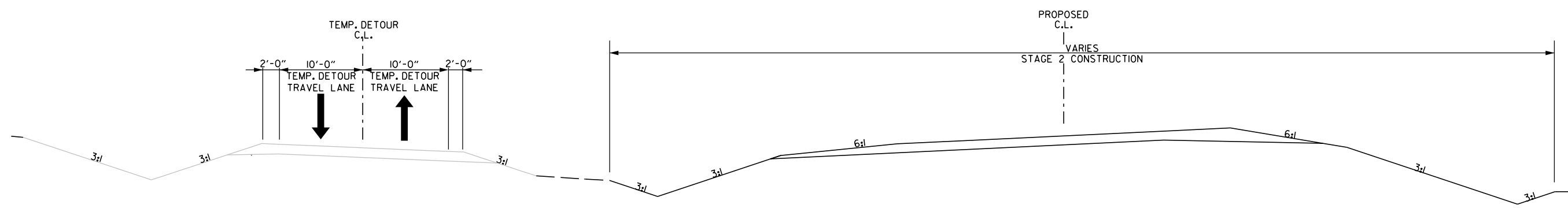
- TRAFFIC DRUMS 20 EACH
- CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.) 2080 LIN. FT.
- RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED: 13 EACH
- REM. OF PERMANENT PAVEMENT MARKINGS 1250 LIN. FT.



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HWY. 25 - SITE 1
 STAGE 2
 MAINTENANCE OF TRAFFIC DETAILS

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② MAINTENANCE OF TRAFFIC DETAILS								

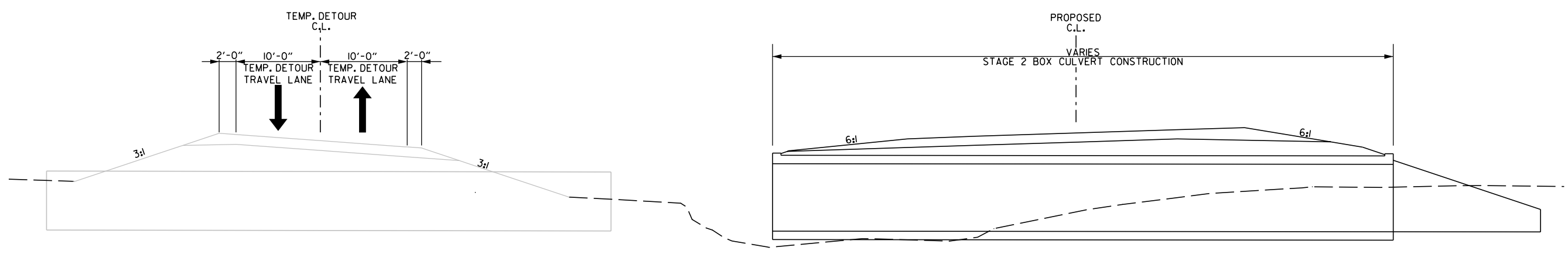


SITE 2 & 3 - MORGAN CREEK & LITTLE CYPRUS CREEK
 STAGE 2 - PROPOSED ROADWAY CONSTRUCTION
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

SITE 2 - C.L. HWY. 25 STA. 196+04.39 TO 200+01.71
 STA. 201+65.33 TO 205+77.91
 SITE 3 - C.L. HWY. 25 STA. 300+60.99 TO 304+77.36
 STA. 305+91.13 TO 309+71.91

CONSTRUCTION SEQUENCE - HWY. 25 - SITES 2 & 3

- STAGE 1:
 INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.
 CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
 INSTALL TEMPORARY PIPE CULVERTS AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 2:
 SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY, DRAINAGE, AND BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 3:
 SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.
 CONSTRUCT REMAINDER OF THE BOX CULVERT, ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, AND DRAINAGE UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



SITE 2 & 3 - MORGAN CREEK & LITTLE CYPRUS CREEK
 STAGE 2 - R.C. BOX CULVERT CONSTRUCTION
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

SITE 2 - C.L. HWY. 25 STA. 200+01.71 TO 201+65.33
 SITE 3 - C.L. HWY. 25 STA. 304+77.36 TO 305+91.31

HWY. 25 - SITE 2 & 3
 STAGE 2
 TYPICAL SECTION
 MAINTENANCE OF TRAFFIC DETAILS

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				JOB NO.	100991	43	90	

② MAINTENANCE OF TRAFFIC DETAILS

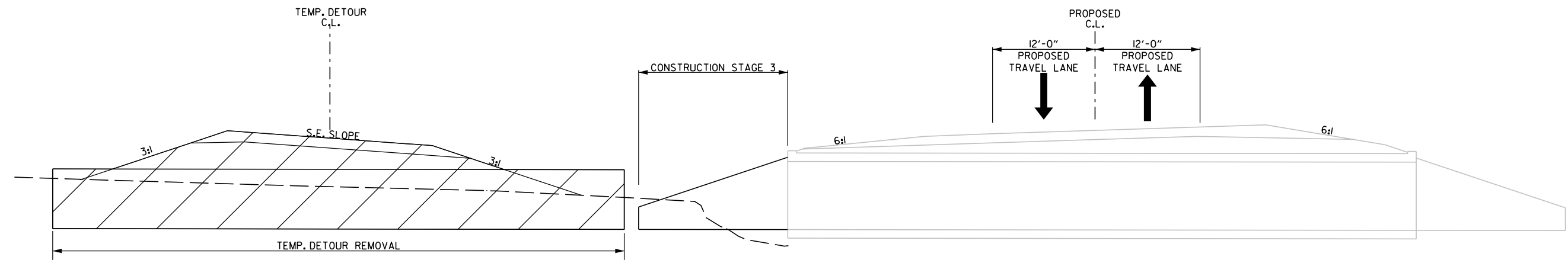


SITE 2 & 3 - MORGAN CREEK & LITTLE CYPRUS CREEK
 STAGE 3 - TEMP. DETOUR REMOVAL
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

SITE 2 - C.L. HWY. 25 STA. 196+04.39 TO 201+04.35
 STA. 201+96.78 TO 205+77.91
 SITE 3 - C.L. HWY. 25 STA. 300+60.99 TO 304+55.53
 STA. 305+56.29 TO 309+71.91

CONSTRUCTION SEQUENCE - HWY. 25 - SITES 2 & 3

- STAGE 1:
 INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.
 CLEARING AND GRUBBING OPERATIONS MAY BEGIN IF AND WHERE DIRECTED BY THE ENGINEER.
 INSTALL TEMPORARY PIPE CULVERTS AND CONSTRUCT TEMPORARY DETOUR AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 2:
 SHIFT TRAFFIC TO TEMPORARY DETOUR AND CONSTRUCT PORTIONS OF PROPOSED ROADWAY, DRAINAGE, AND BOX CULVERT AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.
- STAGE 3:
 SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BOX CULVERT AND REMOVE TEMPORARY DETOUR.
 CONSTRUCT REMAINDER OF THE BOX CULVERT, ROADWAY TIES, FINAL OVERLAY, FINAL GRADING, AND DRAINAGE UNDER TRAFFIC FOR THE PROJECT AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.



SITE 2 & 3 - MORGAN CREEK & LITTLE CYPRUS CREEK
 STAGE 3 - TEMP. DETOUR REMOVAL AND R.C. BOX CULVERT CONSTRUCTION
 MAINTENANCE OF TRAFFIC DETAILS TYPICAL SECTION

SITE 2 - C.L. HWY. 25 STA. 201+04.35 TO 201+96.78
 SITE 3 - C.L. HWY. 25 STA. 304+55.53 TO 305+56.29

HWY. 25 - SITE 2 & 3
 STAGE 3
 TYPICAL SECTION
 MAINTENANCE OF TRAFFIC DETAILS





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				6	ARK.			
				JOB NO.	100991	44	90	

2 MAINTENANCE OF TRAFFIC DETAILS



LEGEND

-  TYPE 3 BARRICADE
-  STAGE I CONSTRUCTION
-  TRAFFIC FLOW ARROWS
-  VERTICAL PANNEL

HWY. 25 - SITE 2 -STAGE I- QUANTITIES (STA. 195+00.00 TO STA. 206+00.00)

VERTICAL PANELS 21 EACH

CONSTRUCTION PAVEMENT MARKING (BASED ON DBL. YELLOW C.L. & WHITE EDGES LT. & RT.) 3896 LIN. FT.

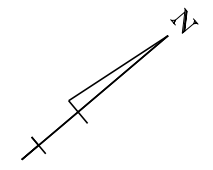
RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED: 25 EACH

CONSTRUCTION PAVEMENT MARKING WHITE SOLID LINE RT. - HWY. 25 - SITE 2 STA. 196+04 TO 205+78 - 974 LIN. FT.

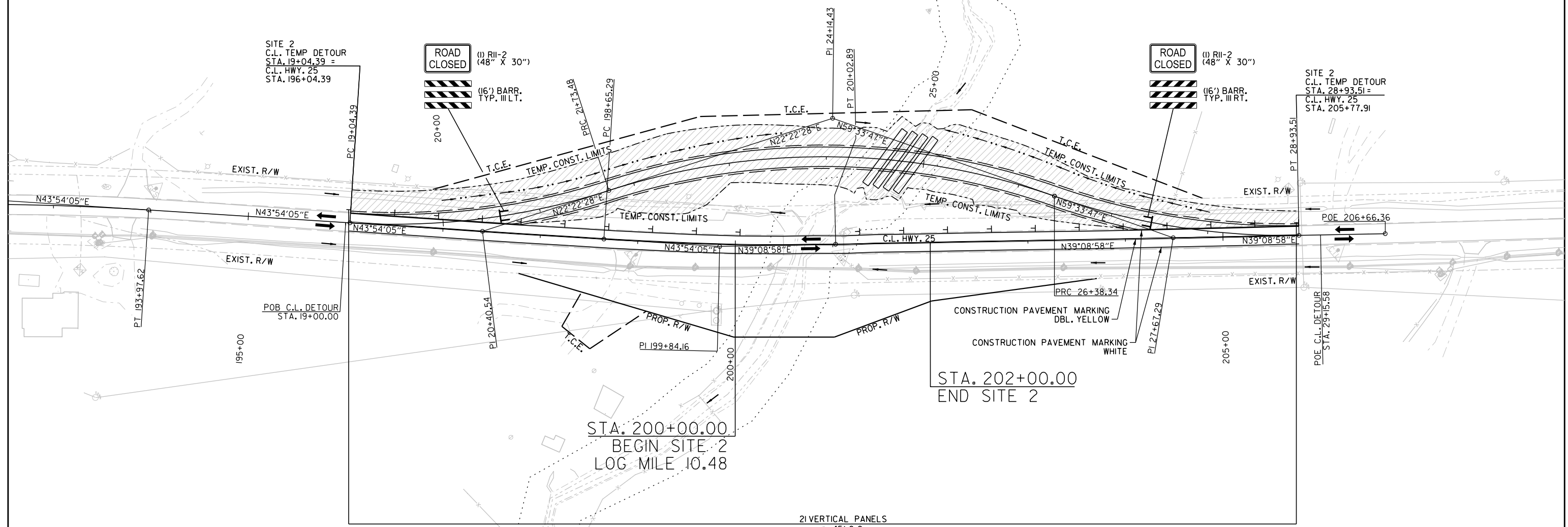
CONSTRUCTION PAVEMENT MARKING WHITE SOLID LINE LT. - HWY. 25 - SITE 2 STA. 196+04 TO 205+78 - 974 LIN. FT.

CONSTRUCTION PAVEMENT MARKING CONTINOUS DOUBLE YELLOW. - HWY. 25 - SITE 2 STA. 196+04 TO 205+78 - 1948 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. IF AND WHERE DIRECTED BY THE ENGINEER - 25 EACH



25' BUFFER. REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".



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




HWY. 25 - SITE 2
 STAGE I
 MAINTENANCE OF TRAFFIC DETAILS

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				6	ARK.		45	90
							JOB NO.	100991
							MAINTENANCE OF TRAFFIC DETAILS	2



LEGEND

-  TYPE 3 BARRICADE
-  STAGE 2 CONSTRUCTION
-  TRAFFIC FLOW ARROWS
-  TRAFFIC DRUMS
-  TEMPORARY TRAFFIC SIGN

REMOVAL OF PERMANENT PAVEMENT MARKING
 WHITE SOLID EDGE LINE RT./LT. AND DBL. YELLOW - HWY. 25 - SITE 2

STA. 196+04 TO 198+00 - 784 LIN. FT.
 STA. 204+00 TO 205+78 - 712 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
 WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 2 - TEMP. DETOUR

STA. 19+04 TO 28+94 - 990 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
 WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 2 - TEMP. DETOUR

STA. 19+04 TO 28+94 - 990 LIN. FT.

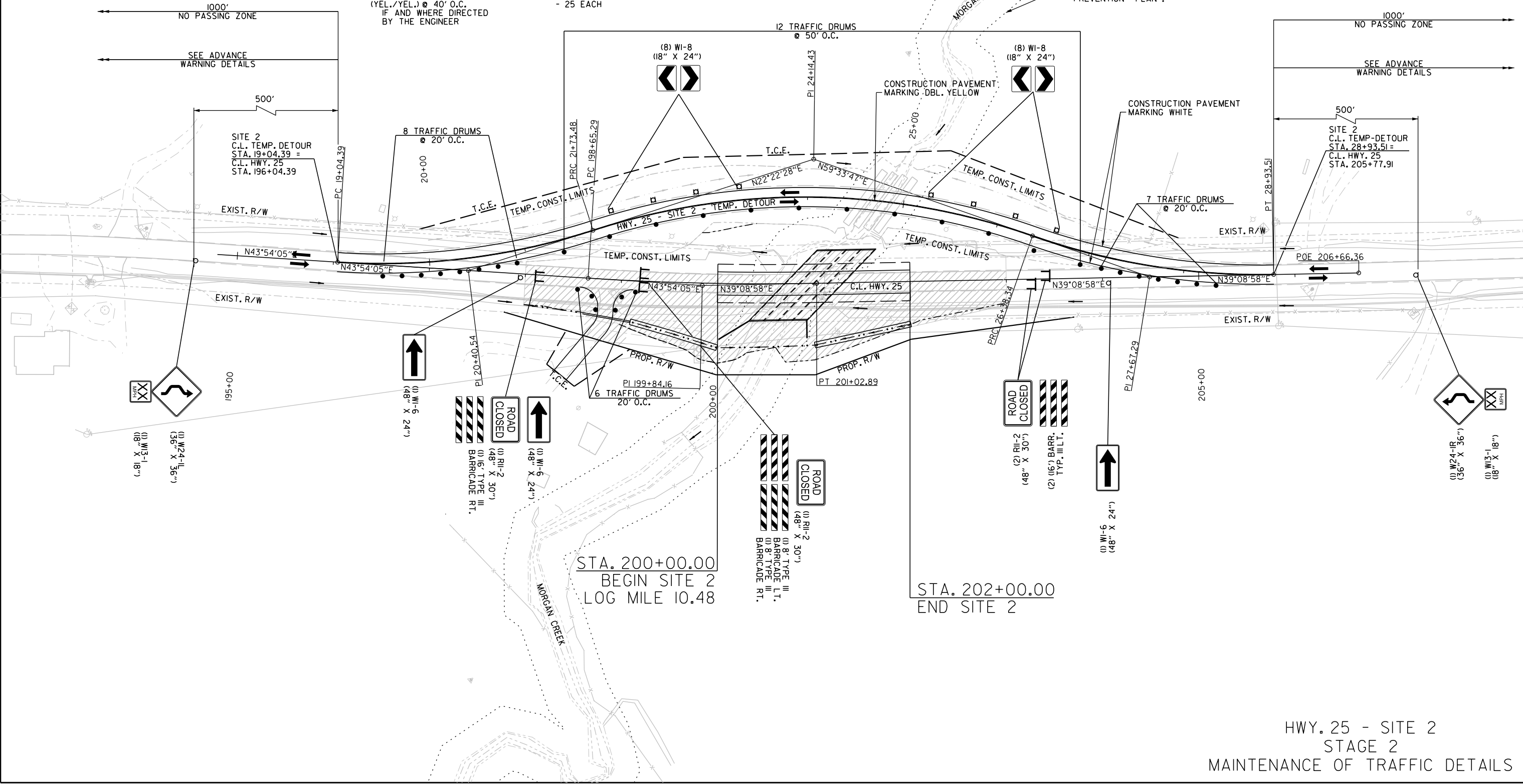
CONSTRUCTION PAVEMENT MARKING
 CONTINUOUS DOUBLE YELLOW - HWY. 25 - SITE 2 - TEMP. DETOUR

STA. 19+04 TO 28+94 - 1980 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)
 (YEL./YEL.) @ 40' O.C. IF AND WHERE DIRECTED BY THE ENGINEER - 25 EACH

HWY. 25 - SITE 2 - STAGE 2 - QUANTITIES (STA. 19+04.00 TO STA. 28+94.00)






TRAFFIC DRUMS 33 EACH
 CHEVRONS 16 EACH
 CONSTRUCTION PAVEMENT MARKINGS 3960 LIN. FT.
 REM. OF PERMANENT PAVEMENT MARKINGS 1496 LIN. FT.
 RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED: 25 EACH



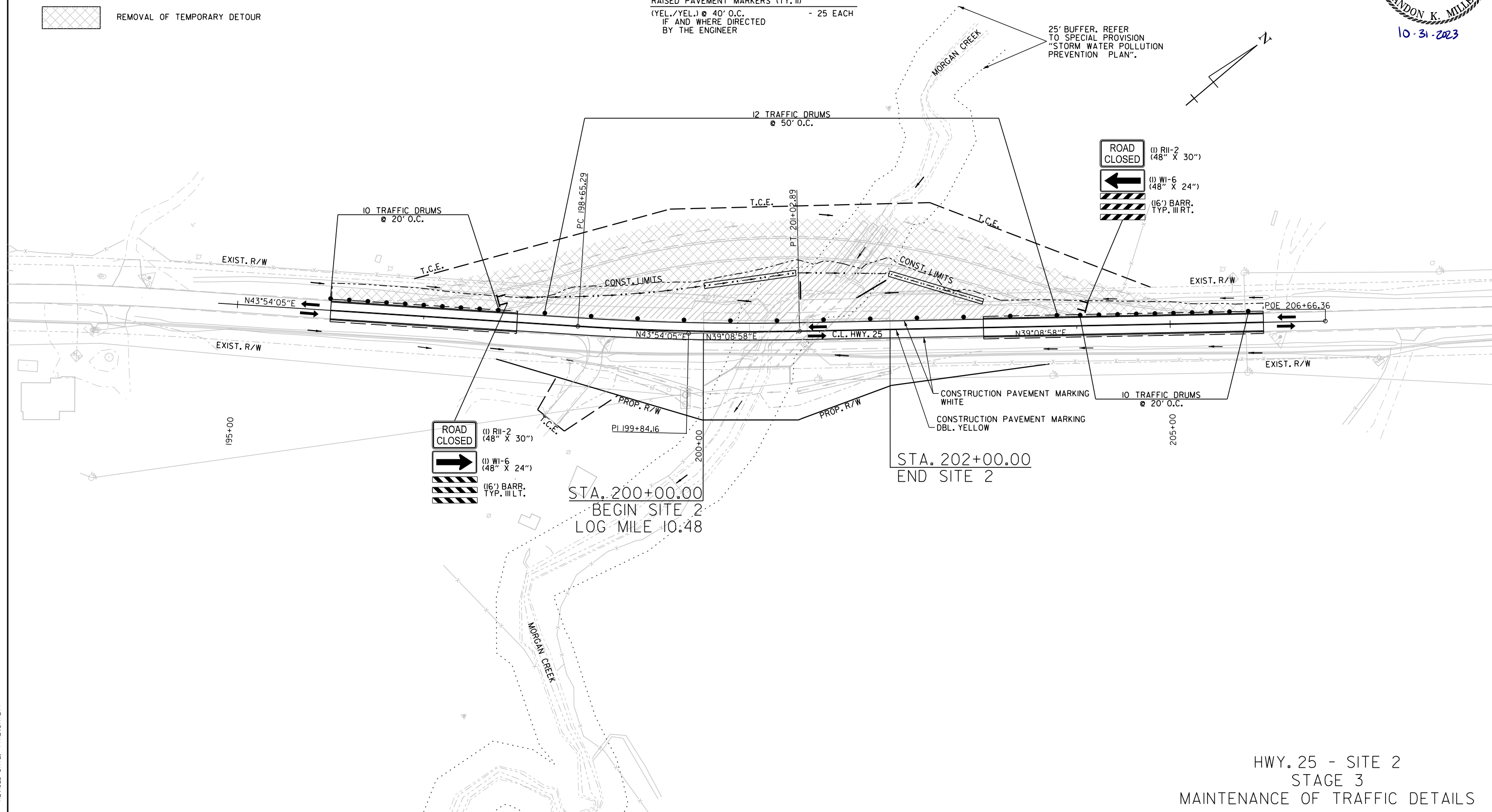
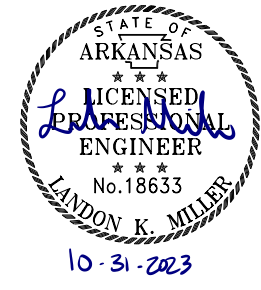
HWY. 25 - SITE 2
 STAGE 2
 MAINTENANCE OF TRAFFIC DETAILS

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.	100991	46	90	
2 MAINTENANCE OF TRAFFIC DETAILS								

LEGEND

-  TYPE 3 BARRICADE
-  STAGE 3 CONSTRUCTION
-  TRAFFIC FLOW ARROWS
-  TRAFFIC DRUM
-  REMOVAL OF TEMPORARY DETOUR

- HWY. 25 - SITE 2 - STAGE 3 - QUANTITIES (STA. 195+00.00 TO STA. 206+00.00)
- TRAFFIC DRUMS 32 EACH
- CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.) 4000 LIN. FT.
- RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED: 25 EACH
- REMOVAL OF CONSTRUCTION PAVEMENT MARKING 684 LIN. FT.
- CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 2 STA. 196+00 TO 206+00 - 1000 LIN. FT.
- CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 2 STA. 196+00 TO 206+00 - 1000 LIN. FT.
- CONSTRUCTION PAVEMENT MARKING CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 2 STA. 196+00 TO 206+00 - 2000 LIN. FT.
- RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. IF AND WHERE DIRECTED BY THE ENGINEER - 25 EACH
- REMOVAL OF CONSTRUCTION PAVEMENT MARKING CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 2 - TEMP. DETOUR STA. 19+04 TO 20+74 - 171 LIN. FT. STA. 27+24 TO 28+94 - 171 LIN. FT.
- REMOVAL OF CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 2 - TEMP. DETOUR STA. 19+04 TO 20+74 - 171 LIN. FT. STA. 27+24 TO 28+94 - 171 LIN. FT.








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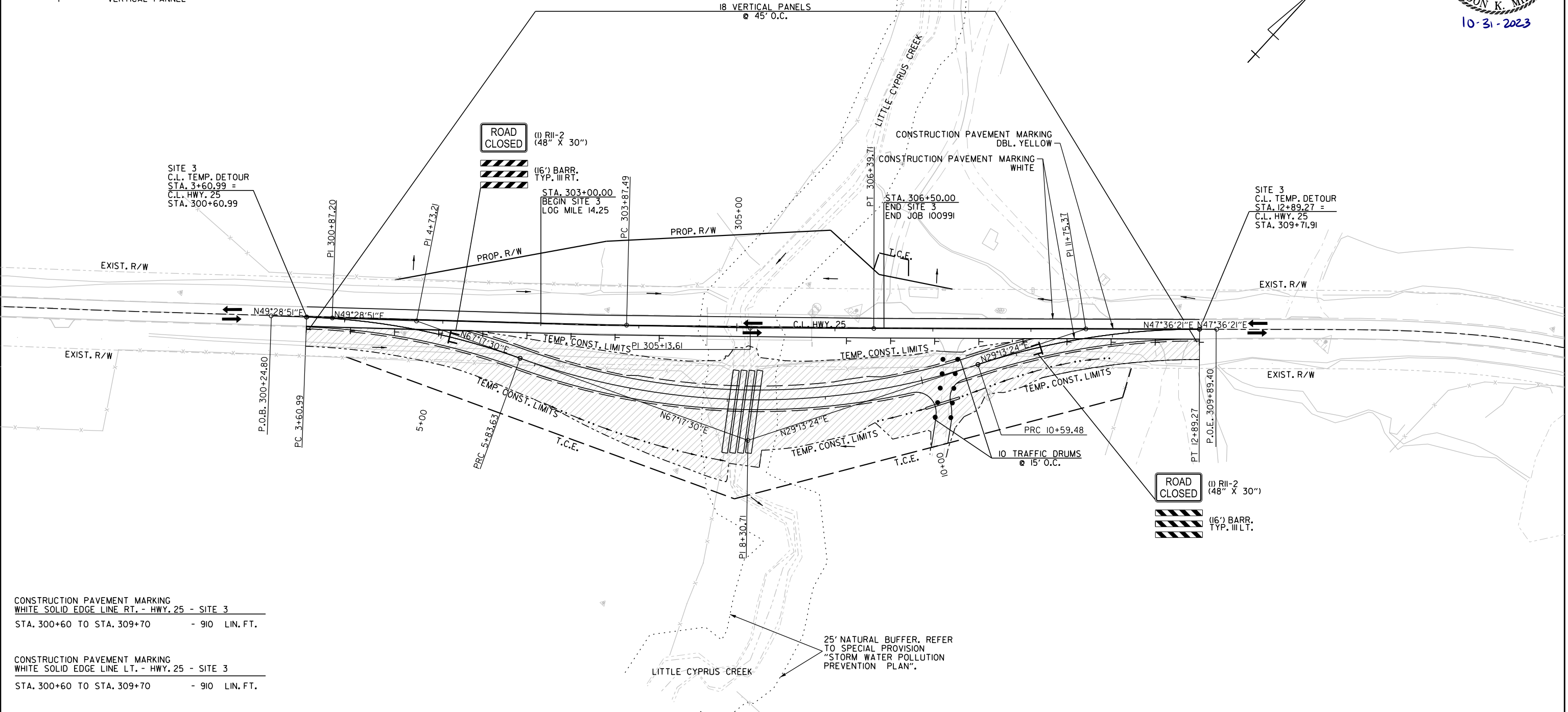
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				6	ARK.			
				JOB NO.	100991	47	90	

2 MAINTENANCE OF TRAFFIC DETAILS



LEGEND

-  TYPE 3 BARRICADE
-  STAGE I CONSTRUCTION
-  TRAFFIC FLOW ARROWS
-  TRAFFIC DRUMS
-  VERTICAL PANNEL



CONSTRUCTION PAVEMENT MARKING
 WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 3
 STA. 300+60 TO STA. 309+70 - 910 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
 WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 3
 STA. 300+60 TO STA. 309+70 - 910 LIN. FT.

CONSTRUCTION PAVEMENT MARKING
 CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 3
 STA. 300+60 TO STA. 309+70 - 1820 LIN. FT.

RAISED PAVEMENT MARKERS (TY. II)
 (YEL./YEL.) @ 40' O.C. - 23 EACH
 IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 25 - SITE 2 - STAGE I - QUANTITIES (STA. 300+61.00 TO STA. 309+73.00)






TRAFFIC DRUMS	10 EACH
VERTICAL PANNELS	18 EACH
CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE LT. & RT.)	3640 LIN. FT.
RAISED PAVEMENT MARKERS (TY. III) (Y/Y) @ 40' O.C. ARE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED:	23 EACH

25' NATURAL BUFFER, REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN".

HWY. 25 - SITE 3
 STAGE I
 MAINTENANCE OF TRAFFIC DETAILS

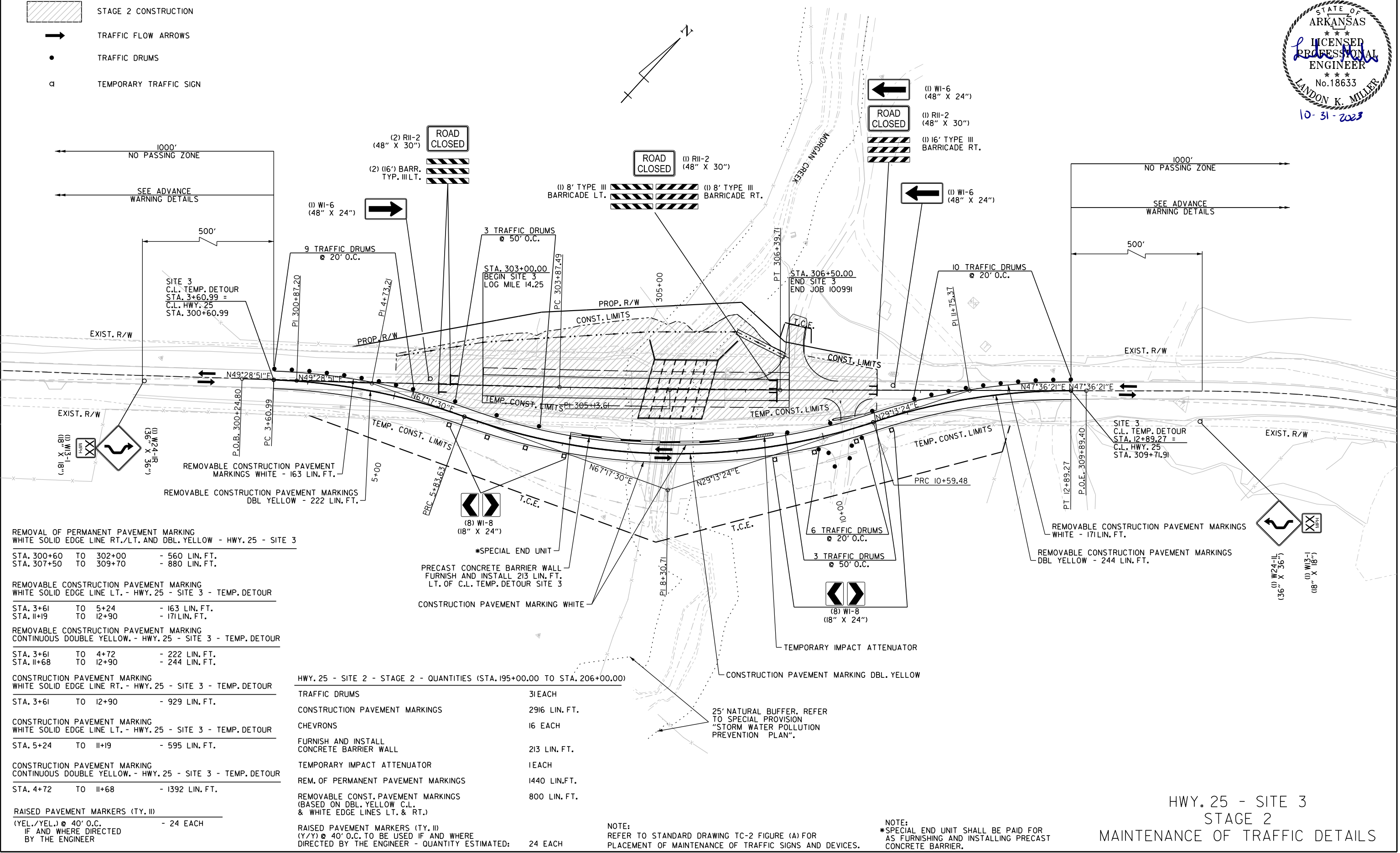
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LEGEND

-  TYPE 3 BARRICADE
-  STAGE 2 CONSTRUCTION
-  TRAFFIC FLOW ARROWS
-  TRAFFIC DRUMS
-  TEMPORARY TRAFFIC SIGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100991	48	90

2 MAINTENANCE OF TRAFFIC DETAILS



- REMOVAL OF PERMANENT PAVEMENT MARKING
WHITE SOLID EDGE LINE RT./LT. AND DBL. YELLOW - HWY. 25 - SITE 3
- | | | | | |
|-------------|----|--------|---|--------------|
| STA. 300+60 | TO | 302+00 | - | 560 LIN. FT. |
| STA. 307+50 | TO | 309+70 | - | 880 LIN. FT. |
- REMOVABLE CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 3 - TEMP. DETOUR
- | | | | | |
|------------|----|-------|---|--------------|
| STA. 3+61 | TO | 5+24 | - | 163 LIN. FT. |
| STA. 11+19 | TO | 12+90 | - | 171 LIN. FT. |
- REMOVABLE CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 3 - TEMP. DETOUR
- | | | | | |
|------------|----|-------|---|--------------|
| STA. 3+61 | TO | 4+72 | - | 222 LIN. FT. |
| STA. 11+68 | TO | 12+90 | - | 244 LIN. FT. |
- CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 3 - TEMP. DETOUR
- | | | | | |
|-----------|----|-------|---|--------------|
| STA. 3+61 | TO | 12+90 | - | 929 LIN. FT. |
|-----------|----|-------|---|--------------|
- CONSTRUCTION PAVEMENT MARKING
WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 3 - TEMP. DETOUR
- | | | | | |
|-----------|----|-------|---|--------------|
| STA. 5+24 | TO | 11+19 | - | 595 LIN. FT. |
|-----------|----|-------|---|--------------|
- CONSTRUCTION PAVEMENT MARKING
CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 3 - TEMP. DETOUR
- | | | | | |
|-----------|----|-------|---|---------------|
| STA. 4+72 | TO | 11+68 | - | 1392 LIN. FT. |
|-----------|----|-------|---|---------------|
- RAISED PAVEMENT MARKERS (TY. II)
(YEL./YEL.) @ 40' O.C. - 24 EACH
IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 25 - SITE 2 - STAGE 2 - QUANTITIES (STA. 195+00.00 TO STA. 206+00.00)

TRAFFIC DRUMS	31 EACH
CONSTRUCTION PAVEMENT MARKINGS	2916 LIN. FT.
CHEVRONS	16 EACH
FURNISH AND INSTALL CONCRETE BARRIER WALL	213 LIN. FT.
TEMPORARY IMPACT ATTENUATOR	1 EACH
REM. OF PERMANENT PAVEMENT MARKINGS	1440 LIN. FT.
REMOVABLE CONST. PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.)	800 LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED:	24 EACH

NOTE: REFER TO STANDARD DRAWING TC-2 FIGURE (A) FOR PLACEMENT OF MAINTENANCE OF TRAFFIC SIGNS AND DEVICES.

NOTE: *SPECIAL END UNIT SHALL BE PAID FOR AS FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER.

HWY. 25 - SITE 3
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS






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				6	ARK.			
				JOB NO.	100991	49	90	

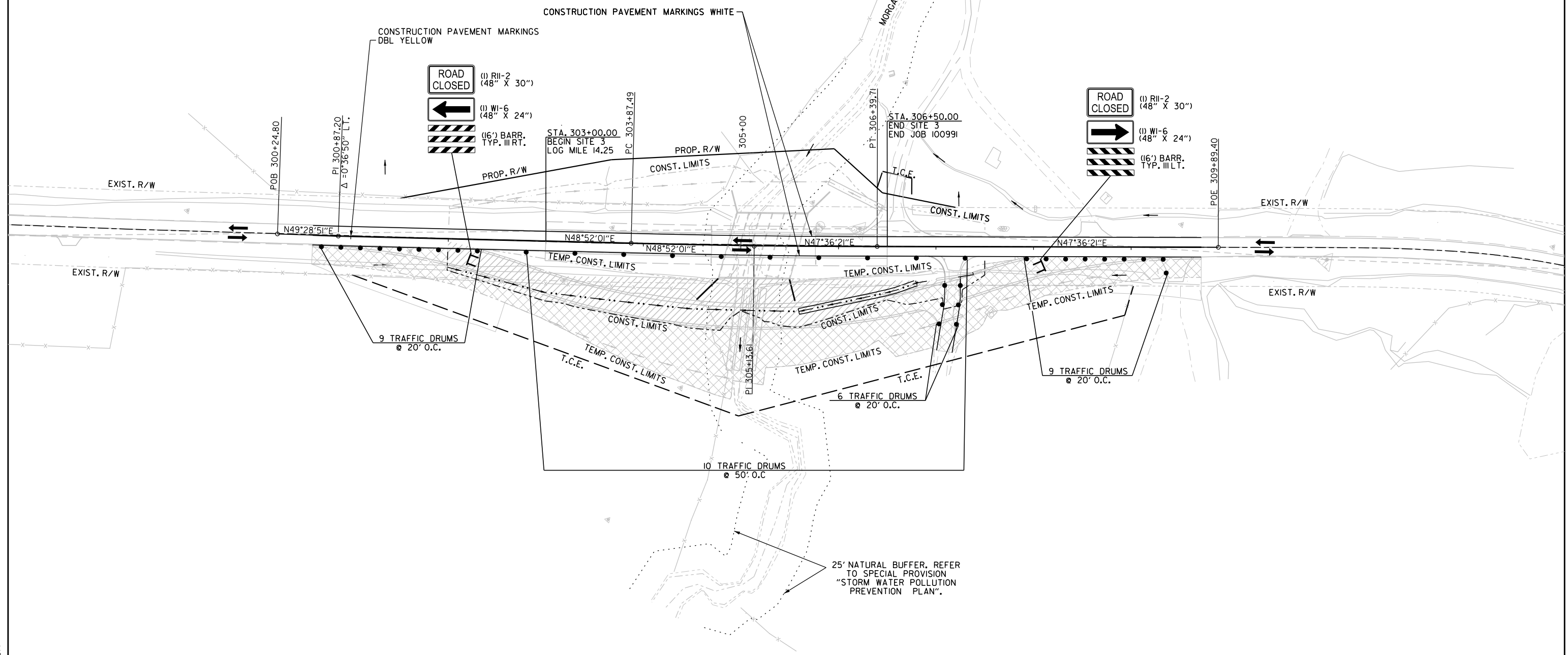
② MAINTENANCE OF TRAFFIC DETAILS



LEGEND

-  TYPE 3 BARRICADE
-  STAGE 3 CONSTRUCTION
-  TRAFFIC FLOW ARROWS
-  TRAFFIC DRUMS
-  TEMPORARY DETOUR REMOVAL

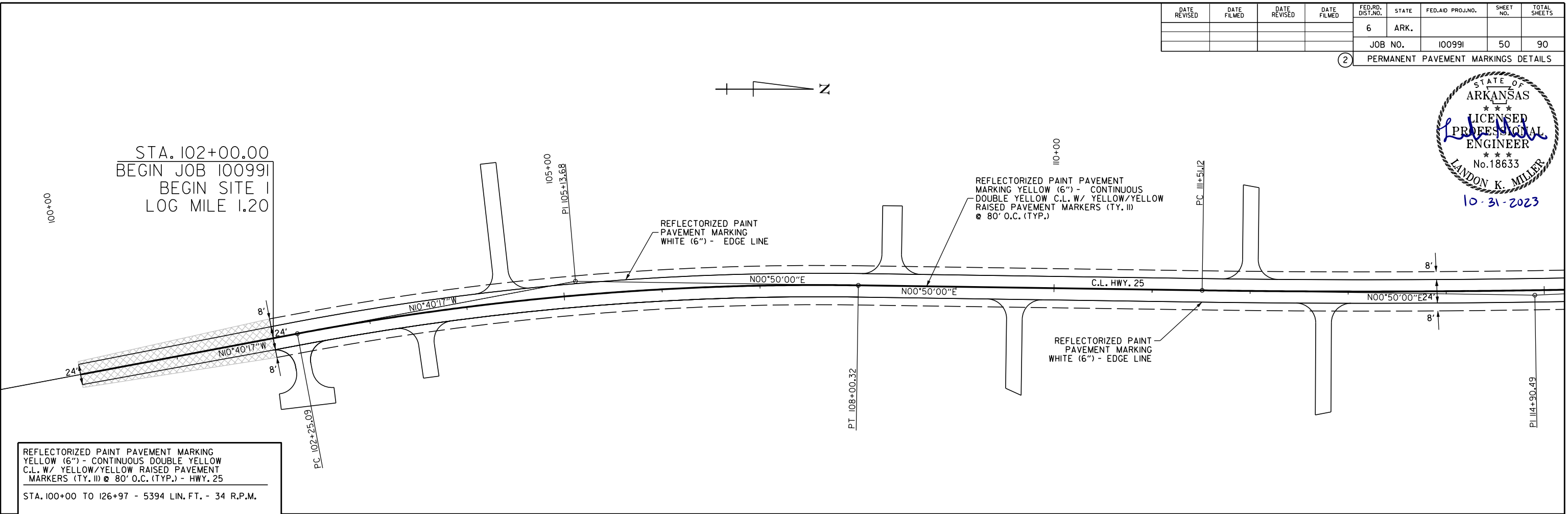
- HWY. 25 - SITE 2 - STAGE 1 - QUANTITIES (STA. 300+61.00 TO STA. 309+73.00)
- TRAFFIC DRUMS 34 EACH
- CONSTRUCTION PAVEMENT MARKINGS (BASED ON DBL. YELLOW C.L. & WHITE EDGE LINES LT. & RT.) 3640 LIN. FT.
- RAISED PAVEMENT MARKERS (TY. II) (Y/Y) @ 40' O.C. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER - QUANTITY ESTIMATED: 23 EACH
- CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE RT. - HWY. 25 - SITE 3 STA. 300+60 TO STA. 309+70 - 910 LIN. FT.
- CONSTRUCTION PAVEMENT MARKING WHITE SOLID EDGE LINE LT. - HWY. 25 - SITE 3 STA. 300+60 TO STA. 309+70 - 910 LIN. FT.
- CONSTRUCTION PAVEMENT MARKING CONTINUOUS DOUBLE YELLOW. - HWY. 25 - SITE 3 STA. 300+60 TO STA. 309+70 - 1820 LIN. FT.
- RAISED PAVEMENT MARKERS (TY. II) (YEL./YEL.) @ 40' O.C. IF AND WHERE DIRECTED BY THE ENGINEER - 23 EACH



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HWY. 25 - SITE 3
 STAGE 3
 MAINTENANCE OF TRAFFIC DETAILS

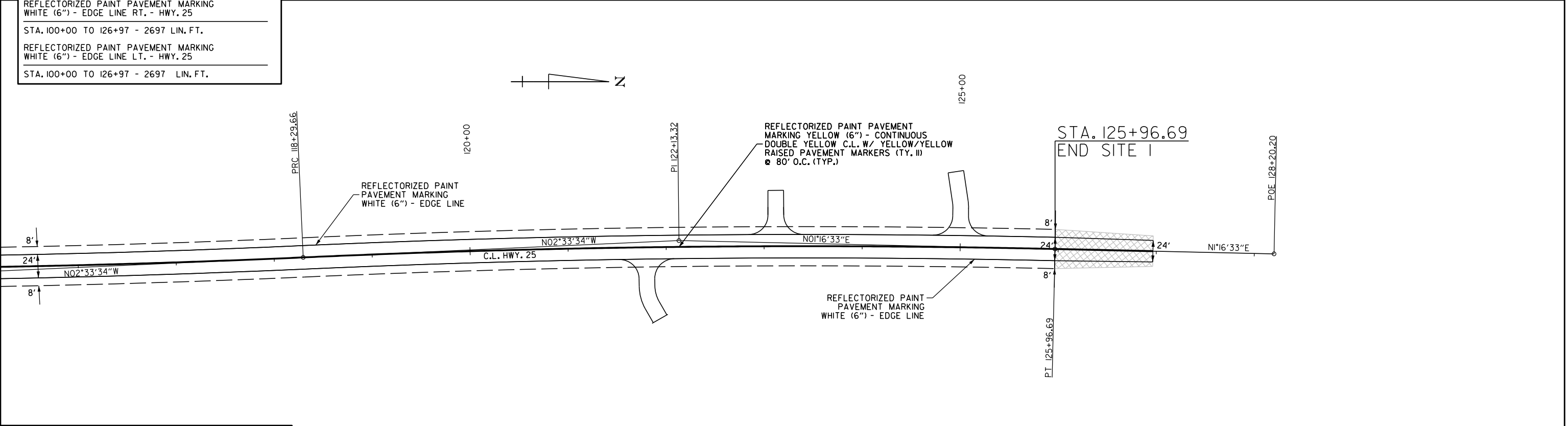
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				6	ARK.			
				JOB NO.	100991	50	90	
				PERMANENT PAVEMENT MARKINGS DETAILS				



REFLECTORIZED PAINT PAVEMENT MARKING
YELLOW (6") - CONTINUOUS DOUBLE YELLOW
C.L. W/ YELLOW/YELLOW RAISED PAVEMENT
MARKERS (TY. II) @ 80' O.C. (TYP.) - HWY. 25
STA. 100+00 TO 126+97 - 5394 LIN. FT. - 34 R.P.M.

REFLECTORIZED PAINT PAVEMENT MARKING
WHITE (6") - EDGE LINE RT. - HWY. 25
STA. 100+00 TO 126+97 - 2697 LIN. FT.

REFLECTORIZED PAINT PAVEMENT MARKING
WHITE (6") - EDGE LINE LT. - HWY. 25
STA. 100+00 TO 126+97 - 2697 LIN. FT.



PROJECT QUANTITY TOTALS:

REFLECTORIZED PAINT PAVEMENT MARKING
WHITE (6") - EDGE = 9216 LIN. FT.
YELLOW (6") - C.L. = 9216 LIN. FT.
RAISED PAVEMENT MARKERS (TY. II) = 58 EACH

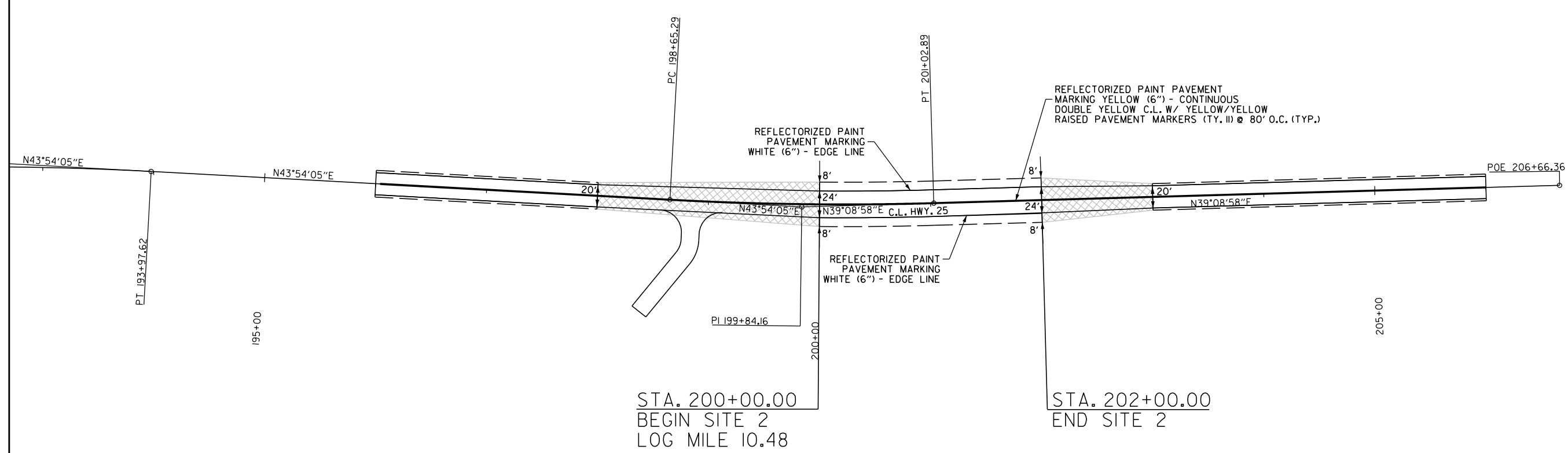
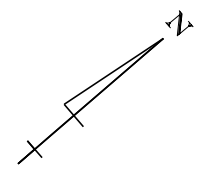
NOTE:
THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS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

HWY. 25 - SITE I
PERMANENT PAVEMENT MARKINGS DETAILS

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				6	ARK.			
				JOB NO.	100991	51	90	
				PERMANENT PAVEMENT MARKINGS DETAILS				

2



- REFLECTORIZED PAINT PAVEMENT MARKING
YELLOW (6") - CONTINUOUS DOUBLE YELLOW
C.L. W/ YELLOW/YELLOW RAISED PAVEMENT MARKERS
80' O.C. (TYP.) - HWY. 25
STA. 196+00 TO 206+00 - 2000 LIN. FT. - 12 R.P.M.
- REFLECTORIZED PAINT PAVEMENT MARKING
WHITE (6") - EDGE LINE RT. - HWY. 25
STA. 196+00 TO 206+00 - 1000 LIN. FT.
- REFLECTORIZED PAINT PAVEMENT MARKING
WHITE (6") - EDGE LINE LT. - HWY. 25
STA. 196+00 TO 206+00 - 1000 LIN. FT.

STA. 200+00.00
BEGIN SITE 2
LOG MILE 10.48

STA. 202+00.00
END SITE 2

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 PROJECT.

