"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	1	169
				(2)	BANKHEAD DR. - ARK. RIVER BRIDGE (S)			

BANKHEAD DR.-ARK. RIVER BRIDGE (S)

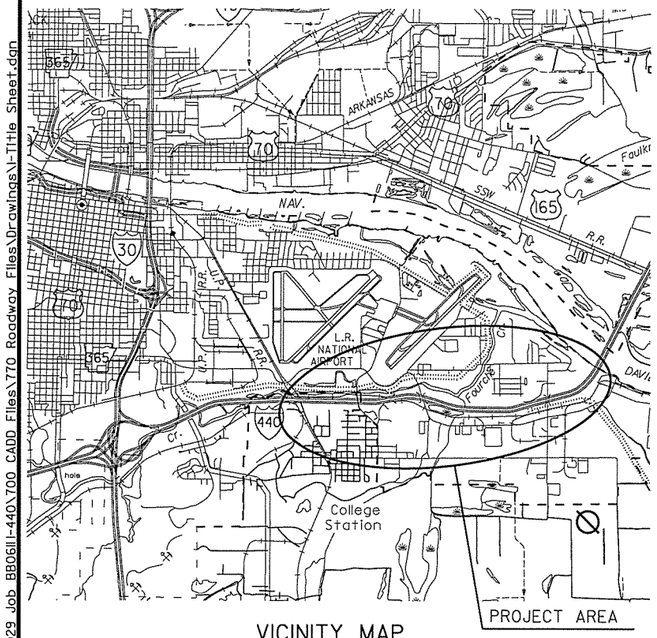
PULASKI COUNTY

ROUTE I-440 SECTION 1

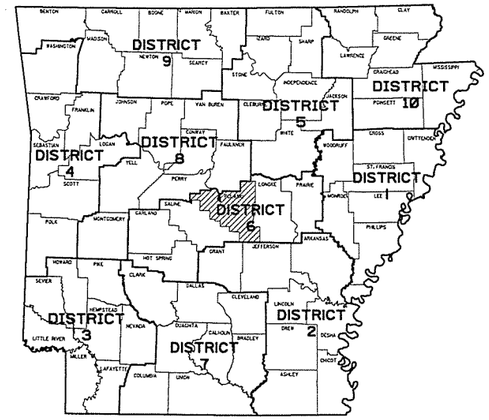
FEDERAL AID PROJ. NHPP-440-1(7)0

JOB BB0611

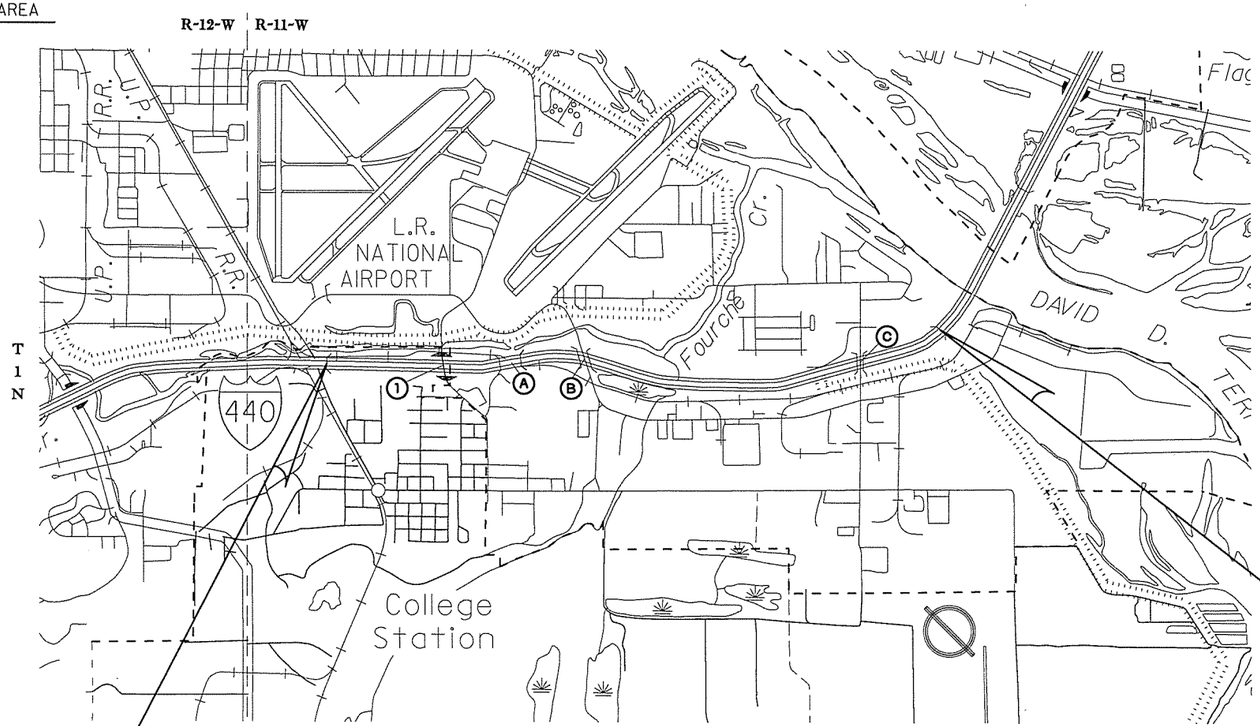
NOT TO SCALE



VICINITY MAP



ARK. HWY. DIST. NO. 6



EXCEPTIONS TO JOB BB0611

(BRIDGES)

(A) STA. 157+21.32 BRIDGE END
328.34 X 64'-0" CLEAR ROADWAY WIDTH
325' CONT. COMPOSITE PLATE GIRDER UNIT
BRIDGE NO. 5702A & 5702B
STA. 160+49.66 BRIDGE END

(B) STA. 176+20.53 BRIDGE END
277.57' X 56'-0" CLEAR ROADWAY WIDTH
275' CONT. COMPOSITE PLATE GIRDER UNIT
BRIDGE NO. 5703A & 5703B
STA. 178+98.10 BRIDGE END

(C) STA. 248+24.12 BRIDGE END
224.28' x 56'-0" CLEAR ROADWAY WIDTH
222' CONT. COMPOSITE W-BEAM UNIT
BRIDGE NO. 5704A & 5704B
STA. 250+48.40 BRIDGE END

TOTAL LENGTH OF EXCEPTIONS
(C.L. MEDIAN I-440) = 830.19 FT.

(1) BANKHEAD DRIVE
STA. 29+23.74 BRIDGE END
933.73' x 60'-0" CLEAR ROADWAY WIDTH
933' PLATE GIRDER AND W-BEAM UNIT
BRIDGE NO. 5701
STA. 38+57.47 BRIDGE END

DESIGN TRAFFIC DATA

DESIGN YEAR	2035
2015 ADT	52000
2035 ADT	70000
2035 ADT	7700
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	35%
DESIGN SPEED	65 MPH

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 34°43'00"	N 34°42'55"	N 34°43'04"
LONGITUDE	W 92°14'02"	W 92°12'29"	W 92°10'58"

LENGTH OF PROJECT CALCULATED ALONG C.L. MEDIAN & IS SHOWN FOR INFORMATION ONLY

GROSS LENGTH OF	PROJECT	15690.75	FEET OR	2.972	MILES
NET " "	ROADWAY	14860.56	"	2.815	MILES
NET " "	BRIDGES	0.00	"	0.000	MILES
NET " "	PROJECT	14860.56	"	2.815	MILES

P.E. JOB BB0611

JACOBS ENGINEERING GROUP, INC. No. 175 CERTIFICATE OF AUTHORIZATION ARKANSAS-ENGINEER

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 8940 MARK ASHER 11-12-15

JACOBS

T:\Jobs\FLXM2670 AHTD On-Call 2011 Task Order B029 Job BB0611\I-440\700 CADD Files\770 Roadway Files\Drawings\I-Title Sheet.dgn
...\Drawings\I-Title Sheet.dgn
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB061I	2	169

(2) INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
11/9/15

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB BB0611
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
108-1	LIQUIDATED DAMAGES
400-1	TACK COATS
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
620-1	MULCH COVER
JOB BB0611	AIRPORT CLEARANCE REQUIREMENTS
JOB BB0611	BIDDING REQUIREMENTS AND CONDITIONS
JOB BB0611	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0611	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0611	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB BB0611	ELECTRICAL CONDUCTORS-IN-CONDUIT, ALUMINUM
JOB BB0611	ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER
JOB BB0611	EMPLOYMENT REPORTING
JOB BB0611	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0611	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0611	LUMINAIRE POLE RELOCATION
JOB BB0611	MAINTENANCE OF TRAFFIC
JOB BB0611	MANDATORY ELECTRONIC CONTRACT
JOB BB0611	MOTORIST ASSISTANCE PATROL
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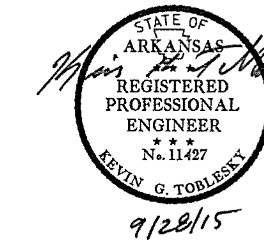
JOB BB0611	PARTNERING REQUIREMENTS
JOB BB0611	PROSECUTION AND PROGRESS - CALENDAR DAY CONTRACT WITH CPM
JOB BB0611	RELOCATION OF VARIABLE MESSAGE SIGN ASSEMBLY
JOB BB0611	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB BB0611	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE
JOB BB0611	REMOVING EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
JOB BB0611	RUMBLE STRIP AND CORRUGATION REMOVAL IN CONCRETE PAVEMENT
JOB BB0611	SEQUENCE OF CONSTRUCTION
JOB BB0611	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB BB0611	SOIL STABILIZATION
JOB BB0611	SPECIAL SAFETY REQUIREMENTS FOR OVERHEAD SIGNS
JOB BB0611	STEEL SIGN STRUCTURES
JOB BB0611	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0611	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0611	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0611	UTILITY ADJUSTMENTS
JOB BB0611	VALUE ENGINEERING
JOB BB0611	WARM MIX ASPHALT

GENERAL NOTES

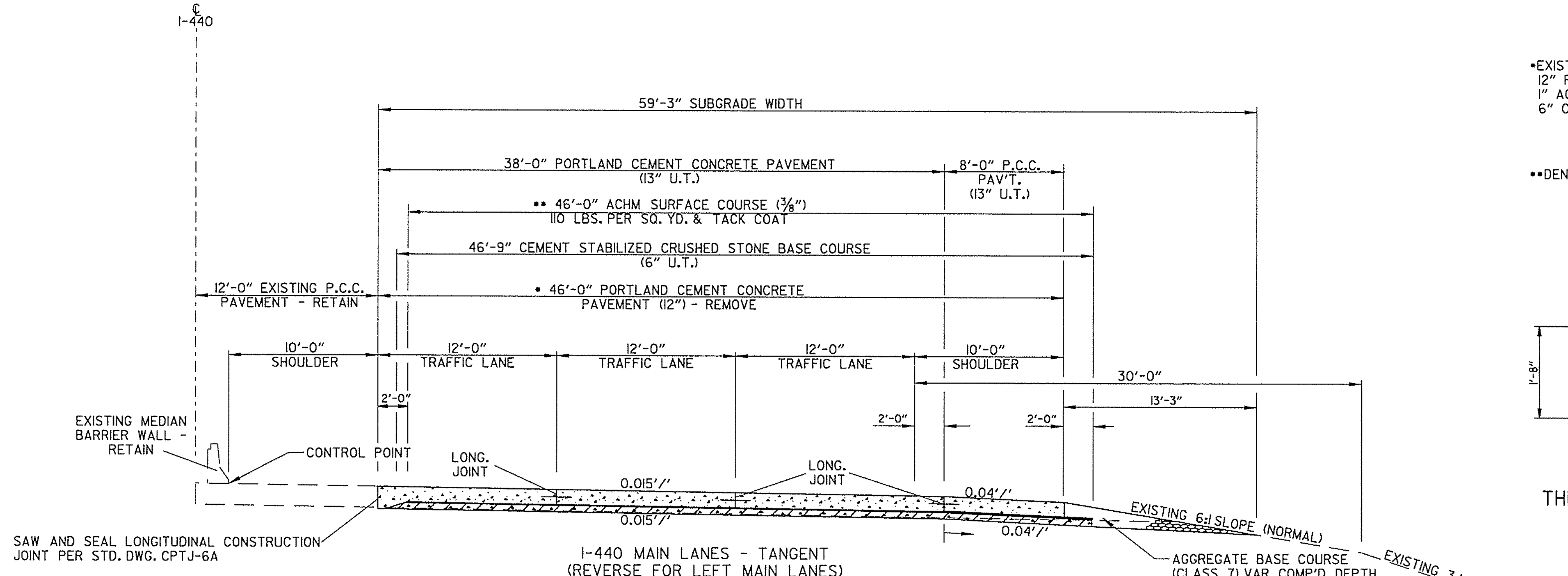
1. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
3. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

INDEX OF SHEETS, GOVERNING SPECIFICATIONS AND GENERAL NOTES

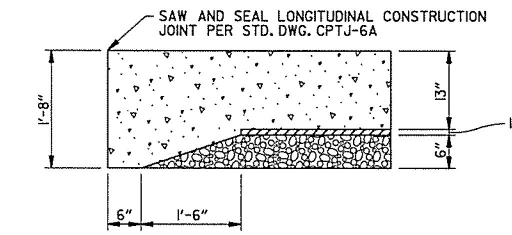


•EXISTING PAVEMENT STRUCTURE
12" PORTLAND CEMENT CONCRETE (JRCP)
1" ACHM SURFACE COURSE
6" CEMENT TREATED CRUSHED STONE

••DENSITY REQUIREMENTS WAIVED.



I-440 MAIN LANES - TANGENT
(REVERSE FOR LEFT MAIN LANES)



THICKENED PAVEMENT EDGE

BRIDGE AND APPROACH SLABS

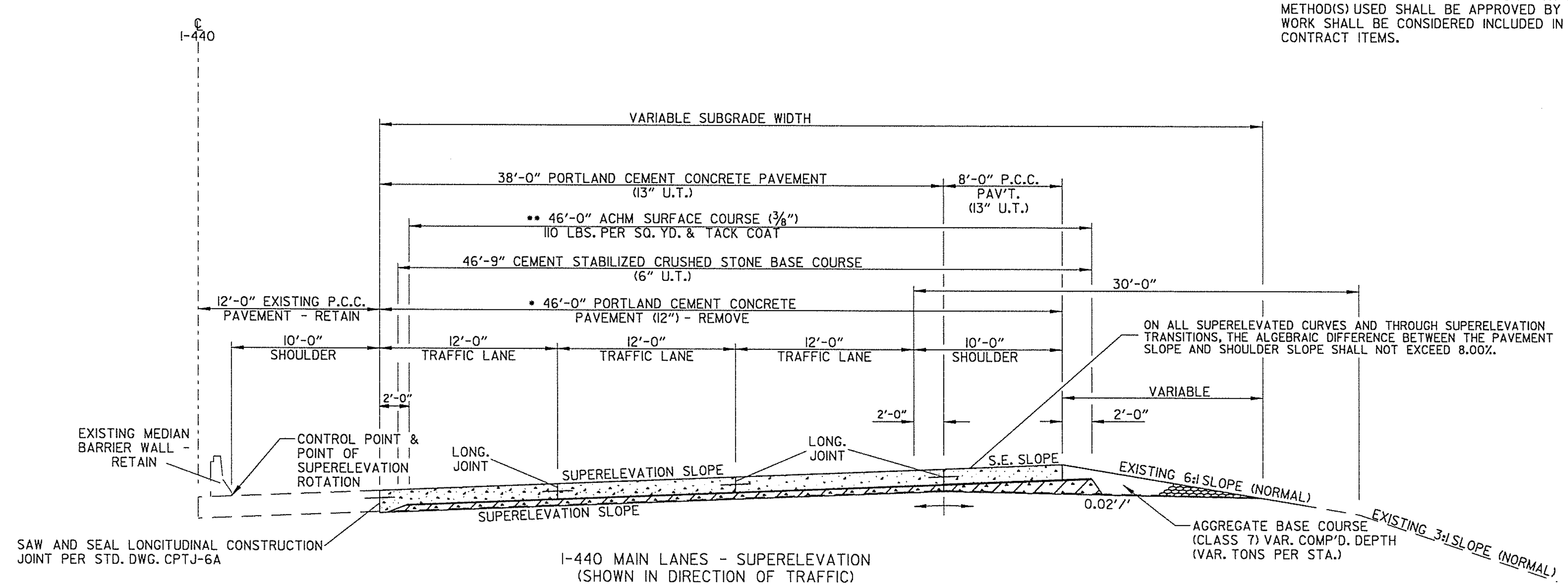
RIGHT MAIN LANES
STA. 113+49.25 TO STA. 113+85.75
STA. 156+96.82 TO STA. 161+46.16
STA. 175+89.66 TO STA. 179+64.49
STA. 247+74.42 TO STA. 250+81.60
STA. 270+03.50 TO STA. 270+40.00

LEFT MAIN LANES
STA. 113+49.25 TO STA. 113+85.75
STA. 156+24.82 TO STA. 160+74.16
STA. 175+62.04 TO STA. 179+27.23
STA. 247+90.92 TO STA. 250+98.10
STA. 270+03.50 TO STA. 270+40.00

LEFT MAIN LANE
STA. 113+85.75 TO STA. 143+97.92
STA. 156+53.45 TO STA. 156+24.82
STA. 160+74.16 TO STA. 163+59.10
STA. 181+69.10 TO STA. 192+74.18
STA. 205+33.38 TO STA. 221+05.04
STA. 233+61.54 TO STA. 247+90.92
STA. 250+98.10 TO STA. 258+97.12

RIGHT MAIN LANES
STA. 113+85.75 TO STA. 143+97.92
STA. 156+53.45 TO STA. 156+96.82
STA. 161+46.16 TO STA. 163+59.10
STA. 181+69.10 TO STA. 192+74.18
STA. 205+33.38 TO STA. 221+05.04
STA. 233+61.54 TO STA. 247+74.42
STA. 250+81.60 TO STA. 258+97.12

THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



I-440 MAIN LANES - SUPERELEVATION
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES
STA. 163+59.10 TO STA. 175+62.04
STA. 179+27.23 TO STA. 181+69.10

RIGHT MAIN LANES
STA. 143+97.92 TO STA. 156+53.45
STA. 192+74.18 TO STA. 205+33.38
STA. 221+05.04 TO STA. 233+61.54
STA. 258+97.12 TO STA. 270+03.50

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.		BB0611	4	169

② TYPICAL SECTIONS OF IMPROVEMENT

KEVIN G. TOBLESKY
No. 11427
9/28/15

•EXISTING PAVEMENT STRUCTURE
12" PORTLAND CEMENT CONCRETE (JRCP)
1" ACHM SURFACE COURSE
6" CEMENT TREATED CRUSHED STONE

••DENSITY REQUIREMENTS WAIVED.

BRIDGE AND APPROACH SLABS
LEFT MAIN LANES
STA. 156+24.82 TO STA. 160+74.16

I-440 MAIN LANES - SUPERELEVATION
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 143+97.92 TO STA. 156+24.82	STA. 163+59.10 TO STA. 175+89.66
STA. 192+74.18 TO STA. 205+33.38	STA. 179+64.49 TO STA. 181+69.10
STA. 221+05.04 TO STA. 233+61.54	
STA. 258+97.12 TO STA. 270+03.50	

THICKENED PAVEMENT EDGE

THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

I-440 AUXILIARY LANES
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 153+21.74 TO STA. 156+24.82	STA. 152+00.65 TO STA. 156+96.82
STA. 160+74.16 TO STA. 166+39.23	STA. 161+46.16 TO STA. 165+63.06

I-440 AUXILIARY LANES
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
STA. 119+67.57 TO STA. 128+67.57	STA. 189+36.61 TO STA. 199+36.61
STA. 230+09.35 TO STA. 239+09.35	STA. 259+63.18 TO STA. 270+03.50
STA. 258+09.69 TO STA. 263+99.69	

TYPICAL SECTIONS OF IMPROVEMENT

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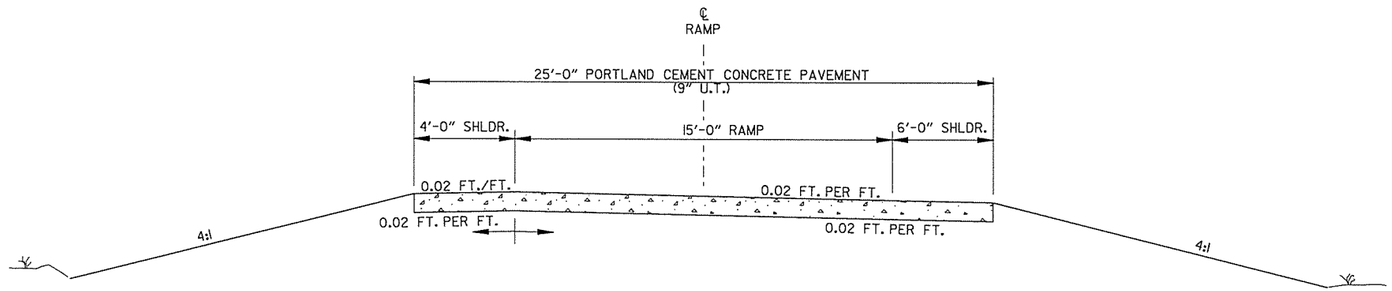
				6	ARK.			
				JOB NO.		BB061I	5	169
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

NOTES:

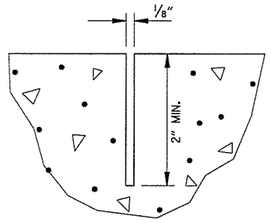
1. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.



TEMPORARY RAMP FOR MAINTENANCE OF TRAFFIC

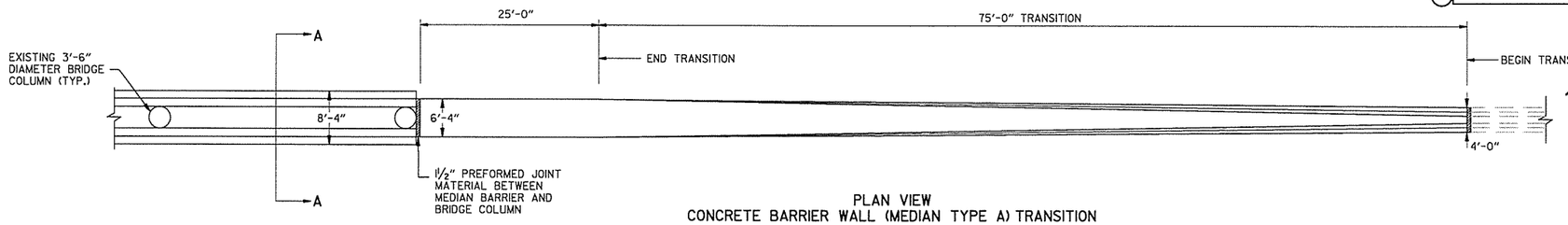
JACOBS

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.		BB0611	6	169
				(2)	SPECIAL DETAILS			

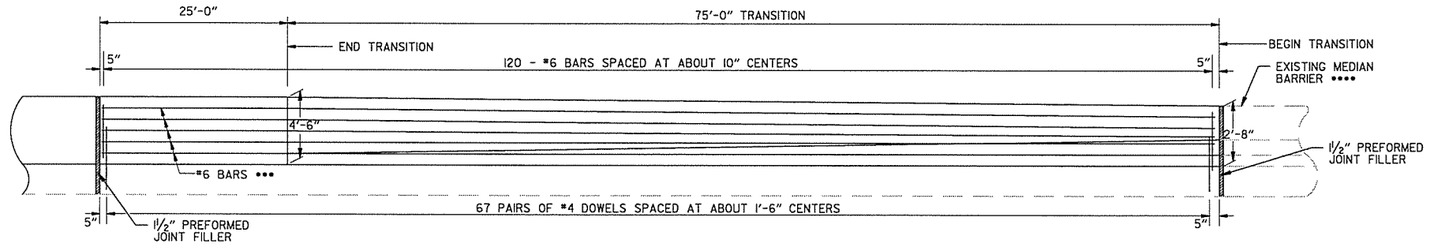


CONTRACTION JOINT DETAIL

NOTES FOR MEDIAN BARRIER:
1. ALL EXPOSED EDGES SHALL HAVE 3/4" CHAMFERS.
2. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT 15'-0" MAXIMUM SPACING IN TOP AND SIDES OF MEDIAN BARRIER AND SHALL BE FORMED IN FRESH CONCRETE.
3. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
4. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER.



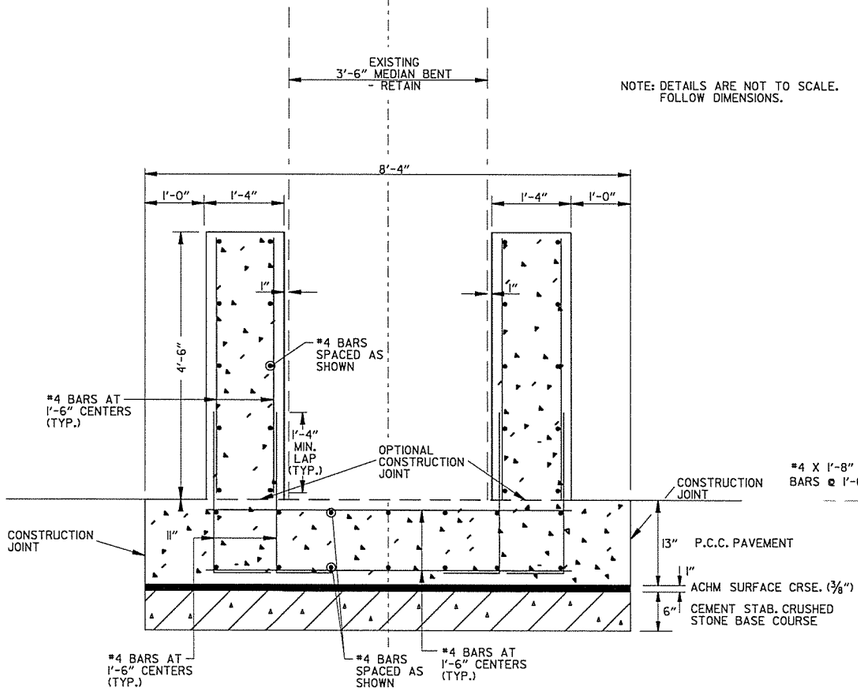
PLAN VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION



ELEVATION VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION

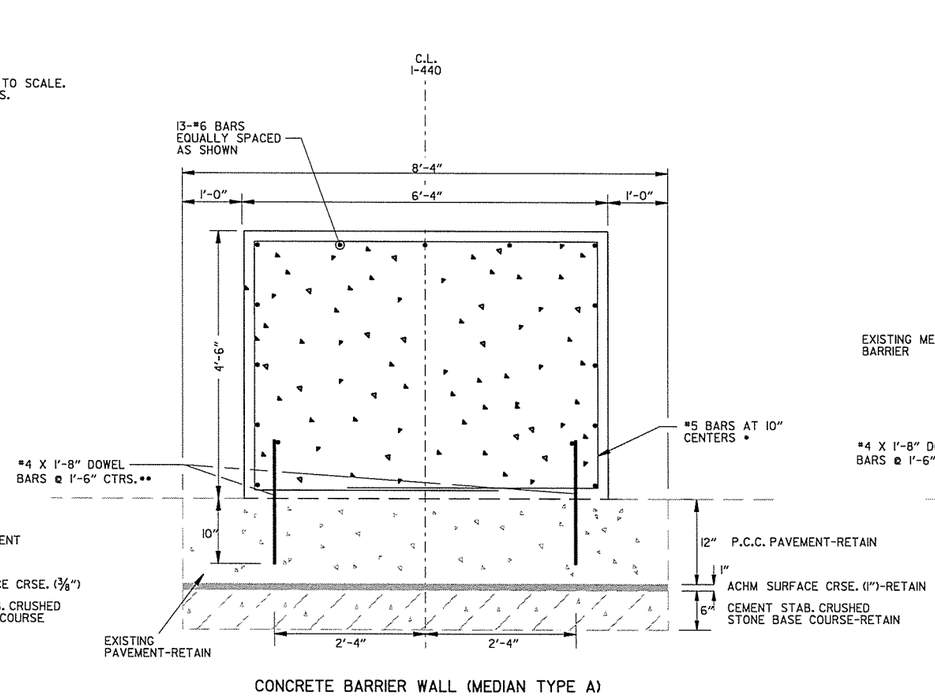
••• CONTINUOUS WITH A MINIMUM LAP OF 1'-10"

•••• BARS EXTENDING FROM THE EXISTING CONCRETE SHALL BE CUT OFF ONE INCH BELOW CONCRETE REMOVAL SURFACE AND THE RESULTING HOLES SHALL BE FILLED WITH A QPL-APPROVED NON-SHRINK GROUT. CUTTING AND GROUTING WILL BE PAID FOR AS PART OF THE CONCRETE MEDIAN BARRIER.

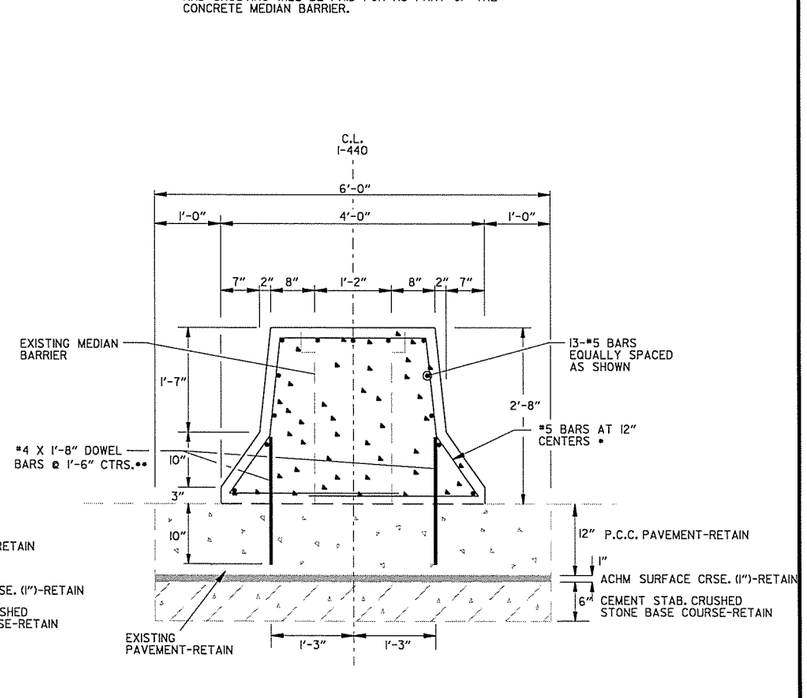


CONCRETE BARRIER WALL (MEDIAN TYPE A)
(SECTION A-A)

NOTE: DETAILS ARE NOT TO SCALE.
FOLLOW DIMENSIONS.



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(END OF TRANSITION)



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(BEGINNING OF TRANSITION)

CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION
FOR BRIDGE BENTS IN MEDIAN

• WITH THE APPROVAL OF THE ENGINEER, #5 CAN BE PROVIDED AS ONE BAR OR TWO WITH A MINIMUM LAP OF 1'-6".

•• DRILL AND GROUT INTO EXISTING PAVEMENT USING AN APPROVED NON-SHRINK GROUT LISTED ON THE QPL. DIAMETER OF THE HOLES AND INSTALLATION PROCEDURE SHALL BE AS RECOMMENDED BY THE GROUT MANUFACTURER.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

SPECIAL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	7	169
				(2)		SPECIAL DETAILS		

NOTES:

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 AS WELL AS TO AVOID EXISTING LONGITUDINAL JOINTS.
2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATIONS TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH GUTTERS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

STATE OF ARKANSAS
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KEVIN G. TOBLESEY
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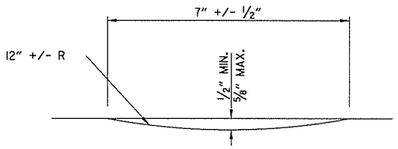
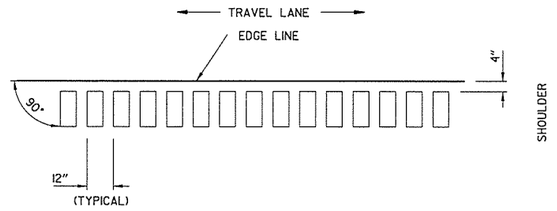
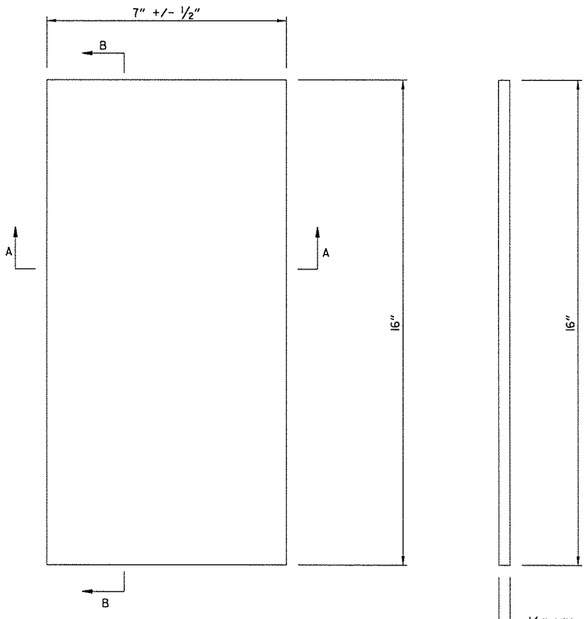


SECTION A-A

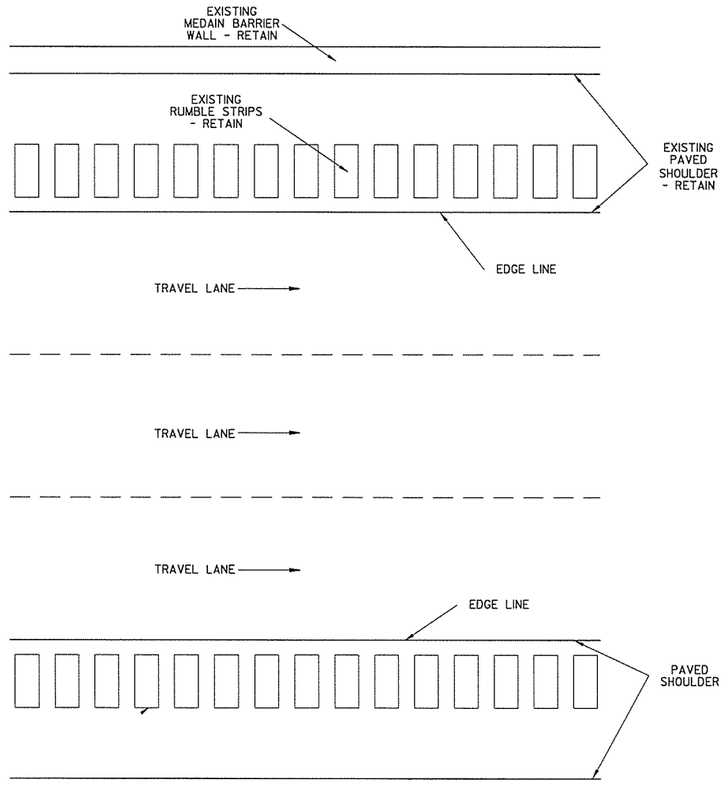


LOCATION PLAN OF RUMBLE STRIPS
RIGHT SHOULDER



PLAN

SECTION B-B



PLAN VIEW

DETAILS OF RUMBLE STRIPS

JACOBS

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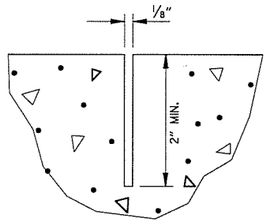
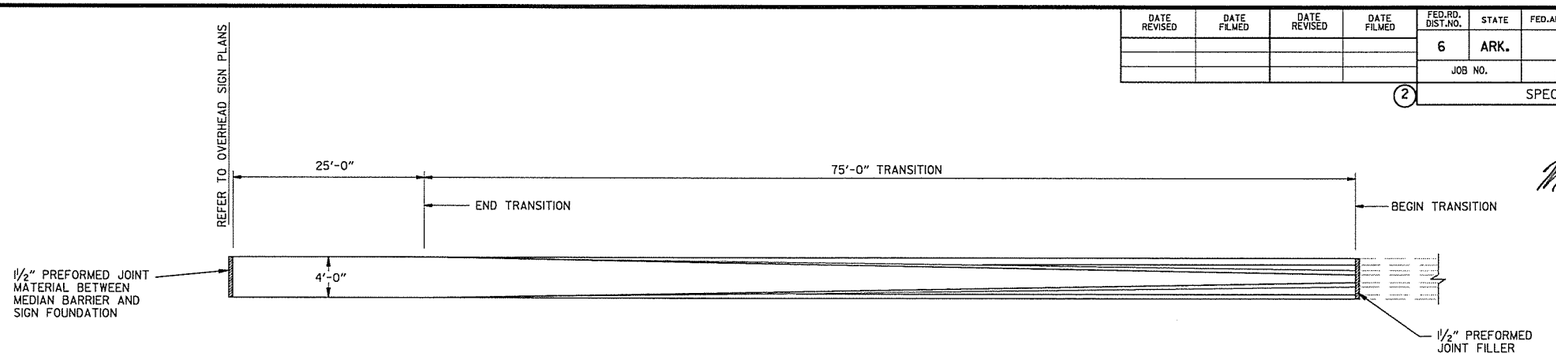
				6	ARK.			
				JOB NO.		BB0611	8	169
				(2)	SPECIAL DETAILS			

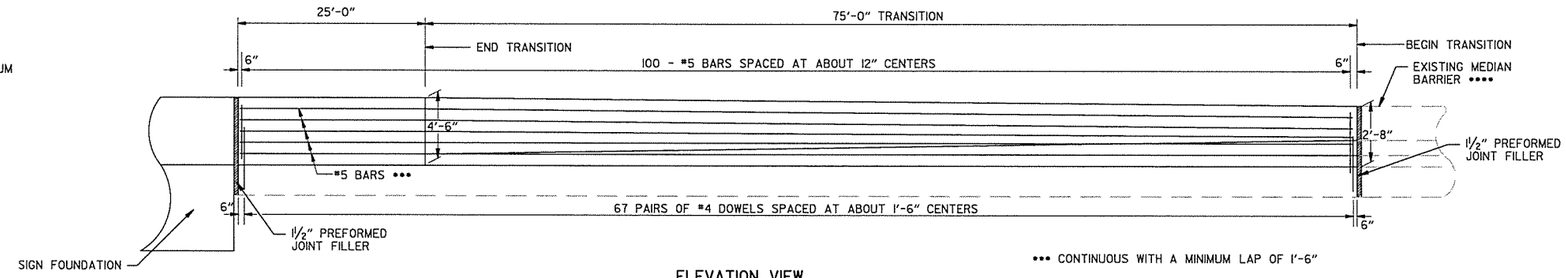


CONTRACTION JOINT DETAIL

NOTES FOR MEDIAN BARRIER:
1. ALL EXPOSED EDGES SHALL HAVE 3/4" CHAMFERS.
2. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT 15'-0" MAXIMUM SPACING IN TOP AND SIDES OF MEDIAN BARRIER AND SHALL BE FORMED IN FRESH CONCRETE.
3. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
4. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER.



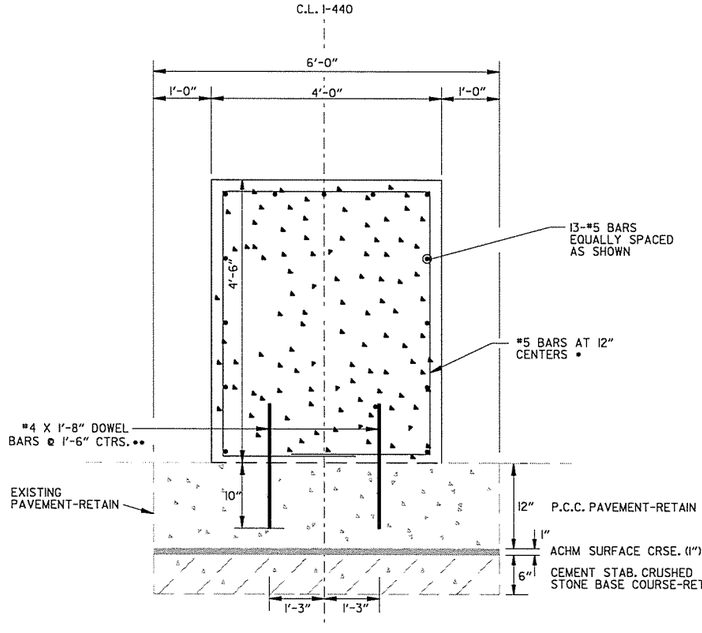
PLAN VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION



ELEVATION VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION

••• CONTINUOUS WITH A MINIMUM LAP OF 1'-6"

•••• BARS EXTENDING FROM THE EXISTING CONCRETE SHALL BE CUT OFF ONE INCH BELOW CONCRETE REMOVAL SURFACE AND THE RESULTING HOLES SHALL BE FILLED WITH A QPL-APPROVED NON-SHRINK GROUT. CUTTING AND GROUTING WILL BE PAID FOR AS PART OF THE CONCRETE MEDIAN BARRIER.

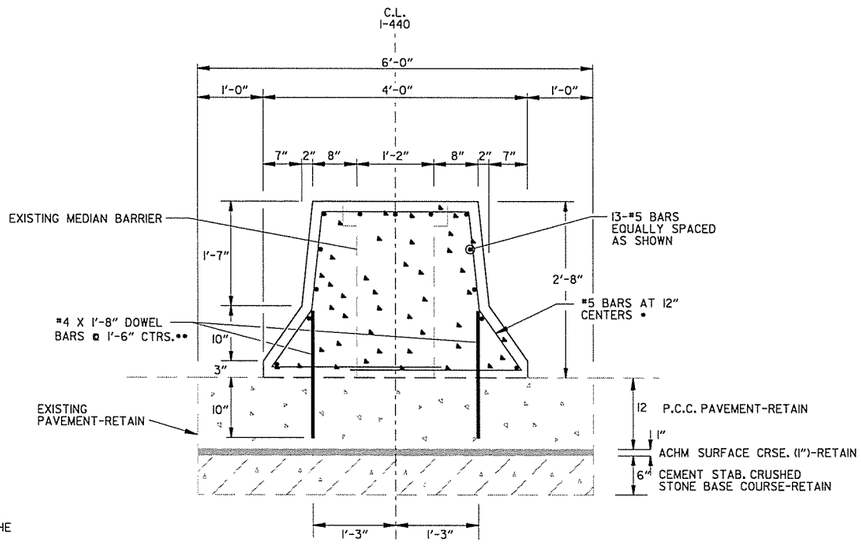


CONCRETE BARRIER WALL (MEDIAN TYPE A)
(END OF TRANSITION)

NOTE: DETAILS ARE NOT TO SCALE.
FOLLOW DIMENSIONS.

• WITH THE APPROVAL OF THE ENGINEER, #5 CAN BE PROVIDED AS ONE BAR OR TWO WITH A MINIMUM LAP OF 1'-6".

•• DRILL AND GROUT INTO EXISTING PAVEMENT USING AN APPROVED NON-SHRINK GROUT LISTED ON THE QPL. DIAMETER OF THE HOLES AND INSTALLATION PROCEDURE SHALL BE AS RECOMMENDED BY THE GROUT MANUFACTURER.



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(BEGINNING OF TRANSITION)

CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION
FOR OVERHEAD & TEE MOUNTED SIGN STRUCTURES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

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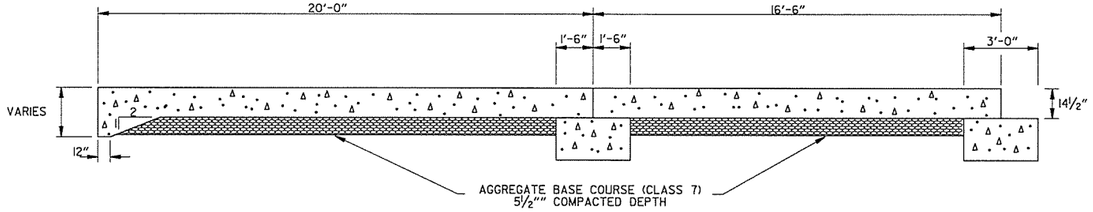
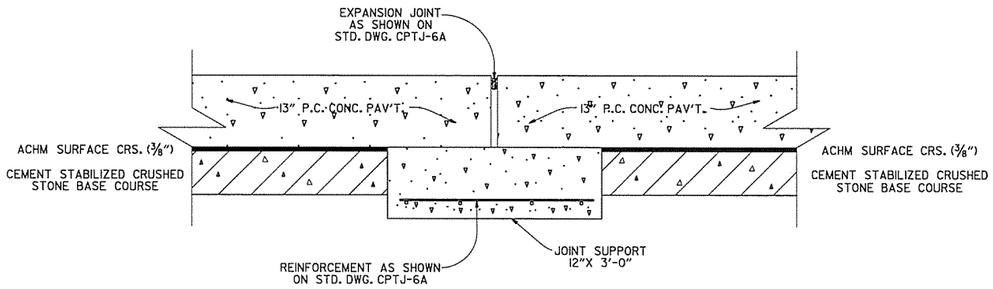
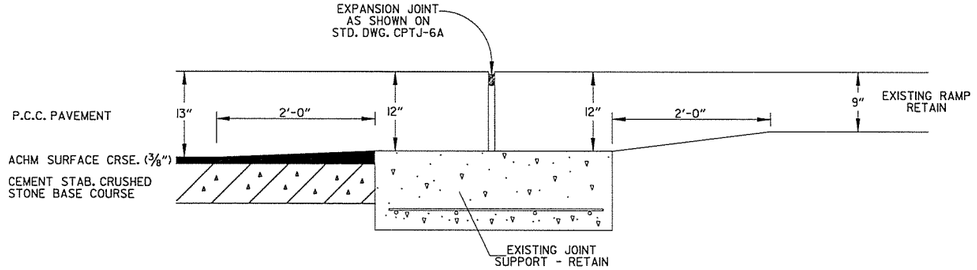
				6	ARK.			
				JOB NO.		BB0611	9	169
				(2)	SPECIAL DETAILS			



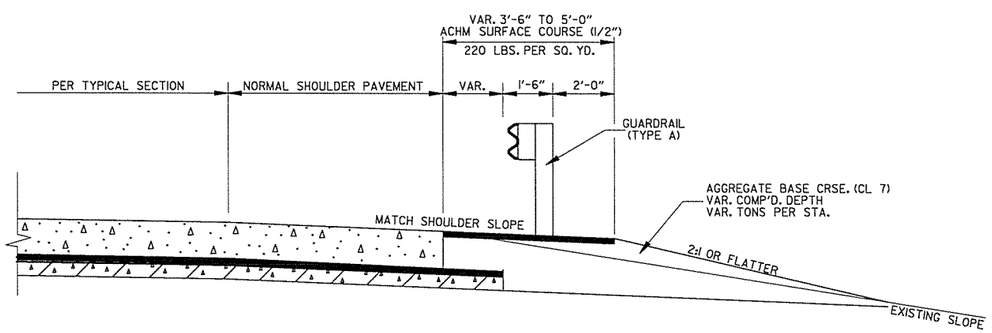
SPECIAL DETAIL OF APPROACH SLAB



DETAILS OF JOINT SUPPORT

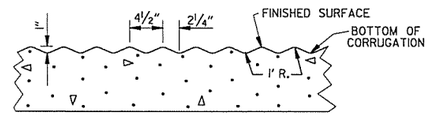


DETAILS OF EXISTING
JOINT SUPPORT AT RAMPS

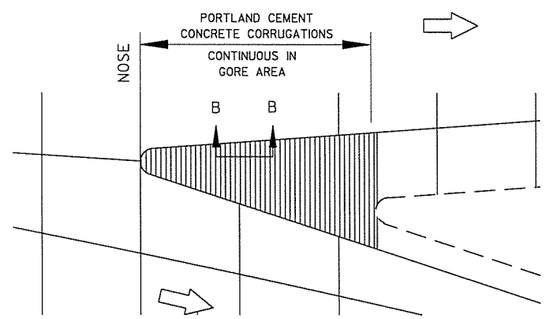


SECTION DETAIL OF WIDENING FOR GUARDRAIL

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



SECTION B-B



LAYOUT OF SHOULDER CORRUGATIONS
IN EXIT GORE AREAS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

SPECIAL DETAILS

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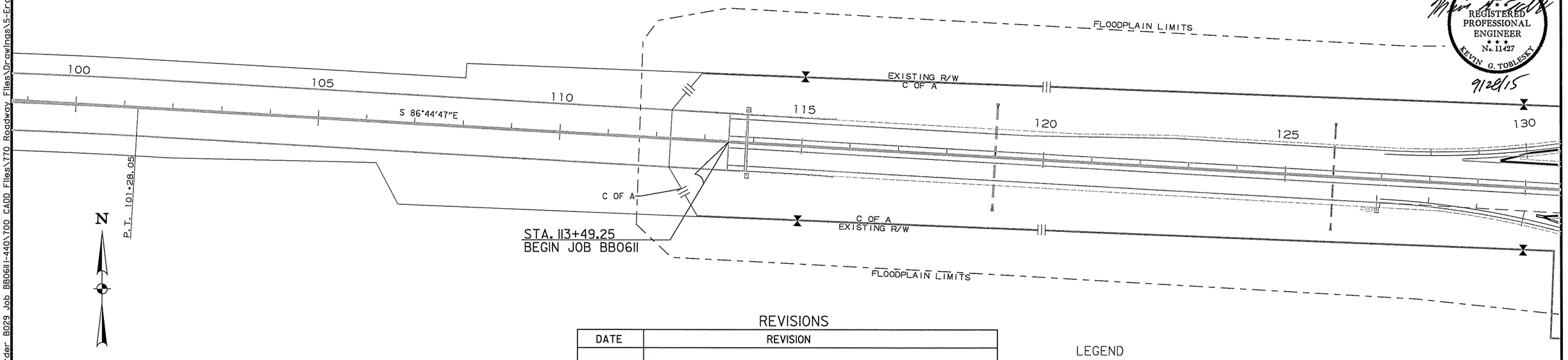
				6	ARK.			
				JOB NO.		BB0611	10	169

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/22/15



REVISIONS

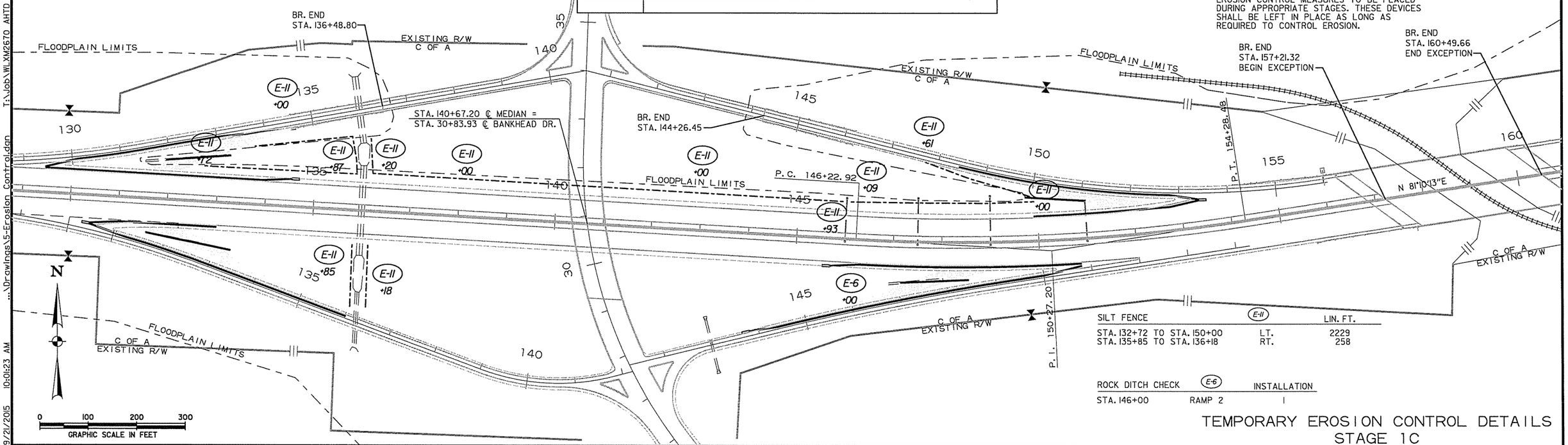
DATE	REVISION

LEGEND

- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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



SILT FENCE	(E-11)	LIN. FT.
STA. 132+72 TO STA. 150+00	LT.	2229
STA. 135+85 TO STA. 136+18	RT.	258

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 146+00	RAMP 2	1

TEMPORARY EROSION CONTROL DETAILS STAGE 1C

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				6	ARK.			
				JOB NO.		BB061I	II	169

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

FLOODPLAIN LIMITS
EXISTING R/W
C OF A
P. I. 172+77.20
N 81°10'13"E
P. C. 165+84.13
STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'
BR. END
STA. 178+98.10
END EXCEPTION
BR. END
STA. 176+20.53
BEGIN EXCEPTION
P. T. 179+44.19
S 71°37'47"E
E-6 +00
E-6 +40
E-6 +50
P. C. 194+99.19
P. T. 203+08.36
P. I. 199+06.48
S 87°48'47"E

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 170+40	RAMP 1	I
STA. 172+50	RAMP 1	I
STA. 184+00	RAMP 2	I
STA. 185+00	RAMP 3	I
STA. 171+00	RAMP 4	I

N

0 100 200 300
GRAPHIC SCALE IN FEET

REVISIONS

DATE	REVISION

LEGEND

(E-6) = ROCK DITCH CHECK

TEMPORARY EROSION CONTROL DETAILS
STAGE 1C

JACOBS

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				6	ARK.			
				JOB NO.		BB0611	12	169

(2) TEMPORARY EROSION CONTROL DETAILS

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 244+00	RAMP 1	1
STA. 243+50	RAMP 4	1

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

FLOODPLAIN LIMITS
EXISTING R/W
C OF A
P. C. 223+34.05
P. T. 231+36.55
P. I. 227+37.94
220 225 230 235 240 245 250
N
C OF A EXISTING R/W
STA. 249+36.26 ℄ MEDIAN =
STA. 19+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"
E-6 +50
E-6 +00
N 76°08'13"E
BR. END
STA. 248+24.12
BEGIN EXCEPTION
FOURCHE DAM PIKE
20

REVISIONS

DATE	REVISION

LEGEND

(E-6) = ROCK DITCH CHECK

0 100 200 300
GRAPHIC SCALE IN FEET

ROCK DITCH CHECK	(E-6)	INSTALLATION
STA. 254+00	RAMP 2	1
STA. 254+00	RAMP 3	1

25 250 255 260 265 270 275
BR. END
STA. 250+48.40
END EXCEPTION
P. C. 261+22.11
P. I. 271+01.24
STA. 270+40.00
END JOB BB0611
STA. 249+36.26 ℄ MEDIAN =
STA. 19+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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

TEMPORARY EROSION CONTROL DETAILS
STAGE 1C

JACOBS

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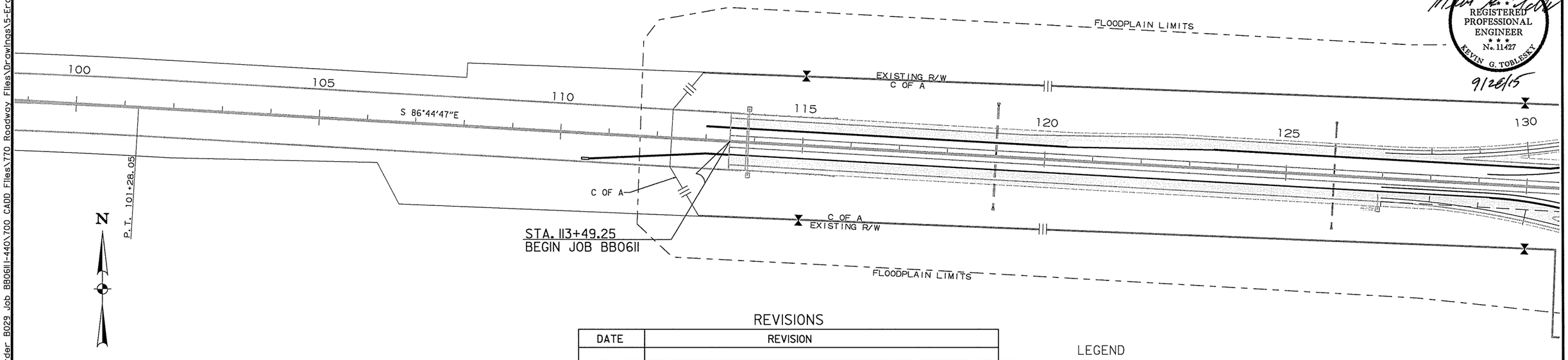
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	13	169

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/25/15



REVISIONS

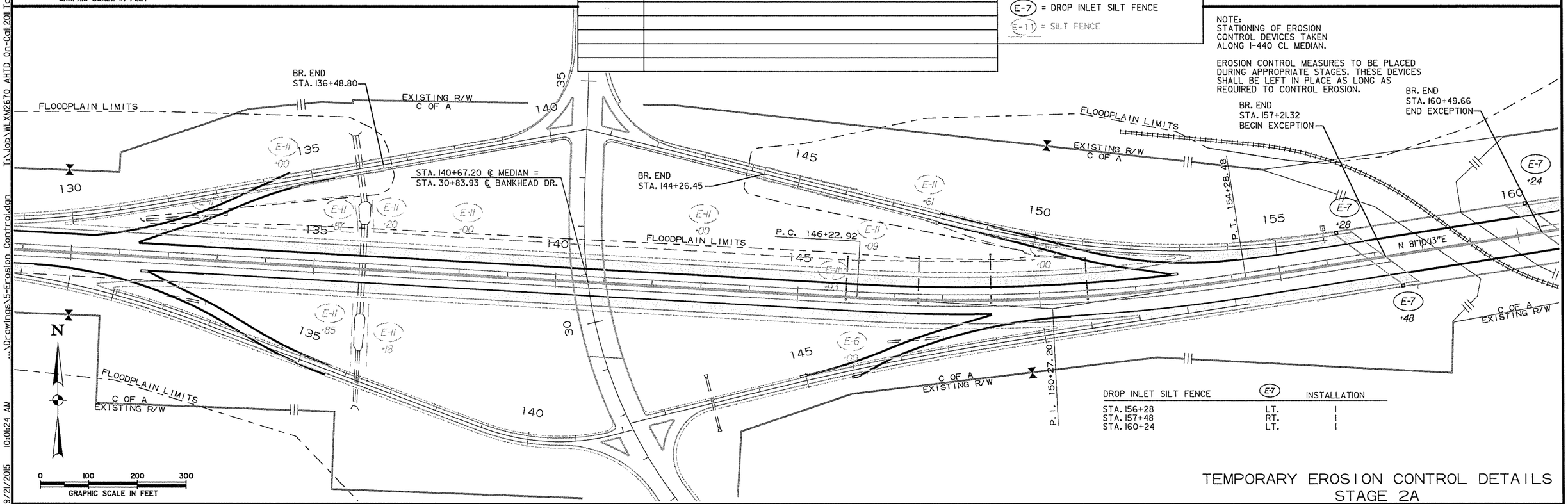
DATE	REVISION

LEGEND

(E-6) = ROCK DITCH CHECK
(E-7) = DROP INLET SILT FENCE
(E-11) = SILT FENCE

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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



DROP INLET SILT FENCE	(E-7)	INSTALLATION
STA. 156+28	LT.	I
STA. 157+48	RT.	I
STA. 160+24	LT.	I

TEMPORARY EROSION CONTROL DETAILS
STAGE 2A

JACOBS

T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job BB0611-440\700 CADD Files\770 Roadway Files\Drawings\5-Erosion Control.dgn
9/21/2015 10:01:24 AM ...\Drawings\5-Erosion Control.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	14	169

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

FLOODPLAIN LIMITS
EXISTING R/W
C OF A
P. I. 172+77.20
N 81°10'13"E
P. C. 165+84.13
BR. END
STA. 176+20.53
BEGIN EXCEPTION
STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'
BR. END
STA. 178+98.10
END EXCEPTION
P. T. 179+44.19
S 10°37'41"E
P. C. 194+99.19
P. T. 203+08.36
P. I. 199+06.48
S 87°48'41"E

E-6 = ROCK DITCH CHECK
E-7 = DROP INLET SILT FENCE

DROP INLET SILT FENCE	(E-7)	INSTALLATION
STA. 161+43	RT.	I
STA. 179+62	RT.	I

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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

REVISIONS

DATE	REVISION

0 100 200 300
GRAPHIC SCALE IN FEET

TEMPORARY EROSION CONTROL DETAILS
STAGE 2A

JACOBS

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...\Drawings\5-Erosion Control.dgn
9/21/2015 10:01:25 AM

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.		BB0611	15	169

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY

9/28/15

NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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

DROP INLET SILT FENCE	(E-7)	INSTALLATION
STA. 247+77	RT.	1
STA. 248+04	LT.	1

REVISIONS

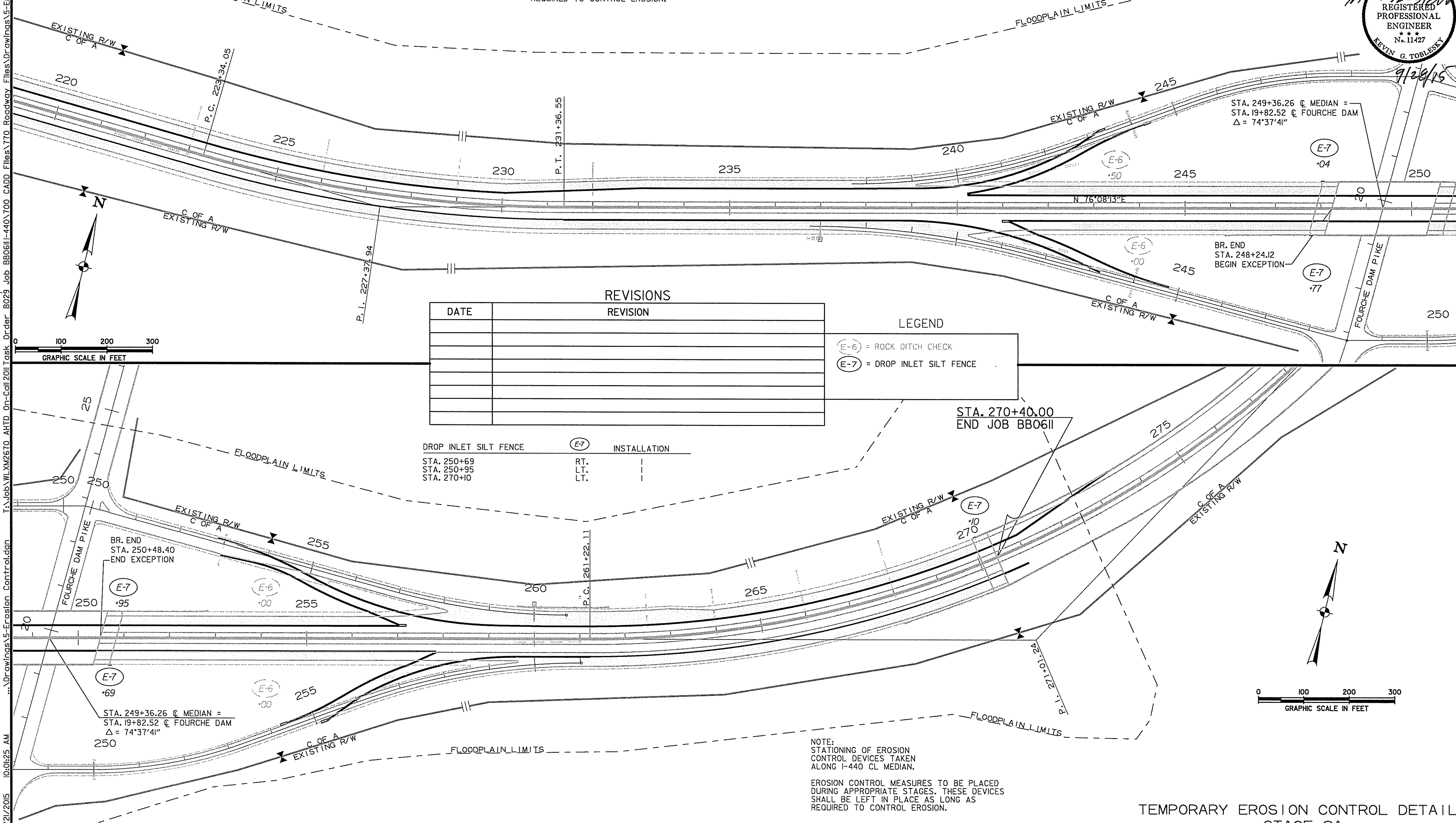
DATE	REVISION

LEGEND

(E-6) = ROCK DITCH CHECK

(E-7) = DROP INLET SILT FENCE

DROP INLET SILT FENCE	(E-7)	INSTALLATION
STA. 250+69	RT.	1
STA. 250+95	LT.	1
STA. 270+10	LT.	1



NOTE:
STATIONING OF EROSION CONTROL DEVICES TAKEN ALONG I-440 CL MEDIAN.

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

TEMPORARY EROSION CONTROL DETAILS
STAGE 2A

JACOBS

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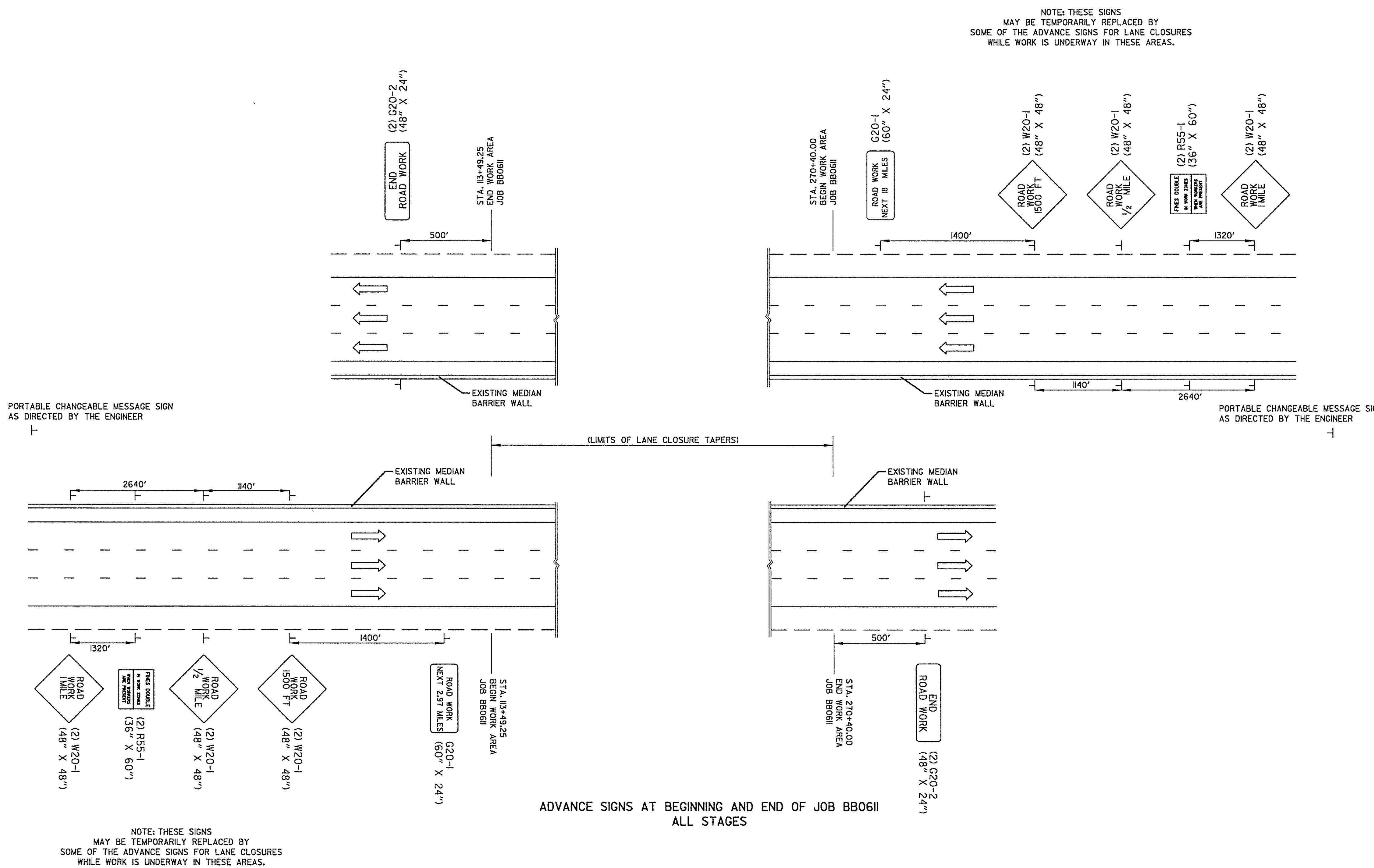
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	16	169

MAINTENANCE OF TRAFFIC



NOTE: THESE SIGNS MAY BE TEMPORARILY REPLACED BY SOME OF THE ADVANCE SIGNS FOR LANE CLOSURES WHILE WORK IS UNDERWAY IN THESE AREAS.
END ROAD WORK
(2) G20-2 (48" X 24")
STA. 113+49.25 END WORK AREA JOB BB0611
500'
STA. 270+40.00 BEGIN WORK AREA JOB BB0611
ROAD WORK NEXT 18 MILES
G20-1 (60" X 24")
ROAD WORK 1500 FT
(2) W20-1 (48" X 48")
ROAD WORK 1/2 MILE
(2) R55-1 (36" X 60")
ROAD WORK 1 MILE
1400'
1320'
1140'
2640'
EXISTING MEDIAN BARRIER WALL
PORTABLE CHANGEABLE MESSAGE SIGN AS DIRECTED BY THE ENGINEER
(LIMITS OF LANE CLOSURE TAPERS)
ROAD WORK NEXT 2.97 MILES
STA. 113+49.25 BEGIN WORK AREA JOB BB0611
STA. 270+40.00 END WORK AREA JOB BB0611
ADVANCE SIGNS AT BEGINNING AND END OF JOB BB0611
ALL STAGES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY

9/21/15

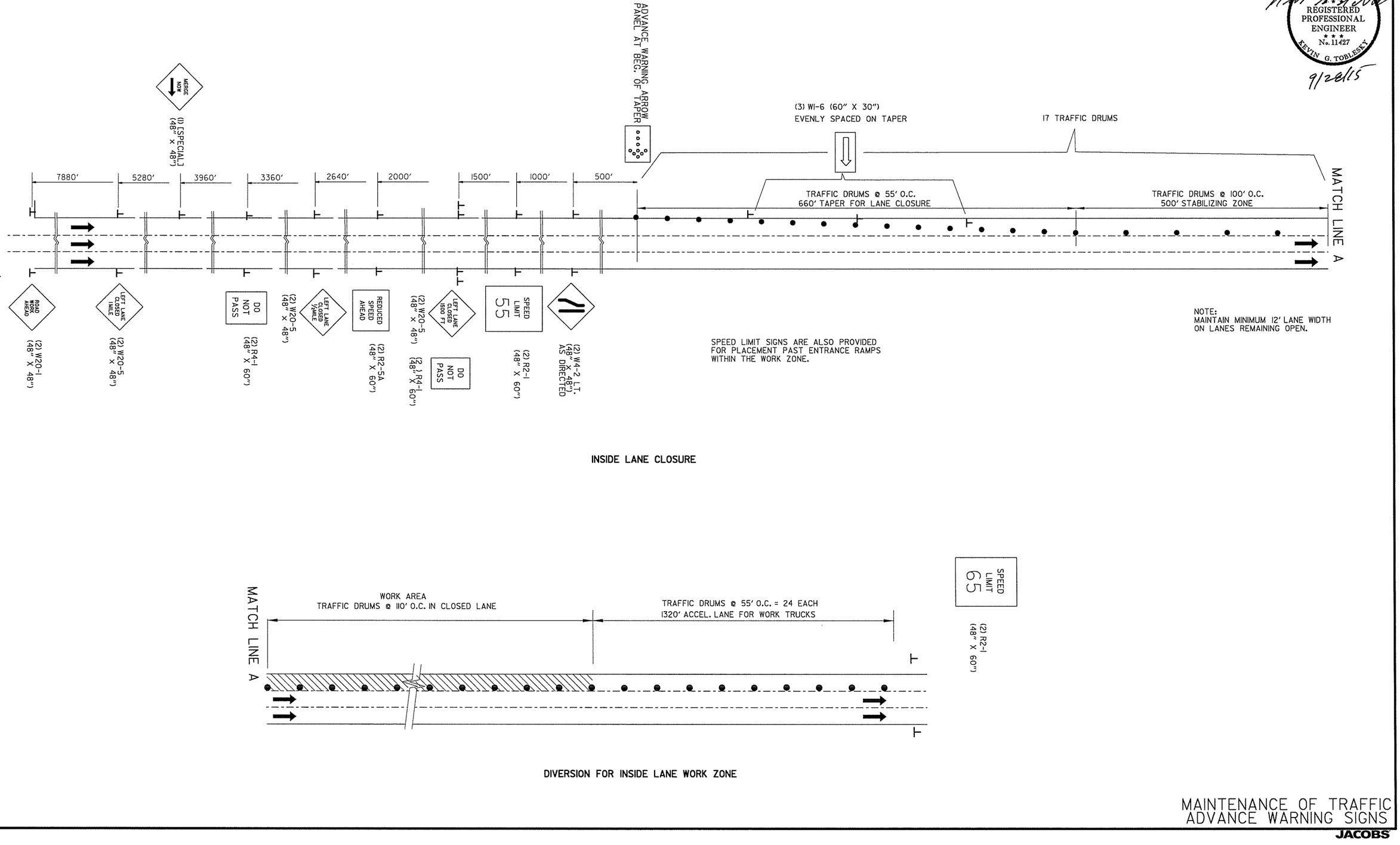
9/21/2015 10:01:27 AM

MAINTENANCE OF TRAFFIC
ADVANCE WARNING SIGNS

JACOBS

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.		BB0611	17	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15



NOTE:
MAINTAIN MINIMUM 12' LANE WIDTH ON LANES REMAINING OPEN.

SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMPS WITHIN THE WORK ZONE.

INSIDE LANE CLOSURE

DIVERSION FOR INSIDE LANE WORK ZONE

MAINTENANCE OF TRAFFIC
ADVANCE WARNING SIGNS

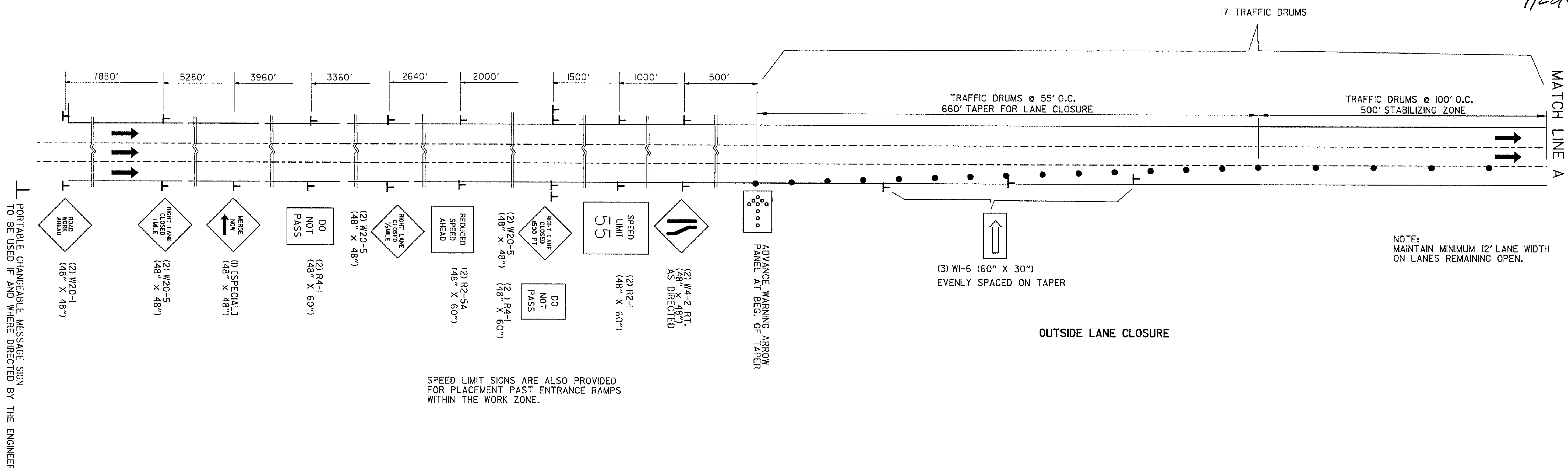
JACOBS

9/21/2015 10:01:27 AM ...\6-Maintenance of Traffic - Advance Warning Signs.dgn

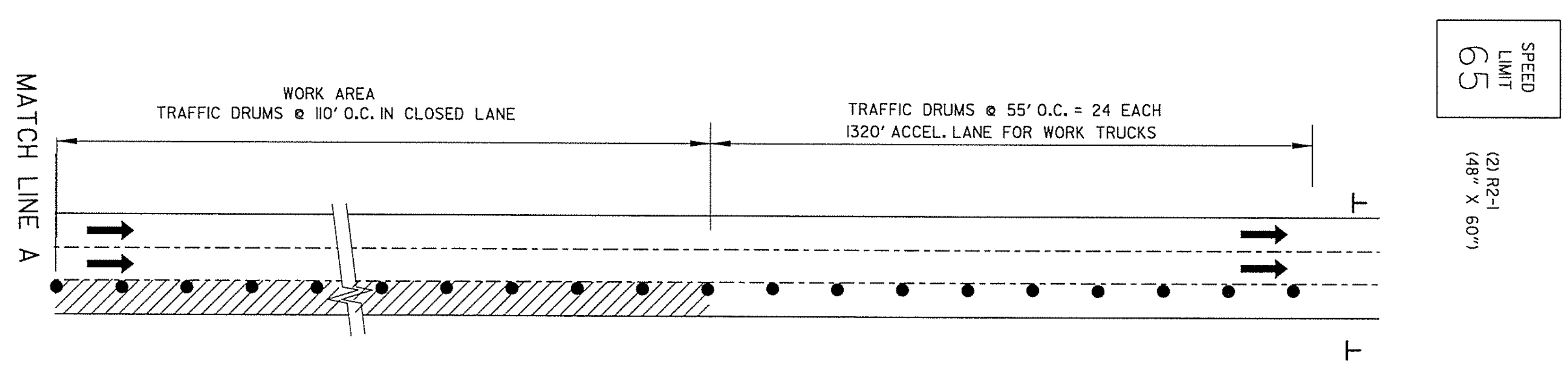
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB06II	18	169

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY
9/28/15



OUTSIDE LANE CLOSURE



DIVERSION FOR OUTSIDE LANE WORK ZONE

MAINTENANCE OF TRAFFIC ADVANCE WARNING SIGNS

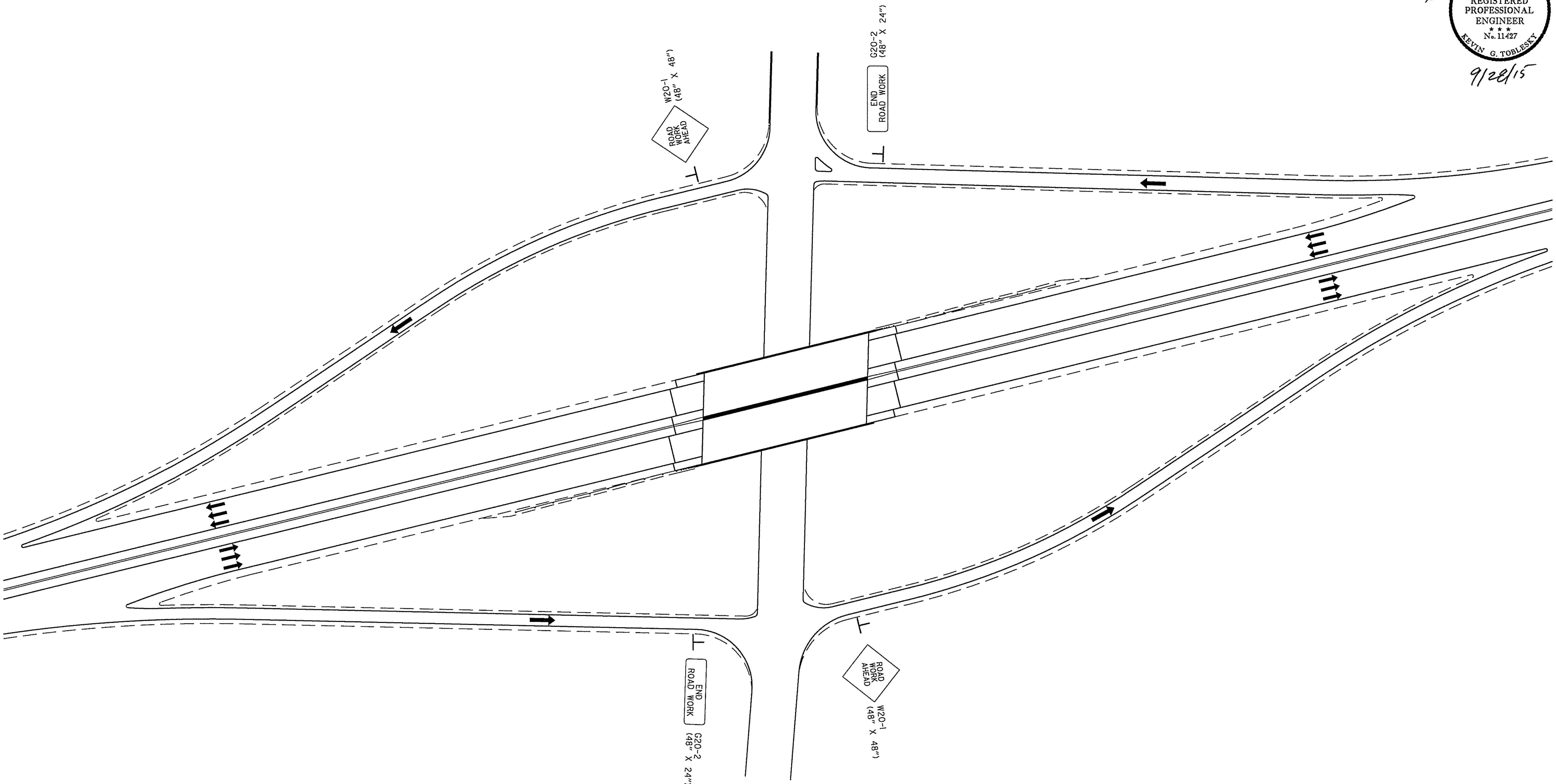
JACOBS

9/21/2015 10:01:27 AM ...\6-Maintenance of Traffic - Advance Warning Signs.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	19	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY

9/28/15



MAINTENANCE OF TRAFFIC
ADVANCE WARNING SIGNS

JACOBS

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.		BB061l	20	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

SEQUENCE OF CONSTRUCTION

STAGE 1A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO OUTSIDE AND MIDDLE LANES.
CLOSE INSIDE EB AND WB LANES.
REMOVE CORRUGATIONS INSIDE SHOULDER.

STAGE 1B
ROUTE EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
CLOSE OUTSIDE EB AND WB LANES.
REMOVE RUMBLE STRIPS AND CORRUGATIONS OUTSIDE SHOULDERS IN AREAS OF TEMPORARY RAMPS. REMOVE CORRUGATIONS INSIDE AND OUTSIDE SHOULDERS ON RAMPS.

STAGE 1C
RETAIN EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
PLACE TEMPORARY P.C.C.B. WALL.
RETURN EB AND WB TRAFFIC TO EXISTING 3 LANES.
CONSTRUCT TEMPORARY RAMPS.

STAGE 2A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO INSIDE SHOULDER AND LANES.
ROUTE INTERCHANGE RAMP TRAFFIC TO TEMPORARY RAMPS.
PLACE TEMPORARY P.C.C.B. WALL.
CONSTRUCT OUTSIDE SHOULDER, LANES, GUARDRAILS, AND OVERHEAD SIGN FOUNDATIONS.

STAGE 2B
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.
REMOVE TEMPORARY RAMPS.

STAGE 2C
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.

STAGE 3
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE EB AND WB TRAFFIC TO OUTSIDE SHOULDER AND LANES.
RETAIN MEDIAN BARRIER WALL AND CONSTRUCT INSIDE LANES, MEDIAN BARRIER WALL TRANSITIONS, AND OVERHEAD SIGNS.

STAGE 4
REMOVE TEMPORARY P.C.C.B. WALL.
PLACE PERMANENT PAVEMENT MARKINGS AND RUMBLE STRIPS.

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.		BB0611	21	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 1A
STA. 113+49.25 TO STA. 130+00
EASTBOUND 15 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND 15 TRAFFIC DRUMS @ 110' O.C.

SEQUENCE OF CONSTRUCTION

STAGE 1A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO OUTSIDE AND MIDDLE LANES.
CLOSE INSIDE EB AND WB LANES.
REMOVE CORRUGATIONS INSIDE SHOULDERS.

STATE OF ARKANSAS
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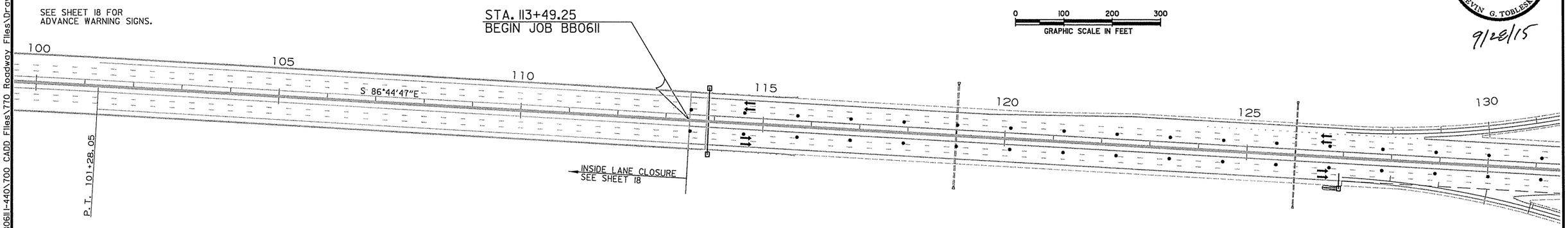
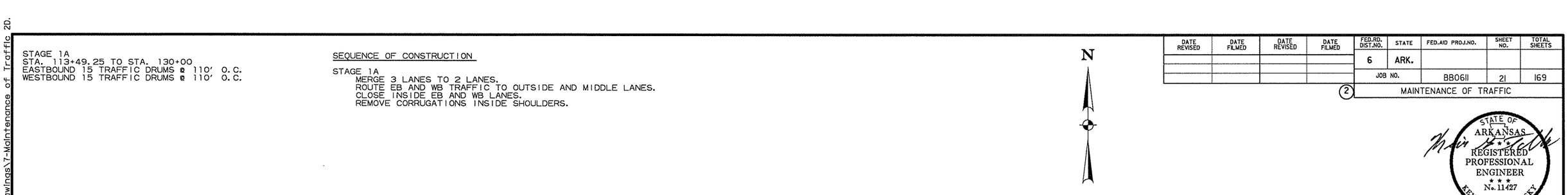
No. 11427
KEVIN G. TOBLESKY
9/28/15

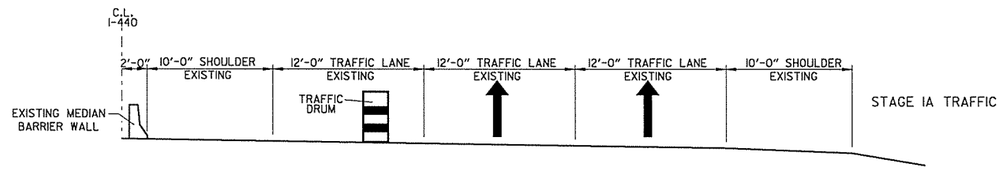
SEE SHEET 18 FOR ADVANCE WARNING SIGNS.

STA. 113+49.25
BEGIN JOB BB0611



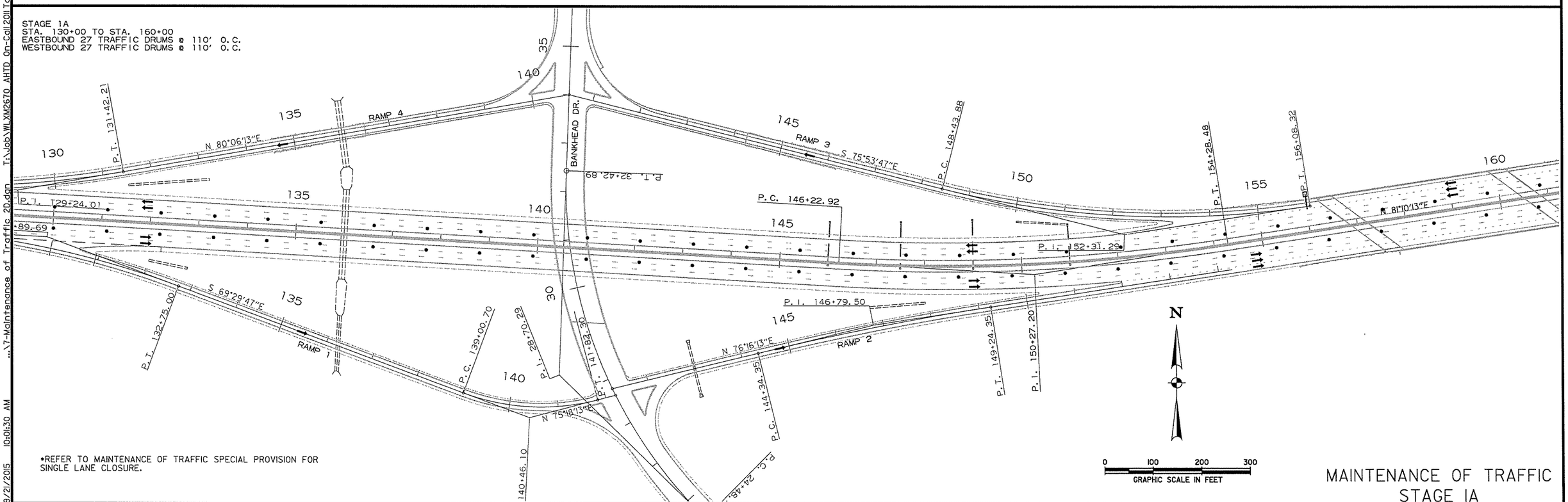


•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.



STAGE IA TRAFFIC

STAGE 1A
STA. 130+00 TO STA. 160+00
EASTBOUND 27 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND 27 TRAFFIC DRUMS @ 110' O.C.



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC
STAGE IA

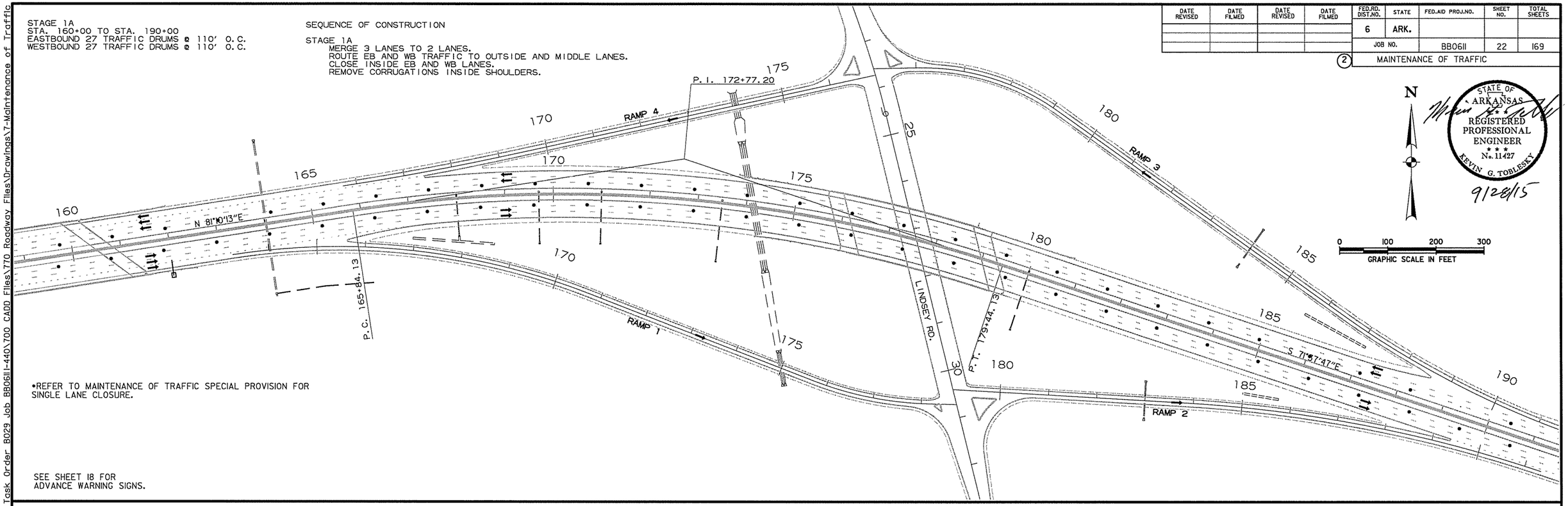
JACOBS

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.		080611	22	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 1A
STA. 160+00 TO STA. 190+00
EASTBOUND 27 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND 27 TRAFFIC DRUMS @ 110' O.C.

SEQUENCE OF CONSTRUCTION

STAGE 1A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO OUTSIDE AND MIDDLE LANES.
CLOSE INSIDE EB AND WB LANES.
REMOVE CORRUGATIONS INSIDE SHOULDERS.



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

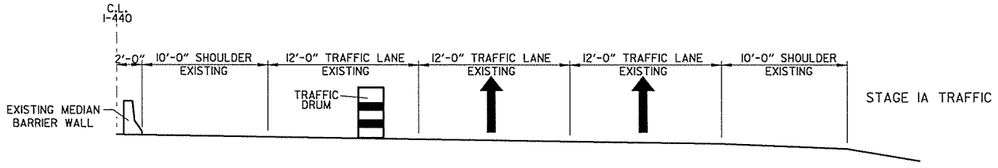
SEE SHEET 18 FOR ADVANCE WARNING SIGNS.

N

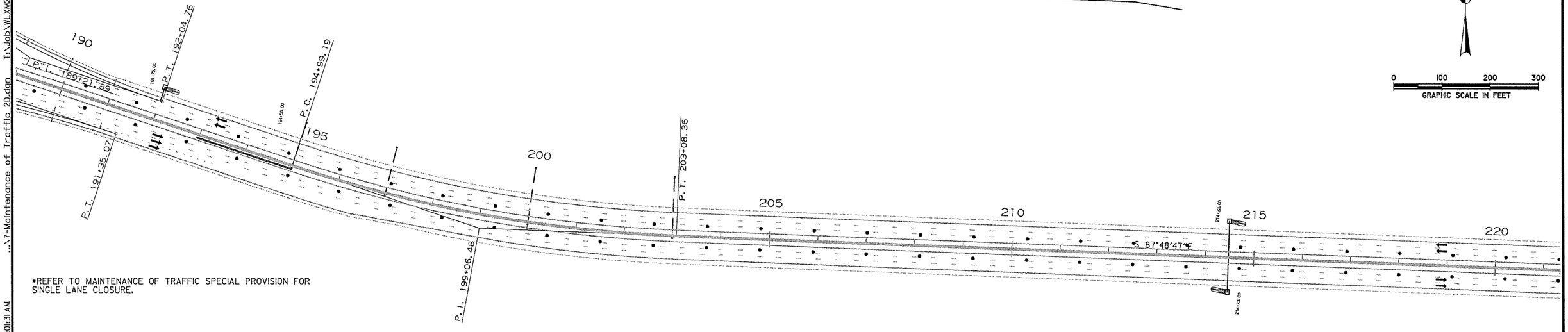
0 100 200 300
GRAPHIC SCALE IN FEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

STAGE 1A
STA. 190+00 TO STA. 220+00
EASTBOUND 27 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND 27 TRAFFIC DRUMS @ 110' O.C.



STAGE IA TRAFFIC



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

N

0 100 200 300
GRAPHIC SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE IA

JACOBS

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.		BB061l	23	169

(2) MAINTENANCE OF TRAFFIC

STAGE 1A
STA. 220+00 TO STA. 250+00
EASTBOUND 27 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND 27 TRAFFIC DRUMS @ 110' O.C.

SEQUENCE OF CONSTRUCTION

STAGE 1A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO OUTSIDE AND MIDDLE LANES.
CLOSE INSIDE EB AND WB LANES.
REMOVE CORRUGATIONS INSIDE SHOULDERS.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

220 225 230 235 240 245 250

P.C. 223+34.05
P.T. 231+36.55
P.I. 227+37.94
RAMP 4
RAMP 1
FOURCHE DAM PIKE
N 76°08'13"E

*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 1A
STA. 250+00 TO STA. 270+40
EASTBOUND 19 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND 19 TRAFFIC DRUMS @ 110' O.C.

C.L. I-440

2'-0"	10'-0" SHOULDER EXISTING	12'-0" TRAFFIC LANE EXISTING	12'-0" TRAFFIC LANE EXISTING	12'-0" TRAFFIC LANE EXISTING	10'-0" SHOULDER EXISTING

EXISTING MEDIAN BARRIER WALL
TRAFFIC DRUM

STAGE IA TRAFFIC

N

0 100 200 300
GRAPHIC SCALE IN FEET

250 255 260 265 270 275

S 88°29'28"E
N 1°30'32"E
N 56°08'13"E
RAMP 3
RAMP 2
P.C. 256+86.04
P.T. 260+70.34
P.C. 261+22.11
P.I. 258+79.35
P.I. 258+55.76
P.C. 249+98.55
P.T. 253+13.88
P.C. 256+03.15
P.T. 261+03.15
P.I. 271+01.22
INSIDE LANE CLOSURE SEE SHEET 18
STA. 270+40.00
END JOB BB061l

*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE IA

JACOBS

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.		BB061I	24	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

STAGE 1B
STA. 113+49.25 TO STA. 126+00
EASTBOUND
12 TRAFFIC DRUMS @ 110' O.C.

STA. 113+49.25 TO STA. 119+00
WESTBOUND
6 TRAFFIC DRUMS @ 110' O.C.

SEQUENCE OF CONSTRUCTION

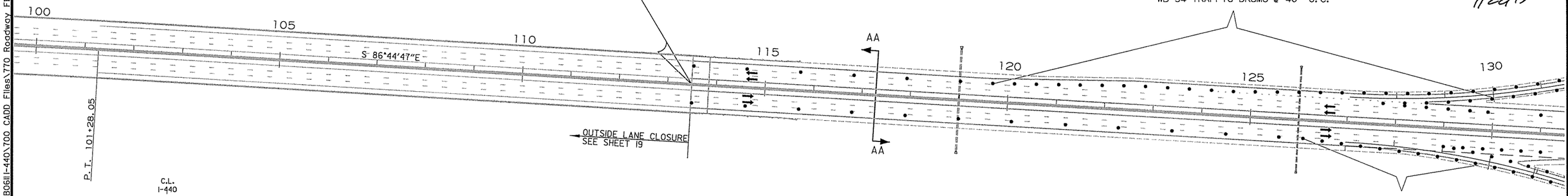
STAGE 1B
ROUTE EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
CLOSE OUTSIDE EB AND WB LANES.
REMOVE RUMBLE STRIPS AND CORRUGATIONS OUTSIDE SHOULDERS IN AREAS OF TEMPORARY RAMPS.
REMOVE CORRUGATION INSIDE AND OUTSIDE SHOULDERS ON RAMPS.

N

0 100 200 300
GRAPHIC SCALE IN FEET

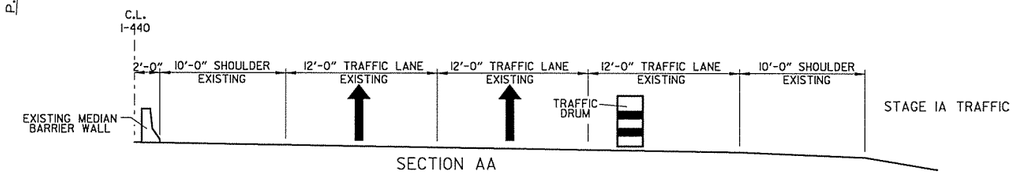
SEE SHEET 18 FOR ADVANCE WARNING SIGNS.

STA. 113+49.25
BEGIN JOB BB061I



STA. 119+75 TO STA. 130+00
WB 34 TRAFFIC DRUMS @ 40' O.C.

STA. 126+10 TO STA. 130+00
EB 13 TRAFFIC DRUMS @ 40' O.C.



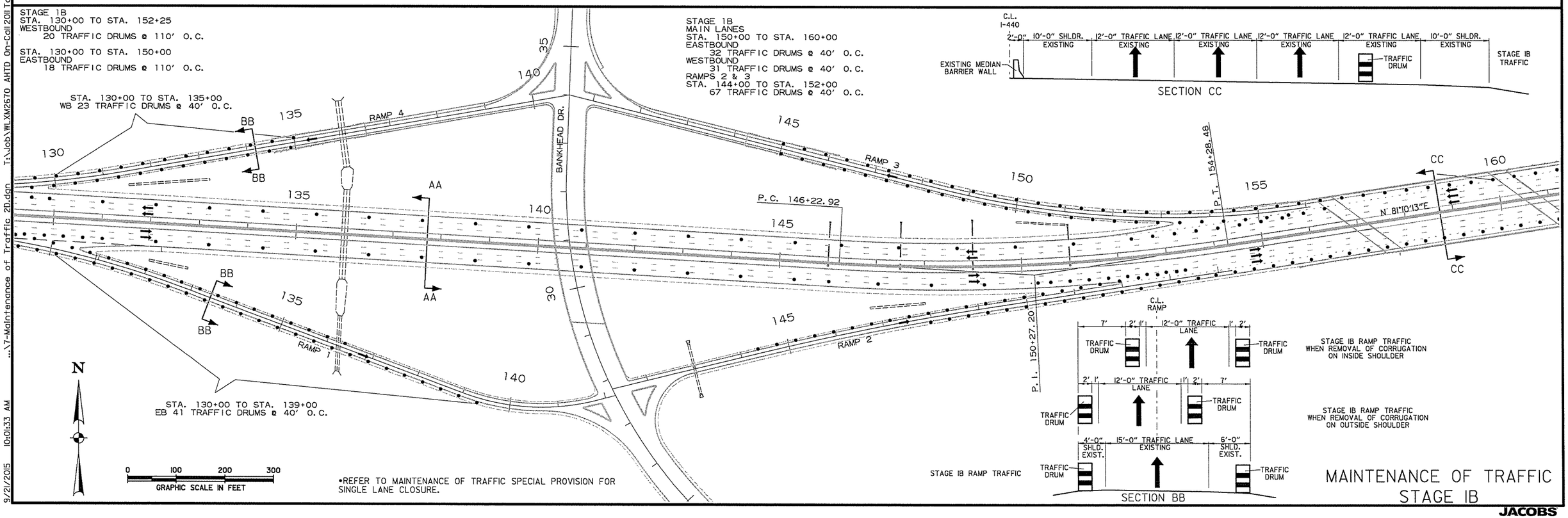
•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 1B
STA. 130+00 TO STA. 152+25
WESTBOUND
20 TRAFFIC DRUMS @ 110' O.C.

STA. 130+00 TO STA. 150+00
EASTBOUND
18 TRAFFIC DRUMS @ 110' O.C.

STA. 130+00 TO STA. 135+00
WB 23 TRAFFIC DRUMS @ 40' O.C.

STAGE 1B
MAIN LANES
STA. 150+00 TO STA. 160+00
EASTBOUND
32 TRAFFIC DRUMS @ 40' O.C.
WESTBOUND
31 TRAFFIC DRUMS @ 40' O.C.
RAMPS 2 & 3
STA. 144+00 TO STA. 152+00
67 TRAFFIC DRUMS @ 40' O.C.



STA. 130+00 TO STA. 139+00
EB 41 TRAFFIC DRUMS @ 40' O.C.

N

0 100 200 300
GRAPHIC SCALE IN FEET

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE IB

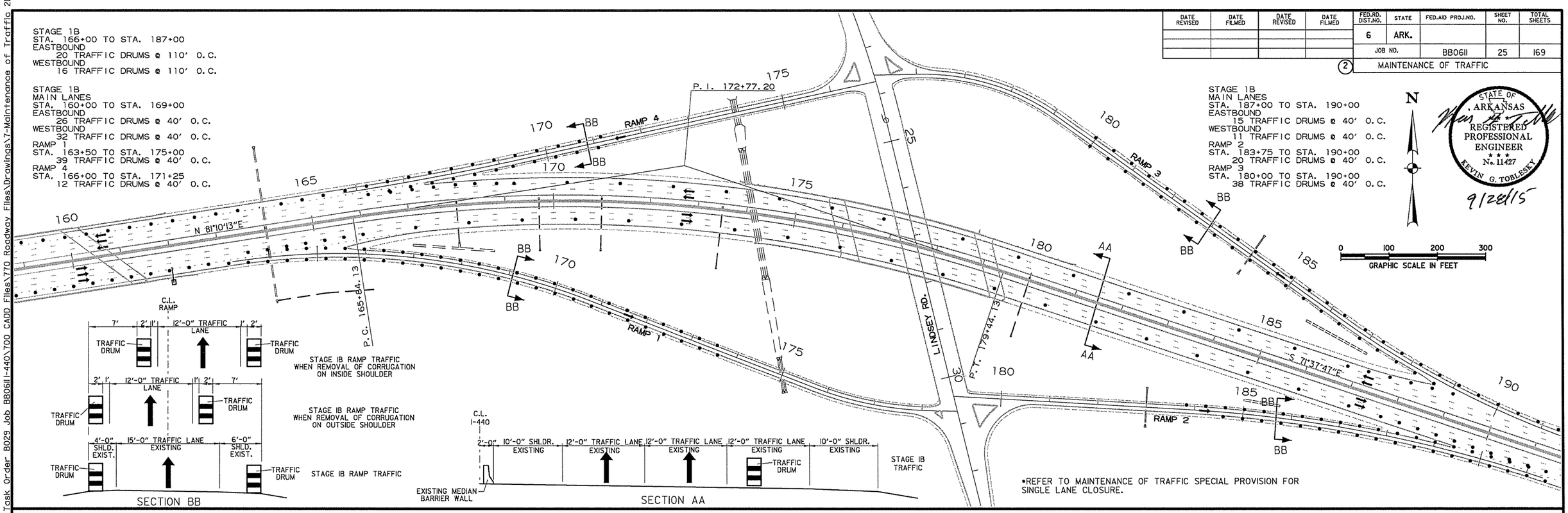
JACOBS

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.		BB0611	25	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 1B
STA. 166+00 TO STA. 187+00
EASTBOUND
20 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND
16 TRAFFIC DRUMS @ 110' O.C.

STAGE 1B
MAIN LANES
STA. 160+00 TO STA. 169+00
EASTBOUND
26 TRAFFIC DRUMS @ 40' O.C.
WESTBOUND
32 TRAFFIC DRUMS @ 40' O.C.
RAMP 1
STA. 163+50 TO STA. 175+00
39 TRAFFIC DRUMS @ 40' O.C.
RAMP 4
STA. 166+00 TO STA. 171+25
12 TRAFFIC DRUMS @ 40' O.C.

STAGE 1B
MAIN LANES
STA. 187+00 TO STA. 190+00
EASTBOUND
15 TRAFFIC DRUMS @ 40' O.C.
WESTBOUND
11 TRAFFIC DRUMS @ 40' O.C.
RAMP 2
STA. 183+75 TO STA. 190+00
20 TRAFFIC DRUMS @ 40' O.C.
RAMP 3
STA. 180+00 TO STA. 190+00
38 TRAFFIC DRUMS @ 40' O.C.



SECTION BB

STAGE IB RAMP TRAFFIC WHEN REMOVAL OF CORRUGATION ON INSIDE SHOULDER

STAGE IB RAMP TRAFFIC WHEN REMOVAL OF CORRUGATION ON OUTSIDE SHOULDER

STAGE IB RAMP TRAFFIC

SECTION AA

STAGE IB TRAFFIC

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

STAGE 1B
STA. 195+00 TO STA. 220+00
EASTBOUND
18 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND
22 TRAFFIC DRUMS @ 110' O.C.

SEQUENCE OF CONSTRUCTION

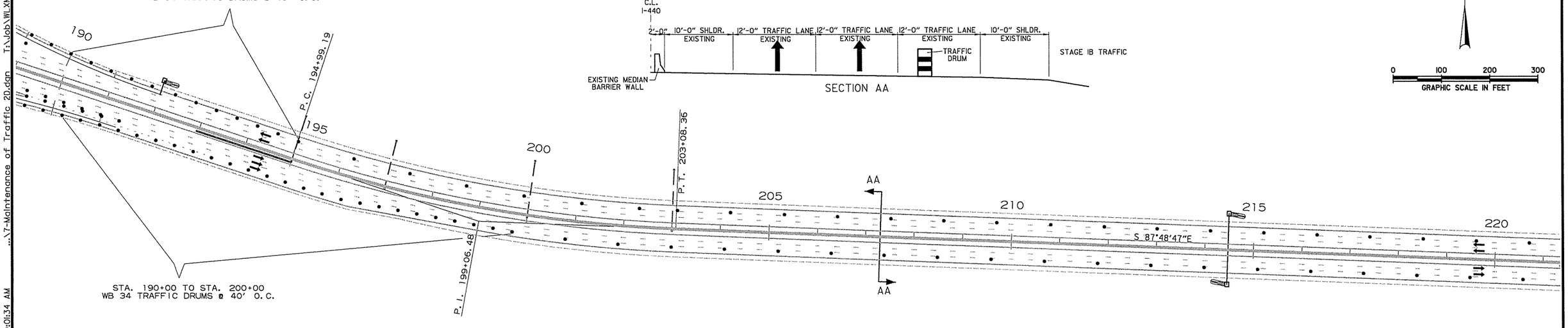
STAGE 1B
ROUTE EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
CLOSE OUTSIDE EB AND WB LANES.
REMOVE RUMBLE STRIPS AND CORRUGATIONS OUTSIDE SHOULDERS IN AREAS OF TEMPORARY RAMPS.
REMOVE CORRUGATION INSIDE AND OUTSIDE SHOULDERS ON RAMPS.

SECTION AA

STAGE IB TRAFFIC

STA. 190+00 TO STA. 195+00
WB 34 TRAFFIC DRUMS @ 40' O.C.

STA. 190+00 TO STA. 200+00
WB 34 TRAFFIC DRUMS @ 40' O.C.



N

0 100 200 300
GRAPHIC SCALE IN FEET

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE IB

JACOBS

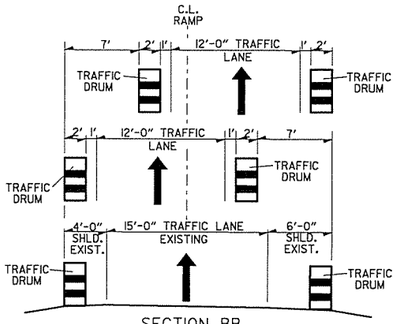
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	26	169

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEN
9/28/15

STAGE 1B
STA. 220+00 TO STA. 250+00
EASTBOUND
20 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND
17 TRAFFIC DRUMS @ 110' O.C.

STA. 237+00 TO STA. 243+00
EASTBOUND
7 TRAFFIC DRUMS @ 40' O.C.
WESTBOUND
8 TRAFFIC DRUMS @ 40' O.C.



SECTION BB

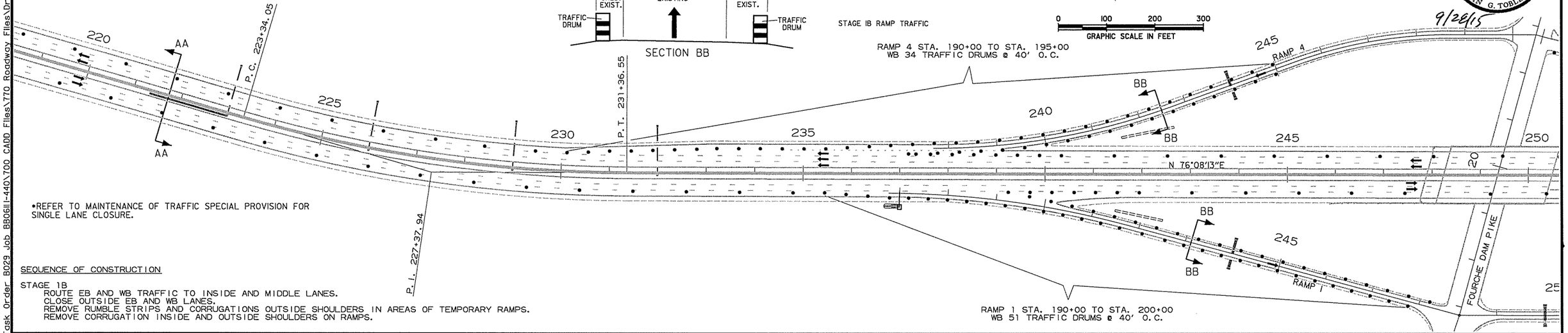
STAGE 1B RAMP TRAFFIC WHEN REMOVAL OF CORRUGATION ON INSIDE SHOULDER

STAGE 1B RAMP TRAFFIC WHEN REMOVAL OF CORRUGATION ON OUTSIDE SHOULDER

STAGE 1B RAMP TRAFFIC

0 100 200 300
GRAPHIC SCALE IN FEET

RAMP 4 STA. 190+00 TO STA. 195+00
WB 34 TRAFFIC DRUMS @ 40' O.C.



*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

SEQUENCE OF CONSTRUCTION

STAGE 1B
ROUTE EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
CLOSE OUTSIDE EB AND WB LANES.
REMOVE RUMBLE STRIPS AND CORRUGATIONS OUTSIDE SHOULDERS IN AREAS OF TEMPORARY RAMPS.
REMOVE CORRUGATION INSIDE AND OUTSIDE SHOULDERS ON RAMPS.

RAMP 1 STA. 190+00 TO STA. 200+00
WB 51 TRAFFIC DRUMS @ 40' O.C.

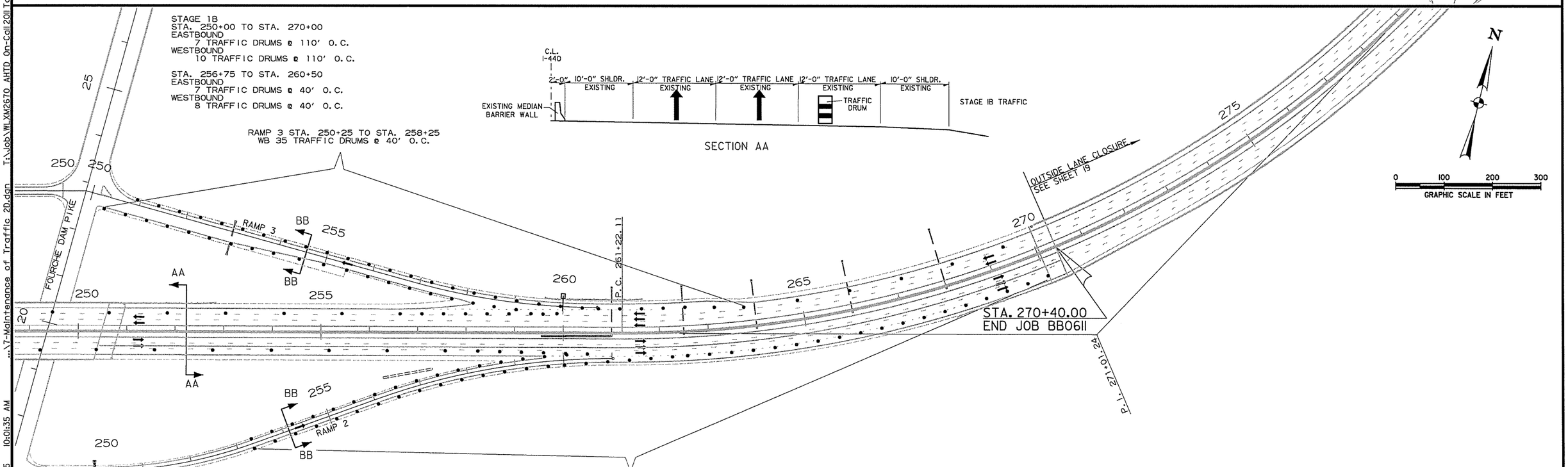
STAGE 1B
STA. 250+00 TO STA. 270+00
EASTBOUND
7 TRAFFIC DRUMS @ 110' O.C.
WESTBOUND
10 TRAFFIC DRUMS @ 110' O.C.

STA. 256+75 TO STA. 260+50
EASTBOUND
7 TRAFFIC DRUMS @ 40' O.C.
WESTBOUND
8 TRAFFIC DRUMS @ 40' O.C.

STAGE 1B TRAFFIC

SECTION AA

RAMP 3 STA. 250+25 TO STA. 258+25
WB 35 TRAFFIC DRUMS @ 40' O.C.



N

0 100 200 300
GRAPHIC SCALE IN FEET

RAMP 2 STA. 253+25 TO STA. 270+00
WB 56 TRAFFIC DRUMS @ 40' O.C.

*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 1B

JACOBS

STAGE 2A
STA. 110+00 TO STA. 130+00
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 113 LIN. FT.

DENOTES PAVEMENT TO BE CONSTRUCTED

SEQUENCE OF CONSTRUCTION

STAGE 1C
RETAIN EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
PLACE TEMPORARY P.C.C.B. WALL.
RETURN EB AND WB TRAFFIC TO EXISTING 3 LANES.
CONSTRUCT TEMPORARY RAMPS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB061I	27	169

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

SEE SHEET 18 FOR ADVANCE WARNING SIGNS.

STA. 113+49.25
BEGIN JOB BB061I

P.T. 101+28.05

S 86°44'47"E

TEMPORARY IMPACT ATTENUATION BARRIER

N

0 100 200 300
GRAPHIC SCALE IN FEET

STAGE 2A
STA. 130+00 TO STA. 160+00
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 3798 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 5 EACH

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 30.

FURNISHING & INSTALLING P.C.C.B.

TEMPORARY IMPACT ATTENUATION BARRIER

RAMP 4

STA. 132+00 INSTALL
18" X 132' TEMP. PIPE CULVERT

BANKHEAD DR.

STA. 131+60 INSTALL
18" X 178' TEMP. PIPE CULVERT

FURNISHING & INSTALLING P.C.C.B.

RAMP 1

STA. 149+75 INSTALL
18" X 122' TEMP. PIPE CULVERT
18" X 4' TEMP. PIPE CULVERT
CONNECT TO EXISTING CROSS DRAIN

FURNISHING & INSTALLING P.C.C.B.

TEMPORARY IMPACT ATTENUATION BARRIER

RAMP 3

P.C. 146+22.92

P.T. 154+28.48

N 81°10'13"E

TEMPORARY IMPACT ATTENUATION BARRIER

RAMP 2

FURNISHING & INSTALLING P.C.C.B.

P.I. 150+27.20

STA. 147+13 INSTALL
18" X 140' TEMP. PIPE CULVERT

N

0 100 200 300
GRAPHIC SCALE IN FEET

REMOVAL & DISPOSAL OF CONCRETE DITCH PAVING
STA. 132+00 TO STA. 132.81 = 36.00 SQ. YD.
STA. 131+51 TO STA. 133+16 = 73.78 SQ. YD.
STA. 146+90 TO STA. 148+00 = 48.00 SQ. YD.
STA. 149+95 TO STA. 151+00 = 47.56 SQ. YD.

