"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.		BB0101	1	94
				(2)	CACHE RIVER - BAYOU DeVIEW (S)			

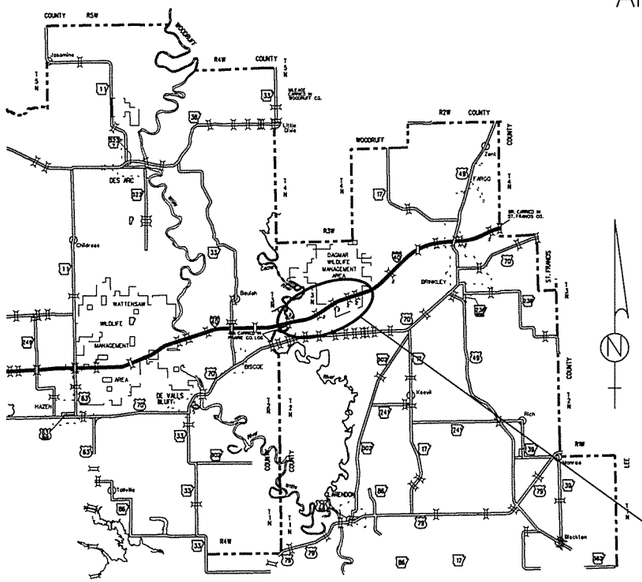
CACHE RIVER - BAYOU DeVIEW (S)

MONROE COUNTY

ROUTE 40 SECTION 43

FEDERAL AID PROJ. BIM-B40-0(201) & 9050

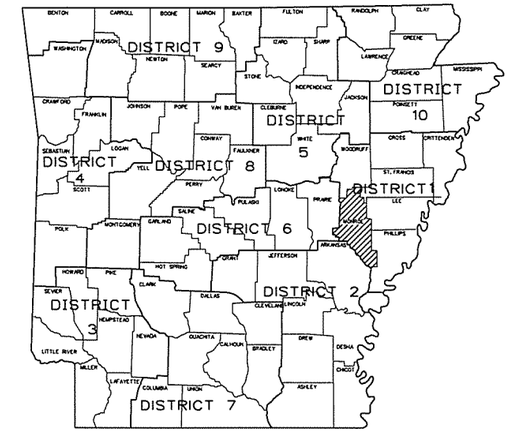
JOB BB0101



PROJECT LOCATION

VICINITY MAP

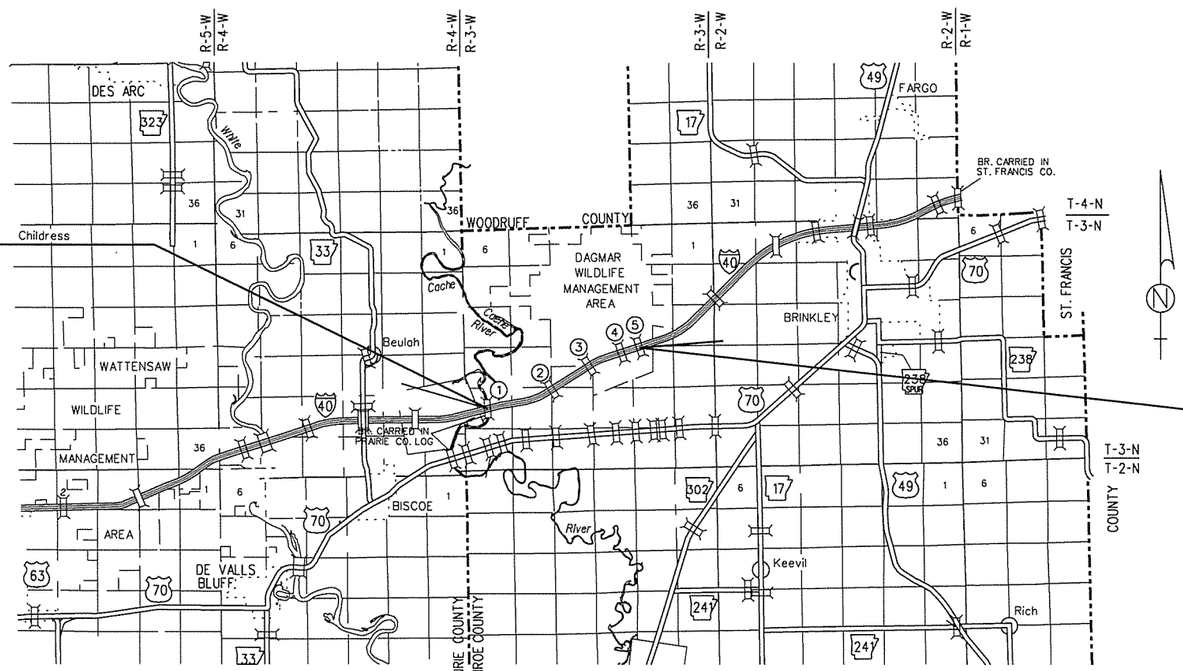
NOT TO SCALE



ARK. HWY. DIST. NO. 1

SEE SHEET 2
FOR BRIDGE STRUCTURES AND
STRUCTURES OVER 20'-0" SPAN

STA. 2195+91.10
BEGIN JOB BB0101
LOG MILE = 205.42



STA. 2405+38.90
END JOB BB0101
LOG MILE = 209.41

EXCEPTIONS TO JOB

STA. 2279+38.91	- STA. 2283+01.09	=	362.18'
STA. 2335+73.74	- STA. 2339+96.26	=	422.52'
STA. 2383+32.92	- STA. 2384+67.08	=	134.16'
TOTAL LENGTH OF EXCEPTIONS		=	918.86'

DESIGN TRAFFIC DATA

DESIGN YEAR	2034
2014 ADT	33000
2034 ADT	41000
2034 DHV	4510
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	56%
DESIGN SPEED	70 MPH

BEGINNING OF PROJECT
LATITUDE = N 34° 50' 55"
LONGITUDE = W 91° 21' 41"

MID-POINT OF PROJECT
LATITUDE = N 34° 51' 29"
LONGITUDE = W 91° 19' 30"

END OF PROJECT
LATITUDE = N 34° 52' 07"
LONGITUDE = W 91° 17' 40"

LENGTH MEASURED ALONG C.L. MEDIAN & SHOWN FOR INFORMATION ONLY

GROSS LENGTH OF PROJECT	20947.80	FEET OR	3.967	MILES	
NET	ROADWAY	20028.94	" "	3.793	"
NET	BRIDGES	0.00	" "	0.000	"
NET	PROJECT	20028.94	" "	3.793	"

P.E. JOB BB0101
NON-PART.

CERTIFICATE OF AUTHORIZATION
THE LPA GROUP INCORPORATED
#654
ARKANSAS - ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
2-26-2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	2	94
				(2)	STRUCTURES			

STATE OF ARKANSAS
* * *
REGISTERED PROFESSIONAL ENGINEER
* * *
No. 15592
CHARLENE MARIE CASSIDY

Charlene M Cassidy
12/3/2013

BRIDGE STRUCTURES (EXCEPTION TO PROJECT)

(1) STA. 2189+28.90 BRIDGE END
662'-2 1/2" CONTINUOUS COMPOSITE
BRIDGE NOS. 3717 AR & BR
40'-0" CLEAR ROADWAY
STA. 2195+91.10 BRIDGE END

(2) STA. 2279+38.91 BRIDGE END
362'-2 1/4" CONTINUOUS COMPOSITE
BRIDGE NOS. 3720 AR & BR
40'-0" CLEAR ROADWAY
STA. 2283+01.09 BRIDGE END

(3) STA. 2335+58.15 BRIDGE END
422'-6 1/4" CONTINUOUS COMPOSITE
BRIDGE NO. 3722 AR
40'-0" CLEAR ROADWAY
STA. 2339+80.67 BRIDGE END

(4) STA. 2335+89.33 BRIDGE END
422'-6 1/4" CONTINUOUS COMPOSITE
BRIDGE NO. 3722 BR
40'-0" CLEAR ROADWAY
STA. 2340+11.85 BRIDGE END

(5) STA. 2383+32.92 BRIDGE END
134'-2" CONTINUOUS COMPOSITE
BRIDGE NOS. 3723 AR & BR
40'-0" CLEAR ROADWAY
STA. 2384+67.08 BRIDGE END

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(2) INDEX OF SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
2-20-2014

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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
04-08-2014				6	ARK.			
				JOB NO.		BB0101	4	94
				(2)		GOV. SPECS. & GEN. NOTES		

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB BB0101
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
620-1	MULCH COVER
JOB BB0101	ASPHALT CONCRETE HOT MIX PATCHING OF EXISTING SHOULDERS
JOB BB0101	ASSESSMENT OF WORKING DAYS - SATURDAYS
JOB BB0101	BORROW
JOB BB0101	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0101	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0101	CONCRETE DITCH PAVING
JOB BB0101	ELECTRONIC SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0101	EMPLOYMENT REPORTING
JOB BB0101	EXTENSION FOR PIPE CULVERTS
JOB BB0101	FURNISH AND OPERATION OF MOBILE SPEED NOTIFICATION SYSTEM
JOB BB0101	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0101	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0101	MAINTENANCE OF TRAFFIC
JOB BB0101	MANDATORY USE OF INTERNET BIDDING
JOB BB0101	MODULAR GLARE SHIELD
JOB BB0101	MOTORIST ASSISTANCE PATROL
JOB BB0101	PARTNERING REQUIREMENTS
JOB BB0101	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB BB0101	PORTABLE CAMERA ASSEMBLY
JOB BB0101	PORTABLE CONSTRUCTION LIGHTING
JOB BB0101	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB BB0101	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB BB0101	REMOVAL AND DISPOSAL OF WIRE ROPE SAFETY FENCE
JOB BB0101	REMOVING EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
JOB BB0101	RESTRAINING CONDITION
JOB BB0101	ROADWAY CONSTRUCTION CONTROL
JOB BB0101	RUMBLE STRIP REMOVAL
JOB BB0101	SEQUENCE OF CONSTRUCTION
JOB BB0101	SITE USE (A+C METHOD)
JOB BB0101	SOIL STABILIZATION
JOB BB0101	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0101	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0101	TRAFFIC CONTROL SUPERVISOR
JOB BB0101	TRENCHING AND SHOULDER PREPARATION
JOB BB0101	UTILITY ADJUSTMENTS
JOB BB0101	VALUE ENGINEERING
JOB BB0101	WARM MIX ASPHALT
JOB BB0101	WIRE ROPE SAFETY FENCE END TERMINAL
JOB BB0101	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB0101	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB0101	WRECKER SERVICE
JOB BB0101	WRSF TRAINING WORKSHOP

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10887
SCOTT P. THORNSBERRY

Scott P. Thornsberry
4-8-2014

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL CONTACT ALL FIBER OPTIC COMPANIES INVOLVED ON THIS PROJECT AT LEAST 5 WORKING DAYS BEFORE CONSTRUCTION, INCLUDING REMOVING AND INSTALLING ANY FENCING, AND TAKE EVERY PRECAUTION NECESSARY TO AVOID CONFLICT WITH THE FIBER OPTIC CABLES. THE CONTRACTOR SHALL TELEPHONE ARKANSAS ONE-CALL SYSTEM AT 800-482-8998 TO DETERMINE THE LOCATION OF THE BURIED FIBER OPTIC CABLES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCES MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT - REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
9. 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.
10. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM 210 - UNCLASSIFIED EXCAVATION.

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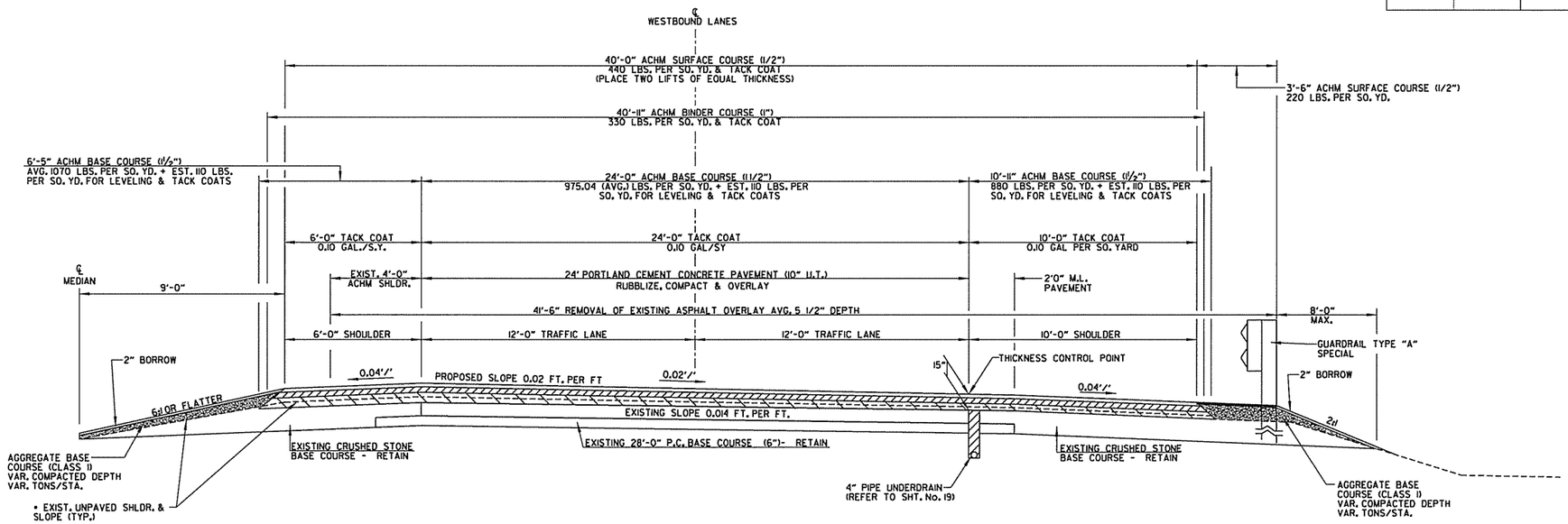
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

12/3/2013



ALTERNATE 1 - RUBBLIZE & OVERLAY - TANGENT SECTION - WESTBOUND LANES

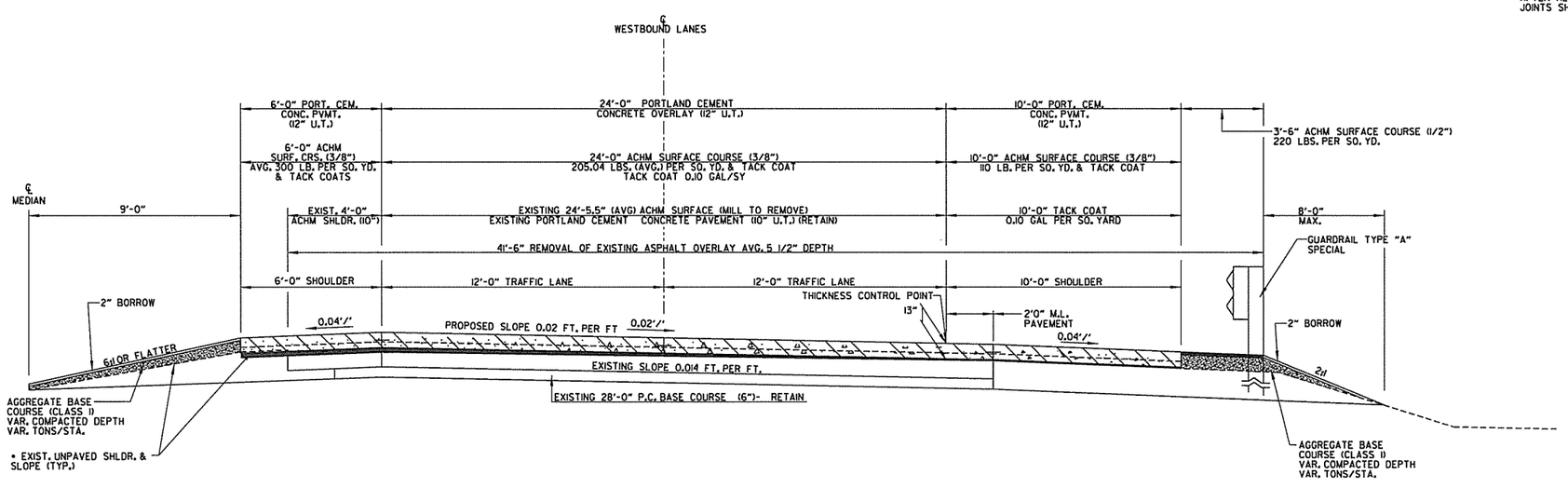
(SHOWN IN DIRECTION OF TRAFFIC)

• NOTE: CONTRACTOR TO PROVIDE POSITIVE DRAINAGE OF MAIN LANES AFTER EXISTING ASPHALT HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

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

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

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



ALTERNATE 2 - UNBONDED P.C.C. OVERLAY - TANGENT SECTION - WESTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
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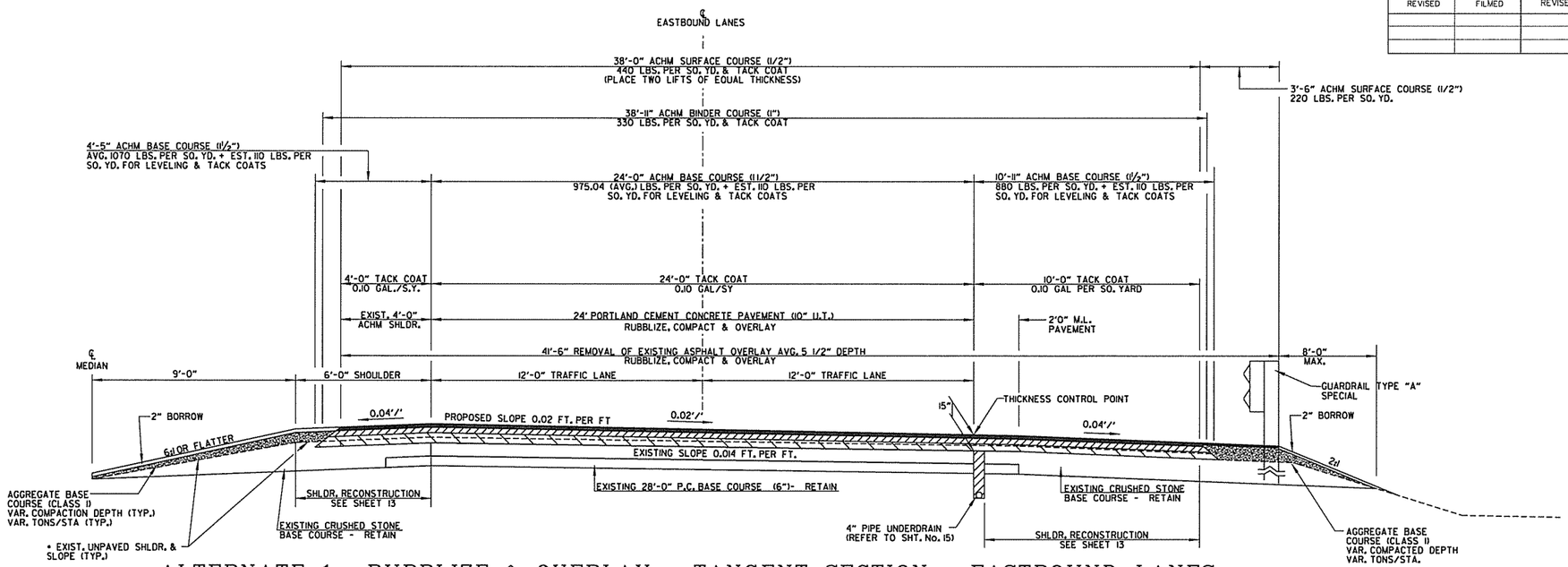
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013



ALTERNATE 1 - RUBBLIZE & OVERLAY - TANGENT SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

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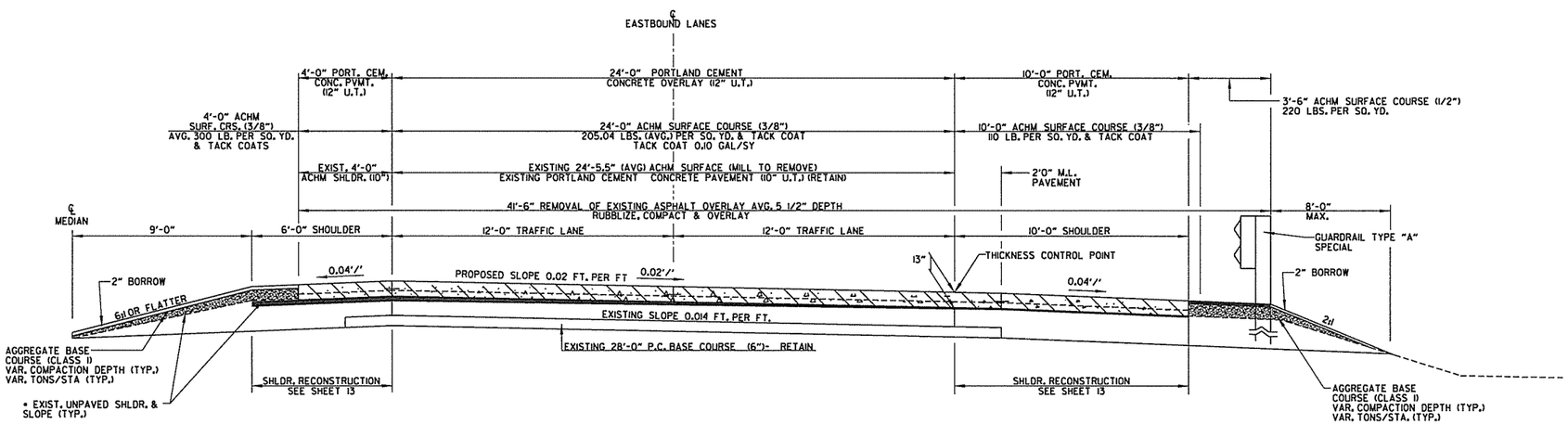

ALTERNATE 2 - UNBONDED P.C.C. OVERLAY - TANGENT SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
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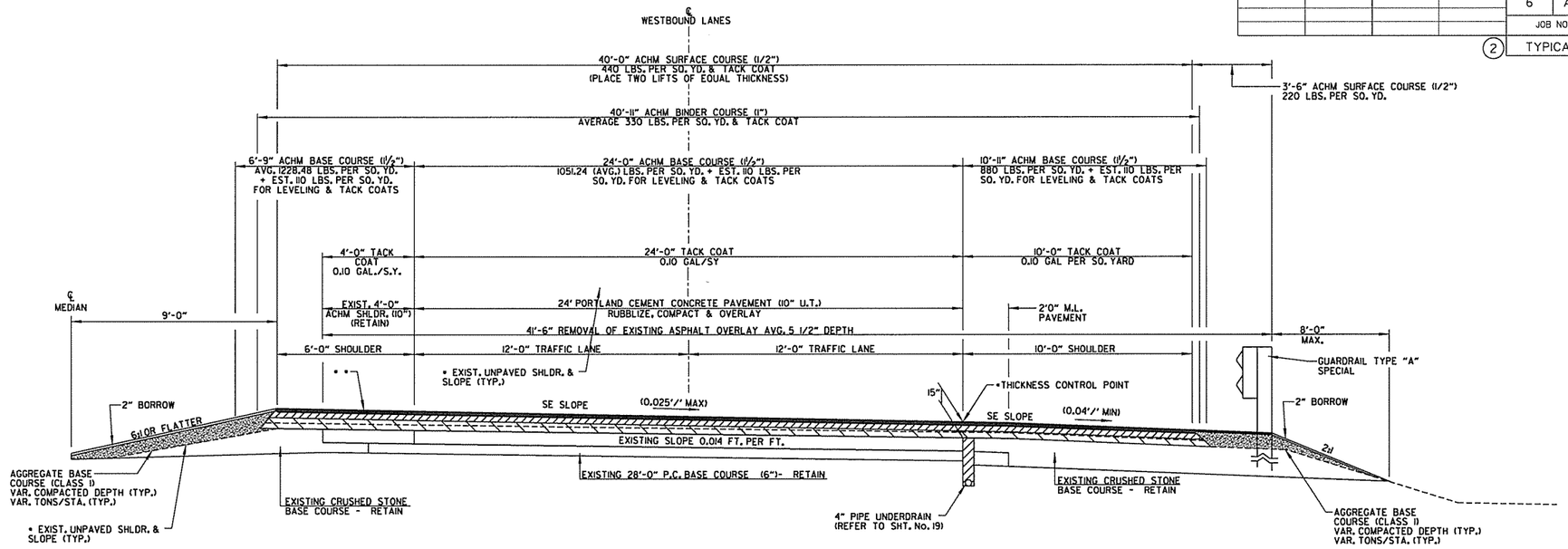
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/13/2013



ALTERNATE 1 - RUBBLIZE & OVERLAY - SUPERELEVATED SECTION - WESTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

•THICKNESS CONTROL POINT - SHOWN FOR SE CURVE TO THE RT. THICKNESS CONTROL POINT WILL BE ON THE INSIDE EDGE OF PAVEMENT FOR SE CURVE TO THE LEFT.

• NOTE: CONTRACTOR TO PROVIDE POSITIVE DRAINAGE OF MAIN LANES AFTER EXISTING ASPHALT HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

••ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08%.

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

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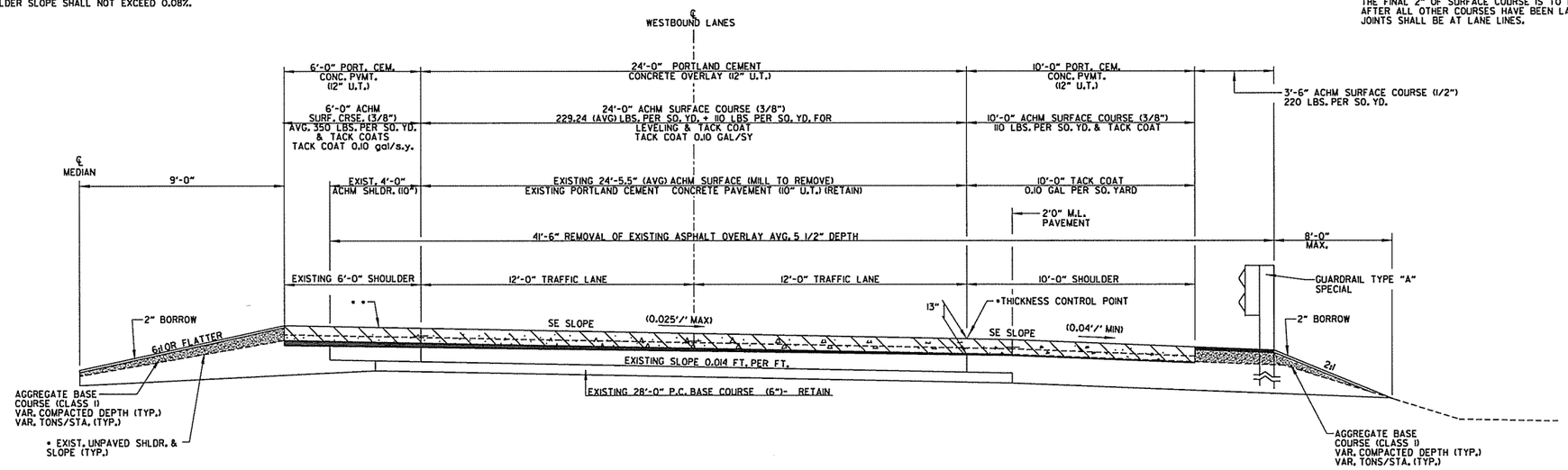

ALTERNATE 2 - UNBONDED P.C.C. OVERLAY - SUPERELEVATED SECTION - WESTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

•THICKNESS CONTROL POINT - SHOWN FOR SE CURVE TO THE RT. THICKNESS CONTROL POINT WILL BE ON THE INSIDE EDGE OF PAVEMENT FOR SE CURVE TO THE LEFT.

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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
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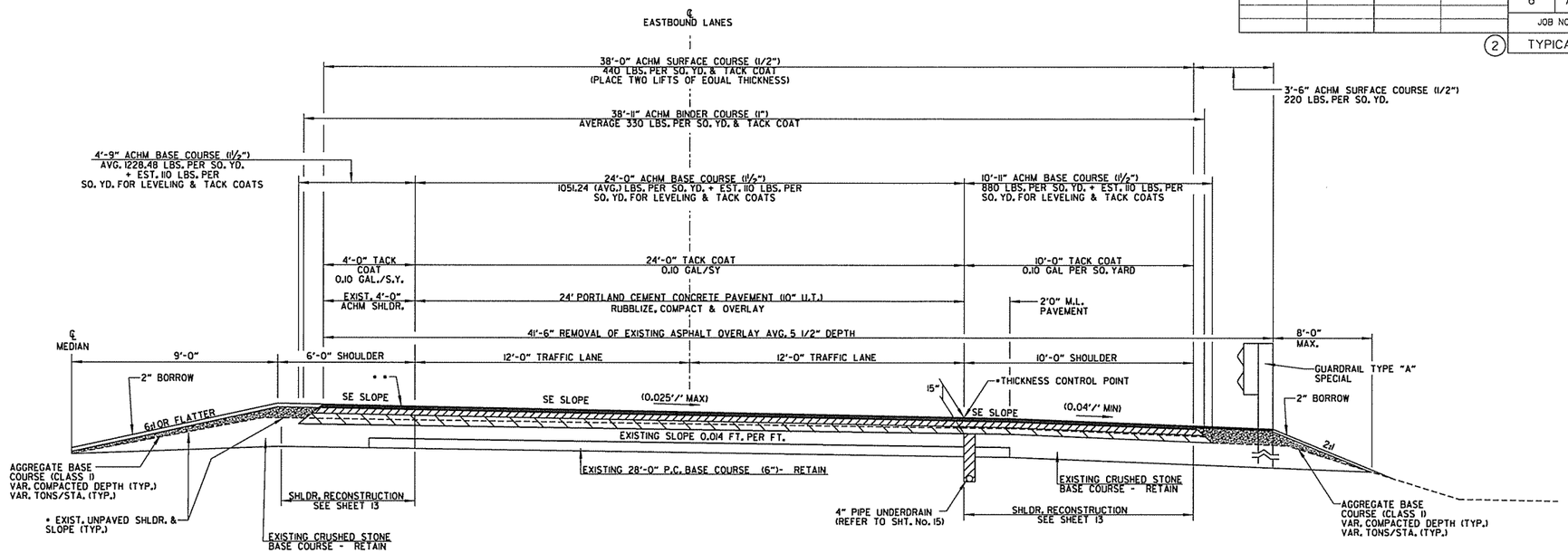
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
12/3/2013



ALTERNATE 1 - RUBBLIZE & OVERLAY - SUPERELEVATED SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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* NOTE: CONTRACTOR TO PROVIDE POSITIVE DRAINAGE OF MAIN LANES AFTER EXISTING ASPHALT HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

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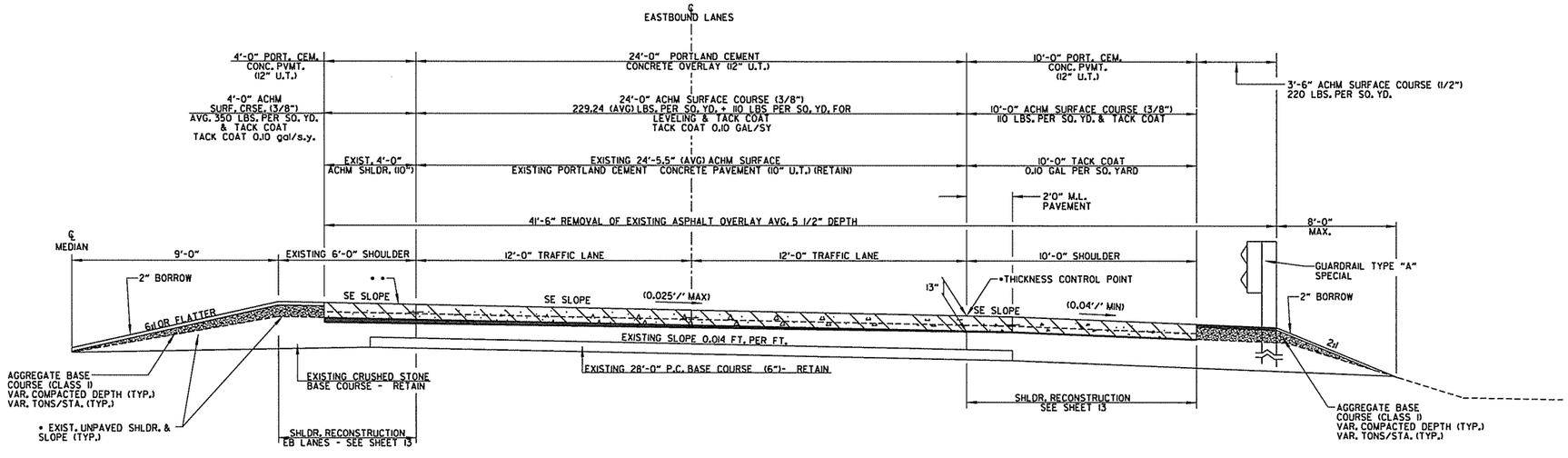

ALTERNATE 2 - UNBONDED P.C.C. OVERLAY - SUPERELEVATED SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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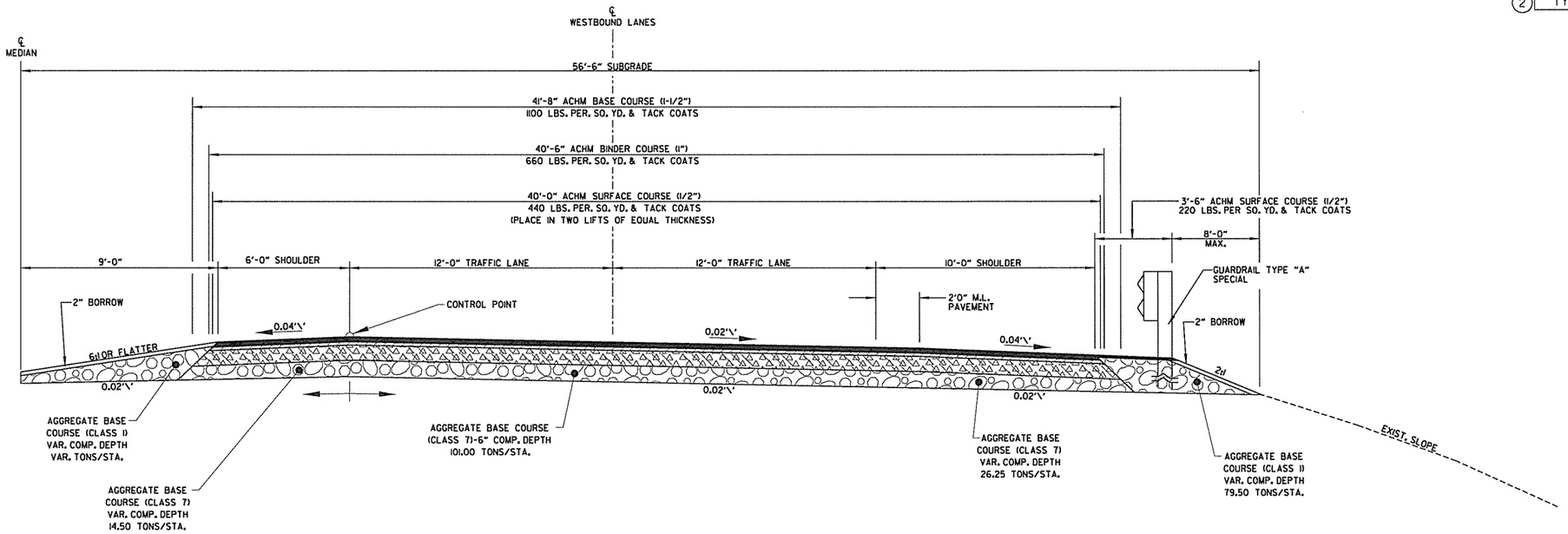
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013



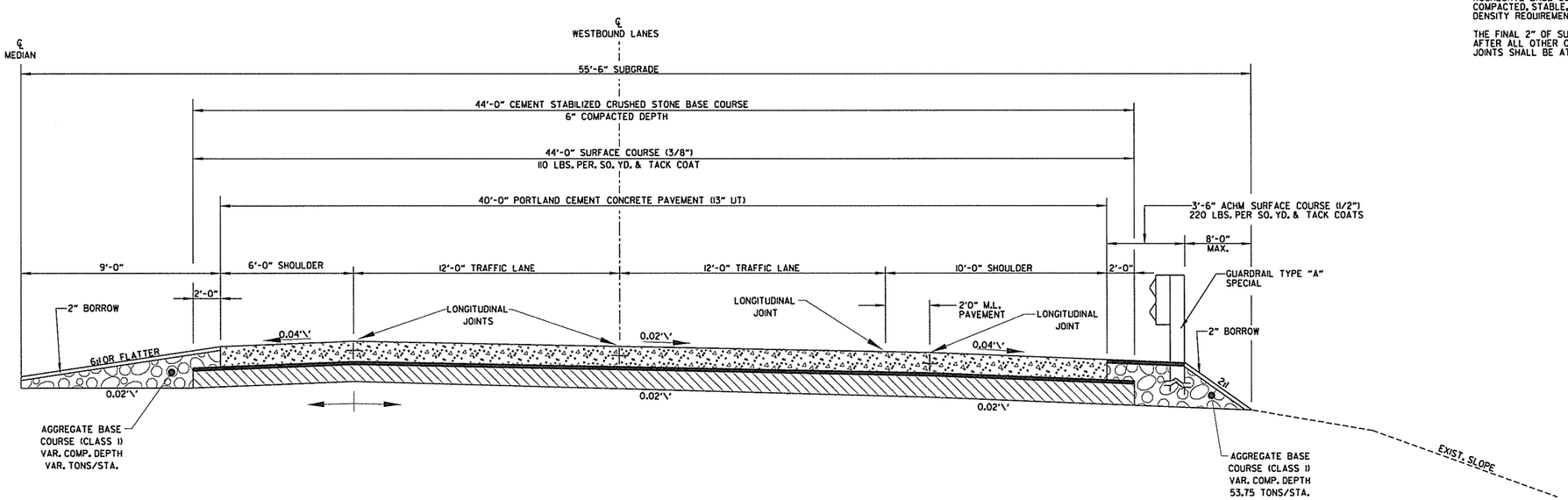
ALTERNATE NO. 1 - FULL-DEPTH RECONSTRUCTION - TANGENT SECTION - WESTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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.

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

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



ALTERNATE NO. 2 - FULL-DEPTH RECONSTRUCTION - TANGENT SECTION - WESTBOUND LANES

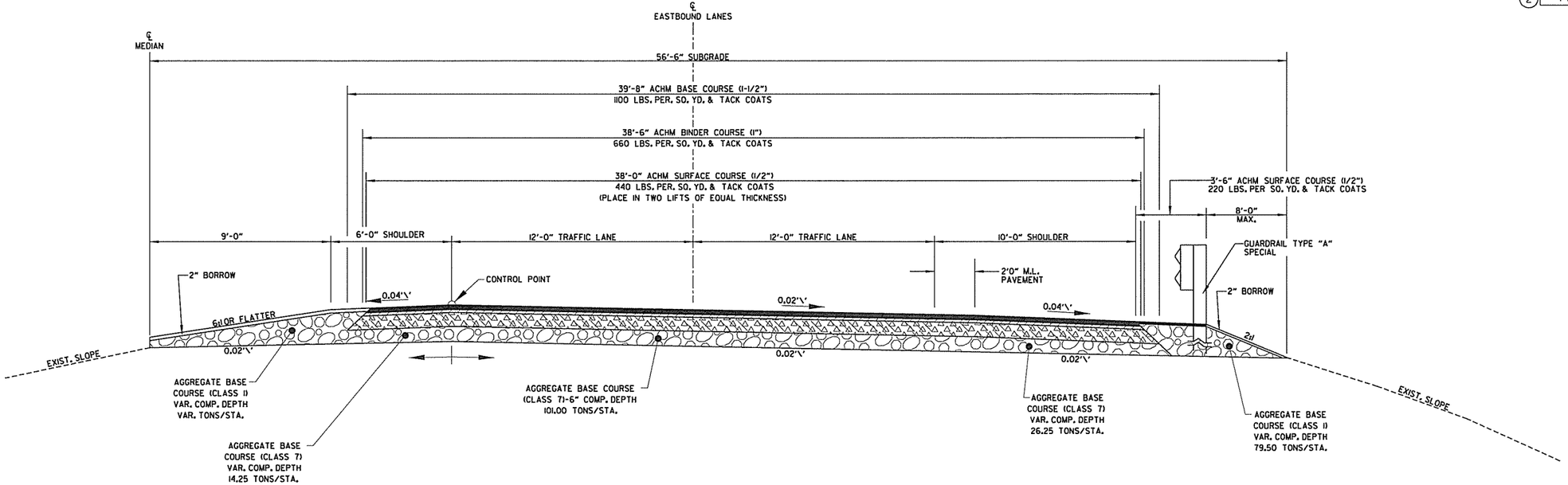
(SHOWN IN DIRECTION OF TRAFFIC)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	10	94

(2) TYPICAL SECTIONS OF IMPROVEMENT

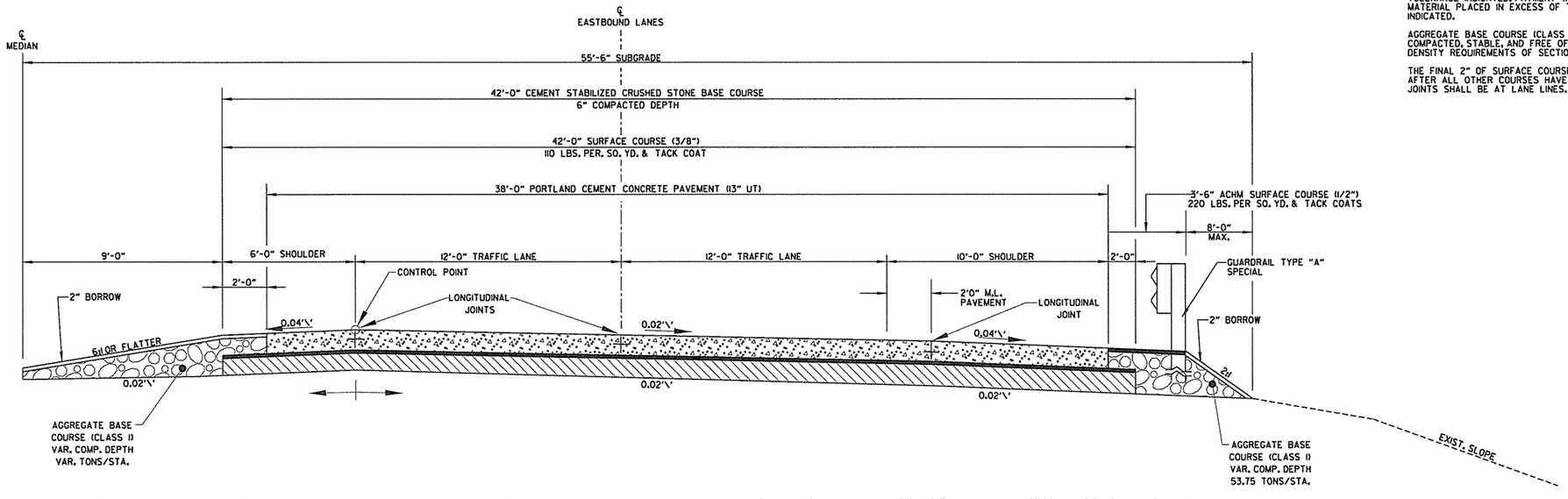
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2018



ALTERNATE NO. 1 - FULL-DEPTH RECONSTRUCTION - TANGENT SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)



ALTERNATE NO. 2 - FULL-DEPTH RECONSTRUCTION - TANGENT SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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.

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

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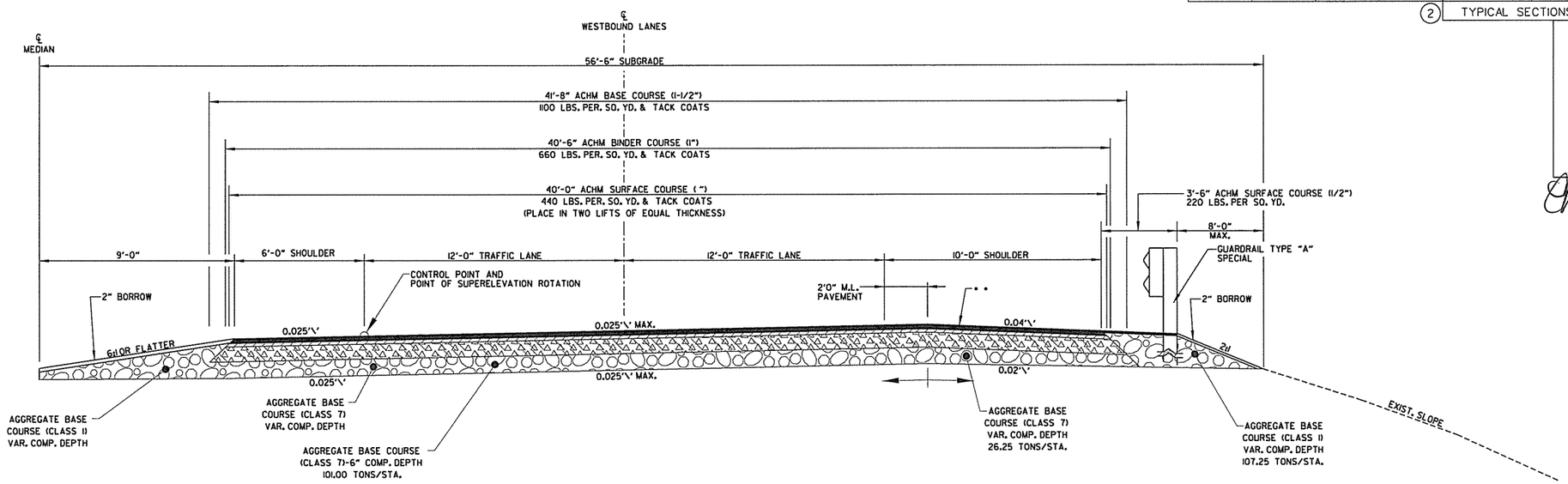
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
12/3/2013



ALTERNATE NO. 1 - FULL-DEPTH RECONSTRUCTION - SUPERELEVATED SECTION - WESTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

**ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08%.

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.