PROJECT QUANTITY TOTALS:

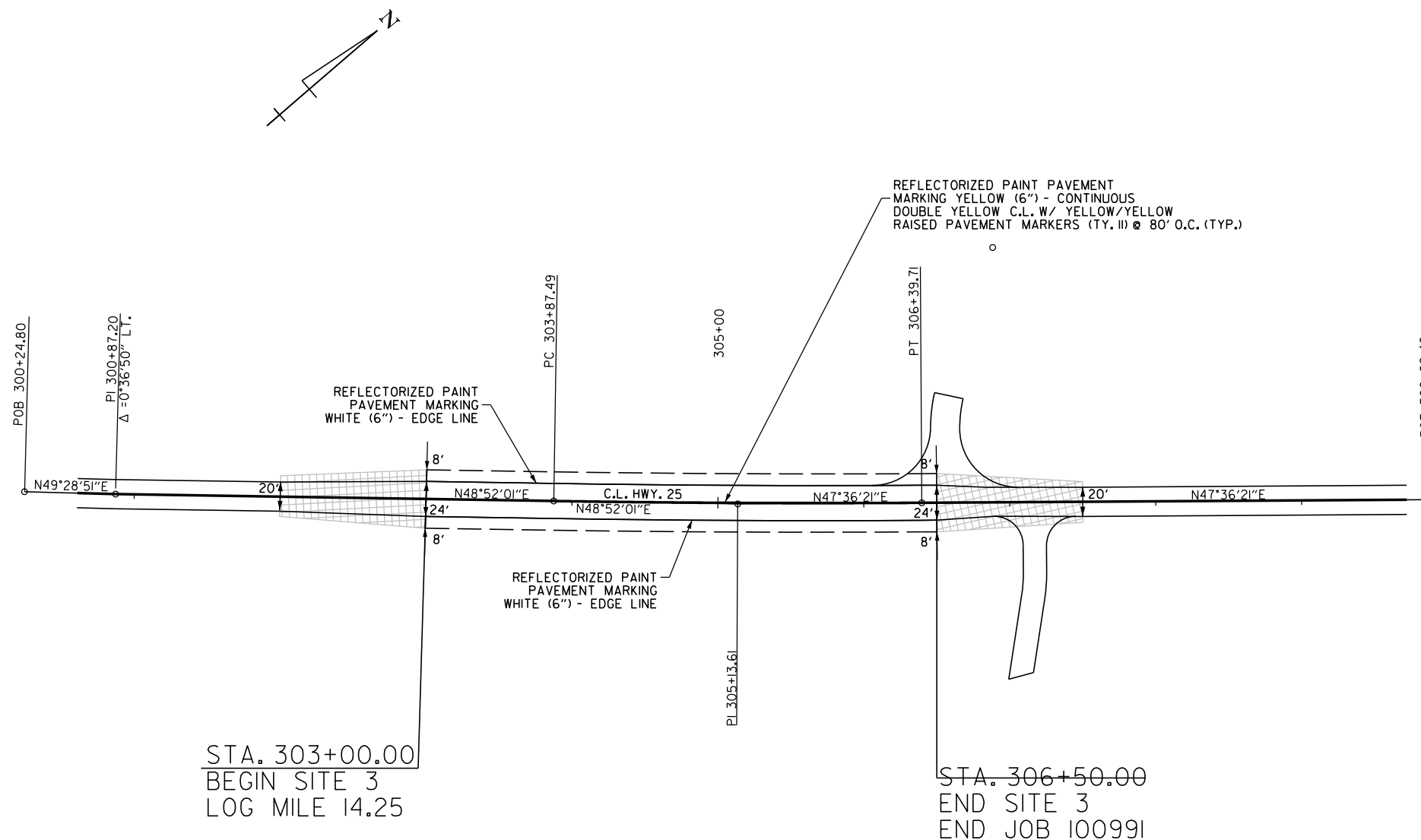
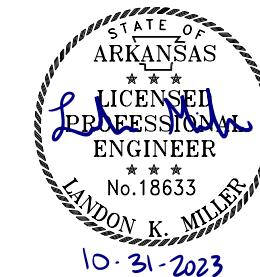
- REFLECTORIZED PAINT PAVEMENT MARKING
WHITE (6") - EDGE = 9216 LIN. FT.
- YELLOW (6") - C.L. = 9216 LIN. FT.
- RAISED PAVEMENT MARKERS (TY. II) = 58 EACH

HWY. 25 - SITE 2
PERMANENT PAVEMENT MARKINGS DETAILS

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				6	ARK.			
				JOB NO.	100991	52	90	

2 PERMANENT PAVEMENT MARKINGS DETAILS



REFLECTORIZED PAINT PAVEMENT MARKING
 YELLOW (6") - CONTINUOUS DOUBLE YELLOW
 C.L. W/ YELLOW/YELLOW RAISED PAVEMENT
 MARKERS (TY. II) 80' O.C. (TYP.) - HWY. 25

STA. 300+61 TO 309+72 - 1822 LIN. FT. - 12 R.P.M.

REFLECTORIZED PAINT PAVEMENT MARKING
 WHITE (6") - EDGE LINE RT. - HWY. 25

STA. 300+61 TO 309+72 - 911 LIN. FT.

REFLECTORIZED PAINT PAVEMENT MARKING
 WHITE (6") - EDGE LINE LT. - HWY. 25

STA. 300+61 TO 309+72 - 911 LIN. FT.

PROJECT QUANTITY TOTALS:

REFLECTORIZED PAINT PAVEMENT MARKING
 WHITE (6") - EDGE = 9216 LIN. FT.
 YELLOW (6") - C.L. = 9216 LIN. FT.
 RAISED PAVEMENT MARKERS (TY. II) = 58 EACH

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 PROJECT.

HWY. 25 - SITE 3
 PERMANENT PAVEMENT MARKINGS DETAILS

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				6	ARK.			
				JOB NO.	100991	54	90	
				QUANTITIES				

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL									
			SEEDING ACRE	LIME TON	MULCH COVER ACRE	WATER M.GAL.	SECOND SEEDING APPLICATION ACRE	TEMPORARY SEEDING ACRE	MULCH COVER ACRE	WATER M.GAL.	SAND BAG DITCH CHECKS (E-5) BAG	ROCK DITCH CHECKS (E-6) CU.YD.	SILT FENCE (E-11) LIN. FT.	FILTER SOCKS (18") (E-13) LIN. FT.	SEDIMENT BASIN (E-14) CU.YD.	OBLITERATION OF SEDIMENT BASIN CU.YD.	*SEDIMENT REMOVAL & DISPOSAL CU. YD.
ENTIRE PROJECT		SITE 1 C.L. HWY. 25 - CLEARING AND GRUBBING						7.68	7.68	156.7	528	63	5589		1390		1642
ENTIRE PROJECT		SITE 1 C.L. HWY. 25 - STAGE 1	4.89	9.78	4.89	498.8	4.89	9.78	199.5	286	18	86	106	1390	1390	1416	
ENTIRE PROJECT		SITE 1 C.L. HWY. 25 - STAGE 2	3.09	6.18	3.09	315.2	3.09	6.18	126.1	154	6	81	20	166	1556	179	
ENTIRE PROJECT		SITE 2 C.L. HWY. 25 - CLEARING AND GRUBBING						2.44	2.44	49.8	110	30	2107		619		712
ENTIRE PROJECT		SITE 2 C.L. HWY. 25 - STAGE 1						1.11	1.11	22.6	44	6	106	476	333	484	
ENTIRE PROJECT		SITE 2 C.L. HWY. 25 - STAGE 2	1.09	2.18	1.09	111.2	1.09	2.18	44.5	110	6	104		143	143	154	
ENTIRE PROJECT		SITE 2 C.L. HWY. 25 - STAGE 3	1.39	2.78	1.39	141.8	1.39	2.78	56.7	22	9	181		476	1238	487	
ENTIRE PROJECT		SITE 3 C.L. HWY. 25 - CLEARING AND GRUBBING						1.60	1.60	32.6		24	1848	264		340	
ENTIRE PROJECT		SITE 3 C.L. HWY. 25 - STAGE 1						0.61	0.61	12.4	66	12	149	178	178	191	
ENTIRE PROJECT		SITE 3 C.L. HWY. 25 - STAGE 2	0.56	1.12	0.56	57.1	0.56	1.12	22.8	44	6	80		86	86	93	
ENTIRE PROJECT		SITE 3 C.L. HWY. 25 - STAGE 3	0.88	1.76	0.88	89.8	0.88	1.76	35.9	44	6	153		178	442	188	
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			3.00	6.00	3.00	306.0	3.00	6.00	189.9	352	48	2621	32	1342	1342	1472	
TOTALS:			14.90	29.80	14.90	1519.9	14.90	29.80	949.5	1760	234	13105	158	6708	6708	7358	

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

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.

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH LIN. FT.	"W" FEET	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
					SQ. YD.	SQ. YD.	M. GAL.
101+00.00	102+08.00	SITE 1 C.L. HWY. 25 RT.	108.00	6.00	72.00	48.00	0.60
102+42.00	103+37.00	SITE 1 C.L. HWY. 25 RT.	95.00	6.00	63.33	42.22	0.53
103+71.00	106+00.00	SITE 1 C.L. HWY. 25 RT.	229.00	6.00	152.67	101.78	1.28
106+00.00	107+50.00	SITE 1 C.L. HWY. 25 RT.	150.00	6.00	100.00	66.67	0.84
106+00.00	108+13.00	SITE 1 C.L. HWY. 25 LT.	213.00	6.00	142.00	94.67	1.19
108+55.00	110+53.00	SITE 1 C.L. HWY. 25 LT.	198.00	6.00	132.00	88.00	1.11
108+60.00	109+33.00	SITE 1 C.L. HWY. 25 RT.	73.00	6.00	48.67	32.44	0.41
109+86.00	110+53.00	SITE 1 C.L. HWY. 25 RT.	67.00	6.00	44.67	29.78	0.38
112+35.00	113+68.00	SITE 1 C.L. HWY. 25 LT.	133.00	6.00	88.67	59.11	0.74
122+50.00	122+98.00	SITE 1 C.L. HWY. 25 LT.	48.00	6.00	32.00	21.33	0.27
123+26.00	124+88.00	SITE 1 C.L. HWY. 25 LT.	162.00	6.00	108.00	72.00	0.91
199+11.00	200+00.00	SITE 2 C.L. HWY. 25 RT.	89.00	6.00	59.33	39.56	0.50
200+00.00	201+00.00	SITE 2 C.L. HWY. 25 LT.	100.00	6.00	66.67	44.44	0.56
201+00.00	202+00.00	SITE 2 C.L. HWY. 25 RT.	100.00	6.00	66.67	44.44	0.56
202+00.00	203+00.00	SITE 2 C.L. HWY. 25 LT.	100.00	6.00	66.67	44.44	0.56
305+60.00	306+80.00	SITE 3 C.L. HWY. 25 RT.	120.00	6.00	80.00	53.33	0.67
305+90.00	306+45.00	SITE 3 C.L. HWY. 25 LT.	55.00	6.00	36.67	24.44	0.31
TOTALS:					1360.02	906.65	11.42

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

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	CU. YD.
102+00.00	125+96.69	SITE 1 C.L. HWY. 25 - STAGE 1	9011	10903
102+00.00	125+96.69	SITE 1 C.L. HWY. 25 - STAGE 2	5498	1432
198+00.00	203+00.00	SITE 2 C.L. HWY. 25 - STAGE 1	1089	2789
198+00.00	203+00.00	SITE 2 C.L. HWY. 25 - STAGE 2	686	2868
196+00.00	198+00.00	SITE 2 C.L. HWY. 25 - STAGE 3	25	444
198+00.00	203+00.00	SITE 2 C.L. HWY. 25 - STAGE 3	4079	911
203+00.00	206+00.00	SITE 2 C.L. HWY. 25 - STAGE 3	83	162
303+00.00	306+50.00	SITE 3 C.L. HWY. 25 - STAGE 1	764	6339
303+00.00	306+50.00	SITE 3 C.L. HWY. 25 - STAGE 2	682	1956
303+00.00	306+50.00	SITE 3 C.L. HWY. 25 - STAGE 3	7552	445
ENTIRE PROJECT		APPROACHES	45	2775
ENTIRE PROJECT		TEMPORARY APPROACHES	10	200
		SITE 1 C.L. HWY. 25 - CHANNEL CHANGE	5673	10
		SITE 2 C.L. HWY. 25 - CHANNEL CHANGE	1053	87
		SITE 3 C.L. HWY. 25 - CHANNEL CHANGE	1638	16
TOTALS:			37888	31337

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
ENTIRE PROJECT		TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	100	2
TOTALS:			100	2

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

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
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.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU. YD.
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	70
TOTAL:	70

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

SOIL STABILIZATION

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

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

STRUCTURES

STATION	DESCRIPTION	PIPE CULVERT ALTERNATES		FLARED END SECTION ALTERNATES FOR PIPE CULVERT ALTERNATES	TEMPORARY CULVERTS			JUNCT. BOXES (TYPE E)	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL. EXC. FOR STR.-ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		ALT. 1 (CLASS III)	ALT. 2 (WITH CLASS III ALT. 1)		24"	60"	84"										
		18"	18"		EACH	CU. YD.	POUND										
102+25	SITE 1 C.L. HWY. 25 LT.	504	510	2			272	1									FPC-9, PCC-1, PCM-1, FES 1, FES 2
24+76	SITE 2 C.L. TEMP. DETOUR - MORGAN CREEK																PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
8+17	SITE 3 C.L. TEMP. DETOUR - LITTLE CYPRESS CREEK						34										PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
10+10	SITE 3 C.L. TEMP. DETOUR - TEMP. DRIVEWAY																
SUBTOTALS:		504	510	2	34	340	272	1							10	0.13	
STRUCTURES OVER 20' - 0" SPAN																	
111+00	SITE 1 C.L. HWY. 25 - QUINTUPLE R.C. BOX CULVERT								12	12	76	652.14	74587	285	56	0.71	PCB-1, RCB-1, RCB-2, RCB-3, SPECIAL DETAILS
114+00	SITE 1 C.L. HWY. 25 - QUADRUPLE R.C. BOX CULVERT								10	8	72	332.75	40011	155	38	0.48	PCB-1, RCB-1, RCB-2, RCB-3, SPECIAL DETAILS
201+00	SITE 2 C.L. HWY. 25 - QUADRUPLE R.C. BOX CULVERT								10	8	103	489.94	72336	231	44	0.55	PCB-1, RCB-1, RCB-2, SPECIAL DETAILS
305+23	SITE 3 C.L. HWY. 25 - SEXTUPLE R.C. BOX CULVERT								11	10	71	587.52	77320	262	56	0.71	PCB-1, RCB-1, RCB-2, SPECIAL DETAILS
SUBTOTALS:												2062.35	264254	933	194	2.45	
TOTALS:		504	510	2	34	340	272	1				2062.35	264254	933	204	2.58	

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

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

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

QUANTITIES

Stephane Basile 10/18/2023 15:56:35 PM
WORKSPACE: \\AR001\IT614\100991\ndep Co-Eaton Strs & Apprs\Design\CIVIL\Drawings\100991_088_011.dwg
REVISION DATE: **REVISION**



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO.	100991
							55	90
							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"	24"
										LIN. FT.	
102+25	RT.	C.L. HWY. 25 - SITE 1	16	121.12	13.32	49.46	32		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
103+54	RT.	C.L. HWY.25 - SITE 1	16	105.00	11.55	42.88	34		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
104+85	LT.	C.L. HWY. 25 - SITE 1	16	222.83	24.51	90.99			DR-2		
108+34	LT.	C.L. HWY. 25 - SITE 1	20	163.91	18.03	66.93	42		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
109+60	RT.	C.L. HWY. 25 - SITE 1	16	176.80	19.45	72.19	54		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
112+00	LT.	C.L. HWY. 25 - SITE 1	16	177.64	19.54	72.54		72	DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
112+75	RT.	C.L. HWY. 25 - SITE 1 DBL.	16	209.1	23	85		140	DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
121+80	RT.	C.L. HWY. 25 - SITE 1	16	123.02	13.53	50.23	28		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
123+12	LT.	C.L. HWY. 25 - SITE 1	16	89.24	9.82	36.44	28		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
125+00	LT.	C.L. HWY. 25 - SITE 1	16	125.58	13.81	51.28			DR-2		
198+85	RT.	C.L. HWY. 25 - SITE 2	16	197.60	21.74	80.69	56		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
306+56	LT.	C.L. HWY. 25 - SITE 3 - C.R. 263	20	197.00	21.67	80.44			DR-2		
307+17	RT.	C.L. HWY. 25 - SITE 3	16	204.80	22.53	83.63	38		DR-2,PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
10+10	RT.	SITE 3 TEMP DETOUR	16			34.39	34		PCC-1,PCM-1,PCP-1,PCP-2,PCP-3		
*ENTIRE PROJECT TEMPORARY DRIVES									115.00		
TOTALS:				2113.64	232.50	1012.09	274	284			

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER

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

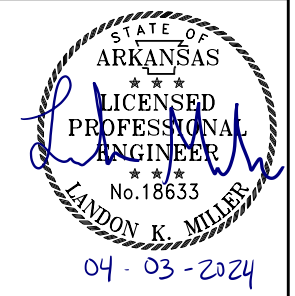
* FOR INFORMATION ONLY

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

FENCING

STATION	STATION	LOCATION	WIRE FENCE	* 16'-0" GATES
			(TYPE C) LIN. FT.	EACH
100+00	104+30	SITE 1 C.L. HWY. 25 LT.	432	
104+43	106+00	SITE 1 C.L. HWY. 25 RT.	153	
104+45	105+60	SITE 1 C.L. HWY. 25 LT.	115	1
106+00	109+28	SITE 1 C.L. HWY. 25 RT.	325	
109+65	110+97	SITE 1 C.L. HWY. 25 LT.	157	
111+35	111+92	SITE 1 C.L. HWY. 25 LT.	87	
111+50	120+85	SITE 1 C.L. HWY. 25 RT.	947	1
112+08	113+47	SITE 1 C.L. HWY. 25 LT.	140	
120+49	121+00	SITE 1 C.L. HWY. 25 LT.	60	
121+00	123+00	SITE 1 C.L. HWY. 25 LT.	206	
123+25	124+82	SITE 1 C.L. HWY. 25 LT.	165	
196+94	201+64	SITE 2 C.L. HWY. 25 LT.	468	
200+47	203+70	SITE 2 C.L. HWY. 25 RT.	334	
201+87	204+54	SITE 2 C.L. HWY. 25 LT.	287	
301+02	304+75	SITE 3 C.L. HWY. 25 RT.	380	
305+18	307+07	SITE 3 C.L. HWY. 25 RT.	194	
307+25	309+02	SITE 3 C.L. HWY. 25 RT.	182	1
TOTALS:			4632	3

* DENOTES ALTERNATE BID ITEM.



ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	14	28
TOTALS:	14	28

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

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																														
100+00.00	102+00.00	SITE 1 - C.L. HWY. 25 TRANSITION	200.00	82.00	164.00				24.00	533.33	90.67	90.67													26.00	577.78	220.00	63.56	63.56	
102+00.00	105+80.00	SITE 1 - C.L. HWY. 25 NOTCH AND WIDEN	380.00	210.63	800.39	17.10	722.00	36.10				36.10	8.60	363.11	330.00	59.91	8.50	358.89	220.00	39.48	28.00	1182.22	220.00	130.04	169.52					
105+80.00	118+65.00	SITE 1 - C.L. HWY. 25 FULL DEPTH	1285.00	257.25	3305.66	48.71	6954.71	347.74				347.74	24.46	3492.34	330.00	576.24	24.25	3462.36	220.00	380.96	28.00	3997.78	220.00	439.76	820.62					
118+65.00	125+96.69	SITE 1 - C.L. HWY. 25 NOTCH AND WIDEN	731.69	164.00	1199.97	16.86	1370.70	68.54				68.54	8.48	689.41	330.00	113.75	8.38	681.28	220.00	74.94	28.00	2276.37	220.00	250.40	325.34					
125+96.69	126+96.69	SITE 1 - C.L. HWY. 25 TRANSITION	100.00	82.00	82.00				24.00	266.67	45.33	45.33												26.00	288.89	220.00	31.78	31.78		
* 196+00.00 198+00.00 SITE 2 - C.L. NOTCH AND WIDEN 200.00 57.50 115.00 20.00 444.44 75.55 75.55 24.00 266.67 45.33 45.33 26.00 577.78 220.00 63.56 63.56																														
* 198+00.00 200+00.00 SITE 2 - C.L. HWY. 25 TRANSITION 200.00 110.75 221.50 20.00 444.44 75.55 75.55 26.00 577.78 220.00 63.56 63.56																														
* 200+00.00 202+00.00 SITE 2 - C.L. HWY. 25 FULL DEPTH 200.00 257.25 514.50 48.71 1082.44 54.12 54.12 24.46 543.56 330.00 89.69 24.25 538.89 220.00 59.28 28.00 622.22 220.00 68.44 127.72																														
* 202+00.00 203+00.00 SITE 2 - C.L. HWY. 25 TRANSITION 100.00 110.75 110.75 20.00 222.22 37.78 37.78 26.00 288.89 220.00 31.78 31.78																														
* 203+00.00 206+00.00 SITE 2 - C.L. NOTCH AND WIDEN 300.00 57.50 172.50 20.00 666.67 113.33 113.33 24.00 800.00 220.00 88.00 88.00																														
19+04.39 20+70.06 SITE 2 - HWY. 25 TEMP. DETOUR NOTCH AND WIDEN 165.67 87.50 144.96 6.24 114.86 5.74 5.74 6.24 114.86 220.00 12.63 6.11 112.47 220.00 12.37 25.00																														
20+70.06 27+29.39 SITE 2 - HWY. 25 TEMP. DETOUR FULL DEPTH 659.33 151.25 997.24 24.25 1776.53 88.83 88.83 24.25 1776.53 220.00 195.42 24.00 1758.21 220.00 193.40 388.82																														
27+29.39 28+93.51 SITE 2 - HWY. 25 TEMP. DETOUR NOTCH AND WIDEN 164.12 87.50 143.61 6.56 119.63 5.98 5.98 6.56 119.63 220.00 13.16 6.43 117.25 220.00 12.90 26.06																														
302+00.00 303+00.00 SITE 3 - C.L. HWY. 25 TRANSITION 100.00 123.00 123.00 20.00 222.22 37.78 37.78 24.00 266.67 220.00 29.33 29.33																														
303+00.00 306+50.00 SITE 3 - C.L. HWY. 25 FULL DEPTH 350.00 257.25 900.38 48.71 1894.28 94.71 94.71 24.46 951.22 330.00 156.95 24.25 943.06 220.00 103.74 28.00 1088.89 220.00 119.78 223.52																														
306+50.00 307+50.00 SITE 3 - C.L. HWY. 25 TRANSITION 100.00 123.00 123.00 20.00 222.22 37.78 37.78 24.00 266.67 220.00 29.33 29.33																														
3+60.99 5+20.81 SITE 3 - HWY. 25 TEMPORARY DETOUR 159.82 87.50 139.84 9.28 164.79 8.24 8.24 9.28 164.79 220.00 18.13 9.15 162.48 220.00 17.87 36.00																														
5+20.81 11+20.65 SITE 3 - HWY. 25 TEMPORARY DETOUR 599.84 151.25 907.26 24.25 1616.24 80.81 80.81 24.25 1616.24 220.00 177.79 24.00 1599.57 220.00 175.95 353.74																														
11+20.65 12+89.27 SITE 3 - HWY. 25 TEMPORARY DETOUR 168.62 87.50 147.54 8.63 161.69 8.08 8.08 8.63 161.69 220.00 17.79 8.50 159.25 220.00 17.52 35.31																														
ADDITIONAL FOR LEVELING & RAISING GRADE																														
102+00.00	105+80.00	SITE 1 - C.L. HWY. 25 NOTCH AND WIDEN	380.00			31.26	1319.87	65.99	15.63	659.93	112.19	178.18	15.63	659.93	740.00	244.17	15.63	659.93	220.00	72.59										72.59
118+65.00	125+96.69	SITE 1 - C.L. HWY. 25 NOTCH AND WIDEN	731.69			31.50	2560.92	128.05	15.75	1280.46	217.68	345.73	15.75	1280.46	220.00	140.85	15.75	1280.46	220.00	140.85									140.85	
ADDITIONAL FOR SUPERELEVATION																														
100+00.00	110+25.32	SITE 1 - C.L. HWY. 25	1025.23	65.25	668.96																									
198+00.00	203+00.00	SITE 2 - C.L. HWY. 25	500.00	65.25	326.25																									
21+73.48	26+38.34	SITE 2 - HWY. 25 TEMPORARY DETOUR	464.86	85.50	397.46																									
5+83.63	10+59.48	SITE 3 - HWY. 25 TEMPORARY DETOUR	475.85	85.50	406.85																									
TOTALS:						12112.62		19858.66	992.93		4962.60	843.64	1836.57		7980.03		1381.56		11878.61		1306.66		16676.72		1834.44	3141.10				

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.9% MIN. AGGR.....4.1% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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

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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100991	57	90

2 SURVEY CONTROL DETAILS



ALIGNMENT NAME: SITE 1 - HWY. 25

POINT	STATION	TYPE	NORTHING	EASTING
8001	98+81.05	POB	572213.7657	1522671.2094
8002	102+25.09	PC	572551.8546	1522607.5015
8004	108+00.32	PT	573124.0108	1522558.2589
8005	111+51.12	PC	573474.7701	1522563.3609
8007	118+29.66	PRC	574153.1383	1522553.1421
8009	125+96.69	PT	574919.9680	1522544.5516
8010	128+20.20	POE	575143.4263	1522549.5278

ALIGNMENT NAME: SITE 2 - HWY. 25

POINT	STATION	TYPE	NORTHING	EASTING
8011	189+00.00	POB	607045.8129	1530991.7336
8012	190+99.03	PC	607202.8004	1531114.0755
8014	193+97.62	PT	607428.3347	1531309.5465
8015	198+65.29	PC	607765.3086	1531633.8399
8017	201+02.89	PT	607943.1380	1531791.3110
8018	206+66.36	POE	608380.1101	1532147.0554

ALIGNMENT NAME: SITE 3 - HWY. 25

POINT	STATION	TYPE	NORTHING	EASTING
8019	300+24.80	POB	622594.3315	1544573.8877
8020	300+87.20	PI	622634.8730	1544621.3235
8021	303+87.49	PC	622832.4121	1544847.5035
8023	306+39.71	PT	623000.4005	1545035.6290
8024	309+89.40	POE	623236.1692	1545293.8819

ALIGNMENT NAME: SITE 2 - TEMP. DETOUR

POINT	STATION	TYPE	NORTHING	EASTING
8025	19+00.00	POB	607574.1577	1531449.8821
8026	19+04.39	PC	607577.3194	1531452.9249
8028	21+73.48	PRC	607801.3199	1531599.1603
8030	26+38.34	PRC	608146.1907	1531898.6210
8032	28+93.51	PT	608311.5187	1532091.2143
8033	29+15.58	POE	608328.6314	1532105.1460

ALIGNMENT NAME: SITE 3 - TEMP. DETOUR

POINT	STATION	TYPE	NORTHING	EASTING
8034	3+60.99	PC	622617.8473	1544601.4025
8036	5+83.63	PRC	622734.0825	1544790.2386
8038	10+59.48	PRC	623045.1047	1545138.8014
8040	12+89.27	PT	623224.3770	1545280.9651

SURVEY CONTROL COORDINATES

Project Name: s100991
Date: 3/25/2020
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, 380016 - 380016A, 380017 - 380017A, & 16 - 17 PROJECTED TO GROUND. STATIC GPS DERIVED ELEV
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	606898.6250	1530895.6413	318.705	CTL	ARDOT STD. MON. STAMPED PN: 1
2	607780.2362	1531667.4102	301.387	CTL	ARDOT STD. MON. STAMPED PN: 2
3	608332.5173	1532128.7281	299.702	CTL	ARDOT STD. MON. STAMPED PN: 3
4	608798.2124	1532499.0568	316.762	CTL	ARDOT STD. MON. STAMPED PN: 4
5	609405.6974	1532958.0862	350.550	CTL	ARDOT STD. MON. STAMPED PN: 5
6	622359.9447	1544321.7190	290.980	CTL	ARDOT STD. MON. STAMPED PN: 6
7	623302.1624	1545384.5559	299.414	CTL	ARDOT STD. MON. STAMPED PN: 7
8	623512.5769	1545632.8890	315.430	CTL	ARDOT STD. MON. STAMPED PN: 8
9	575063.3768	1522563.5120	269.575	CTL	ARDOT STD. MON. STAMPED PN: 9
10	574473.3894	1522519.4958	257.876	CTL	ARDOT STD. MON. STAMPED PN: 10
11	573823.6424	1522541.5871	255.226	CTL	ARDOT STD. MON. STAMPED PN: 11
12	573129.5765	1522495.7772	259.451	CTL	ARDOT STD. MON. STAMPED PN: 12
13	572745.9811	1522554.4784	274.295	CTL	ARDOT STD. MON. STAMPED PN: 13
14	572352.5458	1522661.2010	288.534	CTL	ARDOT STD. MON. STAMPED PN: 14
15	571922.8660	1522742.0208	303.164	CTL	ARDOT STD. MON. STAMPED PN: 15
16	577935.3548	1522589.0460	275.743	CTL	ARDOT STD. MON. STAMPED PN: 16
17	578752.6929	1522414.5244	270.701	CTL	ARDOT STD. MON. STAMPED PN: 17
100	606182.3085	1530291.2879	336.546	GPS	ARDOT GPS #380017A
101	607448.5748	1531297.6845	322.544	GPS	ARDOT GPS #380017
102	621893.2155	1543784.4573	313.464	GPS	ARDOT GPS #380016A
103	623002.0294	1545010.2769	287.942	GPS	ARDOT GPS #380016
900	607153.4139	1531125.3133	310.653	TBM	
901	607942.9837	1531804.3876	301.335	TBM	CHISELED SQUARE NE CNR OF BR
903	609438.0106	1532942.5578	351.837	TBM	CHISELED SQUARE 16.4' NW OF CL HWY 25
904	622117.4244	1543970.9172	303.015	TBM	CHISELED SQUARE 27.2' NW OF CL HWY 25
905	575154.7954	1522531.5140	268.763	TBM	2X2 CHISELED SQUARE
906	573745.6830	1522513.2332	256.187	TBM	2X2 CHISELED SQUARE
907	573390.6265	1522532.3707	256.201	TBM	2X2 CHISELED SQUARE

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF .9999540509 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 s100991gi.CTL
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.
REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL
IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL
BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 380016 - 380016A, 380017 - 380017A, & 16 - 17
CONVERGENCE ANGLE: 0-25-52.8369 RIGHT AT PN: 2 LT: N 36-00-02.7943 LG: W 091-15-31.4329
CONVERGENCE ANGLE: 0-27-28.1849 RIGHT AT PN: 103 LT: N 36-02-32.2932 LG: W 091-12-47.5763
CONVERGENCE ANGLE: 0-24-46.1202 RIGHT AT PN: 12 LT: N 35-54-20.8069 LG: W 091-17-26.0862
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

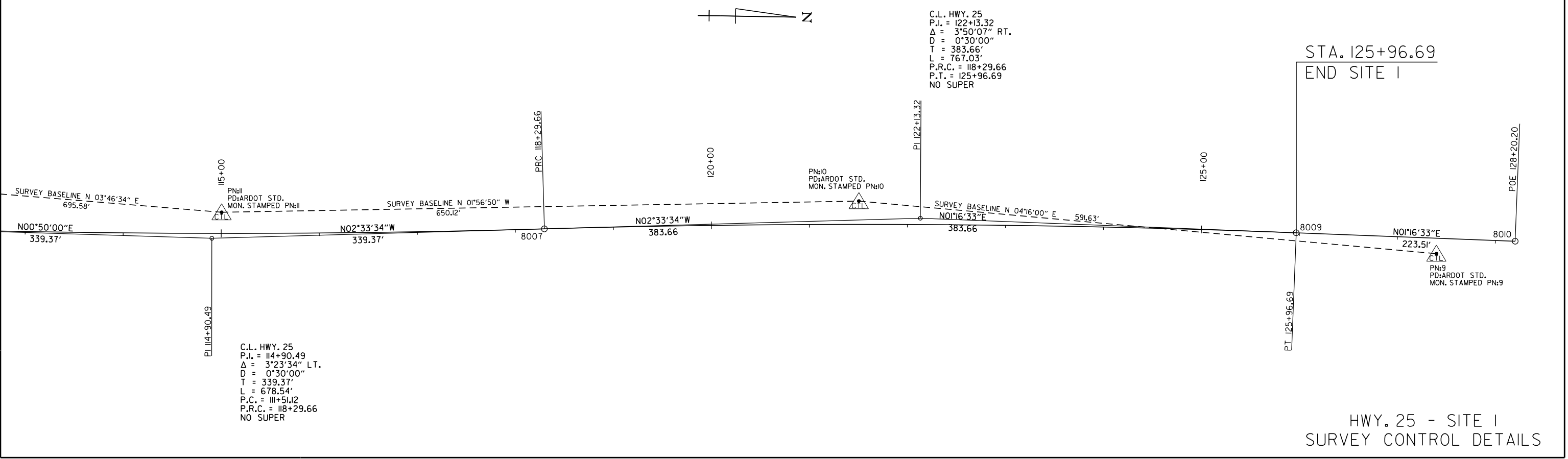
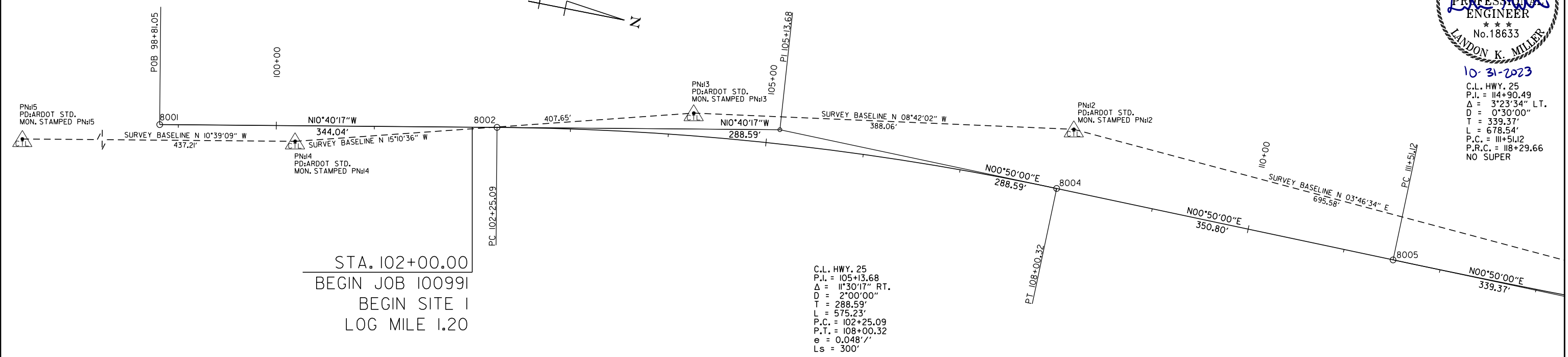
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	58	90	

2 SURVEY CONTROL DETAILS



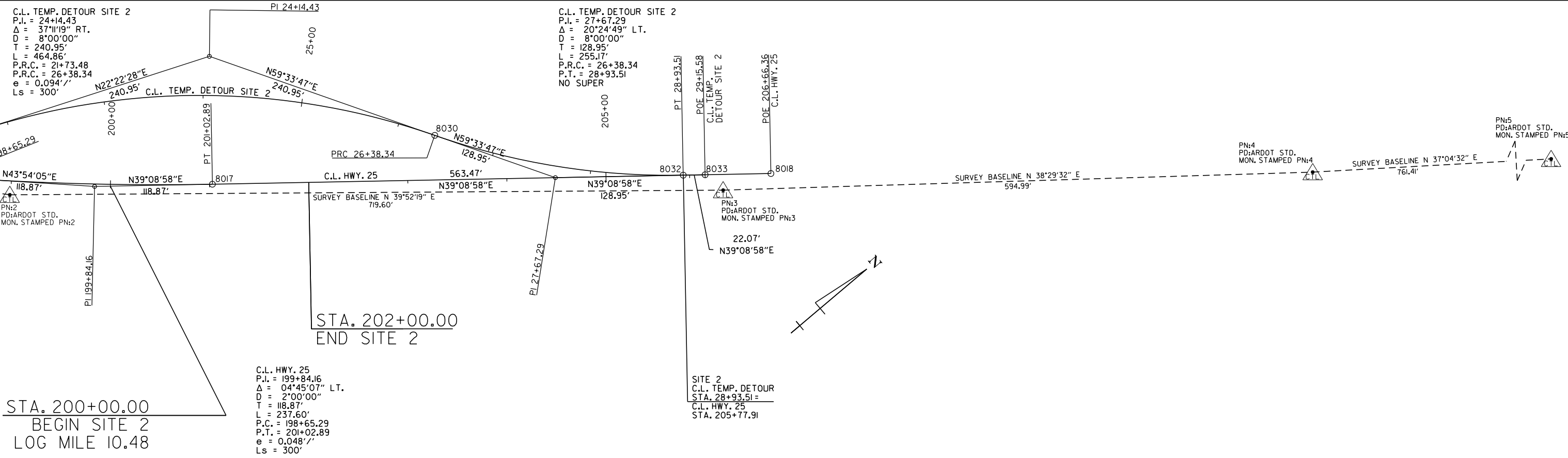
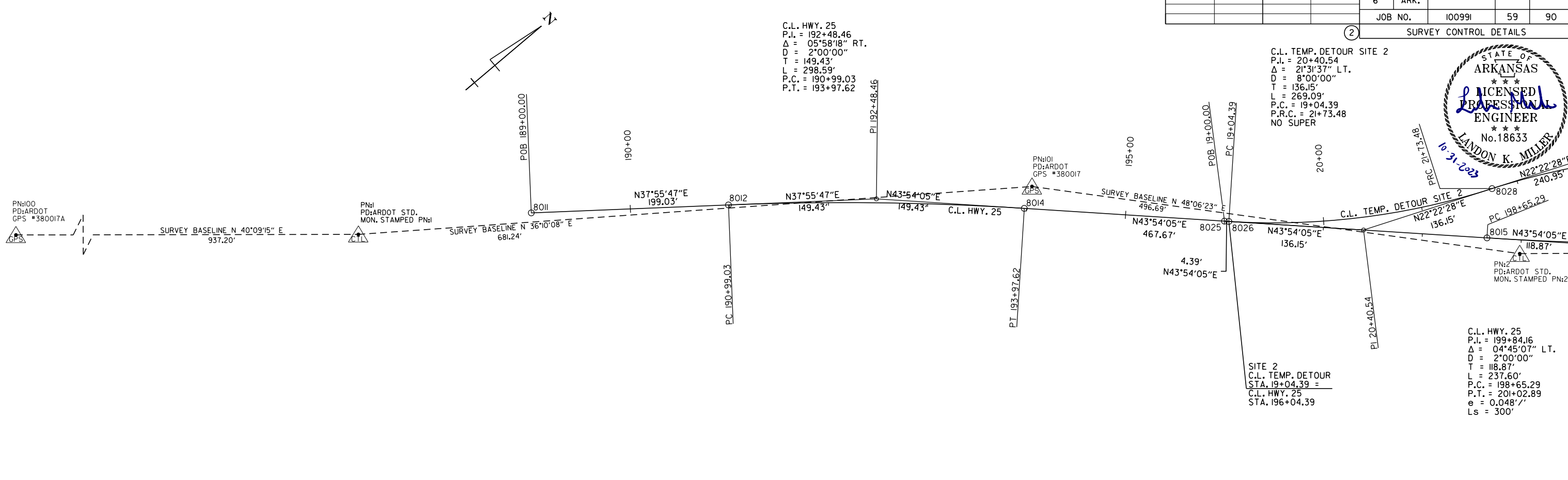
10-31-2023
 C.L. HWY. 25
 P.I. = 114+90.49
 Δ = 3°23'34" LT.
 D = 0°30'00"
 T = 339.37'
 L = 678.54'
 P.C. = 111+51.12
 P.R.C. = 118+29.66
 NO SUPER



HWY. 25 - SITE 1
 SURVEY CONTROL DETAILS

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 WORKSPACE: ARDOT
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 REVISED DATE: **REVIDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		59	90
				(2) SURVEY CONTROL DETAILS				
				JOB NO.		100991	59	90



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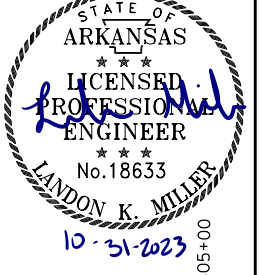
STA. 200+00.00
BEGIN SITE 2
LOG MILE 10.48

STA. 202+00.00
END SITE 2

HWY. 25 - 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.	100991	60	90	

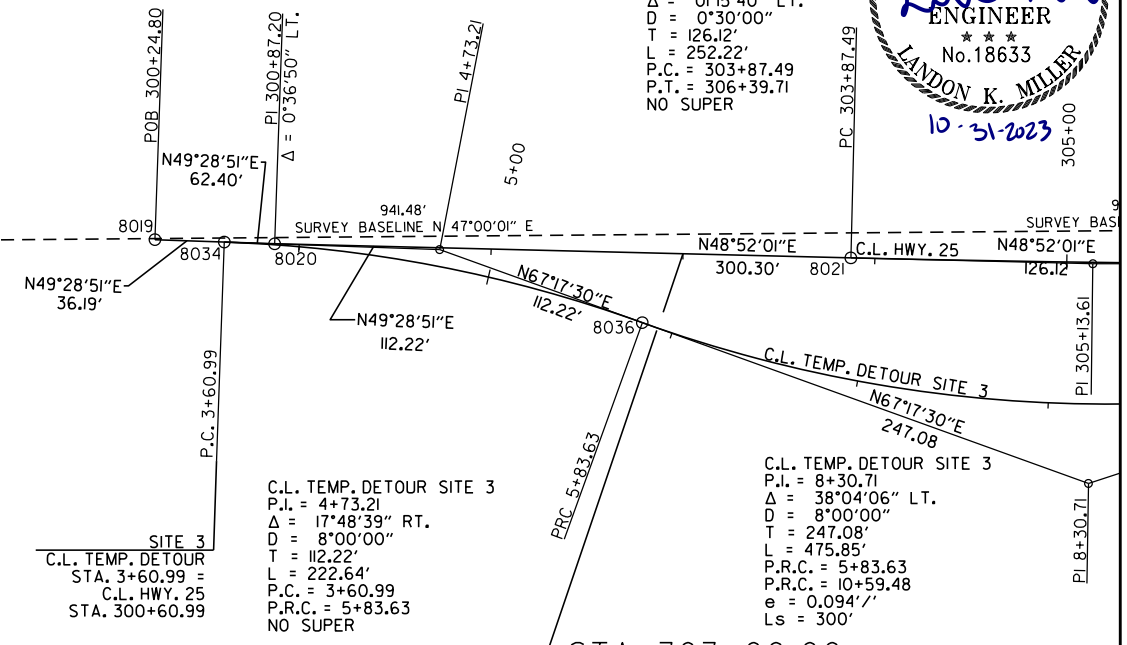
2 SURVEY CONTROL DETAILS



C.L. HWY. 25
P.I. = 305+13.61
Δ = 0°15'40" LT.
D = 0°30'00"
T = 126.12'
L = 252.22'
P.C. = 303+87.49
P.T. = 306+39.71
NO SUPER

PN:02
PD:ARDOT GPS #380016A

PN:6
PD:ARDOT STD.
MON. STAMPED PN:6

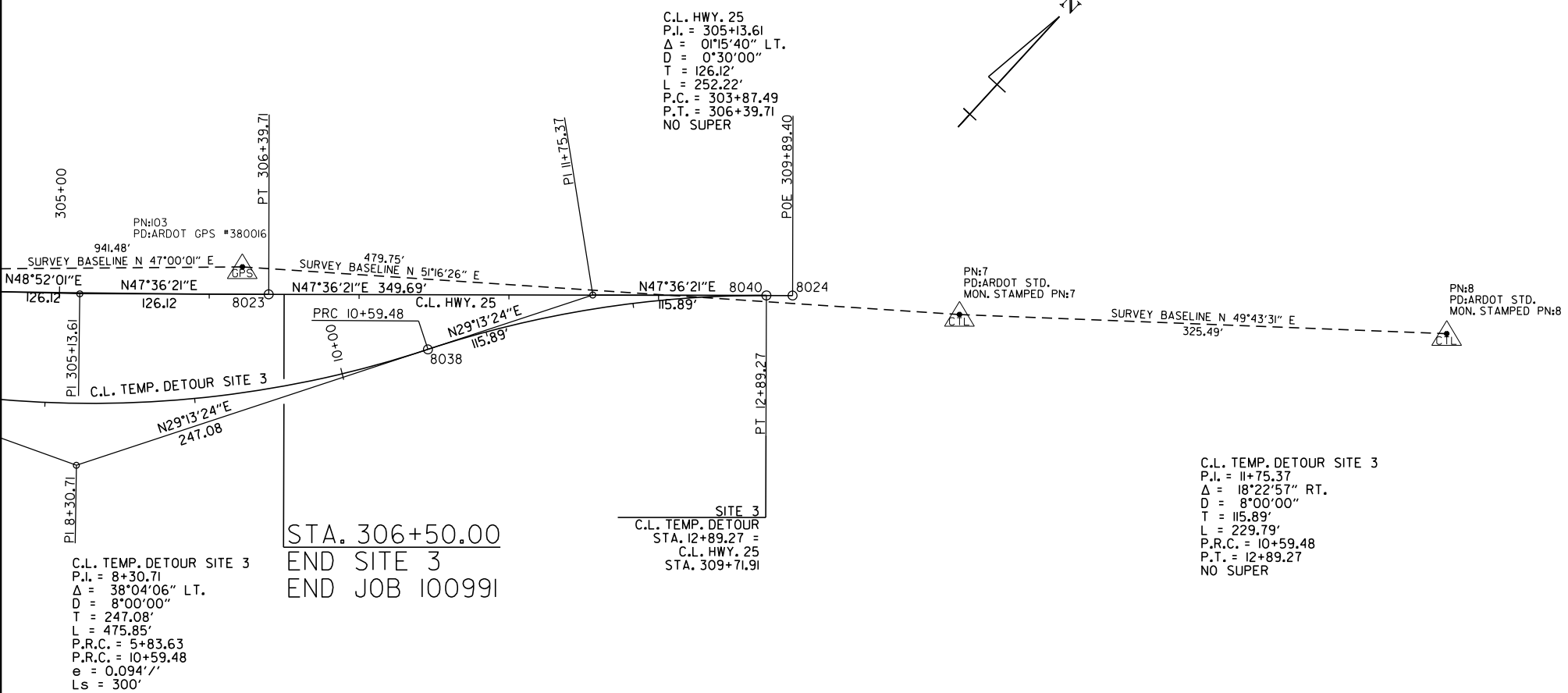


C.L. TEMP. DETOUR SITE 3
P.I. = 4+73.21
Δ = 17°48'39" RT.
D = 8°00'00"
T = 112.22'
L = 222.64'
P.C. = 3+60.99
P.R.C. = 5+83.63
NO SUPER

C.L. TEMP. DETOUR SITE 3
P.I. = 8+30.71
Δ = 38°04'06" LT.
D = 8°00'00"
T = 247.08'
L = 475.85'
P.R.C. = 5+83.63
P.R.C. = 10+59.48
e = 0.094'/'
Ls = 300'

STA. 303+00.00
BEGIN SITE 3
LOG MILE 14.25

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WORKSPACE: ARDOT
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REVISED DATE: **REVIDATE**



C.L. HWY. 25
P.I. = 305+13.61
Δ = 0°15'40" LT.
D = 0°30'00"
T = 126.12'
L = 252.22'
P.C. = 303+87.49
P.T. = 306+39.71
NO SUPER

PN:7
PD:ARDOT STD.
MON. STAMPED PN:7

PN:8
PD:ARDOT STD.
MON. STAMPED PN:8

C.L. TEMP. DETOUR SITE 3
P.I. = 8+30.71
Δ = 38°04'06" LT.
D = 8°00'00"
T = 247.08'
L = 475.85'
P.R.C. = 5+83.63
P.R.C. = 10+59.48
e = 0.094'/'
Ls = 300'

STA. 306+50.00
END SITE 3
END JOB 100991

SITE 3
C.L. TEMP. DETOUR
STA. 12+89.27 =
C.L. HWY. 25
STA. 309+71.91

C.L. TEMP. DETOUR SITE 3
P.I. = 11+75.37
Δ = 18°22'57" RT.
D = 8°00'00"
T = 115.89'
L = 229.79'
P.R.C. = 10+59.48
P.T. = 12+89.27
NO SUPER

HWY. 25 - SITE 3
SURVEY CONTROL DETAILS

LEGEND



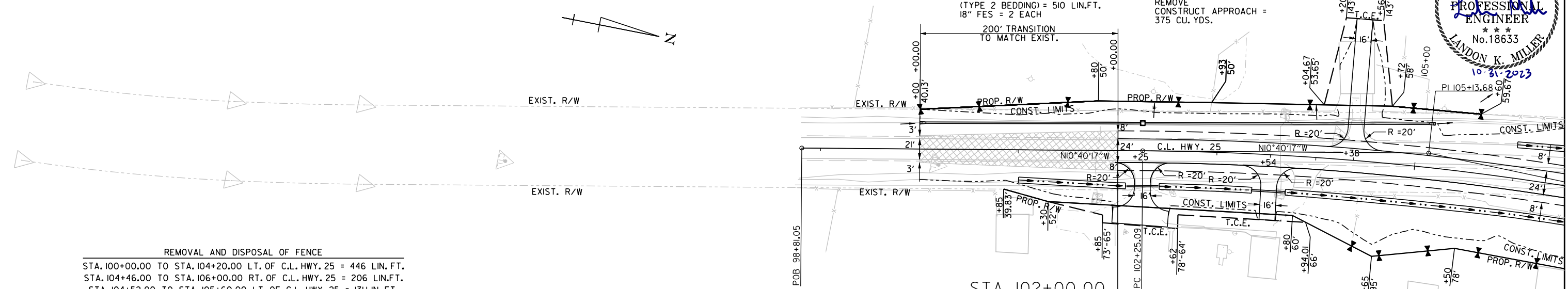
PAVEMENT TRANSITION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		61	90
JOB NO. 100991							PLAN AND PROFILE SHEETS	



STA. 102+25.00 27.92' LT. CONSTRUCT JUNCTION BOX H = 4'-9" WITH 18" X 217' PIPE INLET AND FES AND 18" X 287' PIPE OUTLET WITH FES TYPE E JUNCTION BOX = 4' X 4' 18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 504 LIN.FT. 18" SLCCSP PIPE (TYPE 2 BEDDING) = 510 LIN.FT. 18" FES = 2 EACH

STA. 104+38.00 IN PLACE 18" X 22' C.M. PIPE CULVERT LT. SIDE DRAIN REMOVE CONSTRUCT APPROACH = 375 CU. YDS.



REMOVAL AND DISPOSAL OF FENCE
 STA. 100+00.00 TO STA. 104+20.00 LT. OF C.L. HWY. 25 = 446 LIN. FT.
 STA. 104+46.00 TO STA. 106+00.00 RT. OF C.L. HWY. 25 = 206 LIN. FT.
 STA. 104+52.00 TO STA. 105+60.00 LT. OF C.L. HWY. 25 = 131 LIN. FT.

STA. 102+00.00
 BEGIN JOB 100991
 BEGIN SITE 1
 LOG MILE 1.20

STA. 102+25.00 IN PLACE 18" X 24' C.M. PIPE CULVERT RT. SIDE DRAIN REMOVE AND INSTALL 18" X 32' RT. SIDE DRAIN CONSTRUCT APPROACH = 45 CU. YDS. COMP. EMB. 5 CU. YDS. UNCL. EXC.

