DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	1	39
				(2)	HWY. 7S-HWY. 70 INTCHNG. (CABLE MEDIAN BARRIERXS)			

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

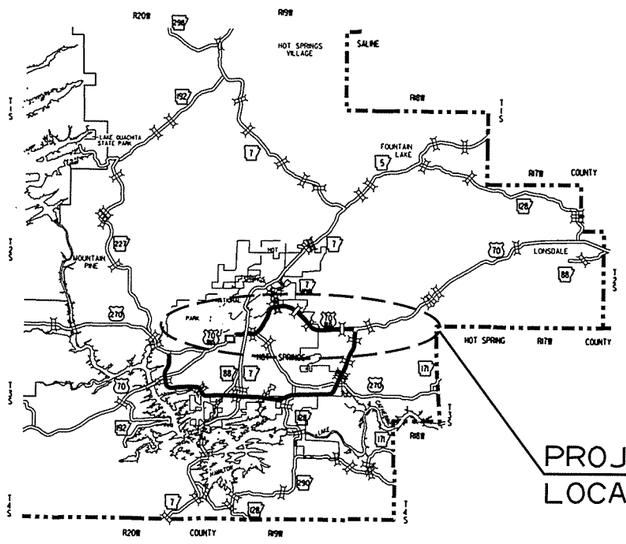
HWY. 7S-HWY. 70 INTCHNG. (CABLE MEDIAN BARRIER)(S)

GARLAND COUNTY

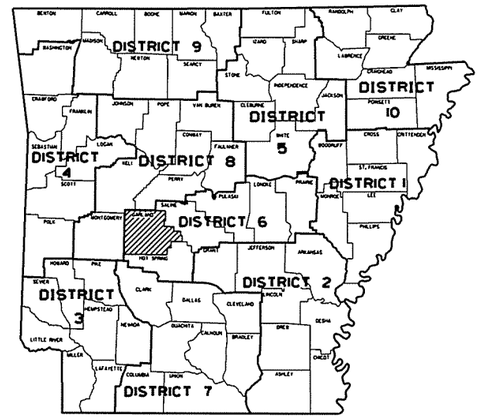
ROUTE 70B/70 SECTION 9B/9

JOB NO. 061431

FED. AID PROJ. PEN-9210(25)



VICINITY MAP

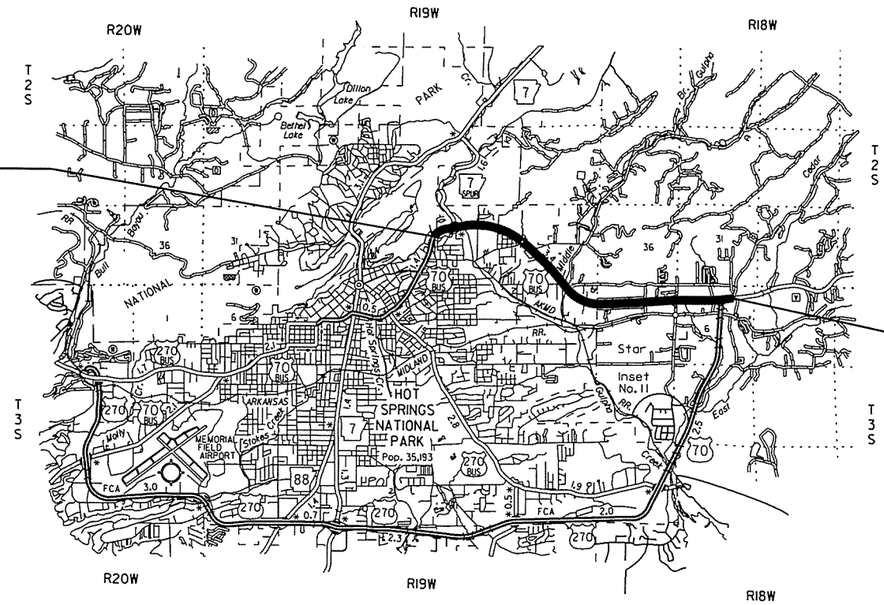


ARK. HWY. DIST. NO. 6

DESIGN TRAFFIC DATA	HWY. 70B	HWY. 70
DESIGN YEAR	2034	2034
2014 ADT	7,000	12,500
2034 ADT	9,100	16,500
2034 DHV	1,001	1,815
DIRECTIONAL DISTRIBUTION	0.60	0.60
TRUCKS	5%	12%
DESIGN SPEED	55 MPH	55 MPH

"NOT TO SCALE"

STA. 10+21.89
BEGIN JOB 061431
LOG MILE 1.60



STA. 251+73.20
END JOB 061431

EXCEPTIONS TO JOB NO. 061431

STA.	23+59.41	TO STA. 31+89.87	= 830.46 LIN. FT.
STA.	110+67.87	TO STA. 117+04.77	= 636.90 LIN. FT.

TOTAL LENGTH OF EXCEPTIONS = 1467.36 LIN. FT.

GROSS LENGTH OF PROJECT			24151.31	FEET	OR	4.574	MILES
NET	"	" ROADWAY	22683.95	"	"	4.296	"
NET	"	" BRIDGES	0.00	"	"	0.000	"
NET	"	" PROJECT	22683.95	"	"	4.296	"

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 34°31'02"	LATITUDE = N 34°30'19"	LATITUDE = N 34°30'23"
LONGITUDE = W 93°02'16"	LONGITUDE = W 93°00'18"	LONGITUDE = W 92°57'55"

APPROVED

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4215
RALPH J. HALL

7-16-14

Ralph J. Hall

DEPUTY DIRECTOR
AND CHIEF ENGINEER

7/22/2014

R061431.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	2	39

(2) INDEX OF SHEETS, GOV. SPECS., & GEN. NOTES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
8-8-14

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.	DATE
1	TITLE SHEET			
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES			
3	TYPICAL SECTIONS OF IMPROVEMENT			
4 - 5	SPECIAL DETAILS			
6 - 14	TEMPORARY EROSION CONTROL DETAILS			
15 - 18	MAINTENANCE OF TRAFFIC			
19 - 21	QUANTITIES			
22	SUMMARY OF QUANTITIES AND REVISIONS			
23 - 31	PLAN SHEETS			
32	CONCRETE DITCH PAVING		CDP-1	11-17-10
33	GUARD RAIL DETAILS		GR-8	7-14-10
34	GUARD RAIL DETAILS		GR-9A	4-17-08
35	GUARD RAIL DETAILS		GRT-1	7-14-10
36	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-1	12-15-11
37	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-2	9-12-13
38	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-3	10-15-09
39	TEMPORARY EROSION CONTROL DEVICES		TEC-1	12-15-11

GENERAL NOTES

1. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.

2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.

3. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.

4. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.

5. 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.

6. WASTE MATERIAL SHALL BE DISPOSED OF AS APPROVED BY THE ENGINEER, ANY REQUIRED EROSION CONTROL MEASURES FOR WASTING MATERIAL SHALL BE AS APPROVED BY THE ENGINEER.

7. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING HIGHWAY SIGNS ACCORDING TO 603.02(d) OF THE STANDARD SPECIFICATIONS.

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
620-1	MULCH COVER
JOB 061431	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 061431	CONCRETE DITCH PAVING
JOB 061431	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 061431	FLEXIBLE BEGINNING OF WORK
JOB 061431	MAINTENANCE OF TRAFFIC
JOB 061431	MANDATORY USE OF INTERNET BIDDING
JOB 061431	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB 061431	SEQUENCE OF CONSTRUCTION
JOB 061431	SITE USE (A + C METHOD)
JOB 061431	STORM WATER POLLUTION PREVENTION PLAN
JOB 061431	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 061431	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 061431	UTILITY ADJUSTMENTS
JOB 061431	WARM MIX ASPHALT
JOB 061431	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB 061431	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB 061431	WIRE ROPE SAFETY FENCE (POST REPAIR)
JOB 061431	WRSF TRAINING WORKSHOP

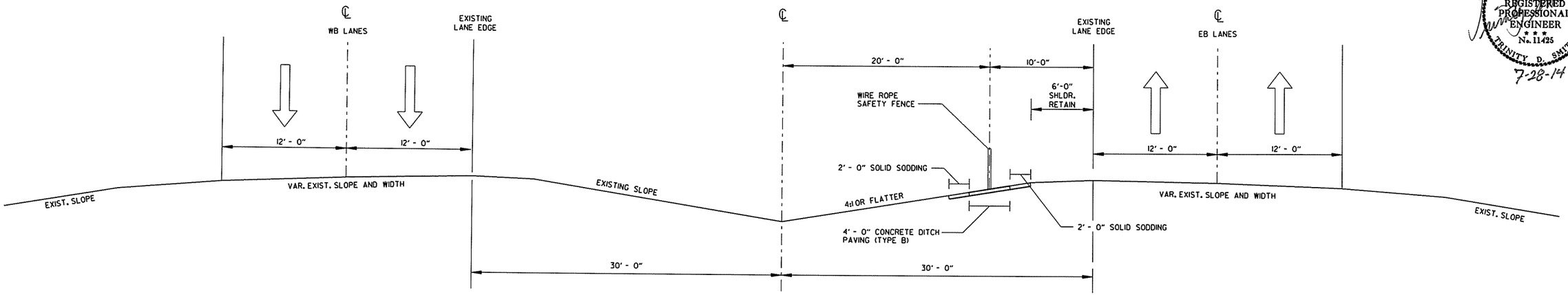
7/16/2014

ZBORDER.CEL

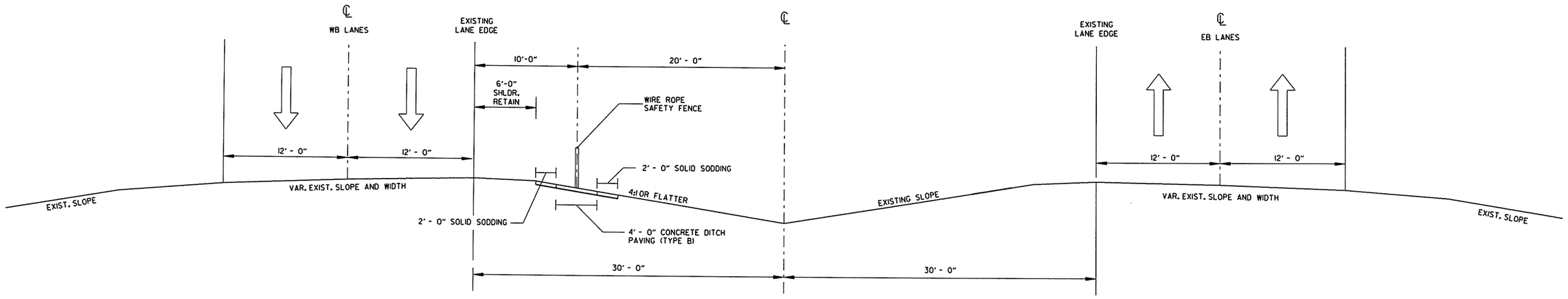
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	3	39

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



TYPICAL SECTION OF IMPROVEMENT
FOR WIRE ROPE SAFETY FENCE RIGHT OF CENTERLINE



TYPICAL SECTION OF IMPROVEMENT
FOR WIRE ROPE SAFETY FENCE LEFT OF CENTERLINE

7/18/2014

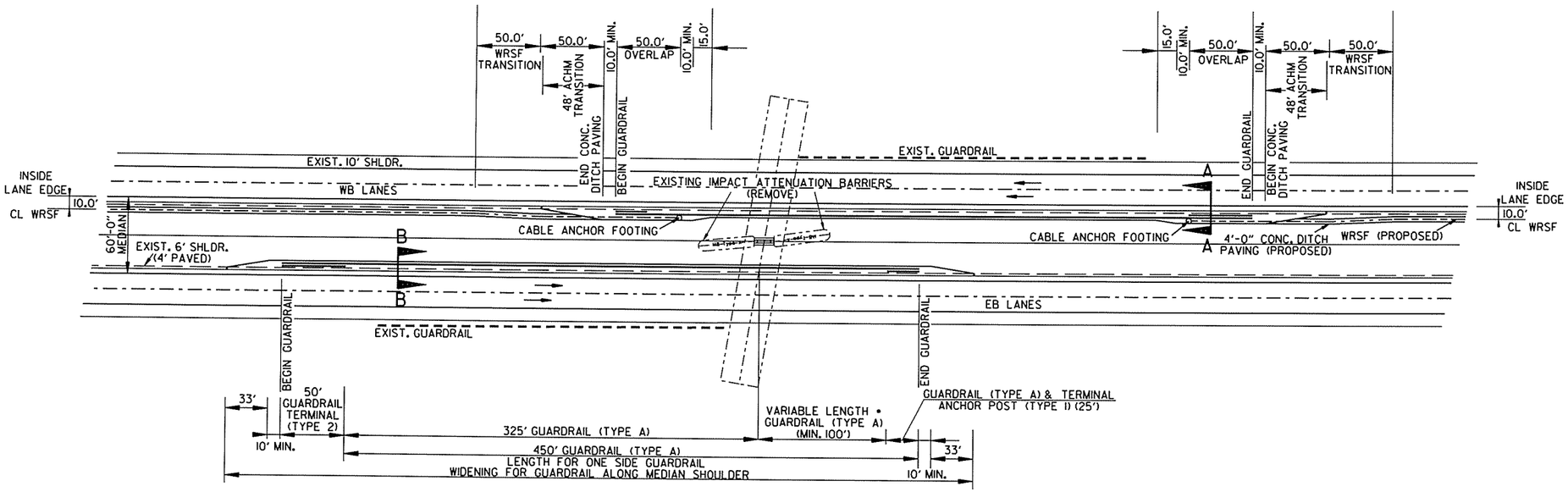
R061431.DGN

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	4	39

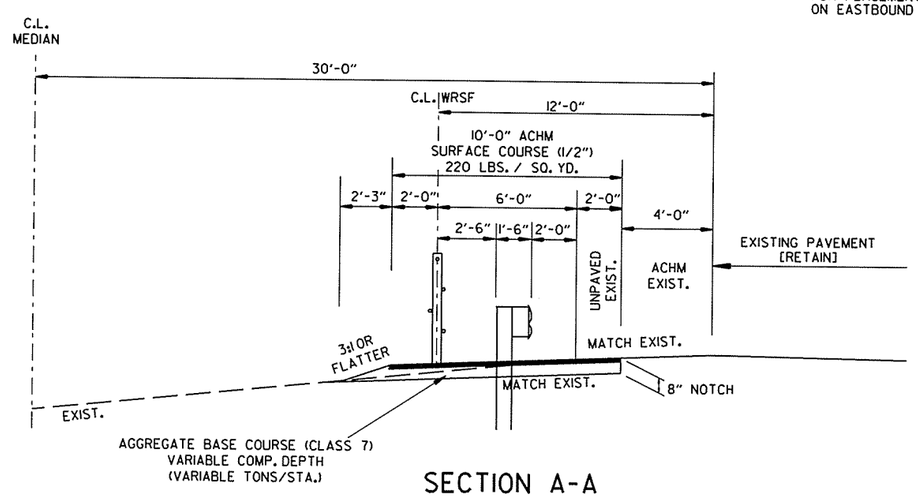
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

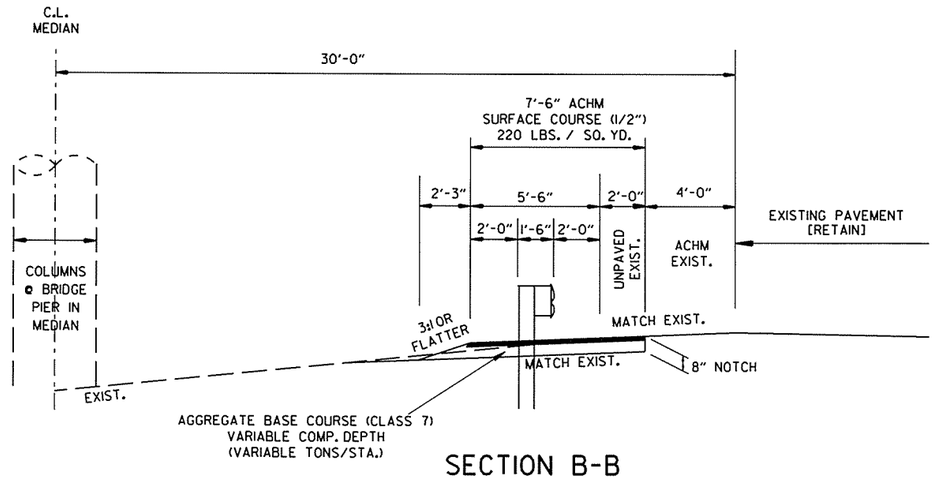


DETAIL AT OVERPASSES

NOTE: REFER TO PLAN SHEETS FOR PLACEMENT OF WIRE ROPE SAFETY FENCE ON EASTBOUND OR WESTBOUND FORESLOPES.



SECTION A-A



SECTION B-B

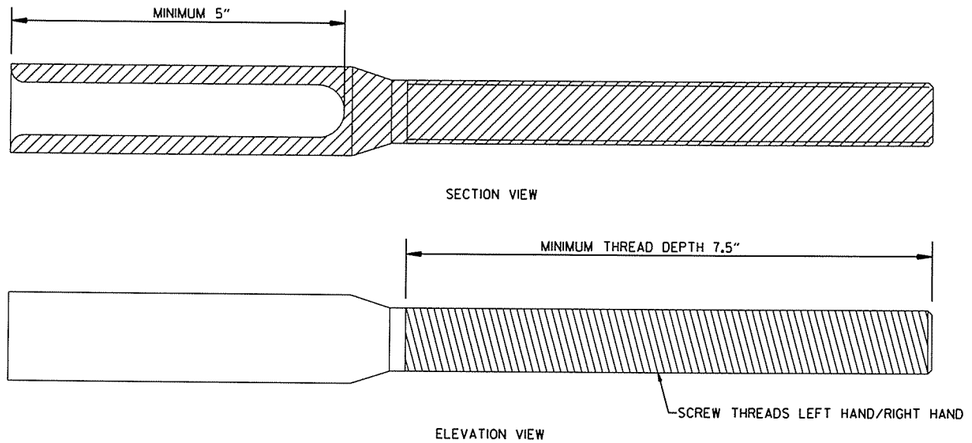
DETAILS OF SHOULDER WIDENING FOR GUARDRAIL AND OVERLAPS WITH ENDS OF WIRE ROPE SAFETY FENCE

7/25/2014

R061431.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	5	39
				(2) SPECIAL DETAILS				

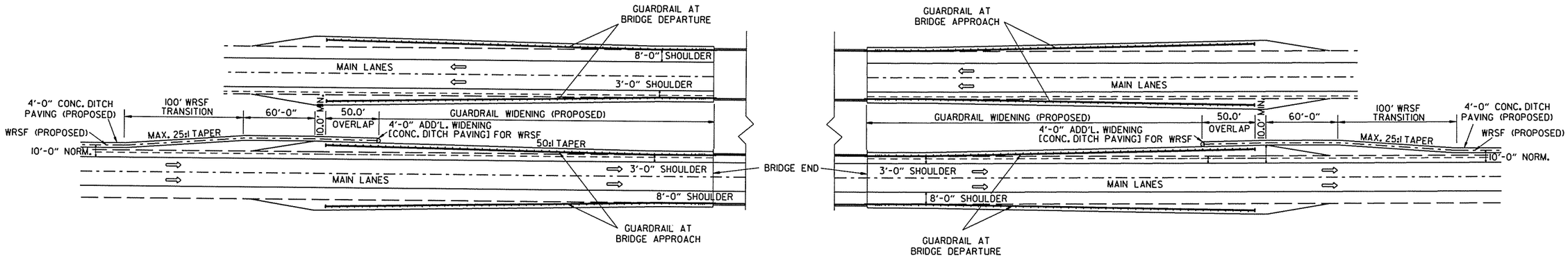
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



NOTE:

REFER TO "WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS" SPECIAL PROVISION FOR ADDITIONAL REQUIREMENTS.