MAINTENANCE OF TRAFFIC
STAGE 1C

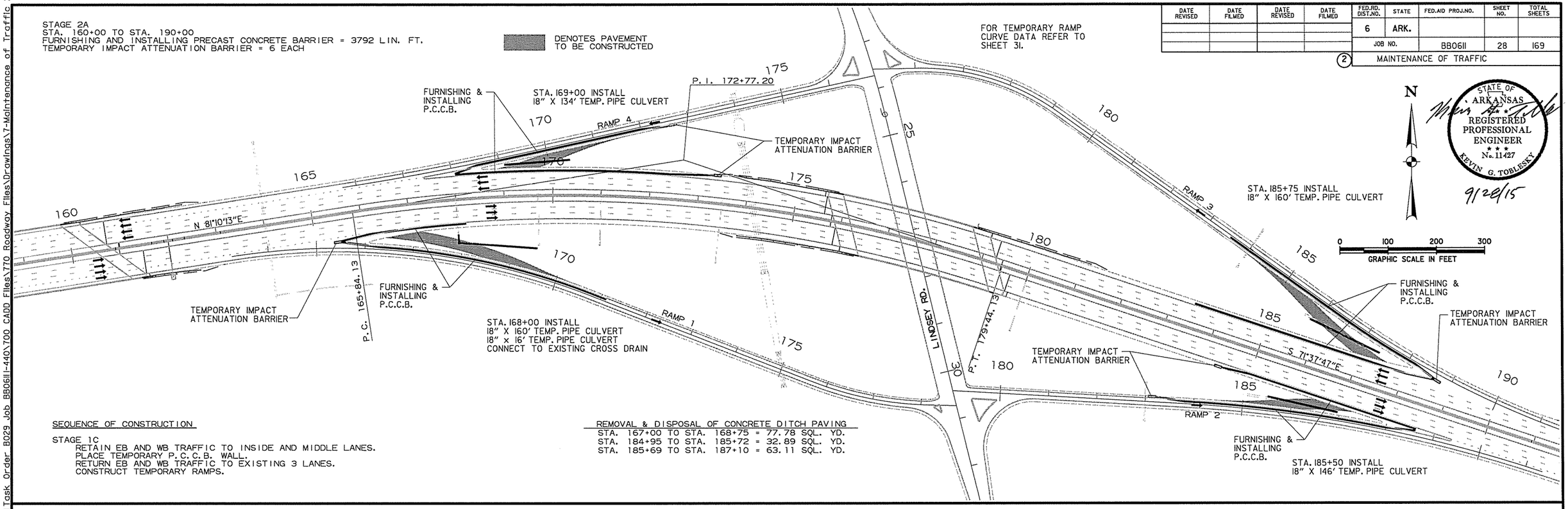
JACOBS

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.		BB061I	28	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 2A
STA. 160+00 TO STA. 190+00
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 3792 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 6 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 31.

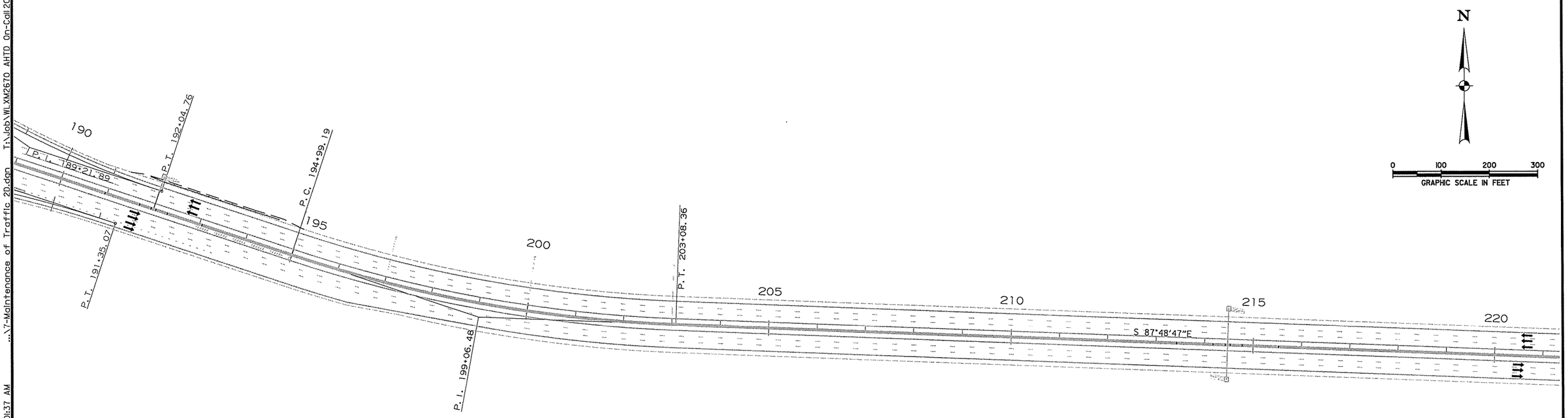


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

SEQUENCE OF CONSTRUCTION

STAGE 1C
RETAIN EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
PLACE TEMPORARY P.C.C.B. WALL.
RETURN EB AND WB TRAFFIC TO EXISTING 3 LANES.
CONSTRUCT TEMPORARY RAMPS.

REMOVAL & DISPOSAL OF CONCRETE DITCH PAVING
STA. 167+00 TO STA. 168+75 = 77.78 SQL. YD.
STA. 184+95 TO STA. 185+72 = 32.89 SQL. YD.
STA. 185+69 TO STA. 187+10 = 63.11 SQL. YD.



MAINTENANCE OF TRAFFIC
STAGE IC

JACOBS

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.		BB061I	29	169

(2) MAINTENANCE OF TRAFFIC

STAGE 2A
STA. 220+00 TO STA. 250+00
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 1780 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

SEQUENCE OF CONSTRUCTION

STAGE 1C
RETAIN EB AND WB TRAFFIC TO INSIDE AND MIDDLE LANES.
PLACE TEMPORARY P.C.C.B. WALL.
RETURN EB AND WB TRAFFIC TO EXISTING 3 LANES.
CONSTRUCT TEMPORARY RAMPS.

REMOVAL & DISPOSAL OF CONCRETE DITCH PAVING
STA. 241+45 TO STA. 242+43 = 43.56 SQ. YD.
STA. 241+58 TO STA. 242+66 = 48.44 SQ. YD.

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 32.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESEY

9/28/15

STA. 241+05 INSTALL
18" X 134' TEMP. PIPE CULVERT

0 100 200 300
GRAPHIC SCALE IN FEET

220 225 230 235 240 245 250

P.C. 223+34.05
P.T. 231+36.55
P.I. 227+37.94

FURNISHING & INSTALLING P.C.C.B.
RAMP 4
TEMPORARY IMPACT ATTENUATION BARRIER
FOURCHE DAM PIKE
N 76°08'13"E
TEMPORARY IMPACT ATTENUATION BARRIER
FURNISHING & INSTALLING P.C.C.B.
RAMP 1

STA. 241+40 INSTALL
18" X 166' TEMP. PIPE CULVERT

STAGE 2A
STA. 250+00 TO STA. 273+00
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 1720 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

REMOVAL & DISPOSAL OF CONCRETE DITCH PAVING
STA. 256+28 TO STA. 257+32 = 46.22 SQ. YD.

STA. 270+40.00
END JOB BB061I

STA. 255+10 INSTALL
18" X 168' TEMP. PIPE CULVERT

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 32.

TEMPORARY IMPACT ATTENUATION BARRIER
FURNISHING & INSTALLING P.C.C.B.
RAMP 3
FOURCHE DAM PIKE
P.C. 261+22.11
P.I. 271+01.22
TEMPORARY IMPACT ATTENUATION BARRIER
FURNISHING & INSTALLING P.C.C.B.
RAMP 2

STA. 255+75 INSTALL
18" X 168' TEMP. PIPE CULVERT

0 100 200 300
GRAPHIC SCALE IN FEET

25 250 255 260 265 270 275

MAINTENANCE OF TRAFFIC STAGE 1C

JACOBS

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.		BB0611	30	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

TEMP. RAMP 4
PI= 131+31.33
DELTA 27°16'01" LT.
D = 6° 30'
T = 213.80'
L = 419.49'
PC= 129+17.53
PT= 133+37.02

TEMP. RAMP 4
PI= 134+56.70
DELTA 31°29'39" RT.
D = 6° 30'
T = 248.55'
L = 484.53'
PC= 133+37.02
PT= 136+92.68

BR. END
STA. 136+48.80

RAMP 4

TEMP. RAMP 4

STA. 140+67.20 ℄ MEDIAN =
STA. 30+83.93 ℄ BANKHEAD DR.

BANKHEAD DR.

BR. END
STA. 144+26.45

TEMP. RAMP 3
PI= 148+75.90
DELTA 8°33'39" RT.
D = 6° 30'
T = 65.98'
L = 131.71'
PC= 148+09.92
PT= 149+41.63

RAMP 3

TEMP. RAMP 3
PI= 152+62.79
DELTA 31°29'39" LT.
D = 6° 30'
T = 188.93'
L = 362.65'
PC= 150+81.46
PT= 154+44.11

P.T. 154+28.48

P.C. 146+22.92

TEMP. RAMP 3

TEMP. RAMP 1
PI= 131+43.87
DELTA 27°52'50" RT.
D = 6° 30'
T = 218.80'
L = 428.93'
PC= 129+25.07
PT= 133+54.00

TEMP. RAMP 1

TEMP. RAMP 1
PI= 134+98.77
DELTA 10°46'46" LT.
D = 6° 30'
T = 83.16'
L = 165.84'
PC= 134+15.61
PT= 135+84.45

RAMP 1

TEMP. RAMP 2

TEMP. RAMP 2
PI= 145+87.11
DELTA 9°22'54" LT.
D = 5° 00'
T = 94.03'
L = 187.63'
PC= 144+93.08
PT= 146+80.71

RAMP 2

TEMP. RAMP 2
PI= 148+74.08
DELTA 19°6'52" RT.
D = 5° 00'
T = 192.94'
L = 382.29'
PC= 146+81.14
PT= 150+63.43

P.I. 150+27.20

MAINTENANCE OF TRAFFIC STAGE IC - TEMPORARY RAMP ALIGNMENTS

JACOBS

9/21/2015 10:01:40 AM ...\7-Maintenance of Traffic 2D.dgn T:\Job\WLXW2670 AHTD On-Call 2011 Task Order 8029 Job BB0611-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D.

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.		BB0611	31	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

TEMP. RAMP 4
PI= 168+69.72
DELTA 18°35'21" LT.
D = 6° 30'
T = 144.26'
L = 285.99'
PC= 167+25.46
PT= 170+11.45

TEMP. RAMP 4
PI= 171+08.43
DELTA 12°13'56" RT.
D = 6° 30'
T = 94.45'
L = 188.19'
PC= 170+13.98
PT= 172.02.17

P. I. 172+77.20

TEMP. RAMP 4

RAMP 4

TEMP. RAMP 1
PI= 167+41.34
DELTA 37°26'34" RT.
D = 6° 30'
T = 298.73'
L = 576.04'
PC= 164+42.61
PT= 170+18.65

P. C. 165+84.13

N 81°10'13"E

TEMP. RAMP 1

TEMP. RAMP 1
PI= 171+00.79
DELTA 7°26'34" LT.
D = 6° 30'
T = 57.33'
L = 114.50'
PC= 170+43.46
PT= 171+57.96

RAMP 1

STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'

LINDSEY RD.

P. T. 179+44.13

S 71°37'47"E

TEMP. RAMP 3
PI= 184+37.37
DELTA 12°08'16" RT.
D = 6° 30'
T = 93.72'
L = 186.74'
PC= 183+43.65
PT= 185+30.39

TEMP. RAMP 3

RAMP 3

TEMP. RAMP 3
PI= 187+63.61
DELTA 29°14'16" LT.
D = 6° 30'
T = 229.92'
L = 449.81'
PC= 185+33.69
PT= 189+83.50

TEMP. RAMP 2
PI= 184+51.69
DELTA 9°36'04" LT.
D = 6° 30'
T = 74.03'
L = 147.71'
PC= 183+77.66
PT= 185.25.37

TEMP. RAMP 2

RAMP 2

TEMP. RAMP 2
PI= 187+19.22
DELTA 24°29'37" RT.
D = 6° 30'
T = 191.34'
L = 376.82'
PC= 185+27.88
PT= 189+04.70

MAINTENANCE OF TRAFFIC STAGE IC - TEMPORARY RAMP ALIGNMENTS

JACOBS

9/21/2015 10:01:41 AM ...\7-Maintenance of Traffic 2D.dgn T:\Job\WLXM2670 AHTD On-Call 2011 Task Order 8029 Job BB0611-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D.

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.		B80611	32	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

TEMP. RAMP 3
PI = 253+75.43
DELTA 13°35'01" RT.
D = 6° 30'
T = 104.98'
L = 208.98'
PC = 252+70.45
PT = 254+79.43

TEMP. RAMP 3
PI = 257+10.59
DELTA 28°57'20" LT.
D = 6° 30'
T = 227.60'
L = 445.47'
PC = 254+82.99
PT = 259+28.46

TEMP. RAMP 4
PI = 244+32.65
DELTA 12°37'42" RT.
D = 6° 30'
T = 97.54'
L = 194.28'
PC = 243+35.11
PT = 245+29.39

TEMP. RAMP 4
PI = 241+28.92
DELTA 32°37'42" LT.
D = 6° 30'
T = 209.62'
L = 407.85'
PC = 239+19.30
PT = 243+27.15

TEMP. RAMP 1
PI = 240+76.15
DELTA 25°00'00" RT.
D = 6° 30'
T = 195.42'
L = 384.62'
PC = 238+80.73
PT = 242+65.35

TEMP. RAMP 1
PI = 244+18.86
DELTA 10°00'00" LT.
D = 6° 30'
T = 77.12'
L = 153.85'
PC = 243+41.47
PT = 244+95.59

TEMP. RAMP 2
PI = 257+55.00
DELTA 32°37'42" RT.
D = 8° 00'
T = 209.62'
L = 407.85'
PC = 255+45.38
PT = 259+53.23

TEMP. RAMP 2
PI = 254+51.27
DELTA 12°37'42" LT.
D = 6° 30'
T = 97.54'
L = 194.28'
PC = 253+53.73
PT = 255+48.01

STA. 249+36.26 ℄ MEDIAN =
STA. 19+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"

N 76°08'13" E

FOURCHE DAM PIKE

RAMP 3 · RAMP 4 · RAMP 1 · RAMP 2

TEMP. RAMP 3 · TEMP. RAMP 4 · TEMP. RAMP 1 · TEMP. RAMP 2

N

0 100 200 300
GRAPHIC SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE IC - TEMPORARY RAMP ALIGNMENTS

JACOBS

9/21/2015 10:01:41 AM ...\7-Maintenance of Traffic 2D.dgn T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job B80611 I-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D.

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.		BB0611	33	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 2A
STA. 108+53 TO STA. 130+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 4280 LIN. FT.
WHITE 4" CONTINUOUS = 3840 LIN. FT.
WHITE 4" SKIP = 1180 LIN. FT.
WHITE 8" DOTTED = 78 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 4280 LIN. FT.
WHITE 4" SKIP = 1180 LIN. FT.
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 3527 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 113 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 1 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

SEQUENCE OF CONSTRUCTION

STAGE 2A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO INSIDE SHOULDER AND LANES.
ROUTE INTERCHANGE RAMP TRAFFIC TO TEMPORARY RAMPS.
PLACE TEMPORARY P.C.C.B. WALL.
CONSTRUCT OUTSIDE SHOULDER AND LANES.

N

0 100 200 300
GRAPHIC SCALE IN FEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/22/15

STA. 113+49.25
BEGIN JOB BB0611

STA. 108+50 TO STA. 113+00
WB 18 TRAFFIC DRUMS @ 55' O.C.

STA. 108+50 TO STA. 113+00
EB 18 TRAFFIC DRUMS @ 55' O.C.

100 105 110 115 120 125 130

500'
450' TAPER
450' TAPER
S 86°44'47"E
OUTSIDE LANE CLOSURE SEE SHEET 19
TEMPORARY IMPACT ATTENUATION BARRIER
P.T. 101+28.05
RSS-1 (48" X 30")
SHOULDER CLOSED
FURNISHING & INSTALLING P.C.C.B.
4" WHITE SKIP
4" WHITE CONTINUOUS
4" WHITE SKIP
4" YELLOW CONTINUOUS
300' TEMP. TAPER
700' TEMP. ACCELERATION LANE
8" WHITE DOT
AA
AA

C.L. I-440
STAGE 2A TRAFFIC
4'-0" | 11'-0" TRAFFIC LANE | 11'-0" TRAFFIC LANE | 1'-0" | 2'-0" | 1'-0" | 28'-0" CONSTRUCTION
2'-0" | 10'-0" SHLDR. EXIST. | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 6'-0" | 12'-0" TRAFFIC LANE EXIST. | 10'-0" SHLDR. EXIST.
STAGE 2A CONSTRUCTION
EXISTING MEDIAN BARRIER WALL
RUMBLE STRIP
4'-0"
TEMP. P.C.C.B.
4" YELLOW
4" WHITE SKIP
4" WHITE

SECTION AA

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

C.L. I-440
STAGE 2A TRAFFIC
3'-0" | 11'-0" TRAFFIC LANE | 11'-0" TRAFFIC LANE | 11'-0" TRAFFIC LANE | 1'-0" | 2'-0" | 1'-0" | 26'-0" CONSTRUCTION
2'-0" | 10'-0" SHLDR. EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 4'-0" | 8'-0" | 12'-0" TRAFFIC LANE EXISTING | 6'-0" SHLDR. EXIST.
STAGE 2A CONSTRUCTION
EXISTING MEDIAN BARRIER WALL
RUMBLE STRIP
4'-0"
TEMP. P.C.C. BARRIER WALL
4" YELLOW
4" WHITE SKIP
4" WHITE SKIP
4" WHITE

SECTION BB

35 140 135 130 145 150 155 160

RAMP 4
RAMP 3
RAMP 2
RAMP 1
BANKHEAD DR.
FURNISHING & INSTALLING P.C.C.B.
4" WHITE CONTINUOUS
8" WHITE CONTINUOUS
4" YELLOW CONTINUOUS
TEMPORARY IMPACT ATTENUATION BARRIER
4" WHITE SKIP
P.C. 146+22.92
100' TAPER
100' TAPER
8" WHITE DOT
P.T. 154+28.48
P.I. 150+27.20
N 84°10'32" E
AA
AA
BB
BB
30

STAGE 2A
STA. 130+00 TO STA. 160+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" CONTINUOUS = 7596 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 230 LIN. FT.
WHITE 8" CONTINUOUS = 660 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6600 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 5440 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3800 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 5 EACH

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

N

0 100 200 300
GRAPHIC SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE 2A

JACOBS

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.		BB0611	34	169
				(2)	MAINTENANCE OF TRAFFIC			

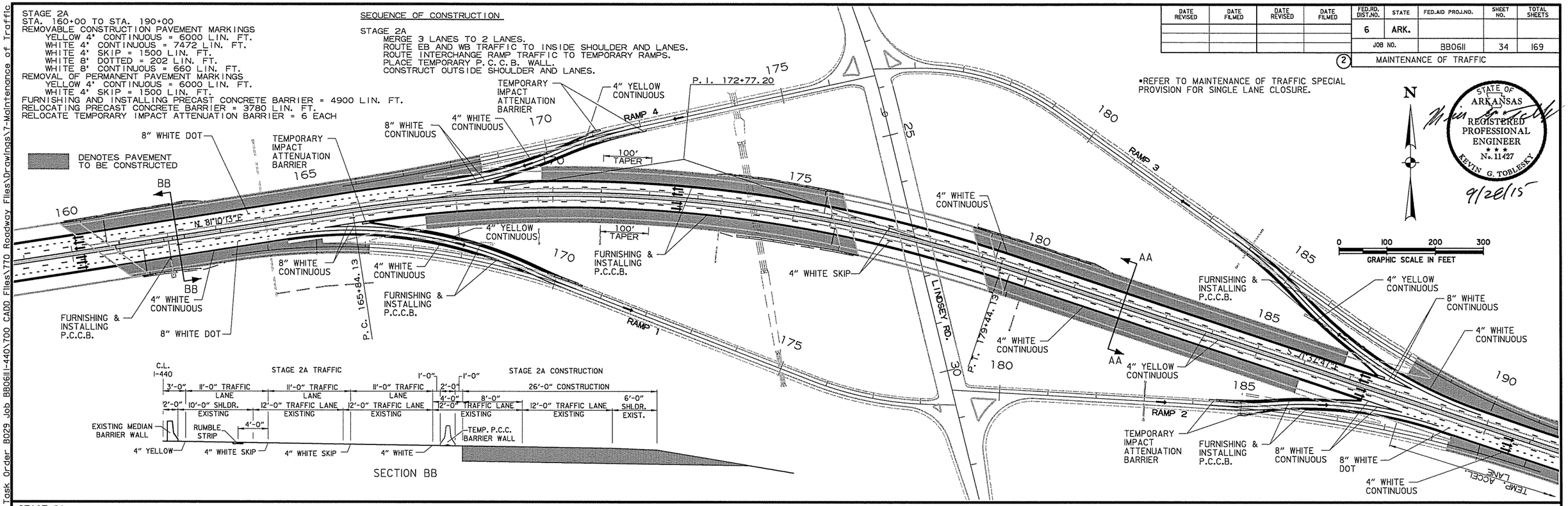
STAGE 2A
STA. 160+00 TO STA. 190+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" CONTINUOUS = 7472 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 202 LIN. FT.
WHITE 8" CONTINUOUS = 660 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 4900 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3780 LIN. FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIER = 6 EACH

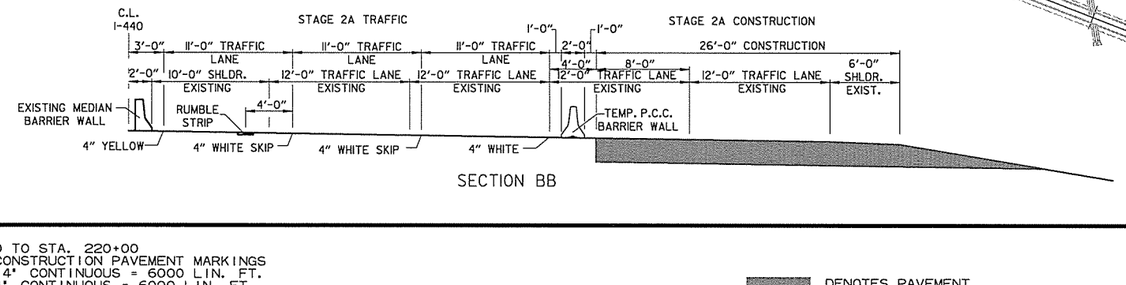
SEQUENCE OF CONSTRUCTION

STAGE 2A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO INSIDE SHOULDER AND LANES.
ROUTE INTERCHANGE RAMP TRAFFIC TO TEMPORARY RAMPS.
PLACE TEMPORARY P.C.C.B. WALL.
CONSTRUCT OUTSIDE SHOULDER AND LANES.

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

DENOTES PAVEMENT TO BE CONSTRUCTED



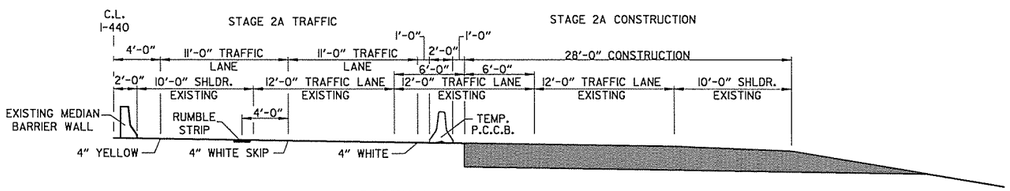


SECTION BB

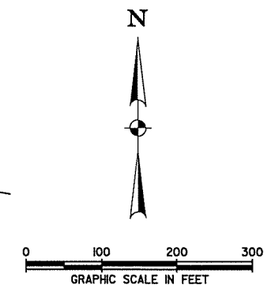
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

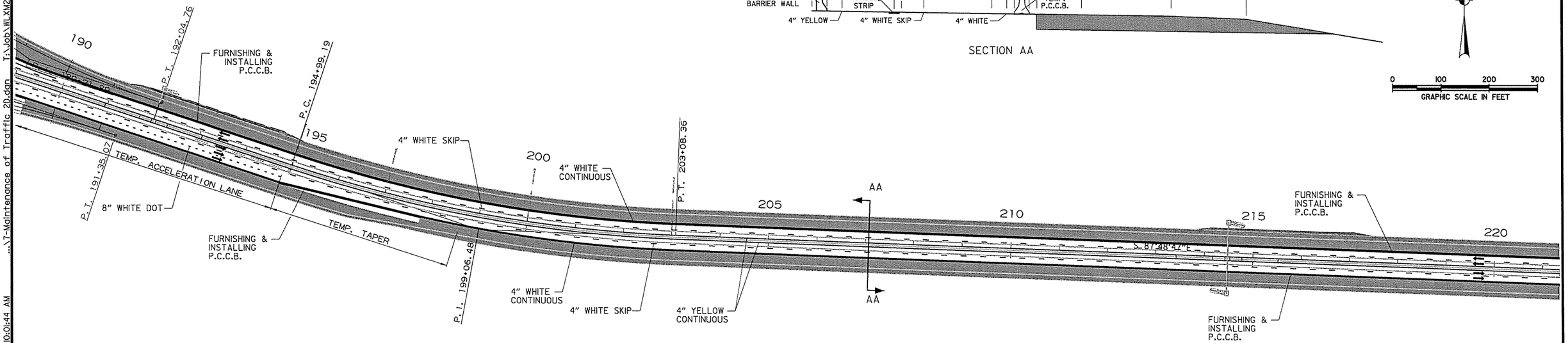
STAGE 2A
STA. 190+00 TO STA. 220+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 64 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 6000 LIN. FT.

DENOTES PAVEMENT TO BE CONSTRUCTED



SECTION AA





•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 2A

JACOBS

T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job BB0611-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D...\7-Maintenance of Traffic 2D.dgn 9/21/2015 10:01:44 AM

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.		BB0611	35	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 2A
STA. 220+00 TO STA. 250+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" CONTINUOUS = 6785 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 82 LIN. FT.
WHITE 8" CONTINUOUS = 350 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6300 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 5540 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 1780 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

SEQUENCE OF CONSTRUCTION

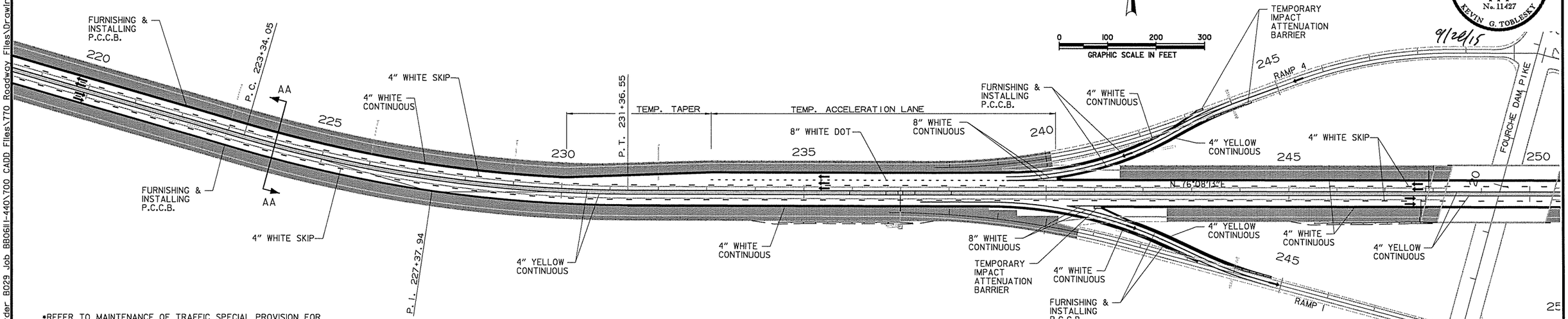
STAGE 2A
MERGE 3 LANES TO 2 LANES.
ROUTE EB AND WB TRAFFIC TO INSIDE SHOULDER AND LANES.
ROUTE INTERCHANGE RAMP TRAFFIC TO TEMPORARY RAMPS.
PLACE TEMPORARY P.C.C.B. WALL.
CONSTRUCT OUTSIDE SHOULDER AND LANES.

DENOTES PAVEMENT TO BE CONSTRUCTED

N

0 100 200 300
GRAPHIC SCALE IN FEET

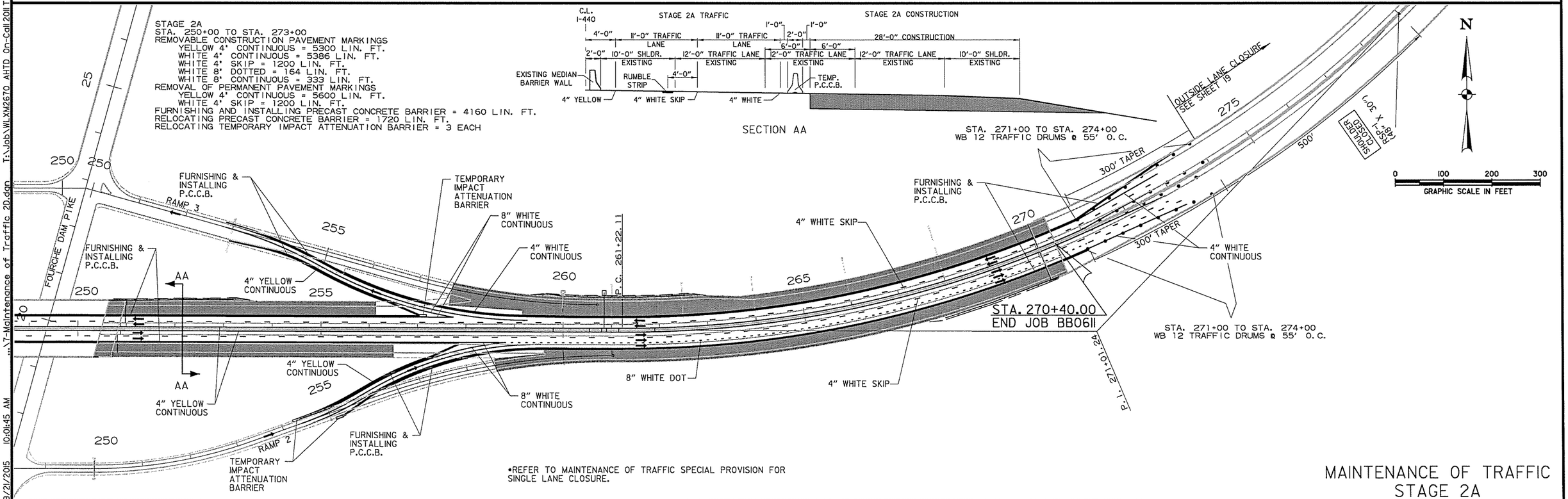
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEN
9/24/15



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 2A
STA. 250+00 TO STA. 273+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 5300 LIN. FT.
WHITE 4" CONTINUOUS = 5386 LIN. FT.
WHITE 4" SKIP = 1200 LIN. FT.
WHITE 8" DOTTED = 164 LIN. FT.
WHITE 8" CONTINUOUS = 333 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 5600 LIN. FT.
WHITE 4" SKIP = 1200 LIN. FT.
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER = 4160 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 1720 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

SECTION AA



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 2A

JACOBS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB061I	36	169

(2) MAINTENANCE OF TRAFFIC

STAGE 2B
STA. 110+00 TO STA. 130+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 1356 LIN. FT.
WHITE 4" CONTINUOUS = 3638 LIN. FT.
WHITE 4" SKIP = 120 LIN. FT.
WHITE 8" = 56 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
WHITE 4" CONTINUOUS = 322 LIN. FT.
WHITE 8" DOTTED = 78 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 1870 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 1 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

SEQUENCE OF CONSTRUCTION

STAGE 2B
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.
REMOVE TEMPORARY RAMPS.

STATE OF ARKANSAS
KEVIN G. TOBLESBY
REGISTERED PROFESSIONAL ENGINEER
No. 11427
9/22/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

STA. 108+50 TO STA. 119+75
WB 21 TRAFFIC DRUMS @ 60' O.C.

STA. 108+50 TO STA. 113+00
EB & WB 36 TRAFFIC DRUMS @ 55' O.C.

TEMPORARY IMPACT ATTENUATION BARRIER
500'
450' TAPER
450' TAPER
OUTSIDE LANE CLOSURE SEE SHEET 19
SHOULDER CLOSED
RSP I-1 (48" X 30")
S 86°44'47"E
P.T. 101+28.05
8" WHITE DOT
8" WHITE CONTINUOUS
FURNISHING & INSTALLING P.C.C.B.
FURNISHING & INSTALLING P.C.C.B.
4" WHITE CONTINUOUS
4" WHITE SKIP
4" YELLOW CONTINUOUS
STA. 113+49.25
BEGIN JOB BB061I
4" WHITE CONTINUOUS
4" WHITE SKIP
AA
TEMPORARY IMPACT ATTENUATION BARRIER
P.C. 127+03.88
4" YELLOW CONTINUOUS
4" WHITE CONTINUOUS
P.T. 131+42.21
4" WHITE CONTINUOUS
8" WHITE CONTINUOUS
4" YELLOW CONTINUOUS
P.C. 127+00.00
100 105 110 115 120 125 130

C.L. I-440
STAGE 2B TRAFFIC
4'-0" 11'-0" TRAFFIC LANE 11'-0" TRAFFIC LANE 1'-0" 2'-0" 1'-0" STAGE 2B 11'-0" CONST. 1'-0" 2'-0" 1'-0" 12'-0" TRAFFIC LANE 9'-0" SHOULDER
2'-0" 10'-0" SHLDR. EXISTING 12'-0" TRAFFIC LANE EXISTING 12'-0" TRAFFIC LANE EXISTING 6'-0" 6'-0" 12'-0" TRAFFIC LANE EXISTING 4'-0" 8'-0" 12'-0" TRAFFIC LANE EXISTING 6'-0" SHLDR. EXIST.
EXISTING MEDIAN BARRIER WALL
TEMP. P.C.C.B.
TEMP. P.C.C.B.
4" YELLOW 4" WHITE SKIP 4" WHITE SKIP 4" YELLOW 4" WHITE

SECTION AA

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 39.

C.L. I-440
STAGE 2B TRAFFIC
3'-0" 11'-0" TRAFFIC LANE 11'-0" TRAFFIC LANE 2'-0" 2'-0" 1'-0" STAGE 2B 10'-0" CONST. 1'-0" 2'-0" 1'-0" 11'-0" TRAFFIC LANE 11'-0" TRAFFIC LANE 2'-0"
2'-0" 10'-0" SHLDR. EXISTING 12'-0" TRAFFIC LANE EXISTING 6'-0" 6'-0" 12'-0" TRAFFIC LANE EXISTING 4'-0" 8'-0" 12'-0" TRAFFIC LANE EXISTING 12'-0" TRAFFIC LANE EXISTING 6'-0" SHLDR. EXIST.
EXISTING MEDIAN BARRIER WALL
TEMP. P.C.C.B.
TEMP. P.C.C.B.
4" YELLOW 4" WHITE SKIP 4" WHITE SKIP 4" YELLOW 4" WHITE SKIP 4" WHITE

SECTION BB

RELOCATE P.C.C.B.
4" WHITE CONTINUOUS
4" YELLOW CONTINUOUS
TEMPORARY IMPACT ATTENUATION BARRIER
RAMP 4
BANKHEAD DR.
35
30
RAMP 3
RAMP 2
RAMP 1
4" WHITE SKIP
8" WHITE DOT
P.C. 146+22.92
100' TAPER
RETAIN P.C.C.B.
4" WHITE CONTINUOUS
100' TAPER
RELOCATE P.C.C.B.
RELOCATE P.C.C.B.
4" YELLOW CONTINUOUS
4" WHITE CONTINUOUS
TEMPORARY IMPACT ATTENUATION BARRIER
8" WHITE CONTINUOUS
P.I. 150+27.20
P.T. 154+28.48
FURNISHING & INSTALLING P.C.C.B.
4" WHITE CONTINUOUS
BB
N 81°10'18"E
FURNISHING & INSTALLING P.C.C.B.
BB
RETAIN P.C.C.B.
4" WHITE CONTINUOUS
4" YELLOW CONTINUOUS
4" WHITE SKIP
130 135 140 145 150 155 160

STAGE 2B
STA. 130+00 TO STA. 160+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 3878 LIN. FT.
WHITE 4" CONTINUOUS = 5921 LIN. FT.
WHITE 4" SKIP = 336 LIN. FT.
WHITE 8" CONTINUOUS = 990 LIN. FT.
WHITE 8" DOTTED = 76 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 131 LIN. FT.
WHITE 4" CONTINUOUS = 1588 LIN. FT.
WHITE 8" DOTTED = 220 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 7420 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 2 EACH

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

N

0 100 200 300
GRAPHIC SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE 2B

JACOBS

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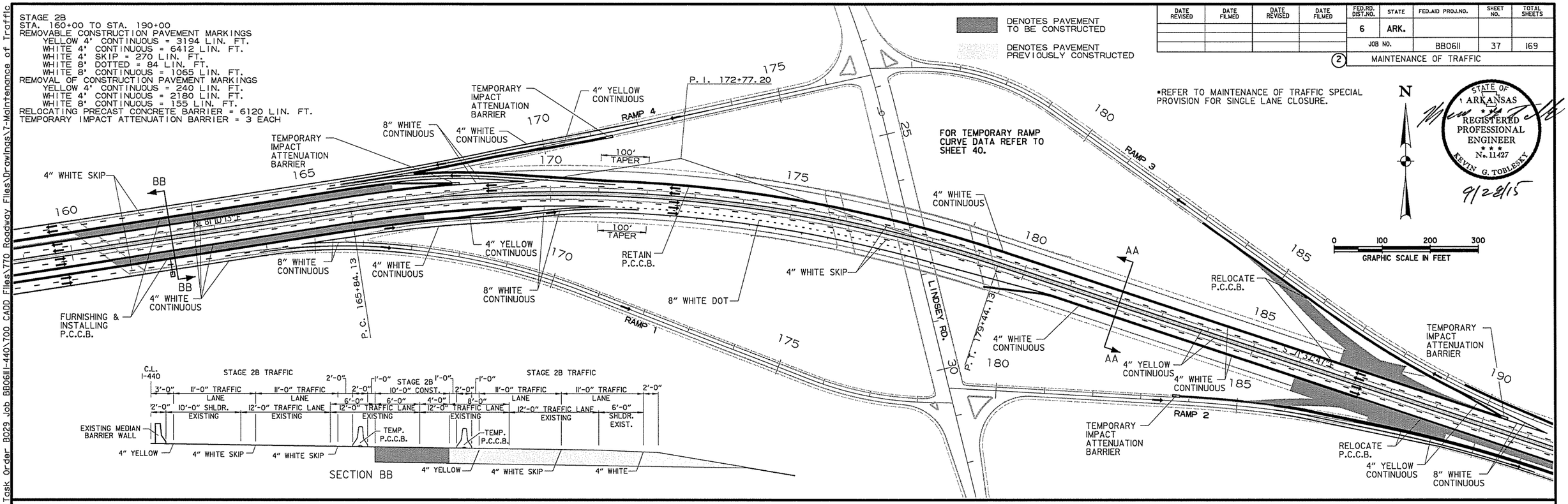
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB06II	37	169
				(2) MAINTENANCE OF TRAFFIC				

STAGE 2B
STA. 160+00 TO STA. 190+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 3194 LIN. FT.
WHITE 4' CONTINUOUS = 6412 LIN. FT.
WHITE 4' SKIP = 270 LIN. FT.
WHITE 8' DOTTED = 84 LIN. FT.
WHITE 8' CONTINUOUS = 1065 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 240 LIN. FT.
WHITE 4' CONTINUOUS = 2180 LIN. FT.
WHITE 8' CONTINUOUS = 155 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 6120 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

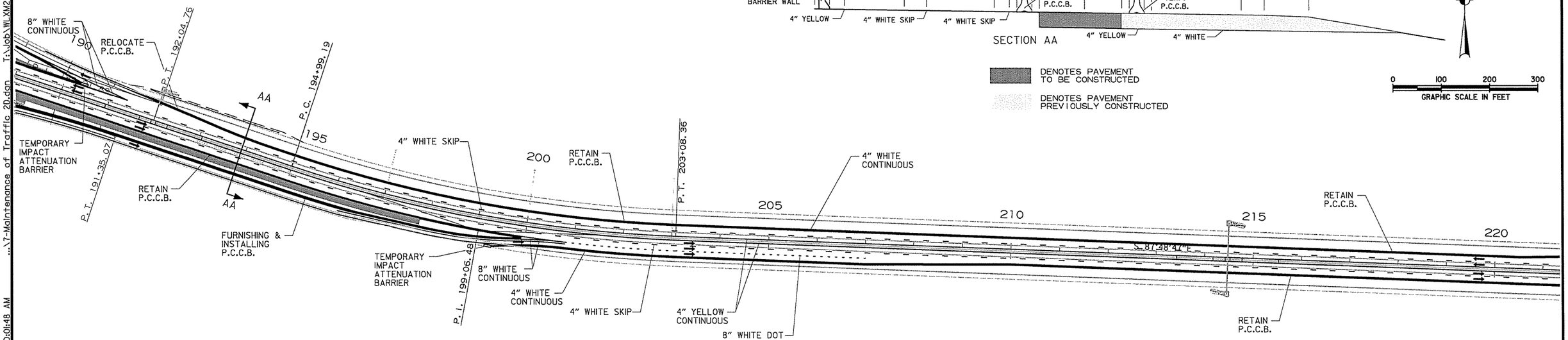


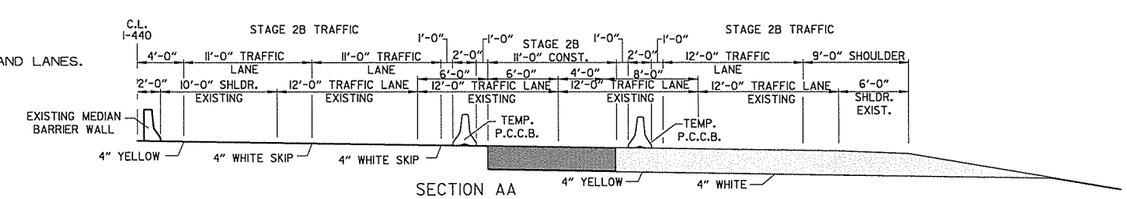
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/22/15

STAGE 2B
STA. 190+00 TO STA. 220+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 3040 LIN. FT.
WHITE 4' CONTINUOUS = 1026 LIN. FT.
WHITE 8' DOTTED = 84 LIN. FT.
WHITE 8' CONTINUOUS = 400 LIN FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
WHITE 4' CONTINUOUS = 1480 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3345 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 2 EACH

SEQUENCE OF CONSTRUCTION

STAGE 2B
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.
REMOVE TEMPORARY RAMPS.





DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

N

0 100 200 300
GRAPHIC SCALE IN FEET

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 2B

JACOBS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB06II	38	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 2B
STA. 220+00 TO STA. 250+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 2288 LIN. FT.
WHITE 4" CONTINUOUS = 3720 LIN. FT.
WHITE 8" DOTTED = 76 LIN. FT.
WHITE 8" CONTINUOUS = 330 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
WHITE 4" CONTINUOUS = 1586 LIN. FT.
WHITE 8" DOTTED = 82 LIN. FT.
WHITE 8" CONTINUOUS = 170 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3360 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

SEQUENCE OF CONSTRUCTION

STAGE 2B
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.
REMOVE TEMPORARY RAMPS.

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

N

0 100 200 300
GRAPHIC SCALE IN FEET

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 41.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

RELOCATE P.C.C.B.
8" WHITE DOT
4" WHITE SKIP
8" WHITE CONTINUOUS
4" WHITE CONTINUOUS
P.C. 223+34.05
P.T. 231+36.55
FURNISHING & INSTALLING P.C.C.B.
TEMPORARY IMPACT ATTENUATION BARRIER
S.E.U.
RETAIN P.C.C.B.
RELOCATE P.C.C.B.
4" YELLOW CONTINUOUS
4" WHITE SKIP
RAMP 4
FOURCHE DAM PIKE
N 76°08'13"E
RETAIN P.C.C.B.
4" WHITE SKIP
P.I. 227+37.94
4" YELLOW CONTINUOUS
4" WHITE CONTINUOUS
8" WHITE CONTINUOUS
TEMPORARY IMPACT ATTENUATION BARRIER
4" WHITE CONTINUOUS
RELOCATE P.C.C.B.
4" YELLOW CONTINUOUS
4" WHITE CONTINUOUS
4" YELLOW CONTINUOUS
RAMP 1

*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 2B
STA. 250+00 TO STA. 273+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 2250 LIN. FT.
WHITE 4" CONTINUOUS = 4506 LIN. FT.
WHITE 8" CONTINUOUS = 153 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
WHITE 4" CONTINUOUS = 1285 LIN. FT.
WHITE 8" DOTTED = 164 LIN. FT.
WHITE 8" CONTINUOUS = 165 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3620 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 3 EACH

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 41.

C.L. I-440
STAGE 2B TRAFFIC
4'-0" | 11'-0" TRAFFIC LANE EXISTING | 11'-0" TRAFFIC LANE EXISTING | 2'-0" | 1'-0" | 1'-0" | STAGE 2B 11'-0" CONST. | 1'-0" | 2'-0" | 1'-0" | STAGE 2B TRAFFIC 12'-0" TRAFFIC LANE EXISTING | 9'-0" SHOULDER EXIST.
2'-0" | 10'-0" SHLDR. EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 6'-0" | 6'-0" | 12'-0" TRAFFIC LANE EXISTING | 4'-0" | 8'-0" | 12'-0" TRAFFIC LANE EXISTING | 6'-0" SHLDR. EXIST.
EXISTING MEDIAN BARRIER WALL
TEMP. P.C.C.B.
TEMP. P.C.C.B.
4" YELLOW
4" WHITE SKIP
4" WHITE SKIP
4" YELLOW
4" WHITE
SECTION AA

OUTSIDE LANE CLOSURE SEE SHEET 19
STA. 271+00 TO STA. 274+00
15 TRAFFIC DRUMS @ 40' O.C.
220' TAPER
500'
SHOULDER CLOSED
R2S-1 (48" X 30")
RETAIN P.C.C.B.
4" WHITE SKIP
4" WHITE CONTINUOUS
220' TAPER
STA. 270+40.00
END JOB BB06II
STA. 271+00 TO STA. 273+20
22 TRAFFIC DRUMS @ 40' O.C.
P.I. 271+01.24

N

0 100 200 300
GRAPHIC SCALE IN FEET

RAMP 3
FOURCHE DAM PIKE
RELOCATE P.C.C.B.
4" YELLOW CONTINUOUS
TEMPORARY IMPACT ATTENUATION BARRIER
4" WHITE CONTINUOUS
P.C. 261+22.11
RETAIN P.C.C.B.
4" YELLOW CONTINUOUS
4" YELLOW CONTINUOUS
RELOCATE P.C.C.B.
8" WHITE CONTINUOUS
FURNISHING & INSTALLING P.C.C.B.
4" WHITE SKIP
RELOCATE P.C.C.B.
RAMP 2
TEMPORARY IMPACT ATTENUATION BARRIER

*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 2B

JACOBS

T:\Job\WLXM2670 AHTD On-Call 2011 Task Order 8029 Job BB06II-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D\...\7-Maintenance of Traffic 2D.dgn 9/21/2015 10:01:50 AM

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.		BB0611	39	169

(7) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/22/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

BR. END
STA. 136+48.80

RAMP 4

STA. 140+67.20 ℄ MEDIAN =
STA. 30+83.93 ℄ BANKHEAD DR.

BANKHEAD DR.

BR. END
STA. 144+26.45

RAMP 3

RAMP 1

RAMP 1
PI = 125+34.45
DELTA 06°00' 00" RT.
D = 4° 00'
TX = 75.07'
Le = 150.00'
PC = 124+59.38
PT = 126+09.38

WB AX. LANE
ENTRANCE RAMP
PI = 148+00.83
DELTA 8°20' 12" LT.
D = 5° 00'
TX = 83.51'
Le = 166.73'
PC = 147+17.32
PT = 148+84.05

WB AX. LANE
ENTRANCE RAMP
PI = 150+44.93
DELTA 8°20' 12" RT.
D = 5° 00'
TX = 83.51'
Le = 166.73'
PC = 150+26.63
PT = 150+63.22

P.C. 146+22.92

ON RAMP

AX LANE
EXIT RAMP

RAMP 2

ON RAMP

EB AX LANE
EXIT RAMP
PI = 148+03.34
DELTA 4°23' 15" RT.
D = 5° 00'
TX = 43.90'
Le = 87.75'
PC = 147+59.44
PT = 148+47.19

ON RAMP 2
PI = 149+44.35
DELTA 2°00' 00" RT.
D = 5° 00'
TX = 20.00'
Le = 40.00'
PC = 149+24.35
PT = 149+64.35

P.I. 150+27.20

ON RAMP 2
PI = 149+84.35
DELTA 2°00' 00" LT.
D = 5° 00'
TX = 20.00'
Le = 40.00'
PC = 149+64.35
PT = 150+04.35

EB AX. LANE
EXIT RAMP
PI = 151+40.98
DELTA 14°25' 38" LT.
D = 7° 00'
TX = 103.60'
Le = 206.10'
PC = 150+37.38
PT = 152+43.48

P.T. 154+28.48

MAINTENANCE OF TRAFFIC STAGE 2B - TEMPORARY RAMP ALIGNMENTS

JACOBS

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.		BB061I	40	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

WB AUX. LANE EXIT RAMP
PI= 168+31.41
DELTA 8°20'12" RT.
D = 5° 00'
T = 83.51'
L = 166.73'
PC= 167+76.07
PT= 167+86.67

RAMP 4
PI= 169+28.12
DELTA 2°17'01" LT.
D = 5° 00'
T = 22.84'
L = 45.67'
PC= 169+05.28
PT= 169+50.95

RAMP 4
PI= 171+36.78
DELTA 2°17'01" RT.
D = 5° 00'
T = 22.84'
L = 45.67'
PC= 171+13.94
PT= 171+59.61

WB AUX. LANE EXIT RAMP
PI= 171+16.73
DELTA 8°20'12" LT.
D = 5° 00'
T = 83.51'
L = 166.73'
PC= 171+00.56
PT= 171+32.90

P.I. 172+77.20

TEMP RAMP 4

RAMP 4

WB AUX. LANE EXIT RAMP

N 81°10'13"E

P.C. 165+84.13

EB AUX. LANE ENTRANCE RAMP

EB AUX. LANE ENTRANCE RAMP
PI= 169+00.68
DELTA 4°23'15" LT.
D = 5° 00'
T = 43.90'
L = 87.75'
PC= 168+59.50
PT= 169+41.82

RAMP 1

EB AUX. LANE ENTRANCE RAMP
PI= 170+77.35
DELTA 14°25'38" RT.
D = 7° 00'
T = 103.60'
L = 206.10'
PC= 169+70.32
PT= 171+83.75

L LINDSEY RD.

STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'

P.T. 179+44.13

S 71°37'47"E

RAMP 3

RAMP 2

TEMP RAMP 2

RAMP 2
PI= 186+11.41
DELTA 4°27'28" RT.
D = 6° 30'
T = 34.31'
L = 68.58'
PC= 185+77.10
PT= 186+45.68

MAINTENANCE OF TRAFFIC STAGE 2B - TEMPORARY RAMP ALIGNMENTS

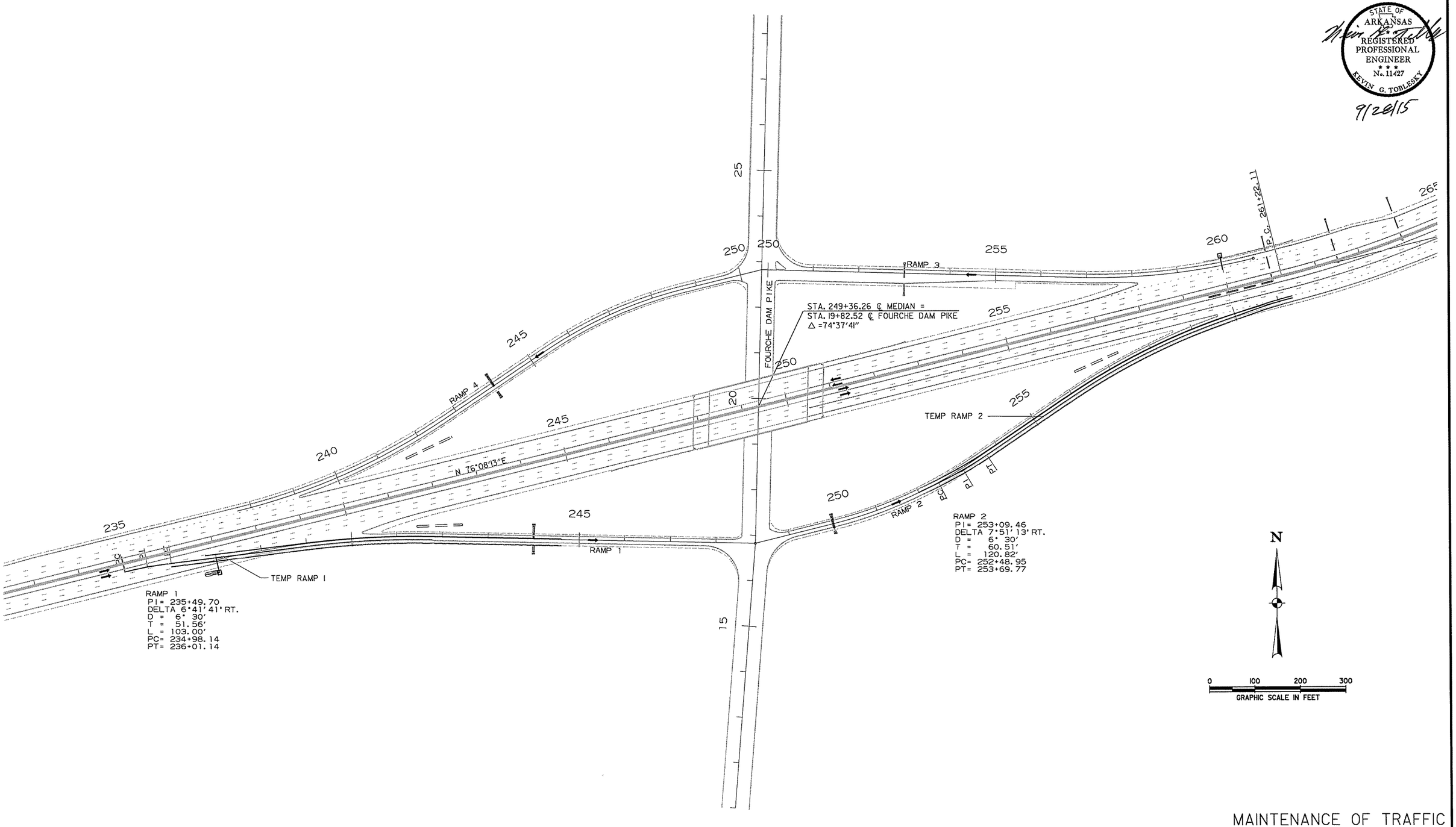
JACOBS

9/21/2015 10:01:52 AM ...\7-Maintenance of Traffic 2D.dgn T:\Job\WLXM2670 AHTD On-Call 2011 Task Order 8029 Job BB061I-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D.

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.		BB0611	41	169

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15



MAINTENANCE OF TRAFFIC STAGE 2B - TEMPORARY RAMP ALIGNMENTS

JACOBS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
12-21-2015				6	ARK.			
				JOB NO.		BB0611	42	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY 12-21-15

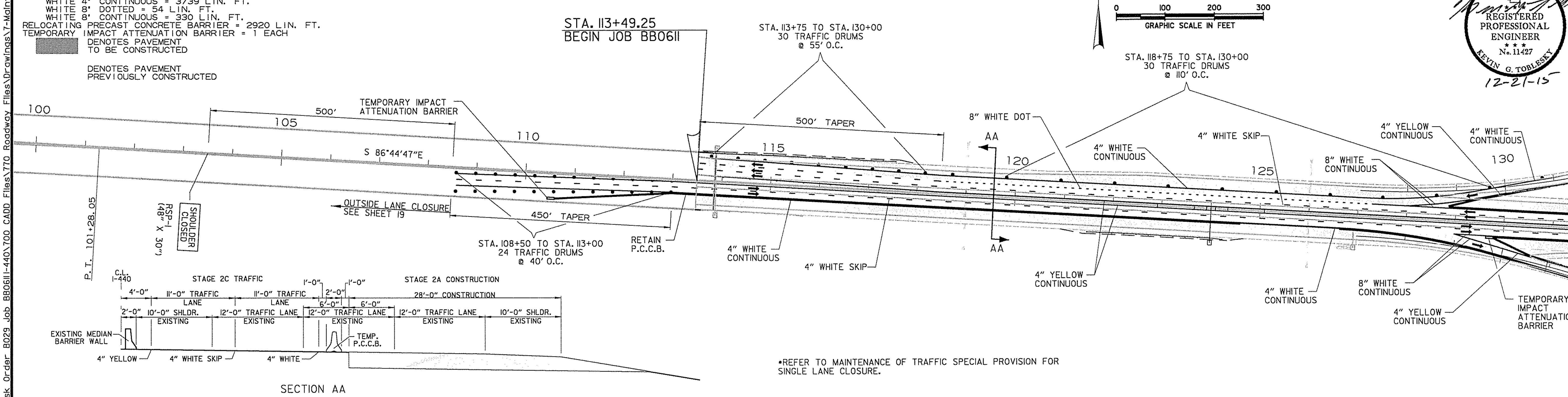
STAGE 2C
STA. 108+50 TO STA. 130+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 140 LIN. FT.
WHITE 4" CONTINUOUS = 1993 LIN. FT.
WHITE 4" SKIP = 130 LIN. FT.
WHITE 8" DOTTED = 118 LIN. FT.
WHITE 8" CONTINUOUS = 410 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 1465 LIN. FT.
WHITE 4" CONTINUOUS = 3739 LIN. FT.
WHITE 8" DOTTED = 54 LIN. FT.
WHITE 8" CONTINUOUS = 330 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 2920 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 1 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

SEQUENCE OF CONSTRUCTION

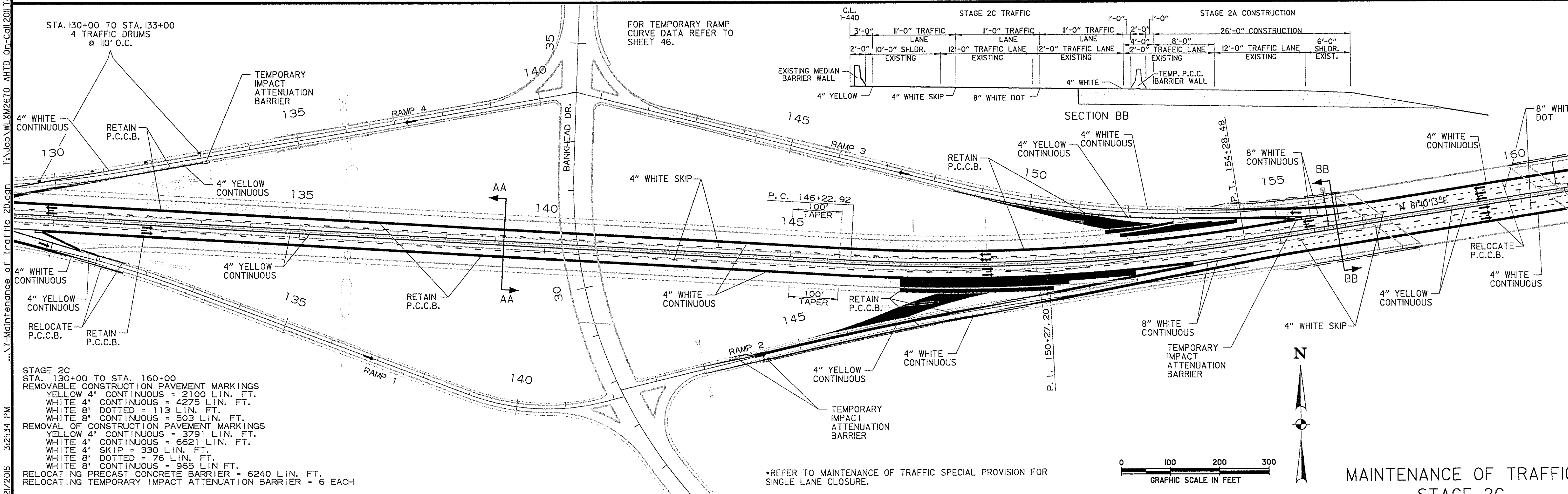
STAGE 2C
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.



*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STA. 130+00 TO STA. 133+00
4 TRAFFIC DRUMS
@ 110' O.C.

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 46.



STAGE 2C
STA. 130+00 TO STA. 160+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 2100 LIN. FT.
WHITE 4" CONTINUOUS = 4275 LIN. FT.
WHITE 8" DOTTED = 113 LIN. FT.
WHITE 8" CONTINUOUS = 503 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 3791 LIN. FT.
WHITE 4" CONTINUOUS = 6621 LIN. FT.
WHITE 4" SKIP = 330 LIN. FT.
WHITE 8" DOTTED = 76 LIN. FT.
WHITE 8" CONTINUOUS = 965 LIN FT.
RELOCATING PRECAST CONCRETE BARRIER = 6240 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 6 EACH

*REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 2C

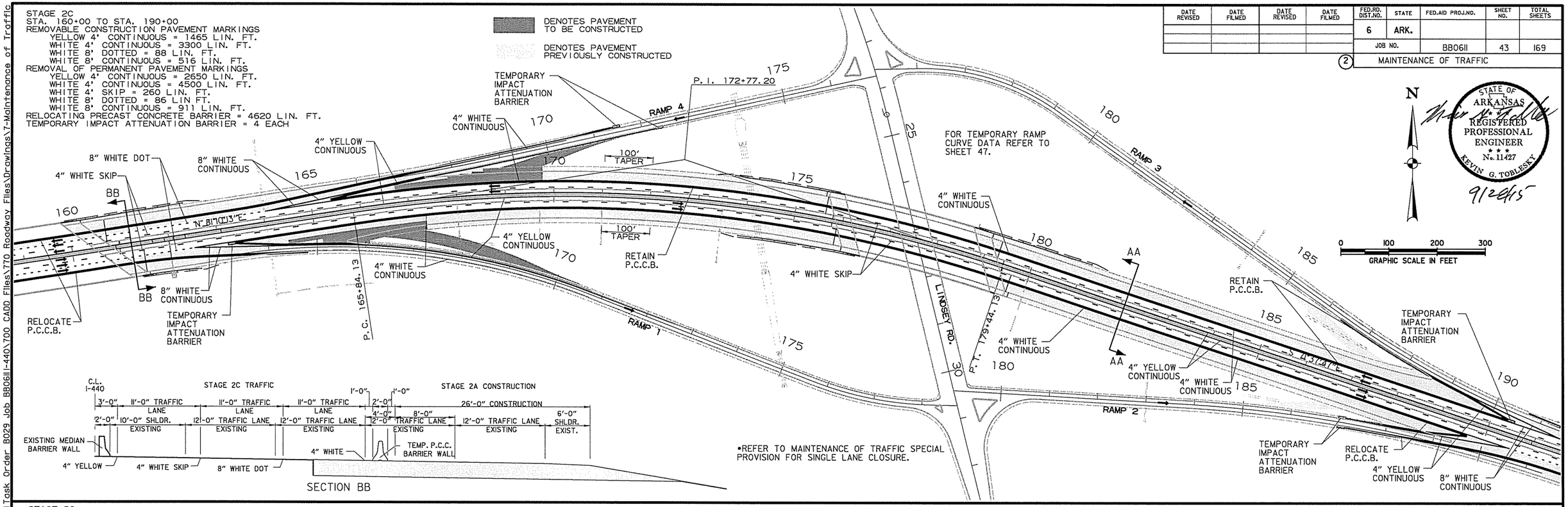
JACOBS

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.		BB06II	43	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 2C
STA. 160+00 TO STA. 190+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 1465 LIN. FT.
WHITE 4' CONTINUOUS = 3300 LIN. FT.
WHITE 8' DOTTED = 88 LIN. FT.
WHITE 8' CONTINUOUS = 516 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 2650 LIN. FT.
WHITE 4' CONTINUOUS = 4500 LIN. FT.
WHITE 4' SKIP = 260 LIN. FT.
WHITE 8' DOTTED = 86 LIN FT.
WHITE 8' CONTINUOUS = 911 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 4620 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 4 EACH

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/24/15

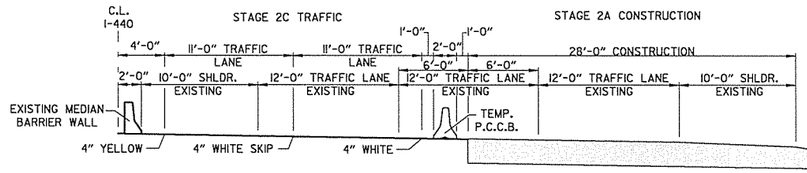
SECTION BB

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

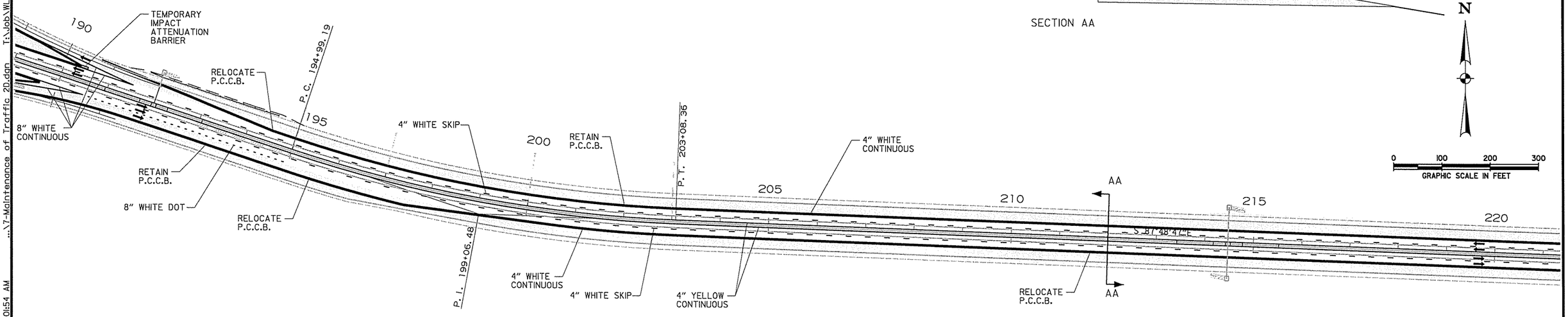
STAGE 2C
STA. 190+00 TO STA. 220+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
WHITE 4' CONTINUOUS = 1050 LIN. FT.
WHITE 8' DOTTED = 60 LIN. FT.
WHITE 8' CONTINUOUS = 105 LIN. FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 980 LIN. FT.
WHITE 4' CONTINUOUS = 2980 LIN. FT.
WHITE 8' DOTTED = 30 LIN. FT.
WHITE 8' CONTINUOUS = 366 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3200 LIN. FT.

SEQUENCE OF CONSTRUCTION

STAGE 2C
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.



SECTION AA



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 2C

JACOBS

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...\7-Maintenance of Traffic 2D.dgn
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB06II	44	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 2C
STA. 220+00 TO STA. 250+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 601 LIN. FT.
WHITE 4" CONTINUOUS = 2000 LIN. FT.
WHITE 8" DOTTED = 62 LIN. FT.
WHITE 8" CONTINUOUS = 322 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 2288 LIN. FT.
WHITE 4" CONTINUOUS = 3380 LIN. FT.
WHITE 8" DOTTED = 76 LIN. FT.
WHITE 8" CONTINUOUS = 331 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 4500 LIN. FT.
RELOCATING TEMPORARY IMPACT ATTENUATION BARRIER = 4 EACH

SEQUENCE OF CONSTRUCTION

STAGE 2C
MAINTAIN TRAFFIC TO INSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
ROUTE INTERCHANGE RAMP TRAFFIC TO EXISTING RAMPS.
CONSTRUCT REMAINING PORTIONS OF OUTSIDE SHOULDER AND LANES.

DENOTES PAVEMENT TO BE CONSTRUCTED

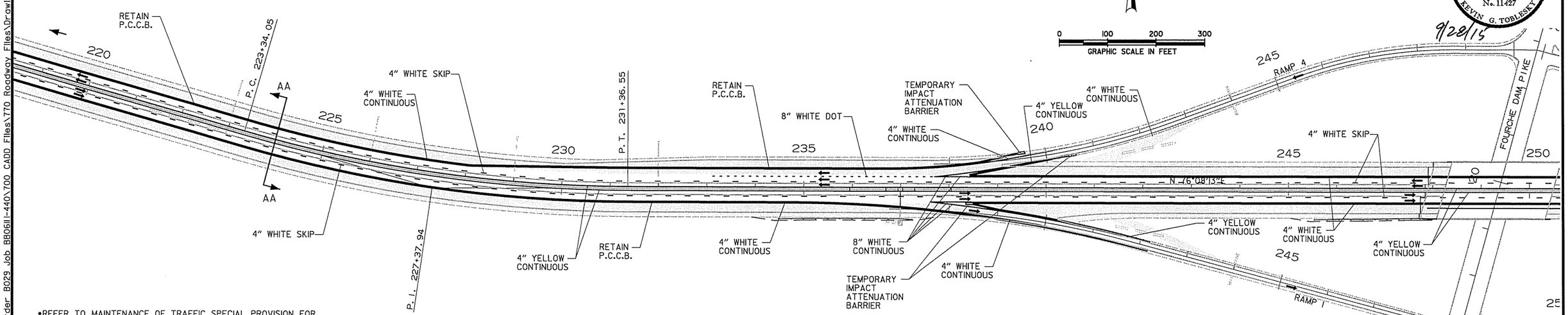
DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

N

0 100 200 300
GRAPHIC SCALE IN FEET

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 48.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/22/15

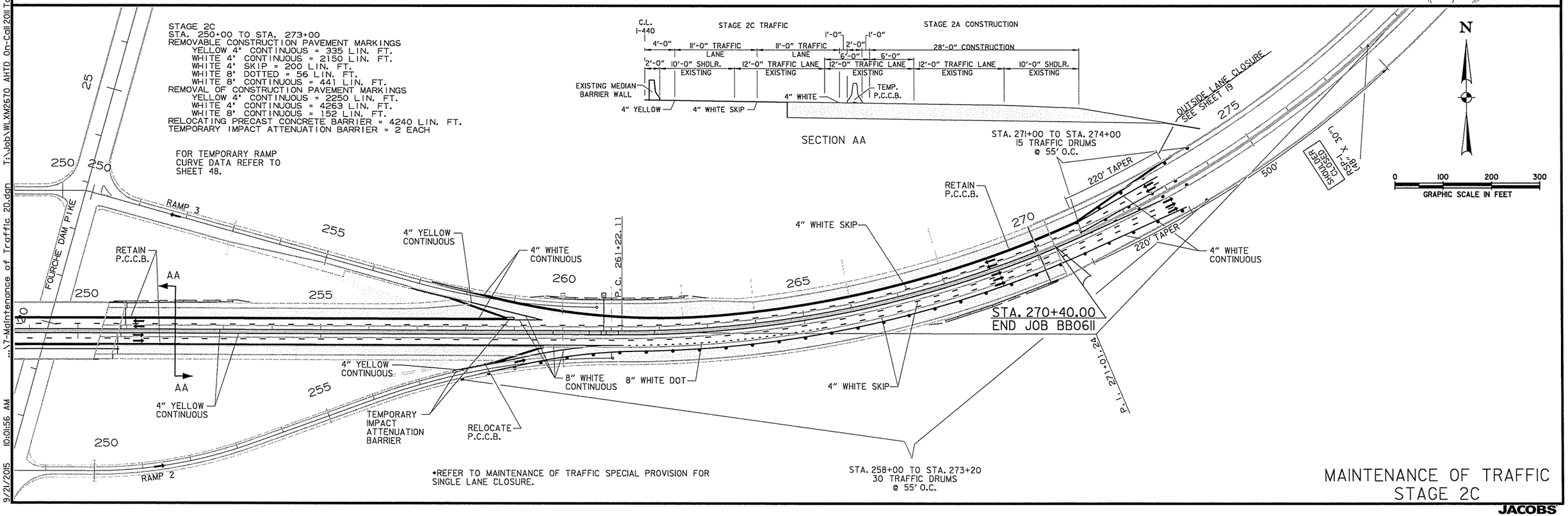


•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 2C
STA. 250+00 TO STA. 273+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 335 LIN. FT.
WHITE 4" CONTINUOUS = 2150 LIN. FT.
WHITE 4" SKIP = 200 LIN. FT.
WHITE 8" DOTTED = 56 LIN. FT.
WHITE 8" CONTINUOUS = 441 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 2250 LIN. FT.
WHITE 4" CONTINUOUS = 4263 LIN. FT.
WHITE 8" CONTINUOUS = 152 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 4240 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIER = 2 EACH

FOR TEMPORARY RAMP CURVE DATA REFER TO SHEET 48.

SECTION AA



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STA. 258+00 TO STA. 273+20
30 TRAFFIC DRUMS @ 55' O.C.

MAINTENANCE OF TRAFFIC STAGE 2C

JACOBS

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.		BB061I	45	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEN
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

RAMP 4
PI= 128+99.03
DELTA 8°05'57" LT.
D = 6° 00'
T = 67.61'
L = 134.99'
PC= 128+31.42
PT= 129+66.41

BR. END
STA. 136+48.80

RAMP 4

STA. 140+67.20 ℄ MEDIAN =
STA. 30+83.93 ℄ BANKHEAD DR.

BANKHEAD DR.

BR. END
STA. 144+26.45

P.C. 146+22.92

RAMP 3
PI= 156+13.86
DELTA 8°42'47" LT.
D = 4° 00'
T = 109.12'
L = 217.83'
PC= 155+04.74
PT= 157+22.57

P.T. 154+28.48

N 81°1C

RAMP 1
PI= 128+09.21
DELTA 11°34'00" RT.
D = 4° 00'
T = 145.08'
L = 289.17'
PC= 126+64.13
PT= 129+53.30

RAMP 1

P.I. 150+27.20

RAMP 2
PI= 154+93.64
DELTA 2°12'10" RT.
D = 4° 00'
T = 27.54'
L = 55.07'
PC= 154+66.10
PT= 155+21.17

MAINTENANCE OF TRAFFIC
STAGE 2C - TEMPORARY
RAMP ALIGNMENTS

JACOBS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80611	46	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

RAMP 4
PI= 163+91.30
DELTA 3°32' 00" LT.
D = 4° 00'
T = 44.18'
L = 88.33'
PC= 163+47.12
PT= 164+35.45

P.I. 172+77.20

RAMP 1
PI= 161+89.81
DELTA 6°11' 07" RT.
D = 4° 00'
T = 77.39'
L = 154.63'
PC= 161+12.42
PT= 162+67.05

P.C. 165+84.13

N 81°10'13"E

STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'

P.T. 179+44.19

S 11°37'47"E

RAMP 2
PI= 190+53.19
DELTA 8°25' 40" RT.
D = 4° 00'
T = 105.54'
L = 210.69'
PC= 189+47.65
PT= 191+58.34

RAMP 3

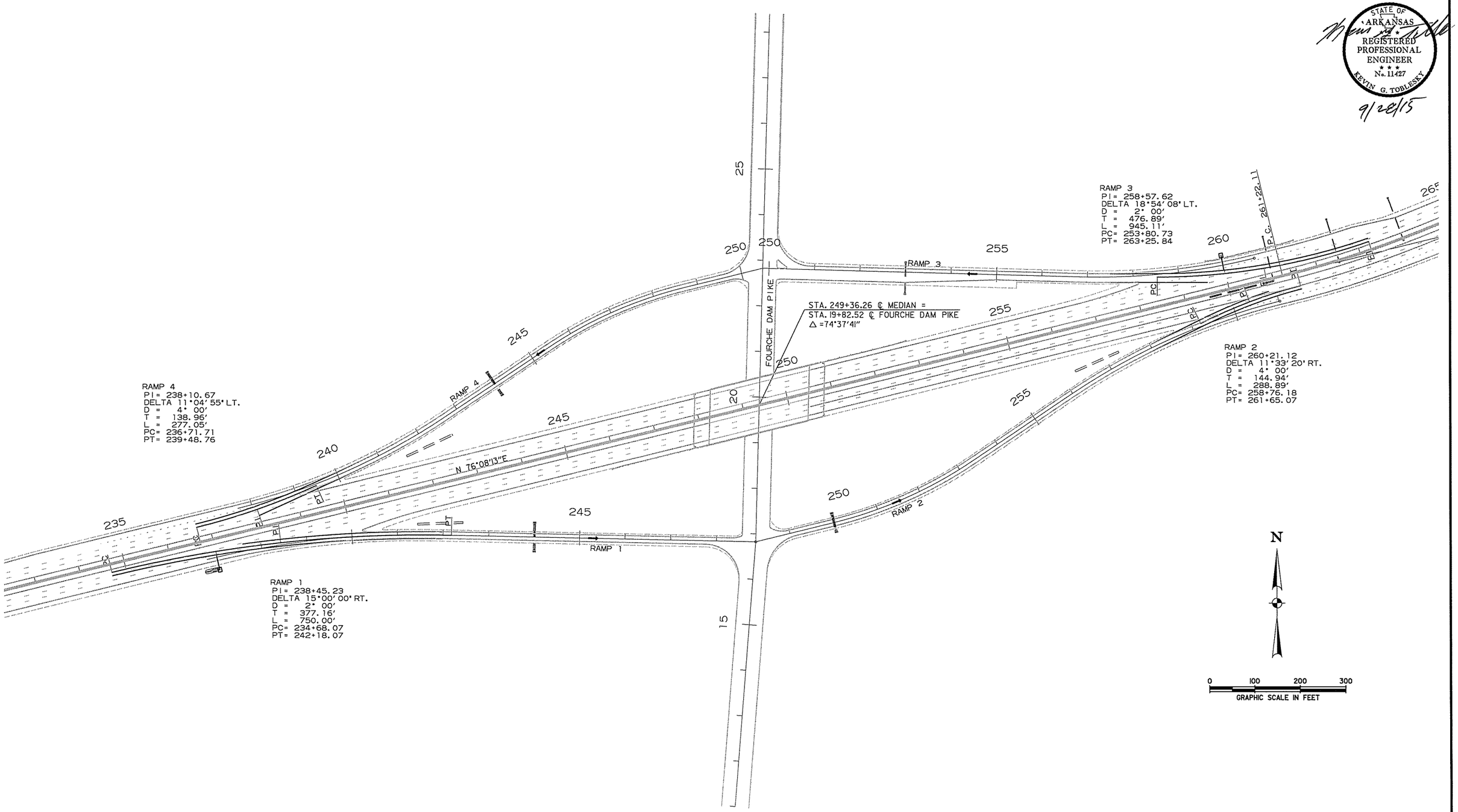
L LINDSEY RD.

MAINTENANCE OF TRAFFIC STAGE 2C - TEMPORARY RAMP ALIGNMENTS

JACOBS

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.		BB0611	47	169
				(2)	MAINTENANCE OF TRAFFIC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15



MAINTENANCE OF TRAFFIC STAGE 2C - TEMPORARY RAMP ALIGNMENTS

JACOBS

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.		BB0611	48	169
				(2)	MAINTENANCE OF TRAFFIC			

STAGE 3
STA. 110+00 TO STA. 130+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 3280 LIN. FT.
WHITE 4" CONTINUOUS = 3220 LIN. FT.
WHITE 4" SKIP = 800 LIN. FT.
WHITE 8" DOTTED = 52 LIN. FT.
WHITE 8" CONTINUOUS = 340 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 138 LIN. FT.
WHITE 4" CONTINUOUS = 2293 LIN. FT.
WHITE 8" CONTINUOUS = 170 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3480 LIN. FT.

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

SEQUENCE OF CONSTRUCTION

STAGE 3
ROUTE EB AND WB TRAFFIC TO OUTSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
CONSTRUCT MEDIAN BARRIER WALL TRANSITIONS AND LANES.

N

0 100 200 300
GRAPHIC SCALE IN FEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

STA. 113+49.25
BEGIN JOB BB0611

100 105 110 115 120 125 130

S 86°44'47"E

P. T. 101+28.05

C.L. I-440

RSP-1 (48" X 30")

SHOULDER CLOSED

S.E.U.

INSIDE LANE CLOSURE SEE SHEET 18

STA. 108+50 TO STA. 113+00
9 TRAFFIC DRUMS @ 55' O.C.

RELOCATE P.C.C.B.

4" WHITE CONTINUOUS

4" WHITE SKIP

8" WHITE DOT

8" WHITE CONTINUOUS

4" YELLOW CONTINUOUS

AA

STAGE 3 CONSTRUCTION

18'-0" CONSTRUCTION | 1'-0" | 2'-0" | 11'-0" TRAFFIC LANE | 11'-0" TRAFFIC LANE | 2'-0"

2'-0" | 10'-0" SHLDR. EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 10'-0" SHLDR. EXISTING

EXIST. MEDIAN BARRIER WALL

TEMP. P.C.C. BARRIER WALL

STAGE 3 TRAFFIC

4" YELLOW | 4" WHITE SKIP | 4" WHITE

SECTION AA

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 3 CONSTRUCTION

C.L. I-440

18'-0" CONSTRUCTION | 1'-0" | 2'-0" | 11'-0" TRAFFIC LANE | 11'-0" TRAFFIC LANE | 11'-0" TRAFFIC LANE | 2'-0"

2'-0" | 10'-0" SHLDR. EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 12'-0" TRAFFIC LANE EXISTING | 6'-0" SHLDR. EXIST.

EXIST. MEDIAN BARRIER WALL

TEMP. P.C.C. BARRIER WALL

STAGE 3 TRAFFIC

4" YELLOW | 4" WHITE SKIP | 8" WHITE DOT | 4" WHITE

SECTION BB

35 30 BANKHEAD DR.

RAMP 1 RAMP 2 RAMP 3 RAMP 4

130 135 140 145 150 155 160

4" YELLOW CONTINUOUS
4" WHITE CONTINUOUS
RELOCATE P.C.C.B.
8" WHITE CONTINUOUS
8" WHITE DOT
4" WHITE SKIP

AA BB

P. C. 146+22.92

P. I. 150+27.20

P. T. 154+28.48

N 81°10'13"E

STAGE 3
STA. 130+00 TO STA. 160+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" CONTINUOUS = 7100 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 182 LIN. FT.
WHITE 8" CONTINUOUS = 787 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 1760 LIN. FT.
WHITE 4" CONTINUOUS = 3000 LIN. FT.
WHITE 8" CONTINUOUS = 100 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 9320 LIN. FT.

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

N

0 100 200 300
GRAPHIC SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE 3

JACOBS

9/21/2015 10:01:59 AM ...\7-Maintenance of Traffic 2D.dgn T:\Job\WLXM2670 AHTD On-Call 2011 Task Order 8029 Job BB0611-440\700 CADD Files\770 Roadway Files\Drawings\7-Maintenance of Traffic 2D.

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.		BB061I	49	169
				(2)	MAINTENANCE OF TRAFFIC			

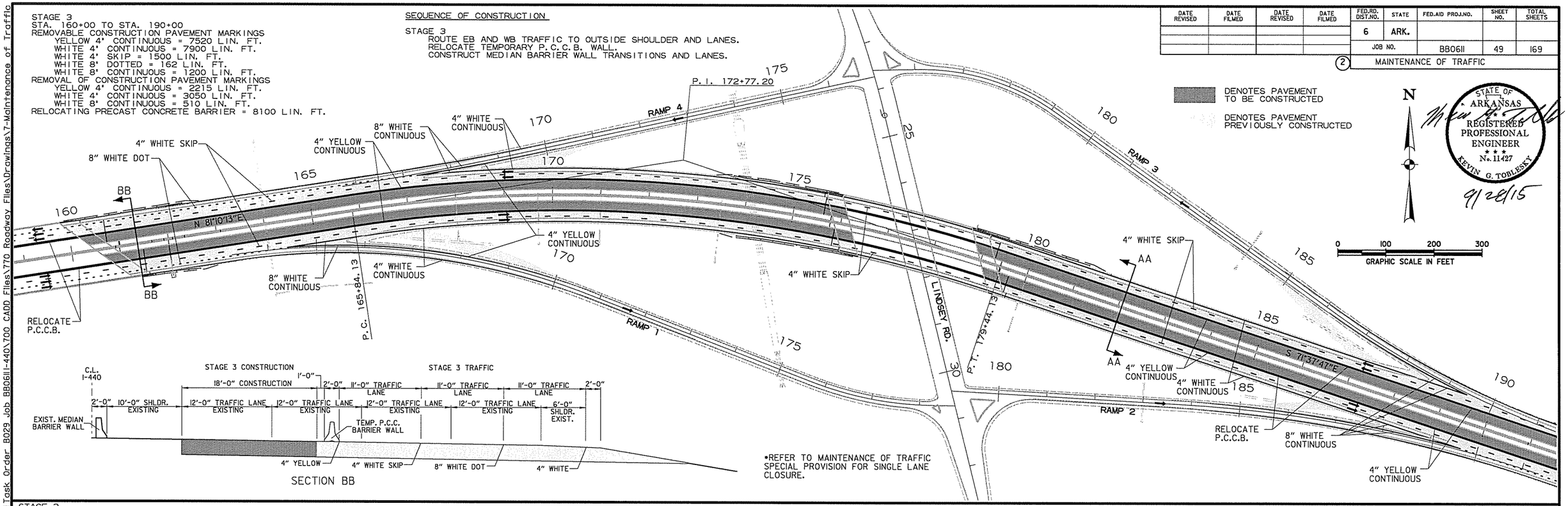
STAGE 3
STA. 160+00 TO STA. 190+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 7520 LIN. FT.
WHITE 4" CONTINUOUS = 7900 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 162 LIN. FT.
WHITE 8" CONTINUOUS = 1200 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 2215 LIN. FT.
WHITE 4" CONTINUOUS = 3050 LIN. FT.
WHITE 8" CONTINUOUS = 510 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 8100 LIN. FT.

SEQUENCE OF CONSTRUCTION

STAGE 3
ROUTE EB AND WB TRAFFIC TO OUTSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
CONSTRUCT MEDIAN BARRIER WALL TRANSITIONS AND LANES.

DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED



SECTION BB

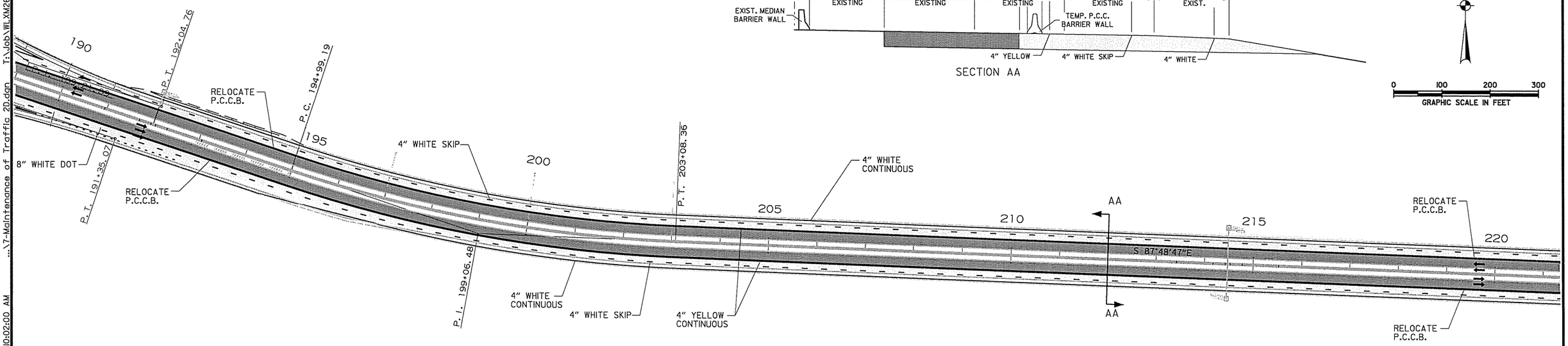
•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

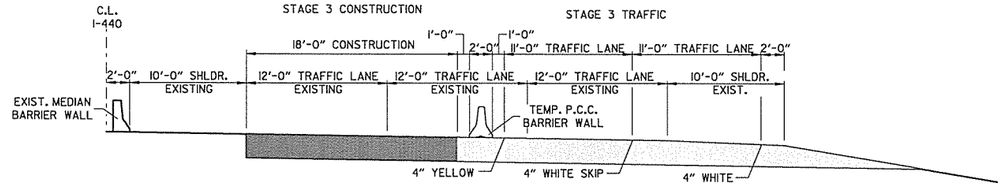
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

STAGE 3
STA. 190+00 TO STA. 220+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" CONTINUOUS = 6000 LIN. FT.
WHITE 4" SKIP = 1500 LIN. FT.
WHITE 8" DOTTED = 36 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
WHITE 4" CONTINUOUS = 1240 LIN. FT.
WHITE 8" CONTINUOUS = 105 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 6000 LIN. FT.

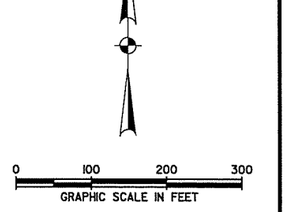
DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED





SECTION AA



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC STAGE 3

JACOBS

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...\7-Maintenance of Traffic 2D.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0611	50	169

(2) MAINTENANCE OF TRAFFIC

STAGE 3
STA. 220+00 TO STA. 250+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 6400 LIN. FT.
WHITE 4' CONTINUOUS = 6400 LIN. FT.
WHITE 4' SKIP = 1500 LIN. FT.
WHITE 8' DOTTED = 52 LIN. FT.
WHITE 8' CONTINUOUS = 262 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 550 LIN. FT.
WHITE 4' CONTINUOUS = 4500 LIN. FT.
WHITE 8' CONTINUOUS = 85 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 7060 LIN. FT.

SEQUENCE OF CONSTRUCTION

STAGE 3
ROUTE EB AND WB TRAFFIC TO OUTSIDE SHOULDER AND LANES.
RELOCATE TEMPORARY P.C.C.B. WALL.
CONSTRUCT MEDIAN BARRIER WALL TRANSITIONS AND LANES.

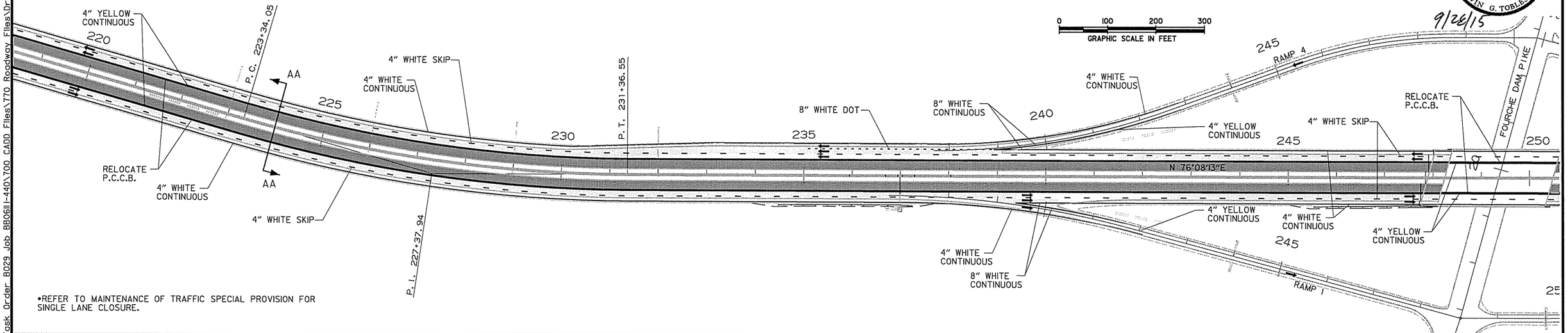
DENOTES PAVEMENT TO BE CONSTRUCTED

DENOTES PAVEMENT PREVIOUSLY CONSTRUCTED

N

0 100 200 300
GRAPHIC SCALE IN FEET

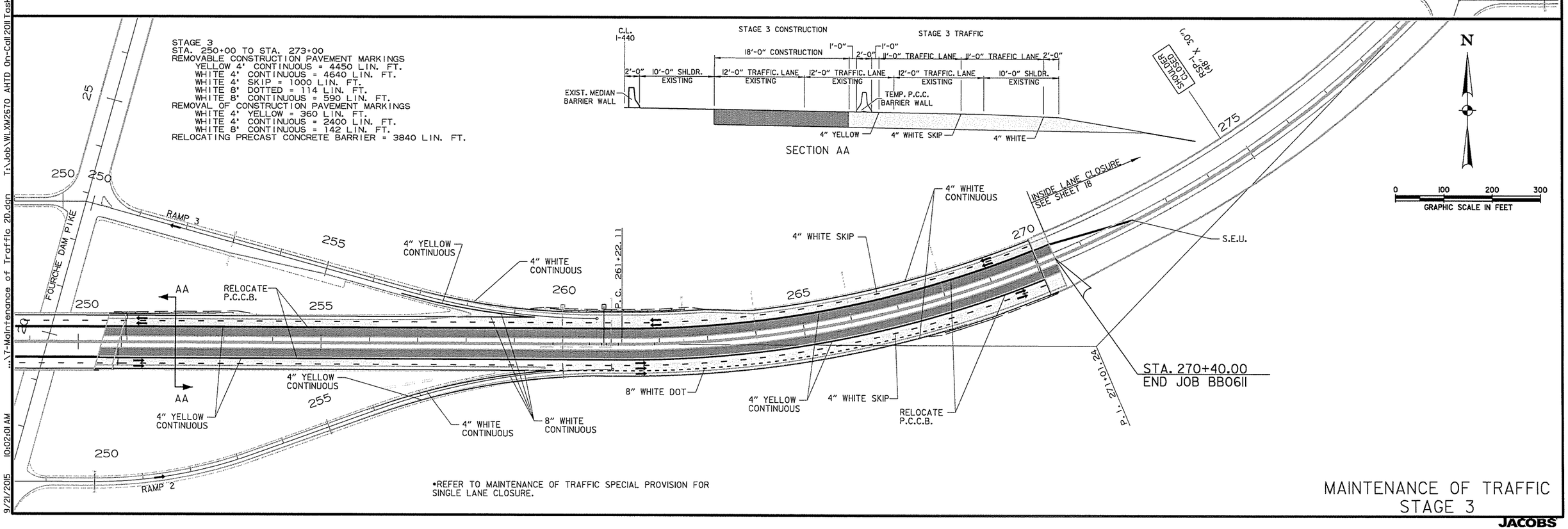
STATE OF ARKANSAS
KEVIN G. TOBLESKY
REGISTERED PROFESSIONAL ENGINEER
No. 11427
9/24/15



•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

STAGE 3
STA. 250+00 TO STA. 273+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
YELLOW 4' CONTINUOUS = 4450 LIN. FT.
WHITE 4' CONTINUOUS = 4640 LIN. FT.
WHITE 4' SKIP = 1000 LIN. FT.
WHITE 8' DOTTED = 114 LIN. FT.
WHITE 8' CONTINUOUS = 590 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
WHITE 4' YELLOW = 360 LIN. FT.
WHITE 4' CONTINUOUS = 2400 LIN. FT.
WHITE 8' CONTINUOUS = 142 LIN. FT.
RELOCATING PRECAST CONCRETE BARRIER = 3840 LIN. FT.

SECTION AA



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0 100 200 300
GRAPHIC SCALE IN FEET

•REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION FOR SINGLE LANE CLOSURE.

MAINTENANCE OF TRAFFIC
STAGE 3

JACOBS

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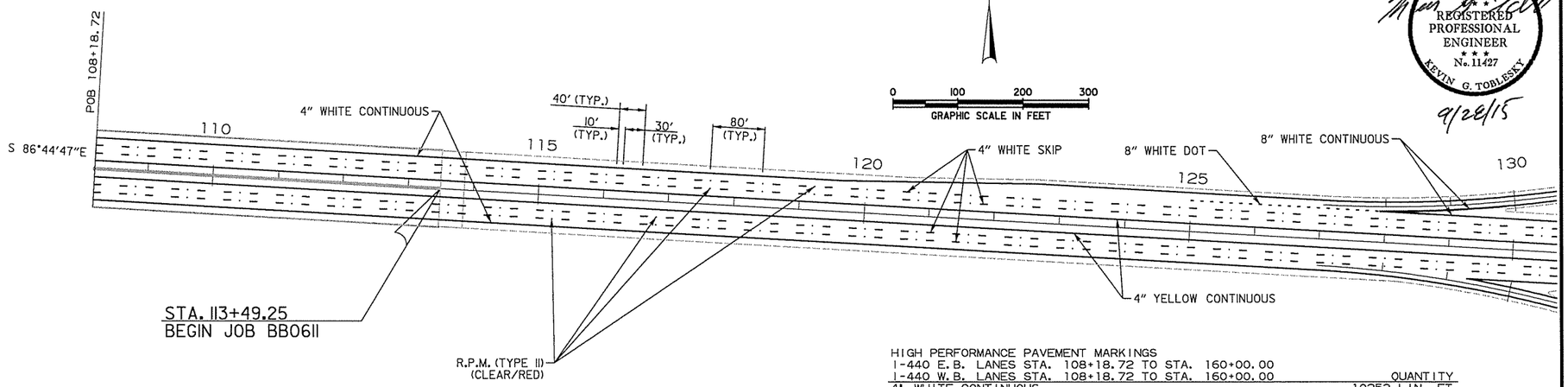
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB061I	51	169
				(2)	PERMANENT PAVEMENT MARKING DETAILS			

REFER TO STANDARD DRAWING 'PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS' PM-2 FOR ADDITIONAL INFORMATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15



HIGH PERFORMANCE PAVEMENT MARKINGS
I-440 E.B. LANES STA. 108+18.72 TO STA. 160+00.00
I-440 W.B. LANES STA. 108+18.72 TO STA. 160+00.00

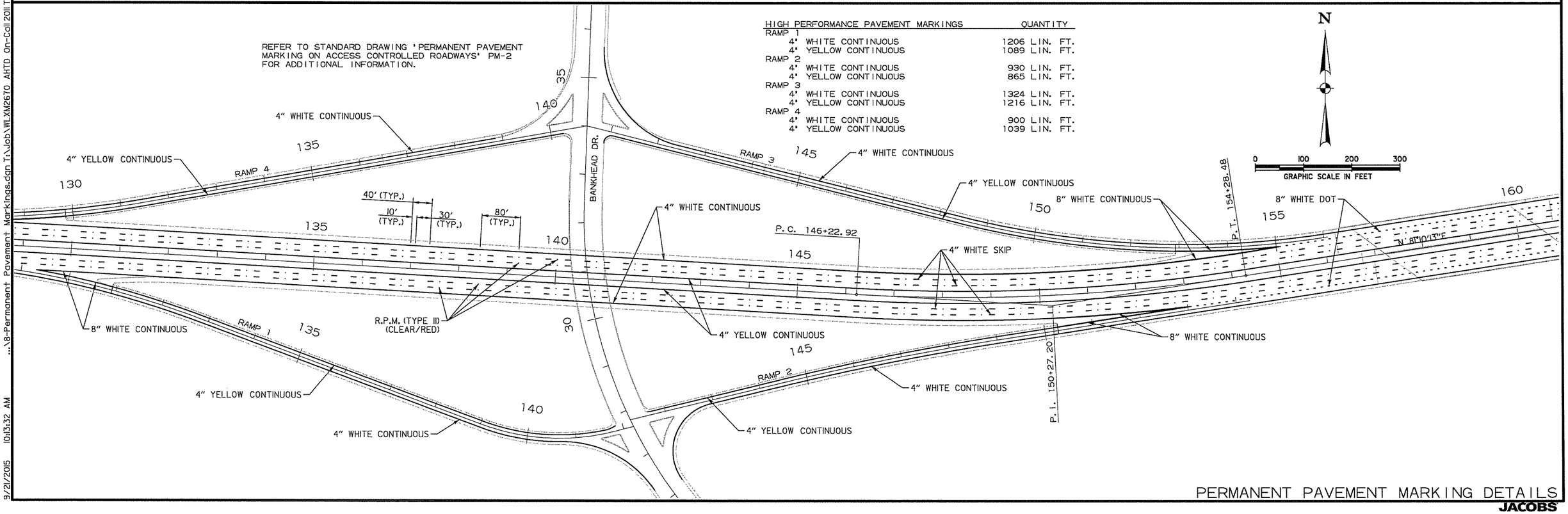
	QUANTITY
4" WHITE CONTINUOUS	10253 LIN. FT.
8" WHITE CONTINUOUS	1553 LIN. FT.
4" YELLOW CONTINUOUS	10362 LIN. FT.
RAISED PAVEMENT MARKERS (80' O.C.) (TYPE II) CLEAR/RED	259 LIN. FT.

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
I-440 E.B. LANES STA. 108+18.72 TO STA. 160+00.00
I-440 W.B. LANES STA. 108+18.72 TO STA. 160+00.00

	QUANTITY
4" WHITE SKIP	5180 LIN. FT.
8" WHITE DOTTED	58 LIN. FT.

REFER TO STANDARD DRAWING 'PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS' PM-2 FOR ADDITIONAL INFORMATION.

HIGH PERFORMANCE PAVEMENT MARKINGS	QUANTITY
RAMP 1	
4" WHITE CONTINUOUS	1206 LIN. FT.
4" YELLOW CONTINUOUS	1089 LIN. FT.
RAMP 2	
4" WHITE CONTINUOUS	930 LIN. FT.
4" YELLOW CONTINUOUS	865 LIN. FT.
RAMP 3	
4" WHITE CONTINUOUS	1324 LIN. FT.
4" YELLOW CONTINUOUS	1216 LIN. FT.
RAMP 4	
4" WHITE CONTINUOUS	900 LIN. FT.
4" YELLOW CONTINUOUS	1039 LIN. FT.



PERMANENT PAVEMENT MARKING DETAILS

JACOBS

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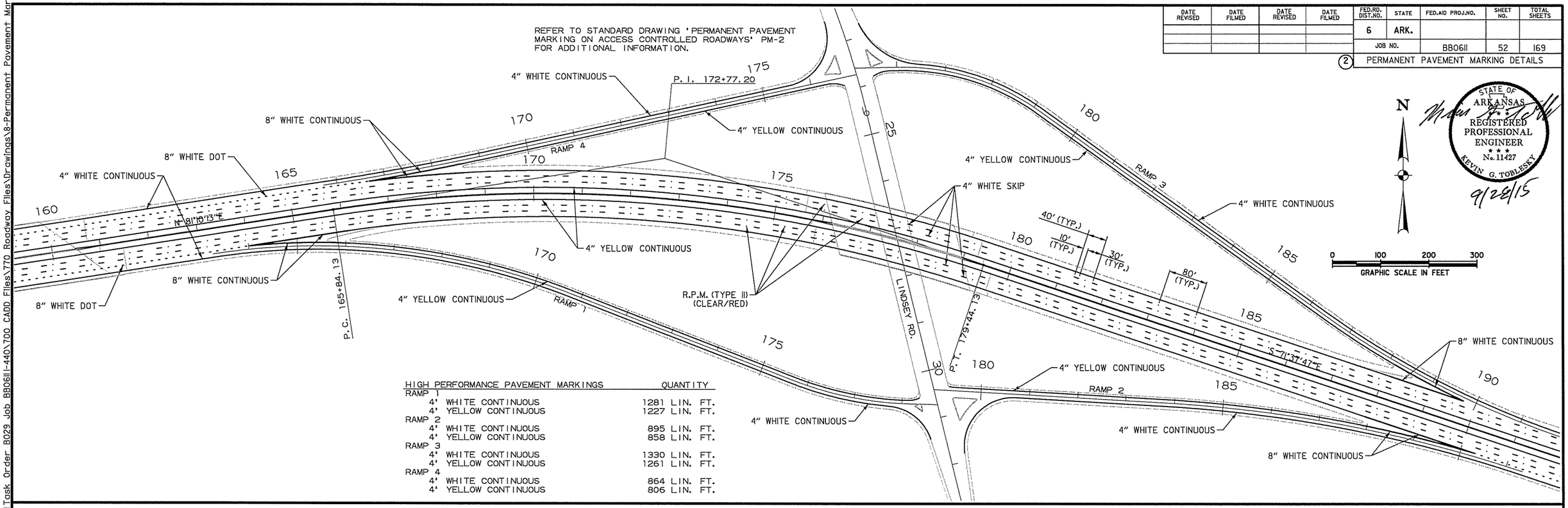
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB061I	52	169

(2) PERMANENT PAVEMENT MARKING DETAILS

REFER TO STANDARD DRAWING 'PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS' PM-2 FOR ADDITIONAL INFORMATION.



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

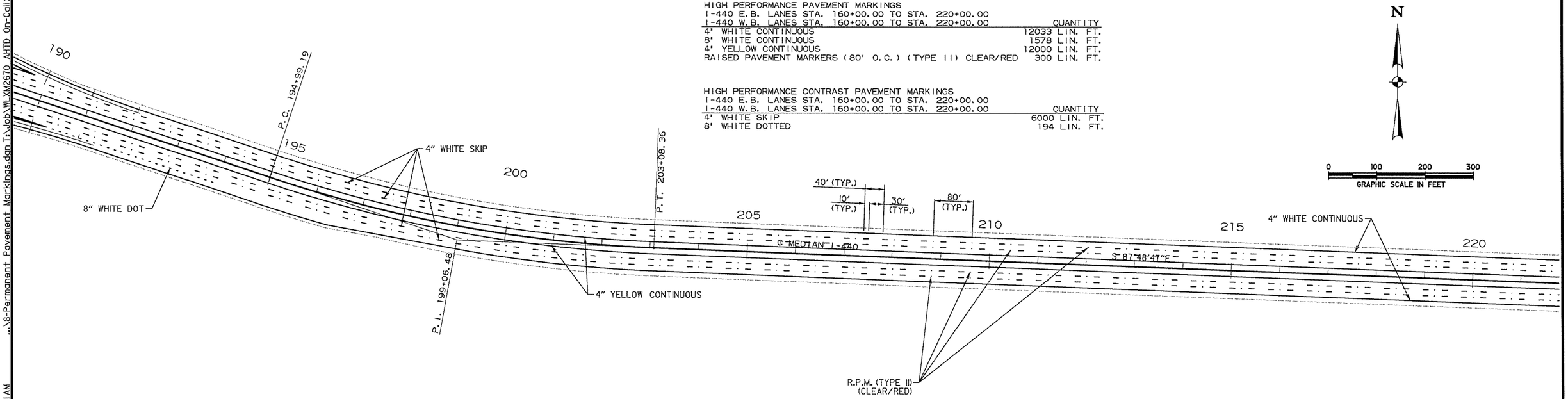
HIGH PERFORMANCE PAVEMENT MARKINGS	QUANTITY
RAMP 1	
4' WHITE CONTINUOUS	1281 LIN. FT.
4' YELLOW CONTINUOUS	1227 LIN. FT.
RAMP 2	
4' WHITE CONTINUOUS	895 LIN. FT.
4' YELLOW CONTINUOUS	858 LIN. FT.
RAMP 3	
4' WHITE CONTINUOUS	1330 LIN. FT.
4' YELLOW CONTINUOUS	1261 LIN. FT.
RAMP 4	
4' WHITE CONTINUOUS	864 LIN. FT.
4' YELLOW CONTINUOUS	806 LIN. FT.

HIGH PERFORMANCE PAVEMENT MARKINGS
I-440 E.B. LANES STA. 160+00.00 TO STA. 220+00.00
I-440 W.B. LANES STA. 160+00.00 TO STA. 220+00.00

	QUANTITY
4' WHITE CONTINUOUS	12033 LIN. FT.
8' WHITE CONTINUOUS	1578 LIN. FT.
4' YELLOW CONTINUOUS	12000 LIN. FT.
RAISED PAVEMENT MARKERS (80' O.C.) (TYPE II) CLEAR/RED	300 LIN. FT.

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
I-440 E.B. LANES STA. 160+00.00 TO STA. 220+00.00
I-440 W.B. LANES STA. 160+00.00 TO STA. 220+00.00

	QUANTITY
4' WHITE SKIP	6000 LIN. FT.
8' WHITE DOTTED	194 LIN. FT.



PERMANENT PAVEMENT MARKING DETAILS

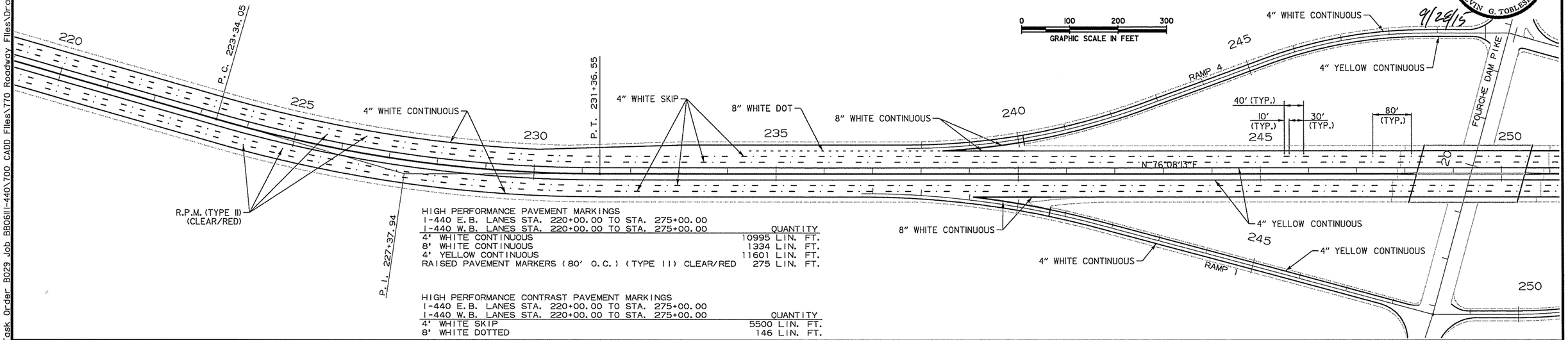
JACOBS

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.		BB06II	53	169

(2) PERMANENT PAVEMENT MARKING DETAILS

REFER TO STANDARD DRAWING 'PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS' PM-2 FOR ADDITIONAL INFORMATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15



HIGH PERFORMANCE PAVEMENT MARKINGS
I-440 E.B. LANES STA. 220+00.00 TO STA. 275+00.00
I-440 W.B. LANES STA. 220+00.00 TO STA. 275+00.00

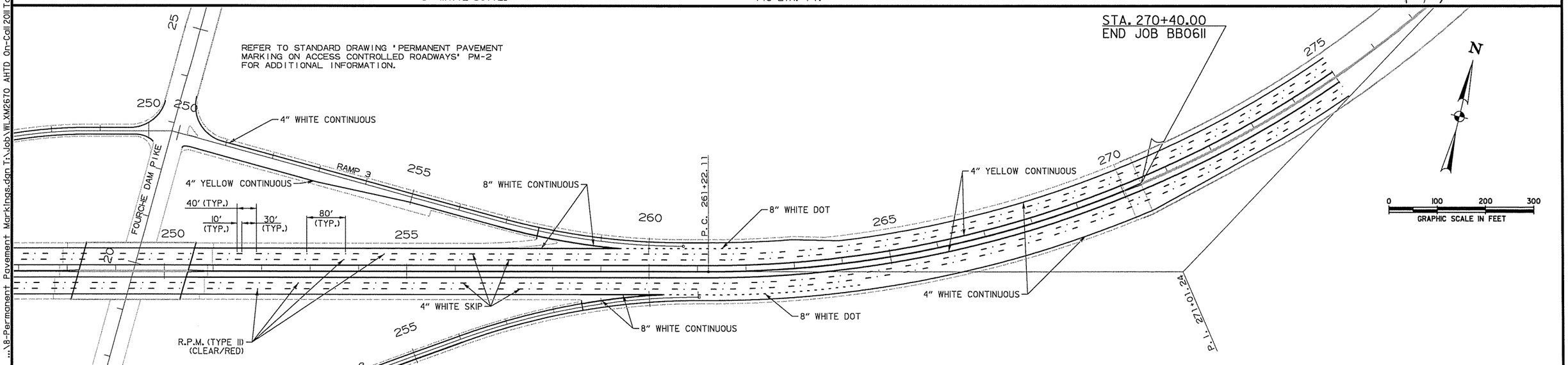
	QUANTITY
4' WHITE CONTINUOUS	10995 LIN. FT.
8' WHITE CONTINUOUS	1334 LIN. FT.
4' YELLOW CONTINUOUS	11601 LIN. FT.
RAISED PAVEMENT MARKERS (80' O.C.) (TYPE II) CLEAR/RED	275 LIN. FT.

HIGH PERFORMANCE CONTRAST PAVEMENT MARKINGS
I-440 E.B. LANES STA. 220+00.00 TO STA. 275+00.00
I-440 W.B. LANES STA. 220+00.00 TO STA. 275+00.00

	QUANTITY
4' WHITE SKIP	5500 LIN. FT.
8' WHITE DOTTED	146 LIN. FT.

REFER TO STANDARD DRAWING 'PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS' PM-2 FOR ADDITIONAL INFORMATION.

STA. 270+40.00
END JOB BB06II



HIGH PERFORMANCE PAVEMENT MARKINGS	QUANTITY
RAMP 1	
4' WHITE CONTINUOUS	832 LIN. FT.
4' YELLOW CONTINUOUS	787 LIN. FT.
RAMP 2	
4' WHITE CONTINUOUS	1055 LIN. FT.
4' YELLOW CONTINUOUS	1000 LIN. FT.
RAMP 3	
4' WHITE CONTINUOUS	795 LIN. FT.
4' YELLOW CONTINUOUS	757 LIN. FT.
RAMP 4	
4' WHITE CONTINUOUS	1050 LIN. FT.
4' YELLOW CONTINUOUS	1000 LIN. FT.