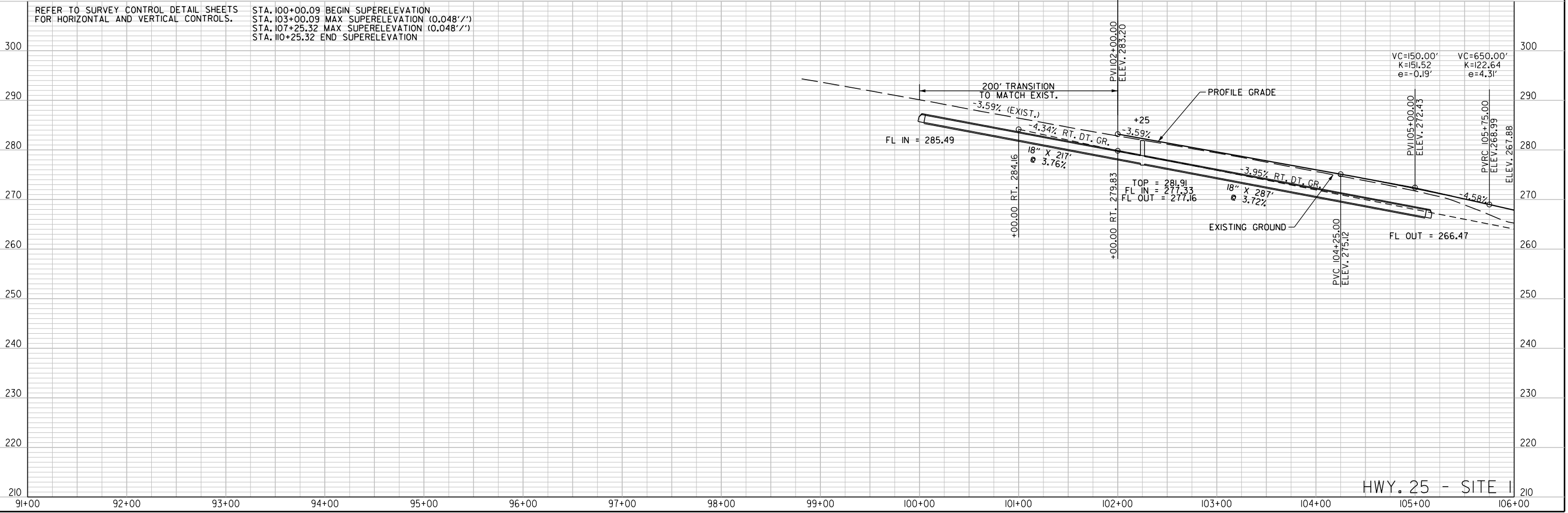
STA. 103+54.00 IN PLACE 18" X 33' C.M. PIPE CULVERT RT. SIDE DRAIN REMOVE AND INSTALL 18" X 34' RT. SIDE DRAIN CONSTRUCT APPROACH = 55 CU. YDS. COMP. EMB. 5 CU. YDS. UNCL. EXC.

C.L. HWY. 25
 P.I. = 105+13.68
 $\Delta = 11'30'17''$ RT.
 $D = 2'00'00''$
 $T = 288.59'$
 $L = 575.23'$
 P.C. = 102+25.09
 P.T. = 108+00.32
 $e = 0.048'/'$
 $Ls = 300'$

STA.	STA.	LOCATION	FENCE (TYPE C)	16'-0" GATE
100+00.00	104+30.00	LT. OF C.L. HWY. 25 =	432 LIN. FT.	
104+43.00	106+00.00	RT. OF C.L. HWY. 25 =	153 LIN. FT.	
104+45.00	105+60.00	LT. OF C.L. HWY. 25 =	115 LIN. FT.	1 EACH

STA.	STA.	SIDE	LENGTH	"W"	SO.YDS.
101+00	102+08	RT.	108 LIN. FT.	6'-0"	72.00
102+42	103+37	RT.	95 LIN. FT.	6'-0"	63.33
103+71	106+00	RT.	229 LIN. FT.	6'-0"	152.67

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROLS.
 STA. 100+00.09 BEGIN SUPERELEVATION
 STA. 103+00.09 MAX SUPERELEVATION (0.048'/'')
 STA. 107+25.32 MAX SUPERELEVATION (0.048'/'')
 STA. 110+25.32 END SUPERELEVATION

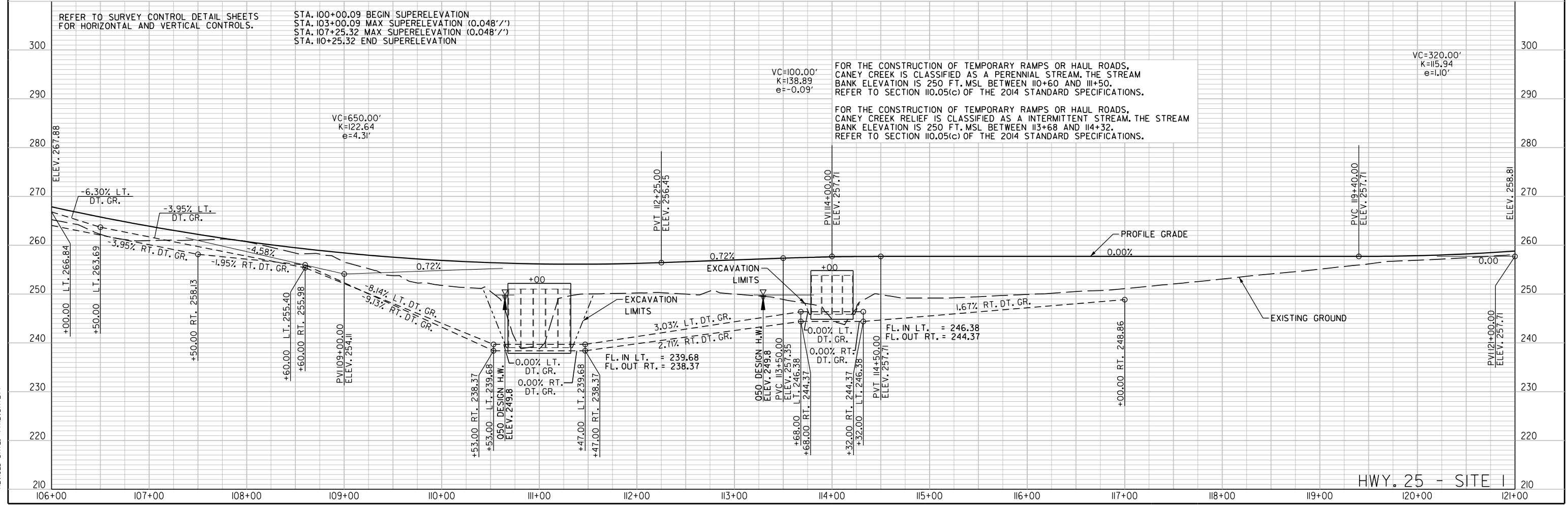
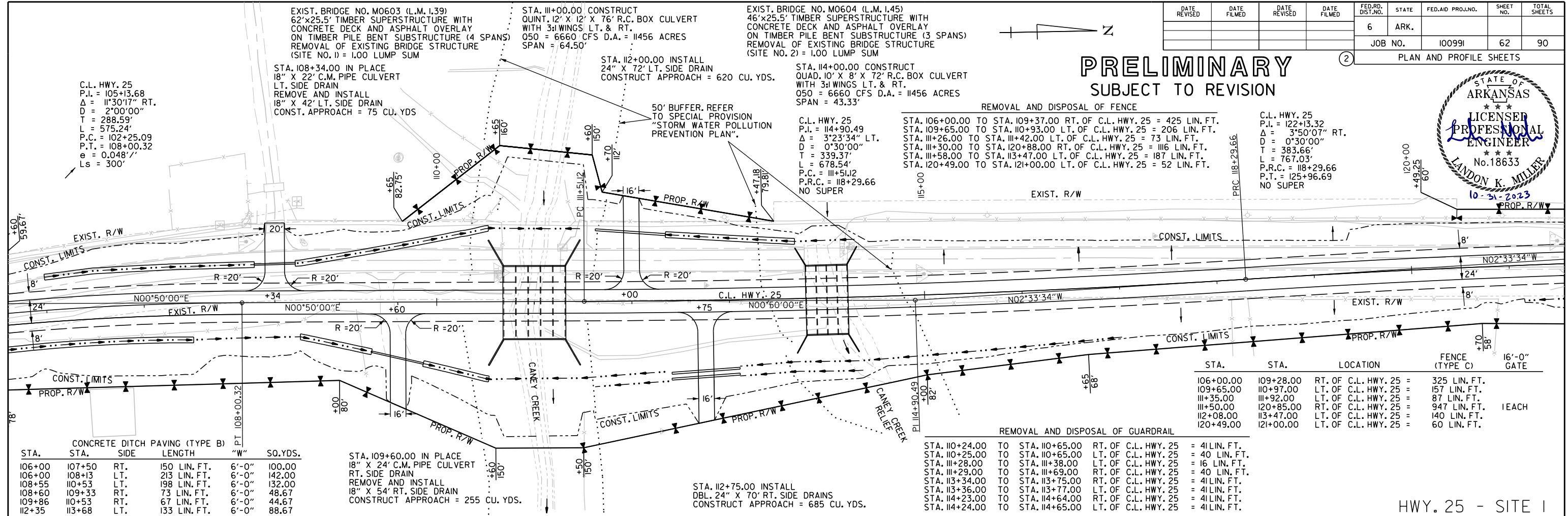
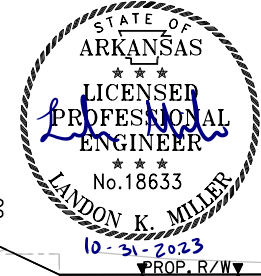


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 REVISION DATE: **REVISION**

HWY. 25 - SITE 1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		62	90
				JOB NO.	100991		PLAN AND PROFILE SHEETS	

PRELIMINARY SUBJECT TO REVISION



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 REVISIONS: 1
 REVISION DATE: 10/18/2023

LEGEND



C.L. HWY. 25
 P.I. = 122+13.32
 $\Delta = 3'50''07''$ RT.
 $D = 0'30''00''$
 $T = 383.66'$
 $L = 767.03'$
 P.R.C. = 118+29.66
 P.T. = 125+96.69
 NO SUPER

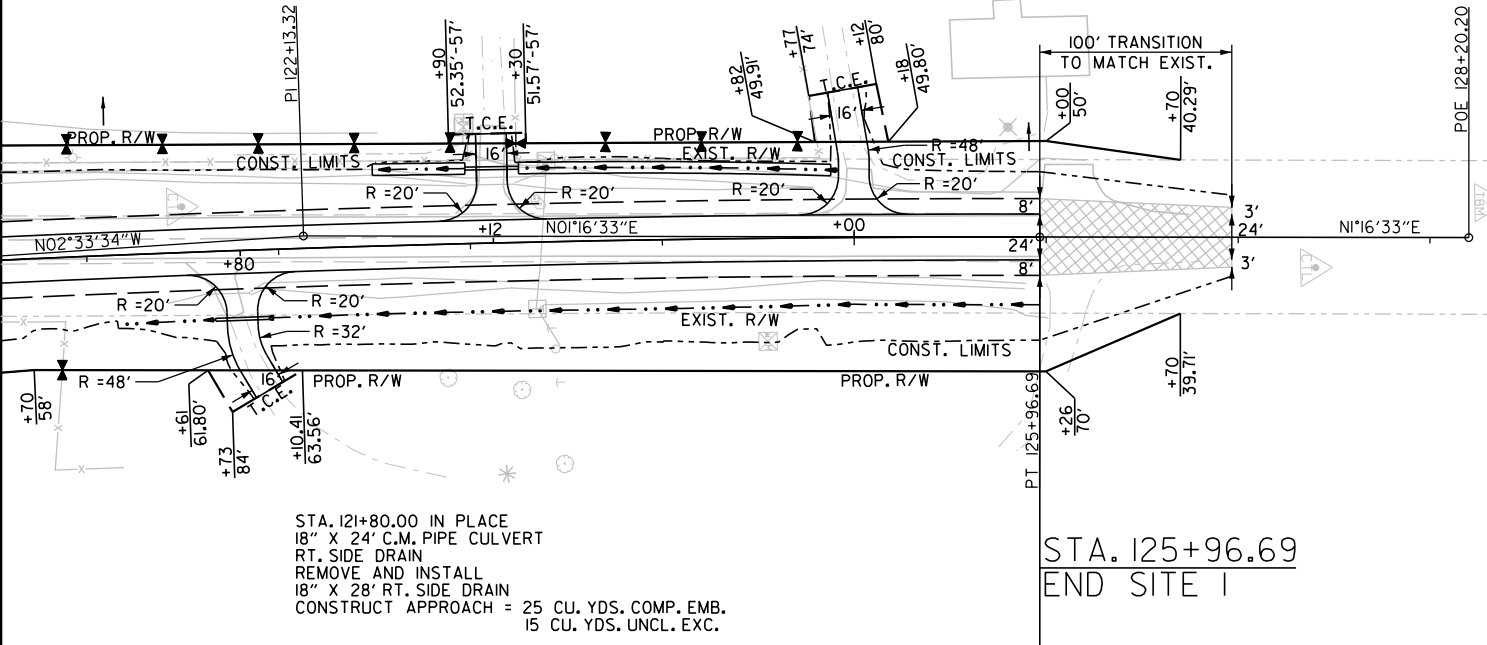
STA. 123+12.00 IN PLACE
 18" X 24' C.M. PIPE CULVERT
 LT. SIDE DRAIN
 REMOVE AND INSTALL
 18" X 28' LT. SIDE DRAIN
 CONSTRUCT APPROACH = 30 CU. YDS.

STA. 125+00.00 CONSTRUCT
 APPROACH ON LT. = 35 CU. YDS.



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		63	90
				JOB NO.		100991		

2 PLAN AND PROFILE SHEETS

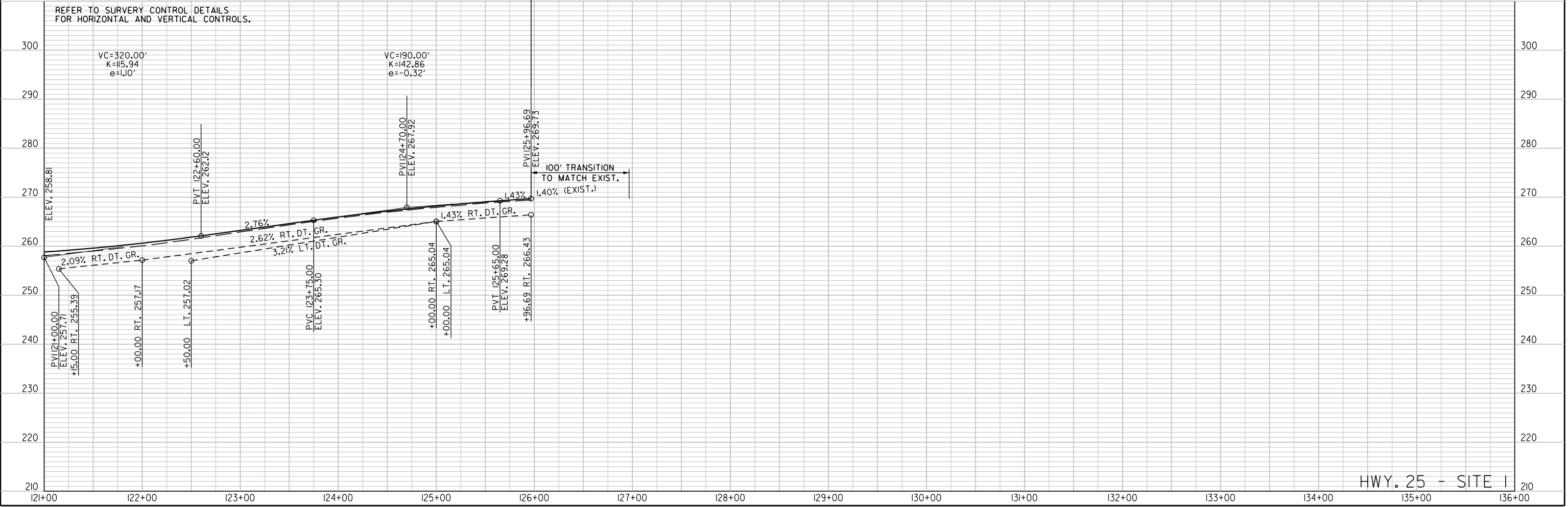


STA.	STA.	CONCRETE DITCH PAVING (TYPE B)	LENGTH	"W"	SO. YDS.
122+50	122+98	LT.	49 LIN. FT.	6'-0"	32.00
123+26	124+88	LT.	162 LIN. FT.	6'-0"	108.00

REMOVAL AND DISPOSAL OF FENCE
 STA. 121+00.00 TO STA. 123+00.00 LT. OF C.L. HWY. 25 = 214 LIN. FT.
 STA. 123+25.00 TO STA. 124+83.00 LT. OF C.L. HWY. 25 = 180 LIN. FT.

STA.	STA.	LOCATION	FENCE (TYPE C)
121+00.00	123+00.00	LT. OF C.L. HWY. 25 =	206 LIN. FT.
123+25.00	124+82.00	LT. OF C.L. HWY. 25 =	165 LIN. FT.

HWY. 25 - SITE I



HWY. 25 - SITE I

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 REVISION DATE: **REVISION**

LEGEND



PAVEMENT TRANSITION

C.L. HWY. 25
 P.I. = 192+48.46
 $\Delta = 5^{\circ}58'18''$ RT.
 $D = 2^{\circ}00'00''$
 $T = 149.43'$
 $L = 298.59'$
 $P.C. = 190+99.03$
 $P.T. = 193+97.62$

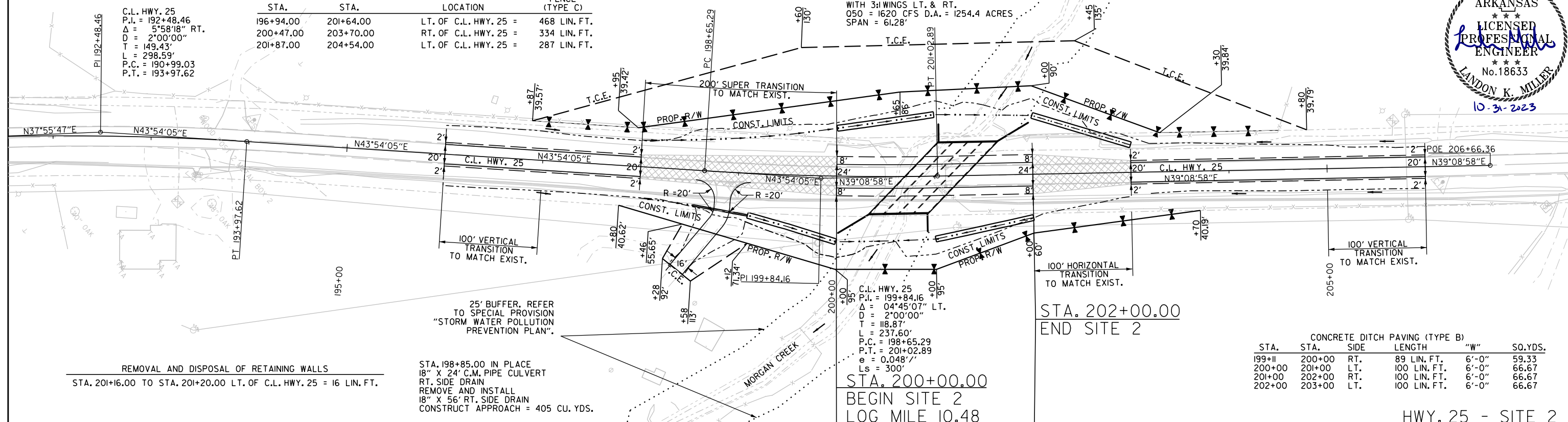
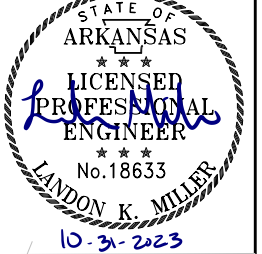
REMOVAL AND DISPOSAL OF FENCE
 STA. 196+94.00 TO STA. 200+51.00 LT. OF C.L. HWY. 25 = 368 LIN. FT.
 STA. 200+10.00 TO STA. 200+48.00 RT. OF C.L. HWY. 25 = 89 LIN. FT.
 STA. 201+10.00 TO STA. 203+70.00 RT. OF C.L. HWY. 25 = 267 LIN. FT.
 STA. 201+97.00 TO STA. 204+54.00 LT. OF C.L. HWY. 25 = 267 LIN. FT.

STA.	STA.	LOCATION	FENCE (TYPE C)
196+94.00	201+64.00	LT. OF C.L. HWY. 25 =	468 LIN. FT.
200+47.00	203+70.00	RT. OF C.L. HWY. 25 =	334 LIN. FT.
201+87.00	204+54.00	LT. OF C.L. HWY. 25 =	287 LIN. FT.

EXIST. BRIDGE NO. M0611 (L.M. 10.50)
 62'x22.5' STEEL I-BEAM SUPER STRUCTURE WITH CONCRETE DECK AND ASPHALT OVERLAY ON TIMBER PILE BEN SUBSTRUCTURE (1 SPAN)
 REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 3) = 1.00 LUMP SUM
 STA. 201+00.00 CONSTRUCT QUAD. 10' X 8' X 103' R.C. BOX CULVERT WITH 45° LT. FWD. SKEW WITH 3:1 WINGS LT. & RT.
 O50 = 1620 CFS D.A. = 1254.4 ACRES
 SPAN = 61.28'

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		64	90
				JOB NO.		100991	90	

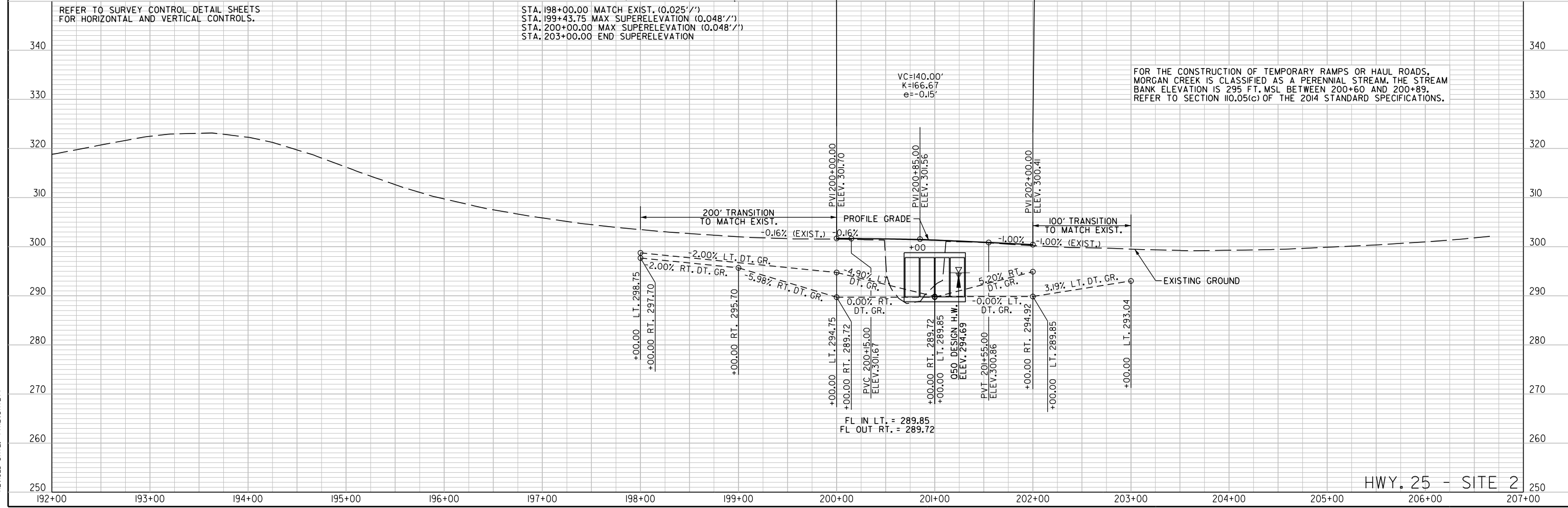
PLAN AND PROFILE SHEETS



CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
199+11	200+00	RT.	89 LIN. FT.	6'-0"	59.33
200+00	201+00	LT.	100 LIN. FT.	6'-0"	66.67
201+00	202+00	RT.	100 LIN. FT.	6'-0"	66.67
202+00	203+00	LT.	100 LIN. FT.	6'-0"	66.67

HWY. 25 - SITE 2



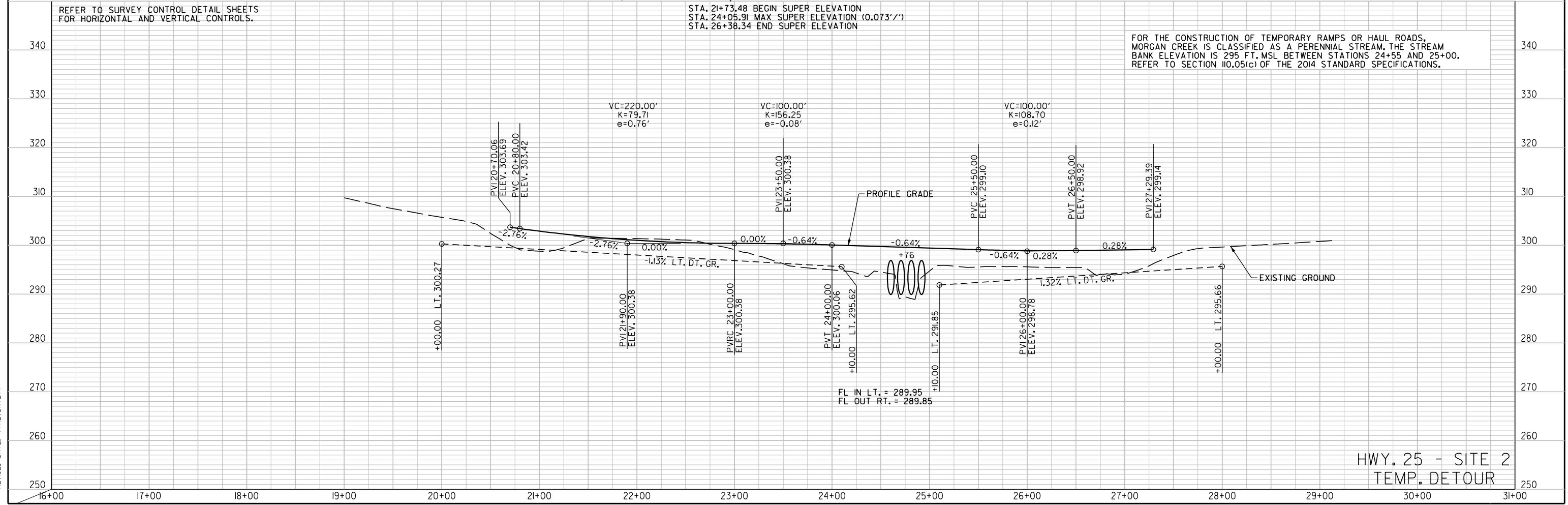
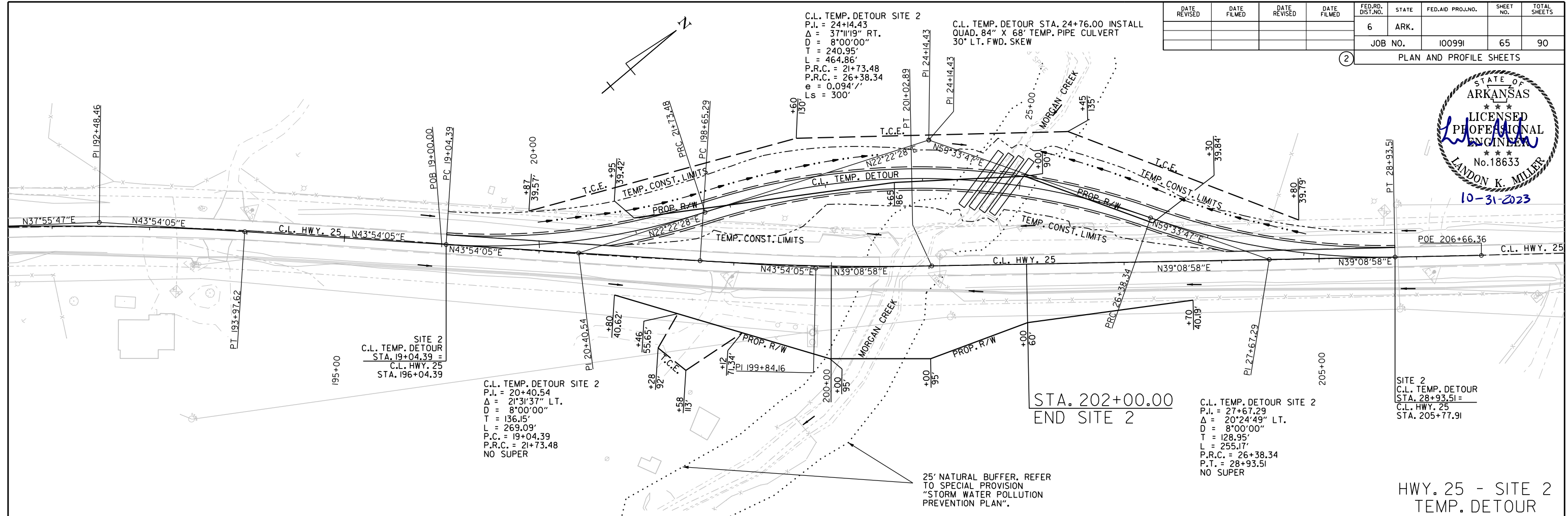
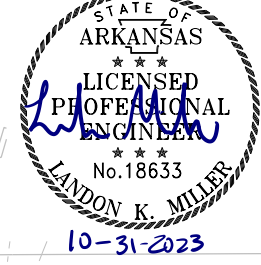
FOR THE CONSTRUCTION OF TEMPORARY RAMPS OR HAUL ROADS, MORGAN CREEK IS CLASSIFIED AS A PERENNIAL STREAM. THE STREAM BANK ELEVATION IS 295 FT. MSL BETWEEN 200+60 AND 200+89. REFER TO SECTION 10.05(c) OF THE 2014 STANDARD SPECIFICATIONS.

HWY. 25 - SITE 2

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 REVISION DATE:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		65	90
				JOB NO.		100991	90	

2 PLAN AND PROFILE SHEETS

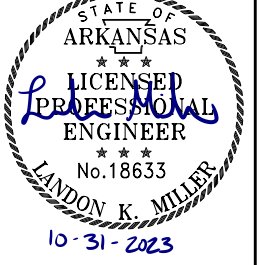


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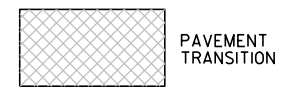
HWY. 25 - SITE 2
 TEMP. DETOUR

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 100991							66	90

2 PLAN AND PROFILE SHEETS



LEGEND



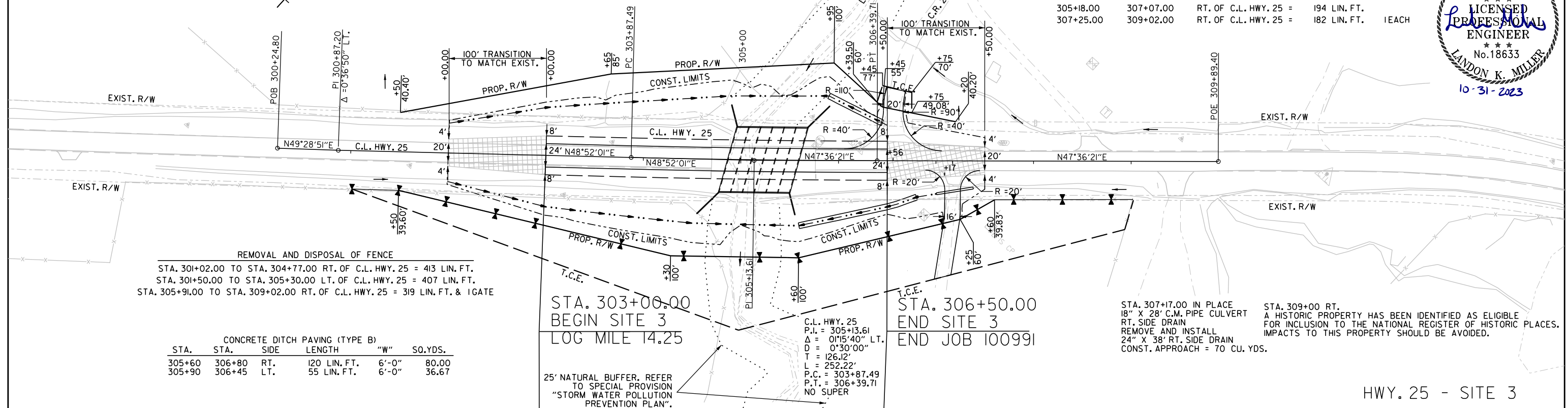
PAVEMENT TRANSITION

EXIST. BRIDGE NO. M3317 (L.M. 14.30)
 107' X 28.2' TIMBER SUPERSTRUCTURE WITH
 CONCRETE DECK AND ASPHALT OVERLAY
 ON TIMBER PILE BENT SUBSTRUCTURE (6 SPANS)
 WITH 15' LT. FWD. SKEW
 (15'-19'-19'-19'-15')
 REMOVAL OF EXISTING BRIDGE STRUCTURE
 (SITE NO. 4) = 1.00 LUMP SUM

STA. 305+23.00 CONSTRUCT
 SEXT. 11' X 10' X 71' R.C. BOX CULVERT
 WITH 15' LT. FWD. SKEW
 WITH 3:1 WINGS LT. & RT.
 O50 = 2610 CFS D.A. = 2266 ACRES
 SPAN = 73.33'

STA. 306+56.00 CONSTRUCT
 TURNOUT ON LT. = 45 CU. YDS.

STA.	STA.	LOCATION	FENCE (TYPE C)	16'-0" GATES
301+02.00	304+75.00	RT. OF C.L. HWY. 25 =	380 LIN. FT.	
305+18.00	307+07.00	RT. OF C.L. HWY. 25 =	194 LIN. FT.	
307+25.00	309+02.00	RT. OF C.L. HWY. 25 =	182 LIN. FT.	1 EACH



REMOVAL AND DISPOSAL OF FENCE
 STA. 301+02.00 TO STA. 304+77.00 RT. OF C.L. HWY. 25 = 413 LIN. FT.
 STA. 301+50.00 TO STA. 305+30.00 LT. OF C.L. HWY. 25 = 407 LIN. FT.
 STA. 305+91.00 TO STA. 309+02.00 RT. OF C.L. HWY. 25 = 319 LIN. FT. & 1 GATE

STA.	STA.	SIDE	LENGTH	"W"	SO. YDS.
305+60	306+80	RT.	120 LIN. FT.	6'-0"	80.00
305+90	306+45	LT.	55 LIN. FT.	6'-0"	36.67

STA. 303+00.00
 BEGIN SITE 3
 LOG MILE 14.25

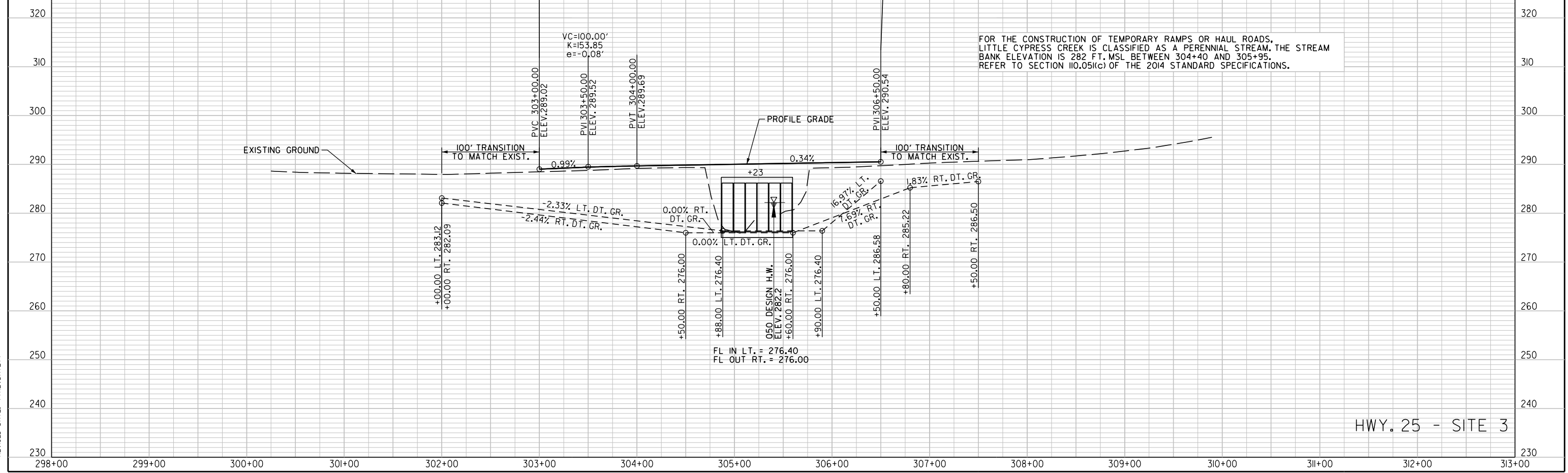
STA. 306+50.00
 END SITE 3
 END JOB 100991

STA. 307+17.00 IN PLACE
 18" X 28" C.M. PIPE CULVERT
 RT. SIDE DRAIN
 REMOVE AND INSTALL
 24" X 38" RT. SIDE DRAIN
 CONST. APPROACH = 70 CU. YDS.

STA. 309+00 RT.
 A HISTORIC PROPERTY HAS BEEN IDENTIFIED AS ELIGIBLE
 FOR INCLUSION TO THE NATIONAL REGISTER OF HISTORIC PLACES.
 IMPACTS TO THIS PROPERTY SHOULD BE AVOIDED.

HWY. 25 - SITE 3

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



HWY. 25 - SITE 3

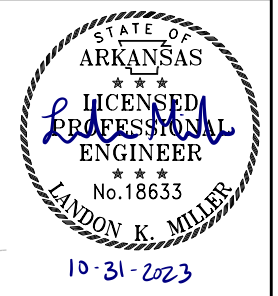
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 REVISION DATE: **REVISION**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		67	90
				JOB NO. 100991		PLAN AND PROFILE SHEETS		

C.L. TEMP. DETOUR SITE 3
P.I. = 4+73.21
 $\Delta = 17^{\circ}48'39''$ RT.
D = 8'00'00"
T = 112.22'
L = 222.64'
P.C. = 3+60.99
P.R.C. = 5+83.63
NO SUPER

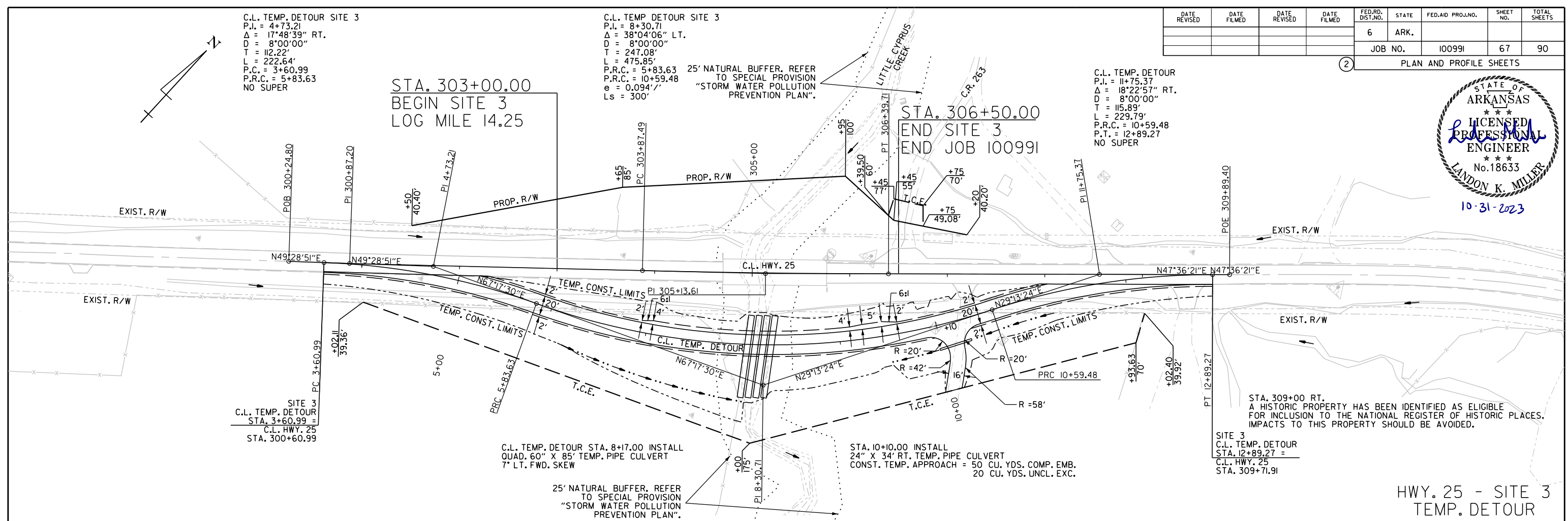
C.L. TEMP. DETOUR SITE 3
P.I. = 8+30.71
 $\Delta = 38^{\circ}04'06''$ LT.
D = 8'00'00"
T = 247.08'
L = 475.85'
P.R.C. = 5+83.63
P.R.C. = 10+59.48
e = 0.094'
Ls = 300'

C.L. TEMP. DETOUR
P.I. = 11+75.37
 $\Delta = 18^{\circ}22'57''$ RT.
D = 8'00'00"
T = 115.89'
L = 229.79'
P.R.C. = 10+59.48
P.T. = 12+89.27
NO SUPER



STA. 303+00.00
BEGIN SITE 3
LOG MILE 14.25

STA. 306+50.00
END SITE 3
END JOB 100991



STA. 309+00 RT.
A HISTORIC PROPERTY HAS BEEN IDENTIFIED AS ELIGIBLE FOR INCLUSION TO THE NATIONAL REGISTER OF HISTORIC PLACES. IMPACTS TO THIS PROPERTY SHOULD BE AVOIDED.

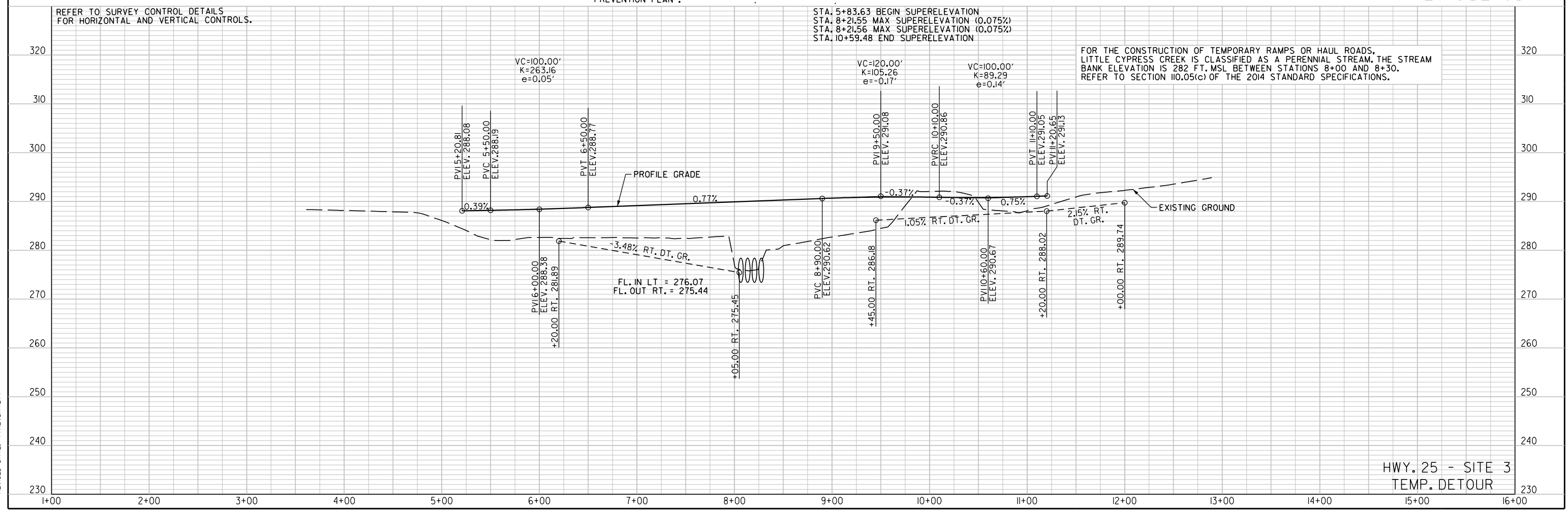
SITE 3
C.L. TEMP. DETOUR
STA. 12+89.27 =
C.L. HWY. 25
STA. 309+71.91

HWY. 25 - SITE 3
TEMP. DETOUR

REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL AND VERTICAL CONTROLS.

STA. 5+83.63 BEGIN SUPERELEVATION
STA. 8+21.55 MAX SUPERELEVATION (0.075%)
STA. 8+21.56 MAX SUPERELEVATION (0.075%)
STA. 10+59.48 END SUPERELEVATION

FOR THE CONSTRUCTION OF TEMPORARY RAMPS OR HAUL ROADS, LITTLE CYPRESS CREEK IS CLASSIFIED AS A PERENNIAL STREAM. THE STREAM BANK ELEVATION IS 282 FT. MSL BETWEEN STATIONS 8+00 AND 8+30. REFER TO SECTION 110.05(c) OF THE 2014 STANDARD SPECIFICATIONS.