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

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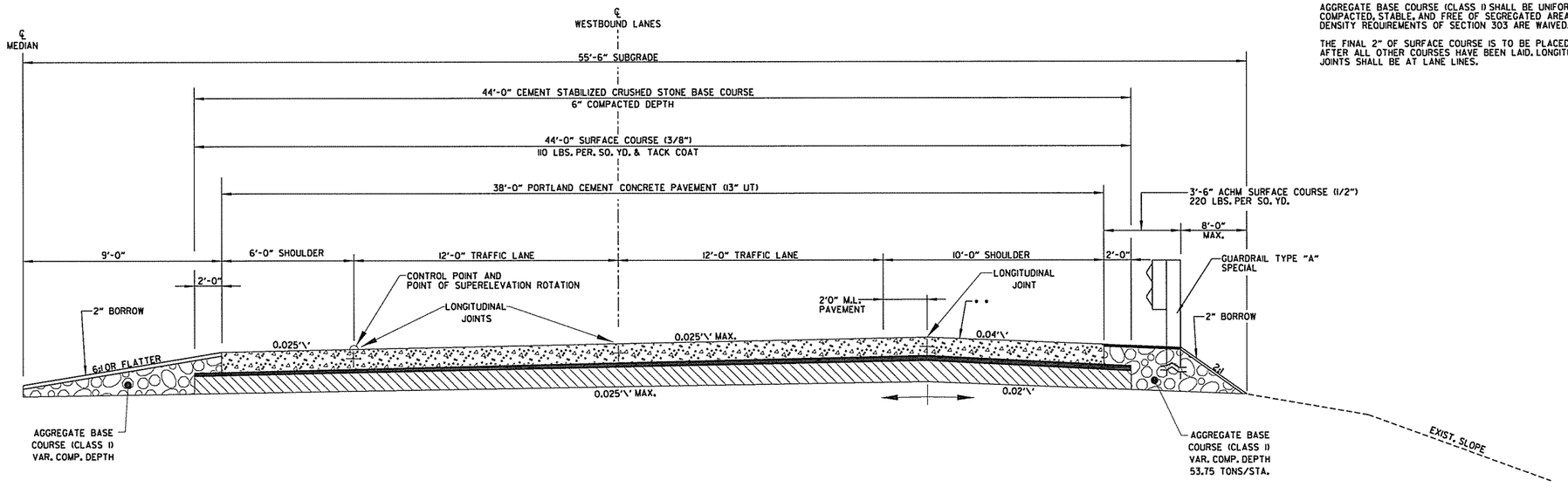

ALTERNATE NO. 2 - FULL-DEPTH RECONSTRUCTION - SUPERELEVATED SECTION - WESTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
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No. 15592
CHARLENE MARIE CASSIDY

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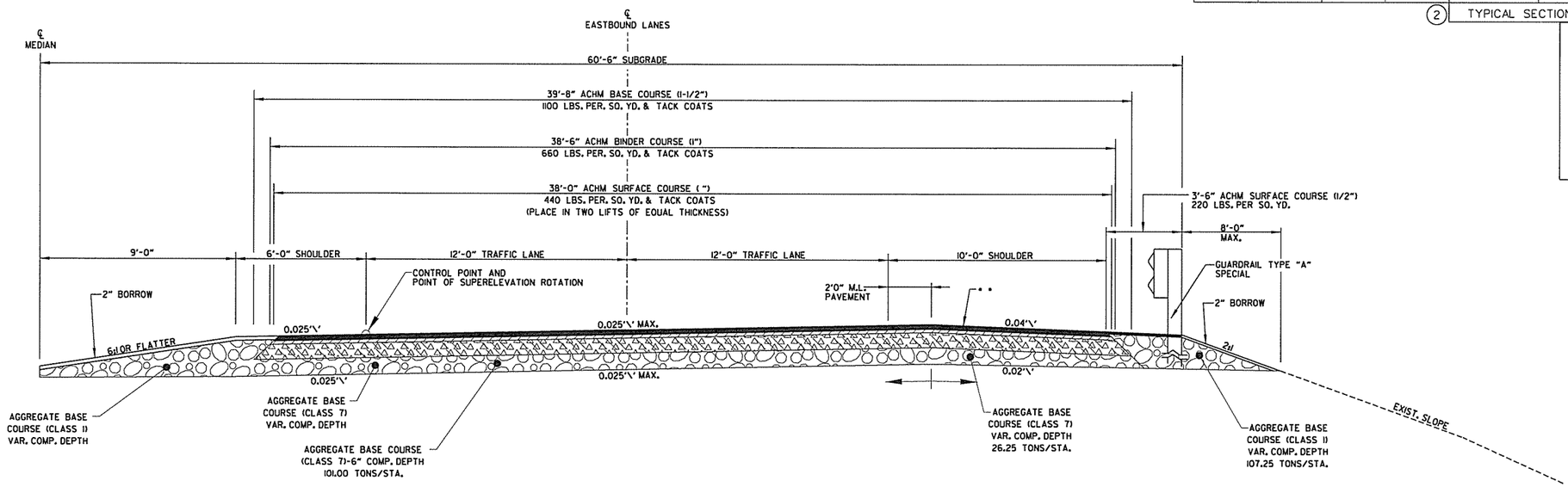
12/3/2013



ALTERNATE NO. 1 - FULL-DEPTH RECONSTRUCTION - SUPERELEVATED SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

**ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08%.

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.

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

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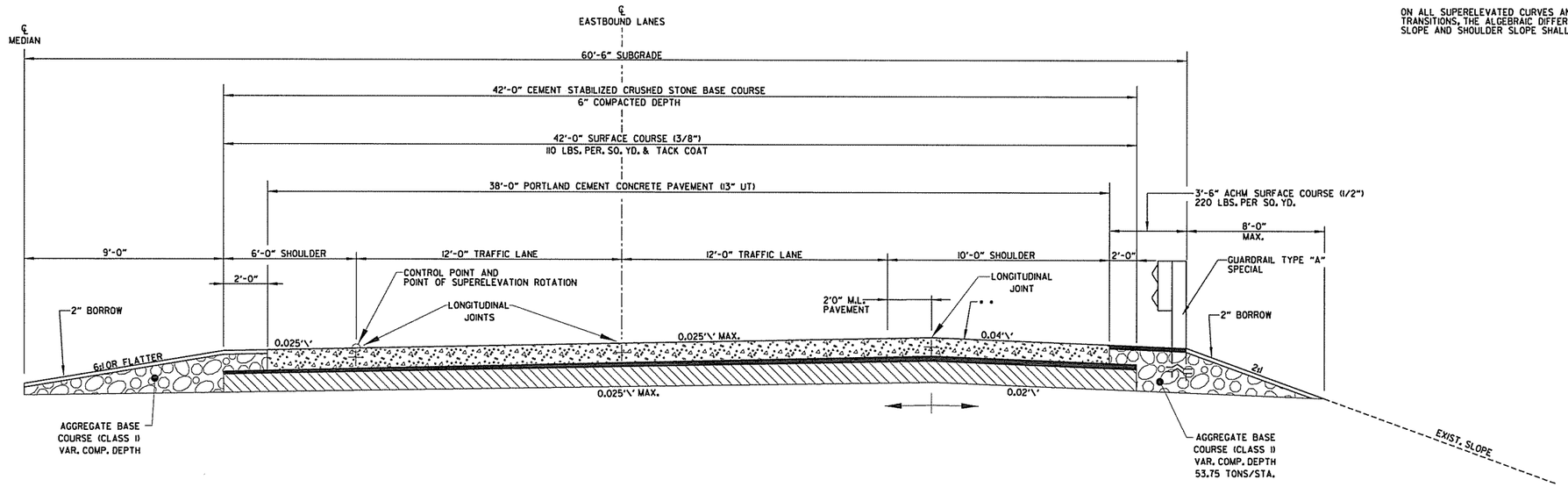
ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08%.



ALTERNATE NO. 2 - FULL-DEPTH RECONSTRUCTION - SUPERELEVATED SECTION - EASTBOUND LANES

(SHOWN IN DIRECTION OF TRAFFIC)

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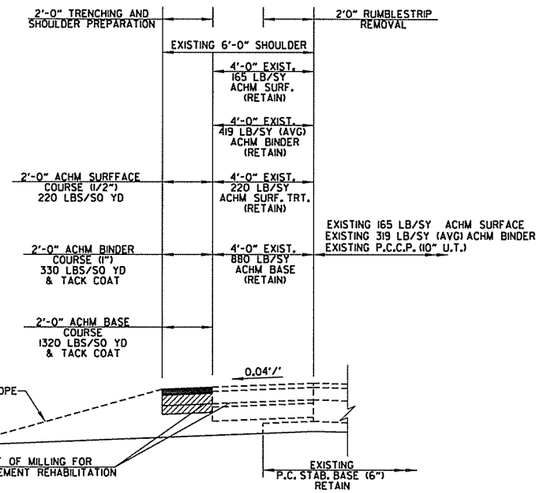
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

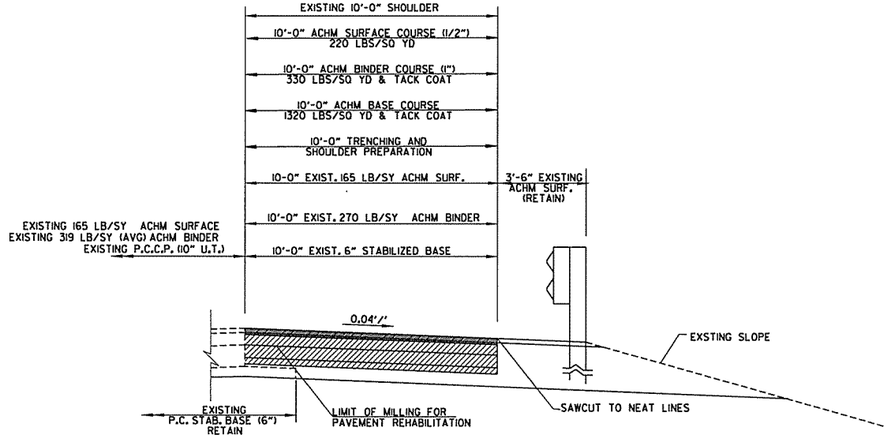
Charlene Marie Cassidy 12/3/2015



SHOULDER RECONSTRUCTION - ALT 1

INSIDE SHOULDER EB MAIN LANES
FOR MAINTENANCE OF TRAFFIC

NOTE: EXTEND SHOULDER RECONSTRUCTION TO LIMITS OF CROSSOVER AS INDICATED IN THE MAINTENANCE OF TRAFFIC PLANS.



SHOULDER RECONSTRUCTION - ALT 1

OUTSIDE SHOULDER EB MAIN LANES
FOR MAINTENANCE OF TRAFFIC

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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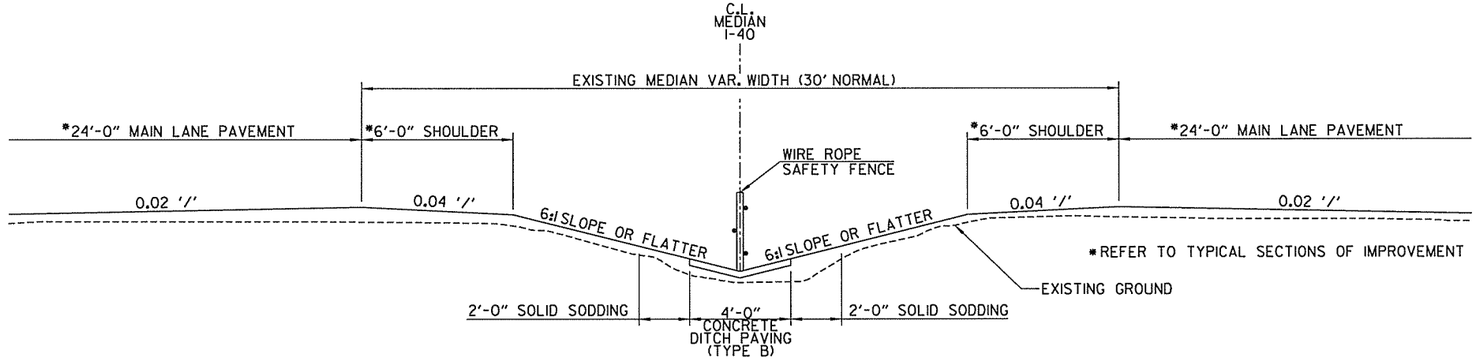
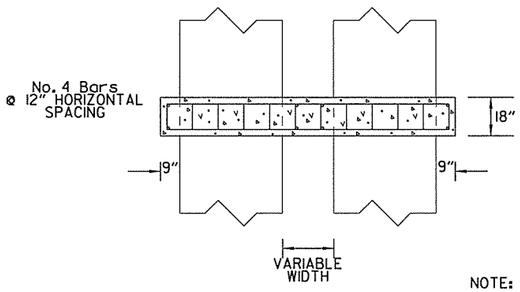
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013



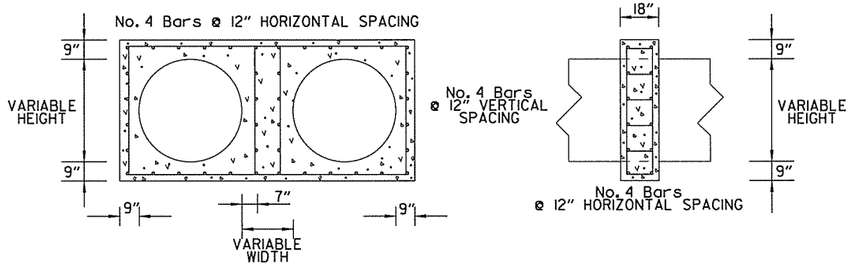
WIRE ROPE SAFETY FENCE DETAIL



TOP VIEW

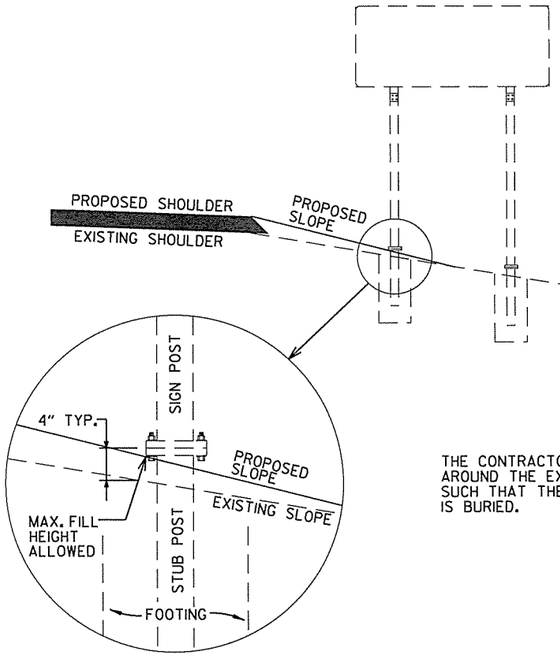
NOTE: PIPE COLLAR TO BE UTILIZED AS APPROVED BY THE ENGINEER.

MIN. 3" COVER



FRONT VIEW SIDE VIEW

PIPE EXTENSION REINFORCED CONCRETE COLLAR DETAIL



THE CONTRACTOR SHALL NOT PLACE EMBANKMENT AROUND THE EXISTING SIGN POSTS TO A DEPTH SUCH THAT THE STUB POST BASE PLATE IS BURIED.

DETAIL FOR THE MAINTENANCE OF EXISTING BREAKAWAY SIGN STRUCTURES

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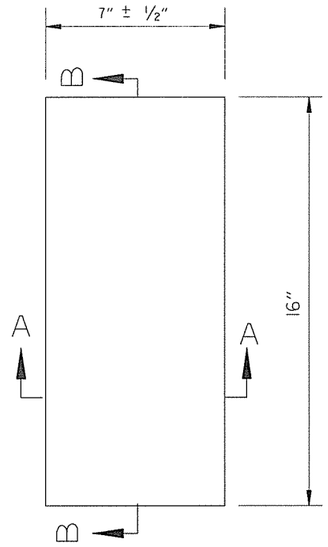
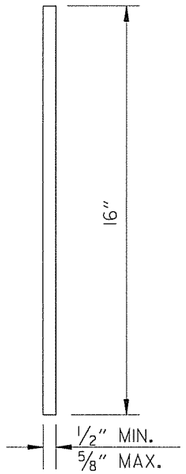
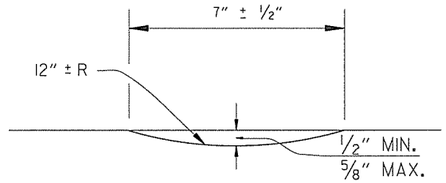


PLAN

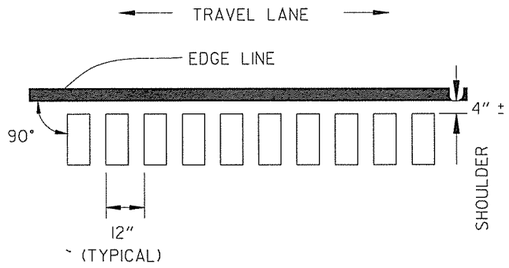


SECTION B-B



SECTION A-A

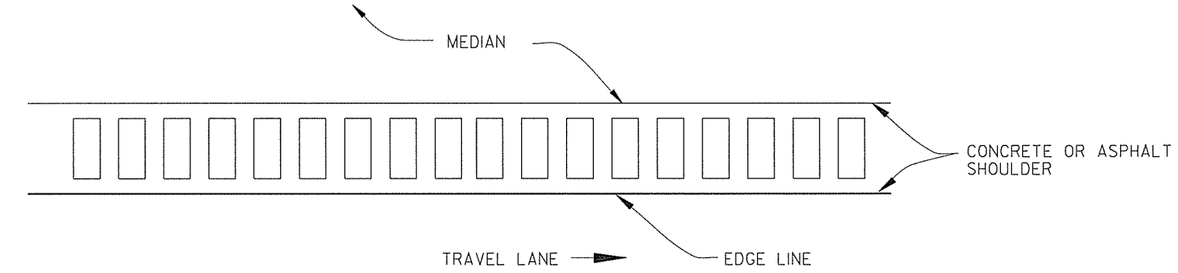
DETAILS OF RUMBLE STRIPS

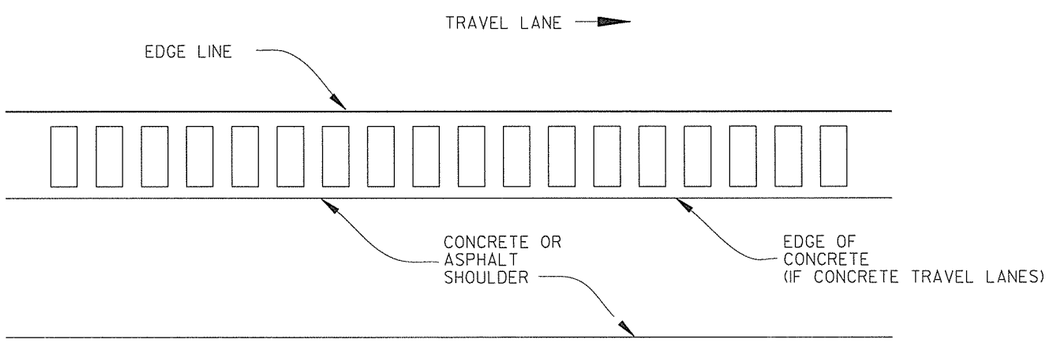


LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
10/3/2013





PLAN VIEW

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 ACCOMODATE VARIATIONS IN THE EDGE LINE AS WELL AS TO AVOID EXISTING LONGITUDINAL JOINTS.

2. THE 1/2" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.

3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

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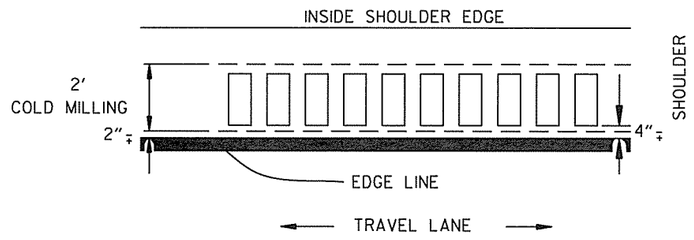
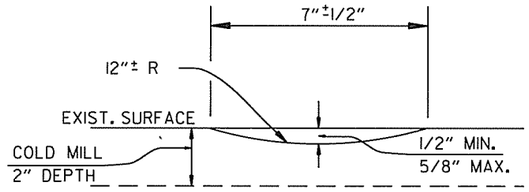
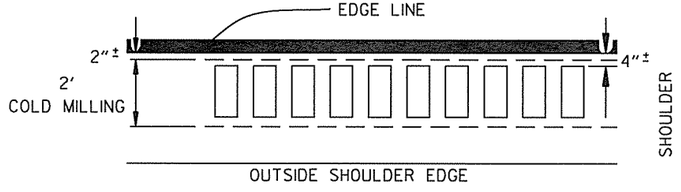


PLAN VIEW



2' STRIP TO BE MILLED & INLAID WITH
ACHM SURFACE COURSE (1/2") (PG 76-22)
(220 LBS. PER SQ. YD.) &
2'-0" TACK COAT (0.10 GAL. PER SQ. YD.)

ELEVATION VIEW



PLAN VIEW

DETAIL OF RUMBLE STRIP REMOVAL IN INSIDE AND OUTSIDE SHOULDERS

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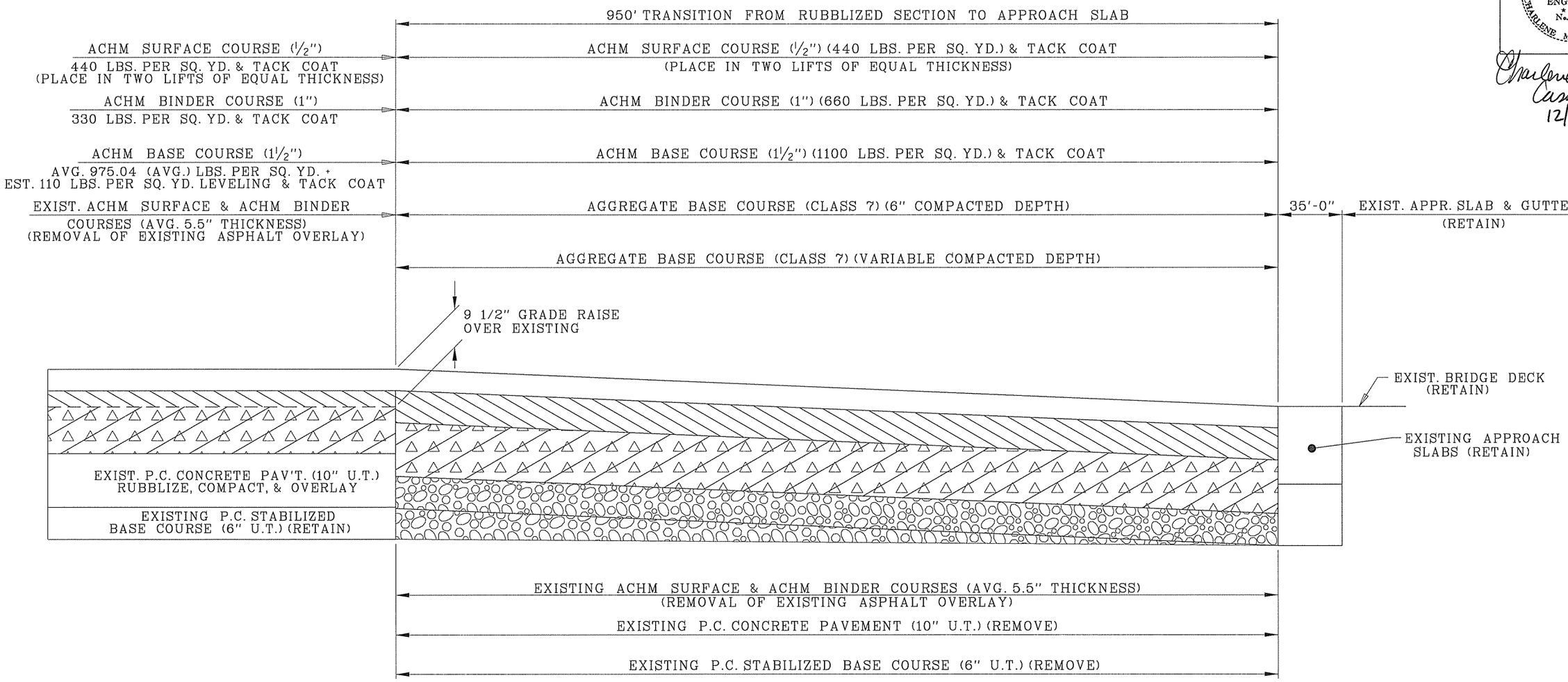

ALTERNATE NO. 1
DETAIL OF TRANSITION & FULL DEPTH PAVEMENT
REPLACEMENT AT EXISTING BRIDGE ENDS

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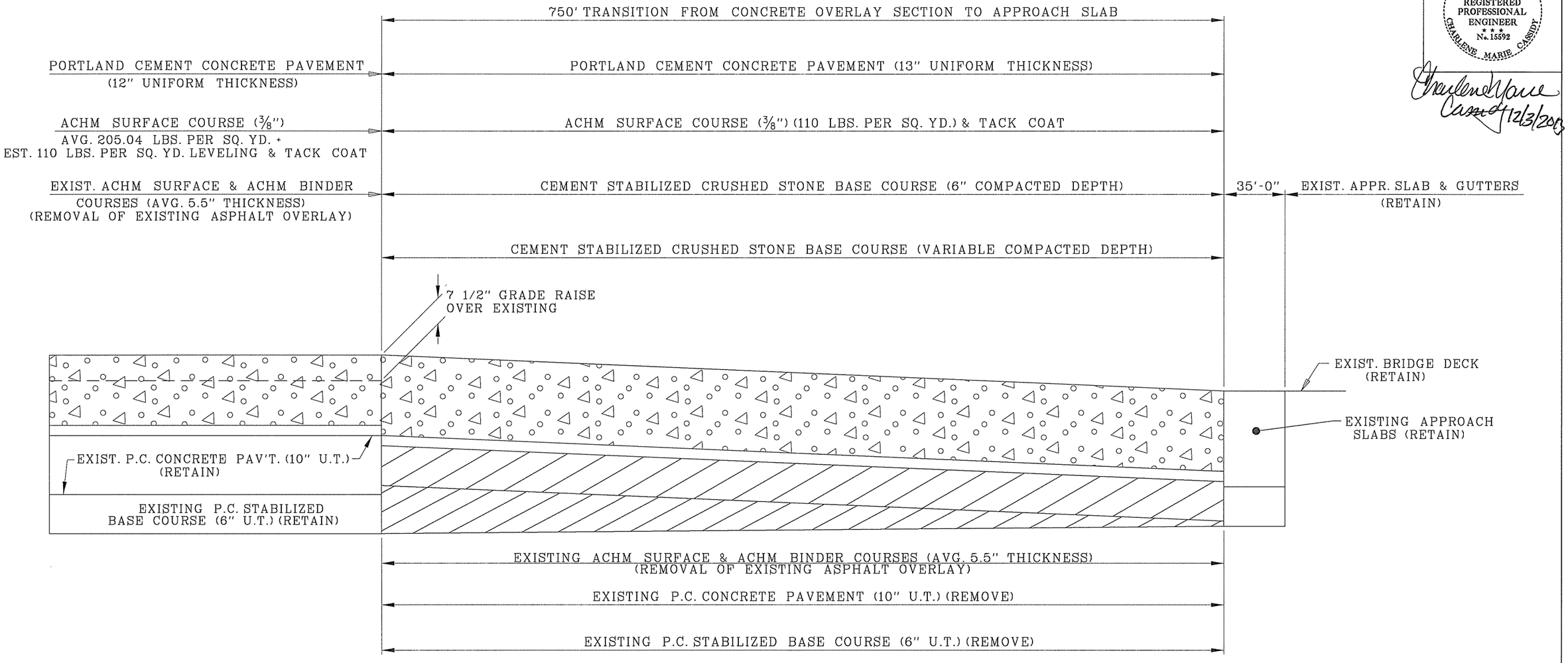

ALTERNATE NO. 2
DETAIL OF TRANSITION & FULL DEPTH PAVEMENT
REPLACEMENT AT EXISTING BRIDGE ENDS

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				6	ARK.			
				JOB NO.		BB0101	19	94
				(2)	SPECIAL DETAILS			

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON OR AS ON STD. DWG. PU-1. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. 4" PIPE UNDERDRAINS SHALL BE PLACED ON THE LOW SIDE OF SUPERELEVATED ROADWAYS AS SHOWN ON THE TYPICAL SECTIONS. 4" PIPE UNDERDRAINS SHALL BE CONNECTED TO MEDIAN DROP INLETS WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

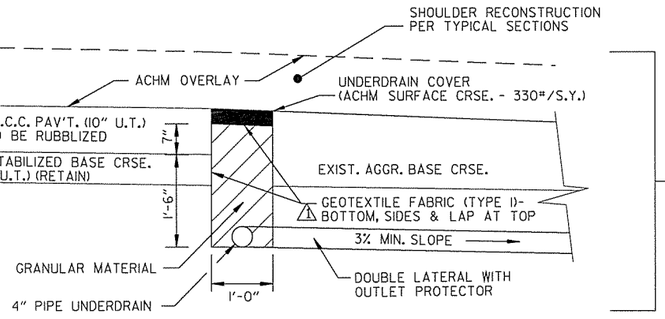
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. THE RODENT SCREEN SHOWN HEREON SHALL BE USED IN LIEU OF THE RODENT SCREEN SHOWN ON STD. DWG. PU-1. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT FOR LATERALS TO BE REMOVED OR ABANDONED SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED, THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1.) INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2.) INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE. PAYMENT SHALL BE INCLUDED IN THE PRICE BID EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

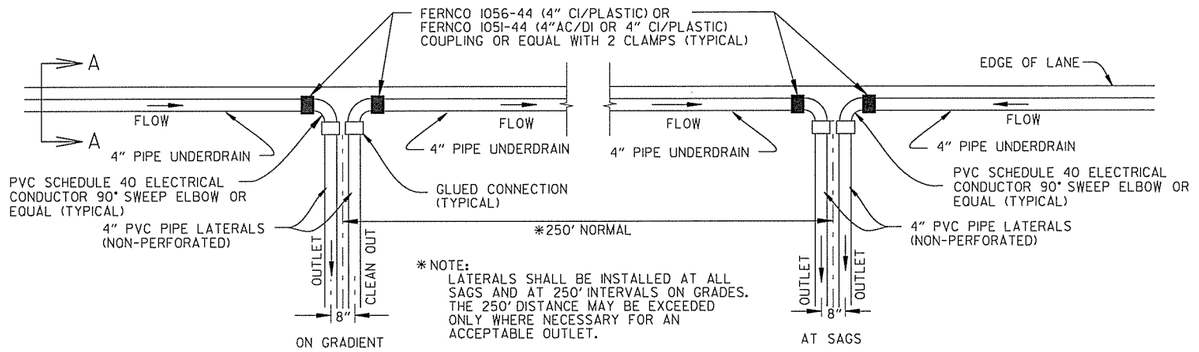
8. 4" PIPE UNDERDRAIN SHALL BE PLACED SUCH THAT POSITIVE DRAINAGE IS ACHIEVED.



SECTION A-A
ALTERNATE NO. 1

⚠ IN LIEU OF LAPPING THE GEOTEXTILE FABRIC, THE CONTRACTOR MAY (WITH APPROVAL OF THE ENGINEER) UTILIZE AN ALTERNATE METHOD FOR PROVIDING POSITIVE CLOSURE.

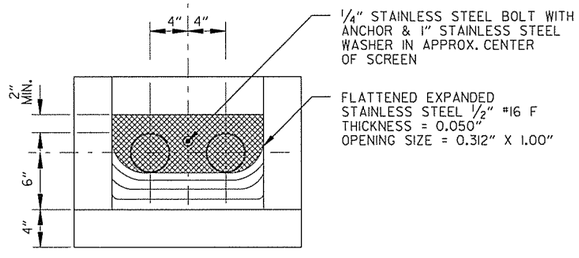
FOR WIDTH OF EXISTING SHOULDER, TRENCH FOR LATERALS SHALL BE BACKFILLED WITH GRANULAR MATERIAL OR AGGREGATE BASE COURSE (CLASS 7). PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



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

PLAN DETAIL OF PIPE UNDERDRAIN LATERALS

NOTE:
PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE. UNDERDRAIN OUTLET PROTECTORS SHALL BE INSTALLED ON NEW LATERALS. (REFER TO STD. DWG. PU-1. & NOTE *5.)



DETAIL OF RODENT SCREEN

STATE OF ARKANSAS
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No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/2/2013

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				(2)	SPECIAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

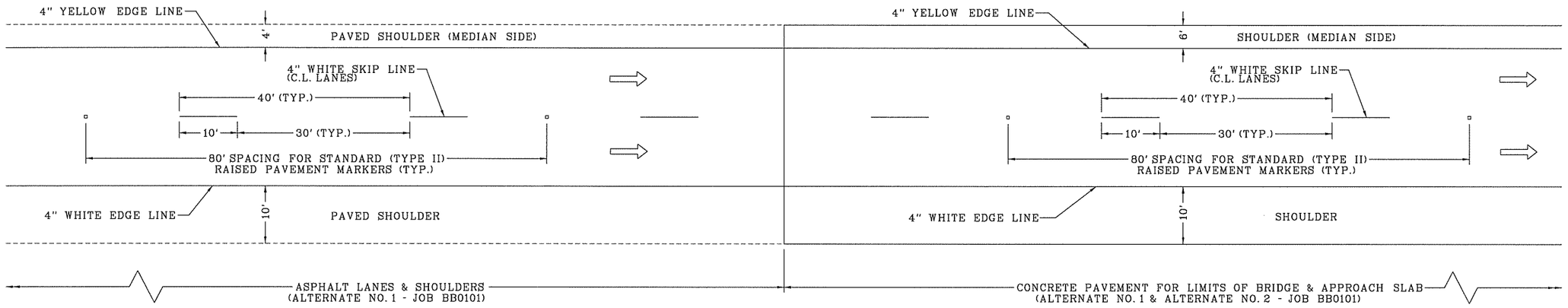
Charlene Marie Cassidy 12/3/2013

ASPHALT ROADWAY

SKIP LINE - INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE MARKING TAPE ALT. NO. 2
EDGE LINES - INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE MARKING TAPE ALT. NO. 2
REFER TO SPECIAL PROVISION - HIGH PERFORMANCE PAVEMENT MARKING

CONCRETE BRIDGE

SKIP LINE - INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE CONTRAST MARKING TAPE ALT. NO. 2
EDGE LINES - INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE MARKING TAPE ALT. NO. 2
REFER TO SPECIAL PROVISION - HIGH PERFORMANCE PAVEMENT MARKING



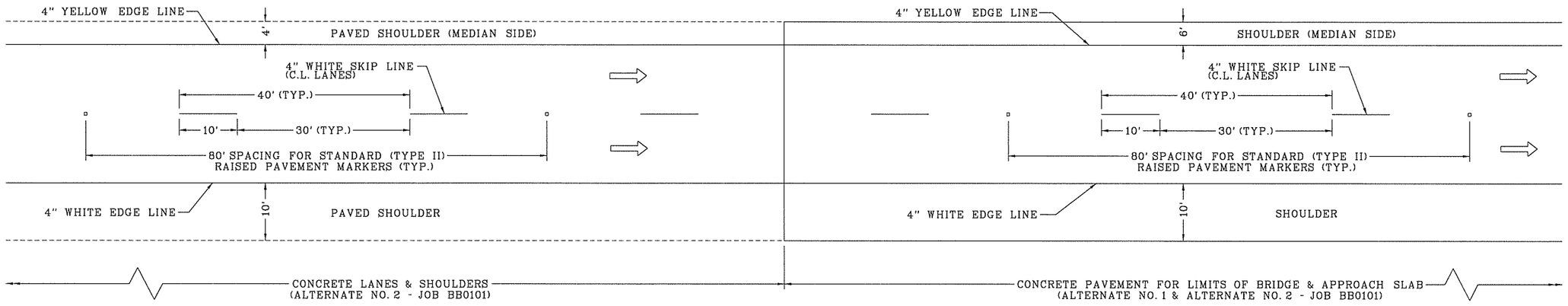
PERMANENT PAVEMENT MARKING DETAILS
ALTERNATE NO. 1
EASTBOUND I-40 SHOWN ABOVE
(REVERSE FOR WESTBOUND I-40)

CONCRETE ROADWAY

SKIP LINE - INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE CONTRAST MARKING TAPE ALT. NO. 2
EDGE LINES - INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE MARKING TAPE ALT. NO. 2
REFER TO SPECIAL PROVISION - HIGH PERFORMANCE PAVEMENT MARKING

CONCRETE BRIDGE

SKIP LINE - INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE CONTRAST MARKING TAPE ALT. NO. 2
EDGE LINES - INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING ALT. NO. 1
OR HIGH PERFORMANCE MARKING TAPE ALT. NO. 2
REFER TO SPECIAL PROVISION - HIGH PERFORMANCE PAVEMENT MARKING

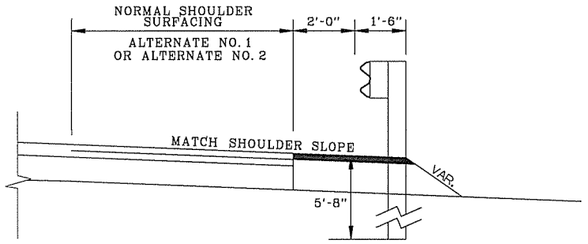


PERMANENT PAVEMENT MARKING DETAILS
ALTERNATE NO. 2
EASTBOUND I-40 SHOWN ABOVE
(REVERSE FOR WESTBOUND I-40)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	21	94
				(2)	SPECIAL DETAILS			

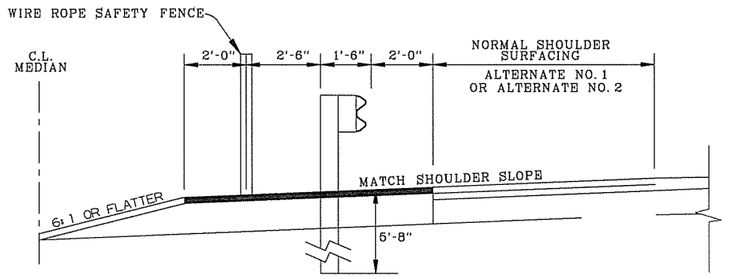
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

12/3/2013



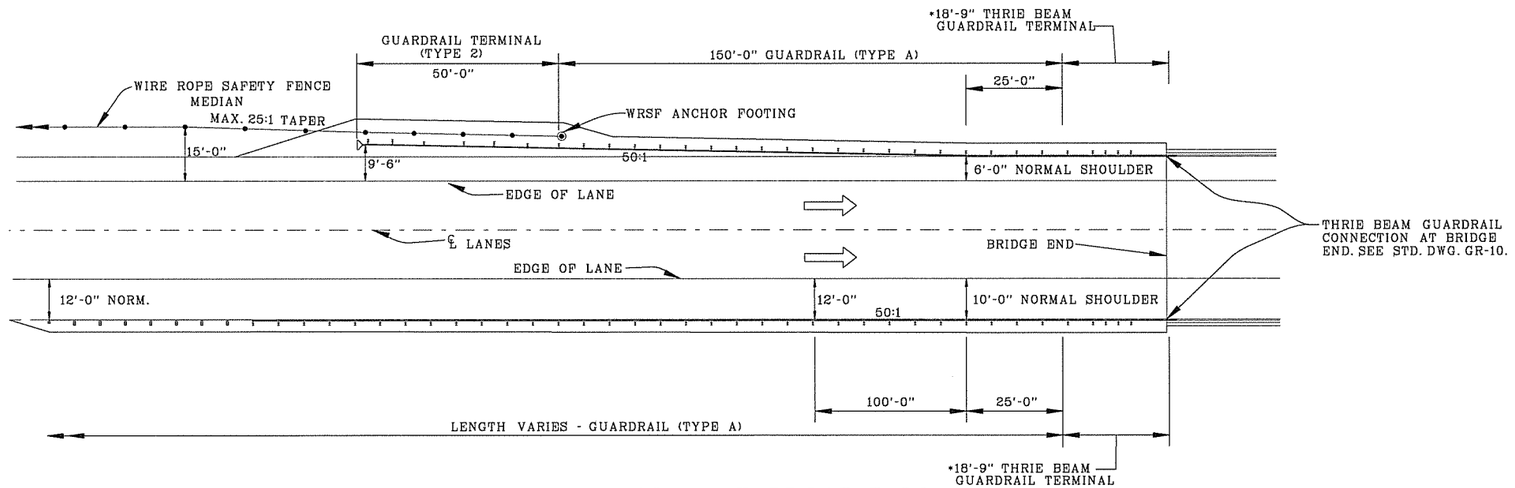
SECTION DETAIL OF WIDENING FOR GUARDRAIL - OUTSIDE SHOULDER
ALTERNATE NO. 1 & NO. 2

REFER TO STANDARD DRAWINGS GR-8, GR-9, GR-9A, GR-10, GR-10A FOR ADDITIONAL INFORMATION



SECTION DETAIL OF WIDENING FOR GUARDRAIL - INSIDE SHOULDER
ALTERNATE NO. 1 & NO. 2

REFER TO STANDARD DRAWINGS GR-8, GR-9, GR-9A, GR-10, GR-10A FOR ADDITIONAL INFORMATION



TYPICAL LAYOUT OF GUARDRAIL AT BRIDGE ENDS
ALTERNATE NO. 1 & NO. 2

* THE CONTRACTOR SHALL DRILL 1" DIA. HOLES FOR THE NEW THRIE BEAM CONNECTION BOLTS IN THE EXISTING TRANSITION RAIL. CARE SHALL BE EXERCISED TO AVOID THE EXISTING REINFORCING STEEL IN THE RAIL. THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCLUDED IN THE VARIOUS CONTRACT ITEMS. SEE STANDARD DRAWING GR-10 FOR ADDITIONAL DETAILS.

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	22	94
				(2)	TEMPORARY EROSION CONTROL DETAILS			

LEGEND
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE ---

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013

BL WB CROSSOVER
P.I. = 22+80.56
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 20+00
P.T. 25+60.90
e = N.C.

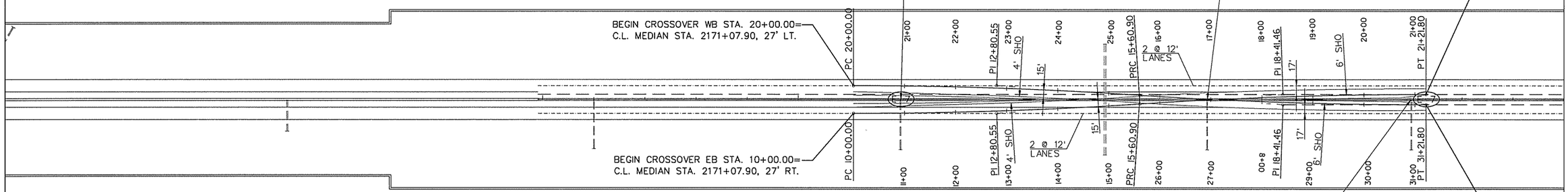
BL EB CROSSOVER
P.I. = 18+41.46
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 15+60.90
P.T. 21+21.80
e = N.C.

STA. 2176+00 IN PLACE
TRI. 42" x 216' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

EXISTING POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (I-40 STA 2174+76.17 TO EXISTING DROP INLET AT I-40 STA 2172+00 TO BE MAINTAINED.
(COST SUBSIDIARY TO APPLICABLE BID ITEMS)

EXISTING INLET AT I-40 STA 2178+00 TO BE COVERED WITH STEEL PLATE WITH MINIMUM DESIGN CAPACITY OF H15 LOADING.
(COST SUBSIDIARY TO APPLICABLE BID ITEMS)

END CROSSOVER EB STA. 21+21.81=
C.L. MEDIAN STA. 2182+28.90, 10' LT.



STA. 2160+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-1" WITH
24" x 62' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2166+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 96' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2172+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

CONTRACTOR TO ASSURE POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (I-40 STA 2179+68.24) TO EXISTING DROP INLET AT I-40 STA 2182+00.
(COST SUBSIDIARY TO APPLICABLE BID ITEMS)

END CROSSOVER WB STA. 31+21.81=
C.L. MEDIAN STA. 2182+28.90, 10' RT.

STA. 2178+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2182+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

BL EB CROSSOVER
P.I. = 12+80.56
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 10+00
P.T. 15+60.90
e = N.C.

BL WB CROSSOVER
P.I. = 28+41.46
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 25+60.90
P.T. 31+21.80
e = N.C.

TEMPORARY EROSION CONTROL DETAILS
ALL STAGES

STA 2195+91.10L – STA 2235+00L INSTALL E-11 3909 LF

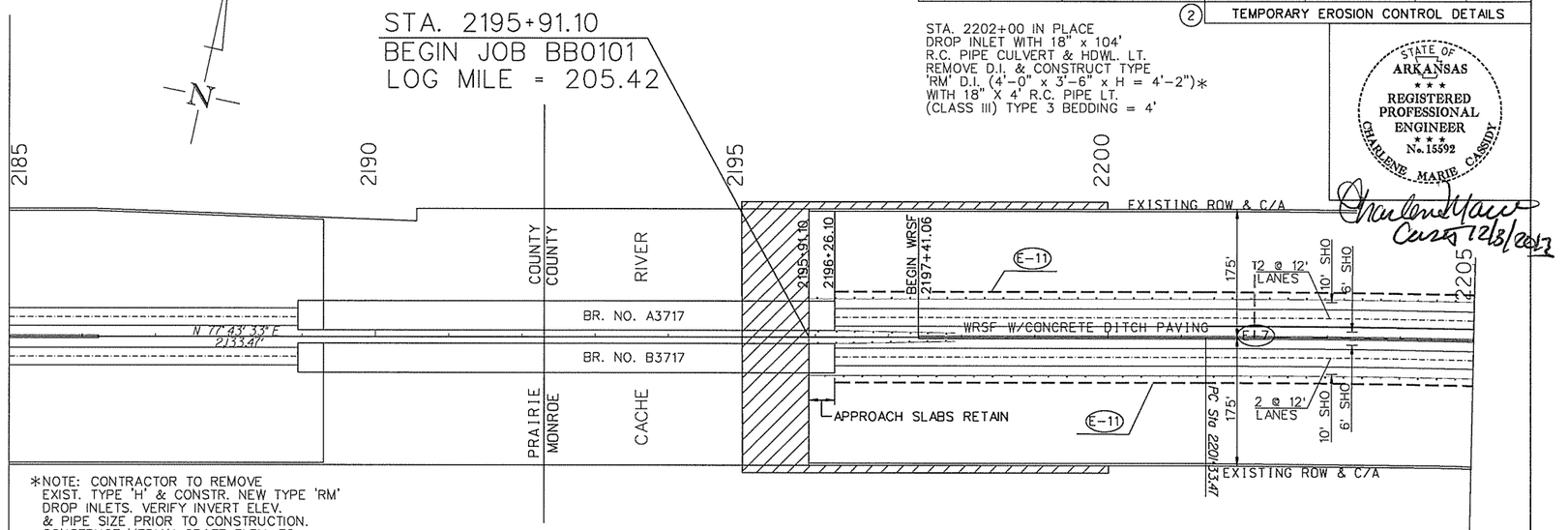
STA 2195+91.10R – STA 2235+00L INSTALL E-11 3909 LF

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	23	94

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/8/2017



*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2205+00 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

DATE OF REVISION	REVISION

LEGEND
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE – – –

ENVIRONMENTALLY SENSITIVE AREA - NO EXCAVATION BELOW 1'-0" IN DEPTH BETWEEN TOE OF EXISTING FILL SLOPE AND RIGHT-OF-WAY FENCE

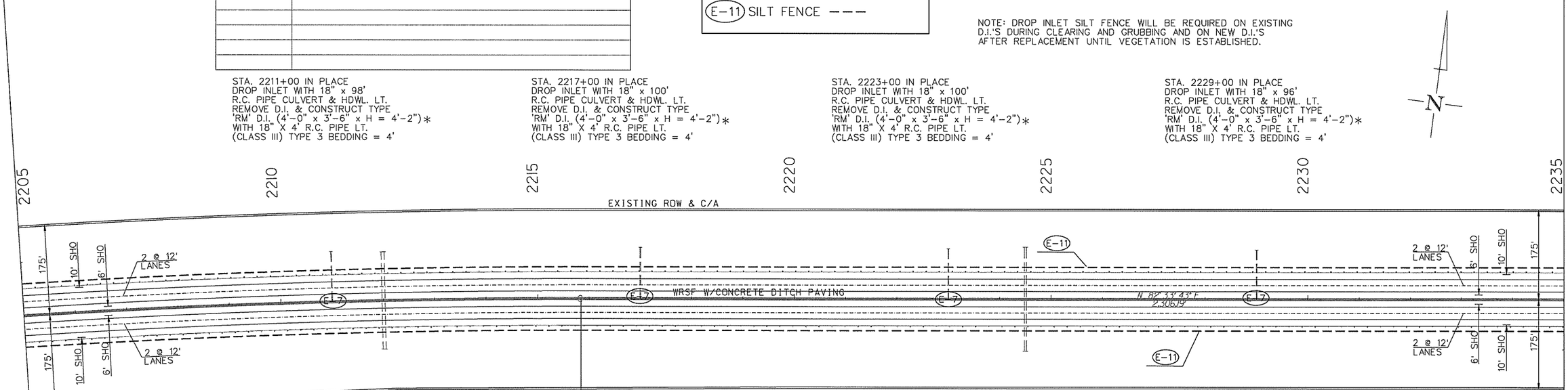
NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2211+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2217+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2223+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2229+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'



I-40
P.I. 2208+59.31
Δ - 4° 50' 10.0" RT.
D - 0° 20' 00"
T - 725.85'
L - 1450.83'
P.C. 2201+33.47
P.T. 2215+84.30
e - N.C.