THREADED TERMINAL DETAIL



DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

REFER TO PLANS FOR RELATIVE PLACEMENT OF GUARDRAIL AND WIRE ROPE SAFETY FENCE AT EACH BRIDGE END.

7/25/2014

R061431.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	6	39

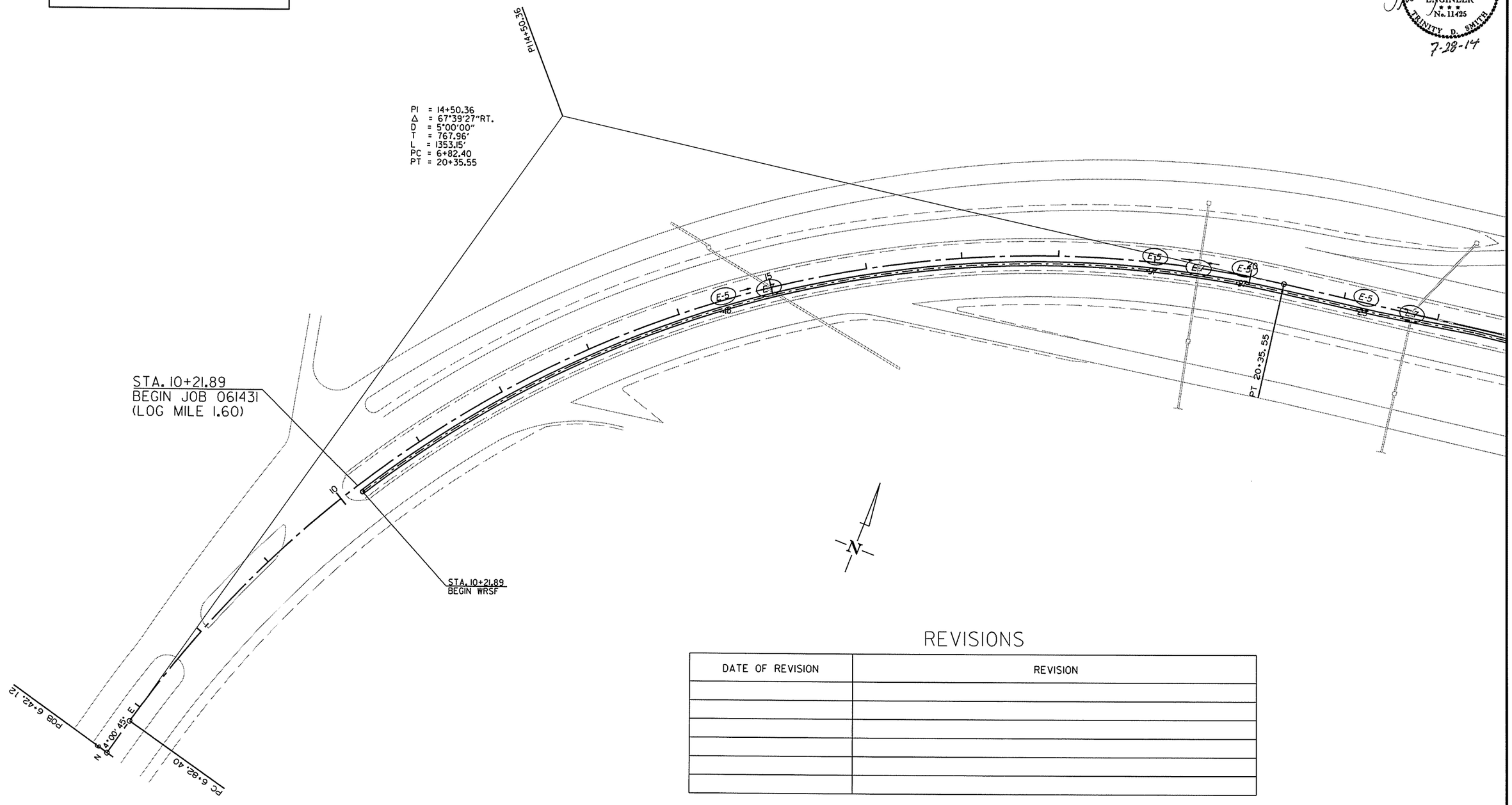
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-7) = DROP INLET SILT FENCE



REVISIONS

DATE OF REVISION	REVISION

7/28/2014

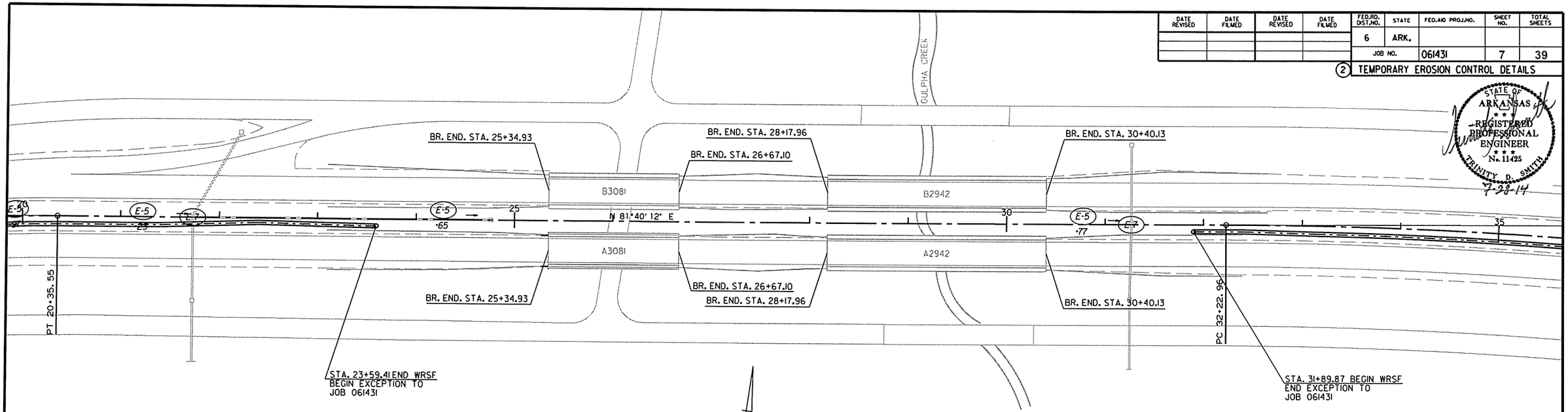
R061431.DGN

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.		061431	7	39

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



N

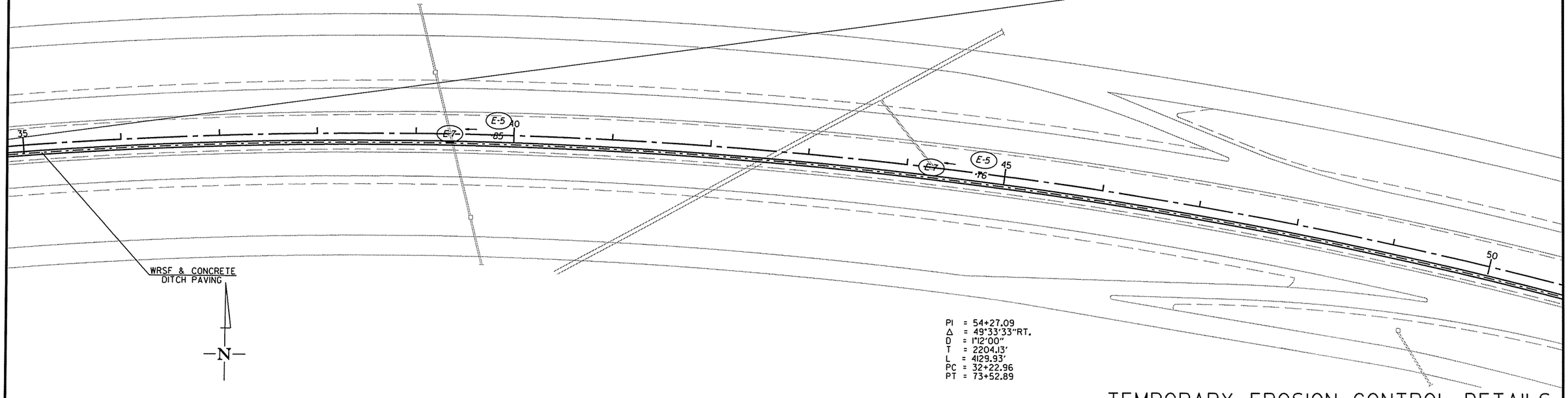
LEGEND

E-5 = SAND BAG DITCH CHECKS

E-7 = DROP INLET SILT FENCE

REVISIONS

DATE OF REVISION	REVISION



TEMPORARY EROSION CONTROL DETAILS

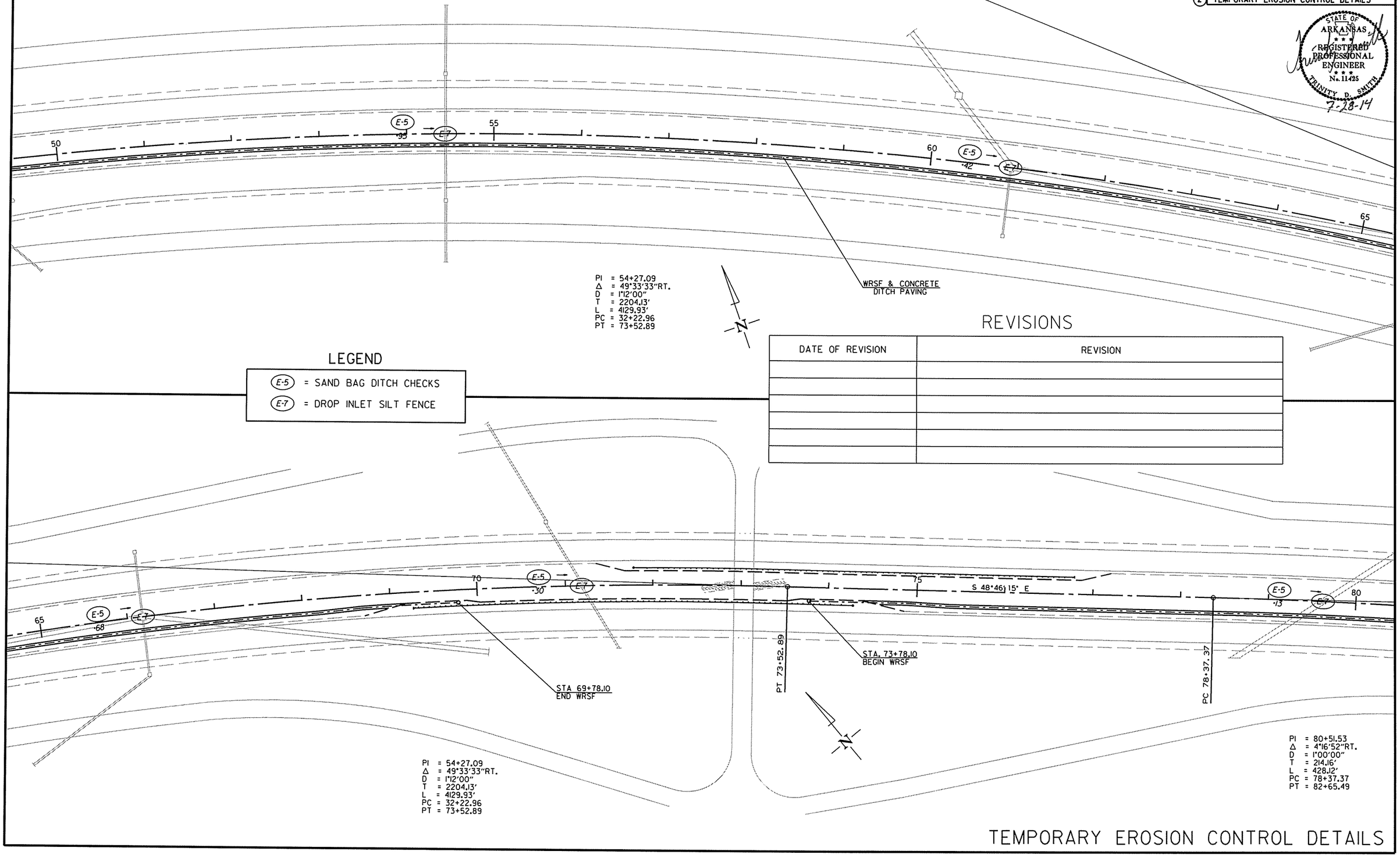
7/25/2014

R061431.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	8	39

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-7) = DROP INLET SILT FENCE

REVISIONS

DATE OF REVISION	REVISION

7/25/2014

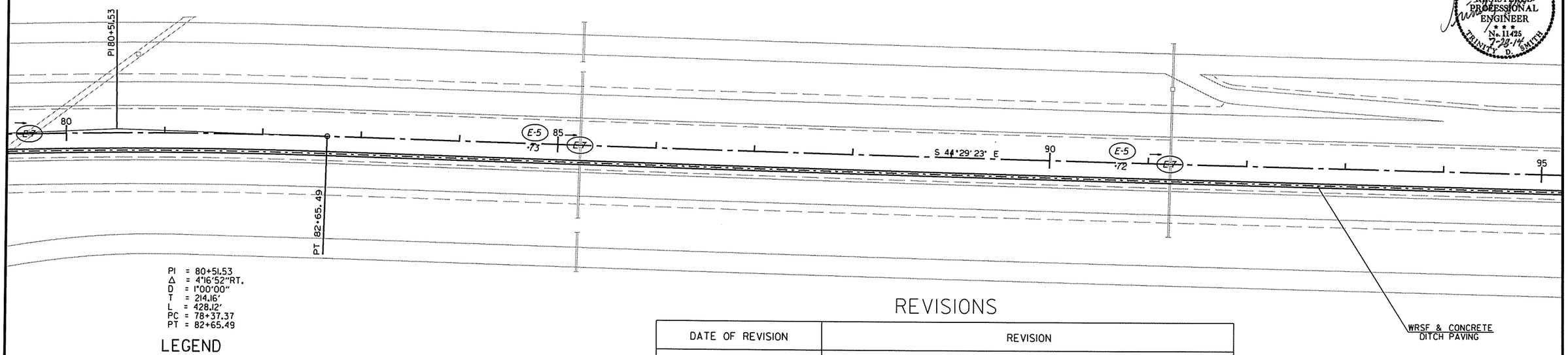
R061431.DGN

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.		061431	9	39

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
7-28-14
TRINITY D. SMITH



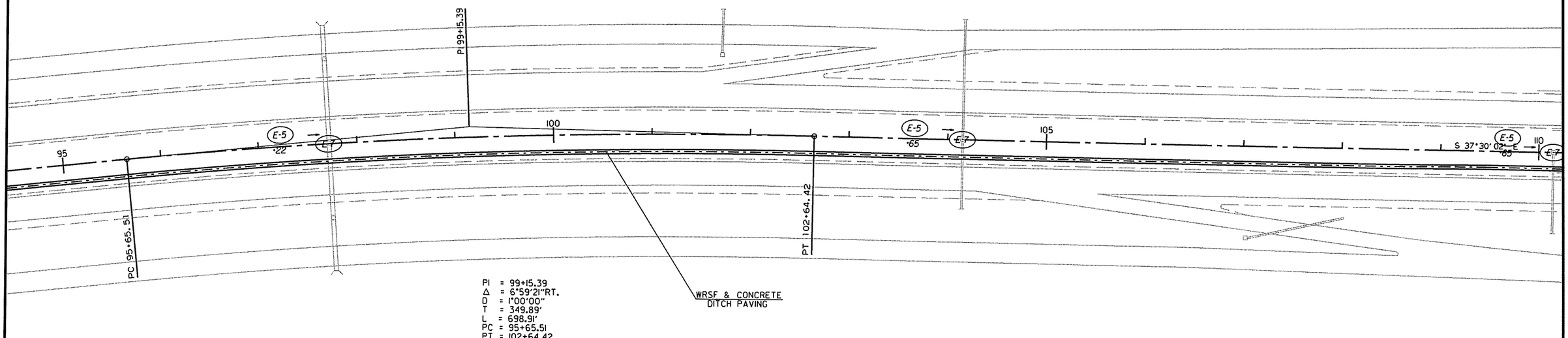
PI = 80+51.53
Δ = 4°16'52"RT.
D = 1°00'00"
T = 214.16'
L = 428.12'
PC = 78+37.37
PT = 82+65.49

LEGEND

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

REVISIONS

DATE OF REVISION	REVISION



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D = 1°00'00"
T = 349.89'
L = 698.91'
PC = 95+65.51
PT = 102+64.42