PERMANENT PAVEMENT MARKING DETAILS

JACOBS

...\8-Permanent Pavement Markings.dgn T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job BB06II-440\700 CADD Files\770 Roadway Files\Drawings\8-Permanent Pavement Markings

9/21/2015 10:13:49 AM

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.		BB061I	54	169
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/29/15

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1A	STAGE 1B	STAGE 1C	STAGE 2A	STAGE 2B	STAGE 2C	STAGE 3	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	PORTABLE CHANGEABLE MESSAGE SIGN	ADVANCE WARNING ARROW PANEL	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)
			LIN. FT. - EACH								NO.	SQ. FT.	EACH	WEEK	DAY	LIN. FT.			EACH	
G20-1	ROAD WORK NEXT 2.97 MILES	60" X 24"	2	2	2	2	2	2	2	2	2	20.0								
G20-2	END ROAD WORK	48" X 24"	10	10	10	10	10	10	10	10	10	80.0								
R2-1	SPEED LIMIT (ADVISORY)	48" X 60"	4	4		4	4	4	4	4	4	80.0								
R4-1	DO NOT PASS	48" X 60"	8	8		8	8	8	8	8	8	160.0								
R55-1	FINES DOUBLE IN WORK ZONES WHEN WORKERS ARE PRESENT	36" X 60"	4	4	4	4	4	4	4	4	4	60.0								
RSP-1	SHOULDER CLOSED	48" X 30"				2	2	2	2	2	2	20.0								
W1-6	LARGE ARROW	60" X 30"	6	6		6	6	6	6	6	6	75.0								
W3-5	REDUCED SPEED AHEAD	48" X 48"	4	4		4	4	4	4	4	4	64.0								
W20-1	ROAD WORK 1 MILE	48" X 48"	4	4	4	4	4	4	4	4	4	64.0								
W20-1	ROAD WORK 1/2 MILE	48" X 48"	4	4	4	4	4	4	4	4	4	64.0								
W20-1	ROAD WORK 1500 FT.	48" X 48"	4	4	4	4	4	4	4	4	4	64.0								
W20-1	ROAD WORK AHEAD	48" X 48"	6	6	6	6	6	6	6	6	6	96.0								
W20-5	RIGHT LANE CLOSED XXXX	48" X 48"		12		12	12	12		12	12	192.0								
W20-5	LEFT LANE CLOSED XXXX	48" X 48"	12						12	12	12	192.0								
W4-2	LANE ENDS	48" X 48"	4	4		4	4	4	4	4	4	64.0								
SPECIAL	MERGE NOW	48" X 48"	2	2		2	2	2	2	2	2	32.0								
	TRAFFIC DRUMS		284	894		80	94	99		894			894							
	PORTABLE CHANGEABLE MESSAGE SIGN		2	2	2	2	2	2	2	2				84						
	ADVANCE WARNING ARROW PANEL		2	2	2	2	2	2	2	2					510					
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER				11203	29567				40770						40770				
	RELOCATING PRECAST CONCRETE BARRIER					11203	25735	25720	37800	100458							100458			
	TEMPORARY IMPACT ATTENUATION BARRIER				17					17								17		
	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)					17	14	16		47									47	
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)				17	17	14	16		64										64
TOTALS:												1327.0	894	84	510	40770	100458	17	47	64

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 2A	STAGE 2B	STAGE 2C	STAGE 3	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING		HIGH PERFORMANCE PAVEMENT MARKING		
										4"	8"	4"		8"
									TYPE II (WHITE / RED)	WHITE	WHITE	WHITE CONTINUOUS	YELLOW	WHITE
	LIN. FT. - EACH					LIN. FT.	LIN. FT.		EACH	LIN. FT.		LIN. FT.		
REMOVAL OF PERMANENT PAVEMENT MARKINGS	43160					43160								
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		9846	42844	22618			75308							
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	81862	45269	19563	83187				229881						
RAISED PAVEMENT MARKERS TYPE II (WHITE / RED)					834				834					
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")					16680					16680				
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (8")					398						398			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")					45743							45743		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")					45868								45868	
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")					4465									4465
TOTALS:						43160	75308	229881	834	16680	398	45743	45868	4465

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

NOTE: NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANES PAVING HAS BEEN COMPLETED.
IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

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.		BB061I	55	169
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

REMOVAL AND DISPOSAL OF ITEMS

FROM			TO			BARRIER WALL	CONCRETE DITCH PAVING	APPROACH SLAB AND GUTTERS	IMPACT ATTENUATION BARRIER	GUARDRAIL
STATION	SIDE	LOCATION	STATION	SIDE	LOCATION	LIN. FT.	SQ. YD.	EACH	EACH	LIN. FT.
161+38	RIGHT	I-440 RIGHT MAIN LANES	162+38	RIGHT	I-440 RIGHT MAIN LANES					100
113+49	RIGHT	I-440 RIGHT MAIN LANES	115+49	RIGHT	I-440 RIGHT MAIN LANES					200
113+49	LEFT	I-440 LEFT MAIN LANES	115+49	LEFT	I-440 LEFT MAIN LANES					200
154+32	LEFT	I-440 LEFT MAIN LANES	156+32	LEFT	I-440 LEFT MAIN LANES					200
155+87	RIGHT	I-440 RIGHT MAIN LANES	157+87	RIGHT	I-440 RIGHT MAIN LANES					200
159+86	LEFT	I-440 LEFT MAIN LANES	161+86	LEFT	I-440 LEFT MAIN LANES					200
173+87	LEFT	I-440 LEFT MAIN LANES	175+87	LEFT	I-440 LEFT MAIN LANES					200
174+49	RIGHT	I-440 RIGHT MAIN LANES	176+49	RIGHT	I-440 RIGHT MAIN LANES					200
178+64	LEFT	I-440 LEFT MAIN LANES	180+64	LEFT	I-440 LEFT MAIN LANES					200
246+08	RIGHT	I-440 RIGHT MAIN LANES	248+08	RIGHT	I-440 RIGHT MAIN LANES					200
250+64	LEFT	I-440 LEFT MAIN LANES	252+64	LEFT	I-440 LEFT MAIN LANES					200
259+75	LEFT	I-440 LEFT MAIN LANES	261+75	LEFT	I-440 LEFT MAIN LANES					200
268+17	RIGHT	I-440 RIGHT MAIN LANES	270+17	RIGHT	I-440 RIGHT MAIN LANES					200
126+62	RIGHT	I-440 RIGHT MAIN LANES							1	
192+18	LEFT	I-440 LEFT MAIN LANES							1	
214+28	RIGHT	I-440 RIGHT MAIN LANES							1	
214+65	LEFT	I-440 LEFT MAIN LANES							1	
236+82	RIGHT	I-440 RIGHT MAIN LANES							1	
113+67		I-440 RIGHT MAIN LANES						1		
113+67		I-440 LEFT MAIN LANES						1		
156+68		I-440 LEFT MAIN LANES						1		
157+40		I-440 RIGHT MAIN LANES						1		
160+31		I-440 LEFT MAIN LANES						1		
161+03		I-440 RIGHT MAIN LANES						1		
175+88		I-440 LEFT MAIN LANES						1		
176+18		I-440 RIGHT MAIN LANES						1		
178+98		I-440 LEFT MAIN LANES						1		
179+34		I-440 RIGHT MAIN LANES						1		
247+98		I-440 RIGHT MAIN LANES						1		
248+15		I-440 LEFT MAIN LANES						1		
250+58		I-440 RIGHT MAIN LANES						1		
250+74		I-440 LEFT MAIN LANES						1		
270+23		I-440 RIGHT MAIN LANES						1		
270+23		I-440 LEFT MAIN LANES						1		
131+50	LEFT	RAMP 4 - BANKHEAD DRIVE INTERCHANGE	133+16	LEFT	RAMP 4 - BANKHEAD DRIVE INTERCHANGE		73.78			
132+00	RIGHT	RAMP 1 - BANKHEAD DRIVE INTERCHANGE	132+81	RIGHT	RAMP 1 - BANKHEAD DRIVE INTERCHANGE		36.00			
146+92	RIGHT	RAMP 2 - BANKHEAD DRIVE INTERCHANGE	148+00	RIGHT	RAMP 2 - BANKHEAD DRIVE INTERCHANGE		48.00			
149+93	LEFT	RAMP 3 - BANKHEAD DRIVE INTERCHANGE	151+00	LEFT	RAMP 3 - BANKHEAD DRIVE INTERCHANGE		47.56			
167+00	RIGHT	RAMP 1 - LINDSEY ROAD INTERCHANGE	168+75	RIGHT	RAMP 1 - LINDSEY ROAD INTERCHANGE		77.78			
184+98	RIGHT	RAMP 2 - LINDSEY ROAD INTERCHANGE	185+72	RIGHT	RAMP 2 - LINDSEY ROAD INTERCHANGE		32.89			
185+68	LEFT	RAMP 3 - LINDSEY ROAD INTERCHANGE	187+10	LEFT	RAMP 3 - LINDSEY ROAD INTERCHANGE		63.11			
241+45	RIGHT	RAMP 1 - FOURCHE DAM PIKE	242+43	RIGHT	RAMP 1 - FOURCHE DAM PIKE		43.56			
241+57	LEFT	RAMP 4 - FOURCHE DAM PIKE	242+66	LEFT	RAMP 4 - FOURCHE DAM PIKE		48.44			
256+28	RIGHT	RAMP 2 - FOURCH DAM PIKE	257+32	RIGHT	RAMP 2 - FOURCH DAM PIKE		46.22			
122+91	125+09	I-440 MEDIAN				218				
139+43	141+92	I-440 MEDIAN				249				
154+91	157+09	I-440 MEDIAN				218				
160+91	163+09	I-440 MEDIAN				218				
190+91	193+09	I-440 MEDIAN				218				
213+45	215+51	I-440 MEDIAN				206				
235+91	238+09	I-440 MEDIAN				218				
259+71	261+89	I-440 MEDIAN				218				
TOTALS:						1763	517.34	16	5	2500

SOIL LOG

STATION	LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION
114+00	70' RT. C.L. I-440	10.0	27	9	A-4
114+00	70' RT. C.L. I-440	10.0	20	3	A-4
124+00	70' RT. C.L. I-440	10.0	29	14	A-6
134+00	70' RT. C.L. I-440	10.0	28	11	A-6
144+00	70' RT. C.L. I-440	10.0	38	14	A-6
154+00	70' RT. C.L. I-440	10.0	NP	NP	A-1-b
164+00	70' RT. C.L. I-440	10.0	26	6	A-4
174+00	70' RT. C.L. I-440	10.0	36	20	A-6
174+00	70' RT. C.L. I-440	10.0	35	18	A-6
184+00	70' RT. C.L. I-440	10.0	47	20	A-7-6
194+00	70' RT. C.L. I-440	10.0	21	6	A-4
194+00	70' RT. C.L. I-440	10.0	21	4	A-4
204+00	70' RT. C.L. I-440	10.0	33	10	A-4
214+00	70' RT. C.L. I-440	10.0	36	12	A-6
224+00	70' RT. C.L. I-440	10.0	19	3	A-4
234+00	70' RT. C.L. I-440	10.0	45	22	A-7-6
244+00	70' RT. C.L. I-440	10.0	41	17	A-7-6
254+00	70' RT. C.L. I-440	10.0	40	18	A-6
264+00	70' RT. C.L. I-440	10.0	ND	ND	A-3
264+00	70' RT. C.L. I-440	10.0	26	12	A-6
270+30	70' RT. C.L. I-440	10.0	17	1	A-4
269+00	70' LT. C.L. I-440	10.0	40	17	A-6
259+00	70' LT. C.L. I-440	10.0	28	14	A-6
249+00	70' LT. C.L. I-440	10.0	NP	NP	A-1-b
239+00	70' LT. C.L. I-440	10.0	20	5	A-4
228+90	70' LT. C.L. I-440	10.0	26	11	A-6
228+90	70' LT. C.L. I-440	10.0	39	22	A-6
219+00	70' LT. C.L. I-440	10.0	32	17	A-6
209+00	70' LT. C.L. I-440	10.0	33	15	A-6
209+00	70' LT. C.L. I-440	10.0	47	15	A-7-5
199+00	70' LT. C.L. I-440	10.0	21	7	A-6
189+00	70' LT. C.L. I-440	10.0	NP	NP	A-1-b
179+00	70' LT. C.L. I-440	10.0	NP	NP	A-4
169+50	70' LT. C.L. I-440	10.0	23	5	A-4
159+00	70' LT. C.L. I-440	10.0	35	19	A-6
159+00	70' LT. C.L. I-440	10.0	47	12	A-7-5
148+85	70' LT. C.L. I-440	10.0	24	8	A-4
148+85	70' LT. C.L. I-440	10.0	NP	NP	A-2-4
139+00	70' LT. C.L. I-440	10.0	NP	NP	A-2-4
129+00	70' LT. C.L. I-440	10.0	NP	NP	A-2-4
119+00	70' LT. C.L. I-440	10.0	27	11	A-6
114+00	70' LT. C.L. I-440	10.0	25	9	A-4
114+00	70' LT. C.L. I-440	10.0	25	10	A-4
118+00	75' RT. C.L. I-440	3.0	23	5	A-4
204+00	75' LT. C.L. I-440	3.0	20	3	A-2-4
256+50	80' RT. C.L. I-440	3.0	27	11	A-6

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
12-21-2015				6	ARK.			
1-4-2016				JOB NO.		BB06II	56	169
				(2)		QUANTITIES		

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH LIN. FT.	AVG. WIDTH FEET	SQ. YD.
113+84.25	127+00.00	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	1315.75	46	6724.94
127+00.00	132+25.95	I-440 RIGHT MAIN LANES	525.95	36	2103.80
132+25.95	150+30.86	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	1804.91	46	9225.10
150+30.86	154+28.47	I-440 RIGHT MAIN LANES	397.61	36	1590.44
154+28.47	157+25.46	I-440 RIGHT MAIN LANES, OUTSIDE SHOULDER, AND AUXILIARY LANE	296.99	54	1781.94
161+23.66	163+24.96	I-440 RIGHT MAIN LANES, OUTSIDE SHOULDER, AND AUXILIARY LANE	201.30	54	1207.80
163+24.96	167+34.10	I-440 RIGHT MAIN LANES	409.14	36	1636.56
167+34.10	175+99.63	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	865.53	46	4423.82
179+51.89	187+88.03	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	836.14	46	4273.60
187+88.03	191+35.07	I-440 RIGHT MAIN LANES	347.04	36	1388.16
191+35.07	196+36.97	I-440 RIGHT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE	501.90	54	3011.40
196+36.97	199+36.97	I-440 RIGHT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE TAPER	300.00	50	1666.67
199+36.97	236+76.87	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	3739.90	46	19115.04
236+76.87	241+92.17	I-440 RIGHT MAIN LANES	515.30	36	2061.20
241+92.17	247+80.87	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	588.70	46	3008.91
249+75.15	258+57.56	I-440 RIGHT MAIN LANES AND OUTSIDE SHOULDER	882.41	46	4510.10
258+57.56	261+03.09	I-440 RIGHT MAIN LANES	245.53	36	982.12
261+03.09	270+05.00	I-440 RIGHT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE	901.91	54	5411.46
113+84.25	119+65.70	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	581.45	46	2971.86
119+65.70	122+65.70	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE TAPER	300.00	50	1666.67
122+65.70	127+03.88	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE	438.18	54	2629.08
127+03.88	129+87.35	I-440 LEFT MAIN LANES	283.47	36	1133.88
129+87.35	151+60.96	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	2173.61	46	11109.56
151+60.96	156+08.32	I-440 LEFT MAIN LANES	447.36	36	1789.44
156+08.32	156+53.32	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND AUXILIARY LANE	45.00	54	270.00
160+51.66	165+71.62	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND AUXILIARY LANE	519.96	54	3119.76
165+71.62	168+59.35	I-440 LEFT MAIN LANES	287.73	36	1150.92
168+59.35	175+72.22	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	712.87	46	3643.56
179+15.32	186+89.46	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	774.14	46	3956.72
186+89.46	192+04.76	I-440 LEFT MAIN LANES	515.30	36	2061.20
192+04.76	230+09.35	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	3804.59	46	19445.68
230+09.35	233+09.35	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE TAPER	300.00	50	1666.67
233+09.35	237+68.44	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND ACCELERATION LANE	459.09	54	2754.54
237+68.44	240+13.97	I-440 LEFT MAIN LANES	245.53	36	982.12
240+13.97	247+97.09	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	783.12	46	4002.61
250+91.37	256+41.69	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	550.32	46	2812.75
256+41.69	260+70.32	I-440 LEFT MAIN LANES	428.63	36	1714.52
260+70.32	263+00.00	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND DECELERATION LANE	229.68	54	1378.08
263+00.00	264+00.00	I-440 LEFT MAIN LANES, OUTSIDE SHOULDER, AND DECELERATION LANE TAPER	100.00	50	555.56
264+00.00	270+05.00	I-440 LEFT MAIN LANES AND OUTSIDE SHOULDER	605.00	46	3092.22
127+00.00	130+95.65	TURNOUT - I-440 RIGHT MAIN LANES	395.65	VAR.	3178.76
151+95.69	154+28.42	TURNOUT - I-440 RIGHT MAIN LANES	232.73	VAR.	1253.31
163+24.96	165+98.96	TURNOUT - I-440 RIGHT MAIN LANES	274.00	VAR.	1045.41
189+34.97	191+35.07	TURNOUT - I-440 RIGHT MAIN LANES	200.10	VAR.	960.59
236+76.87	240+60.70	TURNOUT - I-440 RIGHT MAIN LANES	383.83	VAR.	1071.24
259+60.81	261+03.15	TURNOUT - I-440 RIGHT MAIN LANES	142.34	VAR.	677.49
127+03.88	128+67.26	TURNOUT - I-440 LEFT MAIN LANES	163.38	VAR.	783.30
152+87.63	156+08.32	TURNOUT - I-440 LEFT MAIN LANES	320.69	VAR.	1090.08
165+21.65	167+43.84	TURNOUT - I-440 LEFT MAIN LANES	222.19	VAR.	805.80
188+20.90	192+04.76	TURNOUT - I-440 LEFT MAIN LANES	383.86	VAR.	1056.77
237+68.44	239+09.81	TURNOUT - I-440 LEFT MAIN LANES	141.37	VAR.	677.49
257+74.37	260+70.34	TURNOUT - I-440 LEFT MAIN LANES	295.97	VAR.	1159.01
131+90.11	134+30.23	TEMPORARY RAMP 1 - BANKHEAD DR.	240.12	29	773.72
144+93.08	146+89.50	TEMPORARY RAMP 2 - BANKHEAD DR.	196.42	29	632.91
150+81.46	154+44.11	TEMPORARY RAMP 3 - BANKHEAD DR.	362.65	29	1168.54
131+78.76	134+16.22	TEMPORARY RAMP 4 - BANKHEAD DR.	237.46	29	765.15
166+82.61	169+43.01	TEMPORARY RAMP 1 - LINDSEY RD.	260.40	29	839.07
185+02.40	186+23.04	TEMPORARY RAMP 2 - LINDSEY RD.	120.64	29	388.73
184+86.19	187+20.47	TEMPORARY RAMP 3 - LINDSEY RD.	234.28	29	754.90
169+15.51	170+28.53	TEMPORARY RAMP 4 - LINDSEY RD.	113.02	29	364.18
241+50.02	243+46.82	TEMPORARY RAMP 1 - FOURCHE DAM PIKE	196.80	29	634.13
254+80.41	256+80.76	TEMPORARY RAMP 2 - FOURCHE DAM PIKE	200.35	29	645.57
254+96.26	256+65.96	TEMPORARY RAMP 3 - FOURCHE DAM PIKE	169.70	29	546.81
241+04.32	242+95.95	TEMPORARY RAMP 4 - FOURCHE DAM PIKE	191.63	29	617.47
TOTAL:					169920.89

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL BE INCLUDED IN THE PRICE BID FOR "REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT".

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	*UNCLASSIFIED EXCAVATION	*COMPACTED EMBANKMENT	*SOIL STABILIZATION
			CU. YD.		TON
113+84.25	270+05.00	I-440 RIGHT MAIN LANES	25511		
113+84.25	270+05.00	I-440 LEFT MAIN LANES	24842		
		CONSTRUCTION OF TEMPORARY RAMP 1 - BANKHEAD DR.	176	88	
		CONSTRUCTION OF TEMPORARY RAMP 2 - BANKHEAD DR.	151	76	
		CONSTRUCTION OF TEMPORARY RAMP 3 - BANKHEAD DR.	121	61	
		CONSTRUCTION OF TEMPORARY RAMP 4 - BANKHEAD DR.	162	81	
		CONSTRUCTION OF TEMPORARY RAMP 1 - LINDSEY RD.	178	89	
		CONSTRUCTION OF TEMPORARY RAMP 2 - LINDSEY RD.	93	47	
		CONSTRUCTION OF TEMPORARY RAMP 3 - LINDSEY RD.	158	79	
		CONSTRUCTION OF TEMPORARY RAMP 4 - LINDSEY RD.	82	41	
		CONSTRUCTION OF TEMPORARY RAMP 1 - FOURCHE DAM PIKE	139	70	
		CONSTRUCTION OF TEMPORARY RAMP 2 - FOURCHE DAM PIKE	144	72	
		CONSTRUCTION OF TEMPORARY RAMP 3 - FOURCHE DAM PIKE	108	54	
		CONSTRUCTION OF TEMPORARY RAMP 4 - FOURCHE DAM PIKE	132	66	
		REMOVAL OF TEMPORARY RAMP 1 - BANKHEAD DR.		88	
		REMOVAL OF TEMPORARY RAMP 2 - BANKHEAD DR.		76	
		REMOVAL OF TEMPORARY RAMP 3 - BANKHEAD DR.		61	
		REMOVAL OF TEMPORARY RAMP 4 - BANKHEAD DR.		81	
		REMOVAL OF TEMPORARY RAMP 1 - LINDSEY RD.		89	
		REMOVAL OF TEMPORARY RAMP 2 - LINDSEY RD.		47	
		REMOVAL OF TEMPORARY RAMP 3 - LINDSEY RD.		79	
		REMOVAL OF TEMPORARY RAMP 4 - LINDSEY RD.		41	
		REMOVAL OF TEMPORARY RAMP 1 - FOURCHE DAM PIKE		70	
		REMOVAL OF TEMPORARY RAMP 2 - FOURCHE DAM PIKE		72	
		REMOVAL OF TEMPORARY RAMP 3 - FOURCHE DAM PIKE		54	
		REMOVAL OF TEMPORARY RAMP 4 - FOURCHE DAM PIKE		66	
*ENTIRE PROJECT		IF AND WHERE DIRECTED BY THE ENGINEER.			500
TOTALS:			51997	1648	500

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

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

REMOVAL OF ITEMS

FROM			TO			CORRUGATIONS IN CONCRETE PAVEMENT	RUMBLE STRIPS IN CONCRETE PAVEMENT
STATION	SIDE	LOCATION	STATION	SIDE	LOCATION	SQ. YD.	SQ. YD.
113+85.75	LEFT	I-440 RIGHT MAIN LANES	156+72.82	LEFT	I-440 RIGHT MAIN LANES	191	
160+98.16	LEFT	I-440 RIGHT MAIN LANES	175+78.46	LEFT	I-440 RIGHT MAIN LANES	66	
179+42.05	LEFT	I-440 RIGHT MAIN LANES	247+84.32	LEFT	I-440 RIGHT MAIN LANES	304	
250+88.20	LEFT	I-440 RIGHT MAIN LANES	270+03.50	LEFT	I-440 RIGHT MAIN LANES	85	
131+00.00	RIGHT	I-440 RIGHT MAIN LANES	132+50.00	RIGHT	I-440 RIGHT MAIN LANES		33
147+80.00	RIGHT	I-440 RIGHT MAIN LANES	149+40.00	RIGHT	I-440 RIGHT MAIN LANES		36
165+80.00	RIGHT	I-440 RIGHT MAIN LANES	167+40.00	RIGHT	I-440 RIGHT MAIN LANES		36
186+00.00	RIGHT	I-440 RIGHT MAIN LANES	187+50.00	RIGHT	I-440 RIGHT MAIN LANES		33
240+60.00	RIGHT	I-440 RIGHT MAIN LANES	242+00.00	RIGHT	I-440 RIGHT MAIN LANES		31
257+00.00	RIGHT	I-440 RIGHT MAIN LANES	258+50.00	RIGHT	I-440 RIGHT MAIN LANES		33
128+67.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 4	135+00.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 4	67	
130+95.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 1	139+40.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 1	83	
144+40.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 2	151+95.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 2	56	
145+00.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 3	152+87.00	LT. & RT.	BANKHEAD DRIVE INTERCHANGE - RAMP 3	89	
165+99.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 1	173+60.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 1	89	
167+44.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 4	170+20.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 4	33	
180+00.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 3	188+21.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 3	89	
183+80.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 2	189+35.00	LT. & RT.	LINDSEY ROAD INTERCHANGE - RAMP 2	44	
239+10.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 4	245+00.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 4	56	
240+61.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 1	248+40.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 1	89	
250+40.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 3	257+74.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 3	89	
253+30.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 2	259+61.00	LT. & RT.	FOURCH DAM PIKE INTERCHANGE - RAMP 2	67	
131+00.00	LEFT	I-440 LEFT MAIN LANES	132+40.00	LEFT	I-440 LEFT MAIN LANES		31
151+40.00	LEFT	I-440 LEFT MAIN LANES	153+00.00	LEFT	I-440 LEFT MAIN LANES		36
168+80.00	LEFT	I-440 LEFT MAIN LANES	170+00.00	LEFT	I-440 LEFT MAIN LANES		27
186+80.00	LEFT	I-440 LEFT MAIN LANES	188+00.00	LEFT	I-440 LEFT MAIN LANES		27
240+20.00	LEFT	I-440 LEFT MAIN LANES	241+80.00	LEFT	I-440 LEFT MAIN LANES		36
256+00.00	LEFT	I-440 LEFT MAIN LANES	257+50.00	LEFT	I-440 LEFT MAIN LANES		33
113+85.75	RIGHT	I-440 LEFT MAIN LANES	156+72.82	RIGHT	I-440 LEFT MAIN LANES	191	
160+98.16	RIGHT	I-440 LEFT MAIN LANES	175+78.46	RIGHT	I-440 LEFT MAIN LANES	66	
179+42.05	RIGHT	I-440 LEFT MAIN LANES	247+84.32	RIGHT	I-440 LEFT MAIN LANES	304	
250+88.20	RIGHT	I-440 LEFT MAIN LANES	270+03.50	RIGHT	I-440 LEFT MAIN LANES	85	
ENTIRE PROJECT							
TOTALS:						2143	392

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
1-4-16

QUANTITIES

JACOBS

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.		BB061I	57	169
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

TEMPORARY EROSION CONTROL ITEMS AND DEVICES

STATION	STATION	SIDE	LOCATION	TEMPORARY SEEDING	MULCH COVER	WATER	TRIANGULAR SILT DIKE	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
				ACRE	ACRE	M. GAL.	LIN. FT.	BAG	CU. YD.	LIN. FT.	LIN. FT.	CU. YD.
113+85.75	157+44.82	RIGHT	I-440 RIGHT MAIN LANES	1.50	1.50	30.6						
161+52.16	176+06.86	RIGHT	I-440 RIGHT MAIN LANES	0.50	0.50	10.2						
179+70.74	247+71.67	RIGHT	I-440 RIGHT MAIN LANES	2.34	2.34	47.7						
250+71.70	270+03.50	RIGHT	I-440 RIGHT MAIN LANES	0.67	0.67	13.7						
113+85.75	156+18.82	LEFT	I-440 LEFT MAIN LANES	1.46	1.46	29.8						
160+26.16	175+57.56	LEFT	I-440 LEFT MAIN LANES	0.53	0.53	10.8						
179+05.53	248+00.82	LEFT	I-440 LEFT MAIN LANES	2.37	2.37	48.3						
251+00.85	270+03.50	LEFT	I-440 LEFT MAIN LANES	0.66	0.66	13.5						
			CONSTRUCTION OF TEMPORARY RAMP 1 - BANKHEAD DR.	0.24	0.24	4.9						
			CONSTRUCTION OF TEMPORARY RAMP 2 - BANKHEAD DR.	0.23	0.23	4.7						
			CONSTRUCTION OF TEMPORARY RAMP 3 - BANKHEAD DR.	0.17	0.17	3.5						
			CONSTRUCTION OF TEMPORARY RAMP 4 - BANKHEAD DR.	0.29	0.29	5.9						
			CONSTRUCTION OF TEMPORARY RAMP 1 - LINDSEY RD.	0.24	0.24	4.9						
			CONSTRUCTION OF TEMPORARY RAMP 2 - LINDSEY RD.	0.11	0.11	2.2						
			CONSTRUCTION OF TEMPORARY RAMP 3 - LINDSEY RD.	0.25	0.25	5.1						
			CONSTRUCTION OF TEMPORARY RAMP 4 - LINDSEY RD.	0.13	0.13	2.7						
			CONSTRUCTION OF TEMPORARY RAMP 1 - FOURCHE DAM PIKE	0.18	0.18	3.7						
			CONSTRUCTION OF TEMPORARY RAMP 2 - FOURCHE DAM PIKE	0.23	0.23	4.7						
			CONSTRUCTION OF TEMPORARY RAMP 3 - FOURCHE DAM PIKE	0.15	0.15	3.1						
			CONSTRUCTION OF TEMPORARY RAMP 4 - FOURCHE DAM PIKE	0.16	0.16	3.3						
			REMOVAL OF TEMPORARY RAMP 1 - BANKHEAD DR.	0.48	0.48	9.8						
			REMOVAL OF TEMPORARY RAMP 2 - BANKHEAD DR.	0.46	0.46	9.4						
			REMOVAL OF TEMPORARY RAMP 3 - BANKHEAD DR.	0.34	0.34	6.9						
			REMOVAL OF TEMPORARY RAMP 4 - BANKHEAD DR.	0.57	0.57	11.6						
			REMOVAL OF TEMPORARY RAMP 1 - LINDSEY RD.	0.48	0.48	9.8						
			REMOVAL OF TEMPORARY RAMP 2 - LINDSEY RD.	0.23	0.23	4.7						
			REMOVAL OF TEMPORARY RAMP 3 - LINDSEY RD.	0.51	0.51	10.4						
			REMOVAL OF TEMPORARY RAMP 4 - LINDSEY RD.	0.25	0.25	5.1						
			REMOVAL OF TEMPORARY RAMP 1 - FOURCHE DAM PIKE	0.37	0.37	7.5						
			REMOVAL OF TEMPORARY RAMP 2 - FOURCHE DAM PIKE	0.46	0.46	9.4						
			REMOVAL OF TEMPORARY RAMP 3 - FOURCHE DAM PIKE	0.30	0.30	6.1						
			REMOVAL OF TEMPORARY RAMP 4 - FOURCHE DAM PIKE	0.32	0.32	6.5						
ENTIRE PROJECT			STAGE 1C						30		2487	92
ENTIRE PROJECT			STAGE 2A							160		6
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.				3.00	3.00	61.2	100	110	9	8	622	23
TOTALS:				**20.18**	**20.18**	**411.7**	**100**	**110**	**39**	**168**	**3109**	**121**

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

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

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

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING

LOCATION	R&D OF CONCRETE PAVEMENT FOR PATCHING	P.C.C. PAVEMENT PATCHING (12" U.T.)
	SQ. YD.	
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	1800	1800
TOTALS:	**1800**	**1800**

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

LUMINAIRE POLE RELOCATION

STATION	SIDE	LOCATION	EACH
125+53	RIGHT	C.L. I-440	1
129+00	RIGHT	C.L. I-440	1
155+15	RIGHT	C.L. I-440	1
118+79	LEFT	C.L. I-440	1
121+03	LEFT	C.L. I-440	1
123+29	LEFT	C.L. I-440	1
125+53	LEFT	C.L. I-440	1
127+76	LEFT	C.L. I-440	1
153+58	LEFT	C.L. I-440	1
156+08	LEFT	C.L. I-440	1
TOTAL:			10

RUMBLE STRIPS

STATION	STATION	SIDE	LOCATION	IN P.C.C. SHOULDERS
				LIN. FT.
113+85.75	130+93.31	RIGHT	I-440 RIGHT MAIN LANES	1708
130+93.31	150+31.33	RIGHT	I-440 RIGHT MAIN LANES	1938
152+00.65	157+44.82	RIGHT	I-440 RIGHT MAIN LANES	544
161+52.16	165+99.06	RIGHT	I-440 RIGHT MAIN LANES	447
165+99.06	176+06.86	RIGHT	I-440 RIGHT MAIN LANES	1008
179+70.74	187+71.82	RIGHT	I-440 RIGHT MAIN LANES	801
189+36.61	240+60.18	RIGHT	I-440 RIGHT MAIN LANES	5124
240+60.18	247+71.67	RIGHT	I-440 RIGHT MAIN LANES	711
250+71.70	258+57.56	RIGHT	I-440 RIGHT MAIN LANES	786
259+63.18	270+03.50	RIGHT	I-440 RIGHT MAIN LANES	1040
113+85.75	128+65.70	LEFT	I-440 LEFT MAIN LANES	1480
129+87.35	152+85.74	LEFT	I-440 LEFT MAIN LANES	2298
152+85.74	156+18.82	LEFT	I-440 LEFT MAIN LANES	333
160+26.16	167+39.24	LEFT	I-440 LEFT MAIN LANES	713
168+58.49	175+57.56	LEFT	I-440 LEFT MAIN LANES	699
179+05.53	188+21.47	LEFT	I-440 LEFT MAIN LANES	916
188+21.47	239+09.35	LEFT	I-440 LEFT MAIN LANES	5088
240+14.97	248+00.82	LEFT	I-440 LEFT MAIN LANES	786
251+00.85	257+73.70	LEFT	I-440 LEFT MAIN LANES	673
257+73.70	270+03.50	LEFT	I-440 LEFT MAIN LANES	1230
TOTAL:				28323

PERMANENT EROSION CONTROL

STATION	STATION	SIDE	LOCATION / DESCRIPTION	SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION
				ACRE	TON	ACRE	M. GAL.	ACRE
113+85.75	157+44.82	RIGHT	I-440 RIGHT MAIN LANES	1.50	3.00	1.50	153.0	1.50
161+52.16	176+06.86	RIGHT	I-440 RIGHT MAIN LANES	0.50	1.00	0.50	51.0	0.50
179+70.74	247+71.67	RIGHT	I-440 RIGHT MAIN LANES	2.34	4.68	2.34	238.7	2.34
250+71.70	270+03.50	RIGHT	I-440 RIGHT MAIN LANES	0.67	1.34	0.67	68.3	0.67
113+85.75	156+18.82	LEFT	I-440 LEFT MAIN LANES	1.46	2.92	1.46	148.9	1.46
160+26.16	175+57.56	LEFT	I-440 LEFT MAIN LANES	0.53	1.06	0.53	54.1	0.53
179+05.53	248+00.82	LEFT	I-440 LEFT MAIN LANES	2.37	4.74	2.37	241.7	2.37
251+00.85	270+03.50	LEFT	I-440 LEFT MAIN LANES	0.66	1.32	0.66	67.3	0.66
			REMOVAL OF TEMPORARY RAMP 1 - BANKHEAD DR.	0.48	0.96	0.48	49.0	0.48
			REMOVAL OF TEMPORARY RAMP 2 - BANKHEAD DR.	0.46	0.92	0.46	46.9	0.46
			REMOVAL OF TEMPORARY RAMP 3 - BANKHEAD DR.	0.34	0.68	0.34	34.7	0.34
			REMOVAL OF TEMPORARY RAMP 4 - BANKHEAD DR.	0.57	1.14	0.57	58.1	0.57
			REMOVAL OF TEMPORARY RAMP 1 - LINDSEY RD.	0.48	0.96	0.48	49.0	0.48
			REMOVAL OF TEMPORARY RAMP 2 - LINDSEY RD.	0.23	0.46	0.23	23.5	0.23
			REMOVAL OF TEMPORARY RAMP 3 - LINDSEY RD.	0.51	1.02	0.51	52.0	0.51
			REMOVAL OF TEMPORARY RAMP 4 - LINDSEY RD.	0.25	0.50	0.25	25.5	0.25
			REMOVAL OF TEMPORARY RAMP 1 - FOURCHE DAM PIKE	0.37	0.74	0.37	37.7	0.37
			REMOVAL OF TEMPORARY RAMP 2 - FOURCHE DAM PIKE	0.46	0.92	0.46	46.9	0.46
			REMOVAL OF TEMPORARY RAMP 3 - FOURCHE DAM PIKE	0.30	0.60	0.30	30.6	0.30
			REMOVAL OF TEMPORARY RAMP 4 - FOURCHE DAM PIKE	0.32	0.64	0.32	32.6	0.32
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.				3.70	7.40	3.70	377.4	3.70
TOTALS:				**18.50**	**37.00**	**18.50**	**1886.9**	**18.50**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING.

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

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

SELECTED PIPE BEDDING

LOCATION	CU.YD.
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.	20
TOTAL:	**20**

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

STRUCTURES

STATION	SIDE	DESCRIPTION	CORRUGATED ALUMINUM PIPE CULVERTS (16 GAUGE) 12"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	TEMPORARY CULVERT 18"	DROP INLETS (TYPE N2)	CONCRETE SPILLWAY (TYPE A)	SOLID SODDING	WATER	STANDARD DRAWING NUMBERS
			LIN. FT.	EACH	LIN. FT.	EACH	EACH	SQ. YD.	M. GAL.	
131+60	RIGHT	TEMPORARY RAMP 1 - BANKHEAD DR.			178					PCM-1
147+13	RIGHT	TEMPORARY RAMP 2 - BANKHEAD DR.			140					PCM-1
149+75	LEFT	TEMPORARY RAMP 3 - BANKHEAD DR.		1	4			5	0.06	FES-1, FES-2, PCM-1
149+75	LEFT	TEMPORARY RAMP 3 - BANKHEAD DR.			122					PCM-1
132+00	LEFT	TEMPORARY RAMP 4 - BANKHEAD DR.			132					PCM-1
168+00	RIGHT	TEMPORARY RAMP 1 - LINDSEY RD.		1	16			5	0.06	FES-1, FES-2, PCM-1
168+00	RIGHT	TEMPORARY RAMP 1 - LINDSEY RD.			160					PCM-1
185+50	RIGHT	TEMPORARY RAMP 2 - LINDSEY RD.			146					PCM-1
185+75	LEFT	TEMPORARY RAMP 3 - LINDSEY RD.			160					PCM-1
169+00	LEFT	TEMPORARY RAMP 4 - LINDSEY RD.			134					PCM-1
241+40	RIGHT	TEMPORARY RAMP 1 - FOURCHE DAM PIKE			166					PCM-1
255+75	RIGHT	TEMPORARY RAMP 2 - FOURCHE DAM PIKE			168					PCM-1
255+10	LEFT	TEMPORARY RAMP 3 - FOURCHE DAM PIKE			168					PCM-1
241+05	LEFT	TEMPORARY RAMP 4 - FOURCHE DAM PIKE			134					PCM-1
156+17	LEFT	CONSTRUCT DROP INLET	100			1	1			FPC-9N
161+53	RIGHT	CONSTRUCT DROP INLET	80			1	1			FPC-9N
270+01	LEFT	CONSTRUCT DROP INLET	80			1	1			FPC-9N
TOTALS:			**260**	**2**	**1828**	**3**	**3**	**10**	**0.12**	

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

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.		BB06II	58	169

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/22/15

PORTLAND CEMENT CONCRETE CORRUGATIONS

STATION	SIDE	LOCATION	SQ. YD.
130+78.00	RIGHT	I-440 RIGHT MAIN LANES	40.55
165+91.59	RIGHT	I-440 RIGHT MAIN LANES	61.38
240+50.89	RIGHT	I-440 RIGHT MAIN LANES	58.07
153+02.33	LEFT	I-440 LEFT MAIN LANES	31.50
188+30.88	LEFT	I-440 LEFT MAIN LANES	59.58
257+83.42	LEFT	I-440 LEFT MAIN LANES	57.09
TOTAL:			308.17

CONCRETE DITCH PAVING

STATION	STATION	SIDE	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
				LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
132+00	132+81	RIGHT	RAMP 1 - BANKHEAD DRIVE INTERCHANGE	81.00	4	36.00	36.00	0.45
146+92	148+00	RIGHT	RAMP 2 - BANKHEAD DRIVE INTERCHANGE	108.00	4	48.00	48.00	0.60
131+50	133+16	LEFT	RAMP 4 - BANKHEAD DRIVE INTERCHANGE	166.00	4	73.78	73.78	0.93
149+93	151+00	LEFT	RAMP 3 - BANKHEAD DRIVE INTERCHANGE	107.00	4	47.56	47.56	0.60
167+00	168+75	RIGHT	RAMP 1 - LINDSEY ROAD INTERCHANGE	175.00	4	77.78	77.78	0.98
184+98	185+72	RIGHT	RAMP 2 - LINDSEY ROAD INTERCHANGE	74.00	4	32.89	32.89	0.41
185+68	187+10	LEFT	RAMP 3 - LINDSEY ROAD INTERCHANGE	142.00	4	63.11	63.11	0.80
241+45	242+43	RIGHT	RAMP 1 - FOURCHE DAM PIKE	98.00	4	43.56	43.56	0.55
256+28	257+32	RIGHT	RAMP 2 - FOURCHE DAM PIKE	104.00	4	46.22	46.22	0.58
241+57	242+66	LEFT	RAMP 4 - FOURCHE DAM PIKE	109.00	4	48.44	48.44	0.61
TOTALS:						**517.34**	**517.34**	**6.51**

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

CONCRETE BARRIER WALL

STATION	STATION	LOCATION	(MEDIAN TYPE A)
			LIN. FT.
122+91	123+91	I-440 MEDIAN	100
124+09	125+09	I-440 MEDIAN	100
139+43	141+92	I-440 MEDIAN	249
154+91	155+91	I-440 MEDIAN	100
156+09	157+09	I-440 MEDIAN	100
160+91	161+91	I-440 MEDIAN	100
162+09	163+09	I-440 MEDIAN	100
190+91	191+91	I-440 MEDIAN	100
192+09	193+09	I-440 MEDIAN	100
213+45	214+45	I-440 MEDIAN	100
214+51	215+51	I-440 MEDIAN	100
235+91	236+91	I-440 MEDIAN	100
237+09	238+09	I-440 MEDIAN	100
259+71	260+71	I-440 MEDIAN	100
260+89	261+89	I-440 MEDIAN	100
TOTAL:			1649

QUANTITIES

JACOBS

JOINT REHABILITATION

STATION	STATION	LOCATION	TYPE A NUMBER OF JOINTS	TYPE A LIN. FT.	TYPE A TOTAL LENGTH LIN. FT.	TYPE B NUMBER OF JOINTS	TYPE B LIN. FT.	TYPE B TOTAL LENGTH LIN. FT.	*TYPE D TOTAL LENGTH LIN. FT.
130+94.65	141+90.70	C.L. RAMP 1 - BANKHEAD DR.	3	15	45	80	15	1200	
130+94.65	141+91.70	C.L. RAMP 1 - BANKHEAD DR.				2	1097	2194	
141+61.53	151+95.69	C.L. RAMP 2 - BANKHEAD DR.	3	15	45	76	15	1140	
141+62.53	151+95.69	C.L. RAMP 2 - BANKHEAD DR.				2	1033	2066	
144+26.45	152+87.63	C.L. RAMP 3 - BANKHEAD DR.	6	15	90	51	15	765	
144+26.45	152+87.63	C.L. RAMP 3 - BANKHEAD DR.				2	861	1722	
128+67.26	136+48.80	C.L. RAMP 4 - BANKHEAD DR.	6	15	90	46	15	690	
128+67.26	136+48.80	C.L. RAMP 4 - BANKHEAD DR.				2	782	1564	
165+98.96	178+42.08	C.L. RAMP 1 - LINDSEY RD.	3	15	45	90	15	1350	
165+98.96	178+43.08	C.L. RAMP 1 - LINDSEY RD.				2	1244	2488	
179+34.14	189+34.97	C.L. RAMP 2 - LINDSEY RD.	3	15	45	74	15	1110	
179+35.14	189+34.97	C.L. RAMP 2 - LINDSEY RD.				2	1000	2000	
175+43.69	188+20.90	C.L. RAMP 3 - LINDSEY RD.	3	15	45	92	15	1380	
175+44.69	188+20.90	C.L. RAMP 3 - LINDSEY RD.				2	1276	2552	
167+43.84	176+68.10	C.L. RAMP 4 - LINDSEY RD.	3	15	45	69	15	1035	
167+43.84	176+69.10	C.L. RAMP 4 - LINDSEY RD.				2	925	1850	
240+60.70	248+56.57	C.L. RAMP 1 - FOURCHE DAM PIKE	3	15	45	60	15	900	
240+60.70	248+57.57	C.L. RAMP 1 - FOURCHE DAM PIKE				2	797	1594	
248+53.78	259+60.81	C.L. RAMP 2 - FOURCHE DAM PIKE	3	15	45	81	15	1215	
248+54.78	259+60.81	C.L. RAMP 2 - FOURCHE DAM PIKE				2	1106	2212	
250+16.17	257+74.37	C.L. RAMP 3 - FOURCHE DAM PIKE	3	15	45	58	15	870	
250+17.17	257+74.37	C.L. RAMP 3 - FOURCHE DAM PIKE				2	757	1514	
239+09.81	250+16.82	C.L. RAMP 4 - FOURCHE DAM PIKE	3	15	45	81	15	1215	
239+09.81	250+17.82	C.L. RAMP 4 - FOURCHE DAM PIKE				2	1108	2216	
ENTIRE PROJECT		TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.							375
TOTALS:					630			36842	375

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB061I	59	169
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESEY
9/28/15

GUARDRAIL

STATION	STATION	SIDE	LOCATION	GUARDRAIL (TYPE A) LIN. FT.	THRIE BEAM GUARDRAIL TERMINAL EACH	GUARDRAIL TERMINAL (TYPE 2) EACH	TERMINAL ANCHOR POST (TYPE 1)
113+58.65	115+52.40	RIGHT	I-440 RIGHT MAIN LANES	175	1		1
121+50.00	124+25.00	RIGHT	I-440 RIGHT MAIN LANES	225		1	1
155+34.17	157+77.92	RIGHT	I-440 RIGHT MAIN LANES	175	1	1	
161+38.06	162+56.81	RIGHT	I-440 RIGHT MAIN LANES	100	1		1
173+95.83	176+39.58	RIGHT	I-440 RIGHT MAIN LANES	175	1	1	
234+50.00	237+25.00	RIGHT	I-440 RIGHT MAIN LANES	225		1	1
245+55.02	247+98.77	RIGHT	I-440 RIGHT MAIN LANES	175	1	1	
267+75.01	270+18.76	RIGHT	I-440 RIGHT MAIN LANES	175	1	1	
113+58.65	116+02.40	LEFT	I-440 LEFT MAIN LANES	175	1	1	
154+27.17	156+45.92	LEFT	I-440 LEFT MAIN LANES	200	1		1
159+93.06	162+36.81	LEFT	I-440 LEFT MAIN LANES	175	1	1	
173+65.38	175+84.13	LEFT	I-440 LEFT MAIN LANES	200	1		1
178+73.65	181+17.40	LEFT	I-440 LEFT MAIN LANES	175	1	1	
191+75.00	194+50.00	LEFT	I-440 LEFT MAIN LANES	225		1	1
250+73.75	253+17.50	LEFT	I-440 LEFT MAIN LANES	175	1	1	
259+75.00	262+50.00	LEFT	I-440 LEFT MAIN LANES	225		1	1
TOTALS:				2975	12	12	8

APPROACH GUTTERS AND SLABS

STATION	STATION	SIDE	LOCATION	APPROACH GUTTER TYPE (SPECIAL) 1	APPROACH GUTTER TYPE (SPECIAL) 2	APPROACH SLABS TYPE (SPECIAL) 1	2	3	4	5	6	7	8	9	10	REINFORCING STEEL - RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)
				CU. YD.		CU. YD.										POUND	TON
113+49.25	113+85.75	LEFT	I-440 LEFT MAIN LANES	20.07												2650	
113+49.25	113+85.75		I-440 LEFT MAIN LANES			73.50										8814	51.1
113+49.25	113+85.75		I-440 RIGHT MAIN LANES			73.50										8814	51.1
113+49.25	113+85.75	RIGHT	I-440 RIGHT MAIN LANES	20.07												2650	
156+18.82	156+58.32	LEFT	I-440 LEFT MAIN LANES		16.56											2173	
156+24.82	156+85.32		I-440 LEFT MAIN LANES				168.40									20916	51.1
156+96.82	157+57.32		I-440 RIGHT MAIN LANES					169.30								20972	51.1
157+44.82	157+84.32	RIGHT	I-440 RIGHT MAIN LANES	13.34												1818	51.1
159+86.66	160+26.16	LEFT	I-440 LEFT MAIN LANES	13.34												1818	51.1
160+13.66	160+74.16		I-440 LEFT MAIN LANES					169.30								20972	51.1
160+85.66	161+46.16		I-440 RIGHT MAIN LANES				168.40									20916	51.1
161+12.66	161+52.16	RIGHT	I-440 RIGHT MAIN LANES		16.56											2173	
175+57.56	175+95.64	LEFT	I-440 LEFT MAIN LANES	20.07												2650	
175+62.04	176+06.32		I-440 LEFT MAIN LANES						93.90							11339	51.1
175+89.66	176+35.09		I-440 RIGHT MAIN LANES							94.30						11392	51.1
176+06.86	176+46.47	RIGHT	I-440 RIGHT MAIN LANES	20.07												2650	51.1
178+66.73	179+05.53	LEFT	I-440 LEFT MAIN LANES	20.07												2650	51.1
178+80.19	179+27.23		I-440 LEFT MAIN LANES								97.70					11868	51.1
179+16.48	179+64.49		I-440 RIGHT MAIN LANES									98.40				11963	51.1
179+30.87	179+70.74	RIGHT	I-440 RIGHT MAIN LANES	20.07												2650	
248+00.82	248+38.69	LEFT	I-440 LEFT MAIN LANES	20.07												2650	
247+90.92	248+32.37		I-440 LEFT MAIN LANES										88.50			10494	51.1
247+74.42	248+15.87		I-440 RIGHT MAIN LANES										88.50			10494	51.1
247+71.67	248+09.55	RIGHT	I-440 RIGHT MAIN LANES	20.07												2650	
250+62.97	251+00.85	LEFT	I-440 LEFT MAIN LANES	20.07												2650	
250+56.65	250+98.10		I-440 LEFT MAIN LANES										88.50			10494	51.1
250+40.15	250+81.60		I-440 RIGHT MAIN LANES										88.50			10494	51.1
250+33.83	250+71.70	RIGHT	I-440 RIGHT MAIN LANES	20.07												2650	
270+03.50	270+40.00	LEFT	I-440 LEFT MAIN LANES		25.86											3279	
270+03.50	270+40.00		I-440 LEFT MAIN LANES											73.50		8814	51.1
270+03.50	270+40.00		I-440 RIGHT MAIN LANES												98.00	11958	51.1
270+03.50	270+40.00	RIGHT	I-440 RIGHT MAIN LANES		16.71											2187	
TOTALS:				227.38	75.69	147.00	336.80	338.60	93.90	94.30	97.70	98.40	354.00	73.50	98.00	250662	1022.0

JOINT SUPPORT

STATION	LOCATION	LENGTH LIN. FT.	WIDTH FEET	DEPTH INCH	CLASS "S" CONCRETE - RDWY. CU. YD.
114+00.75	I-440 LEFT MAIN LANES	36	3	12	4.00
114+15.75	I-440 LEFT MAIN LANES	36	3	12	4.00
114+00.75	I-440 RIGHT MAIN LANES	36	3	12	4.00
114+15.75	I-440 RIGHT MAIN LANES	36	3	12	4.00
156+09.82	I-440 LEFT MAIN LANES	48	3	12	5.33
155+94.82	I-440 LEFT MAIN LANES	48	3	12	5.33
157+29.82	I-440 RIGHT MAIN LANES	48	3	12	5.33
157+14.82	I-440 RIGHT MAIN LANES	48	3	12	5.33
160+89.16	I-440 LEFT MAIN LANES	48	3	12	5.33
161+04.16	I-440 LEFT MAIN LANES	48	3	12	5.33
161+61.16	I-440 RIGHT MAIN LANES	48	3	12	5.33
161+76.16	I-440 RIGHT MAIN LANES	48	3	12	5.33
175+47.04	I-440 LEFT MAIN LANES	36	3	12	4.00
175+32.04	I-440 LEFT MAIN LANES	36	3	12	4.00
175+74.66	I-440 RIGHT MAIN LANES	36	3	12	4.00
175+59.66	I-440 RIGHT MAIN LANES	36	3	12	4.00
179+42.23	I-440 LEFT MAIN LANES	36	3	12	4.00
179+57.23	I-440 LEFT MAIN LANES	36	3	12	4.00
179+79.49	I-440 RIGHT MAIN LANES	36	3	12	4.00
179+94.49	I-440 RIGHT MAIN LANES	36	3	12	4.00
247+75.92	I-440 LEFT MAIN LANES	36	3	12	4.00
247+60.92	I-440 LEFT MAIN LANES	36	3	12	4.00
247+59.42	I-440 RIGHT MAIN LANES	36	3	12	4.00
247+44.42	I-440 RIGHT MAIN LANES	36	3	12	4.00
251+13.10	I-440 LEFT MAIN LANES	36	3	12	4.00
251+28.10	I-440 LEFT MAIN LANES	36	3	12	4.00
250+96.60	I-440 RIGHT MAIN LANES	36	3	12	4.00
251+11.60	I-440 RIGHT MAIN LANES	36	3	12	4.00
269+88.50	I-440 LEFT MAIN LANES	36	3	12	4.00
269+73.50	I-440 LEFT MAIN LANES	36	3	12	4.00
269+88.50	I-440 RIGHT MAIN LANES	48	3	12	5.33
269+73.50	I-440 RIGHT MAIN LANES	48	3	12	5.33
TOTAL:					141.30

QUANTITIES

JACOBS

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.		BB0611	60	169
				(2)		QUANTITIES		

BASE AND SURFACING - SHOULDERS

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				ACHM SURFACE COURSE (3/8") 110 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			PORTLAND CEMENT CONCRETE PAVEMENT	
				TONS PER STATION	TON	AVG. WIDTH	PROCESSING	CEMENT	AGGREGATE	AVG. WIDTH	SQ. YD.	PG. 64-22	AVG. WIDTH	SQ. YD.	GAL.	AVG. WIDTH	13" U.T.
			FEET			FEET	SQ. YD.	TON	TON	FEET		TON	FEET			FEET	SQ. YD.
113+85.75	127+00.00	RIGHT MAIN LANE SHOULDER	1314.25	76.75	1008.69	10.00	1460.28	30.67	480.43	10.00	1460.28	80.32	10.00	1460.28	43.81	8.00	1168.22
127+00.00	128+22.46	RIGHT MAIN LANE SHOULDER - TRANSITION	122.46	76.75	93.99	10.00	136.07	2.86	44.77	10.00	136.07	7.48	10.00	136.07	4.08	8.00	108.85
128+22.46	130+95.65	RAMP 1 - BANKHEAD DRIVE SHOULDER	273.19	76.75	209.67	8.00	242.84	5.10	79.89	8.00	242.84	13.36	8.00	242.84	7.29	6.00	182.13
130+57.31	143+97.92	RIGHT MAIN LANE SHOULDER	1340.61	76.75	1028.92	10.00	1489.57	31.28	490.07	10.00	1489.57	81.93	10.00	1489.57	44.69	8.00	1191.65
143+97.92	146+97.92	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	92.25	276.75	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
146+97.92	152+00.65	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	502.73	107.75	541.69	10.00	558.59	11.73	183.78	10.00	558.59	30.72	10.00	558.59	16.76	8.00	446.87
152+00.65	153+53.45	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	152.80	107.75	164.64	10.00	169.78	3.57	55.86	10.00	169.78	9.34	10.00	169.78	5.09	8.00	135.82
153+53.45	156+53.45	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	92.25	276.75	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
156+53.45	157+44.82	RIGHT MAIN LANE SHOULDER	91.37	76.75	70.13	10.00	101.52	2.13	33.40	10.00	101.52	5.58	10.00	101.52	3.05	8.00	81.22
161+52.16	163+25.00	RIGHT MAIN LANE SHOULDER	172.84	76.75	132.65	10.00	192.04	4.03	63.18	10.00	192.04	10.56	10.00	192.04	5.76	8.00	153.64
163+25.00	163+59.10	RAMP 1 - LINDSEY ROAD SHOULDER	34.10	76.75	26.17	10.00	37.89	0.80	12.47	10.00	37.89	2.08	10.00	37.89	1.14	8.00	30.31
163+59.10	165+98.96	RAMP 1 - LINDSEY ROAD SHOULD - SUPER TRANSITION	239.86	77.50	185.89	10.00	266.51	5.60	87.68	10.00	266.51	14.66	10.00	266.51	8.00	8.00	213.21
165+63.06	166+59.10	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	96.04	77.50	74.43	10.00	106.71	2.24	35.11	10.00	106.71	5.87	10.00	106.71	3.20	8.00	85.37
166+59.10	176+06.72	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	947.62	78.50	743.88	10.00	1052.91	22.11	346.41	10.00	1052.91	57.91	10.00	1052.91	31.59	8.00	842.33
179+70.78	181+69.10	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	198.32	77.50	153.70	10.00	220.36	4.63	72.50	10.00	220.36	12.12	10.00	220.36	6.61	8.00	176.28
181+69.10	189+36.61	RIGHT MAIN LANE SHOULDER	767.51	76.75	589.06	10.00	852.79	17.91	280.57	10.00	852.79	46.90	10.00	852.79	25.58	8.00	682.23
189+36.61	192+74.18	RIGHT MAIN LANE SHOULDER	337.57	76.75	259.08	8.00	300.06	6.30	98.72	8.00	300.06	16.50	8.00	300.06	9.00	6.00	225.05
192+74.18	195+74.18	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	96.00	288.00	8.00	266.67	5.60	87.73	8.00	266.67	14.67	8.00	266.67	8.00	6.00	200.00
195+74.18	197+45.26	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	171.08	115.25	197.17	8.00	152.07	3.19	50.03	8.00	152.07	8.36	8.00	152.07	4.56	6.00	114.05
197+45.26	199+36.61	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	191.35	115.25	220.53	10.00	212.61	4.46	69.95	10.00	212.61	11.69	10.00	212.61	6.38	8.00	170.09
199+36.61	202+33.38	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	296.77	115.25	342.03	10.00	329.74	6.92	108.48	10.00	329.74	18.14	10.00	329.74	9.89	8.00	263.80
202+33.38	205+33.38	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	96.00	288.00	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
205+33.38	221+05.04	RIGHT MAIN LANE SHOULDER	1571.66	76.75	1206.25	10.00	1746.29	36.67	574.53	10.00	1746.29	96.05	10.00	1746.29	52.39	8.00	1397.03
221+05.04	224+05.04	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	96.00	288.00	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
224+05.04	230+61.54	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	656.50	115.25	756.62	10.00	729.44	15.32	239.99	10.00	729.44	40.12	10.00	729.44	21.88	8.00	583.56
230+61.54	233+61.54	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	96.00	288.00	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
233+61.54	236+76.87	RIGHT MAIN LANE SHOULDER	315.33	76.75	242.02	10.00	350.37	7.36	115.27	10.00	350.37	19.27	10.00	350.37	10.51	8.00	280.29
236+76.87	238+00.00	RIGHT MAIN LANE SHOULDER - TRANSITION	123.13	76.75	94.50	10.00	136.81	2.87	45.01	10.00	136.81	7.52	10.00	136.81	4.10	8.00	109.45
238+00.00	240+60.70	RAMP 1 - FOURCHE DAM PIKE SHOULDER	260.70	76.75	200.09	8.00	231.73	4.87	76.24	8.00	231.73	12.75	8.00	231.73	6.95	6.00	173.80
240+24.18	247+71.67	RIGHT MAIN LANE SHOULDER	747.49	76.75	573.70	10.00	830.54	17.44	273.25	10.00	830.54	45.68	10.00	830.54	24.92	8.00	664.44
250+71.70	258+97.12	RIGHT MAIN LANE SHOULDER	825.42	76.75	633.51	10.00	917.13	19.26	301.74	10.00	917.13	50.44	10.00	917.13	27.51	8.00	733.71
258+97.12	259+60.81	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	63.69	100.25	63.85	10.00	70.77	1.49	23.28	10.00	70.77	3.89	10.00	70.77	2.12	8.00	56.61
259+60.81	261+97.12	RIGHT MAIN LANE SHOULDER - SUPER TRANSITION	236.31	123.50	291.84	8.00	210.05	4.41	69.11	8.00	210.05	11.55	8.00	210.05	6.30	6.00	157.54
261+97.12	270+03.50	RIGHT MAIN LANE SHOULDER - SUPERELEVATION	806.38	100.25	808.40	8.00	716.78	15.05	235.82	8.00	716.78	39.42	8.00	716.78	21.50	6.00	537.59
113+85.75	119+65.70	LEFT MAIN LANE SHOULDER	579.95	76.75	445.11	10.00	644.39	13.53	212.00	10.00	644.39	35.44	10.00	644.39	19.33	8.00	515.51
119+65.70	120+65.58	LEFT MAIN LANE SHOULDER - TRANSITION	99.88	76.75	76.66	10.00	110.98	2.33	36.51	10.00	110.98	6.10	10.00	110.98	3.33	8.00	88.78
120+65.58	128+67.26	LEFT MAIN LANE SHOULDER	801.68	76.75	615.29	8.00	712.60	14.96	234.45	8.00	712.60	39.19	8.00	712.60	21.38	6.00	534.45
128+67.26	143+97.92	LEFT MAIN LANE SHOULDER	1530.66	76.75	1174.78	10.00	1700.73	35.72	559.54	10.00	1700.73	93.54	10.00	1700.73	51.02	8.00	1360.59
143+97.92	146+97.92	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	77.50	232.50	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
146+97.92	153+21.74	LEFT MAIN LANE SHOULDER - SUPERELEVATION	623.82	78.50	489.70	10.00	693.13	14.56	228.04	10.00	693.13	38.12	10.00	693.13	20.79	8.00	554.51
152+87.63	153+53.45	RAMP 3 - BANKHEAD DRIVE SHOULDER - SUPERELEVATION TRANSITION	65.82	77.50	51.01	10.00	73.13	1.54	24.06	10.00	73.13	4.02	10.00	73.13	2.19	8.00	58.51
153+53.45	156+18.82	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	265.37	77.50	205.66	10.00	294.86	6.19	97.01	10.00	294.86	16.22	10.00	294.86	8.85	8.00	235.88
160+26.16	163+59.10	LEFT MAIN LANE SHOULDER	332.94	76.75	255.53	10.00	369.93	7.77	121.71	10.00	369.93	20.35	10.00	369.93	11.10	8.00	295.95
163+59.10	166+59.10	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	96.00	288.00	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
166+59.10	167+39.24	LEFT MAIN LANE SHOULDER- SUPERELEVATION	80.14	115.25	92.36	10.00	89.04	1.87	29.29	10.00	89.04	4.90	10.00	89.04	2.67	8.00	71.24
167+39.24	175+58.52	LEFT MAIN LANE SHOULDER- SUPERELEVATION	819.28	115.25	944.22	10.00	910.31	19.12	299.49	10.00	910.31	50.07	10.00	910.31	27.31	8.00	728.25
179+05.62	181+69.10	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	263.48	96.00	252.94	10.00	292.76	6.15	96.32	10.00	292.76	16.10	10.00	292.76	8.78	8.00	234.20
181+69.10	188+57.47	LEFT MAIN LANE SHOULDER	688.37	76.75	528.32	10.00	764.86	16.06	251.64	10.00	764.86	42.07	10.00	764.86	22.95	8.00	611.88
188+20.90	190+81.66	RAMP 3 - LINDSEY ROAD SHOULDER	260.76	76.75	200.13	8.00	231.79	4.87	76.26	8.00	231.79	12.75	8.00	231.79	6.95	6.00	173.84
190+81.66	192+04.76	LEFT MAIN LANE SHOULDER - TRANSITION	123.10	76.75	94.48	10.00	136.78	2.87	45.00	10.00	136.78	7.52	10.00	136.78	4.10	8.00	109.42
192+04.76	192+74.18	LEFT MAIN LANE SHOULDER	69.42	76.75	53.28	10.00	77.13	1.62	25.38	10.00	77.13	4.24	10.00	77.13	2.31	8.00	61.71
192+74.18	195+74.18	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	77.50	232.50	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
195+74.18	202+33.38	LEFT MAIN LANE SHOULDER - SUPERELEVATION	659.20	78.50	517.47	10.00	732.44	15.38	240.97	10.00	732.44	40.28	10.00	732.44	21.97	8.00	585.96
202+33.38	205+33.38	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	77.50	232.50	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
205+33.38	221+05.04	LEFT MAIN LANE SHOULDER	1571.66	76.75	1206.25	10.00	1746.29	36.67	574.53	10.00	1746.29	96.05	10.00	1746.29	52.39	8.00	1397.03
221+05.04	224+05.04	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	77.50	232.50	10.00	333.33	7.00	109.67	10.00	333.33	18.33	10.00	333.33	10.00	8.00	266.67
224+05.04	230+09.35	LEFT MAIN LANE SHOULDER - SUPERELEVATION	604.31	78.50	474.38	10.00	671.46	14.10	220.91	10.00	671.46	36.93	10.00	671.46	20.14	8.00	537.16
230+09.35	230+61.54	LEFT MAIN LANE SHOULDER - SUPERELEVATION	52.19	78.50	40.97	10.00	57.99	1.22	19.08	10.00	57.99	3.19	10.00	57.99	1.74	8.00	46.39
230+61.54	230+68.48	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	6.94	77.50	5.38	8.00	6.17	0.13	2.03	8.00	6.17	0.34	8.00	6.17	0.19	6.00	4.63
230+68.48	233+61.54	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	293.06	77.50	227.12	8.00	260.50	5.47	85.70	8.00	260.50	14.33	8.00	260.50	7.82	6.00	195.37
233+61.54	239+09.35	LEFT MAIN LANE SHOULDER	547.81	76.75	420.44	8.00	486.94	10.23	160.20	8.00	486.94	26.78	8.00	486.94	14.61	6.00	365.21
239+09.35	248+00.82	LEFT MAIN LANE SHOULDER	891.47	76.75	684.20	10.00	990.52	20.80	325.88	10.00	990.52	54.48	10.00	990.52	29.72	8.00	792.42
251+00.85	258+09.70	LEFT MAIN LANE SHOULDER	708.85	76.75	544.04	10.00	787.61	16.54	259.12	10.00	787.61	43.32	10.00	787.61	23.63	8.00	630.09
257+74.37	258+97.12	RAMP 3 - FOURCHE DAM PIKE SHOULDER	122.75	76.75	94.21	8.00	109.11	2.29	35.90	8.00	109.11	6.00	8.00	109.11	3.27	6.00	81.83
258+97.12	261+97.12	LEFT MAIN LANE SHOULDER - SUPER TRANSITION	300.00	77.50	232.50	8.00	266.67	5.60	87.73	8.00	266.67	14.67	8.00	266.67	8.00	6.00	200.00
261+97.12	263+69.08	LEFT MAIN LANE SHOULDER - SUPERELEVATION	171.96	78.50	134.99	8.00	152.85	3.21	50.29	8.00	152.85	8.41	8.00	152.85	4.59	6.00	114.64
263+69.08	263+99.69	LEFT MAIN LANE SHOULDER - TRANSITION - SUPERELEVATION	30.61	78.50	24.03	10.00	34.01	0.71	11.19	10.00	34.01	1.87	10.00	34.01	1.02	8.00	27.21
263+99.69	270+03.50	LEFT MAIN LANES - SUPERELEVATION	603.81	78.50	473.99	10.00	670.90	14.09	220.73	10.00	670.90	36.90	10.00	670.90	20.13	8.00	536.72
TOTALS:					**24396.04**		**31498.10**	**661.47**	**10362.93**		**31498.10**	**1732.36**		**31498.10**	**944.94**		**24981.22**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
CEMENT STABILIZED CRUSHED STONE BASE COURSE = 94.0% AGGR. 6.0% CEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

JACOBS

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.		BB061I	61	169

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

BASE AND SURFACING - MAIN LANES

STATION	STATION	LOCATION	LENGTH	CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				ACHM SURFACE COURSE (3/8") 110 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			PORTLAND CEMENT CONCRETE PAVEMENT		
				AVG. WIDTH	PROCESSING	CEMENT	AGGREGATE	AVG. WIDTH	SQ. YD.	PG. 64-22	AVG. WIDTH	SQ. YD.	GAL.	AVG. WIDTH	9" U.T.	13" U.T.
			FEET	FEET	SQ. YD.	TON	TON	FEET		TON	FEET			FEET	SQ. YD.	
113+85.75	124+28.48	RIGHT MAIN LANES	1042.73	36.75	4257.81	89.41	1400.82	36.00	4170.92	229.40	36.00	4170.92	125.13	38.00		4402.64
124+28.48	156+96.82	RIGHT MAIN LANES & AUXILIARY LANE	3268.34	46.75	16977.21	356.52	5585.50	46.00	16704.85	918.77	46.00	16704.85	501.15	48.00		17431.15
161+46.16	163+25.00	RIGHT MAIN LANES & AUXILIARY LANE	178.84	46.75	928.97	19.51	305.63	46.00	914.07	50.27	46.00	914.07	27.42	48.00		953.81
163+25.00	175+89.66	RIGHT MAIN LANES	1264.66	36.75	5164.03	108.44	1698.97	36.00	5058.64	278.23	36.00	5058.64	151.76	38.00		5339.68
179+64.49	191+35.00	RIGHT MAIN LANES	1170.51	36.75	4779.58	100.37	1572.48	36.00	4682.04	257.51	36.00	4682.04	140.46	38.00		4942.15
191+35.00	196+36.61	RIGHT MAIN LANES & AUXILIARY LANE	501.61	46.75	2605.59	54.72	857.24	46.00	2563.78	141.01	46.00	2563.78	76.91	48.00		2675.25
196+36.61	199+36.61	RIGHT MAIN LANES & AUXILIARY LANE TAPER	300.00	41.75	1391.67	29.23	457.86	41.00	1366.67	75.17	41.00	1366.67	41.00	43.00		1433.33
199+36.61	247+74.42	RIGHT MAIN LANES	4837.81	36.75	19754.39	414.84	6499.19	36.00	19351.24	1064.32	36.00	19351.24	580.54	38.00		20426.31
250+81.60	261+03.15	RIGHT MAIN LANES	1021.55	36.75	4171.33	87.60	1372.37	36.00	4086.20	224.74	36.00	4086.20	122.59	38.00		4313.21
261+03.15	270+03.50	RIGHT MAIN LANES & AUXILIARY LANE	900.35	46.75	4676.82	98.21	1538.67	46.00	4601.79	253.10	46.00	4601.79	138.05	48.00		4801.87
113+85.75	119+65.70	LEFT MAIN LANES	579.95	36.75	2368.13	49.73	779.11	36.00	2319.80	127.59	36.00	2319.80	69.59	38.00		2448.68
119+65.70	122+65.70	LEFT MAIN LANES & AUXILIARY LANE TAPER	300.00	41.75	1391.67	29.23	457.86	41.00	1366.67	75.17	41.00	1366.67	41.00	43.00		1433.33
122+65.70	127+03.88	LEFT MAIN LANES & AUXILIARY LANE	438.18	46.75	2276.10	47.80	748.84	46.00	2239.59	123.18	46.00	2239.59	67.19	48.00		2336.96
127+03.88	156+08.32	LEFT MAIN LANES	2904.44	36.75	11859.80	249.06	3901.87	36.00	11617.76	638.98	36.00	11617.76	348.53	38.00		12263.19
156+08.32	156+24.82	LEFT MAIN LANES & AUXILIARY LANE	16.50	46.75	85.71	1.80	28.20	46.00	84.33	4.64	46.00	84.33	2.53	48.00		88.00
160+74.16	165+71.65	LEFT MAIN LANES & AUXILIARY LANE	497.49	46.75	2584.18	54.27	850.20	46.00	2542.73	139.85	46.00	2542.73	76.28	48.00		2653.28
165+71.65	175+62.04	LEFT MAIN LANES	990.39	36.75	4044.09	84.93	1330.51	36.00	3961.56	217.89	36.00	3961.56	118.85	38.00		4181.65
179+27.23	230+09.35	LEFT MAIN LANES	5082.12	36.75	20751.99	435.79	6827.40	36.00	20328.48	1118.07	36.00	20328.48	609.85	38.00		21457.84
230+09.35	233+09.35	LEFT MAIN LANES & AUXILIARY LANE TAPER	300.00	41.75	1391.67	29.23	457.86	41.00	1366.67	75.17	41.00	1366.67	41.00	43.00		1433.33
233+09.35	237+68.44	LEFT MAIN LANES & AUXILIARY LANE	459.09	46.75	2384.72	50.08	784.57	46.00	2346.46	129.06	46.00	2346.46	70.39	48.00		2448.48
237+68.44	247+90.92	LEFT MAIN LANES	1022.48	36.75	4175.13	87.68	1373.62	36.00	4089.92	224.95	36.00	4089.92	122.70	38.00		4317.14
250+98.10	260+70.34	LEFT MAIN LANES	972.24	36.75	3969.98	83.37	1306.12	36.00	3888.96	213.89	36.00	3888.96	116.67	38.00		4105.01
260+70.34	262+99.69	LEFT MAIN LANES & AUXILIARY LANE	229.35	46.75	1191.35	25.02	391.95	46.00	1172.23	64.47	46.00	1172.23	35.17	48.00		1223.20
262+99.69	263+99.69	LEFT MAIN LANES & AUXILIARY LANE TAPER	100.00	41.75	463.89	9.74	152.62	41.00	455.56	25.06	41.00	455.56	13.67	43.00		477.78
263+99.69	270+03.50	LEFT MAIN LANES	603.81	36.75	2465.56	51.78	811.17	36.00	2415.24	132.84	36.00	2415.24	72.46	38.00		2549.42
127+00.00	130+95.65	RAMP 1 - BANKHEAD DRIVE TURNOUT	395.65	VAR.	588.23	12.35	193.53	VAR.	588.23	32.35	VAR.	588.23	17.65	VAR.		1092.00
151+95.69	154+28.48	RAMP 2 - BANKHEAD DRIVE AUXILIARY LANE TURNOUT	232.79	VAR.	369.24	7.75	121.48	VAR.	369.24	20.31	VAR.	369.24	11.08	VAR.		523.36
163+25.00	165+98.96	RAMP 1 - LINDSEY ROAD AUXILIARY LANE TURNOUT	273.96	VAR.	628.75	13.20	206.86	VAR.	628.75	34.58	VAR.	628.75	18.86	VAR.		628.75
189+34.97	191+35.07	RAMP 2 - LINDSEY ROAD AUXILIARY LANE TURNOUT	200.10	VAR.	318.56	6.69	104.81	VAR.	318.56	17.52	VAR.	318.56	9.56	VAR.		318.56
236+76.87	240+60.70	RAMP 1 - FOURCHE DAM PIKE TURNOUT	383.83	VAR.	540.07	11.34	177.68	VAR.	540.07	29.70	VAR.	540.07	16.20	VAR.		540.07
259+60.81	261+03.15	RAMP 2 - FOURCHE DAM PIKE AUXILIARY LANE TURNOUT	142.34	VAR.	226.79	4.76	74.61	VAR.	226.79	12.47	VAR.	226.79	6.80	VAR.		226.79
127+03.88	128+67.26	RAMP 4 - BANKHEAD DRIVE AUXILIARY LANE TURNOUT	163.38	VAR.	261.41	5.49	86.00	VAR.	261.41	14.38	VAR.	261.41	7.84	VAR.		261.41
152+87.63	156+08.32	RAMP 3 - BANKHEAD DRIVE AUXILIARY LANE TURNOUT	320.69	VAR.	756.99	15.90	249.05	VAR.	756.99	41.63	VAR.	756.99	22.71	VAR.		756.99
165+71.65	167+43.84	RAMP 4 - LINDSEY ROAD AUXILIARY LANE TURNOUT	172.19	VAR.	254.14	5.34	83.61	VAR.	254.14	13.98	VAR.	254.14	7.62	VAR.		254.14
188+20.90	192+04.76	RAMP 3 - LINDSEY ROAD TURNOUT	383.86	VAR.	539.17	11.32	177.39	VAR.	539.17	29.65	VAR.	539.17	16.18	VAR.		539.17
237+68.44	239+09.81	RAMP 4 - FOURCHE DAM PIKE AUXILIARY LANE TURNOUT	141.37	VAR.	224.13	4.71	73.74	VAR.	224.13	12.33	VAR.	224.13	6.72	VAR.		224.13
257+74.37	260+70.34	RAMP 3 - FOURCHE DAM PIKE AUXILIARY LANE TURNOUT	295.97	VAR.	226.79	4.76	74.61	VAR.	226.79	12.47	VAR.	226.79	6.80	VAR.		226.79
131+90.11	134+30.23	TEMPORARY RAMP 1 - BANKHEAD DR.	240.12											25.00	667.00	
144+93.08	146+89.50	TEMPORARY RAMP 2 - BANKHEAD DR.	196.42											25.00	545.61	
150+81.46	154+44.11	TEMPORARY RAMP 3 - BANKHEAD DR.	362.65											25.00	1007.36	
131+78.76	134+16.22	TEMPORARY RAMP 4 - BANKHEAD DR.	237.46											25.00	659.61	
166+82.61	169+43.01	TEMPORARY RAMP 1 - LINDSEY RD.	260.40											25.00	723.33	
185+02.40	186+23.04	TEMPORARY RAMP 2 - LINDSEY RD.	120.64											25.00	335.11	
184+86.19	187+20.47	TEMPORARY RAMP 3 - LINDSEY RD.	234.28											25.00	650.78	
169+15.51	170+28.53	TEMPORARY RAMP 4 - LINDSEY RD.	113.02											25.00	313.94	
241+50.02	243+46.82	TEMPORARY RAMP 1 - FOURCHE DAM PIKE	196.80											25.00	546.67	
254+80.41	256+80.76	TEMPORARY RAMP 2 - FOURCHE DAM PIKE	200.35											25.00	556.53	
254+96.26	256+65.96	TEMPORARY RAMP 3 - FOURCHE DAM PIKE	169.70											25.00	471.39	
241+04.32	242+95.95	TEMPORARY RAMP 4 - FOURCHE DAM PIKE	191.63											25.00	532.31	
TOTALS:					131045.64	2751.97	43114.00		128630.43	7074.70		128630.43	3858.91		7009.64	135728.85

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
CEMENT STABILIZED CRUSHED STONE BASE COURSE = 94.0% AGGR. 6.0% CEMENT

BASE AND SURFACING - WIDENING FOR GUARDRAIL

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	AVG. WID.	SQ. YD.	POUND / SQ. YD.	PG 64-22
			FEET			FEET			TON
ENTIRE PROJECT		WIDENING FOR GUARDRAIL	VAR.	VAR.	1284.36	VAR.	2200.00	220	242.00
TOTALS:					1284.36		2200.00		242.00

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.9% MIN. AGGR.....5.1% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

JACOBS

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM		QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF BARRIER WALL		1763	LIN. FT.
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS		16	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING		517	SQ. YD.
202	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER		5	EACH
SP	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE		9	EACH
SP & 202	REMOVAL AND DISPOSAL OF GUARDRAIL		2500	LIN. FT.
SP & 202	REMOVAL OF CORRUGATIONS IN CONCRETE PAVEMENT		2143	SQ. YD.
SP & 202	REMOVAL OF RUMBLE STRIPS IN CONCRETE PAVEMENT		392	SQ. YD.
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT		169921	SQ. YD.
210	UNCLASSIFIED EXCAVATION		51997	CU. YD.
210	COMPACTED EMBANKMENT		1648	CU. YD.
SP & 210	SOIL STABILIZATION		500	TON
303	AGGREGATE BASE COURSE (CLASS 7)		26702	TON
308	AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE		53477	TON
308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE		3413	TON
308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE		162544	SQ. YD.
SS & 401	TACK COAT		4804	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")		8358	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (3/8")		449	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		230	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		12	TON
501	PORTLAND CEMENT CONCRETE PAVEMENT (9" UNIFORM THICKNESS)		7010	SQ. YD.
501	PORTLAND CEMENT CONCRETE PAVEMENT (13" UNIFORM THICKNESS)		160710	SQ. YD.
504	APPROACH SLABS		1732.20	CU. YD.
504	APPROACH GUTTERS		303.07	CU. YD.
506	PORTLAND CEMENT CONCRETE CORRUGATIONS		308	SQ. YD.
507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING		1800	SQ. YD.
507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (12" UNIFORM THICKNESS)		1800	SQ. YD.
509	JOINT REHABILITATION (TYPE A)		630	LIN. FT.
509	JOINT REHABILITATION (TYPE B)		36842	LIN. FT.
509	JOINT REHABILITATION (TYPE D)		375	LIN. FT.
601	MOBILIZATION		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1	EACH
603	TRAFFIC CONTROL SUPERVISOR		1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
603	18" TEMPORARY CULVERT		1828	LIN. FT.
SS & 604	SIGNS		1327	SQ. FT.
SS & 604	TRAFFIC DRUMS		894	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		40770	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER		100458	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS		229881	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		75308	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		43160	LIN. FT.
604	ADVANCE WARNING ARROW PANEL		510	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN		84	WEEK
SP	MOTORIST ASSISTANCE PATROL		1.00	LUMP SUM
605	CONCRETE DITCH PAVING (TYPE B)		517	SQ. YD.
606	12" CORRUGATED ALUMINUM PIPE CULVERTS (16 GAUGE)		260	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2	EACH
606	SELECTED PIPE BEDDING		20	CU. YD.
609	DROP INLETS (TYPE N2)		3	EACH
614	CONCRETE SPILLWAY (TYPE A)		3	EACH
617	GUARDRAIL (TYPE A)		2975	LIN. FT.
617	TERMINAL ANCHOR POSTS (TYPE 1)		8	EACH
617	GUARDRAIL TERMINAL (TYPE 2)		12	EACH
617	THRIE BEAM GUARDRAIL TERMINAL		12	EACH
620	LIME		37	TON
620	SEEDING		18.50	ACRE
SS & 620	MULCH COVER		38.68	ACRE
620	WATER		2305.2	M.GAL.
621	TEMPORARY SEEDING		20.18	ACRE
621	TRIANGULAR SILT DIKE		100	LIN. FT.
621	SILT FENCE		3109	LIN. FT.
621	SAND BAG DITCH CHECKS		110	BAG
621	DROP INLET SILT FENCE		168	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL		121	CU. YD.
621	ROCK DITCH CHECKS		39	CU. YD.
623	SECOND SEEDING APPLICATION		18.50	ACRE
624	SOLID SODDING		527	SQ. YD.
631	CONCRETE BARRIER WALL (MEDIAN TYPE A)		1649	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
642	RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS		28323	LIN. FT.
SP	LUMINAIRE POLE RELOCATION		10	EACH
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	45743	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	45743	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)	4465	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)	4465	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	45868	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	45868	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	16680	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	16680	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)	398	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)	398	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		834	EACH
725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)		1697	SQ. FT.
725	GUIDE SIGN-OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)		2805	SQ. FT.
726	STANDARD SIGN		887	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)		280	SQ. FT.
727	EXIT NUMBER PANEL (TYPE C)		35	SQ. FT.
730	BREAKAWAY SIGN SUPPORT (TYPE G-2)		10012	POUND
731	TEMPORARY IMPACT ATTENUATION BARRIER		17	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)		47	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		64	EACH
802	CLASS S CONCRETE - ROADWAY		141.30	CU. YD.
804	REINFORCING STEEL-ROADWAY (GRADE 60)		250662	POUND
SP	RELOCATION OF VMS ASSEMBLY		2	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-2)		35	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-4)		2	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-37)		1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-38)		1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-39)		1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-40)		1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-41)		1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-42)		1	EACH
SP	STEEL TEE MOUNT SIGN STRUCTURE (TM-440-60-01)		1	EACH

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
12/21/2015	REVISED "HIGH PERFORMANCE PAVEMENT MARKING" SPECIAL PROVISION, MOT STAGE 2C "PAVEMENT TO BE CONSTRUCTED" HATCHING SHOWN, UNCLASSIFIED EXCAVATION & COMPACTED EMBANKMENT QUANTITIES REVISED.	42, 56, & 62
1/4/2016	REVISED UNCLASSIFIED EXCAVATION & COMPACTED EMBANKMENT QUANTITIES	56 & 62

SUMMARY OF QUANTITIES AND REVISIONS

JACOBS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER KEVIN G. TOMLESS No. 11427

1-4-16

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED
12-21-2015			
1-4-2016			

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SUMMARY OF QUANTITIES AND REVISIONS

FED.RD. DISTNO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	BB061I	62	169

JOB NO.

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.		BB06II	63	169

(2) PLAN SHEETS - STA. 99+00 TO STA. 160+00

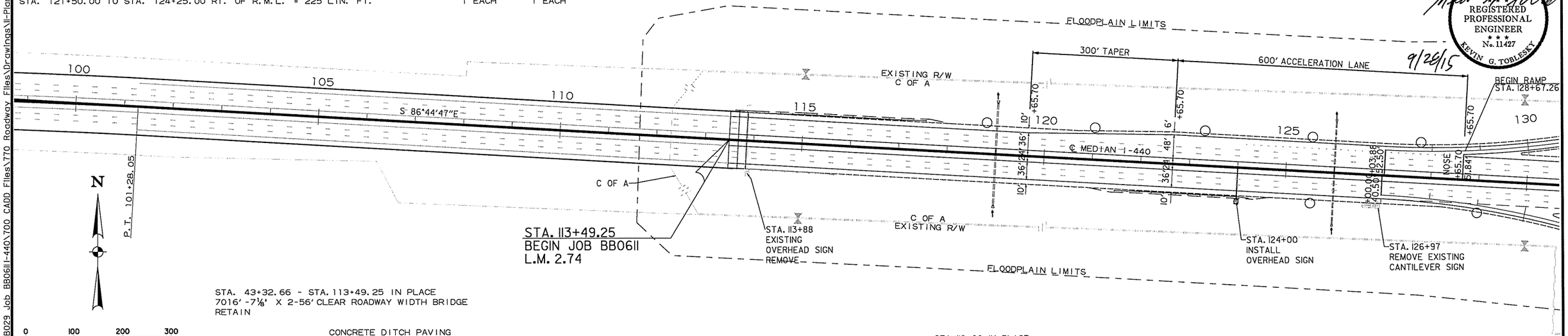
REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
STA. 126+62 RT. OF R.M.L. = 1 EACH

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 113+49 TO STA. 115+49 RT. OF R.M.L. = 200 LIN. FT.
STA. 113+49 TO STA. 115+49 LT. OF L.M.L. = 200 LIN. FT.

GUARDRAIL - INSTALLATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
STA. 113+58.65 TO STA. 116+02.40 LT. OF L.M.L.	= 175 LIN. FT.	1 EACH		1 EACH
STA. 113+58.65 TO STA. 115+52.40 RT. OF R.M.L.	= 175 LIN. FT.	1 EACH	1 EACH	
STA. 121+50.00 TO STA. 124+25.00 RT. OF R.M.L.	= 225 LIN. FT.		1 EACH	1 EACH

○ DENOTES EXISTING LUMINAIRES TO BE RELOCATED. REFER TO "ILLUMINATION DETAILS" FOR ADDITIONAL INFORMATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/24/15



STA. 43+32.66 - STA. 113+49.25 IN PLACE
7016'-7⅛" X 2-56' CLEAR ROADWAY WIDTH BRIDGE
RETAIN

CONCRETE DITCH PAVING

STA.	STA.	SIDE	'W'	SQ. YDS.
132+00	132+81	RT.	4'	36.00
146+92	148+00	RT.	4'	48.00
131+50	133+16	LT.	4'	73.78
149+93	151+00	LT.	4'	47.56

REMOVAL & DISPOSAL OF APPROACH SLAB AND GUTTERS
STA. 113+67 R.M.L. = 1 EACH
STA. 113+67 L.M.L. = 1 EACH

STA. 119+00 IN PLACE
30"x208' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN

STA. 126+00 IN PLACE
24"x208' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN

REMOVAL & DISPOSAL OF APPROACH SLAB AND GUTTERS
STA. 157+40 R.M.L. = 1 EACH
STA. 156+68 L.M.L. = 1 EACH

GUARDRAIL - INSTALLATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
STA. 155+34.17 TO STA. 157+77.92 RT. OF R.M.L.	= 175 LIN. FT.	1 EACH		1 EACH
STA. 154+27.17 TO STA. 156+45.92 LT. OF L.M.L.	= 200 LIN. FT.	1 EACH	1 EACH	

STA. 146+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=6'-6")
WITH 18"x83' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

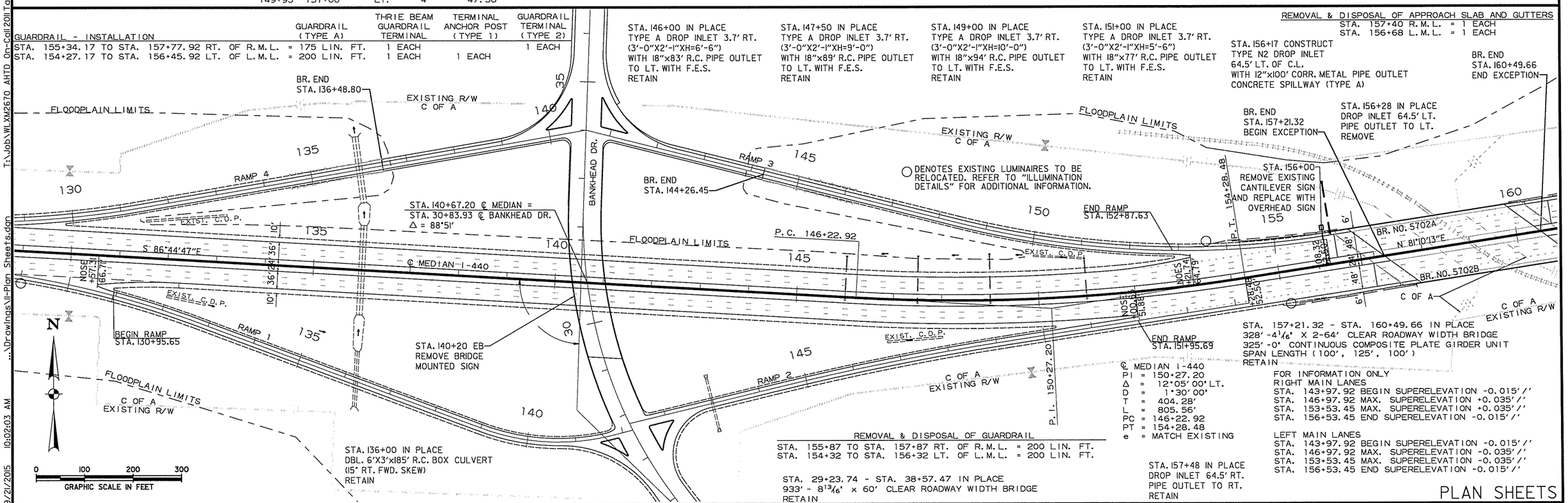
STA. 147+50 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=9'-0")
WITH 18"x89' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 149+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=10'-0")
WITH 18"x94' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 151+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=5'-6")
WITH 18"x77' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 156+17 CONSTRUCT
TYPE N2 DROP INLET
64.5' LT. OF C.L.
WITH 12"x100' CORR. METAL PIPE OUTLET
CONCRETE SPILLWAY (TYPE A)

BR. END
STA. 160+49.66
END EXCEPTION



○ DENOTES EXISTING LUMINAIRES TO BE RELOCATED. REFER TO "ILLUMINATION DETAILS" FOR ADDITIONAL INFORMATION.

STA. 136+00 IN PLACE
DBL. 6'X3'x185' R.C. BOX CULVERT
(15° RT. FWD. SKEW)
RETAIN

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 155+87 TO STA. 157+87 RT. OF R.M.L. = 200 LIN. FT.
STA. 154+32 TO STA. 156+32 LT. OF L.M.L. = 200 LIN. FT.

STA. 29+23.74 - STA. 38+57.47 IN PLACE
933'-8 13/16" x 60' CLEAR ROADWAY WIDTH BRIDGE
RETAIN

℄ MEDIAN I-440
PI = 150+27.20
Δ = 12°05'00" LT.
D = 1°30'00"
T = 404.28'
L = 805.56'
PC = 146+22.92
PT = 154+28.48
e = MATCH EXISTING

STA. 157+48 IN PLACE
DROP INLET 64.5' RT.
PIPE OUTLET TO RT.
RETAIN

STA. 157+21.32 - STA. 160+49.66 IN PLACE
328'-4 1/16" X 2-64' CLEAR ROADWAY WIDTH BRIDGE
325'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
SPAN LENGTH (100', 125', 100')
RETAIN

FOR INFORMATION ONLY
RIGHT MAIN LANES
STA. 143+97.92 BEGIN SUPERELEVATION -0.015'/'
STA. 146+97.92 MAX. SUPERELEVATION +0.035'/'
STA. 153+53.45 MAX. SUPERELEVATION +0.035'/'
STA. 156+53.45 END SUPERELEVATION -0.015'/'

LEFT MAIN LANES
STA. 143+97.92 BEGIN SUPERELEVATION -0.015'/'
STA. 146+97.92 MAX. SUPERELEVATION -0.035'/'
STA. 153+53.45 MAX. SUPERELEVATION -0.035'/'
STA. 156+53.45 END SUPERELEVATION -0.015'/'

PLAN SHEETS
JACOBS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB061I	64	169

(2) PLAN SHEETS - STA. 160+00 TO STA. 220+00

REMOVAL & DISPOSAL OF GUARDRAIL

STA. 161+38 TO STA. 162+38 RT. OF R.M.L. = 100 LIN. FT.
STA. 159+86 TO STA. 161+86 LT. OF L.M.L. = 200 LIN. FT.
STA. 174+49 TO STA. 176+49 RT. OF R.M.L. = 200 LIN. FT.
STA. 173+87 TO STA. 175+87 LT. OF L.M.L. = 200 LIN. FT.
STA. 178+64 TO STA. 180+64 LT. OF L.M.L. = 200 LIN. FT.

REMOVAL & DISPOSAL OF APPROACH SLAB AND GUTTERS

STA. 161+03 R.M.L. = 1 EACH
STA. 160+31 L.M.L. = 1 EACH
STA. 176+18 R.M.L. = 1 EACH
STA. 175+88 L.M.L. = 1 EACH
STA. 179+34 R.M.L. = 1 EACH
STA. 178+98 L.M.L. = 1 EACH

STA. 160+23 IN PLACE
DROP INLET 64.5' LT.
PIPE OUTLET TO LT.
RETAIN

STA. 162+53 CONSTRUCT
TYPE N2 DROP INLET
64.5' RT. OF C.L.
WITH 12"x45' CORR. METAL PIPE OUTLET
CONCRETE SPILLWAY (TYPE A)

BEGIN RAMP
STA. 167+43.84

BR. END
STA. 160+49.66
END EXCEPTION

BEGIN RAMP
STA. 165+98.96

STA. 164+03 IN PLACE
TYPE R DROP INLET 144' RT.
(4'X3'XH=4'-0")
IN PLACE 18"x200' R.C. STUB TO EAST
WITH F.E.S. & 24"X4' R.C. STUB TO
24" PIPE UNDER RAILROAD
IN PLACE 30"X313' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 162+00
REMOVE EXISTING
CANTILEVER SIGN
AND REPLACE WITH
OVERHEAD SIGN

℄ MEDIAN I-440
PI = 172+77.20
Δ = 27°12'00" RT.
D = 2°00'00"
T = 693.07'
L = 1360.00'
PC = 165+84.13
PT = 179+44.13
e = MATCH EXISTING

STA. 161+53 CONSTRUCT
TYPE N2 DROP INLET
56.5' RT. OF C.L.
WITH 12"x80' CORR. METAL PIPE CULV'T.
& CONCRETE SPILLWAY (TYPE A)

STA. 174+16 IN PLACE
DBL. 48"x258' R.C. PIPE CULVERT
(18° RT. FWD. SKEW)
RETAIN

STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'

BR. END
STA. 178+98.10
END EXCEPTION

BR. NO. 5703A

BR. NO. 5703B

BR. END
STA. 176+20.53
BEGIN EXCEPTION

STA. 176+20.53 - STA. 178+98.10 IN PLACE
277'-6 15/16" 2-56' CLEAR ROADWAY WIDTH BRIDGE
275'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
SPAN LENGTH (86', 103', 86')
RETAIN

FOR INFORMATION ONLY
RIGHT MAIN LANES
STA. 163+59.10 BEGIN SUPERELEVATION -0.015'/'
STA. 166+59.10 MAX. SUPERELEVATION -0.043'/'
STA. 178+69.10 MAX. SUPERELEVATION -0.043'/'
STA. 181+69.10 END SUPERELEVATION -0.015'/'

LEFT MAIN LANES
STA. 163+59.10 BEGIN SUPERELEVATION -0.015'/'
STA. 166+59.10 MAX. SUPERELEVATION +0.043'/'
STA. 178+69.10 MAX. SUPERELEVATION +0.043'/'
STA. 181+69.10 END SUPERELEVATION -0.015'/'

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END RAMP
STA. 188+20.90

END RAMP
STA. 189+34.97

700' ACCELERATION LANE

GUARDRAIL - INSTALLATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
STA. 161+38.06 TO STA. 162+56.81 RT. OF R.M.L.	= 100 LIN. FT.	1 EACH	1 EACH	
STA. 173+95.83 TO STA. 176+39.58 RT. OF R.M.L.	= 175 LIN. FT.	1 EACH		1 EACH
STA. 159+93.06 TO STA. 162+36.81 LT. OF L.M.L.	= 175 LIN. FT.	1 EACH		1 EACH
STA. 173+65.38 TO STA. 175+84.13 LT. OF L.M.L.	= 200 LIN. FT.	1 EACH	1 EACH	
STA. 178+73.65 TO STA. 181+17.40 LT. OF L.M.L.	= 175 LIN. FT.	1 EACH		1 EACH

STA. 161+43 IN PLACE
DROP INLET 64.5' RT.
PIPE OUTLET TO RT.
REMOVE

STA. 168+00 IN PLACE
TYPE A DROP INLET 3.7' LT.
(3'-0"X2'-1"XH=5'-0")
WITH 18"x80' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

STA. 169+70 IN PLACE
TYPE A DROP INLET 3.7' LT.
(3'-0"X2'-1"XH=5'-0")
WITH 18"x100' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

STA. 171+00 IN PLACE
TYPE A DROP INLET 3.7' LT.
(3'-0"X2'-1"XH=X'-X")
WITH 18"x102' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

STA. 173+50 IN PLACE
TYPE A DROP INLET 3.7' LT.
(3'-0"X2'-1"XH=10'-0")
WITH 18"x120' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

STA. 180+00 IN PLACE
TYPE A DROP INLET 3.7' LT.
(3'-0"X2'-1"XH=X'-X")
WITH 18"x120' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

STA. 179+62 IN PLACE
DROP INLET 56.5' RT.
PIPE OUTLET TO RT.
RETAIN

0 100 200 300
GRAPHIC SCALE IN FEET

STA. 192+00
REMOVE EXISTING SIGN
AND REPLACE WITH
OVERHEAD SIGN

STA. 195+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=9'-0")
WITH 18"x92' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 197+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=10'-0")
WITH 18"x95' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 200+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=14'-0")
WITH 18"x111' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 203+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=17'-0")
WITH 18"x120' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

℄ MEDIAN I-440
PI = 199+06.48
Δ = 16°11'00" LT.
D = 2°00'00"
T = 407.29'
L = 809.17'
PC = 194+99.19
PT = 203+08.36
e = MATCH EXISTING

STA. 193+97 IN PLACE
SLOT DRAIN 6.5' RT.
CONNECTED TO DROP INLET
AT STA. 195+00
RETAIN

FOR INFORMATION ONLY
RIGHT MAIN LANES
STA. 192+74.18 BEGIN SUPERELEVATION -0.015'/'
STA. 195+74.18 MAX. SUPERELEVATION +0.043'/'
STA. 202+33.38 MAX. SUPERELEVATION +0.043'/'
STA. 205+33.38 END SUPERELEVATION -0.015'/'

LEFT MAIN LANES
STA. 192+74.18 BEGIN SUPERELEVATION -0.015'/'
STA. 195+74.18 MAX. SUPERELEVATION -0.043'/'
STA. 202+33.38 MAX. SUPERELEVATION -0.043'/'
STA. 205+33.38 END SUPERELEVATION -0.015'/'

0 100 200 300
GRAPHIC SCALE IN FEET

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS

STA. 192+18 LT. OF L.M.L. = 1 EACH
STA. 214+28 RT. OF R.M.L. = 1 EACH
STA. 214+65 LT. OF L.M.L. = 1 EACH

CONCRETE DITCH PAVING

STA.	STA.	SIDE	'W'	SQ. YDS.
167+00	168+75	RT.	4'	77.78
184+98	185+72	RT.	4'	32.89
185+68	187+10	LT.	4'	63.11

GUARDRAIL - INSTALLATION	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
STA. 191+75.00 TO STA. 194+50.00 LT. OF L.M.L.	= 225 LIN. FT.	1 EACH	1 EACH

STA. 214+48
REMOVE EXISTING
OVERHEAD SIGN
AND REPLACE W/
MEDIAN SIGN

PLAN SHEETS

JACOBS

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.		BB0611	65	169

(2) PLAN SHEETS - STA. 220+00 TO STA. 277+00

STA. 223+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=10'-0")
WITH 18"X99' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 226+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=10'-6")
WITH 18"x95' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 229+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=11'-0")
WITH 18"x94' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 232+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=10'-0")
WITH 18"x95' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 248+24.12 - STA. 250+48.40 IN PLACE
224'-3⅜" x 2-56' CLEAR ROADWAY WIDTH BRIDGE
222'-0" CONTINUOUS COMPOSITE W-BEAM UNIT
SPAN LENGTH (64', 94', 64')
RETAIN

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 246+08 TO STA. 248+08 RT. OF R.M.L. = 200 LIN. FT.

STA. 248+04 IN PLACE
DROP INLET 64.5' LT.
PIPE OUTLET TO LT.
RETAIN

STATE OF ARKANSAS
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9/28/15

FLOODPLAIN LIMITS

FOR INFORMATION ONLY
RIGHT MAIN LANES
STA. 221+05.04 BEGIN SUPERELEVATION -0.015'/'
STA. 224+05.04 MAX. SUPERELEVATION +0.043'/'
STA. 230+61.54 MAX. SUPERELEVATION +0.043'/'
STA. 233+61.54 END SUPERELEVATION -0.015'/'

LEFT MAIN LANES
STA. 221+05.04 BEGIN SUPERELEVATION -0.015'/'
STA. 224+05.04 MAX. SUPERELEVATION -0.043'/'
STA. 230+61.54 MAX. SUPERELEVATION -0.043'/'
STA. 233+61.54 END SUPERELEVATION -0.015'/'

CONCRETE DITCH PAVING

STA.	STA.	SIDE	"W"	SQ. YDS.
241+45	242+43	RT.	4'	43.56
256+28	257+32	RT.	4'	46.22
241+57	242+66	LT.	4'	48.44

REMOVAL & DISPOSAL OF APPROACH SLAB AND GUTTERS
STA. 247+98 R.M.L. = 1 EACH
STA. 248+15 L.M.L. = 1 EACH
STA. 250+58 R.M.L. = 1 EACH
STA. 250+74 L.M.L. = 1 EACH

EXISTING R/W
℄ OF A
P.C. 223+34.05
S 87°48'47"E
P.T. 231+36.55
300' TAPER
600' ACCELERATION LANE
BEGIN RAMP
STA. 239+09.81
RAMP 4
STA. 249+36.26 ℄ MEDIAN =
STA. 19+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"
℄ MEDIAN I-440
N 76°08'13"E
EXIST. C.D.P.
BR. NO. 5704A
BR. NO. 5704B
BR. END
STA. 248+24.12
BEGIN EXCEPTION
FOURCHE DAM PIKE
P.I. 227+37.94

℄ MEDIAN I-440
PI = 227+37.94
Δ = 16°03'00" LT.
D = 2°00'00"
T = 403.89'
L = 802.50'
PC = 223+34.05
PT = 231+36.55
e = MATCH EXISTING

0 100 200 300
GRAPHIC SCALE IN FEET

STA. 237+00
REMOVE EXISTING
CANTILEVER SIGN
AND REPLACE WITH
OVERHEAD SIGN

BEGIN RAMP
STA. 240+60.70

STA. 247+77 IN PLACE
DROP INLET 64.5' RT.
PIPE OUTLET TO RT.
RETAIN

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
STA. 236+82 RT. OF R.M.L. = 1 EACH

GUARDRAIL - INSTALLATION

	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
STA. 234+50.00 TO STA. 237+25.00 RT. OF R.M.L.	= 225 LIN. FT.		1 EACH	1 EACH
STA. 245+55.02 TO STA. 247+98.77 RT. OF R.M.L.	= 175 LIN. FT.	1 EACH		1 EACH

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 250+64 TO STA. 252+64 LT. OF L.M.L. = 200 LIN. FT.
STA. 259+75 TO STA. 261+75 LT. OF L.M.L. = 200 LIN. FT.
STA. 268+17 TO STA. 270+17 RT. OF R.M.L. = 200 LIN. FT.

STA. 250+95 IN PLACE
DROP INLET 64.5' LT.
PIPE OUTLET TO LT.
RETAIN

GUARDRAIL - INSTALLATION

	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
STA. 267+75.01 TO STA. 270+18.76 RT. OF R.M.L.	= 175 LIN. FT.	1 EACH		1 EACH
STA. 250+73.75 TO STA. 253+17.50 LT. OF L.M.L.	= 175 LIN. FT.	1 EACH		1 EACH
STA. 259+75.00 TO STA. 262+50.00 LT. OF L.M.L.	= 225 LIN. FT.		1EACH	1 EACH

℄ MEDIAN I-440
PI = 271+01.24
Δ = 46°16'00" LT.
D = 2°30'00"
T = 979.13'
L = 1850.67'
PC = 261+22.11
PT = 279+72.78
e = MATCH EXISTING

STA. 270+09 IN PLACE
DROP INLET 56.5' LT.
PIPE OUTLET TO LT.
REMOVE

STA. 270+40.00
END JOB BB0611
L.M. 5.71

STA. 260+80
INSTALL OVERHEAD
SIGN

STA. 260+00
REMOVE EXISTING
OVERHEAD SIGN

STA. 270+01 CONSTRUCT
TYPE N2 DROP INLET
56.5' LT. OF C.L.
WITH 12"x80' CORR. METAL PIPE CULV'T.
& CONCRETE SPILLWAY (TYPE A)

490' DECELERATION LANE
100' TAPER
END RAMP
STA. 257+74.37
RAMP 3
P.C. 261+22.11
291' TAPER
1077.88' ACCELERATION LANE
END RAMP
STA. 259+60.81
RAMP 2
P.I. 271+01.24

STA. 260+27 IN PLACE
SLOT DRAIN 6.5' RT.
CONNECTED TO DROP INLET
AT STA. 261+00
REMOVE & REPLACE

STA. 270+40.00 - STA. 312+30.00 IN PLACE
4190'-0" x 2-56' CLEAR ROADWAY WIDTH BRIDGE
RETAIN

REMOVAL & DISPOSAL OF APPROACH SLAB AND GUTTERS
STA. 270+23 R.M.L. = 1 EACH
STA. 270+23 L.M.L. = 1 EACH

STA. 250+69 IN PLACE
DROP INLET 64.5' RT.
PIPE OUTLET TO RT.
RETAIN

STA. 261+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=8'-0")
WITH 18"x92' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 262+50 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=8'-6")
WITH 18"x92' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 264+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=9'-0")
WITH 18"x94' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 266+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=13'-0")
WITH 18"x101' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 268+00 IN PLACE
TYPE A DROP INLET 3.7' RT.
(3'-0"X2'-1"XH=17'-0")
WITH 18"x120' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

FOR INFORMATION ONLY
RIGHT MAIN LANES
STA. 258+97.12 BEGIN SUPERELEVATION -0.015'/'
STA. 261+97.12 MAX. SUPERELEVATION +0.051'/'

LEFT MAIN LANES
STA. 258+97.12 BEGIN SUPERELEVATION -0.015'/'
STA. 261+97.12 MAX. SUPERELEVATION -0.051'/'

PLAN SHEETS
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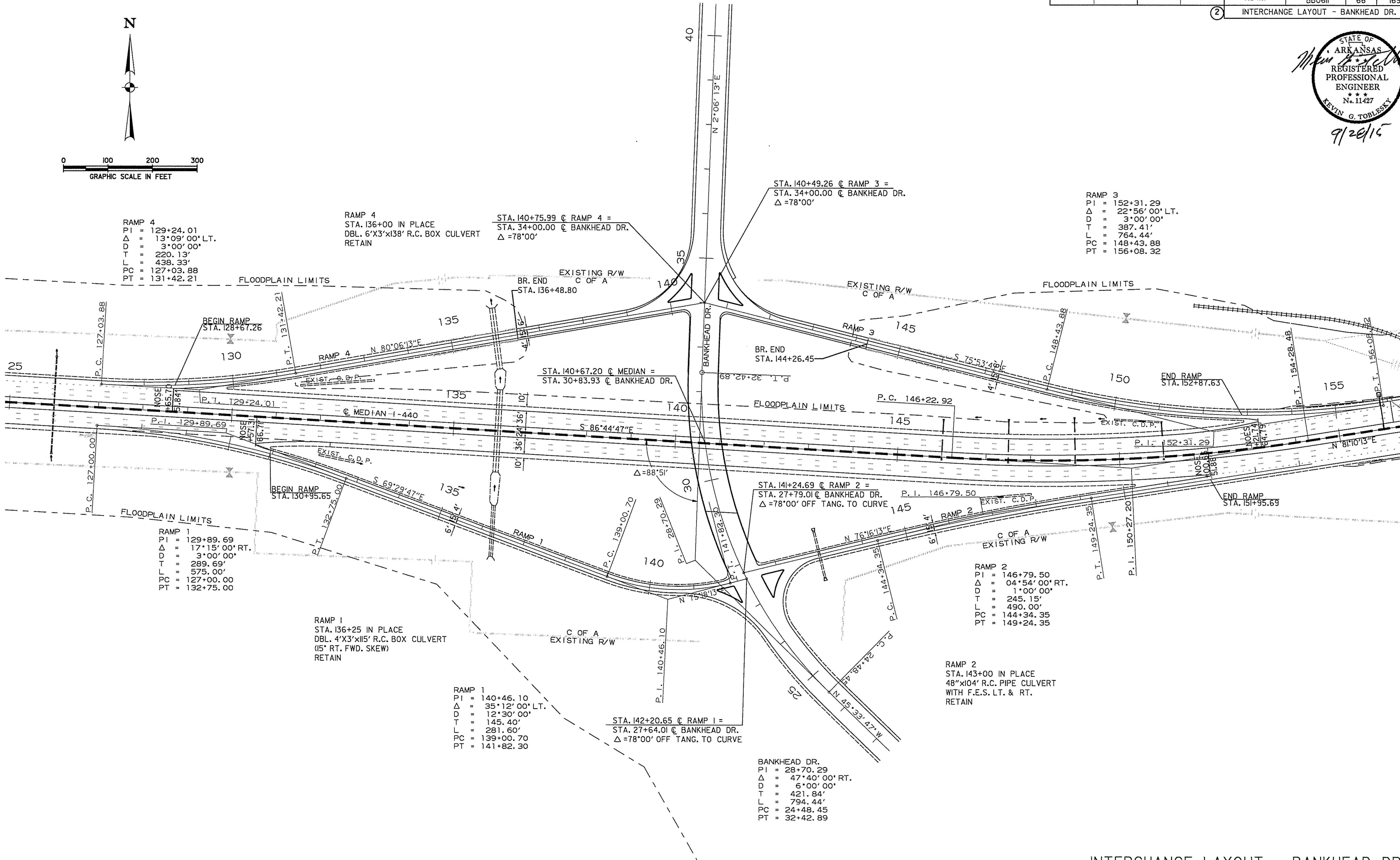
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	66	169

(2) INTERCHANGE LAYOUT - BANKHEAD DR.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY

9/28/15



N
0 100 200 300
GRAPHIC SCALE IN FEET
RAMP 4
PI = 129+24.01
Δ = 13°09'00" LT.
D = 3°00'00"
T = 220.13'
L = 438.33'
PC = 127+03.88
PT = 131+42.21
RAMP 4
STA. 136+00 IN PLACE
DBL. 6'X3'x138' R.C. BOX CULVERT
RETAIN
STA. 140+75.99 ℄ RAMP 4 =
STA. 34+00.00 ℄ BANKHEAD DR.
Δ =78°00'
STA. 140+49.26 ℄ RAMP 3 =
STA. 34+00.00 ℄ BANKHEAD DR.
Δ =78°00'
RAMP 3
PI = 152+31.29
Δ = 22°56'00" LT.
D = 3°00'00"
T = 387.41'
L = 764.44'
PC = 148+43.88
PT = 156+08.32
N 2°06'13"E
EXISTING R/W
C OF A
FLOODPLAIN LIMITS
BR. END
STA. 136+48.80
BEGIN RAMP
STA. 128+67.26
P.C. 127+03.88
P.T. 131+42.21
RAMP 4 N 80°06'13"E
EXIST. C.D.P.
BANKHEAD DR.
RAMP 3
BR. END
STA. 144+26.45
S 75°53'48"E
P.C. 148+43.88
P.T. 154+28.48
P.T. 156+08.32
END RAMP
STA. 152+87.63
STA. 140+67.20 ℄ MEDIAN =
STA. 30+83.93 ℄ BANKHEAD DR.
P.I. 32+42.89
NOSE +65.70 51.84'
P.T. 129+24.01
℄ MEDIAN I-440
S 86°44'47"E
P.C. 146+22.92
P.I. 129+89.69
NOSE +57.3 66.7'
P.I. 152+31.29
NOSE +21.74 64.9'
N 81°10'13"E
NOSE +00.0 51.8'
EXIST. C.D.P.
Δ=88°51'
BEGIN RAMP
STA. 130+95.65
S 69°29'47"E
STA. 141+24.69 ℄ RAMP 2 =
STA. 27+79.01 ℄ BANKHEAD DR.
Δ =78°00' OFF TANG. TO CURVE
P.I. 146+79.50
EXIST. C.D.P.
RAMP 2
N 76°16'13"E
END RAMP
STA. 151+95.69
P.C. 127+00.00
P.T. 132+75.00
RAMP 1
P.C. 139+00.70
P.I. 28+70.29
P.T. 141+82.30
P.C. 144+34.35
P.T. 149+24.35
P.I. 150+27.20
C OF A
EXISTING R/W
RAMP 1
PI = 129+89.69
Δ = 17°15'00" RT.
D = 3°00'00"
T = 289.69'
L = 575.00'
PC = 127+00.00
PT = 132+75.00
RAMP 2
PI = 146+79.50
Δ = 04°54'00" RT.
D = 1°00'00"
T = 245.15'
L = 490.00'
PC = 144+34.35
PT = 149+24.35
N 75°18'13"
RAMP 1
STA. 136+25 IN PLACE
DBL. 4'X3'x115' R.C. BOX CULVERT
(15° RT. FWD. SKEW)
RETAIN
C OF A
EXISTING R/W
P.I. 140+46.10
P.C. 24+48.45
N 45°33'47"W
RAMP 2
STA. 143+00 IN PLACE
48"x104' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN
RAMP 1
PI = 140+46.10
Δ = 35°12'00" LT.
D = 12°30'00"
T = 145.40'
L = 281.60'
PC = 139+00.70
PT = 141+82.30
STA. 142+20.65 ℄ RAMP 1 =
STA. 27+64.01 ℄ BANKHEAD DR.
Δ =78°00' OFF TANG. TO CURVE
BANKHEAD DR.
PI = 28+70.29
Δ = 47°40'00" RT.
D = 6°00'00"
T = 421.84'
L = 794.44'
PC = 24+48.45
PT = 32+42.89

INTERCHANGE LAYOUT - BANKHEAD DR.

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9/21/2015

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.		BB0611	67	169
				(2)	INTERCHANGE LAYOUT - LINDSEY RD.			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

N

0 100 200 300
GRAPHIC SCALE IN FEET

LINDSEY RD.
PI = 22+92.00
Δ = 9°51'00" RT.
D = 3°00'00"
T = 164.57'
L = 328.33'
PC = 21+27.43
PT = 24+55.76

RAMP 4
STA. 174+00 IN PLACE
TRP. 4'X2'X53' R.C. BOX CULVERT
RETAIN

FLOODPLAIN LIMITS

RAMP 4
PI = 167+48.37
Δ = 03°32'00" LT.
D = 1°00'00"
T = 176.72'
L = 353.33'
PC = 165+71.65
PT = 169+24.98

STA. 176+96.31 END ℄ RAMP 4 =
STA. 23+72.92 ℄ LINDSEY RD.
Δ =86°10' OFF TANG. TO CURVE

STA. 175+12.59 BEGIN ℄ RAMP 3 =
STA. 23+59.03 ℄ LINDSEY RD.
Δ =74°35' OFF TANG. TO CURVE

RAMP 3
PI = 177+62.59
Δ = 36°40'00" RT.
D = 12°00'00"
T = 158.21'
L = 305.56'
PC = 176+04.38
PT = 179+09.94

RAMP 3
STA. 184+00 IN PLACE
24"x84' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN

BEGIN RAMP
STA. 167+43.84

BEGIN RAMP
STA. 165+98.96

STA. 177+58.76 ℄ MEDIAN =
STA. 27+22.77 ℄ LINDSEY RD.
Δ = 57°55'

BR. END
STA. 176+20.53
BEGIN EXCEPTION

BR. END
STA. 178+98.10
END EXCEPTION

RAMP 3
PI = 189+21.89
Δ = 17°06'00" LT.
D = 3°00'00"
T = 287.13'
L = 570.00'
PC = 186+34.76
PT = 192+04.76

END RAMP
STA. 188+20.90

END RAMP
STA. 189+34.97

RAMP 1
PI = 167+08.81
Δ = 30°00'00" RT.
D = 4°00'00"
T = 383.81'
L = 750.00'
PC = 163+25.00
PT = 170+75.00

RAMP 1
PI = 176+95.22
Δ = 19°53'00" LT.
D = 8°00'00"
T = 125.53'
L = 248.54'
PC = 175+69.69
PT = 178+18.23

STA. 178+73.16 END ℄ RAMP 1=
STA. 30+72.77 ℄ LINDSEY RD.
Δ =75°00'

STA. 179+02.77 BEGIN ℄ RAMP 2 =
STA. 30+41.00 ℄ LINDSEY RD.
Δ =73°00'

RAMP 1
STA. 175+00 IN PLACE
DBL. 30"x52' R.C. PIPE CULVERT
(30° RT. FWD. SKEW)
WITH F.E.S. LT. & RT.
RETAIN

RAMP 2
STA. 183+00 IN PLACE
24"x70' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN

RAMP 2
PI = 187+60.18
Δ = 15°05'00" RT.
D = 2°00'00"
T = 379.28'
L = 754.17'
PC = 183+80.90
PT = 191+35.07

FLOODPLAIN LIMITS

INTERCHANGE LAYOUT - LINDSEY RD.

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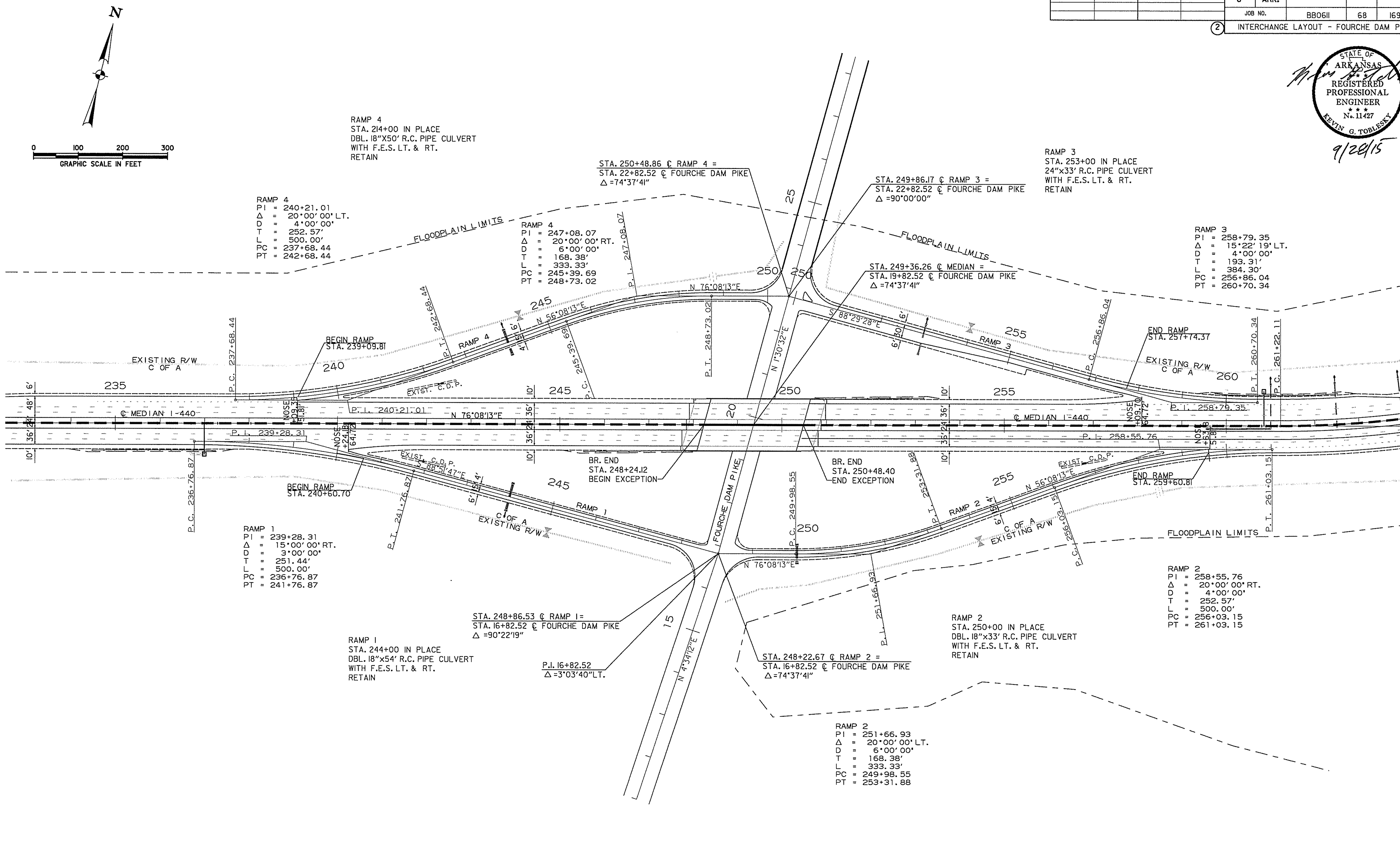
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	68	169

(2) INTERCHANGE LAYOUT - FOURCHE DAM PIKE



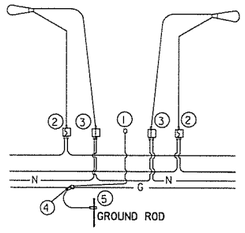
N
0 100 200 300
GRAPHIC SCALE IN FEET
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11427 KEVIN G. TOBLESKY
9/28/15
RAMP 4
STA. 214+00 IN PLACE
DBL. 18"X50' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN
RAMP 4
PI = 240+21.01
Δ = 20°00'00" LT.
D = 4°00'00"
T = 252.57'
L = 500.00'
PC = 237+68.44
PT = 242+68.44
RAMP 4
PI = 247+08.07
Δ = 20°00'00" RT.
D = 6°00'00"
T = 168.38'
L = 333.33'
PC = 245+39.69
PT = 248+73.02
STA. 250+48.86 ℄ RAMP 4 =
STA. 22+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"
STA. 249+86.17 ℄ RAMP 3 =
STA. 22+82.52 ℄ FOURCHE DAM PIKE
Δ = 90°00'00"
RAMP 3
STA. 253+00 IN PLACE
24"x33' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN
RAMP 3
PI = 258+79.35
Δ = 15°22'19" LT.
D = 4°00'00"
T = 193.31'
L = 384.30'
PC = 256+86.04
PT = 260+70.34
STA. 249+36.26 ℄ MEDIAN =
STA. 19+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"
FLOODPLAIN LIMITS
BEGIN RAMP
STA. 239+09.81
END RAMP
STA. 257+74.37
EXISTING R/W
C OF A
℄ MEDIAN I-440
P.I. 240+21.01
N 76°08'13"E
P.I. 239+28.31
P.I. 258+79.35
P.I. 258+55.76
BR. END
STA. 248+24.12
BEGIN EXCEPTION
BR. END
STA. 250+48.40
END EXCEPTION
BEGIN RAMP
STA. 240+60.70
END RAMP
STA. 259+60.81
FOURCHE DAM PIKE
RAMP 1
PI = 239+28.31
Δ = 15°00'00" RT.
D = 3°00'00"
T = 251.44'
L = 500.00'
PC = 236+76.87
PT = 241+76.87
STA. 248+86.53 ℄ RAMP 1=
STA. 16+82.52 ℄ FOURCHE DAM PIKE
Δ = 90°22'19"
RAMP 1
STA. 244+00 IN PLACE
DBL. 18"x54' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN
P.I. 16+82.52
Δ = 3°03'40" LT.
STA. 248+22.67 ℄ RAMP 2 =
STA. 16+82.52 ℄ FOURCHE DAM PIKE
Δ = 74°37'41"
RAMP 2
STA. 250+00 IN PLACE
DBL. 18"x33' R.C. PIPE CULVERT
WITH F.E.S. LT. & RT.
RETAIN
RAMP 2
PI = 258+55.76
Δ = 20°00'00" RT.
D = 4°00'00"
T = 252.57'
L = 500.00'
PC = 256+03.15
PT = 261+03.15
RAMP 2
PI = 251+66.93
Δ = 20°00'00" LT.
D = 6°00'00"
T = 168.38'
L = 333.33'
PC = 249+98.55
PT = 253+31.88

INTERCHANGE LAYOUT - FOURCHE DAM PIKE

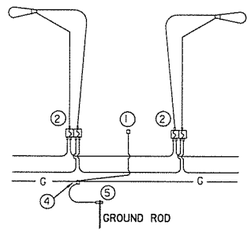
JACOBS

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.		BB061I	69	169
				(2)	ILLUMINATION DETAILS			

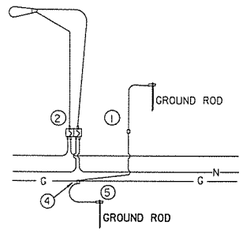
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/26/15



FOUR-WIRE CIRCUIT-CENTER GROUNDED LUMINAIRES SERVED AT 240V (240/480 VOLT SERVICE)

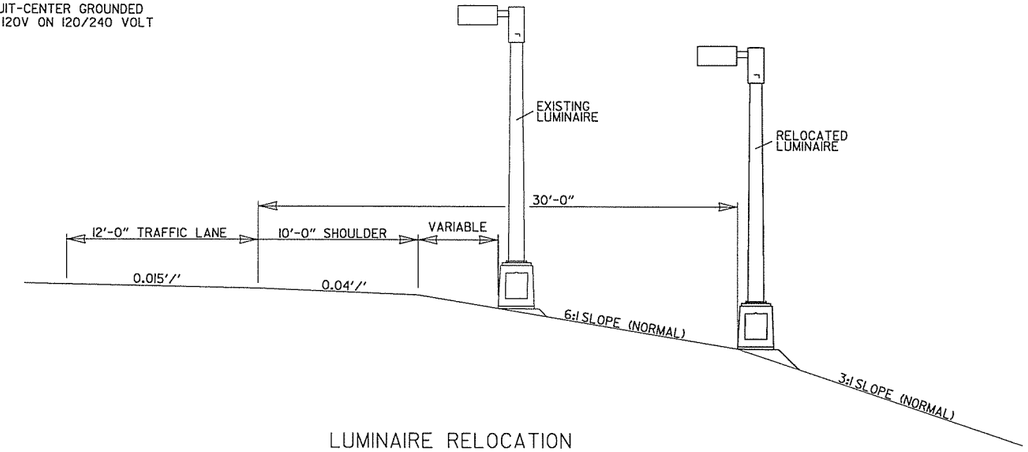


FOR THREE-WIRE CIRCUIT-CENTER GROUNDED LUMINAIRES SERVED AT 480V ON 240/480 VOLT SERVICE OR LUMINAIRES SERVED AT 240V FOR 120/240 VOLT SERVICE.