STA. 2212+00 IN PLACE
6' x 6' x 190' R.C. BOX CULV'T.
RETAIN

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA. 2224+50 IN PLACE
4' x 4' x 205' R.C. BOX CULV'T.
RETAIN

STA. 2235+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

TEMPORARY EROSION CONTROL DETAILS ALL STAGES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	24	94

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY
12/18/2015

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

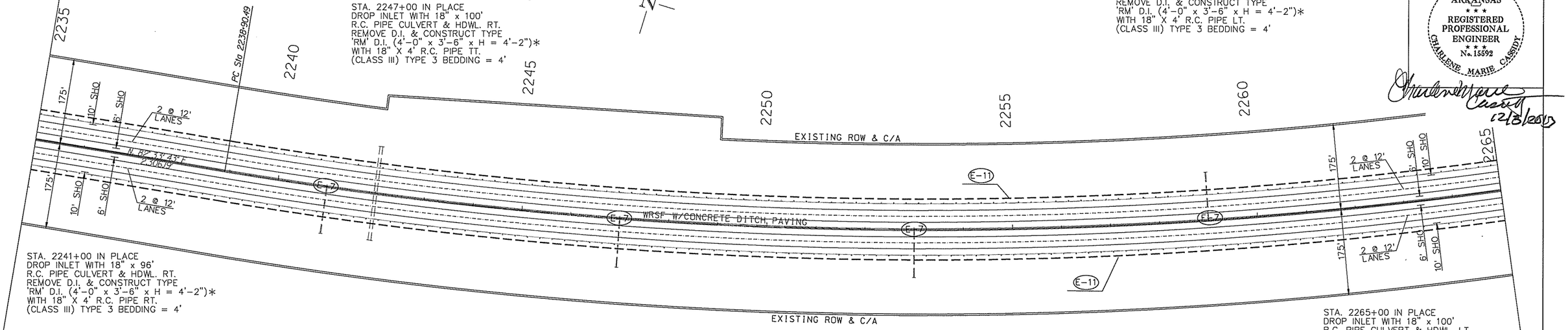
I-40
P.I. 2256+35.06
Δ = 22°56'57.0"LT.
D = 0°40'00"
T = 1744.57'
L = 3442.37'
P.C. 2238+90.49
P.T. 2273+32.86
e = 0.025%
Lg = 350'

NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2242+00 IN PLACE
6' x 6' x 192' R.C. BOX CULV'T.
RETAIN

STA. 2247+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE TT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2259+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'



STA. 2241+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2265+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2253+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

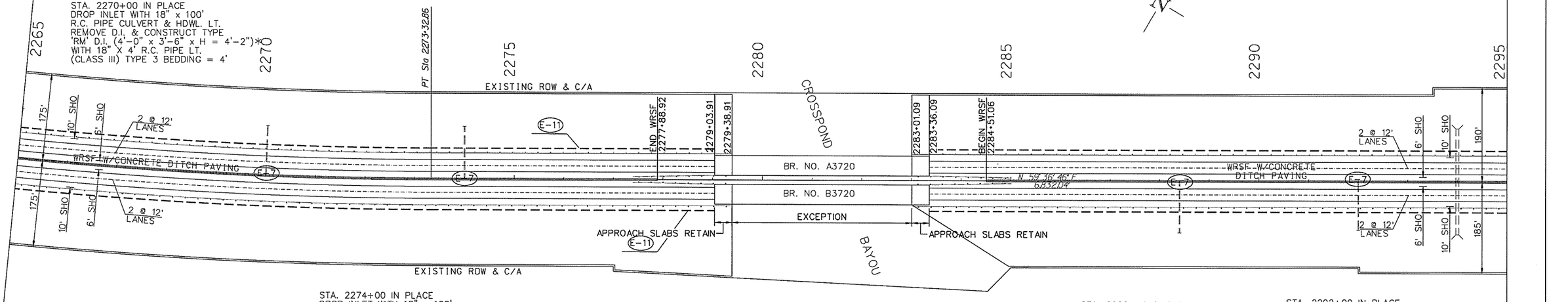
DATE OF REVISION	REVISION

LEGEND
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE ---

NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2294+00 IN PLACE
6' x 6' x 213' R.C. BOX CULV'T.
RETAIN

STA. 2270+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'



STA. 2274+00 IN PLACE
DROP INLET WITH 18" x 106'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2288+40 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2292+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA 2235+00L – STA 2279+03.91L INSTALL E-11 4404 LF
STA 2235+00R – STA 2279+03.91R INSTALL E-11 4404 LF
STA 2283+36.09L – STA 2295+00L INSTALL E-11 1164 LF
STA 2283+36.09R – STA 2295+00R INSTALL E-11 1164 LF

TEMPORARY EROSION CONTROL DETAILS
ALL STAGES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	25	94

(2) TEMPORARY EROSION CONTROL DETAILS

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA 2295+00L – STA 2355+37L INSTALL E-11 6037 LF

STA 2295+00R – STA 2355+37R INSTALL E-11 6037 LF

STA 2340+32.99L – STA 2355+00L INSTALL E-11 1467 LF

STA 2340+32.99R – STA 2355+00R INSTALL E-11 1467 LF

STA. 2308+00 IN PLACE
42" x 200' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

STA. 2309+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STATE OF ARKANSAS
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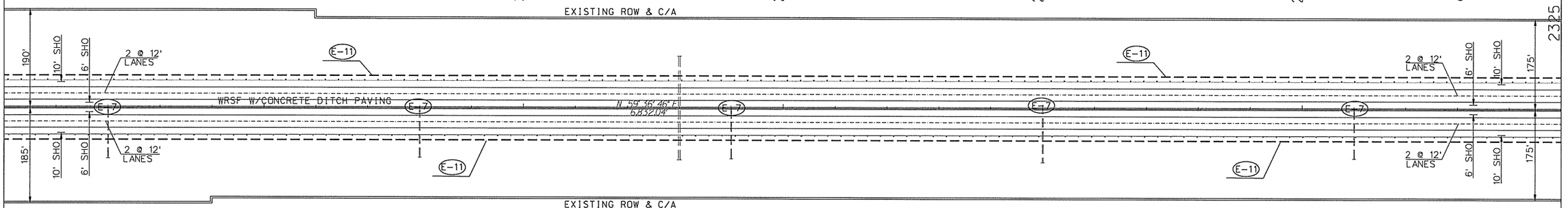
No. 15592
CHARLENE MARIE CASSIDY
12/8/2015

STA. 2303+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'



STA. 2297+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

DATE OF REVISION	REVISION

LEGEND
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE ---

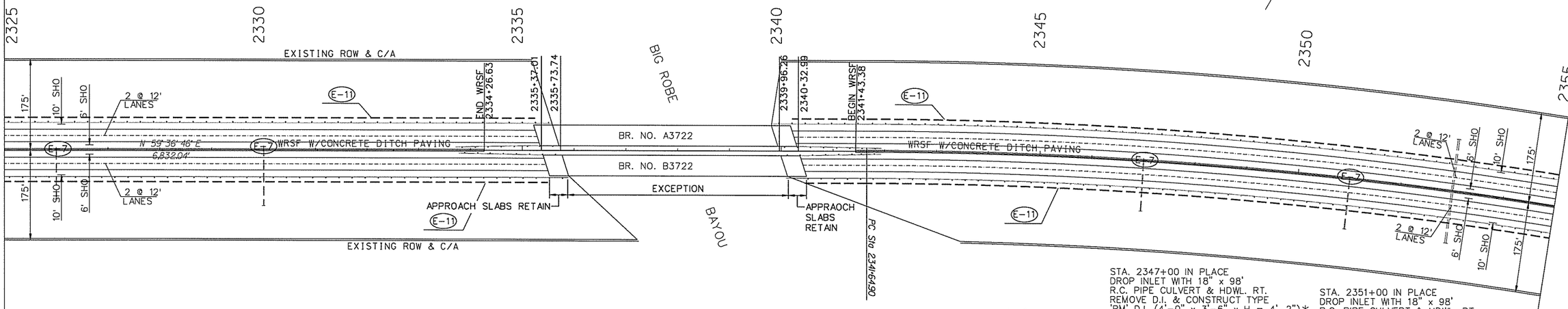
NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2315+00 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2321+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA. 2353+00 IN PLACE
36" x 202' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN



STA. 2326+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2330+00 IN PLACE
DROP INLET WITH 18" x 108'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

I-40
P.I. 2352+18.53
Δ = 13°58'43.0"RT.
D = 0°40'00"
T = 1053.63'
L = 2096.79
P.C. 2341+64.90
P.T. 2362+61.69
e = 0.025 ft/ft
Lg = 350 ft

STA. 2347+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2351+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

TEMPORARY EROSION CONTROL DETAILS ALL STAGES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	26	94
				(2)	TEMPORARY EROSION CONTROL DETAILS			

STA 2355+00L – STA 2382+98L INSTALL E-11 2700 LF

STA 2355+00R – STA 2382+98R INSTALL E-11 2700 LF

STA 2385+02L – STA 2405+04L INSTALL E-11 2002 LF

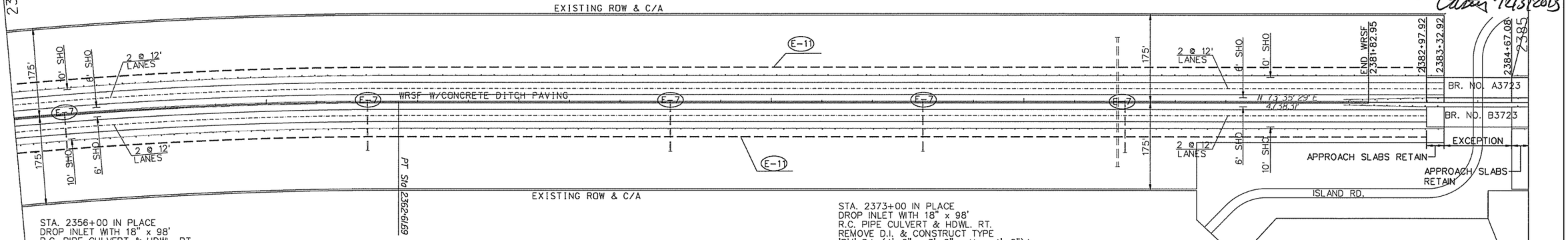
STA 2385+02R – STA 2405+04R INSTALL E-11 2002 LF

NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2376+85 IN PLACE
36" x 256' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

STA. 2362+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2368+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'



STA. 2356+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2373+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2377+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT. *
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

DATE OF REVISION	REVISION

LEGEND

(E-7) DROP INLET SILT FENCE

(E-11) SILT FENCE – – –

STA. 2397+00 IN PLACE
36" x 250' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

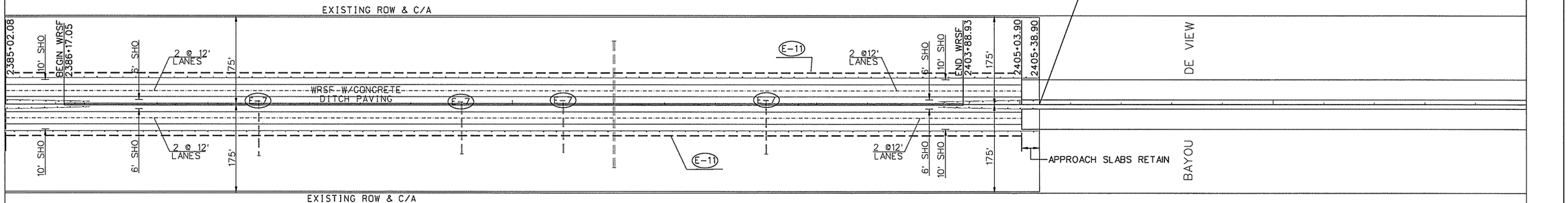
STA. 2405+38.90
END JOB BB0101
LOG MILE = 209.41

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA. 2394+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2396+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2400+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'



NOTE: DROP INLET SILT FENCE WILL BE REQUIRED ON EXISTING D.I.'S DURING CLEARING AND GRUBBING AND ON NEW D.I.'S AFTER REPLACEMENT UNTIL VEGETATION IS ESTABLISHED.

STA. 2390+00 IN PLACE
DROP INLET WITH 18" x 102'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

TEMPORARY EROSION CONTROL DETAILS
ALL STAGES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY
7/31/2013

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	27	94
				(2)	TEMPORARY EROSION CONTROL DETAILS			

LEGEND

(E-7) DROP INLET SILT FENCE

(E-11) SILT FENCE – – –

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
12/3/2013

EXISTING POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (IH-40 STA 2432+23.79 TO EXISTING DROP INLET AT I-40 STA 2434+00 TO BE MAINTAINED. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

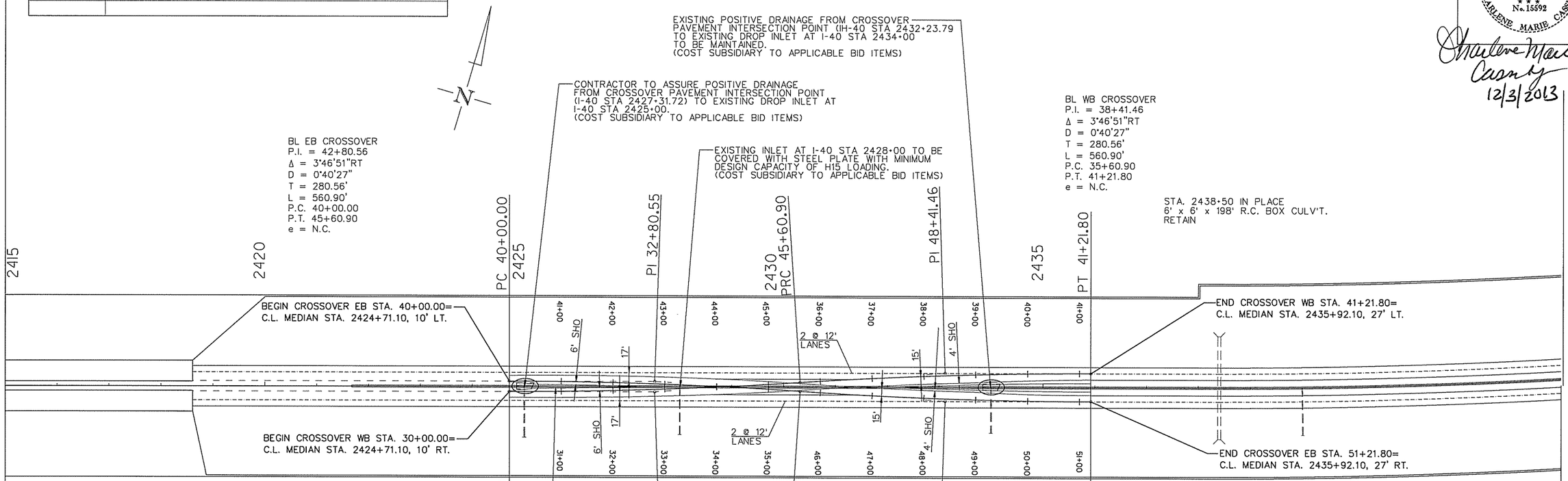
CONTRACTOR TO ASSURE POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (I-40 STA 2427+31.72) TO EXISTING DROP INLET AT I-40 STA 2425+00. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

EXISTING INLET AT I-40 STA 2428+00 TO BE COVERED WITH STEEL PLATE WITH MINIMUM DESIGN CAPACITY OF H15 LOADING. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

BL EB CROSSOVER
P.I. = 42+80.56
Δ = 3°46'51"RT
D = 0°40'27"
T = 280.56'
L = 560.90'
P.C. 40+00.00
P.T. 45+60.90
e = N.C.

BL WB CROSSOVER
P.I. = 38+41.46
Δ = 3°46'51"RT
D = 0°40'27"
T = 280.56'
L = 560.90'
P.C. 35+60.90
P.T. 41+21.80
e = N.C.

STA. 2438+50 IN PLACE
6' x 6' x 198' R.C. BOX CULV'T.
RETAIN



BL WB CROSSOVER
P.I. = 32+80.56
Δ = 3°46'51"LT
D = 0°40'27"
T = 280.56'
L = 560.90'
P.C. 30+00.00
P.T. 35+60.90
e = N.C.

REMOVE WRSF IN THE VICINITY OF CROSSOVERS REINSTALL AFTER CROSSOVERS ARE REMOVED.

STA. 2425+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H - 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2428+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H - 4'-2" WITH
18" x 92' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2434+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H - 4'-2" WITH
18" x 88' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

BL EB CROSSOVER
P.I. = 48+41.46
Δ = 3°46'51"LT
D = 0°40'27"
T = 280.56'
L = 560.90'
P.C. 45+60.90
P.T. 51+21.80
e = N.C.

STA. 2440+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H - 4'-2" WITH
18" x 92' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

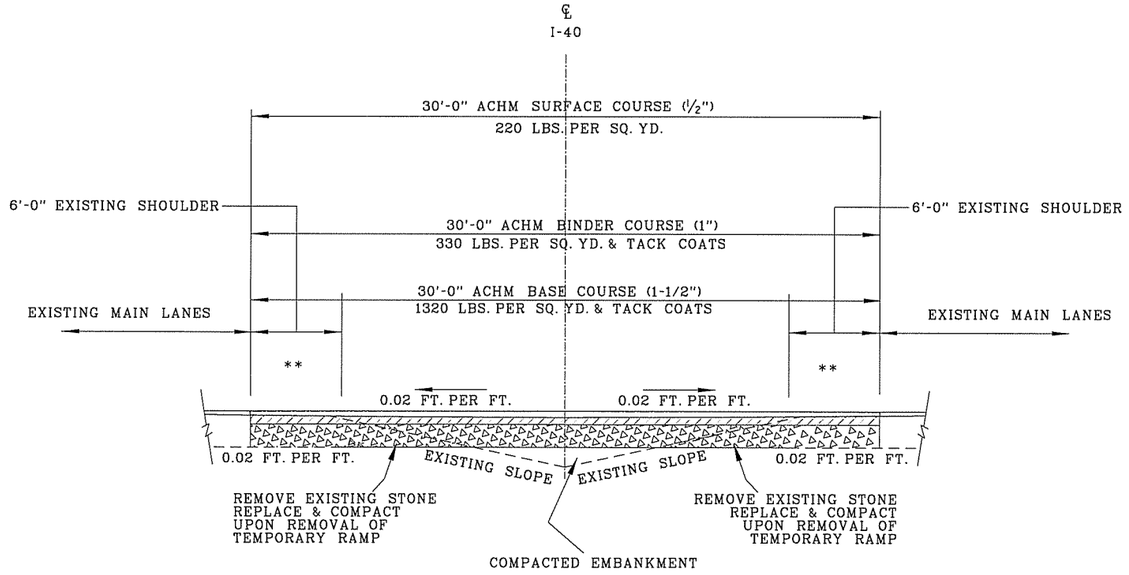
TEMPORARY EROSION CONTROL DETAILS
ALL STAGES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	28	94

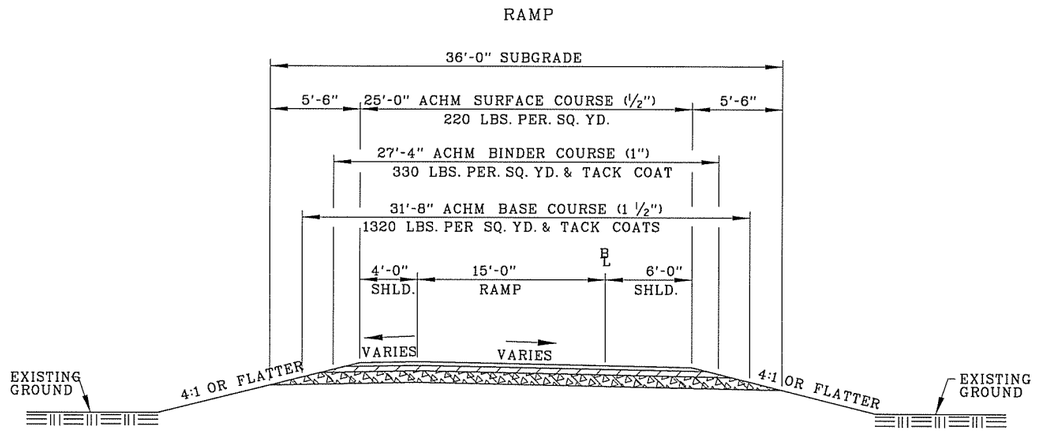
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

11/14/13



MAIN LANE CROSSOVER FOR MAINTENANCE OF TRAFFIC
(ALTERNATE NO. 1 & NO. 2)



ALTERNATE NO.1 & NO.2
MAIN LANE CROSSOVER RAMPS

** 6' SHOULDER CROSS SLOPE TRANSITION TO MATCH CROSSOVER CROSS SLOPE
STA 2170+57.90 TO STA 2171+07.90,
STA 2182+28.90 TO STA 2182+78.90,
STA 2424+21.10 TO STA 2424+71.10,
STA 2435+92.10 TO STA 2436+42.10.

TYPICAL SECTIONS OF IMPROVEMENT FOR MOT

MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	29	94

(2) MAINTENANCE OF TRAFFIC

11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

PHASE 0

1. PLACE ADVANCE WARNING SIGNS.
2. REMOVAL OF RUMBLE STRIPS IN EASTBOUND & WESTBOUND DIRECTION (OUTSIDE SHOULDERS) TO BE CONDUCTED WITH STANDING LANE CLOSURE (NIGHTTIME WORK).
3. PLACE CONSTRUCTION PAVEMENT MARKINGS

PHASE 1

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR WORK ON I-40.
2. FOR WESTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2439+92.10 THROUGH THE LIMITS OF THE MEDIAN CROSSOVER CONSTRUCTION AREA AND TERMINATE BARRIER AT STA 2403+48.90 (+/-) SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. BARRIERS WILL ALSO BE FURNISHED AND INSTALLED FROM STA 2197+81.10 THROUGH STA 2170+08 MAINTAINING THE SAME LANE CONFIGURATION. DRUMS WILL BE PROVIDED FOR AREAS BETWEEN THESE LIMITS.
3. FOR EASTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY THROUGH THE LIMITS OF THE PROJECT SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER.
4. CONSTRUCT MEDIAN CROSSOVERS AND TEMPORARY ELEMENTS FOR MEDIAN CROSSOVERS; CONSTRUCT UPGRADE OF EASTBOUND INSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES. CONSTRUCT UPGRADE OF WESTBOUND INSIDE SHOULDER FROM END OF RESPECTIVE MEDIAN CROSSOVERS TO BRIDGE APPROACH SLABS FOR CACHE RIVER BRIDGE AND BAYOU DEVIEW RIVER BRIDGE RESPECTIVELY.

PHASE 2

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 2. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 2. PLACE ROAD CLOSED SIGN AND BARRICADES BLOCKING CROSSOVERS.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 1 LOCATION TO NEAR EASTBOUND OUTSIDE SHOULDER SUCH THAT A 3' INSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2' BUFFER FROM THE FACE OF THE BARRIER IN THE EASTBOUND DIRECTION. WESTBOUND TRAFFIC MAINTAINS EXISTING LANE CONFIGURATIONS AND SHOULDER WIDTHS.
3. CONSTRUCT UPGRADE OF EASTBOUND OUTSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES.

PHASE 3

1. PLACE IOWA WEAVE SIGNING AT END OF PROJECT FOR WESTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR WESTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 3. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 3.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 2 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN EASTBOUND TRAVEL WAY. IN EASTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN EASTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE WESTBOUND TRAFFIC DIRECTION A 14' LANE. WESTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE WESTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION. CONSTRUCT UPGRADE OF WESTBOUND OUTSIDE SHOULDER (FROM STA 2173+68.90 TO STA 2188+93.90 AND STA 2418+96.10 TO 2433+31.10) TO BEAR TRAFFIC IN LATER PHASE.

MOT LEGEND

- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- CONSTRUCTION SIGN (POST OR SKID MOUNT)
- DRUMS
- PORTABLE CONCRETE BARRIER
- DIRECTION OF TRAVEL
- (A) CONST PAV MRK (Y) 4" (SLD)
- (B) CONST PAV MRK (W) 4" (BRK)
- (C) CONST PAV MRK (W) 4" (SLD)
- (D) CONST PAV MRK (PLACED PREVIOUS PHASE)
- (E) FINAL PERMANENT PAVEMENT MARKINGS

PHASE 4

1. PLACE IOWA WEAVE SIGNING AT BEGINNING OF PROJECT FOR EASTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR EASTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 4. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 4.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 3 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN WESTBOUND TRAVEL WAY. IN WESTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN WESTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE EASTBOUND TRAFFIC DIRECTION A 14' LANE. EASTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE EASTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION.

PHASE 5

1. SWITCH TRAFFIC BACK TO NORMAL PATTERN. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 5. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 5.

2. FOR EASTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL SUCH THAT FROM STA 2170+08 – STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10, A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

3. FOR WESTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2178+08 – 2184+18.90 AND 2422+81 – 2439+92.10; DRUMS WILL BE PROVIDED FOR REMAINING LIMITS. A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER WILL BE PROVIDED FROM STA 2170+08 TO STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

4. REMOVE MEDIAN CROSSOVERS AND TEMPORARY DRAINAGE ELEMENTS. RAISE GRADE OF MEDIAN THE SAME AMOUNT AS THE INCREASE IN ROADWAY ELEVATION. REPLACE ALL WIRE ROPE SAFETY FENCE AND REPLACE INLETS IN MEDIAN THROUGH PROJECT LIMITS.

MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION AND LEGEND

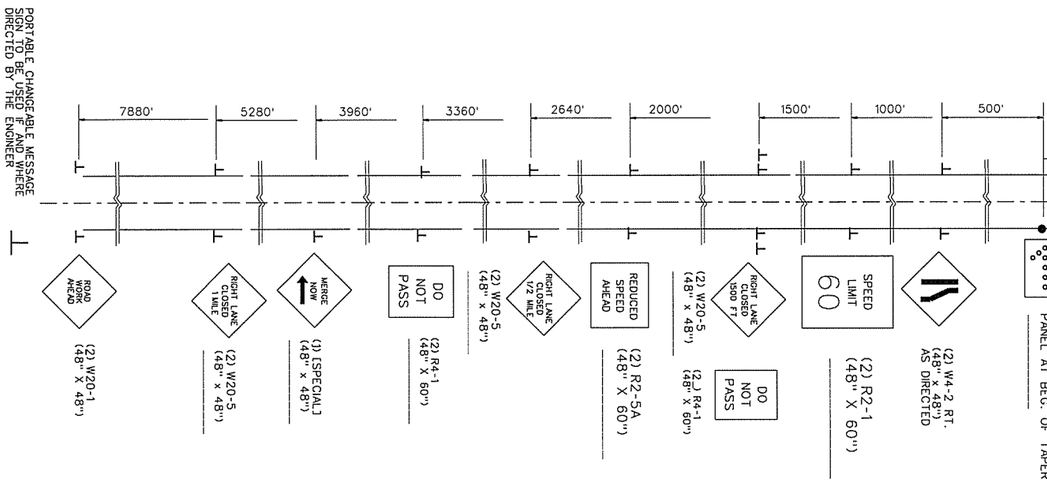
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	30	94

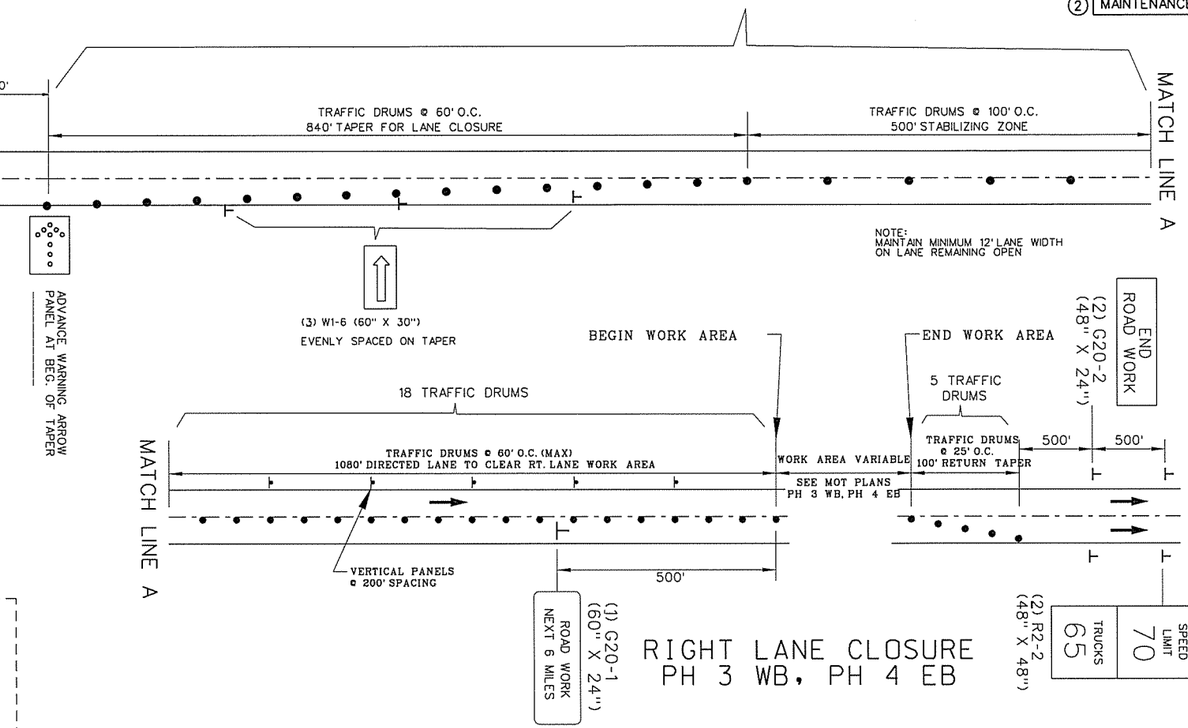
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

P.E.
12/06/13

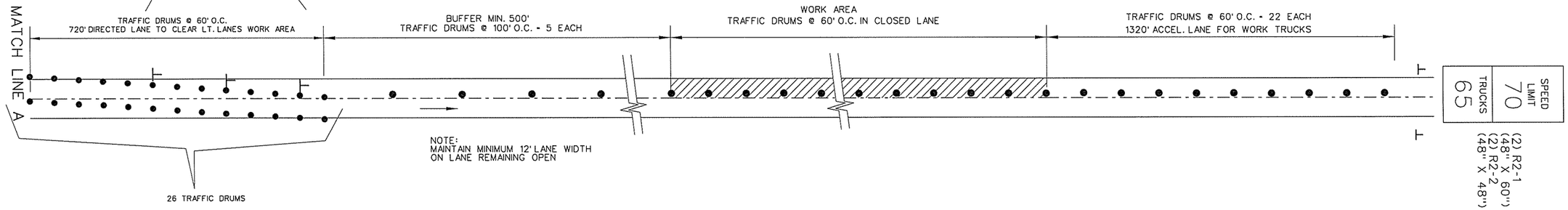
PORTABLE CHANGEABLE MESSAGE SIGNS TO BE USED WHERE DIRECTED BY THE ENGINEER



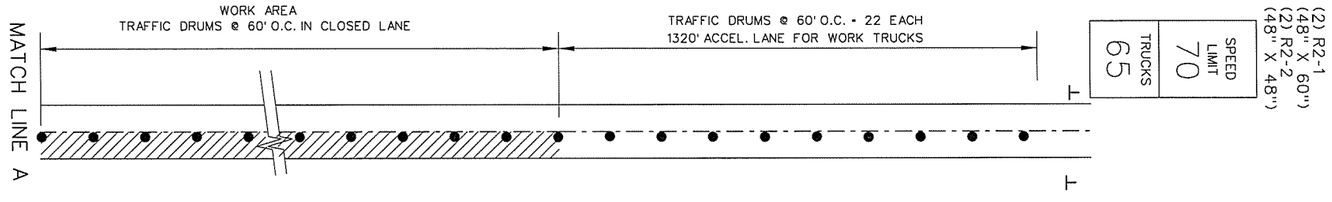


RIGHT LANE CLOSURE PH 3 WB, PH 4 EB

DIVERSION FOR LT. LANE WORK ZONE (USE IF FIELD CONDITIONS DICTATE)



DIVERSION FOR RT. LANE WORK ZONE (USE IF FIELD CONDITIONS DICTATE)



ADVANCE WARNING SIGNS AND LANE CLOSURES

MAINTENANCE OF TRAFFIC

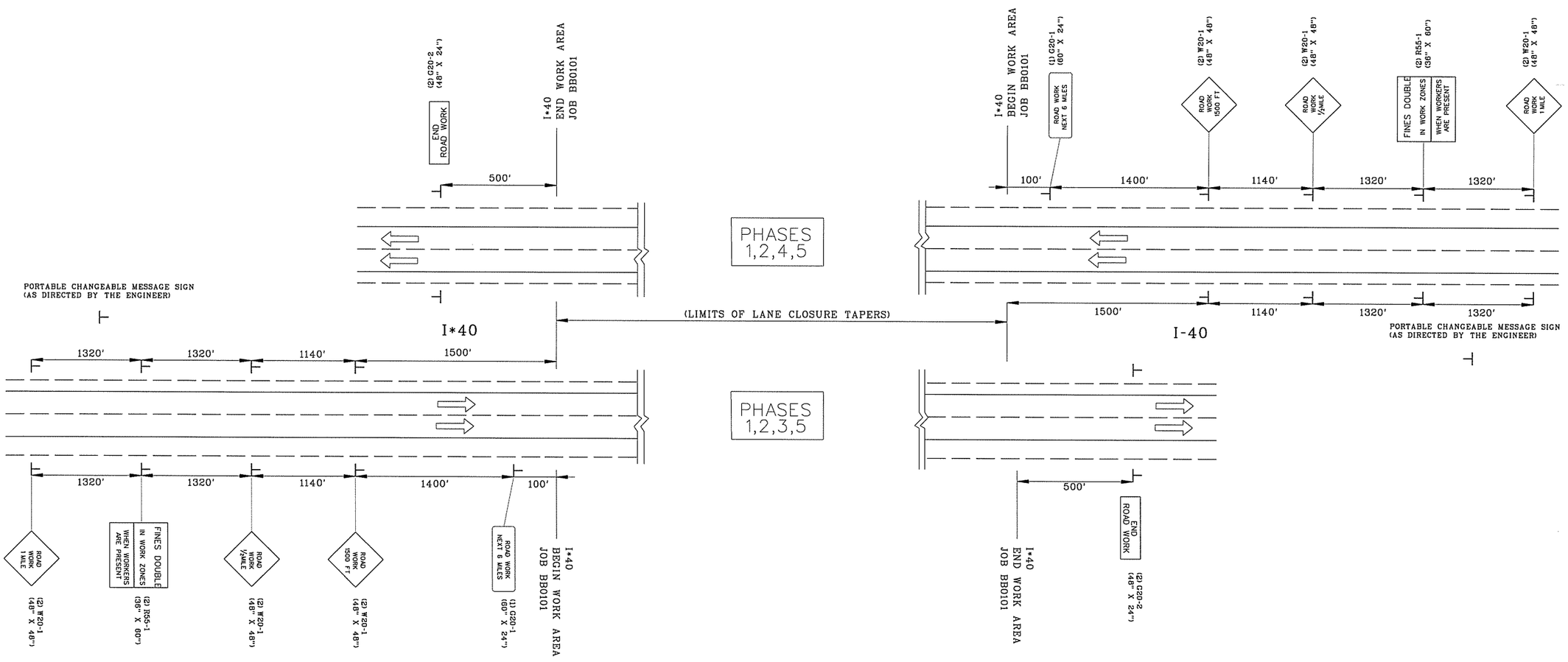
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	31	94

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

1/14/13

NOTE THAT THESE SIGNS
MAY BE TEMPORARILY REPLACED BY
SOME OF THE ADVANCE SIGNS FOR LANE CLOSURES
WHILE WORK IS UNDERWAY IN THESE AREAS.



NOTE THAT THESE SIGNS
MAY BE TEMPORARILY REPLACED BY
SOME OF THE ADVANCE SIGNS FOR LANE CLOSURES
WHILE WORK IS UNDERWAY IN THESE AREAS.

ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB
(ALL STAGES)

MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	32	94

② MAINTENANCE OF TRAFFIC

NOTES:

① SPECIAL SIGNS SHALL BE CONSTRUCTED USING (ORANGE) TYPE III BACKGROUND WITH (BLACK) TYPE V LEGEND AND BORDER.

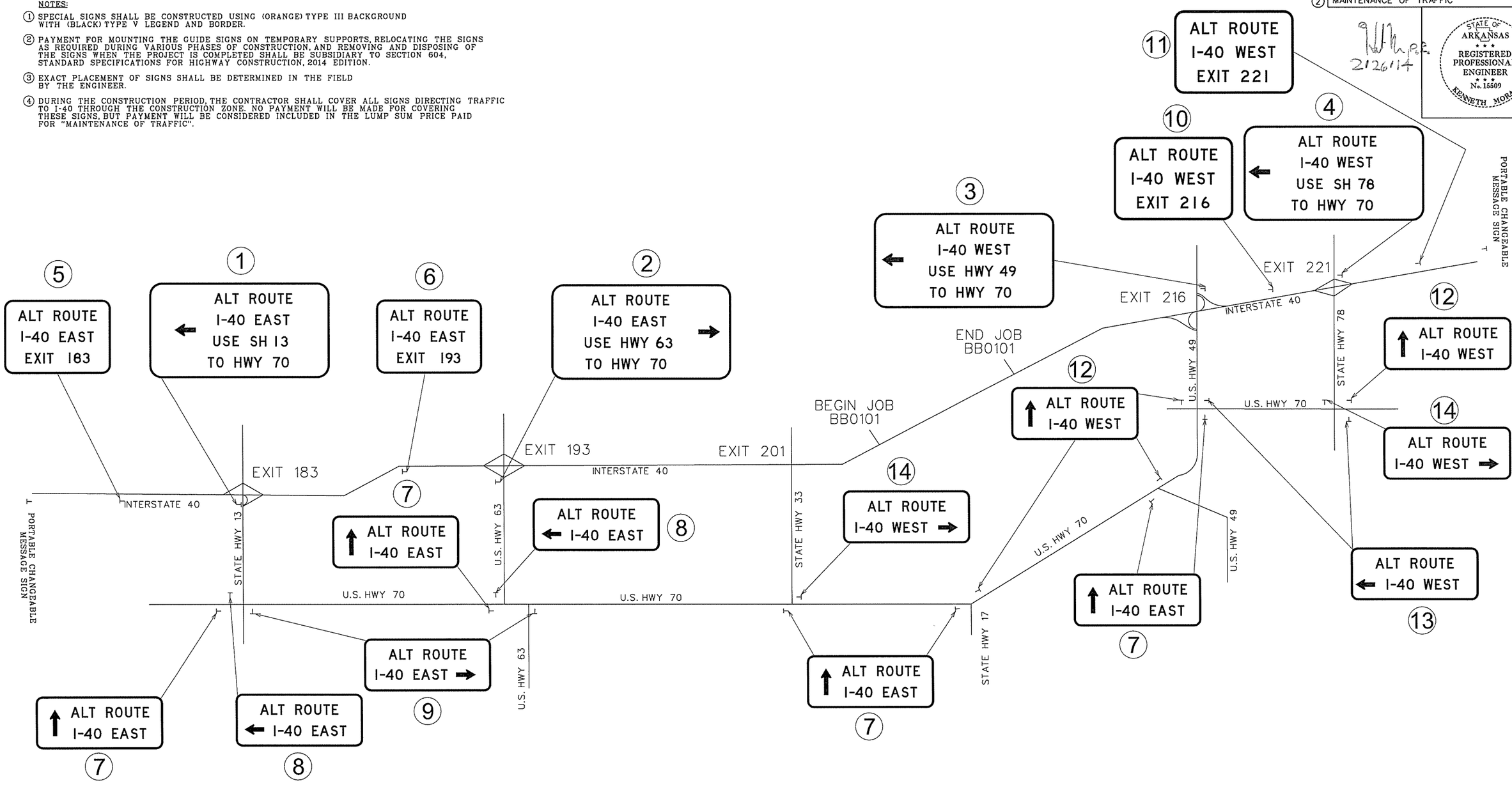
② PAYMENT FOR MOUNTING THE GUIDE SIGNS ON TEMPORARY SUPPORTS, RELOCATING THE SIGNS AS REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION, AND REMOVING AND DISPOSING OF THE SIGNS WHEN THE PROJECT IS COMPLETED SHALL BE SUBSIDIARY TO SECTION 604, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

③ EXACT PLACEMENT OF SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

④ DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL COVER ALL SIGNS DIRECTING TRAFFIC TO I-40 THROUGH THE CONSTRUCTION ZONE. NO PAYMENT WILL BE MADE FOR COVERING THESE SIGNS, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PRICE PAID FOR "MAINTENANCE OF TRAFFIC".

2126/14

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA



ALTERNATE ROUTE SIGNS = 441.32 SQ. FT.