HWY. 25 - SITE 3
TEMP. DETOUR

Stephens Basis 10/18/2023 15:56:50 PM
WORKSPACE: ARDOT
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REVISED DATE: **REVIDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. 100991		68		90

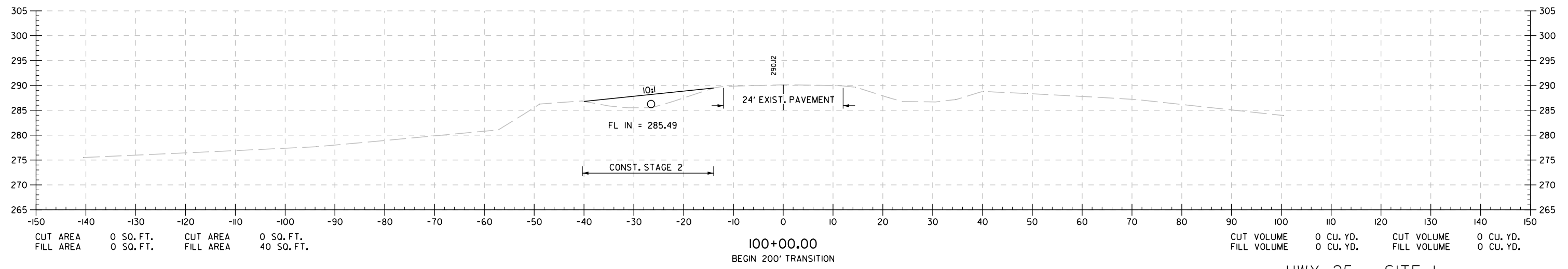
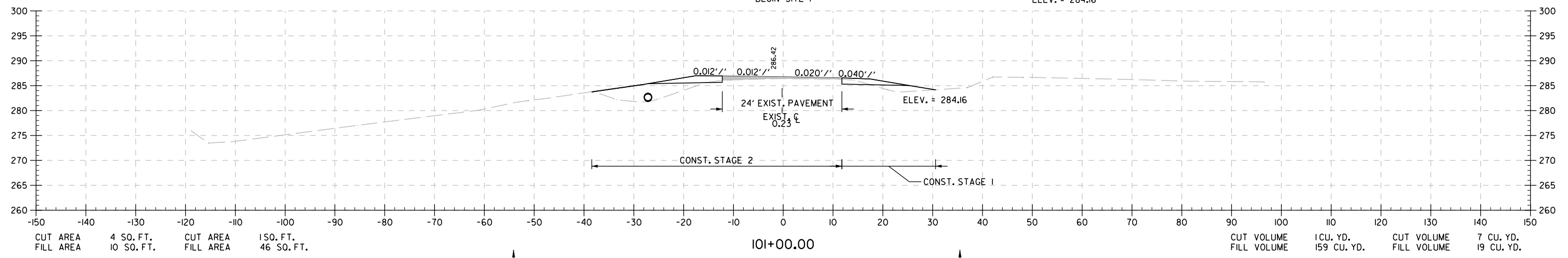
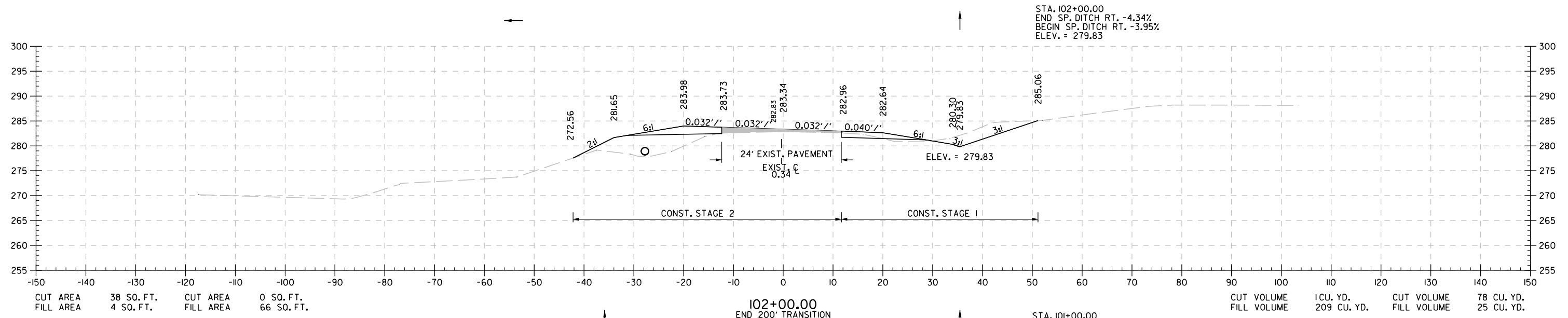
STAGE 1

STAGE 2

STAGE 2

STAGE 1

2 CROSS SECTIONS

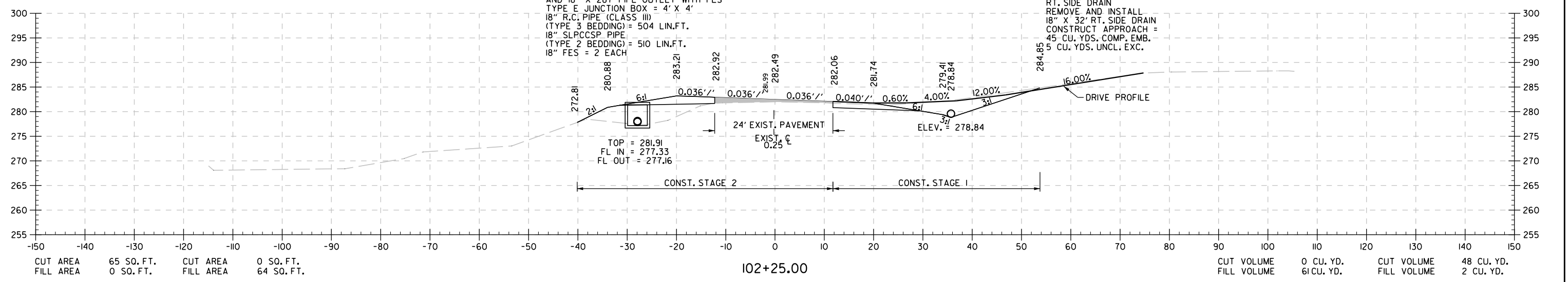
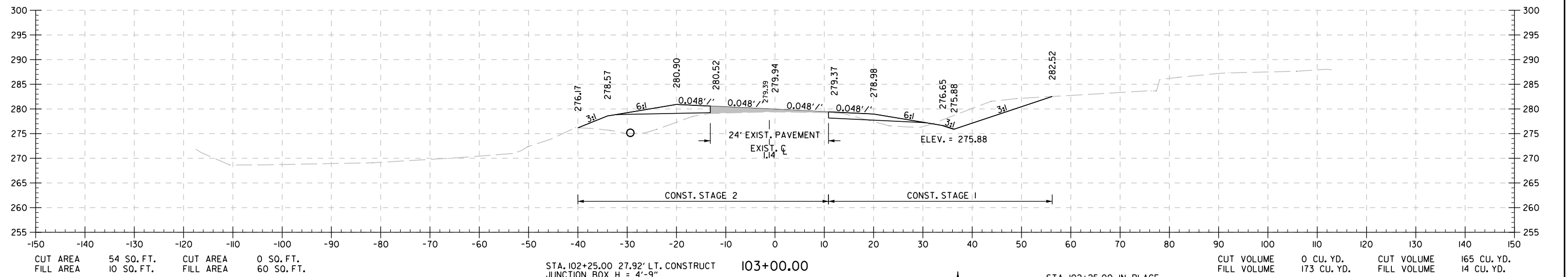
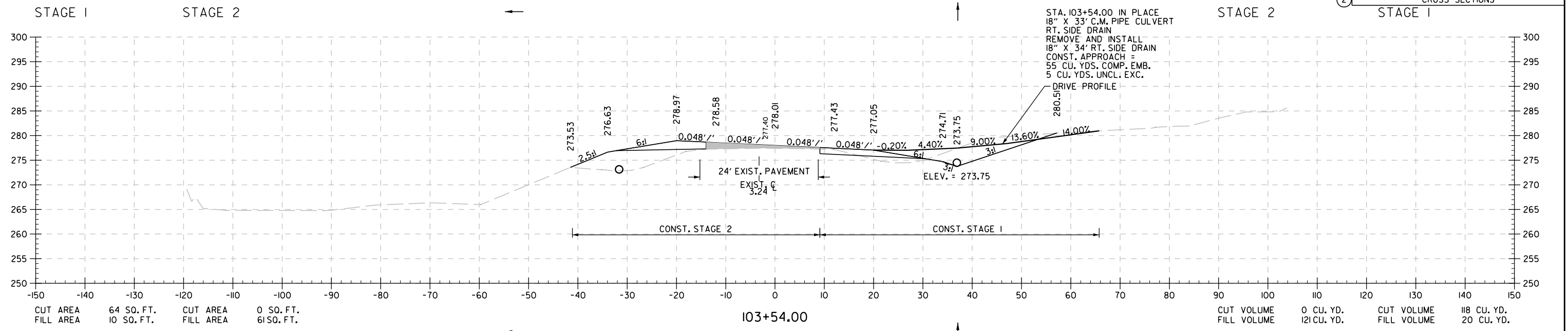


HWY. 25 - SITE 1
 STA. 100+00 TO STA. 102+00

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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	100991	69	90
				JOB NO.		100991	69	90

2 CROSS SECTIONS

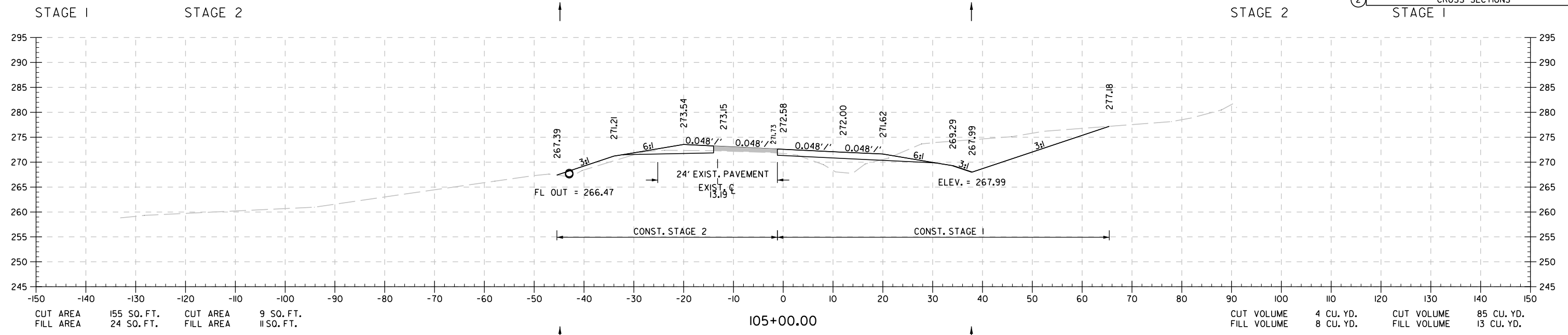


HWY. 25 - SITE 1
STA. 102+25 TO STA. 103+54

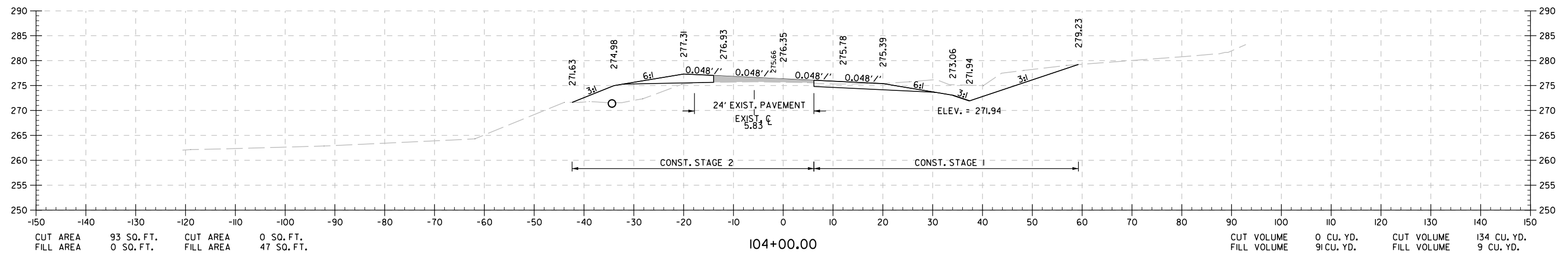
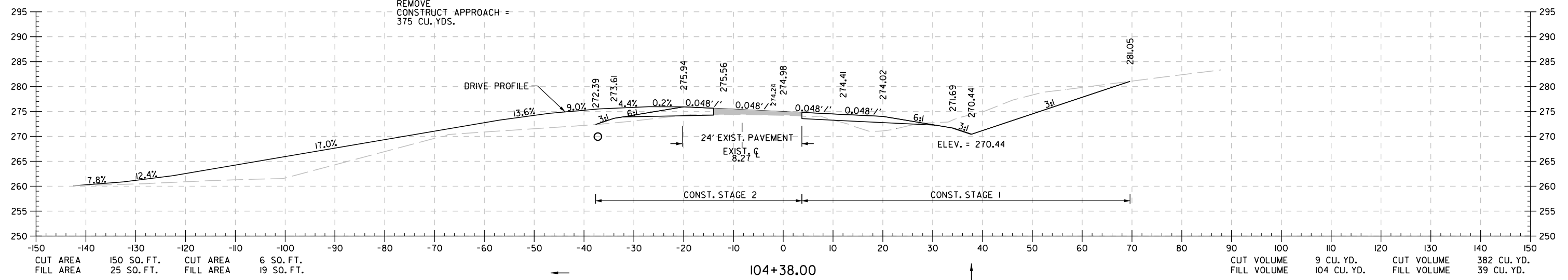
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100991	70	90

2 CROSS SECTIONS



STA. 104+38.00 IN PLACE
18" X 22" C.M. PIPE CULVERT
L.T. SIDE DRAIN
REMOVE
CONSTRUCT APPROACH =
375 CU. YDS.



HWY. 25 - SITE I
STA. 104+00 TO STA. 105+00

Stephen Basile 10/18/2023 1:56:51 PM
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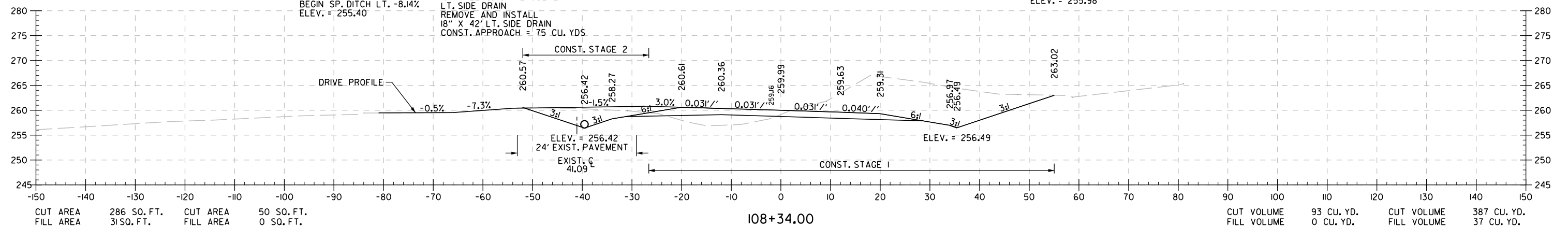
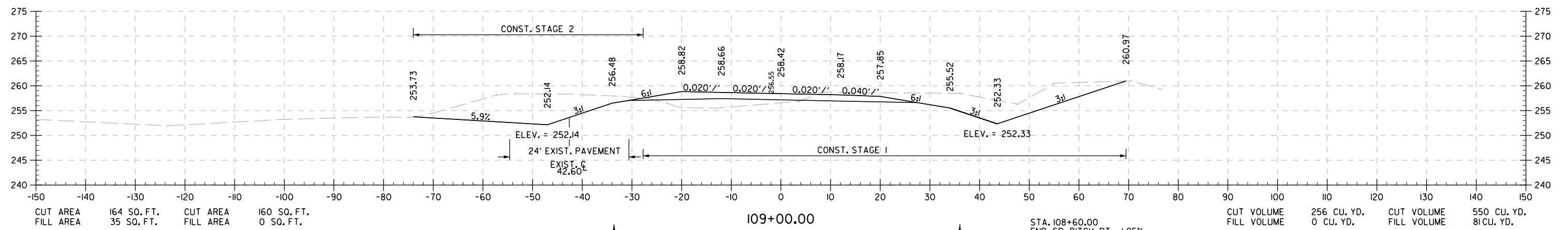
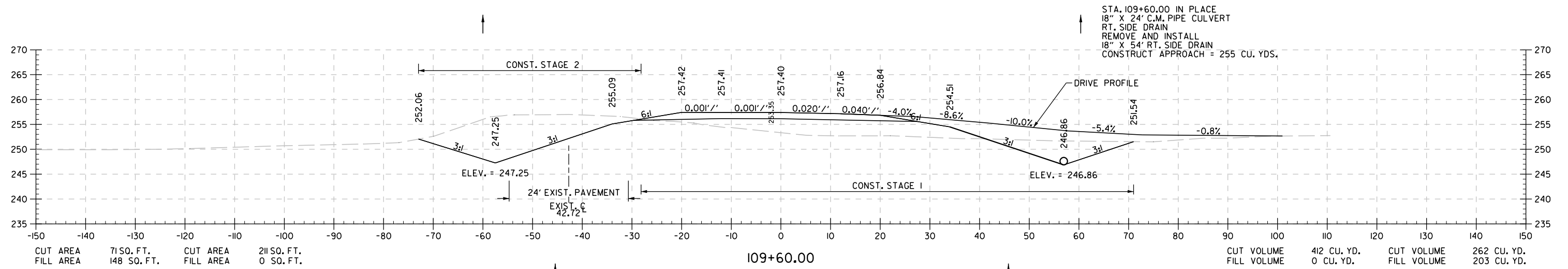
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				6	ARK.			
				JOB NO.		100991	72	90
				(2)		CROSS SECTIONS		

STAGE 1

STAGE 2

STAGE 2

STAGE 1



HWY. 25 - SITE I
STA. 108+34 TO STA. 109+60

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 REVISION DATE: **REVISION DATE**

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				JOB NO.		100991	73	90

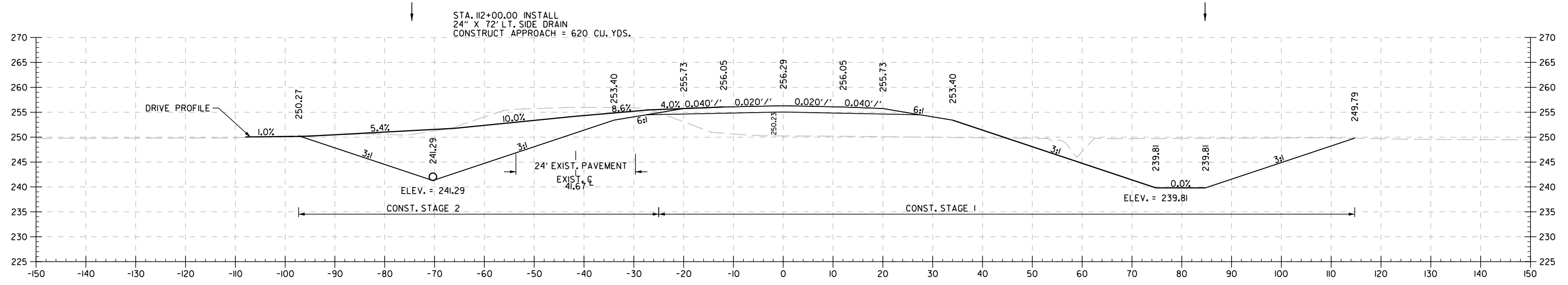
STAGE I

STAGE 2

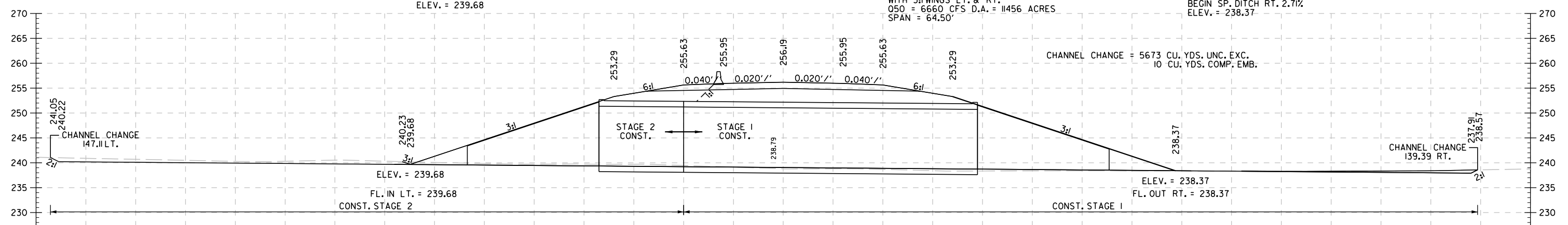
STAGE 2

STAGE I

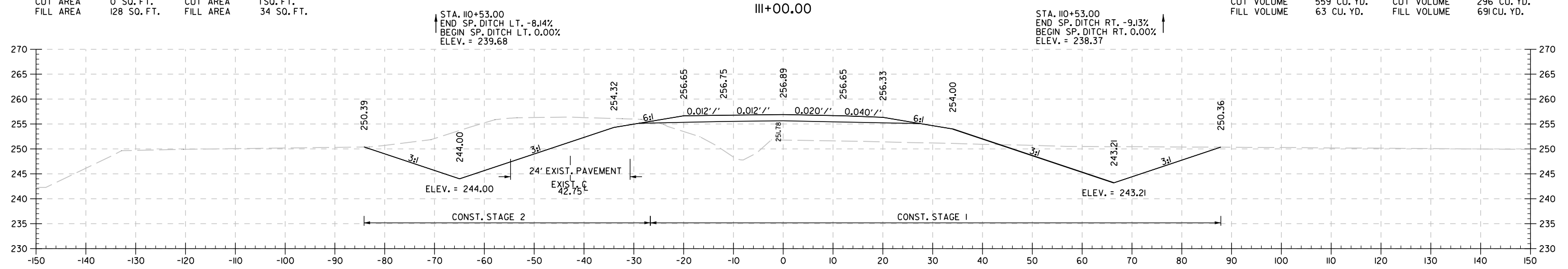
CROSS SECTIONS



CUT AREA	384 SQ. FT.	CUT AREA	411 SQ. FT.	CUT VOLUME	763 CU. YD.	CUT VOLUME	712 CU. YD.
FILL AREA	254 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	63 CU. YD.	FILL VOLUME	707 CU. YD.



CUT AREA	0 SQ. FT.	CUT AREA	150 SQ. FT.	CUT VOLUME	559 CU. YD.	CUT VOLUME	296 CU. YD.
FILL AREA	128 SQ. FT.	FILL AREA	34 SQ. FT.	FILL VOLUME	63 CU. YD.	FILL VOLUME	691 CU. YD.



CUT AREA	160 SQ. FT.	CUT AREA	301 SQ. FT.	CUT VOLUME	379 CU. YD.	CUT VOLUME	171 CU. YD.
FILL AREA	245 SQ. FT.	FILL AREA	0 SQ. FT.	FILL VOLUME	0 CU. YD.	FILL VOLUME	291 CU. YD.

HWY. 25 - SITE I
STA. 110+00 TO STA. 112+00

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				6	ARK.			
				JOB NO.		100991	74	90

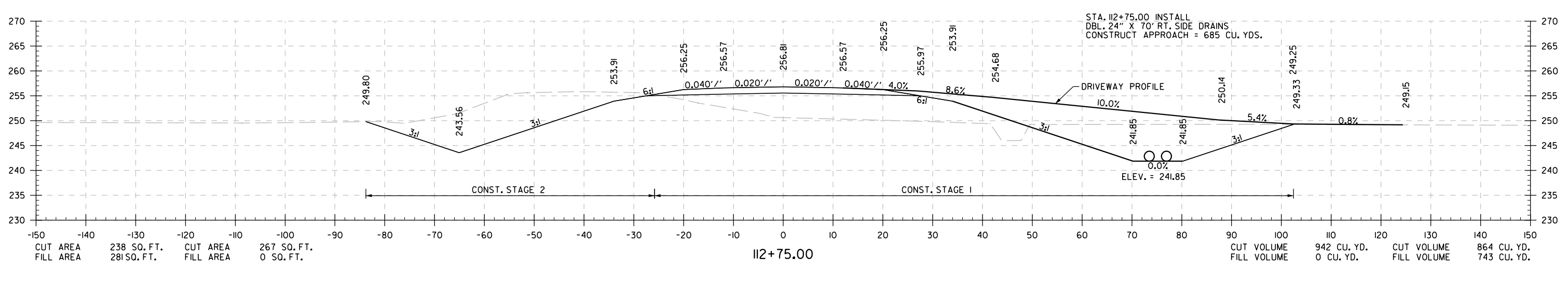
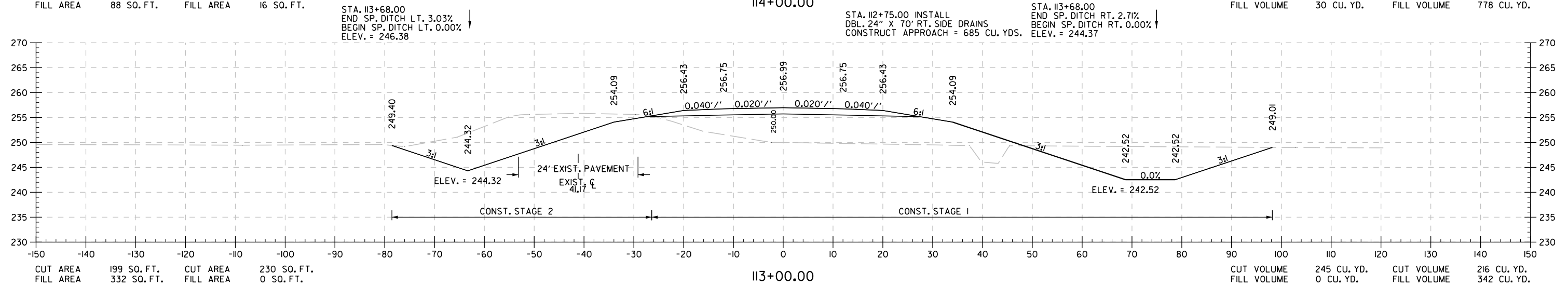
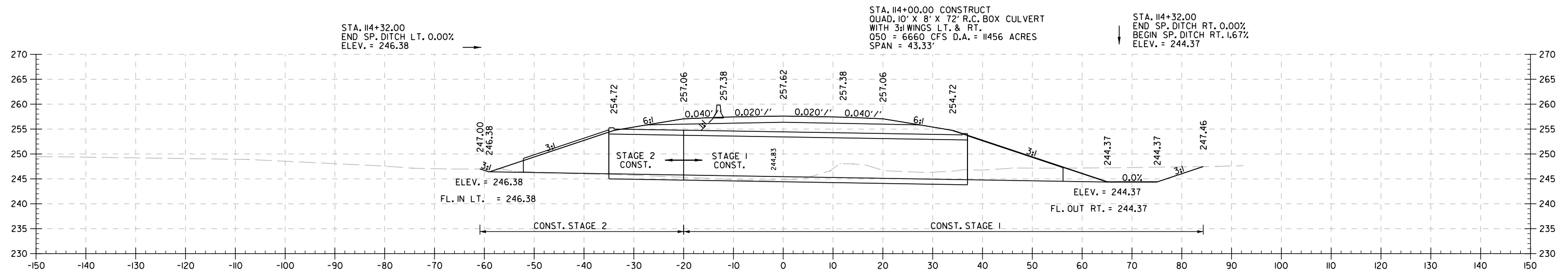
STAGE I

STAGE 2

STAGE 2

STAGE I

2 CROSS SECTIONS



HWY. 25 - SITE I
STA. I12+75 TO STA. I14+05

Stephen Basilio 10/18/2023 1:56:52 PM
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				6	ARK.			
				JOB NO.		100991	75	90

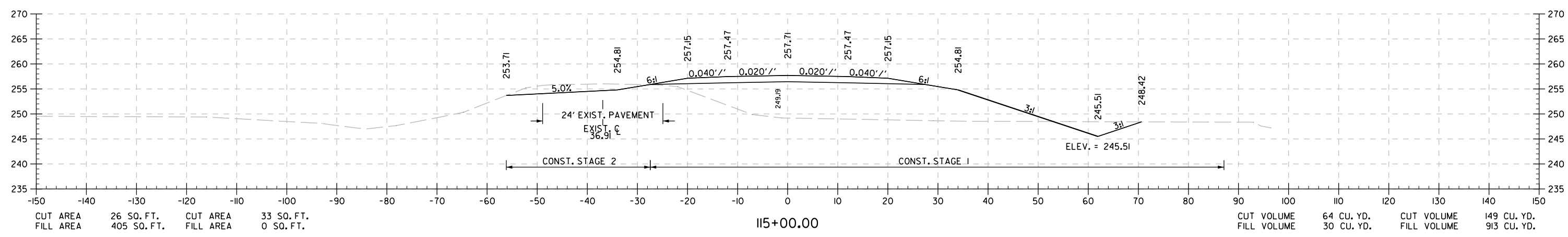
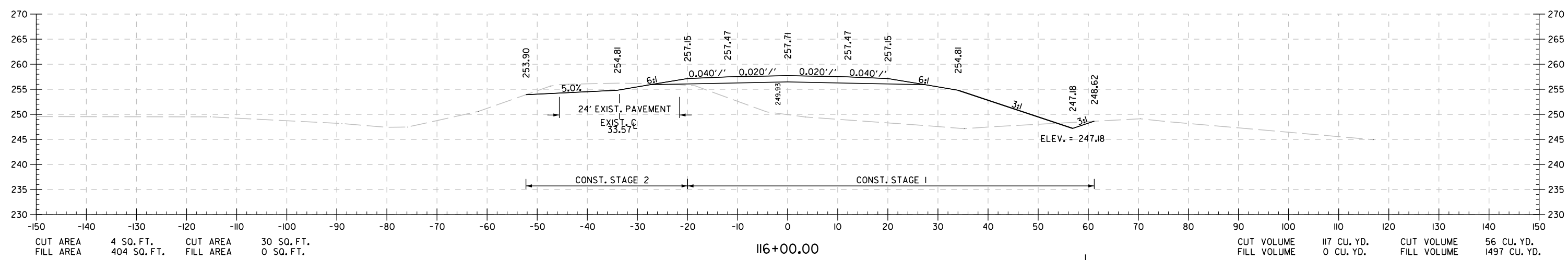
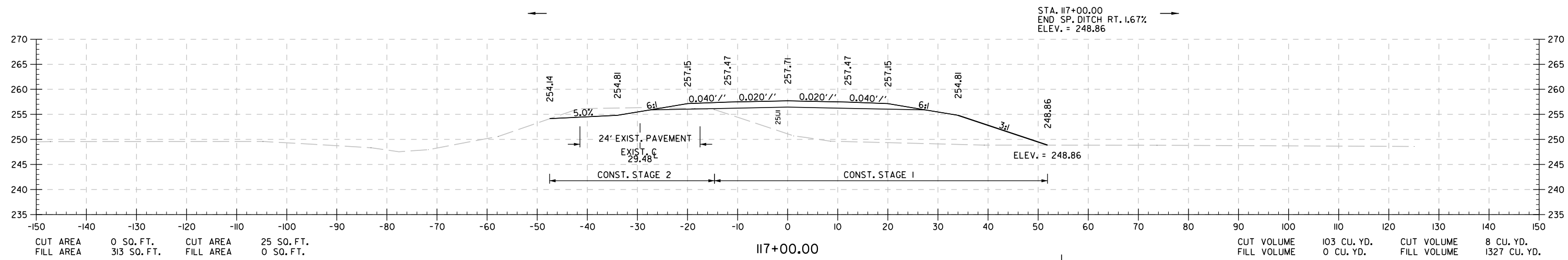
STAGE 1

STAGE 2

STAGE 2

STAGE 1

2 CROSS SECTIONS



HWY. 25 - SITE 1
STA. 115+00 TO STA. 117+00

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				6	ARK.			
				JOB NO.	100991		76	90

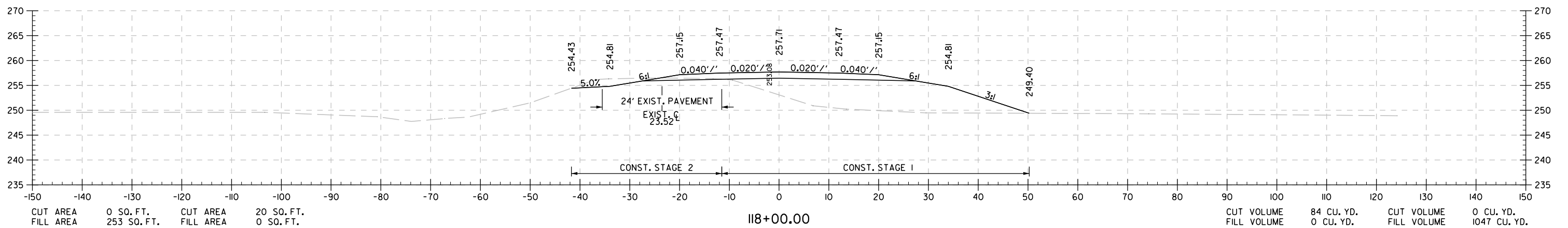
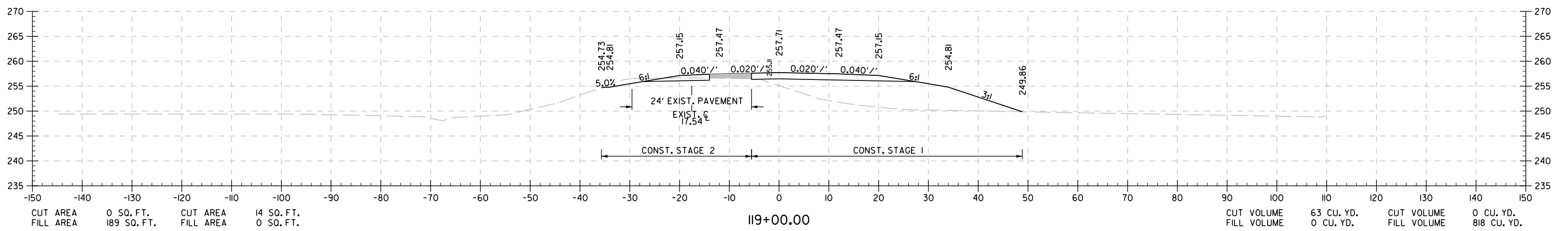
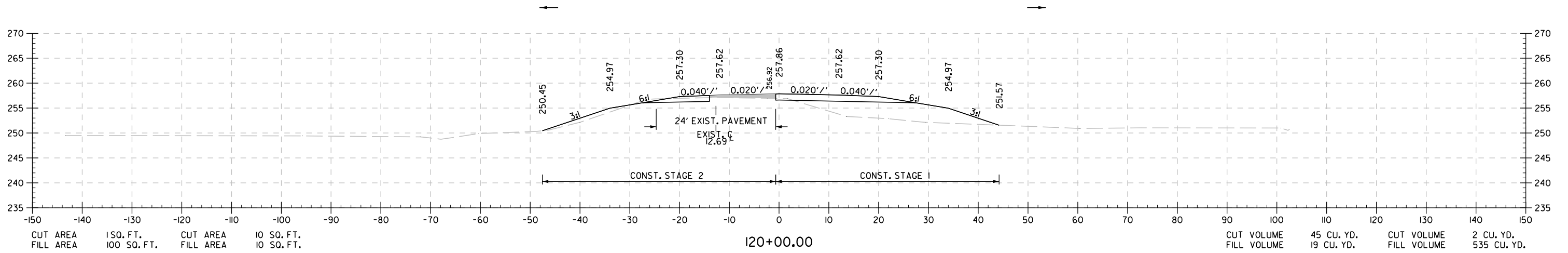
STAGE 1

STAGE 2

STAGE 2

STAGE 1

2 CROSS SECTIONS



HWY. 25 - SITE 1
STA. 118+00 TO STA. 120+00

10/18/2023 15:55:53 PM
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 REVISION DATE: **REVISION**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100991	77	90

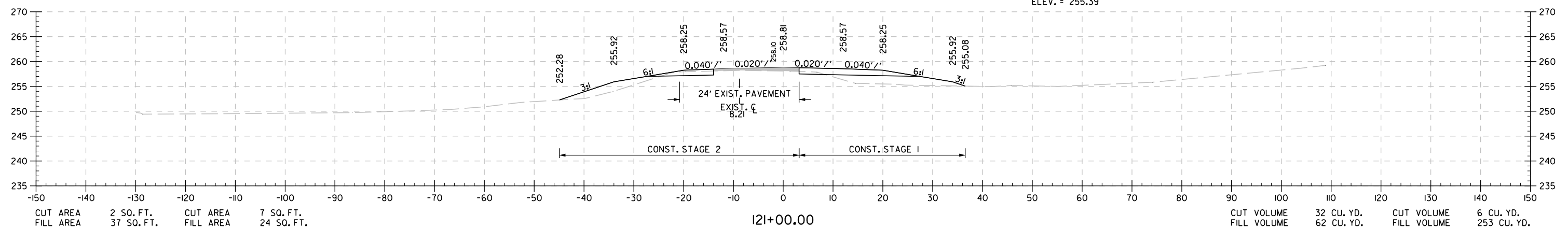
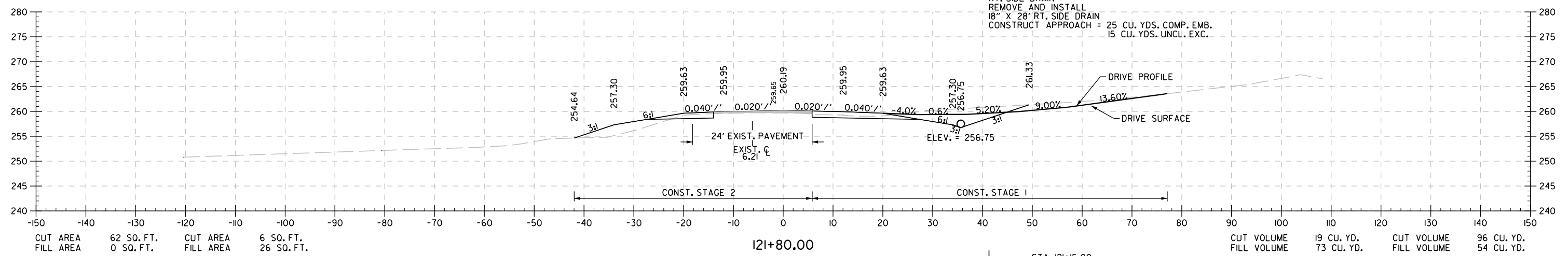
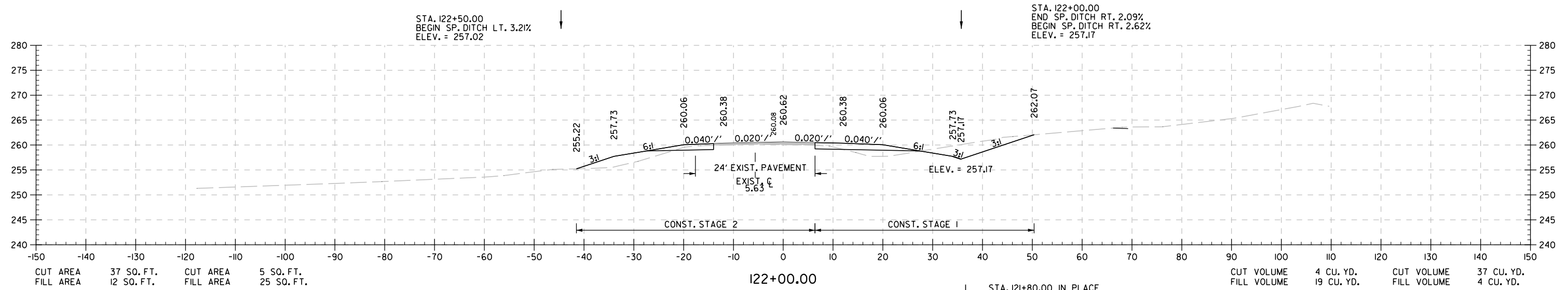
STAGE 1

STAGE 2

STAGE 2

STAGE 1

2 CROSS SECTIONS



HWY. 25 - SITE 1
STA. 121+00 TO STA. 122+00

Stephen Basile 10/18/2023 15:56:53 PM
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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. 100991		78		90

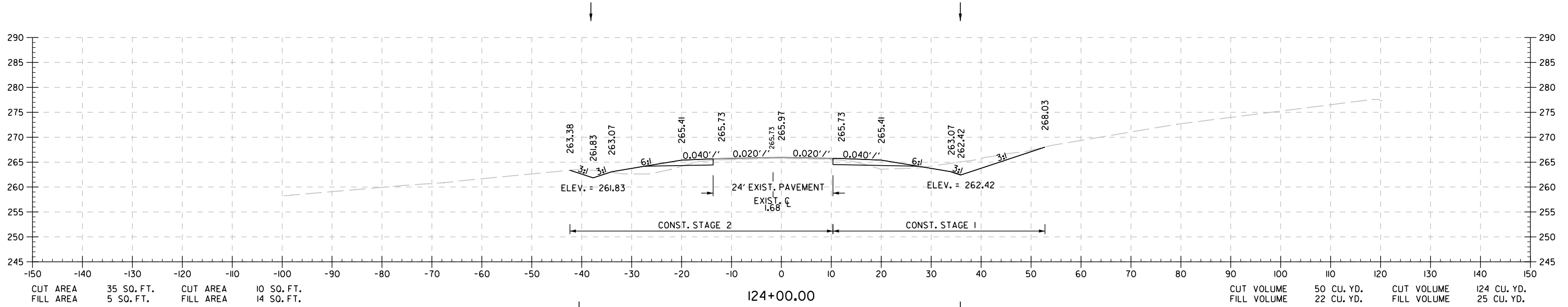
STAGE I

STAGE 2

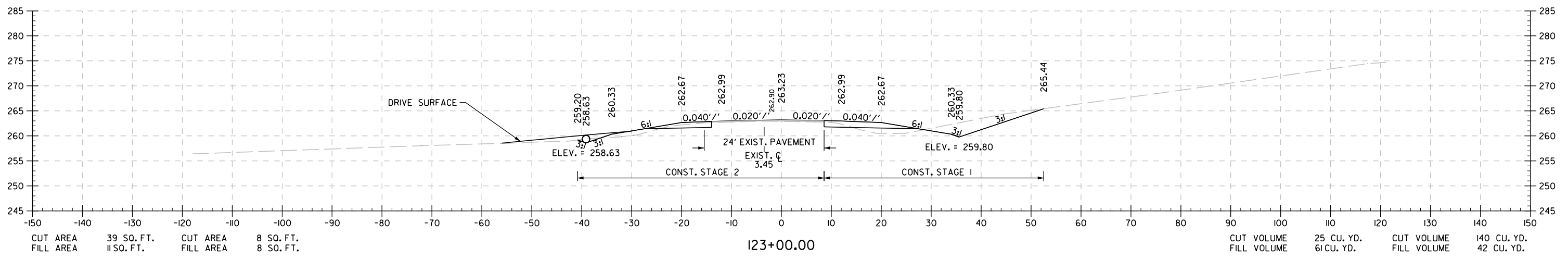
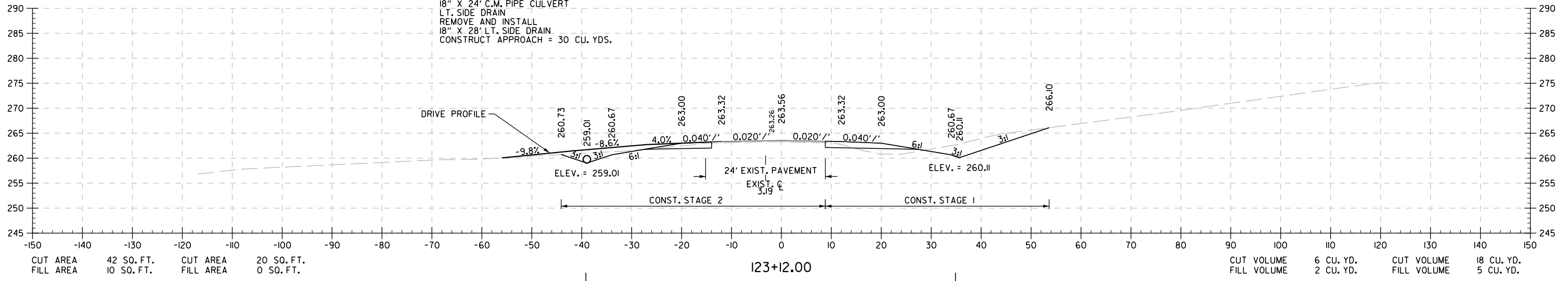
STAGE 2

STAGE I

2 CROSS SECTIONS



STA. 123+12.00 IN PLACE
18" X 24" C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE AND INSTALL
18" X 28" LT. SIDE DRAIN
CONSTRUCT APPROACH = 30 CU. YDS.



HWY. 25 - SITE I
STA. 123+00 TO STA. 124+00

Stephen Basile 10/18/2023 15:56:54 PM
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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.		100991	79	90

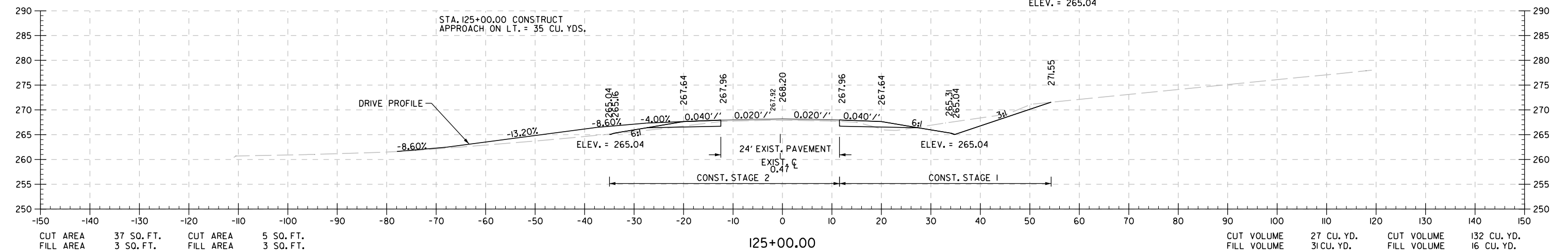
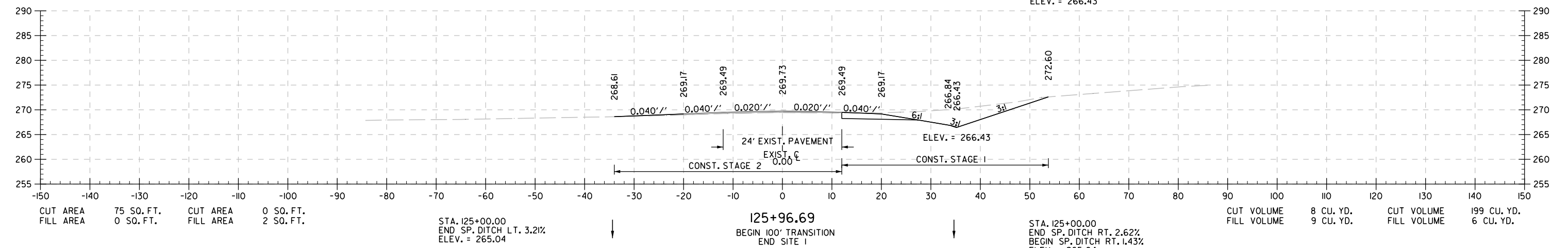
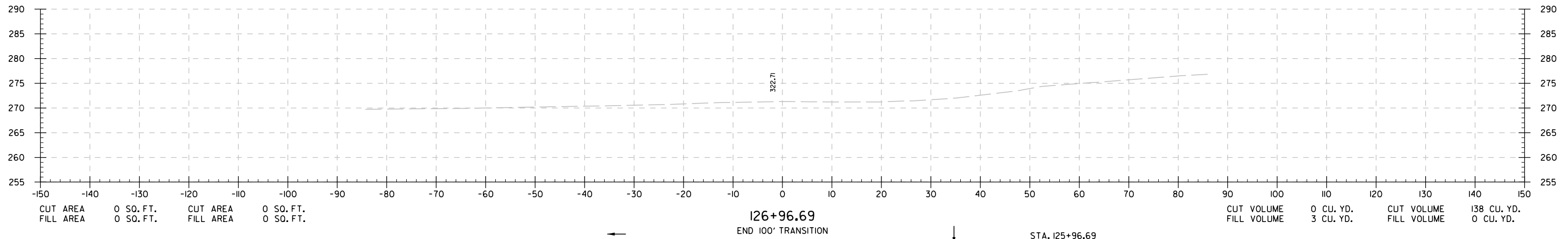
STAGE 1

STAGE 2

STAGE 2

STAGE 1

2 CROSS SECTIONS

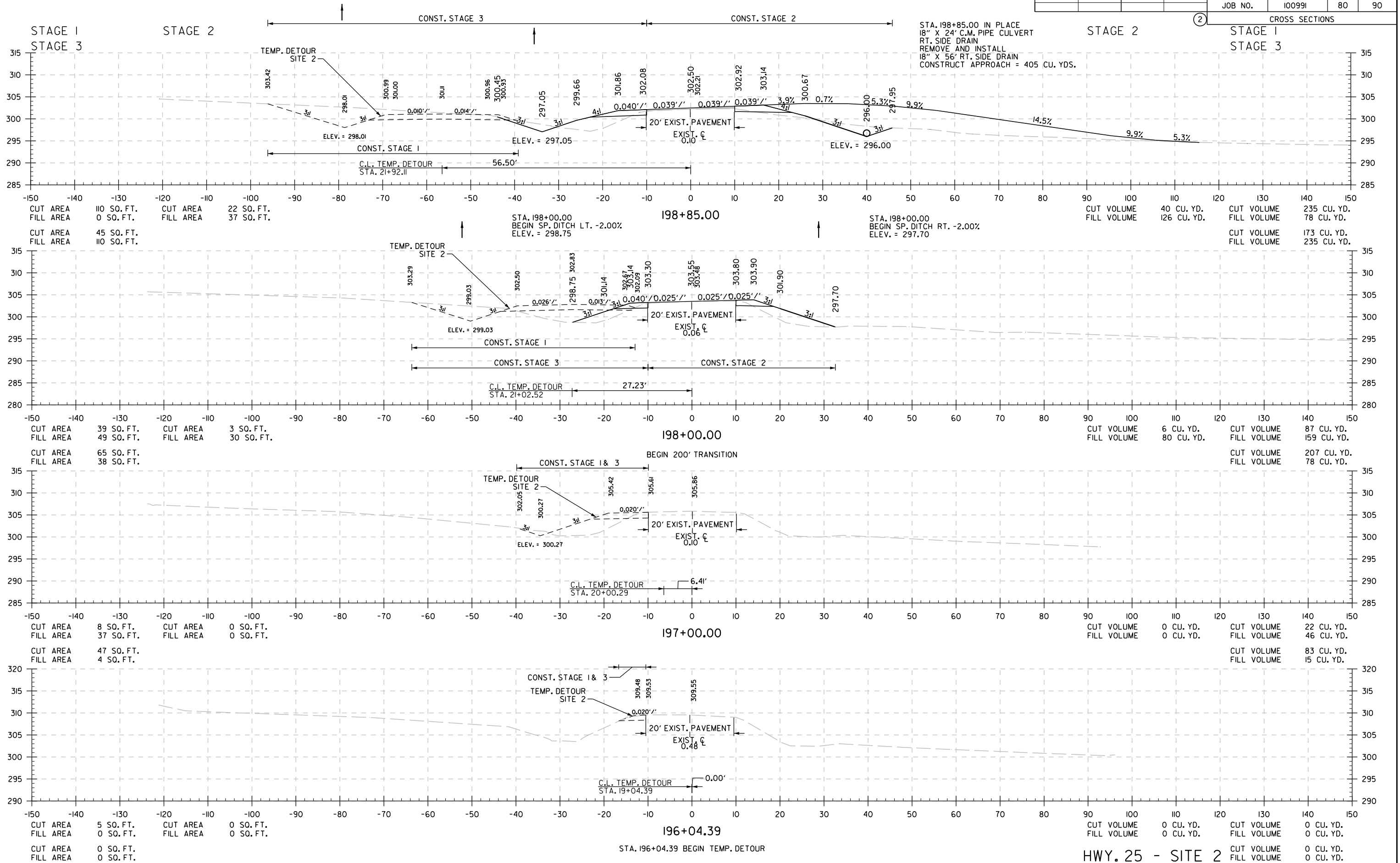


HWY. 25 - SITE 1
STA. 125+00 TO STA. 126+97

Stephen Basile 10/18/2023 15:56:54 PM
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 REVISION DATE: **REVISION**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	80	90	

2 CROSS SECTIONS



STA. 198+85.00 IN PLACE
18" X 24" C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE AND INSTALL
18" X 56" RT. SIDE DRAIN
CONSTRUCT APPROACH = 405 CU. YDS.

CUT AREA 110 SQ. FT.
FILL AREA 0 SQ. FT.
CUT AREA 45 SQ. FT.
FILL AREA 110 SQ. FT.

CUT VOLUME 40 CU. YD.
FILL VOLUME 126 CU. YD.
CUT VOLUME 235 CU. YD.
FILL VOLUME 78 CU. YD.
CUT VOLUME 173 CU. YD.
FILL VOLUME 235 CU. YD.

CUT AREA 39 SQ. FT.
FILL AREA 49 SQ. FT.
CUT AREA 65 SQ. FT.
FILL AREA 38 SQ. FT.

CUT VOLUME 6 CU. YD.
FILL VOLUME 80 CU. YD.
CUT VOLUME 87 CU. YD.
FILL VOLUME 159 CU. YD.
CUT VOLUME 207 CU. YD.
FILL VOLUME 78 CU. YD.

CUT AREA 8 SQ. FT.
FILL AREA 37 SQ. FT.
CUT AREA 47 SQ. FT.
FILL AREA 4 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.
CUT VOLUME 22 CU. YD.
FILL VOLUME 46 CU. YD.
CUT VOLUME 83 CU. YD.
FILL VOLUME 15 CU. YD.

CUT AREA 5 SQ. FT.
FILL AREA 0 SQ. FT.
CUT AREA 0 SQ. FT.
FILL AREA 0 SQ. FT.

CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.
CUT VOLUME 0 CU. YD.
FILL VOLUME 0 CU. YD.