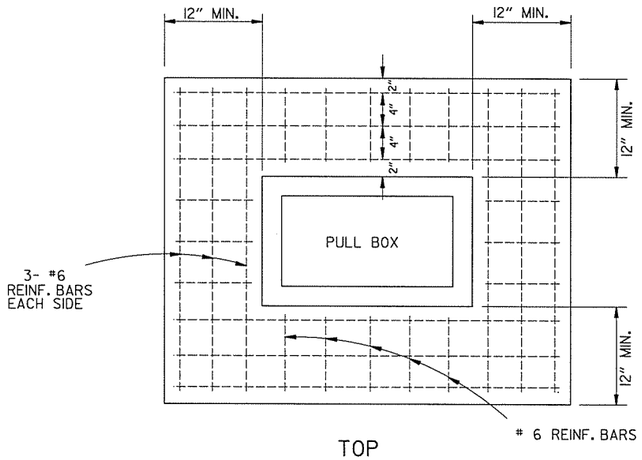
FOR THREE-WIRE CIRCUIT-CENTER GROUNDED LUMINAIRES SERVED AT 120V ON 120/240 VOLT SERVICE.

LUMINAIRE WIRING SCHEMATICS

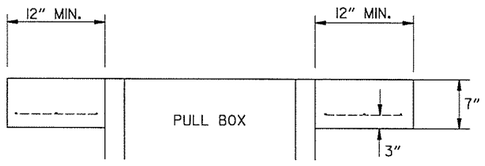


LUMINAIRE RELOCATION

NOTE:
ALL REINFORCING BARS TO BE GRADE 60

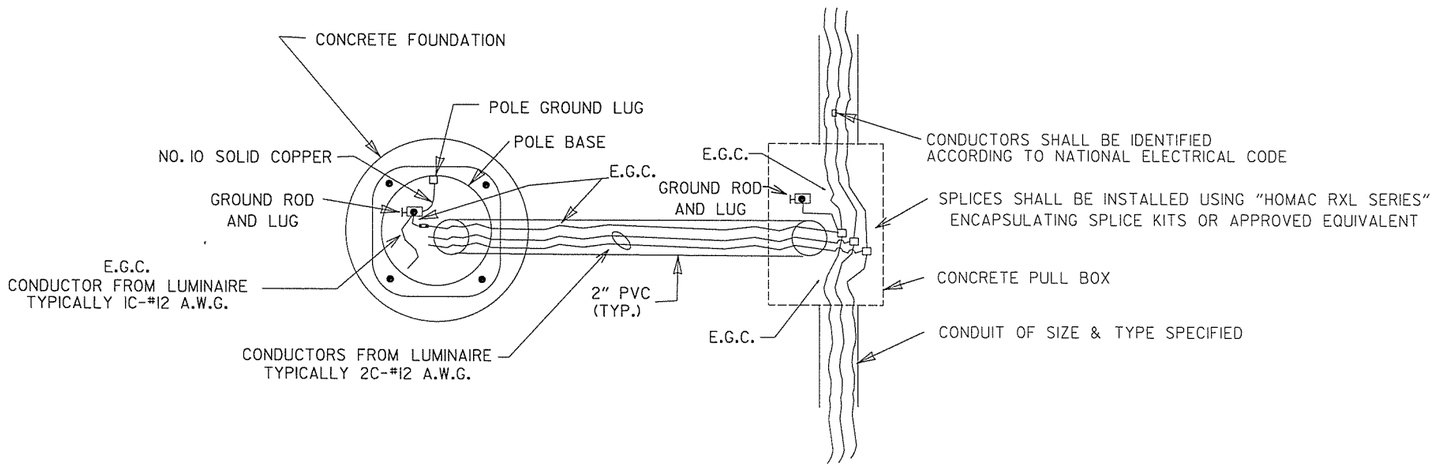


TOP



ELEVATION

DETAILS OF CONCRETE APRON FOR TYPE "HD" PULL BOX



NOTE: AN APPROVED SPLICE SHALL BE USED TO TRANSITION FROM ALUMINUM TO COPPER GROUND WIRE PRIOR TO BONDING TO GROUND LUG.

POLE FOUNDATION/PULL BOX WIRING DETAIL

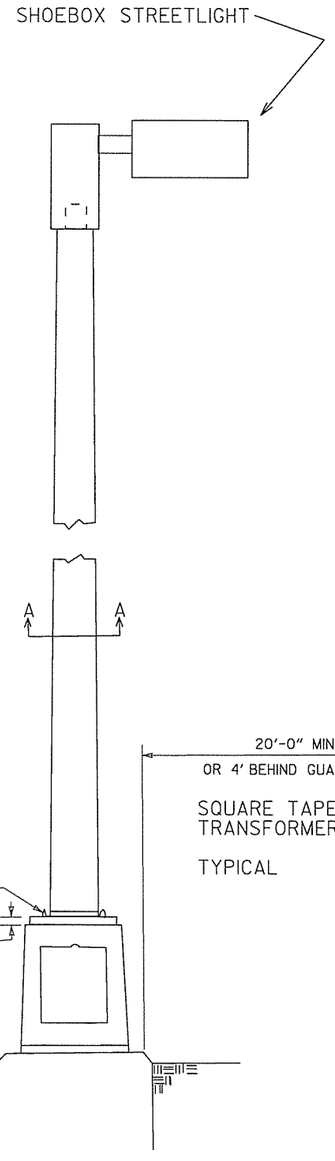
ILLUMINATION DETAILS

JACOBS

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.		BB061I	70	169

(2) ILLUMINATION DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11427
KEVIN G. TOBLESKY
9/28/15

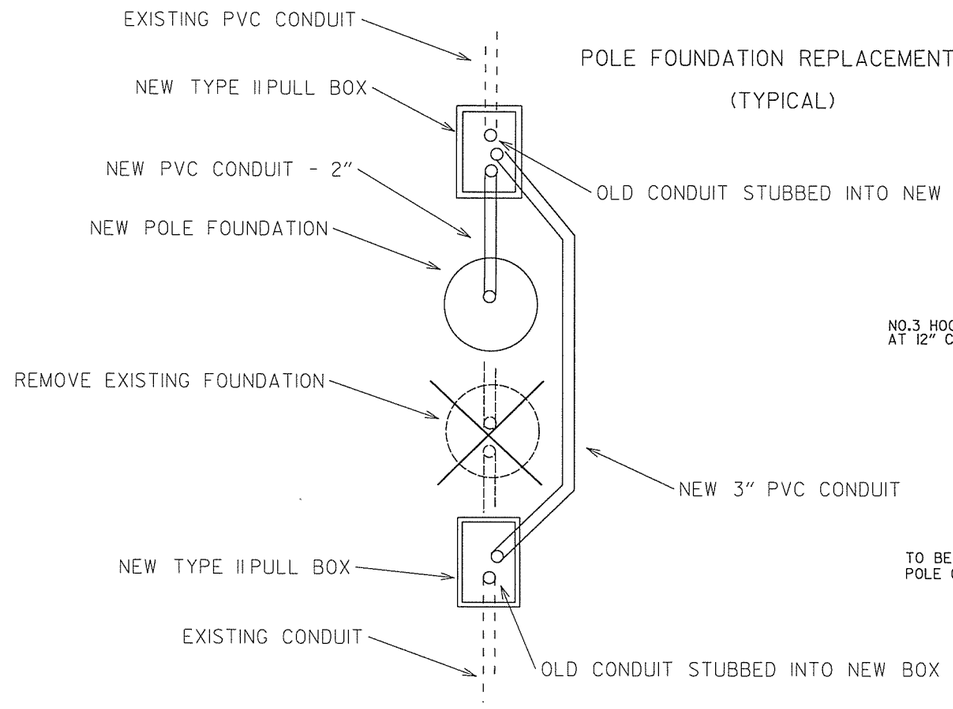


COBRA HEAD LUMINAIRE WITH TRANSFORMER BASE

SQUARE TAPERED STEEL POLE
TRANSFORMER BASE UTILIZED ON GROUND MOUNT INSTALLATIONS

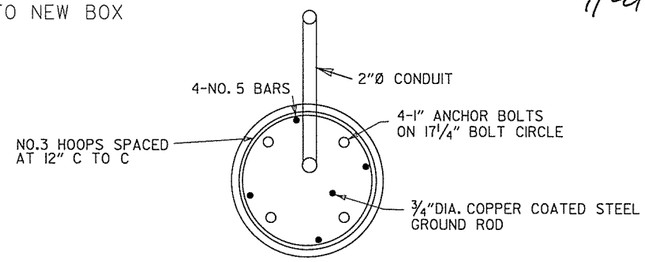
TYPICAL

SECTION A-A



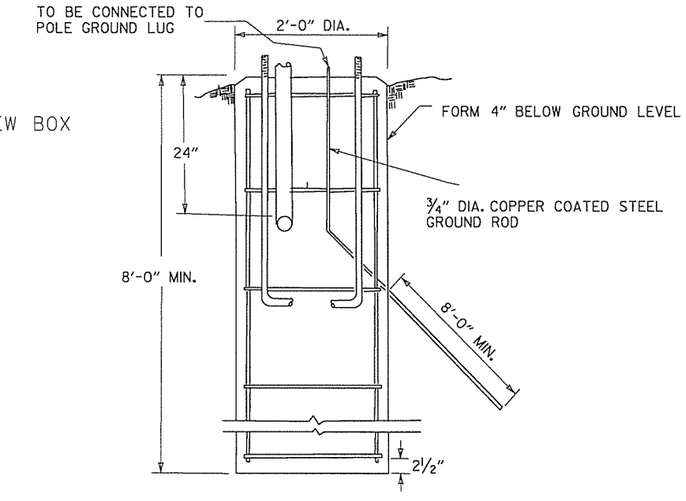
POLE FOUNDATION REPLACEMENT DETAIL

(TYPICAL)

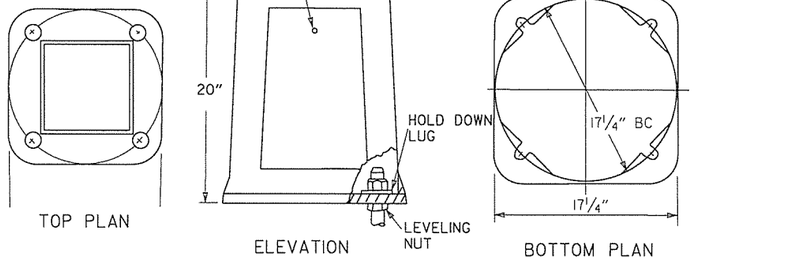


PLAN

NOTE:
TOP OF FOUNDATION SHALL BE
FLUSH WITH LOCAL GROUND SURFACE.



CONCRETE BASE



TOP PLAN

ELEVATION

BOTTOM PLAN

NOTE: DOOR OPENING APPROX. 7⅝" x 8⅞" x 13⅝"
TOP AND BOTTOM BOLT HOLES WILL ACCOMMODATE
MINIMUM 1" DIA. BOLTS
MATERIAL SHALL CONFORM TO COMMERCIAL
DESIGNATION: A356-T6 ALLOY.

4 - HOT DIP GALVANIZED HOLD DOWN
LUGS PROVIDED FOR USE UNDER
ANCHOR BOLT HEX NUTS AS SHOWN.

TRANSFORMER BASE

TRANSFORMER BASES FURNISHED ON THIS PROJECT SHALL MEET
THE LATEST AASHTO REQUIREMENTS FOR A BREAKAWAY DESIGN.

ILLUMINATION DETAILS

JACOBS

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.		BB0611	71	169

(2) SIGNING SUMMARY OF QUANTITIES

SIGNING SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	TOTAL	UNIT
SP	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE	9	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-37)	1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-38)	1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-39)	1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-40)	1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-41)	1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-440-60-42)	1	EACH
SP	STEEL TEE MOUNT SIGN STRUCTURE (TM-440-60-01)	1	EACH
SP	RELOCATION OF VMS ASSEMBLY	2	EACH
725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	1697	SQ. FT.
725	GUIDE SIGN - OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)	2805	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)	280	SQ. FT.
727	EXIT NUMBER PANEL (TYPE C)	35	SQ. FT.
726	STANDARD SIGN	887	SQ. FT.
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-2)	35	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-4)	2	EACH
730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	10012	POUND

NOTES:

ALL EXISTING GUIDE SIGNS SHALL BE MAINTAINED IN SUCH A MANNER THAT THE SIGNS ARE FULLY VISIBLE, INTACT, AND ERECT FOR THE DURATION OF THE PROJECT, AND SHALL BE REMOVED WHEN THEIR USE IS NO LONGER REQUIRED. REMOVAL AND DISPOSAL OF SIGNS, SUPPORTS AND FOUNDATIONS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

THE EXISTING SIGNS AND SUPPORTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE EXISTING FOOTINGS SHALL BE REMOVED AND THE HOLES FILLED WITH A SUITABLE MATERIAL AND COMPACTED.

EXISTING LOGOS WILL BE RELOCATED TO THE NEW LOGO SIGN BY THE CONTRACTOR. THE LOGO INSTALLATION SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

NOTE:
BREAKAWAY SIGN SUPPORT TOTAL IS CALCULATED BY TAKING THE LENGTH OF H1, H2, H3 AND THE STUB POST AND MULTIPLYING BY THE BEAM WEIGHT (LBS).

STANDARD SIGNS FLAT SHEET

OMNI-DIRECTIONAL SIGN SUPPORTS

SIGN NO./ LOCATION	TYPE G1 EA.	G2 EA.	G2-1 EA.	G2-2 EA.	G2-3 EA.	G2-4 EA.	G2-5 EA.	G2-6 EA.	G2-7 EA.	G2-8 EA.	G2-9 EA.	G2-10 EA.	STANDARD SIGN SQ. FT.
EX-440-LM6.847EB		1											30.00
EX-440-257+00WB		1											30.00
EX-440-241+00WB		1											30.00
EX-440-166+50EB		1											30.00
EX-440187+90WB		1											30.00
EX-440-152+50WB		1											30.00
EX-440-131+00EB		1											30.00
SS-440-114+00EB		1											20.00
SS-440-214+50WB		1											20.00
SS-440-214+50EB		1											20.00
SS-440-237+00EB-B		OH											20.00
SS-440-260+80WB-B		OH											20.00
SS-440-114+00WB		1											20.00
SS-440-209+00EB		1											20.00
SS-440-221+00WB		1											20.00
SS-440-126+90EB		1											20.00
SS-440-193+00WB		1											20.00
SS-440-260+80WB-A		OH											20.00
SS-440-156+00WB		1											20.00
SS-440-237+00EB-A		OH											20.00
SS-440-LM6.797WB		1											20.00
SS-440-162+00EB		1											20.00
SS-440-120+00WB		1											24.50
SS-440-227+50WB		1											24.50
SS-440-203+00EB		1											24.50
SS-440-LM6.516WB						1							39.50
SS-440-270+00EB						1							39.50
SS-440-133+00WB		1											16.00
SS-440-147+00EB		1											16.00
SS-440-172+00WB		1											16.00
SS-440-185+00EB		1											16.00
SS-440-244+00WB		1											16.00
SS-440-255+00EB		1											16.00
SS-440-LM6.880WB		1											16.00
SS-440-153+00EB		1											16.00
SS-440-165+00WB		1											16.00
SS-440-170+00EB		1											16.00
SS-440-243+00EB		1											16.00
SS-440-255+00WB		1											16.00
SS-440-263+00EB		1											16.00
SS-440-185+00WB		1											16.00
TOTALS:		**35**				**2**							**886.50**

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTINI
9/10/15

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.		BB0611	72	169

(2) SIGNING QUANTITIES

OVERHEAD SIGNING QUANTITIES

SIGN NO./ LOCATION	STRUCTURE TYPE: INSTALL SIGN STRUCTURE (EA) ST	OC	OH	BM	MAINTAIN EXISTING SIGN STRUCTURE ST	OC	OH	BM	REMOVE EXISTING SIGN STRUCTURE (EA) ST	OC	OH	BM	GUIDE SIGN Length LIN. FT.	Height LIN. FT.	SQ. FT.	EXIT NUMBER PANEL LEGEND	TYPE A	B	C	GUARDRAIL TYPE A LIN. FT.	TERM. ANCHOR POSTS TYPE 1 EACH	GUARDRAIL TERM. TYPE 2 EACH	AGG. BASE CR (CL. 7) TON	ACHM SURF. CR. 220 LBS/SY TON
OH-440-60-02							1															SEE ROADWAY SHEETS			
OH-440-60-LM1.452EB-A													11.00	12.50	137.50	1	17.50								
OH-440-60-LM1.452EB-B													13.50	11.50	155.25	3	17.50								
OH-440-60-37			1							1												SEE ROADWAY SHEETS			
OH-440-60-124+00EB-A													20.50	12.50	256.25	3	17.50								
OH-440-60-124+00EB-B													14.50	11.00	159.50	4	17.50								
OH-440-60-38			1							1												SEE ROADWAY SHEETS			
OH-440-60-156+00WB-A													20.50	13.00	266.50	3	17.50								
OH-440-60-156+00WB-B													11.00	11.50	126.50	1	17.50								
OH-440-60-156+00WB-C													14.00	16.00	224.00	138A-B			35.00						
OH-440-60-03											1														
BM-440-60-05												1													
OH-440-60-39			1							1												SEE ROADWAY SHEETS			
OH-440-60-162+00EB-A													14.50	11.00	159.50	4	17.50								
OH-440-60-162+00EB-B													16.50	8.00	132.00	5	17.50								
OH-440-60-162+00EB-C													15.60	11.00	171.60										
OH-440-60-40			1							1												SEE ROADWAY SHEETS			
OH-440-60-192+00WB-A													10.00	9.00	90.00	4	17.50								
OH-440-60-192+00WB-B													20.50	11.50	235.75	3	17.50								
TM-440-60-01	1										1														
VMS-440-60-214+50-A													11.00	12.00	EA.										
VMS-440-60-214+50-B													11.00	12.00	EA.										
OH-440-60-41			1							1												SEE ROADWAY SHEETS			
OH-440-60-237+00EB-A													16.50	9.00	148.50	5	17.50								
OH-440-60-237+00EB-B													10.50	11.50	120.75	7	17.50								
OH-440-60-42			1							1												SEE ROADWAY SHEETS			
OH-440-60-260+80WB-A													22.00	11.00	242.00	5	17.50								
OH-440-60-260+80WB-B													10.00	7.50	75.00	4	17.50								
OH-440-60-260+80WB-C													13.00	8.00	104.00										
TOTALS:	**1**		**6**				**1**			**6**	**2**	**1**			**2804.60**		**245.00**		**35.00**						

MAIN LANES ROADSIDE MOUNTED SIGNING QUANTITIES

SIGN NO./ LOCATION	I-BEAM STRUCTURE TYPE G1	G2	G3	GUIDE SIGN DEMOUNTABLE LEGEND LENGTH LIN. FT.	HEIGHT LIN. FT.	SQ. FT.	I-BEAM BREAKAWAY SIGN SUPPORT STEEL SECT. A-572 BEAM	LBS	SIGN POST LENGTH H - 1 LIN FT	H - 2 LIN FT	H - 3 LIN FT	STUB POST H - 1 LIN FT	H - 2 LIN FT	H - 3 LIN FT	FOOTINGS DIA. LIN FT	DEPTH LIN FT	EMBED. LIN FT	SIGN POST AND STUB POUND	EXIT NUMBER PANEL LEGEND	TYPE A SQ. FT.	B SQ. FT.	C SQ. FT.
GM-440-251+00EB		1		16.00	11.50	184.00	W10	22.00	18.50	19.50		6.83	6.83		3.00	7.00	6.50	1136.52				
GM-440-60-LM6.589WB		1		22.50	11.00	247.50	W12	26.00	18.00	19.00		6.83	6.83		3.00	7.00	6.50	1317.16	5	17.50		
GM-440-60-LM6.744EB		1		14.50	10.00	145.00	W8	18.00	13.00	14.00		6.33	6.33		2.50	6.50	6.00	713.88	7	17.50		
GM-440-138+00WB		1		15.00	7.00	105.00	W8	18.00	14.00	15.00		6.33	6.33		2.50	6.50	6.00	749.88				
GM-440-270+00WB		1		12.00	5.00	60.00	W6	16.00	12.00	13.00		5.33	5.33		2.50	5.50	5.00	570.56				
GM-440-LM6.516EB		1		13.00	7.00	91.00	W8	18.00	13.00	14.00		6.33	6.33		2.50	6.50	6.00	713.88				
LFL-440-219+00EB		1		18.00	12.00	216.00	W10	22.00	19.00	20.00		7.83	7.83		3.00	8.00	7.50	1202.52				
LG-440-228+00EB		1		18.00	12.00	216.00	W10	22.00	19.00	20.00		7.83	7.83		3.00	8.00	7.50	1202.52				
LG-440-267+00WB		1		18.00	12.00	216.00	W10	22.00	19.00	20.00		7.83	7.83		3.00	8.00	7.50	1202.52				
LFL-440-LM6.579WB		1		18.00	12.00	216.00	W10	22.00	19.00	20.00		7.83	7.83		3.00	8.00	7.50	1202.52				
TOTALS:		**10**				**1696.50**												**10011.96**		**35.00**		

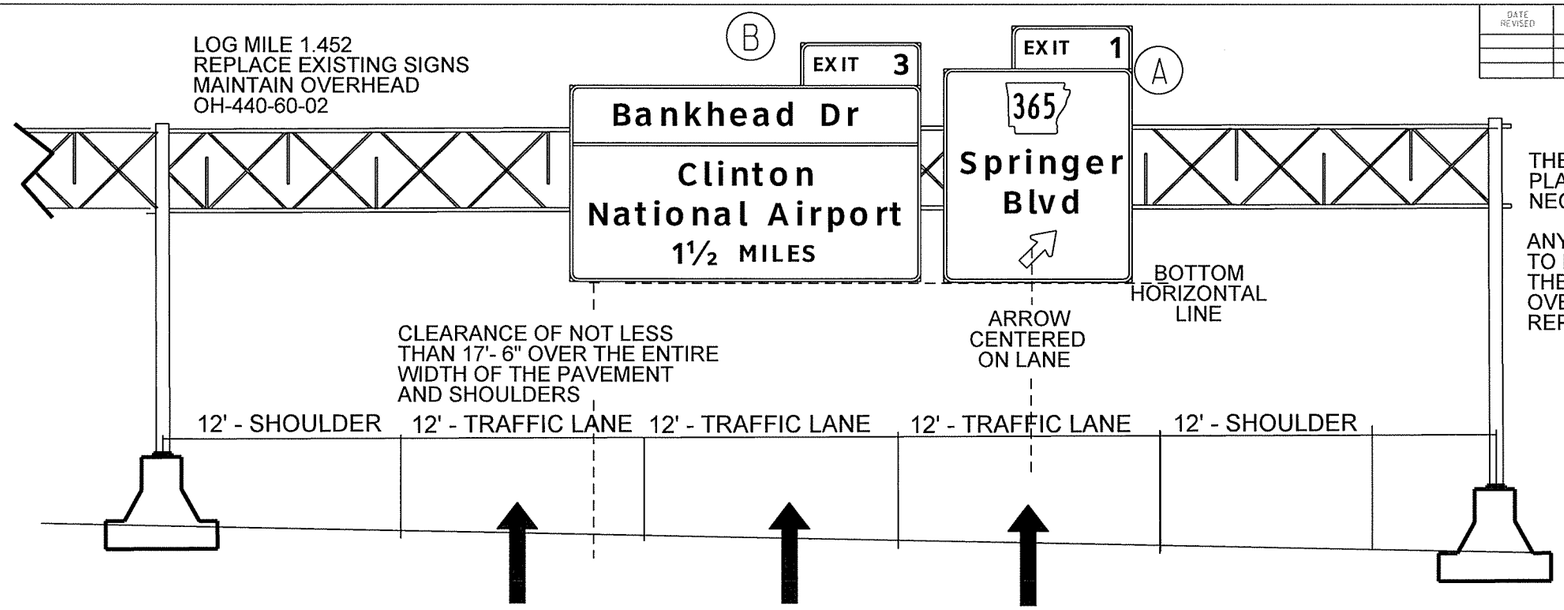
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
4-2-15
JOSEPH A. SARTINI

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.		BB0611	73	169

(2) SIGN LAYOUT SHEET

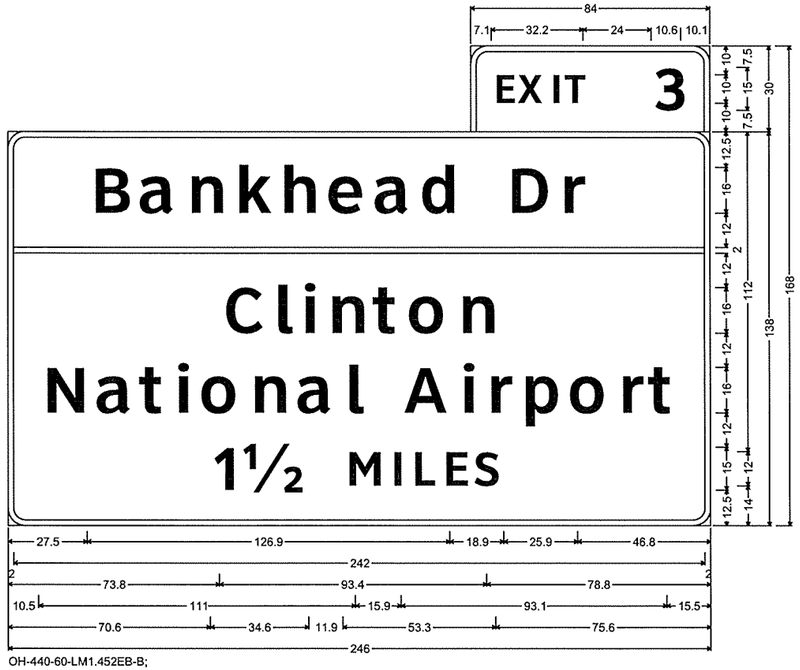
OH-440-60-02

LOG MILE 1.452
REPLACE EXISTING SIGNS
MAINTAIN OVERHEAD
OH-440-60-02

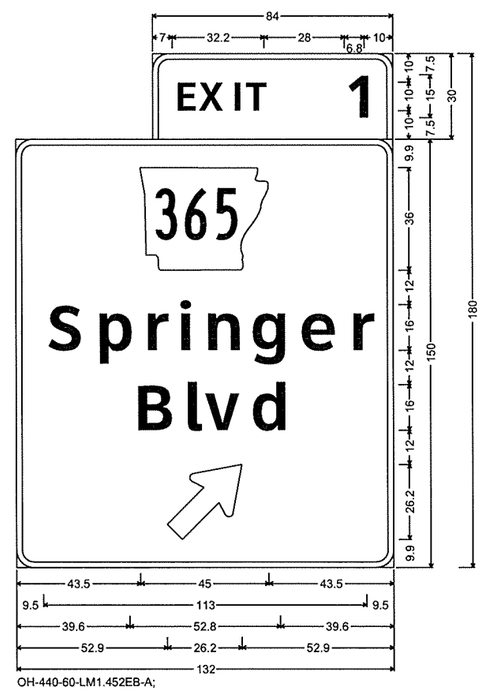


THE CONTRACTOR WILL VERIFY SIGN PLACEMENT AND MAKE ANY ADJUSTMENTS NECESSARY TO ALIGN SIGNS AS SHOWN.

ANY DAMAGE TO THE OVERHEAD SIGN STRUCTURE TO BE MAINTAINED THAT OCCURS AS PART OF THE REMOVAL OR RE-INSTALLATION OF THE OVERHEAD SIGNS SHALL BE REPAIRED AND/OR REPLACED AT NO COST TO THE DEPARTMENT.



OH-440-60-LM1.452EB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Bankhead Dr] ClearviewHwy-5-W; [Clinton] ClearviewHwy-5-W; [National Airport] ClearviewHwy-5-W;
[1½ MILES] ClearviewHwy-5-W;



OH-440-60-LM1.452EB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
M1-6; [Springer] ClearviewHwy-5-W; [Blvd] ClearviewHwy-5-W;
Standard Arrow Custom 33.4" X 20.3" 45°;

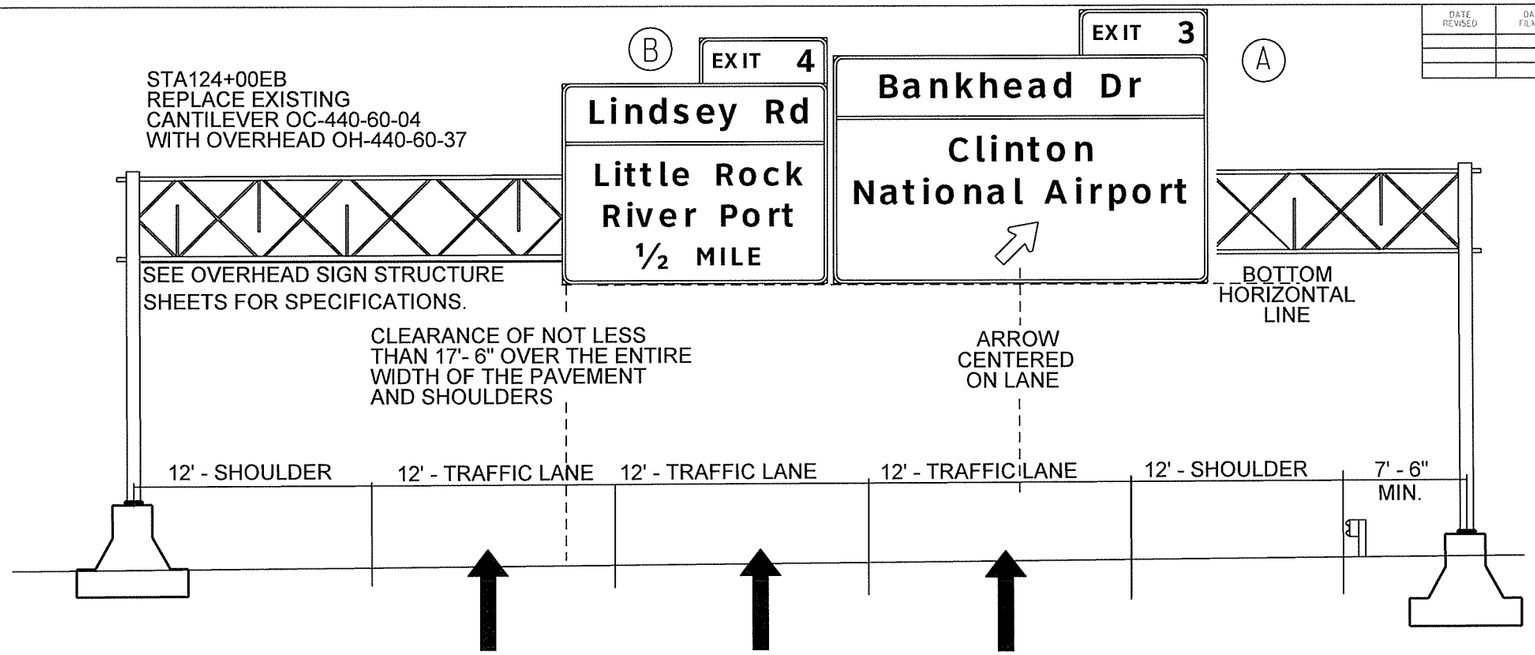
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
9-2-15
JOSEPH A. SARTINI

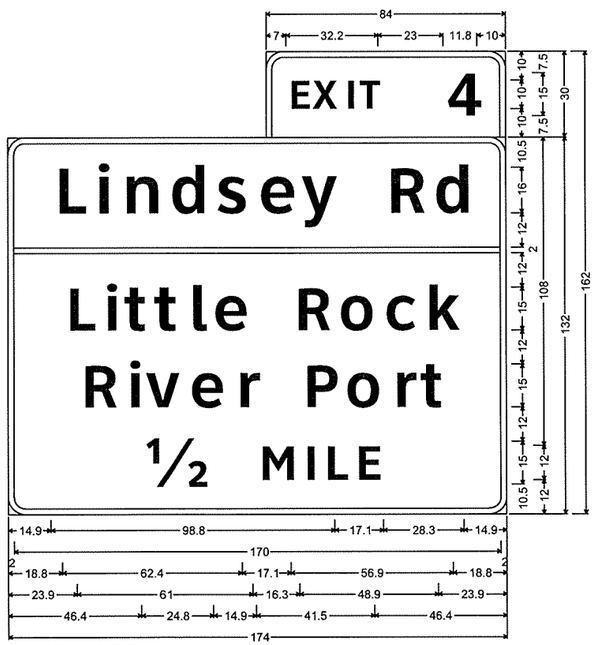
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	74	169

(2) SIGN LAYOUT SHEET

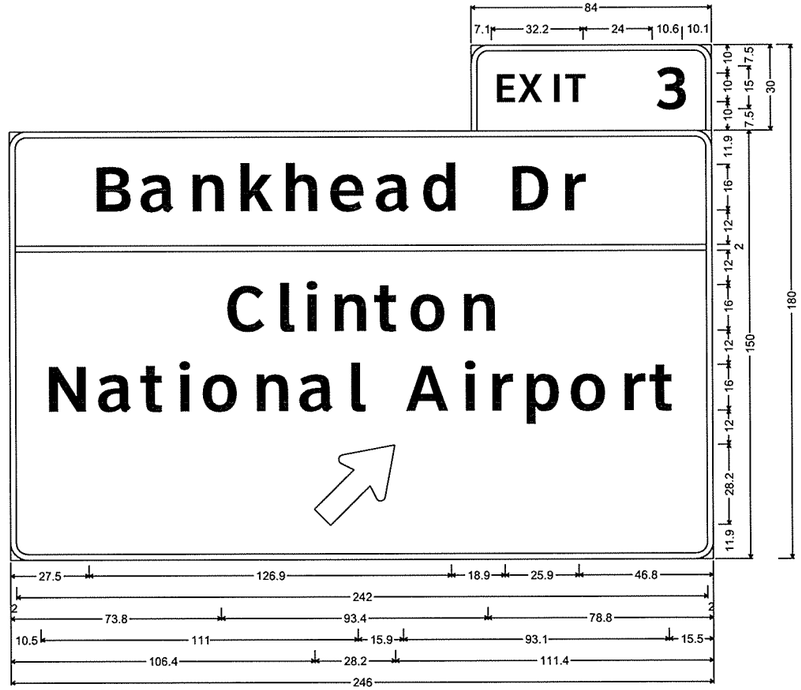
OH-440-60-37

STA124+00EB
REPLACE EXISTING
CANTILEVER OC-440-60-04
WITH OVERHEAD OH-440-60-37





OH-440-60-124+00EB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Lindsey Rd] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[River Port] ClearviewHwy-5-W; [½] ClearviewHwy-5-W; [MILE] ClearviewHwy-5-W;



OH-440-60-124+00EB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Bankhead Dr] ClearviewHwy-5-W; [Clinton] ClearviewHwy-5-W; [National Airport] ClearviewHwy-5-W;
Standard Arrow Custom 35.8" X 21.6" 45°;

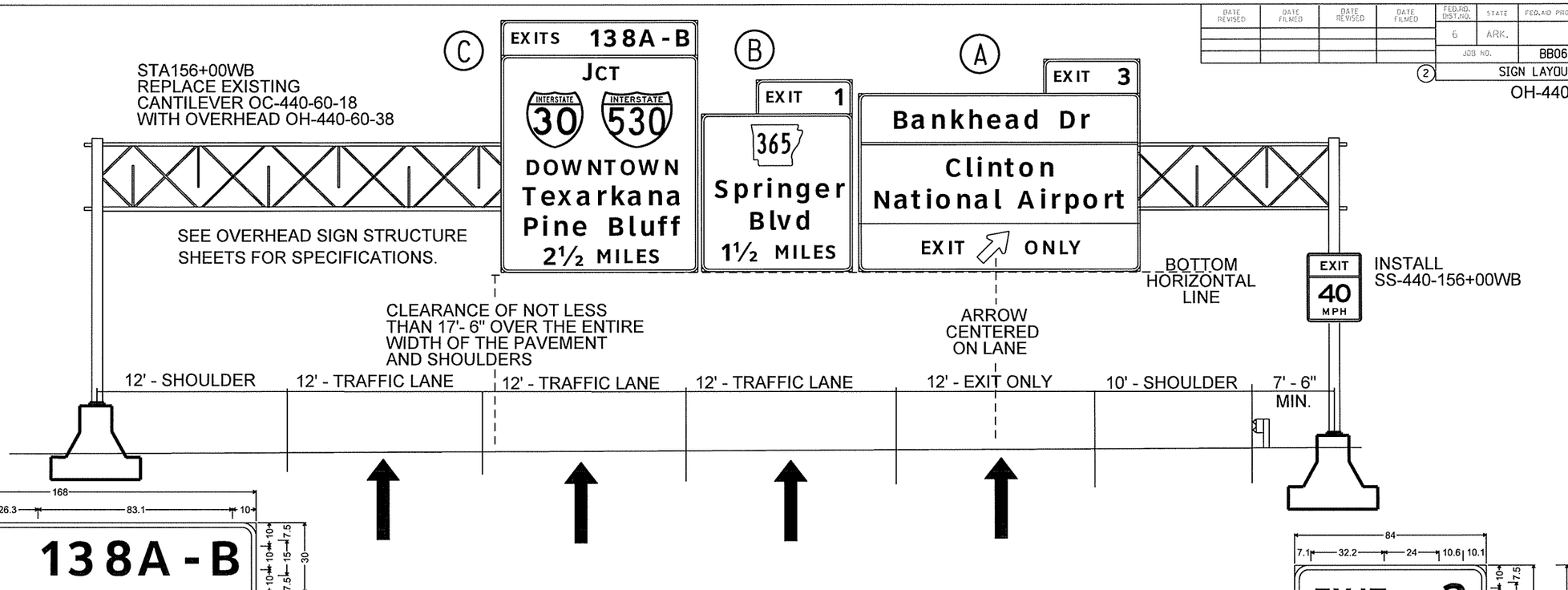
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTINI
9-19-25

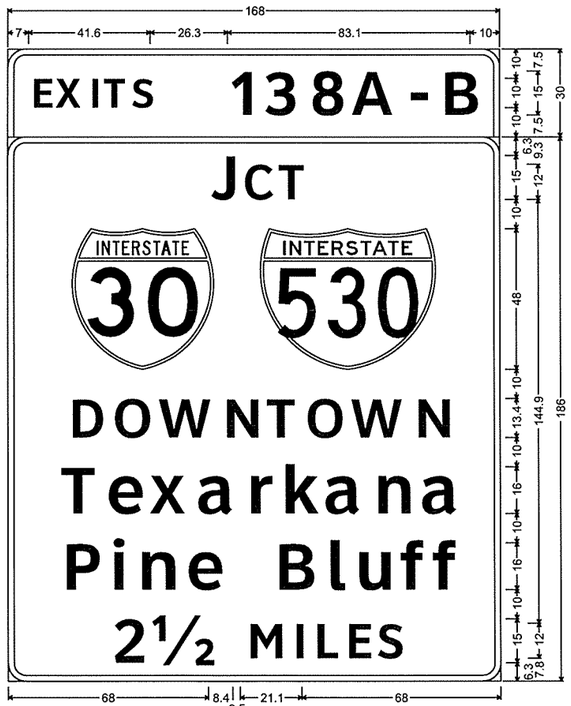
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	75	169

(2) SIGN LAYOUT SHEET

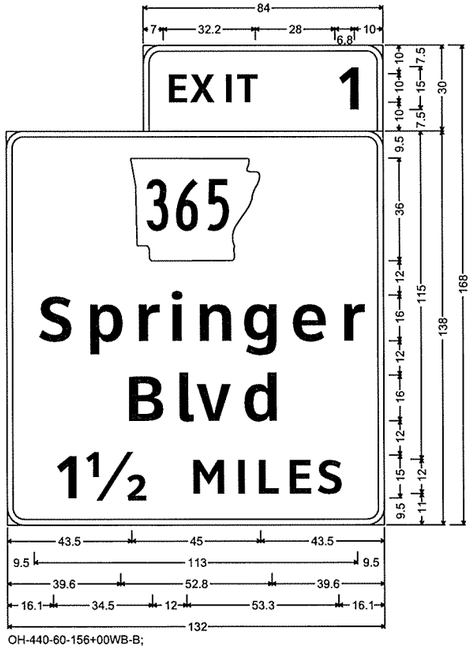
OH-440-60-38

STA156+00WB
REPLACE EXISTING
CANTILEVER OC-440-60-18
WITH OVERHEAD OH-440-60-38

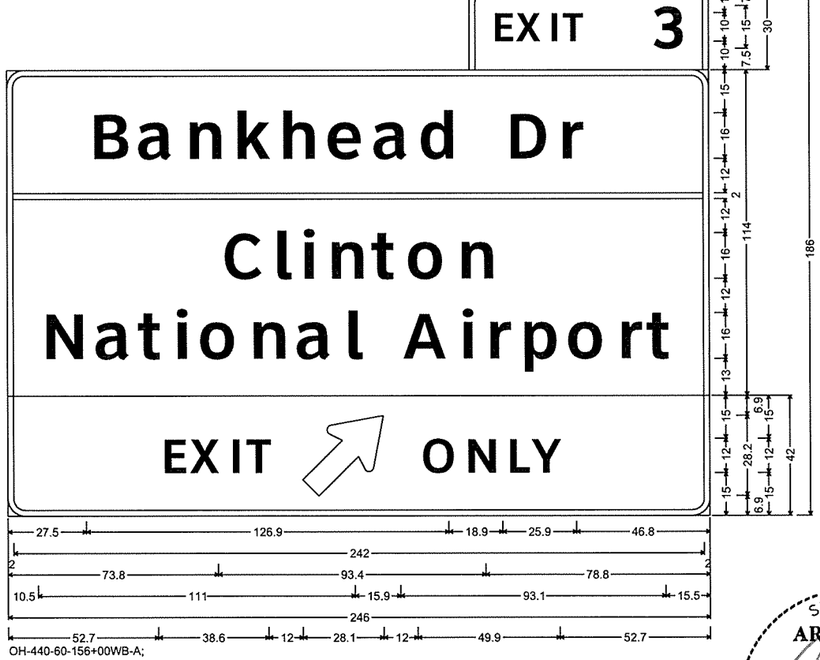




OH-440-60-156+00WB-C;
6.0" Radius, 2.0" Border, White on Green;
[EXITS] ClearviewHwy-5-W; [138A-B] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[J] ClearviewHwy-5-W; [CT] ClearviewHwy-5-W;
[DOWNTOWN] ClearviewHwy-5-W; [Texarkana] ClearviewHwy-5-W;
[Pine Bluff] ClearviewHwy-5-W; [2½ MILES] ClearviewHwy-5-W;



OH-440-60-156+00WB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
M1-6; [Springer] ClearviewHwy-5-W; [Blvd] ClearviewHwy-5-W;
[1½] ClearviewHwy-5-W; [MILES] ClearviewHwy-5-W;



OH-440-60-156+00WB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Bankhead Dr] ClearviewHwy-5-W; [Clinton] ClearviewHwy-5-W; [National Airport] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, Black on Yellow;
[EXIT] ClearviewHwy-5-W; Standard Arrow Custom 35.8" X 21.6" 45°; [ONLY] ClearviewHwy-5-W;

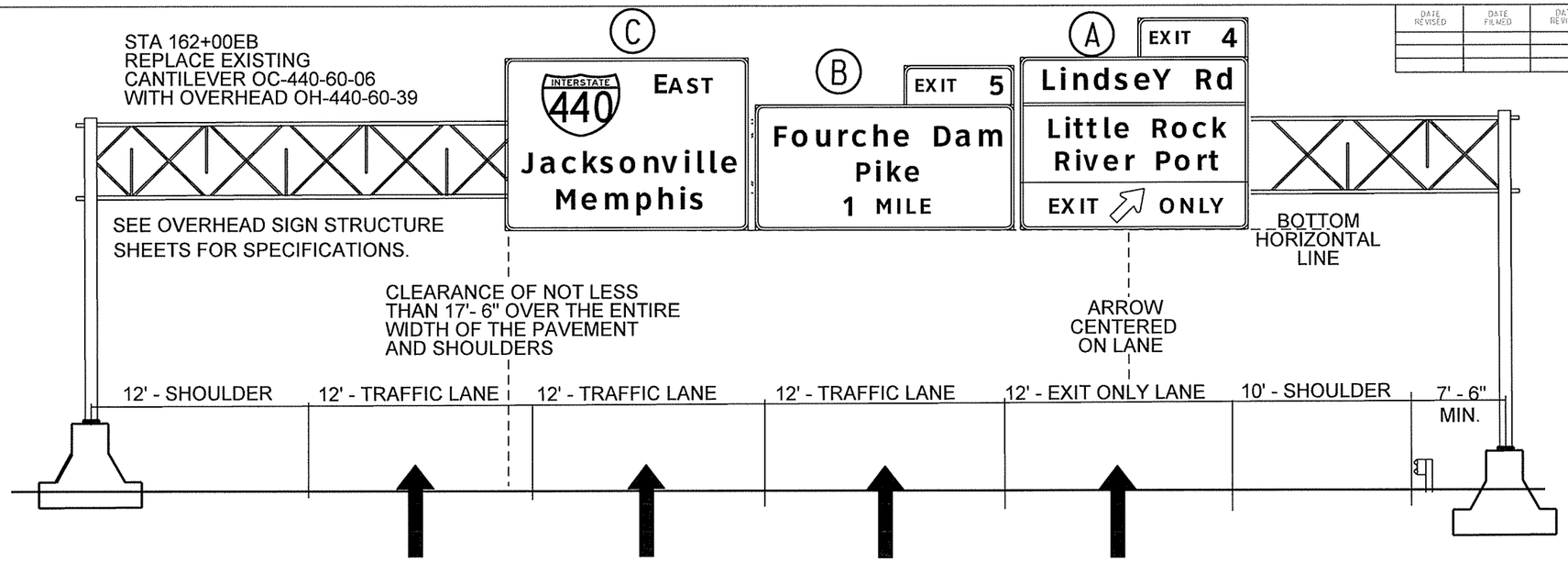
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
9-2-15
JOSEPH A. SARTINI

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.		BB0611	76	169

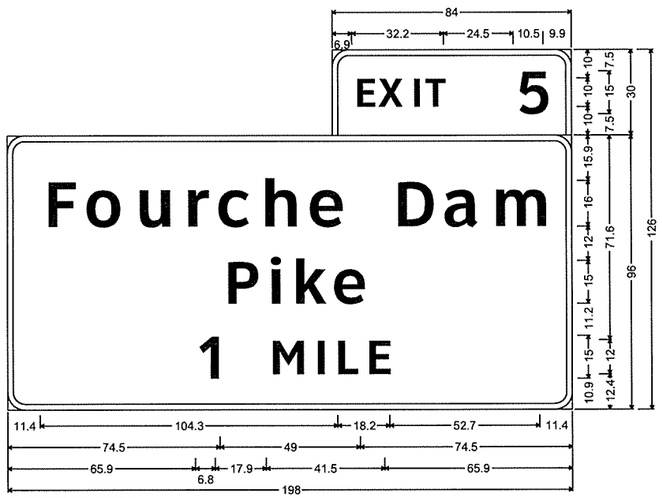
(2) SIGN LAYOUT SHEET

OH-440-60-39

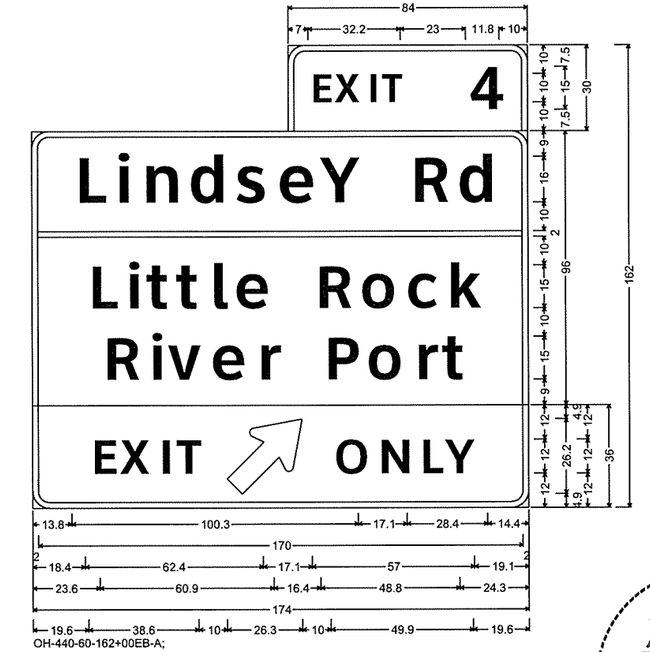
STA 162+00EB
REPLACE EXISTING
CANTILEVER OC-440-60-06
WITH OVERHEAD OH-440-60-39



OH-440-60-162+00EB-C; 6.0" Radius, 2.0" Border, White on Green;
[E] ClearviewHwy-5-W; [AST] ClearviewHwy-5-W; [Jacksonville] ClearviewHwy-5-W;
[Memphis] ClearviewHwy-5-W;



OH-440-60-162+00EB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Fourche Dam] ClearviewHwy-5-W; [Pike] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;
[MILE] ClearviewHwy-5-W;



OH-440-60-162+00EB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[LindseY Rd] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[River Port] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, Black on Yellow;
[EXIT] ClearviewHwy-5-W; Standard Arrow Custom 33.4" X 20.3" 45°;
[ONLY] ClearviewHwy-5-W;

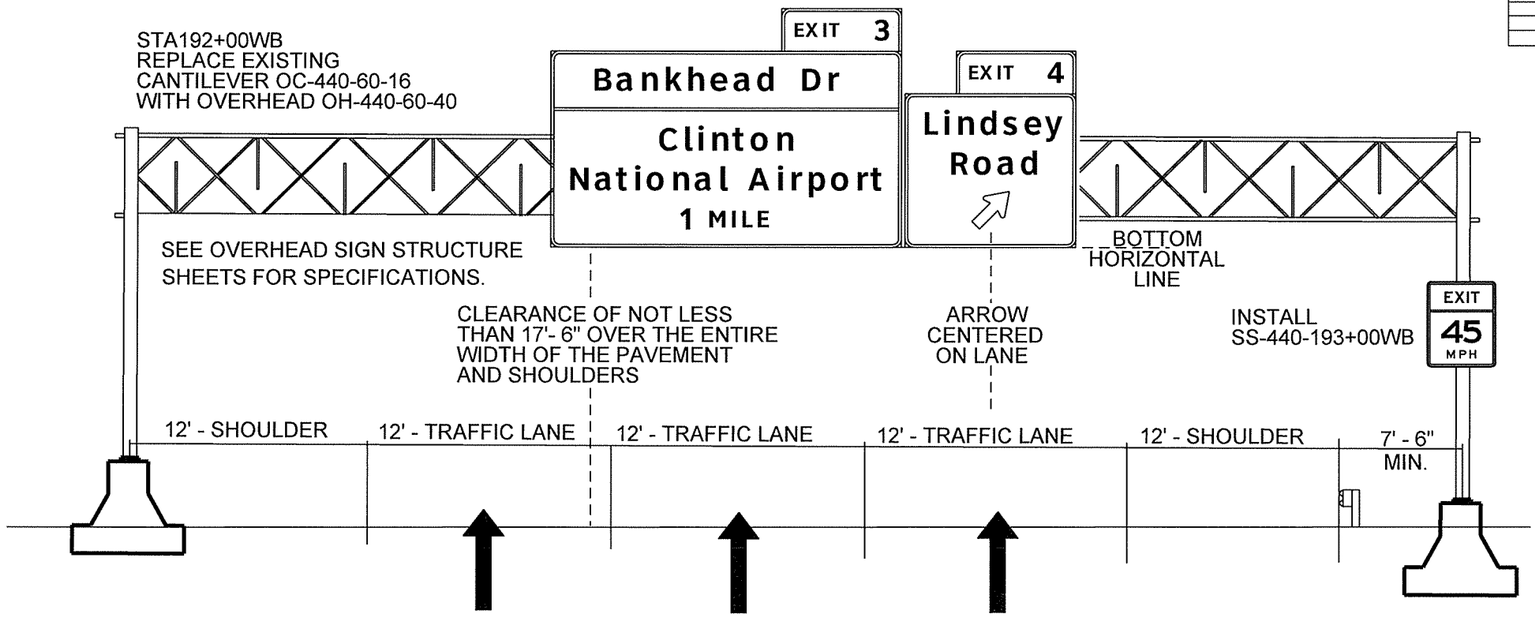
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTINI
9-2-15

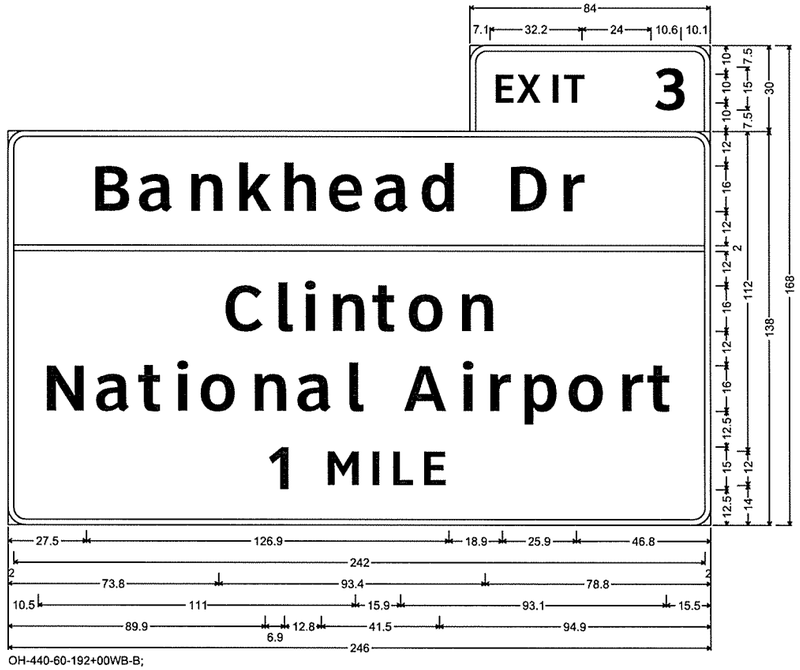
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	77	169

(2) SIGN LAYOUT SHEET

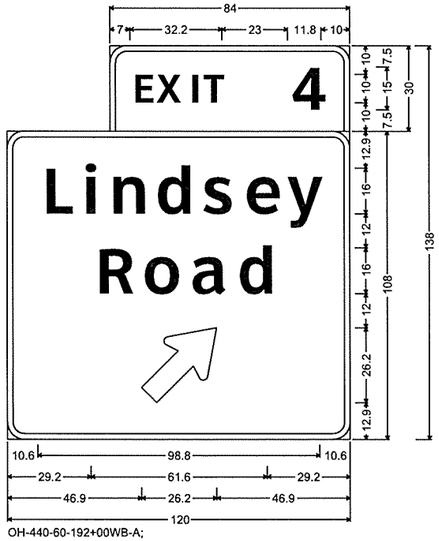
OH-440-60-40

STA192+00WB
REPLACE EXISTING
CANTILEVER OC-440-60-16
WITH OVERHEAD OH-440-60-40





OH-440-60-192+00WB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Bankhead Dr] ClearviewHwy-5-W; [Clinton] ClearviewHwy-5-W; [National Airport] ClearviewHwy-5-W;
[1 MILE] ClearviewHwy-5-W;



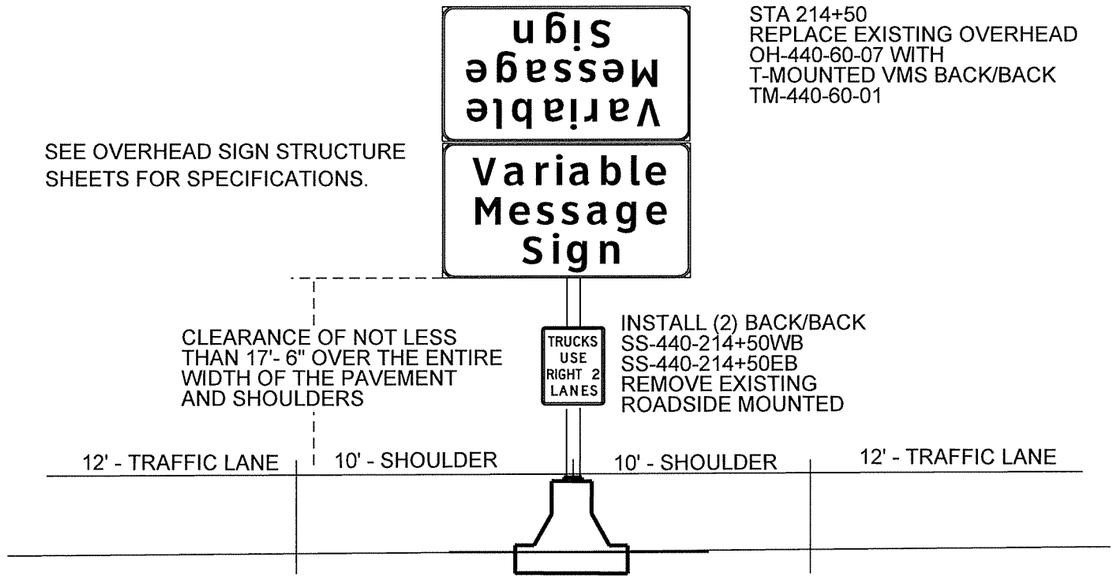
OH-440-60-192+00WB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Lindsey] ClearviewHwy-5-W; [Road] ClearviewHwy-5-W;
Standard Arrow Custom 33.4" X 20.3" 45°;

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
9-22-15
JOSEPH A. SARTINI

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.		BB0611	78	169

(2) SIGN LAYOUT SHEET

TM-440-60-01



SEE OVERHEAD SIGN STRUCTURE SHEETS FOR SPECIFICATIONS.

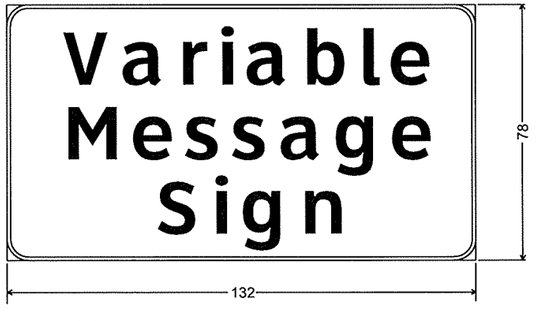
STA 214+50
REPLACE EXISTING OVERHEAD
OH-440-60-07 WITH
T-MOUNTED VMS BACK/BACK
TM-440-60-01

CLEARANCE OF NOT LESS THAN 17'- 6" OVER THE ENTIRE WIDTH OF THE PAVEMENT AND SHOULDERS

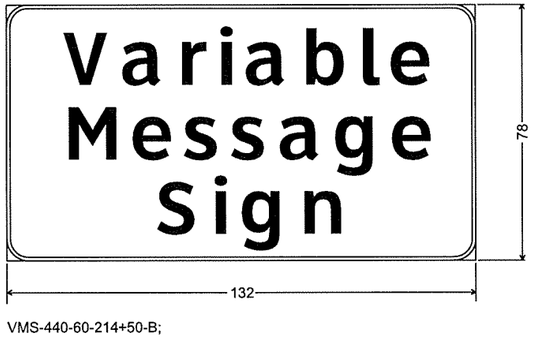
INSTALL (2) BACK/BACK
SS-440-214+50WB
SS-440-214+50EB
REMOVE EXISTING
ROADSIDE MOUNTED

ANY DAMAGE OR COMPONENT FAILURE OF THE VARIABLE MESSAGE SIGN ASSEMBLY THAT OCCURS AS PART OF THE REMOVAL AND RE-INSTALLATION SHALL BE REPAIRED AND/OR REPLACED AT NO COST TO THE DEPARTMENT. THE ENGINEER SHALL PROVIDE APPROVAL IN ADVANCE OF ANY REPAIR TO DAMAGED COMPONENTS IN LIEU OF REPLACEMENT.

THE VARIABLE MESSAGE SIGN ASSEMBLY WILL BE CONSIDERED INSTALLED UPON REVIEW OF THE FINAL INSTALLATION BY THE ENGINEER. AT THIS TIME A TEN DAY TEST WILL COMMENCE WHEREIN ANYTHING THAT FAILS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS REQUIREMENT SHALL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.



VMS-440-60-214+50-A;



VMS-440-60-214+50-B;

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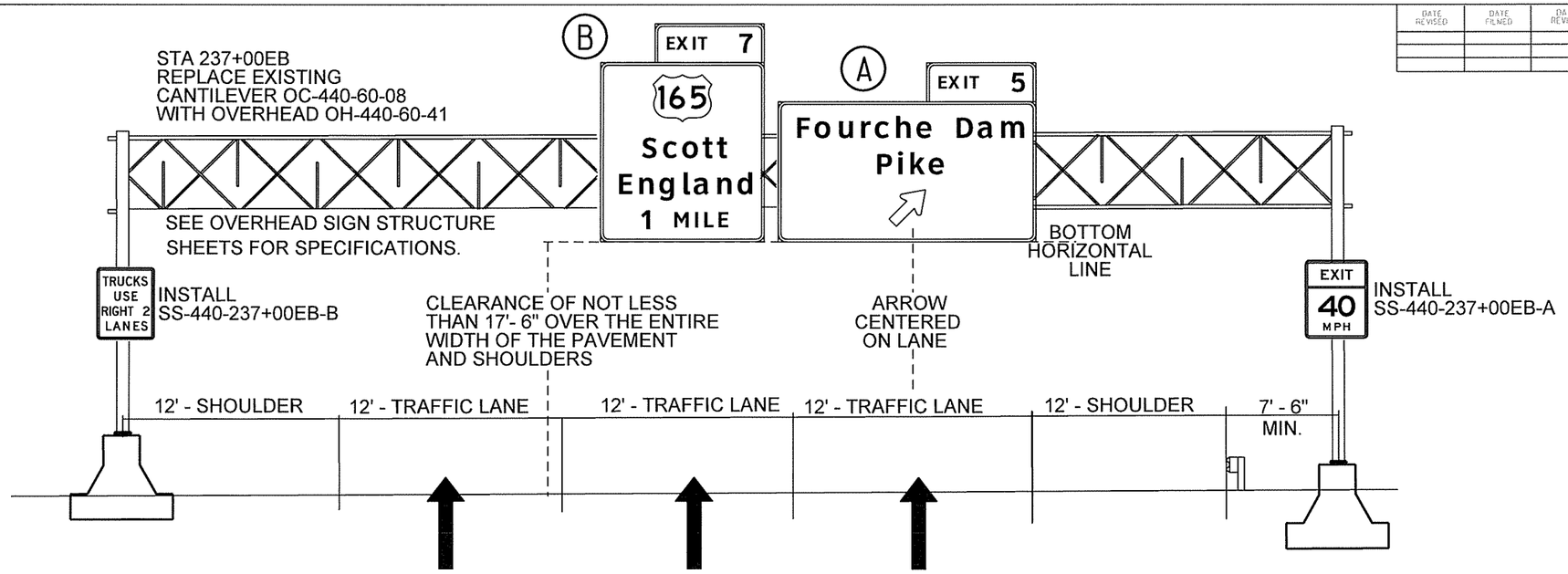
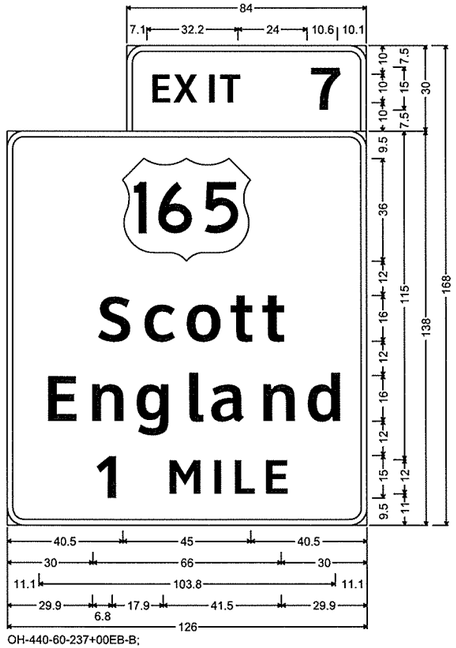
				6	ARK.			
				JOB NO.		BB0611	79	169

(2) SIGN LAYOUT SHEET

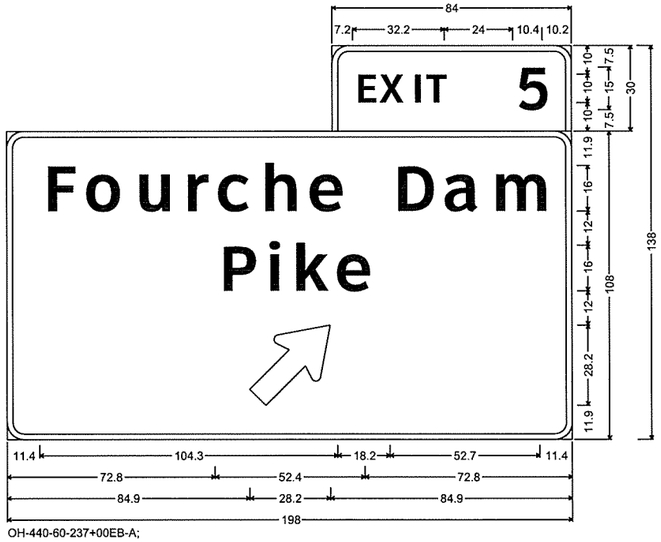
OH-440-60-41

STA 237+00EB
REPLACE EXISTING
CANTILEVER OC-440-60-08
WITH OVERHEAD OH-440-60-41





OH-440-60-237+00EB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [7] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Scott] ClearviewHwy-5-W; [England] ClearviewHwy-5-W;
[1] ClearviewHwy-5-W; [MILE] ClearviewHwy-5-W;



OH-440-60-237+00EB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Fourche Dam] ClearviewHwy-5-W; [Pike] ClearviewHwy-5-W;
Standard Arrow Custom 35.8" X 21.6" 45°;

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	80	169

(2) SIGN LAYOUT SHEET

OH-440-60-42

STA260+80WB
INSTALL OVERHEAD
OH-440-60-42

SEE OVERHEAD SIGN STRUCTURE SHEETS FOR SPECIFICATIONS.

TRUCKS USE RIGHT 2 LANES

INSTALL
SS-440-260+80WB-A

CLEARANCE OF NOT LESS THAN 17'- 6" OVER THE ENTIRE WIDTH OF THE PAVEMENT AND SHOULDERS

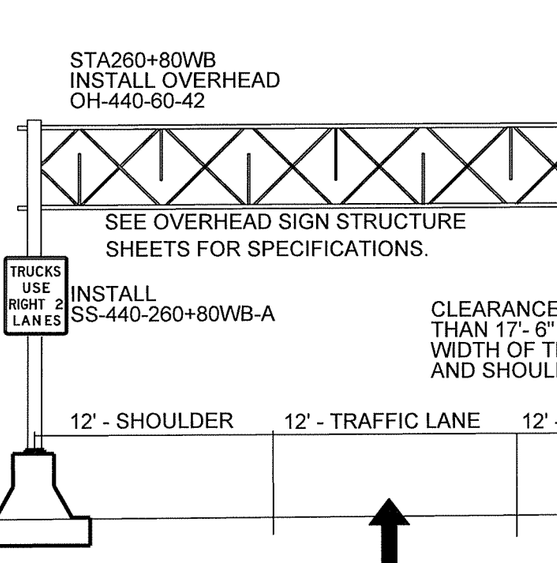
ARROW CENTERED ON LANE

BOTTOM HORIZONTAL LINE

EXIT 40 MPH

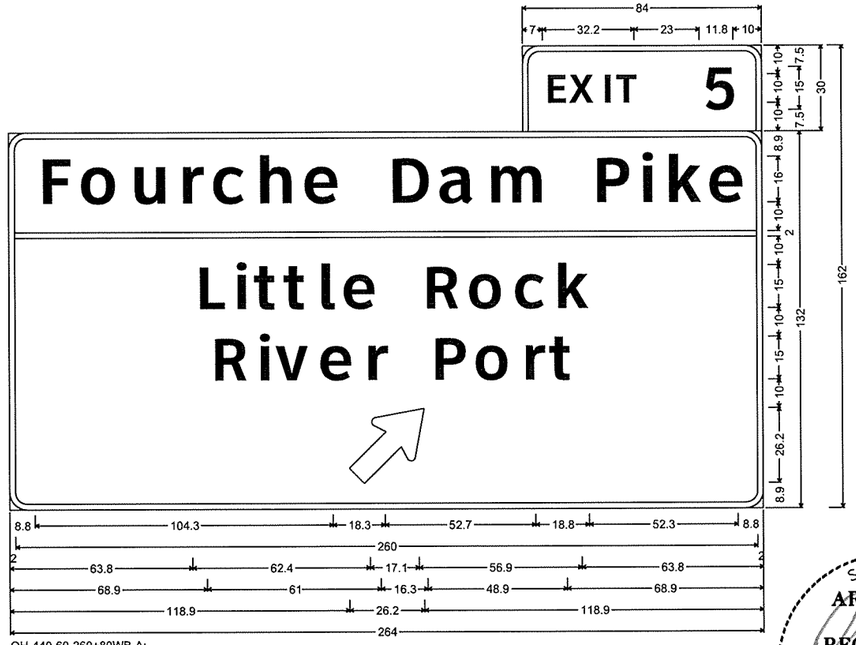
INSTALL
SS-440-260+80WB-B

12' - SHOULDER | 12' - TRAFFIC LANE | 12' - TRAFFIC LANE | 12' - TRAFFIC LANE | 12' - DECELERATION | 8' - SHOULDER | 7' - 6" MIN.



OH-440-60-260+80WB-C; 6.0" Radius, 2.0" Border, White on Green;
[W] ClearviewHwy-5-W; [EST] ClearviewHwy-5-W;
[Texarkana] ClearviewHwy-5-W;

OH-440-60-260+80WB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Lindsey] ClearviewHwy-5-W; [Road] ClearviewHwy-5-W;
[1] ClearviewHwy-5-W; [MILE] ClearviewHwy-5-W;



OH-440-60-260+80WB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Fourche Dam Pike] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W; [River Port] ClearviewHwy-5-W;
Standard Arrow Custom 33.4" X 20.3" 45°;

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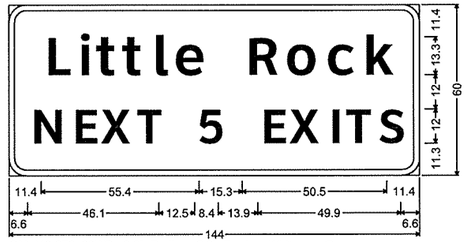
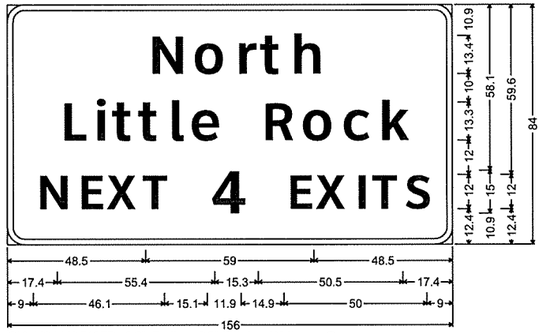
				6	ARK.			
				JOB NO.		BB0611	81	169

(2) SIGN LAYOUT SHEET

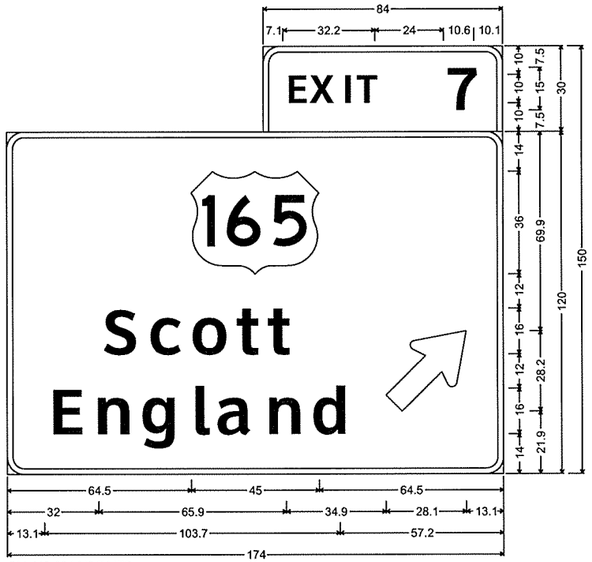
GM-440-251+00EB;
6.0" Radius, 2.0" Border, White on Brown;
[Toltec Mounds] ClearviewHwy-5-W; [Archaeological] ClearviewHwy-5-W;
[State Park] ClearviewHwy-5-W; [EXIT] ClearviewHwy-5-W; [7] ClearviewHwy-5-W;



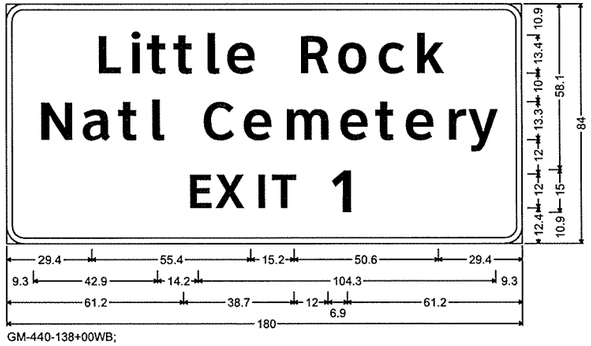
GM-440-270+00WB; 6.0" Radius, 2.0" Border, White on Green;
[Little Rock] ClearviewHwy-5-W; [NEXT 5 EXITS] ClearviewHwy-5-W;



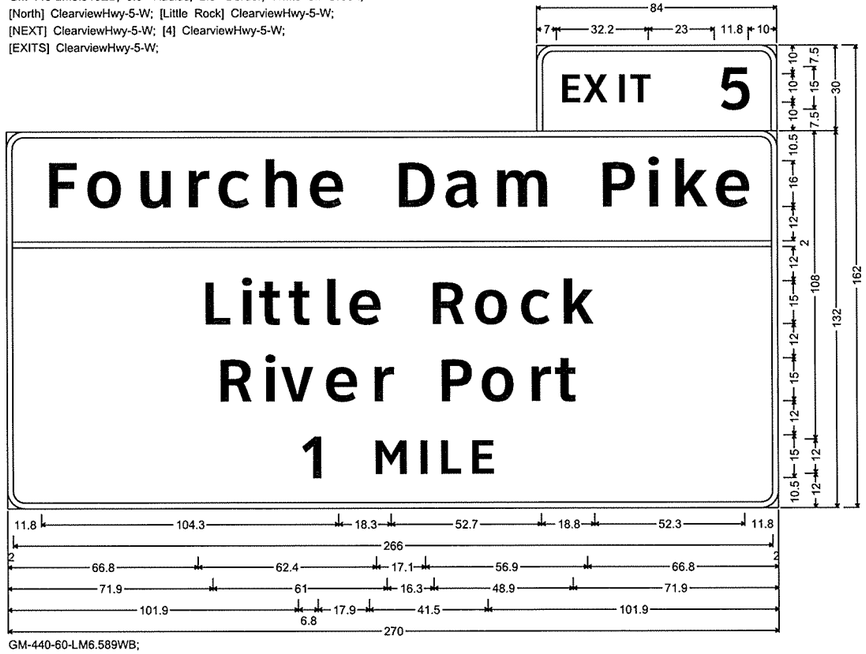
GM-440-LM6.516EB; 6.0" Radius, 2.0" Border, White on Green;
[North] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[NEXT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
[EXITS] ClearviewHwy-5-W;



GM-440-60-LM6.744EB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [7] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Scott] ClearviewHwy-5-W; [England] ClearviewHwy-5-W;
Standard Arrow Custom 35.8" X 21.6" 45°;



GM-440-138+00WB;
6.0" Radius, 2.0" Border, White on Green;
[Little Rock] ClearviewHwy-5-W; [Natl Cemetery] ClearviewHwy-5-W;
[EXIT] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;



GM-440-60-LM6.589WB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[Fourche Dam Pike] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W; [River Port] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;
[MILE] ClearviewHwy-5-W;

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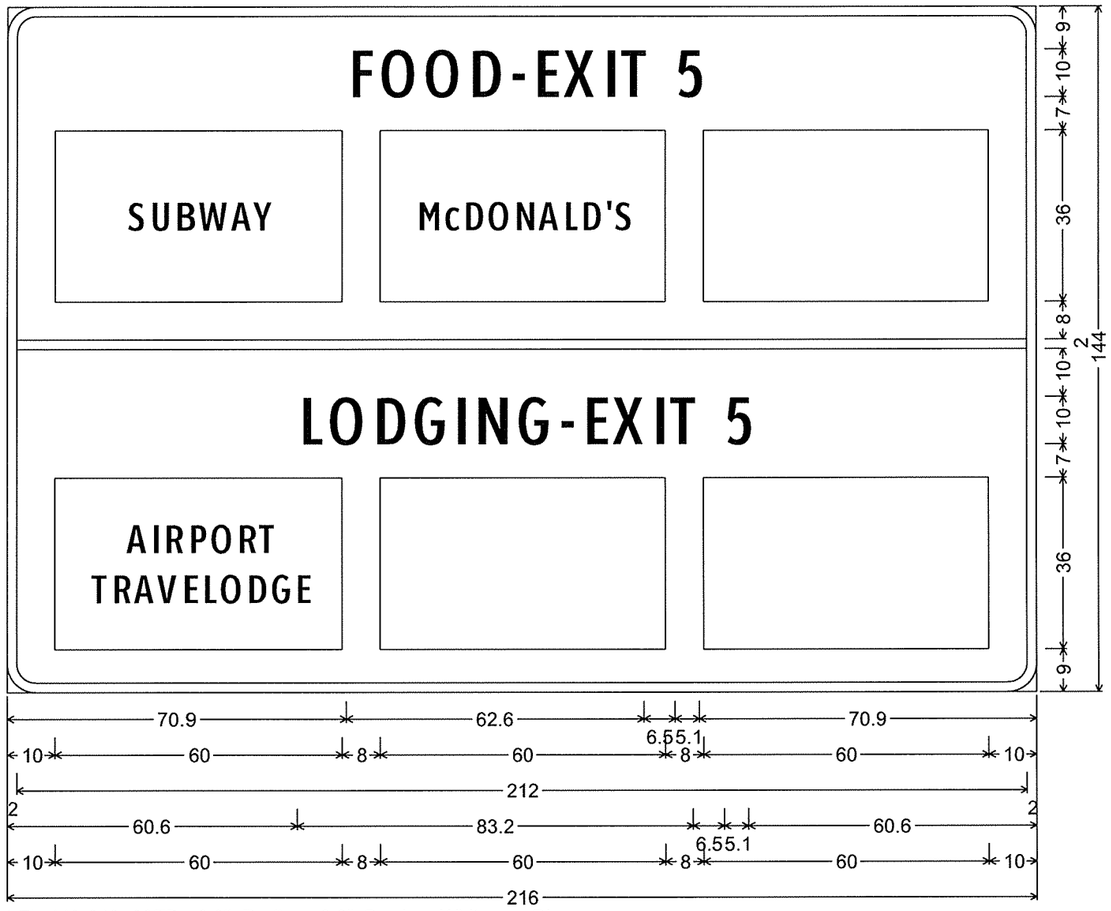
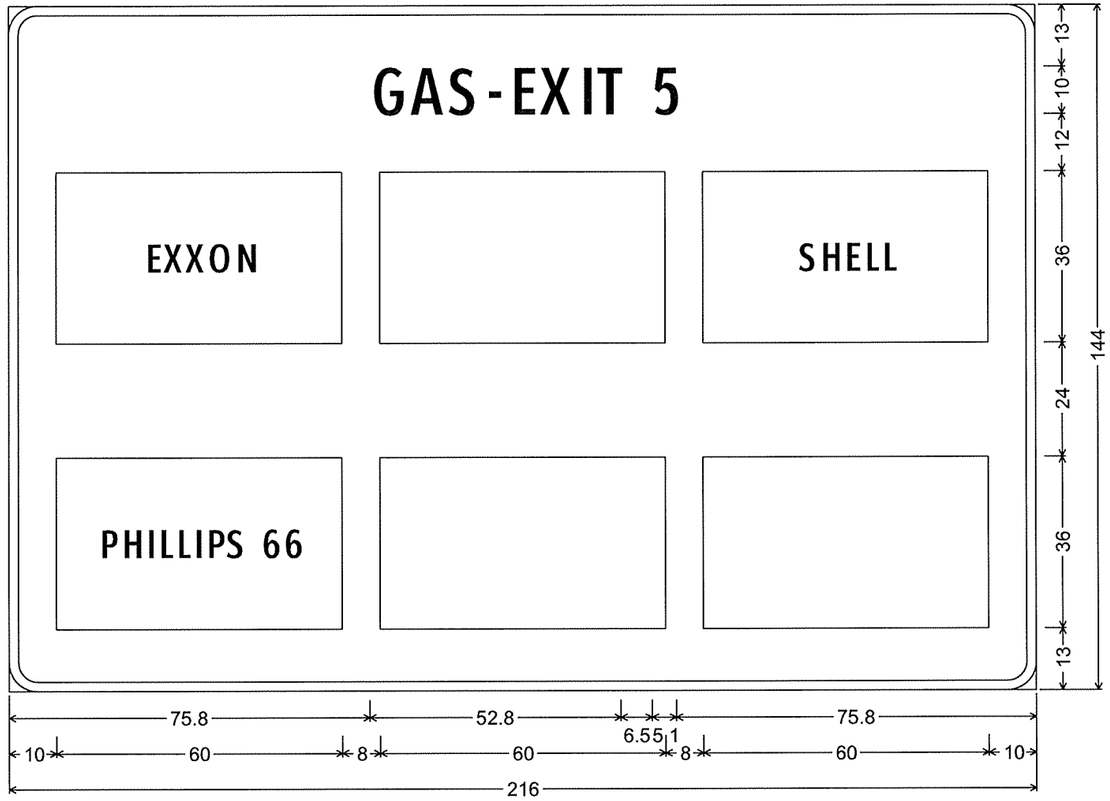
				6	ARK.			
				JOB NO.		BB0611	82	169

(2) SIGN LAYOUT SHEET



LFL-440-219+00EB; 6.0" Radius, 2.0" Border, White on Blue;
[FOOD-EXIT 5] ClearviewHwy-2-W;
[LODGING-EXIT 5] ClearviewHwy-2-W;



LG-440-228+00EB; 6.0" Radius, 2.0" Border, White on Blue;
[GAS-EXIT 5] ClearviewHwy-2-W;

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JOSEPH A. SARTINI

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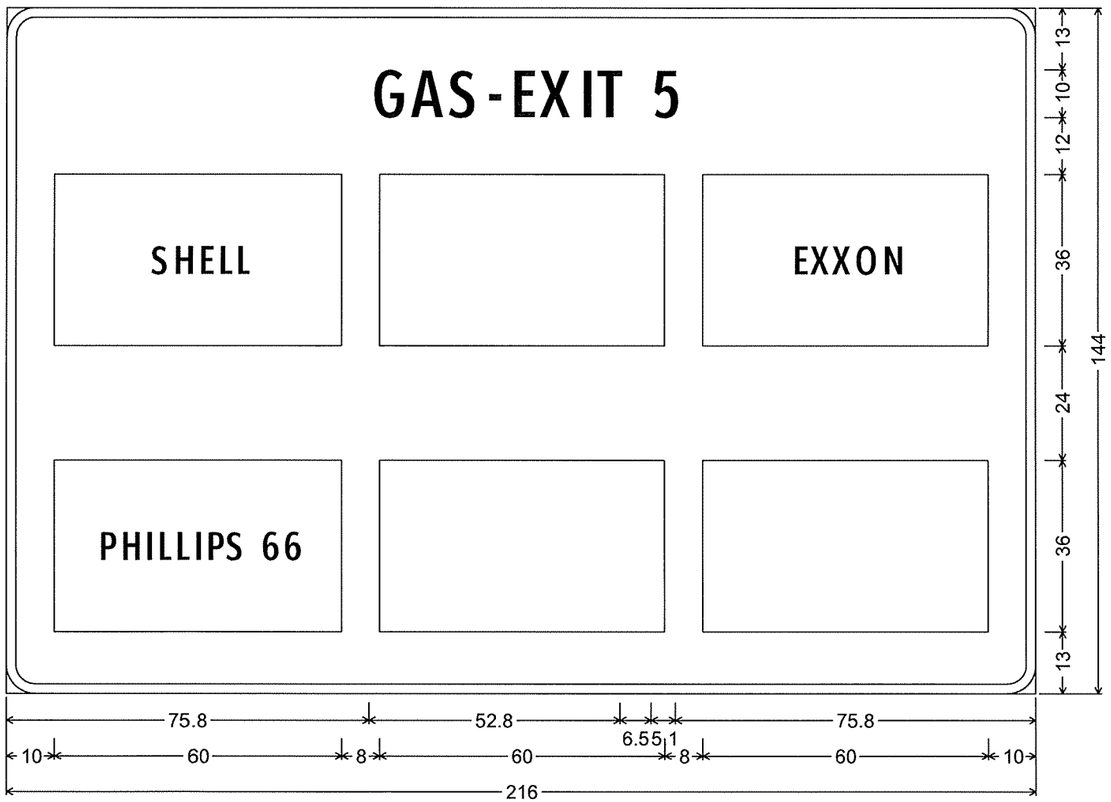
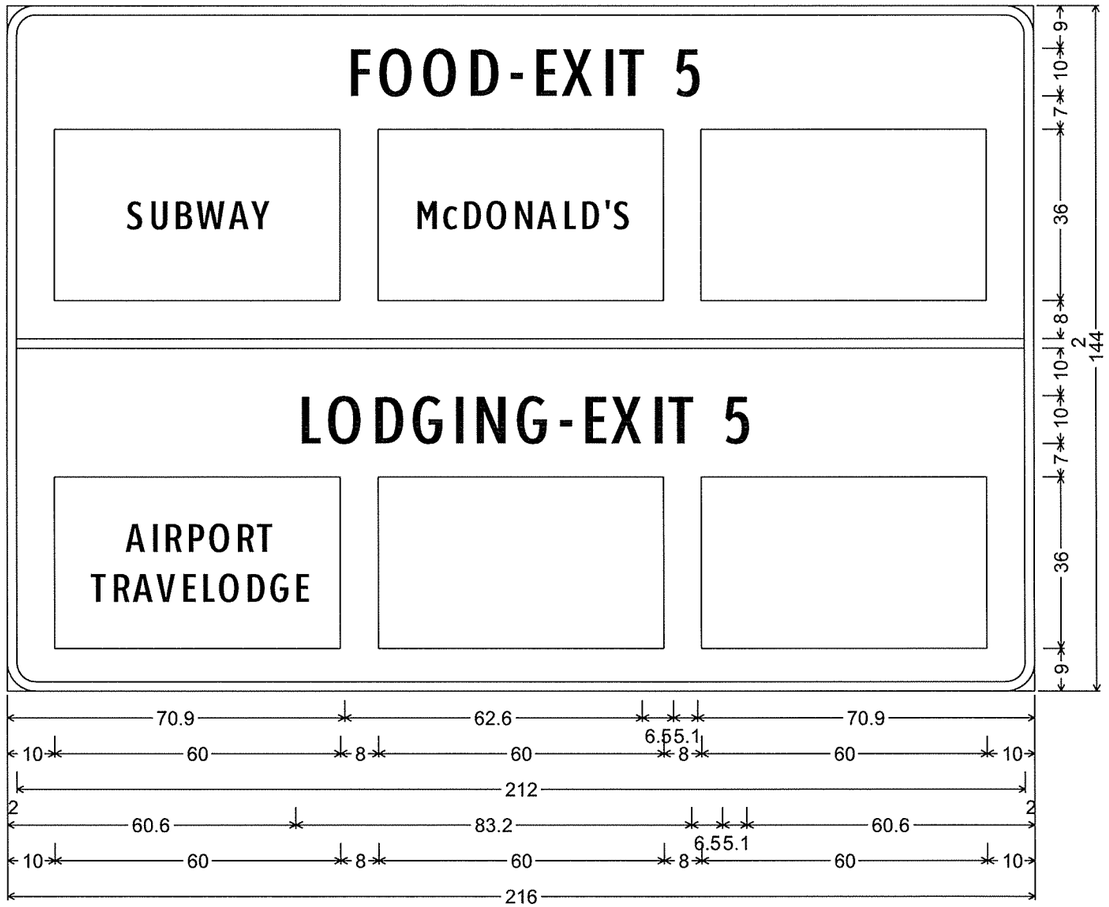
				6	ARK.			
				JOB NO.		BB0611	83	169

(2) SIGN LAYOUT SHEET



LG-440-267+00WB; 6.0" Radius, 2.0" Border, White on Blue;
[GAS-EXIT 5] ClearviewHwy-2-W;



LFL-440-LM6.579WB; 6.0" Radius, 2.0" Border, White on Blue;
[FOOD-EXIT 5] ClearviewHwy-2-W;
[LODGING-EXIT 5] ClearviewHwy-2-W;

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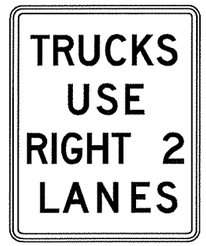
				6	ARK.			
				JOB NO.		BB0611	84	169

(2) SIGN LAYOUT SHEET

G-2
R4-5(MOD)
48" X 60"

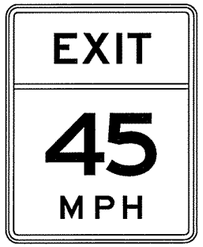


SS-440-114+00EB
SS-440-214+50WB
SS-440-214+50EB
SS-440-237+00EB-B
SS-440-260+80WB-B

G-2
R2-1(65)
48" X 60"

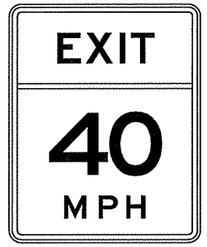
SS-440-114+00WB
SS-440-209+00EB
SS-440-221+00WB

G2
W13-2(45)
48" X 60"



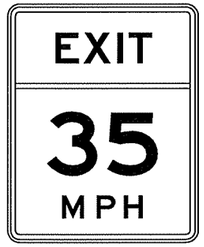
SS-440-126+90EB
SS-440-193+00WB
SS-440-260+80WB-A

G2
W13-2(35)
48" X 60"



SS-440-156+00WB
SS-440-237+00EB-A
SS-440-LM6.797WB

G2
W13-2(35)
48" X 60"



SS-440-162+00EB

G-2
M3-4 (BLUE) 36"X18"
M1-1 (440) 60"X48"

SS-440-120+00WB
SS-440-227+50WB

G-2
M3-2 (BLUE) 36"X18"
M1-1 (440) 60"X48"

SS-440-203+00EB

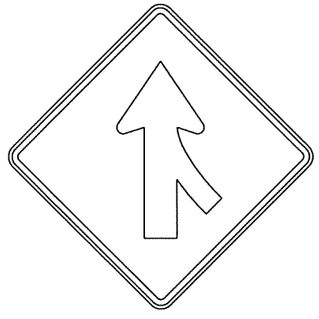
G-2
M3-4 (BLUE) 36"X18"
M1-1 (440) 60"X48"

SS-440-270+00EB;
3.0" Radius, 1.0" Border, White on Green;
[Arkansas] ClearviewHwy-5-W;
[River] ClearviewHwy-5-W;

G-2
M3-4 (BLUE) 36"X18"
M1-1 (440) 60"X48"

SS-440-LM6.516WB;
3.0" Radius, 1.0" Border, White on Green;
[Arkansas] ClearviewHwy-5-W;
[River] ClearviewHwy-5-W;

G-2
W4-1RT
48" X 48"



SS-440-133+00WB
SS-440-147+00EB
SS-440-172+00WB
SS-440-185+00EB
SS-440-244+00WB
SS-440-255+00EB
SS-440-LM6.880WB

G-2
W8-13
48" X 48"

SS-440-153+00EB
SS-440-165+00WB
SS-440-170+00EB
SS-440-243+00EB
SS-440-255+00WB
SS-440-263+00EB
SS-440-185+00WB

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JOSEPH A. SARTINI
4-2-15

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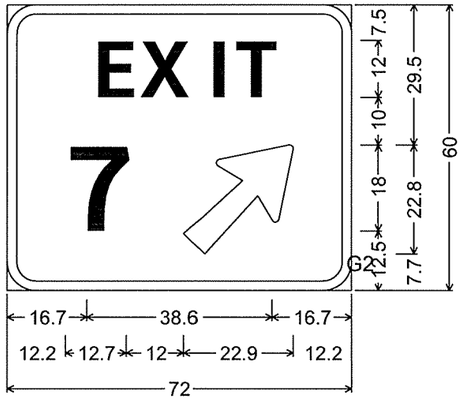
				6	ARK.			
				JOB NO.		BB0611	85	169

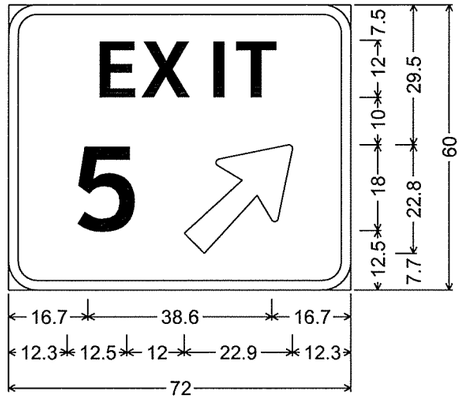
(2) SIGN LAYOUT SHEET

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



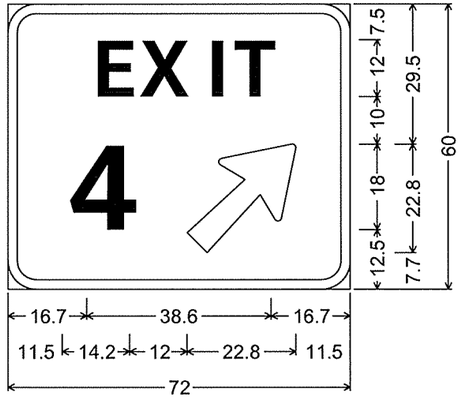
EX-440-LM6.847EB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[7] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



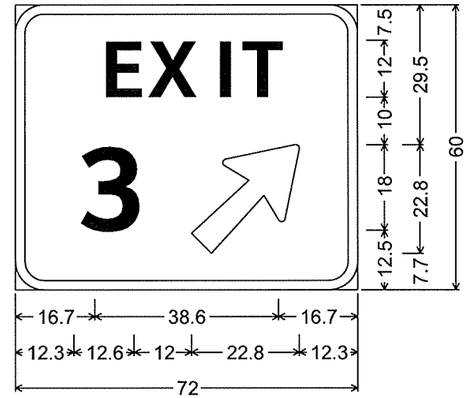
EX-440-257+00WB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[5] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



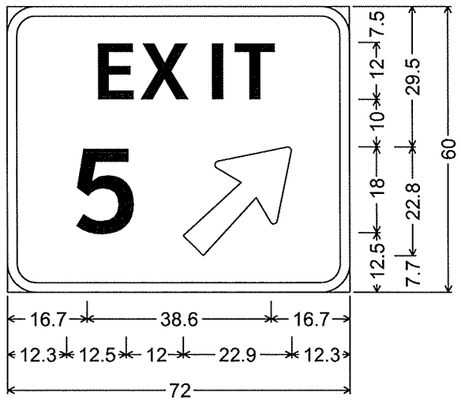
EX-440-166+50EB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[4] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



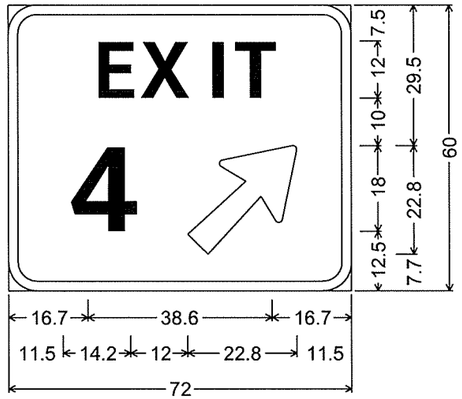
EX-440-152+50WB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[3] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



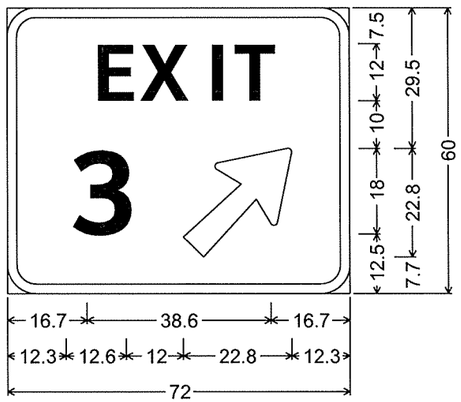
EX-440-241+00WB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[5] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



EX-440187+90WB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[4] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

G2
E5-1a
DIRECT APPLIED / FLAT SHEET



EX-440-131+00EB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W;
[3] ClearviewHwy-5-W-R;
Arrow Custom - 29.0" 45°;

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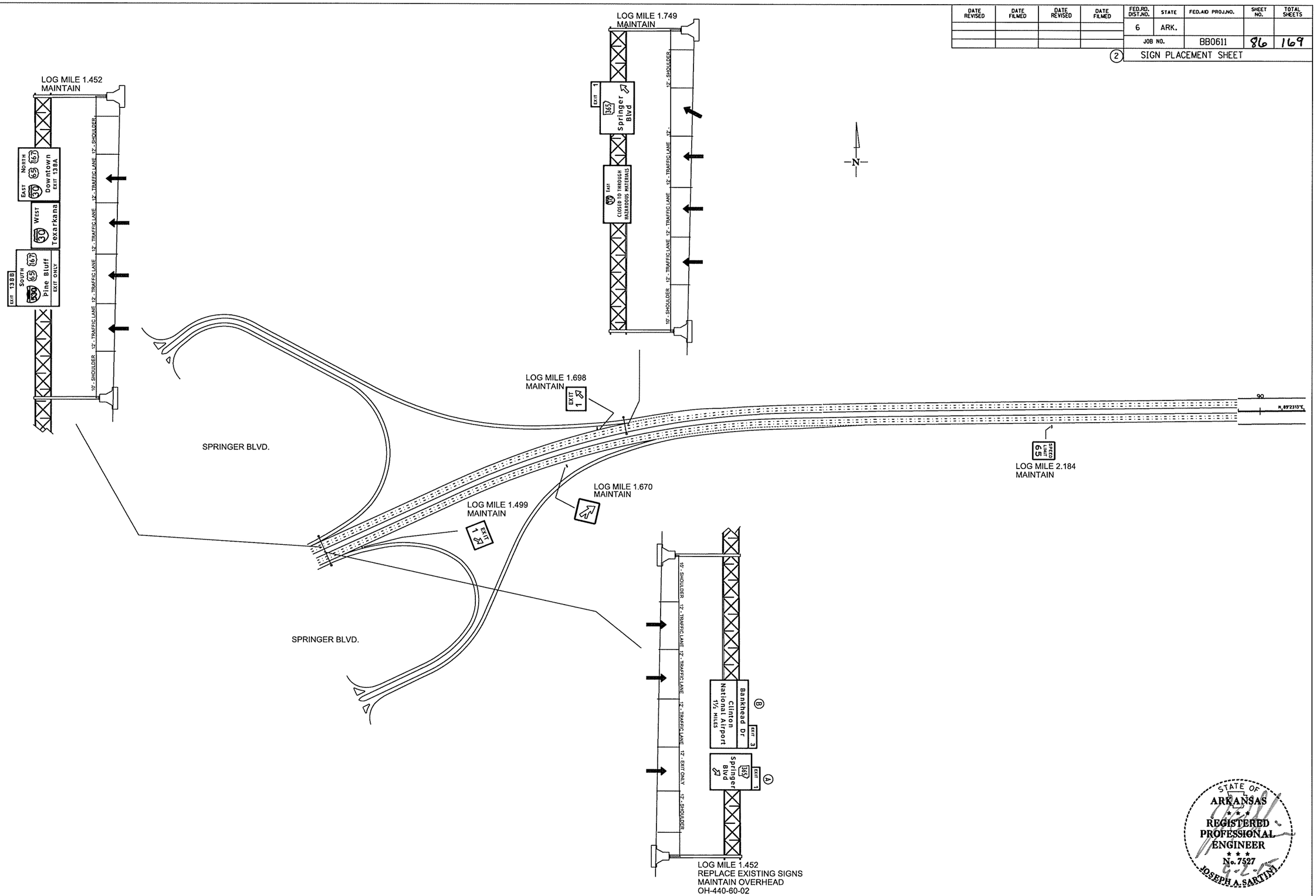
				6	ARK.			
				JOB NO.		BB0611	86	169

(2) SIGN PLACEMENT SHEET



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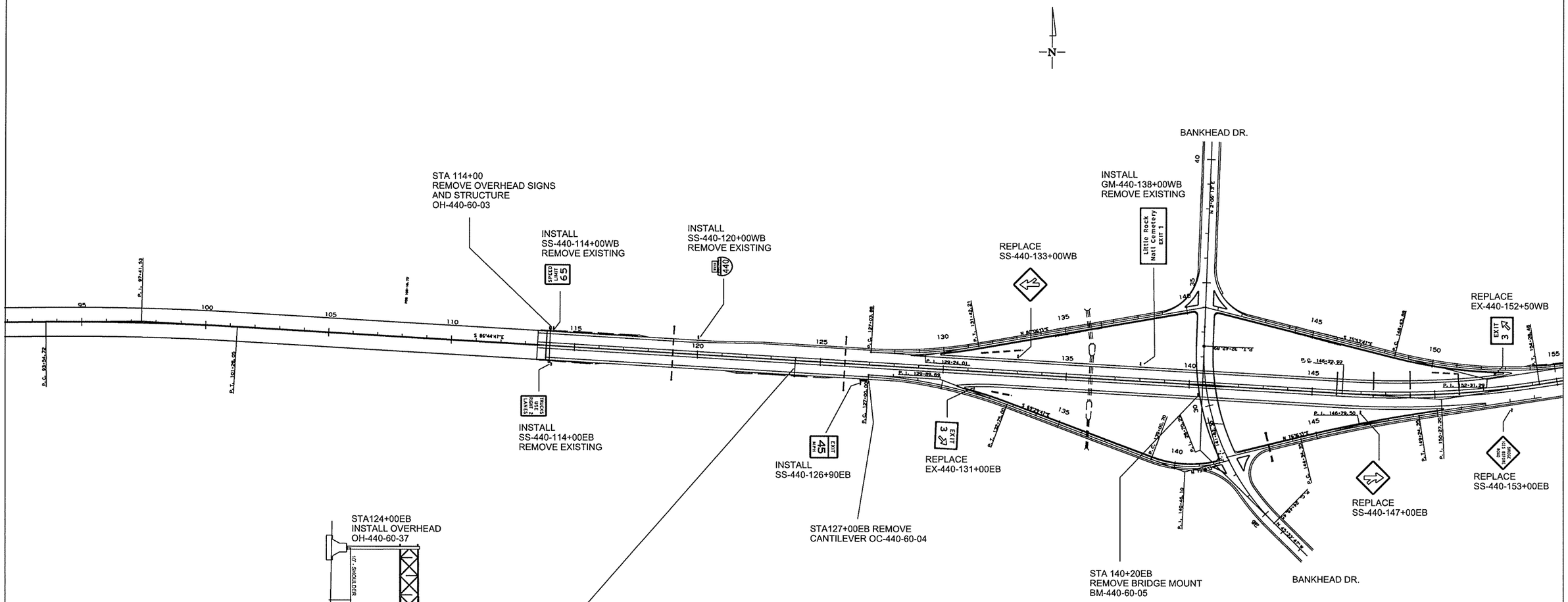
JOSEPH A. SARTIN
6-2-15

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.		BB0611	87	169

(2) SIGN PLACEMENT SHEET



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTINI

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.		BB0611	88	169

(2) SIGN PLACEMENT SHEET

INSTALL
SS-440-156+00WB

REPLACE EXISTING
CANTILEVER OC-440-60-18
WITH OVERHEAD OH-440-60-38
STA156+00WB

LINDSEY RD.

REPLACE
SS-440-165+00WB

REPLACE
SS-440-172+00WB

REMOVE EXISTING
EXIT-3 1 MILE
STA181+00WB

REPLACE
SS-440-185+00WB

REPLACE
EX-440-187+90WB

INSTALL
SS-440-193+00WB

STA192+00WB
REPLACE EXISTING
CANTILEVER OC-440-60-16
WITH OVERHEAD OH-440-60-40

STA214+50EB
REPLACE EXISTING OVERHAD
OH-440-60-07 WITH
T-MOUNTED VMS BACK/BACK
TM-440-60-01

INSTALL (2) BACK/BACK
SS-440-214+50WB
SS-440-214+50EB
REMOVE EXISTING

REPLACE
EX-440-166+50EB

REPLACE
SS-440-170+00EB

LINDSEY RD.

REPLACE
SS-440-185+00EB

REPLACE
SS-440-203+00EB

REPLACE
SS-440-209+00EB

STA 162+00EB
REPLACE EXISTING
CANTILEVER OC-440-60-06
WITH OVERHEAD OH-440-60-39

INSTALL
SS-440-162+00EB

INSTALL
LFL-440-219+00EB
REMOVE EXISTING

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTIN
9-2-9

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.		BB0611	89	169

(2) SIGN PLACEMENT SHEET

STA260+80WB
INSTALL OVERHEAD
OH-440-60-42

INSTALL
SS-440-260+80WB-A

INSTALL
SS-440-260+80WB-B

REMOVE
STA 267+00WB

REPLACE
GM-440-270+00WB

REPLACE
LG-440-267+00WB

REPLACE
EX-440-257+00WB

REPLACE
SS-440-255+00WB

REMOVE EXISTING
OC-440-60-14
STA260+00WB

REPLACE
SS-440-244+00WB

REPLACE
SS-440-221+00WB

REPLACE
SS-440-227+50WB

INSTALL
SS-440-237+00EB-B

REPLACE
EX-440-241+00WB

REPLACE
SS-440-243+00EB

INSTALL
GM-440-251+00EB

REPLACE
SS-440-255+00EB

REPLACE
SS-440-263+00EB

REMOVE
EXISTING SIGNS

REPLACE
SS-440-270+00EB

INSTALL
LG-440-228+00EB
REMOVE EXISTING

STA 237+00EB
REPLACE EXISTING
CANTILEVER OC-440-60-08
WITH OVERHEAD OH-440-60-41

INSTALL
SS-440-237+00EB-A

FOURCHE DAM PIKE

FOURCHE DAM PIKE

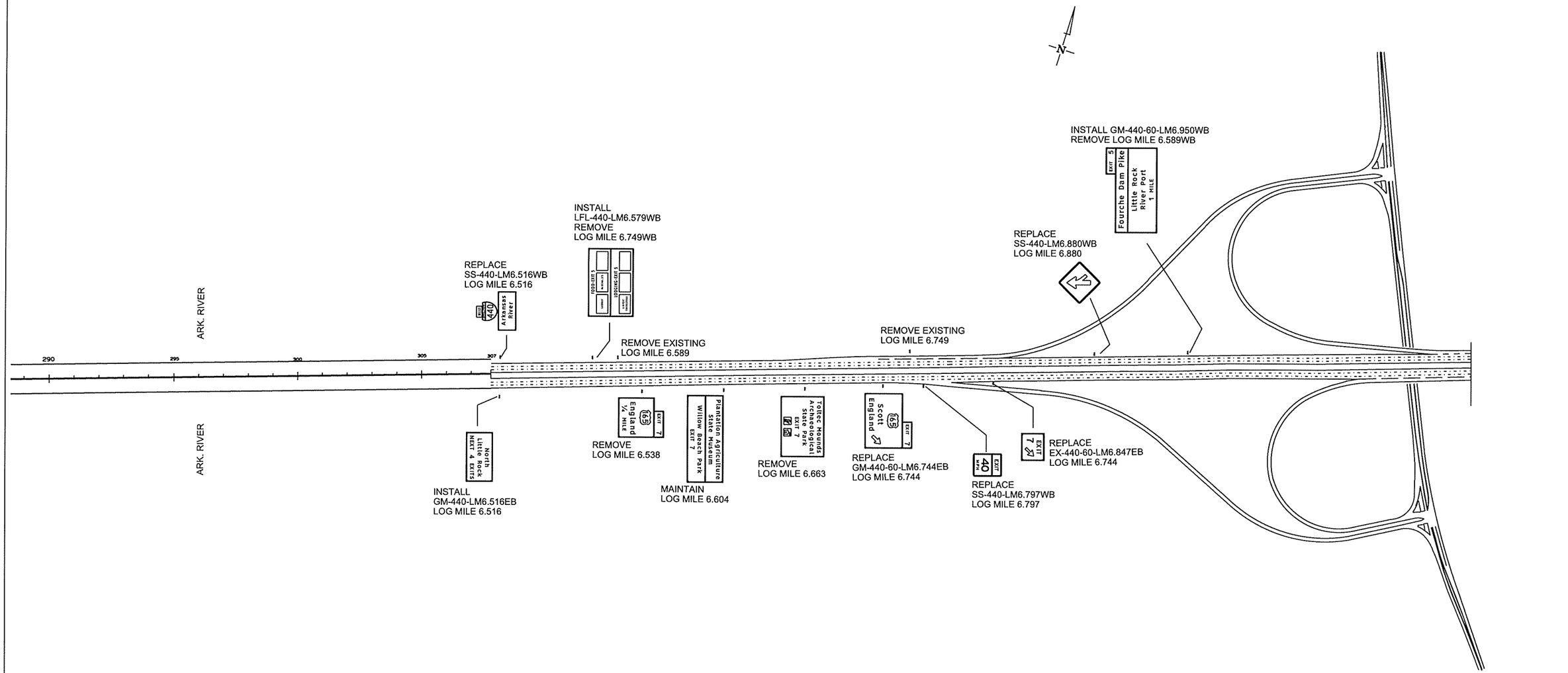
ARK. RIVER

ARK. RIVER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTINI
9-2-05

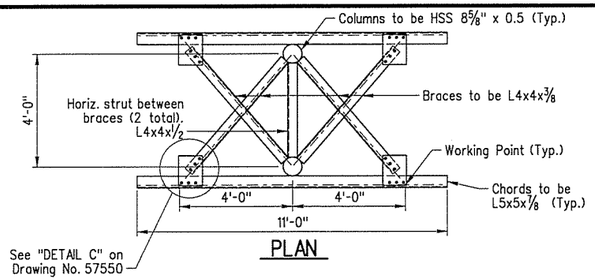
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	90	169

(2) SIGN PLACEMENT SHEET

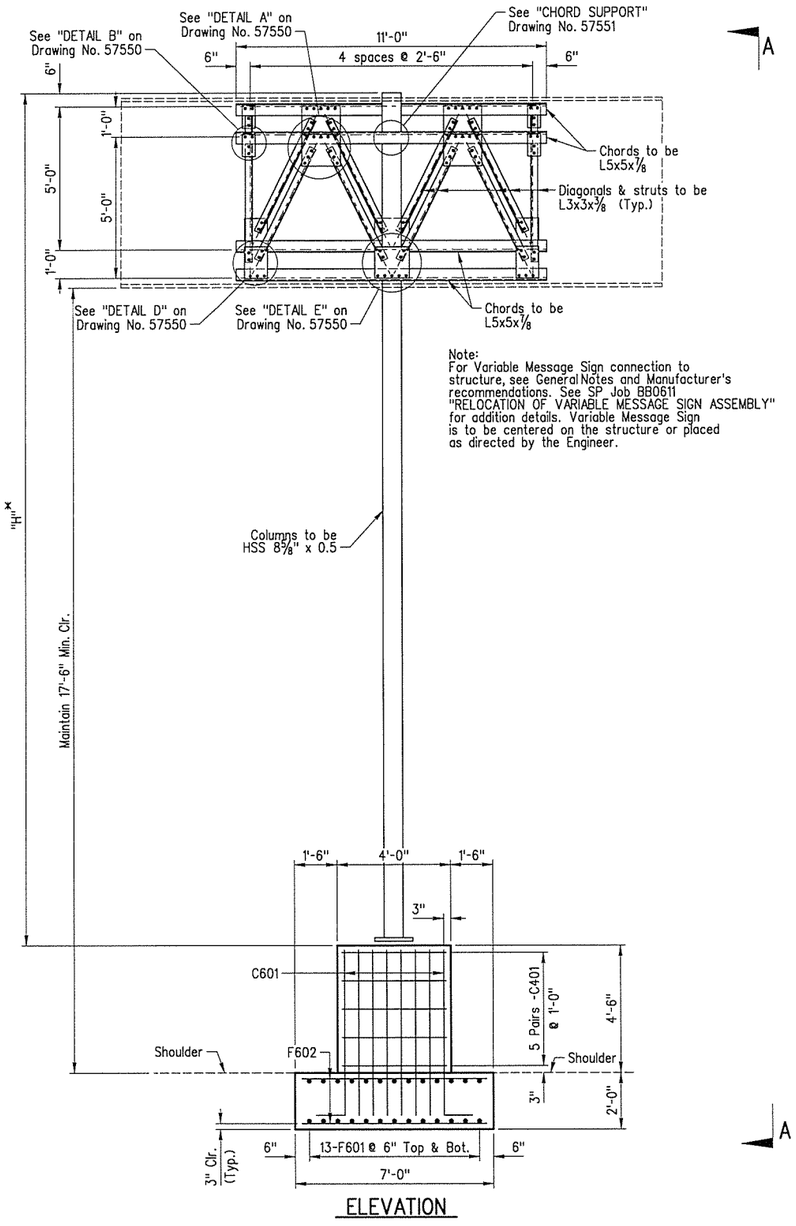


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTINI
9-2-11

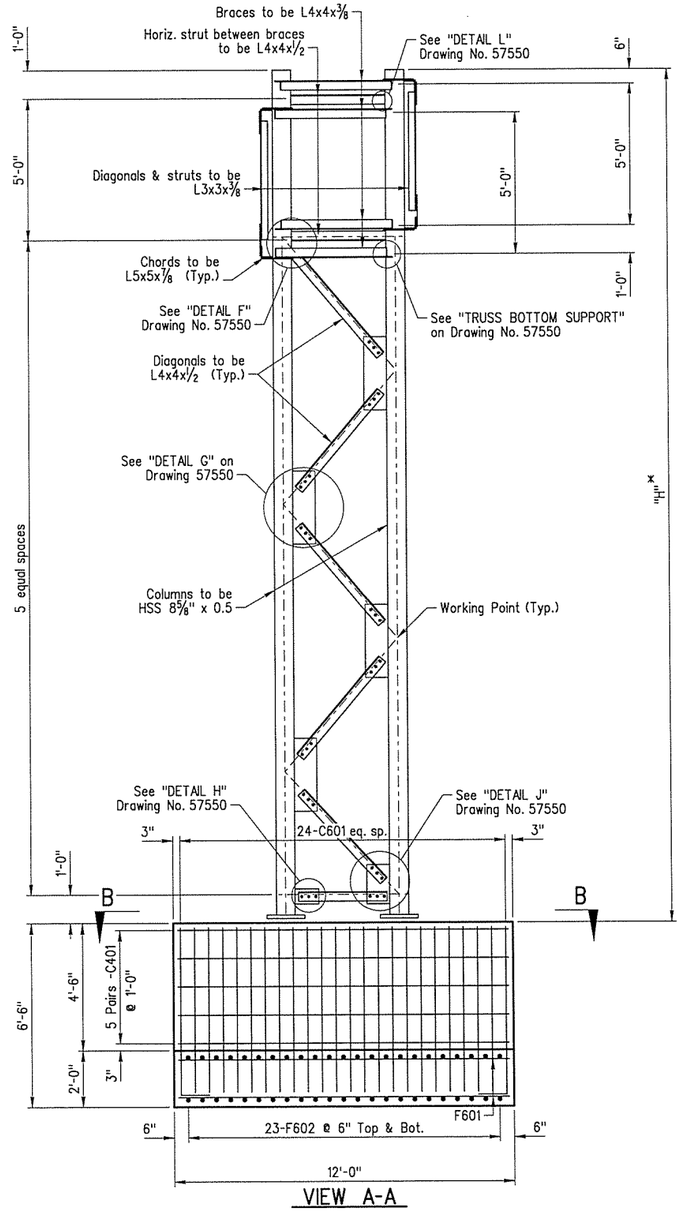
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	91	169
				(1) TM-440-60-01 - TEE MOUNT SIGN - 57549				



PLAN



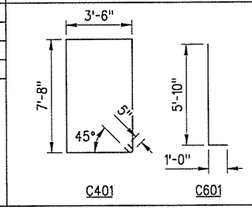
ELEVATION



VIEW A-A

BAR LIST - PER SIGN STRUCTURE

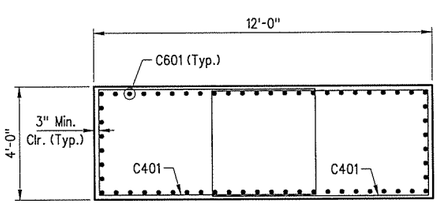
MARK	NO. REQ'D.	LENGTH	PIN. DIA.	BENDING DIAGRAMS Dimensions are out to out of bars.
C401	10	22'-10"	3"	
C601	60	6'-8"	4½"	
F601	26	11'-6"	Str.	
F602	46	6'-6"	Str.	



APPROX. QUANTITIES FOR FOUNDATION (FOR INFORMATION ONLY)

STRUCTURE NUMBER	CLASS S CONCRETE (Cu. Yds.)	REINFORCING STEEL (Lbs.)	EXCAVATION (Cu. Yds.)
TM-440-60-01	14.22	1652	11

x The Contractor shall make field measurements to determine the column height ("H") that is required to maintain the minimum vertical clearance. The column height shall be shown on the shop drawings with a note stating that the Contractor has made the required field measurements. If the structure height ("H") exceeds 30'-0" contact the Engineer.