MAINTENANCE OF TRAFFIC
ALTERNATE ROUTE DETAIL

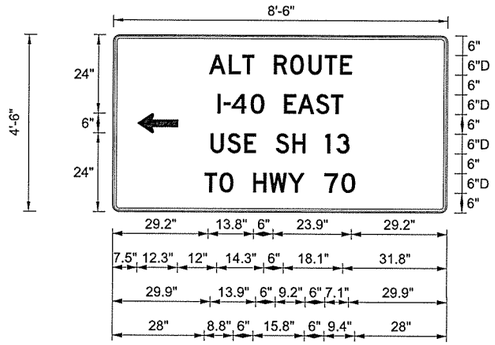
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	33	94

(2) MAINTENANCE OF TRAFFIC

11/14/13

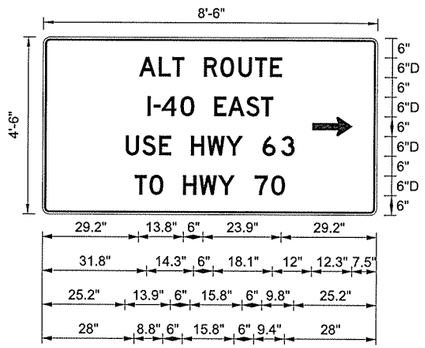
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

(1)



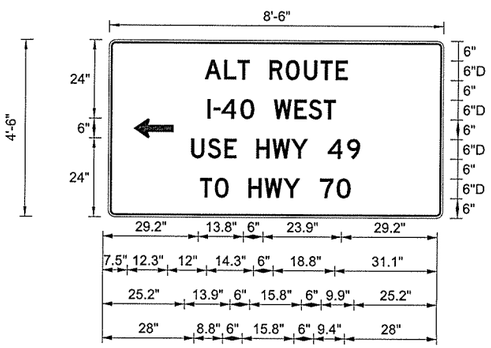
7.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [USE SH 13] D; [TO HWY 70] D;
STANDARD ARROW CUSTOM 12.3" X 7.1' 180 DEG;

(2)



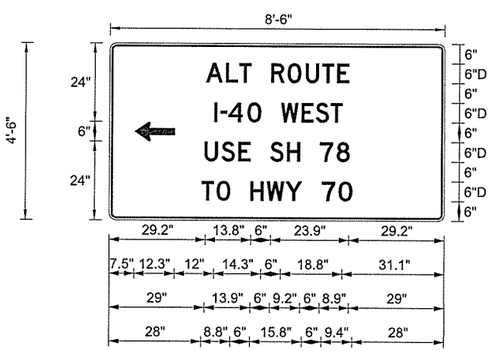
7.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [USE HWY 63] D; [TO HWY 70] D;
STANDARD ARROW CUSTOM 12.3" X 7.1' 0 DEG;

(3)



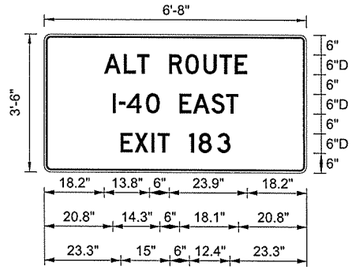
7.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [USE HWY 49] D; [TO HWY 70] D;
STANDARD ARROW CUSTOM 12.3" X 7.1' 180 DEG;

(4)



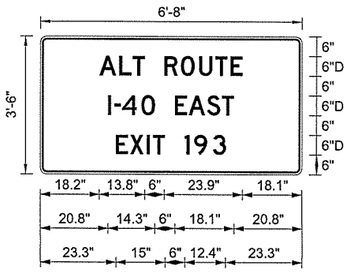
7.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [USE SH 78] D; [TO HWY 70] D;
STANDARD ARROW CUSTOM 12.3" X 7.1' 180 DEG;

(5)



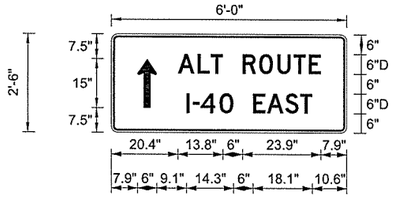
5.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [EXIT 183] D;

(6)



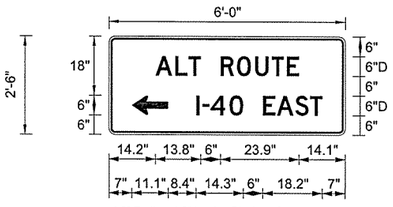
5.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [EXIT 193] D;

(7)



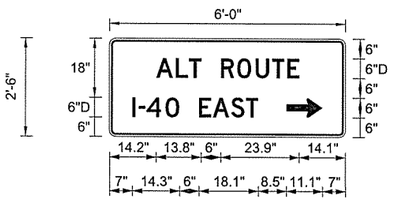
4.0" Radius, 1.3" border, Black on Orange
STANDARD ARROW CUSTOM 15.0" X 6.0" 90 DEG;
[ALT ROUTE] D; [I-40 EAST] D;

(8)



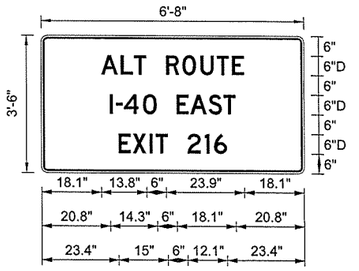
4.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; STANDARD ARROW
CUSTOM 11.1" X 6.0" 180 DEG; [I-40 EAST] D;

(9)



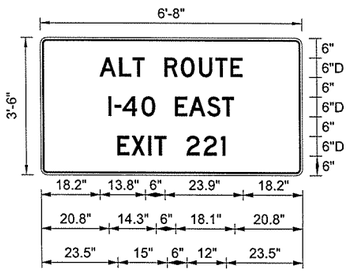
4.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; STANDARD ARROW
CUSTOM 11.1" X 6.0" 90 DEG;

(10)



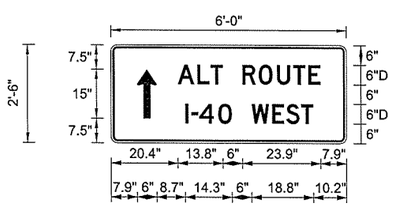
5.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [EXIT 216] D;

(11)



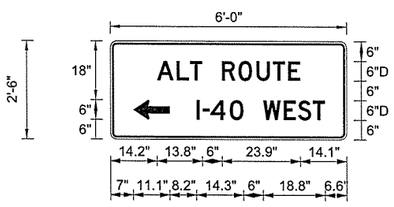
5.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 EAST] D; [EXIT 221] D;

(12)



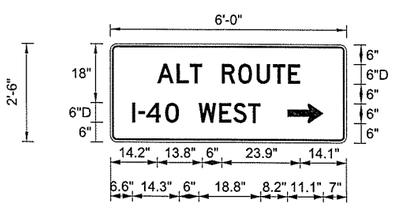
4.0" Radius, 1.3" border, Black on Orange
STANDARD ARROW CUSTOM 15.0" X 6.0" 90 DEG;
[ALT ROUTE] D; [I-40 WEST] D;

(13)



4.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; STANDARD ARROW
CUSTOM 11.1" X 6.0" 180 DEG; [I-40 WEST] D;

(14)



4.0" Radius, 1.3" border, Black on Orange
[ALT ROUTE] D; [I-40 WEST] D; STANDARD ARROW
CUSTOM 11.1" X 6.0" 90 DEG;

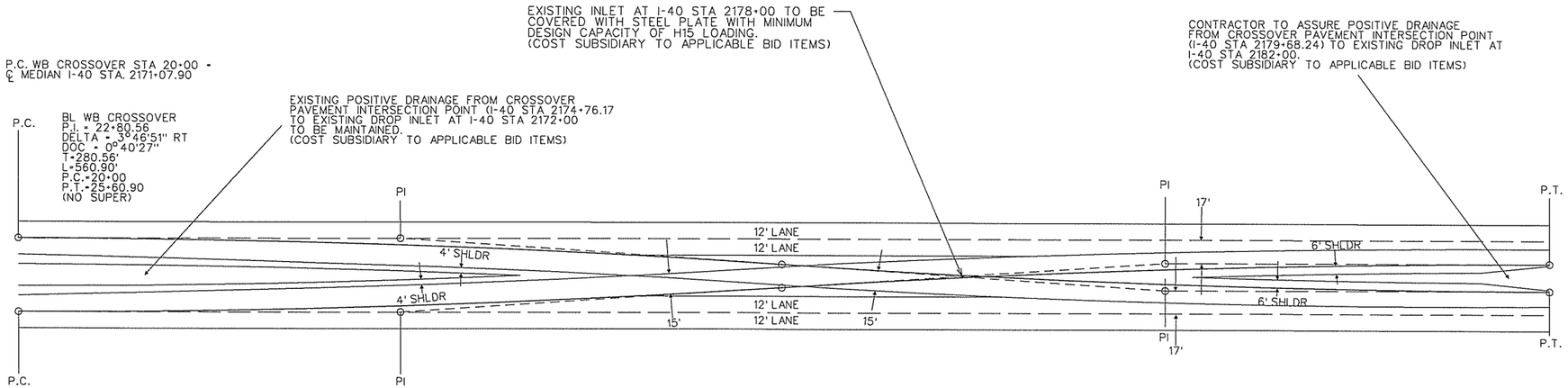
MAINTENANCE OF TRAFFIC SIGN DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	34	94

(2) MAINTENANCE OF TRAFFIC

W. K. P.E.
11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA



BL EB CROSSOVER
P.I. - 12+80.56
DELTA - 3°46'51"LT
DOC - 0°40'27"
T-280.56'
L-560.90'
P.C.-10+00
P.T.-15+60.90
(NO SUPER)

P.C. EB CROSSOVER STA 10+00 -
℄ MEDIAN I-40 STA. 2171+07.90

BL WB CROSSOVER
P.I. - 28+41.46
DELTA - 3°46'51"LT
DOC - 0°40'27"
T-280.56'
L-560.90'
P.C.-25+60.90
P.T.-31+21.80
(NO SUPER)

P.T. WB CROSSOVER STA 31+21.80-
℄ MEDIAN I-40 STA. 2182+28.90

SPECIAL DETAIL
MEDIAN CROSSOVER
BEGINNING OF JOB

MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	35	94

(2) MAINTENANCE OF TRAFFIC

W. R., P.E.
11-14-13

STATE OF ARKANSAS
* * *
REGISTERED PROFESSIONAL ENGINEER
* * *
No. 15509
KENNETH MORA

CONTRACTOR TO ASSURE POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (I-40 STA 2427+31.72) TO EXISTING DROP INLET AT I-40 STA 2425+00. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

P.C. EB CROSSOVER STA 40+00 - ℄ MEDIAN I-40 STA. 2424+71.10

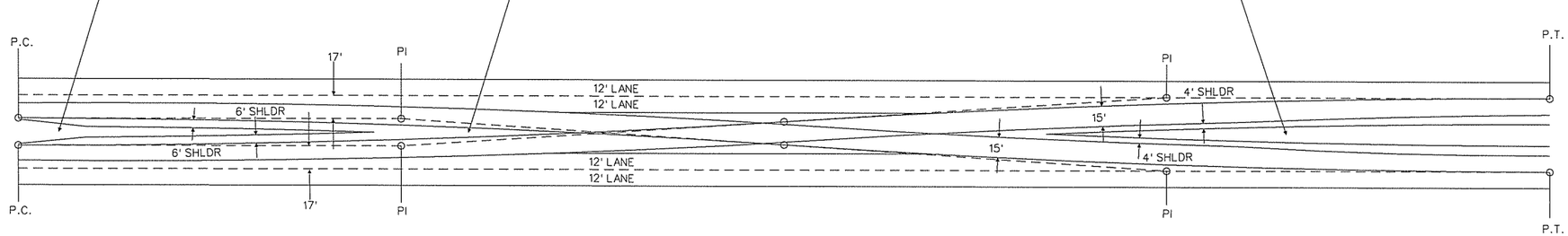
BL EB CROSSOVER
P.I. = 42+80.56
DELTA = 3°46'51" RT
DOC = 0°40'27"
T=280.56'
L=560.90'
P.C.=40+00
P.T.=45+60.90
(NO SUPER)

EXISTING INLET AT I-40 STA 2428+00 TO BE COVERED WITH STEEL PLATE WITH MINIMUM DESIGN CAPACITY OF H15 LOADING. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

EXISTING POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (IH-40 STA 2432+23.79 TO EXISTING DROP INLET AT I-40 STA 2434+00 TO BE MAINTAINED. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

P.T. WB CROSSOVER STA 41+21.80 - ℄ MEDIAN I-40 STA. 2435+92.10

BL WB CROSSOVER
P.I. = 38+41.46
DELTA = 3°46'51" RT
DOC = 0°40'27"
T=280.56'
L=560.90'
P.C.=35+60.90
P.T.=41+21.80
(NO SUPER)



BL WB CROSSOVER
P.I. = 32+80.56
DELTA = 3°46'51" LT
DOC = 0°40'27"
T=280.56'
L=560.90'
P.C.=30+00
P.T.=35+60.90
(NO SUPER)

P.C. WB CROSSOVER STA 30+00 - ℄ MEDIAN I-40 STA. 2424+71.10

BL EB CROSSOVER
P.I. = 48+41.46
DELTA = 3°46'51" LT
DOC = 0°40'27"
T=280.56'
L=560.90'
P.C.=45+60.90
P.T.=51+21.80
(NO SUPER)

P.T. EB CROSSOVER STA 51+21.80 - ℄ MEDIAN I-40 STA. 2435+92.10

SPECIAL DETAIL
MEDIAN CROSSOVER
END OF JOB

MAINTENANCE OF TRAFFIC

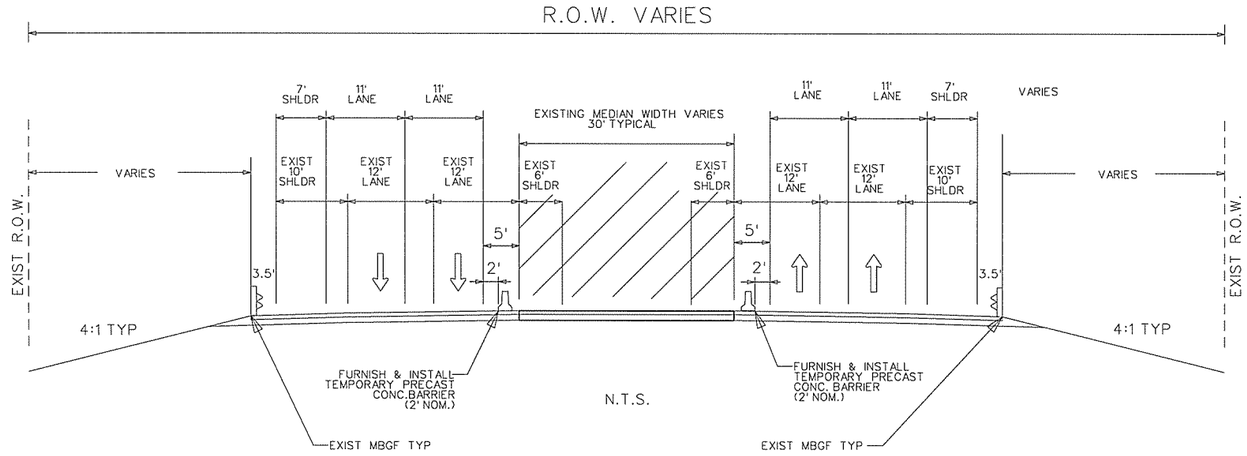
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	36	94

(2) MAINTENANCE OF TRAFFIC

M h, P.E.
11/14/13

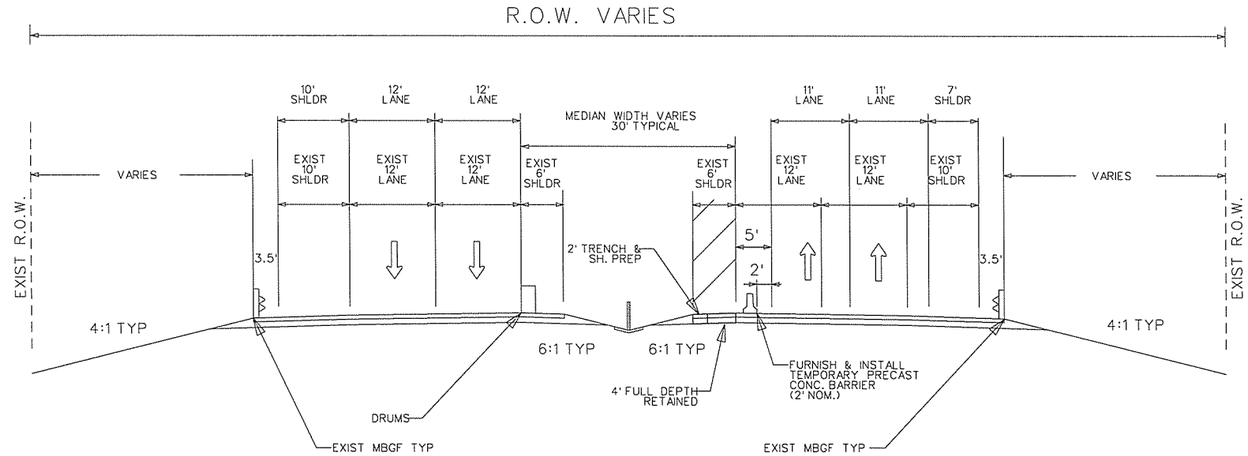
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

PHASE 0 - REMOVAL OF RUMBLE STRIPS (EASTBOUND & WESTBOUND OUTSIDE SHOULDERS).
TO BE CONDUCTED WITH STANDING LANE CLOSURE (NIGHTTIME WORK)



PHASE 1 - CONSTRUCT MEDIAN CROSSOVERS

WORK AREA THIS PHASE



PHASE 1 - UPGRADE INSIDE EASTBOUND SHOULDER (TO EXISTING ELEVATION)

N.T.S.

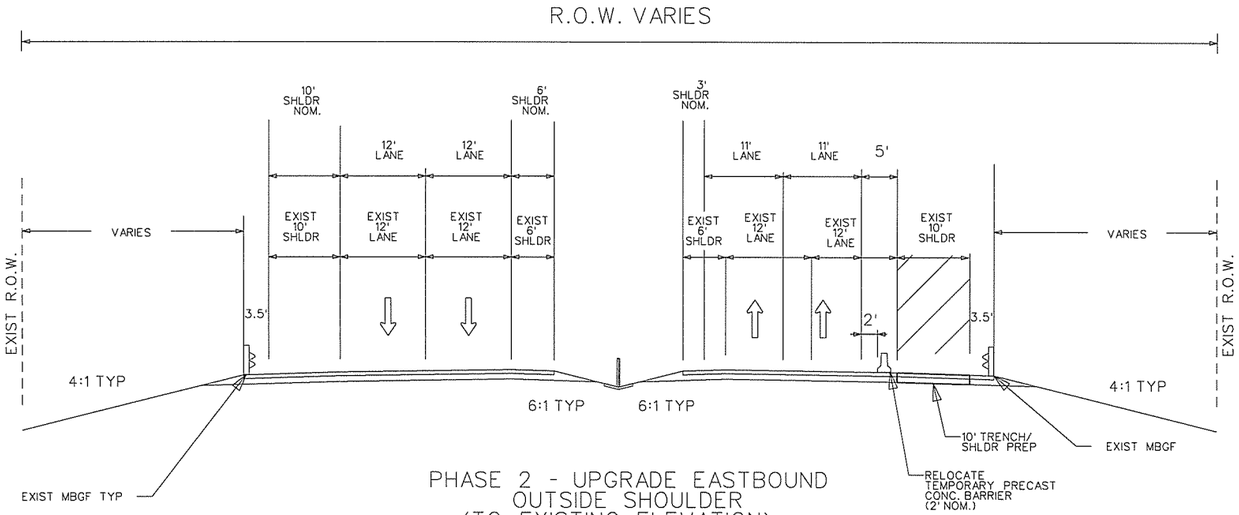
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	37	94

(2) MAINTENANCE OF TRAFFIC

12/03/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA



PHASE 2 - UPGRADE EASTBOUND OUTSIDE SHOULDER (TO EXISTING ELEVATION)

N.T.S.

WORK AREA THIS PHASE

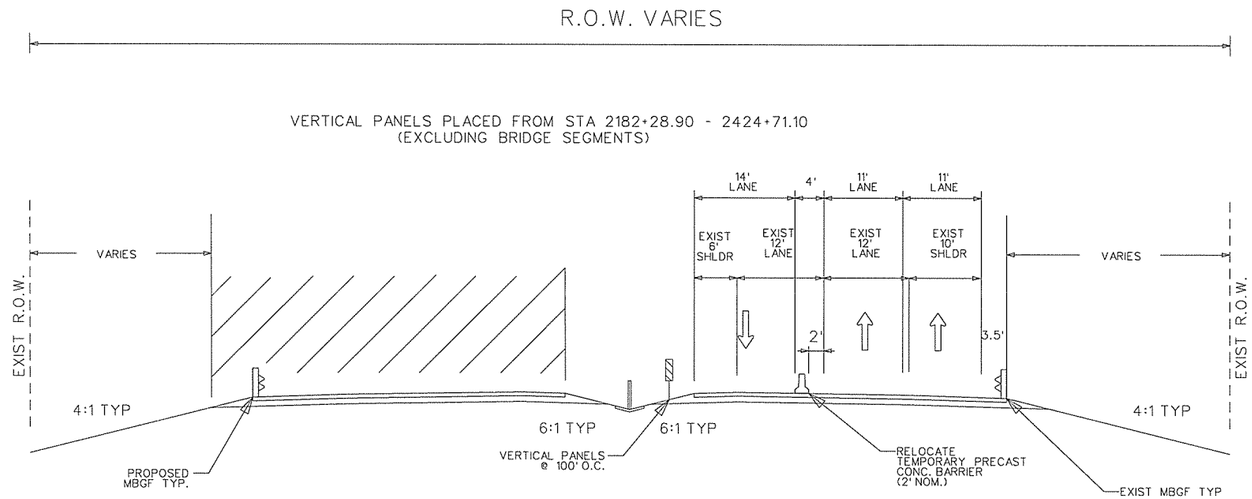
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	38	94

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

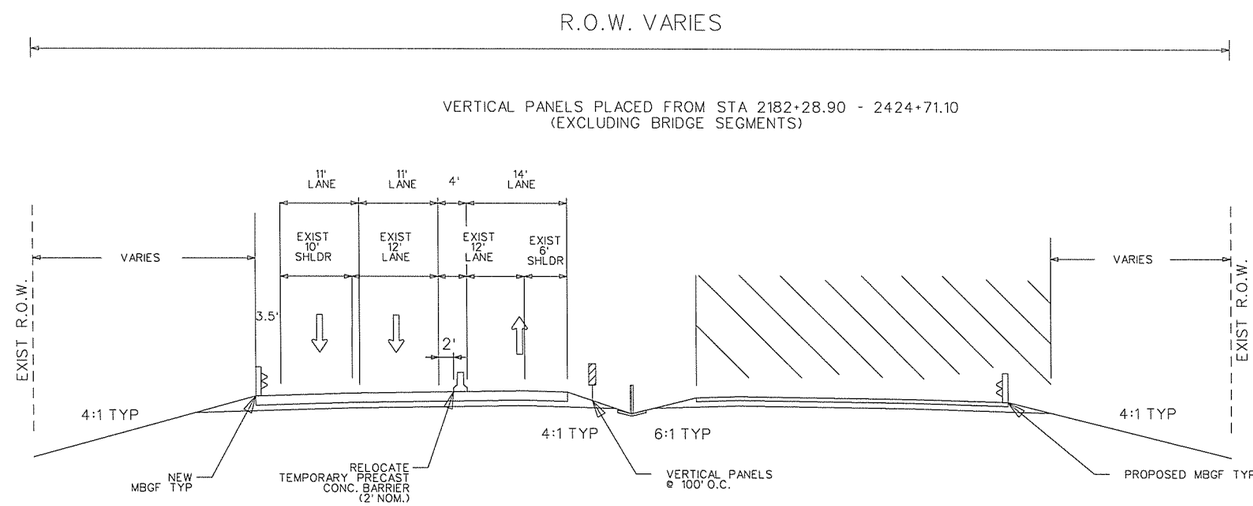
11/14/13



PHASE 3 - CONSTRUCT WESTBOUND MAIN LANES AND SHLDRS (TO PROPOSED ELEVATION)

N.T.S.

WORK AREA THIS PHASE



PHASE 4 - CONSTRUCT EASTBOUND MAIN LANES AND SHOULDERS (TO PROPOSED ELEVATION)

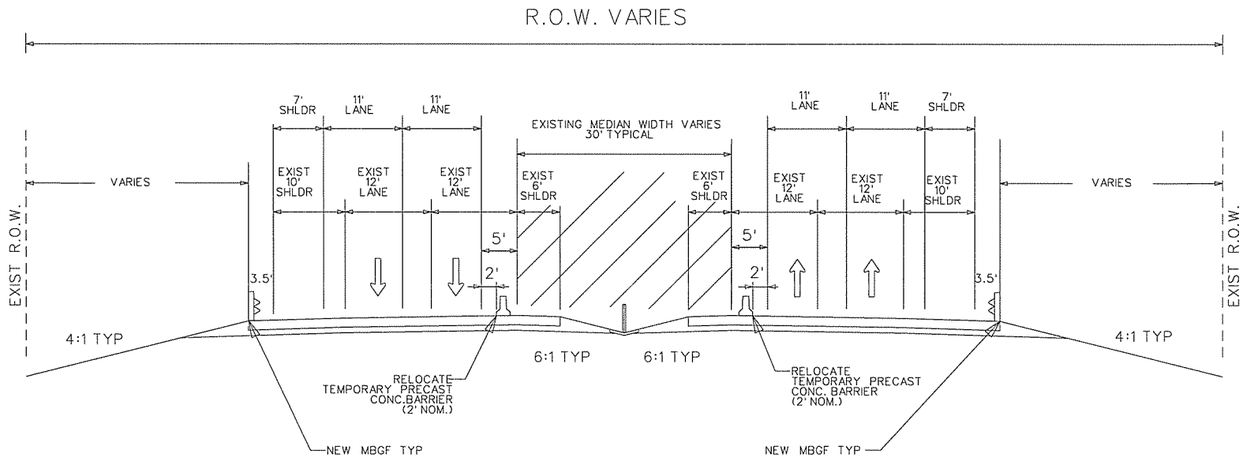
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	39	94

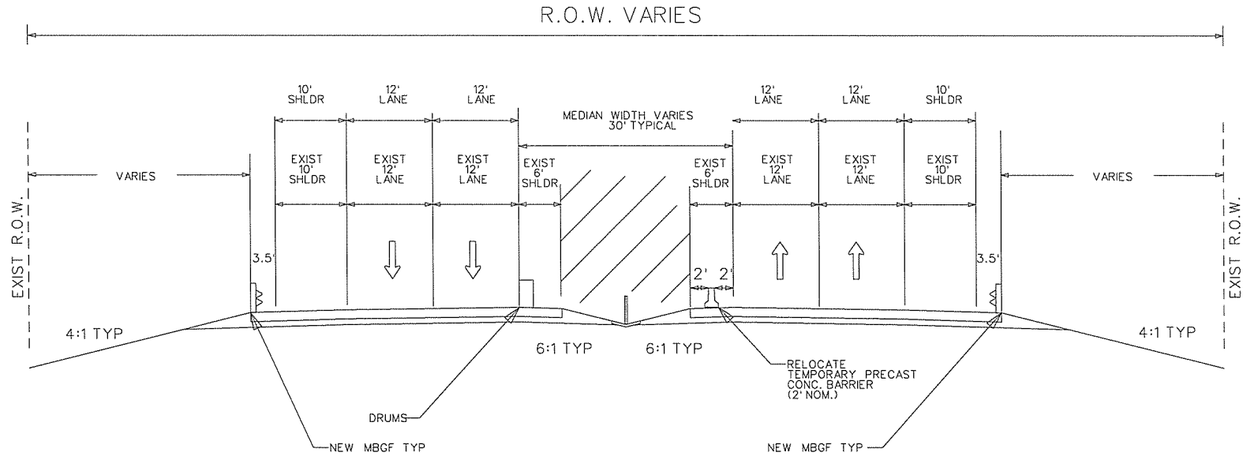
(2) MAINTENANCE OF TRAFFIC

WL, PE
11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA



PHASE 5 - CROSSOVER REMOVALS



PHASE 5 - MEDIAN CONSTRUCTION WORK
(INSTALL WRSF AND REPLACE INLETS)

N.T.S.

WORK AREA THIS PHASE

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

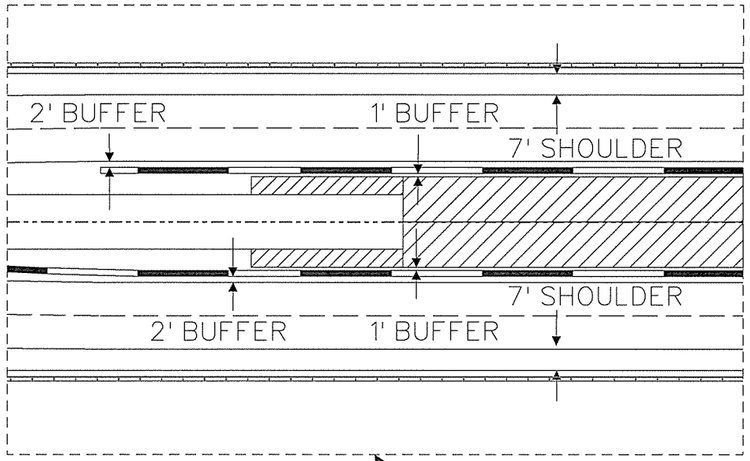
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	40	94

(2) MAINTENANCE OF TRAFFIC

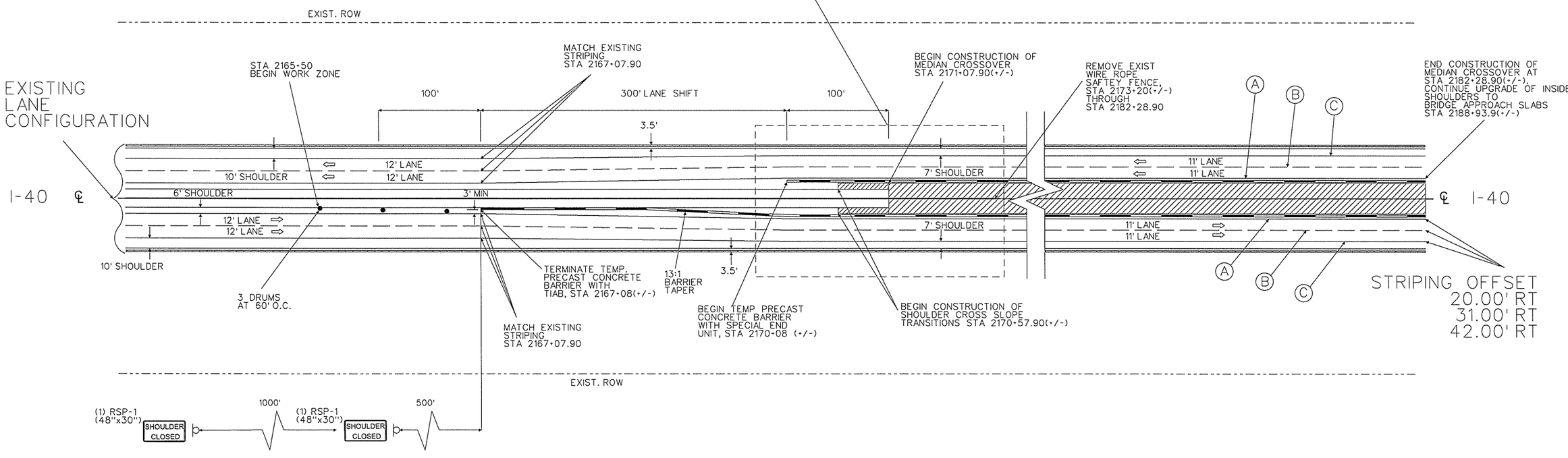
PHASE 1

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR WORK ON I-40.
2. FOR WESTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2439+92.10 THROUGH THE LIMITS OF THE MEDIAN CROSSOVER CONSTRUCTION AREA AND TERMINATE BARRIER AT STA 2403+48.90 (+/-) SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. BARRIERS WILL ALSO BE FURNISHED AND INSTALLED FROM STA 2197+81.10 THROUGH STA 2170+08 MAINTAINING THE SAME LANE CONFIGURATION. DRUMS WILL BE PROVIDED FOR AREAS BETWEEN THESE LIMITS.
3. FOR EASTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY THROUGH THE LIMITS OF THE PROJECT SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER.
4. CONSTRUCT MEDIAN CROSSOVERS AND TEMPORARY ELEMENTS FOR MEDIAN CROSSOVERS; CONSTRUCT UPGRADE OF EASTBOUND INSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES. CONSTRUCT UPGRADE OF WESTBOUND INSIDE SHOULDER FROM END OF RESPECTIVE MEDIAN CROSSOVERS TO BRIDGE APPROACH SLABS FOR CACHE RIVER BRIDGE AND BAYOU DEVIEW RIVER BRIDGE RESPECTIVELY.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	0
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	77446
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446



INSET
(50 SCALE)



PHASE 1 - PLAN TYPICAL CROSSOVER CONSTRUCTION
(WEST END)

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10

11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

0 25 50 100(H)

MAINTENANCE OF TRAFFIC PHASE 1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	41	94

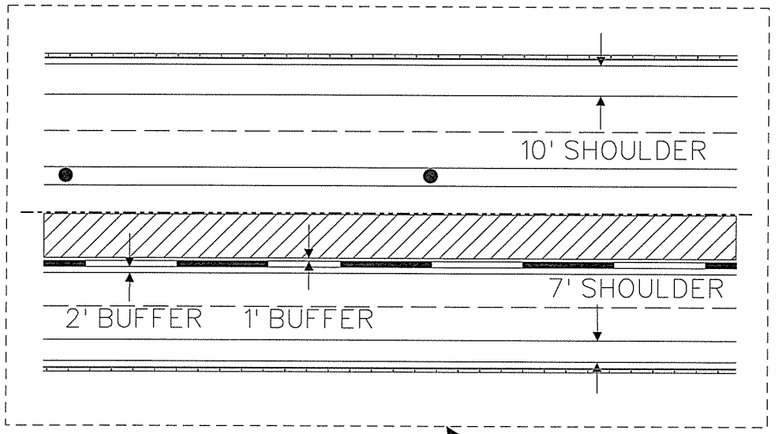
(2) MAINTENANCE OF TRAFFIC

PHASE 1

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR WORK ON I-40.
2. FOR WESTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2439+92.10 THROUGH THE LIMITS OF THE MEDIAN CROSSOVER CONSTRUCTION AREA AND TERMINATE BARRIER AT STA 2403+48.90 (+/-) SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. BARRIERS WILL ALSO BE FURNISHED AND INSTALLED FROM STA 2197+81.10 THROUGH STA 2170+08 MAINTAINING THE SAME LANE CONFIGURATION. DRUMS WILL BE PROVIDED FOR AREAS BETWEEN THESE LIMITS.
3. FOR EASTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY THROUGH THE LIMITS OF THE PROJECT SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER.
4. CONSTRUCT MEDIAN CROSSOVERS AND TEMPORARY ELEMENTS FOR MEDIAN CROSSOVERS; CONSTRUCT UPGRADE OF EASTBOUND INSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES. CONSTRUCT UPGRADE OF WESTBOUND INSIDE SHOULDER FROM END OF RESPECTIVE MEDIAN CROSSOVERS TO BRIDGE APPROACH SLABS FOR CACHE RIVER BRIDGE AND BAYOU DEVIEW RIVER BRIDGE RESPECTIVELY.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	0
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	77446
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446

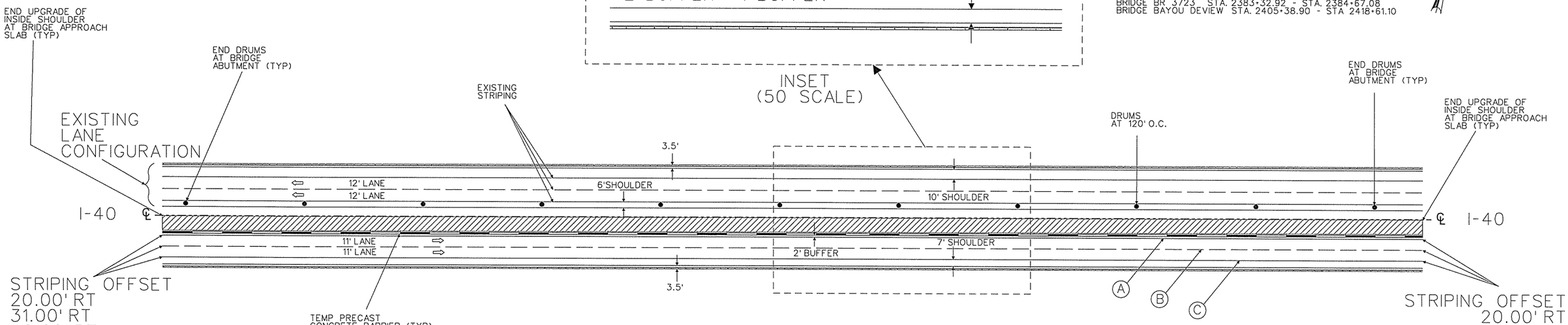
TRAFFIC DRUMS PLACEMENT(WB): STA 2197+81 - 2403+49 (EXCLUDING BRIDGES): 168 DRUMS



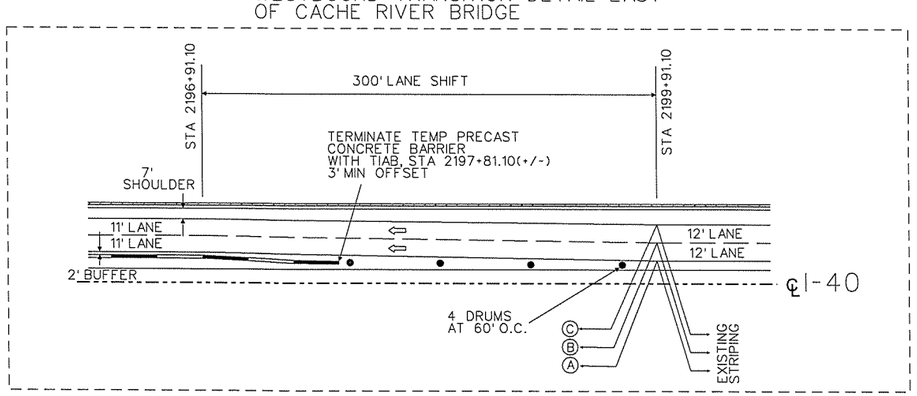
INSET
(50 SCALE)

EXISTING BRIDGE ENDS

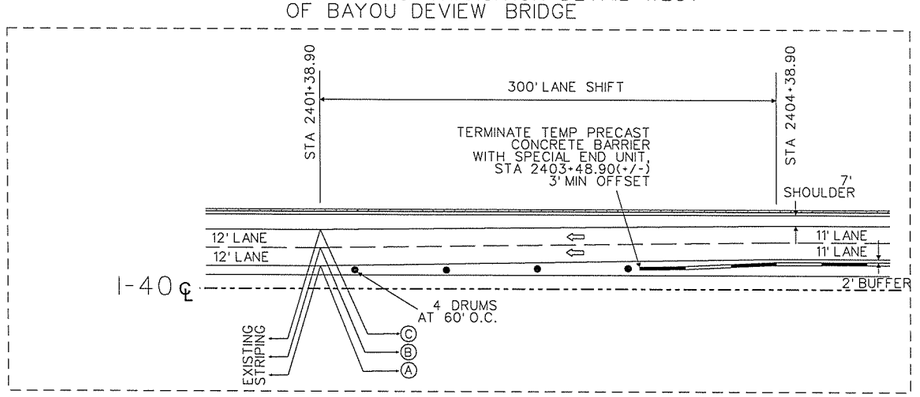
BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



WESTBOUND TRANSITION DETAIL EAST OF CACHE RIVER BRIDGE



WESTBOUND TRANSITION DETAIL WEST OF BAYOU DEVIEW BRIDGE



PHASE 1 - PLAN TYPICAL
(BARRIER MAINTAINED THRU ALL BRIDGE SECTIONS)

MAINTENANCE OF TRAFFIC PHASE 1

0 25 50 100(H)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	42	94

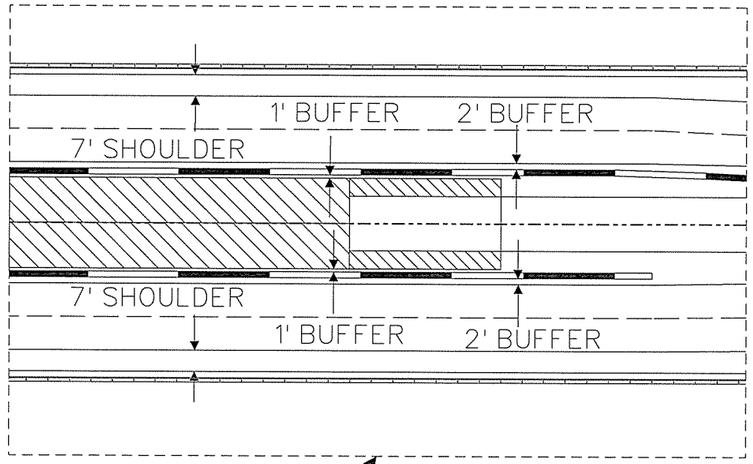
(2) MAINTENANCE OF TRAFFIC

PHASE 1

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR WORK ON I-40.
2. FOR WESTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2439+92.10 THROUGH THE LIMITS OF THE MEDIAN CROSSOVER CONSTRUCTION AREA AND TERMINATE BARRIER AT STA 2403+48.90 (+/-) SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. BARRIERS WILL ALSO BE FURNISHED AND INSTALLED FROM STA 2197+81.10 THROUGH STA 2170+08 MAINTAINING THE SAME LANE CONFIGURATION. DRUMS WILL BE PROVIDED FOR AREAS BETWEEN THESE LIMITS.
3. FOR EASTBOUND DIRECTION FURNISH AND INSTALL PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY THROUGH THE LIMITS OF THE PROJECT SUCH THAT A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER.
4. CONSTRUCT MEDIAN CROSSOVERS AND TEMPORARY ELEMENTS FOR MEDIAN CROSSOVERS; CONSTRUCT UPGRADE OF EASTBOUND INSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES. CONSTRUCT UPGRADE OF WESTBOUND INSIDE SHOULDER FROM END OF RESPECTIVE MEDIAN CROSSOVERS TO BRIDGE APPROACH SLABS FOR CACHE RIVER BRIDGE AND BAYOU DEVIEW RIVER BRIDGE RESPECTIVELY.

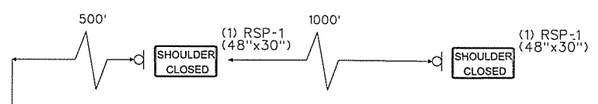
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	0
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	77446
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446

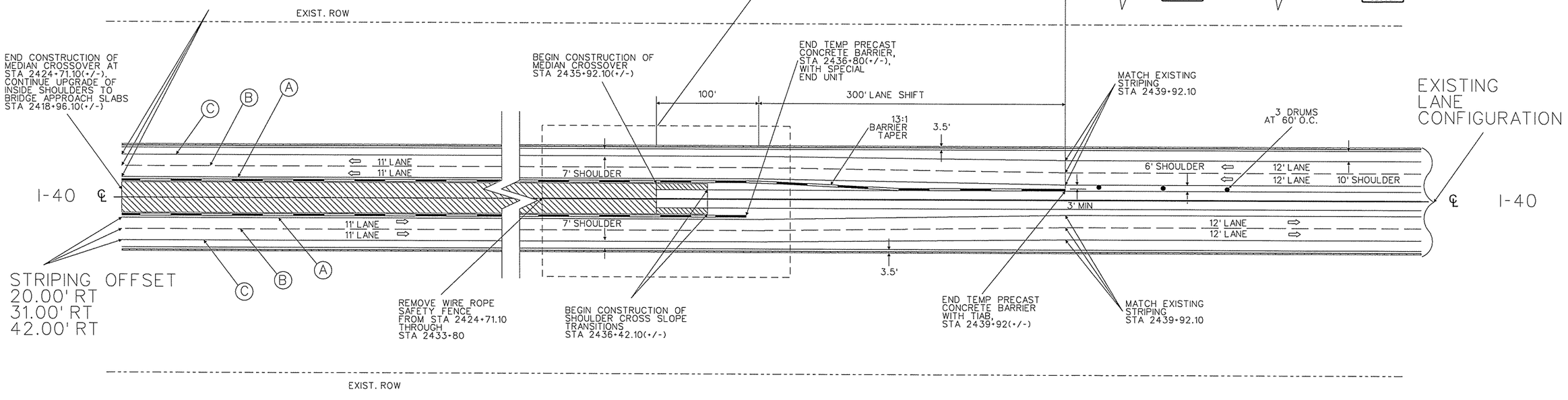
INSET
(50 SCALE)



EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10





PHASE 1 - PLAN TYPICAL CROSSOVER CONSTRUCTION
(EAST END)

0 25 50 100(H)

11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

MAINTENANCE OF TRAFFIC PHASE 1

PHASE 2

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 2. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 2. PLACE ROAD CLOSED SIGN AND BARRICADES BLOCKING CROSSOVERS.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 1 LOCATION TO NEAR EASTBOUND OUTSIDE SHOULDER SUCH THAT A 3' INSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2' BUFFER FROM THE FACE OF THE BARRIER IN THE EASTBOUND DIRECTION. WESTBOUND TRAFFIC MAINTAINS EXISTING LANE CONFIGURATIONS AND SHOULDER WIDTHS.
3. CONSTRUCT UPGRADE OF EASTBOUND OUTSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	51484
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	43	94
				(2)	MAINTENANCE OF TRAFFIC			

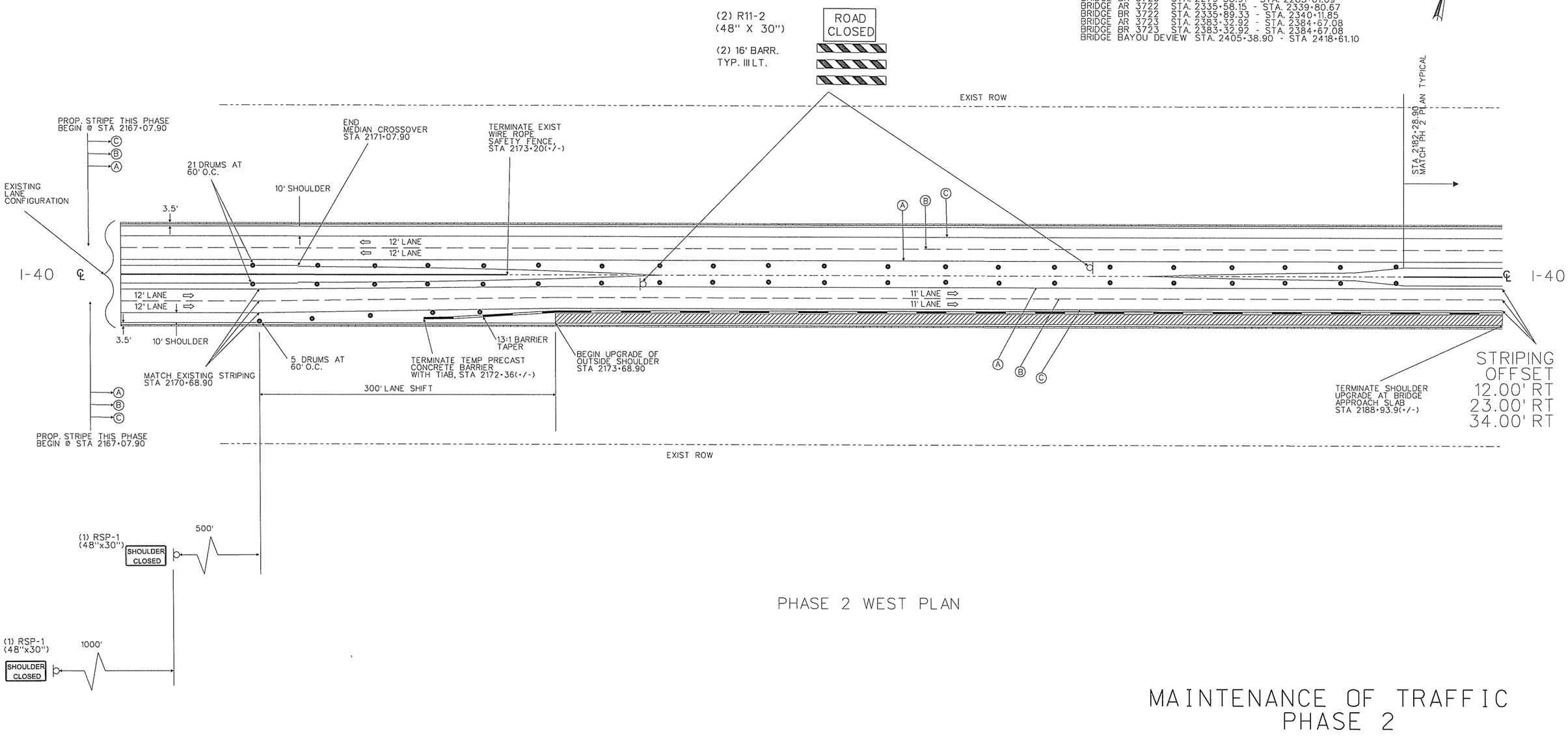
P.E. 11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

0 25 50 100(H)

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



PHASE 2 WEST PLAN

MAINTENANCE OF TRAFFIC PHASE 2

PHASE 2

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 2. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 2. PLACE ROAD CLOSED SIGN AND BARRICADES BLOCKING CROSSOVERS.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 1 LOCATION TO NEAR EASTBOUND OUTSIDE SHOULDER SUCH THAT A 3' INSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2' BUFFER FROM THE FACE OF THE BARRIER IN THE EASTBOUND DIRECTION. WESTBOUND TRAFFIC MAINTAINS EXISTING LANE CONFIGURATIONS AND SHOULDER WIDTHS.
3. CONSTRUCT UPGRADE OF EASTBOUND OUTSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	51484
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	44	94

(2) MAINTENANCE OF TRAFFIC

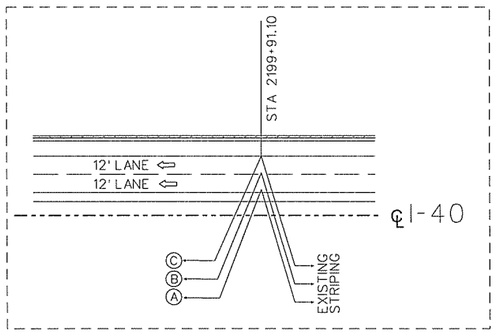
11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