HWY. 25 - SITE 2
STA. 196+04 TO STA. 198+85

Stephen Basilio 10/18/2023 1:56:54 PM
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 Y:\Projects\ARD01\17614\100991\indep Co-Eaton Strs & Apprs\Design\100991\21.CX.002.dgn
 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. 100991		81		90

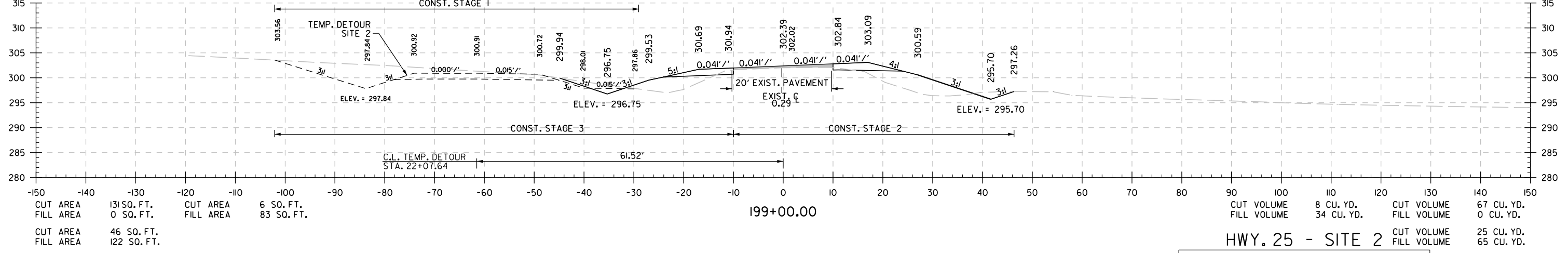
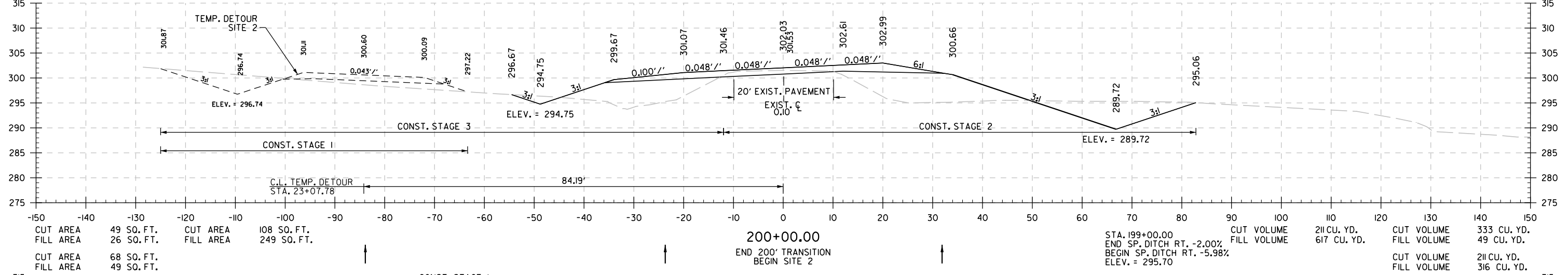
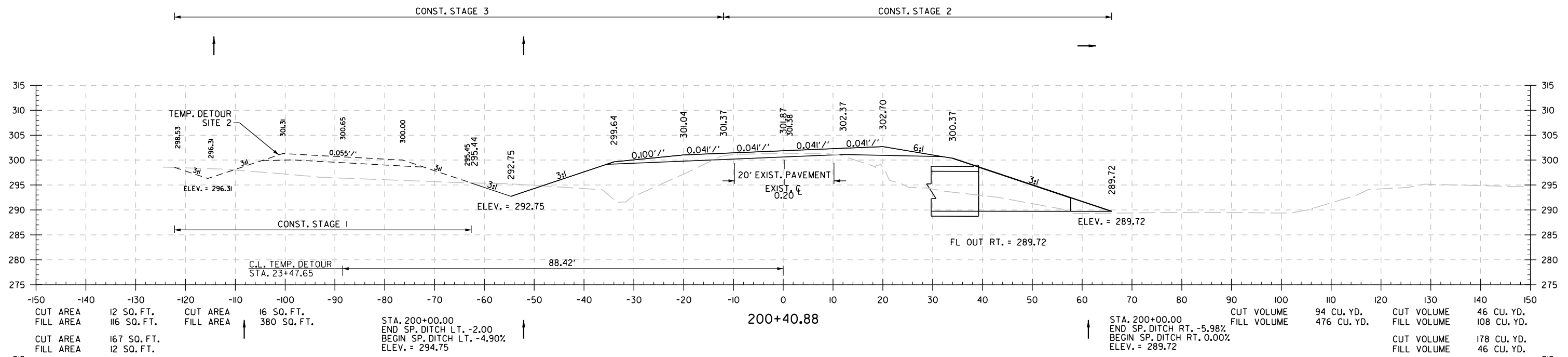
2 CROSS SECTIONS

STAGE 1
STAGE 3

STAGE 2

STAGE 2

STAGE 1
STAGE 3



HWY. 25 - SITE 2
STA. 199+00 TO STA. 200+41

Stephen Basilio 10/18/2023 1:56:55 PM
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 REVISIONS: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	100991	82	90
				2 CROSS SECTIONS				

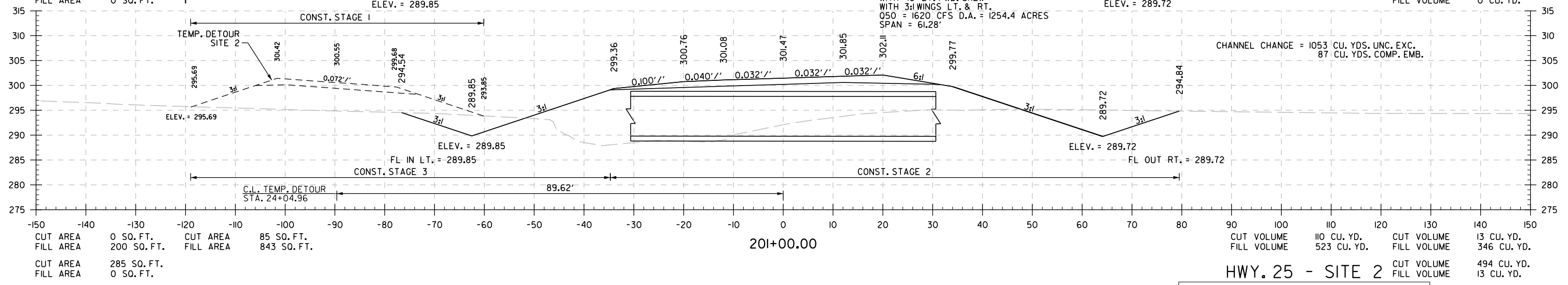
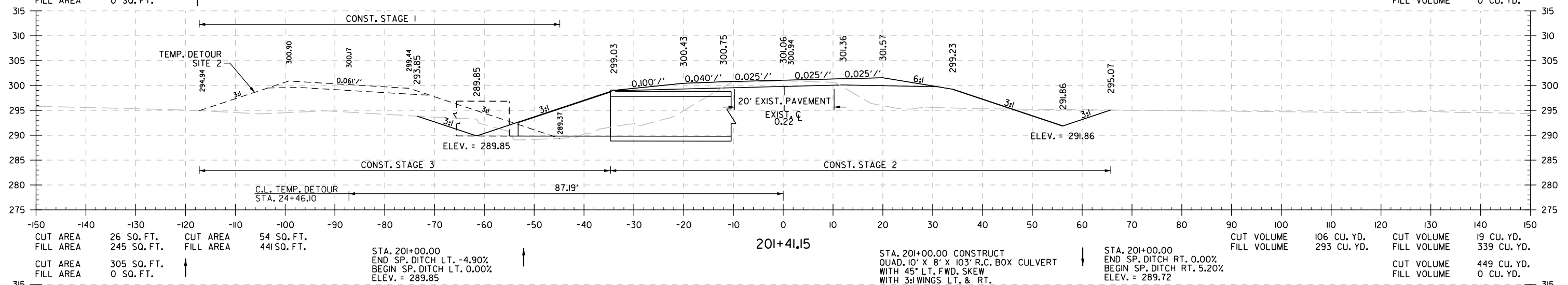
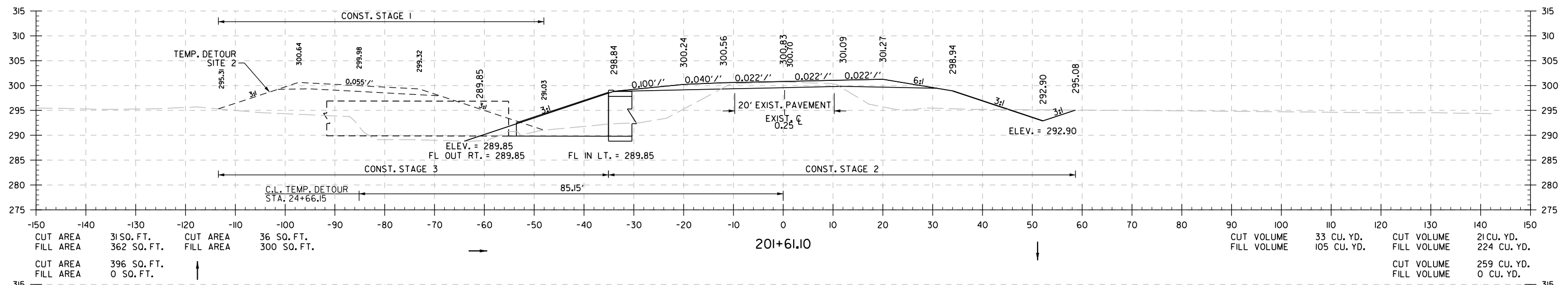
STAGE 1
STAGE 3

STAGE 2

STAGE 2

2

STAGE 1
STAGE 3



HWY. 25 - SITE 2
STA. 201+00 TO STA. 201+61

Stephens Basis 10/18/2023 15:55:55 PM
 WORKSPACE: C:\ROOT
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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. 100991		83	90	

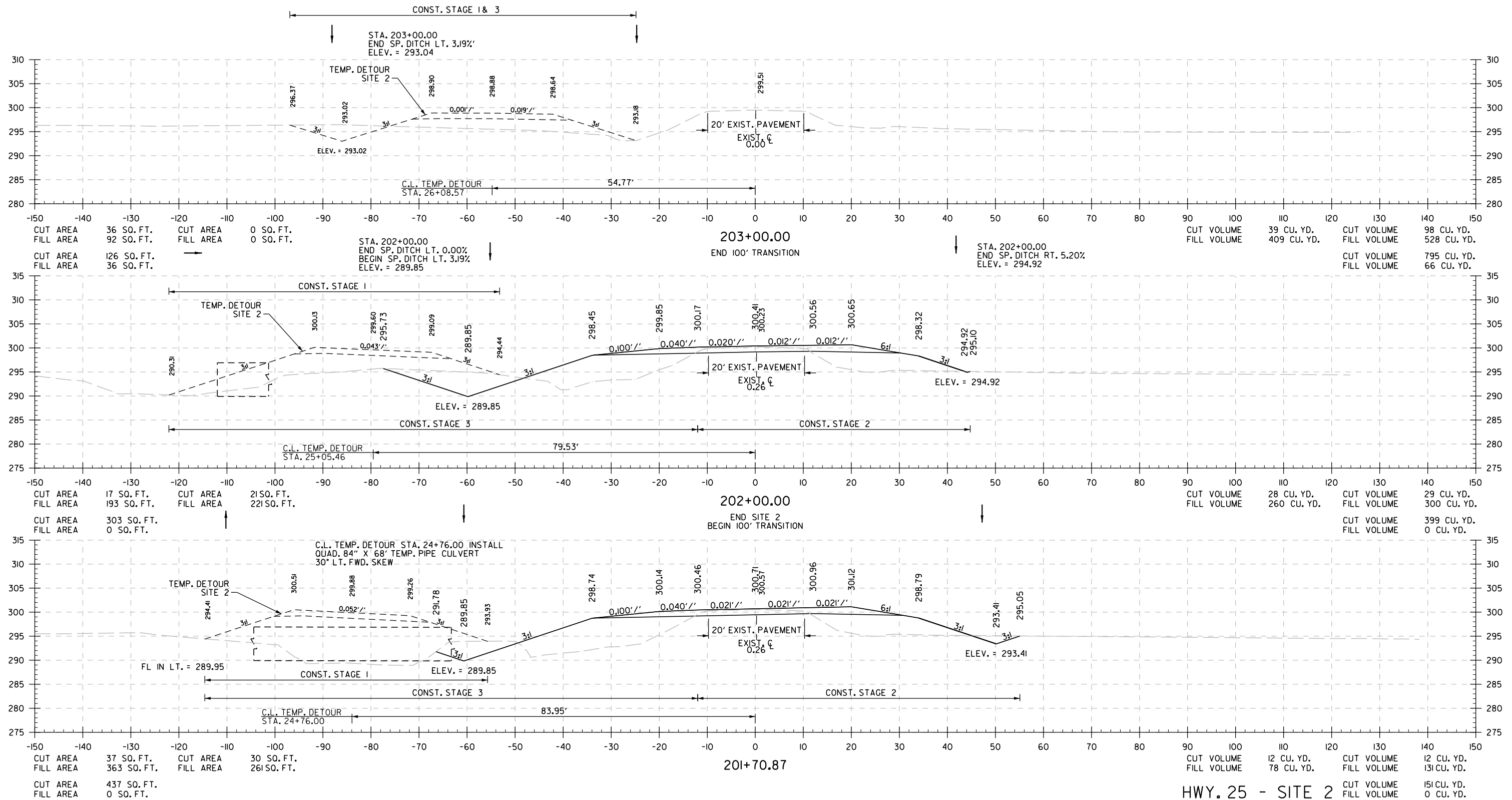
STAGE 1
STAGE 3

STAGE 2

STAGE 2

STAGE 1
STAGE 3

2 CROSS SECTIONS



HWY. 25 - SITE 2
 STA. 201+71 TO STA. 203+00

10/18/2023 15:55:55 PM
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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. 100991		84	90	

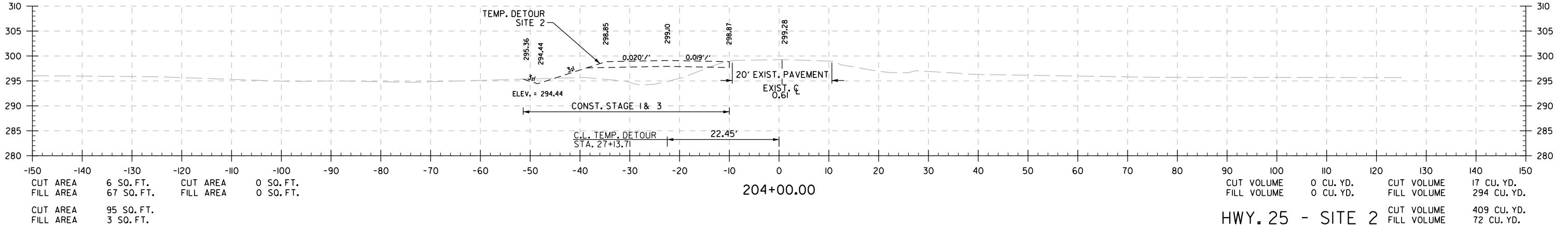
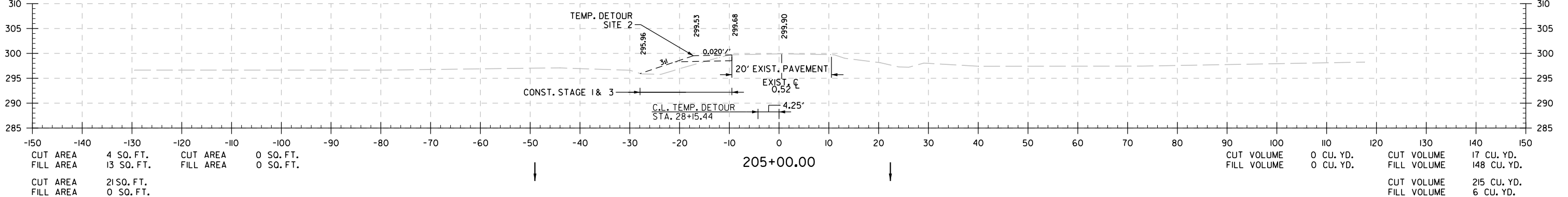
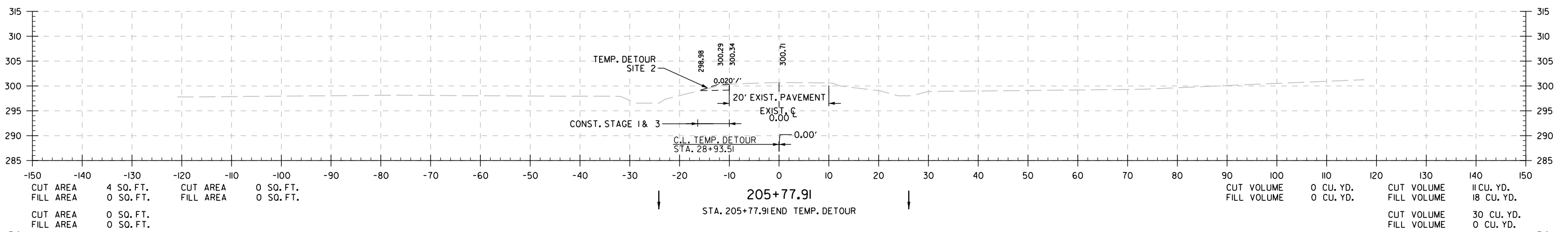
STAGE 1
STAGE 3

STAGE 2

STAGE 2

STAGE 1
STAGE 3

2 CROSS SECTIONS

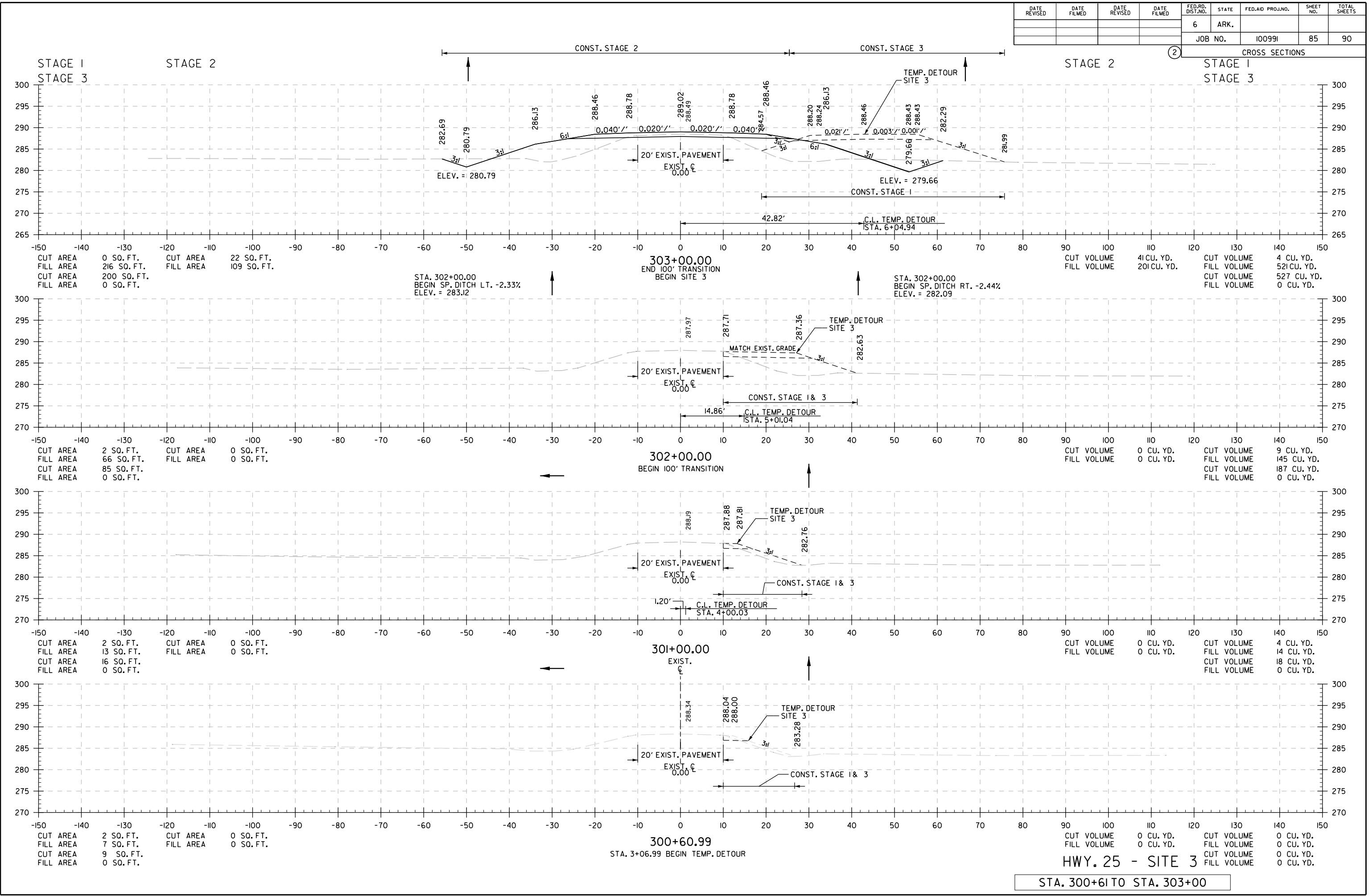


HWY. 25 - SITE 2
STA. 204+00 TO STA. 205+78

Stephen Basile 10/18/2023 15:56:56 PM
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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	100991	85	90

CROSS SECTIONS



HWY. 25 - SITE 3
STA. 300+61 TO STA. 303+00

Stephen Basilio 10/18/2023 1:56:56 PM
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 REVISION DATE: **REVISION DATE**

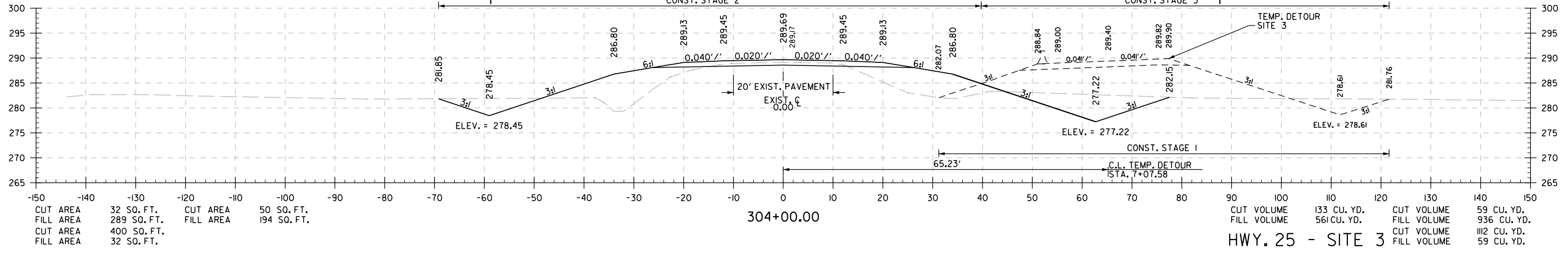
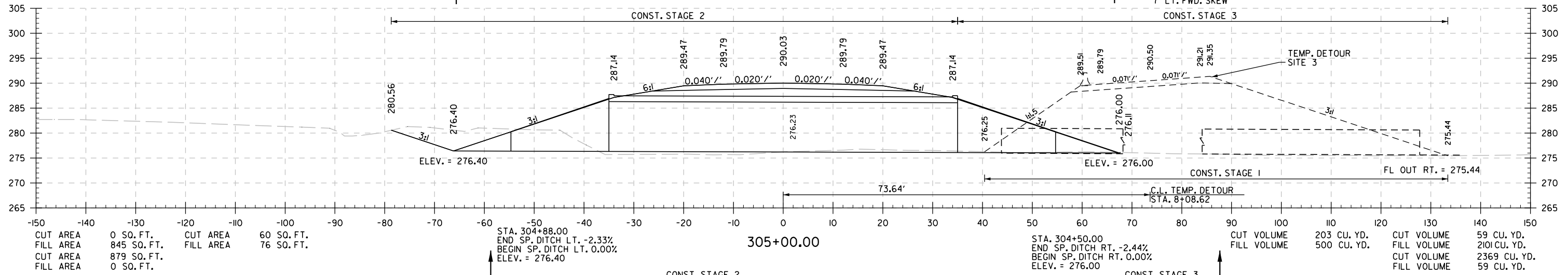
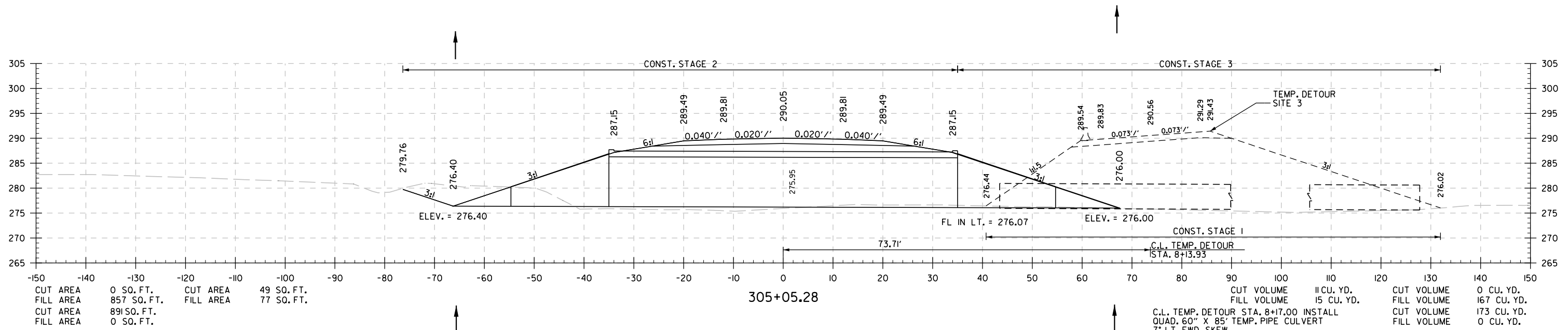
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.	100991	86	90	
				(2) CROSS SECTIONS					
				JOB NO.		100991		86 90	

STAGE 1
STAGE 3

STAGE 2

STAGE 2

STAGE 1
STAGE 3



HWY. 25 - SITE 3

STA. 304+00 TO STA. 305+05

Stephen Basile 10/18/2023 1:56:56 PM
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 REVISION DATE: **REDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	87	90	

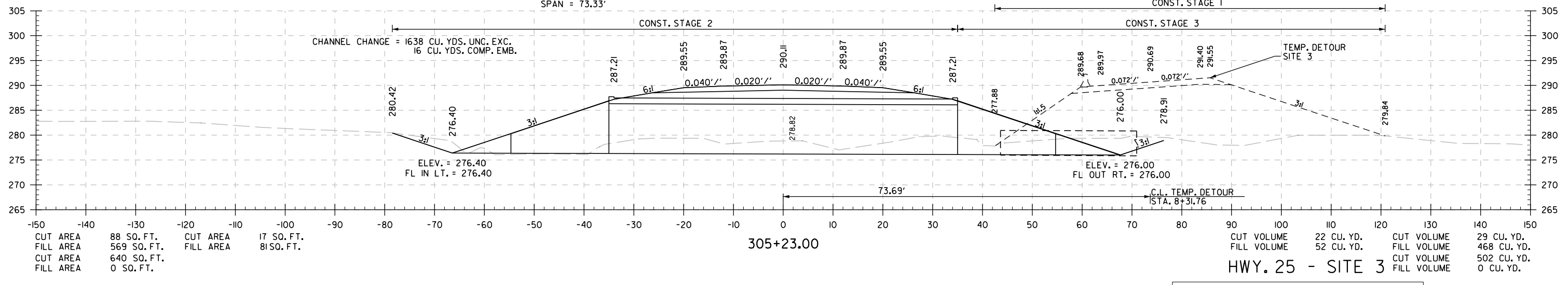
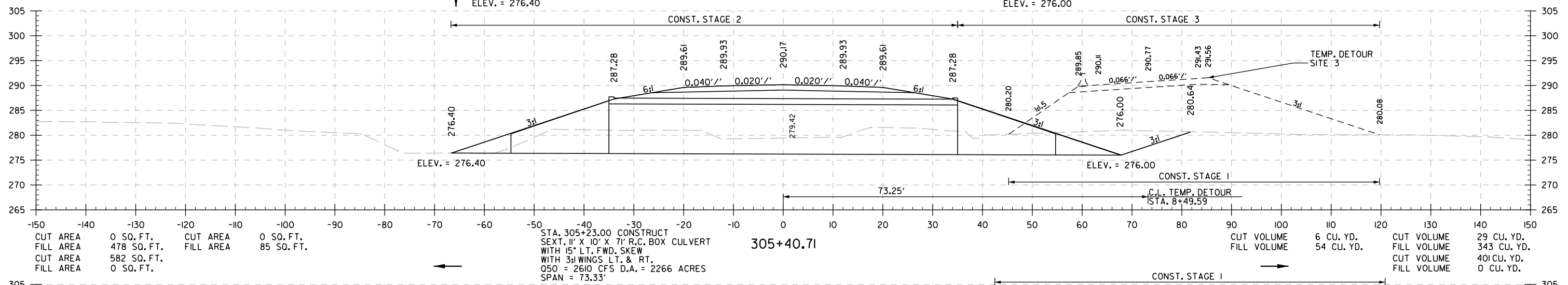
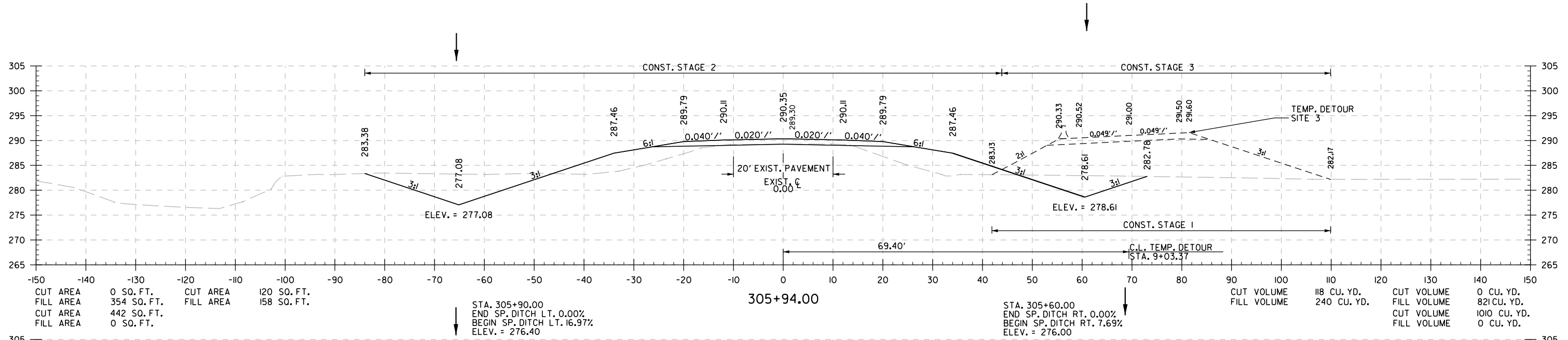
STAGE 1
STAGE 3

STAGE 2

STAGE 2

STAGE 1
STAGE 3

2 CROSS SECTIONS



HWY. 25 - SITE 3

STA. 305+23 TO STA. 305+94

Stephen Basile 10/18/2023 1:56:57 PM
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 REVISION DATE: **REVIDATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	88	90	

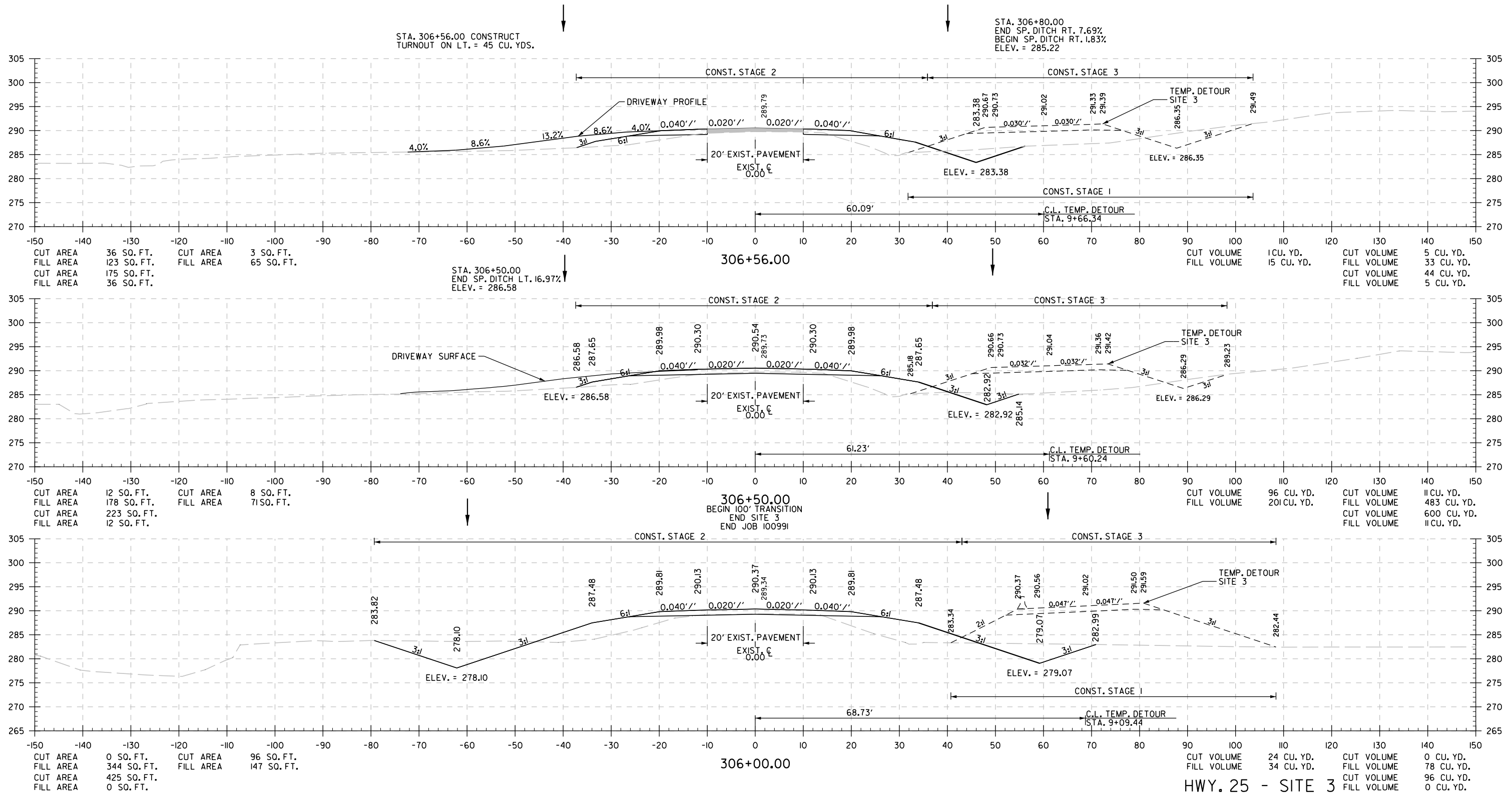
2 CROSS SECTIONS
 STAGE 1
 STAGE 3

STAGE 1
 STAGE 3

STAGE 2

STAGE 2

STAGE 1
 STAGE 3



HWY. 25 - SITE 3
STA. 306+00 TO STA. 306+56

10/18/2023 15:56:57 PM
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 REVISION DATE: **REVISION DATE**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991	89	90	

STAGE 1
STAGE 3

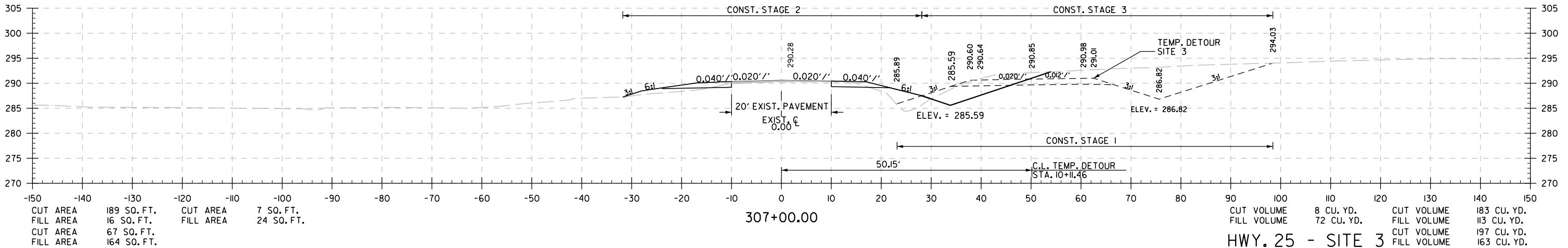
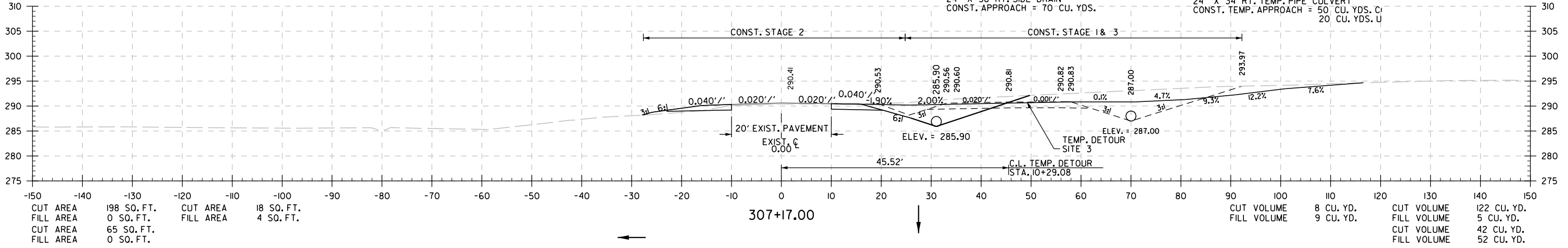
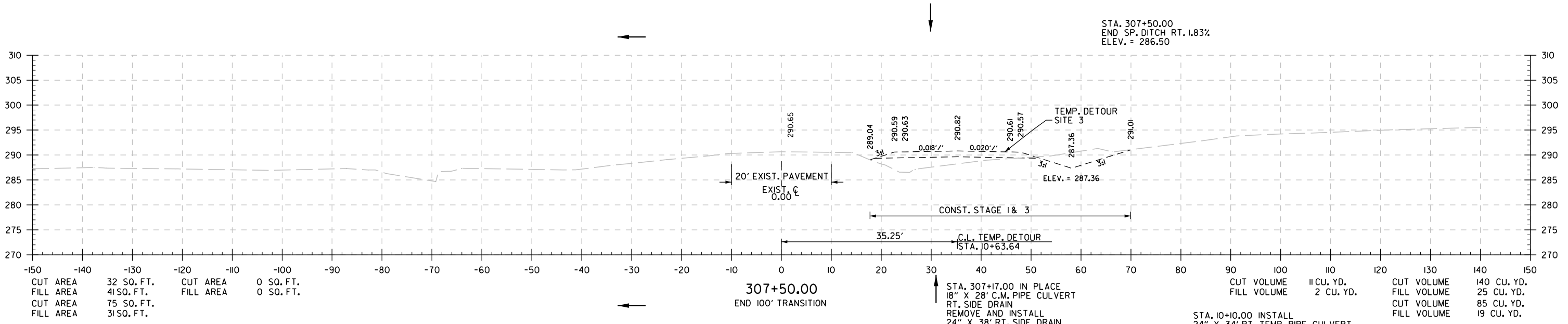
STAGE 2

STAGE 2

2

STAGE 1
STAGE 3

CROSS SECTIONS



HWY. 25 - SITE 3

STA. 307+00 TO STA. 307+50

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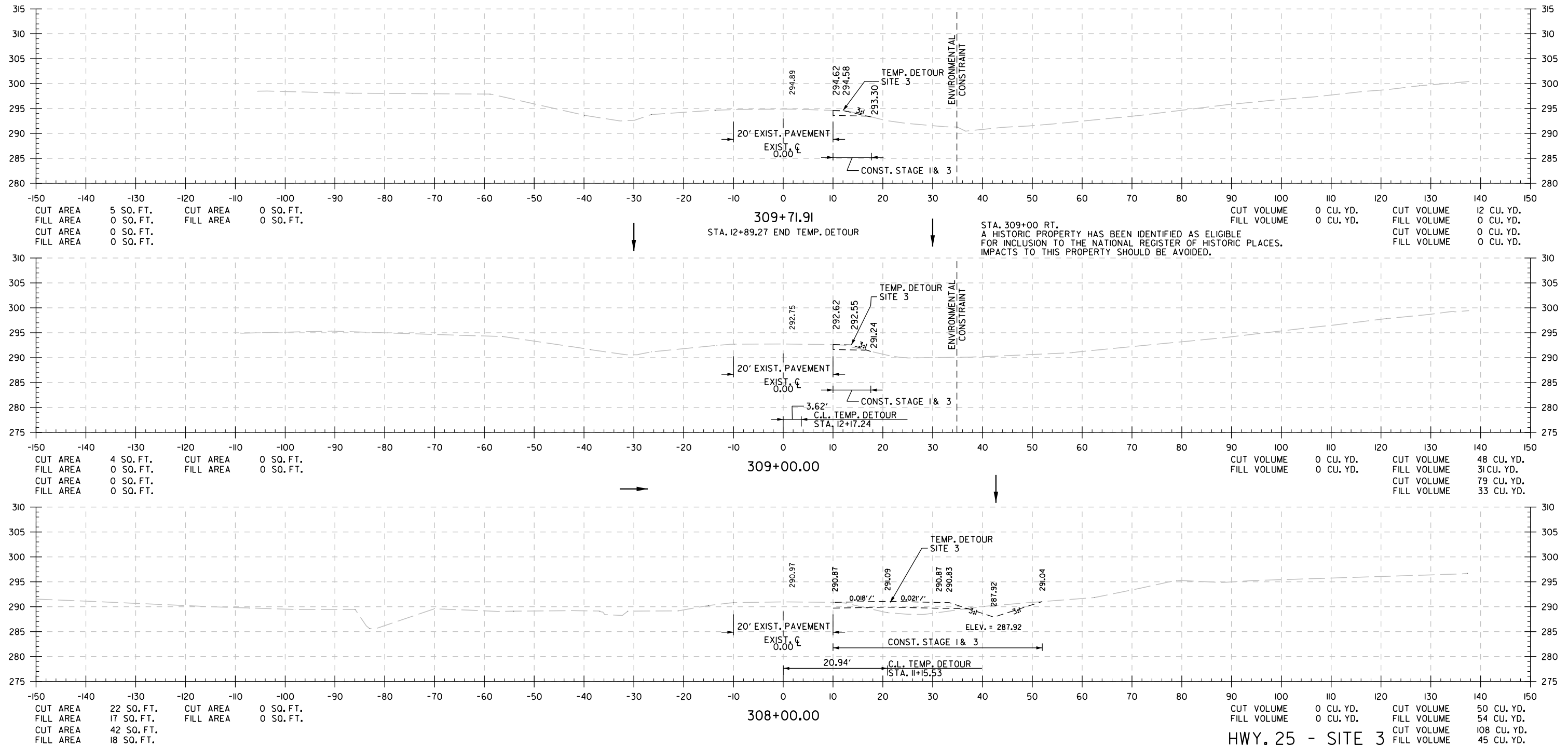
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100991		90	90

2 CROSS SECTIONS
 STAGE 1
 STAGE 3

STAGE 1
 STAGE 3

STAGE 2

STAGE 2



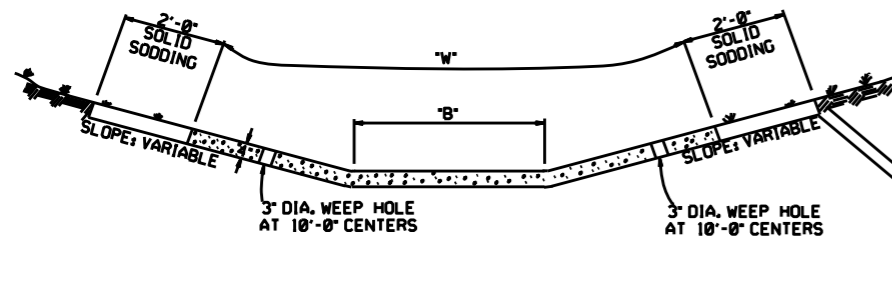
STA. 309+00 RT.
 A HISTORIC PROPERTY HAS BEEN IDENTIFIED AS ELIGIBLE FOR INCLUSION TO THE NATIONAL REGISTER OF HISTORIC PLACES. IMPACTS TO THIS PROPERTY SHOULD BE AVOIDED.

HWY. 25 - SITE 3

STA. 308+00 TO STA. 309+72

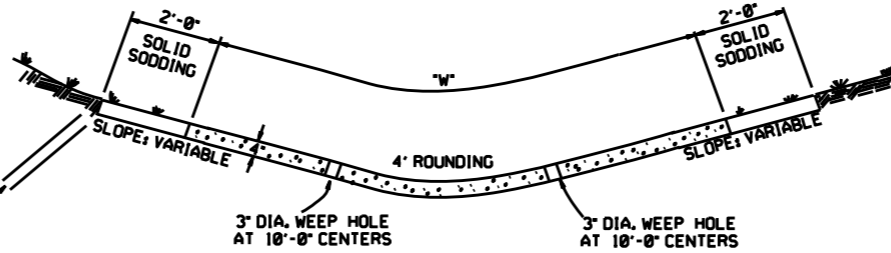
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 REVISION DATE: **REVIDATE**

REFER TO TABULATION OF QUANTITIES FOR "W" & "B" DIMENSIONS



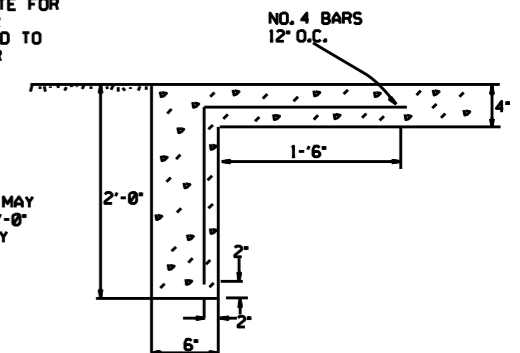
TYPE A

REFER TO TABULATION OF QUANTITIES FOR "W" DIMENSIONS



TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."



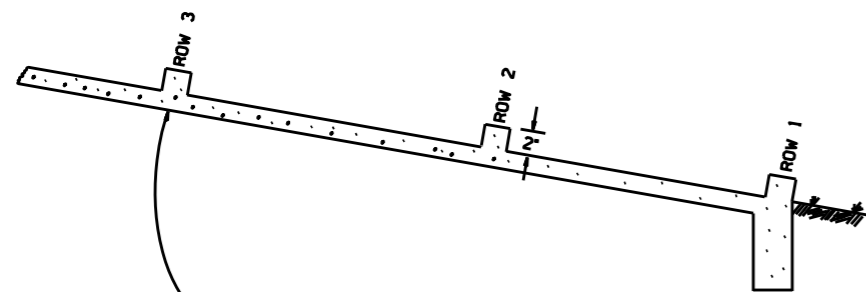
TOE WALL DETAIL FOR CONCRETE DITCH PAVING

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.
TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

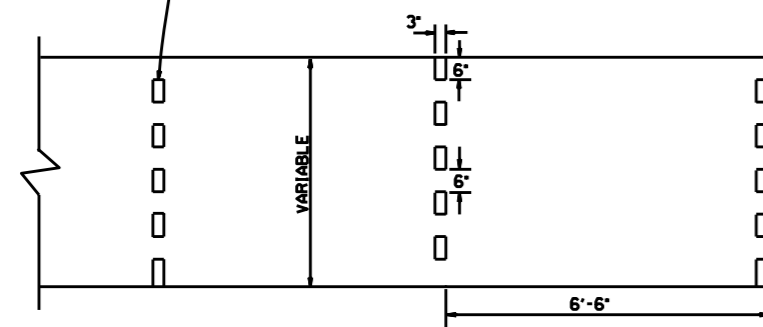
SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

1' WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.



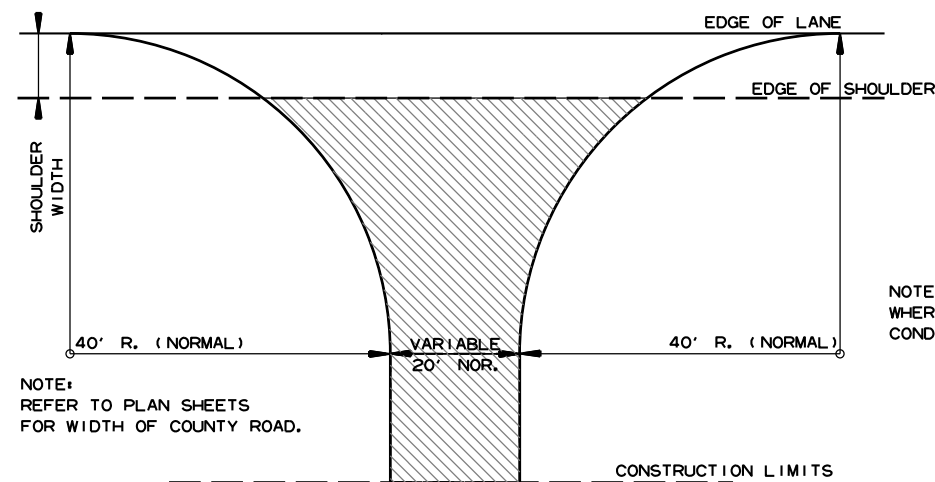
ENERGY DISSIPATORS
(NO SCALE)

DATE	REVISION	DATE FILM'D
12-8-16	CORRECTED ENERGY DISSIPATOR DRAWING AND NOTE	
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	871-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	832-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	839-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED	
	TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72
	DATE	REVISION
		DATE FILM'D

ARKANSAS STATE HIGHWAY COMMISSION


CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1

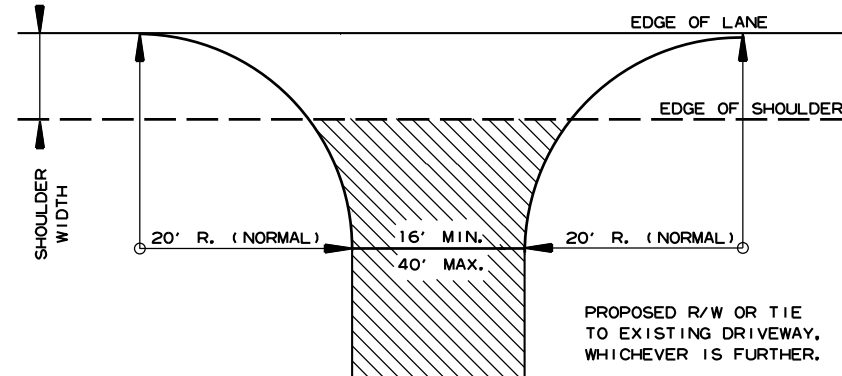


NOTE:
REFER TO PLAN SHEETS
FOR WIDTH OF COUNTY ROAD.