SECTION B-B

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16430 CHRISTINA M. FRANCO

9/3/15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

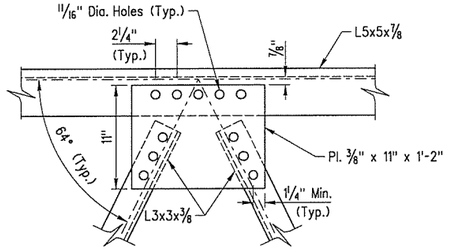
SHEET 1 OF 4
DETAILS OF TEE MOUNT SIGN STRUCTURE WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 7/15/15
CHECKED BY: CGW DATE: 8/10/15
DESIGNED BY: CMF DATE: 7/30/15
STR. NO. TM-440-60-01
FILENAME: bbb0611xx_tm1.dgn
SCALE: ⅜" = 1'-0"
DRAWING NO. 57549

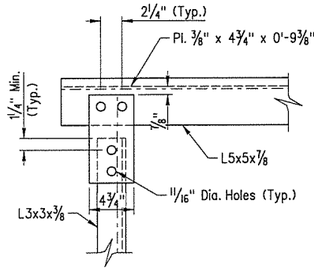
JACOBS

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.		BB0611	92	169

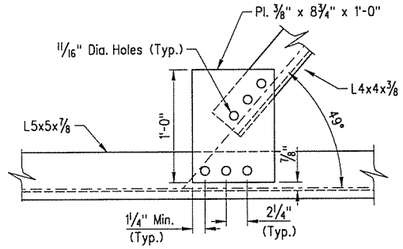
(1) TM-440-60-01 - TEE MOUNT SIGN - 57550



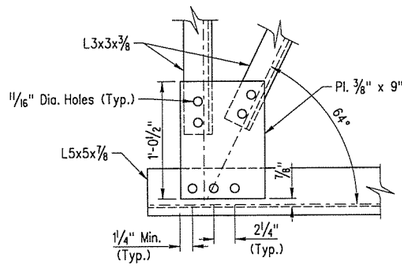
DETAIL A
Scale: 1½" = 1'-0"



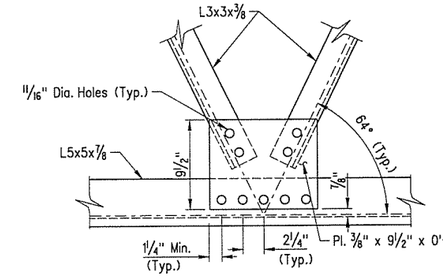
DETAIL B
Scale: 1½" = 1'-0"



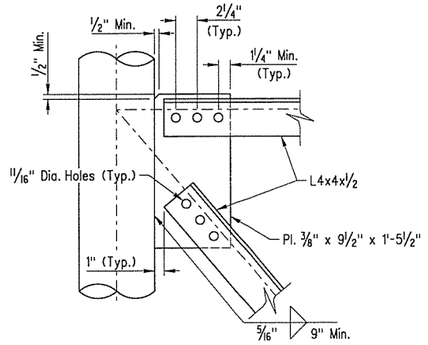
DETAIL C
Scale: 1½" = 1'-0"



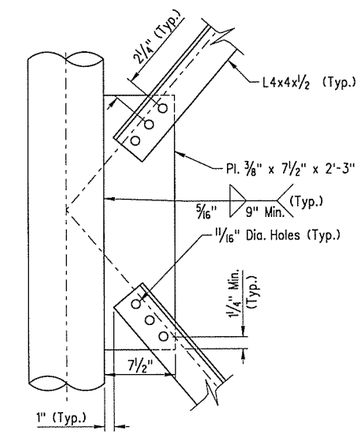
DETAIL D
Scale: 1½" = 1'-0"



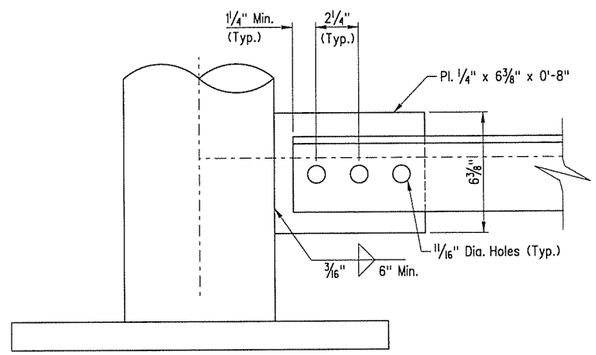
DETAIL E
Scale: 1½" = 1'-0"



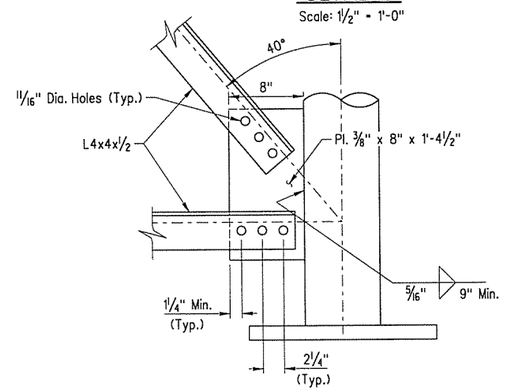
DETAIL F
Scale: 1½" = 1'-0"



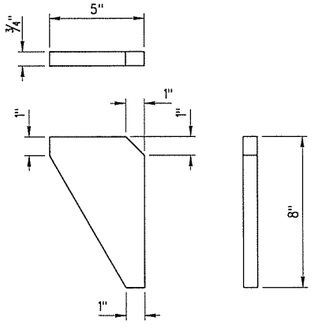
DETAIL G
Scale: 1½" = 1'-0"



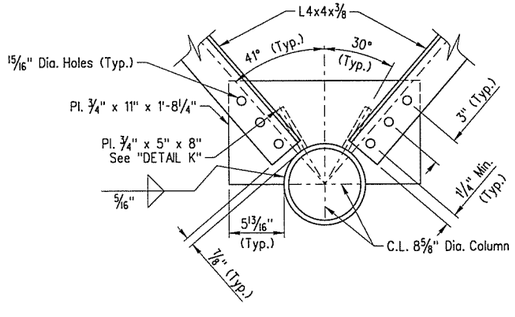
DETAIL H
Scale: 3" = 1'-0"



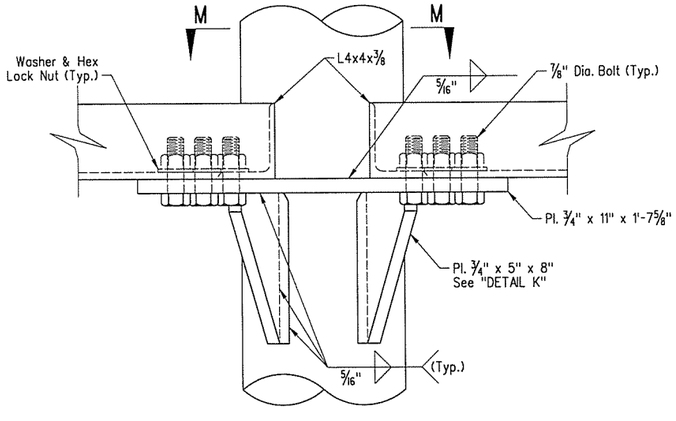
DETAIL J
Scale: 1½" = 1'-0"



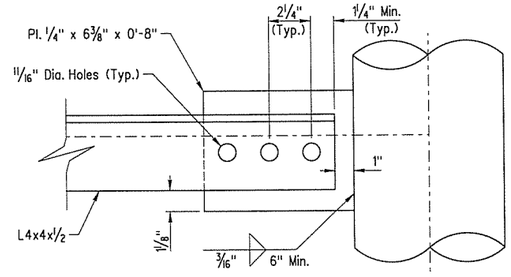
DETAIL K
Scale: 3" = 1'-0"



SECTION M-M
PLAN-TRUSS BOTTOM SUPPORT
Scale: 1½" = 1'-0"



ELEVATION-TRUSS BOTTOM SUPPORT
Scale: 3" = 1'-0"
Bottom connection shown, top connection similar.



DETAIL L
Scale: 3" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16430
CHRISTINA M. FRANCO
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

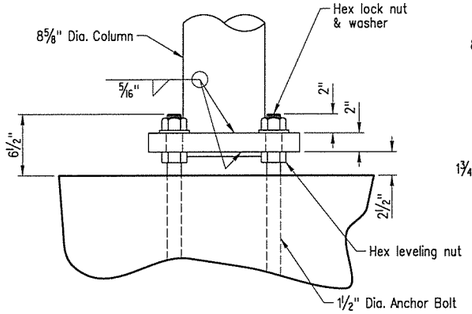
SHEET 2 OF 4
DETAILS OF TEE MOUNT SIGN STRUCTURE WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY:	LHG	DATE:	7/15/15	FILENAME:	bbb0611xx_tm2.dgn
CHECKED BY:	CGW	DATE:	8/10/15		
DESIGNED BY:	CMF	DATE:	7/30/15	SCALE:	As noted
STR. NO. TM-440-60-01				DRAWING NO. 57550	

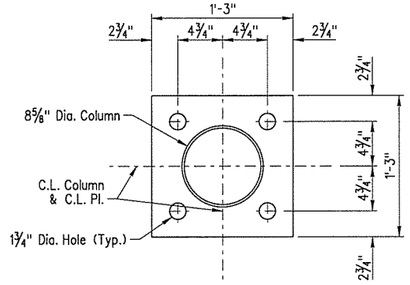
JACOBS

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.		BB0611	93	169

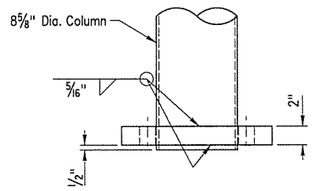
(1) TM-440-60-01 - TEE MOUNT SIGN - 57551



ELEVATION - COLUMN BASE
Scale: 1½"=1'-0"

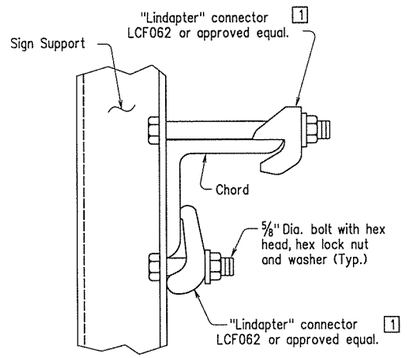


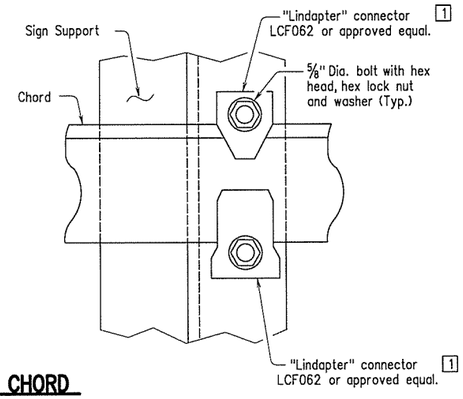
PLAN - COLUMN BASE
Scale: 1½"=1'-0"



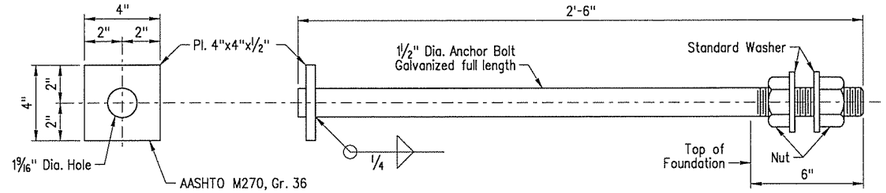
Note: Diameter of hole in base plate to be ⅛" larger than column diameter.

DETAIL OF COLUMN CONNECTION TO BASE PLATE
Scale: 1½"=1'-0"



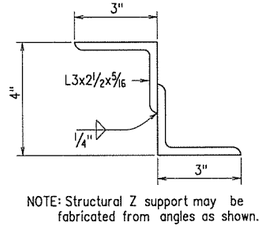


TOP CHORD
No Scale



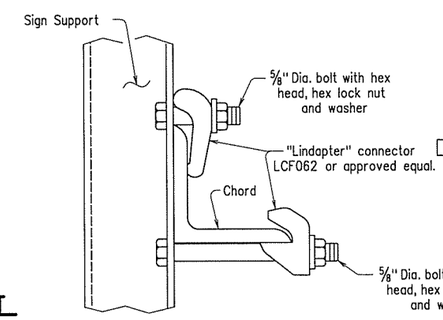
Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.

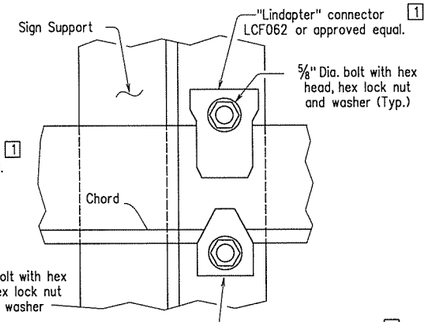
ANCHOR BOLT DETAIL
Scale: 3"=1'-0"



NOTE: Structural Z support may be fabricated from angles as shown.

DETAILS OF ALTERNATE Z SUPPORT
No Scale



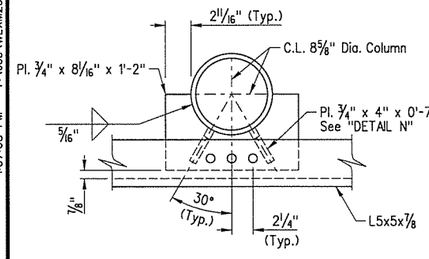


BOTTOM CHORD

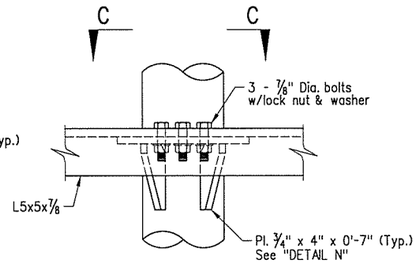
[1] Note: All "Lindapter" connectors or approved equal shall be installed according to manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

Note: Install all support connectors clear of the gusset plates and splice locations.

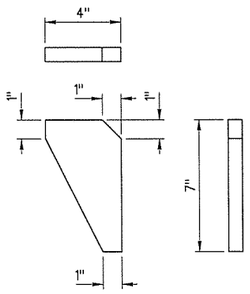
DETAIL OF SIGN SUPPORT CONNECTED TO TRUSS
No Scale



SECTION C-C
PLAN - CHORD SUPPORT
Scale: 1½"=1'-0"



ELEVATION - CHORD SUPPORT
Scale: 1½"=1'-0"



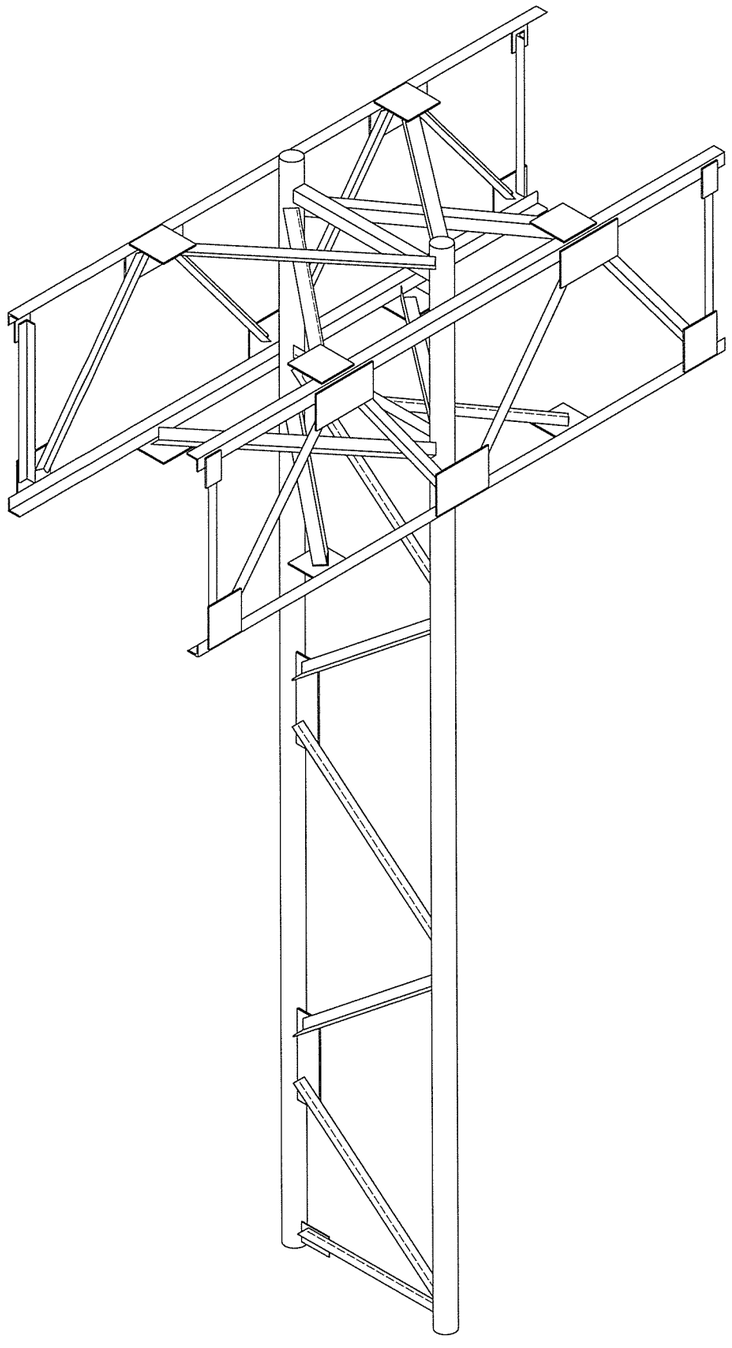
DETAIL N
Scale: 3"=1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16430
CHRISTINA M. FRANCO
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

SHEET 3 OF 4
DETAILS OF TEE MOUNT SIGN STRUCTURE WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 7/15/15
CHECKED BY: CGW DATE: 8/10/15
DESIGNED BY: CMF DATE: 7/30/15
FILENAME: bbb0611xx_tm3.dgn
SCALE: As noted
STR. NO. TM-440-60-01
DRAWING NO. 57551

JACOBS



ISOMETRIC VIEW

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.		BB0611	94	169

(1) TM-440-60-01 - TEE MOUNT SIGN - 57552

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications.

DESIGN SPECIFICATIONS: Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, AASHTO 2013 (Sixth Edition) with current interim revisions.

Basic Wind Speed = 90 m.p.h.
Fatigue Category I

This structure is approved for 200 square feet of sign area per side.
Use of additional sign area must be approved by the Engineer.
If the structure height ("H") exceeds 30'-0" contact Engineer.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete f 'c = 3,500 psi
Reinforcing Steel (Grade 60, AASHTO M31 or M322, Type A) fy = 60,000 psi

Structural steel sign support members shall comply with the following specifications:

	Angles:	AASHTO M270, Grade 36 (Fy=36,000 psi)
	Plate, W-Section:	AASHTO M270, Grade 50 (Fy=50,000 psi)
[1]	Pipe:	ASTM A139 Grade C, straight seam welded (Fy=42,000 psi)
		ASTM A500 Grade B (Fy=42,000 psi)
		ASTM A501 Grade B (Fy=50,000 psi)
		ASTM A714 Class 2, Grade II, Type E or S (Fy=50,000 psi)
	Z-Shapes:	AASHTO M270, Grade 36 (Fy=36,000 psi)
	Shim Plates:	ASTM A1011, SS, Grade 36, Type 2, or Grade 40
	Bolts:	ASTM A325, Type 1
	Locknuts - Approved Type:	Meeting or exceeding AASHTO M292
	Washers:	ASTM F436
	Nuts:	ASTM A563 or AASHTO M292, Grade 2H or Grade DH

All steel shall be galvanized according to Subsection 807.19. Steel completely encased in concrete may not be galvanized. Galvanized coating damaged during transport, handling, or erection shall be field repaired in accordance with Subsection 807.88.

Drawings show general features of design only. Shop drawings shall be made in accordance with Subsection 807.04, submitted, and approval secured before fabrication is begun.

No circumferential butt welds will be allowed in any pipe sections.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

Connections shall be bolted with high-strength bolts. Unless noted otherwise, bolts shall be 5/8" diameter and open holes shall be 11/16". Bolt spacing shall be 2 1/4" for 5/8" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval. All welding shall conform to Subsection 807.26.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07. Anchor bolts shall be pretensioned in accordance with Special Provision Job BB0611 "STEEL SIGN STRUCTURES".

All truss frame bolts shall comply with ASTM A325 Type I, galvanized according to Subsection 807.06. Nuts and washers for ASTM A325 Type I bolts shall be furnished and galvanized in accordance with Subsection 807.06.

All main load carrying tension members greater than 1/2" in thickness shall conform to the requirements of the Longitudinal Charpy V-notch test specified for Zone I minimum service temperature. This work and materials shall be paid for in accordance with Special Provision Job BB0611 "STEEL SIGN STRUCTURES".

All fillet welds of critical members shall be tested according to AWS D1.1 Structural Welding Code - Steel, using the magnetic particle method. Critical welds shall include: column to base plate and truss bottom support to column.

Truss field sections shall be shop assembled. Entire truss shall be fully assembled and lifted into place as one unit onto column support. All truss member connections shall be bolted connections.

Lock nuts to be equipped with nylon locking inserts or other approved type locking system. Lock nuts to be installed according to manufacturer's recommendations.

The excavation for the footing shall be back-filled before the structure is attached to the foundation.

The Variable Message Sign supplier shall be responsible for the attachment method and materials used to attach the Variable Message Sign and its accessories to the structure. The method of attachment shall not facilitate any corrosion of the structure.

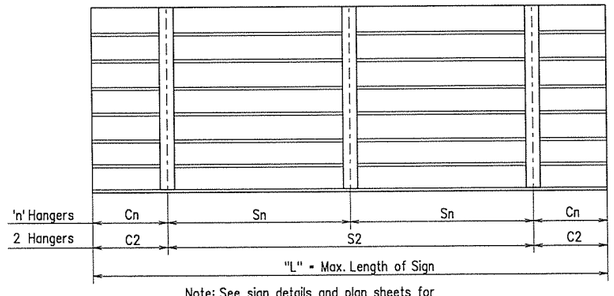
The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structure to the existing conditions.

[1] All grades of pipe require heat traceability back to the original melting mill. In addition to material requirements, all pipe used for welded applications shall have a maximum carbon equivalency (CE) of 0.4 using the following equation:
CE = %C + %Mn/6 + %CU/40 + %Ni/20 + %Cr/10 - %Mo/50 - %V/10

HANGER VARIABLES

Max. Length of Sign = "L"	"n" Hangers	Cantilever Length "Cn"	Hanger Spacing "Sn"
15'-0"	2 Hangers	0.21 x 'L'	0.58 x 'L'
30'-0"	3 Hangers	0.145 x 'L'	0.355 x 'L'
45'-0"	4 Hangers	0.107 x 'L'	0.262 x 'L'

Hanger spacing and cantilever length shall be rounded to the nearest inch.



Note: See sign details and plan sheets for number, size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16430
CHRISTINA M. FRANCO
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

SHEET 4 OF 4
DETAILS OF TEE MOUNT SIGN STRUCTURE
WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 7/15/15 FILENAME: bbb0611xx_tm4.dgn
CHECKED BY: CGW DATE: 8/10/15
DESIGNED BY: CMF DATE: 7/30/15 SCALE: No Scale
STR. NO. TM-440-60-01 DRAWING NO. 57552

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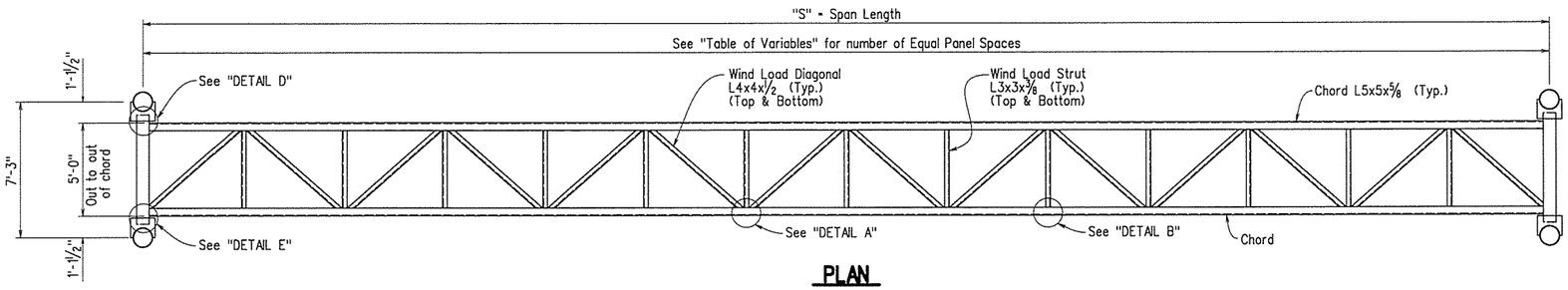
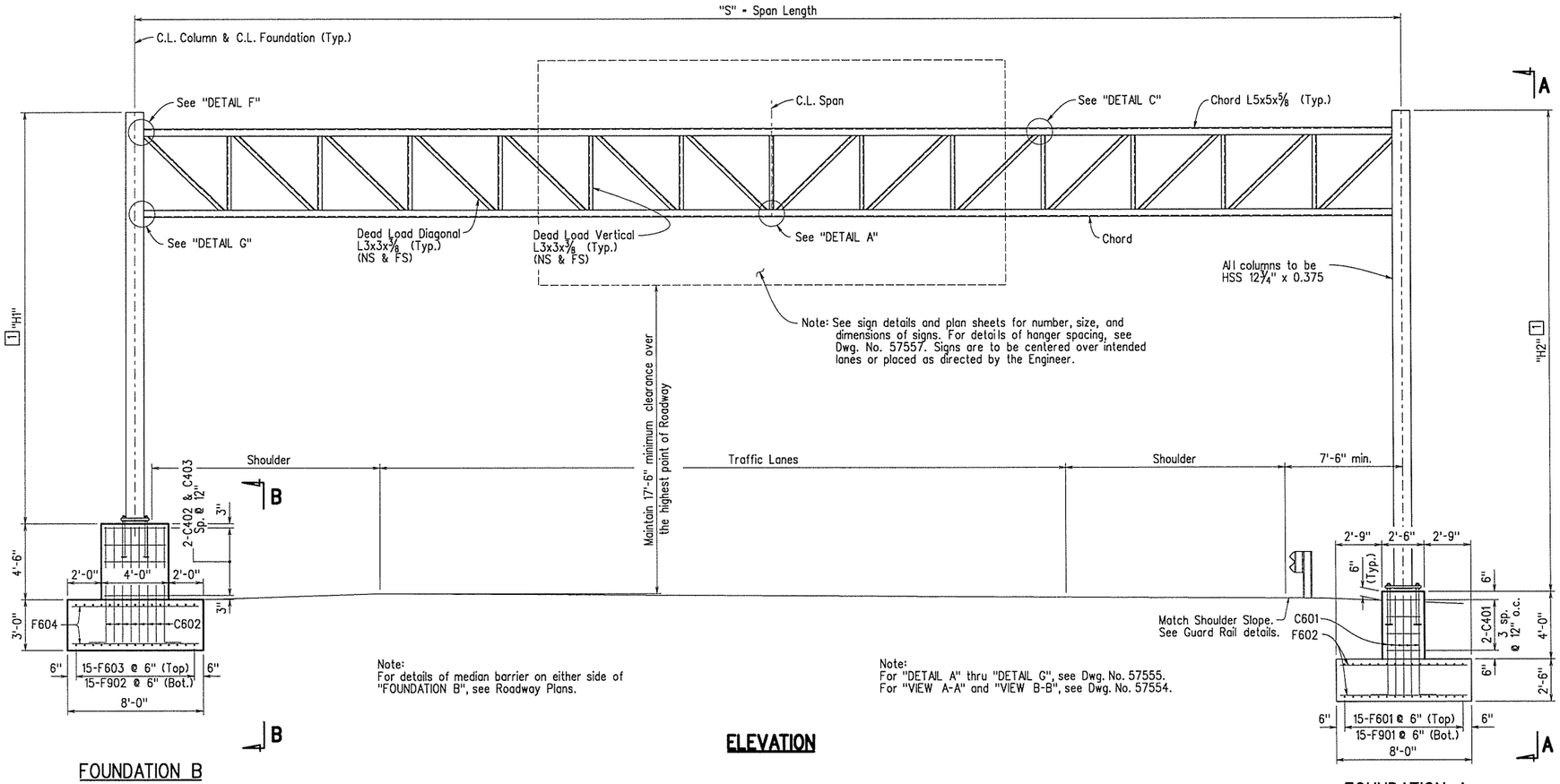
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	95	169
				(1)		SIGN STRUCTURE - 57553		

OH-440-60-37, -38, -39
OH-440-60-40, -41, -42

[1] The Contractor shall make field measurements to determine the column heights "H1" and "H2" that are required to maintain the minimum vertical clearance with the centerline of the sign located at the centerline of the truss. These column heights shall be shown on the shop drawings with a note stating that the Contractor has made the required field measurements. If the structure height ("H1" or "H2") exceeds 30'-0" contact the Engineer. The Contractor shall also verify that the variable span length (65'-0" to 85'-0") is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.



PLAN



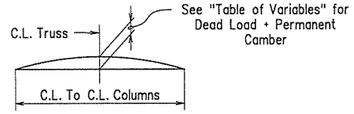
Note:
For details of median barrier on either side of "FOUNDATION B", see Roadway Plans.

Note:
For "DETAIL A" thru "DETAIL G", see Dwg. No. 57555.
For "VIEW A-A" and "VIEW B-B", see Dwg. No. 57554.

ELEVATION

FOUNDATION B

FOUNDATION A



TRUSS CAMBER DIAGRAM

TABLE OF VARIABLES

Span (ft)	No. of Equal Panel Spaces	Dead Load + Permanent Camber
65' thru 75-11 15/16"	14	1"
76' thru 85'	16	1¼"

SPAN LENGTH TABLE

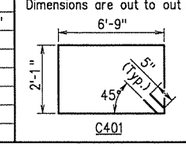
Structure No.	"S"
OH-440-60-37	67'-6"
OH-440-60-38	77'-6"
OH-440-60-39	77'-6"
OH-440-60-40	67'-6"
OH-440-60-41	67'-6"
OH-440-60-42	75'-6"

APPROXIMATE QUANTITIES FOR FOUNDATION (FOR INFORMATION ONLY)

FOUNDATION	CLASS S CONCRETE (Cu. Yds.)	REINFORCING STEEL (Lbs.)	EXCAVATION (Cu. Yds.)
A	17.2	2667	51
B	28.0	3302	26

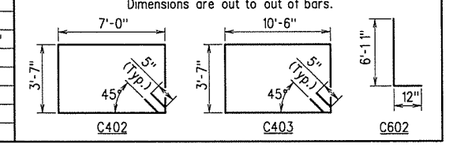
BAR LIST-FOUNDATION A

MARK	NO. REQ'D	LENGTH	P.D.	BENDING DIAGRAMS
C401	8	18'-6"	3"	Dimensions are out to out of bars.
C601	48	6'-10"	4½"	
F601	15	17'-6"	Str.	
F602	70	7'-6"	Str.	
F901	15	17'-6"	Str.	



BAR LIST-FOUNDATION B

MARK	NO. REQ'D	LENGTH	P.D.	BENDING DIAGRAMS
C402	10	21'-6"	3"	Dimensions are out to out of bars.
C403	5	28'-6"	3"	
C602	84	7'-10"	4½"	
F603	15	17'-6"	Str.	
F604	70	7'-6"	Str.	
F902	15	17'-6"	Str.	



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16430
CHRISTINA M. FRANCO
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

SHEET 1 OF 5
DETAILS FOR 65' TO 85' STEEL OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 05/07/15 FILENAME: bbb0611xx_tx1.dgn
CHECKED BY: CGW DATE: 8/10/15
DESIGNED BY: CMF DATE: 04/30/15 SCALE: Not to Scale
STR. NO. OH-440-60-37, -38, -39 OH-440-60-40, -41, -42
DRAWING NO. 57553

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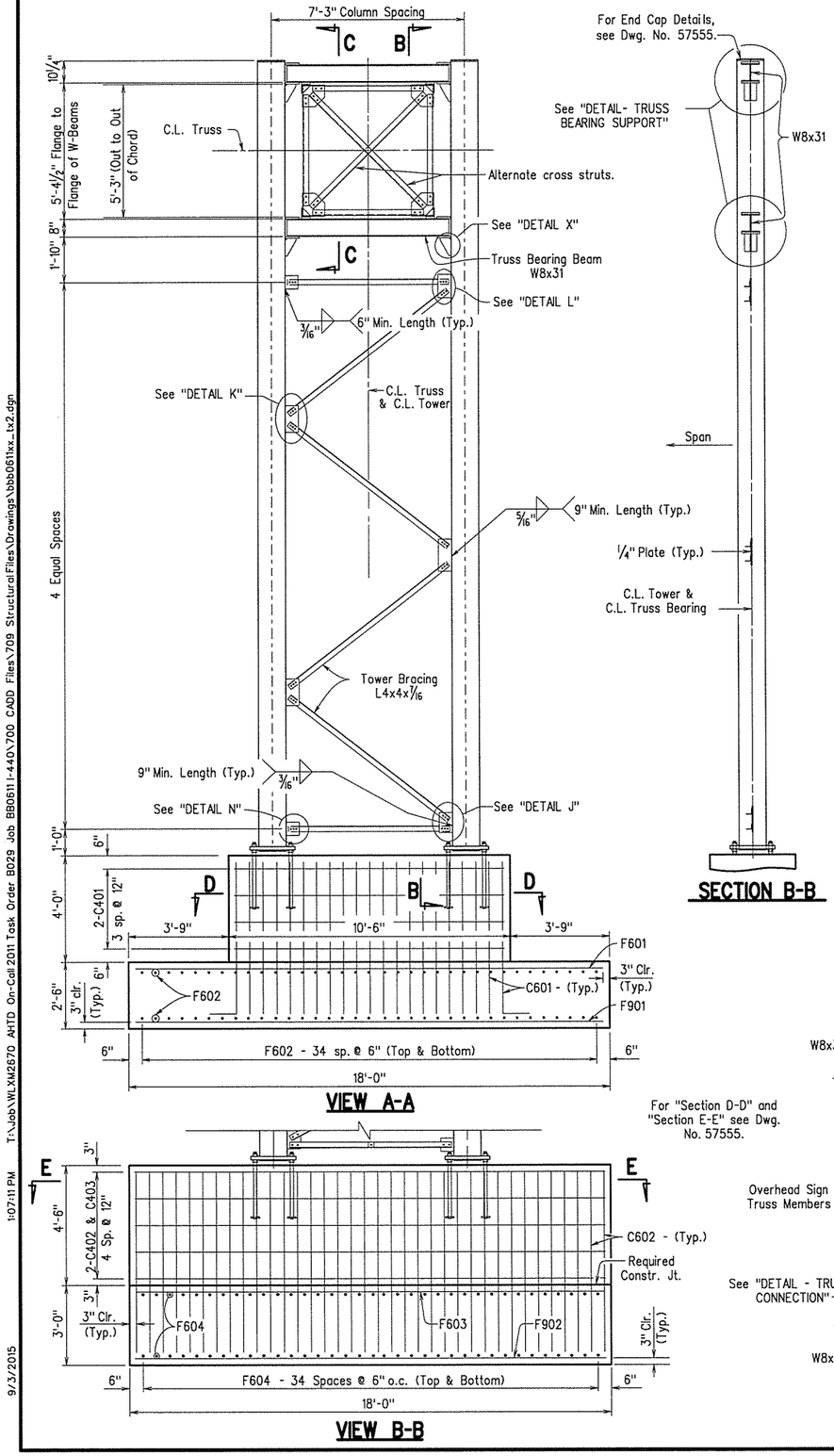
9/3/2015 1:07:10 PM T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job BB0611 I-440\700 CADD Files\709 Structural Files\Drawings\bbb0611xx_tx1.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	96	169

(1) SIGN STRUCTURE - 57554

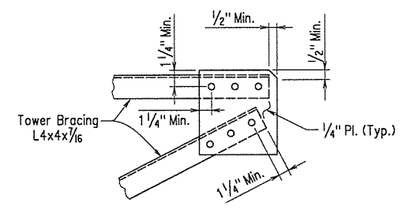
OH-440-60-37, -38, -39
OH-440-60-40, -41, -42



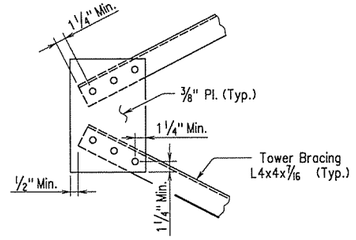
VIEW A-A

VIEW B-B

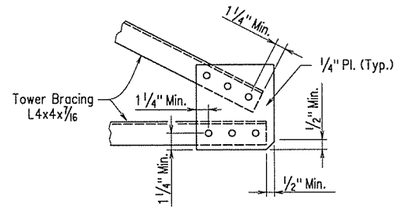
SECTION B-B



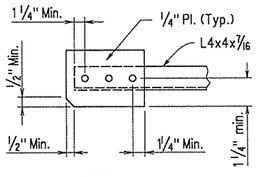
DETAIL L



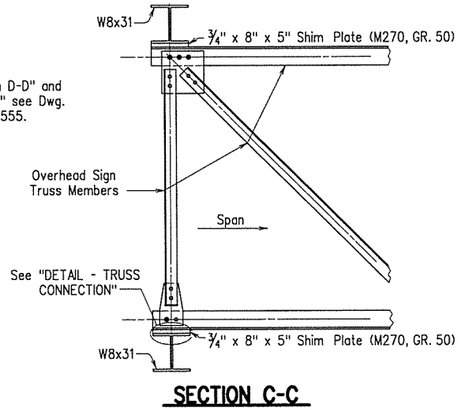
DETAIL K



DETAIL J

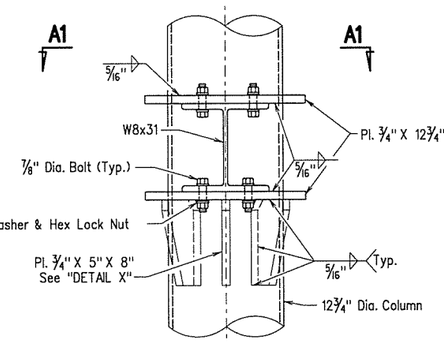


DETAIL N

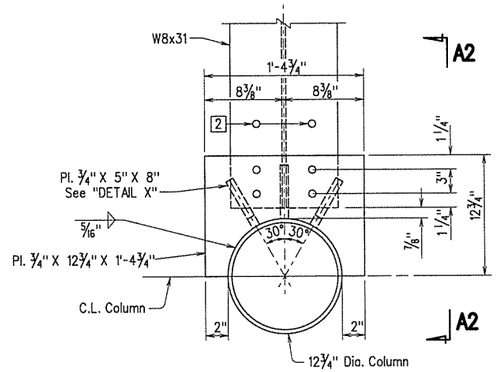


SECTION C-C

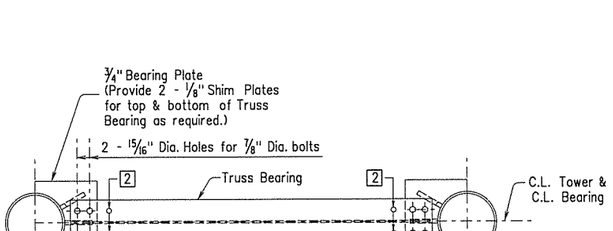
For "Section D-D" and "Section E-E" see Dwg. No. 57555.



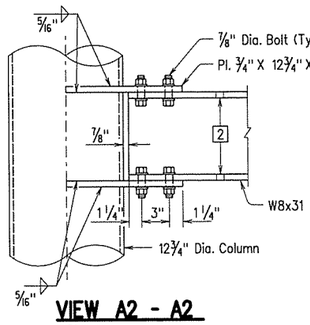
DETAIL - TRUSS BEARING SUPPORT



VIEW A1 - A1

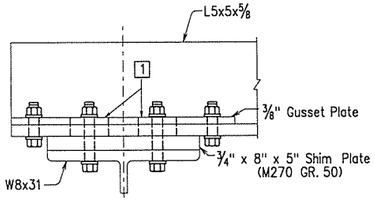


PLAN AT TRUSS BEARING



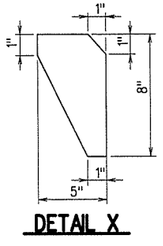
VIEW A2 - A2

3/4" X 5" X 8" Plate not shown for clarity



DETAIL - TRUSS CONNECTION

Bottom connection shown, top connection similar.



DETAIL X

[1] Slotted Hole in Gusset Plate and Chord Angle 11/16" X 2". Use plate washer on Gusset plate side. 11/16" holes in 3/4" shim plate and beam flange.

[2] 11/16" Dia. holes at top or bottom flanges as required.

STATE OF ARKANSAS
CHRISTINA M. FRANCO
REGISTERED PROFESSIONAL ENGINEER
No. 16430
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

SHEET 2 OF 5
DETAILS FOR 65' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY:	LHG	DATE:	05/07/15	FILENAME:	bbb0611xx_tx2.dgn
CHECKED BY:	CGW	DATE:	8/10/15		
DESIGNED BY:	CMF	DATE:	04/30/15	SCALE:	Not to Scale
STR. NO.	OH-440-60-37, -38, -39 OH-440-60-40, -41, -42			DRAWING NO.	57554

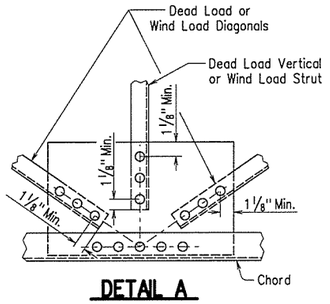
JACOBS

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.		BB0611	97	169

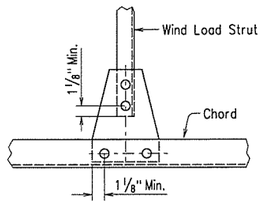
(1) SIGN STRUCTURE - 57555
OH-440-60-37, -38, -39
OH-440-60-40, -41, -42

Note: All gusset plate thicknesses shall be 3/8".

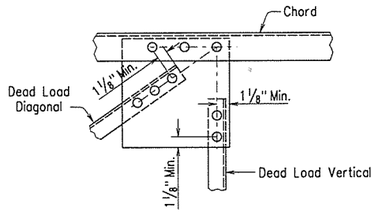
[1] Slotted Hole in gusset plate and chord angle 11/16" X 2". Use plate washer on gusset plate side. 11/16" holes in 3/4" shim plate and beam flange.



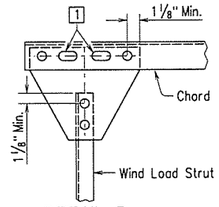
DETAIL A



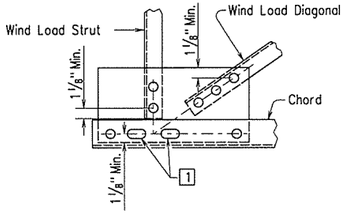
DETAIL B



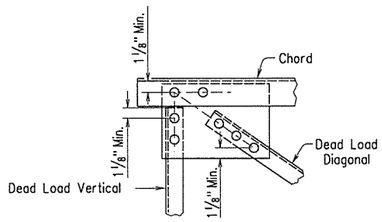
DETAIL C



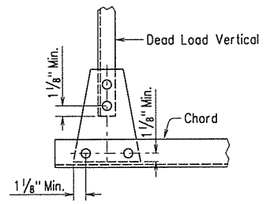
DETAIL D



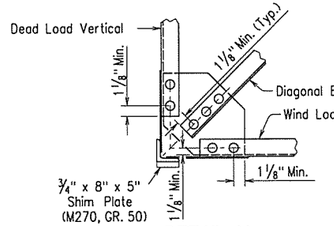
DETAIL E



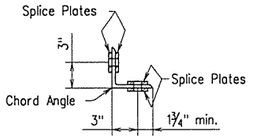
DETAIL F



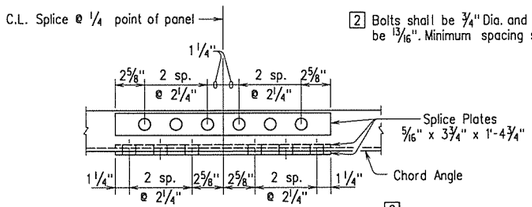
DETAIL G



DETAIL M

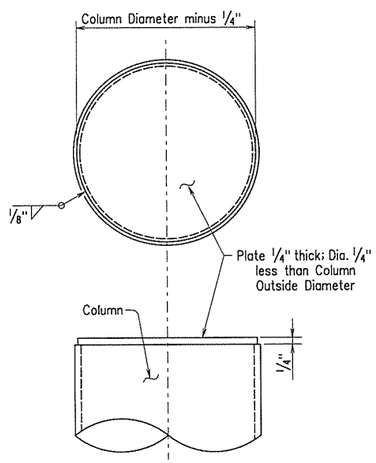


SECTION ON C.L. SPLICE

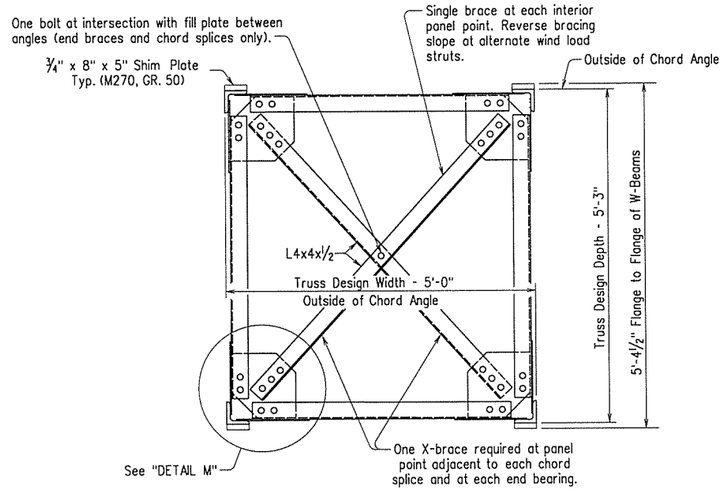


CHORD SPLICE USING PLATES [2]

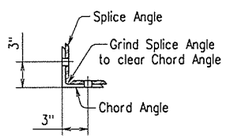
[2] Bolts shall be 3/4" Dia. and holes shall be 13/16". Minimum spacing shall be 2 1/4".



END CAP DETAILS



TRUSS SECTION



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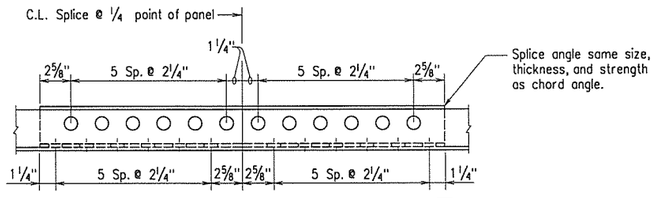
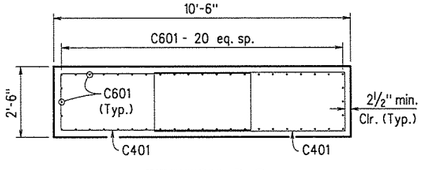
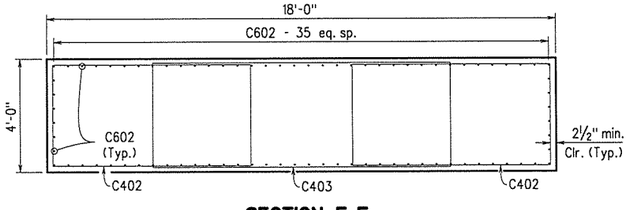


OPTIONAL CHORD SPLICE USING ANGLES
Place Splice Angle on inside of Truss

Note: Chord angles may be spliced in convenient lengths for galvanizing and sign placement.



SECTION D-D
Foundation A



SECTION E-E
Foundation B

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16430 CHRISTINA M. FRANCO
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

SHEET 3 OF 5
DETAILS FOR 65' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 05/07/15
CHECKED BY: CGW DATE: 8/10/15
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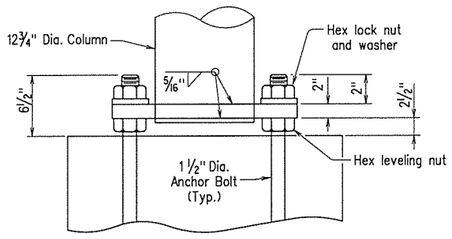
STR. NO. OH-440-60-37, -38, -39 OH-440-60-40, -41, -42
FILENAME: bbb0611xx_tx3.dgn
SCALE: Not to Scale
DRAWING NO. 57555

JACOBS

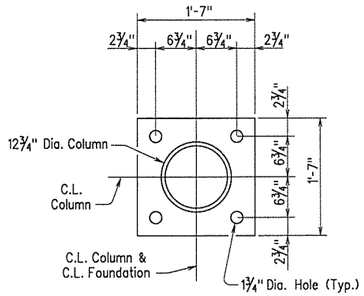
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	98	169

(1) SIGN STRUCTURE - 57556

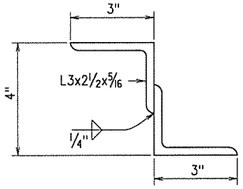
OH-440-60-37, -38, -39
OH-440-60-40, -41, -42



ELEVATION - COLUMN BASE

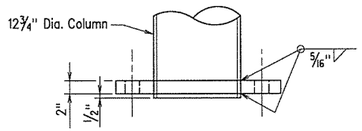


PLAN - COLUMN BASE



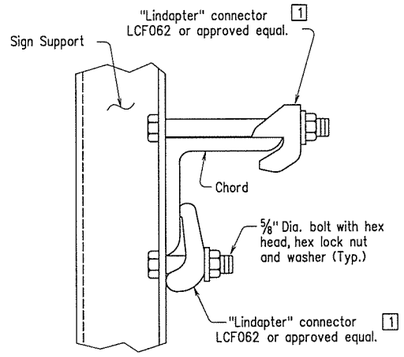
NOTE: Structural Z support may be fabricated from angles as shown.

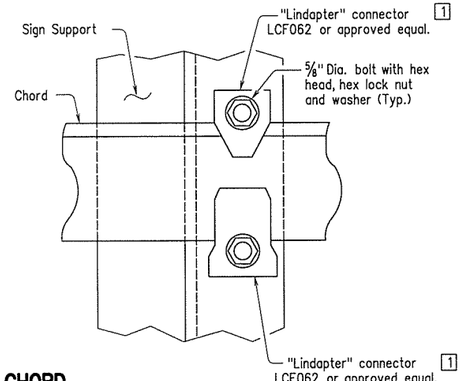
DETAILS OF ALTERNATE Z SUPPORT



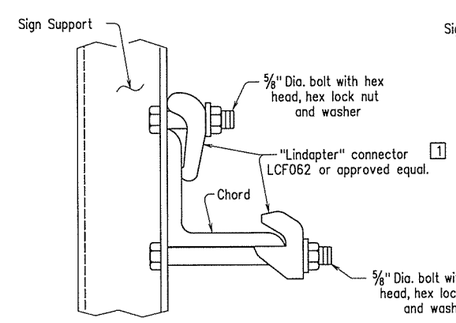
Note: Diameter of hole in base plate to be ⅛" larger than column diameter.

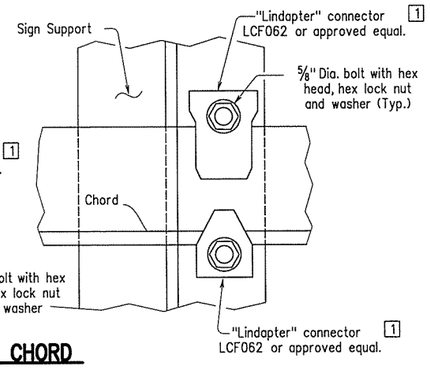
DETAIL OF COLUMN CONNECTION TO BASE PLATE





TOP CHORD



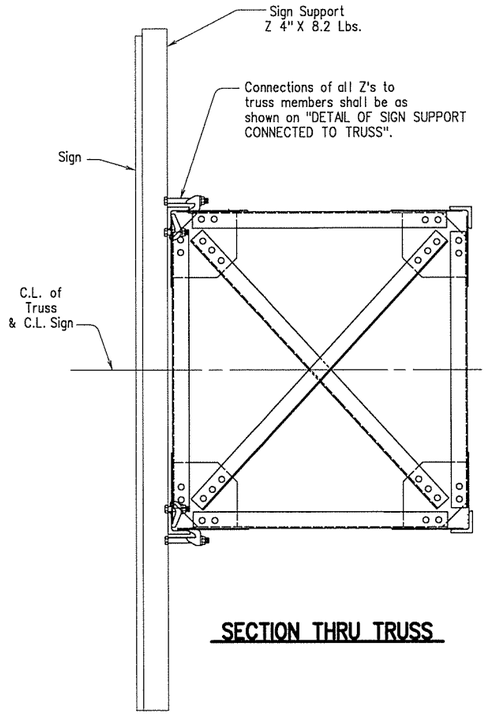


BOTTOM CHORD

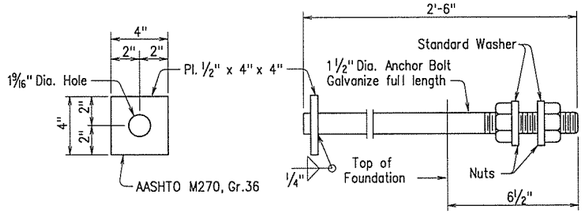
[1] Note: All "Lindapter" connectors or approved equal shall be installed according to manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

Note: Install all support connectors clear of the gusset plates and splice locations.

DETAIL OF SIGN SUPPORT CONNECTED TO TRUSS



SECTION THRU TRUSS



Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.

ANCHOR BOLT DETAIL

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16430
CHRISTINA M. FRANCO

9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

SHEET 4 OF 5
DETAILS FOR 65' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 05/07/15
CHECKED BY: CGW DATE: 8/10/15
DESIGNED BY: CMF DATE: 04/30/15
STR. NO. OH-440-60-37, -38, -39 OH-440-60-40, -41, -42
FILENAME: bbb0611xx_tx4.dgn
SCALE: Not to Scale
DRAWING NO. 57556

JACOBS

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.		BB0611	99	169

1 SIGN STRUCTURE - 57557
OH-440-60-37, -38, -39
OH-440-60-40, -41, -42

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications.

DESIGN SPECIFICATIONS: Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, AASHTO 2013 (Sixth Edition) with current interim revisions.

Basic Wind Speed = 90 m.p.h.

Fatigue Category I

This structure is approved for a sign area equivalent to 75% of the span at 15' tall. Use of additional sign area must be approved by the Engineer. If the structure height ("H1" or "H2") exceeds 30'-0", contact the Engineer.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete f 'c = 3,500 psi
Reinforcing Steel (Grade 60, AASHTO M31 or M322, Type A) fy = 60,000 psi

Structural steel sign support members shall comply with the following specifications:

Angles:	AASHTO M270, Grade 36 (Fy = 36,000 psi).
Plate, W-Section:	AASHTO M270, Grade 50 (Fy = 50,000 psi).
[1] Pipe:	ASTM A139 Grade C, straight-seam welded (Fy = 42,000 psi).
	ASTM A500 Grade B (Fy = 42,000 psi).
	ASTM A501 Grade B (Fy = 50,000 psi).
	ASTM A714 Class 2, Grade II, Type E or S (Fy = 50,000 psi).
Z-Shapes:	AASHTO M270, Grade 36 (Fy = 36,000 psi).
Shim Plates:	ASTM A1011, SS, Grade 36, Type 2, or Grade 40
Bolts:	ASTM A325, Type 1
Locknuts - Approved Type:	Meeting or exceeding AASHTO M292
Washers:	ASTM F436
Nuts:	ASTM A563 or AASHTO M292, Grade 2H or Grade DH

All steel shall be galvanized according to Subsection 807.19. Steel completely encased in concrete may not be galvanized. Galvanized coating damaged during transport, handling, or erection shall be field repaired in accordance with Subsection 807.88.

Drawings show general features of design only. Shop drawings shall be made in accordance with Subsection 807.04, submitted, and approval secured before fabrication is begun.

No circumferential butt welds will be allowed in any pipe sections.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

Connections shall be bolted with high-strength bolts. Unless noted otherwise, bolts shall be 5/8" diameter and open holes shall be 11/16". Bolt spacing shall be 2 1/4" for 5/8" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval. All welding shall conform to Subsection 807.26.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07. Anchor bolts shall be pretensioned in accordance with Special Provision Job BB0611 "STEEL SIGN STRUCTURES".

All truss frame bolts shall comply with ASTM A325 Type 1, galvanized according to Subsection 807.06. Nuts and washers for ASTM A325 Type 1 bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Field splices shall be located in order to avoid sign panel connections. There shall be a maximum of two field splices and they shall be spaced a minimum of 15 ft. apart.

All main load carrying tension members greater than 1/2" in thickness shall conform to the requirements of the Longitudinal Charpy V-notch test specified for Zone 1 minimum service temperature. This work and materials shall be paid for in accordance with Special Provision Job BB0611 "STEEL SIGN STRUCTURES".

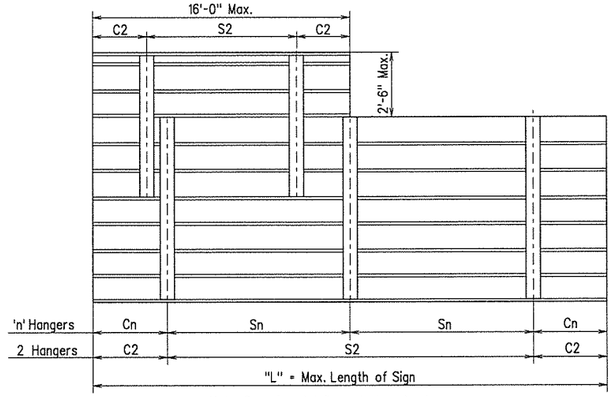
All fillet welds of critical members shall be tested according to AWS D1.1 Structural Welding Code - Steel, using the magnetic particle method. Critical welds shall include: column to base plate and truss bottom support to column.

Truss field sections shall be shop assembled. Entire truss shall be fully assembled and lifted into place as one unit onto tower supports. All truss member connections shall be bolted connections.

Lock nuts to be equipped with nylon locking inserts or other approved type locking system. Lock nuts to be installed according to manufacturer's recommendations.

The excavations for the footings shall be back-filled before the structure is attached to the foundations.

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structures to the existing conditions.



Note: See sign details and plan sheets for number, size and dimensions of signs.

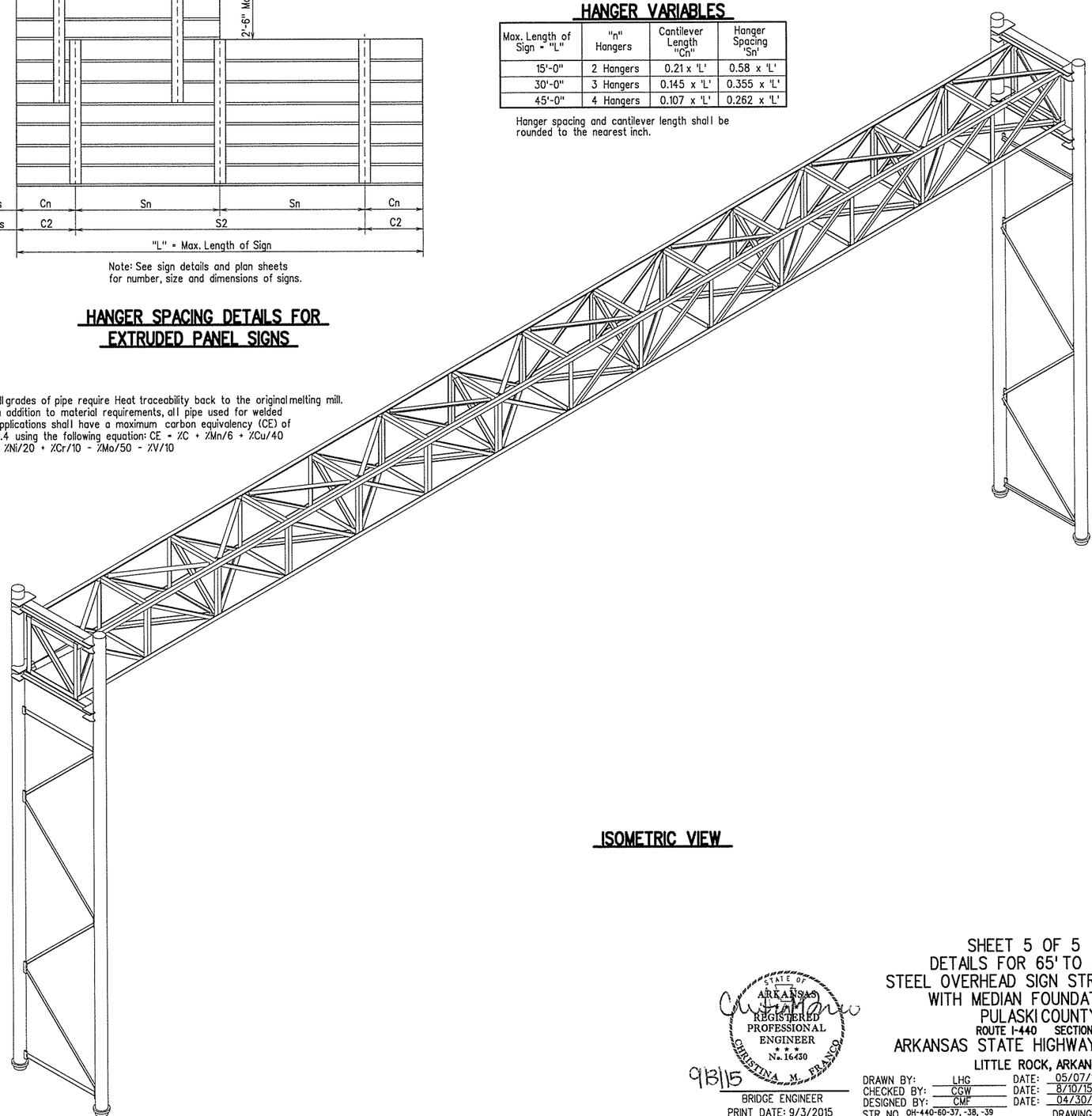
HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

[1] All grades of pipe require Heat traceability back to the original melting mill. In addition to material requirements, all pipe used for welded applications shall have a maximum carbon equivalency (CE) of 0.4 using the following equation: CE = %C + %Mn/6 + %Cu/40 + %Ni/20 + %Cr/10 - %Mo/50 - %V/10

HANGER VARIABLES

Max. Length of Sign = "L"	"n" Hangers	Cantilever Length "Cn"	Hanger Spacing 'Sn'
15'-0"	2 Hangers	0.21 x 'L'	0.58 x 'L'
30'-0"	3 Hangers	0.145 x 'L'	0.355 x 'L'
45'-0"	4 Hangers	0.107 x 'L'	0.262 x 'L'

Hanger spacing and cantilever length shall be rounded to the nearest inch.



ISOMETRIC VIEW

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16430 CHRISTINA M. FRANCO
9/3/15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

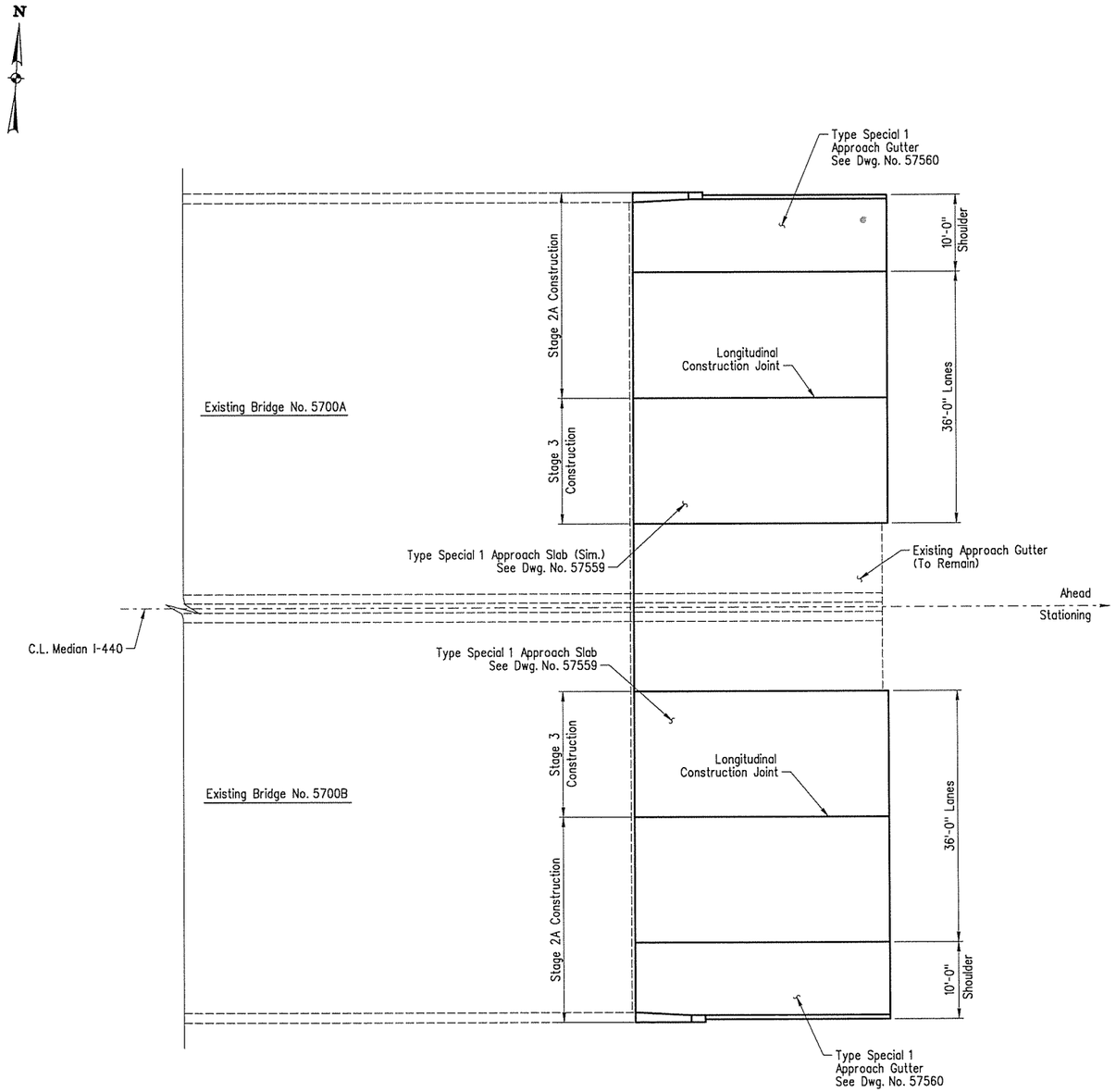
SHEET 5 OF 5
DETAILS FOR 65' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 05/07/15 FILENAME: bbb0611xx_tx5.dgn
CHECKED BY: CGW DATE: 8/10/15
DESIGNED BY: CMF DATE: 04/30/15 SCALE: Not to Scale
STR. NO. OH-440-60-37, -38, -39 OH-440-60-40, -41, -42 DRAWING NO. 57557

JACOBS

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.		BB0611	100	169

1 5700A&B-TYPE SP. APP. SLAB PLAN-57558



PLAN OF APPROACH SLAB AND GUTTERS
BRIDGE NOs. 5700A & 5700B
Scale: 1" = 10'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

LAYOUT OF APPROACH SLABS & GUTTERS
BRIDGE OVER FRAZIER PIKE - MAIN LINE STRUCTURE
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x1_as1.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5700A&B DRAWING NO. 57558

JACOBS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	101	169
				(1)	5700A&B-TYPE SPEC. 1 APP. SLAB-57559			

GENERAL NOTES

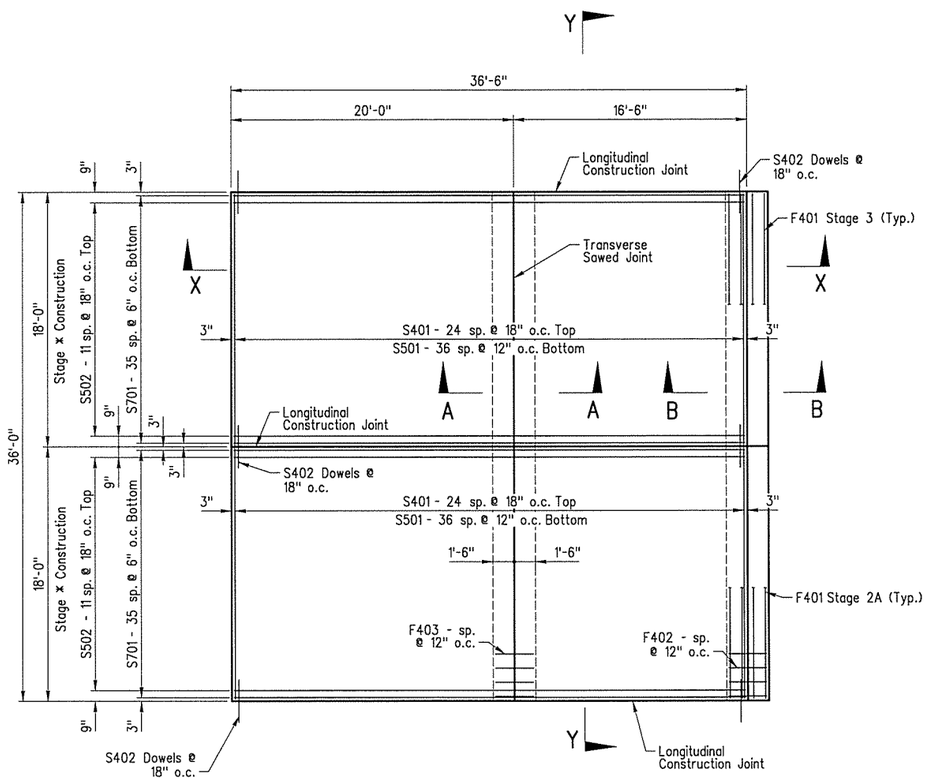
All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

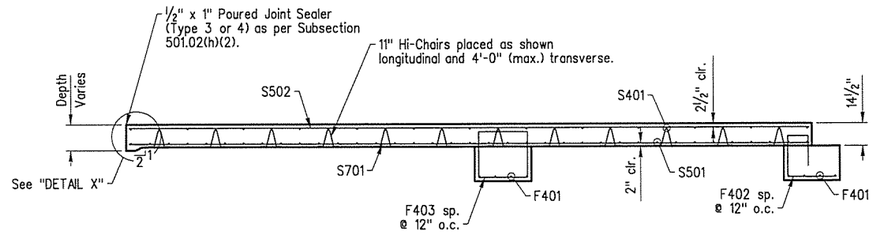
Top of Approach Slab shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class S Tined Bridge Roadway Surface Finish.

x See Layout on Dwg. No. 57558 for Stages of Construction.



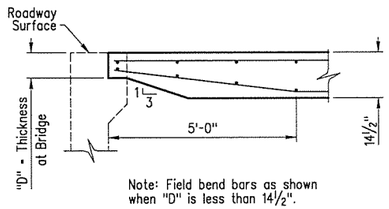
PLAN - TYPE SPECIAL 1 APPROACH SLAB

Scale: 3/16" = 1'-0"



SECTION X-X

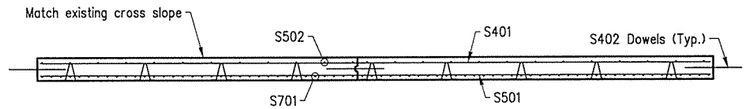
Scale: 1/4" = 1'-0"



Note: Field bend bars as shown when "D" is less than 14 1/2".

DETAIL X

Scale: 1/2" = 1'-0"



SECTION Y-Y

(No Scale)

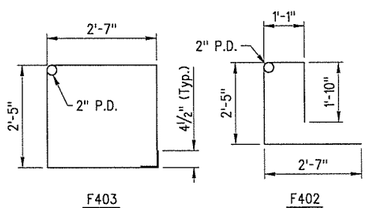
DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. 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 seperately but will be considered subsidiary to "Type Special 1 Approach Slab".

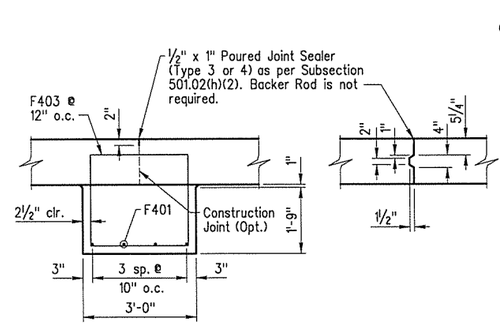
BAR LIST

Mark	No. Req'd.	Length	Bending Diagram (Dimensions are out to out of bars.)
S401	50	17'-8"	
S402	75	3'-0"	
S501	74	17'-8"	
S502	24	36'-2"	
S701	72	36'-2"	
F401	16	17'-6"	
F402	36	7'-8"	
F403	36	10'-4"	



QUANTITIES FOR ONE TYPE SPECIAL 1 APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	8,814	73.5



SECTION A-A

Scale: 1/2" = 1'-0"

DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

Scale: 1/2" = 1'-0"

SECTION B-B

Scale: 1/2" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 1 APPROACH SLAB
BRIDGE OVER FRAZIER PIKE - MAIN LINE STRUCTURE
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 9/8/14
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14
BRIDGE NO. 5700A&B
FILENAME: bbb0611x1_as2.dgn
SCALE: As Noted
DRAWING NO. 57559

JACOBS

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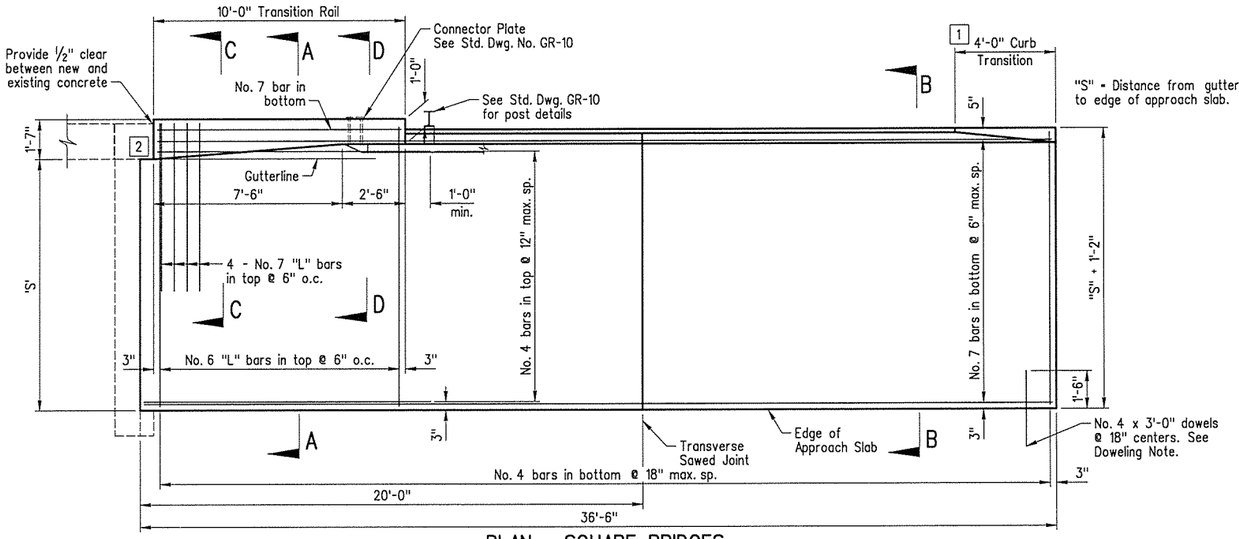
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	102	169

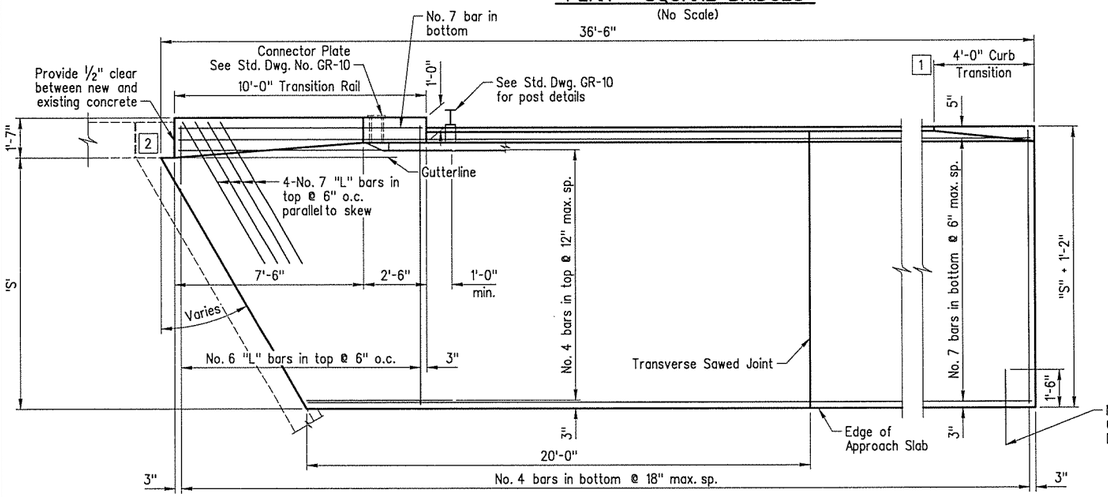
(1) TYPE SP. 1 APP. GUTTER - 57560

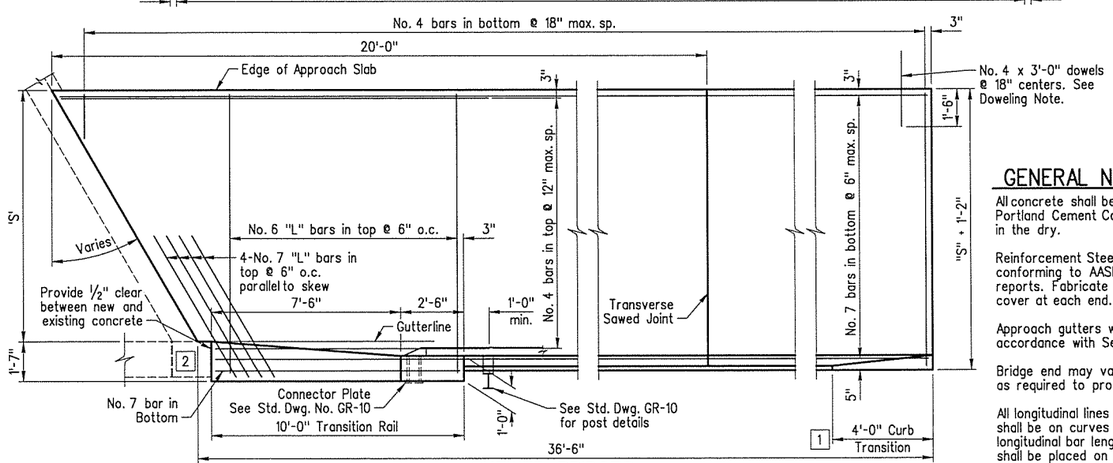
5700A&B, 5702A&B, 5703A&B, 5704A&B



PLAN - SQUARE BRIDGES

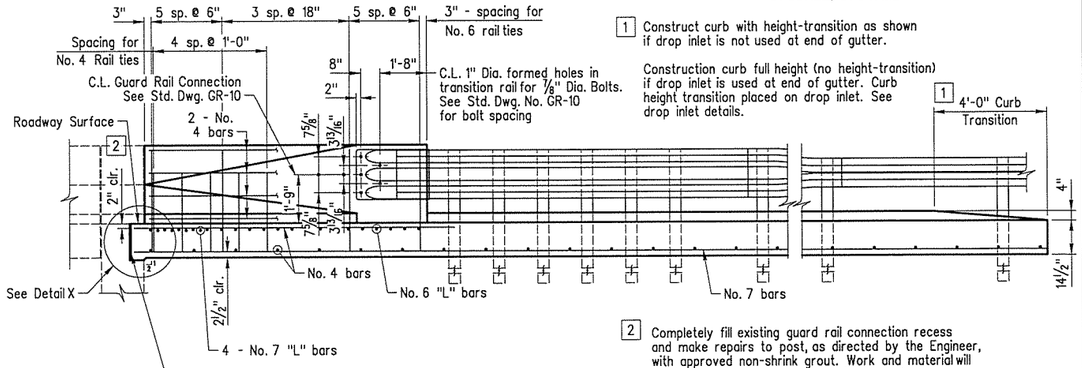
(No Scale)





PLAN - SKEWED BRIDGES

(No Scale)



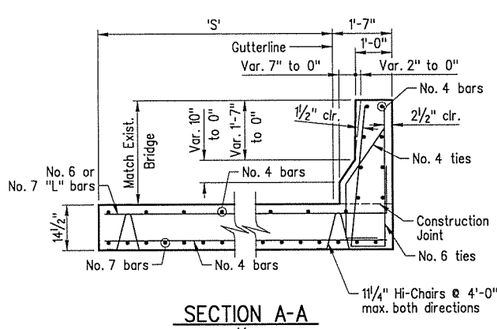
1 Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construction 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.

2 Completely fill existing guard rail connection recess and make repairs to post, as directed by the Engineer, with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to "Type Special 1 Approach Gutters".

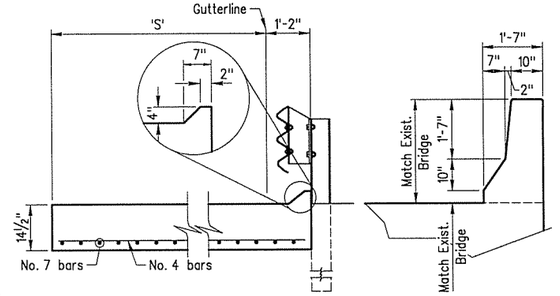
ELEVATION - TYPE SPECIAL 1 APPROACH GUTTER

Scale: ⅜" = 1'-0"



SECTION A-A

Scale: ½" = 1'-0"



SECTION B-B

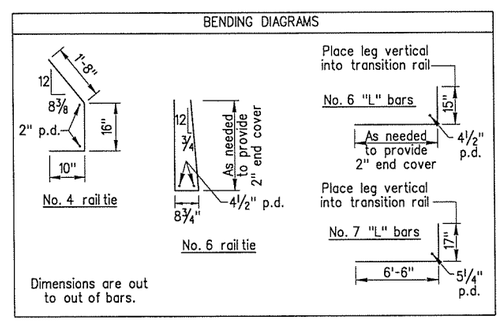
Scale: ½" = 1'-0"

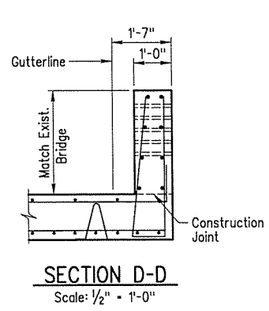
SECTION C-C

At end of transition rail
Scale: ½" = 1'-0"

QUANTITIES FOR ONE SQUARE APPROACH GUTTER

'S'	Concrete	Reinforcing Steel
6'-0"	13.34 CY	1818 lbs.
10'-0"	20.07 CY	2650 lbs.





SECTION D-D

Scale: ½" = 1'-0"

GENERAL NOTES

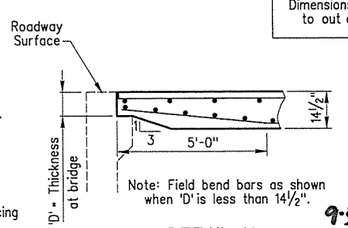
All concrete shall be Class S or S(AE) or misture used for Portland Cement Concrete Pavement and shall be poured in the dry.

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

Bridge end may vary from that shown. Adjust gutter details as required to provide similar railing transition.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.



Note: Field bend bars as shown when 'D' is less than 14½".

DETAIL X

(No Scale)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 1 APPROACH GUTTER
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x1_ag1.dgn
CHECKED BY: MAA DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5700A&B, 5702A&B, 5703A&B, 5704A&B DRAWING NO. 57560

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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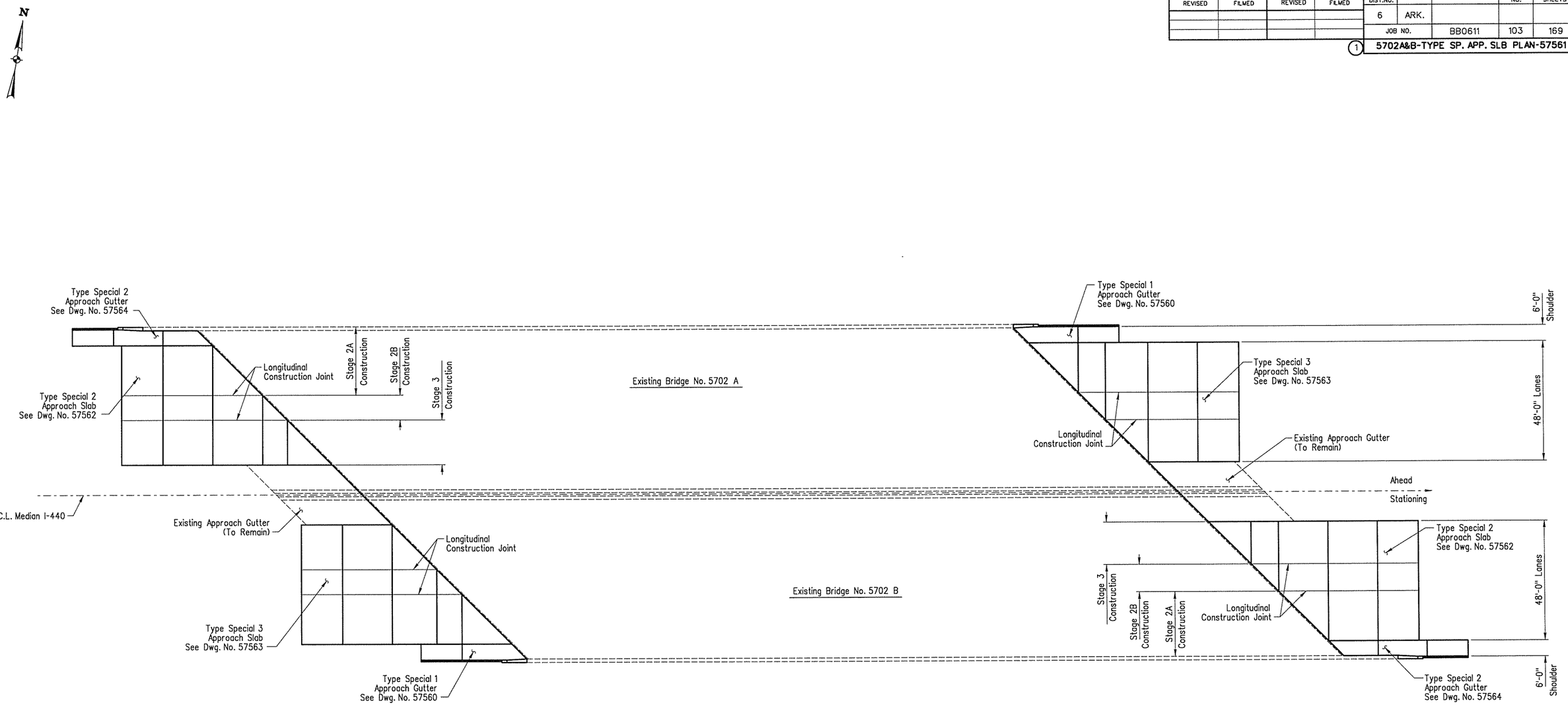
				JOB NO.		BB0611	103	169
				(1)	5702A&B-TYPE SP. APP. SLB PLAN-57561			



PLAN OF APPROACH SLAB AND GUTTERS
BRIDGE NOs. 5702A & 5702B
Scale: 1" = 20'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
9-3-15
MARK ASHER
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

LAYOUT OF APPROACH SLABS & GUTTERS
BRIDGE OVER RAILROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x2_as1.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5702A&B DRAWING NO. 57561

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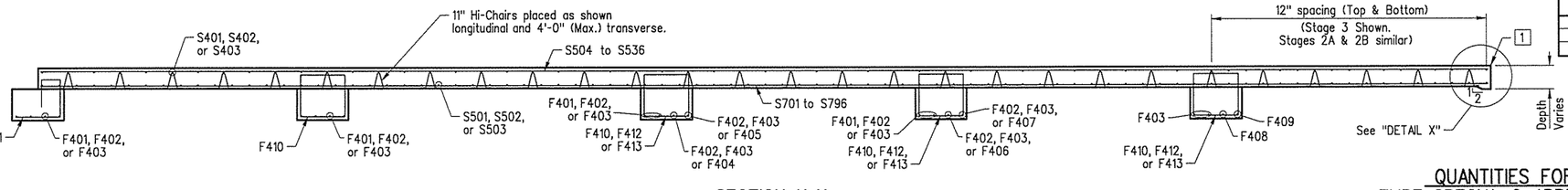
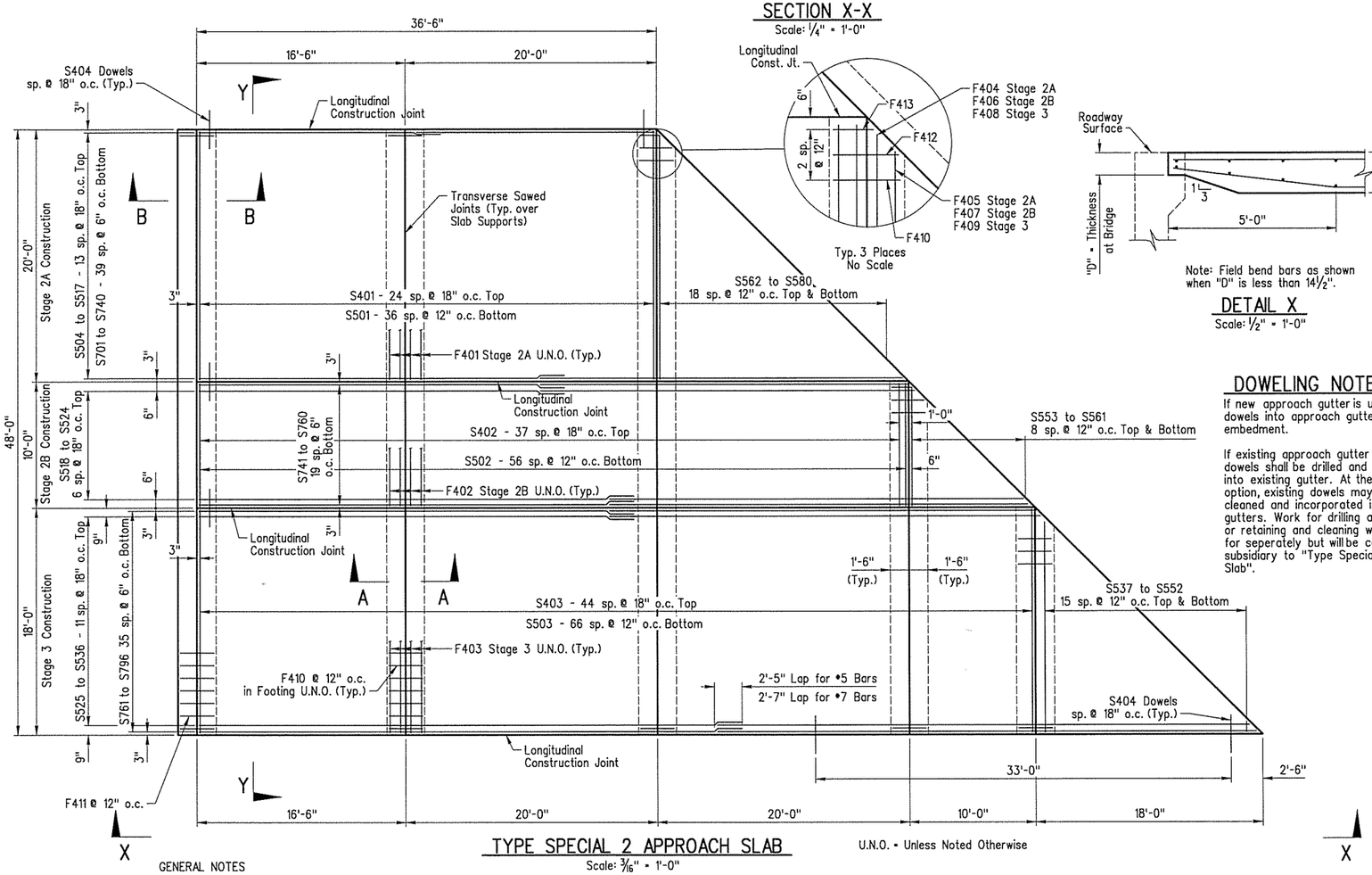
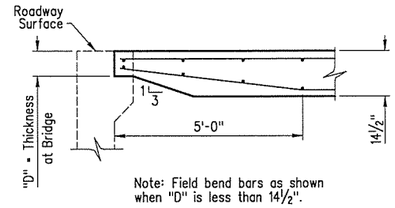
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	104	169

(1) 5702A&B-TYPE SPEC. 2 APP. SLAB-57562



SECTION X-X
Scale: 1/4" = 1'-0"



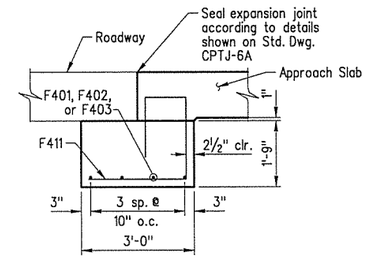


Note: Field bend bars as shown when "D" is less than 14½".

DETAIL X
Scale: 1/2" = 1'-0"

QUANTITIES FOR ONE TYPE SPECIAL 2 APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
48'-0"	20,916	168.4

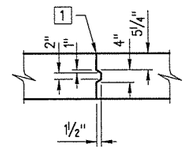


SECTION B-B
Scale: 1/2" = 1'-0"

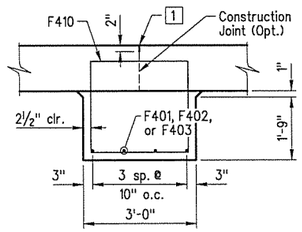
DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. 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 seperately but will be considered subsidiary to "Type Special 2 Approach Slab".



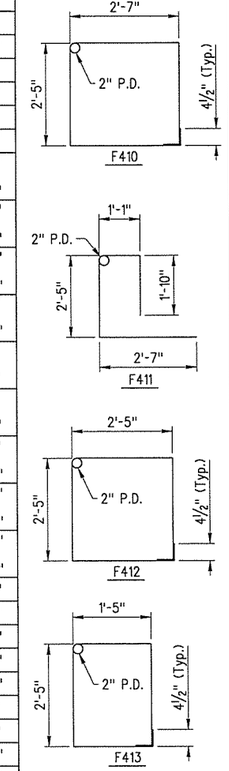
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: 1/2" = 1'-0"



SECTION A-A
Scale: 1/2" = 1'-0"

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	25	19'-8"	
S402	38	9'-8"	
S403	45	17'-8"	
S404	128	3'-0"	
S501	37	19'-8"	
S502	57	9'-8"	
S503	67	17'-8"	
S504 to S517	2 ea.	19'-5" to 29'-2"	
S518 to S524	2 ea.	29'-6" to 34'-0"	
S525 to S536	2 ea.	34'-8" to 42'-11"	
S537 to S552	2 ea.	1'-10" to 16'-10"	
S553 to S561	2 ea.	1'-4" to 9'-4"	
S562 to S580	2 ea.	1'-4" to 19'-4"	
S701 to S740	2 ea.	19'-6" to 29'-3"	
S741 to S760	2 ea.	29'-6" to 34'-3"	
S761 to S796	2 ea.	34'-6" to 43'-3"	
F401	10	19'-6"	
F402	14	9'-6"	
F403	18	17'-6"	
F404	1	19'-0"	
F405	1	18'-2"	
F406	1	9'-0"	
F407	1	8'-2"	
F408	1	17'-0"	
F409	1	16'-2"	
F410	136	10'-4"	
F411	48	7'-8"	
F412	3	10'-0"	
F413	3	8'-0"	



GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

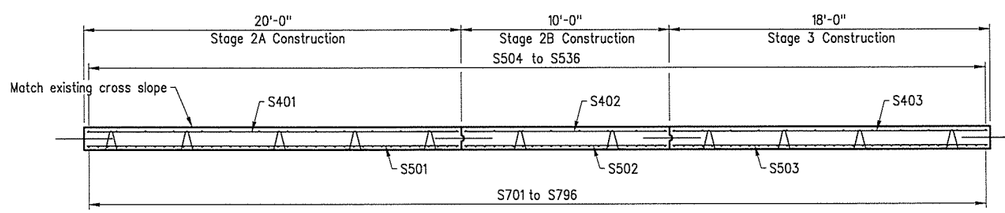
All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

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.

TYPE SPECIAL 2 APPROACH SLAB
Scale: 3/16" = 1'-0"

U.N.O. = Unless Noted Otherwise



SECTION Y-Y
Scale: 1/4" = 1'-0"

[1] ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 2 APPROACH SLAB BRIDGE OVER RAILROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x2_as2.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5702A&B DRAWING NO. 57562

JACOBS

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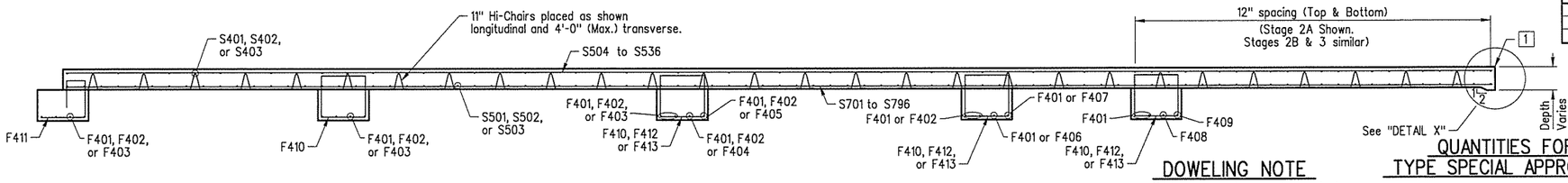
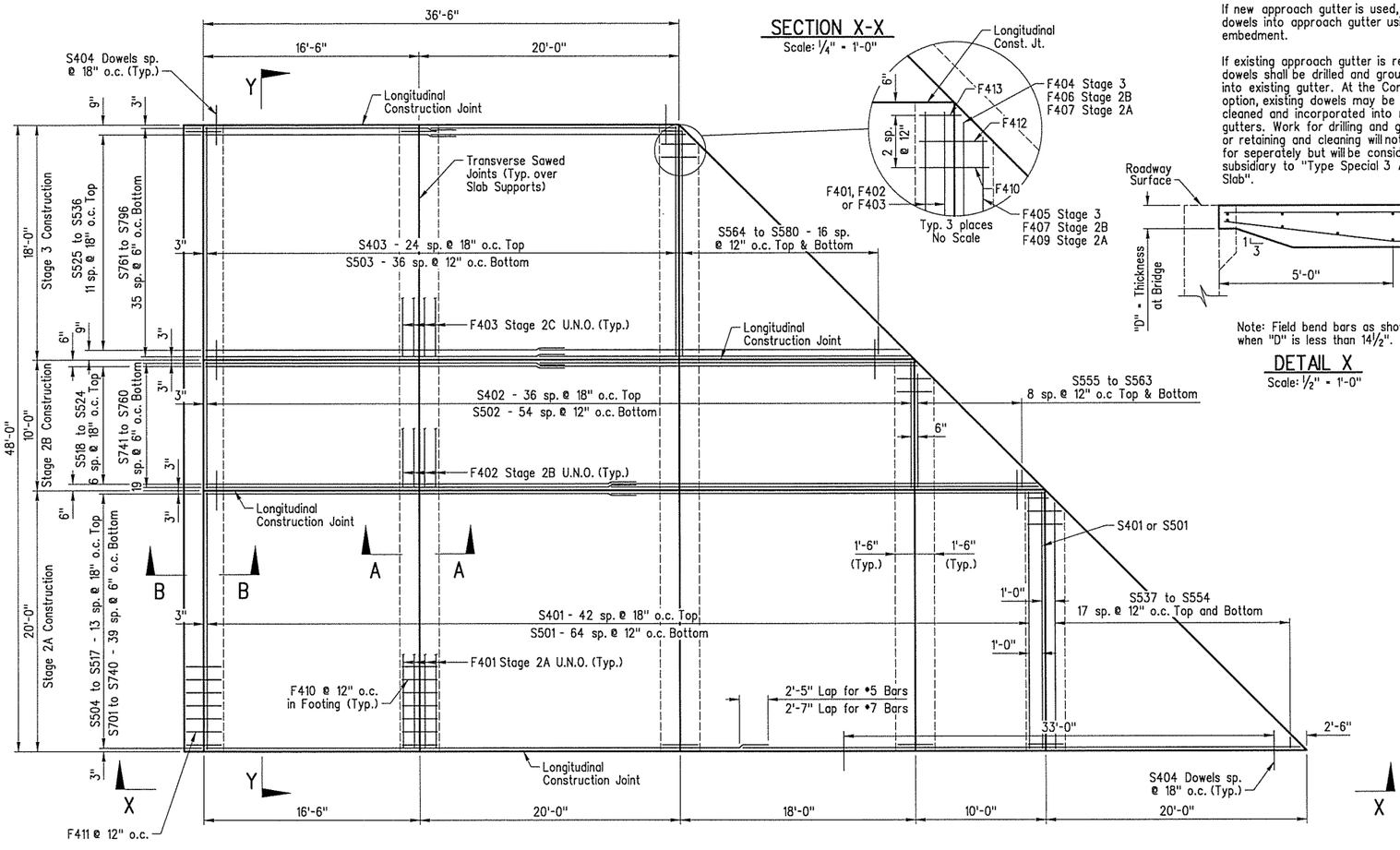
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	105	169

1 5702A&B-TYPE SPEC. 3 APP. SLAB-57563



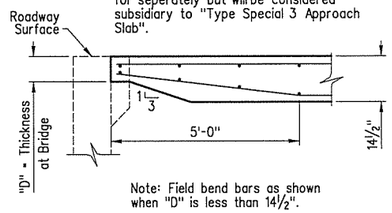


SECTION X-X
Scale: 1/4" = 1'-0"

DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. 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 seperately but will be considered subsidiary to "Type Special 3 Approach Slab".

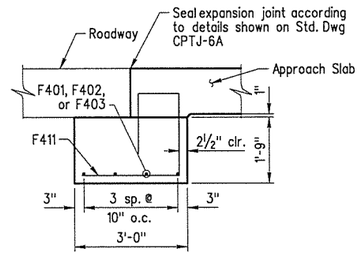


Note: Field bend bars as shown when "D" is less than 14½".

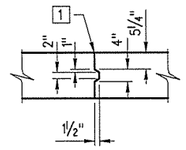
DETAIL X
Scale: ½" = 1'-0"

QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

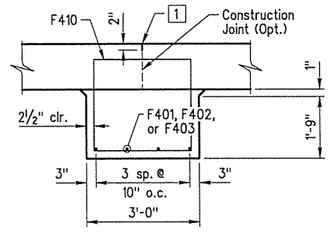
Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
48'-0"	20,972	169.3



SECTION B-B
Scale: ½" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: ½" = 1'-0"

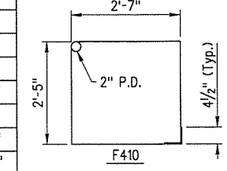


SECTION A-A
Scale: ½" = 1'-0"

1 ½" x 2" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	44	19'-8"	
S402	37	9'-8"	
S403	25	17'-8"	
S404	124	3'-0"	
S501	65	19'-8"	
S502	55	9'-8"	
S503	37	17'-8"	
S504 to S517	2 ea.	33'-5" to 43'-2"	
S518 to S524	2 ea.	28'-6" to 33'-0"	
S525 to S536	2 ea.	19'-8" to 27'-11"	
S537 to S554	2 ea.	1'-10" to 18'-10"	
S555 to S563	2 ea.	1'-4" to 9'-4"	
S564 to S580	2 ea.	1'-4" to 17'-4"	
S701 to S740	2 ea.	33'-6" to 43'-3"	
S741 to S760	2 ea.	28'-6" to 33'-3"	
S761 to S796	2 ea.	19'-6" to 28'-3"	
F401	18	19'-6"	
F402	14	9'-6"	
F403	10	17'-6"	
F404	1	17'-0"	
F405	1	16'-2"	
F406	1	9'-0"	
F407	1	8'-2"	
F408	1	19'-0"	
F409	1	18'-2"	
F410	140	10'-4"	
F411	48	7'-8"	
F412	3	10'-0"	
F413	3	8'-0"	



GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

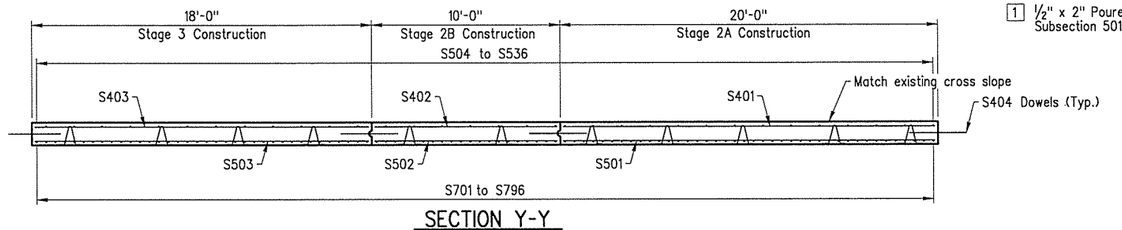
All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

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.

U.N.O. - Unless Noted Otherwise

TYPE SPECIAL 3 APPROACH SLAB
Scale: 3/16" = 1'-0"



SECTION Y-Y
(No Scale)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 3 APPROACH SLAB BRIDGE OVER RAILROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x2_as3.dgn
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BRIDGE NO. 5702A&B DRAWING NO. 57563

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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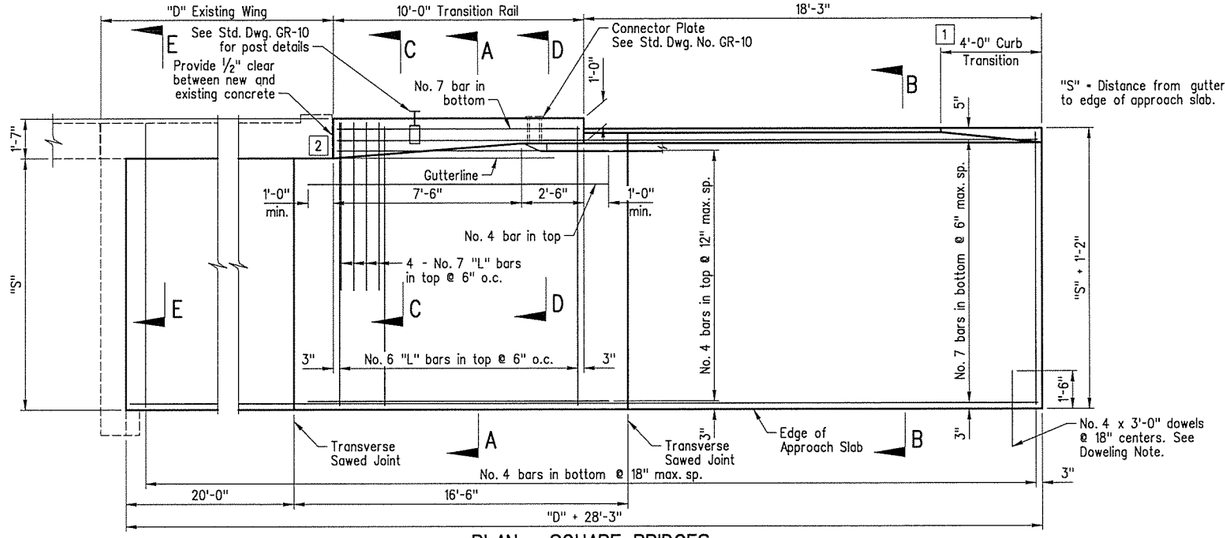
				JOB NO.		BB0611	106	169
				(1) TYPE SP. 2 APP. GUTTER			-	57564

5702A&B, 5705

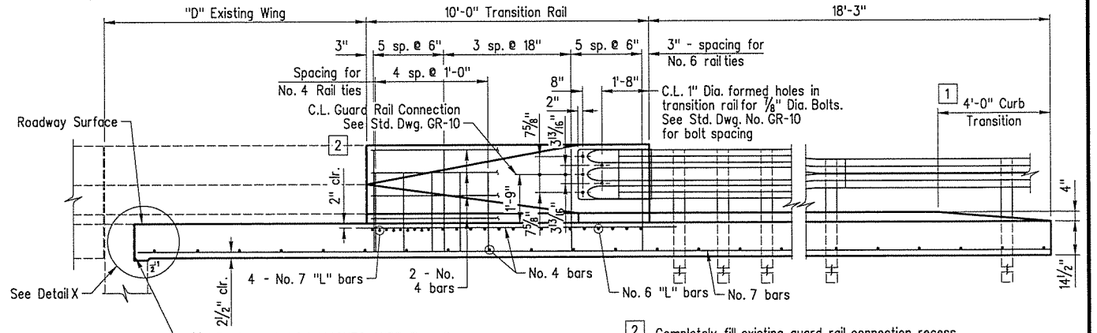


PLAN - SQUARE BRIDGES
(No Scale)

"S" - Distance from gutter line to edge of approach slab.

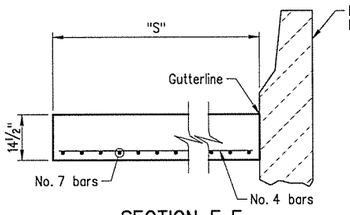
(1) Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construction 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.



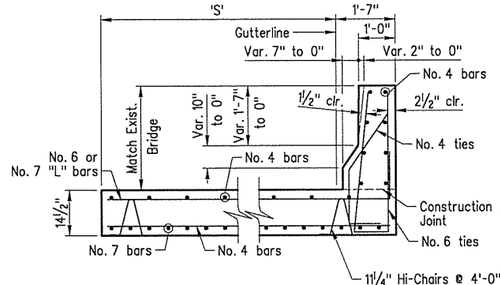
(2) Completely fill existing guard rail connection recess and make repairs to post, as directed by the Engineer, with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to "Type Special 2 Approach Gutters".

½" Preformed Joint (AASHTO M153 Type I) and ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02 (h) (2).

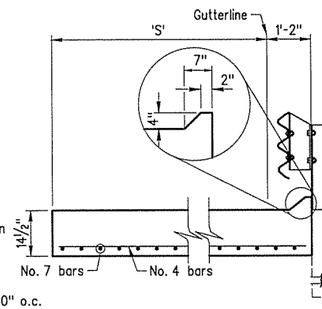


SECTION E-E
Scale: ½" = 1'-0"

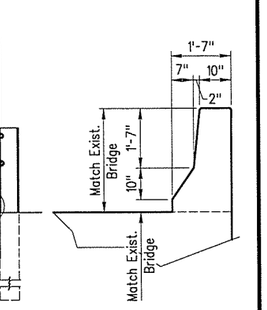
ELEVATION - TYPE SPECIAL 2 APPROACH GUTTER
Scale: ⅜" = 1'-0"



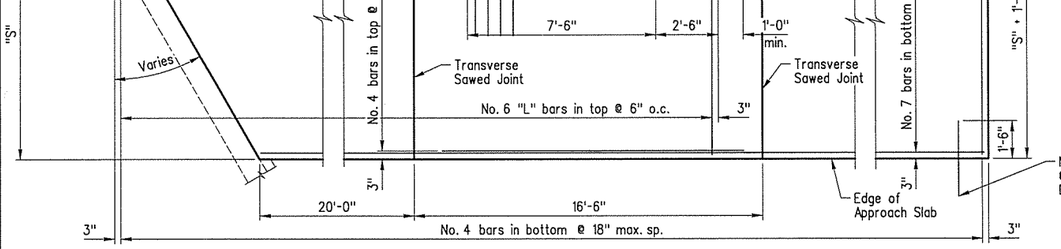
SECTION A-A
Scale: ½" = 1'-0"

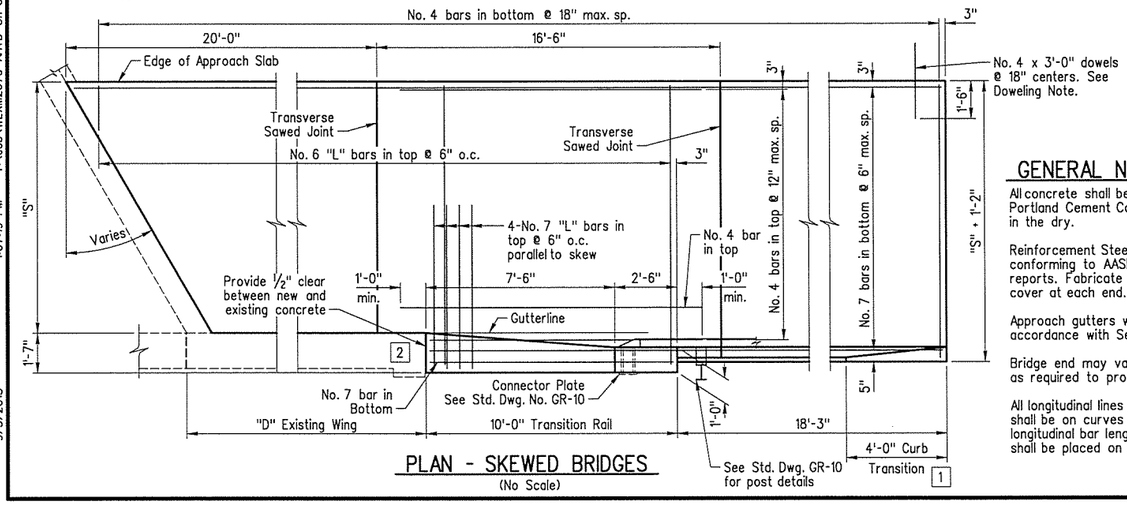


SECTION B-B
Scale: ½" = 1'-0"



SECTION C-C
At end of transition rail
Scale: ½" = 1'-0"





PLAN - SKEWED BRIDGES
(No Scale)

QUANTITIES FOR ONE SQUARE APPROACH GUTTER

"S"	"D"	Concrete	Reinforcing Steel
6'-0"	21'-6"	16.56 CY	2173 lbs.
10'-0"	22'-0"	25.86 CY	3279 lbs.
6'-0"	22'-0"	16.71 CY	2187 lbs.

GENERAL NOTES

All concrete shall be Class S or S(AE) or misture used for Portland Cement Concrete Pavement and shall be poured in the dry.

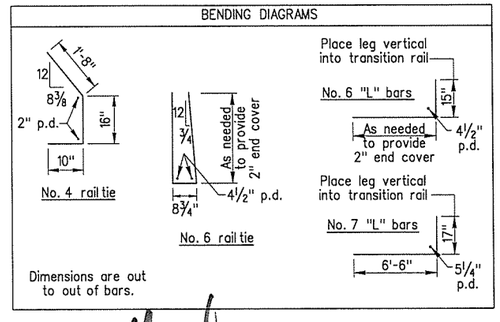
Reinforcement Steel shall be Grade 60 (fy = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports. Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

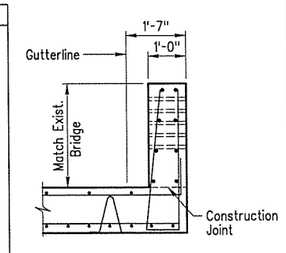
Bridge end may vary from that shown. Adjust gutter details as required to provide similar railing transition.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

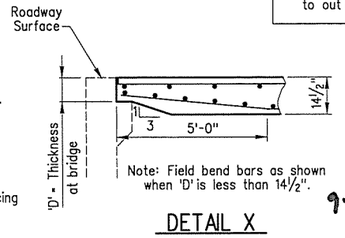
BENDING DIAGRAMS



Dimensions are out to out of bars.



SECTION D-D
Scale: ½" = 1'-0"



Note: Field bend bars as shown when 'D' is less than 14½".

DETAIL X
(No Scale)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 2 APPROACH GUTTER
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x2_ag1.dgn
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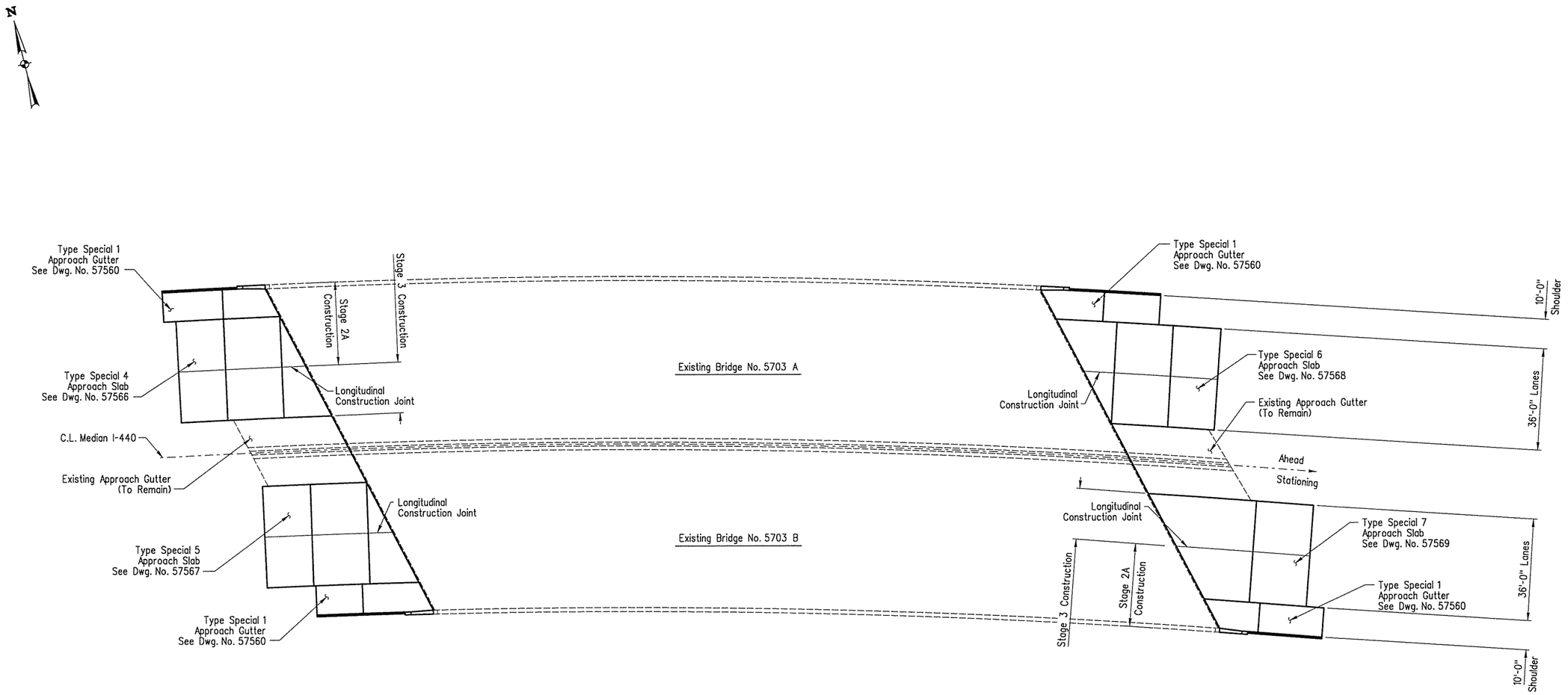
BRIDGE NO. 5702A&B, 5705 DRAWING NO. 57564

JACOBS

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.		BB0611	107	169

(1) 5703A&B-TYPE SP. APP. SLB PLAN-57565



PLAN OF APPROACH SLAB AND GUTTERS
BRIDGE NOs. 5703A & 5703B
Scale: 1" = 20'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

LAYOUT OF APPROACH SLABS & GUTTERS
BRIDGE OVER LINDSEY ROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

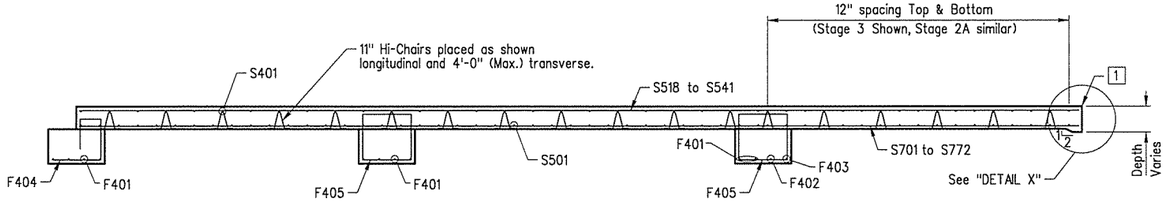
DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x3_as1.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5703A&B DRAWING NO. 57565

JACOBS

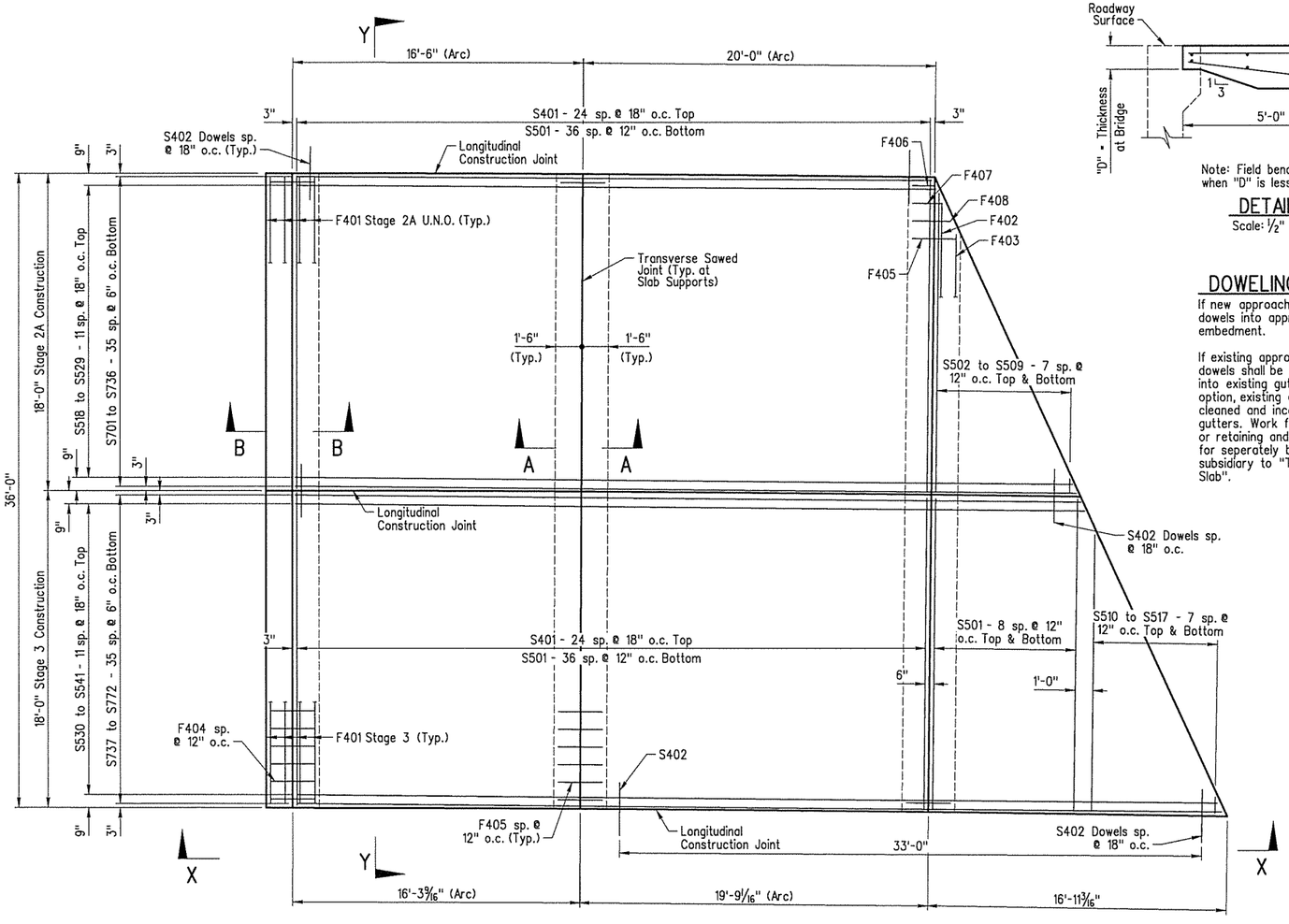
9/3/2015 1:07:19 PM T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job BB0611 I-440\700 CADD Files\709 Structural Files\Drawings\bbb0611x3_as1.dgn

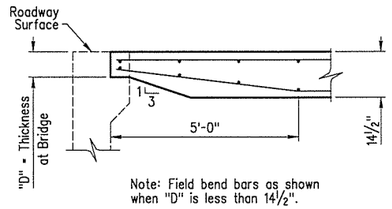
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	108	169

(1) 5703A&B - TYPE SP. 4 APP. SLB - 57566



SECTION X-X
Scale: ¼" = 1'-0"





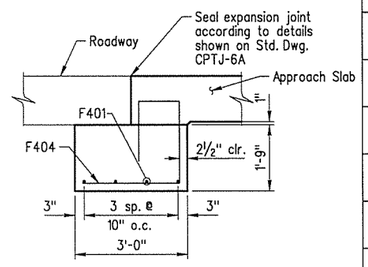
Note: Field bend bars as shown when "D" is less than 14½".