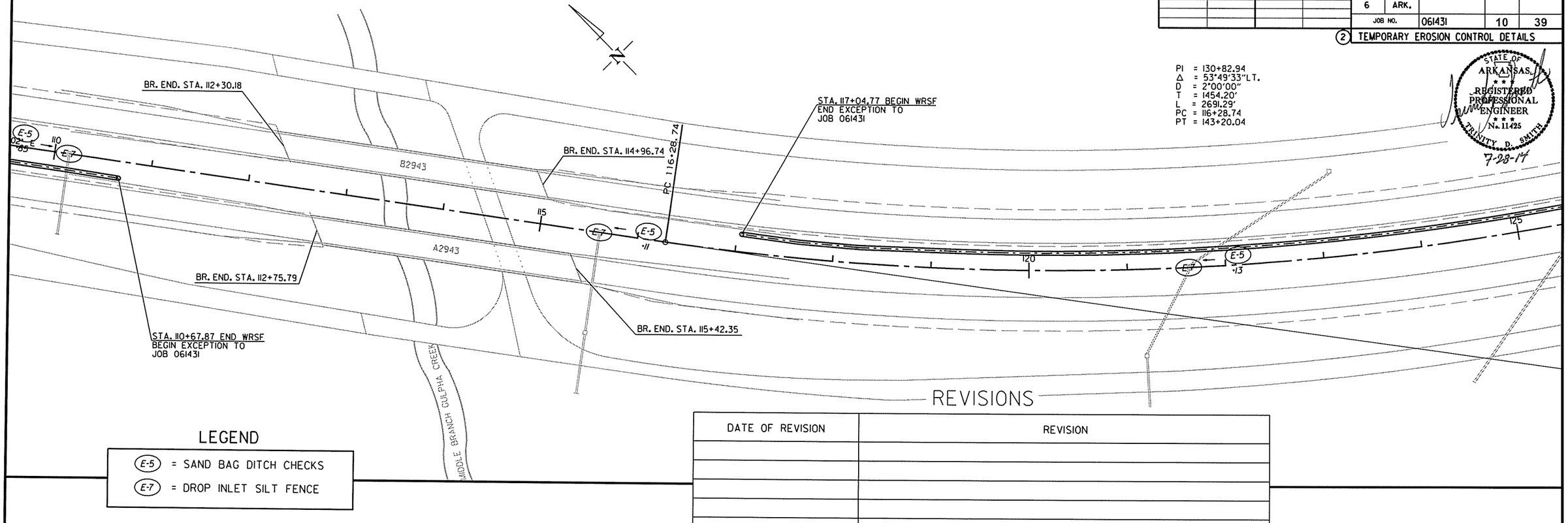
7/25/2014

R061431.DGN

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.		061431	10	39

(2) TEMPORARY EROSION CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

LEGEND

(E-5) = SAND BAG DITCH CHECKS

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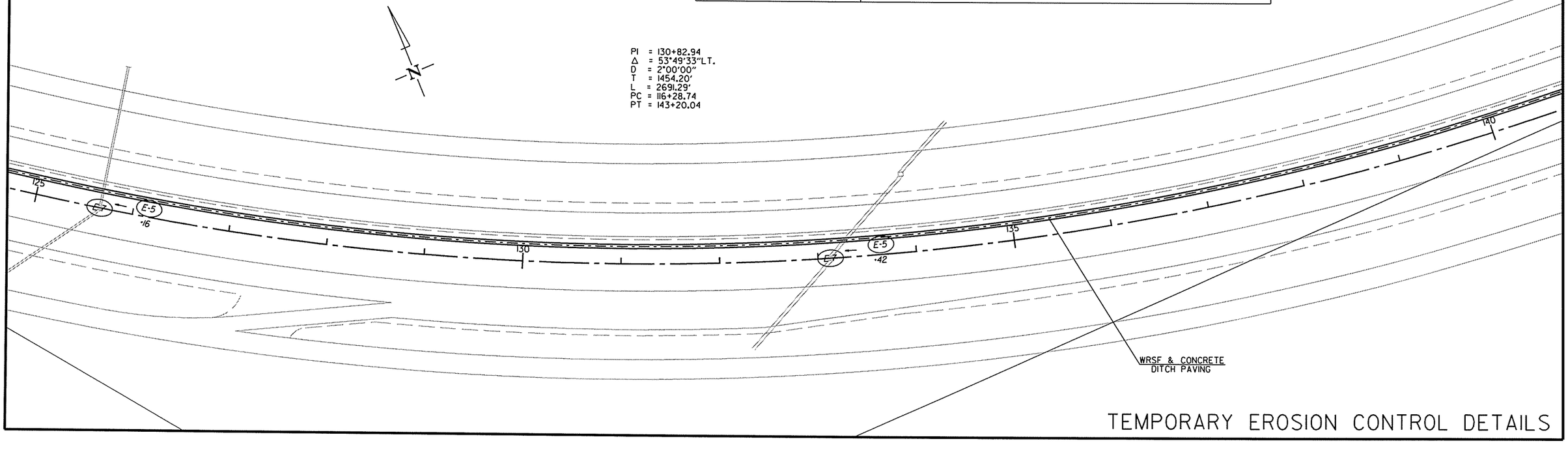
REVISIONS

DATE OF REVISION	REVISION



7/25/2014

R061431.DGN

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.		061431	11	39

(2) TEMPORARY EROSION CONTROL DETAILS

PI = 130+82.94
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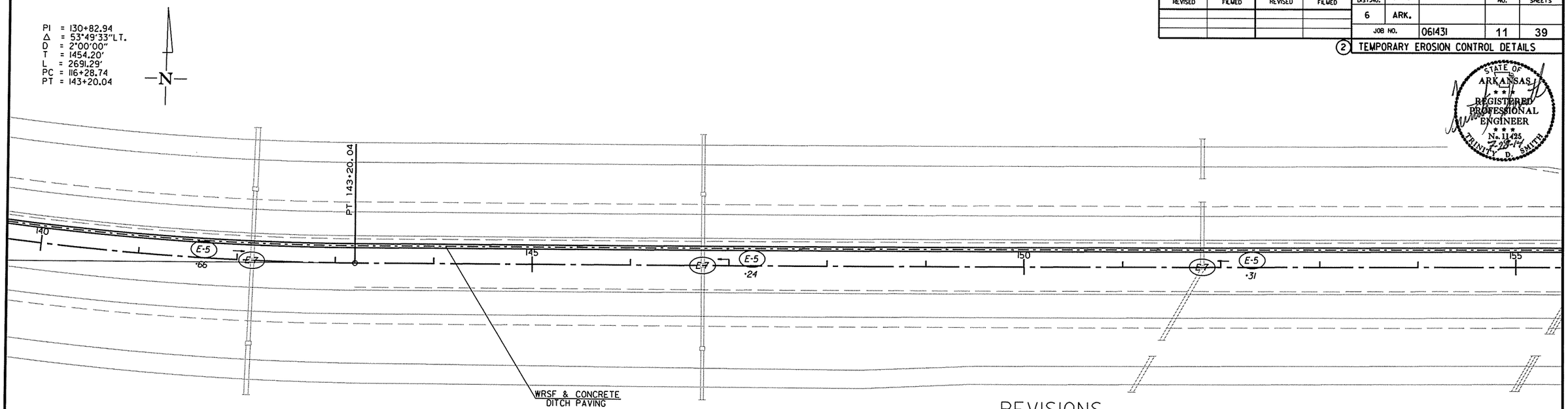
D = 2°00'00"
T = 1454.20'
L = 2691.29'
PC = 116+28.74
PT = 143+20.04



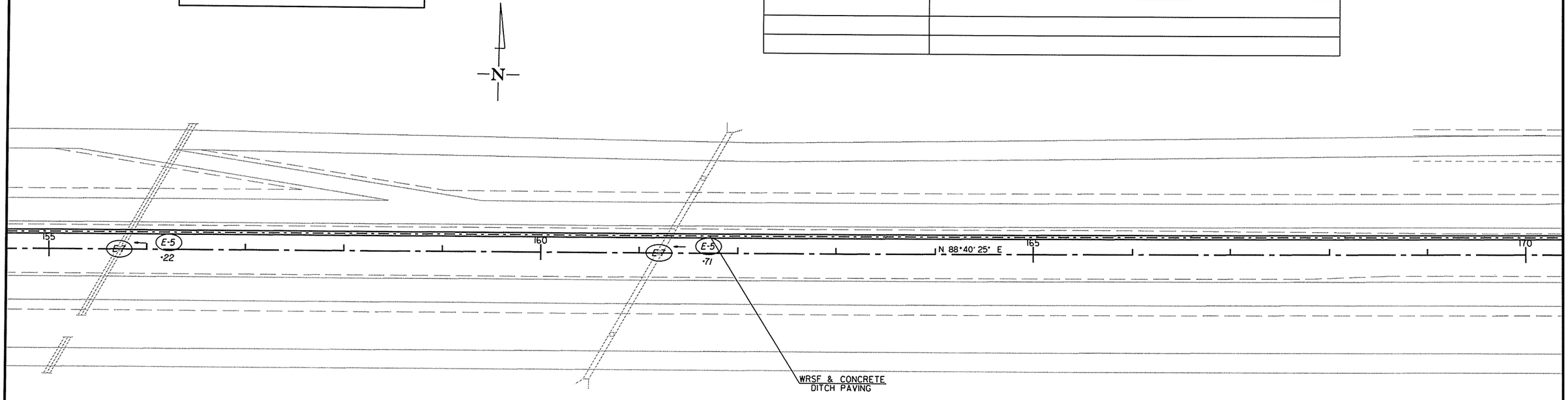
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
7-23-14
TRINITY D. SMITH

REVISIONS

DATE OF REVISION	REVISION

LEGEND

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



7/25/2014

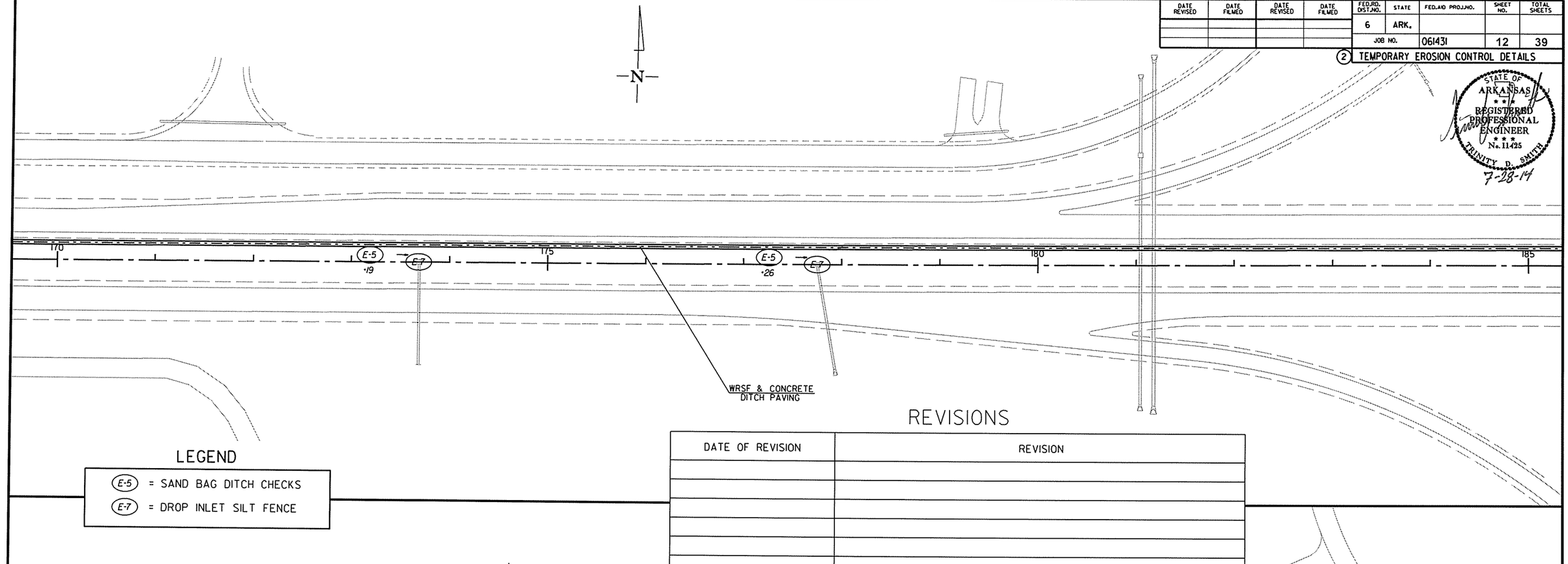
R061431.DGN

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.		061431	12	39

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



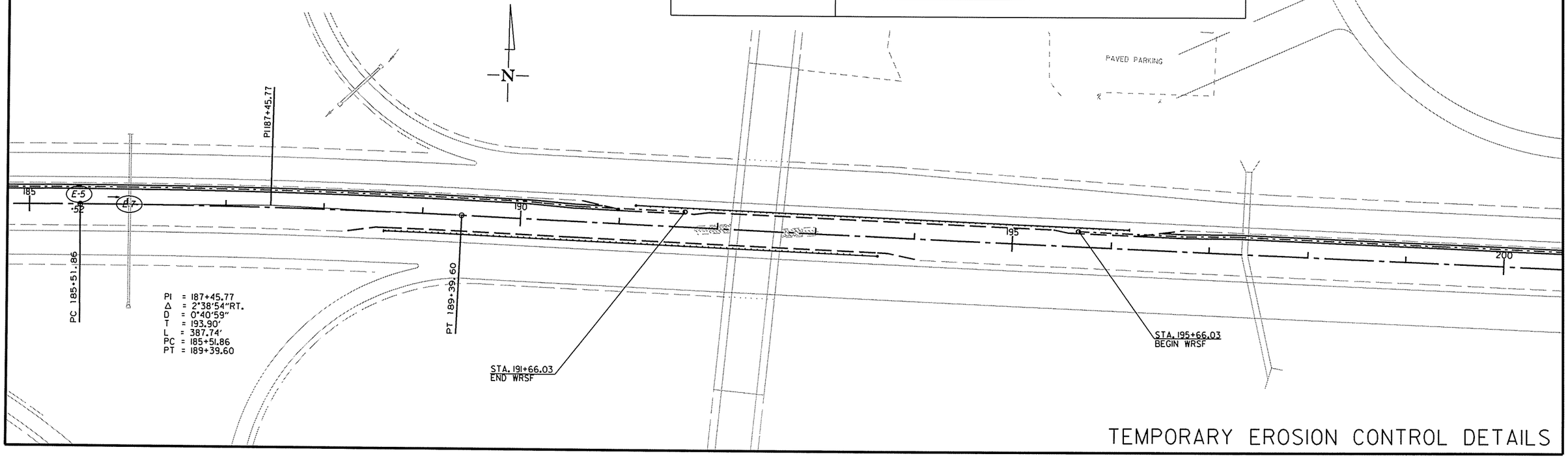
LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-7) = DROP INLET SILT FENCE

REVISIONS

DATE OF REVISION	REVISION



7/25/2014

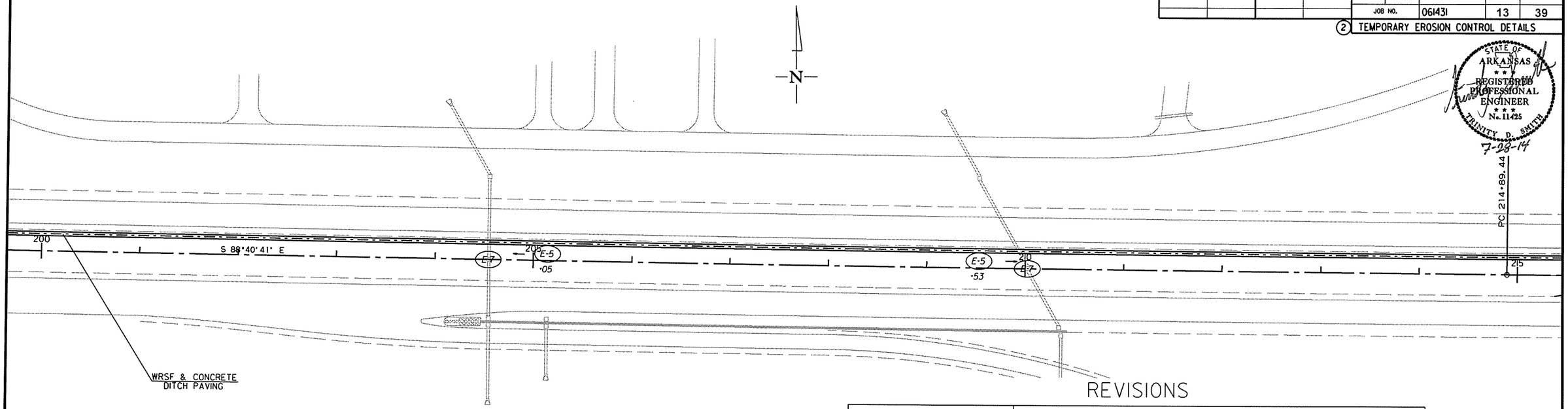
R061431.DGN

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.		061431	13	39

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



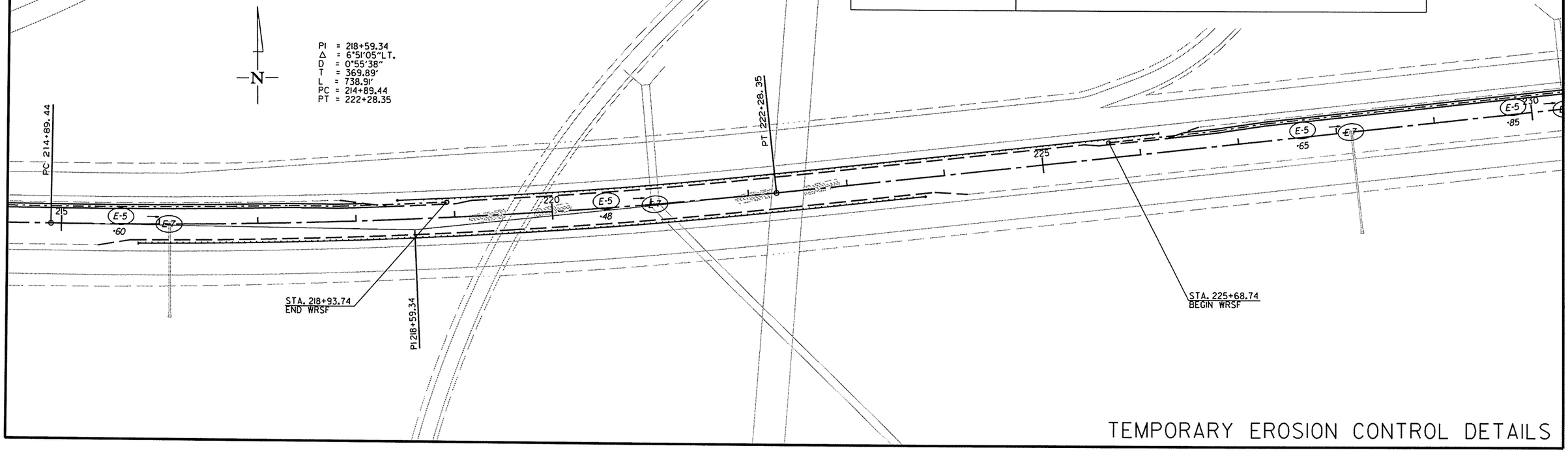
LEGEND

(E-5) = SAND BAG DITCH CHECKS

(E-7) = DROP INLET SILT FENCE

REVISIONS

DATE OF REVISION	REVISION



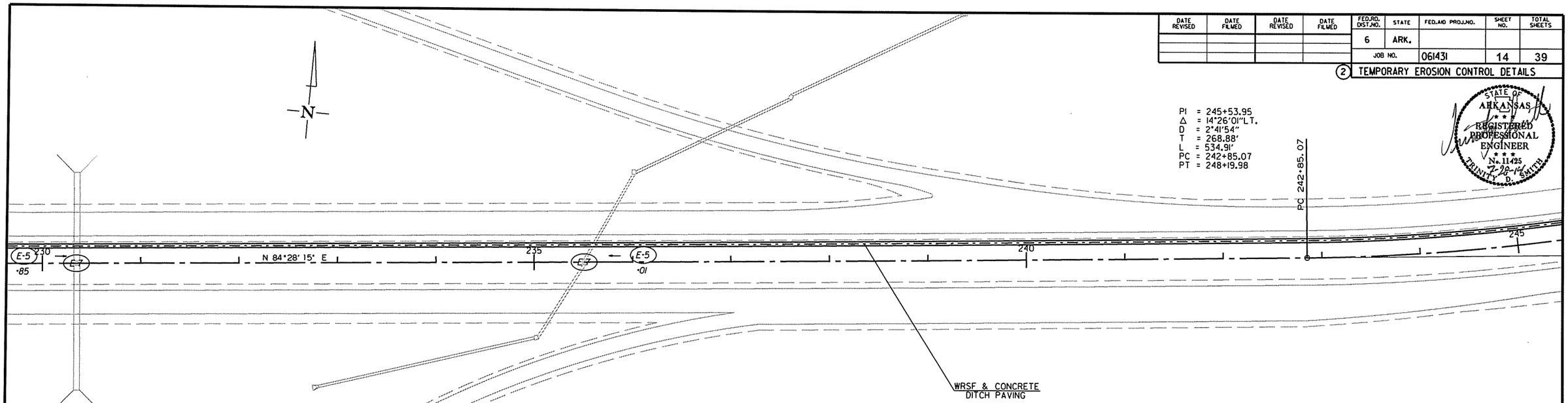
7/25/2014

R061431.DGN

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.		061431	14	39

(2) TEMPORARY EROSION CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
7-28-14
TRINITY D. SMITH