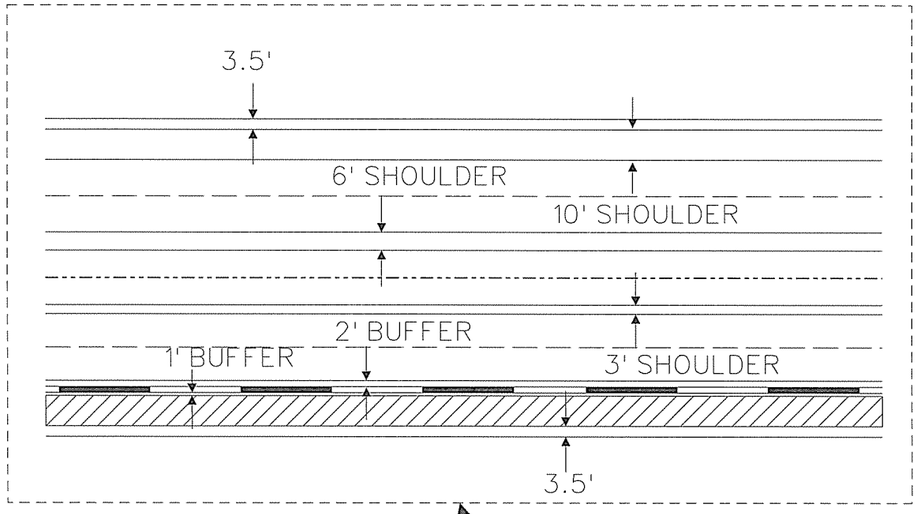
0 25 50 100(H)

EXISTING BRIDGE ENDS

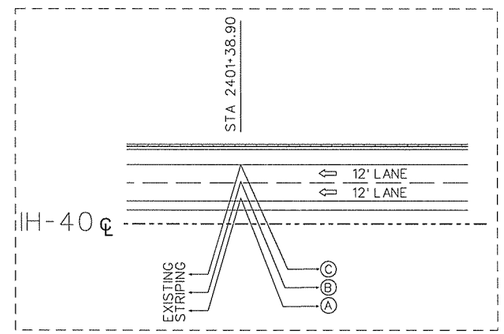
BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



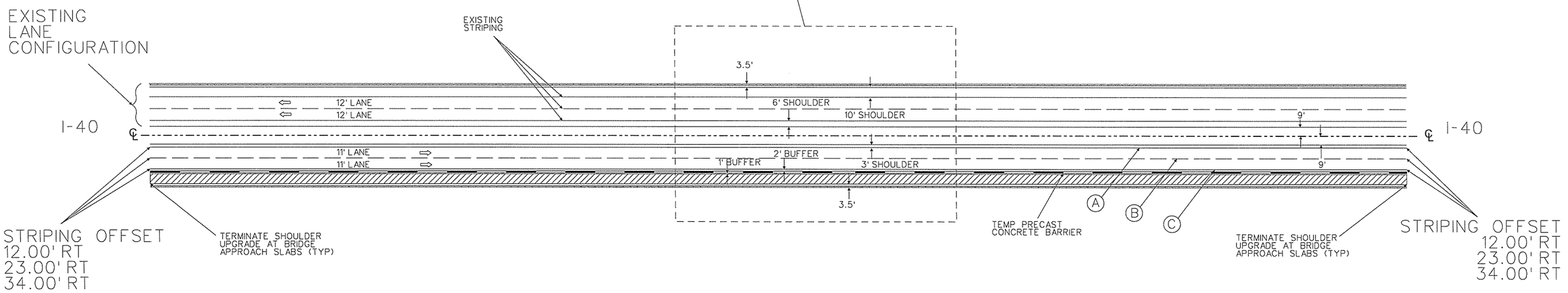
WESTBOUND STRIPING TRANSITION
EAST OF CACHE RIVER BRIDGE



INSET
(50 SCALE)



WESTBOUND STRIPING TRANSITION
WEST OF BAYOU DEVIEW BRIDGE



PHASE 2 - PLAN TYPICAL
(BARRIER MAINTAINED THRU BRIDGE SECTIONS)

MAINTENANCE OF TRAFFIC PHASE 2

PHASE 2

1. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 2. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 2. PLACE ROAD CLOSED SIGN AND BARRICADES BLOCKING CROSSOVERS.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 1 LOCATION TO NEAR EASTBOUND OUTSIDE SHOULDER SUCH THAT A 3' INSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2' BUFFER FROM THE FACE OF THE BARRIER IN THE EASTBOUND DIRECTION. WESTBOUND TRAFFIC MAINTAINS EXISTING LANE CONFIGURATIONS AND SHOULDER WIDTHS.
3. CONSTRUCT UPGRADE OF EASTBOUND OUTSIDE SHOULDER TO BEAR TRAFFIC IN LATER PHASES.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	51484
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	45	94

(2) MAINTENANCE OF TRAFFIC

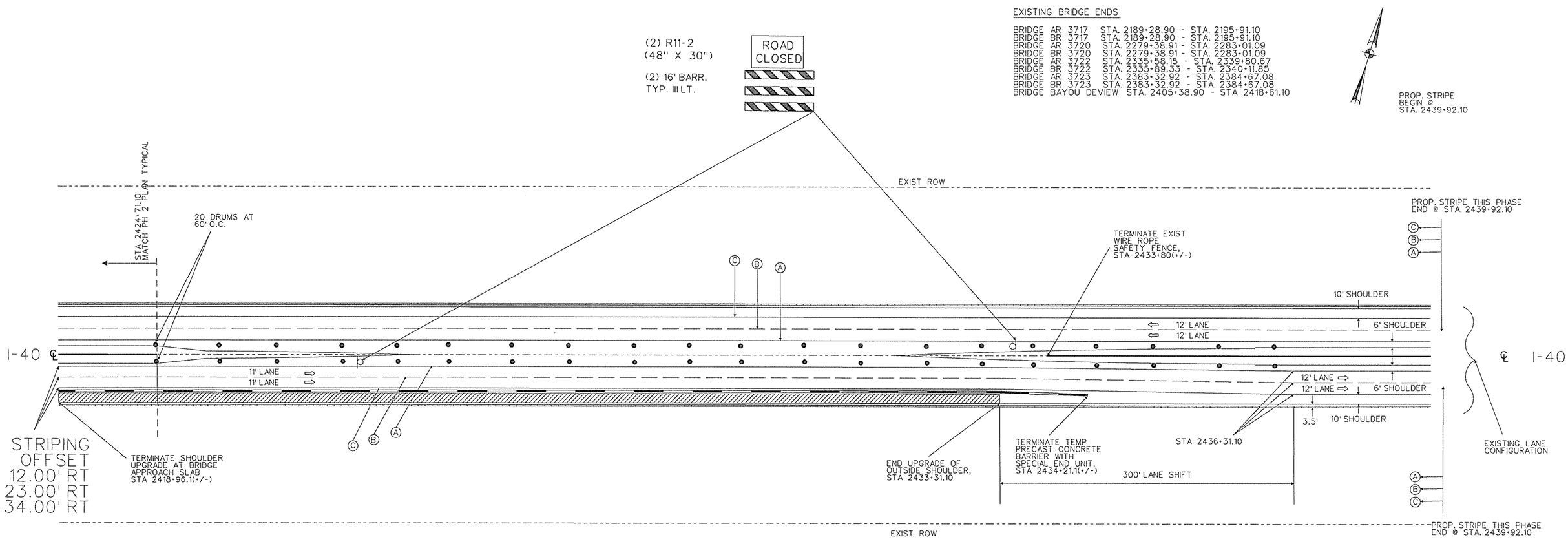
0 25 50 100(H)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

11/14/13

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



PHASE 2 EAST PLAN

MAINTENANCE OF TRAFFIC PHASE 2

PHASE 3

1. PLACE IOWA WEAVE SIGNING AT END OF PROJECT FOR WESTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR WESTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 3. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 3.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 2 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN EASTBOUND TRAVEL WAY. IN EASTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN EASTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE WESTBOUND TRAFFIC DIRECTION A 14' LANE. WESTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE WESTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION. CONSTRUCT UPGRADE OF WESTBOUND OUTSIDE SHOULDER (FROM STA 2173+68.90 TO STA 2188+93.90 AND STA 2418+96.10 TO 2433+31.10) TO BEAR TRAFFIC IN LATER PHASE.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	59765
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	111835

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	46	94

(2) MAINTENANCE OF TRAFFIC

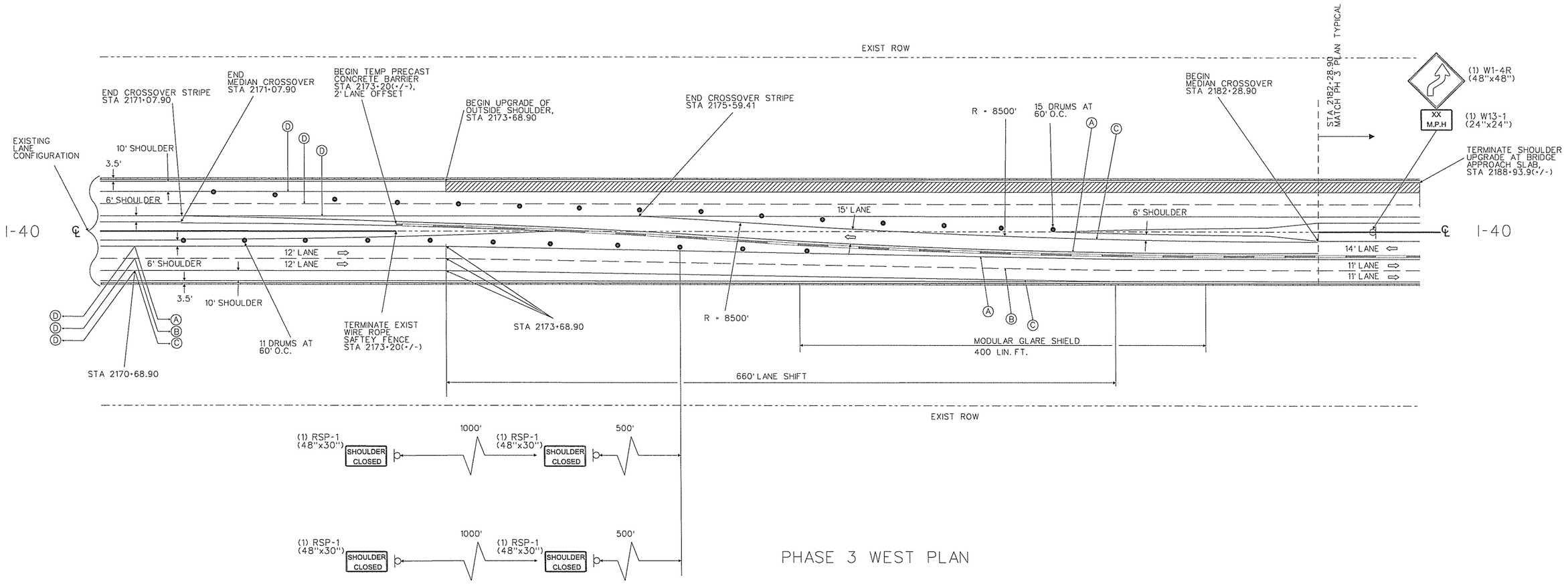
11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

0 25 50 100(H)

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



PHASE 3 WEST PLAN

MAINTENANCE OF TRAFFIC PHASE 3

PHASE 3

1. PLACE IOWA WEAVE SIGNING AT END OF PROJECT FOR WESTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR WESTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 3. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 3.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 2 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN EASTBOUND TRAVEL WAY. IN EASTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN EASTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE WESTBOUND TRAFFIC DIRECTION A 14' LANE. WESTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE WESTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION. CONSTRUCT UPGRADE OF WESTBOUND OUTSIDE SHOULDER (FROM STA 2173+68.90 TO STA 2188+93.90 AND STA 2418+96.10 TO 2433+31.10) TO BEAR TRAFFIC IN LATER PHASE.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	59765
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	111835

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10

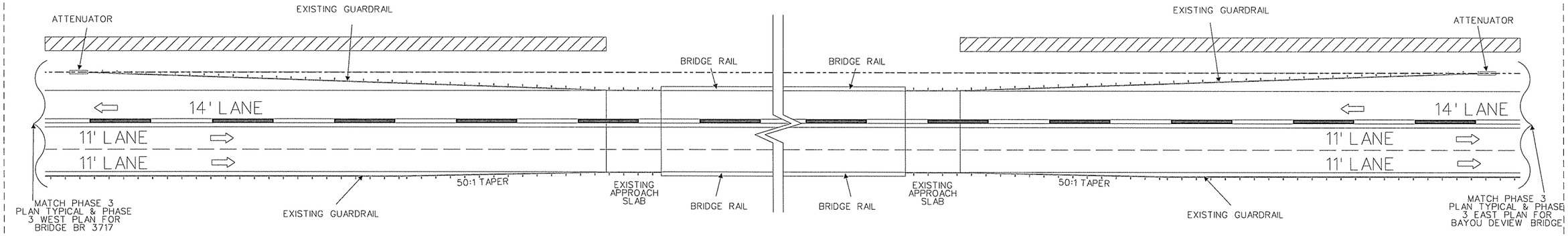
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	47	94

(2) MAINTENANCE OF TRAFFIC

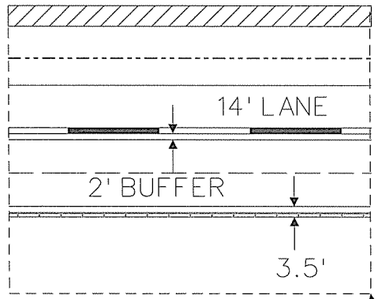
11/14/13

0 25 50 100(H)

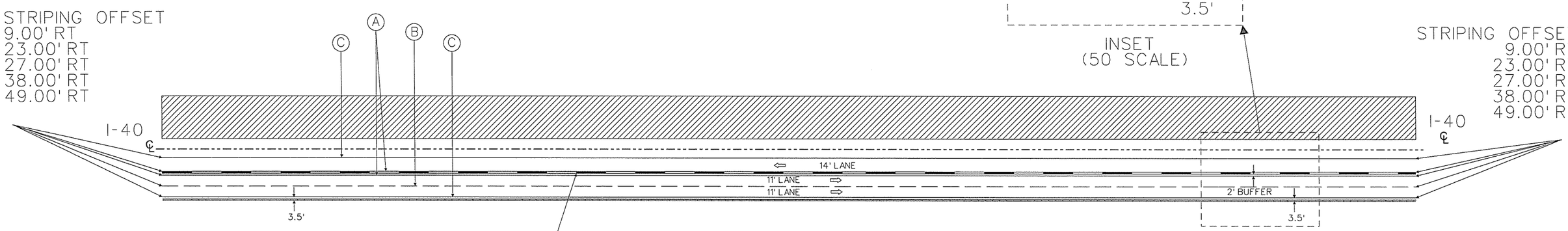
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA



BRIDGE TYPICAL INSET (50 SCALE)



INSET (50 SCALE)



PHASE 3 - PLAN TYPICAL (BARRIER MAINTAINED THROUGH ALL BRIDGE SECTIONS)

MAINTENANCE OF TRAFFIC PHASE 3

PHASE 3

1. PLACE IOWA WEAVE SIGNING AT END OF PROJECT FOR WESTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR WESTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 3. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 3.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 2 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN EASTBOUND TRAVEL WAY. IN EASTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN EASTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE WESTBOUND TRAFFIC DIRECTION A 14' LANE. WESTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE WESTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION. CONSTRUCT UPGRADE OF WESTBOUND OUTSIDE SHOULDER (FROM STA 2173+68.90 TO STA 2188+93.90 AND STA 2418+96.10 TO 2433+31.10) TO BEAR TRAFFIC IN LATER PHASE.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	59765
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	111835

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	48	94

(2) MAINTENANCE OF TRAFFIC

0 25 50 100(H)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

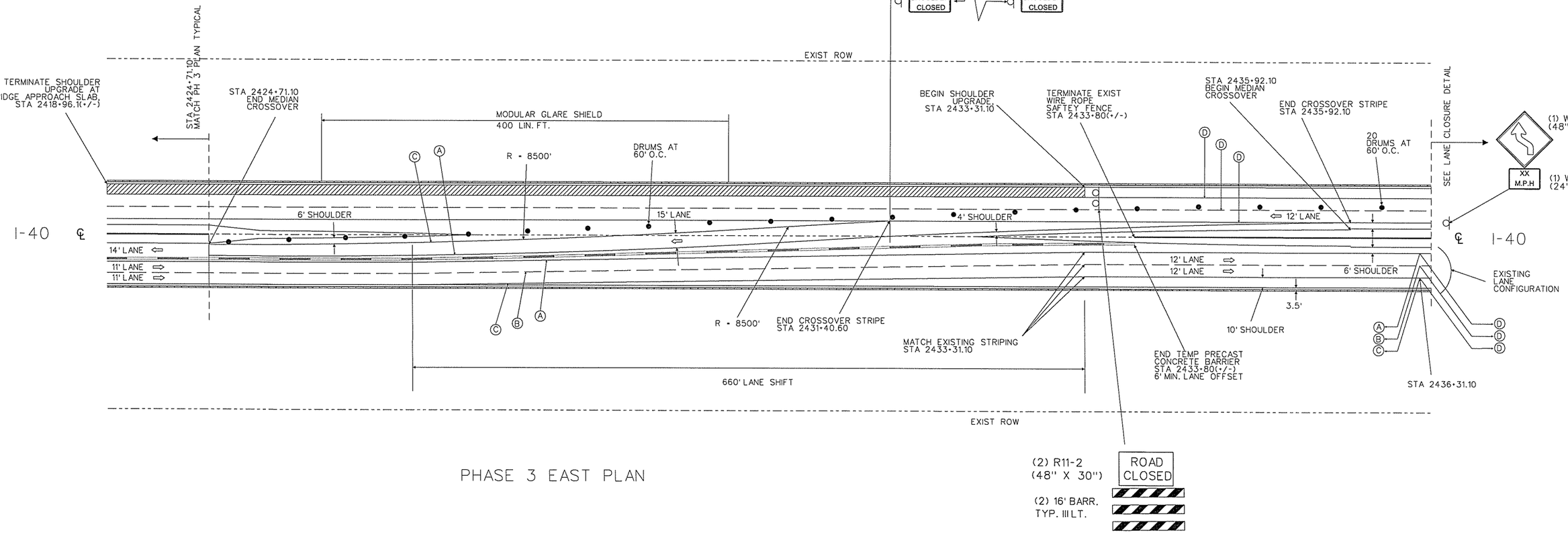
11/14/13

(1) RSP-1 (48"x30") 1000' (1) RSP-1 (48"x30")
SHOULDER CLOSED — SHOULDER CLOSED

(1) RSP-1 (48"x30") 1000' (1) RSP-1 (48"x30")
SHOULDER CLOSED — SHOULDER CLOSED

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



PHASE 3 EAST PLAN

MAINTENANCE OF TRAFFIC PHASE 3

PHASE 4

1. PLACE IOWA WEAVE SIGNING AT BEGINNING OF PROJECT FOR EASTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR EASTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 4. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 4.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 3 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN WESTBOUND TRAVEL WAY. IN WESTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN WESTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE EASTBOUND TRAFFIC DIRECTION A 14' LANE. EASTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE EASTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	7452
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	110861

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	49	94

(2) MAINTENANCE OF TRAFFIC

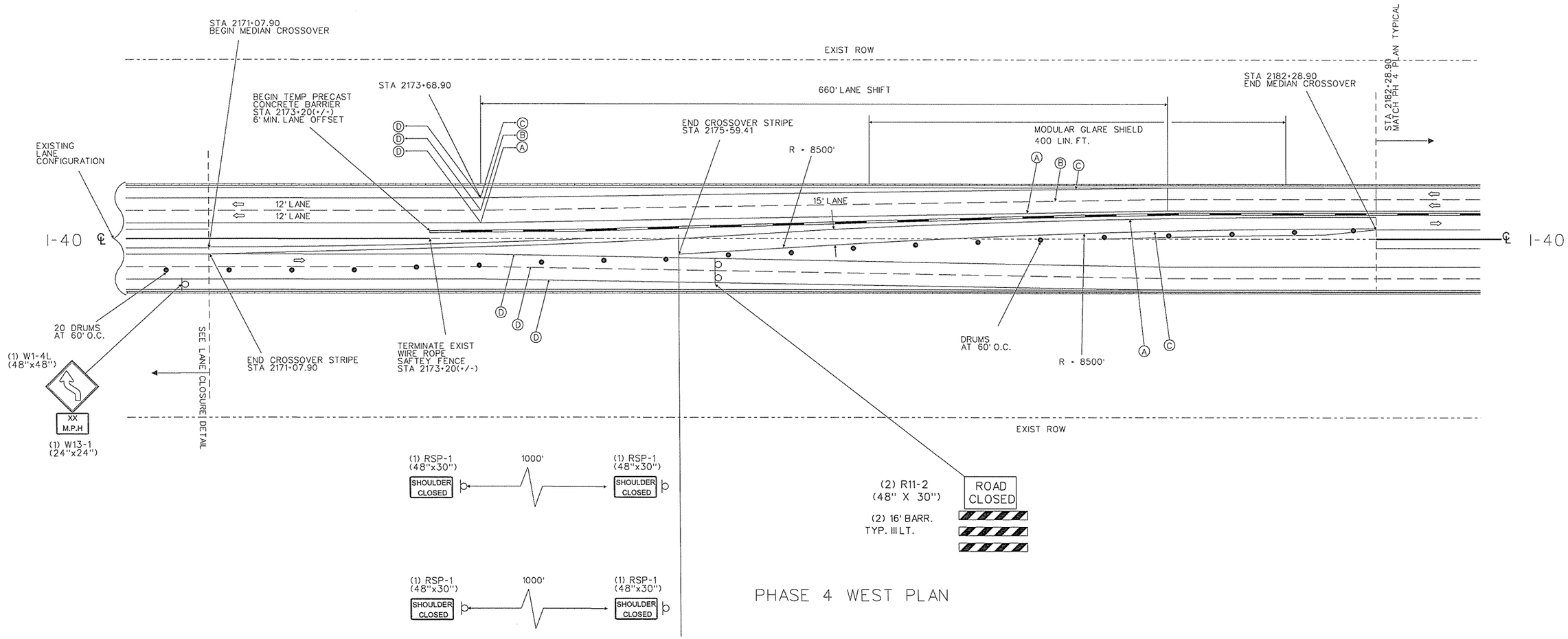
11/14/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

0 25 50 100(H)

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



PHASE 4 WEST PLAN

MAINTENANCE OF TRAFFIC PHASE 4

PHASE 4

1. PLACE IOWA WEAVE SIGNING AT BEGINNING OF PROJECT FOR EASTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR EASTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 4. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 4.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 3 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN WESTBOUND TRAVEL WAY. IN WESTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN WESTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE EASTBOUND TRAFFIC DIRECTION A 14' LANE. EASTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE EASTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	7452
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	110861

EXISTING BRIDGE ENDS

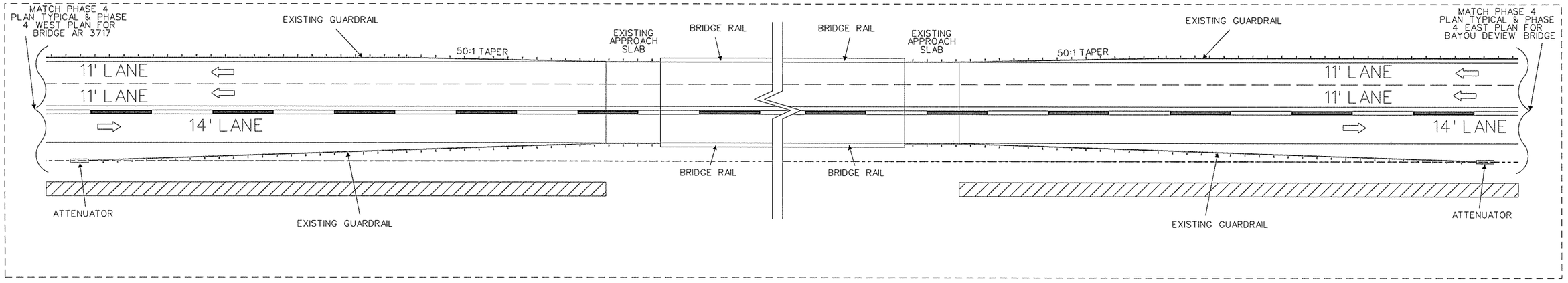
BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	50	94
	.			(2)	MAINTENANCE OF TRAFFIC			

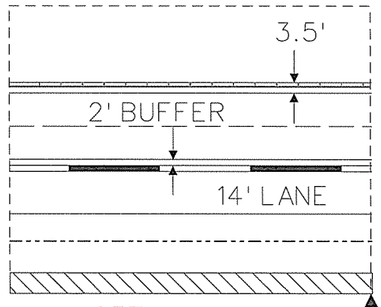
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

0 25 50 100(H)

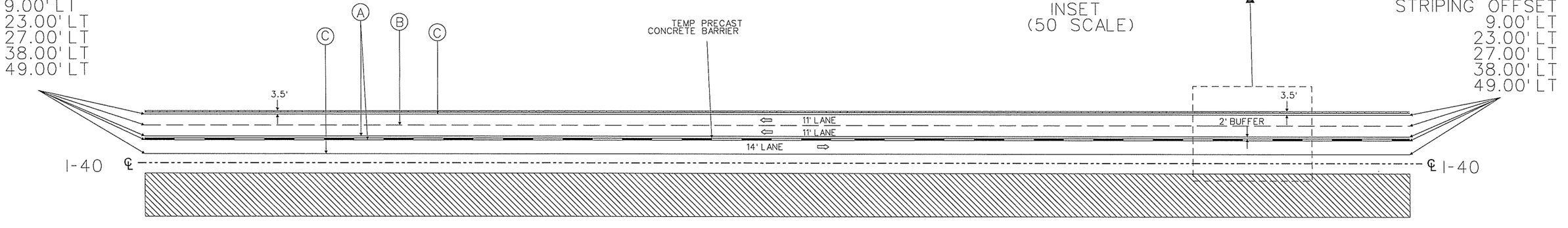
11/14/13



BRIDGE TYPICAL INSET (50 SCALE)



INSET (50 SCALE)



PHASE 4 - PLAN TYPICAL (BARRIER MAINTAINED THROUGH ALL BRIDGE SECTIONS)

MAINTENANCE OF TRAFFIC PHASE 4

PHASE 4

1. PLACE IOWA WEAVE SIGNING AT BEGINNING OF PROJECT FOR EASTBOUND DIRECTION TO PLACE TRAFFIC IN INSIDE LANE FOR EASTBOUND TRAFFIC. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 4. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 4.
2. RELOCATE PRECAST CONCRETE BARRIER FROM PHASE 3 LOCATION TO 14' FROM FACE OF BARRIER TO INSIDE EDGE OF PAVEMENT IN WESTBOUND TRAVEL WAY. IN WESTBOUND TRAVEL WAY, A HEAD TO HEAD CONFIGURATION WITH TWO 11' LANES IN WESTBOUND DIRECTION AND A 2' BUFFER FROM FACE OF BARRIER; IN THE EASTBOUND TRAFFIC DIRECTION A 14' LANE. EASTBOUND TRAFFIC WILL USE CROSSOVERS AT BOTH ENDS OF PROJECT.
3. REHABILITATE EASTBOUND TRAVEL WAY TO PROPOSED ELEVATION. CONSTRUCT GUARDRAIL AND UPGRADE THRIE BEAM TRANSITIONS TO ALL BRIDGE RAILS IN PROJECT LIMITS. ADJUST ALL SIGNS IMPACTED BY CHANGE IN PROPOSED ELEVATION.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	7452
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	110861

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

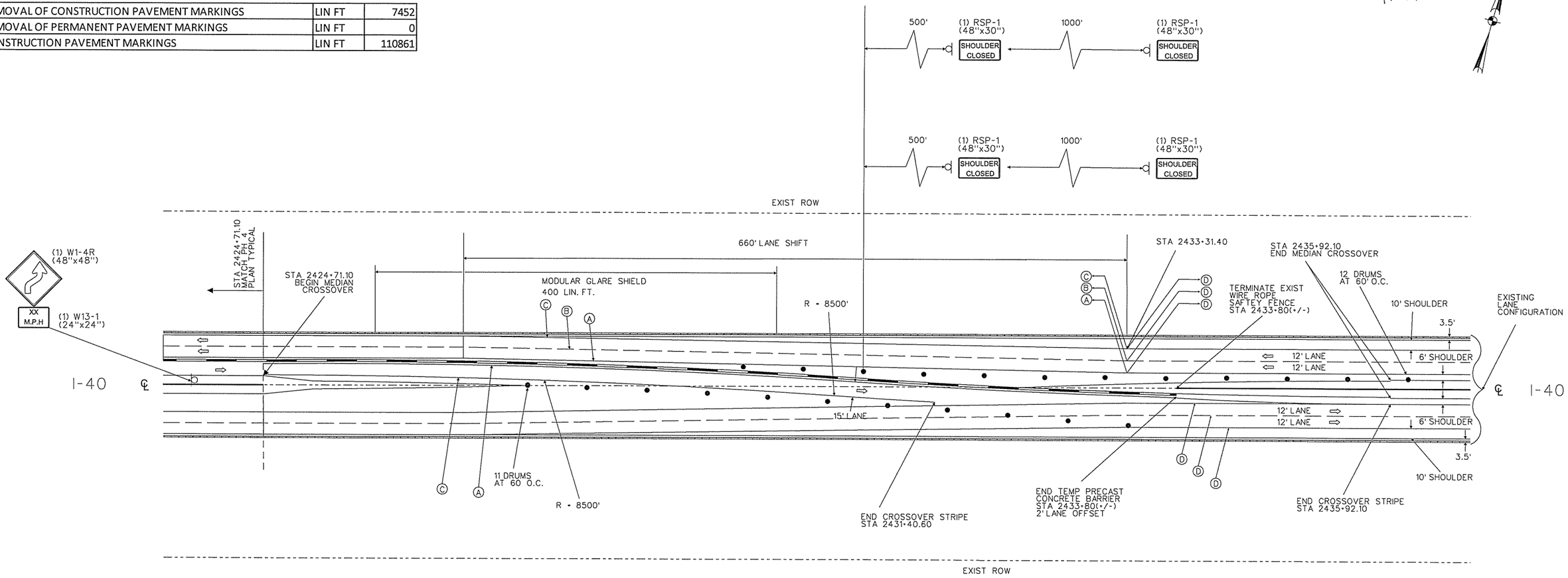
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0101	51	94

(2) MAINTENANCE OF TRAFFIC

0 25 50 100(H)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

11/14/13



PHASE 4 EAST PLAN

MAINTENANCE OF TRAFFIC PHASE 4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	52	94

(2) MAINTENANCE OF TRAFFIC

PHASE 5

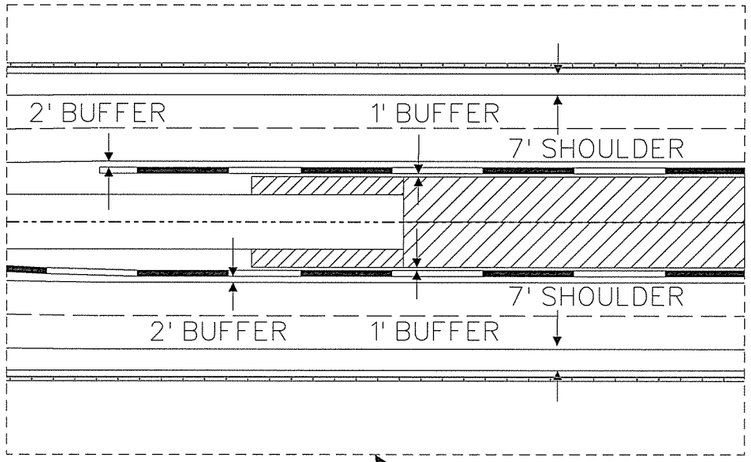
1. SWITCH TRAFFIC BACK TO NORMAL PATTERN. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 5. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 5.

2. FOR EASTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL SUCH THAT FROM STA 2170+08 – STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10, A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

3. FOR WESTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2178+08 – 2184+18.90 AND 2422+81 – 2439+92.10; DRUMS WILL BE PROVIDED FOR REMAINING LIMITS. A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER WILL BE PROVIDED FROM STA 2170+08 TO STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

4. REMOVE MEDIAN CROSSOVERS AND TEMPORARY DRAINAGE ELEMENTS. RAISE GRADE OF MEDIAN THE SAME AMOUNT AS THE INCREASE IN ROADWAY ELEVATION. REPLACE ALL WIRE ROPE SAFETY FENCE AND REPLACE INLETS IN MEDIAN THROUGH PROJECT LIMITS.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	92476
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	17289



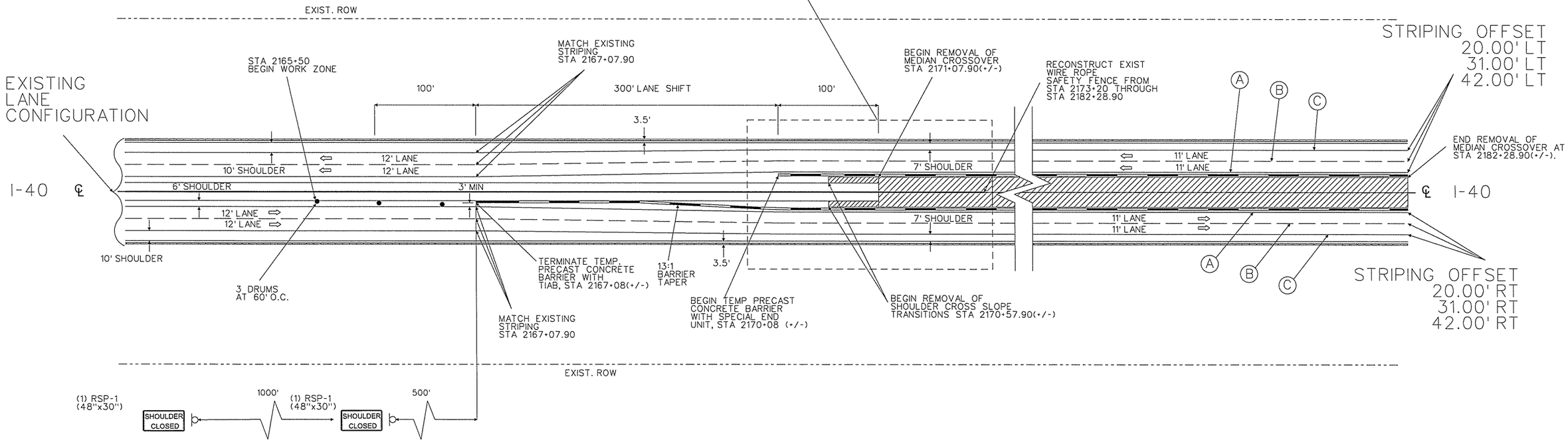
INSET
(50 SCALE)

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10

0 25 50 100(H)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MOBA



PHASE 5 - PLAN TYPICAL CROSSOVER REMOVAL
(WEST END)

MAINTENANCE OF TRAFFIC PHASE 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	53	94

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

11/14/13

PHASE 5

1. SWITCH TRAFFIC BACK TO NORMAL PATTERN. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 5. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 5.

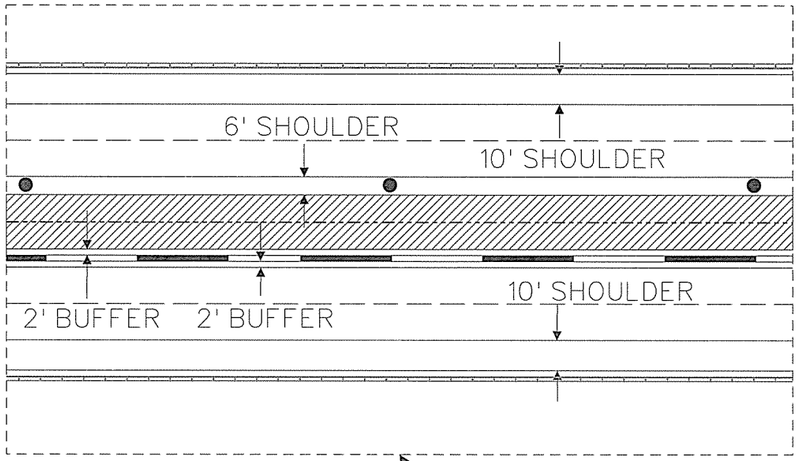
2. FOR EASTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL SUCH THAT FROM STA 2170+08 – STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10, A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

3. FOR WESTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2178+08 – 2184+18.90 AND 2422+81 – 2439+92.10; DRUMS WILL BE PROVIDED FOR REMAINING LIMITS. A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER WILL BE PROVIDED FROM STA 2170+08 TO STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

4. REMOVE MEDIAN CROSSOVERS AND TEMPORARY DRAINAGE ELEMENTS. RAISE GRADE OF MEDIAN THE SAME AMOUNT AS THE INCREASE IN ROADWAY ELEVATION. REPLACE ALL WIRE ROPE SAFETY FENCE AND REPLACE INLETS IN MEDIAN THROUGH PROJECT LIMITS.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	92476
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	17289

TRAFFIC DRUMS PLACEMENT(WB): STA 2184+19 - 2422+81 (EXCLUDING BRIDGES): 179 DRUMS

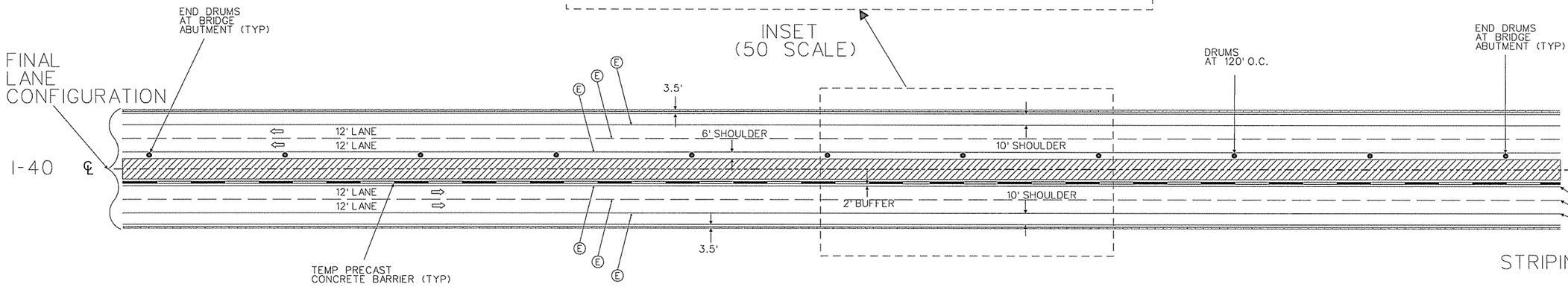


INSET
(50 SCALE)

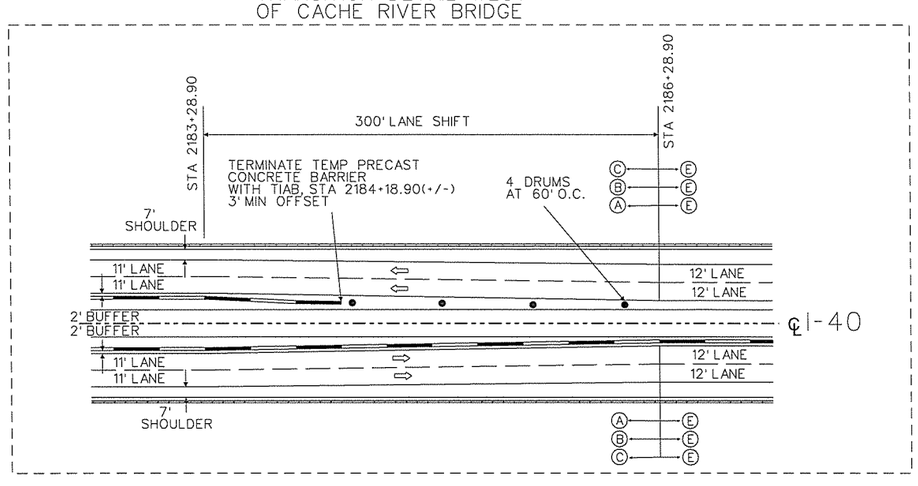
0 25 50 100(H)

EXISTING BRIDGE ENDS

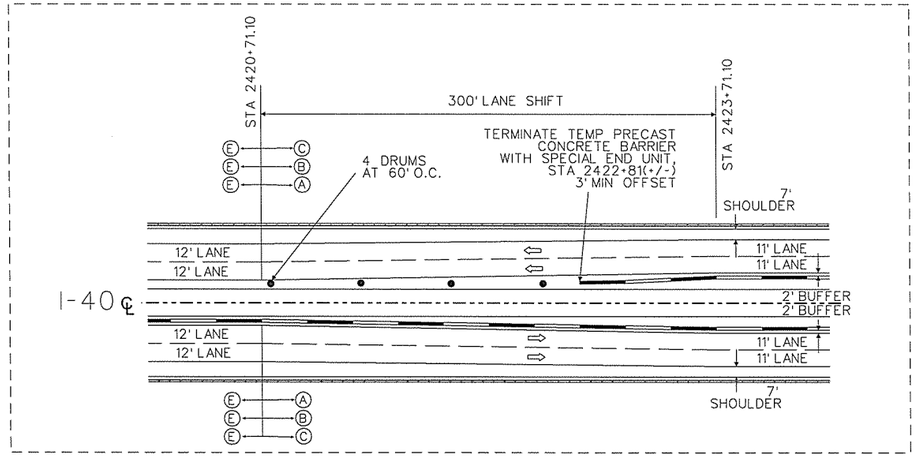
BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



TRANSITION DETAIL WEST OF CACHE RIVER BRIDGE



TRANSITION DETAIL EAST OF BAYOU DEVIEW BRIDGE



PHASE 5 - PLAN TYPICAL
(BARRIER MAINTAINED THRU ALL BRIDGE SECTIONS)

MAINTENANCE OF TRAFFIC PHASE 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	54	94

(2) MAINTENANCE OF TRAFFIC

PHASE 5

1. SWITCH TRAFFIC BACK TO NORMAL PATTERN. PLACE CONSTRUCTION PAVEMENT MARKINGS FOR PHASE 5. PLACE ADVANCE WARNING SIGNS AND DEVICES FOR PHASE 5.

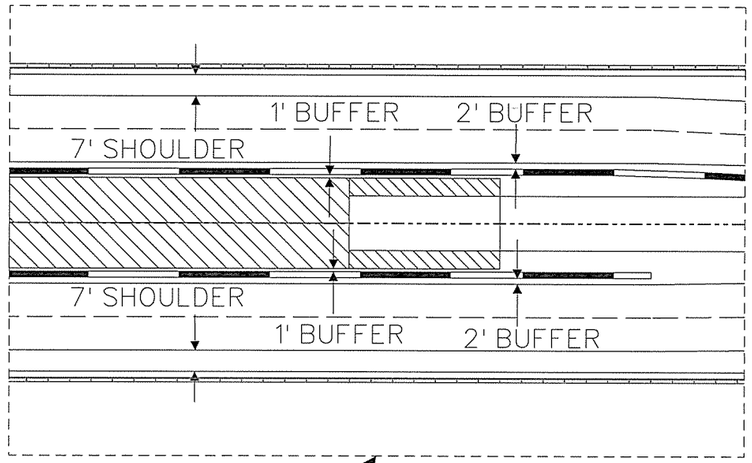
2. FOR EASTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL SUCH THAT FROM STA 2170+08 – STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10, A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED, WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

3. FOR WESTBOUND DIRECTION PLACE PRECAST CONCRETE BARRIER ON LEFT SIDE OF EXISTING TRAVEL WAY FROM STA 2178+08 – 2184+18.90 AND 2422+81 – 2439+92.10; DRUMS WILL BE PROVIDED FOR REMAINING LIMITS. A 7 ' OUTSIDE SHOULDER AND TWO 11' LANES WILL BE MAINTAINED WITH A 2 ' BUFFER FROM THE FACE OF THE BARRIER WILL BE PROVIDED FROM STA 2170+08 TO STA 2186+28.90 AND STA 2420+71.10 – STA 2436+92.10. FOR REMAINDER OF PROJECT LIMITS TWO 12' LANES WITH A 10' OUTSIDE SHOULDER AND 2' BUFFER TO BARRIER FACE WILL BE PROVIDED.