DETAIL X
Scale: ½" = 1'-0"

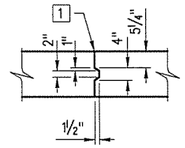
DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

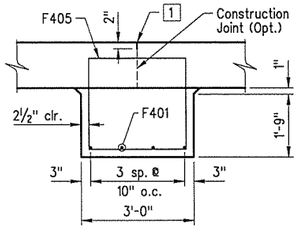
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 4 Approach Slab".



SECTION B-B
Scale: ½" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: ½" = 1'-0"

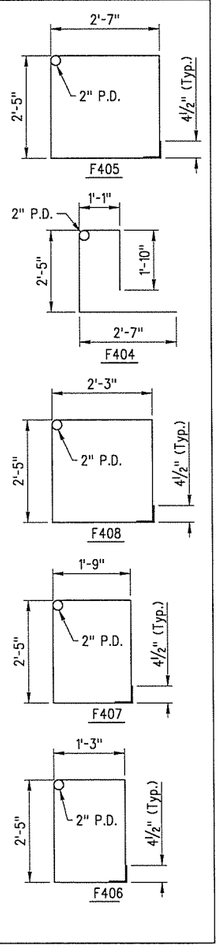


SECTION A-A
Scale: ½" = 1'-0"

1 ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	50	17'-8"	
S402	78	3'-0"	
S501	92	17'-8"	
S502 to S509	2 ea.	2'-1" to 16'-11"	
S510 to S517	2 ea.	1'-3" to 15'-10"	
S518 to S529	1 ea.	36'-6" to 44'-0"	
S530 to S541	1 ea.	44'-8" to 52'-3"	
S701 to S736	1 ea.	36'-3" to 44'-3"	
S737 to S772	1 ea.	44'-6" to 52'-6"	
F401	22	17'-6"	
F402	1	16'-3"	
F403	1	14'-7"	
F404	36	7'-8"	
F405	69	10'-4"	
F406	1	7'-8"	
F407	1	8'-8"	
F408	1	9'-8"	



QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	11,339	93.9

GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

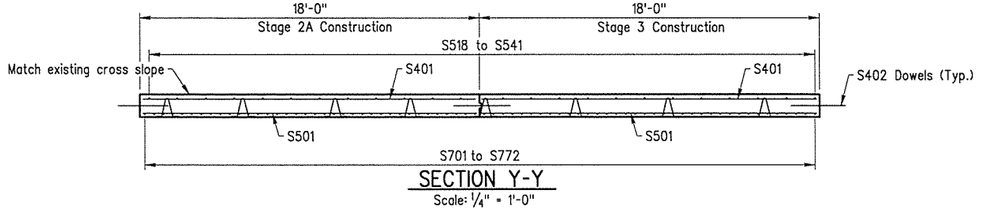
All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustments to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

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 - TYPE SPECIAL 4 APPROACH SLAB
No Scale



SECTION Y-Y
Scale: ¼" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 4 APPROACH SLAB
BRIDGE OVER LINDSEY ROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 9/24/14 FILENAME: bbb0611x3_as2.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5703A&B DRAWING NO. 57566

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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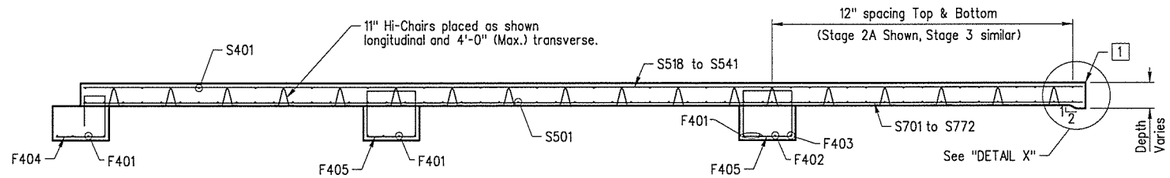
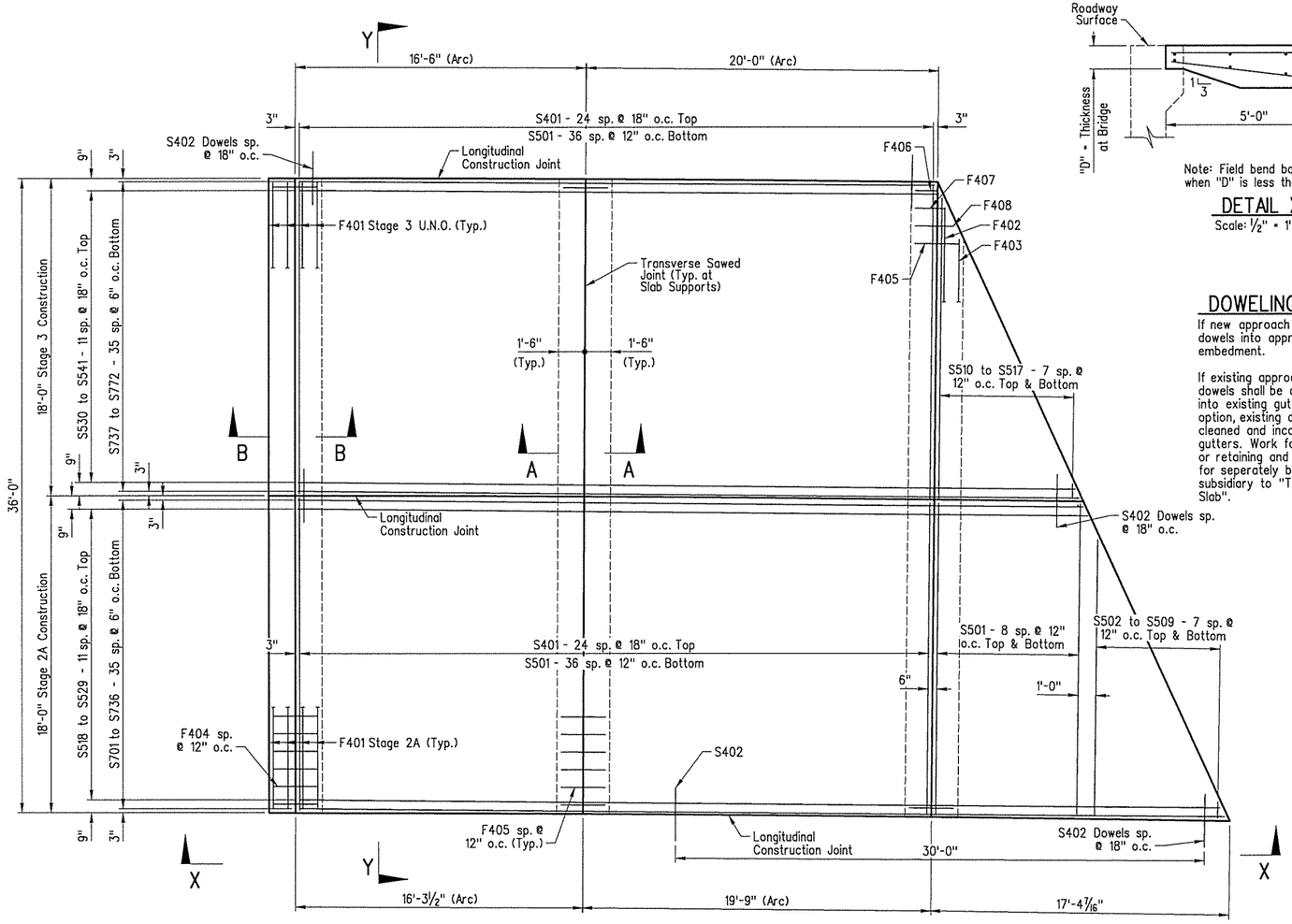
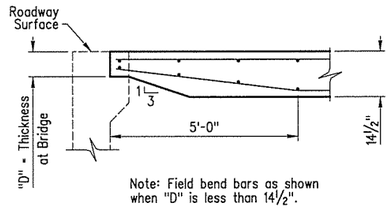
				JOB NO.		BB0611	109	169
				(1)	5703A&B - TYPE SP. 5 APP. SLB - 57567			



SECTION X-X
Scale: ¼" = 1'-0"



PLAN - TYPE SPECIAL 5 APPROACH SLAB
No Scale

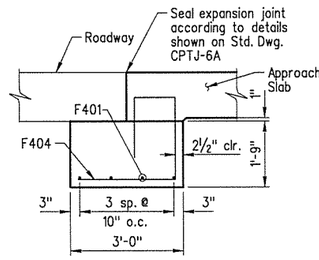


Note: Field bend bars as shown when "D" is less than 14½".

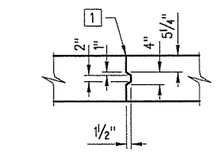
DETAIL X
Scale: ½" = 1'-0"

DOWELING NOTE
If new approach gutter is used, place dowels into approach gutter using 18" embedment.

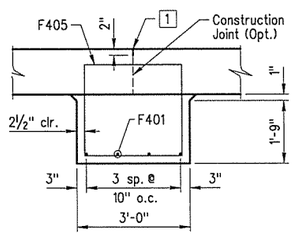
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 5 Approach Slab".



SECTION B-B
Scale: ½" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: ½" = 1'-0"

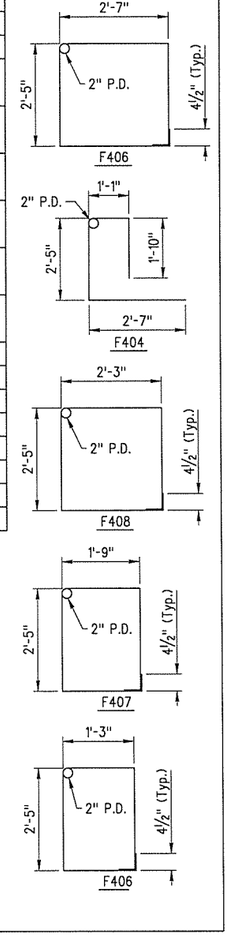


SECTION A-A
Scale: ½" = 1'-0"

1 ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	50	17'-8"	
S402	78	3'-0"	
S501	92	17'-8"	
S502 to S509	2 ea.	2'-2" to 16'-5"	
S510 to S517	2 ea.	2'-6" to 16'-11"	
S518 to S529	1 ea.	44'-11" to 52'-8"	
S530 to S541	1 ea.	36'-6" to 44'-3"	
S701 to S736	1 ea.	44'-8" to 52'-11"	
S737 to S772	1 ea.	36'-3" to 44'-6"	
F401	22	17'-6"	
F402	1	16'-3"	
F403	1	14'-7"	
F404	36	7'-8"	
F405	69	10'-4"	
F406	1	7'-8"	
F407	1	8'-8"	
F408	1	9'-8"	



QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	11,392	94.3

GENERAL NOTES

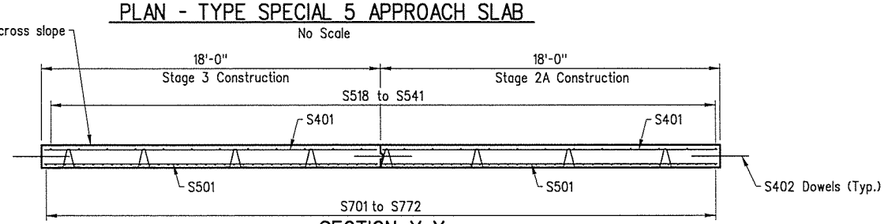
All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustments to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

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.



SECTION Y-Y
Scale: ¼" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 5 APPROACH SLAB BRIDGE OVER LINDSEY ROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x3_as3.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5703A&B DRAWING NO. 57567

JACOBS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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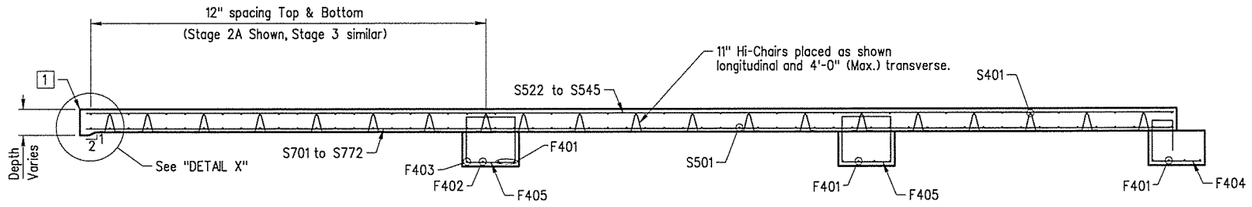
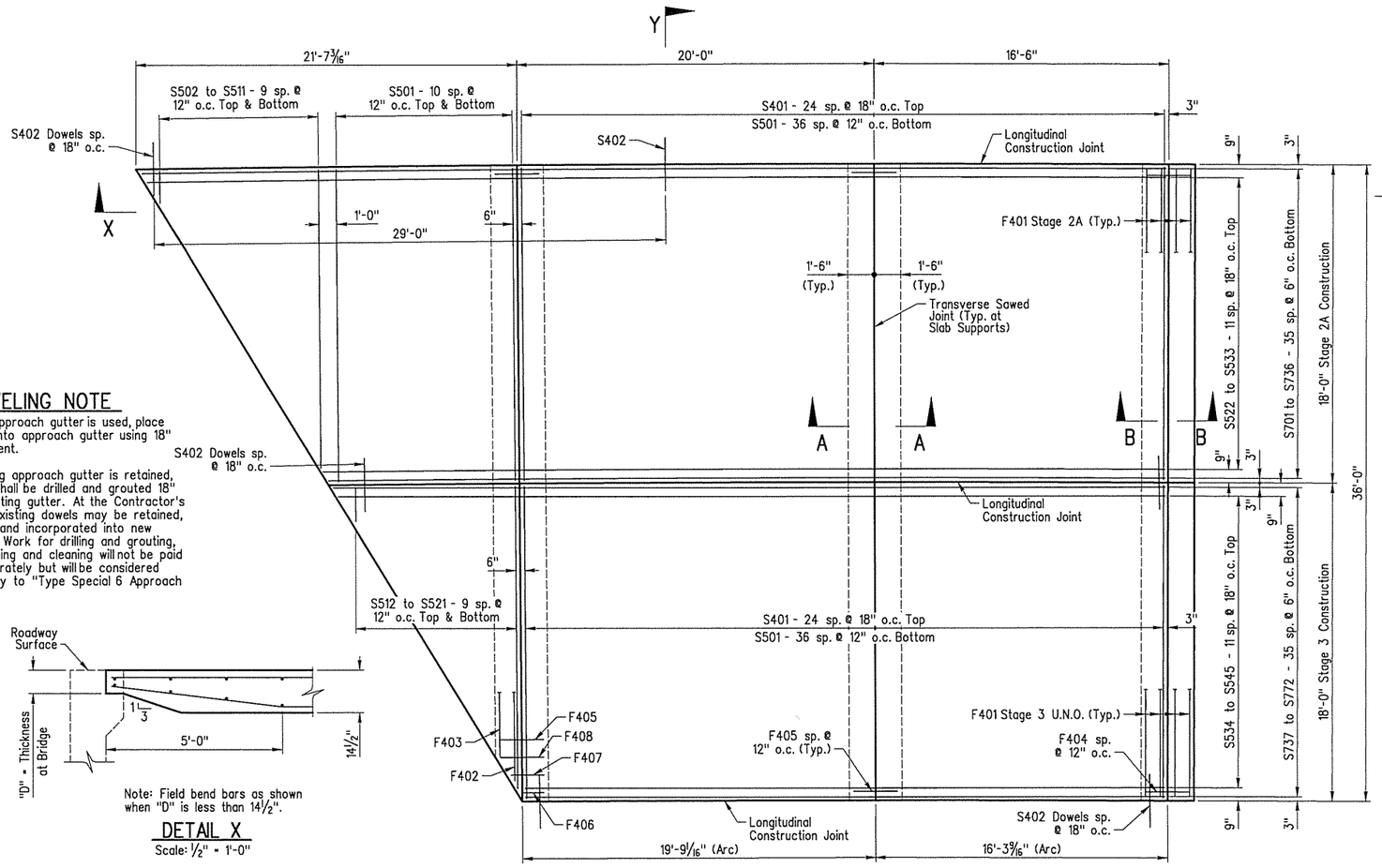
				JOB NO.		BB0611	110	169
				(1) 5703A&B - TYPE SP. 6 APP. SLB - 57568				



SECTION X-X
Scale: 1/4" = 1'-0"



PLAN - TYPE SPECIAL 6 APPROACH SLAB
No Scale

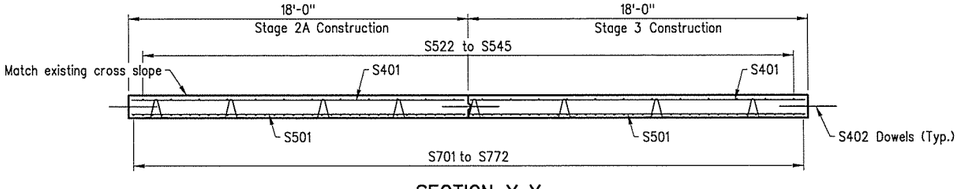
DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

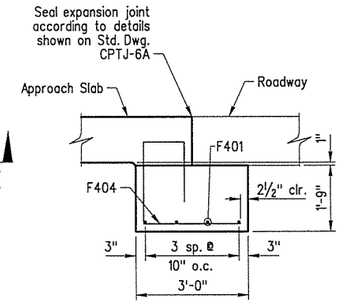
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 6 Approach Slab".

Note: Field bend bars as shown when "D" is less than 14 1/2".

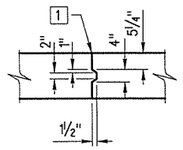
DETAIL X
Scale: 1/2" = 1'-0"



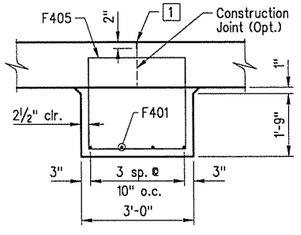
SECTION Y-Y
Scale: 1/4" = 1'-0"



SECTION B-B
Scale: 1/2" = 1'-0"



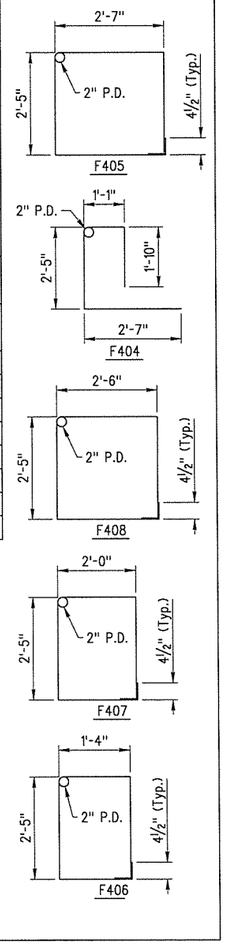
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: 1/2" = 1'-0"



SECTION A-A
Scale: 1/2" = 1'-0"

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	50	17'-8"	
S402	78	3'-0"	
S501	94	17'-8"	
S502 to S511	2 ea.	1'-9" to 16'-9"	
S512 to S521	2 ea.	2'-1" to 17'-1"	
S522 to S533	1 ea.	47'-2" to 57'-3"	
S534 to S545	1 ea.	36'-1" to 46'-3"	
S701 to S736	1 ea.	46'-10" to 57'-7"	
S737 to S772	1 ea.	35'-10" to 46'-6"	
F401	22	17'-6"	
F402	1	16'-8"	
F403	1	15'-4"	
F404	36	7'-8"	
F405	69	10'-4"	
F406	1	7'-10"	
F407	1	9'-2"	
F408	1	10'-2"	



QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	11,868	97.7

GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustments to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

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.

[1] 1/2" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-8-15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 6 APPROACH SLAB
BRIDGE OVER LINDSEY ROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY:	LHG	DATE:	8/26/14	FILENAME:	bbb0611x3_as4.dgn
CHECKED BY:	CGW	DATE:	8/6/15		
DESIGNED BY:	JRS	DATE:	8/26/14	SCALE:	As Noted
BRIDGE NO.	5703A&B			DRAWING NO.	57568

JACOBS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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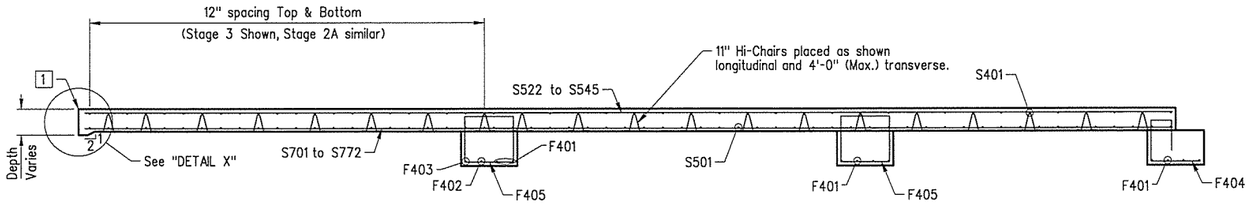
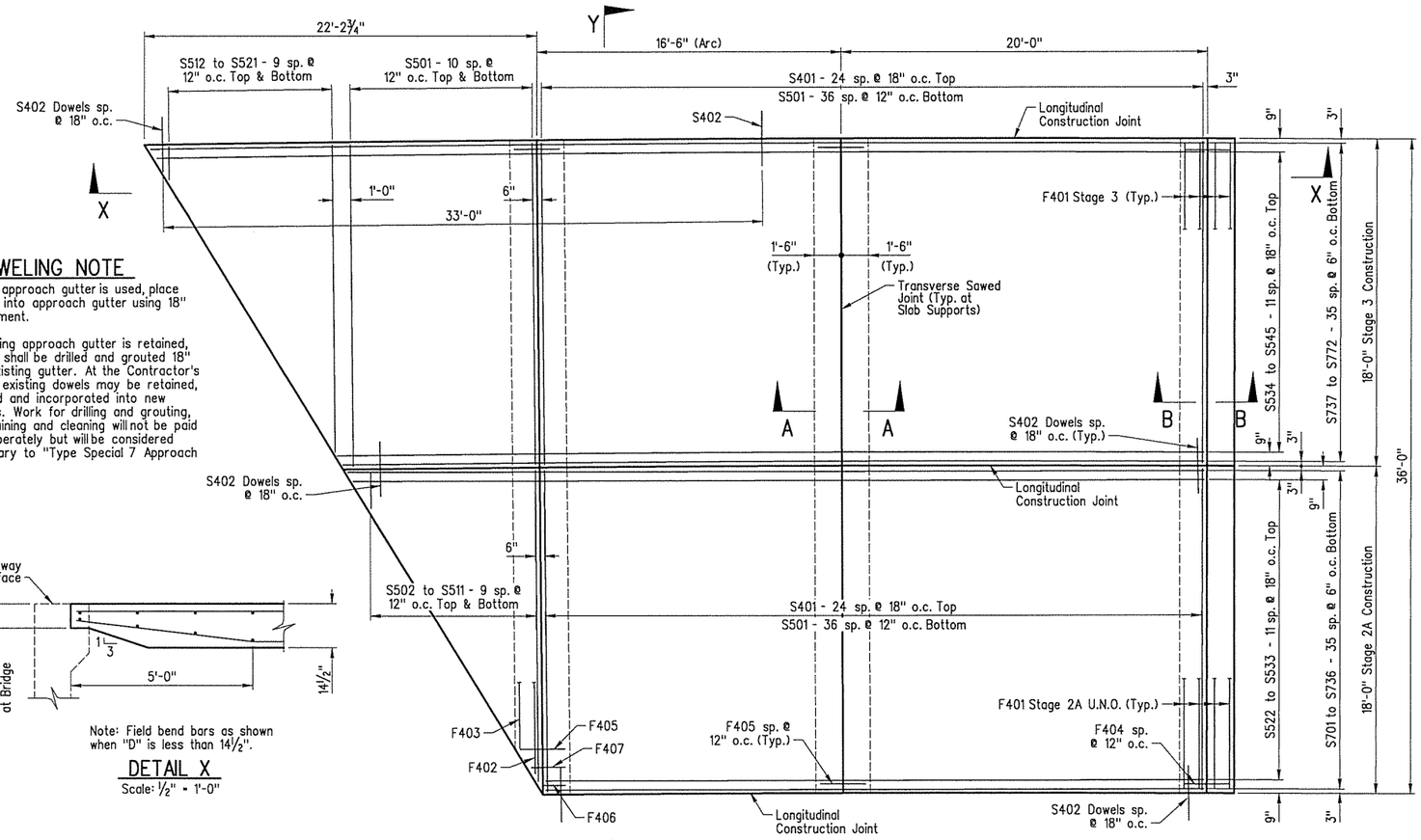
				JOB NO.		BB0611	111	169
				(1) 5703A&B - TYPE SP. 7 APP. SLB - 57569				



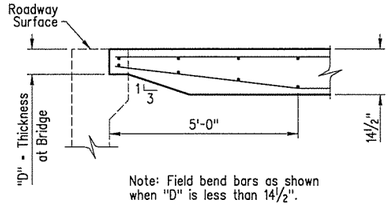
SECTION X-X
Scale: 1/4" = 1'-0"



DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

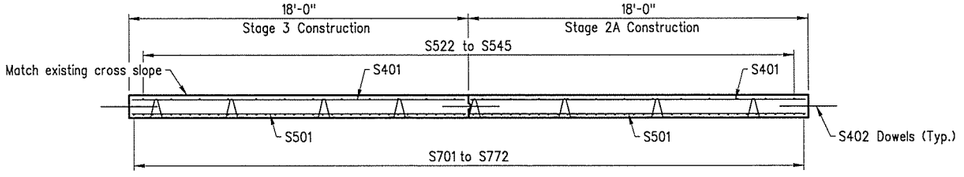
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 7 Approach Slab".



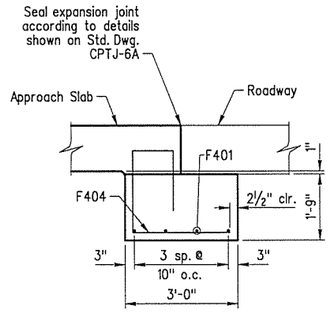
Note: Field bend bars as shown when "D" is less than 14½".

DETAIL X
Scale: ½" = 1'-0"

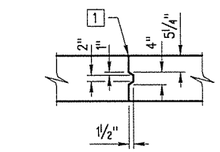
PLAN - TYPE SPECIAL 7 APPROACH SLAB
No Scale



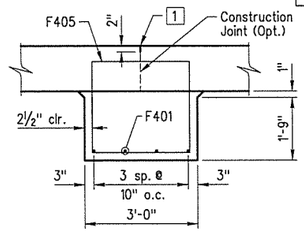
SECTION Y-Y
Scale: 1/4" = 1'-0"



SECTION B-B
Scale: ½" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: ½" = 1'-0"

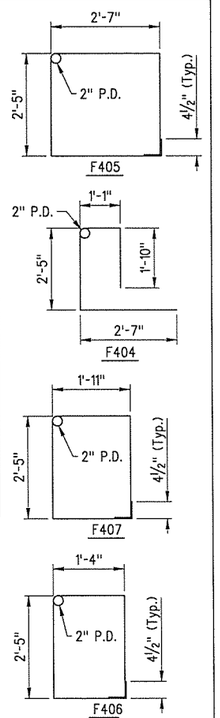


SECTION A-A
Scale: ½" = 1'-0"

[1] ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	50	17'-8"	
S402	78	3'-0"	
S501	94	17'-8"	
S502 to S511	2 ea.	2'-7" to 17'-1"	
S512 to S521	2 ea.	2'-7" to 17'-4"	
S522 to S533	1 ea.	36'-4" to 46'-8"	
S534 to S545	1 ea.	47'-7" to 57'-10"	
S701 to S736	1 ea.	36'-1" to 47'-0"	
S737 to S772	1 ea.	47'-3" to 58'-2"	
F401	22	17'-6"	
F402	1	16'-8"	
F403	1	15'-4"	
F404	36	7'-8"	
F405	70	10'-4"	
F406	1	7'-10"	
F407	1	9'-0"	



QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	11,963	98.4

GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustments to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

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.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

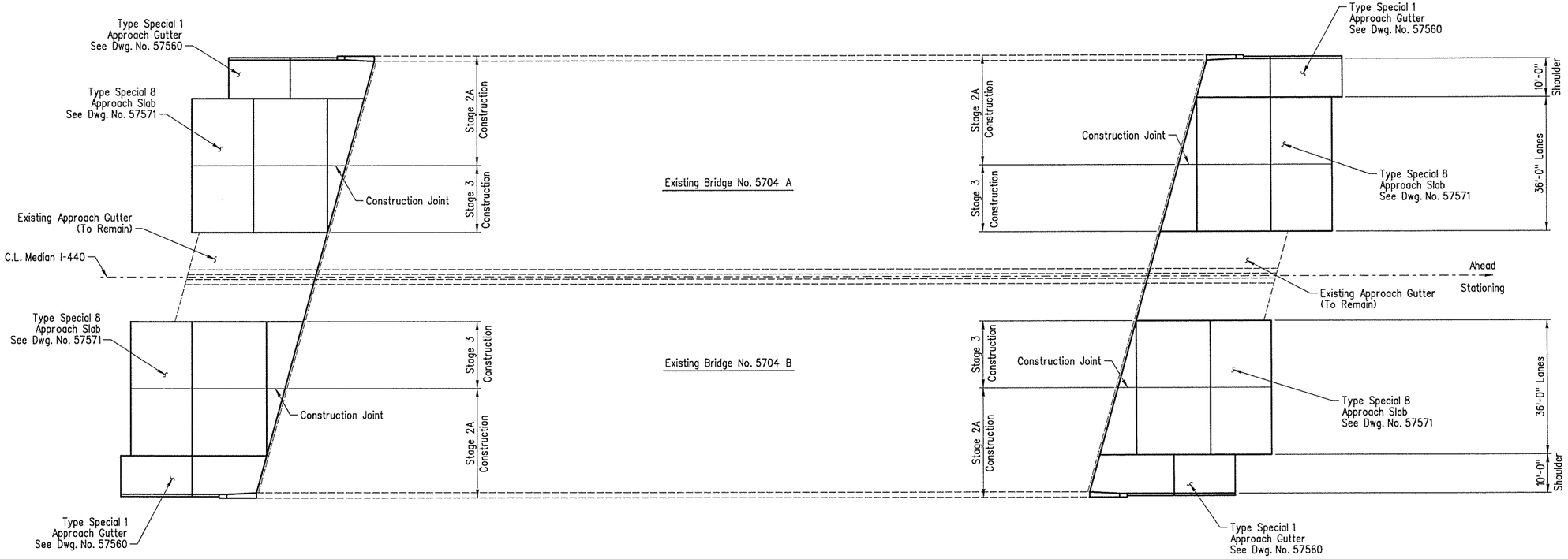
TYPE SPECIAL 7 APPROACH SLAB
BRIDGE OVER LINDSEY ROAD
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x3_as5.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5703A&B DRAWING NO. 57569

JACOBS

9/3/2015 1:07:23 PM T:\Job\WLXM2670 AHTD On-Call 2011 Task Order 8029 Job BB0611 I-440\700 CADD Files\709 Structural Files\Drawings\bbb0611x3_as5.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	112	169
				(1)	5704A&B-TYPE SP. APP. SLB PLAN-57570			



PLAN OF APPROACH SLAB AND GUTTERS
BRIDGE NOs. 5704A & 5704B
Scale: 1/16" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

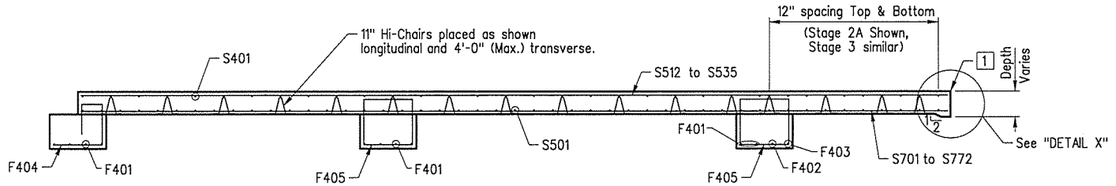
LAYOUT OF APPROACH SLABS & GUTTERS
BRIDGE OVER FOURCHE DAM PIKE
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 8/26/14 FILENAME: bbb0611x4_as1.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5704A&B DRAWING NO. 57570

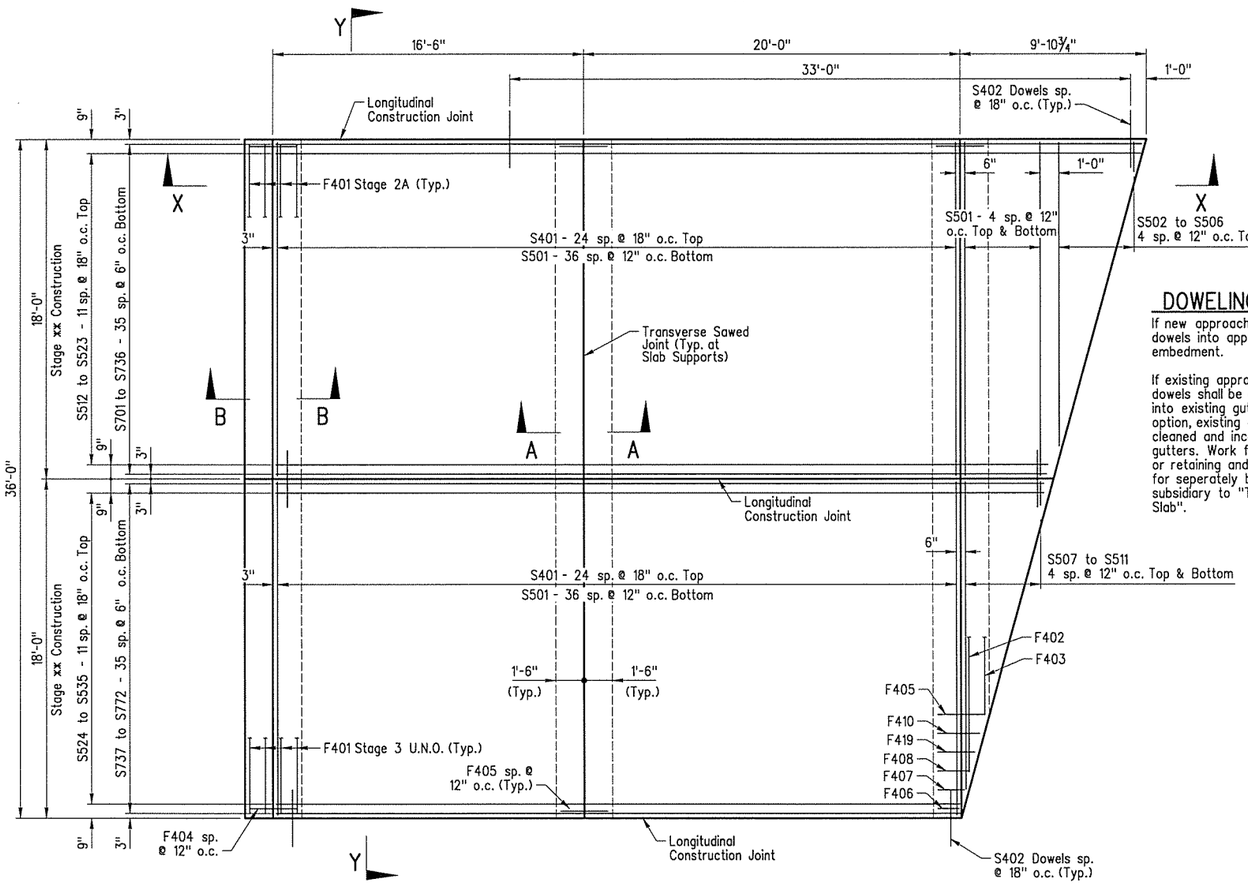
JACOBS

9/3/2015 1:07:23 PM T:\Job\WLXM2670 AHTD On-Call 2011 Task Order B029 Job BB0611 I-440\700 CADD Files\709 Structural Files\Drawings\bbb0611x4_as1.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	113	169
				(1)	5704A&B - TYPE SP. 8 APP. SLB - 57571			

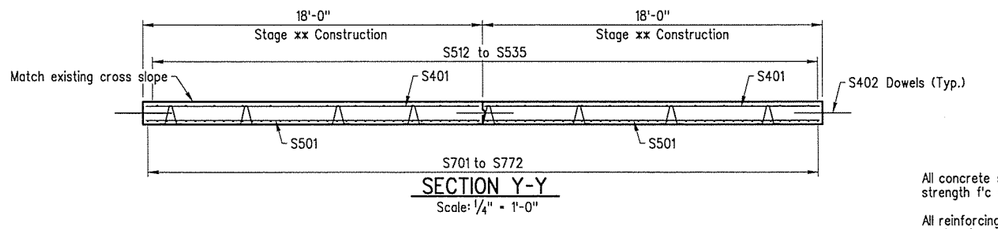


SECTION X-X
Scale: ¼" = 1'-0"



xx See Layout on Dwg. No. 57570 for Stages of Construction.

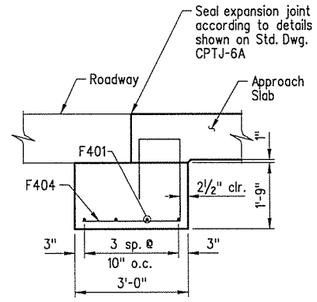
PLAN - TYPE SPECIAL 8 APPROACH SLABS
Scale: ¼" = 1'-0"



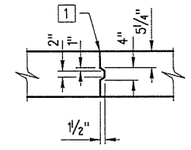
SECTION Y-Y
Scale: ¼" = 1'-0"

DOWELING NOTE
If new approach gutter is used, place dowels into approach gutter using 18" embedment.

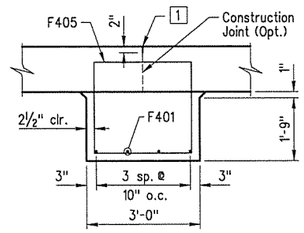
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 8 Approach Slab".



SECTION B-B
Scale: ½" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: ½" = 1'-0"

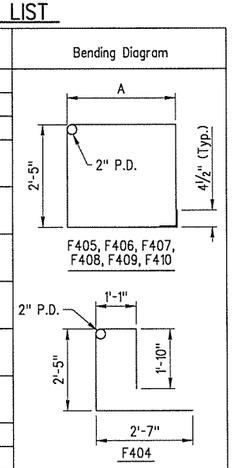


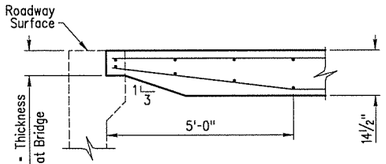
SECTION A-A
Scale: ½" = 1'-0"

1 ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

BAR LIST

Mark	No. Req'd.	Length	A	Bending Diagram
S401	50	17'-8"		
S402	74	30'-0"		
S501	84	17'-8"		
S502 to S506	2 ea.	1'-6" to 16'-1"		
S507 to S511	2 ea.	1'-9" to 16'-3"		
S512 to S523	1 ea.	41'-3" to 45'-10"		
S524 to S535	1 ea.	36'-4" to 40'-10"		
S701 to S736	1 ea.	41'-2" to 45'-11"		
S737 to S772	1 ea.	36'-2" to 41'-0"		
F401	22	17'-6"		
F402	1	15'-5"		
F403	1	12'-5"		
F404	36	7'-8"		
F405	67	10'-4"	2'-7"	
F406	1	7'-4"	1'-1"	
F407	1	7'-10"	1'-4"	
F408	1	8'-6"	1'-8"	
F409	1	9'-0"	1'-11"	
F410	1	9'-8"	2'-3"	





Note: Field bend bars as shown when "D" is less than 14½".

DETAIL X
Scale: ½" = 1'-0"

QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	10,494	88.5

GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

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.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 8940 MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 8 APPROACH SLABS
BRIDGE OVER FOURCHE DAM PIKE
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

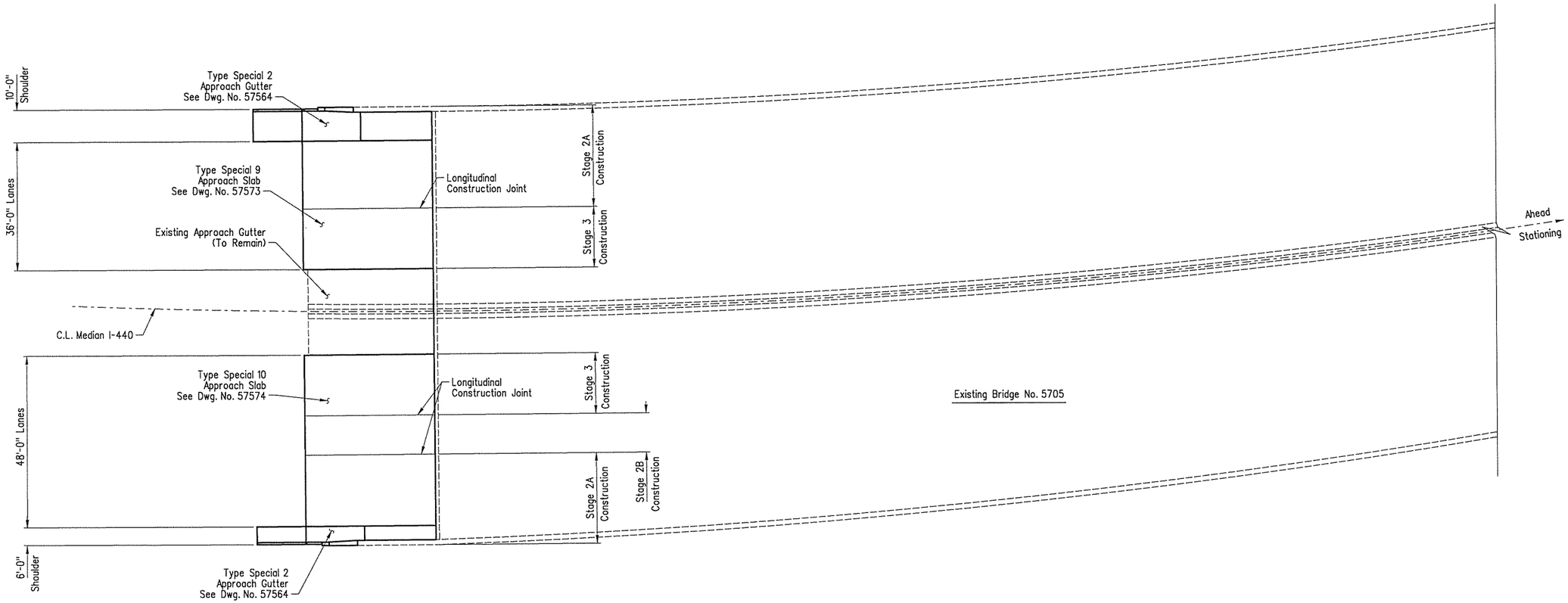
DRAWN BY: LHG DATE: 8/26/14
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14
FILENAME: bbb0611x4_as2.dgn
SCALE: As Noted
BRIDGE NO. 5704A&B
DRAWING NO. 57571

JACOBS

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.		BB0611	114	169

1 5705 - TYPE SP. APP. SLB PLAN - 57572



PLAN OF APPROACH SLAB AND GUTTERS
BRIDGE NO. 5705
Scale: 1/16" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

LAYOUT OF APPORACH SLABS & GUTTERS
BRIDGE OVER ARKANSAS RIVER
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 9/3/14 FILENAME: bbb0611x5_as1.dgn
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14 SCALE: As Noted
BRIDGE NO. 5705 DRAWING NO. 57572

JACOBS

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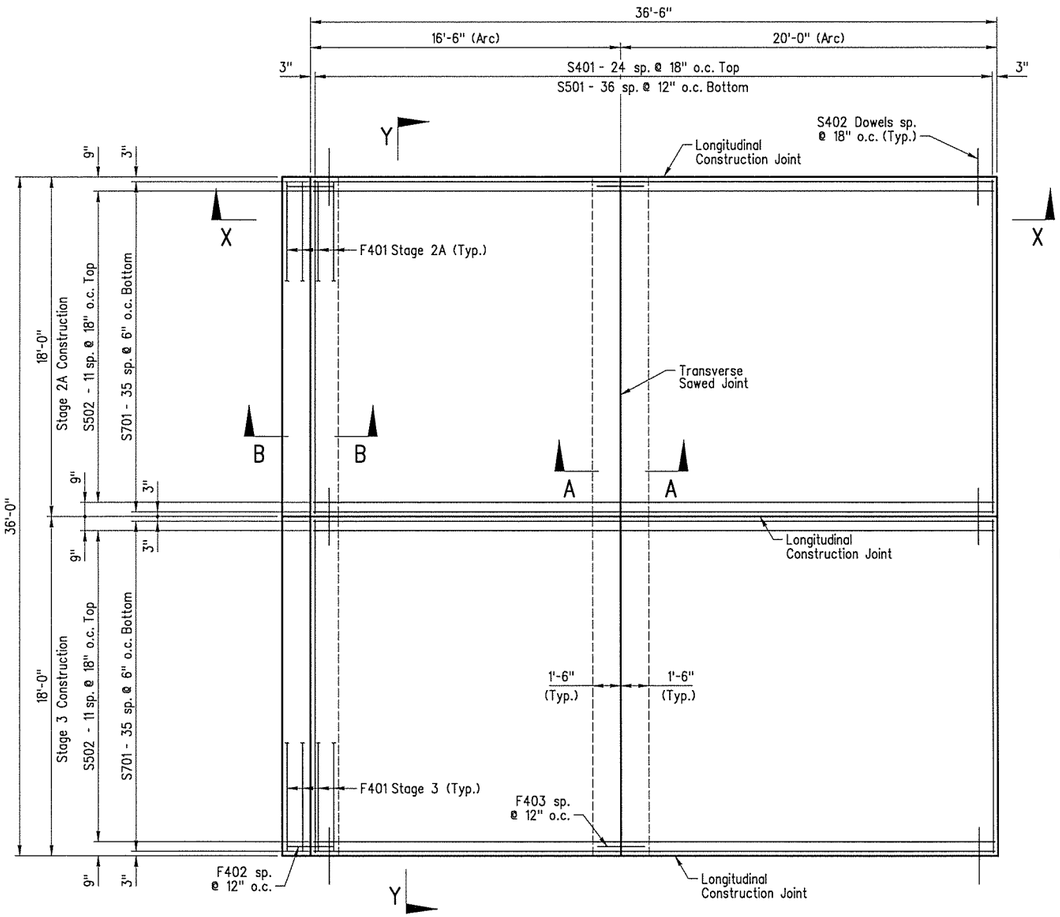
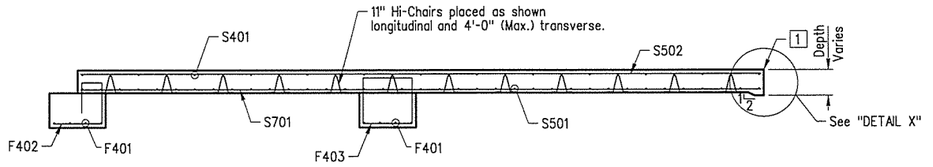
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	115	169
				(1) 5705 - TYPE SP. 9 APP. SLB - 57573				



PLAN - TYPE SPECIAL 9 APPROACH SLAB
Scale: 1/4" = 1'-0"

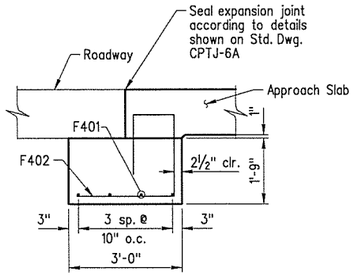


SECTION X-X
Scale: 1/4" = 1'-0"

DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

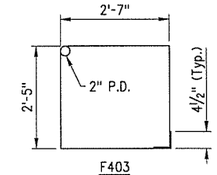
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 9 Approach Slab".

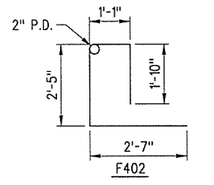


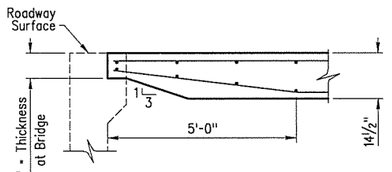
SECTION B-B
Scale: 1/2" = 1'-0"

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	50	17'-8"	
S402	75	3'-0"	
S501	74	17'-8"	
S502	24	36'-2"	
S701	72	36'-2"	
F401	16	17'-6"	
F402	36	7'-8"	
F403	36	10'-4"	

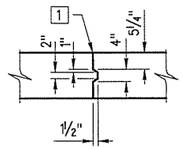




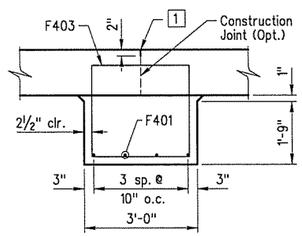


Note: Field bend bars as shown when "D" is less than 14 1/2".

DETAIL X
Scale: 1/2" = 1'-0"



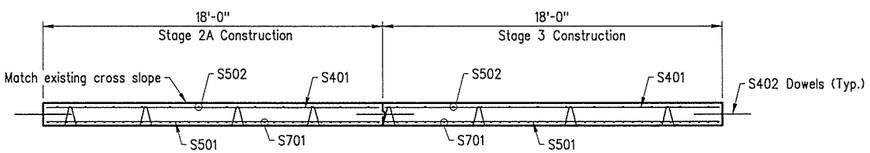
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: 1/2" = 1'-0"



SECTION A-A
Scale: 1/2" = 1'-0"

QUANTITIES FOR ONE TYPE SPECIAL 9 APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
36'-0"	8,814	73.5



SECTION Y-Y
Scale: 1/4" = 1'-0"

GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustments to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

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.

[1] 1/2" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

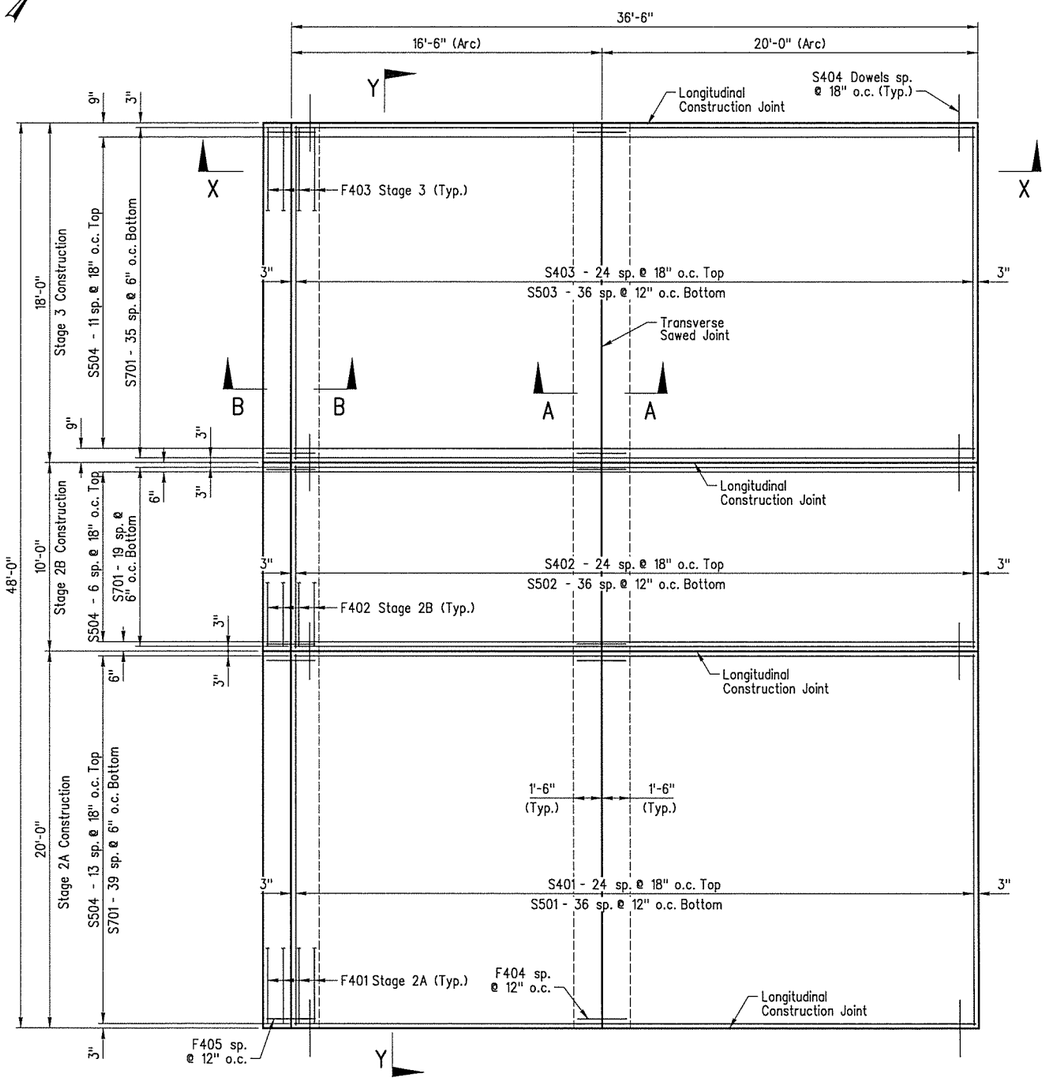
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15
BRIDGE ENGINEER
PRINT DATE: 9/3/2015

TYPE SPECIAL 9 APPROACH SLAB BRIDGE OVER ARKANSAS RIVER
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

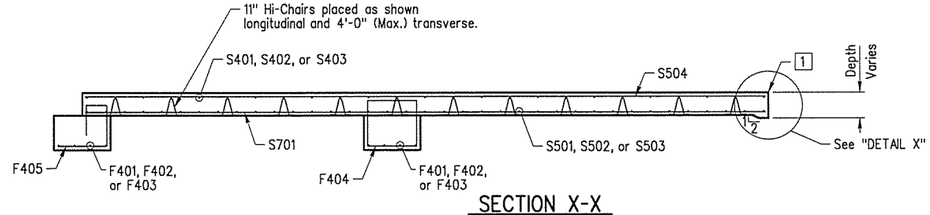
DRAWN BY: LHG DATE: 9/3/14
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14
FILENAME: bbb0611x5_as2.dgn
SCALE: As Noted
BRIDGE NO. 5705
DRAWING NO. 57573

JACOBS

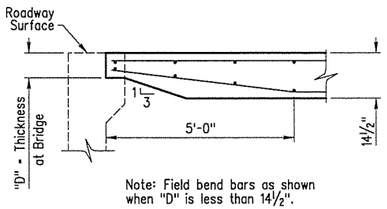
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0611	116	169
				(1)	5705 - TYPE SP. 10 APP. SLB - 57574			



PLAN - TYPE SPECIAL 10 APPROACH SLAB
Scale: 1/4" = 1'-0"

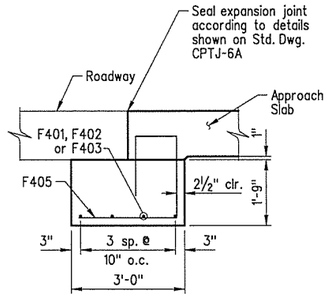


SECTION X-X
Scale: 1/4" = 1'-0"

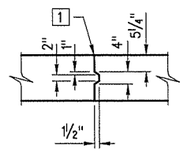


Note: Field bend bars as shown when "D" is less than 14½".

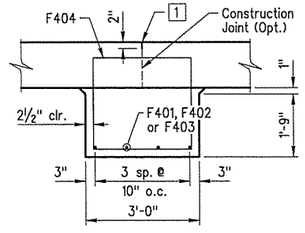
DETAIL X
Scale: 1/2" = 1'-0"



SECTION B-B
Scale: 1/2" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
Scale: 1/2" = 1'-0"



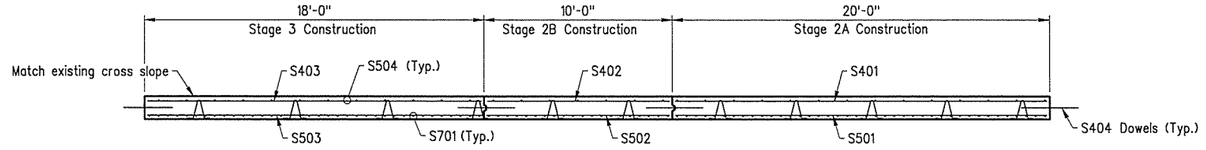
SECTION A-A
Scale: 1/2" = 1'-0"

[1] ½" x 1" Poured Joint Sealer (Type 3 or 4) as per Subsection 501.02(h)(2). Backer rod is not required.

DOWELING NOTE

If new approach gutter is used, place dowels into approach gutter using 18" embedment.

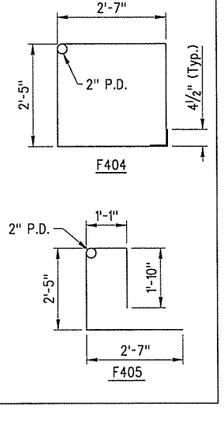
If existing approach gutter is retained, dowels shall be drilled and grouted 18" into existing gutter. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for seperately but will be considered subsidiary to "Type Special 10 Approach Slab".



SECTION Y-Y
Scale: 1/4" = 1'-0"

BAR LIST

Mark	No. Req'd.	Length	Bending Diagram
S401	25	19'-8"	
S402	25	9'-8"	
S403	25	17'-8"	
S404	96	3'-0"	
S501	37	19'-8"	
S502	37	9'-8"	
S503	37	17'-8"	
S504	33	36'-2"	
S701	96	36'-2"	
F401	8	19'-6"	
F402	8	9'-6"	
F403	8	17'-6"	
F404	48	10'-4"	
F405	48	7'-8"	



QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel (lbs.)	Concrete (cubic yards)
48'-0"	11,958	98.0

GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustments to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

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.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8940
MARK ASHER
9-3-15

BRIDGE ENGINEER
PRINT DATE: 9/3/2015

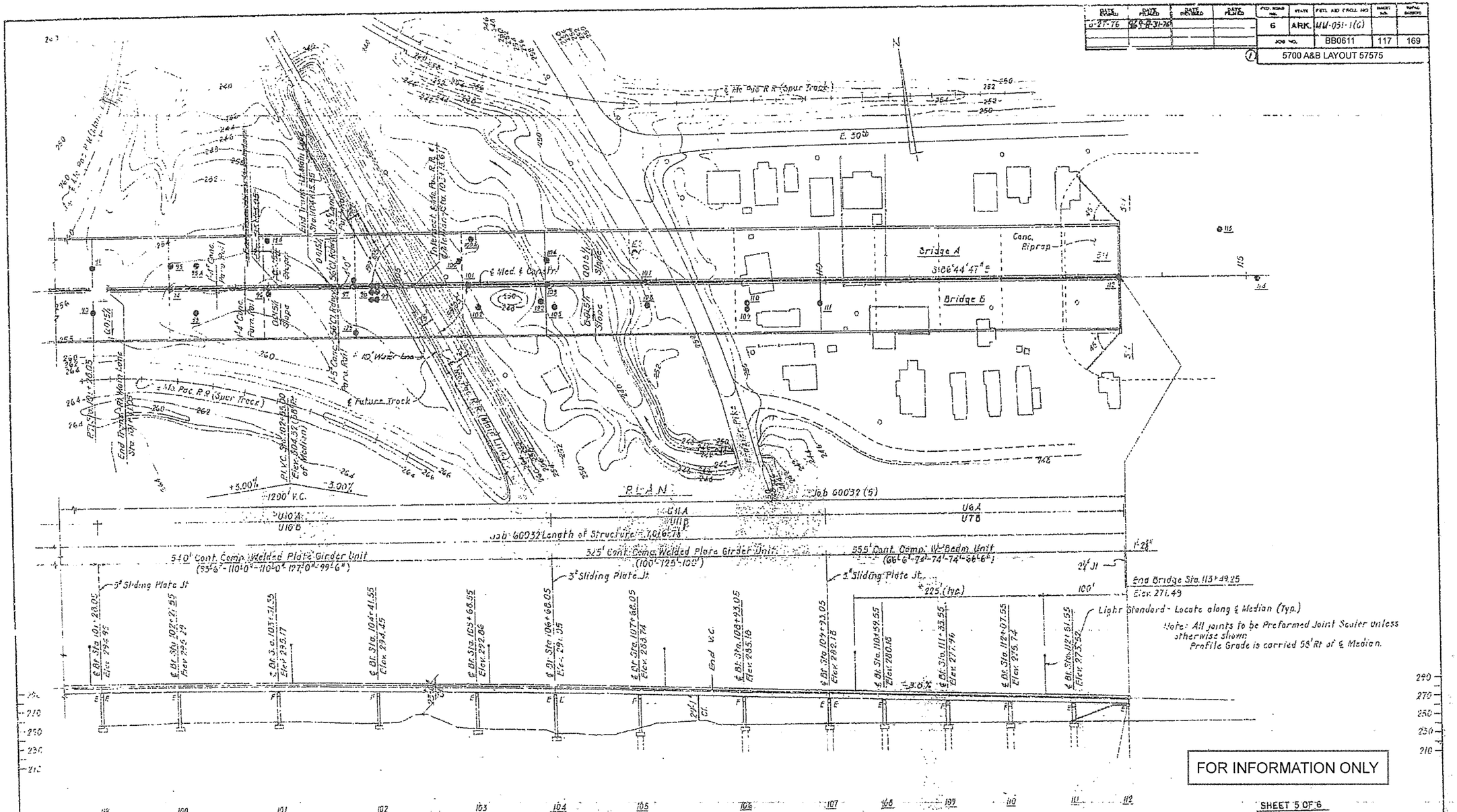
TYPE SPECIAL 10 APPROACH SLAB
BRIDGE OVER ARKANSAS RIVER
PULASKI COUNTY
ROUTE I-440 SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS

DRAWN BY: LHG DATE: 9/3/14
CHECKED BY: CGW DATE: 8/6/15
DESIGNED BY: JRS DATE: 8/26/14
FILENAME: bbb0611x5_as3.dgn
SCALE: As Noted
BRIDGE NO. 5705
DRAWING NO. 57574

JACOBS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6-27-76	8-31-76			6	ARK.	MM-051-1(G)		
				JOB NO.		BB0611	117	169

① 5700 A&B LAYOUT 57575



FOR INFORMATION ONLY

*Adjust Light Standard Spacing as necessary to miss open joints in Conc Parapet Railing.

Note For length of piles see bent details

Note Soil boring are available in booklet form upon request from the Office Engineers

Revised: Transition for Horizontal Curve. 6-27-76 Chkd C.P.B.

SHEET 5 OF 6

LAYOUT OF MAINLINE STRUCTURE
EAST BELT FREEWAY
HWY. 365 – FRAZIER PIKE
PULASKI COUNTY
ROUTE SEC.

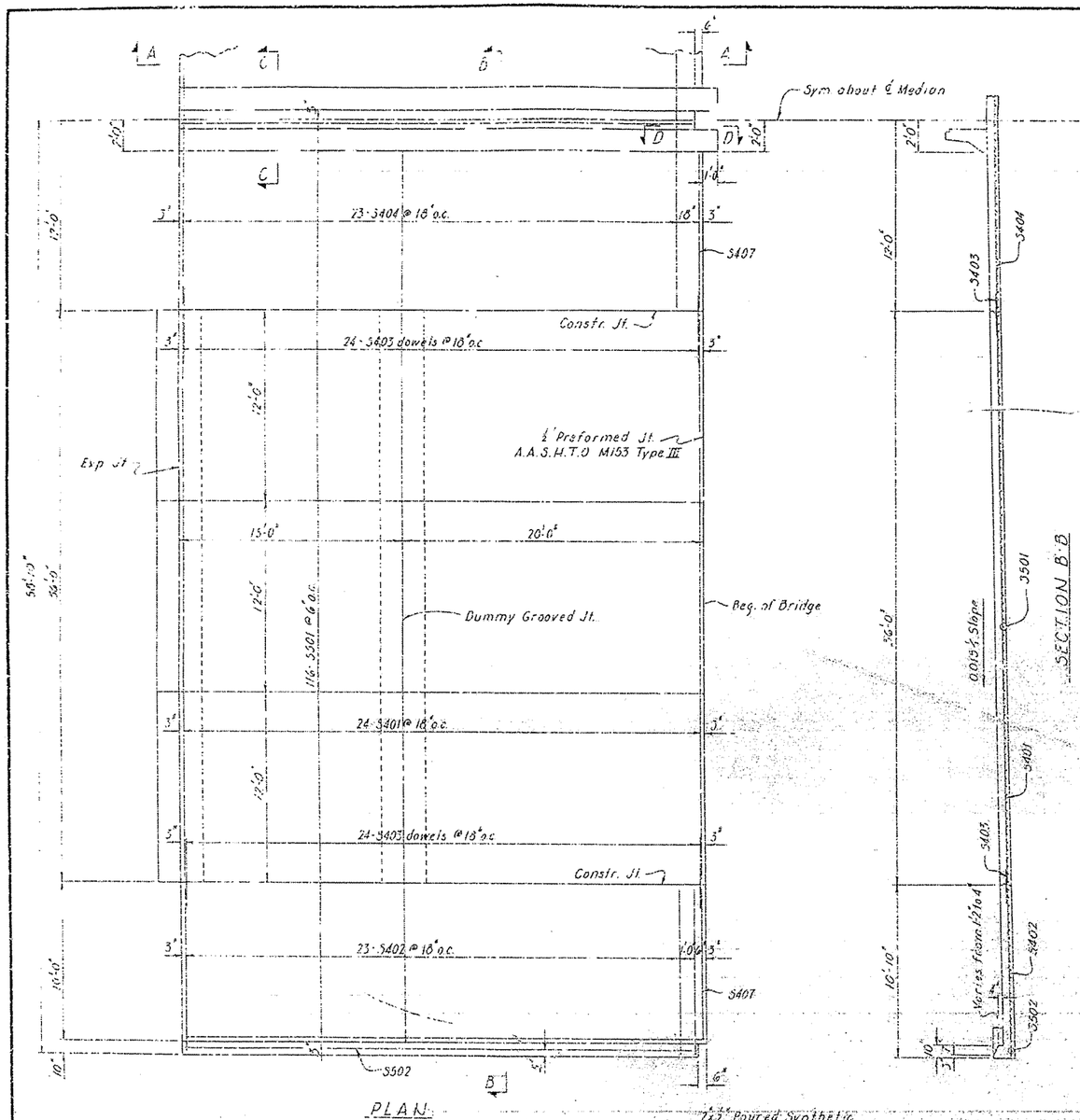
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

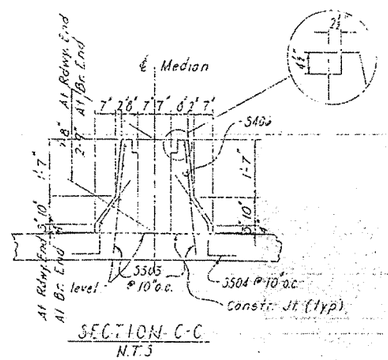
DRAWN BY: H. May DATE: 9-25-75
CHECKED BY: GVA DATE: 3-4-76
DESIGNED BY: DFL DATE: 9-3-75
SCALE: 1" = 50'

BRIDGE ENGINEER

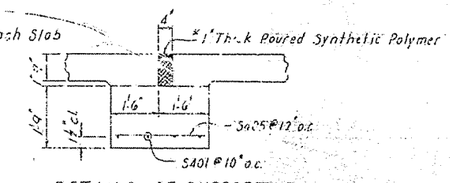
BRIDGE NO. 5700-A&B DRAWING NO. 57575

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	M-051-1(6)		
				JOB NO.		BB0611	118	169
				5700 A&B APPR. SLAB 57576				



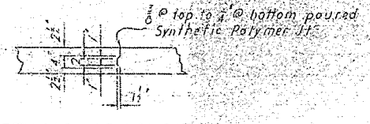


SECTION C-C
N.T.S

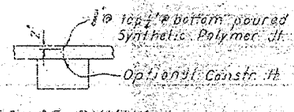


DETAILS OF SUPPORT AT EXPANSION JOINT
N.T.S

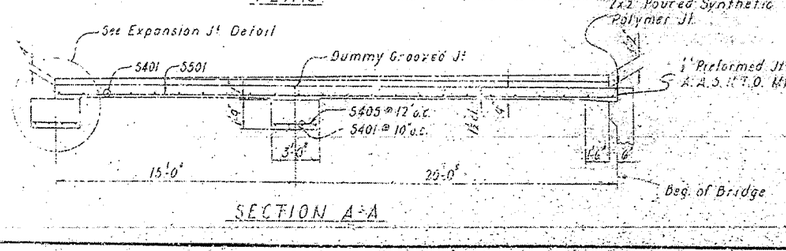
NOTE: *Joint Material: Completely fill joint to within 1" of pavement surface with hardwood sawdust saturated with an M.C.-800 Asphalt, A.A.S.H.T.O. M-82-70 Ratio: 1 part Asphalt to 3 parts Sawdust



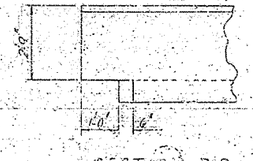
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT
N.T.S



DETAILS OF DUMMY GROOVED JOINT
N.T.S



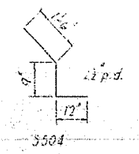
SECTION A-A



SECTION D-D
N.T.S

BAR LIST (FOR A&B BRIDGE)

MARK	NO. REQ'D	LENGTH	BENDING DIAGRAM
S401	64	35'-6"	
S402	46	10'-8"	
S403	96	3'-0"	
S404	23	23'-8"	
S405	184	2'-8"	
S406	8	35'-6"	
S407	4	9'-6"	
S501	132	34'-6"	
S502	2	34'-2"	
S503	84	3'-0"	
S504	84	3'-1"	



S504

Dimens. are out to out bars

APPROACH SLAB QUANTITIES

Location	Class S Concrete	Reinforcing Steel
End Br. A & B	150.41 yd.³	11890 lbs.

* Joint material not a part of this contract.

FOR INFORMATION ONLY

GENERAL NOTES

ALL CONCRETE TO BE CLASS A OR S OR PAVEMENT MIXTURE. EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE SHOWN.

REINFORCING STEEL TO BE DEFORMED BARS OF ASTM A615, GRADE 40.

APPROACH SLABS FOR STRUCTURES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH BID FOR "APPROACH SLABS AND GUTTERS" WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, INCLUDING REINFORCING STEEL AND JOINT MATERIALS, FOR FORMS, MIXING, PLACING AND FINISHING CONCRETE, FOR EXCAVATION AND, BACK FILL AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

DETAILS OF APPROACH SLAB
AT END OF BRIDGE-STA. 113+49.25
MAINLINE STRUCTURES
HWY. 365-FRAZIER PIKE
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.M. DATE: 3-25-76
CHECKED BY: E.F.L. DATE: 4-28-76
DESIGNED BY: E.F.L. DATE: 3-25-76
SCALE: 1"=1'-0" or as shown

Earl Pickle
BRIDGE ENGINEER

BRIDGE NO. 5700 A&B DRAWING NO. 57576

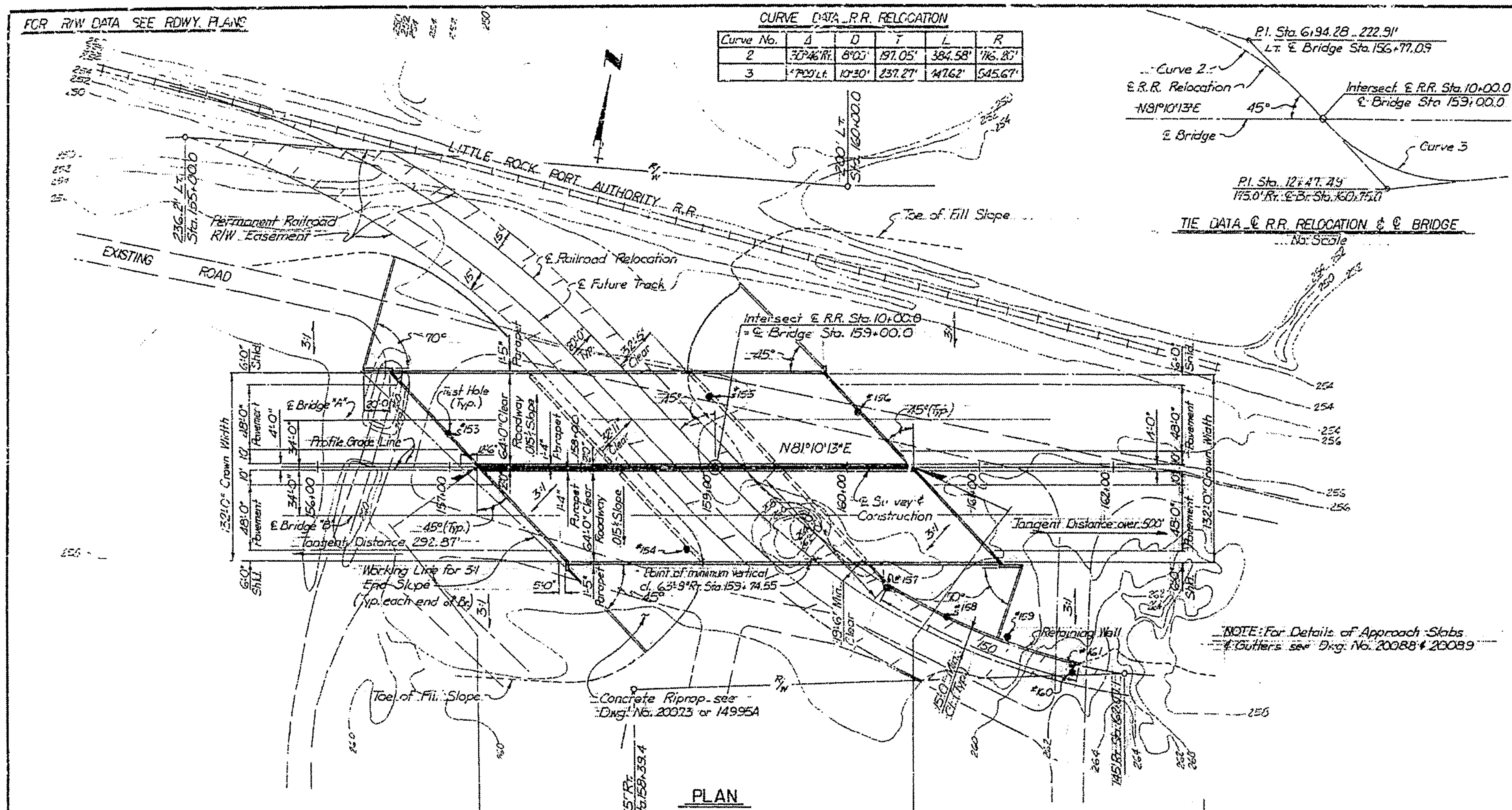
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	MM-051-1(19)		
				JOB NO.		BB0611	119	169

(1) 5702 A&B-LAYOUT - 57577

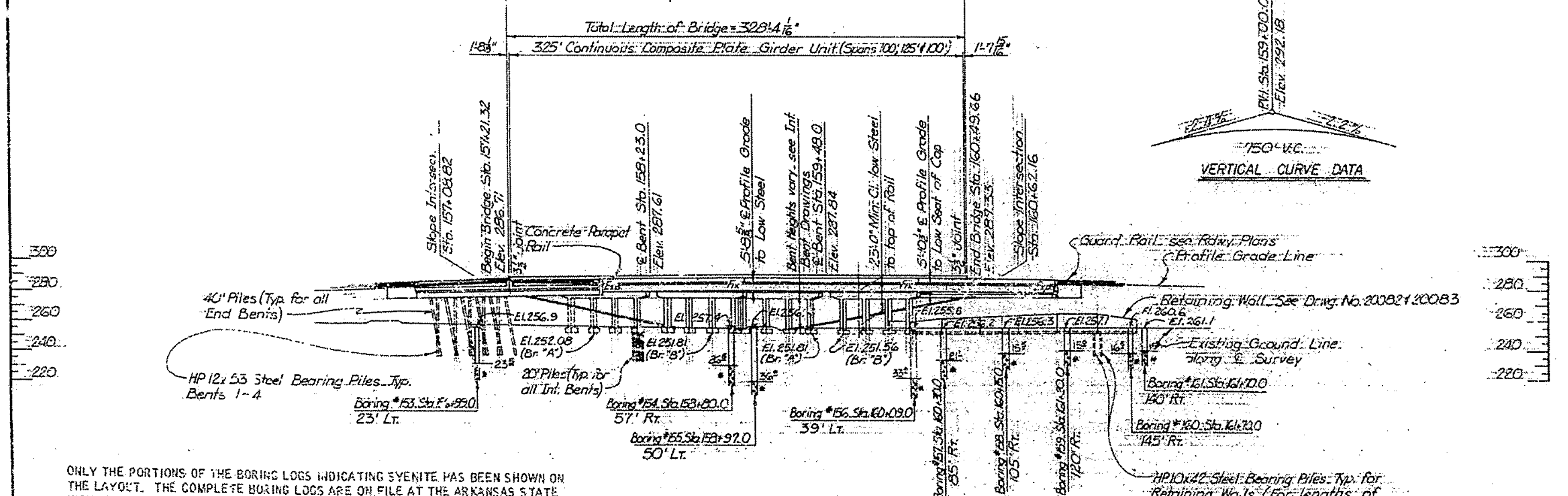
FOR R/W DATA SEE RDWY. PLANS

CURVE DATA R.R. RELOCATION

Curve No.	Δ	D	T	L	R
2	30°46' Rt.	8°00'	197.05'	384.58'	716.20'
3	[illegible]°00' Lt.	10°30'	237.27'	147.62'	545.67'



PLAN



ONLY THE PORTIONS OF THE BORING LOGS INDICATING SYENITE HAS BEEN SHOWN ON THE LAYOUT. THE COMPLETE BORING LOGS ARE ON FILE AT THE ARKANSAS STATE HIGHWAY DEPARTMENT AND ARE AVAILABLE UPON REQUEST.

BENT No. (1) (2) (3) (4)

ELEVATION

*Material shown is fractured hard Gray Syenite.

GENERAL NOTES

BENCH MARK -

FOOTINGS SHALL BE SET AT ELEVATION SHOWN ON PLANS. FOUNDATIONS FOR FOOTINGS SHALL BE PREPARED IN ACCORDANCE WITH SECTION 801.04 OF THE STANDARD SPECIFICATIONS.

ALL CONCRETE TO BE POURED IN THE DRY. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF f'c = 3500 PSI. CONCRETE IN THE SUBSTRUCTURE TO BE CLASS S. CONCRETE IN THE SUPERSTRUCTURE TO BE CLASS S(AE). ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
REINFORCING STEEL SHALL CONFORM TO ASTM A615, OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

PILING SHALL BE HP10X42 OR HP12X53, AS SHOWN ON THE DETAIL DRAWINGS AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 55 OR 70 TONS PER PILE RESPECTIVELY. PILING SHALL BE DRIVEN INTO THE MATERIAL DESIGNATED AS SYENITE ON THE BORING LOGS.

LENGTHS OF PILING SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ORDER LENGTHS SHOWN; CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE.

FOR DETAILS OF END BENTS, SEE DWG. NOS. 20072, 20073, 20076, 20077, 20080 & 20081
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NOS. 20074, 20075, 20078 & 20079

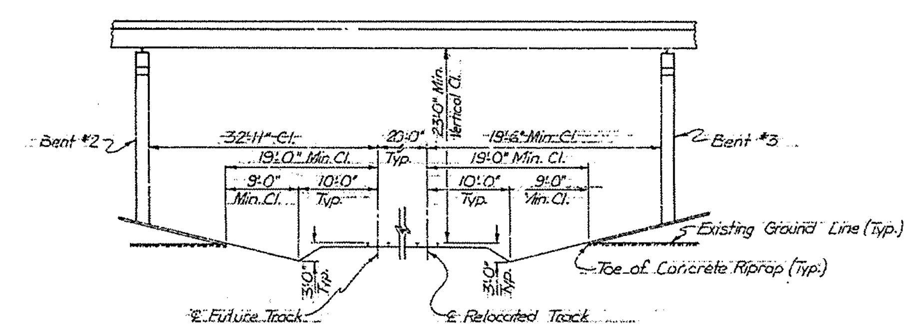
FOR DETAILS OF 325'-0" CONT. UNIT, SEE DWG. NOS. 20084 - 20086
FOR DETAILS OF RETAINING WALLS, SEE DWG. NOS. 20082 & 20083

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES - 1973 WITH 1974 AND 1975 INTERIM SPECIFICATIONS.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000 LB. AXLES SPACED AT 4'-0" ON CENTERS.

METHOD OF DESIGN: SUBSTRUCTURE - LOAD FACTOR
SUPERSTRUCTURE - LOAD FACTOR



SECTION NORMAL TO TRACKS

No Scale

FOR INFORMATION ONLY

EXHIBIT B

LAYOUT OF OVERPASS
FOR LITTLE ROCK PORT AUTHORITY
RAILROAD RELOCATION
RELOCATED PORT RAILROAD - ARKANSAS RIVER
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

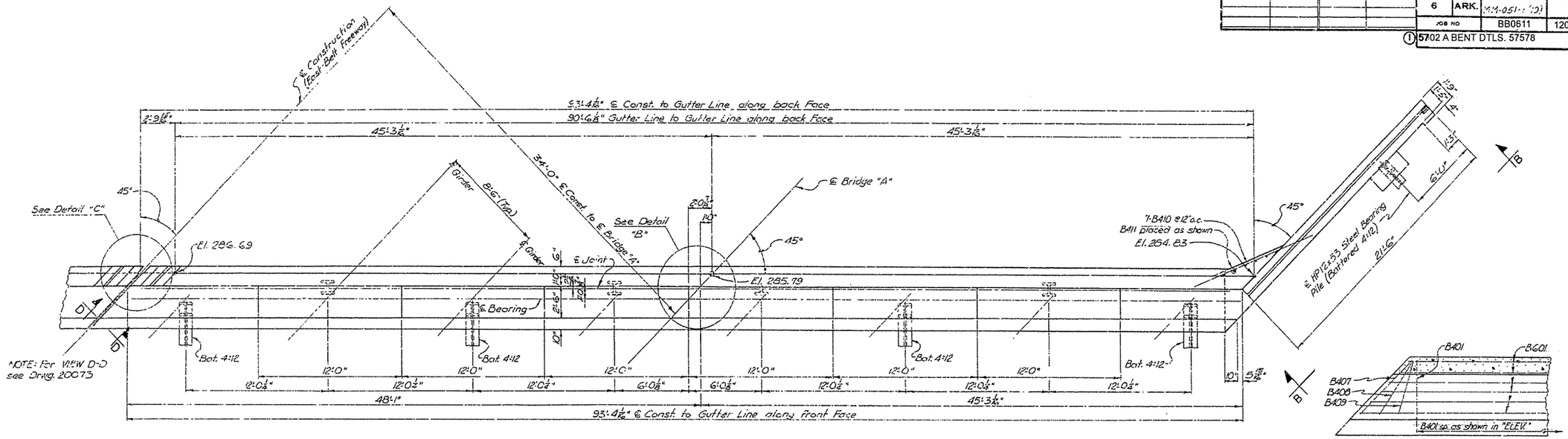
DRAWN BY: K.M.G. DATE: 27 JAN 76
CHECKED BY: L.D.F. DATE: 4-29-76 SCALE: 1" = 50'
DESIGNED BY: JAS DATE: —

BRIDGE ENGINEER

BRIDGE NO. 5702 A & B DRAWING NO. 57577

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	[illegible]		
				JOB NO		BB0611	120	169

(1) 5702 A BENT DTLS. 57578

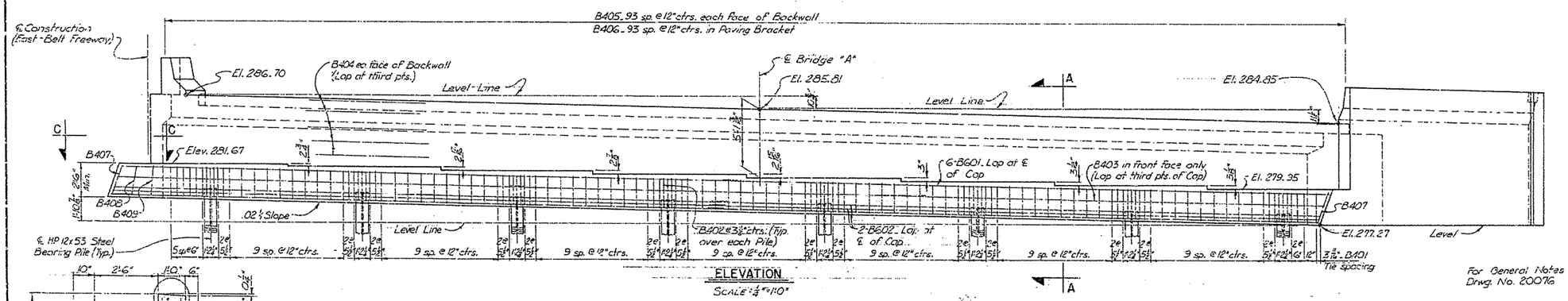


PLAN

SCALE: 1/8" = 1'-0"

VIEW C-C

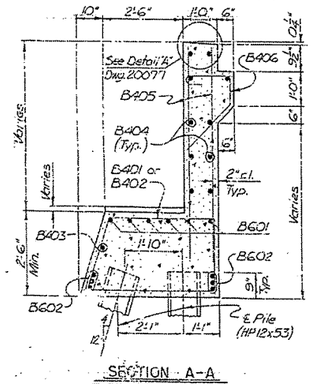
No Scale



ELEVATION

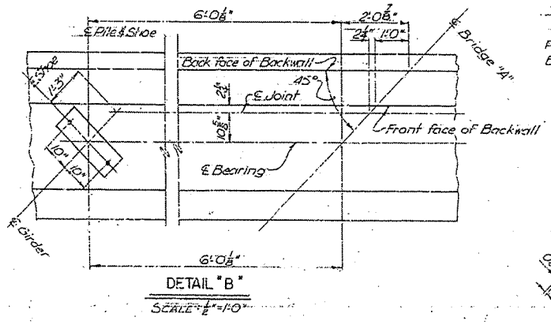
SCALE: 1/4" = 1'-0"

For General Notes see Drwg. No. 20076



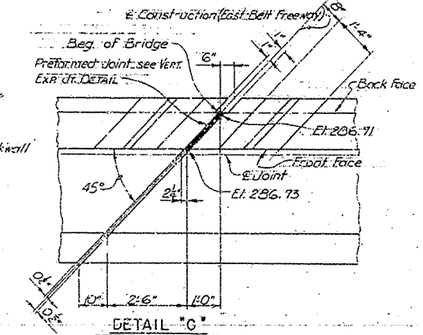
SECTION A-A

SCALE: 3/4" = 1'-0"



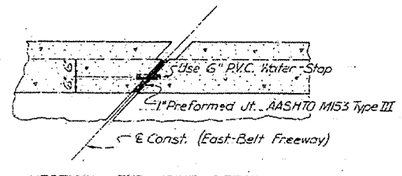
DETAIL "B"

SCALE: 1/2" = 1'-0"



DETAIL "C"

SCALE: 1/2" = 1'-0"



VERTICAL EXP. JOINT DETAIL

No Scale

NOTE: Preformed Jt. & Water Stop shall be measured and paid for as "Class S Concrete."

FOR INFORMATION ONLY

SHEET 1 OF 2

DETAILS OF END BENT 1 (BRIDGE "A")
FOR LITTLE ROCK PORT AUTHORITY
RAILROAD RELOCATION
RELOCATED PORT RAILROAD - ARKANSAS RIVER
EASTBELT FREEWAY
PULASKI COUNTY

ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

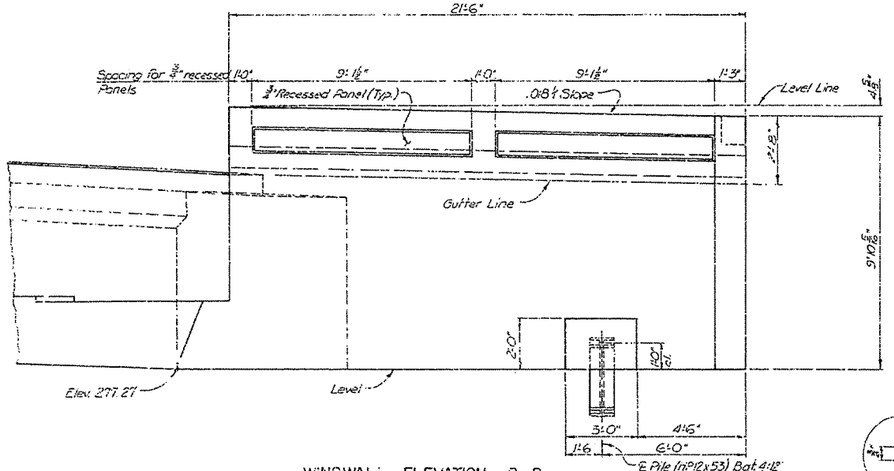
DRAWN BY: K.M.G. DATE: 17 MAR. 76
CHECKED BY: L.D.P. DATE: 5-6-76 SCALE: AS SHOWN
DESIGNED BY: [illegible] DATE:

BRIDGE ENGINEER

BRIDGE NO. 5702A DRAWING NO. 57578

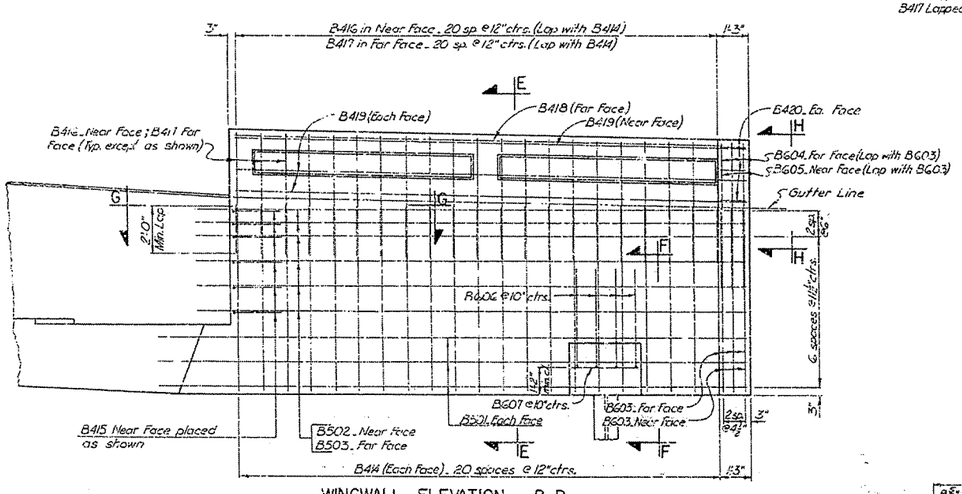
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD D.O.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	MM-031-1(19)		
				JOB NO.		BB0611	121	169

(1) 5702 A BENT DTLS. 57579



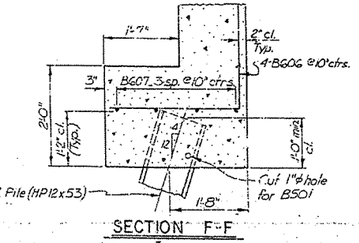
WINGWALL ELEVATION B-B

Scale: ⅜"=1'-0"



WINGWALL ELEVATION B-B

Scale: ⅜"=1'-0"



SECTION F-F

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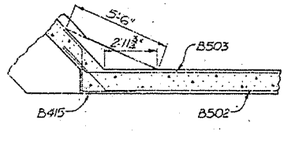
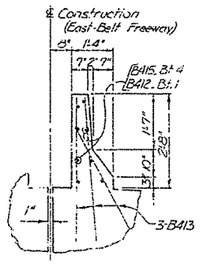


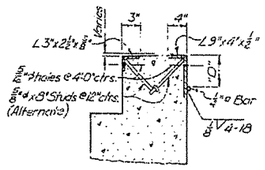
SECTION G-G

No Scale



VIEW D-D

Scale: ½"=1'-0"



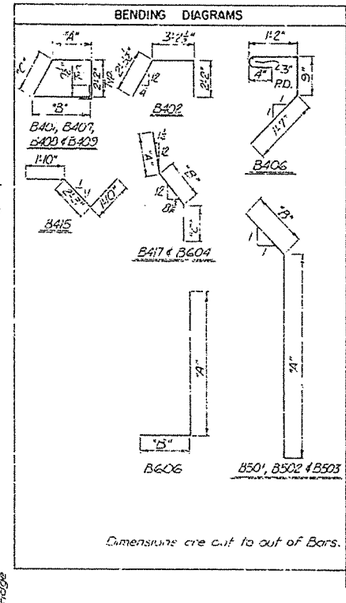
DETAIL "A"

Scale: 1"=1'-0"

NOTE: The dimension "D" shall conform to the recommendations of the Seal manufacturer as approved by the Bridge Engineer. The depth of the Seal shall be approximately equal to the uncompressed width of the Seal.

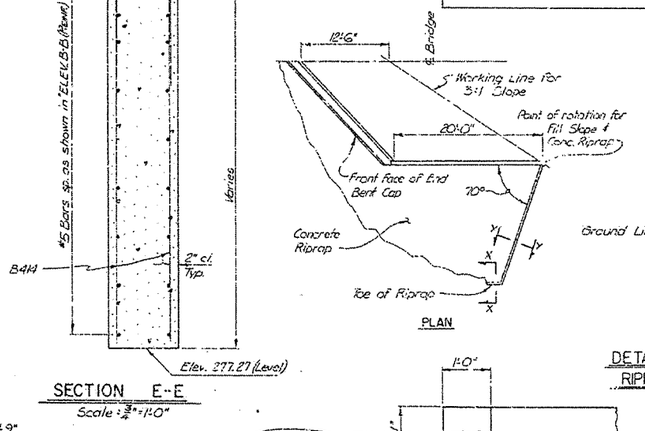
BAR LIST - BT. 1 - BR. "A"

BENDING DIAGRAMS



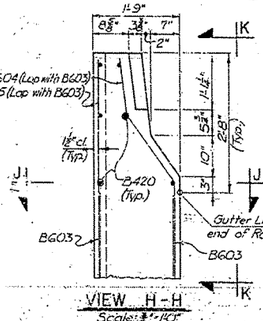
Dimensions are out to out of Bars.

MARK	NO. REQ'D.	LENGTH	"A"	"B"	"C"	PIN DIA.
B401	103	12'-6"	3'-2½"	3'-11"	2'-5½"	2"
B402	24	7'-6"	See Diagram			2"
B403	3	32'-4"				Str.
B404	30	32'-7"				Str.
B405	188	6'-10"				Str.
B406	94	3'-11"	See Diagram			2"
B407	2	15'-8"	4'-5¾"	5'-8"	2'-5½"	2"
B408	1	14'-1"	3'-9½"	4'-9½"	2'-4½"	2"
B409	1	13'-1"	3'-1"	4'-2½"	2'-4"	2"
B410	7	9'-2"				Str.
B411	6	6'-6"				Str.
B412	8	1'-9"				Str.
B413	9	4'-0"				Str.
B414	42	6'-11"				Str.
B415	6	5'-10"	See Diagram			2"
B416	21	4'-10"				Str.
B417	21	4'-8"	1'-5"	1'-0"	2'-3"	2"
B418	1	20'-1"				Str.
B419	5	21'-1"				Str.
B420	6	0'-11"				Str.
B501	6	25'-1"	23'-0"	2'-1"	-	2½"
B502	6	23'-4"	19'-0"	3'-6"	-	2½"
B503	6	23'-0"	20'-11"	2'-1"	-	2½"
B601	12	48'-5"				Str.
B602	12	48'-5"				Str.
B603	5	6'-10"				Str.
B604	3	5'-3"	1'-0"	1'-7"	2'-9"	3½"
B605	2	5'-0"				
B606	4	7'-4"	5'-0"	2'-6"	-	
B607	4	2'-6"				Str.



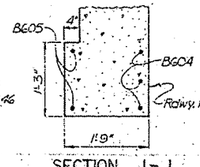
SECTION E-E

Scale: ¾"=1'-0"



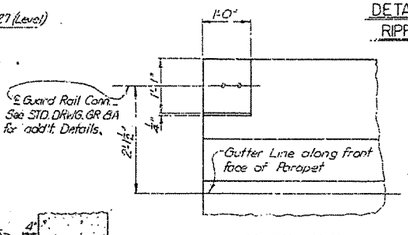
VIEW H-H

Scale: ¾"=1'-0"



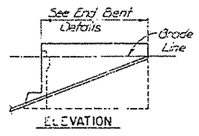
SECTION J-J

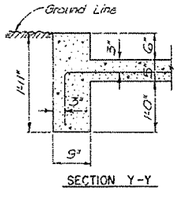
Scale: ¾"=1'-0"

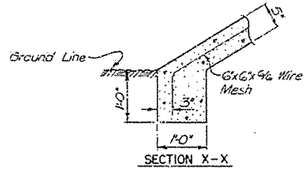


VIEW K-K

Scale: ¾"=1'-0"







NOTE: For additional details of Conc. Riprap see Dwg. No. A4995A

DETAILS FOR PLACEMENT OF CONCRETE RIPRAP AT TURNBACK WINGWALL

No Scale

FOR INFORMATION ONLY

SHEET 2 OF 2
DETAILS OF END BENT 1 (BRIDGE "A")
FOR LITTLE ROCK PORT AUTHORITY
RAILROAD RELOCATION
RELOCATED PORT RAILROAD - ARKANSAS RIVER
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

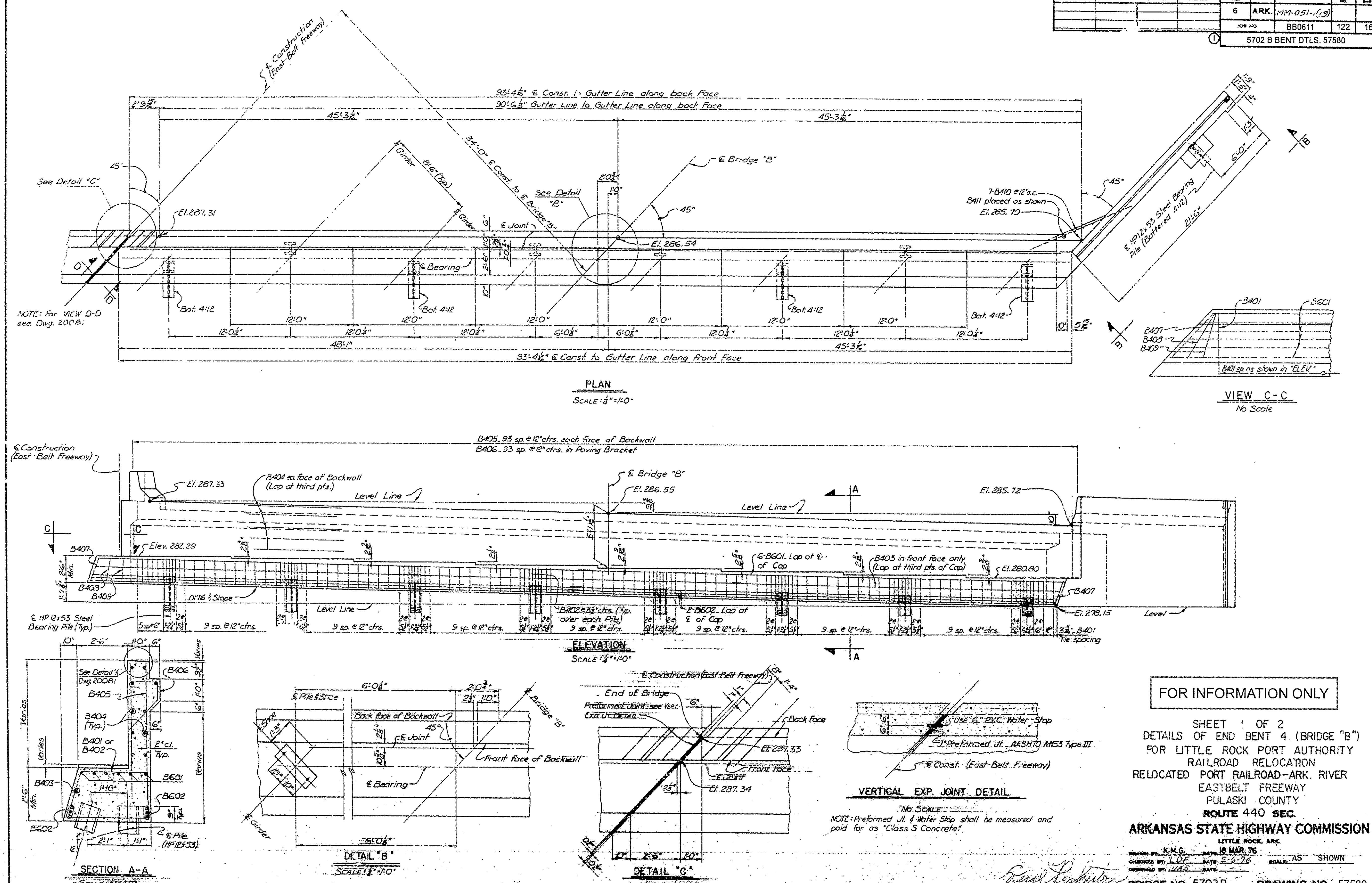
DRAWN BY: K.M.G. DATE: 19 MAR. 76
CHECKED BY: L.D.F. DATE: 5-6-76
DESIGNED BY: J.A.S. DATE: "
SCALE: AS SHOWN

BRIDGE ENGINEER

BRIDGE NO. 5702A DRAWING NO. 57579

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	MM-051-1(9)		
JOB NO		BB0611	122	169

5702 B BENT DTLS. 57580



FOR INFORMATION ONLY

SHEET 1 OF 2
DETAILS OF END BENT 4 (BRIDGE "B")
FOR LITTLE ROCK PORT AUTHORITY
RAILROAD RELOCATION
RELOCATED PORT RAILROAD-ARK. RIVER
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION

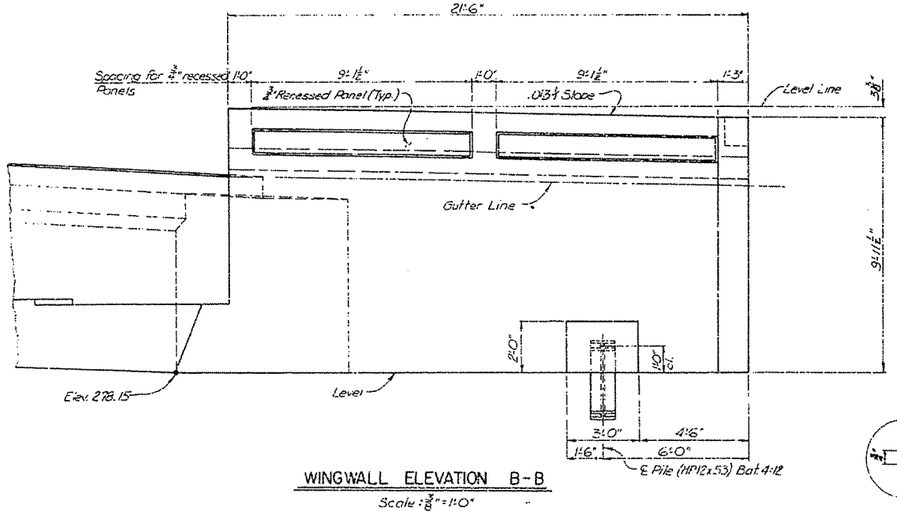
LITTLE ROCK, ARK.

DRAWN BY: K.M.G. DATE: 18 MAR. 76
CHECKED BY: J.D.F. DATE: 5-6-76 SCALE: AS SHOWN

BRIDGE NO. 5702B DRAWING NO. 57580

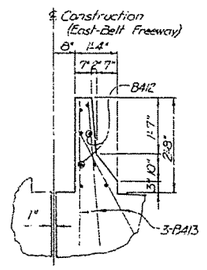
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	STM-051-1(19)		
				JOB NO.		BB0611	123	169

1 — 5702 B BENT DTLS. 57581



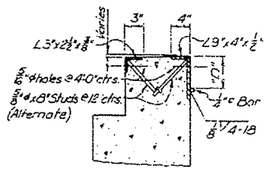
WINGWALL ELEVATION B-B

Scale: ⅜"=1'-0"



VIEW D-D

Scale: ½"=1'-0"



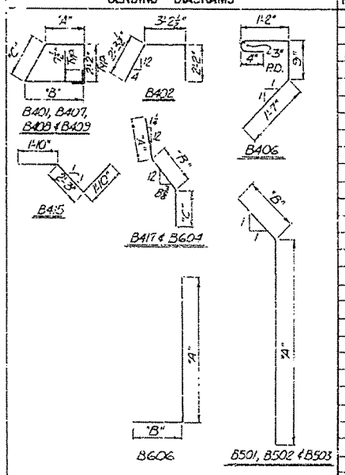
DETAIL "A"

Scale: 1"=1'-0"

NOTE: The dimension "D" shall conform to the recommendations of the Seal manufacturer as approved by the Bridge Engineer. The depth of the Seal shall be approximately equal to the uncompressed width of the Seal.

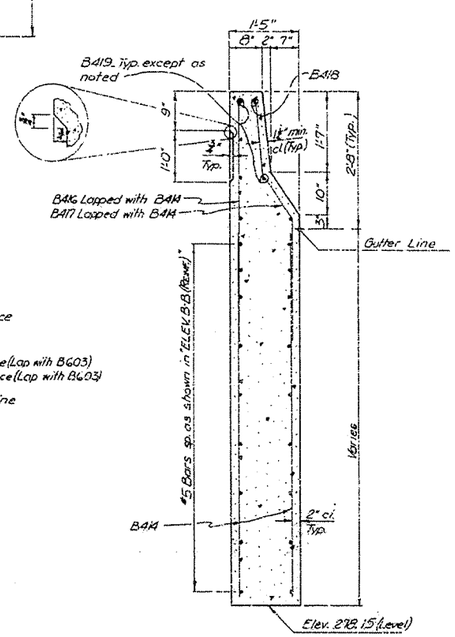
BAR LIST _ BT. 4-BR. "B"

BENDING DIAGRAMS



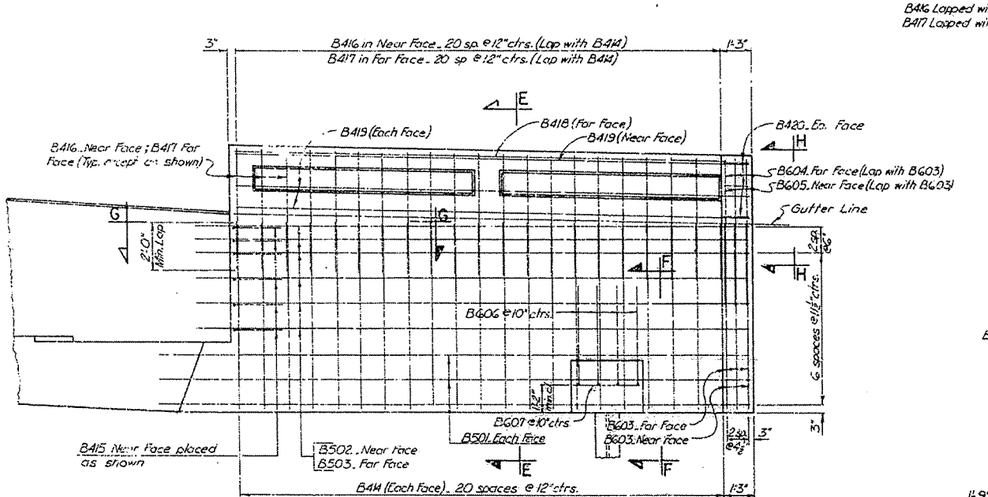
MARK	NO. REQ'D.	LENGTH	"A"	"B"	"C"	PIN DIA.
B401	108	12'-6"	3'-2⅜"	3'-11"	2'-3½"	2"
B402	24	7'-6"		See Diagram		2"
B403	3	32'-4"				Str.
B404	30	32'-7"				Str.
B405	188	6'-10"				Str.
B406	94	3'-11"		See Diagram		2"
B407	2	15'-8"	4'-5¾"	5'-8"	2'-5½"	2"
B408	1	14'-1"	3'-9½"	4'-9½"	2'-1½"	2"
B409	1	13'-1"	3'-4"	4'-2½"	2'-4"	2"
B410	7	5'-2"				Str.
B411	6	6'-8"				Str.
B412	8	14'-9"				Str.
B413	9	4'-0"				Str.
B414	42	6'-11"				Str.
B415	6	5'-10"		See Diagram		2"
B416	21	4'-10"				Str.
B417	21	4'-8"	1'-5"	1'-0"	2'-3"	2"
B418	1	20'-1"				Str.
B419	5	21'-1"				Str.
B420	6	0'-11"				Str.
B501	6	25'-1"	23'-0"	2'-1"	–	2½"
B502	6	23'-4"	19'-10"	3'-6"	–	2½"
B503	6	23'-0"	20'-11"	2'-1"	–	2½"
B601	12	48'-5"				Str.
B602	12	48'-5"			–	Str.
B603	5	6'-10"				Str.
B604	3	5'-3"	1'-0"	1'-7"	2'-9"	3¾"
B605	2	5'-0"				Str.
B606	4	7'-4"	5'-0"	2'-6"	–	3¾"
B607	4	2'-6"				Str.

Dimensions are out to out of Bars.



SECTION E-E

Scale: ¾"=1'-0"



WINGWALL ELEVATION B-B

Scale: ⅜"=1'-0"

NOTE: For details of placement of Conc. Riprap of Turnback Wingwall see Drwg. No. 20073

GENERAL NOTES

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1977 AND INTERIM SPECIFICATIONS

LIVE LOAD: H-20

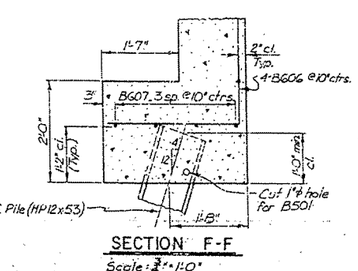
METHOD OF DESIGN: LOAD FACTOR

PILING: ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 70 TONS PER PILE. PILES SHALL BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE

CONCRETE: ALL CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH f'c = 3500 PSI.

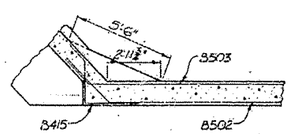
REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615, GR A617 GRADE 60 (YIELD STRENGTH = 60,000 PSI).

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36. STRUCTURAL STEEL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A572 GRADE 50)".



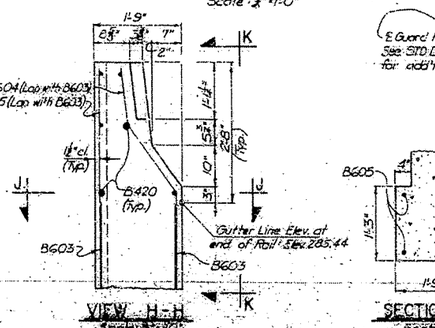
SECTION F-F

Scale: ¾"=1'-0"



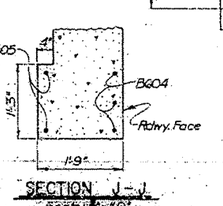
SECTION G-G

No Scale



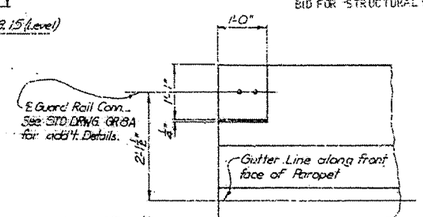
VIEW H-H

Scale: ¾"=1'-0"



SECTION J-J

Scale: 1½"=1'-0"



VIEW K-K

Scale: ¾"=1'-0"

FOR INFORMATION ONLY

SHEET 2 OF 2
DETAILS OF END BENT 4 (BRIDGE "B")
FOR LITTLE ROCK PORT AUTHORITY
RAILROAD RELOCATION
RELOCATED PORT RAILROAD - ARK. RIVER
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION

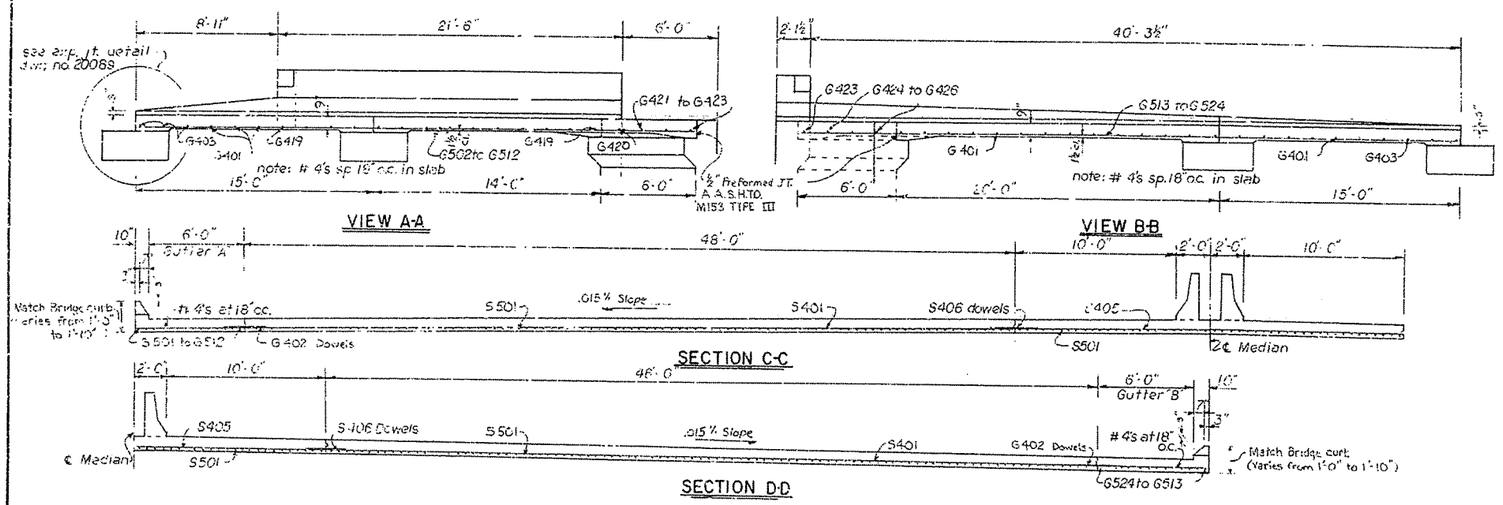
LITTLE ROCK, ARK.

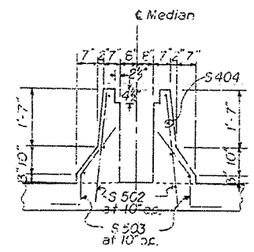
DRAWN BY: K.M.G. DATE: 22 MAR. 76
CHECKED BY: L.D.F. DATE: 5-6-76 SCALE: AS SHOWN
DESIGNED BY: JAS DATE:

BRIDGE ENGINEER

BRIDGE NO. 5702 B DRAWING NO. 57581

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	MM-051-1(19)		
				JOB NO.		BB0611	124	169
				①		5702 A&B - APPR. SLABS - 57582		





SECT E-E
no scale

BAR LISTS

TYPE II-A GUTTER

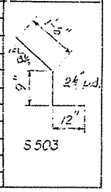
MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
G401	3	6'-6"	
G402	23	3'-0"	
G403	3	3'-0"	
G404 to G418	See dwg no. 20088		
G419	14	5'-8"	
G420 to G422	1 ea.	1'-5" to 4'-5"	
G423	1	6'-0"	
G501	2	4'-7"	
G502 to G506	1 ea.	25'-2" to 27'-2"	
G507 to G512	1 ea.	31'-2" to 34'-2"	

TYPE II-B GUTTER

G401	21	5'-6"	
G402	23	3'-0"	
G403	3	3'-0"	
G404 to G418	See dwg no. 20086		
G423	1	8'-0"	
G424 to G426	1 ea.	5'-3" to 7'-3"	
G513	2	35'-11"	
G514 to G518	1 ea.	35'-2" to 34'-2"	
G519 to G524	1 ea.	34'-3" to 35'-2"	

APPROACH SLAB

S401	96	34'-7"	
*S402	272	2'-6"	
*S403	32	34'-7"	
S404	8	34'-2"	
S405	24	33'-8"	
S406	48	3'-0"	
S501	240	34'-8"	
S502	84	3'-0"	
S503	64	3'-1"	



APPROACH QUANTITIES

LOCATION	Class S Concrete	Reinforcing Steel
Begin. of Br.	194.04 yd³	15060 lbs.
End of Br.	194.04 yd³	15060 lbs.

*See drwg. no 20089 for location of S402 & S403 bars in supports.