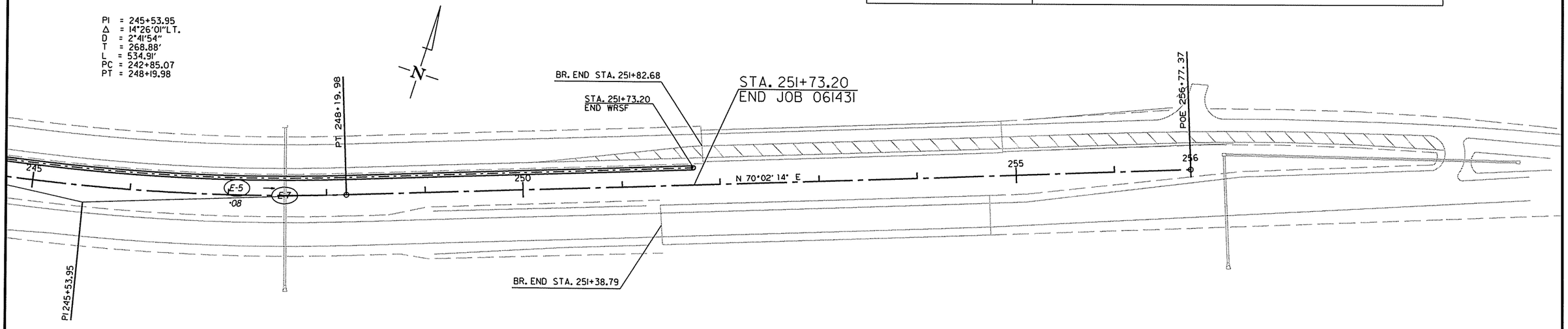
LEGEND

E-5 = SAND BAG DITCH CHECKS

E-7 = DROP INLET SILT FENCE

REVISIONS

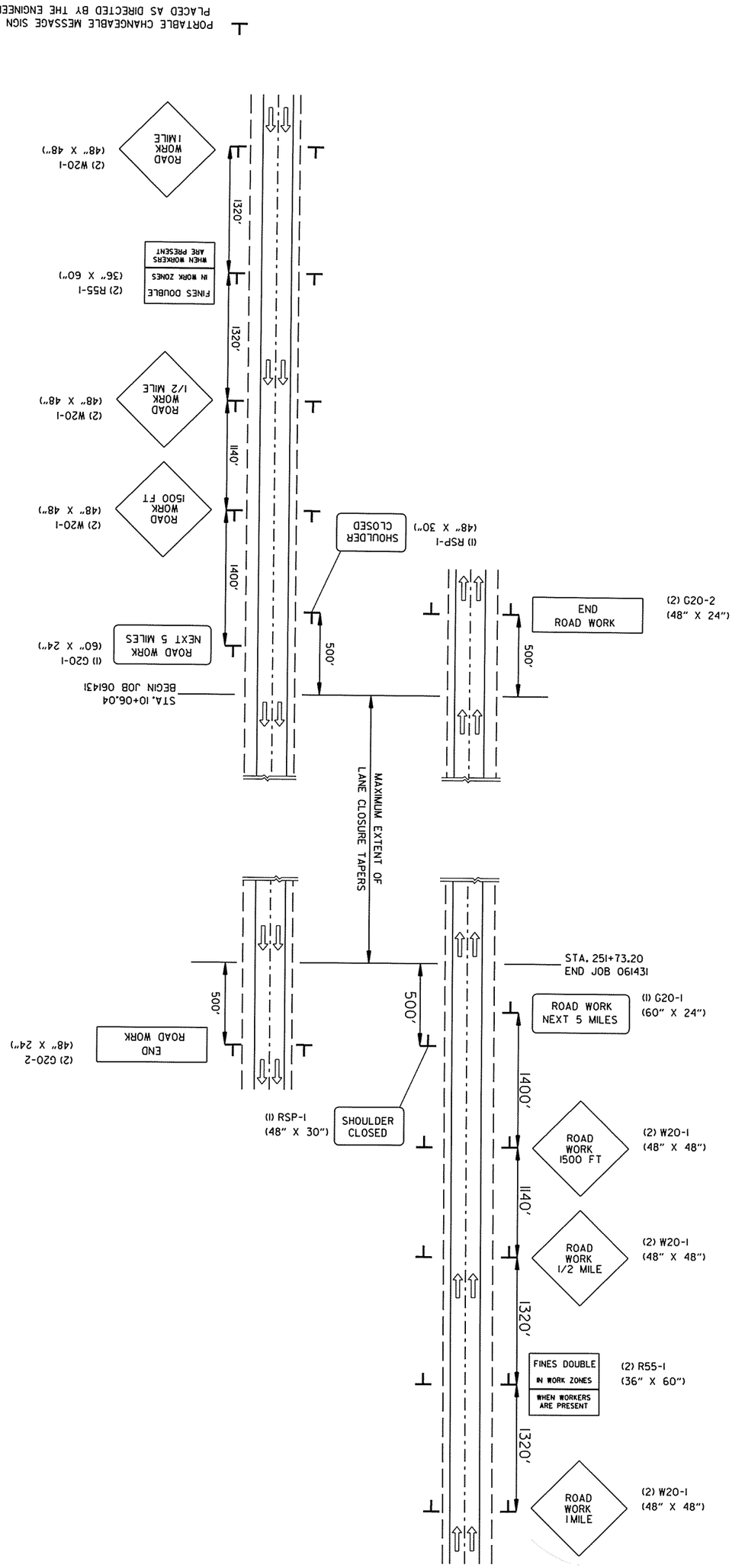
DATE OF REVISION	REVISION



7/25/2014

R061431.DGN

TEMPORARY EROSION CONTROL DETAILS



MAINTENANCE OF TRAFFIC
ADVANCE SIGNS AT JOB ENDS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	061431	15	39

(2) MAINTENANCE OF TRAFFIC

JOB NO.

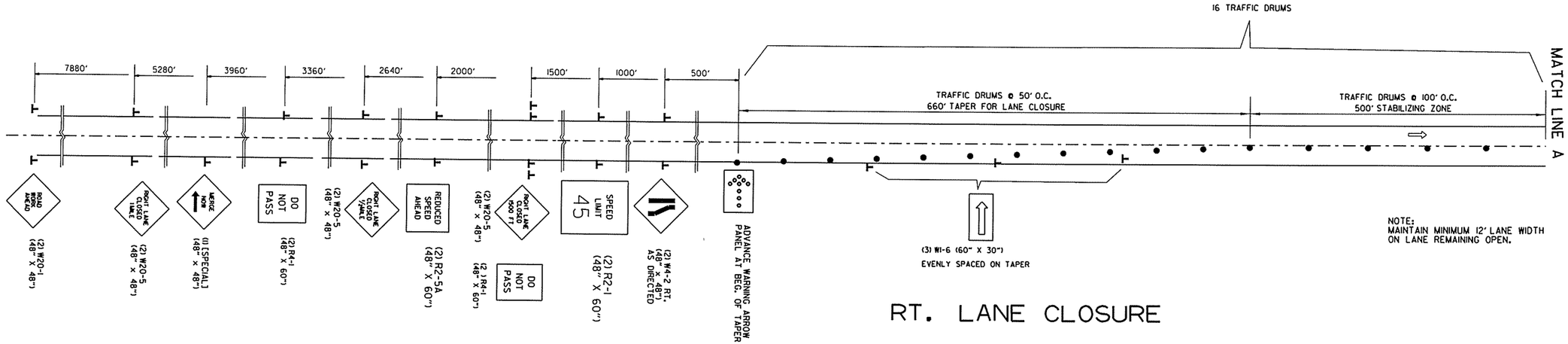
PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
KRISTY D. SMITH
7-28-14

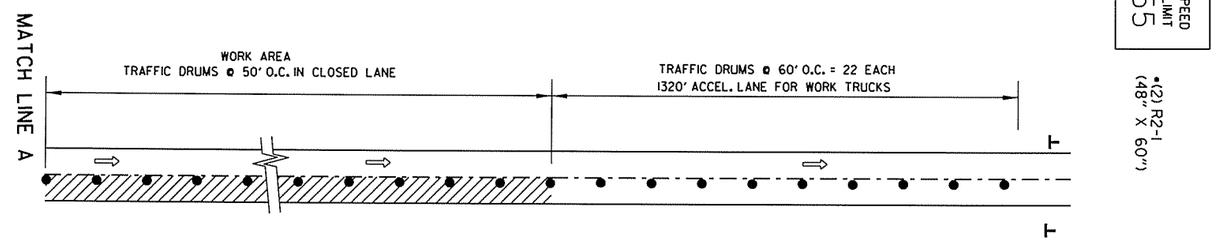
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	16	39

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-29-14

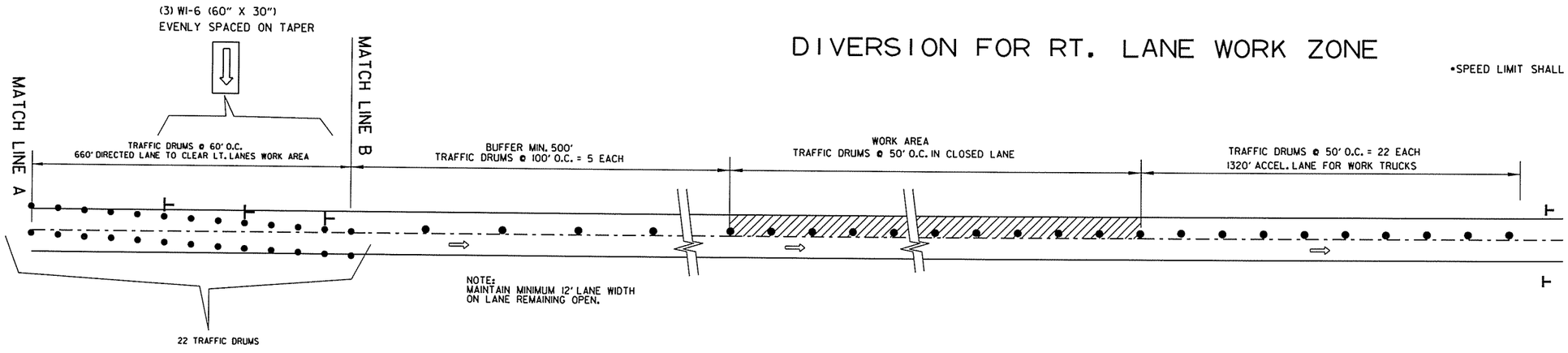


RT. LANE CLOSURE



DIVERSION FOR RT. LANE WORK ZONE

•SPEED LIMIT SHALL MATCH PERMANENT SPEED LIMIT.



DIVERSION FOR LT. LANE WORK ZONE

MAINTENANCE OF TRAFFIC LANE CLOSURE

7/3/2014

R061431.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	17	39

(2) MAINTENANCE OF TRAFFIC

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REGISTERED PROFESSIONAL ENGINEER
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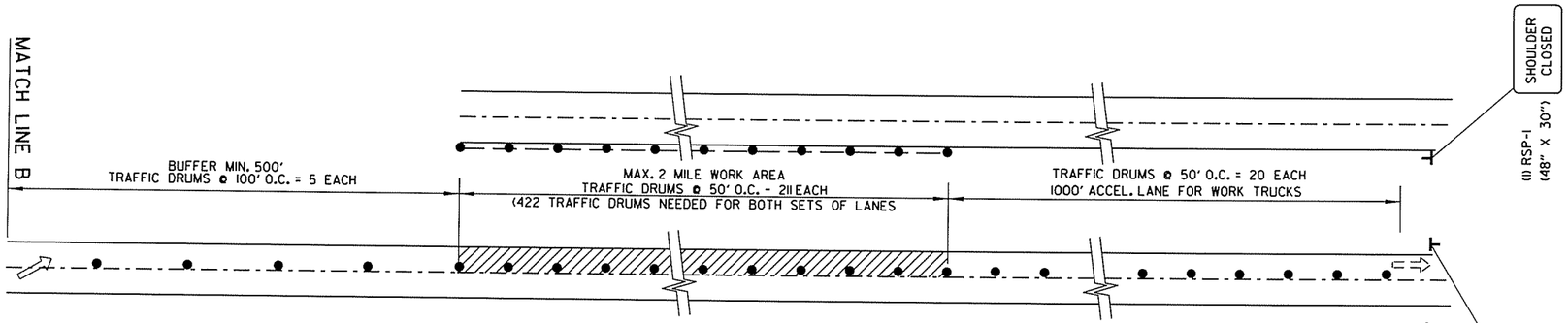
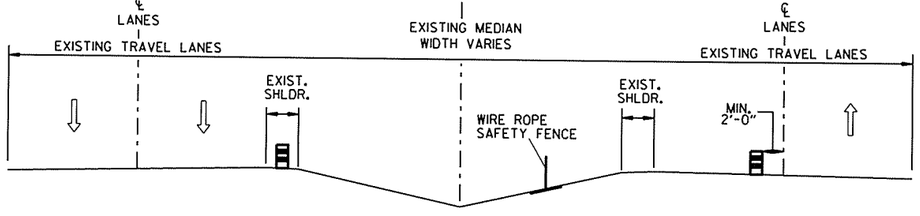


WORK VEHICLE ENTRY LOCATION

WORK VEHICLE EXIT LOCATION

•SPEED LIMIT SHALL MATCH PERMANENT SPEED LIMIT.



TRAFFIC DRUM PLACEMENT FOR LANE CLOSURE

NOTES:
CONTRACTOR MUST UTILIZE ENTRY/EXIT LOCATION AS SHOWN ON THE PLANS.

REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR LANE CLOSURE LIMITATIONS AND RESTRICTIONS. TRAFFIC DRUMS PROVIDED IN CONTRACT ARE THE MAXIMUM NEEDED FOR ONE LANE CLOSURE IN ONE DIRECTION.

MOVABLE WORK ZONE FOR WRSF INSTALLATION

7/3/2014

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ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMPS
ROAD WORK AHEAD (8) = 128 SQ. FT.
END ROAD WORK (10) = 80 SQ. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	18	39

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
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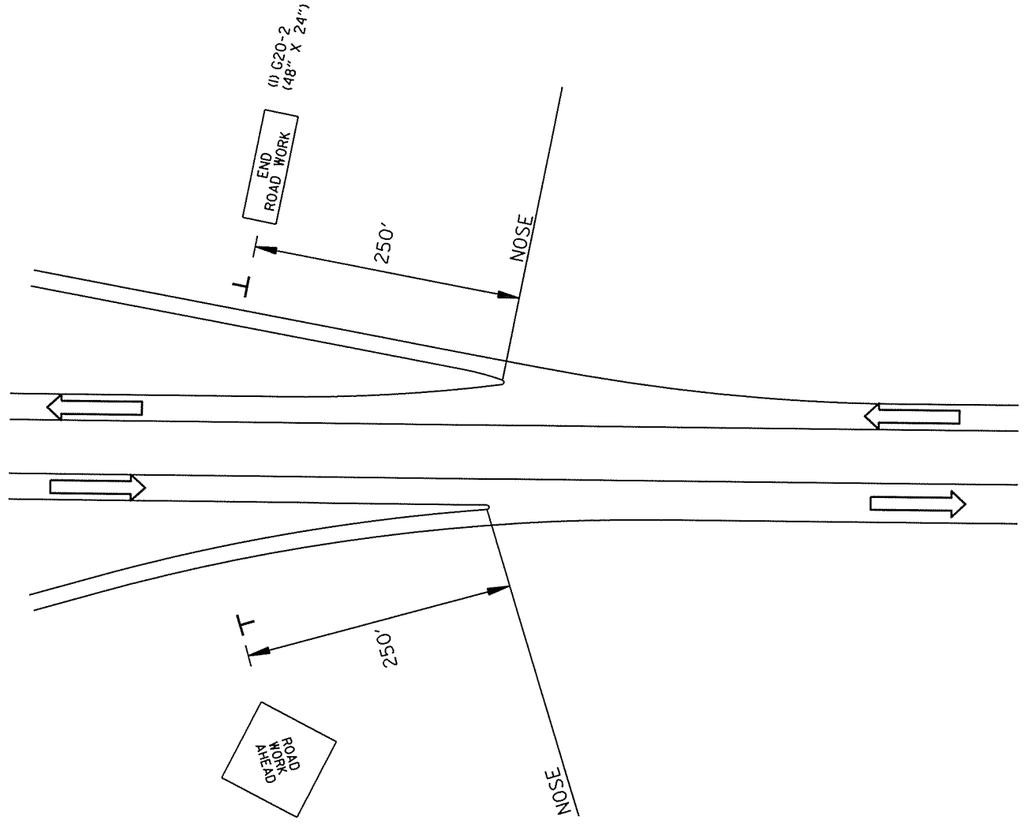

