DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	BB1003	1	215
				②	HWY. 181 - HWY. 158 (F)			

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS FOR STATE HIGHWAY

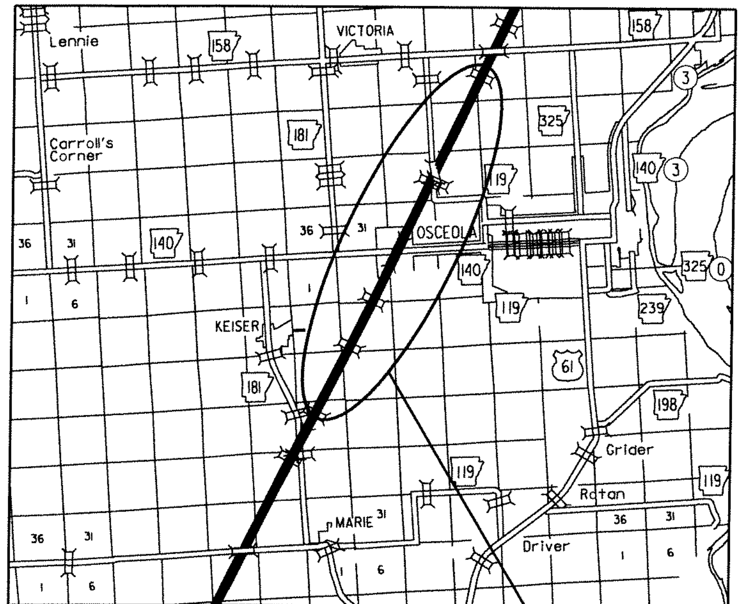
HWY. 181 - HWY. 158 (F)

MISSISSIPPI COUNTY

ROUTE 55 SECTION 12

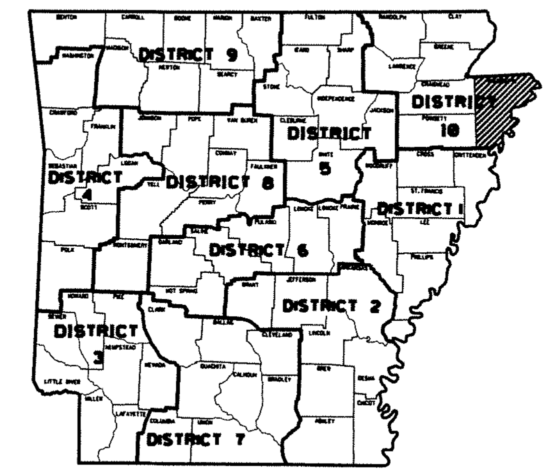
JOB BB1003

FED. AID PROJ. BIM-B55-0(206) &
HSIP-55-1(140)45



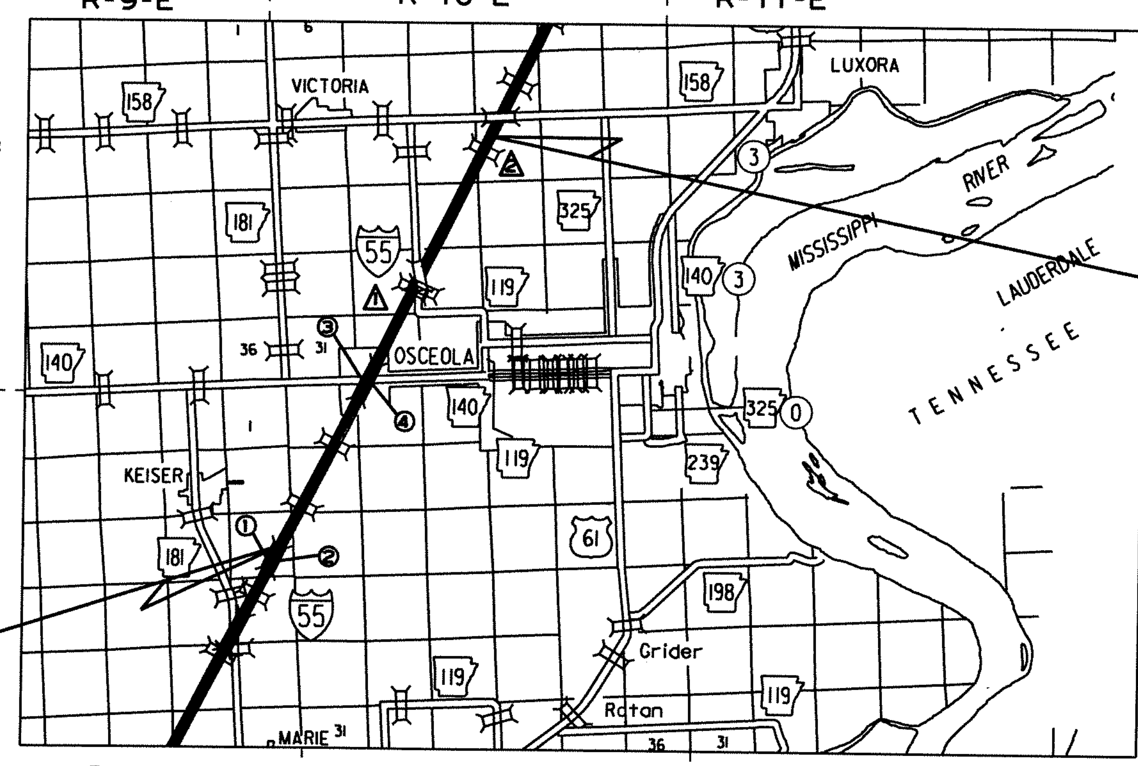
VICINITY MAP

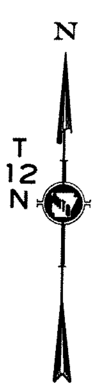
PROJECT LOCATION



ARKANSAS HIGHWAY DIST. 10

NOT TO SCALE





STA. 474+83.70 I-55
END JOB BB1003
LOG MILE 52.40

STA. 62+37.48 I-55
BEGIN JOB BB1003
LOG MILE 44.50

DESIGN TRAFFIC DATA

DESIGN YEAR---------------------2033
2013 ADT-----------------------20,000
2033 ADT-----------------------24,000
2033 DHV-----------------------2,640
DIRECTIONAL DISTRIBUTION-----------0.60
TRUCKS--------------------------46 %
DESIGN SPEED--------------------70 MPH

EXISTING BRIDGE DATA

① STA. 61+17.48 BR. END
BRIDGE NO. A3288
120'-0" CONT. COMP W-BEAM UNIT
40'-0" CLEAR ROADWAY
120'-0" BRIDGE LENGTH
STA. 62+37.48 BR. END

② STA. 61+62.52 BR. END
BRIDGE NO. B3288
120'-0" CONT. COMP W-BEAM UNIT
40'-0" CLEAR ROADWAY
120'-0" BRIDGE LENGTH
STA. 62+82.52 BR. END

③ STA. 258+70.95 BR. END
BRIDGE NO. A3289
40'-0" CLEAR ROADWAY
186'-11⅞" BRIDGE LENGTH
STA. 260+57.93 BR. END

④ STA. 259+17.33 BR. END
BRIDGE NO. B3289
40'-0" CLEAR ROADWAY
186'-11⅞" BRIDGE LENGTH
STA. 261+04.32 BR. END

EXISTING STRUCTURE OVER 20'-0" SPAN

⚠ STA. 350+00 IN PLACE
DBL. 12'x8'x189' R.C. BOX CULVERT
60° SKEW
BR. NO. M3053
RETAIN

⚠ STA. 471+20 IN PLACE
DBL. 10'x10'x187' R.C. BOX CULVERT
30° SKEW
BR. NO. M3054
RETAIN

STA. 258+70.95 - STA. 260+57.93
TOTAL LENGTH OF EXCEPTIONS = 186.98 FT.
(MEASURED ALONG C.L. MEDIAN)

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 35°38'59"	N 35°41'59"	N 35°44'60"
LONGITUDE	W 90°05'03"	W 90°02'57"	W 90°00'54"

LENGTH IS COMPUTED ALONG C.L. MEDIAN

GROSS LENGTH OF PROJECT	41246.22	FEET	OR	7.812	MILES
NET " " ROADWAY	40939.24	"	"	7.754	MILES
NET " " BRIDGES	120.00	"	"	0.023	MILES
NET " " PROJECT	41059.24	"	"	7.777	MILES

P.E. BB1003
NON-PART.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/18/13

4/18/2013 BB1003

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	2	215

2 INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & GENERAL NOTES

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12 - 24.	SPECIAL DETAILS			
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GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
6. 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.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING ANY BUILD UP OF DIRT OR DEBRIS ON SHOULDER PRIOR TO PLACEMENT OF AGGREGATE BASE COURSE CLASS 7 OR ACHM.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING ANY GRASS ON THE SHOULDER PRIOR TO PLACEMENT OF ACHM.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2003, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-2	MANUAL FOR ASSESSING SAFETY HARDWARE (MASH)
102-1	BIDDING REQUIREMENTS AND CONDITIONS
103-1	DETERMINATION OF DBE PARTICIPATION
105-1	CONSTRUCTION CONTROL MARKINGS
105-2	EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
105-3	CONTROL OF WORK
107-1	WORKER VISIBILITY
108-1	LIQUIDATED DAMAGES
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
404-1	PRODUCTION VERIFICATION OF ASPHALT CONCRETE HOT MIX
404-2	DESIGN AND QUALITY OF ASPHALT MIXTURES
409-1	MINERAL AGGREGATES
410-3	DENSITY TESTING FOR ACHM LEVELING COURSES AND BOND BREAKERS
411-1	ASPHALT CONCRETE COLD PLANT MIX
501-1	INSTALLATION OF TIE BARS
507-1	INSTALLATION OF DOWEL BARS AND TIE BARS
600-1	WATER FOR VEGETATION
603-1	MAINTENANCE OF TRAFFIC
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-2	INSPECTION OF TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-2	PIPE CULVERTS
718-2	REFLECTORIZED PAINT PAVEMENT MARKINGS
719-2	THERMOPLASTIC PAVEMENT MARKING MATERIAL
804-1	INSTALLATION OF DOWEL BARS AND TIE BARS
821-1	INSTALLATION OF DOWEL BARS AND TIE BARS
JOB BB1003	APPROACH SLABS AND GUTTERS
JOB BB1003	ASPHALT CONCRETE HOT MIX PATCHING OF EXISTING SHOULDERS
JOB BB1003	ASPHALT CONCRETE HOT MIX SURFACE COURSE SURFACE TOLERANCE AND INCENTIVE PAYMENTS
JOB BB1003	BORROW
JOB BB1003	BRIDGE DECK REPAIR
JOB BB1003	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB1003	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB1003	CONCRETE DITCH PAVING
JOB BB1003	COORDINATION OF WORK
JOB BB1003	CULVERT CLEANOUT
JOB BB1003	FAST SETTING CEMENT
JOB BB1003	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB1003	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB1003	HYDRODEMOLITION
JOB BB1003	INTERNET BIDDING
JOB BB1003	LATEX MODIFIED CONCRETE OVERLAY
JOB BB1003	LONGITUDINAL TINING
JOB BB1003	MAINTENANCE OF TRAFFIC
JOB BB1003	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB1003	MODIFICATION OF RAISED BRIDGE STRUCTURE
JOB BB1003	MODULAR GLARE SHIELD
JOB BB1003	PARTNERING REQUIREMENTS
JOB BB1003	PORTABLE CHANGEABLE MESSAGE SIGN
JOB BB1003	PROSECUTION AND PROGRESS
JOB BB1003	RAISING EXISTING STRUCTURE
JOB BB1003	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB BB1003	REMOVING EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
JOB BB1003	ROADWAY CONSTRUCTION CONTROL
JOB BB1003	SCARIFYING CONCRETE PAVEMENT
JOB BB1003	SEQUENCE OF CONSTRUCTION
JOB BB1003	SHAPING DITCH
JOB BB1003	SILICONE JOINT SEALANT
JOB BB1003	SITE USE (A+C METHOD)
JOB BB1003	SOIL STABILIZATION
JOB BB1003	STORM WATER POLLUTION PREVENTION PLAN
JOB BB1003	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB1003	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB1003	TRENCHING AND SHOULDER PREPARATION
JOB BB1003	UTILITY ADJUSTMENTS
JOB BB1003	VALUE ENGINEERING
JOB BB1003	WARM MIX ASPHALT
JOB BB1003	WIRE FENCE (TYPE A)
JOB BB1003	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB1003	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB1003	WRSF TRAINING WORKSHOP

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929

04/25/13

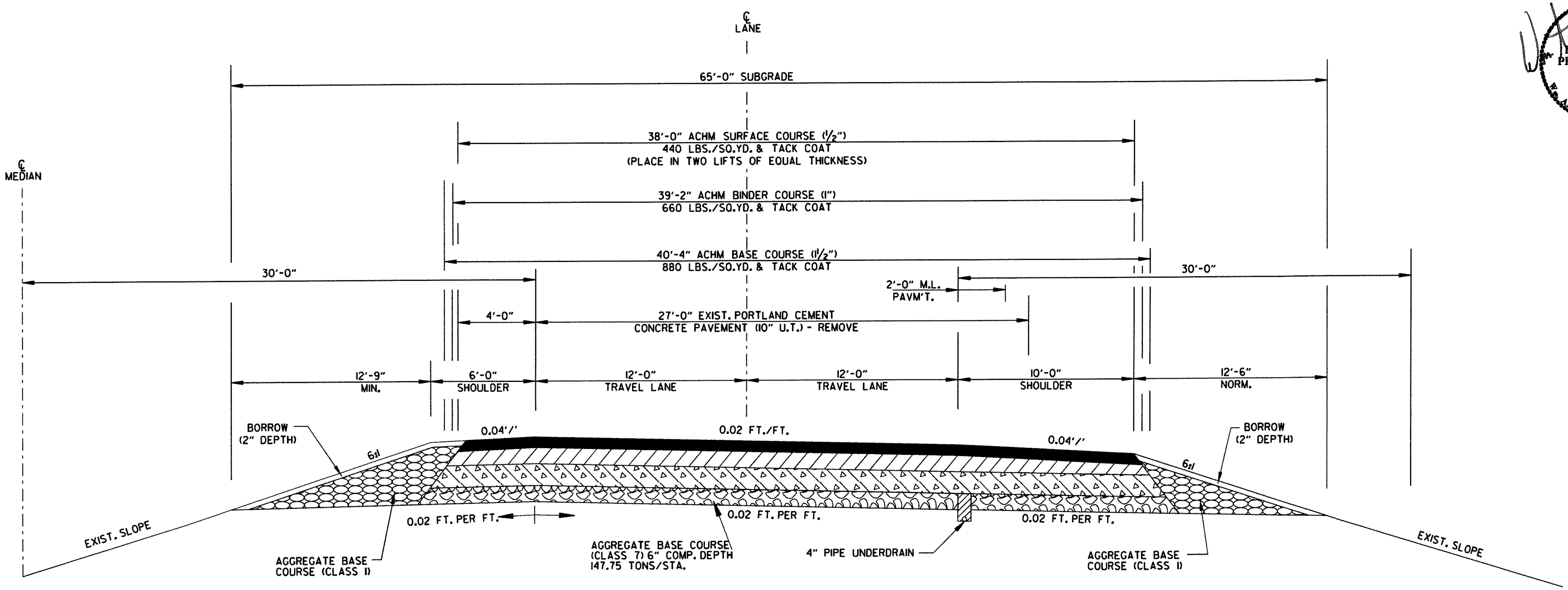
INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & GENERAL NOTES

4/25/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	3	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
4/16/13



FULL DEPTH CONSTRUCTION - TANGENT SECTION
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 62+73.98 - STA. 68+73.98	STA. 63+19.02 - STA. 69+19.02
STA. 252+34.45 - STA. 258+34.45	STA. 252+80.83 - STA. 258+80.83
STA. 260+94.43 - STA. 266+94.43	STA. 261+40.82 - STA. 267+40.82

NOTES:

1. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
2. AGGREGATE BASE COURSE (CLASS 1) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.
3. THE THICKNESS OF AGGREGATE BASE COURSE (CLASS 7) SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

ASPHALT ALTERNATE (ALT. 1)
TYPICAL SECTIONS OF IMPROVEMENT

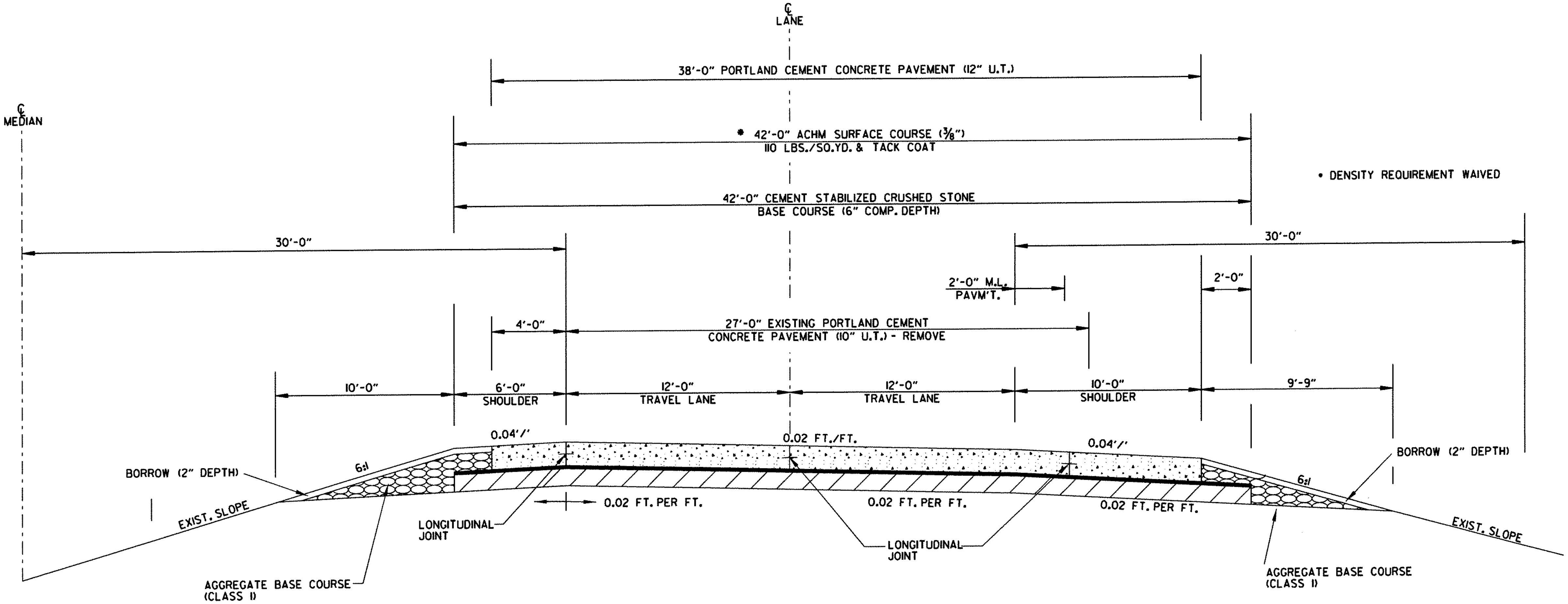
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	4	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

4/16/13



• DENSITY REQUIREMENT WAIVED

FULL DEPTH CONSTRUCTION - TANGENT SECTION
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 62+73.98 - STA. 68+73.98	STA. 63+19.02 - STA. 69+19.02
STA. 252+34.45 - STA. 258+34.45	STA. 252+80.83 - STA. 258+80.83
STA. 260+94.43 - STA. 266+94.43	STA. 261+40.82 - STA. 267+40.82

NOTES:

1. AGGREGATE BASE COURSE (CLASS I) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

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

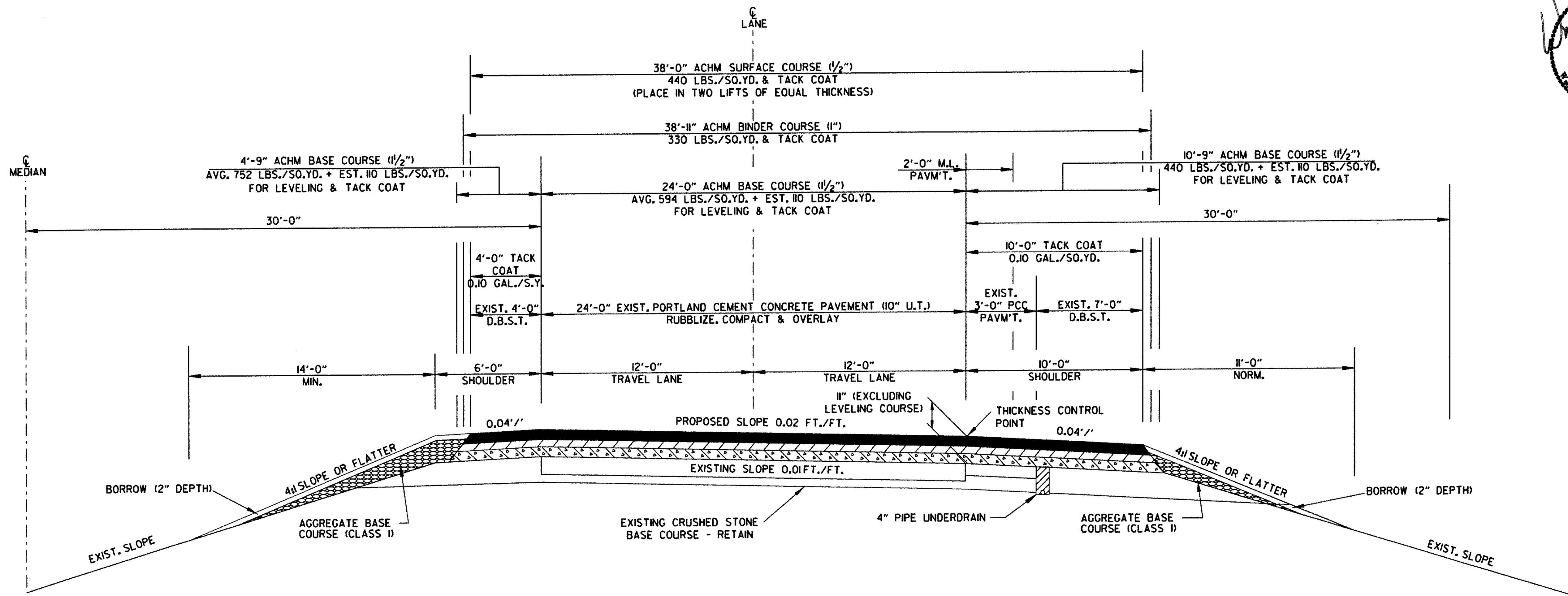
CONCRETE ALTERNATE (ALT. 2)
TYPICAL SECTIONS OF IMPROVEMENT

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	5	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



RUBBLIZE & OVERLAY - TANGENT SECTION
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 68+73.98 - STA. 252+34.45	STA. 69+19.02 - STA. 252+80.83
STA. 266+94.93 - STA. 458+25.00	STA. 267+40.82 - STA. 464+00.00
STA. 458+25.00 - STA. 470+25.00	STA. 464+00.00 - STA. 476+00.00

NOTES:

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

2. AGGREGATE BASE COURSE (CLASS I) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS . THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

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

ASPHALT ALTERNATE (ALT. I)
TYPICAL SECTIONS OF IMPROVEMENT

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	6	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
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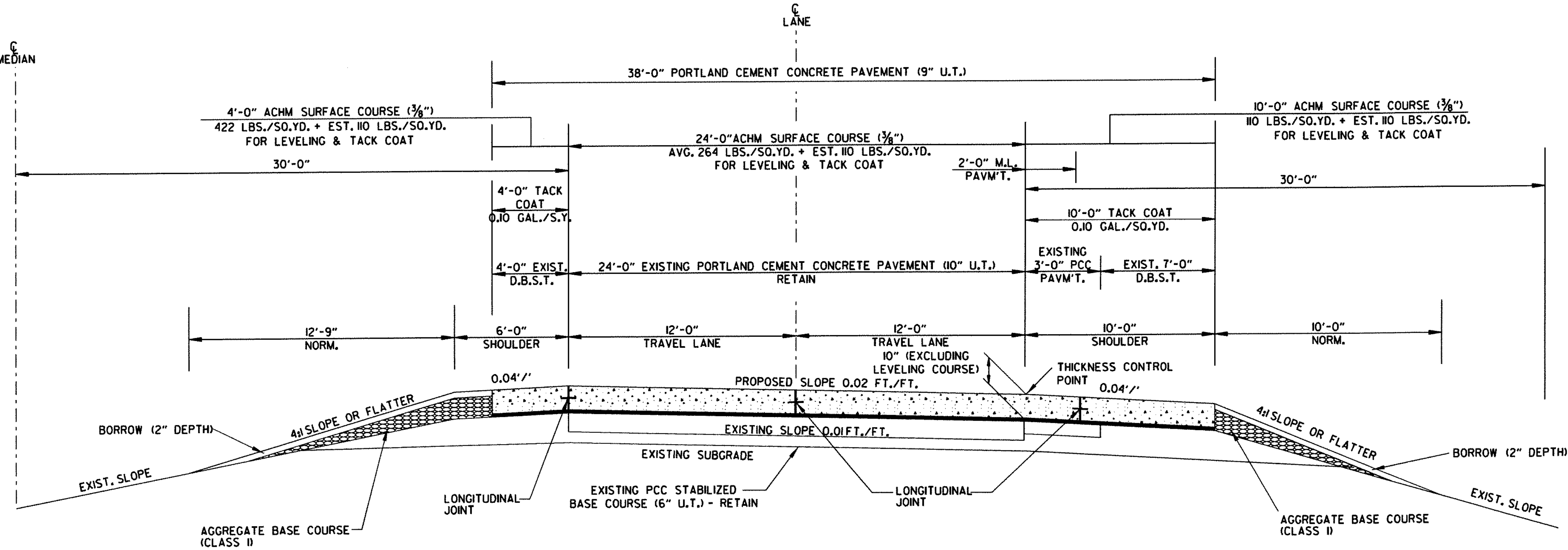
W. ANDREW PINKLEY
04-16-13



OVERLAY - TANGENT SECTION
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 68+73.98 - STA. 252+34.45	STA. 69+19.02 - STA. 252+80.83
STA. 266+94.93 - STA. 458+25.00	STA. 267+40.82 - STA. 464+00.00
STA. 458+25.00 - STA. 470+25.00	STA. 464+00.00 - STA. 476+00.00

NOTES:

1. AGGREGATE BASE COURSE (CLASS I) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

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

CONCRETE ALTERNATE (ALT. 2)
TYPICAL SECTIONS OF IMPROVEMENT

4/16/2013

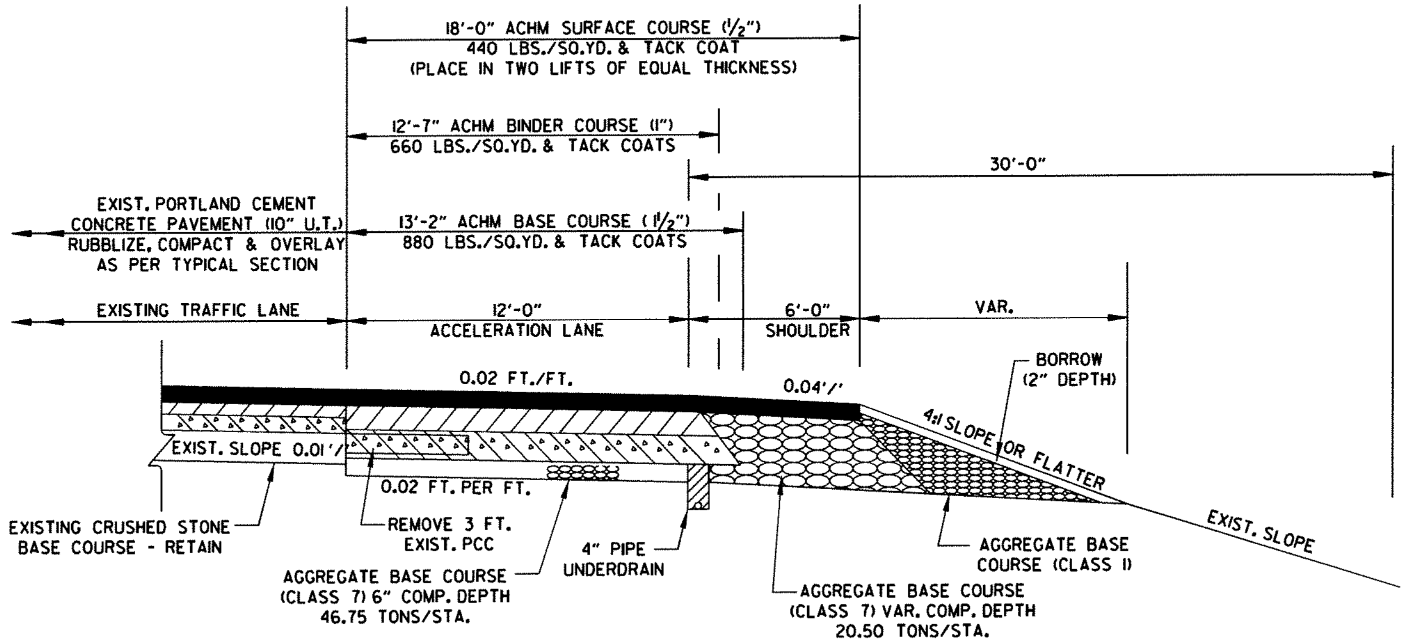
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	7	215
				②	TYPICAL SECTIONS OF IMPROVEMENT			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 ANDREW PINKLEY

04-16-13

NOTES:

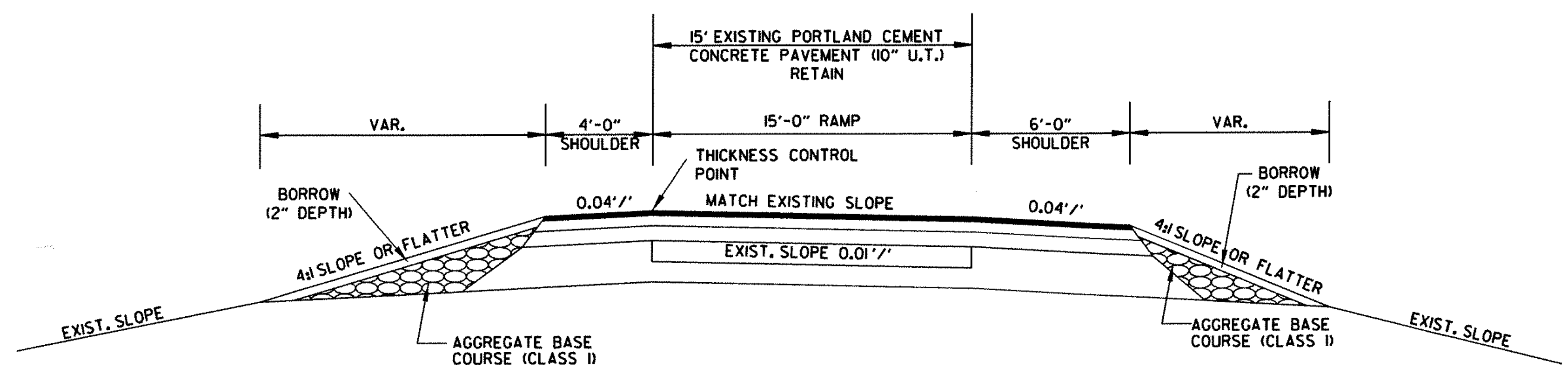
1. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
2. THE THICKNESS OF AGGREGATE BASE COURSE (CLASS 7) SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. AGGREGATE BASE COURSE (CLASS 1) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.
4. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE OVERLAY. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENTS WILL BE CONSIDERED INCLUDED IN THE VARIOUS ITEMS.



ACCELERATION LANE - FULL DEPTH CONSTRUCTION
(SHOWN IN DIRECTION OF TRAFFIC)

MAIN LANES

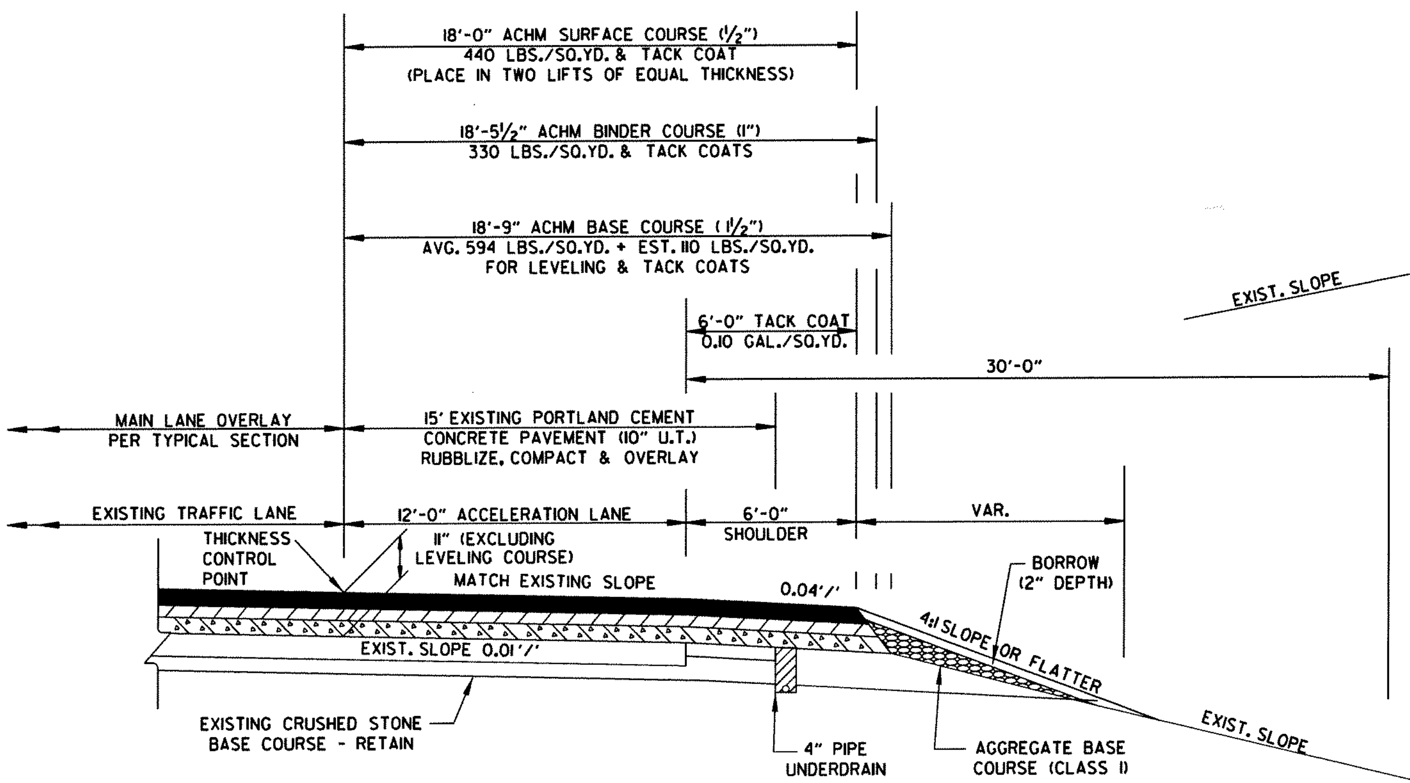
STA. 231+76.21 - STA. 241+76.21
STA. 274+10.57 - STA. 284+08.00



INTERCHANGE RAMPS
(SHOWN IN DIRECTION OF TRAFFIC)

MAIN LANES

RAMP RA1:	STA. 197+62.86	-	STA. 200+62.86
RAMP RA2:	STA. 170+80.99	-	STA. 173+80.99
RAMP E:	STA. 370+57.50	-	STA. 373+57.50
RAMP F:	STA. 273+05.56	-	STA. 270+05.56
RAMP G:	STA. 380+12.34	-	STA. 381+37.34
RAMP H:	STA. 404+19.11	-	STA. 407+19.11



ACCELERATION LANE - RUBBLIZE & OVERLAY
(SHOWN IN DIRECTION OF TRAFFIC)

MAIN LANES

STA. 110+83.79 - STA. 120+83.79

ASPHALT ALTERNATE (ALT. 1)
TYPICAL SECTIONS OF IMPROVEMENT

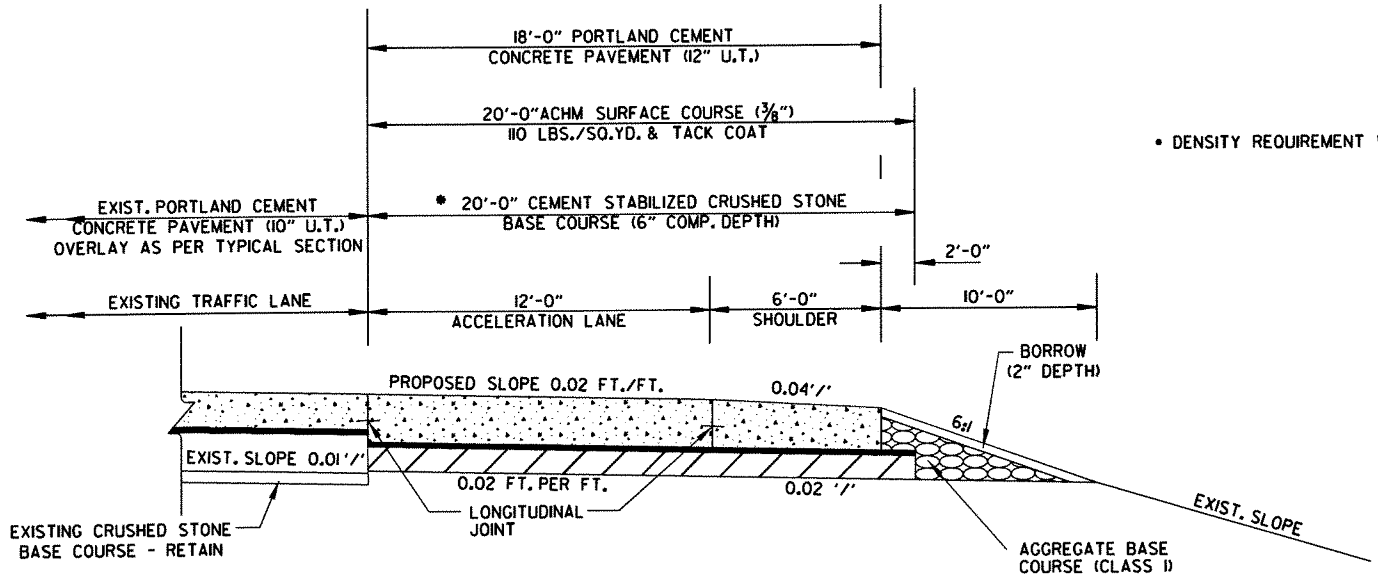
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	8	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY

04-16-13

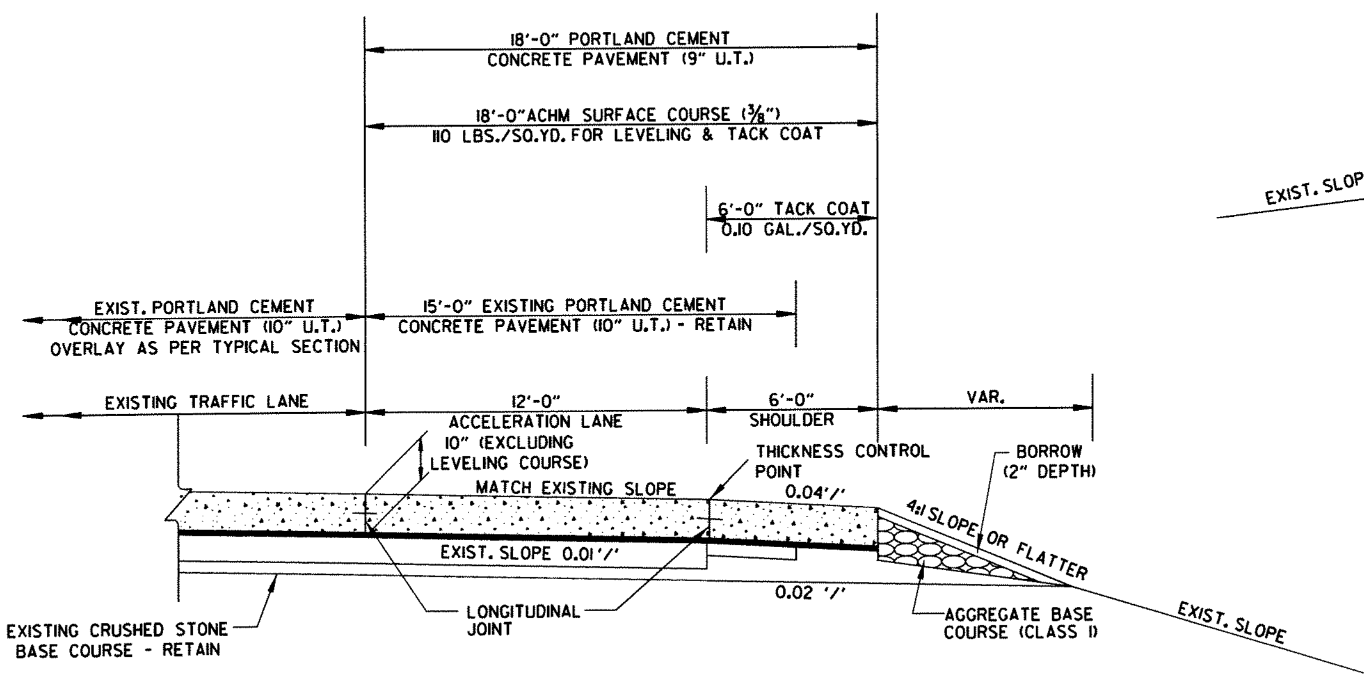


• DENSITY REQUIREMENT WAIVED

ACCELERATION LANE - FULL DEPTH CONSTRUCTION
(SHOWN IN DIRECTION OF TRAFFIC)

MAIN LANES

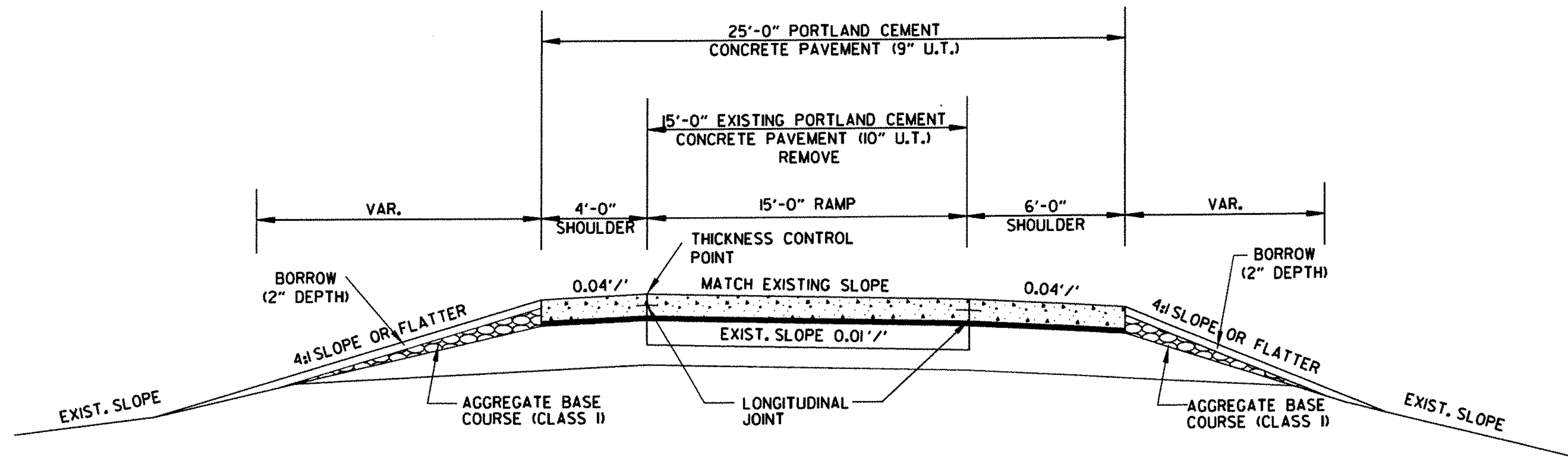
STA. 231+76.21 - STA. 241+75.89
STA. 274+10.57 - STA. 284+08.00



ACCELERATION LANE - OVERLAY
(SHOWN IN DIRECTION OF TRAFFIC)

MAIN LANES

STA. 110+83.79 - STA. 120+83.79



INTERCHANGE RAMPS
(SHOWN IN DIRECTION OF TRAFFIC)

MAIN LANES

RAMP RA1:	STA. 197+62.86 - STA. 200+62.86
RAMP RA2:	STA. 170+80.99 - STA. 173+80.99
RAMP E:	STA. 370+57.50 - STA. 373+57.50
RAMP F:	STA. 273+05.56 - STA. 270+05.56
RAMP G:	STA. 380+12.34 - STA. 381+37.34
RAMP H:	STA. 404+19.11 - STA. 407+19.11

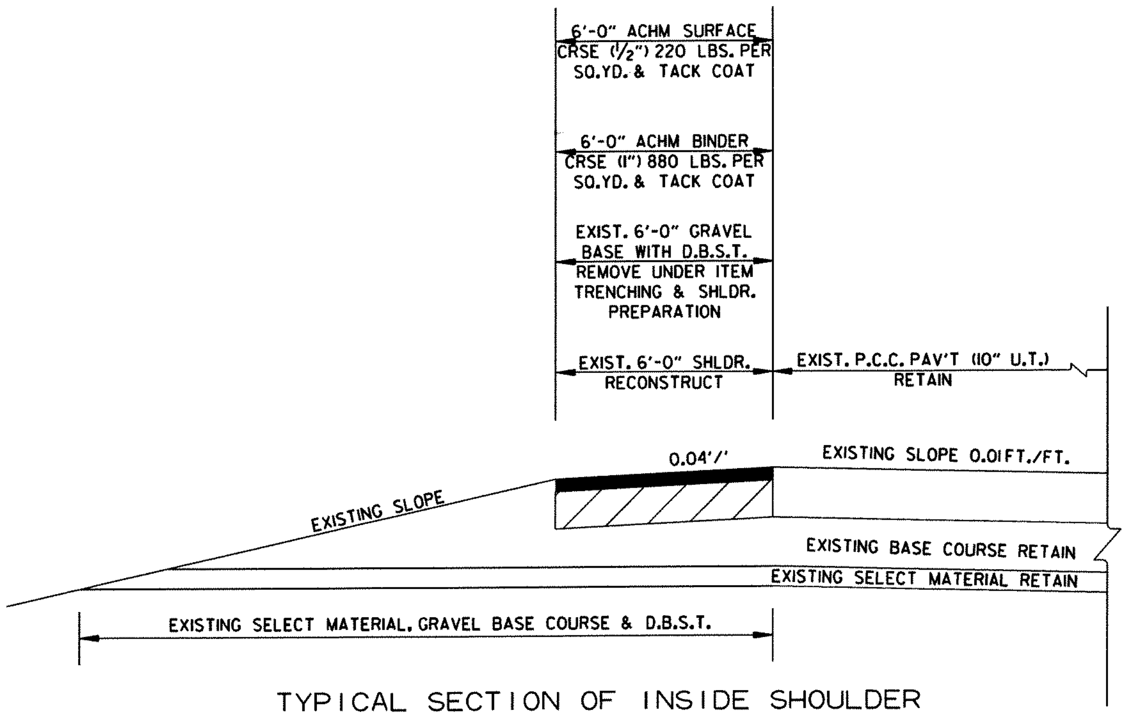
CONCRETE ALTERNATE (ALT. 2)
TYPICAL SECTIONS OF IMPROVEMENT

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	9	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-17-13



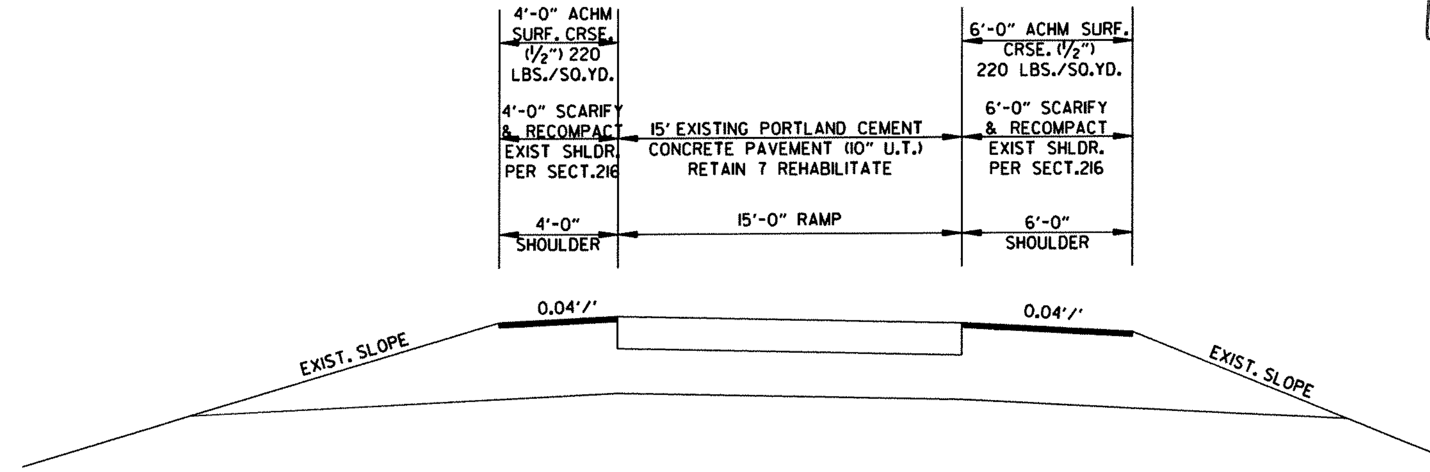
TYPICAL SECTION OF INSIDE SHOULDER
RECONSTRUCTION FOR MAINTENANCE OF TRAFFIC

LEFT MAIN LANES

STA. 47+00.00 - STA. 60+92.04
STA. 474+83.70 - STA. 484+00.00

RIGHT MAIN LANES

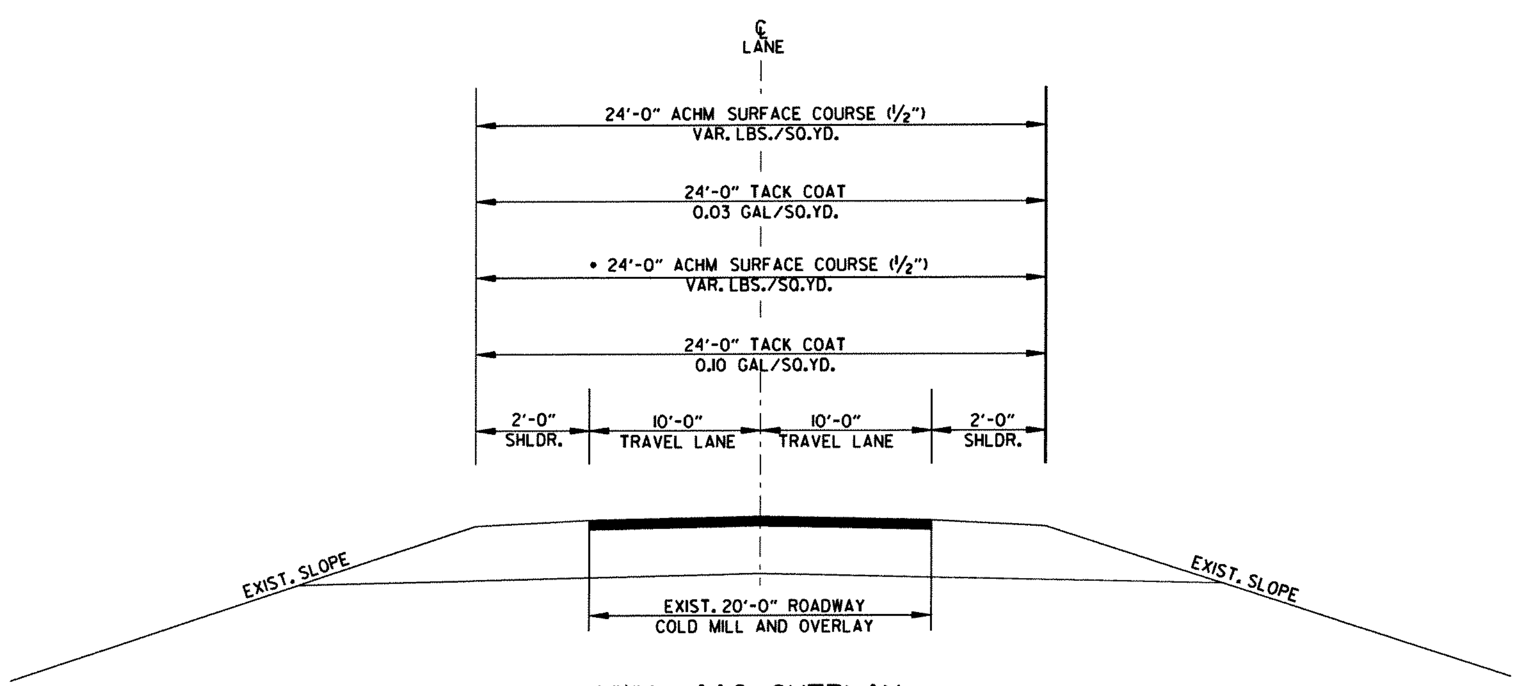
STA. 47+00.00 - STA. 61+14.96
STA. 63+07.96 - STA. 258+17.17
STA. 261+31.16 - STA. 484+00.00



PAVEMENT REHABILITATION
RAMPS

RAMP "RA1": STA. 200+62.86 - STA. 202+57.50
RAMP "RA2": STA. 167+68.85 - STA. 170+80.99
RAMP "B": STA. 36+00.00 - STA. 51+00.00 *
RAMP "D": STA. 26+50.00 - STA. 48+00.00 *
RAMP "E": STA. 373+57.50 - STA. 375+60.61
RAMP "F": STA. 270+05.56 - STA. 265+05.56
RAMP "G": STA. 381+37.34 - STA. 382+54.71
RAMP "H": STA. 399+19.11 - STA. 404+19.11

(* - REFERENCED TO I-55 BASELINE)



HWY. 119 OVERLAY

STA. 2+72.48 - STA. 10+72.48
STA. 13+62.59 - STA. 21+62.59

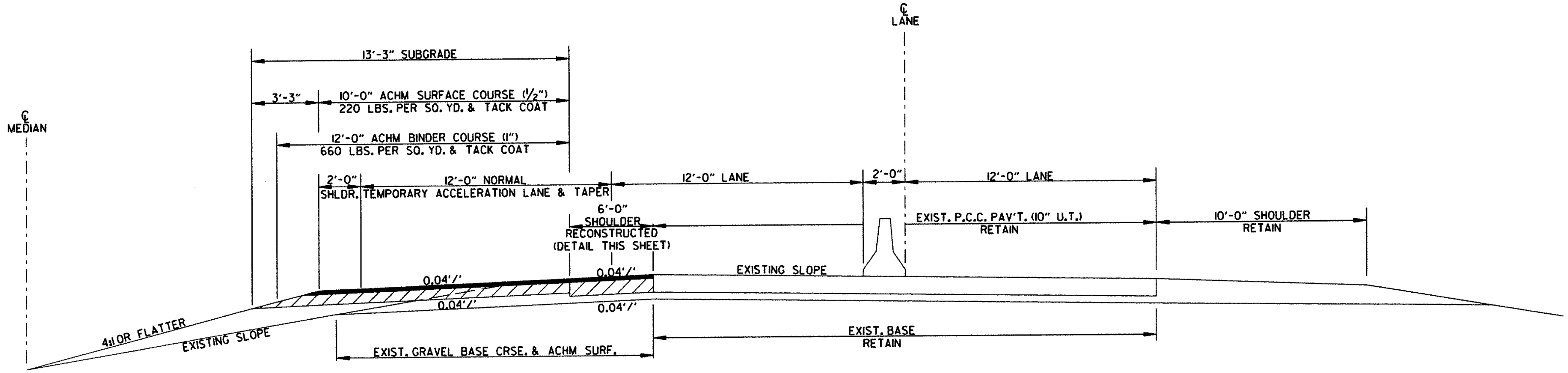
ASPHALT & CONCRETE ALTERNATE (ALT.1& 2)
TYPICAL SECTIONS OF IMPROVEMENT

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	10	215

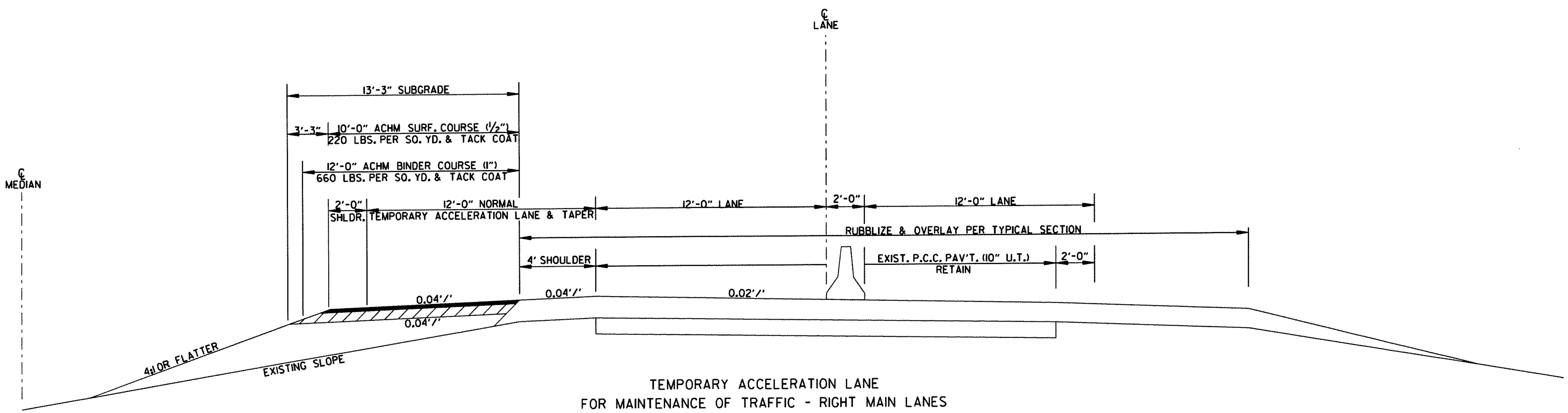
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
Wm. ANDREW PINKLEY
04-16-13



TEMPORARY ACCELERATION LANE
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

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



TEMPORARY ACCELERATION LANE
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

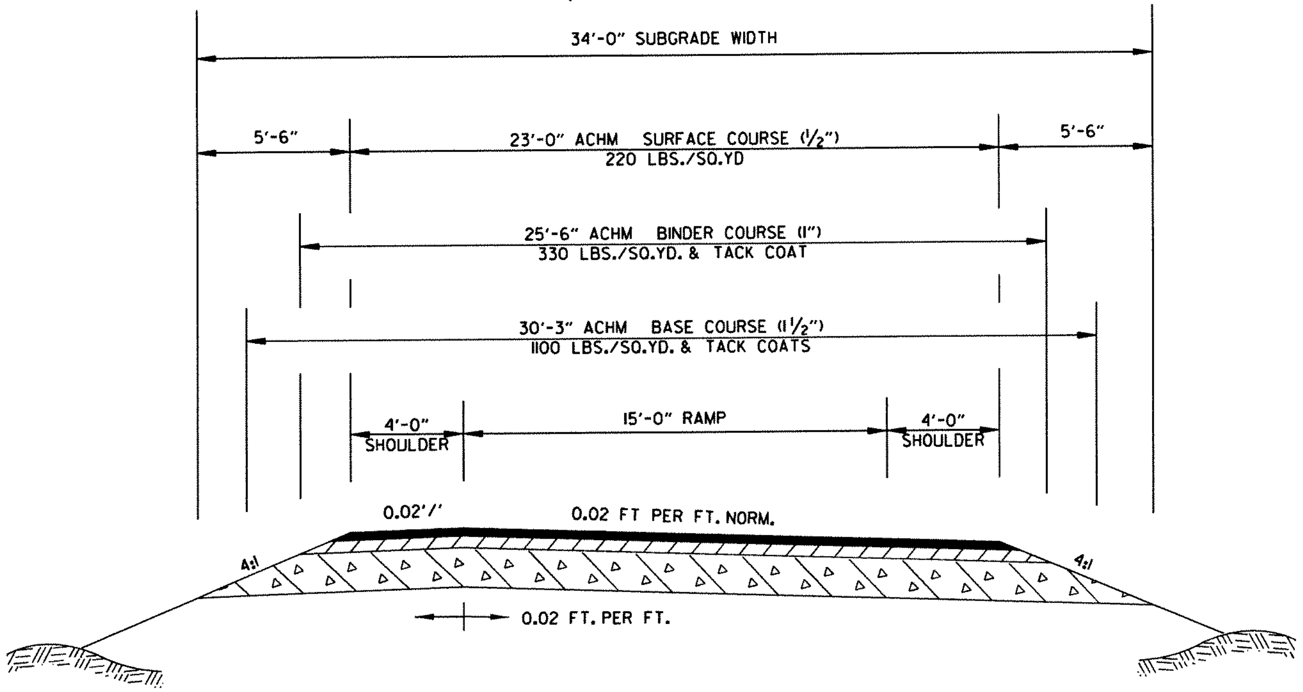
ASPHALT & CONCRETE ALTERNATE (ALT. 1& 2)
TYPICAL SECTIONS OF IMPROVEMENT

4/16/2013

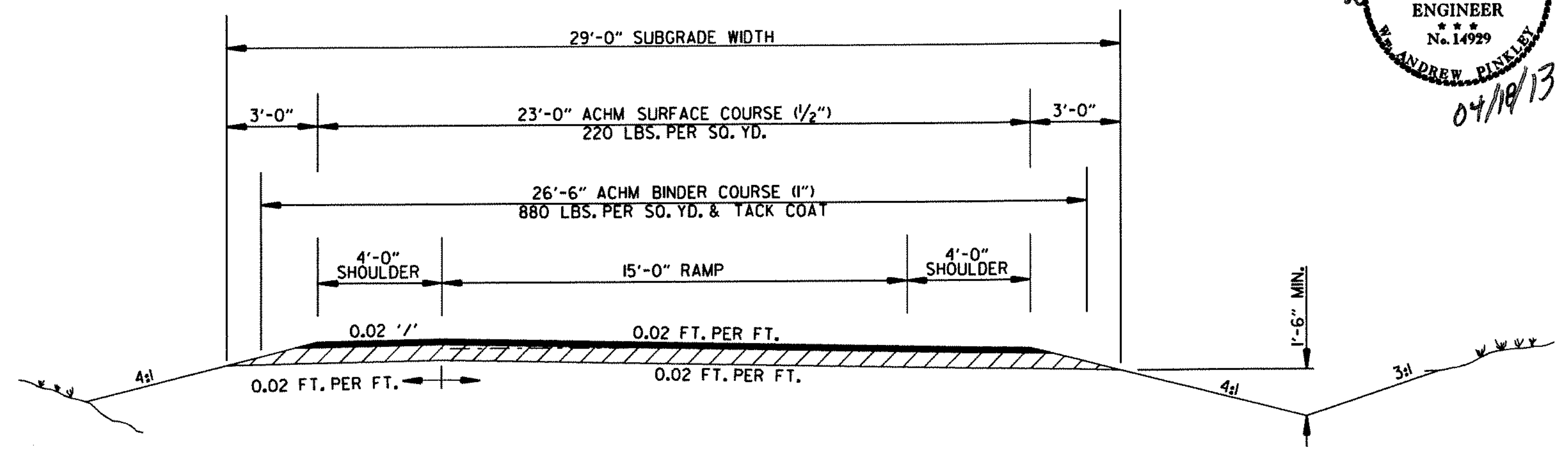
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	11	215

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04/18/13



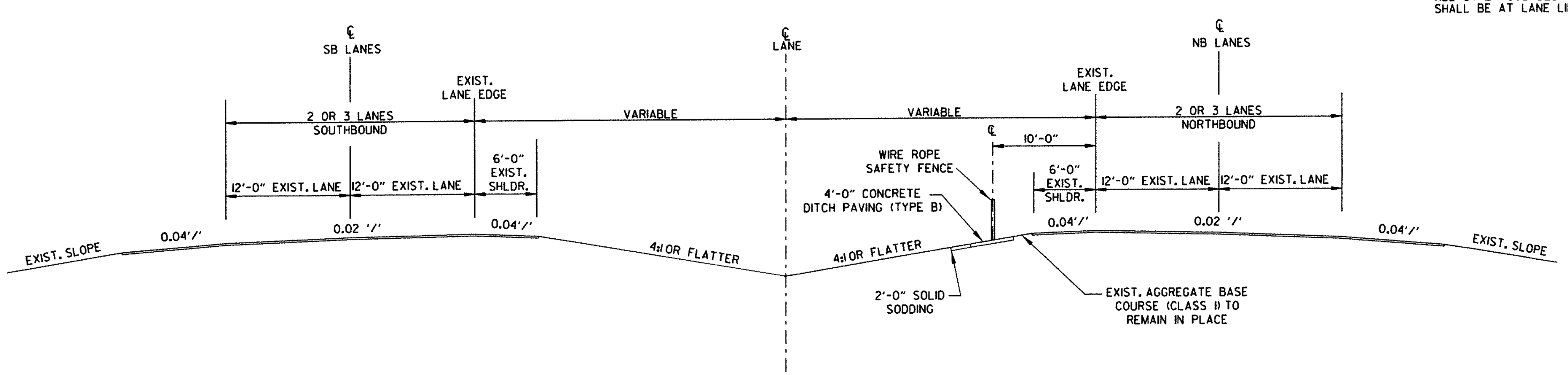
MAIN LANE CROSSOVER RAMPS
FOR
MAINTENANCE OF TRAFFIC
(SHOWN IN DIRECTION OF TRAFFIC)



TEMPORARY INTERCHANGE RAMPS
FOR
MAINTENANCE OF TRAFFIC
(SHOWN IN DIRECTION OF TRAFFIC)

NOTE:

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



TYPICAL SECTION OF IMPROVEMENT
WIRE ROPE SAFETY FENCE

MAIN LANES

STA. 28+80.00 - STA. 500+18.10

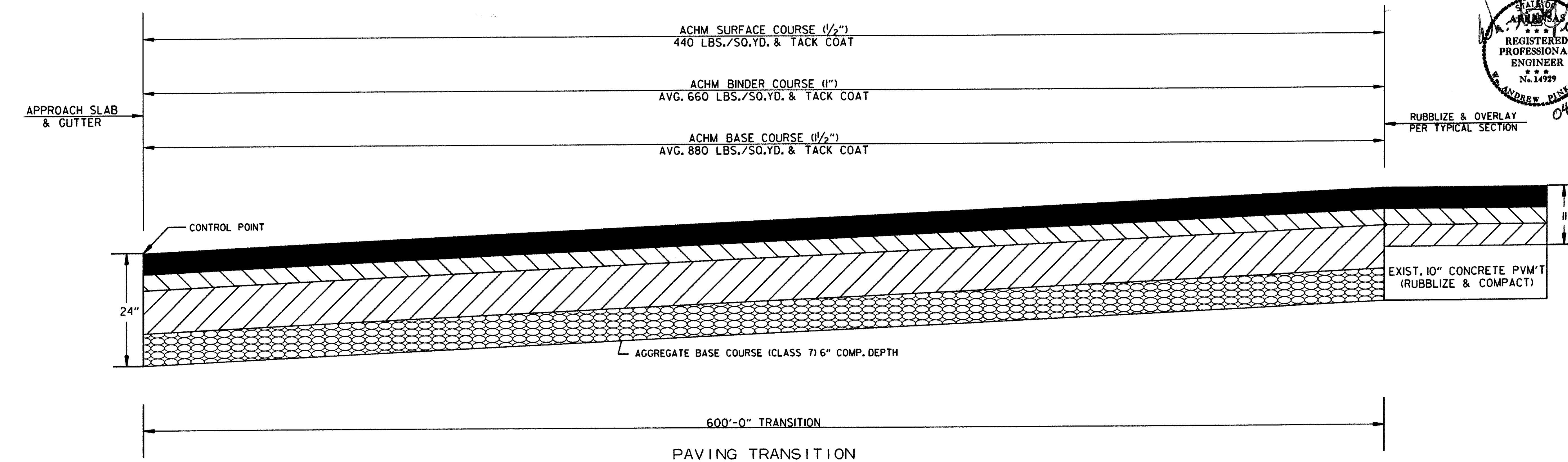
TYPICAL SECTIONS OF IMPROVEMENT

4/18/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	12	215

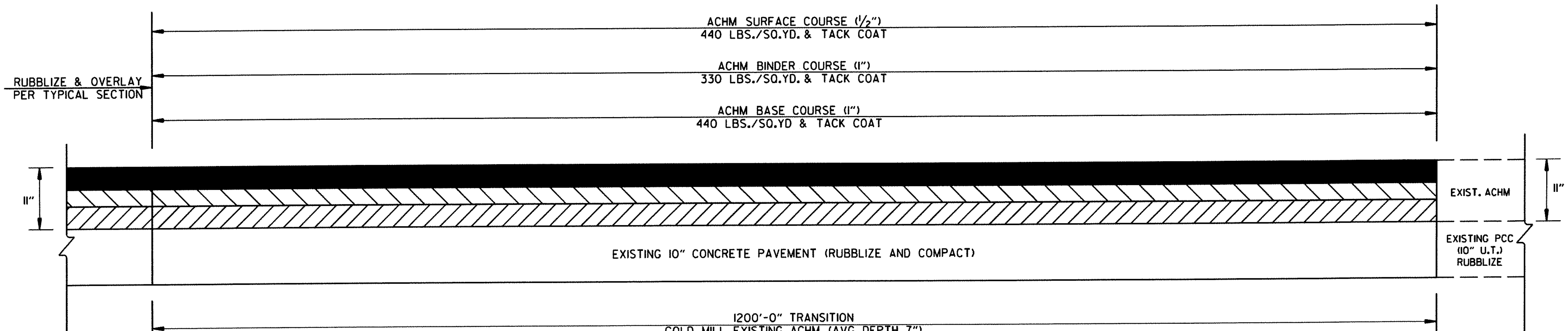
(2) SPECIAL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13



PAVING TRANSITION

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 62+73.98 - STA. 68+73.98	STA. 63+19.02 - STA. 69+19.02
STA. 252+34.45 - STA. 258+34.45	STA. 252+80.83 - STA. 258+80.83
STA. 260+94.43 - STA. 266+94.43	STA. 261+40.82 - STA. 267+40.82



PAVING TRANSITION

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 458+25.00 - STA. 470+25.00	STA. 464+00.00 - STA. 476+00.00

ASPHALT ALTERNATE (ALT. 1) SPECIAL DETAILS

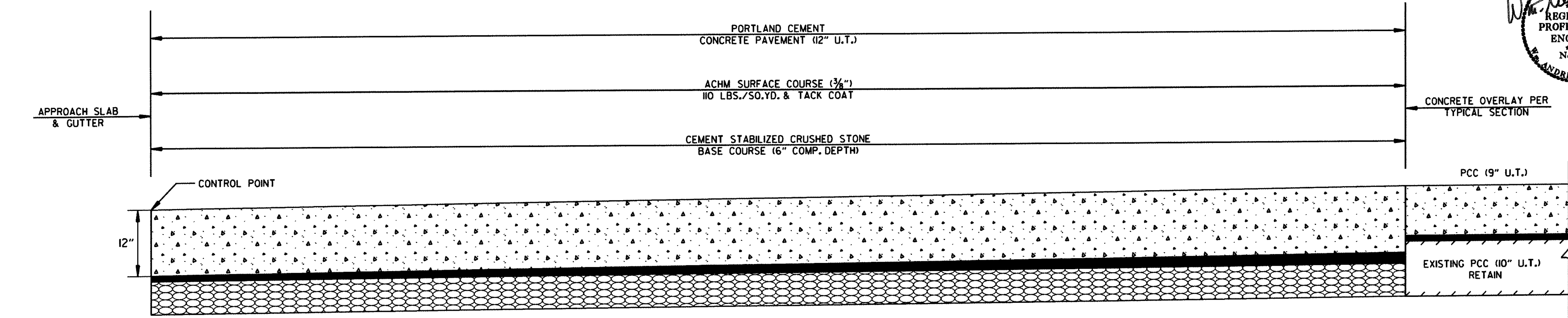
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	13	215

(2) SPECIAL DETAILS

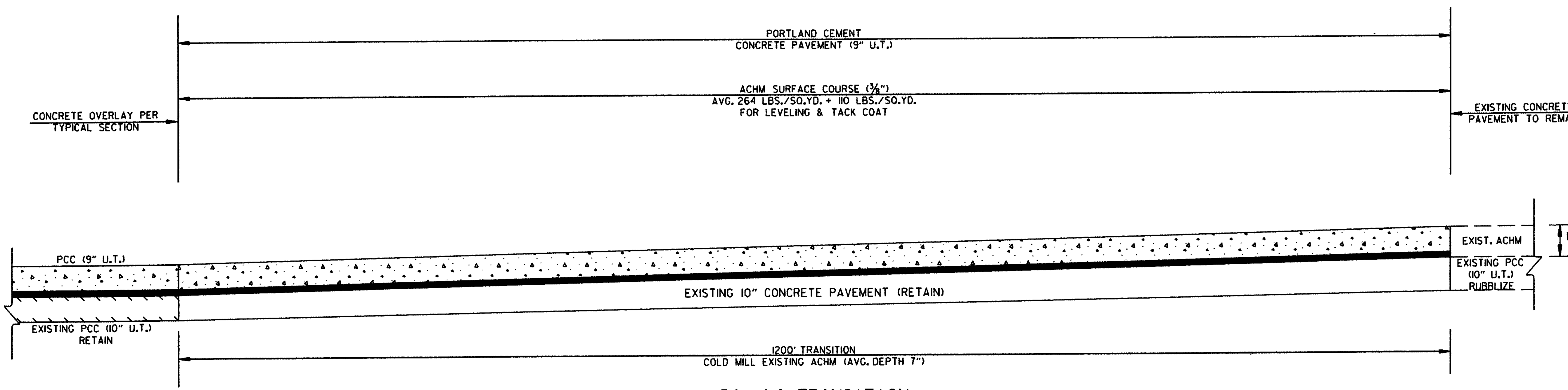
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13



PAVING TRANSITION

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 62+73.98 - STA. 68+73.98	STA. 63+19.02 - STA. 69+19.02
STA. 252+34.45 - STA. 258+34.45	STA. 252+80.83 - STA. 258+80.83
STA. 260+94.43 - STA. 266+94.43	STA. 261+40.82 - STA. 267+40.82



PAVING TRANSITION

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 458+25.00 - STA. 470+25.00	STA. 464+00.00 - STA. 476+00.00

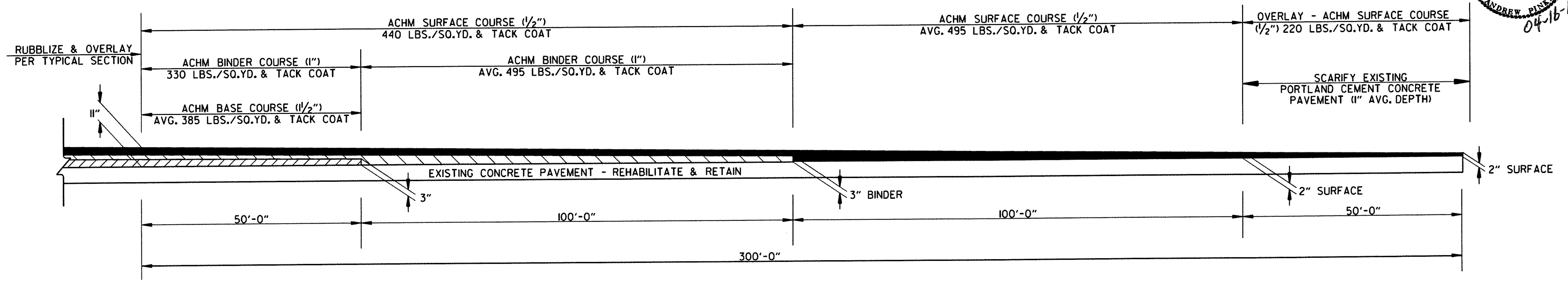
CONCRETE ALTERNATE (ALT. 2)
SPECIAL DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	14	215

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



PAVING TRANSITION @ RAMP TERMINALS

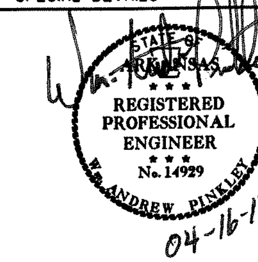
LOCATION	BEGIN	END	LENGTH (FT)
RAMP RA1	197+62.86	200+62.86	300
RAMP RA2	170+80.99	173+80.99	300
RAMP E	370+57.50	373+57.50	300
RAMP F	270+05.56	273+05.56	300
RAMP G	380+12.34	381+37.34	125
RAMP H	404+19.11	407+19.11	300

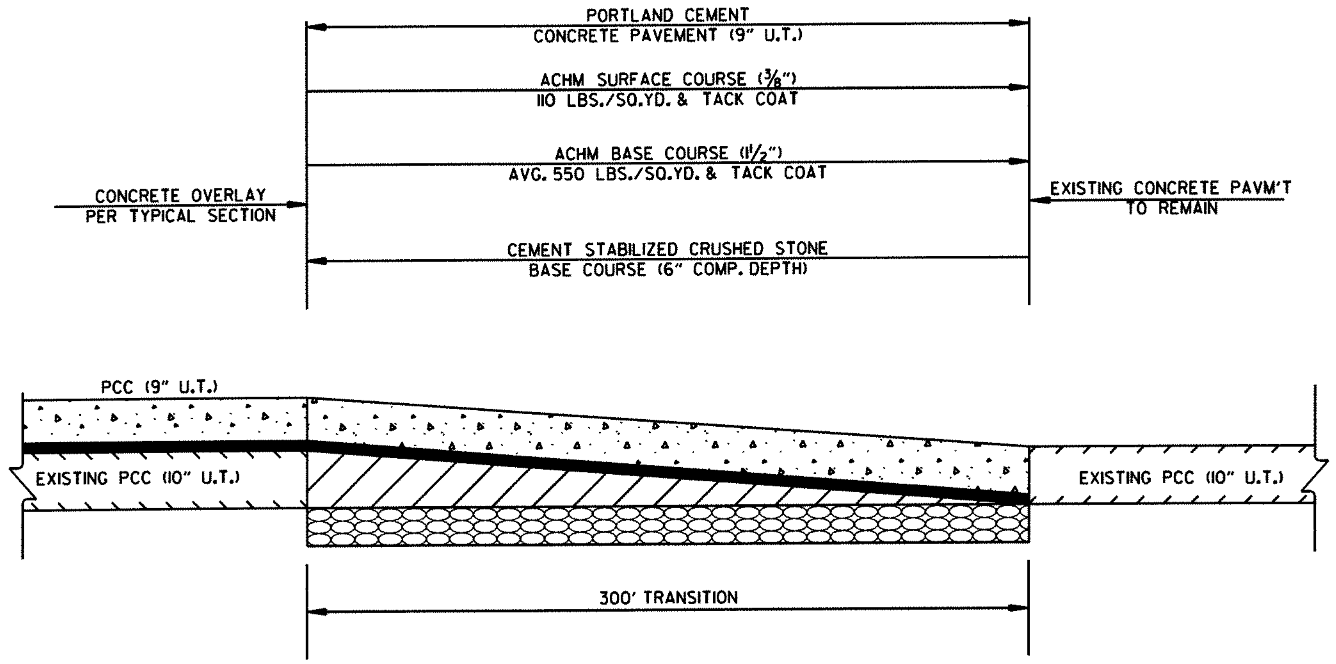
ASPHALT ALTERNATE (ALT. 1)
SPECIAL DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	15	215

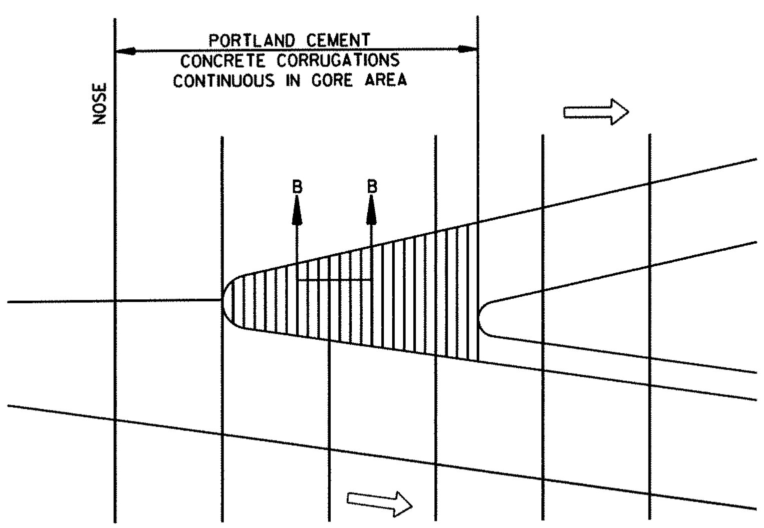
2 SPECIAL DETAILS



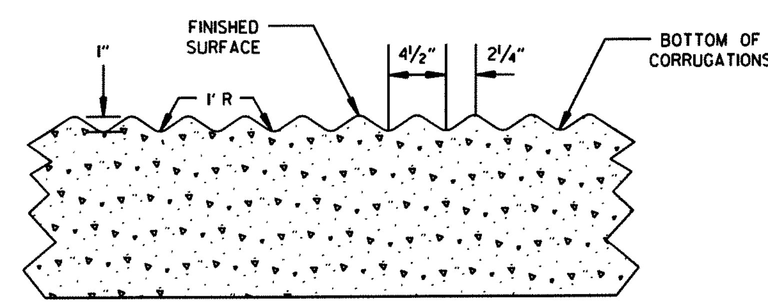


PAVING TRANSITION @ RAMP TERMINALS

LOCATION	BEGIN	END	LENGTH (FT)
RAMP RA1	197+62.86	200+62.86	300
RAMP RA2	170+80.99	173+80.99	300
RAMP E	370+57.50	373+57.50	300
RAMP F	270+05.56	273+05.56	300
RAMP G	380+12.34	381+37.34	125
RAMP H	404+19.11	407+19.11	300



LAYOUT OF SHOULDER CORRUGATIONS
IN EXIT GORE AREAS



SECTION B-B

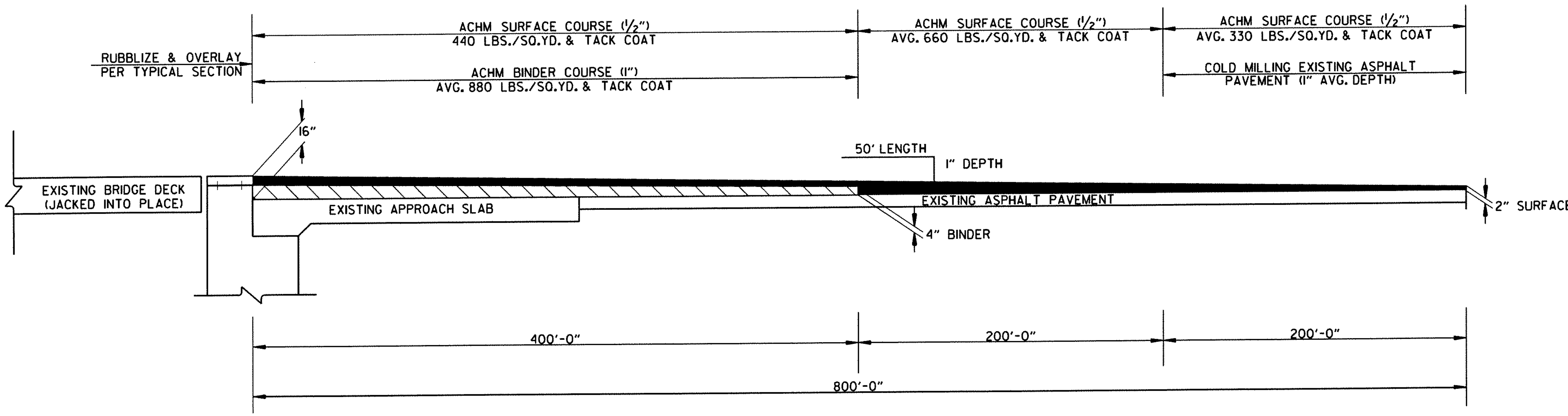
CONCRETE ALTERNATE (ALT. 2)
SPECIAL DETAILS

4/16/2013

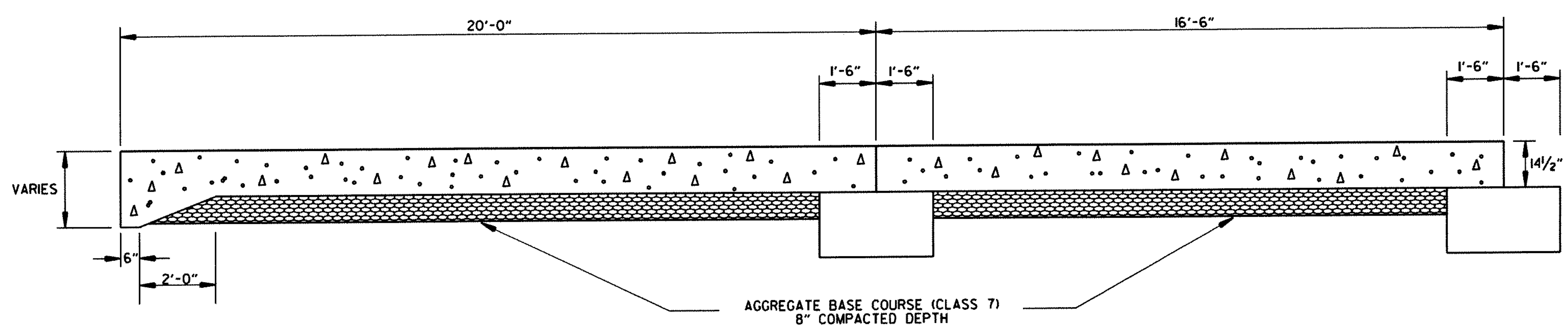
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	16	215

2 SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



PAVING TRANSITION AT BRIDGE APPROACHES TO BE JACKED
HWY. 119 BRIDGE OVERPASSES AT I-55



DETAIL OF APPROACH SLAB

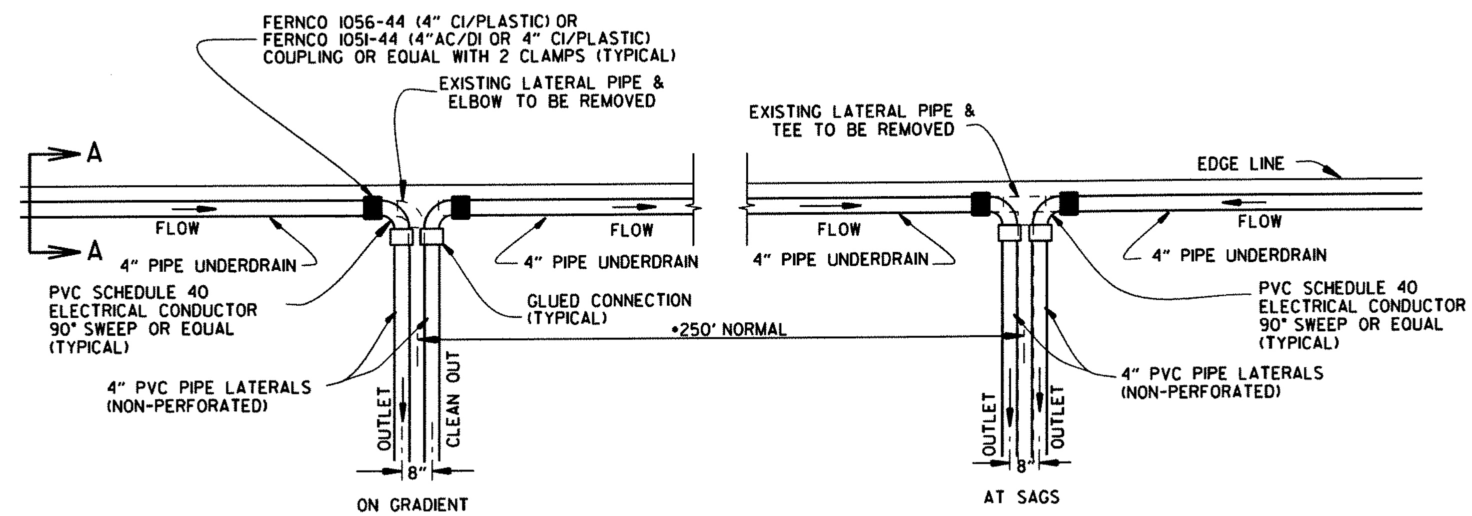
SPECIAL DETAILS

4/16/2013

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
04-16-13

NOTES FOR PIPE UNDERDRAINS

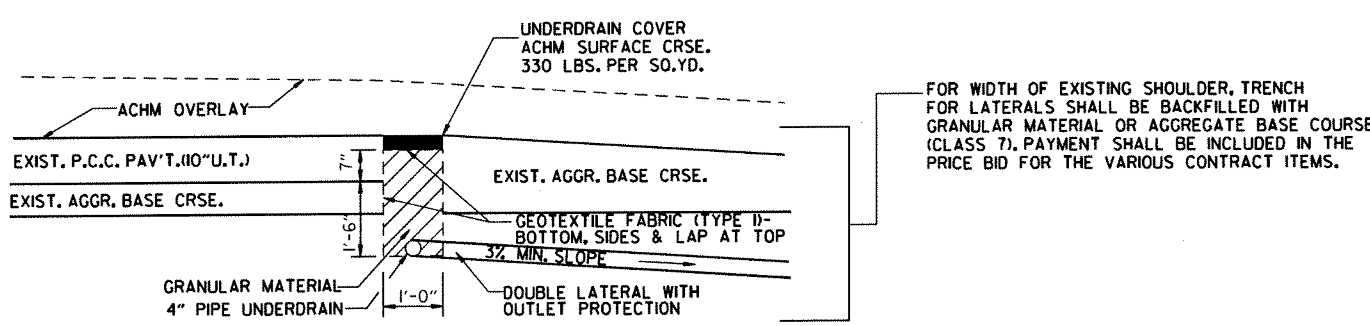
1. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."
2. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
3. 4" PIPE UNDERDRAINS SHALL BE PLACED ON THE LOW SIDE OF SUPERELEVATED ROADWAYS AS SHOWN ON THE TYPICAL SECTIONS. 4" PIPE UNDERDRAINS SHALL BE CONNECTED TO MEDIAN DROP INLETS WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
5. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAINS OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
6. THE RODENT SCREEN SHOWN HEREON SHALL BE USED IN LIEU OF THE WIRE MESH RODENT SCREEN SHOWN IN STANDARD DRAWING PU-1. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR " 4" PIPE UNDERDRAINS."
7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED, THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1) INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2) INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE. PAYMENT SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS".
8. UNDERDRAIN COVER - PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR " 4" PIPE UNDERDRAINS".



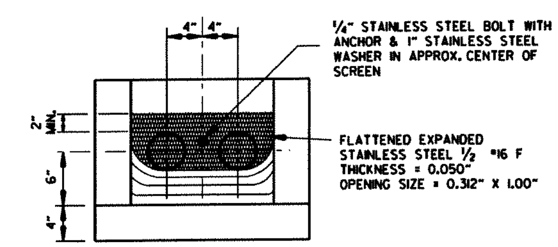
NOTE:
PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE. UNDERDRAIN OUTLET PROTECTORS SHALL BE INSTALLED ON NEW LATERALS. (REFER TO STD. DWG. PU-1.)

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

PLAN DETAIL OF PIPE UNDERDRAIN LATERALS



SECTION A-A



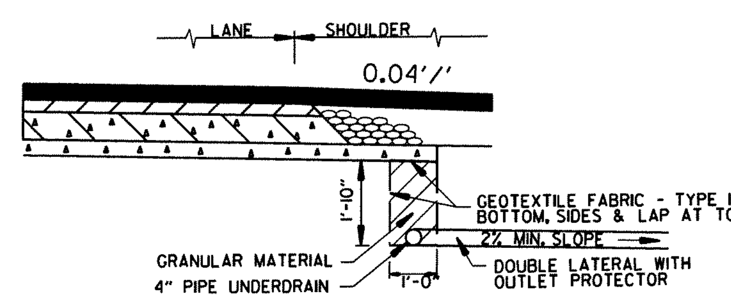
DETAIL OF RODENT SCREEN

LEFT MAIN LANES

STA. 80+37.48 - STA. 240+70.95
STA. 252+70.95 - STA. 266+57.93
STA. 278+57.93 - STA. 462+83.70

RIGHT MAIN LANES

STA. 80+82.52 - STA. 241+17.33
STA. 253+17.33 - STA. 267+04.32
STA. 279+04.32 - STA. 456+83.70



• NOTE:
IN LIEU OF LAPPING GEOTEXTILE FABRIC, THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, UTILIZE AN ALTERNATE METHOD FOR PROVIDING A POSITIVE CLOSURE.

LEFT MAIN LANES

STA. 62+37.48 - STA. 68+37.48
STA. 252+70.95 - STA. 258+70.95
STA. 260+57.93 - STA. 266+57.93

RIGHT MAIN LANES

STA. 62+82.52 - STA. 68+82.52
STA. 253+17.33 - STA. 259+17.33
STA. 261+04.32 - STA. 267+04.32

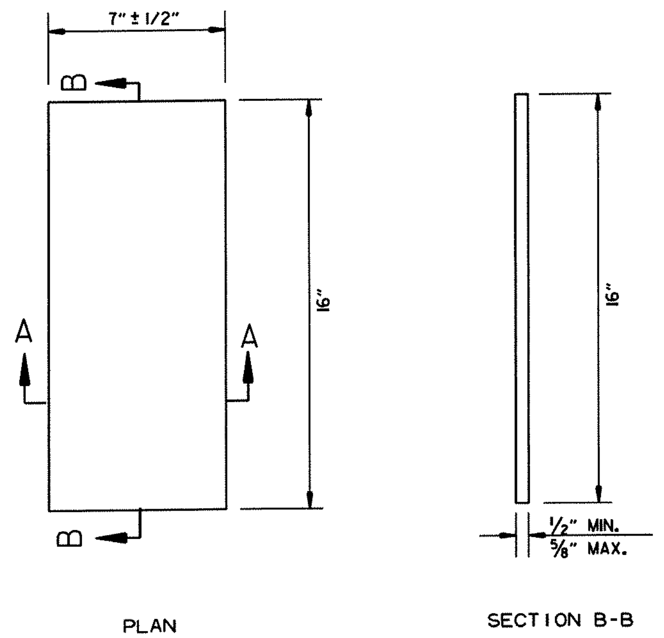
SPECIAL DETAILS

4/16/2013

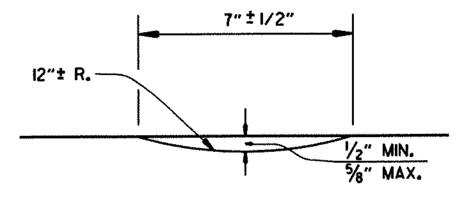
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	18	215

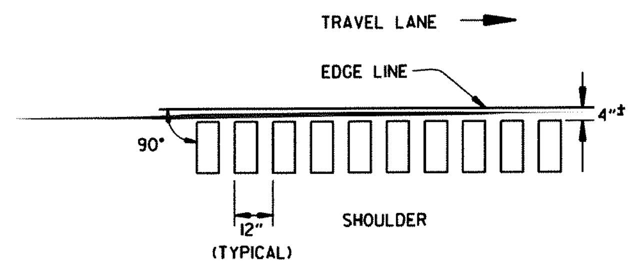
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04-16-13

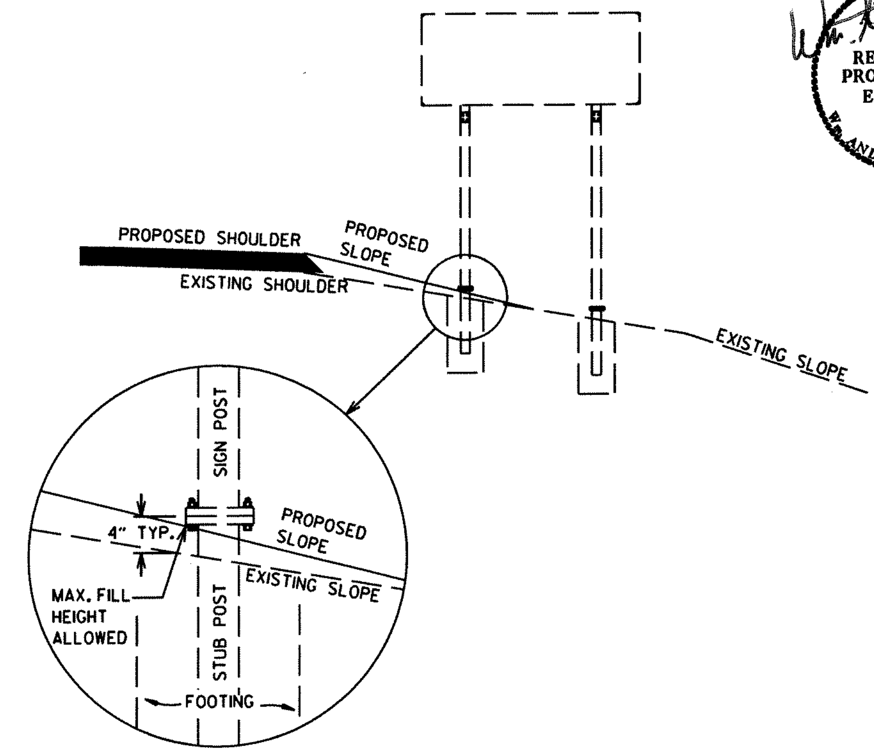


DETAILS OF RUMBLE STRIPS

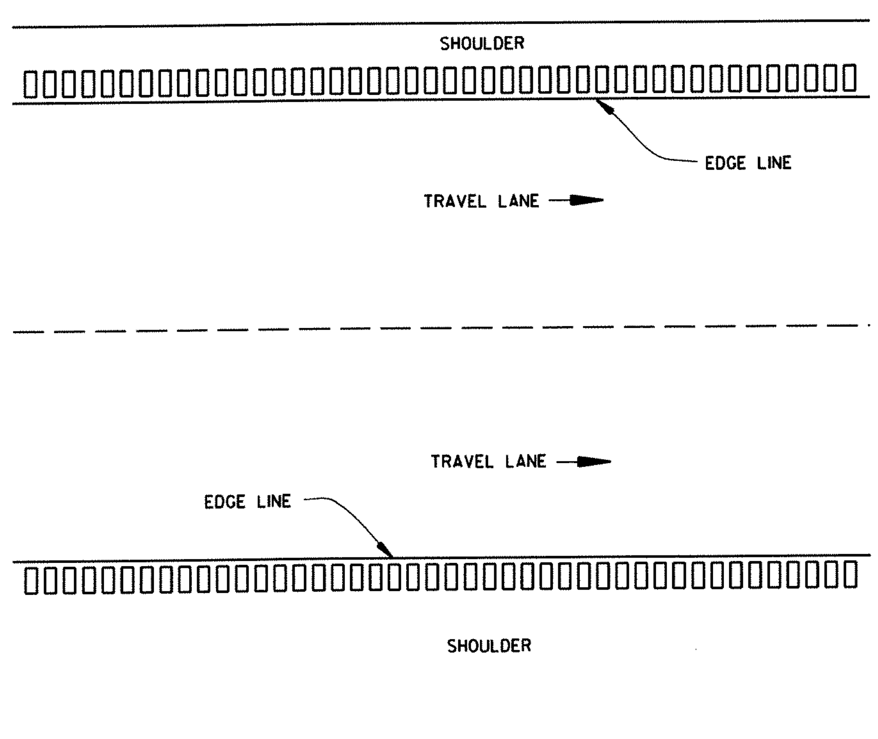




LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

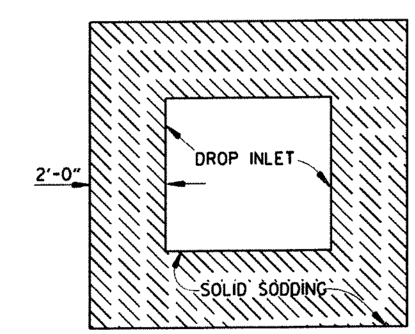


DETAIL FOR THE MAINTENANCE OF
EXISTING BREAKAWAY SIGN STRUCTURES



PLAN VIEW

1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.



PLAN

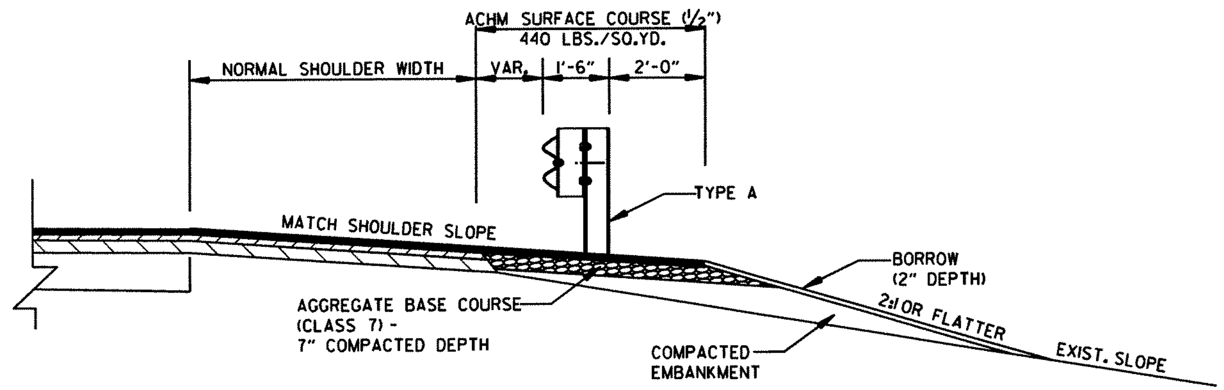
DETAIL OF SOLID SODDING
AROUND DROP INLET

SPECIAL DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	19	215
				②	SPECIAL DETAILS			

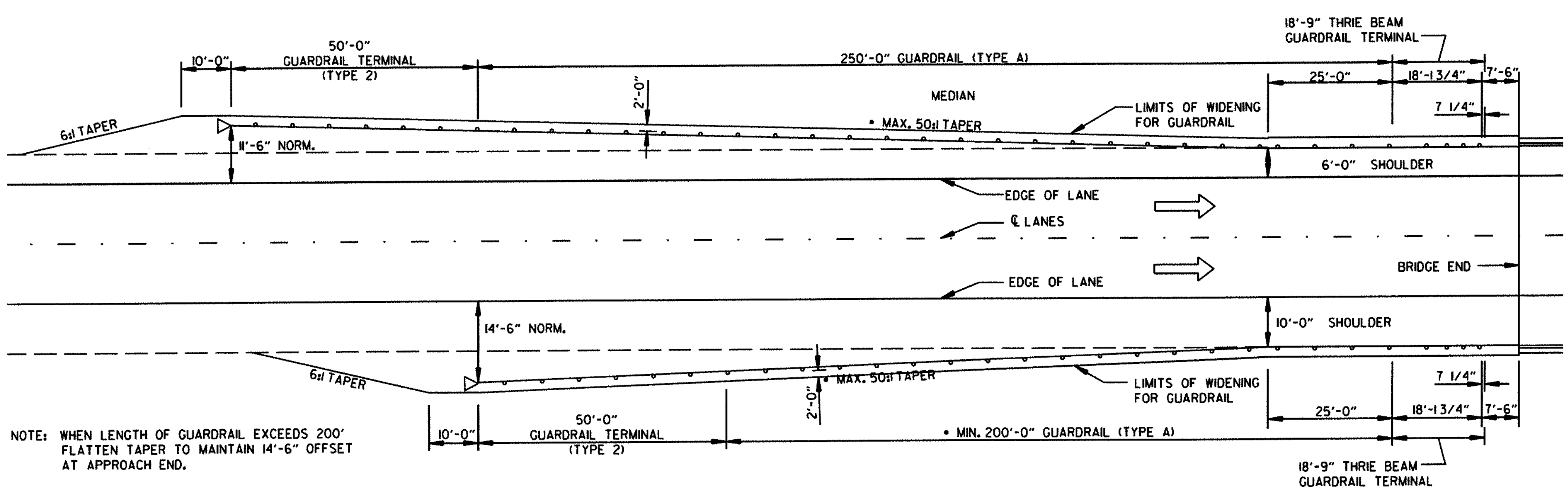
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



SECTION DETAILS OF WIDENING FOR GUARDRAIL

NOTE: REFER TO STANDARD DRAWINGS: GR-8, GR-9, GR-9A, GR-10, GR-10A, GR-11 & GRT-1 FOR ADDITIONAL INFORMATION.

NOTE: LAYOUT OF GUARDRAIL AT CONCRETE PIER PROTECTION SHALL BE AS SHOWN FOR RIGHT SIDE OF BRIDGE.



NOTE: WHEN LENGTH OF GUARDRAIL EXCEEDS 200' FLATTEN TAPER TO MAINTAIN 14'-6" OFFSET AT APPROACH END.

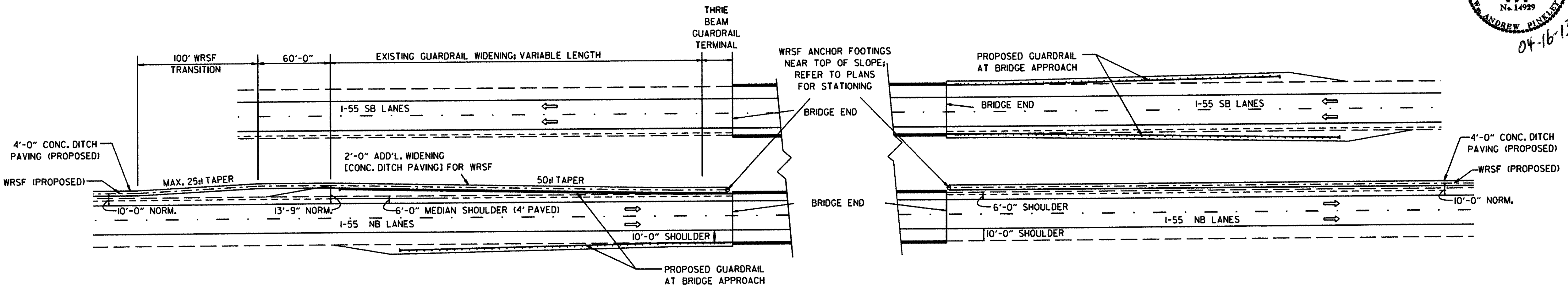
TYPICAL LAYOUT OF GUARDRAIL AT BRIDGE ENDS

SPECIAL DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	20	215
				(2)		SPECIAL DETAILS		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



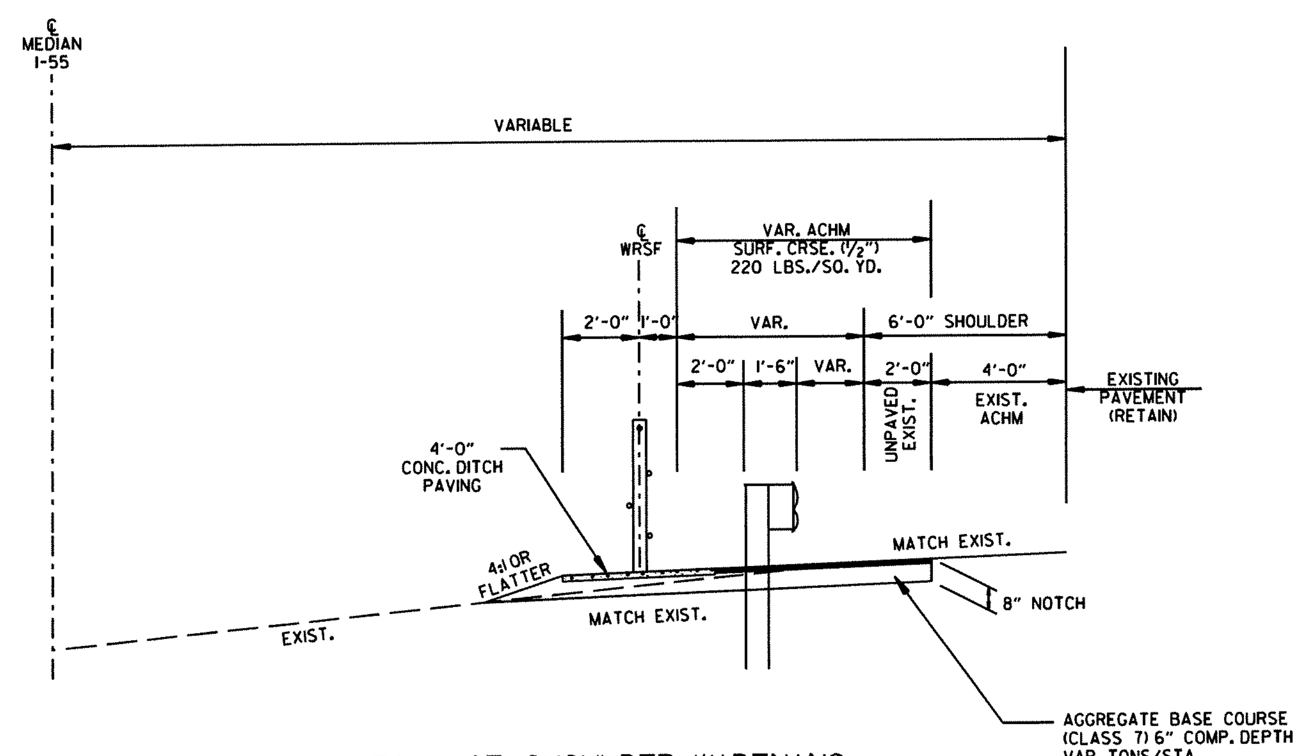
WRSF AND EXIST. GUARDRAIL ON SAME SIDE OF MEDIAN

END WRSF
B3288: STA. 61+50.00
B3289: STA. 259+00.00

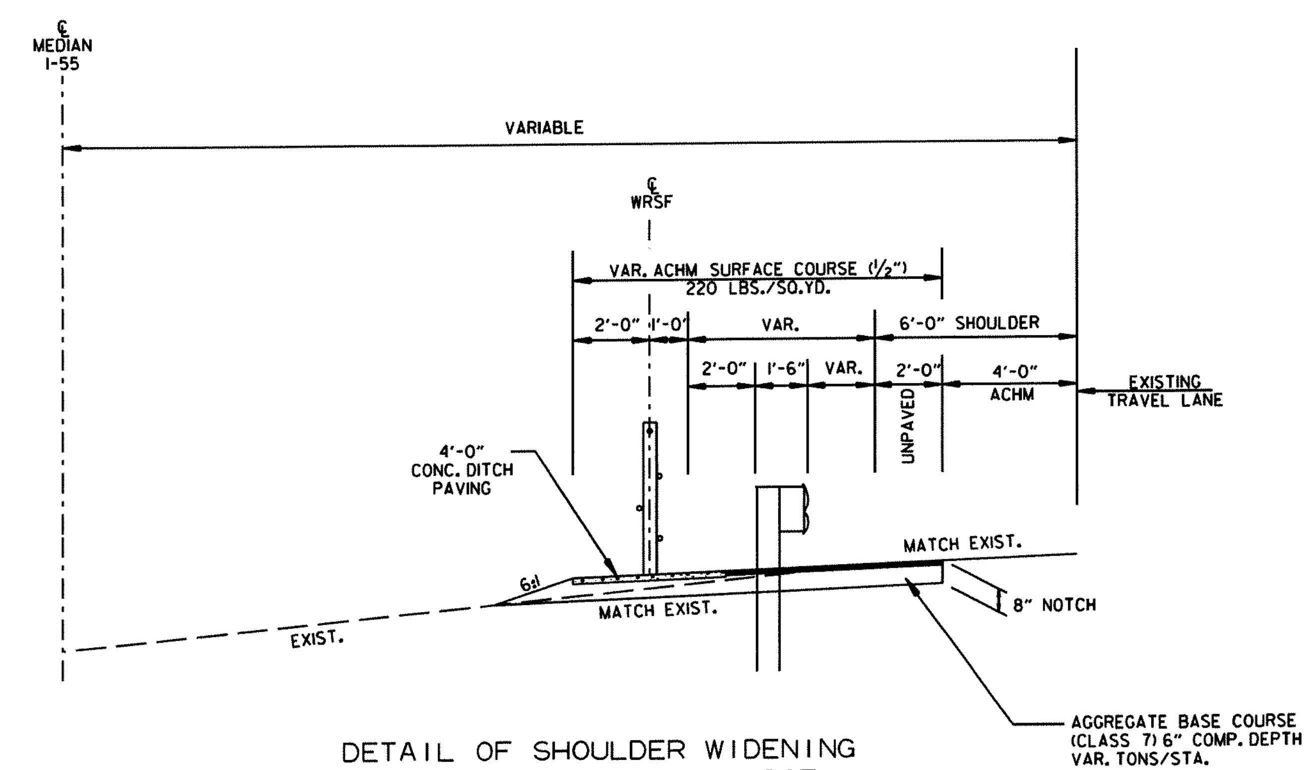
BEGIN WRSF
HWY 181: STA. 28+80.00
B3288: STA. 63+12.63
B3289: STA. 261+00.00

WRSF AND EXIST. GUARDRAIL ON OPPOSITE SIDES OF MEDIAN

DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS



DETAIL OF SHOULDER WIDENING FOR GUARDRAIL WITH WRSF EXISTING PAVEMENT



DETAIL OF SHOULDER WIDENING FOR GUARDRAIL WITH WRSF FULL DEPTH PAVEMENT

SPECIAL DETAILS

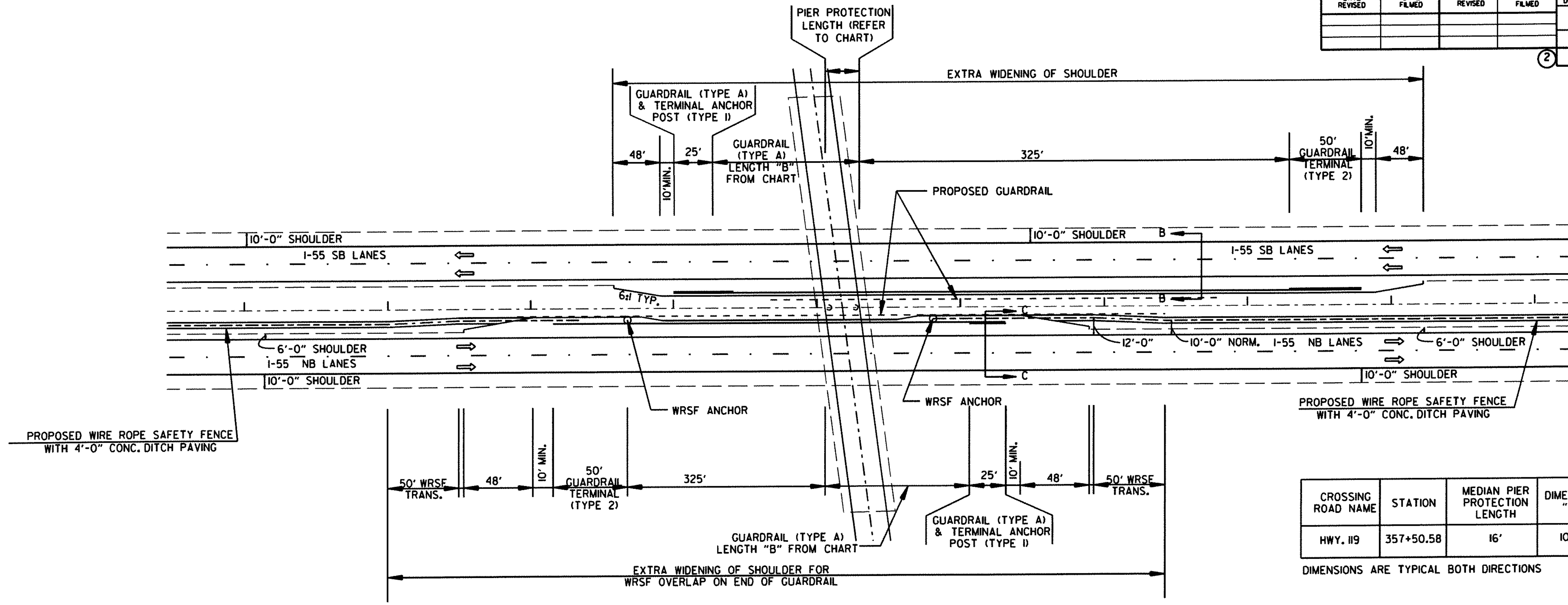
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	21	215

(2) SPECIAL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13



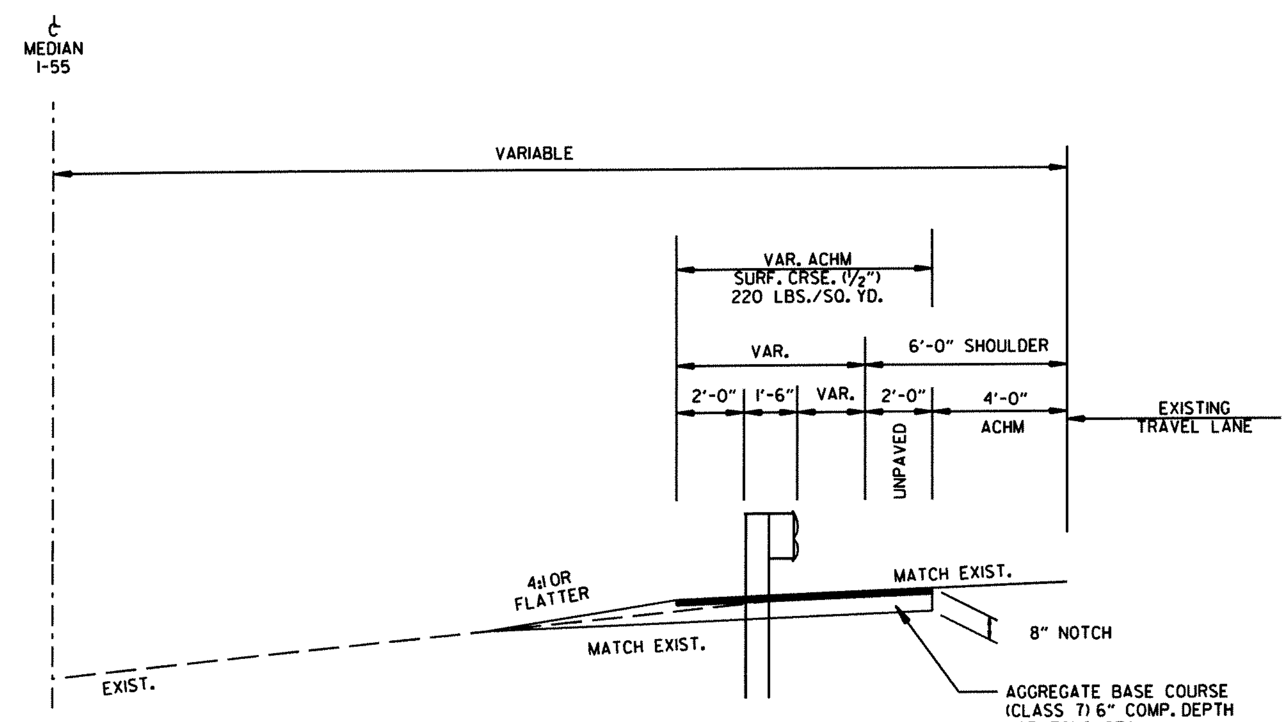
CROSSING ROAD NAME	STATION	MEDIAN PIER PROTECTION LENGTH	DIMENSION "B"	LENGTH FOR ONE SIDE GUARDRAIL •
HWY. 119	357+50.58	16'	100'	450'

DIMENSIONS ARE TYPICAL BOTH DIRECTIONS

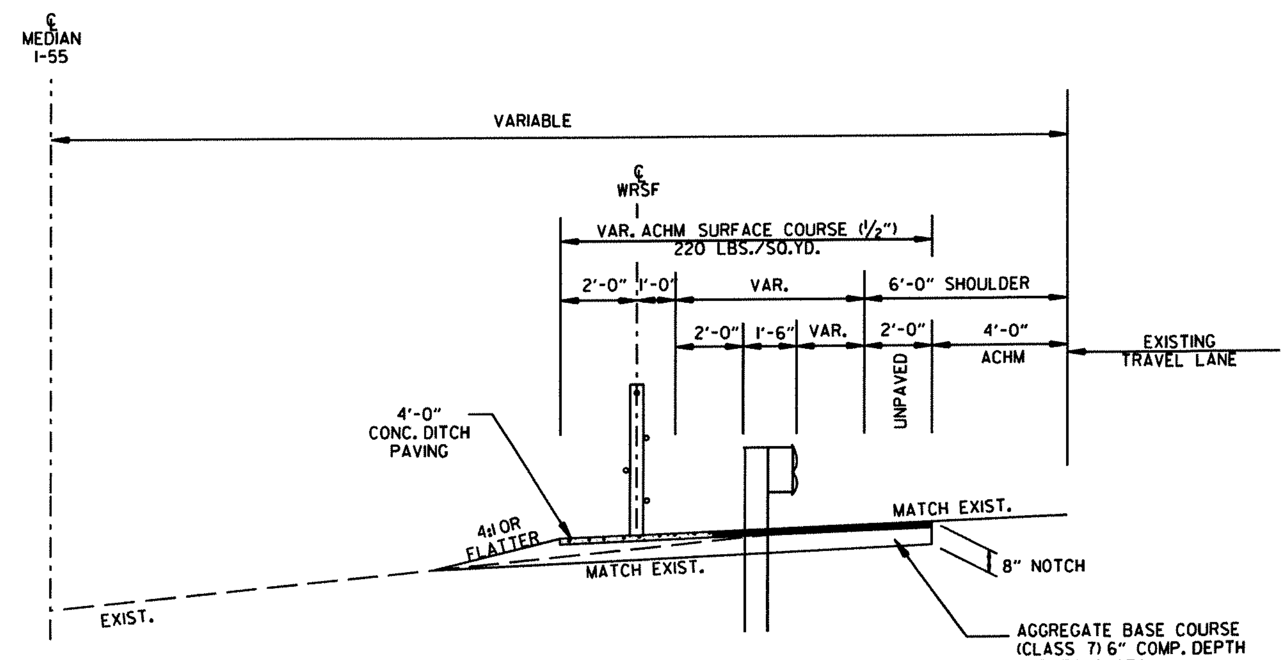
• GUARDRAIL LENGTH IS ROUNDED UP BASED ON GUARDRAIL STOCK LENGTH OF 25.0'

DETAIL AT OVERPASS
HWY. 119 (BR. NO. 3290)

END WRSF: STA. 353+97.33
BEGIN WRSF: STA. 358+08.45



SECTION B-B



SECTION C-C

SPECIAL DETAILS

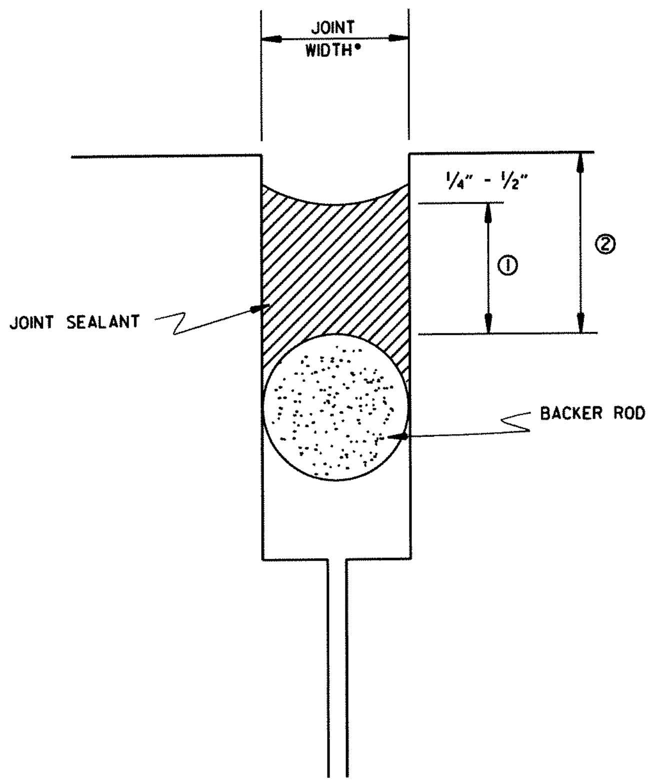
4/16/2013

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★ ★ ★
No. 14929
E. ANDREW PINKLEY
04-16-13

JOINT CONFIGURATION FOR TYPE 3 & 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
	INCHES		
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2
5/8	5/16	3/4	9/16
3/4	3/8	7/8	7/8
7/8	7/16	1	11/16
1	1/2	1 1/4	3/4
1 TO 1 1/2	1/2	1 1/4 +	3/4

NOTE: JOINTS GREATER THAN 1 1/2" IN WIDTH SHALL BE SEALED WITH TYPE 5 JOINT SEALANT.



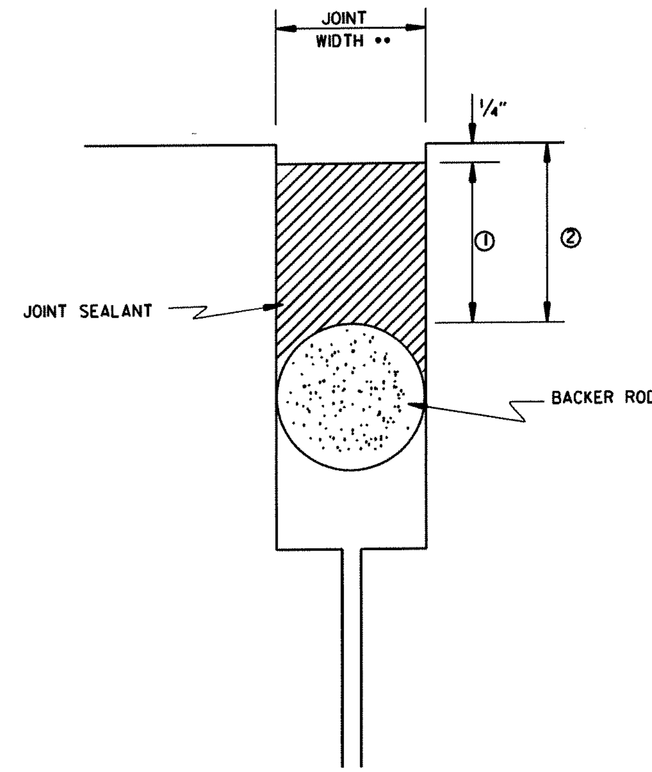
DETAILS OF TYPE A OR TYPE B JOINT REHABILITATION

* CONTRACTION JOINTS SHALL BE SAWED TO MIN. WIDTH OF 3/8".

WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	APPROX. WIDTH TO DEPTH RATIO	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES		INCHES		
1/4	1:2	1/2	3/8	3/4
3/8		3/4	1/2	1
1/2		1	5/8	1 1/4
5/8		1 1/4	3/4	1 1/2
3/4	1:1.75	1 3/8	7/8	1 5/8
7/8		1 1/2	1	1 3/4
1	1:1.6	1 5/8	1 1/4	1 7/8
1 TO 3		1 5/8 +	1 1/4 +	1 7/8 +



DETAILS OF TYPE B JOINT REHABILITATION

** WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

NOTE:

FOR JOINTS WIDER THAN 1 1/2", THE CONTRACTOR SHALL HAVE THE OPTION OF COMPLETELY FILLING THE JOINT IN LIEU OF USING A BACKER ROD.

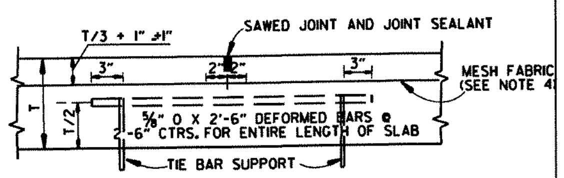
REFER TO SECTION 509 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

4/16/2013

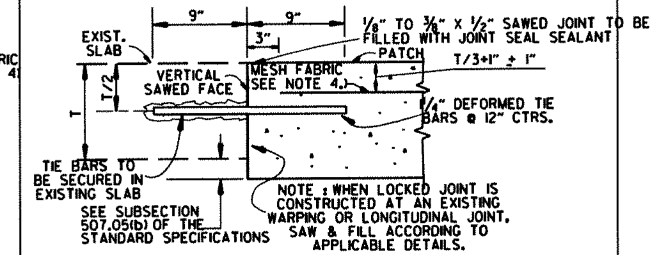
SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	23	215

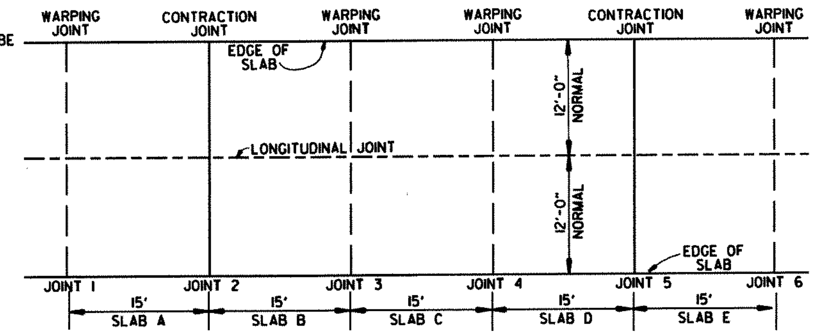
SPECIAL DETAILS



SECTION A-A
TIED LONGITUDINAL JOINT



SECTION D-D
LOCKED JOINT



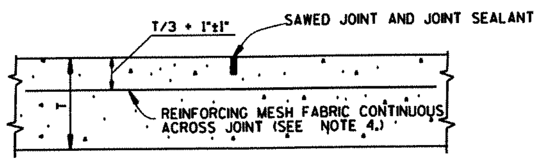
PLAN OF PAVEMENT REPAIR
(FULL SLABS)

TYPICAL SLAB REPLACEMENT EXAMPLES

SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		

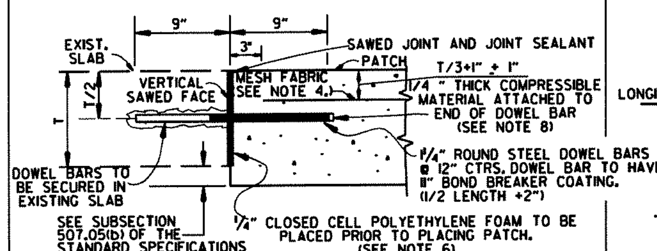
NOTES FOR PAVEMENT REPAIR (2)

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF +1 INCH. MESH FABRIC SHALL BE 12 x 12 - W4 x W4 WELDED WIRE FABRIC (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION.
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL, COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. 1/4" THICK, COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS 1" WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS 1/4" WILL BE ALLOWED FOR THE TILT AND SKEW.



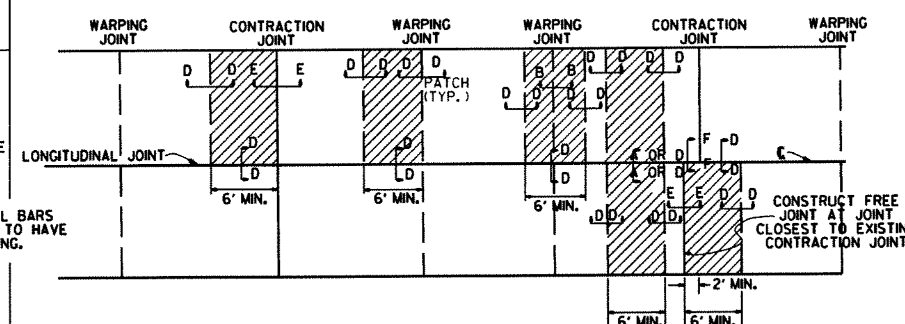
SECTION B-B

WARPING JOINT

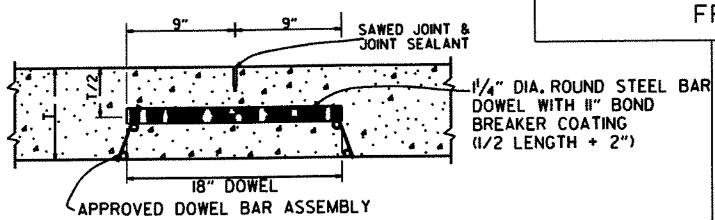


SECTION E-E

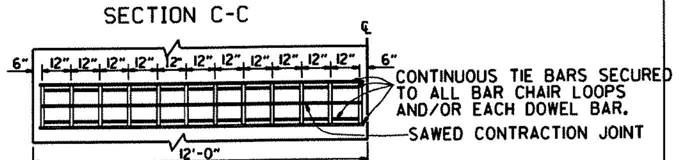
FREE TRANSVERSE JOINT



PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)



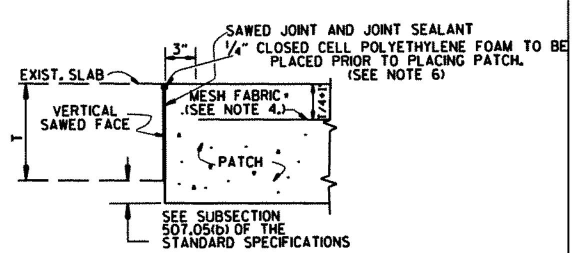
SECTION C-C



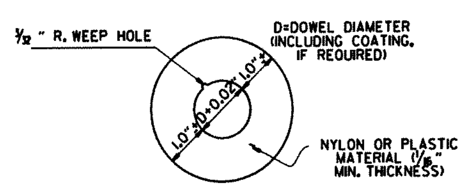
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



SECTION F-F
FREE LONGITUDINAL JOINT



DETAIL OF EPOXY RETENTION DISK

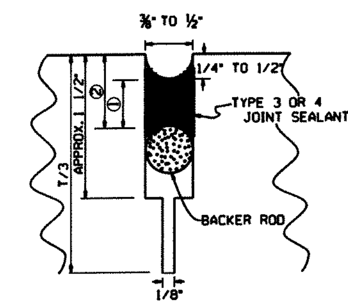
NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

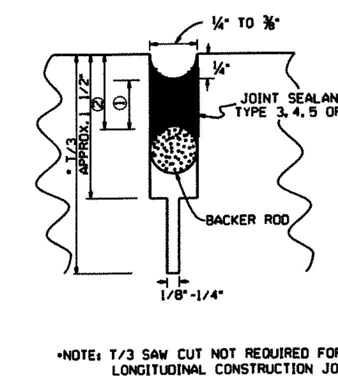
JOINT WIDTH	SEALANT THICKNESS (1)	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH (2)
INCHES			
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2

JOINT CONFIGURATION FOR TYPE 5 OR 7 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS (1)	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH (2)
INCHES			
1/4	1/2	3/8	3/4
3/8	3/4	1/2	1

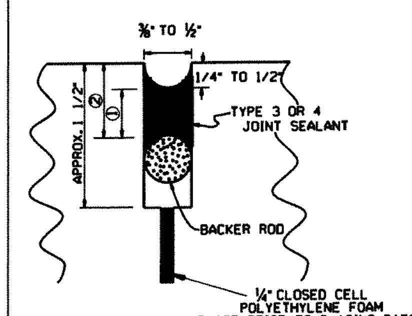


DETAIL OF SAWED CONTRACTION JOINT

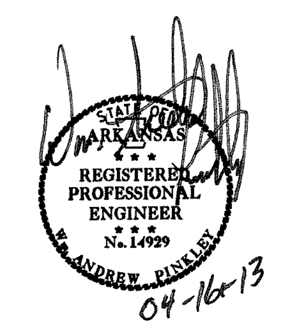


*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT

DETAIL OF SAWED TIED LONGITUDINAL JOINT AND WARPING JOINT



DETAIL OF SAWED FREE TRANSVERSE & FREE LONGITUDINAL JOINT



DETAILS OF PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (MAIN LANES)

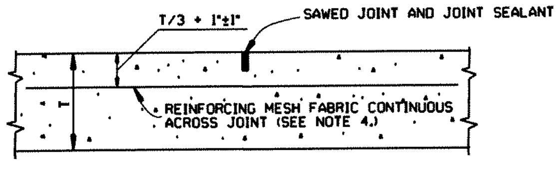
SPECIAL DETAILS

4/16/2013

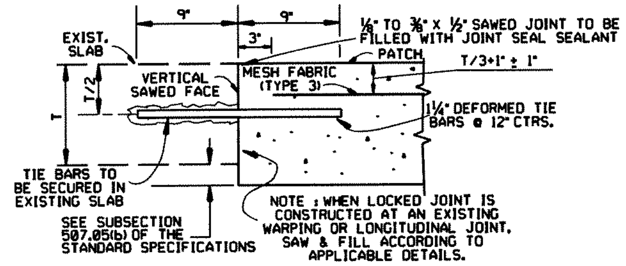
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	24	215

(2) SPECIAL DETAILS

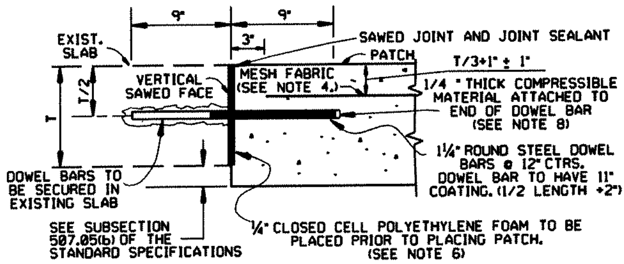
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINELEY
04-16-13



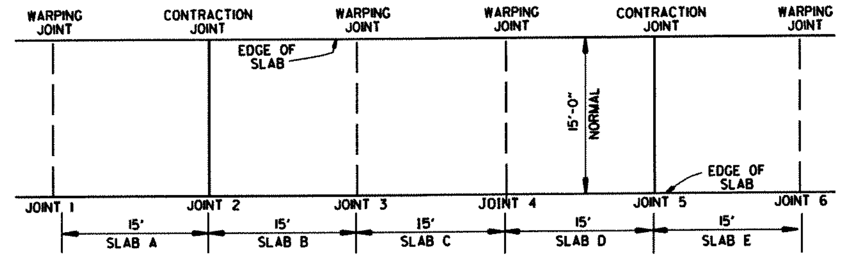
SECTION B-B
WARPING JOINT



SECTION D-D



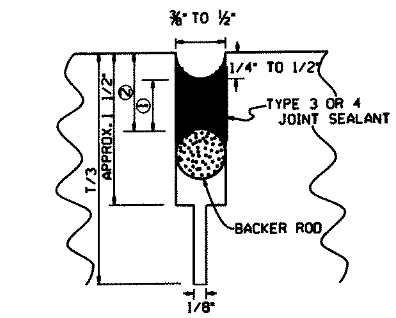
SECTION E-E
FREE TRANSVERSE JOINT



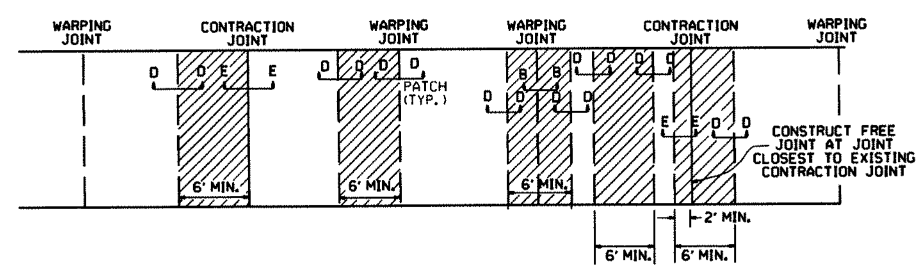
PLAN OF PAVEMENT REPAIR
(FULL SLABS)

TYPICAL SLAB REPLACEMENT EXAMPLES

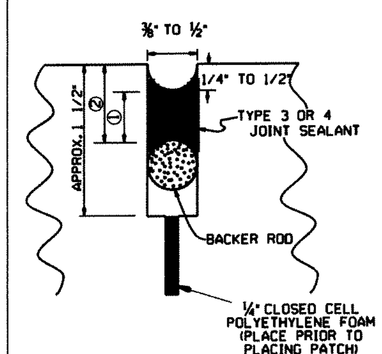
SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		



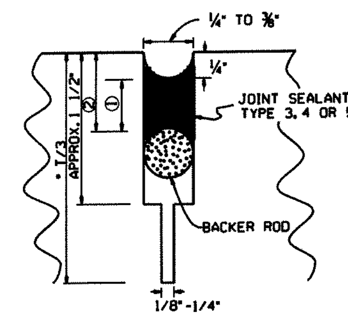
DETAIL OF SAWED CONTRACTION JOINT



PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)

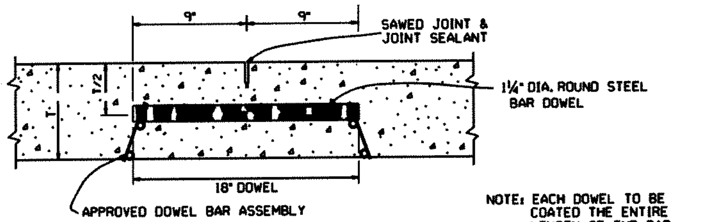


DETAIL OF SAWED FREE TRANSVERSE JOINT



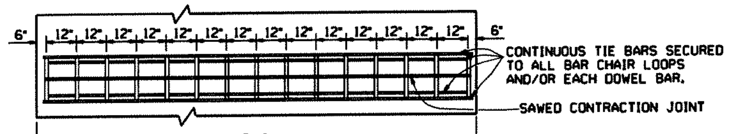
*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED WARPING JOINT



NOTE: EACH DOWEL TO BE COATED THE ENTIRE LENGTH OF THE BAR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

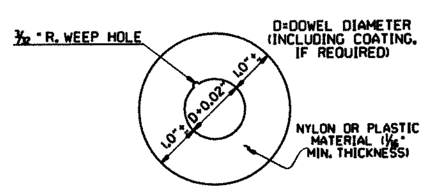
SECTION C-C



15' PAVEMENT
15 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



DETAIL OF EPOXY RETENTION DISK

NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅜	¾
⅜	¾	½	1

NOTES FOR PAVEMENT REPAIR

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF ±1 INCH. MESH FABRIC SHALL BE 12 x 12 - W4 x W4 WELDED WIRE FABRIC (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION. MINIMUM COVER AT EDGES SHALL BE 2".
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL. COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. ¼" THICK COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW.

DETAILS OF PORTLAND CEMENT CONCRETE PAVEMENT PATCHING FOR RAMPS

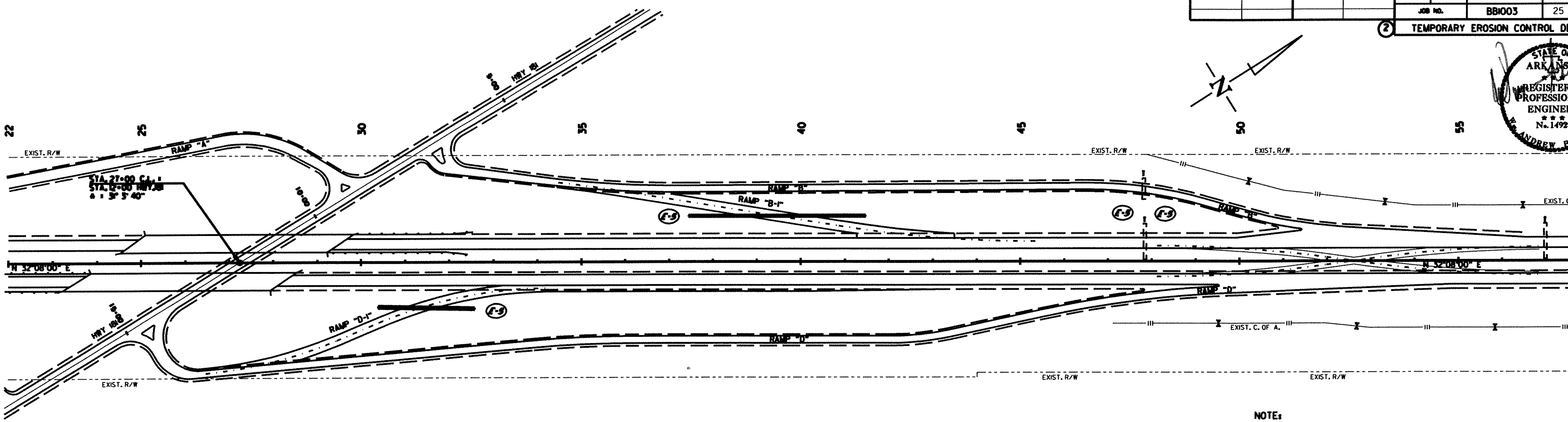
SPECIAL DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	25	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY

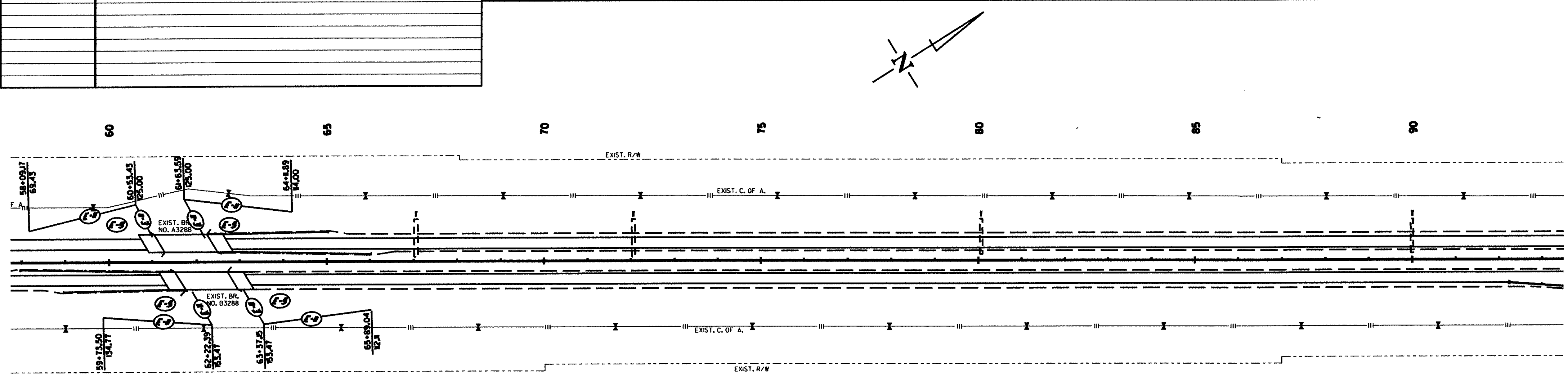


NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.

REVISION BOX

DATE OF REVISION	REVISION



LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-8)	SILT FENCE
	CENTERLINE CONSTRUCTION

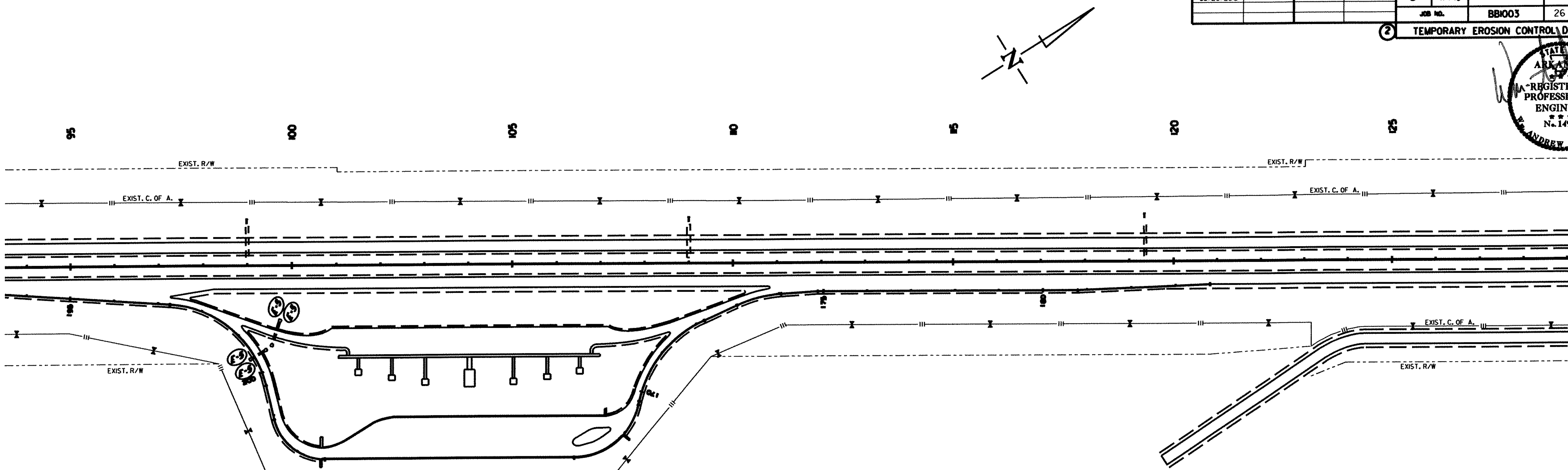
TEMPORARY EROSION CONTROL DETAILS - STAGE I-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	26	215

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 E. ANDREW PINKLEY 05/20/13



REVISION BOX

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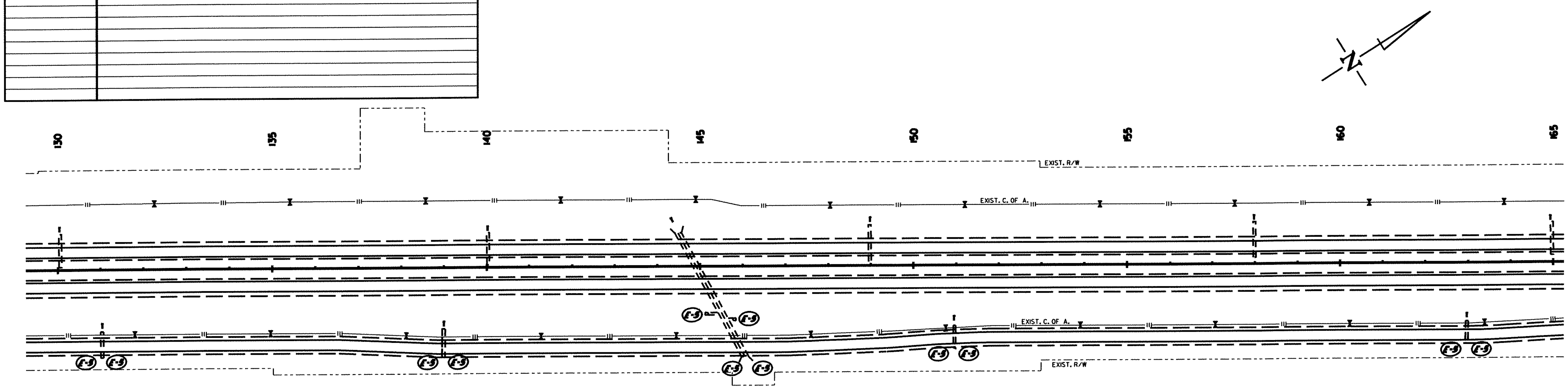


LEGEND	
E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-8	SILT FENCE
├──┼──┤	CENTERLINE CONSTRUCTION

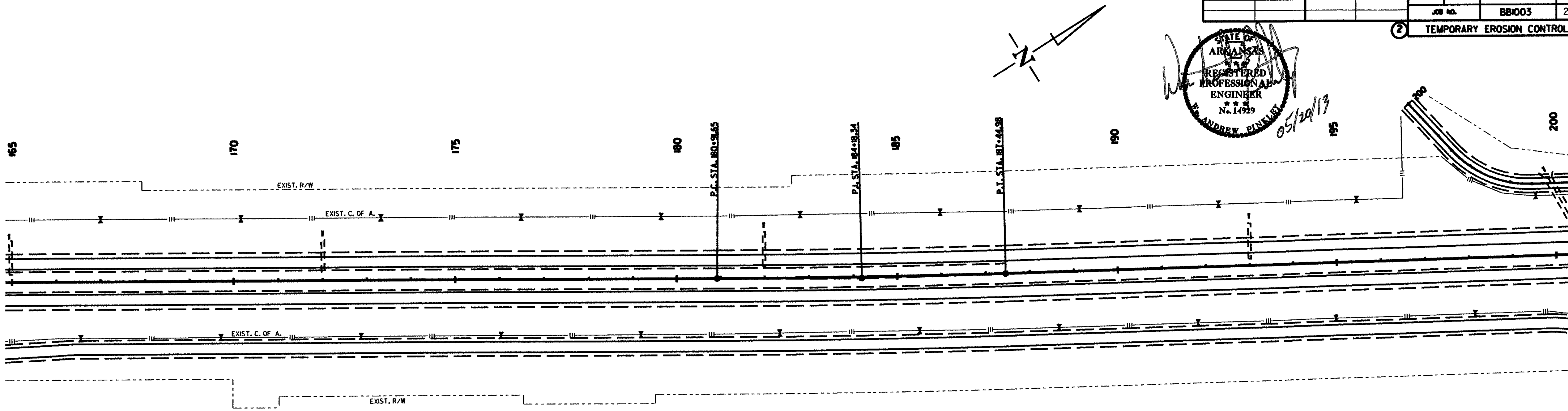
TEMPORARY EROSION CONTROL DETAILS - STAGE I-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	26A	215

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

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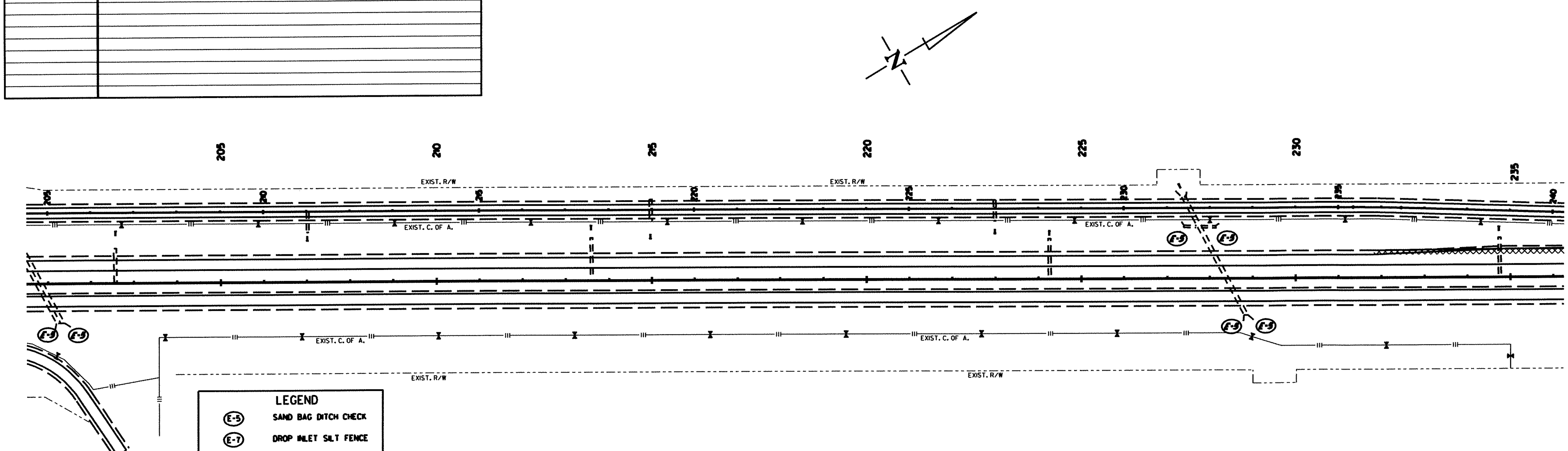


LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

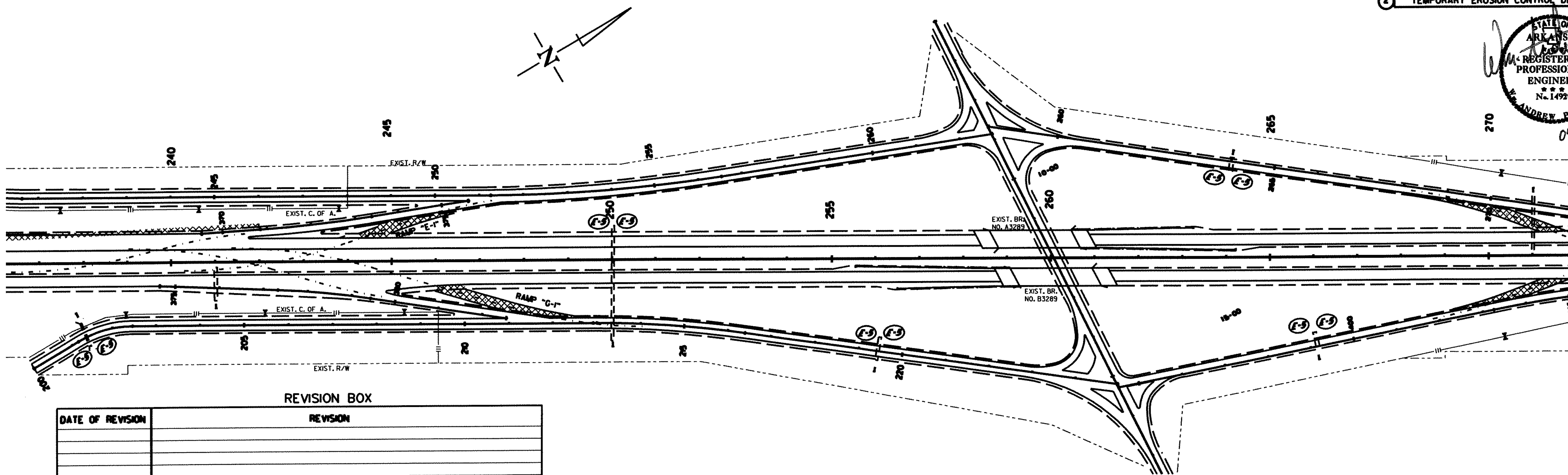
TEMPORARY EROSION CONTROL DETAILS - STAGE I-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	27	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

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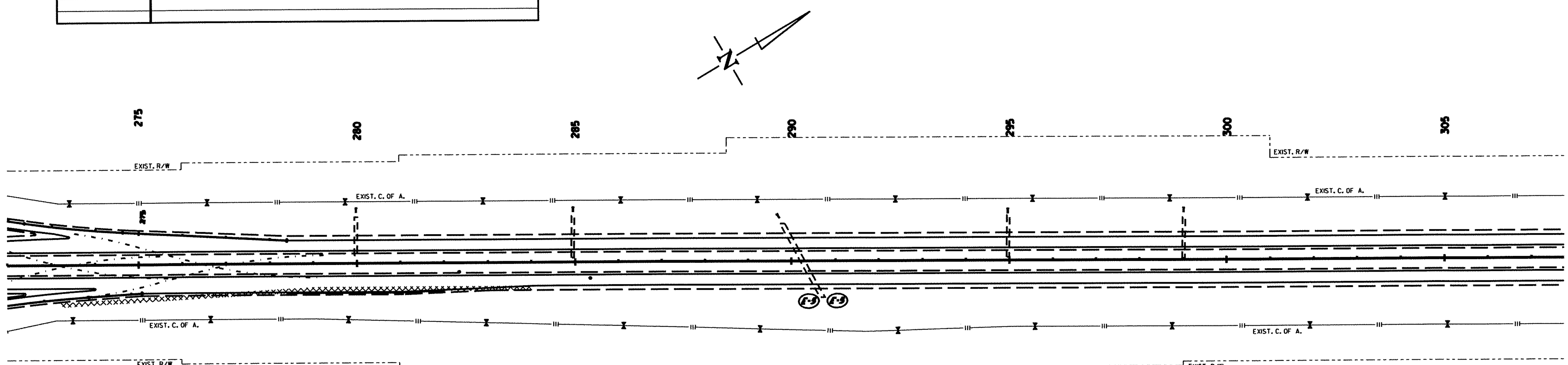


LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

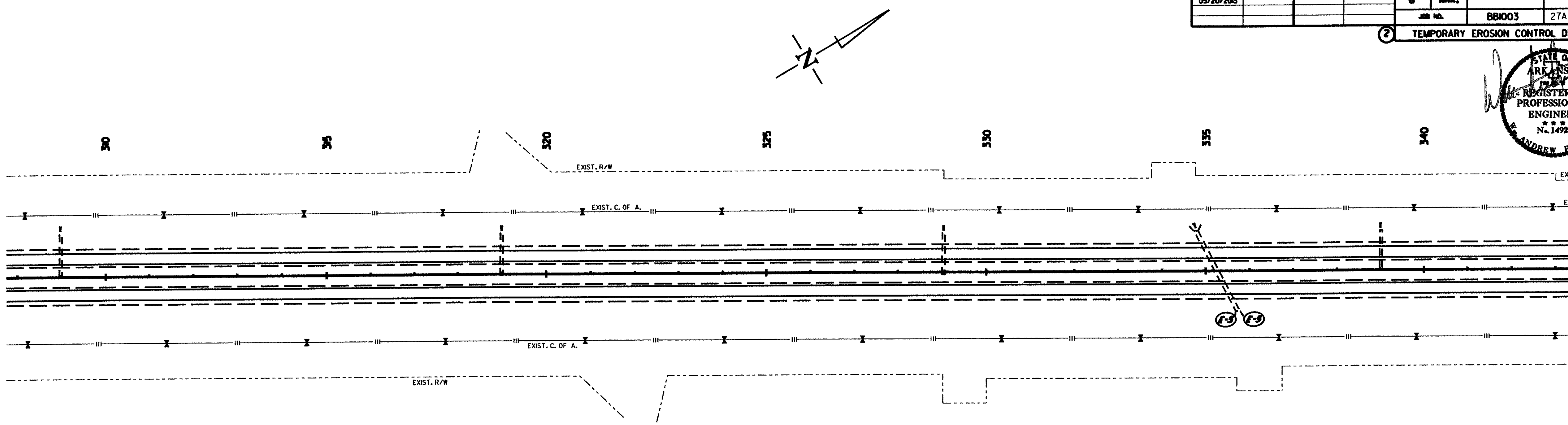
TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	27A	215

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

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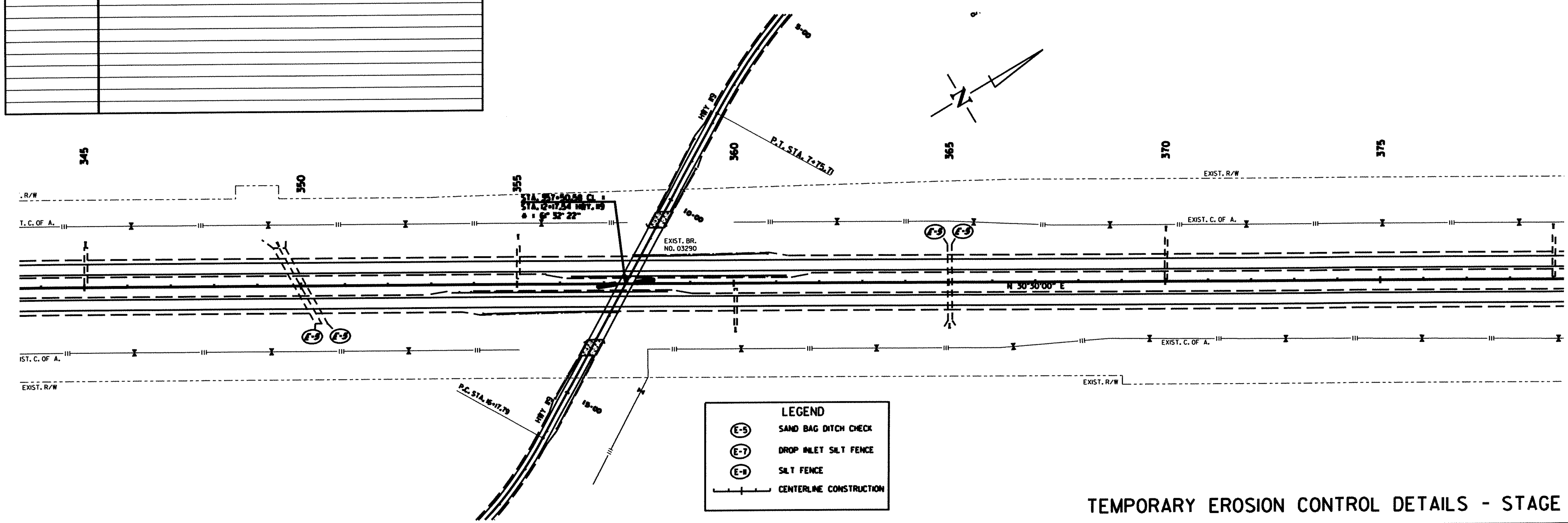


LEGEND

- E-5 SAND BAG DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-8 SILT FENCE
- CENTERLINE CONSTRUCTION

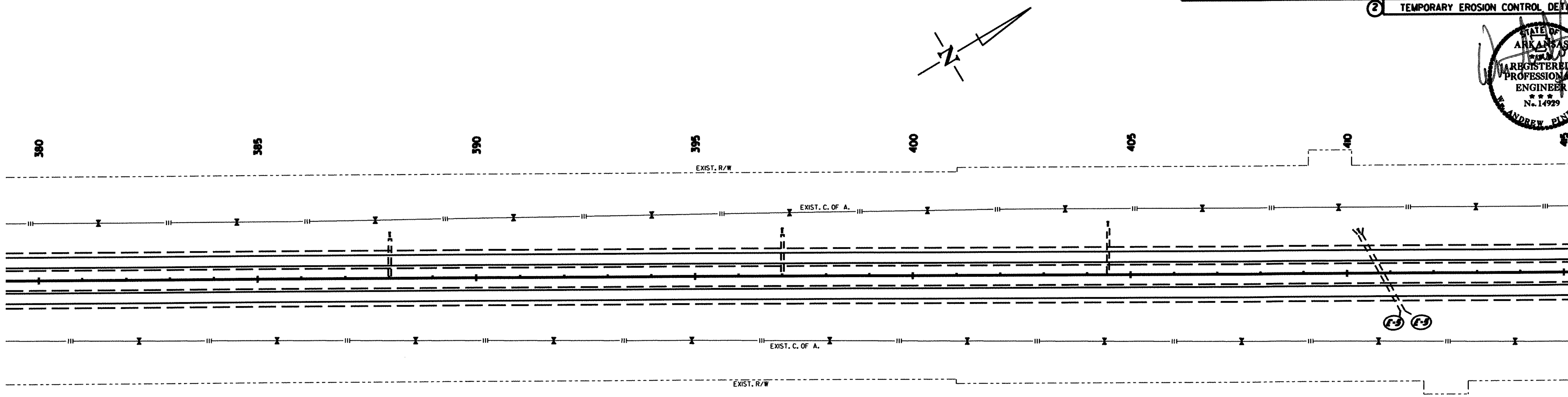
TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	27B	215

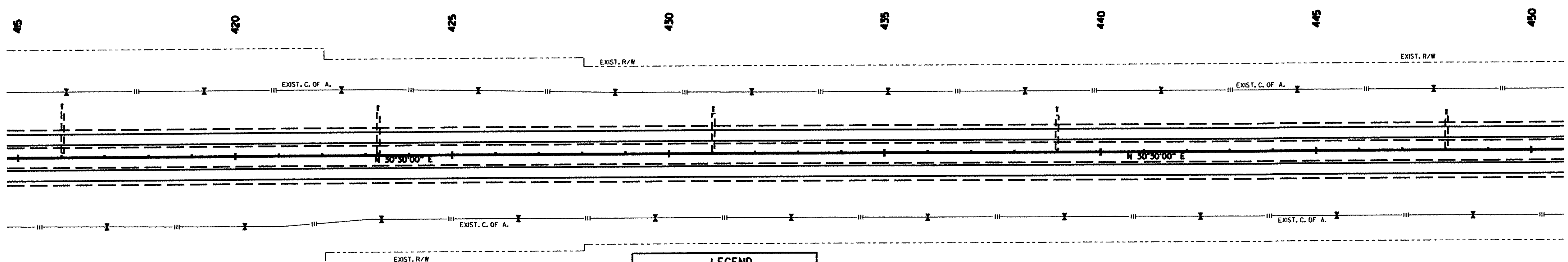
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

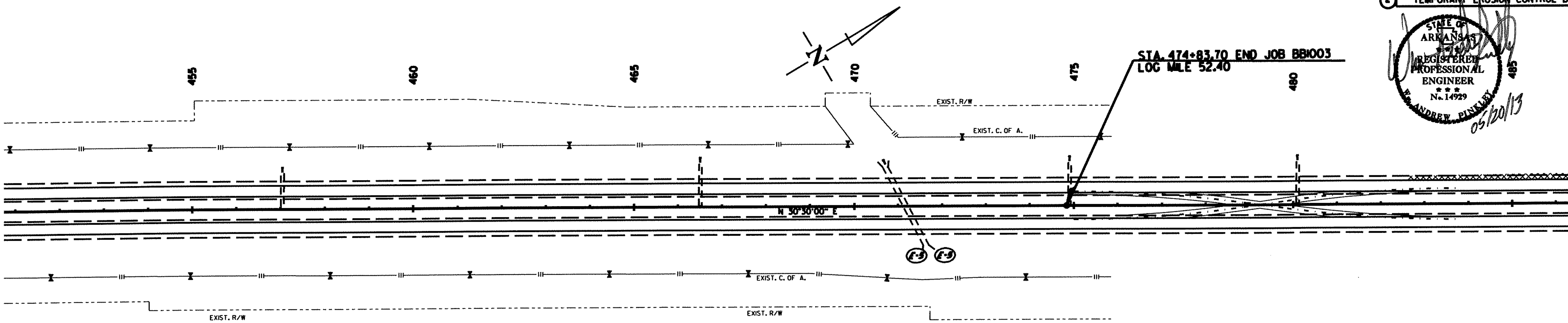
TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	28	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

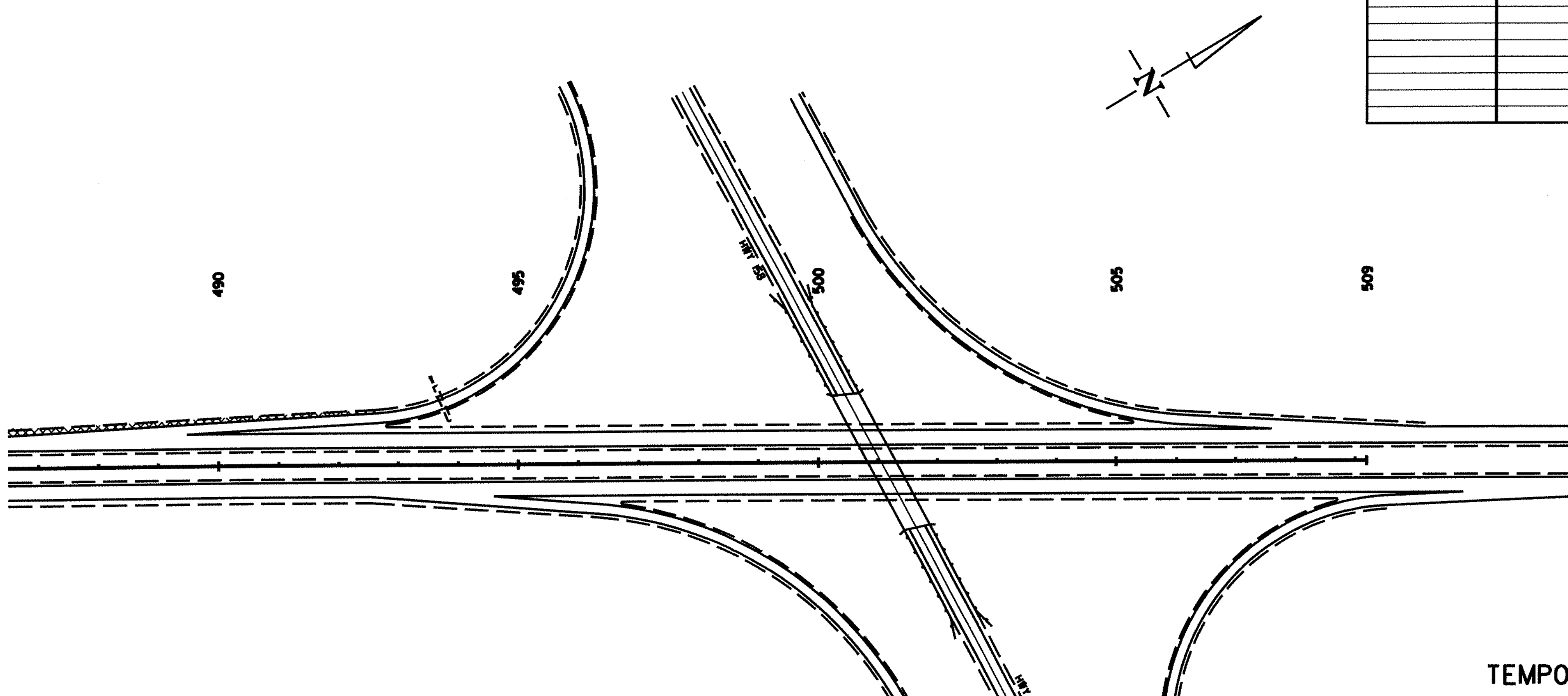


LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



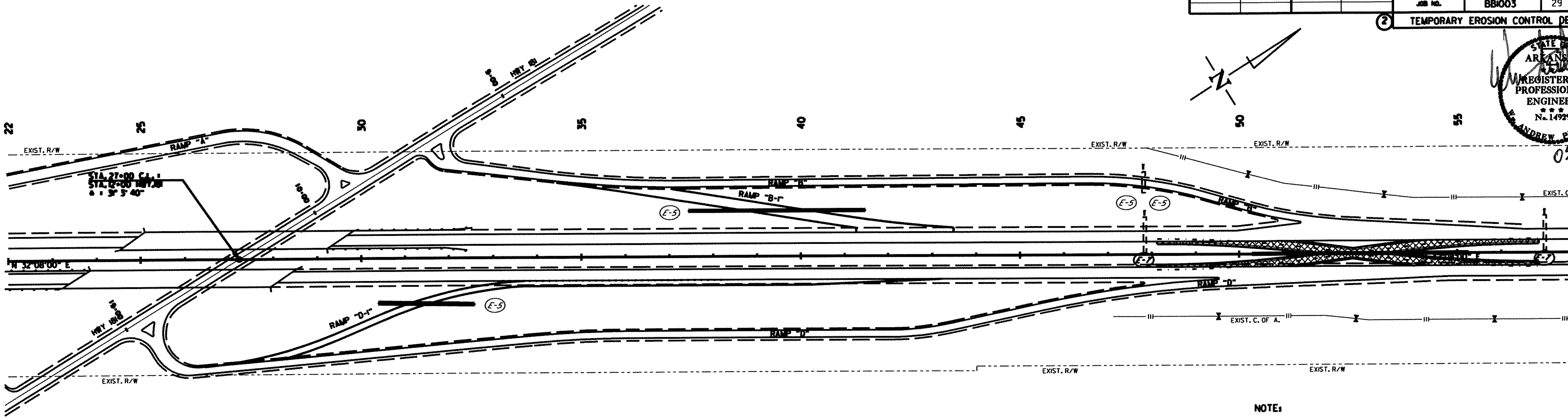
TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	29	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

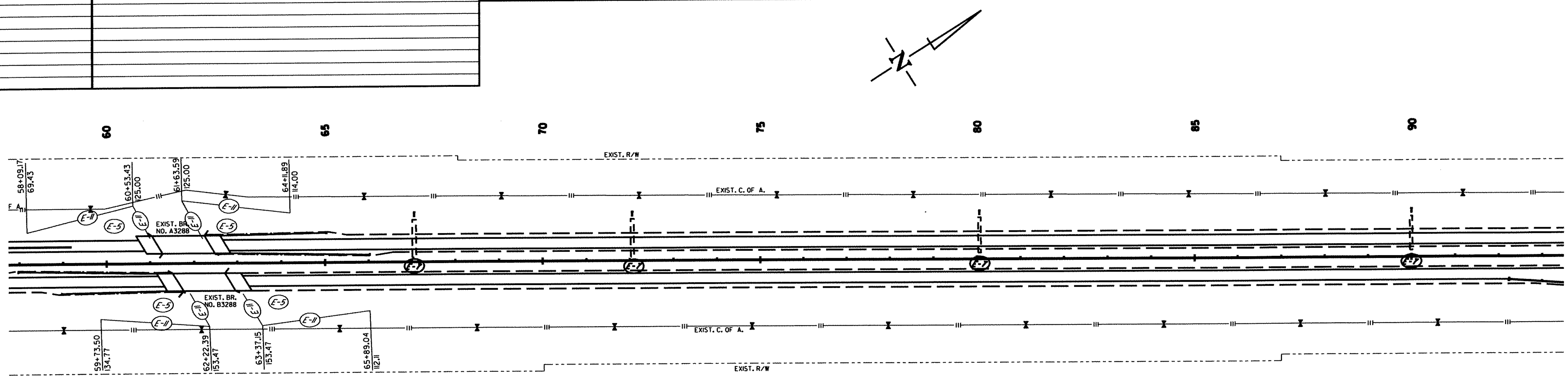


REVISION BOX

DATE OF REVISION	REVISION

NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

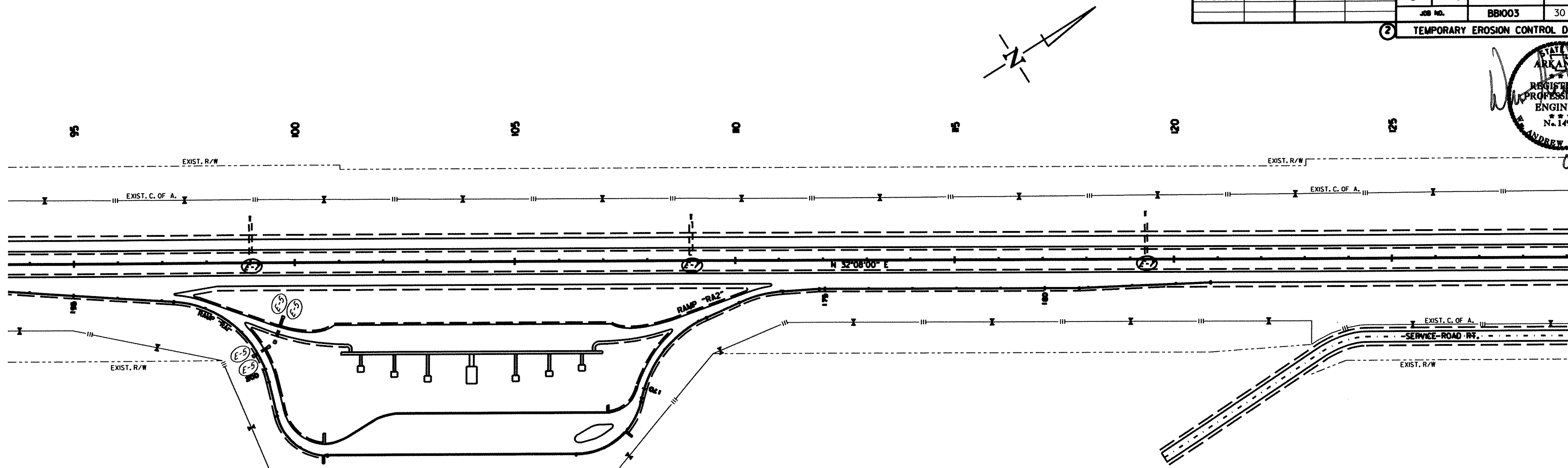
TEMPORARY EROSION CONTROL DETAILS - STAGE 1-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	30	215