NOTE: For General Notes, Details of Longitudinal Construction Joint, and Dummy Groove Joint, refer to drwg. no. 20089

FOR INFORMATION ONLY

DETAILS OF APPROACH SLABS
FOR LITTLE ROCK PORT AUTHORITY
RAILROAD RELOCATION
RELOCATED PORT RAILROAD - ARK. RIVER
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

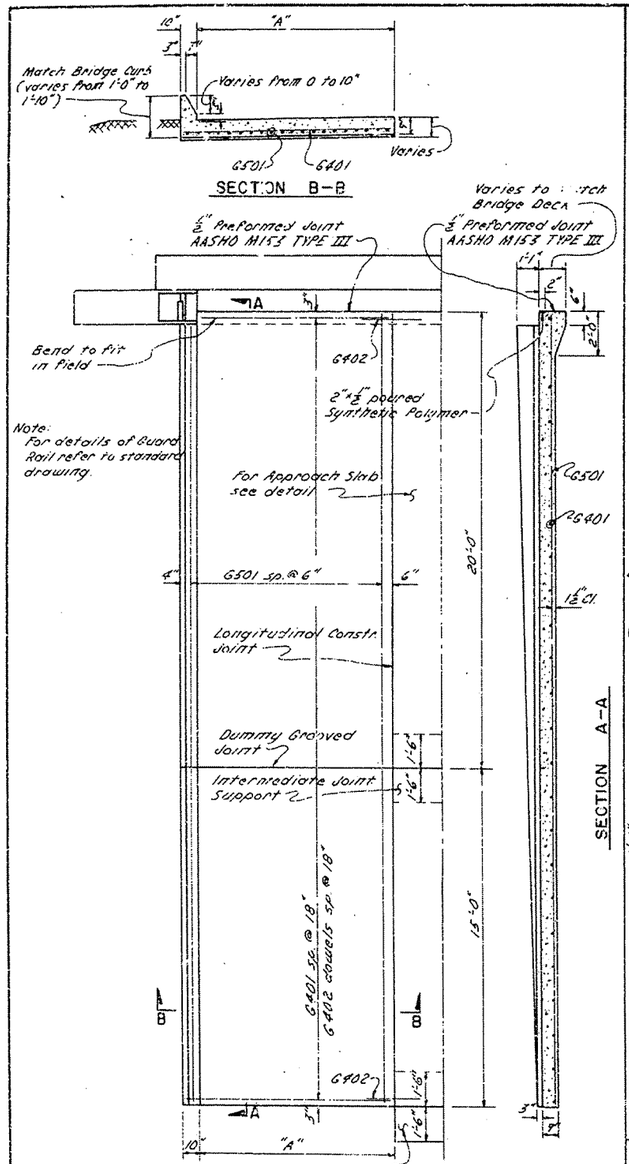
DRAWN BY: J.G.T. DATE: 4-6-76
CHECKED BY: D.A.P. DATE: 4-29-76
DESIGNED BY: J.G.T. DATE: 4-6-76
SCALE: ¼"=1'-0" or as noted

Earl Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5702 A & B DRAWING NO. 57582

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5-11-75	7-14-75			6	ARK.	MM-051-1(9)		
6-22-75	7-14-75			JOB NO.		BB0611	125	169

(1) 5702 A&B - APPR. SL. & GUT. - 57583



BAR LISTS FOR ONE GUTTER

10'-0" SHOULDER

MK.	No. Req'd.	Length
G401	21	10'-6"
G402	24	3'-0"
* G501	21	34'-8"

8'-0" SHOULDER

MK.	No. Req'd.	Length
G401	21	8'-6"
G402	24	3'-0"
* G501	17	34'-8"

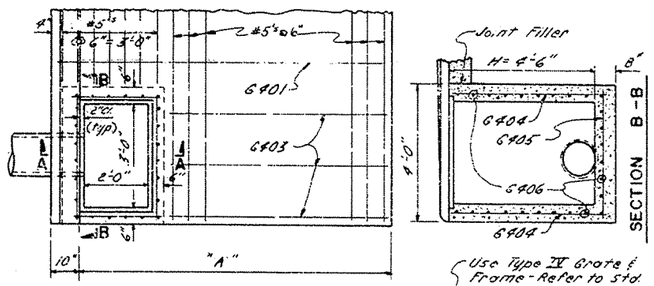
6'-0" SHOULDER

MK.	No. Req'd.	Length
G401	21	6'-6"
G402	24	3'-0"
* G501	13	34'-8"

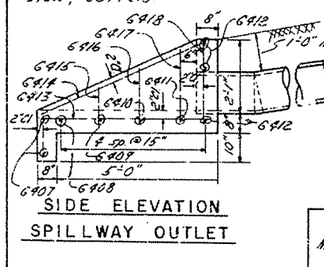
* When the Bridge is skewed all G501 bars will vary in Length.

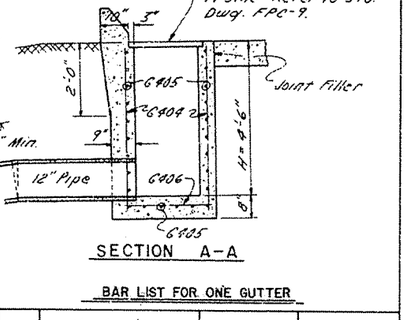
TYPE I BRIDGE APPROACH GUTTERS
Scale: 1"=3'-0"

Note: Joint Filler around Drop Inlet to be non-extruding preformed Joint Filler (AASHO M153 TYPE III).



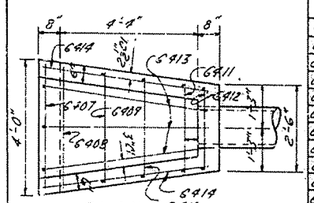
Note: Payment for Drop Inlet & Spillway to be included in unit price bid for Type II Approach Slab & Gutters.

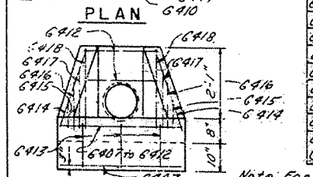


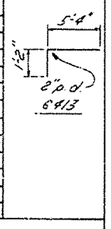


BAR LIST FOR ONE GUTTER

MK.	No. Req'd 10'-0" Sh.	No. Req'd 8'-0" Sh.	No. Req'd 6'-0" Sh.	Length	Bending Diagram
G401	21	21	21	A+6"	
G402	24	24	24	3'-0"	
G403	3	3	3	A-(3'-0")	
G404	24	24	24	4'-10"	
G405	24	24	24	3'-8"	
G406	26	26	26	2'-8"	
G407	2	2	2	3'-0"	
G408	1	1	1	3'-5"	
G409	1	1	1	3'-1"	
G410	1	1	1	2'-9"	
G411	1	1	1	2'-5"	
G412	3	3	3	2'-2"	
G413	3	3	3	6'-5"	
G414	2	2	2	5'-9"	
G415	2	2	2	1'-2"	
G416	2	2	2	1'-8"	
G417	2	2	2	2'-2"	
G418	2	2	2	2'-5"	
G501	102	102	102	varies	
G3					

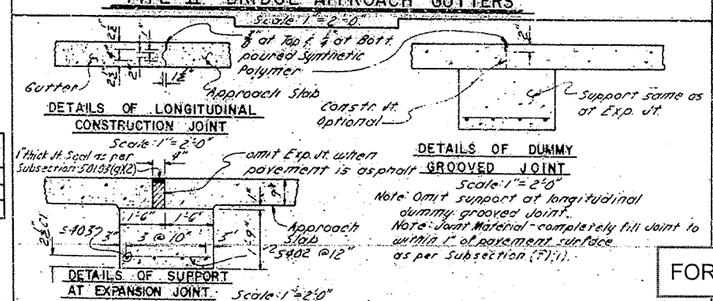


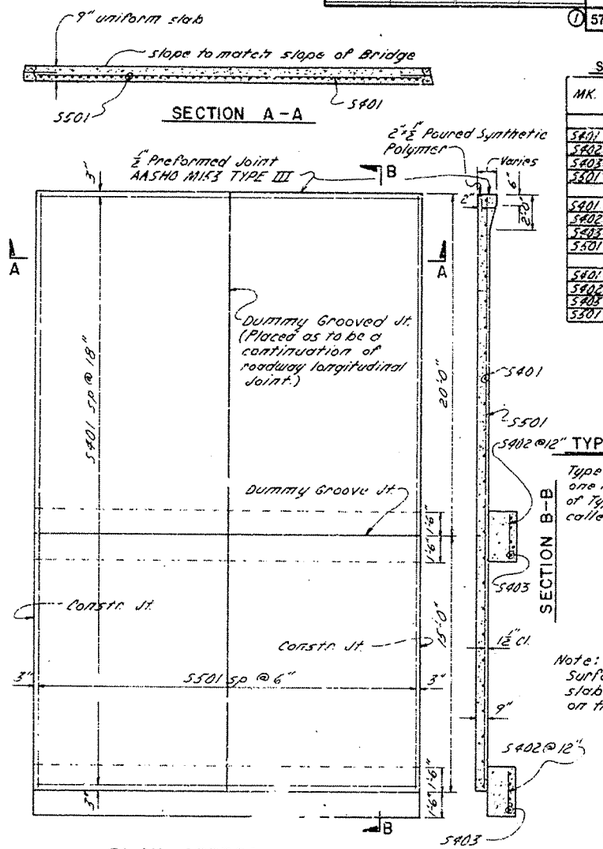




Note: For details not shown refer to Type I Bridge Approach Gutters.

TYPE II BRIDGE APPROACH GUTTERS

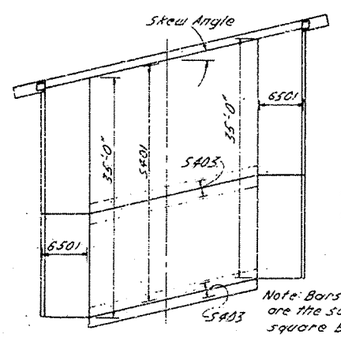




BAR LISTS
SQUARE & SKEWED SLABS

MK.	No. Req'd.	Length
		22'-0" Slab Width
S401	24	21'-6" (Secant Skew ∠)
S402	48	2'-6"
S403	8	21'-6" (Secant Skew ∠)
S501	44	34'-6"
		24'-0" Slab Width
S401	24	23'-6" (Secant Skew ∠)
S402	48	2'-6"
S403	8	23'-6" (Secant Skew ∠)
S501	48	34'-6"
		34'-0" Slab Width
S401	24	33'-6" (Secant Skew ∠)
S402	12	2'-6"
S403	8	33'-6" (Secant Skew ∠)
S501	12	34'-6"

PLAN-APPROACH
Scale 1"=4'



Note: Bars not shown are the same as for square Bridge.

SKETCH SHOWING APPROACH FOR SKEWED BRIDGE
Scale 1"=10'

½" TYPE III BRIDGE APPROACH

Type III Approach consists of one half of Type I & one half of Type II. Use whenever called for on the Plans.

Note: Surface finish for approach slabs shall match that used on the Bridge deck.

GENERAL NOTES

CONCRETE SHALL BE CLASS A OR CLASS S, OR MIXTURE USED FOR PORTLAND CEMENT CONCRETE PAVEMENT.

REINFORCEMENT STEEL SHALL CONFORM TO ASTM A615, GRADE 40.

APPROACH SLABS AND GUTTERS FOR STRUCTURES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH BID FOR "APPROACH GUTTERS" OR "APPROACH SLABS AND GUTTERS", OF THE TYPE DESIGNATED, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING MATERIALS, INCLUDING CONCRETE, REINFORCING STEEL AND JOINT FILLER; PLACEMENT AND COMPACTION OF BASE MATERIAL; FOR FORMS, MIXING, PLACING, CURING AND FINISHING; FOR EXCAVATION AND BACKFILL; AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

CORRUGATED METAL PIPE FOR SPILLWAYS, COMPLETED AND ACCEPTED, WILL BE MEASURED AS PROVIDED IN SECTION 606 OF THE STANDARD SPECIFICATIONS, EDITION OF 1972.

(A) Added note, 3-11-75, J.P.S.
(B) Revise 4" Exp. Jt. & note, 8-22-75, J.P.S.

DETAILS OF STANDARD APPROACH SLABS & GUTTERS FOR CONCRETE PARAPET RAILING

ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY J.P.S. DATE 11-12-74
TRACED BY DATE SCALE as noted
CHECKED BY D.A. DATE 12-4-74

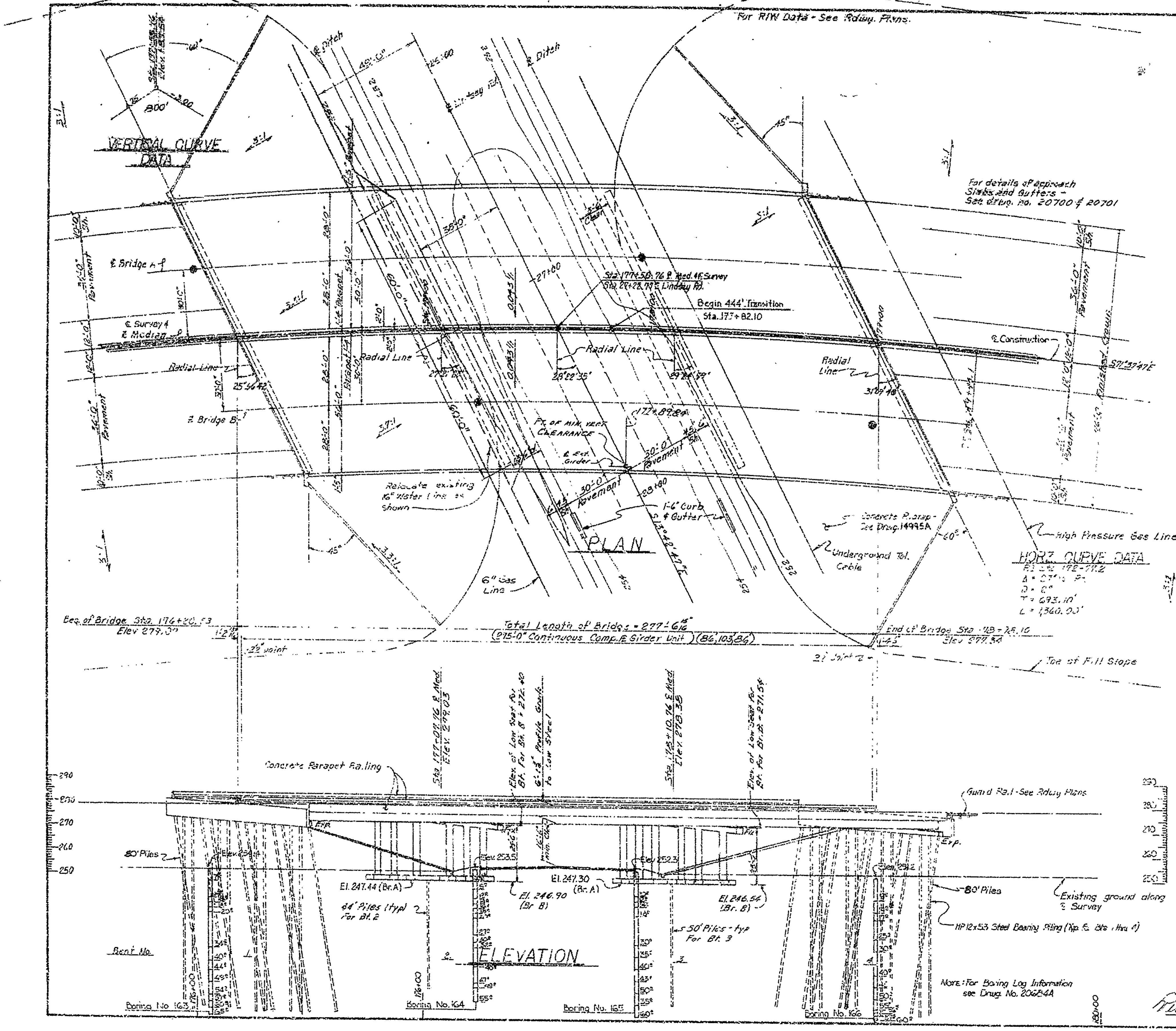
FOR INFORMATION ONLY

BRIDGE ENGINEER

BRIDGE NO. 5702 A & B DRAWING NO. 57583

				Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Sheet No.	Total Sheets
				6	ARK.	MM-051-1(23)		
				Job No.		BB0611	126	169

5703 A&B - LAYOUT - 57584



GENERAL NOTES

BENCH MARK: B. M. #5 NIS 8' HACKBERRY 200 LT STA. 177+60, ELEV. 256 95

FOOTINGS SHALL BE SET AT ELEVATION SHOWN ON PLANS. FOUNDATIONS FOR FOOTINGS SHALL BE PREPARED IN ACCORDANCE WITH SECTION 801.04 OF THE STANDARD SPECIFICATIONS

ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4". ALL PILING SHALL BE HP12X53 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 70 TONS PER PILE AND INTO THE MATERIAL DESIGNATED *HARD SILTSTONE* ON THE BORING LOGS. LENGTHS OF PILING SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ORDER LENGTHS SH[illegible] CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FO[illegible] ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

[illegible]ES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE.

FOR DETAILS OF END BENTS, SEE DWG. NOS. 20685, 20688, 20689 & 20692
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NO. 20686, 20687, 20690, & 20691
FOR DETAILS OF 275'-0" CONTINUOUS UNIT, SEE DWG. NOS. 20693 THRU 20698
FOR DETAILS OF BEARINGS, SEE DWG. [illegible] 20692
FOR METHOD OF SUPERELEVATION TRANSITION, SEE DWG. NO. 20702
SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972 AND APPLICABLE SPECIAL PROVISIONS

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1973 WITH INTERIM SPECIFICATIONS

LIVE LOADING: HS20

METHOD OF DESIGN: SUBSTRUCTURE - LOAD FACTOR
SUPERSTRUCTURE - SERVICE LOAD

ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF f'c = 3500 PSI. CONCRETE IN SUBSTRUCTURE TO BE CLASS S. CONCRETE IN THE SUPERSTRUCTURE TO BE CLASS S(AE).

FOR INFORMATION ONLY

LAYOUT OF BR[illegible]
LINDSEY ROAD OV[illegible]
LINDSEY ROAD & FOURCHE DAM PIKE
BRS. & APPRS.
EASTBELT FREEWAY
PULASKI COUNTY

ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

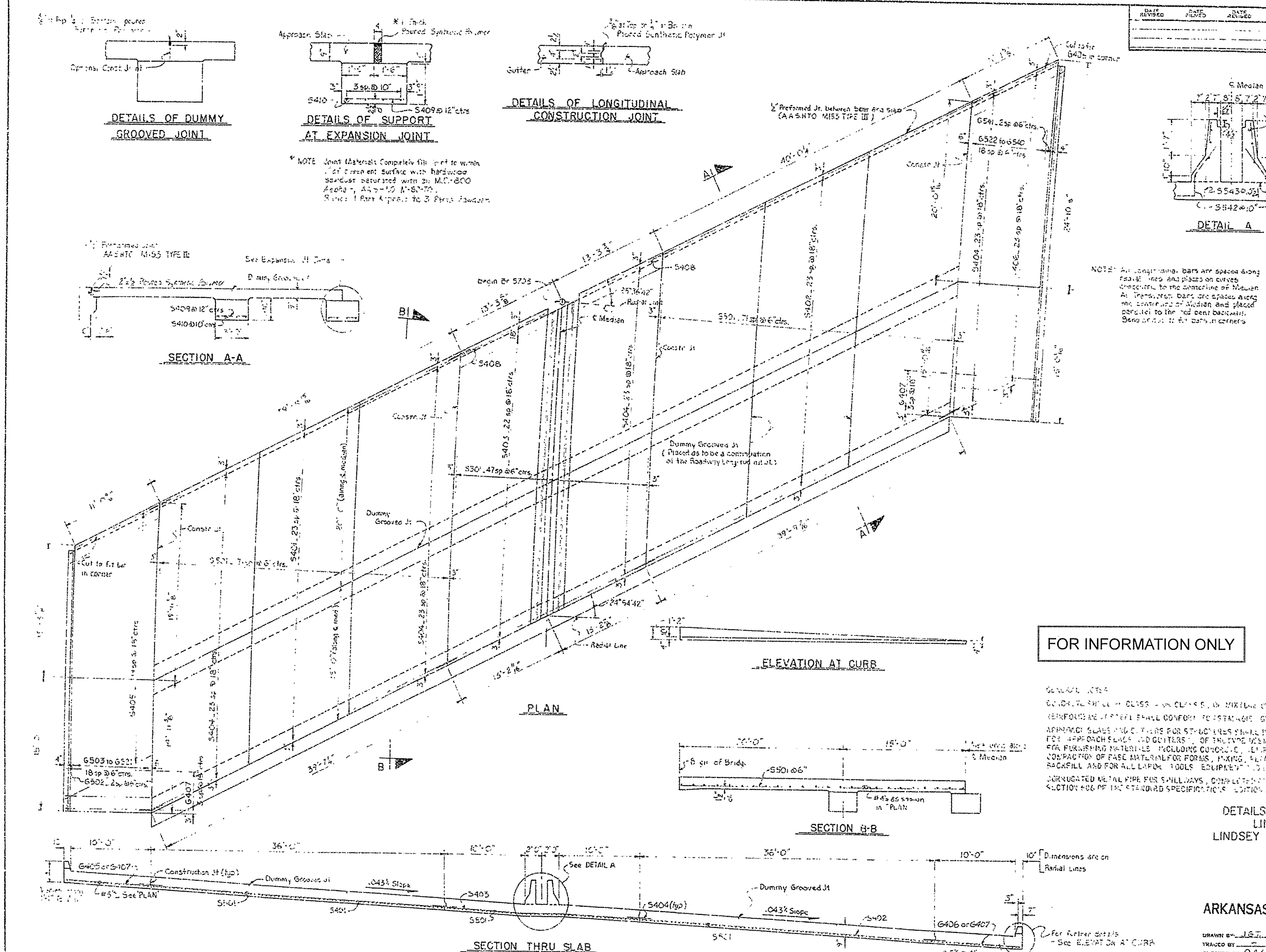
DRAWN BY: W.H.W. DATE: 1-6-76
CHECKED BY: HAS DATE: 1-15-76
DESIGNED BY: HAS DATE:
SCALE: 1"=20'-0"

BRIDGE ENGINEER

BRIDGE NO. 5703A&B DRAWING NO. 57584

FED. ROAD NO.	STATE	FE. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	MM-051-1(23)	127	169
JOB NO.		BB0611		

① 5703 A&B - APPR. SLAB - 57585



BAR LIST

MARK	NO. REQ'D.	LENGTH
S401	24	39'-4
S402	24	39'-7"
S403	23	26'-3"
S404	46	3'-0"
G405	20	11'-8"
G406	24	11'-9"
G407	8	10'-6"
S408	2	10'-9"
S409	21	3'-8"
S410	24	36'-2
S411	8	34'-1"
S501	192	34'-8"
G502	2	29'-4
G503 To G521	1 ea	27'-1" To 34'-6"
G522 To G540	1 ea	34'-10" To 37'-5"
G541	2	39'-0"
S542	82	3'-7"
S543	82	3'-1"

BENDING DIAGRAMS: S542

DIMENSIONS ARE OUT TO OUT OF BARS.

QUANTITIES

Class "S" Concrete	164.67 cu. yd.
Reinforcing Steel (Grade 40)	12,406 lb.

SHEET 1 OF 2
DETAILS OF APPROACH SLABS FOR
LINDSEY ROAD OVERPASS
LINDSEY ROAD & FOURCHE DAM PIKE
BRS. & APPRS.
EASTBELT FREEWAY
PULASKI COUNTY

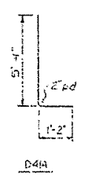
ROUTE 440 SEC.

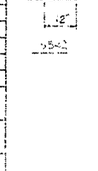
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

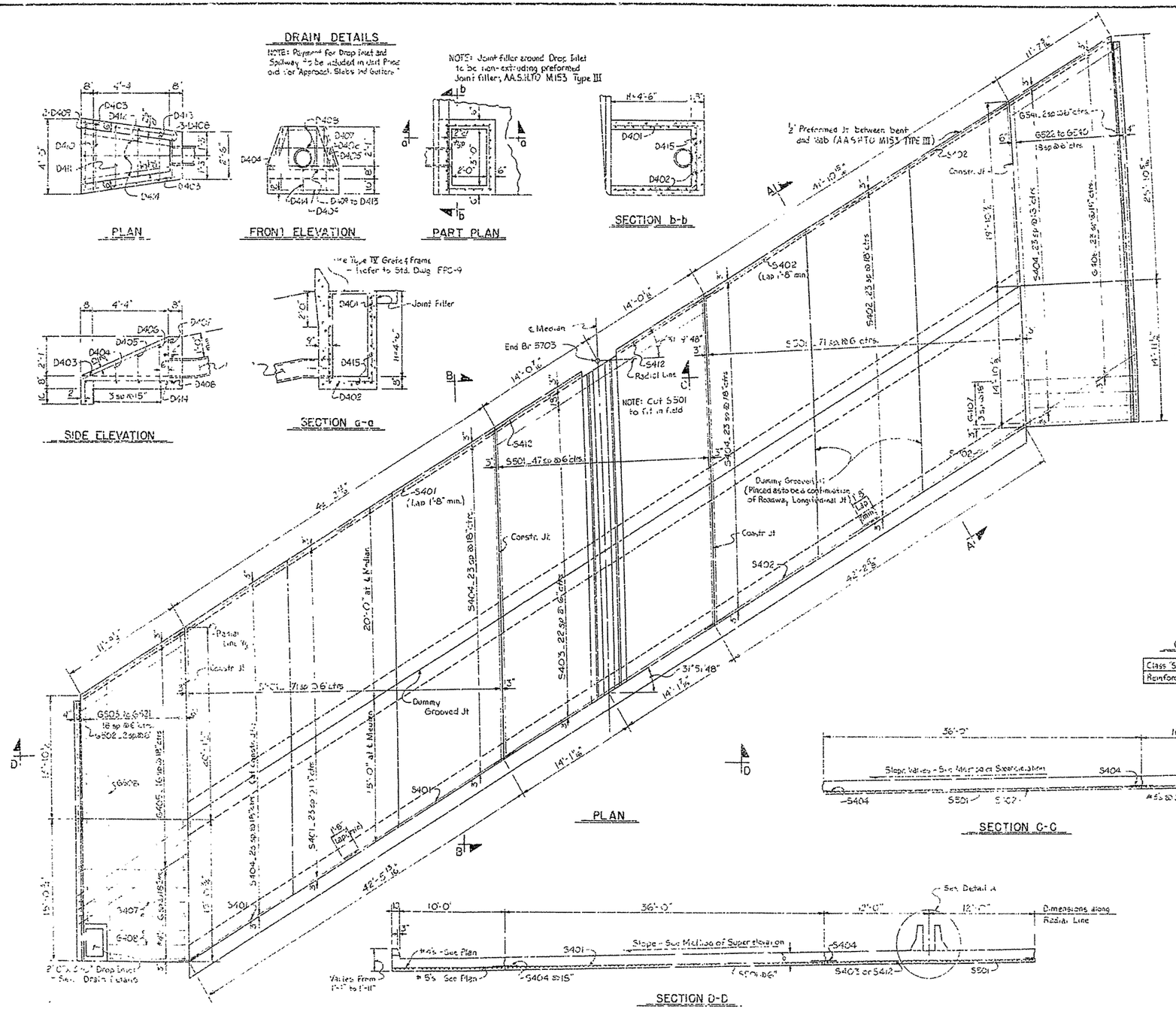
DRAWN BY: J.G.T. DATE
TRACED BY DATE SCALE
CHECKED BY: D.A.L. DATE

BRIDGE ENGINEER

BRIDGE NO. 5703 A&B DRAWING NO. 57585







DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	MM-051-1(23)		
				JOB NO		BB0611	128	169

① 5703 A&B - APPR. SLAB - 57586

DRAIN DETAILS

NOTE: Payment for Drop Inlet and Spillway to be included in Unit Price bid for "Approach Slabs and Gutters"

NOTE: Joint filler around Drop Inlet to be non-extruding preformed Joint filler; AASHTO M153 Type III

NOTE: ALL LONGITUDINAL BARS ARE SPACED ALONG RADIAL LINES AND PLACED ON CURVES CONCENTRIC TO THE CENTERLINE OF MEDIAN.

ALL TRANSVERSE BARS ARE SPACED ALONG THE CENTERLINE OF MEDIAN AND PLACED PARALLEL TO THE END BENT BACKWALL.

BEND OR CUT TO FIT BARS IN CORNERS.

FOR "GENERAL NOTES" AND DETAILS NOT SHOWN SEE DWG. NO. 20700.

QUANTITIES

Class "S" Concrete	167.79 cu yd
Reinforcing Steel (Grade 40)	12,826 lb.

BAR LIST - ONE DRAIN

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAMS
D401	24	4'-10"	
D402	26	2'-5"	
D403	2	5'-9"	
D404	2	1'-2"	
D405	2	1'-8"	
D406	2	2'-2"	
D407	2	2'-5"	
D408	3	2'-2"	
D409	2	3'-8"	
D410	1	3'-5"	
D411	1	3'-1"	
D412	1	2'-9"	
D413	1	2'-5"	
D414	3	6'-5"	
D415	24	3'-8"	

BAR LIST - APPROACH SLAB

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAMS
S401	48	21'-11"	
S402	48	21'-5"	
S403	23	27'-9"	
S404	96	3'-0"	
G405	17	12'-5"	
G406	24	12'-5"	
G407	8	10'-6"	
G408	3	7'-0"	
S409	226	3'-8"	
S410	24	38'-7"	
S411	8	34'-1"	
S412	2	11'-4"	
S501	192	34'-7"	
G502	2	20'-0"	
G503 To G507	1 ea	24'-11" To 26'-1"	
G508 To G521	1 ea.	30'-3" to 34'-7"	
G522 TO G540	1 ea	34'-6" TO 40'-6"	
G541	2	39'-11"	
S542	82	3'-2"	
S543	82	3'-1"	

DIMENSIONS ARE OUT TO OUT OF BARS

FOR INFORMATION ONLY

SHEET 2 OF 2
DETAILS OF APPROACH SLABS FOR
LINDSEY ROAD OVERPASS
LINDSEY ROAD & FOURCHE DAM PIKE
BRS. & APPRS.
EASTBELT FREEWAY
PULASKI COUNTY

ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

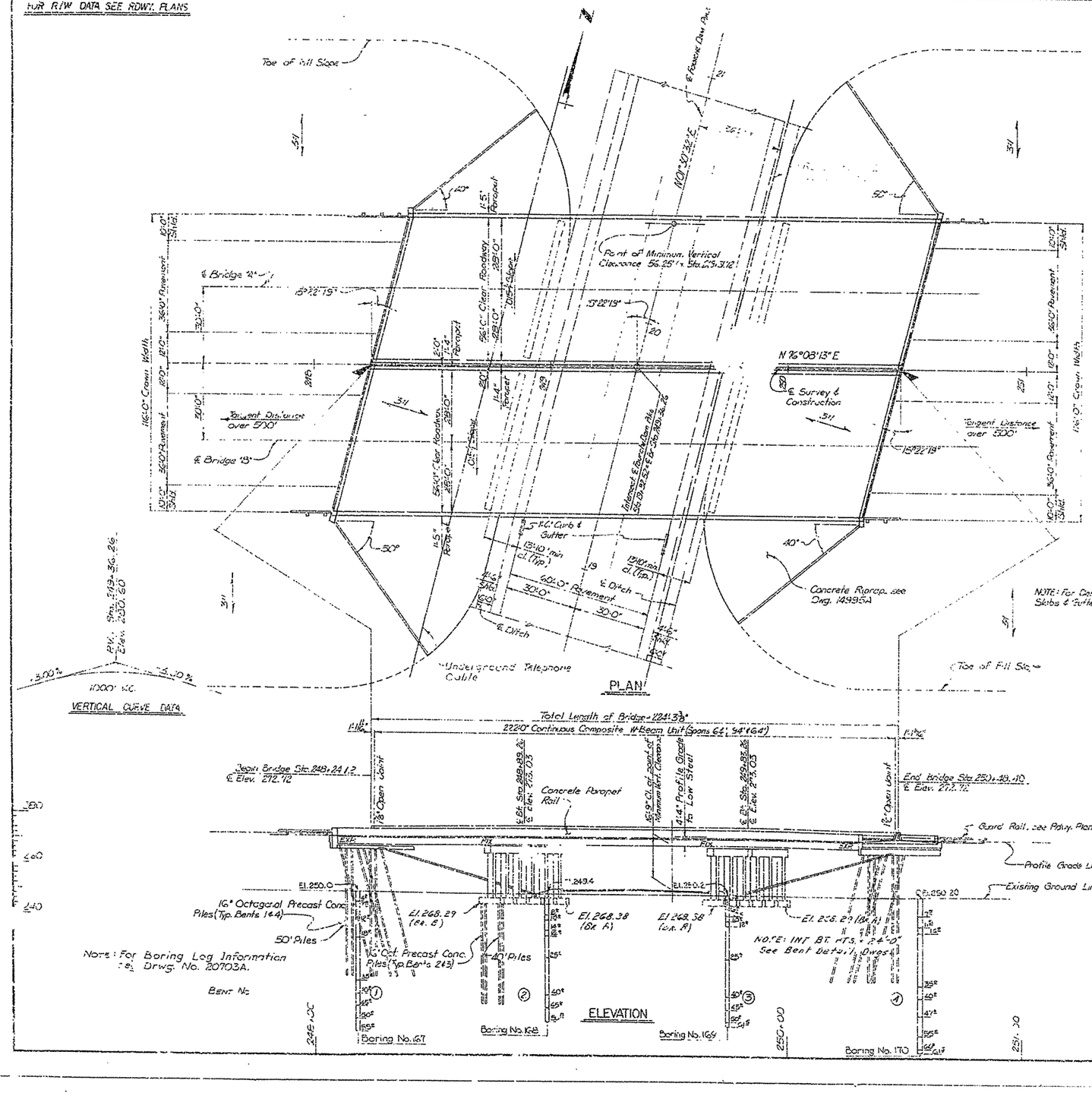
DRAWN BY: J.G.T. DATE: 2-3-77
CHECKED BY: D.A.L. DATE: 2-9-77
DESIGNED BY: J.G.T. DATE: 2-2-77
SCALE: NO SCALE

BRIDGE ENGINEER

BRIDGE NO. 5703 A&B **DRAWING NO.** 57586

FOR R/W DATA SEE RDWY. PLANS

DATE REVISED	DATE APVED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	MM-05: I(23)		
				JOB NO		BB0611	129	169
				(1)		5704 A&B - LAYOUT - 57587		



GENERAL NOTES

BENCH MARK - B.M. NO. 23 HIS P. POLE, 98' RT. STA. 248+48, ELEV 251.36.

ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED

ALL PILING SHALL BE 16" OCTAGONAL PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE, AND TO A MINIMUM PENETRATION OF 20 FEET BELOW THE GROUND LINE LENGTHS OF PILING SHOWN ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. DRIVE ONE 45 FT. TEST PILE IN BENT 2 OF BRIDGE "A" AND BENT 2 BRIDGE "B". DRIVE ONE 55 FT. TEST PILE IN BENT 3 OF BRIDGE B AND BENT 4 OF BRIDGE A.
PILES IN END BENTS TO BE DRIVEN AFTER ENBANKMENT TO SUBGRADE IS IN PLACE.

FOR DETAILS OF END BENTS, SEE DWG. NOS. 20704 AND 20705
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NO. 20706
FOR DETAILS OF BORING LOGS SEE DWG. NO. 20703A
FOR GENERAL NOTES, SEE DWG. NO 20683A
FOR DETAILS OF 222 FOOT CONTINUOUS UNIT, SEE DWG. NOS 20707 - 20709
FOR DETAILS OF BEARINGS, SEE DWG. NO. 20699
FOR DETAILS OF PRECAST CONCRETE PILING, SEE DWG. NOS. 2383

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1973 WITH 1974 THRU 1976 INTERIM SPECIFICATIONS.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000 LB. AXLES SPACED AT 4'-0" ON CENTERS

METHOD OF DESIGN: SUBSTRUCTURE - LOAD FACTOR
SUPERSTRUCTURE - LOAD FACTOR

FOR INFORMATION ONLY

LAYOUT OF OVERPASS
OVER FOURCHE DAM PIKE
LINDSEY ROAD & FOURCHE DAM PIKE
BRS. & APPRS.
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

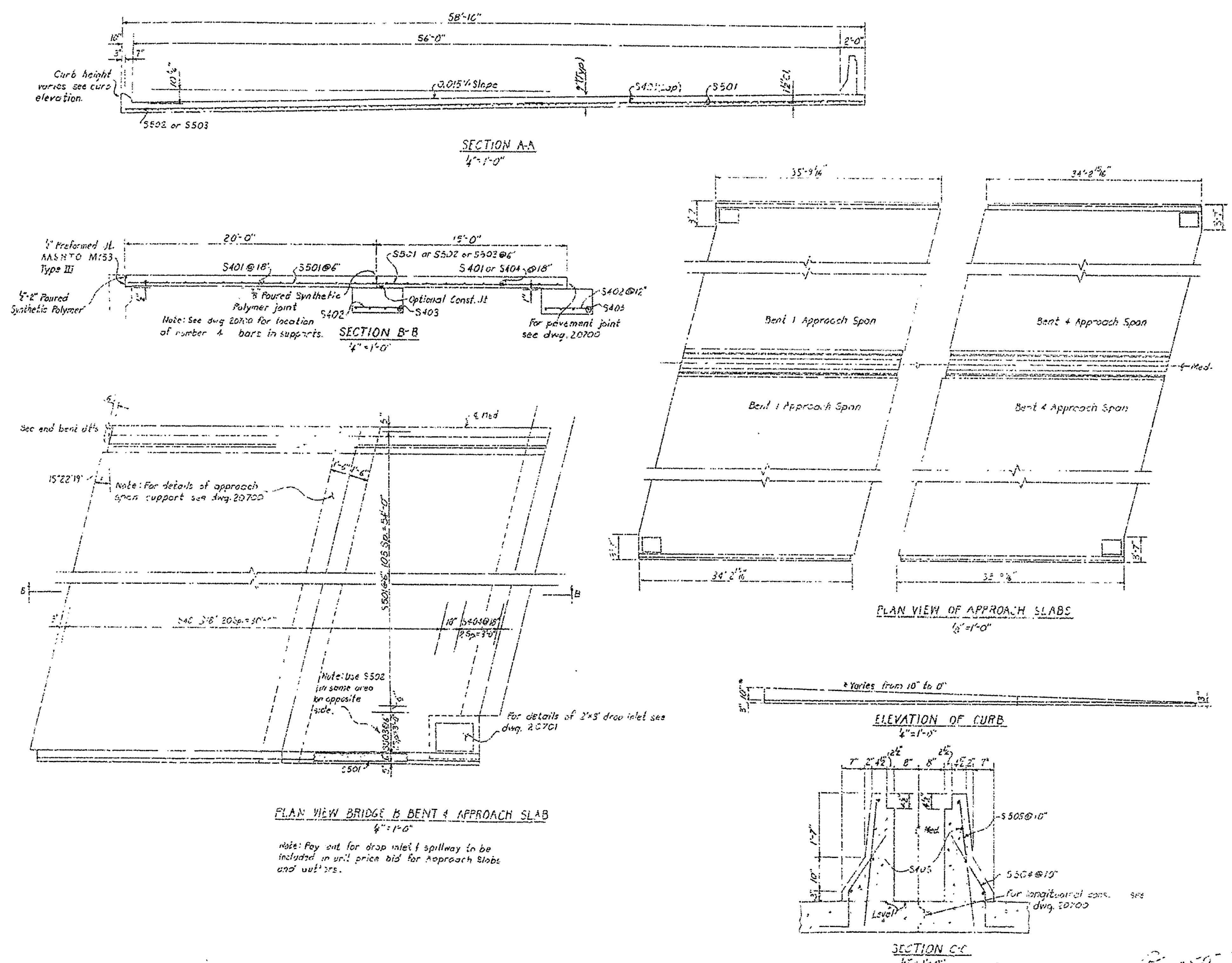
DRAWN BY K.M.G. DATE 29 JAN 76
CHECKED BY [illegible] DATE [illegible]
DESIGNED BY: [illegible] DATE
SCALE 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 5704A&B DRAWING NO. 57587

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	MM-051-1(23)		
				JOB NO.		BB0611	130	169

(1) 5704 A&B - APPR. SLABS - 57588



BAR LIST ONE APPROACH SPAN

MARK	NO. REQ'D	LENGTH	PIN DIA.	BENDING DIAGRAM
S401	34	31'-2"	-	
S402	237	2'-8"	-	
S403	32	31'-4"	-	
S404	12	29'-?"	-	S504
S405	8	34'-2"	-	
S501	220	34'-8"	-	
S502	7	30'-0"	-	
S503	7	3?'-?"	-	10"
S504	84	3'-0"	2½"	Dimensions are out to out of bars.
S505	54	3'-0"	-	

For General Notes See dwg. 20700

FOR INFORMATION ONLY

DETAILS OF APPROACH SLABS & GUTTERS FOR FOURCHE DAM PIKE OVERPASS
LINDSEY ROAD & FOURCHE DAM PIKE BRS. & APPRS.
EASTBELT FREEWAY
PULASKI COUNTY
ROUTE 440 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

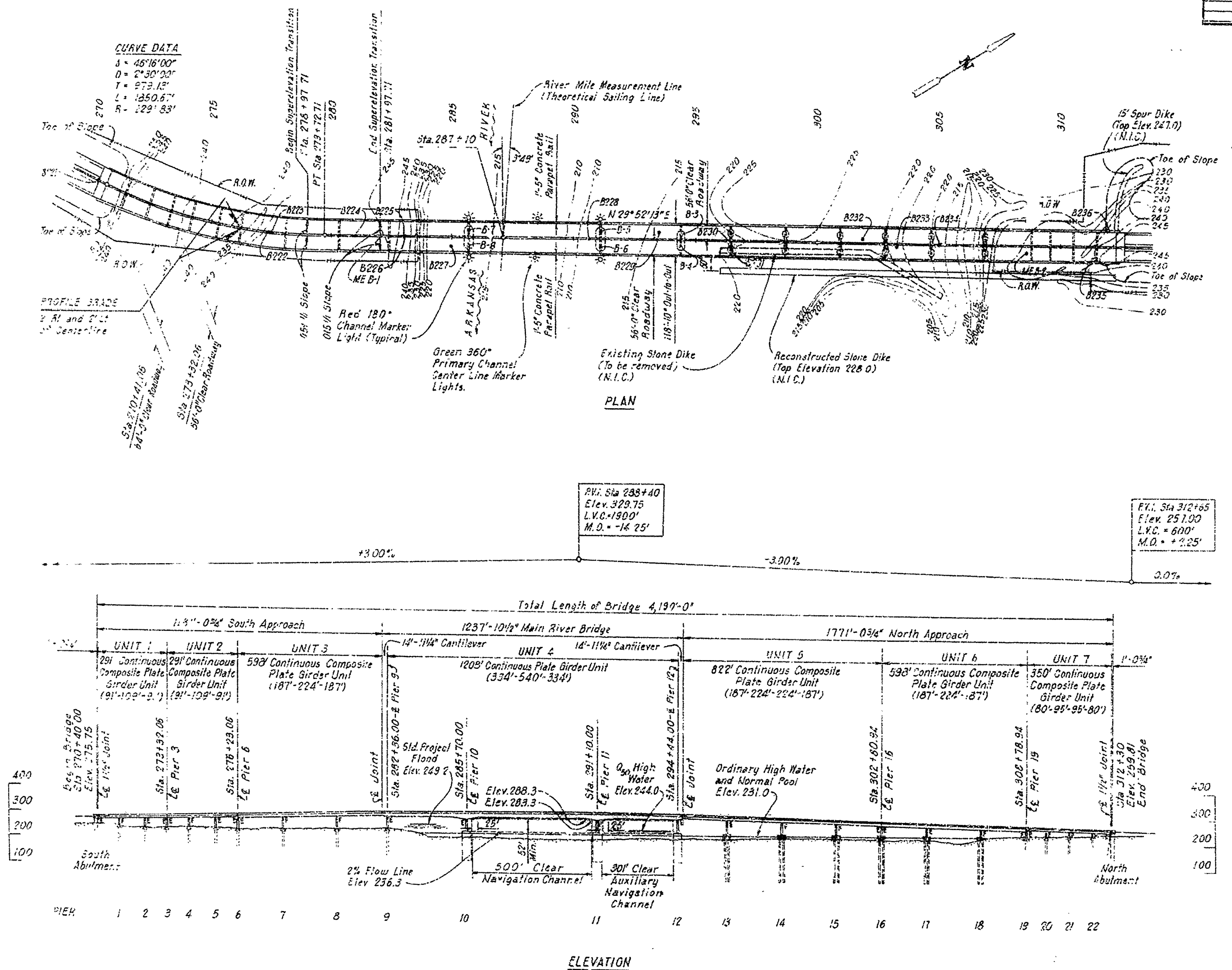
DRAWN BY ___ DATE ___
TRACED BY ___ DATE ___
CHECKED BY ___ DATE ___
SCALE: As Noted

BRIDGE ENGINEER

BRIDGE NO. 5704A&B DRAWING NO. 57588

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	FAP HN-05-1(16)	4	21
				JOB NO		BB0611	131	169

① 5705 GEN PLAN AND ELEV. - 57589



FOR INFORMATION ONLY

SHEET 1 OF 1

GENERAL PLAN AND ELEVATION

EAST BELT FREEWAY
ARKANSAS RIVER BRIDGE
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK ARK.

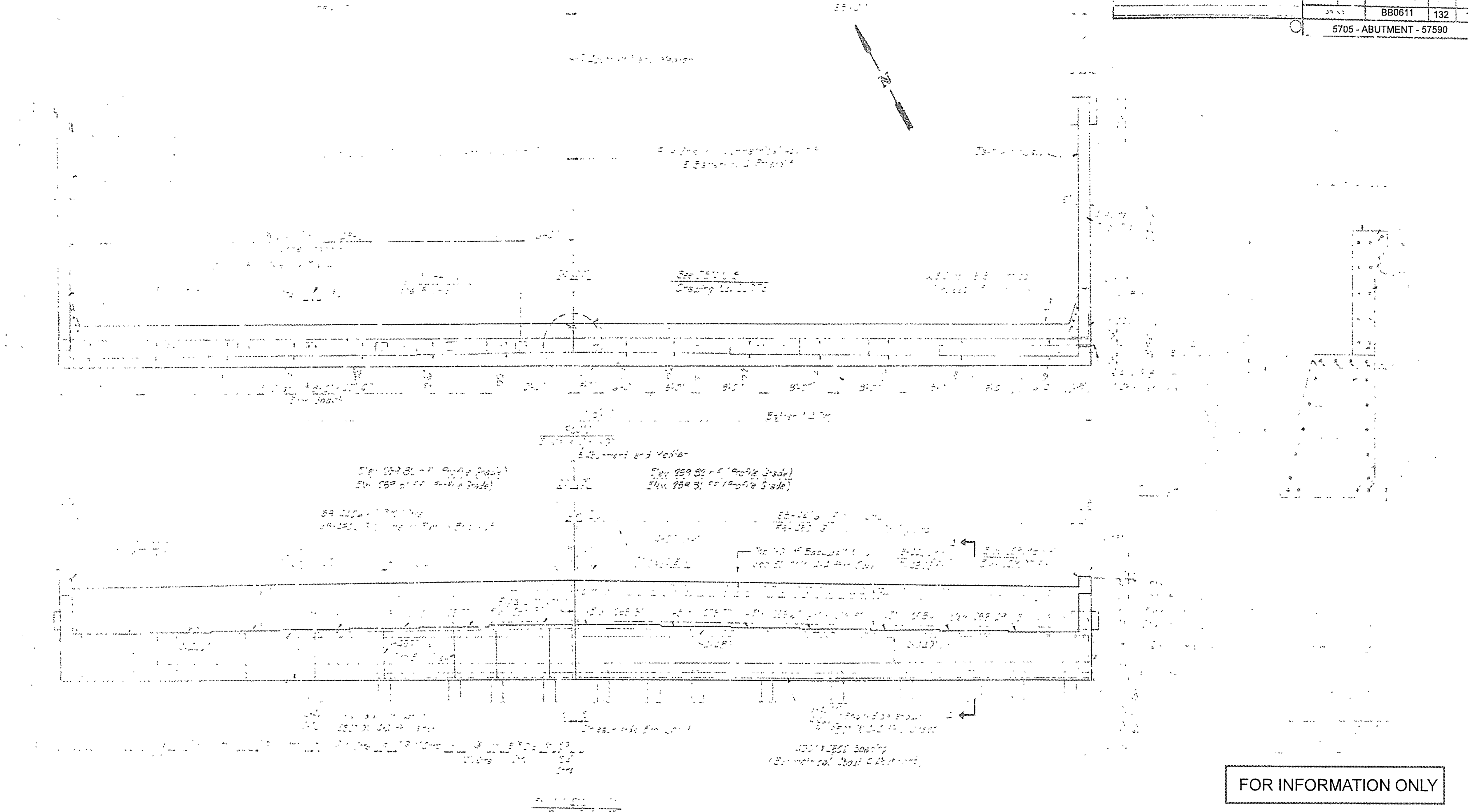
DRAWN BY ____ DATE ____
CHECKED BY ____ DATE ____ SCALE ____
DESIGNED BY ____ DATE ____

BRIDGE ENGINEER

BRIDGE NO. 5705 DRAWING NO. 57589

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE		SHEET NO.	TOTAL SHEETS
3-12-78	12-14-78			6	ARK			
						BB0611	132	169

5705 - ABUTMENT - 57590



FOR INFORMATION ONLY

SHEET 1 OF 2

DETAILS OF NORTH ABUTMENT

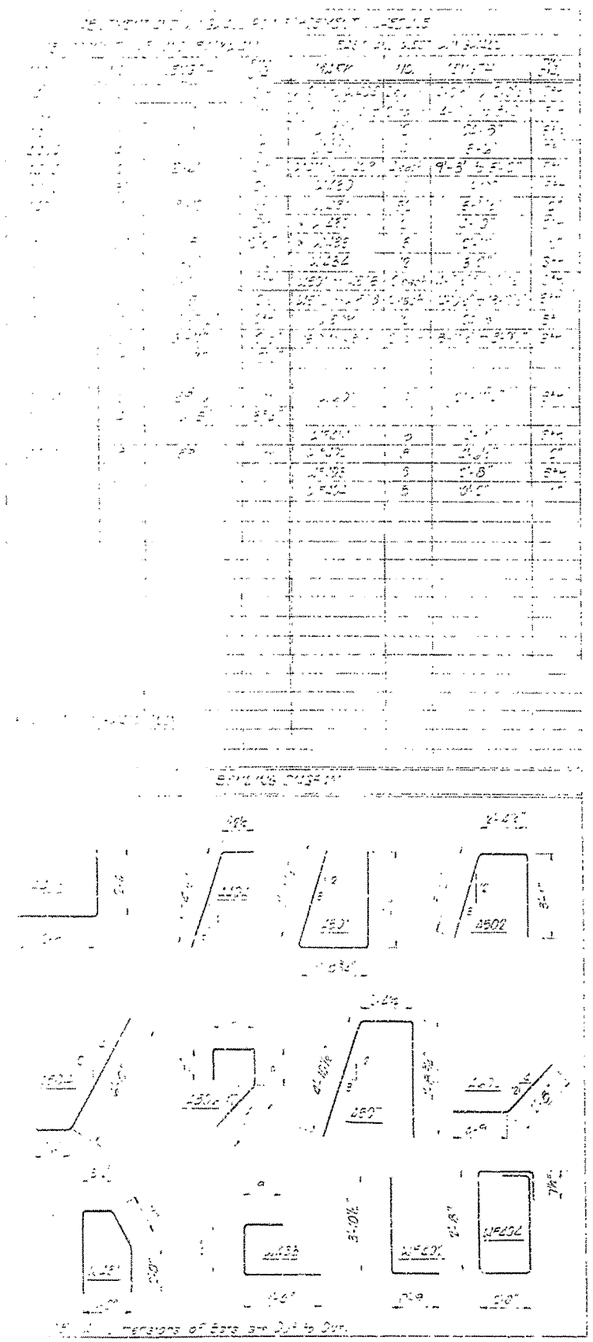
EAST BELT FREEWAY
ARKANSAS RIVER BRIDGE
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY DATE
CHECKED BY DATE SCALE
DESIGNED BY DATE

BRIDGE ENGINEER

BRIDGE NO. 5705 DRAWING NO. 57590



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD NO	STATE	FED AID PROJ NO.	SHEET NO	TOTAL SHEETS
				6	ARK.	[illegible]	27	[illegible]
				JOB NO		BB0611	133	169

① 5705 - DTLS OF NORTH ABUT. - 57591

[illegible]

BENDING DIAGRAM

All Dimensions of Bars are Out to Out.

SECTION C-C
Scale: ¾" = 1'-0
West Wingwall (N. Abut.)
and
East Wingwall (S. Abut.)

NOTE:
W432 and W433 Reinforcement Bars and the Thickened Section as shown in SECTION C-C apply to West Wingwall only.

20" Lap for #4 Bars (MIN)
25" Lap for #5 Bars (MIN)

EAST WINGWALL ELEVATION-WEST WINGWALL OPPOSITE
Scale: ⅜" = 1'-0"

SECTION B-B
Scale: ¾" = 1'-0"

SECTION A-A
FILLET DETAIL
Scale: ¾" = 1'-0"

FOR INFORMATION ONLY

SHEET 2 OF 2

DETAILS OF NORTH ABUTMENT

EAST BELT FREEWAY
ARKANSAS RIVER BRIDGE
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

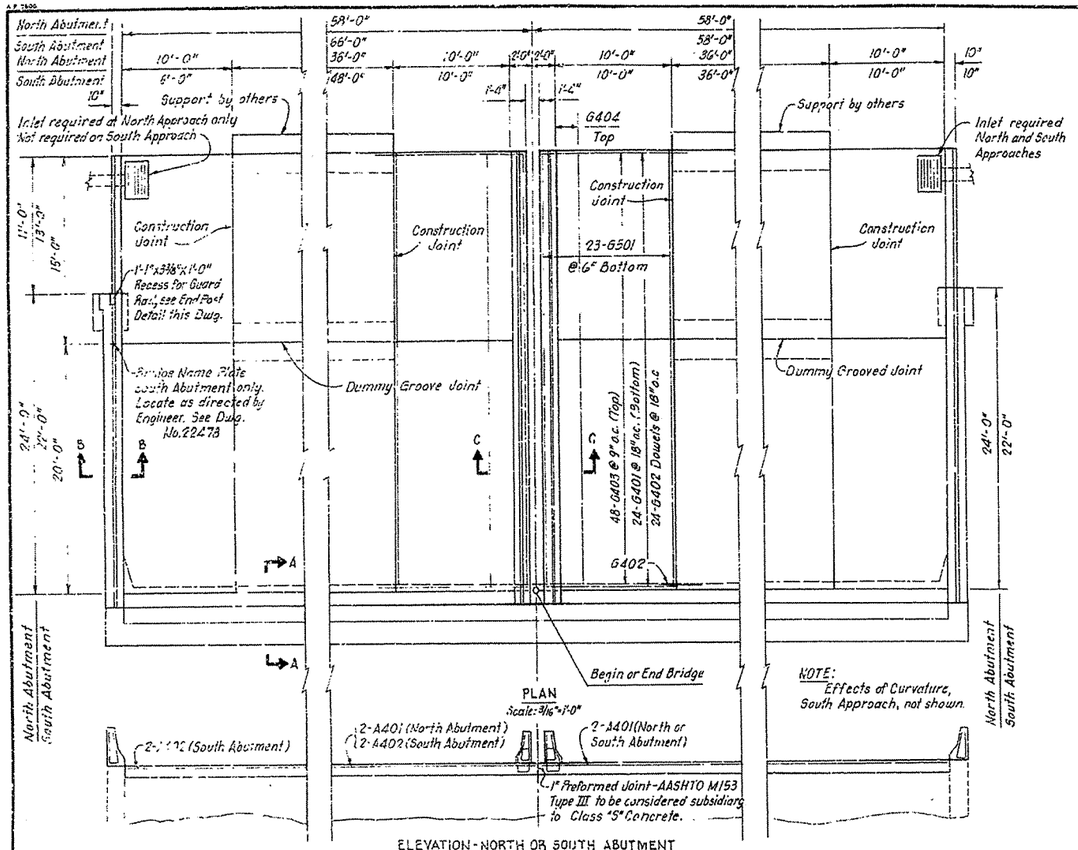
DRAWN BY: ________ DATE: ________
CHECKED BY ________ DATE ________
DESIGNED BY ________ DATE ________
SCALE ________

BRIDGE ENGINEER

BRIDGE NO. 5705
DRAWING NO. 57591

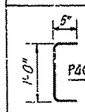
DATE REVISED	DATE REVISED	DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				8	ARK.	MM-051-1(17)	31	57
				JOB NO.		BB0611	134	169

(1) 5705-DTL. ABUT. AP SLB LGT GUT-57592



REINFORCEMENT SCHEDULE					
		NORTH ABUTMENT		SOUTH ABUTMENT	
MARK	PIN. DIA.	NO.	LENGTH	NO.	LENGTH
A401	Str.	4	57'-7½"	2	57'-7½"
A402	Str.	–	–	4	33'-7½"
P401	2"	72	6'-3"	72	6'-3"
P403	2"	122	5'-8½"	118	5'-6½"
P406	Str.	12	24'-8"	12	22'-8"
P407	Str.	12	35'-8"	12	35'-8"
P408	Str.	2	2'-7"	2	2'-7"
P409	2"	4	1'-8"	4	1'-8"
G401	Str.	48	11'-0"	48	11'-0"
G402	Str.	48	3'-0"	48	3'-0"
G403	Str.	96	4'-0"	96	4'-0"
G404	Str.	4	34'-8"	4	34'-8"
G501	Str.	46	34'-8"	46	34'-8"

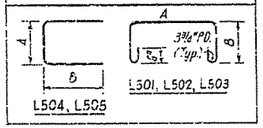
BENDING DIAGRAM

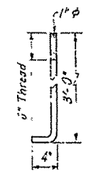


NOTES:
1. Dimensions of Bars are out-to-out.
2. For Bending Diagram of Bars in Railing, see Drawing No. 22515.

BAR LIST FOR ONE LIGHT STANDARD SUPPORT					
MARK	NO. REQ'D	LENGTH	A	B	PIN DIA.
L501	1	4'-7"	1'-2"	1'-2½"	2½"
L502	1	4'-9"	1'-2"	1'-3½"	2½"
L503	1	4'-10"	1'-2"	1'-4"	2½"
L504	1	4'-10"	1'-2"	1'-1"	2½"
L505	2	5'-10"	1'-2"	2'-11"	2½"
L401	4	1'-2"			Str.
L402	2	3'-0"			Str.

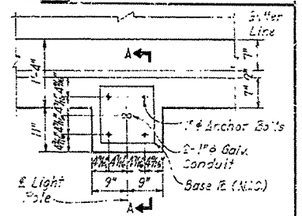
BENDING DIAGRAM

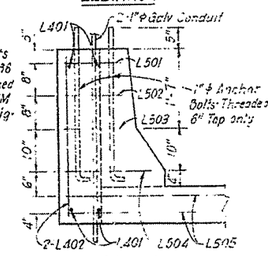




TYPICAL ANCHOR BOLT
(For Light Pole Support)
Scale: None

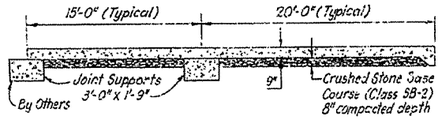
NOTE:
All Anchor Bolts shall be ASTM A36 Steel and galvanized to conform to ASTM specification Designation A153.



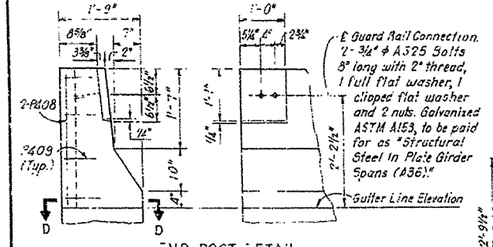


SECTION A-A

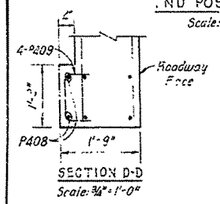
LIGHT STANDARD SUPPORT
Scale: ¾"=1'-0"



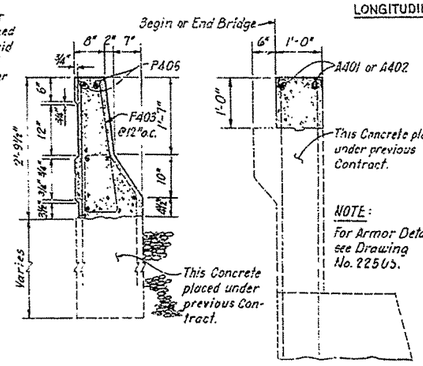
LONGITUDINAL SECTION OF APPROACH SLAB
Scale: None



END POST DETAIL
Scale: 3/4"=1'-0"

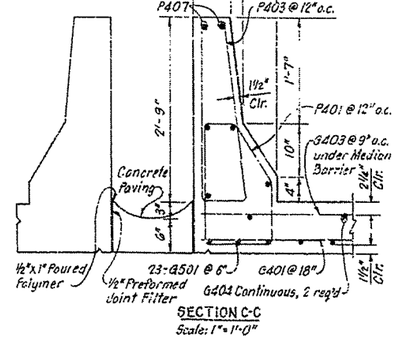


SECTION D-D
Scale: ¾"=1'-0"



SECTION B-B
Scale: 3/4"=1'-0"

SECTION A-A
Scale: ¾"=1'-0"



SECTION C-C
Scale: 1"=1'-0"

NOTES:
1. See Drawing No. 22526 for Details, Dimensions, Bar Lists and Notes not shown on this drawing.
2. Median Barriers and Concrete Paving between adjacent Median Barriers will not be measured for separate payment but will be subsidiary to the Item "Approach Slabs and Gutters."

FOR INFORMATION ONLY

SHEET 1 OF 1

DETAILS OF ABUTMENTS, APPROACH SLABS AND LIGHT STANDARD SUPPORT
EAST BELT FREEWAY
ARKANSAS RIVER BRIDGE
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

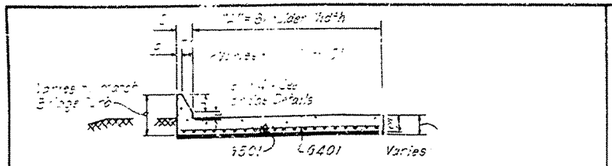
DRAWN BY: G.S.B. DATE: 5-79
CHECKED BY: T.B.M. DATE: 5-79
DESIGNED BY: J.W.S. DATE: 5-79
SCALE: As Noted

BRIDGE ENGINEER

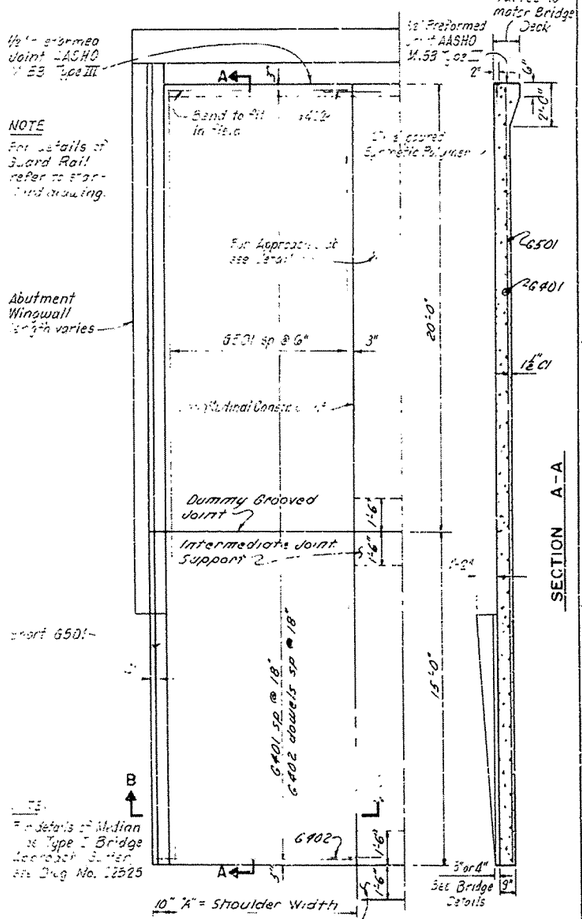
BRIDGE NO. 5705 DRAWING NO. 57592

DATE REVISED	DATE PLOTTED	DATE REVISED	DATE PLOTTED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				8	ARK.	[illegible]	62	57
				JOB NO.		BB0611	135	169

1 5705-DTL. STD. AP SLB AND GUT-57593



SECTION B-B



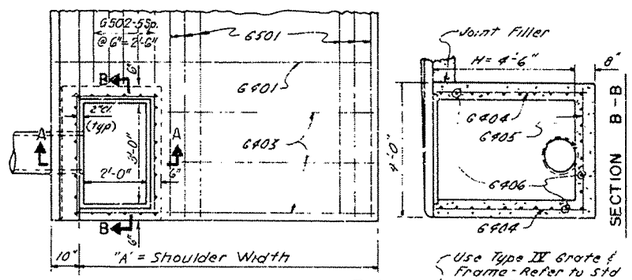
PLAN

BAR LISTS FOR ONE GUTTER

10'-0" SHOULDER			8'-0" SHOULDER			6'-0" SHOULDER		
MARK	NO. REQ'D	LENGTH	MARK	NO. REQ'D	LENGTH	MARK	NO. REQ'D	LENGTH
G401	24	3'-8" or 4'-6"	G401	22	3'-8" or 5'-6"	G401	24	5'-8" or 6'-6"
G402	24	10'-0"	G402	24	8'-0"	G252	24	3'-0"
G501	25	34'-8"	G501	12	34'-8"	G501	12	34'-8"

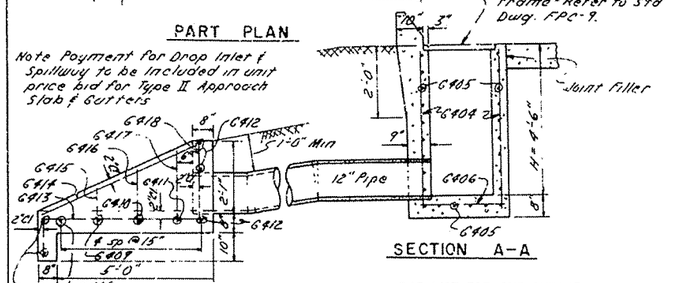
TYPE I BRIDGE APPROACH GUTTER
ABUTMENT WINGWALL SIDE ONLY

Note Joint Filler around Drop Inlet to be non-extruding preformed Joint Filler (AASHO M153 TYPE III).

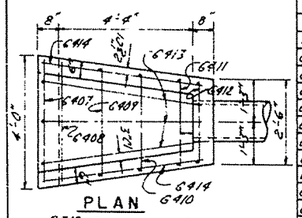


PART PLAN

Note Payment for Drop Inlet & Spillway to be included in unit price bid for Type II Approach Slab & Gutters



SPILLWAY OUTLET



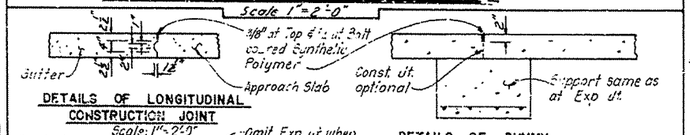
BAR LIST FOR ONE GUTTER

MK	No Req'd 10'-0" Sh	No Req'd 8'-0" Sh	No Req'd 6'-0" Sh	Length	Bending Diagram
G401	21	21	21	A-4" or A+6"	
G402	24	24	24	3'-0"	
G403	3	3	3	A-(3'-1")	
G404	24	24	24	4'-10"	
G405	24	24	24	3'-8"	
G406	26	26	26	2'-8"	
G407	2	2	2	3'-8"	
G408	1	1	1	3'-5"	
G409	1	1	1	3'-1"	
G410	1	1	1	2'-9"	
G411	1	1	1	2'-5"	
G412	3	3	3	2'-2"	
G413	3	3	3	6'-5"	5'-8", 12", 2" p of G413
G414	2	2	2	5'-9"	
G415	2	2	2	1'-2"	
G416	2	2	2	1'-8"	
G417	2	2	2	2'-2"	
G418	2	2	2	2'-5"	
S501	14	10	6	34'-8"	
S502	6	6	6	30'-8"	

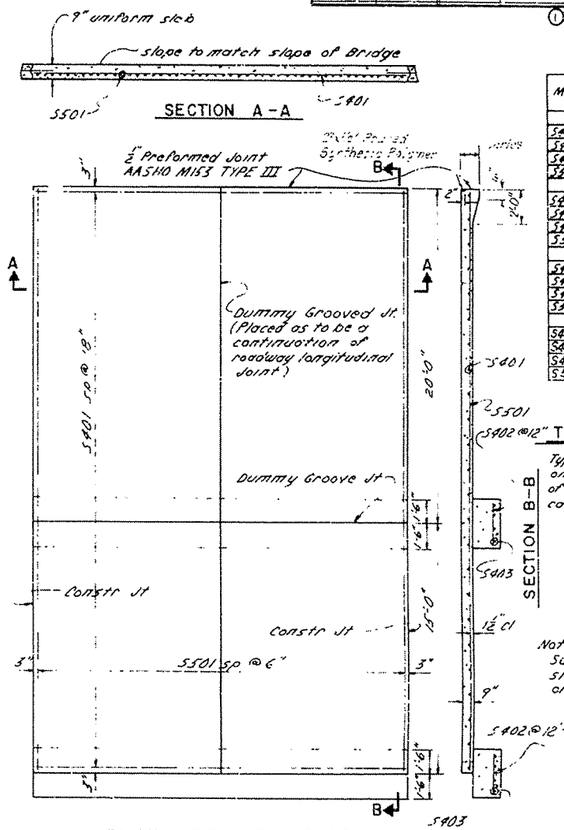
Note: For details not shown refer to Type I Bridge Approach Gutters

TYPE II BRIDGE APPROACH GUTTERS

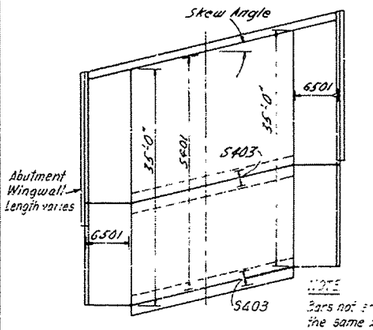
Scale 1"=2'-0"



NOTES:
Omit support at longitudinal dummy grooved joint.
Joint Material - Completely fill joint to within 1" of pavement surface as per Subsection 501.03.(3)(1)



PLAN-APPROACH SLAB
Scale 1"=4'



Bars not shown are the same as for square Bridge

SKETCH SHOWING APPROACH FOR SKEWED BRIDGE
Scale: 1"=10'

BRIDGE ENGINEER

BAR LISTS
SQUARE & SKEWED SLABS

MK	No Req'd	Length
		22'-0" Slab Width
S401	24	21'-6" (Secant Skew &)
S402	48	2'-6"
S403	8	21'-6" (Secant Skew &)
S501	44	34'-6"
		24'-0" Slab Width
S401	24	23'-6" (Secant Skew &)
S402	48	2'-6"
S403	8	23'-6" (Secant Skew &)
S501	48	34'-6"
		36'-0" Slab Width
S401	24	35'-6" (Secant Skew &)
S402	72	2'-6"
S403	8	35'-6" (Secant Skew &)
S501	72	34'-6"
		48'-0" Slab Width
S401	24	47'-6" (Secant Skew &)
S402	96	2'-6"
S403	8	47'-6" (Secant Skew &)
S501	96	34'-6"

TYPE III BRIDGE APPROACH

Type III Approach consists of one half of Type I & one half of Type II. Use whenever called for on the Plans

GENERAL NOTES

CONCRETE SHALL BE CLASS S OR CLASS S(AE) OR MIXTURE USED FOR PORTLAND CEMENT CONCRETE PAVEMENT.

REINFORCEMENT STEEL SHALL CONFORM TO ASTM A615 OR A617.

APPROACH SLABS AND GUTTERS FOR STRUCTURES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH BID FOR "APPROACH GUTTERS" OR "APPROACH SLABS AND GUTTERS", OF THE TYPE DESIGNATED, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING MATERIALS, INCLUDING CONCRETE, REINFORCING STEEL AND JOINT FILLER; PLACEMENT AND COMPACTION OF BASE MATERIAL; FOR FORMS, MIXING, PLACING, CURING AND FINISHING; FOR EXCAVATION AND BACKFILL; AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

CORRUGATED METAL PIPE FOR SPILLWAYS, COMPLETED AND ACCEPTED, WILL BE MEASURED AS PROVIDED IN SECTION 606 OF THE STANDARD SPECIFICATIONS EDITION OF 1978.

FOR INFORMATION ONLY

SHEET 1 OF 1

DETAILS OF STANDARD APPROACH SLABS & GUTTERS FOR CONCRETE PARAPET RAILING

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

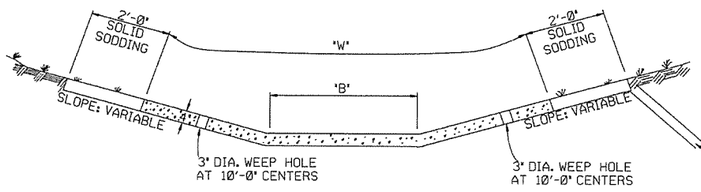
LITTLE ROCK, ARK.

DRAWN BY: J.L.B. DATE: 5-70
DESIGNED BY: J.W.B. DATE: 5-70
CHECKED BY: R.L.C. DATE: 5-70

SCALE: as noted

BRIDGE NO. 5705 DRAWING NO. 57593

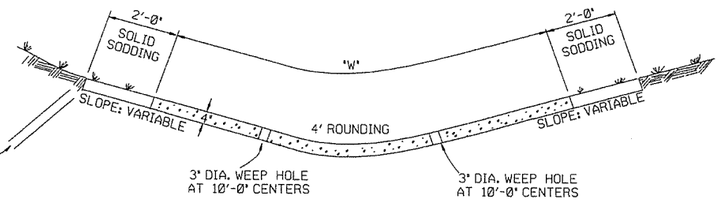
REFER TO TABULATION OF QUANTITIES FOR 'W' & 'B' DIMENSIONS



EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.

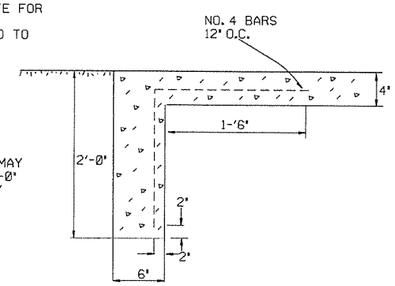
TYPE A

REFER TO TABULATION OF QUANTITIES FOR 'W' DIMENSIONS



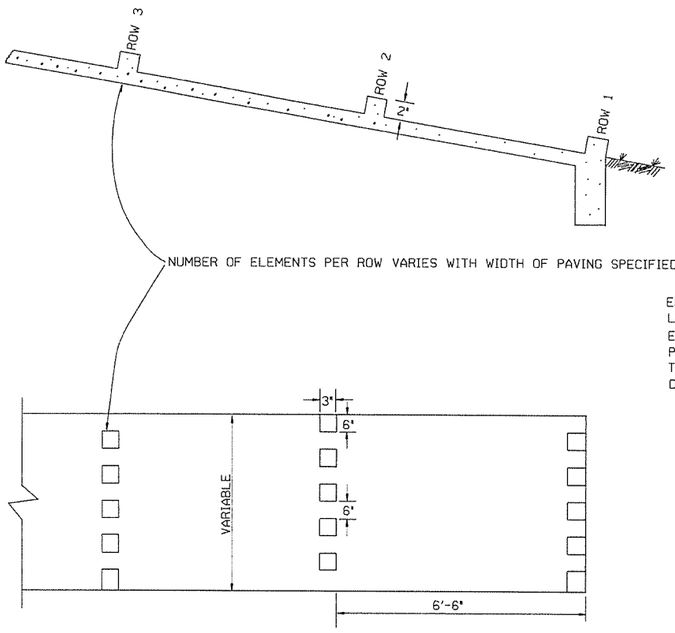
TYPE B

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
(NO SCALE)

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.

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.

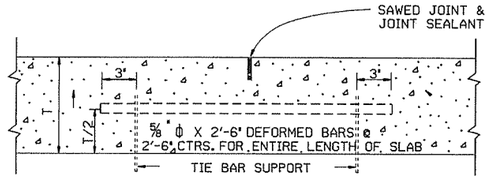
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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

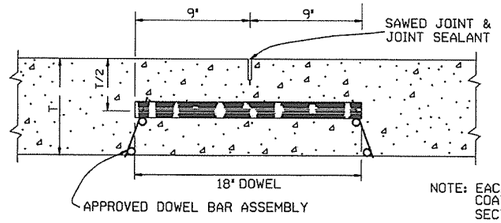
CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1



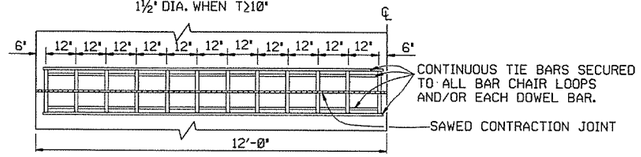
LONGITUDINAL JOINT

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.

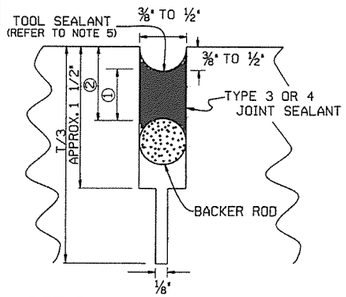
ROUND STEEL BAR DOWEL
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



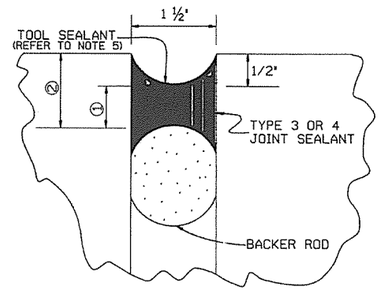
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

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



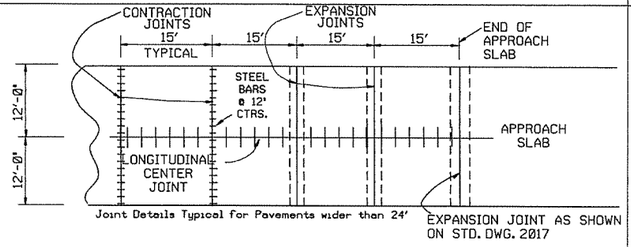
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

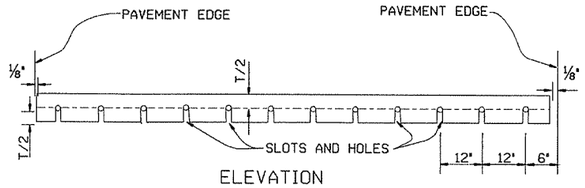
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
⅝	⅜	¾	⅝
¾	⅜	⅞	⅞
1 ½	¾	2	1 ¼

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

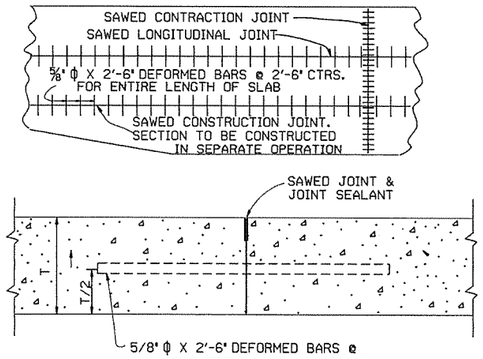


PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



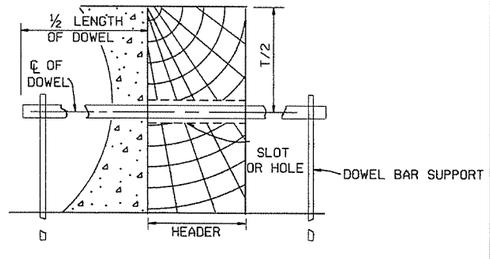
ELEVATION

NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.



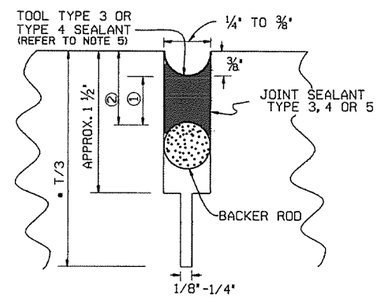
NOTE: TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



SECTION

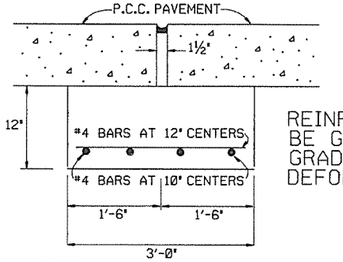
TRANSVERSE CONSTRUCTION JOINT



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

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT

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



REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS

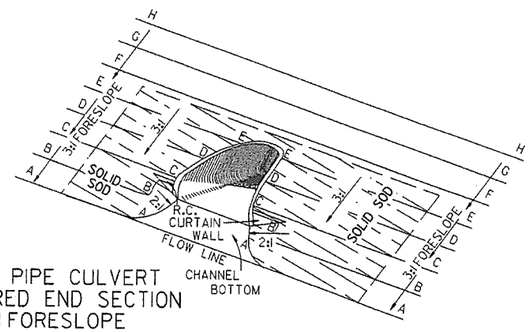
GENERAL NOTES

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.

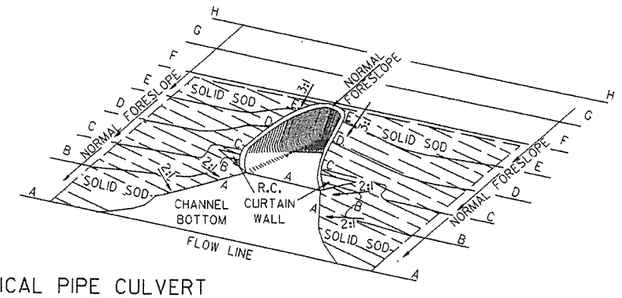
ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

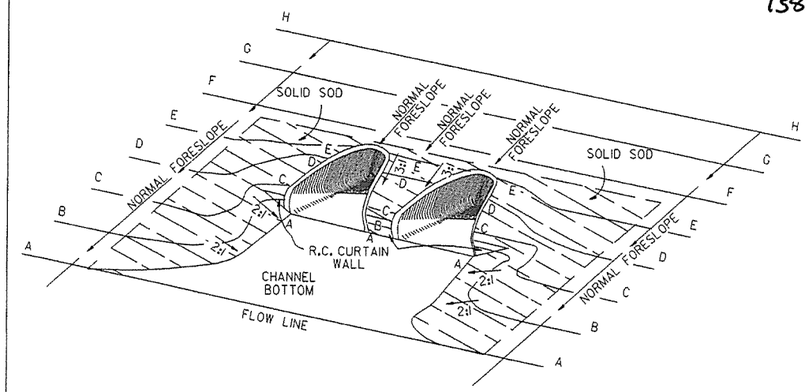
STANDARD DRAWING CPTJ - 6A



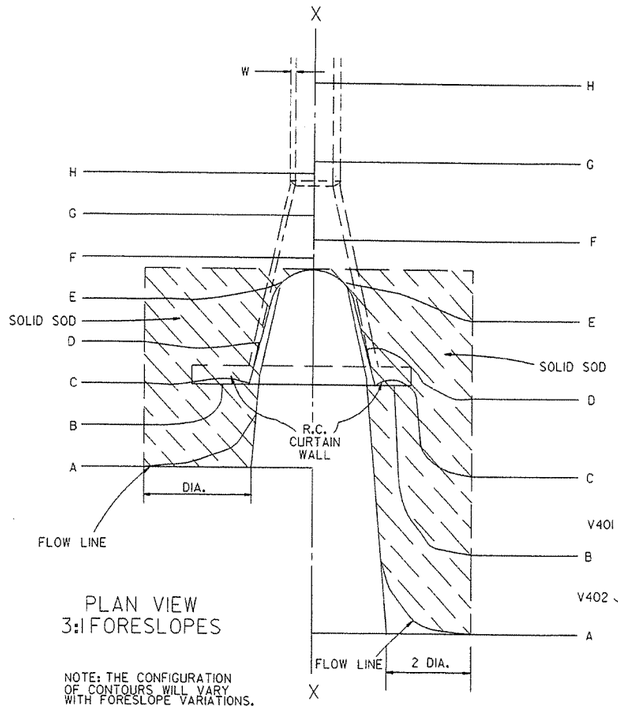
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



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



PLAN VIEW
3:1 FORESLOPES

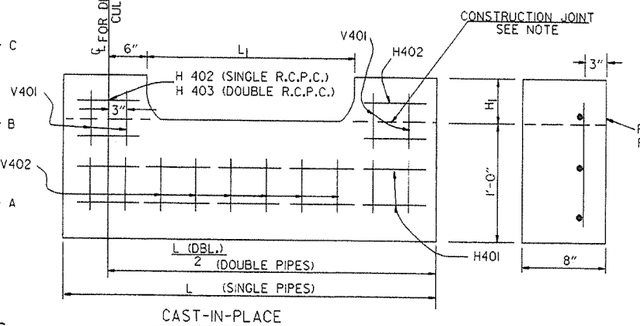
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

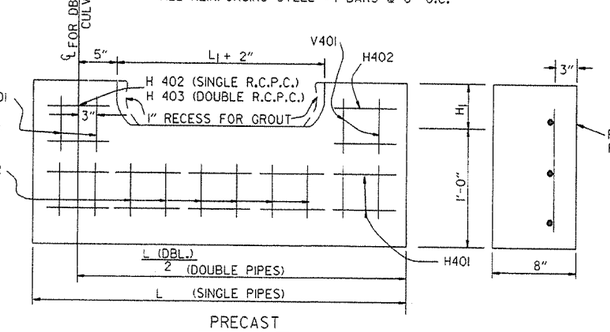
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	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.



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.

R.C. CURTAIN WALL DETAILS

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT											
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	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.

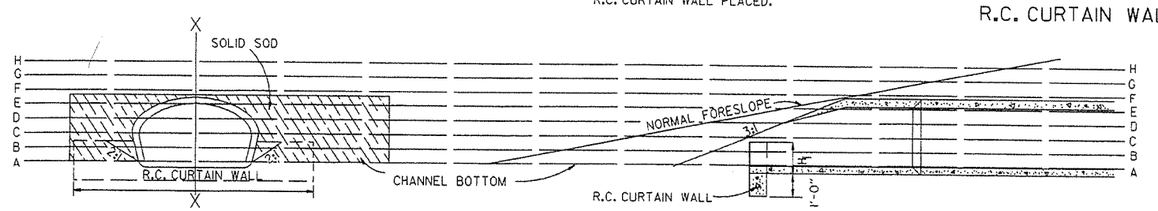
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.			DOUBLE R.C.P.C.		
	3:1	4:1	6:1	3:1	4:1	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 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

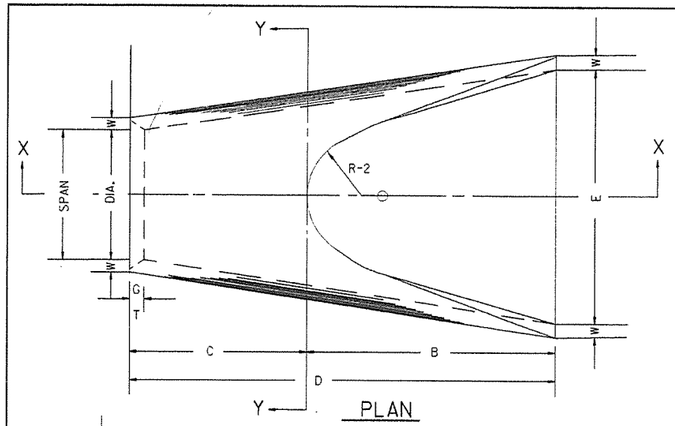
SECTIONAL VIEW "X-X"

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



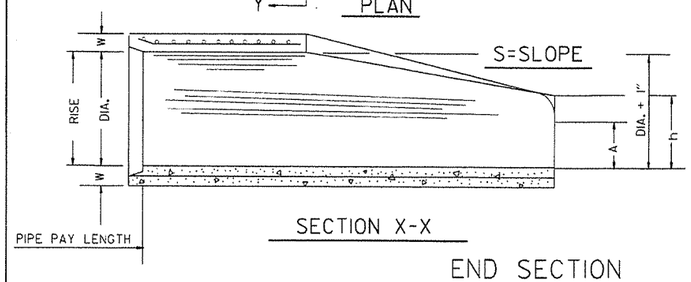
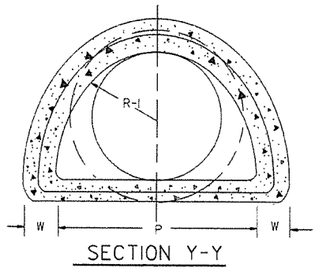
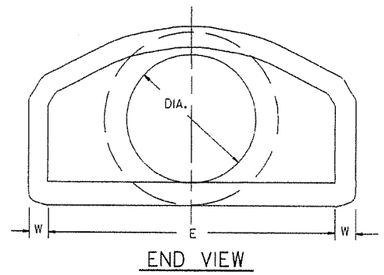


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-11½"	4'-0"	3:1	25"	33 3/16"	16 15/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3:1	37"	47 11/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅛"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28⅛"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 11/16"	38 5/16"	24"	5"	13250	4'-6"



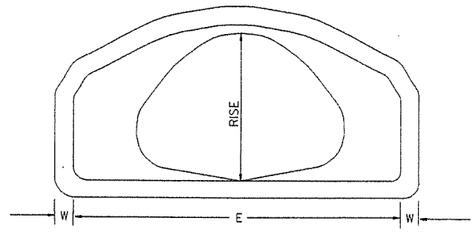


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

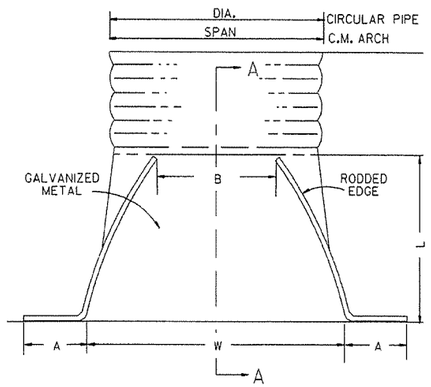
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 11/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 11/16"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54⅝"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 13/16"	24"	5"	2¼:1

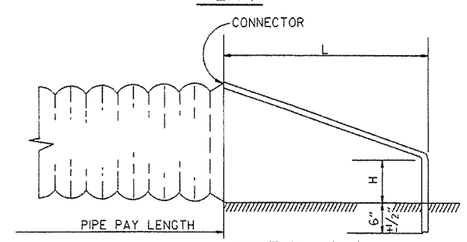
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

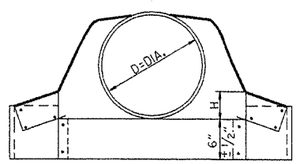


END VIEW
CONCRETE ARCH PIPE

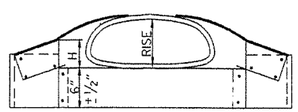
END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS







CIRCULAR PIPE



C.M. ARCH PIPE

CIRCULAR PIPE

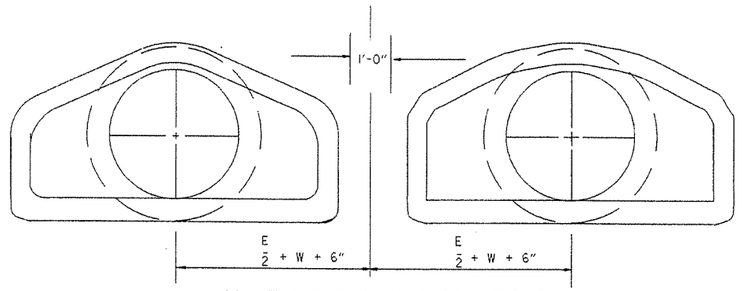
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

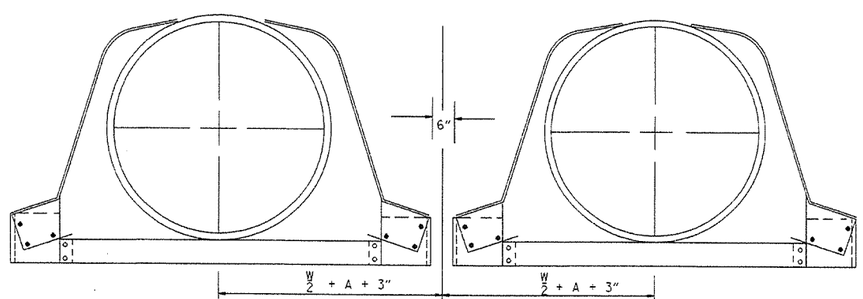
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

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

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

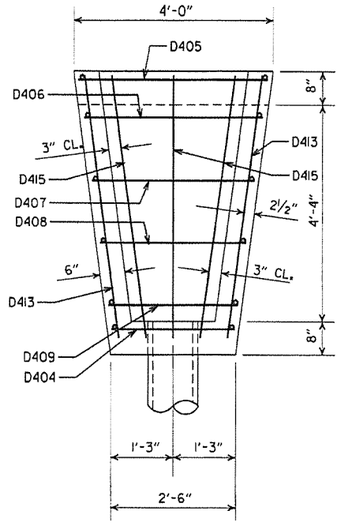
DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
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

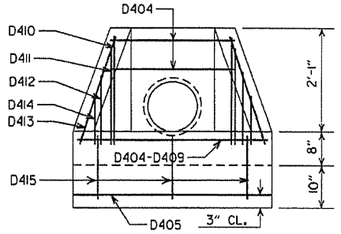
stdfes2.dgn



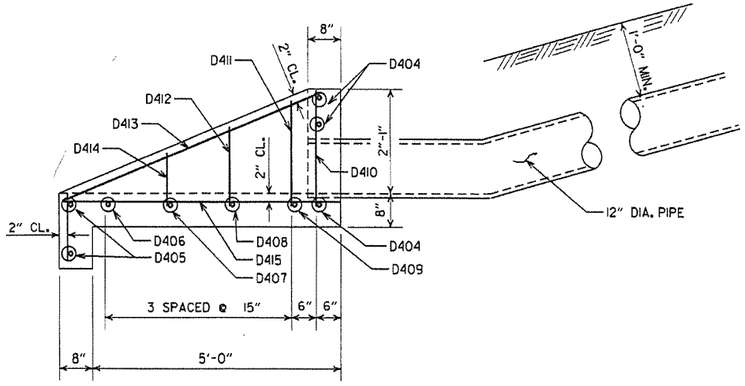
PLAN

BAR LIST (CONCRETE SPILLWAY)

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
D404	3	2'-2"	
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"	5'-4", 1'-2", 2" P.D., D415

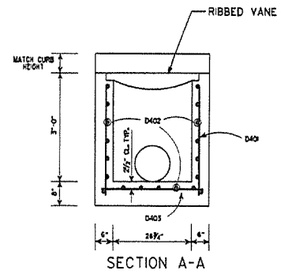


FRONT ELEVATION



SIDE ELEVATION
CONCRETE SPILLWAY

DETAILS OF CONCRETE SPILLWAY (TYPE A)

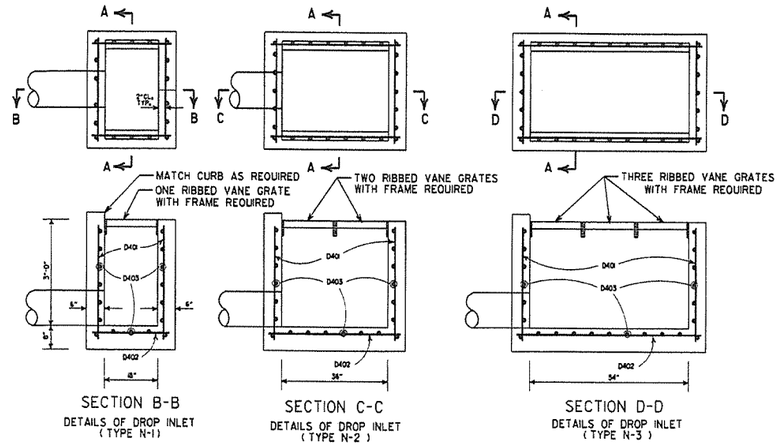


SECTION A-A

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)

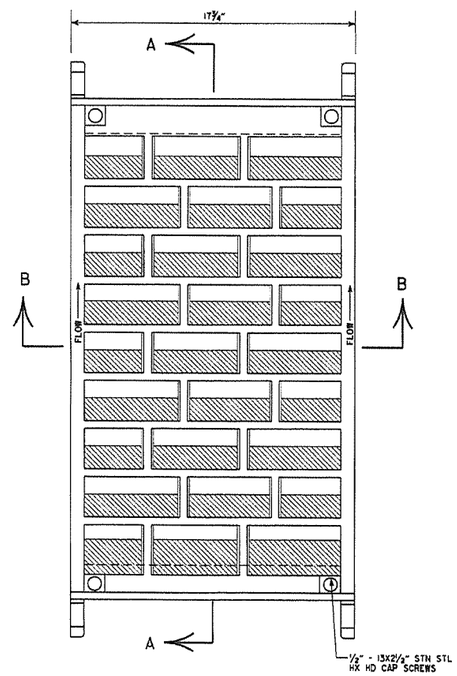
SECTION C-C
DETAILS OF DROP INLET
(TYPE N-2)

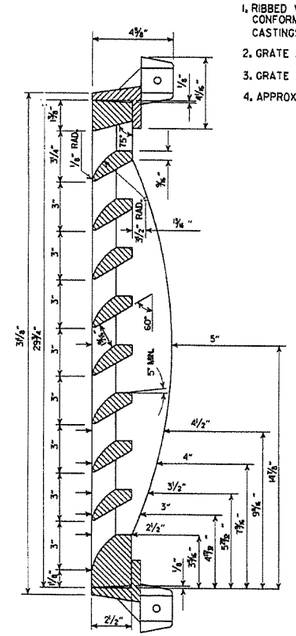
SECTION D-D
DETAILS OF DROP INLET
(TYPE N-3)

DETAILS OF DROP INLET

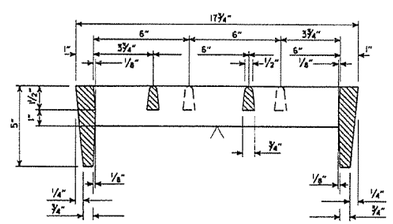
GENERAL NOTES (GRATE & FRAME)

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.

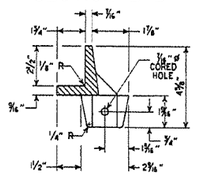




SECTION A-A



SECTION B-B



SECTION THRU FRAME

DETAILS OF RIBBED VANE GRATE AND FRAME

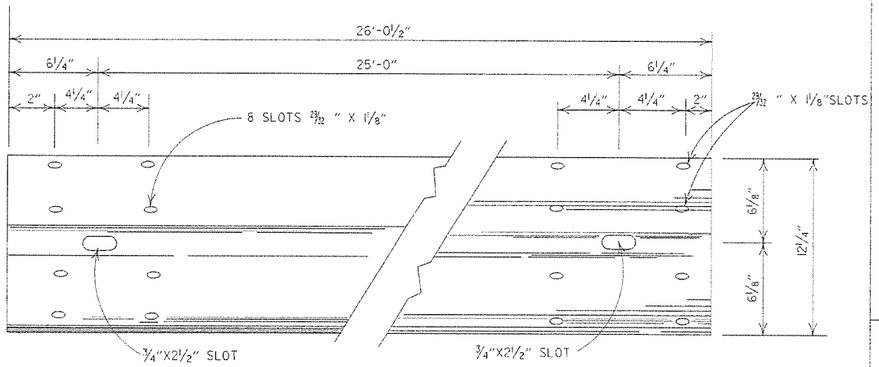
DATE REVISED	DATE FILMED	DESCRIPTION
7-02-98	7-2-98	REVISED SECT. A-A DETAIL OF DROP INLET & ADDED AASHTO REF. TO NOTE 1. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
8-15-91		ISSUED

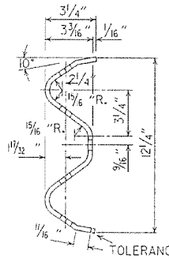
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS AND SPILLWAY OUTLET

STANDARD DRAWING FPC-9N

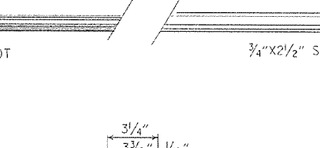
STDfpc9N.DGN



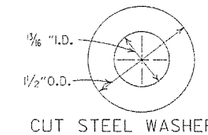


DETAILS OF
W-BEAM GUARD RAIL

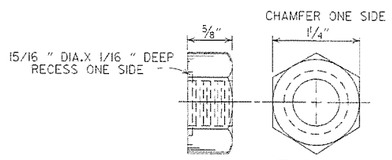
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



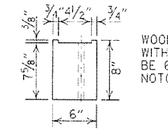
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

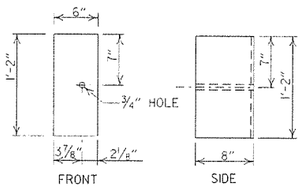


NUT

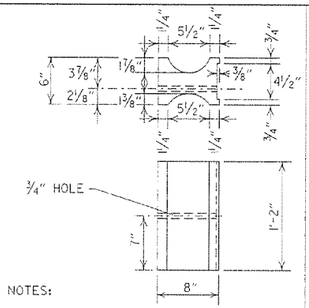


WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

TOP



WOOD BLOCKOUT
(W-BEAM)

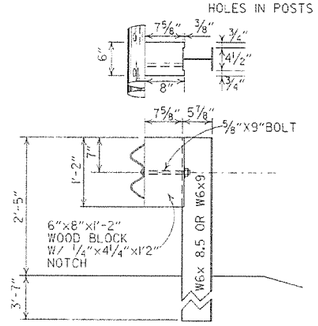


NOTES:

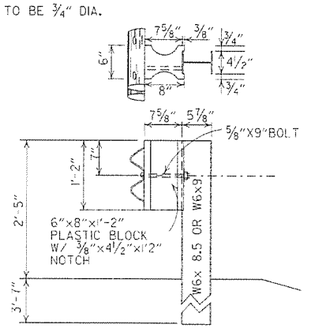
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT
(W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.

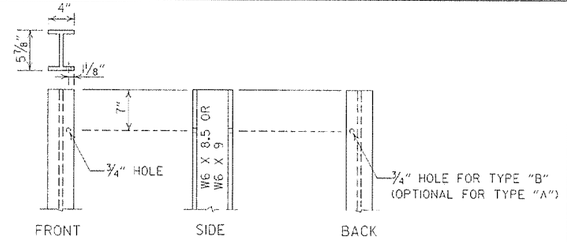


WOOD BLOCKOUT CONNECTIONS

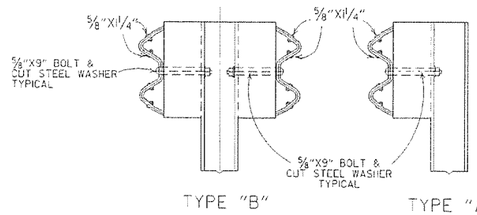


PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)



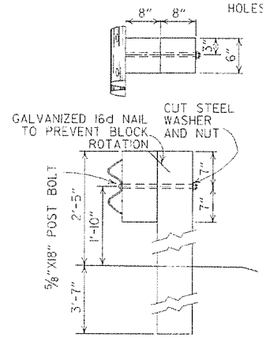
STEEL POST



TYPE "B" TYPE "A"

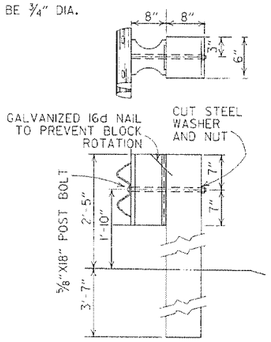
DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - 1/4".

WOOD BLOCKOUT CONNECTIONS



PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS
(W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

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

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

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

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

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

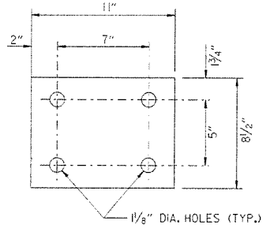
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
4-16-03	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

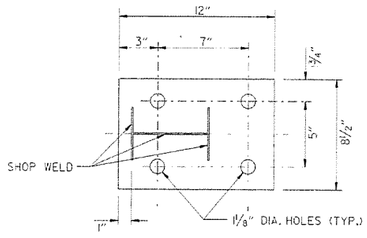
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8

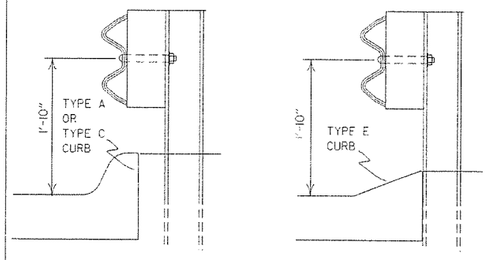


WASHER PLATE



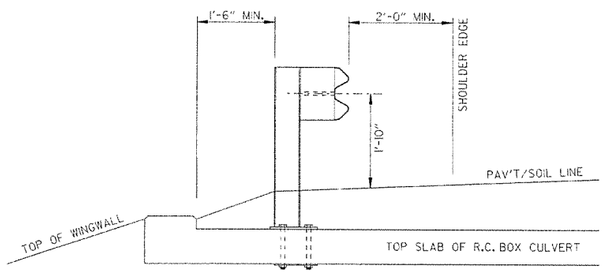
BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.

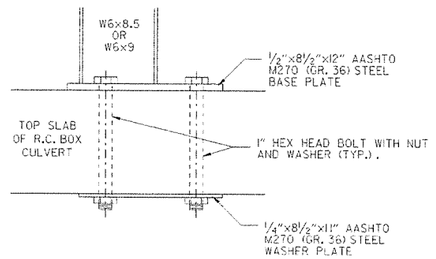


DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

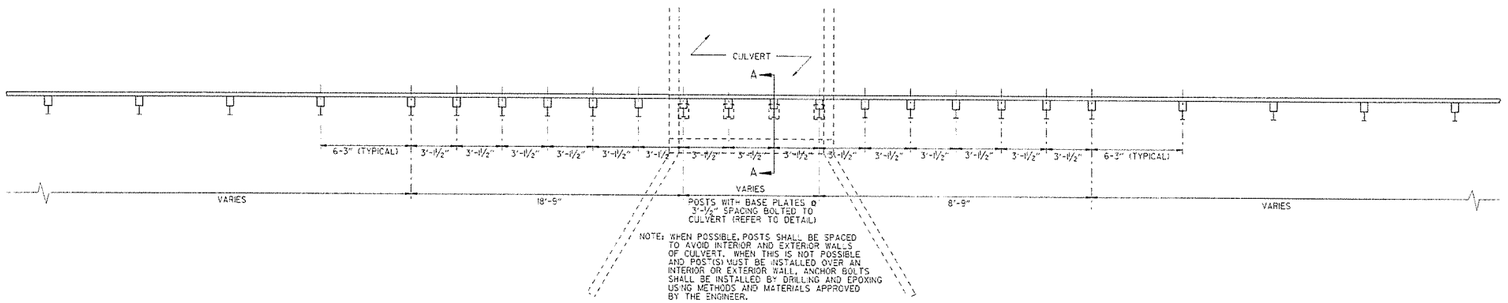
FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.



SECTION A-A



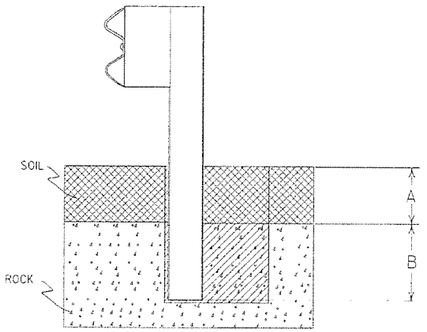
DETAIL OF CONNECTION



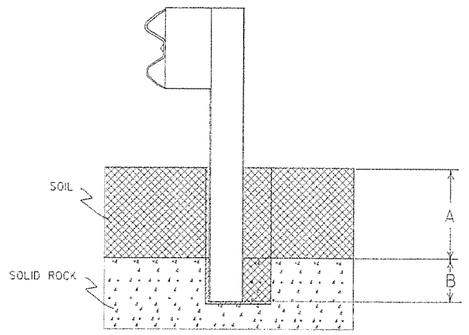
PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

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.

Case 1

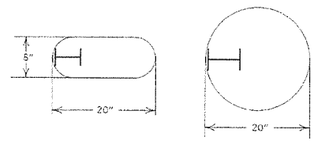


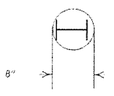
Case 2



Plan View Steel Posts

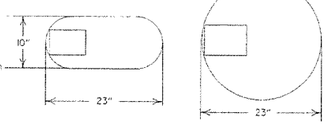
Either hole configuration acceptable

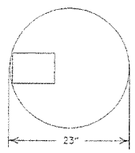


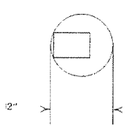


Plan View Wood Posts

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)

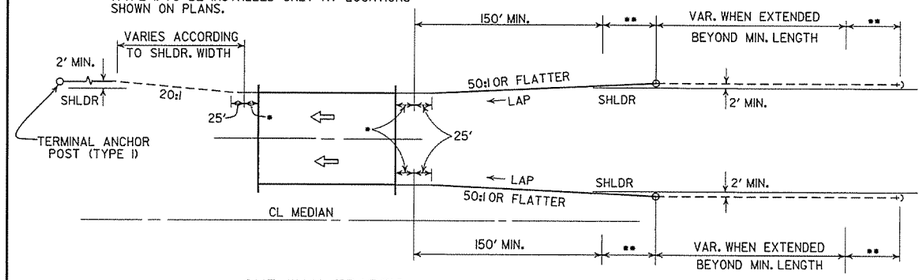
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
4-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
6-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULVT. 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

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

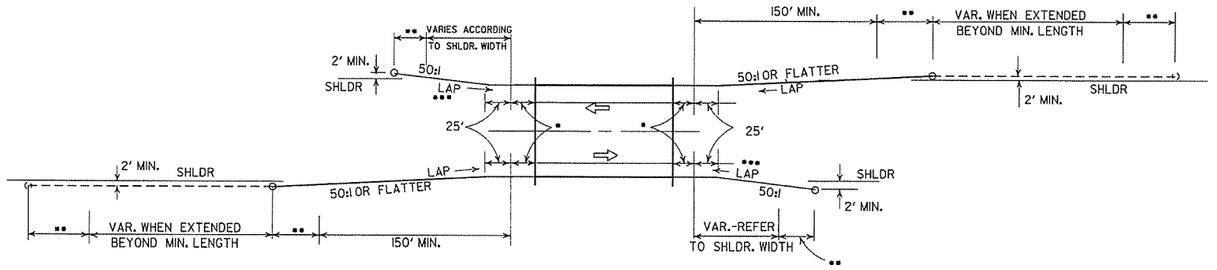
STANDARD DRAWING GR-8A

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

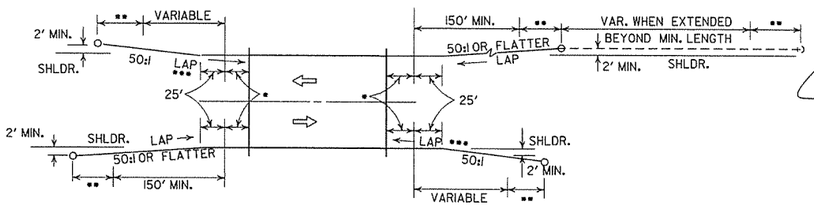
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

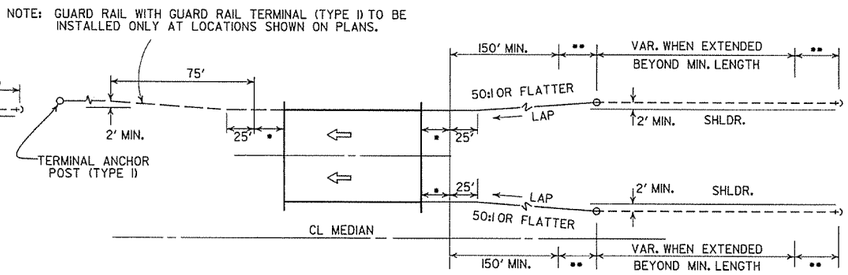
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• 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

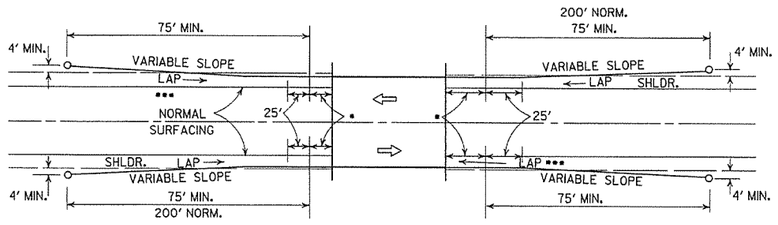
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



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.



METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

LEGEND

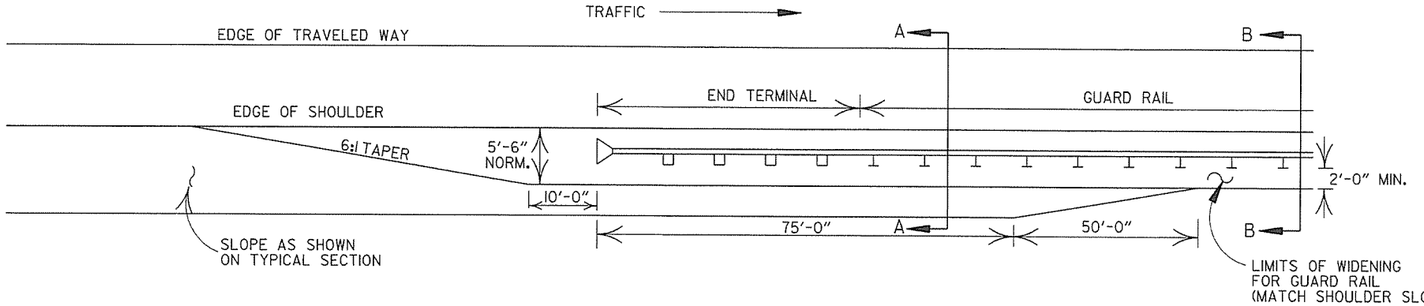
- ▪ THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

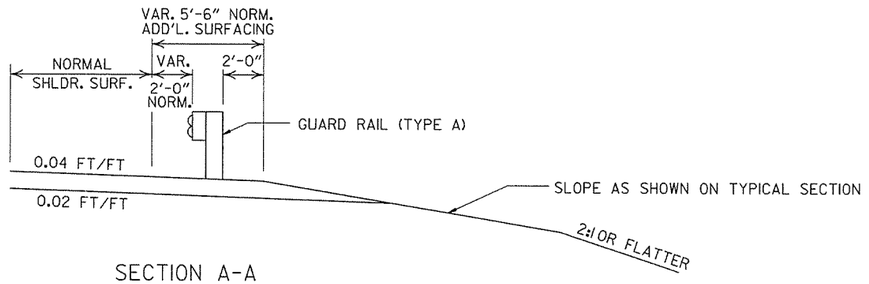
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

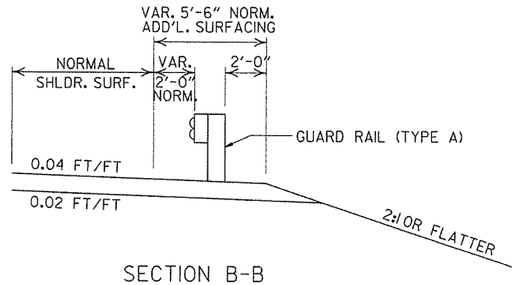
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





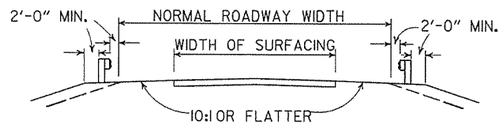
SECTION A-A



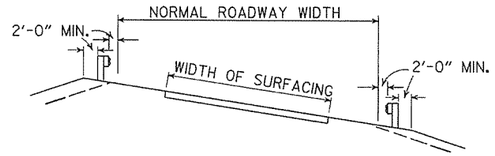
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

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

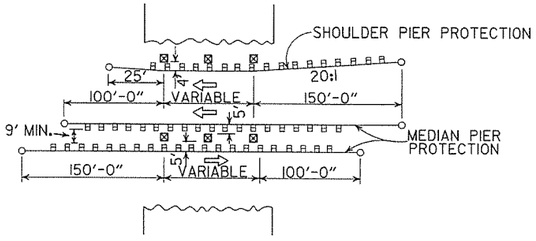


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



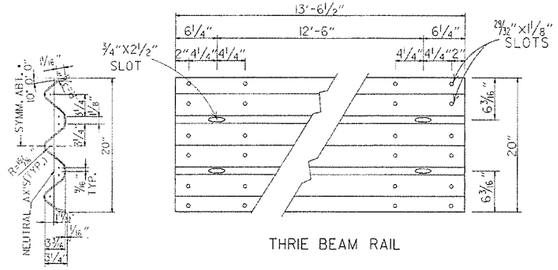
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

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

ARKANSAS STATE HIGHWAY COMMISSION

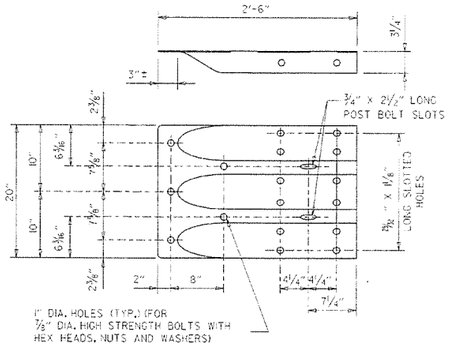
GUARD RAIL DETAILS

STANDARD DRAWING GR-9A



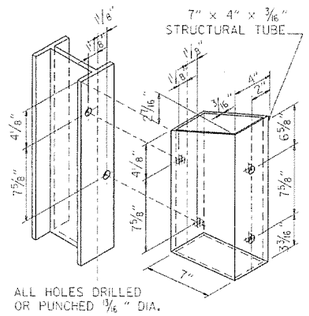
THRIE BEAM RAIL

SECTION THRU
THRIE BEAM RAIL



1" DIA. HOLES (TYP.) FOR
⅞" DIA. HIGH STRENGTH BOLTS WITH
HEX HEADS, NUTS AND WASHERS)

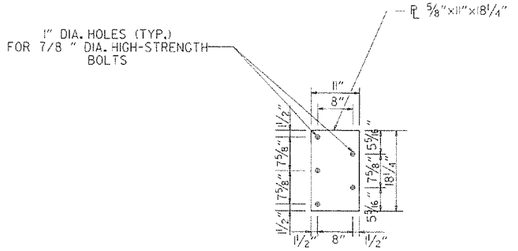
SPECIAL END SHOE



ALL HOLES DRILLED
OR PUNCHED ⅜" DIA.

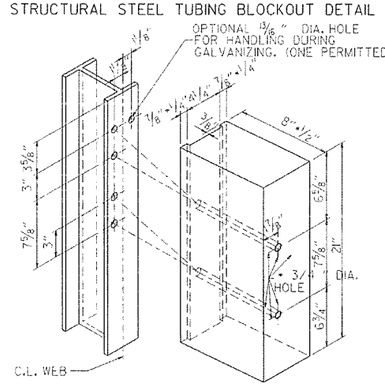
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL

ATTACH BLOCKOUT TO POST USING
⅝" DIA. HEX HEAD BOLTS WITH 1½"
O.D. CUT STEEL WASHERS AND NUT.



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.

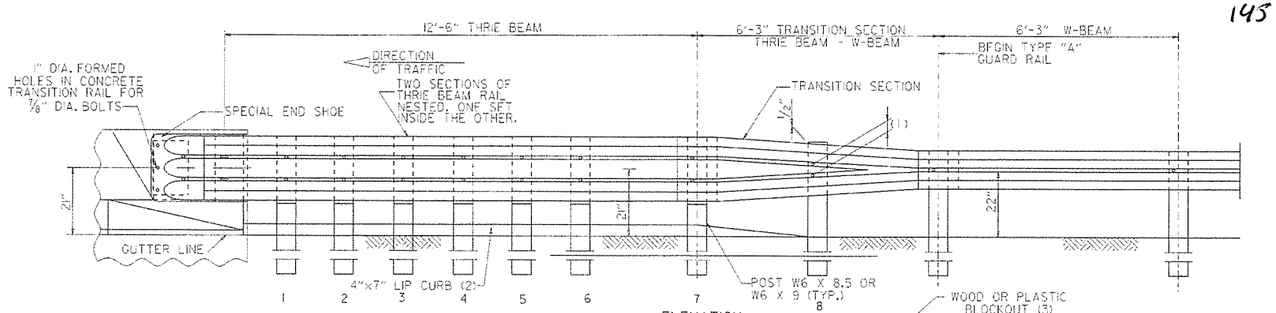


ALL HOLES ⅜" DIAMETER EXCEPT AS NOTED

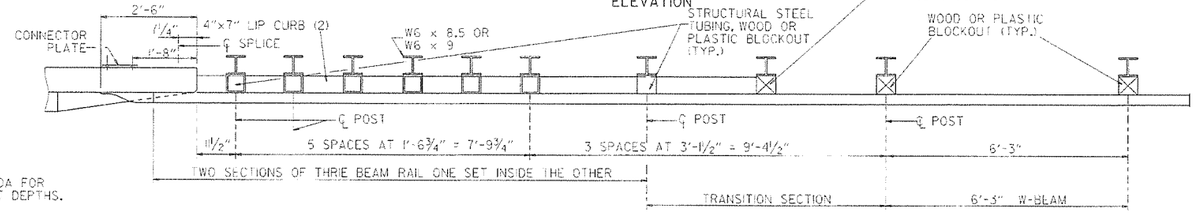
HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD
OR PLASTIC BLOCKOUTS

NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.