4. REMOVE MEDIAN CROSSOVERS AND TEMPORARY DRAINAGE ELEMENTS. RAISE GRADE OF MEDIAN THE SAME AMOUNT AS THE INCREASE IN ROADWAY ELEVATION. REPLACE ALL WIRE ROPE SAFETY FENCE AND REPLACE INLETS IN MEDIAN THROUGH PROJECT LIMITS.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	92476
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	0
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	17289

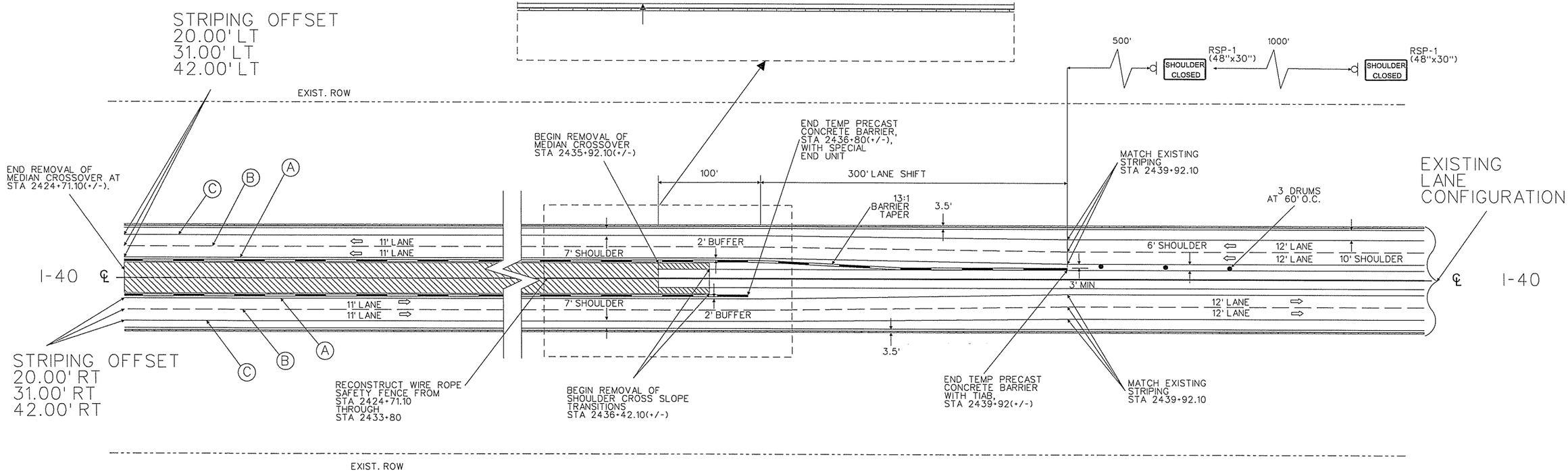
INSET
(50 SCALE)



0 25 50 100(H)

EXISTING BRIDGE ENDS

BRIDGE AR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE BR 3717 STA. 2189+28.90 - STA. 2195+91.10
BRIDGE AR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE BR 3720 STA. 2279+38.91 - STA. 2283+01.09
BRIDGE AR 3722 STA. 2335+58.15 - STA. 2339+80.67
BRIDGE BR 3722 STA. 2335+89.33 - STA. 2340+11.85
BRIDGE AR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BR 3723 STA. 2383+32.92 - STA. 2384+67.08
BRIDGE BAYOU DEVIEW STA. 2405+38.90 - STA 2418+61.10



PHASE 5 - PLAN TYPICAL CROSSOVER REMOVAL
(EAST END)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MOBA

11/14/13

MAINTENANCE OF TRAFFIC PHASE 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-08-14				6	ARK.			
				JOB NO.		BB0101	55	94

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

4/08/14

ADVANCE WARNING SIGNS AND DEVICES

SIGN	DESCRIPTION	SIGN SIZE	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	TOTAL SIGNS REQUIRED	
			LIN.FT - EACH					NO.	SQ. FT.
G20-1	ROAD WORK NEXT xx MILES	60"X24"	2	2	2	2	2	2	20.00
G20-2	END ROAD WORK	48"X24"	4	4	4	4	4	4	32.00
R11-2	ROAD CLOSED	48"X30"		4	2	2		4	40.00
R2-1	SPEED LIMIT (60 MPH)	48"X60"			2	2		2	40.00
R2-1	SPEED LIMIT (70 MPH)	48"X60"			2	2		2	40.00
R2-2	TRUCKS (65 MPH)	48"X48"			2	2		2	32.00
R2-5A	REDUCE SPEED AHEAD	48"X60"			2	2		2	40.00
R4-1	DO NOT PASS	48"X60"			4	4		4	80.00
R55-1	FINES DOUBLE	36"X60"	4	4	2	2	4	4	60.00
SPECIAL	MERGE NOW	48"X48"			1	1		1	16.00
W13-1	xx M.P.H.	24"X24"			2	2		2	8.00
W1-4L	REVERSE CURVE (LEFT)	48"X48"			1	1		1	16.00
W1-4R	REVERSE CURVE (RIGHT)	48"X48"			1	1		1	16.00
W1-6	LARGE ARROW	60"X30"			3	3		3	37.50
W20-1	ROAD WORK (1 MILE)	48"X48"	4	4	2	2	4	4	64.00
W20-1	ROAD WORK (1/2 MILE)	48"X48"	4	4	2	2	4	4	64.00
W20-1	ROAD WORK (1500 FT)	48"X48"	4	4	2	2	4	4	64.00
W20-1	ROAD WORK (AHEAD)	48"X48"			2	2		2	32.00
W20-5	RIGHT LANE CLOSED (1500 FT)	48"X48"			2	2		2	32.00
W20-5	RIGHT LANE CLOSED (1/2 MILE)	48"X48"			2	2		2	32.00
W20-5	RIGHT LANE CLOSED (1 MILE)	48"X48"			2	2		2	32.00
RSP-1	SHOULDER CLOSED	48"X30"	4	2	8	8	4	8	80.00
W4-2R	RIGHT LANE CLOSED	48"X48"			2	2		2	32.00
	ALTERNATE ROUTE SIGNS	VAR.							441.32
									1350.82

							UNITS
TRAFFIC DRUMS	174	87	88	85	185	185	EACH
MODULAR GLARE SHIELD			800	800		800	LIN. FT
ADVANCE WARNING ARROW PANEL			2	2		330	DAY
PORTABLE CHANGEABLE MESSAGE SIGN (NON-GATED)	12	12	4	4	4	62	WEEK *
VERTICAL PANELS			213	213		213	EACH
TYPE III BARRICADES-RT (16')		4				64	LIN. FT
TYPE III BARRICADES-LT (16')			2	2		32	LIN. FT
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	33390					33390	LIN. FT
RELOCATING PRECAST CONCRETE BARRIER		26190	26070	26070	30120	108450	LIN. FT
TEMPORARY IMPACT ATTENUATION BARRIER	3	1			3	7	EACH
TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	3	1			3	7	EACH

* PCMS TO BE PLACED IF AND WHERE REQUESTED BY DISTRICT.

NOTE:THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION,2014 EDITION.
NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR (ONE/BOTH SIDES) OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB, HOWEVER
THE INSTALLATION OF TRAFFIC DRUMS SHALL NEVER EXCEED THE ACTAL WORK AREA BY MORE TNA 1/4 MILE, UNLESS APPROVED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (ALL PHASES) - ALTS. 1 & 2								
DESCRIPTION	UNITS	PH 1	PH 2	PH 3	PH 4	PH 5		TOTAL
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	LIN FT	0	51484	59765	7452	92476		211177
REMOVAL OF PERMANENT PAVEMENT MARKINGS	LIN FT	77446	0	0	0	0		77446
CONSTRUCTION PAVEMENT MARKINGS	LIN FT	77446	77446	111835	110861	17289		394877

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

MAINTENANCE OF TRAFFIC ITEMS

STATION	STATION	LOCATION	MOBILE SPEED NOTIFICATION SYSTEM	MOTORIST ASSISTANCE PATROL	TRAFFIC CONTROL SUPERVISOR	PORTABLE CONSTRUCTION LIGHTING		WRECKER SERVICE	PORTABLE CAMERA ASSEMBLY
						TOTAL NO.	DAY		
			EACH	LUMP SUM	LUMP SUM			LUMP SUM	WEEK
ENTIRE PROJECT IF AND WHERE DIRECTED BY ENGINEER			2	1.00	1.00			1.00	176
ENTIRE PROJECT - CROSSOVER LOCATIONS						4	105		
TOTALS:			2	1.00	1.00	4	105	1.00	176

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

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	56	94
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
12/6/2013

CONCRETE DITCH PAVING (WRSF)

STATION	STATION	LOCATION	LENGTH	CONC. DITCH PAVING (TYPE B)		SOLID SODDING	WATER
			LIN.FT.	WIDTH	SQ. YD.	SQ. YD.	M. GAL.
2171+07.90	2182+28.90	MEDIAN (CROSSOVER)	1121.00	4'-0"	498.2	498.2	6.3
2197+41.06	2277+88.92	MEDIAN	8047.86	4'-0"	3576.8	3576.8	45.1
2284+51.06	2334+26.63	MEDIAN	4975.57	4'-0"	2211.4	2211.4	27.9
2341+43.40	2381+82.95	MEDIAN	4039.55	4'-0"	1795.4	1795.4	22.6
2386+17.05	2403+88.93	MEDIAN	1771.88	4'-0"	787.5	787.5	9.9
2424+71.10	2435+92.10	MEDIAN (CROSSOVER)	1121.00	4'-0"	498.2	498.2	6.3
TOTALS:					**9367.5**	**9367.5**	**118.1**

BASIS OF ESTIMATE - 12.6 GAL/SY SOLID SODDING

4" PIPE UNDERDRAIN - ALTERNATE NO. 1

STATION	STATION	LOCATION	UNDERDRAIN COVER	4" PIPE UNDERDRAINS			UNDERDRAIN OUTLET PROTECTORS	UNDERDRAIN VIDEO INSPECTION
				EDGE DRAINS	LATERALS (NON - PERFORATED	TOTAL		
			LIN.FT.	LIN.FT.	NO. LIN. FT.	LIN. FT.	EACH	LIN. FT.
2203+26.10	2272+03.91	RT. - R.M.L.	6878	6878	28 700	7578	28	7578
2203+26.10	2272+03.91	LT. - R.M.L.	6878	6878	28 700	7578	28	7578
2290+36.07	2328+37.01	RT. - R.M.L.	3801	3801	16 400	4201	16	4201
2290+36.07	2328+37.01	LT. - R.M.L.	3801	3801	16 400	4201	16	4201
2347+32.99	2376+97.92	RT. - R.M.L.	2965	2965	12 300	3265	12	3265
2347+32.99	2376+97.92	LT. - R.M.L.	2965	2965	12 300	3265	12	3265
2392+02.08	2398+03.90	RT. - R.M.L.	602	602	3 75	677	3	677
2392+02.08	2398+03.90	LT. - R.M.L.	602	602	3 75	677	3	677
TOTALS:			**28492**	**28492**		**2950**	**31442**	**118**	**31442**

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

UNDERDRAINS SHALL BE STUBBED INTO DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

REMOVAL OF RUMBLE STRIPS

STATION	STATION	LOCATION	LIN. FT.
2173+68.90	2189+29.00	RT. OF R.M.L.	1560.10
2173+68.90	2189+29.00	LT. OFR.M.L.	1560.10
2182+28.90	2189+29.00	LT. OF R.M.L.	700.10
2195+91.10	2405+38.90	LT. OF R.M.L. (EXCLUDING BRIDGES & APPOACH SLABS)	19780.50
2418+61.00	2433+10.00	RT. OF R.M.L.	1449.00
TOTAL:			**25049.80**

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A SPECIAL)	GUARDRAIL TERMINAL TYPE 2	THRIE BEAM GUARDRAIL TERMINAL
			LIN.FT.	EACH	EACH
2195+98.60	2197+91.08	RT.-L.M.L.	150	1	1
2195+98.60	2197+91.08	LT.-R.M.L.	150	1	1
2195+98.60	2279+31.41	RT.-R.M.L.	8295		2
2195+98.60	2279+31.41	LT.-L.M.L.	8295		2
2277+38.94	2279+31.41	RT.-L.M.L.	150	1	1
2283+08.59	2285+01.06	RT.-L.M.L.	150	1	1
2277+38.94	2279+31.41	LT.-R.M.L.	150	1	1
2283+08.59	2285+01.06	LT.-R.M.L.	150	1	1
2283+08.59	2335+81.83	RT.-R.M.L.	5236		2
2283+08.59	2335+50.65	LT.-L.M.L.	5205		2
2340+03.76	2341+93.35	RT.-L.M.L.	150	1	1
2333+76.63	2335+66.24	RT.-L.M.L.	150	1	1
2340+03.76	2341+93.35	LT.-R.M.L.	150	1	1
2333+76.63	2335+66.24	LT.-R.M.L.	150	1	1
2340+19.35	2383+25.42	RT.-R.M.L.	4269		2
2339+88.17	2383+25.42	LT.-R.M.L.	4300		2
2381+32.95	2383+25.42	LT.-R.M.L.	150	1	1
2381+32.95	2383+25.42	RT.-L.M.L.	150	1	1
2384+74.58	2386+67.08	RT.-L.M.L.	150	1	1
2403+38.93	2405+31.40	RT.-L.M.L.	150	1	1
2384+74.58	2386+67.08	LT.-R.M.L.	150	1	1
2403+38.93	2405+31.40	LT.-R.M.L.	150	1	1
2384+74.58	2405+31.40	LT.-L.M.L.	4114		2
2384+74.58	2405+31.40	RT.-R.M.L.	4114		2
TOTALS:			**46228**	**16**	**32**

WIRE ROPE SAFETY FENCE (WRSF)

STATION	STATION	LOCATION	LIN.FT.	WRSF MAINTENANCE MATERIALS	WIRE ROPE SAFETY FENCE END TERMINAL
				LUMP SUM	EACH
ENTIRE PROJECT				1.00	
2173+20.00	2182+28.90	MEDIAN (CROSSOVER)	909		2
2197+41.06	2277+88.92	MEDIAN	8048		
2284+51.06	2334+26.63	MEDIAN	4976		
2341+43.40	2381+82.95	MEDIAN	4040		
2386+17.05	2403+88.93	MEDIAN	1772		
2424+71.10	2433+80.00	MEDIAN (CROSSOVER)	909		2
TOTALS:			**20654**	**1.00**	**4**

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
04-11-2014				6	ARK.			
				JOB NO.		BB0101	57	94
				(2) QUANTITIES				

DRAINAGE STRUCTURES UNDER 20' SPAN

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE (CLASS III) 18"	DROP INLET TYPE RM	DIMENSIONS LIN. FT.			SELECTED PIPE BEDDING	STD. DWG. NOS.
		LIN. FT.	EACH	LENGTH	SPAN	HEIGHT	CU.YD.	
2202+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2205+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2211+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2217+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2223+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2229+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2235+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2241+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2247+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2253+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2259+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2265+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2270+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2274+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2288+40	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2292+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2297+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2303+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2309+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2315+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2321+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2326+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2330+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2347+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2351+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2356+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2362+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2368+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2373+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2377+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2390+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2394+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2396+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
2400+00	CONSTRUCT TYPE RM DROP INLET CONNECT TO EXISTING R.C. PIPE OUTLET	4	1	4.00	3.50	4.17*	0.26	FPC-9D, PCC-1
TOTALS:		136	34				8.84	

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING
*DIMENSION ESTIMATED. VERIFY INLET ELEVATION AND CONNECTING PIPE SIZE PRIOR TO CONSTRUCTION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10887
SCOTT P. THORNSBERRY
04-11-2014

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	GUARDRAIL	DROP INLET	IMPACT ATTENUATION BARRIERS	DITCH PAVING	WRSF
			LIN.FT.	EACH		SQ. YD.	LIN. FT.
2195+98.60	2279+31.41	LT. L.M.L. & RT. R.M.L.	16666	14			
2195+98.60	2198+48.60	MEDIAN	500				
2198+48.60	2199+18.60	MEDIAN			1		
2276+11.41	2276+81.41	MEDIAN			1		
2276+81.41	2279+31.41	MEDIAN	500				
2283+08.59	2285+58.59	MEDIAN	500				
2285+58.59	2286+28.59	MEDIAN			1		
2283+08.59	2336+66.24	LT. L.M.L. & RT. R.M.L.	10715	9			
2233+41.24	2234+16.24	MEDIAN			1		
2234+16.24	2236+66.24	MEDIAN	500				
2340+03.76	2342+53.76	MEDIAN	500				
2342+53.76	2343+28.76	MEDIAN			1		
2340+03.76	2383+25.42	LT. L.M.L. & RT. R.M.L.	8643	7			
2380+05.42	2380+75.42	MEDIAN			1		
2380+75.42	2383+25.42	MEDIAN	500				
2384+74.58	2387+24.58	MEDIAN	500				
2387+24.58	2387+94.58	MEDIAN			1		
2384+74.58	2405+31.40	LT. L.M.L. & RT. R.M.L.	4114	4			
2402+11.40	2402+81.40	MEDIAN			1		
2402+81.40	2405+31.40	MEDIAN	500				
2171+07.90	2182+28.90	MEDIAN (CROSSOVER)				498	1121
2197+41.06	2277+88.92	CL MEDIAN				3577	8048
2284+51.06	2334+26.63	CL MEDIAN				2211	4976
2341+43.40	2381+82.95	CL MEDIAN				1795	4040
2386+17.05	2403+88.93	CL MEDIAN				788	1772
2424+71.10	2435+92.10	MEDIAN (CROSSOVER)				498	1121
TOTALS:			44138	34	8	9367	21078

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	58	94

(2) QUANTITIES

12/03/13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15509
KENNETH MORA

STAGE CONSTRUCTION CROSSOVERS - ALT. 1 & ALT. 2

CROSSOVER - BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	TACK COAT 0.03 GAL. PER. SQ. YD.			A.C.H.M. BASE COURSE (1 1/2")				A.C.H.M. BINDER COURSE (1")				A.C.H.M. SURFACE COURSE (1/2")			
				AVG. WIDTH	SQ. YD	GALLON	AVG. WIDTH	SQ. YD	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD	LBS. PER SQ. YD.	TON
			FT.	FT.			FT.				FT.				FT.			
2170+57.90	2171+07.90	SHOULDER SLOPE TRANSITION	50	12	133.33	4.00	12	66.67	1320	44.00	12	66.67	330	11.00	12	66.67	220	7.33
2171+07.90	2171+26.17	CROSSOVER TAPER	18.27	37.02	75.15	2.25	20.68	41.98	1320	27.71	16.34	33.17	330	5.47	14.00	28.42	220	3.13
2171+26.17	2171+76.17	CROSSOVER TAPER	50.00	37.44	208.00	6.24	20.88	116.00	1320	76.56	16.56	92.00	330	15.18	14.22	79.00	220	8.69
2171+76.17	2172+26.17	CROSSOVER TAPER	50.00	39.06	217.00	6.51	21.70	120.56	1320	79.57	17.36	96.44	330	15.91	15.02	83.44	220	9.18
2172+26.17	2172+76.17	CROSSOVER TAPER	50.00	41.84	232.44	6.97	23.08	128.22	1320	84.63	18.76	104.22	330	17.20	16.42	91.22	220	10.03
2172+76.17	2173+26.17	CROSSOVER TAPER	50.00	46.54	258.56	7.76	25.80	143.33	1320	94.60	20.74	115.22	330	19.01	18.40	102.22	220	11.24
2173+26.17	2173+76.17	CROSSOVER TAPER	50.00	50.96	283.11	8.49	27.64	153.56	1320	101.35	23.32	129.56	330	21.38	20.98	116.56	220	12.82
2173+76.17	2174+26.17	CROSSOVER TAPER	50.00	56.37	313.17	9.40	29.89	166.06	1320	109.60	26.48	147.11	330	24.27	24.14	134.11	220	14.75
2174+26.17	2174+76.17	CROSSOVER TAPER	50.00	59.62	331.22	9.94	30.00	166.67	1320	110.00	29.62	164.56	330	27.15	27.90	155.00	220	17.05
2174+76.17	2179+68.24	WEST END CROSSOVER	492.07	60.00	3280.47	98.41	30.00	1640.23	1320	1082.55	30.00	1640.23	330	270.64	30.00	1640.23	220	180.43
2179+68.24	2180+18.24	CROSSOVER TAPER	50.00	59.96	333.11	9.99	30.00	166.67	1320	110.00	29.96	166.44	330	27.46	28.54	158.56	220	17.44
2180+18.24	2180+68.24	CROSSOVER TAPER	50.00	58.40	324.44	9.73	30.00	166.67	1320	110.00	28.40	157.78	330	26.03	26.06	144.78	220	15.93
2180+68.24	2181+18.24	CROSSOVER TAPER	50.00	56.50	313.89	9.42	30.00	166.67	1320	110.00	26.50	147.22	330	24.29	24.16	134.22	220	14.76
2181+18.24	2181+68.24	CROSSOVER TAPER	50.00	54.79	304.39	9.13	29.59	164.39	1320	108.50	25.20	140.00	330	23.10	22.86	127.00	220	13.97
2181+68.24	2182+18.24	CROSSOVER TAPER	50.00	47.28	262.67	7.88	25.82	143.44	1320	94.67	21.46	119.22	330	19.67	19.12	106.22	220	11.68
2182+18.24	2182+28.90	CROSSOVER TAPER	10.66	35.24	41.74	1.25	19.80	23.45	1320	15.48	15.44	18.29	330	3.02	13.10	15.52	220	1.71
TOTALS:						207.37		3574.57		2359.22		3338.13		550.78		3183.17		350.14

BASIS OF ESTIMATE: TACK COAT - AS SHOWN ABOVE
ACHM BASE COURSE (1-1/2") - MINERAL AGGREGATE = 96.1%, ASPHALT BINDER (PG 76-22) = 3.9%
ACHM BINDER COURSE (1") - MINERAL AGGREGATE = 95.6%, ASPHALT BINDER (PG 76-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MINERAL AGGREGATE = 94.8%, ASPHALT BINDER (PG 76-22) = 5.2%
NMAX = 205

CROSSOVER - BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	TACK COAT 0.03 GAL. PER. SQ. YD.			A.C.H.M. BASE COURSE (1 1/2")				A.C.H.M. BINDER COURSE (1")				A.C.H.M. SURFACE COURSE (1/2")			
				AVG. WIDTH	SQ. YD	GALLON	AVG. WIDTH	SQ. YD	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD	LBS. PER SQ. YD.	TON
			FT.	FT.			FT.				FT.				FT.			
2424+71.10	2424+81.72	CROSSOVER TAPER	10.62	35.24	41.74	1.25	19.80	23.45	1320	15.48	15.44	18.29	330	3.02	13.10	15.52	220	1.71
2424+81.72	2425+31.72	CROSSOVER TAPER	50.00	47.28	262.67	7.88	25.82	143.44	1320	94.67	21.46	119.22	330	19.67	19.12	106.22	220	11.68
2425+31.72	2425+81.72	CROSSOVER TAPER	50.00	54.79	304.39	9.13	29.59	164.39	1320	108.50	25.20	140.00	330	23.10	22.86	127.00	220	13.97
2425+81.72	2426+31.72	CROSSOVER TAPER	50.00	56.50	313.89	9.42	30.00	166.67	1320	110.00	26.50	147.22	330	24.29	24.16	134.22	220	14.76
2426+31.72	2426+81.72	CROSSOVER TAPER	50.00	58.40	280.42	8.41	30.00	166.67	1320	110.00	28.40	113.75	330	18.77	26.06	144.78	220	15.93
2426+81.72	2427+31.72	CROSSOVER TAPER	50.00	59.96	333.11	9.99	30.00	166.67	1320	110.00	29.96	166.44	330	27.46	28.54	158.56	220	17.44
2427+31.72	2432+23.79	EAST END CROSSOVER	492.07	60.00	3280.47	98.41	30.00	1640.23	1320	1082.55	30.00	1640.23	330	270.64	30.00	1640.23	220	180.43
2432+23.79	2432+73.79	CROSSOVER TAPER	50.00	59.62	331.22	9.94	30.00	166.67	1320	110.00	29.62	164.56	330	27.15	27.90	155.00	220	17.05
2432+73.79	2433+23.79	CROSSOVER TAPER	50.00	56.37	313.17	9.40	29.89	166.06	1320	109.60	26.48	147.11	330	24.27	24.14	134.11	220	14.75
2433+23.79	2433+73.79	CROSSOVER TAPER	50.00	50.96	283.11	8.49	27.64	153.56	1320	101.35	23.32	129.56	330	21.38	20.98	116.56	220	12.82
2433+73.79	2434+23.79	CROSSOVER TAPER	50.00	46.54	258.56	7.76	25.80	143.33	1320	94.60	20.74	115.22	330	19.01	18.40	102.22	220	11.24
2434+23.79	2434+73.79	CROSSOVER TAPER	50.00	41.84	232.44	6.97	23.08	128.22	1320	84.63	18.76	104.22	330	17.20	16.42	91.22	220	10.03
2434+73.79	2435+23.79	CROSSOVER TAPER	50.00	39.06	217.00	6.51	21.70	120.56	1320	79.57	17.36	96.44	330	15.91	15.02	83.44	220	9.18
2435+23.79	2435+73.79	CROSSOVER TAPER	50.00	37.44	208.00	6.24	20.88	116.00	1320	76.56	16.56	92.00	330	15.18	14.22	79.00	220	8.69
2435+73.79	2435+92.10	CROSSOVER TAPER	18.31	37.02	75.15	2.25	20.68	41.98	1320	27.71	16.34	33.17	330	5.47	14.00	28.42	220	3.13
2435+92.10	2436+42.10	SHOULDER SLOPE TRANSITION	50	12	133.33	4.00	12	66.67	1320	44.00	12	66.67	330	11.00	12	66.67	220	7.33
TOTALS:						206.05		3574.57		2359.22		3294.10		543.52		3183.17		350.14

BASIS OF ESTIMATE: TACK COAT - AS SHOWN ABOVE
ACHM BASE COURSE (1-1/2") - MINERAL AGGREGATE = 96.1%, ASPHALT BINDER (PG 76-22) = 3.9%
ACHM BINDER COURSE (1") - MINERAL AGGREGATE = 95.6%, ASPHALT BINDER (PG 76-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MINERAL AGGREGATE = 94.8%, ASPHALT BINDER (PG 76-22) = 5.2%
NMAX = 205

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	59	94

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
2-26-2014

PERMANENT PAVEMENT MARKINGS - ALT. 1

DESCRIPTION	HIGH PERFORMANCE PAVEMENT MARKING			HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	RAISED PAVEMENT MARKERS
	WHITE	WHITE	YELLOW		
	SOLID	SKIP	SOLID	WHITE SKIP	TYPE II
	4"	4"	4"	4"	
	L.F.				EACH
R. MAIN LANES & L. MAIN LANES	54568	12014	54568	1628	682
TOTALS:	**54568**	**12014**	**54568**	**1628**	**682**

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

PERMANENT PAVEMENT MARKINGS - ALT. 2

DESCRIPTION	HIGH PERFORMANCE PAVEMENT MARKING			HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	RAISED PAVEMENT MARKERS
	WHITE	WHITE	YELLOW		
	SOLID	SKIP	SOLID	WHITE SKIP	TYPE II
	4"	4"	4"	4"	
	L.F.				EACH
R. MAIN LANES & L. MAIN LANES	54568	2141	54568	11501	682
TOTALS:	**54568**	**2141**	**54568**	**11501**	**682**

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

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL						
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	SEDIMENT BASIN	SEDIMENT REMOVAL AND DISPOSAL	OBLITERATION OF SEDIMENT BASIN
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN.FT.	LIN.FT.	CU.YD.	CU.YD.	CU.YD.
2195+91.10	2405+38.90	LT. OF MAIN LANES	7.20	14.4	7.20	583.2	7.20	7.20	7.20	146.9		21000			
2195+91.10	2405+39.00	RT. OF MAIN LANES	7.20	14.4	7.20	583.2	7.20	7.20	7.20	146.9		21000			
ENTIRE	PROJECT	CL MEDIAN									1800				
*ENTIRE PROJECT IF AND WHERE DIRECTED BY THE ENGIENER			2.50	5.0	2.50	202.5	2.50	1.00	1.00	20.4	300	1000	100	200	100
TOTALS:			**16.90**	**33.8**	**16.90**	**1368.9**	**16.90**	**15.40**	**15.40**	**314.2**	**2100**	**43000**	**100**	**200**	**100**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.GAL. / ACRE OF SEEDING.
WATER.....20.4 M.GAL. / ACRE OF TEMPORARY SEEDING.
DROP INLET SILT FENCE.....25 LIN. FT. PER INLET

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 STANDARD SPECIFICATIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
04-11-2014				6	ARK.			
				JOB NO.		BB0101	60	94

(2) QUANTITIES

SHOULDER RECONSTRUCTION - ALTERNATE NO. 1 & 2

STATION	STATION	LOCATION	LENGTH	TRENCHING AND SHOULDER PREP		ACHM BASE COURSE (1-1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TACK COAT						
																		0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			TOTAL GALLONS
				AVG. WID.		AVG. WID.		POUND /		AVG. WID.		POUND /		AVG. WID.		POUND /		TOTAL WID			TOTAL WID			
			FEET	FEET	STA.	FEET	SQ.YD.	SQ.YD.	PG 76-22 TON	FEET	SQ.YD.	SQ.YD.	PG 76-22 TON	FEET	SQ.YD.	SQ.YD.	PG 76-22 TON	FEET	SQ.YD.	GALLONS	FEET	SQ.YD.	GALLON	
CL MEDIAN I-40																								
2182+28.90	2188+93.90	LT. - R.M.L.	665.0	2.0	6.7	2.0	147.8	1320.0	97.5	2.0	147.8	330.0	24.4	2.0	147.8	220.0	16.3	2.0	147.8	14.78	2.0	147.8	4.4	19.2
2173+68.90	2188+93.90	RT. - R.M.L.	1525.0	10.0	15.3	10.0	1694.4	1320.0	1118.3	10.0	1694.4	330.0	279.6	10.0	1694.4	220.0	186.4	10.0	1694.4	169.44	10.0	1694.4	50.8	220.2
2195+26.10	2279+38.91	LT. - R.M.L. & RT. R.M.L.	8412.8	12.0	168.3	12.0	11217.1	1320.0	7403.3	12.0	11217.1	330.0	1850.8	12.0	11217.1	220.0	1233.9	12.0	11217.1	1121.71	12.0	11217.1	336.5	1458.2
2283+36.09	2335+77.01	LT. - R.M.L. & RT. R.M.L.	5240.9	12.0	104.8	12.0	6987.9	1320.0	4612.0	12.0	6987.9	330.0	1153.0	12.0	6987.9	220.0	768.7	12.0	6987.9	698.79	12.0	6987.9	209.6	908.4
2340+32.99	2382+97.92	LT. - R.M.L. & RT. R.M.L.	4264.9	12.0	85.3	12.0	5686.5	1320.0	3753.1	12.0	5686.5	330.0	938.3	12.0	5686.5	220.0	625.5	12.0	5686.5	568.65	12.0	5686.5	170.6	739.3
2385+02.08	2405+03.90	LT. - R.M.L. & RT. R.M.L.	2001.8	12.0	40.0	12.0	2669.1	1320.0	1761.6	12.0	2669.1	330.0	440.4	12.0	2669.1	220.0	293.6	12.0	2669.1	266.91	12.0	2669.1	80.1	347.0
2418+96.10	2424+71.10	LT. - R.M.L.	575.0	2.0	5.8	2.0	127.8	1320.0	84.3	2.0	127.8	330.0	21.1	2.0	127.8	220.0	14.1	2.0	127.8	12.78	2.0	127.8	3.8	16.6
2418+96.10	2433+31.10	RT. - R.M.L.	1435.0	10.0	14.4	10.0	1594.4	1320.0	1052.3	10.0	1594.4	330.0	263.1	10.0	1594.4	220.0	175.4	10.0	1594.4	159.44	10.0	1594.4	47.8	207.2
TOTALS:					**440.6**		**30125.0**		**19882.4**		**30125.0**		**4970.7**		**30125.0**		**3313.9**			**3012.5**			**903.6**	**3916.1**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2") - MINERAL AGGREGATE = 94.8%, ASPHALT BINDER (PG 76-22) = 5.2%
ACHM BINDER COURSE (1") - MINERAL AGGREGATE = 95.6%, ASPHALT BINDER (PG 76-22) = 4.4%
ACHM BASE COURSE (1-1/2") - MINERAL AGGREGATE = 96.1%, ASPHALT BINDER (PG 76-22) = 3.9%
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10887
SCOTT P. THORNSBERRY
Scott P. Thornsberry
4-11-2014

RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT - ALTERNATE NO. 1

STATION	STATION	LOCATION	LENGTH	REMOVAL OF EXISTING ASPHALT OVERLAY		REMOVAL & DISPOSAL OF EXISTING PORTLAND CEMENT CONCRETE PAVT.		RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT		*REMOVAL OF EXISTING P.C. STABILIZED BASE (6" U.T.)	
				WIDTH	SQ. YD.	WIDTH	SQ. YD.	WIDTH	SQ. YD.	WIDTH	CU. YD.
			LIN.FT.	FEET		FEET		FEET		FEET	
2196+26.10	2205+76.10	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2205+76.10	2269+53.91	R.M.L. & SHOULDERS	6377.81	41.5	29408.8			24	17007		
2269+53.91	2279+03.91	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2283+36.09	2292+86.09	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2292+86.09	2325+87.01	R.M.L. & SHOULDERS	3300.92	41.5	15220.9			24	8802		
2325+87.01	2335+37.01	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2340+32.99	2349+82.99	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2349+82.99	2373+47.92	R.M.L. & SHOULDERS	2364.93	41.5	10905.0			24	6306		
2373+47.92	2382+97.92	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2385+02.08	2394+52.08	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2394+52.08	2395+53.90	R.M.L. & SHOULDERS	101.82	41.5	469.5			24	272		
2395+53.90	2405+03.90	R.M.L.	950.00	41.5	4380.6	24	2533			24	422
2196+26.10	2205+76.10	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2205+76.10	2269+53.91	L.M.L. & SHOULDERS	6377.81	41.5	29408.8			24	17007		
2269+53.91	2279+03.91	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2283+36.09	2292+86.09	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2292+86.09	2325+87.01	L.M.L. & SHOULDERS	3300.92	41.5	15220.9			24	8802		
2325+87.01	2335+37.01	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2340+32.99	2349+82.99	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2349+82.99	2373+47.92	L.M.L. & SHOULDERS	2364.93	41.5	10905.0			24	6306		
2373+47.92	2382+97.92	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2385+02.08	2394+52.08	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
2394+52.08	2395+53.90	L.M.L. & SHOULDERS	101.82	41.5	469.5			24	272		
2395+53.90	2405+03.90	L.M.L.	950.00	41.5	4380.6	24	2533			24	422
TOTALS:					**182098.0**		**40528.0**		**64774.0**		**6752.0**

*REMOVAL & DISPOSAL OF P.C. STABILIZED BASE (6" U.T.) WILL BE PAID FOR AS UNCLASSIFIED EXCAVATION

REMOVAL OF EXISTING ASPHALT OVERLAY - ALTERNATE NO. 2

STATION	STATION	LOCATION	LENGTH	REMOVAL OF EXISTING ASPHALT OVERLAY		REMOVAL & DISPOSAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT		*REMOVAL OF EXISTING P.C. STABILIZED BASE (6" U.T.)	
				WIDTH	SQ. YD.	WIDTH	SQ. YD.	WIDTH	CU. YD.
			LIN.FT.	FEET		FEET		FEET	
2196+26.10	2203+76.10	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	333.3
2203+76.10	2271+53.91	R.M.L. & SHOULDERS	6777.81	41.5	31253.2				
2271+53.91	2279+03.91	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2283+36.09	2290+86.09	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2290+86.09	2327+87.01	R.M.L. & SHOULDERS	3700.92	41.5	17065.4				
2327+87.01	2335+37.01	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2340+32.99	2347+82.99	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2347+82.99	2375+47.92	R.M.L. & SHOULDERS	2764.93	41.5	12749.4				
2375+47.92	2382+97.92	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2385+02.08	2392+52.08	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2392+52.08	2397+53.90	R.M.L. & SHOULDERS	501.82	41.5	2313.9				
2397+53.90	2405+03.90	R.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2196+26.10	2203+76.10	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2203+76.10	2271+53.91	L.M.L. & SHOULDERS	6777.81	41.5	31253.2				
2271+53.91	2279+03.91	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2283+36.09	2290+86.09	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2290+86.09	2327+87.01	L.M.L. & SHOULDERS	3700.92	41.5	17065.4				
2327+87.01	2335+37.01	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2340+32.99	2347+82.99	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2347+82.99	2375+47.92	L.M.L. & SHOULDERS	2764.93	41.5	12749.4				
2375+47.92	2382+97.92	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2385+02.08	2392+52.08	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
2392+52.08	2397+53.90	L.M.L. & SHOULDERS	501.82	41.5	2313.9				
2397+53.90	2405+03.90	L.M.L.	750.00	41.5	3458.3	24	2000.0	24	243.2
TOTALS:					**182096.6**		**32000.0**		**3981.3**

*REMOVAL & DISPOSAL OF P.C. STABILIZED BASE (6" U.T.) WILL BE PAID FOR AS UNCLASSIFIED EXCAVATION

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
ENTIRE	PROJECT	IF AND WHERE DIRECTED BY THE ENGINEER	500
TOTALS:			**500**

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.		BB0101	61	94

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy
12/6/2013

BASE AND SURFACING - LANES ONLY - ALTERNATE NO. 1

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")								ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TACK COAT								AGGREGATE BASE COURSE	
				LEVELING - 110 LBS./SQ. YD.			NORMAL				TOTAL									0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			TOTAL GALLONS	CLASS 7	
				WIDTH	SQ.YD.	TON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	TON	PG 76-22	WIDTH	SQ.YD.	POUND / SQ.YD.	PG 76-22	WIDTH	SQ.YD.	POUND / SQ.YD.	PG 76-22	WIDTH	SQ.YD.	GALLON	WIDTH	SQ.YD.	GALLON		TON / STATION	TON
			FEET	FEET			FEET				TON	FEET			TON	FEET			TON	FEET			FEET					
CL MEDIAN I-40																													
2196+26.10	2205+76.10	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2196+26.10	2205+76.10	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2205+76.10	2215+84.30	R.M.L - REHABILITATION SECTION-LANES ONLY	1008.2	26.0	2912.6	160.2	26.0	2912.6	1051.2	1530.9	1691.1	26.0	2912.6	330.0	480.6	26.0	2912.6	440.0	640.8	26.0	2912.6	291.3	104.0	11650.3	349.5	640.8		
2205+76.10	2215+84.30	L.M.L. - REHABILITATION SECTION-LANES ONLY	1008.2	26.0	2912.6	160.2	26.0	2912.6	1051.2	1530.9	1691.1	26.0	2912.6	330.0	480.6	26.0	2912.6	440.0	640.8	26.0	2912.6	291.3	104.0	11650.3	349.5	640.8		
2215+84.30	2238+90.49	R.M.L - REHABILITATION SECTION-LANES ONLY	2306.2	26.0	6662.4	366.4	26.0	6662.4	975.0	3247.9	3614.3	26.0	6662.4	330.0	1099.3	26.0	6662.4	440.0	1465.7	26.0	6662.4	666.2	78.0	19987.1	599.6	1265.8		
2215+84.30	2238+90.49	L.M.L. - REHABILITATION SECTION-LANES ONLY	2306.2	26.0	6662.4	366.4	26.0	6662.4	975.0	3247.9	3614.3	26.0	6662.4	330.0	1099.3	26.0	6662.4	440.0	1465.7	26.0	6662.4	666.2	78.0	19987.1	599.6	1265.8		
2238+90.49	2269+53.91	R.M.L - REHABILITATION SECTION-LANES ONLY	3063.4	26.0	8849.8	486.7	26.0	8849.8	1051.2	4651.5	5138.2	26.0	8849.8	330.0	1460.2	26.0	8849.8	440.0	1947.0	26.0	8849.8	885.0	104.0	35399.3	1062.0	1947.0		
2238+90.49	2269+53.91	L.M.L. - REHABILITATION SECTION-LANES ONLY	3063.4	26.0	8849.8	486.7	26.0	8849.8	1051.2	4651.5	5138.2	26.0	8849.8	330.0	1460.2	26.0	8849.8	440.0	1947.0	26.0	8849.8	885.0	104.0	35399.3	1062.0	1947.0		
2269+53.91	2279+03.91	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2269+53.91	2279+03.91	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2283+36.09	2292+86.09	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2283+36.09	2292+86.09	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2292+86.09	2325+87.01	R.M.L - REHABILITATION SECTION-LANES ONLY	3300.9	26.0	9535.9	524.5	26.0	9535.9	975.0	4648.8	5173.3	26.0	9535.9	330.0	1573.4	26.0	9535.9	440.0	2097.9	26.0	9535.9	953.6	78.0	28607.8	858.2	1811.8		
2292+86.09	2325+87.01	L.M.L. - REHABILITATION SECTION-LANES ONLY	3300.9	26.0	9535.9	524.5	26.0	9535.9	975.0	4648.8	5173.3	26.0	9535.9	330.0	1573.4	26.0	9535.9	440.0	2097.9	26.0	9535.9	953.6	78.0	28607.8	858.2	1811.8		
2325+87.01	2335+37.01	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2325+87.01	2335+37.01	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2340+32.99	2349+82.99	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2340+32.99	2349+82.99	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2349+82.99	2362+61.69	R.M.L - REHABILITATION SECTION-LANES ONLY	1278.7	26.0	3694.0	203.2	26.0	3694.0	1051.2	1941.6	2144.8	26.0	3694.0	330.0	609.5	26.0	3694.0	440.0	812.7	26.0	3694.0	369.4	104.0	14776.1	443.3	812.7		
2349+82.99	2362+61.69	L.M.L. - REHABILITATION SECTION-LANES ONLY	1278.7	26.0	3694.0	203.2	26.0	3694.0	1051.2	1941.6	2144.8	26.0	3694.0	330.0	609.5	26.0	3694.0	440.0	812.7	26.0	3694.0	369.4	104.0	14776.1	443.3	812.7		
2362+61.69	2373+47.92	R.M.L - REHABILITATION SECTION-LANES ONLY	1086.2	26.0	3137.9	172.6	26.0	3137.9	975.0	1529.7	1702.3	26.0	3137.9	330.0	517.8	26.0	3137.9	440.0	690.3	26.0	3137.9	313.8	78.0	9413.7	282.4	596.2		
2362+61.69	2373+47.92	L.M.L. - REHABILITATION SECTION-LANES ONLY	1086.2	26.0	3137.9	172.6	26.0	3137.9	975.0	1529.7	1702.3	26.0	3137.9	330.0	517.8	26.0	3137.9	440.0	690.3	26.0	3137.9	313.8	78.0	9413.7	282.4	596.2		
2373+47.92	2382+97.92	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2373+47.92	2382+97.92	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2385+02.08	2394+52.08	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2385+02.08	2394+52.08	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2394+52.08	2395+53.90	R.M.L - REHABILITATION SECTION-LANES ONLY	101.8	26.0	294.1	16.2	26.0	294.1	975.0	143.4	159.6	26.0	294.1	330.0	48.5	26.0	294.1	440.0	64.7	26.0	294.1	29.4	78.0	882.3	26.5	55.9		
2394+52.08	2395+53.90	L.M.L. - REHABILITATION SECTION-LANES ONLY	101.8	26.0	294.1	16.2	26.0	294.1	975.0	143.4	159.6	26.0	294.1	330.0	48.5	26.0	294.1	440.0	64.7	26.0	294.1	29.4	78.0	882.3	26.5	55.9		
2395+53.90	2405+03.90	R.M.L - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
2395+53.90	2405+03.90	L.M.L. - FULL DEPTH RECONSTRUCTION-LANES ONLY	950.0				26.0	2744.4	1100.0	1509.4	1509.4	26.0	2744.4	660.0	905.7	26.0	2744.4	440.0	603.8	26.0	2744.4	274.4	130.0	13722.2	411.7	686.1	101.00	959.5
TOTALS:					**70173.4**	**3859.6**		**114083.8**		**59538.0**	**63397.6**		**114083.8**		**26069.8**		**114083.8**		**25099.0**		**114083.8**	**11407.8**		**460988.4**	**13830.2**	**25238.0**		**15352.0**

BASIS OF ESTIMATE:

ACHM BASE COURSE (1-1/2") - MINERAL AGGREGATE = 96.1%, ASPHALT BINDER (PG 76-22) = 3.9%
ACHM BINDER COURSE (1") - MINERAL AGGREGATE = 95.6%, ASPHALT BINDER (PG 76-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MINERAL AGGREGATE = 94.8%, ASPHALT BINDER (PG 76-22) = 5.2%

MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	62	94

(2) QUANTITIES

STATE OF ARKANSAS
* * *
REGISTERED PROFESSIONAL ENGINEER
* * *
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/6/2023