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

 ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH, UNLESS OTHERWISE
SPECIFIED IN PLANS.

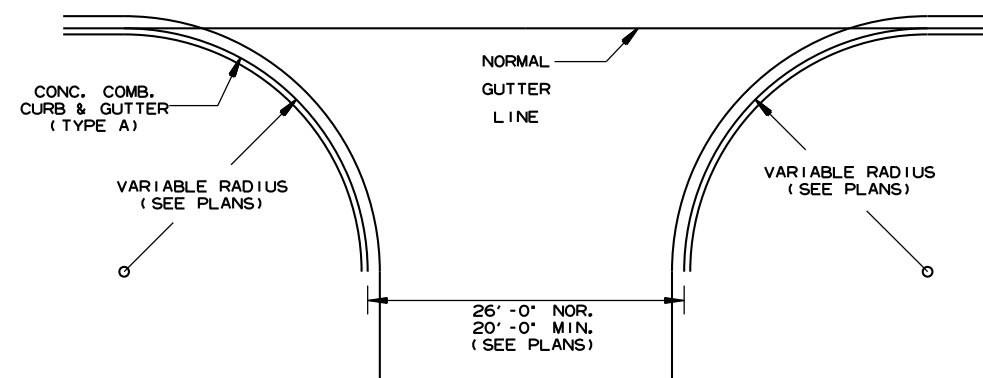
DETAIL FOR COUNTY ROAD TURNOUTS
OPEN SHOULDER SECTION



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

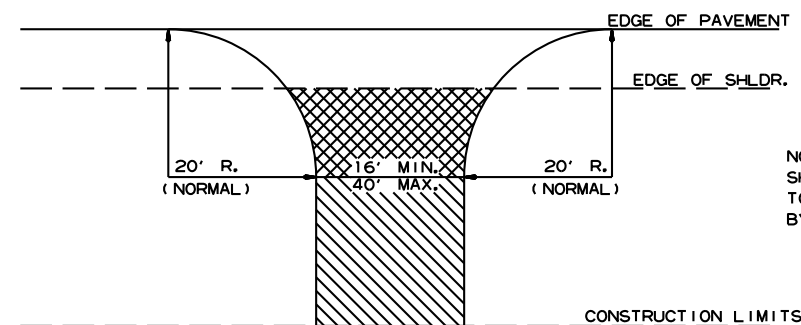
 ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT OR
GRAVEL DRIVE EXISTING; OR 6"
CONCRETE IF CONCRETE DRIVE
EXISTING.

DETAIL FOR DRIVEWAY TURNOUTS
OPEN SHOULDER SECTION
(ARTERIALS)





NOTE:
PAVEMENT STRUCTURE FOR STATE HIGHWAYS, CITY STREETS,
& COUNTY ROADS TO BE SAME AS MAIN LANES.

DETAIL OF TURNOUTS, ASPHALT STREETS,
COUNTY ROADS & STATE HIGHWAYS
CURB & GUTTER SECTION



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

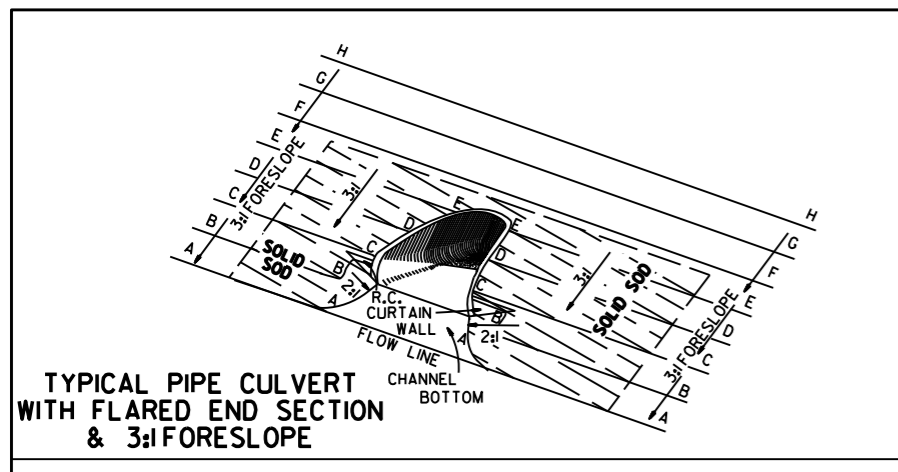
 ASPHALT CONCRETE HOT MIX SURFACE
COURSE (220 LBS. PER SQ. YD.)
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR
6" CONCRETE IF CONCRETE DRIVE EXIST.

 AGGREGATE BASE COURSE (CLASS 7)
9" COMP. DEPTH OR CONFORM
TO EXISTING DRIVEWAY

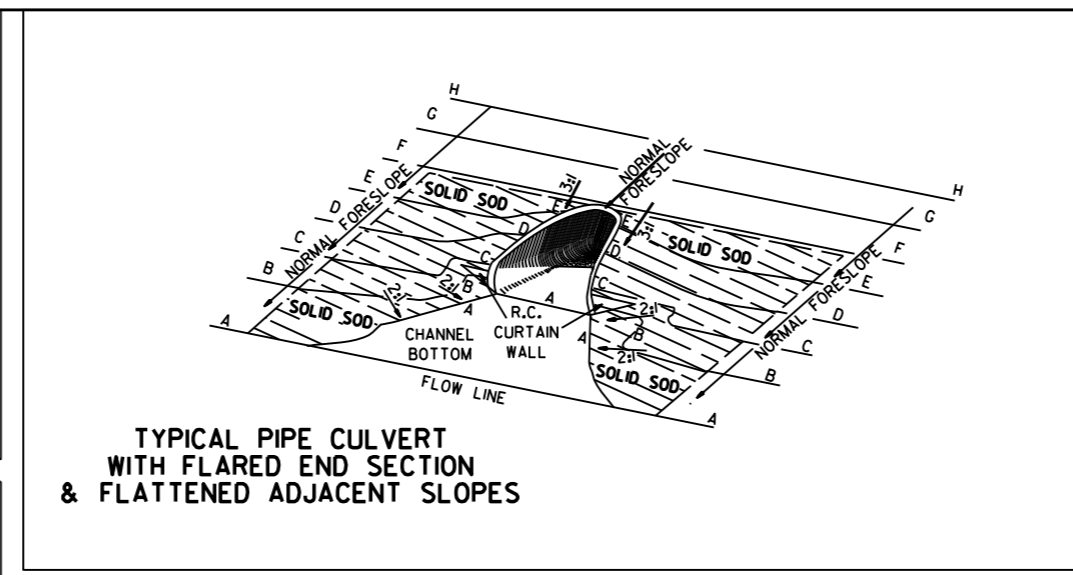
DETAIL FOR DRIVEWAY TURNOUTS
(COLLECTORS)

DATE	REV	DATE FILMED	DESCRIPTION
5-19-22			ISSUED

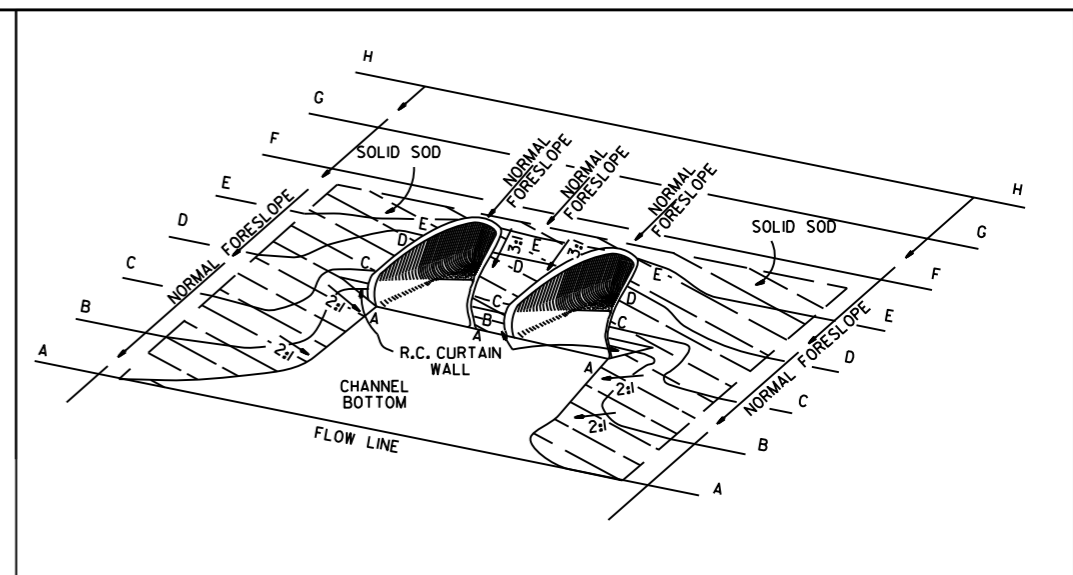
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & STREET
TURNOUTS
STANDARD DRAWING DR-2



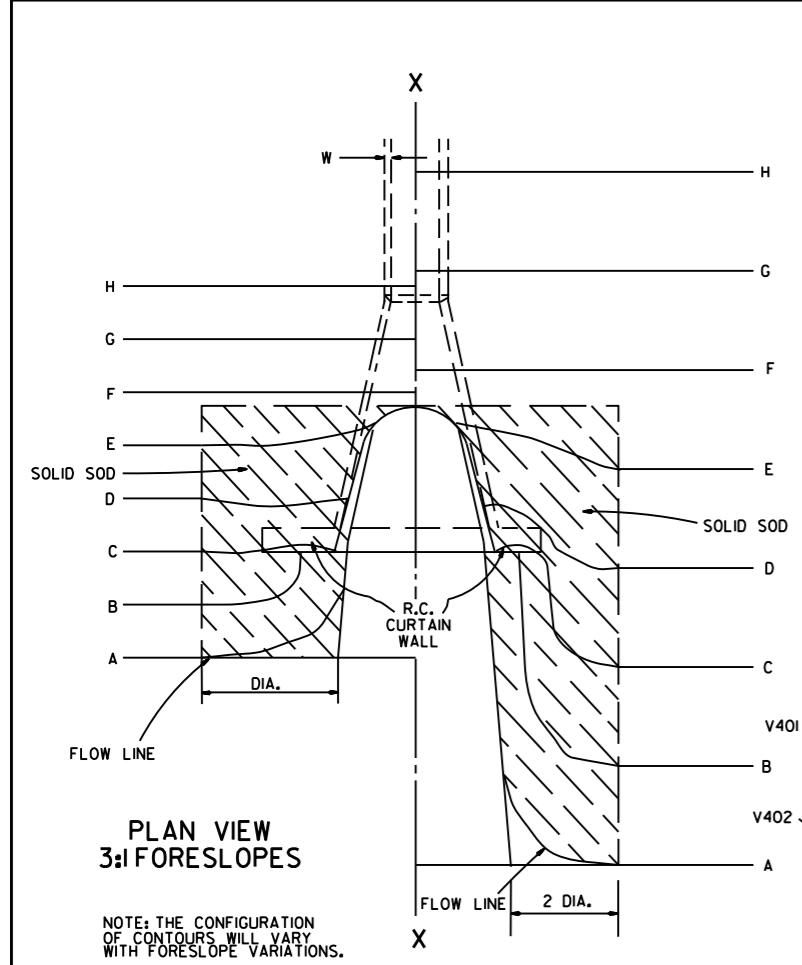
TYPICAL PIPE CULVERT WITH FLARED END SECTION & 3:1 FORESLOPE



TYPICAL PIPE CULVERT WITH FLARED END SECTION & FLATTENED ADJACENT SLOPES



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



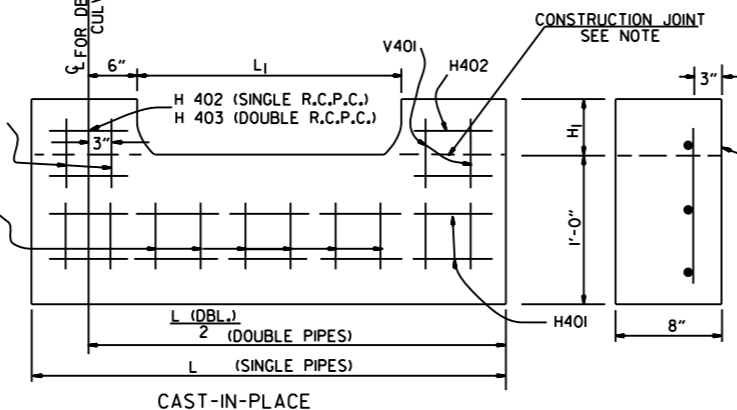
PLAN VIEW 3:1 FORESLOPES

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

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. CU. YDS.	REINF. STEEL LBS.	CONC. CU. YDS.	REINF. STEEL LBS.
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

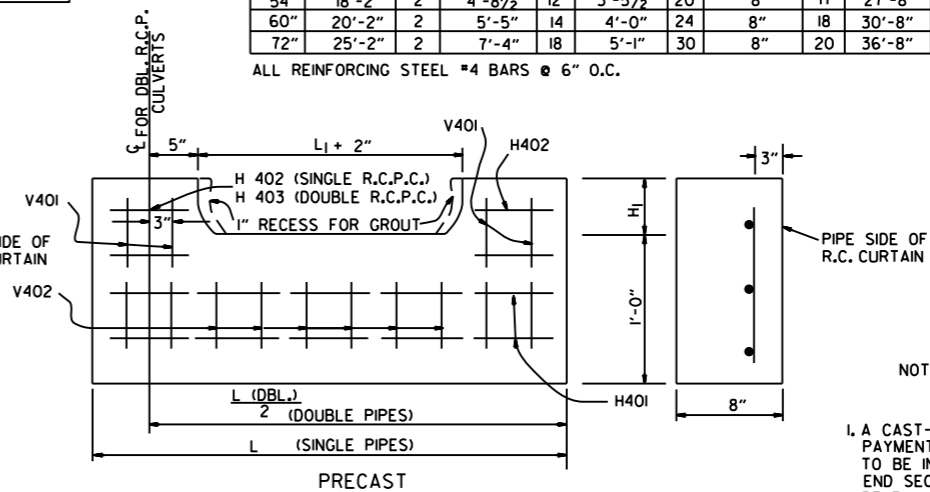
NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



CAST-IN-PLACE

NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.

R.C. CURTAIN WALL DETAILS



PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT									
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.
18"	7'-8"	2	1'-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.

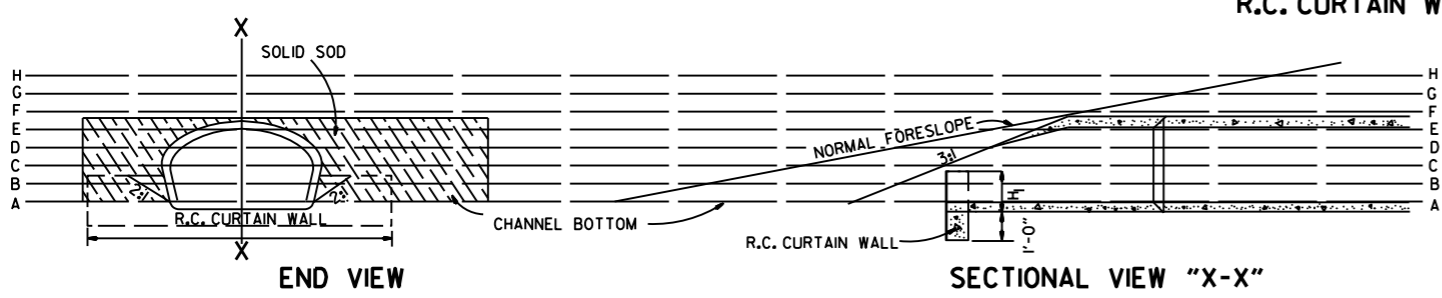
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.						DOUBLE R.C.P.C.					
	3:1	4:1	6:1	3:1	4:1	6:1	3:1	4:1	6:1	3:1	4:1	6:1
18"	5	7	12	6	8	13	5	7	12	6	8	13
24"	8	12	19	9	13	20	8	12	19	9	13	20
30"	13	18	29	14	19	30	13	18	29	14	19	30
36"	17	26	41	18	28	43	17	26	41	18	28	43
42"	23	35	55	25	37	57	23	35	55	25	37	57
48"	29	46	68	31	48	70	29	46	68	31	48	70
54"	35	57	85	37	59	87	35	57	85	37	59	87
60"	45	62	104	48	65	107	45	62	104	48	65	107
72"	64	92	156	67	95	159	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		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

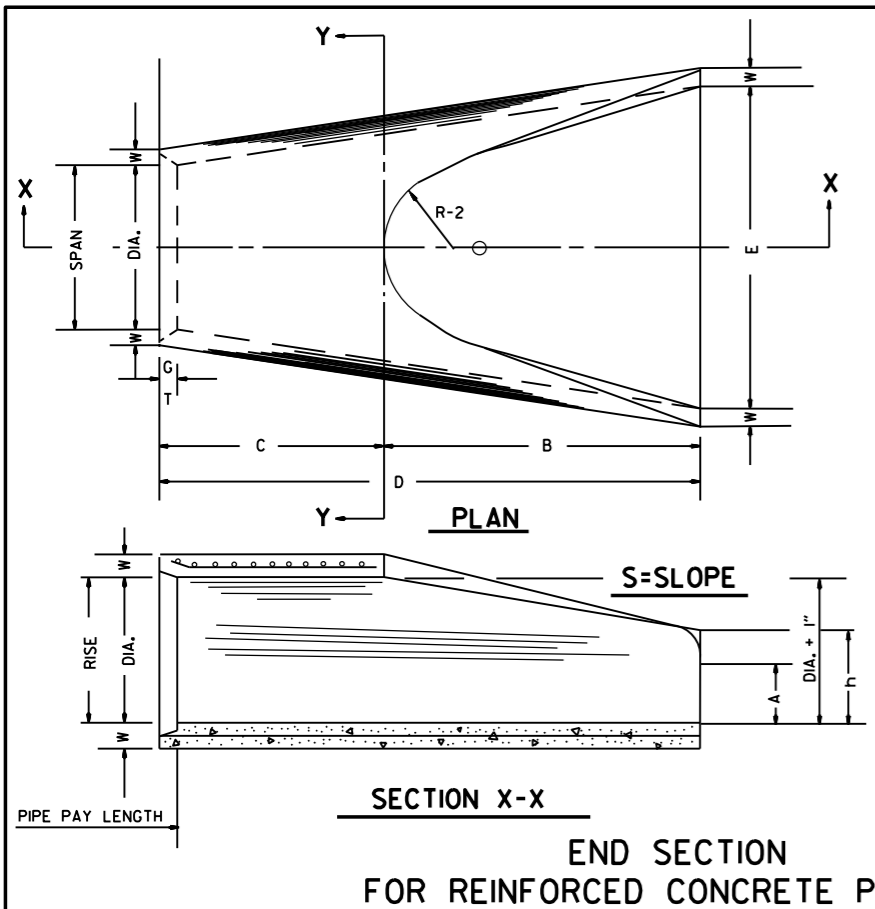
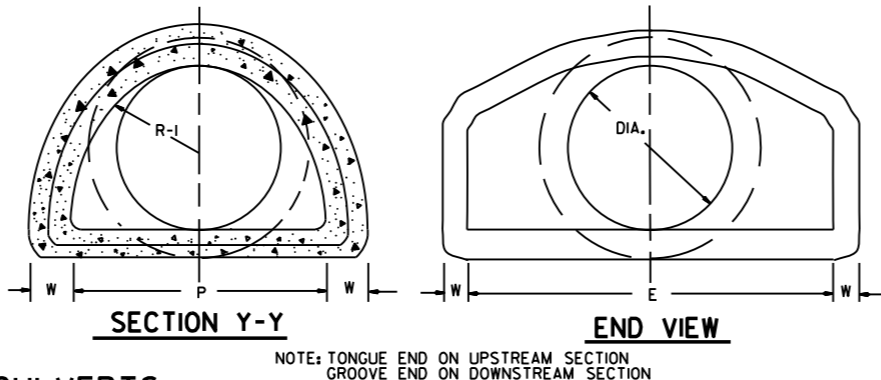


TABLE OF DIMENSIONS

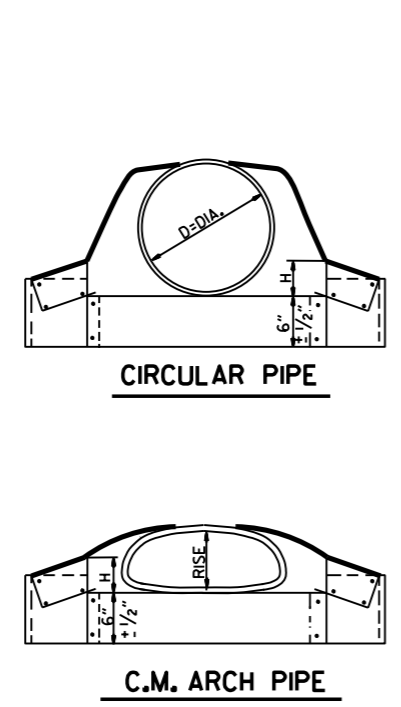
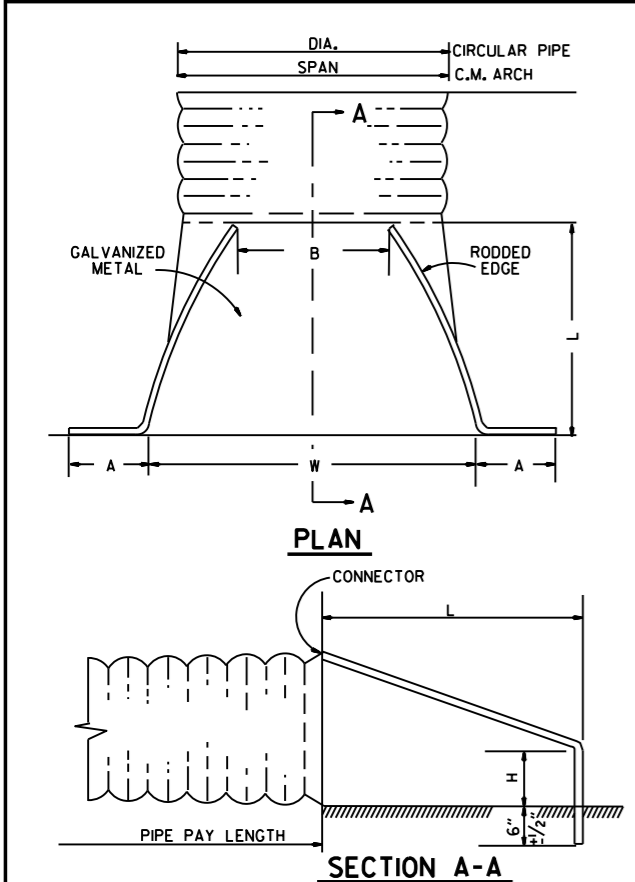
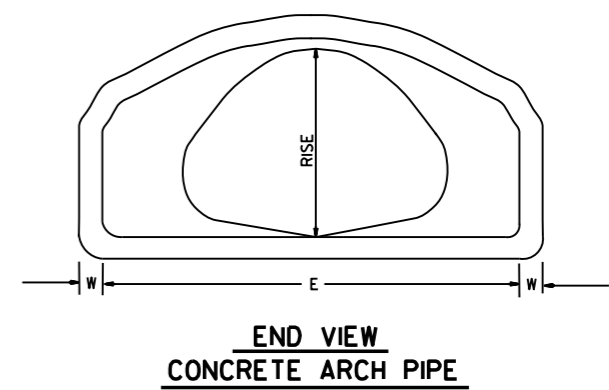
DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15 1/2"	12"	2"	1000	1'-0 1/2"
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3:1	25"	33 3/8"	16 1/8"	14"	2 1/2"	1600	1'-1 1/2"
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18 1/2"	15"	3 1/4"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 1/8"	24 1/8"	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 3/8"	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 3/8"	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 3/8"	38 3/8"	24"	5"	13250	4'-6"



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 3/8"	15"	2 1/2"	2 1/2:1
30	36 1/4	36	22 1/2	23	3 1/2"	10"	3'-1"	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 3/8	27	4"	10 1/2"	4'-0"	2'-11 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 3/8	31	4 1/2"	11 1/2"	4'-7"	1'-10 1/4"	6'-5 1/4"	7'-2"	59 1/2"	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 3/8"	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.

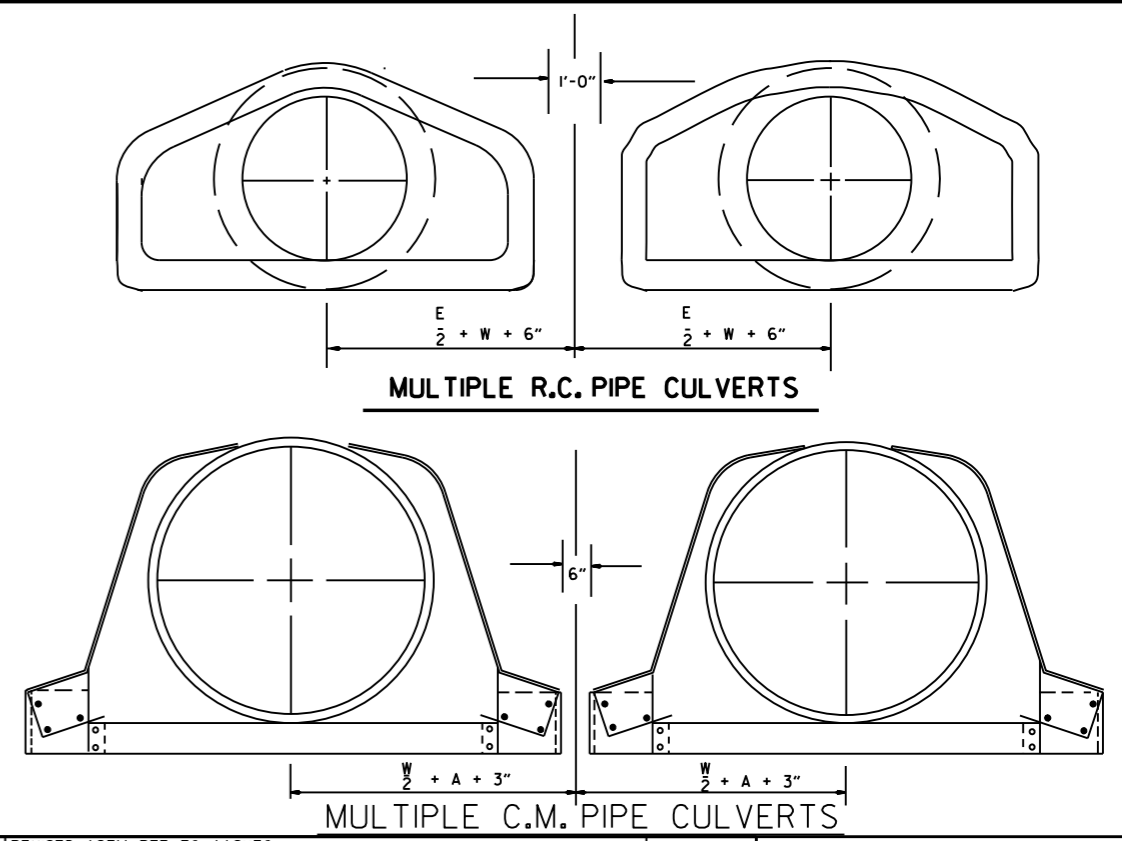


CIRCULAR PIPE

D. DIA.	GAUGE	A	B. MAX.	H	L	W	S
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 3/4:1
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

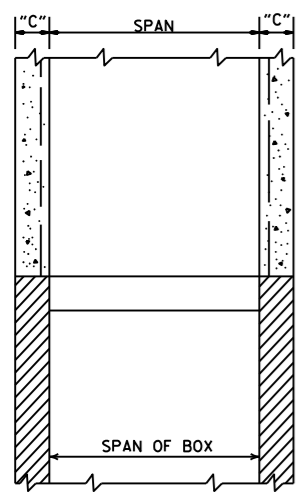
EQUIV. DIA.	SPAN	RISE	INCHES				S	GAUGE	
			A	B MAX.	H	L			
15"	17	13	7	9	6	19	30	2 1/2:1	16
18"	21	15	7	10	6	23	36	2 1/2:1	16
21"	24	18	8	12	6	28	42	2 1/2:1	16
24"	28	20	9	14	6	32	48	2 1/2:1	16
30"	35	24	10	16	6	39	60	2 1/2:1	14
36"	42	29	12	18	8	46	75	2 1/2:1	14
42"	49	33	13	21	9	53	85	2 1/2:1	12
48"	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



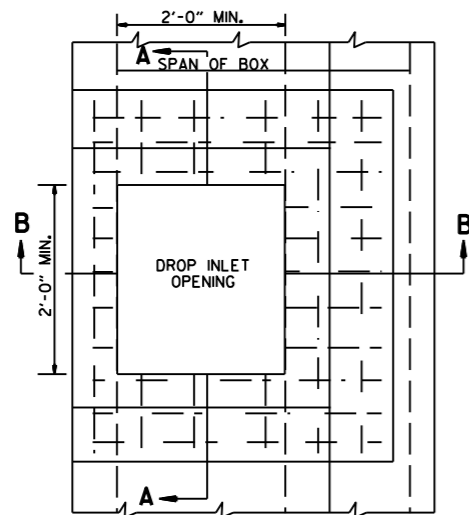
NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

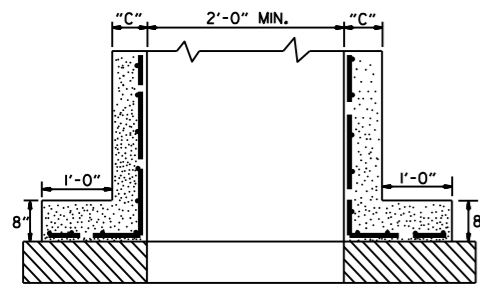
10-18-96	REVISED ASTM REF. TO AASHTO		ARKANSAS STATE HIGHWAY COMMISSION
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80	
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78	
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75	FLARED END SECTION
12-5-74	REMOVED NOTE RE REINF.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



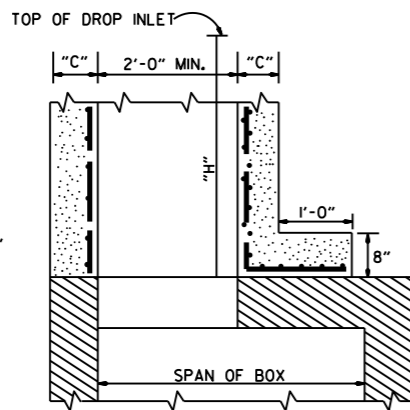
SECTION B-B



PLAN

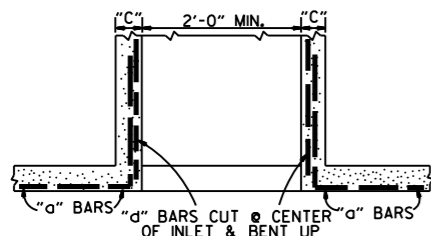


SECTION A-A

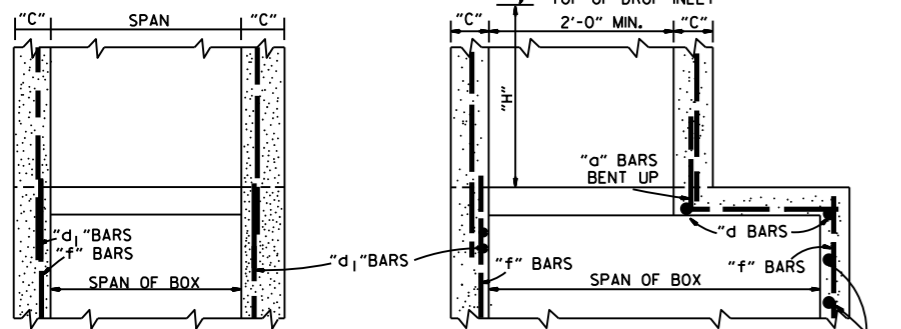


SECTION B-B

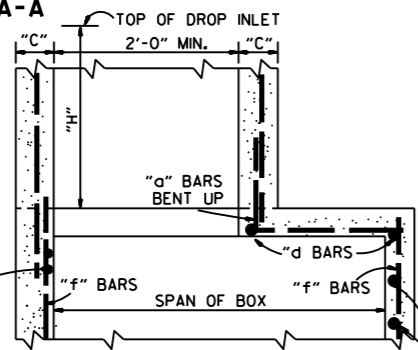
METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



SECTION A-A



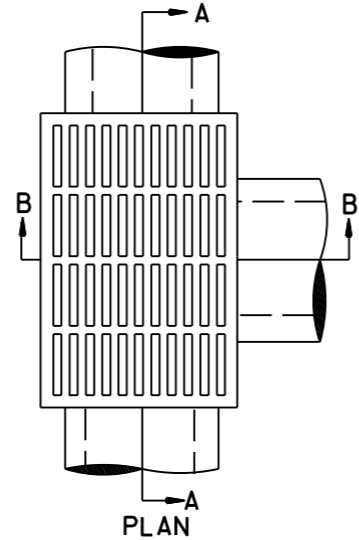
SECTION B-B



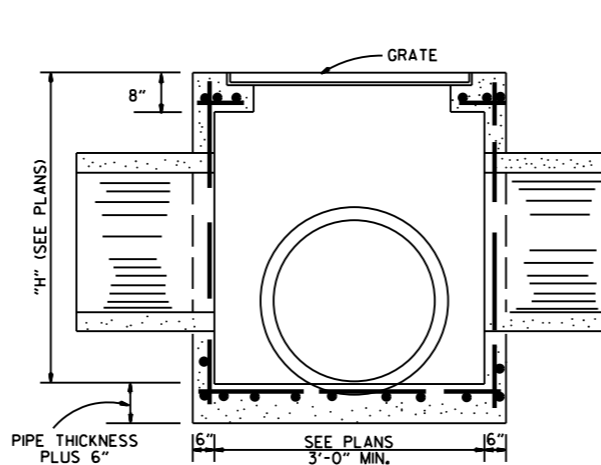
SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.



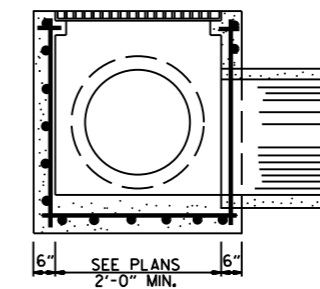
PLAN



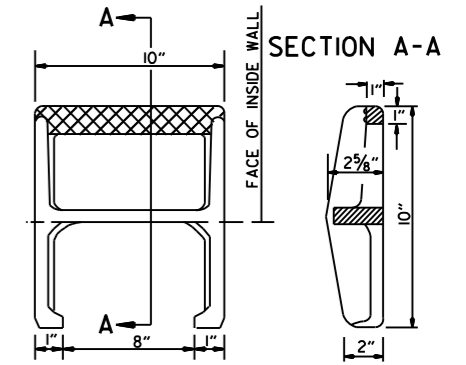
SECTION A-A

DROP INLET (TYPE E)

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1/2" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

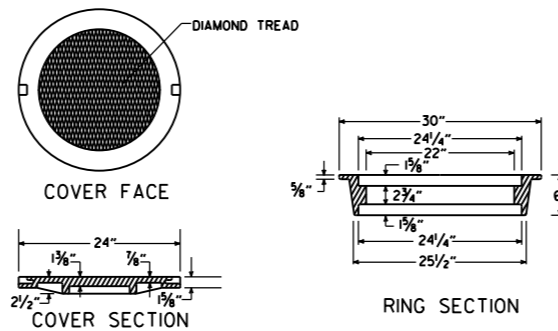


APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

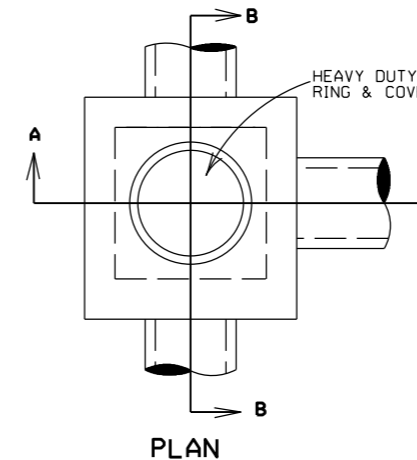
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

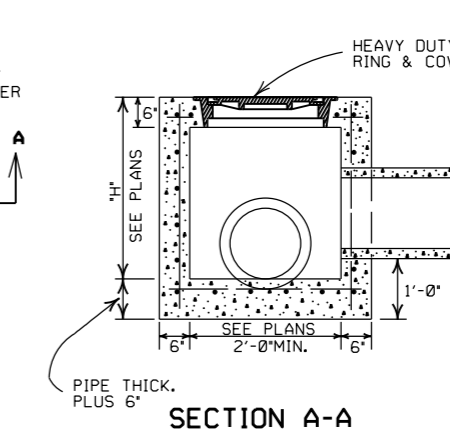


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

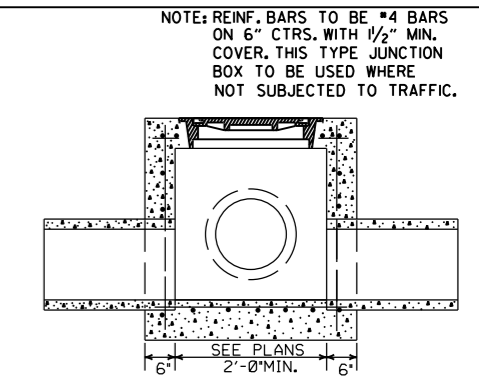


PLAN



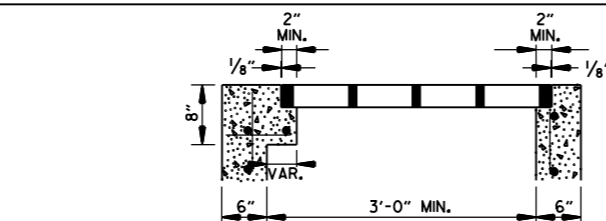
SECTION A-A

JUNCTION BOX (TYPE E)

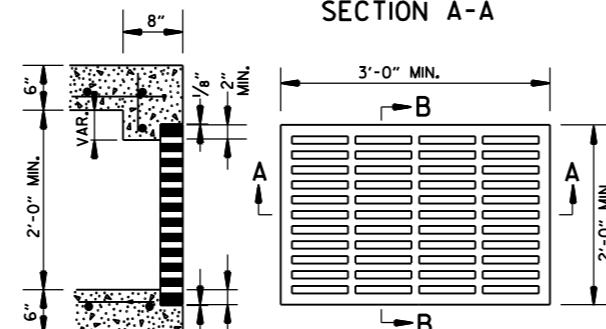


SECTION B-B

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1/2" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



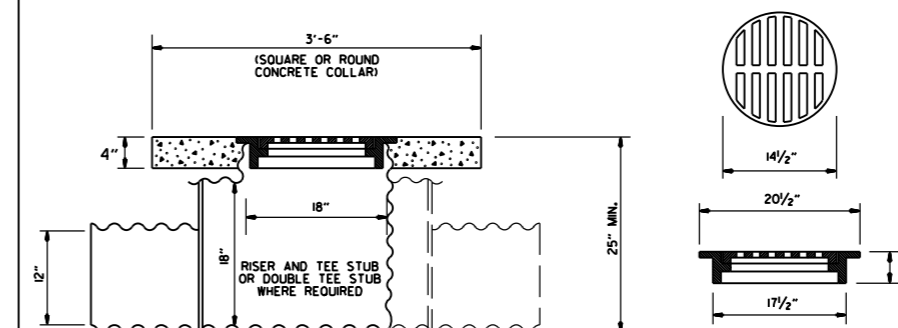
SECTION A-A



SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

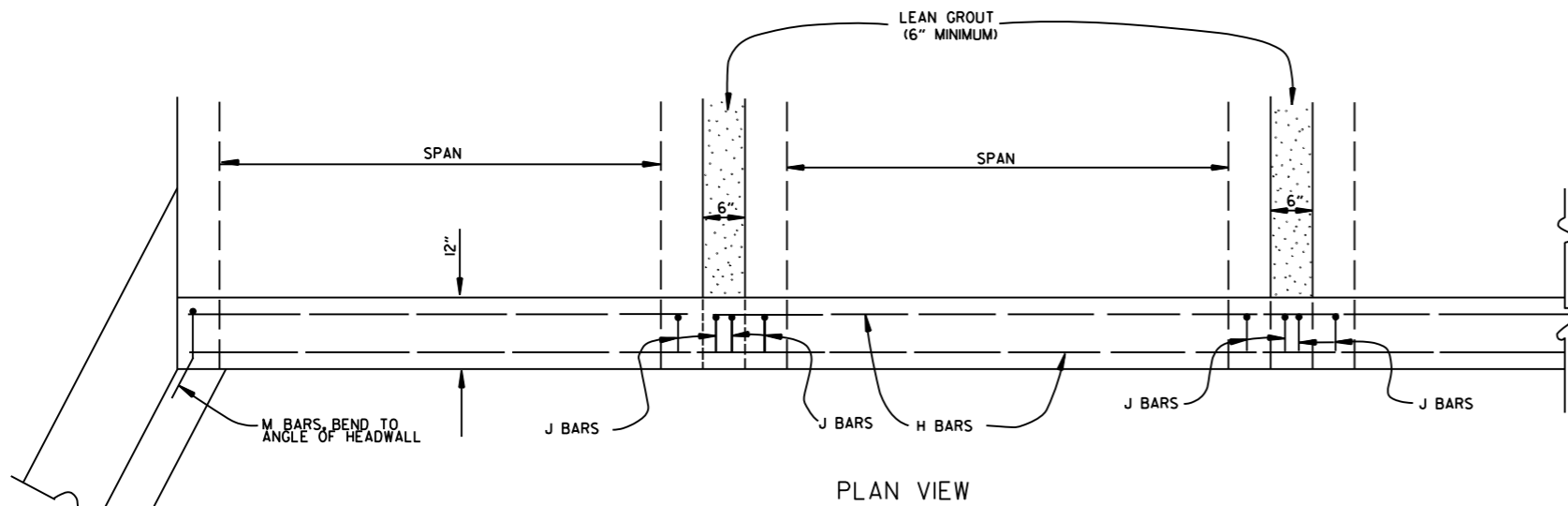
GRATE FOR TYPE E DROP INLET



DETAIL OF YARD DRAIN

DATE	REV.	REVISION	DATE FILMED
11-16-01		ADDED NOTE 10	
1-12-00		REVISED HEAVY DUTY RING & COVER	
7-02-98		CHANGED GRATE DETAIL, DELETED DI (TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97		ADDED DIMENSION TO TYPE IV-A	
10-18-96		ADDED DETAIL OF YARD DRAIN	
8-15-91		DELETE TYPE IV GRATE	
7-15-88		REVISED STEP DETAIL	
5-20-83		REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83		ADDED GENERAL NOTE NO. 4	
3-2-81		ADDED TYPE IV-A GRATE	
5-22-74		DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72		REVISED AND REDRAWN	

- GENERAL NOTES:
1. ALL EXPOSED CORNERS SHALL BE 3/4" CHAMFERED.
 2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
 3. EXPANSION JOINT MATERIAL SHALL BE 3/4" PREFORMED FIBER.
 4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
 5. GRATE AND FRAME SHALL NOT BE PAINTED.
 6. GRATE SHALL BE BICYCLE SAFE.
 7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
 8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B & AASHTO M 306.
 9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
 10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER, REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.



BAR LIST

BAR	NO.	SIZE	LENGTH	BAR BENDING DIAGRAM
H	2	#4	•	
I	•	#4	•	
J	•	#4	1'-5"	
L	•	#4	3'-2"	
M	•	#4	1'-8"	

• NOTE: LENGTH AND NUMBER OF BARS VARIES WITH SIZE OF CULVERT

GENERAL NOTES

WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY CASTING BARS IN CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING. J BARS AND M BARS SHALL BE EMBEDDED A MINIMUM OF 10" IN PRECAST BOX.

WINGS, FOOTINGS, APRONS AND CURTAIN WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WING DRAWING. STEEL AND CONCRETE QUANTITIES WILL BE ADJUSTED TO FIT THE IN-PLACE WIDTH & HEIGHT OF THE PRECAST CONCRETE BOX CULVERTS.

ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFERS.

WINGWALLS AND FOOTINGS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

ALL CONCRETE, REINFORCING STEEL, LEAN GROUT, MEMBRANE WATERPROOFING, DRAINAGE FILL MATERIAL, GEOTEXTILE FILTER FABRIC, LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR INSTALLING PRECAST BOX CULVERTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR THE ITEMS AS SPECIFIED IN SECTION 607 OF THE STANDARD SPECIFICATIONS.

LEAN GROUT SHALL CONSIST OF A SAND CEMENT MIXTURE MEETING THE FOLLOWING REQUIREMENTS:
 PORTLAND CEMENT SHALL BE TYPE I AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
 SAND SHALL MEET THE REQUIREMENTS OF FINE AGGREGATE AS SPECIFIED IN SECTION 802.02 OF THE STANDARD SPECIFICATIONS. THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE. THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENTS. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND THOROUGHLY RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL ALL VOIDS.

MEMBRANE WATERPROOFING CONFORMING TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO ALL BOX CULVERT JOINTS.

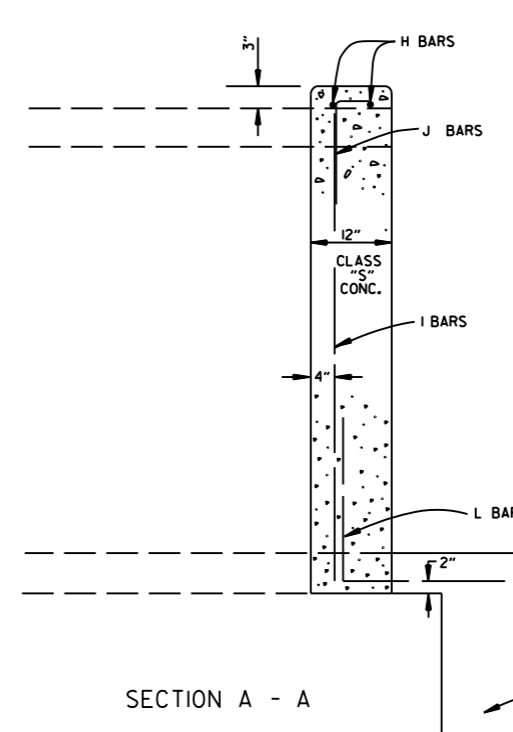
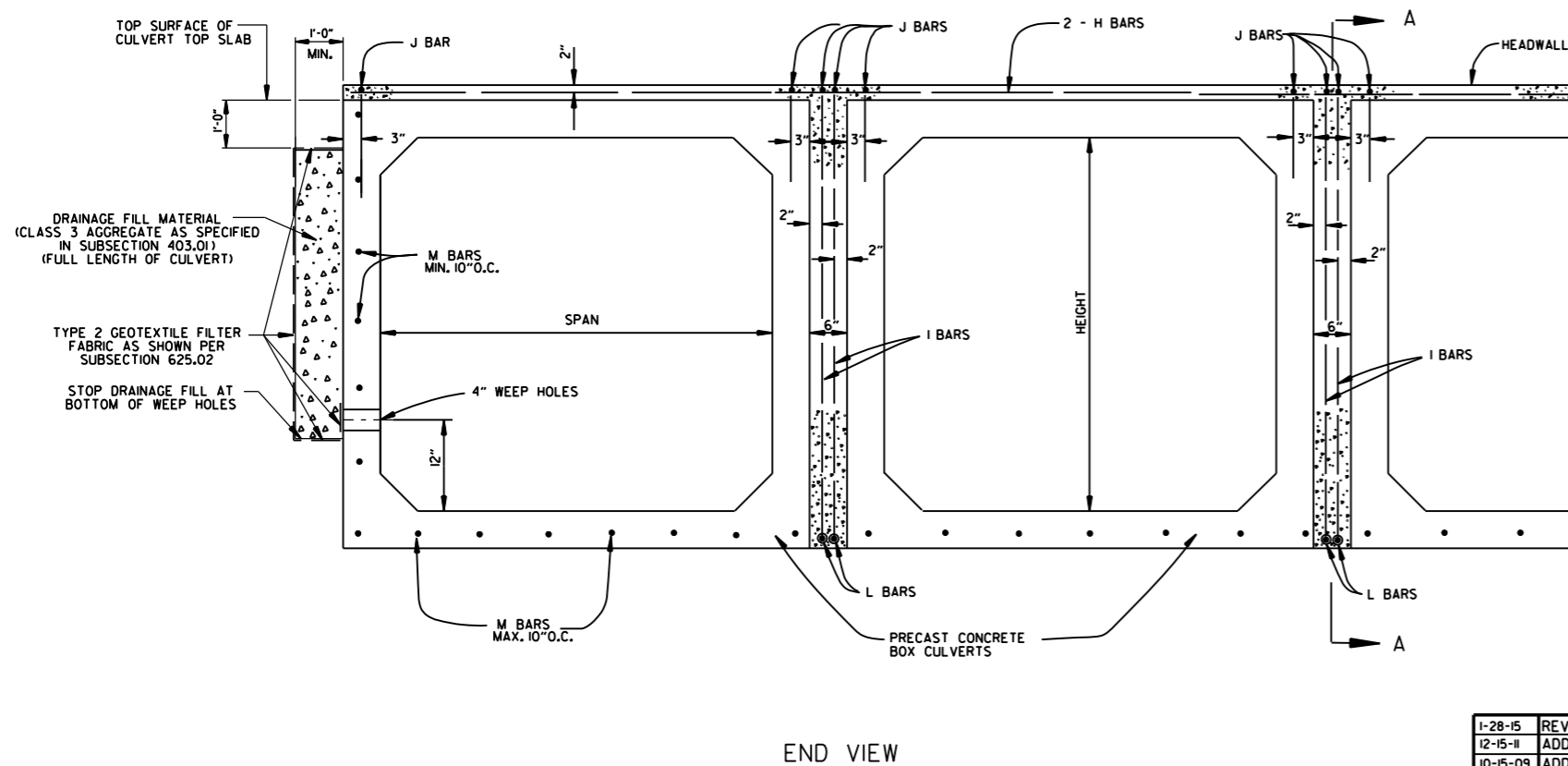
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

IN OUTER BARRELS, ONE WEEP HOLE IS REQUIRED IN EXTERIOR WALLS OF EACH PRECAST CULVERT SECTION. WEEP HOLES SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" IN THE ASSEMBLED CULVERT AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

MINIMUM WIDTH SHALL BE 12" (6" ON EACH SIDE OF JOINT). ON MULTIPLE BARREL CULVERTS, MEMBRANE WATERPROOFING SHALL BE APPLIED TO EACH BARREL AS DESCRIBED ABOVE.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, FLOWABLE SELECT MATERIAL CONFORMING TO SECTION 206 OF THE STANDARD SPECIFICATIONS IN LIEU OF LEAN GROUT.