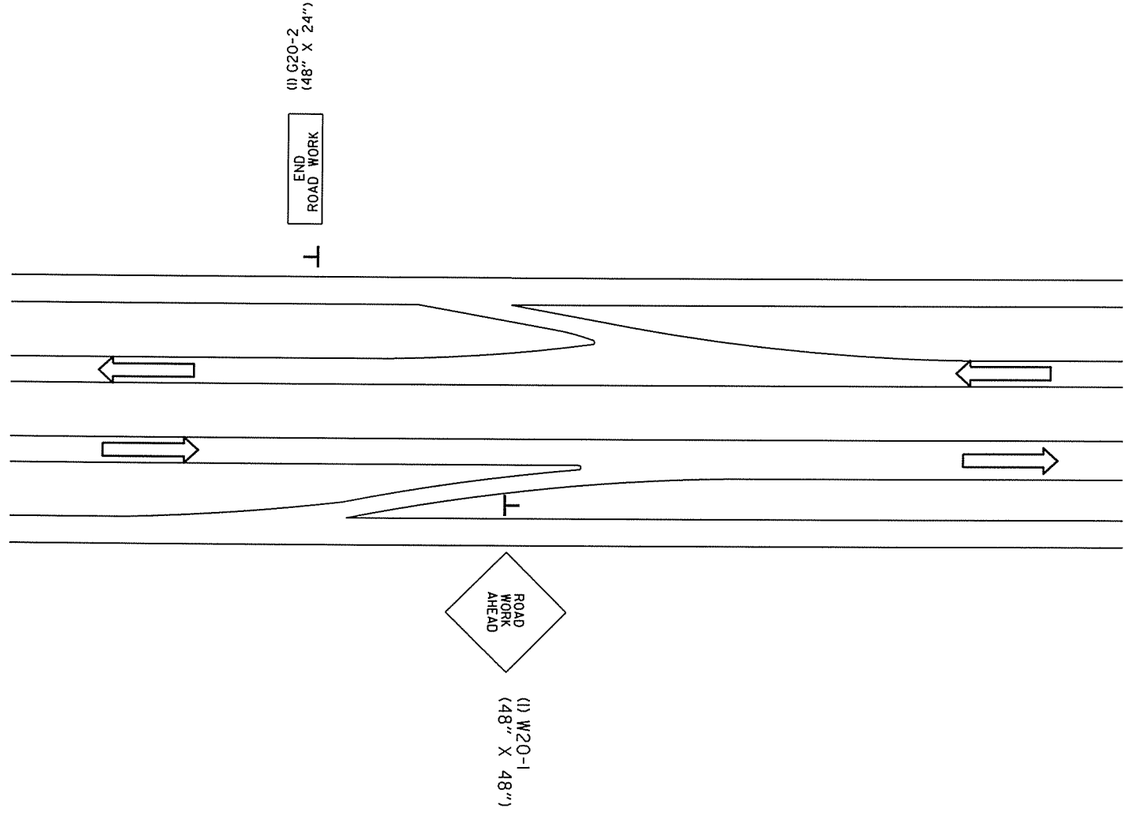

DETAIL OF ENTRANCE AND EXIT RAMPS

7/3/2014

R061431.DGN

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	19	39
				(2) QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	ENTIRE PROJECT	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN
			LIN. FT. - EACH		NO.	SQ. FT.	EACH	DAY	WEEK
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	4	64.0			
W20-1	ROAD WORK 1/2 MILE	48"x48"	4	4	4	64.0			
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	64.0			
W20-1	ROAD WORK AHEAD	48"x48"	10	10	10	160.0			
G20-2	END ROAD WORK	48"x24"	12	12	12	96.0			
G20-1	ROAD WORK NEXT XX MILES	60"x24"	2	2	2	20.0			
R55-1	FINES DOUBLE IN WORK ZONES	36"X60"	4	4	4	60.0			
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2	2	2	32.0			
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2	2	2	32.0			
W20-5	RIGHT LANE CLOSED 1500 FT.	48"x48"	2	2	2	32.0			
R2-5A	REDUCED SPEED AHEAD	48"X60"	2	2	2	40.0			
[SPECIAL]	MERGE NOW W/ ARROW	48"x48"	1	1	1	16.0			
W1-6	LARGE ARROW	60"X30"	6	6	6	75.0			
R4-1	DO NOT PASS	48"X60"	4	4	4	80.0			
RSP-1	SHOULDER CLOSED	48"x30"	3	3	3	30.0			
R2-1	SPEED LIMIT 45 MPH	48"X60"	2	2	2	40.0			
R2-1	SPEED LIMIT 55 MPH	48"X60"	2	2	2	40.0			
W4-2 RT.	MERGE RIGHT	48'X48"	2	2	2	32.0			
	TRAFFIC DRUMS		485	485			485		
	ADVANCE WARNING ARROW PANEL		1	1				35	
	PORTABLE CHANGEABLE MESSAGE SIGN		2	2					42
TOTALS:						**977.0**	**485**	**35**	**42**

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

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR ONE WORK AREA OF 2 MILES. HOWEVER, THE INSTALLATION OF TRAFFIC DRUMS SHALL NEVER EXCEED THE ACTUAL WORK AREA BY MORE THAN 1/4 MILE, UNLESS APPROVED BY THE ENGINEER.

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				6	ARK.			
				JOB NO.		061431	20	39

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH	
69+28.10	74+28.10	HWY. 70B - LEFT OF RIGHT MAIN LANES	450	1	1
71+78.03	76+78.03	HWY. 70B - RIGHT OF LEFT MAIN LANES	450	1	1
188+63.01	193+63.01	HWY. 70B - LEFT OF RIGHT MAIN LANES	450	1	1
191+16.03	196+16.03	HWY. 70B - RIGHT OF LEFT MAIN LANES	450	1	1
215+80.47	223+80.47	HWY. 70B - LEFT OF RIGHT MAIN LANES	750	1	1
218+43.74	226+18.74	HWY. 70B - RIGHT OF LEFT MAIN LANES	725	1	1
TOTALS:			3275	6	6

REMOVAL AND DISPOSAL ITEMS

STATION	LOCATION	IMPACT ATTENUATION BARRIER
		EACH
73+03	MAIN LANES	2
192+69	MAIN LANES	2
219+68	MAIN LANES	2
222+40	MAIN LANES	2
TOTAL:		8

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
10+21.89	23+59.41	LEFT OF RIGHT MAIN LANES	1337.52	4	594.45	594.45	7.49
31+89.87	69+06.00	LEFT OF RIGHT MAIN LANES	3716.13	4	1651.61	1651.61	20.81
74+50.00	110+67.87	LEFT OF RIGHT MAIN LANES	3617.87	4	1607.94	1607.94	20.26
117+04.77	190+94.03	RIGHT OF LEFT MAIN LANES	7389.26	4	3284.12	3284.12	41.38
196+38.03	218+21.74	RIGHT OF LEFT MAIN LANES	2183.71	4	970.54	970.54	12.23
226+36.99	251+73.20	RIGHT OF LEFT MAIN LANES	2536.21	4	1127.20	1127.20	14.20
TOTALS:					9235.86	9235.86	116.37

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

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL					
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	DROP INLET SILT FENCE (E-7)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	BAG	LIN. FT.	CU. YD.
ENTIRE	PROJECT	MAIN LANES	5.13	10.26	5.13	523.3	5.13				836	900	71
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			1.28	2.56	1.28	130.6	1.28	6.41	6.41	130.8	209	225	8
TOTALS:			6.41	12.82	6.41	653.9	6.41	6.41	6.41	130.8	1045	1125	79

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
DROP INLET SILT FENCE.....25 LIN. FT./LOCATION

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

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

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QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	21	39

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION
			CU. YD.
68+70.10	74+86.10	LEFT OF RIGHT MAIN LANES	894
71+35.03	77+21.03	RIGHT OF LEFT MAIN LANES	870
188+20.01	194+06.01	LEFT OF RIGHT MAIN LANES	870
190+58.03	196+74.03	RIGHT OF LEFT MAIN LANES	894
215+37.47	224+23.47	LEFT OF RIGHT MAIN LANES	1107
217+85.74	226+76.74	RIGHT OF LEFT MAIN LANES	1343
TOTAL:			5978

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

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE	* WRSF ANCHOR	WRSF MAINTENANCE MATERIALS	**WRSF POST REPAIR
			LIN. FT.	EACH	LUMP SUM	EACH
10+21.89	23+59.41	LEFT OF RIGHT MAIN LANES	1337.52	2		
31+89.87	69+78.10	LEFT OF RIGHT MAIN LANES	3788.23	2		
73+78.10	110+67.87	LEFT OF RIGHT MAIN LANES	3689.77	2		
117+04.77	191+66.03	RIGHT OF LEFT MAIN LANES	7461.26	2		
195+66.03	218+93.74	RIGHT OF LEFT MAIN LANES	2327.71	2		
225+68.74	251+73.20	RIGHT OF LEFT MAIN LANES	2604.46	2		
ENTIRE	PROJECT				1.00	50
TOTALS:			21208.95	12	1.00	50

* SHOWN FOR INFORMATION ONLY.
** QUANTITY ESTIMATED
SEE SECTION 104.03 OF THE STD. SPECS.

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22
			FEET			FEET			TON
WIDENING FOR GUARDRAIL									
68+70.10	74+86.10	HWY. 70B - LEFT OF RIGHT MAIN LANES	616.00	VAR.	200.75	VAR.	590.84	220.00	64.99
71+35.03	77+21.03	HWY. 70B - RIGHT OF LEFT MAIN LANES	586.00	VAR.	186.75	VAR.	522.46	220.00	57.47
188+20.01	194+06.01	HWY. 70B - LEFT OF RIGHT MAIN LANES	586.00	VAR.	123.25	VAR.	337.93	220.00	37.17
190+58.03	196+74.03	HWY. 70B - RIGHT OF LEFT MAIN LANES	616.00	VAR.	136.00	VAR.	399.00	220.00	43.89
215+37.47	224+23.47	HWY. 70B - LEFT OF RIGHT MAIN LANES	886.00	VAR.	254.00	VAR.	521.49	220.00	57.36
217+85.74	226+76.74	HWY. 70B - RIGHT OF LEFT MAIN LANES	891.00	VAR.	197.25	VAR.	564.27	220.00	62.07
TOTALS:					1098.00		2935.99		322.95

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....95.0% MIN. AGGR.....5.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

7/25/2014

R06143I.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	22	39

(2) SUMMARY OF QUANTITIES & REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
8-14-14

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
210	UNCLASSIFIED EXCAVATION	5978	CU. YD.
303	AGGREGATE BASE COURSE (CLASS 7)	1098	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	307	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	16	TON
601	MOBILIZATION	1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
604	SIGNS	977	SQ. FT.
604	TRAFFIC DRUMS	485	EACH
604	ADVANCE WARNING ARROW PANEL	35	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	42	WEEK
SP & 605	CONCRETE DITCH PAVING (TYPE B)	9236	SQ. YD.
617	GUARDRAIL (TYPE A)	3275	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)	6	EACH
617	TERMINAL ANCHOR POSTS (TYPE 1)	6	EACH
620	LIME	13	TON
620	SEEDING	6.41	ACRE
SS & 620	MULCH COVER	12.82	ACRE
620	WATER	901.1	M.GAL.
621	TEMPORARY SEEDING	6.41	ACRE
621	SAND BAG DITCH CHECKS	1045	BAG
621	DROP INLET SILT FENCE	1125	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	79	CU. YD.
623	SECOND SEEDING APPLICATION	6.41	ACRE
624	SOLID SODDING	9236	SQ. YD.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	8	EACH
SP	WIRE ROPE SAFETY FENCE	21209	LIN. FT.
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS	1.00	LUMP SUM
SP	WIRE ROPE SAFETY FENCE (POST REPAIR)	50	EACH

REVISIONS

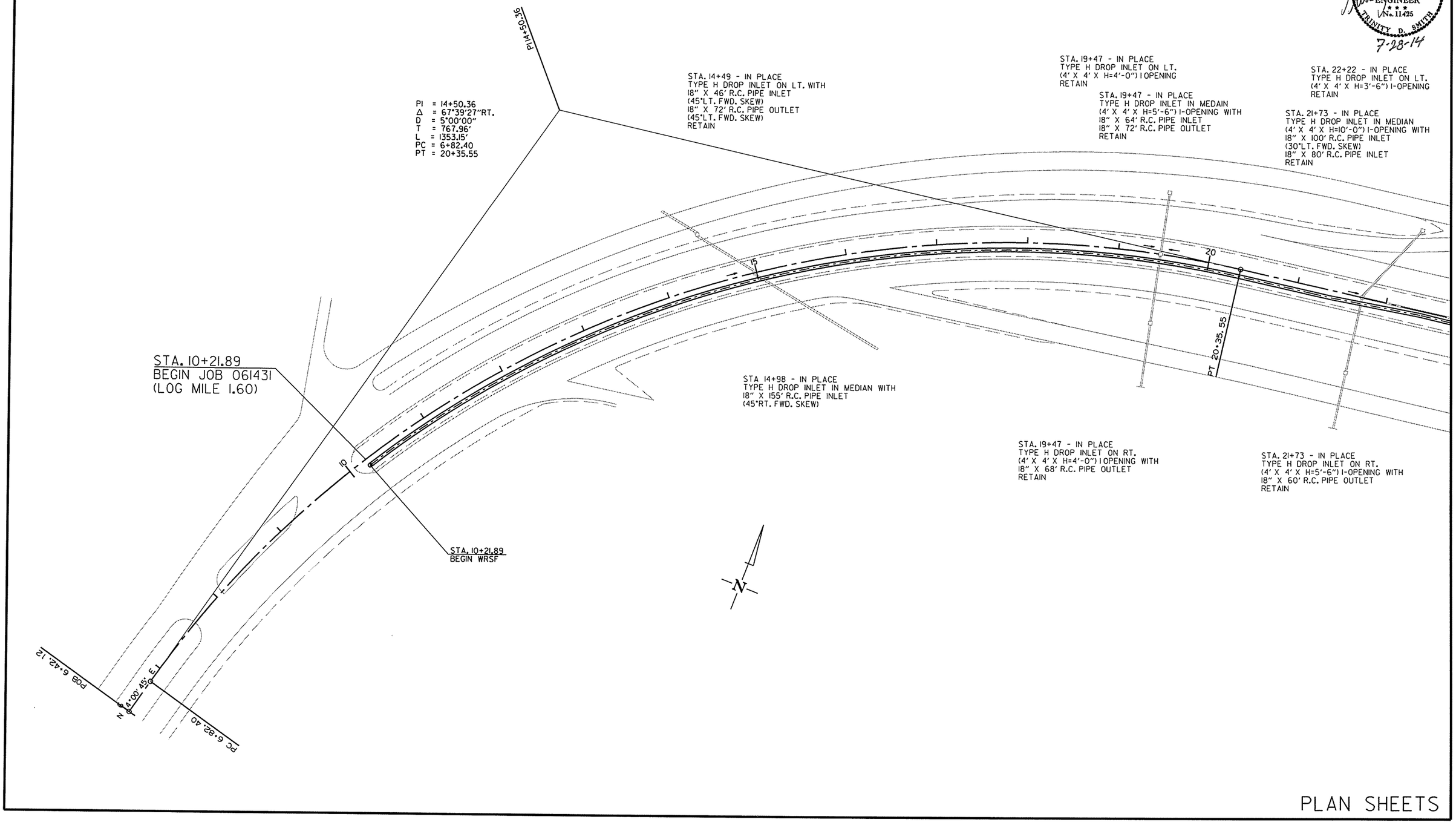
DATE	REVISION	SHEET NUMBER

8/14/2014

ZBORDER.CEL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	23	39
				(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14



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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.		061431	24	39
				(2) PLAN SHEETS				

STA. 21+73 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H=10'-0") 1-OPENING WITH
18" X 100' R.C. PIPE INLET
(30°LT. FWD. SKEW)
18" X 80' R.C. PIPE INLET
RETAIN

STA. 22+22 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H=3'-6") 1-OPENING
RETAIN

STA. 24+76 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' H=3'-0") 2-OPENINGS WITH
18" X 300' R.C. PIPE OUTLET
CONNECTED TO DROP INLET AT STA. 21+73
RETAIN

STA. 31+27 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 3'-6") 2-OPENINGS
RETAIN

STA. 31+27 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H=10'-0") 2-OPENINGS WITH
18" X 76' R.C. PIPE INLET
18" X 72' R.C. PIPE OUTLET
RETAIN

GULPHA CREEK

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
2-26-14
TRINITY D. SMITH

BR. END. STA. 25+34.93
BR. END. STA. 28+17.96
BR. END. STA. 26+67.10
BR. END. STA. 30+40.13

B3081
B2942
A3081
A2942

20
25
30
35
N 81°40' 12" E

PT 20+35.55
PC 32+22.96

BR. END. STA. 25+34.93
BR. END. STA. 26+67.10
BR. END. STA. 28+17.96
BR. END. STA. 30+40.13

STA. 23+59.41 END WRSF
BEGIN EXCEPTION TO
JOB 061431

STA. 21+73 - IN PLACE
TYPE H DROP INLET ON RT.
(4' X 4' X H=5'-6") 1-OPENING WITH
18" X 60' R.C. PIPE OUTLET
RETAIN

STA. 31+27 - IN PLACE
TYPE H DROP INLET ON RT.
(4' X 4' X H= 3'-6") 2-OPENINGS WITH
18" X 68' R.C. PIPE OUTLET
RETAIN

STA. 31+89.87 BEGIN WRSF
END EXCEPTION TO
JOB 061431

N

STA. 39+19 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 6'-0") 1-OPENING WITH
18" X 70' R.C. PIPE INLET
(15°RT. FWD. SKEW)
RETAIN

STA 39+35 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 6'-0") 1-OPENING WITH
18" X 60' R.C. PIPE INLET
(15°RT. FWD. SKEW)
18" X 82' R.C. PIPE OUTLET
(15°RT. FWD. SKEW)
RETAIN

35
40
45
50

WRSF & CONCRETE
DITCH PAVING

STA. 39+58 - IN PLACE
TYPE H DROP INLET ON RT.
(4' X 4' X H= 3'-6") 2-OPENINGS WITH
18" X 48' R.C. PIPE OUTLET
(15°RT. FWD. SKEW)
RETAIN

STA. 42+38 - IN PLACE
4' X 6' X 570' R.C. BOX CULV'T.
APPROX. 60°LT. FWD. SKEW
RETAIN

STA. 44+26 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 10'-0") 1-OPENING
18" X 85' R.C. PIPE OULET
(APPROX. 45°RT. FWD. SKEW)
CONNECTED TO R.C. BOX CULV'T
RETAIN

PI = 54+27.09
Δ = 49°33'33"RT.
D = 1°12'00"
T = 2204.13'
L = 4129.93'
PC = 32+22.96
PT = 73+52.89

N

PLAN SHEETS

7/25/2014

R061431.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061431	25	39
				(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-28-14

STA. 54+45 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 5'-6") 2-OPENINGS WITH
24" X 64' R.C. PIPE INLET
24" X 72' R.C. PIPE OUTLET
RETAIN

STA. 60+24 - IN PLACE
8' X 8' X H= 5'-6" JCT. BOX WITH
TYPE K DROP INLET ON LT.
(4' X 4' X H= 3'-0") I-OPENING WITH
60" X 88' R.C. PIPE INLET
(45°RT. FWD. SKEW)
RETAIN

STA. 60+92 - IN PLACE
8' X 8' X H= 5'-6" JCT. BOX WITH
TYPE K DROP INLET IN MEDIAN
(4' X 4' X H= 5'-0") I-OPENING WITH
60" X 96' R.C. PIPE INLET
(45°RT. FWD. SKEW)
RETAIN

50 55 60 65

STA. 54+45 - IN PLACE
TYPE H DROP INLET ON RT.
(4' X 4' X H= 5'-6") 2-OPENINGS WITH
24" X 68' R.C. PIPE OUTLET
RETAIN

PI = 54+27.09
Δ = 49°33'33"RT.
D = 1°12'00"
T = 2204.13'
L = 4129.93'
PC = 32+22.96
PT = 73+52.89

WRSF & CONCRETE DITCH PAVING

STA. 60+92 - IN PLACE
TYPE H DROP INLET ON RT.
(4' X 4' X H= 3'-0") I-OPENING WITH
18" X 72' R.C. PIPE OUTLET
RETAIN

STA. 66+00 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 3'-0") I-OPENING WITH
18" X 68' R.C. PIPE OUTLET
RETAIN

STA. 66+18 - IN PLACE
8' X 8' X H= 5'-6" JCT. BOX IN WITH
TYPE K DROP INLET IN MEDIAN
(4' X 4' X H= 2'-0") I-OPENING WITH
60" X 492' R.C. PIPE INLET
CONNECTED TO DROP INLET STA. 60+92
60" X 420' R.C. PIPE OUTLET
RETAIN

STA. 70+80 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 5'-6") I-OPENING
24" X 128' R.C. PIPE INLET
(30°RT. FWD. SKEW)
RETAIN

STA. 79+63 - IN PLACE
6' X 6' X 320' R.C. BOX CULV'T.
(APPROX. 55°LT. FWD. SKEW)
TYPE K DROP INLET IN MEDIAN & ON LT.
(4' X 3' X H= 1'-0") I-OPENING
RETAIN

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 73+03 C.L. OF HWY. 70 = 2 EACH

65 70 75 80

S 48°46'15" E

STA 69+78.10
END WRSF

PT 73+52.89

STA. 73+78.10
BEGIN WRSF

PC 78+37.37

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
69+28.10	74+28.10	R.M.L. - LT.	450 LIN. FT.	IEA.	IEA.
71+78.03	76+78.03	R.M.L. - RT.	450 LIN. FT.	IEA.	IEA.