BASE AND SURFACING SHOULDERS - ALTERNATE NO. 1

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")								ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TACK COAT							AGGREGATE BASE COURSE				2" BORROW		RUMBLE STRIPS
				LEVELING - 110 LBS./SQ. YD.			NORMAL				TOTAL									0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			TOTAL GALLONS	CLASS 1		CLASS 7				ASPHALT
				AVG. WID.	SQ.YD.	TON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	TON	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	WIDTH	SQ.YD.	GAL.	WIDTH	SQ.YD.	GAL.		TON / STA.	TON	TON / STA.	TON	WIDTH	CU. YD.	LIN. FT.
			FEET	FEET			FEET				TON	FEET			TON	FEET			TON	FEET			FEET							FEET		
CL MEDIAN I-40																																
2196+26.10	2203+76.10	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				15.8	1316.7	1100.0	724.2	724.2	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2196+26.10	2203+76.10	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
2203+76.10	2215+84.30	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1208.2	6.7	899.4	49.5	6.7	899.4	1228.5	552.5	602.0	6.4	859.2	330.0	141.8	6.0	805.5	220.0	88.6	6.7	899.4	89.9	32.2	4322.7	129.7	219.6	81.40	983.5			17.0	129.3	1208
2203+76.10	2215+84.30	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1208.2	8.8	1181.4	65.0	8.8	1181.4	880.0	519.8	584.8	8.4	1127.7	330.0	186.1	8.0	1074.0	220.0	118.1	8.8	1181.4	118.1	42.4	5692.0	170.8	288.9	120.50	1455.9			17.0	129.3	1208
2203+76.10	2215+84.30	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1208.2	4.7	630.9	34.7	4.7	630.9	1228.5	387.5	422.2	4.4	590.7	330.0	97.5	4.0	537.0	220.0	59.1	4.7	630.9	63.1	22.2	2980.2	89.4	152.5	81.40	983.5			17.0	129.3	1208
2203+76.10	2215+84.30	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1208.2	8.8	1181.4	65.0	8.8	1181.4	880.0	519.8	584.8	8.4	1127.7	330.0	186.1	8.0	1074.0	220.0	118.1	8.8	1181.4	118.1	42.4	5692.0	170.8	288.9	120.50	1455.9			17.0	129.3	1208
2215+84.30	2238+90.49	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	2306.2	6.7	1716.8	94.4	6.7	1716.8	1070.0	918.5	1012.9	6.4	1640.0	330.0	270.6	6.0	1537.5	220.0	169.1	6.7	1716.8	171.7	25.8	6611.1	198.3	370.0	81.40	1877.2			17.0	246.8	2306
2215+84.30	2238+90.49	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	2306.2	8.8	2255.0	124.0	8.8	2255.0	880.0	992.2	1116.2	8.4	2152.5	330.0	355.2	8.0	2050.0	220.0	225.5	8.8	2255.0	225.5	34.0	8712.3	261.4	486.9	120.50	2779.0			17.0	246.8	2306
2215+84.30	2238+90.49	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	2306.2	4.7	1204.3	66.2	4.7	1204.3	1070.0	644.3	710.5	4.4	1127.5	330.0	186.0	4.0	1025.0	220.0	112.8	4.7	1204.3	120.4	17.8	4561.2	136.8	257.2	81.40	1877.2			17.0	246.8	2306
2215+84.30	2238+90.49	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	2306.2	8.8	2255.0	124.0	8.8	2255.0	880.0	992.2	1116.2	8.4	2152.5	330.0	355.2	8.0	2050.0	220.0	225.5	8.8	2255.0	225.5	34.0	8712.3	261.4	486.9	120.50	2779.0			17.0	246.8	2306
2238+90.49	2271+53.91	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3263.4	6.7	2429.4	133.6	6.7	2429.4	1228.5	1492.3	1625.9	6.4	2320.6	330.0	382.9	6.0	2175.6	220.0	239.3	6.7	2429.4	242.9	32.2	11675.7	350.3	593.2	81.40	2656.4			17.0	349.3	3263
2238+90.49	2271+53.91	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3263.4	8.8	3190.9	175.5	8.8	3190.9	880.0	1404.0	1579.5	8.4	3045.8	330.0	502.6	8.0	2900.8	220.0	319.1	8.8	3190.9	319.1	42.4	15374.2	461.2	780.3	120.50	3932.4			17.0	349.3	3263
2238+90.49	2271+53.91	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3263.4	4.7	1704.2	93.7	4.7	1704.2	1228.5	1046.8	1140.5	4.4	1595.4	330.0	263.2	4.0	1450.4	220.0	159.5	4.7	1704.2	170.4	22.2	8049.7	241.5	411.9	81.40	2656.4			17.0	349.3	3263
2238+90.49	2271+53.91	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3263.4	8.8	3190.9	175.5	8.8	3190.9	880.0	1404.0	1579.5	8.4	3045.8	330.0	502.6	8.0	2900.8	220.0	319.1	8.8	3190.9	319.1	42.4	15374.2	461.2	780.3	120.50	3932.4			17.0	349.3	3263
2271+53.91	2279+03.91	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	6.7	558.3	30.7	15.8	1316.7	1100.0	724.2	754.9	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2271+53.91	2279+03.91	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	8.8	733.3	40.3	13.8	1150.0	1100.0	632.5	672.8	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
				4.7																										17.0		
2283+36.09	2290+86.09	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	8.8	733.3	40.3	15.8	1316.7	1100.0	724.2	764.5	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2283+36.09	2290+86.09	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
2290+36.09	2327+87.01	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3750.9	6.7	2792.3	153.6	6.7	2792.3	1070.0	1493.9	1647.5	6.4	2667.3	330.0	440.1	6.0	2500.6	220.0	275.1	6.7	2792.3	279.2	32.2	13419.9	402.6	681.8	81.40	3053.2			17.0	401.5	3751
2290+36.09	2327+87.01	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3750.9	8.8			8.8	3667.5	880.0	1613.7	1613.7	8.4	3500.8	330.0	577.6	8.0	3334.1	220.0	366.8	8.8	3667.5	366.8	42.4	17670.9	530.1	896.9	120.50	4519.8			17.0	401.5	3751
2290+36.09	2327+87.01	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3750.9	4.7	1958.8	107.7	4.7	1958.8	1070.0	1048.0	1155.7	4.4	1833.8	330.0	302.6	4.0	1667.1	220.0	183.4	4.7	1958.8	195.9	22.2	9252.2	277.6	473.5	81.40	3053.2			17.0	401.5	3751
2290+36.09	2327+87.01	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3750.9	8.8			8.8	3667.5	880.0	1613.7	1613.7	8.4	3500.8	330.0	577.6	8.0	3334.1	220.0	366.8	8.8	3667.5	366.8	42.4	17670.9	530.1	896.9	120.50	4519.8			17.0	401.5	3751
2327+87.01	2335+37.01	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				15.8	1316.7	1100.0	724.2	724.2	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2327+87.01	2335+37.01	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
2340+32.99	2347+82.99	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0				15.8	1316.7	1100.0	724.2	724.2	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2340+32.99	2347+82.99	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
2347+82.99	2362+61.69	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1478.7	6.7	1100.8	60.5	6.7	1100.8	1228.5	676.2	736.7	6.4	1051.5	330.0	173.5	6.0	985.8	220.0	108.4	6.7	1100.8	110.1	32.2	5290.5	158.7	268.8	81.40	1203.7			17.0	158.3	1479
2347+82.99	2362+61.69	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1478.7	8.8	1445.8	79.5	8.8	1445.8	880.0	636.2	715.7	8.4	1380.1	330.0	227.7	8.0	1314.4	220.0	144.6	8.8	1445.8	144.6	42.4	6966.3	209.0	353.6	120.50	1781.8			17.0	158.3	1479
2347+82.99	2362+61.69	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1478.7	4.7	772.2	42.5	4.7	772.2	1228.5	474.3	516.8	4.4	722.9	330.0	119.3	4.0	657.2	220.0	72.3	4.7	772.2	77.2	22.2	3647.5	109.4	186.6	81.40	1203.7			17.0	158.3	1479
2347+82.99	2362+61.69	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1478.7	8.8	1445.8	79.5	8.8	1445.8	880.0	636.2	715.7	8.4	1380.1	330.0	227.7	8.0	1314.4	220.0	144.6	8.8	1445.8	144.6	42.4	6966.3	209.0	353.6	120.50	1781.8			17.0	158.3	1479
2362+61.69	2375+47.92	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1286.2	6.7	957.5	52.7	6.7	957.5	1228.5	588.1	640.8	6.4	914.6	330.0	150.9	6.0	857.5	220.0	94.3	6.7	957.5	95.8	32.2	4601.7	138.1	233.9	81.40	1047.0			17.0	137.7	1286
2362+61.69	2375+47.92	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1286.2	8.8	1257.6	69.2	8.8	1257.6	880.0	553.3	622.5	8.4	1200.5	330.0	198.1	6.0	857.5	220.0	94.3	8.8	1257.6	125.8	40.4	5773.6	173.2	299.0	120.50	1549.9			17.0	137.7	1286
2362+61.69	2375+47.92	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1286.2	4.7	671.7	36.9	4.7	671.7	1228.5	412.6	449.5	4.4	628.8	330.0	103.8	6.0	857.5	220.0	94.3	4.7	671.7	67.2	24.2	3458.4	103.8	171.0	81.40	1047.0			17.0	137.7	1286
2362+61.69	2375+47.92	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1286.2	8.8	1257.6	69.2	8.8	1257.6	880.0	553.3	622.5	8.4	1200.5	330.0	198.1	6.0	857.5	220.0	94.3	8.8	1257.6	125.8	40.4	5773.6	173.2	299.0	120.00	1543.4			17.0	137.7	1286
2375+47.92	2382+97.92	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				15.8	1316.7	1100.0	724.2	724.2	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2375+47.92	2382+97.92	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
2385+02.08	2392+52.08	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				15.8	1316.7	1100.0	724.2	724.2	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2385+02.08	2392+52.08	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
2392+52.08	2397+53.90	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	501.8	6.7	373.6	20.5	6.7	373.6	1070.0	199.9	220.4	6.4	356.8	330.0	58.9	6.0	334.5	220.0	36.8	6.7	373.6	37.4	32.2	1795.3	53.9	91.3	81.40	408.5			17.0	53.7	502
2392+52.08	2397+53.90	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	501.8	8.8	490.6	27.0	8.8	490.6	880.0	215.9	242.9	8.4	468.3	330.0	77.3	6.0	334.5	220.0	36.8	8.8	490.6	49.1	40.4	2252.5	67.6	116.7	120.50	604.7			17.0	53.7	502
2392+52.08	2397+53.90	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	501.8	4.7	262.1	14.4	4.7	262.1	1070.0	140.2	154.6	4.4	245.3	330.0	40.5	6.0	334.5	220.0	36.8	4.7	262.1	26.2	24.2	1349.3	40.5	66.7	81.40	408.5			17.0	53.7	502
2392+52.08	2397+53.90	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	501.8	8.8	490.6	27.0	8.8	490.6	880.0	215.9	242.9	8.4	468.3	330.0	77.3	6.0	334.5	220.0	36.8	8.8	490.6	49.1	40.4	2252.5	67.6	116.7	120.00	602.2			17.0	53.7	502
2397+53.90	2405+03.90	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0				15.8	1316.7	1100.0	724.2	724.2	14.5	1208.3	660.0	398.7	14.0	1166.7	220.0	128.3	15.8	1316.7	131.7	74.6	6216.7	186.5	318.2	133.75	1003.1	40.50	303.8	17.0	80.3	750
2397+53.90	2405+03.90	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0				13.8	1150.0	1100.0	632.5	632.5	12.5	1041.7	660.0	343.8	12.0	1000.0	220.0	110.0	13.8	1150.0	115.0	64.6	5383.3	161.5	276.5	133.75	1003.1	40.50	303.8	17.0	80.3	750
TOTALS:						39141.5	2152.6		64185.2		32798.9	34951.5		60305.8		12920.8		56789.9		6246.6		64185.2	6419.0		298699.0	8961.2	15380.2		71746.6		4860.8		7191.2	67180.0

BASIS OF ESTIMATE:

ACHM BASE COURSE (1-1/2") - MINERAL AGGREGATE = 96.1%, ASPHALT BINDER (PG 76-22) = 3.9%
ACHM BINDER COURSE (1") - MINERAL AGGREGATE = 95.6%, ASPHALT BINDER (PG 76-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MINERAL AGGREGATE = 94.8%, ASPHALT BINDER (PG 76-22) = 5.2%
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	63	94
				(2) QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013

BASE AND SURFACING - GUARDRAIL WIDENING - ALTERNATE NO. 1 & 2

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")			
				AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22
			FEET	FEET			TON
CL MEDIAN I-40							
2196+26.10	2279+03.91	RT.- R.M.L. OUTSIDE SHOULDER	8277.8	3.5	3219.1	220.0	354.1
2196+26.10	2279+03.91	LT. - L.M.L. OUTSIDE SHOULDER	8277.8	3.5	3219.1	220.0	354.1
2283+36.09	2335+37.01	RT.- R.M.L. OUTSIDE SHOULDER	5200.9	3.5	2022.6	220.0	222.5
2283+36.09	2335+37.01	LT. - L.M.L. OUTSIDE SHOULDER	5200.9	3.5	2022.6	220.0	222.5
2340+32.99	2382+97.92	RT.- R.M.L. OUTSIDE SHOULDER	4264.9	3.5	1658.6	220.0	182.4
2340+32.99	2382+97.92	LT. - L.M.L. OUTSIDE SHOULDER	4264.9	3.5	1658.6	220.0	182.4
2385+02.08	2405+03.90	RT.- R.M.L. OUTSIDE SHOULDER	2001.8	3.5	778.5	220.0	85.6
2385+02.08	2405+03.90	LT. - L.M.L. OUTSIDE SHOULDER	2001.8	3.5	778.5	220.0	85.6
2196+26.10	2197+91.08	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2196+26.10	2197+91.08	RT. -L.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2277+38.94	2279+03.91	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2277+38.94	2279+03.91	RT. -L.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2283+36.09	2285+01.06	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2283+36.09	2285+01.06	RT. -L.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2340+28.35	2341+93.35	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2340+28.35	2341+93.95	RT. -L.M.L. INSIDE SHOULDER	165.6	5.5	101.2	220.0	11.1
2333+76.63	2335+41.63	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2333+76.63	2335+41.63	RT. -L.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2381+32.95	2382+97.92	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2381+92.95	2382+97.92	RT. -L.M.L. INSIDE SHOULDER	105.0	5.5	64.2	220.0	7.1
2385+02.08	2386+67.08	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2385+02.08	2386+67.08	RT. -L.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2403+38.93	2405+03.90	LT.- R.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
2403+38.93	2405+03.90	RT. -L.M.L. INSIDE SHOULDER	165.0	5.5	100.8	220.0	11.1
TOTALS:					16934.2		1862.8

BASIS OF ESTIMATE: ACHM SURFACE COURSE (1/2") - MINERAL AGGREGATE = 94.8%, ASPHALT BINDER (PG 64-22) = 5.2%
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

BASE AND SURFACING - LANES ONLY - ALTERNATE NO. 2

STATION	STATION	LOCATION	LENGTH	CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				PORTLAND CEMENT CONCRETE PAVEMENT				ACHM SURFACE COURSE (3/8")			TOTAL PG64-22 TON	TACK COAT						TOTAL GALLONS
				WIDTH	PROCESSING	CEMENT	AGGREGATE	(12" U.T.)		(13" U.T.)		NORMAL				0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			
								WIDTH	SQ.YD.	WIDTH	SQ.YD.	WIDTH	SQ.YD.	POUND / SQ.YD.		WIDTH	SQ.YD.	GALLON	WIDTH	SQ.YD.	GALLON	
			FEET	FEET	SQ. YD.	TON	TON	FEET		FEET		FEET				FEET			FEET			
CL MEDIAN I-40																						
2196+26.10	2203+76.10	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2196+26.10	2203+76.10	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2203+76.10	2215+84.30	R.M.L - REHABILITATION SECTION- LANES ONLY	1208.2					26.0	3490.4			26.0	3490.4	229.2	400.0	26.0	3490.4	349.0	26.0	3490.4	104.7	453.7
2203+76.10	2215+84.30	L.M.L - REHABILITATION SECTION- LANES ONLY	1208.2					26.0	3490.4			26.0	3490.4	229.2	400.0	26.0	3490.4	349.0	26.0	3490.4	104.7	453.7
2215+84.30	2238+90.49	R.M.L - REHABILITATION SECTION- LANES ONLY	2306.2					26.0	6662.4			26.0	6662.4	205.0	682.9	26.0	6662.4	666.2	26.0	6662.4	199.9	866.1
2215+84.30	2238+90.49	L.M.L - REHABILITATION SECTION- LANES ONLY	2306.2					26.0	6662.4			26.0	6662.4	205.0	682.9	26.0	6662.4	666.2	26.0	6662.4	199.9	866.1
2238+90.49	2271+53.91	R.M.L - REHABILITATION SECTION- LANES ONLY	3263.4					26.0	9427.6			26.0	9427.6	229.2	1080.4	26.0	9427.6	942.8	26.0	9427.6	282.8	1225.6
2238+90.49	2271+53.91	L.M.L - REHABILITATION SECTION- LANES ONLY	3263.4					26.0	9427.6			26.0	9427.6	229.2	1080.4	26.0	9427.6	942.8	26.0	9427.6	282.8	1225.6
2271+53.91	2279+03.91	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2271+53.91	2279+03.91	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2283+36.09	2290+86.09	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2283+36.09	2290+86.09	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2290+36.09	2327+87.01	R.M.L - REHABILITATION SECTION- LANES ONLY	3750.9					26.0	10835.9			26.0	10835.9	205.0	1110.7	26.0	10835.9	1083.6	26.0	10835.9	325.1	1408.7
2290+36.09	2327+87.01	L.M.L - REHABILITATION SECTION- LANES ONLY	3750.9					26.0	10835.9			26.0	10835.9	205.0	1110.7	26.0	10835.9	1083.6	26.0	10835.9	325.1	1408.7
2327+87.01	2335+37.01	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2327+87.01	2335+37.01	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2340+32.99	2347+82.99	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2340+32.99	2347+82.99	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2347+82.99	2362+61.69	R.M.L - REHABILITATION SECTION- LANES ONLY	1478.7					26.0	4271.8			26.0	4271.8	229.2	489.5	26.0	4271.8	427.2	26.0	4271.8	128.2	555.4
2347+82.99	2362+61.69	L.M.L - REHABILITATION SECTION- LANES ONLY	1478.7					26.0	4271.8			26.0	4271.8	229.2	489.5	26.0	4271.8	427.2	26.0	4271.8	128.2	555.4
2362+61.69	2375+47.92	R.M.L - REHABILITATION SECTION- LANES ONLY	1286.2					26.0	3715.7			26.0	3715.7	205.0	380.9	26.0	3715.7	371.6	26.0	3715.7	111.5	483.1
2362+61.69	2375+47.92	L.M.L - REHABILITATION SECTION- LANES ONLY	1286.2					26.0	3715.7			26.0	3715.7	205.0	380.9	26.0	3715.7	371.6	26.0	3715.7	111.5	483.1
2375+47.92	2382+97.92	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2375+47.92	2382+97.92	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2385+02.08	2392+52.08	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2385+02.08	2392+52.08	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2392+52.08	2397+53.90	R.M.L - REHABILITATION SECTION- LANES ONLY	501.8					26.0	1449.6			26.0	1449.6	205.0	148.6	26.0	1449.6	145.0	26.0	1449.6	43.5	188.5
2392+52.08	2397+53.90	L.M.L - REHABILITATION SECTION- LANES ONLY	501.8					26.0	1449.6			26.0	1449.6	205.0	148.6	26.0	1449.6	145.0	26.0	1449.6	43.5	188.5
2397+53.90	2405+03.90	R.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
2397+53.90	2405+03.90	L.M.L - FULL DEPTH RECONSTRUCTION- LANES ONLY	750.0	26.0	2166.7	45.5	712.8			26.0	2166.7	26.0	2166.7	110.0	119.2	26.0	2166.7	216.7	26.0	2166.7	65.0	281.7
TOTALS:					34667.2	728.0	11404.8		79706.8		34667.2		114374.0		10493.2		114374.0	11438.0		114374.0	3431.4	14869.4

BASIS OF ESTIMATE:

ACHM SURFACE COURSE (3/8") - MINERAL AGGREGATE = 94.3%, ASPHALT BINDER (PG 64-22) = 5.7%
CEMENT STABILIZED CRUSHED STONE BASE - AGGREGATE = 94.0%, CEMENT = 6.0%
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	64	94

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Cassidy 12/6/2013

BASE AND SURFACING SHOULDERS - ALTERNATE NO. 2

STATION	STATION	LOCATION	LENGTH	CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				PORTLAND CEMENT CONCRETE PAVEMENT (12" U.T.)		PORTLAND CEMENT CONCRETE PAVEMENT (13" U.T.)		ACHM SURFACE COURSE (3/8")								TACK COAT								AGGREGATE BASE COURSE	2" BORROW		RUMBLE STRIPS
				WIDTH	PROCESSING	CEMENT	AGGREGATE	WIDTH	SQ.YD.	WIDTH	SQ.YD.	LEVELING - 110 LBS. PER SQ. YD.				NORMAL				TOTAL	0.10 GAL. PER SQ. YD.				0.03 GAL. PER SQ. YD.				TOTAL GALLONS	CLASS 1			PCCP
			FEET	FEET	SQ. YD.	TON	TON	FEET		FEET		FEET	SQ.YD.	POUND / SQ.YD.	TON	FEET	SQ.YD.	POUND / SQ.YD.	TON	PG 64-22 TON	WIDTH FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON	WIDTH FEET	SQ.YD.	GALLONS / SQ.YD.	GALLON		TON / STA.	TON	WIDTH FEET	CU. YD.	LIN. FT.
CL MEDIAN I-40																																
2196+26.10	2203+76.10	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2196+26.10	2203+76.10	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2203+76.10	2215+84.30	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1208.2					6.0	805.5			6.0	805.5	110.0	44.3	8.0	1074.0	350.0	188.0	232.3	8.0	1074.0	0.10	107.4	8.0	1074.0	0.03	32.2	139.6	81.40	983.5	17.0	129.3	1208
2203+76.10	2215+84.30	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1208.2					8.0	1074.0			8.0	1074.0	110.0	59.1	12.0	1610.9	110.0	88.6	147.7	12.0	1610.9	0.10	161.1	12.0	1610.9	0.03	48.3	209.4	120.50	1455.9	17.0	129.3	1208
2203+76.10	2215+84.30	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1208.2					4.0	537.0			4.0	537.0	110.0	29.5	6.0	805.5	350.0	141.0	170.5	6.0	805.5	0.10	80.6	6.0	805.5	0.03	24.2	104.8	81.40	983.5	17.0	129.3	1208
2203+76.10	2215+84.30	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1208.2					8.0	1074.0			8.0	1074.0	110.0	59.1	12.0	1610.9	110.0	88.6	147.7	12.0	1610.9	0.10	161.1	12.0	1610.9	0.03	48.3	209.4	120.50	1455.9	17.0	129.3	1208
2215+84.30	2238+90.49	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	2306.2					6.0	1537.5			6.0	1537.5	110.0	84.6	8.0	2050.0	300.0	307.5	392.1	8.0	2050.0	0.10	205.0	8.0	2050.0	0.03	61.5	266.5	81.40	1877.2	17.0	246.8	2306
2215+84.30	2238+90.49	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	2306.2					8.0	2050.0			8.0	2050.0	110.0	112.8	12.0	3074.9	110.0	169.1	281.9	12.0	3074.9	0.10	307.5	12.0	3074.9	0.03	92.2	399.7	120.50	2779.0	17.0	246.8	2306
2215+84.30	2238+90.49	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	2306.2					4.0	1025.0			4.0	1025.0	110.0	56.4	6.0	1537.5	300.0	230.6	287.0	6.0	1537.5	0.10	153.8	6.0	1537.5	0.03	46.1	199.9	81.40	1877.2	17.0	246.8	2306
2215+84.30	2238+90.49	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	2306.2					8.0	2050.0			8.0	2050.0	110.0	112.8	12.0	3074.9	110.0	169.1	281.9	12.0	3074.9	0.10	307.5	12.0	3074.9	0.03	92.2	399.7	120.50	2779.0	17.0	246.8	2306
2238+90.49	2271+53.91	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3263.4					6.0	2175.6			6.0	2175.6	110.0	119.7	8.0	2900.8	350.0	507.6	627.3	8.0	2900.8	0.10	290.1	8.0	2900.8	0.03	87.0	377.1	81.40	2656.4	17.0	349.3	3263
2238+90.49	2271+53.91	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3263.4					8.0	2900.8			8.0	2900.8	110.0	159.5	12.0	4351.2	110.0	239.3	398.8	12.0	4351.2	0.10	435.1	12.0	4351.2	0.03	130.5	565.6	120.50	3932.4	17.0	349.3	3263
2238+90.49	2271+53.91	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3263.4					4.0	1450.4			4.0	1450.4	110.0	79.8	6.0	2175.6	350.0	380.7	460.5	6.0	2175.6	0.10	217.6	6.0	2175.6	0.03	65.3	282.9	81.40	2656.4	17.0	349.3	3263
2238+90.49	2271+53.91	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3263.4					8.0	2900.8			8.0	2900.8	110.0	159.5	12.0	4351.2	110.0	239.3	398.8	12.0	4351.2	0.10	435.1	12.0	4351.2	0.03	130.5	565.6	120.50	3932.4	17.0	349.3	3263
2271+53.91	2279+03.91	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2271+53.91	2279+03.91	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2283+36.09	2290+86.09	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2283+36.09	2290+86.09	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2290+36.09	2327+87.01	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3750.9					6.0	2500.6			6.0	2500.6	110.0	137.5	8.0	3334.1	300.0	500.1	637.6	8.0	3334.1	0.10	333.4	8.0	3334.1	0.03	100.0	433.4	81.40	3053.2	17.0	401.5	3751
2290+36.09	2327+87.01	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3750.9					8.0	3334.1			8.0	3334.1	110.0	183.4	12.0	5001.2	110.0	275.1	458.5	12.0	5001.2	0.10	500.1	12.0	5001.2	0.03	150.0	650.1	120.50	4519.8	17.0	401.5	3751
2290+36.09	2327+87.01	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	3750.9					4.0	1667.1			4.0	1667.1	110.0	91.7	6.0	2500.6	300.0	375.1	466.8	6.0	2500.6	0.10	250.1	6.0	2500.6	0.03	75.0	325.1	81.40	3053.2	17.0	401.5	3751
2290+36.09	2327+87.01	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	3750.9					8.0	3334.1			8.0	3334.1	110.0	183.4	12.0	5001.2	110.0	275.1	458.5	12.0	5001.2	0.10	500.1	12.0	5001.2	0.03	150.0	650.1	120.50	4519.8	17.0	401.5	3751
2327+87.01	2335+37.01	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2327+87.01	2335+37.01	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2340+32.99	2347+82.99	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2340+32.99	2347+82.99	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2347+82.99	2362+61.69	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1478.7					6.0	985.8			6.0	985.8	110.0	54.2	8.0	1314.4	350.0	230.0	284.2	8.0	1314.4	0.10	131.4	8.0	1314.4	0.03	39.4	170.8	81.40	1203.7	17.0	158.3	1479
2347+82.99	2362+61.69	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1478.7					8.0	1314.4			8.0	1314.4	110.0	72.3	12.0	1971.6	110.0	108.4	180.7	12.0	1971.6	0.10	197.2	12.0	1971.6	0.03	59.1	256.3	120.50	1781.8	17.0	158.3	1479
2347+82.99	2362+61.69	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1478.7					4.0	657.2			4.0	657.2	110.0	36.1	6.0	985.8	350.0	172.5	208.6	6.0	985.8	0.10	98.6	6.0	985.8	0.03	29.6	128.2	81.40	1203.7	17.0	158.3	1479
2347+82.99	2362+61.69	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1478.7					8.0	1314.4			8.0	1314.4	110.0	72.3	12.0	1971.6	110.0	108.4	180.7	12.0	1971.6	0.10	197.2	12.0	1971.6	0.03	59.1	256.3	120.50	1781.8	17.0	158.3	1479
2362+61.69	2375+47.92	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1286.2					6.0	857.5			6.0	857.5	110.0	47.2	8.0	1143.3	300.0	171.5	218.7	8.0	1143.3	0.10	114.3	8.0	1143.3	0.03	34.3	148.6	81.40	1047.0	17.0	137.7	1286
2362+61.69	2375+47.92	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1286.2					8.0	1143.3			8.0	1143.3	110.0	62.9	12.0	1714.9	110.0	94.3	157.2	12.0	1714.9	0.10	171.5	12.0	1714.9	0.03	51.4	222.9	120.50	1549.9	17.0	137.7	1286
2362+61.69	2375+47.92	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	1286.2					4.0	571.6			4.0	571.6	110.0	31.4	6.0	857.5	300.0	128.6	160.0	6.0	857.5	0.10	85.8	6.0	857.5	0.03	25.7	111.5	81.40	1047.0	17.0	137.7	1286
2362+61.69	2375+47.92	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	1286.2					8.0	1143.3			8.0	1143.3	110.0	62.9	12.0	1714.9	110.0	94.3	157.2	12.0	1714.9	0.10	171.5	12.0	1714.9	0.03	51.4	222.9	120.50	1549.9	17.0	137.7	1286
2375+47.92	2382+97.92	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2375+47.92	2382+97.92	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2385+02.08	2392+52.08	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2385+02.08	2392+52.08	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDERS	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
2392+52.08	2397+53.90	L.M.L - REHABILITATION SECTION- INSIDE SHOULDER	501.8					6.0	334.5			6.0	334.5	110.0	18.4	8.0	446.0	300.0	66.9	85.3	8.0	446.0	0.10	44.6	8.0	446.0	0.03	13.4	58.0	81.40	408.5	17.0	53.7	502
2392+52.08	2397+53.90	L.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	501.8					8.0	446.0			8.0	446.0	110.0	24.5	12.0	669.1	110.0	36.8	61.3	12.0	669.1	0.10	66.9	12.0	669.1	0.03	20.1	87.0	120.50	604.7	17.0	53.7	502
2392+52.08	2397+53.90	R.M.L - REHABILITATION SECTION- INSIDE SHOULDER	501.8					4.0	223.0			4.0	223.0	110.0	12.3	6.0	334.5	300.0	50.2	62.5	6.0	334.5	0.10	33.5	6.0	334.5	0.03	10.0	43.5	81.40	408.5	17.0	53.7	502
2392+52.08	2397+53.90	R.M.L - REHABILITATION SECTION- OUTSIDE SHOULDER	501.8					8.0	446.0			8.0	446.0	110.0	24.5	12.0	669.1	110.0	36.8	61.3	12.0	669.1	0.10	66.9	12.0	669.1	0.03	20.1	87.0	120.50	604.7	17.0	53.7	502
2397+53.90	2405+03.90	L.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0	20.0	1666.7	35.0	29.2			16.0	1333.3					20.0	1666.7	110.0	91.7	91.7	20.0	1666.7	0.10	166.7	20.0	1666.7	0.03	50.0	216.7	133.75	1003.1	17.0	80.3	750
2397+53.90	2405+03.90	R.M.L - FULL DEPTH RECONSTRUCTION- SHOULDER	750.0	18.0	1500.0	31.5	23.6			12.0	1000.0					18.0	1500.0	110.0	82.5	82.5	18.0	1500.0	0.10	150.0	18.0	1500.0	0.03	45.0	195.0	133.75	1003.1	17.0	80.3	750
TOTALS:					25333.6	532.0	422.4		39853.5		18666.4		39853.5		2192.1		83580.8		6867.1	9059.2				8358.6				2506.9	10865.5		71755.6		7191.2	67180.0

BASIS OF ESTIMATE:

ACHM SURFACE COURSE (3/8") - MINERAL AGGREGATE = 94.3%, ASPHALT BINDER (PG 64-22) = 5.7%
CEMENT STABILIZED CRUSHED STONE BASE - AGGREGATE = 94.0%, CEMENT = 6.0%
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	65	94
				(2) QUANTITIES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

NOTE: QUANTITY IS ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECIFICATIONS. FOR ACHM PATCHING OF EXISTING ROADWAY, THE PG BINDER WILL MATCH THE PG BINDER OF THE SURFACE COURSE USED ON THE LANES.

ACHM PATCHING OF EXISTING SHOULDERS

DESCRIPTION	TON
ENTIRE PROJECT IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

NOTE: QUANTITY IS ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECIFICATIONS. FOR ACHM PATCHING OF EXISTING SHOULDERS, THE PG BINDER WILL MATCH THE PG BINDER OF THE SURFACE COURSE USED ON THE LANES.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

DESCRIPTION	TON	TACK COAT
		GALLON
ENTIRE PROJECT IF AND WHERE DIRECTED BY THE ENGINEER	200	400
TOTALS:	**200**	**400**

NOTE: QUANTITY IS ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECIFICATIONS.
BASIS OF ESTIMATE: ACHM CONCRETE PATCHING 25 TONS/MILE
TACK COAT = 50 GAL./MILE

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING - ALTERNATE NO. 2

STATION	STATION	LOCATION / DESCRIPTION	REMOVAL & DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" U.T.)
			SQ. YD.	
ENTIRE	PROJECT	IF AND WHERE DIRECTED BY THE ENGINEER	6000	6000
TOTALS:			6000	6000

QUANTITY ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS. PORTLAND CEMENT CONCRETE PAVEMENT PATCHING SHALL BE DONE AT LOCATIONS DESIGNATED BY THE ENGINEER. NO MESH, DOWEL BARS OR TIE BARS REQUIRED IN THE PATCHES THAT ARE TO BE RUBBILIZED.

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	ALTERNATE NO. 1 ASPHALT QUANTITIES			ALTERNATE NO. 2 CONCRETE QUANTITIES			UNIT
		9050	BIM-B40-0(201)	TOTAL	9050	BIM-B40-0(201)	TOTAL	
202	REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING		9367	9367		9367	9367	SQ. YD.
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS		8	8		8	8	EACH
SP	REMOVAL AND DISPOSAL OF GUARDRAIL		44138	44138		44138	44138	LIN. FT.
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT		40528	40528		32000	32000	SQ. YD.
202	REMOVAL AND DISPOSAL OF DROP INLETS		34	34		34	34	EACH
SP	REMOVAL AND DISPOSAL OF WIRE ROPE SAFETY FENCE		21078	21078		21078	21078	LIN. FT.
SP	REMOVAL OF RUMBLE STRIPS		25050	25050		25050	25050	LIN. FT.
210	UNCLASSIFIED EXCAVATION		6752	6752		3981	3981	CU. YD.
SP & 210	BORROW		7191	7191		7191	7191	CU. YD.
SP & 210	SOIL STABILIZATION		500	500		500	500	TON
SP & 215	TRENCHING AND SHOULDER PREPARATION		441	441		441	441	STA.
303	AGGREGATE BASE COURSE (CLASS 1)		71747	71747		71756	71756	TON
303	AGGREGATE BASE COURSE (CLASS 7)		20213	20213				TON
308	AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE					11827	11827	TON
308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE					1260	1260	TON
308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE					60001	60001	SQ. YD.
401	TACK COAT		45348	45348		30464	30464	GALLON
SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")		118155	118155		23642	23642	TON
SP & 405	ASPHALT BINDER (PG76-22) IN ACHM BASE COURSE (1 1/2")		4795	4795		959	959	TON
SP,SS & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		43074	43074		5798	5798	TON
SP,SS & 406	ASPHALT BINDER (PG76-22) IN ACHM BINDER COURSE (1")		1982	1982		267	267	TON
SP,SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		35287	35287		5571	5571	TON
SP,SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (1/2")		97	97		97	97	TON
SP,SS & 407	ASPHALT BINDER (PG76-22) IN ACHM SURFACE COURSE (1/2")		1839	1839		209	209	TON
SP,SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")					18438	18438	TON
SP,SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (3/8")					1114	1114	TON
SP & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		200	200		200	200	TON
SP & 415	ACHM PATCHING OF EXISTING ROADWAY		200	200		200	200	TON
SP	ACHM PATCHING OF EXISTING SHOULDERS		200	200		200	200	TON
501	PORTLAND CEMENT CONCRETE PAVEMENT (12" UNIFORM THICKNESS)					119560	119560	SQ. YD.
501	PORTLAND CEMENT CONCRETE PAVEMENT (13" UNIFORM THICKNESS)					53334	53334	SQ. YD.
507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" UNIFORM THICKNESS)					6000	6000	SQ. YD.
507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING					6000	6000	SQ. YD.
513	RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT		64774	64774				SQ. YD.
513	REMOVAL OF EXISTING ASPHALT OVERLAY		182098	182098		182097	182097	SQ. YD.
601	MOBILIZATION		1.00	1.00		1.00	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1	1		1	1	EACH
SP & 603	TRAFFIC CONTROL SUPERVISOR		1.00	1.00		1.00	1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC		1.00	1.00		1.00	1.00	LUMP SUM
604	SIGNS		1351	1351		1351	1351	SQ. FT.
604	VERTICAL PANELS		213	213		213	213	EACH
604	BARRICADES		96	96		96	96	LIN. FT.
604	TRAFFIC DRUMS		185	185		185	185	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		33390	33390		33390	33390	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER		108450	108450		108450	108450	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS		394877	394877		394877	394877	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		77446	77446		77446	77446	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		211177	211177		211177	211177	LIN. FT.
604	ADVANCE WARNING ARROW PANEL		330	330		330	330	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN		62	62		62	62	WEEK
SP	MOBILE SPEED NOTIFICATION SYSTEM		2	2		2	2	EACH
SP	PORTABLE CAMERA ASSEMBLY		176	176		176	176	WEEK
SP	MODULAR GLARE SHIELD		800	800		800	800	LIN. FT.
SP	MOTORIST ASSISTANCE PATROL		1.00	1.00		1.00	1.00	LUMP SUM
SP	PORTABLE CONSTRUCTION LIGHTING		105	105		105	105	DAY
SP	WRECKER SERVICE		1.00	1.00		1.00	1.00	LUMP SUM
SP & 605	CONCRETE DITCH PAVING (TYPE B)	9368		9368	9368		9368	SQ. YD.
606	SELECTED PIPE BEDDING		9	9		9	9	CU. YD.
SP & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		136	136		136	136	LIN. FT.
609	DROP INLETS (TYPE RM)		34	34		34	34	EACH
611	4" PIPE UNDERDRAINS		31442	31442				LIN. FT.
611	UNDERDRAIN OUTLET PROTECTORS		118	118				EACH
611	UNDERDRAIN VIDEO INSPECTION		31442	31442				LIN. FT.
611	UNDERDRAIN COVER		28492	28492				LIN. FT.
617	GUARDRAIL (TYPE A SPECIAL)		46228	46228		46228	46228	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)		16	16		16	16	EACH
617	THRIE BEAM GUARDRAIL TERMINAL		32	32		32	32	EACH
SP	WIRE ROPE SAFETY FENCE	20654		20654	20654		20654	LIN. FT.
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS	1.00		1.00	1.00		1.00	LUMP SUM
SP	WIRE ROPE SAFETY FENCE END TERMINAL	4		4	4		4	EACH
620	LIME		34	34		34	34	TON
620	SEEDING		16.90	16.90		16.90	16.90	ACRE
SS & 620	MULCH COVER		32.30	32.30		32.30	32.30	ACRE
620	WATER		1801.2	1801.2		1801.2	1801.2	M. GAL.
621	TEMPORARY SEEDING		15.40	15.40		15.40	15.40	ACRE
621	SILT FENCE		43000	43000		43000	43000	LIN. FT.
621	DROP INLET SILT FENCE		2100	2100		2100	2100	LIN. FT.
621	OBLITERATION OF SEDIMENT BASIN		100	100		100	100	CU. YD.
621	SEDIMENT BASIN		100	100		100	100	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL		200	200		200	200	CU. YD.
623	SECOND SEEDING APPLICATION		16.90	16.90		16.90	16.90	ACRE
624	SOLID SODDING		9368	9368		9368	9368	SQ. YD.
SP & 635	ROADWAY CONSTRUCTION CONTROL		1.00	1.00		1.00	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS		67180	67180				LIN. FT.
642	RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS					67180	67180	LIN. FT.
*SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4") (ALT. NO. 1)		66582	66582		56709	56709	LIN. FT.
*SP	HIGH PERFORMANCE MARKING TAPE WHITE (4") (ALT. NO. 2)		66582	66582		56709	56709	LIN. FT.
*SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4") (ALT. NO. 1)		54568	54568		54568	54568	LIN. FT.
*SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4") (ALT. NO. 2)		54568	54568		54568	54568	LIN. FT.
*SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4") (ALT. NO. 1)		1628	1628		11501	11501	LIN. FT.
*SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4") (ALT. NO. 2)		1628	1628		11501	11501	LIN. FT.
721	RAISED PAVEMENT MARKER (TYPE II)		682	682		682	682	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER		7	7		7	7	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		7	7		7	7	EACH

* DENOTES ALTERNATE BID ITEM

SUMMARY OF QUANTITIES AND REVISIONS

REVISIONS

DATE	REVISION	SHEET NUMBER
4/8/2014	REVISED PORTABLE CAMERA ASSEMBLY SP & QUANTITY FROM EACH TO WEEK; DELETED SUBMISSION OF	4, 55 & 66
	ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS SP; ADDED	
	ELECTRONIC SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS	
	AND PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS SP'S	
4/11/2014	REVISED TRENCHING AND SHOULDER PREP, SOIL STABILIZATION AND REMOVAL AND DISPOSAL OF GUARDRAIL QUANTITIES.	57, 60 & 66

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER
GEOFFREY P. THORNSBERRY
No. 10687
04-11-2014

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED
04-11-2014			
04-08-2014			

(2)

SUMMARY OF QUANTITIES AND REVISIONS

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	BB0101	66	94

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.		BB0101	67	94

(2) STA. 2165+00 TO STA. 2185+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013

BL WB CROSSOVER
P.I. = 22+80.56
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 20+00
P.T. 25+60.90
e = N.C.

BL EB CROSSOVER
P.I. = 18+41.46
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 15+60.90
P.T. 21+21.80
e = N.C.

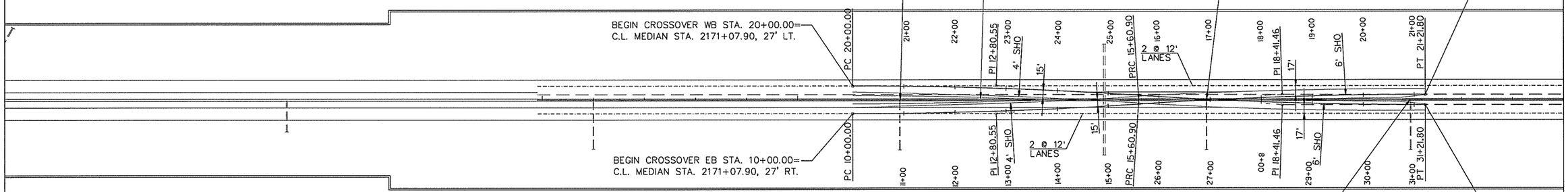
REMOVE WRSF WITHIN THE LIMITS OF THE CROSSOVERS AND INSTALL NEW ANCHORS ON EACH END. REINSTALL AFTER CROSSOVERS ARE REMOVED CONSTRUCT NEW WRSF TO FILL THE GAP.

EXISTING POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (I-40 STA 2174+76.17 TO EXISTING DROP INLET AT I-40 STA 2172+00 TO BE MAINTAINED. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

STA. 2176+00 IN PLACE
TRI. 42" x 216' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

EXISTING INLET AT I-40 STA 2178+00 TO BE COVERED WITH STEEL PLATE WITH MINIMUM DESIGN CAPACITY OF H15 LOADING. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

END CROSSOVER EB STA. 21+21.81= C.L. MEDIAN STA. 2182+28.90, 10' LT.



STA. 2160+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-1" WITH
24" x 62' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2166+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 96' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2172+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

CONTRACTOR TO ASSURE POSITIVE DRAINAGE FROM CROSSOVER PAVEMENT INTERSECTION POINT (I-40 STA 2179+68.24) TO EXISTING DROP INLET AT I-40 STA 2182+00. (COST SUBSIDIARY TO APPLICABLE BID ITEMS)

END CROSSOVER WB STA. 31+21.81= C.L. MEDIAN STA. 2182+28.90, 10' RT.

STA. 2178+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

STA. 2182+00 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 4'-2" WITH
18" x 98' R.C. PIPE OUTLET
HEADWALL ON RT.
RETAIN

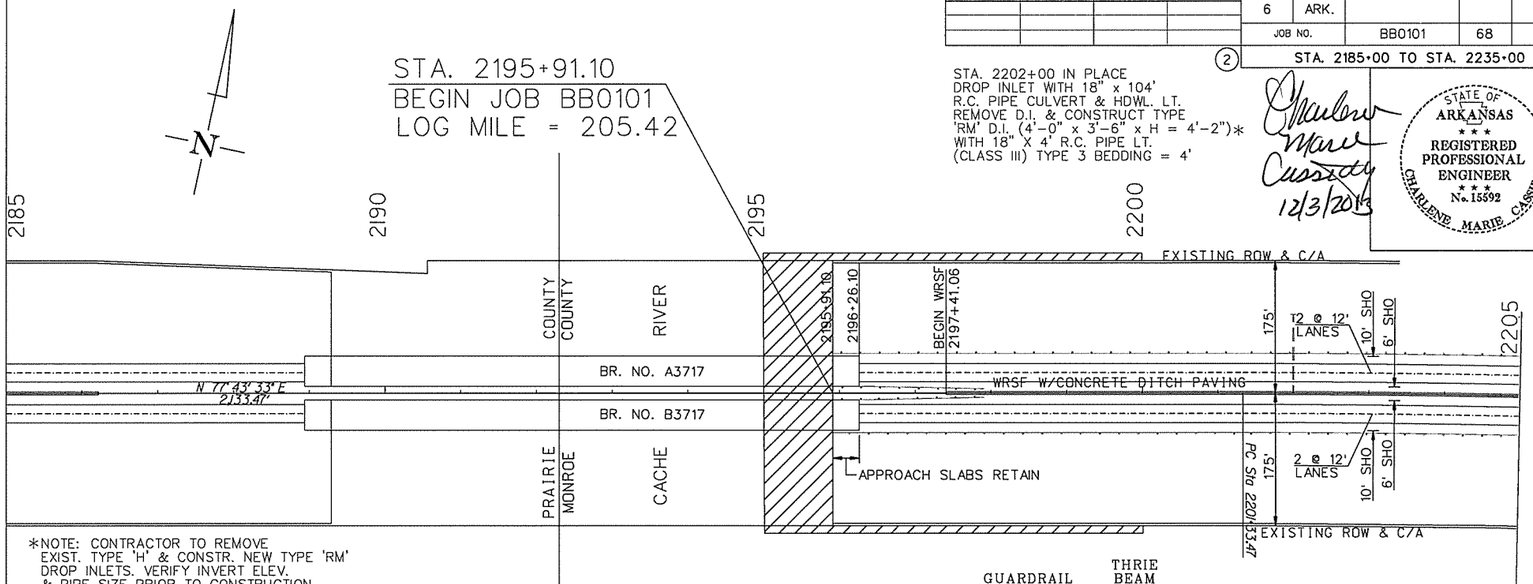
BL EB CROSSOVER
P.I. = 12+80.56
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 10+00
P.T. 15+60.90
e = N.C.

BL WB CROSSOVER
P.I. = 28+41.46
Δ = 3° 46'51"LT
D = 0° 40'27"
T = 280.56'
L = 560.90'
P.C. 25+60.90
P.T. 31+21.80
e = N.C.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	68	94

(2) STA. 2185+00 TO STA. 2235+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15592
CHARLENE MARIE CASSIDY
12/3/2013



STA. 2202+00 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

PROPOSED GUARDRAIL LOCATION				GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 2195+98.60	TO STA. 2197+91.08	℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2195+98.60	TO STA. 2197+91.08	℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2195+98.60	TO STA. 2279+31.41	℄ MEDIAN I-40	RT.-R.M.L.	- 8300 LIN. FT.	-	2 EACH
STA. 2195+98.60	TO STA. 2279+31.41	℄ MEDIAN I-40	LT.-L.M.L.	- 8300 LIN. FT.	-	2 EACH

STA. 2205+00 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

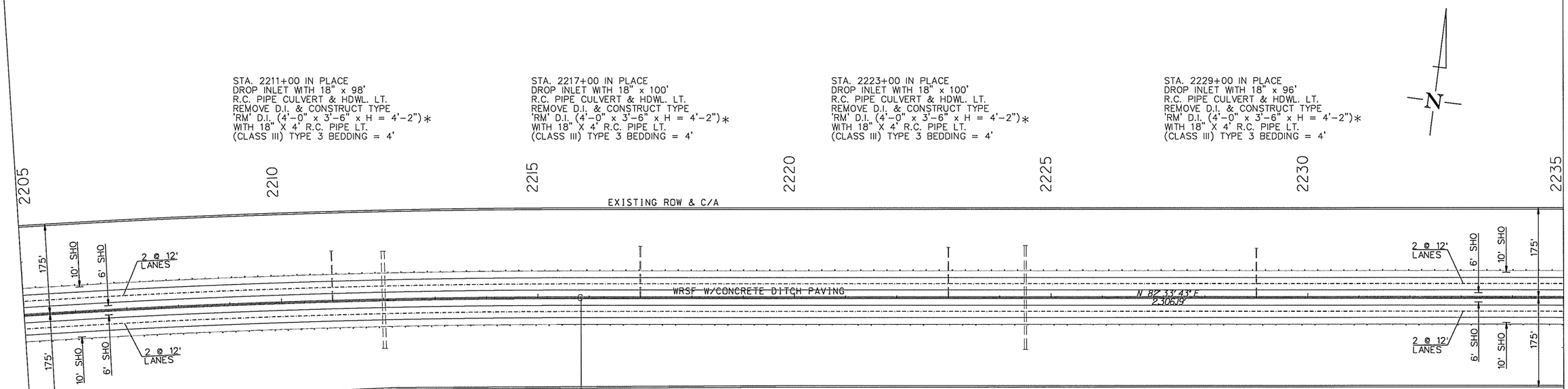
ENVIRONMENTALLY SENSITIVE AREA - NO EXCAVATION BELOW 1'-0" IN DEPTH BETWEEN TOE OF EXISTING FILL SLOPE AND RIGHT-OF-WAY FENCE

STA. 2211+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2217+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2223+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2229+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'



I-40
P.I. 2208+59.31
Δ = 4°50'10.0"RT.
D = 0°20'00"
T = 725.85'
L = 1450.83'
P.C. 2201+33.47
P.T. 2215+84.30
e = N.C.