DATE	REVISION	DATE FILMED
1-28-15	REVISED GEOTEXTILE FABRIC PLACEMENT	
12-15-11	ADDED NOTE & DTLs FOR WEEP HOLE AND DRAINAGE FILL	
10-15-09	ADDED GENERAL NOTE	
11-10-05	REVISED SPACING OF "M" BARS	
4-10-03	REVISED GENERAL NOTES	
10-18-96	CORRECTED AASHTO REF.	
10-1-92	ADDED NOTE FOR MEMBRANE WATERPROOFING	
8-15-91	ADDED NOTE FOR LEAN GROUT	
11- 8-90	REVISED FOR 1991 SPECS	
11-30-89	ISSUED; JABE	

ARKANSAS STATE HIGHWAY COMMISSION

PRECAST CONCRETE BOX CULVERTS

STANDARD DRAWING PBC-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	ARDDOT NOMINAL	AASHTO M 206	ARDDOT NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43¾	44	26¾	27
42	51½	51	31¾	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87½	87
120	154	154	96¾	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

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

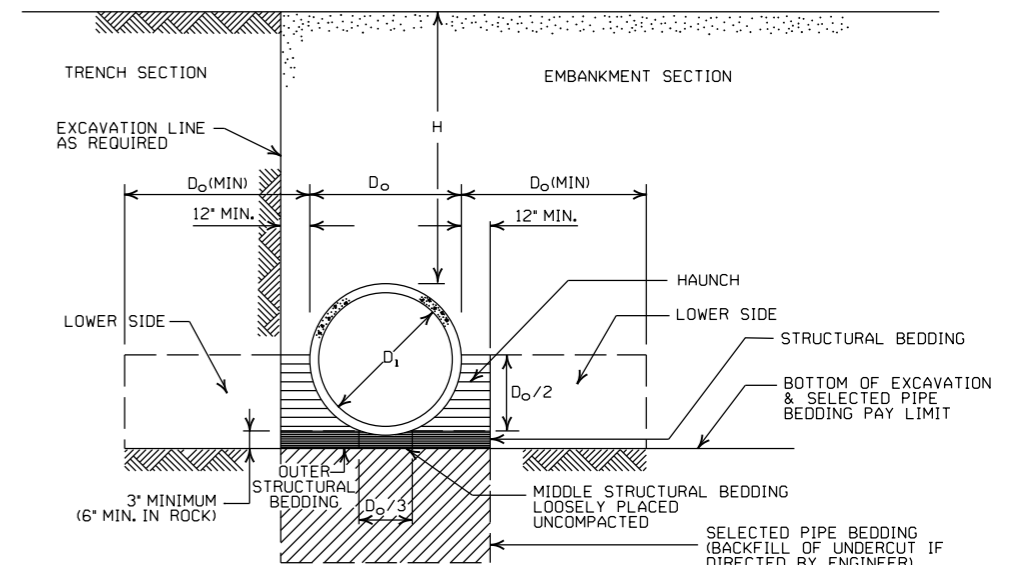
- LEGEND -

- D_i = NORMAL INSIDE DIAMETER OF PIPE
- D_o = OUTSIDE DIAMETER OF PIPE
- H = FILL COVER HEIGHT OVER PIPE (FEET)
- MIN. = MINIMUM
- [Symbol] = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170. R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
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	FEET	
	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	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 3/8 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	73
42	2		43	67	70	
48	2		37	58	61	64
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

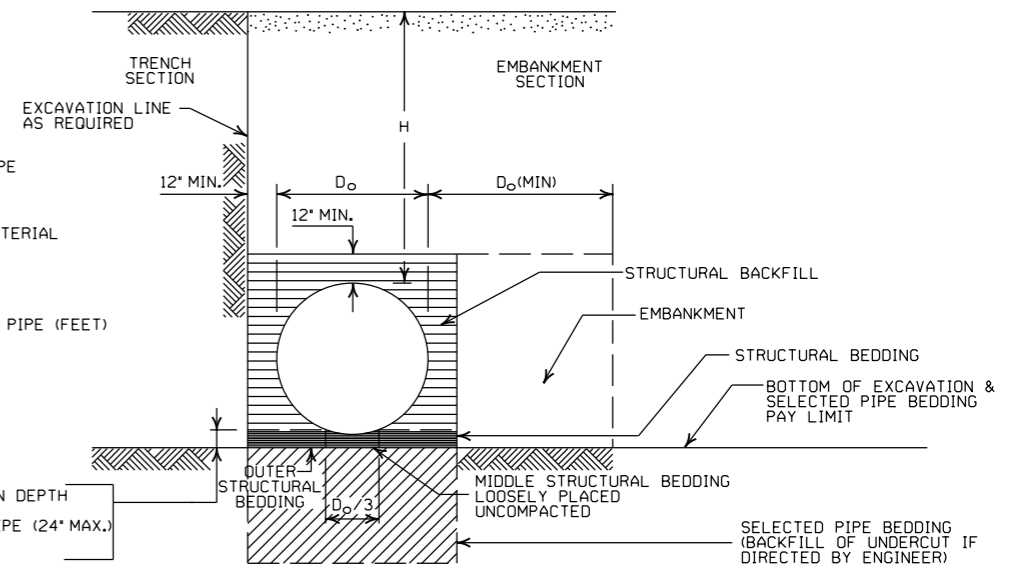
1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT 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
 - [Hatched Pattern] = STRUCTURAL BACKFILL MATERIAL
 - [Diagonal Lines] = UNDISTURBED SOIL
 - [Dotted Pattern] = 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 3/8 INCH BY 1/2 INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM						
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	34
30	2		18	31	32	
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	

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

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 3/8 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					
3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM										
			INSTALLATION		INSTALLATION					
			TYPE 2	TYPE 1	TYPE 2	TYPE 1				
36	40x31	5	0.079	3	2	12	15			
42	46x36	6	0.079	3	2	13	15			
48	53x41	7	0.079	3	2	13	15			
54	60x46	8	0.079	3	2	13	15			
60	66x51	9	0.079	3	2	13	15			
66	73x55	12	0.079	3	2	15	15			
72	81x59	14	0.079	3	2	15	15			
78	87x63	14	0.079	3	2	15	15			
84	95x67	16	0.109	3	2	15	15			
90	103x71	16	0.109	3	2	15	15			
96	112x75	18	0.109	3	2	15	15			
102	117x79	18	0.109	3	2	15	15			
108	128x83	18	0.138	3	2	15	15			

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3" X 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.

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.

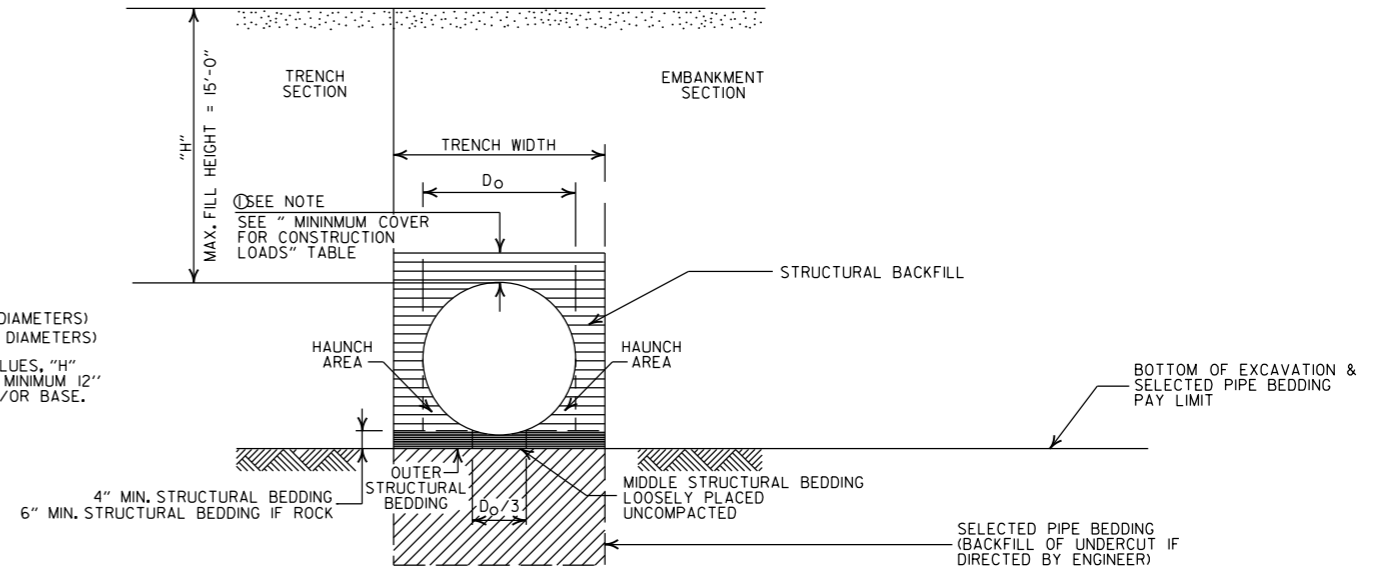
MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

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.



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.

- LEGEND -

- H = FILL HEIGHT (FT.)
- Ø = OUTSIDE DIAMETER OF PIPE
- MAX. = MAXIMUM
- MIN. = MINIMUM
- ===== = STRUCTURAL BACKFILL MATERIAL
- ||||| = UNDISTURBED SOIL

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.

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 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"

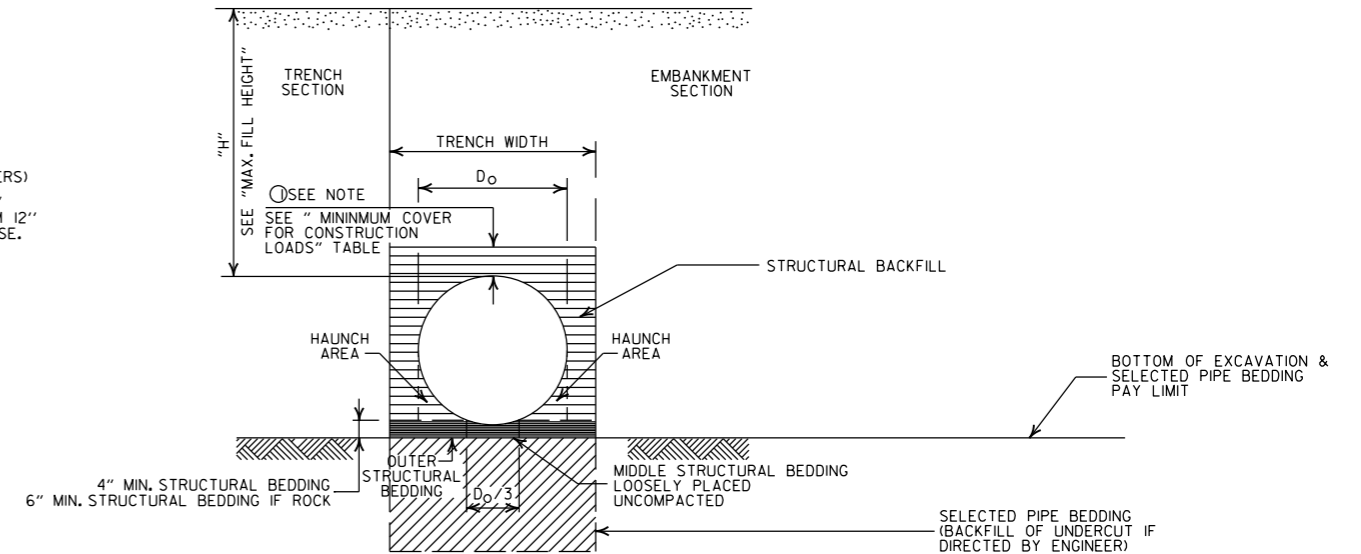
MULTIPLE INSTALLATION OF PVC PIPES

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

- PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
- INSTALL PIPE TO GRADE.
- COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
- 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.
- 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

- 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).
- PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
- THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
- 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.
- 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."
- 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."
- 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 CORRUGATED OR PROFILE VALLEY.
- PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
- JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

- H = FILL HEIGHT (FT.)
D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
- ==== = STRUCTURAL BACKFILL MATERIAL
||||| = UNDISTURBED SOIL

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

ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT
(PVC F949)

STANDARD DRAWING PCP-2



INSTALLATION TYPE	**MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	*SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4) OR TYPE 1 INSTALLATION MATERIAL

* SM3 WILL NOT BE ALLOWED.

** STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1 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 POLYPROPYLENE 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"
60"	10'-0"	15'-0"

①NOTE:
12" MIN. (18" - 42" DIAMETERS)
24" MIN. (60" DIAMETER)
MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-150.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

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

MULTIPLE INSTALLATION OF POLYPROPYLENE PIPES

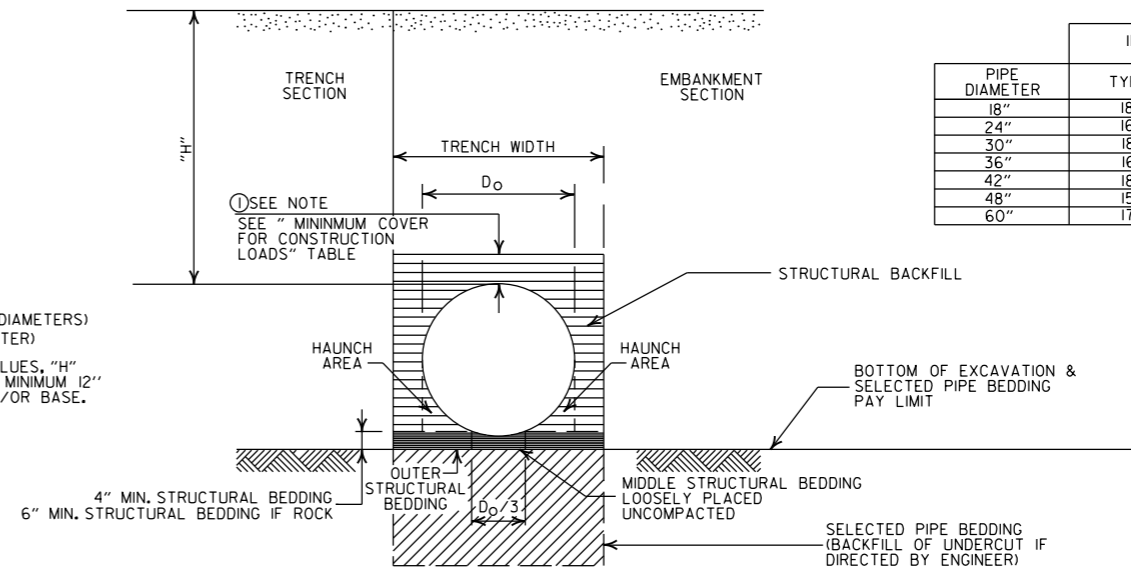
PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"
60"	5'-0"

GENERAL NOTES

- PIPE SHALL CONFORM TO AASHTO M330, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
- PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION (2012) WITH 2013 INTERIMS.
- 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.
- 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.
- 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."
- 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."
- 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.
- POLYPROPYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
- JOINTS FOR POLYPROPYLENE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN SECTION 26.4.2.4 AND 30.4.2 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 3RD EDITION (2010) WITH 2012 INTERIMS. JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

MAXIMUM HEIGHT OF FILL "H"

PIPE DIAMETER	INSTALLATION TYPE	
	TYPE 1	TYPE 2
18"	18'	14'
24"	16'	12'
30"	18'	14'
36"	16'	12'
42"	18'	13'
48"	15'	11'
60"	17'	12'



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

- PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
- INSTALL PIPE TO GRADE.
- COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
- 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.
- PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

- LEGEND -

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

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

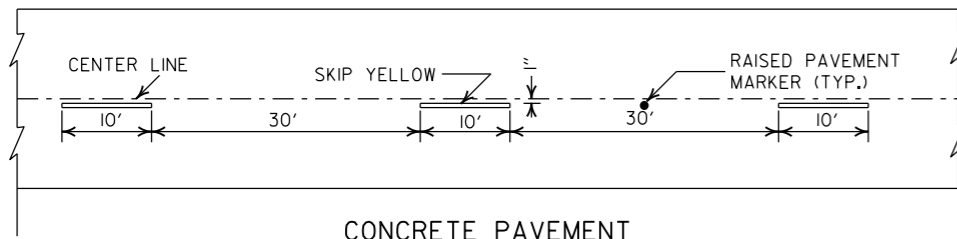
02-27-20	REVISED		
11-07-19	ISSUED		
DATE	REVISION	DATE FILMED	

ARKANSAS STATE HIGHWAY COMMISSION

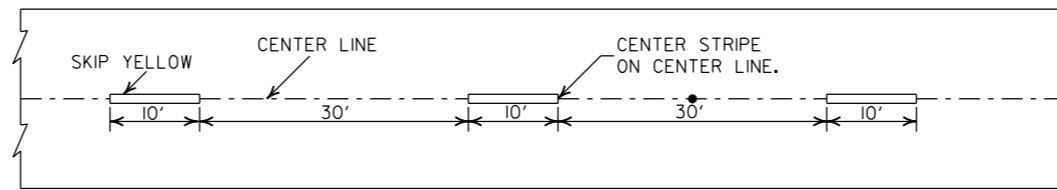
PLASTIC PIPE CULVERT
(POLYPROPYLENE)

STANDARD DRAWING PCP-3



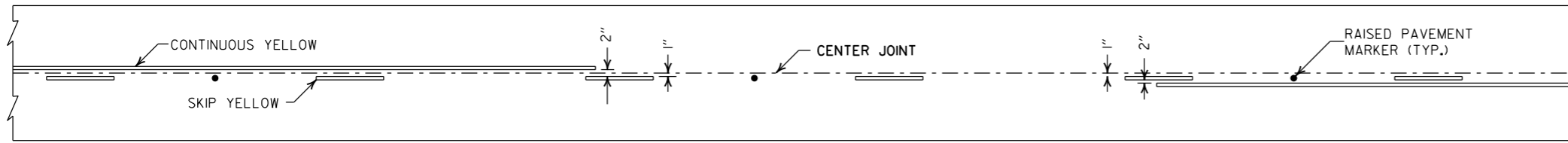


CONCRETE PAVEMENT

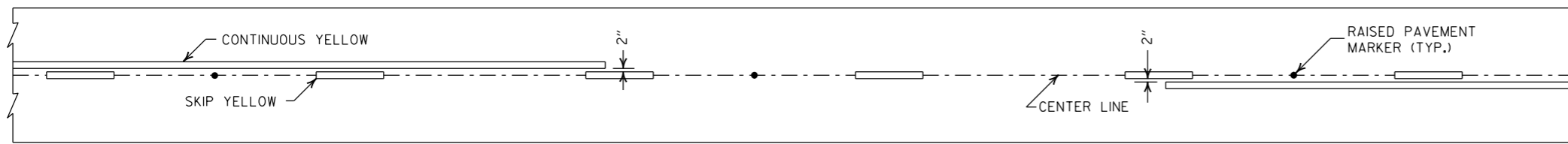


ASPHALT PAVEMENT

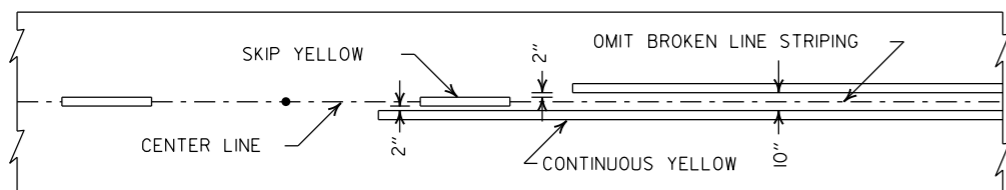
BROKEN LINE STRIPING



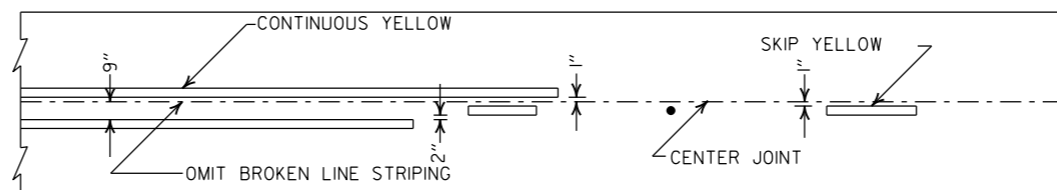
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

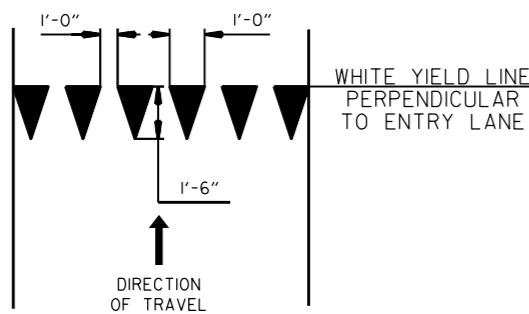


ASPHALT PAVEMENT

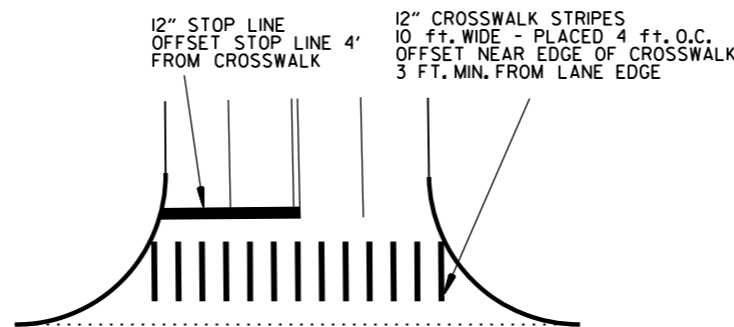


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

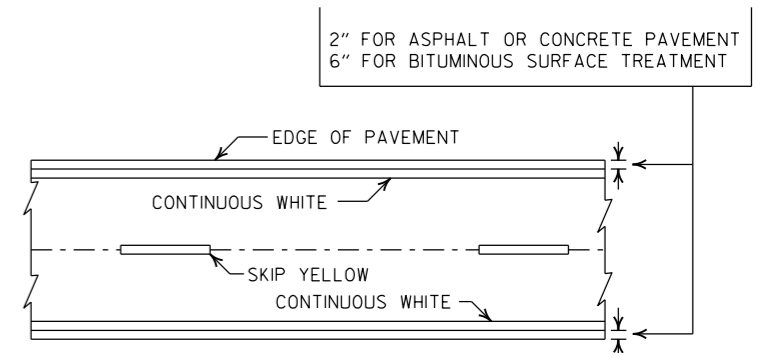


YIELD LINE DETAIL

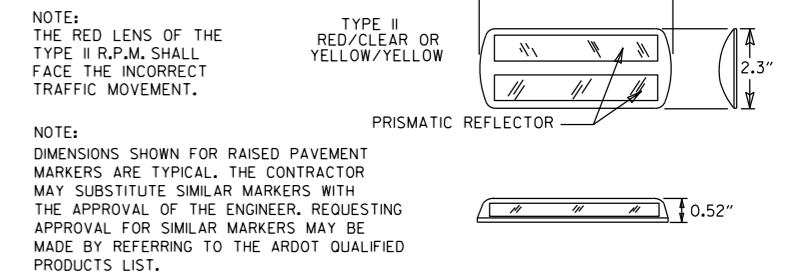


CROSSWALK AND STOP LINE DETAILS

- NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
 2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
 3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.



PAVEMENT EDGE LINE MARKING



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

DATE	REVISION	FILMED
2-27-20	REVISED STOP LINE DETAILS	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTL.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

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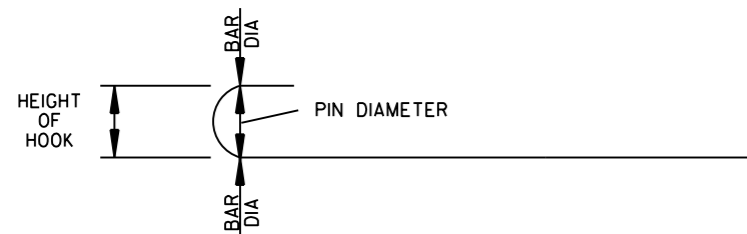
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2 1/4"	4"
4	3 "	4 1/2"
5	3 3/4"	5"
6	4 1/2"	6"
7	5 1/4"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2 3/4 INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.



NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

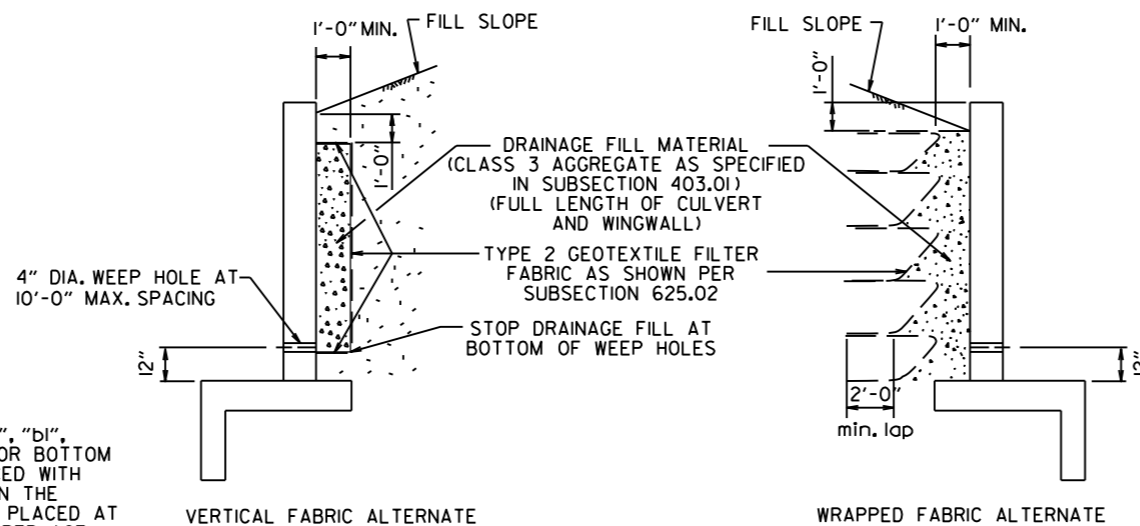
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "b1", "b2" OR "b3"	LENGTH OF HOOKED BAR	LENGTH OF STRAIGHT BAR
#4	L + 1' - 0"	SEE "c" BAR LENGTH
#5	L + 1' - 2"	SEE "c" BAR LENGTH
#6	L + 1' - 4"	SEE "c" BAR LENGTH
#7	L + 1' - 8"	SEE "c" BAR LENGTH
#8	L + 1' - 10"	SEE "c" BAR LENGTH
#9	L + 2' - 6"	SEE "c" BAR LENGTH

L = "OW" - 3 INCHES



WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI. REINFORCING STEEL SHALL BE AASHTO M 31OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

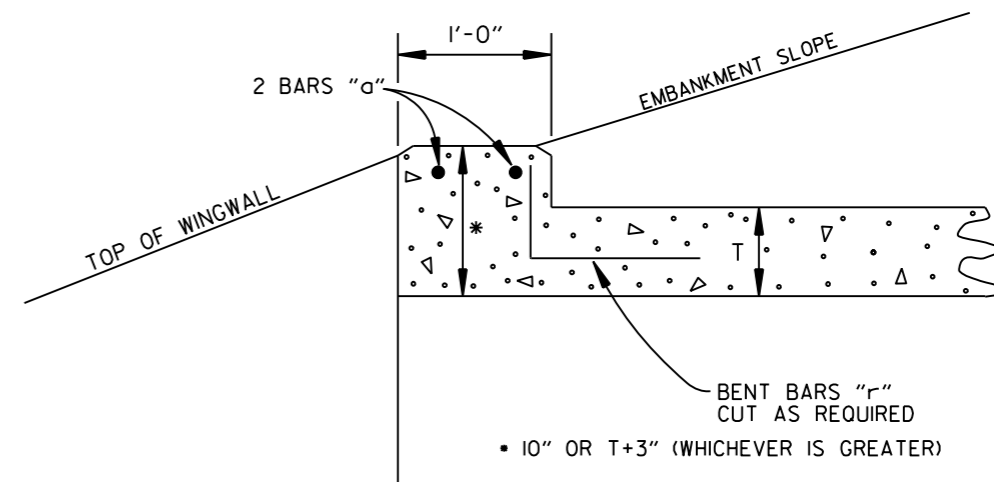
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS 1/2 INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.



NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

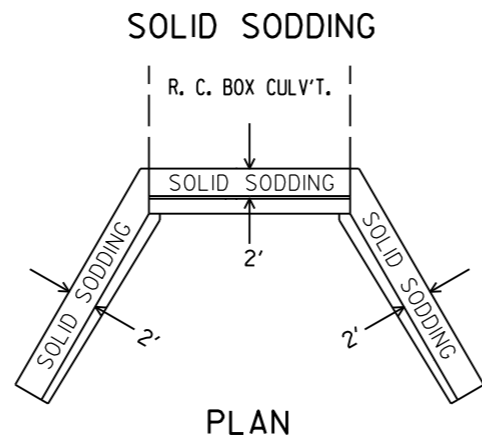
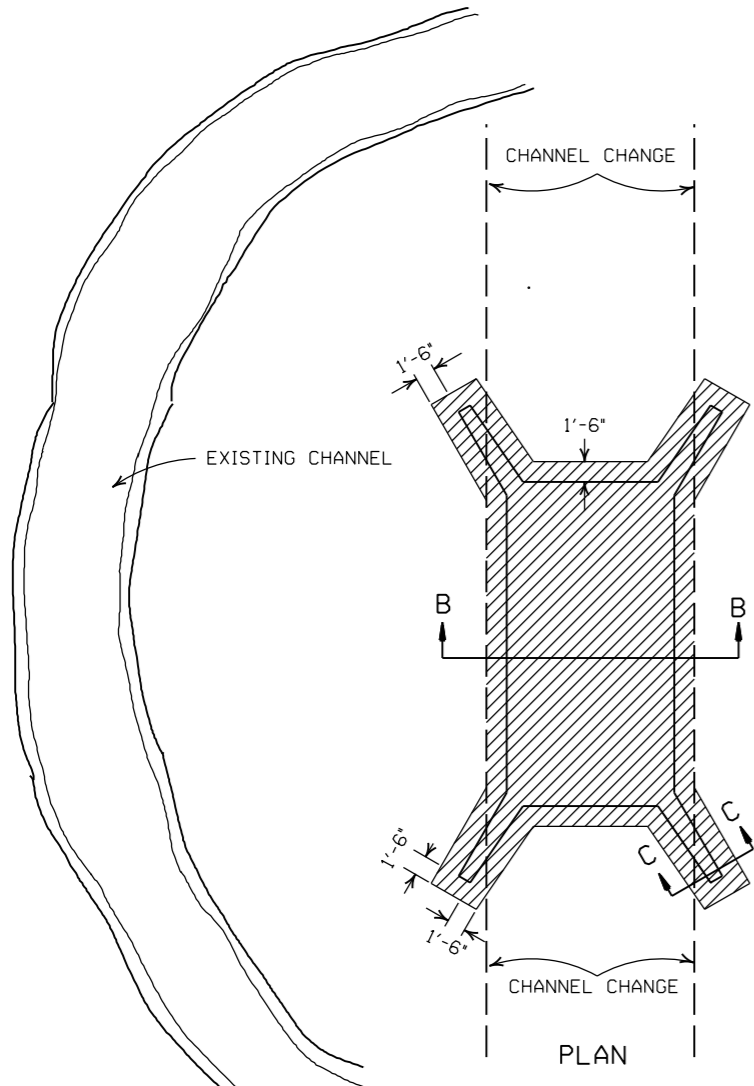
R.C. BOX CULVERT HEADWALL MODIFICATIONS

DATE	REVISION	DATE FILMED
7/26/12	REV. DRAINAGE FILL MATERIAL & DETAIL	
12/15/11	REQUIRE WEEP HOLES IN BOX CULVERT WALLS	
5-25-06	REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM	
11-16-01	ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES	
10-18-96	REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM	
10-12-95	MOVED SOLID SODDING DETAIL TO RCB-2	
6-2-94	ADDED SOLID SODDING PLAN DETAIL	
8-5-93	REVISED PIN DIAMETER TO SPECS.	
8-15-91	DRAWN AND ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

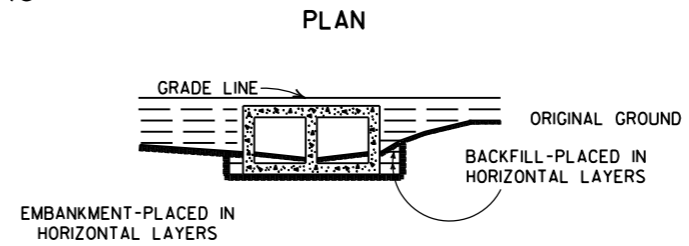
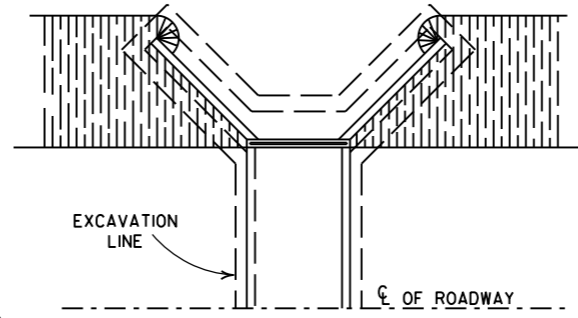
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1

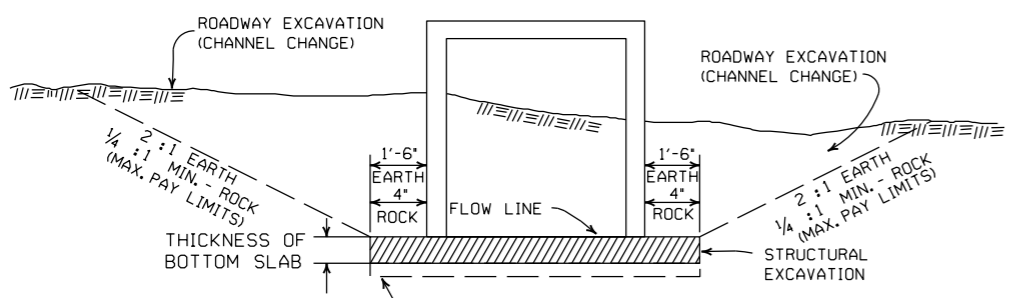
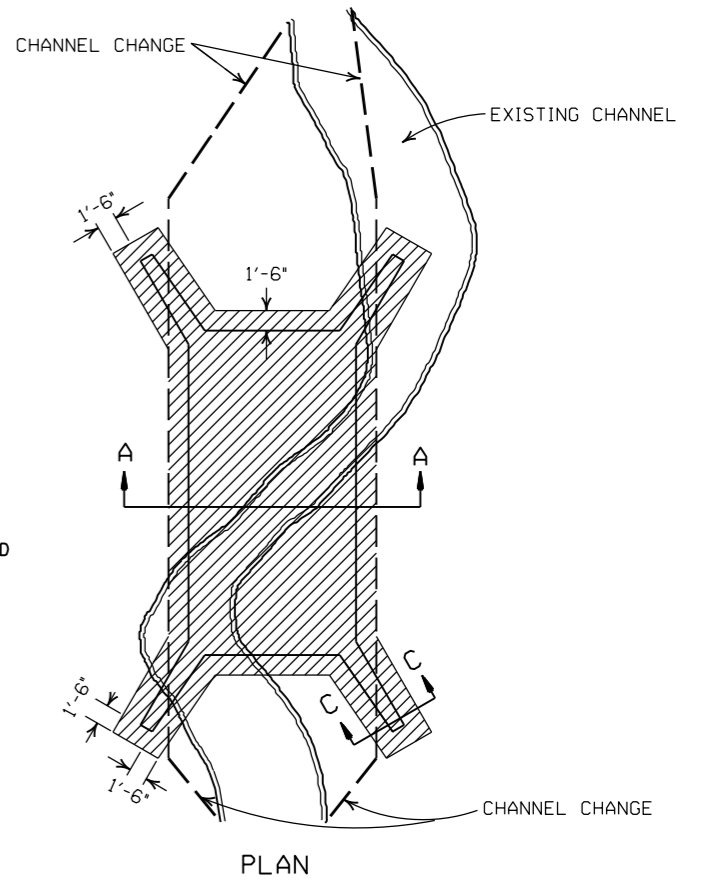


SOLID SODDING
PLAN
 PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

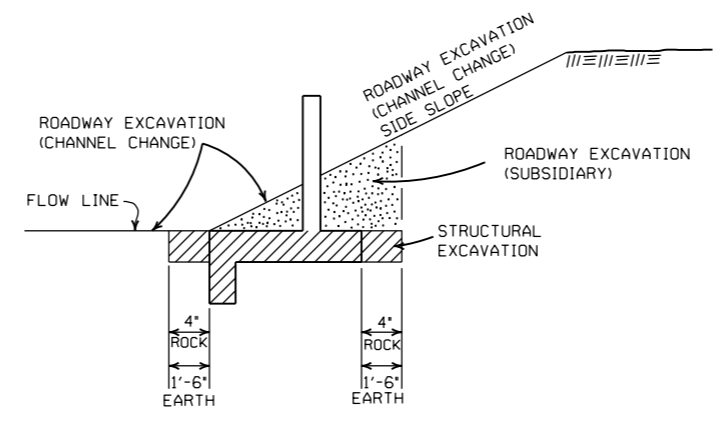


LONGITUDINAL SECTION
BACKFILL DETAILS FOR BOX CULVERT

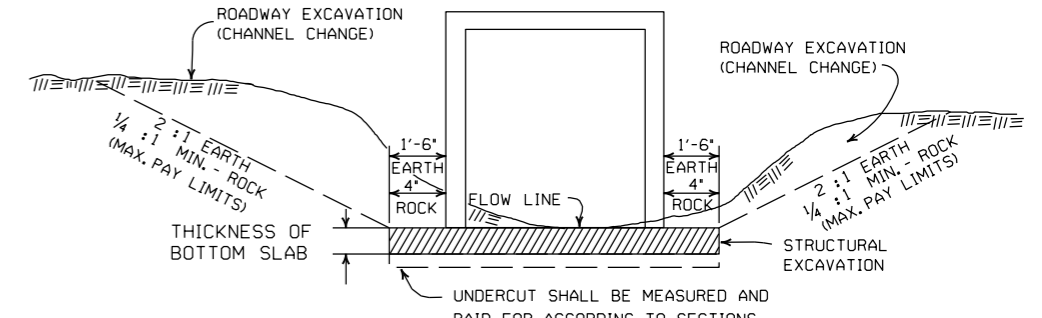


SECTION B-B
DETAILS FOR NEW CHANNELS

UNDERCUT SHALL BE MEASURED AND PAID FOR ACCORDING TO SECTIONS 801.10 AND 801.11, RESPECTIVELY, OF THE STANDARD SPECIFICATIONS.



SECTION C-C



SECTION A-A
DETAILS THROUGH EXISTING CHANNELS

UNDERCUT SHALL BE MEASURED AND PAID FOR ACCORDING TO SECTIONS 801.10 AND 801.11, RESPECTIVELY, OF THE STANDARD SPECIFICATIONS.

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.


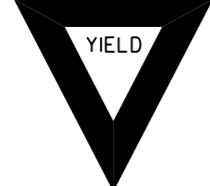







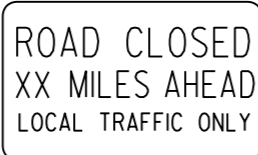
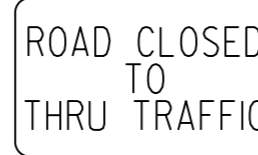





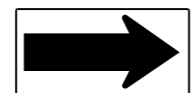

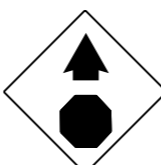

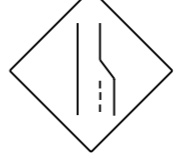



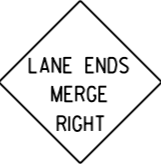













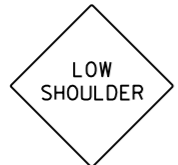

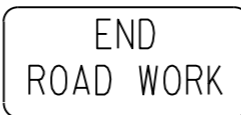
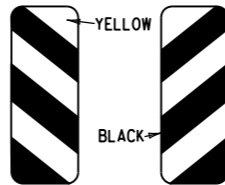


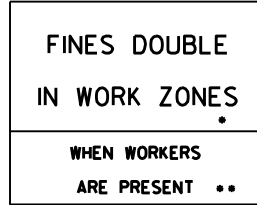
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

DATE	REVISION	FILMED
11-20-03	REVISED SECTION A-A NOTE	
8-22-02	REVISED SECTION B-B NOTE	
10-12-95	COMBINED 1891B AND 1888A	
1-4-83	REVISED GENERAL NOTES AND ADDED MAXIMUM PAY LIMIT NOTES.	674-1-4-83
2-2-76	EXCAV. PAY LIMITS	917-2-2-76
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

STANDARD DRAWING RCB-2

<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>W21-5a</p>  <p>STD. 36"x36" FWY. 48"x48"</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 24" W16-2</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

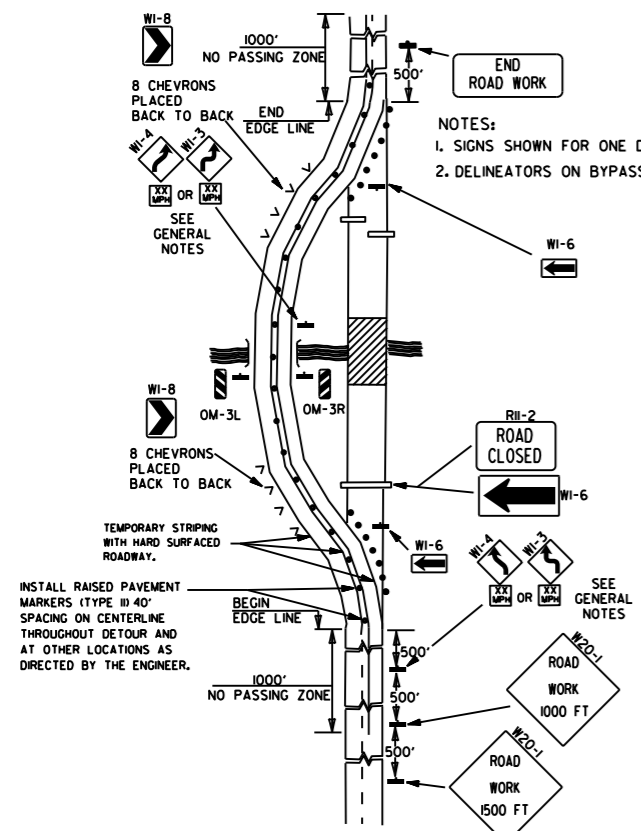
GENERAL NOTES:

- 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.

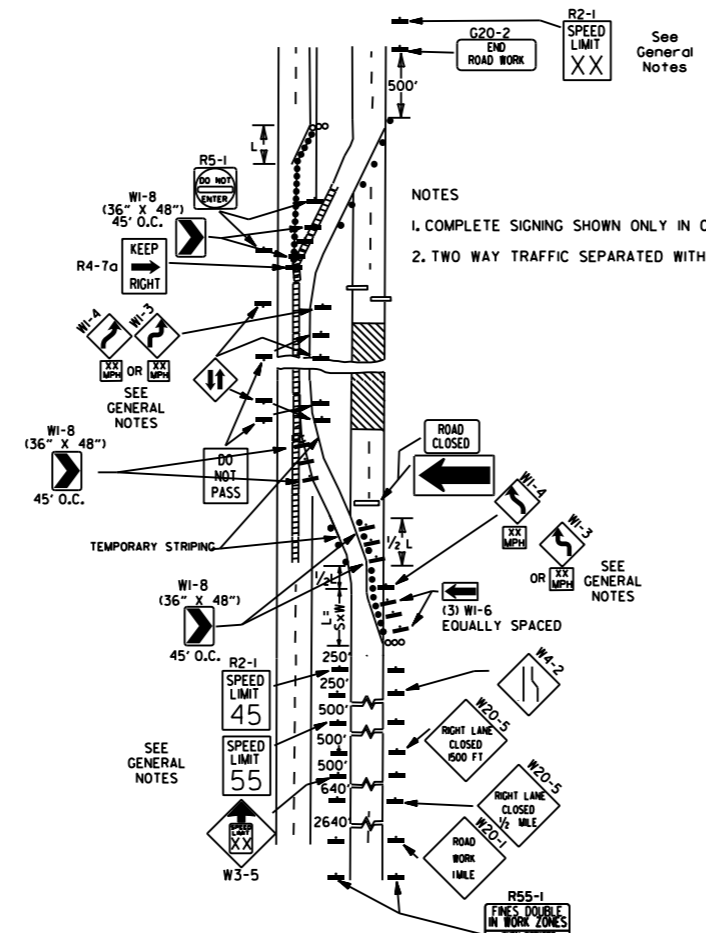
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED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

DATE	REVISION	FILMED
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

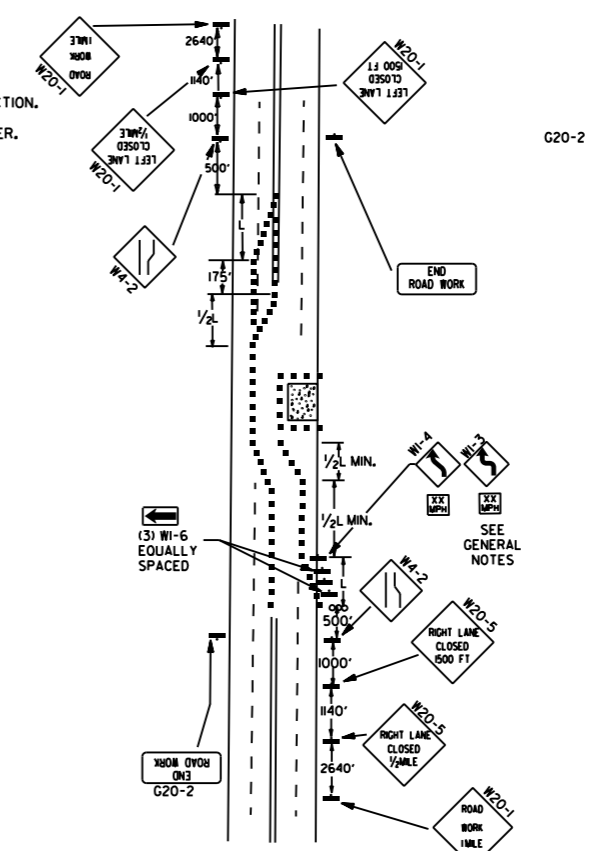
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



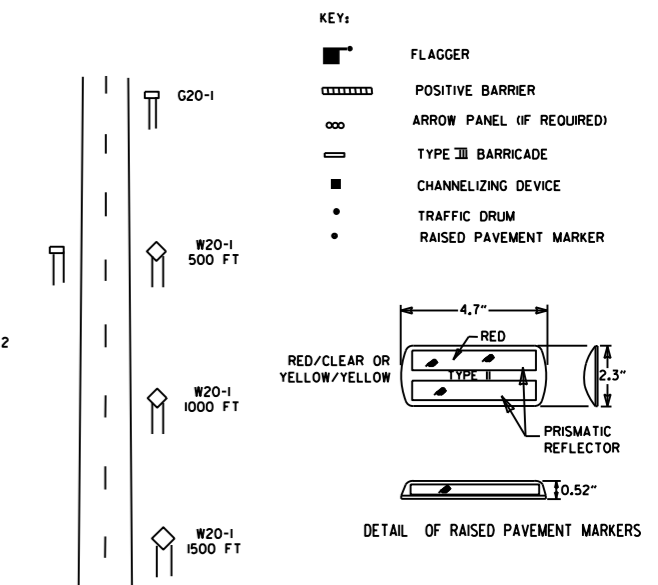
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



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

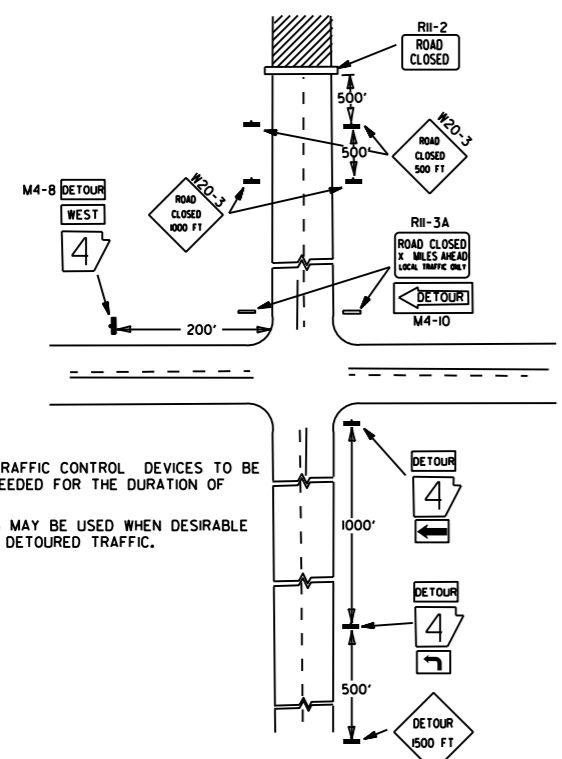


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

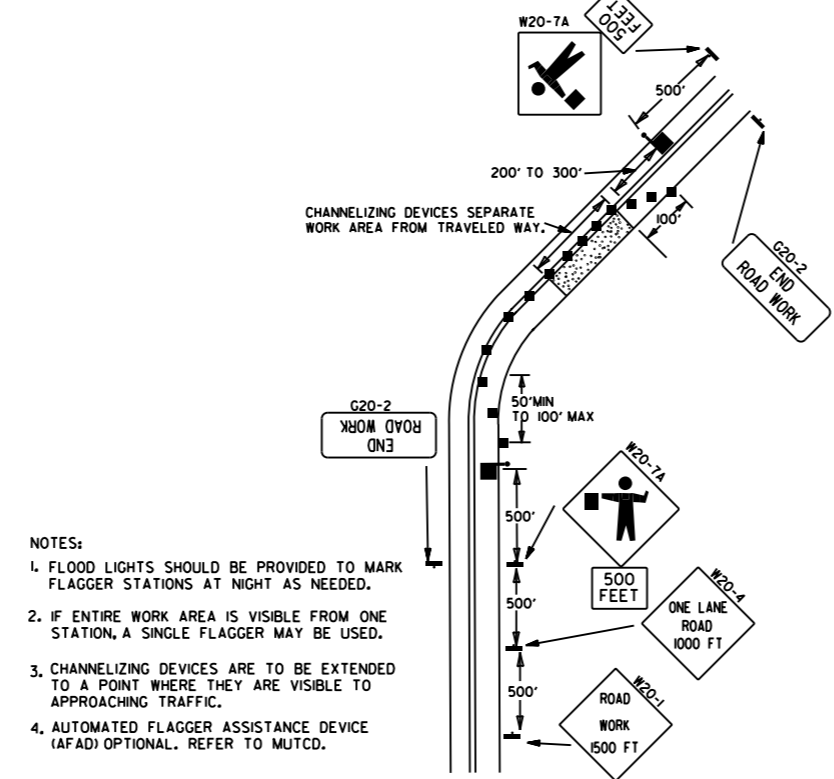


TYPICAL ADVANCE WARNING SIGN PLACEMENT
 TAPER FORMULAE:
 $L = SXW$ FOR SPEEDS OF 45MPH OR MORE.
 $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
 WHERE:
 L = MINIMUM LENGTH OF TAPER.
 S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
 W = WIDTH OF OFFSET.