STA. 66+18 - IN PLACE
TYPE H DROP INLET ON RT
(4' X 4' X H= 3'-0") I-OPENING WITH
18" X 168' R.C. PIPE INLET
18" X 60' R.C. PIPE OUTLET
RETAIN

STA. 70+80 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 5'-6") I-OPENING WITH
24" X 80' R.C. PIPE INLET
(30°RT. FWD. SKEW)
24" X 80' R.C. PIPE OUTLET
(30°RT. FWD. SKEW)
RETAIN

PI = 54+27.09
Δ = 49°33'33"RT.
D = 1°12'00"
T = 2204.13'
L = 4129.93'
PC = 32+22.96
PT = 73+52.89

PI = 80+51.53
Δ = 4°16'52"RT.
D = 1°00'00"
T = 214.16'
L = 428.12'
PC = 78+37.37
PT = 82+65.49

PLAN SHEETS

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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.		061431	26	39
				(2) PLAN SHEETS				

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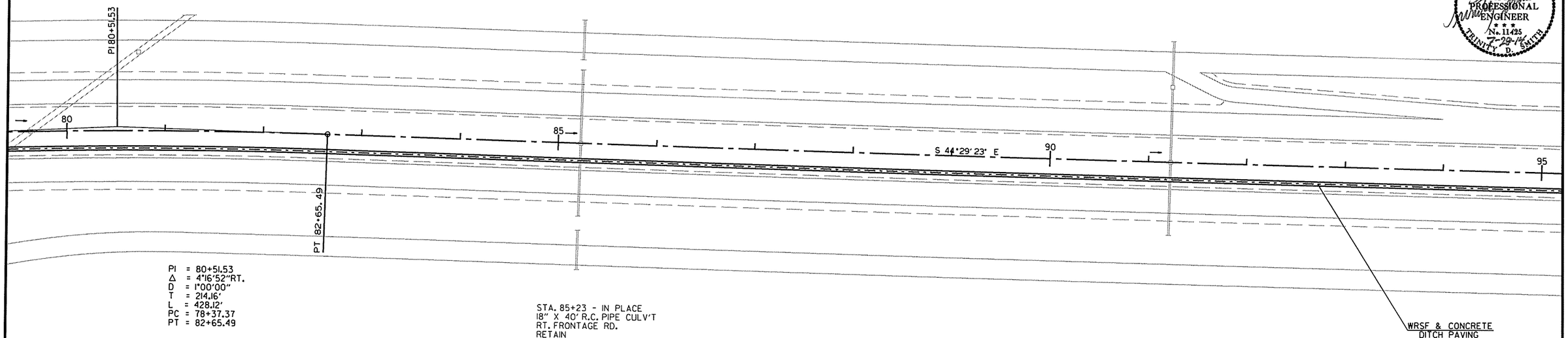
7-29-14
TRINITY D. SMITH

STA. 79+63 - IN PLACE
6' X 6' X 320' R.C. BOX CULV'T.
(APPROX. 55°LT. FWD. SKEW)
TYPE K DROP INLET IN MEDIAN & ON LT.
(4' X 3' X H= 1'-0") 1-OPENING
RETAIN

STA. 85+23 - IN PLACE
18" X 40' R.C. PIPE CULV'T
LT. FRONTAGE RD.
RETAIN

STA. 85+23 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 3'-0") 1-OPENING WITH
18" X 72' R.C. PIPE INLET
18" X 72' R.C. PIPE OUTLET
RETAIN

STA. 91+22 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 4'-0") 1-OPENING
18" X 44' R.C. PIPE OUTLET
RETAIN



PI = 80+51.53
Δ = 4°16'52"RT.
D = 1°00'00"
T = 214.16'
L = 428.12'
PC = 78+37.37
PT = 82+65.49

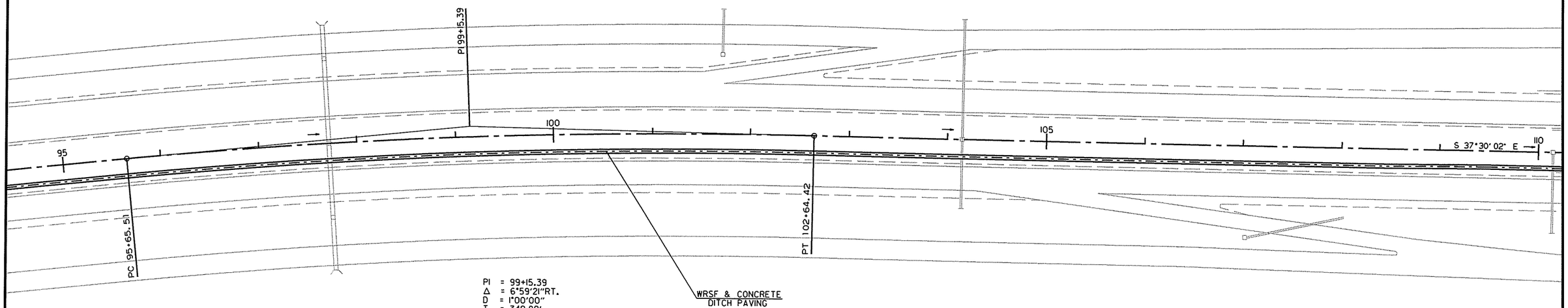
STA. 85+23 - IN PLACE
18" X 40' R.C. PIPE CULV'T
RT. FRONTAGE RD.
RETAIN

STA. 97+72 - IN PLACE
4' X 6' X 250' R.C. BOX CULV'T
TYPE K DROP INLETS IN MEDIAN
& ON LT. AND RT.
(4' X 4' X H= 1'-0") 1-OPENING
RETAIN

STA. 101+71 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 3'-0") 2-OPENINGS
18" X 44' R.C. PIPE OUTLET
RETAIN

STA. 104+15 - IN PLACE
TYPE H DROP INLET IN MEDAIN
(4' X 4' X H= 3'-0") 1-OPENING WITH
18" X 68' R.C. PIPE INLET
18" X 120' R.C. PIPE OUTLET
RETAIN

STA. 91+22 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 3'-0") 1-OPENING WITH
18" X 72' R.C. PIPE INLET
18" X 72' R.C. PIPE OUTLET
RETAIN



PI = 99+15.39
Δ = 6°59'21"RT.
D = 1°00'00"
T = 349.89'
L = 698.91'
PC = 95+65.51
PT = 102+64.42

STA. 107+03 - IN PLACE
TYPE H DROP INLET ON RT.
(4' X 4' X H= 3'-6") 1-OPENING WITH
18" X 100' R.C. PIPE OUTLET
RETAIN

PLAN SHEETS

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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.		061431	27	39
				(2) PLAN SHEETS				

STA. 110+15 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 4'-6") 2-OPENINGS WITH
18" X 80' R.C. PIPE OUTLET
RETAIN

STA. 123+14 - IN PLACE
TYPE H DROP INLET ON LT.
(4' X 4' X H= 3'-0") 2-OPENINGS
RETAIN

STA. 121+63 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 3'-0") 1-OPENING
18" X 172 R.C. PIPE INLET
(60°LT. FWD SKEW)
18" X 96 R.C. PIPE OUTLET
(30°LT. FWD. SKEW)
RETAIN

PI = 130+82.94
Δ = 53°49'33"LT.
D = 2°00'00"
T = 1454.20'
L = 2691.29'
PC = 116+28.74
PT = 143+20.04

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BR. END. STA. 112+30.18

BR. END. STA. 114+96.74

PC 116+28.74

STA. 117+04.77 BEGIN WRSF
END EXCEPTION TO
JOB 061431

02° E

110

B2943

115

A2943

120

125

BR. END. STA. 112+75.79

STA. 110+67.87 END WRSF
BEGIN EXCEPTION TO
JOB 061431

BR. END. STA. 115+42.35

MIDDLE BRANCH GULPHA CREEK

STA. 115+61 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 5'-0") 1-OPENING
18" X 112' R.C. PIPE OUTLET
RETAIN

STA. 125+66 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 4' X H= 1'-0") 1-OPENING WITH
24" X 144' R.C. PIPE INLET
24" X 196' R.C. PIPE OUTLET
(45°LT. FWD. SKEW)
RETAIN

STA. 115+61 - IN PLACE
TYPE H DROP INLET ON RT.
18" X 60' R.C. PIPE OUTLET
RETAIN

STA. 133+92 - IN PLACE
TYPE H DROP INLET ON RT.
36" X 72' R.C. PIPE INLET
(45° LT. FWD. SKEW)
36" X 108' R.C. PIPE OUTLET
(45°LT. FWD. SKEW)
RETAIN

PI = 130+82.94
Δ = 53°49'33"LT.
D = 2°00'00"
T = 1454.20'
L = 2691.29'
PC = 116+28.74
PT = 143+20.04

125

130

135

140

WRSF & CONCRETE
DITCH PAVING

STA. 133+13 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 5' X H= 11'-0") 1-OPENING
36" X 120 R.C. PIPE OUTLET
(45°LT. FWD. SKEW)
RETAIN

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PLAN SHEETS

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				6	ARK.			
				JOB NO.		061431	28	39
				(2) PLAN SHEETS				

PI = 130+82.94
Δ = 53°49'33"LT.
D = 2°00'00"
T = 1454.20'
L = 2691.29'
PC = 116+28.74
PT = 143+20.04

STA. 142+16 - IN PLACE
TYPE H DROP INLET ON LT.
42" X 60' R.C. PIPE INLET
42" X 68' R.C. PIPE OULET
RETAIN

STA. 142+16 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 6' X H= 5'-0") 2-OPENINGS
42" X 80' R.C. PIPE OUTLET
RETAIN

STA. 146+74 - IN PLACE
TYPE H DROP INLET ON LT. WITH
36" X 48' R.C. PIPE INLET
36" X 68' R.C. PIPE OUTLET
RETAIN

STA. 151+81 - IN PLACE
42" X 40' R.C. PIPE CULV'T.
LT. FRONTAGE RD.
RETAIN

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PT 143+20.04

140 145 150 155

WRSF & CONCRETE DITCH PAVING

STA. 142+16 - IN PLACE
TYPE H DROP INLET ON RT
42" X 50' R.C. PIPE OUTLET
RETAIN

STA. 146+74 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 5' X H= 4'-6") I-OPENING
36" X 80' R.C. PIPE OUTLET
RETAIN

STA. 146+74 - IN PLACE
TYPE H DROP INLET ON RT. WITH
36" X 50' R.C. PIPE OUTLET
RETAIN

STA. 151+81 - IN PLACE
TYPE H DROP INLET IN MEDIAN
(4' X 6' X H= 5'-6") I-OPENING WITH
42" X 64' R.C. PIPE INLET
42" X 84' R.C. PIPE OUTLET
(30°LT. FWD. SKEW)
RETAIN

STA. 155+09 - IN PLACE
DBL. 36" X 42' R.C. PIPE CULV'T.
(30°LT. FWD. SKEW)
RT. FRONTAGE RD.
RETAIN

STA. 155+72 - IN PLACE
DBL 36" X 225' R.C. PIPE CULV'T WITH
TYPE H DROP INLET IN MEDIAN
(4' X 5' X H= 4'-6") I-OPENING
(30°LT. FWD. SKEW)
RETAIN

STA. 161+21 - IN PLACE
5' X 4' X 289' R.C. PIPE CULV'T.
(30°LT. FWD. SKEW)
TYPE K DROP INLET IN MEDIAN
(4' X 4' X H= 1'-0") I-OPENING
TYPE K DROP INLETS ON LT. & RT.
RETAIN

155 160 165 170

N 88°40' 25" E

WRSF & CONCRETE DITCH PAVING

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PLAN SHEETS

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				JOB NO.		061431	29	39

(2) PLAN SHEETS

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N

170 175 180 185

STA. 173+69 - IN PLACE
TYPE ST DROP INLET IN MEDIAN
(4' X 4' X H= 4'-0") W/
24" X 102' R.C. PIPE OUTLET (CL. III)
WITH HEADWALL
RETAIN

WRSF & CONCRETE DITCH PAVING

STA. 181+04 - IN PLACE
TYPE RM DROP INLET ON LEFT
(4' X 4' X HT= 4'-0")
WITH 30" X 62' R.C. PIPE INLET (CL. III) ON LT.
WITH 30" X 260' R.C. PIPE OUTLET (CL. III) ON RT.
RETAIN

STA. 181+18 - IN PLACE
36" X 356' R.C. PIPE CULV'T
WITH FES RT. & LT.
RETAIN

N

STA. 186+02 - IN PLACE
24" X 170' R.C. PIPE CULV'T WITH
DROP INLET IN MEDIAN
HEADWALL ON LT.
FES ON RT.
RETAIN

PI 187+45.77

185 190 195 200

PC 185+51.86

PT 189+39.60

PI = 187+45.77
Δ = 2°38'54"RT.
D = 0°40'59"
T = 193.90'
L = 387.74'
PC = 185+51.86
PT = 189+39.60

STA. 191+66.03
END WRSF

WOODEN
B/S
PAVED
T
PAVED PARKING
PAVED PARKING

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 192+69 C.L. OF HWY. 70 = 2 EACH

STA. 197+36.16 - IN PLACE
6' X 6' X 84' R.C. BOX CULVT.
6' X 6' X 116' R.C. BOX CULVT. (15°RT. FWD. SKEW)
TOTAL LENGTH OF 200'
RETAIN

STA. 195+66.03
BEGIN WRSF

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
188+63.01	193+63.01	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
191+16.03	196+16.03	R.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.

PLAN SHEETS

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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.		061431	30	39

(2) PLAN SHEETS

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STA. 204+55 - IN PLACE
TYPE RM DROP INLET ON LT.
WITH 30" X 80' PIPE OUTLET (30°RT. FWD. SKEW)
WITH FES
RETAIN

STA. 204+55 - IN PLACE
TYPE RM DROP INLET IN MEDIAN
WITH 30" X 80' R.C. PIPE INLET
WITH 30" X 60' R.C. PIPE OUTLET
RETAIN

STA. 209+53 - IN PLACE
TYPE RM DROP INLET LT.
WITH 30" X 70' R.C. PIPE INLET
(30°RT. FWD. SKEW)
WITH FES
RETAIN

STA. 210+03 - IN PLACE
TYPE RM DROP INLET IN MEDAIN
WITH 30" X 100' R.C. PIPE INLET
(30°RT. FWD. SKEW)
WITH 30" X 60' R.C. PIPE OUTLET
RETAIN

PC 214+89.44

200 — S 88°40'41" E — 205 — 210 — 215

WRSF & CONCRETE DITCH PAVING

STA. 204+55 - IN PLACE
TYPE ST DROP INLET ON RT.
WITH 30" X 2' R.C. STUB OUTLET
RETIAN

STA. 204+55 - IN PLACE
TYPE ST DROP INLET ON RT.
WITH 30" X 72' R.C. PIPE OUTLET
WITH FES (H= 13'-0")
RETAIN

STA. 205+15 - IN PLACE
TYPE ST DROP INLET ON RT.
WITH 18" x 2' STUB OUTLET (H= 4'-6")
RETAIN

STA. 205+15 - IN PLACE
TYPE ST DROP INLET ON RT.
WITH 18" X 46' R.C. PIPE OUTLET
WITH FES (H= 4'-6")
RETAIN

STA. 210+37 - IN PLACE
TYPE ST DROP INLET RT.
WITH 30" X 120' R.C. PIPE OUTLET
WITH FES
RETAIN

STA. 210+35 - IN PLACE
TYPE ST DROP INLET RT.
WITH 30" X 2' STUB OUTLET
(30°RT. FWD. SKEW)
RETAIN

PI = 218+59.34
Δ = 6°51'05"LT.
D = 0°55'38"
T = 369.89'
L = 738.91'
PC = 214+89.44
PT = 222+28.35

STA. 857+98 - IN PLACE
8' X 7' X 12 R.C. BOX CULV'T
WITH TYPE TM DROP INLET IN MEDIAN
(4'-0" X 3'-0" X H= 14'-4")
8' X 7' X 490' R.C. BOX CULV'T
(45°RT. FWD. SKEW)
RETAIN

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 219+68 C.L. OF HWY. 70 = 2 EACH
STA. 222+40 C.L. OF HWY. 70 = 2 EACH

PC 214+89.44

PT 222+28.35

215 — 220 — 225 — 230

STA. 218+93.74
END WRSF

PI 218+59.34

STA. 225+68.74
BEGIN WRSF

STA 216+10 - IN PLACE
TYPE RM DROP INLET IN MEDIAN
WITH 18" X 86' R.C. PIPE OUTLET
(H= 2'-5")
RETAIN

STA. 228+15 - IN PLACE
TYPE RM DROP INLET IN MEDIAN
(4'-0" X 3'-0" X H= 2'-5")
WITH 18" X 96' R.C. PIPE OUTLET
WITH FES
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
215+80.47	223+80.47	R.M.L. - LT.	750 LIN. FT.	1EA.	1EA.
218+43.74	226+18.74	R.M.L. - RT.	725 LIN. FT.	1EA.	1EA.