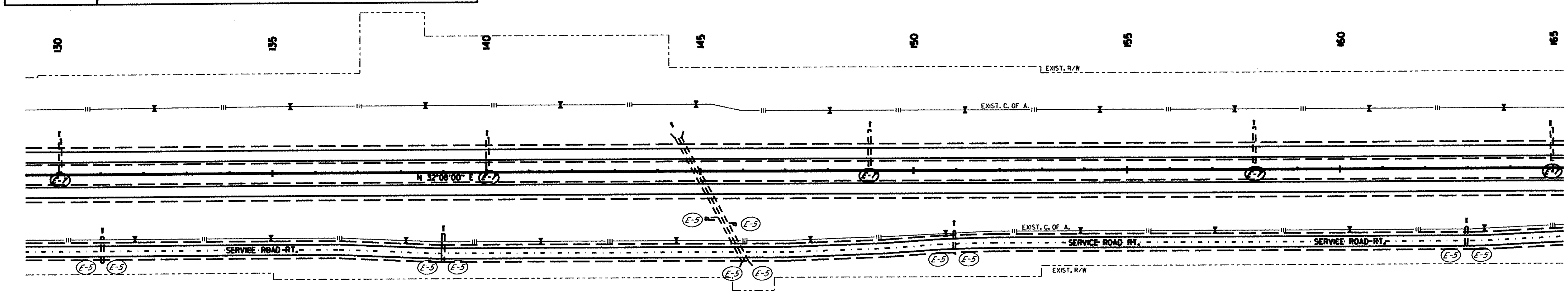
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

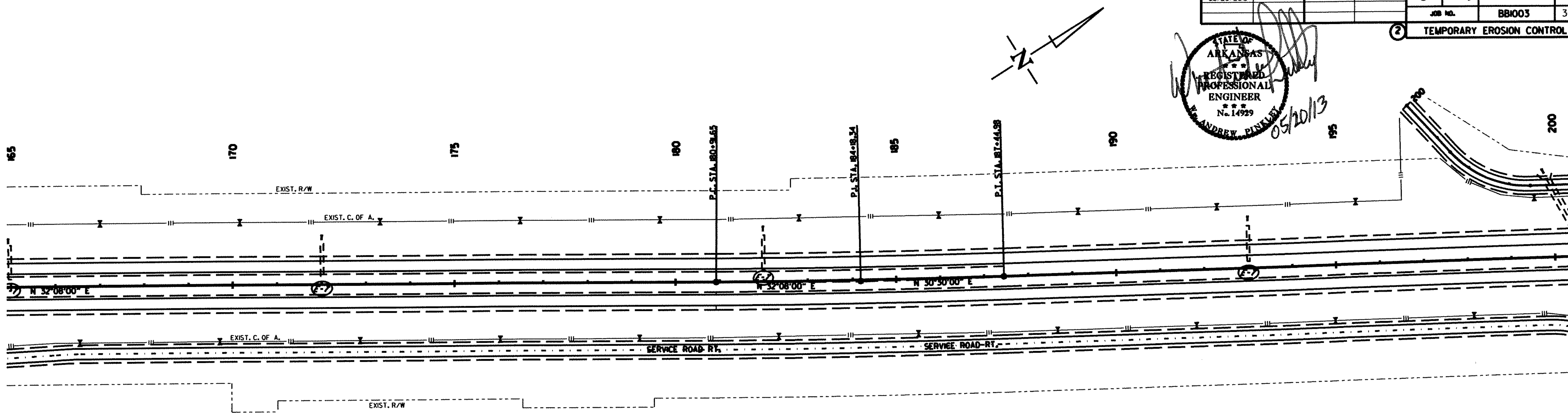
5/20/2013

TEMPORARY EROSION CONTROL DETAILS - STAGE I-B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	30A	215

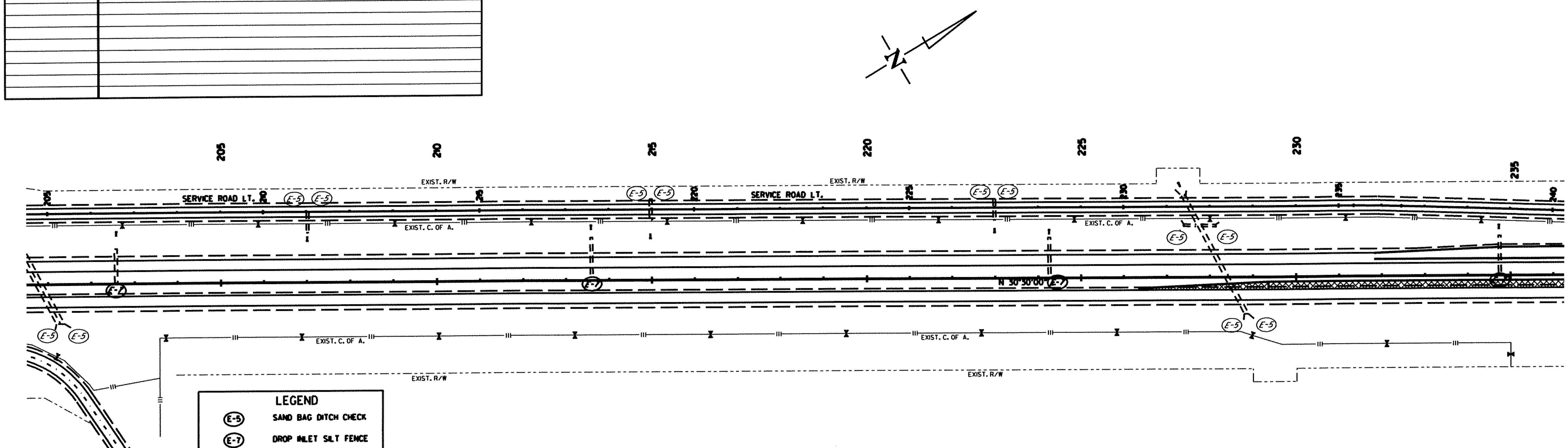
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

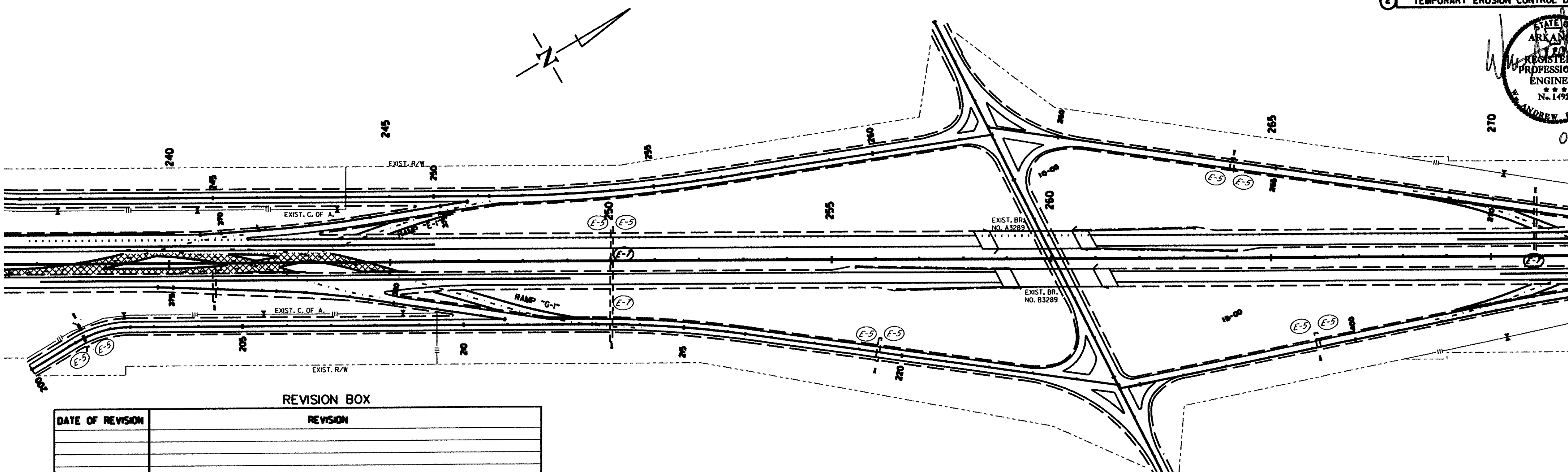
TEMPORARY EROSION CONTROL DETAILS - STAGE I-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	31	215

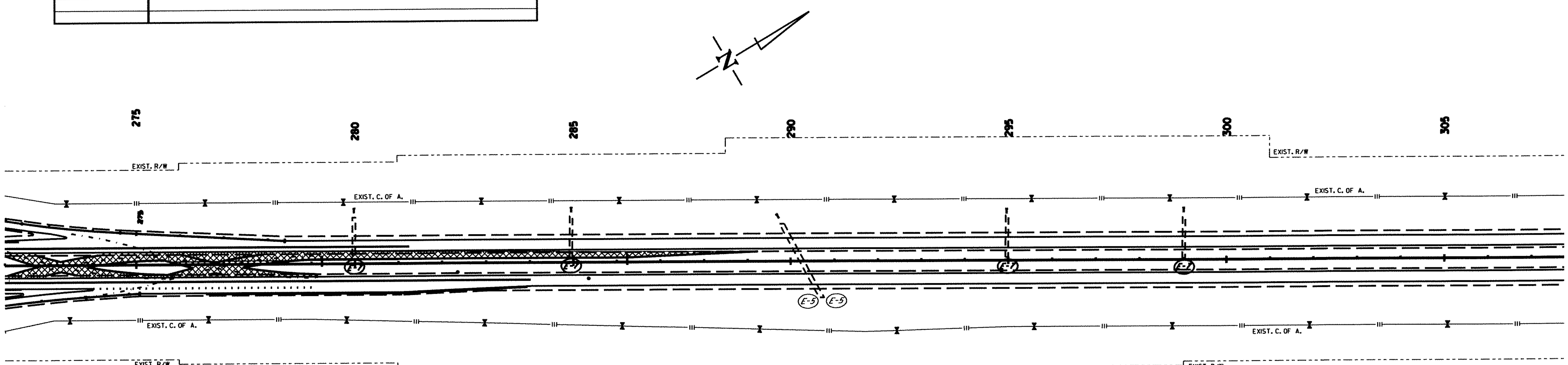
2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- E-5 SAND BAG DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-11 SILT FENCE
- CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	31A	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
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No. 14929
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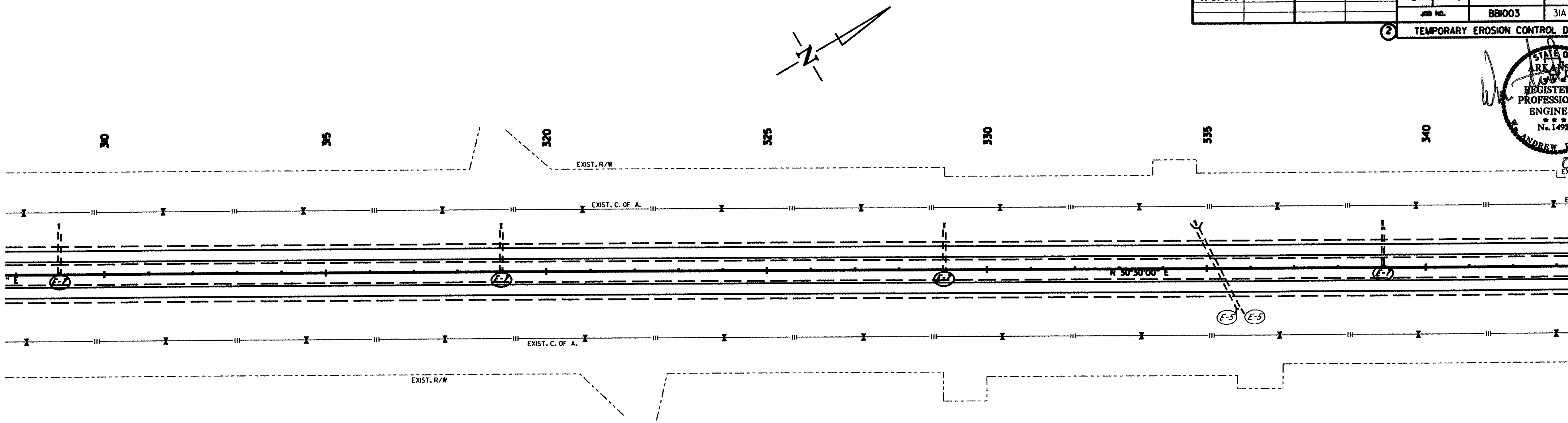
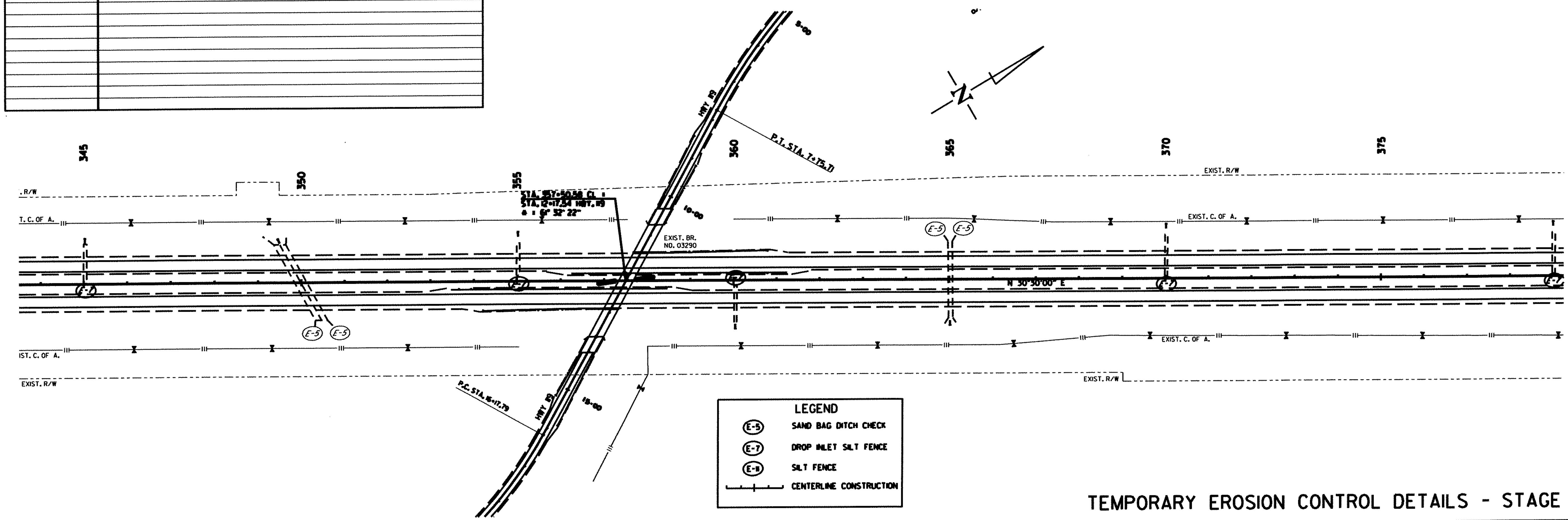


REVISION BOX

DATE OF REVISION	REVISION



LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	31B	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
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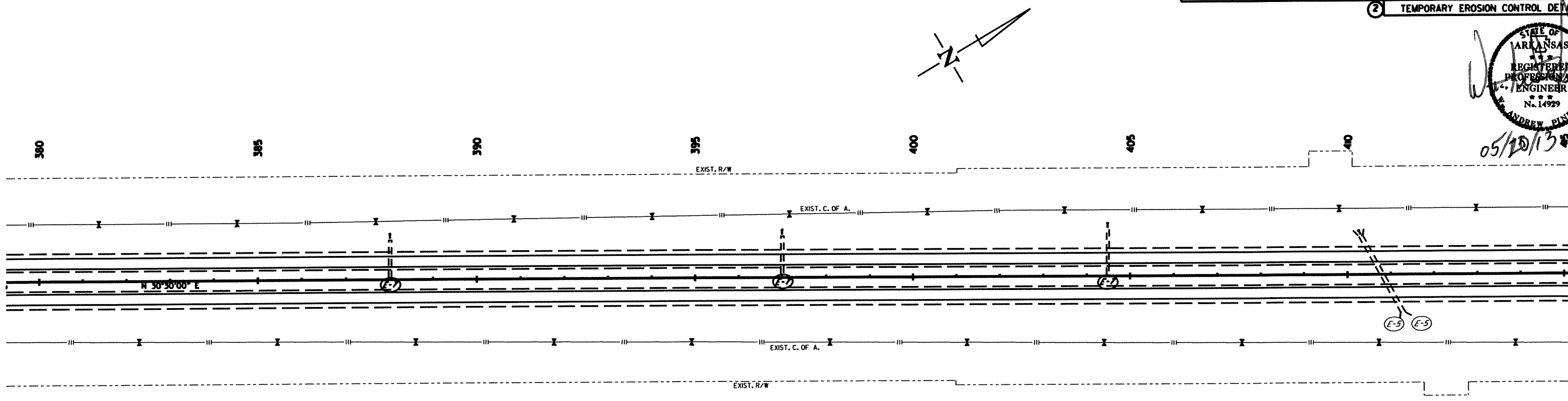
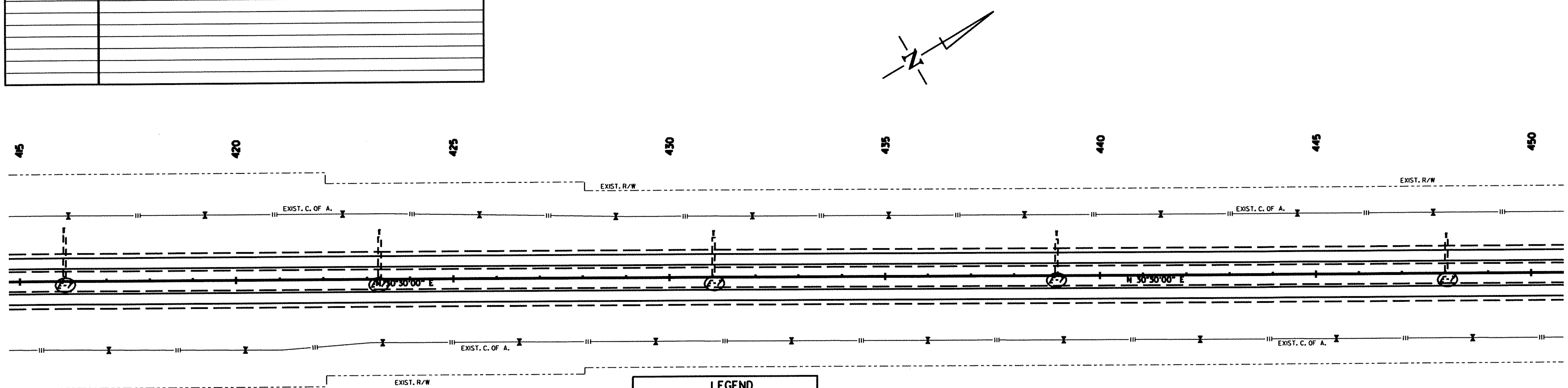
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB1003	32	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
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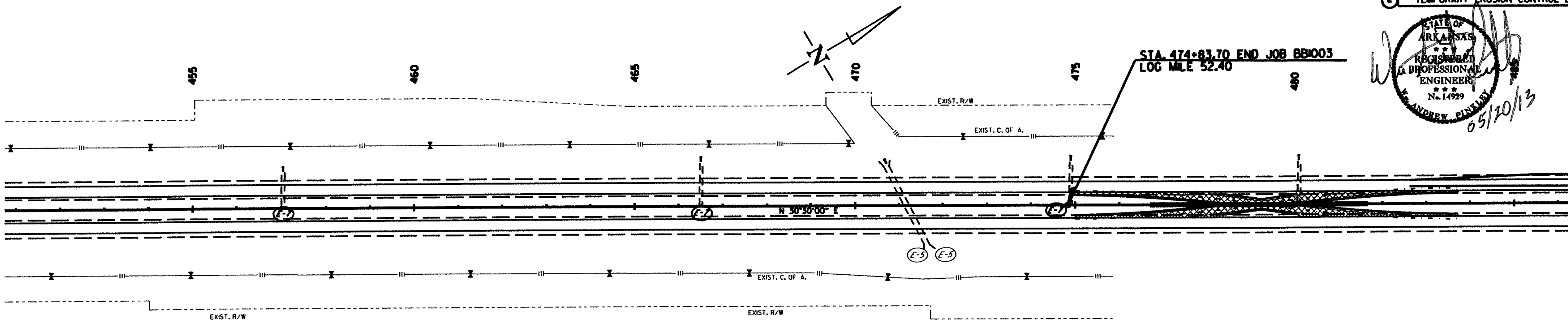
W. ANDREW PINKLEY
05/20/13

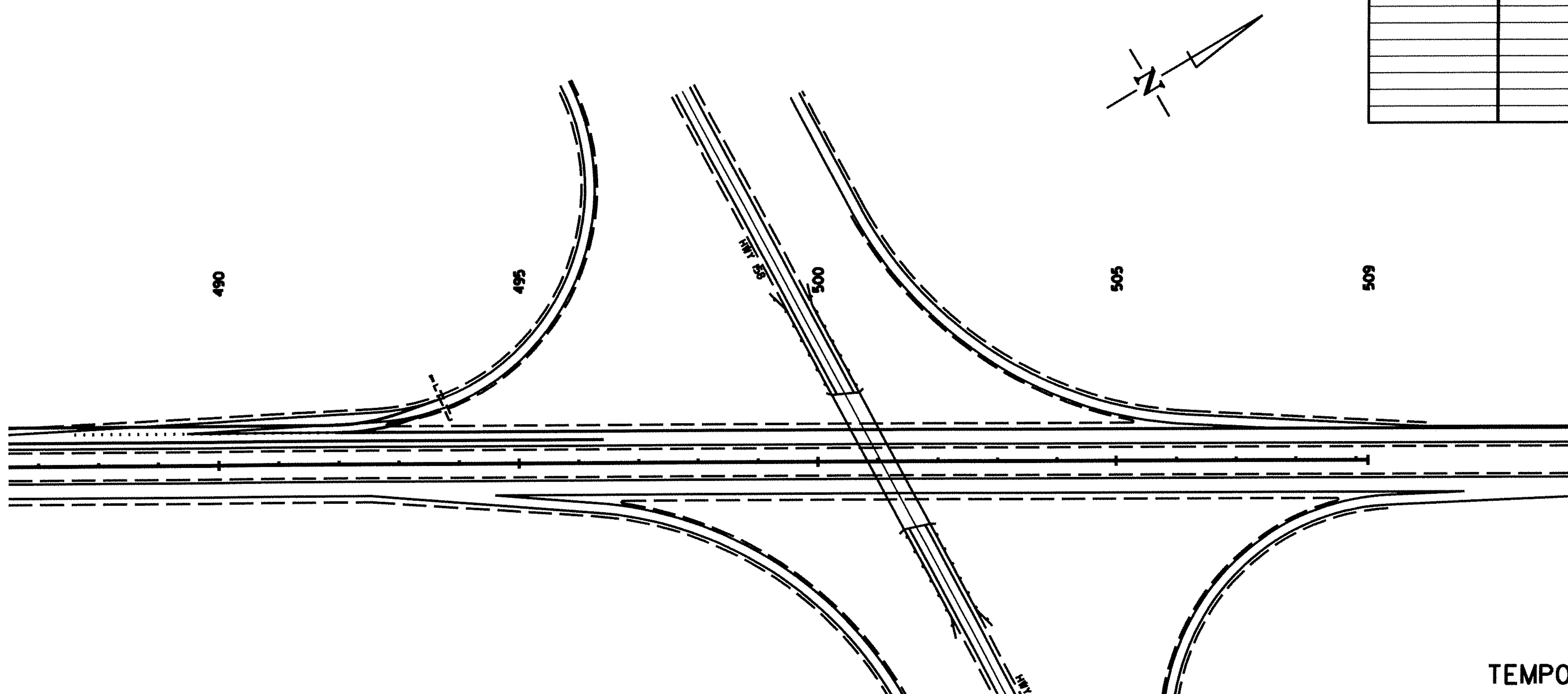


LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



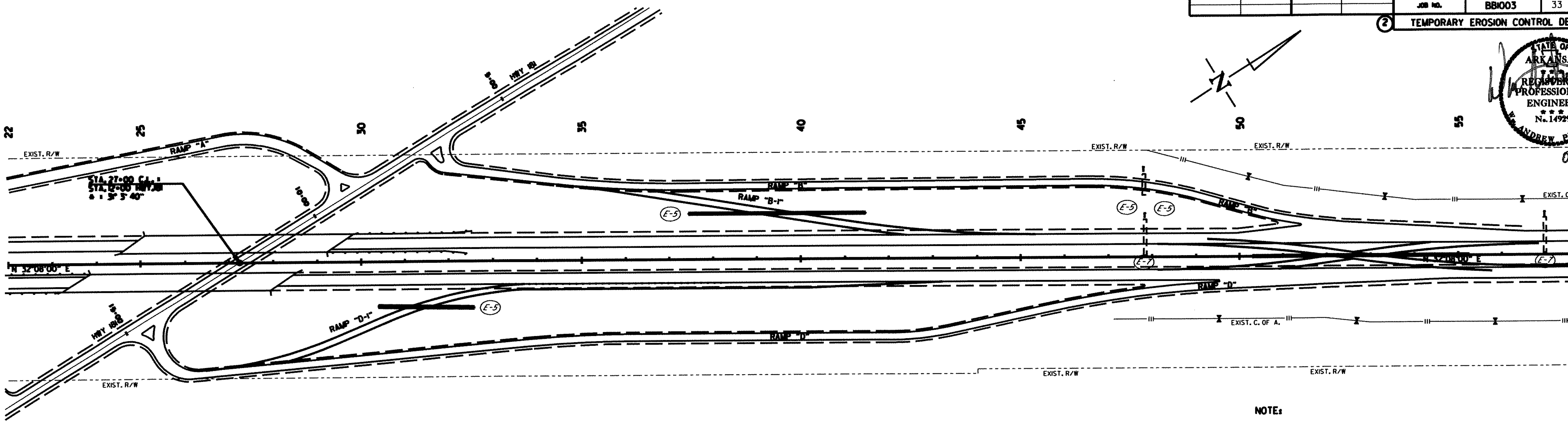
TEMPORARY EROSION CONTROL DETAILS - STAGE 1-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	33	215

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 05/20/13

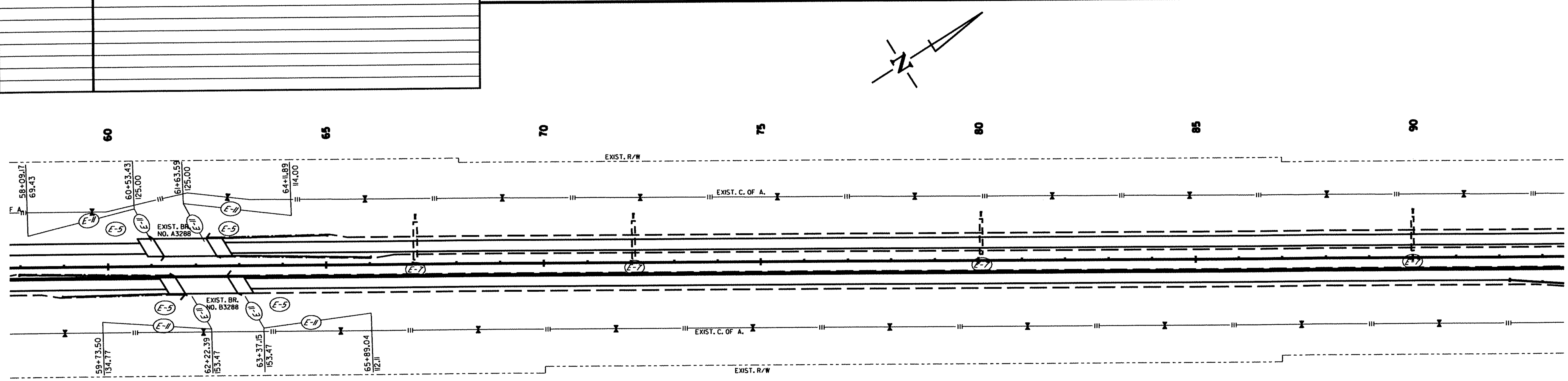


REVISION BOX

DATE OF REVISION	REVISION

NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

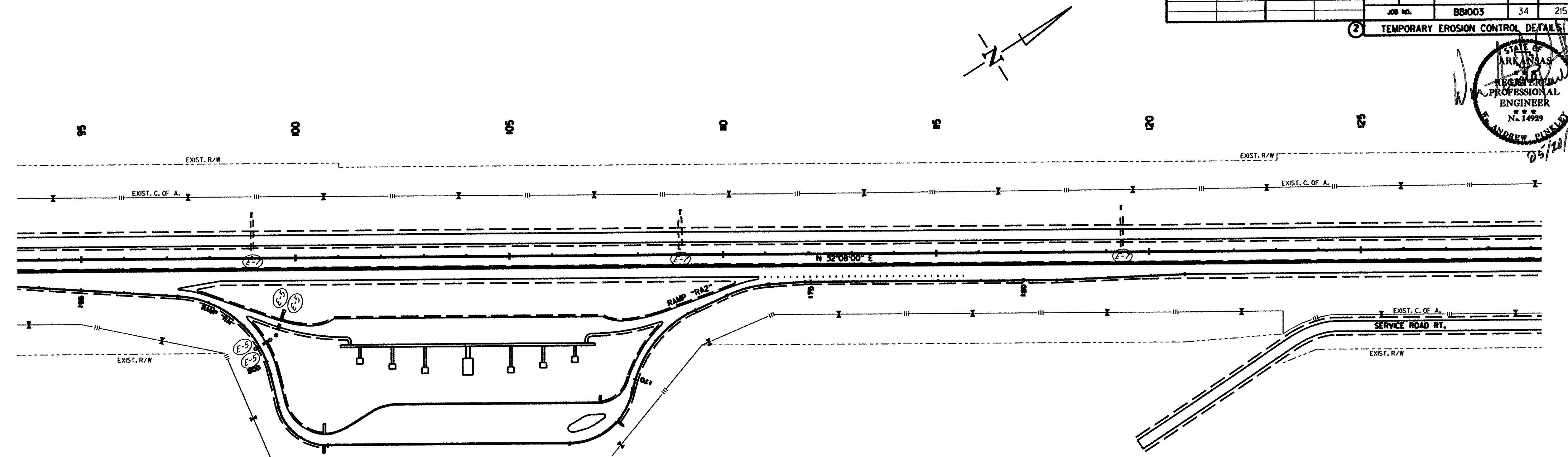
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	34	215

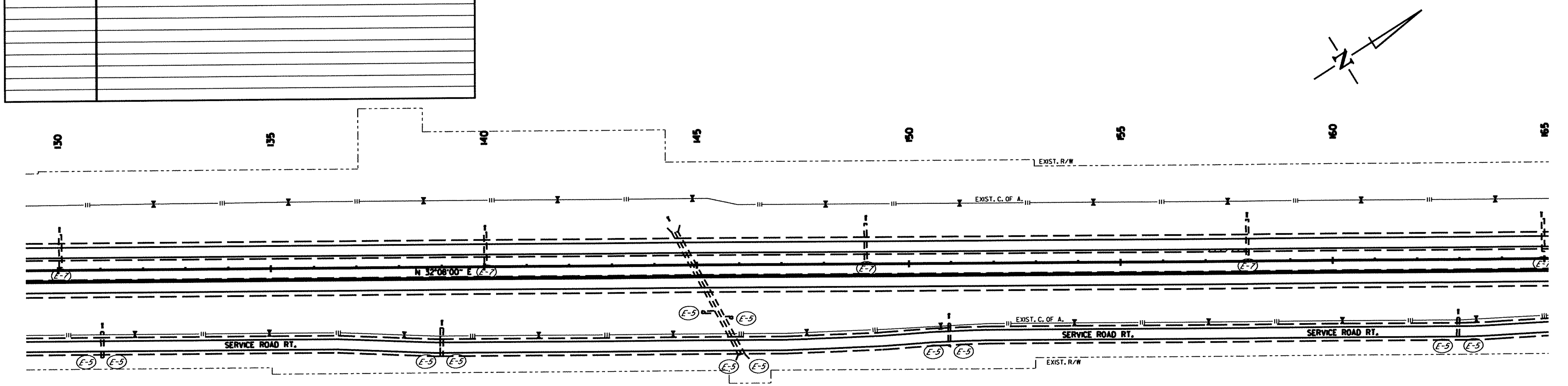
2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- E-5 SAND BAG DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-11 SILT FENCE
- CENTERLINE CONSTRUCTION

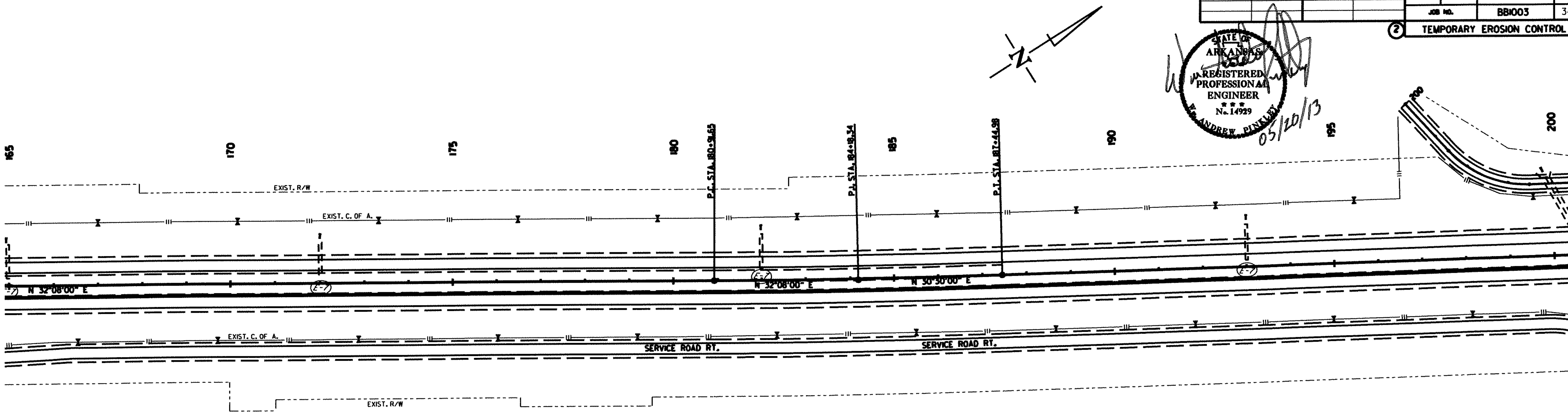
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	34A	215

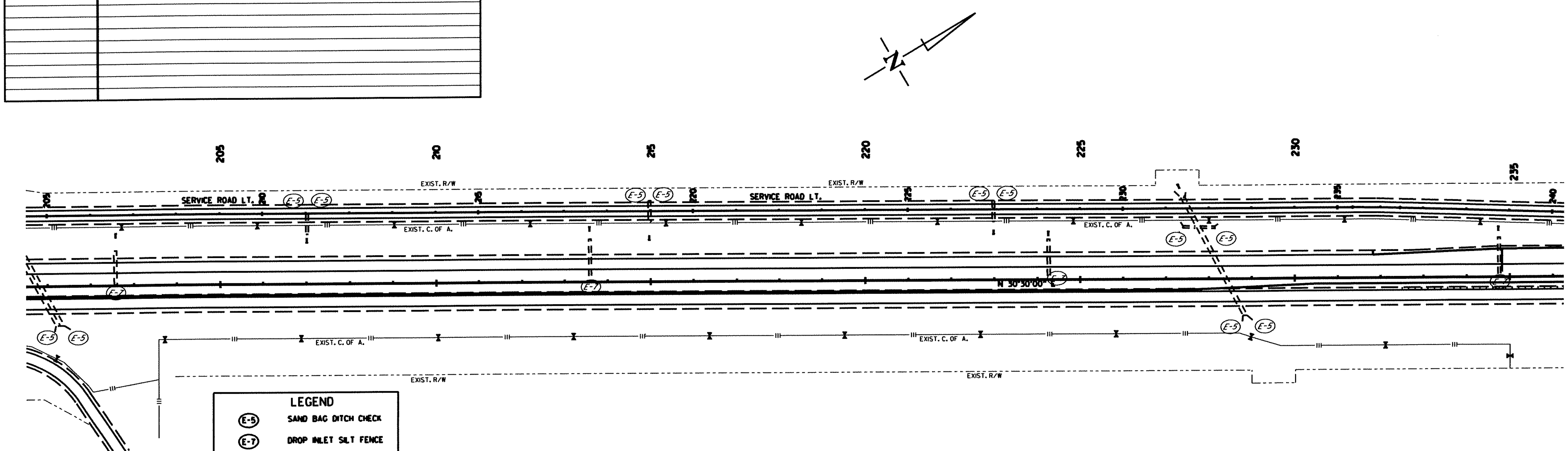
② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-8)	SILT FENCE
——+——	CENTERLINE CONSTRUCTION

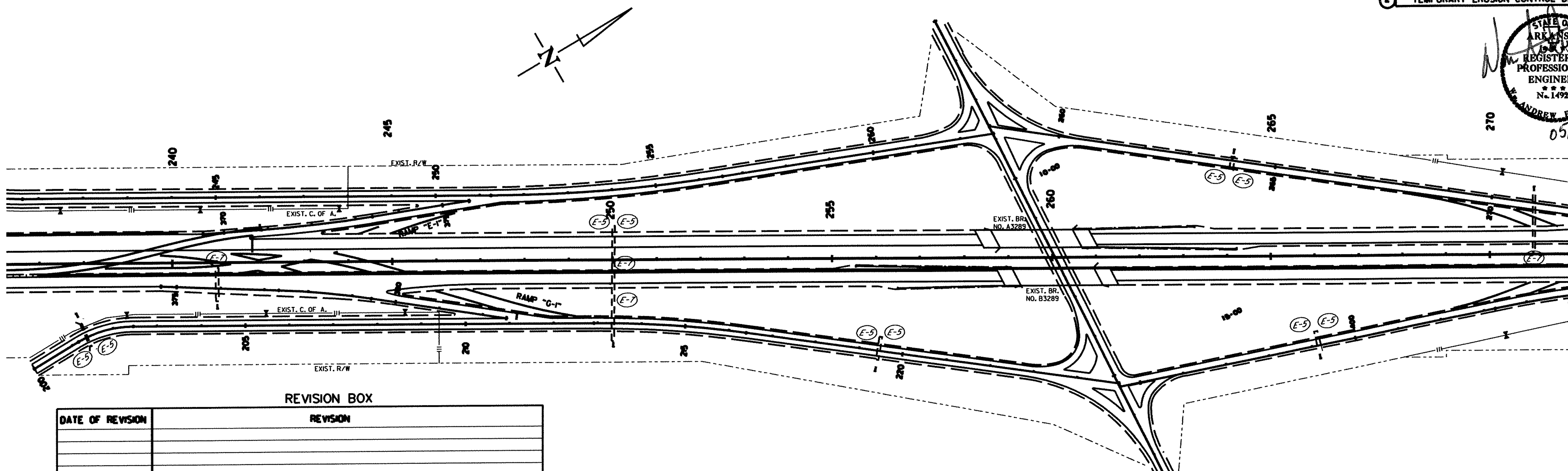
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	35	215

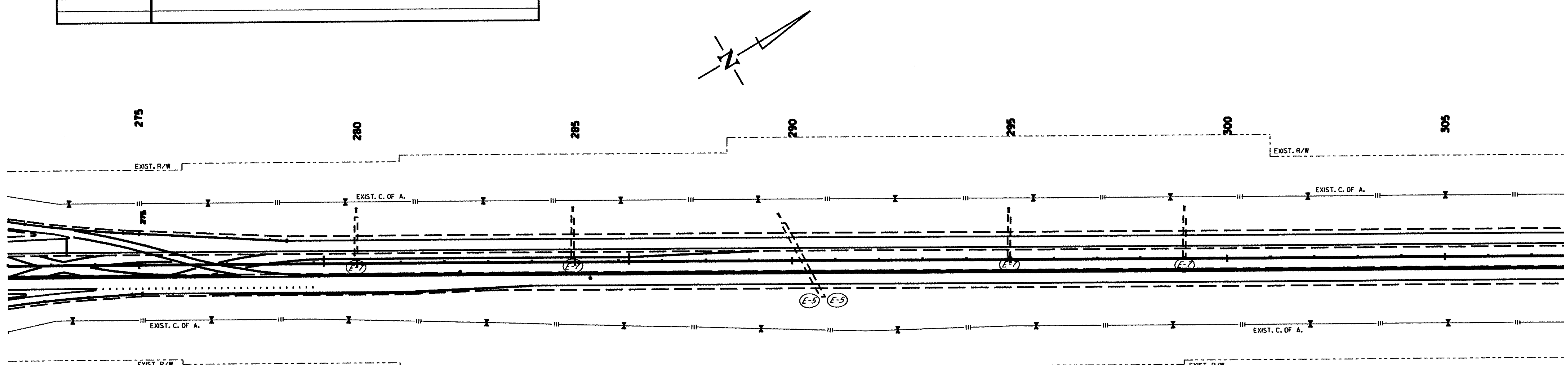
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

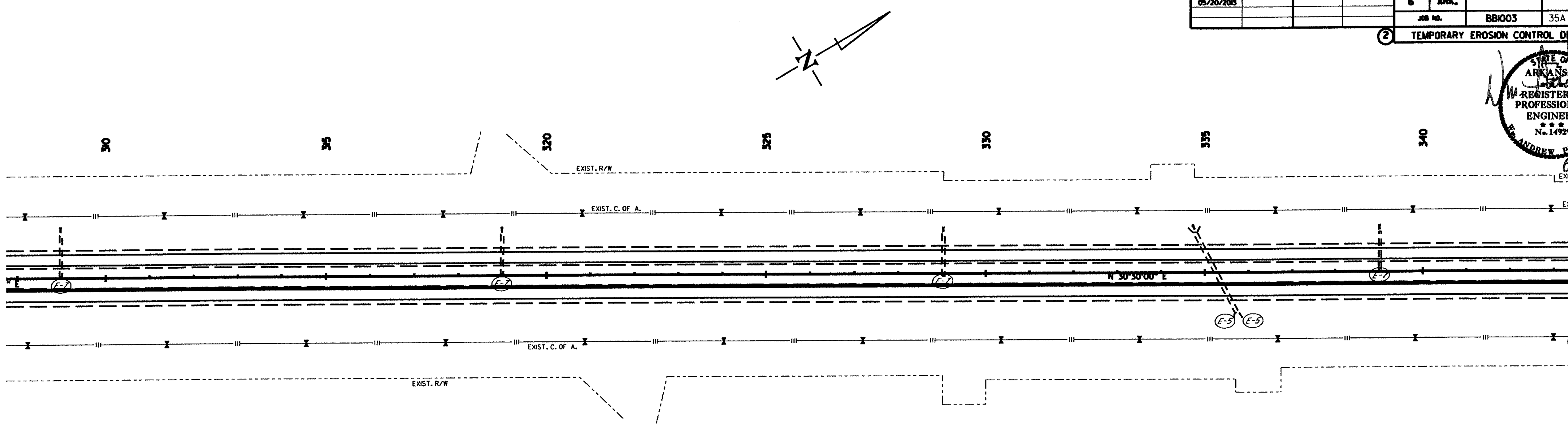
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	35A	215

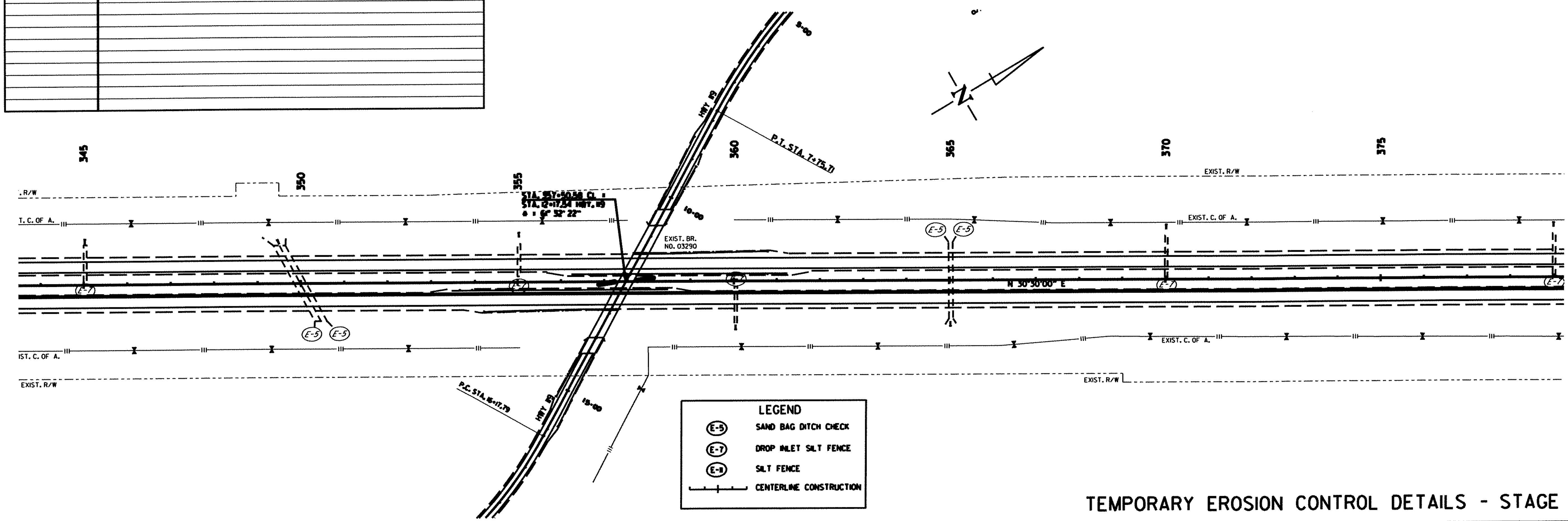
② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- E-5 SAND BAG DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-11 SILT FENCE
- CENTERLINE CONSTRUCTION

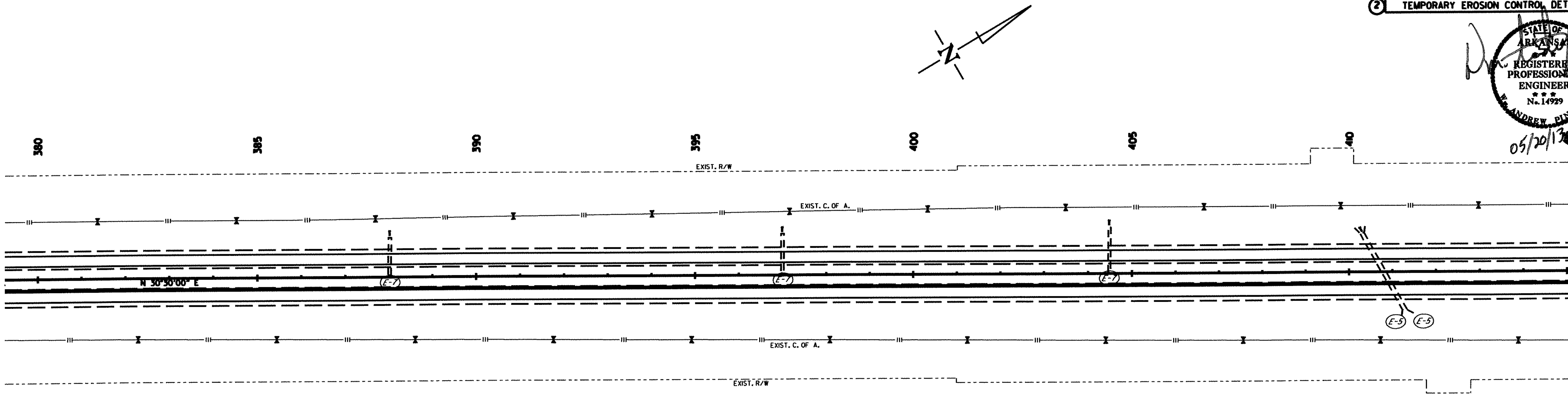
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	35B	215

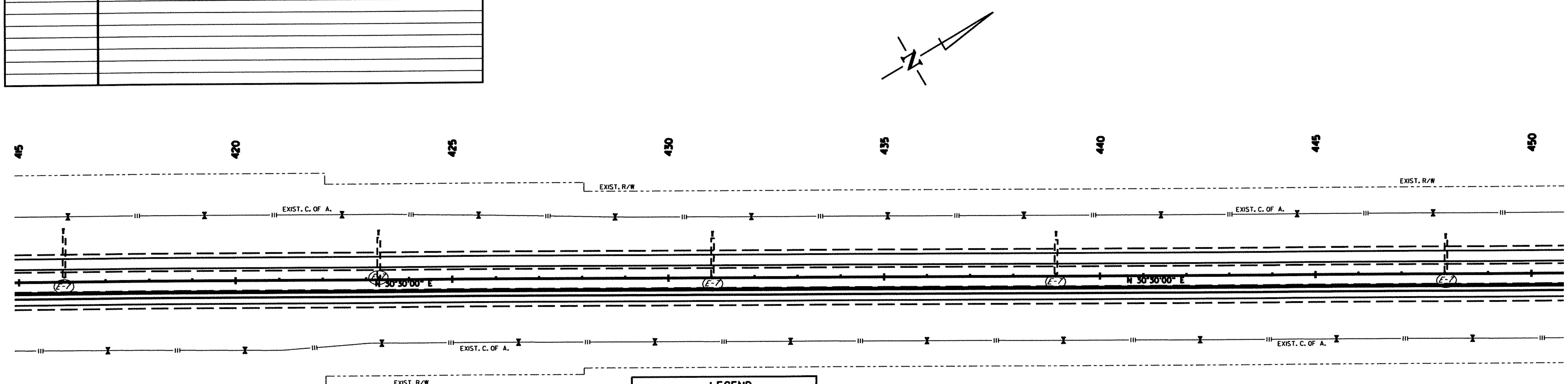
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

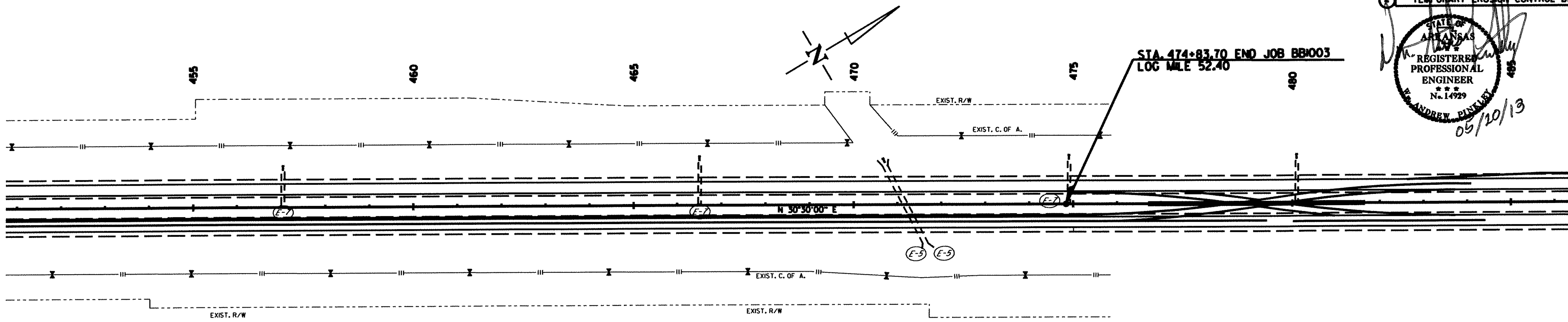
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	36	215

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

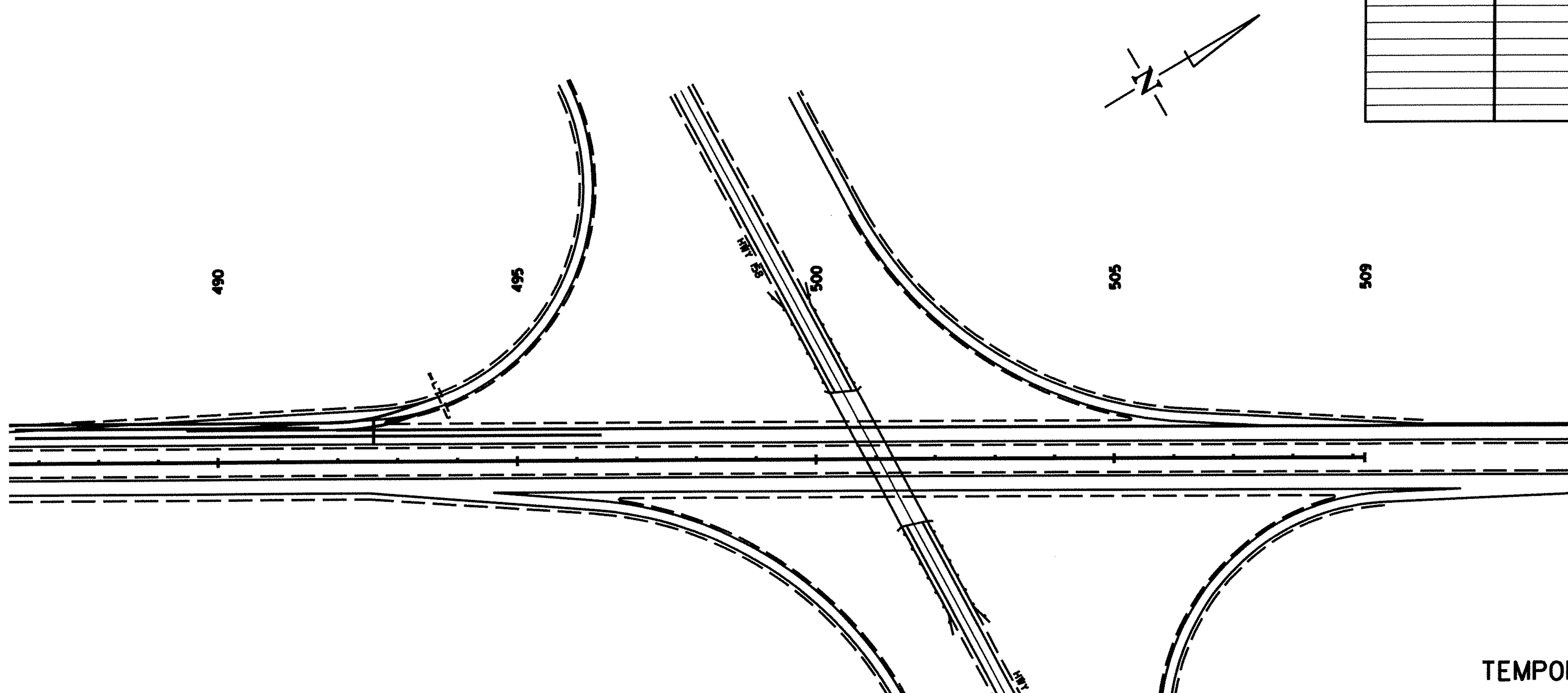


LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



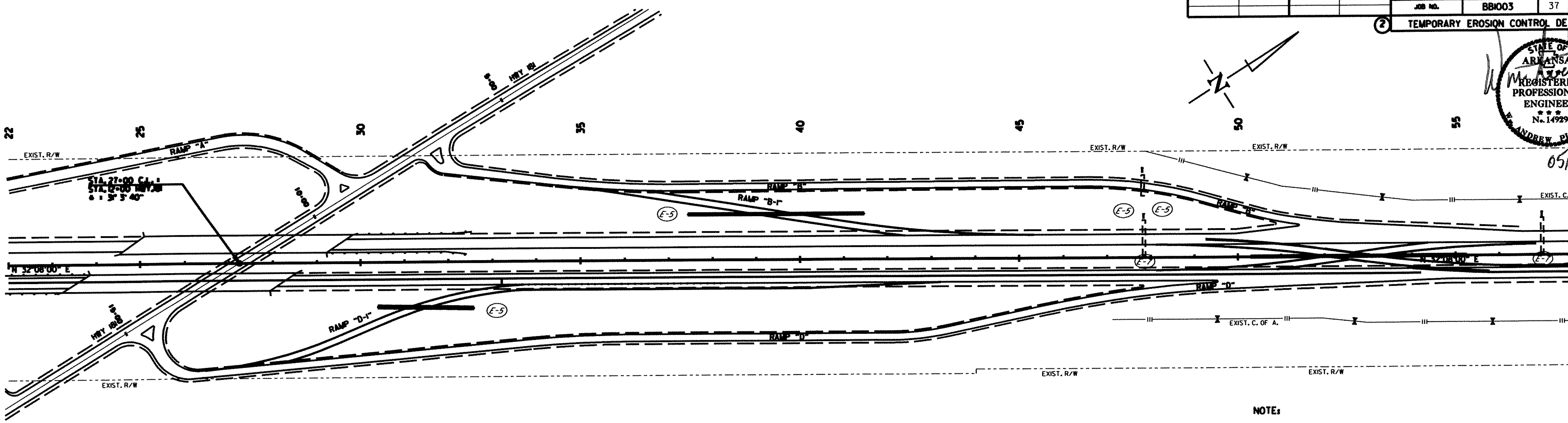
TEMPORARY EROSION CONTROL DETAILS - STAGE II-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	37	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
F. ANDREW PINKLEY
05/20/13

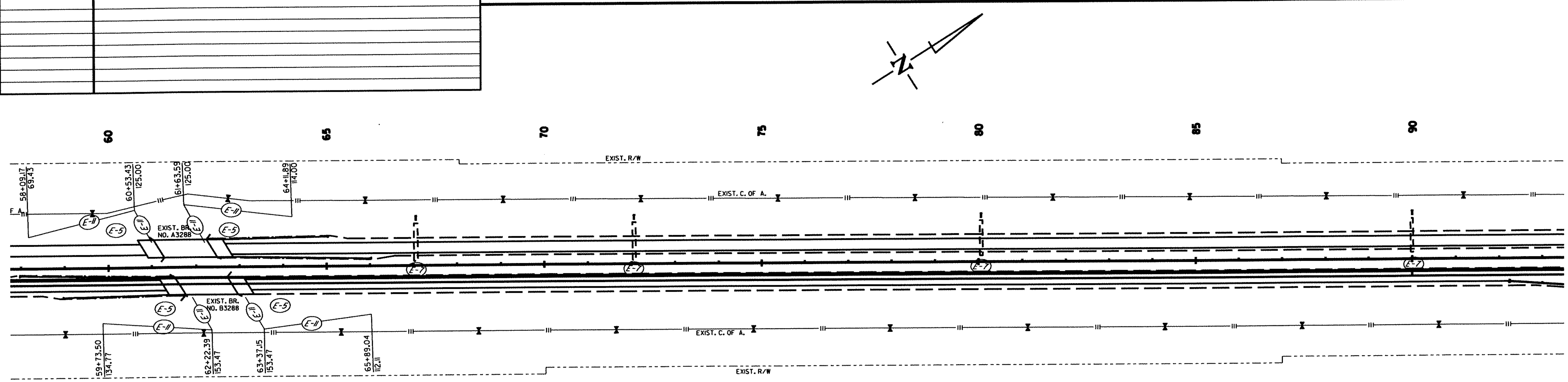


NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.

REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

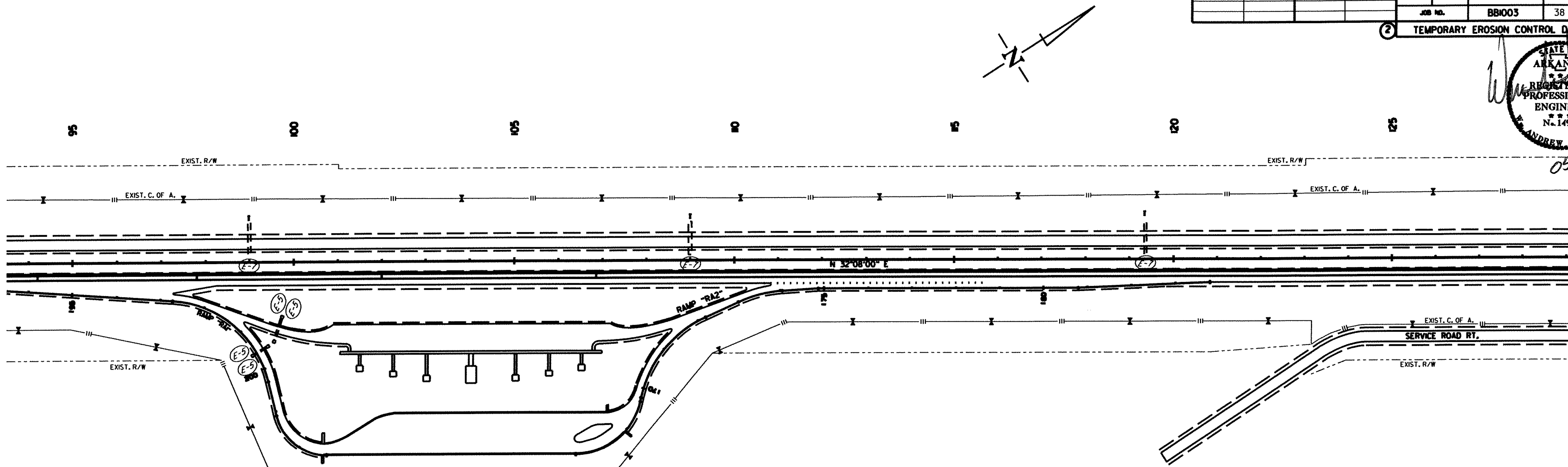
TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	38	215

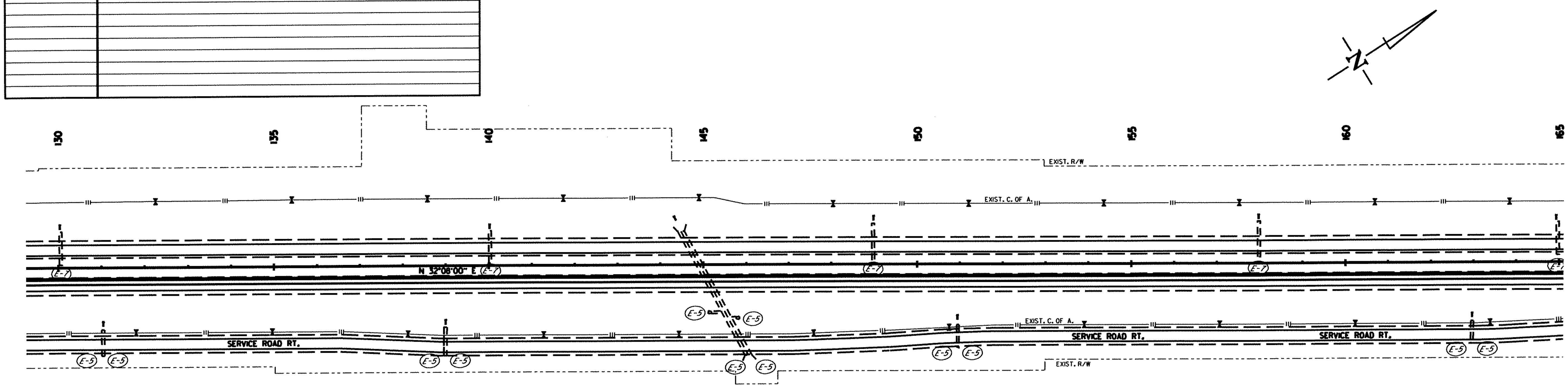
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- E-5 SAND BAG DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-8 SILT FENCE
- CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

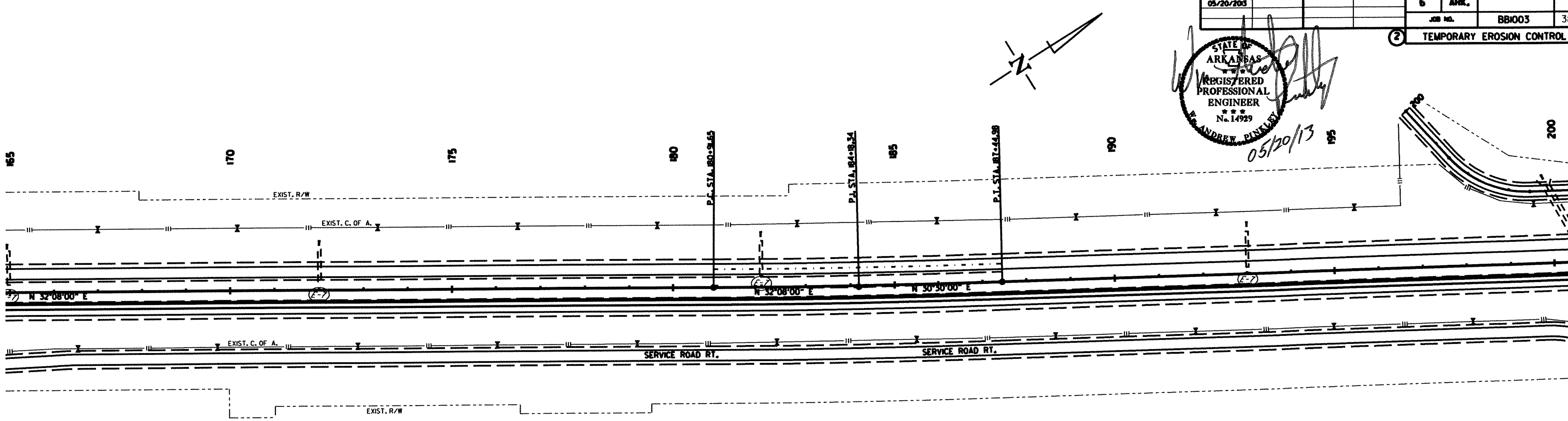
5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
	JOB NO.	BB1003	38A	215

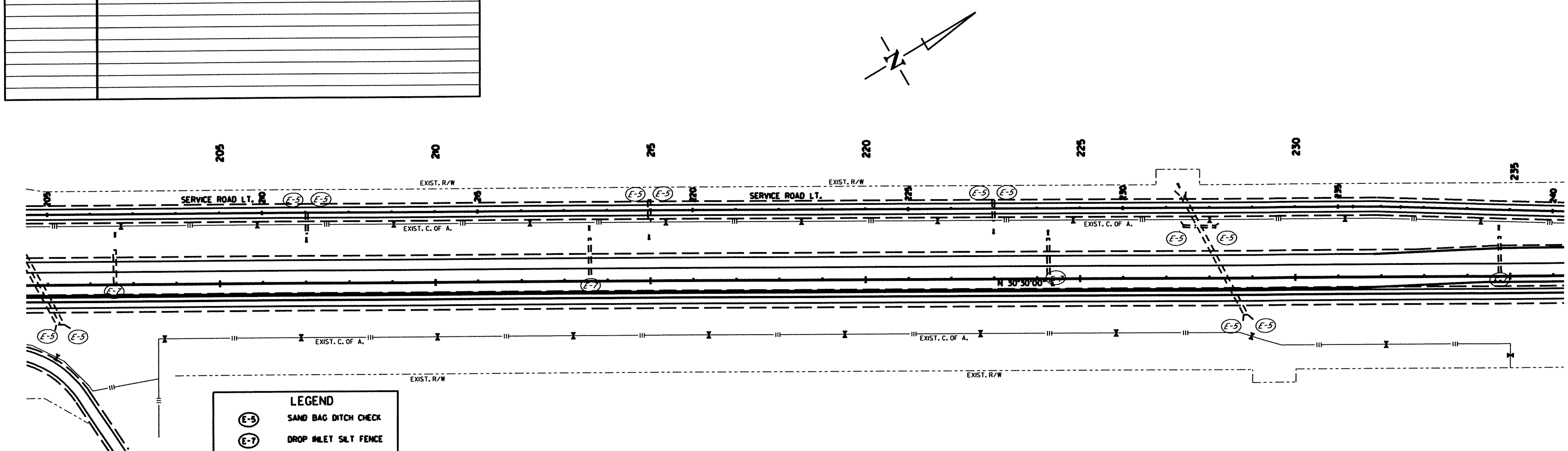
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

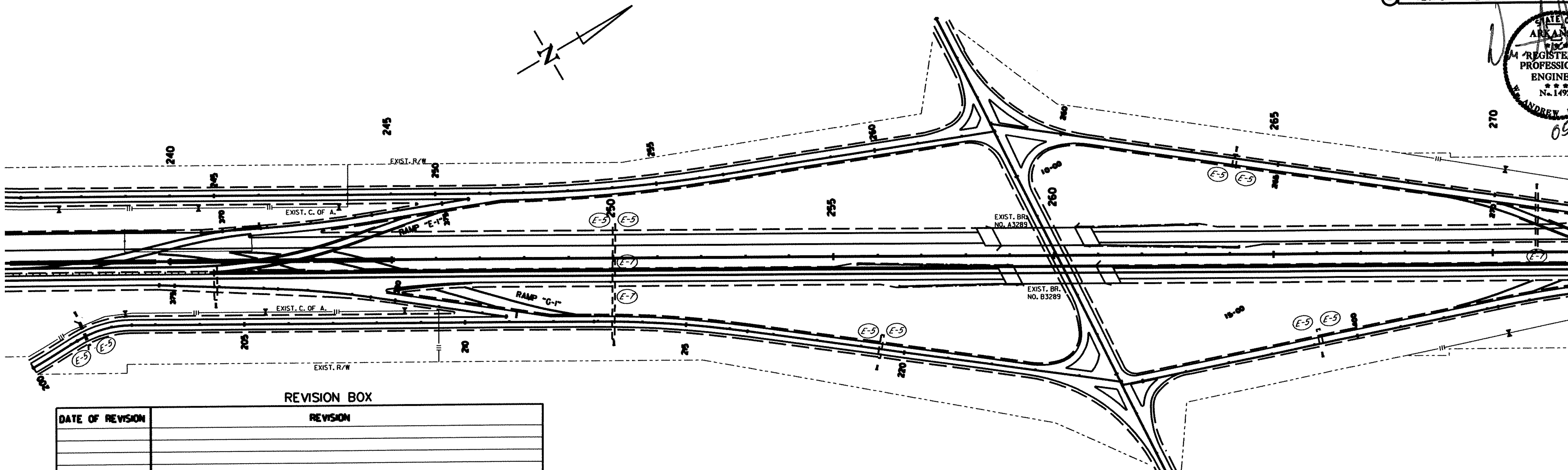
TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	39	215

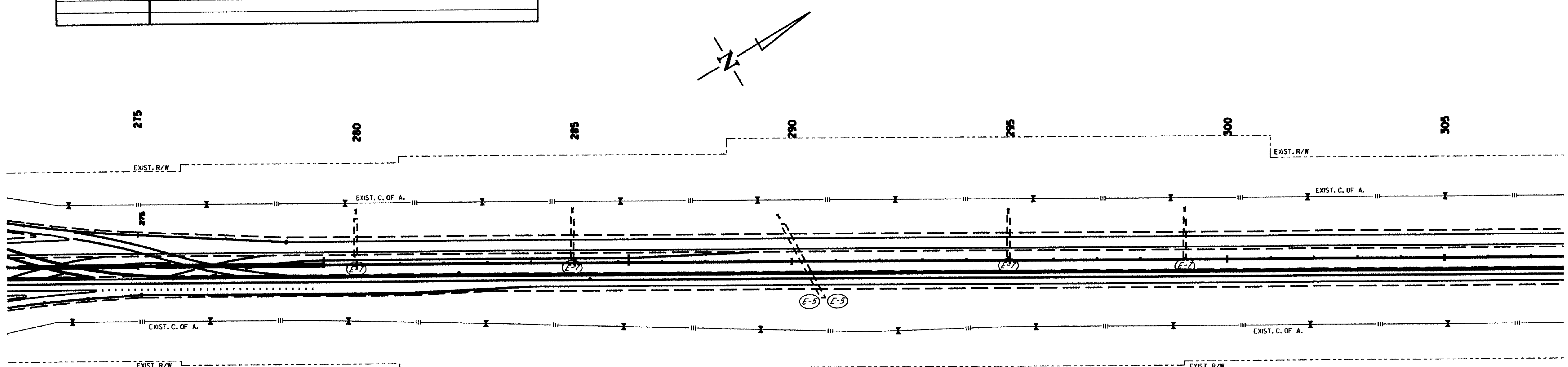
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

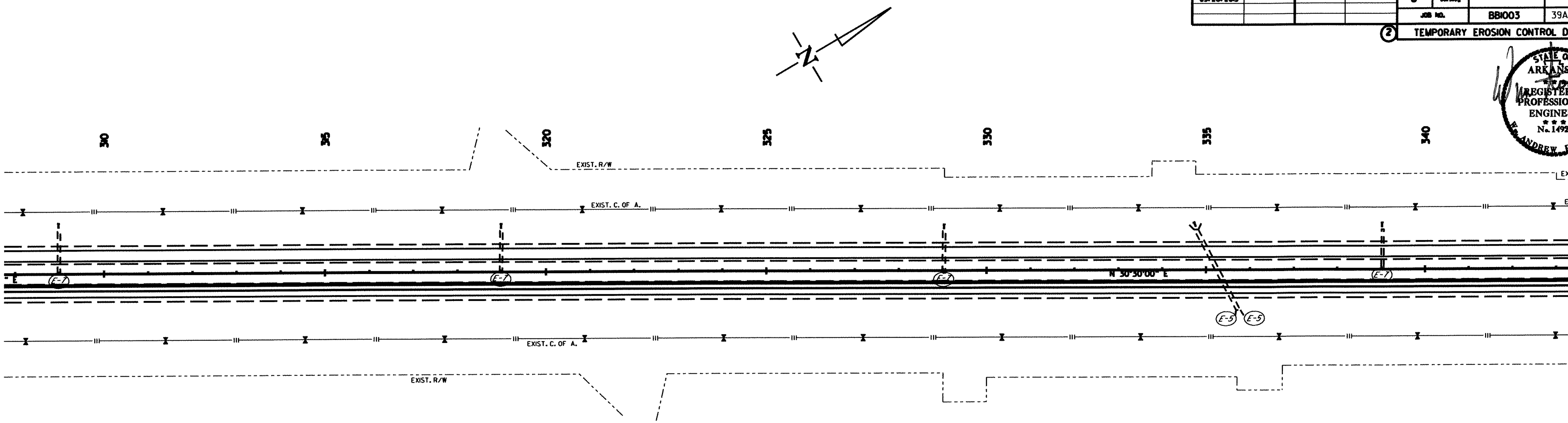
TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	39A	215

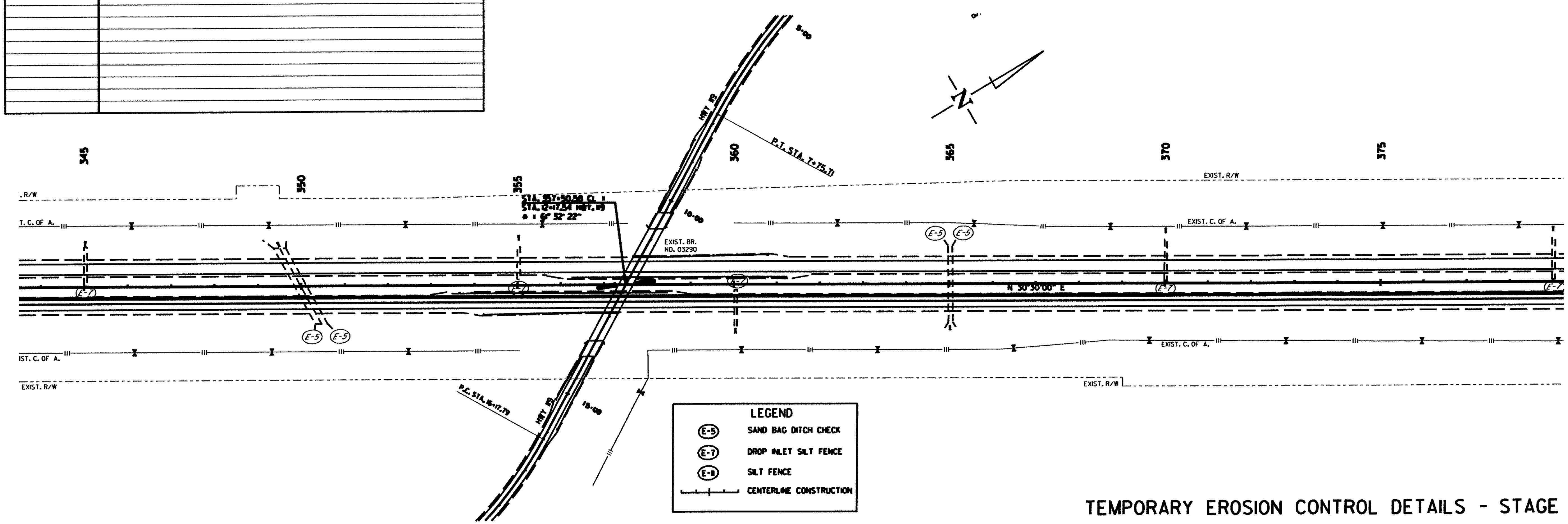
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



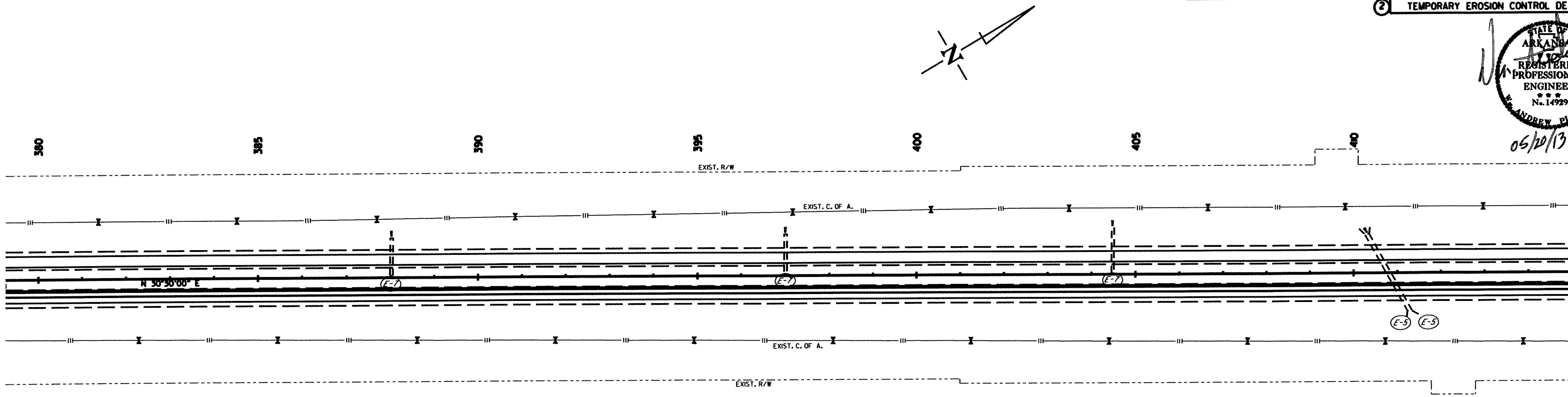
TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	39B	215

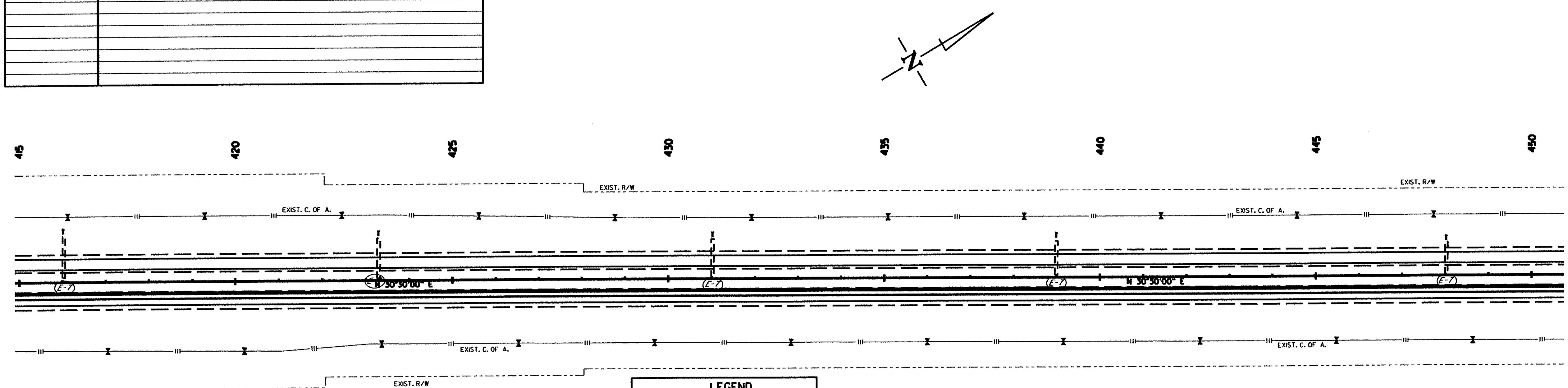
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

5/20/2013

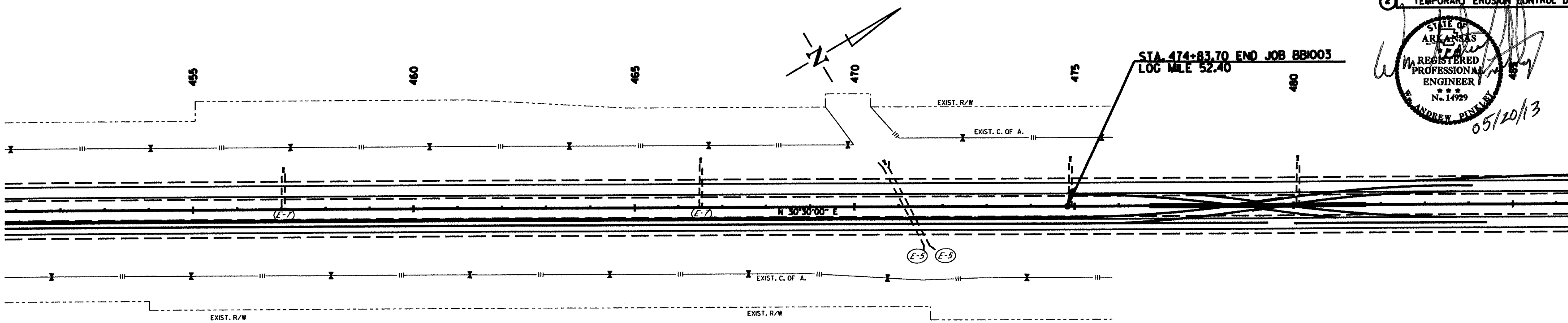
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB1003	40	215

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

05/20/13

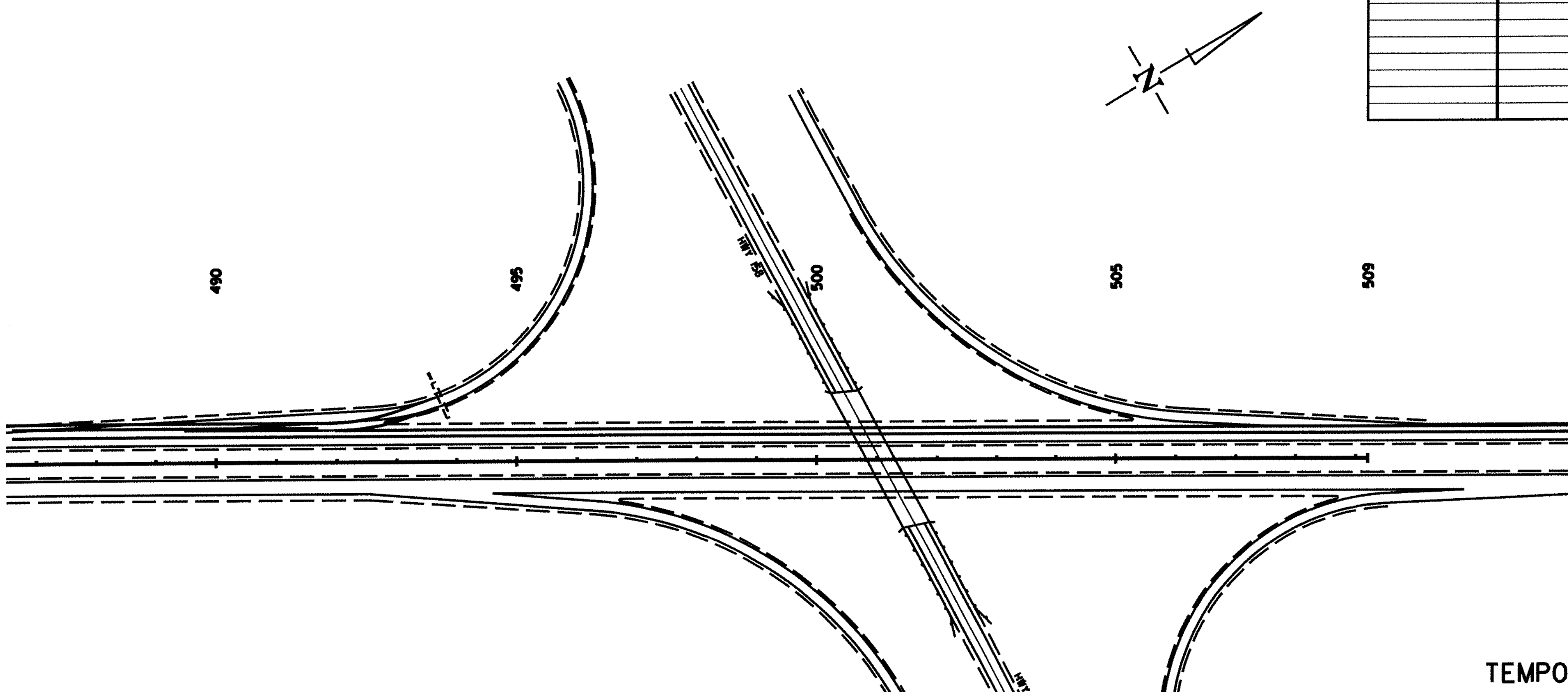


LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



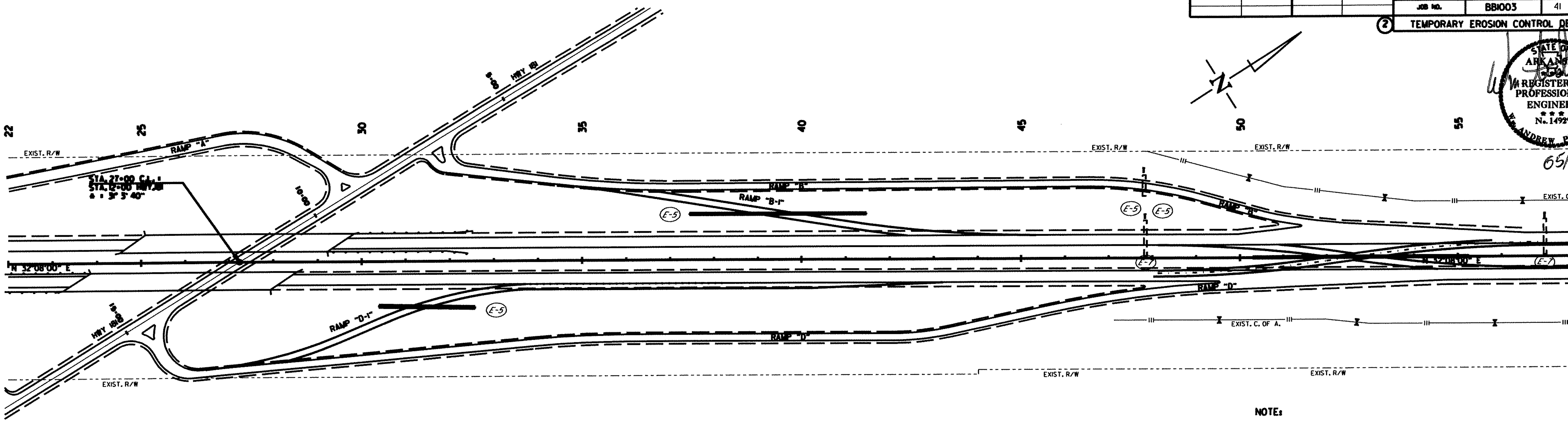
TEMPORARY EROSION CONTROL DETAILS - STAGE II-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	41	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

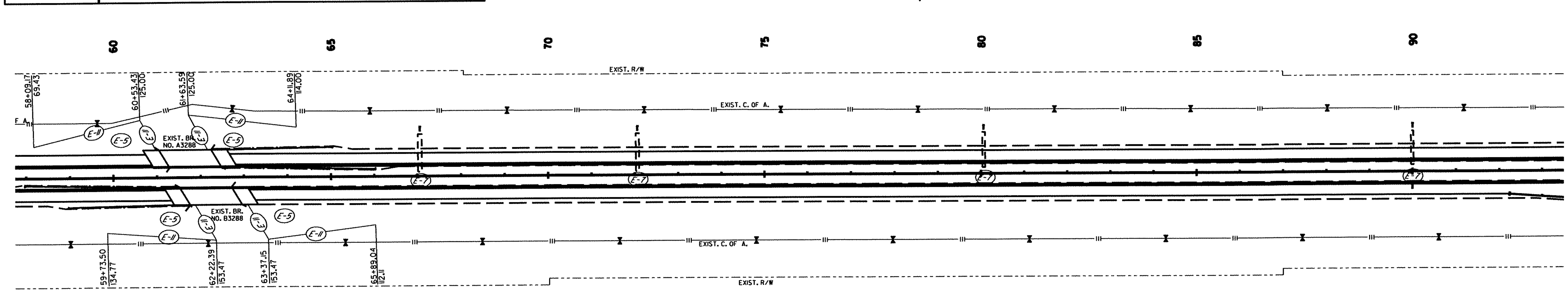


NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.

REVISION BOX

DATE OF REVISION	REVISION



LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

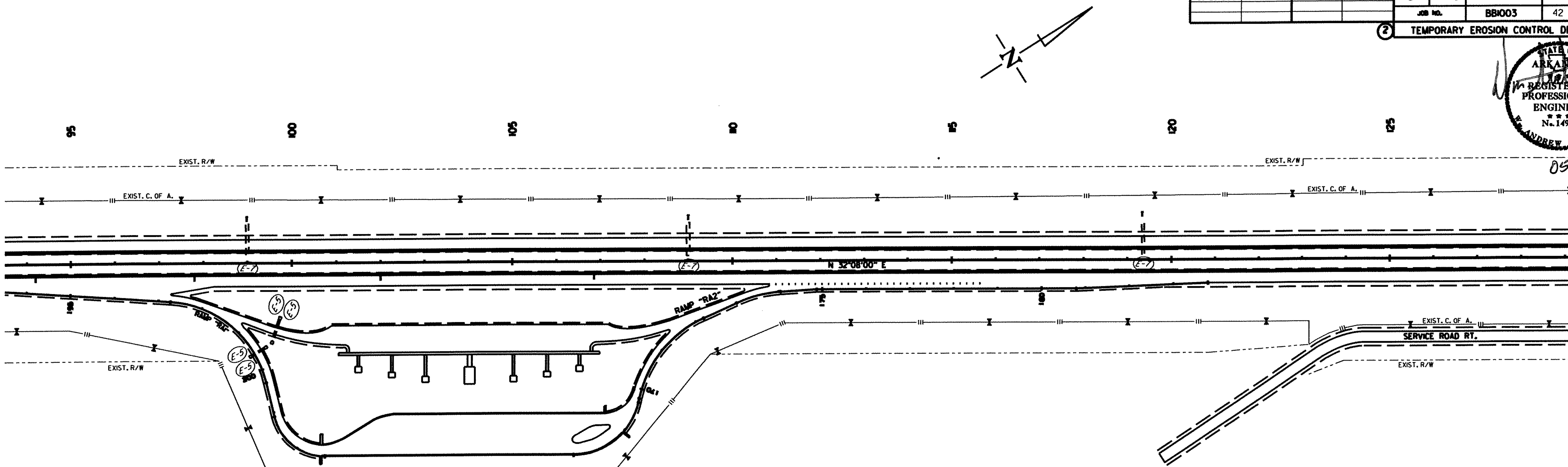
TEMPORARY EROSION CONTROL DETAILS - STAGE IIII-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	42	215

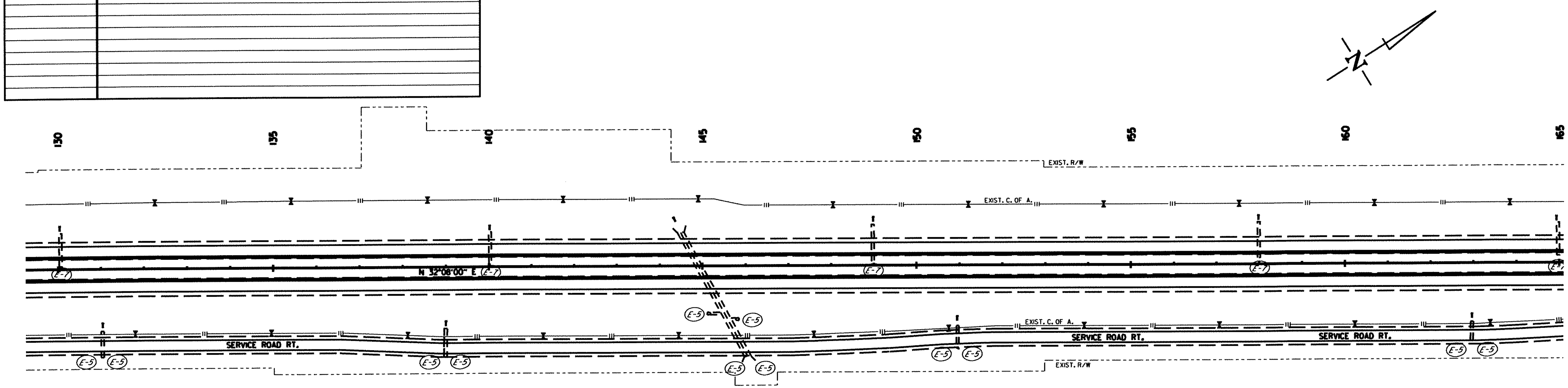
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

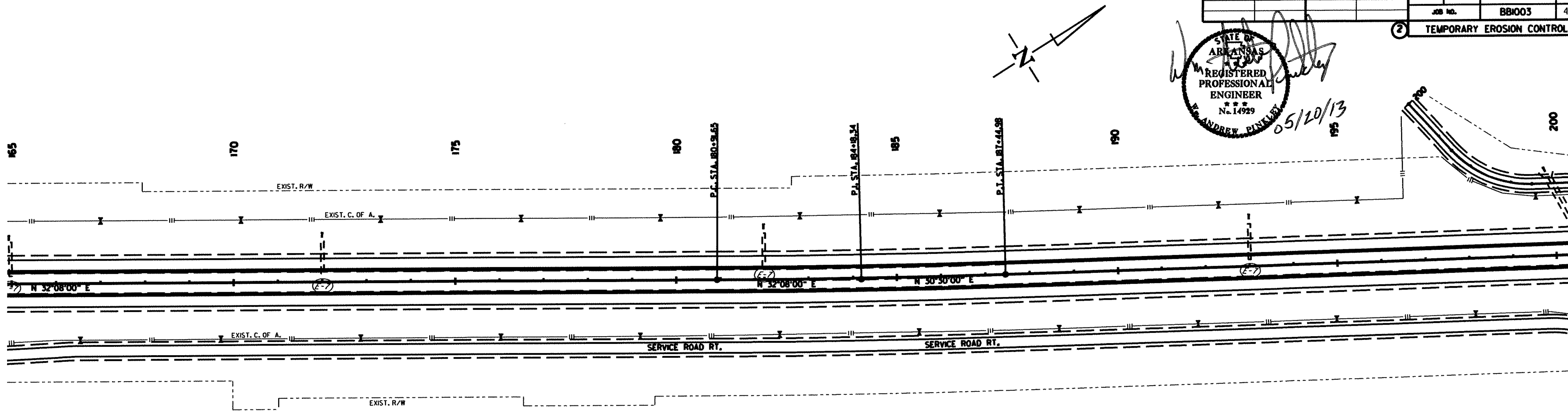
E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-8	SILT FENCE
	CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE III-A

5/20/2013

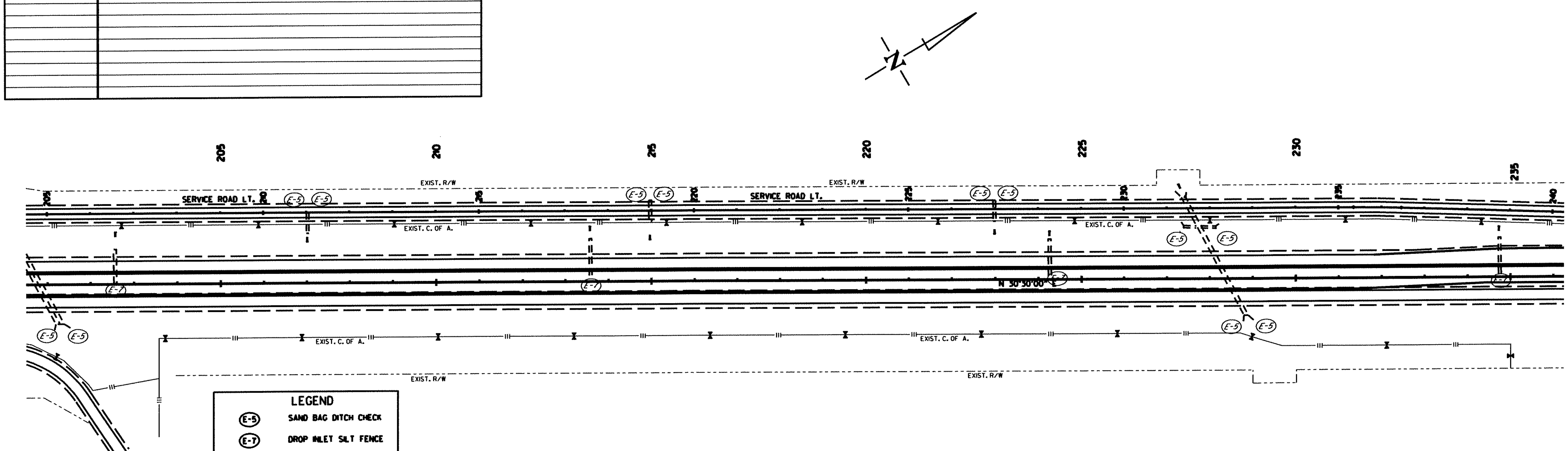
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	42A	215

② TEMPORARY EROSION CONTROL DETAILS



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

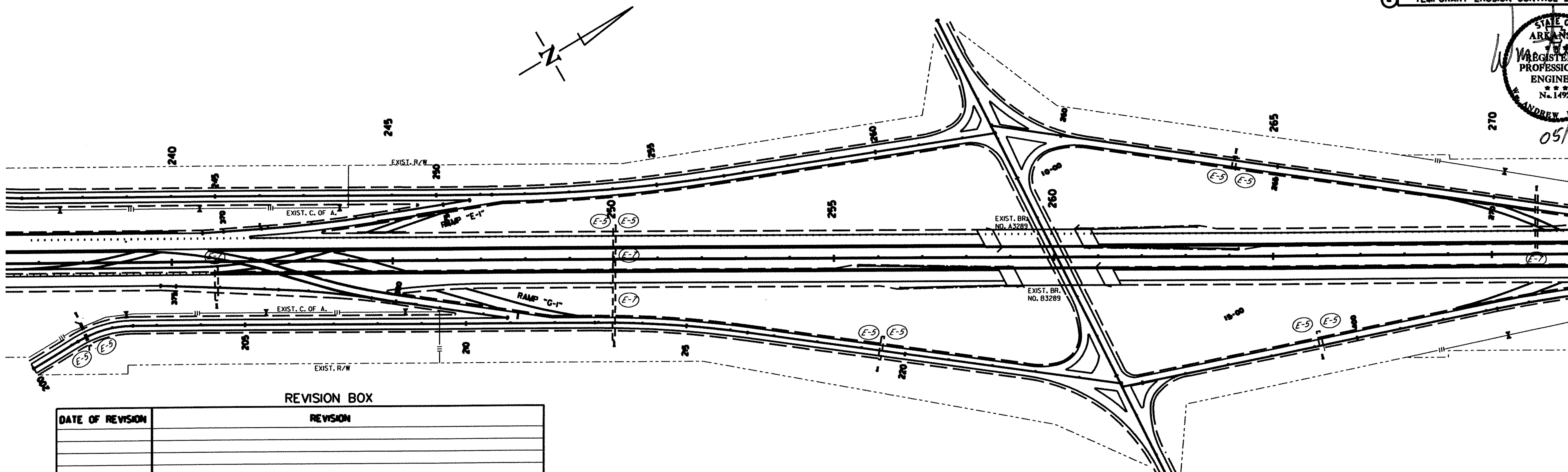
TEMPORARY EROSION CONTROL DETAILS - STAGE III-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	43	215

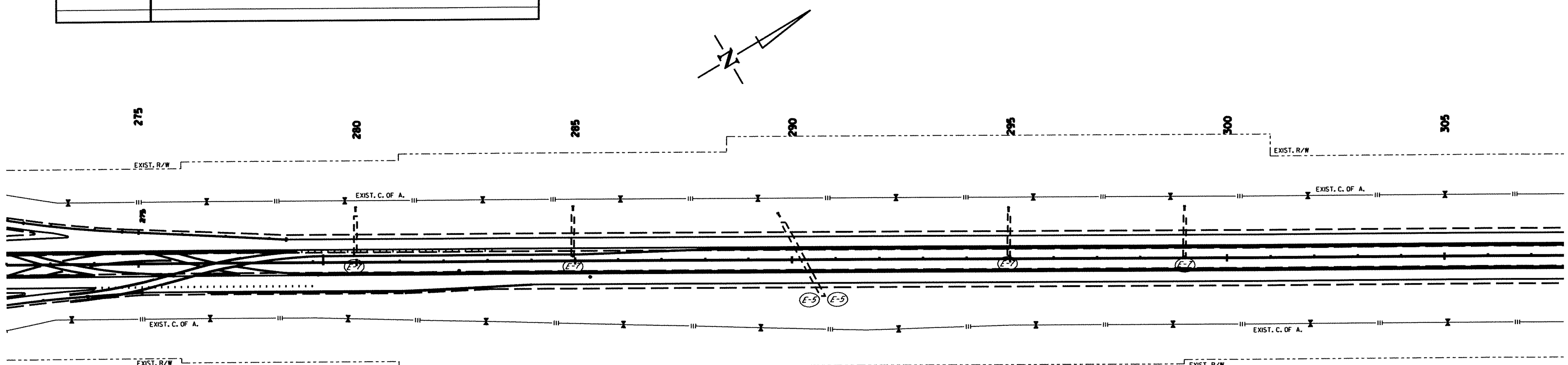
2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

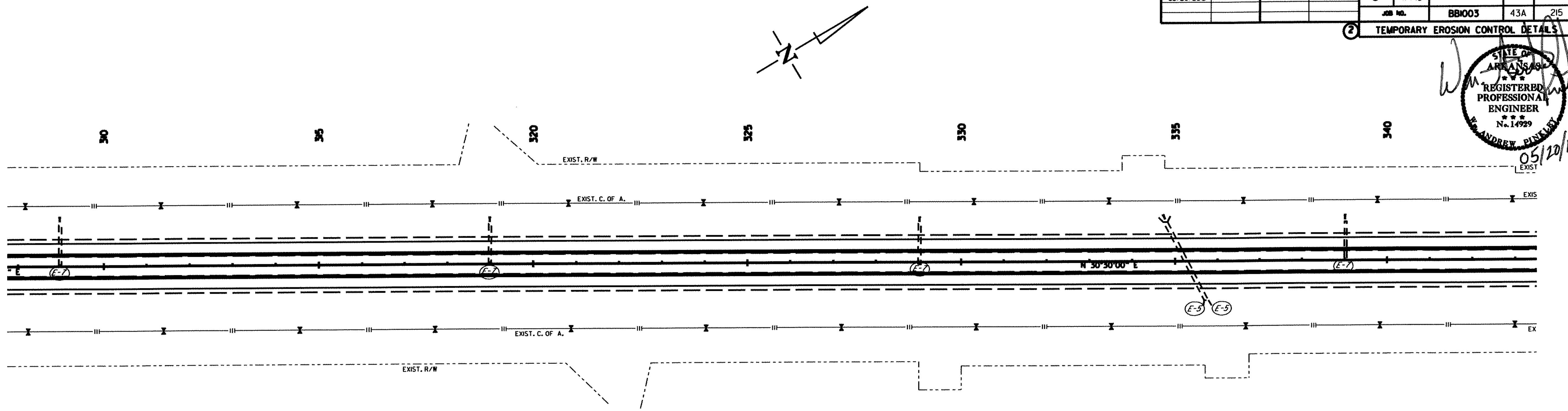
TEMPORARY EROSION CONTROL DETAILS - STAGE III-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	43A	215

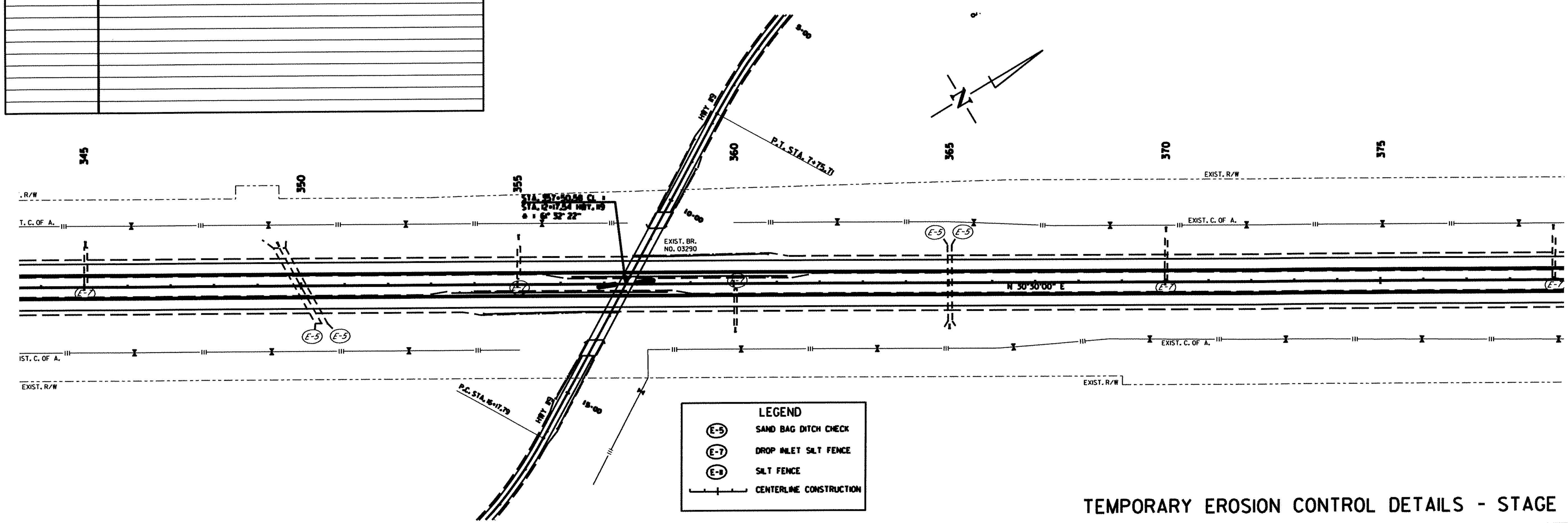
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-8	SILT FENCE
	CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE III-A

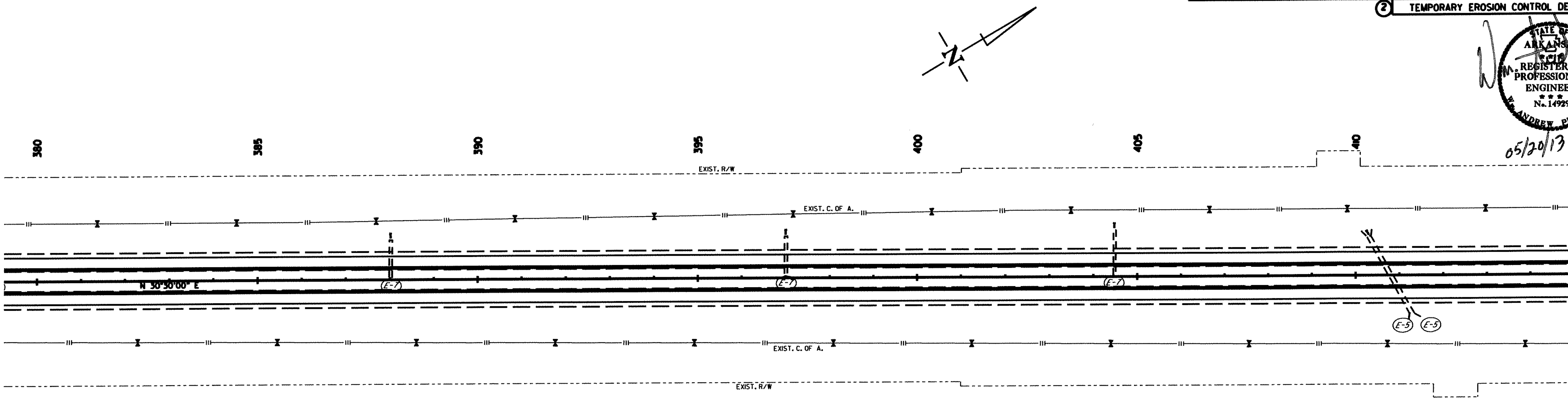
5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	43B	215

(2) TEMPORARY EROSION CONTROL DETAILS

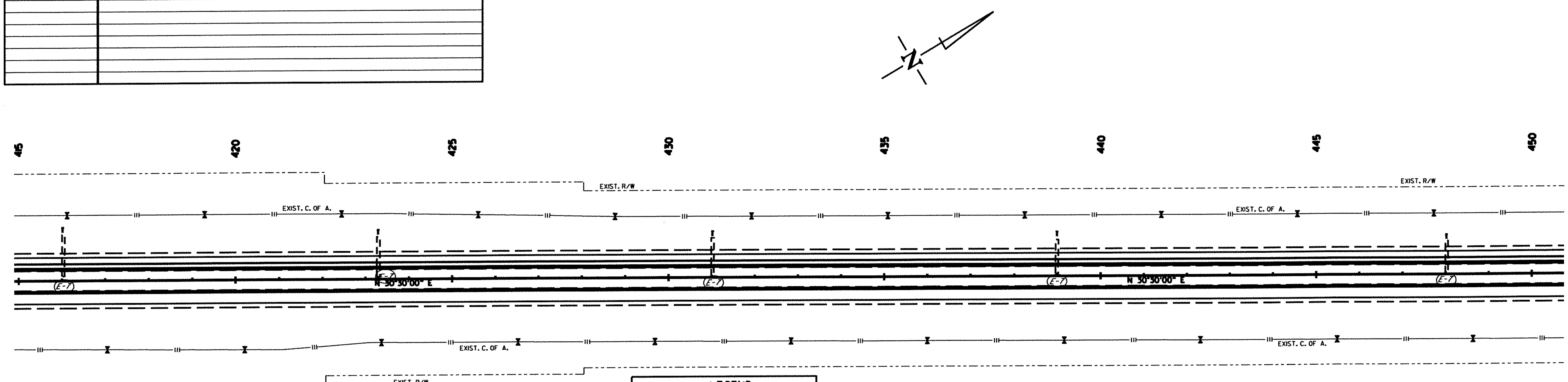
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY

05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE III-A

5/20/2013

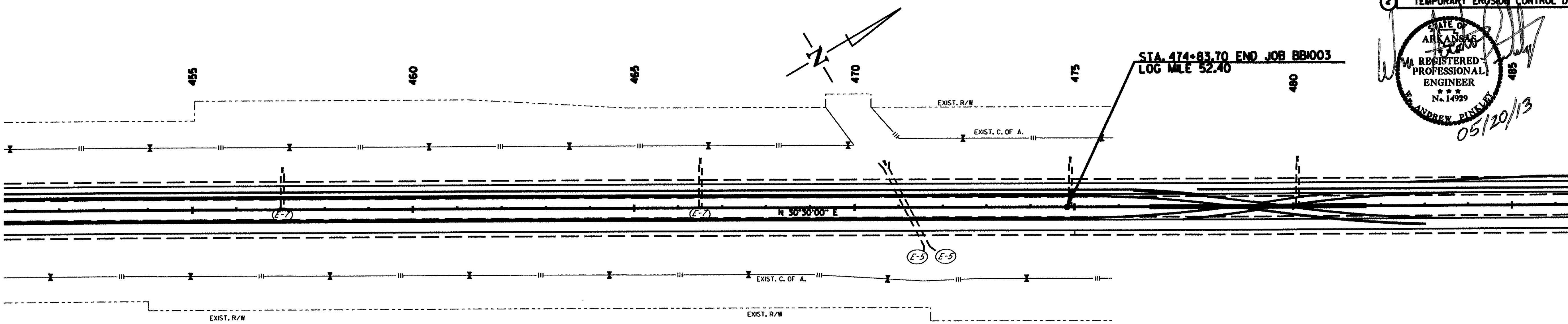
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB1003	44	215

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

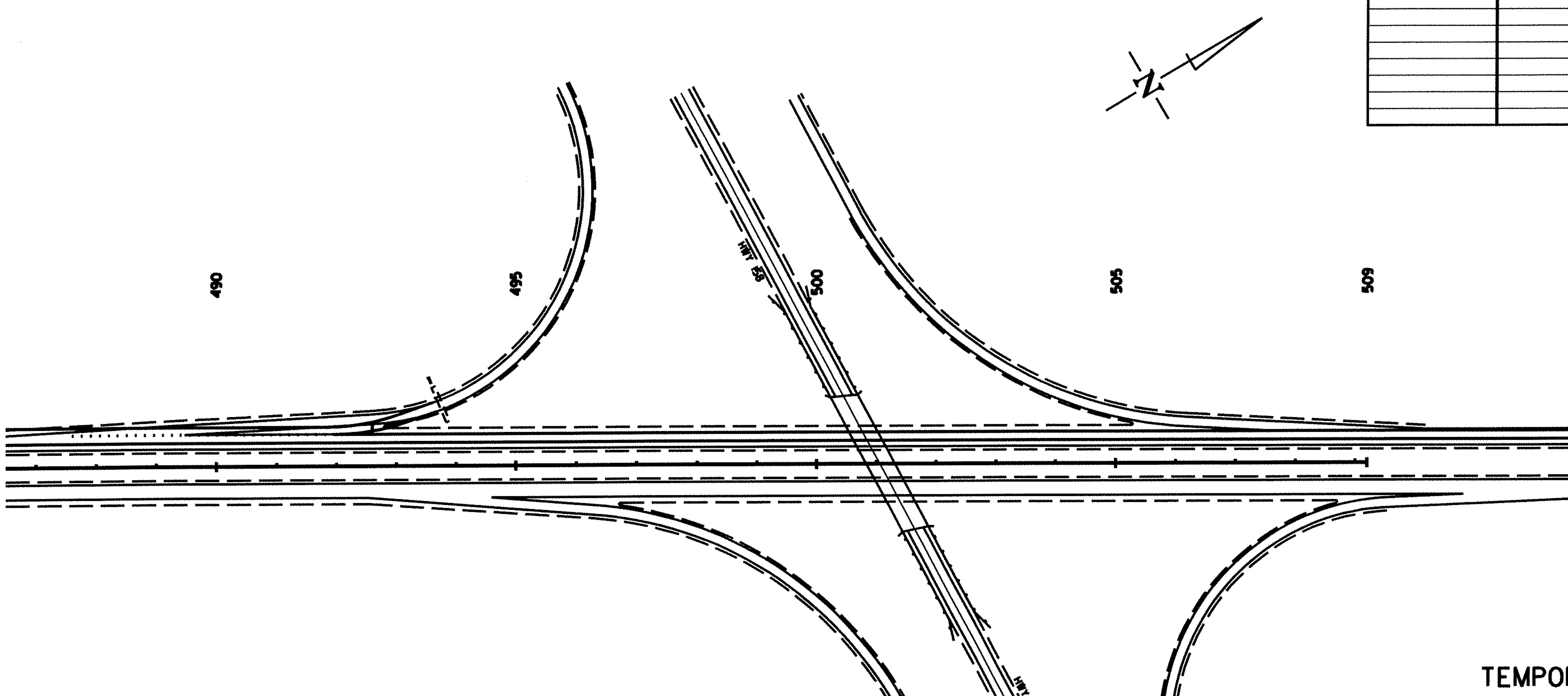
05/20/13



LEGEND	
E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-8	SILT FENCE
	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



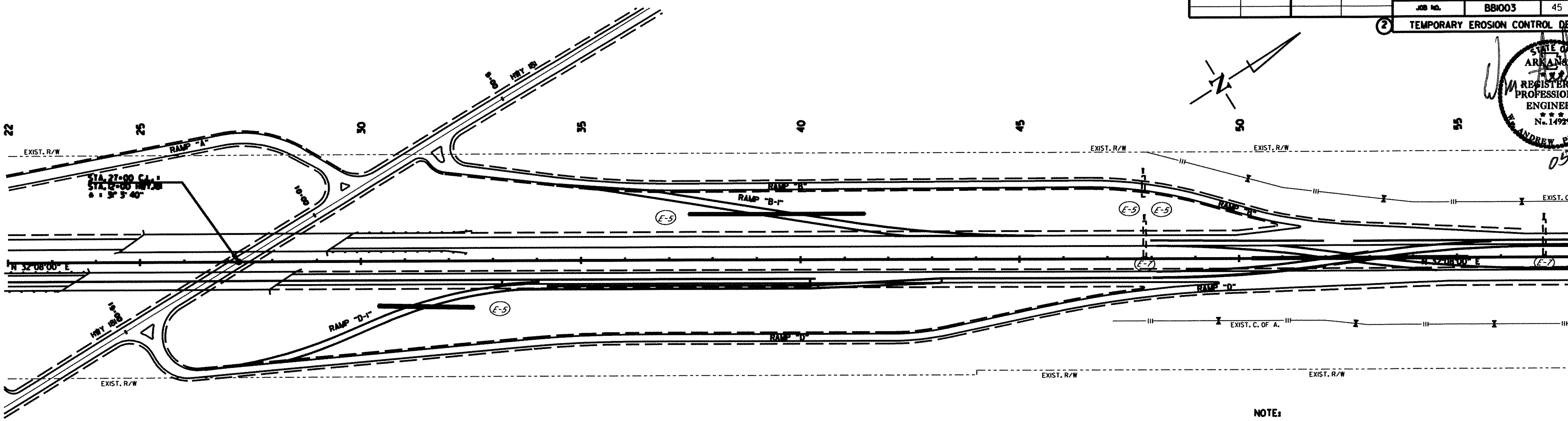
TEMPORARY EROSION CONTROL DETAILS - STAGE III-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	45	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

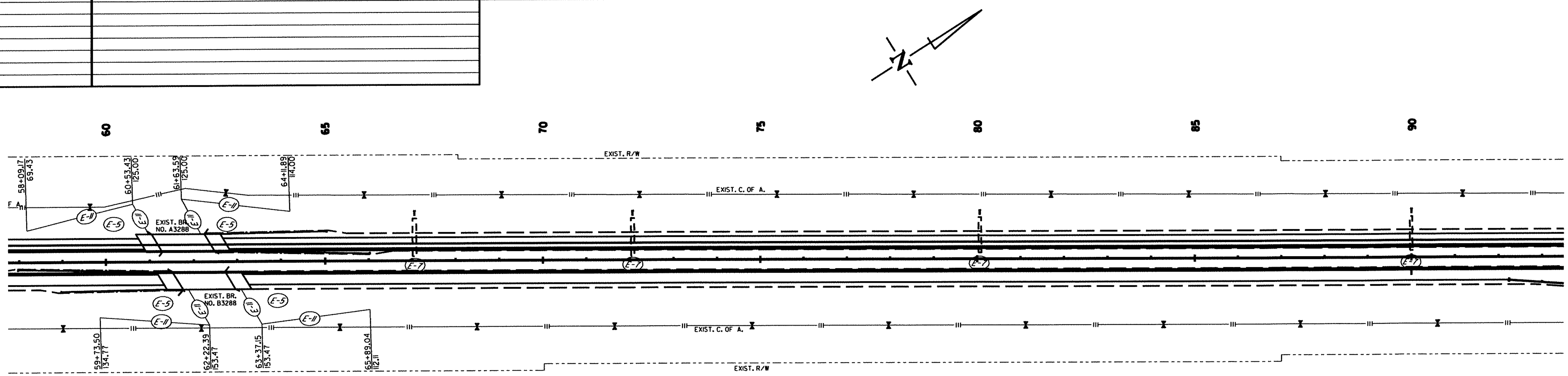


REVISION BOX

DATE OF REVISION	REVISION

NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

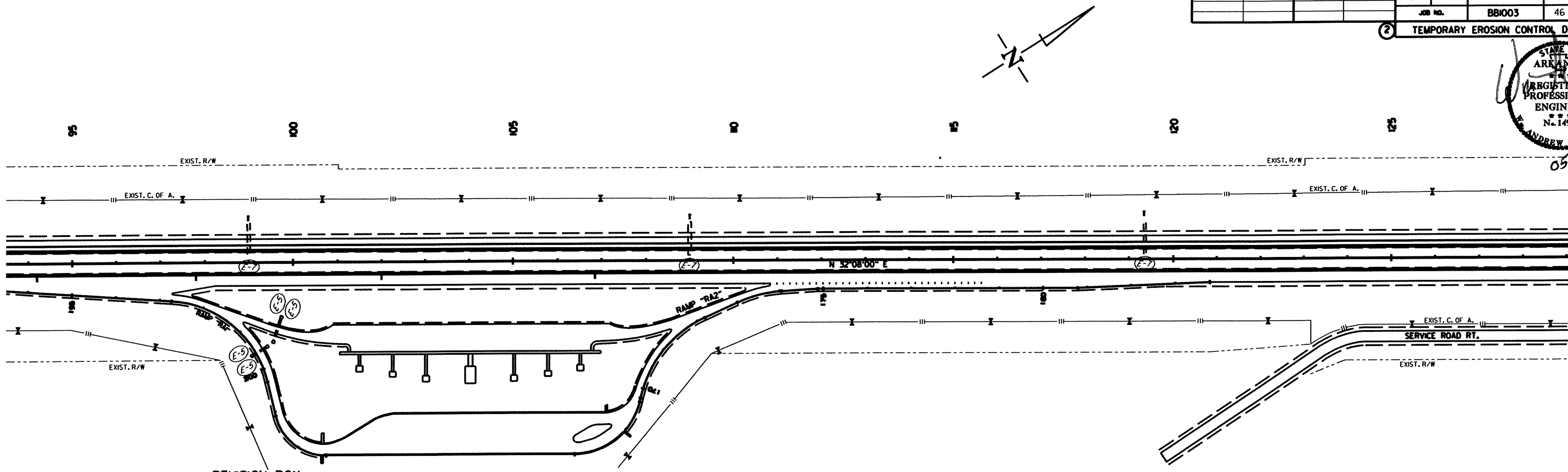
TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	46	215

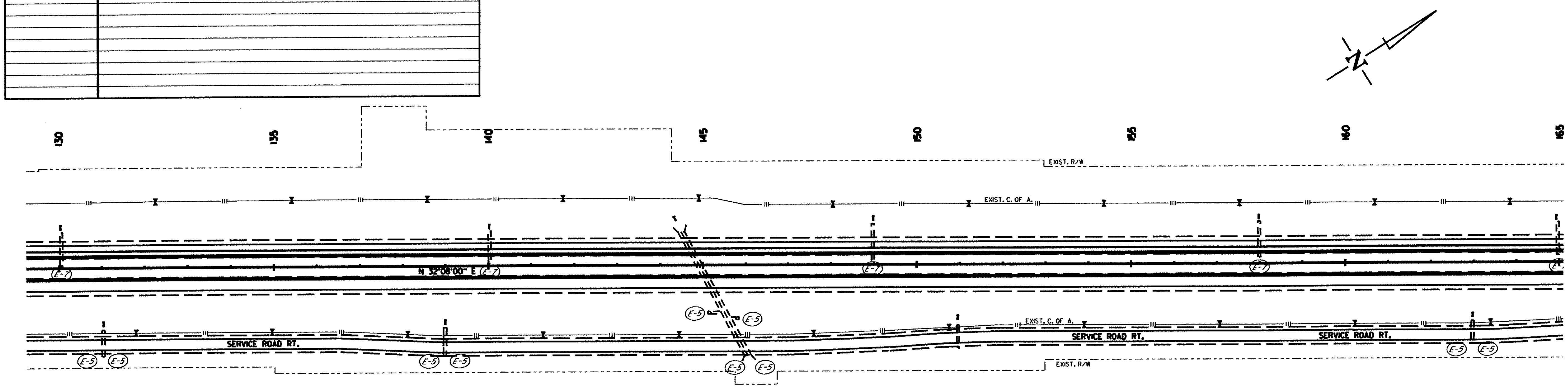
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

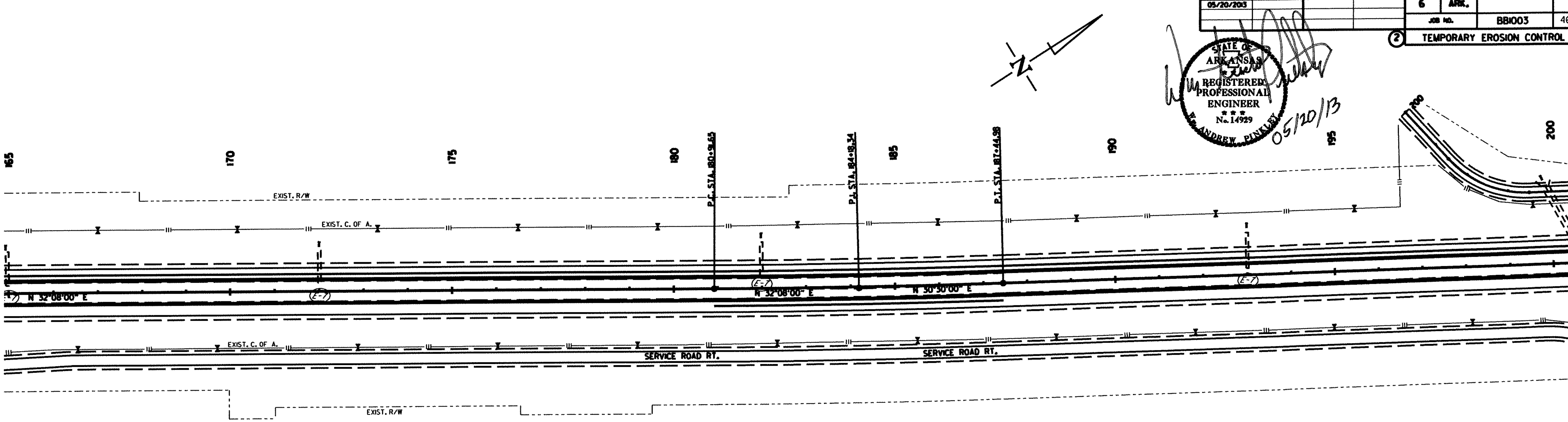
5/20/2013

TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	46A	215

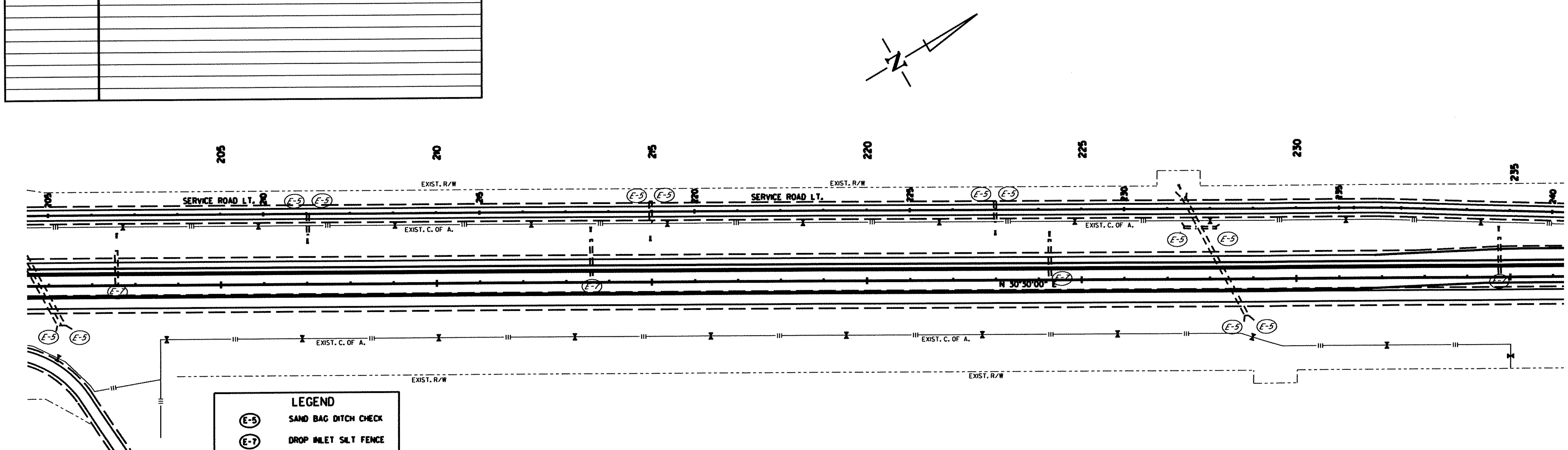
② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
K. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

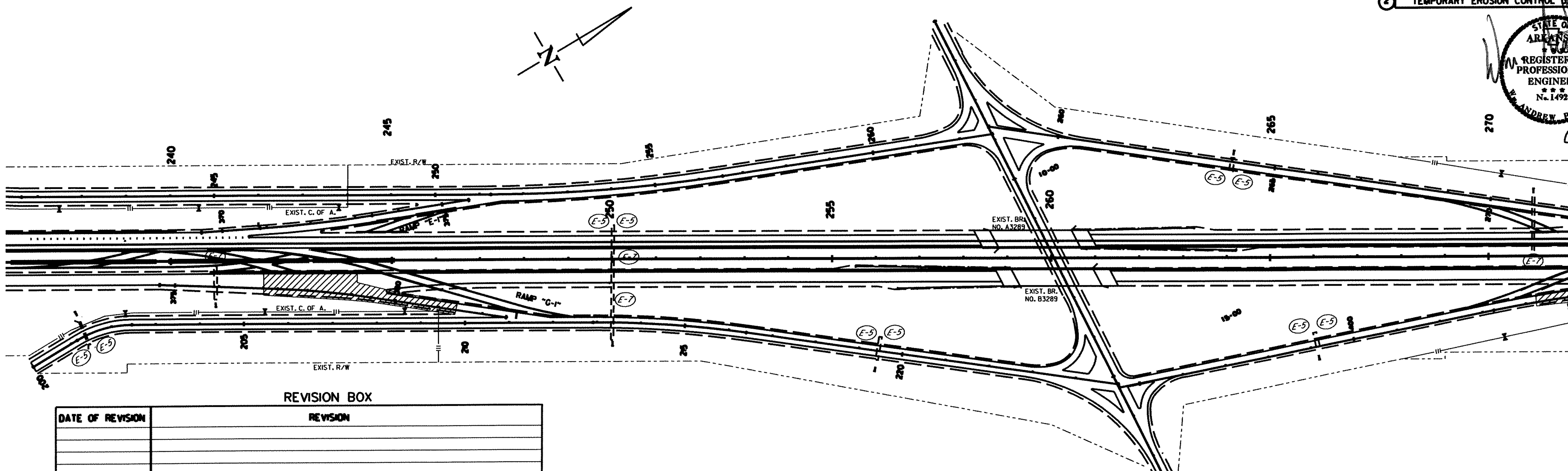
TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	47	215

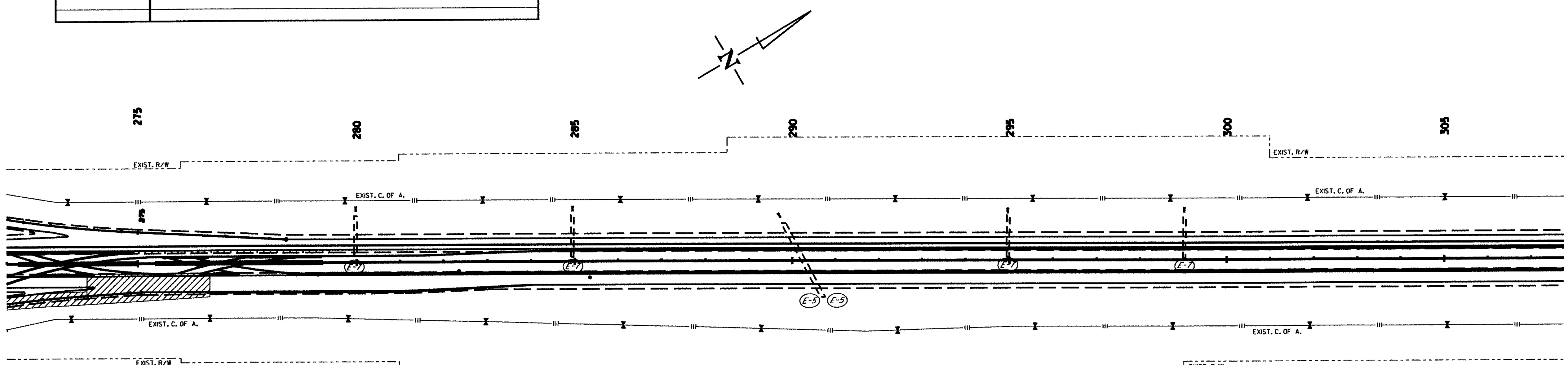
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

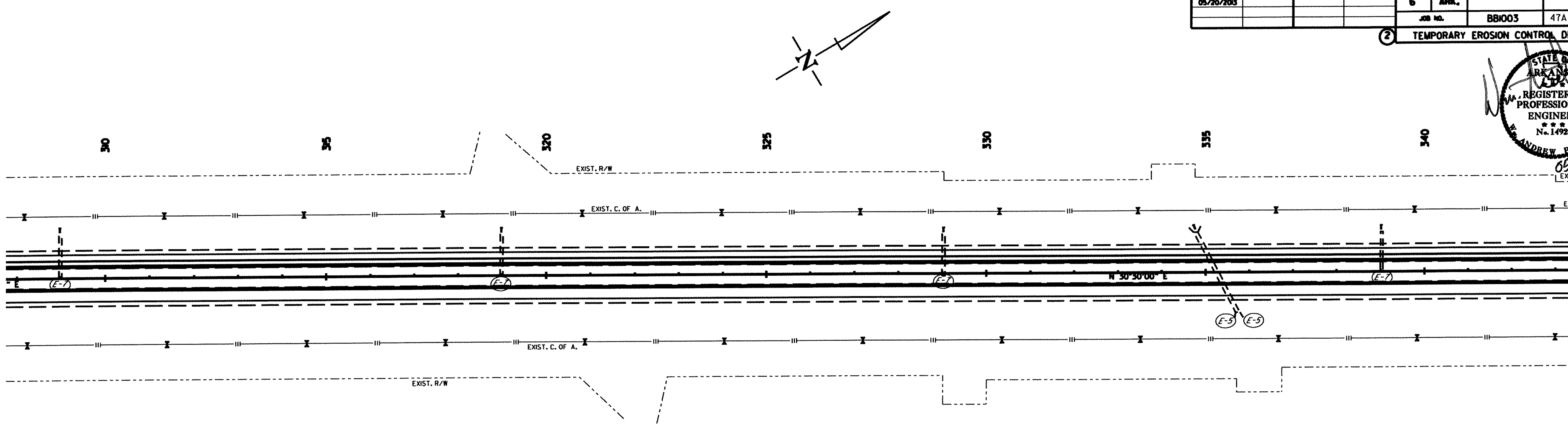
TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	47A	215

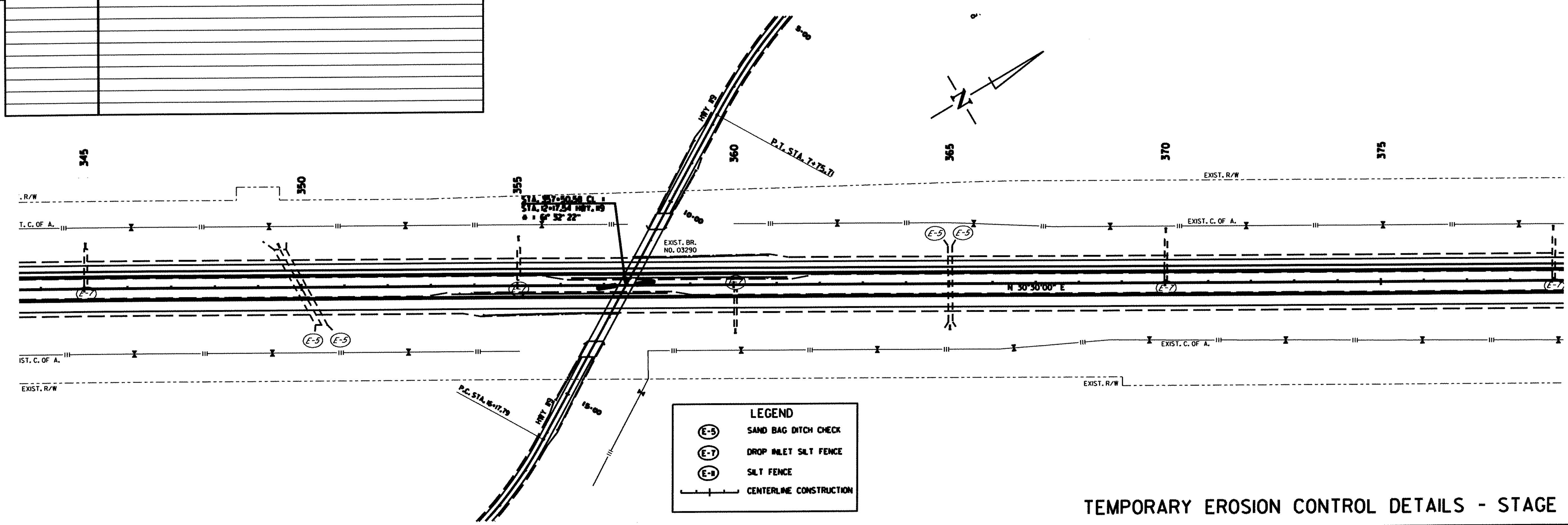
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

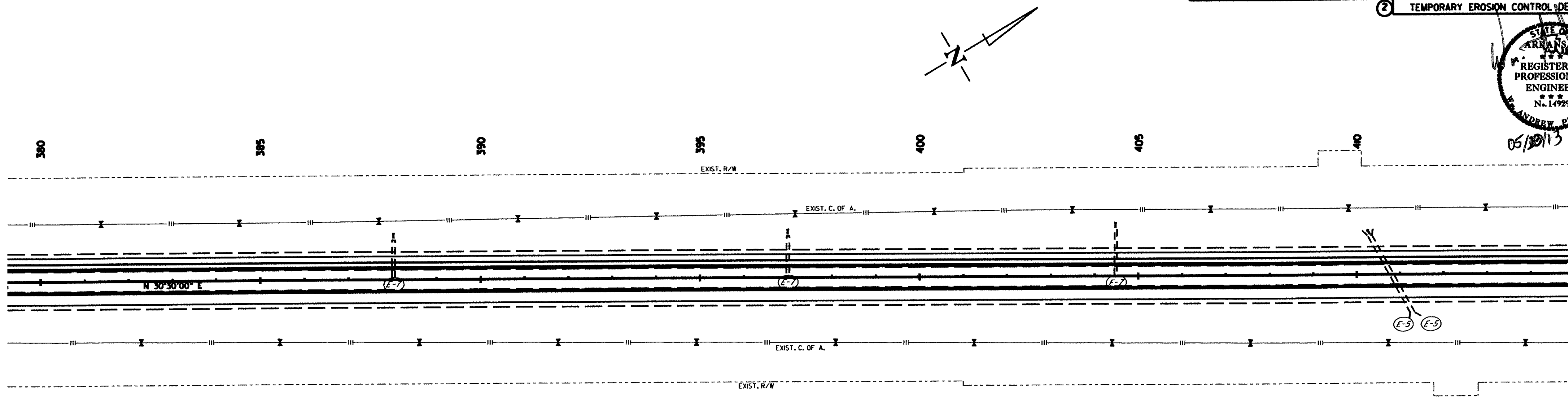
TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	47B	215

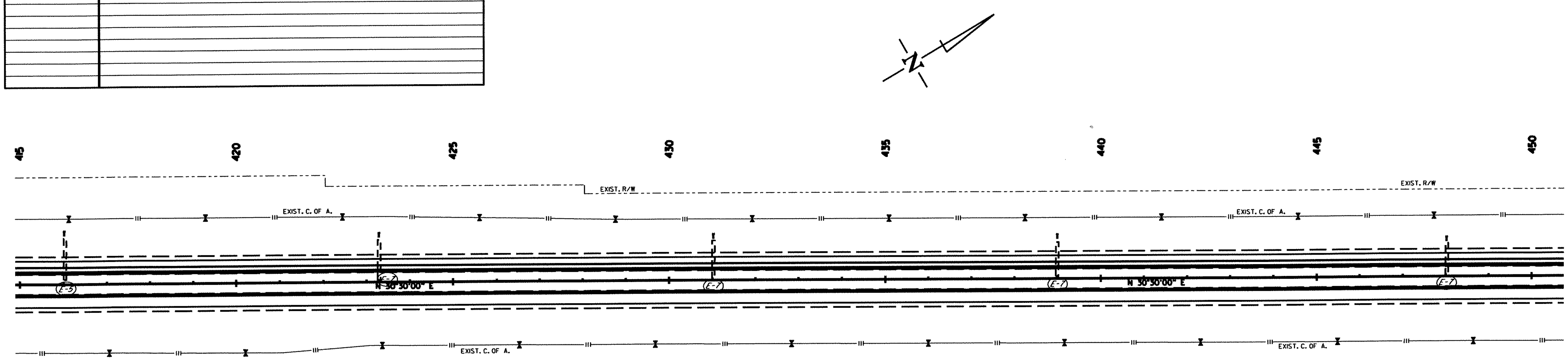
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

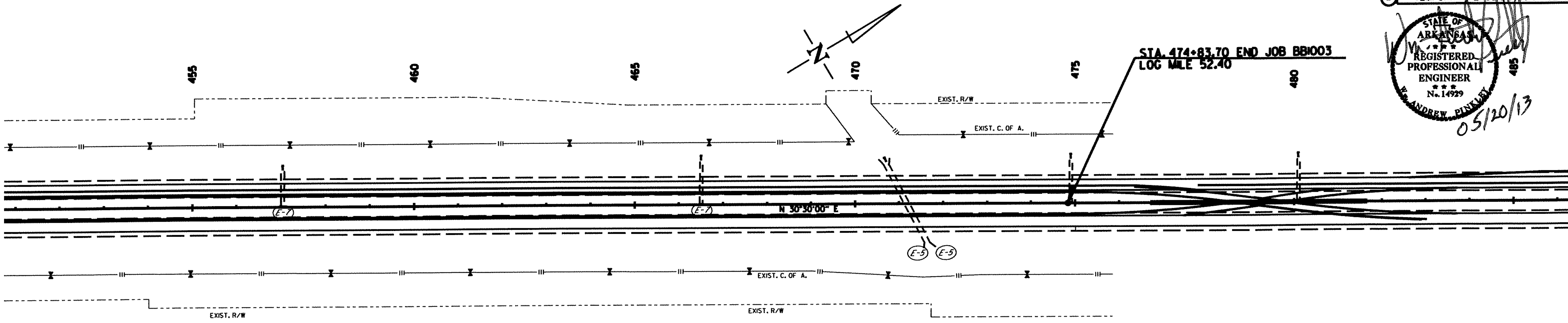
TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	48	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

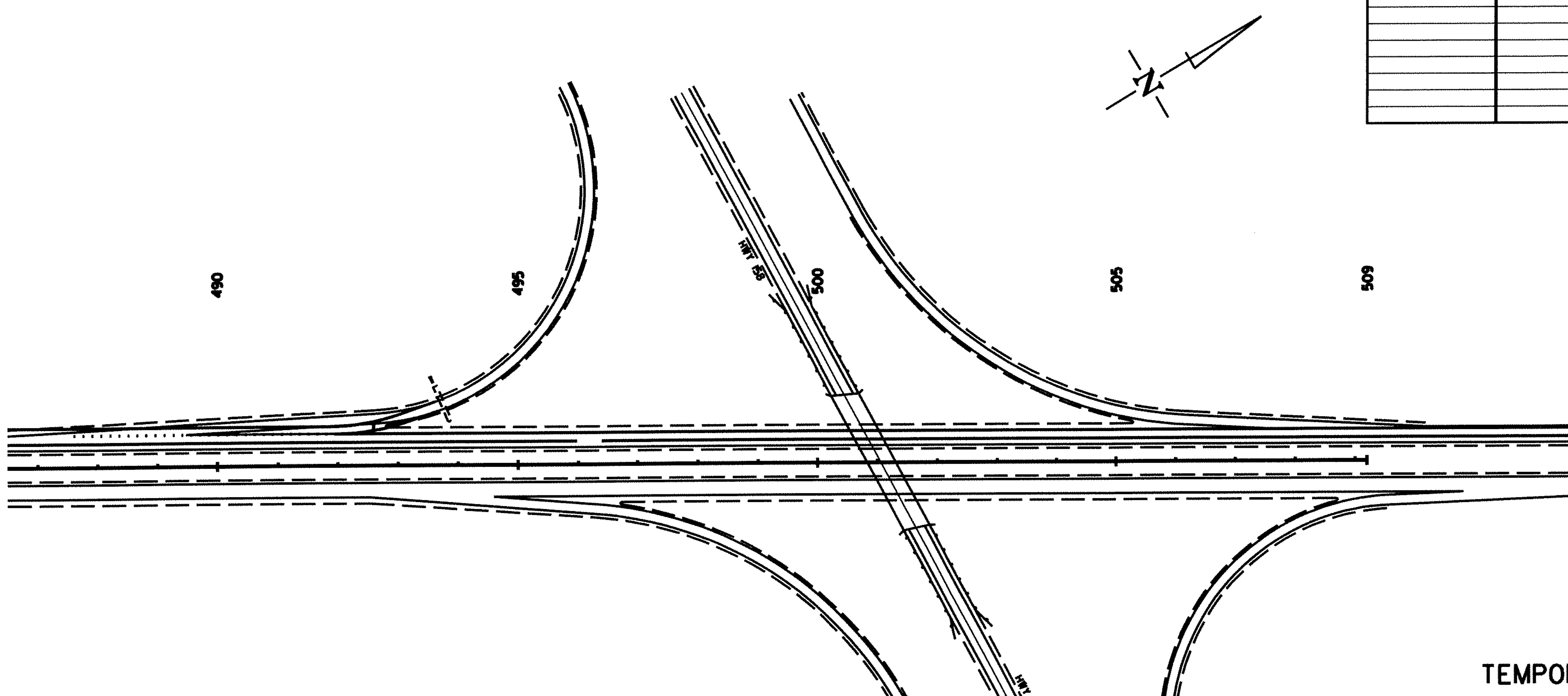


LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



TEMPORARY EROSION CONTROL DETAILS - STAGE III-B

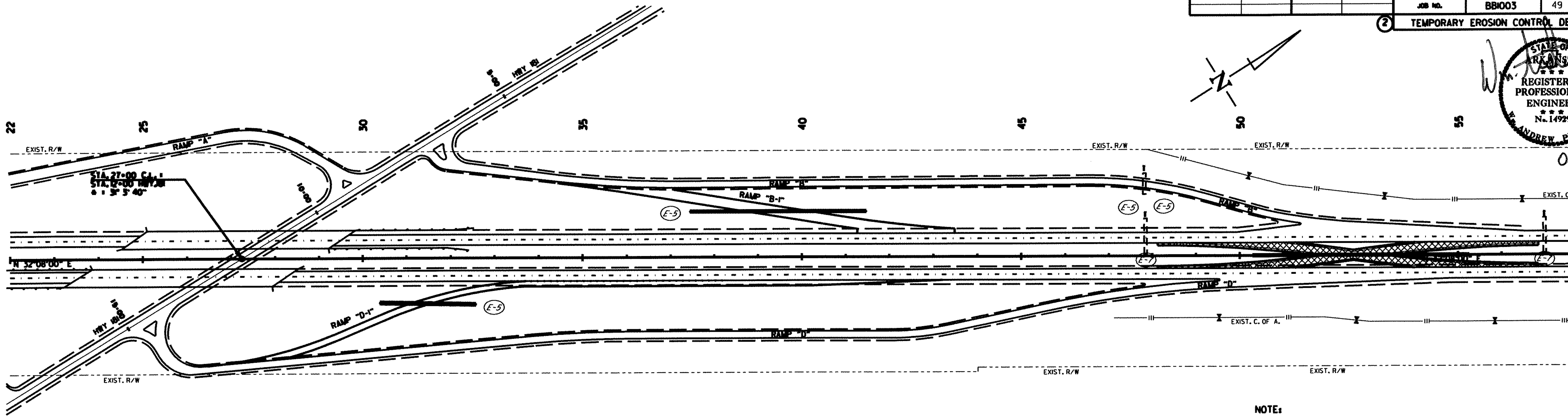
5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB1003	49	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

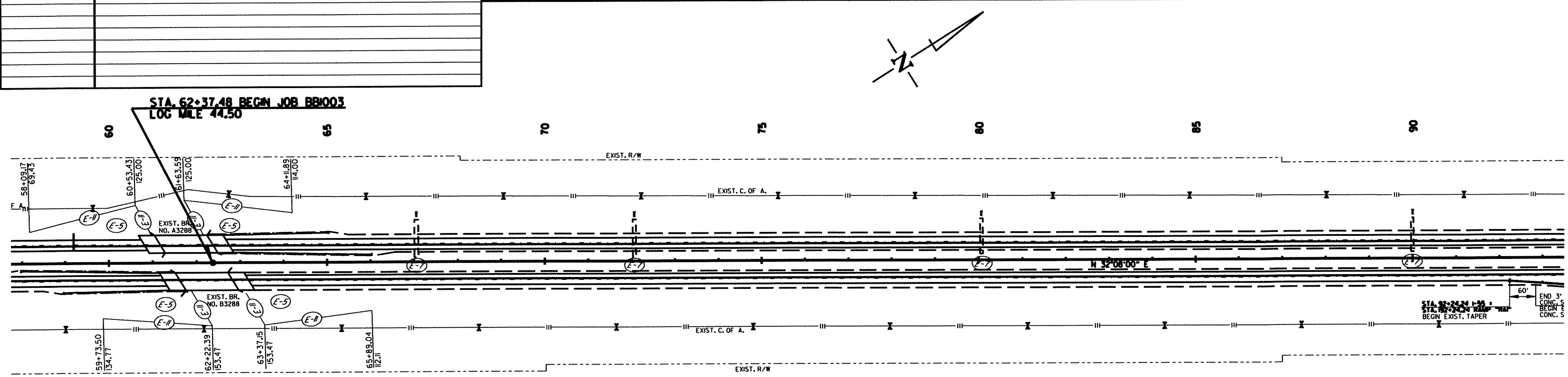


NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.

REVISION BOX

DATE OF REVISION	REVISION



LEGEND	
(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

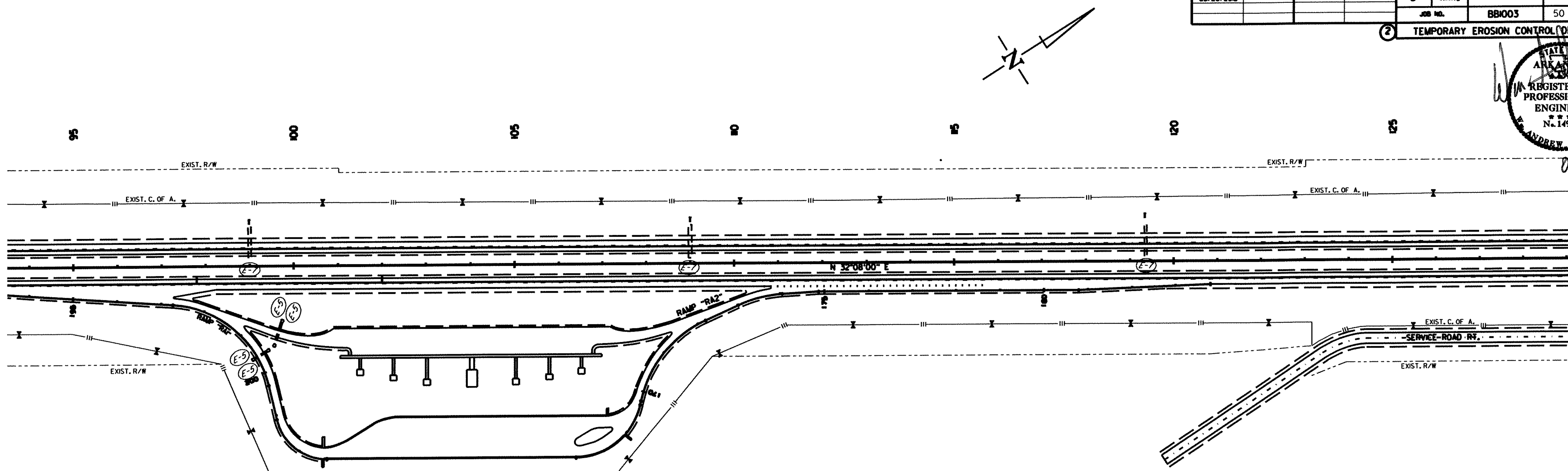
TEMPORARY EROSION CONTROL DETAILS - STAGE IVI-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	50	215

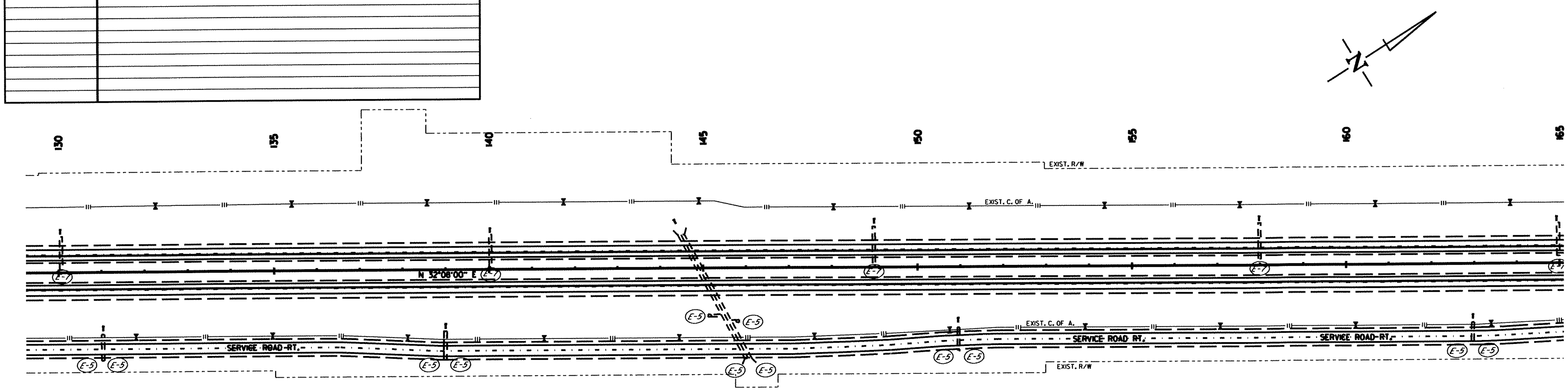
② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE IV-A

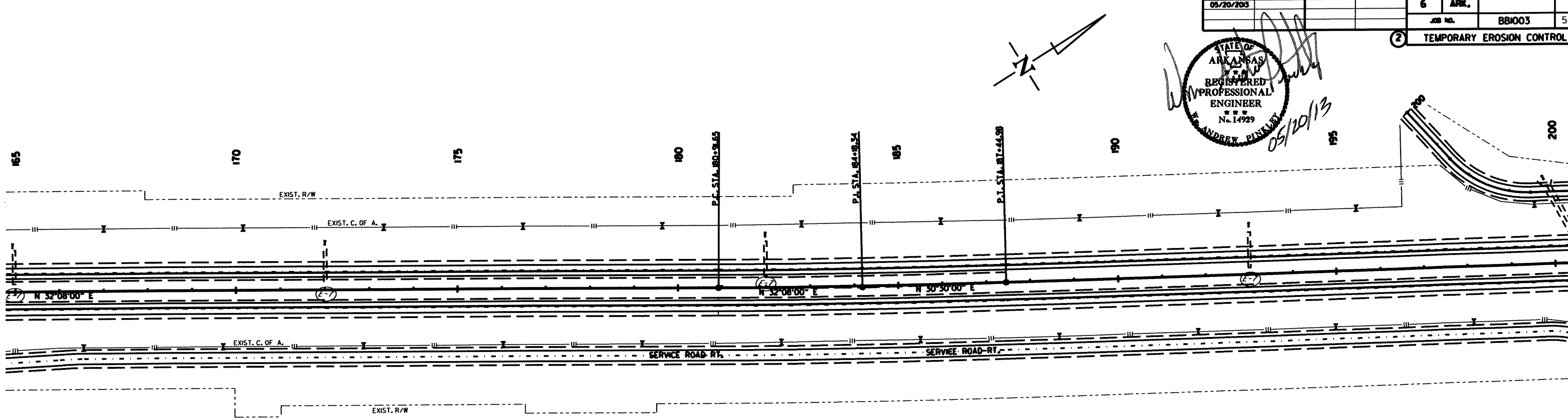
5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	50A	215

(2) TEMPORARY EROSION CONTROL DETAILS

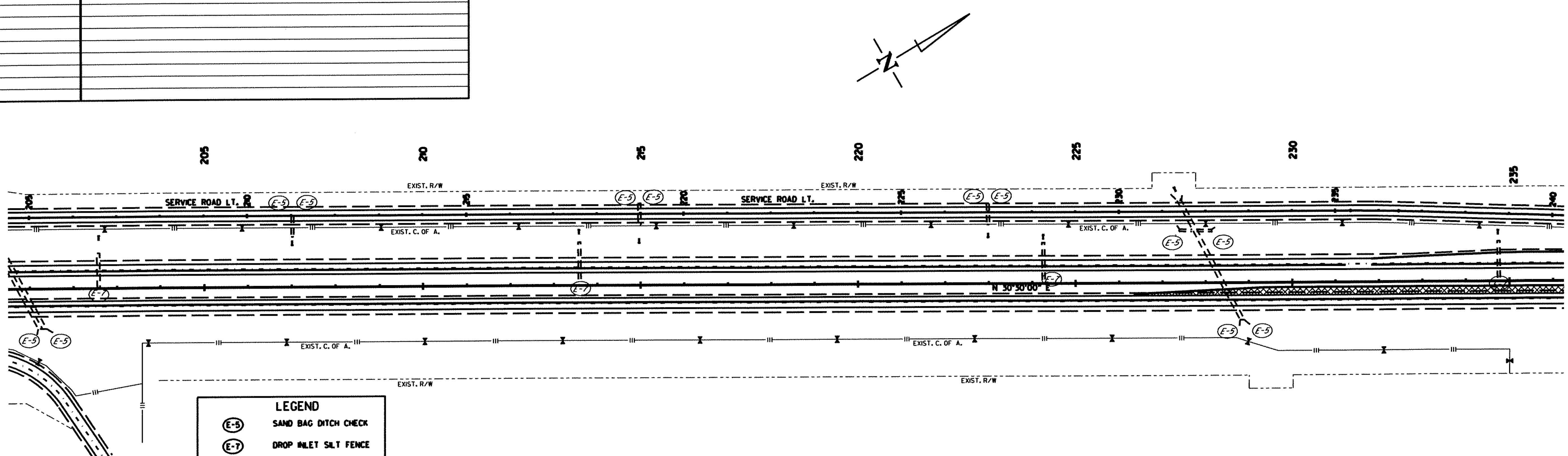
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-8	SILT FENCE
	CENTERLINE CONSTRUCTION

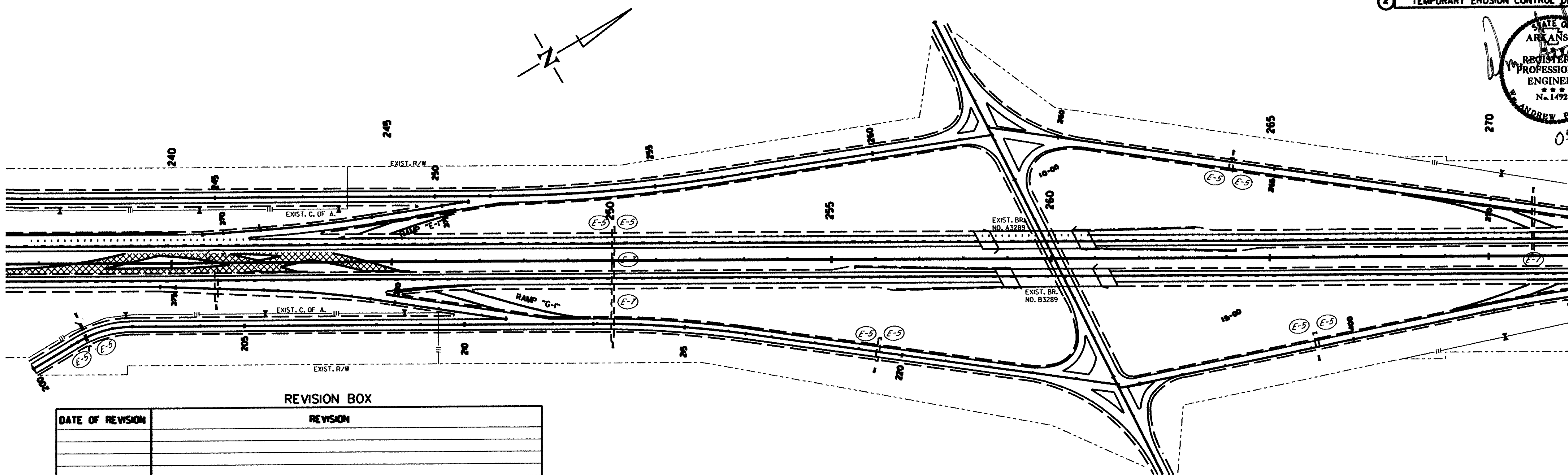
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	51	215

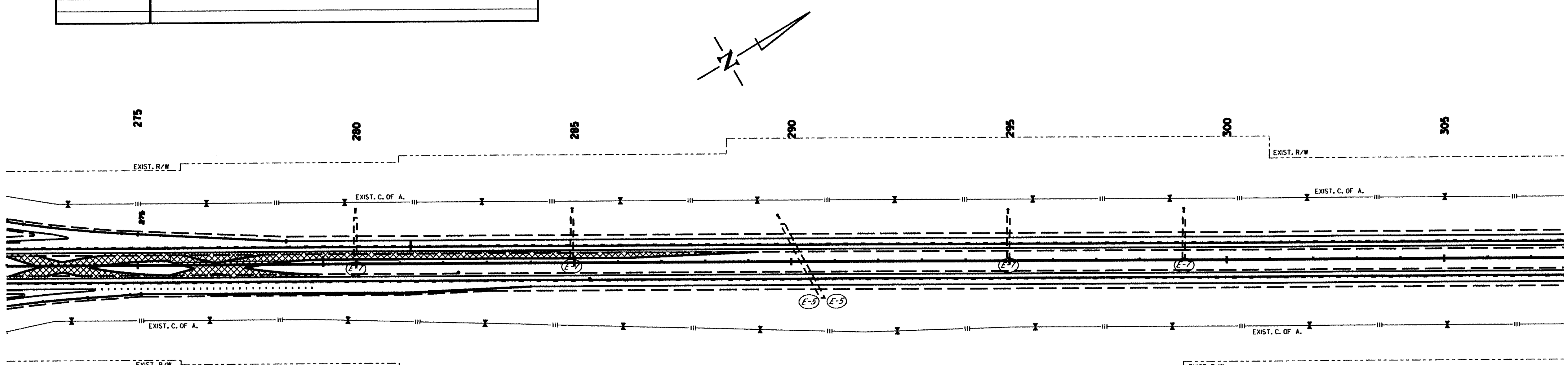
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND	
(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
——+——	CENTERLINE CONSTRUCTION

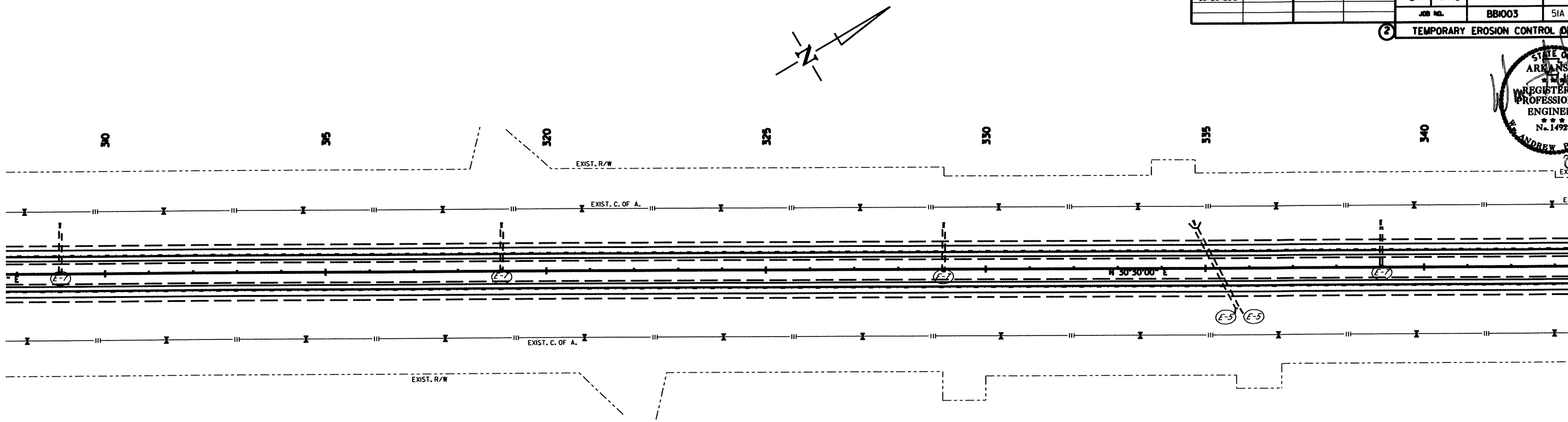
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	51A	215

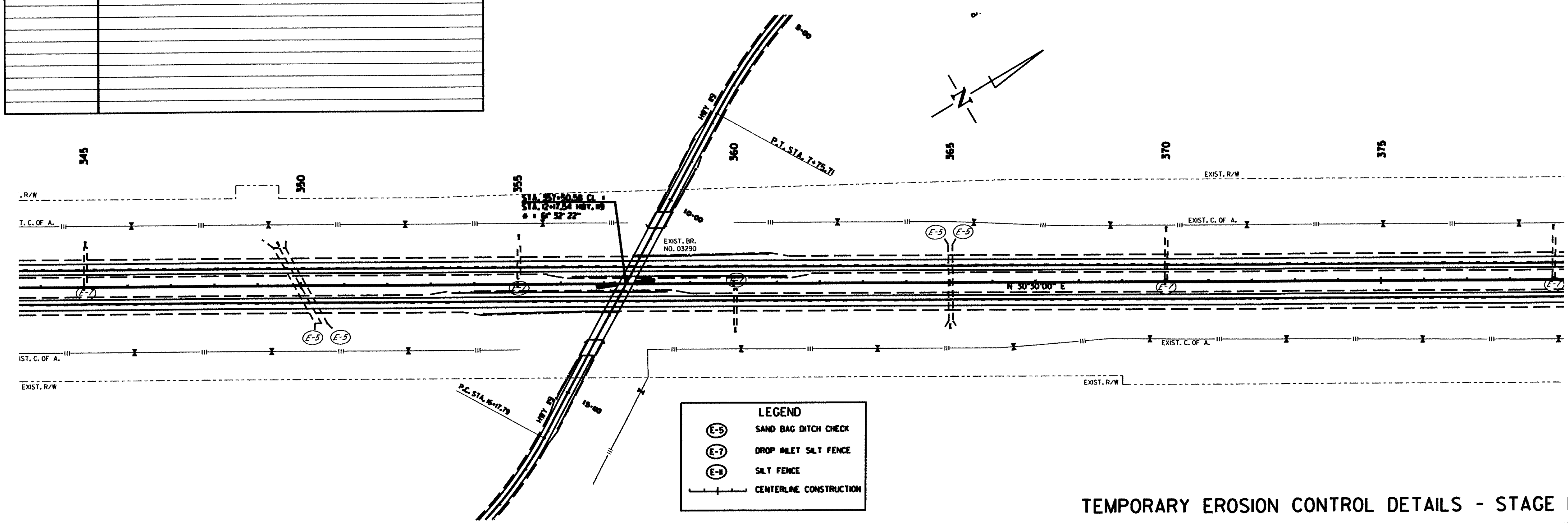
2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

TEMPORARY EROSION CONTROL DETAILS - STAGE IV-A

5/20/2013

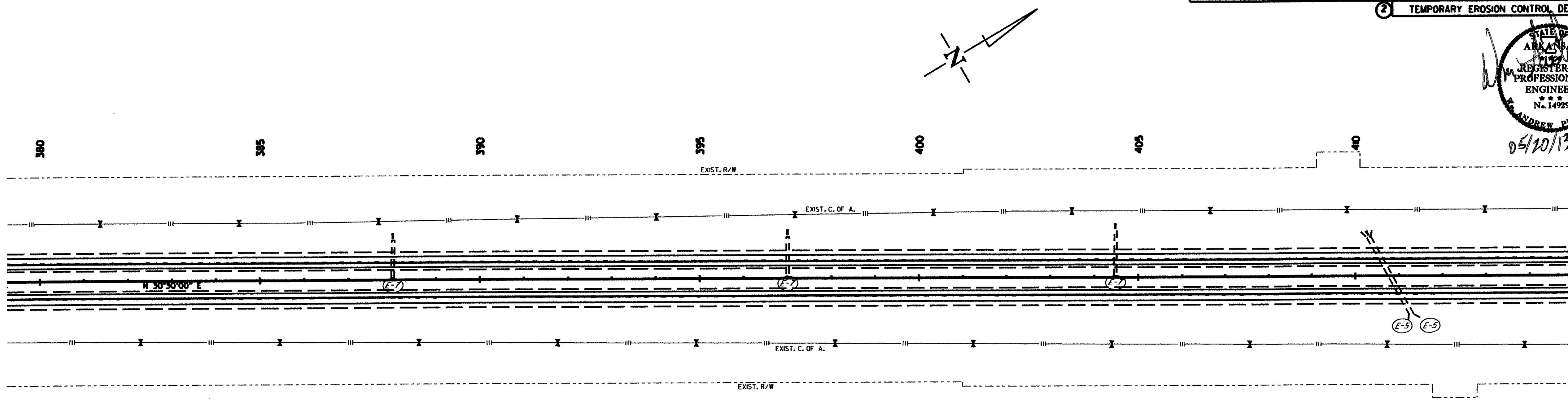
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB1003	518	215

(2) TEMPORARY EROSION CONTROL DETAILS

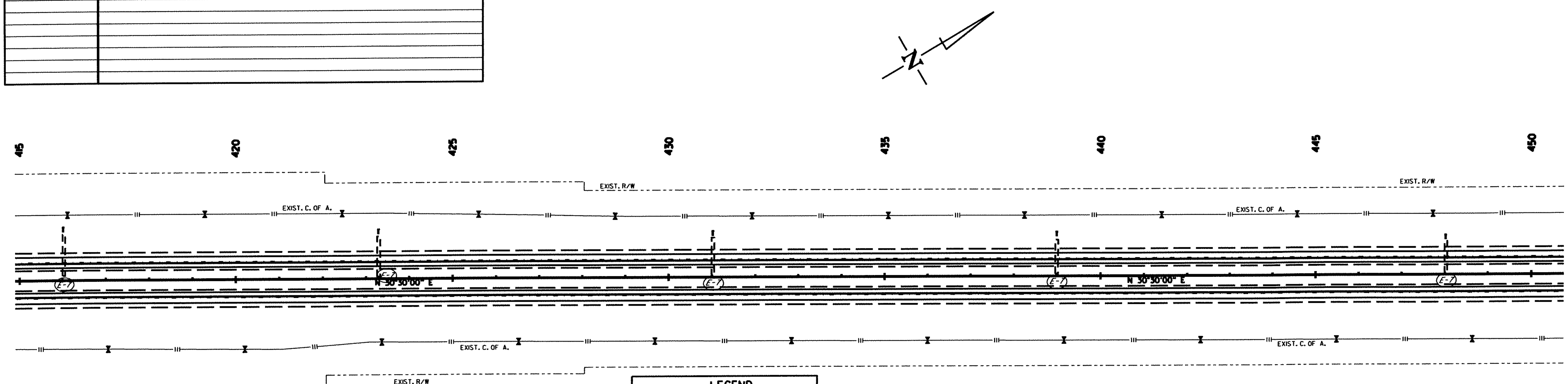
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY

05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- E-5 SAND BAG DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-8 SILT FENCE
- CENTERLINE CONSTRUCTION

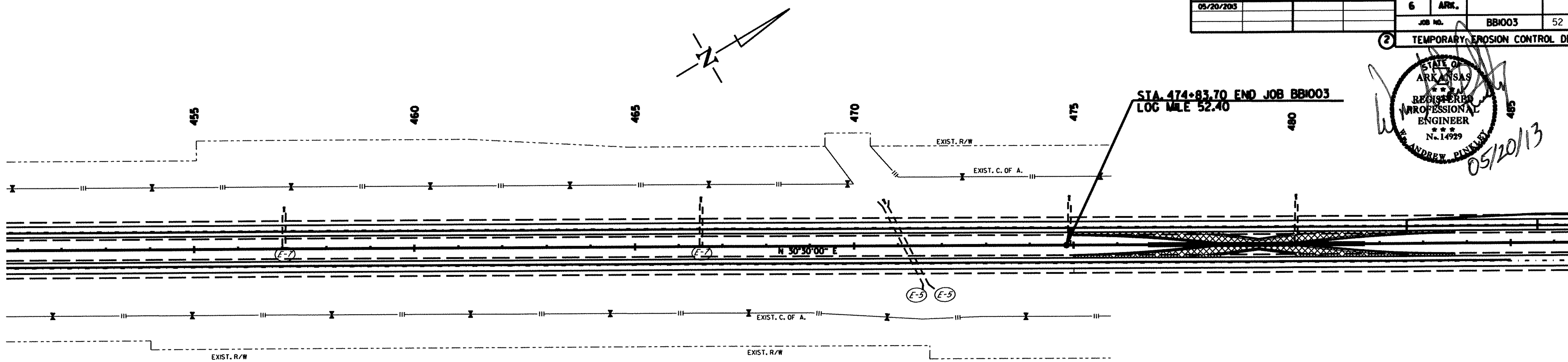
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	52	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

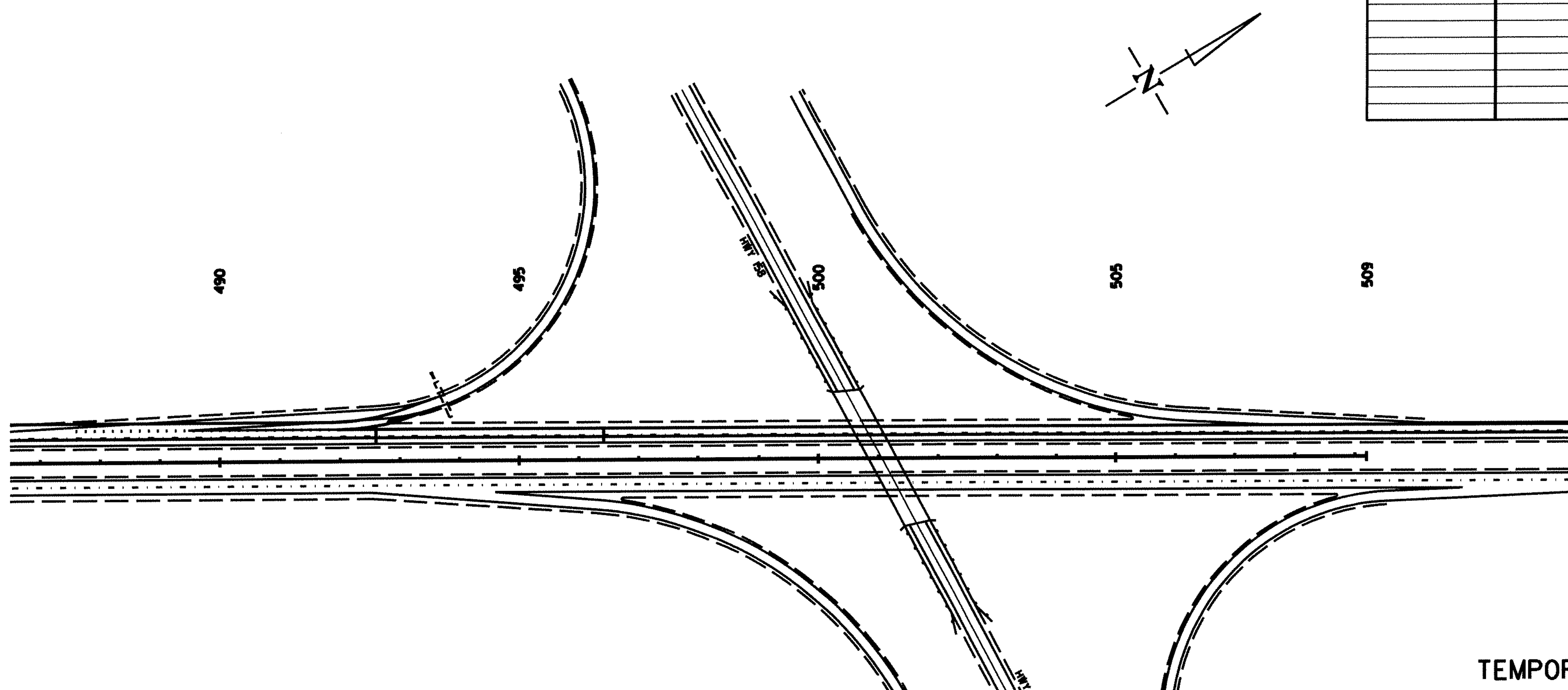


LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



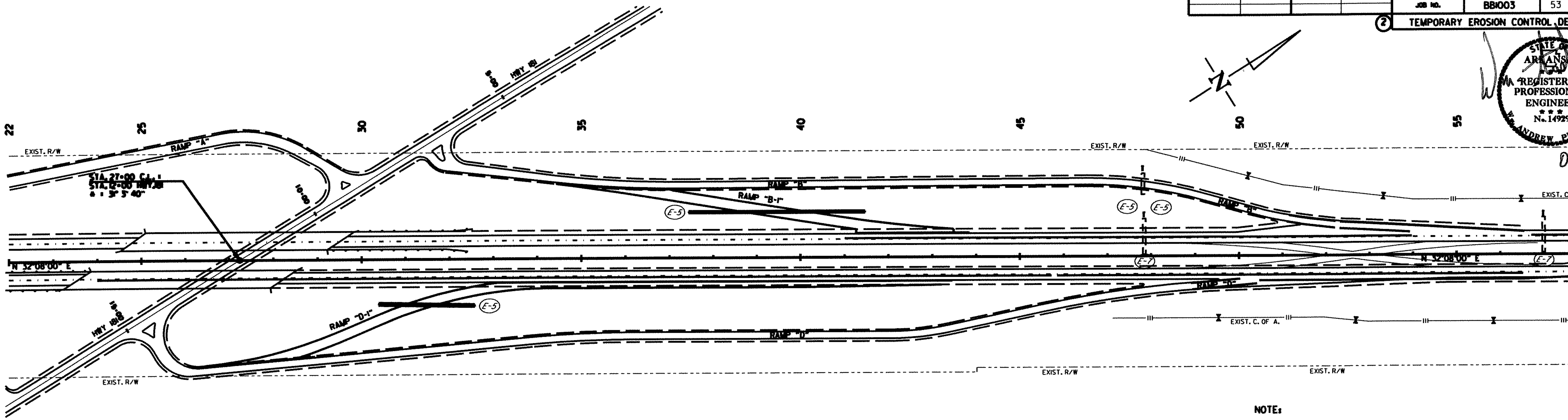
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-A

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	53	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

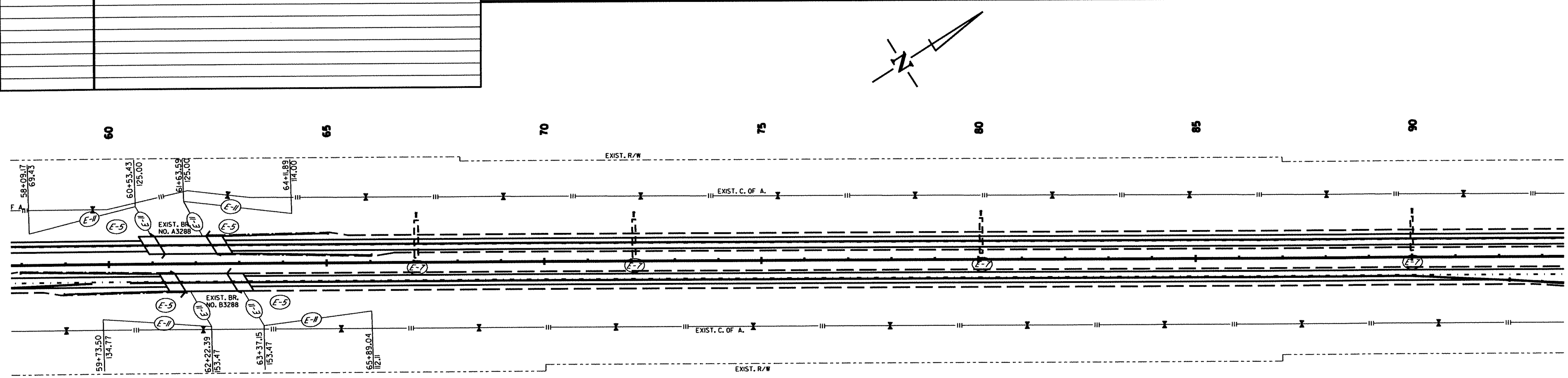


NOTE:

THE FOLLOWING EROSION CONTROL DETAILS SHALL BE USED FOR BOTH ALTERNATIVES.