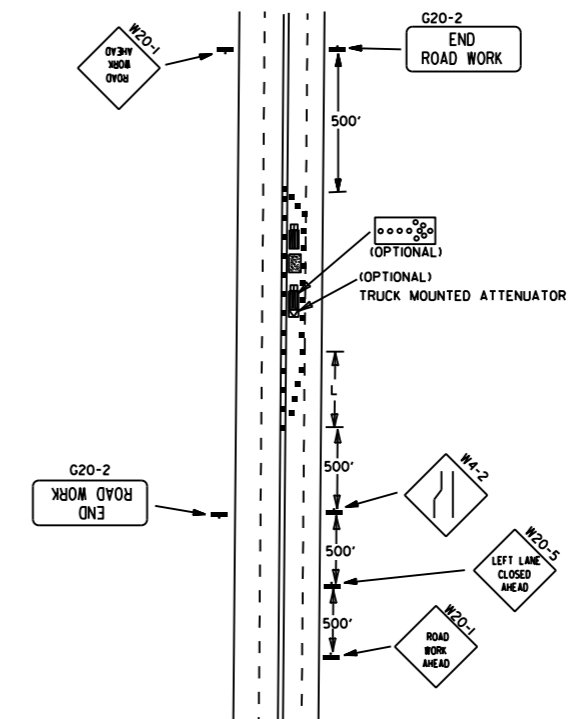
- GENERAL NOTES:
- THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 - WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(K55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(KXX) 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(K65) SHALL BE OMITTED. ADDITIONAL R2-1(55MPH) SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(KXX) 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. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
 - DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.
 - ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



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

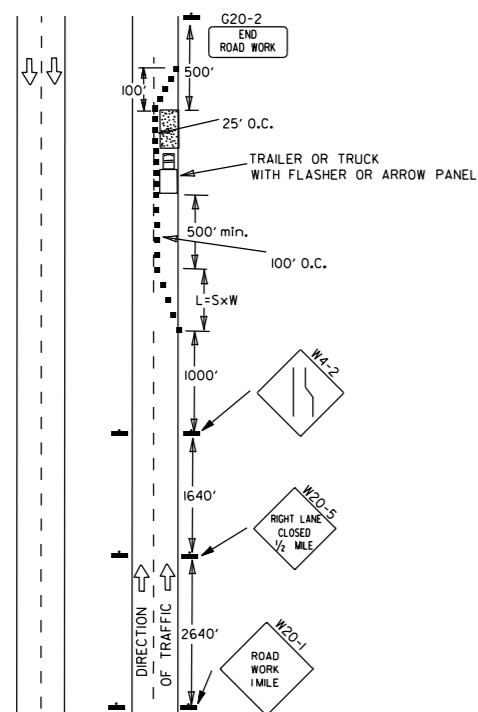


(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.

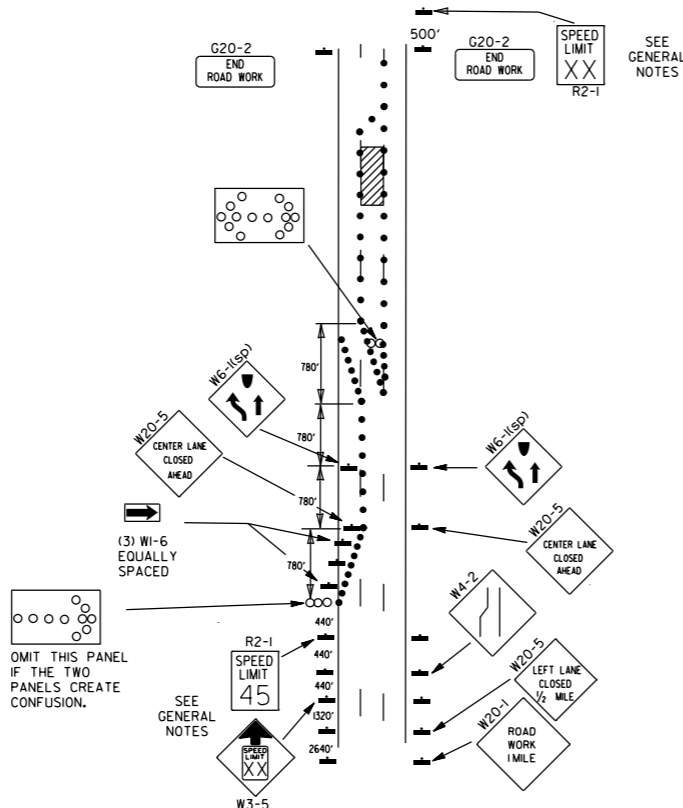


(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILED
05-20-21	REVISED NOTE 7	
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	



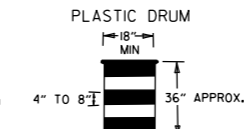
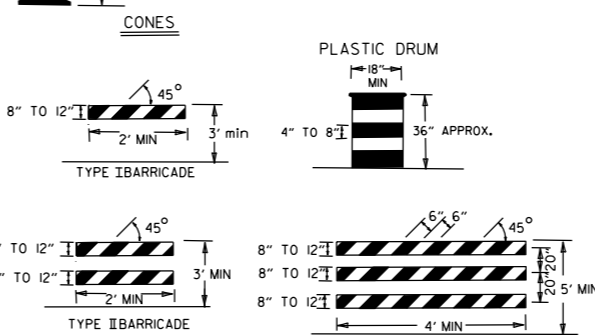
(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

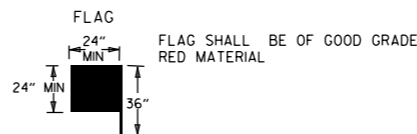
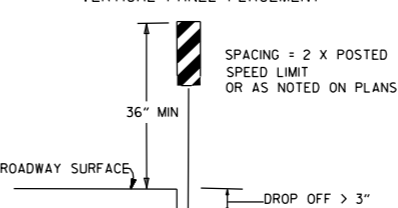
CHANNELIZING DEVICES

WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.



NOTE: FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.

VERTICAL PANEL PLACEMENT



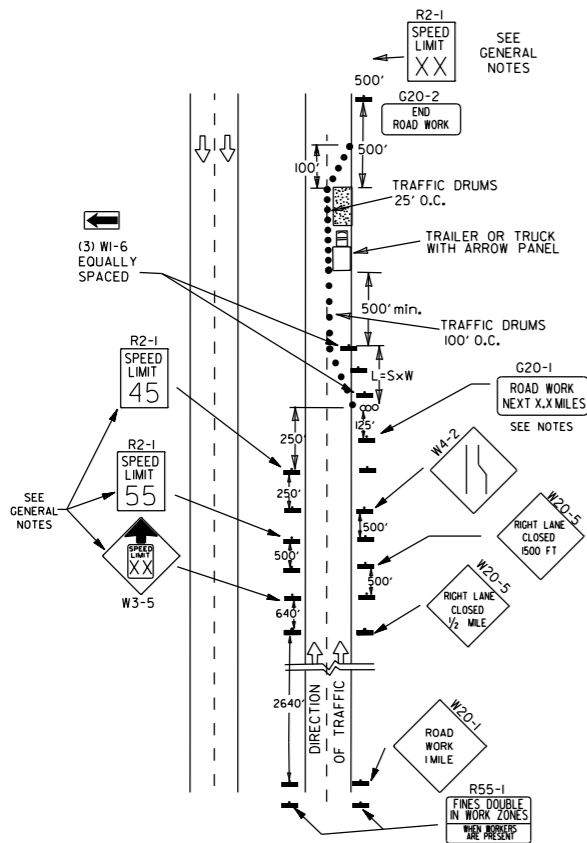
FLAG SHALL BE OF GOOD GRADE RED MATERIAL

KEY:

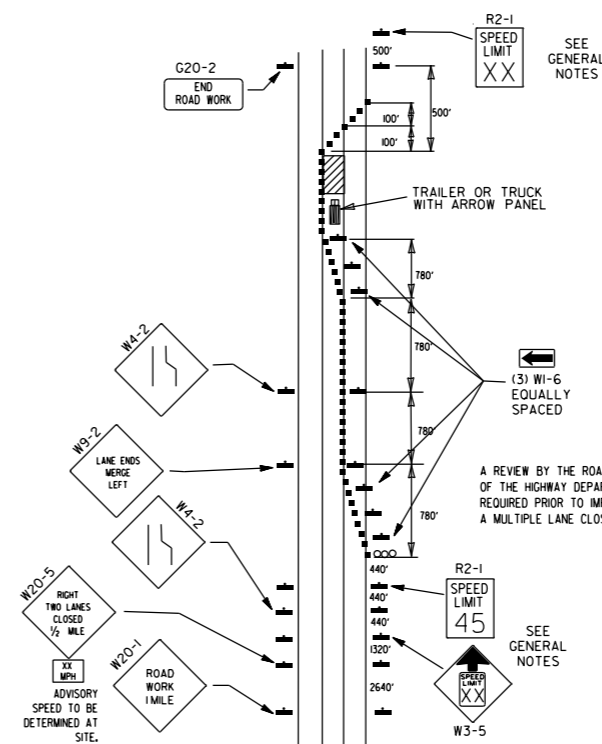
- ○ ○ ARROW PANEL (IF REQUIRED)
- CHANNELIZING DEVICE
- TRAFFIC DRUM

GENERAL NOTES:

1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(65) SHALL BE OMITTED. ADDITIONAL R2-1(55)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHOULD BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1(1/4 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
10. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



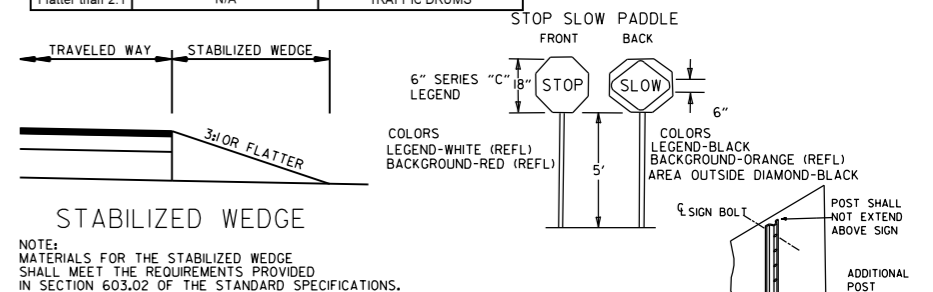
(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

TRAFFIC CONTROL DEVICES			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE ⁽⁶⁾	STANDARD LANE CLOSURE ⁽⁶⁾
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9 AND TRAFFIC DRUMS ⁽¹⁾	W8-9 AND TRAFFIC DRUMS ⁽¹⁾
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 18"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING AND TRAFFIC DRUMS ⁽³⁾
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES

INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

- GENERAL NOTES:
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
 2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED.
 3. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
 4. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
 5. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.
 6. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).



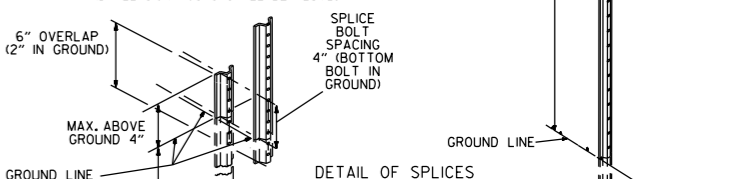
STABILIZED WEDGE

NOTE: MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. 5HS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

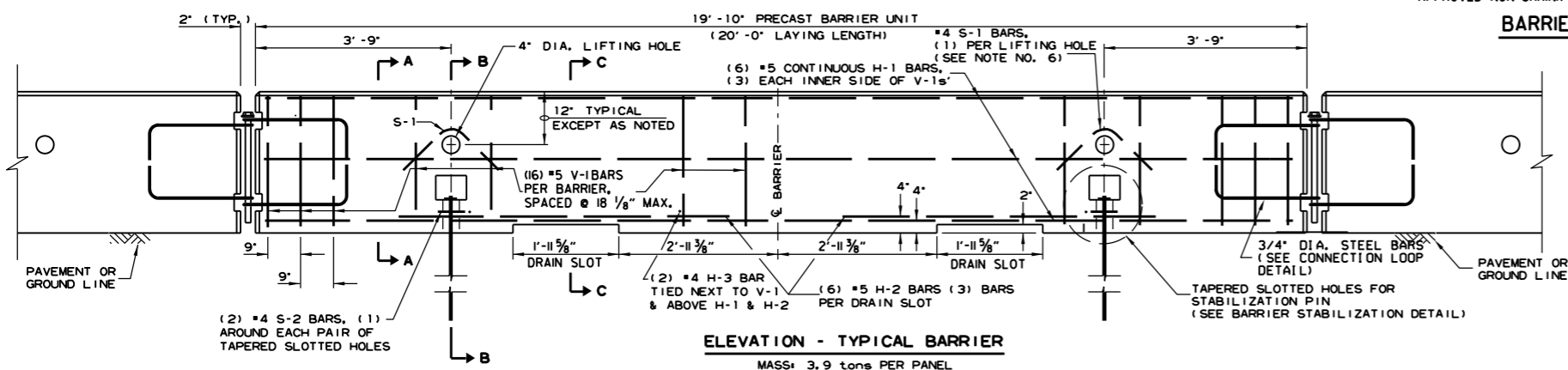
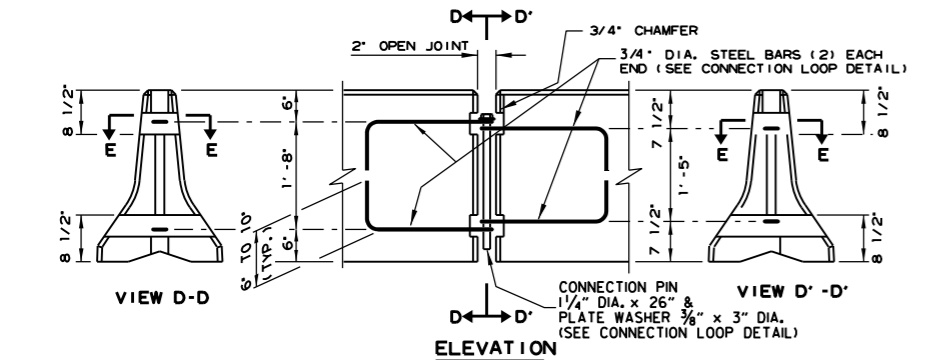
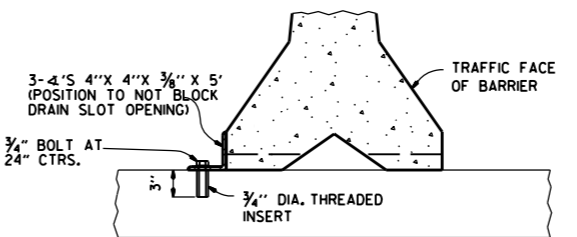
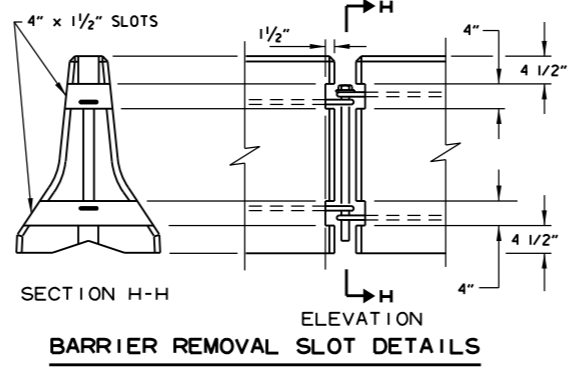
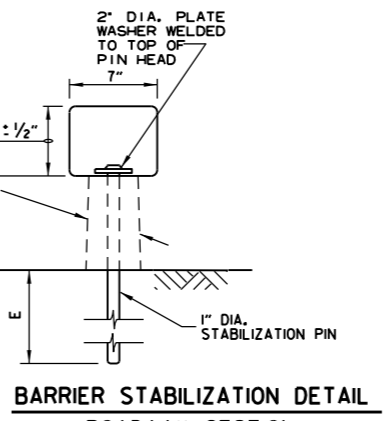
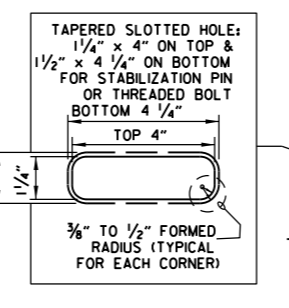
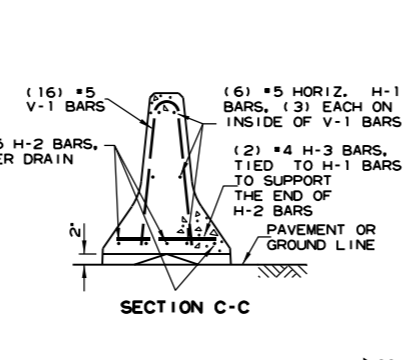
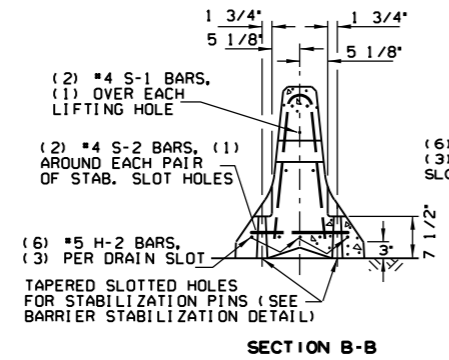
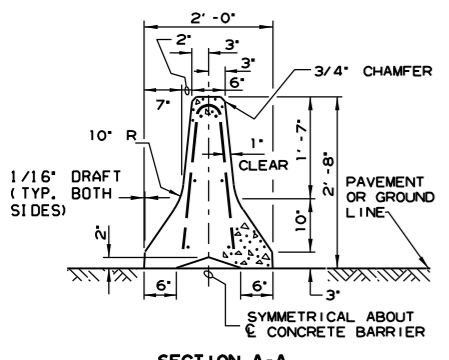
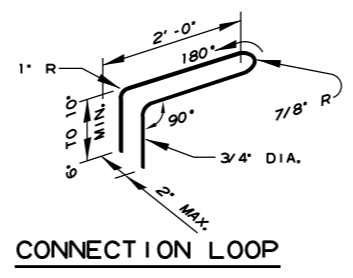
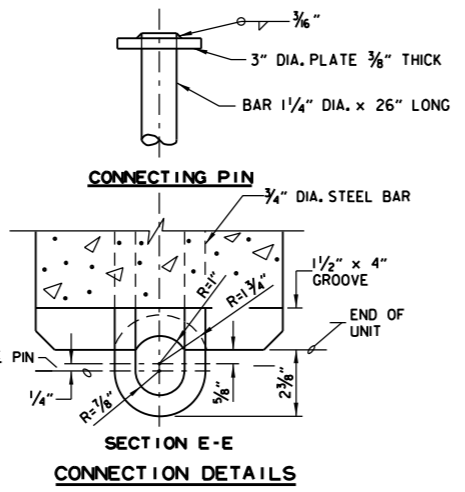


DETAIL OF SPLICES

DATE	REVISION	FILED
08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES	
05-20-21	REVISED NOTE 10	
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE II	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION

REINFORCING BAR TABLE PER BARRIER UNIT			
MARK	LOCATION	BAR SIZE (NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5 (6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5 (6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4 (2)	1'-6"
S-1	OVER LIFT HOLES	#4 (2)	2'-5" 3/8" R 90°
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4 (2)	1 1/2" R SLOTS 1" MIN. CLEAR TO BAR TO BAR 5'-1" BAR W/ (4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER (3) EACH END & (2) AT EACH DRAIN SLOTS	#5 (16)	TOTAL LENGTH 4'-9" 2 3/16" R 12° 4 3/8" 2'-1 3/8" 3/8"



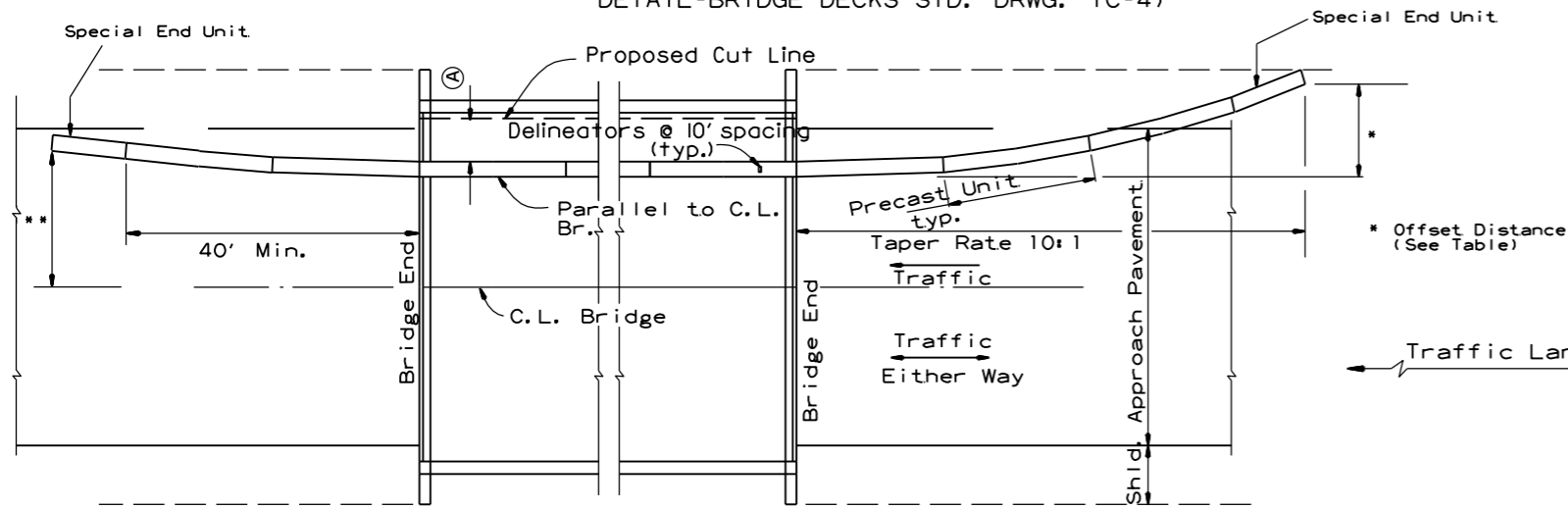
- GENERAL NOTES**
- THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
 - MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS. DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.
 - OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.
 - DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.
 - ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.
 - A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER
STANDARD DRAWING TC-4

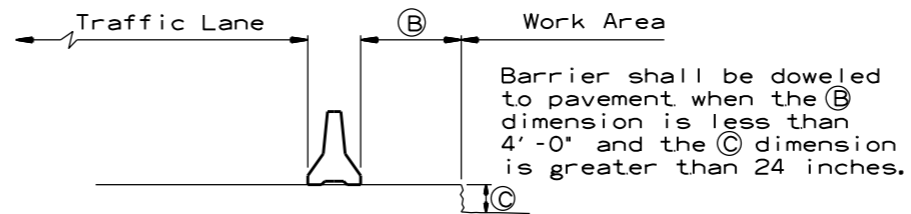
(A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

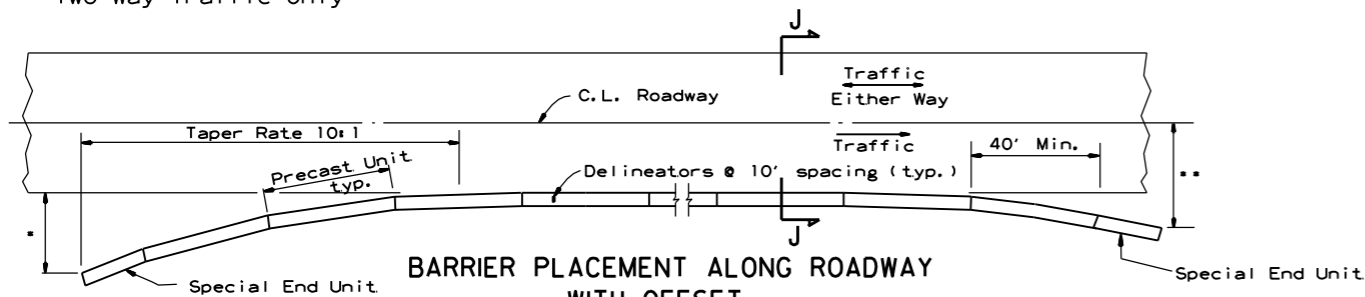
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

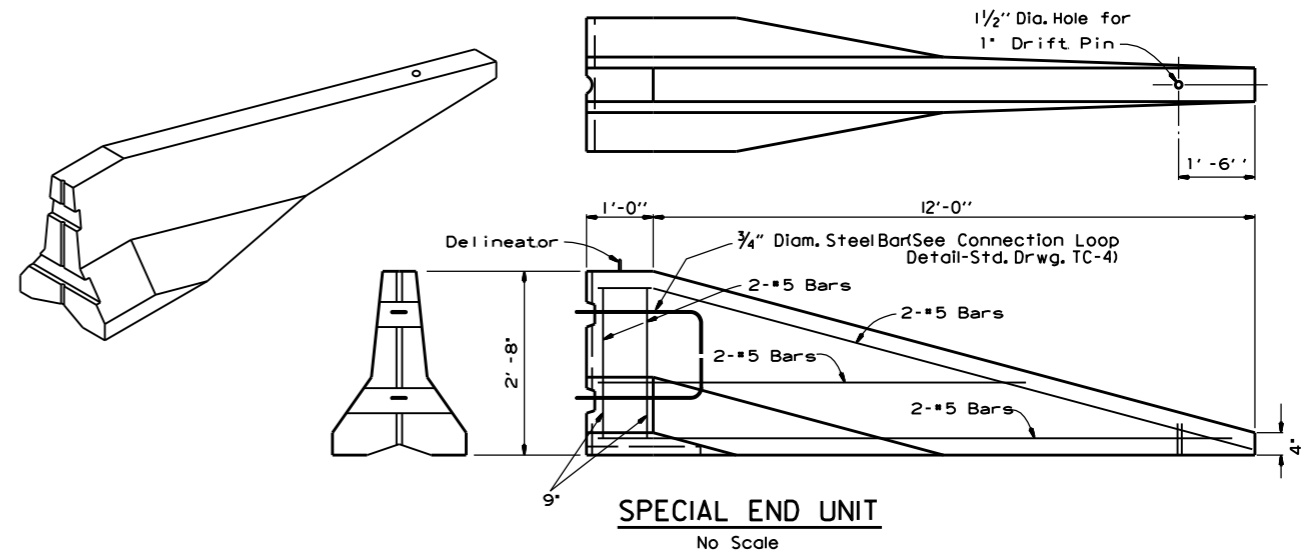
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

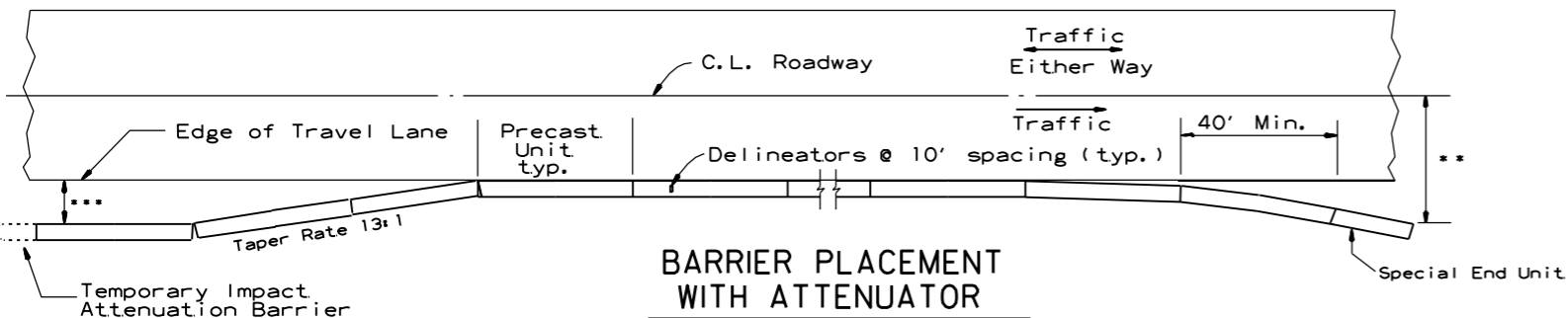
Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see 'Barrier Placement With Attenuator' Detail shown below.



General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."



BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

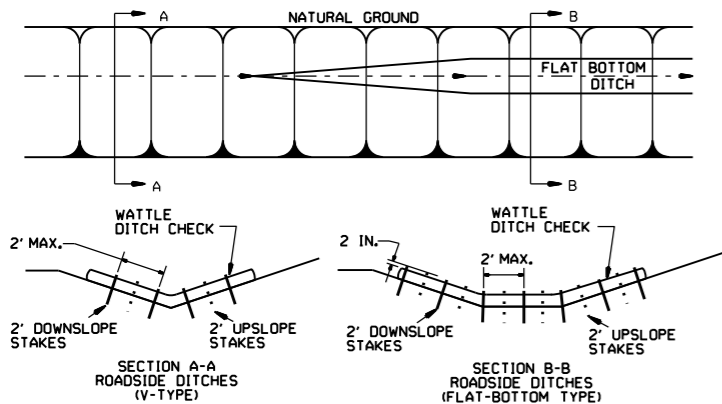
ARKANSAS STATE HIGHWAY COMMISSION

**STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER**

STANDARD DRAWING TC-5

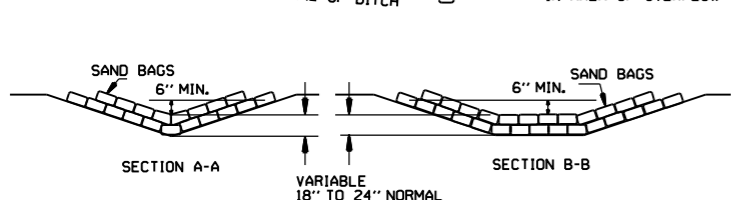
GENERAL NOTES

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

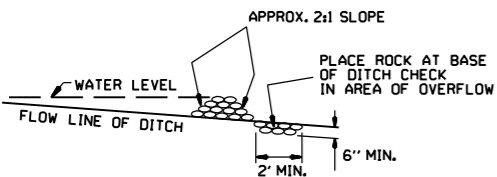


WATTLE DITCH CHECK (E-1)

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS. PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW.

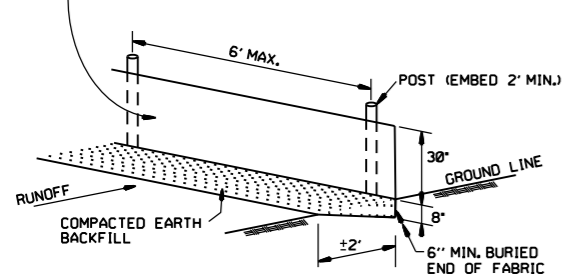


SAND BAG DITCH CHECK (E-5)

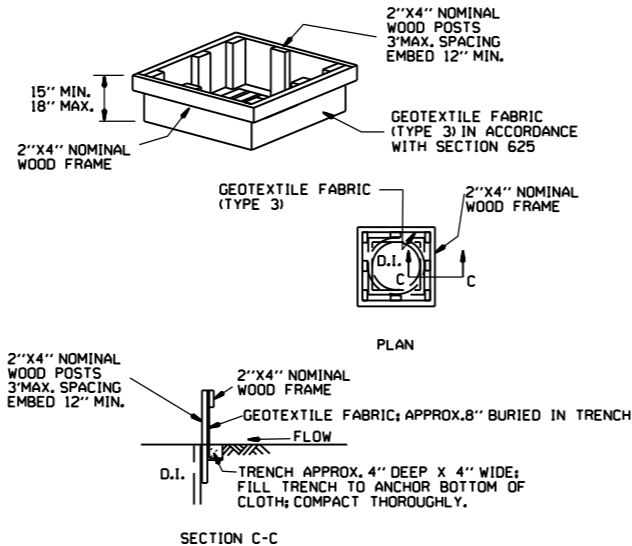


ROCK DITCH CHECK (E-6)

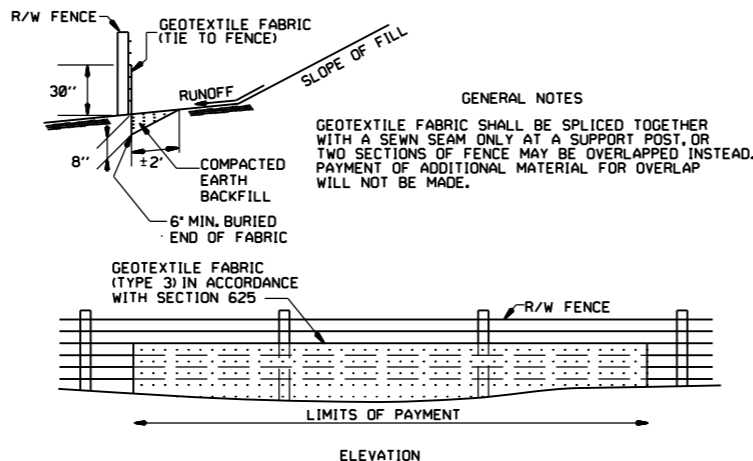
GENERAL NOTES
 GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625
 GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)

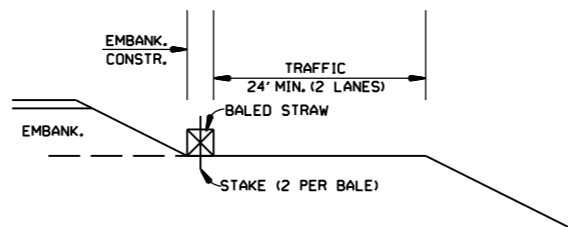


DROP INLET SILT FENCE (E-7)

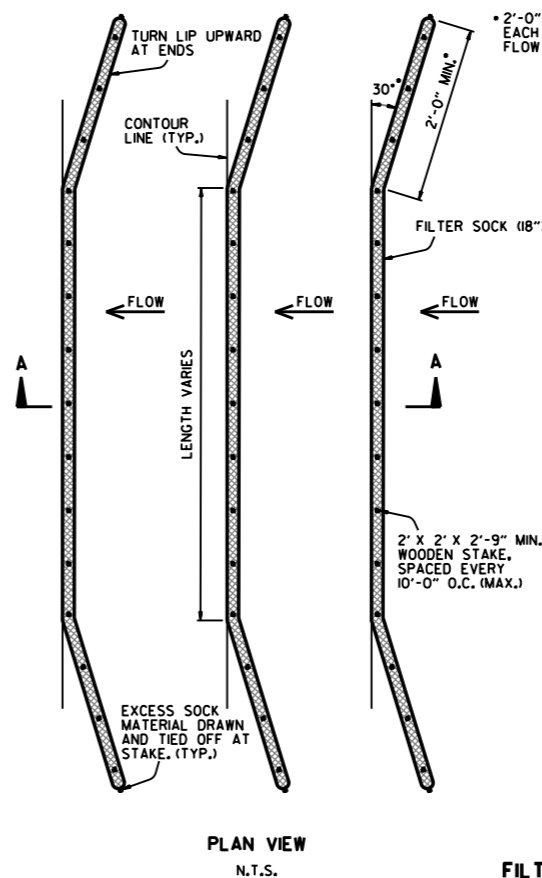


SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES
 1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
 2. NO GAPS SHALL BE LEFT BETWEEN BALES.
 3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.

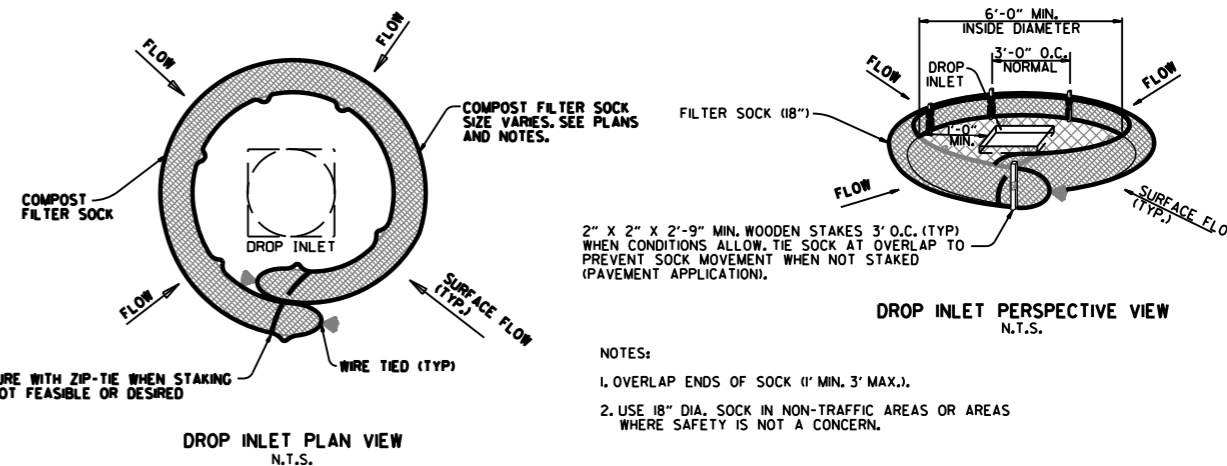


BALED STRAW FILTER BARRIER (E-2)



FILTER SOCK ALONG SLOPE (E-3)

NOTES:
 1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.
 2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.
 3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBSIDIARY TO "FILTER SOCK (18")."
 4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.
 5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

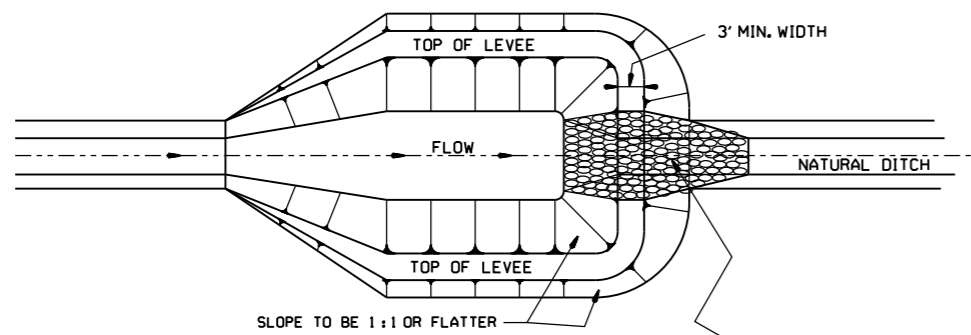


COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

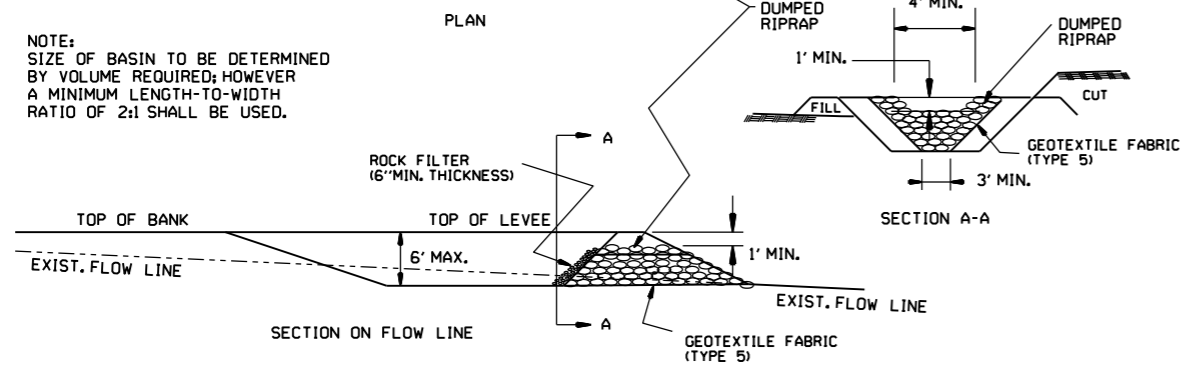
NOTES:
 1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).
 2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

DATE	REVISION
11-16-17	ADDED FILTER SOCK E-3 AND E-13
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK
11-18-98	ADDED NOTES
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)
07-20-95	REVISED SILT FENCE E-4 AND E-11
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC
06-02-94	REVISED E-1, 4, 7 & 11; DELETED E-2 & 3
04-01-93	REDRAWN
10-01-92	REDRAWN
08-02-76	ISSUED R.D.M.

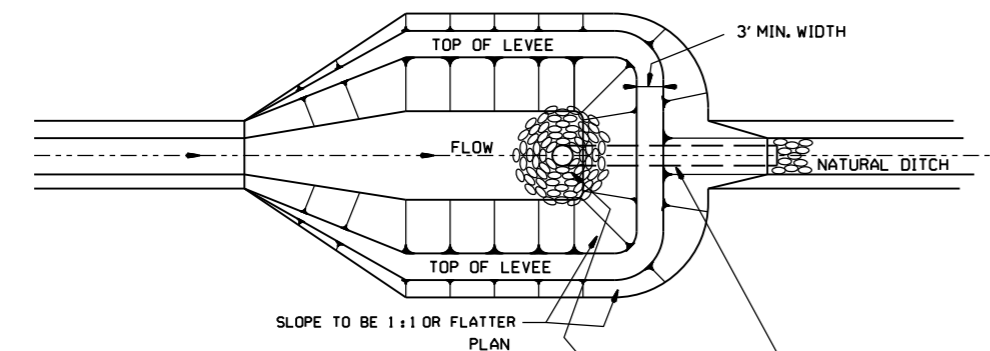
ARKANSAS STATE HIGHWAY COMMISSION
 TEMPORARY EROSION CONTROL DEVICES
 STANDARD DRAWING TEC-1



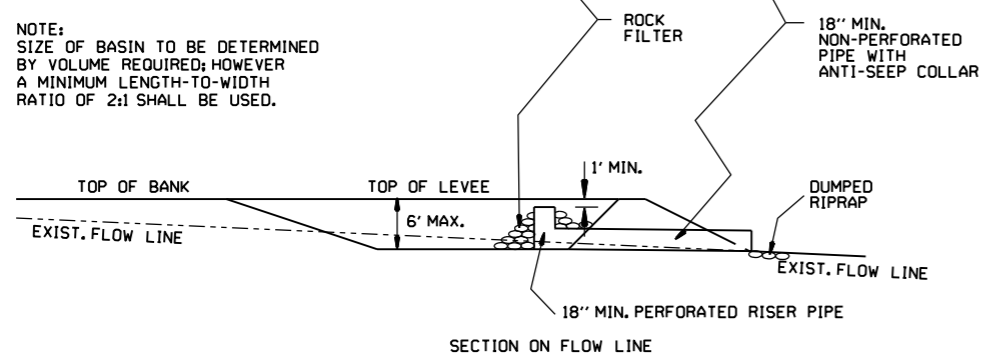
NOTE:
SIZE OF BASIN TO BE DETERMINED
BY VOLUME REQUIRED; HOWEVER
A MINIMUM LENGTH-TO-WIDTH
RATIO OF 2:1 SHALL BE USED.



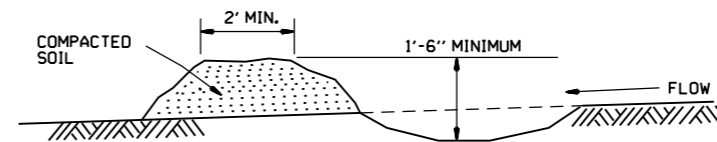
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



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

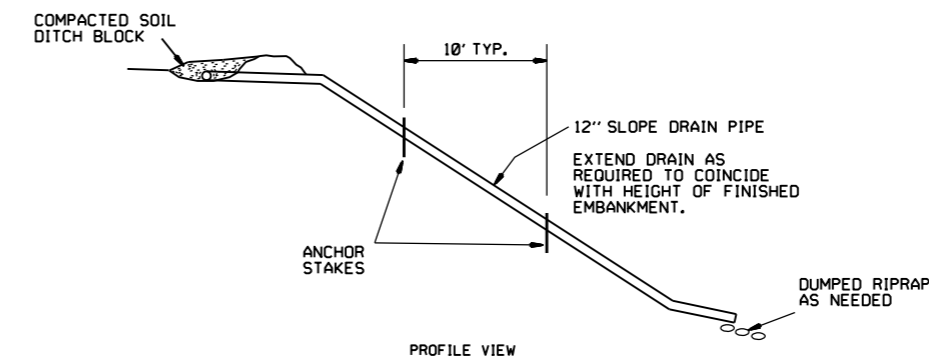
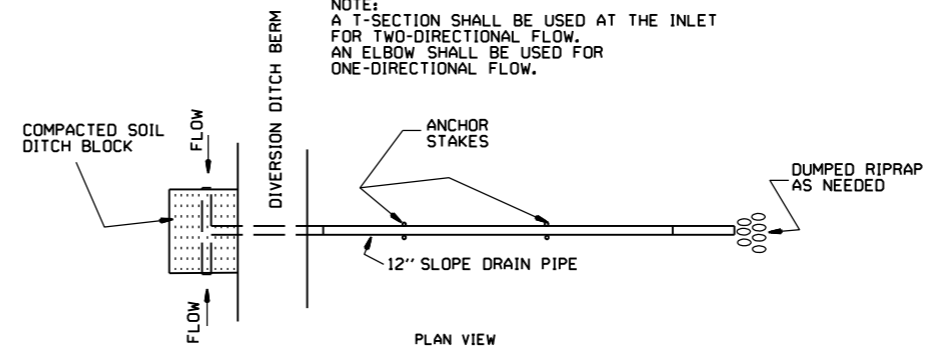


SEDIMENT BASIN WITH PIPE OUTLET (E-10)

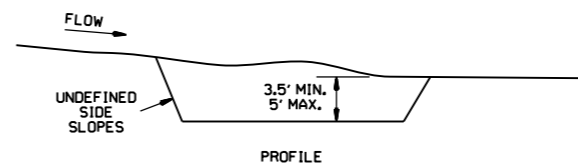
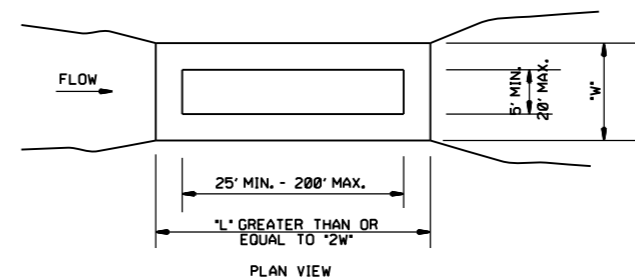


DIVERSION DITCH (E-8)

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)

6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13		
4-1-93	ISSUED		
DATE	REVISION		FILMED

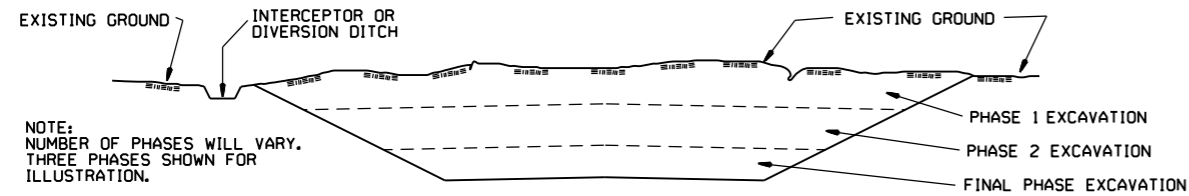
ARKANSAS STATE HIGHWAY COMMISSION
TEMPORARY EROSION
CONTROL DEVICES
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES, DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



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

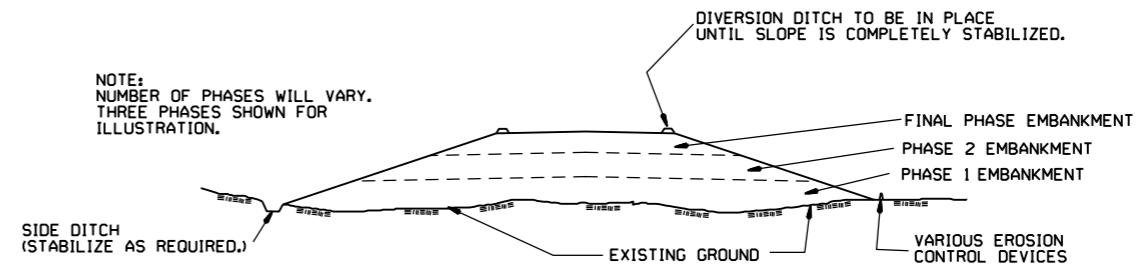
GENERAL NOTE

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