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				6	ARK.			
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				(2) PLAN SHEETS				

STA. 230+35 - IN PLACE
6' X 8' X 220' R.C. BOX CULV'T
WITH TYPE TM DROP INLET IN MEDIAN
(4'-0" X 3'-0" X H= 13'-2")
RETAIN

STA. 236+02 - IN PLACE
TYPE RM DROP INLET ON LT.
(6'-1" X 3'-0" X H=19'-8")
WITH 36" X
RETAIN

PI = 245+53.95
Δ = 14°26'01"LT.
D = 2°41'54"
T = 268.88'
L = 534.91'
PC = 242+85.07
PT = 248+19.98

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PC 242+85.07

230 — N 84°28' 15" E — 235 — 240 — 245

STA. 235+02 - IN PLACE
TYPE RM DROP INLET ON RT.
(4'-3" X 4'-0" H= 19'-4")
WITH 36" X 225' R.C. PIPE OUTLET
WITH FES
RETAIN

STA. 235+51 - IN PLACE
TYPE RM DROP INLET IN MEDIAN
(4'-3" X 3'-0"x H= 21'-6")
WITH 30" X 100' R.C. PIPE INLET
(30°LT. FWD. SKEW)
WITH 30" X 90' R.C. PIPE OUTLET
(30°LT. FWD. SKEW)
RETAIN

WRSF & CONCRETE
DITCH PAVING

PI = 245+53.95
Δ = 14°26'01"LT.
D = 2°41'54"
T = 268.88'
L = 534.91'
PC = 242+85.07
PT = 248+19.98

PT 248+19.98

BR. END STA. 251+82.68

STA. 251+73.20
END WRSF

STA. 251+73.20
END JOB 061431

POE 256+77.37

245 — 250 — N 70°02' 14" E — 255 — 256

PI 245+53.95

BR. END STA. 251+38.79

STA. 247+58 - IN PLACE
TYPE RM DROP INLET IN MEDIAN
WITH 24" X 160' R.C. PIPE CULV'T.
WITH FES RT.
RETAIN

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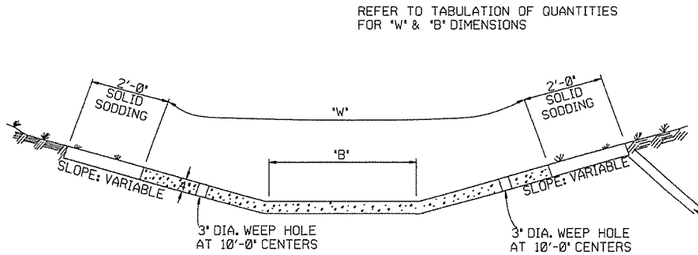
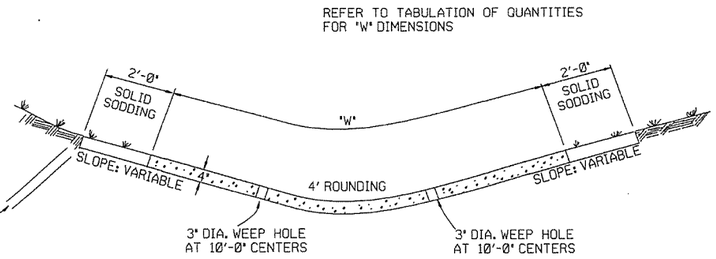
R061431.DGN

PLAN SHEETS

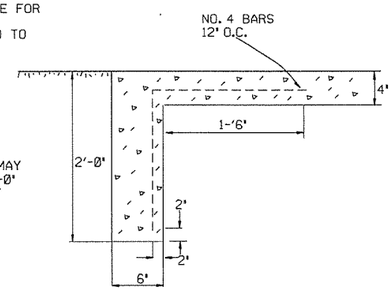


TYPE A



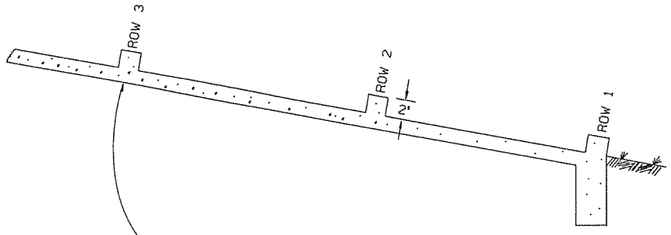
TYPE B

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



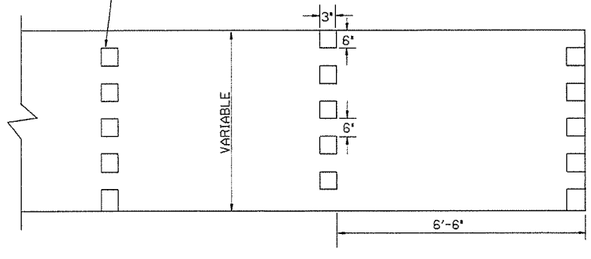
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

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



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

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

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

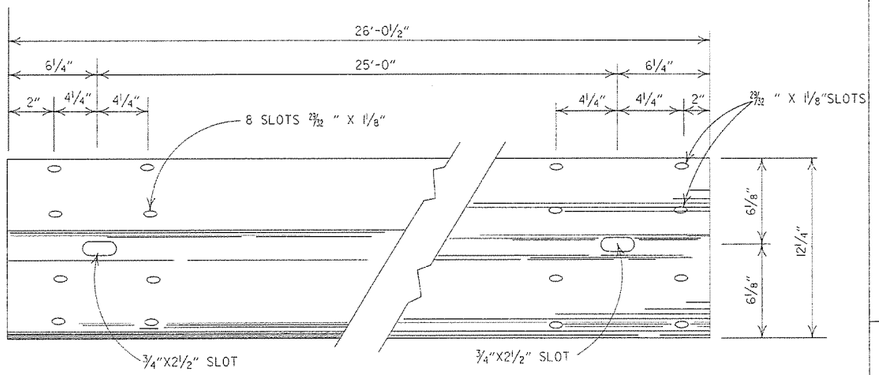
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

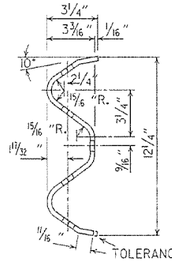
DATE	REVISION	DATE FILM'D
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

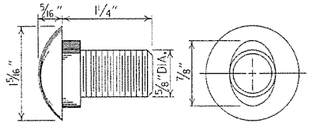
STANDARD DRAWING CDP-1



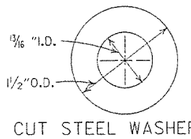


DETAILS OF W-BEAM GUARD RAIL

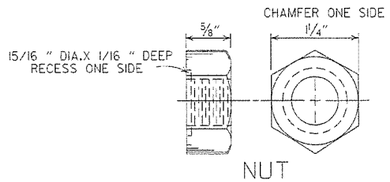
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



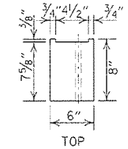
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

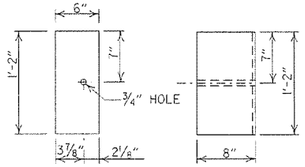


NUT

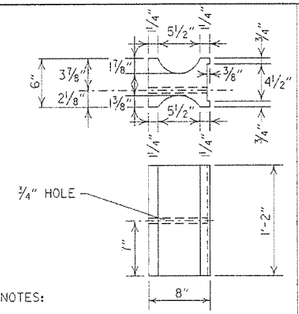


TOP

WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.



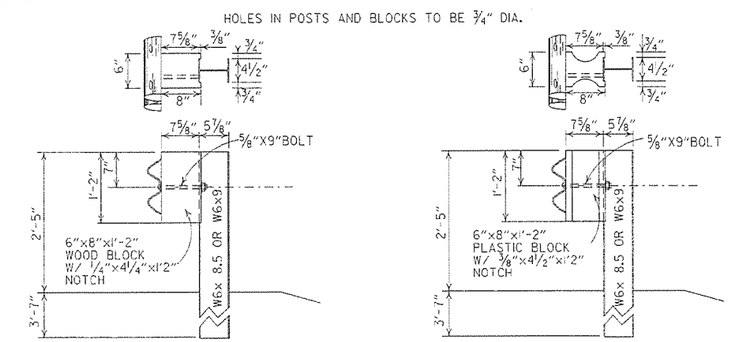
WOOD BLOCKOUT (W-BEAM)



NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

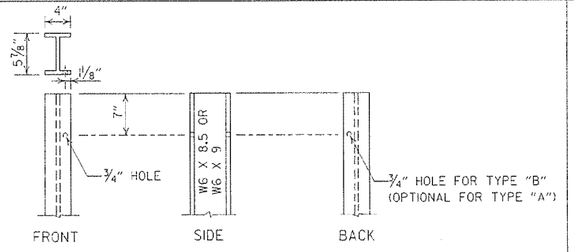
HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



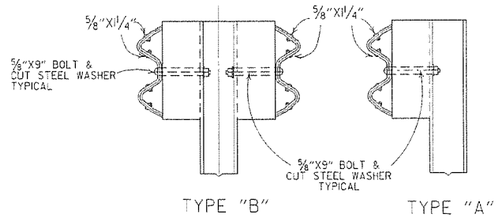
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



STEEL POST



TYPE "B" TYPE "A"

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARD RAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARD RAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

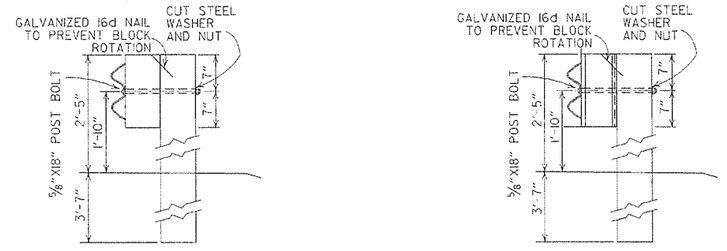
USE W-BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARD RAIL, W-BEAM GUARD RAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

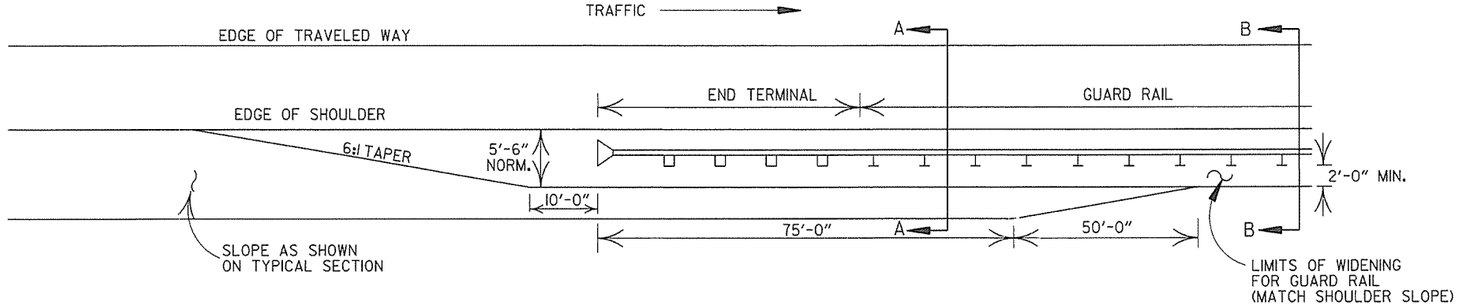
DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

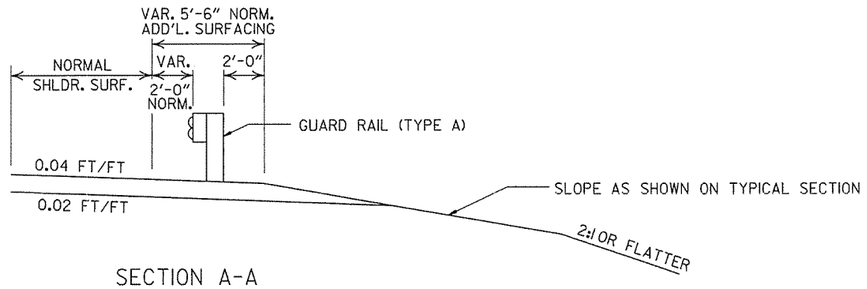
7-4-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD. DELETED CONC. POST & REV. GENERAL NOTE. DELETED DET. OF GUARD RAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE. REVISED HOLES IN STEEL POLES	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED ALT. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87
DATE	REVISION	DATE FILM

ARKANSAS STATE HIGHWAY COMMISSION

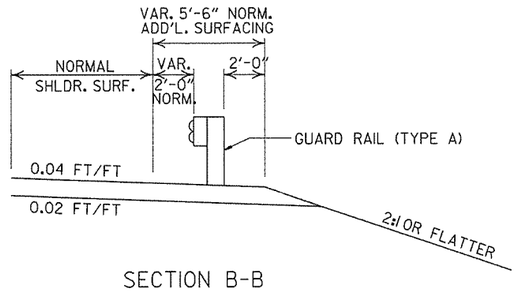
GUARD RAIL DETAILS

STANDARD DRAWING GR-8





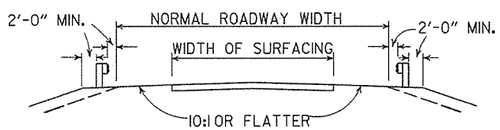
SECTION A-A



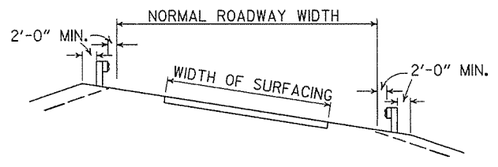
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

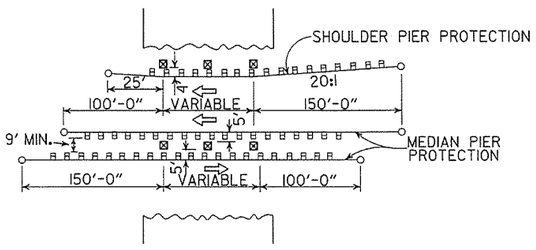


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



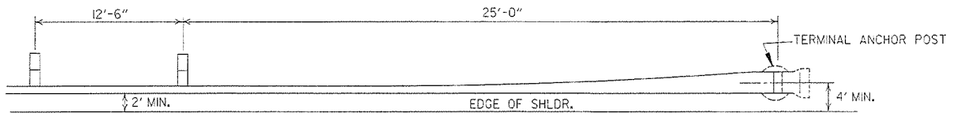
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

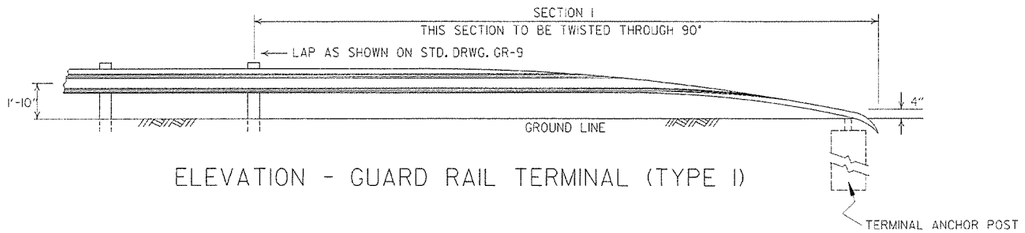
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-9A

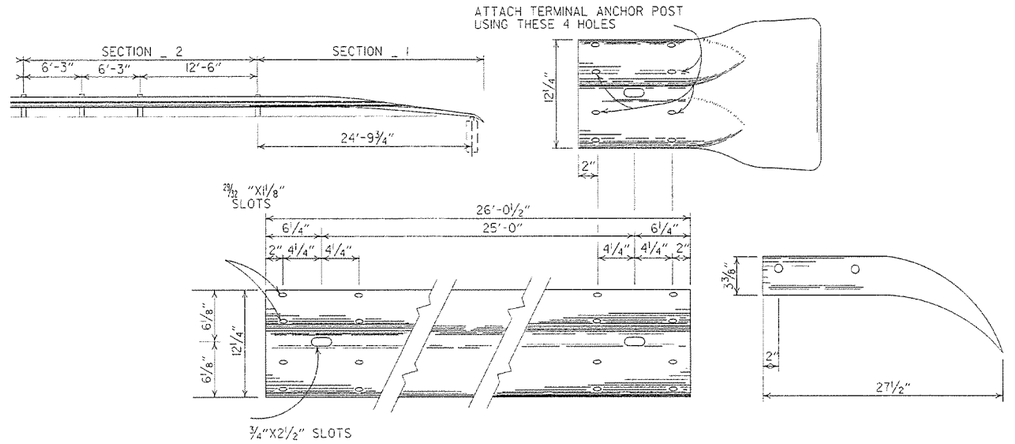


PLAN - GUARD RAIL TERMINAL (TYPE I)



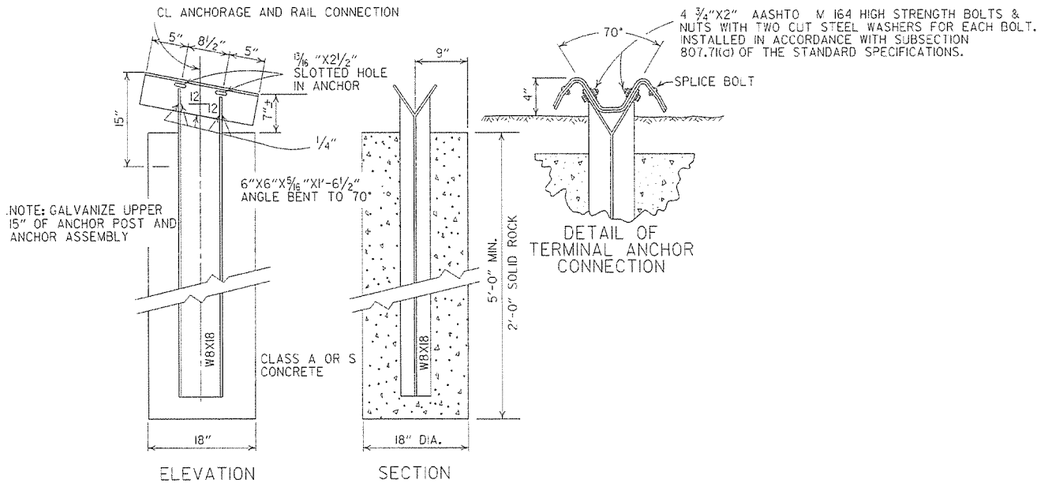
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

NOTE:
SECTIONS 1 AND 2 OF GUARD RAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARD RAIL SPECIFIED.