REVISION BOX

DATE OF REVISION	REVISION



LEGEND

(E-5)	SAND BAG DITCH CHECK
(E-7)	DROP INLET SILT FENCE
(E-11)	SILT FENCE
	CENTERLINE CONSTRUCTION

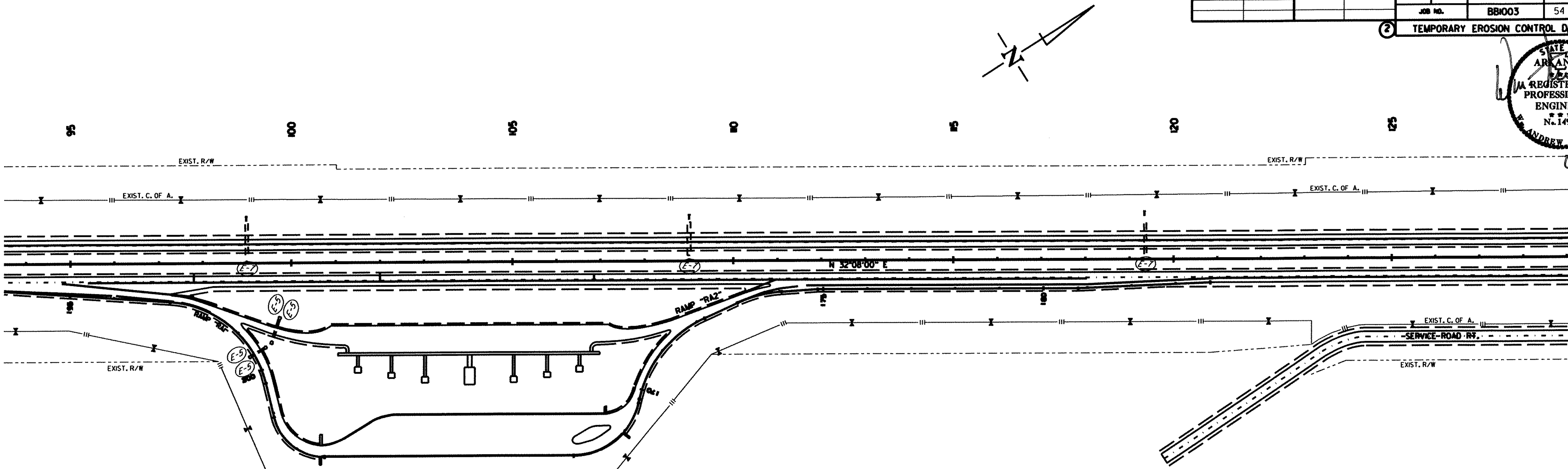
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	54	215

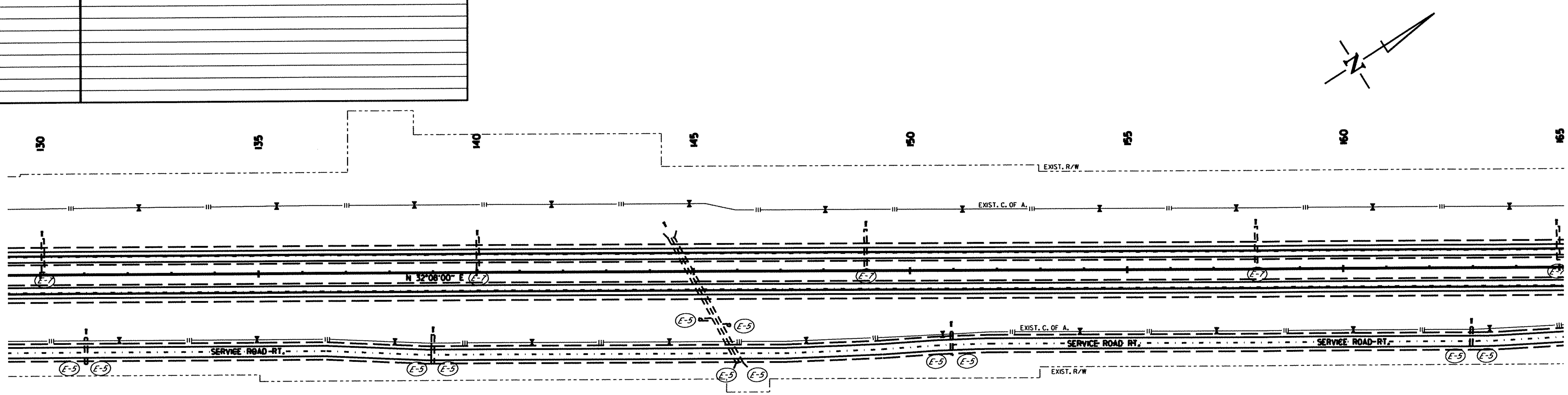
② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-8) SILT FENCE
- CENTERLINE CONSTRUCTION

5/20/2013

TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

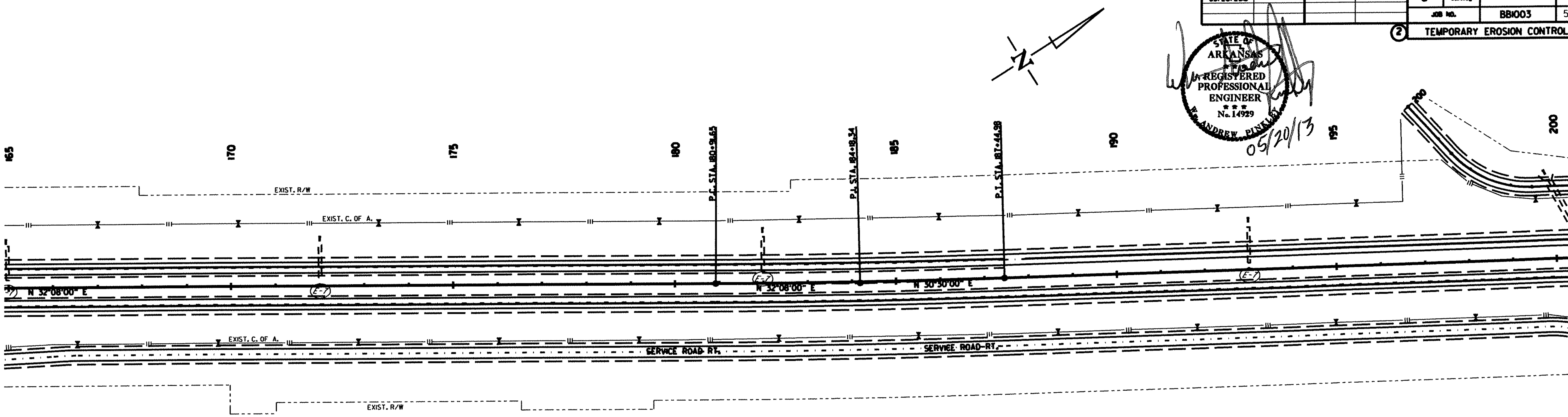
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
05/20/2013			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
	JOB NO.	BB1003	54A	215

2 TEMPORARY EROSION CONTROL DETAILS

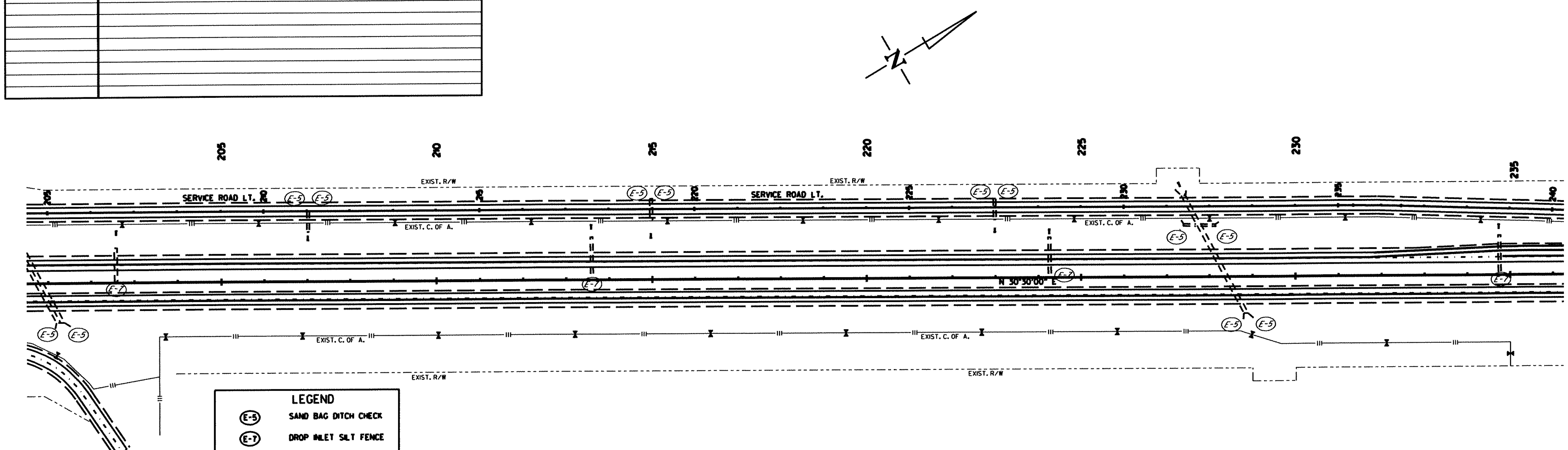
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929

05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

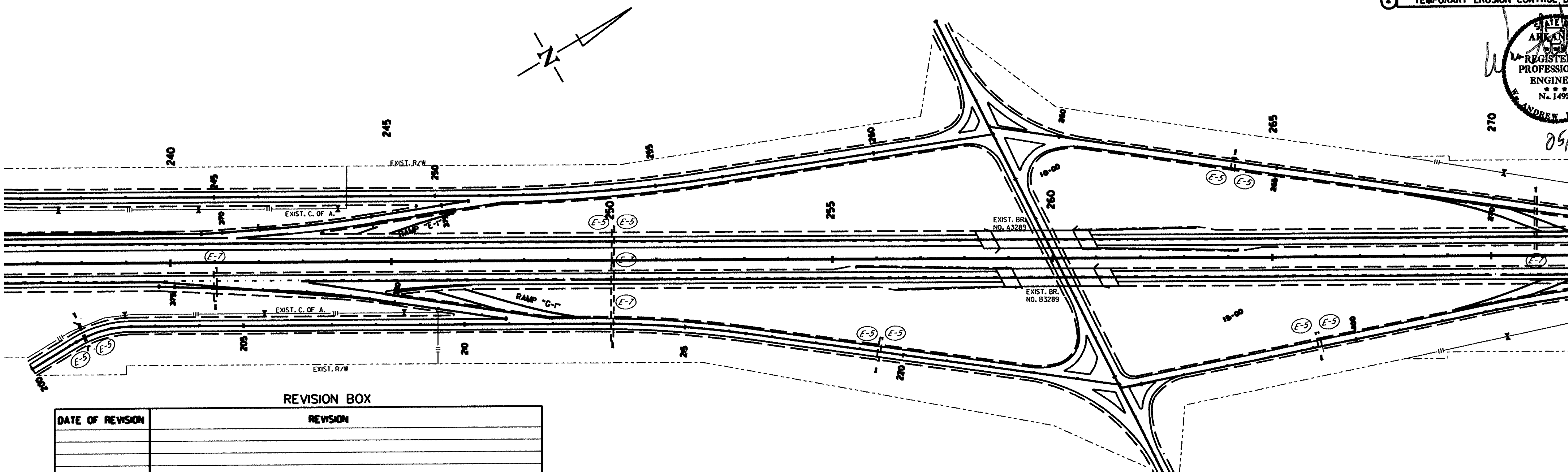
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	55	215

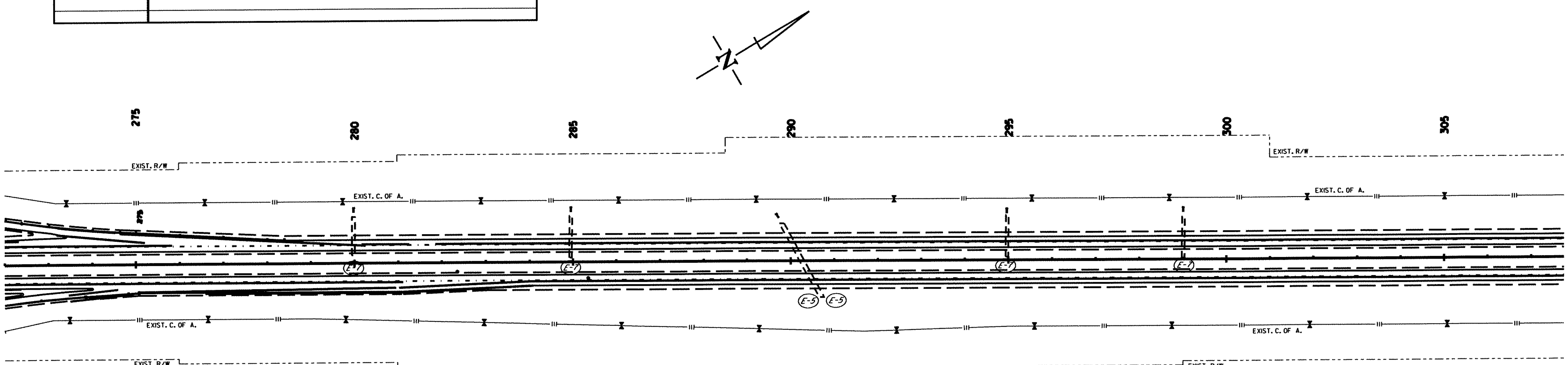
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

- (E-5) SAND BAG DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- CENTERLINE CONSTRUCTION

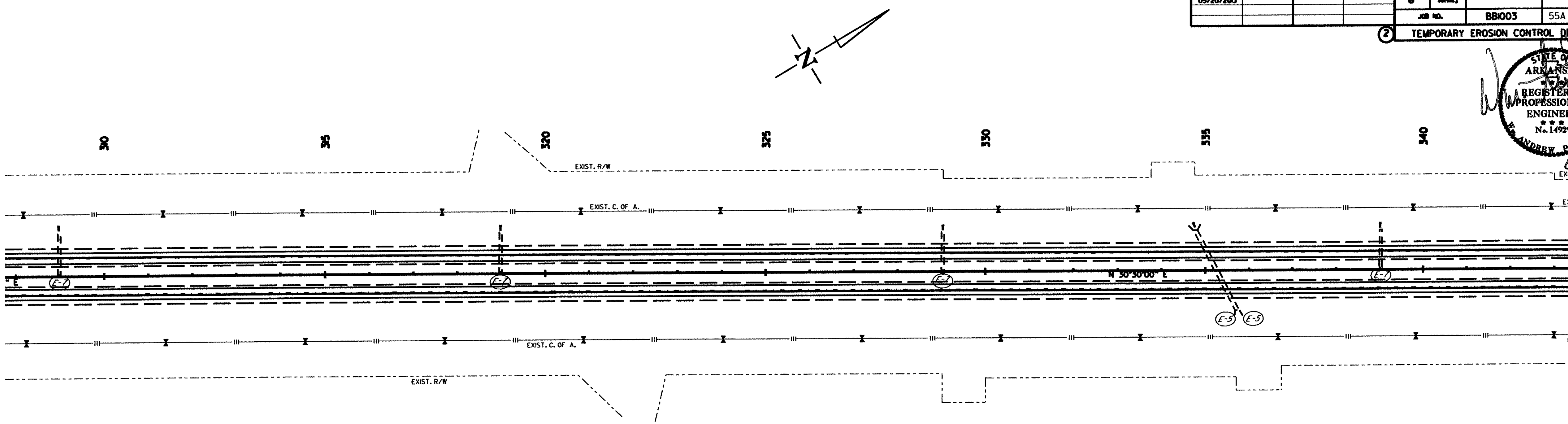
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	55A	215

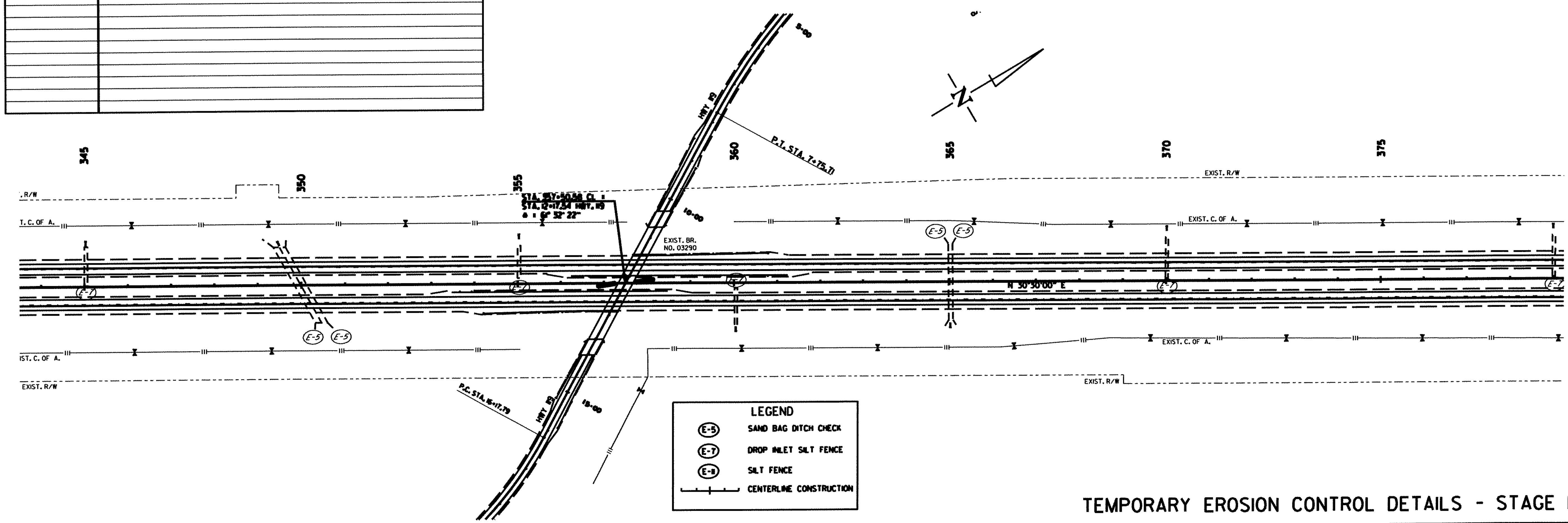
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

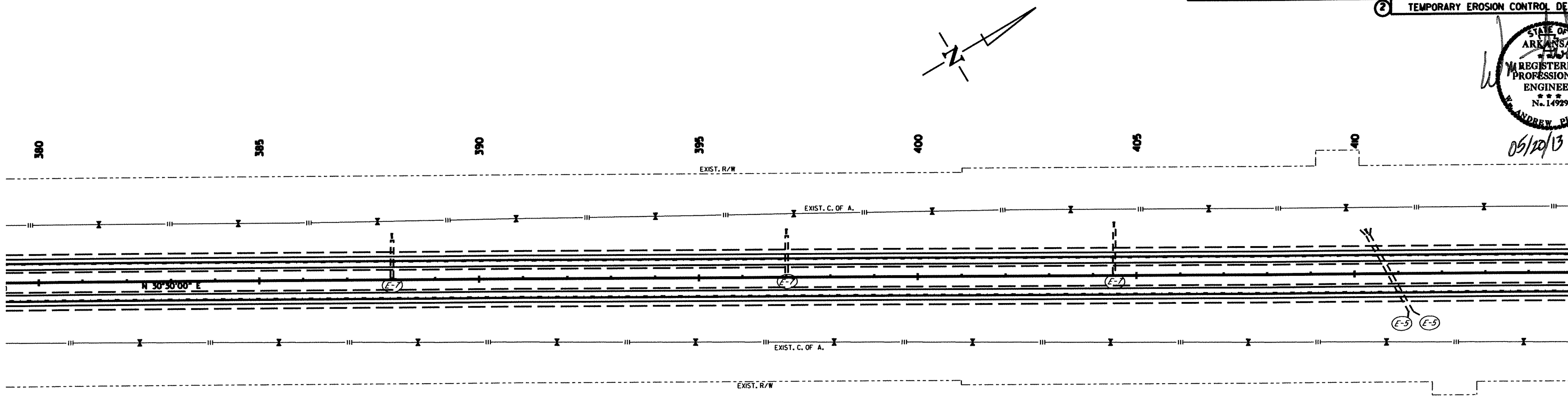
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	55B	215

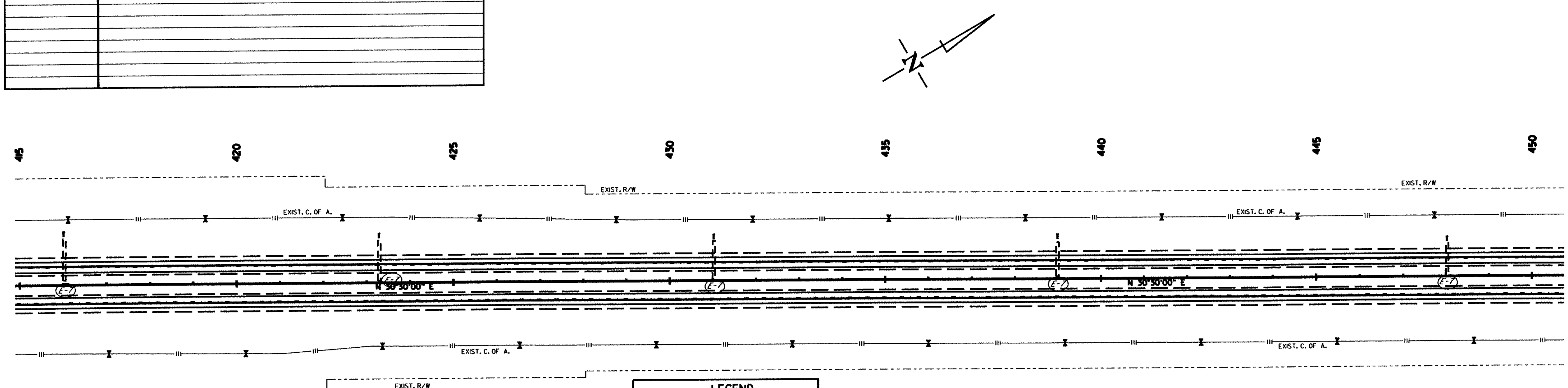
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



REVISION BOX

DATE OF REVISION	REVISION



LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
	CENTERLINE CONSTRUCTION

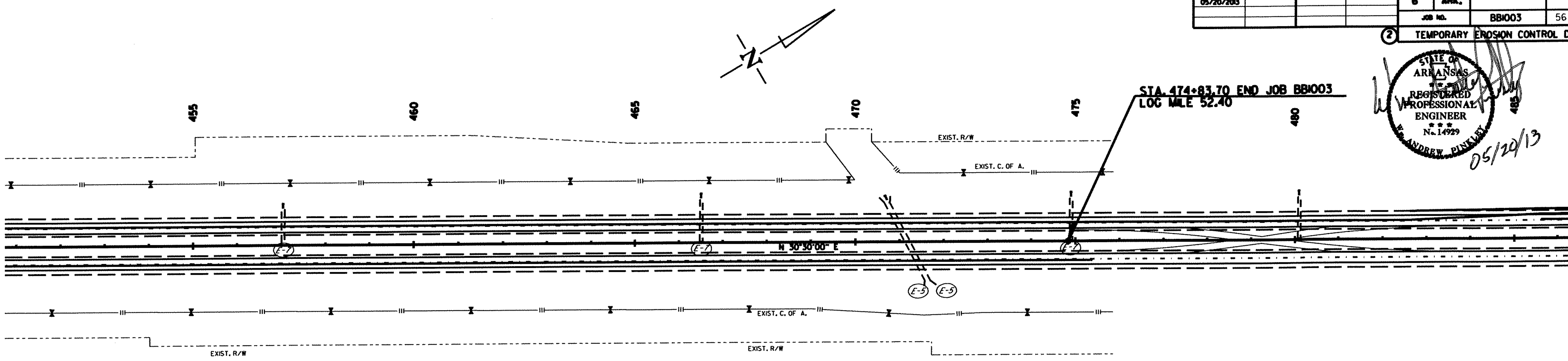
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	56	215

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13

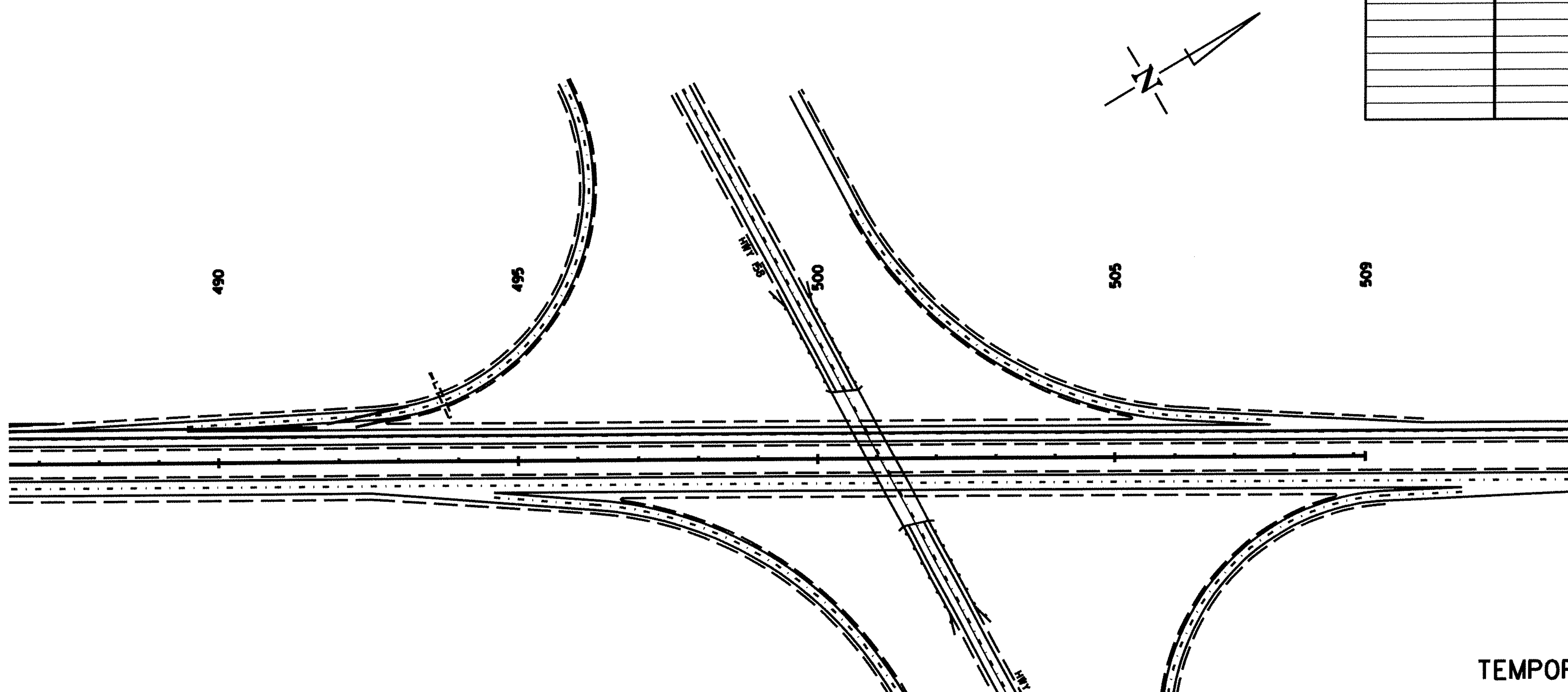


LEGEND

E-5	SAND BAG DITCH CHECK
E-7	DROP INLET SILT FENCE
E-11	SILT FENCE
—+—	CENTERLINE CONSTRUCTION

REVISION BOX

DATE OF REVISION	REVISION



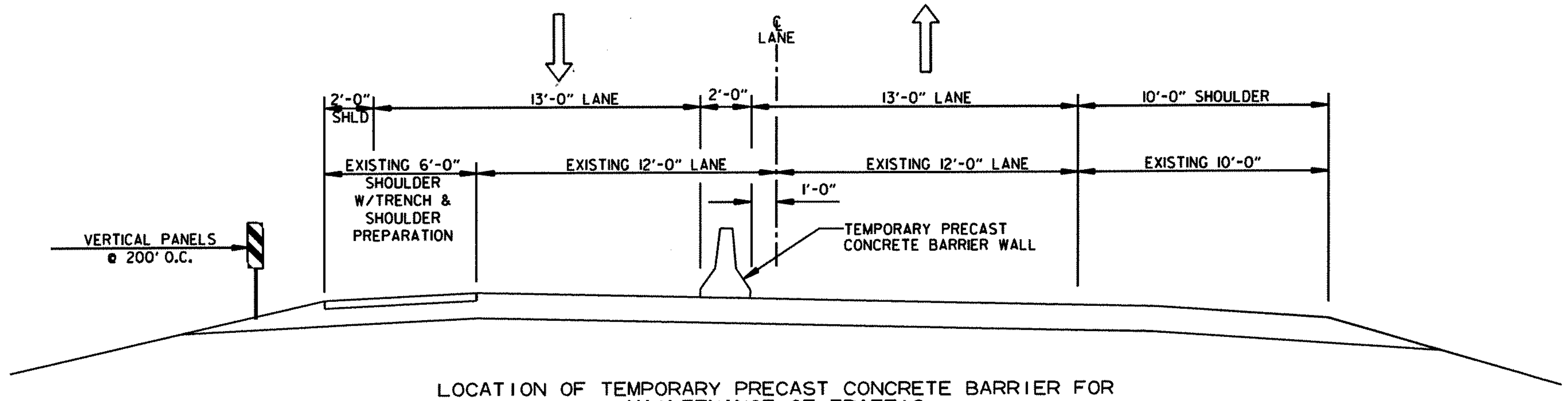
TEMPORARY EROSION CONTROL DETAILS - STAGE IV-B

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	57	215

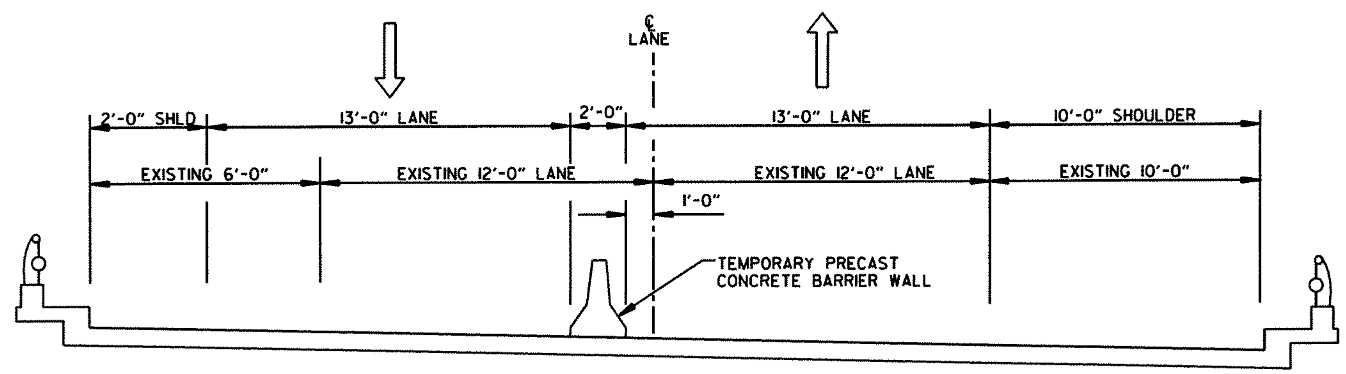
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC
STAGE II-A
STAGE II-B
STAGE III-A
STAGE III-B

STA. 54+01.00 TO STA. 479+42.00 NB
STA. 52+62.00 TO STA. 477+76.00 SB



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC
STAGE II-A
STAGE II-B
STAGE III-A
STAGE III-B

BRIDGE SECTIONS

STA. 258+80.83 TO STA. 261+40.82 NB
STA. 258+34.45 TO STA. 260+94.43 SB

4/16/2013

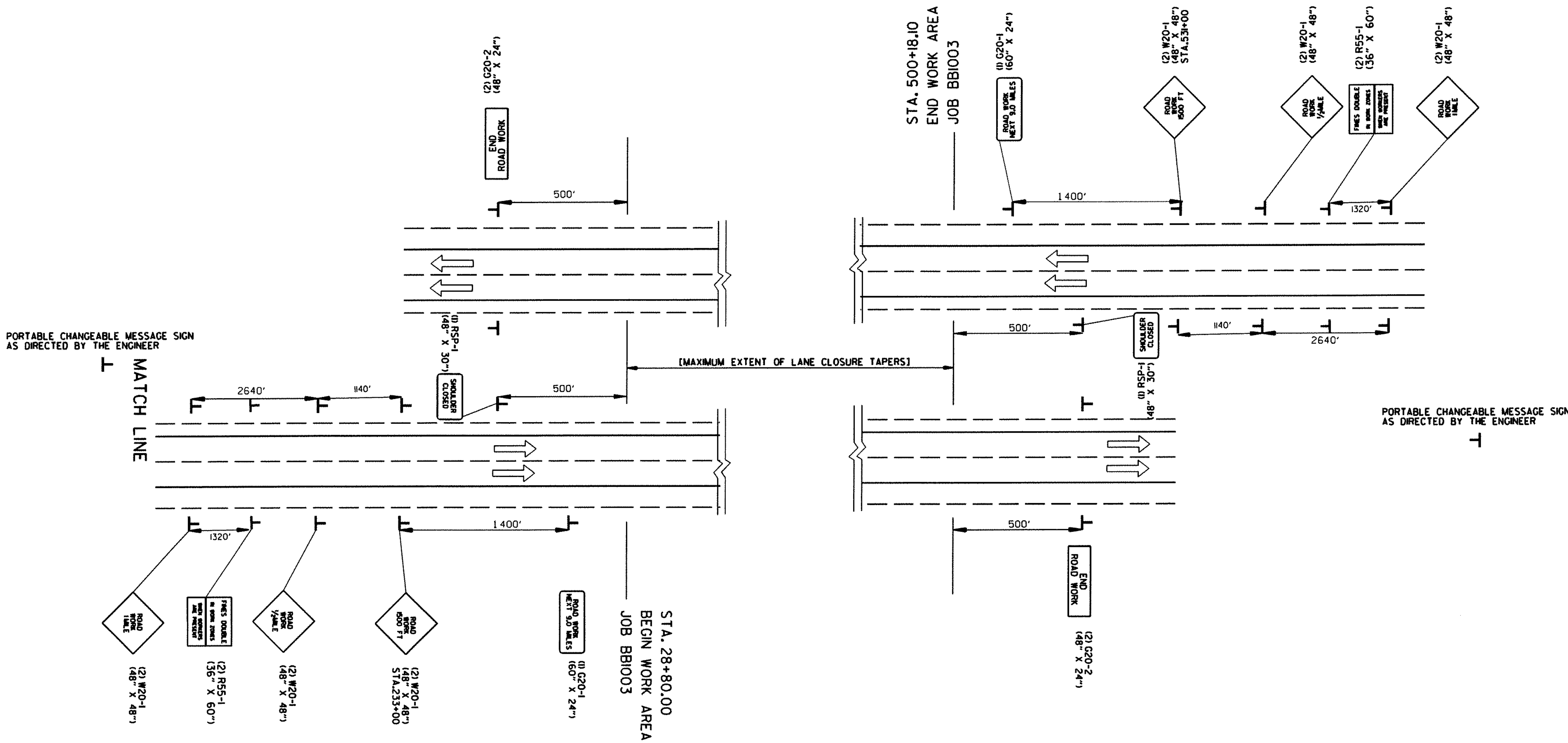
MAINTENANCE OF TRAFFIC SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	58	215
				②	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13

NOTE :
W20-1(VARIOUS DISTANCE) ADVANCE SIGNS
TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS
AS WORKING AREA SHIFTS.



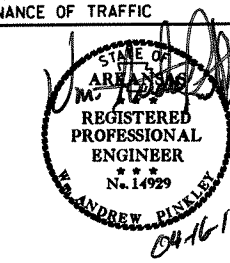
NOTE :
W20-1(VARIOUS DISTANCE) ADVANCE SIGNS
TO BE REPLACED AS NEEDED BY EQUIVALENT W20-5 SIGNS
AS WORKING AREA SHIFTS.

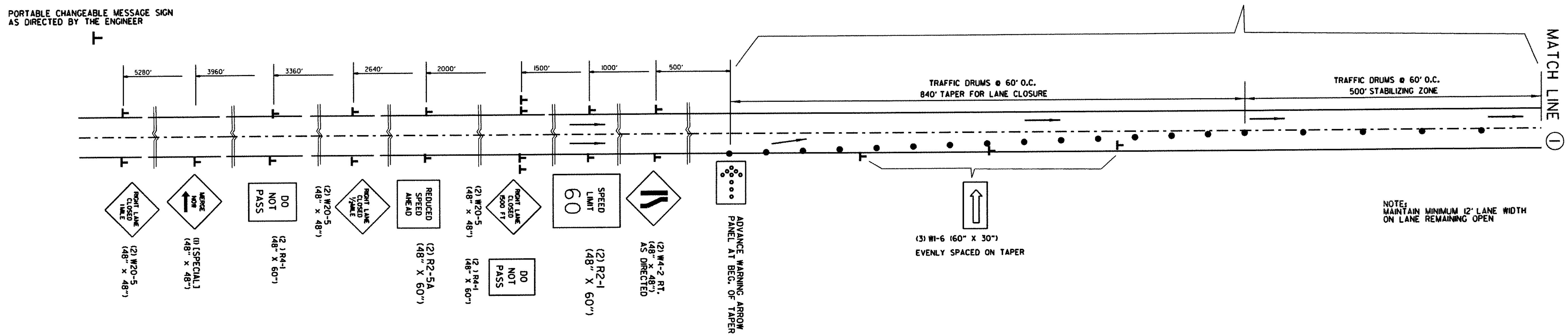
MAINTENANCE OF TRAFFIC SPECIAL DETAILS

4/16/2013

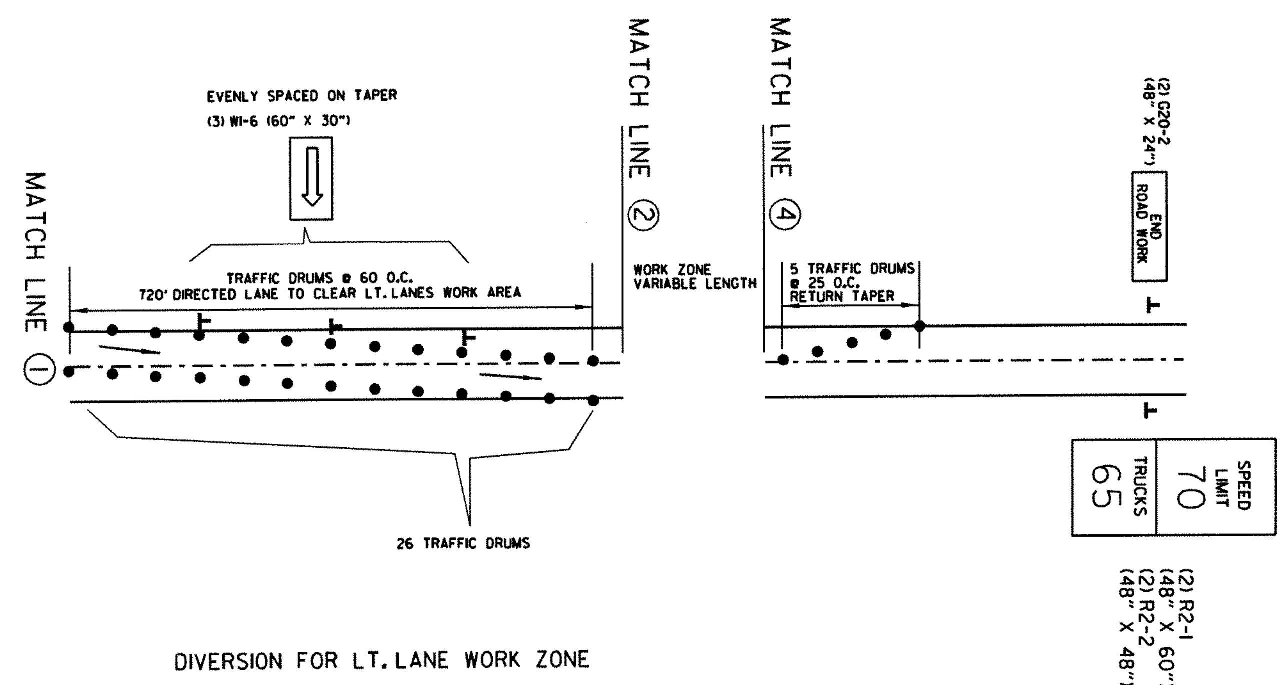
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	59	215

(2) MAINTENANCE OF TRAFFIC

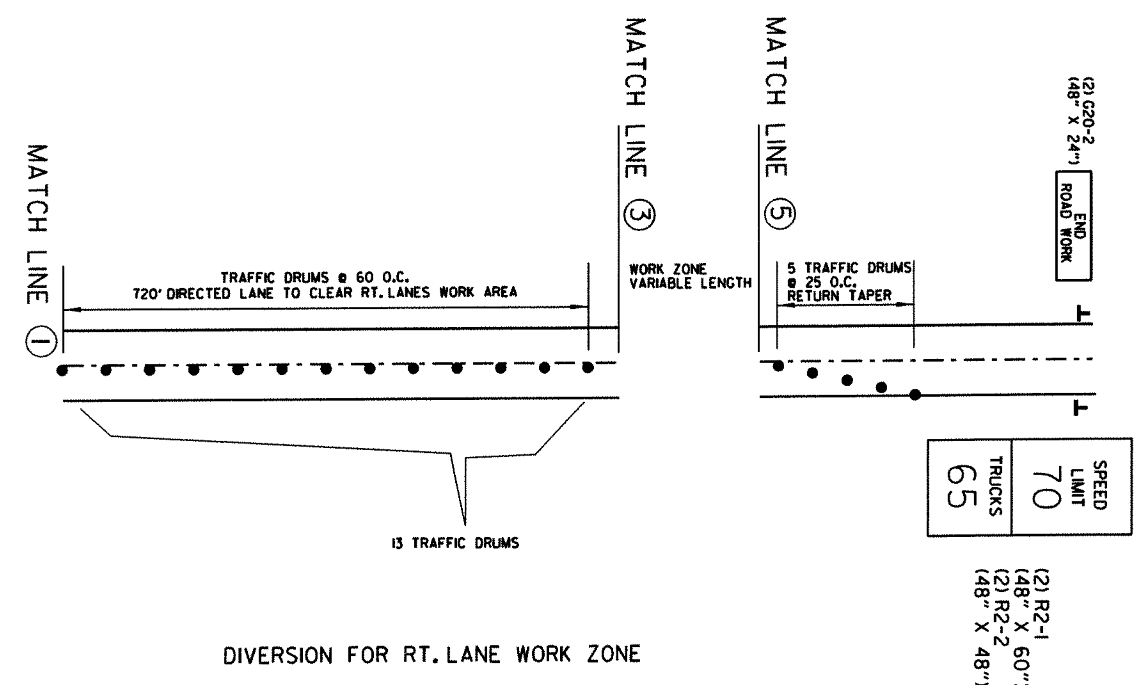




RT. LANE CLOSURE



DIVERSION FOR LT. LANE WORK ZONE



DIVERSION FOR RT. LANE WORK ZONE

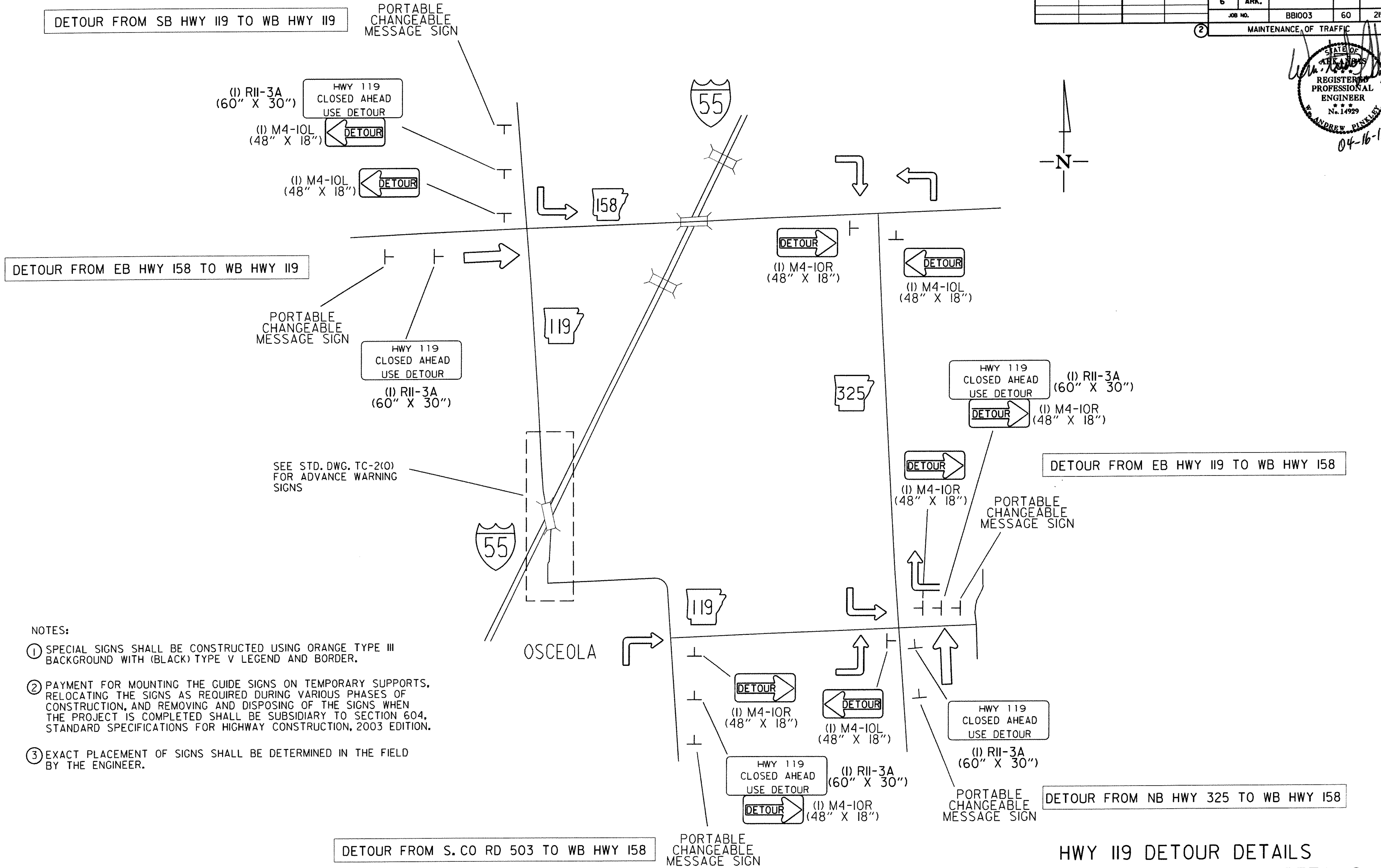
MAINTENANCE OF TRAFFIC
LANE CLOSURE ALL STAGES

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	60	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



NOTES:

1. SPECIAL SIGNS SHALL BE CONSTRUCTED USING ORANGE TYPE III BACKGROUND WITH (BLACK) TYPE V LEGEND AND BORDER.
2. PAYMENT FOR MOUNTING THE GUIDE SIGNS ON TEMPORARY SUPPORTS, RELOCATING THE SIGNS AS REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION, AND REMOVING AND DISPOSING OF THE SIGNS WHEN THE PROJECT IS COMPLETED SHALL BE SUBSIDIARY TO SECTION 604, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.
3. EXACT PLACEMENT OF SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

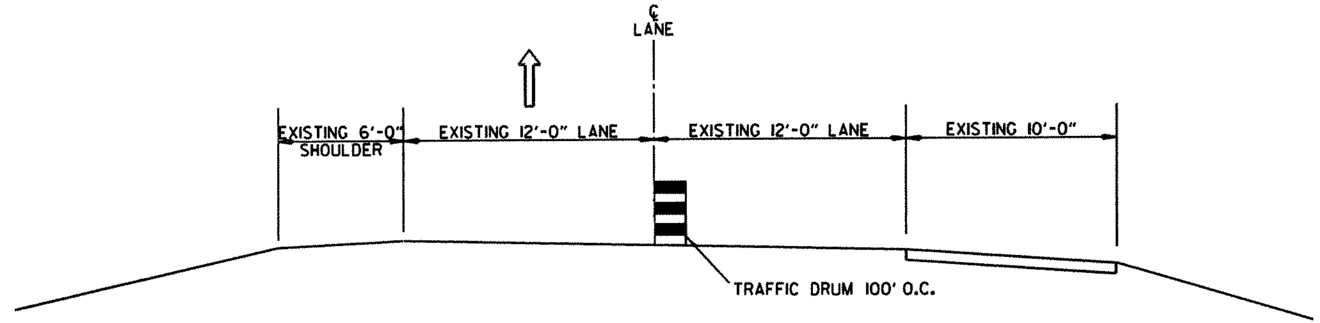
HWY 119 DETOUR DETAILS
MAINTENANCE OF TRAFFIC DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	61	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

TRENCHING & SHOULDER PREPARATION FOR THIS STAGE:

STA. 43+21.66 TO STA. 48+21.66	500 FT.
STA. 49+79.29 TO STA. 97+46.30	4767 FT.
STA. 98+00.10 TO STA. 110+65.54	1266 FT.
STA. 111+60.42 TO STA. 244+97.29	13337 FT.
STA. 246+15.54 TO STA. 274+01.78	2787 FT.
STA. 284+08.00 TO STA. 475+01.08	19094 FT.

CONSTRUCTION TEMPORARY CULVERT FOR THIS STAGE:

STA. 32+40.00 TO STA. 32+58.00, CONST. 12"X218' RCP - RAMP B-1	218 FT.
STA. 37+43.00 TO STA. 41+47.00, CONST. 12"X404' RCP - RAMP D-1	404 FT.

STAGE 1-A OPERATIONS:

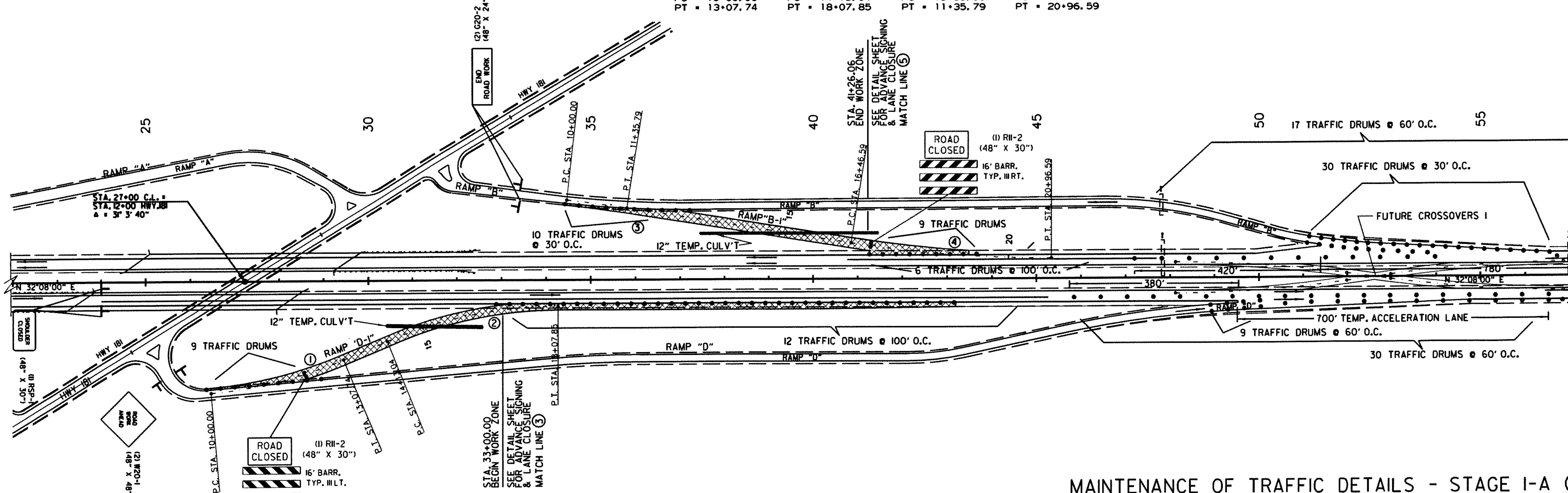
- CLOSE OUTSIDE LANES & SHOULDERS IN BOTH DIRECTIONS.
- CONSTRUCT INTERCHANGE TEMPORARY RAMPS CONNECTING TO OUTSIDE SHOULDERS OF I-55 LANES.

DENOTES: CONSTRUCTION FOR M.O.T. THIS STAGE.

DENOTES: TRENCH & SHOULDER PREPARATION FOR M.O.T. THIS STAGE.

DETOUR RAMPS CURVE DATA

	①	②	③	④
PI	11+55.09	16+13.05	10+67.91	18+72.06
Δ	17°37'56"LT.	22°37'15"RT.	2°42'57"RT.	9°00'00"LT.
D	5°43'46"	5°43'46"	2°00'00"	2°00'00"
T	155.09'	200.01'	67.91	225.46'
L	307.74'	394.81'	135.79'	450.00'
PC	10+00.00	14+13.04	10+00.00	16+46.59
PT	13+07.74	18+07.85	11+35.79	20+96.59



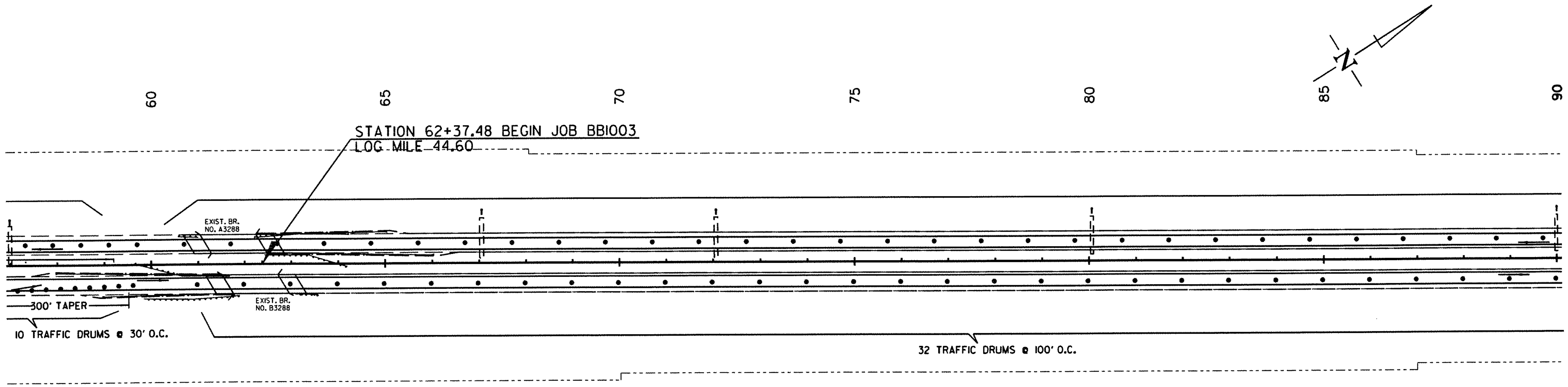
4/16/2013

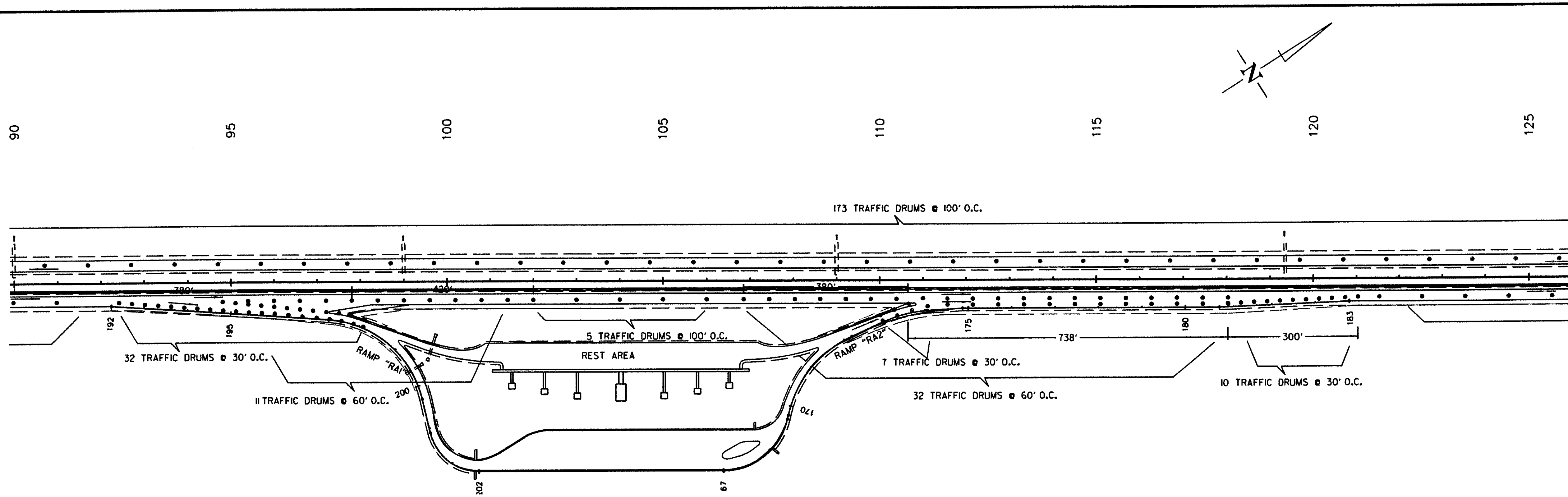
MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-A (ALT. 1)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	62	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE I-A (ALT. I)

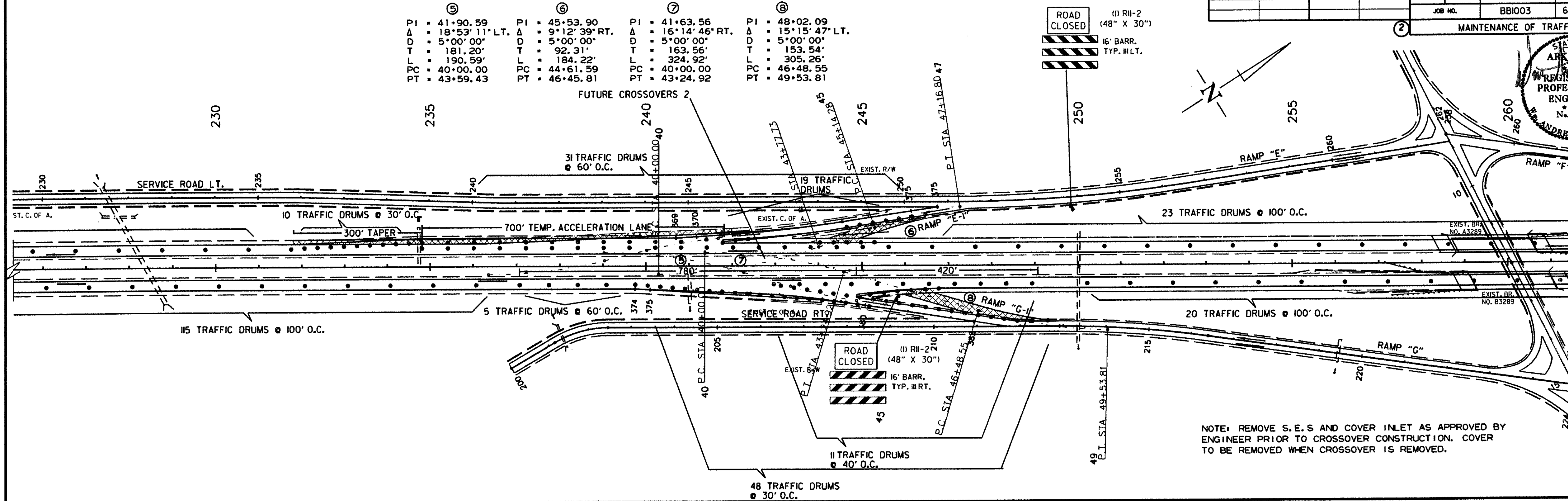
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	63	215

(2) MAINTENANCE OF TRAFFIC

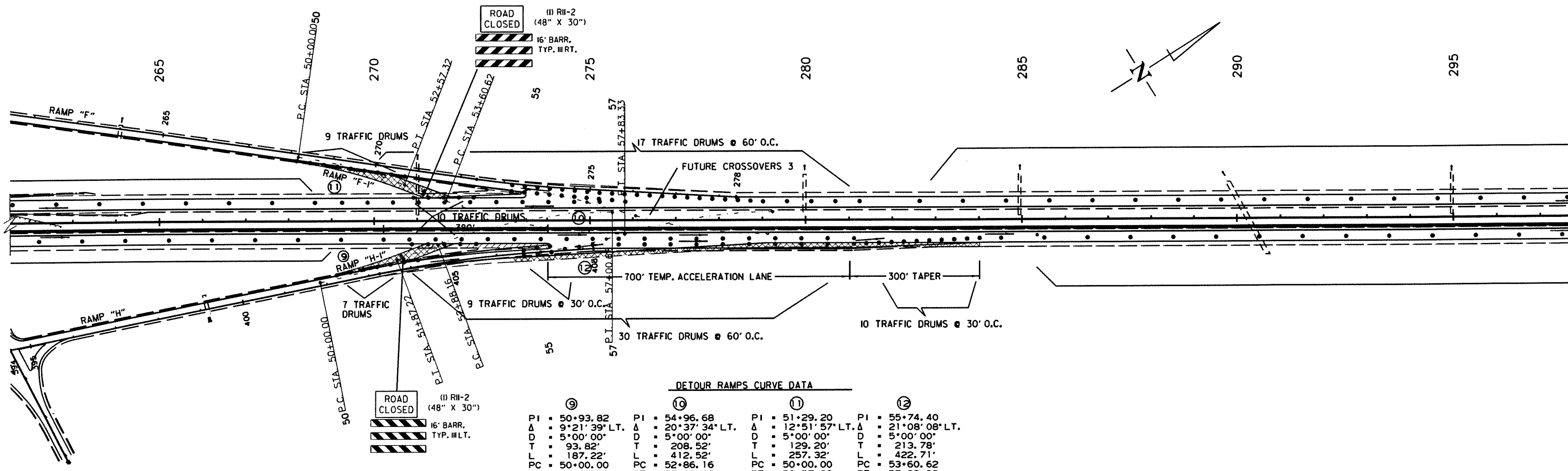
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13

DETOUR RAMPS CURVE DATA

	⑤	⑥	⑦	⑧
PI	41+90.59	45+53.90	41+63.56	48+02.09
Δ	18°53' 11" LT.	9°12' 39" RT.	16°14' 46" RT.	15°15' 47" LT.
D	5°00' 00"	5°00' 00"	5°00' 00"	5°00' 00"
T	181.20'	92.31'	163.56'	153.54'
L	190.59'	184.22'	324.92'	305.26'
PC	40+00.00	44+61.59	40+00.00	46+48.55
PT	43+59.43	46+45.81	43+24.92	49+53.81



NOTE: REMOVE S.E.S AND COVER INLET AS APPROVED BY ENGINEER PRIOR TO CROSSOVER CONSTRUCTION. COVER TO BE REMOVED WHEN CROSSOVER IS REMOVED.



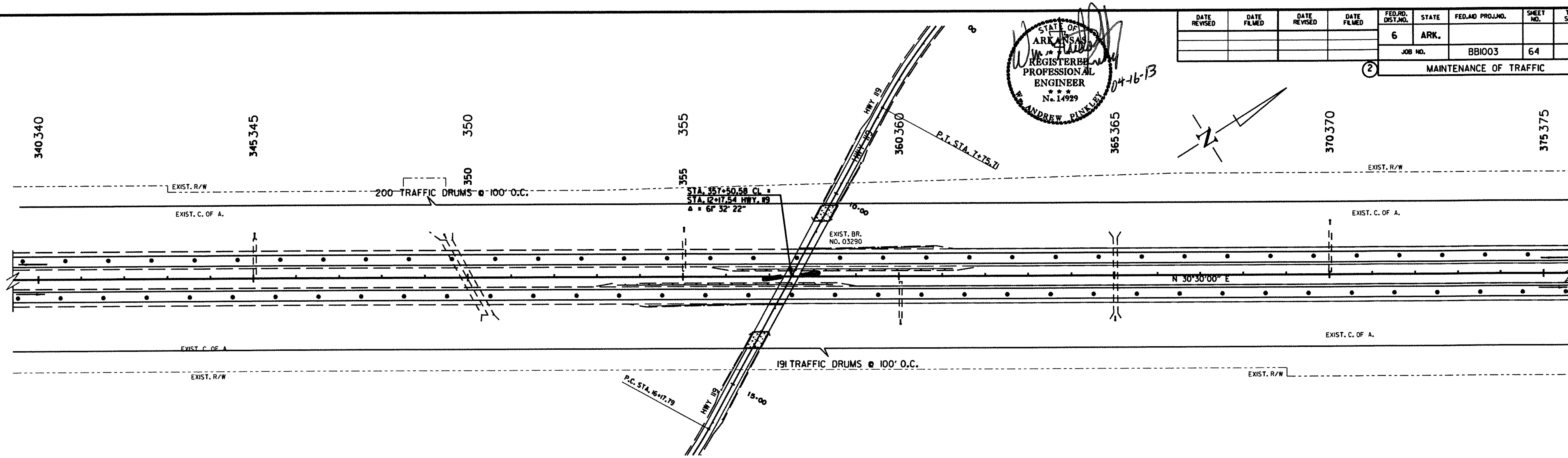
DETOUR RAMPS CURVE DATA

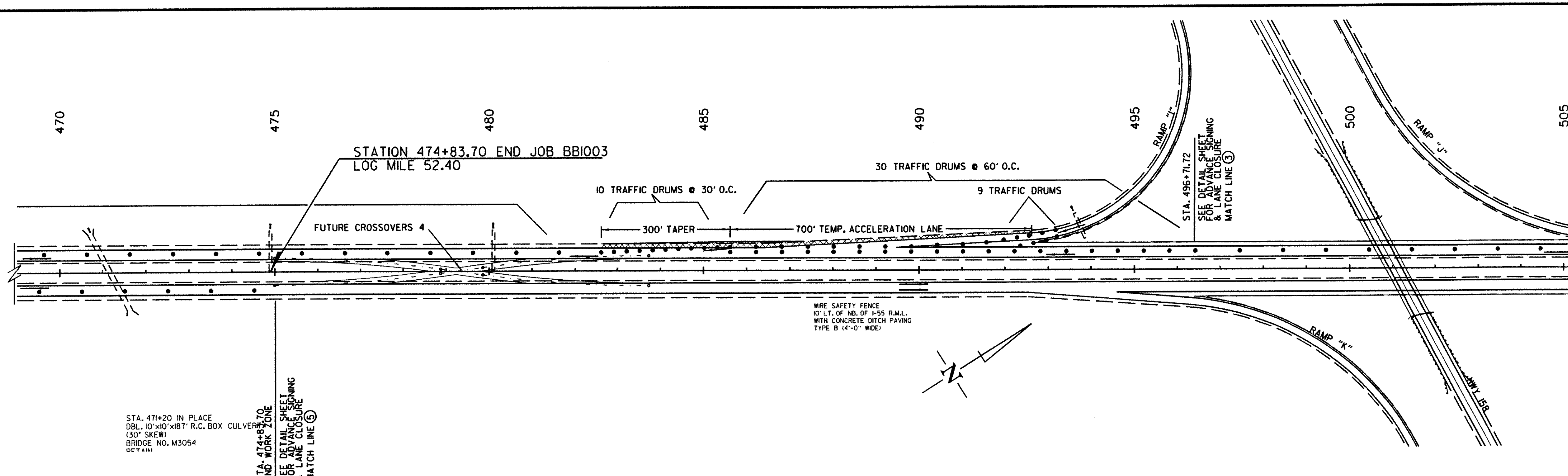
	⑨	⑩	⑪	⑫
PI	50+93.82	54+96.68	51+29.20	55+74.40
Δ	9°21' 39" LT.	20°37' 34" LT.	12°51' 57" LT.	21°08' 08" LT.
D	5°00' 00"	5°00' 00"	5°00' 00"	5°00' 00"
T	93.82'	208.52'	129.20'	213.78'
L	187.22'	412.52'	257.32'	422.71'
PC	50+00.00	52+86.16	50+00.00	53+60.62
PT	51.87.22	57+00.63	52+57.32	57+83.33

4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-A (ALT. 1)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	64	215
				2	MAINTENANCE OF TRAFFIC			





NOTE: REMOVE S.E.S AND COVER INLET AS APPROVED BY ENGINEER PRIOR TO CROSSOVER CONSTRUCTION. COVER TO BE REMOVED WHEN CROSSOVER IS REMOVED.

MAINTENANCE OF TRAFFIC DETAILS - STAGE I-A (ALT. 1)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	65	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 05/20/13

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

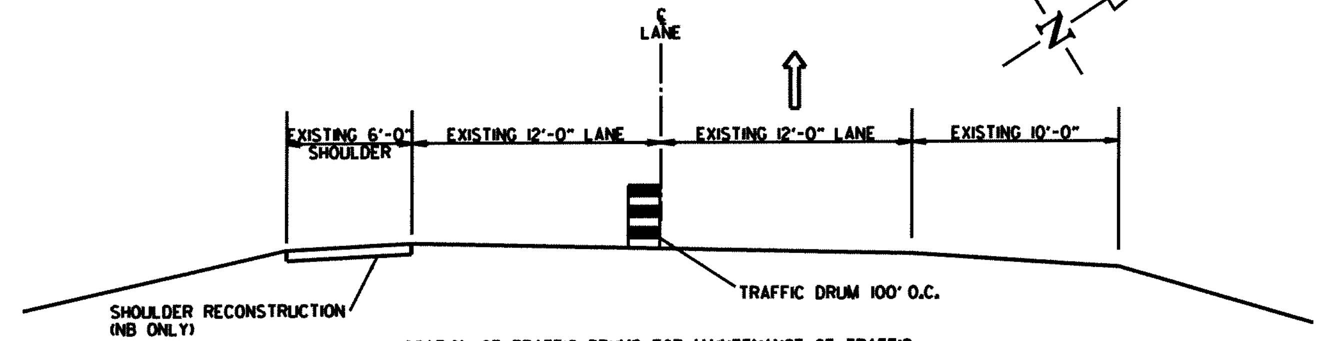
RAMP "D-1"	
STA. 11+72.77 TO STA. 17+50.32	1156 FT.
RT. R.M.L. ACCELERATION LANE & TAPER EDGE LINE	
STA. 33+69.64 TO STA. 43+21.52	952 FT.
STA. 273+25.21 TO STA. 284+01.78	1077 FT.
RT. R.M.L. ACCELERATION LANE & TAPER SOLID LANE DIVIDER	
STA. 33+21.66 TO STA. 38+21.66	500 FT.
STA. 110+65.54 TO STA. 115+65.54	500 FT.
STA. 274+01.78 TO STA. 279+01.78	500 FT.
RT. L.M.L. ACCELERATION LANE & TAPER EDGE LINE	
STA. 231+81.59 TO STA. 240+12.61	831 FT.
STA. 248+61.65 TO STA. 291+83.44	4322 FT.
RT. L.M.L. SKIP LANE DIVIDER	
STA. 236+81.59 TO STA. 241+81.59	500 FT.
STA. 487+59.65 TO STA. 492+59.65	500 FT.

TRENCHING & SHOULDER PREPARATION FOR THIS STAGE:

STA. 56+84.90 TO STA. 70+00.00	1315 FT.

CONSTRUCTION TEMPORARY CULVERT FOR THIS STAGE:

STA. 50+29.00 TO STA. 55+25.00	CONST. 12" X296' RCP - MEDIAN	296 FT.
STA. 236+36.00 TO STA. 239+72.00	CONST. 12" X336' RCP - MEDIAN	336 FT.
STA. 239+94.00 TO STA. 243+14.00	CONST. 12" X320' RCP - MEDIAN	320 FT.
STA. 243+21.50 TO STA. 245+05.50	CONST. 12" X184' RCP - MEDIAN	184 FT.
STA. 272+24.00 TO STA. 275+00.00	CONST. 12" X276' RCP - MEDIAN	276 FT.
STA. 275+40.50 TO STA. 279+24.50	CONST. 12" X384' RCP - MEDIAN	384 FT.
STA. 476+70.74 TO STA. 481+66.74	CONST. 12" X496' RCP - MEDIAN	496 FT.
STA. 280+00.00	CONST. 18" X12' RCP - MEDIAN	18 FT.
STA. 285+00.00	CONST. 18" X12' RCP - MEDIAN	12 FT.



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

STAGE 1-B OPERATIONS:

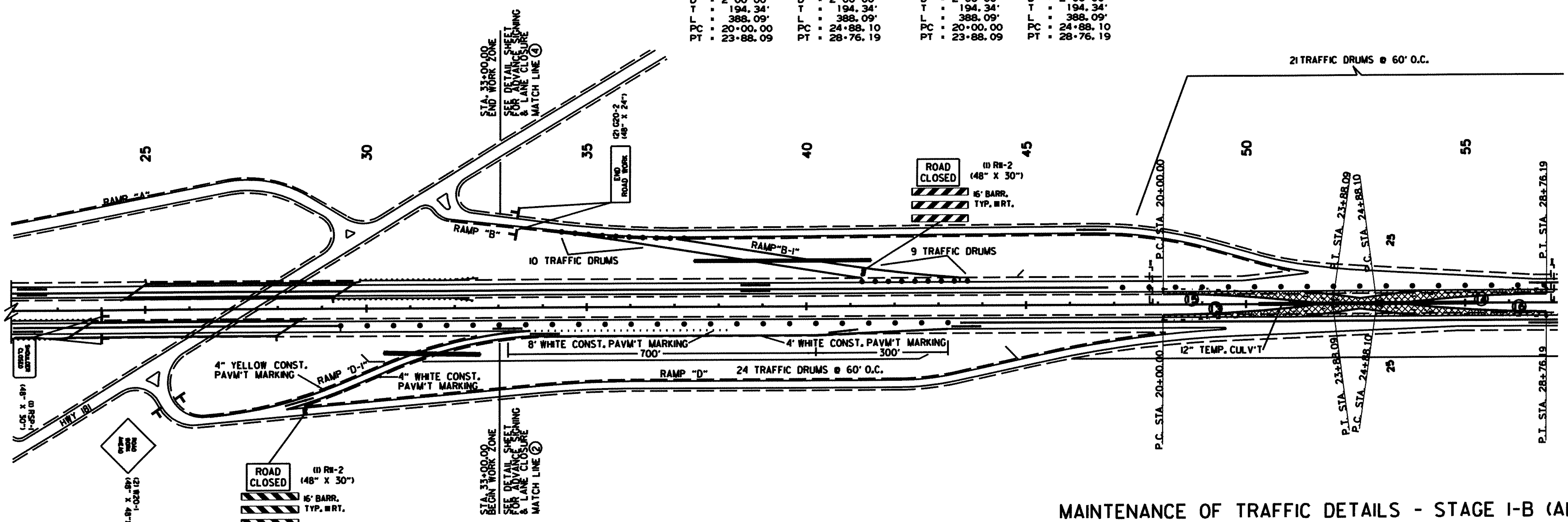
-CLOSE INSIDE LANES & SHOULDERS IN BOTH DIRECTIONS.
-PATCH INSIDE NB LANE AND TRENCH & SHOULDER PREPARATION INSIDE NB SHOULDER.
-CONSTRUCT CROSSOVER RAMPS.

DENOTES: CONSTRUCTION FOR M.O.T. THIS STAGE.

DENOTES: TRENCH & SHOULDER PREPARATION FOR M.O.T. THIS STAGE.

DETOUR RAMPS CURVE DATA

	13	14	15	16
PI	21+94.34	26+82.44	21+94.34	26+82.44
Δ	7°45'42" LT.	7°45'42" RT.	7°45'42" RT.	7°45'42" LT.
D	2°00'00"	2°00'00"	2°00'00"	2°00'00"
T	194.34'	194.34'	194.34'	194.34'
L	388.09'	388.09'	388.09'	388.09'
PC	20+00.00	24+88.10	20+00.00	24+88.10
PT	23+88.09	28+76.19	23+88.09	28+76.19



MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-B (ALT. 1)

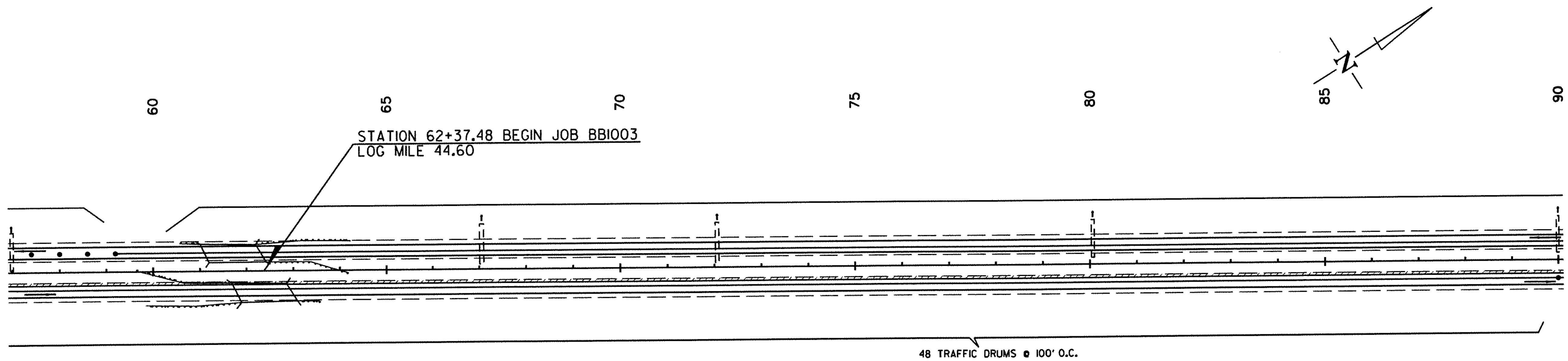
$DATE$

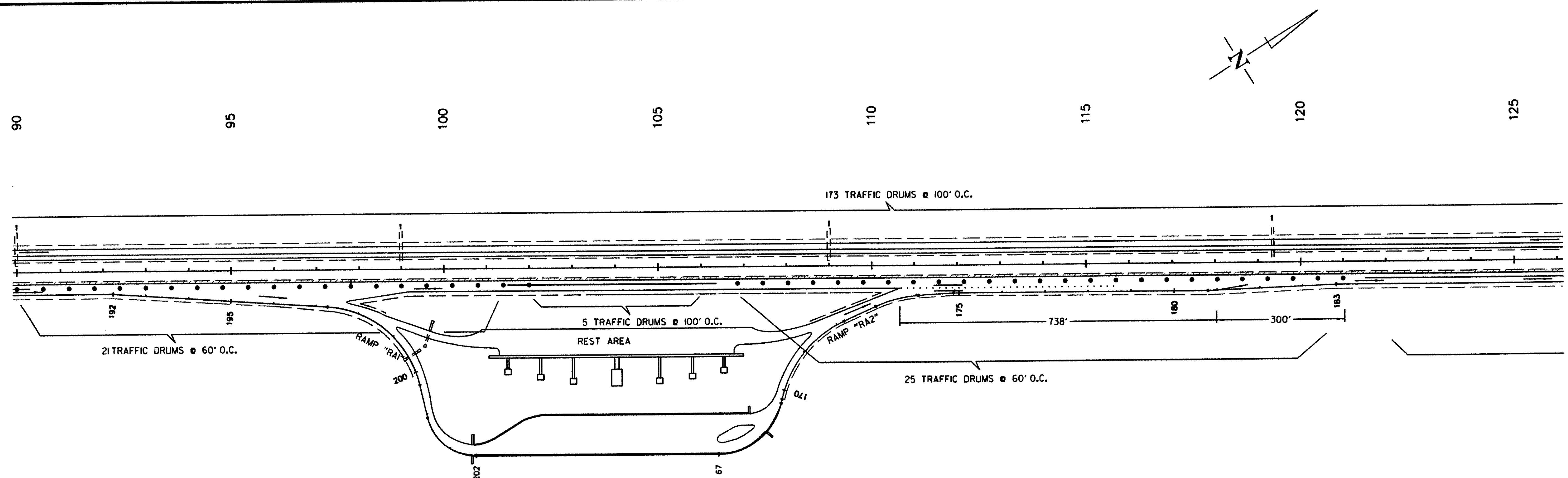
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	66	215

2 MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13





MAINTENANCE OF TRAFFIC DETAILS - STAGE I-B (ALT. I)

4/16/2013

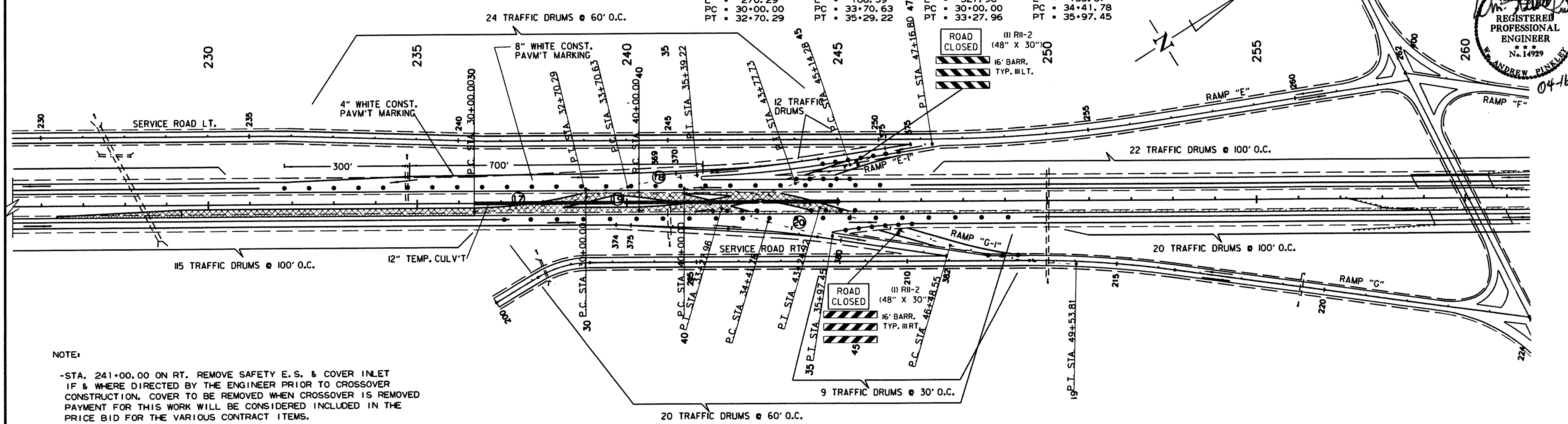
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	67	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13

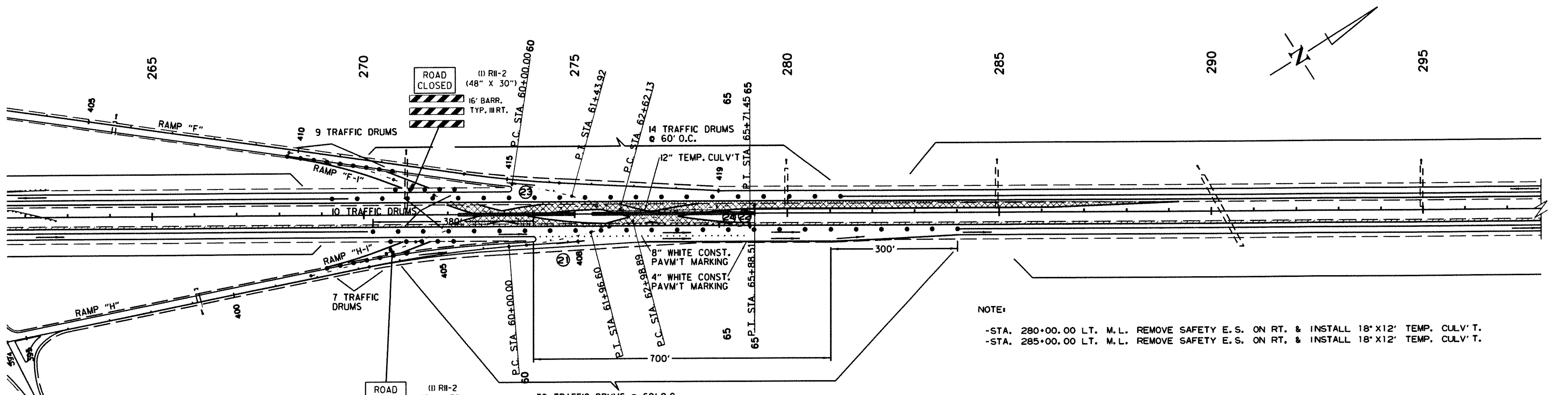
DETOUR RAMPS CURVE DATA

	(17)	(18)	(19)	(20)
PI	31+35.78	34+55.08	31+65.11	35+19.73
Δ	13°30′53″ LT.	8°25′46″ RT.	16°23′53″ LT.	7°47′46″ RT.
D	5°00′00″	5°00′00″	5°00′00″	5°00′00″
T	135.78′	84.45′	165.11′	77.95′
L	270.29′	168.59′	327.96′	155.67′
PC	30+00.00	33+70.63	30+00.00	34+41.78
PT	32+70.29	35+29.22	33+27.96	35+97.45



NOTE:

-STA. 241+00.00 ON RT. REMOVE SAFETY E.S. & COVER INLET IF & WHERE DIRECTED BY THE ENGINEER PRIOR TO CROSSOVER CONSTRUCTION. COVER TO BE REMOVED WHEN CROSSOVER IS REMOVED PAYMENT FOR THIS WORK WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



NOTE:

-STA. 280+00.00 LT. M.L. REMOVE SAFETY E.S. ON RT. & INSTALL 18″X12′ TEMP. CULV′T.
-STA. 285+00.00 LT. M.L. REMOVE SAFETY E.S. ON RT. & INSTALL 18″X12′ TEMP. CULV′T.

DETOUR RAMPS CURVE DATA

	(21)	(22)	(23)	(24)
PI	60+98.54	64+44.48	60+72.06	64+17.74
Δ	9°48′48″ LT.	14°28′50″ RT.	7°11′46″ RT.	15°27′57″ RT.
D	5°00′00″	5°00′00″	5°00′00″	5°00′00″
T	98.54′	145.58′	72.06′	155.60′
L	196.60′	289.61′	143.92′	309.32′
PC	60+00.00	62+89.89	60+00.00	62+62.13
PT	61+96.60	65+88.51	61+43.92	65+71.45

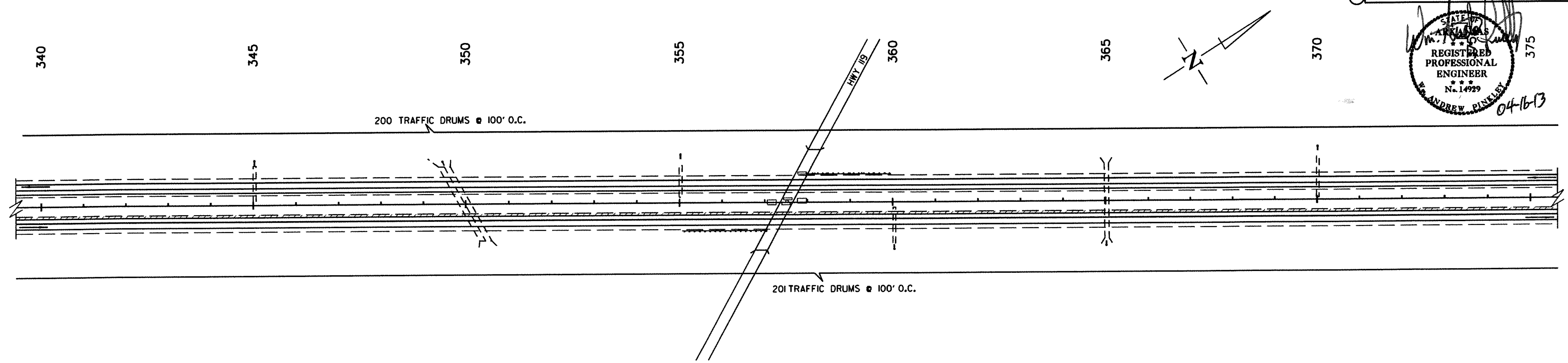
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-B (ALT. 1)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	68	215

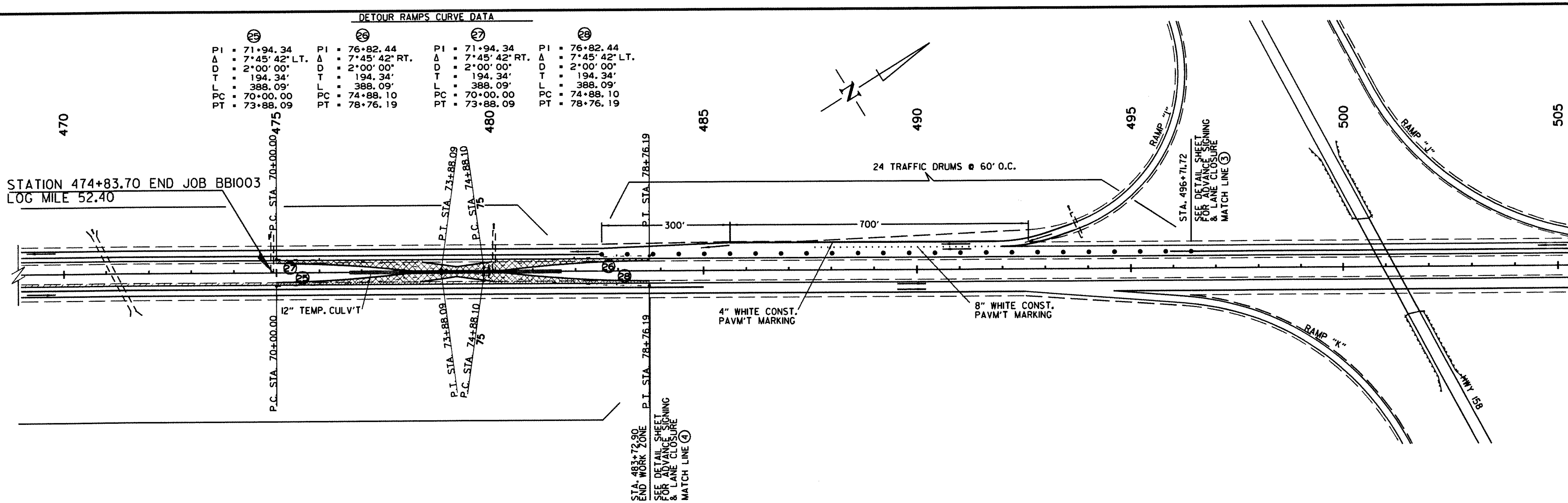
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
WM. ANDREW PINKLEY
04-16-13



DETOUR RAMPS CURVE DATA

	(25)	(26)	(27)	(28)
PI	71+94.34	76+82.44	71+94.34	76+82.44
Δ	7°45' 42" LT.	7°45' 42" RT.	7°45' 42" RT.	7°45' 42" LT.
D	2°00' 00"	2°00' 00"	2°00' 00"	2°00' 00"
T	194.34'	194.34'	194.34'	194.34'
L	388.09'	388.09'	388.09'	388.09'
PC	70+00.00	74+88.10	70+00.00	74+88.10
PT	73+88.09	78+76.19	73+88.09	78+76.19

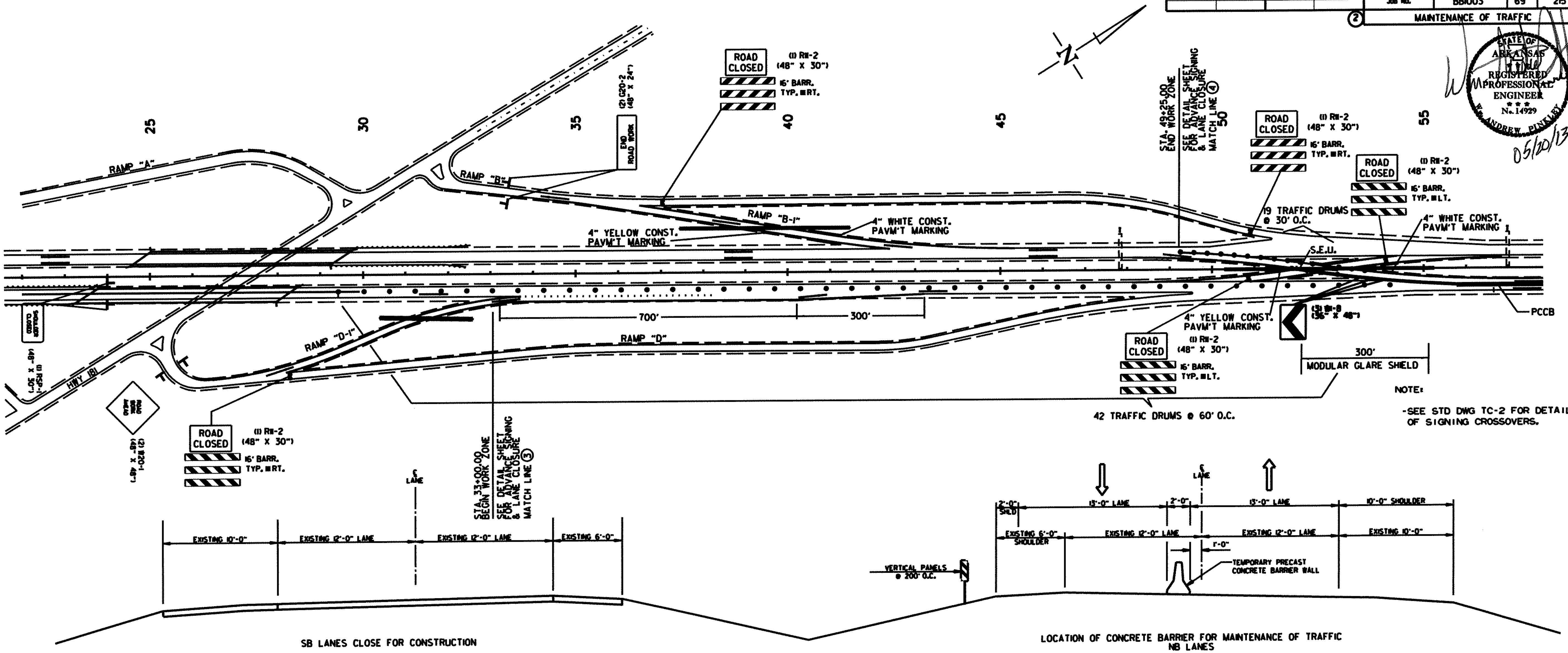


MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-B (ALT. 1)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	69	215

MAINTENANCE OF TRAFFIC



CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "B-1" STA. 12+03.87 TO STA. 18+03.69	1200 FT.
CROSSOVER 1 SB STA. 20+00.00 TO STA. 28+76.19	1754 FT.
CROSSOVER 2 SB STA. 70+00.00 STA. 78+76.19	1754 FT.
RAMP E STA. 30+00.00 TO STA. 35+39.22	1080 FT.
RAMP F 60+00.00 TO STA. 65+71.45	1144 FT.
LT. R.M.L. ACCELERATION LANE & TAPER EDGE LINE STA. 227+48.83 TO STA. 236+36.23	888 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 232+48.83 TO STA. 237+48.83	500 FT.
CL. R.M.L. DOUBLE SOLID LANE DIVIDER STA. 53+84.90 TO STA. 478+00.00	84832 FT.
LT. R.M.L. EDGE LINE STA. 53+84.90 TO STA. 478+00.00	42416 FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS FOR THIS STAGE:

R.M.L. CENTERLINE STA. 53+84.90 TO STA. 478+00.00	10604 FT.
LT. R.M.L. EXISTING EDGE LINE STA. 53+84.90 TO STA. 478+00.00	42416 FT.

FURNISHING & INSTALLING PRECAST CONCRETE BARRIER FOR THIS STAGE:

NB MAIN LANE
STA. 51+00.00 TO STA. 479+15.00 42815 FT. INCLUDES SPECIAL END UNIT.

VERTICAL PANELS @ 200' FOR THIS STAGE:

NB MAIN LANE

STA. 56+84.90 TO STA. 236+36.23	91
STA. 245+27.47 TO STA. 272+05.70	15
STA. 279+12.28 TO STA. 475+00.00	99

STAGE II OPERATIONS:

- FURNISH & INSTALL TEMPORARY PRECAST CONCRETE BARRIER WALL & PLACE CONST. PAVM'T MARKINGS ON NB LANES.
- REROUTE SB TRAFFIC THROUGH CROSSOVER TO NB LANES.
- CONST. SB LANES, ACCELERATION LANE, TEMP. RAMPS, APPROACH SLAB & GUTTERS, WIDENING FOR GUARDRAIL, GUARDRAIL ON OUTSIDE WHERE APPLICABLE.
- PERFORM HYDRODEMOLITION OPERATIONS.

DENOTES: CONSTRUCT THIS STAGE.

MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 1)

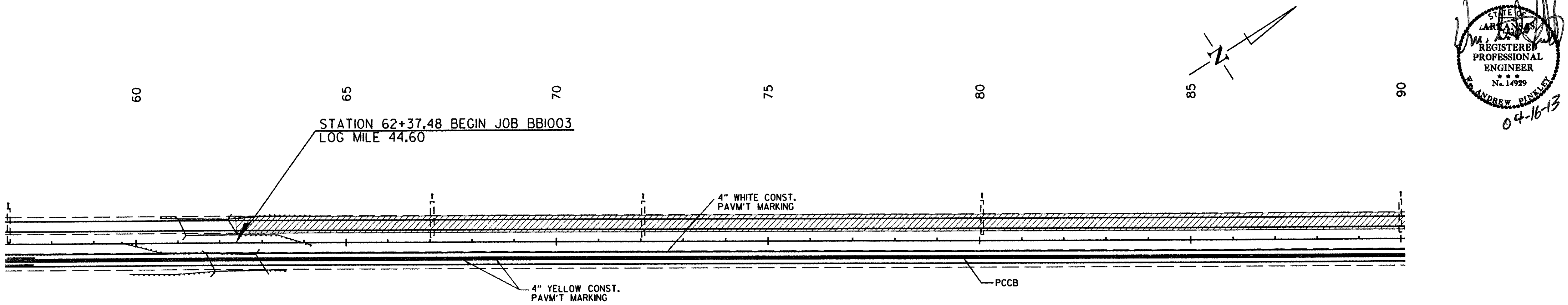
$DATE$

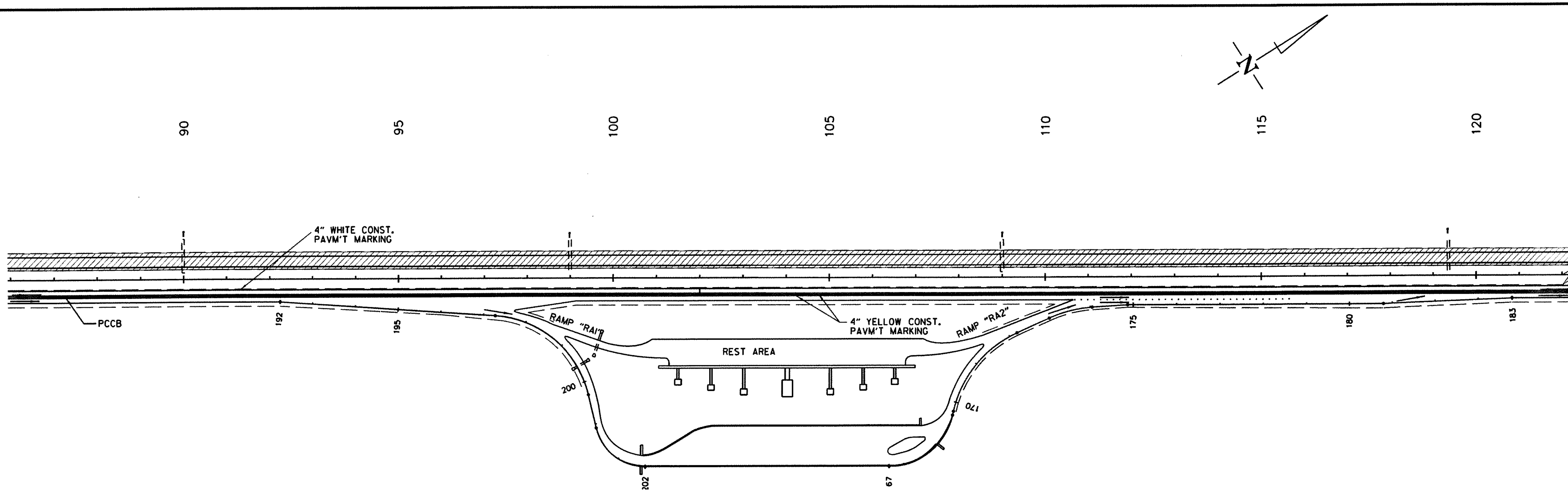
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	70	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13



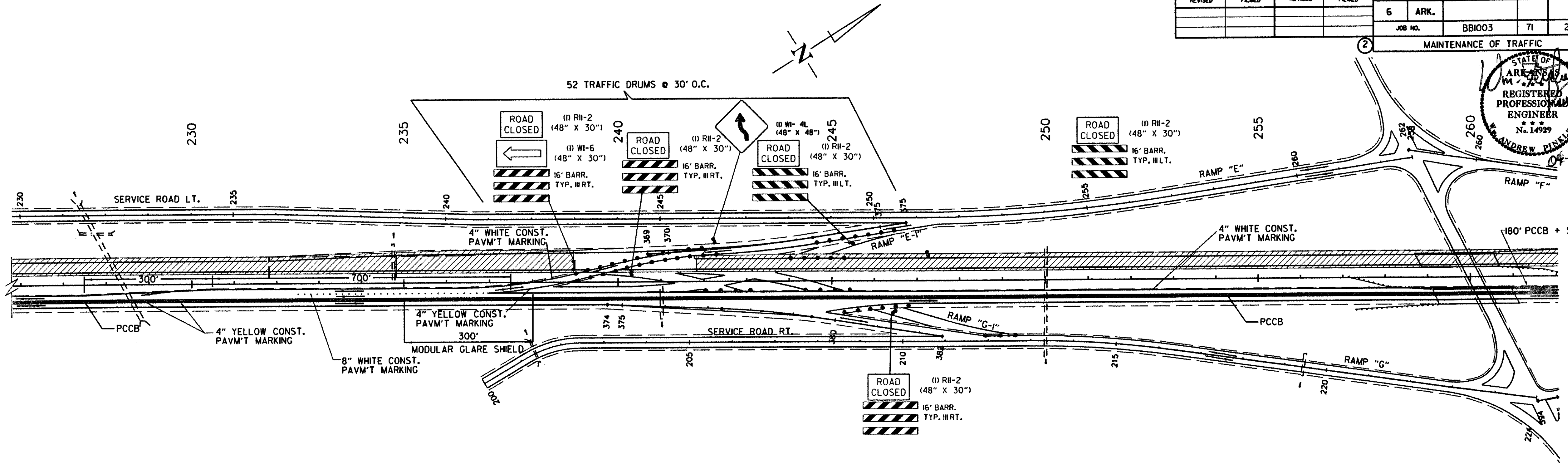


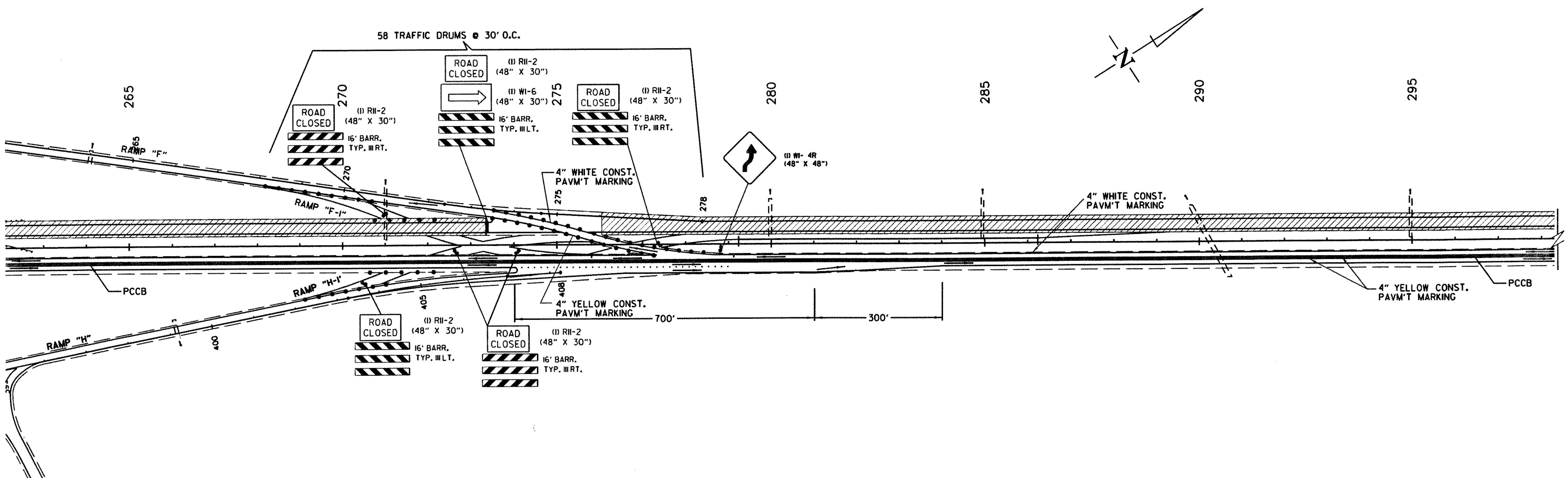
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. I)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	71	215

(2) MAINTENANCE OF TRAFFIC





MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 1)

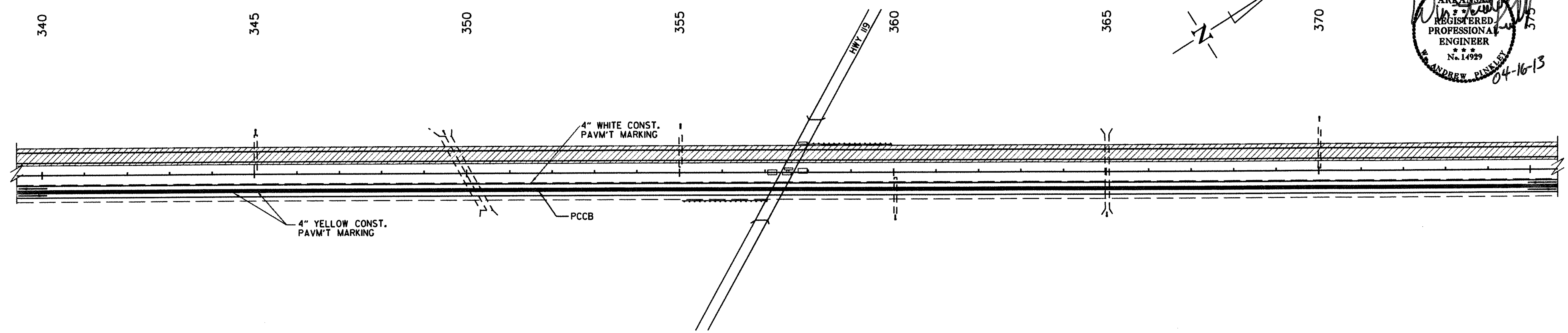
4/16/2013

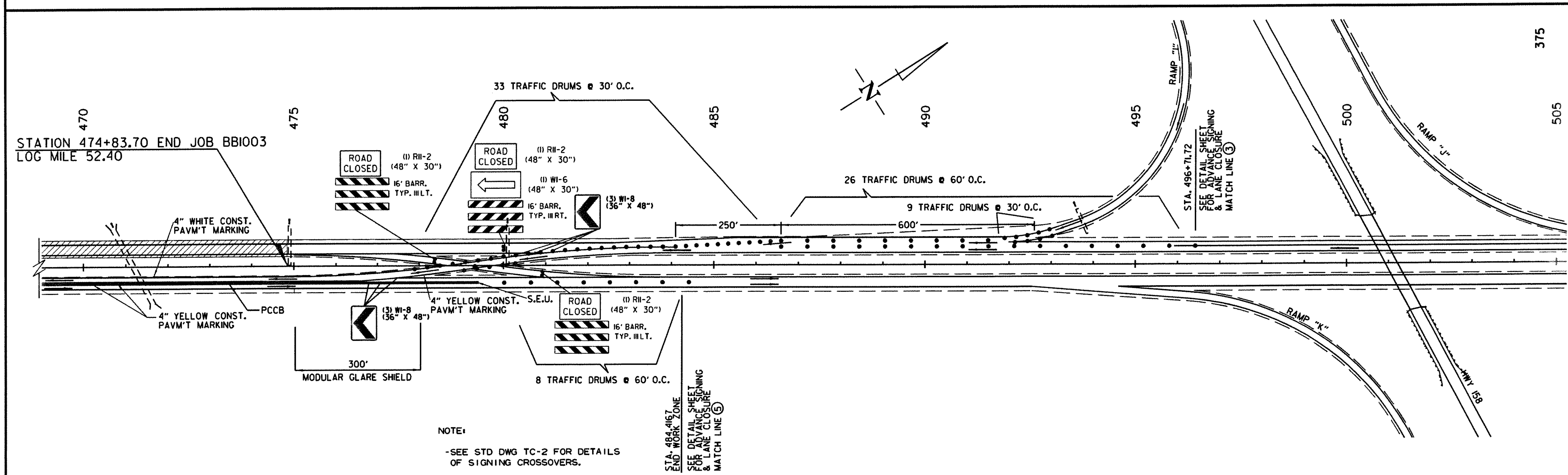
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	72	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13



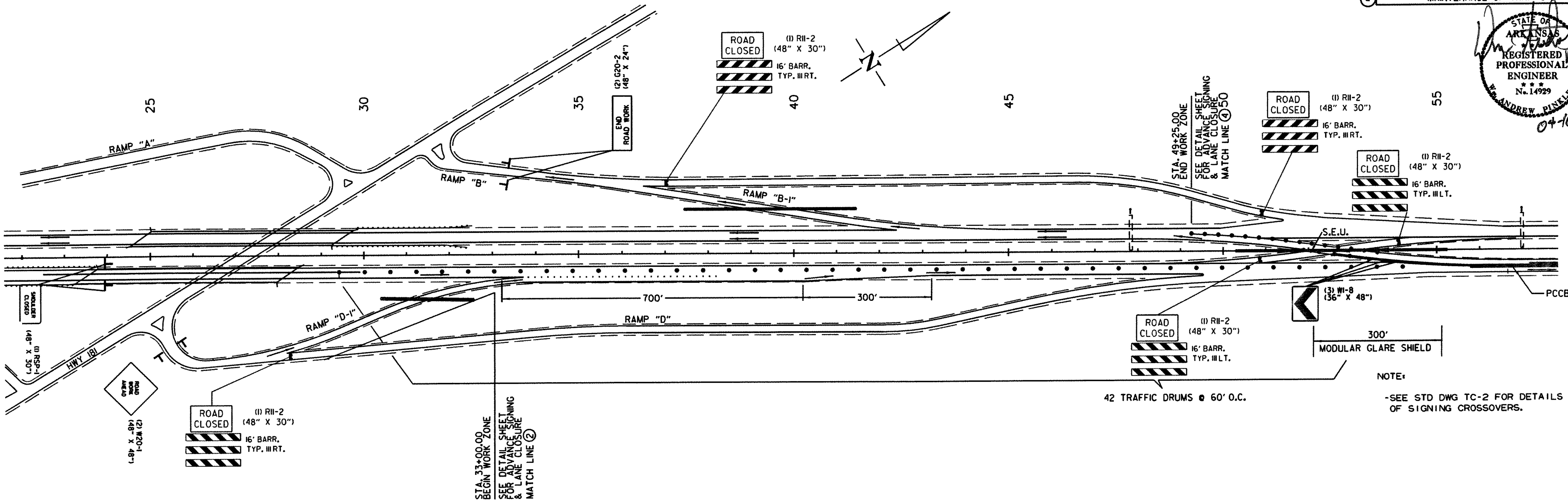


MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 1)

4/16/2013

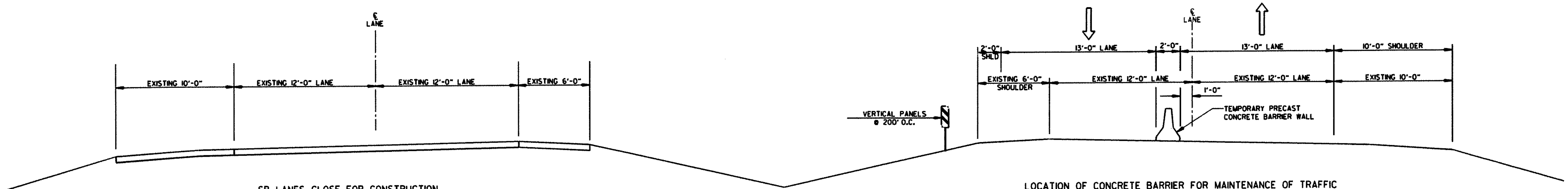
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	73	215
				2	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13



NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.



SB LANES CLOSE FOR CONSTRUCTION

LOCATION OF CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC NB LANES

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "E-1" STA. 40+00.00 TO STA. 47+16.80	1434 FT.
RAMP "F-1" STA. 50+00.00 T STA. 57+83.33	1568 FT.
LT. R.M.L. ACCELERATION LANE TAPER STA. 231+42.01 TO STA. 234+42.01	300 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 236+42.01 TO STA. 241+42.01	500 FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

LT. R.M.L. CENTERLINE STA. 227+48.83 TO STA. 234+42.01	694 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 232+48.83 TO STA. 237+48.83	500 FT.

STAGE II-B OPERATIONS:

-RETAIN TEMPORARY PRECAST CONCRETE BARRIER WALL CL ON NB LANES.
-RETAIN SB TRAFFIC THROUGH CROSSOVER TO NB LANES.
-SHIFT TRAFFIC FROM RAMP "E" & "F" TO RAMP "E-1" & "F-1" RESPECTIVELY.
-REBUILT SB LANE GAPS @ RAMP "E" & "F" TERMINALS.
-CONST. PAVM'T TRANSITION @ RAMP "E" & "F" TERMINALS.
-CLOSE HWY 119 IN BOTH DIRECTIONS.
-CONST. PORTION OF HWY 119 BRIDGE NO. 3290 AT SB I-55.

DENOTES: CONSTRUCT THIS STAGE.

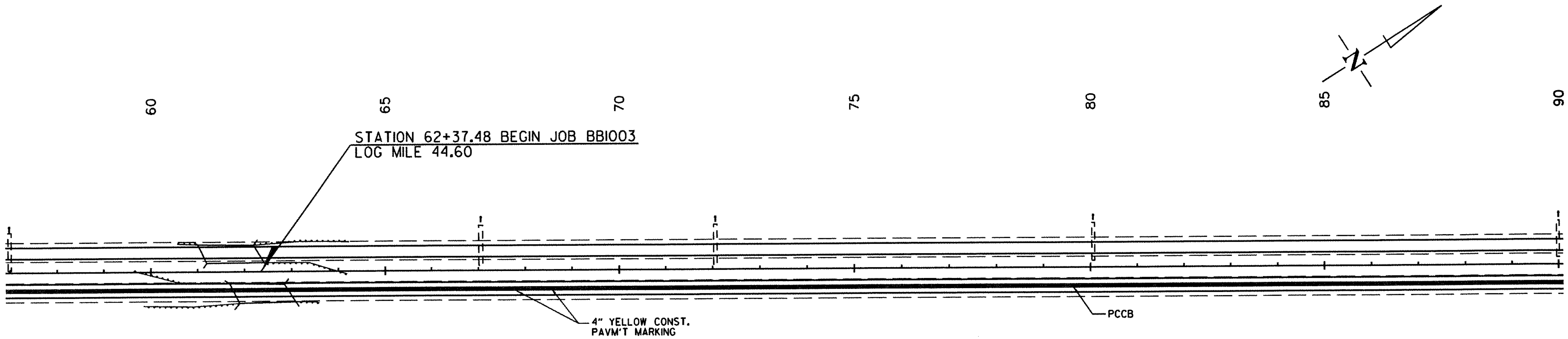
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. I)

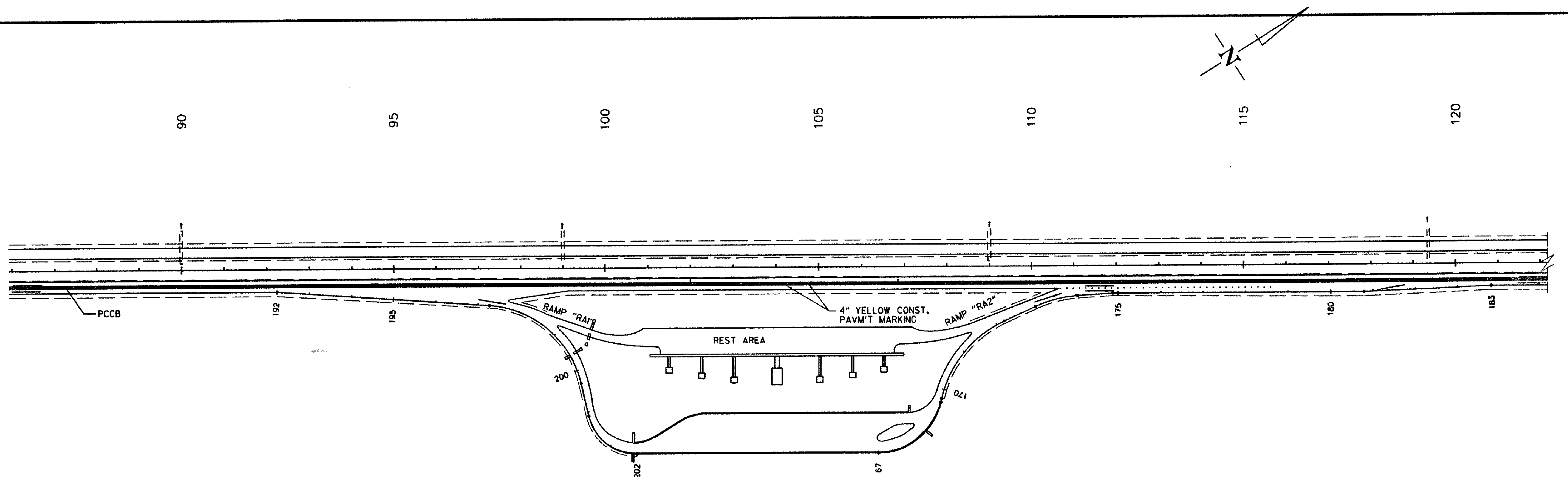
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	74	215
				MAINTENANCE OF TRAFFIC				

(2)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





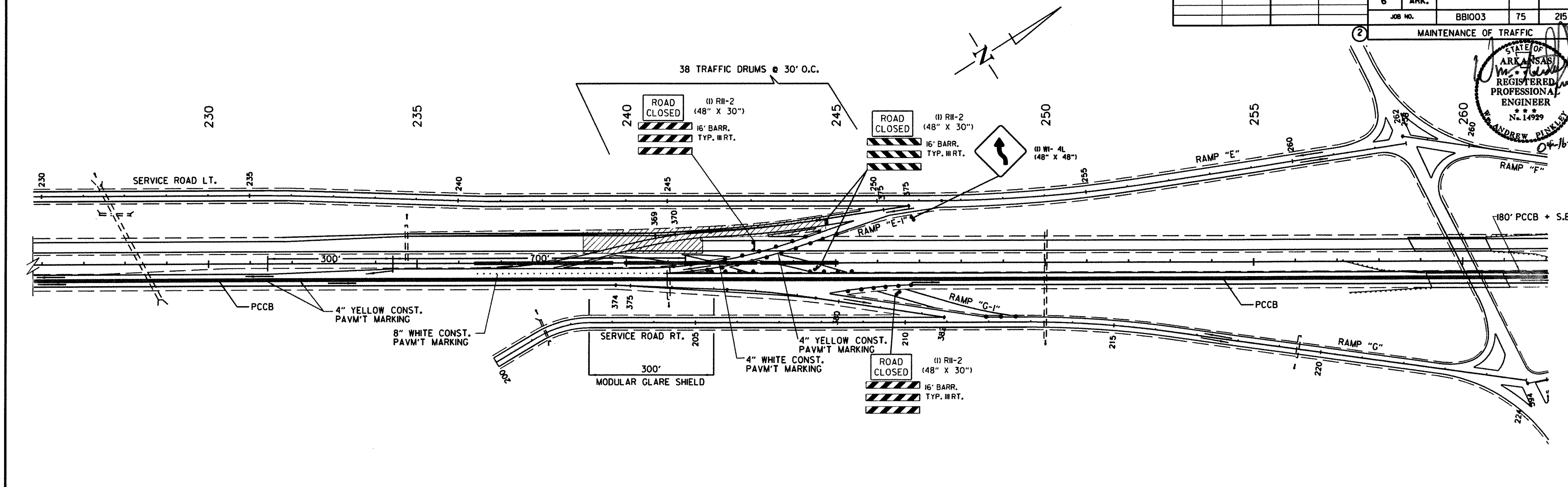
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. I)

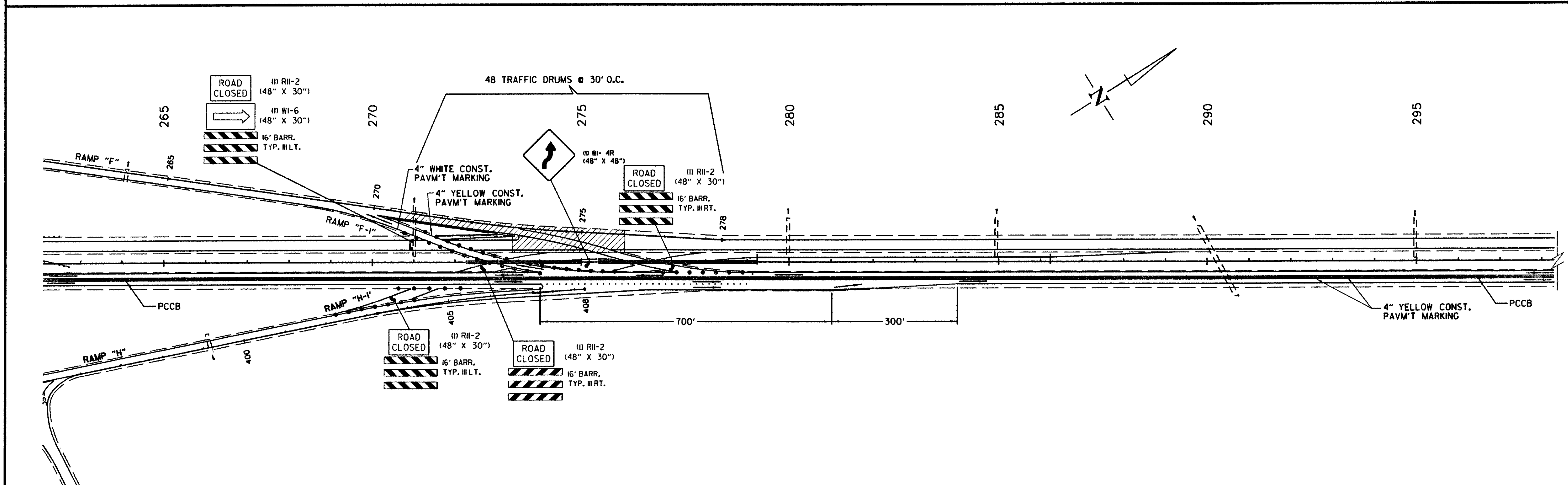
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	75	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. I)

4/16/2013

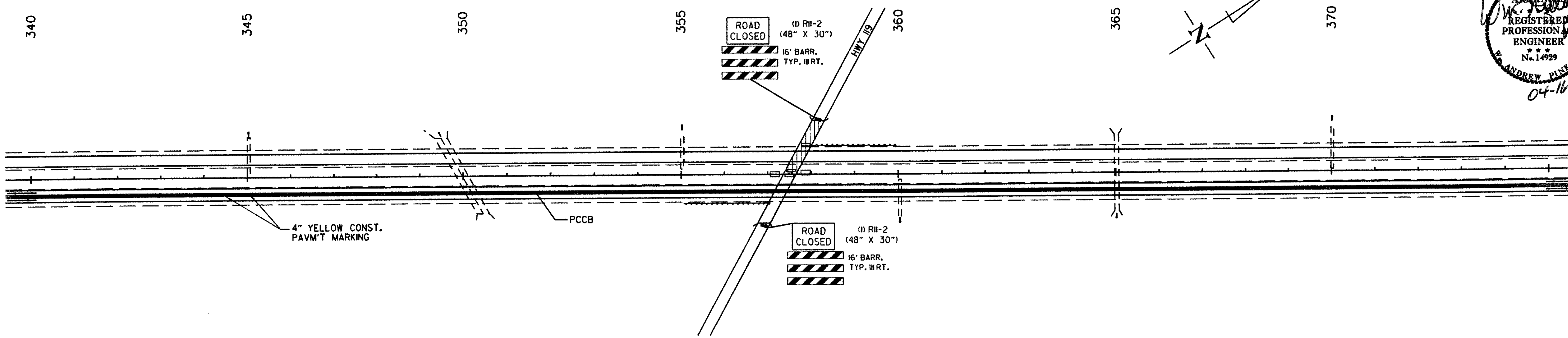
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	76	215

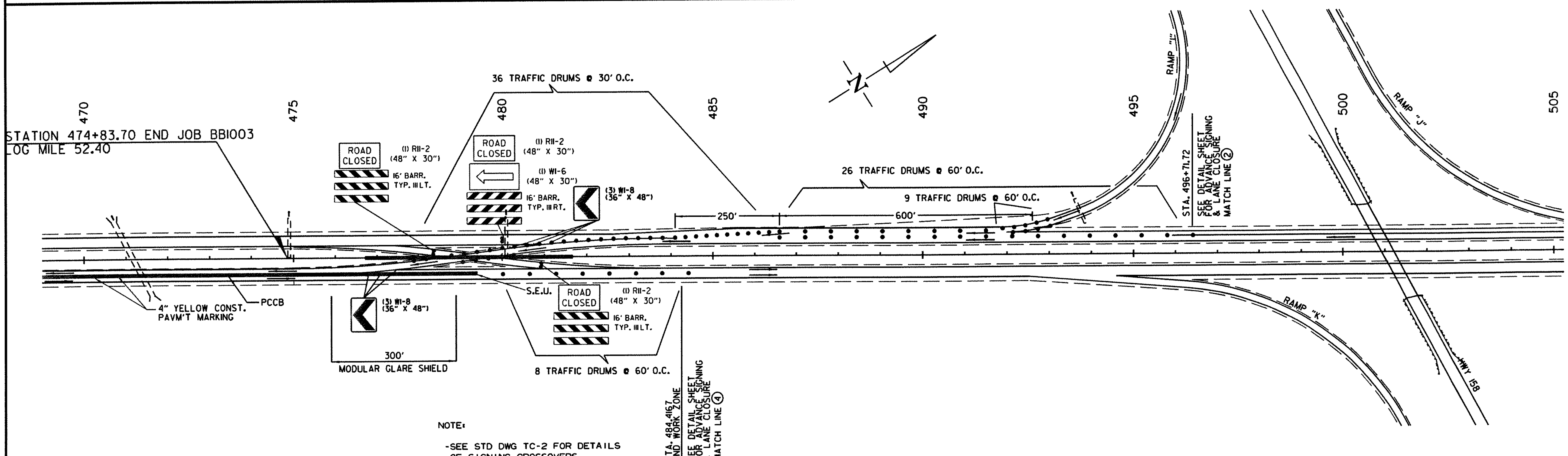
② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13

NOTE:

-SEE SHEET 34 FOR HWY 119 DETOUR SIGNING.





NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. 1)

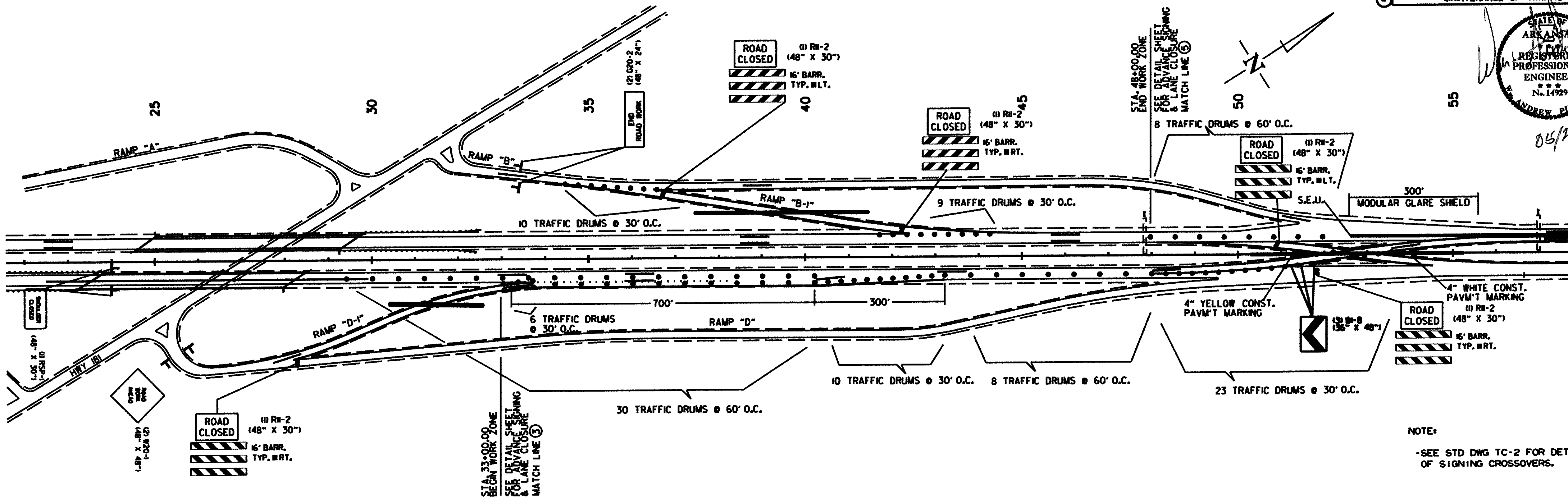
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	77	215

MAINTENANCE OF TRAFFIC

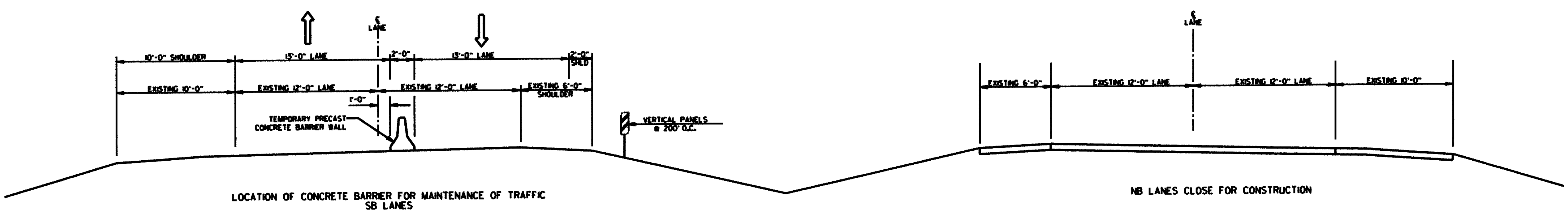
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

05/20/13



NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.



CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "B-1"
STA. 12+03.87 TO STA. 18+03.69 — 1200 FT.

CROSSOVER 1 NB
STA. 20+00.00 TO STA. 28+76.19 — 1754 FT.
CROSSOVER 2 NB
STA. 70+00.00 STA. 78+76.19 — 1754 FT.

RAMP G
STA. 30+00.00 TO STA. 35+97.45 — 1196 FT.
RAMP F
60+00.00 TO STA. 65+71.45 — 1144 FT.

RAMP H
STA. 60+00.00 STA. 65+88.43 — 1176 FT.

LT. L.M.L. ACCELERATION LANE & TAPER EDGE LINE
STA. 279+23.60 TO STA. 288+11.00 — 888 FT.

LT. R.M.L. SKIP LANE DIVIDER
STA. 278+11.00 TO STA. 283+11.00 — 500 FT.

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

CL. L.M.L. DOUBLE SOLID LANE DIVIDER
STA. 53+84.90 TO STA. 478+00.00 — 84832 FT.

LT. L.M.L. EDGE LINE
STA. 53+84.90 TO STA. 478+00.00 — 42416 FT.

RT. L.M.L. EDGE LINE
STA. 53+84.90 TO STA. 478+00.00 — 42416 FT.

RELOCATE PRECAST CONCRETE BARRIER FOR THIS STAGE:

SB MAIN LANE
STA. 52+62.00 TO STA. 477+76.00 — 42514 FT.

VERTICAL PANELS @ 200' FOR THIS STAGE:

NB MAIN LANE
STA. 56+84.90 TO STA. 238+95.72 — 93
STA. 244+00.00 TO STA. 271+82.94 — 15
STA. 279+23.60 TO STA. 475+00.00 — 99

STAGE III-A OPERATIONS:

-RELOCATE TEMPORARY PRECAST CONCRETE BARRIER WALL ON SB LANES & PLACE CONST. PAVM'T MARKINGS.
-REROUTE NB TRAFFIC THROUGH CROSSOVER TO SB LANES.
-CONST. NB LANES, ACCELERATION LANE, TEMPORARY RAMPS, APPROACH SLABS & GUTTERS, WIDENING FOR GUARDRAILS AND GUARDRAILS WHERE APPLICABLE.
-PLACE PAVM'T MARKINGS ON NB LANES.
-CONST. THE REMAIN PORTION OF HWY 119 BRIDGE @ I-55 NB
-PERFORM HYDRODEMOLITION OPERATIONS.

DENOTES: CONSTRUCT THIS STAGE.

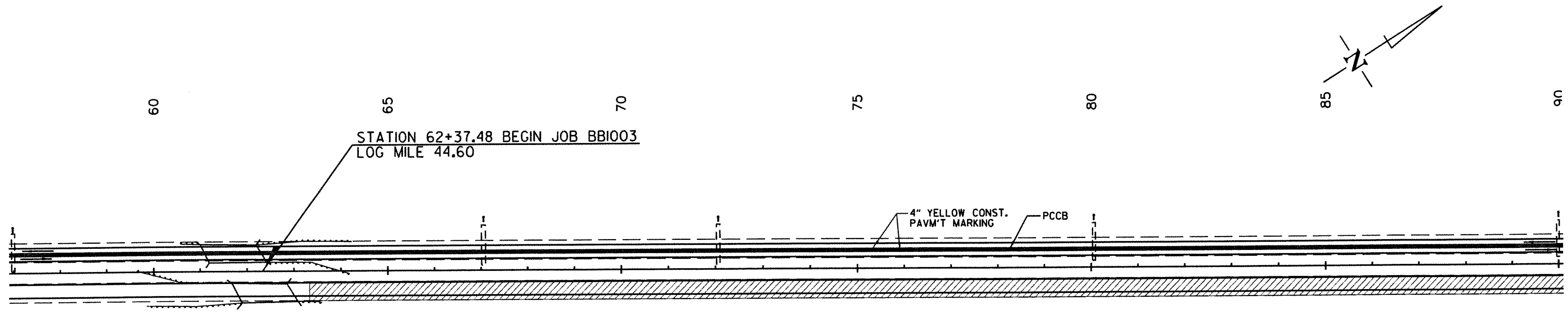
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. I)

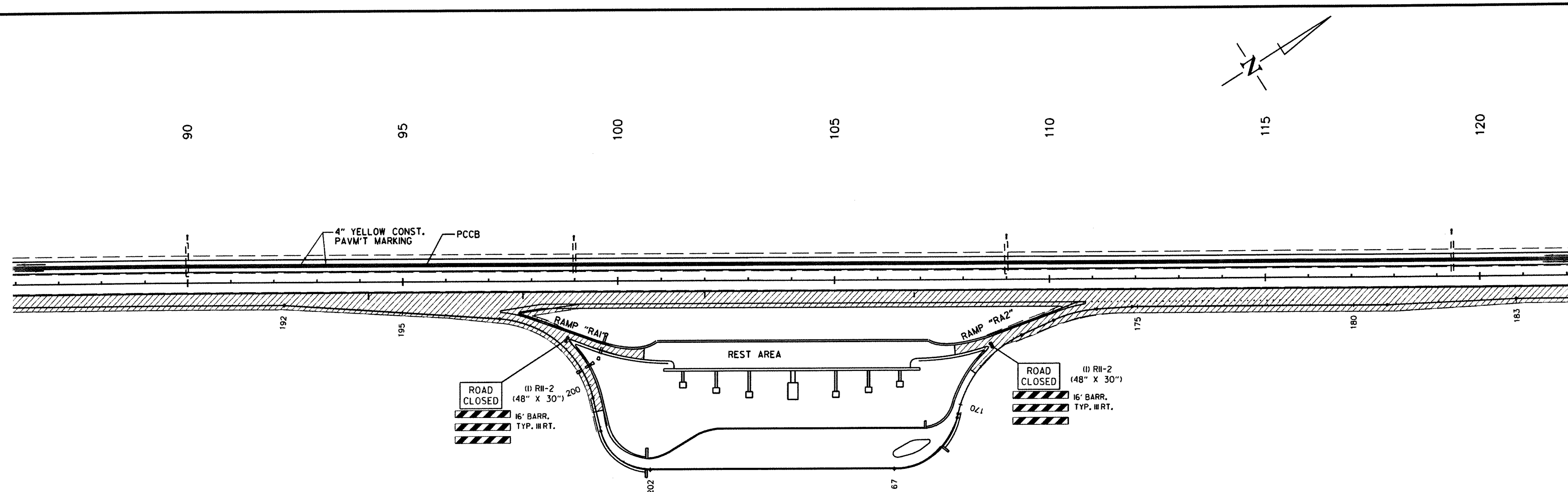
$DATE$

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.		BB1003	78	215

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





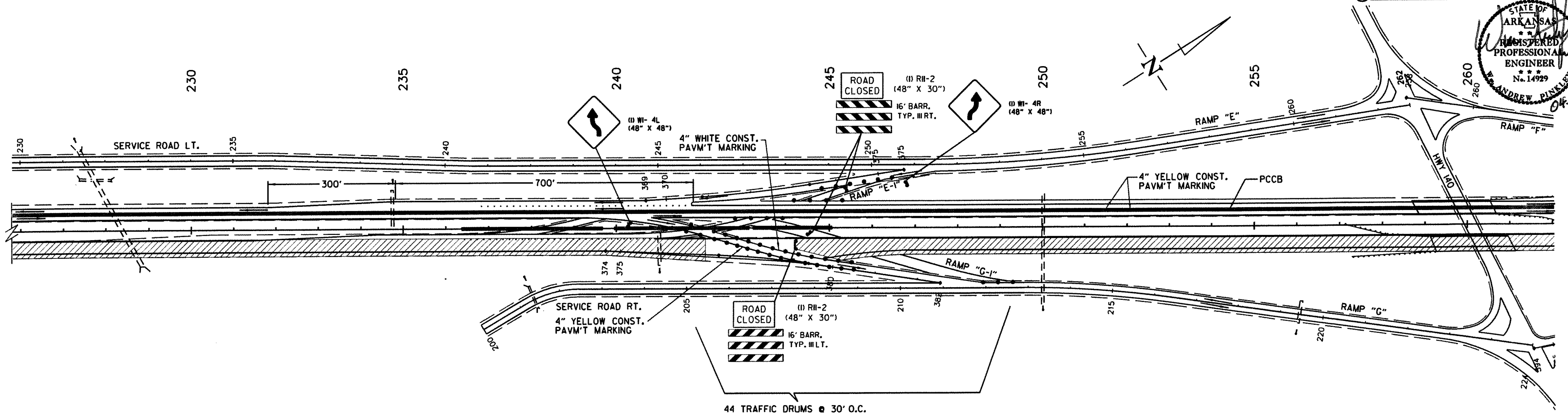
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. I)

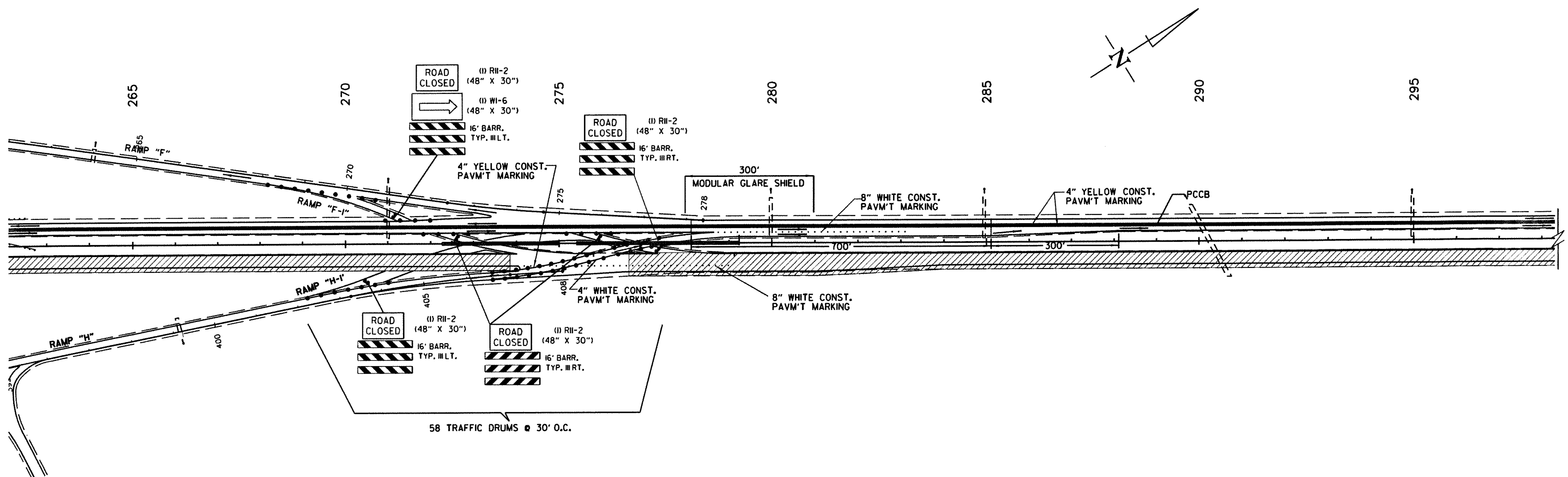
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	79	215

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13





4/16/2013

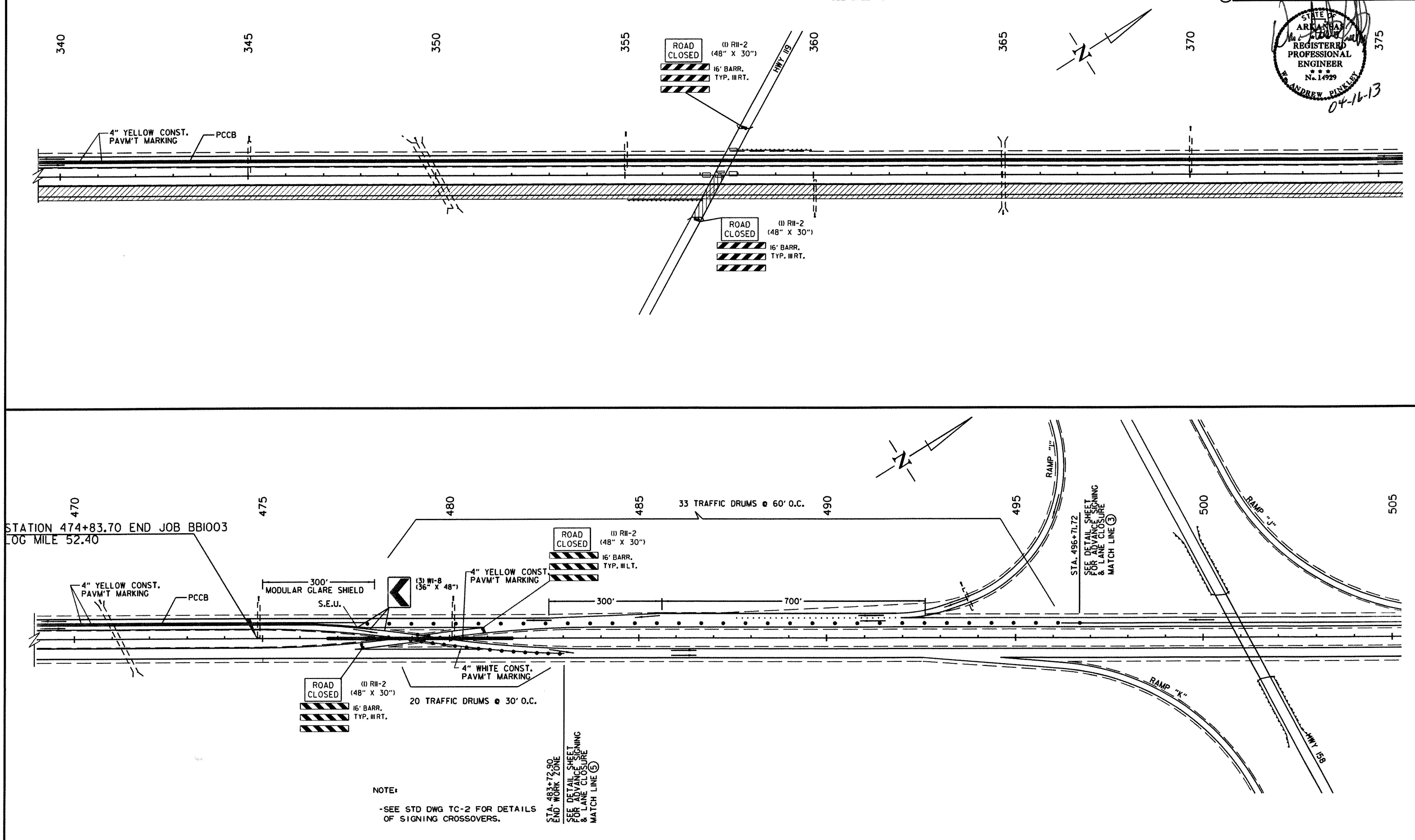
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. I)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	80	215

(2) MAINTENANCE OF TRAFFIC

NOTE:

-SEE SHEET 34 FOR HWY 119 DETOUR SIGNING.



NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

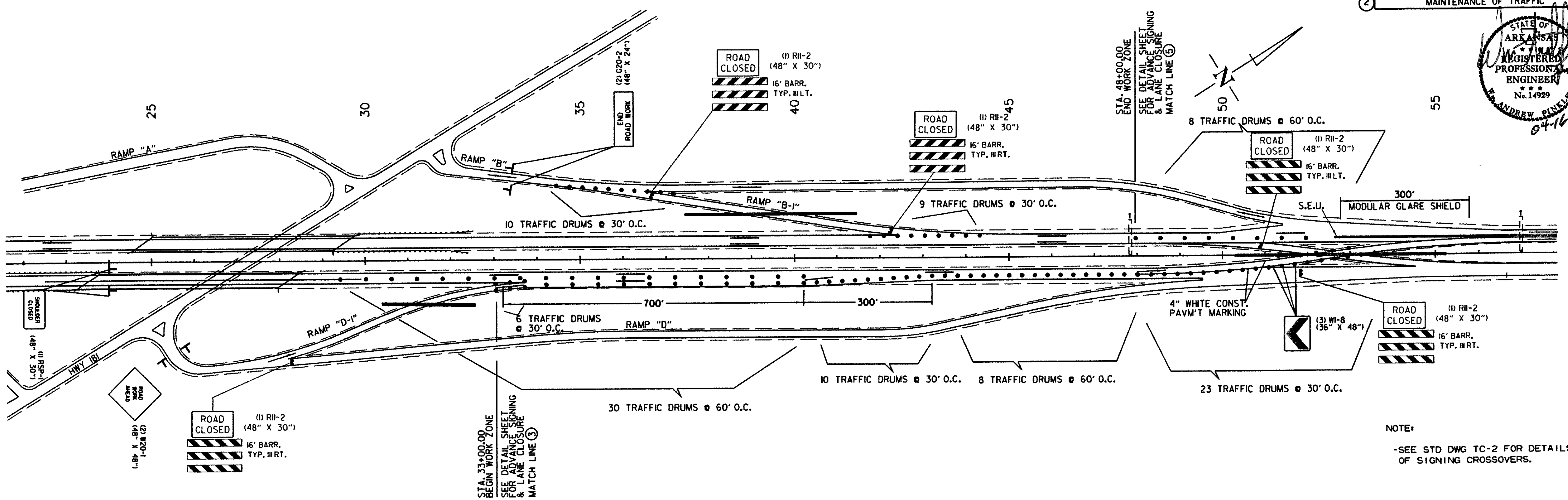
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. I)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	81	215

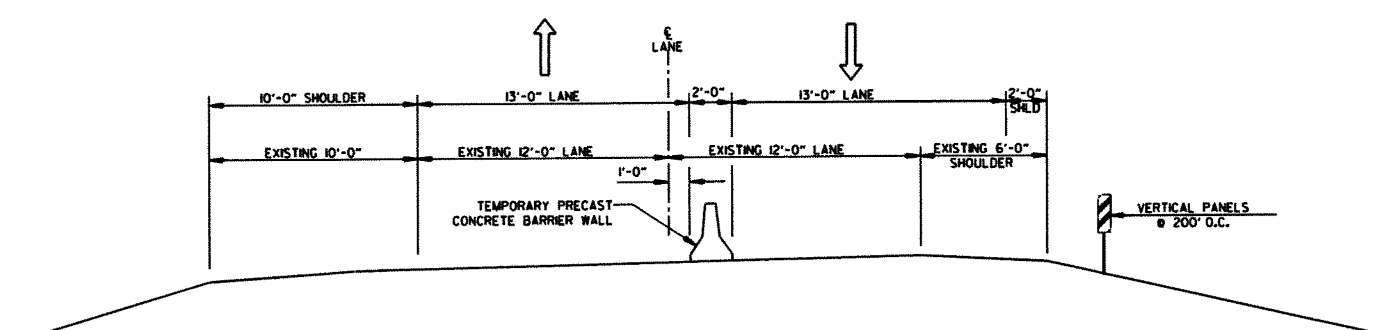
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13

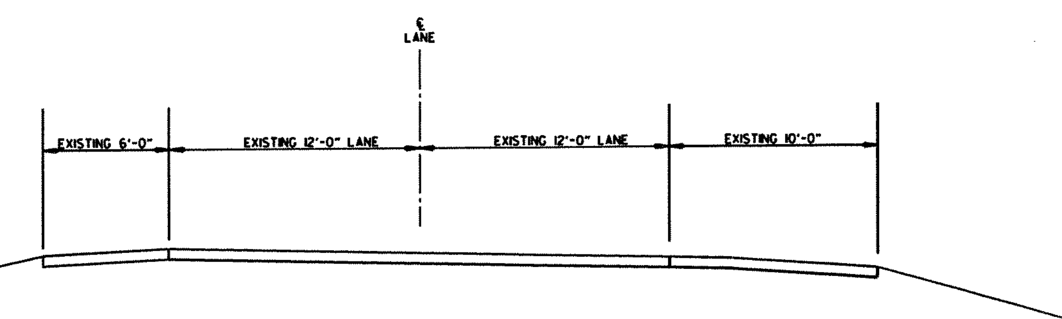


NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.



LOCATION OF CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC
SB LANES



NB LANES CLOSE FOR CONSTRUCTION

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "G-1" STA. 40+00.00 TO STA. 47+98.12	1598 FT.
RAMP "H-1" STA. 50+00.00 T STA. 57+00.00	1400 FT.
LT. R.M.L. ACCELERATION LANE TAPER STA. 275+51.93 TO STA. 284+39.33	888 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 274+39.33 TO STA. 279+39.33	500 FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

LT. R.M.L. CENTERLINE STA. 281+39.33 TO STA. 288+11.00	672 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 278+11.00 TO STA. 283+11.00	500 FT.

STAGE III-B OPERATIONS:

- -RETAIN TEMPORARY PRECAST CONCRETE BARRIER WALL CL ON SB LANES.
- -RETAIN NB TRAFFIC THROUGH CROSSOVER TO SB LANES.
- -SHIFT TRAFFIC FROM RAMP "G" & "H" TO RAMP "G-1" & "H-1" RESPECTIVELY.
- -REBUILT NB LANE GAPS @ RAMP "G" & "H" TERMINALS.
- -CONSTRUCT PAVM'T TRANSITION @ RAMP "RA1" "RA2" "G" & "H" TERMINALS.
- -CONSTRUCT FINAL LIFT OF SURFACE, WRSF, GUARDRAILS & PERMANENT PAV'T MARKING DETAILS ON NB LANES.

DENOTES: CONSTRUCT THIS STAGE.

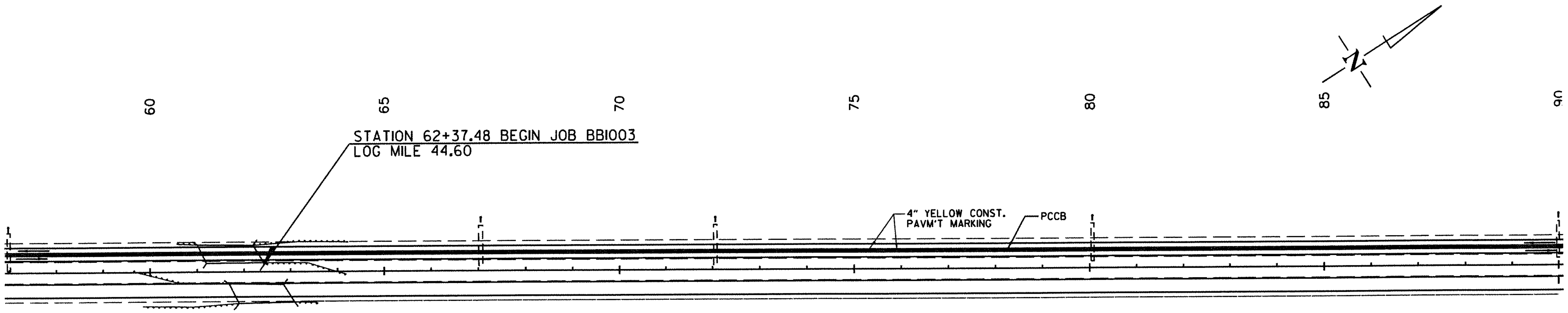
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. I)

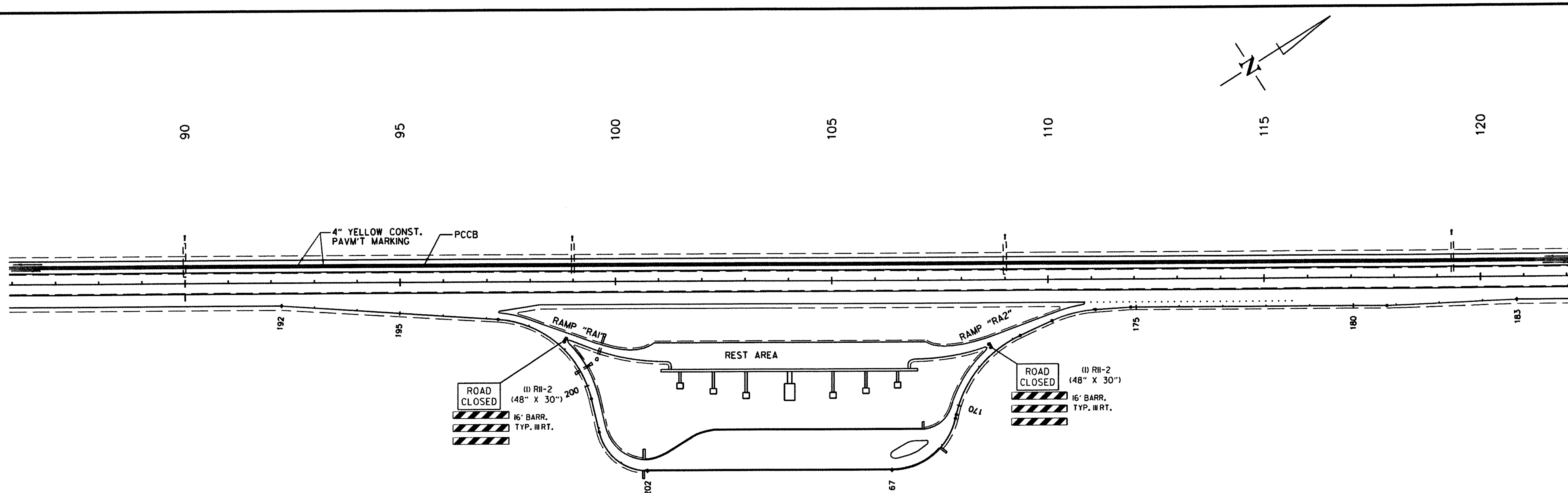
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	82	215

2 MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04-16-13



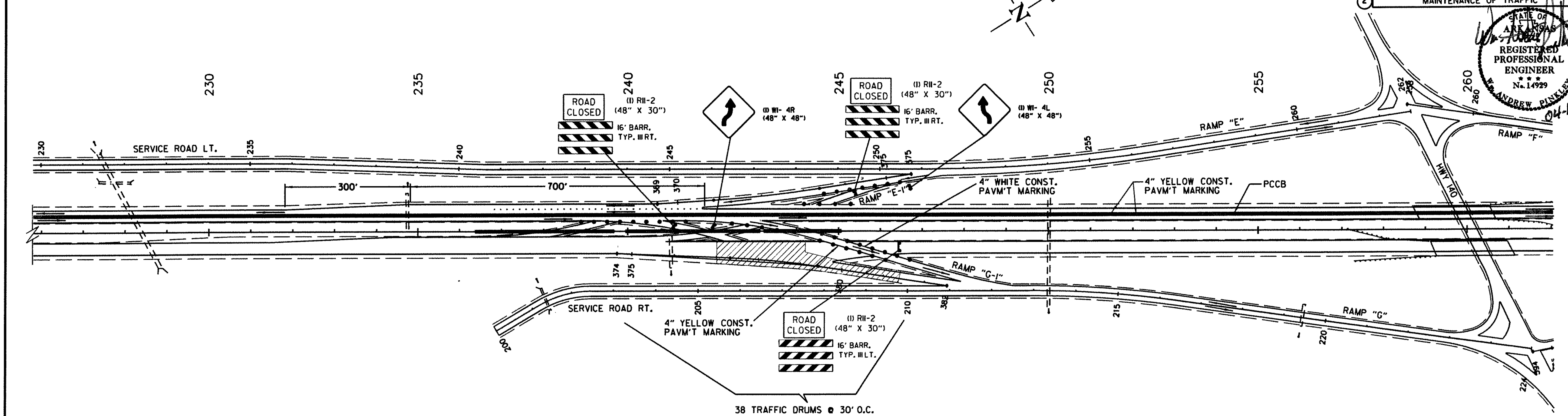


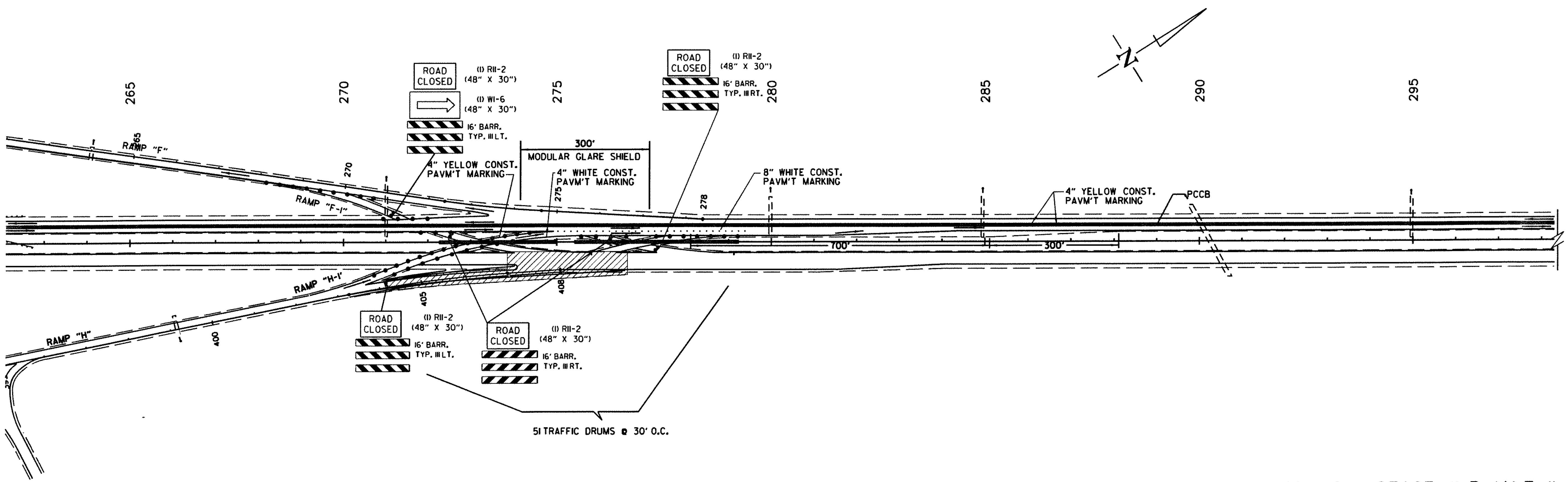
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. 1)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	83	215

(2) MAINTENANCE OF TRAFFIC





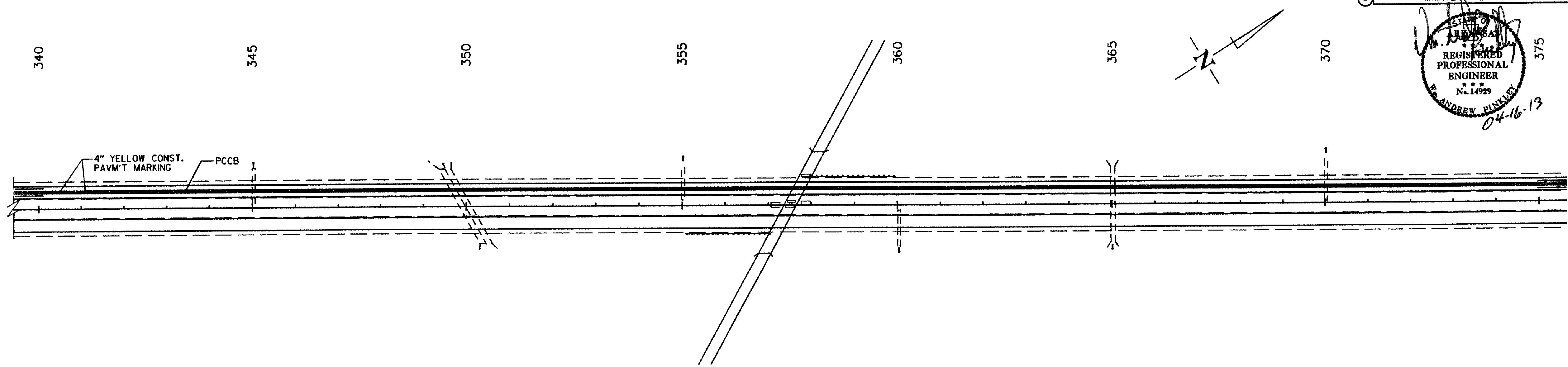
4/16/2013

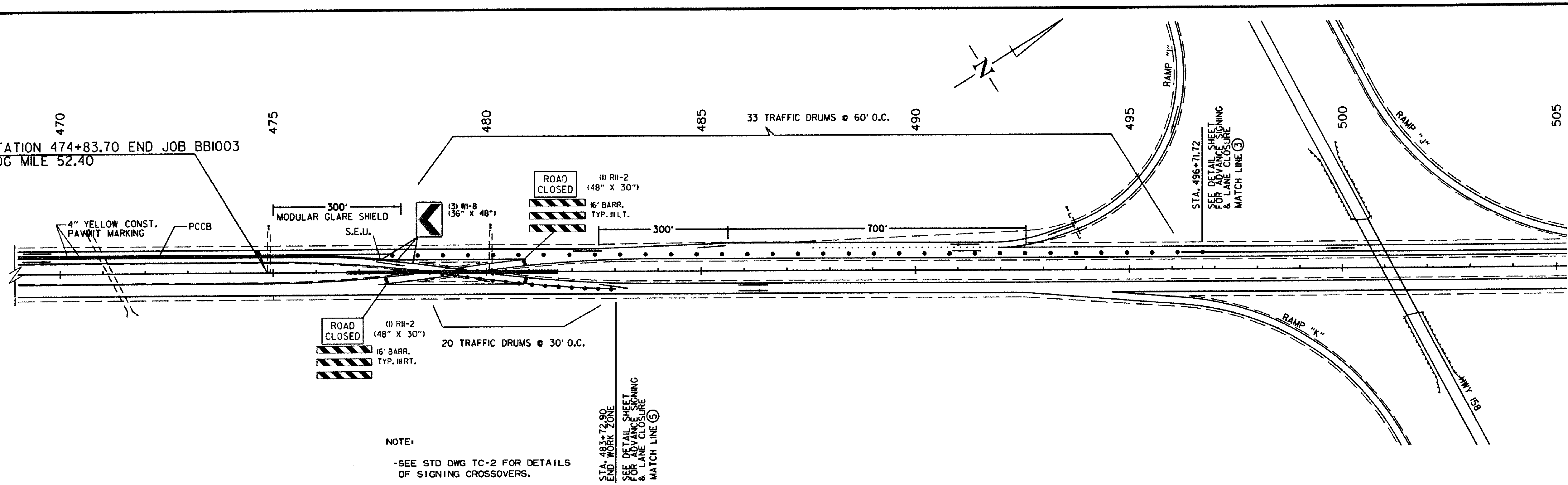
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. 1)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	84	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





NOTE:

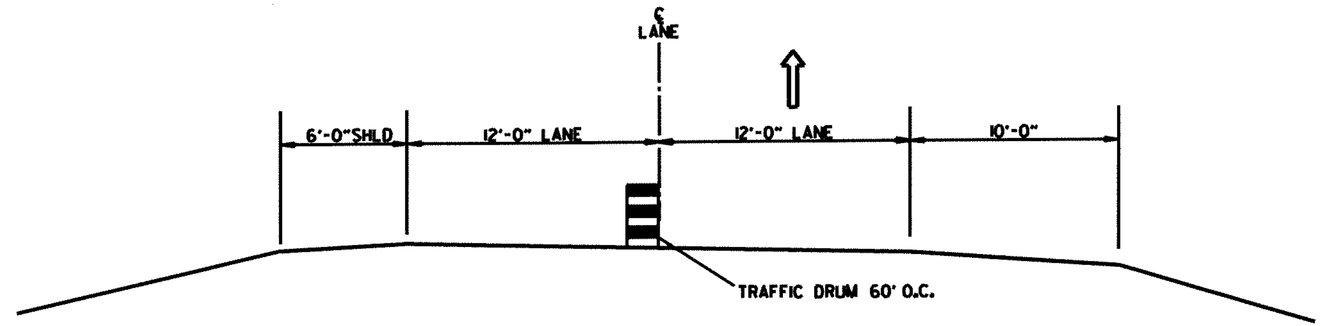
-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. I)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	85	215
				2	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
05/20/13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

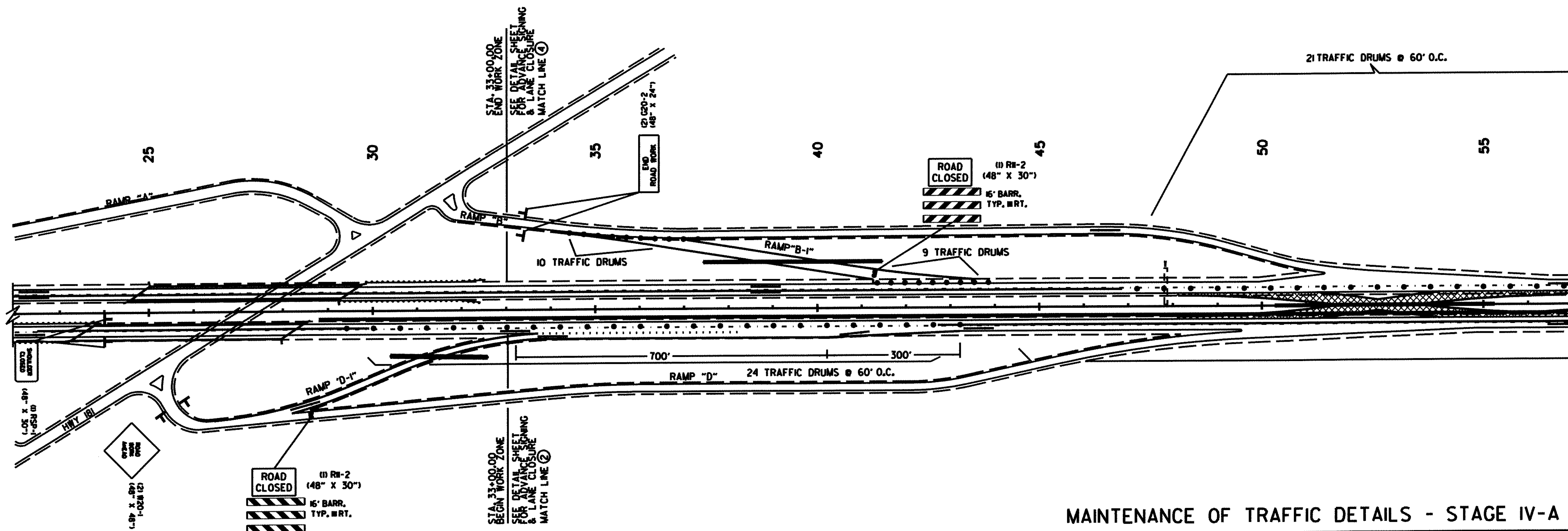
STAGE IV-A OPERATIONS:

- -REROUTE NB TRAFFIC TO OUTSIDE LANE OF RT. MAIN LANES & SB TRAFFIC TO OUTSIDE LANE OF LT. MAIN LANES
- -REMOVE PRECAST CONCRETE BARRIER.
- -CLOSE INSIDE LANES & SHOULDERS IN BOTH DIRECTIONS.
- -REMOVE TEMPORARY CROSSOVERS & INSIDE INTERCHANGE RAMPS.
- -CONST. FINAL LIFT OF SURFACE ON SB INSIDE LANE.

DENOTES: REMOVAL OF TEMPORARY DETOUR THIS STAGE.

REMOVAL OF TEMPORARY CULVERT FOR THIS STAGE:

STA. 50+29.00	TO STA. 55+25.00	CONST.	12" X296' RCP	- MEDIAN	296 FT.
STA. 236+36.00	TO STA. 239+72.00	CONST.	12" X336' RCP	- MEDIAN	336 FT.
STA. 239+94.00	TO STA. 243+14.00	CONST.	12" X320' RCP	- MEDIAN	320 FT.
STA. 243+21.50	TO STA. 245+05.50	CONST.	12" X184' RCP	- MEDIAN	184 FT.
STA. 272+24.00	TO STA. 275+00.00	CONST.	12" X276' RCP	- MEDIAN	276 FT.
STA. 275+40.50	TO STA. 279+24.50	CONST.	12" X384' RCP	- MEDIAN	384 FT.
STA. 476+70.74	TO STA. 481+66.74	CONST.	12" X496' RCP	- MEDIAN	496 FT.