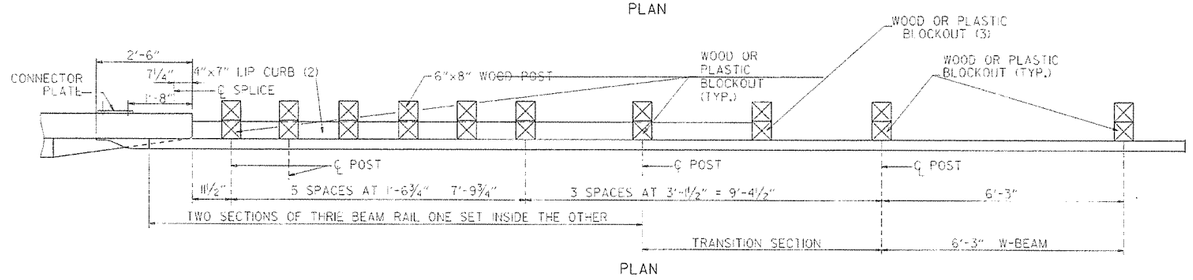
NOTE:
SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.



ELEVATION



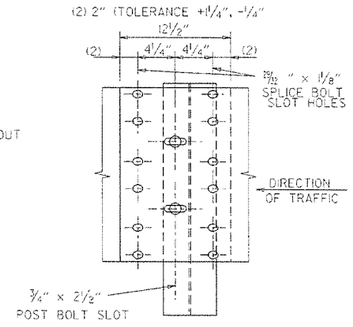
PLAN



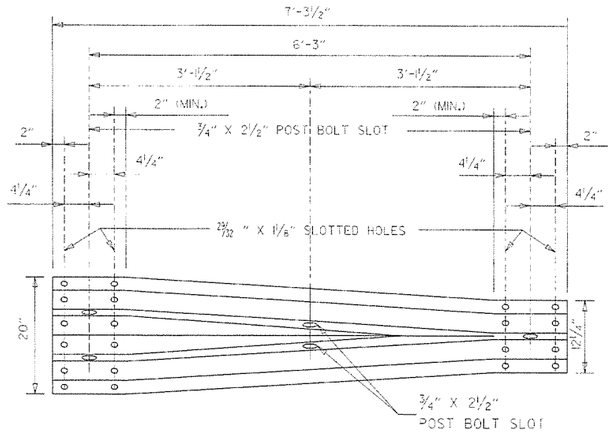
PLAN

(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 II.

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.

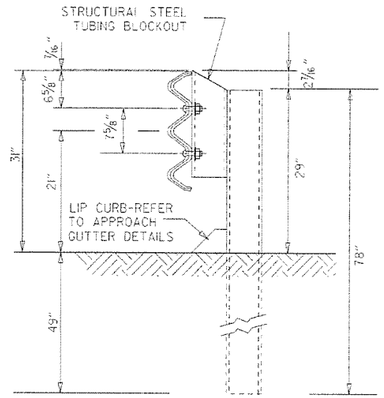
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W BEAM POSTS FOR ENTIRE JOB.

DATE	REVISION	DATE FILM
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	

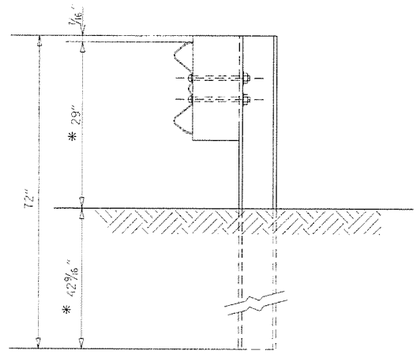
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

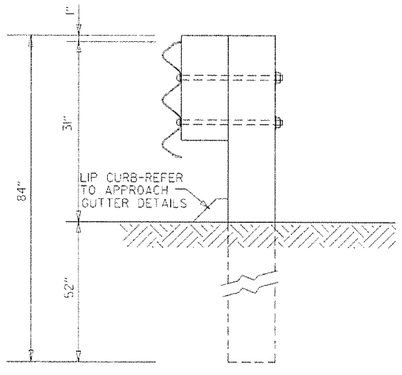


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

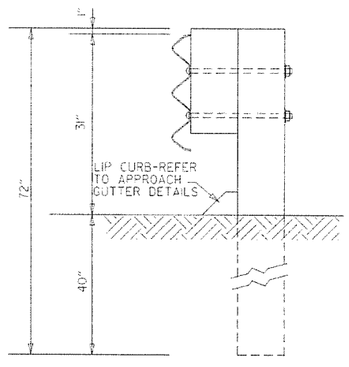


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

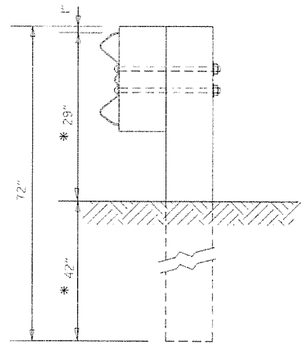
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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.

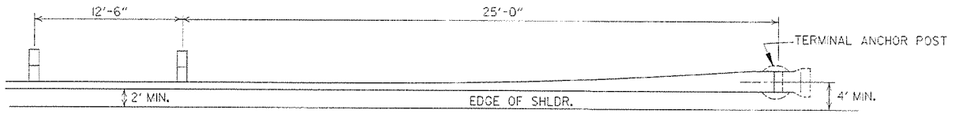
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	DATE FILM
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	

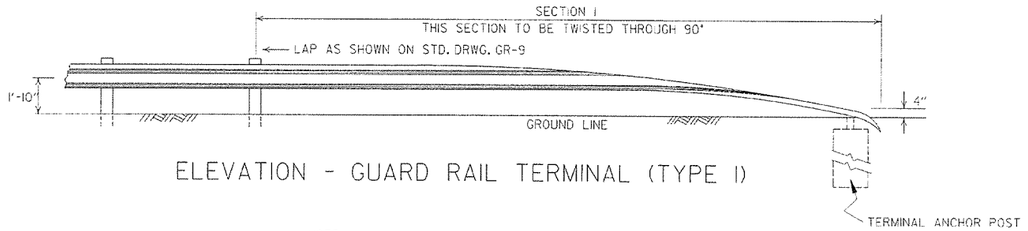
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

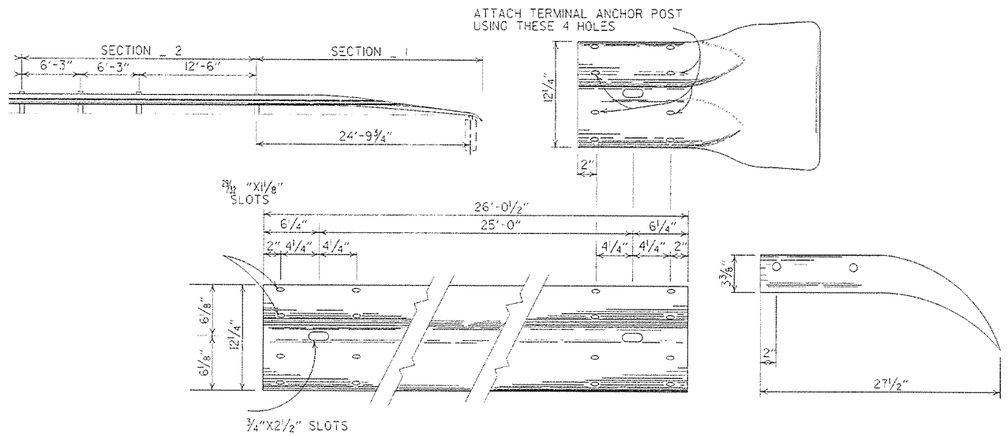


PLAN - GUARD RAIL TERMINAL (TYPE I)



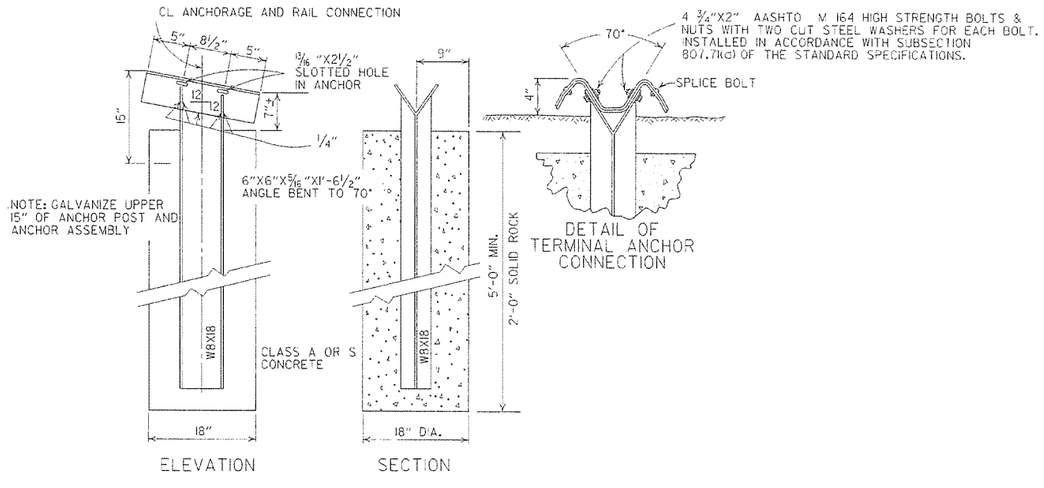
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

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



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.

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.

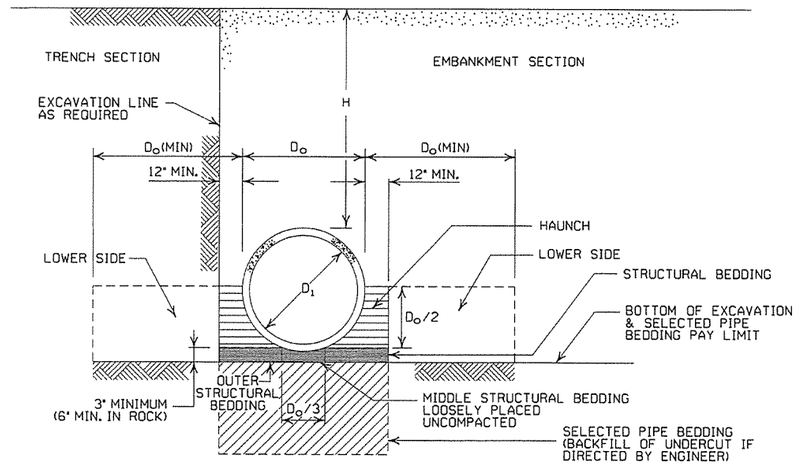
- LEGEND -

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.



EMBANKMENT AND TRENCH INSTALLATIONS

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

GENERAL NOTES

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

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

	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.

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.

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.

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.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① 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			ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	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			
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM					
				INSTALLATION TYPE 2	INSTALLATION TYPE 1		INSTALLATION TYPE 2	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

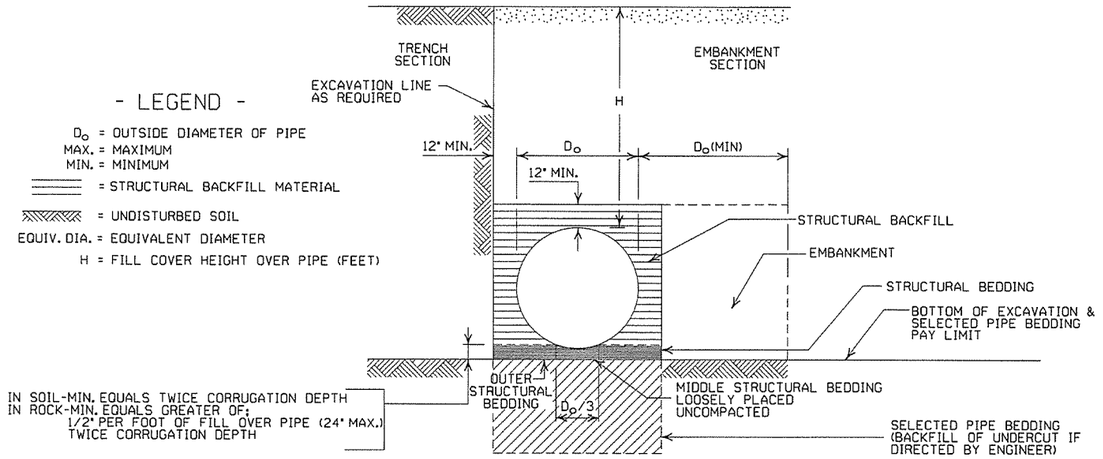
③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8

- 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)



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

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
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

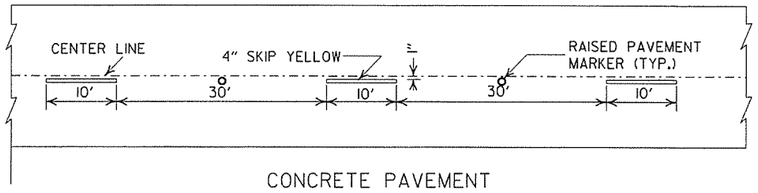
ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

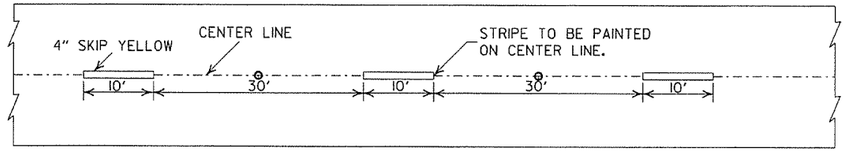
STANDARD DRAWING PCM-1

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.

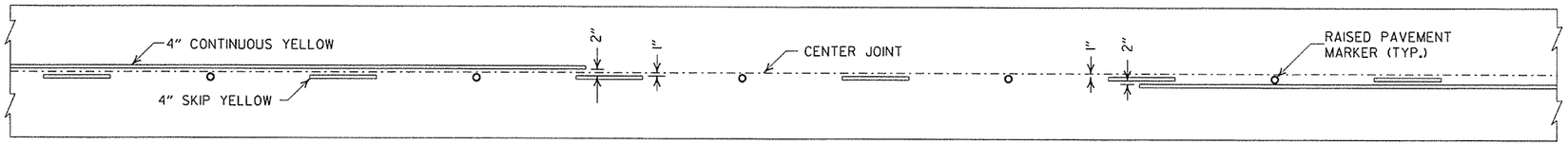


CONCRETE PAVEMENT

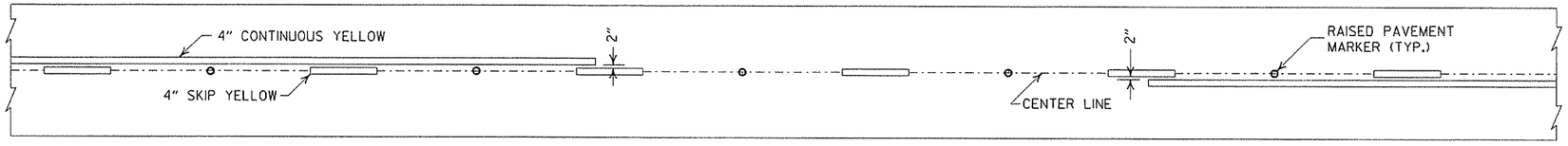


ASPHALT PAVEMENT

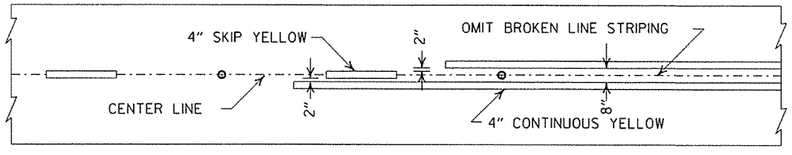
BROKEN LINE STRIPING



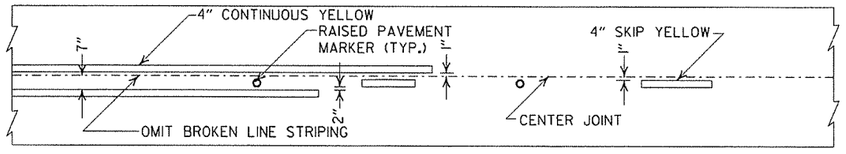
SOLID LINE STRIPING ON CONCRETE PAVEMENT



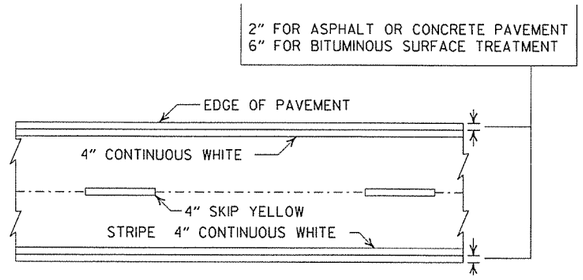
SOLID LINE STRIPING ON ASPHALT PAVEMENT



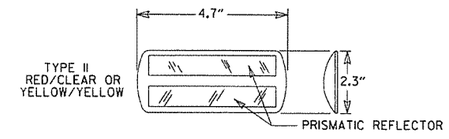
ASPHALT PAVEMENT



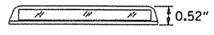
CONCRETE PAVEMENT



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

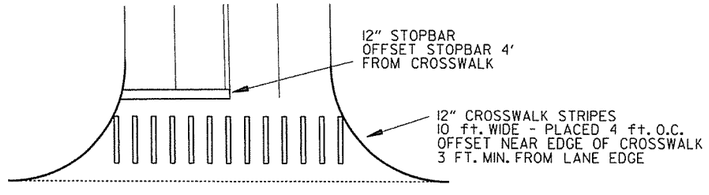
GENERAL NOTES:

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.

STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS

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

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

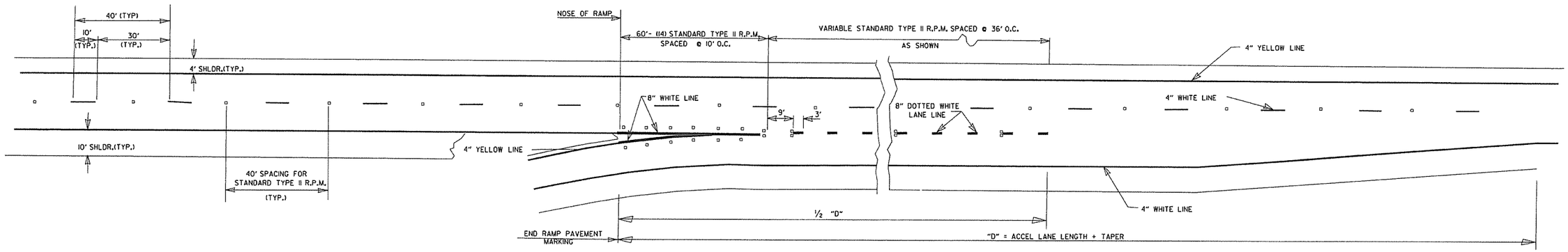
STANDARD DRAWING PM-1

PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

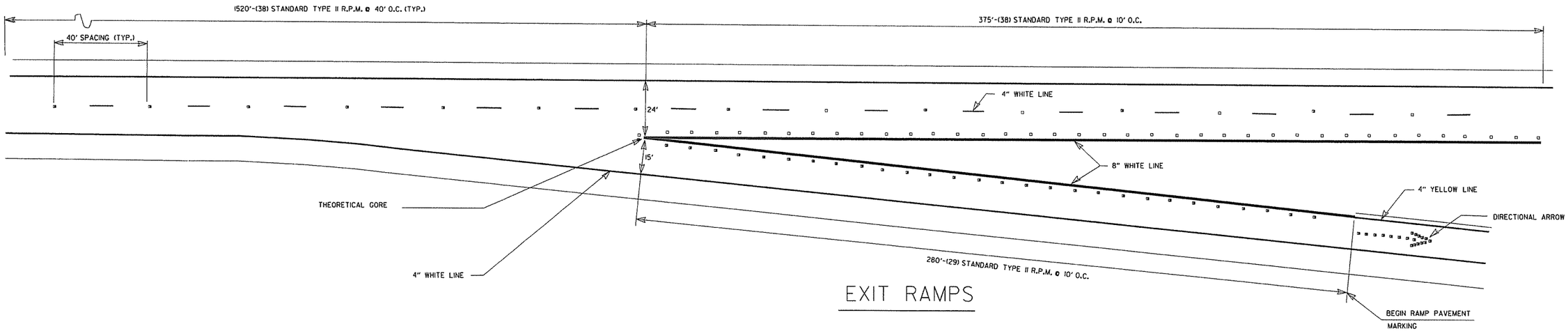
ENTRANCE RAMP

8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

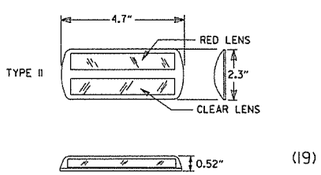
EXIT RAMP
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

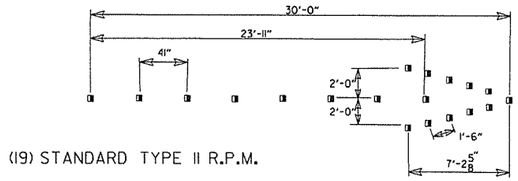


EXIT RAMPS



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
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
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

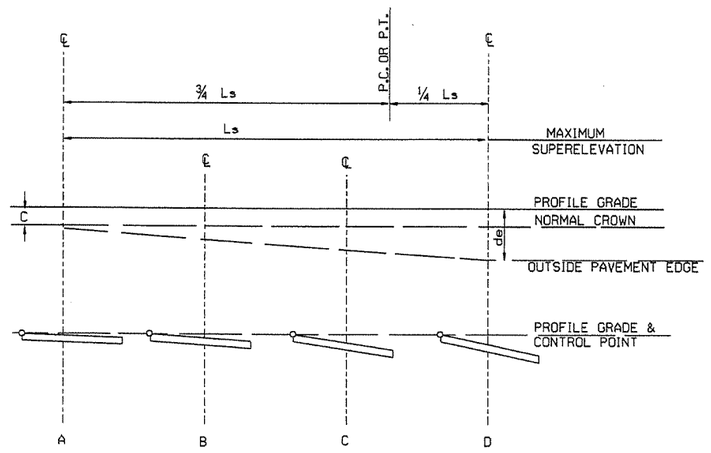
ARKANSAS STATE HIGHWAY COMMISSION

PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

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.			N. C.			N. C.			N. C.			N. C.			N. C.			N. C.		
0° 30′	N. C.			N. C.			N. C.			N. C.			N. C.			N. C.			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	175		0.036	200		0.043	225		0.049	250		0.055	250		0.062	275	
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	
2° 30′	0.021			0.034			0.049			0.058			0.067			0.075	280		0.085	315	400
2° 45′	0.023			0.037			0.053			0.063			0.072			0.081	300		0.091	335	
3° 00′	0.025	150		0.040		250	0.057		300	0.067	230		0.077	260		0.087	315		0.096	350	
3° 15′	0.027			0.043			0.061			0.072	245		0.082	275		0.090	325	400	0.098	360	450
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		0.096	315							
5° 00′	0.040			0.061			0.083	250		0.091	295	400	0.098	320							
5° 30′	0.043			0.066	185		0.088	260		0.094	300										
6° 00′	0.046			0.070	190		0.092	270		0.096	305										
6° 30′	0.050			0.074	200		0.095	280	350	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	300															
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																			
17° 00′	0.091	200																			
18° 00′	0.093	205																			
19° 00′	0.095	210																			
20° 00′	0.097	215	300																		
21° 00′	0.098	215																			
22° 00′	0.099	215																			
23° 00′	0.099	215																			
24° 00′	0.100	220																			
D MAX = 24° 45′				D MAX = 13° 15′			D MAX = 8° 15′			D MAX = 6° 30′			D MAX = 5° 15′			D MAX = 4° 15′			D MAX = 3° 30′		



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$

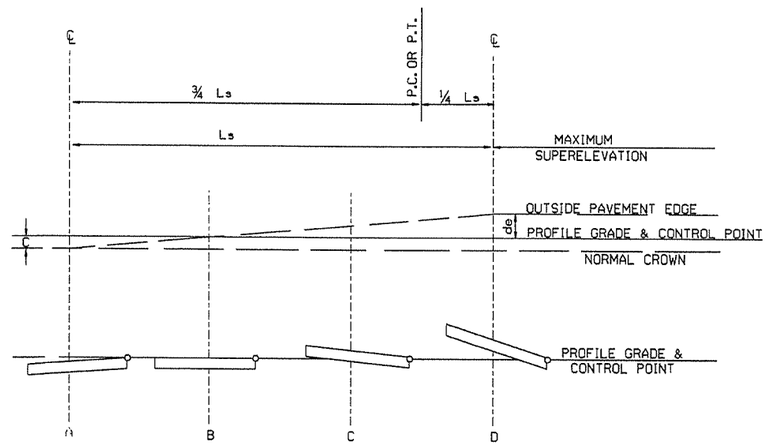
ABBREVIATIONS

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.)

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%



ONE-WAY TRAFFIC
OUTSIDE LANE

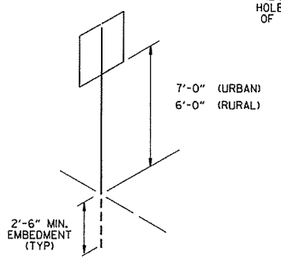
SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

DATE	REVISION	DATE FILMED
01-09-87	ISSUED	578-1-15-87

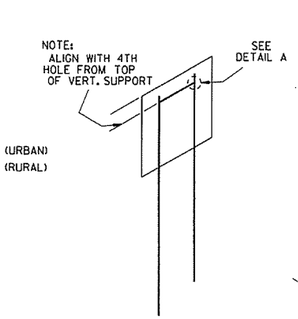
ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

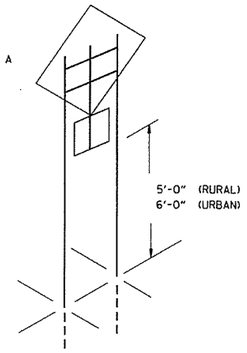
STANDARD DRAWING SE-1



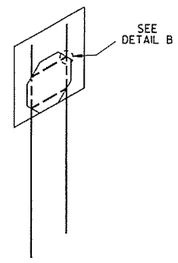
U-1



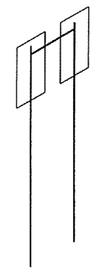
U-2



U-2 (A)



U-2 (B)



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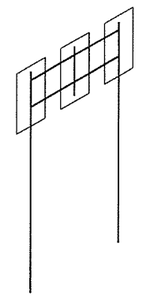

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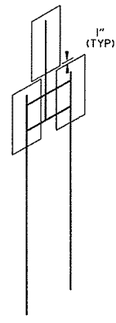

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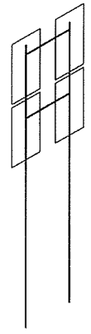

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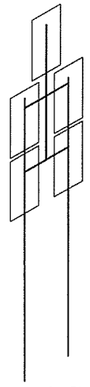

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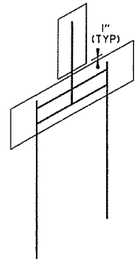
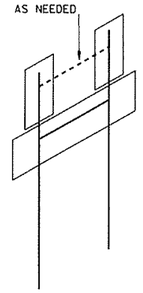


U-2 (6)



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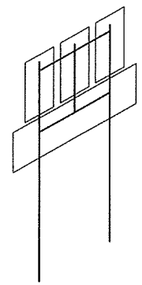
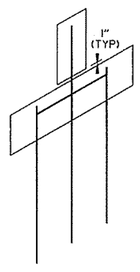


U-2 (8)

U-3



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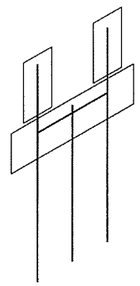

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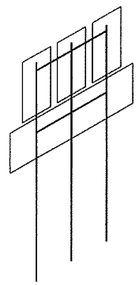

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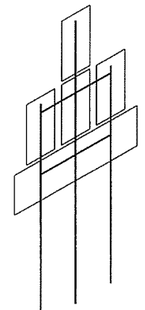

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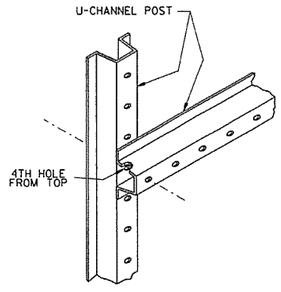
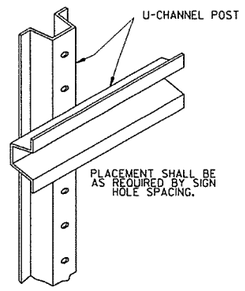


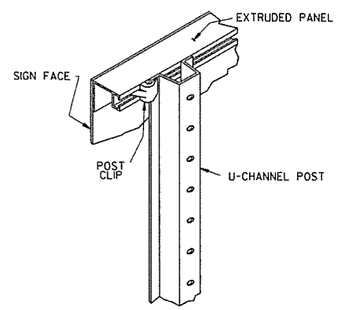
DETAIL A

SHOWING HORIZONTAL BRACE



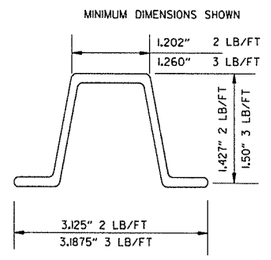
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



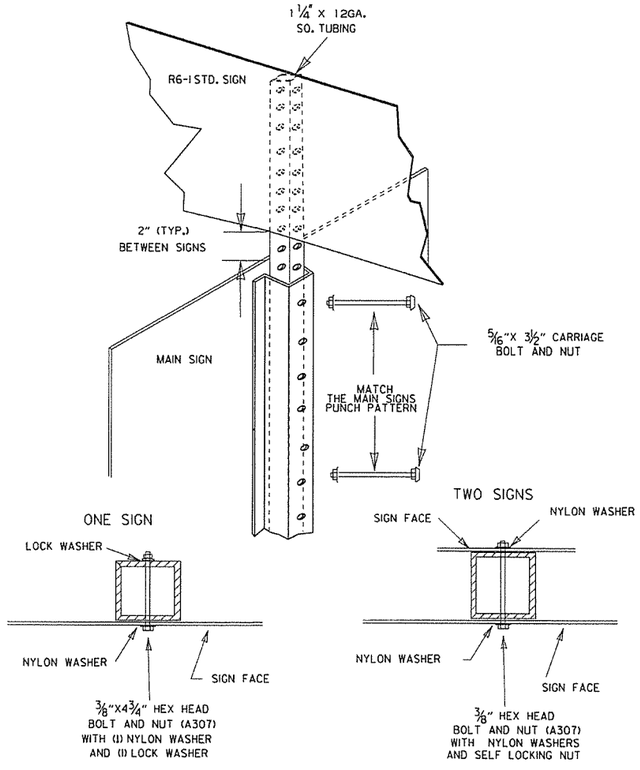
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



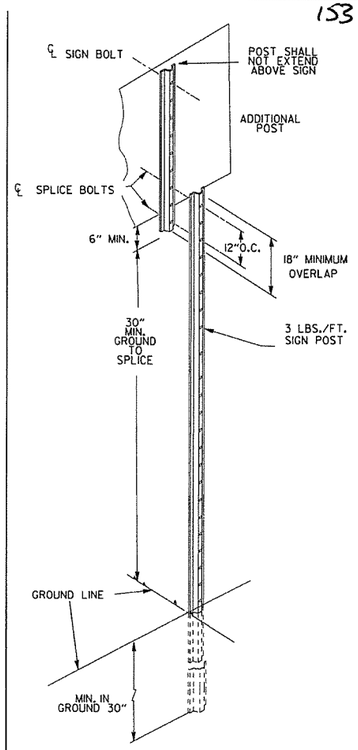
DETAIL C

U-CHANNEL POST



DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

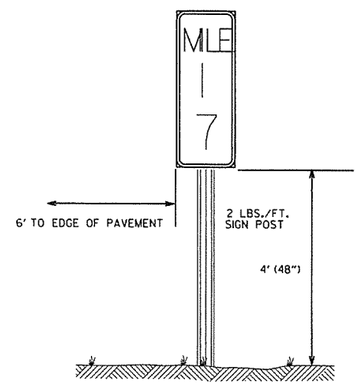
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL (F).

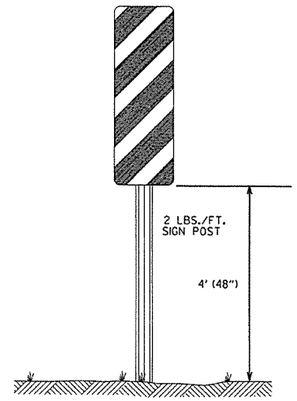
NORMAL INSTALLATIONS WILL REQUIRE $\frac{5}{16}$" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

THE POST FOR "TYPE U" SUPPORTS SHALL BE HOT DIP GALVANIZED.



TYPICAL MILE MARKER INSTALLATION



TYPICAL OM-3 INSTALLATION AT EDGE OF OBSTRUCTION

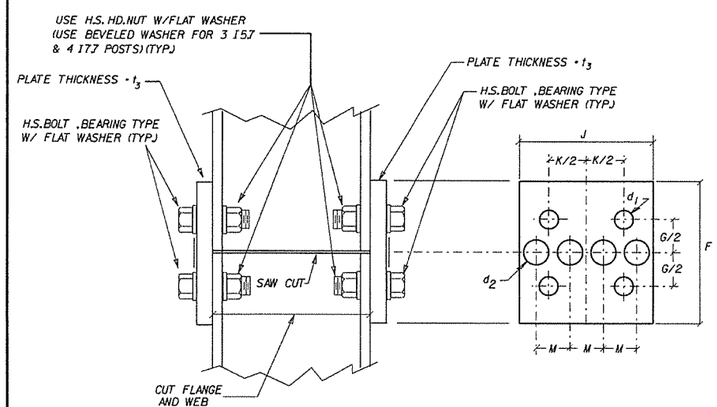
DATE	REVISION	FILMED
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

U-CHANNEL POST ASSEMBLIES

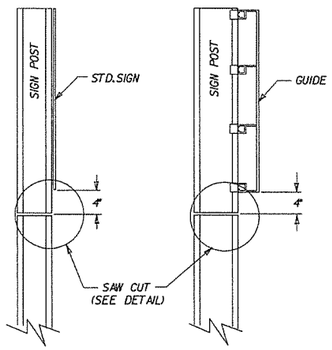
STANDARD DRAWING SHS-2

POST SIZE	BASE CONNECTION DATA											FUSE PLATE DATA									
	BOLT SIZE	BOLT TORQUE (INCH/LBS)	A	B	C	D	E	t_1	t_2	W	R	F	G		J	K	M	d_1	d_2	t_3	BOLT SIZE	WT. OF EACH FUSE PLATE LBS.
W 6X9												1 1/4"	2"		4"	2 1/4"	1"	9/16"	3/4"	1/4"	1/2" x 1 1/2"	1.01
W 6X12	5/8" x 2 3/4"	450"-690"	5"	2"	1 1/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"											
W 6X15												5"	2 1/2"		6"	3 1/2"	1 1/2"	11/16"	1 1/4"	3/8"	5/8" x 2 1/4"	2.51
W 8X18												5"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1 1/16"	3/8"	3/4" x 2 1/4"	2.26
W 8X21												5 1/2"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1"	1/2"	3/4" x 2 1/4"	3.35
W 10X22	3/4" x 3 1/2"	750"-1050"	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	1/32"	6"	3"		5 3/4"	2 3/4"	1 3/8"	13/16"	1 1/8"	1/2"	3/4" x 2 1/4"	4.03
W 10X26																						
W 12X26												6"	3"		6 1/2"	3 1/2"	1 7/8"	13/16"	1 5/16"	1/2"	3/4" x 2 1/4"	4.47



NOTE: USE H.S. HEX HEAD BOLTS, HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AST M-A36, AST M-A441, AST M-572 GRADE 50, OR AST M-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.

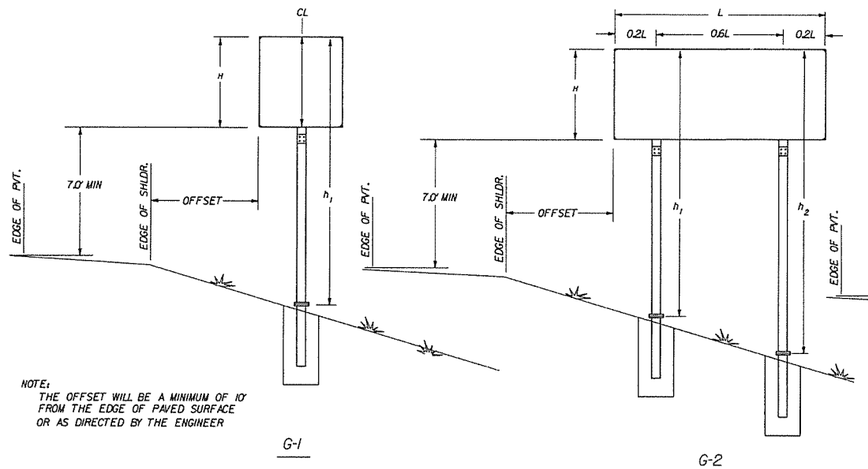
NOTE: BOLT HOLES, USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED, AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED, WITH AN APPROVED ZINC SOLDER MEETING THE FEDERAL SPEC. O-G-93 (STICK ONLY).

STANDARD SIGNS GUIDE SIGNS

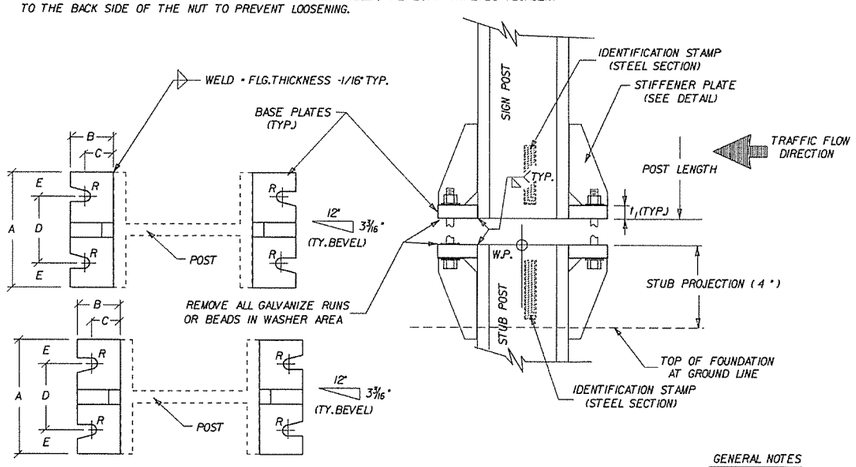
FUSE PLATE DETAILS



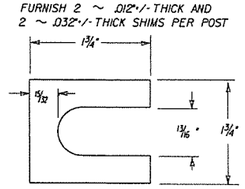
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

G-1 G-2 G-3

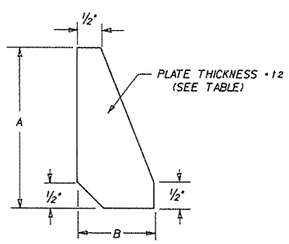
NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S. BOLTS WITH HEX HD., HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT. SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC. IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST, THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR. THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.



SHIM DETAIL



STIFFENER PLATE DETAIL



GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

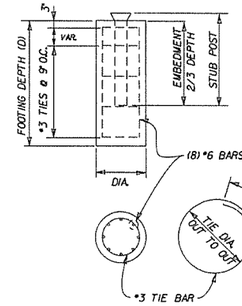
REFER TO THE PLANS FOR FOOTING DIMENSIONS.

EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

STEEL SCHEDULE

FOOTING DIAMETER	#3 TIE BARS DIAMETER	BAR LENGTH	POUNDS
INCHES	INCHES	FEET	
18	12	4.39	1.65
24	18	5.96	2.24
30	24	7.53	2.83
36	30	9.1	3.42

FOOTINIG DEPTH	#6 STRAIGHT BARS BAR LENGTH	NUMBER REQ'D.	POUNDS
FEET	FEET		
2.50	2.00	8	24.03
3.00	2.50	8	30.04
3.50	3.00	8	36.05
4.00	3.50	8	42.06
4.50	4.00	8	48.06
5.00	4.50	8	54.07
5.50	5.00	8	60.08
6.00	5.50	8	66.09
6.50	6.00	8	72.10
7.00	6.50	8	78.10
7.50	7.00	8	84.11
8.00	7.50	8	90.12



FOOTING QUANTITIES

FOOTINIG DEPTH	NUMBER TIE BARS REQ'D	18" DIAMETER CLASS S CONCRETE	18" DIAMETER REINF STEEL	24" DIAMETER CLASS S CONCRETE	24" DIAMETER REINF STEEL	30" DIAMETER CLASS S CONCRETE	30" DIAMETER REINF STEEL	36" DIAMETER CLASS S CONCRETE	36" DIAMETER REINF STEEL
FEET		CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)
2.50	4	0.16	31						
3.00	4	0.20	37						
3.50	5	0.23	44						
4.00	6	0.26	52	0.47	56				
4.50	6	0.29	58	0.52	62				
5.00	7	0.33	66	0.58	70	0.91	74		
5.50	8			0.64	78	1.00	83		
6.00	8			0.70	84	1.09	89	1.57	93
6.50	9					1.18	98	1.70	103
7.00	10					1.27	106	1.83	112
7.50	10							1.96	118
8.00	11							2.09	128

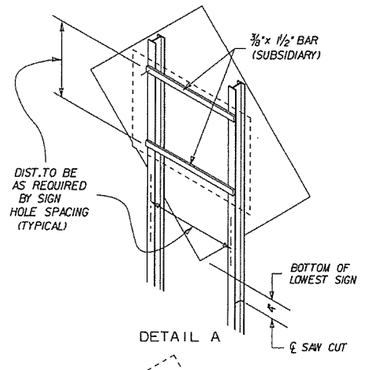
SIGN POST AND STUB POST

DATE	REVISION	FILMED
9-12-13	ISSUED	

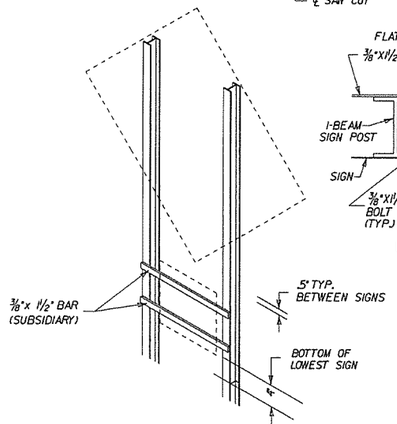
ARKANSAS STATE HIGHWAY COMMISSION

DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS

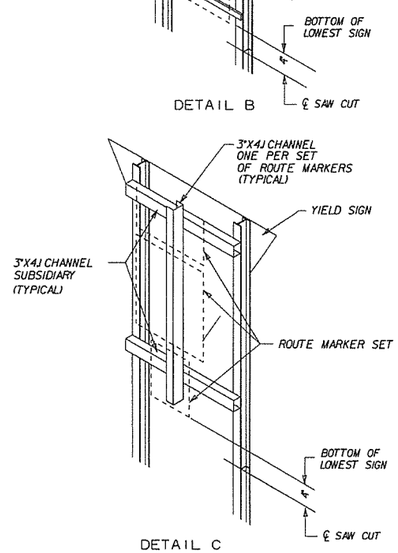
STANDARD DRAWING SHS-3



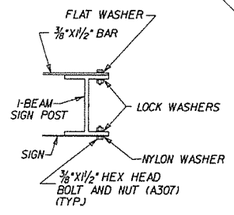
DETAIL A



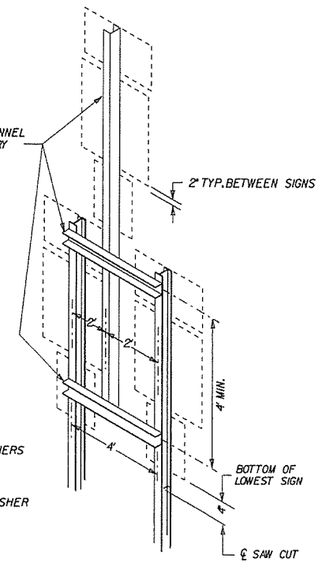
DETAIL B



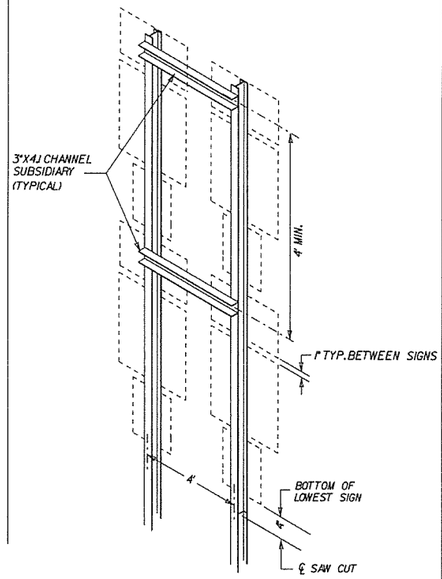
DETAIL C



DETAIL F



DETAIL D



DETAIL E

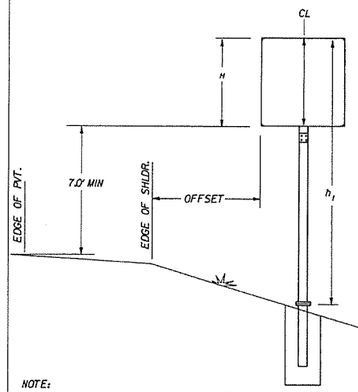
NOTE

ALL ADDITIONAL MOUNTING HARDWARE, BOLTS, NUTS, CHANNELS AND BAR STRAPS REQUIRED TO MOUNT SECONDARY SIGNS WILL BE CONSIDERED TO BE SUPPLEMENTAL TO THE MAIN SIGN SUPPORT SPECIFIED. PAYMENT WILL BE CONSIDERED SUBSIDIARY TO THE MAIN SUPPORT.

THE GALVANIZED STEEL CHANNEL AND BAR SUPPORTS MAY BE ASTM A-36.

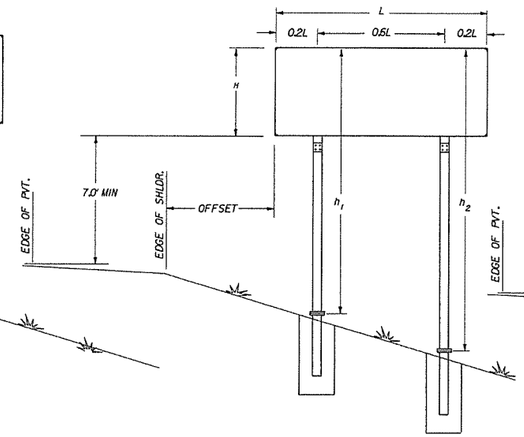
REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.

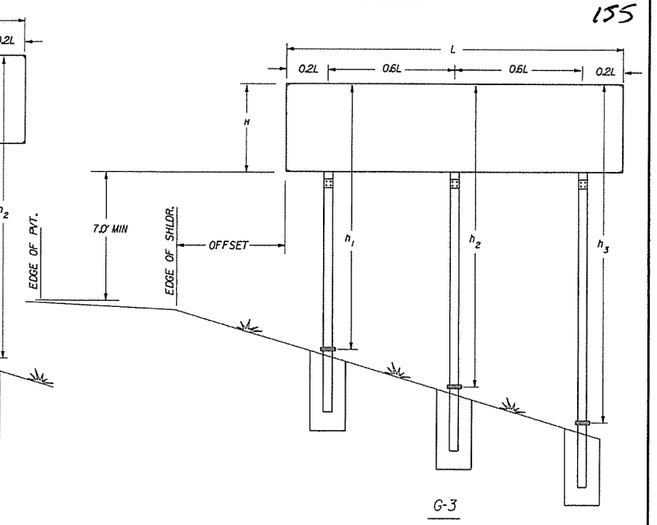


G-1

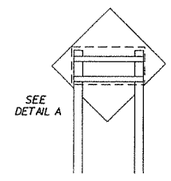
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.



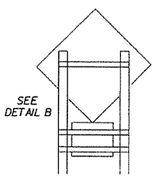
G-2



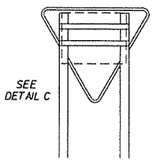
G-3



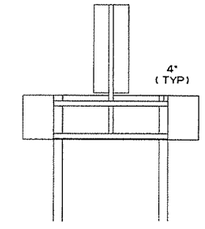
G2-1



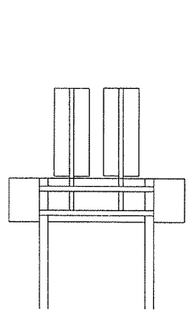
G2-2



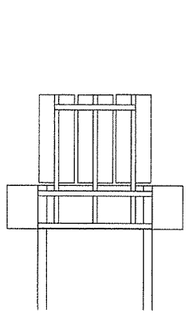
G2-3



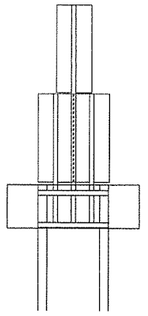
G2-4



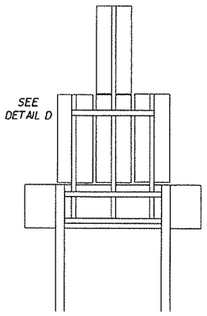
G2-5



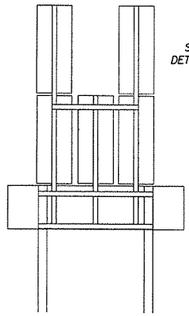
G2-6



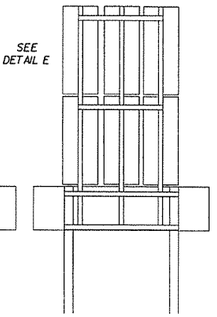
G2-7



G2-8



G2-9

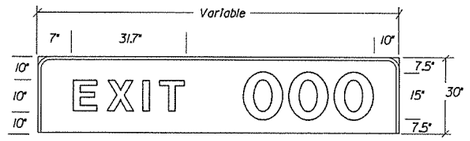


G2-10

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-4
DATE	REVISION	FILMED	

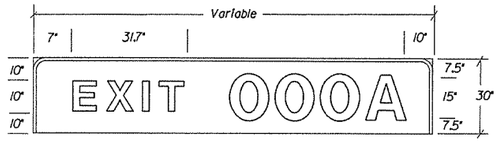
TYPICAL DETAIL

TYPE A



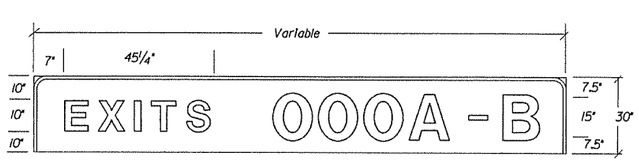
EXIT WITH 1 DIGIT 84"X30"=17.50 SF
EXIT WITH 2 DIGITS 96"X30"=20.0 SF
EXIT WITH 3 DIGITS 114"X30"=23.57 SF

TYPE B



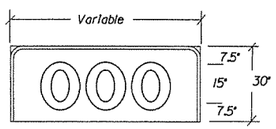
EXIT WITH 1 DIGIT PLUS "A"OR"B" 96"X30"=20.0 SF
EXIT WITH 2 DIGITS PLUS "A"OR"B" 114"X30"=23.57 SF
EXIT WITH 3 DIGITS PLUS "A"OR"B" 126"X30"=26.25 SF

TYPE C



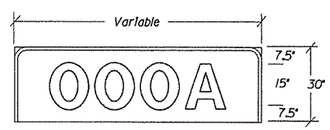
EXITS WITH 1 DIGIT PLUS "A"&"B" 132"X30"=27.50 SF
EXITS WITH 2 DIGITS PLUS "A"&"B" 150"X30"=31.25 SF
EXITS WITH 3 DIGITS PLUS "A"&"B" 168"X30"=35.00 SF

TYPE D



1 DIGIT 24"X30"=5.0 SF
2 DIGITS 42"X30"=8.75 SF
3 DIGITS 60"X30"=12.50 SF

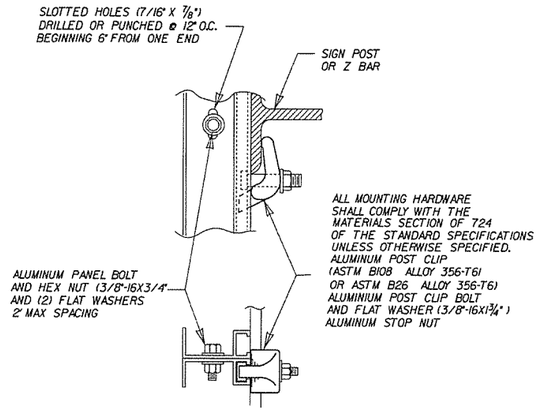
TYPE E

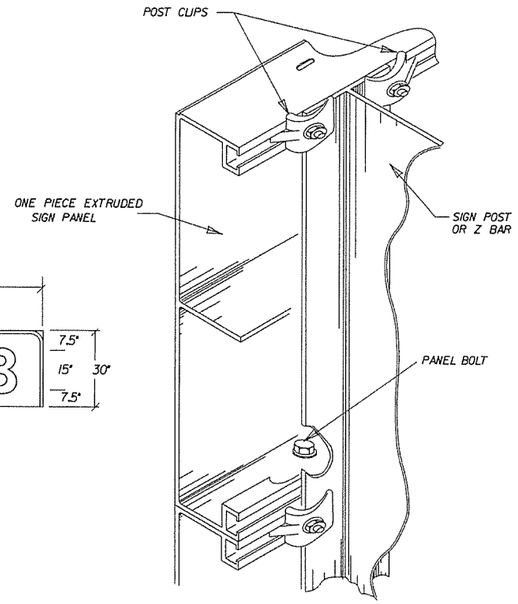


1 DIGIT PLUS "A"OR"B" 42"X30"=8.75 SF
2 DIGITS PLUS "A"OR"B" 60"X30"=12.50 SF
3 DIGITS PLUS "A"OR"B" 78"X30"=16.25 SF

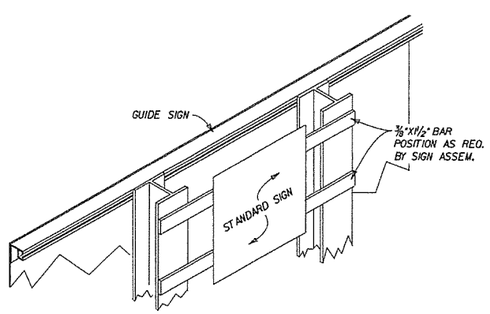
EXIT PANEL DETAILS

NOTE: EXIT NUMBER PANELS SHALL HAVE WHITE LEGENDS AND BORDERS. THE BACK GROUND COLOR WILL BE AS USE SPECIFIES. SHEETING TYPE WILL BE THE SAME AS THE GUIDE SIGN WHICH THE EXIT PANEL IS ATTACHED OR AS SPECIFIED IN THE PLANS. PAYMENT FOR ALL POST CLIPS, BOLTS, AND ANGLES SHALL BE SUBSIDIARY TO THE ITEM "EXIT NUMBER PANEL".

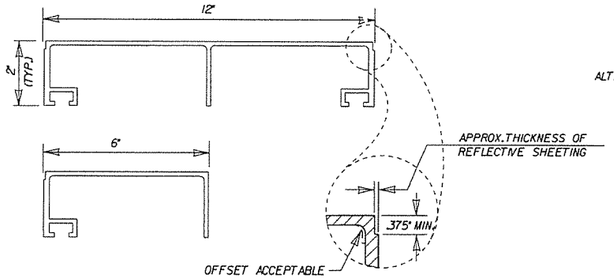




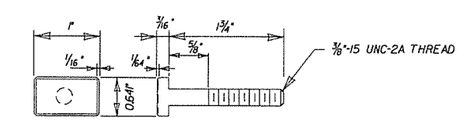
MOUNTING HARDWARE



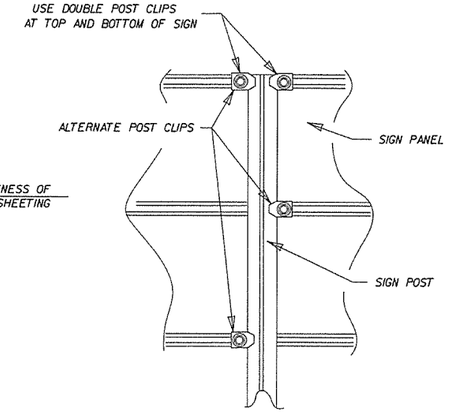
SECONDARY SIGN INSTALLATION ON BACKSIDE OF GUIDE SIGN



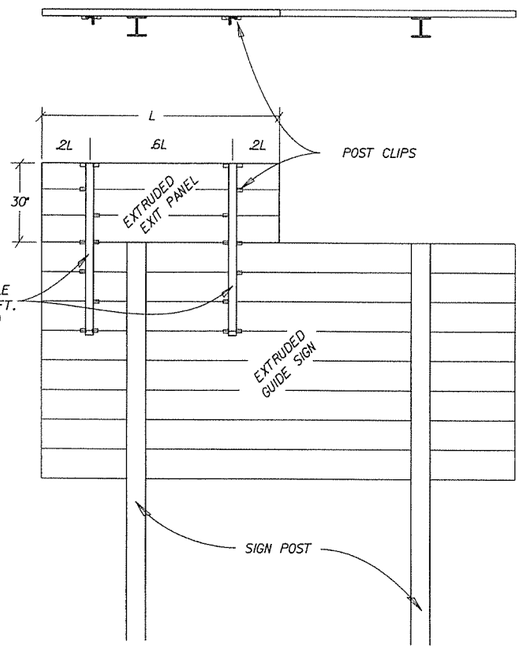
ONE PIECE EXTRUDED SIGN PANELS



POST CLIP BOLT



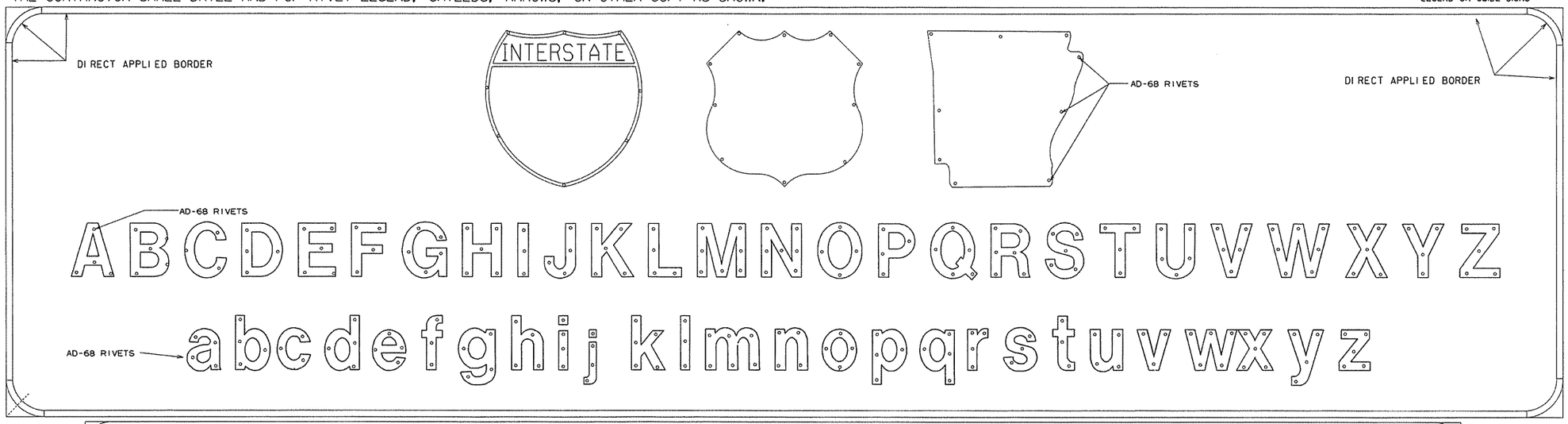
POST CLIP PLACEMENT

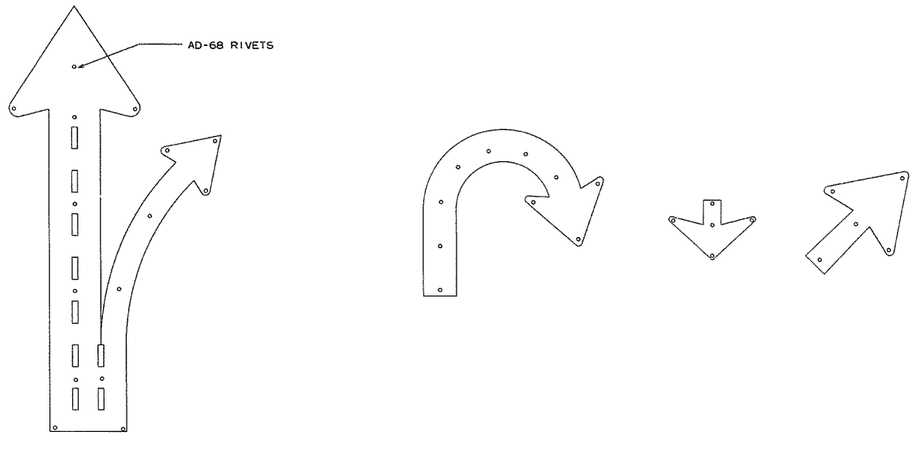


			ARKANSAS STATE HIGHWAY COMMISSION
			DETAILS OF GUIDE SIGN PANELS
9-12-13	ISSUED		STANDARD DRAWING SHS-5
DATE	REVISION	FILMED	

THE CONTRACTOR SHALL DRILL AND POP-RIVET LEGEND, SHIELDS, ARROWS, OR OTHER COPY AS SHOWN.

MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS





NOTES:

LEGEND ON GUIDE SIGNS ON THE MAIN LANES SHALL BE DEMOUNTABLE LEGEND. LEGEND ON GUIDE SIGNS ON CROSS ROADS AND RAMPS SHALL BE DIRECT APPLIED. THE DEMOUNTABLE AND DIRECT APPLIED LEGENDS SHALL BE TYPE IX SHEETING.

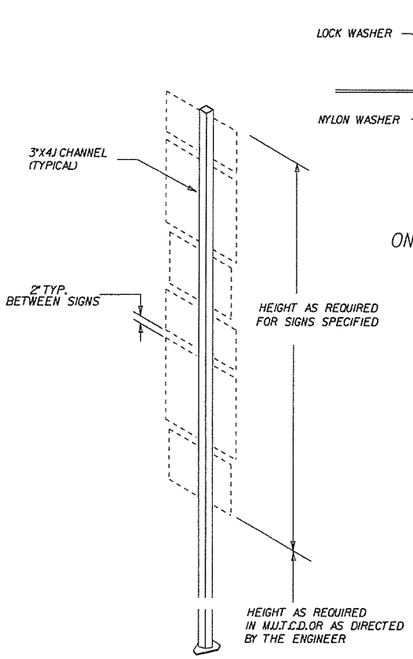
THE BACKGROUND ON ALL GUIDE SIGNS AND STANDARD SIGNS SHALL BE CONSTRUCTED USING TYPE III SHEETING.

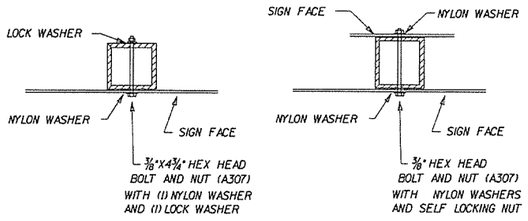
TYPE IX SHEETING FOR BORDER, LEGEND, SHIELDS, ARROWS, OR OTHER COPY SHALL BE ORIENTED VERTICALLY AS PER MANUFACTURERS' DATUM MARKS, ORIENTATION MARKS, OR OTHER RECOMMENDATIONS.

SIGN LEGEND, SHIELDS, ARROWS OR OTHER COPY SHALL BE APPLIED WITH RIVETS ONLY.

NO OTHER METHOD OF APPLYING CHARACTERS IS ALLOWED.

			ARKANSAS STATE HIGHWAY COMMISSION
			MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-6
DATE	REVISION	FILMED	



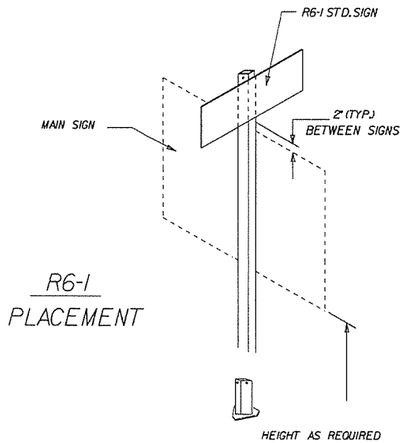


CHANNEL SHALL BE FULL LENGTH OF RECTANGULAR AND SQUARE SIGNS AND SHALL EXTEND 1½" BEYOND BOLT HOLES ON DIAMOND OR IRREGULAR SHAPED SIGNS.

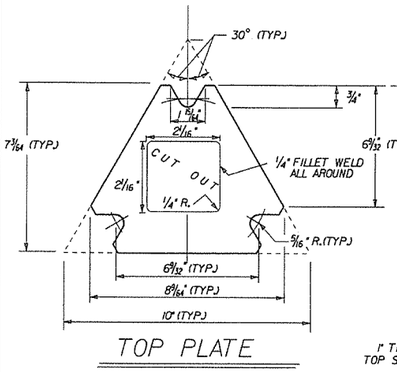
MOUNTING HARDWARE

TYPE-1

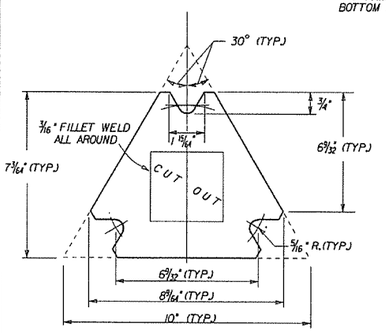
BASIS OF ESTIMATE
APPROX. 100 lbs STEEL



R6-1 PLACEMENT



TOP PLATE



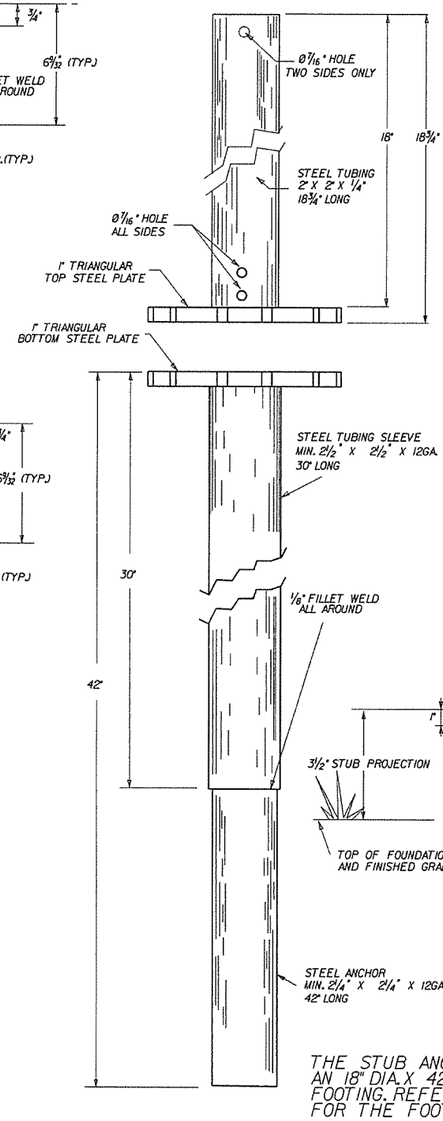
BOTTOM PLATE

GENERAL NOTES:

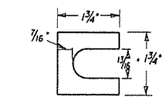
THE TOP PLATE OF TRIANGULAR SLIP BASES SHALL HAVE THE SAME EXTERIOR DIMENSIONS AS THE BOTTOM PLATE.

INSIDE DIAMETER OF THE SIGN POST SHALL BE CUT THROUGH THE CENTER OF THE TOP PLATE WITH THE HOLE EDGE BEVELED AS SHOWN. THE BEVEL END SHALL BE TANGENT TO THE BOLT HOLE . ANY MISALIGNMENT SHALL BE REMOVED BY GRINDING . FACE OF BEVEL SHALL BE FINISHED TO A MINIMUM SMOOTHNESS OF 1-500 .

OTHER MASH COMPLIANT BREAKAWAY SIGN SUPPORTS THAT HAVE THE SAME TOP PLATE DIMENSIONS AND SUPPORT 2¼" X 2¼" SQUARE TUBE SIGN POSTS MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.

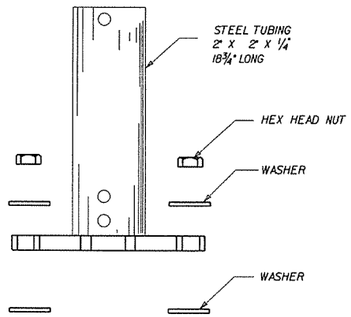


THE STUB ANCHOR SHALL BE SET IN AN 18" DIA. X 42" DEEP CONCRETE FOOTING. REFER TO STD. DRWG. SHS-3 FOR THE FOOTING DETAILS.



FURNISH (2) .012" THICK AND (2) .032" THICK SHIMS PER POST

SHIM DETAIL

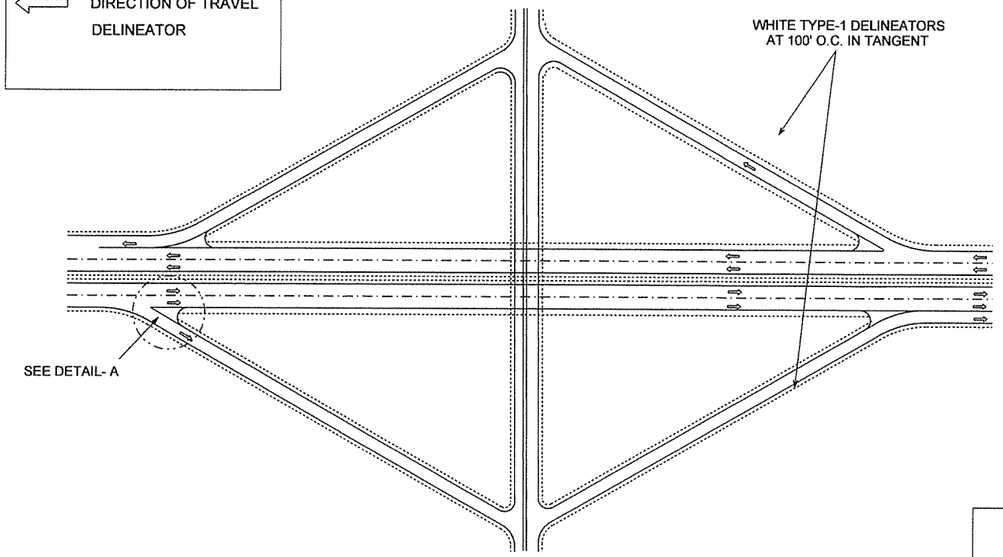


			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS
9-12-13 DATE	ISSUED REVISION	FILMED	STANDARD DRAWING SHS-7

LEGEND

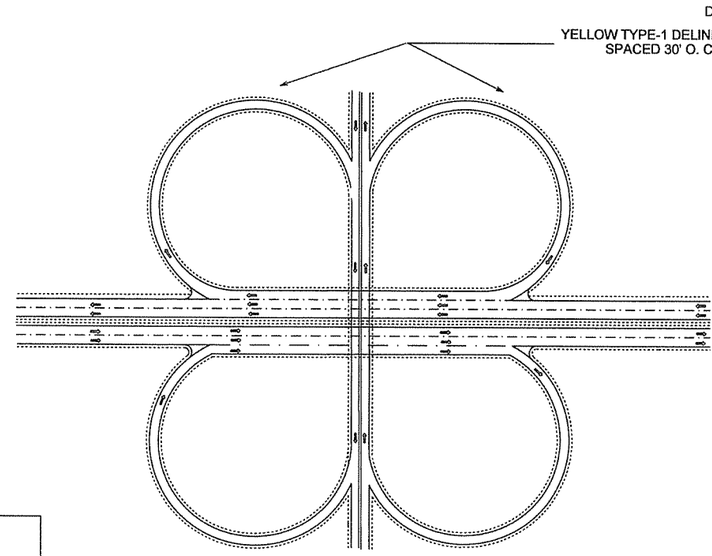
⇦ DIRECTION OF TRAVEL

DELINEATOR

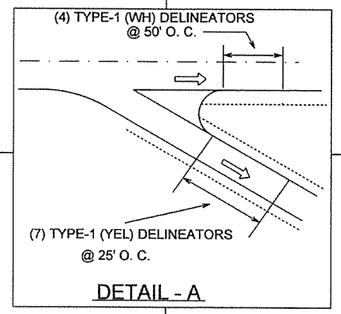


TYPICAL DIAMOND INTERCHANGE (ALL RAMPS)

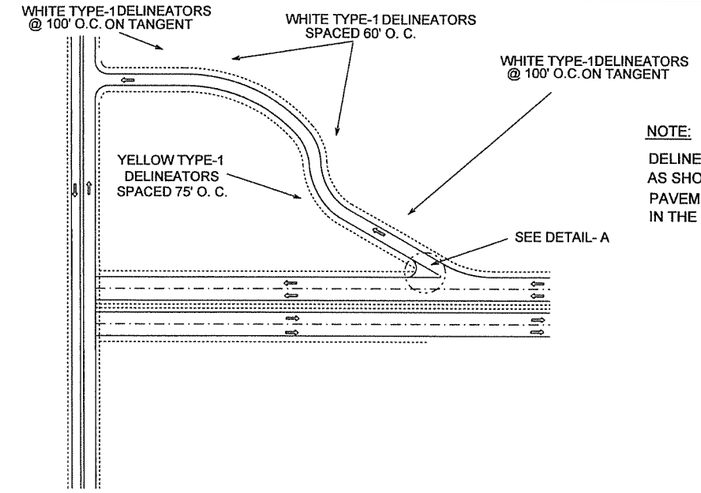
DELINEATORS PLACEMENT DETAIL



TYPICAL CLOVERLEAF INTERCHANGE (ALL RAMPS)



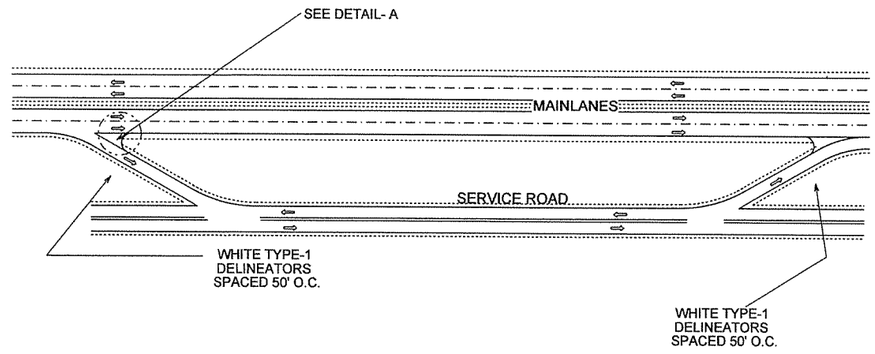
DETAIL - A



MODIFIED DIAMOND INTERCHANGE

NOTE:

DELINEATORS SHALL ONLY BE INSTALLED AS SHOWN IN DETAIL-A IF RAISED PAVEMENT MARKERS ARE NOT PRESENT IN THE GORE OF THE OFF RAMPS.



TYPICAL SLIP RAMP

GUIDANCE:

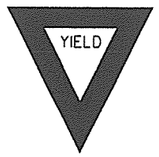
DELINEATORS SHOULD BE MOUNTED ON SUITABLE SUPPORTS SO THAT THE TOP OF THE HIGHEST RETROREFLECTOR IS 1.2 M (4 FT) ABOVE THE NEAR ROADWAY EDGE. THEY SHOULD BE PLACED 0.6 TO 2.4 M (2 TO 8 FT) OUTSIDE THE OUTER EDGE OF THE SHOULDER, OR IF APPROPRIATE, IN LINE WITH THE ROADSIDE BARRIER THAT IS 2.4 M (8 FT) OR LESS OUTSIDE THE OUTER EDGE OF THE SHOULDER.

			ARKANSAS STATE HIGHWAY COMMISSION
			TYPICAL DELINEATOR PLACEMENT ALONG THE INTERSTATE SYSTEM
9-12-13	ISSUED		STANDARD DRAWING SHS-8
DATE	REVISION	FILMED	

R1-1

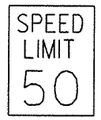
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



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

R2-1



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

W3-5

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

W3-5a

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

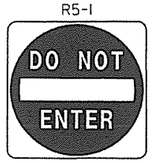
R4-1

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

R4-2

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

R5-1

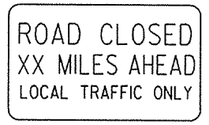


STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2

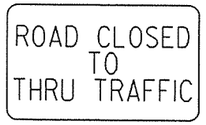
48"X30"

RII-3A



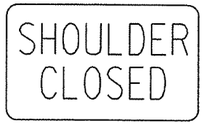
60"X30"

RII-4



60"X30"

RSP-1



48"X30"

WI-1

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

WI-2

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

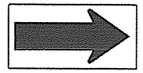
WI-3

STD. 48"X48"

WI-4

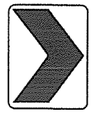
STD. 48"X48"

WI-6



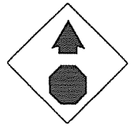
STD. 48"X24"
SPECIAL 60"X30"

WI-8



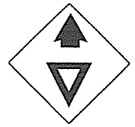
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



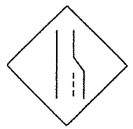
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

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

W9-2

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

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

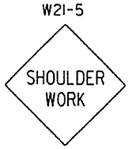
W20-7a

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

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5



STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

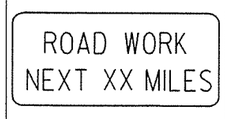
W8-11

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

W8-9

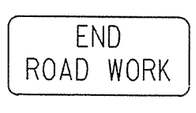
STD. 36"X36"
FWY. 48"X48"

G20-1



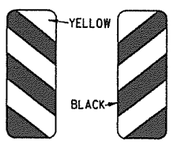
60"X24"

G20-2



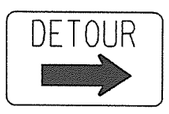
48"X24"

OM-3L OM-3R



12"X36"

M4-9

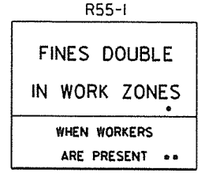


STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ 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.

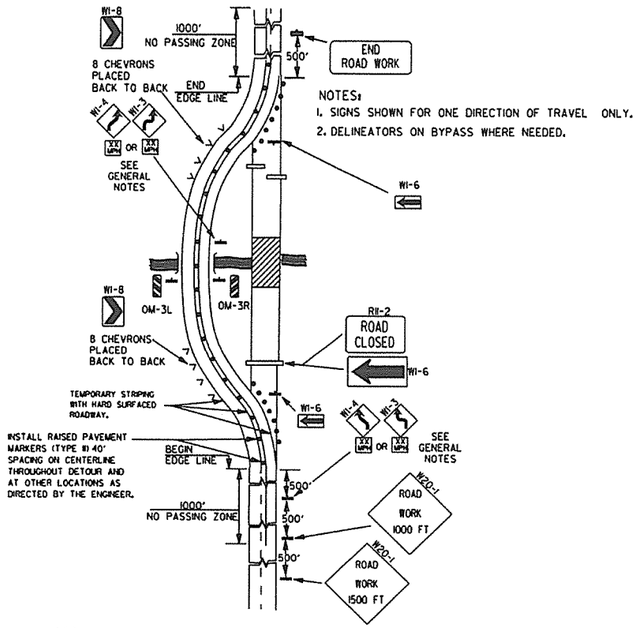
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

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

ARKANSAS STATE HIGHWAY COMMISSION

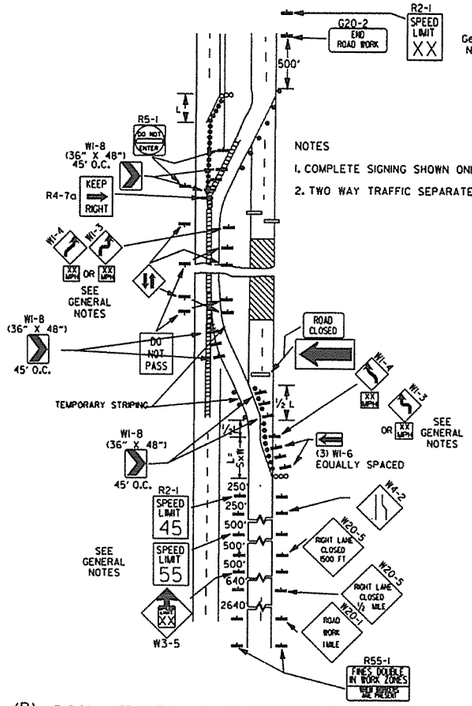
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



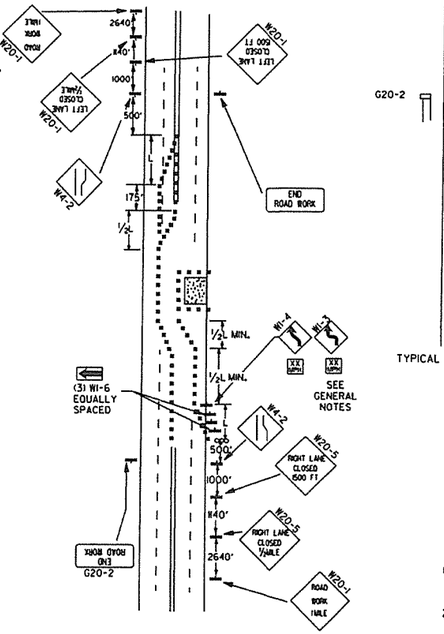
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

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

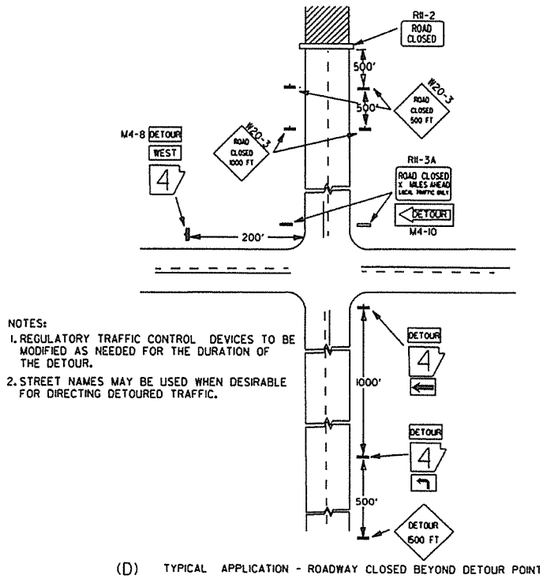


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

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

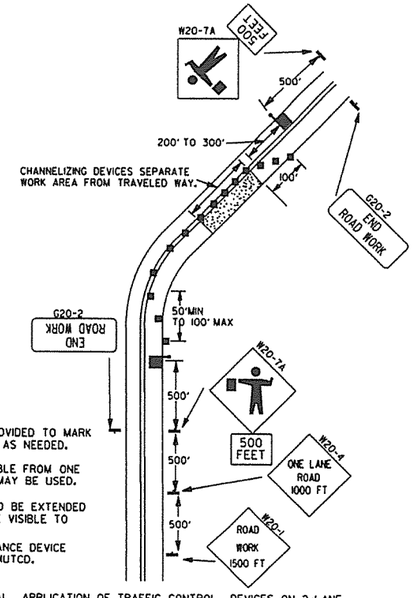


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



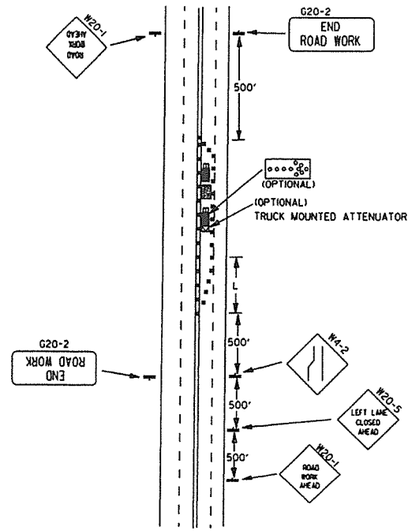
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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

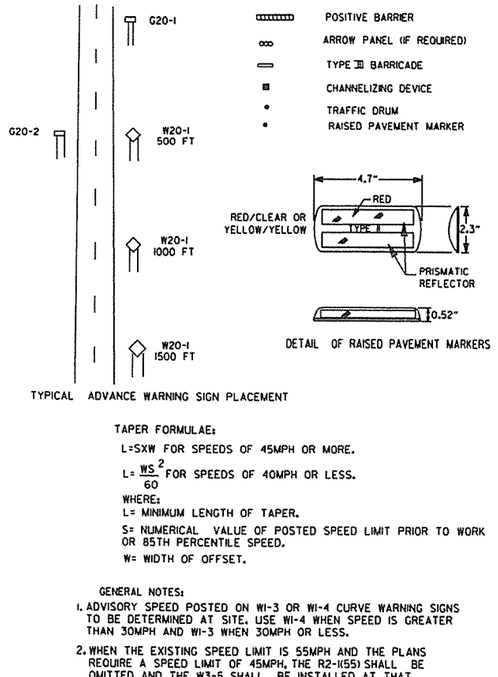


NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE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



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

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

GENERAL NOTES:

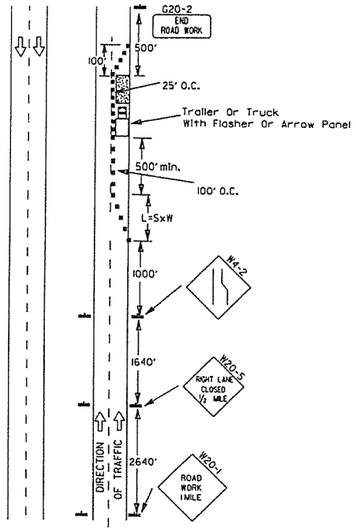
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. 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.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

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

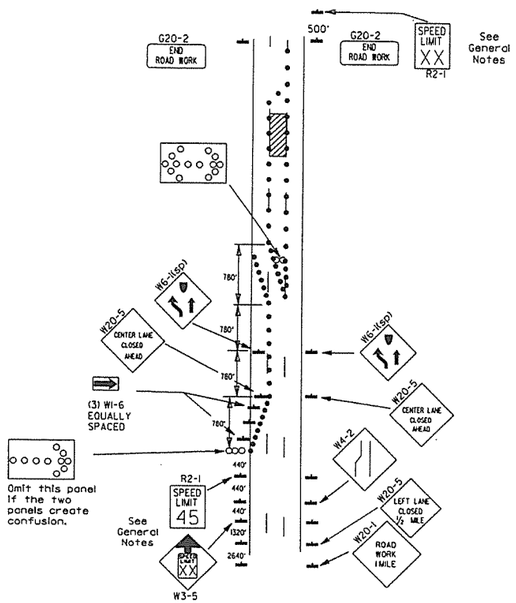
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

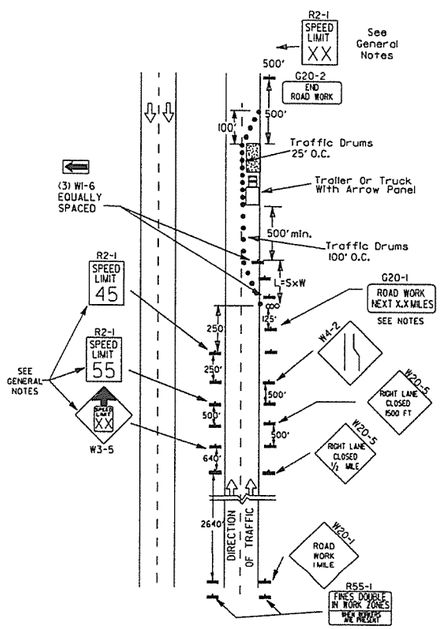
STANDARD DRAWING TC-2



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



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



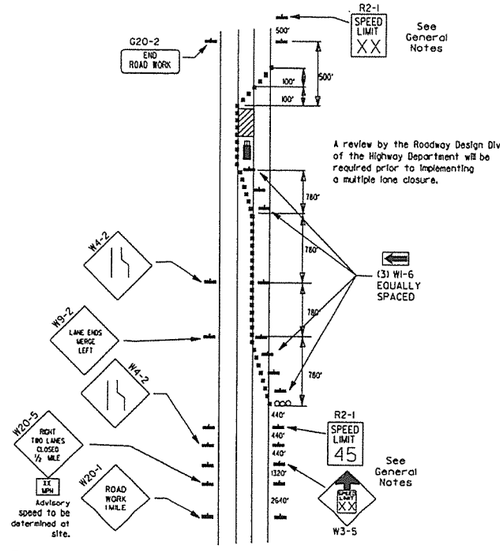
(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

- ○○○ Arrow Panel (If Required)
- ■ Channelizing Device
- ● Traffic drum

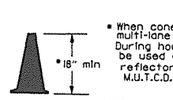
GENERAL NOTES:

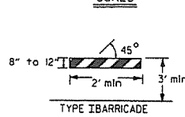
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

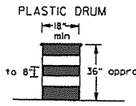


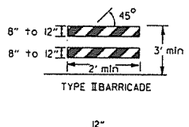
(D) Typical application - closing multiple lanes of a multilane highway.

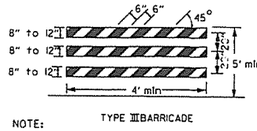
Channelizing devices



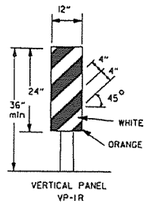




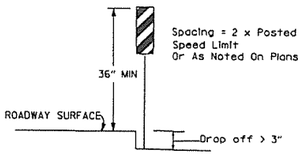




NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL PLACEMENT



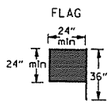
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

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

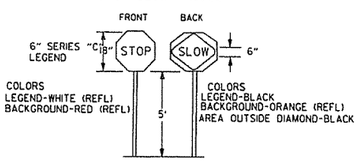
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

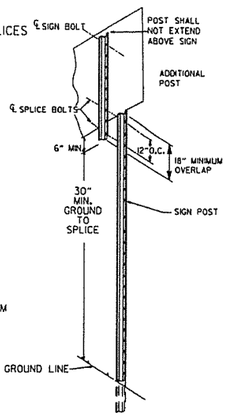


Flag shall be of good grade red material

STOP SLOW PADDLE



DETAIL OF SPLICES



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

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

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

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

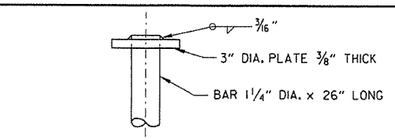
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

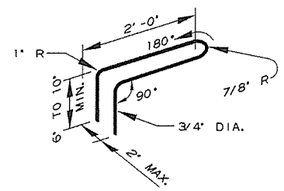
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

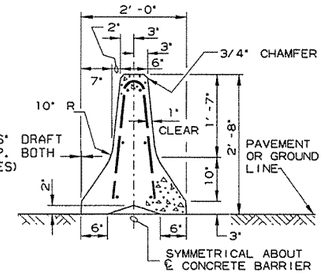
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2. TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", 90°, 3 3/8" R, LIFTING HOLE
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9", 2 3/16" R, 12°, 9 1/2", 2'-1 3/8", 4 3/8"



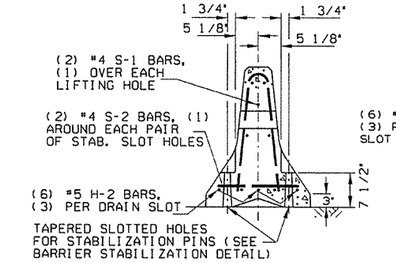
CONNECTION DETAILS



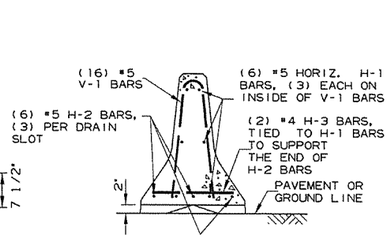
CONNECTION LOOP



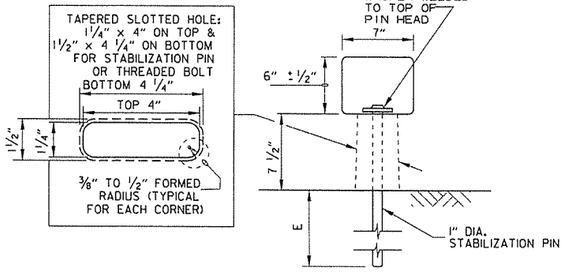
SECTION A-A



SECTION B-B



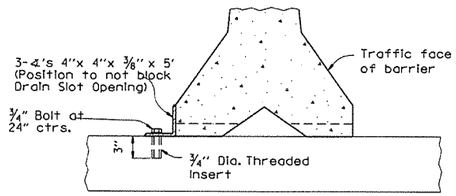
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

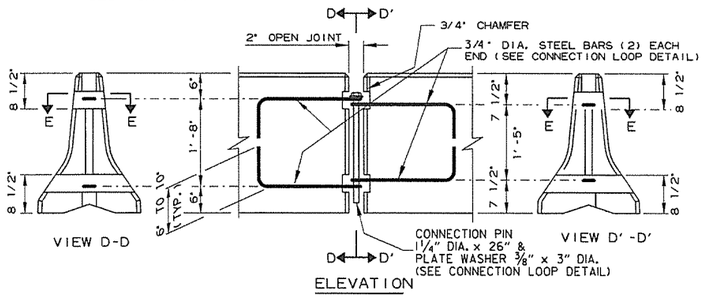
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. 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.

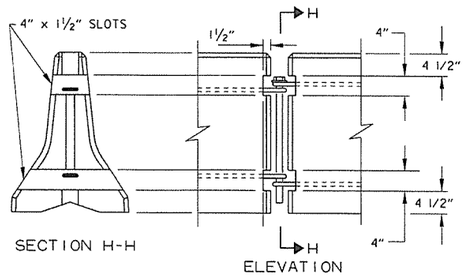
BARRIER STABILIZATION DETAIL

BRIDGE DECKS



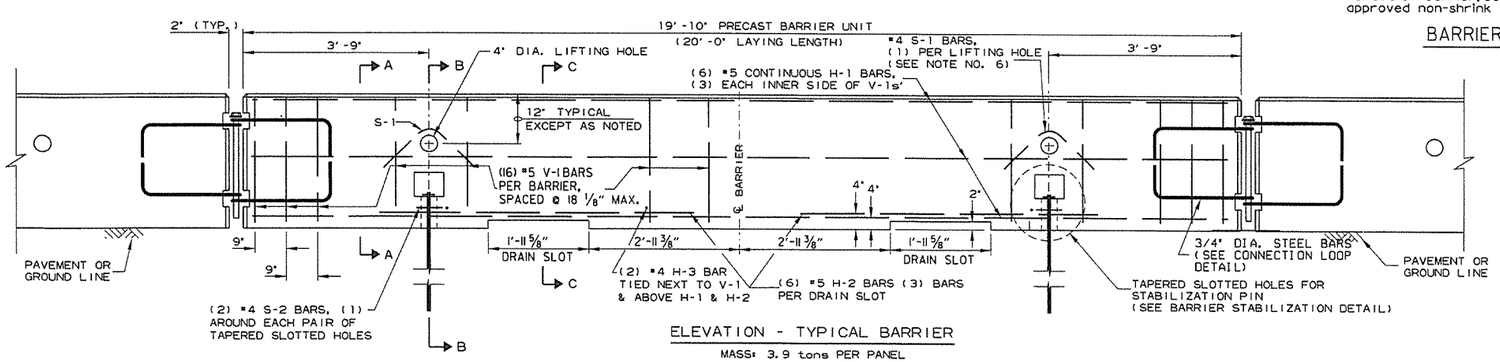
VIEW D-D VIEW D'-D'

ELEVATION



SECTION H-H ELEVATION

BARRIER REMOVAL SLOT DETAILS



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.

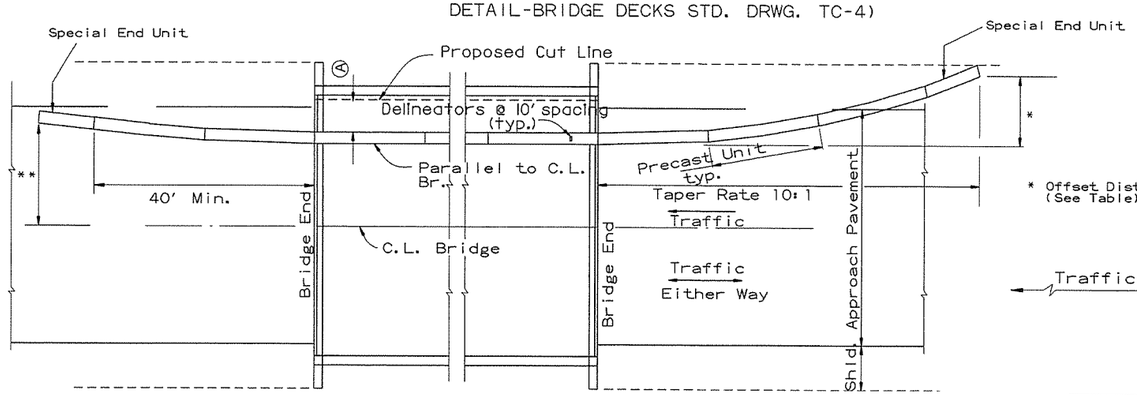
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

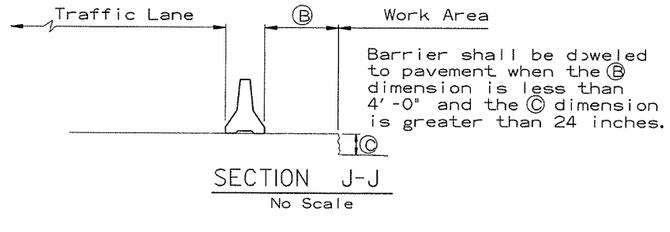
STANDARD DRAWING TC-4

Ⓐ 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

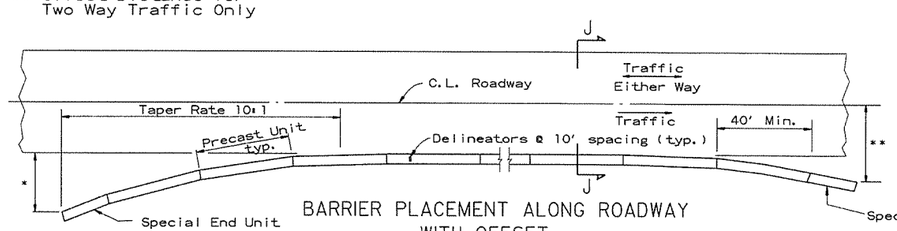


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

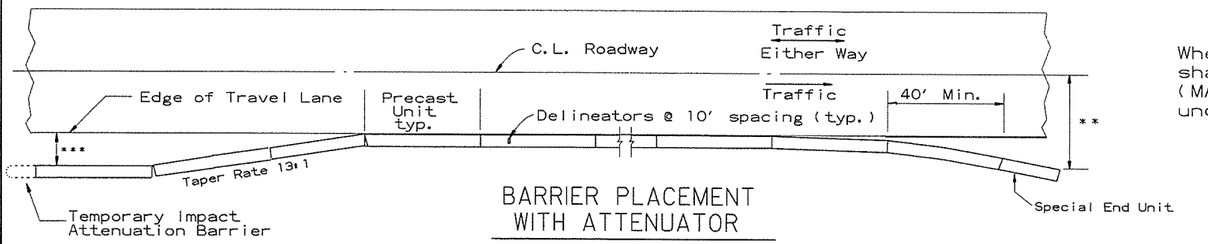
** Offset Distance For Two Way Traffic Only

* 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.

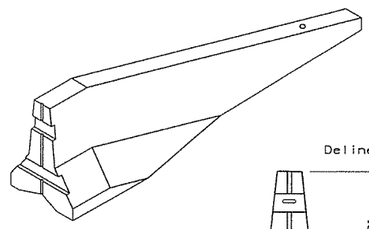


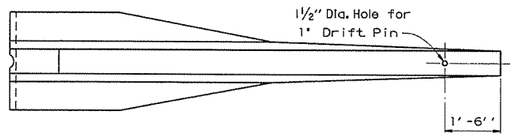
BARRIER PLACEMENT WITH ATTENUATOR

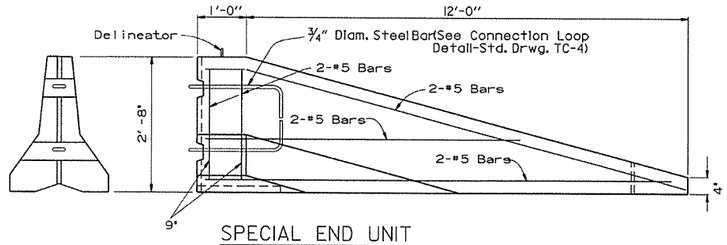
No Scale

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

** Offset Distance For Two Way Traffic Only







SPECIAL END UNIT

No Scale

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	

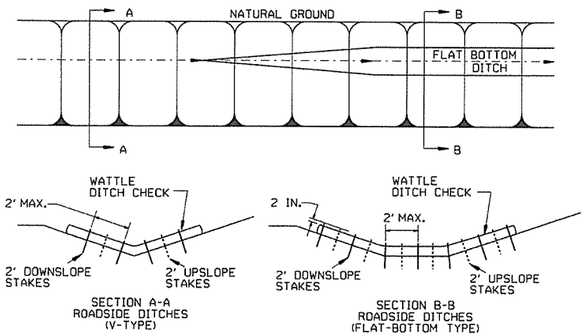
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

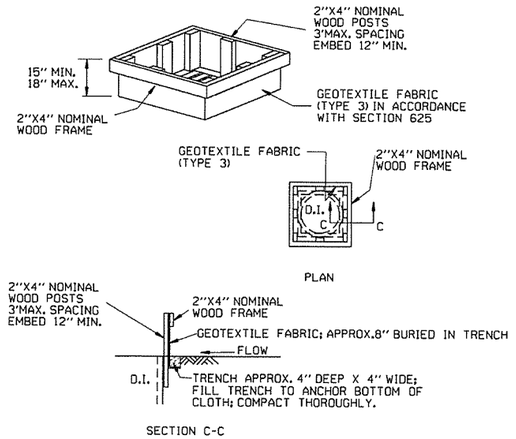
STANDARD DRAWING TC-5

GENERAL NOTES

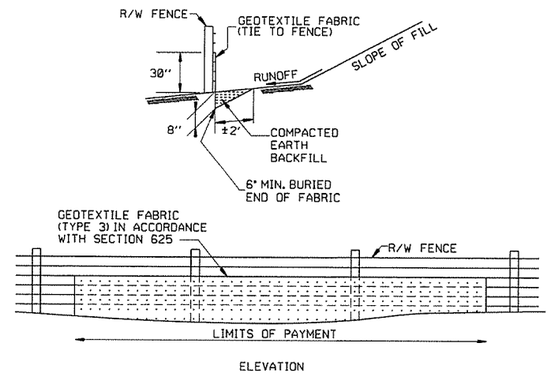
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

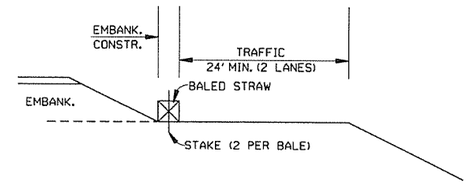
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

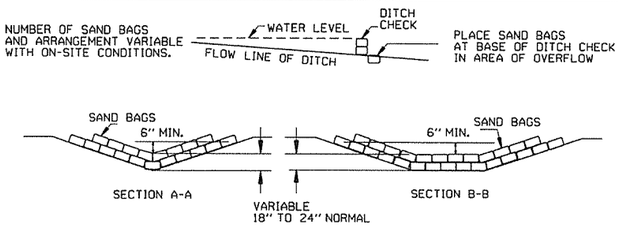
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

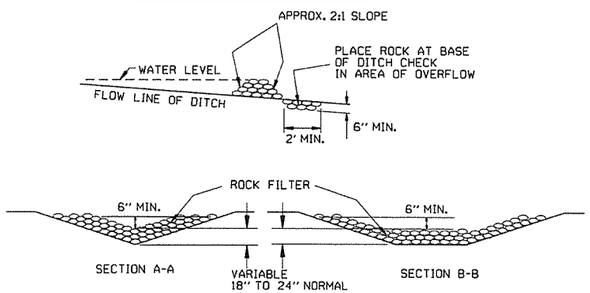
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



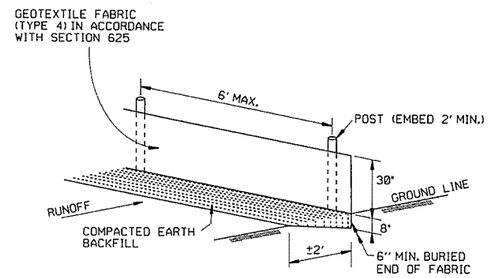
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

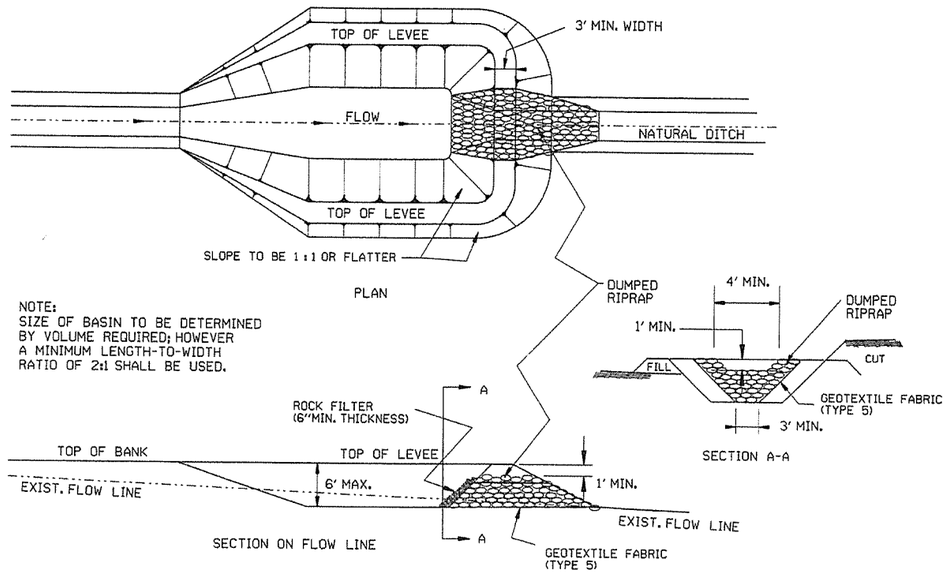
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

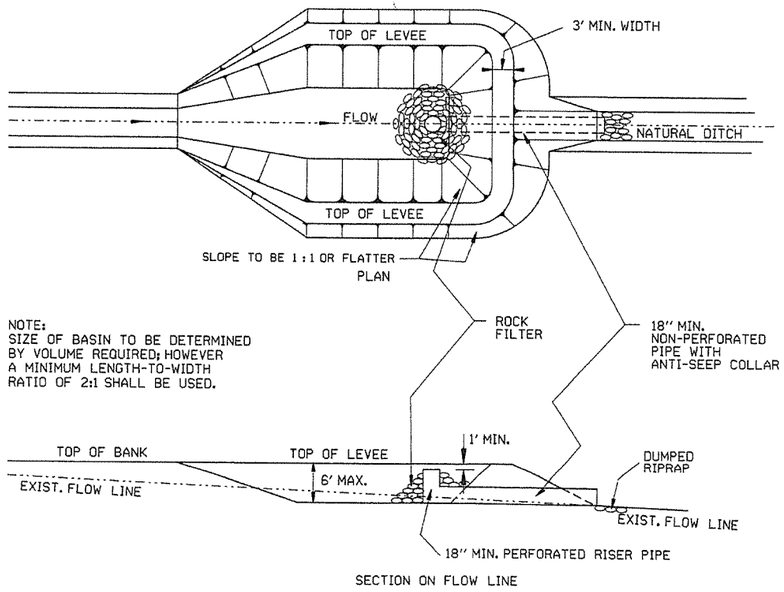
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

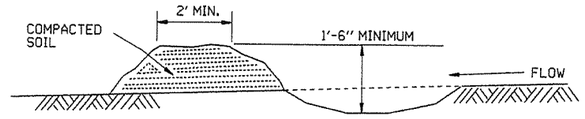
STANDARD DRAWING TEC-1



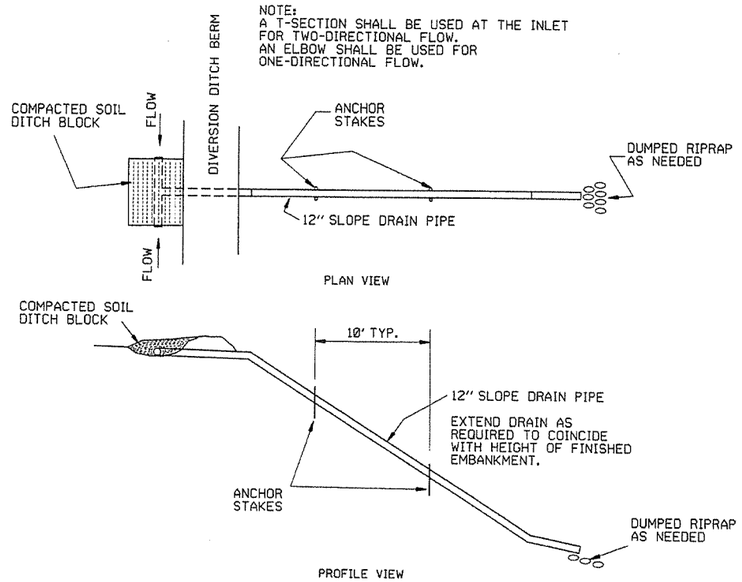
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



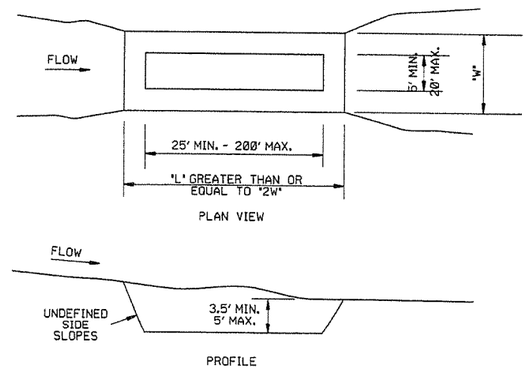
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

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

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

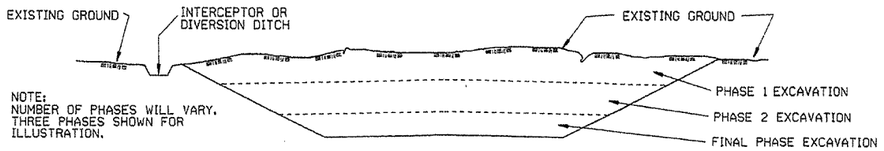
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

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

EXCAVATION



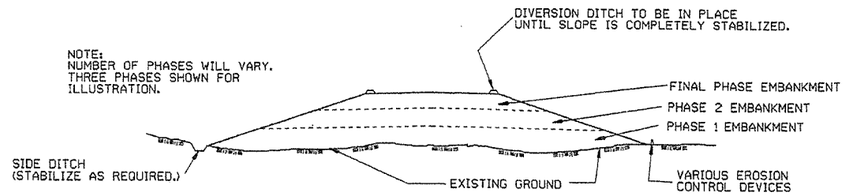
GENERAL NOTE

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

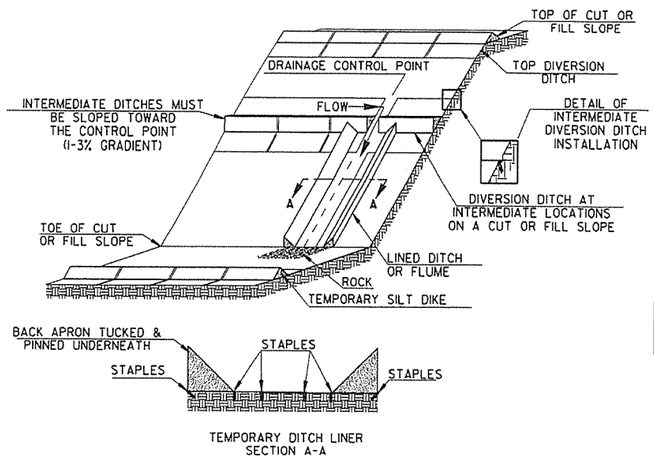
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD 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

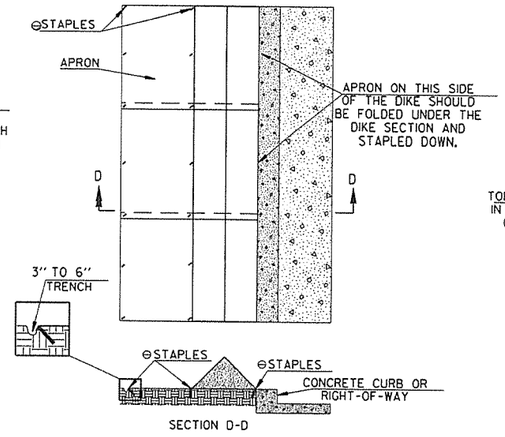
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

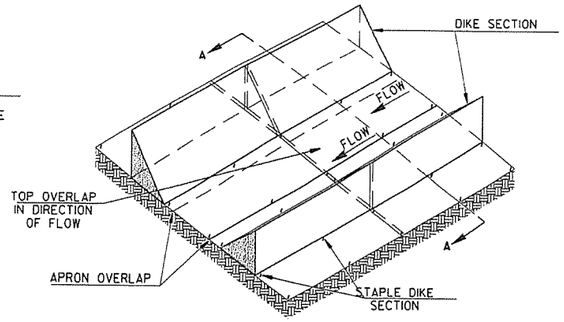
STANDARD DRAWING TEC-3



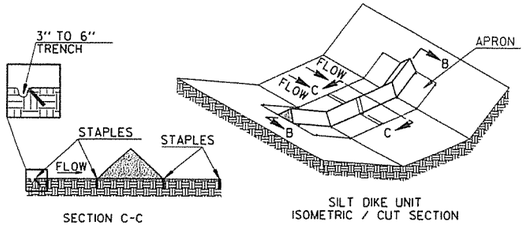
TRIANGULAR SILT DIKE INSTALLATION
FOR
DIVERSION DITCH AND/OR DITCH LINER

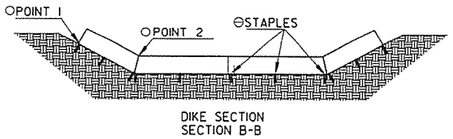


TRIANGULAR SILT DIKE INSTALLATION
FOR
CONTINUOUS BARRIER



TRIANGULAR SILT DIKE INSTALLATION
FOR
TEMPORARY DITCH LINER

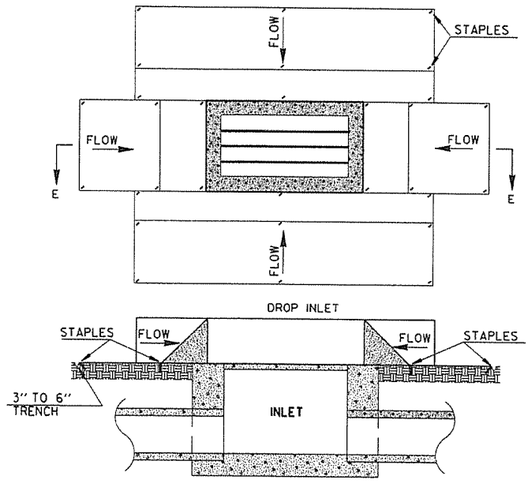




TRIANGULAR SILT DIKE INSTALLATION
FOR
ROADWAY DITCH OR DRAINAGE DITCH

○ POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

⊖ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.



TRIANGULAR SILT DIKE INSTALLATION
FOR
DROP INLETS

GENERAL NOTES

1. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE. THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER. THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.

2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. 11 GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.

   THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER. ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.

3. ACCEPTED TRIANGULAR SILT DIKE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TRIANGULAR SILT DIKE. PRICE BID WILL INCLUDE THE COST OF FURNISHING THE DIKES, INSTALLING, MAINTAINING AND REMOVAL WHEN DIRECTED BY THE ENGINEER.

SYMBOLOGY
SYMBOL TO BE USED TO DENOTE DEVICE ON PLANS

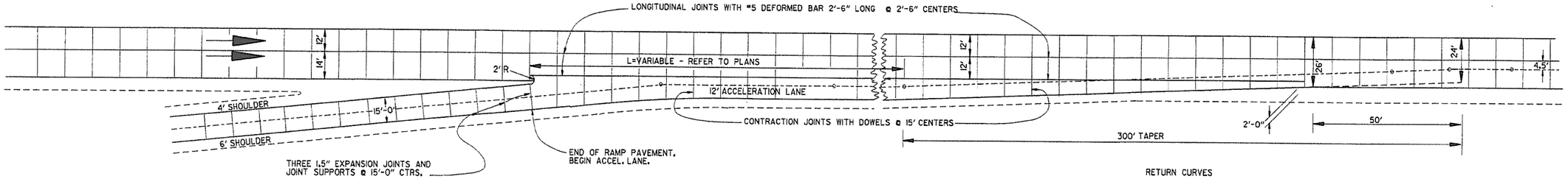
NOTE: SILT DIKE SHOULD ONLY BE USED FOR DROP INLETS IN SUMP LOCATIONS.

DATE	REVISION	FILMED
7-26-12	REVISED GENERAL NOTE 2.	
12-15-11	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

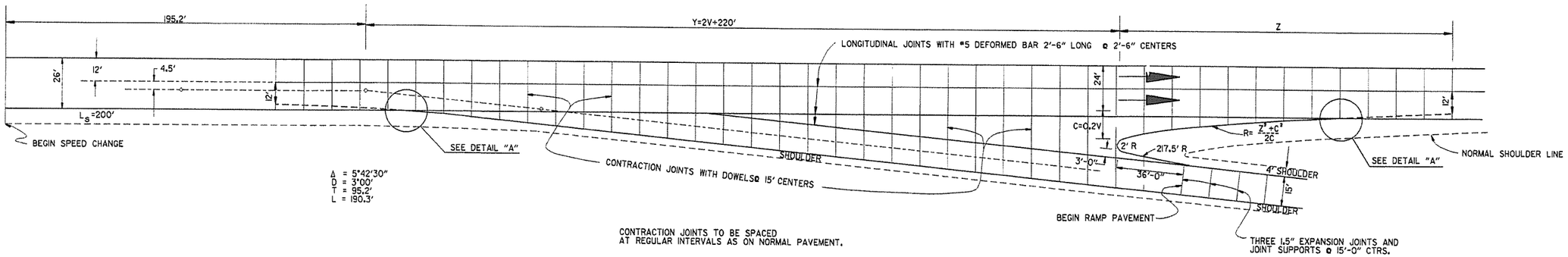
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-4



ENTRANCE RAMP

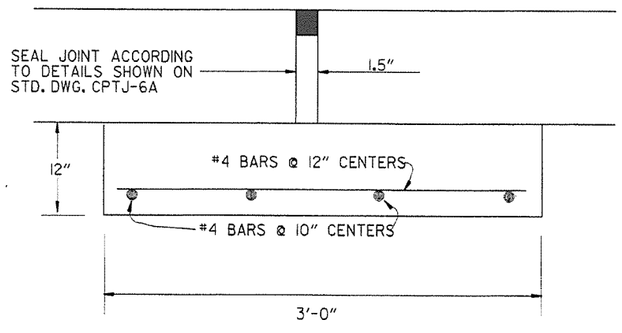
RETURN CURVES
Δ = 2°17'30"
D = 3°00'
T = 38.2'
L = 76.4'



Δ = 5°42'30"
D = 3°00'
T = 95.2'
L = 190.3'

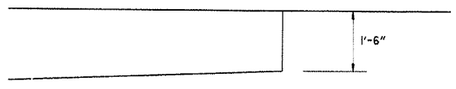
CONTRACTION JOINTS TO BE SPACED AT REGULAR INTERVALS AS ON NORMAL PAVEMENT.

EXIT RAMP



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS).
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 SUBSIDIARY TO THE ABOVE ITEMS.



DETAIL "A"

EXIT RAMP

DESIGN SPEED V	Y	NOSE OFFSET C	LENGTH NOSE TAPER Z	RETURN RADIUS R
40	300.0	8.0	96.0	580.0
50	320.0	10.0	120.0	725.0
60	340.0	12.0	168.0	1182.0
70	360.0	14.0	210.0	1582.0

DATE	REVISION	DATE FILM'D
1-12-00	REDRAWN & REISSUED	1-12-00

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS

STANDARD DRAWING TR-1