SECTION I

TERMINAL SECTION



NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

DETAIL OF TERMINAL ANCHOR POST (TYPE I)

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
6-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-3-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-1-92	DRAWN & ISSUED	10-1-92

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GRT-1

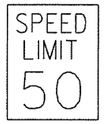
R1-1

STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2

STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5A

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5C

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

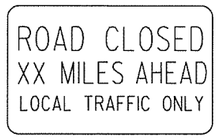
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2

48"X30"

R11-3A



60"X30"

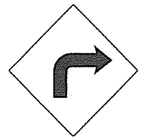
R11-4

60"X30"

RSP-1

48"X30"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2

STD. 36"X36"
FWY. 48"X48"

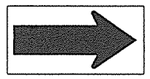
W1-3

STD. 48"X48"

W1-4

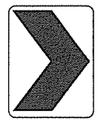
STD. 48"X48"

W1-6



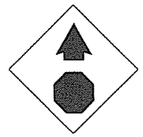
STD. 48"X24"
SPECIAL 60"X30"

W1-8



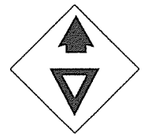
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



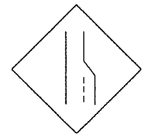
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

W1-4b

STD. 48"X48"

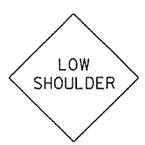
R56-1

STD. 18"X18"

W8-11

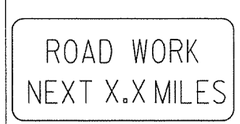
STD. 36"X36"
FWY. 48"X48"

W8-9



STD. 36"X36"
FWY. 48"X48"

G20-1



60"X24"

G20-2

48"X24"

OM-3L OM-3R

12"X36"

M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

36"X60"

* USE 6" C LETTERS
** USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

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

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

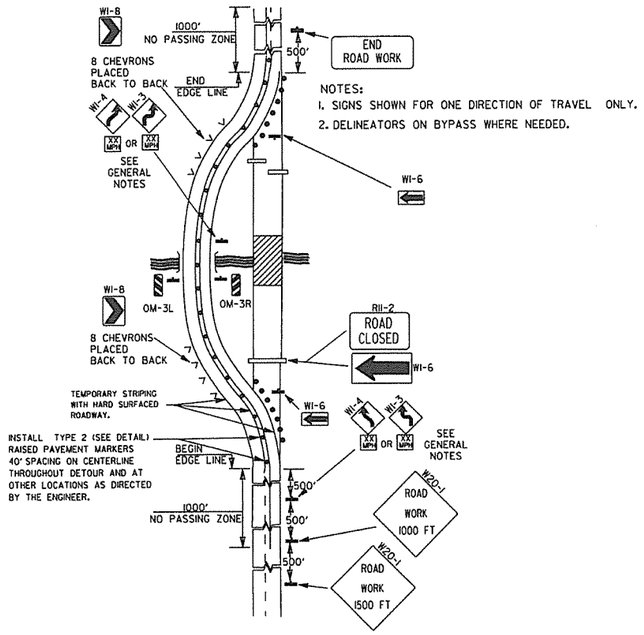
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

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

ARKANSAS STATE HIGHWAY COMMISSION

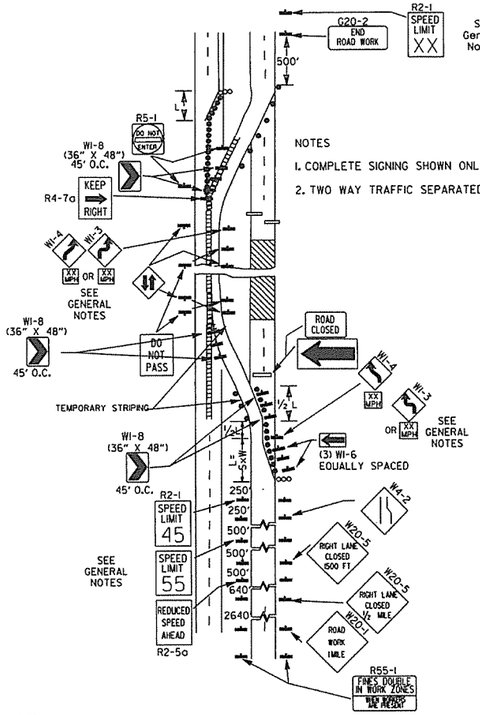
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



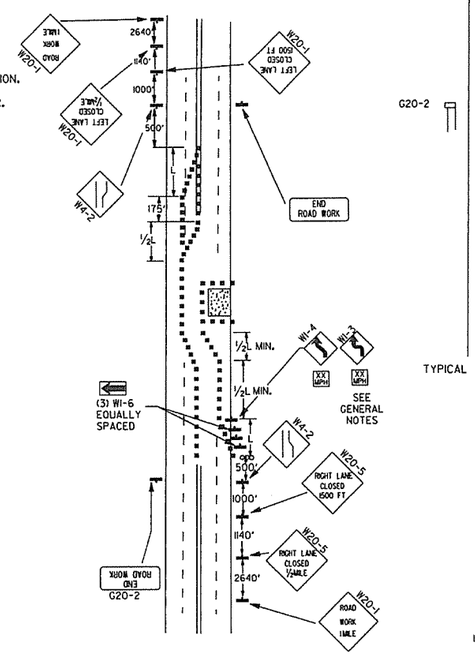
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

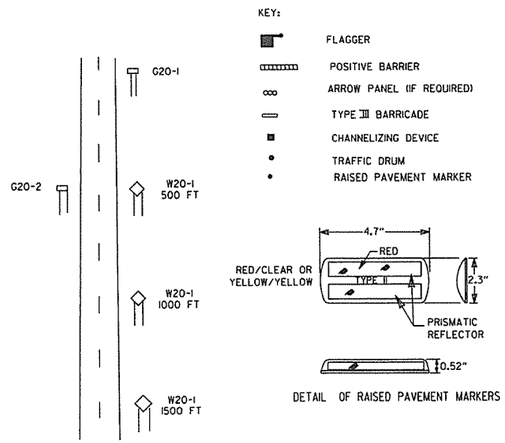


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

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

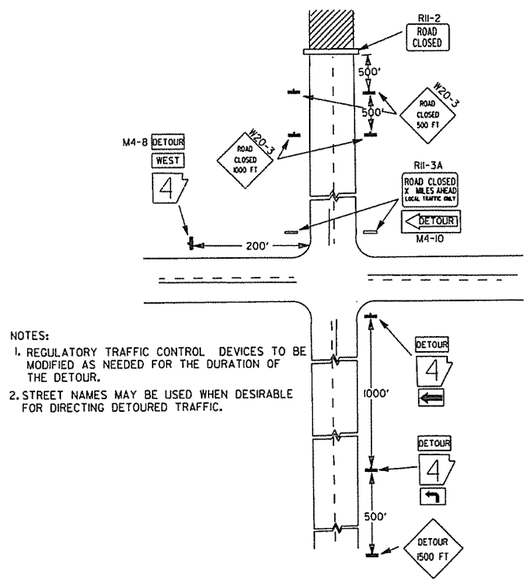


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



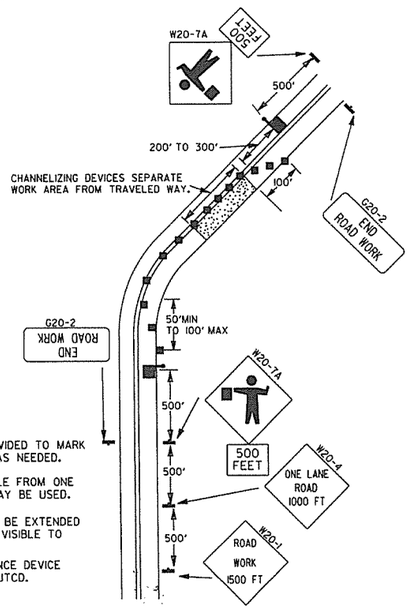
DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT



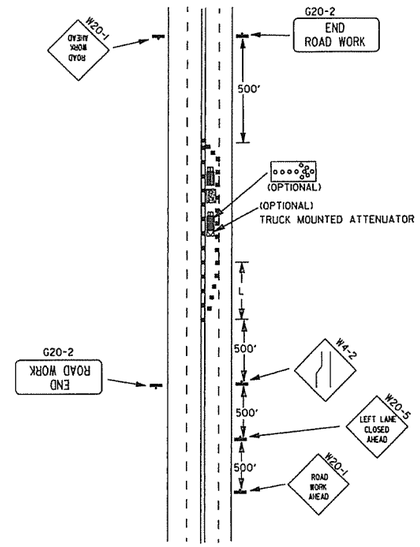
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

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



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

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

GENERAL NOTES:

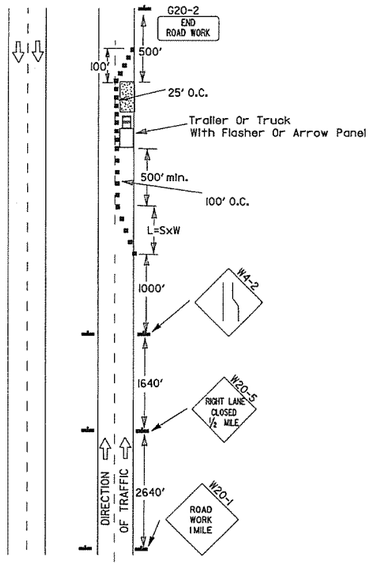
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.

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

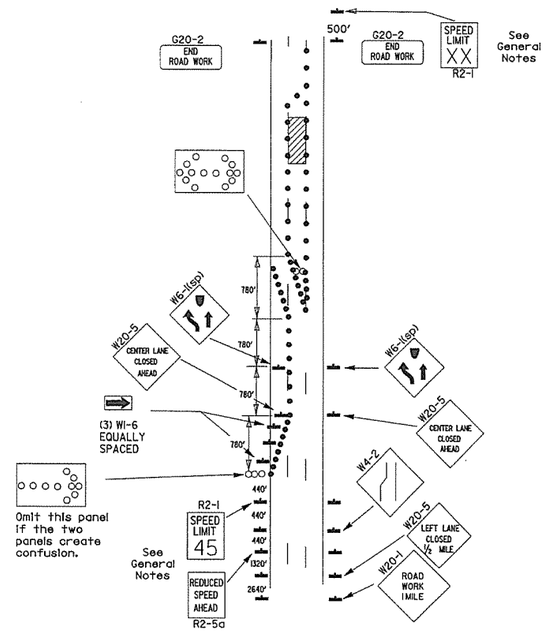
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

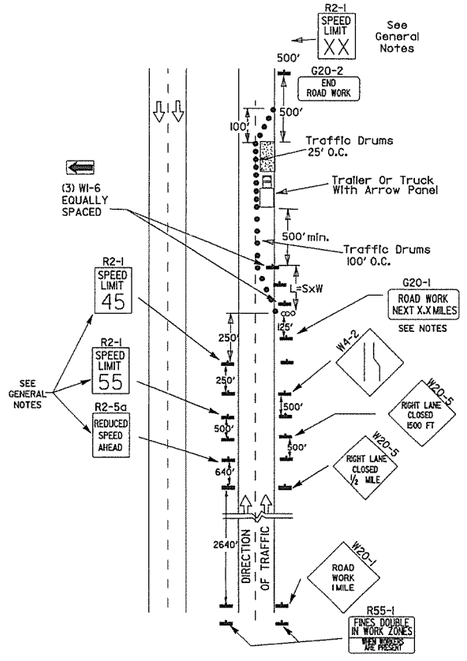
STANDARD DRAWING TC-2



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



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



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

KEY:

○○○ Arrow Panel (If Required)

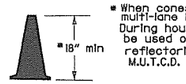
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

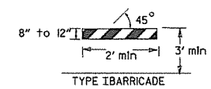
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or 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.

Channelizing devices

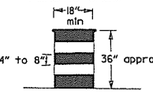


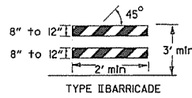
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

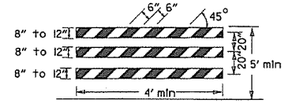
CONES



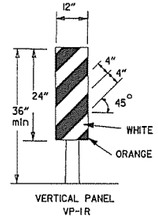
PLASTIC DRUM



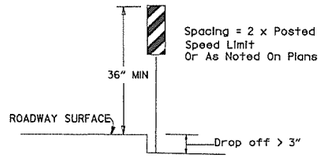




NOTE: For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL PLACEMENT



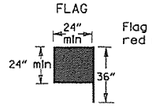
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

▪ When shown on the plans concrete barrier will be used.

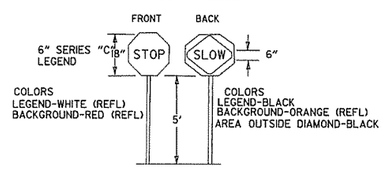
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

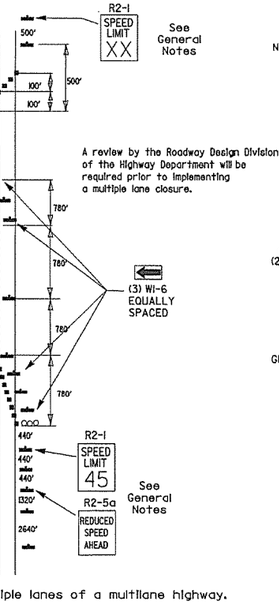
FLAG



Flag shall be of good grade red material

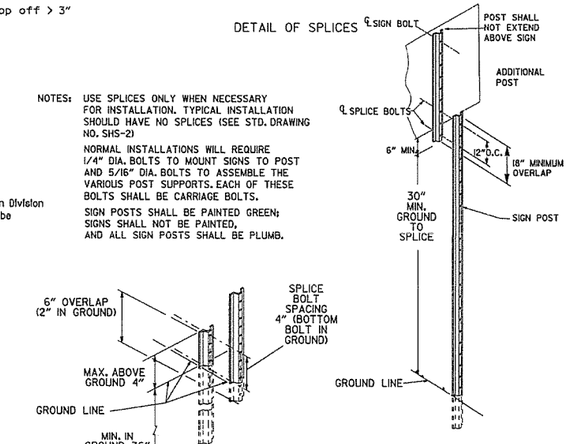
STOP SLOW PADDLE





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

DETAIL OF SPLICES



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

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

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

DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

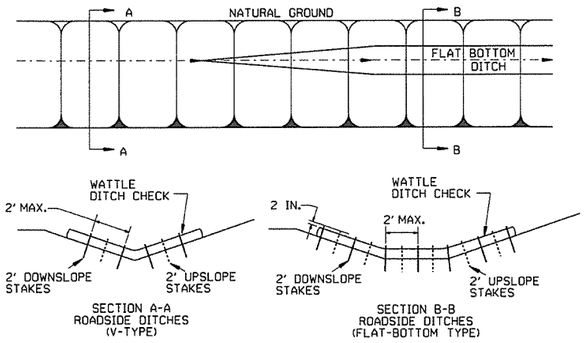
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

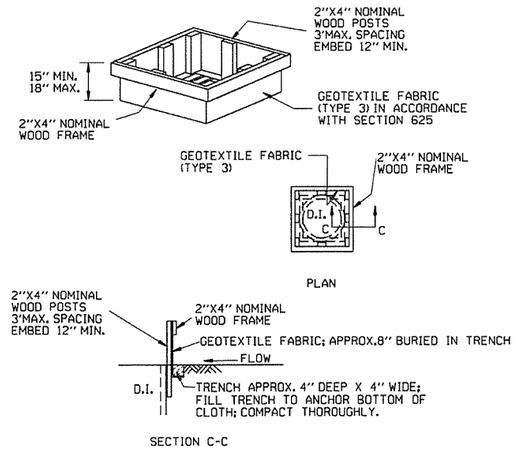
STANDARD DRAWING TC-3

GENERAL NOTES

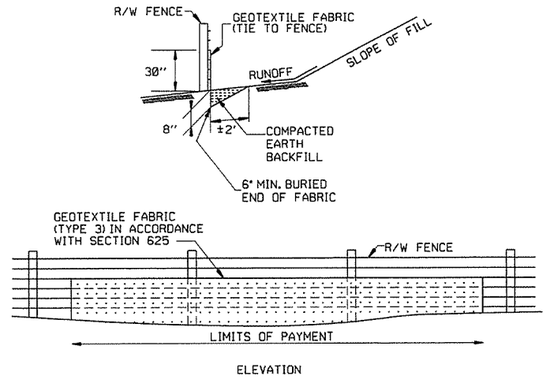
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



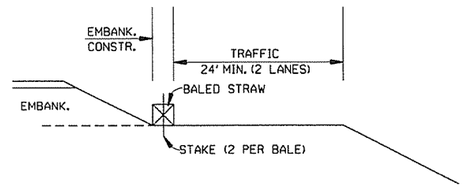
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

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

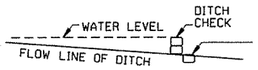
GENERAL NOTES

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

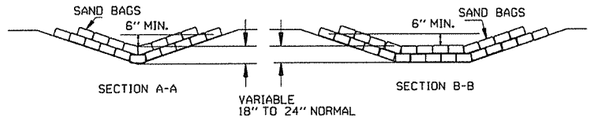


BALED STRAW FILTER BARRIER (E-2)

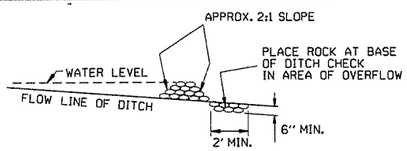
NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS.

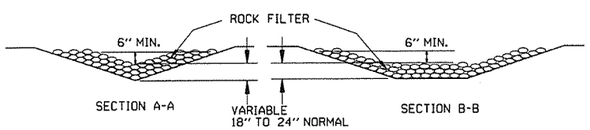


PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW

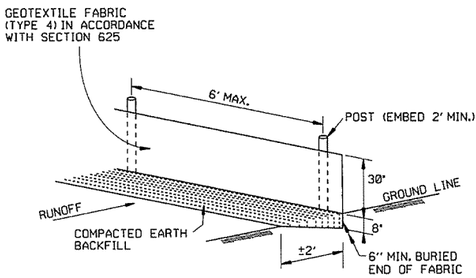


SAND BAG DITCH CHECK (E-5)





ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

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

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

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-1