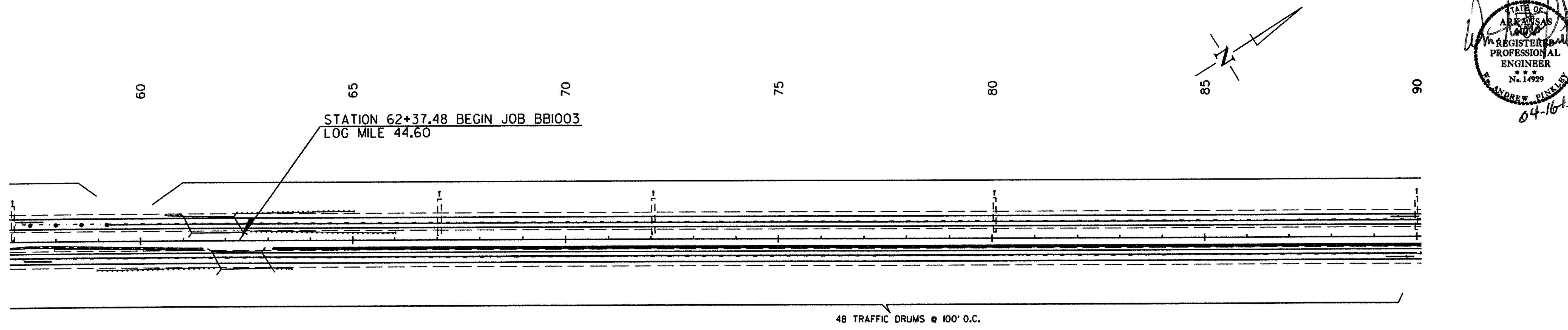
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 1)

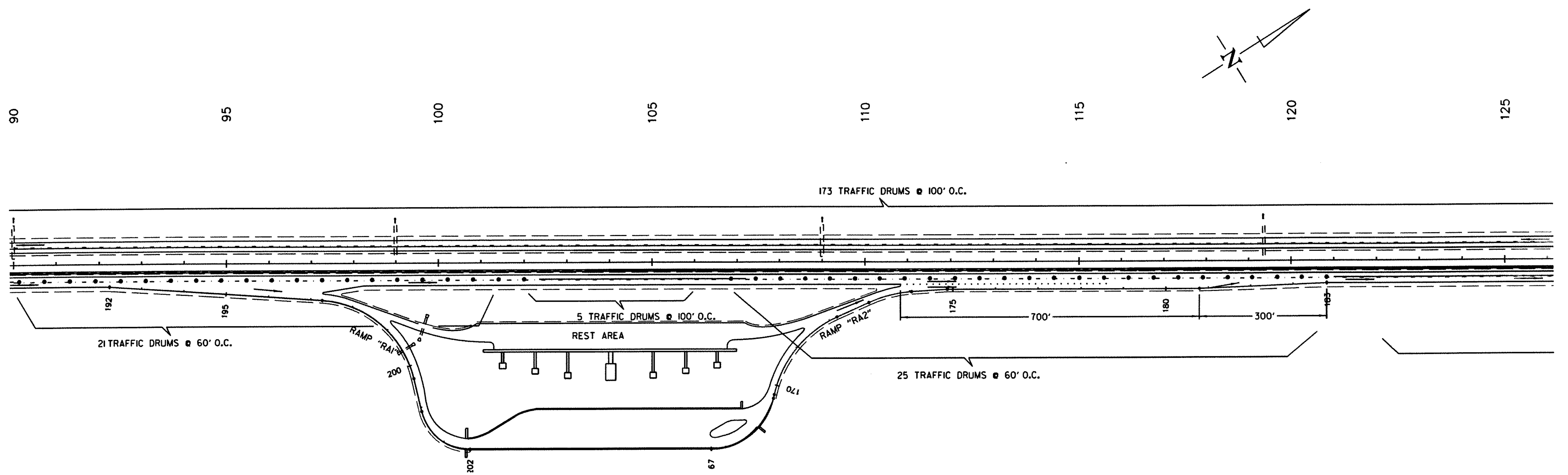
$DATE$

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.		BB1003	86	215

2 MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY
04-16-13





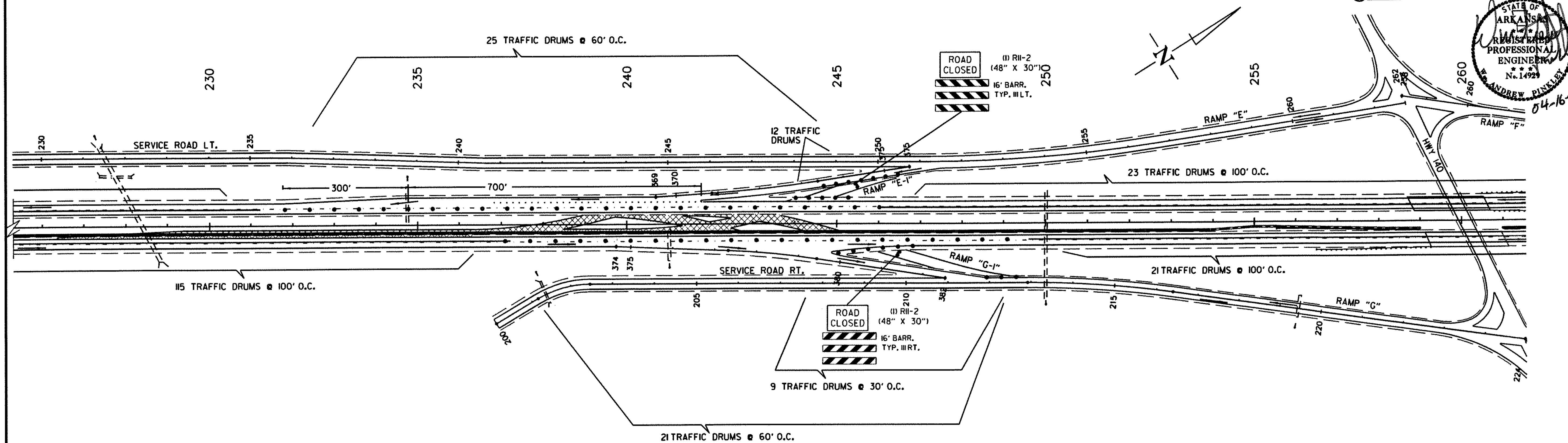
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 1)

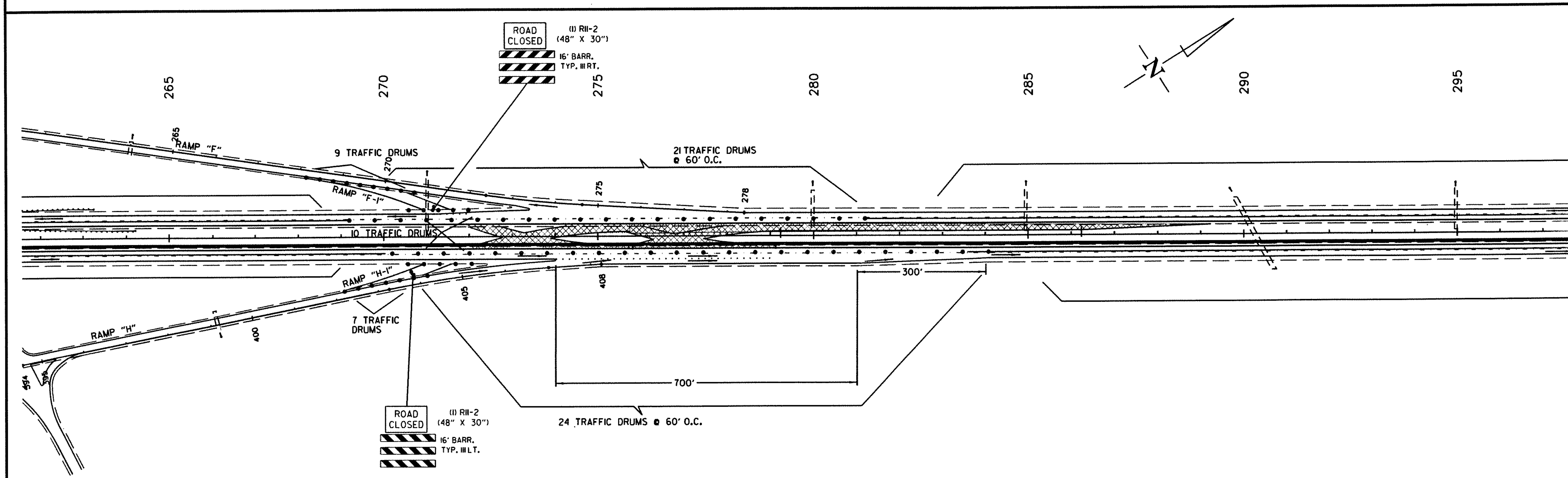
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	87	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13



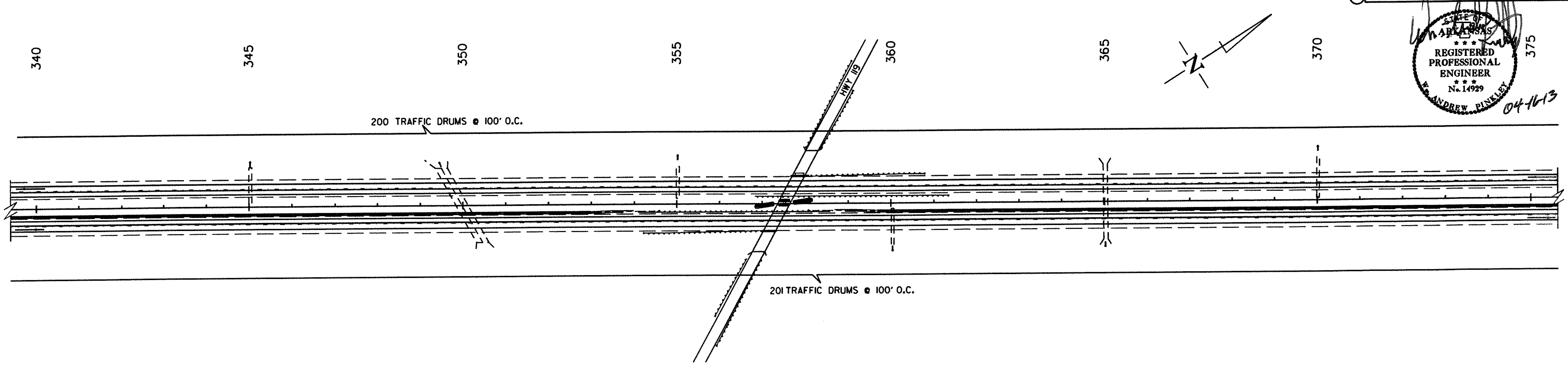


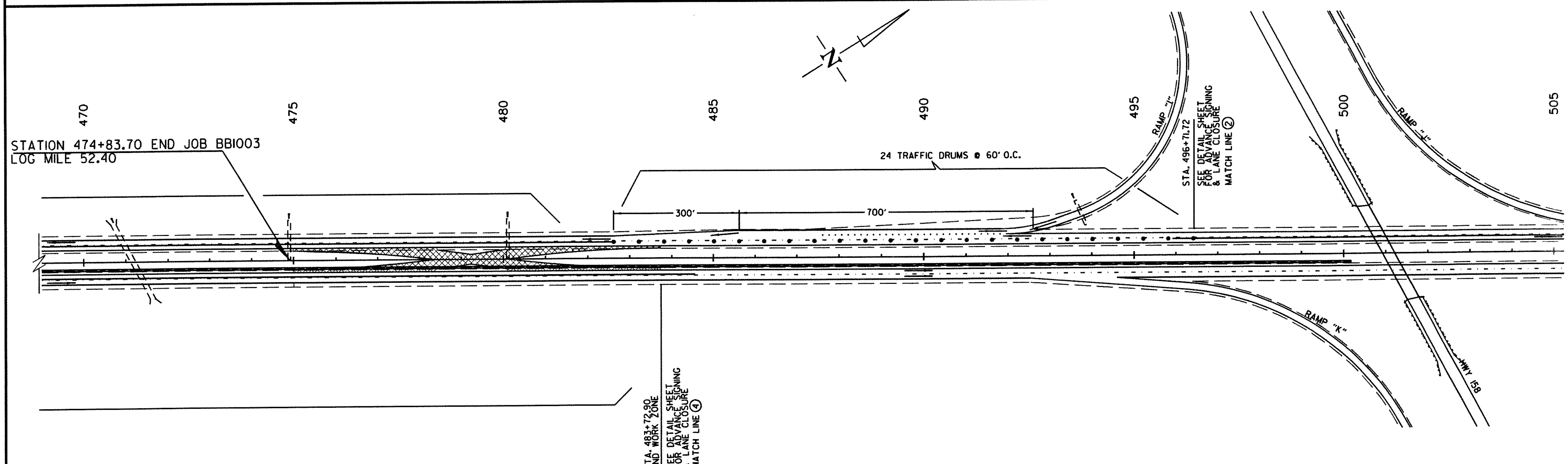
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 1)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	88	215

(2) MAINTENANCE OF TRAFFIC





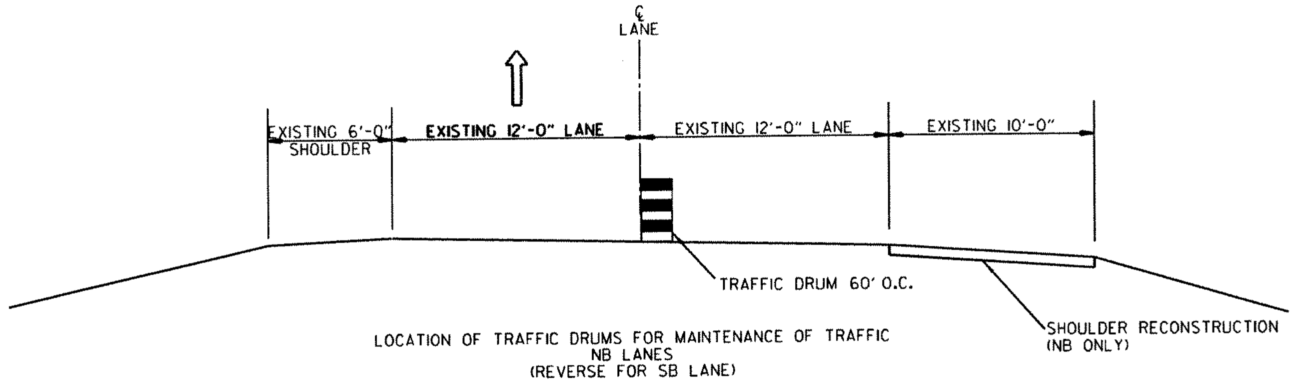
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. I)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	89	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/18/13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

R.M.L CENTERLINE
STA. 53+84.90 TO STA. 478+00.00 42416 FT.
L.M.L. CENTERLINE
STA. 53+84.90 TO STA. 478+00.00 42416 FT.

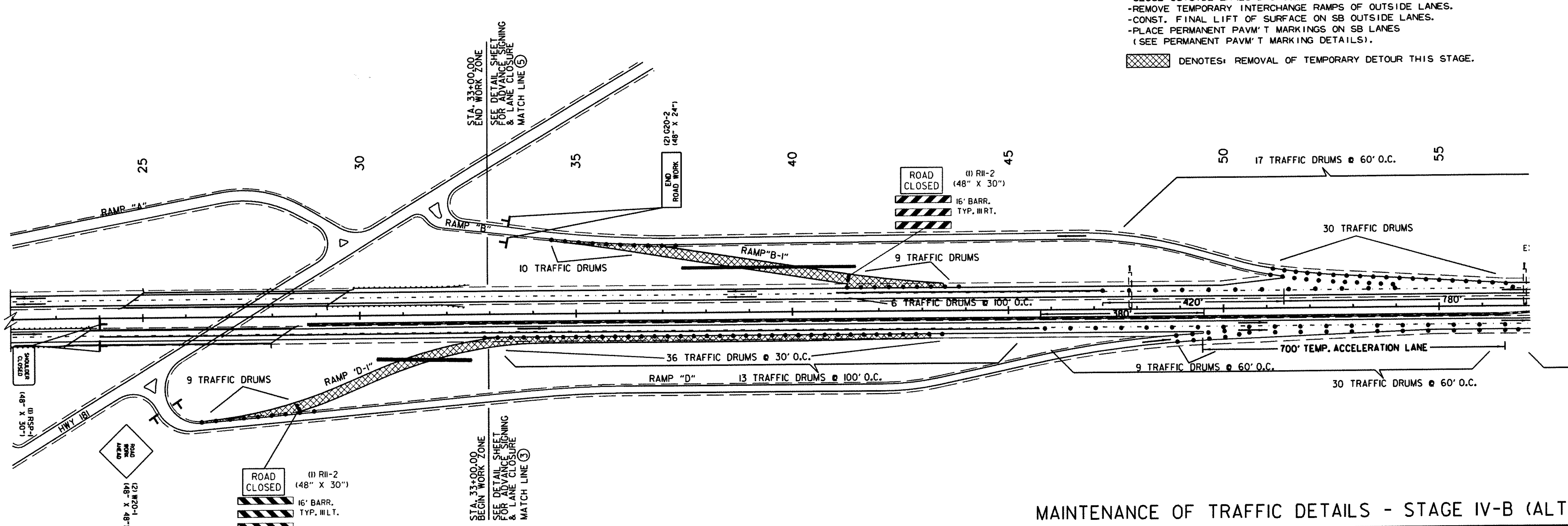
REMOVAL OF TEMPORARY CULVERTS FOR THIS STAGE:

STA. 32+40.00 TO STA. 32+58.00, CONST. 12"X218' RCP - RAMP B-1 218 FT.
STA. 37+43.00 TO STA. 41+47.00, CONST. 12"X404' RCP - RAMP D-1 404 FT.

STAGE IV-B OPERATIONS:

- CLOSE OUTSIDE LANES & SHOULDER IN BOTH DIRECTIONS.
- REMOVE TEMPORARY INTERCHANGE RAMPS OF OUTSIDE LANES.
- CONST. FINAL LIFT OF SURFACE ON SB OUTSIDE LANES.
- PLACE PERMANENT PAVM'T MARKINGS ON SB LANES (SEE PERMANENT PAVM'T MARKING DETAILS).

DENOTES: REMOVAL OF TEMPORARY DETOUR THIS STAGE.



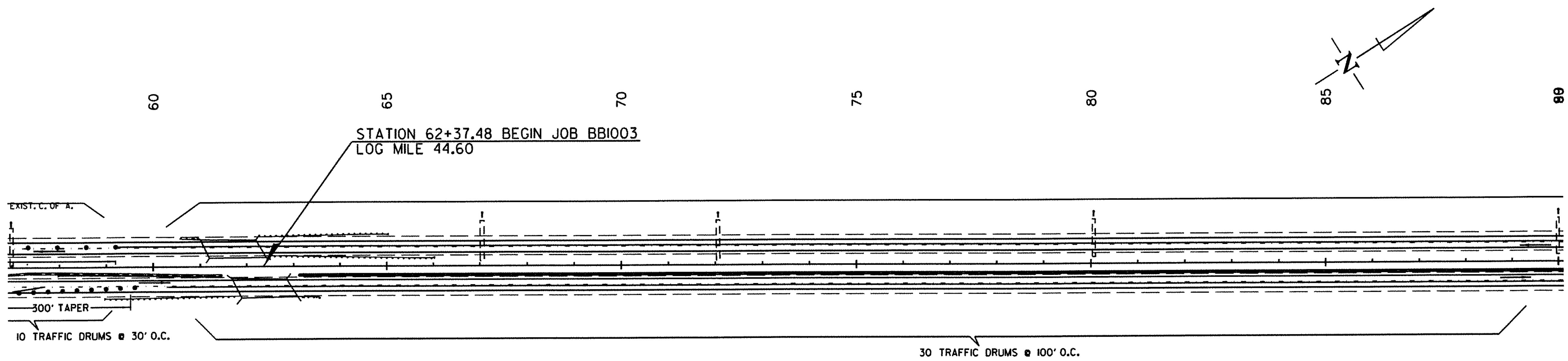
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 1)

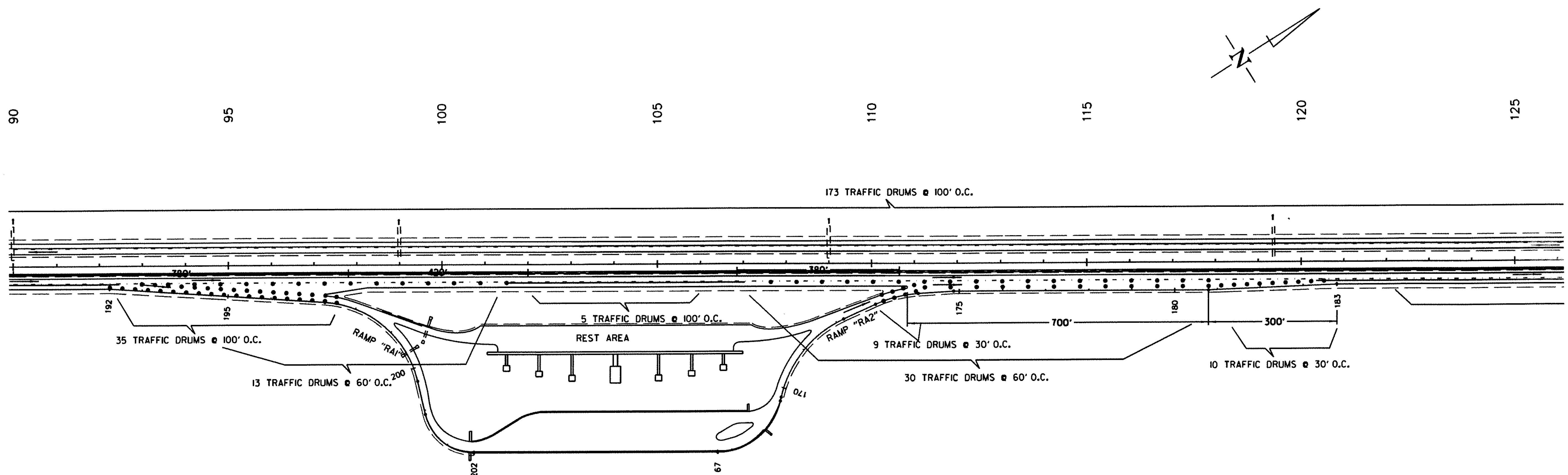
4/18/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	90	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



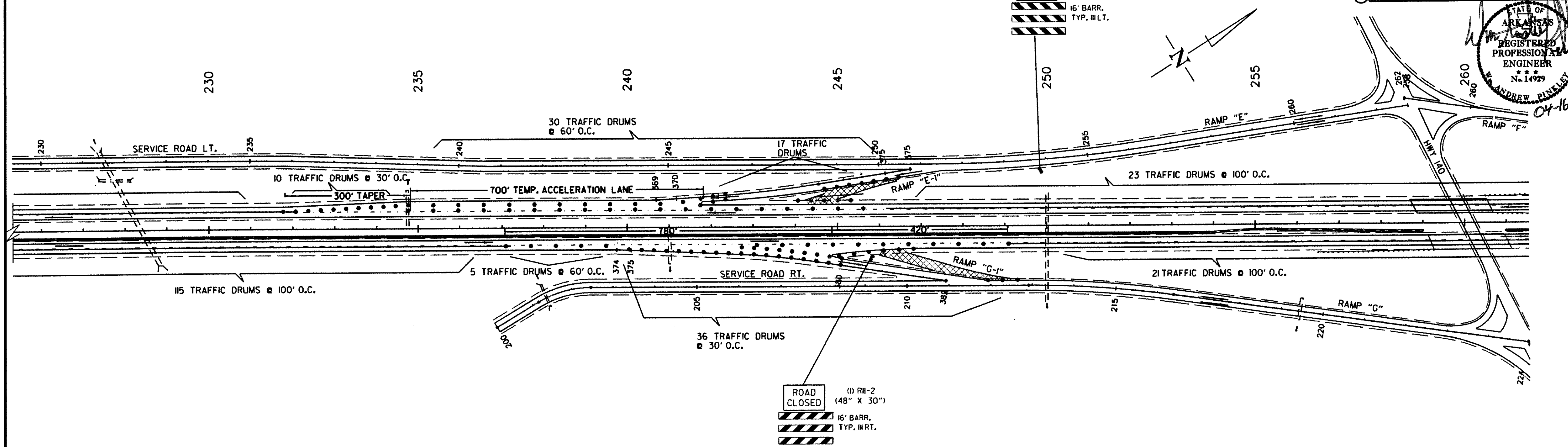


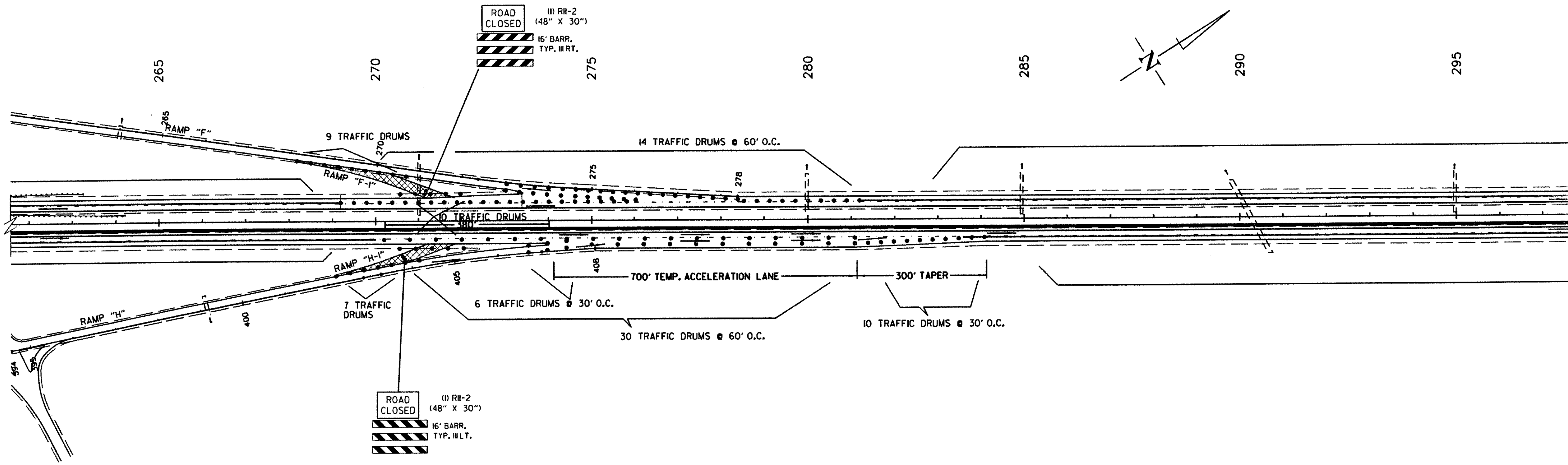
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 1)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	91	215

2 MAINTENANCE OF TRAFFIC





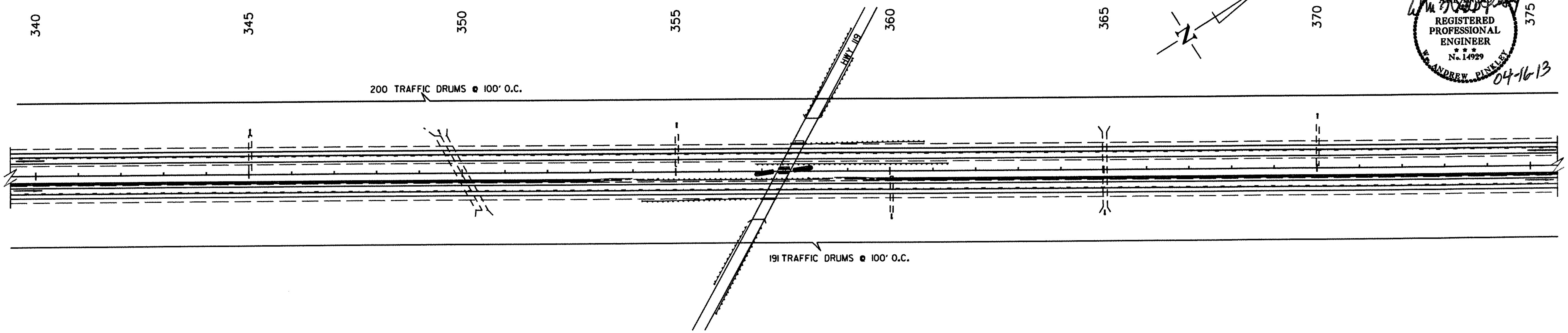
4/16/2013

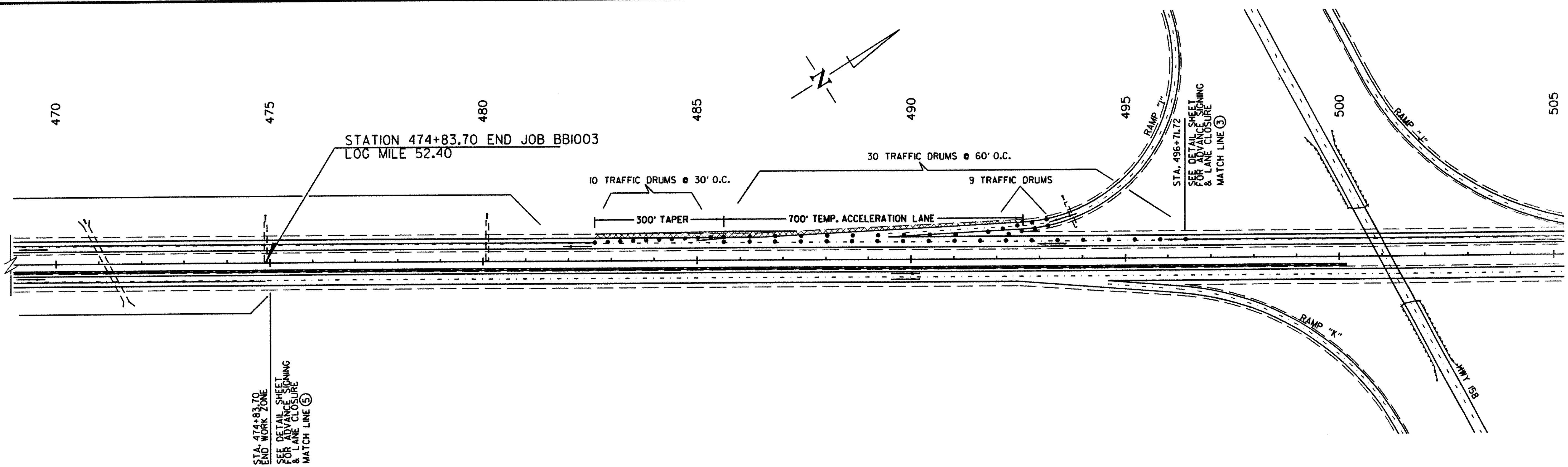
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 1)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	92	215

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





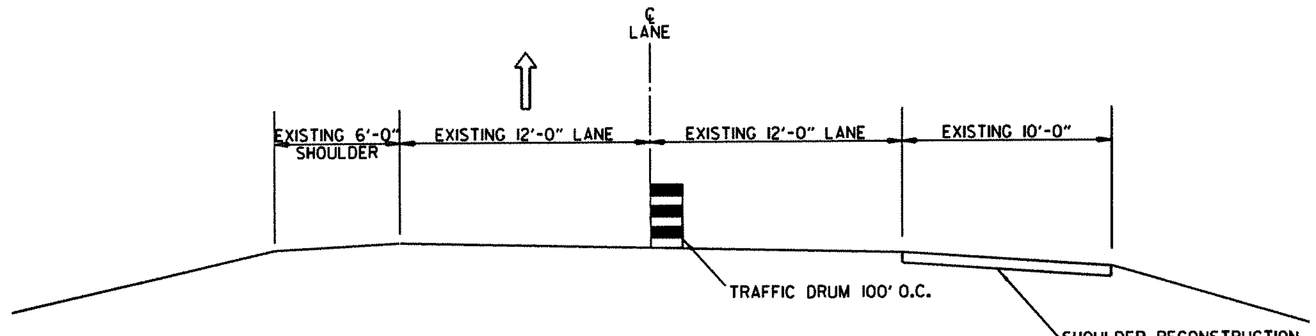
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. I)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	93	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

TRENCHING & SHOULDER PREPARATION FOR THIS STAGE:

STA. 43+21.66 TO STA. 48+21.66		500 FT.
STA. 49+79.29 TO STA. 97+46.30		4767 FT.
STA. 98+00.10 TO STA. 110+65.54		1266 FT.
STA. 111+60.42 TO STA. 244+97.29		13337 FT.
STA. 246+15.54 TO STA. 274+01.78		2787 FT.
STA. 284+08.00 TO STA. 475+01.08		19094 FT.

CONSTRUCTION TEMPORARY CULVERT FOR THIS STAGE:

STA. 32+40.00 TO STA. 32+58.00,	CONST. 12"X218' RCP - RAMP B-1	218 FT.
STA. 37+43.00 TO STA. 41+47.00,	CONST. 12"X404' RCP - RAMP D-1	404 FT.

STAGE I-A OPERATIONS:

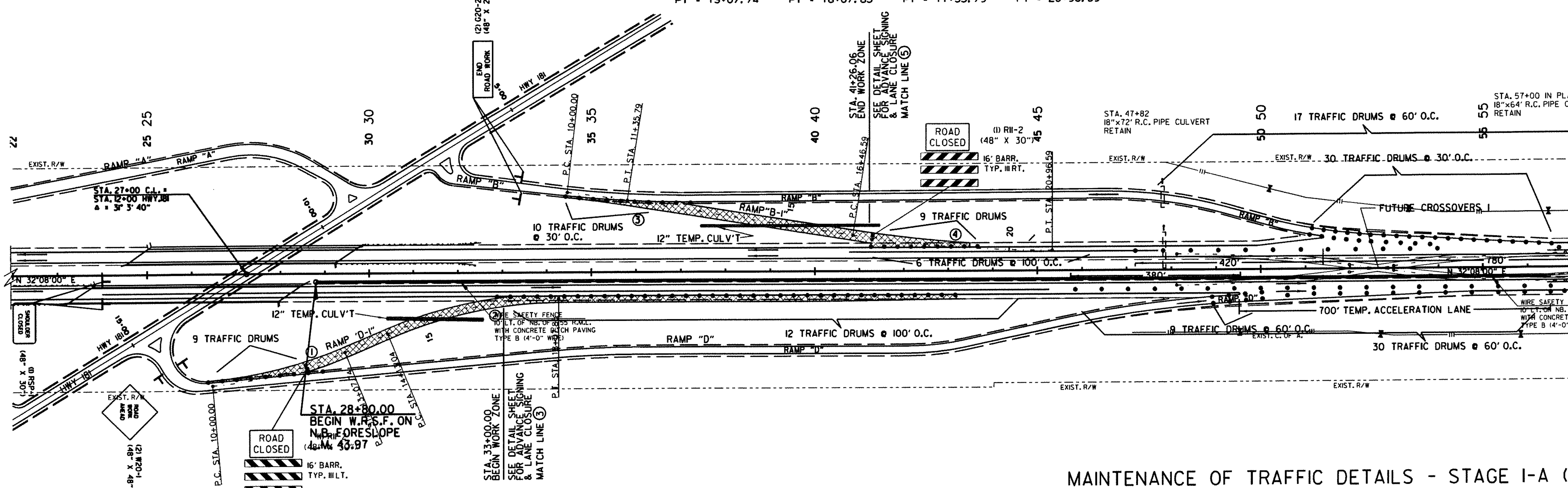
- CLOSE OUTSIDE LANES & SHOULDERS IN BOTH DIRECTIONS.
- CONSTRUCT INTERCHANGE TEMPORARY RAMPS CONNECTING TO OUTSIDE SHOULDERS OF I-55 LANES.

DENOTES: CONSTRUCTION FOR M.O.T. THIS STAGE.

DENOTES: TRENCH & SHOULDER PREPARATION FOR M.O.T. THIS STAGE.

DETOUR RAMPS CURVE DATA

	①	②	③	④
PI	11+55.09	16+13.05	10+67.91	18+72.06
Δ	17°37'56" LT.	22°37'15" RT.	2°42'57" RT.	9°00'00" LT.
D	5°43'46"	5°43'46"	2°00'00"	2°00'00"
T	155.09'	200.01'	67.91	225.46'
L	307.74'	394.81'	135.79'	450.00'
PC	10+00.00	14+13.04	10+00.00	16+46.59
PT	13+07.74	18+07.85	11+35.79	20+96.59



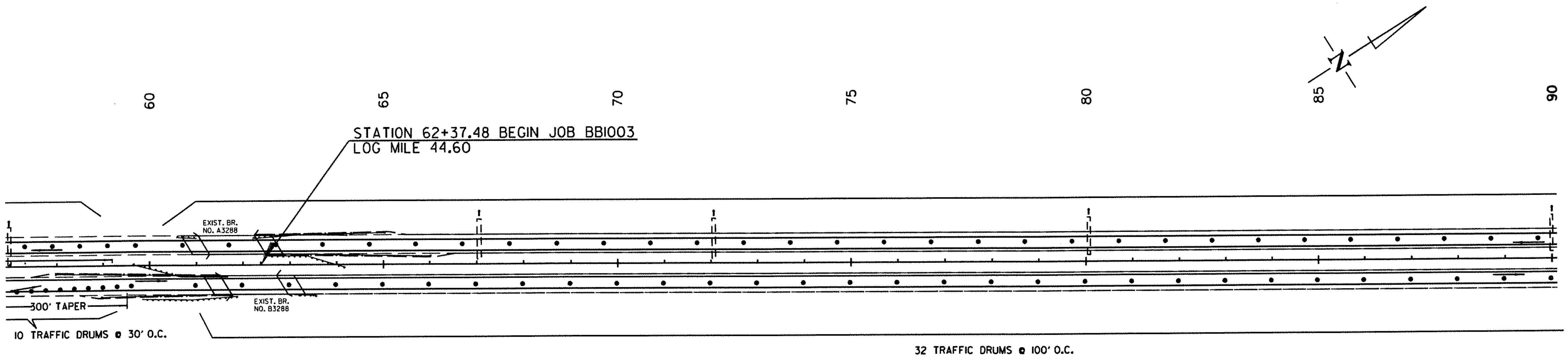
4/16/2013

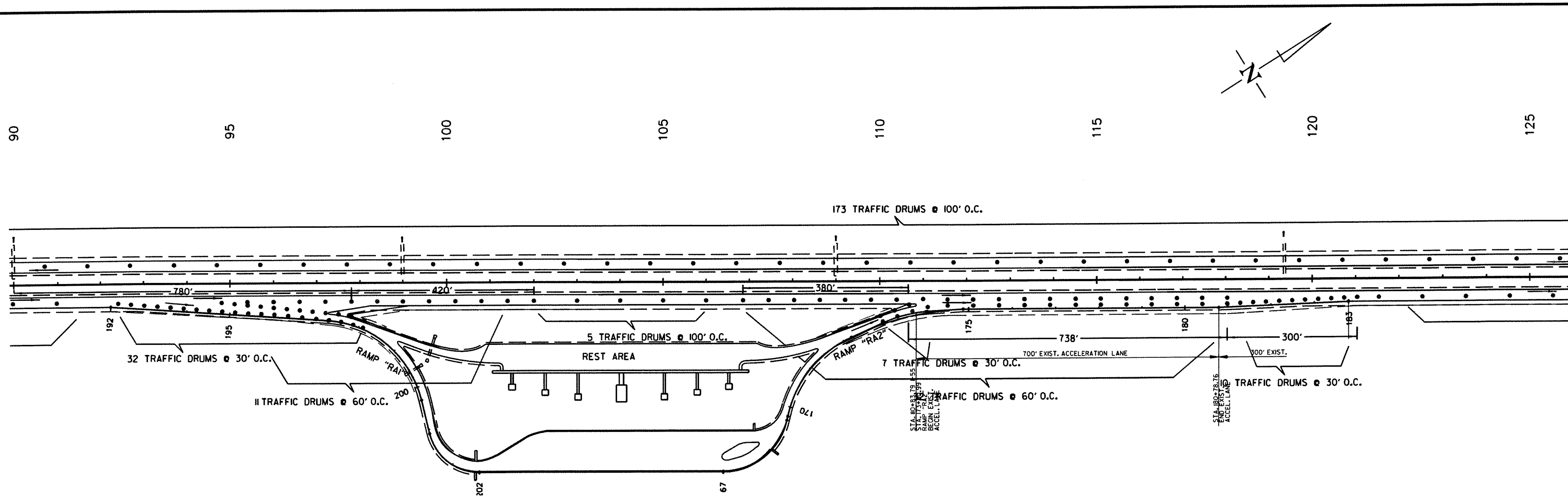
MAINTENANCE OF TRAFFIC DETAILS - STAGE I-A (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	94	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





MAINTENANCE OF TRAFFIC DETAILS - STAGE I-A (ALT. 2)

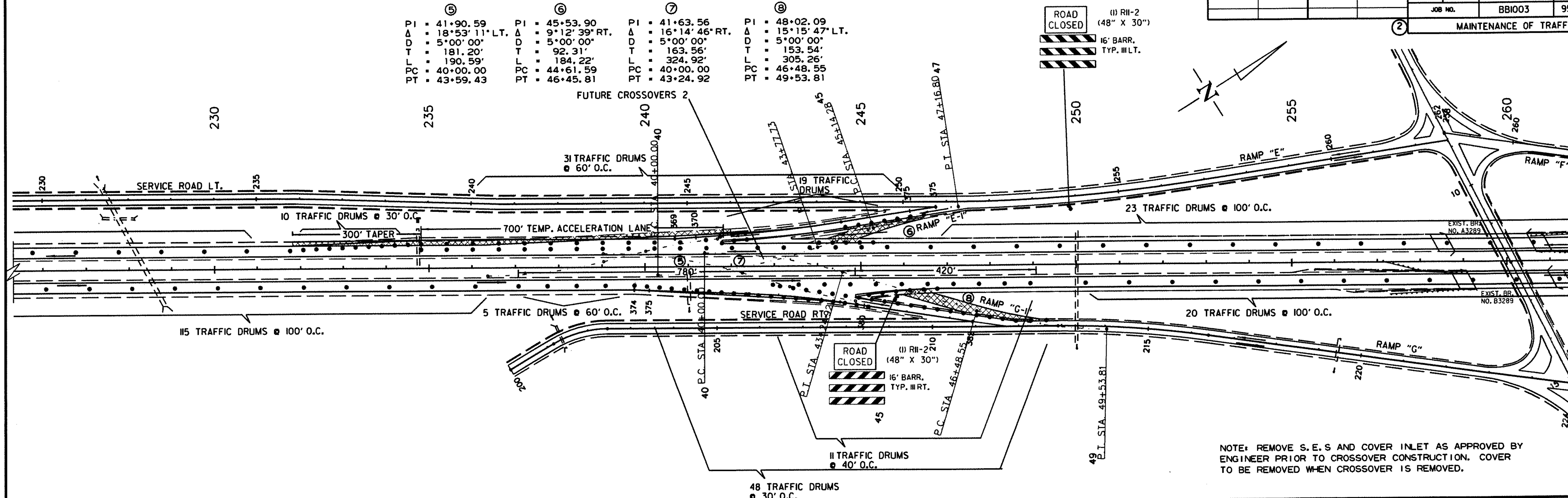
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	95	215

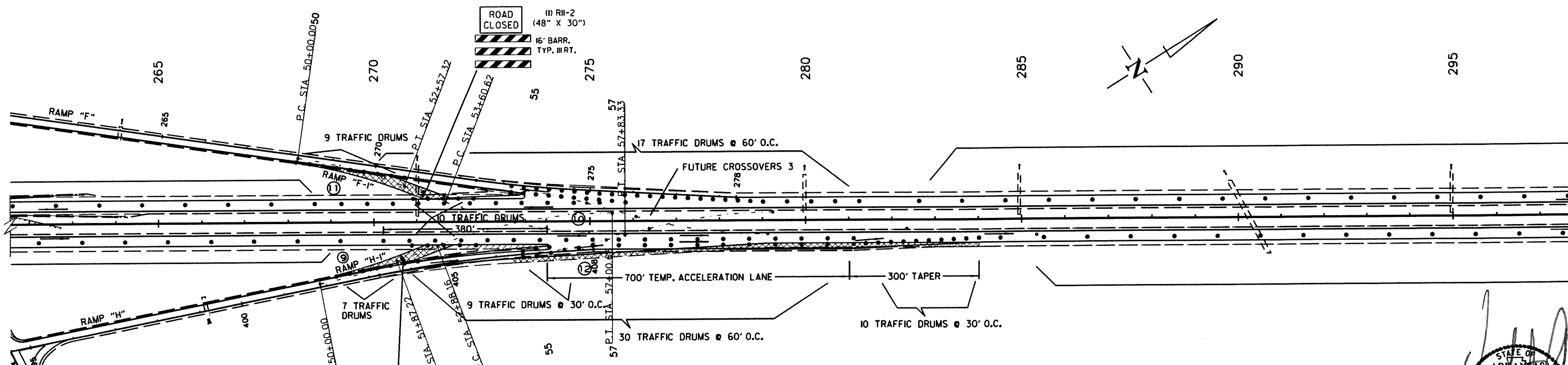
(2) MAINTENANCE OF TRAFFIC

DETOUR RAMPS CURVE DATA

	⑤	⑥	⑦	⑧
PI	41+90.59	45+53.90	41+63.56	48+02.09
Δ	18°53' 11" LT.	9°12' 39" RT.	16°14' 46" RT.	15°15' 47" LT.
D	5°00' 00"	5°00' 00"	5°00' 00"	5°00' 00"
T	181.20'	92.31'	163.56'	153.54'
L	190.59'	184.22'	324.92'	305.26'
PC	40+00.00	44+61.59	40+00.00	46+48.55
PT	43+59.43	46+45.81	43+24.92	49+53.81



NOTE: REMOVE S.E.S AND COVER INLET AS APPROVED BY ENGINEER PRIOR TO CROSSOVER CONSTRUCTION. COVER TO BE REMOVED WHEN CROSSOVER IS REMOVED.



ROAD CLOSED
(1) R11-2 (48" X 30")
16' BARR. TYP. III LT.

DETOUR RAMPS CURVE DATA

	⑨	⑩	⑪	⑫
PI	50+93.82	54+96.68	51+29.20	55+74.40
Δ	9°21' 39" LT.	20°37' 34" LT.	12°51' 57" LT.	21°08' 08" LT.
D	5°00' 00"	5°00' 00"	5°00' 00"	5°00' 00"
T	93.82'	208.52'	129.20'	213.78'
L	187.22'	412.52'	257.32'	422.71'
PC	50+00.00	52+86.16	50+00.00	53+60.62
PT	51.87.22	57+00.63	52+57.32	57+83.33

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13

4/16/2013

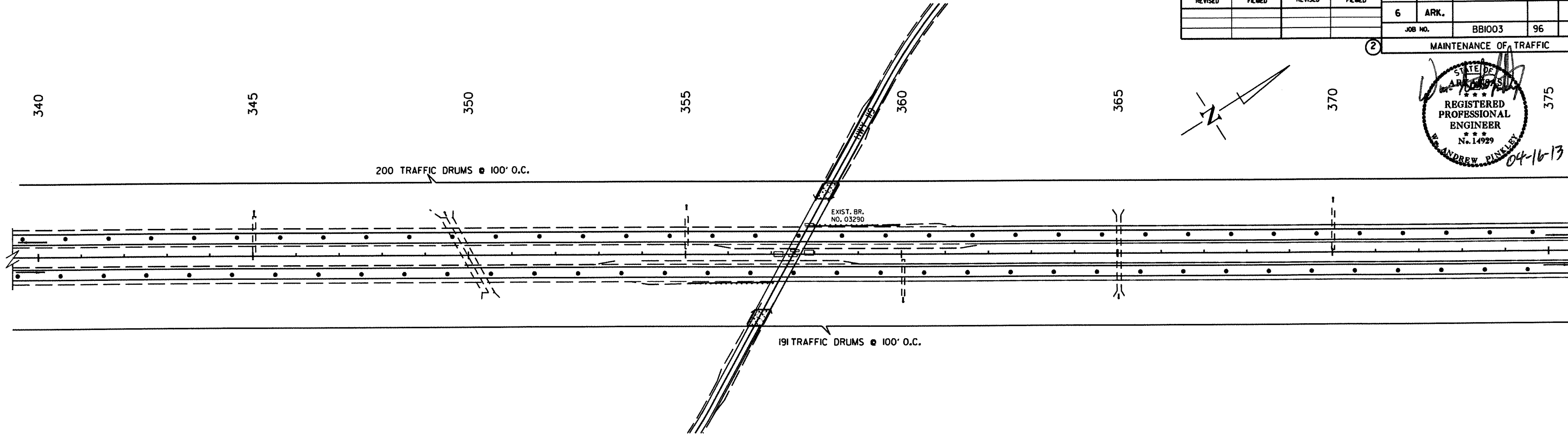
MAINTENANCE OF TRAFFIC DETAILS - STAGE I-A (ALT. 2)

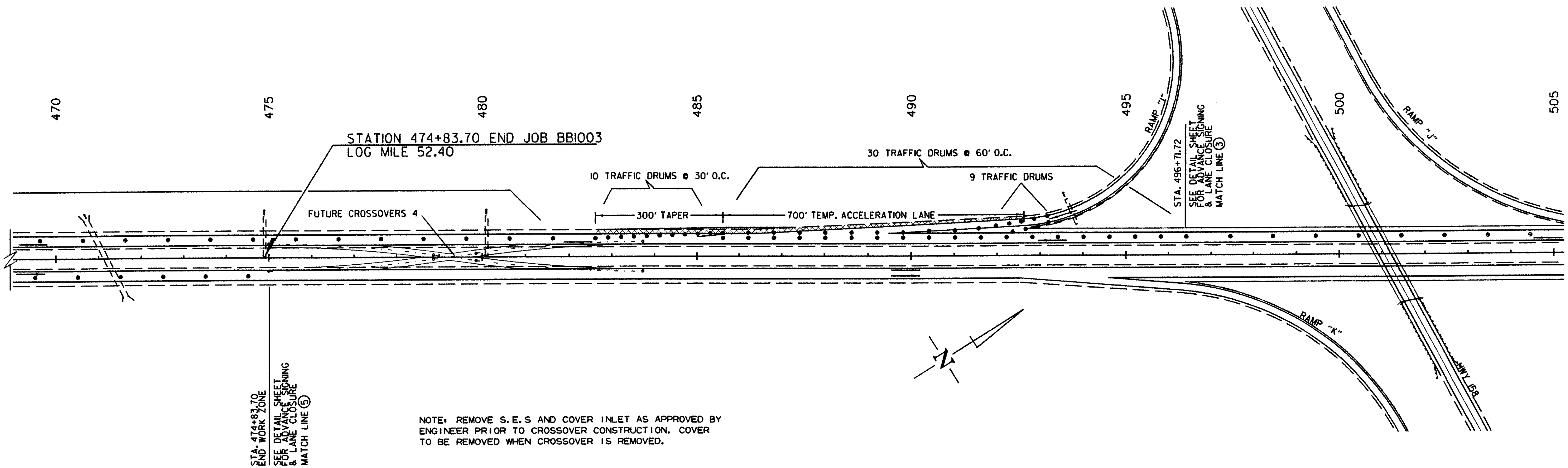
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	96	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13





NOTE: REMOVE S.E.S AND COVER INLET AS APPROVED BY ENGINEER PRIOR TO CROSSOVER CONSTRUCTION. COVER TO BE REMOVED WHEN CROSSOVER IS REMOVED.

4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE I-A (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	97	215

MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 05/20/13

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

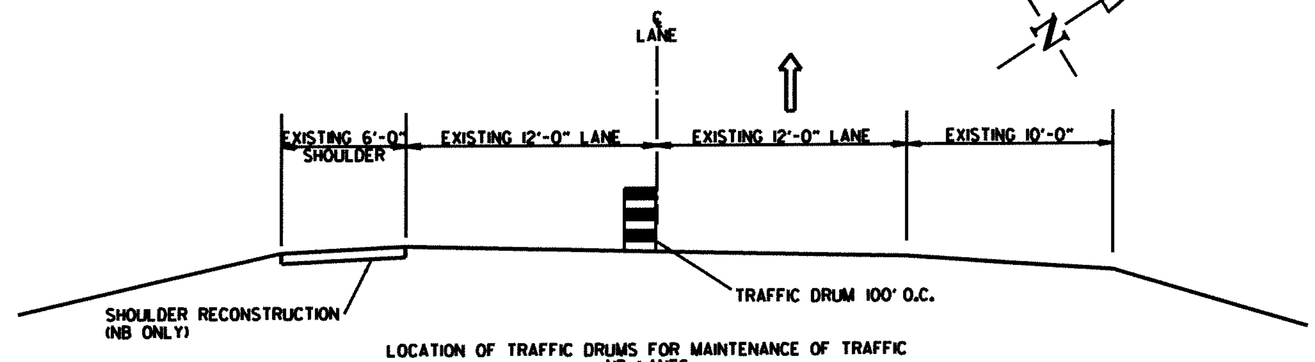
RAMP "D-1"	
STA. 11+72.77 TO STA. 17+50.32	1156 FT.
RT. R.M.L. ACCELERATION LANE & TAPER EDGE LINE	
STA. 33+69.64 TO STA. 43+21.52	952 FT.
STA. 273+25.21 TO STA. 284+01.78	1077 FT.
RT. R.M.L. ACCELERATION LANE & TAPER SOLID LANE DIVIDER	
STA. 33+21.66 TO STA. 38+21.66	500 FT.
STA. 110+65.54 TO STA. 115+65.54	500 FT.
STA. 274+01.78 TO STA. 279+01.78	500 FT.
RT. L.M.L. ACCELERATION LANE & TAPER EDGE LINE	
STA. 231+81.59 TO STA. 240+12.61	831 FT.
STA. 248+61.65 TO STA. 291+83.44	4322 FT.
RT. L.M.L. SKIP LANE DIVIDER	
STA. 236+81.59 TO STA. 241+81.59	500 FT.
STA. 487+59.65 TO STA. 492+59.65	500 FT.

TRENCHING & SHOULDER PREPARATION FOR THIS STAGE:

STA. 56+84.90 TO STA. 70+00.00 — 1315 FT.

CONSTRUCTION TEMPORARY CULVERT FOR THIS STAGE:

STA. 50+29.00 TO STA. 55+25.00	CONST. 12"X296' RCP - MEDIAN	296 FT.
STA. 236+36.00 TO STA. 239+72.00	CONST. 12"X336' RCP - MEDIAN	336 FT.
STA. 239+94.00 TO STA. 243+14.00	CONST. 12"X320' RCP - MEDIAN	320 FT.
STA. 243+21.50 TO STA. 245+05.50	CONST. 12"X184' RCP - MEDIAN	184 FT.
STA. 272+24.00 TO STA. 275+00.00	CONST. 12"X276' RCP - MEDIAN	276 FT.
STA. 275+40.50 TO STA. 279+24.50	CONST. 12"X384' RCP - MEDIAN	384 FT.
STA. 476+70.74 TO STA. 481+66.74	CONST. 12"X496' RCP - MEDIAN	496 FT.
STA. 280+00.00	CONST. 18"X12' RCP - MEDIAN	18 FT.
STA. 285+00.00	CONST. 18"X12' RCP - MEDIAN	12 FT.



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

STAGE 1-B OPERATIONS:

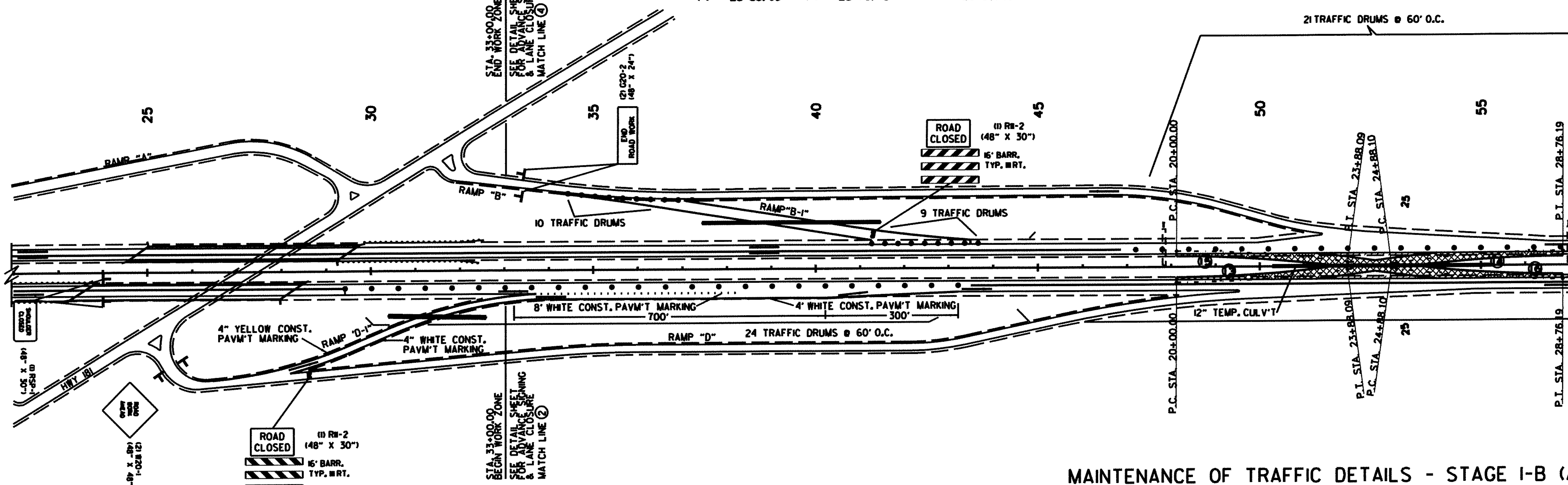
- -CLOSE INSIDE LANES & SHOULDERS IN BOTH DIRECTIONS.
- -PATCH INSIDE NB LANE AND TRENCH & SHOULDER PREPARATION INSIDE NB SHOULDER.
- -CONSTRUCT CROSSOVER RAMPS.

DENOTES: CONSTRUCTION FOR M.O.T. THIS STAGE.

DENOTES: TRENCH & SHOULDER PREPARATION FOR M.O.T. THIS STAGE.

DETOUR RAMPS CURVE DATA

	13	14	15	16
PI	21+94.34	26+82.44	21+94.34	26+82.44
Δ	7°45' 42" LT.	7°45' 42" RT.	7°45' 42" RT.	7°45' 42" LT.
D	2°00' 00"	2°00' 00"	2°00' 00"	2°00' 00"
T	194.34'	194.34'	194.34'	194.34'
L	388.09'	388.09'	388.09'	388.09'
PC	20+00.00	24+88.10	20+00.00	24+88.10
PT	23+88.09	28+76.19	23+88.09	28+76.19



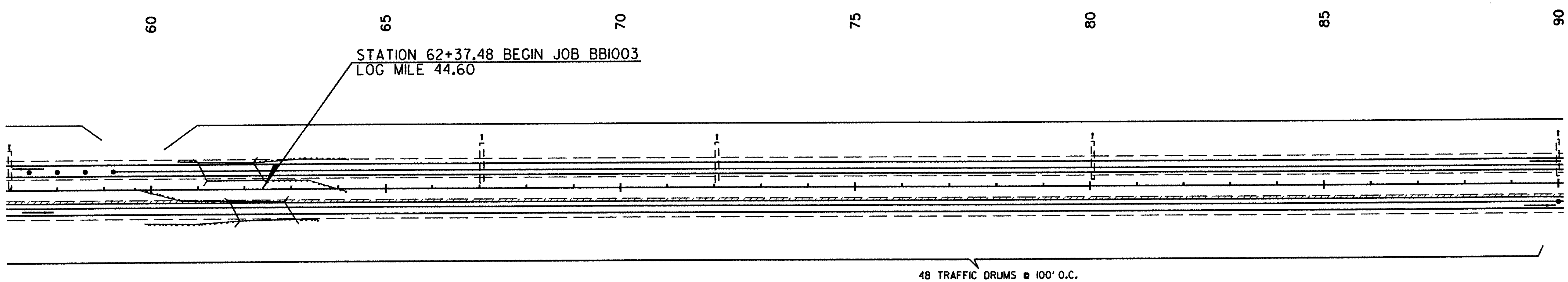
MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-B (ALT. 2)

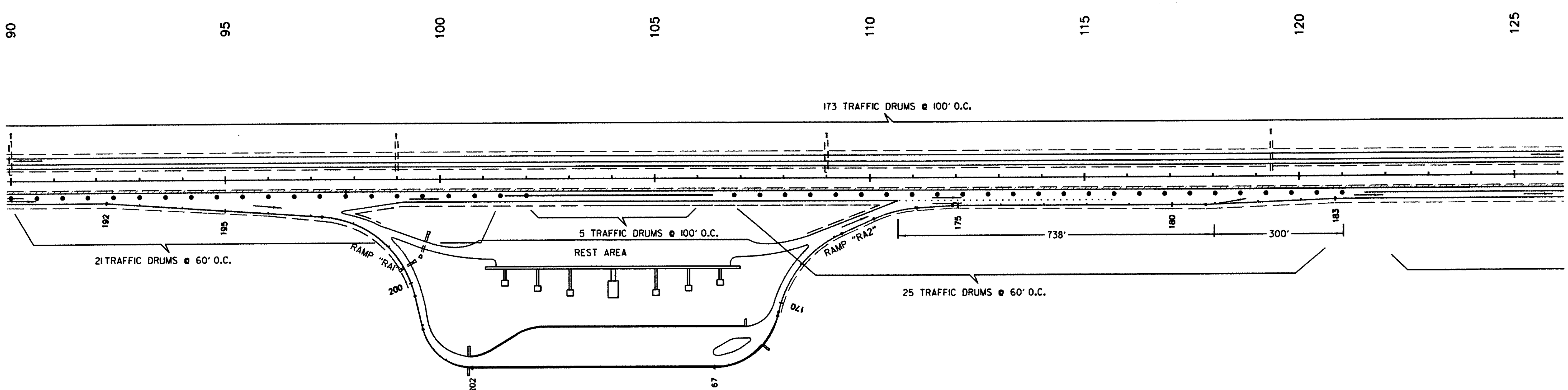
$DATE$

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.		BB1003	98	215

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE I-B (ALT. 2)

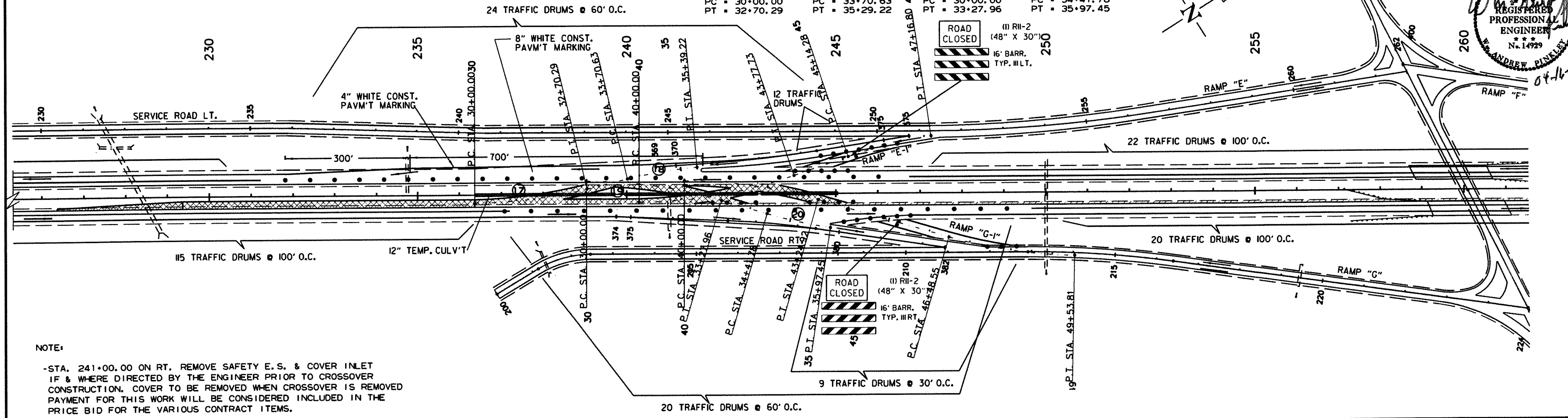
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	99	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13

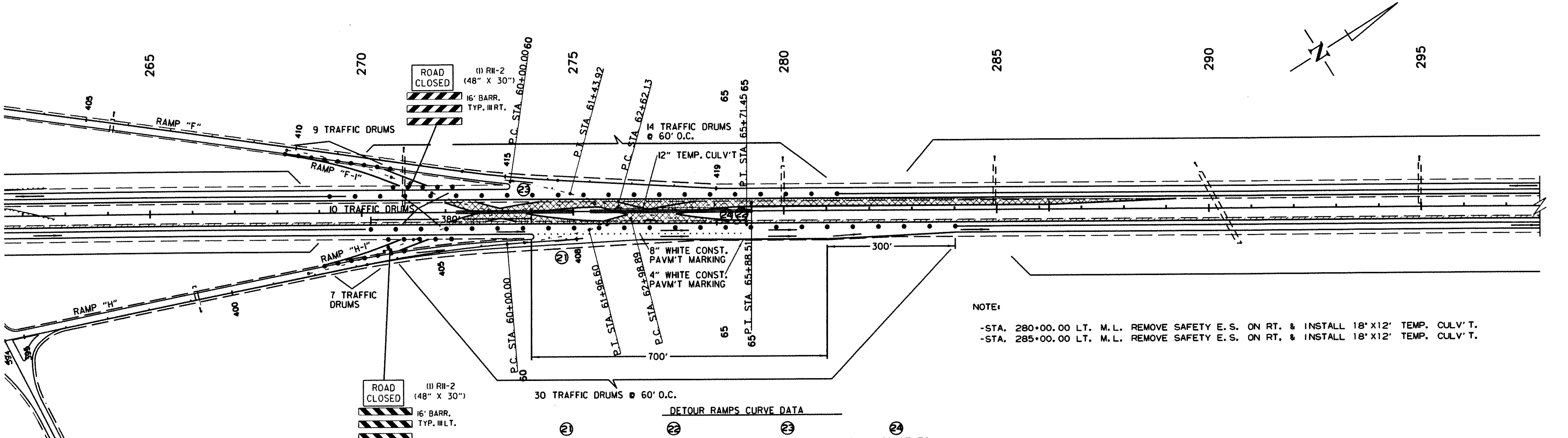
DETOUR RAMPS CURVE DATA

	(17)	(18)	(19)	(20)
PI	31+35.78	34+55.08	31+65.11	35+19.73
Δ	13°30'53" LT.	8°25'46" RT.	16°23'53" LT.	7°47'46" RT.
D	5°00'00"	5°00'00"	5°00'00"	5°00'00"
T	135.78'	84.45'	165.11'	77.95'
L	270.29'	168.59'	327.96'	155.67'
PC	30+00.00	33+70.63	30+00.00	34+41.78
PT	32+70.29	35+29.22	33+27.96	35+97.45



NOTE:

-STA. 241+00.00 ON RT. REMOVE SAFETY E.S. & COVER INLET IF & WHERE DIRECTED BY THE ENGINEER PRIOR TO CROSSOVER CONSTRUCTION. COVER TO BE REMOVED WHEN CROSSOVER IS REMOVED PAYMENT FOR THIS WORK WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



NOTE:

-STA. 280+00.00 LT. M.L. REMOVE SAFETY E.S. ON RT. & INSTALL 18"X12' TEMP. CULV'T.
-STA. 285+00.00 LT. M.L. REMOVE SAFETY E.S. ON RT. & INSTALL 18"X12' TEMP. CULV'T.

DETOUR RAMPS CURVE DATA

	(21)	(22)	(23)	(24)
PI	60+98.54	64+44.48	60+72.06	64+17.74
Δ	9°48'48" LT.	14°28'50" RT.	7°11'46" RT.	15°27'57" RT.
D	5°00'00"	5°00'00"	5°00'00"	5°00'00"
T	98.54'	145.58'	72.06'	155.60'
L	196.60'	289.61'	143.92'	309.32'
PC	60+00.00	62+89.89	60+00.00	62+62.13
PT	61+96.60	65+88.51	61+43.92	65+71.45

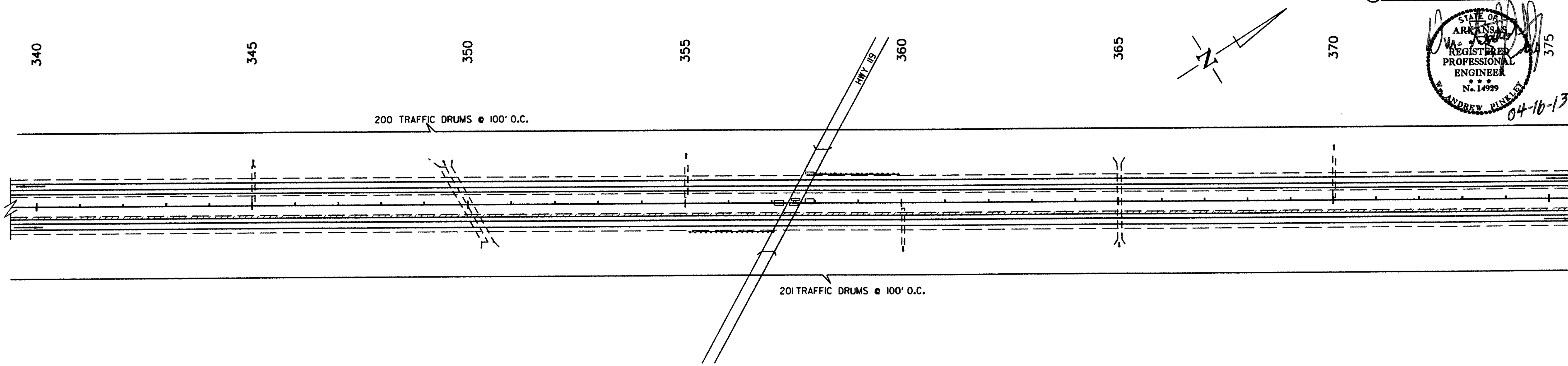
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE I-B (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	100	215

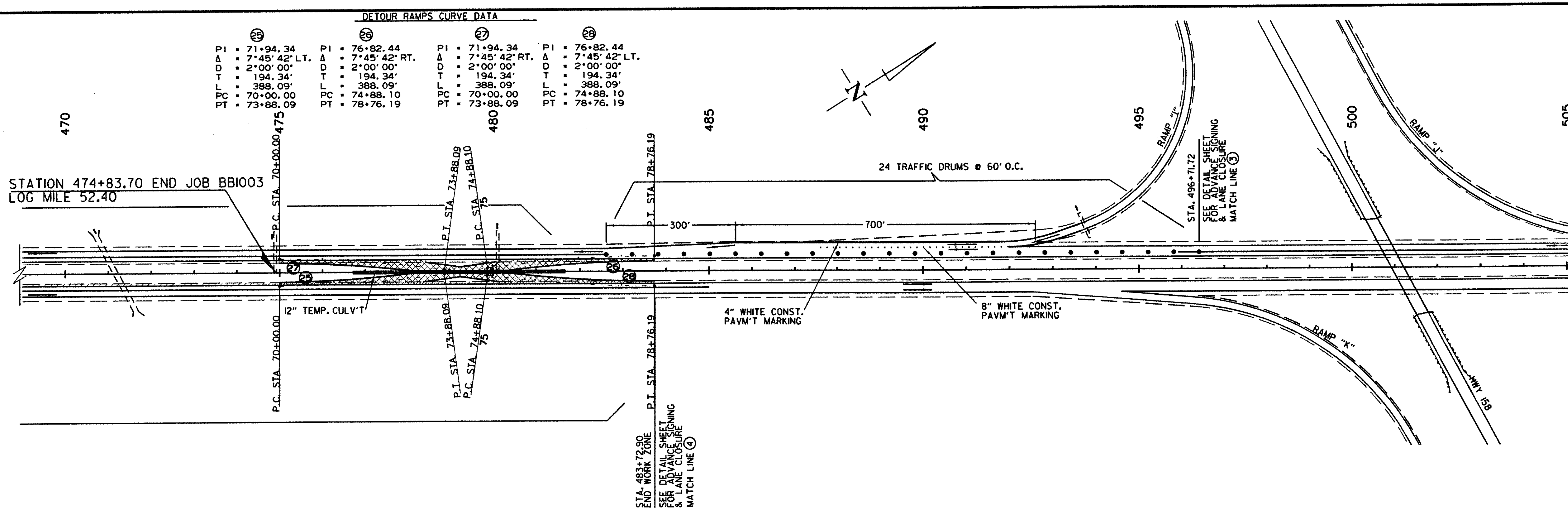
2 MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINELEY
04-16-13



DETOUR RAMPS CURVE DATA

	25	26	27	28
PI	71+94.34	76+82.44	71+94.34	76+82.44
Δ	7°45'42" LT.	7°45'42" RT.	7°45'42" RT.	7°45'42" LT.
D	2°00'00"	2°00'00"	2°00'00"	2°00'00"
T	194.34'	194.34'	194.34'	194.34'
L	388.09'	388.09'	388.09'	388.09'
PC	70+00.00	74+88.10	70+00.00	74+88.10
PT	73+88.09	78+76.19	73+88.09	78+76.19



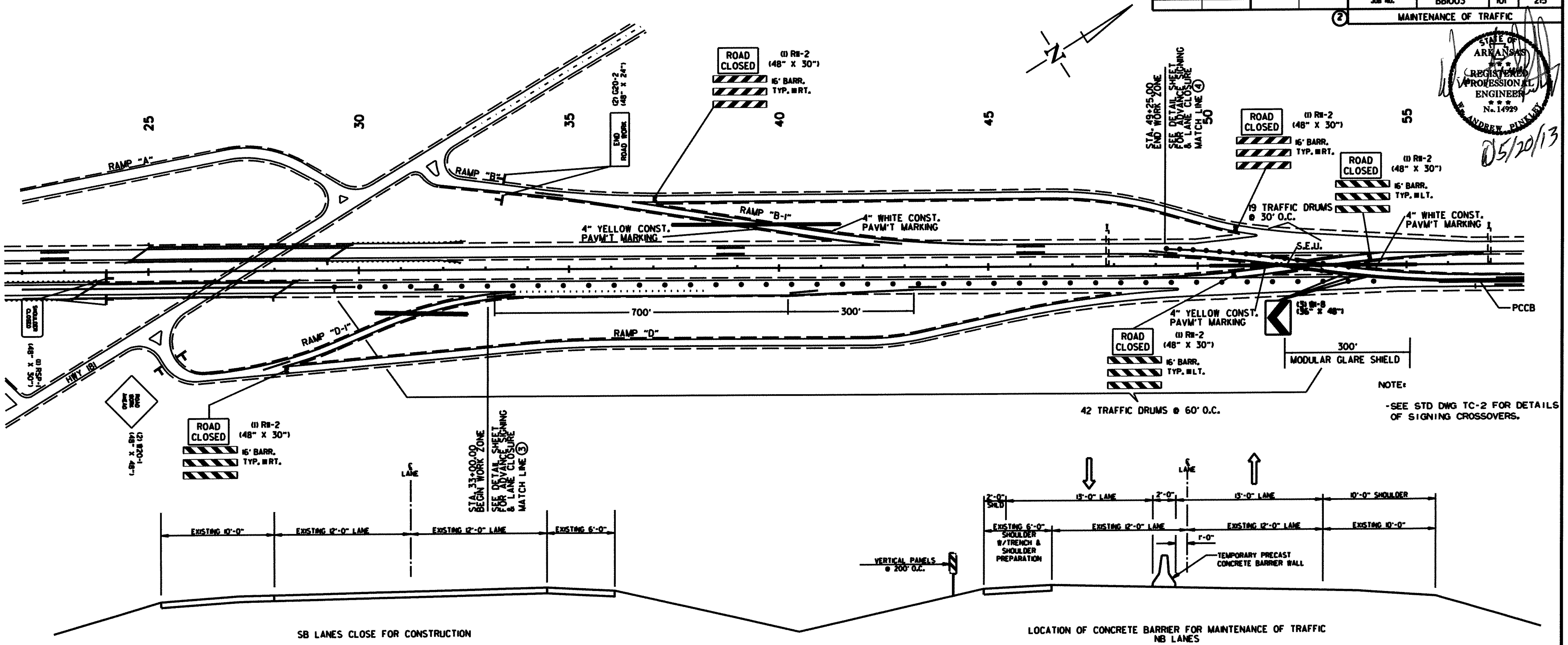
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE 1-B (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	101	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 05/20/13



CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "B-1" STA. 12+03.87 TO STA. 18+03.69	1200 FT.
CROSSOVER 1 SB STA. 20+00.00 TO STA. 28+76.19	1754 FT.
CROSSOVER 2 SB STA. 70+00.00 STA. 78+76.19	1754 FT.
RAMP E STA. 30+00.00 TO STA. 35+39.22	1080 FT.
RAMP F 60+00.00 TO STA.65+71.45	1144 FT.
LT. R.M.L. ACCELERATION LANE & TAPER EDGE LINE STA. 227+48.83 TO STA. 236+36.23	888 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 232+48.83 TO STA. 237+48.83	500 FT.
CL. R.M.L. DOUBLE SOLID LANE DIVIDER STA. 53+84.90 TO STA. 478+00.00	84832 FT.
LT. R.M.L. EDGE LINE STA. 53+84.90 TO STA. 478+00.00	42416 FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS FOR THIS STAGE:

R.M.L. CENTERLINE STA. 53+84.90 TO STA. 478+00.00	10604 FT.
LT. R.M.L. EXISTING EDGE LINE STA. 53+84.90 TO STA. 478+00.00	42416 FT.

FURNISHING & INSTALLING PRECAST CONCRETE BARRIER FOR THIS STAGE:

NB MAIN LANE STA. 51+00.00 TO STA. 479+15.00 (INCLUDES SPECIAL END UNIT.)	42815 FT.

VERTICAL PANELS @ 200' FOR THIS STAGE:

NB MAIN LANE

STA. 56+84.90 TO STA. 236+36.23	91
STA. 245+27.47 TO STA. 272+05.70	15
STA. 279+12.28 TO STA. 475+00.00	99

STAGE II OPERATIONS:

- FURNISH & INSTALL TEMPORARY PRECAST CONCRETE BARRIER WALL & PLACE CONST. PAVM'T MARKINGS ON NB LANES.
- REROUTE SB TRAFFIC THROUGH CROSSOVER TO NB LANES.
- CONST. SB LANES, ACCELERATION LANE, TEMP. RAMPS, APPROACH SLAB & GUTTERS, WIDENING FOR GUARDRAIL, GUARDRAIL ON OUTSIDE WHERE APPLICABLE.
- PERFORM HYDRODEMOLITION OPERATIONS.

DENOTES: CONSTRUCT THIS STAGE.

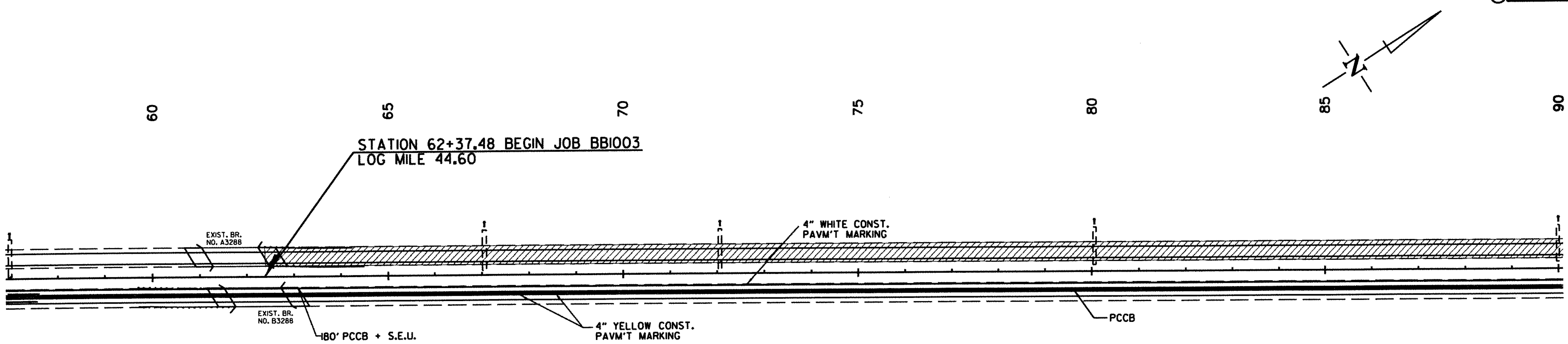
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 2)

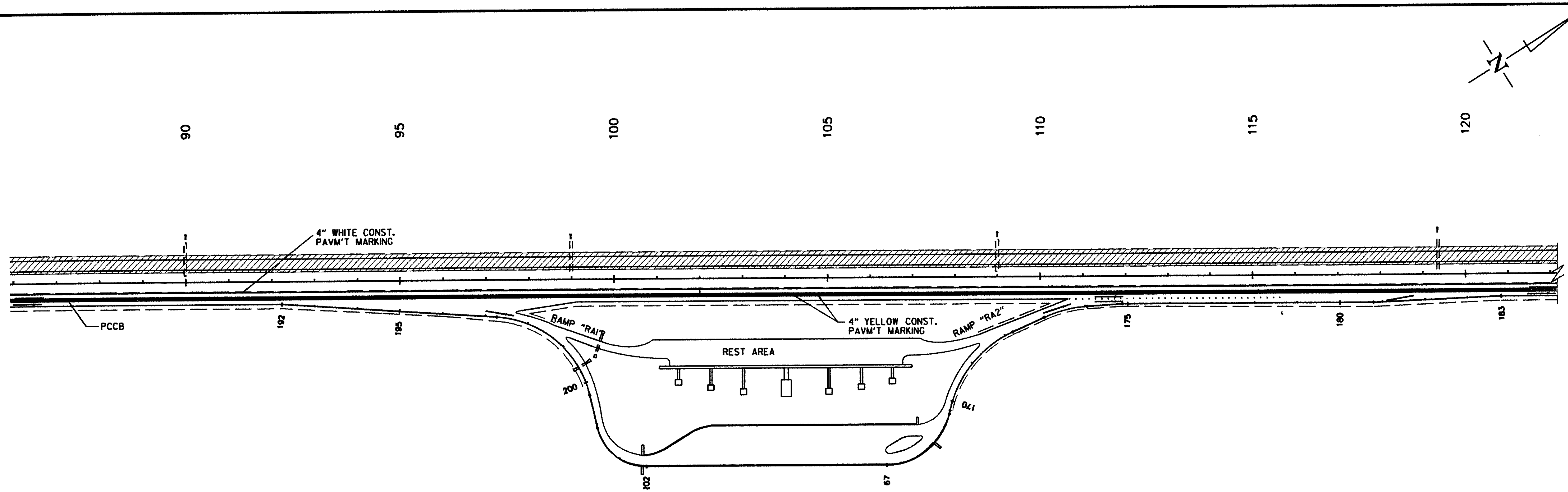
$DATE$

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.		BB1003	102	215
				MAINTENANCE OF TRAFFIC				

(2)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/23/13



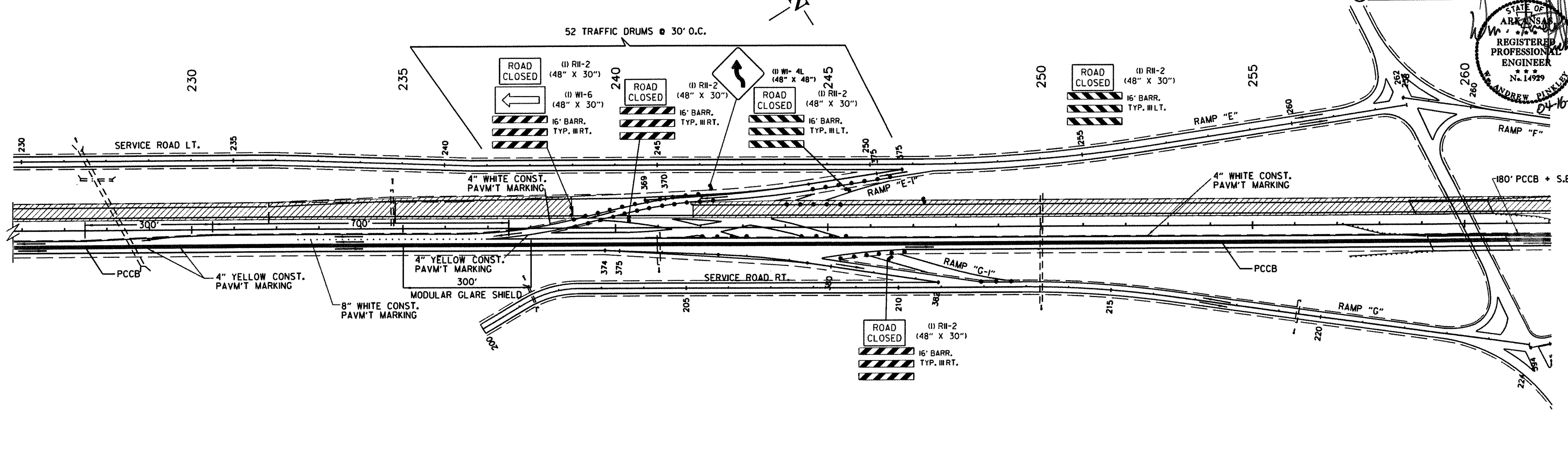


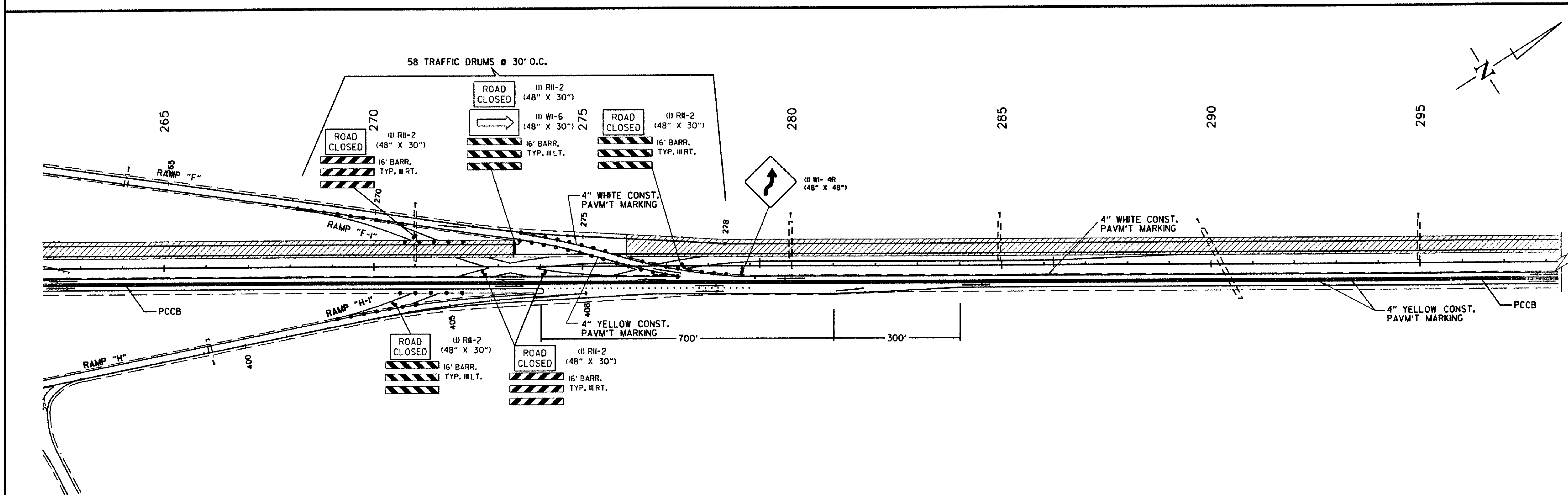
4/23/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	103	215
				②	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY
04-16-13



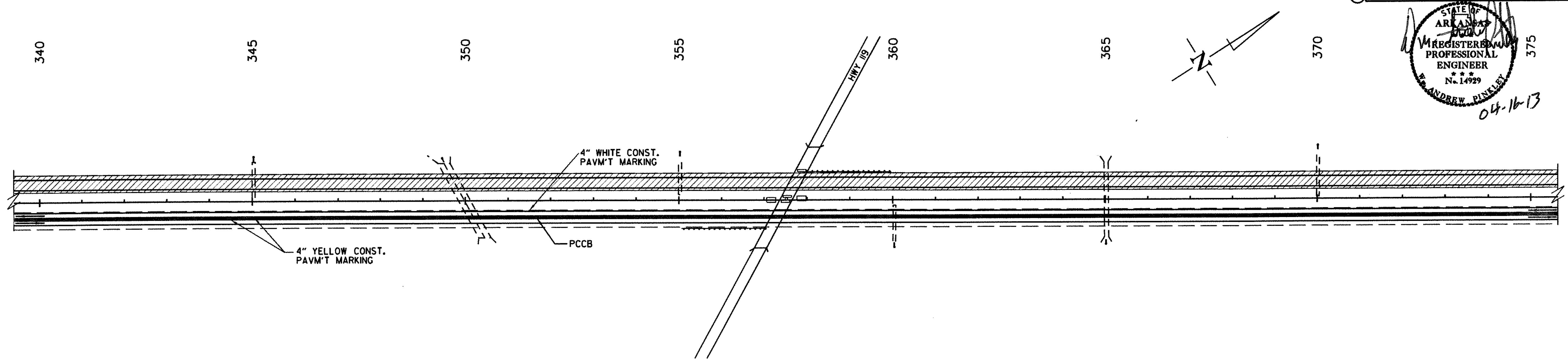


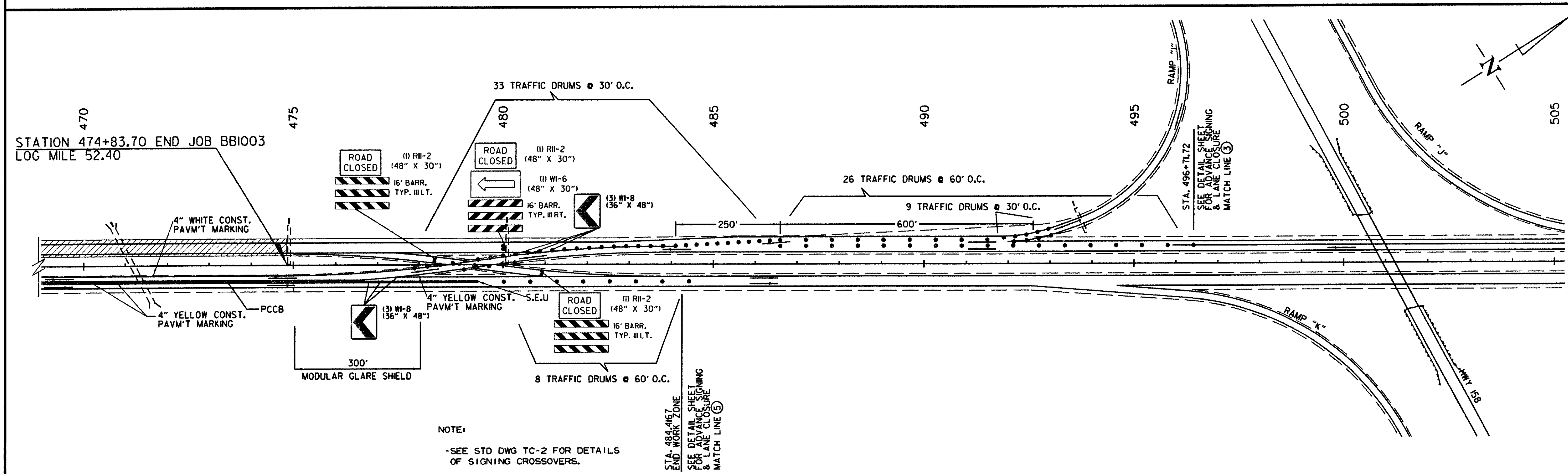
4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	104	215

(2) MAINTENANCE OF TRAFFIC





NOTE:

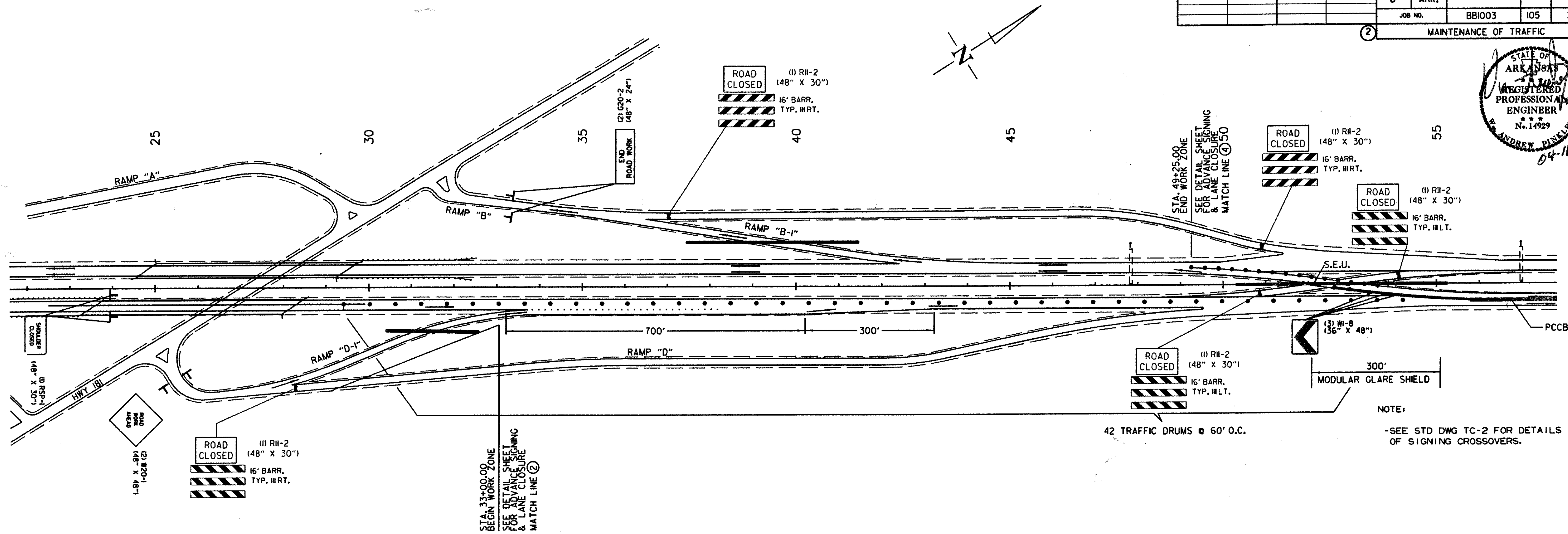
-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE II-A (ALT. 2)

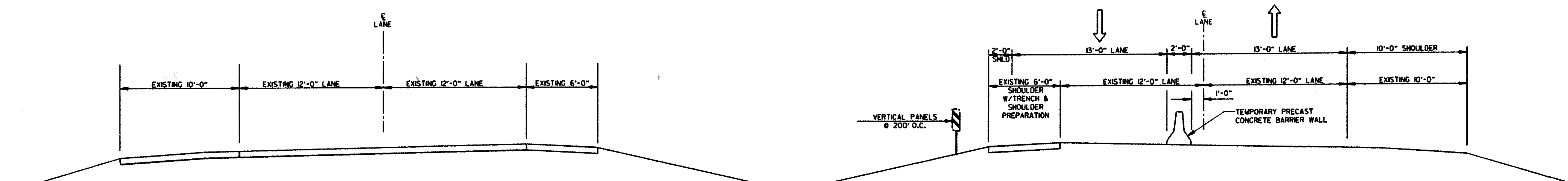
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	105	215
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13



NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.



SB LANES CLOSE FOR CONSTRUCTION

LOCATION OF CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC NB LANES

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "E-1"
STA. 40+00.00 TO STA. 47+16.80 — 1434 FT.

RAMP "F-1"
STA. 50+00.00 T STA. 57+83.33 — 1568 FT.

LT. R.M.L. ACCELERATION LANE TAPER
STA. 231+42.01 TO STA. 234+42.01 — 300 FT.

LT. R.M.L. SKIP LANE DIVIDER
STA. 236+42.01 TO STA. 241+42.01 — 500 FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

LT. R.M.L. CENTERLINE
STA. 227+48.83 TO STA. 234+42.01 — 694 FT.

LT. R.M.L. SKIP LANE DIVIDER
STA. 232+48.83 TO STA. 237+48.83 — 500 FT.

STAGE II-B OPERATIONS:

-RETAIN TEMPORARY PRECAST CONCRETE BARRIER WALL CL ON NB LANES.
-RETAIN SB TRAFFIC THROUGH CROSSOVER TO NB LANES.
-SHIFT TRAFFIC FROM RAMP "E" & "F" TO RAMP "E-1" & "F-1" RESPECTIVELY.
-REBUILT SB LANE GAPS @ RAMP "E" & "F" TERMINALS.
-CONST. PAVM'T TRANSITION @ RAMP "E" & "F" TERMINALS.
-CLOSE HWY 119 IN BOTH DIRECTIONS.
-CONST. PORTION OF HWY 119 BRIDGE NO. 3290 AT SB I-55.

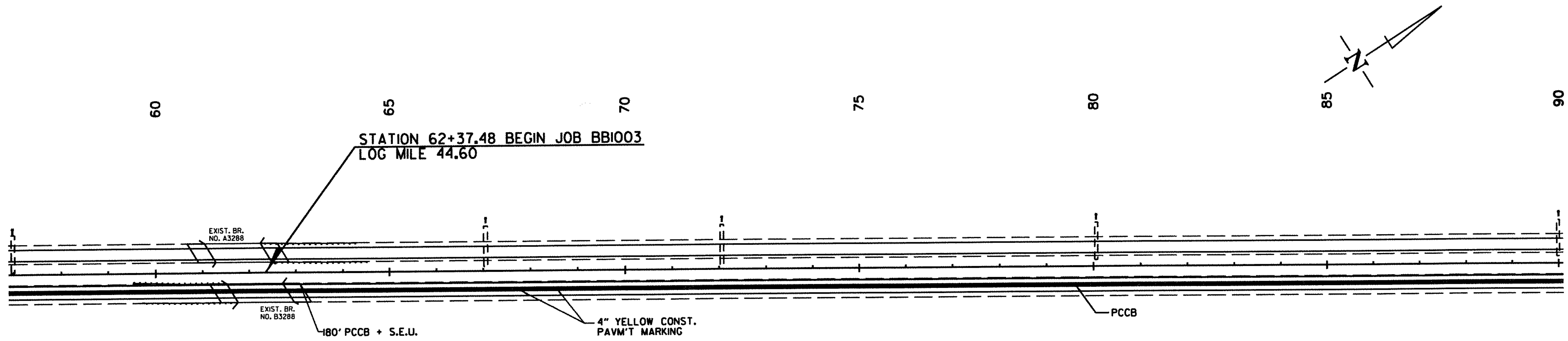
DENOTES: CONSTRUCT THIS STAGE.

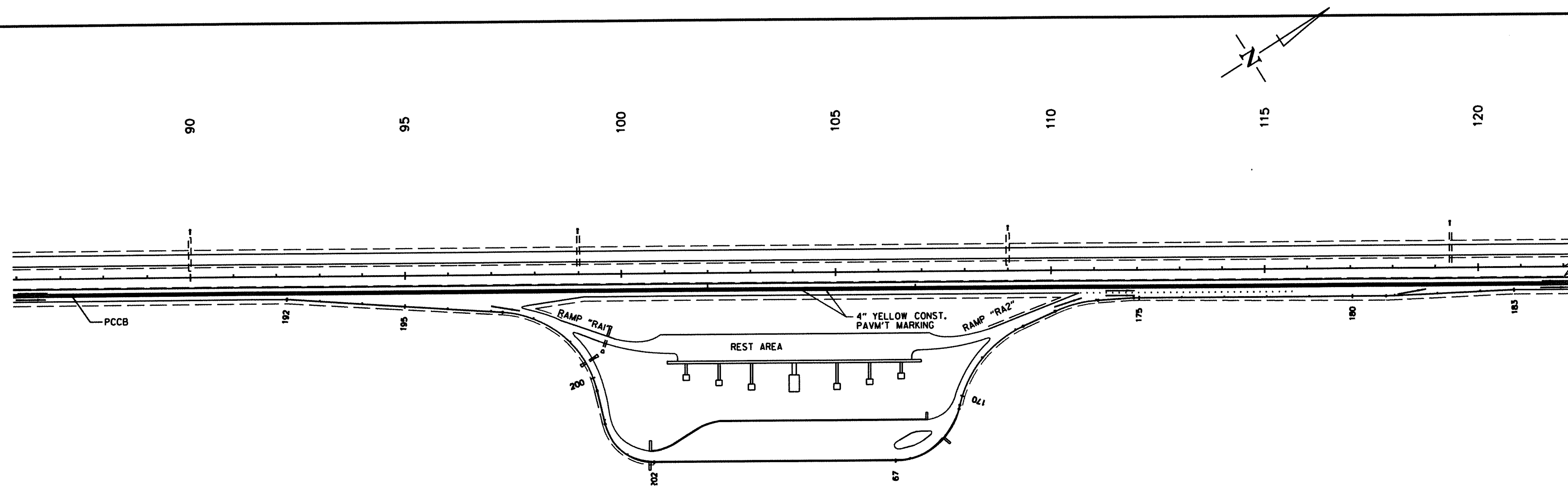
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. 2)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	106	215
				2	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/13/13



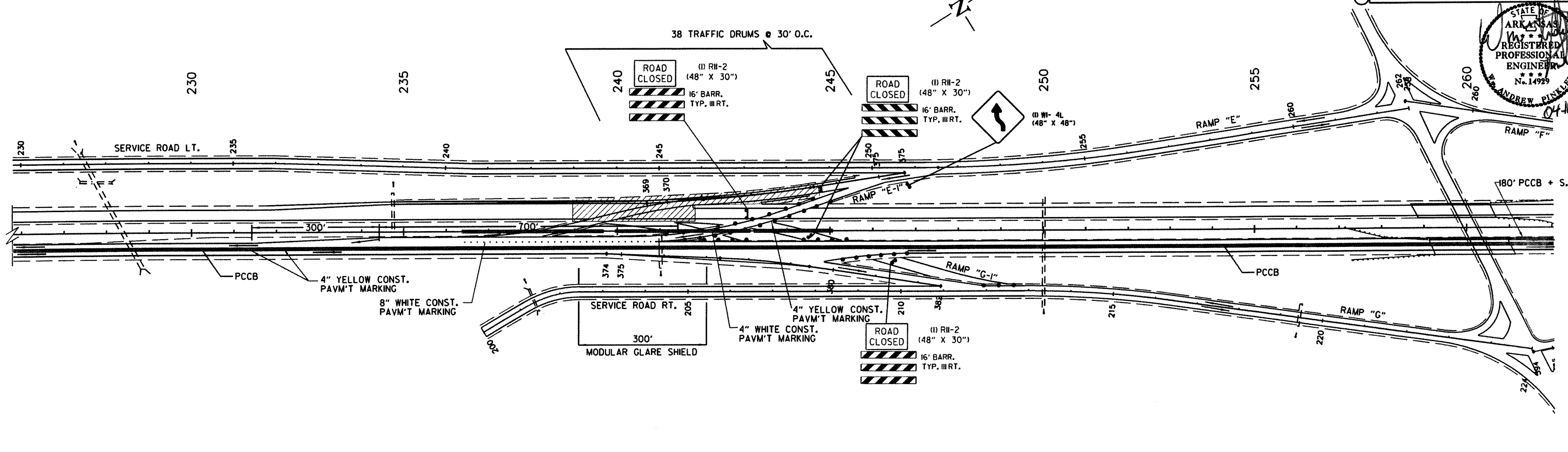


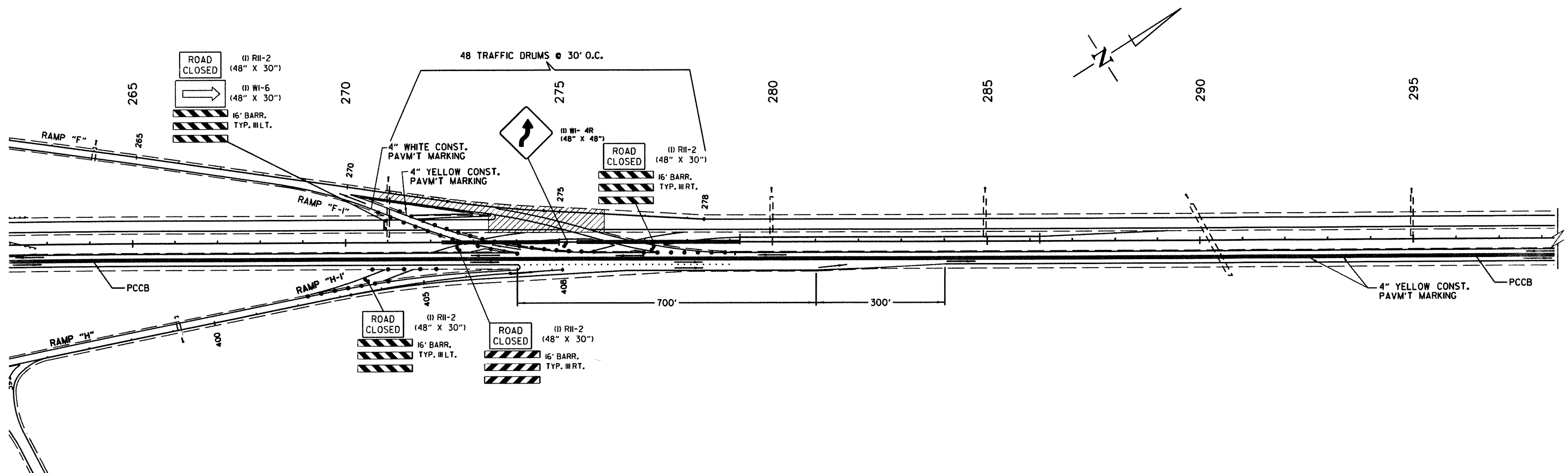
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. 2)

4/23/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	107	215
				(2) MAINTENANCE OF TRAFFIC				

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13





4/16/2013

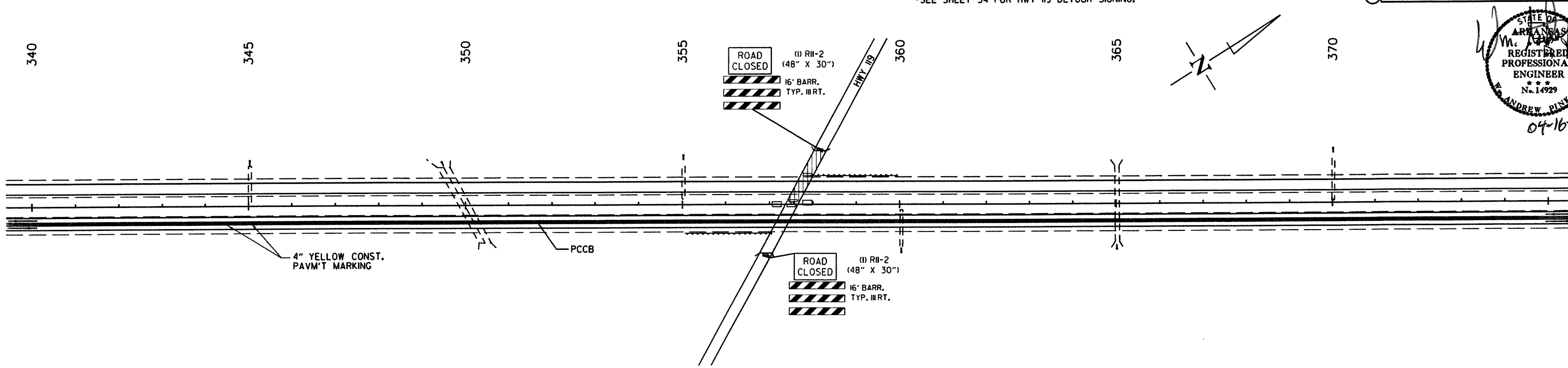
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. 2)

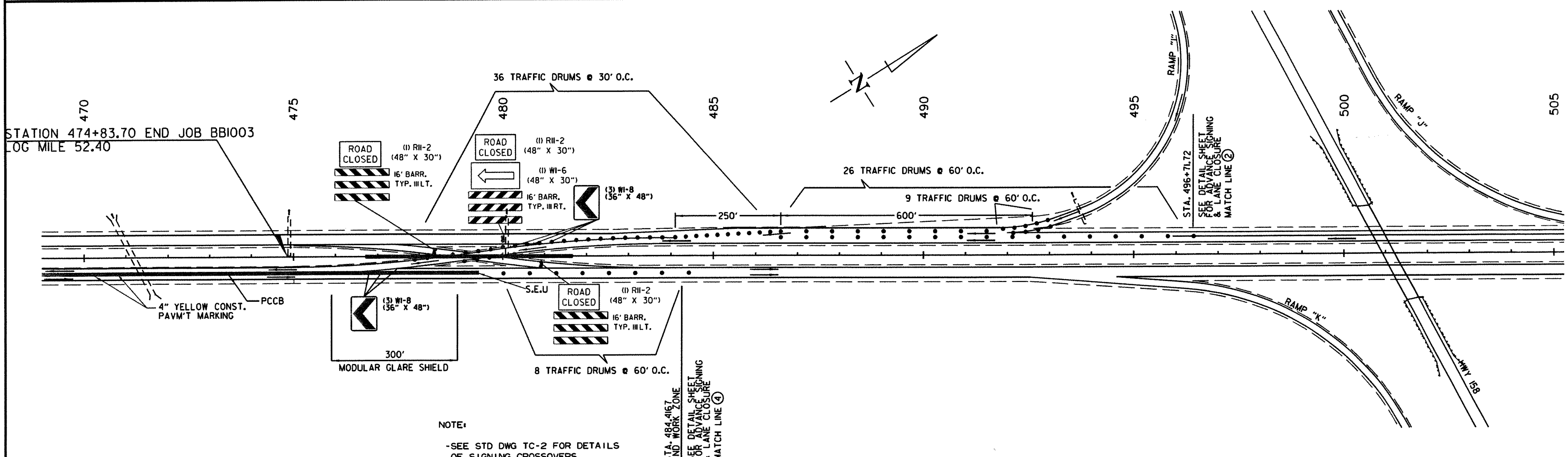
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	108	215
				②	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13

NOTE:

-SEE SHEET 34 FOR HWY 119 DETOUR SIGNING.





NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

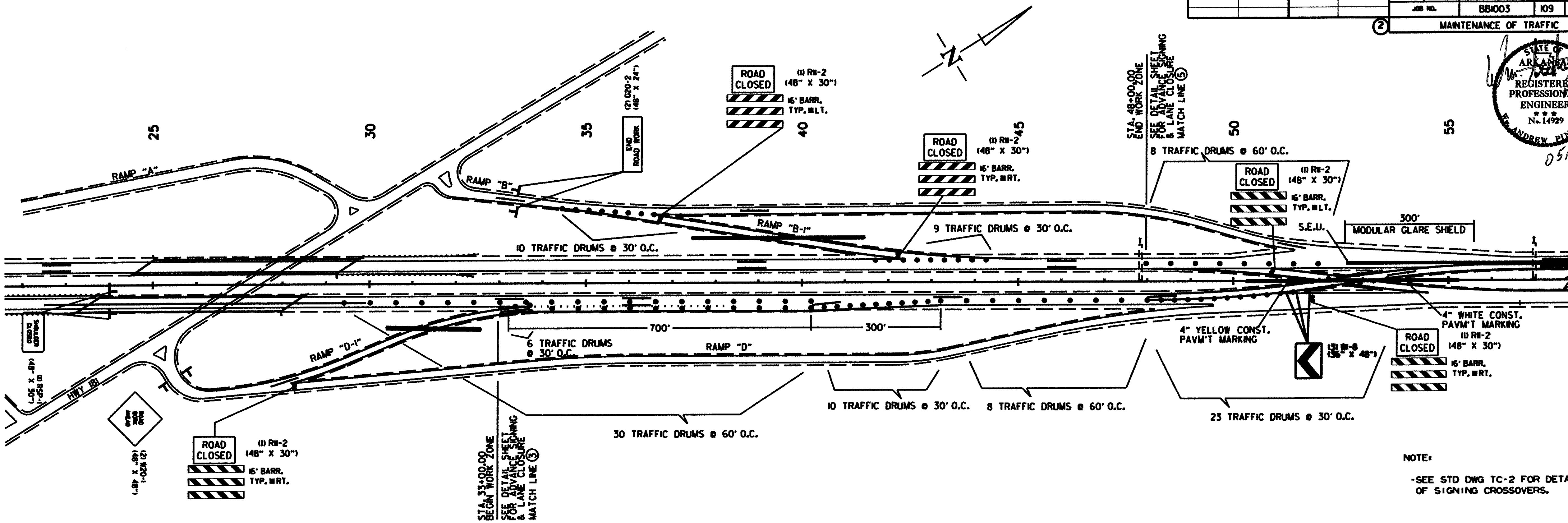
MAINTENANCE OF TRAFFIC DETAILS - STAGE II-B (ALT. 2)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
					JOB NO.	BB1003	109	215

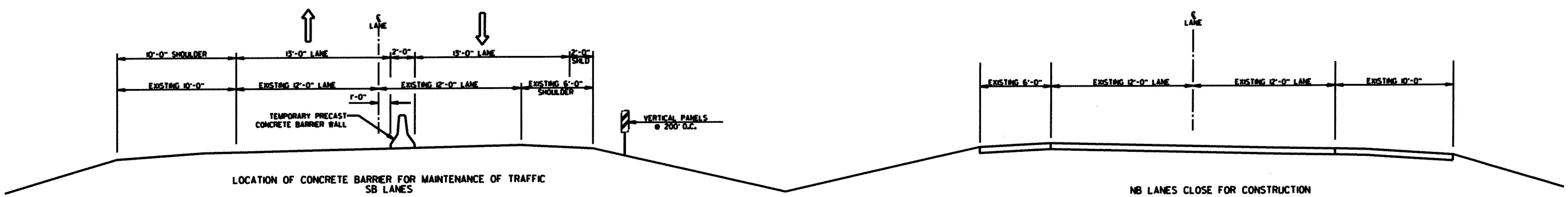
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 05/20/13



NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.



LOCATION OF CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC SB LANES

NB LANES CLOSE FOR CONSTRUCTION

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "B-1"
STA. 12+03.87 TO STA. 18+03.69 — 1200 FT.

CROSSOVER 1 NB
STA. 20+00.00 TO STA. 28+76.19 — 1754 FT.
CROSSOVER 2 NB
STA. 70+00.00 STA. 78+76.19 — 1754 FT.

RAMP G
STA. 30+00.00 TO STA. 35+97.45 — 1196 FT.
RAMP F
60+00.00 TO STA.65+71.45 — 1144 FT.

RAMP H
STA. 60+00.00 STA. 65+88.43 — 1176 FT.

LT. L.M.L. ACCELERATION LANE & TAPER EDGE LINE
STA. 279+23.60 TO STA. 288+11.00 — 888 FT.

LT. R.M.L. SKIP LANE DIVIDER
STA. 278+11.00 TO STA. 283+11.00 — 500 FT.

CL. L.M.L. DOUBLE SOLID LANE DIVIDER (REMOVABLE)
STA. 53+84.90 TO STA. 478+00.00 — 84832 FT.

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

LT. L.M.L. EDGE LINE
STA. 53+84.90 TO STA. 478+00.00 — 42416 FT.

RT. R.M.L. EDGE LINE (REMOVABLE)
STA. 53+84.90 TO STA. 478+00.00 — 42416 FT.

RELOCATE PRECAST CONCRETE BARRIER FOR THIS STAGE:

SB MAIN LANE
STA. 52+62.00 TO STA. 477+76.00 — 42514 FT.

VERTICAL PANELS @ 200' FOR THIS STAGE:

NB MAIN LANE
STA. 56+84.90 TO STA. 238+95.72 — 93
STA. 244+00.00 TO STA. 271+82.94 — 15
STA. 279+23.60 TO STA. 475+00.00 — 99

STAGE III-A OPERATIONS:

- RELOCATE TEMPORARY PRECAST CONCRETE BARRIER WALL ON SB LANES & PLACE CONST. PAVM'T MARKINGS.
- REROUTE NB TRAFFIC THROUGH CROSSOVER TO SB LANES.
- CONST. NB LANES, ACCELERATION LANE, TEMPORARY RAMPS, APPROACH SLABS & GUTTERS, WIDENING FOR GUARDRAILS AND GUARDRAILS WHERE APPLICABLE.
- PLACE PAVM'T MARKINGS ON NB LANES.
- CONST. THE REMAIN PORTION OF HWY 119 BRIDGE @ I-55 NB.
- PERFORM HYDRODEMOLITION OPERATIONS.

DENOTES: CONSTRUCT THIS STAGE.

MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. 2)

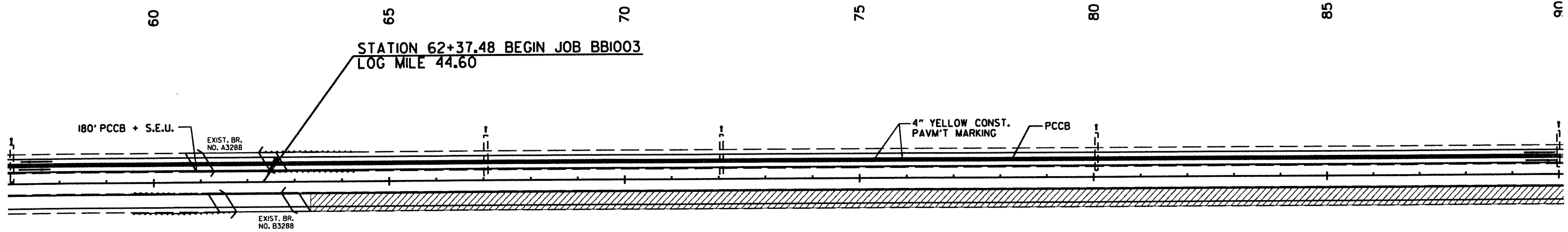
5/21/2013

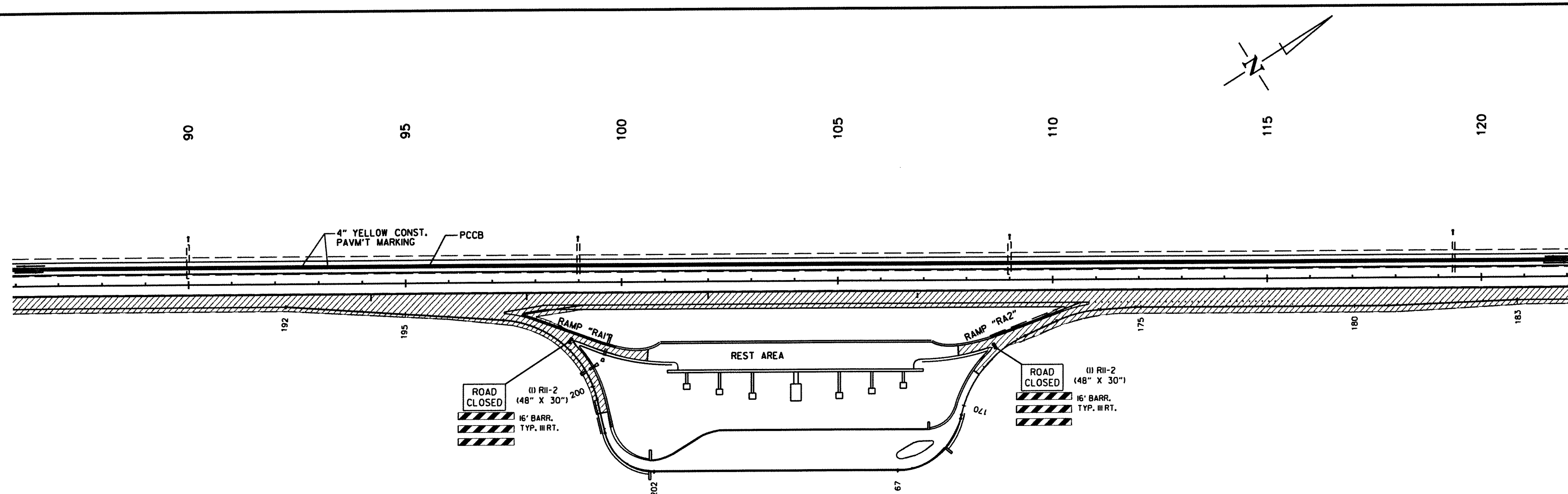
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	110	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04/23/13



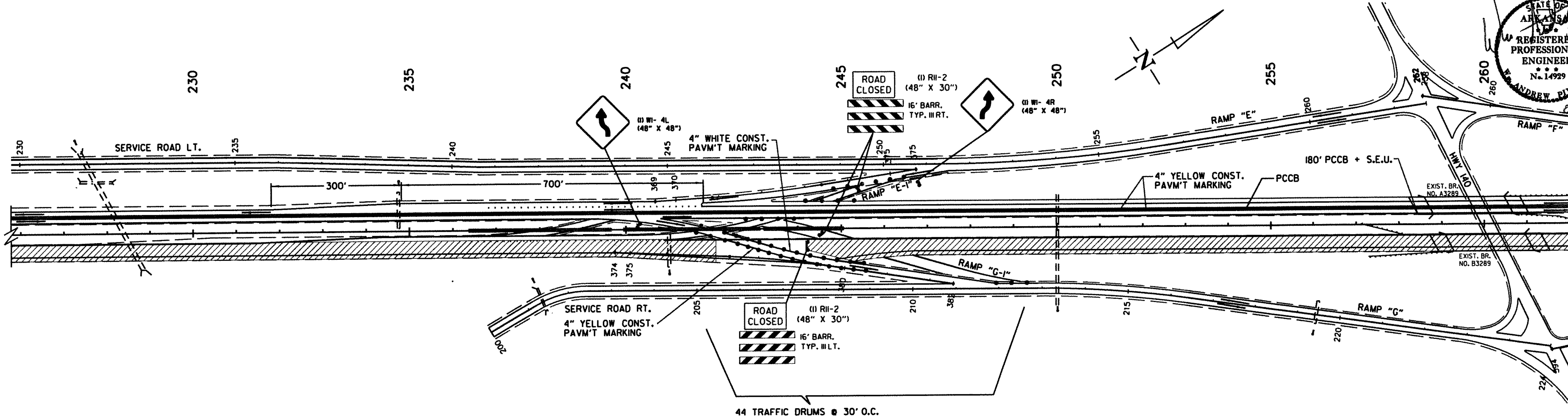


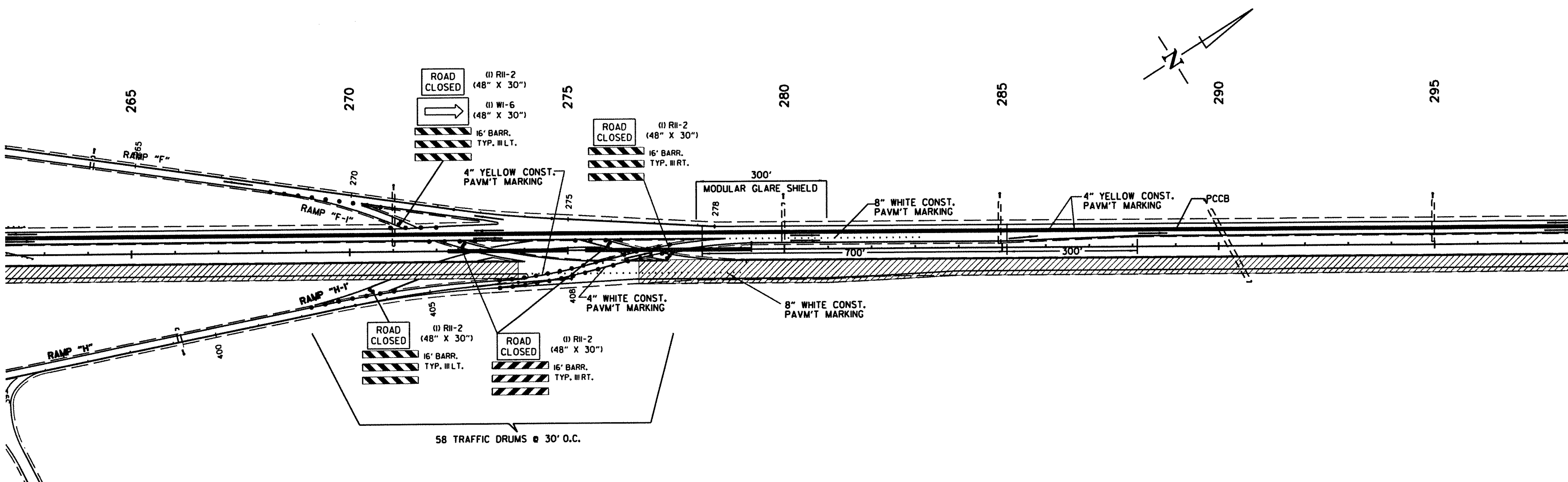
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. 2)

4/23/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	111	215
				2	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
4/23/13





4/23/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. 2)

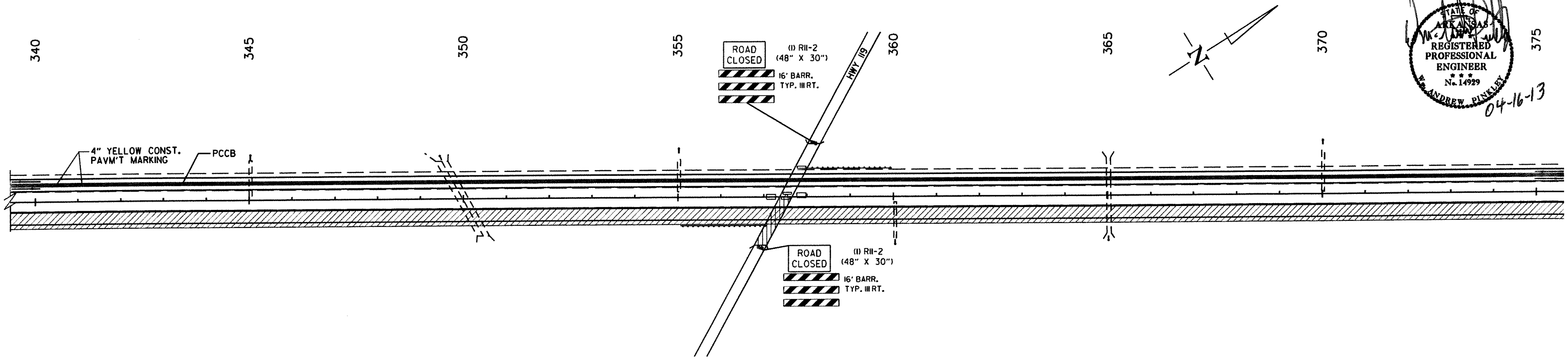
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	112	215

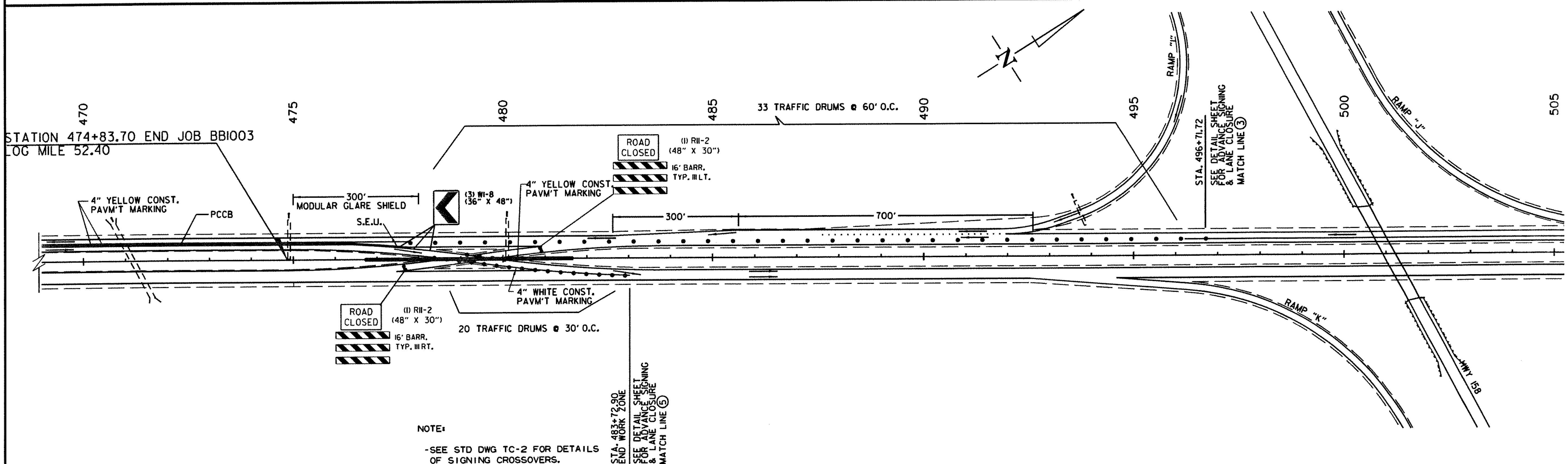
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13

NOTE:

-SEE SHEET 34 FOR HWY 119 DETOUR SIGNING.





NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

4/16/2013

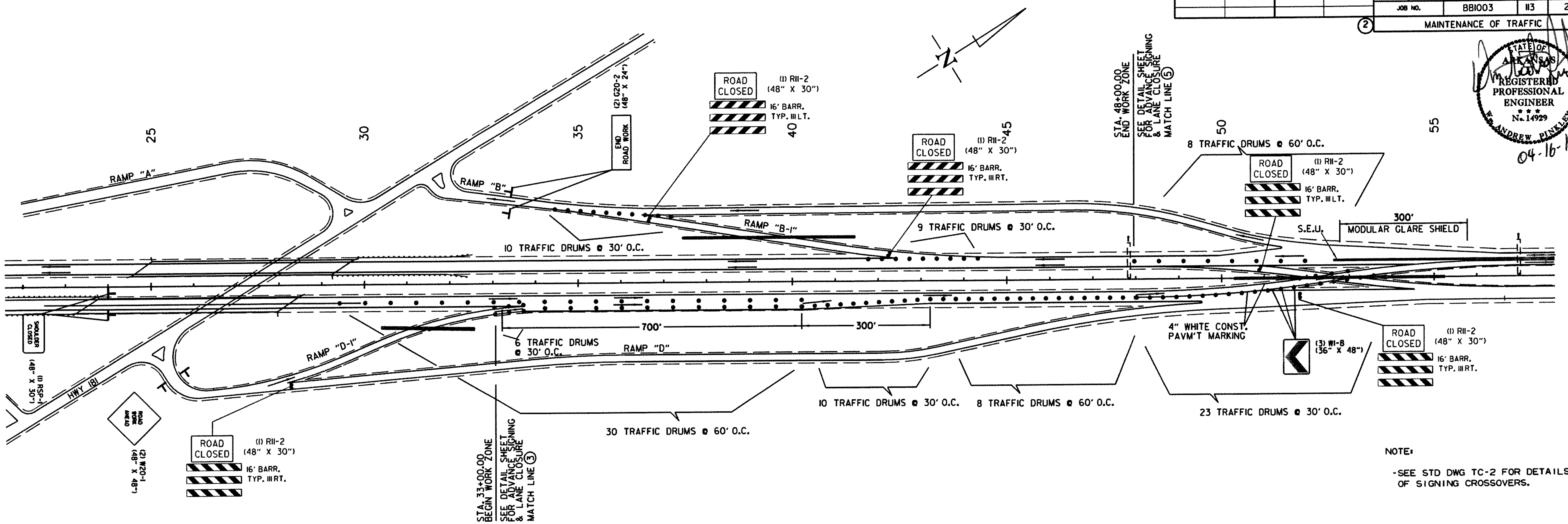
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-A (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	113	215

(2) MAINTENANCE OF TRAFFIC

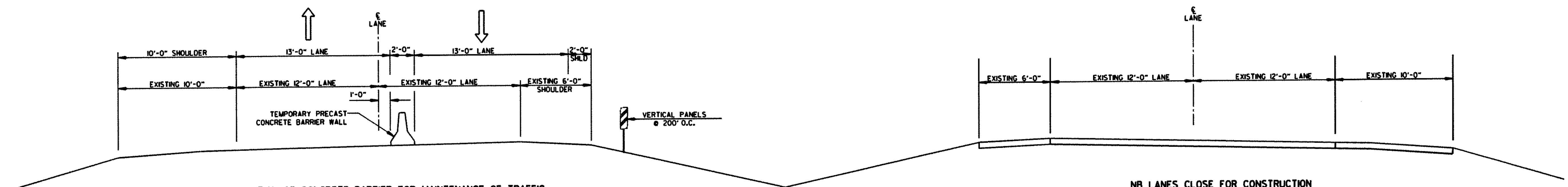
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 WM. ANDREW PINKLEY

04-16-13



NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.



LOCATION OF CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC SB LANES

NB LANES CLOSE FOR CONSTRUCTION

CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

RAMP "G-1" STA. 40+00.00 TO STA. 47+98.12	1598 FT.
RAMP "H-1" STA. 50+00.00 T STA. 57+00.00	1400 FT.
LT. R.M.L. ACCELERATION LANE TAPER STA. 275+51.93 TO STA. 284+39.33	888 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 274+39.33 TO STA. 279+39.33	500 FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

LT. R.M.L. CENTERLINE STA. 281+39.33 TO STA. 288+11.00	672 FT.
LT. R.M.L. SKIP LANE DIVIDER STA. 278+11.00 TO STA. 283+11.00	500 FT.

STAGE III-B OPERATIONS:

-RETAIN TEMPORARY PRECAST CONCRETE BARRIER WALL CL ON SB LANES.
-RETAIN NB TRAFFIC THROUGH CROSSOVER TO SB LANES.
-SHIFT TRAFFIC FROM RAMP "G" & "H" TO RAMP "G-1" & "H-1" RESPECTIVELY.
-REBUILT NB LANE GAPS @ RAMP "G" & "H" TERMINALS.
-CONSTRUCT PAVM'T TRANSITION @ RAMP "RA1" "RA2" "G" & "H" TERMINALS.

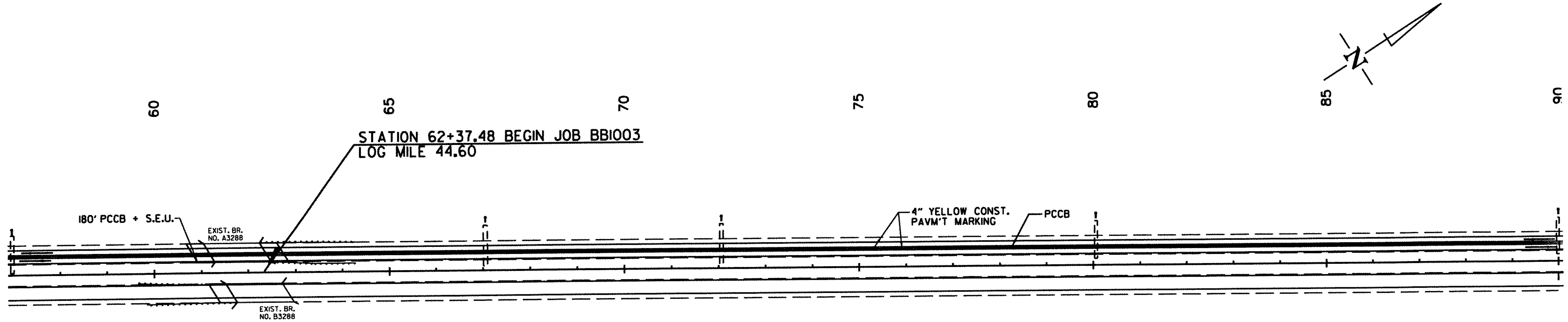
DENOTES: CONSTRUCT THIS STAGE.

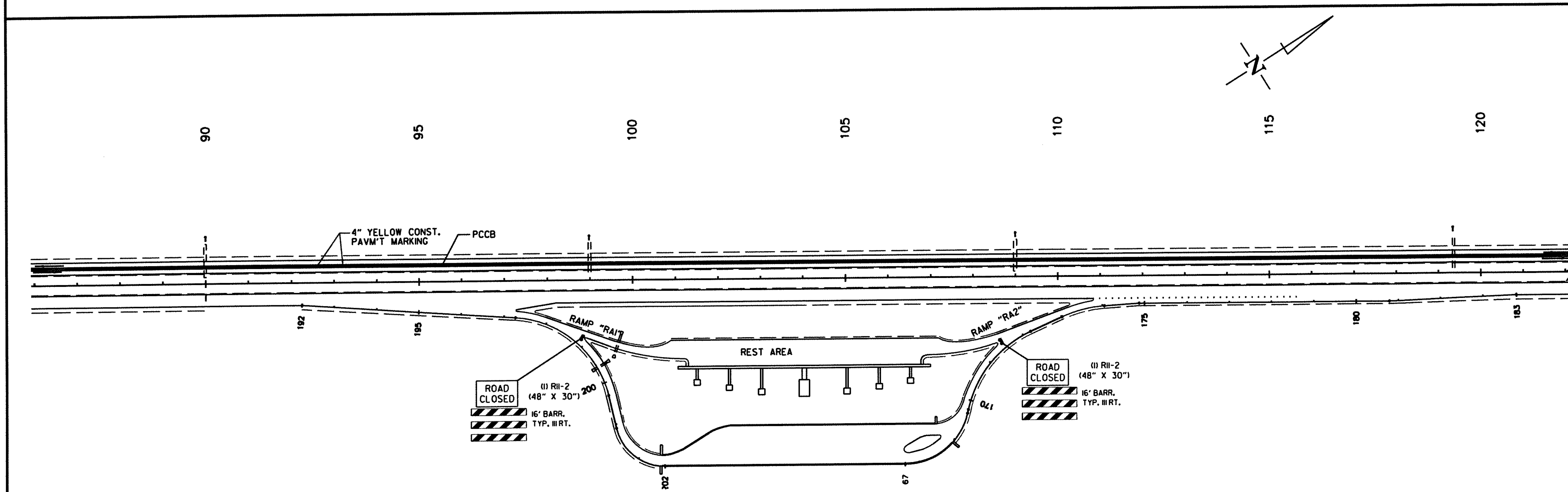
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. 2)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	114	215
				②	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/23/13





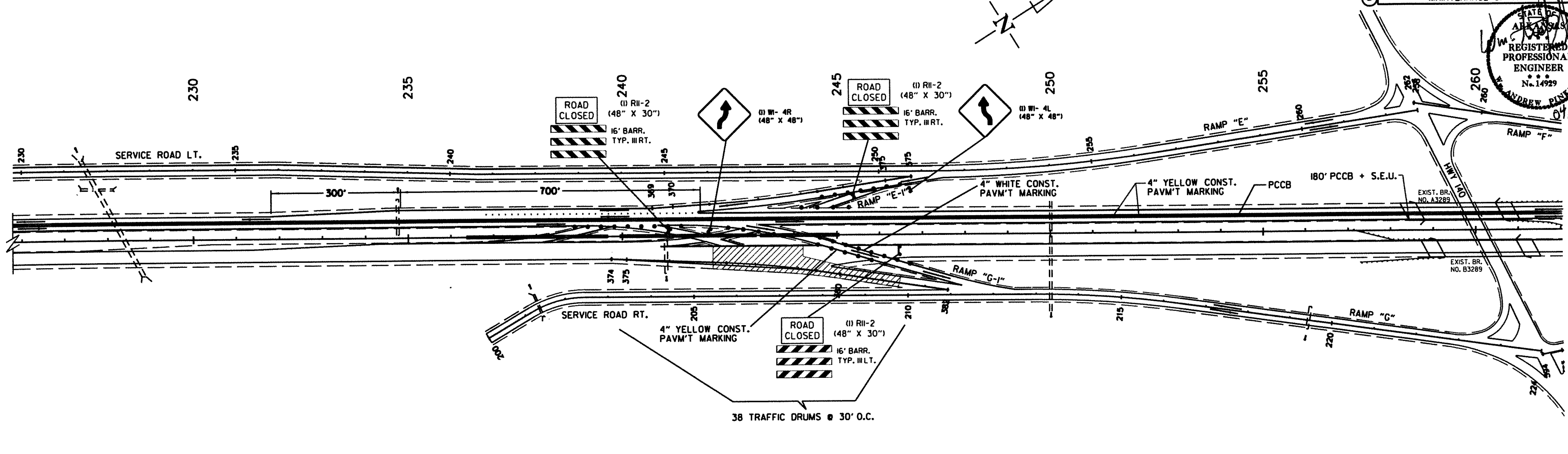
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. 2)

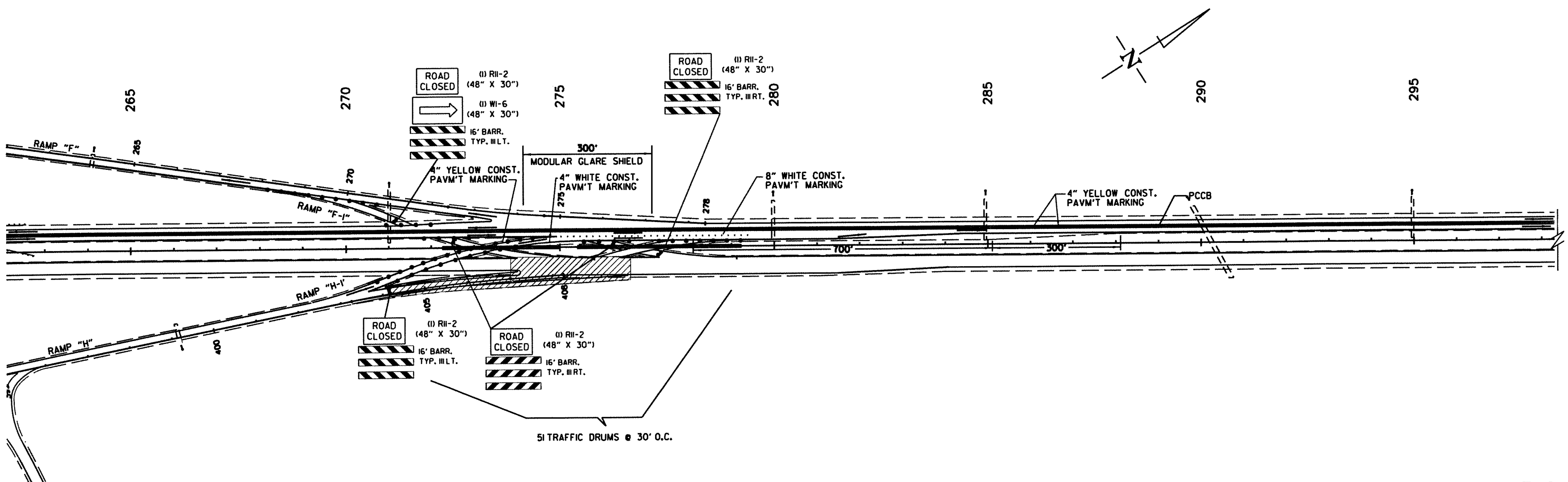
4/23/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	115	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
E. ANDREW PINELEY
04/22/13





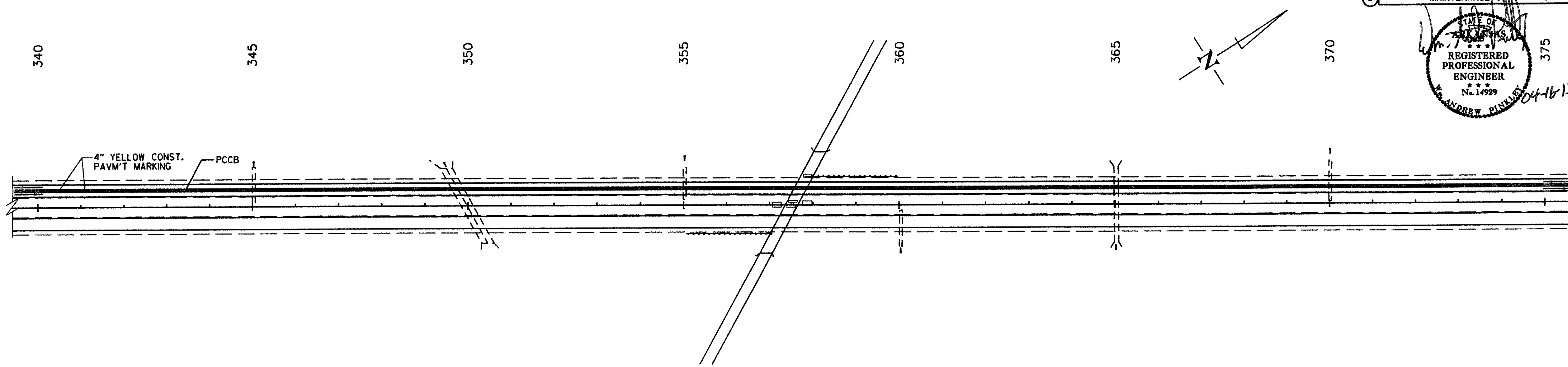
4/23/2013

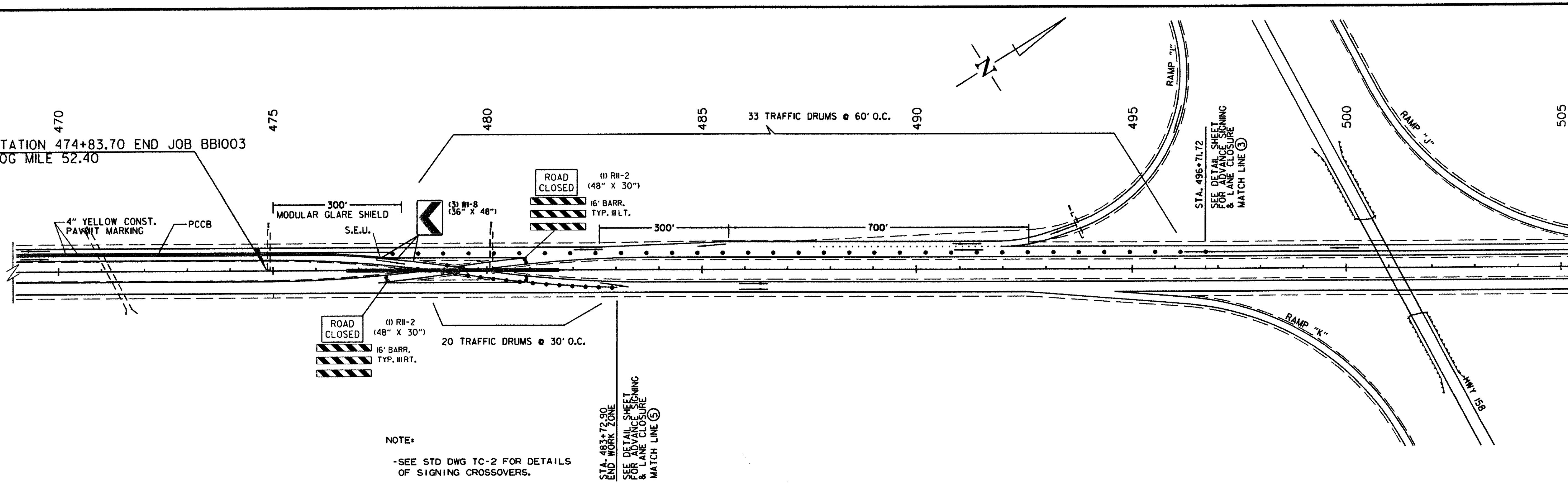
MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	116	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





NOTE:

-SEE STD DWG TC-2 FOR DETAILS OF SIGNING CROSSOVERS.

4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE III-B (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	117	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
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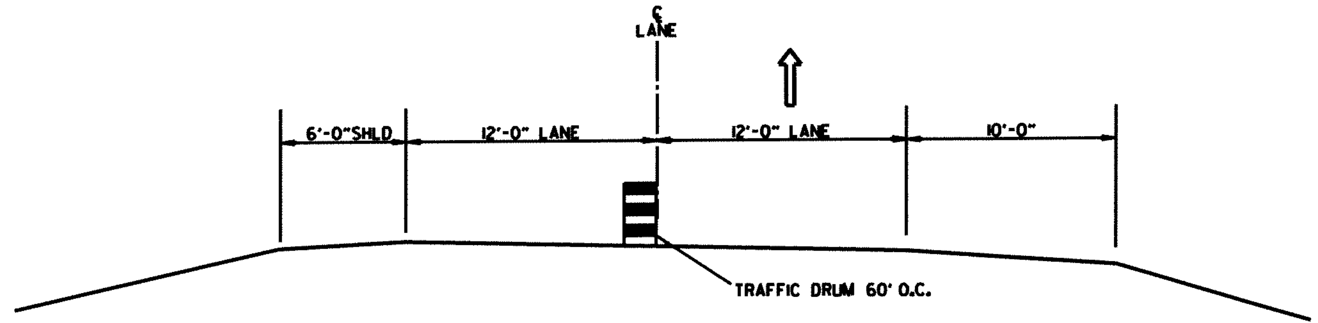
W. ANDREW PINKLEY
05/20/13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)

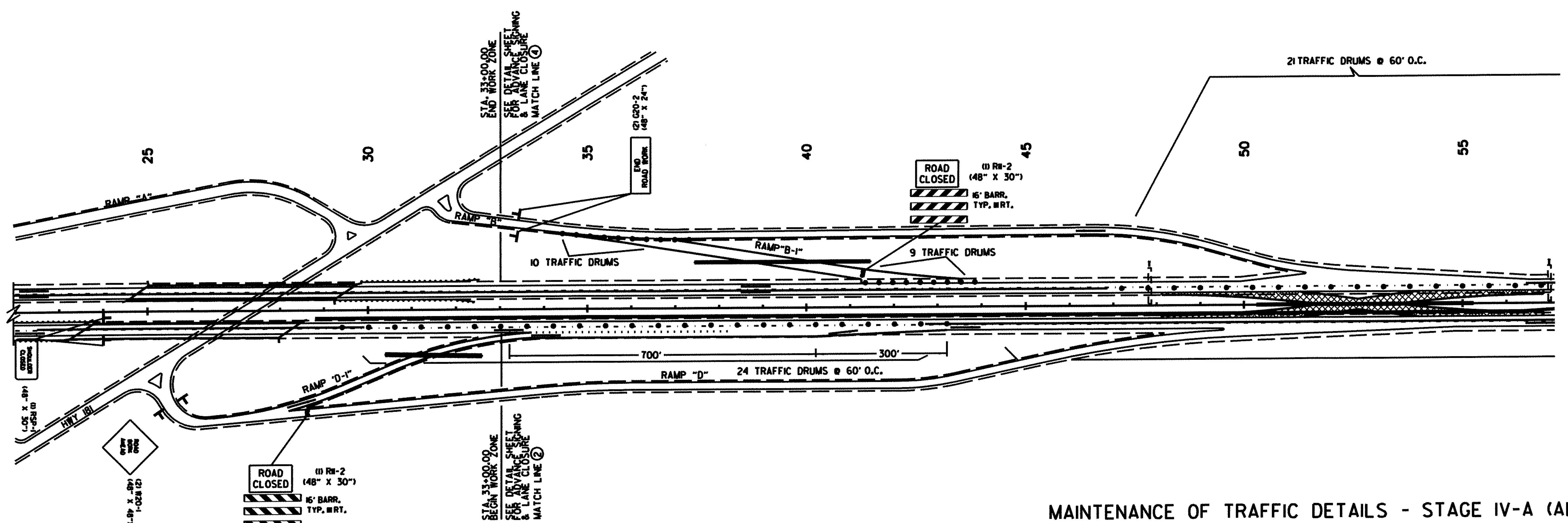
STAGE IV-A OPERATIONS:

-REROUTE NB TRAFFIC TO OUTSIDE LANE OF RT. MAIN LANES & SB TRAFFIC TO OUTSIDE LANE OF LT. MAIN LANES
-REMOVE PRECAST CONCRETE BARRIER.
-REMOVE TEMPORARY CROSSOVERS & INSIDE INTERCHANGE RAMPS.
-CLOSE INSIDE LANES & SHOULDERS IN BOTH DIRECTIONS.
-CONST. WRSF, GUARDRAILS.

REMOVAL OF TEMPORARY CULVERT FOR THIS STAGE:

STA.	50+29.00	TO STA.	55+25.00	CONST.	12" X296'	RCP - MEDIAN	296 FT.
STA.	236+36.00	TO STA.	239+72.00	CONST.	12" X336'	RCP - MEDIAN	336 FT.
STA.	239+94.00	TO STA.	243+14.00	CONST.	12" X320'	RCP - MEDIAN	320 FT.
STA.	243+21.50	TO STA.	245+05.50	CONST.	12" X184'	RCP - MEDIAN	184 FT.
STA.	272+24.00	TO STA.	275+00.00	CONST.	12" X276'	RCP - MEDIAN	276 FT.
STA.	275+40.50	TO STA.	279+24.50	CONST.	12" X384'	RCP - MEDIAN	384 FT.
STA.	476+70.74	TO STA.	481+66.74	CONST.	12" X496'	RCP - MEDIAN	496 FT.

DENOTES: REMOVAL OF TEMPORARY DETOUR THIS STAGE.

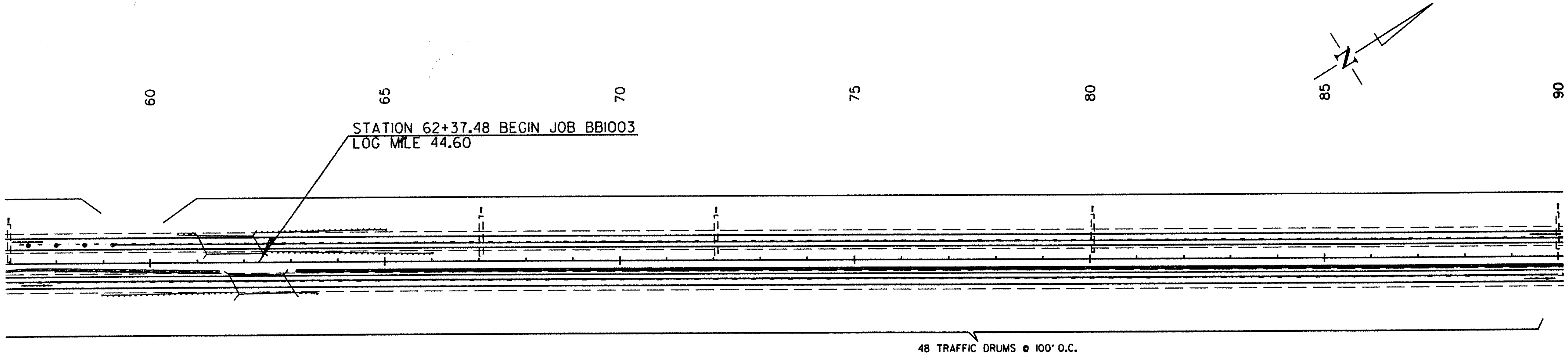


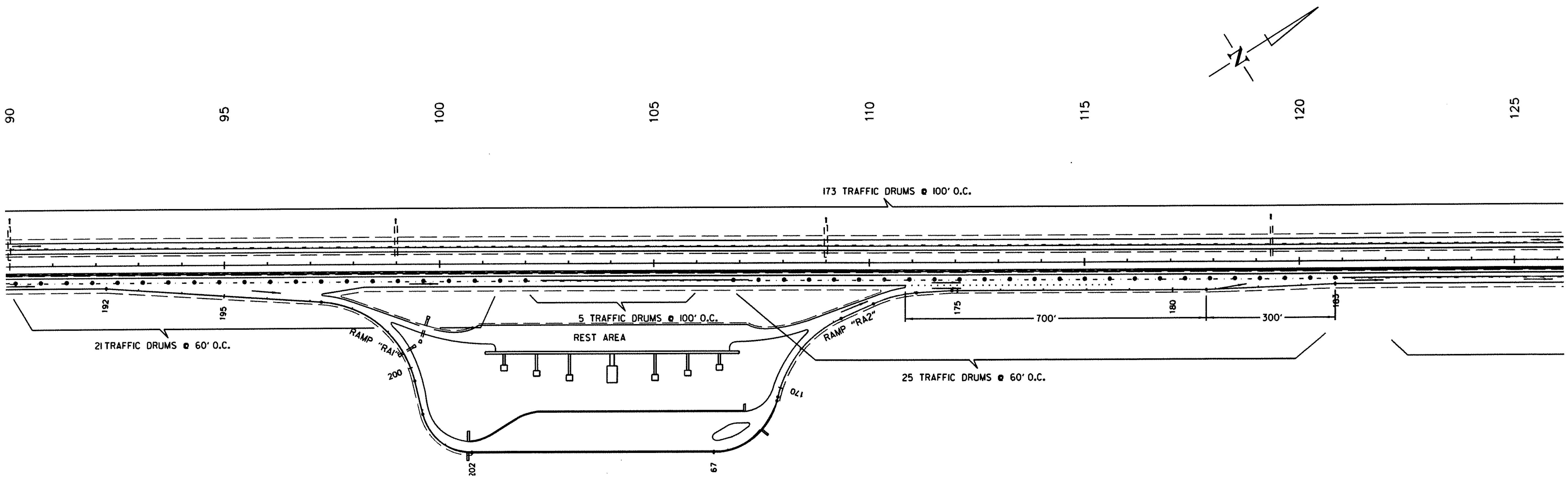
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 2)

$DATE$

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.		BB1003	118	215
				② MAINTENANCE OF TRAFFIC				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04-16-13





4/16/2013

MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 2)

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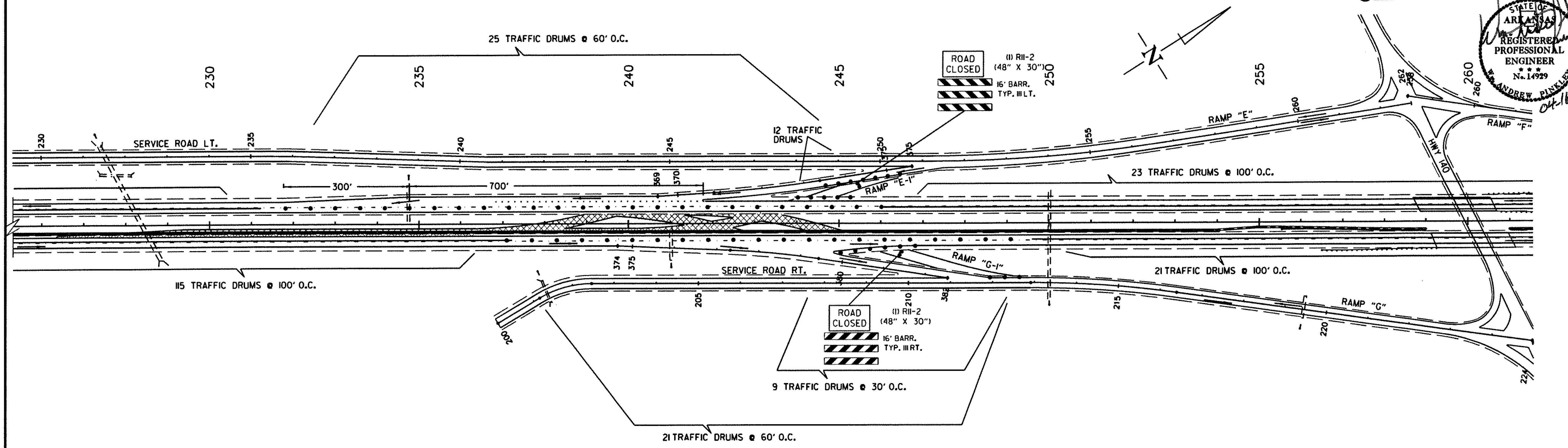
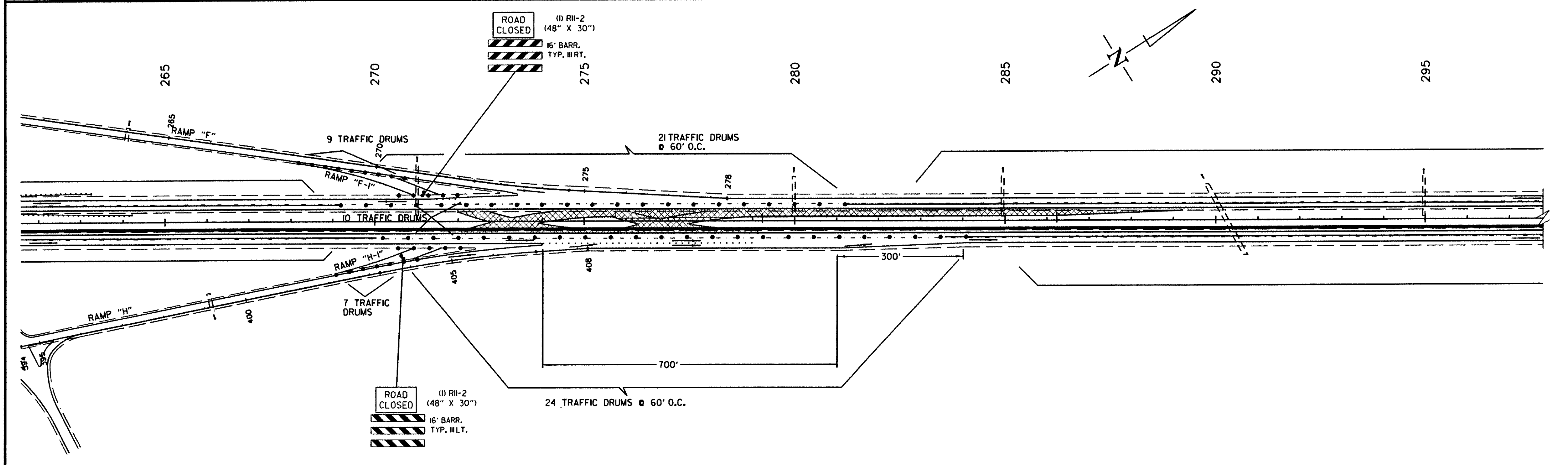
				6	ARK.			
				JOB NO.		BB1003	119	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13





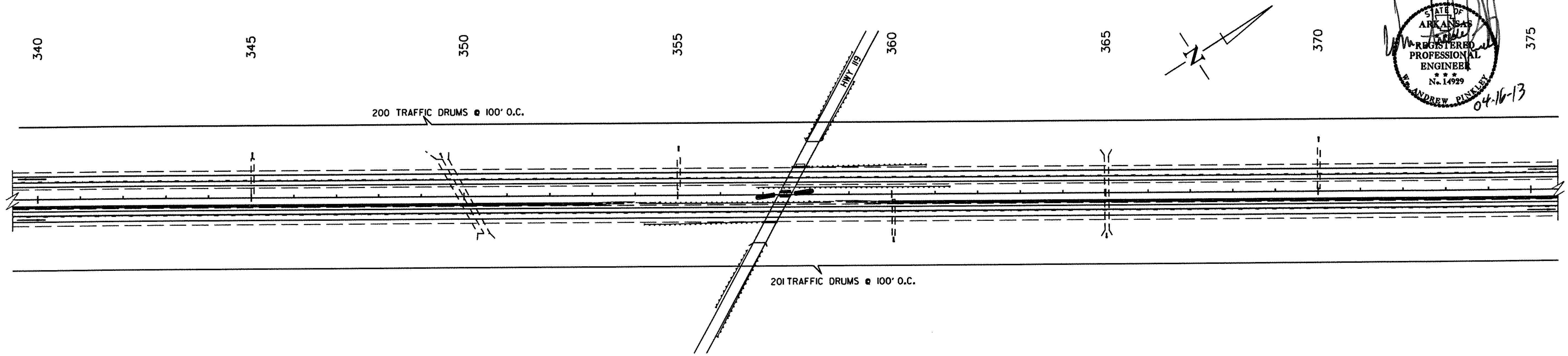
4/16/2013

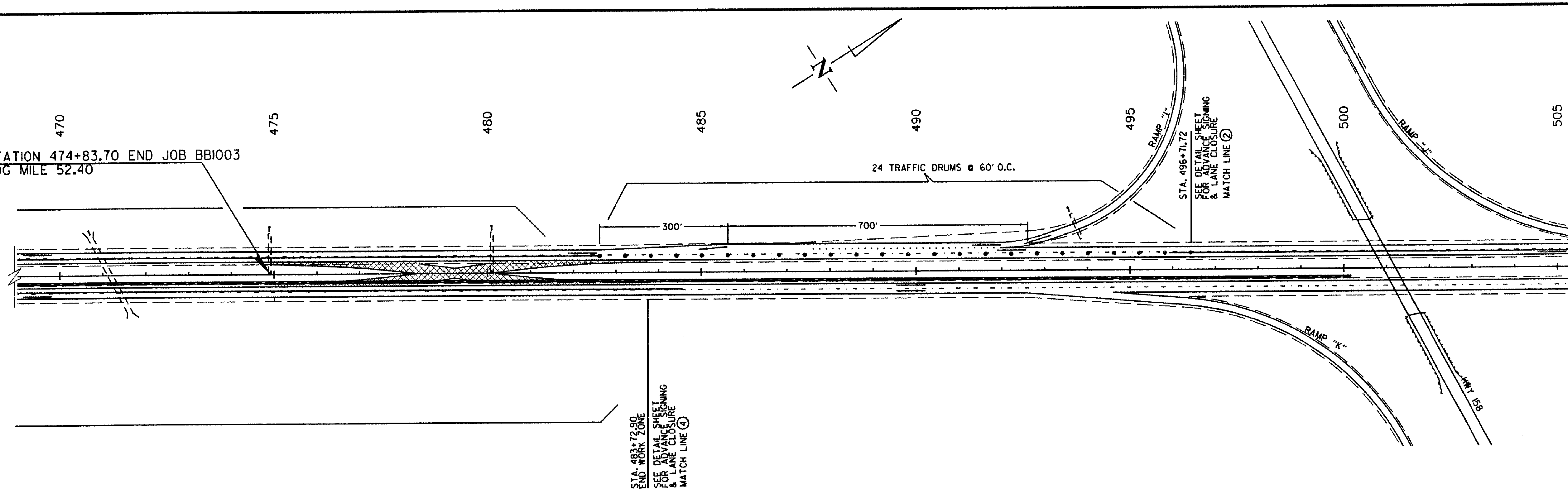
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	120	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 E. ANDREW PINKLEY
04-16-13



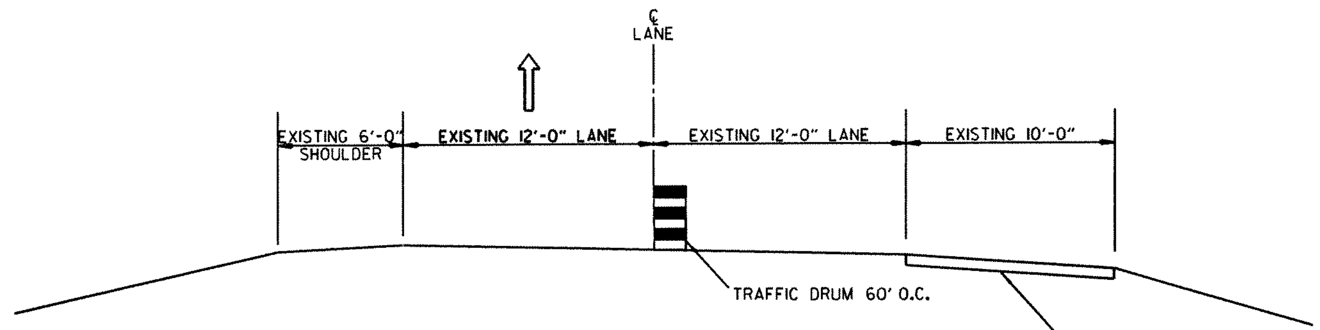


MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-A (ALT. 2)

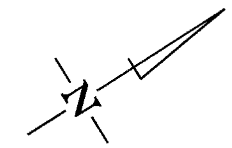
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	121	215
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
NB LANES
(REVERSE FOR SB LANE)



REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS FOR THIS STAGE:

R.M.L CENTERLINE
STA. 53+84.90 TO STA. 478+00.00 42416 FT.
L.M.L. CENTERLINE
STA. 53+84.90 TO STA. 478+00.00 42416 FT.

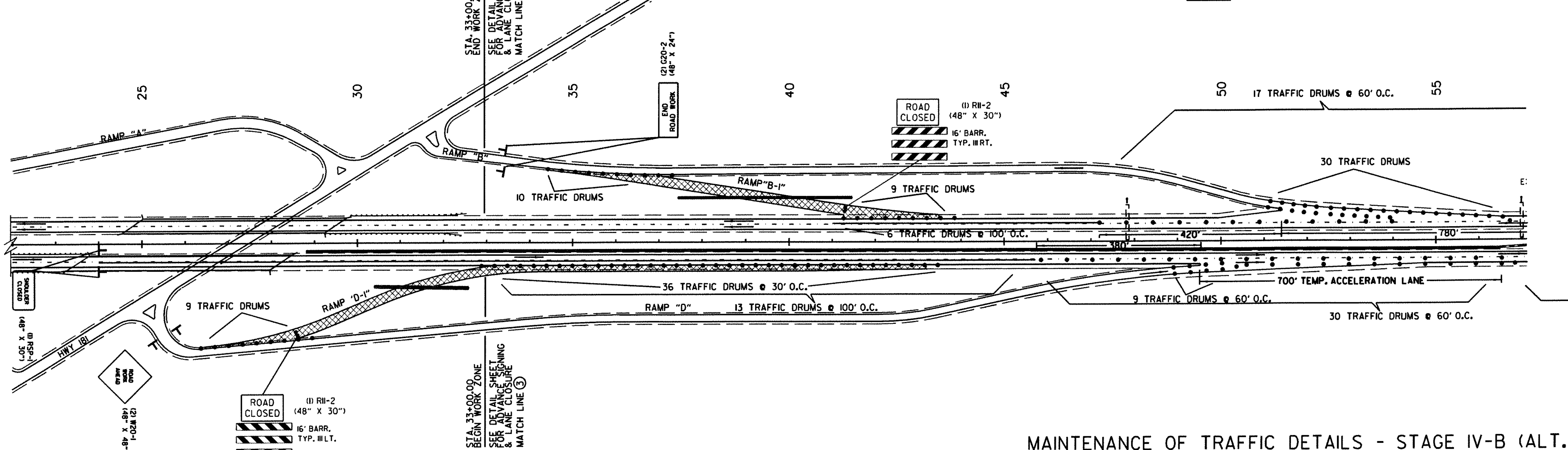
REMOVAL OF TEMPORARY CULVERTS FOR THIS STAGE:

STA. 32+40.00 TO STA. 32+58.00, CONST. 12"X218' RCP - RAMP B-1 218 FT.
STA. 37+43.00 TO STA. 41+47.00, CONST. 12"X404' RCP - RAMP D-1 404 FT.

STAGE IV-B OPERATIONS:

- CLOSE OUTSIDE LANES & SHOULDER IN BOTH DIRECTIONS.
- REMOVE TEMPORARY INTERCHANGE RAMPS OF OUTSIDE LANES.
- PLACE PERMANENT PAVM'T MARKINGS (SEE PERMANENT PAVM'T MARKING DETAILS).

DENOTES: REMOVAL OF TEMPORARY DETOUR THIS STAGE.



MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 2)

4/16/2013

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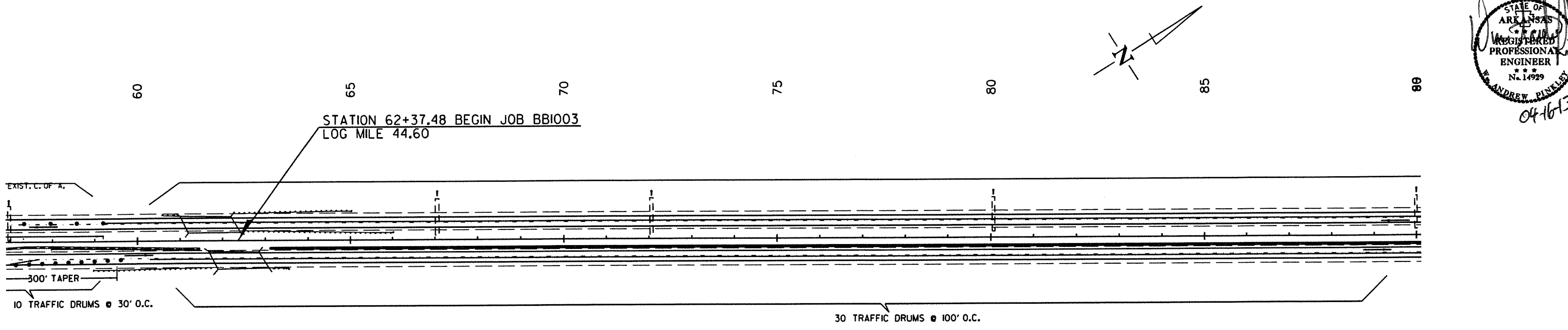
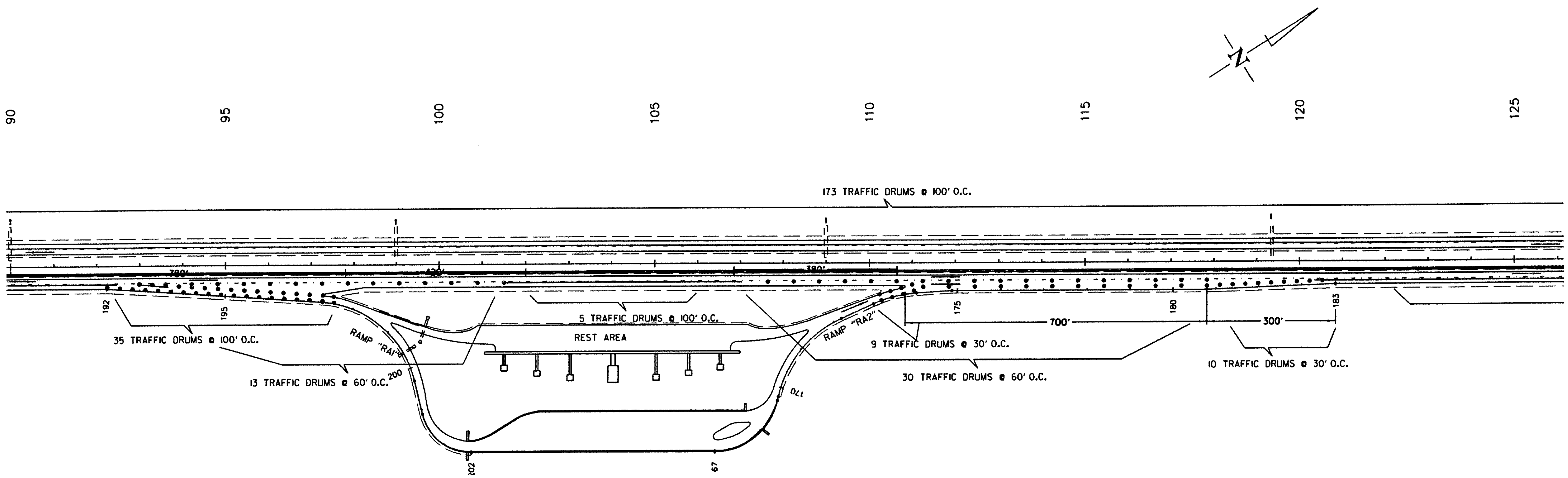
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04-16-13





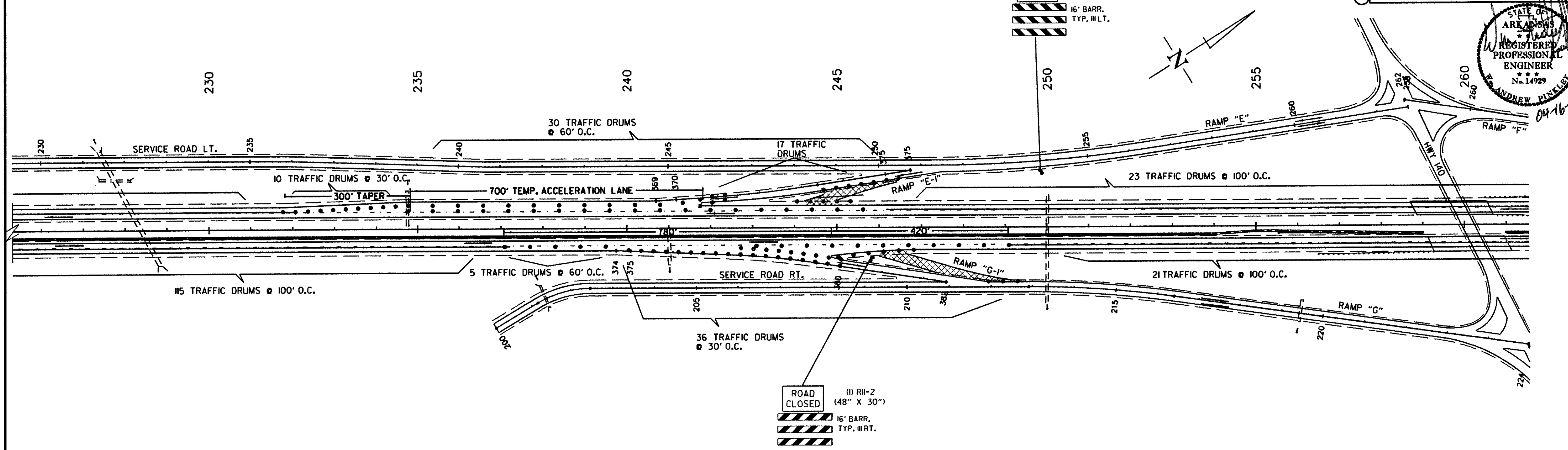
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 2)

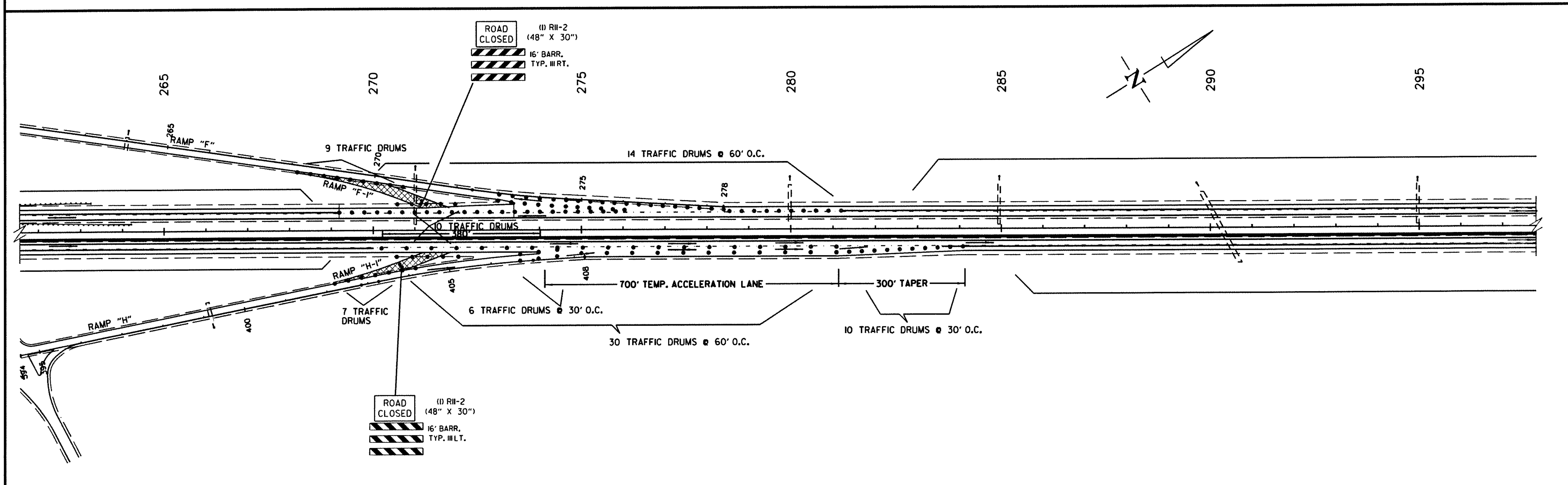
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	123	215

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13



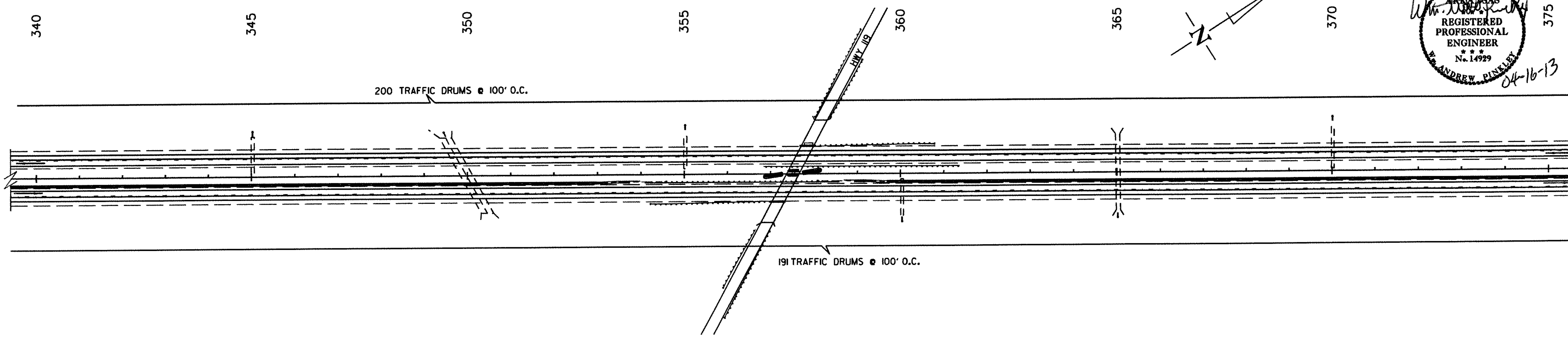


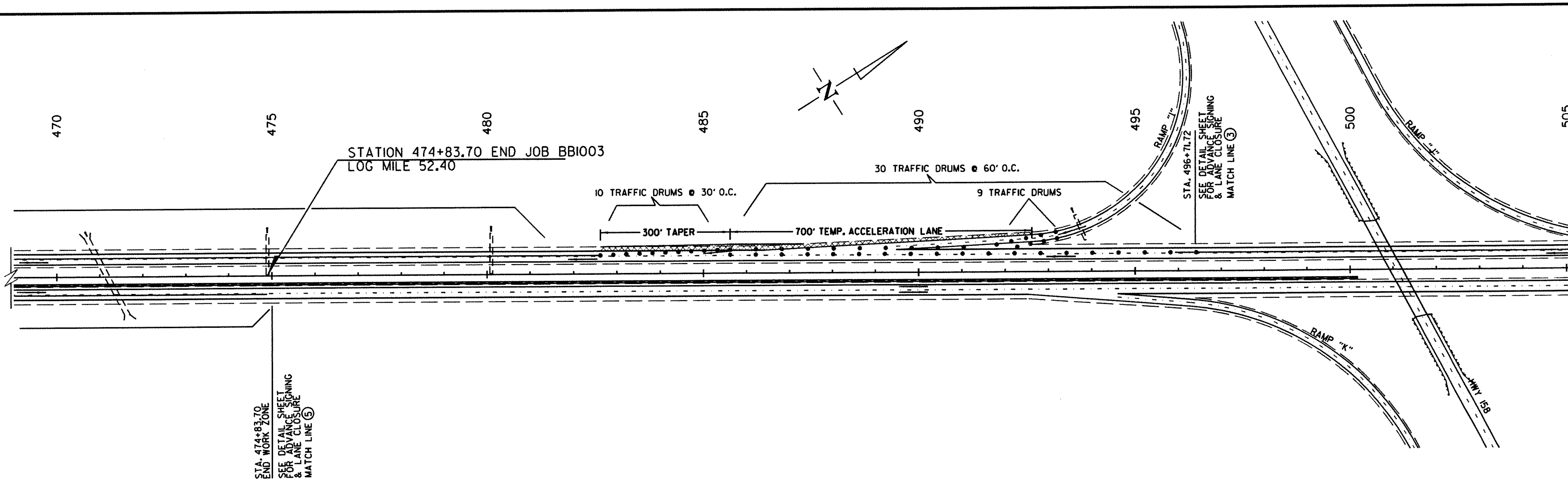
MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 2)

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	124	215
				② MAINTENANCE OF TRAFFIC				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





MAINTENANCE OF TRAFFIC DETAILS - STAGE IV-B (ALT. 2)

4/16/2013

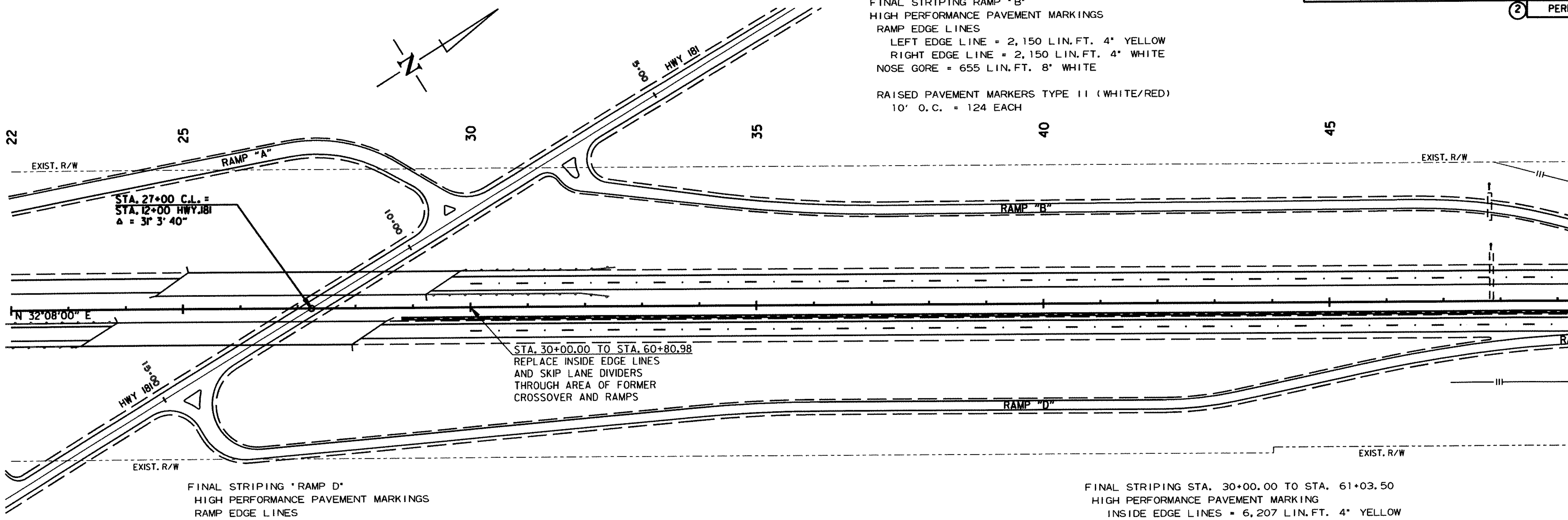
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	125	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13

FINAL STRIPING RAMP "B"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES
LEFT EDGE LINE = 2,150 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 2,150 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH

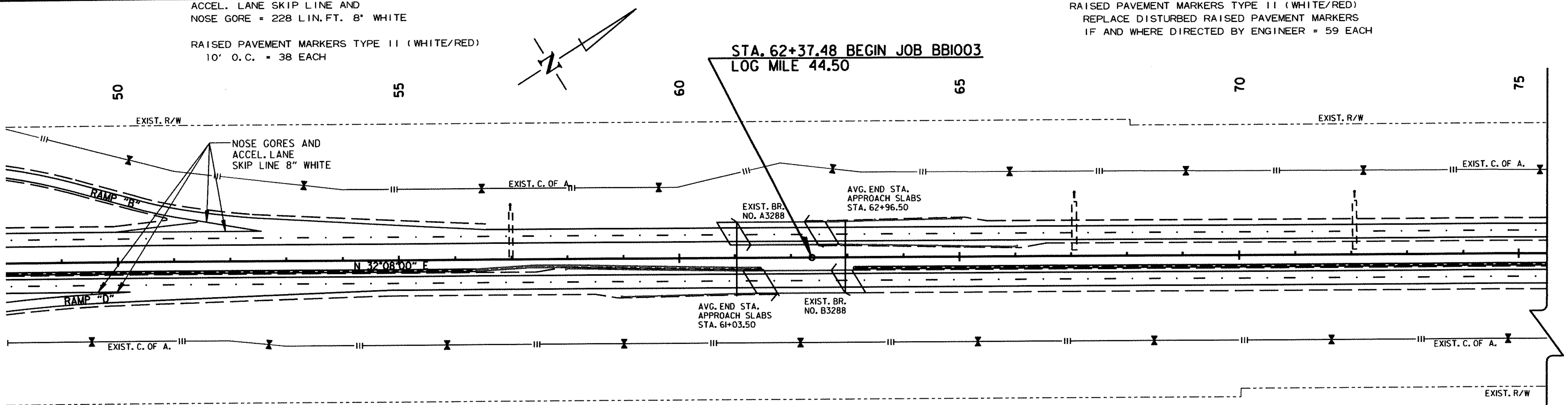


FINAL STRIPING "RAMP D"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES
LEFT EDGE LINE = 1,500 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 1,500 LIN.FT. 4" WHITE
ACCEL. LANE SKIP LINE AND
NOSE GORE = 228 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING STA. 30+00.00 TO STA. 61+03.50
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 6,207 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 1,552 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
REPLACE DISTURBED RAISED PAVEMENT MARKERS
IF AND WHERE DIRECTED BY ENGINEER = 59 EACH



FINAL STRIPING STA. 61+03.50 TO STA. 62+96.50
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 386 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 386 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS BOTH DIRECTIONS ON
BRIDGE NO. A & B 3288 = 97 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 5 EACH

STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR
DETAILS OF PLACEMENT OF STRIPING AND
PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

FINAL STRIPING STA. 62+96.50 TO STA. 90+00.00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 5,407 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 1,352 LIN.FT. 4" WHITE
OUTSIDE EDGE LINES = 5,407 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 49 EACH

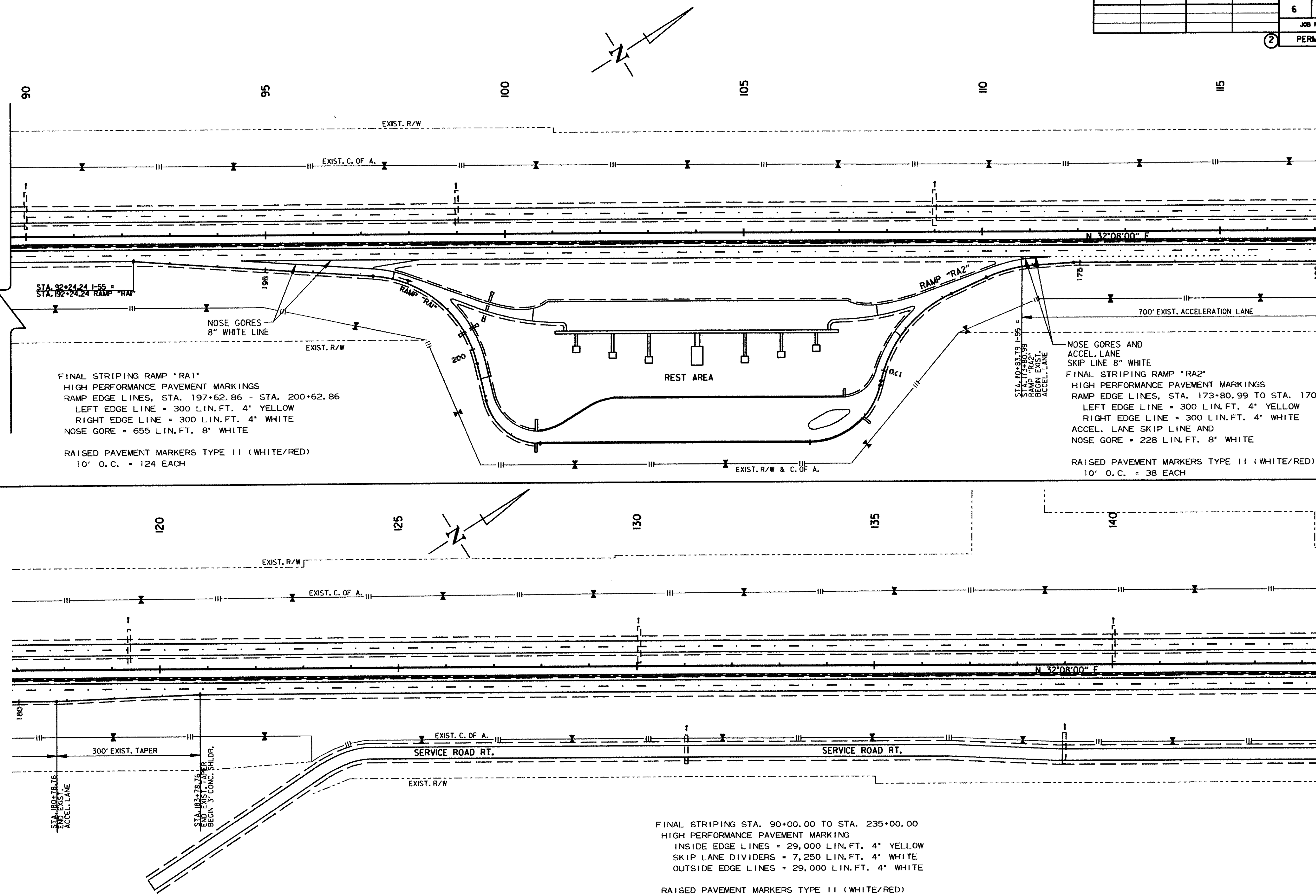
ASPHALT ALTERNATE (ALT. 1)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	BB1003	126	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



FINAL STRIPING RAMP "RA1"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 197+62.86 - STA. 200+62.86
LEFT EDGE LINE = 300 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH

FINAL STRIPING RAMP "RA2"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 173+80.99 TO STA. 170+80.99
LEFT EDGE LINE = 300 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN.FT. 4" WHITE
ACCEL. LANE SKIP LINE AND
NOSE GORE = 228 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING STA. 90+00.00 TO STA. 235+00.00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 29,000 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 7,250 LIN.FT. 4" WHITE
OUTSIDE EDGE LINES = 29,000 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 363 EACH

REFER ALSO TO STANDARD DRAWING PM-2 FOR DETAILS OF PLACEMENT OF STRIPING AND PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

ASPHALT ALTERNATE (ALT. I)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	127	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY 04-16-13

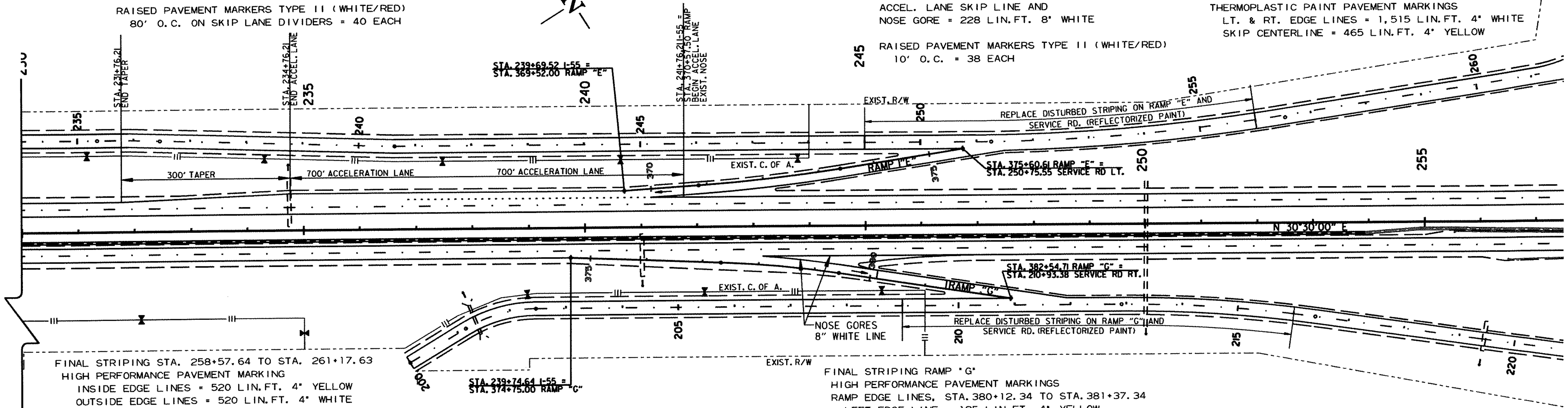
FINAL STRIPING STA. 235+00 TO STA. 258+57.64
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 4,715 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 1,179 LIN.FT. 4" WHITE
OUTSIDE EDGE LINES = 4,715 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 40 EACH

FINAL STRIPING RAMP "E"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 370+57.50 TO STA. 374+45.50
LEFT EDGE LINE = 388 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 388 LIN.FT. 4" WHITE
ACCEL. LANE SKIP LINE AND
NOSE GORE = 228 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING LEFT SERVICE RD & PART OF RAMP "E"
THERMOPLASTIC PAINT PAVEMENT MARKINGS
LT. & RT. EDGE LINES = 1,515 LIN.FT. 4" WHITE
SKIP CENTERLINE = 465 LIN.FT. 4" YELLOW



FINAL STRIPING STA. 258+57.64 TO STA. 261+17.63
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 520 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 520 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS BOTH DIRECTIONS ON
BRIDGE NO. A & B 3289 = 130 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 6 EACH

FINAL STRIPING RAMP "G"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 380+12.34 TO STA. 381+37.34
LEFT EDGE LINE = 125 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 125 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

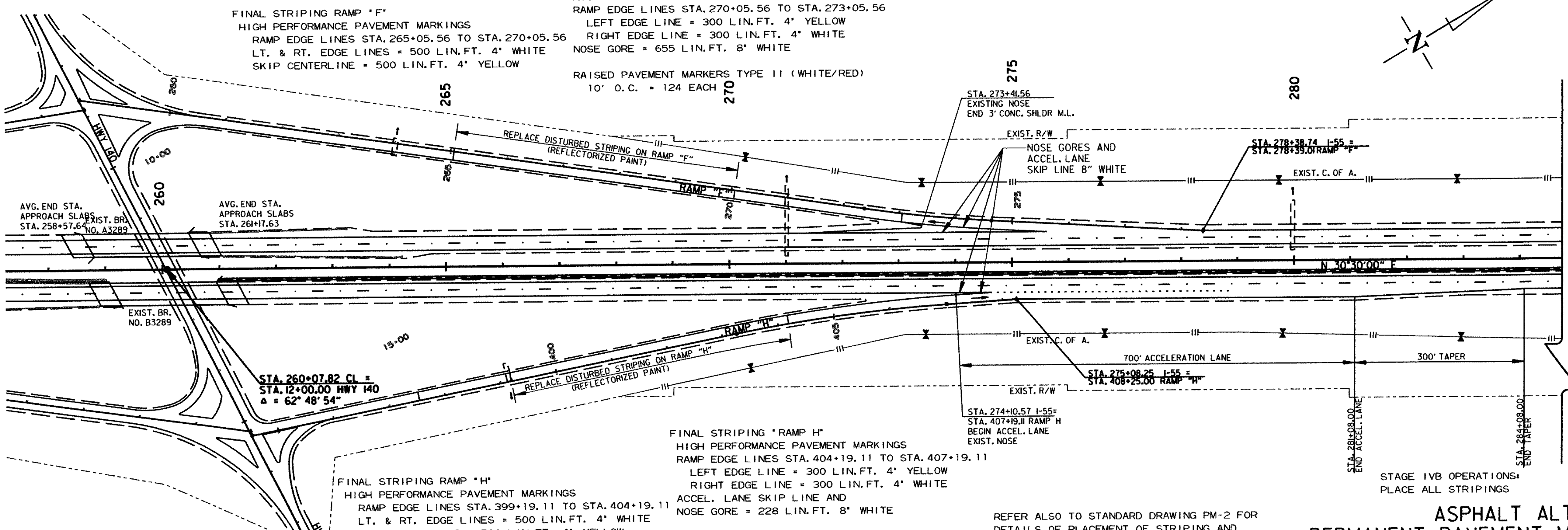
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH

FINAL STRIPING RIGHT SERVICE RD & PART OF RAMP "G"
THERMOPLASTIC PAVEMENT MARKINGS
LT. & RT. EDGE LINES = 1,517 LIN.FT. 4" WHITE
SKIP CENTERLINE = 467 LIN.FT. 4" YELLOW

FINAL STRIPING RAMP "F"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 265+05.56 TO STA. 270+05.56
LT. & RT. EDGE LINES = 500 LIN.FT. 4" WHITE
SKIP CENTERLINE = 500 LIN.FT. 4" YELLOW

FINAL STRIPING RAMP "F"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 270+05.56 TO STA. 273+05.56
LEFT EDGE LINE = 300 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH



FINAL STRIPING "RAMP H"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 404+19.11 TO STA. 407+19.11
LEFT EDGE LINE = 300 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN.FT. 4" WHITE
ACCEL. LANE SKIP LINE AND
NOSE GORE = 228 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING RAMP "H"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 399+19.11 TO STA. 404+19.11
LT. & RT. EDGE LINES = 500 LIN.FT. 4" WHITE
SKIP CENTERLINE = 500 LIN.FT. 4" YELLOW

STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR DETAILS OF PLACEMENT OF STRIPING AND PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

ASPHALT ALTERNATE (ALT. I)
PERMANENT PAVEMENT MARKING DETAILS

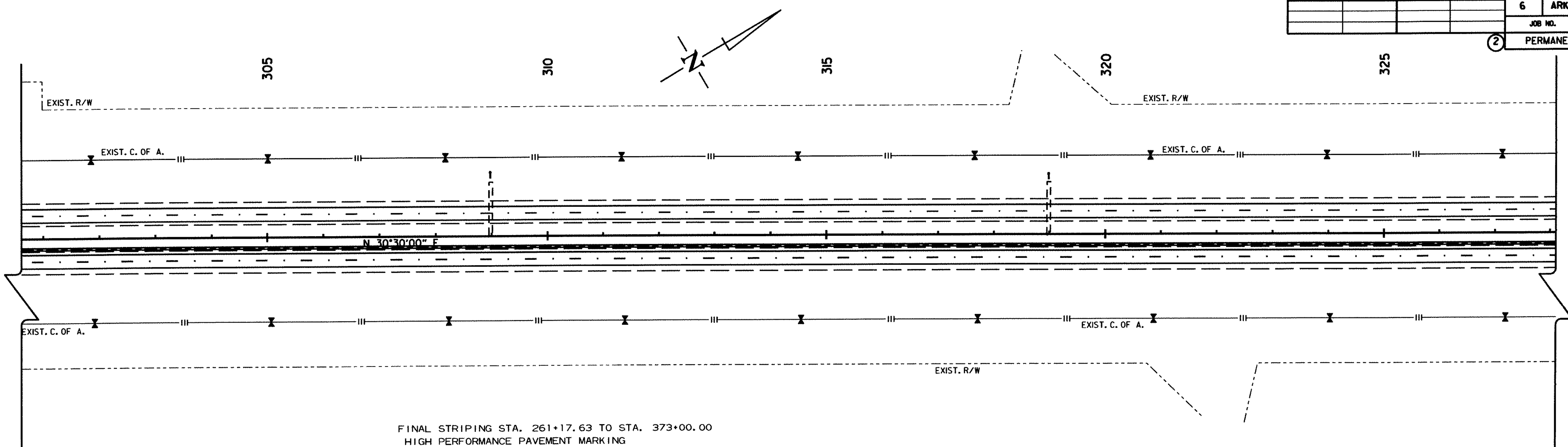
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	BB1003	128	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13



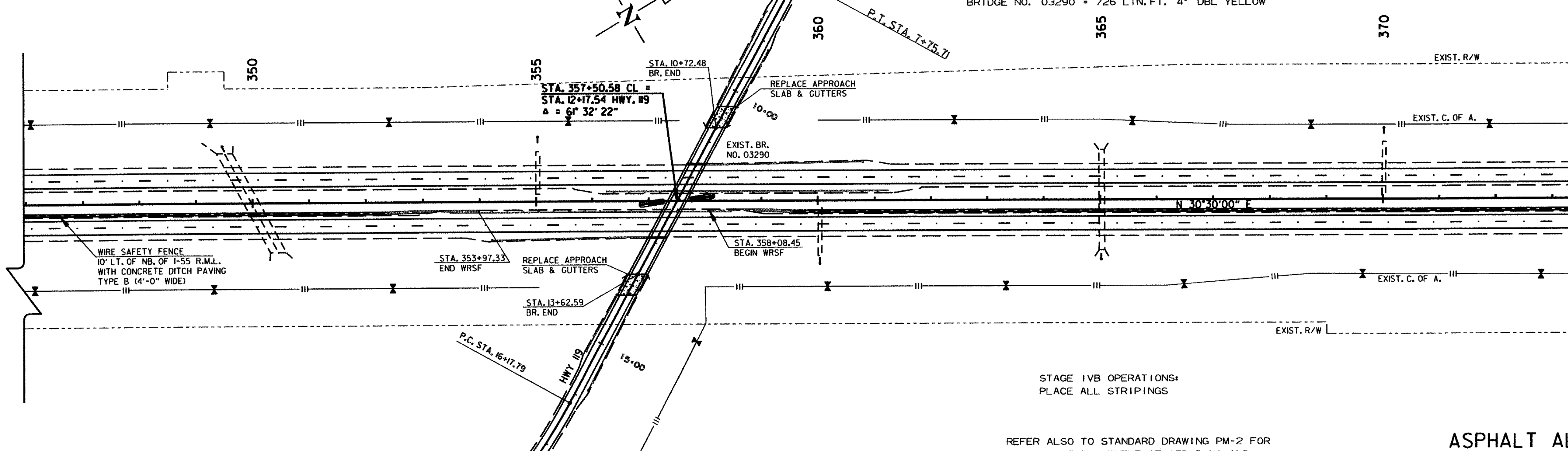
FINAL STRIPING STA. 261+17.63 TO STA. 373+00.00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 22,365 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 5,591 LIN.FT. 4" WHITE
OUTSIDE EDGE LINES = 22,365 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (RED/WHITE)
80' O.C. ON SKIP LANE DIVIDERS = 261 EACH

FINAL STRIPING HWY. 119
STA. 7+75.00 TO STA. 16+50.00

THERMOPLASTIC PAVEMENT MARKING
INSIDE EDGE LINES = 875 LIN.FT. 4" WHITE
SKIP LANE DIVIDERS = 1,024 LIN.FT. 4" DBL YELLOW
OUTSIDE EDGE LINES = 875 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS BOTH DIRECTIONS ON
BRIDGE NO. 03290 = 726 LIN.FT. 4" DBL YELLOW



STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR DETAILS OF PLACEMENT OF STRIPING AND PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

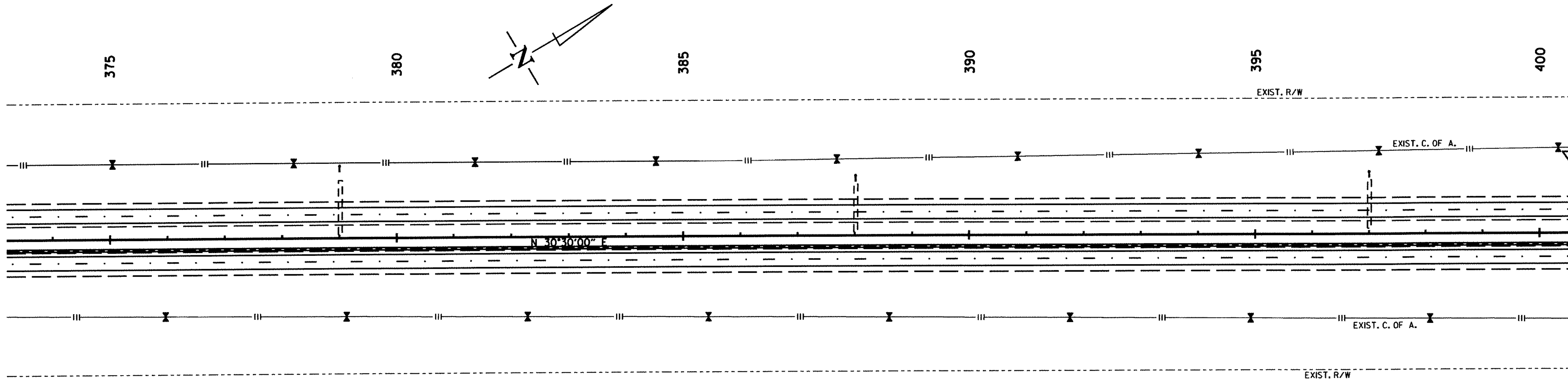
ASPHALT ALTERNATE (ALT. I)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	129	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13

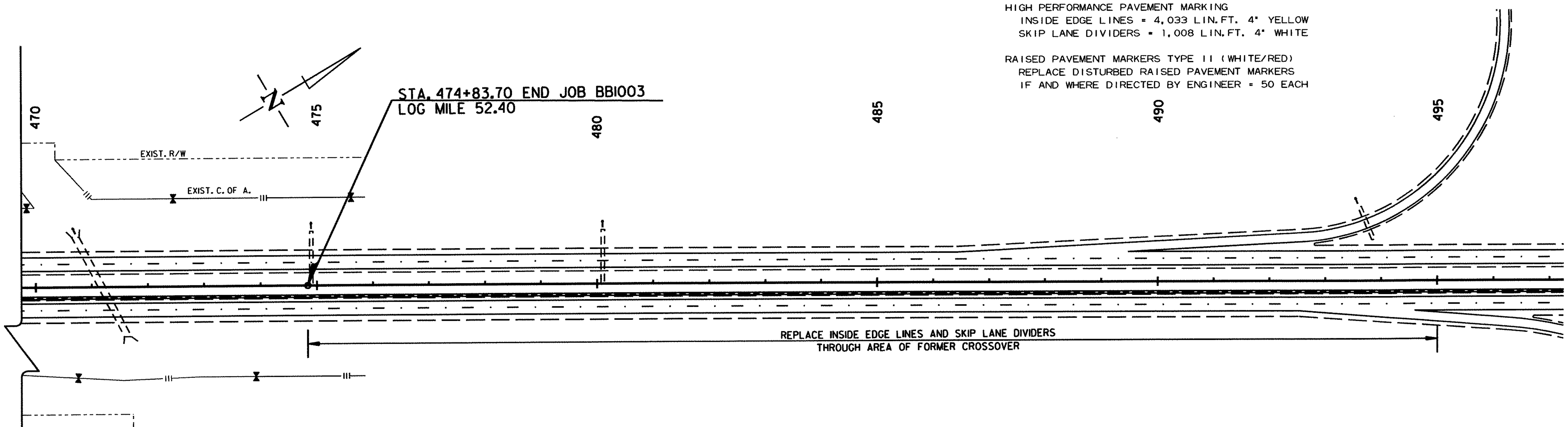


FINAL STRIPING STA. 373+00 TO STA. 474+83.70
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 20,367 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 5,092 LIN.FT. 4" WHITE
OUTSIDE EDGE LINES = 20,367 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 255 EACH

FINAL STRIPING STA. 474+83.70 TO STA. 495+00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 4,033 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 1,008 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
REPLACE DISTURBED RAISED PAVEMENT MARKERS
IF AND WHERE DIRECTED BY ENGINEER = 50 EACH



STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR
DETAILS OF PLACEMENT OF STRIPING AND
PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

ASPHALT ALTERNATE (ALT. I)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	130	215

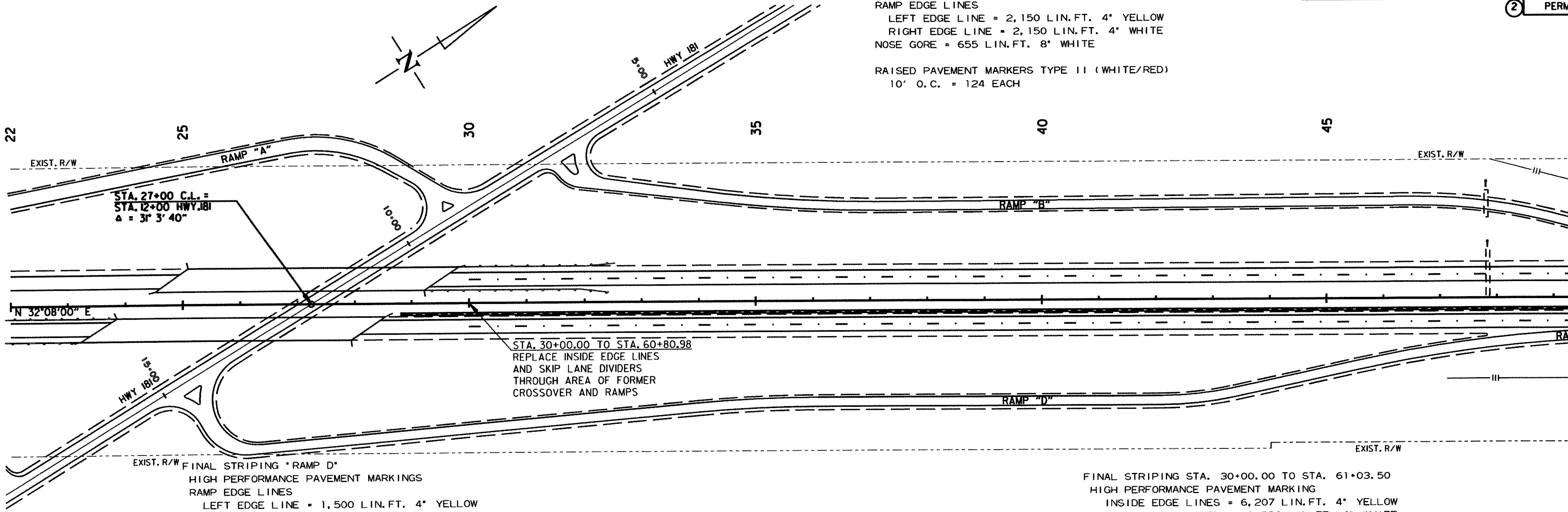
(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13

FINAL STRIPING RAMP "B"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES
LEFT EDGE LINE = 2,150 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 2,150 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH



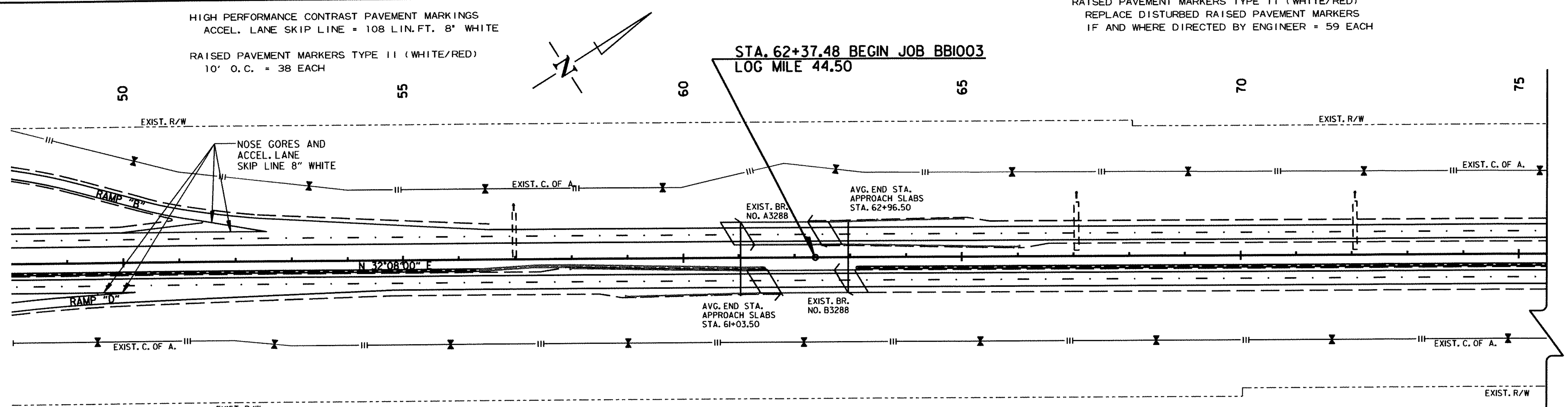
FINAL STRIPING "RAMP D"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES
LEFT EDGE LINE = 1,500 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 1,500 LIN.FT. 4" WHITE
NOSE GORE = 120 LIN.FT. 8" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
ACCEL. LANE SKIP LINE = 108 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING STA. 30+00.00 TO STA. 61+03.50
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 6,207 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 1,552 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
REPLACE DISTURBED RAISED PAVEMENT MARKERS
IF AND WHERE DIRECTED BY ENGINEER = 59 EACH



FINAL STRIPING STA. 61+03.50 TO STA. 62+96.50
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 386 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 386 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS BOTH DIRECTIONS ON
BRIDGE NO. A & B 3288 = 97 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 5 EACH

STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR
DETAILS OF PLACEMENT OF STRIPING AND
PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

FINAL STRIPING STA. 62+96.50 TO STA. 90+00.00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 5,407 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 5,407 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS
BOTH DIRECTIONS = 1,352 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 49 EACH

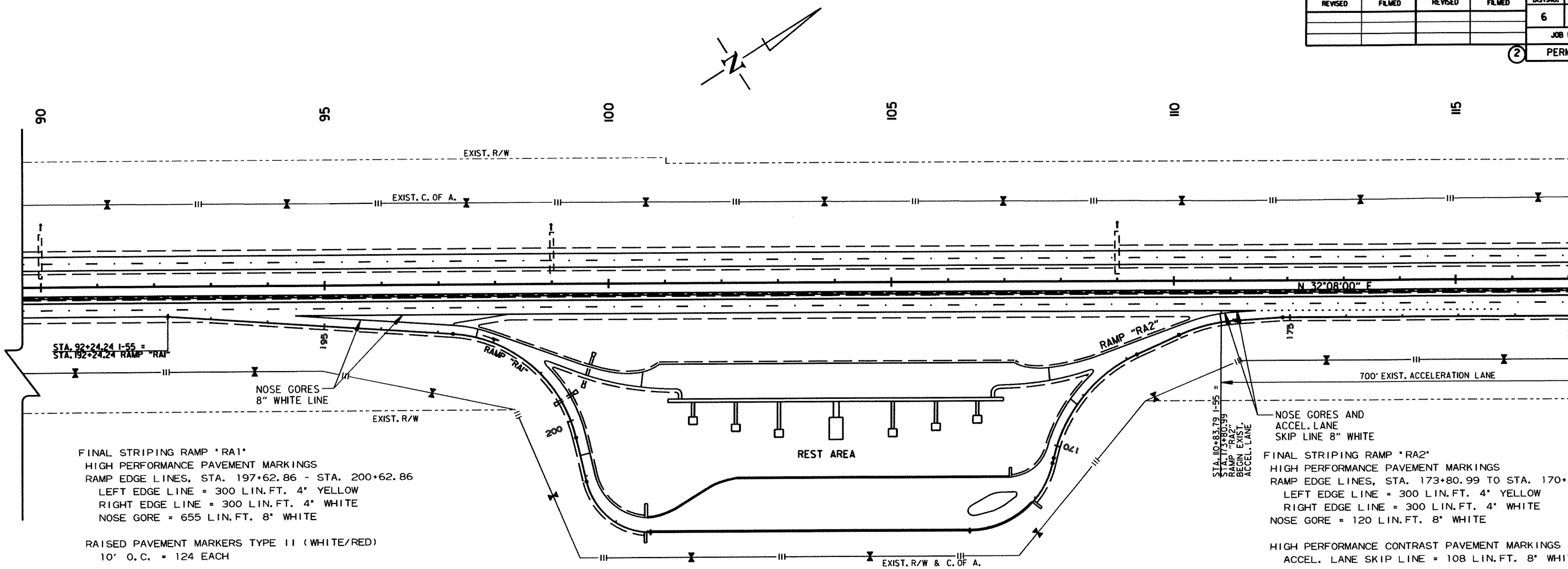
CONCRETE ALTERNATE (ALT. 2)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	BB1003	131	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



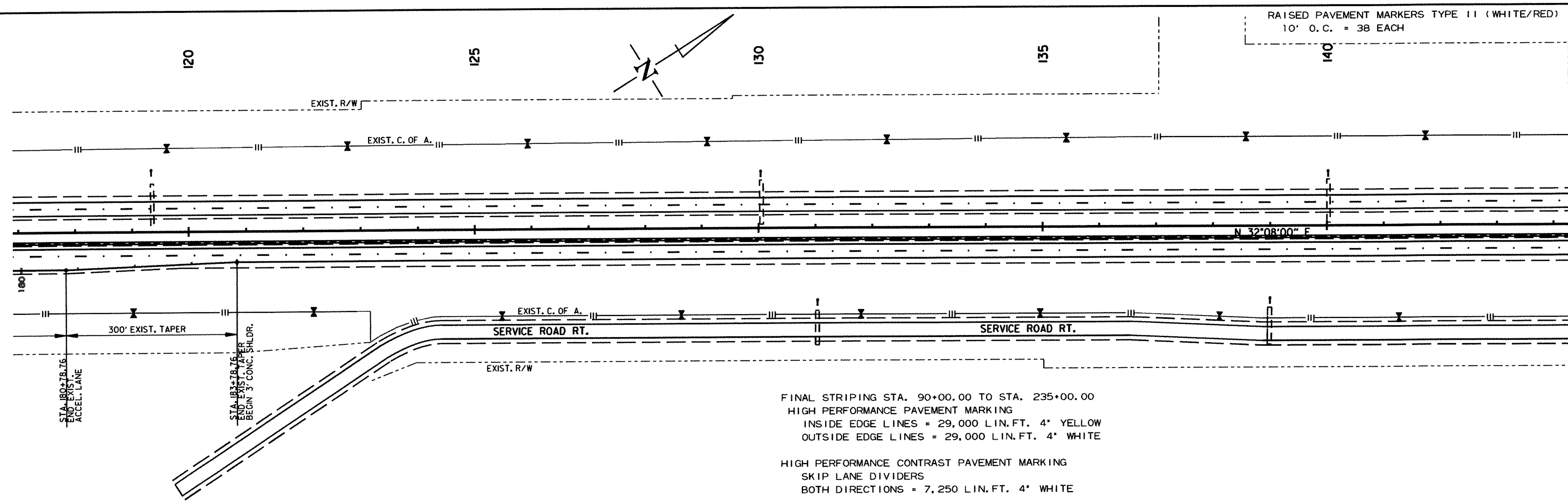
FINAL STRIPING RAMP "RA1"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 197+62.86 - STA. 200+62.86
LEFT EDGE LINE = 300 LIN. FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN. FT. 4" WHITE
NOSE GORE = 655 LIN. FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH

FINAL STRIPING RAMP "RA2"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 173+80.99 TO STA. 170+80.99
LEFT EDGE LINE = 300 LIN. FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN. FT. 4" WHITE
NOSE GORE = 120 LIN. FT. 8" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
ACCEL. LANE SKIP LINE = 108 LIN. FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH



FINAL STRIPING STA. 90+00.00 TO STA. 235+00.00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 29,000 LIN. FT. 4" YELLOW
OUTSIDE EDGE LINES = 29,000 LIN. FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS
BOTH DIRECTIONS = 7,250 LIN. FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
40' O.C. ON SKIP LANE DIVIDERS = 363 EACH

REFER ALSO TO STANDARD DRAWING PM-2 FOR DETAILS OF PLACEMENT OF STRIPING AND PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

CONCRETE ALTERNATE (ALT. 2)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	132	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13

FINAL STRIPING STA. 235+00 TO STA. 258+57.64
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 4,715 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 4,715 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS
BOTH DIRECTIONS = 1,179 LIN.FT. 4" WHITE

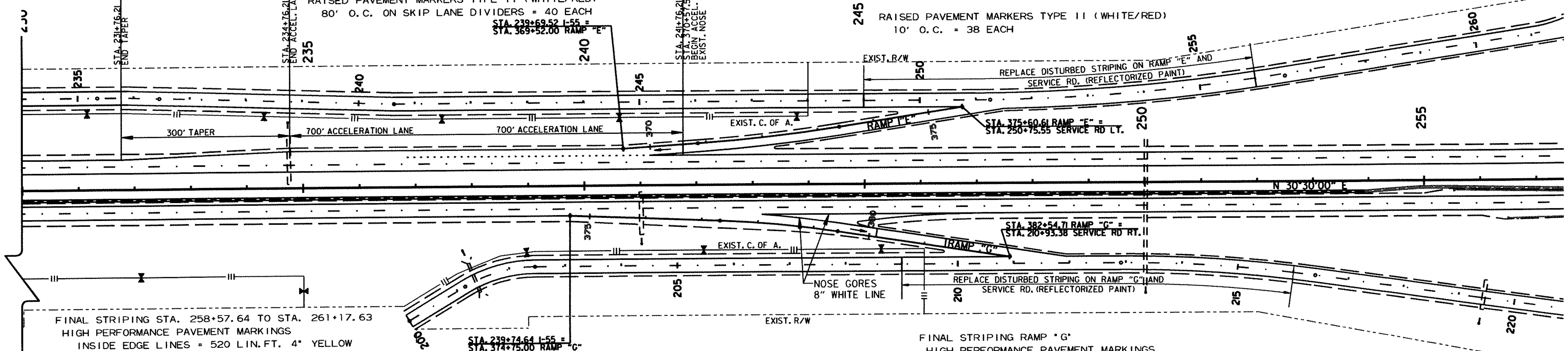
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 40 EACH

FINAL STRIPING RAMP "E"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 370+57.50 TO STA. 374+45.50
LEFT EDGE LINE = 388 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 388 LIN.FT. 4" WHITE
NOSE GORE = 120 LIN.FT. 8" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
ACCEL. LANE SKIP LINE = 108 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING LEFT SERVICE RD & PART OF RAMP "E"
THERMOPLASTIC PAVEMENT MARKINGS
LT. & RT. EDGE LINES = 1,515 LIN.FT. 4" WHITE
SKIP CENTERLINE = 465 LIN.FT. 4" YELLOW



FINAL STRIPING STA. 258+57.64 TO STA. 261+17.63
HIGH PERFORMANCE PAVEMENT MARKINGS
INSIDE EDGE LINES = 520 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 520 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS BOTH DIRECTIONS ON
BRIDGE NO. A & B 3289 = 130 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 6 EACH

FINAL STRIPING RAMP "G"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES, STA. 380+12.34 TO STA. 381+37.34
LEFT EDGE LINE = 125 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 125 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

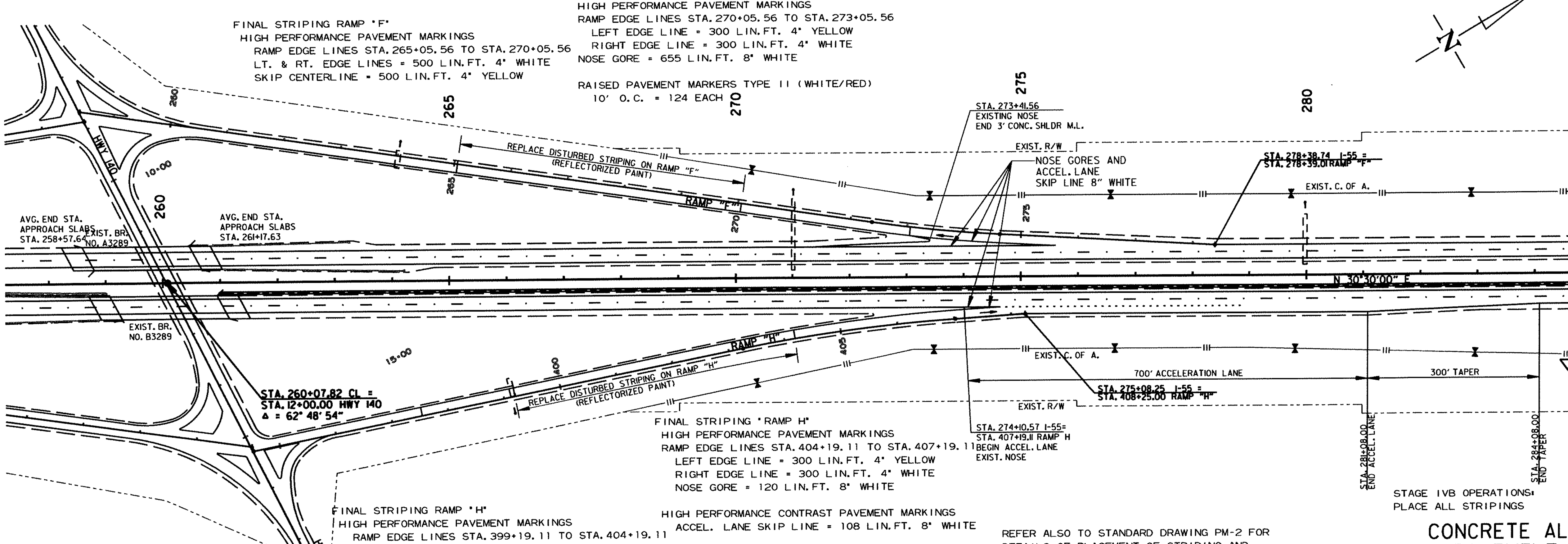
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH

FINAL STRIPING RIGHT SERVICE RD & PART OF RAMP "G"
THERMOPLASTIC PAVEMENT MARKINGS
LT. & RT. EDGE LINES = 1,517 LIN.FT. 4" WHITE
SKIP CENTERLINE = 467 LIN.FT. 4" YELLOW

FINAL STRIPING RAMP "F"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 265+05.56 TO STA. 270+05.56
LT. & RT. EDGE LINES = 500 LIN.FT. 4" WHITE
SKIP CENTERLINE = 500 LIN.FT. 4" YELLOW

FINAL STRIPING RAMP "F"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 270+05.56 TO STA. 273+05.56
LEFT EDGE LINE = 300 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN.FT. 4" WHITE
NOSE GORE = 655 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 124 EACH



FINAL STRIPING "RAMP H"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 404+19.11 TO STA. 407+19.11
LEFT EDGE LINE = 300 LIN.FT. 4" YELLOW
RIGHT EDGE LINE = 300 LIN.FT. 4" WHITE
NOSE GORE = 120 LIN.FT. 8" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
ACCEL. LANE SKIP LINE = 108 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
10' O.C. = 38 EACH

FINAL STRIPING RAMP "H"
HIGH PERFORMANCE PAVEMENT MARKINGS
RAMP EDGE LINES STA. 399+19.11 TO STA. 404+19.11
LT. & RT. EDGE LINES = 500 LIN.FT. 4" WHITE
SKIP CENTERLINE = 500 LIN.FT. 4" YELLOW

STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR DETAILS OF PLACEMENT OF STRIPING AND PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

CONCRETE ALTERNATE (ALT. 2)
PERMANENT PAVEMENT MARKING DETAILS

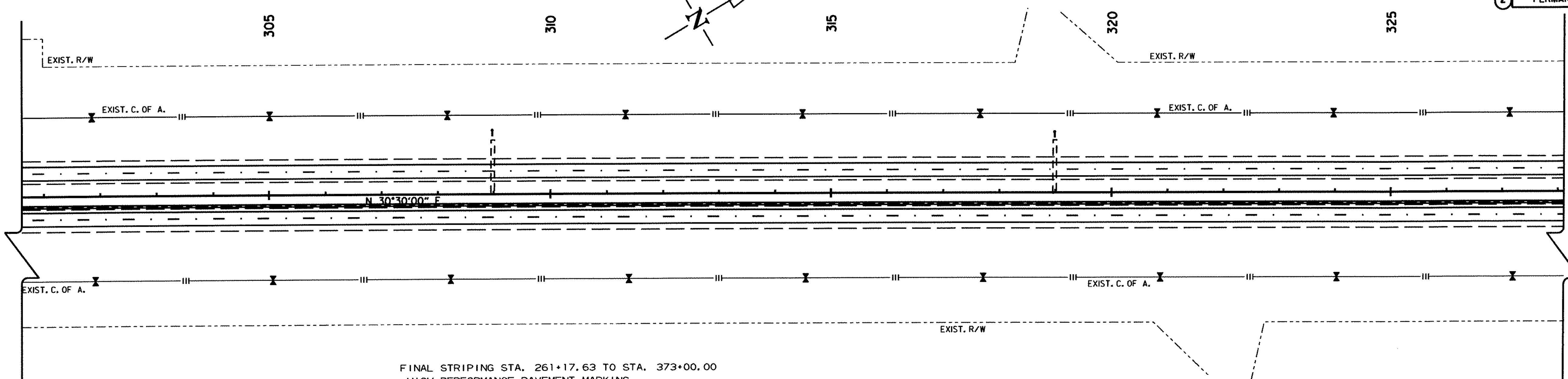
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	133	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13



FINAL STRIPING STA. 261+17.63 TO STA. 373+00.00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 22,365 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 22,365 LIN.FT. 4" WHITE

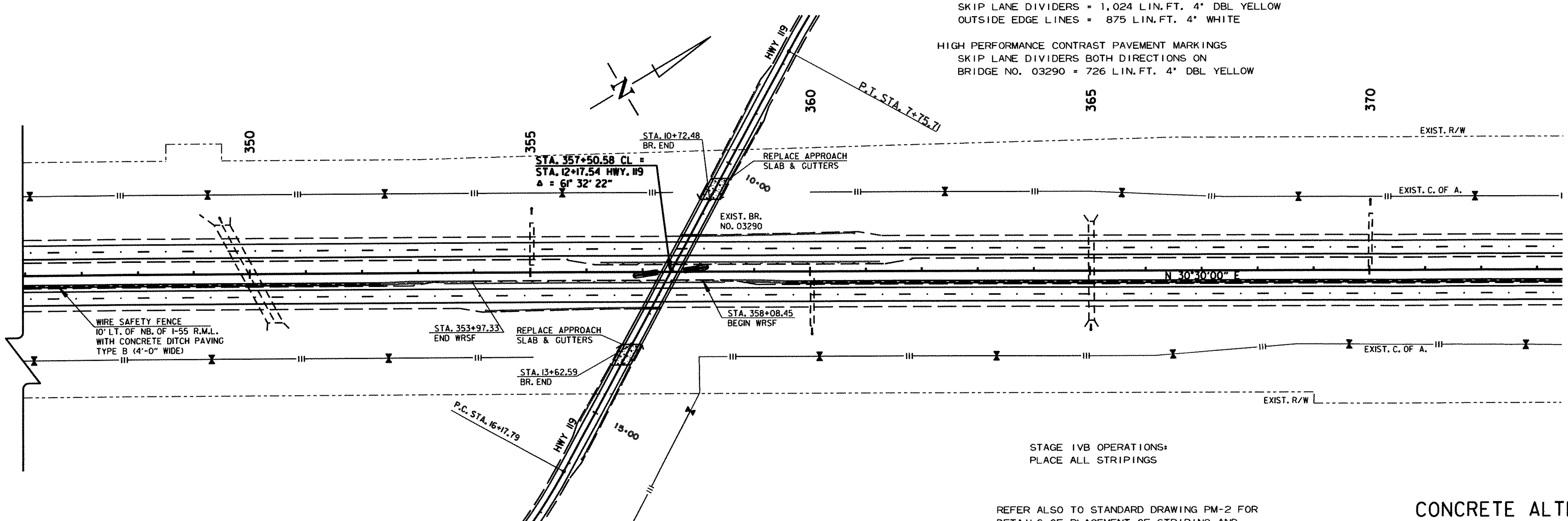
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS
BOTH DIRECTIONS = 5,591 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (RED/WHITE)
80' O.C. ON SKIP LANE DIVIDERS = 261 EACH

FINAL STRIPING HWY. 119
STA. 7+75.00 TO STA. 16+50.00

THERMOPLASTIC PAVEMENT MARKINGS
INSIDE EDGE LINES = 875 LIN.FT. 4" WHITE
SKIP LANE DIVIDERS = 1,024 LIN.FT. 4" DBL YELLOW
OUTSIDE EDGE LINES = 875 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
SKIP LANE DIVIDERS BOTH DIRECTIONS ON
BRIDGE NO. 03290 = 726 LIN.FT. 4" DBL YELLOW



STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR
DETAILS OF PLACEMENT OF STRIPING AND
PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

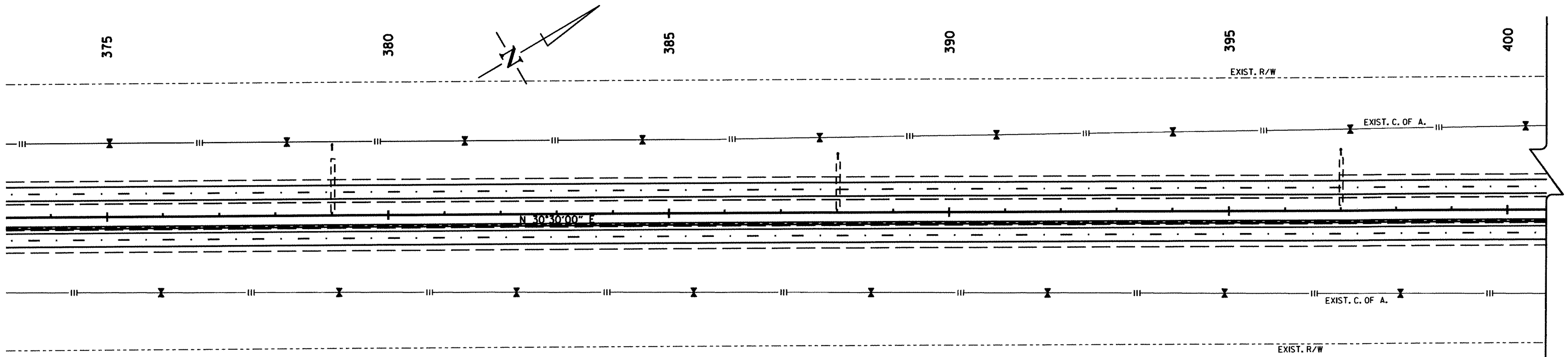
CONCRETE ALTERNATE (ALT. 2)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	134	215

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



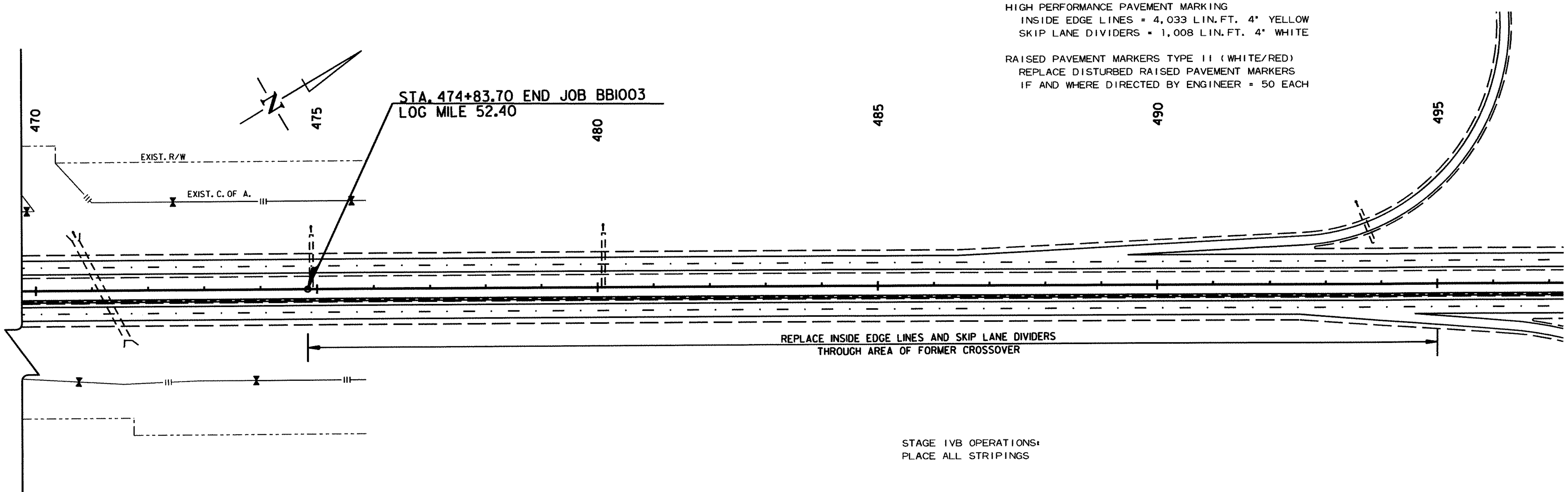
FINAL STRIPING STA. 373+00 TO STA. 474+83.70
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 20,367 LIN.FT. 4" YELLOW
OUTSIDE EDGE LINES = 20,367 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
SKIP LANE DIVIDERS
BOTH DIRECTIONS = 5,092 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
80' O.C. ON SKIP LANE DIVIDERS = 255 EACH

FINAL STRIPING STA. 474+83.70 TO STA. 495+00
HIGH PERFORMANCE PAVEMENT MARKING
INSIDE EDGE LINES = 4,033 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 1,008 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)
REPLACE DISTURBED RAISED PAVEMENT MARKERS
IF AND WHERE DIRECTED BY ENGINEER = 50 EACH



STAGE IVB OPERATIONS:
PLACE ALL STRIPINGS

REFER ALSO TO STANDARD DRAWING PM-2 FOR
DETAILS OF PLACEMENT OF STRIPING AND
PAVEMENT MARKERS ON EXIT AND ENTRANCE RAMPS.

CONCRETE ALTERNATE (ALT. 2)
PERMANENT PAVEMENT MARKING DETAILS

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	135	215

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY

05/20/13

CONSTRUCTION PAVEMENT MARKINGS (ALT 1)

DESCRIPTION	STAGES								MAXIMUM NUMBER REQUIRED	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS
	STAGE I-A	STAGE I-B	STAGE II-A	STAGE II-B	STAGE III-A	STAGE III-B	STAGE IV-A	STAGE IV-B			
	SQ. FT.-LIN.FT.-EACH									LIN.FT.	
REMOVAL OF PERMANENT PAVEMENT MARKINGS			53020	1194		1172			55386	55386	
CONSTRUCTION PAVEMENT MARKINGS		10838	135568	3802	179276	4386			333870		333870
TOTALS:										55386	333870

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

CONSTRUCTION PAVEMENT MARKINGS (ALT 2)

DESCRIPTION	STAGES								MAXIMUM NUMBER REQUIRED	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
	STAGE I-A	STAGE I-B	STAGE II-A	STAGE II-B	STAGE III-A	STAGE III-B	STAGE IV-A	STAGE IV-B				
	SQ. FT.-LIN.FT.-EACH									LIN.FT.		
REMOVAL OF PERMANENT PAVEMENT MARKINGS			53020	1194		1172			55386	55386		
CONSTRUCTION PAVEMENT MARKINGS		10838	135568	3802	52028	4386			206622		206622	
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS					127248				127248			127248
TOTALS:										55386	206622	127248

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGES								MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	FURNISHING AND INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	MODULAR GLARE SHIELD
			STAGE I-A	STAGE I-B	STAGE II-A	STAGE II-B	STAGE III-A	STAGE III-B	STAGE IV - A	STAGE IV -B						RIGHT	LEFT					
			SQ. FT.-LIN.FT.-EACH									NO.	SQ. FT.	EACH	EACH	LIN.FT.		DAY	WEEK	LIN.FT.	LIN.FT.	LIN.FT.
G20-1	ROAD WORK NEXT X.X MILES	60"x24"	4	4	4	4	4	4	4	4	4	4	40									
G20-2	END ROAD WORK	48"x24"	6	6	6	6	6	6	6	6	6	6	48									
M4-10R	DETOUR ARROW	48"x18"				4	4	4			4	4	24									
M4-10L	DETOUR ARROW	48"x18"				4	4	4			4	4	24									
OM-3L	OBJECT MARKER	12"x36"			1	1	1	1			1	1	3									
R2-5A	REDUCED SPEED AHEAD	48"x60"	4	4	4	4	4	4	4	4	4	4	80									
R2-1	SPEED LIMIT 60 MPH	48"x60"	4	4	4	4	4	4	4	4	4	4	80									
R2-1	SPEED LIMIT 70 MPH	48"x60"	4	4	4	4	4	4	4	4	4	4	80									
R2-2	TRUCKS SPEED LIMIT 65 MPH	48"x48"	4	4	4	4	4	4	4	4	4	4	64									
R4-1	DO NOT PASS	48"x60"	16	16	16	16	16	16	16	16	16	16	320									
R5-1	DO NOT ENTER	48"x48"			1	1	1	1			1	1	16									
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	4	4	4	4	4	4	4	4	4	4	60									
R11-2	ROAD CLOSED	48"x30"	6	6	17	17	17	18	6	6	18	18	180									
R11-3A	HWY 119 CLOSED AHEAD USE DETOUR	60"x30"				5	5	5			5	5	63									
RSP-1	SHOULDER CLOSED	48"x30"	4	4	4	4	4	4	4	4	4	4	40									
SPECIAL 1	MERGE NOW + ARROW	48"x48"	2	2	2	2	2	2	2	2	2	2	32									
W1-4R	REVERSE CURVE RT.	48"x48"			5	5	5	5			5	5	80									
W1-4L	REVERSE CURVE LT.	48"x48"			5	5	5	5			5	5	80									
W1-6	LARGE ARROW	48"x24"			3	2	1	1			3	3	24									
W1-6	LARGER ARROW	60"x30"			3	3	3	3	3	3	3	3	38									
W1-8	CHEVRONS	36"x48"			9	9	9	9			9	9	108									
W13-1(40)	ADVISORY SPEED (40 MPH)	24"x24"			4	4	4	4			4	4	16									
W20-1	ROAD CLOSED 1,000 FEET	48"x48"			4	4	4	4			4	4	64									
W20-1	ROAD CLOSED 500 FEET	48"x48"			4	4	4	4			4	4	64									
W20-1	ROAD WORK AHEAD	48"x48"	2	2	2	2	2	2	2	2	2	2	32									
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	4	4	4	4	4	4	4	4	4	4	64									
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	4	4	4	4	4	4	4	4	4	4	64									
W20-5	RIGHT LANE CLOSED 1500 FEET	48"x48"	4	4	4	4	4	4	4	4	4	4	64									
W4-2R	RIGHT LANE CLOSING GRAPHIC	48"x48"	4	4	4	4	4	4	4	4	4	4	64									
	VERTICAL PANELS				205	205	205				205			205								
	TRAFFIC DRUMS		1244	1159	349	343	400	377	1194	1232	1244				1244							
	TYPE III BARRICADE-RT. (16')		3	3	13	14	14	15	4	3	15					240						
	TYPE III BARRICADE-LT. (16')		3	3	11	9	9	9	2	3	11						176					
	ADVANCE WARNING ARROW PANEL		1	1	2	2	2	2	2	2	2							800	286			
	PORTABLE CHANGEABLE MESSAGE SIGN		2	2	5	5	5	5	2	2	5							800	286			
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER				42600		160													42760		
	RELOCATING PRECAST CONCRETE BARRIER						42600														42600	
	MODULAR GLARE SHIELD				600	600	600	600			600											600
TOTALS:													1916	205	1244	240	176	1600	572	42760	42600	600

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

5/20/2013

QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
05/20/13

PERMANENT PAVEMENT MARKINGS - ALT.1

DESCRIPTION	STAGES								MAXIMUM NUMBER REQUIRED	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE PAVEMENT MARKINGS			THERMOPLASTIC PAVEMENT MARKINGS		HIGH PERFORMANCE CONTRAST PAVEMENT	
	STAGE I-A	STAGE I-B	STAGE II-A	STAGE II-B	STAGE III-A	STAGE III-B	STAGE IV-A	STAGE IV-B		TYPE II (WHITE/RED)	4" WHITE	4" YELLOW	8" WHITE	4" WHITE	4" YELLOW	4" WHITE	4" YELLOW
	SQ. FT.-LIN.FT.-EACH									EACH	LIN.FT.			LIN.FT.		LIN.FT.	
RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)								1612	1612	1612							
THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")								4782	4782					4782			
THERMOPLASTIC PAVEMENT MARKINGS-YELLOW (4")								1956	1956						1956		
HIGH PERFORMANCE PAVEMENT MARKINGS-WHITE(4")								112147	112147		112147						
HIGH PERFORMANCE PAVEMENT MARKINGS-YELLOW(4")								98563	98563			98563					
HIGH PERFORMANCE PAVEMENT MARKINGS-WHITE(8")								3532	3532				3532				
HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS-WHITE(4")								227	227							227	
HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS-YELLOW(4")								726	726								726
	TOTALS:									**1612**	**112147**	**98563**	**3532**	**4782**	**1956**	**227**	**726**

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

PERMANENT PAVEMENT MARKINGS - ALT.2

DESCRIPTION	STAGES								MAXIMUM NUMBER REQUIRED	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE PAVEMENT MARKINGS			THERMOPLASTIC PAVEMENT MARKINGS		HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS		
	STAGE I-A	STAGE I-B	STAGE II-A	STAGE II-B	STAGE III-A	STAGE III-B	STAGE IV-A	STAGE IV-B		TYPE II (WHITE/RED)	4" WHITE	4" YELLOW	8" WHITE	4" WHITE	4" YELLOW	4" WHITE	4" YELLOW	8" WHITE
	SQ. FT.-LIN.FT.-EACH									EACH	LIN.FT.			LIN.FT.		LIN.FT.		
RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)								1612	1612	1612								
THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")								4782	4782					4782				
THERMOPLASTIC PAVEMENT MARKINGS-YELLOW (4")								1956	1956						1956			
HIGH PERFORMANCE PAVEMENT MARKINGS-WHITE(4")								91683	91683		91683							
HIGH PERFORMANCE PAVEMENT MARKINGS-YELLOW(4")								98563	98563			98563						
HIGH PERFORMANCE PAVEMENT MARKINGS-WHITE(8")								3100	3100				3100					
HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS-WHITE(4")								20691	20691							20691		
HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS-YELLOW(4")								726	726								726	
HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS-WHITE(8")								432	432									432
	TOTALS:									**1612**	**91683**	**98563**	**3100**	**4782**	**1956**	**20691**	**726**	**432**

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

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)	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	BAG	LIN.FT.	LIN.FT.	CU. YD.
ENTIRE	PROJECT	PRIOR TO CONSTRUCTION									1144	1128	285	52
ENTIRE	PROJECT	FINAL SEEDING - END OF PROJECT	51.00	102.00	51.00	5202.0	51.00							
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.								10.00	10.00	204.0				
TOTALS:			**51.00**	**102.00**	**51.00**	**5202.0**	**51.00**	**10.00**	**10.00**	**204.0**	**1144**	**1128**	**285**	**52**

BASIS OF ESTIMATE:
LIME ....2 TONS / ACRE OF SEEDING
WATER..102.0 M.G. / ACRE OF SEEDING.
WATER..20.4 M.G. / ACRE OF TEMPORARY SEEDING.
SAND BAG DITCH CHECKS..........22 BAGS / LOCATION
ROCK DITCH CHECKS.................3 CU.YD./LOCATION

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

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/18/13

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	APPROACH SLAB & GUTTERS EACH	CONCRETE PIER PROTECTION (TYPE A) LIN. FT.	GUARDRAIL LIN.FT.	IMPACT ATTENUATION BARRIER EACH
62+37.48	62+73.98	LEFT MAIN LANE	1			
258+34.45	258+70.95	LEFT MAIN LANE	1			
62+82.52	63+19.02	RIGHT MAIN LANE	1			
258+80.83	259+17.33	RIGHT MAIN LANE	1			
10+72.48	10+35.98	LEFT OF HWY 119	1			
13+62.59	13+99.09	RIGHT OF HWY 119	1			
357+17.00	-	IMPACT ATTENUATION BARRIER				1
357+87.00	-	IMPACT ATTENUATION BARRIER				1
357+68.00	358+00.00	LT. OF LEFT MAIN LANE		32		
357+00.00	357+32.00	RT. OF LEFT MAIN LANE		32		
58+31.46	61+51.46	LT. OF RIGHT MAIN LANE			320	
59+06.04	61+76.04	RT. OF RIGHT MAIN LANE			270	
62+23.96	64+93.96	LT. OF LEFT MAIN LANE			270	
62+48.54	65+68.54	RT. OF LEFT MAIN LANE			320	
257+07.68	259+07.68	LT. OF LEFT MAIN LANE			200	
257+29.15	259+29.15	RT. OF LEFT MAIN LANE			200	
260+56.12	262+56.12	LT. OF RIGHT MAIN LANE			200	
260+67.59	262+67.59	RT. OF RIGHT MAIN LANE			200	
355+00.00	357+00.00	RT. OF RIGHT MAIN LANE			200	
358+00.00	360+00.00	LT. OF LEFT MAIN LANE			200	
10+14.35	10+64.35	LT. OF HWY 119			50	
10+30.62	10+80.62	RT. OF HWY 119			50	
13+54.46	14+04.46	LT. OF HWY 119			50	
13+70.72	14+20.72	RT. OF HWY 119			50	
TOTALS:			6	64	2580	2

NOTE: THE REMOVAL AND DISPOSAL OF APPROACH SLABS & GUTTERS SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE DROP INLETS, SPILLWAY PIPE AND SPILLWAY OUTLETS AS DIRECTED IN SECTION 202.

RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT (ALT 1)

STATION	STATION	LOCATION	LENGTH LIN. FT.	AVG. WIDTH FEET	SQ.YD.
69+19.02	252+80.83	RIGHT MAIN LANES	18362	27	55086
267+40.82	476+00.00	RIGHT MAIN LANES	20859	27	62577
92+24.24	98+23.18	RIGHT MAIN LANES -RAMP RAI	599	VAR.	1093
110+83.79	120+83.79	RIGHT MAIN LANES - RAMP RA2, ACCELERATION LANE & TAPER	1000	VAR.	1178
239+74.64	242+11.43	RIGHT MAIN LANES - RAMP G	237	VAR.	899
274+10.57	277+06.76	RIGHT MAIN LANES - RAMP H	296	VAR.	307
68+73.98	252+34.45	LEFT MAIN LANES	18360	27	55080
266+94.93	470+25.00	LEFT MAIN LANES	20330	27	60990
238+84.69	241+76.21	LEFT MAIN LANES - RAMP E	292	VAR.	307
271+30.52	278+38.74	LEFT MAIN LANES - RAMP F	708	VAR.	933
TOTAL:					238450

ACHM PATCHING OF EXISTING ASPHALT SHOULDER

LOCATION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

NOTE: QUANTITIES ARE ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS. FOR ACHM PATCHING OF EXISTING ASPHALT SHOULDERS, THE PG BINDER WILL MATCH THE PG BINDER OF THE SURFACE COURSE USED ON THE LANES.

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT (ALT. 1)

STATION	STATION	LOCATION	LENGTH (FEET)	AVG. WIDTH (FEET)	SQ.YD.
63+19.02	69+19.02	RIGHT MAIN LANES	600.00	27	1800.0
252+80.83	258+80.83	RIGHT MAIN LANES	600.00	27	1800.0
261+40.82	267+40.82	RIGHT MAIN LANES	600.00	27	1800.0
62+73.98	68+73.98	LEFT MAIN LANES	600.00	27	1800.0
252+34.45	258+34.45	LEFT MAIN LANES	600.00	27	1800.0
260+94.43	266+94.43	LEFT MAIN LANES	600.00	27	1800.0
231+77.00	241+81.59	RAMP E ACCELERATION LANE & TAPER	1004.59	3	334.9
274+01.78	284+08.00	RAMP H ACCELERATION LANE & TAPER	1006.22	3	335.4
TOTAL:					11470.3

FENCING

STATION	STATION	SIDE	REMOVAL AND DISPOSAL OF FENCE LIN. FT.	WIRE FENCE (TYPE A) LIN. FT.	12" VEHICULAR GATES EACH
63+19	96+70	RIGHT	3351	3351	
112+30	126+50	RIGHT	1420	1420	
126+50	126+50	RIGHT			1
126+62	145+20	RIGHT	1858	1858	
147+65	178+25	RIGHT	3060	3060	
203+70	228+75	RIGHT	2505	2505	
229+65	238+70	RIGHT	905	905	
247+15	264+95	RIGHT	1780	1780	
260+55	272+60	RIGHT	1205	1205	
272+60	349+95	RIGHT	7735	7735	
350+90	355+70	RIGHT	480	480	
355+70	355+70	RIGHT			1
355+82	356+75	RIGHT	93	93	
359+10	410+65	RIGHT	5155	5155	
411+50	474+84	RIGHT	6334	6334	
62+74	138+25	LEFT	7551	7551	
139+00	142+70	LEFT	370	370	
145+20	188+10	LEFT	4290	4290	
189+05	196+40	LEFT	735	735	
246+45	260+75	LEFT	1430	1430	
256+40	272+60	LEFT	1620	1620	
272+60	349+00	LEFT	7640	7640	
349+90	356+00	LEFT	610	610	
356+00	356+00	LEFT			1
356+12	357+75	LEFT	163	163	
358+35	409+90	LEFT	5155	5155	
410+75	474+84	LEFT	6409	6409	
TOTALS:			71854	71854	3

NOTE: REMOVAL OF EXISTING GATES SHALL BE MEASURED AND PAID FOR AS "REMOVAL AND DISPOSAL OF FENCE". PRIOR TO STATION 147+65 RIGHT AND 159+05 LEFT THE FENCING HAS ALREADY BEEN REPLACED WITH METAL POSTS AND IS IN FAIR CONDITION.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	198	396
TOTALS:	198	396

NOTE: QUANTITIES ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
BASIS OF ESTIMATE: 25 TONS PER MILE
TACK COAT - 50 GAL. PER MILE

SCARIFYING CONCRETE PAVEMENT (ALT 1)

STATION	STATION	LOCATION	AVG. WIDTH FEET	SQ. YD.
110+53.61	111+03.61	RIGHT MAIN LANES - RAMP RA1	15	83.33
123+93.00	124+43.00	RIGHT MAIN LANES - RAMP RA2	15	83.33
306+21.98	306+71.98	RIGHT MAIN LANES - RAMP G	15	83.33
409+70.48	410+20.48	RIGHT MAIN LANES - RAMP H	15	83.33
307+97.77	308+47.77	LEFT MAIN LANES - RAMP E	15	83.33
412+49.44	412+99.44	LEFT MAIN LANES - RAMP F	15	83.33
TOTAL:				499.98

NOTE: AVERAGE MILLING DEPTH 1".

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT (ALT. 2)

STATION	STATION	LOCATION	LENGTH (FEET)	AVG. WIDTH (FEET)	SQ.YD.
63+19.02	69+19.02	RIGHT MAIN LANES	600.00	27	1800.0
252+80.83	258+80.83	RIGHT MAIN LANES	600.00	27	1800.0
261+40.82	267+40.82	RIGHT MAIN LANES	600.00	27	1800.0
62+73.98	68+73.98	LEFT MAIN LANES	600.00	27	1800.0
252+34.45	258+34.45	LEFT MAIN LANES	600.00	27	1800.0
260+94.43	266+94.43	LEFT MAIN LANES	600.00	27	1800.0
231+77.00	241+81.59	RAMP E ACCELERATION LANE & TAPER	1004.59	3	334.9
274+01.78	284+08.00	RAMP H ACCELERATION LANE & TAPER	1006.22	3	335.4
197+62.86	200+62.86	RAMP "RA1"	300.00	15	500.0
198+90.70	199+93.30	RAMP "RA1"	102.60	15	171.0
170+80.99	173+80.99	RAMP "RA2"	300.00	15	500.0
170+86.25	171+42.37	RAMP "RA2"	56.12	15	93.5
370+57.50	373+57.50	RAMP "E"	300.00	15	500.0
270+05.56	273+05.56	RAMP "F"	300.00	15	500.0
380+12.34	381+37.34	RAMP "G"	125.00	15	208.3
404+19.11	407+19.11	RAMP "H"	300.00	15	500.0
TOTAL:					14443.1

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)

STATION	STATION	LOCATION	LIN. FT.
357+68.00	358+00.00	LT. OF LEFT MAIN LANE	32
357+00.00	357+32.00	RT. OF RIGHT MAIN LANE	32
TOTAL:			64

COLD MILLING ASPHALT PAVEMENT (ALT 1 & 2)

STATION	STATION	LOCATION	AVG. WIDTH FEET	SQ. YD.
458+25.00	470+25.00	RIGHT MAIN LANES - PAVING TRANSITION	38	5066.67
464+00.00	476+00.00	LEFT MAIN LANES - PAVING TRANSITION	38	5066.67
TOTAL:				10133.34

NOTE: AVERAGE MILLING DEPTH 1".

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/29/2013				6	ARK.			
					JOB NO.	BB1003	138	215
				②	QUANTITIES			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 ANDREW PINKLEY

5/29/13

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	BORROW	**SELECTED MATERIAL (SM-3)	***SOIL STABILIZATION
			CU. YD.				TON
11+50.00	17+17.76	RT. OF RIGHT MAIN LANES - RAMP "D-1" - STAGE IA CONSTRUCTION	18	763			
45+05.23	47+27.86	RT. OF RIGHT MAIN LANES - RAMP "G-1" - STAGE IA CONSTRUCTION	5	311			
51+63.66	52+65.32	RT. OF RIGHT MAIN LANES - RAMP "H-1" - STAGE IA CONSTRUCTION	9	118			
11+77.00	17+79.78	RT. OF LEFT MAIN LANES - RAMP "B-1" - STAGE IA CONSTRUCTION	18	763			
44+38.92	45+24.46	RT. OF LEFT MAIN LANES - RAMP "E-1" - STAGE IA CONSTRUCTION	7	107			
51+71.31	53+12.88	RT. OF LEFT MAIN LANES - RAMP "F-1" - STAGE IA CONSTRUCTION	11	163			
33+21.00	43+21.00	RT. OF RIGHT MAIN LANES - TEMPORARY ACCELERATION & TAPER LANE- STAGE IA CONSTRUCTION	98				
274+01.78	284+01.78	RT. OF RIGHT MAIN LANES - TEMPORARY ACCELERATION & TAPER LANE- STAGE IA CONSTRUCTION	55				
231+81.59	241+81.59	RT. OF LEFT MAIN LANES - TEMPORARY ACCELERATION & TAPER LANE- STAGE IA CONSTRUCTION	55				
482+61.65	492+61.65	RT. OF LEFT MAIN LANES - TEMPORARY ACCELERATION & TAPER LANE- STAGE IA CONSTRUCTION	50				
226+36.23	236+36.23	LT. OF RIGHT MAIN LANES - TEMPORARY ACCELERATION & TAPER LANE- STAGE IB CONSTRUCTION	148	443			
279+23.60	289+23.60	LT. OF LEFT MAIN LANES - TEMPORARY ACCELERATION & TAPER LANE- STAGE IB CONSTRUCTION	148	443			
48+12.00	56+84.90	MEDIAN - MAIN LANE CROSSOVER 1 - STAGE 1B CONSTRUCTION	775	420			
236+36.23	245+27.41	MEDIAN - MAIN LANE CROSSOVER 2 - STAGE 1B CONSTRUCTION	775	420			
271+96.94	279+23.60	MEDIAN - MAIN LANE CROSSOVER 3 - STAGE 1B CONSTRUCTION	775	420			
475+00.00	483+72.90	MEDIAN - MAIN LANE CROSSOVER 4 - STAGE 1B CONSTRUCTION	775	420			
ENTIRE	PROJECT	REMOVAL OF CROSSOVERS, TEMPORARY RAMPS, AND ACCELERATION LANES (ASPHALT PAVEMENT)	8081				
274+08.00	284+08.00	RT. OF RIGHT MAIN LANES - ACCELERATION AND TAPER RECONSTRUCTION	252	567			
231+77.00	261+77.00	RT. OF LEFT MAIN LANES - ACCELERATION AND TAPER RECONSTRUCTION	252	567			
63+19.02	69+19.02	RIGHT MAIN LANES - FULL DEPTH CONSTRUCTION	622				
252+80.83	258+80.83	RIGHT MAIN LANES - FULL DEPTH CONSTRUCTION	622				
261+40.82	267+40.82	RIGHT MAIN LANES - FULL DEPTH CONSTRUCTION	622				
62+73.98	68+73.98	LEFT MAIN LANES - FULL DEPTH CONSTRUCTION	622				
252+34.45	258+34.45	LEFT MAIN LANES - FULL DEPTH CONSTRUCTION	622				
260+94.43	266+94.43	LEFT MAIN LANES - FULL DEPTH CONSTRUCTION	622				
63+19.02	97+80.58	RT. OF RIGHT MAIN LANES			235		
98+01.53	110+23.33	RT. OF RIGHT MAIN LANES			83		
110+87.01	245+19.94	RT. OF RIGHT MAIN LANES			912		
245+27.33	273+84.73	RT. OF RIGHT MAIN LANES			194		
274+02.58	468+83.70	RT. OF RIGHT MAIN LANES			1323		
63+19.02	468+83.70	LT. OF RIGHT MAIN LANES			4007		
62+73.98	241+74.80	RT. OF LEFT MAIN LANES			1216		
243+51.93	474+83.70	RT. OF LEFT MAIN LANES			1571		
62+73.98	474+83.70	LT. OF LEFT MAIN LANES			4071		
197+82.86	200+82.86	RAMP 'RA1'			30		
170+80.99	173+80.99	RAMP 'RA2'			30		
370+57.50	373+57.50	RAMP 'E'			30		
270+05.56	273+05.56	RAMP 'F'			30		
380+12.34	381+37.34	RAMP 'G'			12		
404+19.11	407+19.11	RAMP 'H'			30		
ENTIRE	PROJECT	GUARDRAIL WIDENING LOCATIONS		660			
* ENTIRE	PROJECT	AS DIRECTED BY ENGINEER				100	100
TOTALS:			**16039**	**6585**	**13774**	**100**	**100**

*NOTE: QUANTITIES ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.
**NOTE: IF ONLY SMALL, ISOLATED AREAS OF UNSTABLE SOIL ARE ENCOUNTERED IN THE EXPOSED SUBGRADE, UNDERCUT TO THE DEPTH OF STABLE MATERIAL, FOR A MAXIMUM OF 2 FEET.
***NOTE: IF LARGER, MORE WIDESPREAD AREAS OF INSTABILITY ARE ENCOUNTERED, STABILIZATION OF THE EXISTING SOIL TO A DEPTH OF 16 INCHES WITH PORTLAND CEMENT. IT IS ESTIMATED THAT APPROXIMATELY 9% PORTLAND CEMENT (BY DRY WEIGHT OF SOIL) WOULD BE NEEDED TO STABILIZE THE SOIL.
EARTHWORK QUANTITIES SHOWN ABOVE WILL BE PAID AS PLAN QUANTITY.

SHAPING DITCH

LOCATION	STATION
ENTIRE PROJECT AS DIRECTED BY ENGINEER	10.00
TOTAL:	10.00

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

FLOWABLE SELECT MATERIAL

LOCATION	CU. YD.
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

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

PORTLAND CEMENT CONCRETE CORRUGATIONS

LOCATION	ALT.1 & 2	ALT.1
	PORTLAND CEMENT CONCRETE CORRUGATIONS	PORTLAND CEMENT CONCRETE PAVEMENT 9" U.T.
	SQ.YD.	SQ.YD.
REST AREA EXIT RAMPS	50	50
HWY 140 EXIT RAMPS	140	140
TOTALS:	**190**	**190**

CULVERT CLEANOUT

LOCATION	EACH
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	70
TOTAL:	70

NOTE: QUANTITIES ARE 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	39
TOTALS:	39

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

5/29/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	139	215

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW P...

05/20/13

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POSTS (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
			LIN.FT.	EACH	EACH	EACH
58+25.81	61+44.56	LT. OF RT. MAIN LANES	250		1	1
59+00.39	61+69.14	RT. OF RT. MAIN LANES	200		1	1
62+30.86	64+99.61	LT. OF LT. MAIN LANES	200		1	1
62+55.44	65+74.19	RT. OF LT. MAIN LANES	250		1	1
225+82.02	229+00.77	LT. OF RT. MAIN LANES	250		1	1
226+53.50	229+22.25	RT. OF RT. MAIN LANES	200		1	1
260+53.02	263+21.77	LT. OF LT. MAIN LANES	200		1	1
260+74.49	263+93.24	RT. OF LT. MAIN LANES	250		1	1
334+24.93	336+93.68	RT. OF RT. MAIN LANES	200		1	1
338+07.09	340+75.84	LT. OF LT. MAIN LANES	200		1	1
356+24.64	360+74.64	LT. OF RT. MAIN LANES	450	1	1	
353+97.33	358+47.33	RT. OF LT. MAIN LANES	450	1	1	
9+13.70	10+57.45	LT OF HWY 119	75		1	1
8+54.97	10+73.72	RT OF HWY 119	150		1	1
13+61.36	15+80.11	LT OF HWY 119	150		1	1
13+77.62	15+21.27	RT OF HWY 119	75		1	1
TOTALS:			3550	2	16	14

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	F.A.P. HSIP-55-1(140)45 LENGTH	WIDTH	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	F.A.P. BIM-B55-0(206) WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
28+80.00	61+50.00	I-55 N.B. MAIN LANES - INSIDE	3270.00	4	1453.33	1453.33	18.31
63+12.63	259+00.00	I-55 N.B. MAIN LANES - INSIDE	19587.37	4	8705.50	8705.50	109.69
261+00.00	353+97.33	I-55 N.B. MAIN LANES - INSIDE	9297.33	4	4132.15	4132.15	52.07
358+08.45	500+18.10	I-55 N.B. MAIN LANES - INSIDE	14209.65	4	6315.40	6315.40	79.57
TOTALS:					20606.38	20606.38	259.64

NOTE: QUANTITIES ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
BASIS OF ESTIMATE:
WATER....................................12.6 GAL. / SQ. YD. OF SOLID SODDING.

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (ALT 1)

LOCATION	REMOVAL & DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (8" U.T.)	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" U.T.)
	SQ. YD.		
I-55 NORTHBOUND LANES	200	200	
I-55 SOUTHBOUND LANES	213	213	
RAMPS	60		60
SERVICE ROADS	33		33
TOTALS:	506	413	93

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

RUMBLE STRIPS

STATION	STATION	LOCATIONS	ALT.1 ASPHALT SHOULDER	ALT.2 PCC SHOULDER
			LIN. FT.	LIN. FT.
63+19.02	92+27.37	RT. OF RIGHT MAIN LANES	2908	2908
98+26.79	110+28.07	RT. OF RIGHT MAIN LANES	1201	1201
120+86.42	239+77.43	RT. OF RIGHT MAIN LANES	11891	11891
247+14.21	258+80.83	RT. OF RIGHT MAIN LANES	1167	1167
261+40.82	272+42.44	RT. OF RIGHT MAIN LANES	1102	1102
284+08.00	456+83.70	RT. OF RIGHT MAIN LANES	17276	17276
63+19.02	258+80.83	LT. OF RIGHT MAIN LANES	19562	19562
261+40.82	456+83.70	LT. OF RIGHT MAIN LANES	19543	19543
62+73.98	231+76.21	RT. OF LEFT MAIN LANES	16902	16902
243+43.63	258+34.45	RT. OF LEFT MAIN LANES	1491	1491
260+94.43	273+00.05	RT. OF LEFT MAIN LANES	1206	1206
278+41.80	462+83.70	RT. OF LEFT MAIN LANES	18442	18442
62+73.98	258+34.45	LT. OF LEFT MAIN LANES	19560	19560
260+94.43	462+83.70	LT. OF LEFT MAIN LANES	20189	20189
192+00.00	197+62.86	RT. OF RAMP RA-1 TAPER	563	563
173+80.99	183+78.76	RT. OF RAMP RA-2 TAPER	998	998
360+57.82	370+57.50	RT. OF RAMP E TAPER	1000	1000
273+05.56	278+37.65	RT. OF RAMP F TAPER	532	532
374+67.89	380+12.34	RT. OF RAMP G TAPER	544	544
407+19.11	417+16.54	RT. OF RAMP H TAPER	997	997
197+62.86	200+62.86	RT. OF RAMP RA-1	300	300
170+80.99	173+80.99	RT. OF RAMP RA-2	300	300
370+57.50	373+57.50	RT. OF RAMP E	300	300
273+05.56	276+05.56	RT. OF RAMP F	300	300
380+12.34	381+37.34	RT. OF RAMP G	125	125
404+19.11	407+19.11	RT. OF RAMP H	300	300
197+62.86	200+62.86	LT. OF RAMP RA-1	300	300
170+80.99	173+80.99	LT. OF RAMP RA-2	300	300
370+57.50	373+57.50	LT. OF RAMP E	300	300
270+05.56	273+05.56	LT. OF RAMP F	300	300
380+12.34	381+37.34	LT. OF RAMP G	125	125
404+19.11	407+19.11	LT. OF RAMP H	300	300
TOTALS:			160324	160324

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (ALT 2)

LOCATION	REMOVAL & DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (8" U.T.)	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" U.T.)
	SQ. YD.		
I-55 NORTHBOUND LANES	400		400
I-55 SOUTHBOUND LANES	425		425
RAMPS	120	120	
SERVICE ROADS	65	65	
TOTALS:	1010	185	825

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

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	F.A.P. HSIP-55-1(140)45 WIRE SAFETY FENCE	* WRSF ANCHOR	WRSF MAINTENANCE MATERIAL
			LIN. FT.	EACH	LUMP SUM
28+80.00	61+50.00	I-55 N.B. MAIN LANES - INSIDE	3270	2	
63+12.63	259+00.00	I-55 N.B. MAIN LANES - INSIDE	19587	2	
261+00.00	353+97.33	I-55 N.B. MAIN LANES - INSIDE	9297	2	
358+08.45	500+18.10	I-55 N.B. MAIN LANES - INSIDE	14210	2	
ENTIRE PROJECT					1.00
TOTALS:			46364	8	1.00

NOTE: * THIS ITEM SHOWN FOR INFORMATION ONLY

QUANTITIES

5/20/2013

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY

04/18/13

4" PIPE UNDERDRAIN (ALT 1)

STATION	STATION	LOCATIONS	LENGTH	4" PIPE UNDERDRAINS: UNDERDRAINS	4" PIPE UNDERDRAINS: DOUBLE LATERALS (NON PERFORATED)		4" PIPE UNDERDRAINS: TOTAL	UNDERDRAIN OUTLET PROTECTORS	UNDERDRAIN VIDEO INSPECTION
			LIN. FT.	LIN. FT.	NO.	LIN. FT.	LIN.FT.	EACH	LIN. FT.
63+19.02	69+19.02	RT. OF RIGHT MAIN LANES	600	600	2	80	680	2	680
69+19.02	252+80.83	RT. OF RIGHT MAIN LANES	18362	18362	73	2920	21282	73	21282
252+80.83	258+80.83	RT. OF RIGHT MAIN LANES	600	600	2	80	680	2	680
261+40.82	267+40.82	RT. OF RIGHT MAIN LANES	600	600	2	80	680	2	680
267+40.82	456+83.70	RT. OF RIGHT MAIN LANES	18943	18943	76	3040	21983	76	21983
62+73.98	68+73.98	RT. OF LEFT MAIN LANES	600	600	2	80	680	2	680
68+73.98	252+34.45	RT. OF LEFT MAIN LANES	18360	18360	73	2920	21280	73	21280
252+34.45	258+34.45	RT. OF LEFT MAIN LANES	600	600	2	80	680	2	680
260+94.43	266+94.43	RT. OF LEFT MAIN LANES	600	600	2	80	680	2	680
266+94.43	462+83.70	RT. OF LEFT MAIN LANES	19589	19589	78	3120	22709	78	22709
TOTALS:				78854		12480	91334	312	91334

JOINT REHABILITATION

STATION	STATION	LOCATION	TYPE A: NUMBER OF JOINTS	TYPE A: LENGTH	TYPE A: TOTAL LENGTH	TYPE B: NUMBER OF JOINTS	TYPE B: LENGTH	TYPE B: TOTAL LENGTH	TYPE D
				FEET	LIN. FT.		FEET	LIN. FT.	LIN. FT.
373+57.50	375+60.61	RAMP E	5	14	70	10	14	140	
381+37.34	382+54.71	RAMP G	3	14	42	6	14	84	
260+00.00	270+05.56	RAMP F	22	14	308	46	14	644	
399+00.00	404+19.11	RAMP H	12	14	168	24	14	336	
*ENTIRE PROJECT - PATCHES									100
TOTALS:					588			1204	100

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

STRUCTURES

STATION	STATION	LOCATION	DESCRIPTION	TEMPORARY PIPE CULVERTS	REINFORCED PIPE CULVERT (CLASS III)	SAFETY END SECTIONS FOR PIPE CULVERTS	SOLID SODDING	WATER
				12"	18"	18"		
				LIN. FT.	LIN. FT.	EACH	SQ.YD.	M.GAL.
32+40.00	32+58.00	RT. OF RIGHT MAIN LAINES - RAMP D-1	TEMPORARY PIPE CULVERT	18				
37+43.00	41+47.00	RT. OF LEFT MAIN LAINES - RAMP B-1	TEMPORARY PIPE CULVERT	404				
50+29.00	55+25.00	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	496				
236+36.00	239+72.00	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	336				
239+94.00	243+14.00	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	320				
243+21.50	245+05.50	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	184				
272+24.00	275+00.00	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	276				
275+40.50	279+24.50	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	384				
476+70.40	481+66.74	MEDIAN CROSSOVER	TEMPORARY PIPE CULVERT	496				
241+00.00	241+00.00	RT. OF MAIN LANE	EXTEND R.C. PIPE CULVERT			1	2	0.02
280+00.00	280+00.00	LT. OF MAIN LANE	EXTEND R.C. PIPE CULVERT		8	1	2	0.02
285+00.00	285+00.00	LT. OF MAIN LANE	EXTEND R.C. PIPE CULVERT		12	1	3	0.03
TOTAL:				2914	20	3	7	0.07

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.

4/18/2013

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04/24/13

APPROACH GUTTERS AND SLABS

LOCATION	APPROACH GUTTER (SPECIAL)					APPROACH SLABS	REINFORCING STEEL RDWY. (GR 60)	AGGREGATE BASE CRS. (CLASS 7)	12" ZINC COATED (GALV.) CORR. STEEL PIPE CULV'T. (16 GAUGE)	CONCRETE SPILLWAY (TYPE A)	DROP INLET (TYPE N2)
	TYPE "PT"	TYPE "1"	TYPE "2"	TYPE "3"	TOTAL						
	CU.YD.					CU.YD.	POUND	TON	LIN. FT.	EACH	
BRIDGE A3288 INSIDE SHOULDER	12.49				12.49		1227		100		
BRIDGE A3288 OUTSIDE SHOULDER	19.23				19.23		1746		100	1	1
BRIDGE A3288						49.15	5556	45.4			
	12.49				12.49						
BRIDGE B3288 INSIDE SHOULDER	19.23				19.23		1227				
BRIDGE B3288 OUTSIDE SHOULDER							1746			1	1
BRIDGE B3288						49.15	5556	45.4			
BRIDGE A3289 BENT 1		32.17			32.17		2916		100	1	1
BRIDGE A3289						49.15	5556	45.4			
BRIDGE A3289 BENT 4			33.86		33.86		3070		100	1	1
BRIDGE A3289						49.15	5556	45.4			
BRIDGE B3289 BENT 1			33.86		33.86		3070		100	1	1
BRIDGE B3289						49.15	5556	45.4			
BRIDGE B3289 BENT 4		32.17			32.17		2916		100	1	1
BRIDGE B3289						49.15	5556	45.4			
BRIDGE 03290 LT. OF M.L.				18.66	18.66		1851		100	1	1
BRIDGE 03290						44.00	4928				
BRIDGE 03290 RT. OF M.L.				18.66	18.66		1851		100	1	1
BRIDGE 03290						44.00	4928				
TOTALS:	**63.44**	**64.34**	**67.72**	**37.32**	**232.82**	**382.90**	**64812.00**	**272.40**	**800**	**8**	**8**

NOTE: REFER TO BRIDGE DRAWING NO. 51274 FOR ADDITIONAL INFORMATION.

BASE AND SURFACING - GUARDRAIL EMBANKMENT

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")			AGGREGATE BASE COURSE (CLASS 7)	
			FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	SQ. YD	TON
62+19.69	65+66.54	RT. OF LEFT MAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE A3288	346.85	270.6	440	59.5	270.6	126.3
62+42.29	66+45.14	LT. OF LEFT MAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE A3288	402.85	337.2	440	74.2	337.2	157.4
255+79.64	259+26.49	RT. OF RIGHTMAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE B3289	346.85	270.6	440	59.5	270.6	126.3
255+09.78	259+12.63	LT. OF RIGHTMAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE B3289	402.85	337.2	440	74.2	337.2	157.4
260+53.14	263+99.99	RT. OF LEFT MAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE A3289	346.85	270.6	440	59.5	270.6	126.3
260+69.13	264+71.98	LT. OF LEFT MAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE A3289	402.85	337.2	440	74.2	337.2	157.4
355+58.26	357+06.26	RT. OF RIGHT MAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE 03290	148.00	94.0	440	20.7	94.0	43.9
357+99.75	359+47.75	RT. OF LEFT MAIN LANE - GUARDRAIL EMBANKMENT - BRIDGE 03290	148.00	94.0	440	20.7	94.0	43.9
TOTALS:						**442.5**		**938.9**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")....................94.9% MIN. AGGR.................5.1% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

BASE AND SURFACING - BRIDGE JACKING

STATION	STATION	LOCATION	LENGTH	TACK COAT				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				COLD MILLING ASPHALT PAVEMENT
			FEET	TOTAL WID. FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	SQ. YD.
2+72.48	4+72.48	HWY 119 BRIDGE @ I-55	200.00	24.0	533.3	0.03	16.0					24.0	533.3	330	88.0	444.4
4+72.48	6+72.48	HWY 119 BRIDGE @ I-55	200.00	24.0	533.3	0.03	16.0					24.0	533.3	660	176.0	
6+72.48	10+72.48	HWY 119 BRIDGE @ I-55	400.00	24.0	2133.3	0.03	64.0	24.0	1066.7	880	469.3	24.0	1066.7	440	234.7	
13+62.59	17+62.59	HWY 119 BRIDGE @ I-55	400.00	24.0	2133.3	0.03	64.0	24.0	1066.7	880	469.3	24.0	1066.7	440	234.7	
17+62.59	19+62.59	HWY 119 BRIDGE @ I-55	200.00	24.0	533.3	0.03	16.0					24.0	533.3	660	176.0	
19+62.59	21+62.59	HWY 119 BRIDGE @ I-55	200.00	24.0	533.3	0.03	16.0					24.0	533.3	330	88.0	444.4
TOTALS:					**6399.8**		**192.0**		**2133.4**		**938.6**		**4266.6**		**997.4**	**888.8**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")....................94.9% MIN. AGGR.................5.1% ASPHALT BINDER
ACHM BINDER COURSE (1")............................95.7% MIN. AGGR.................4.3% ASPHALT BINDER
ACHM BASE COURSE (1 1/2")..........................96.3% MIN. AGGR.................3.7% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	142	215

QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 ANDREW PINKLEY

04/18/13

BASE AND SURFACING - MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	TRENCHING & SHOULDER PREPARATION	TACK COAT				ACHM BASE COURSE (1 1/2")			
			FEET	STATION	TOTAL WID. FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON
47+00.00	61+14.96	INSIDE SHOULDER - RIGHT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	1414.96	15	6.0	943.3	0.03	28.3				
63+07.96	258+17.17	INSIDE SHOULDER - RIGHT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	19509.21	196	6.0	13006.1	0.03	390.2				
261+31.16	484+00.00	INSIDE SHOULDER - RIGHT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	22268.84	223	6.0	14845.9	0.03	445.4				
47+00.00	60+92.04	INSIDE SHOULDER - LEFT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	1392.04	14	6.0	928.0	0.03	27.8				
474+83.70	484+00.00	INSIDE SHOULDER - LEFT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	916.30	10	6.0	610.9	0.03	18.3				
11+50.00	17+00.00	RT. OF RIGHT MAIN LANES - RAMP "D-1" - STAGE IA CONSTRUCTION	550.00		VAR.	3025.0	0.03	90.8				
45+05.32	47+53.18	RT. OF RIGHT MAIN LANES - RAMP "G-1" - STAGE IA CONSTRUCTION	247.86		VAR.	1363.2	0.03	40.9				
51+62.70	52+65.92	RT. OF RIGHT MAIN LANES - RAMP "H-1" - STAGE IA CONSTRUCTION	103.22		VAR.	567.7	0.03	17.0				
11+77.00	17+72.00	RT. OF LEFT MAIN LANES - RAMP "B-1" - STAGE IA CONSTRUCTION	595.00		VAR.	3272.5	0.03	98.2				
40+00.00	43+07.25	RT. OF LEFT MAIN LANES - RAMP "E-1" - STAGE IA CONSTRUCTION	307.25		VAR.	1689.9	0.03	50.7				
51+71.31	53+12.88	RT. OF LEFT MAIN LANES - RAMP "F-1" - STAGE IA CONSTRUCTION	141.57		VAR.	778.6	0.03	23.4				
33+21.00	43+21.00	RT. OF RIGHT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	1000.00		VAR.	2888.9	0.03	86.7				
274+01.78	284+01.78	RT. OF RIGHT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	1000.00		VAR.	2888.9	0.03	86.7				
231+81.59	241+81.59	RT. OF LEFT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	1000.00		VAR.	2888.9	0.03	86.7				
482+61.65	492+61.65	RT. OF LEFT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	1000.00		VAR.	2888.9	0.03	86.7				
226+36.23	236+36.23	LT. OF RIGHT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	1000.00		VAR.	2888.9	0.03	86.7				
279+23.60	289+23.60	LT. OF LEFT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	1000.00		VAR.	2888.9	0.03	86.7				
48+12.00	56+84.90	MEDIAN - MAIN LANE CROSSOVER 1 - STAGE IB CONSTRUCTION	872.90		VAR.	4703.9	0.03	141.1	VAR.	2933.9	1100	1613.6
236+36.23	245+27.41	MEDIAN - MAIN LANE CROSSOVER 2 - STAGE IB CONSTRUCTION	891.18		VAR.	4802.5	0.03	144.1	VAR.	2995.4	1100	1647.5
271+96.94	279+23.60	MEDIAN - MAIN LANE CROSSOVER 3 - STAGE IB CONSTRUCTION	726.66		VAR.	6358.3	0.03	190.7	VAR.	2442.4	1100	1343.3
475+00.00	483+72.90	MEDIAN - MAIN LANE CROSSOVER 4 - STAGE IB CONSTRUCTION	872.90		VAR.	7637.8	0.03	229.1	VAR.	2933.9	1100	1613.6
TOTALS:				458		81867.0		2456.2		11305.6		6218.0

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2")........................96.3% MIN. AGGR.................3.7% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

BASE AND SURFACING - MAINTENANCE OF TRAFFIC (CONTINUED)

STATION	STATION	LOCATION	ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
			AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON
47+00.00	61+14.96	INSIDE SHOULDER - RIGHT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	6.0	943.3	880	415.1	6.0	943.3	220	103.8
63+07.96	258+17.17	INSIDE SHOULDER - RIGHT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	6.0	13006.1	880	5722.7	6.0	13006.1	220	1430.7
261+31.16	484+00.00	INSIDE SHOULDER - RIGHT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	6.0	14845.9	880	6532.2	6.0	14845.9	220	1633.0
47+00.00	60+92.04	INSIDE SHOULDER - LEFT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	6.0	928.0	880	408.3	6.0	928.0	220	102.1
474+83.70	484+00.00	INSIDE SHOULDER - LEFT MAIN LANES - SHOULDER RECONSTRUCTION FOR M.O.T. - STAGE 1B CONSTRUCTION	6.0	610.9	880	268.8	6.0	610.9	220	67.2
11+50.00	17+00.00	RT. OF RIGHT MAIN LANES - RAMP "D-1" - STAGE IA CONSTRUCTION	VAR.	1619.4	880	712.5	VAR.	1405.6	220	154.6
45+05.32	47+53.18	RT. OF RIGHT MAIN LANES - RAMP "G-1" - STAGE IA CONSTRUCTION	VAR.	729.8	880	321.1	VAR.	633.4	220	69.7
51+62.70	52+65.92	RT. OF RIGHT MAIN LANES - RAMP "H-1" - STAGE IA CONSTRUCTION	VAR.	303.9	880	133.7	VAR.	263.8	220	29.0
11+77.00	17+72.00	RT. OF LEFT MAIN LANES - RAMP "B-1" - STAGE IA CONSTRUCTION	VAR.	1751.9	880	770.8	VAR.	1520.6	220	167.3
40+00.00	43+07.25	RT. OF LEFT MAIN LANES - RAMP "E-1" - STAGE IA CONSTRUCTION	VAR.	904.7	880	398.1	VAR.	785.2	220	86.4
51+71.31	53+12.88	RT. OF LEFT MAIN LANES - RAMP "F-1" - STAGE IA CONSTRUCTION	VAR.	416.8	880	183.4	VAR.	361.8	220	39.8
33+21.00	43+21.00	RT. OF RIGHT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	VAR.	1555.6	660	513.3	VAR.	1333.3	220	146.7
274+01.78	284+01.78	RT. OF RIGHT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	VAR.	1555.6	660	513.3	VAR.	1333.3	220	146.7
231+81.59	241+81.59	RT. OF LEFT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	VAR.	1555.6	660	513.3	VAR.	1333.3	220	146.7
482+61.65	492+61.65	RT. OF LEFT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	VAR.	1555.6	660	513.3	VAR.	1333.3	220	146.7
226+36.23	236+36.23	LT. OF RIGHT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	VAR.	1555.6	660	513.3	VAR.	1333.3	220	146.7
279+23.60	289+23.60	LT. OF LEFT MAIN LANES - ACCELERATION LANE- STAGE IA CONSTRUCTION	VAR.	1555.6	660	513.3	VAR.	1333.3	220	146.7
48+12.00	56+84.90	MEDIAN - MAIN LANE CROSSOVER 1 - STAGE IB CONSTRUCTION	VAR.	2473.2	330	408.1	VAR.	2230.7	220	245.4
236+36.23	245+27.41	MEDIAN - MAIN LANE CROSSOVER 2 - STAGE IB CONSTRUCTION	VAR.	2525.0	330	416.6	VAR.	2277.5	220	250.5
271+96.94	279+23.60	MEDIAN - MAIN LANE CROSSOVER 3 - STAGE IB CONSTRUCTION	VAR.	2058.9	330	339.7	VAR.	1857.0	220	204.3
475+00.00	483+72.90	MEDIAN - MAIN LANE CROSSOVER 4 - STAGE IB CONSTRUCTION	VAR.	2473.2	330	408.1	VAR.	2230.7	220	245.4
TOTALS:				54924.6		20519.0		51900.3		5709.4

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")....................94.9% MIN. AGGR..................5.1% ASPHALT BINDER
ACHM BINDER COURSE (1")..........................95.7% MIN. AGGR..................4.3% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

4/18/2013

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.		BB1003	143	215
						QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04/24/13

BASE AND SURFACING - MAIN LANES & ACCELERATION LANES (ALT 1)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BASE COURSE (1 1/2")							
										*LEVELING - 110 LBS. PER SQ. YD.			NORMAL				
			FEET	TON / STATION	TON	TOTAL WID. FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	PG 76-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	PG 76-22 TOTAL TONS
63+19.02	69+19.02	RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	93.33	560.0	24.0	4800.0	0.03	144.0				24.0	1600.0	880	704.0	704.0
69+19.02	252+80.83	RIGHT MAIN LANES	18361.81			24.0	146894.5	0.03	4406.8	24.0	48964.8	2693.1	24.0	48964.8	594	14542.5	17235.6
252+80.83	258+80.83	RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	93.33	560.0	24.0	4800.0	0.03	144.0				24.0	1600.0	880	704.0	704.0
261+40.82	267+40.82	RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	93.33	560.0	24.0	4800.0	0.03	144.0				24.0	1600.0	880	704.0	704.0
267+40.82	464+00.00	RIGHT MAIN LANES	19659.18			24.0	157273.4	0.03	4718.2	24.0	52424.5	2883.3	24.0	52424.5	594	15570.1	18453.4
464+00.00	476+00.00	RIGHT MAIN LANES - PAVING TRANSITION	1200.00			24.0	9600.0	0.03	288.0	24.0	3200.0	176.0	24.0	3200.0	594	950.4	1126.4
92+24.24	98+20.00	RIGHT MAIN LANES - RAMP TAPER - RUBBLIZE & OVERLAY	595.76			VAR.	1324.0	0.03	39.7				VAR.	1324.0	594	393.2	393.2
110+83.79	120+83.79	RIGHT MAIN LANES - ACCELERATION LANE & TAPER - RUBBLIZE & OVERLAY	1000.00			VAR.	5313.0	0.03	159.4				VAR.	1771.0	594	526.0	526.0
239+74.65	246+00.00	RIGHT MAIN LANES - RAMP TAPER - RUBBLIZE & OVERLAY	625.35			VAR.	1215.0	0.03	36.5				VAR.	1215.0	594	360.9	360.9
274+10.57	284+10.57	RIGHT MAIN LANES - ACCELERATION LANE & TAPER - FULL DEPTH CONSTRUCTION	1000.00	67.25	672.5	VAR.	3732.0	0.03	112.0				VAR.	1244.0	880	547.4	547.4
197+62.86	198+12.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	50.00			45.0	750.0	0.03	22.5				15.0	83.3	385	16.0	16.0
198+12.86	198+90.70	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	77.84			30.0	778.4	0.03	23.4								
198+90.70	199+12.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	22.16			30.0	147.7	0.03	4.4								
199+12.86	199+93.30	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	80.44			15.0	134.1	0.03	4.0								
199+93.30	200+12.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	19.56			15.0	32.6	0.03	1.0								
200+12.86	200+62.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	50.00			15.0	83.3	0.03	2.5								
170+80.99	170+86.25	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	5.26			15.0	26.3	0.03	0.8								
170+86.25	171+30.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	44.74			15.0	223.7	0.03	6.7								
171+30.99	171+42.37	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	11.38			15.0	37.9	0.03	1.1								
171+42.37	172+30.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	88.62			15.0	147.7	0.03	4.4								
172+30.99	173+30.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	100.00			30.0	333.3	0.03	10.0								
173+30.99	173+80.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	50.00			45.0	250.0	0.03	7.5				15.0	83.3	385	16.0	16.0
380+12.34	380+62.34	RIGHT MAIN LANES - RAMP G PAVING TRANSITION	50.00			15.0	250.0	0.03	7.5				15.0	83.3	385	16.0	16.0
380+62.34	381+37.34	RIGHT MAIN LANES - RAMP G PAVING TRANSITION	75.00			15.0	125.0	0.03	3.8								
404+19.11	404+69.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	50.00			15.0	250.0	0.03	7.5								
404+69.11	405+69.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	100.00			15.0	333.3	0.03	10.0								
405+69.11	406+69.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	100.00			15.0	166.7	0.03	5.0								
406+69.11	407+19.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	50.00			15.0	83.3	0.03	2.5				15.0	83.3	385	16.0	16.0
62+73.98	68+73.98	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	93.33	560.0	24.0	4800.0	0.03	144.0				24.0	1600.0	880	704.0	704.0
68+73.98	252+34.45	LEFT MAIN LANES	18360.47			24.0	146883.8	0.03	4406.5	24.0	48961.3	2692.9	24.0	48961.3	594	14541.5	17234.4
252+34.45	258+34.45	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	93.33	560.0	24.0	4800.0	0.03	144.0				24.0	1600.0	880	704.0	704.0
260+94.43	266+94.43	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	93.33	560.0	24.0	4800.0	0.03	144.0				24.0	1600.0	880	704.0	704.0
266+94.93	458+25.00	LEFT MAIN LANES	19130.07			24.0	153040.6	0.03	4591.2	24.0	51013.5	2805.7	24.0	51013.5	594	15151.0	17956.7
458+25.00	470+25.00	LEFT MAIN LANES - PAVING TRANSITION	1200.00			24.0	9600.0	0.03	288.0	24.0	3200.0	176.0	24.0	3200.0	594	950.4	1126.4
231+76.21	241+76.21	LEFT MAIN LANES - ACCELERATION LANE & TAPER - FULL DEPTH CONSTRUCTION	1000.00	67.25	672.5	VAR.	3732.0	0.03	112.0				VAR.	1244.0	880	547.4	547.4
271+30.00	278+38.74	LEFT MAIN LANES - RAMP TAPER - RUBBLIZE & OVERLAY	708.74			VAR.	1182.0	0.03	35.5				VAR.	1182.0	594	351.1	351.1
370+57.50	371+07.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	50.00			15.0	250.0	0.03	7.5				15.0	83.3	385	16.0	16.0
371+07.50	372+07.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	100.00			15.0	333.3	0.03	10.0								
372+07.50	373+07.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	100.00			15.0	166.7	0.03	5.0								
373+07.50	373+57.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	50.00			15.0	83.3	0.03	2.5								
270+05.56	270+55.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	50.00			15.0	250.0	0.03	7.5								
270+55.56	271+55.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	100.00			15.0	333.3	0.03	10.0								
271+55.56	272+55.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	100.00			15.0	166.7	0.03	5.0								
272+55.56	273+05.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	50.00			15.0	83.3	0.03	2.5				15.0	83.3	385	16.0	16.0
TOTALS:					4705.0		674410.2		20232.4		207764.1	11427.0		225843.9		68751.9	80178.9

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2")..........................96.3% MIN. AGGR..................3.7% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

4/24/2013

QUANTITIES

FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB1003	144	215

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

(2) QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER ★★★ No. 14929 W. ANDREW PINKLEY

04/24/13

BASE AND SURFACING - MAIN LANES & ACCELERATION LANES (ALT 1) (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
				AVG. WID.	SQ.YD.	POUND /	PG 76-22	AVG. WID.	SQ.YD.	POUND /	PG 76-22
			FEET	FEET		SQ.YD.	TON	FEET		SQ.YD.	TON
63+19.02	69+19.02	RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.0	1600.0	660	528.0	24.0	1600.0	440	352.0
69+19.02	252+80.83	RIGHT MAIN LANES	18361.81	24.0	48964.8	330	8079.2	24.0	48964.8	440	10772.3
252+80.83	258+80.83	RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.0	1600.0	660	528.0	24.0	1600.0	440	352.0
261+40.82	267+40.82	RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.0	1600.0	660	528.0	24.0	1600.0	440	352.0
267+40.82	464+00.00	RIGHT MAIN LANES	19659.18	24.0	52424.5	330	8650.0	24.0	52424.5	440	11533.4
464+00.00	476+00.00	RIGHT MAIN LANES - PAVING TRANSITION	1200.00	24.0	3200.0	330	528.0	24.0	3200.0	440	704.0
92+24.24	98+20.00	RIGHT MAIN LANES - RAMP TAPER - RUBBLIZE & OVERLAY	595.76	VAR.	1324.0	330	218.5	VAR.	1324.0	440	291.3
110+83.79	120+83.79	RIGHT MAIN LANES - ACCELERATION LANE & TAPER - RUBBLIZE & OVERLAY	1000.00	VAR.	1743.0	330	287.6	VAR.	1700.0	440	374.0
239+74.65	246+00.00	RIGHT MAIN LANES - RAMP TAPER - RUBBLIZE & OVERLAY	625.35	VAR.	1215.0	330	200.5	VAR.	1215.0	440	267.3
274+10.57	284+10.57	RIGHT MAIN LANES - ACCELERATION LANE & TAPER - FULL DEPTH CONSTRUCTION	1000.00	VAR.	1188.0	660	392.0	VAR.	1700.0	440	374.0
197+62.86	198+12.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	50.00	15.0	83.3	330	13.7	15.0	83.3	440	18.3
198+12.86	198+90.70	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	77.84	15.0	129.7	495	32.1	15.0	129.7	440	28.5
198+90.70	199+12.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	22.16	30.0	73.9	495	18.3	30.0	73.9	440	16.3
199+12.86	199+93.30	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	80.44	30.0				30.0	268.1	495	66.4
199+93.30	200+12.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	19.56	15.0				15.0	32.6	495	8.1
200+12.86	200+62.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	50.00	15.0				15.0	83.3	220	9.2
170+80.99	170+86.25	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	5.26					15.0	8.8	220	1.0
170+86.25	171+30.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	44.74					30.0	149.1	220	16.4
171+30.99	171+42.37	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	11.38					30.0	37.9	495	9.4
171+42.37	172+30.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	88.62					15.0	147.7	495	36.6
172+30.99	173+30.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	100.00	15.0	166.7	495	41.3	15.0	166.7	440	36.7
173+30.99	173+80.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	50.00	15.0	83.3	330	13.7	15.0	83.3	440	18.3
380+12.34	380+62.34	RIGHT MAIN LANES - RAMP G PAVING TRANSITION	50.00	15.0	83.3	330	13.7	15.0	83.3	440	18.3
380+62.34	381+37.34	RIGHT MAIN LANES - RAMP G PAVING TRANSITION	75.00	15.0	125.0	330	20.6	15.0	125.0	330	20.6
404+19.11	404+69.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	50.00					15.0	83.3	220	9.2
404+69.11	405+69.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	100.00					15.0	166.7	495	41.3
405+69.11	406+69.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	100.00	15.0	166.7	495	41.3	15.0	166.7	440	36.7
406+69.11	407+19.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	50.00	15.0	83.3	330	13.7	15.0	83.3	440	18.3
62+73.98	68+73.98	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.0	1600.0	660	528.0	24.0	1600.0	440	352.0
68+73.98	252+34.45	LEFT MAIN LANES	18360.47	24.0	48961.3	330	8078.6	24.0	48961.3	440	10771.5
252+34.45	258+34.45	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.0	1600.0	660	528.0	24.0	1600.0	440	352.0
260+94.43	266+94.43	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.0	1600.0	660	528.0	24.0	1600.0	440	352.0
266+94.93	458+25.00	LEFT MAIN LANES	19130.07	24.0	51013.5	330	8417.2	24.0	51013.5	440	11223.0
458+25.00	470+25.00	LEFT MAIN LANES - PAVING TRANSITION	1200.00	24.0	3200.0	330	528.0	24.0	3200.0	440	704.0
231+76.21	241+76.21	LEFT MAIN LANES - ACCELERATION LANE & TAPER - FULL DEPTH CONSTRUCTION	1000.00	VAR.	1188.0	660	392.0	VAR.	1700.0	440	374.0
271+30.00	278+38.74	LEFT MAIN LANES - RAMP TAPER - RUBBLIZE & OVERLAY	708.74	VAR.	1182.0	330	195.0	VAR.	1182.0	440	260.0
370+57.50	371+07.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	50.00	15.0	83.3	330	13.7	15.0	83.3	440	18.3
371+07.50	372+07.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	100.00	15.0	166.7	495	41.3	15.0	166.7	440	36.7
372+07.50	373+07.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	100.00					15.0	166.7	495	41.3
373+07.50	373+57.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	50.00					15.0	83.3	220	9.2
270+05.56	270+55.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	50.00					15.0	83.3	220	9.2
270+55.56	271+55.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	100.00					15.0	166.7	495	41.3
271+55.56	272+55.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	100.00	15.0	166.7	495	41.3	15.0	166.7	440	36.7
272+55.56	273+05.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	50.00	15.0	83.3	330	13.7	15.0	83.3	440	18.3
TOTALS:					226699.3		39453.0		229157.8		50381.4

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")....................94.9% MIN. AGGR.................5.1% ASPHALT BINDER
ACHM BINDER COURSE (1")...........................95.7% MIN. AGGR.................4.3% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

4/24/2013

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
				JOB NO.		BB1003	145	215
				QUANTITIES				

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 ANDREW PINKLEY

05/20/13

BASE AND SURFACING - MAIN LANES & ACCELERATION LANES (ALT 2)

STATION	STATION	LOCATION	LENGTH	CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				PORTLAND CEMENT CONCRETE PAVEMENT			TACK COAT				ACHM BASE COURSE (1 1/2")				ACHM SURFACE COURSE (3/8")				
				AVG. WID.	PROCESSING	CEMENT	AGG.	TOTAL WID.	9" U.T.	12" U.T.	TOTAL WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	PG 76-22
			FEET	FEET	SQ. YD.	TON	TON	FEET	SQ. YD.	SQ. YD.	FEET				FEET			TON	FEET			TON	TON
63+19.02	69+19.02	RIGHT MAIN LANES - FULL DEPTH CONSTRUCTION	600.00	24.00	1600.00	35.8	524.2	24.0		1600.0	24.0	1600.0	0.03	48.0					24.0	1600.0	110	88.0	
69+19.02	252+80.83	RIGHT MAIN LANES - OVERLAY	18361.81					24.0	48964.8		24.0	48964.8	0.03	1468.9					24.0	48964.8	264	6463.4	
252+80.83	258+80.83	RIGHT MAIN LANES - FULL DEPTH CONSTRUCTION	600.00	24.00	1600.00	35.8	524.2	24.0		1600.0	24.0	1600.0	0.03	48.0					24.0	1600.0	110	88.0	
261+40.82	267+40.82	RIGHT MAIN LANES - FULL DEPTH CONSTRUCTION	600.00	24.00	1600.00	35.8	524.2	24.0		1600.0	24.0	1600.0	0.03	48.0					24.0	1600.0	110	88.0	
267+40.83	464+00.00	RIGHT MAIN LANES - OVERLAY	19659.17					24.0	52424.5		24.0	52424.5	0.03	1572.7					24.0	52424.5	264	6920.0	
464+00.00	476+00.00	RIGHT MAIN LANES - PAVING TRANSITION	1200.00					24.0	3200.0		24.0	3200.0	0.03	96.0					24.0	3200.0	264	422.4	
92+24.24	98+20.00	RIGHT MAIN LANES - RAMP "RA1" TAPER	595.76					VAR.	1324.0		VAR.	1316.4	0.03	39.5					VAR.	1316.4	110		72.4
110+83.79	120+83.79	RIGHT MAIN LANES - ACCELERATION LANE & TAPER - RAMP RA2	1000.00					12.0	1333.0		12.0	1333.0	0.03	40.0					12.0	1333.0	110	73.3	
239+74.65	246+00.00	RIGHT MAIN LANES - RAMP TAPER	625.35					VAR.	1215.0		VAR.	932.8	0.03	28.0					VAR.	932.8	110		51.3
274+10.57	284+10.57	RIGHT MAIN LANES - ACCELERATION LANE & TAPER - FULL DEPTH CONSTRUCTION	1000.00	12.00	1333.33	29.9	436.8	12.0		1330.0	12.0	1330.0	0.03	39.9					12.0	1330.0	110	73.2	
197+62.86	198+90.70	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	127.84	15.00	213.07	4.8	69.8	15.0	213.1		15.0	426.1	0.03	12.8	15.0	213.1	550.0	58.6	15.0	213.1	110		11.7
198+90.70	199+93.30	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	102.60	30.00	342.00	7.7	112.0	15.0	171.0		15.0	342.0	0.03	10.3	15.0	171.0	550.0	47.0	15.0	171.0	110		9.4
199+93.30	200+62.86	RIGHT MAIN LANES - RAMP RA1 PAVING TRANSITION	69.56	15.00	115.93	2.6	38.0	15.0	115.9		15.0	231.9	0.03	7.0	15.0	115.9	550.0	31.9	15.0	115.9	110		6.4
170+80.99	170+86.25	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	5.26	15.00	8.77	0.2	2.9	15.0	8.8		15.0	17.5	0.03	0.5	15.0	8.8	550.0	2.4	15.0	8.8	110		0.5
170+86.25	171+42.37	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	56.12	30.00	187.07	4.2	61.3	15.0	93.5		15.0	187.1	0.03	5.6	15.0	93.5	550.0	25.7	15.0	93.5	110		5.1
171+42.37	173+80.99	RIGHT MAIN LANES - RAMP RA2 PAVING TRANSITION	238.62	15.00	397.70	8.9	130.3	15.0	397.7		15.0	795.4	0.03	23.9	15.0	397.7	550.0	109.4	15.0	397.7	110		21.9
380+12.34	381+37.34	RIGHT MAIN LANES - RAMP G PAVING TRANSITION	125.00	15.00	208.33	4.7	68.3	15.0	208.3		15.0	416.7	0.03	12.5	15.0	208.3	550.0	57.3	15.0	208.3	110		11.5
404+19.11	407+19.11	RIGHT MAIN LANES - RAMP H PAVING TRANSITION	300.00	15.00	500.00	11.2	163.8	15.0	500.0		15.0	1000.0	0.03	30.0	15.0	500.0	550.0	137.5	15.0	500.0	110		27.5
62+73.98	68+73.98	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.00	1600.00	35.8	524.2	24.0		1600.0	24.0	1600.0	0.03	48.0					24.0	1600.0	110	88.0	
68+73.98	252+34.45	LEFT MAIN LANES - OVERLAY	18360.47					24.0	48961.3		24.0	48961.3	0.03	1468.8					24.0	48961.3	264	6462.9	
252+34.45	258+34.45	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.00	1600.00	35.8	524.2	24.0		1600.0	24.0	1600.0	0.03	48.0					24.0	1600.0	110	88.0	
260+94.43	266+94.43	LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	24.00	1600.00	35.8	524.2	24.0		1600.0	24.0	1600.0	0.03	48.0					24.0	1600.0	110	88.0	
266+94.93	458+25.00	LEFT MAIN LANES - OVERLAY	19130.07					24.0	51013.5		24.0	51013.5	0.03	1530.4					24.0	51013.5	264	6733.8	
458+25.00	470+25.00	LEFT MAIN LANES - PAVING TRANSITION	1200.00					24.0	3200.0		24.0	3200.0	0.03	96.0					24.0	3200.0	264	422.4	
231+76.21	241+76.21	LEFT MAIN LANES - ACCEL. LANE & TAPER - FULL DEPTH CONSTRUCTION	1000.00	12.00	1333.33	29.9	436.8	12.0		1333.0	12.0	1333.0	0.03	40.0					12.0	1333.0	110	73.3	
271+30.00	278+38.74	LEFT MAIN LANES - RAMP TAPER	708.74					VAR.	1182.0		VAR.	1182.0	0.03	35.5					VAR.	1182.0	110		65.0
370+57.50	373+57.50	LEFT MAIN LANES - RAMP E - PAVING TRANSITION	300.00	15.00	500.00	11.2	163.8	15.0	500.0		15.0	1000.0	0.03	30.0	15.0	500.0	550.0	137.5	15.0	500.0	110		27.5
270+05.56	273+05.56	LEFT MAIN LANES - RAMP F - PAVING TRANSITION	300.00	15.00	500.00	11.2	163.8	15.0	500.0		15.0	1000.0	0.03	30.0	15.0	500.0	550.0	137.5	15.0	500.0	110		27.5
69+19.02	252+80.83	RIGHT MAIN LANES - OVERLAY (IF AND WHERE DIRECTED BY THE ENGINEER)	18361.81								24.0	48964.8	0.10	4896.5					24.0	48964.8	110	2693.1	
267+40.83	464+00.00	RIGHT MAIN LANES - OVERLAY (IF AND WHERE DIRECTED BY THE ENGINEER)	19659.17								24.0	52424.5	0.10	5242.5					24.0	52424.5	110	2883.3	
464+00.00	476+00.00	RIGHT MAIN LANES - PAVING TRANSITION (IF AND WHERE DIRECTED BY THE ENGINEER)	1200.00								24.0	3200.0	0.10	320.0					24.0	3200.0	110	176.0	
68+73.98	252+34.45	LEFT MAIN LANES - OVERLAY (IF AND WHERE DIRECTED BY THE ENGINEER)	18360.47								24.0	48961.3	0.10	4896.1					24.0	48961.3	110	2692.9	
266+94.93	458+25.00	LEFT MAIN LANES - OVERLAY (IF AND WHERE DIRECTED BY THE ENGINEER)	19130.07								24.0	51013.5	0.10	5101.4					24.0	51013.5	110	2805.7	
458+25.00	470+25.00	LEFT MAIN LANES - PAVING TRANSITION (IF AND WHERE DIRECTED BY THE ENGINEER)	1200.00								24.0	3200.0	0.10	320.0					24.0	3200.0	110	176.0	
TOTALS:					15239.5	341.3	4992.8		215526.4	12263.0		437972.1		27682.8				744.8		435263.7		39599.7	337.7

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8")....................................94.7% MIN. AGGR.................5.3% ASPHALT BINDER (PG64-22)
ACHM SURFACE COURSE (3/8")....................................94.7% MIN. AGGR.................5.3% ASPHALT BINDER (PG76-22)
ACHM BASE COURSE (1 1/2")...96.3% MIN. AGGR.................3.7% ASPHALT BINDER (PG76-22)
CEMENT STABILIZED CRUSHED STONE BASE...........93.6% AGGREGATE.............6.4% CEMENT
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

5/20/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	146	215
				2	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
04/24/13

BASE AND SURFACING - SHOULDERS (ALT 1)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE				TACK COAT				ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
				TON /	(CLASS 7)	TON /	(CLASS 1)	TOTAL WID.	SQ.YD.	GALLONS /	GALLON	AVG. WID.	SQ.YD.	POUND /	PG 76-22	AVG. WID.	SQ.YD.	POUND /	PG 76-22	AVG. WID.	SQ.YD.	POUND /	PG 76-22
			FEET	STATION	TON	STATION	TON	FEET		SQ.YD.		FEET		SQ.YD.	TON	FEET		SQ.YD.	TON	FEET		SQ.YD.	TON
63+19.02	69+19.02	RT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	38.89	233.3	65.33	392.0	10.0	2000.0	0.03	60.0	11.2	746.7	880	328.5	10.6	706.7	660	233.2	10.0	666.7	440	146.7
69+19.02	92+24.24	RT. SHOULDER RIGHT MAIN LANES	2305.22			35.75	824.1	10.0	7684.1	0.03	230.5	10.8	2766.3	704	973.7	10.5	2689.4	330	443.8	10.0	2561.4	440	563.5
98+20.00	110+20.00	RT. SHOULDER RIGHT MAIN LANES	1200.00			35.75	429.0	10.0	4000.0	0.03	120.0	10.8	1440.0	704	506.9	10.5	1400.0	330	231.0	10.0	1333.3	440	293.3
120+80.00	239+74.64	RT. SHOULDER RIGHT MAIN LANES	11894.64			35.75	4252.3	10.0	39648.8	0.03	1189.5	10.8	14273.6	704	5024.3	10.5	13877.1	330	2289.7	10.0	13216.3	440	2907.6
245+20.00	252+80.83	RT. SHOULDER RIGHT MAIN LANES	760.83			35.75	272.0	10.0	2536.1	0.03	76.1	10.8	913.0	704	321.4	10.5	887.6	330	146.5	10.0	845.4	440	186.0
252+80.83	258+80.83	RT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	38.89	233.3	65.33	392.0	10.0	2000.0	0.03	60.0	11.2	746.7	880	328.5	10.6	706.7	660	233.2	10.0	666.7	440	146.7
261+40.82	267+40.82	RT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	38.89	233.3	65.33	392.0	10.0	2000.0	0.03	60.0	11.2	746.7	880	328.5	10.6	706.7	660	233.2	10.0	666.7	440	146.7
267+40.82	272+40.00	RT. SHOULDER RIGHT MAIN LANES	499.18			35.75	178.5	10.0	1663.9	0.03	49.9	10.8	599.0	704	210.8	10.5	582.4	330	96.1	10.0	554.6	440	122.0
284+08.00	464+00.00	RT. SHOULDER RIGHT MAIN LANES	17992.00			35.75	6432.1	10.0	59973.3	0.03	1799.2	10.8	21590.4	704	7599.8	10.5	20990.7	330	3463.5	10.0	19991.1	440	4398.0
464+00.00	476+00.00	RT. SHOULDER RIGHT MAIN LANES - PAVING TRANSITION	1200.00			35.75	429.0	10.0	4000.0	0.03	120.0	10.8	1440.0	704	506.9	10.5	1400.0	330	231.0	10.0	1333.3	440	293.3
63+19.02	69+19.02	LT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	15.56	93.4	70.00	420.0	6.0	1200.0	0.03	36.0	5.2	346.7	880	152.5	4.6	306.7	660	101.2	4.0	266.7	440	58.7
69+19.02	252+80.83	LT. SHOULDER RIGHT MAIN LANES	18361.81			30.10	5526.9	6.0	36723.6	0.03	1101.7	4.8	9793.0	704	3447.1	4.5	9180.9	330	1514.8	4.0	8160.8	440	1795.4
252+80.83	258+80.83	LT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	15.56	93.4	70.00	420.0	6.0	1200.0	0.03	36.0	5.2	346.7	880	152.5	4.6	306.7	660	101.2	4.0	266.7	440	58.7
261+40.82	267+40.82	LT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	15.56	93.4	70.00	420.0	6.0	1200.0	0.03	36.0	5.2	346.7	880	152.5	4.6	306.7	660	101.2	4.0	266.7	440	58.7
267+40.82	464+00.00	LT. SHOULDER RIGHT MAIN LANES	19659.18			30.10	5917.4	6.0	39318.4	0.03	1179.6	4.8	10484.9	704	3690.7	4.5	9829.6	330	1621.9	4.0	8737.4	440	1922.2
464+00.00	476+00.00	LT. SHOULDER RIGHT MAIN LANES - PAVING TRANSITION	1200.00			30.10	361.2	6.0	2400.0	0.03	72.0	4.8	640.0	704	225.3	4.5	600.0	330	99.0	4.0	533.3	440	117.3
62+73.98	68+73.98	RT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	38.89	233.3	65.33	392.0	10.0	2000.0	0.03	60.0	11.2	746.7	880	328.5	10.6	706.7	660	233.2	10.0	666.7	440	146.7
68+73.98	231+76.21	RT. SHOULDER LEFT MAIN LANES	16302.23			35.75	5828.0	10.0	54340.8	0.03	1630.2	10.8	19562.7	704	6886.1	10.5	19019.3	330	3138.2	10.0	18113.6	440	3985.0
243+40.00	252+34.45	RT. SHOULDER LEFT MAIN LANES	894.45			35.75	319.8	10.0	2981.5	0.03	89.4	10.8	1073.3	704	377.8	10.5	1043.5	330	172.2	10.0	993.8	440	218.6
252+34.45	258+34.45	RT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	38.89	233.3	65.33	392.0	10.0	2000.0	0.03	60.0	11.2	746.7	880	328.5	10.6	706.7	660	233.2	10.0	666.7	440	146.7
260+94.43	266+94.43	RT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	38.89	233.3	65.33	392.0	10.0	2000.0	0.03	60.0	11.2	746.7	880	328.5	10.6	706.7	660	233.2	10.0	666.7	440	146.7
266+94.43	272+60.00	RT. SHOULDER LEFT MAIN LANES	565.57			35.75	202.2	10.0	1885.2	0.03	56.6	10.8	678.7	704	238.9	10.5	659.8	330	108.9	10.0	628.4	440	138.2
278+38.74	458+25.00	RT. SHOULDER LEFT MAIN LANES	17986.26			35.75	6430.1	10.0	59954.2	0.03	1798.6	10.8	21583.5	704	7597.4	10.5	20984.0	330	3462.4	10.0	19984.7	440	4396.6
458+25.00	470+25.00	RT. SHOULDER LEFT MAIN LANES - PAVING TRANSITION	1200.00			35.75	429.0	10.0	4000.0	0.03	120.0	10.8	1440.0	704	506.9	10.5	1400.0	330	231.0	10.0	1333.3	440	293.3
62+73.98	68+73.98	LT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	15.56	93.4	70.00	420.0	6.0	1200.0	0.03	36.0	5.2	346.7	880	152.5	4.6	306.7	660	101.2	4.0	266.7	440	58.7
68+73.98	252+34.45	LT. SHOULDER LEFT MAIN LANES	18360.47			30.10	5526.5	6.0	36720.9	0.03	1101.6	4.8	9792.3	704	3446.9	4.5	9180.2	330	1514.7	4.0	8160.2	440	1795.2
252+34.45	258+34.45	LT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	15.56	93.4	70.00	420.0	6.0	1200.0	0.03	36.0	5.2	346.7	880	152.5	4.6	306.7	660	101.2	4.0	266.7	440	58.7
260+94.43	266+94.43	LT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	15.56	93.4	70.00	420.0	6.0	1200.0	0.03	36.0	5.2	346.7	880	152.5	4.6	306.7	660	101.2	4.0	266.7	440	58.7
266+94.43	458+25.00	LT. SHOULDER LEFT MAIN LANES	19130.57			30.10	5758.3	6.0	38261.1	0.03	1147.8	4.8	10203.0	704	3591.5	4.5	9565.3	330	1578.3	4.0	8502.5	440	1870.6
458+25.00	470+25.00	LT. SHOULDER LEFT MAIN LANES - PAVING TRANSITION	1200.00			30.10	361.2	6.0	2400.0	0.03	72.0	5.2	693.3	704	244.0	4.5	600.0	330	99.0	4.0	533.3	440	117.3
197+62.86	198+12.86	RT. SHOULDER RAMP 'RA1' PAVING TRANSITION	50.00			15.00	7.5	6.0	100.0	0.03	3.0	6.8	37.8	385	7.3	6.5	36.1	330	6.0	6.2	34.4	440	7.6
198+12.86	199+12.86	RT. SHOULDER RAMP 'RA1' PAVING TRANSITION	100.00			8.00	8.0	6.0	133.3	0.03	4.0					6.5	72.2	495	17.9	6.2	68.9	440	15.2
199+12.86	200+12.86	RT. SHOULDER RAMP 'RA1' PAVING TRANSITION	100.00			2.00	2.0	6.0	66.7	0.03	2.0									6.2	68.9	495	17.1
200+12.86	200+62.86	RT. SHOULDER RAMP 'RA1' PAVING TRANSITION	50.00			0.10	0.1	6.0	33.3	0.03	1.0									6.2	34.4	220	3.8
170+80.99	171+30.99	RT. SHOULDER RAMP 'RA2' PAVING TRANSITION	50.00			15.00	7.5	6.0	100.0	0.03	3.0									6.2	34.4	220	3.8
171+30.99	172+30.99	RT. SHOULDER RAMP 'RA2' PAVING TRANSITION	100.00			8.00	8.0	6.0	133.3	0.03	4.0									6.2	68.9	495	17.1
172+30.99	173+30.99	RT. SHOULDER RAMP 'RA2' PAVING TRANSITION	100.00			2.00	2.0	6.0	66.7	0.03	2.0					6.5	72.2	495	17.9	6.2	68.9	440	15.2
173+30.99	173+80.99	RT. SHOULDER RAMP 'RA2' PAVING TRANSITION	50.00			0.10	0.1	6.0	33.3	0.03	1.0	6.8	37.8	385	7.3	6.5	36.1	330	6.0	6.2	34.4	440	7.6
380+12.34	380+62.34	RT. SHOULDER RAMP 'G' PAVING TRANSITION	50.00			50.00	25.0	6.0	100.0	0.03	3.0	6.8	37.8	385	7.3	6.5	36.1	330	6.0	6.2	34.4	440	7.6
380+62.34	381+37.34	RT. SHOULDER RAMP 'G' PAVING TRANSITION	75.00			2.00	1.5	6.0	50.0	0.03	1.5					6.5	54.2	330	8.9	6.2	51.7	330	8.5
404+19.11	404+69.11	RT. SHOULDER RAMP 'H' PAVING TRANSITION	50.00			15.00	7.5	6.0	100.0	0.03	3.0									6.2	34.4	220	3.8
404+69.11	405+69.11	RT. SHOULDER RAMP 'H' PAVING TRANSITION	100.00			8.00	8.0	6.0	133.3	0.03	4.0									6.2	68.9	495	17.1
405+69.11	406+69.11	RT. SHOULDER RAMP 'H' PAVING TRANSITION	100.00			2.00	2.0	6.0	66.7	0.03	2.0					6.5	72.2	495	17.9	6.2	68.9	440	15.2
406+69.11	407+19.11	RT. SHOULDER RAMP 'H' PAVING TRANSITION	50.00			0.10	0.1	6.0	33.3	0.03	1.0	6.8	37.8	385	7.3	6.5	36.1	330	6.0	6.2	34.4	440	7.6
197+62.86	198+12.86	LT. SHOULDER RAMP 'RA1' PAVING TRANSITION	50.00			15.00	7.5	4.0	66.7	0.03	2.0	4.8	26.7	385	5.1	4.5	25.0	330	4.1	4.2	23.3	440	5.1
198+12.86	199+12.86	LT. SHOULDER RAMP 'RA1' PAVING TRANSITION	100.00			8.00	8.0	4.0	88.9	0.03	2.7					4.5	50.0	495	12.4	4.2	46.7	440	10.3
199+12.86	200+12.86	LT. SHOULDER RAMP 'RA1' PAVING TRANSITION	100.00			2.00	2.0	4.0	44.4	0.03	1.3									4.2	46.7	495	11.6
200+12.86	200+62.86	LT. SHOULDER RAMP 'RA1' PAVING TRANSITION	50.00			0.10	0.1	4.0	22.2	0.03	0.7									4.2	23.3	220	2.6
170+80.99	171+30.99	LT. SHOULDER RAMP 'RA2' PAVING TRANSITION	50.00			15.00	7.5	4.0	66.7	0.03	2.0									4.2	23.3	220	2.6
171+30.99	172+30.99	LT. SHOULDER RAMP 'RA2' PAVING TRANSITION	100.00			8.00	8.0	4.0	88.9	0.03	2.7									4.2	46.7	495	11.6
172+30.99	173+30.99	LT. SHOULDER RAMP 'RA2' PAVING TRANSITION	100.00			2.00	2.0	4.0	44.4	0.03	1.3					4.5	50.0	495	12.4	4.2	46.7	440	10.3
173+30.99	173+80.99	LT. SHOULDER RAMP 'RA2' PAVING TRANSITION	50.00			0.10	0.1	4.0	22.2	0.03	0.7	4.8	26.7	385	5.1	4.5	25.0	330	4.1	4.2	23.3	440	5.1
380+12.34	380+62.34	LT. SHOULDER RAMP 'G' PAVING TRANSITION	50.00			50.00	25.0	4.0	66.7	0.03	2.0	4.8	26.7	385	5.1	4.5	25.0	330	4.1	4.2	23.3	440	5.1
380+62.34	381+37.34	LT. SHOULDER RAMP 'G' PAVING TRANSITION	75.00			2.00	1.5	4.0	33.3	0.03	1.0					4.5	37.5	330	6.2	4.2	35.0	440	7.7
404+19.11	404+69.11	LT. SHOULDER RAMP 'H' PAVING TRANSITION	50.00			15.00	7.5	4.0	66.7	0.03	2.0									4.2	23.3	220	2.6
404+69.11	405+69.11	LT. SHOULDER RAMP 'H' PAVING TRANSITION	100.00			8.00	8.0	4.0	88.9	0.03	2.7									4.2	46.7	495	11.6
405+69.11	406+69.11	LT. SHOULDER RAMP 'H' PAVING TRANSITION	100.00			2.00	2.0	4.0	44.4	0.03	1.3					4.5	50.0	495	12.4	4.2	46.7	440	10.3
406+69.11	407+19.11	LT. SHOULDER RAMP 'H' PAVING TRANSITION	50.00			0.10	0.1	4.0	22.2	0.03	0.7	4.8	26.7	385	5.1	4.5	25.0	330	4.1	4.2	23.3	440	5.1
370+57.50	371+07.50	RT. SHOULDER RAMP 'E' PAVING TRANSITION	50.00			15.00	7.5	6.0	100.0	0.03	3.0	6.8	37.8	385	7.3	6.5	36.1	330	6.0	6.2	34.4	440	7.6
371+07.50	372+07.50	RT. SHOULDER RAMP 'E' PAVING TRANSITION	100.00			8.00	8.0	6.0	133.3	0.03	4.0					6.5	72.2	495	17.9	6.2	68.9	440	15.2
372+07.50	373+07.50	RT. SHOULDER RAMP 'E' PAVING TRANSITION	100.00			2.00	2.0	6.0	66.7	0.03	2.0									6.2	68.9	495	17.1
373+07.50	373+57.50	RT. SHOULDER RAMP 'E' PAVING TRANSITION	50.00			0.10	0.1	6.0	33.3	0.03	1.0									6.2	34.4	220	3.8
270+05.56	270+55.56	RT. SHOULDER RAMP 'F' PAVING TRANSITION	50.00			15.00	7.5	6.0	100.0	0.03	3.0									6.2	34.4	220	3.8
270+55.56	271+55.56	RT. SHOULDER RAMP 'F' PAVING TRANSITION	100.00			8.00	8.0	6.0	133.3	0.03	4.0									6.2	68.9	495	17.1
271+55.56	272+55.56	RT. SHOULDER RAMP 'F' PAVING TRANSITION	100.00			2.00	2.0	6.0	66.7	0.03	2.0					6.5	72.2	495	17.9	6.2	68.9	440	15.2
272+55.56	273+05.56	RT. SHOULDER RAMP 'F' PAVING TRANSITION	50.00			0.10	0.1	6.0	33.3	0.03	1.0	6.8	37.8	385	7.3	6.5	36.1	330	6.0	6.2	34.4	440	7.6
370+57.50	371+07.50	LT. SHOULDER RAMP 'E' PAVING TRANSITION	50.00			15.00	7.5	4.0	66.7	0.03	2.0	4.8	26.7	385	5.1	4.5	25.0	330	4.1	4.2	23.3	440	5.1
371+07.50	372+07.50	LT. SHOULDER RAMP 'E' PAVING TRANSITION	100.00			8.00	8.0	4.0	88.9	0.03	2.7					4.5	50.0	495	12.4	4.2	46.7	440	10.3
372+07.50	373+07.50	LT. SHOULDER RAMP 'E' PAVING TRANSITION	100.00			2.00	2.0	4.0	44.4	0.03	1.3									4.2	46.7	495	11.6
373+07.50	373+57.50	LT. SHOULDER RAMP 'E' PAVING TRANSITION	50.00			0.10	0.1	4.0	22.2	0.03	0.7									4.2	23.3	220	2.6
270+05.56	270+55.56	LT. SHOULDER RAMP 'F' PAVING TRANSITION	50.00			15.00	7.5	4.0	66.7	0.03	2.0									4.2	23.3	220	2.6
270+55.56	271+55.56	LT. SHOULDER RAMP 'F' PAVING TRANSITION	100.00			8.00	8.0	4.0	88.9	0.03	2.7									4.2	46.7	495	11.6
271+55.56	272+55.56	LT. SHOULDER RAMP 'F' PAVING TRANSITION	100.00			2.00	2.0	4.0	44.4	0.03	1.3					4.5	50.0	495	12.4	4.2	46.7	440	10.3
272+55.56	273+05.56	LT. SHOULDER RAMP 'F' PAVING TRANSITION	50.00			0.10	0.1	4.0	22.2	0.03	0.7	4.8	26.7	385	5.1	4.5	25.0	330	4.1	4.2	23.3	440	5.1
200+62.86	202+57.50	PAVEMENT REHABILITATION - RAMP RA1	194.64																	10.0	216.3	220	23.8
167+68.85	170+80.99	PAVEMENT REHABILITATION - RAMP RA2	312.14																	10.0	346.8	220	38.1
36+00.00	51+00.00	PAVEMENT REHABILITATION - RAMP B	1500.00																	10.0	1666.7	220	183.3
26+50.00	48+00.00	PAVEMENT REHABILITATION - RAMP D	2150.00																	10.0	2388.9	220	262.8
373+57.50	375+60.61	PAVEMENT REHABILITATION - RAMP E	203.11																	10.0	225.7	220	24.8
265+05.56	270+05.56	PAVEMENT REHABILITATION - RAMP F	500.00																	10.0	555.6	220	61.1
381+37.34	382+54.71	PAVEMENT REHABILITATION - RAMP G	117.37																	10.0	130.4	220	14.3
399+19.11	404+19.11	PAVEMENT REHABILITATION - RAMP H	500.00																	10.0	555.6	220	61.1
TOTALS:					1960.2		54578.6		420719.4		12621.7		135914.4		48356.8		131039.5		22676.6		129080.5		27710.6

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")....................94.9% MIN. AGGR..................5.1% ASPHALT BINDER
ACHM BINDER COURSE (1")..........................95.7% MIN. AGGR..................4.3% ASPHALT BINDER
ACHM BASE COURSE (1 1/2")........................96.3% MIN. AGGR..................3.7% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

4/24/2013

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER ★ ★ ★ No. 14929 W. ANDREW PINKLEY

05/20/13

BASE AND SURFACING - SHOULDERS (ALT 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE		CEMENT STABILIZED CRUSHED STONE BASE COURSE				PORTLAND CEMENT CONCRETE PAVEMENT			TACK COAT				ACHM SURFACE COURSE (3/8")				
			FEET	TON / STATION	(CLASS 1) TON	AVG. WID. FEET	PROCESSING SQ. YD.	CEMENT TON	AGG. TON	TOTAL WID. FEET	9" U.T. SQ. YD.	12" U.T. SQ. YD.	TOTAL WID. FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	PG 76-22 TON
63+19.02	69+19.02	RT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	44.75	268.5	12.00	800.00	17.9	262.1	10.00		666.7	10.0	666.7	0.03	20.0	12.0	800.0	110	44.0	
69+19.02	92+24.24	RT. SHOULDER RIGHT MAIN LANES	2305.22	18.82	433.8					10.00	2561.4		10.0	2561.4	0.03	76.8	10.0	2561.4	374	479.0	
97+20.00	110+83.79	RT. SHOULDER RIGHT MAIN LANES	1363.79	18.82	256.7					10.00	1515.3		10.0	1515.3	0.03	45.5	10.0	1515.3	374	283.4	
120+80.00	239+74.64	RT. SHOULDER RIGHT MAIN LANES	11894.64	18.82	2238.6					10.00	13216.3		10.0	13216.3	0.03	396.5	10.0	13216.3	374	2471.4	
245+00.00	252+80.83	RT. SHOULDER RIGHT MAIN LANES	780.83	18.82	147.0					10.00	867.6		10.0	867.6	0.03	26.0	10.0	867.6	374	162.2	
252+80.83	258+80.83	RT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	44.75	268.5	12.0	800.00	17.9	262.1	10.00		666.7	10.0	666.7	0.03	20.0	12.0	800.0	110	44.0	
261+40.82	267+40.82	RT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	44.75	268.5	12.0	800.00	17.9	262.1	10.00		666.7	10.0	666.7	0.03	20.0	12.0	800.0	110	44.0	
267+40.82	274+10.57	RT. SHOULDER RIGHT MAIN LANES	669.75	18.82	126.0					10.00	744.2		10.0	744.2	0.03	22.3	10.0	744.2	374	139.2	
282+75.00	464+00.00	RT. SHOULDER RIGHT MAIN LANES	18125.00	18.82	3411.1					10.00	20138.9		10.0	20138.9	0.03	604.2	10.0	20138.9	374	3766.0	
464+00.00	476+00.00	RT. SHOULDER RIGHT MAIN LANES - PAVING TRANSITION	1200.00	18.82	225.8					10.00	1333.3		10.0	1333.3	0.03	40.0	10.0	1333.3	374	249.3	
192+24.24	197+62.86	RT. SHOULDER RAMP RA1 TAPER	538.62	18.82	101.4					6.00	359.1		6.0	359.1	0.03	10.8	6.0	359.1	110		19.8
110+83.79	120+83.79	RT. SHOULDER RAMP RA2 ACCEL. LANE & TAPER	1000.00	21.60	216.0					6.00	666.7		6.0	666.7	0.03	20.0	6.0	666.7	110	36.7	
374+75.00	380+12.34	RT. SHOULDER RAMP G TAPER	537.34	18.82	101.1					6.00	358.2		6.0	358.2	0.03	10.7	6.0	358.2	110		19.7
274+10.57	284+10.57	RT. SHOULDER RAMP H ACCEL. LANE & TAPER	1000.00	21.60	216.0	8.0	888.89	19.9	291.2	6.00	666.7		8.0	888.9	0.03	26.7	8.0	888.9	110	48.9	
63+19.02	69+19.02	LT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	59.50	357.0	6.0	400.00	9.0	131.0	4.00		266.7	4.0	266.7	0.03	8.0	6.0	400.0	110	22.0	
69+19.02	252+80.83	LT. SHOULDER RIGHT MAIN LANES	18361.81	29.24	5369.0					4.00	8160.8		4.0	8160.8	0.03	244.8	4.0	8160.8	110	448.8	
252+80.83	258+80.83	LT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	59.50	357.0	6.0	400.00	9.0	131.0	4.00		266.7	4.0	266.7	0.03	8.0	6.0	400.0	110	22.0	
261+40.82	267+40.82	LT. SHOULDER RIGHT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	59.50	357.0	6.0	400.00	9.0	131.0	4.00		266.7	4.0	266.7	0.03	8.0	6.0	400.0	110	22.0	
267+40.82	464+00.00	LT. SHOULDER RIGHT MAIN LANES	19659.18	18.82	3699.9					4.00	8737.4		4.0	8737.4	0.03	262.1	4.0	8737.4	110	480.6	
464+00.00	476+00.00	LT. SHOULDER RIGHT MAIN LANES - PAVING TRANSITION	1200.00	18.82	225.8					4.00	533.3		4.0	533.3	0.03	16.0	4.0	533.3	110	29.3	
62+73.98	68+73.98	RT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	44.75	268.5	12.0	800.00	17.9	262.1	10.00		666.7	10.0	666.7	0.03	20.0	14.0	933.3	110	51.3	
68+73.98	231+76.21	RT. SHOULDER LEFT MAIN LANES	16302.23	18.82	3068.1					10.00	18113.6		10.0	18113.6	0.03	543.4	10.0	18113.6	110	996.2	
241+75.89	252+34.45	RT. SHOULDER LEFT MAIN LANES	1058.56	18.82	199.2					10.00	1176.2		10.0	1176.2	0.03	35.3	10.0	1176.2	110	64.7	
252+34.45	258+34.45	RT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	44.75	268.5	12.0	800.00	17.9	262.1	10.00		666.7	10.0	666.7	0.03	20.0	14.0	933.3	110	51.3	
260+94.43	266+94.43	RT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	44.75	268.5	12.0	800.00	17.9	262.1	10.00		666.7	10.0	666.7	0.03	20.0	14.0	933.3	110	51.3	
266+94.93	273+41.56	RT. SHOULDER LEFT MAIN LANES	646.63	18.82	121.7					10.00	718.5		10.0	718.5	0.03	21.6	10.0	718.5	110	39.5	
278+38.74	458+25.00	RT. SHOULDER LEFT MAIN LANES	17986.26	18.82	3385.0					10.00	19984.7		10.0	19984.7	0.03	599.5	10.0	19984.7	110	1099.2	
458+25.00	470+25.00	RT. SHOULDER LEFT MAIN LANES - PAVING TRANSITION	1200.00	18.82	225.8					10.00	1333.3		10.0	1333.3	0.03	40.0	10.0	1333.3	110	73.3	
231+76.21	241+76.21	RT. SHOULDER RAMP E ACCEL. LANE & TAPER	1000.00	21.60	216.0	8.0	888.89	19.9	291.2	6.00	666.7		8.0	888.9	0.03	26.7	8.0	888.9	110	48.9	
273+05.56	278+39.01	RT. SHOULDER RAMP F TAPER	533.45	18.82	100.4					6.00	355.6		6.0	711.3	0.03	21.3	6.0	355.6	110		19.6
62+73.98	68+73.98	LT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	59.50	357.0	6.0	400.00	9.0	131.0	4.00		266.7	4.0	266.7	0.03	8.0	6.0	400.0	110	22.0	
68+73.98	252+34.45	LT. SHOULDER LEFT MAIN LANES	18360.47	29.24	5368.6					4.00	8160.2		4.0	8160.2	0.03	244.8	6.0	12240.3	110	673.2	
252+34.45	258+34.45	LT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	59.50	357.0	6.0	400.00	9.0	131.0	4.00		266.7	4.0	266.7	0.03	8.0	6.0	400.0	110	22.0	
260+94.43	266+94.43	LT. SHOULDER LEFT MAIN LANES - FULL DEPTH RECONSTRUCTION	600.00	59.50	357.0	6.0	400.00	9.0	131.0	4.00		266.7	4.0	266.7	0.03	8.0	6.0	400.0	110	22.0	
266+94.43	458+25.00	LT. SHOULDER LEFT MAIN LANES	19130.57	29.24	5593.8					4.00	8502.5		4.0	8502.5	0.03	255.1	6.0	12753.7	110	701.5	
458+25.00	470+25.00	LT. SHOULDER LEFT MAIN LANES - PAVING TRANSITION	1200.00	29.24	350.9					4.00	533.3		4.0	533.3	0.03	16.0	6.0	800.0	110	44.0	
197+62.86	200+62.86	RT. SHOULDER RAMP 'RA1' PAVING TRANSITION	300.00	6.91	20.7					6.0	200.0		6.0	400.0	0.03	12.0	6.0	200.0	110		11.0
198+90.70	199+93.30	RT. SHOULDER RAMP 'RA1' PAVING TRANSITION	102.60	6.91	7.1					6.0	68.4		6.0	136.8	0.03	4.1	6.0	68.4	110		3.8
197+62.86	199+93.39	LT. SHOULDER RAMP 'RA1' PAVING TRANSITION	230.53	6.91	15.9					4.0	102.5		4.0	204.9	0.03	6.1	4.0	102.5	110		5.6
198+90.70	200+62.86	LT. SHOULDER RAMP 'RA1' PAVING TRANSITION	172.16	6.91	11.9					4.0	76.5		4.0	153.0	0.03	4.6	4.0	76.5	110		4.2
170+80.99	173+80.99	RT. SHOULDER RAMP 'RA2' PAVING TRANSITION	300.00	6.91	20.7					6.0	200.0		6.0	400.0	0.03	12.0	6.0	200.0	110		11.0
170+86.25	171+42.37	RT. SHOULDER RAMP 'RA2' PAVING TRANSITION	56.12	6.91	3.9					6.0	37.4		6.0	74.8	0.03	2.2	6.0	37.4	110		2.1
170+86.25	173+27.92	LT. SHOULDER RAMP 'RA2' PAVING TRANSITION	241.67	6.91	16.7					4.0	107.4		4.0	214.8	0.03	6.4	4.0	107.4	110		5.9
170+80.99	171+42.37	LT. SHOULDER RAMP 'RA2' PAVING TRANSITION	61.38	6.91	4.2					4.0	27.3		4.0	54.6	0.03	1.6	4.0	27.3	110		1.5
370+57.50	373+57.50	RT. SHOULDER RAMP 'E' PAVING TRANSITION	300.00	6.91	20.7					6.0	200.0		6.0	400.0	0.03	12.0	6.0	200.0	110		11.0
372+27.50	373+57.50	LT. SHOULDER RAMP 'E' PAVING TRANSITION	130.00	6.91	9.0					4.0	57.8		4.0	115.6	0.03	3.5	4.0	57.8	110		3.2
270+05.56	273+05.56	RT. SHOULDER RAMP 'F' PAVING TRANSITION	300.00	6.91	20.7					6.0	200.0		6.0	400.0	0.03	12.0	6.0	200.0	110		11.0
270+05.56	272+55.56	LT. SHOULDER RAMP 'F' PAVING TRANSITION	250.00	6.91	17.3					4.0	111.1		4.0	222.2	0.03	6.7	4.0	111.1	110		6.1
380+12.34	381+37.34	RT. SHOULDER RAMP 'G' PAVING TRANSITION	125.00	6.91	8.6					6.0	83.3		6.0	166.7	0.03	5.0	6.0	83.3	110		4.6
380+12.34	381+37.34	LT. SHOULDER RAMP 'G' PAVING TRANSITION	125.00	6.91	8.6					4.0	55.6		4.0	111.1	0.03	3.3	4.0	55.6			
404+19.11	407+19.11	RT. SHOULDER RAMP 'H' PAVING TRANSITION	300.00	6.91	20.7					6.0	200.0		6.0	400.0	0.03	12.0	6.0	200.0	110		11.0
404+19.11	405+59.11	LT. SHOULDER RAMP 'H' PAVING TRANSITION	140.00	6.91	9.7					4.0	62.2		4.0	124.4	0.03	3.7	4.0	62.2	110		3.4
200+62.86	202+57.50	PAVEMENT REHABILITATION - RAMP RA1	194.64														10.0	216.3	220		23.8
167+68.85	170+80.99	PAVEMENT REHABILITATION - RAMP RA2	312.14														10.0	346.8	220		38.1
36+00.00	51+00.00	PAVEMENT REHABILITATION - RAMP B	1500.00														10.0	1666.7	220		183.3
26+50.00	48+00.00	PAVEMENT REHABILITATION - RAMP D	2150.00														10.0	2388.9	220		262.8
373+57.50	375+60.61	PAVEMENT REHABILITATION - RAMP E	203.11														10.0	225.7	220		24.8
265+05.56	270+05.56	PAVEMENT REHABILITATION - RAMP F	500.00														10.0	555.6	220		61.1
381+37.34	382+54.71	PAVEMENT REHABILITATION - RAMP G	117.37														10.0	130.4	220		14.3
399+19.11	404+19.11	PAVEMENT REHABILITATION - RAMP H	500.00														10.0	555.6	220		61.1
TOTALS:					39367.1		8977.78	201.2	2941.0		121193.3	5600.4		129383.2		3881.3		143921.6		12753.2	823.8

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8")......................................94.7% MIN. AGGR.................5.3% ASPHALT BINDER (PG64-22)
ACHM SURFACE COURSE (3/8")......................................94.7% MIN. AGGR.................5.3% ASPHALT BINDER (PG76-22)
CEMENT STABILIZED CRUSHED STONE BASE............93.6% AGGREGATE............6.4% CEMENT
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

5/20/2013

SCHEDULE OF BRIDGE QUANTITIES FOR JOB BB1003

BRIDGE NUMBER	CODE NUMBER	BRIDGE / ITEM NUMBER	SP JOB BB1003	SP JOB BB1003	SP JOB BB1003	SP JOB BB1003	SP JOB BB1003	SP JOB BB1003	509	802	803	803	SS & 804	SP & 807	SP, SS & 821
		ITEM	HYDRO-DEMOLITION	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	LATEX MODIFIED CONCRETE (VARIABLE DEPTH)	BRIDGE DECK REPAIR	RAISING EXISTING STRUCTURE (BR. NO. _)	SILICONE JOINT SEALANT	JOINT REHABILITATION (TYPE A)	GROOVING	CLASS 3 PROTECTIVE SURFACE TREATMENT	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	STRUCTURAL STEEL FOR MODIFICATION OF RAISED BRIDGE STRUCTURE (M270, GR.50W)	MODIFICATION OF RAISED BRIDGE STRUCTURE (BR. NO. _)
		UNIT	SQ. YD.	SQ. YD.	CU. YD.	SQ. FT.	LUMP SUM	LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	GAL.	LBS.	LB.	LUMP SUM
A3288		EXISTING BRIDGE NO. A3288	534	534	8	720			142	494	240	11	500		
B3288		EXISTING BRIDGE NO. B3288	534	534	8	720			142	494	240	11	500		
03290		EXISTING BRIDGE NO. 03290					1	65						1485	1
TOTAL FOR JOB BB1003			1068	1068	16 (1)	1440 (1)	1	65	284	988	480	22	1000 (1)	1485	1

(1) This quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15148
JOSHUA B. ...
4-18-13
BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
I-55 REHABILITATION
MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JBR DATE: 02-28-13 FILENAME: BB1003.dgn
CHECKED BY: BCB DATE: 03-26-13 SCALE: NO SCALE
DESIGNED BY: JBR DATE: 02-28-13

BRIDGE NO. A3288, B3288, 3290 DRAWING NO. 53761

5/29/2013

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	ALTERNATE NO. 1 ASPHALT QUANTITIES BIM-B55-0(206)	ALTERNATE NO. 1 ASPHALT QUANTITIES HSIP-55-1(140)45	ALTERNATE NO. 1 ASPHALT QUANTITIES TOTAL	ALTERNATE NO. 2 CONCRETE QUANTITIES BIM-B55-0(206)	ALTERNATE NO. 2 CONCRETE QUANTITIES HSIP-55-1(140)45	ALTERNATE NO. 2 CONCRETE QUANTITIES TOTAL	UNIT
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	6		6	6		6	EACH
202	REMOVAL AND DISPOSAL OF FENCE	71854		71854	71854		71854	LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION	64		64	64		64	LIN. FT.
202	REMOVAL AND DISPOSAL OF GUARDRAIL	2580		2580	2580		2580	LIN. FT.
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	2		2	2		2	EACH
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT	11470		11470	14443		14443	SQ YD.
206	FLOWABLE SELECT MATERIAL	200		200	200		200	CU YD.
210	UNCLASSIFIED EXCAVATION	16039		16039	16039		16039	CU YD.
210	COMPACTED EMBANKMENT	6585		6585	6585		6585	CU YD.
SP & 210	BORROW	13774		13774	13774		13774	CU YD.
SP & 210	SOIL STABILIZATION	100		100	100		100	TON
SP & 215	TRENCHING AND SHOULDER PREPARATION	458		458	458		458	STATION
302	SELECTED MATERIAL (CLASS SM-3)	100		100	100		100	CU YD.
SS & 303	AGGREGATE BASE COURSE (CLASS 1)	54579		54579	39367		39367	TON
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	7877		7877	1211		1211	TON
308	AGGREGRATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	-		-	7934		7934	TON
308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	-		-	543		543	TON
308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE	-		-	24217		24217	SQ YD.
401	TACK COAT	35898		35898	34608		34608	GAL.
SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	129768		129768	6705		6705	TON
SP, SS, & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")	4986		4986	258		258	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	79992		79992	20535		20535	TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")	3594		3594	923		923	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	80894		80894	6784		6784	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	4347		4347	365		365	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")	-		-	50678		50678	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (3/8")	-		-	2775		2775	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (3/8")	-		-	62		62	TON
412	COLD MILLING ASPHALT PAVEMENT	11022		11022	11022		11022	SQ YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	198		198	198		198	TON
SP, SS, & 501	PORTLAND CEMENT CONCRETE PAVEMENT (9" UNIFORM THICKNESS)	190		190	336720		336720	SQ YD.
SP, SS, & 501	PORTLAND CEMENT CONCRETE PAVEMENT (12" UNIFORM THICKNESS)	-		-	17863		17863	SQ YD.
SP & 504	APPROACH SLABS	382.90		382.90	382.90		382.90	CU YD.
SP & 504	APPROACH GUTTERS	232.82		232.82	232.82		232.82	CU YD.
506	PORTLAND CEMENT CONCRETE CORRUGATIONS	190		190	190		190	SQ YD.
SS & 507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (8" UNIFORM THICKNESS)	413		413	185		185	SQ YD.
SS & 507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" UNIFORM THICKNESS)	93		93	825		825	SQ YD.
507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	506		506	1010		1010	SQ YD.
509	JOINT REHABILITATION (TYPE A)	588		588	588		588	LIN. FT.
509	JOINT REHABILITATION (TYPE B)	1204		1204	1204		1204	LIN. FT.
509	JOINT REHABILITATION (TYPE D)	100		100	100		100	LIN. FT.
513	RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT	238450		238450	-		-	SQ YD.
601	MOBILIZATION	1.00		1.00	1.00		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1		1	1		1	EACH
SP, SS & 603	MAINTENANCE OF TRAFFIC	1.00		1.00	1.00		1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR	1.00		1.00	1.00		1.00	LUMP SUM
603	12" TEMPORARY CULVERT	2914		2914	2914		2914	LIN. FT.
SS & 604	SIGNS	1916		1916	1916		1916	SQ FT.
SS & 604	BARRICADES	416		416	416		416	LIN. FT.
SS & 604	TRAFFIC DRUMS	1244		1244	1244		1244	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	42760		42760	42760		42760	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS	333870		333870	206622		206622	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER	42600		42600	42600		42600	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	-		-	127248		127248	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	55386		55386	55386		55386	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL	1600		1600	1600		1600	DAY
SP, SS & 604	PORTABLE CHANGEABLE MESSAGE SIGN	572		572	572		572	WEEK
SS & 604	VERTICAL PANELS	205		205	205		205	EACH
SP & 605	CONCRETE DITCH PAVING (TYPE B)		20606	20606		20606	20606	SQ YD.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	20		20	20		20	LIN. FT.
606	18" SAFETY END SECTION FOR CROSS DRAIN PIPE CULVERTS (CLASS 2)	3		3	3		3	EACH
606	SELECTED PIPE BEDDING	39		39	39		39	CU YD.
606	12" ZINC COATED (GALVANIZED) CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	800		800	800		800	LIN. FT.
609	DROP INLETS (TYPE N2)	8		8	8		8	EACH
611	UNDERDRAIN OUTLET PROTECTORS	312		312	-		-	EACH
611	4" PIPE UNDERDRAINS	91334		91334	-		-	LIN. FT.
611	UNDERDRAIN VIDEO INSPECTION	91334		91334	-		-	LIN. FT.
614	CONCRETE SPILLWAY (TYPE A)	8		8	8		8	EACH
SS & 617	GUARDRAIL (TYPE A)	3550		3550	3550		3550	LIN. FT.
SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)	2		2	2		2	EACH
SS & 617	GUARDRAIL TERMINAL (TYPE 2)	16		16	16		16	EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL	14		14	14		14	EACH
SP	WIRE ROPE SAFTEY FENCE		46364	46364		46364	46364	LIN. FT.
SP	WIRE ROPE SAFTEY FENCE MAINTENANCE MATERIAL		1.00	1.00		1.00	1.00	LUMP SUM
SP & 619	WIRE FENCE (TYPE A)	71854		71854	71854		71854	LIN. FT.
* 619	12' STEEL GATES ALTERNATE NO. 1	3		3	3		3	EACH
* 619	12' ALUMINUM GATES ALTERNATE NO. 2	3		3	3		3	EACH
620	SEEDING	51.00		51.00	51.00		51.00	ACRE
620	LIME	102		102	102		102	TON
620	MULCH COVER	61.00		61.00	61.00		61.00	ACRE
SS & 620	WATER	5665.7		5665.7	5665.7		5665.7	M.GAL.
621	TEMPORARY SEEDING	10.00		10.00	10.00		10.00	ACRE
621	SILT FENCE	285		285	285		285	LIN. FT.
621	SAND BAG DITCH CHECKS	1144		1144	1144		1144	BAG
621	DROP INLET SILT FENCE	1128		1128	1128		1128	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	52		52	52		52	CU YD.
623	SECOND SEEDING APPLICATION	51.00		51.00	51.00		51.00	ACRE
624	SOLID SODDING	7	20606	20613	7	20606	20613	SQ YD.
631	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)	64		64	64		64	LIN. FT.
SP & 635	ROADWAY CONSTRUCTION CONTROL	1.00		1.00	1.00		1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	160324		160324	-		-	LIN. FT.
642	RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS	-		-	160324		160324	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	4782		4782	4782		4782	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	1956		1956	1956		1956	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4") ALTERNATE NO. 1	112147		112147	91683		91683	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (4") ALTERNATE NO. 2	112147		112147	91683		91683	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4") ALTERNATE NO. 1	98563		98563	98563		98563	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4") ALTERNATE NO. 2	98563		98563	98563		98563	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8") ALTERNATE NO. 1	3532		3532	3100		3100	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (8") ALTERNATE NO. 2	3532		3532	3100		3100	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4") ALTERNATE NO. 1	227		227	20691		20691	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4") ALTERNATE NO. 2	227		227	20691		20691	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING YELLOW (4") ALTERNATE NO. 1	726		726	726		726	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE YELLOW (4") ALTERNATE NO. 2	726		726	726		726	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (8") ALTERNATE NO. 1	-		-	432		432	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (8") ALTERNATE NO. 2	-		-	432		432	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	1612		1612	1612		1612	EACH
SP	SCARIFYING CONCRETE PAVEMENT	500		500	-		-	SQ. YD.
SS & 804	REINFORCING STEEL - ROADWAY (GRADE 60)	64812		64812	64812		64812	LB.
SP	SHAPING DITCH	10		10	10		10	STATION
SP	ACHM PATCHING OF EXISTING SHOULDERS	200		200	200		200	TON
SP	CULVERT CLEANOUT	70		70	70		70	EACH
SP	MODULAR GLARE SHIELD	600		600	600		600	LIN. FT.
	STRUCTURES OVER 20' SPAN							
509	JOINT REHABILITATION (TYPE A)	284		284	284		284	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	1.00		1.00	1.00		1.00	LUMP SUM
802	GROOVING	988		988	988		988	SQ. YD.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT	480		480	480		480	LIN. FT.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	22		22	22		22	GAL.
SS & 804	REINFORCING STEEL - BRIDGE (GRADE 60)	1000		1000	1000		1000	LB.
SP & 807	STRUCTURAL STEEL FOR MODIFICATION OF RAISED BRIDGE STRUCTURE (M270-GR50W)	1485		1485	1485		1485	LB.
SP, SS, & 821	MODIFICATION OF RAISED BRIDGE STRUCTURE (BR. NO. 03290)	1.00		1.00	1.00		1.00	LUMP SUM
SP	HYDRODEMOLITION	1068		1068	1068		1068	SQ. YD.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	1068		1068	1068		1068	SQ. YD.
SP	LATEX MODIFIED CONCRETE (VARIABLE DEPTH)	16		16	16		16	CU. YD.
SP	BRIDGE DECK REPAIR	1440		1440	1440		1440	SQ. FT.
SP	RAISING EXISTING STRUCTURE (BR. NO. 03290)	1.00		1.00	1.00		1.00	LUMP SUM
SP	SILICONE JOINT SEALANT	65		65	65		65	LIN. FT.

* DENOTES ALTERNATE BID ITEM.

REVISIONS

DATE	REVISION	SHEET NUMBER
5/20/2013	REVISED TEMPORARY EROSION CONTROL DETAIL	25 - 56
5/20/2013	REVISED BASE & SURFACING, PATCHING, PAVEMENT MARKING, AND T.E.C. QUANTITIES	65, 69, 77, 85, 97, 101, 109, 117, 135, 136, 139, 145, 147, 149
5/29/2013	REVISED UNCLASSIFIED EXCAVATION QUANTITIES	138 & 149

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
05/20/2013				6	ARK.			
05/29/2013				JOB NO.		BB1003	149	215

(2) SUMMARY OF QUANTITIES AND REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
ANDREW PINKLEY
5/29/13

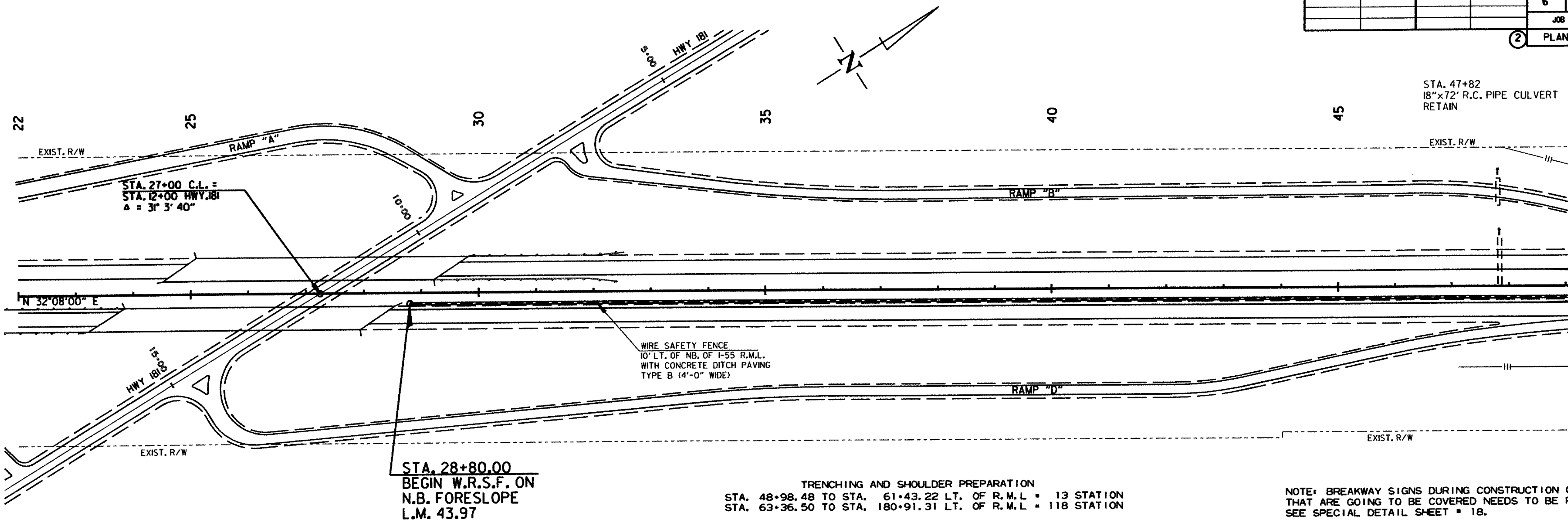
SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	150	215

(2) PLAN SHEETS STA. 22+00 - STA. 76+00

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

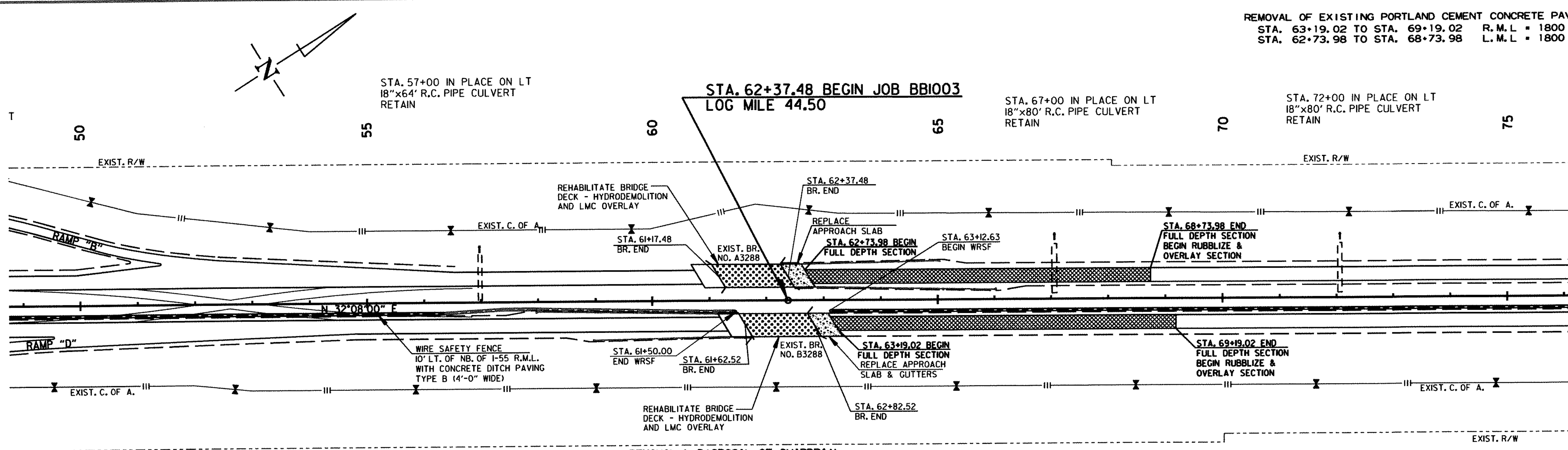
04-16-13



TRENCHING AND SHOULDER PREPARATION
STA. 48+98.48 TO STA. 61+43.22 LT. OF R.M.L = 13 STATION
STA. 63+36.50 TO STA. 180+91.31 LT. OF R.M.L = 118 STATION

NOTE: BREAKWAY SIGNS DURING CONSTRUCTION OF PROJECT THAT ARE GOING TO BE COVERED NEEDS TO BE RELOCATED. SEE SPECIAL DETAIL SHEET # 18.

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
STA. 63+19.02 TO STA. 69+19.02 R.M.L = 1800 S.Y.
STA. 62+73.98 TO STA. 68+73.98 L.M.L = 1800 S.Y.



REMOVAL & DISPOSAL OF APPROACH SLABS & GUTTERS
STA. 62+37.48 TO STA. 62+73.98 LT. OF M.L. = 1.0 EACH
STA. 62+82.52 TO STA. 63+19.02 RT. OF M.L. = 1.0 EACH

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 62+23.96 TO STA. 64+93.96 LT. OF L.M.L. = 270 LIN. FT.
STA. 62+48.54 TO STA. 65+68.54 RT. OF L.M.L. = 320 LIN. FT.
STA. 58+31.46 TO STA. 61+51.46 LT. OF R.M.L. = 320 LIN. FT.
STA. 59+06.04 TO STA. 61+76.04 RT. OF R.M.L. = 270 LIN. FT.

GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 58+25.81 - STA. 61+44.56 (LT. OF RT. LANES) = 250 L.F.	1 EACH	1 EACH
STA. 59+00.39 - STA. 61+69.14 (RT. of RT. LANES) = 200 L.F.	1 EACH	1 EACH
STA. 62+30.86 - STA. 64+99.61 (LT. OF LT. LANES) = 200 L.F.	1 EACH	1 EACH
STA. 62+55.44 - STA. 65+74.19 (RT. OF LT. LANES) = 250 L.F.	1 EACH	1 EACH

LEGEND
= FULL DEPTH CONSTRUCTION
= PROPOSED APPROACH SLABS
= REHABILITATE BRIDGE DECKS

REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 62+74 TO STA. 138+25 LT. OF M.L = 7551 LIN. FT.
STA. 63+19 TO STA. 96+70 RT. OF M.L = 3351 LIN. FT.

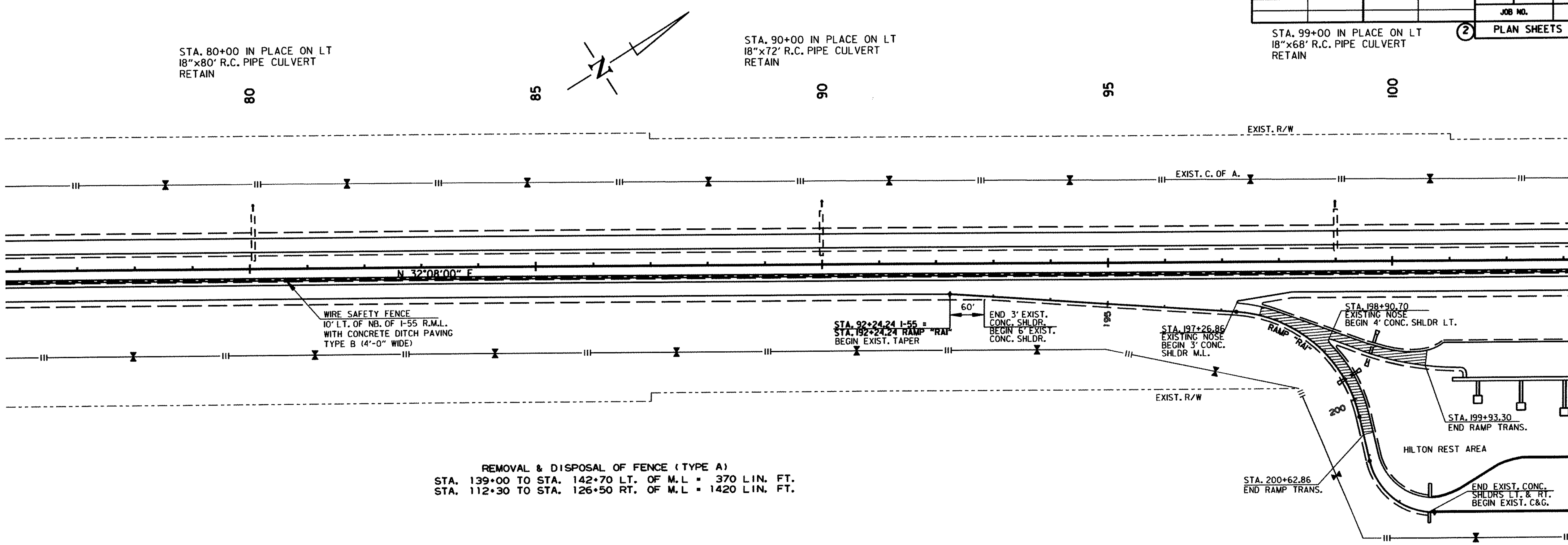
PLAN SHEETS STA. 22+00 - STA. 76+00

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	151	215

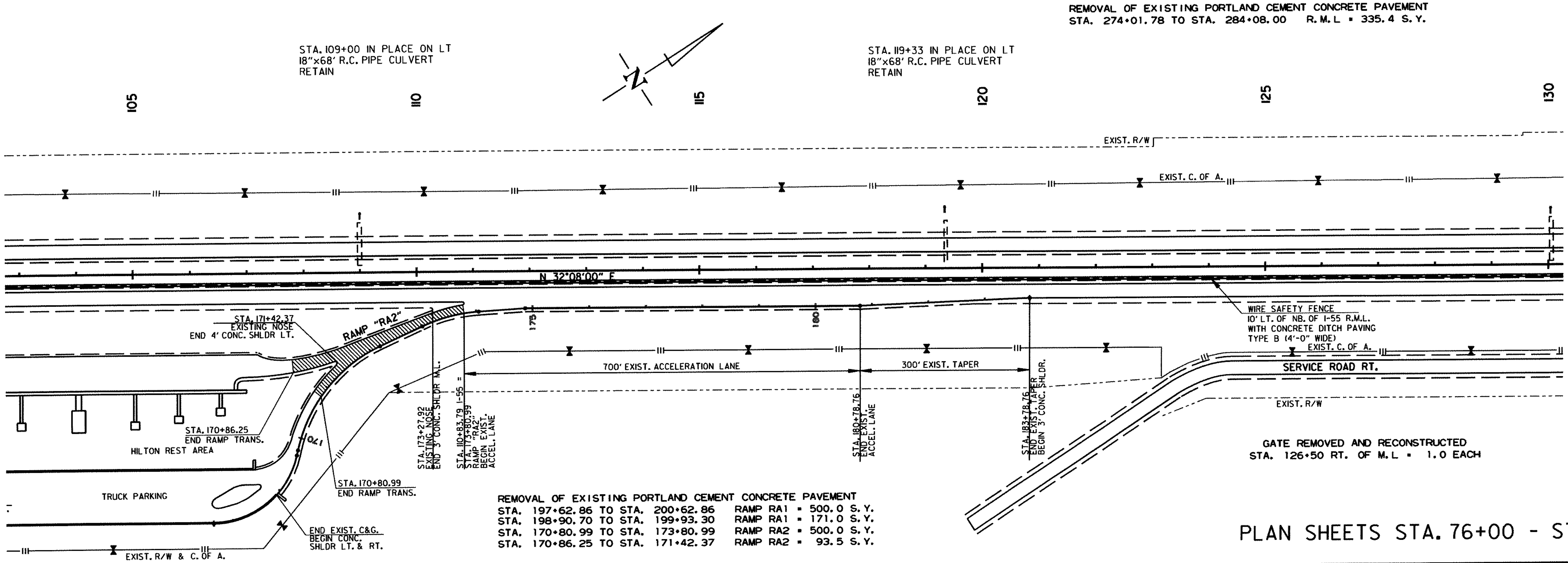
2 PLAN SHEETS STA. 76+00 - STA. 130+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 139+00 TO STA. 142+70 LT. OF M.L = 370 LIN. FT.
STA. 112+30 TO STA. 126+50 RT. OF M.L = 1420 LIN. FT.

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
STA. 274+01.78 TO STA. 284+08.00 R.M.L = 335.4 S.Y.



GATE REMOVED AND RECONSTRUCTED
STA. 126+50 RT. OF M.L = 1.0 EACH

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT

STA. 197+62.86	TO STA. 200+62.86	RAMP RA1	=	500.0 S.Y.
STA. 198+90.70	TO STA. 199+93.30	RAMP RA1	=	171.0 S.Y.
STA. 170+80.99	TO STA. 173+80.99	RAMP RA2	=	500.0 S.Y.
STA. 170+86.25	TO STA. 171+42.37	RAMP RA2	=	93.5 S.Y.

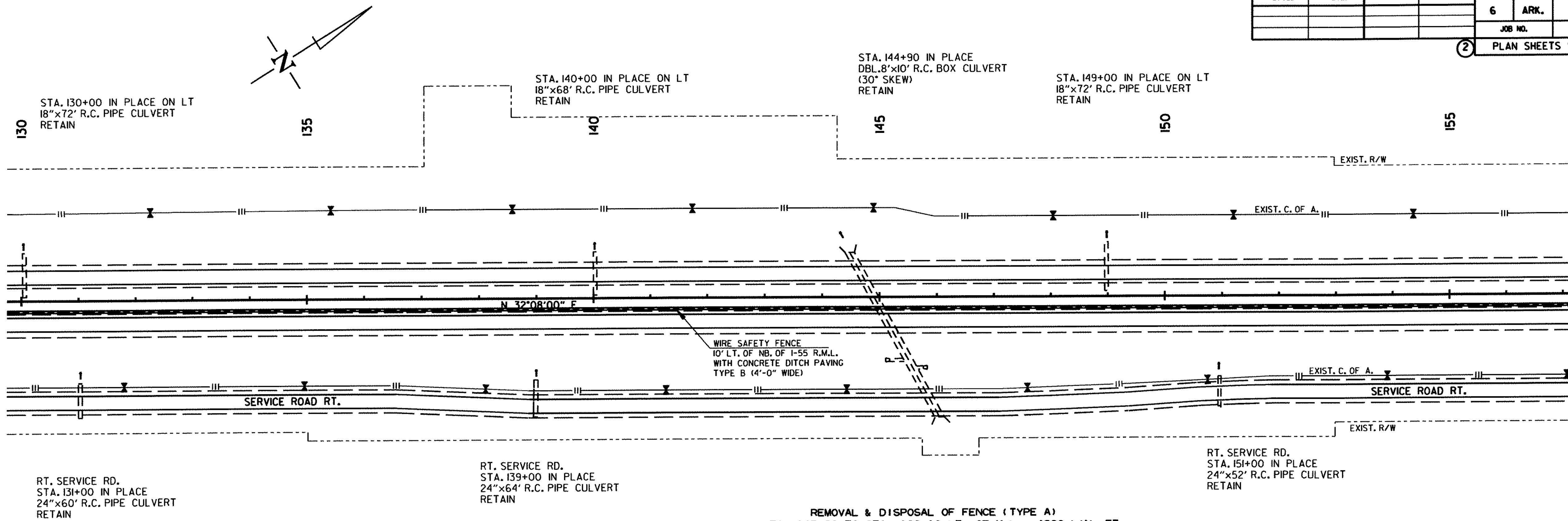
PLAN SHEETS STA. 76+00 - STA. 130+00

4/16/2013

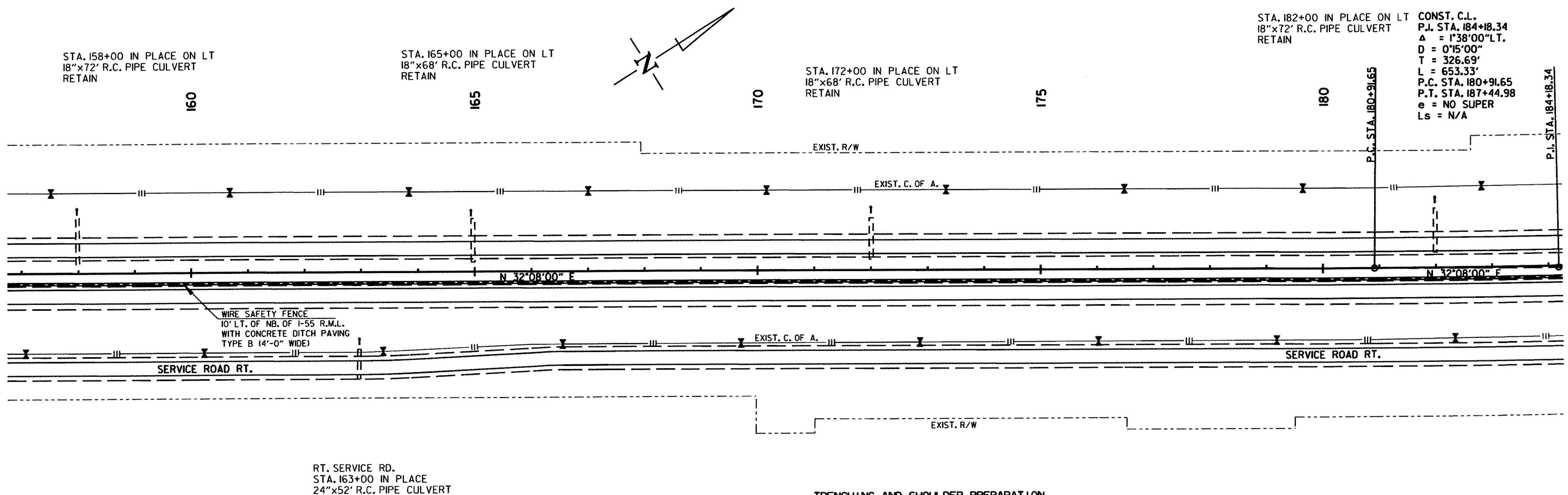
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	152	215

(2) PLAN SHEETS STA. 130+00 - STA. 184+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
WM. ANDREW PINKLEY
04-16-13



REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 145+20 TO STA. 188+10 LT. OF M.L = 4290 LIN. FT.
STA. 126+62 TO STA. 145+20 RT. OF M.L = 1858 LIN. FT.
STA. 147+65 TO STA. 178+25 RT. OF M.L = 3060 LIN. FT.



TRENCHING AND SHOULDER PREPARATION
STA. 184+06.54 TO STA. 210+83.04 LT. OF R.M.L = 27 STATION

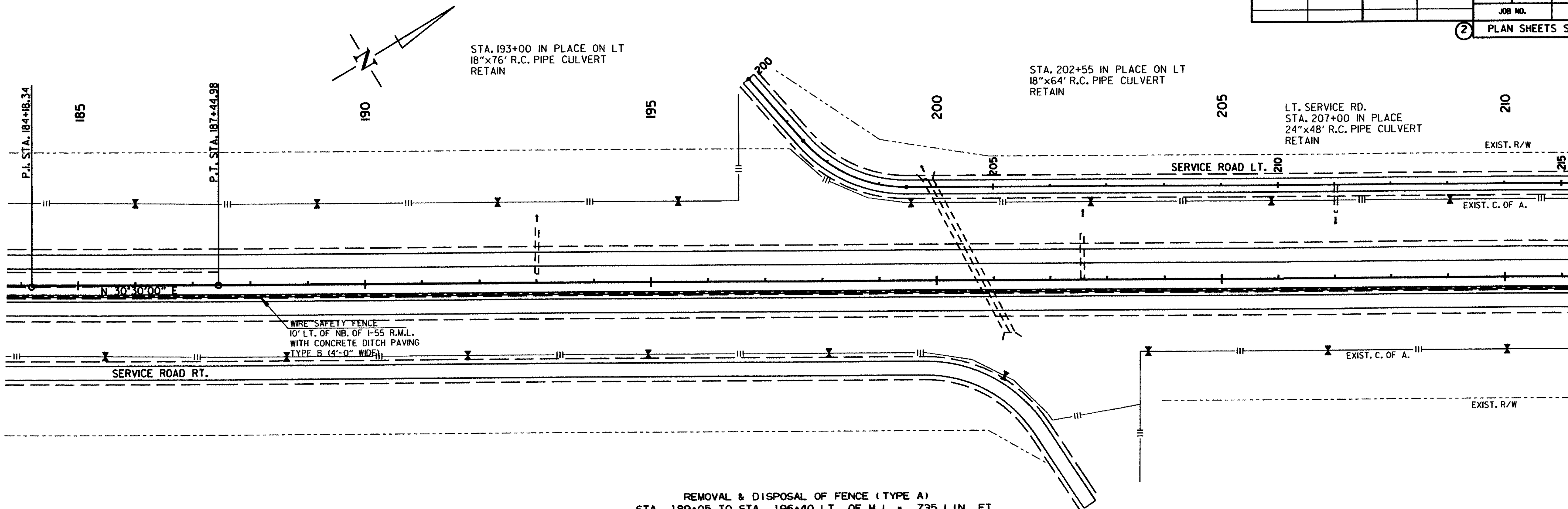
PLAN SHEETS STA. 130+00 - STA. 184+00

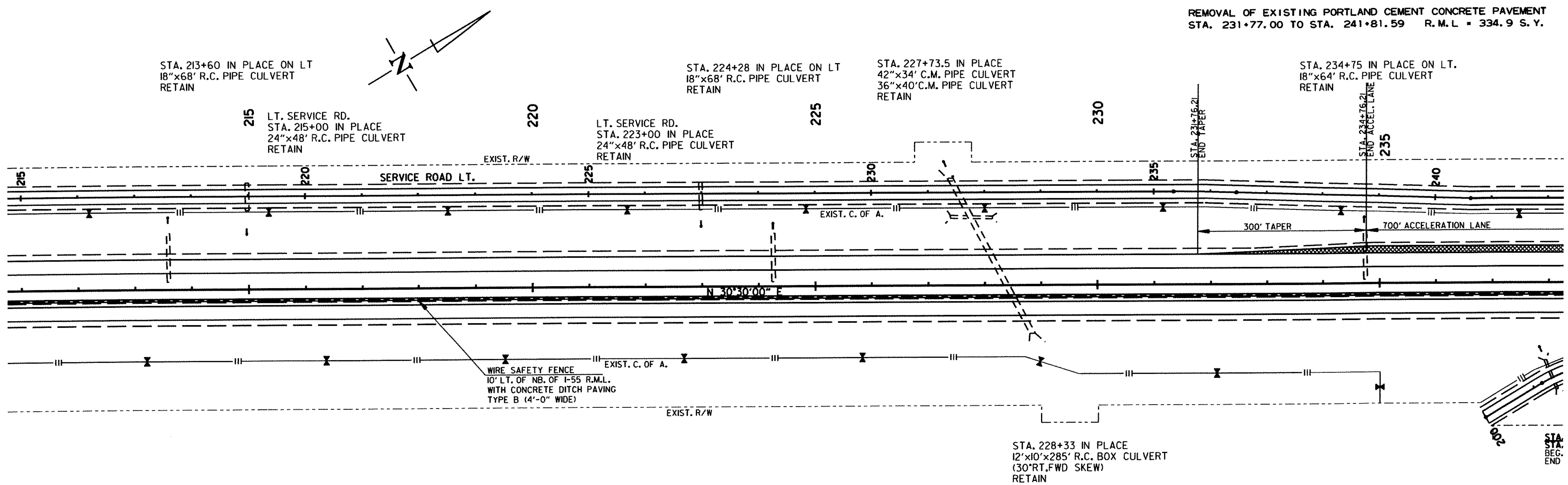
4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	153	215

(2) PLAN SHEETS STA. 184+00 - STA. 238+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13





TRENCHING AND SHOULDER PREPARATION
STA. 241+33.32 TO STA. 257+85.29 LT. OF R.M.L = 17 STATION

PLAN SHEETS STA. 184+00 - STA. 238+00

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	154	215

(2) PLAN SHEETS STA. 238+00 - STA. 292+00

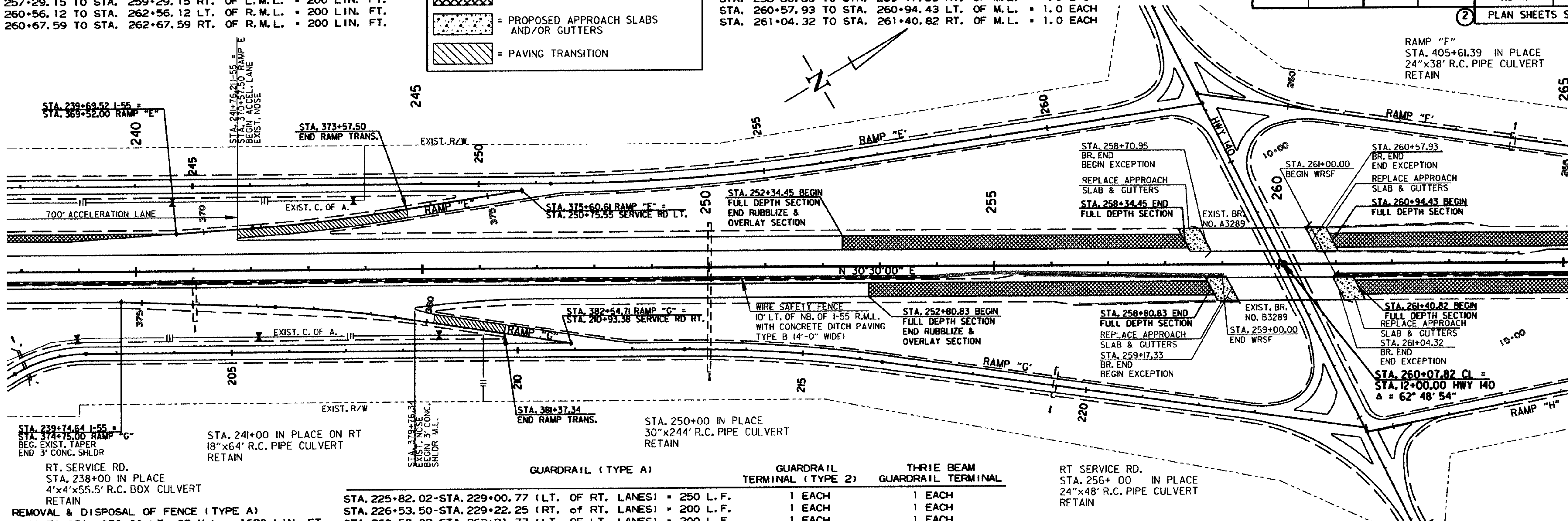
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY

04-16-13

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 257+07.68 TO STA. 259+07.68 LT. OF L.M.L. = 200 LIN. FT.
STA. 257+29.15 TO STA. 259+29.15 RT. OF L.M.L. = 200 LIN. FT.
STA. 260+56.12 TO STA. 262+56.12 LT. OF R.M.L. = 200 LIN. FT.
STA. 260+67.59 TO STA. 262+67.59 RT. OF R.M.L. = 200 LIN. FT.

LEGEND
= FULL DEPTH CONSTRUCTION
= PROPOSED APPROACH SLABS AND/OR GUTTERS
= PAVING TRANSITION

REMOVAL & DISPOSAL OF APPROACH SLABS & GUTTERS
STA. 258+34.45 TO STA. 258+70.95 LT. OF M.L. = 1.0 EACH
STA. 258+80.83 TO STA. 259+17.33 RT. OF M.L. = 1.0 EACH
STA. 260+57.93 TO STA. 260+94.43 LT. OF M.L. = 1.0 EACH
STA. 261+04.32 TO STA. 261+40.82 RT. OF M.L. = 1.0 EACH



RAMP "F"
STA. 405+61.39 IN PLACE
24"x38' R.C. PIPE CULVERT
RETAIN

STA. 241+00 IN PLACE ON RT
18"x64' R.C. PIPE CULVERT
RETAIN

STA. 250+00 IN PLACE
30"x244' R.C. PIPE CULVERT
RETAIN

RT. SERVICE RD.
STA. 238+00 IN PLACE
4'x4'x55.5' R.C. BOX CULVERT
RETAIN

RT SERVICE RD.
STA. 256+00 IN PLACE
24"x48' R.C. PIPE CULVERT
RETAIN

REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 256+40 TO STA. 272+60 LT. OF M.L = 1620 LIN. FT.
STA. 229+65 TO STA. 238+70 RT. OF M.L = 905 LIN. FT.

GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 225+82.02-STA. 229+00.77 (LT. OF RT. LANES) = 250 L.F.	1 EACH	1 EACH
STA. 226+53.50-STA. 229+22.25 (RT. of RT. LANES) = 200 L.F.	1 EACH	1 EACH
STA. 260+53.02-STA. 263+21.77 (LT. OF LT. LANES) = 200 L.F.	1 EACH	1 EACH
STA. 260+74.49-STA. 263+93.24 (RT. OF LT. LANES) = 250 L.F.	1 EACH	1 EACH

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
STA. 370+57.50 TO STA. 373+57.50 RAMP E = 500.0 S.Y.
STA. 270+05.56 TO STA. 273+05.56 RAMP F = 500.0 S.Y.
STA. 380+12.34 TO STA. 381+37.34 RAMP G = 208.3 S.Y.
STA. 404+19.11 TO STA. 407+19.11 RAMP H = 500.0 S.Y.

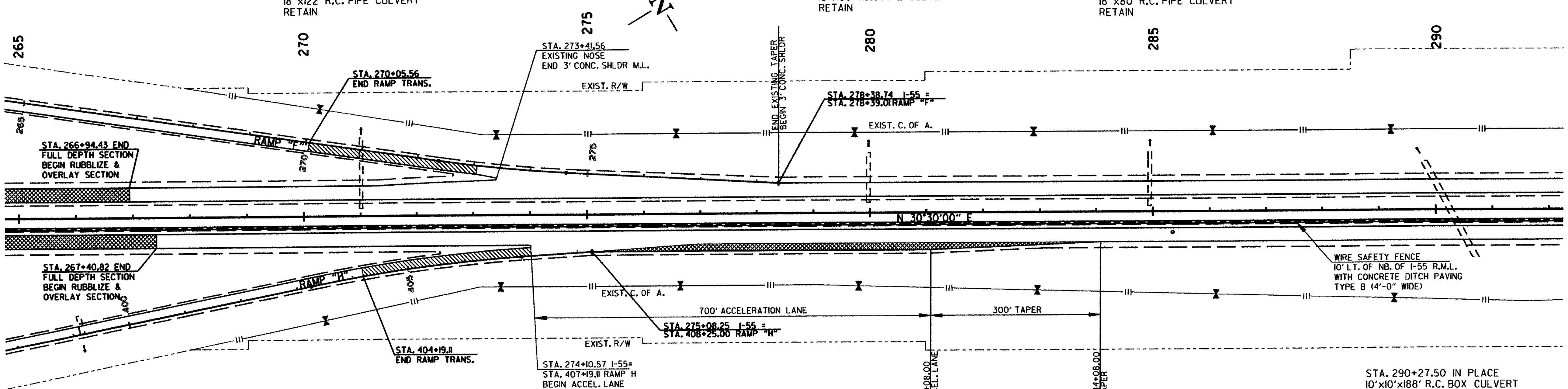
REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
STA. 252+80.83 TO STA. 258+80.83 R.M.L = 1800 S.Y.
STA. 252+34.45 TO STA. 258+34.45 L.M.L = 1800 S.Y.
STA. 261+40.82 TO STA. 267+40.82 R.M.L = 1800 S.Y.
STA. 260+94.43 TO STA. 267+94.43 L.M.L = 1800 S.Y.

REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 272+60 TO STA. 349+00 LT. OF M.L = 7640 LIN. FT.
STA. 247+15 TO STA. 264+95 RT. OF M.L = 1780 LIN. FT.
STA. 260+55 TO STA. 272+60 RT. OF M.L = 1205 LIN. FT.
STA. 272+60 TO STA. 349+95 RT. OF M.L = 7735 LIN. FT.

STA. 271+00 IN PLACE ON LT
18"x122' R.C. PIPE CULVERT
RETAIN

STA. 280+00 IN PLACE ON LT
18"x80' R.C. PIPE CULVERT
RETAIN

STA. 285+00 IN PLACE ON LT
18"x80' R.C. PIPE CULVERT
RETAIN



STA. 290+27.50 IN PLACE
10'x10'x188' R.C. BOX CULVERT
(30° SKEW)
RETAIN

RAMP "H"
STA. 404+60.75 IN PLACE
24"x32' R.C. PIPE CULVERT
RETAIN

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
STA. 274+01.78 TO STA. 284+08.00 R.M.L = 335.4 S.Y.

PLAN SHEETS STA. 238+00 - STA. 292+00

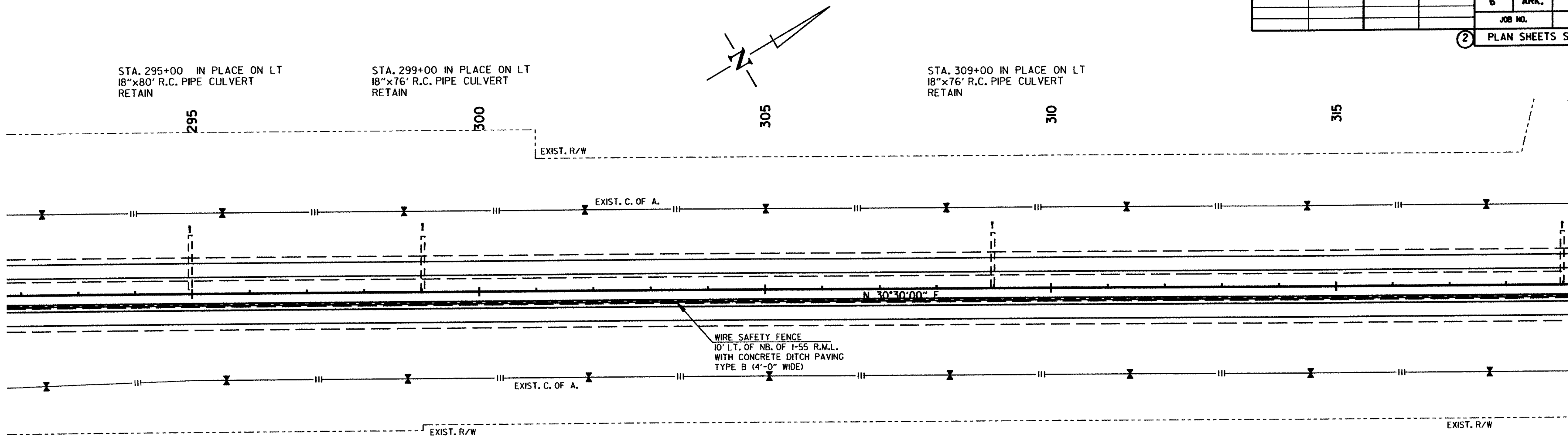
4/16/2013

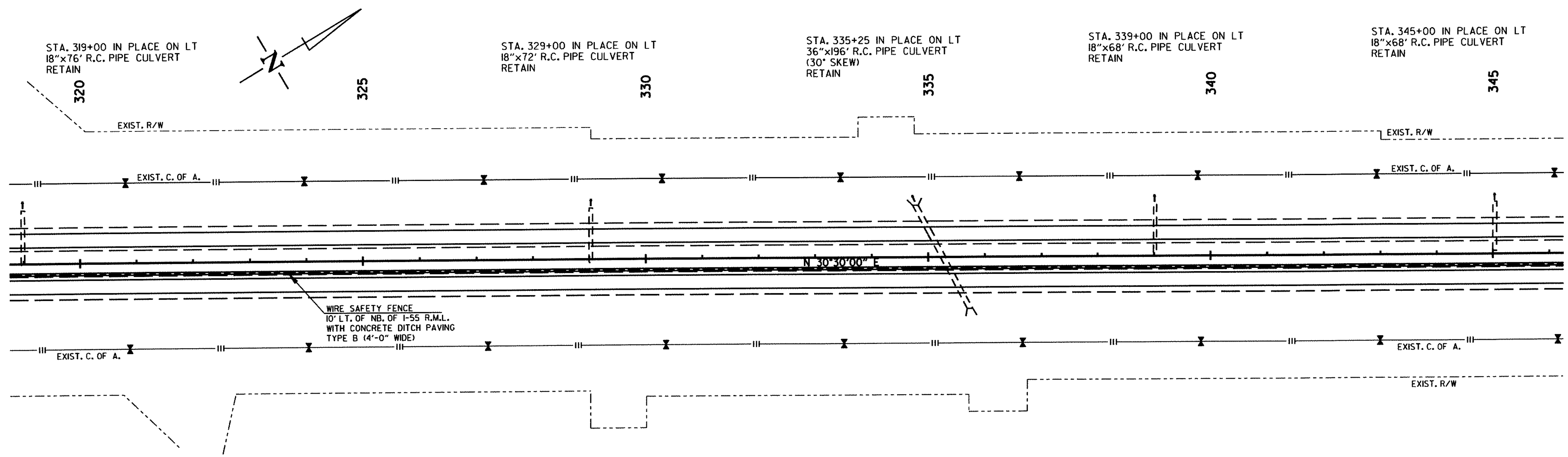
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	155	215

2 PLAN SHEETS STA. 292+00 - STA. 346+00

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

Wm. Andrew Pinkley 04-16-13





PLAN SHEETS STA. 292+00 - STA. 346+00

4/16/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	156	215

(2) PLAN SHEETS STA. 346+00 - STA.400+00

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

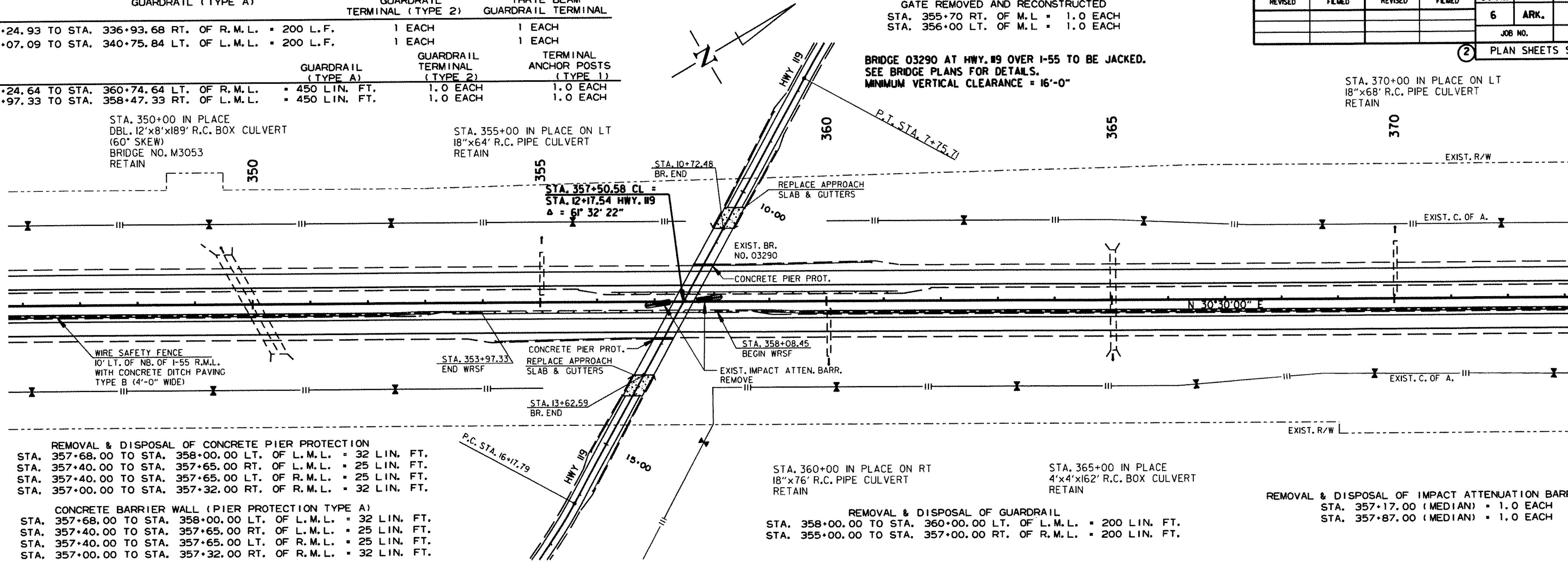
04/18/13

	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 334+24.93 TO STA. 336+93.68 RT. OF R.M.L.	= 200 L.F.	1 EACH	1 EACH
STA. 338+07.09 TO STA. 340+75.84 LT. OF L.M.L.	= 200 L.F.	1 EACH	1 EACH

	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POSTS (TYPE 1)
STA. 356+24.64 TO STA. 360+74.64 LT. OF R.M.L.	= 450 LIN. FT.	1.0 EACH	1.0 EACH
STA. 353+97.33 TO STA. 358+47.33 RT. OF L.M.L.	= 450 LIN. FT.	1.0 EACH	1.0 EACH

GATE REMOVED AND RECONSTRUCTED
STA. 355+70 RT. OF M.L = 1.0 EACH
STA. 356+00 LT. OF M.L = 1.0 EACH

BRIDGE 03290 AT HWY. #9 OVER I-55 TO BE JACKED.
SEE BRIDGE PLANS FOR DETAILS.
MINIMUM VERTICAL CLEARANCE = 16'-0"



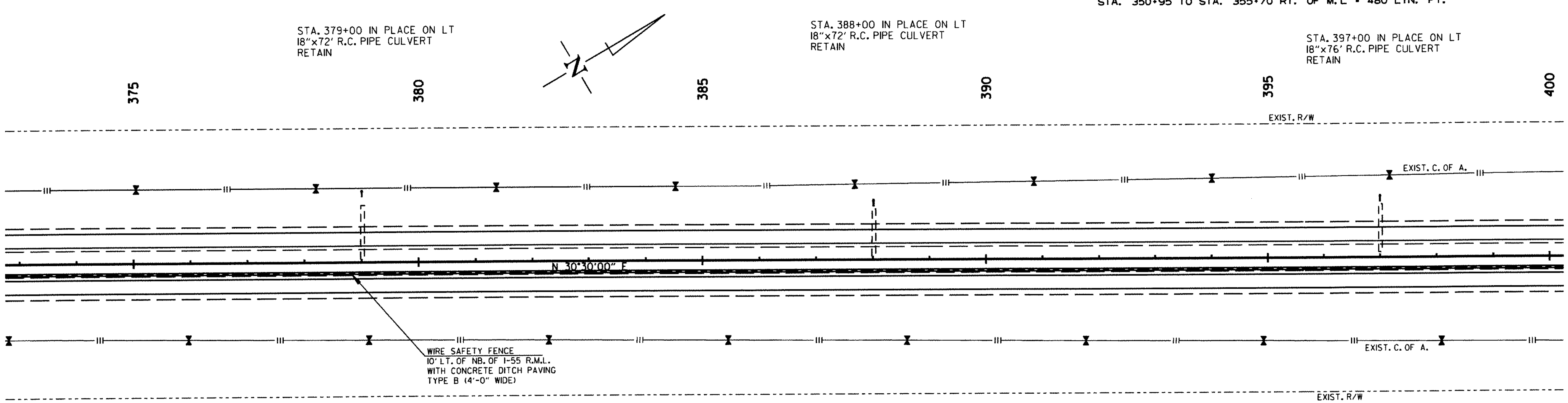
REMOVAL & DISPOSAL OF CONCRETE PIER PROTECTION
STA. 357+68.00 TO STA. 358+00.00 LT. OF L.M.L. = 32 LIN. FT.
STA. 357+40.00 TO STA. 357+65.00 RT. OF L.M.L. = 25 LIN. FT.
STA. 357+40.00 TO STA. 357+65.00 LT. OF R.M.L. = 25 LIN. FT.
STA. 357+00.00 TO STA. 357+32.00 RT. OF R.M.L. = 32 LIN. FT.

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)
STA. 357+68.00 TO STA. 358+00.00 LT. OF L.M.L. = 32 LIN. FT.
STA. 357+40.00 TO STA. 357+65.00 RT. OF L.M.L. = 25 LIN. FT.
STA. 357+40.00 TO STA. 357+65.00 LT. OF R.M.L. = 25 LIN. FT.
STA. 357+00.00 TO STA. 357+32.00 RT. OF R.M.L. = 32 LIN. FT.

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 358+00.00 TO STA. 360+00.00 LT. OF L.M.L. = 200 LIN. FT.
STA. 355+00.00 TO STA. 357+00.00 RT. OF R.M.L. = 200 LIN. FT.

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIERS
STA. 357+17.00 (MEDIAN) = 1.0 EACH
STA. 357+87.00 (MEDIAN) = 1.0 EACH

REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 349+90 TO STA. 356+00 LT. OF M.L = 610 LIN. FT.
STA. 350+95 TO STA. 355+70 RT. OF M.L = 480 LIN. FT.



REMOVAL & DISPOSAL OF FENCE (TYPE A)
STA. 356+12 TO STA. 357+75 LT. OF M.L = 163 LIN. FT.
STA. 355+82 TO STA. 356+75 RT. OF M.L = 93 LIN. FT.
STA. 358+35 TO STA. 409+90 LT. OF M.L = 5155 LIN. FT.
STA. 359+10 TO STA. 410+65 RT. OF M.L = 5155 LIN. FT.

PLAN SHEETS STA. 346+00 - STA.400+00

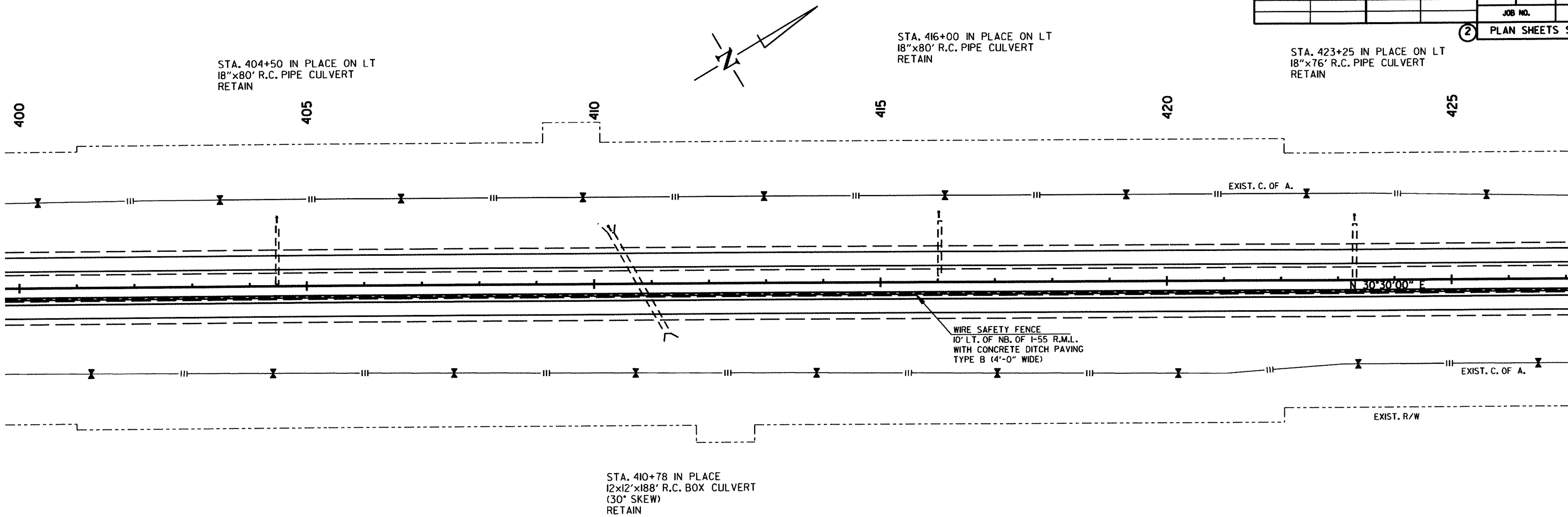
4/18/2013

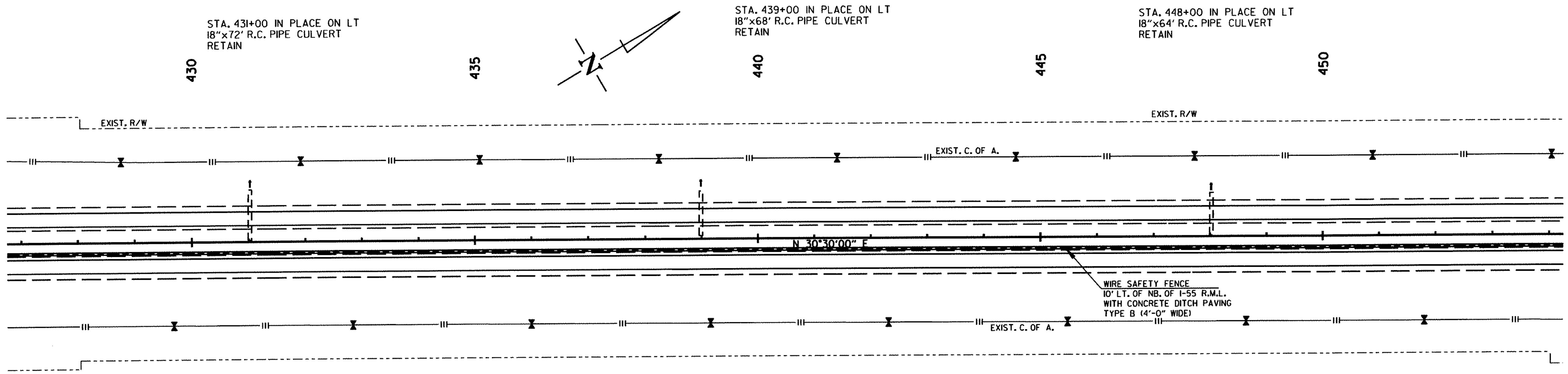
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	157	215

2 PLAN SHEETS STA. 400+00 - STA. 454+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY

04-16-13





TRENCHING AND SHOULDER PREPARATION
STA. 284+05.90 TO STA. 474+83.70 RT. OF R.M.L = 191 STATION
STA. 261+41.62 TO STA. 474+83.70 LT. OF R.M.L = 214 STATION

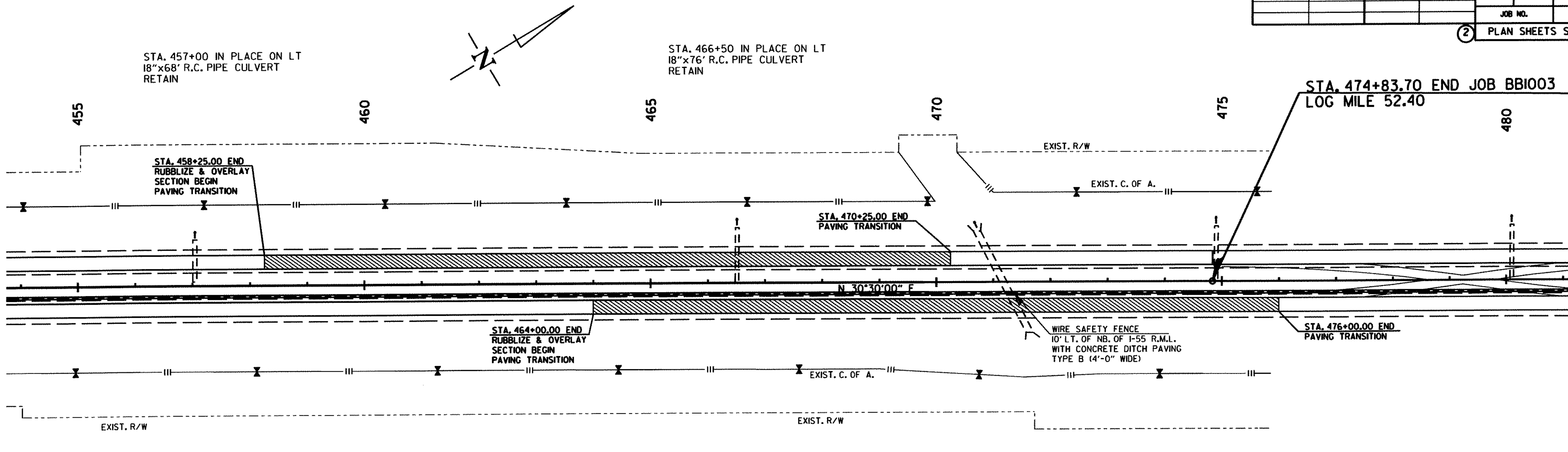
4/16/2013

PLAN SHEETS STA. 400+00 - STA. 454+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	158	215

(2) PLAN SHEETS STA. 454+00 - STA. 508+00

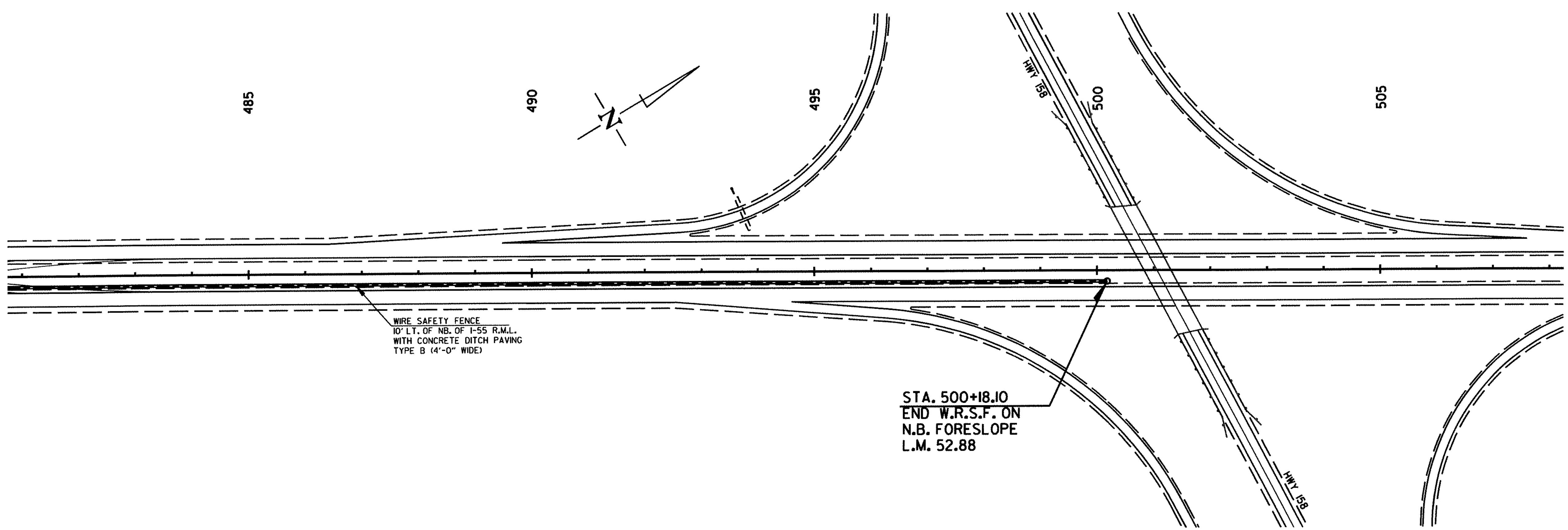
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04-16-13



FENCE (TYPE A) REMOVED AND RECONSTRUCTED
STA. 410+75 TO STA. 474+84 LT. OF M.L = 6409 LIN. FT.
STA. 411+50 TO STA. 474+84 RT. OF M.L = 6334 LIN. FT.

STA. 471+20 IN PLACE
DBL. 10'x10'x187' R.C. BOX CULVERT
(30° SKEW)
BRIDGE NO. M3054
RETAIN

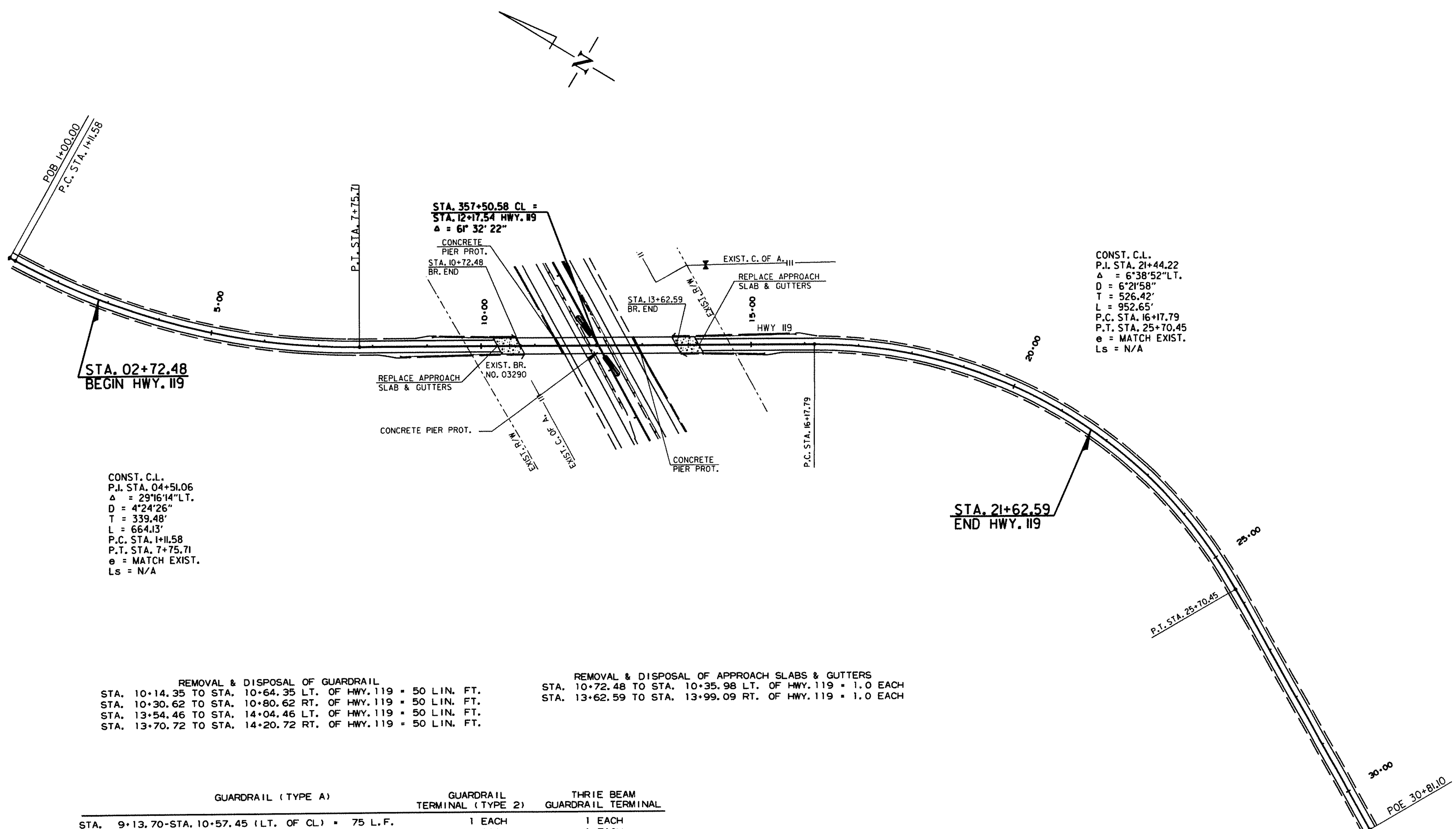
= FULL DEPTH CONSTRUCTION



PLAN SHEETS STA. 454+00 - STA. 508+00

4/16/2013

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14929
W. ANDREW PINKLEY
04/23/13



REMOVAL & DISPOSAL OF GUARDRAIL
STA. 10+14.35 TO STA. 10+64.35 LT. OF HWY. 119 = 50 LIN. FT.
STA. 10+30.62 TO STA. 10+80.62 RT. OF HWY. 119 = 50 LIN. FT.
STA. 13+54.46 TO STA. 14+04.46 LT. OF HWY. 119 = 50 LIN. FT.
STA. 13+70.72 TO STA. 14+20.72 RT. OF HWY. 119 = 50 LIN. FT.

REMOVAL & DISPOSAL OF APPROACH SLABS & GUTTERS
STA. 10+72.48 TO STA. 10+35.98 LT. OF HWY. 119 = 1.0 EACH
STA. 13+62.59 TO STA. 13+99.09 RT. OF HWY. 119 = 1.0 EACH

GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 9+13.70-STA. 10+57.45 (LT. OF CL) = 75 L.F.	1 EACH	1 EACH
STA. 13+61.36-STA. 15+80.11 (LT. OF CL) = 150 L.F.	1 EACH	1 EACH
STA. 8+54.97-STA. 10+73.72 (RT. OF CL) = 150 L.F.	1 EACH	1 EACH
STA. 13+77.62-STA. 15+21.37 (RT. OF CL) = 75 L.F.	1 EACH	1 EACH

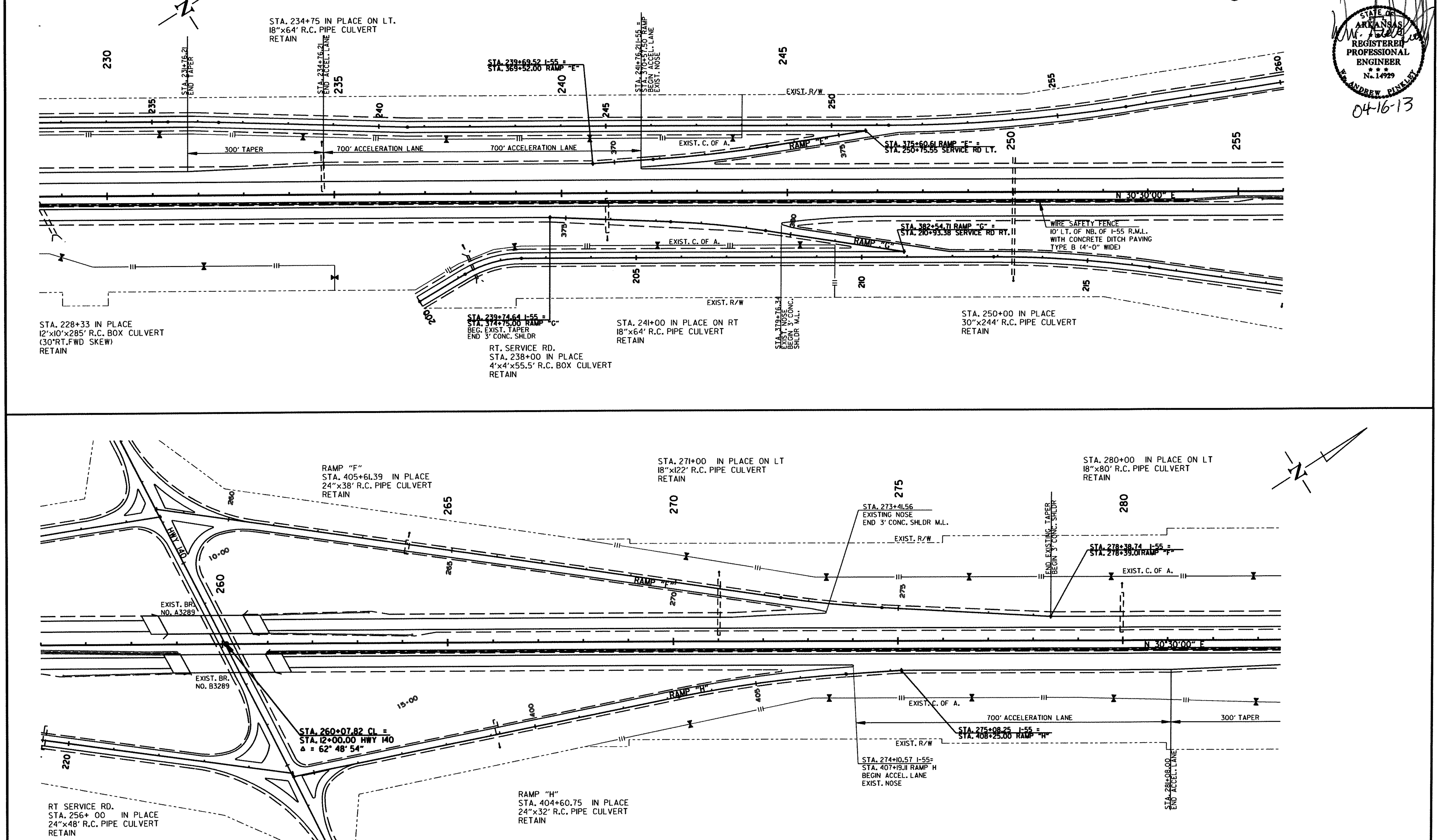
4/23/2013

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	160	215

2 HWY. 140 IINTERCHANGE LAYOUT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14929 W. ANDREW PINKLEY

04-16-13

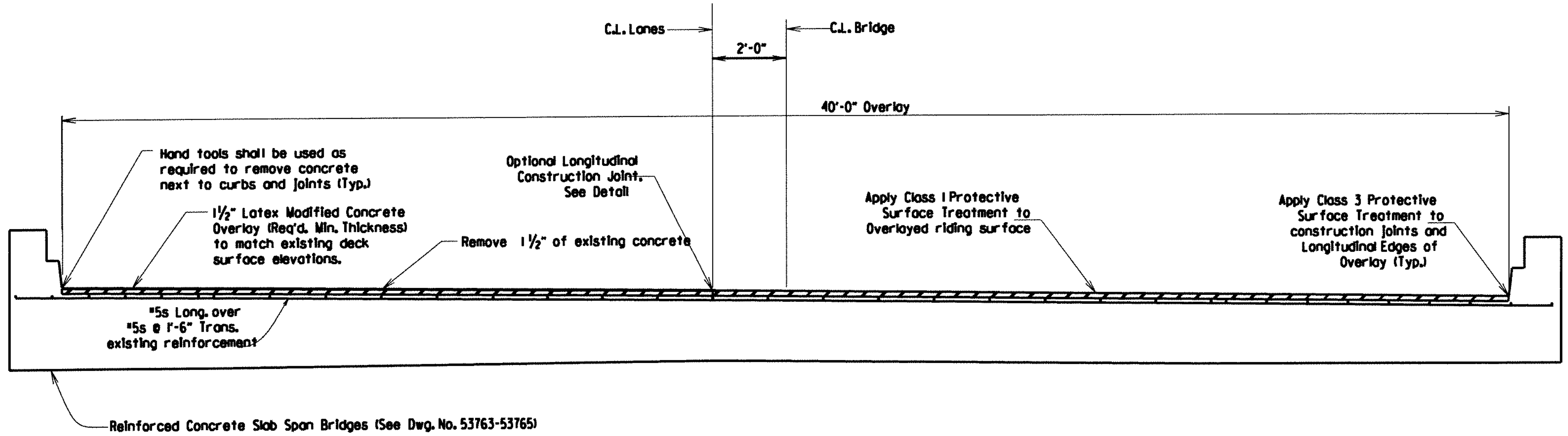


HWY. 140 IINTERCHANGE LAYOUT

4/16/2013

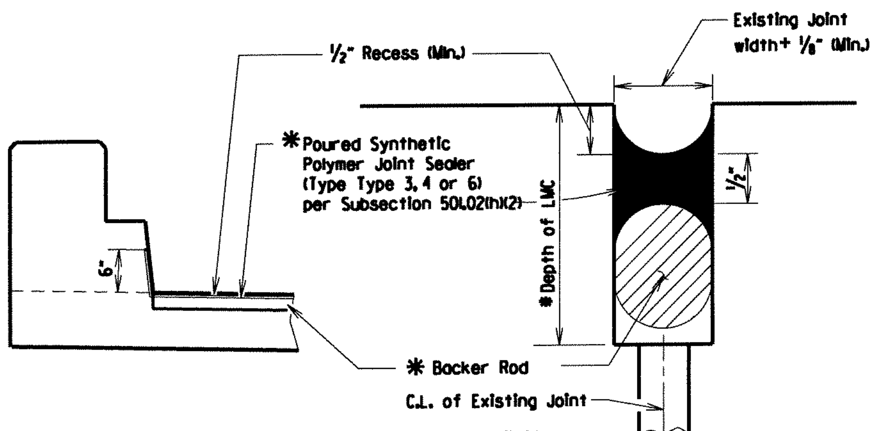
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	161	215

(1) A&B3288 - LMC OVERLAY - 53762



LATEX MODIFIED CONCRETE OVERLAY
(Looking in direction of traffic)

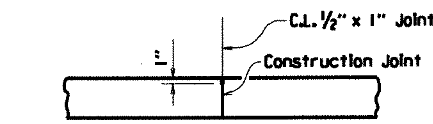
NOTE:
The minimum pour length shall be from joint to joint.
Details based on existing bridge drawings.



DETAILS OF TYPE A JOINT REHABILITATION

* NOTE: Saw, cut or router ends of slab to achieve joint width as shown. Sawing beyond the face of curb is not required. See Section 509 for additional information & payment.

NOTE: Depth of joint and joint installation shall be in accordance with manufacturer's recommendations.



Use $\frac{1}{2}$" X 1" Type 3, 4 or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.

Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

OPTIONAL LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL
No Scale

GENERAL NOTES:
CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable special provisions and Supplemental Specifications. Unless otherwise noted in the plans Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure.

The operation or placement of equipment and, or materials on the subject bridges necessary for the completion of this work shall be subject to the provisions of SS-105-2 "Equipment and Material Storage on Bridge Structures". Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

HYDRODEMOLITION: The designated area of the existing bridge deck shall receive hydrodemolition in accordance with the Job Special Provision "Hydrodemolition" to a planned depth of $1\frac{1}{2}$" below the existing bridge deck surface. Deteriorated concrete below this depth shall be removed up to the limits detailed and at the direction of the Engineer. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB1003 "Hydrodemolition."

Prior to hydrodemolition, cold milling of any existing asphalt for its full depth and the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with existing reinforcing steel.

BRIDGE DECK REPAIR: After Hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB1003 "Bridge Deck Repair".

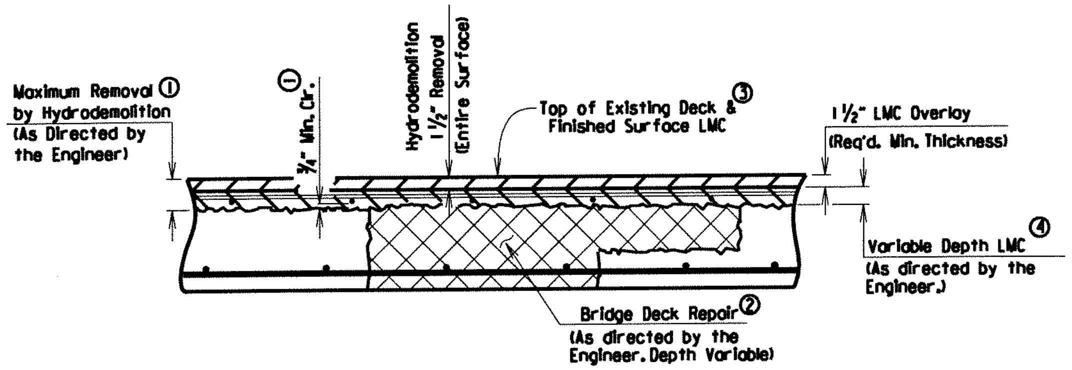
LATEX MODIFIED CONCRETE OVERLAY: The designated area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of $1\frac{1}{2}$" below the existing bridge deck surface, in accordance with the Job Special Provision "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB1003 "Latex Modified Concrete Overlay ($1\frac{1}{2}$" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than $1\frac{1}{2}$" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the $1\frac{1}{2}$" LMC Overlay. This area shall be measured and paid for as SP Job BB1003 "Latex Modified Concrete (Variable Depth)" at the unit price bid for the item.

BRIDGE DECK: The LMC Overlay surface shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job Special Provision "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT : The longitudinal joint between the LMC overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job Special Provision "Latex Modified Concrete Overlay".

The roadway surface of the completed LMC Overlay shall be given a Class I Protective Surface Treatment as specified in Section 803.

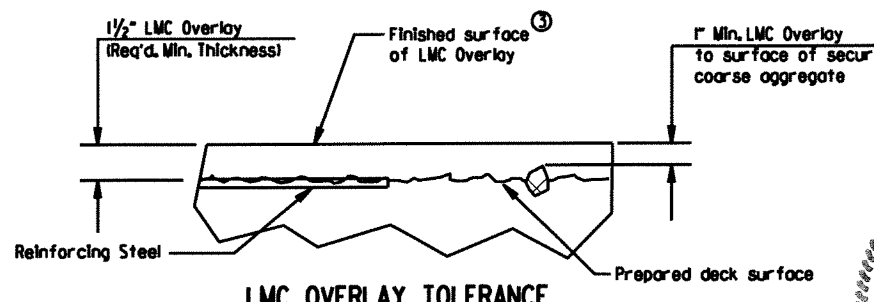
TRANSVERSE JOINT REHABILITATION: After the placement of the LMC Overlay, the existing transverse slab joints at the intermediate bents shall be given a Type A Joint Rehabilitation as specified in Section 509.



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

(1) Removal of unsound concrete beyond $1\frac{1}{2}$" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of $\frac{3}{4}$" clearance around the bar.

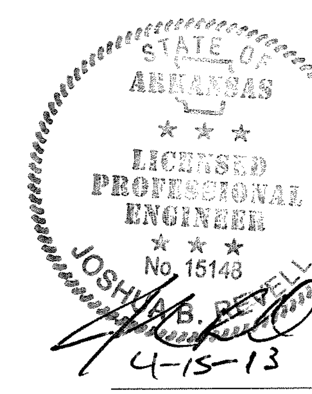
(2) Areas requiring additional repair prior to the subsequent overlay, as determined by the Engineer, shall be repaired in accordance with the Job Special Provision "Bridge Deck Repair". If the bottom mat of reinforcing steel is exposed, then the repair shall be made full depth.



LMC OVERLAY TOLERANCE

(3) Finished surface of LMC overlay shall match existing concrete deck surface unless increase is required to maintain minimum required LMC Overlay thickness.

(4) Depth varies to achieve minimum clearance below top mat of reinforcing steel.



BRIDGE ENGINEER

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

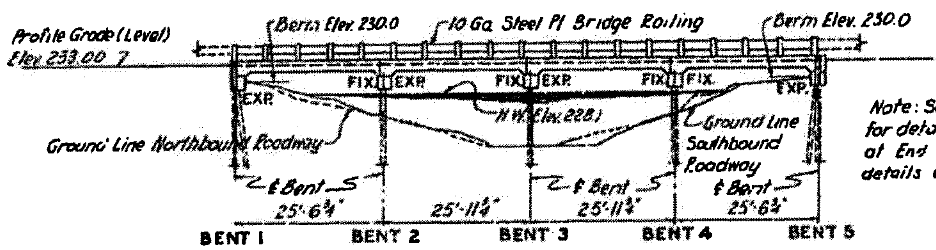
DRAWN BY: JBR DATE: 02/28/13 FILENAME: BB1003.concoverlay.dgn
CHECKED BY: BCB DATE: 03/26/13 SCALE: NO SCALE
DESIGNED BY: JBR DATE: 02/28/13

BRIDGE NO. A3288, B3288 DRAWING NO. 53762

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			162	215

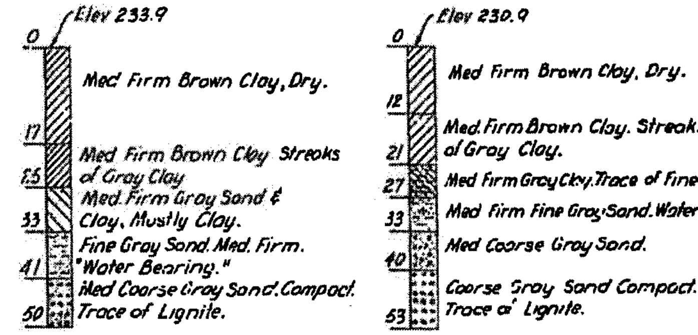
STATE JOB NO. 881003

MB3288 - LAYOUT - 53763



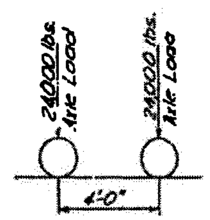
Note: See Road Plans for details of earthwork at End Bents and for details of Approach Slabs.

ELEVATION
(Normal to ℄ Bents)

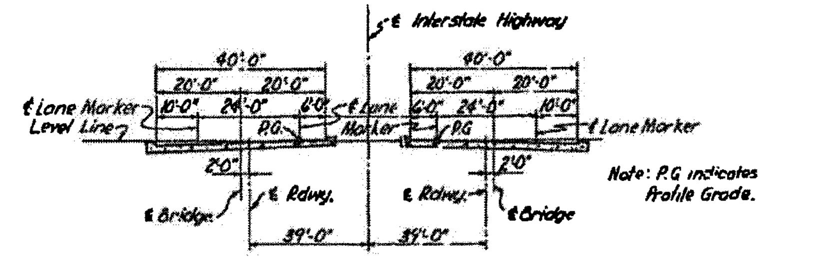


Note "A": Load tests for test piles may be waived by the Engineer if the formulae of the Specifications indicate that adequate bearing capacity has been attained.

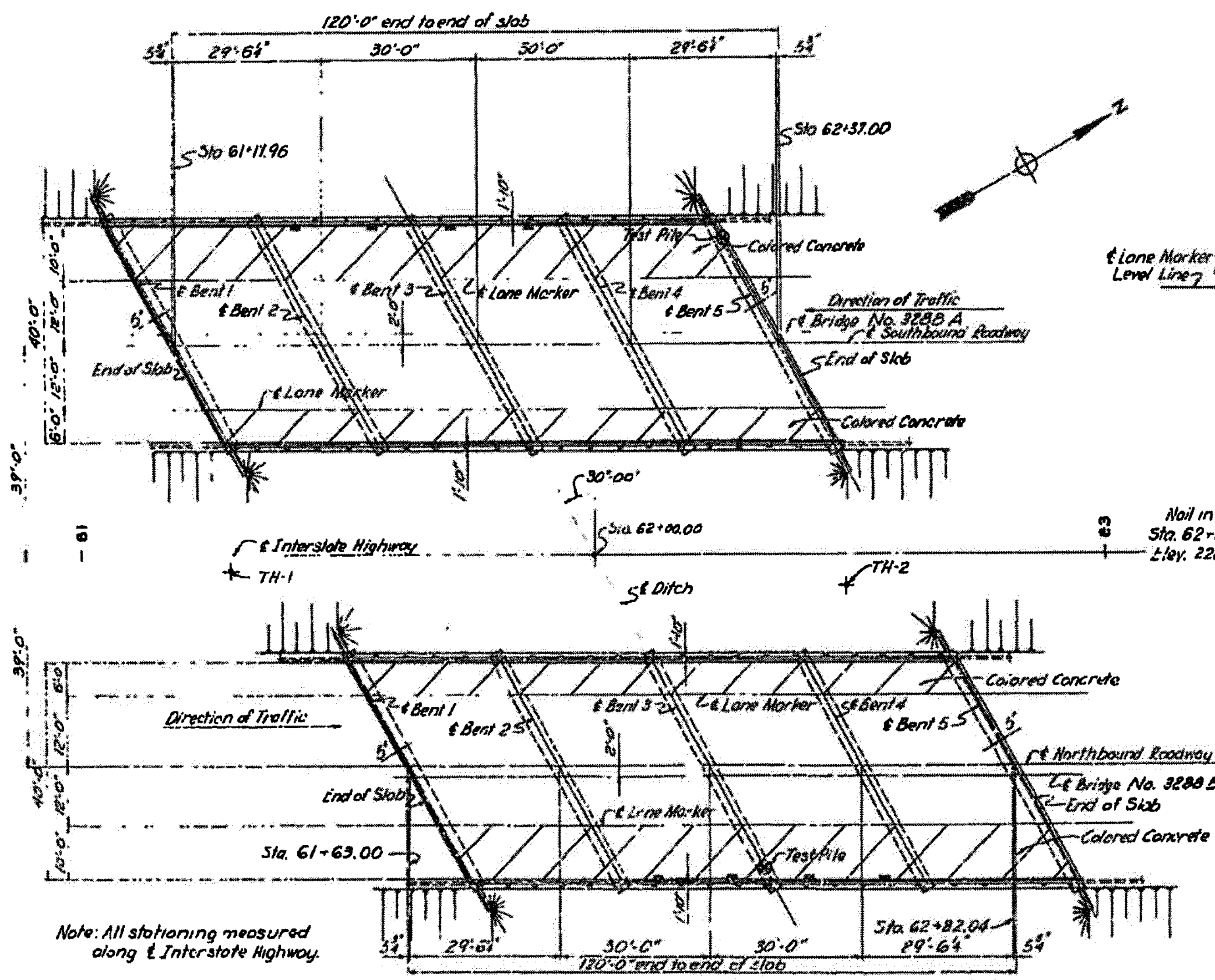
LOG OF SOUNDINGS



SPECIAL LOADING FOR INTERSTATE HIGHWAY BRIDGES



SECTION THRU BRIDGES



BENCH MARK
Nail in 8" Cottonwood ... of Sta. 62+17.00 (North Ditch bank) Elev. 228.20.

Note: All stationing measured along ℄ Interstate Highway.

PLAN

MAIN ROADWAY BRIDGES

Note: Do not scale this drawing follow dimensions.

GENERAL NOTES

SPECIFICATIONS: *Arkansas State Highway Commission (1940 Standard) and Special Provisions.*

DESIGN: *In accordance with the A.A.S.H.O. Standard Specifications for Highway Bridges, 1953 Edition.*
Moment distributed between slab and curb in accordance with University of Illinois Experiment Station Bulletin No. 346.

DESIGN LOADING: *H20-S16-44 and 1956 Special Loading for Interstate Roadways (See diagram).*

DESIGN UNIT STRESSES: *Concrete f_c = 1,200 p.s.i. (n=10)*
Reinforcing Steel f_s = 20,000 p.s.i. (Intermediate Grade)

CONCRETE: *All concrete shall be Class "S" air entrained.*

REINFORCEMENT: *All dimensions to reinforcing steel on detail drawings are to ℄ of bars, except where the clear distance is noted from the face of concrete. All reinforcing steel shall be lapped a minimum of 30 diameters unless otherwise shown or noted.*

COLORED CONCRETE SHOULDERS: *Concrete surfaces within shoulder limits on Main Roadway Bridges shall be colored black with an approved crystalline pigment. See Special Provisions.*

BEVELED EDGES: *All exposed edges of concrete shall be beveled ¾" unless otherwise shown or noted.*

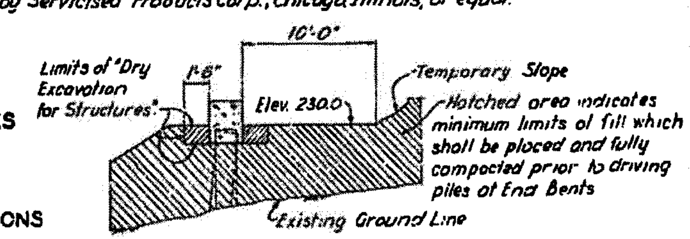
CONSTRUCTION JOINTS: *Construction joints shall be made only where shown on the plans.*

PILING: *All piles shall be 16" octagonal precast concrete and shall be driven to a minimum bearing value of 32 tons each. One test pile shall be driven for each of the bridges at locations shown or as directed by the Engineer and loaded in accordance with the Special Provisions except as specified in Note "A" on this sheet. From the tests the necessary length of the remaining piles shall be determined. Minimum penetration into natural ground for all piles shall be 20'.*

FILLED JOINT: *Where filled joints are shown on the plans, the joint filler shall conform to the requirements of A.A.S.H.O. Specification M 153, Type III.*

JOINT SEAL: *Material for joint seal shall conform to the Special Provision for Joint Seal in Concrete Pavements, except seal for vertical face of curb joints shall be block Vertiseal as manufactured by Servicised Products Corp., Chicago Illinois, or equal.*

INDEX OF DRAWINGS



FILL AT END BENTS

Note: Applies only where existing ground is below berm.

DRAINAGE DATA

Drainage Area	12 Sq. Mi.
Runoff Coefficient	0.3
Required Waterway (Talbot)	246 Sq. Ft.
Effective Opening (HW Elev. 228.1)	430 Sq. Ft

SUBMITTED BY:
REGISTERED PROFESSIONAL ENGINEER ARKANSAS NO. 629

SVERDRUP & PARCEL, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

FOR INFORMATION ONLY

BRIDGES OVER UPPER SANDY BAYOU
AT STA. 62+00.00

GENERAL PLAN AND ELEVATION

MISSISSIPPI COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.E.R. DATE: OCT. 1957 SCALE: NOT TO SCALE
TRACED BY: F.L.C. DATE: OCT. 1957
CHECKED BY: L.H.G. & K.A. DATE: OCT. 1957 SHEET 1 OF 8

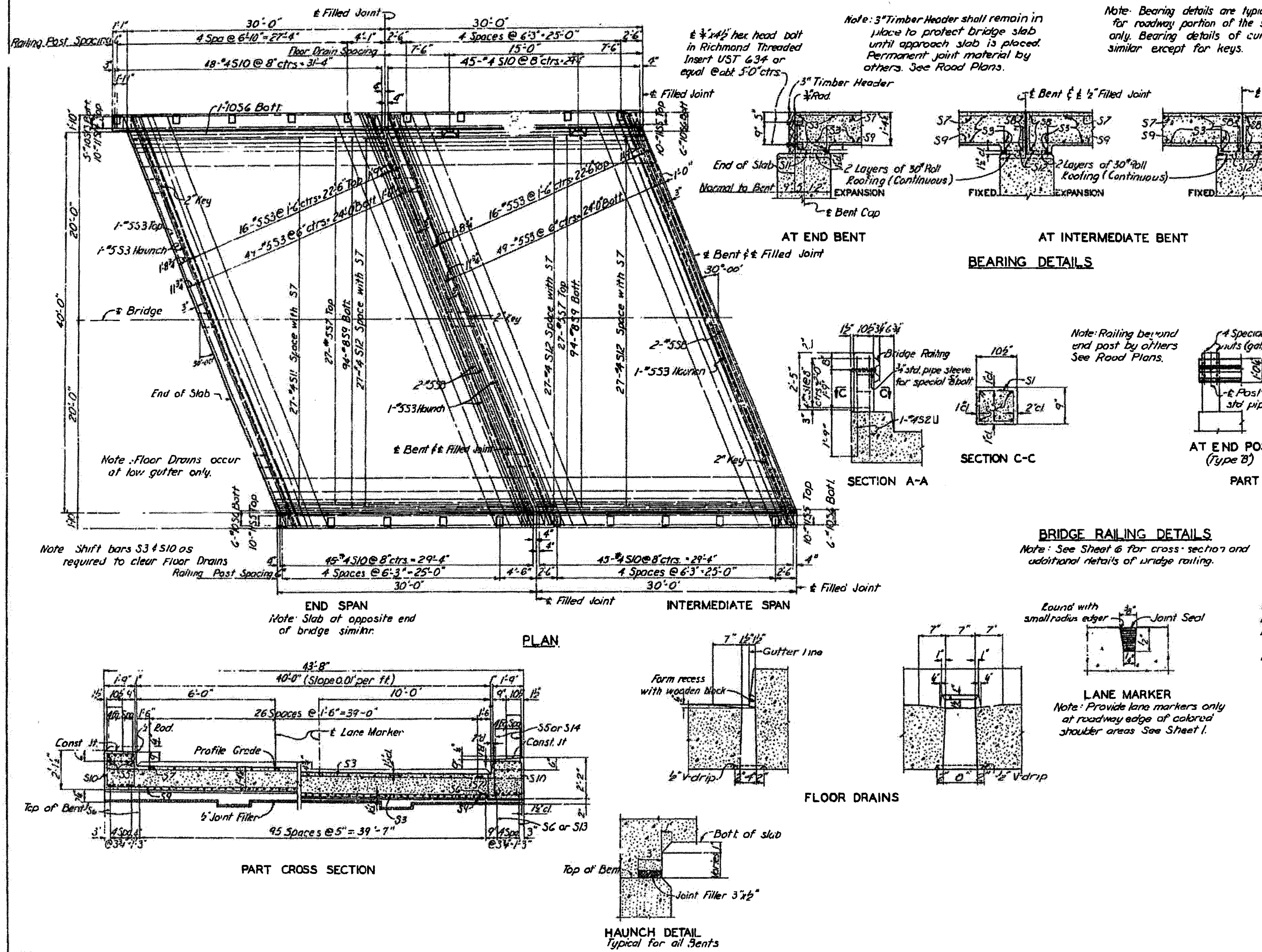
BRIDGE NO. 3288A & 3288B DRAWING NO. 53763

1343-3
575|263

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			163	215

STATE JOB NO. BB1003

M.B3288 - SPANS - 53764



NOTES

Cost of furnishing and placing joint seal, joint filler, timber headers, pipe sleeves and inserts for bolts shall be included in the unit price bid for "Class S Concrete for Bridges".

The Contractor shall provide a mid-span camber for initial dead load deflection of ½".

Note: Do not scale this drawing. Follow dimensions.

FOR INFORMATION ONLY

BRIDGES OVER UPPER SANDY BAYOU
AT STA. 62 + 00.00

SLAB DETAILS - MAIN ROADWAY BRIDGES

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION

DRAWN BY R.J.S. DATE DEC. 1957 SCALE NOT TO SCALE
TRACED BY R.E.B. DEC. 1957
CHECKED BY R.E.B. DATE DEC. 1957 SHEET 4 OF 6

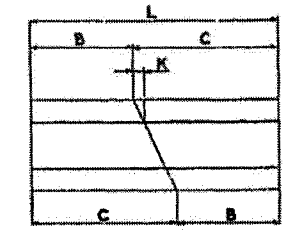
BRIDGE NO. 3288A & 3288B DRAWING NO. 53764

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			164	215
STATE JOB NO. BB1003					
A&B3288 - REINFORCEMENT - 53765					

MAIN ROADWAY BRIDGES

NO. REQ'D.	SIZE NO.	LENGTH	MARK	TYPE	LOCATION	DIMENSIONS FOR BENDING A	B	C	D	E	F	G	H	J	K	R	O
SUBSTRUCTURE																	
152	7	7'0"	A1	59	Bent Cap	4"	2'0"	2'0"	8'0"			6"					
552	4	8'5"	A2	11	do	4½"	2'0"	2'0"	2'0"	2'0"		4½"					
32	6	25'10"	A3	20	do		—	25'10"	1'11½"								
48	6	6'2"	A4	Str	do												
16	4	26'6"	A5	Str	do												
16	4	8'3"	A6	Str	Wing Wall		See Cutting Diagram										
16	4	4'5"	A7	Str	do												
16	4	4'10"	A8	Str	do												
48	4	6'3"	A9	Str	do												
8	4	3'6"	A10	Str	do												
16	4	5'2"	A11	Str	do												
8	4	5'7"	A12	19	do		5'10¼"	1'5¼"	—				8"		3'9¼"		5'6½"
8	4	5'3"	A13	19	do		3'-[illegible]	1'4½"	—				8"		3'9¼"		5'2¼"
48	6	27'6"	A14	20	Bent Cap		--	25'6"	1'11½"								
24	4	25'5"	A15	Str	do												
84	6	[illegible]'2"	A16	Str	do												
16	6	24'10"	A17	Str	do												
16	4	8'10"	A18	Str	Wing Wall		See Cutting Diagram										
24	6	25'7"	A19	Str	Bent Cap												
SUPERSTRUCTURE																	
320	3	3'1"	S1	71	Post	4"	7¼"	7"	7¼"	7"		4"					
160	4	8'7"	S2	5[illegible]	do		4'0½"	6¼"	4'0½"								
544	5	30'0"	S3	Str	Slab												
			S4				Not Used										
120	11	29'8"	S5	Str	Curb												
76	10	29'8"	S6	Str	do												
216	5	29'8"	S7	Str	Slab												
24	5	43'2"	S8	Str	do												
752	8	29'8"	S9	Str	do												
132	4	6'4"	S10	59	Curb	6"	1'11"	2'6½"	1'1"			4"					
108	4	3'11"	S11	55	Slab	3"	1'0"	[illegible]	1'0"			3"					
324	4	3'5"	S12	55	do	3"	1'0"	11"	1'0"			3"					
20	10	31'7"	S13	Str	Curb												
40	11	31'7"	S14	Str	do												

13443-3
58531



CUTTING DIAGRAM
(One Set Shown)

MARK	CUTTING SCHEDULE	B	C	K	L
A6	Cut 4 Sets of 4 Each	3'10½"	4'4½"	2⅝"	8'3"
A18	Cut 4 Sets of 4 Each	4'2"	4'8"	2"	8'10"

NOTES

A dash is used in the appropriate dimension column to indicate that a hook, bend, or portion of the standard bar type is to be omitted.
See Sheet 7 for Typical Bar Types and Hook Dimensions.

FOR INFORMATION ONLY

BRIDGES OVER UPPER SANDY BAYOU
AT STA. 62 + 00.00

BAR LIST

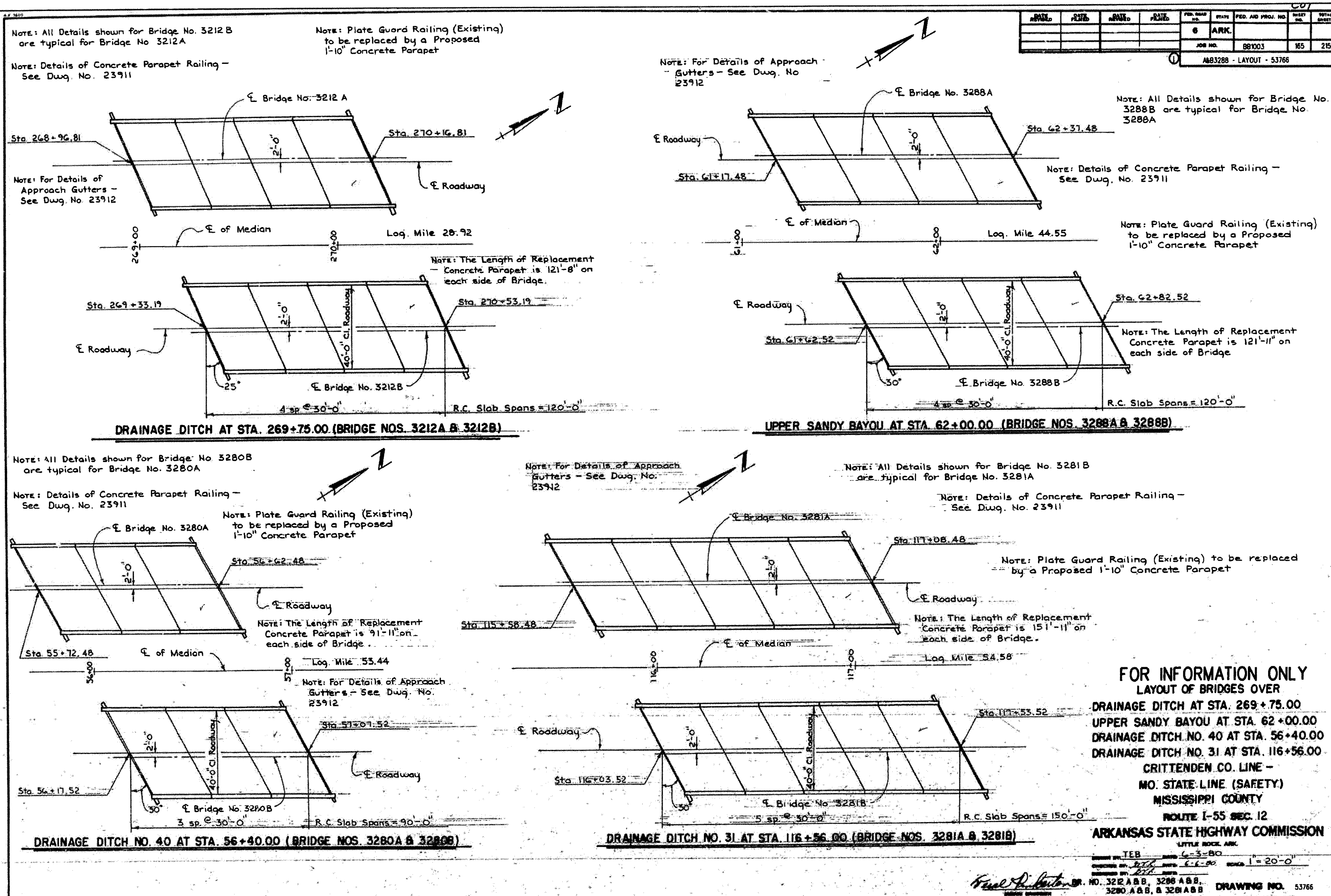
MISSISSIPPI & CRITTENDEN COUNTIES
F A I 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY M.C.Z. DATE MARCH 1958 SCALE NOT TO SCALE
TRACED BY M.C.Z. DATE MARCH 1958
CHECKED BY R.E.S. DATE MARCH 1958 SHEET 8 OF 8

SVERDRUP & PARCEL INC
ENGINEERS - ARCHITECTS
ST LOUIS, MO.

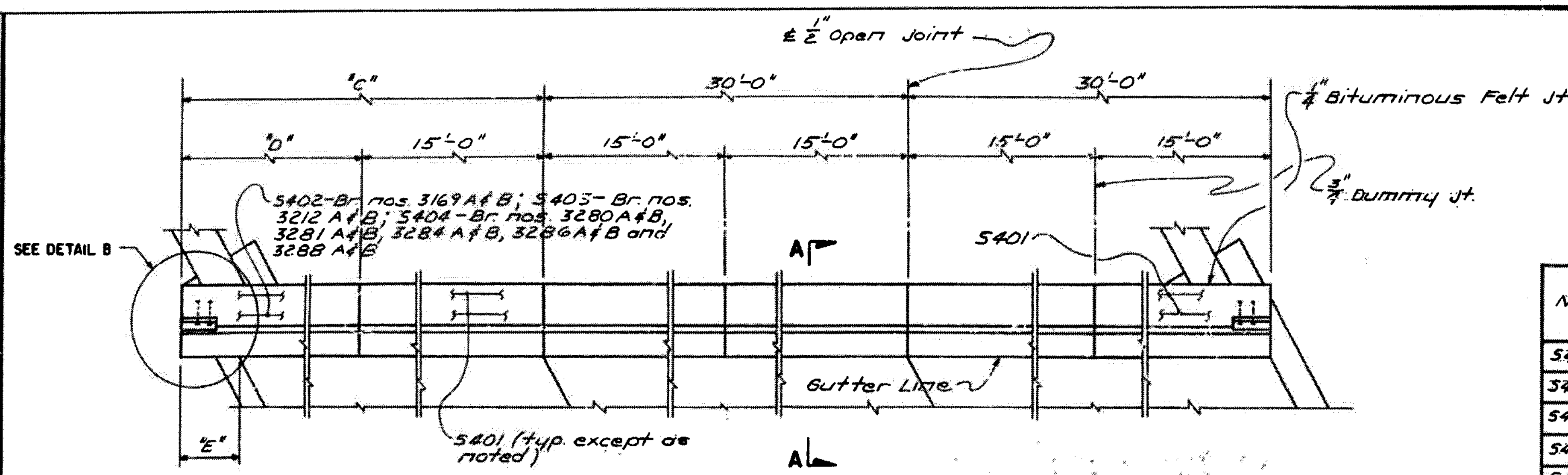
BRIDGE NO. 3288A & 3288B DRAWING NO. 53765



6 ARK.
JOB NO. 881003 165 215
AB3288 - LAYOUT - 53766
NOTE: All Details shown for Bridge No. 3212 B are typical for Bridge No 3212A
NOTE: Details of Concrete Parapet Railing - See Dwg. No. 23911
NOTE: Plate Guard Railing (Existing) to be replaced by a Proposed 1'-10" Concrete Parapet
℄ Bridge No. 3212 A
Sta. 268+96.81
Sta. 270+16.81
NOTE: For Details of Approach Gutters - See Dwg. No. 23912
℄ Roadway
℄ of Median
Log. Mile 28.92
NOTE: The Length of Replacement Concrete Parapet is 121'-8" on each side of Bridge.
Sta. 269+33.19
Sta. 270+53.19
40'-0" Cl. Roadway
℄ Bridge No. 3212B
4 sp. @ 30'-0"
R.C. Slab Spans = 120'-0"
DRAINAGE DITCH AT STA. 269+75.00 (BRIDGE NOS. 3212A & 3212B)
NOTE: For Details of Approach Gutters - See Dwg. No 23912
℄ Bridge No. 3288A
NOTE: All Details shown for Bridge No. 3288B are typical for Bridge No 3288A
Sta. 62+37.48
Sta. 61+17.48
NOTE: Details of Concrete Parapet Railing - See Dwg. No. 23911
Log. Mile 44.55
NOTE: Plate Guard Railing (Existing) to be replaced by a Proposed 1'-10" Concrete Parapet
Sta. 62+82.52
Sta. 61+62.52
NOTE: The Length of Replacement Concrete Parapet is 121'-11" on each side of Bridge
℄ Bridge No. 3288B
R.C. Slab Spans = 120'-0"
UPPER SANDY BAYOU AT STA. 62+00.00 (BRIDGE NOS. 3288A & 3288B)
NOTE: All Details shown for Bridge No 3280B are typical for Bridge No. 3280A
NOTE: Details of Concrete Parapet Railing - See Dwg. No. 23911
NOTE: Plate Guard Railing (Existing) to be replaced by a Proposed 1'-10" Concrete Parapet
℄ Bridge No. 3280A
Sta. 56+62.48
Sta. 55+72.48
NOTE: The Length of Replacement Concrete Parapet is 91'-11" on each side of Bridge.
Log. Mile 53.44
NOTE: For Details of Approach Gutters - See Dwg. No. 23912
Sta. 57+07.52
Sta. 56+17.52
℄ Bridge No. 3280B
3 sp. @ 30'-0"
R.C. Slab Spans = 90'-0"
DRAINAGE DITCH NO. 40 AT STA. 56+40.00 (BRIDGE NOS. 3280A & 3280B)
NOTE: For Details of Approach Gutters - See Dwg. No. 23912
NOTE: All Details shown for Bridge No. 3281B are typical for Bridge No. 3281A
NOTE: Details of Concrete Parapet Railing - See Dwg. No. 23911
℄ Bridge No. 3281A
Sta. 117+08.48
NOTE: Plate Guard Railing (Existing) to be replaced by a Proposed 1'-10" Concrete Parapet
Sta. 115+58.48
NOTE: The Length of Replacement Concrete Parapet is 151'-11" on each side of Bridge.
Log. Mile 54.58
Sta. 117+53.52
Sta. 116+03.52
℄ Bridge No. 3281B
5 sp. @ 30'-0"
R.C. Slab Spans = 150'-0"
DRAINAGE DITCH NO. 31 AT STA. 116+56.00 (BRIDGE NOS. 3281A & 3281B)
FOR INFORMATION ONLY
LAYOUT OF BRIDGES OVER
DRAINAGE DITCH AT STA. 269+75.00
UPPER SANDY BAYOU AT STA. 62+00.00
DRAINAGE DITCH NO. 40 AT STA. 56+40.00
DRAINAGE DITCH NO. 31 AT STA. 116+56.00
CRITTENDEN CO. LINE -
MO. STATE LINE (SAFETY)
MISSISSIPPI COUNTY
ROUTE I-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
TEB 6-3-80
6-6-80
1" = 20'-0"
BR. NO. 3212 A & B, 3288 A & B, 3280 A & B, & 3281 A & B
DRAWING NO. 53766

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	166	215

① A&B3288 - RAILING - 53767

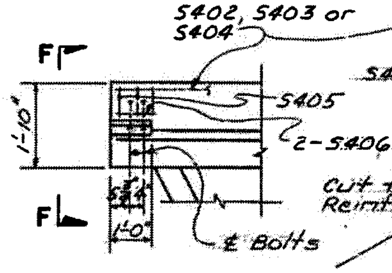


PLAN-CONCRETE PARAPET RAILING
(TYP. FOR ALL BRIDGES)

Scale: ⅛"=1'-0"

TABLE OF VARIABLES

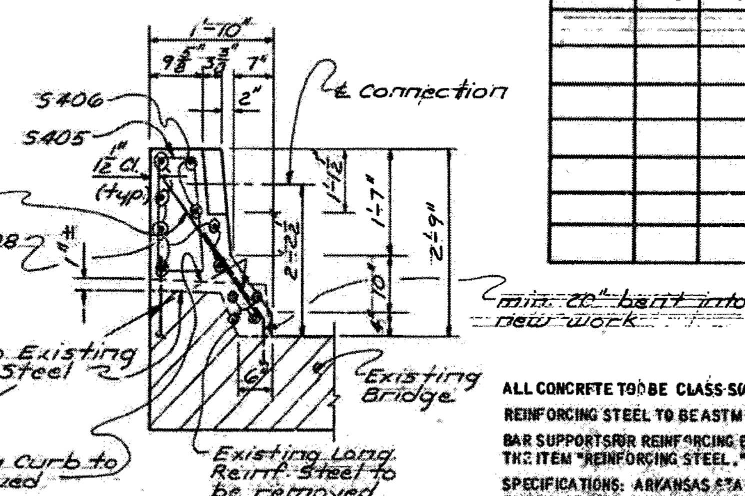
Bridge No.	"C"	"D"	"E"
3169 A&B	31'-3"	16'-3"	1'-3"
3212 A&B	31'-8"	16'-8"	1'-8"
3280 A&B	31'-11"	16'-11"	1'-11"
3281 A&B	31'-11"	16'-11"	1'-11"
3284 A&B	31'-11"	16'-11"	1'-11"
3286 A&B	31'-11"	16'-11"	1'-11"
3288 A&B	31'-11"	16'-11"	1'-11"



DETAIL B

Scale: ½"=1'-0"

Note: Bolts for Turnout Post shall be ¾"×8" A325 Galvanized Bolts with 1¾" threaded (non pay item subsidiary to other items) See dwg. GR-8A for Guard Rail Conn. details.



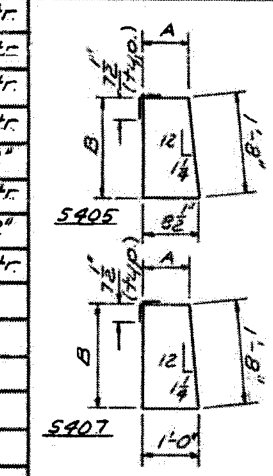
VIEW F-F

Scale: ¾"=1'-0"

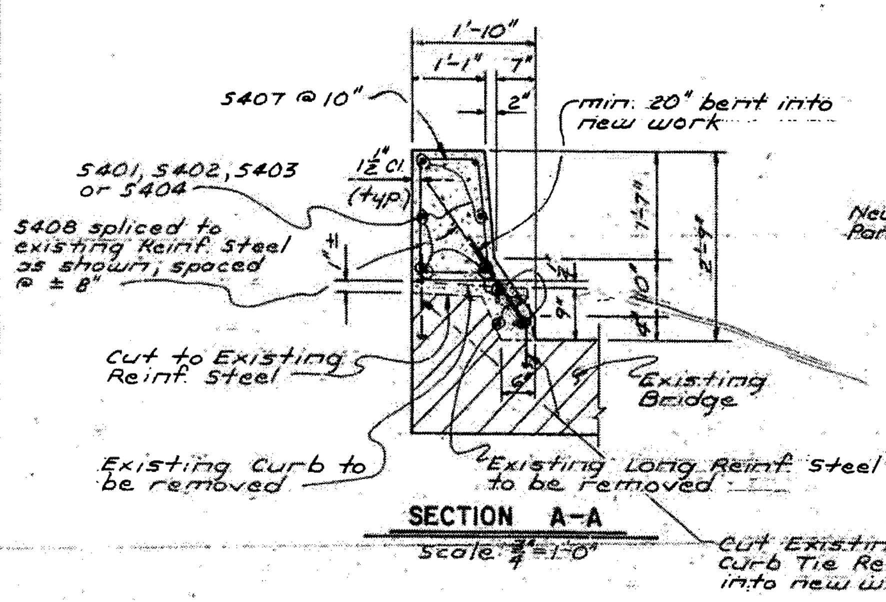
BAR LIST PER BRIDGE

MK.	No. Req'd Br. No. 3169A&B	No. Req'd Br. No. 3212A&B	No. Req'd Br. No. 3280A&B	No. Req'd Br. No. 3281A&B	No. Req'd Br. No. 3284A&B	No. Req'd Br. No. 3286A&B	No. Req'd Br. No. 3288A&B	Length	A	B	Pin Dia.
S401	288	224	760	288	224	160	224	14'-8"			str.
S402	32							15'-11"			str.
S403		32						16'-4"			str.
S404			32	32	32	32	32	16'-7"			str.
S405	24	24	24	24	24	24	24	5'-5"	6½"	1'-8"	2"
S406	16	16	16	16	16	16	16	1'-0"			str.
S407	752	600	452	756	604	452	604	6'-0"	10"	1'-8"	2"
S408	908	732	552	912	732	552	732	2'-7"			str.

Bending Diagrams

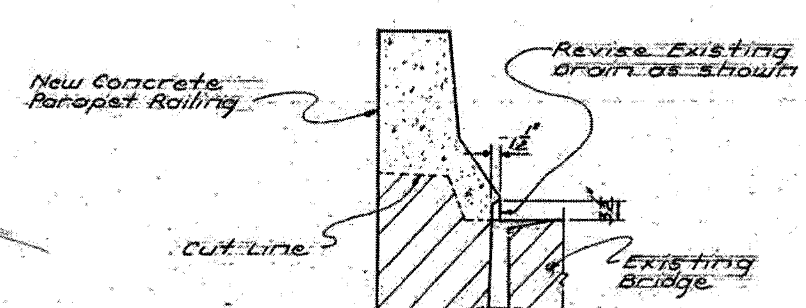


Dimensions are out to out of bars.



SECTION A-A

Scale: ¾"=1'-0"



SECTION OF EXISTING DRAIN

Scale: ¾"=1'-0"

GENERAL NOTES

ALL CONCRETE TO BE CLASS S(AE). ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60.

BAR SUPPORTS FOR REINFORCING BARS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL."

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EDITION OF 1978, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH INTERIM SPECIFICATIONS.

DESIGN LIVE LOADING: RAIL LOAD AS PER AASHTO

UNIT STRESSES: COMPRESSIVE STRENGTH OF CLASS S(AE) CONCRETE = 3500 PSI
YIELD STRENGTH OF REINFORCEMENT = 60,000 PSI

LOAD FACTOR USED FOR DESIGN.

THE WORK CONTEMPLATED CONSISTS OF REPLACEMENT OF CURB & RAILING ON THE EXISTING BRIDGES ON BOTH SIDES OF THE ROADWAY. FOR REQUIREMENTS IN CONDUCTING THE WORK, SEE JOB SPECIAL PROVISION "REMODELING EXISTING BRIDGE STRUCTURES."

ALL DIMENSIONS RELATING TO EXISTING BRIDGE ARE TO BE VERIFIED IN THE FIELD AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE NEW WORK TO THE EXISTING STRUCTURE.

PLACE TYPE C BRIDGE NAME PLATE ON RIGHT PARAPET TURNOUT POST AT BEGINNING OF EACH BRIDGE.

AT INT. BENTS, THAT ARE FIX-EXPANSION, PLACE 1/2" PREFORMED JOINT (AASHTO M 153, TYPE III) IN THE JOINT OF THE CONCRETE PARAPET RAILING FOR THE FIRST 9" ABOVE TOP OF SLAB.

WHEN NECESSARY CUT NEW REINFORCING STEEL TO FIT INTO NEW CONSTRUCTION. REMOVE EXISTING CONCRETE TO CUT LINE, STRIP, CLEAN, RETAIN & BEND EXISTING REINFORCING STEEL INTO NEW CONSTRUCTION AS SHOWN.

FOR INFORMATION ONLY

DETAILS OF CONCRETE PARAPET RAILING

CRITTENDEN CO. LINE—
MO. STATE LINE (SAFETY)
MISSISSIPPI COUNTY
ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

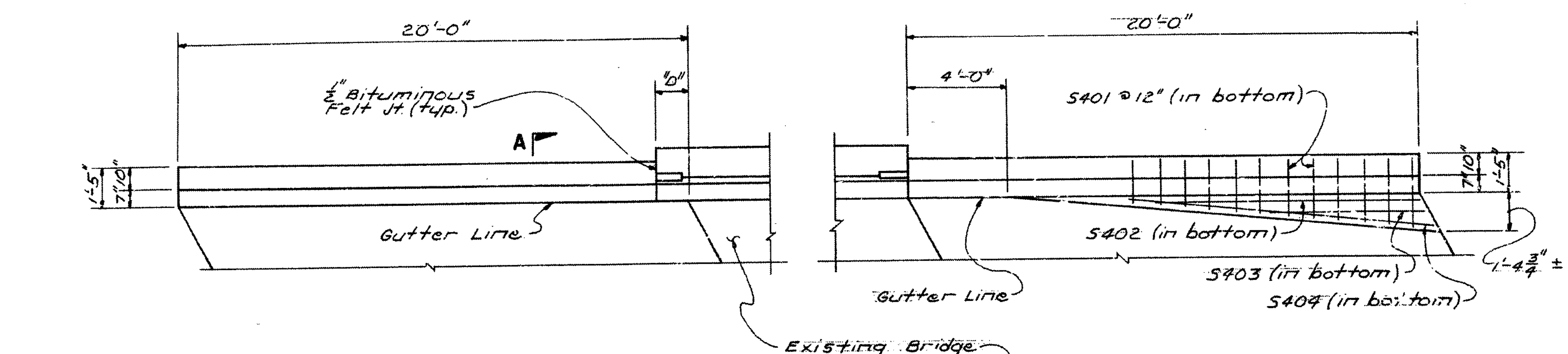
DRAWN BY: J.P.S. DATE: 6-25-80
CHECKED BY: BD DATE: 7-1-80 SCALE: as noted
DESIGNED BY: DJZ DATE:

BRIDGE ENGINEER

BR. NO. 3169A&B, 3212A&B, 3280A&B, 3281A&B, 3284A&B, 3286A&B & 3288A&B DWG. NO. 53767

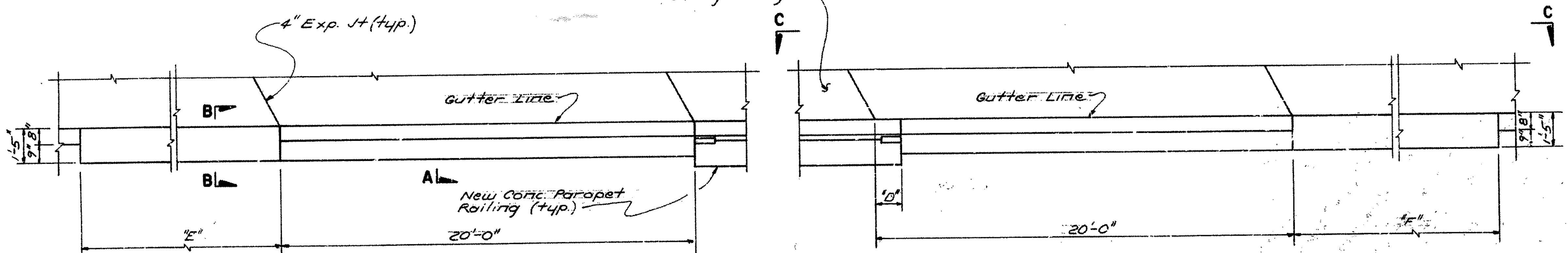
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	167	215

A&B3288 - APP. GUTTERS - 53768



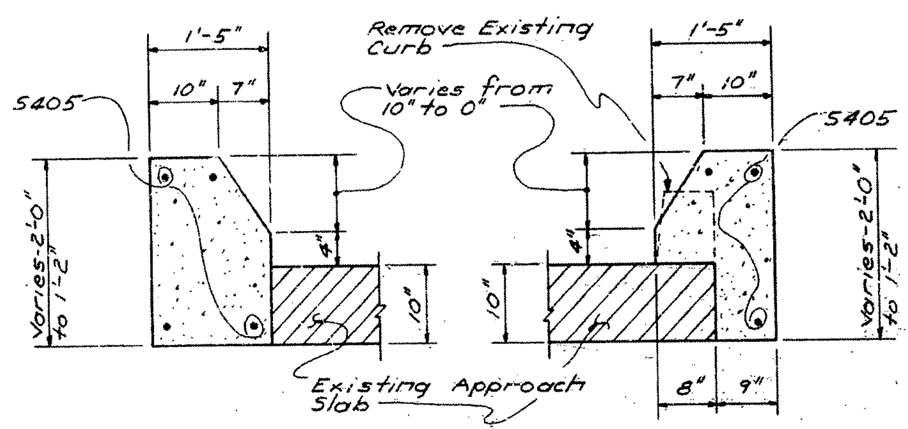
BAR LIST PER BRIDGE

MK.	No. Req'd	Length
S401	12	2'-6"
S402	1	10'-6"
S403	1	6'-0"
S404	1	12'-0"
S405	14	19'-8"



PLAN - APPROACH GUTTERS

Scale: 3/8" = 1'-0"



SECTION A - A

Scale: 1" = 1'-0"

TABLE OF VARIABLES

Bridge No.	"D"	"E"	"F"
3169 A & B	1'-3"	25'-8 1/8"	20'-3 7/8"
3212 A & B	1'-8"	27'-8 5/8"	18'-3 3/8"
3280 A & B	1'-11"	28'-9 1/4"	17'-2 3/4"
3281 A & B	1'-11"	28'-9 1/4"	17'-2 3/4"
3284 A & B	1'-11"	28'-9 1/4"	17'-2 3/4"
3286 A & B	1'-11"	28'-9 1/4"	17'-2 3/4"
3288 A & B	1'-11"	28'-9 1/4"	17'-2 3/4"

GENERAL NOTES

CONCRETE IN APPROACH SLABS TO BE CLASS "A" OR "S" OR PAVEMENT MIXTURE. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60.

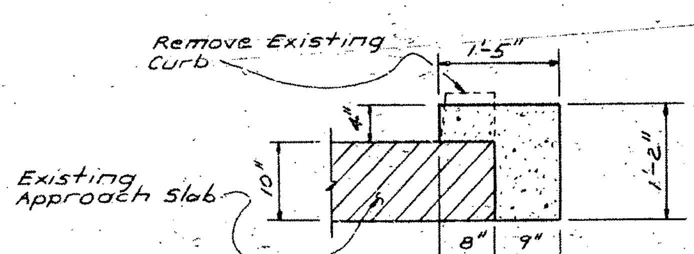
BAR SUPPORTS FOR REINFORCING BARS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL."

FOR DETAILS OF POSTS, GUARD RAIL AND ATTACHMENT OF GUARD RAIL TO POSTS, SEE JOB DETAILS PERTAINING TO THESE ITEMS.

ALL REINFORCING STEEL SHALL BE CUT TO FIT IN FIELD AS REQUIRED. ALL DIMENSIONS RELATING TO EXISTING SLABS ARE TO BE VERIFIED IN THE FIELD AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE NEW WORK TO THE EXISTING STRUCTURE.

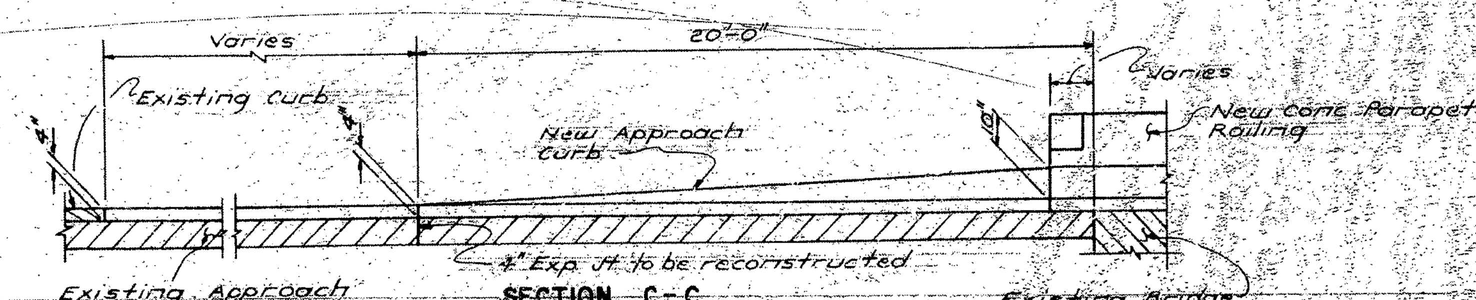
REMODELING OF CURBS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR, "REMODELING EXISTING APPROACH GUTTERS." REFER TO SPECIAL PROVISION FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

THE CONTRACTOR SHALL RECONSTRUCT THE ENTIRE LENGTH OF [illegible] TRANSVERSE EXPANSION JOINTS. THE EXISTING JOINT MATERIAL SHALL BE COMPLETELY REMOVED AND NEW JOINT MATERIAL AS PER SUBSECTION 501.03[illegible] PLACED WITHIN 1" OF PAVEMENT SURFACE. THE TOP 1" SHALL THEN BE FILLED WITH A HOT POUR JOINT SEAL COMPLYING WITH SUBSECTION 501.03[illegible](2). RECONSTRUCTING EXISTING JOINTS WILL NOT BE MEASURED OR PAID FOR AS A SEPARATE ITEM BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM "REMODELING EXISTING APPROACH GUTTERS."



SECTION B - B

Scale: 1" = 1'-0"



SECTION C - C

Scale 3/8" = 1'-0"

FOR INFORMATION ONLY

DETAILS OF
APPROACH GUTTERS
CRITTENDEN CO. LINE-
MO. STATE LINE (SAFETY)
MISSISSIPPI COUNTY
ROUTE I-55 SEC. 12

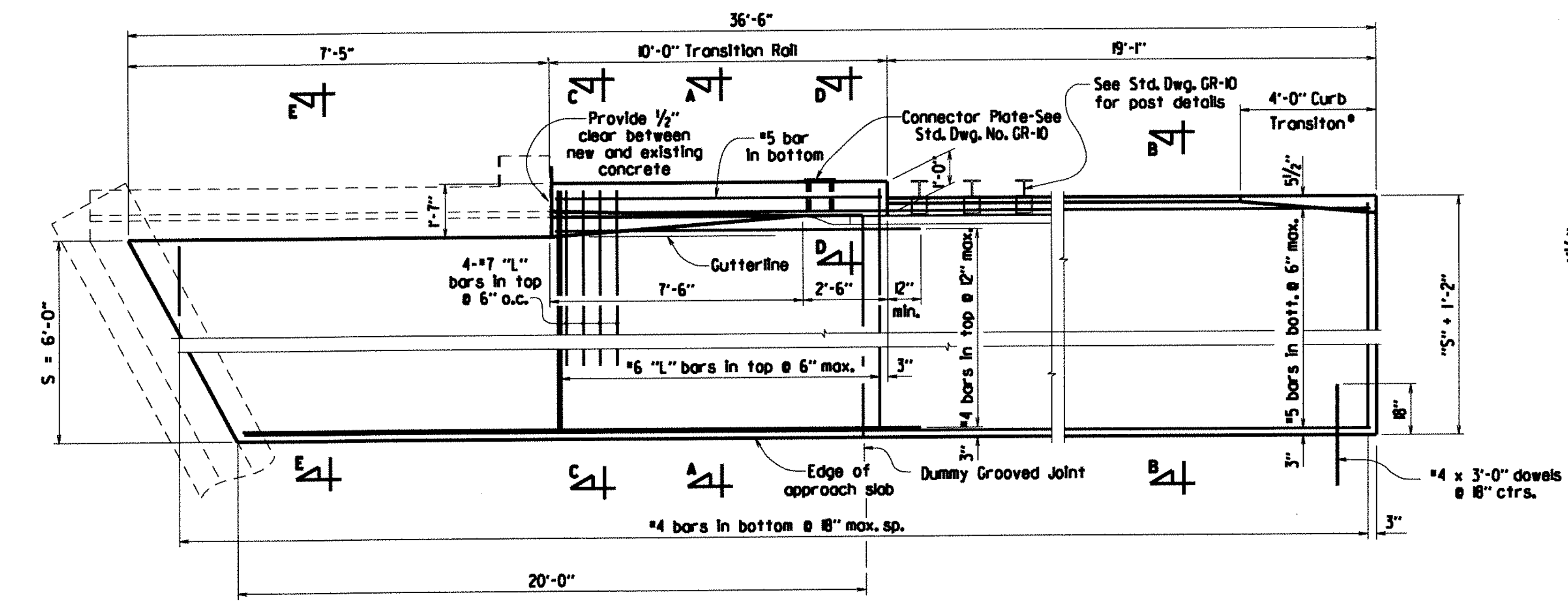
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY J.P.S. DATE 6-27-80
CHECKED BY BO DATE 7-1-80 SCALE as noted
DESIGNED BY [illegible] DATE

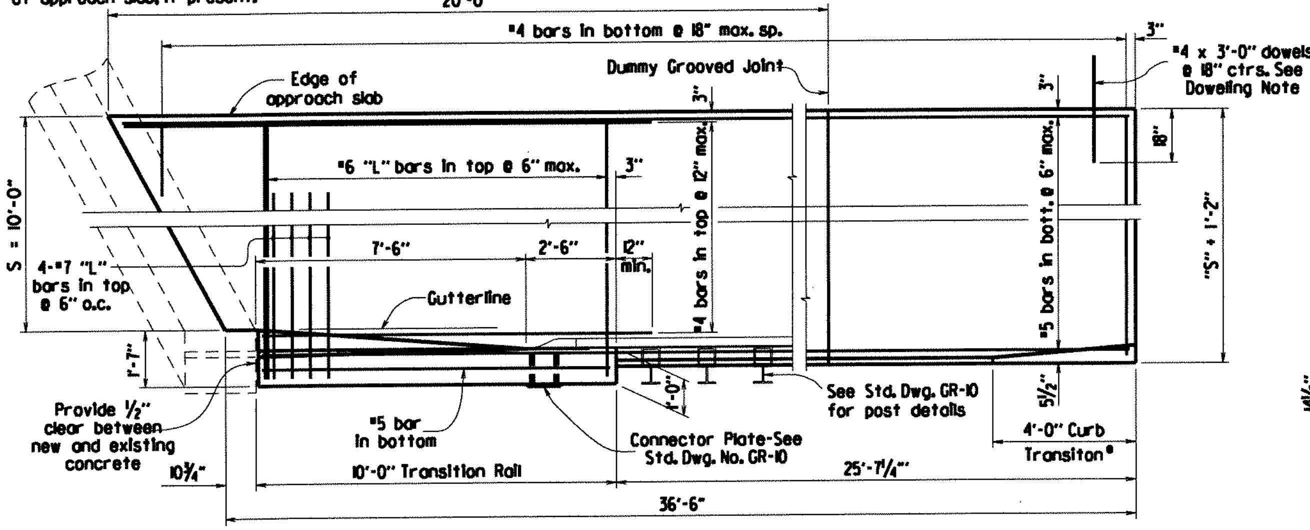
BR. NO. 3169A&B, 3212A&B, 3280A&B, 3281A&B, 3284A&B, 3286A&B & 3288A&B DWG. NO. 53768

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	168	215

(1) A&B 3289 - TYPE SP. I GUTTER - 53769

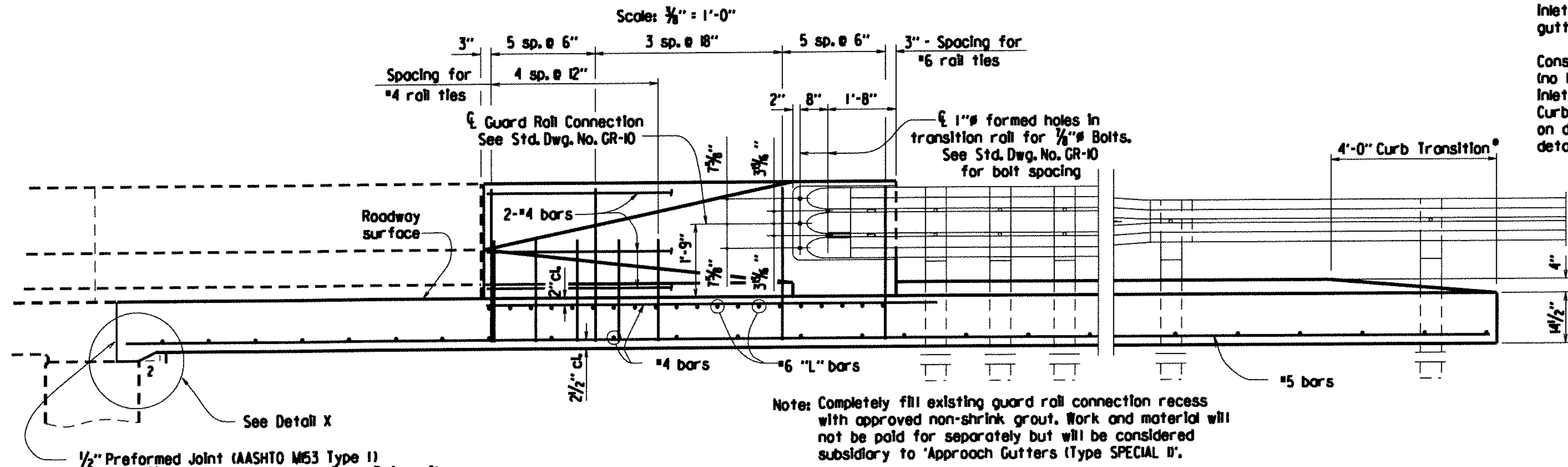


NOTE: "S" = Distance from gutterline to edge of shoulder or edge of approach slab, if present.



PLAN

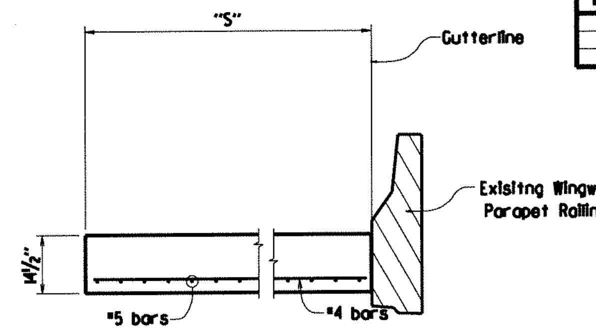
Scale: 3/8" = 1'-0"



1/2" Preformed Joint (AASHTO M53 Type I) and 2" x 1/2" Poured Joint Sealer (Type 3, 4 or 6) as per Subsection 501.02 (h) (2).

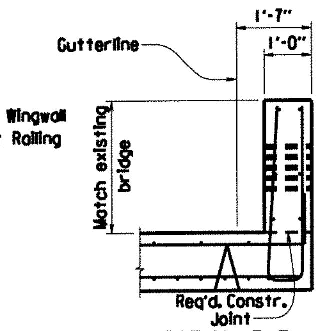
Note: Completely fill existing guard rail connection recess with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to 'Approach Gutters (Type SPECIAL I)'.

LONGITUDINAL SECTION THRU GUTTER



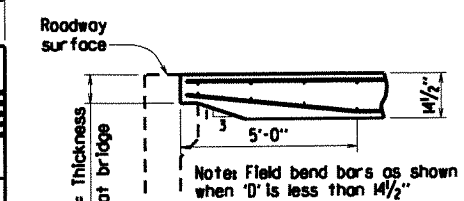
SECTION E-E

Scale: 1/2" = 1'-0"



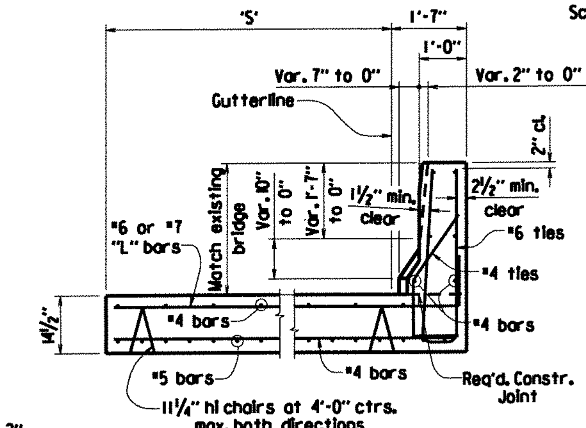
SECTION D-D

Scale: 1/2" = 1'-0"



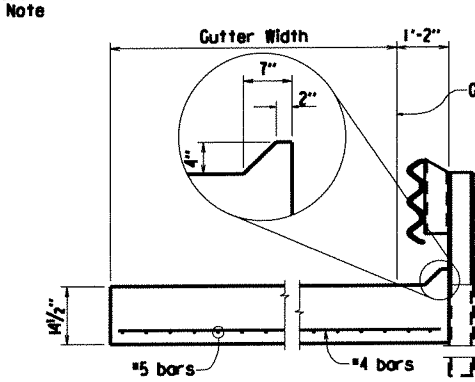
DETAIL X

Scale: 3/8" = 1'-0"



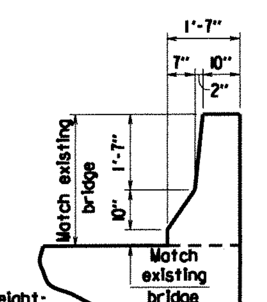
SECTION A-A

Scale: 1/2" = 1'-0"



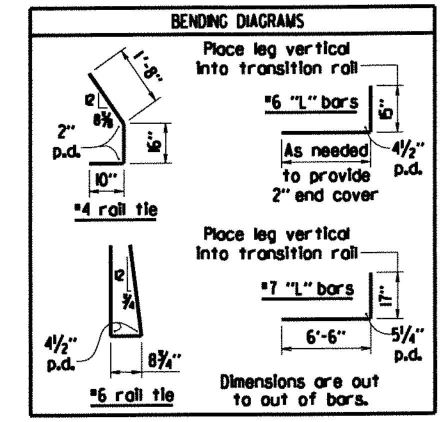
SECTION B-B

Scale: 1/2" = 1'-0"



SECTION C-C

At End of Transition Rail
Scale: 1/2" = 1'-0"



APPROX. QUANTITIES (FOR ONE PAIR OF APP. GUTTERS)	
CONCRETE	REINFORCING STEEL
CU. YD.	LB.
32.17	2916

* Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construct curb full height (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

GENERAL NOTES

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi.) Fabricate bar lengths to provide 2" minumum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15148
JOSHUA B. REVELL

4-15-13

BRIDGE ENGINEER

DETAILS OF TYPE SPECIAL I APPROACH GUTTERS

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

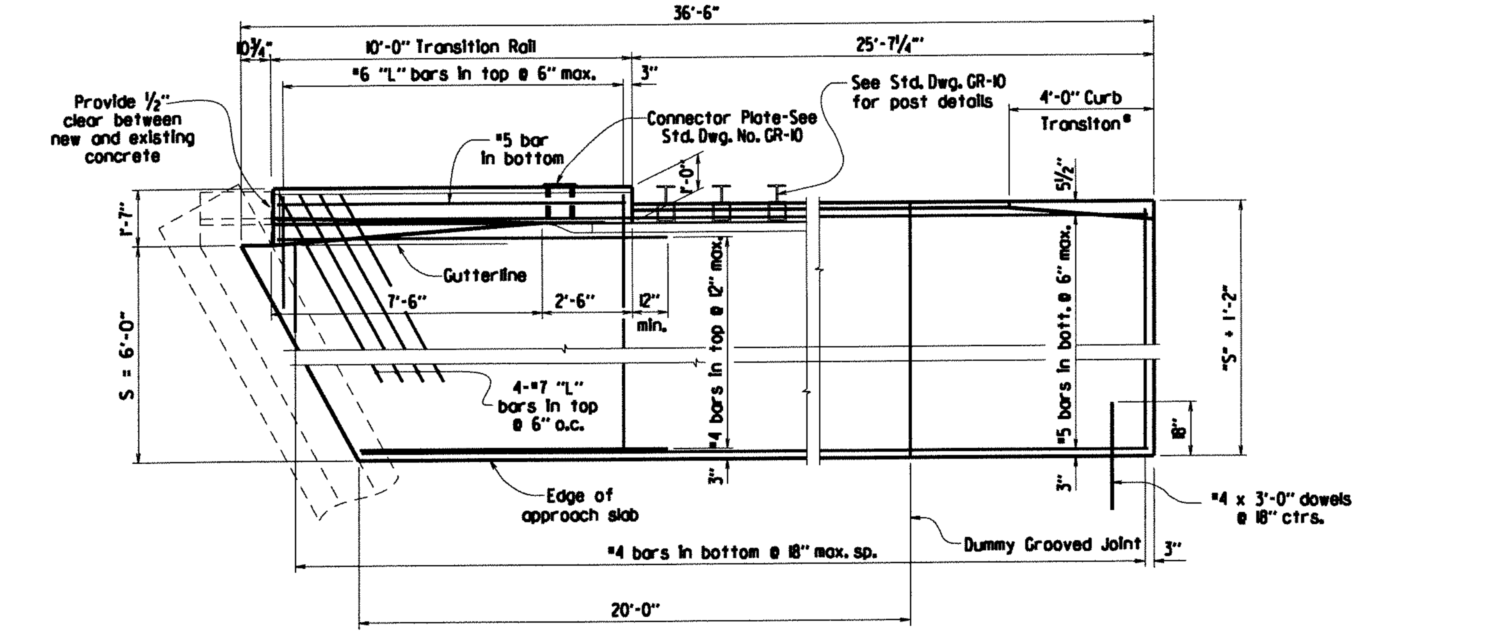
LITTLE ROCK, ARK.

DRAWN BY: JBR	DATE: 3-21-13	FILENAME: SP1GUTTER.dgn	
CHECKED BY: BCB	DATE: 3-26-13	SCALE: AS NOTED	
DESIGNED BY: JBR	DATE: 3-21-13		

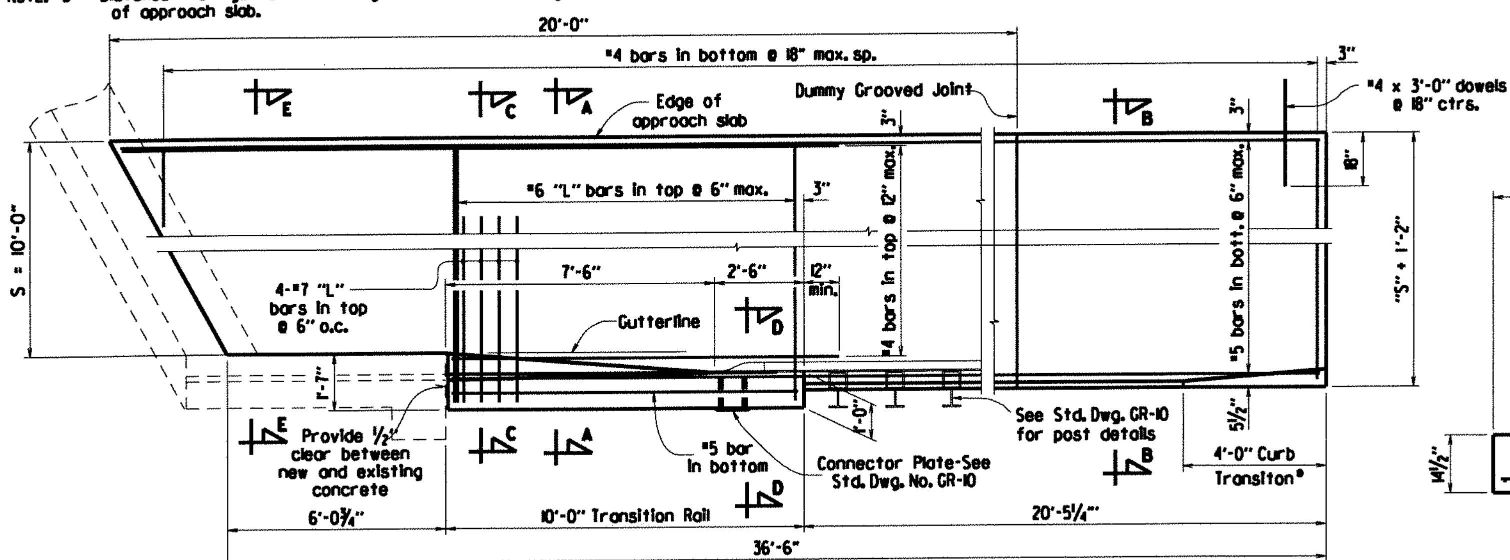
BRIDGE NO. A&B 3289 DRAWING NO. 53769

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	169	215

(1) A&B 3289 - TYPE SP. 2 GUTTER - 53770

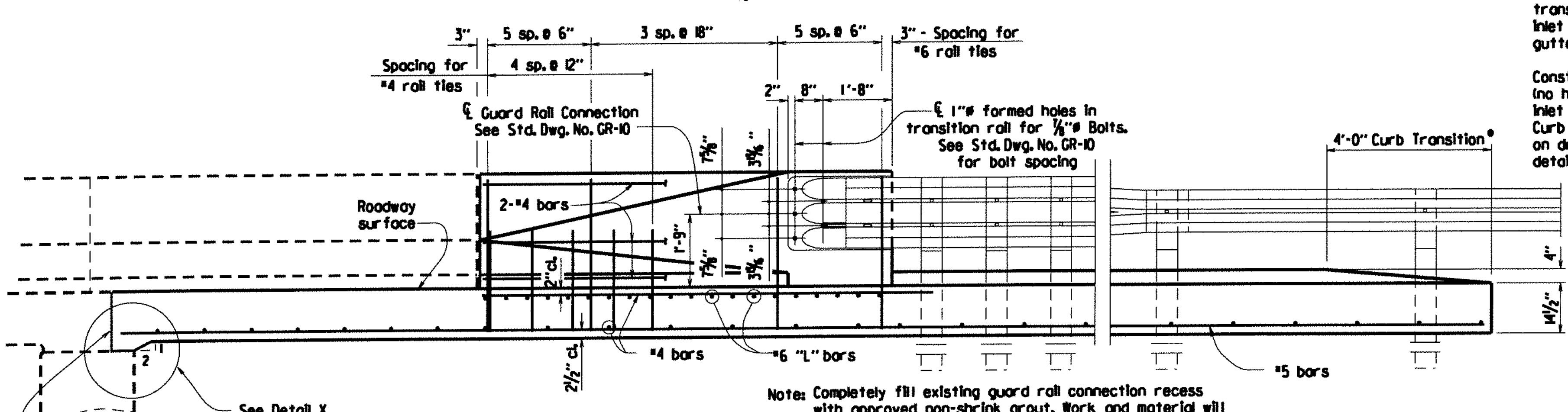


NOTE: "S" = Distance from gutterline to edge of shoulder or edge of approach slab.



PLAN

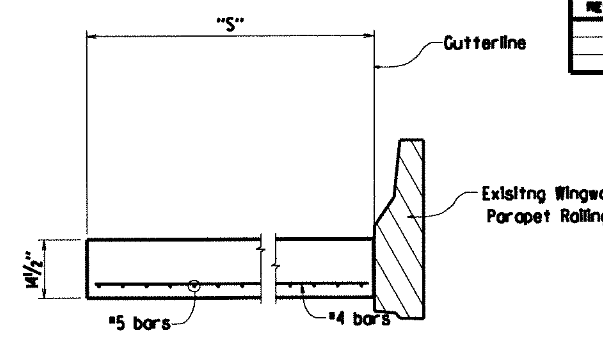
Scale: 3/8" = 1'-0"



1/2" Preformed Joint (AASHTO M53 Type 1) and 2" x 1/2" Poured Joint Sealer (Type 3, 4 or 6) as per Subsection 501.02 (h) (2).

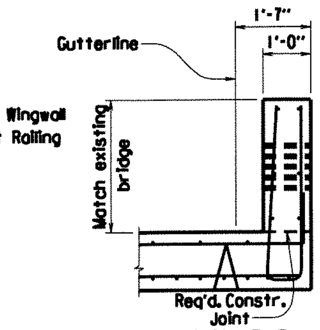
Note: Completely fill existing guard rail connection recess with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to 'Approach Gutters (Type SPECIAL 2)'.

LONGITUDINAL SECTION THRU GUTTER



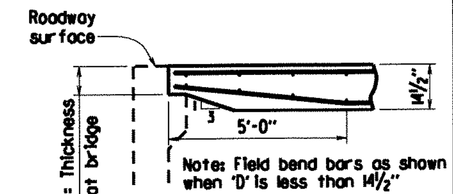
SECTION E-E

Scale: 1/2" = 1'-0"



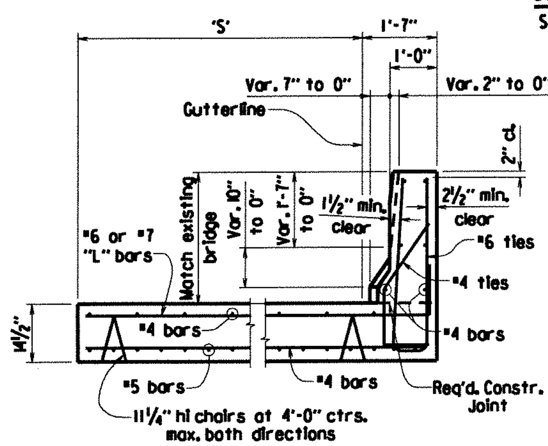
SECTION D-D

Scale: 1/2" = 1'-0"



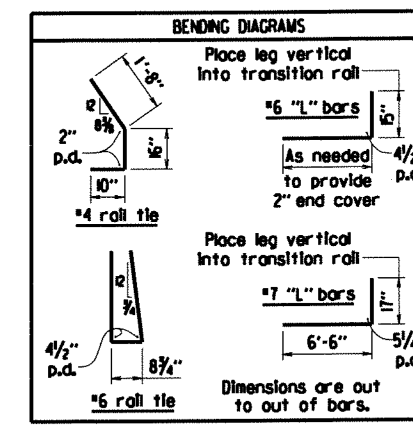
DETAIL X

Scale: 3/8" = 1'-0"

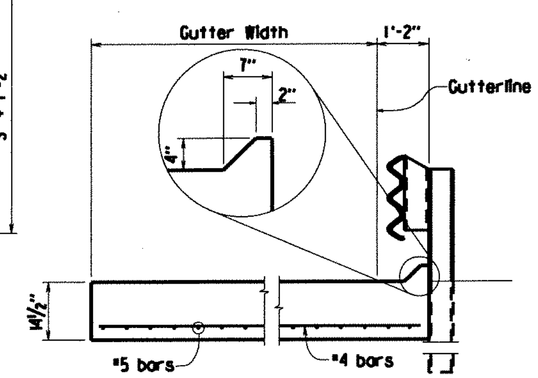


SECTION A-A

Scale: 1/2" = 1'-0"

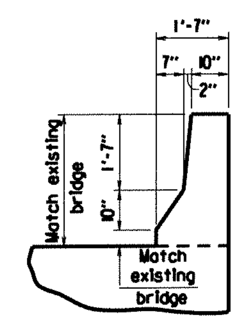


APPROX. QUANTITIES (FOR ONE PAIR OF APP. GUTTERS)	
CONCRETE	REINFORCING STEEL
CU. YD.	LB.
33.86	3070



SECTION B-B

Scale: 1/2" = 1'-0"



SECTION C-C

At End of Transition Rail
Scale: 1/2" = 1'-0"

* Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

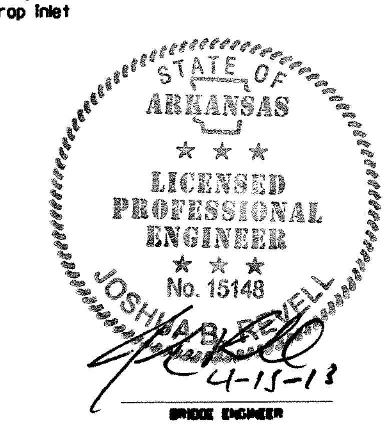
Construct curb full height (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

GENERAL NOTES

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi.) Fabricate bar lengths to provide 2" minumum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.



DETAILS OF TYPE SPECIAL 2 APPROACH GUTTERS

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

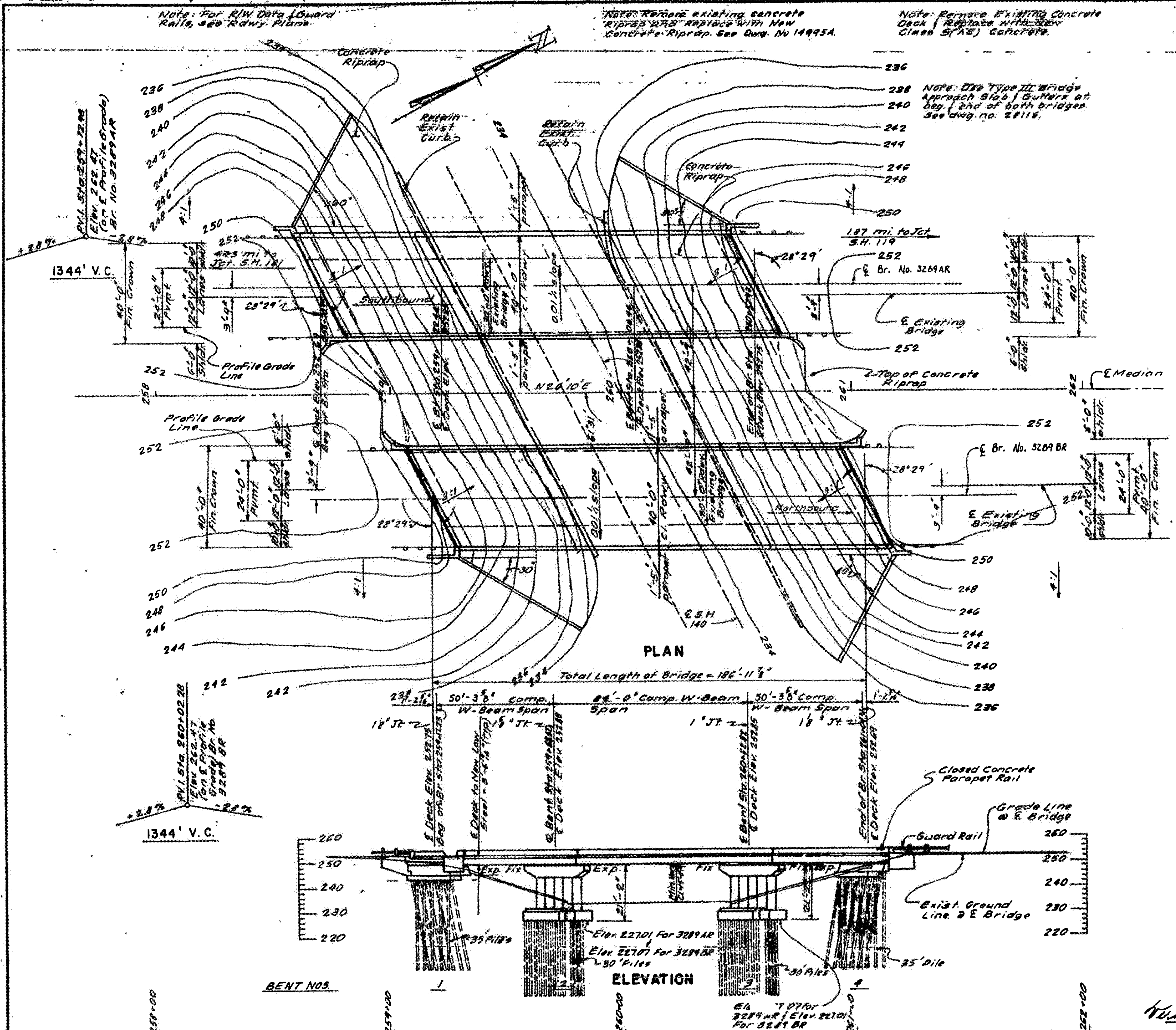
LITTLE ROCK, ARK.

DRAWN BY:	JBR	DATE:	4-10-13	FILENAME:	SP2 GUTTER.dgn
CHECKED BY:	BCB	DATE:	4-10-13	SCALE:	AS NOTED
DESIGNED BY:	JBR	DATE:	4-10-13		

BRIDGE NO. A&B 3289 DRAWING NO. 53770

				6	ARK.			
				JOB NO.		881003	170	215

3289 AR & BR - LAYOUT - 53771



GENERAL NOTES

BENCH MARK: ELEV. ARE BASED ON EXISTING PLAN ELEVATIONS.

PROPOSED WORK CONSISTS OF: REMOVE THE EXISTING BRIDGE DECK AND RAILING, REMOVE EXISTING EXPANSION CHANNELS, REMOVE AND REPLACE EXISTING BEARING MASONRY PLATES AS DETAILED. CLEAN AND PAINT EXISTING BRIDGE SHOES, STRUTS, DIAPHRAGMS AND BEAMS. REMODEL AND WIDEN EXISTING BRIDGE NOS. 3289A&B, AND PLACE NEW BRIDGE DECKS AS DETAILED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING CHECK MEASUREMENTS OF EXISTING BRIDGE AND MAKING NECESSARY ADJUSTMENTS TO THE NEW WORK. ALL CONCRETE IN NEW WORK TO BE CLASS S OR S(AE) AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF f'c = 3500 PSI. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

ALL NEW REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60.

LIVE LOAD: (NEW CONSTRUCTION) HS 20 AND MILITARY LOADING OF TWO 24,000# AXLES AT FOUR FEET CENTERS.

METHOD OF DESIGN: (NEW CONSTRUCTION) LOAD FACTOR

DESIGN SPECIFICATIONS: FOR NEW WORK, AASHTO STD. SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 WITH CURRENT INTERIM SPECIFICATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED FROM THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT UPON REQUEST.

THE BRIDGE DECK SHALL BE GIVEN A TINE FINISH AS SPECIFIED FOR TINE FINISHING OF CLASS 6, ROADWAY SURFACES FINISH IN SUBSECTION 802.23 OF THE STANDARD SPECIFICATIONS.

ALL PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE, DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. ALL PILES SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER. PILES IN END BENTS ARE TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF CAP IS IN PLACE. LENGTHS OF PILING SHOWN ARE BASED ON EXISTING DRIVING RECORDS. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. PILING SHALL HAVE A MINIMUM PENETRATION OF 20 FT. BELOW THE GROUND LINE.

DRIVE ONE 40' TEST PILE IN BENT NO. 1 OF BRIDGE NO. 3289AR AND ONE 35' TEST PILE IN BENT NO. 3 OF BRIDGE NO. 3289BR.

STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 OR ASTM A572, GRADE 50 AS NOTED ON THE DETAIL DRAWINGS.

FOR DETAILS OF END BENTS, SEE DWG. NOS. 28104 TO 28107
FOR DETAILS OF INT. BENTS, SEE DWG. NO. 28108
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NOS. 28109 TO 28115
FOR DETAILS OF APPROACH SLAB AND GUTTERS. SEE DWG. NO. 28116
FOR DETAILS OF CONCRETE RIPRAP, SEE DWG. NO. 14995A

STAGE CONSTRUCTION: SEE ROADWAY PLANS AND DRAWING NO. 28103

FOR INFORMATION ONLY

LAYOUT OF BRIDGE OVER S.H. 140

KEISER - HWY. 158 (4R)

MISSISSIPPI COUNTY

ROUTE 55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: EKK DATE: 7-22-85
CHECKED BY: DJA DATE: 8-6-85
DESIGNED BY: DJA DATE: 7-85

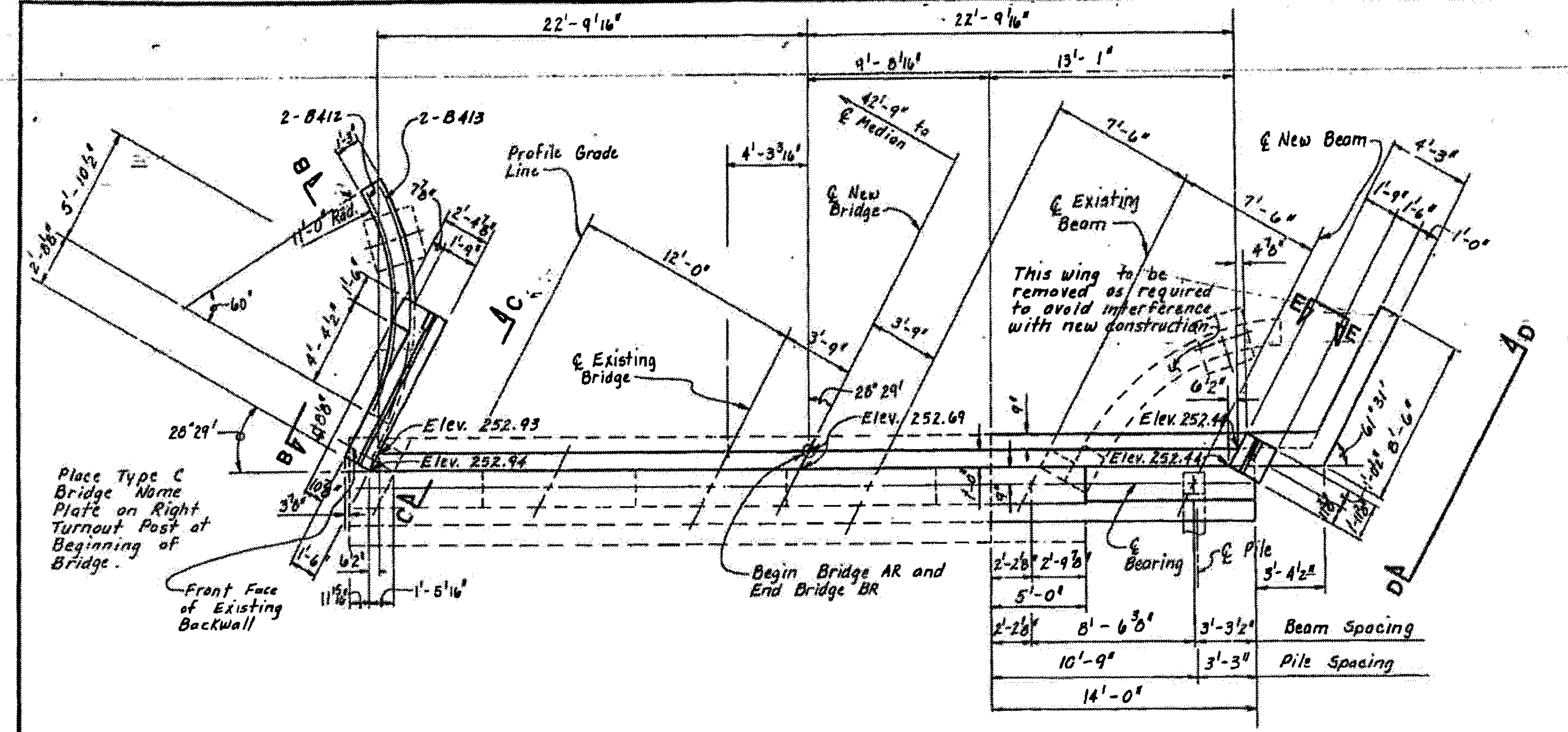
SCALE 1" = 20'-0"

BRIDGE ENGINEER

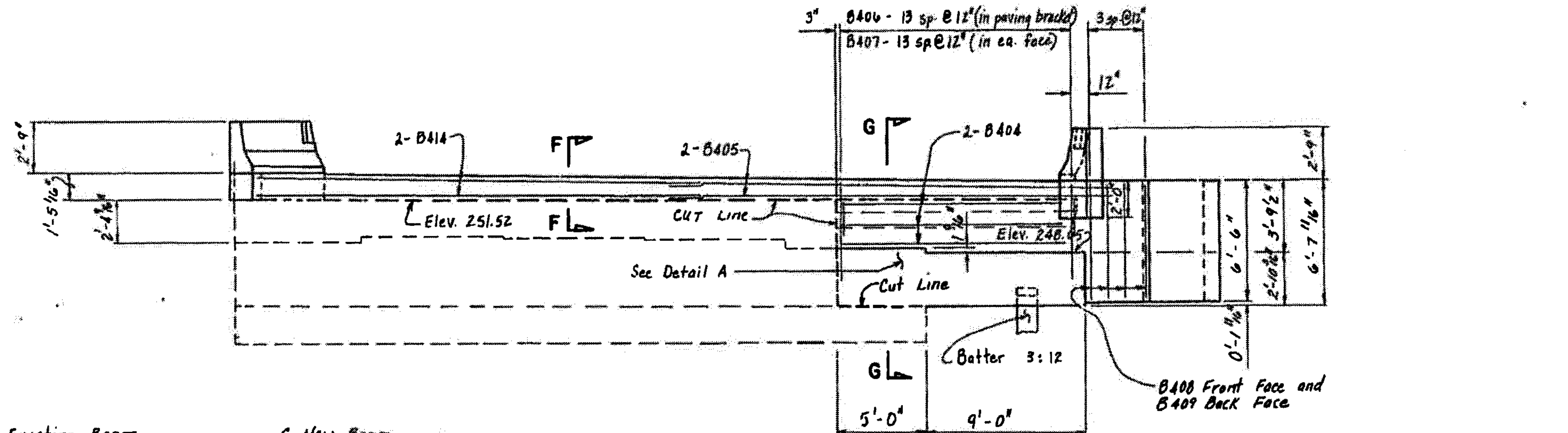
BRIDGE NO. 3289 AR & BR DRAWING NO. 53771

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	171	215

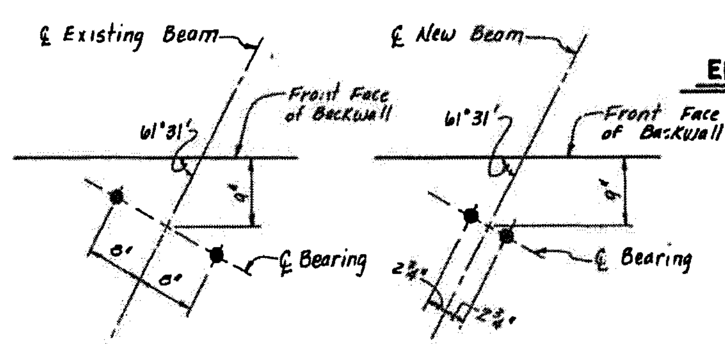
① 3289 AR & BR - END BENT DETAILS - 53772



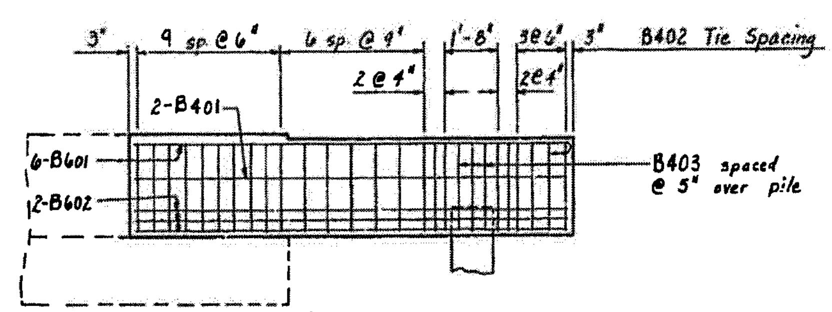
PLAN



ELEVATION



ANCHOR BOLT LAYOUT
Scale : 1" = 1'-0"

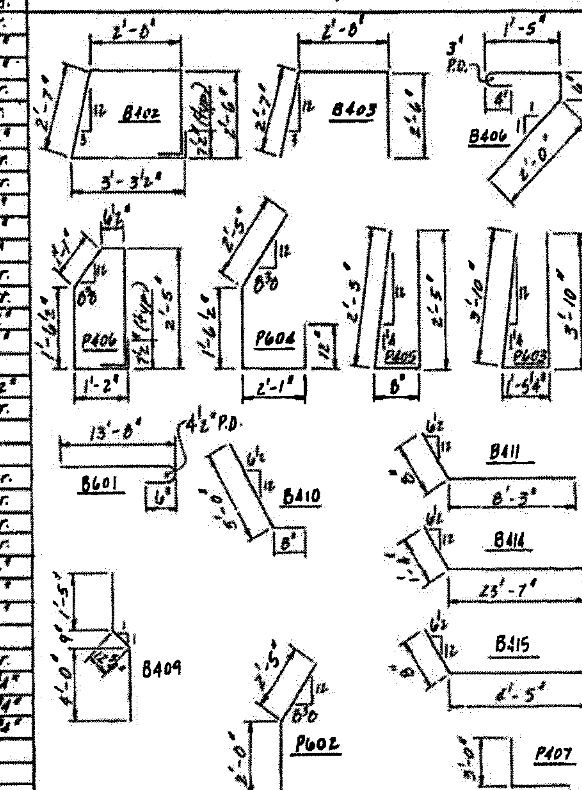


DETAIL A

BAR LIST (PER BENT)

MARK	NO. REQ'D.	LENGTH	PIN DIA.
B401	2	13'-8"	str.
B402	24	11'-10"	2"
B403	3	7'-7"	2"
B404	6	14'-0"	Str.
B405	4	24'-1"	Str.
B406	14	4'-4"	2"
B407	28	5'-4"	Str.
B408	19	6'-2"	Str.
B409	4	6'-5"	2"
B410	13	5'-8"	2"
B411	14	8'-11"	2"
B412	2	11'-5"	Str.
B413	2	12'-3"	Str.
B414	4	24'-11"	2"
B415	1	5'-1"	2"
B601	6	14'-4"	4½"
B602	6	13'-8"	Str.
P401	6	1'-8"	Str.
P402	1	7'-2"	Str.
P403	7	8'-2"	Str.
P404	3	1'-2"	Str.
P405	8	5'-4"	2"
P406	8	7'-7"	2"
P407	3	5'-3"	2"
P601	4	4'-3"	Str.
P602	3	4'-5"	3¾"
P603	4	8'-11"	3¾"
P604	4	6'-8"	3¾"

BENDING DIAGRAMS



Dimensions are out to out of bars.

GENERAL NOTES

CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH, f'c = 3500 PSI. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

STRUCTURAL STEEL IN END BENTS SHALL BE A36 AND SHALL BE MEASURED AND PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS A572-50."

ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

THE BACKWALL SHALL NOT BE POURED UNTIL THE BEAMS HAVE BEEN PLACED ON THE BENT CAP.

FOR INFORMATION ONLY

SHEET 1 OF 2

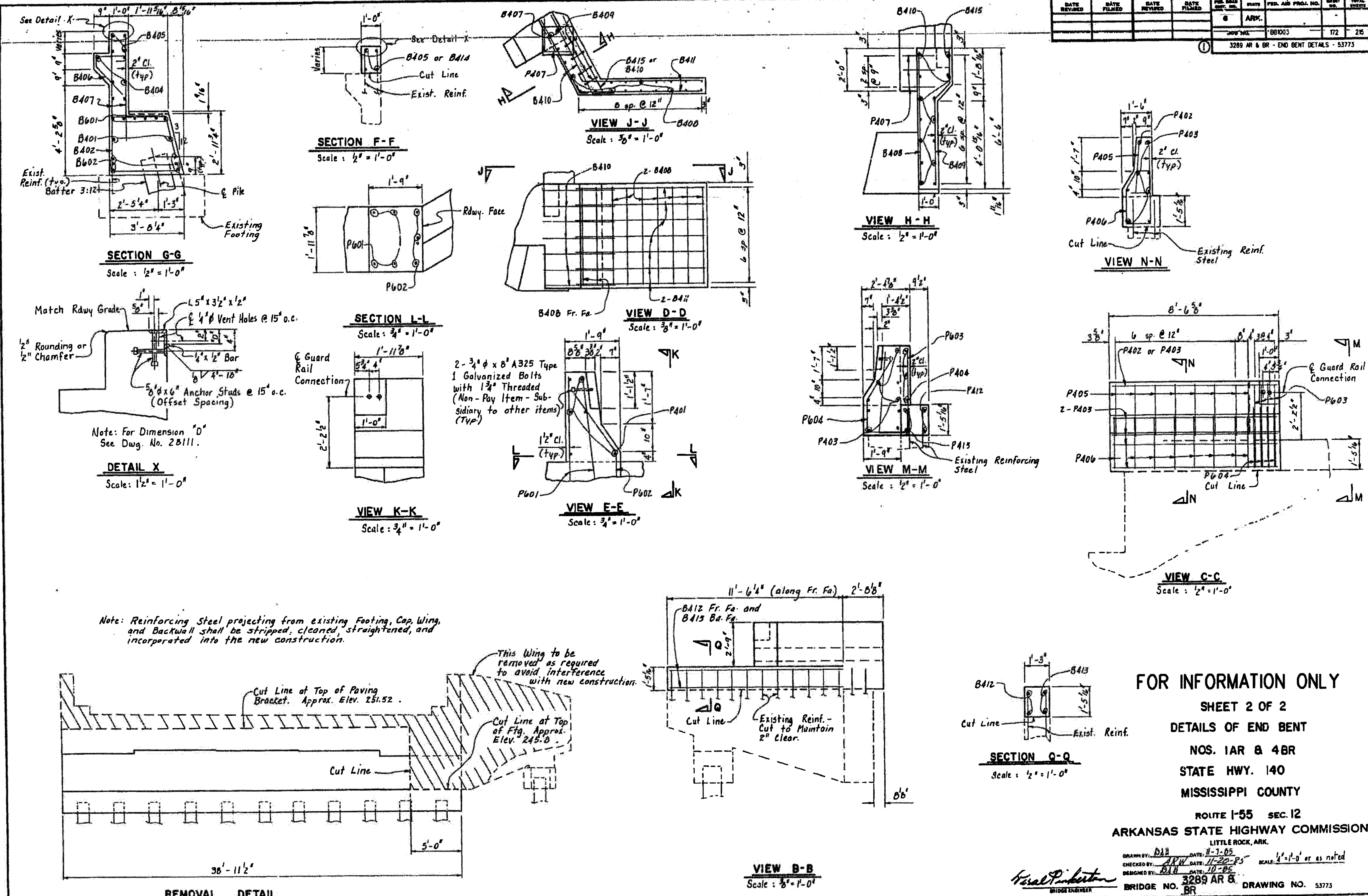
DETAILS OF END BENT
NOS. 1AR & 4BR
STATE HWY. 140
MISSISSIPPI COUNTY
ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: BJB DATE: 11-7-85
CHECKED BY: ARW DATE: 11-20-85
DESIGNED BY: BJB DATE: 10-85
SCALE: ¼" = 1'-0" or as noted

BRIDGE ENGINEER

BRIDGE NO. 3289 AR & BR DRAWING NO. 53772



FOR INFORMATION ONLY

SHEET 2 OF 2

DETAILS OF END BENT

NOS. 1AR & 4BR

STATE HWY. 140

MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

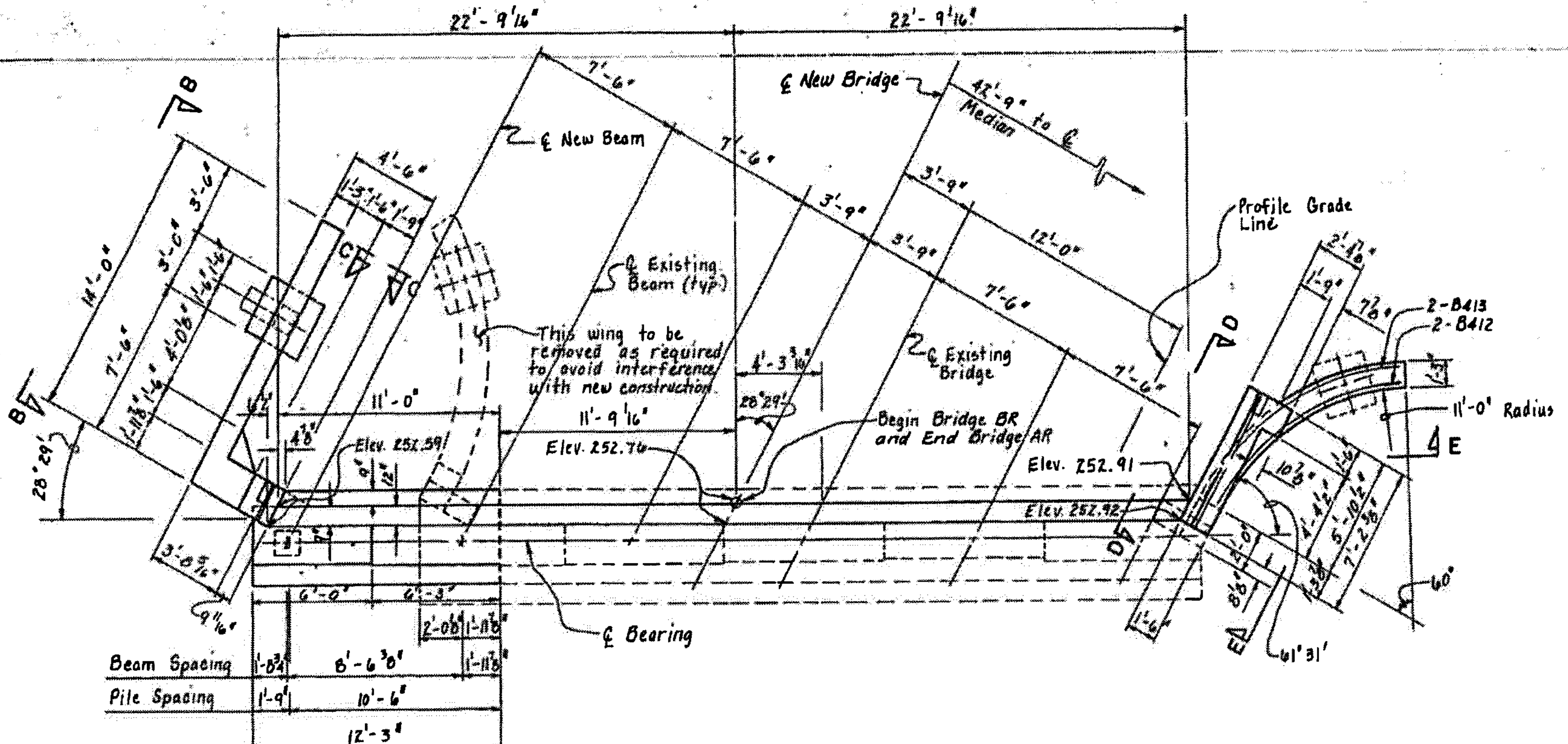
BRIDGE NO. 3289 AR & BR

DRAWING NO. 53773

3289 AR & BR - END BENT DETAILS - 53773

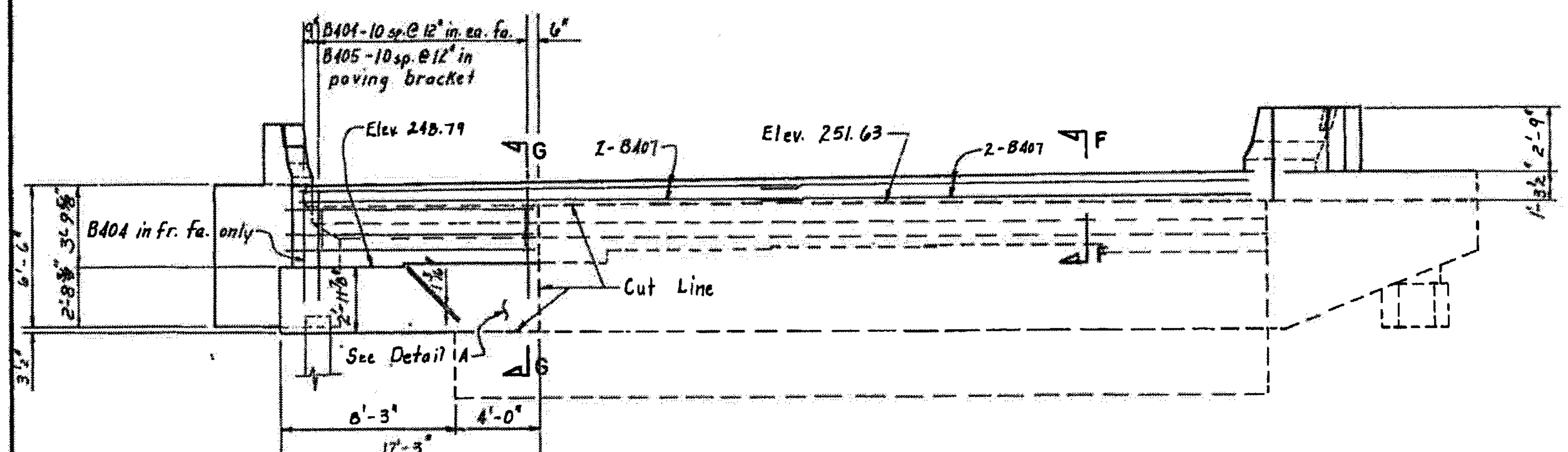
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	173	215

3289 AR & BR - END BENT DETAILS - 53774

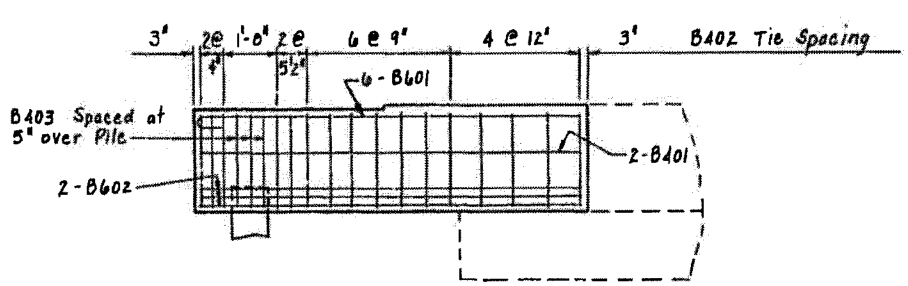


PLAN

Place Type C Bridge Name Plate on Right Turnout Post at Beginning of Bridge.

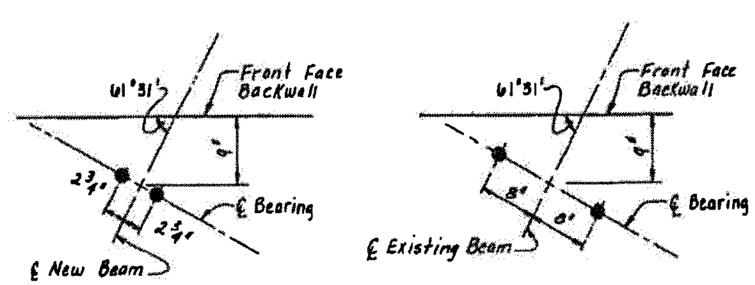


ELEVATION



DETAIL A

Scale : 3/8" = 1'-0"



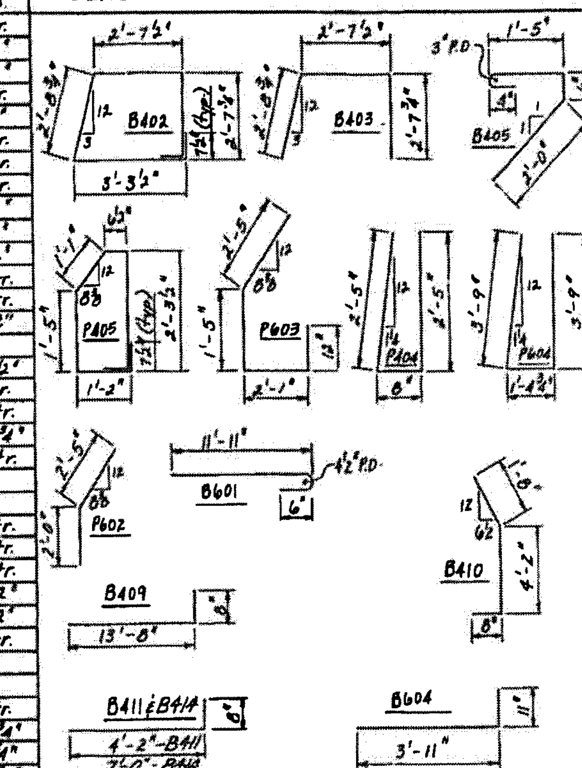
ANCHOR BOLT LAYOUT

Scale : 1" = 1'-0"

BAR LIST (PER BENT)

Mark	NO. REQ'D	LENGTH	PIN DIA.
B401	2	11'-11"	Str.
B402	16	12'-1"	2"
B403	3	7'-10"	2"
B404	23	5'-3"	Str.
B405	11	4'-4"	2"
B406	6	11'-4"	Str.
B407	4	24'-1"	Str.
B408	36	6'-2"	Str.
B409	14	14'-3"	2"
B410	7	6'-5"	2"
B411	1	4'-9"	2"
B412	2	11'-4"	Str.
B413	2	12'-3"	Str.
B414	6	9'-7"	2"
B601	6	12'-7"	4 1/2"
B602	6	11'-11"	Str.
B603	10	2'-6"	Str.
B604	6	4'-8"	3 3/4"
B605	6	5'-7"	Str.
P401	6	1'-8"	Str.
P402	1	5'-10"	Str.
P403	7	6'-10"	Str.
P404	8	5'-4"	2"
P405	8	7'-4"	2"
P406	3	1'-2"	Str.
P601	4	4'-6"	Str.
P602	3	4'-5"	3 3/4"
P603	4	6'-5"	3 3/4"
P604	4	8'-7"	3 3/4"

BENDING DIAGRAMS



Dimensions are out to out of bars.

GENERAL NOTES

CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH, f'c = 3500 PSI. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

STRUCTURAL STEEL IN END BENTS SHALL BE A36 AND SHALL BE MEASURED AND PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS A572-50."

ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

THE BACKWALL SHALL NOT BE POURED UNTIL THE BEAMS HAVE BEEN PLACED ON THE BENT CAP.

FOR INFORMATION ONLY

SHEET 1 OF 2

DETAILS OF END BENT

NOS. 1BR & 4AR

STATE HWY. 140

MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

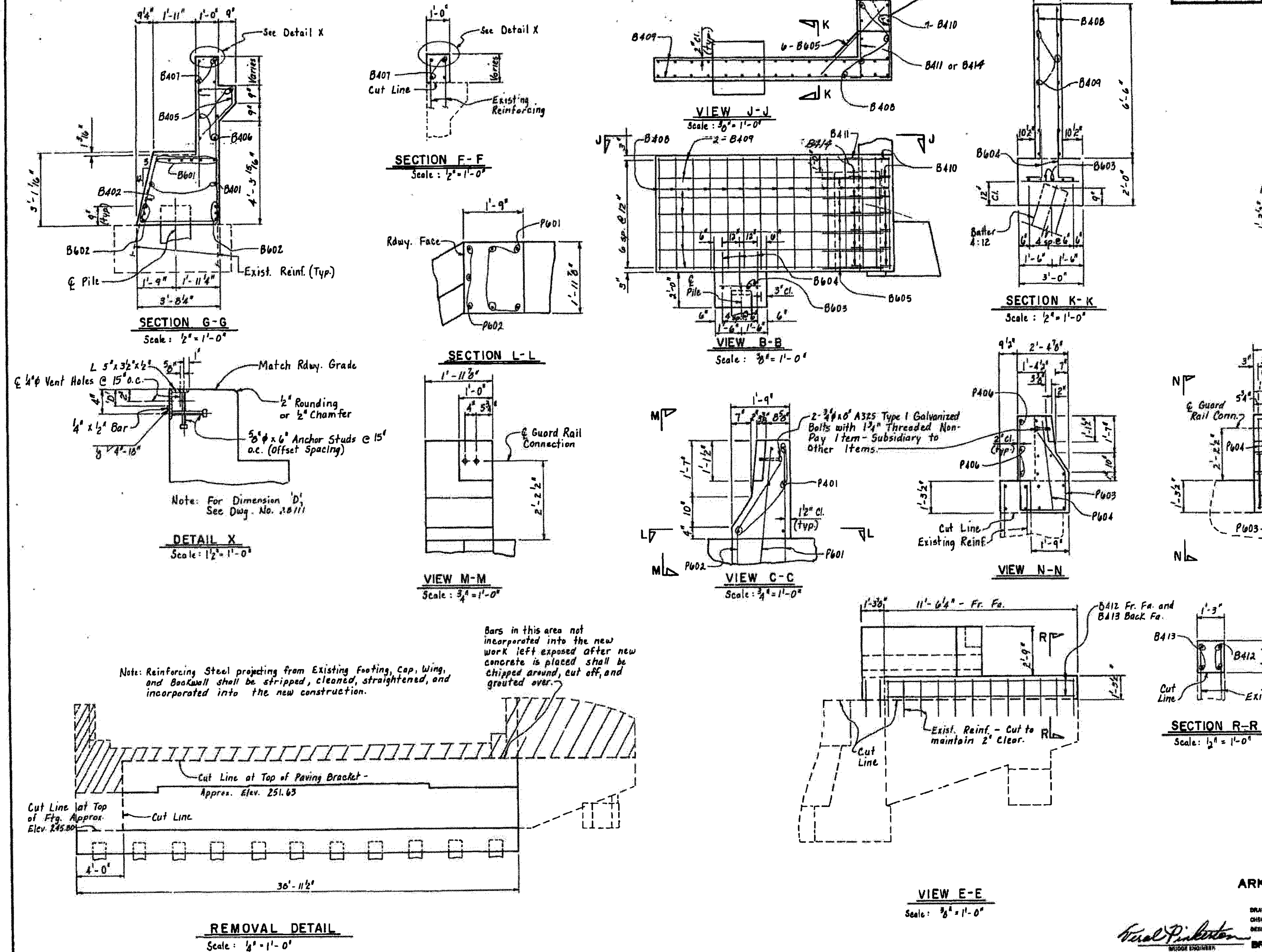
DRAWN BY: BJB DATE: 11-8-85
CHECKED BY: ARW DATE: 11-19-85
DESIGNED BY: BJB DATE: 10-85
SCALE: 1/4" = 1'-0" or as noted.

BRIDGE ENGINEER

BRIDGE NO. 3289 AR & BR DRAWING NO. 53774

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	174	215

(1) 3289 AR & BR - END BENT DETAILS - 53775



FOR INFORMATION ONLY

SHEET 2 OF 2

DETAILS OF END BENT
NOS. 1BR & 4AR
STATE HWY. 140
MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DAA DATE: 11-8-85
CHECKED BY: ADW DATE: 11-19-85
DESIGNED BY: DAA DATE: 10-85
SCALE: As Noted

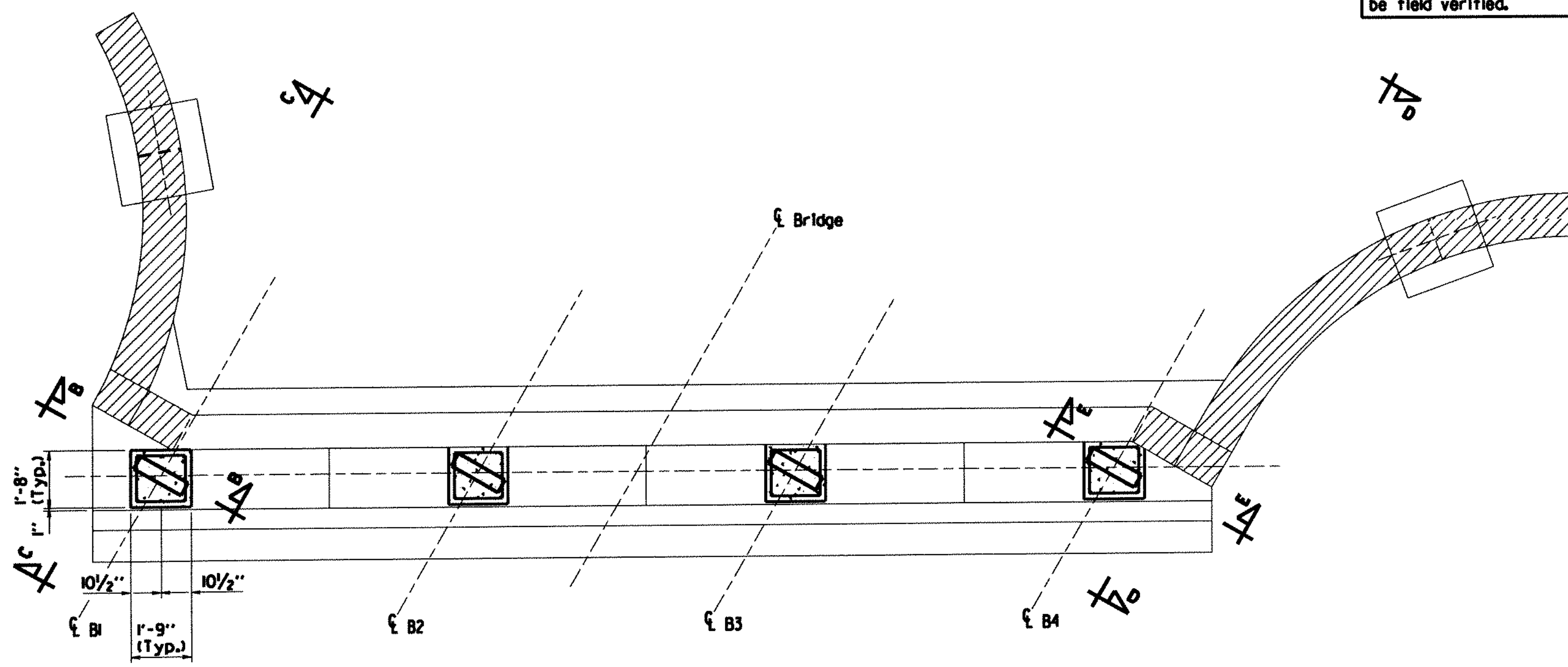
BRIDGE ENGINEER

BRIDGE NO. 3289 AR & BR DRAWING NO. 53775

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	175	215

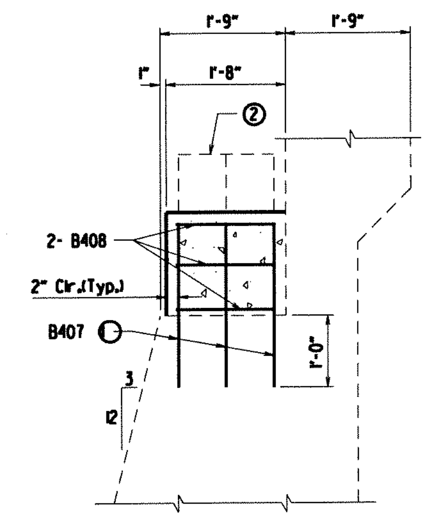
(1) 03290 - MODIFICATION DETAILS - 53776

Note:
Low Beam will be raised approximately 1'-5 1/4" to meet minimum vertical clearance of 16'-0" over Interstate 55. All dimensions and elevations shall be field verified.



TYPICAL PLAN OF END BENT

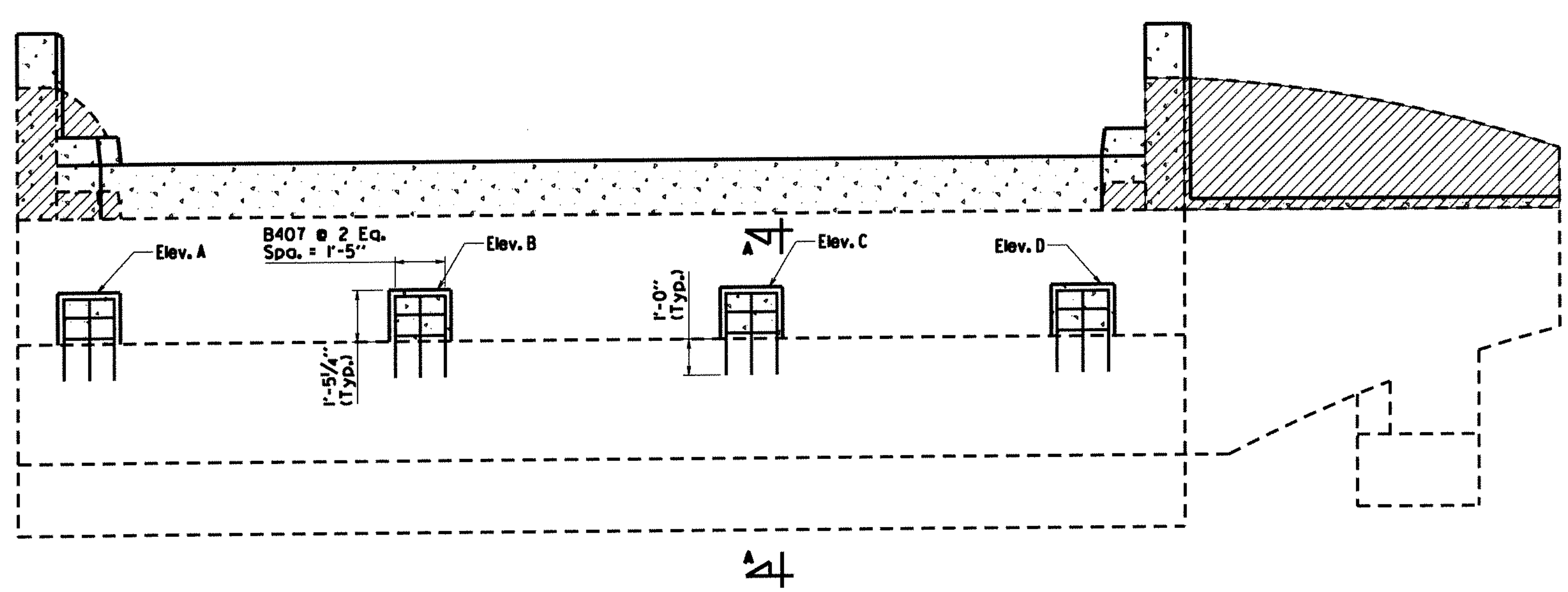
Scale: 3/8" = 1'-0"



SECTION A-A

Scale: 3/4" = 1'-0"

Note:
See Drawing No. 53778 for anchor bolt details.



ELEVATION - END BENTS

Scale: 3/8" = 1'-0"

GENERAL NOTES

Governing specifications are the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (1996 Edition), with applicable supplemental specifications and special provisions.

All structural steel shall be AASHTO designation M270, Gr. 50W unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel for Modification of Raised Bridge Structure (M270, Gr. 50W)." M270, Gr. 50W steel shall not be painted. All exposed surfaces to be cleaned in accordance with subsection 807.84(e) of the Standard Specifications.

All welding to be performed by a certified welder approved by the Engineer. All welding shall conform to the current AASHTO/AWS D1.5 Welding Code.

Anchor bolt extension shall be ASTM A36 and galvanized. Repair damaged galvanized surfaces in accordance with Subsection 807.88.

The Contractor shall field verify anchor bolt locations.

All concrete shall have a minimum 28 day compressive strength f'c = 3500 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

The Contractor shall check the joint openings. Poured silicone joints at end bents shall be installed after the entire structure is raised to the final position. Cleaning the joint shall be as recommended by the manufacturer. See Drawing No. 53779.

The following drawings may be used to determine jack capacities:
Dwg. Nos. 53782 thru 53788

Sheets from the existing bridge plans have been included for information purposes only. All information required to complete the work should be field verified by the Contractor.

Nuts on bearing device attachment shall only be hand tightened. Do not torque.

See Special Provision Job No. BB1003 "Modification of Raised Bridge Structure" for additional material and construction requirements.

(1) No. 4 bars shall be drilled and grouted into existing concrete using a QPL approved non-shrink grout. Diameter of drilled holes and installation procedure shall be as recommended by the grout manufacturer. Drilling and grouting of dowels will be paid for as part of the item "Modification of Raised Bridge Structure (Br. No. 03290)".

(2) As directed by the Engineer, disassemble, clean and re-paint the rockers to address any beginning rust in accordance with section 820, using Type I cleaning and painting. The color of paint shall be Gray and shall match Fed. Std. 595B, Color Chip No. 26176. Install cleaned and painted bearings on new riser blocks. All work and materials on existing bearings will not be paid for directly but will be considered subsidiary to the item "Modification of Raised Bridge Structure (Br. No. 03290)".

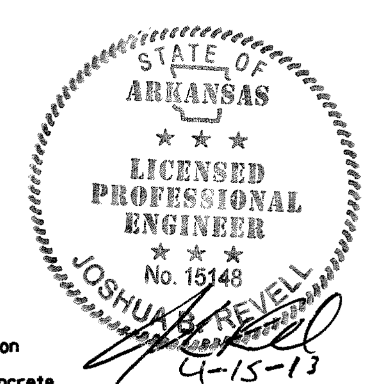
TABLE OF VARIABLES

	BENT 1	BENT 5
Elev. "A"	253.14	253.03
Elev. "B"	253.26	253.22
Elev. "C"	253.22	253.26
Elev. "D"	253.03	253.14

LEGEND

Demolition

New Concrete



BRIDGE ENGINEER

SHEET 1 OF 3
MODIFICATION DETAILS FOR
BRIDGE NO. 03290
HWY. 119 - I-55
MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

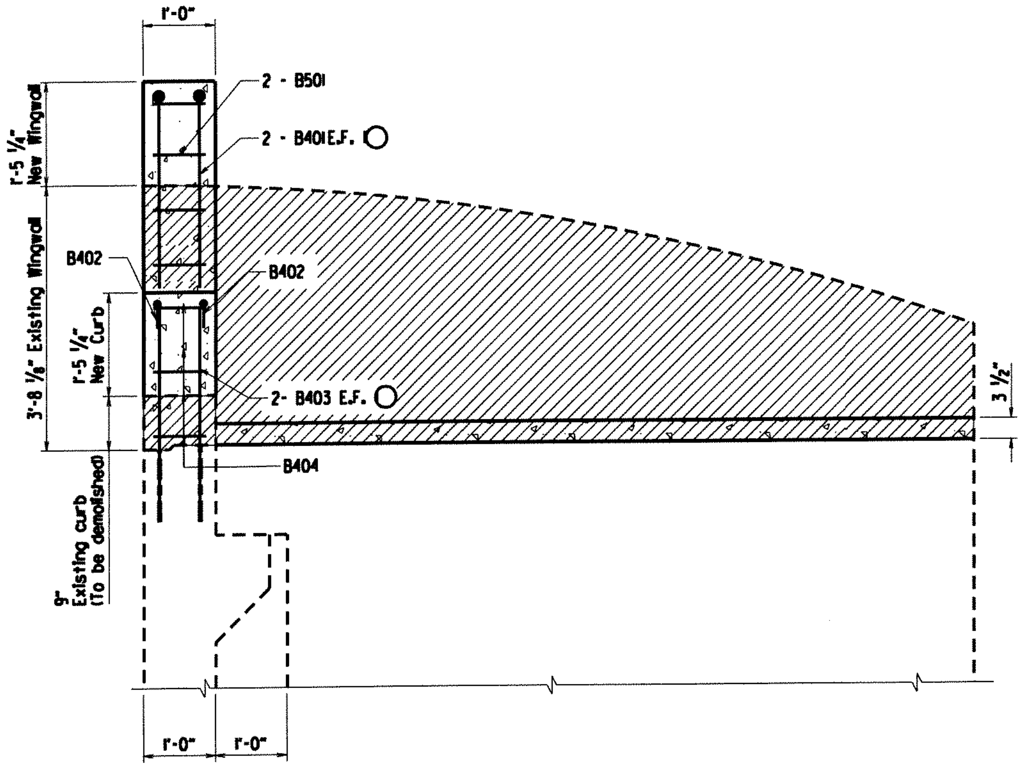
DRAWN BY: SDC DATE: 4-2-13 FILENAME: ASHC.1-End bents
CHECKED BY: JBR DATE: 4-5-13 SCALE: AS NOTED
DESIGNED BY: BCB DATE: 4-2-13

BRIDGE NO. 03290 DRAWING NO. 53776

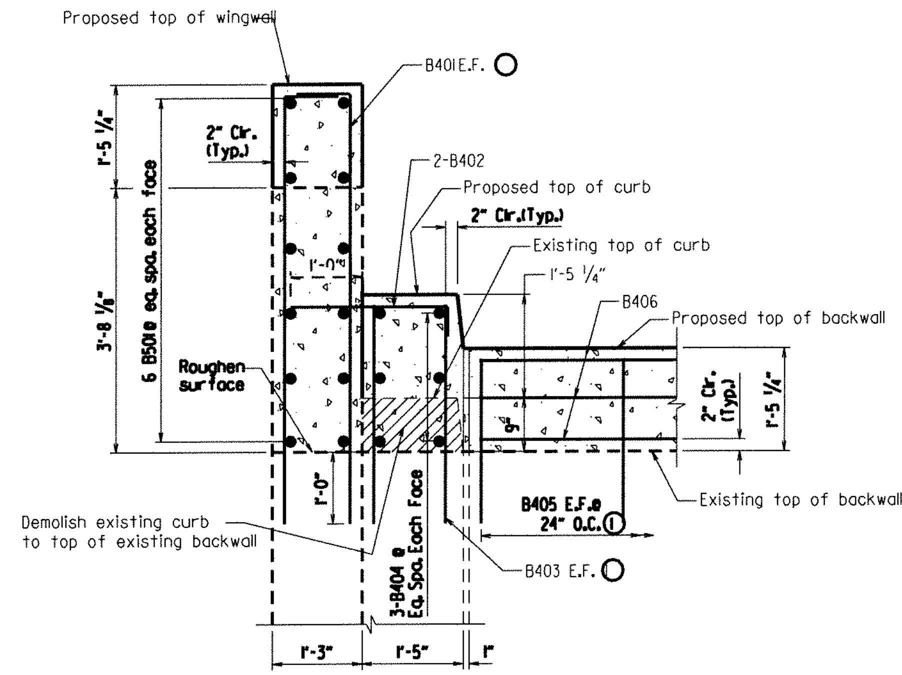
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	176	215

(1) 03290 - MODIFICATION DETAILS - 53777

Note:
Low Beam willbe raised approximately 1'-5 1/4" to meet minimum vertical clearance of 16'-0" over Interstate 55. All dimensions and elevations shall be field verified.



SECTION C-C
Scale: 3/4" = 1'-0"

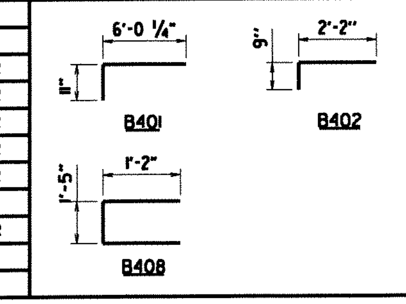


SECTION B-B
Scale: 3/4" = 1'-0"

Section E-E opposite hand and similar.

END BENT BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAM (DIMENSIONS ARE OUT TO OUT OF BARS)
B401	8	6'-11 1/4"	3"	
B402	4	2'-11"	3"	
B403	8	3'-0 1/4"	STR	
B404	12	8"	STR	
B405	29	2'-3 1/4"	STR	
B406	6	27'-6"	STR	
B407	32	2'-3 1/4"	STR	
B408	24	3'-9"	3"	
B501	24	8"	STR	

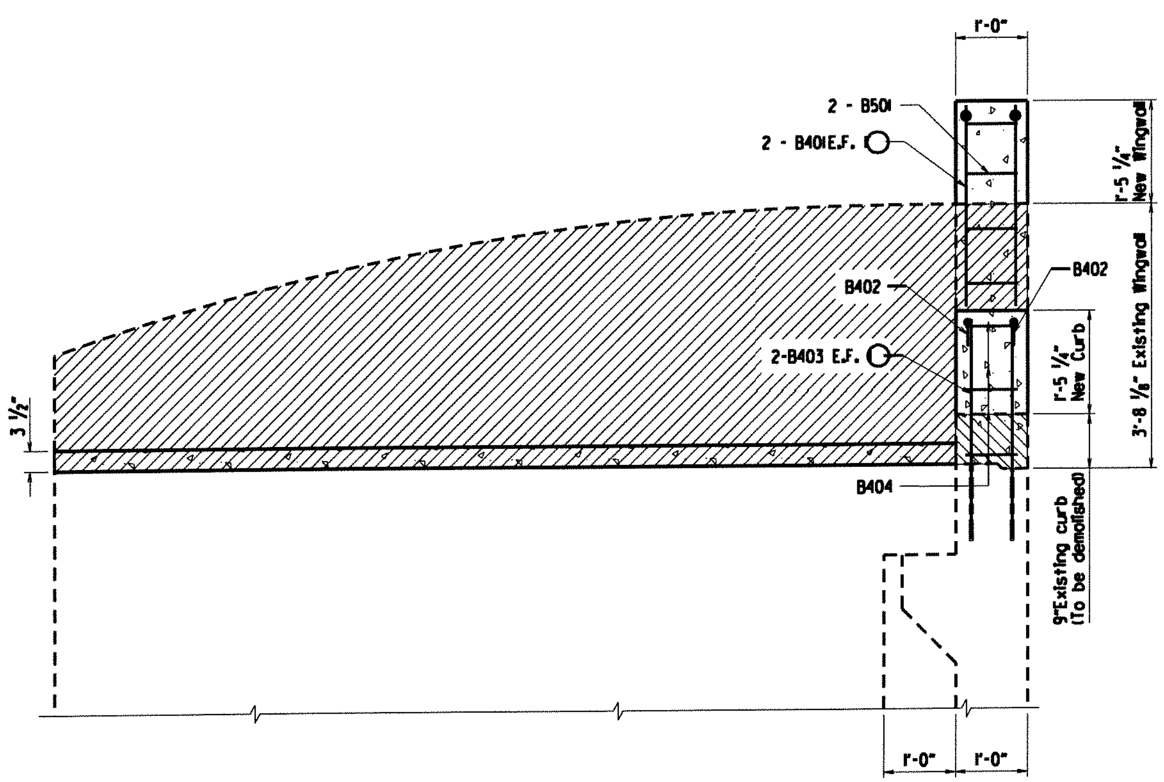


(1) No. 4 bars shallbe drilled and grouted into existing concrete using a OPL approved non-shrink grout. Diameter of drilled holes and installation procedure shallbe as recommended by the grout manufacturer. Drilling and grouting of dowels willbe paid for as part of the Item "Modification of Raised Bridge Structure (Br. No. 03290)".

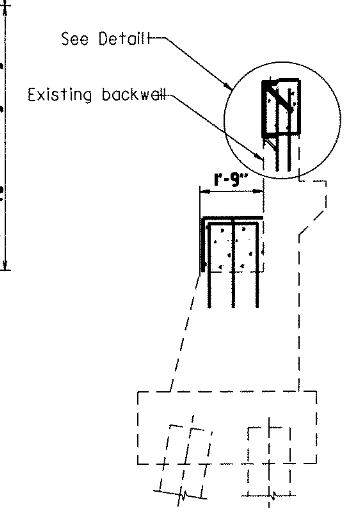
LEGEND

Demolition

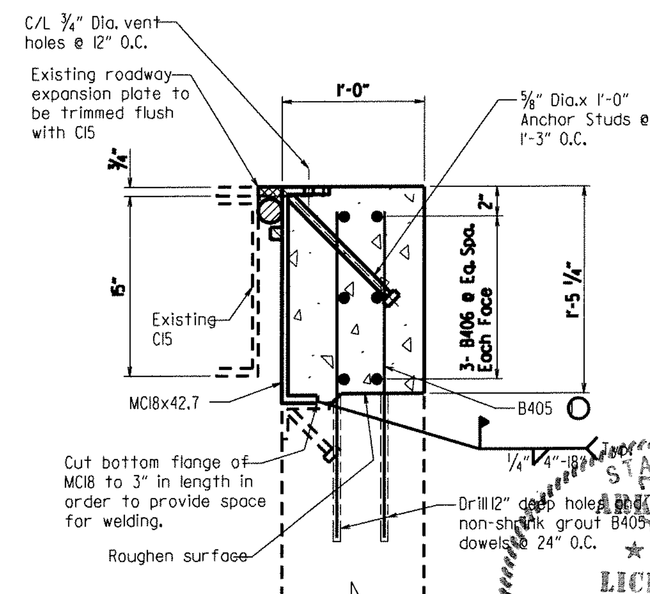
New Concrete



SECTION D-D
Scale: 3/4" = 1'-0"

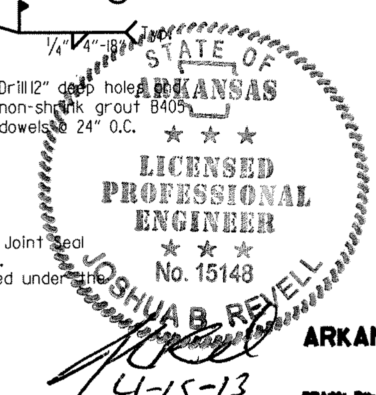


TYP. EXISTING END BENT SECTION
Scale: N.T.S.



NOTES:
1. See detail of Poured Silicone Joint Seal for expansion device details.
2. Concrete shall be hand packed under the joint armor in the backwall.

DETAIL 1
Scale: 1 1/2" = 1'-0"



4-15-13

BRIDGE ENGINEER

SHEET 2 OF 3
MODIFICATION DETAILS FOR BRIDGE NO. 03290
HWY. 119 - I-55
MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

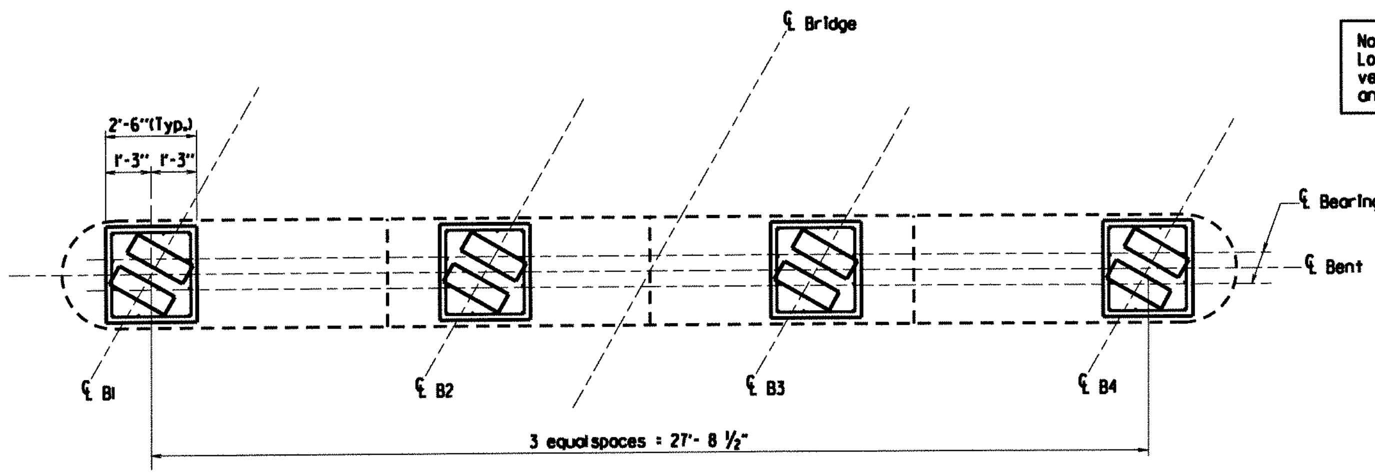
DRAWN BY: SDC DATE: 3-21-13 FILENAME: ASHC.2-Details
CHECKED BY: JBR DATE: 4-05-13 SCALE: AS NOTED
DESIGNED BY: BCB DATE: 3-21-13

BRIDGE NO. 03290 DRAWING NO. 53777

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	177	215

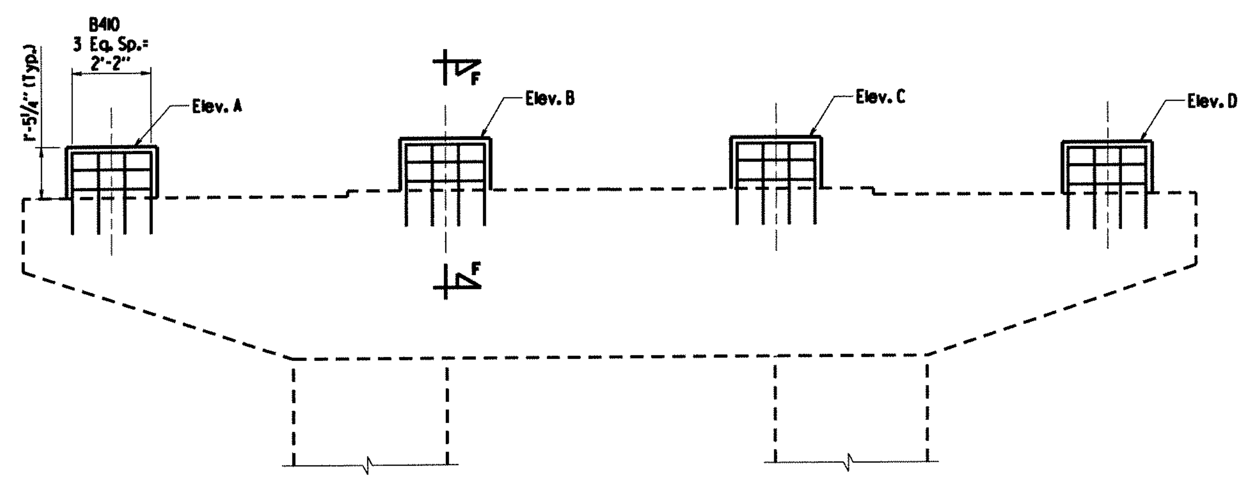
① 03290 - MODIFICATION DETAILS - 53778

Note:
Low Beam will be raised approximately 1'-5¼" to meet minimum vertical clearance of 16'-0" over Interstate 55. All dimensions and elevations shall be field verified.



PLAN - BENTS

Scale: ⅜" = 1'-0"



ELEVATION - INT. BENTS

Scale: ⅜" = 1'-0"

INTERMEDIATE BENT BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAM (DIMENSIONS ARE OUT TO OUT OF BARS)
B409	36	6'-10"	3"	2'-4" / 2'-2" / B409
B410	72	2'-3¼"	Str.	

GENERAL NOTES

All concrete shall be Class S with a minimum 28 day compressive strength f'c=3500 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

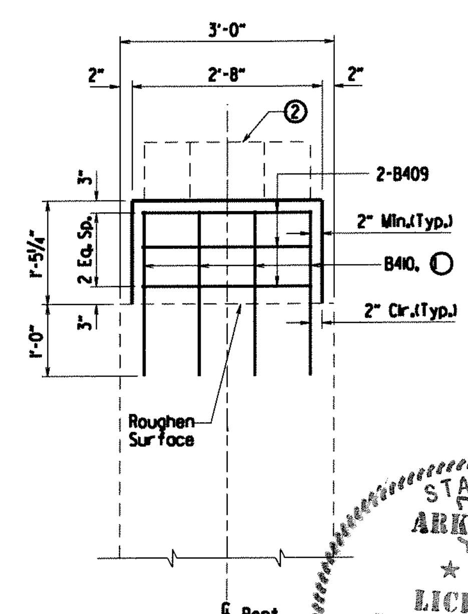
All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi.).

One intermediate bent shown, all intermediate bents similar. See table of variables for bent elevations.

① No. 4 bars shall be drilled and grouted into existing concrete using a QPL approved non-shrink grout. Diameter of drilled holes and installation procedure shall be as recommended by the grout manufacturer. Drilling and grouting of dowels will be paid for as part of the item "Modification of Raised Bridge Structure (Br. No. 03290)".

② As directed by the Engineer, disassemble, clean and re-paint the bearings to address any beginning rust in accordance with section 820, using Type I cleaning and painting. The color of paint shall be Gray and shall match Fed. Std. 595B, Color Chip No. 26176. Install cleaned and painted bearings on new riser blocks. All work and materials on existing bearings will not be paid for directly but will be considered subsidiary to the item "Modification of Raised Bridge Structure (Br. No. 03290)".

③ Cut off existing anchor bolts below bottom threads and weld new anchor bolts. All work and materials necessary to extend the existing anchor bolts will not be paid for directly but will be considered subsidiary to the pay item "Modification of Raised Bridge Structure (Br. No. 03290)".

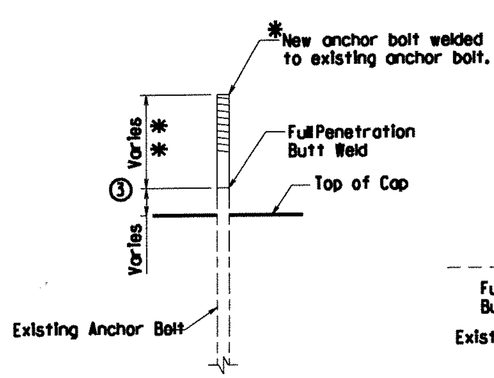


SECTION F-F

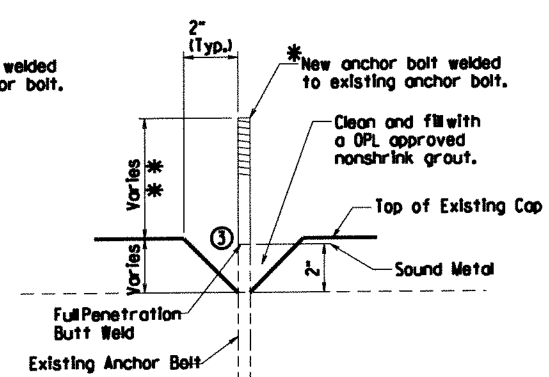
Scale: ¾" = 1'-0"

TABLE OF VARIABLES

	BENT 2	BENT 3	BENT 4
Elev. "A"	252.85	253.07	252.92
Elev. "B"	253.03	253.22	253.04
Elev. "C"	253.04	253.22	253.02
Elev. "D"	252.92	253.07	252.85



TYPICAL



ALTERNATE

(This detail to be used when existing anchor bolt has broken off in the bent cap or threads are located in the bent cap or as directed by the Engineer.)

* Threads shall extend to a min. of ¼" below the top most plate of the existing bearing.

* * Required length to be field verified. Bolt extensions shall begin at or below existing bolt threads.

ANCHOR BOLT DETAILS

Scale: N.T.S.

Note: For additional information, see SP Job BB1003 "Modification of Raised Bridge Sturcture".

LEGEND

Demolition

New Concrete

STATE OF ARKANSAS ★ ★ ★ LICENSED PROFESSIONAL ENGINEER ★ ★ ★ No. 15148 JOSHUA B. REVEL

BRIDGE ENGINEER 4-15-13

SHEET 3 OF 3
MODIFICATION DETAILS FOR
BRIDGE NO. 03290
HWY. 119 - I-55
MISSISSIPPI COUNTY

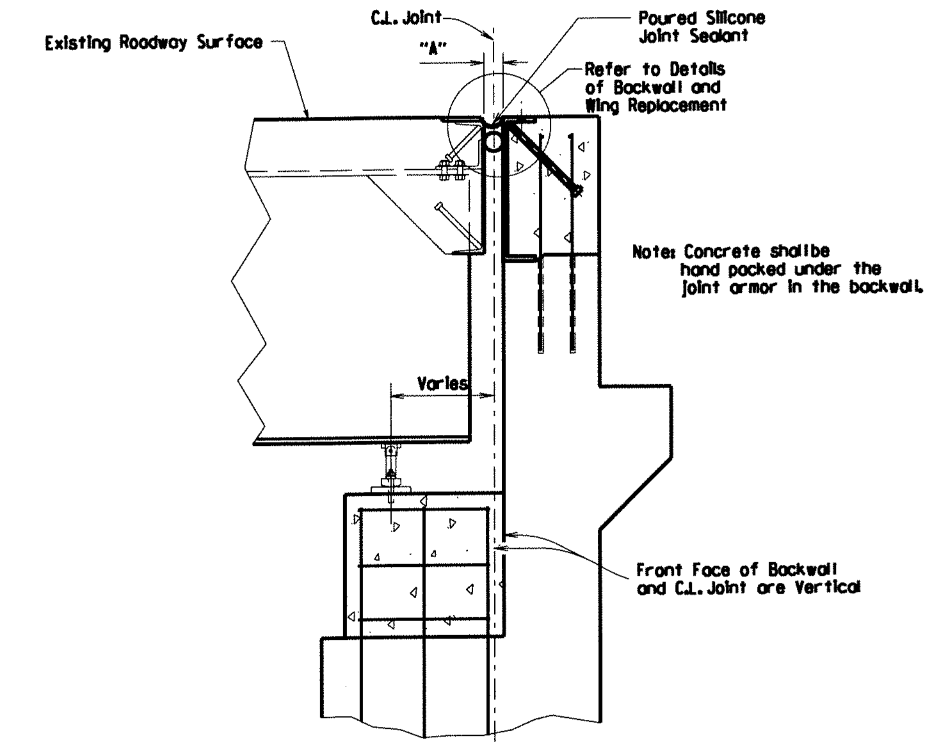
ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: SDC DATE: 3-21-13 FILENAME: ASCH.3-int bents
CHECKED BY: JBR DATE: 4-05-13 SCALE: AS NOTED
DESIGNED BY: BCB DATE: 3-21-13

BRIDGE NO. 03290 DRAWING NO. 53778



SECTION THRU JOINT AT ABUTMENTS

Scale: N.T.S.

SILICONE JOINT DATA

Abutment	"A" Width Perpendicular to Joint at 24 Hour Average Temperature (1) Of:			"D"
	40°F	60°F	80°F	
Bent 1	$2\frac{1}{8}$"	2"	$1\frac{7}{8}$"	$4\frac{1}{2}$"
Bent 5	$2\frac{1}{8}$"	2"	$1\frac{7}{8}$"	$4\frac{1}{2}$"

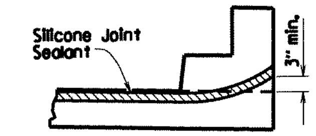
(1) Installation is limited to 40° F min. and 80°F max.

(2) BACKER ROD NOTE:

Use an appropriately sized backer rod at the depth shown in the manufacturer's literature based on the joint width at the time of sealing.

Except as noted, do not install more backer rod than can be sealed in the same day. Backer Rod shall be extended beyond the stage construction joint so that the two pieces can be properly joined together prior to installing sealant in the next stage.

The contractor shall verify separation of the backer rod from the joint material after the joint material has been set.



JOINT SEAL

No Scale

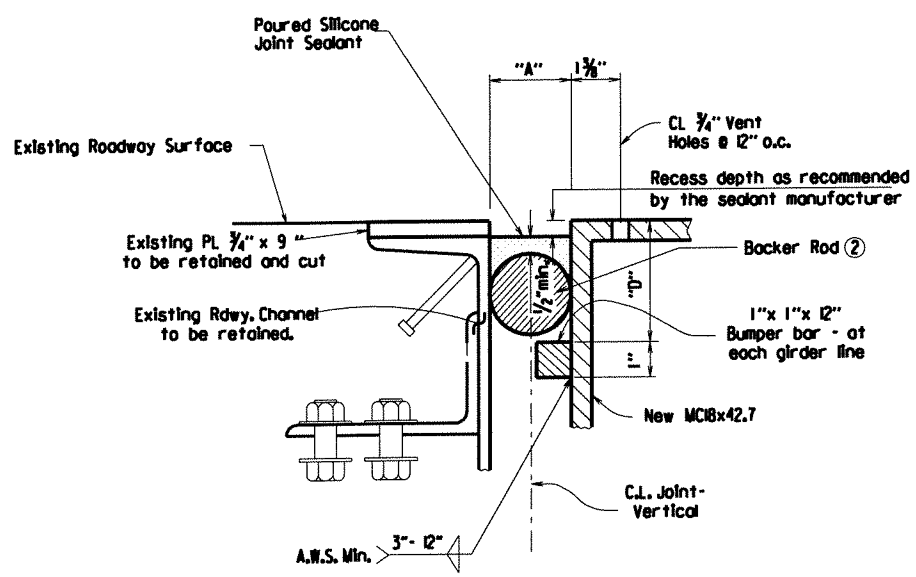
EXPANSION DEVICE NOTES

The Contractor shall cut the existing sliding plate and grind it smooth against existing roadway channel. The surface of the new channel, existing plate, and existing channel shall be finished per the recommendations of the joint seal manufacturer.

New structural steel except some surfaces in contact with concrete shall be painted as specified in Section 807. Existing structural steel shall be cleaned and painted as specified in Section 820.05(b). The surface of the structural steel in contact with the silicone joint sealant shall be finished per the recommendations of the joint seal manufacturer. Cleaning and painting will not be paid for separately but, will be considered subsidiary to the other pay items.

The Contractor shall install the expansion device for the abutments in the following manner: After the abutment backwall forms are in place the expansion device channel shall be installed and adjusted for grade. The grade of the backwall channel shall match the grade of the existing roadway and the existing plate attached to the existing roadway channel. Immediately prior to pouring the backwall concrete, the opening shall be adjusted for temperature, and the backwall constructed.

Poured Silicone Joint will be paid for per Job SP BB1003 "Silicone Joint Sealant." Structural Steel shall be paid for as "Structural Steel for Modification of Raised Bridge Structure M270, Gr. 50W)." All labor, equipment, tools, and incidentals necessary to complete the work will not be paid for separately but, will be considered subsidiary to the other pay items.



DETAIL OF POURED SILICONE JOINT SEAL

No Scale

TABLE FOR WELD

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
To $\frac{3}{4}$" Inclusive	$\frac{1}{4}$"	
Over $\frac{3}{4}$"	$\frac{5}{16}$"	

NOTE: When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15148
JOSHUA B. REVELL

4-15-13

BRIDGE ENGINEER

DETAILS OF POURED SILICONE JOINT FOR BRIDGE NO. 03290 HWY. 119 - I-55 MISSISSIPPI COUNTY

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

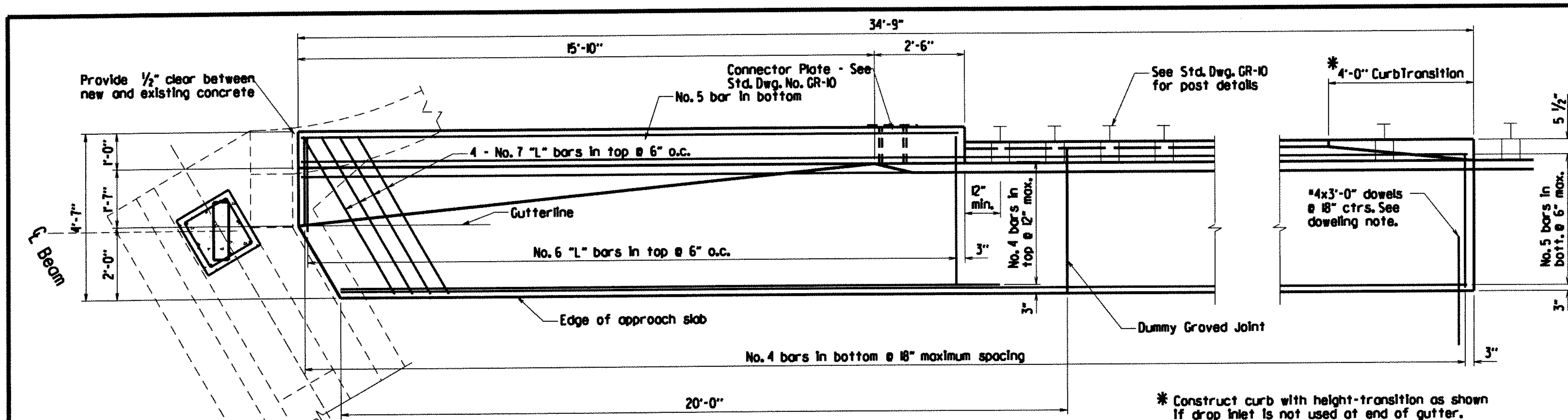
LITTLE ROCK, ARK.

DRAWN BY: SDC DATE: 4-10-13 FILENAME: ASHC.5-Joints
CHECKED BY: JBR DATE: 4-10-13 SCALE: As Noted
DESIGNED BY: BCB DATE: 4-10-13

BRIDGE NO. 03290 DRAWING NO. 53779

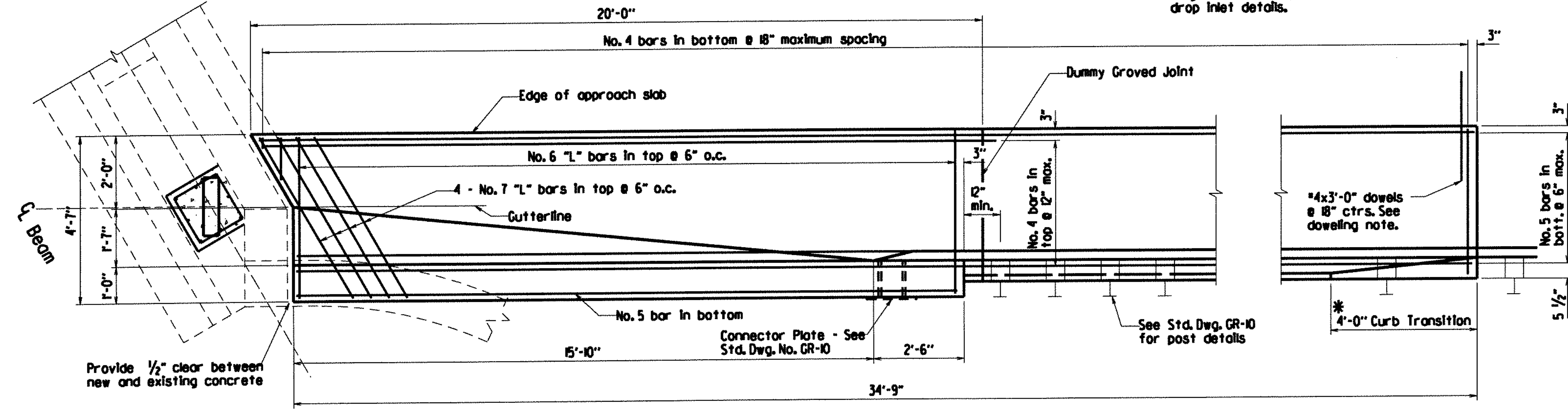
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	179	215

① 03290 - SPECIAL 3 GUTTER - 53780



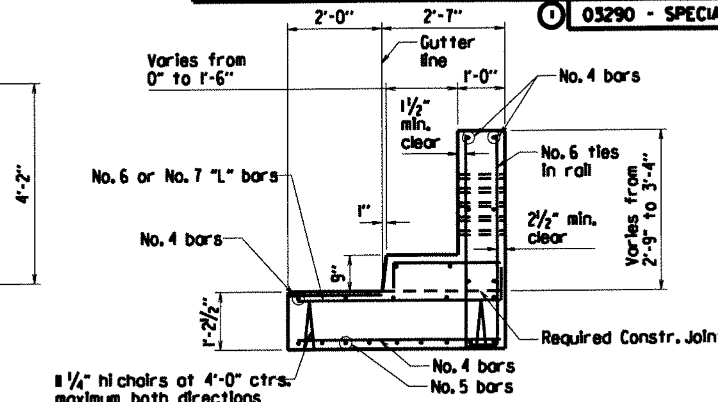
✱ Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construct curb fullheight (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.



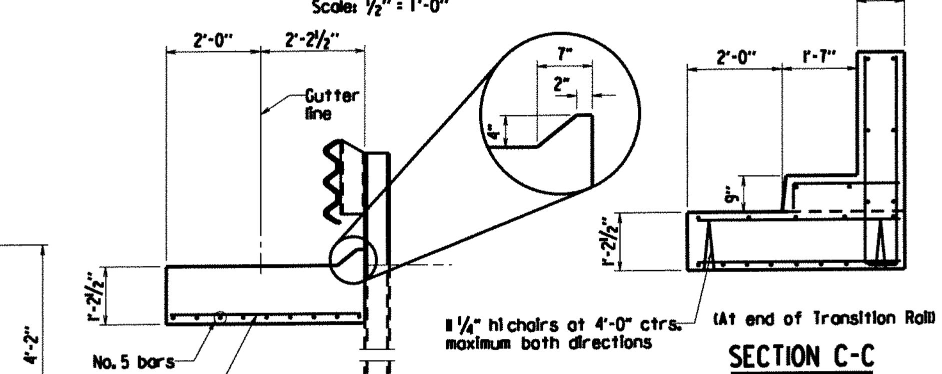
PLAN - SKEWED BRIDGES

Scale: ½" = 1'-0"



SECTION A-A

Scale: ½" = 1'-0"



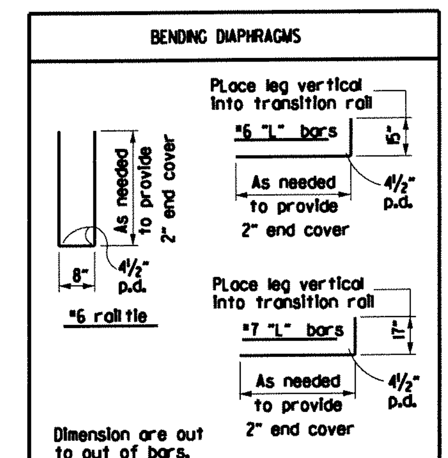
SECTION B-B

Scale: ½" = 1'-0"

SECTION C-C

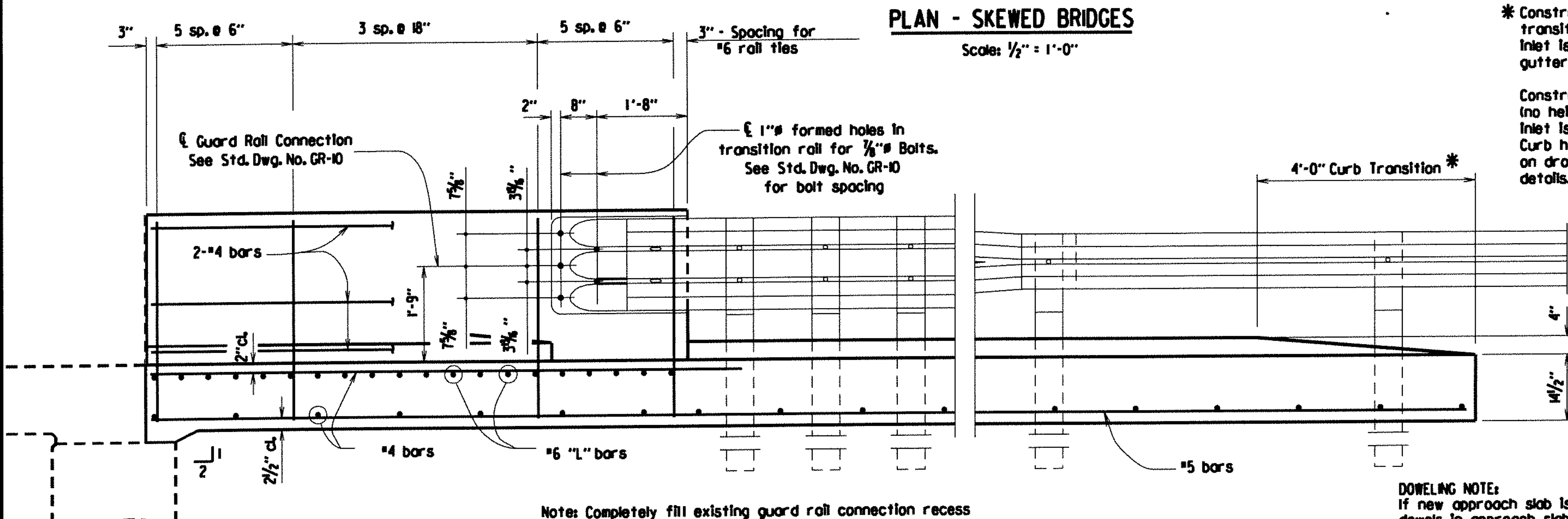
Scale: ½" = 1'-0"

QUANTITIES FOR ONE PAIR OF APPROACH GUTTERS	
CONCRETE	REINFORCING STEEL
CU. YD.	LB.
18.66	1851



✱ Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construct curb full height (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.



Note: Completely fill existing guard rail connection recess with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to 'Approach Gutters (Type Special 3)'.

LONGITUDINAL SECTION THRU GUTTER

DOWELING NOTE:
If new approach slab is used, place dowels in approach slab using 18" embedment.

GENERAL NOTES

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Pavement.

Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi.). Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 15148 JOSHUA B. REVELL

4-15-13

BRIDGE ENGINEER

DETAILS OF TYPE SPECIAL 3 APPROACH GUTTERS

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

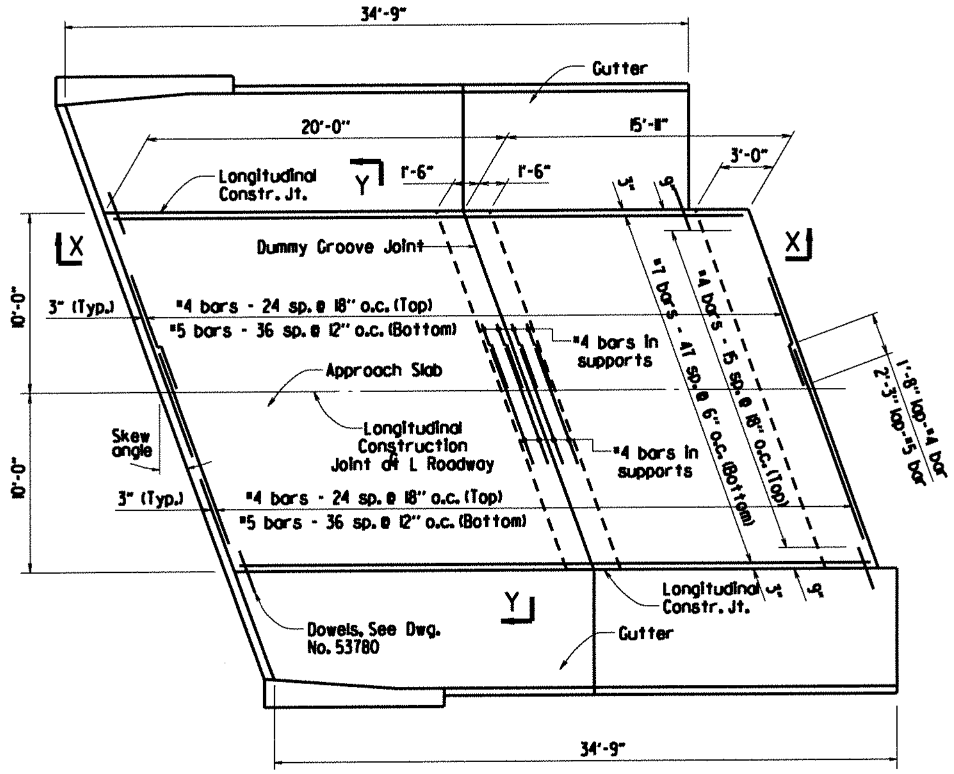
DRAWN BY: SDC	DATE: 4-3-13	FILENAME: ASHC.4-Gutters
CHECKED BY: JBR	DATE: 4-5-13	SCALE: AS NOTED
DESIGNED BY: BCB	DATE: 4-2-13	

BRIDGE NO. 03290 DRAWING NO. 53780

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB1003	180	215

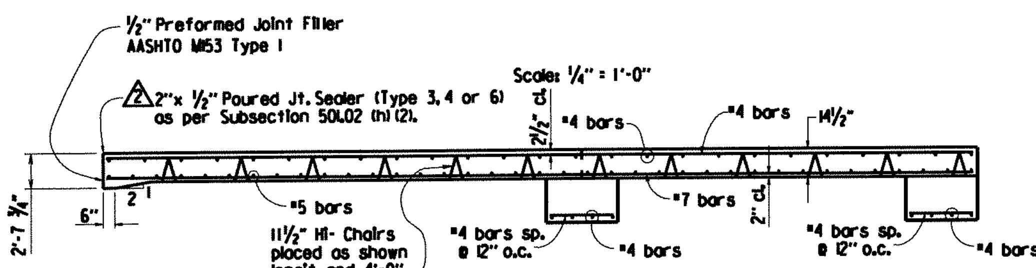
(1) 03290 - APPROACH SLAB - 53781

Note: Top of approach slab shall be given a tine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.



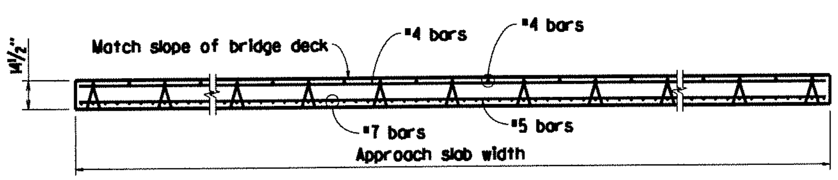
PLAN VIEW SHOWING APPROACH FOR SKEWED BRIDGE

Scale: 3/16" = 1'-0"



SECTION X-X

No Scale



SECTION Y-Y

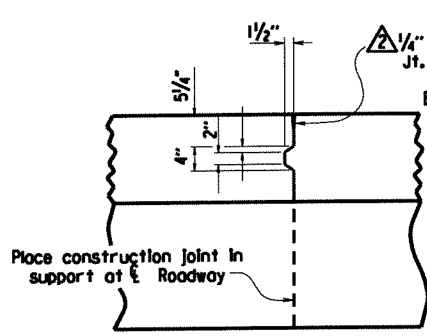
No Scale

GENERAL NOTES

Concrete shall be Class S(AE) (f'c = 4,000 psi).

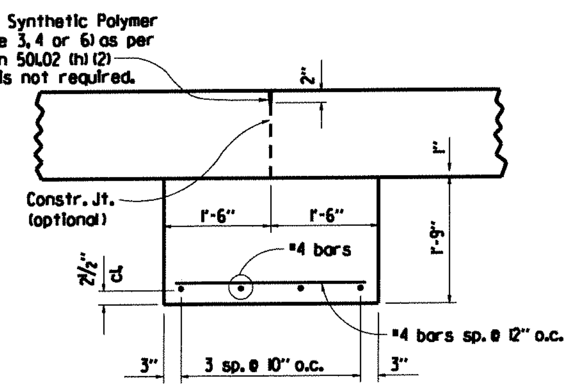
Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi). Fabricate bar lengths to provide 2" minimum cover at each end.

Approach Slabs will be measured and paid for in accordance with Section 504 of the Standard Specifications.



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

Scale: 3/4" = 1'-0"



DETAILS OF DUMMY GROOVED JOINT

Scale: 3/4" = 1'-0"

QUANTITIES FOR ONE APPROACH SLAB

Slab Width	Reinforcing Steel	Concrete (Cu. Yds.)
20'-0"	4928 lb.	44

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15148
JOSHUA B. REVELL
4-15-13
BRIDGE ENGINEER

DETAILS OF TYPE SPECIAL I APPROACH SLAB

ROUTE I-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

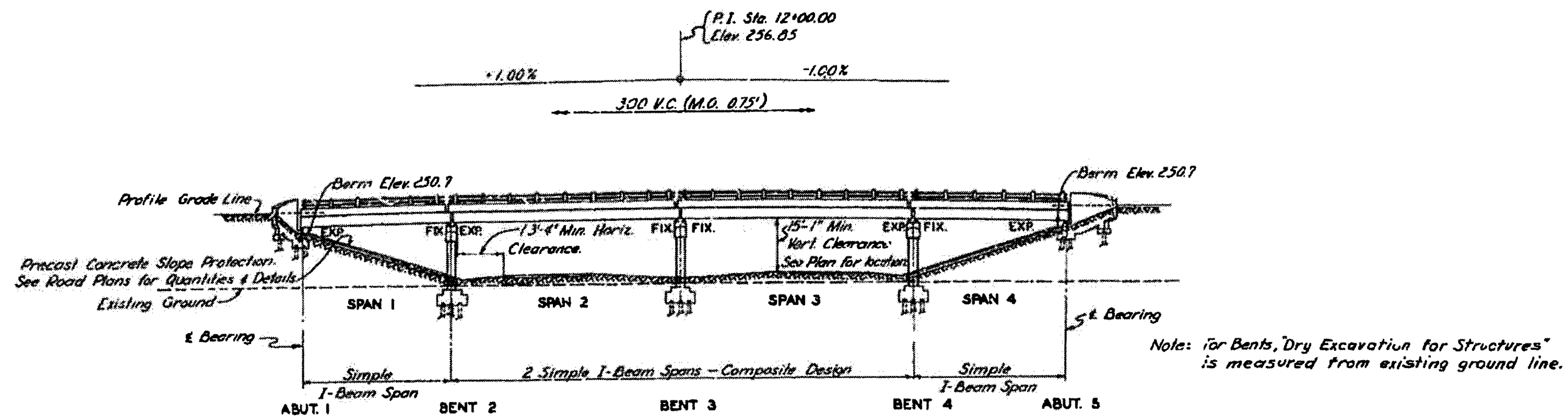
DRAWN BY: SDC DATE: 4-10-13 FILENAME: ASHC.6-AppSlabs

CHECKED BY: JBR DATE: 4-10-13 SCALE: AS NOTED

DESIGNED BY: BCB DATE: 4-10-13

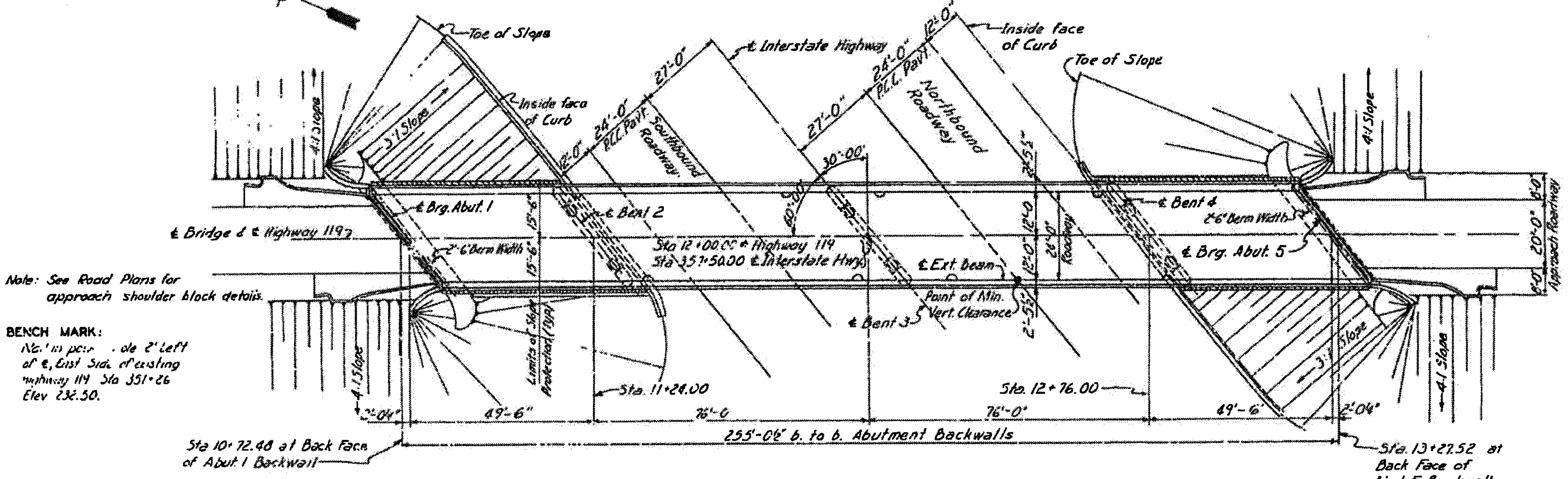
BRIDGE NO. 03290 DRAWING NO. 53781

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			181	215
STATE JOB NO.	881003				
03290 - LAYOUT - 53782					



ELEVATION

Normal to ℄ Bents.



PLAN

Note: See Road Plans for approach shoulder block details.

BENCH MARK:
Nail in pole . ole 2' Left of ℄, East Side of existing highway 119 Sta. 351+26
Elev. 232.50.

GENERAL NOTES

SPECIFICATIONS: *Arkansas State Highway Commission (1940 Standard) and Special Provisions.*

DESIGN: *In accordance with the A.A.S.H.O. Standard Specifications for Highway Bridges, 1953 Edition. Live Load H20-44*

WELDING: *All welding shall be in accordance with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, 1956 Edition. Qualification of welding operators will be required.*

DESIGN UNIT STRESSES:

Concrete (Class "S")	fc	= 1200 p.s.i. (n=10)
(Class "A")	fc	= 840 p.s.i. (n=15)
Reinforcing Steel	fs	= 20,000 p.s.i.
Structural Steel	fs	= 18,000 p.s.i.

CONCRETE: *All concrete in bent caps, abutments, wing walls and superstructure shall be Class "S" air-entrained. Concrete in bent footings and columns shall be Class "A", air-entrained. All exposed corners of concrete shall be beveled ¾" unless otherwise noted.*

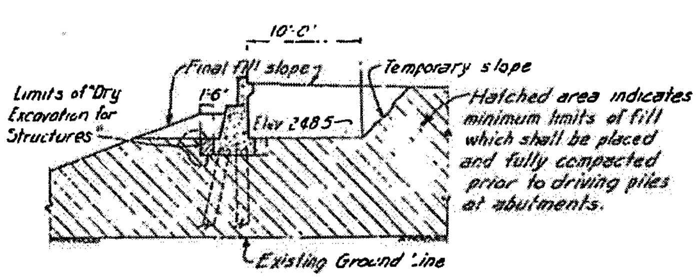
RUBBED FINISH: *Exposed surfaces of bents, abutments, wing walls and vertical surfaces of curbs and parapets shall receive a rubbed finish after removal of forms.*

REINFORCEMENT: *Reinforcing steel shall be intermediate grade. Dimensions to reinforcing steel on drawings are to ℄ of bars, except where the clear distance is noted from the face of concrete. Bars shall be lapped a minimum of 30 diameters at splices unless otherwise shown or noted.*

CONSTRUCTION JOINTS: *Construction joints shall be made only where shown on the plans.*

PILING: *For type of piling see details and Special Provisions. Piles shall be driven to a minimum capacity of 28 tons each at bents and 25 tons each at abuts. Minimum penetration into natural ground shall be 20 feet. Test piles shall be driven at locations shown on the plans and loaded in accordance with the Special Provisions except loading tests may be waived by the Engineer if the formulae in the Special Provisions indicate that adequate capacity has been attained. The lengths for ordering standard piles shall be determined by the Engineer from the test piles.*

BRIDGE NAME PLATE: *One name plate shall be furnished at the location shown on the plans bearing the legend "Highway 119 Grade Separation" and showing year of construction. Details shall conform to Type "C" name plate shown on Arkansas State Highway Commission Drawing No. 2389.*



FILL AT ABUTMENTS

Note- Limits of fill and "Dry Excavation for Structures" for footings under wing walls are similar.

INDEX OF DRAWINGS

** These sheets are not included. Details are same as shown on corresponding sheets for Bridges over Upper Sandy Bayou at Sta. 62+00.00.*

SUBMITTED BY:
REGISTERED PROFESSIONAL ENGINEER ARKANSAS NO. 629

SVERDRUP & PARCEL INC
ENGINEERS ARCHITECTS
ST. LOUIS MO

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION
AT STA. 357+50.00

GENERAL PLAN AND ELEVATION

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK ARK.

DRAWN BY T.C. DATE DEC. 1957 SCALE NOT TO SCALE
TRACED BY R.L.D. DATE DEC. 1957
CHECKED BY R.J.S. DATE JAN. 1958 SHEET 1 OF 11

BRIDGE NO. 3290 DRAWING NO. 53782

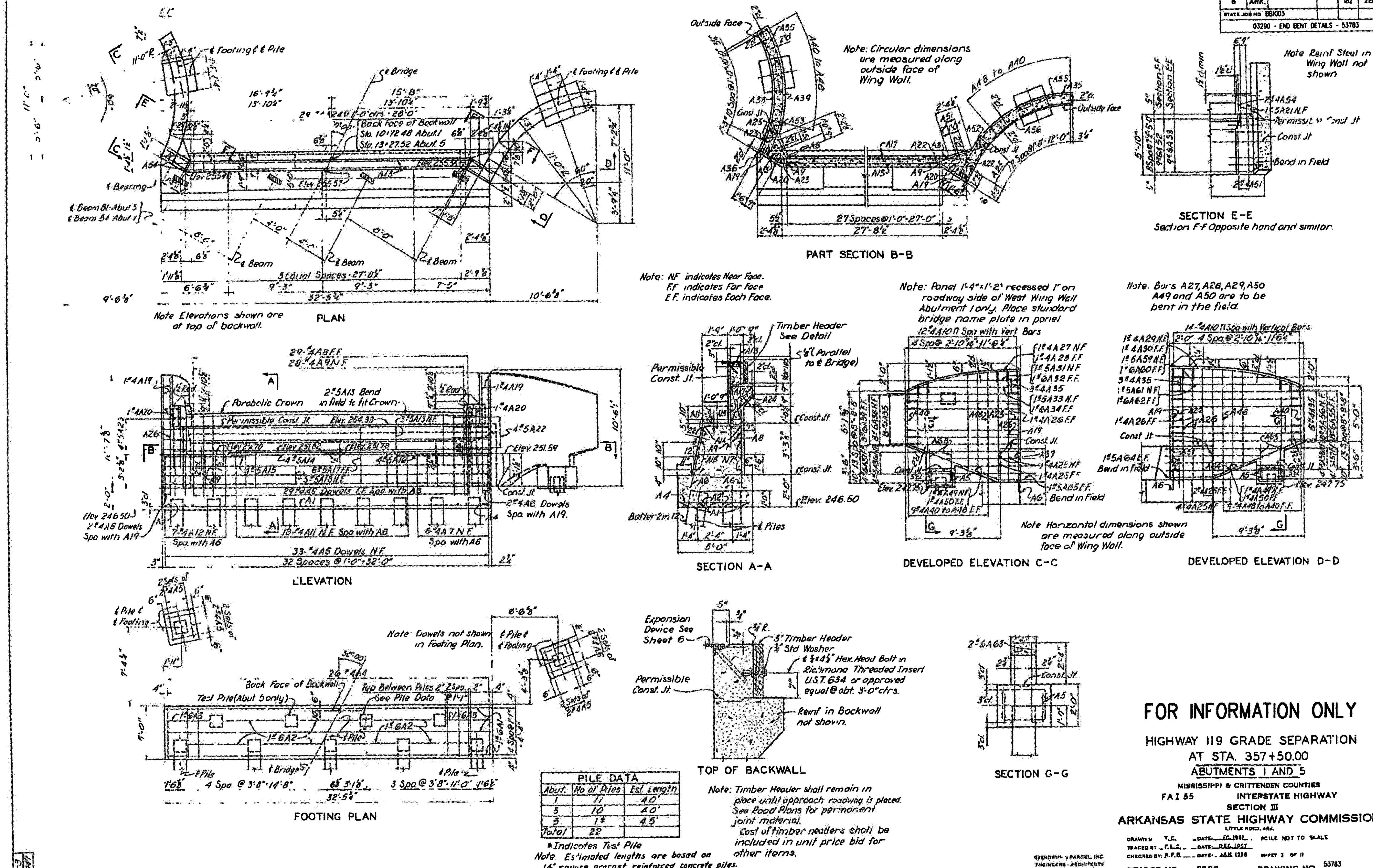
Note: Do not scale this drawing. Follow dimensions.

1343-3
5753622

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			182	215

STATE JOB NO. 881003

03290 - END BENT DETAILS - 53783



PILE DATA		
Abut.	No of Piles	Est Length
1	11	40'
5	10	40'
5	1*	45'
Total	22	

*Indicates Test Pile

Note Estimated lengths are based on 14" square precast reinforced concrete piles.

Note: Timber Header shall remain in place until approach roadway is placed. See Road Plans for permanent joint material.
Cost of timber headers shall be included in unit price bid for other items.

Note: Do not scale this drawing. Follow dimensions.

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION
AT STA. 357+50.00
ABUTMENTS 1 AND 5

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

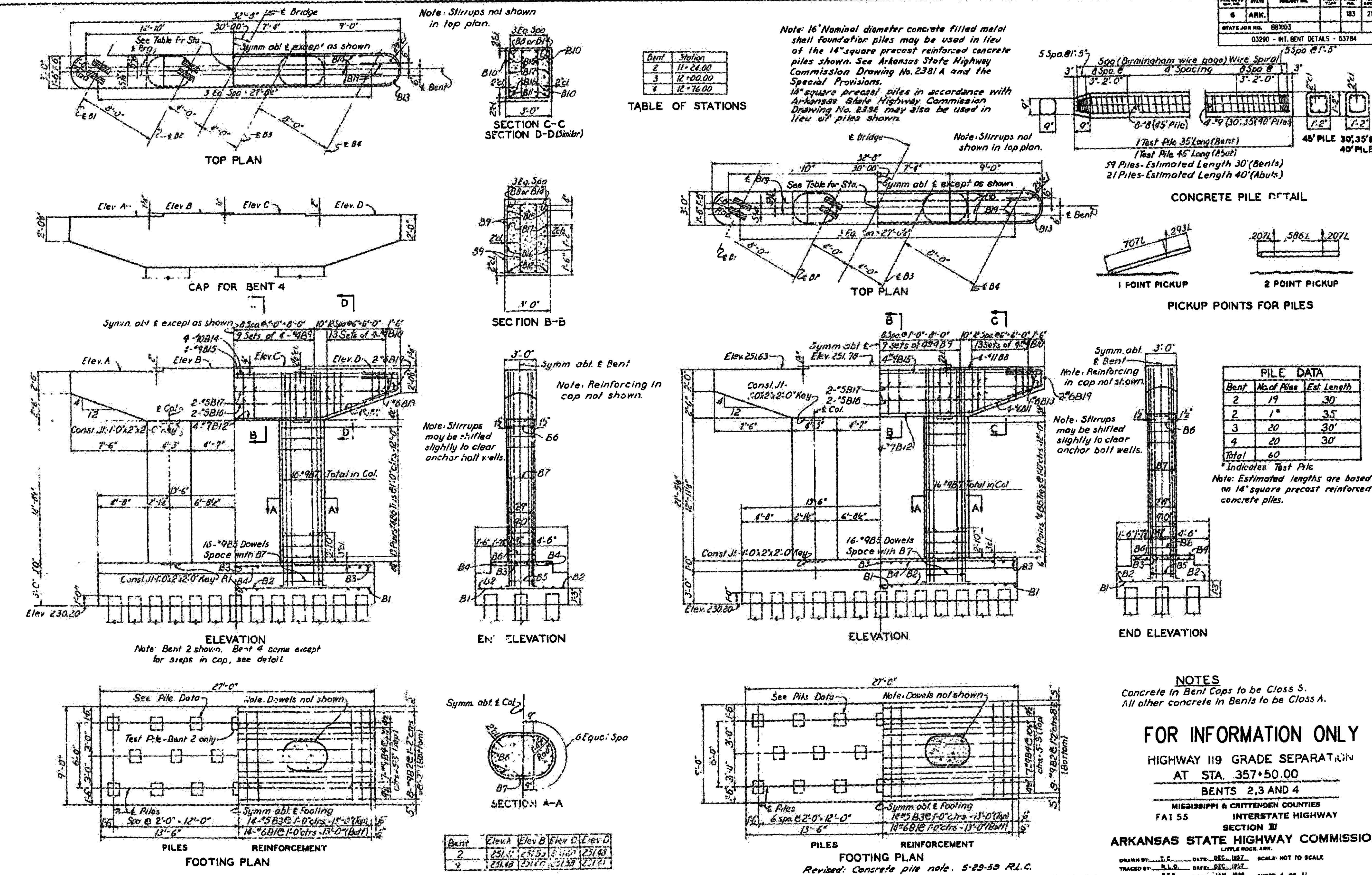
DRAWN BY T.C. DATE: DEC 1957 SCALE: NOT TO SCALE
TRACED BY F.L.Z. DATE: DEC 1957
CHECKED BY: R.F.B. DATE: JAN 1958 SHEET 3 OF 11

SVERDRUP & PARCEL, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO

BRIDGE NO. 3290 DRAWING NO. 53783

1343-3
5/13/449

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			183	215
STATE JOB NO. 881003					
03290 - INT. BENT DETAILS - 53784					



Bent	Station
2	11+24.00
3	12+00.00
4	12+76.00

TABLE OF STATIONS

Note: 16" Nominal diameter concrete filled metal shell foundation piles may be used in lieu of the 14" square precast reinforced concrete piles shown. See Arkansas State Highway Commission Drawing No. 2381 A and the Special Provisions.
14" square precast piles in accordance with Arkansas State Highway Commission Drawing No. 2392 may also be used in lieu of piles shown.

PILE DATA		
Bent	No. of Piles	Est. Length
2	19	30'
2	1*	35'
3	20	30'
4	20	30'
Total	60	

*Indicates Test Pile
Note: Estimated lengths are based on 14" square precast reinforced concrete piles.

Bent	Elev A	Elev B	Elev C	Elev D
2	[illegible]	[illegible]	[illegible]	251.63
4	251.48	[illegible]	[illegible]	[illegible]

TOP OF BENT CAP ELEVATIONS

Note: Do not scale this drawing. Follow dimensions

NOTES

Concrete in Bent Caps to be Class S.
All other concrete in Bents to be Class A.

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION
AT STA. 357+50.00

BENTS 2,3 AND 4

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: T.C. DATE: DEC. 1957 SCALE: NOT TO SCALE
TRACED BY: R.L.O. DATE: DEC. 1957
CHECKED BY: R.Z.B. DATE: JAN. 1958 SHEET 4 OF 11

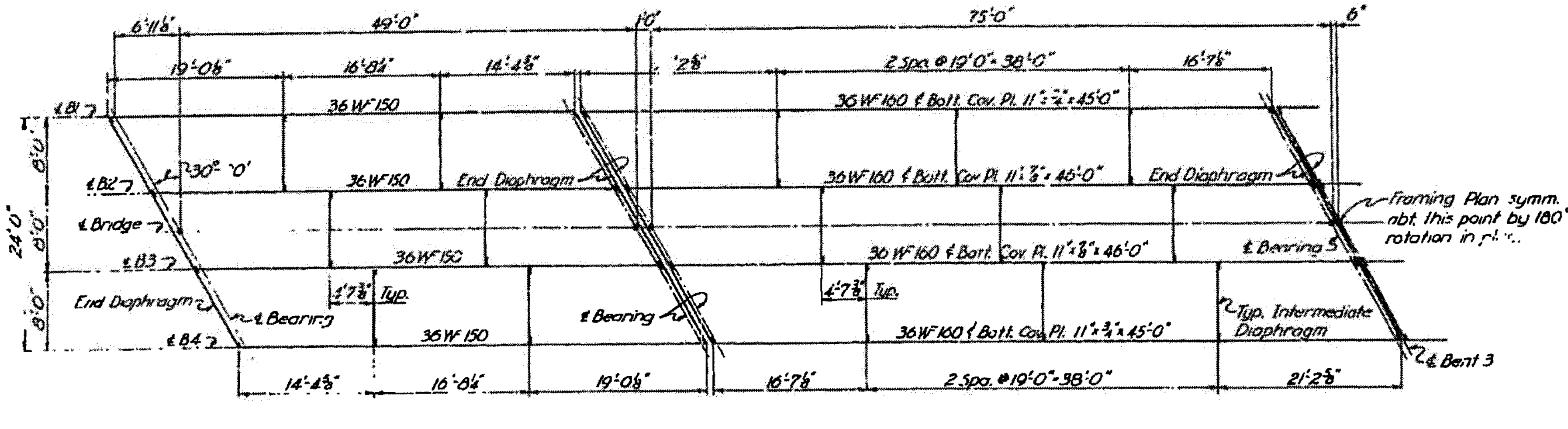
SVERDRUP & PARCEL, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

BRIDGE NO. 3290 DRAWING NO. 53784

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			184	215

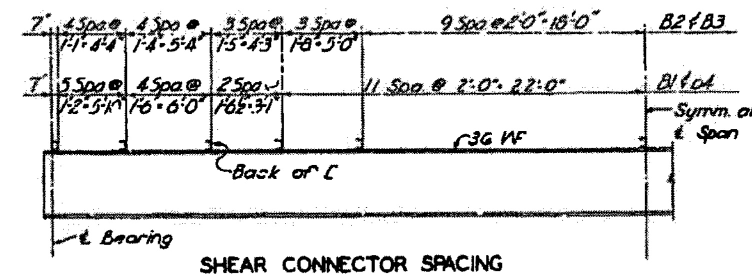
STATE JOB NO. 881003

03290 - FRAMING DETAILS - 53785



STEEL FRAMING PLAN

Note: See Sheet 6 for Cover Plate Detail. Dimensions to diaphragms are measured back to back of channels at top of beam.

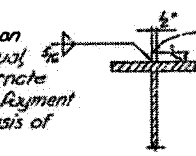


SHEAR CONNECTOR SPACING SPANS 2 & 3

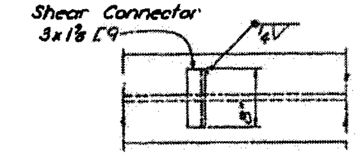
Note: 4-⅞" ϕ x 4" Long Nelson flux-filled studs or equal, may be used as an alternate for each 3x1⅞ [9 shear connector. Payment will be made on the basis of 3x1⅞ [9 connector.

Note: Back of [s shall be toward center of span.

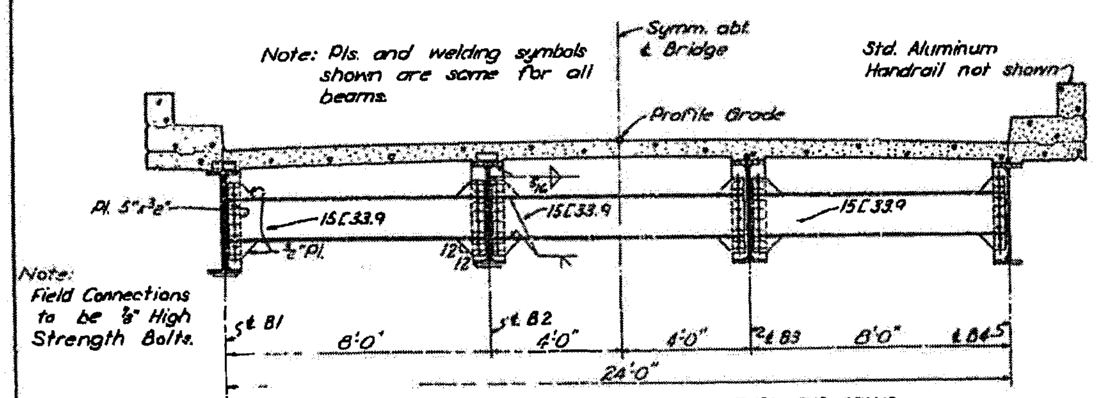
Note: 1-⅞" ϕ x 4" Long Nelson flux-filled stud, or equal, may be used as alternate for each 1"x½"x3" Bar. Payment will be made on the basis of 1"x½"x3" Bar.



DETAIL OF LUG

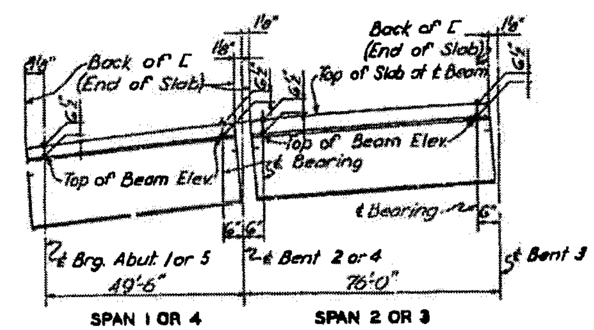


SHEAR CONNECTOR DETAIL

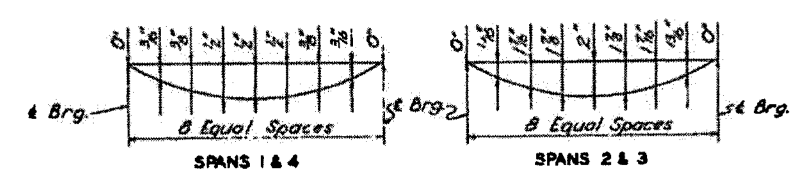


CROSS SECTION AT INTERMEDIATE DIAPHRAGMS

Note: For cross section of end diaphragm see Sheet 6.



BEAM LAYOUT



DEAD LOAD DEFLECTION ORDINATES

Dead load deflection due to weight of steel only is approximately 20% of above ordinates.

NOTES

All longitudinal dimensions shown are measured in a horizontal plane along ℄ Beam.

For Structural Steel Notes see Sheet 6.

TOP OF BEAM ELEVATIONS								
BEAM	SPAN 1		SPAN 2		SPAN 3		SPAN 4	
	Abut. 1	Bent 2	Bent 2	Bent 3	Bent 3	Bent 4	Bent 4	Abut. 5
B1	254.81	255.16	255.17	255.39	255.39	255.24	255.23	254.92
B2	255.00	255.33	255.34	255.54	255.54	255.36	255.35	255.04
B3	255.04	255.35	255.36	255.54	255.54	255.34	255.33	255.00
B4	254.92	255.23	255.24	255.39	255.39	255.17	255.16	254.81

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION AT STA. 357 + 50.00

STEEL FRAMING PLAN AND SECTIONS

MISSISSIPPI & CRITTENDEN COUNTIES

FAI 55 INTERSTATE HIGHWAY

SECTION III

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: T.C. DATE: DEC. 1957 SCALE: NOT TO SCALE

TRACED BY: H.C.Z. DATE: JAN. 1958

CHECKED BY: R.F.B. DATE: JAN. 1958 SHEET 5 OF 11

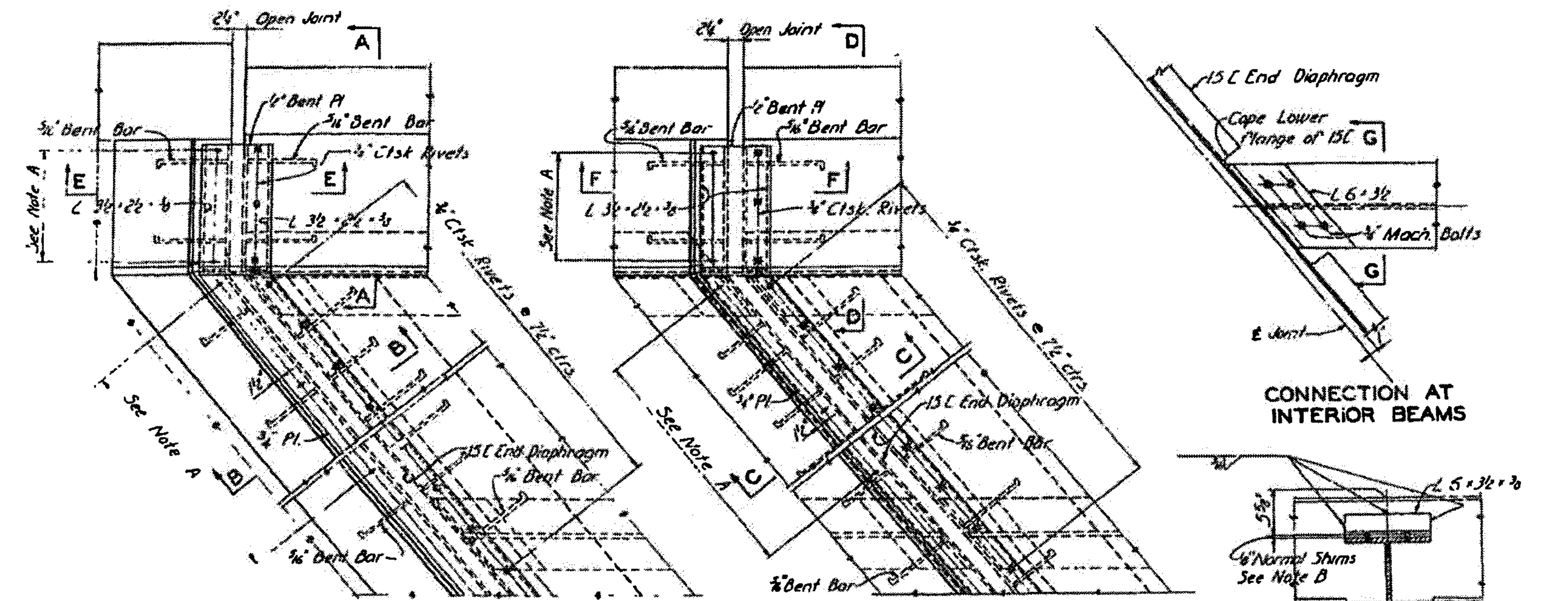
SVERDRUP & PARCEL, INC. ENGINEERS - ARCHITECTS ST. LOUIS, MO.

BRIDGE NO. 3290 DRAWING NO. 53785

Note: Do not scale this drawing Follow dimensions.

B43-3 575145

F.A. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			185	215
STATE JOB NO.	BB1003				
03290 - STEEL DETAILS - 53786					

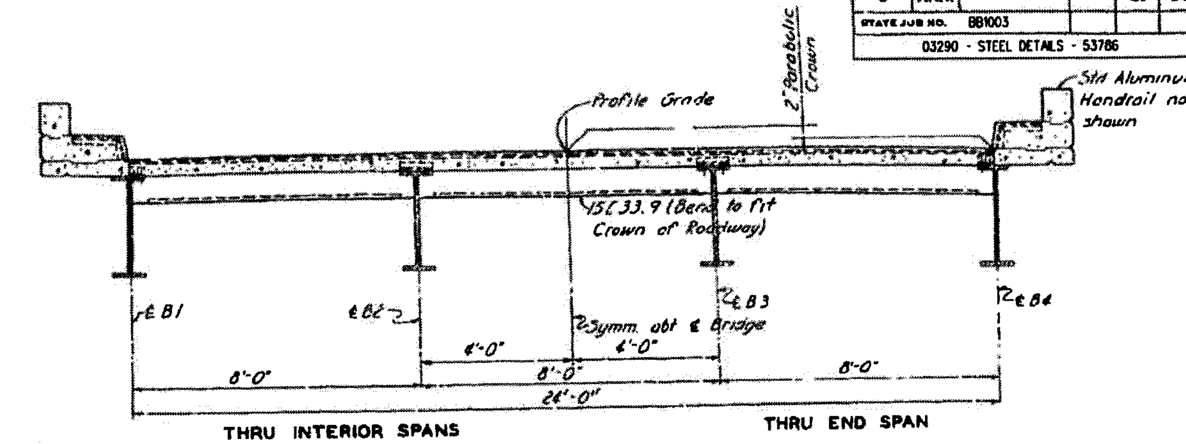


PART PLAN AT ABUTMENTS

PART PLAN AT BENTS

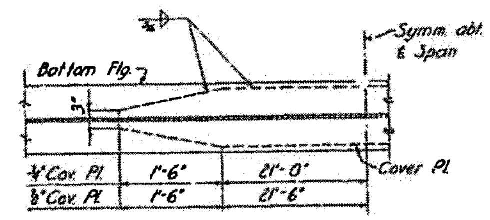
CONNECTION AT INTERIOR BEAMS

SECTION G-G



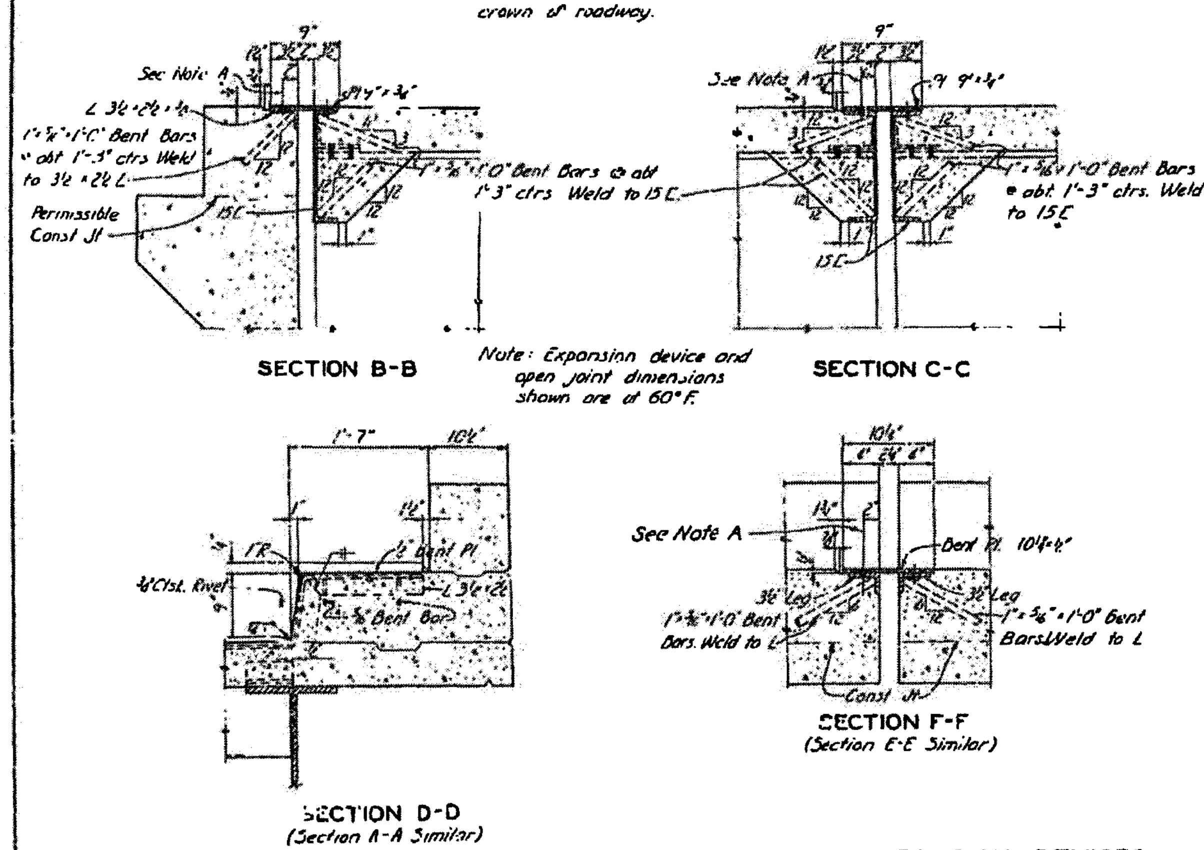
THRU INTERIOR SPANS — THRU END SPAN

CROSS SECTION AT END DIAPHRAGM



COVER PLATE DETAIL

Note: All expansion device material shall be fabricated to fit crown of roadway.



SECTION B-B

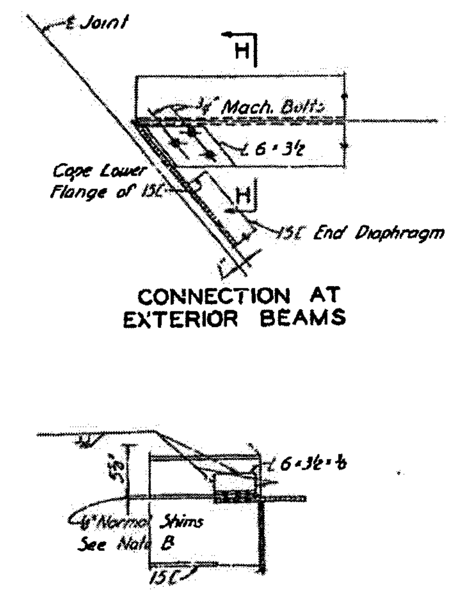
Note: Expansion device and open joint dimensions shown are at 60°F.

SECTION C-C

SECTION D-D
(Section A-A Similar)

SECTION F-F
(Section E-E Similar)

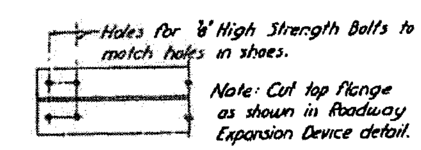
ROADWAY EXPANSION DEVICES



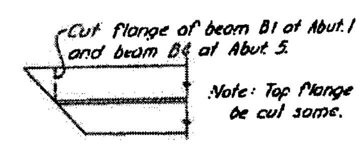
CONNECTION AT EXTERIOR BEAMS

SECTION H-H

Note A: 1½" × ¾" slots in top pl. Tap angle or channel for ⅝" cap screws @ abt. 2'-0" ctrs. Remove screws after construction is completed.
Note B: ⅛" Normal Shim. Provide ¼" of Shims with 2-1/16" Pls and 1-⅛" Pl.



BOTTOM FLANGE OF WF AT BENTS



BOTTOM FLANGE OF WF AT ABUTMENTS

STRUCTURAL STEEL NOTES

Holes for ¾" rivets and ¾" machine bolts shall be 13/16" and holes for ⅞" high strength bolts shall be 15/16"; unless otherwise noted.

Roadway expansion devices, shoes, and bearing plates, shall be included for payment in "Structural Steel in Beam Spans."

Unless otherwise noted, material for structural steel plates and shapes shall conform to A.S.T.M. Spec Designation A7 for Structural Carbon Steel.

Steel surfaces in contact with concrete and contact surfaces of all steel parts shall not be painted. All other steel surfaces shall receive one shop coat of red-lead paint before shipment, one field coat of white lead paint tinted with lamp-black and a finish coat of aluminum paint.

Fabric pads at bearings shall be [illegible] lar and equal to Fabreeka as manufactured by Fabreeka Products Co. Inc. Payment for fabric pads and rubber washers shall be considered included in unit prices bid for other items.

Connections for intermediate diap[illegible] to beam connection plates shall be made with ⅞" high strength bo[illegible]. Each bolt shall be furnished with two hardened washers and one heavy hex nut. See Special Provisions.

Where ¾" machine bolts are shown on the plans, each bolt shall be furnished with one std hex nut and one std plate washer.

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION
AT STA. 357+50.00

STEEL DETAILS

MISSISSIPPI & CRITTENDEN COUNTIES

FAI 55 — INTERSTATE HIGHWAY

SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

SVERDRUP & PARCEL INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

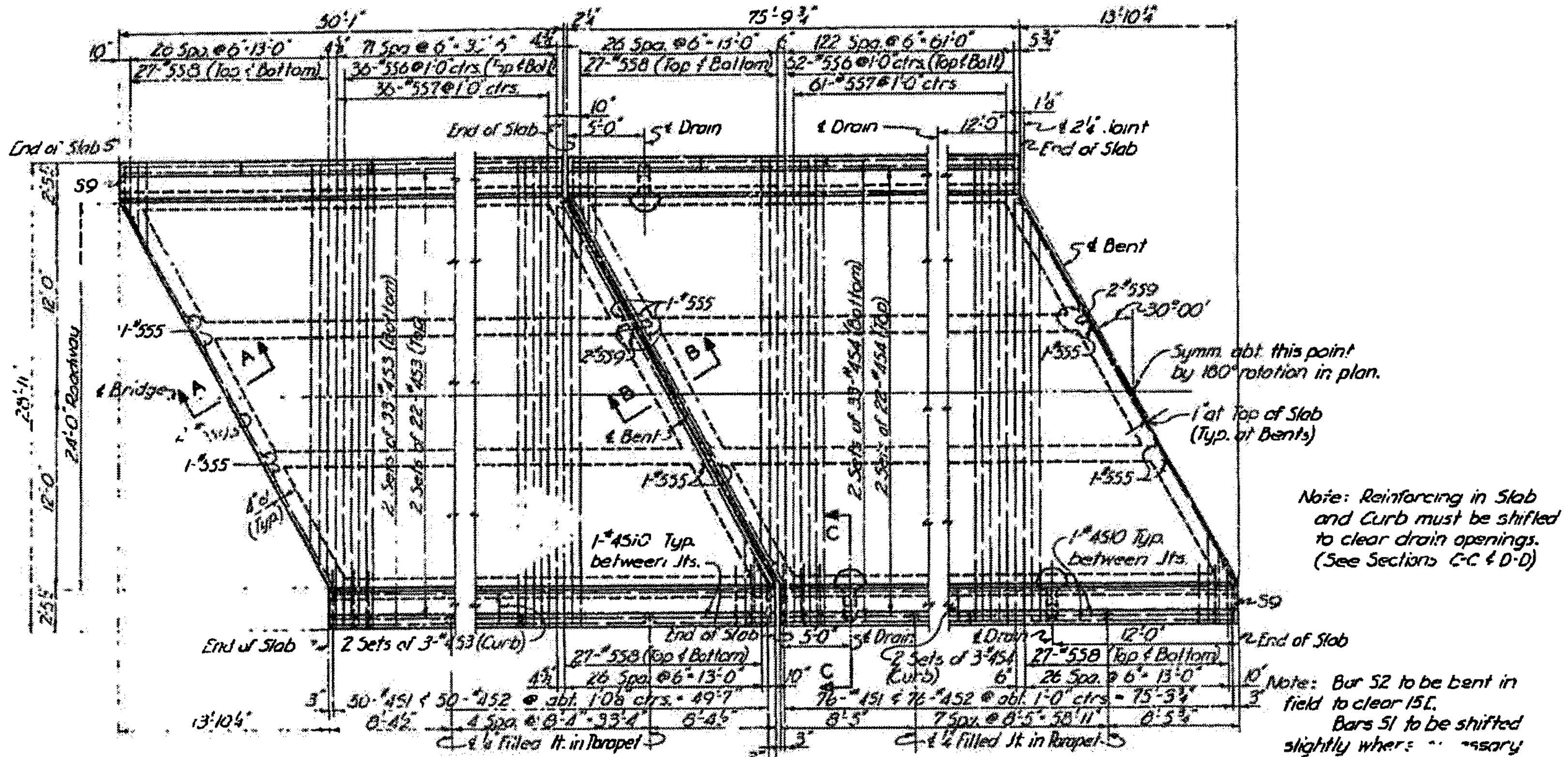
DRAWN BY T.G. DATE DEC. 1957 SCALE: NOT TO SCALE
TRACED BY B.L.O. DATE DEC. 1957
CHECKED BY H.F.B. DATE JAN. 1958 SHEET 8 OF 11

BRIDGE NO. 3290 — DRAWING NO. 53786

Note: Do not scale this drawing Follow dimensions

1343-3
3/31/62

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			186	215
STATE JOB NO. BB1003					
03290 - SLAB DETAILS - 53787					

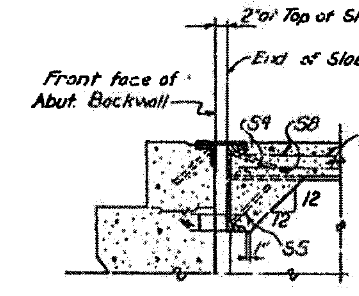


SPAN 1 PART PLAN SPAN 2

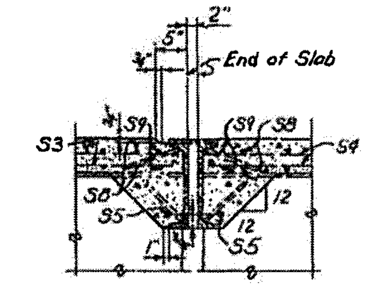
Note: Dimensions shown are measured in a horizontal plane. Reinforcing in curb and parapet and spacing of ¼" filled joints are same for both sides of bridge. Edges of concrete adjacent to ¼" filled joints to be beveled ½".

Note: Reinforcing in Slab and Curb must be shifted to clear drain openings. (See Sections C-C & D-D)

Note: Bar S2 to be bent in field to clear 15C. Bars S1 to be shifted slightly where necessary to clear ...

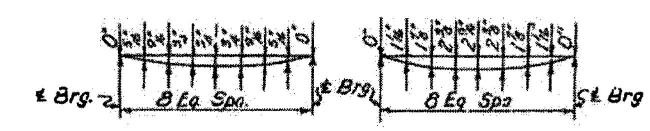


SECTION A-A



SECTION B-B

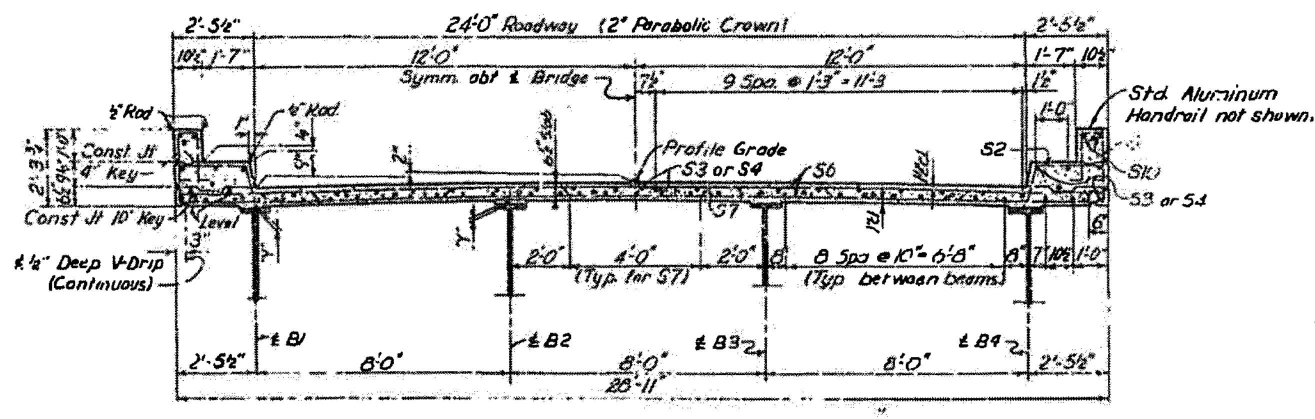
Section at other Bents Similar



SPANS 1 AND 4 SPANS 2 AND 3

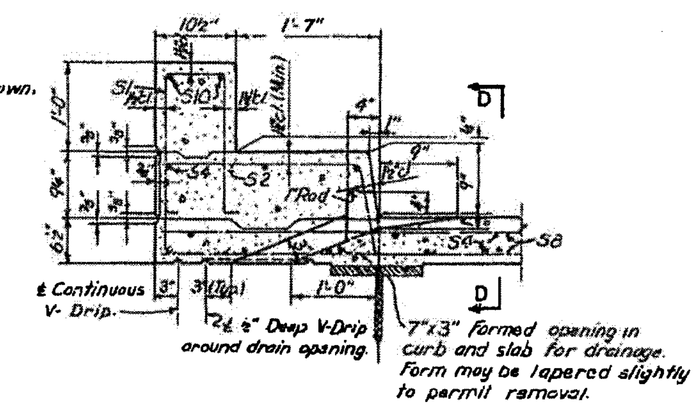
SLAB HAUNCHING "Y" ORDINATES

Note: Haunch heights "Y" include dead load deflection ordinates and ordinates for vertical curve

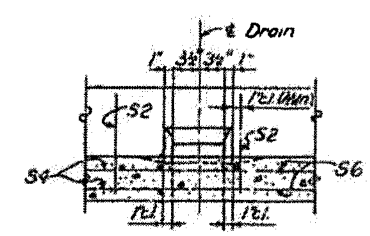


CROSS SECTION

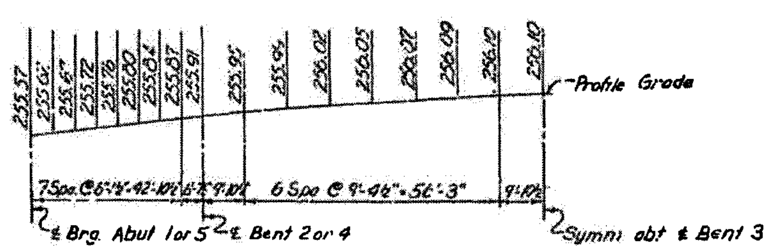
Normal to ℄ Bridge



SECTION C-C



SECTION D-D



PROFILE GRADE ELEVATIONS

NOTES

Beams are designed to carry all superstructure dead load during construction and temporary intermediate supports shall not be used.

Slab concrete shall have cured at least 7 days before curb and parapet concrete is placed.

Where filled joints are shown, the joint filler shall be premoulded and conform to the requirements of A.A.S.H.O. Specification M153, Type III.

Payment for furnishing and placing joint filler shall be included in unit price bid for other items.

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION
AT STA. 357+50.00

SLAB DETAILS

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION III

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY: F.C. DATE DEC. 1957 SCALE NOT TO SCALE
TRACED BY M.C.Z. DATE JAN. 1958
CHECKED BY R.F.B. DATE JAN. 1958 SHEET 7 OF 11

SVERDRUP & PARCEL INC
ENGINEERS & ARCHITECTS
ST. LOUIS, MO

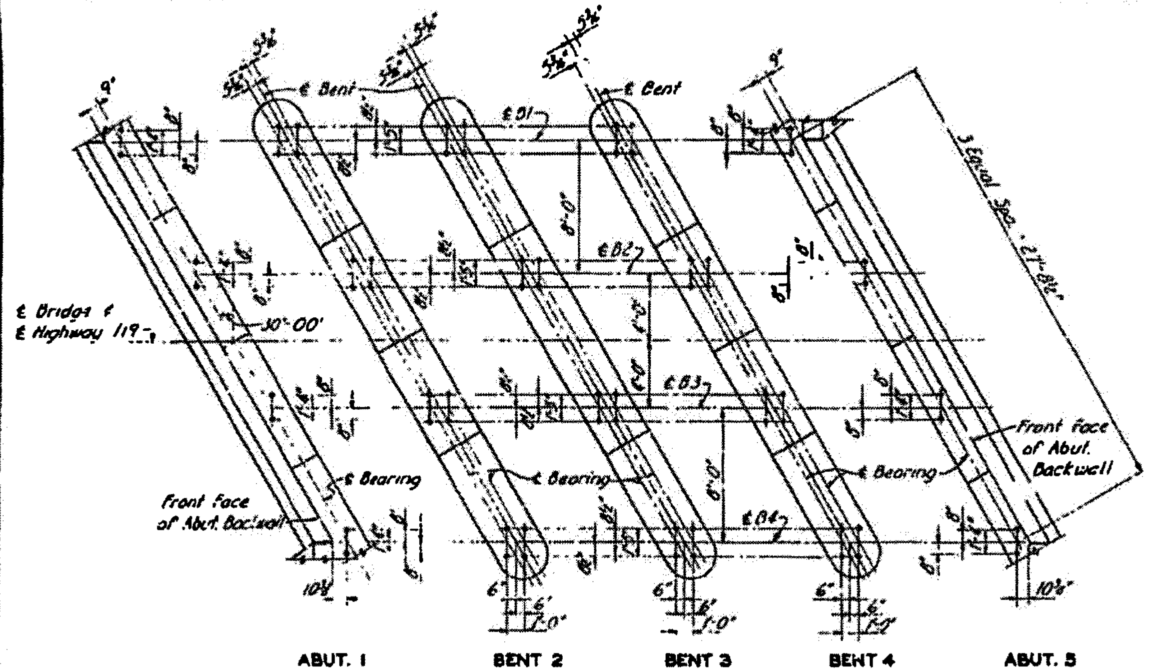
BRIDGE NO 3290 DRAWING NO. 53787

Note: Do not scale this drawing. Follow dimensions.

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			187	215

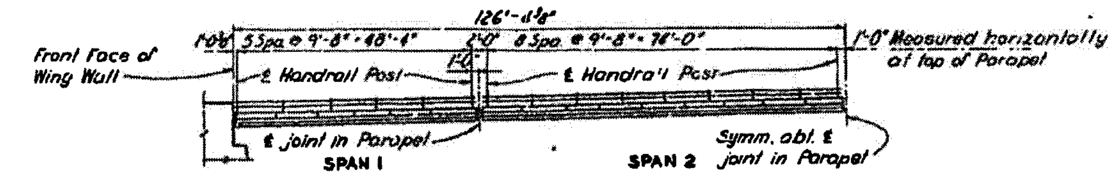
STATE JOB NO. BB1003

03290 - MISCELLANEOUS DETAILS - 53788

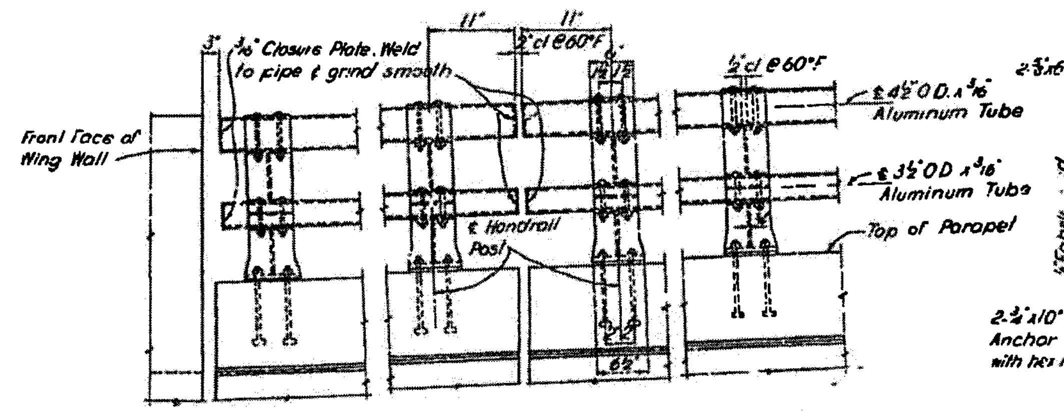


ANCHOR BOLT PLAN

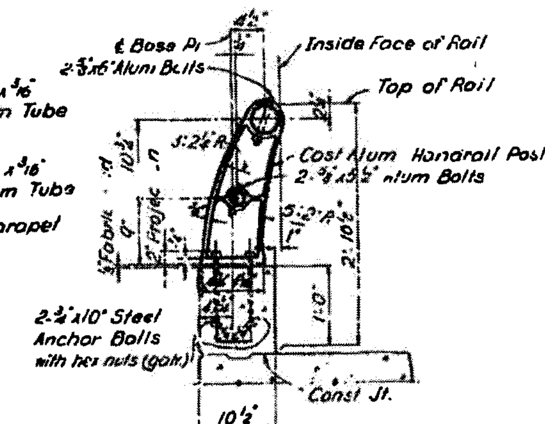
Note: Anchor bolts for shoes shall be placed in wells 3" dia × 1'-6" deep formed in substructure units and located as shown above. After placing anchor bolts, wells shall be completely filled with non-shrink grout containing iron oxide. (Embeco or an approved equivalent.)



HALF ELEVATION OF HANDRAIL



PART ELEVATION



SECTION

STANDARD ALUMINUM HANDRAIL

HANDRAIL NOTES

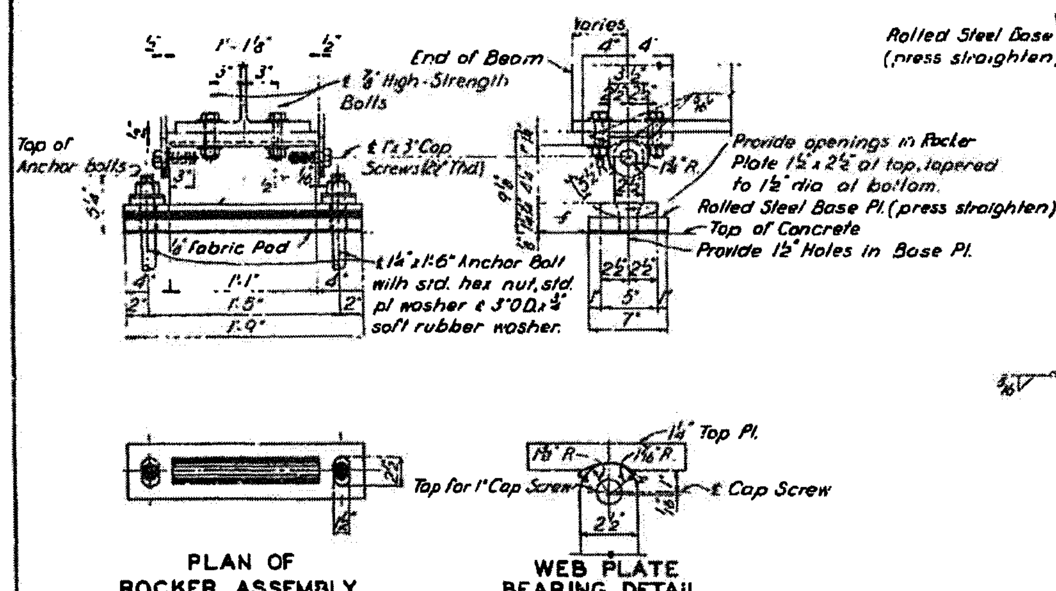
Aluminum bolts for rail connections shall be furnished with oval heads and hex nuts.

A rail connection utilizing set screws is an acceptable alternate, and may be supplied at the Contractor's option.

Outside surfaces of flanges of cast aluminum posts shall be given a No 220 grit dell finish, after which all exposed surfaces of posts shall receive one coat of clear lacquer.

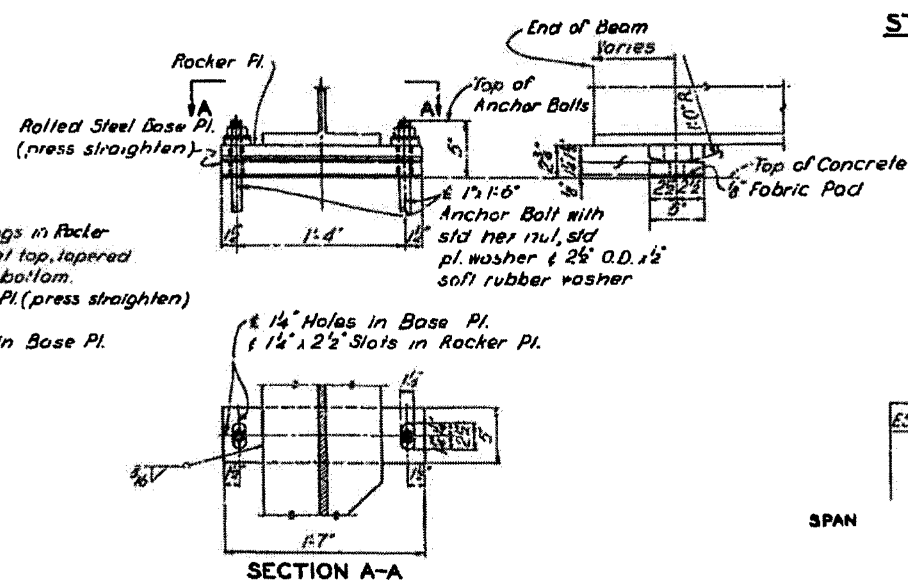
Handrail posts shall be set normal to grade. Aluminum washer shims (max thickness ⅛") may be used between fabric pads and post bases for adjusting rail alignment. Where more shimming of the post is required, concrete bearing areas shall be ground down.

Fabric pads shall be similar and equal to Fabreeka as manufactured by the Fabreeka Products Co, Inc. and shall be cut to the exact size and shape of the post base with no overlap. Payment for fabric pads shall be considered included in unit price bid for other items.



EXPANSION SHOE ES-1

(8 Required)



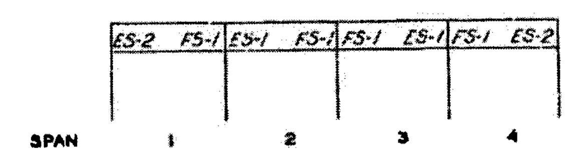
EXPANSION SHOE ES-2

(8 Required)

2¼" Thd	1'-0" Swedged	
1½" Dia.	1'-6"	16 Required (Shoes ES-1)
1¼" Dia.	1'-2"	32 Required (Shoes FS-1)
1" Dia.	1'-6"	16 Required (Shoes ES-2)

ANCHOR BOLTS

See Shoe Details for required nuts, pl. washers € rubber washers.



SHOE ARRANGEMENT

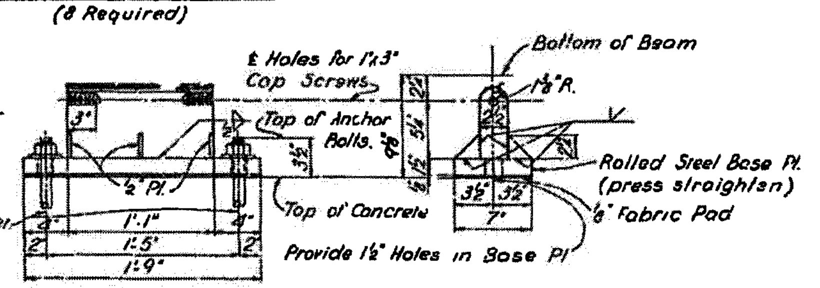
SHOE NOTES

For shoes ES-1 and FS-1, contact surfaces between 2½" web pls. and rocker or base pls. shall be finished to provide full contact prior to welding.

See Sheet 6 for Structural Steel Notes.

Note: Cap for Fixed Shoe FS-1 € other details not shown are same as for Expansion Shoe ES-1

€ 1¼" x 1'-4" Anchor Bolt with std hex nut € std. pl. washer



FIXED SHOE FS-1

(16 Required)

Note: Do not scale this drawing. Follow dimensions.

FOR INFORMATION ONLY

HIGHWAY 119 GRADE SEPARATION
AT STA. 357+50.00

HANDRAIL, SHOES AND ANCHOR BOLT PLAN

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION II

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

SVERDRUP & PARCEL, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

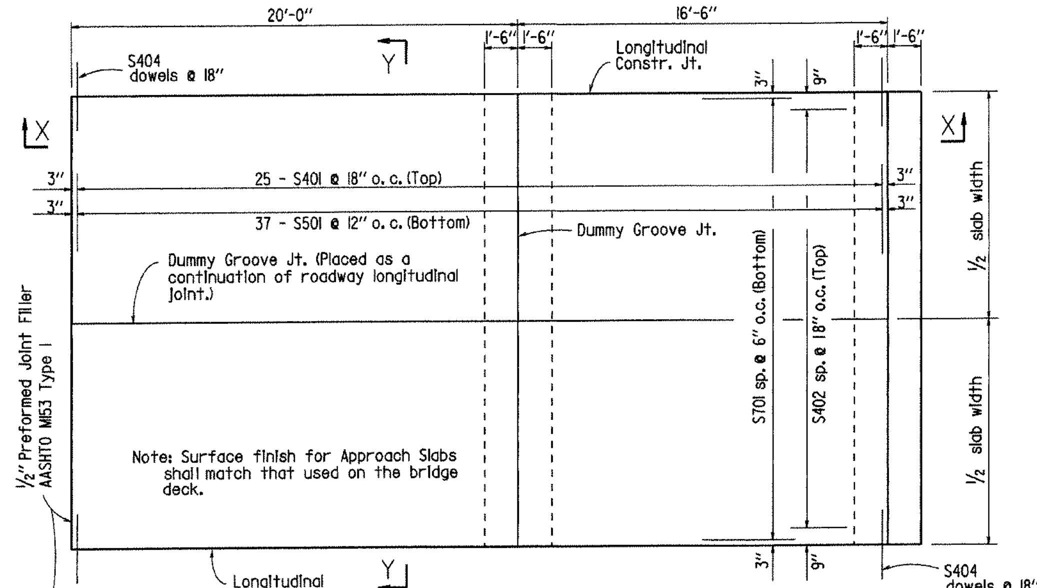
DRAWN BY T.C. DATE DEC. 1957 SCALE: NOT TO SCALE
TRACED BY R.L.O. DATE DEC. 1957
CHECKED BY R.F.B. DATE JAN. 1958 SHEET 8 OF 11

BRIDGE NO. 3290 DRAWING NO. 53788

1943-3
5751.54

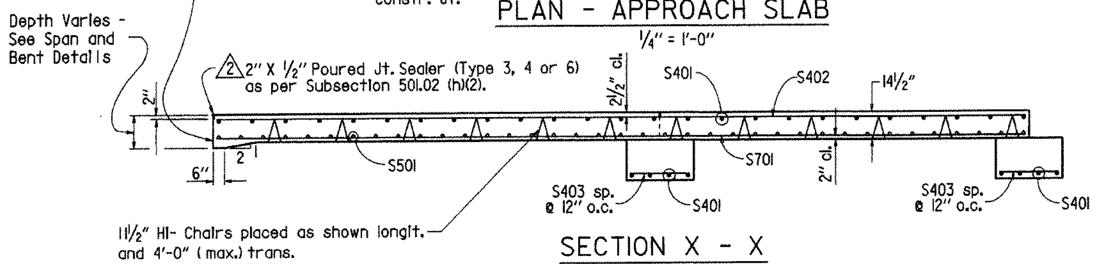
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.		188	
07-14-2010				JOB NO.				

APPROACH SLAB - 2018



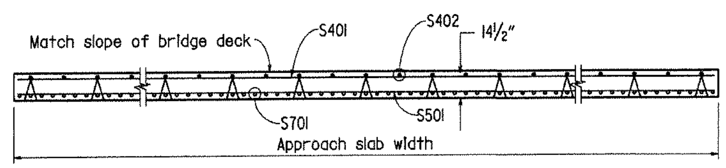
PLAN - APPROACH SLAB

1/4" = 1'-0"



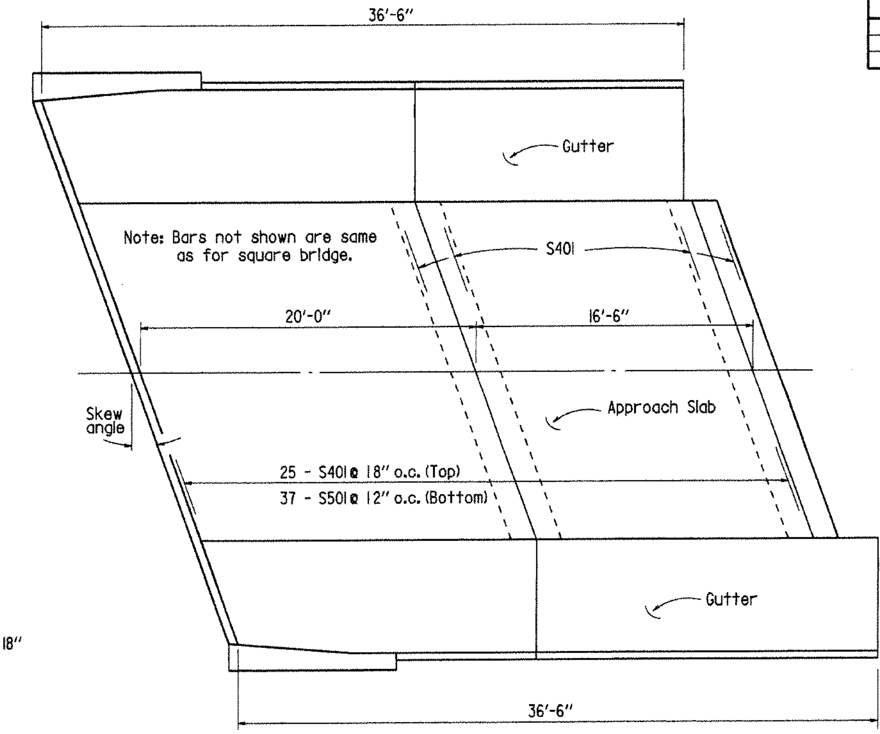
SECTION X - X

N.T.S.



SECTION Y - Y

N.T.S.



PLAN VIEW SHOWING APPROACH FOR SKEWED BRIDGE

3/16" = 1'-0"

BAR LISTS

(Square & Skewed Slabs)

	Mark	No. Req'd.	Length Square	Length Skewed
15'-0" slab width	S401	33	14'-8"	14'-8" (secant skew angle)
	S402	10	36'-2"	
	S403	* 30	2'-8"	
	S404	* 50	3'-0"	
	S501	37	14'-8"	14'-8" (secant skew angle)
	S701	30	36'-2"	
24'-0" slab width	S401	33	23'-8"	23'-8" (secant skew angle)
	S402	16	36'-2"	
	S403	* 48	2'-8"	
	S404	* 50	3'-0"	
	S501	37	23'-8"	23'-8" (secant skew angle)
	S701	48	36'-2"	
36'-0" slab width	S401	33	35'-8"	35'-8" (secant skew angle)
	S402	24	36'-2"	
	S403	* 72	2'-8"	
	S404	* 50	3'-0"	
	S501	37	35'-8"	35'-8" (secant skew angle)
	S701	72	36'-2"	

* Varies with skew angle. The number shown is for square bridges.

GENERAL NOTES

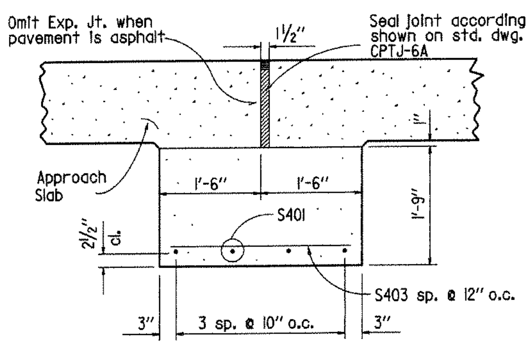
Concrete shall be Class S (AE) (f'c = 4,000 psi).

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Slabs will be measured and paid for in accordance with Section 504 of the Standard Specifications.

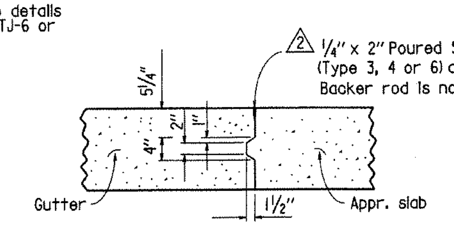
1 Revised and redrawn 4-10-2003. By KDH Ck. By: CJF 4-10-2003

2 Added joint sealer type 07-14-2010 By MJT Ck. By: CJF 07-14-2010



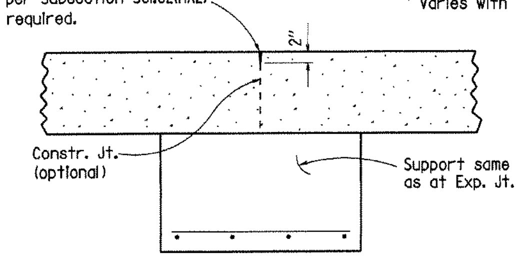
DETAILS OF SUPPORT AT EXPANSION JOINT

3/4" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

3/4" = 1'-0"



DETAILS OF DUMMY GROOVED JOINT

3/4" = 1'-0"

TABLE OF QUANTITIES FOR ONE SQUARE APPROACH SLAB

Slab Width	Reinforcing Steel	Concrete (Cu. Yds.)
15'-0"	3502 lb.	30.72
24'-0"	5556 lb.	49.15
36'-0"	8294 lb.	73.73

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF APPROACH SLAB

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-10-2003 FILENAME: B2018.STD

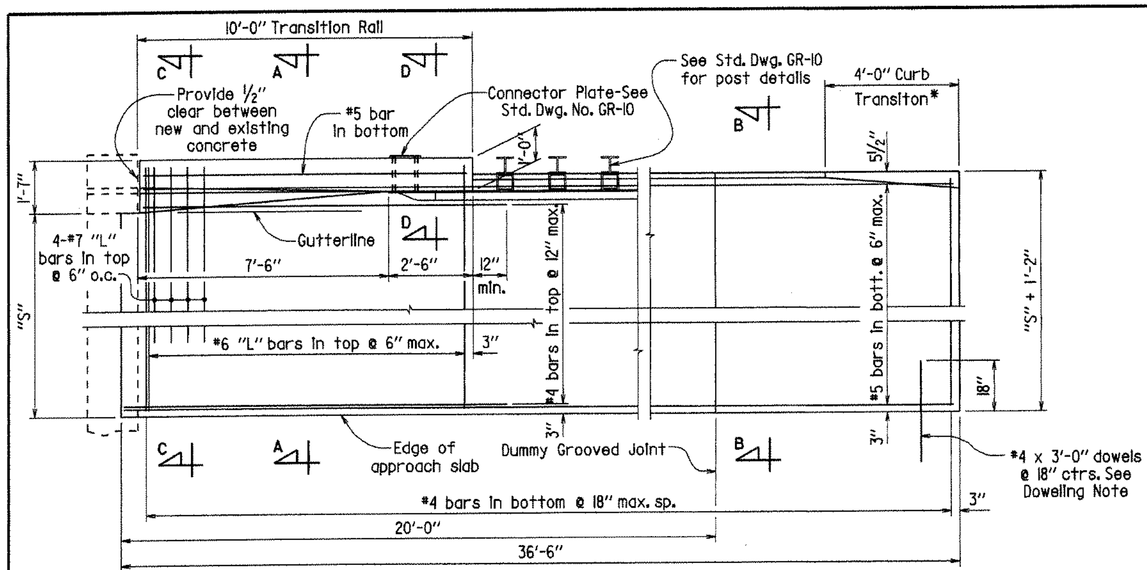
CHECKED BY: CJF DATE: 4-10-2003 SCALE: AS SHOWN

DESIGNED BY: Std. DATE:

BRIDGE NO. DRAWING NO. 2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.		199	
07-14-2010				JOB NO.				

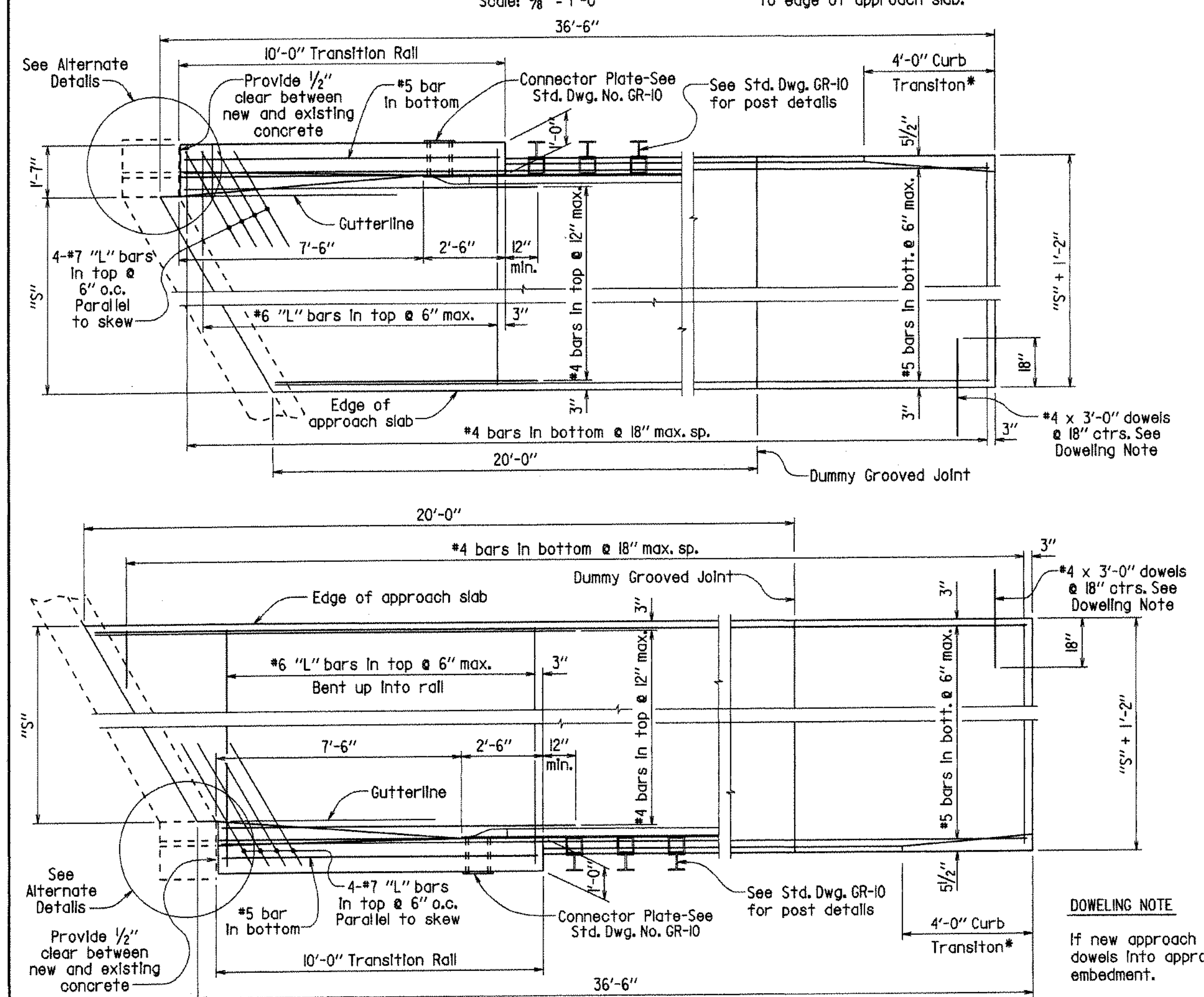
(1) TYPE PT APPR. GUTTER - 2091



PLAN - SQUARE BRIDGES

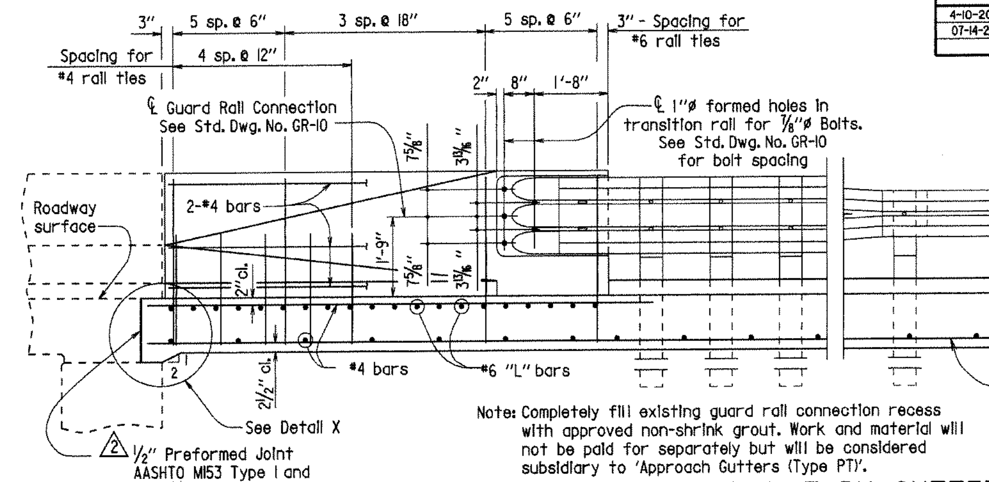
Scale: 3/8" = 1'-0"

'S' = Distance from gutterline to edge of approach slab.



PLAN - SKEWED BRIDGES

Scale: 3/8" = 1'-0"

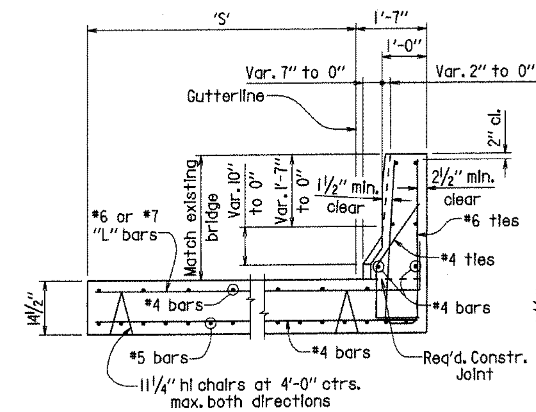


LONGITUDINAL SECTION THRU GUTTER

Scale: 1/2" = 1'-0"

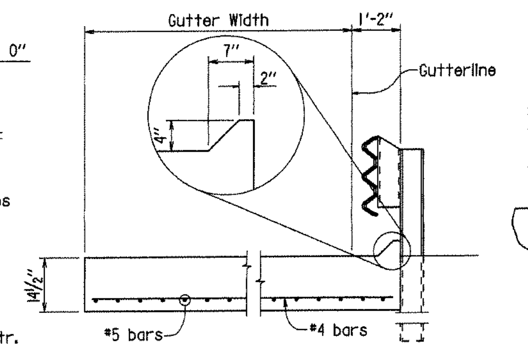
* Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construct curb full height (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.



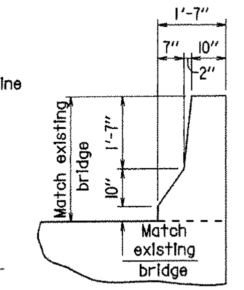
SECTION A-A

Scale: 1/2" = 1'-0"



SECTION B-B

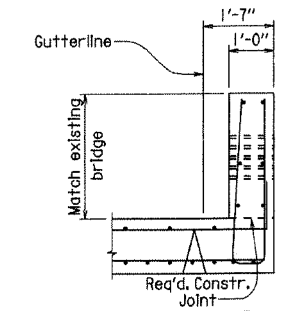
Scale: 1/2= 1'-0"



SECTION C-C

At End of Transition Rail

Scale: 1/2" = 1'-0"



SECTION D-D

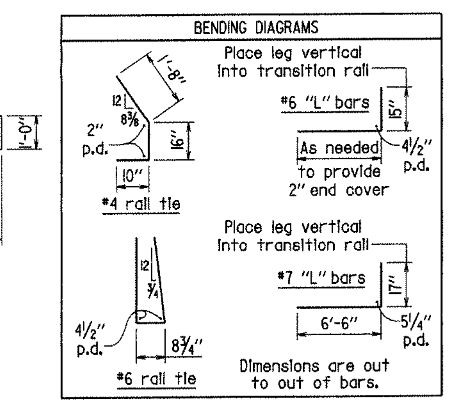
Scale: 1/2" = 1'-0"

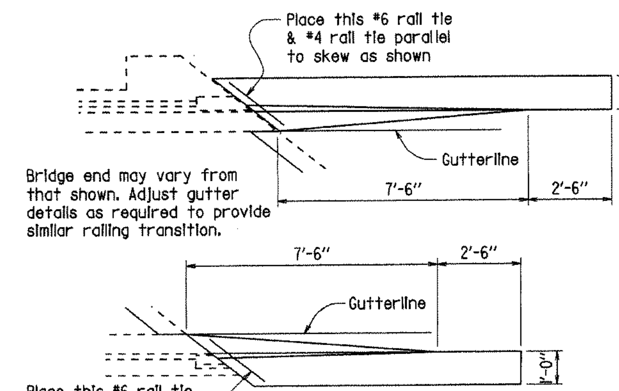
GENERAL NOTES

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi.) Fabricate bar lengths to provide 2" minumum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.





ALTERNATE DETAILS

Scale: 3/8" = 1'-0"

(1) Revised and redrawn 4-10-2003. By KDH Ck. By: CJF 4-10-2003

(2) Added joint sealer type 07-14-2010 by MJT Checked by: CJF 7-14-2010

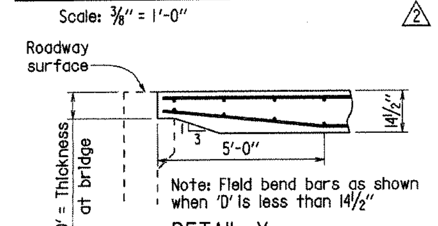
QUANTITIES FOR ONE SQUARE APPROACH GUTTER

'S'	Concrete	Reinforcing Steel
5'-6"	12.49 cu.yd.	1227 lb.
5'-9"	12.91 cu.yd.	1276 lb.
6'-0"	13.34 cu.yd.	1296 lb.
9'-6"	19.23 cu.yd.	1746 lb.
9'-9"	19.65 cu.yd.	1795 lb.
10'-0"	20.07 cu.yd.	1815 lb.

DOWELING NOTE

If new approach slab is used, place dowels into approach slab using 18" embedment.

If existing approach slab is retained, dowels shall be drilled and grouted 18" into existing slab. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for separately but will be considered subsidiary to 'Approach Gutters (Type PT)'.



DETAIL X

Scale: 3/8" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF STANDARD TYPE 'PT' APPROACH GUTTERS (BRIDGES WITH CONCRETE PARAPET RAILING)

ROUTE SEC.

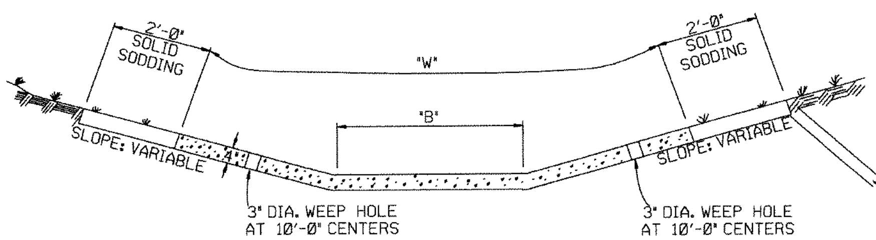
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-10-2003 FILENAME: B2091.STD
CHECKED BY: CJF DATE: 4-10-2003 SCALE: AS NOTED
DESIGNED BY: STD. DATE:

BRIDGE NO. DRAWING NO. 2091

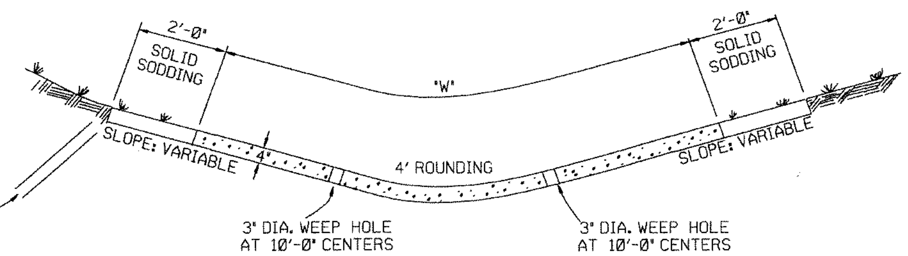
REFER TO TABULATION OF QUANTITIES FOR 'W' & 'B' DIMENSIONS



EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.

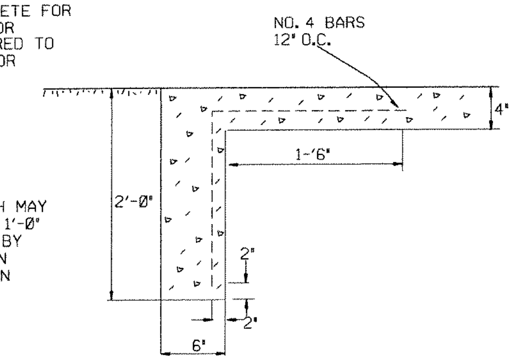
TYPE A

REFER TO TABULATION OF QUANTITIES FOR 'W' DIMENSIONS



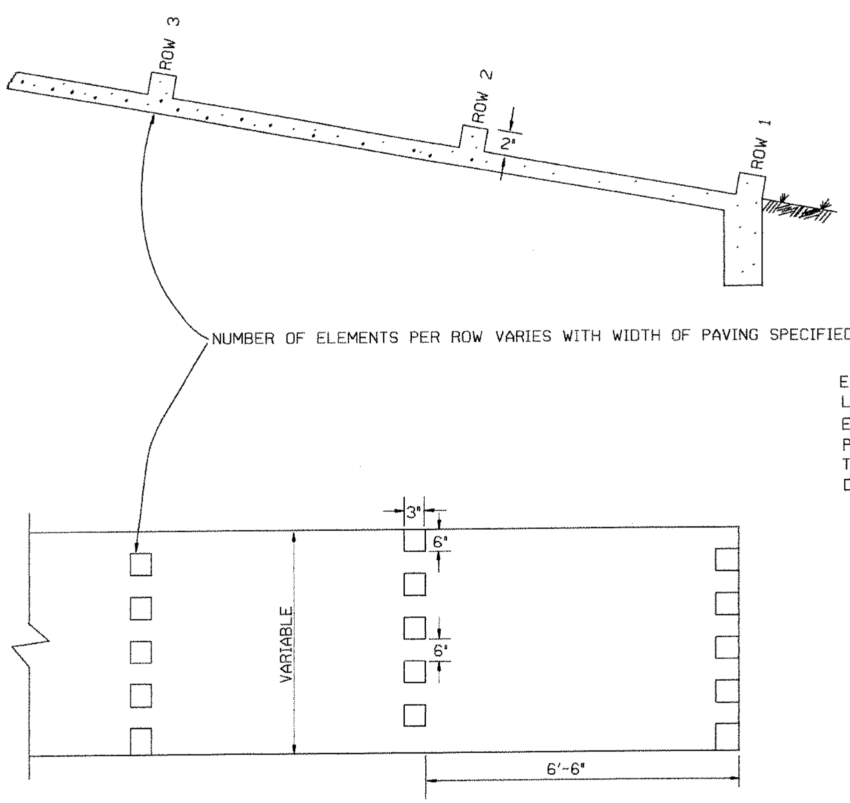
TYPE B

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

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



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.

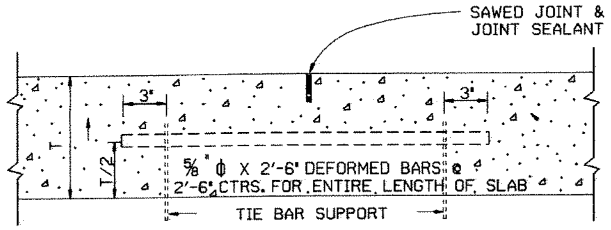
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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

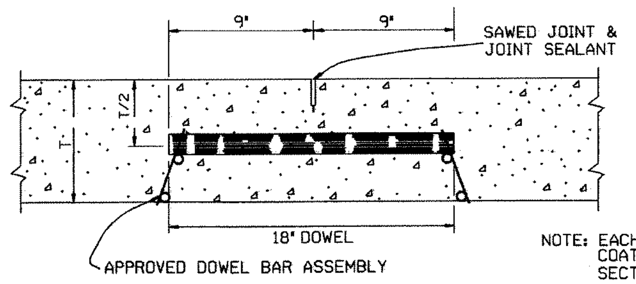
CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1



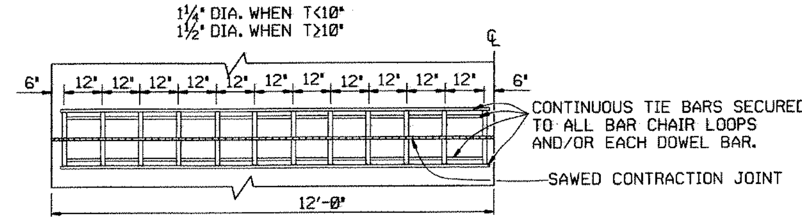
LONGITUDINAL JOINT

NOTE: THE TIE BAR SUPPORT SHOWN ABOVE MAY BE ELIMINATED IF OTHER APPROVED METHODS FOR PLACING AND SUPPORTING THE TIE BARS ARE PROVIDED.
TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.



NOTE: EACH DOWEL TO BE COATED ACCORDING TO SECTION 502 OF THE STANDARD SPECIFICATIONS.

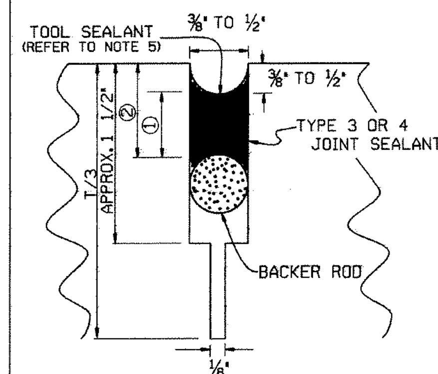
ROUND STEEL BAR DOWEL
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



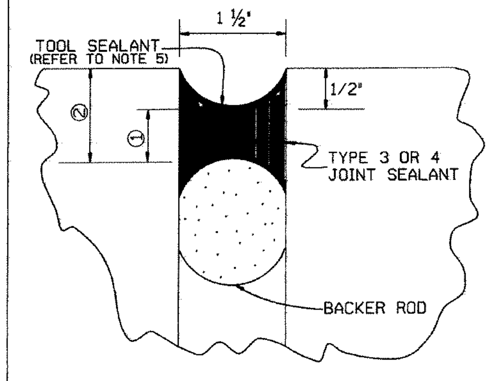
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



DETAIL OF SAWED CONTRACTION JOINT



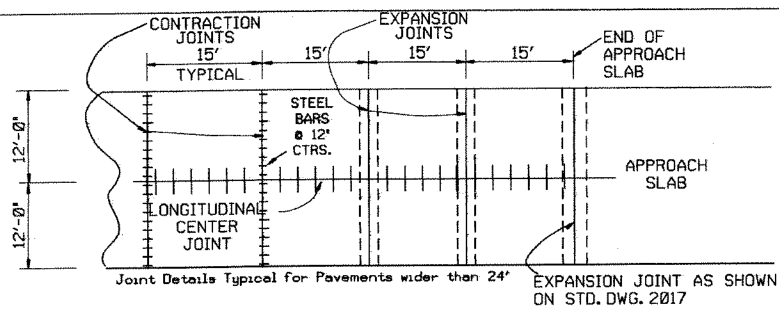
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

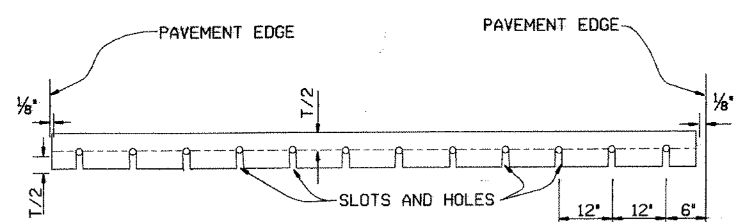
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
⅝	5/16	¾	9/16
¾	⅜	⅞	⅞
1 ½	¾	2	1 ¼

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅜	¾
⅜	¾	½	1

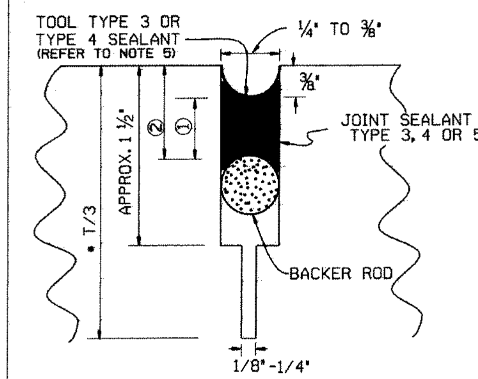


PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



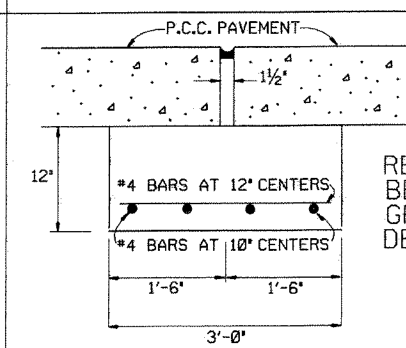
ELEVATION

NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.



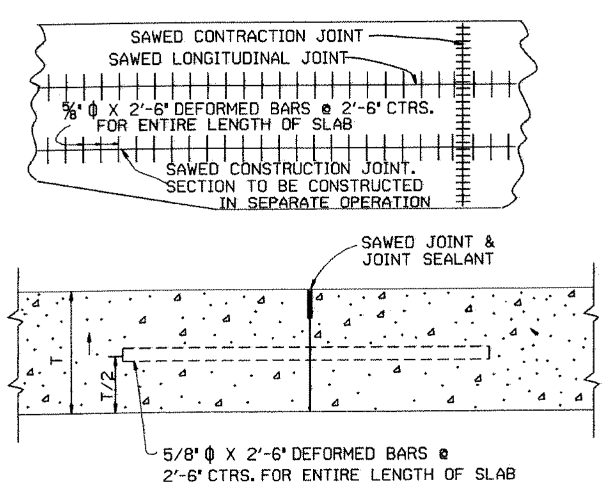
•NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT



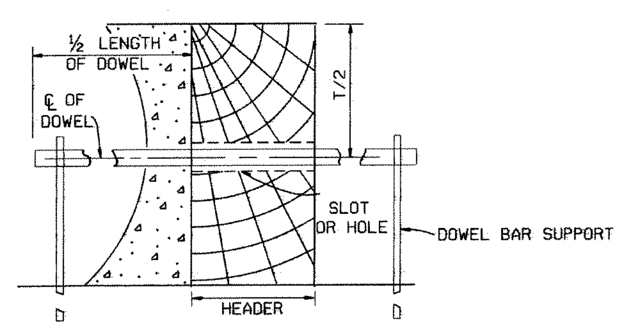
REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS



NOTE: TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



SECTION

TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

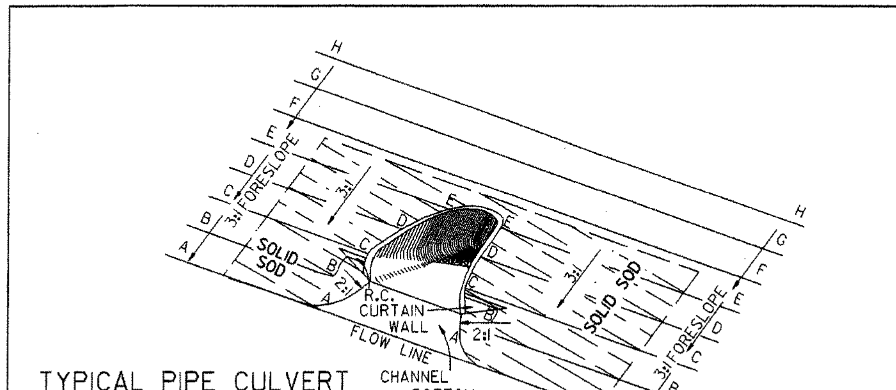
1. "T" DENOTES THICKNESS OF SLAB.
2. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR THE VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW. DOWEL BARS SHALL BE FIELD COATED FOR A MINIMUM DISTANCE OF 2" GREATER THAN HALF THE LENGTH OF THE BAR WITH AN APPROVED GREASE AS A BOND BREAKER JUST PRIOR TO PLACEMENT OF CONCRETE.
3. THE EXPANSION JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S" OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE SPECIFIED IN THE PLANS. PAYMENT FOR ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.
4. CONTRACTION JOINTS SHALL BE CONSTRUCTED ON 15' CENTERS.
5. TOOLING NOT REQUIRED FOR SELF-LEVELING SILICONE.
6. UNLESS OTHERWISE SPECIFIED IN THE PLANS, CONCRETE SHOULDERS SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS SHOWN HEREON. CONTRACTION JOINTS SHALL MATCH CONTRACTION JOINTS IN THE LANES.
7. TIE WIRES IN DOWEL BAR ASSEMBLIES SHALL NOT BE CUT PRIOR TO PLACEMENT OF PAVING CONCRETE.

DATE	REVISION	DATE FILMED
5-25-06	ADDED GENERAL NOTE 7	
10-9-03	REMOVED TIE BAR COATING & REVISED GENERAL NOTES	
11-16-01	ADDED TOOL SEALANT AND NOTE 5; REVISED NOTE 3	
4-26-96	REVISED CONTRACTION JOINT NOTE	
11- 3-94	ADDED NOTE RE: REINF. BARS	
4- 1-93	REVISED DOWEL BARS & GEN. NOTES	4- 1-93
10- 1-92	REVISED DOWEL SPACING	10- 1-92
8- 15-91	ADDED SPAC FOR CONTR JTS & DEL KEYWAY	
05-24-90	REVISED TIE BAR, DOWEL & JOINT SIZE	
01-25-90	ADDED EXPANSION JOINT	01-25-90
11-30-89	CHANGED T/4+1 TO T/3+1	11-30-89
03-23-89	ALTERED SAWED JOINT & ADDED NOTE	512-03-23-89
07-15-88	REVISED AND REDRAWN	632-07-15-88

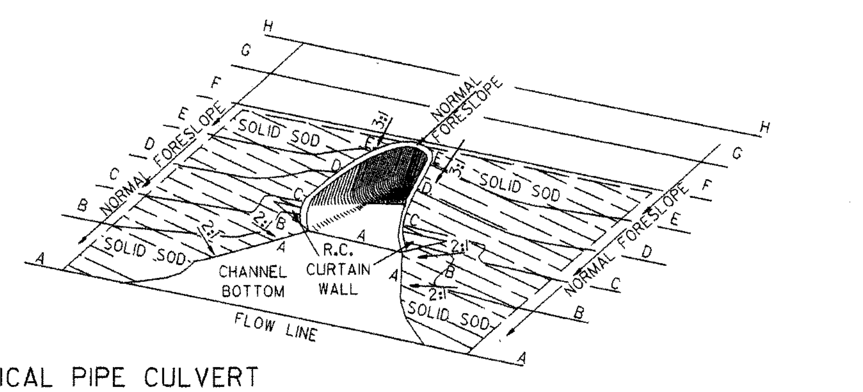
ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

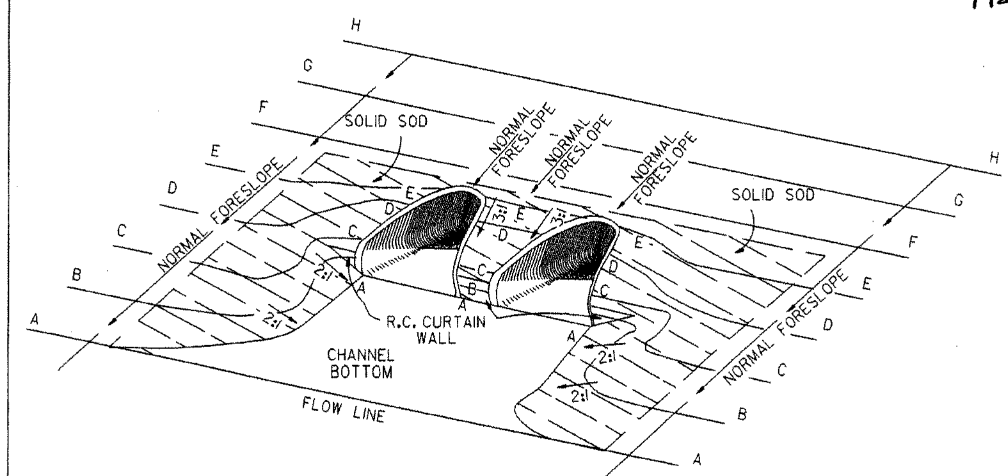
STANDARD DRAWING CPTJ - 6A



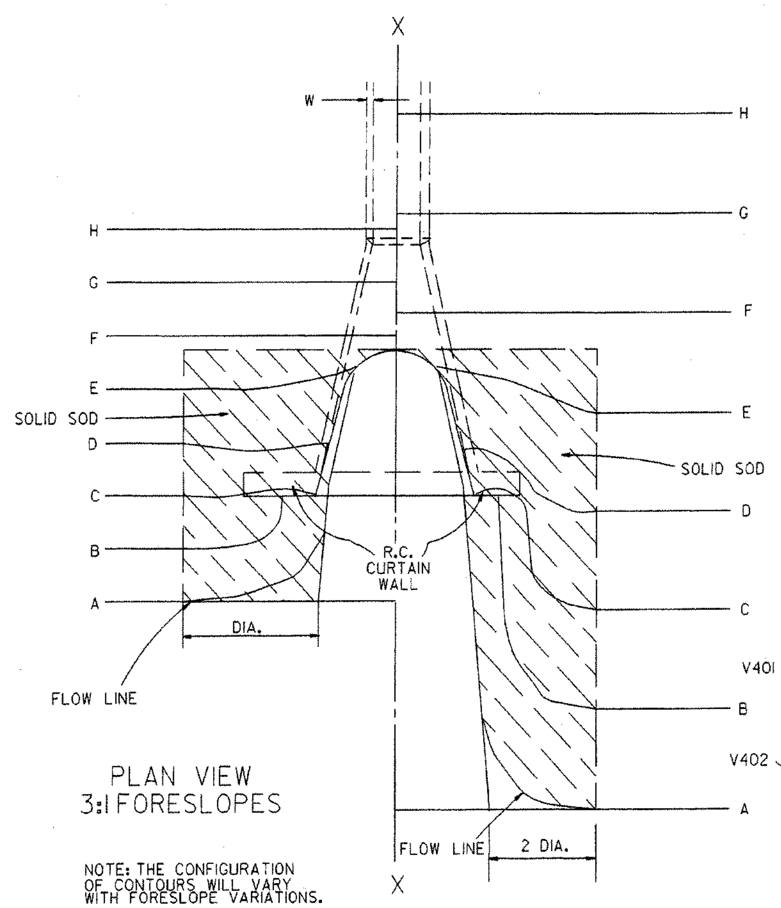
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



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



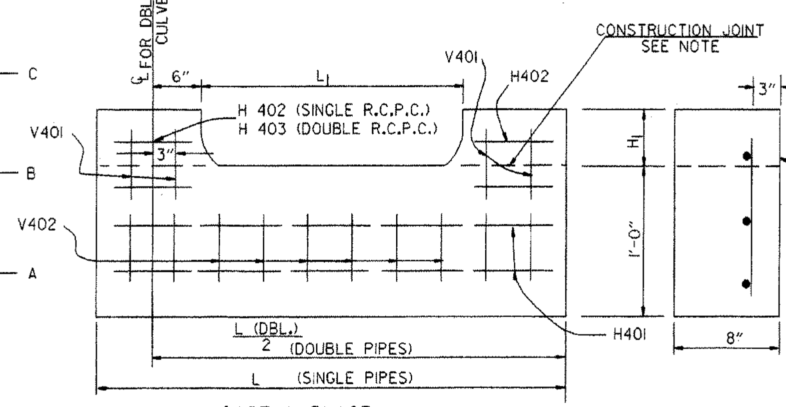
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

PIPE DIA.	H_1	L_1	L	L (DBL.) / 2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

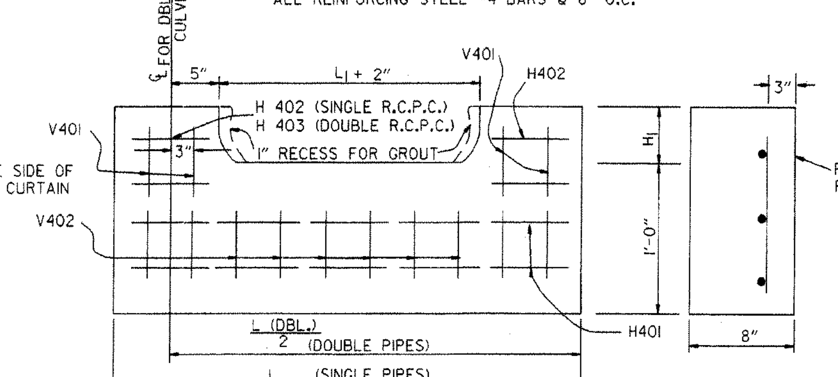
NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



CAST-IN-PLACE

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

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 H401 L	SINGLE H401 NO.	SINGLE H402 L	SINGLE H402 NO.	SINGLE V401 L	SINGLE V401 NO.	SINGLE V402 L	SINGLE V402 NO.	DOUBLE H401 L	DOUBLE H401 NO.	DOUBLE H402 L	DOUBLE H402 NO.	DOUBLE H403 L	DOUBLE H403 NO.	DOUBLE V401 L	DOUBLE V401 NO.	DOUBLE V402 L	DOUBLE V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

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

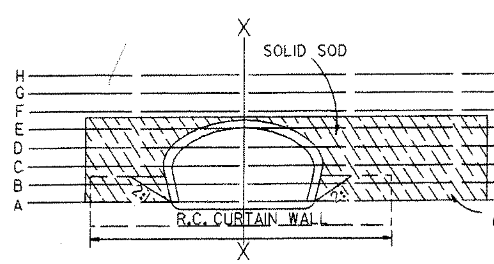
SOLID SODDING

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

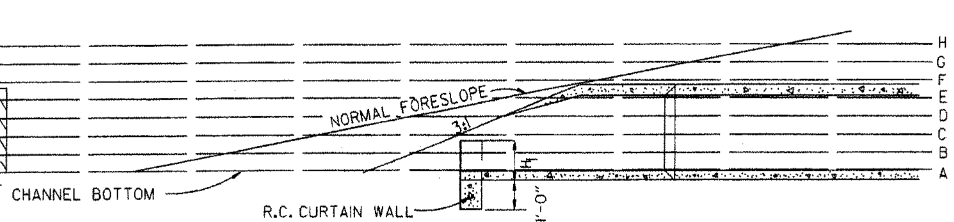
NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW



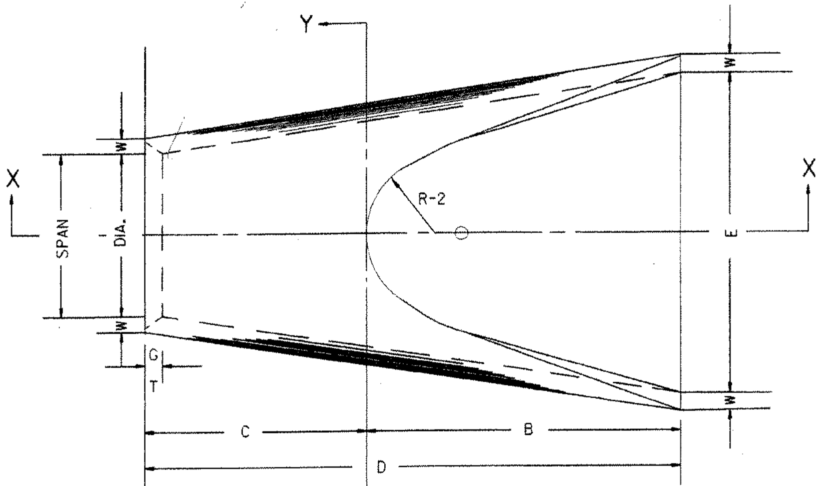
SECTIONAL VIEW "X-X"

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	10-18-96
10-12-95	CORRECTED SPELLING	
11-3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

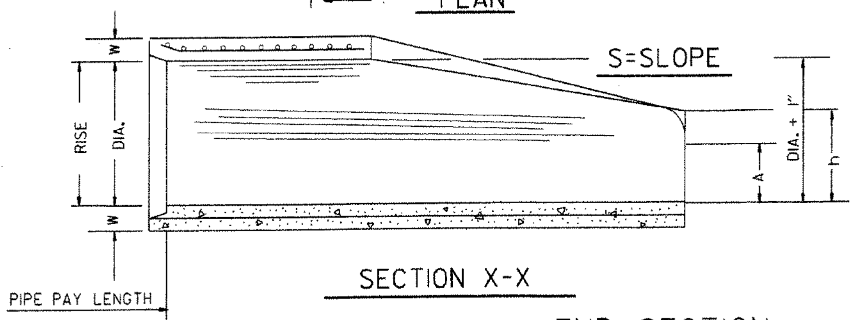
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

STANDARD DRAWING FES-1



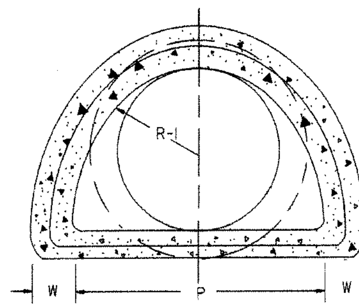
PLAN



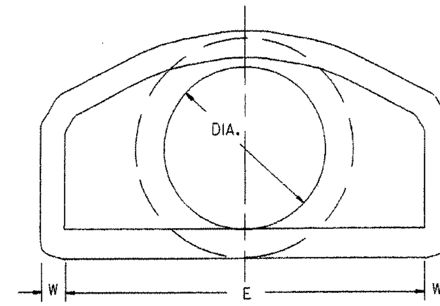
SECTION X-X

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 3/16"	16 13/16"	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 13/16"	24 5/16"	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 7/8"	27 1/2"	22"	3 1/2"	5380	2'-2 1/2"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56 1/2"	28 1/2"	22"	3 1/2"	6550	2'-6"
54"	5 1/2"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65 1/2"	33 1/8"	24"	4"	8750	2'-10 1/2"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72 1/2"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 13/16"	38 15/16"	24"	5"	13250	4'-6"



SECTION Y-Y



END VIEW

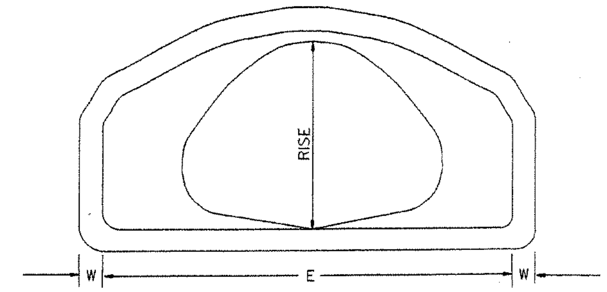
NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

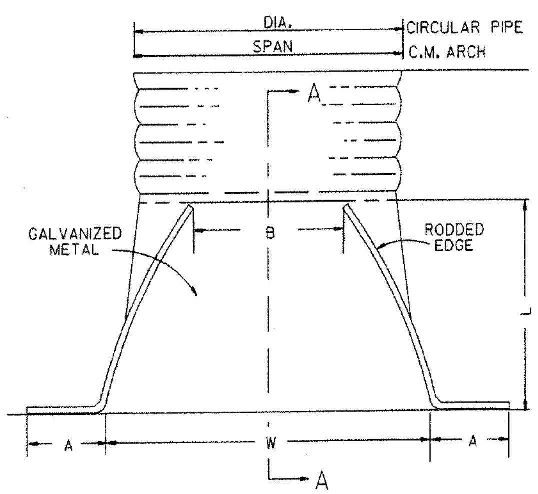
ARCH PIPE

EQUIV. DIA.	* SPAN AASHTO M 206	* SPAN AHD NOMINAL	* RISE AASHTO M 206	* RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	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 13/16"	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 13/16"	20"	3"	2 1/2:1
36	43 3/4	44	26 5/8	27	4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	6'-6"	54 5/16"	22"	3 1/2"	2 1/2:1
42	51 1/8	51	31 5/16	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 5/16"	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 1/16"	24"	4 3/4"	2 1/4:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 13/16"	24"	5"	2 1/4:1

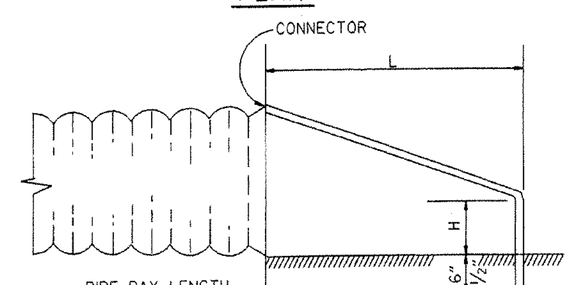
* THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



END VIEW
CONCRETE ARCH PIPE

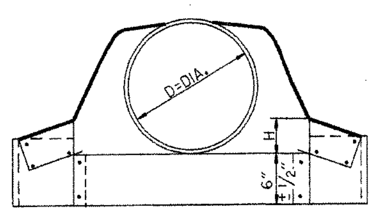


PLAN

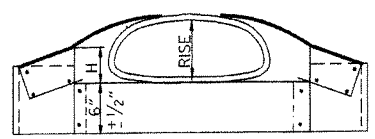


SECTION A-A

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



CIRCULAR PIPE



C.M. ARCH PIPE

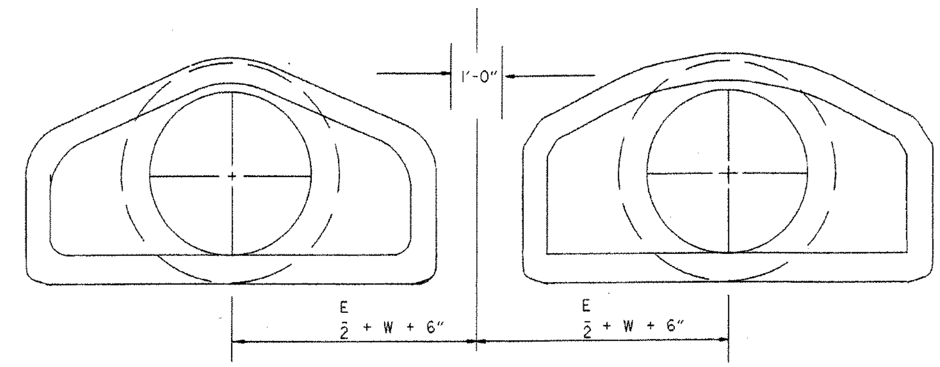
CIRCULAR PIPE

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

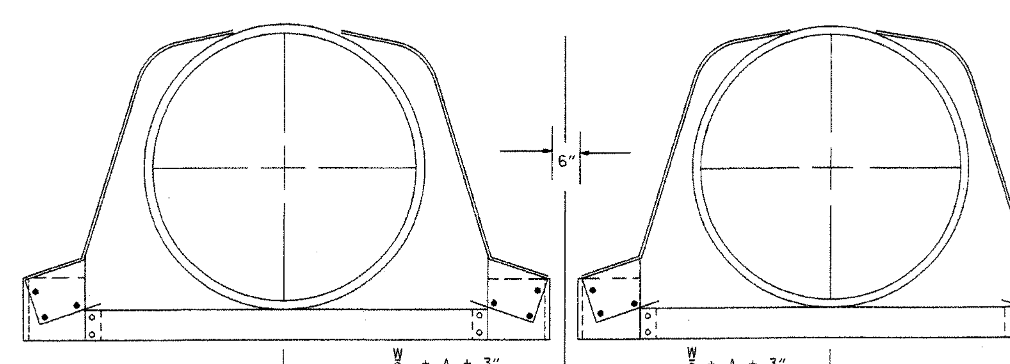
C.M. ARCH PIPE

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

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



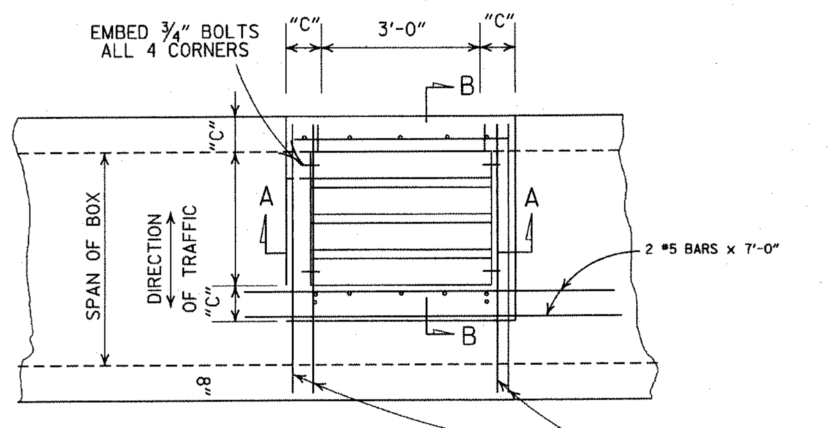
MULTIPLE C.M. PIPE CULVERTS

DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

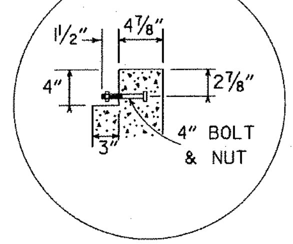
ARKANSAS STATE HIGHWAY COMMISION

FLARED END SECTION

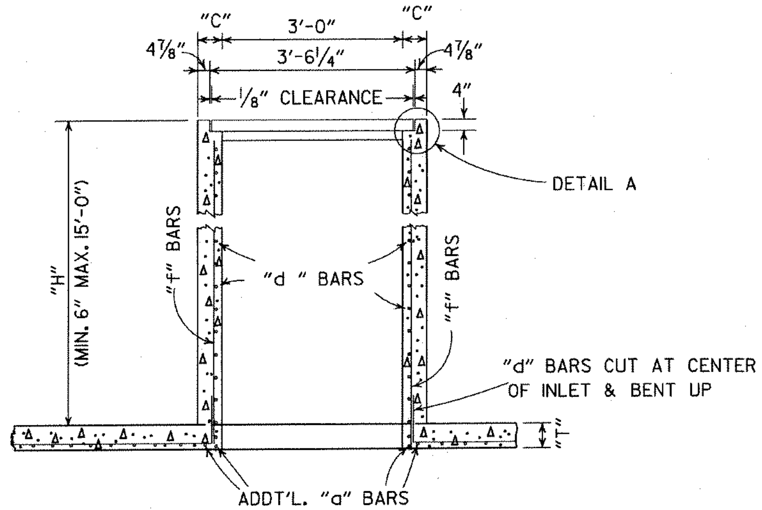
STANDARD DRAWING FES-2



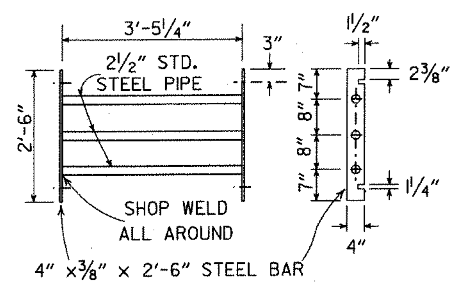
PLAN



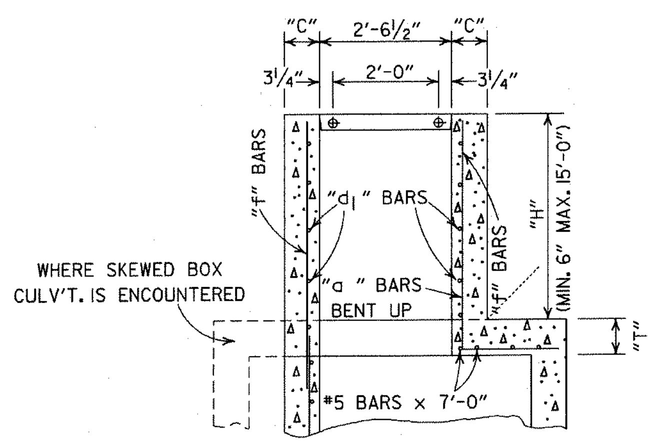
DETAIL A



SECTION A-A



GRATE DETAIL

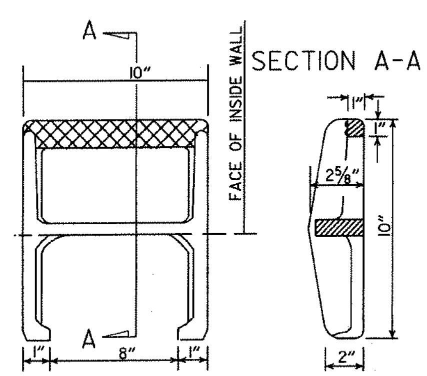


SECTION B-B

NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

DIMENSIONS & REINF. BARS FOR D.I. TO BE THE SAME AS THOSE SHOWN ON APPLICABLE STD. BARREL DRAWING FOR R.C. BOX CULVERTS.

DROP INLET TYPE "TM"
FOR REINFORCED CONC. BOX CULVERTS



APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

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

DETAIL OF STEP FOR DROP INLET

GENERAL NOTES:

1. STEEL PIPE FOR GRATES AND BOLTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 807. BOLTS SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM A193, GRADE B8 CLASS 1 OR 2, ASTM A307 OR AASHTO M 164.
2. STEEL PIPE FOR GRATES SHALL BE "STANDARD WEIGHT" PIPE CONFORMING TO ASTM A53 NATIONAL STANDARD PIPE.
3. BOLTS, NUTS, WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 OR AASHTO M 298, CLASS 40 OR 50.
4. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
5. ALL #4 AND #5 REINFORCING BARS TO HAVE 1½" COVER. LARGER SIZES TO HAVE 2" COVER.
6. THE COMPLETE PIPE GRATE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

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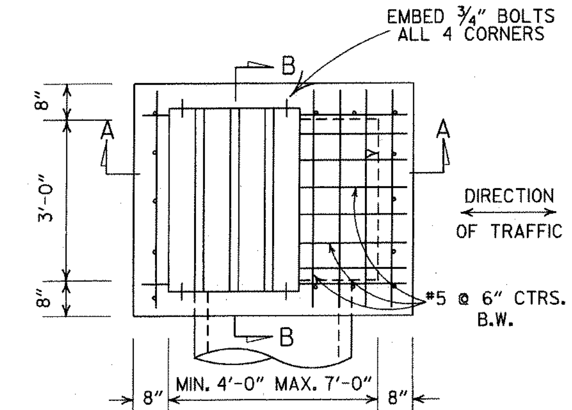
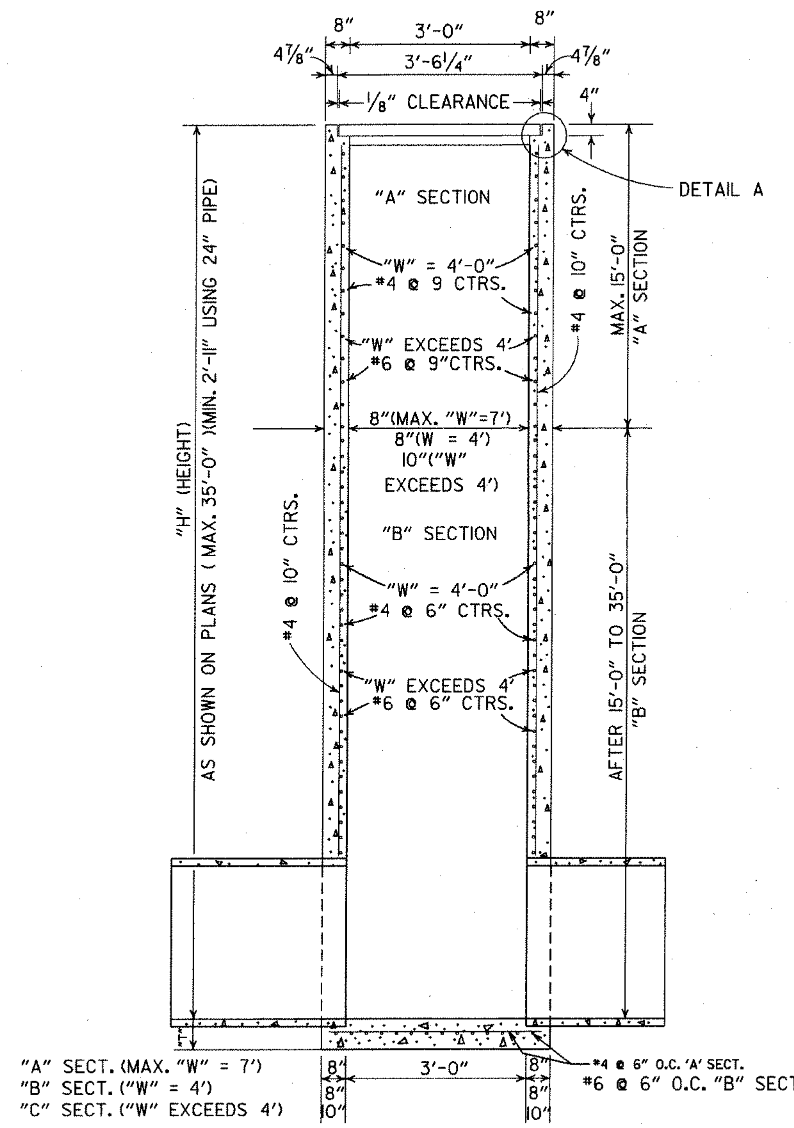
TABLE OF "W" DIMENSIONS

I.D. PIPE	SKEW OF CROSS DRAIN		
	STRAIGHT	30°	45°
	"W"	"W"	"W"
24"	4'-0"	4'-0"	4'-0"
30"	4'-0"	4'-0"	4'-5"
36"	4'-0"	4'-3"	5'-3"
42"	4'-3"	4'-11"	6'-1"
48"	4'-10"	5'-7"	6'-11"

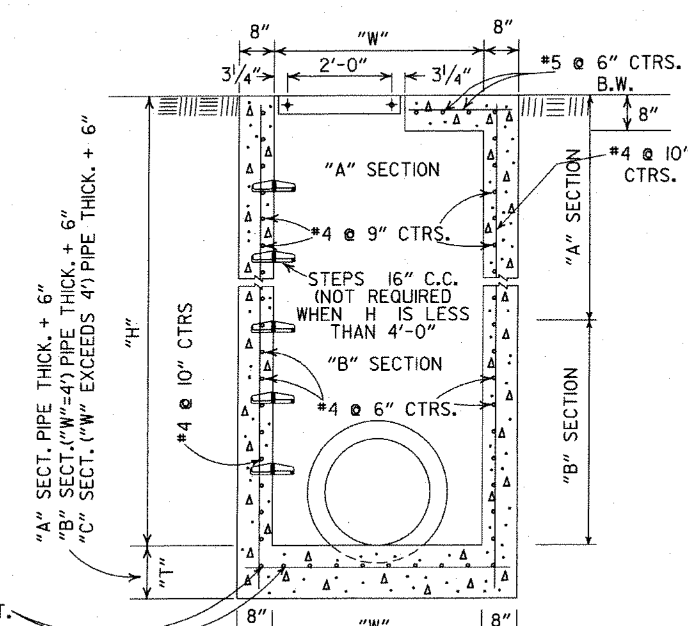
NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.



PLAN



SECTION B-B



SECTION A-A

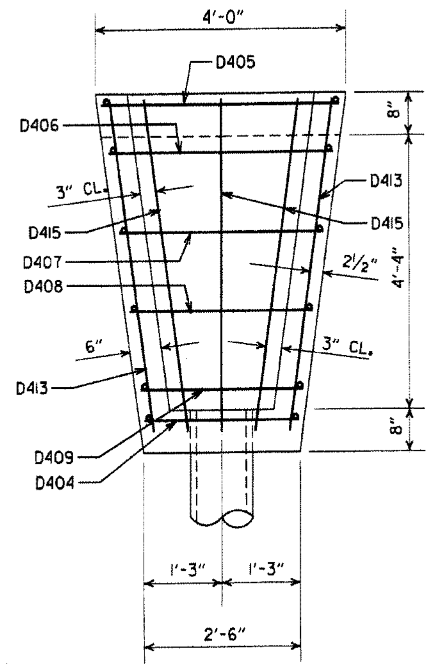
DROP INLET(TYPE RM)

8-22-02	ADDED & REVISED DIMENSION TO SECTION A-A	
1-12-00	CORRECTED DIMENSION ON SECTION B-B	
11-06-97	ADDED DIMENSION TO SECTION A-A	
10-18-96	REVISED ASTM REF. TO AASHTO AND ADDED NOTE TO TABLE OF "W" DIMENSIONS	
10-1-92	ADDED DIRECTION OF TRAFFIC	10-1-92
8-15-91	ADDED NOTE ABOUT PAINTING OF GRATE	8-15-91
11-30-89	ALTERED DETAIL A	11-30-89
7-15-88	REVISED STEP DETAIL, TM & RM D.I. & GRATE DETAIL	719-7-15-88
10-2-72	REVISED AND REDRAWN	542-10-2-72
REVISED		DATE FILMED

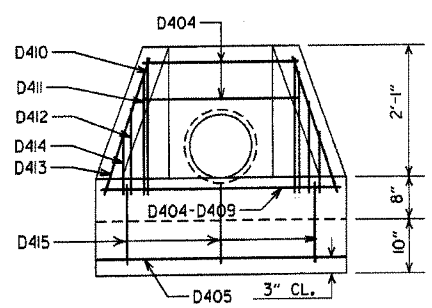
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS

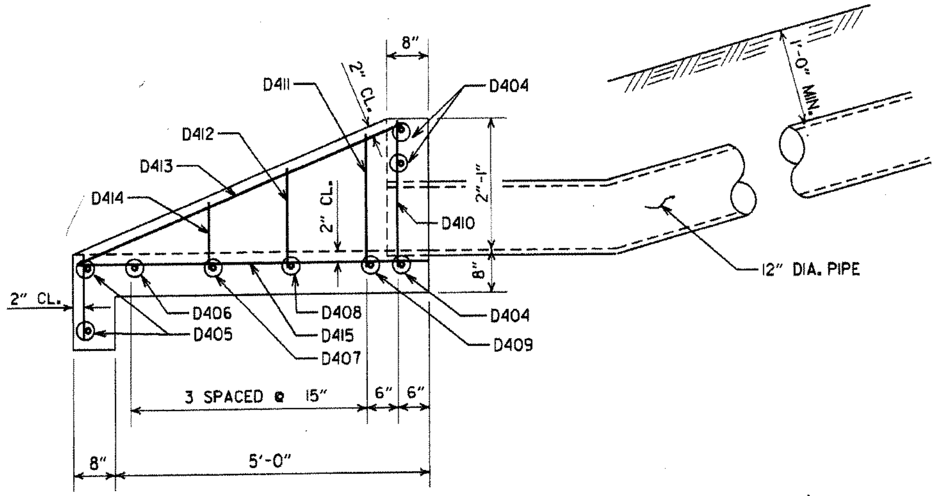
STANDARD DRAWING FPC-9D



PLAN



FRONT ELEVATION

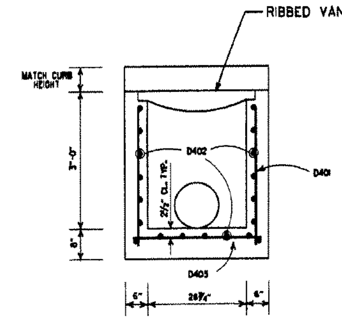


SIDE ELEVATION
CONCRETE SPILLWAY

DETAILS OF CONCRETE SPILLWAY (TYPE A)

BAR LIST (CONCRETE SPILLWAY)

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
D404	3	2'-2"	5'-4" / 1'-2" / 2" P.D. / D415
D405	2	3'-8"	
D406	1	3'-5"	
D407	1	3'-1"	
D408	1	2'-9"	
D409	1	2'-5"	
D410	2	2'-5"	
D411	2	2'-2"	
D412	2	1'-9"	
D413	2	5'-6"	
D414	2	1'-2"	
D415	3	6'-5"	

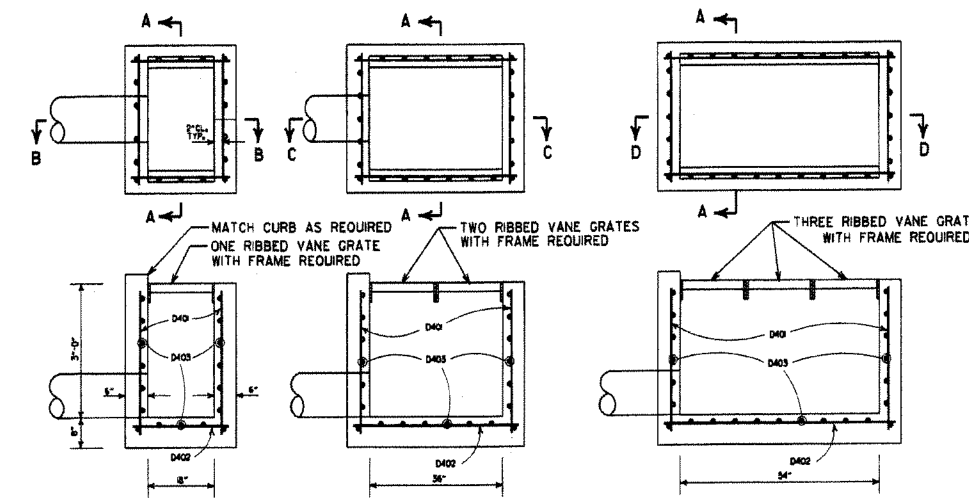


SECTION A-A

BAR LIST (DROP INLET)

MARK	TYPE N-1		TYPE N-2		TYPE N-3	
	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
D401	20	3'-0"	26	3'-0"	32	3'-0"
D402	19	2'-2"	19	3'-8"	19	5'-2"
D403	17	2'-11"	20	2'-11"	23	2'-11"

ALL BARS #4 @ 6" SPACING



SECTION B-B
DETAILS OF DROP INLET
(TYPE N-1)

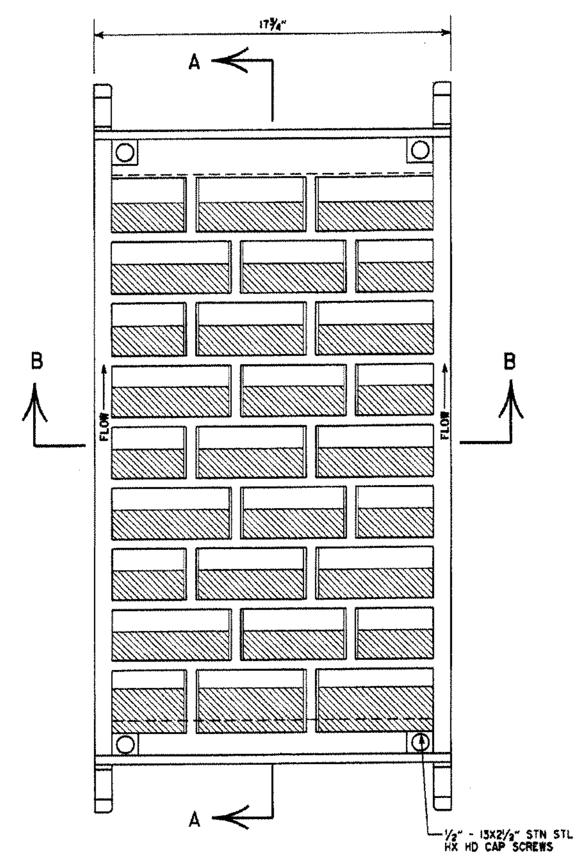
SECTION C-C
DETAILS OF DROP INLET
(TYPE N-2)

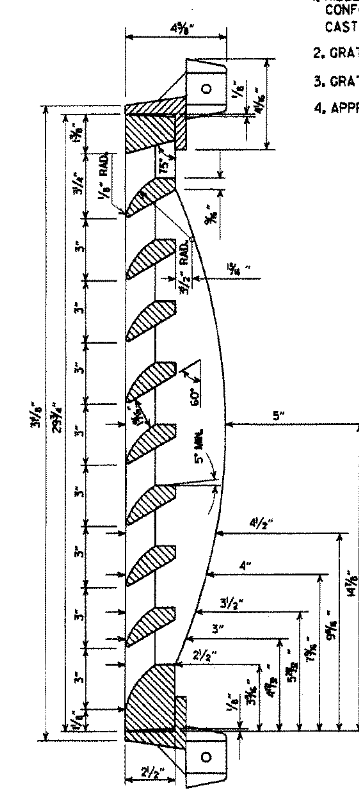
SECTION D-D
DETAILS OF DROP INLET
(TYPE N-3)

DETAILS OF DROP INLET

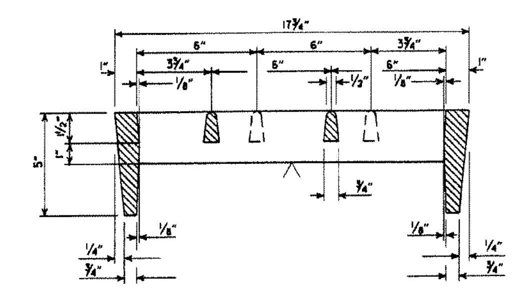
GENERAL NOTES (GRATE & FRAME)

1. RIBBED VANE 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 & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.

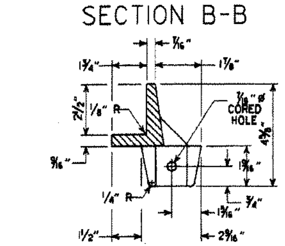




SECTION A-A



SECTION B-B



SECTION THRU FRAME

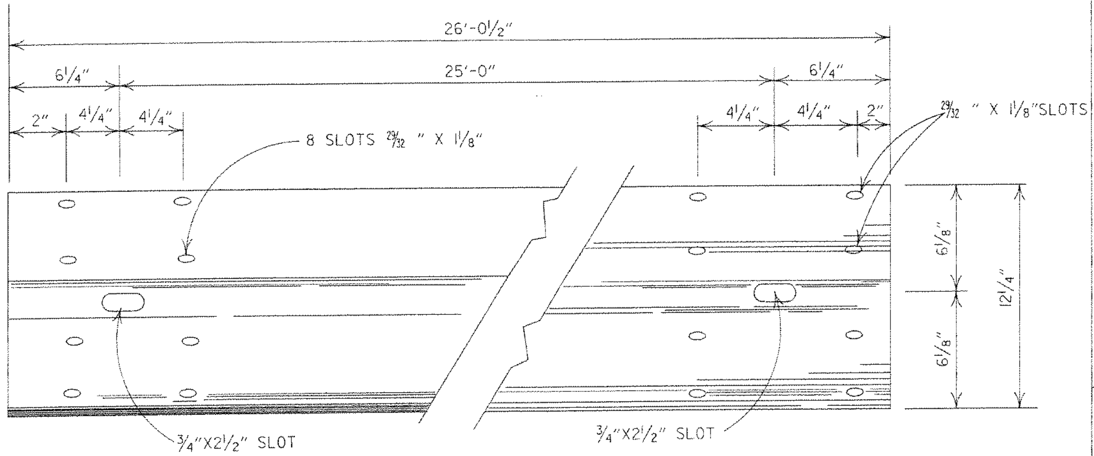
DETAILS OF RIBBED VANE GRATE AND FRAME

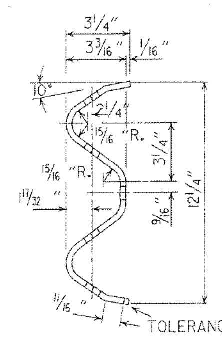
DATE REVISED	DATE FILMED	DESCRIPTION
7-02-98	7-2-98	REVISED SECT. A-A DETAIL OF DROP INLET & ADDED AASHTO REF. TO NOTE 1, REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
8-15-91		ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS AND SPILLWAY OUTLET

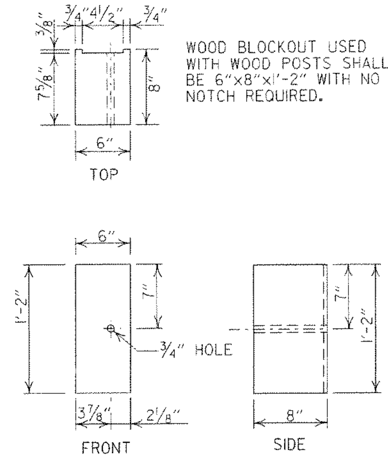
STANDARD DRAWING FPC-9N



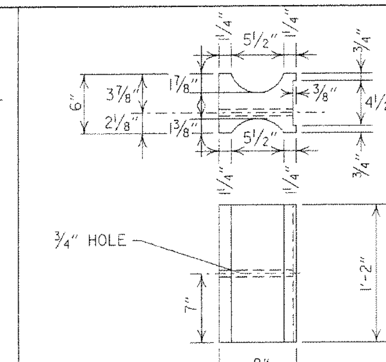


DETAILS OF
W-BEAM GUARD RAIL

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



WOOD BLOCKOUT
(W-BEAM)

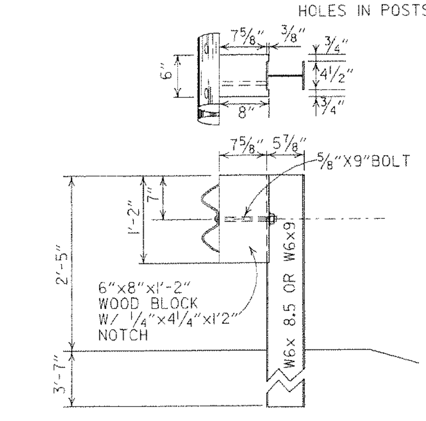


NOTES:

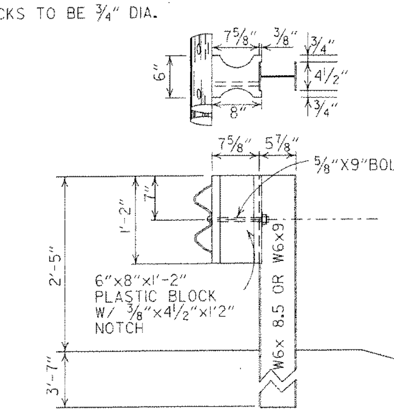
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT
(W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.

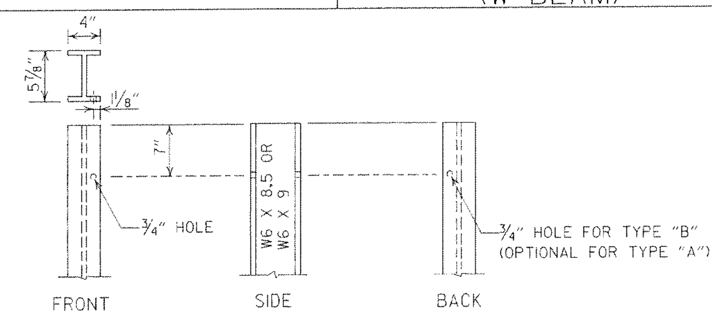


WOOD BLOCKOUT CONNECTIONS

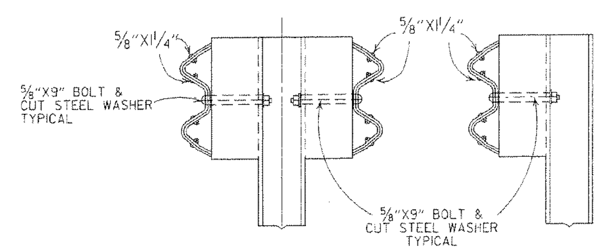


PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)

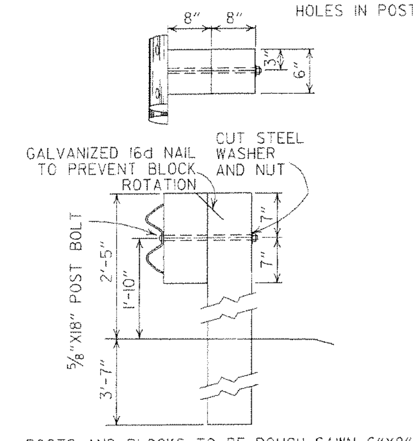


STEEL POST



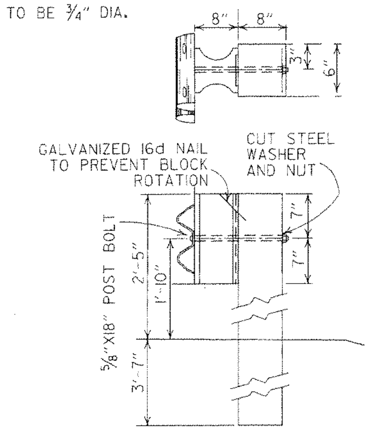
DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



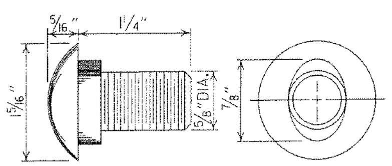
POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS

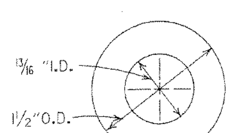


PLASTIC BLOCKOUT CONNECTIONS

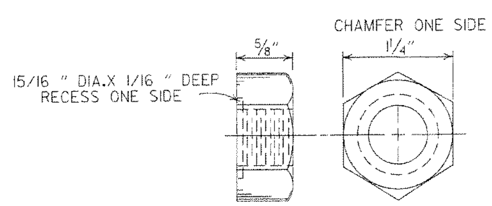
DETAILS OF WOOD LINE POST CONNECTIONS
(W-BEAM)



SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER



NUT

-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 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

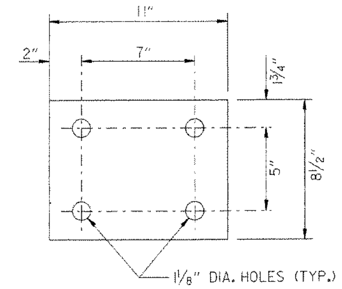
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

7-14-10	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

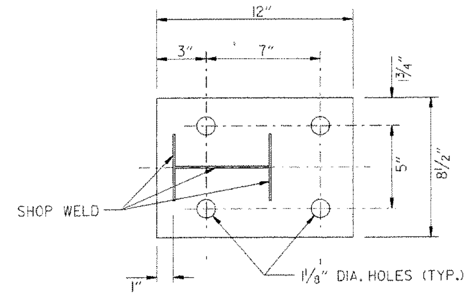
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8

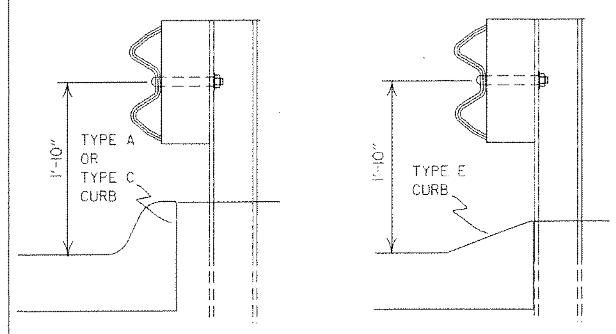


WASHER PLATE



BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.



FOR DESIGN SPEEDS OF 50 MPH OR LESS

ALIGN FACE OF GUARD RAIL WITH FACE OF CURB.

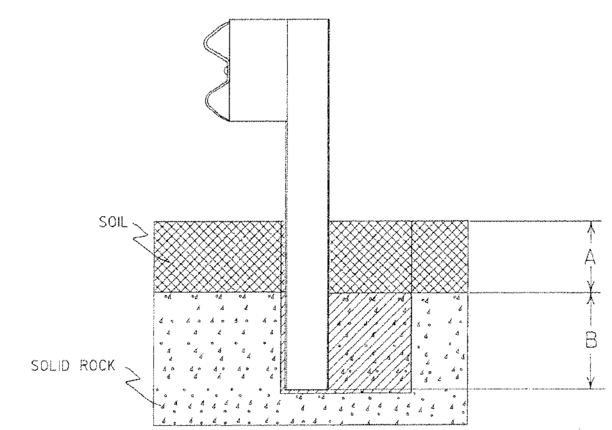
FOR DESIGN SPEEDS OF 55 MPH OR MORE

PLACE GUARD RAIL POSTS AGAINST BACK OF CURB.

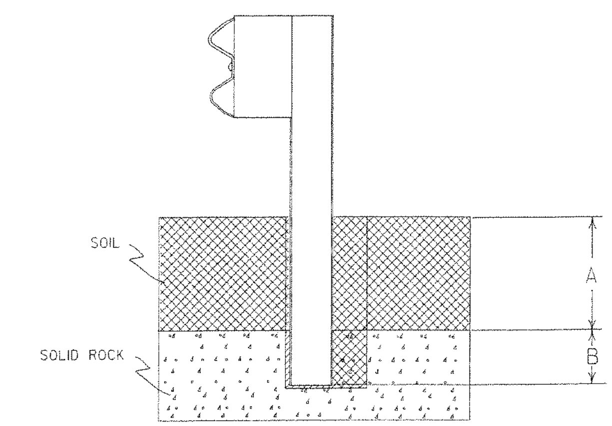
DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.

Case 1

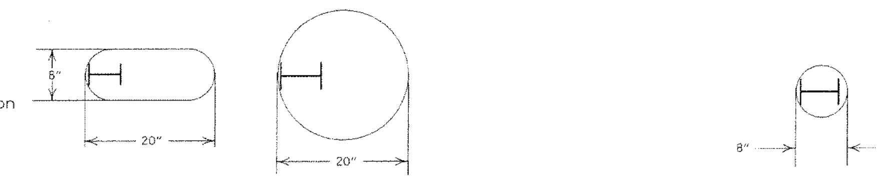


Case 2



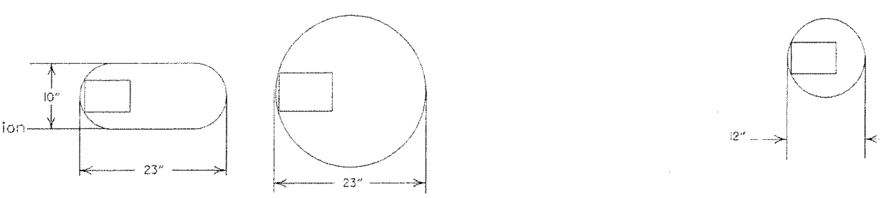
Plan View Steel Posts

Either hole configuration acceptable



Plan View Wood Posts

Either hole configuration acceptable



Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

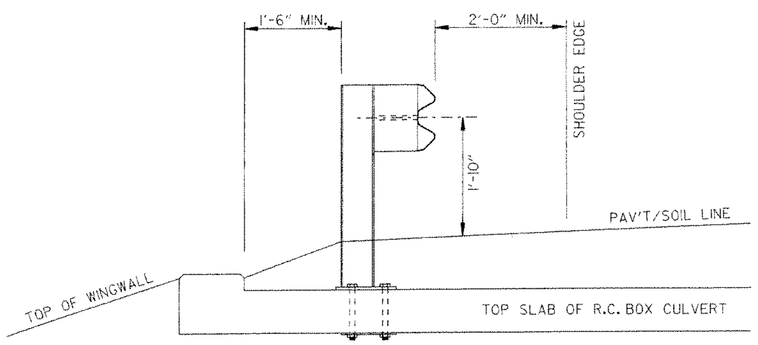
Zone A:
Backfill according to Section 617.03(a).

Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

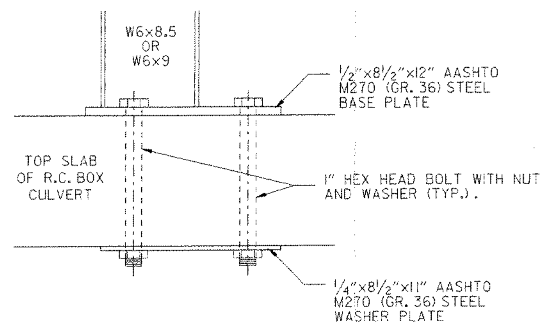
Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

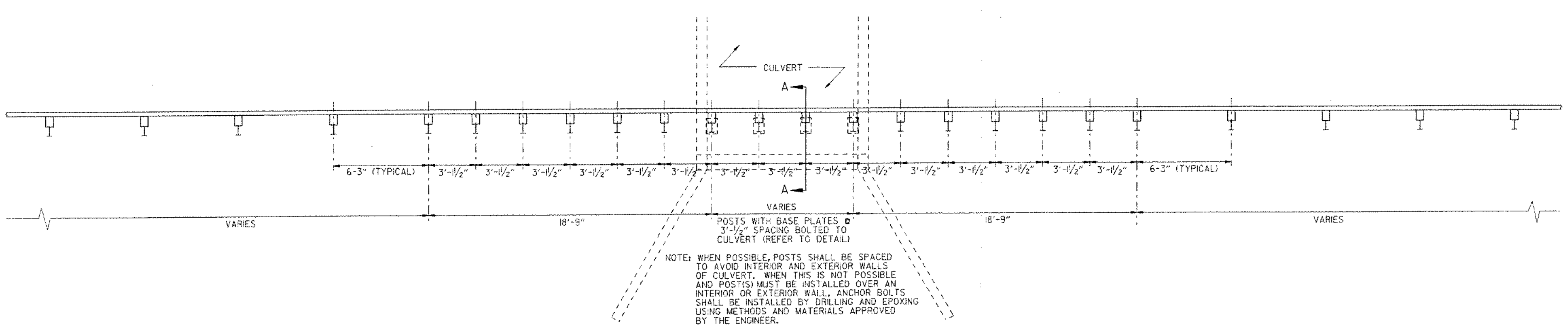
DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



SECTION A-A



DETAIL OF CONNECTION



PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARD RAIL POSTS AS SHOWN ON STD. DWG. GR-8.

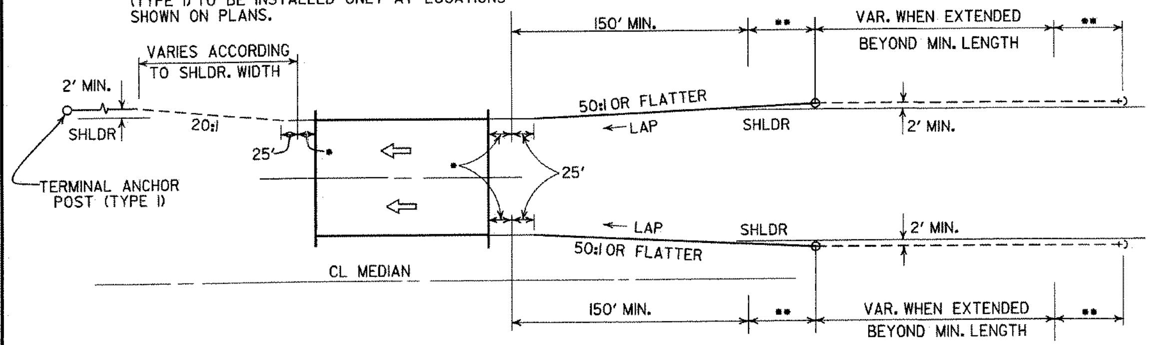
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
4-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
8-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULV'T. DELETED DET. OF STEEL LINE POST CONN.& ADDED DET. OF GUARD RAIL PLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK	
4-3-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
6-2-94	REVISED ALTERNATE POST SIZE	
8-5-93	REVISED STEEL POST SIZE	
10-1-92	REDRAWN & REVISED	10-1-92
8-2-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
7-15-88	CONFORMED TO 1988 SPECS	
3-4-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87
DATE	REVISION	DATE FILM

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

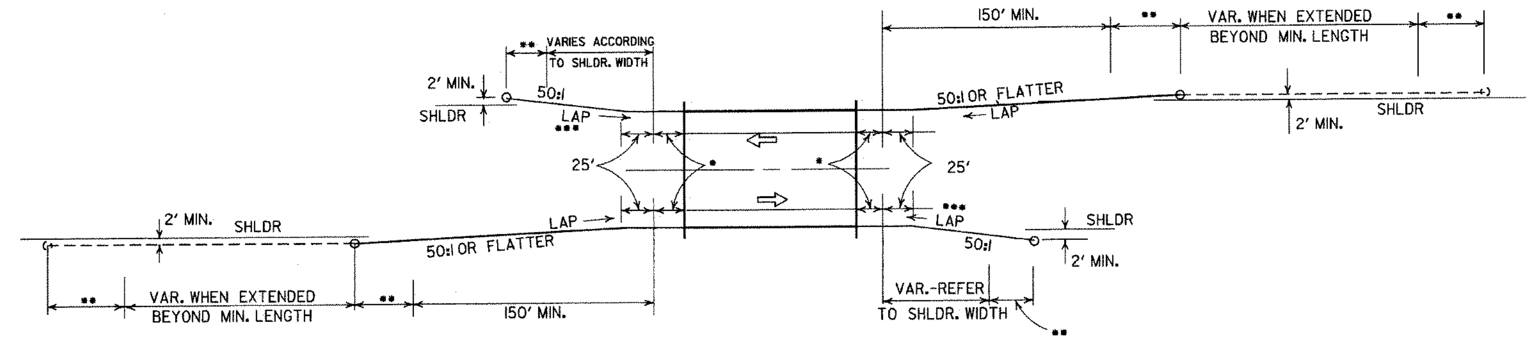
STANDARD DRAWING GR-8A

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

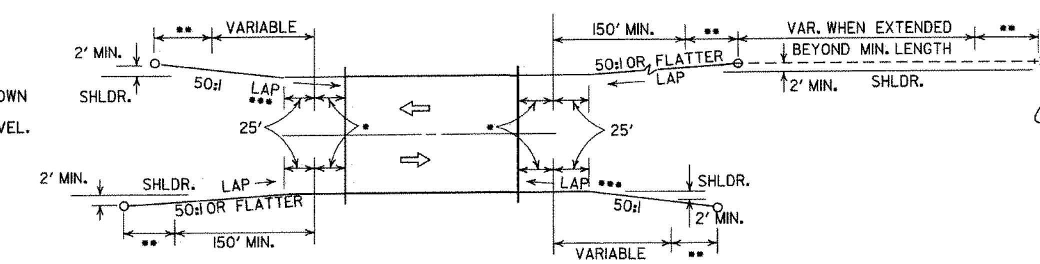
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

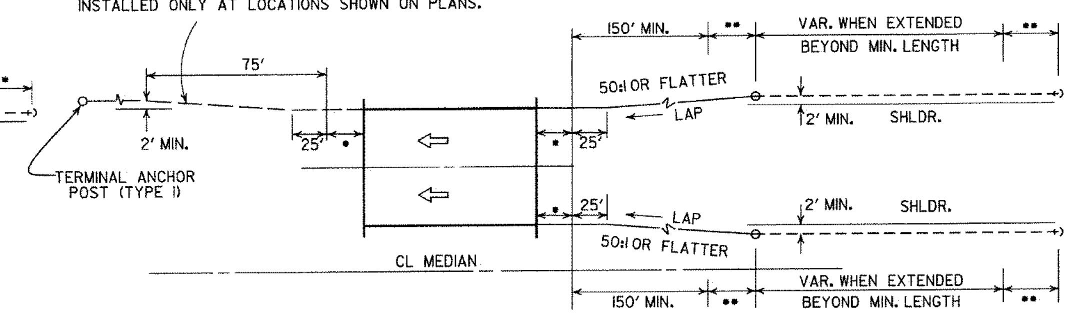
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

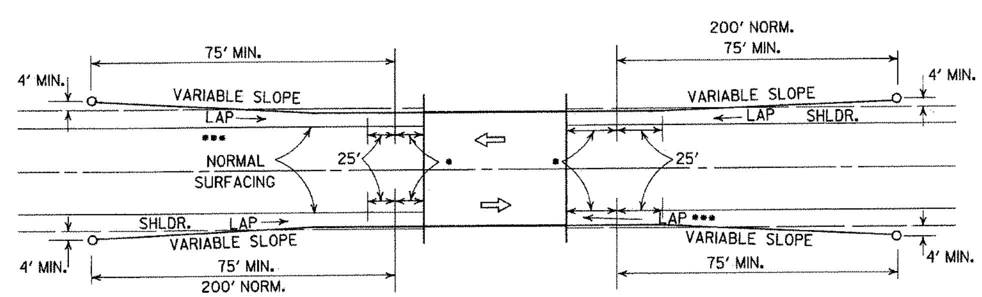
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARD RAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



LEGEND

- • THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

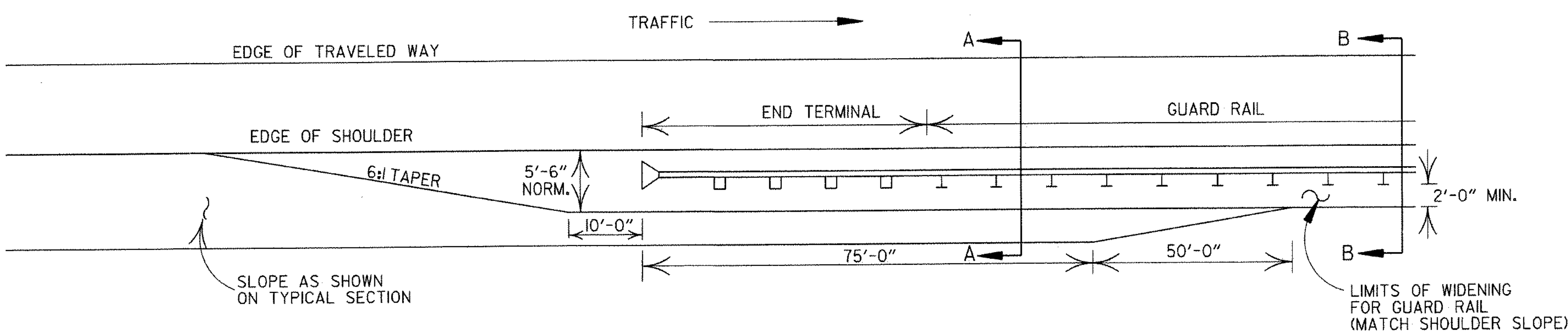
METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE 1) (FULL SHOULDER WIDTH OR LESS BRIDGES)

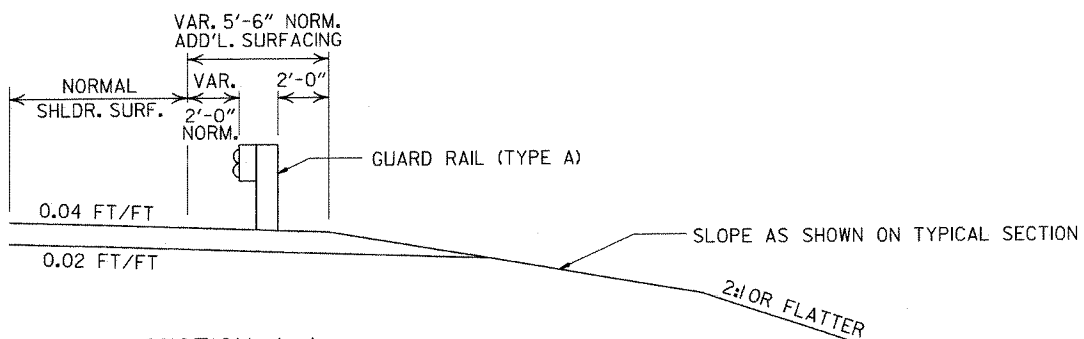
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. 1)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

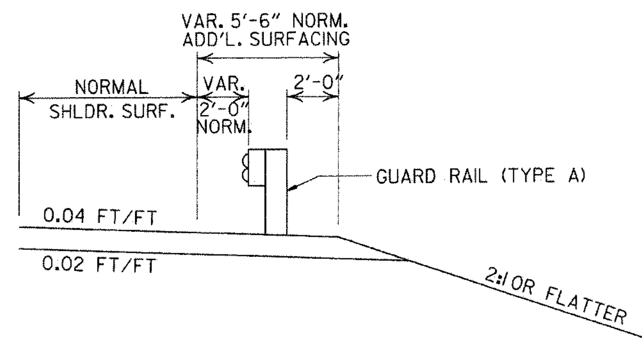
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





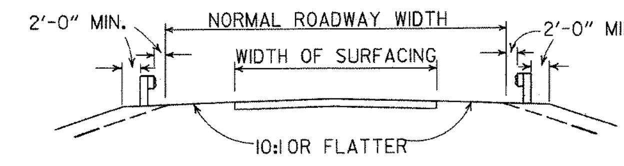
SECTION A-A



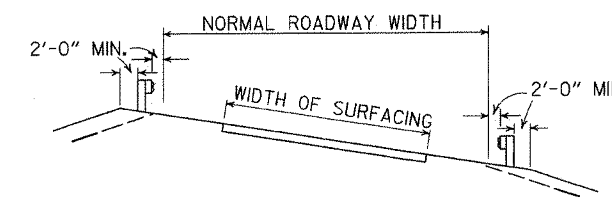
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

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

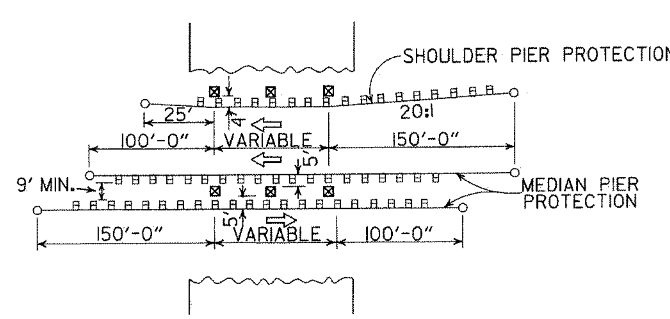


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



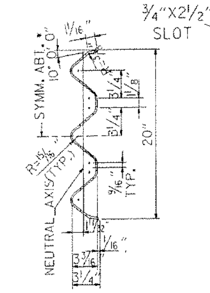
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

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

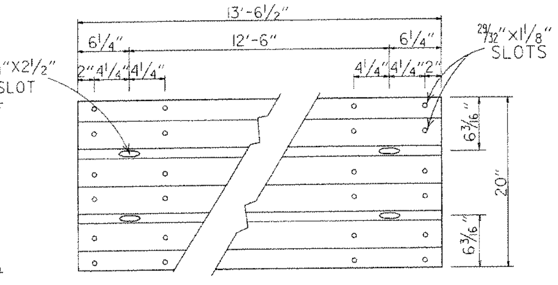
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

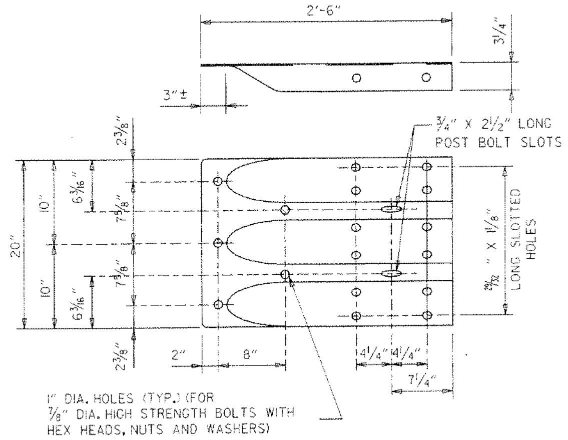
STANDARD DRAWING GR-9A



SECTION THRU THRIE BEAM RAIL

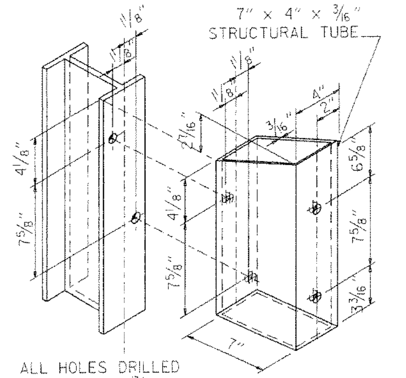


THRIE BEAM RAIL

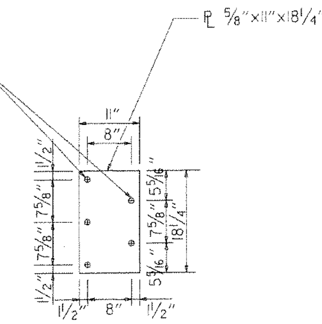


SPECIAL END SHOE

ATTACH BLOCKOUT TO POST USING ⅝" DIA. HEX HEAD BOLTS WITH 1½" O.D. CUT STEEL WASHERS AND NUT.



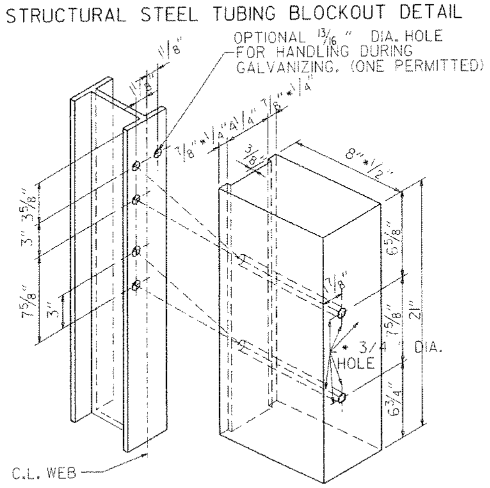
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.

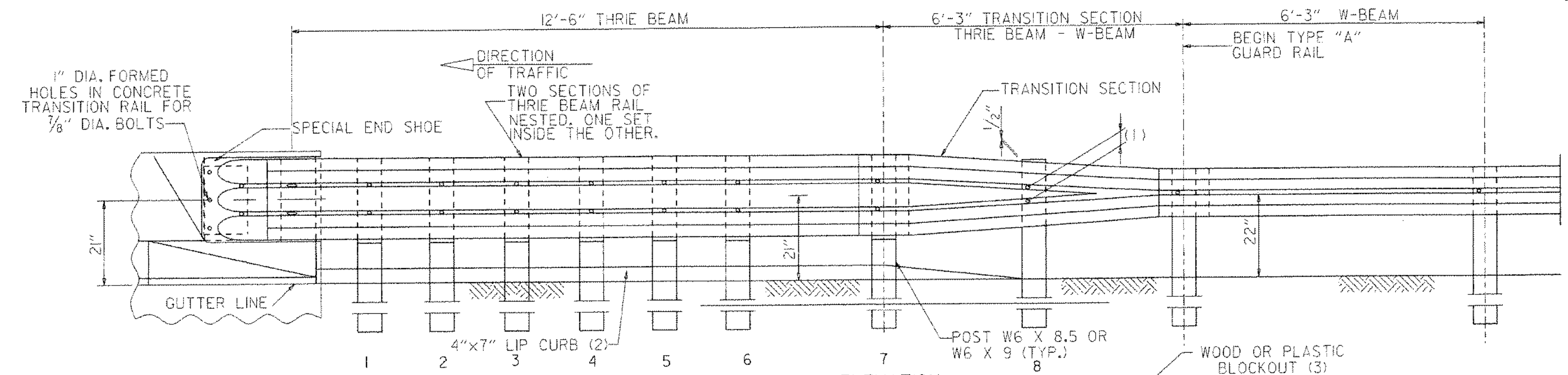
NOTE:
SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.



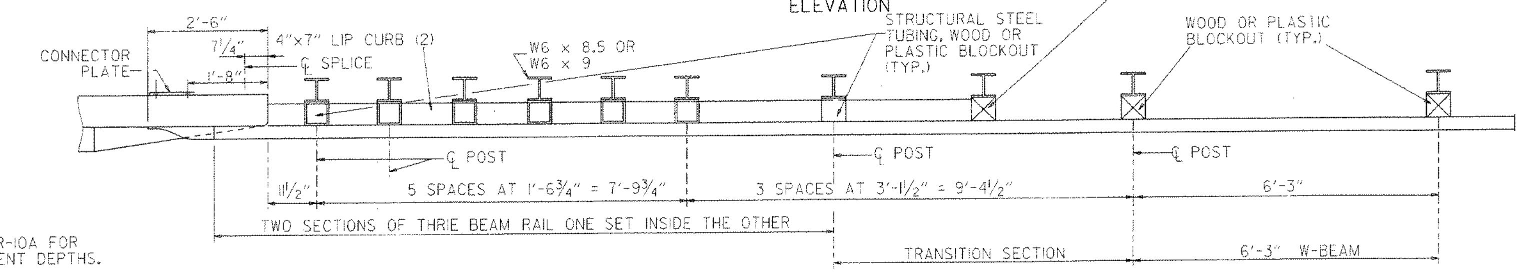
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD
OR PLASTIC BLOCKOUTS

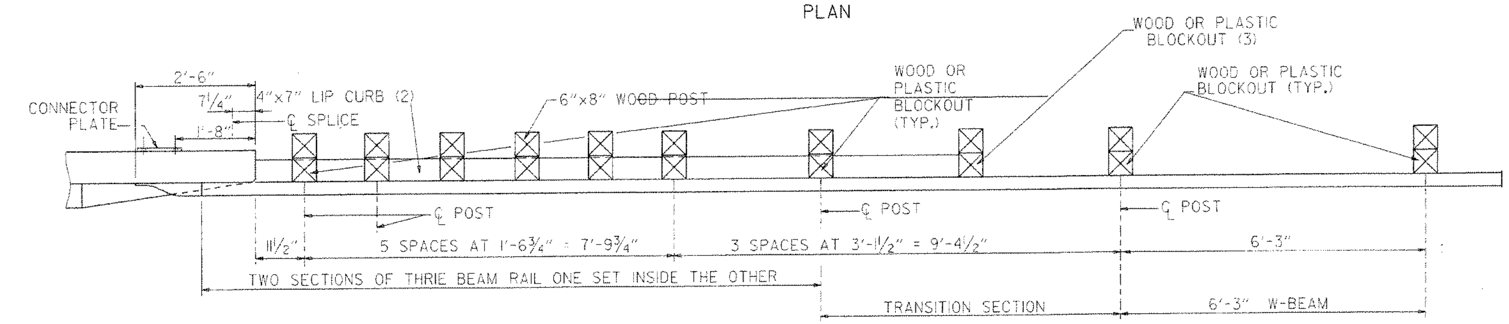
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



ELEVATION



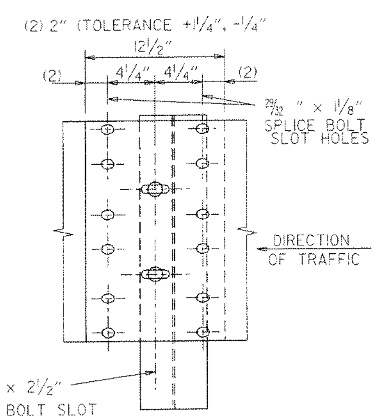
PLAN



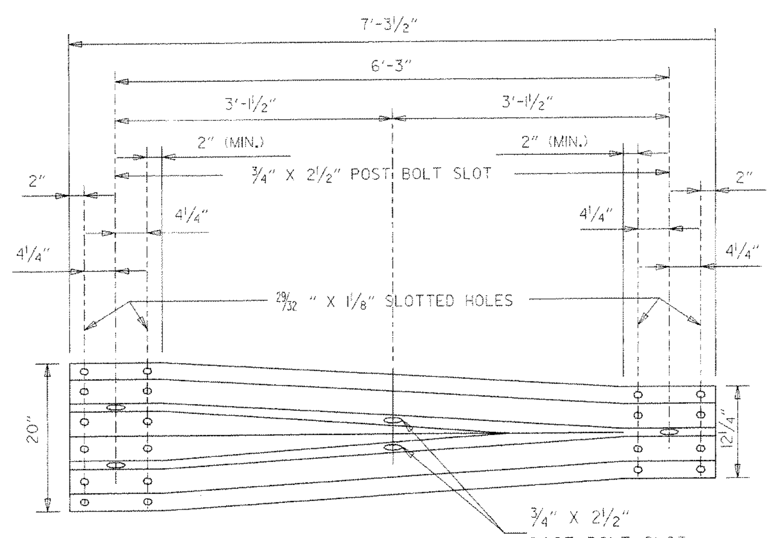
PLAN

(1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
(2) REFER TO APPROACH GUTTER DETAILS.
(3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS



THRIE BEAM RAIL SPLICE AT POST



TRANSITION SECTION

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

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

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-9 & GR-11.

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

REFER TO STD. DRWG. GR-10A FOR POST DETAILS.

USE THRIE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

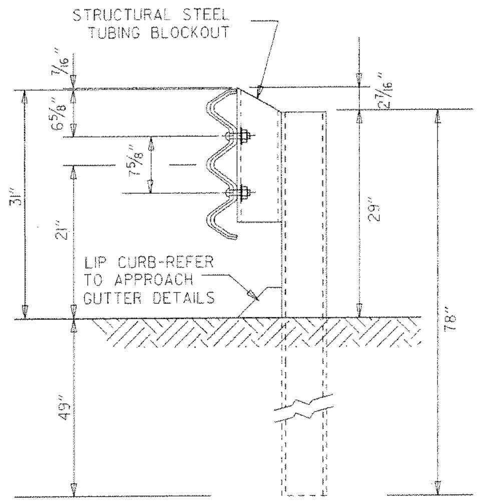
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

7-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-29-07	ADDED PLASTIC BLOCKOUTS	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-18-04	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED NOTE (2)	
6-29-00	MOVED DIMENSION LINES	
5-18-00	ADDED NOTE	
3-30-00	DRAWN & ISSUED	
DATE	REVISION	DATE FILM

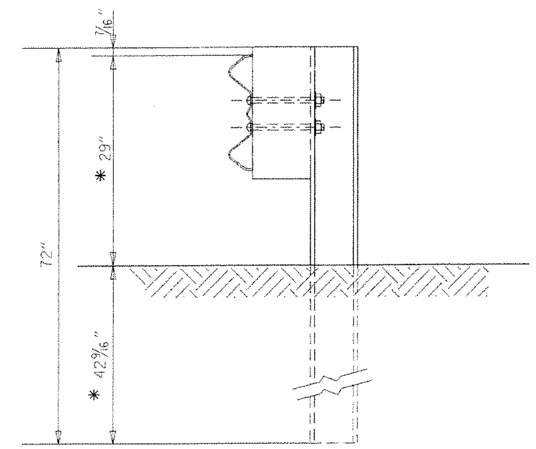
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

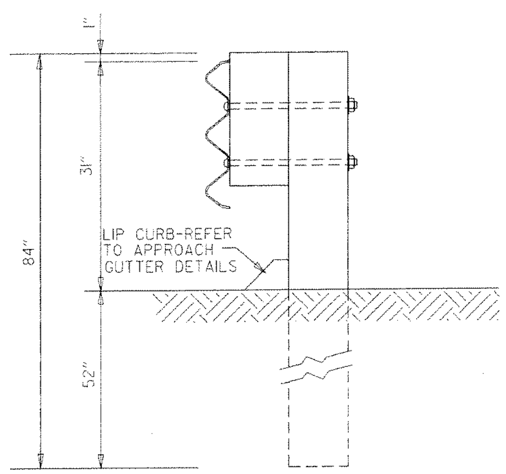


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

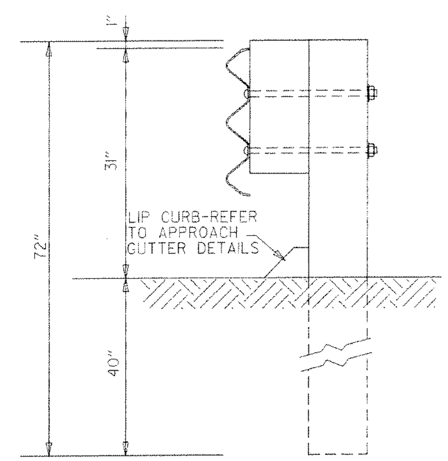


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

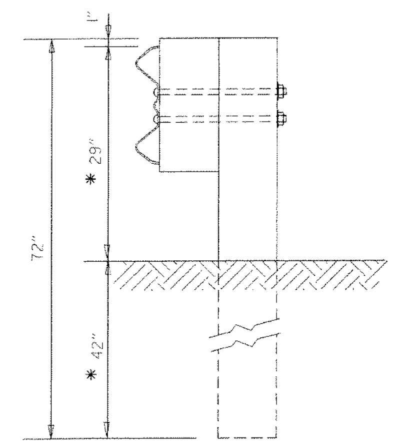
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7



W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:
RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

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

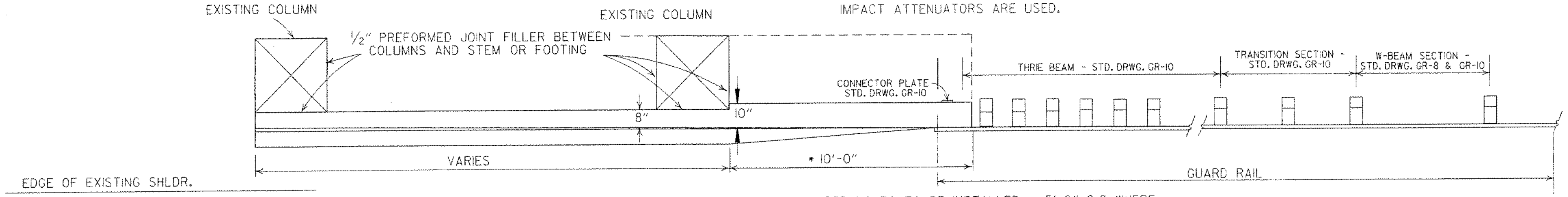
7-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
8-22-02	REVISED LIP CURB NOTE	
3-30-00	DRAWN & ISSUED	
DATE	REVISION	DATE FILM

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

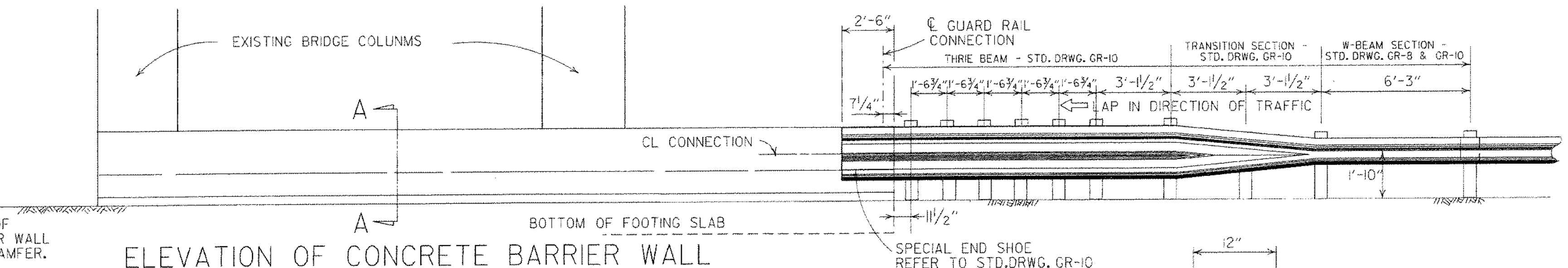
- TRANSITION SECTION NOT NEEDED WHEN IMPACT ATTENUATORS ARE USED.



WEEP HOLES TO BE INSTALLED @ 5'-0" O.C. WHERE NECESSARY DUE TO EMBANKMENT SPILL-OVER UNDER BRIDGES

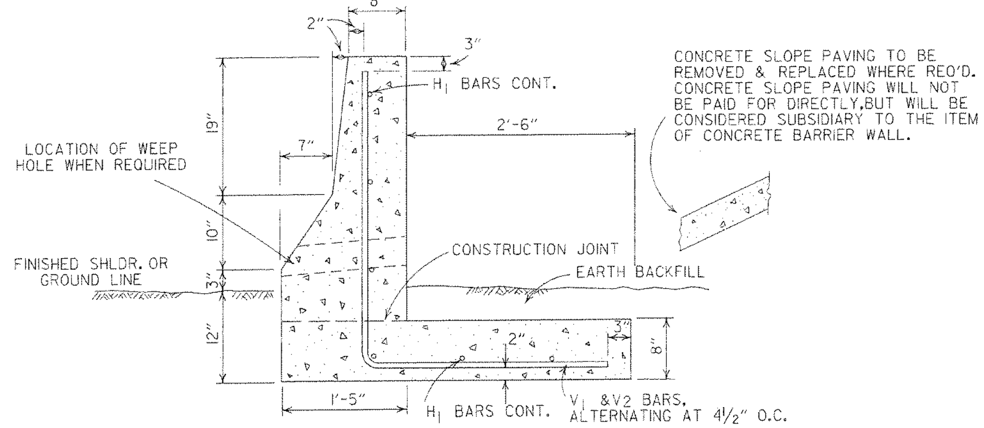
AT LEAST ONE 1/2" JOINT SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL. JOINTS SHALL BE EQUALLY SPACED AT A MAXIMUM OF 25'-0" O.C. FILL JOINT WITH PREFORMED JOINT FILLER.

PLAN OF CONCRETE BARRIER WALL

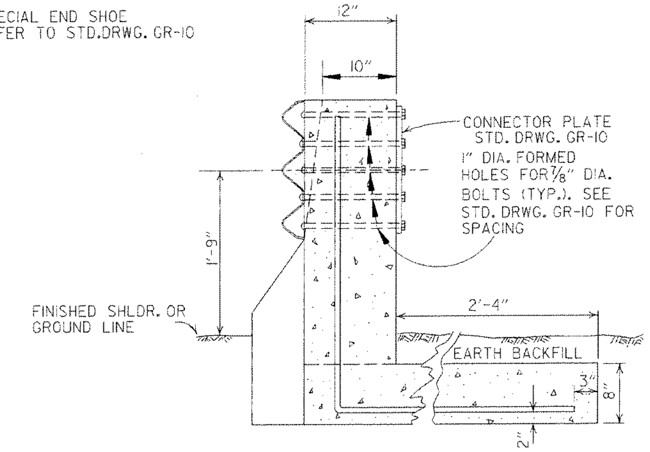


NOTE:
ALL EXPOSED EDGES OF THE CONCRETE BARRIER WALL SHALL HAVE A 3/4" CHAMFER.

ELEVATION OF CONCRETE BARRIER WALL

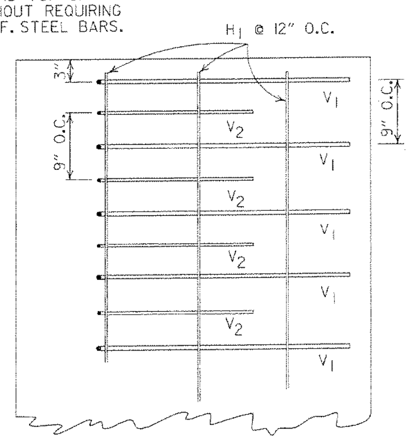


SECTION A-A



SECTION THRU CONNECTION

IF FOR ANY REASON IT IS NECESSARY TO CONSTRUCT THE FOOTING AT A LOWER ELEVATION THAN IS SHOWN, THE STEM MAY BE LENGTHENED 1'-0" BETWEEN FIN. SHLDR. AND TOP OF FOOTING WITHOUT REQUIRING HEAVIER REINF. STEEL BARS.

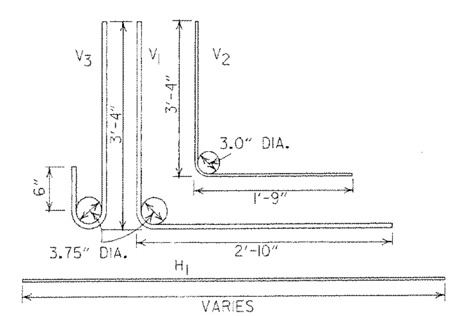


PLAN OF REINFORCING STEEL IN FOOTING

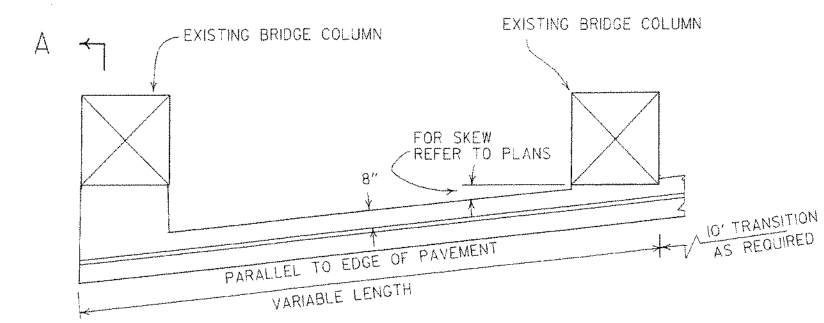
BAR LIST

MARK	NO.	SIZE	LENGTH
V1		#5	6'-2 1/4"
V2		#4	5'-1"
V3		#5	4'-1 1/8"
H1	6	4	VAR.

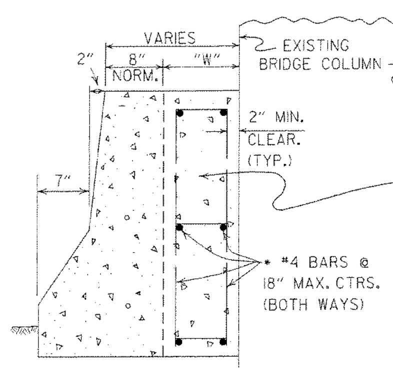
THE V3 BARS SHALL BE USED IN PLACE OF THE V1 & V2 BARS IN FRONT OF PIERS.



BEND DIAGRAMS



PLAN



•NOTE: REINFORCING REQUIRED ONLY WHEN "W" EXCEEDS 12".

ADDITIONAL CONCRETE & REINFORCING WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED AS INCLUDED IN THE PRICE BID FOR " CONCRETE BARRIER WALL."

SECTION A-A

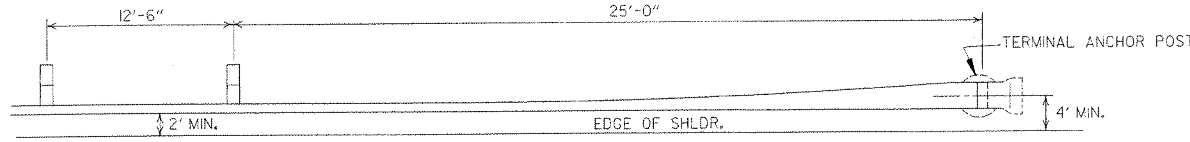
DETAILS OF CONCRETE BARRIER WALL WHEN PIERS ARE SKEWED TO ROADWAY

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF W-BEAM 1"	
8-22-02	REV. SECTION A-A OF DETAILS OF CONCRETE BARRIER WALL	
6-29-00	MOVED DIMENSION LINE	
5-18-00	ADDED NOTE	
3-30-00	REVISED TO INCLUDE THRIE BEAM	
6-2-94	ADDED TRANSITION SECTION NOTE	
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED DRAWING PLAN CONC. BARR.	8-15-91
2-16-89	ADDED SKEWED DETAILS	594-2-16-89
7-14-88	CHANGED TITLE	
10-9-87	REDRAWN & REVISED	

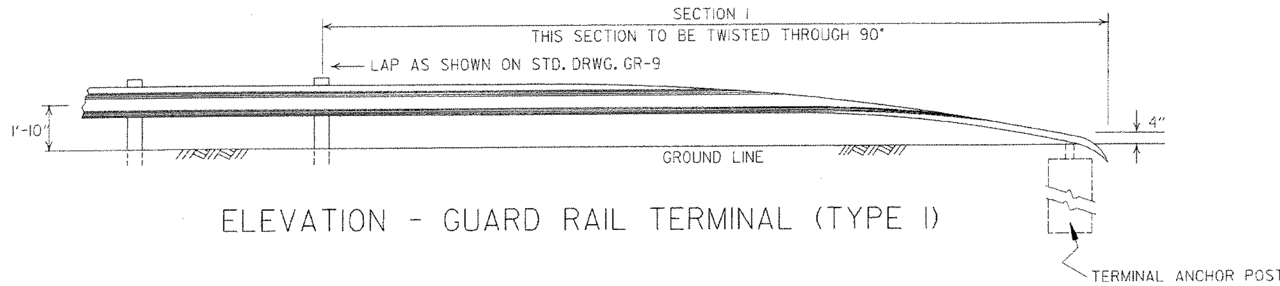
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE BARRIER WALL
(PIER PROTECTION TYPE A)

STANDARD DRAWING GR-II

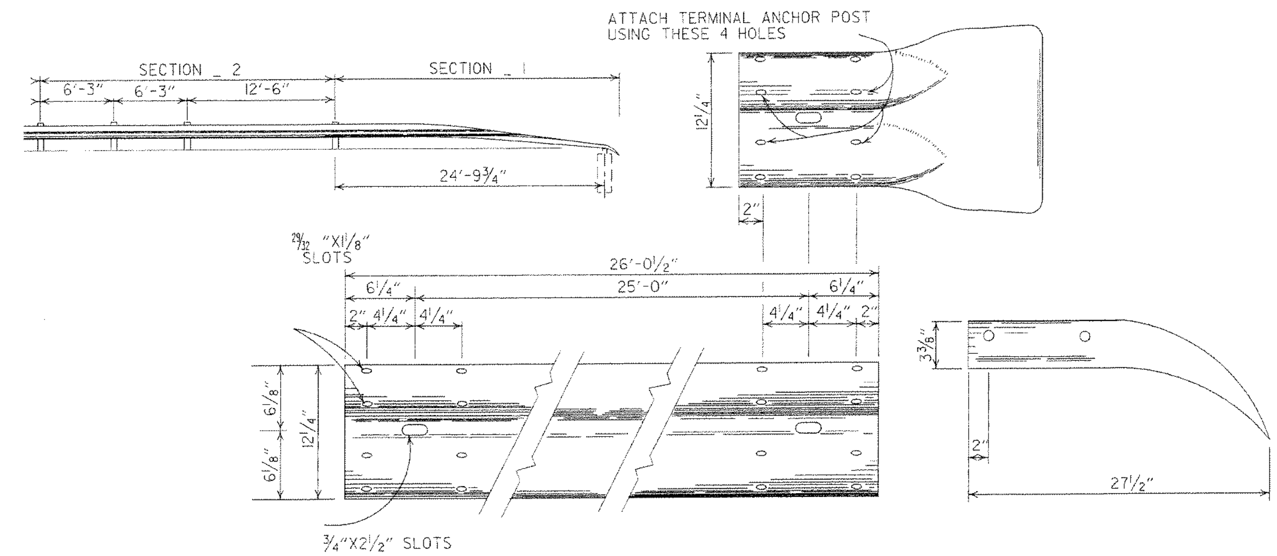


PLAN - GUARD RAIL TERMINAL (TYPE I)



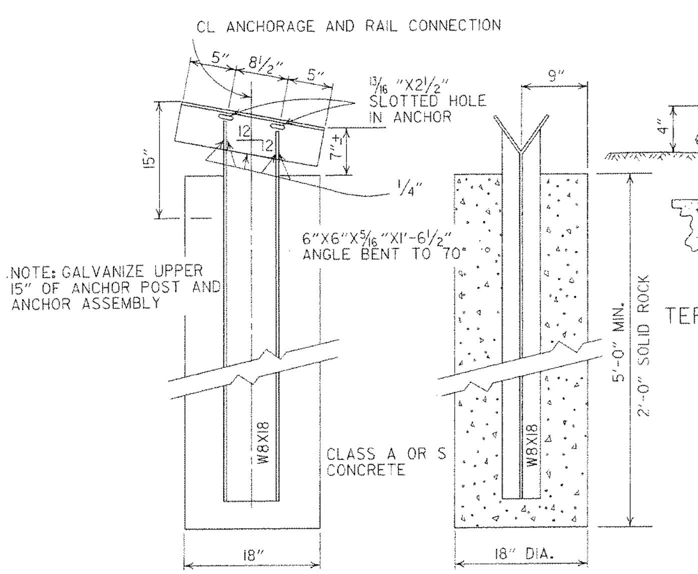
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

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.



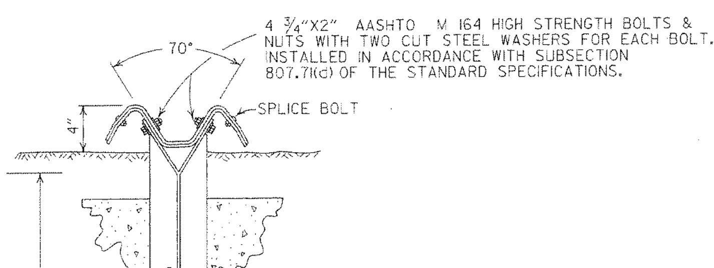
SECTION 1

TERMINAL SECTION



ELEVATION

SECTION



DETAIL OF TERMINAL ANCHOR CONNECTION

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

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31 5/16	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

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

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

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

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

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

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

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

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

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

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

CONSTRUCTION SEQUENCE

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

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

- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_O = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
= UNDISTURBED SOIL

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

* SM-3 WILL NOT BE ALLOWED.

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

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

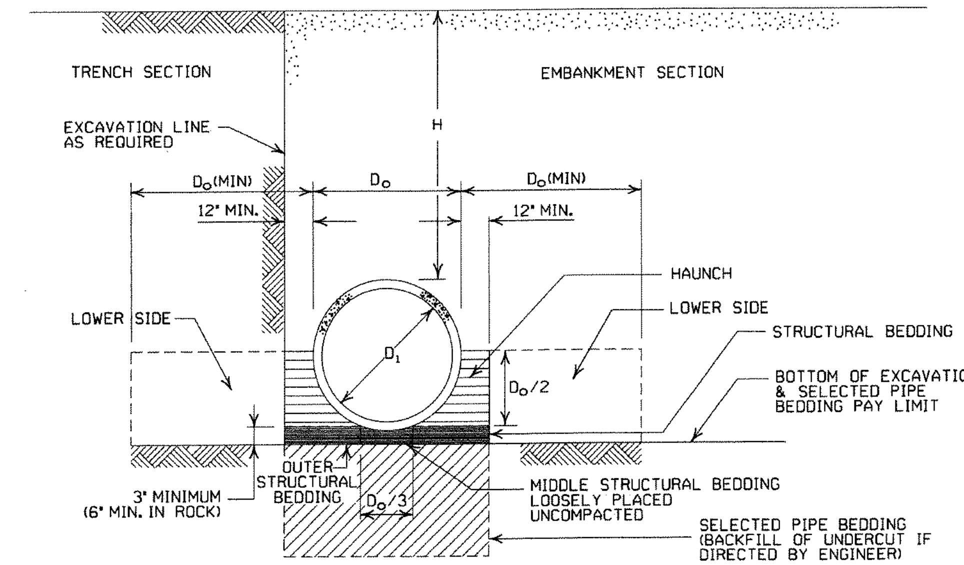
INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

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



EMBANKMENT AND TRENCH INSTALLATIONS

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

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 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."

DATE	REVISION	DATE FILMED
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET) — METAL THICKNESS (INCHES) 0.064	0.079	0.109	0.138	0.168
		2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM				
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
	② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM					
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET) — METAL THICKNESS IN INCHES 0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

CORRUGATED METAL PIPE ARCHES

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL: MIN. THICKNESS REQUIRED INCHES	STEEL: ① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	STEEL: MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	ALUMINUM: MIN. THICKNESS REQUIRED INCHES	ALUMINUM: ① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	ALUMINUM: MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM		
15	17x13	3	0.064	2	15	0.060	2	15
18	21x15	3	0.064	2	15	0.060	2	15
21	24x18	3	0.064	2.25	15	0.060	2.25	15
24	28x20	3	0.064	2.5	15	0.075	2.5	15
30	35x24	3	0.079	3	12	0.075	3	12
36	42x29	3½	0.079	3	12	0.105	3	12
42	49x33	4	0.079	3	12	0.105	3	12
48	57x38	5	0.109	3	13	0.135	3	13
54	64x43	6	0.109	3	14	0.135	3	14
60	71x47	7	0.138	3	15	0.164	3	15
66	77x52	8	0.168	3	15			
72	83x57	9	0.168	3	15			

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM	MIN. HEIGHT INSTALLATION TYPE 2	MIN. HEIGHT INSTALLATION TYPE 1	MAX. HEIGHT INSTALLATION TYPE 2	MAX. HEIGHT INSTALLATION 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

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

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

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

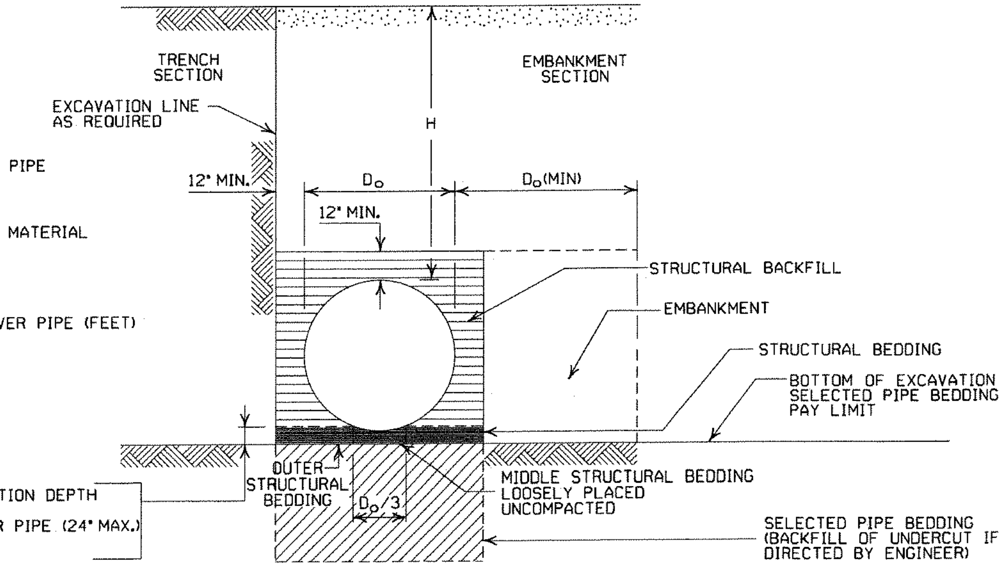
③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES — STEEL: ZINC COATED	STEEL: UNCOATED	ALUMINUM	GAUGE NUMBER
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

- LEGEND -

D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)



IN SOIL-MIN. EQUALS TWICE CORRUGATION DEPTH
IN ROCK-MIN. EQUALS GREATER OF;
1/2" PER FOOT OF FILL OVER PIPE (24" MAX.)
TWICE CORRUGATION DEPTH

EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 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."

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

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

DATE	REVISION	DATE FILMED
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

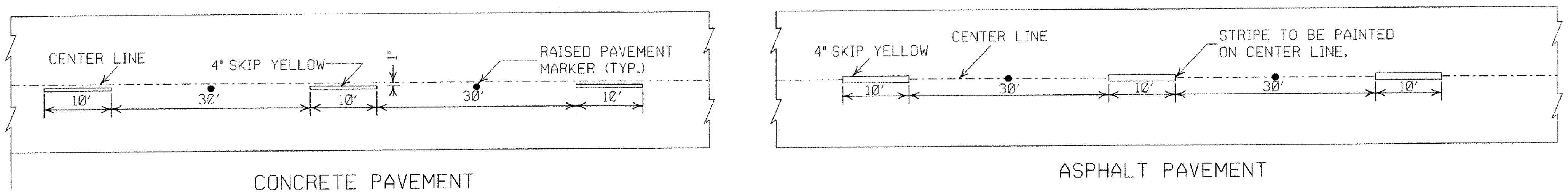
ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

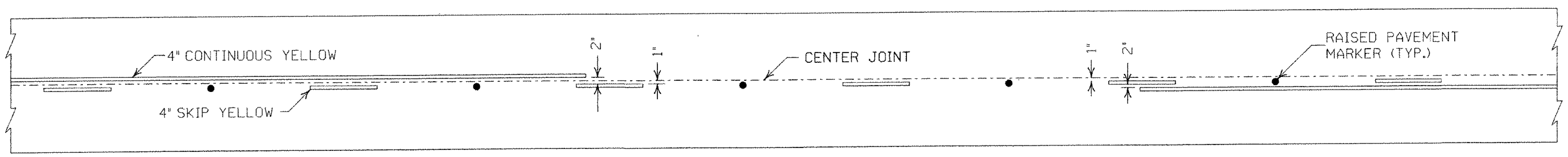
STANDARD DRAWING PCM-1

NOTES:

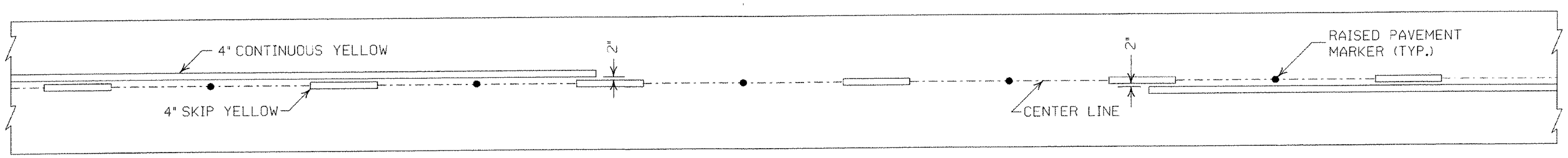
1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.'
4. RAISED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



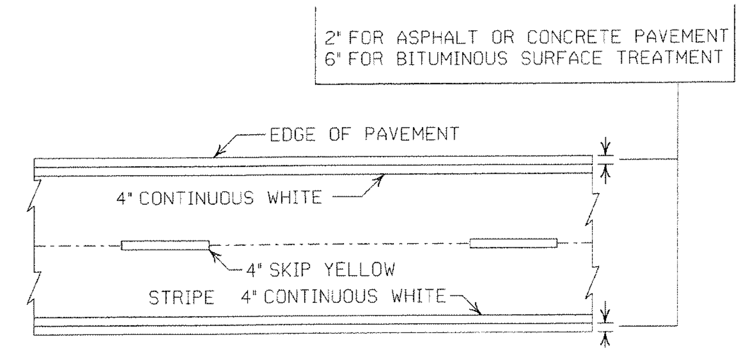
BROKEN LINE STRIPING



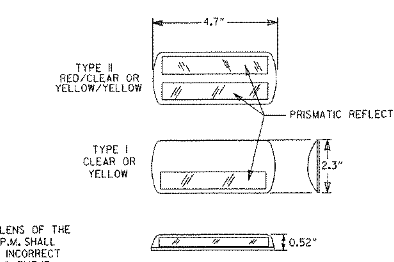
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

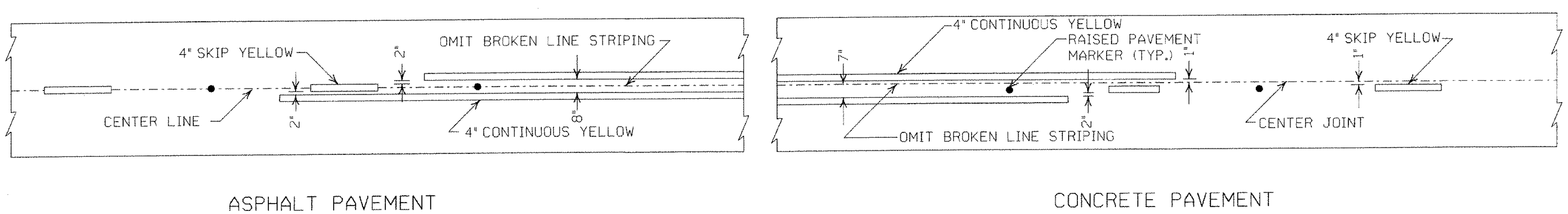


PAVEMENT EDGE LINE MARKING



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

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

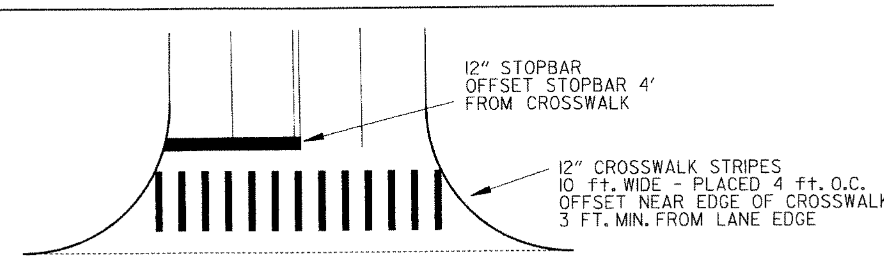


STRIPING AT ADJACENT NO PASSING LANES

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

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

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



CROSSWALK AND STOPBAR DETAILS

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

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

203

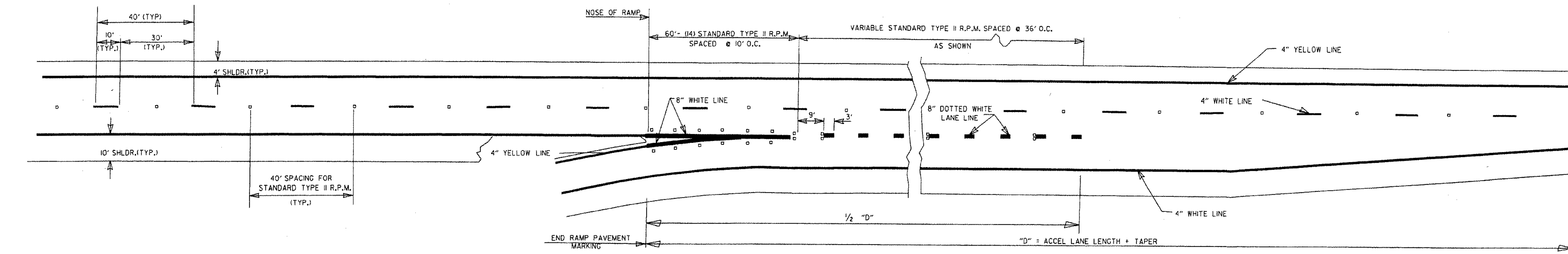
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

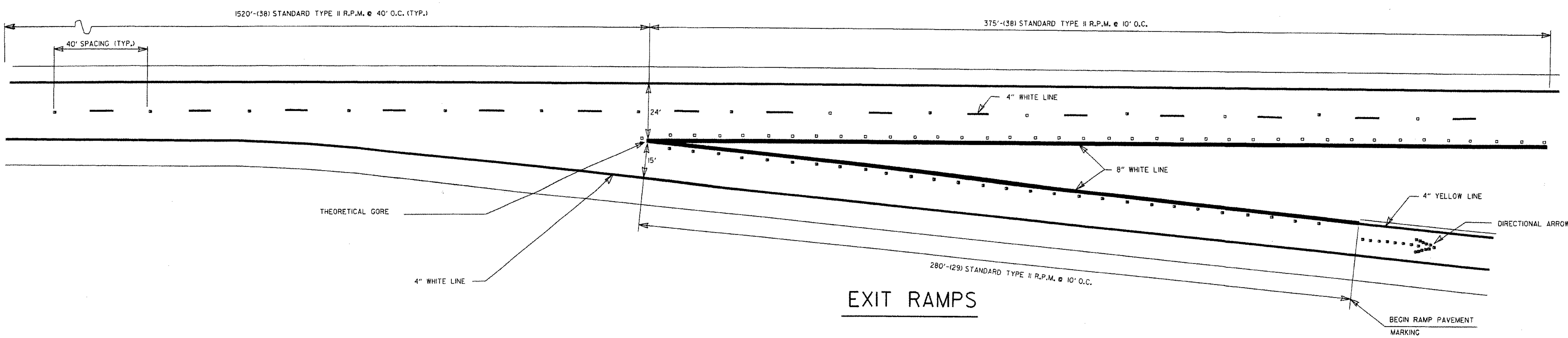
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

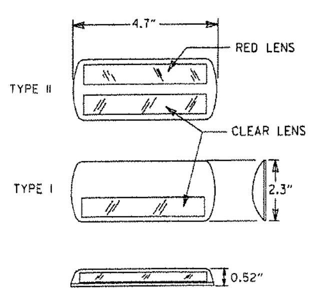
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

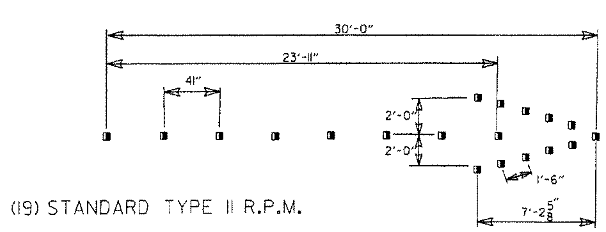


EXIT RAMPS



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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



DIRECTIONAL ARROWS

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

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

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

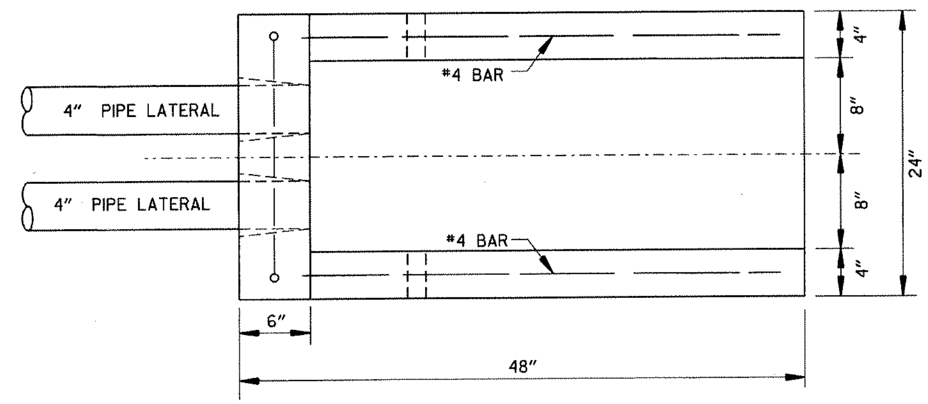
DATE	REVISION	FILMED
7/26/12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES: REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES: REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

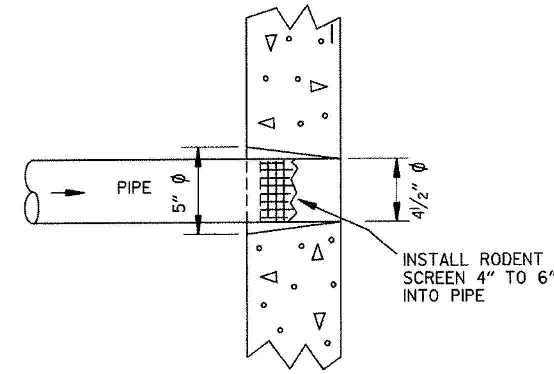
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

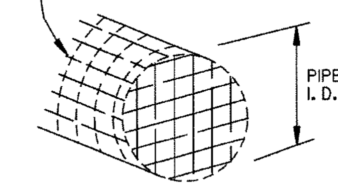
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.
2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF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



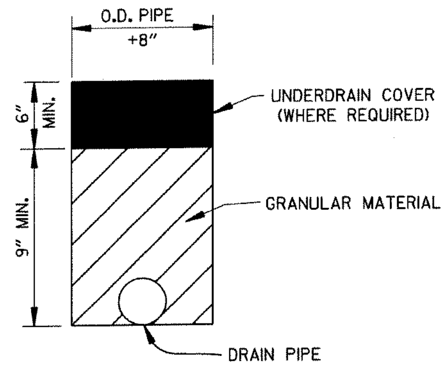
PLAN VIEW

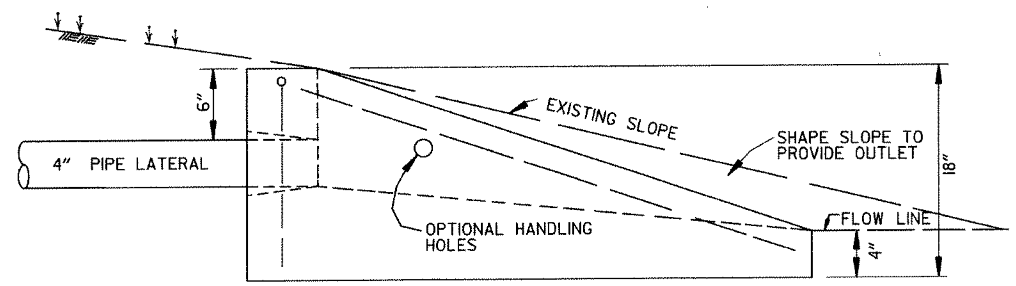


DETAIL OF HOLE FOR 4" PIPE

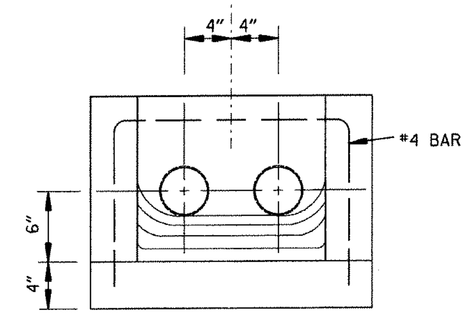


DETAIL OF RODENT SCREEN

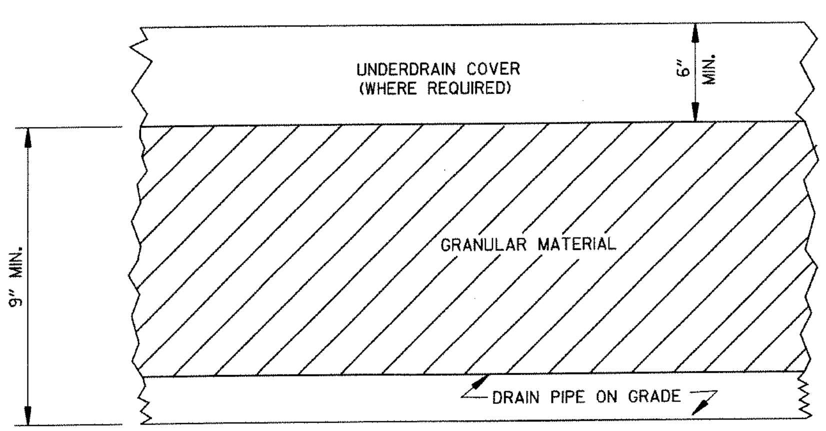




SIDE VIEW

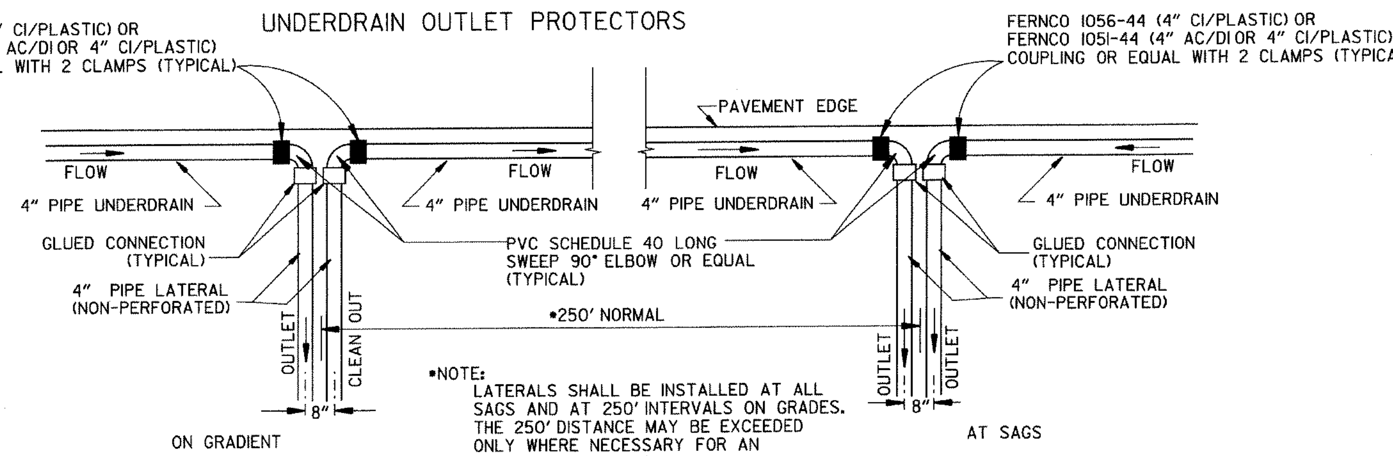


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



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

DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

DATE	REVISION	DATE FILMED
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

INSTD.PU1
7-20-95

SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	65 MPH e	65 MPH Ls (FT) MINIMUM	65 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15'	N.C.	150	250	N.C.	175	250	N.C.	200	300	N.C.	225	350	N.C.	250	350	N.C.	250	350	N.C.	275	350
0° 30'	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 45'	N.C.			N.C.			R.C.			0.022			0.023			0.025			0.028		
1° 00'	N.C.			N.C.			0.021			0.026			0.030			0.033			0.037		
1° 15'	N.C.			R.C.			0.026			0.032			0.037			0.041			0.046		
1° 30'	N.C.			0.021			0.031			0.037			0.043			0.048			0.054		
1° 45'	N.C.			0.025			0.036			0.043			0.049			0.055			0.062		
2° 00'	R.C.			0.028			0.040			0.048			0.055			0.062			0.070		
2° 15'	R.C.			0.031			0.045			0.053			0.061			0.069	265		0.078	300	400
2° 30'	0.021			0.034			0.049			0.058			0.067			0.075	280		0.085	315	
2° 45'	0.023			0.037			0.053			0.063			0.072			0.081	300	400	0.091	335	
3° 00'	0.025			0.040			0.057			0.067	230		0.077	260		0.087	315		0.096	350	450
3° 15'	0.027			0.043			0.061			0.072	245		0.082	275		0.090	325		0.098	360	
3° 30'	0.029			0.046			0.065	205		0.076	255		0.086	285	400	0.095	340		0.100	360	
3° 45'	0.031			0.049			0.069	215		0.080	265		0.090	295		0.097	345				
4° 00'	0.033			0.051			0.072	225		0.083	270		0.093	305		0.099	350				
4° 30'	0.037			0.056			0.078	240		0.087	280	400	0.096	315							
5° 00'	0.040			0.061			0.083	250		0.091	295		0.098	320							
5° 30'	0.043			0.066	185		0.088	260	350	0.094	300										
6° 00'	0.046			0.070	190		0.092	270		0.096	305										
6° 30'	0.050			0.074	200	300	0.095	280		0.100	315										
7° 00'	0.053			0.078	210		0.098	285													
7° 30'	0.056			0.081	215		0.099	290													
8° 00'	0.058			0.084	220		0.100	290													
8° 30'	0.061			0.087	225																
9° 00'	0.063			0.089	230																
10° 00'	0.068	160		0.094	235																
11° 00'	0.072	170		0.097	250																
12° 00'	0.076	175		0.099	250																
13° 00'	0.080	180		0.100	250																
14° 00'	0.083	190																			
15° 00'	0.086	195																			
16° 00'	0.089	200	300																		
17° 00'	0.091	200																			
18° 00'	0.093	205																			
19° 00'	0.095	210																			
20° 00'	0.097	215																			
21° 00'	0.098	215																			
22° 00'	0.099	215																			
23° 00'	0.099	215																			
24° 00'	0.100	220																			
D MAX	24° 45'			13° 15'			8° 15'			6° 30'			5° 15'			4° 15'			3° 30'		

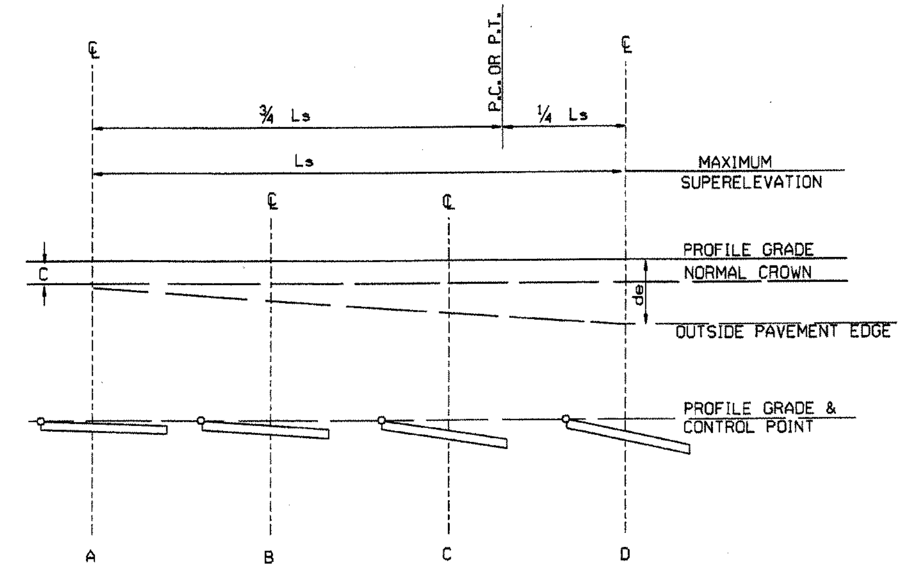
GENERAL NOTES

1. ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS:

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%

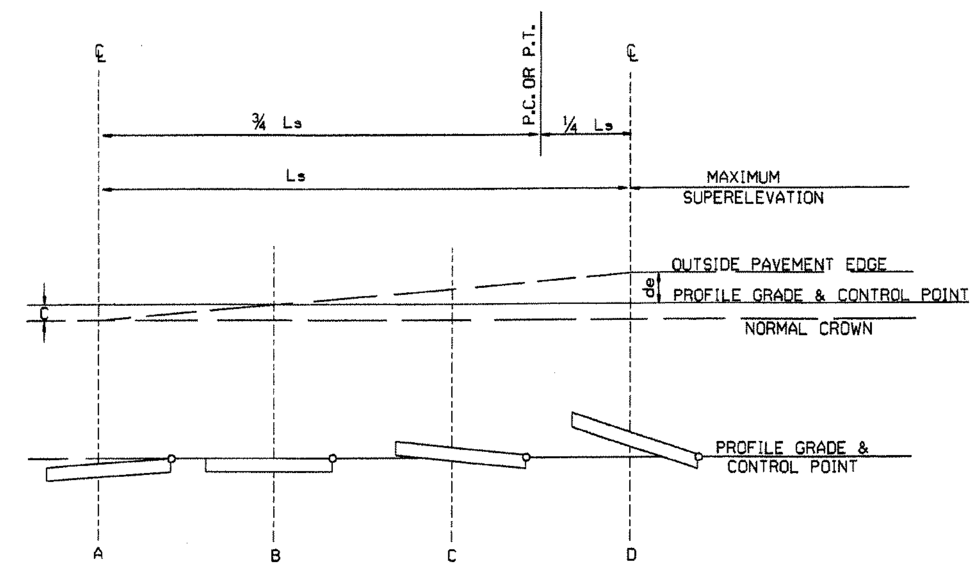
ABBREVIATIONS

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



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$



ONE-WAY TRAFFIC
OUTSIDE LANE

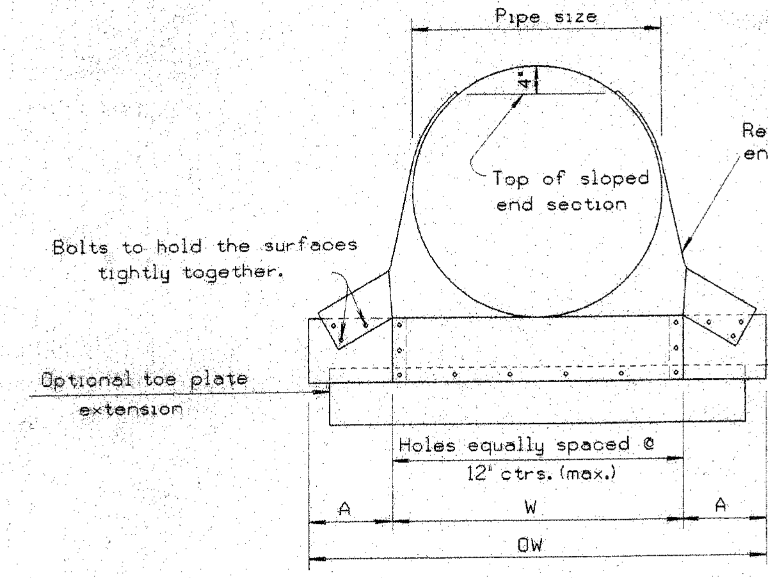
SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

DATE	REVISION	DATE FILMED
01-09-87	ISSUED	578-1-15-87

ARKANSAS STATE HIGHWAY COMMISSION

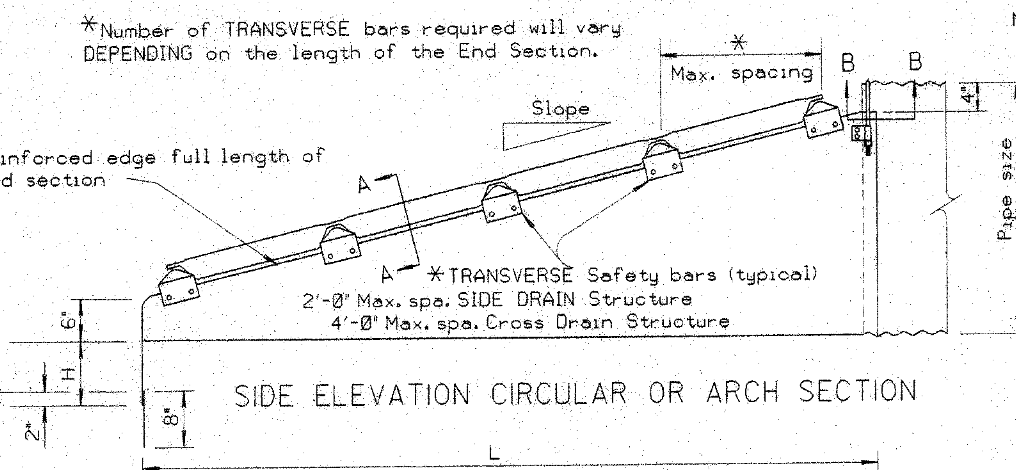
TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1

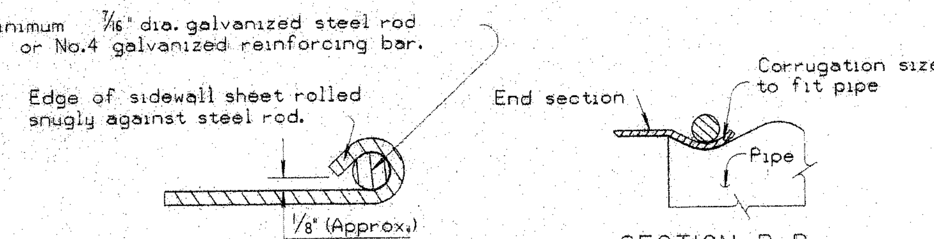


FRONT VIEW CIRCULAR PIPE

*Number of TRANSVERSE bars required will vary DEPENDING on the length of the End Section.

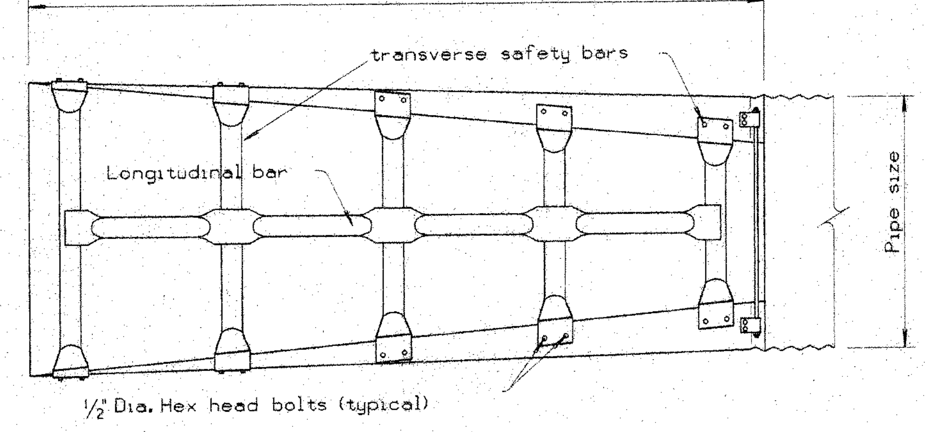


SIDE ELEVATION CIRCULAR OR ARCH SECTION

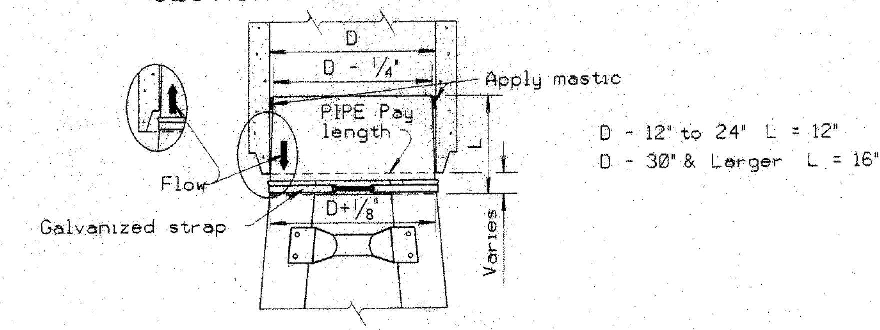


SECTION A-A

SECTION B-B



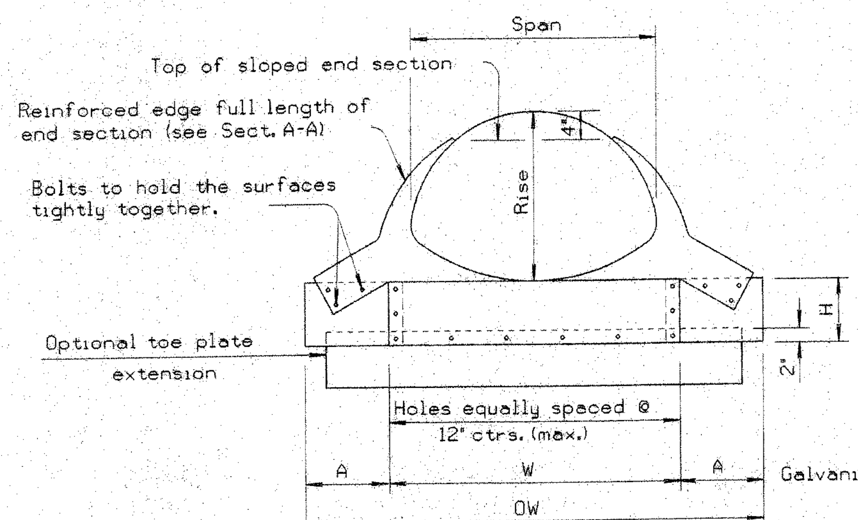
TOP VIEW CIRCULAR OR ARCH SECTION



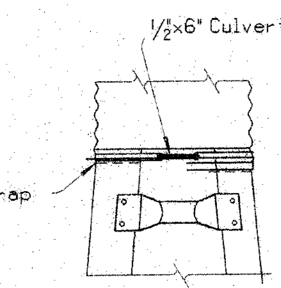
Note: Metal end section to be firmly wedged INTO PIPE END BEFORE BACKFILLING PIPE.

(Tapered sleeve to be 12 Ga. smooth galvanized steel in accordance with AASHTO M 218.)

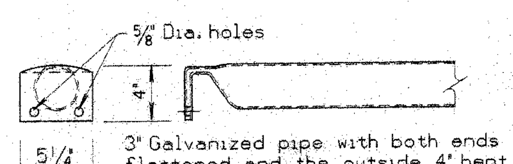
STEEL END SECTION FOR CONCRETE PIPE
(Alternate for Concrete End Section)



FRONT VIEW ARCH PIPE

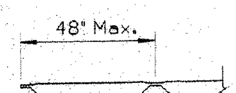


TYPE #1 CONNECTOR DETAIL
For 15" thru 24" pipe



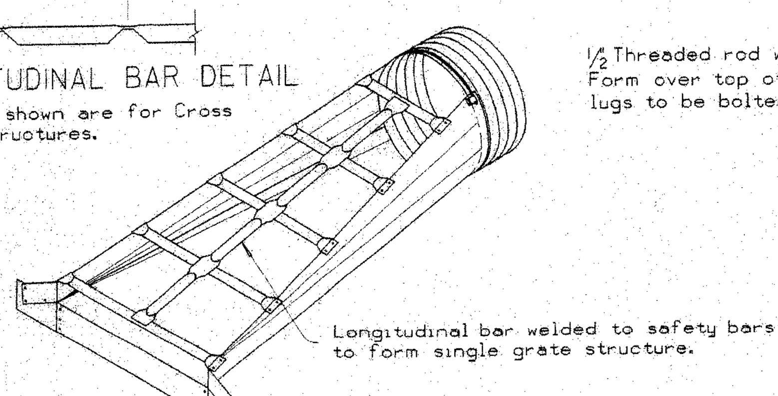
3" Galvanized pipe with both ends flattened and the outside 4" bent to match end section sides.

DETAIL OF TRANSVERSE SAFETY BAR



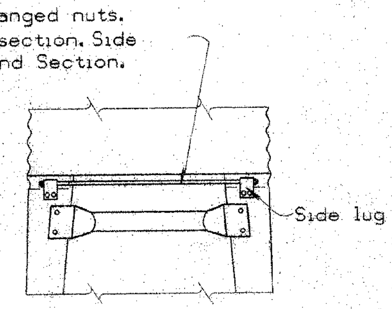
LONGITUDINAL BAR DETAIL

Note: Bars shown are for Cross Drain Structures.



ISOMETRIC VIEW

1/2 Threaded rod with flanged nuts. Form over top of end section. Side lugs to be bolted to End Section.



TYPE #2 CONNECTOR DETAIL
For 30" and larger round pipes & 21"x15" thru 64"x43" arch pipes

GENERAL NOTES

End sections shall be fabricated from galvanized steel meeting the requirements of SUBSECTION 606.02(c)(1) OF THE STANDARD SPECIFICATIONS.
When specified optional toe plate extension shall be punched and bolted to end section apron lip with 3/8" diameter galvanized bolts.
Steel for toe plate extension shall be same gauge as end section.
Dimensions shall be overall width less 6" by 8" high.
Attachment to circular pipes 15" through 24" diameter shall be made with Type #1 straps. All other sizes shall be attached with Type #2 rods and lugs.
Safety bars shall be fabricated from steel pipe meeting the requirements of ASTM A-53 Schedule 40 Specifications. Safety bars shall be hot dipped galvanized after fabrication.
All work and materials required for construction and installation of safety end section shall be included in the PRICE BID EACH FOR SAFETY END SECTIONS FOR PIPE CULVERTS.
Longitudinal and transverse bars will be required for cross drain structures when span is greater than 30". no safety bars will be REQUIRED FOR 30" SPAN OR LESS WHEN USED ON CROSS DRAIN STRUCTURES.
Transverse bars will be required for all sizes of side drain structures.
Class I safety end sections shall be end sections with a 4:1 slope.
Class 2 safety end sections shall be end sections with a 6:1 slope.

SAFETY END SECTIONS FOR ARCH PIPES

Equv. Dia.	Nom. W.W. Area Sq Ft	Pipe Arch Span (In.)	Pipe Arch Rise (In.)	Min. Gauge End Sect.	Dimensions in Inches A	H	W	OW	Slope	L (In)	Slope	L (In)
18"	1.6	21	15	16	8	6	27	43	4:1	20	6:1	30
21"	2.2	24	18	16	8	6	30	46	4:1	32	6:1	48
24"	2.9	28	20	16	8	6	34	50	4:1	40	6:1	60
30"	4.5	35	24	14	12	9	41	65	4:1	56	6:1	84
36"	6.5	42	29	12	12	9	48	72	4:1	76	6:1	114
42"	8.9	49	33	12	16	12	55	87	4:1	92	6:1	138
48"	11.6	57	38	12	16	12	63	95	4:1	112	6:1	168
54"	14.7	64	43	12	16	12	70	102	4:1	132	6:1	198
60"	18.1	71	47	12	16	12	77	109	4:1	148	6:1	222
72"	26.0	83	57	12	16	12	89	121	4:1	188	6:1	282

SAFETY END SECTIONS FOR CIRCULAR PIPES

Pipe Dia.	Min. Gauge Ends	Dimensions in Inches A 1"Tol	H 1"Tol	W 2"Tol	OW	L Dimensions in Inches Slope	L	Slope	L
15"	16	8	6	21	37	4:1	20	6:1	30
18"	16	8	6	24	40	4:1	32	6:1	48
21"	16	8	6	27	43	4:1	44	6:1	66
24"	16	8	6	30	46	4:1	56	6:1	84
30"	12	12	9	36	60	4:1	80	6:1	120
36"	12	12	9	42	66	4:1	104	6:1	156
42"	12	16	12	48	80	4:1	128	6:1	192
48"	12	16	12	54	86	4:1	152	6:1	228
54"	12	16	12	60	92	4:1	176	6:1	264
60"	12	16	12	66	98	4:1	200	6:1	300

DATE	REVISION	DATE FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
8-15-91	DRAWN & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SAFETY END SECTION FOR CIRCULAR AND ARCH PIPES

STANDARD DRAWING SES-1

R1-1 — STOP
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2 — YIELD
STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1 — SPEED LIMIT 50
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5A — REDUCED SPEED AHEAD
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5C — SPEED ZONE AHEAD
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-1 — DO NOT PASS
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2 — PASS WITH CARE
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1 — DO NOT ENTER
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2 — ROAD CLOSED
48"X30"

R11-3A — ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
60"X30"

R11-4 — ROAD CLOSED TO THRU TRAFFIC
60"X30"

RSP-1 — SHOULDER CLOSED
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 — ROAD NARROWS
STD. 36"X36"
SPECIAL 48"X48"

W6-3
EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7 — LOOSE GRAVEL
EXPWY. 36"X36"
FWY. 48"X48"

W9-2 — LANE ENDS MERGE RIGHT
STD. 36"X36"
FWY. 48"X48"

W13-1 — XX M.P.H.
STD. 24"X24"

W20-1 — ROAD WORK XXXX
STD. 48"X48"

W20-2 — DETOUR XXXX
STD. 48"X48"

W20-3 — ROAD CLOSED XXXX
STD. 48"X48"

W20-4 — ONE LANE ROAD XXXX
STD. 48"X48"

W20-5 — RIGHT LANE CLOSED XXXX
STD. 48"X48"

W20-7a — 500 FEET (18" × 24", W16-2)
STD. 36"X36"
FWY. 48"X48"

W21-2 — FRESH OIL
STD. 30"X30"
SPECIAL 36"X36"

W21-5 — SHOULDER WORK
STD. 30"X30"
SPECIAL 36"X36"

W24-1
STD. 36"X36"

W1-4b
STD. 48"X48"

R56-1 — CONTROLLED ACCESS HWY. NO EXIT
STD. 18"X18"

W8-11 — UNEVEN LANES
STD. 36"X36"
FWY. 48"X48"

W8-9 — LOW SHOULDER
STD. 36"X36"
FWY. 48"X48"

G20-1 — ROAD WORK NEXT X.X MILES
60"X24"

G20-2 — END ROAD WORK
48"X24"

OM-3L OM-3R — YELLOW, BLACK
12"X36"

M4-9 — DETOUR
STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10 — DETOUR
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.

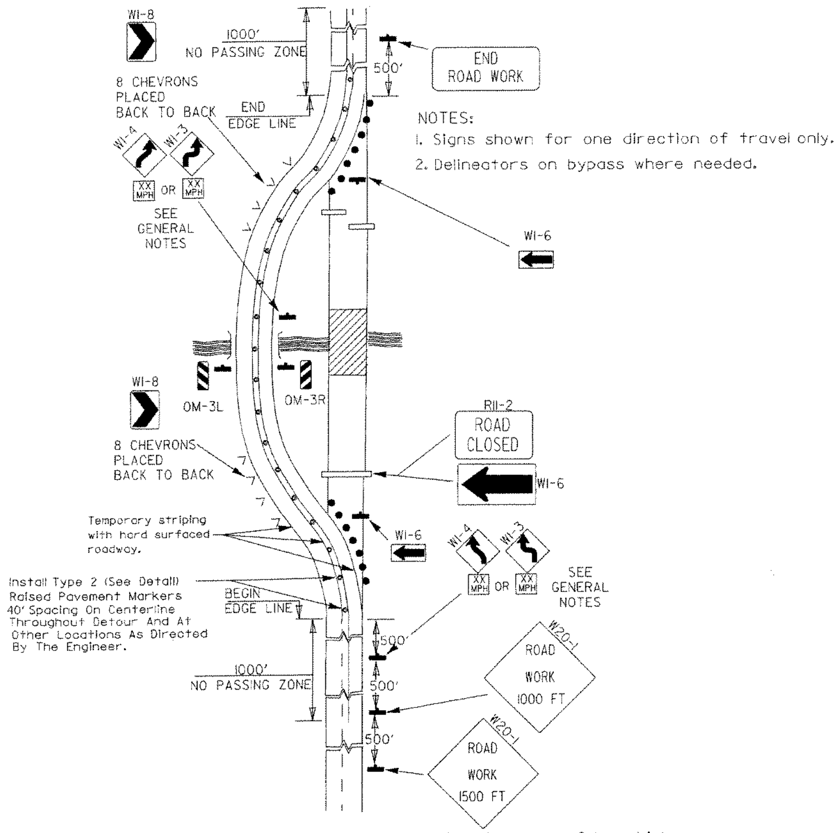
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

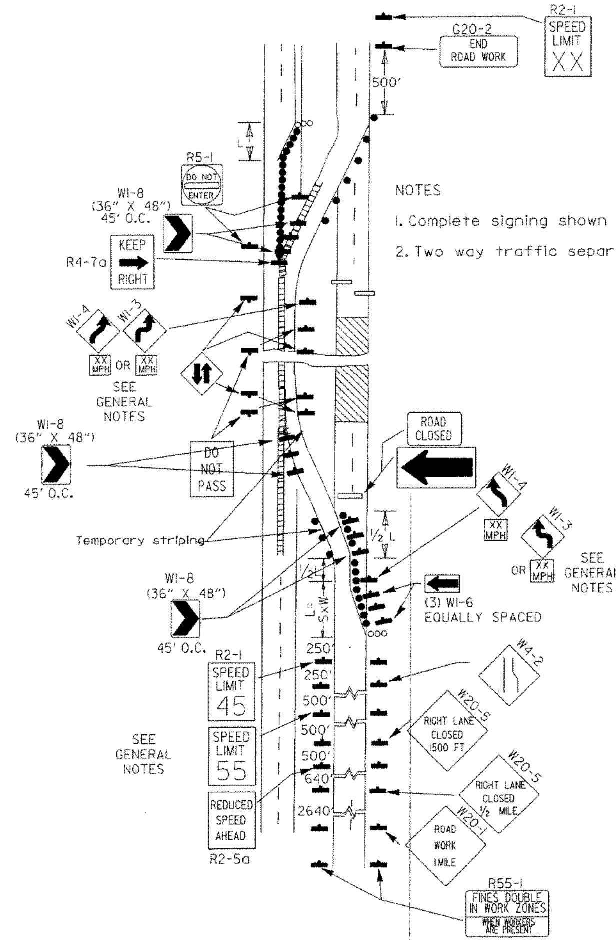
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



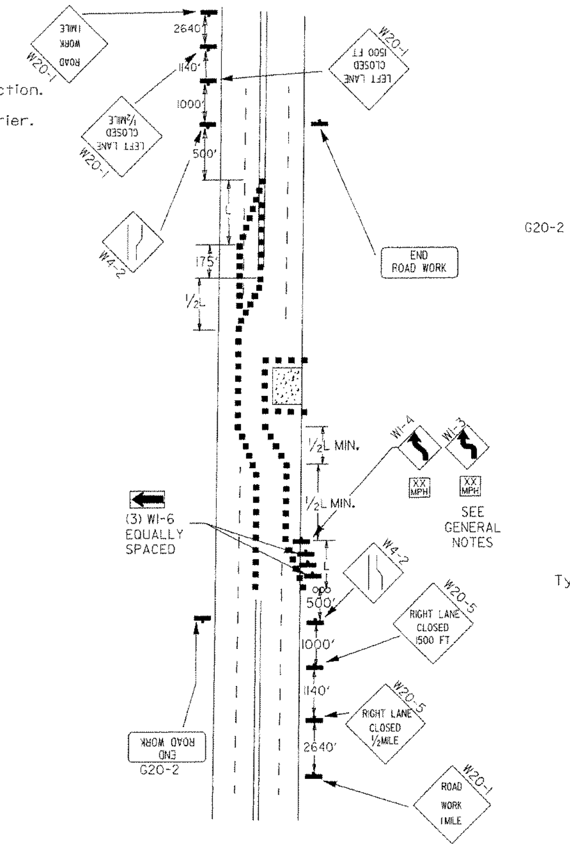
NOTES:
1. Signs shown for one direction of travel only.
2. Delineators on bypass where needed.

(A) Typical application of traffic control devices on a 2-lane highway where the entire roadway is closed and a bypass detour is provided.

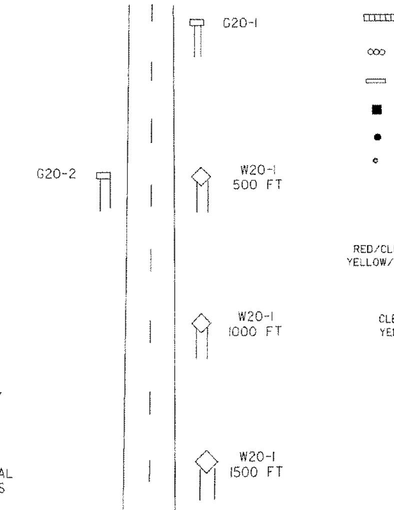


NOTES
1. Complete signing shown only in crossover direction.
2. Two way traffic separated with positive barrier.

(B) Typical application - 4-lane divided roadway where one roadway is closed.

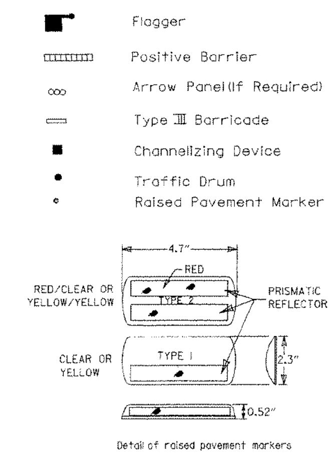


(C) Typical application - 4-lane undivided roadway where half of the roadway is closed.



Typical advance warning sign placement

KEY:



Taper formulae:

L=SxW for speeds of 45mph or more.

$L = \frac{WS^2}{60}$ for speeds of 40mph or less.

Where:

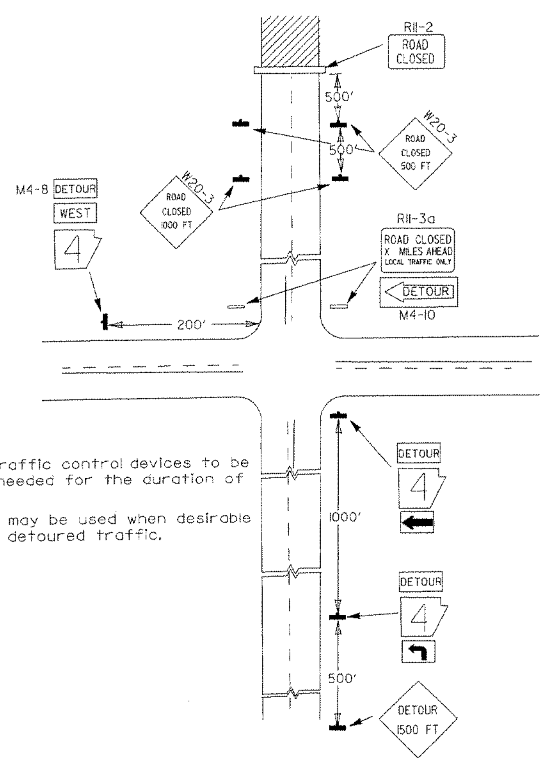
L= Minimum length of taper.

S= Numerical value of posted speed limit prior to work or 85th percentile speed.

W= Width of offset.

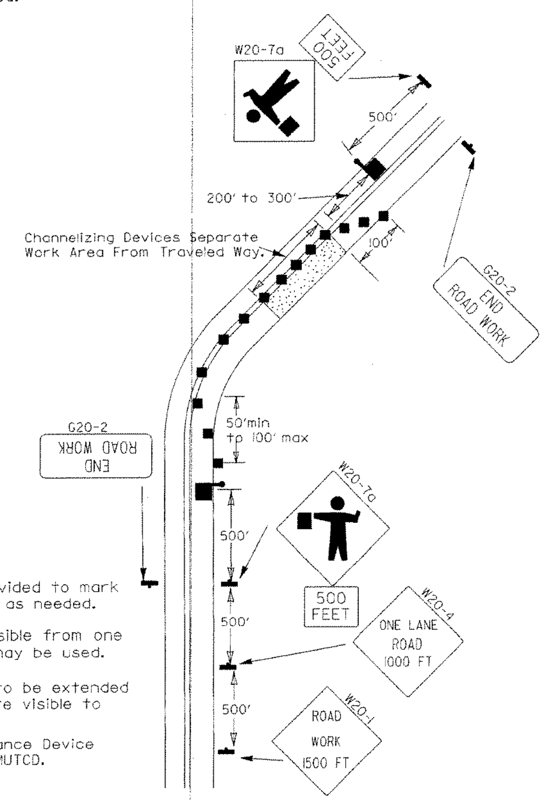
GENERAL NOTES:

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.



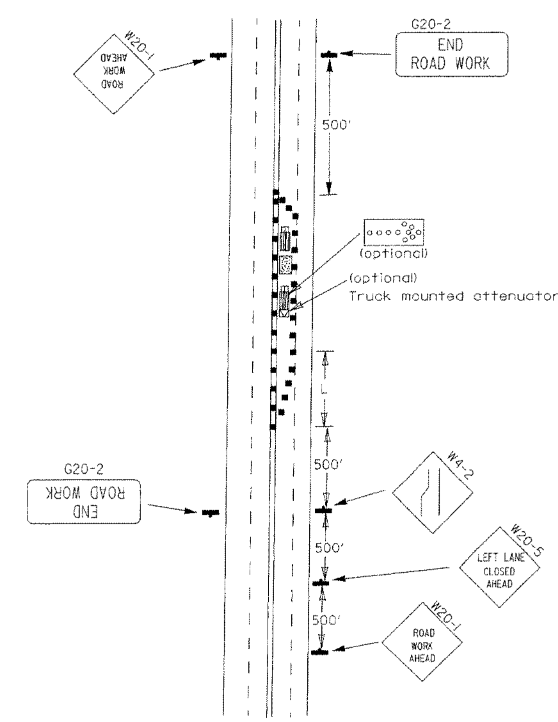
NOTES:
1. Regulatory traffic control devices to be modified as needed for the duration of the detour.
2. Street names may be used when desirable for directing detoured traffic.

(D) Typical application - roadway closed beyond detour point.



NOTES:
1. Flood lights should be provided to mark flagger stations at night as needed.
2. If entire work area is visible from one station, a single flagger may be used.
3. Channelizing devices are to be extended to a point where they are visible to approaching traffic.
4. Automated Flagger Assistance Device (AFAD) optional. Refer to MUTCD.

(E) Typical application of traffic control devices on 2-lane highway where one lane is closed and flagging is provided.



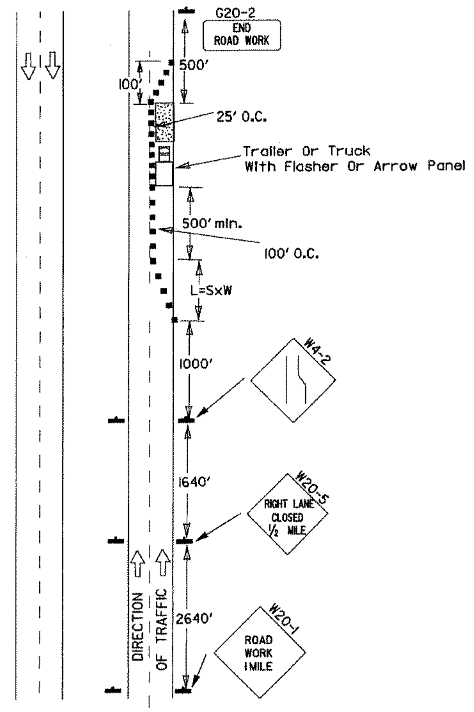
(F) Typical application - 4-lane undivided roadway with inside lane closed.

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

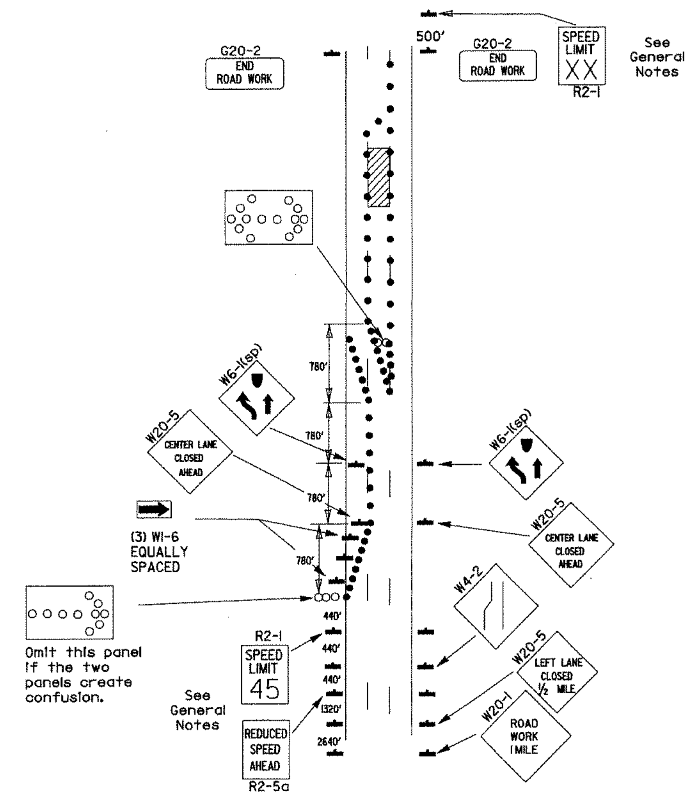
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2



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



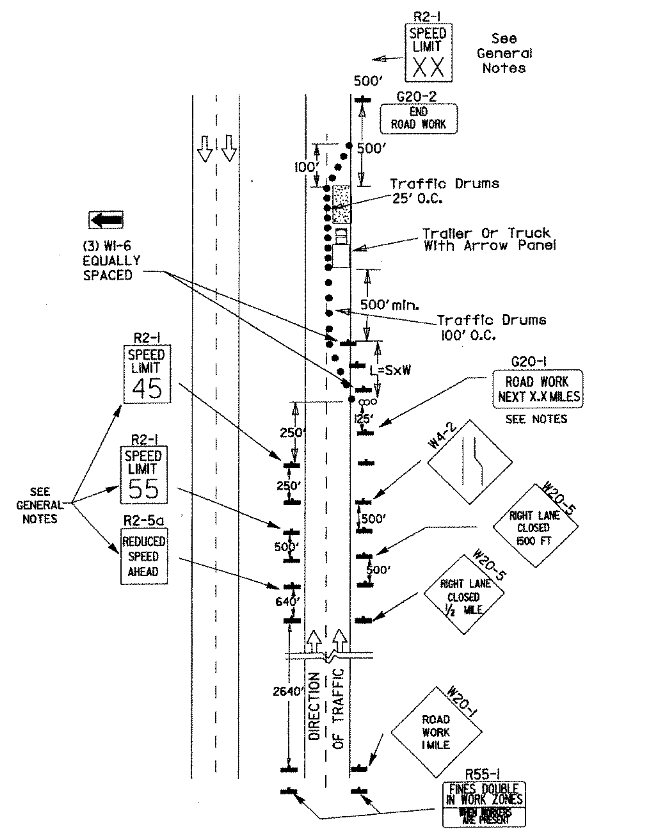
(B) Typical application - 3-lane oneway roadway where center lane is closed.

KEY:

Arrow Panel (If Required)

■ Channelizing Device

● Traffic drum

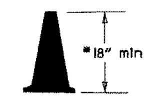


(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

GENERAL NOTES:

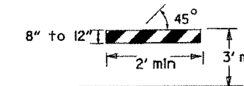
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 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. 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



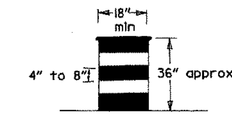
CONES

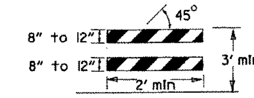
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.



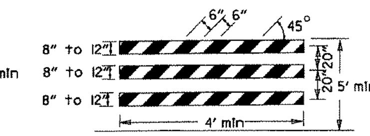
TYPE I BARRICADE

PLASTIC DRUM



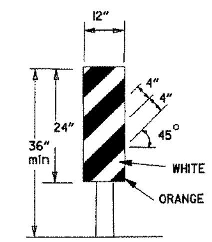


TYPE II BARRICADE



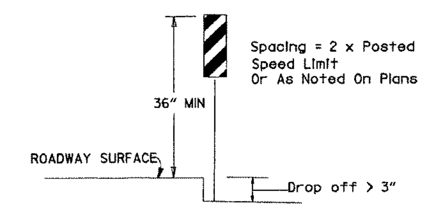
TYPE III BARRICADE

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



VERTICAL PANEL VP-1R

VERTICAL PANEL PLACEMENT



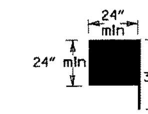
TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

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.

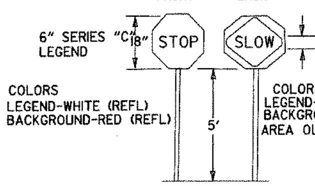
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG



Flag shall be of good grade red material

STOP SLOW PADDLE

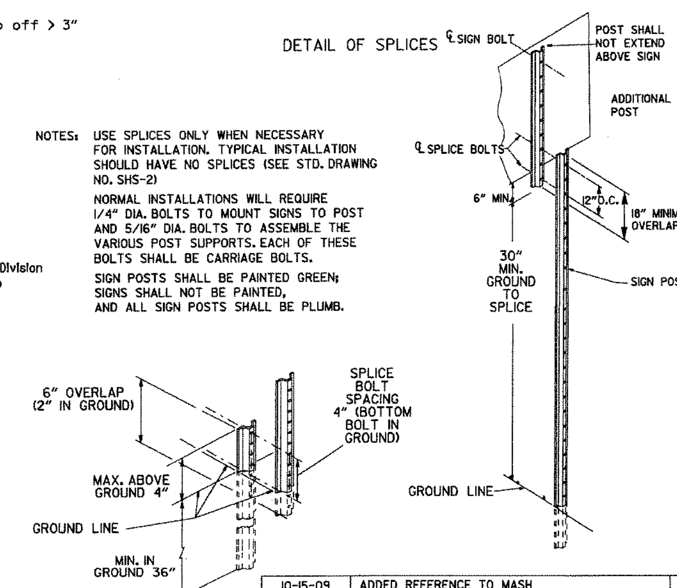


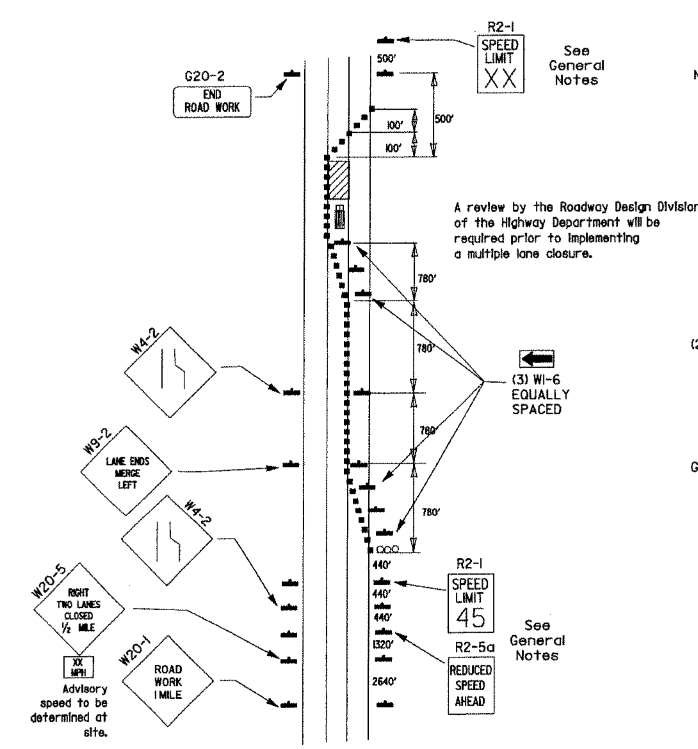
COLORS
LEGEND-WHITE (REFL)
BACKGROUND-RED (REFL)

COLORS
LEGEND-BLACK
BACKGROUND-ORANGE (REFL)
AREA OUTSIDE DIAMOND-BLACK

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.





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

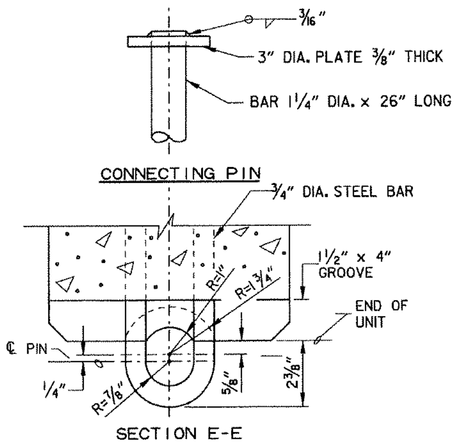
DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED 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

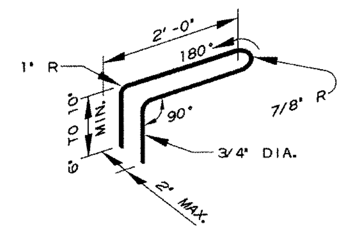
REINFORCING BAR TABLE PER BARRIER UNIT				
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5"; LIFTING HOLE; 90°; 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4	(2)	1 1/2" R; SLOTS; 7"; 1" MIN. CLEAR TO BAR; 1'-6"; 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°; ±9 1/2"; 2'-1 3/8"; 4 3/8"



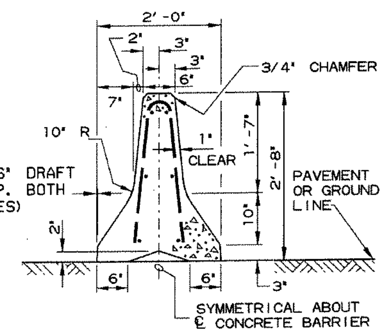
CONNECTING PIN

SECTION E-E

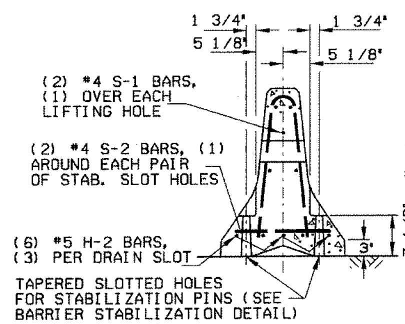
CONNECTION DETAILS



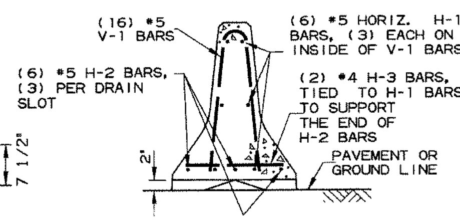
CONNECTION LOOP



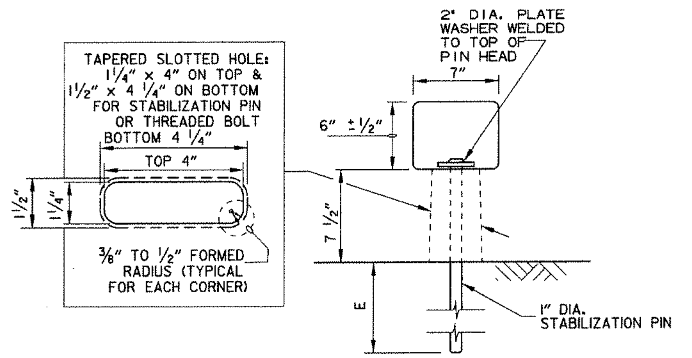
SECTION A-A



SECTION B-B



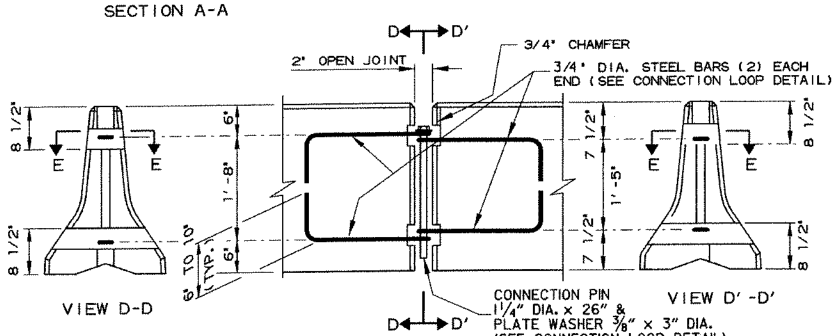
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

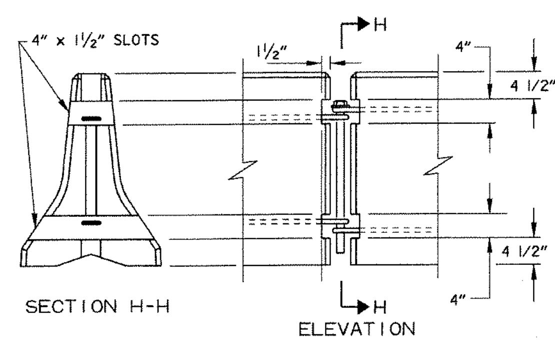
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



VIEW D-D

ELEVATION

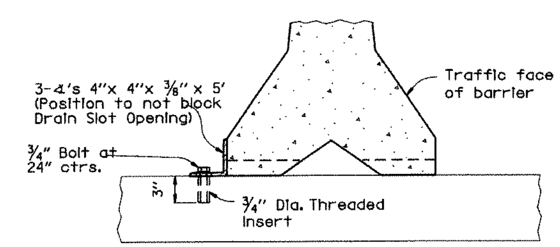
VIEW D'-D'



SECTION H-H

ELEVATION

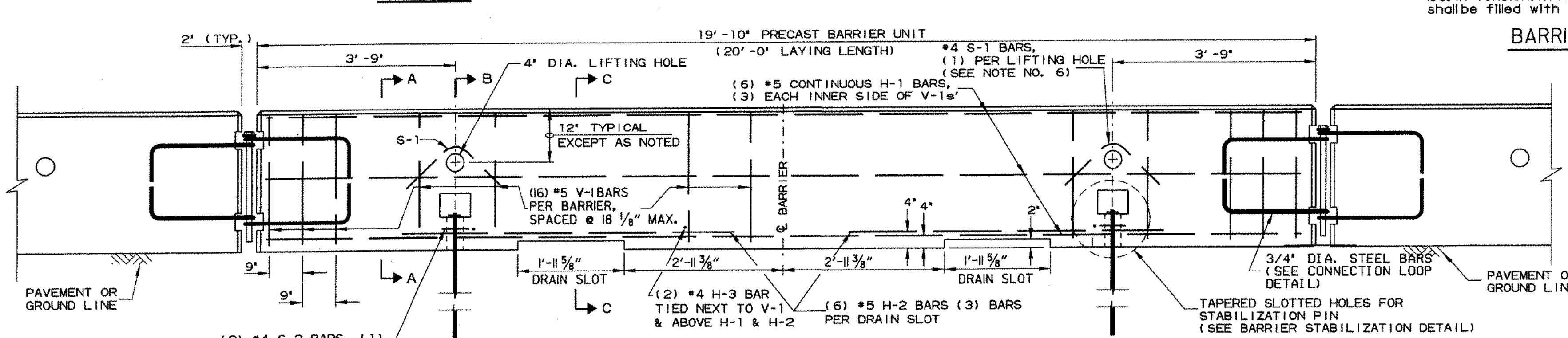
BARRIER REMOVAL SLOT DETAILS



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks to be retained. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL

BRIDGE DECKS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

1. The contractor shall furnish the Precast Concrete Barrier Units and shall be responsible for the manufacture, shipment, storage, placement and removal. At the completion of the project, the precast units will remain the property of the contractor.

2. Materials shall meet the following minimum requirements;
   Concrete: 2500 psi compressive strength at 28 days.
   Reinforcing Steel: AASHTO M 31 or M 53, Grade 60
   Structural Steel: AASHTO-M270 Grade 36 shall be used for the Connection Pin, Connection Loops, and Stabilization Pins. A One Piece Pin with a 3" rounded top may be used in place of the detailed Connection Pin.
   Delineators: Delineators shall be mounted at 10' spacing on top of precast barrier.

   In applications where barrier wall is within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers. Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices. Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier". The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.

3. Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 or Manual For Assessing Safety Hardware (MASH) will be accepted in lieu of the barrier shown. Drain slots shall be provided as needed or as directed by the Engineer. The Contractor shall furnish a certification of NCHRP Report 350 or 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 NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. Mixing of shapes will not be allowed in a continuous line of units.

4. Dowel holes in pavement or bridge slabs that are to remain in place shall be filled. Holes in concrete pavement and bridge slabs shall be filled with an approved non-shrink epoxy grout. Holes in asphalt pavement shall be filled with an approved asphalt joint filler. Payment for drilling and filling holes to be included in the price for various barrier items.

5. Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.

6. A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.

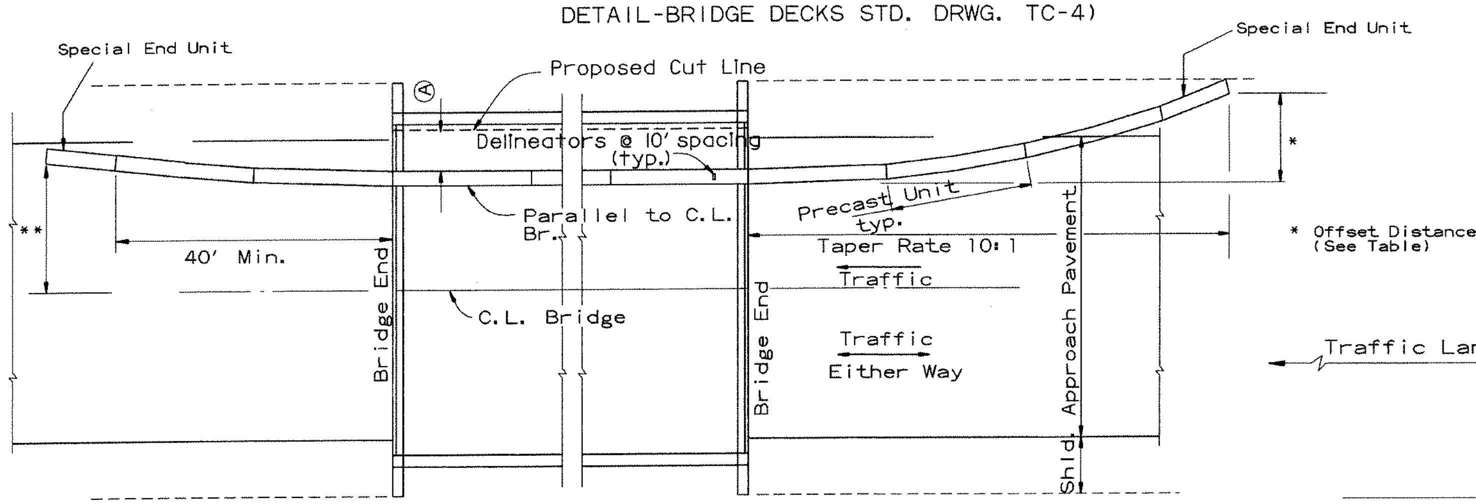
DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

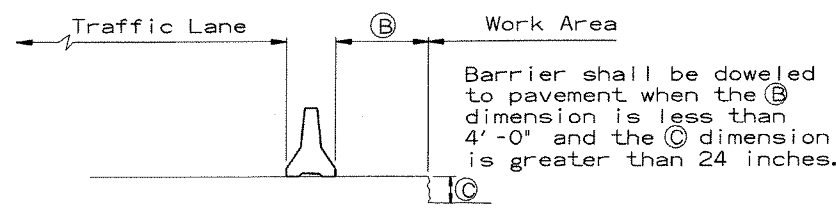
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

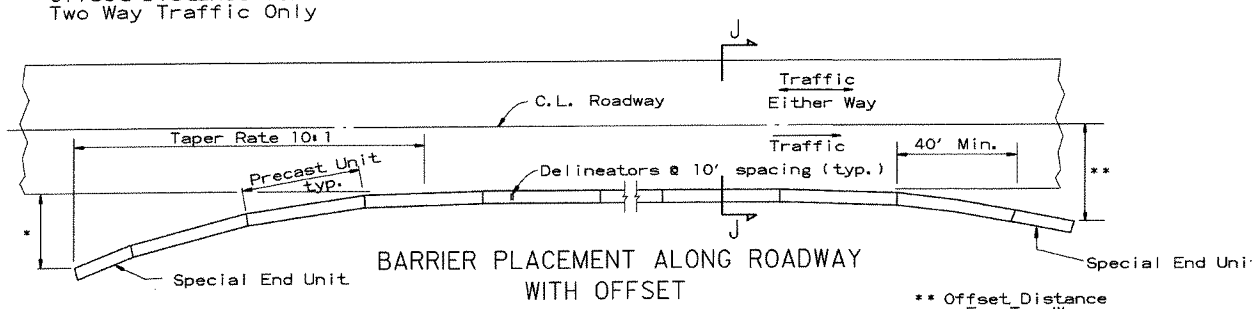
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

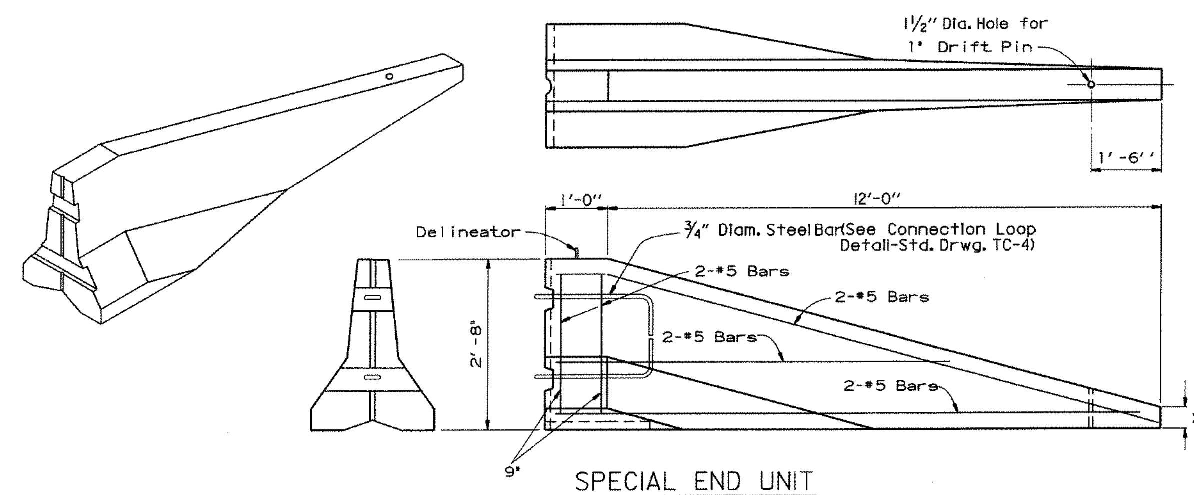
** Offset Distance For Two Way Traffic Only

* Offset Distance (See Table)

Offset Distance Table

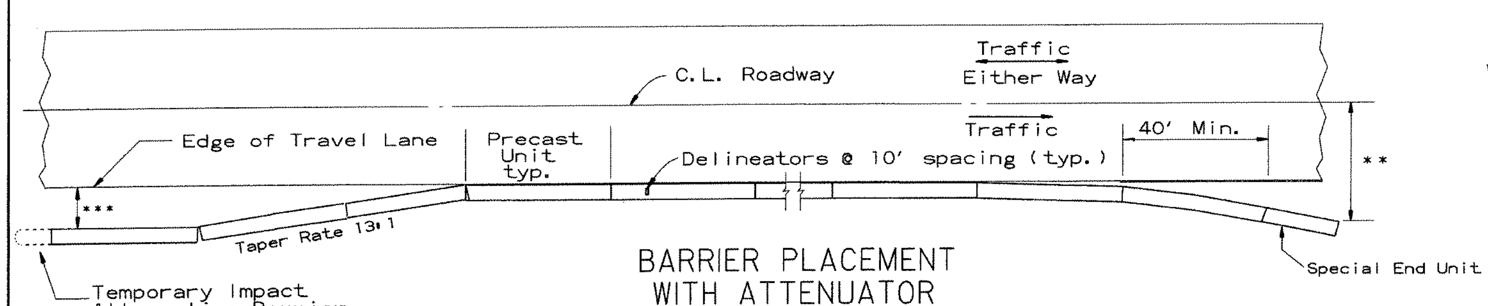
Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

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



SPECIAL END UNIT

No Scale



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

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

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

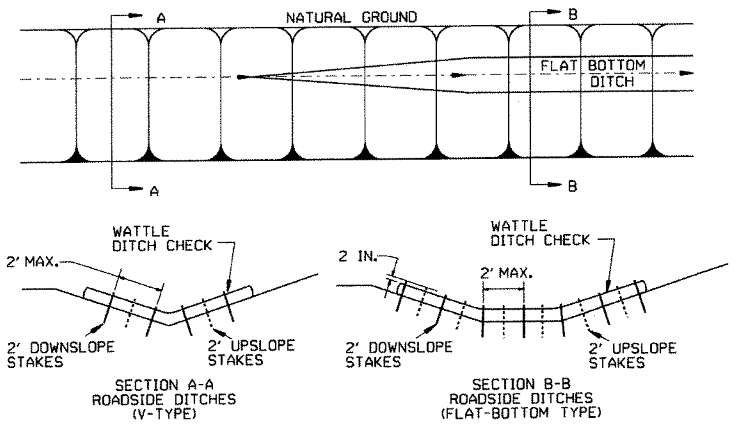
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

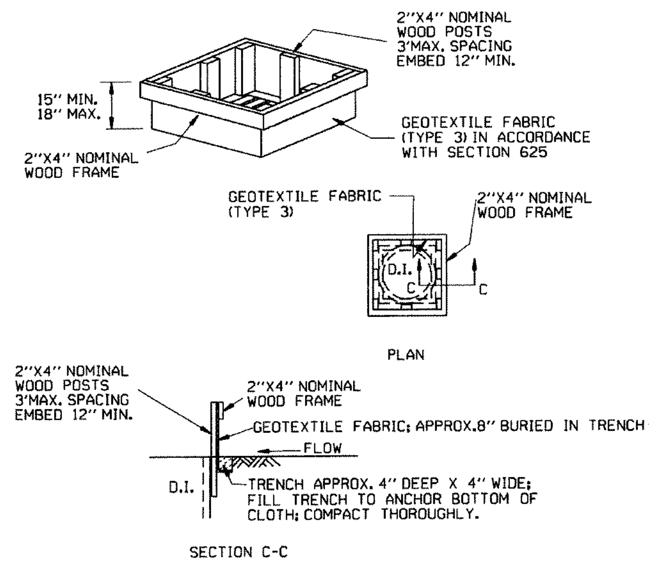
STANDARD DRAWING TC-5

GENERAL NOTES

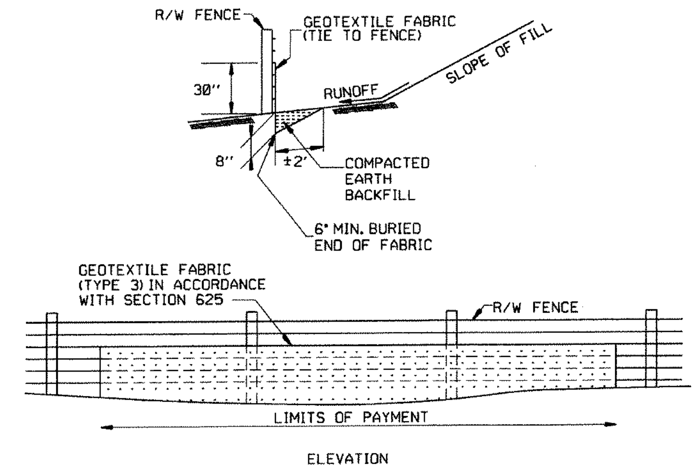
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



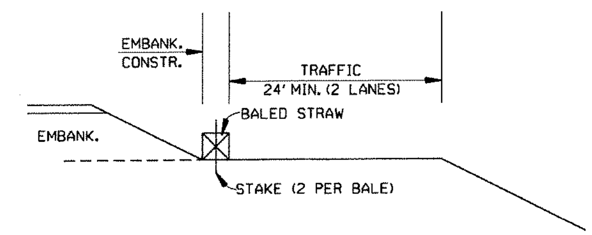
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

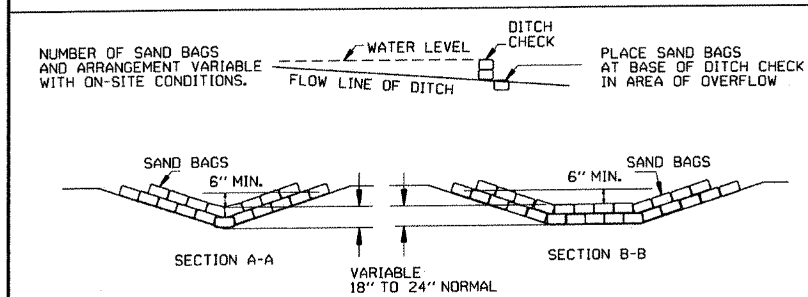
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

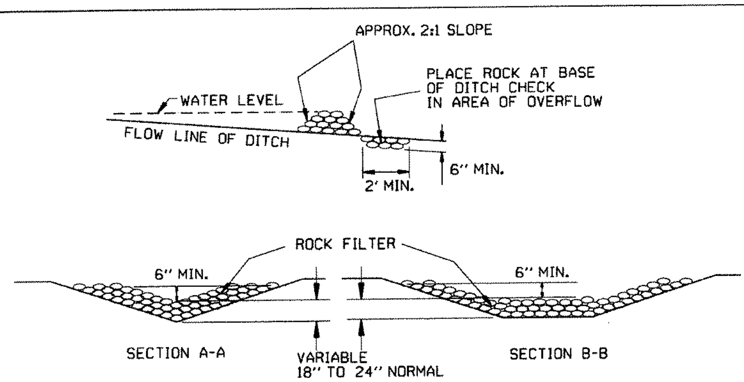
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
2. NO GAPS SHALL BE LEFT BETWEEN BALES.
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED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



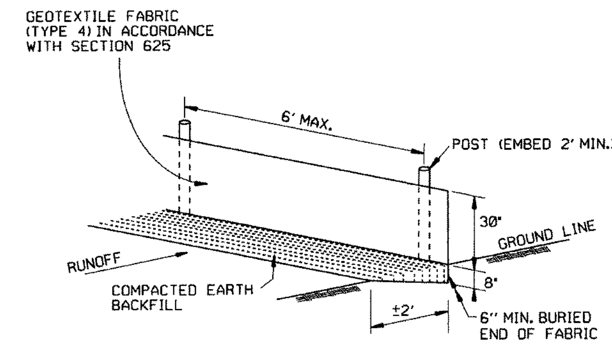
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

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

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

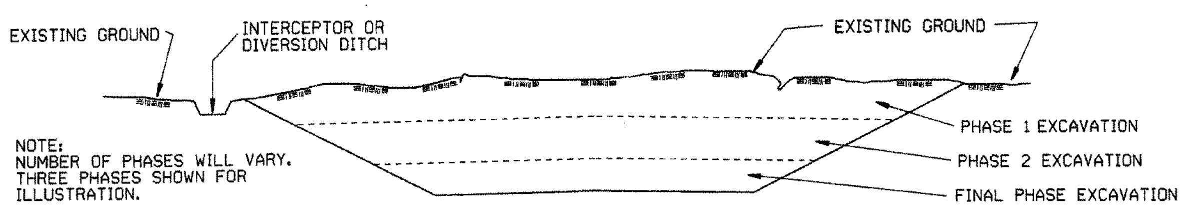
STANDARD DRAWING TEC-1

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

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

EXCAVATION



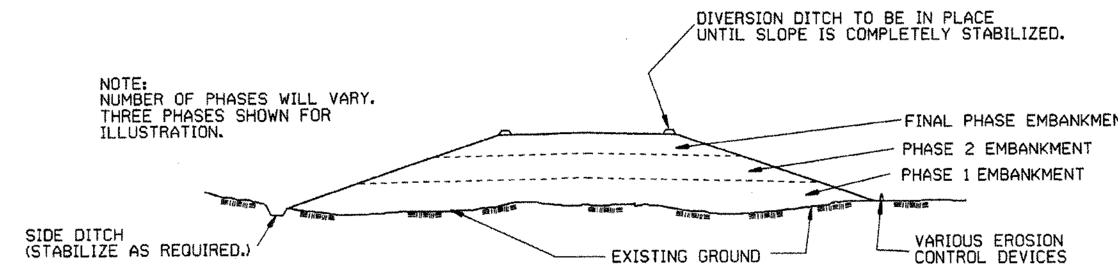
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

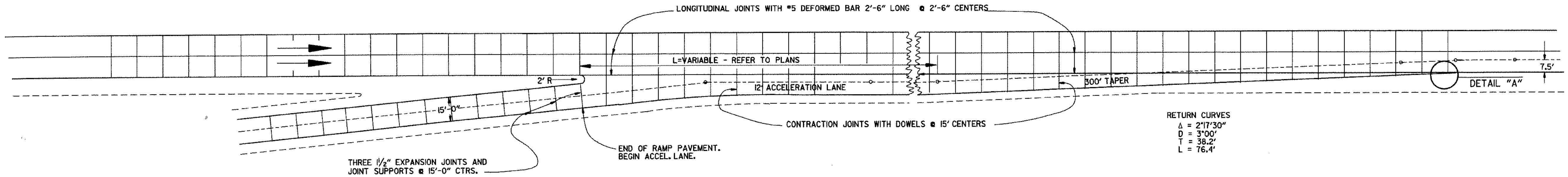
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

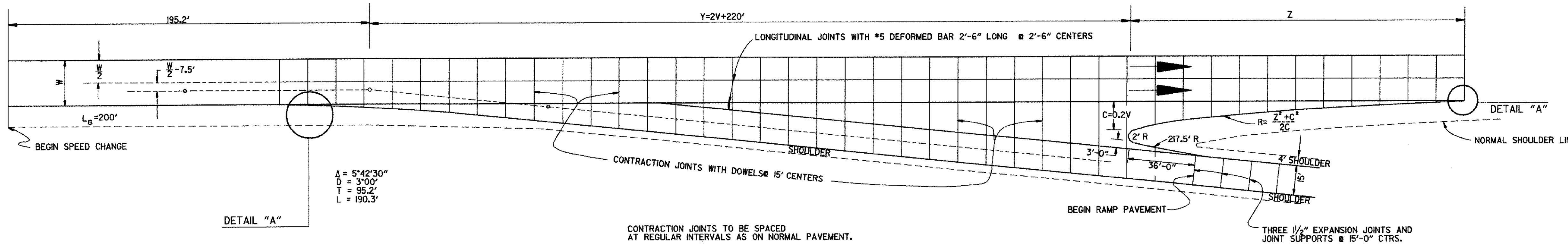
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3



ENTRANCE RAMP

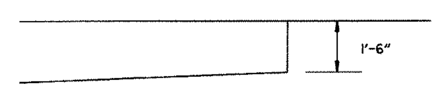
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



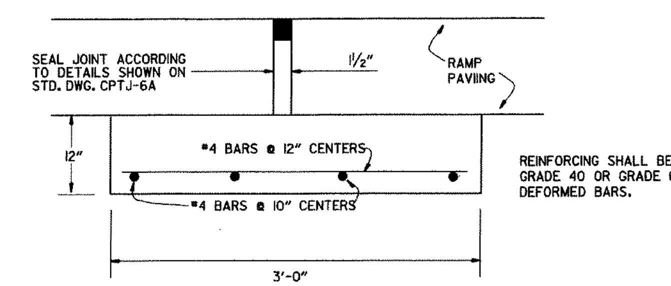
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	Y	NOSE OFFSET C	LENGTH NOSE TAPER Z	RETURN RADIUS R	ADDITIONAL SURFACING SQ. YDS.
40	300.0	8.0	96.0	580.0	602.43
50	320.0	10.0	120.0	725.0	687.29
60	340.0	12.0	168.0	1182.0	790.55
70	360.0	14.0	210.0	1582.0	902.27



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED.
THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.

DATE	REVISION	DATE FILM'D
8-22-02	DELETED NOTE	
11-16-01	CORRECTED SPELLING ON ENTRANCE RAMP NOTE	
5-13-99	ADDED, EDITED AND DELETED NOTES	
11-03-94	ADDED NOTE RE: REINF. BARS	
10-1-92	ADDED DETAIL A & OTHER MINOR CHANGES	10-1-92
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORM'D TO 1988 SPECIFICATIONS	65C-7-15-88
3-2-81	ISSUED	511-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

STANDARD DRAWING TR-1A

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

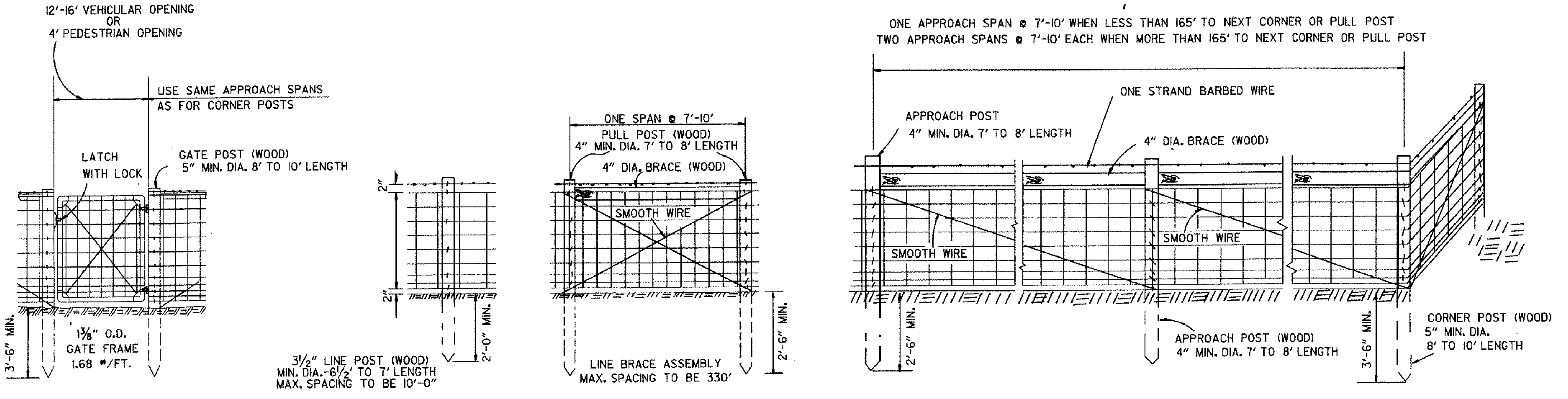
THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

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

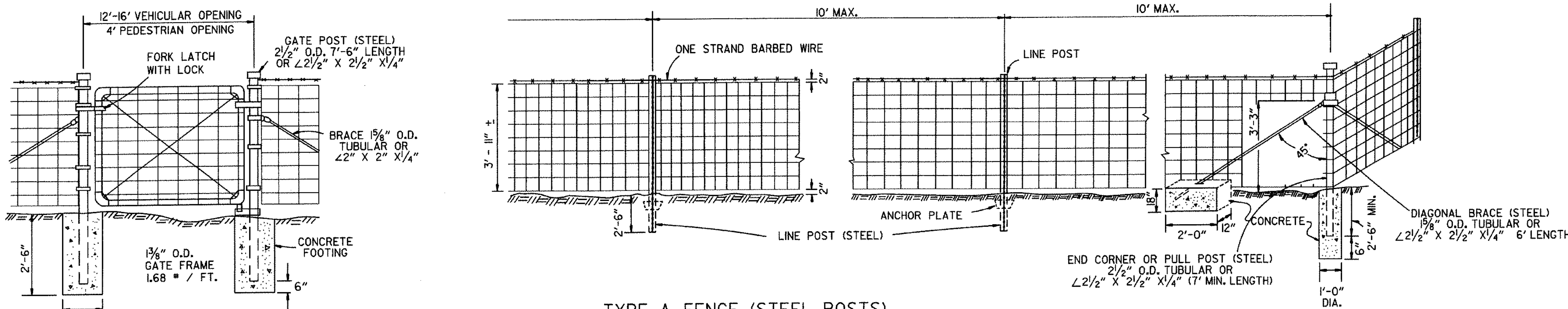
SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

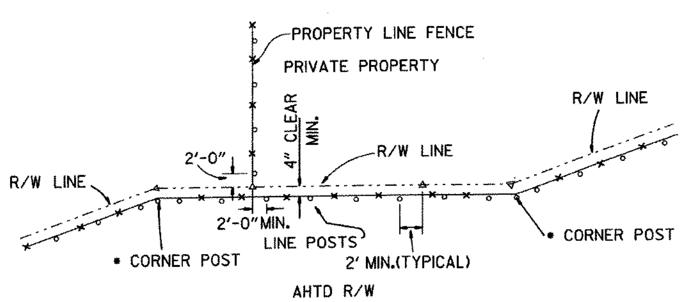


NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE A FENCE (WOOD POSTS)



TYPE A FENCE (STEEL POSTS)

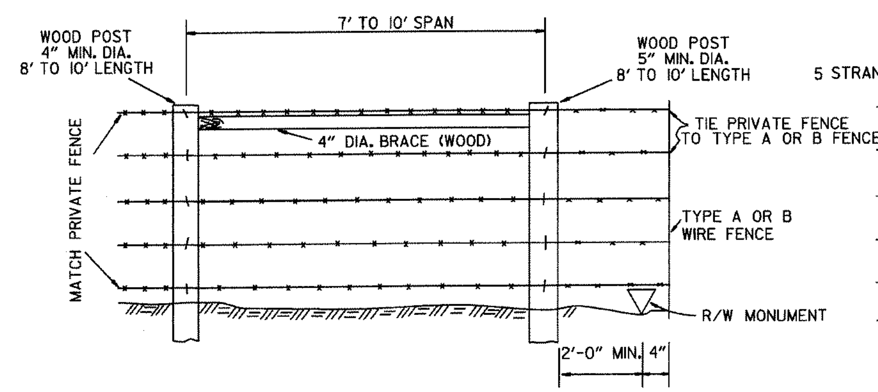


•NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

△ - R/W MONUMENTS

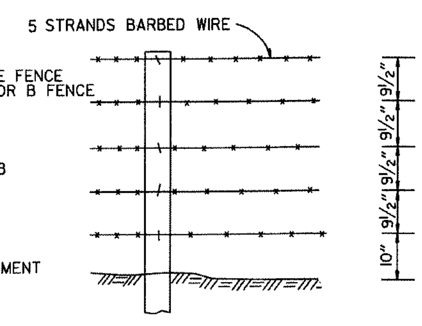
○ - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION



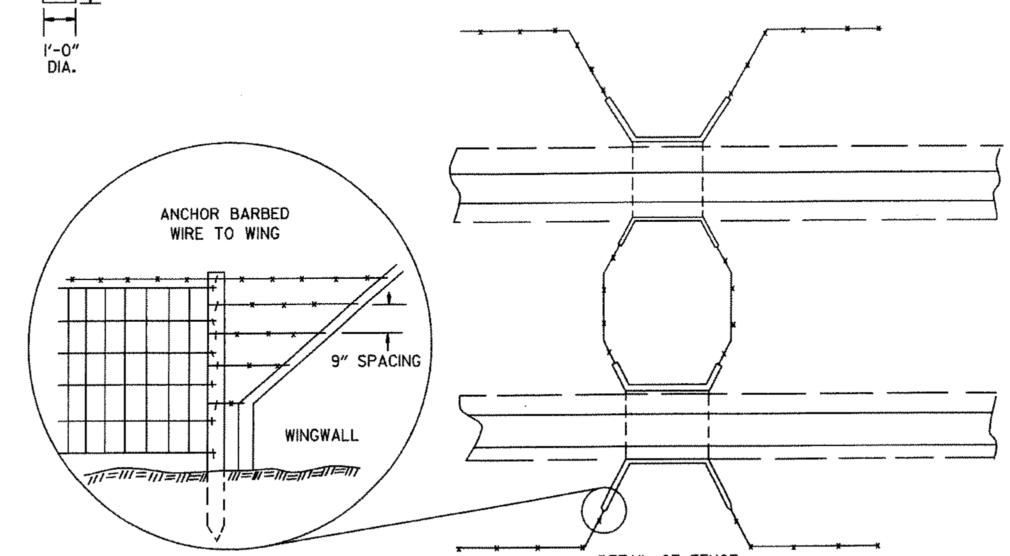
WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

PRIVATE FENCE TERMINAL INSTALLATION



SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE



DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE

TYPE A AND B

STANDARD DRAWING WF-1