STA. 2212+00 IN PLACE
6' x 6' x 190' R.C. BOX CULV'T.
RETAIN

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA. 2224+50 IN PLACE
4' x 4' x 205' R.C. BOX CULV'T.
RETAIN

STA. 2235+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	69	94
				(2)	STA. 2235+00 TO STA. 2295+00			

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

I-40
P.I. 2256+35.06
Δ = 22°56'57.0"LT.
D = 0°40'00"
T = 1744.57'
L = 3442.37'
P.C. 2238+90.49
P.T. 2273+32.86
e = 0.025%
Lg = 350'

STA. 2242+00 IN PLACE
6' x 6' x 192' R.C. BOX CULV'T.
RETAIN

STA. 2247+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE TT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2259+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

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2235 2240 2245 2250 2255 2260 2265

PC Sta 2238+90.49

175' 10' SHO 6' SHO 2 @ 12' LANES

N 82°33'43"E 2306.79'

EXISTING ROW & C/A

WRSF W/CONCRETE DITCH PAVING

STA. 2241+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2253+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2265+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

PROPOSED GUARDRAIL LOCATION				GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 2277+38.94	TO STA. 2279+31.41	℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2283+08.59	TO STA. 2285+01.06	℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2277+38.94	TO STA. 2279+31.41	℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2283+08.59	TO STA. 2285+01.06	℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2283+08.59	TO STA. 2335+81.83	℄ MEDIAN I-40	RT.-R.M.L.	-5325 LIN. FT.	-	2 EACH
STA. 2283+08.59	TO STA. 2335+50.65	℄ MEDIAN I-40	LT.-L.M.L.	-5325 LIN. FT.	-	2 EACH

STA. 2294+00 IN PLACE
6' x 6' x 213' R.C. BOX CULV'T.
RETAIN

STA. 2270+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

2265 2270 2275 2280 2285 2290 2295

PT Sta 2273+32.86

EXISTING ROW & C/A

END WRSF 2277+88.92

2279+03.91

2279+38.91

CROSSPOND

2283+01.09

2283+36.09

BEGIN WRSF 2284+51.06

BR. NO. A3720

BR. NO. B3720

EXCEPTION

APPROACH SLABS RETAIN

APPROACH SLABS RETAIN

BAYOU

N 59°36'46"E 683.04'

WRSF W/CONCRETE DITCH PAVING

175' 10' SHO 6' SHO 2 @ 12' LANES

190'

185'

EXISTING ROW & C/A

STA. 2274+00 IN PLACE
DROP INLET WITH 18" x 106'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2288+40 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2292+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

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				6	ARK.			
				JOB NO.		BB0101	70	94
				(2)	STA. 2295+00 TO STA. 2355+00			

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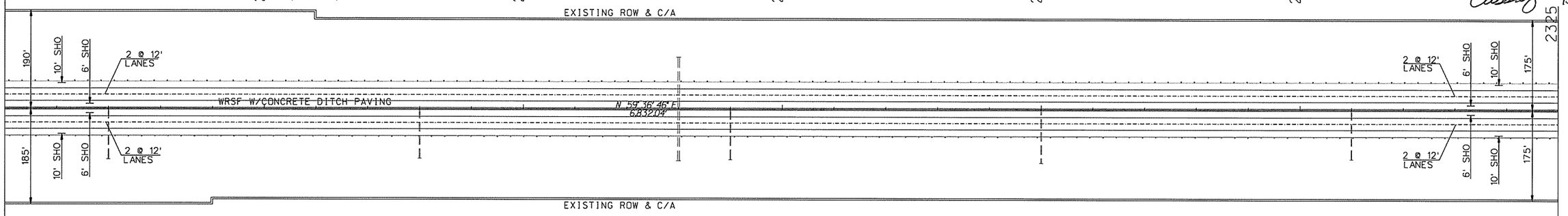
CHARLENE MARIE CASSIDY
Charlene Marie Cassidy 12/3/2013

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA. 2308+00 IN PLACE
42" x 200' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

STA. 2309+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2303+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'



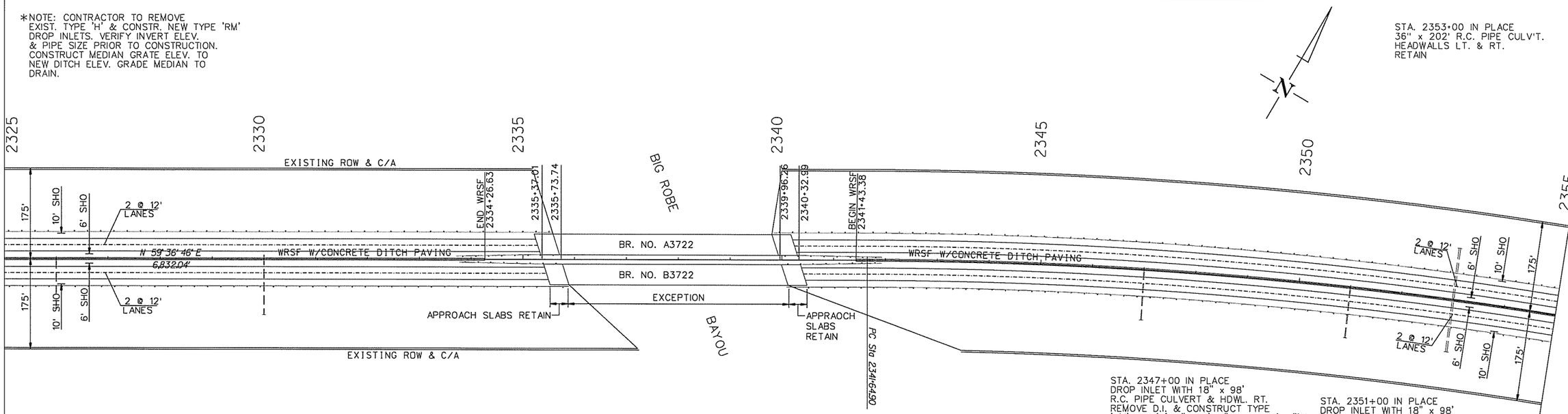
STA. 2297+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. LT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE LT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2315+00 IN PLACE
DROP INLET WITH 18" x 104'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2321+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

STA. 2353+00 IN PLACE
36" x 202' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN



STA. 2326+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2330+00 IN PLACE
DROP INLET WITH 18" x 108'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

PROPOSED GUARDRAIL LOCATION			GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 2340+03.76 TO STA. 2341+93.35	℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2333+76.63 TO STA. 2335+66.24	℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2340+03.76 TO STA. 2341+93.35	℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2333+76.63 TO STA. 2335+66.24	℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2340+19.35 TO STA. 2383+25.42	℄ MEDIAN I-40	LT.-L.M.L.	- 4337.5 LIN. FT.	-	2 EACH
STA. 2339+88.17 TO STA. 2383+25.42	℄ MEDIAN I-40	RT.-R.M.L.	- 4337.5 LIN. FT.	-	2 EACH

I-40
P.I. 2352+18.53
Δ = 13°58'43.0"RT.
D = 0°40'00"
T = 1053.63'
L = 2096.79
P.C. 2341+64.90
P.T. 2362+61.69
e = 0.025 ft/ft
Lg = 350 ft

STA. 2347+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2351+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

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				6	ARK.			
				JOB NO.		BB0101	71	94
				(2)	STA. 2355+00 TO STA. 2415+00			

LOCATION		(TYPE A)	(TYPE 2)	TERMINAL
STA. 2381+32.95 TO STA. 2383+25.42 ℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2381+32.95 TO STA. 2383+25.42 ℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH

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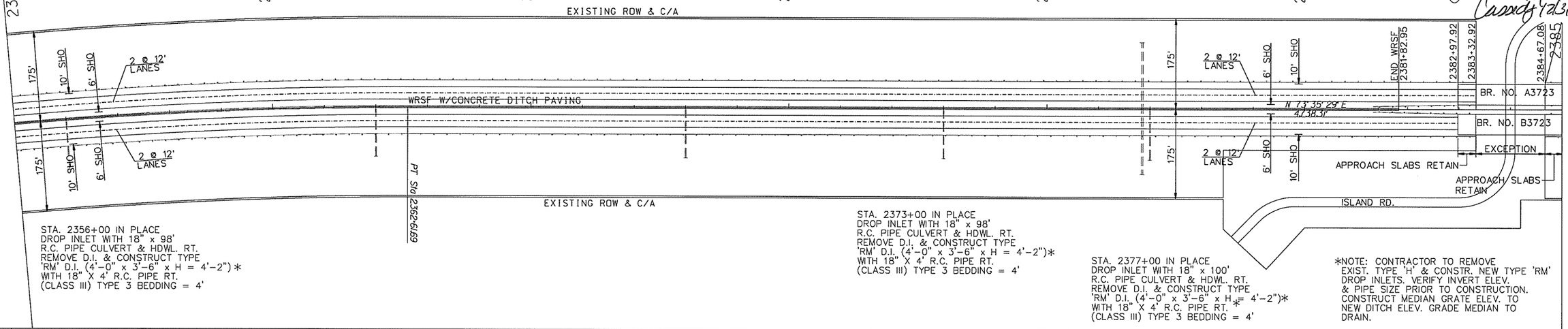
Charlene Marie Cassidy 7/23/2013

STA. 2376+85 IN PLACE
36" x 256' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

STA. 2362+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2368+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'



STA. 2356+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2373+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2377+00 IN PLACE
DROP INLET WITH 18" x 100'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT. *
(CLASS III) TYPE 3 BEDDING = 4'

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

*NOTE: CONTRACTOR TO REMOVE EXIST. TYPE 'H' & CONSTR. NEW TYPE 'RM' DROP INLETS. VERIFY INVERT ELEV. & PIPE SIZE PRIOR TO CONSTRUCTION. CONSTRUCT MEDIAN GRATE ELEV. TO NEW DITCH ELEV. GRADE MEDIAN TO DRAIN.

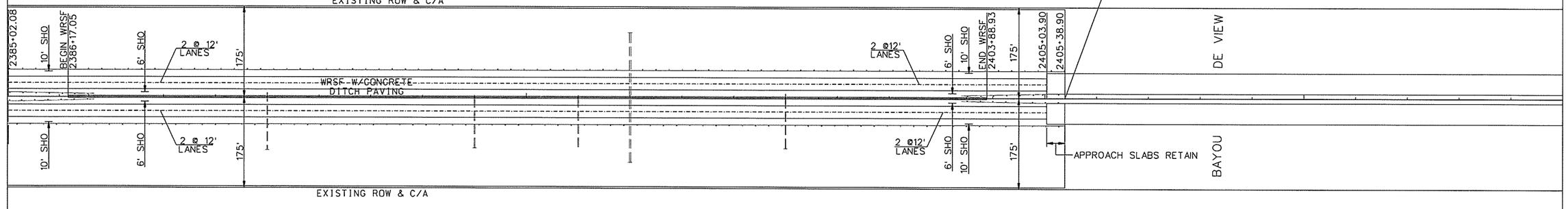
STA. 2394+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2396+00 IN PLACE
DROP INLET WITH 18" x 96'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2397+00 IN PLACE
36" x 250' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
RETAIN

STA. 2400+00 IN PLACE
DROP INLET WITH 18" x 98'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

STA. 2405+38.90
END JOB BB0101
LOG MILE = 209.41



STA. 2390+00 IN PLACE
DROP INLET WITH 18" x 102'
R.C. PIPE CULVERT & HDWL. RT.
REMOVE D.I. & CONSTRUCT TYPE
'RM' D.I. (4'-0" x 3'-6" x H = 4'-2")*
WITH 18" X 4' R.C. PIPE RT.
(CLASS III) TYPE 3 BEDDING = 4'

PROPOSED GUARDRAIL LOCATION		GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 2384+74.58 TO STA. 2386+67.08 ℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2403+38.93 TO STA. 2405+31.40 ℄ MEDIAN I-40	RT.-L.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2384+74.58 TO STA. 2386+67.08 ℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2403+38.93 TO STA. 2405+31.40 ℄ MEDIAN I-40	LT.-R.M.L.	- 150 LIN. FT.	1 EACH	1 EACH
STA. 2384+74.58 TO STA. 2405+31.40 ℄ MEDIAN I-40	LT.-L.M.L.	- 2062.5 LIN. FT.	-	2 EACH
STA. 2384+74.58 TO STA. 2405+31.40 ℄ MEDIAN I-40	RT.-R.M.L.	- 2062.5 LIN. FT.	-	2 EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0101	72	94

(2) STA. 2415+00 TO STA. 2439+00

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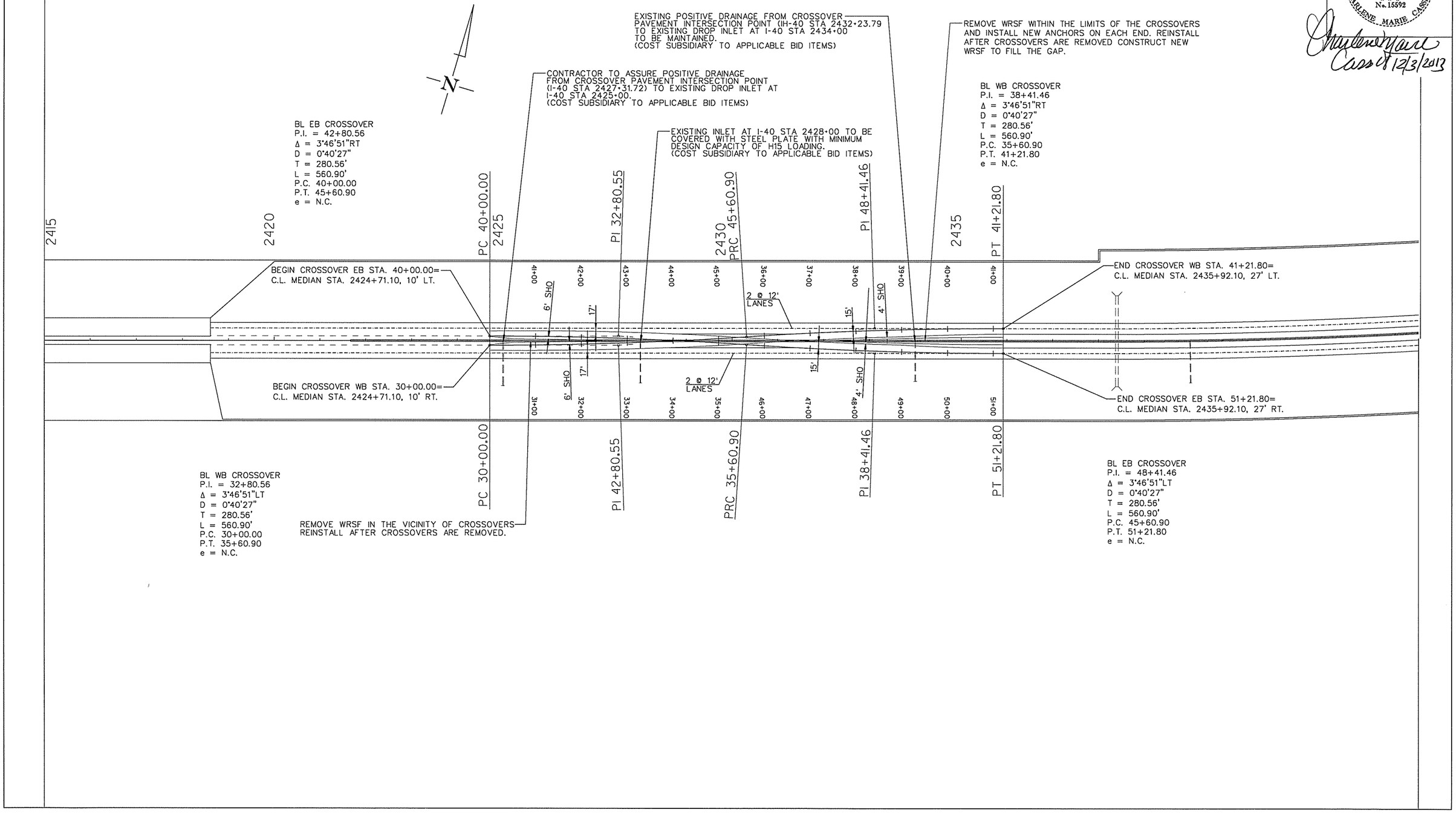
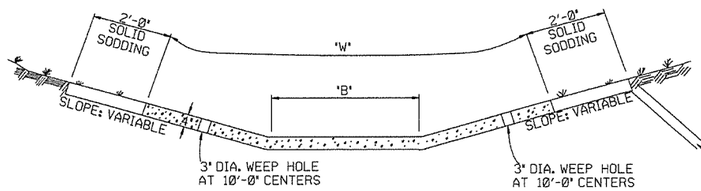
CHARLENE MARIE CASSIDY

Charlene Marie Cassidy 12/3/2013



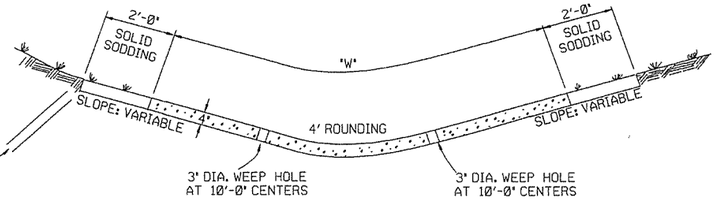
REFER TO TABULATION OF QUANTITIES FOR 'W' & 'B' DIMENSIONS



EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.

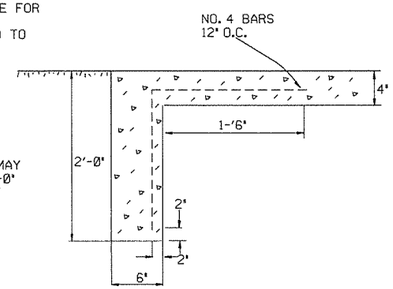
TYPE A

REFER TO TABULATION OF QUANTITIES FOR 'W' DIMENSIONS



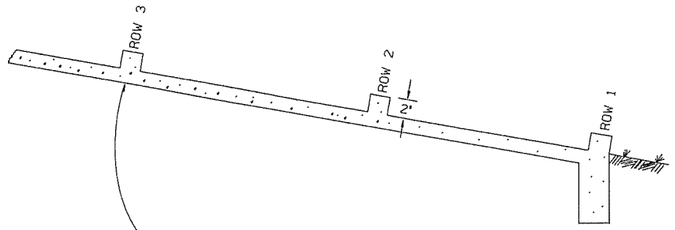
TYPE B

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.'

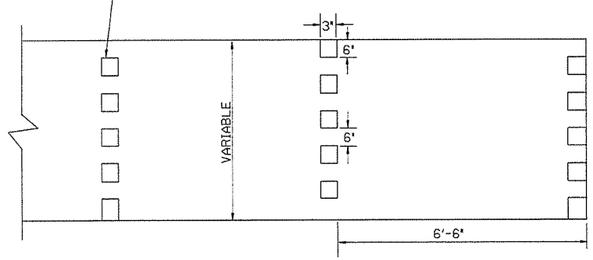


TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED



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.

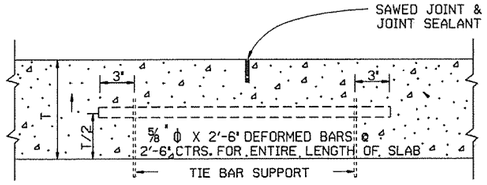
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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

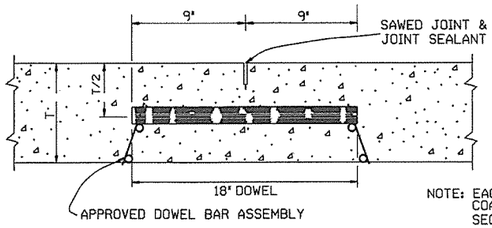
CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1



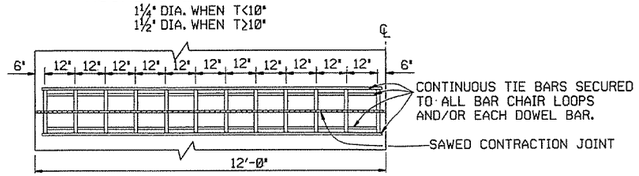
LONGITUDINAL JOINT

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.

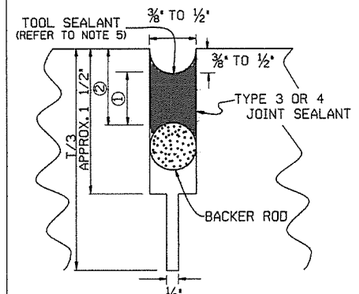
ROUND STEEL BAR DOWEL
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



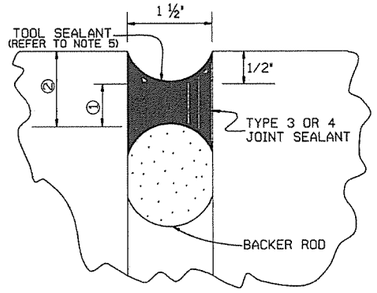
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

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



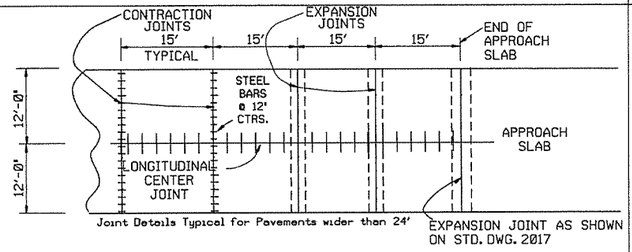
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

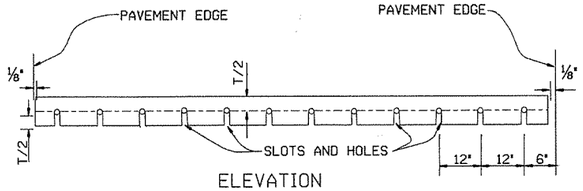
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
½	⅜	⅝	½
⅝	⅜	¾	⅝
¾	⅜	⅞	⅞
1 ½	¾	2	1 ¼

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

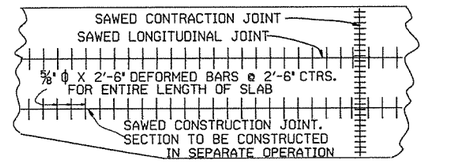


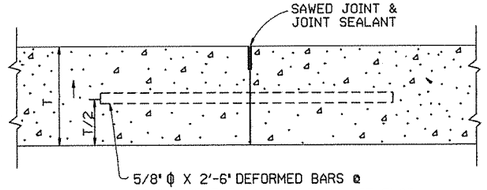
PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



ELEVATION

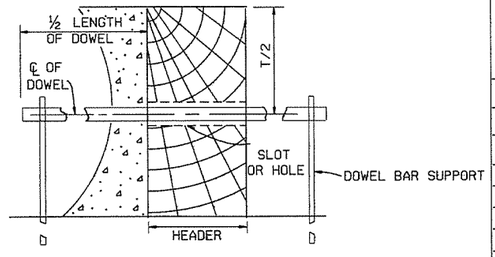
NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.





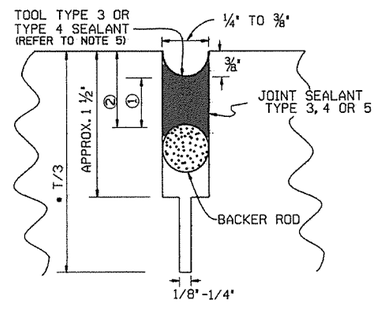
NOTE: TIE BARS SHALL BE 15" FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



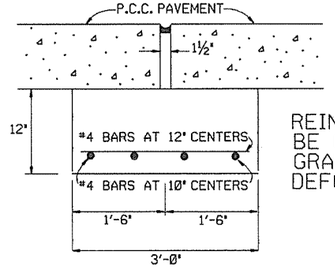
SECTION

TRANSVERSE CONSTRUCTION JOINT



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

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT



REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS

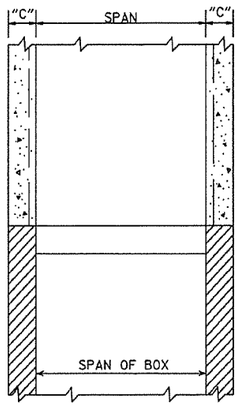
GENERAL NOTES
1. "T" DENOTES THICKNESS OF SLAB.
2. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR THE VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW. DOWEL BARS SHALL 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.

DATE	REVISION	DATE FILMED
5-25-06	ADDED GENERAL NOTE 7	
10-9-03	REMOVED TIE BAR COATING & REVISED GENERAL NOTES	
11-16-01	ADDED TOOL SEALANT AND NOTE 5; REVISED NOTE 3	
4-26-96	REVISED CONTRACTION JOINT NOTE	
11- 3-94	ADDED NOTE RE: REINF. BARS	
4- 1-93	REVISED DOWEL BARS & GEN. NOTES	4- 1-93
10- 1-92	REVISED DOWEL SPACING	10- 1-92
8- 15-91	ADDED SPAC FOR CONTR JTS & DEL KEYWAY	
05-24-90	REVISED TIE BAR, DOWEL & JOINT SIZE	
01-25-90	ADDED EXPANSION JOINT	01-25-90
11-30-89	CHANGED T/4+1 TO T/3+1	11-30-89
03-23-89	ALTERED SAWED JOINT & ADDED NOTE	512-03-23-89
07-15-88	REVISED AND REDRAWN	632-07-15-88

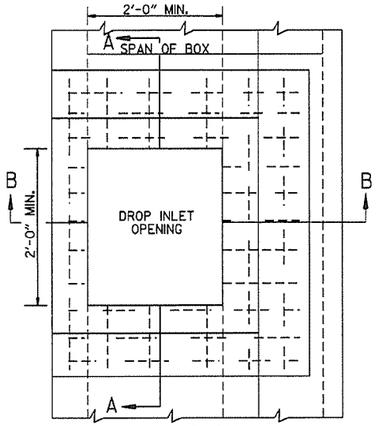
ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

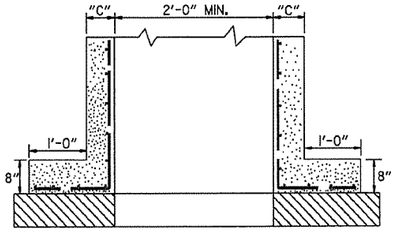
STANDARD DRAWING CPTJ - 6A



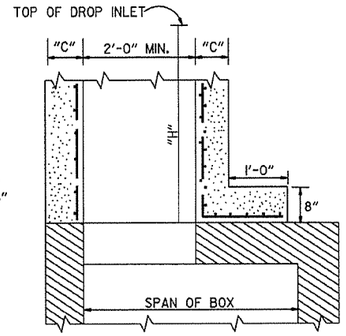
SECTION B-B



PLAN

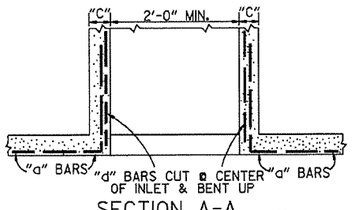


SECTION A-A

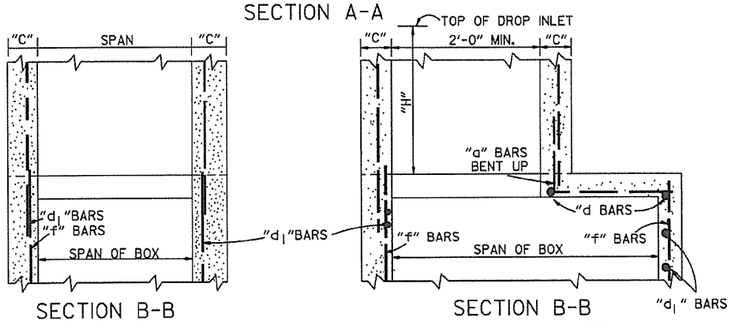


SECTION B-B

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



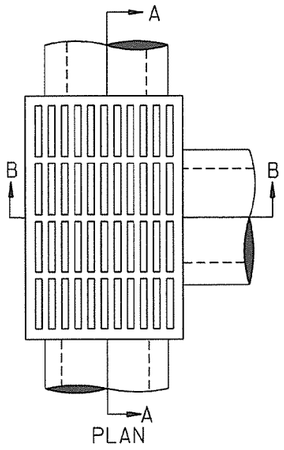
SECTION A-A



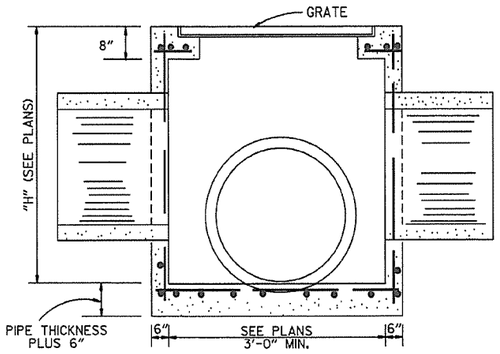
SECTION B-B SECTION B-B

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

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

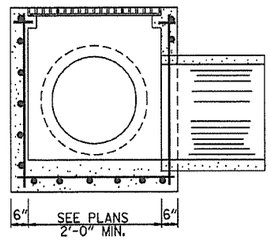


PLAN



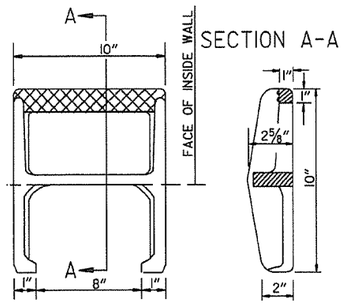
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

DROP INLET (TYPE E)

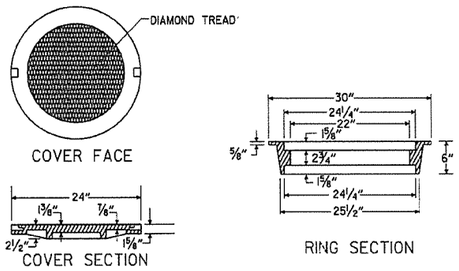


APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

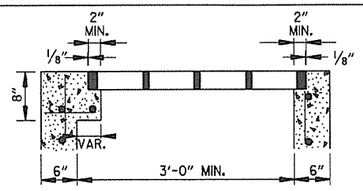
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

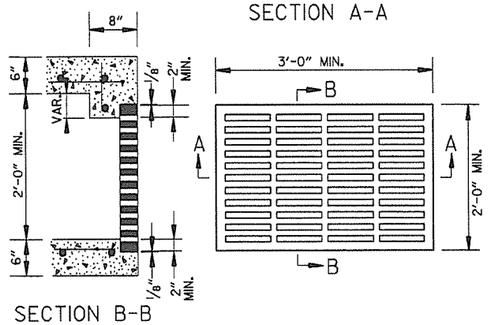


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



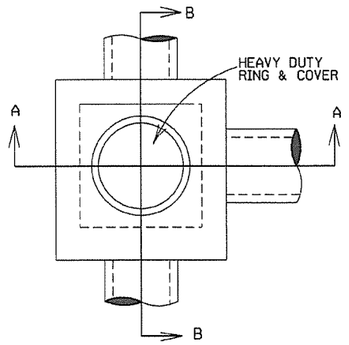
SECTION A-A



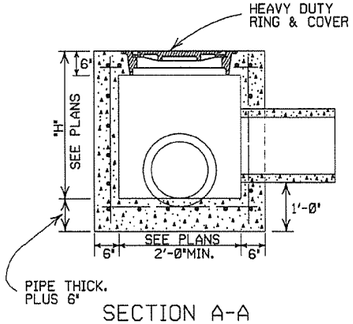
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

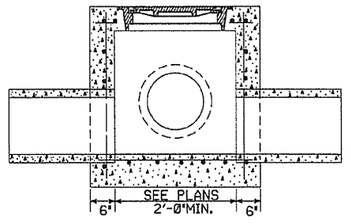


PLAN



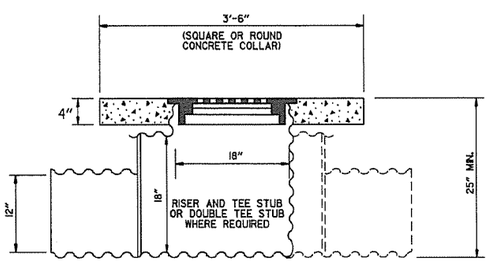
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

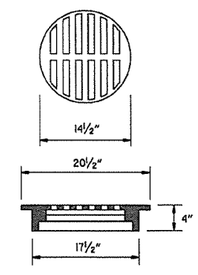


SECTION B-B

JUNCTION BOX (TYPE E)



NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".



USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

DETAIL OF YARD DRAIN

GENERAL NOTES:

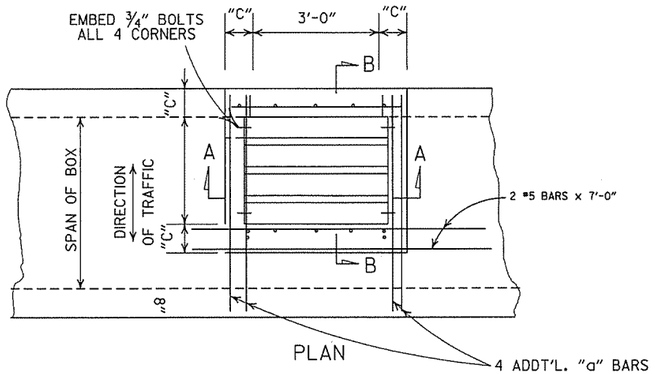
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

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

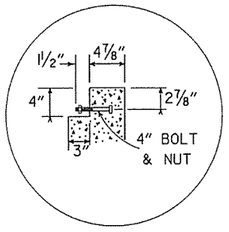
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

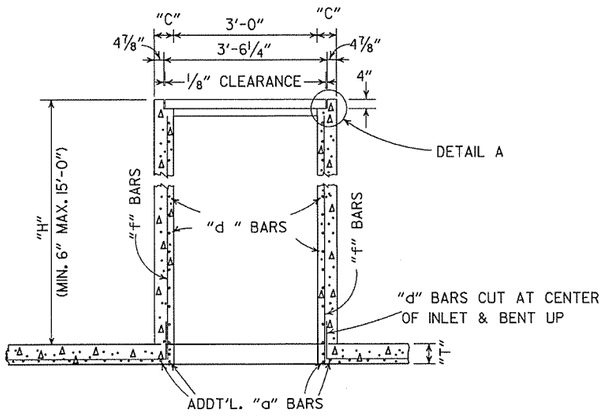
STANDARD DRAWING FPC-9



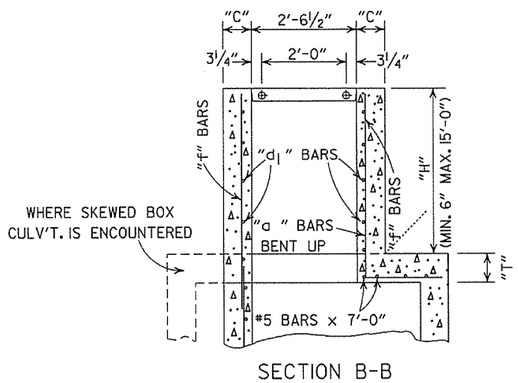
PLAN



DETAIL A



SECTION A-A

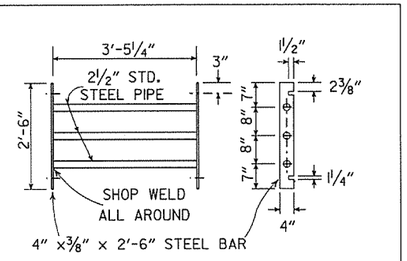


SECTION B-B

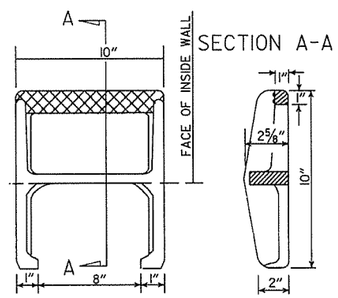
NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

DIMENSIONS & REINF. BARS FOR D.I. TO BE THE SAME AS THOSE SHOWN ON APPLICABLE STD. BARREL DRAWING FOR R.C. BOX CULVERTS.

DROP INLET TYPE "TM" FOR REINFORCED CONC. BOX CULVERTS



GRATE DETAIL



APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

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

DETAIL OF STEP FOR DROP INLET

GENERAL NOTES:

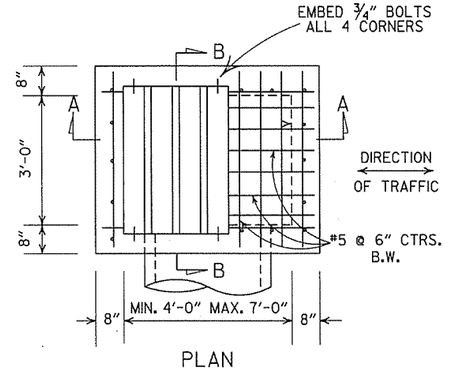
1. STEEL PIPE FOR GRATES AND BOLTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 807. BOLTS SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM A193, GRADE B8 CLASS 1 OR 2, ASTM A307 OR AASHTO M 164.
2. STEEL PIPE FOR GRATES SHALL BE "STANDARD WEIGHT" PIPE CONFORMING TO ASTM A53 NATIONAL STANDARD PIPE.
3. BOLTS, NUTS, WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 OR AASHTO M 298, CLASS 40 OR 50.
4. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
5. ALL #4 AND #5 REINFORCING BARS TO HAVE 1½" COVER. LARGER SIZES TO HAVE 2" COVER.
6. THE COMPLETE PIPE GRATE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

TABLE OF "W" DIMENSIONS

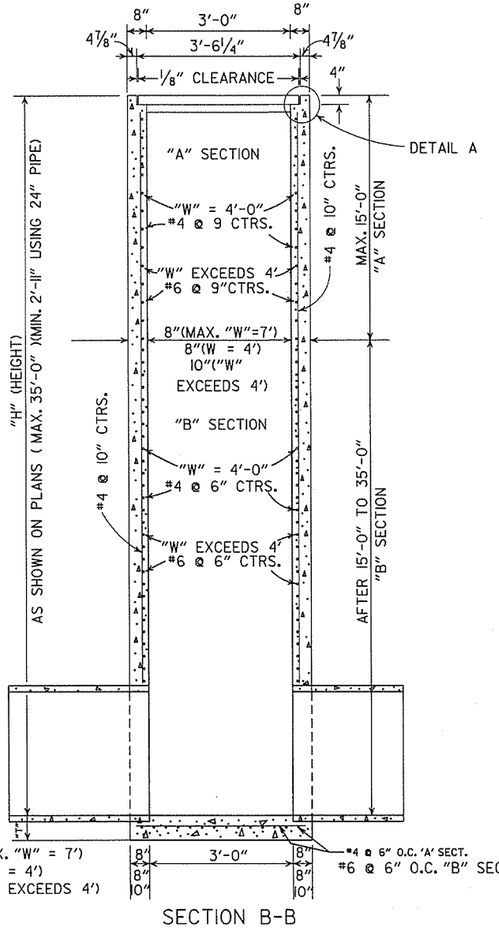
76

I.D. PIPE	SKEW OF CROSS DRAIN		
	STRAIGHT	30°	45°
	"W"	"W"	"W"
24"	4'-0"	4'-0"	4'-0"
30"	4'-0"	4'-0"	4'-5"
36"	4'-0"	4'-3"	5'-3"
42"	4'-3"	4'-11"	6'-1"
48"	4'-10"	5'-7"	6'-11"

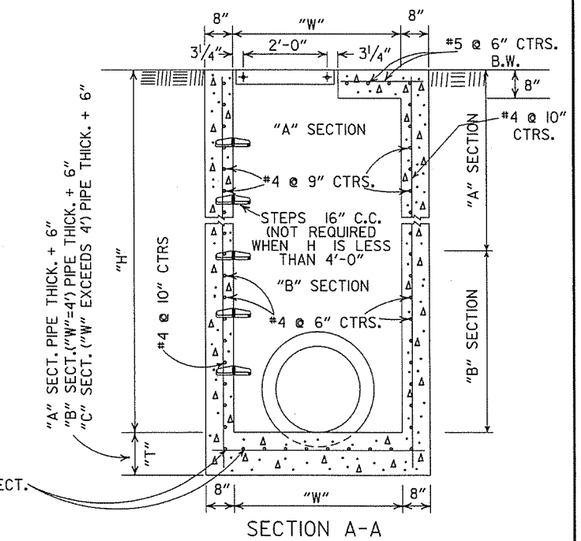
NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.



PLAN



SECTION B-B



SECTION A-A

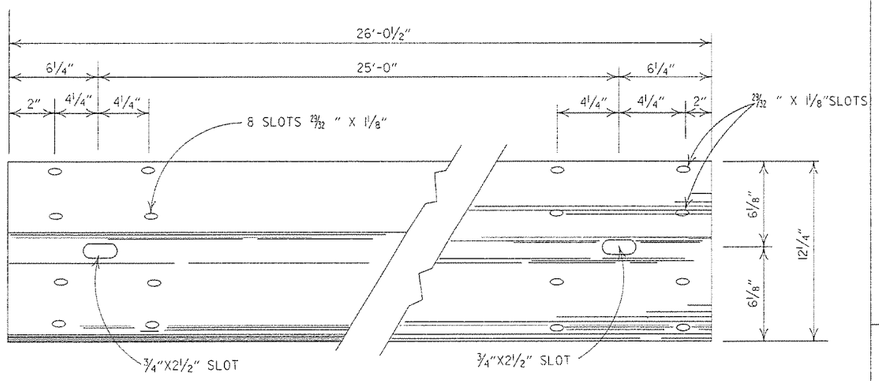
DROP INLET(TYPE RM)

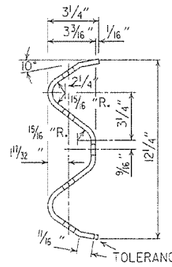
REVISED		DATE FILMED
8-22-02	ADDED & REVISED DIMENSION TO SECTION A-A	
1-12-00	CORRECTED DIMENSION ON SECTION B-B	
11-06-97	ADDED DIMENSION TO SECTION A-A	
10-18-96	REVISED ASTM REF. TO AASHTO AND ADDED NOTE TO TABLE OF "W" DIMENSIONS	
10-1-92	ADDED DIRECTION OF TRAFFIC	10-1-92
8-15-91	ADDED NOTE ABOUT PAINTING OF GRATE	8-15-91
11-30-89	ALTERED DETAIL A	11-30-89
7-15-88	REVISED STEP DETAIL,TM & RM D.I. & GRATE DETAIL	719-7-15-88
10-2-72	REVISED AND REDRAWN	542-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS

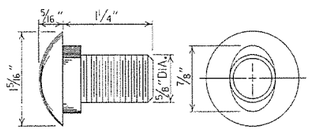
STANDARD DRAWING FPC-9D



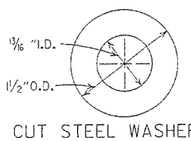


DETAILS OF W-BEAM GUARD RAIL

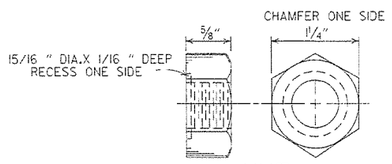
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



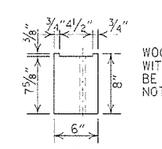
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

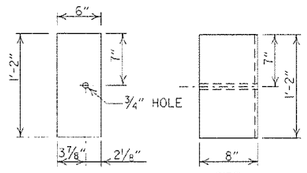


NUT



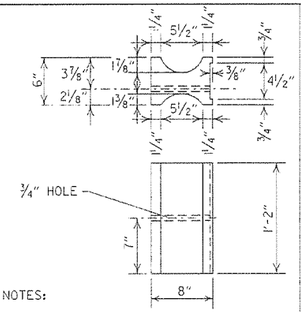
TOP

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



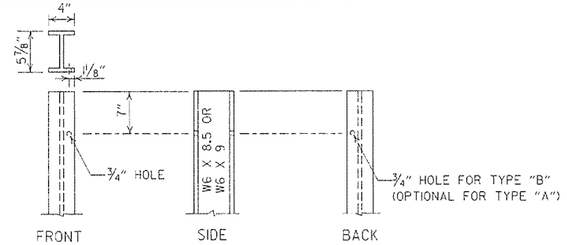
FRONT SIDE

WOOD BLOCKOUT (W-BEAM)

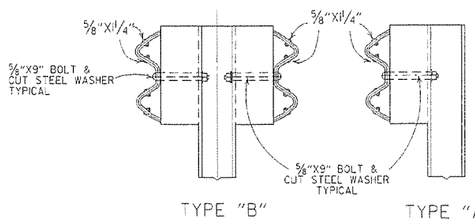


NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

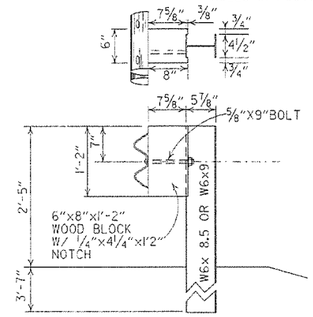


STEEL POST

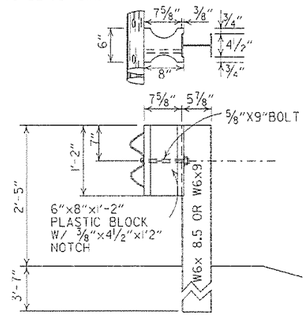


DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



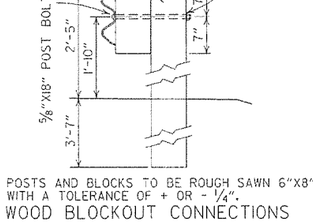
WOOD BLOCKOUT CONNECTIONS



PLASTIC BLOCKOUT CONNECTIONS

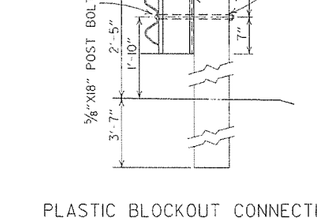
DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS



PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

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

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

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

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

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

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

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

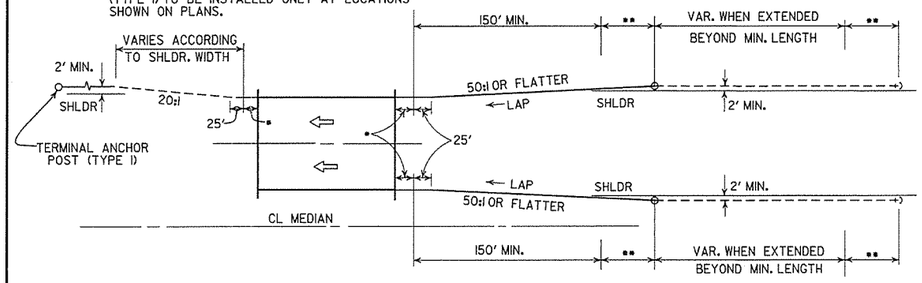
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
0-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
9-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD 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

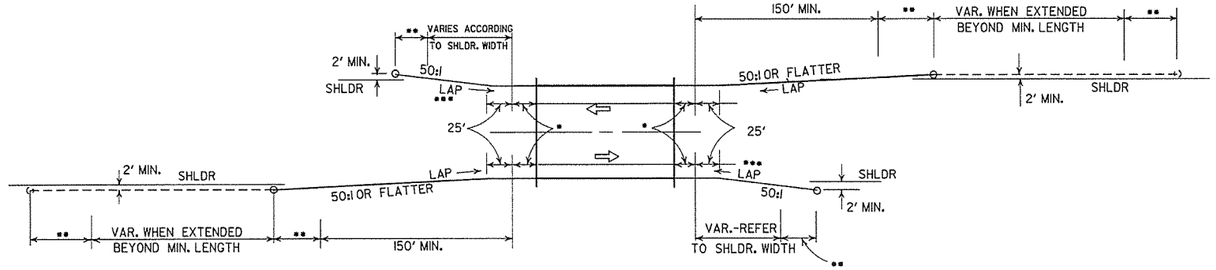
STANDARD DRAWING GR-8

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

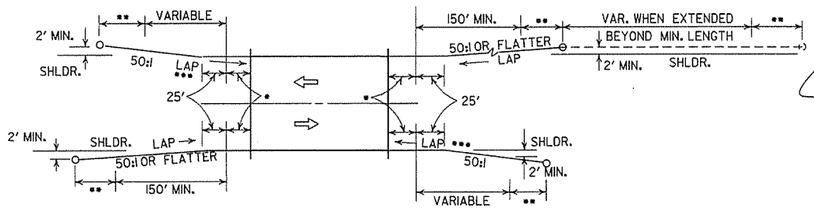
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

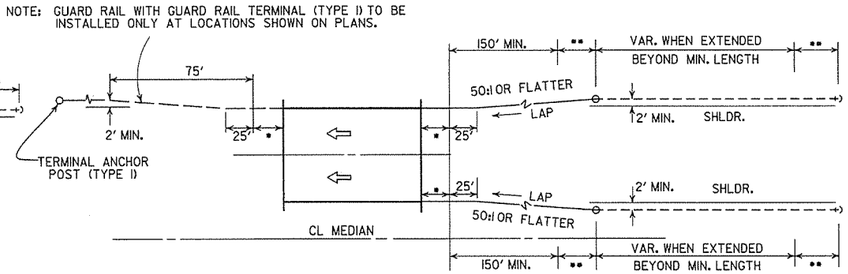
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• 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

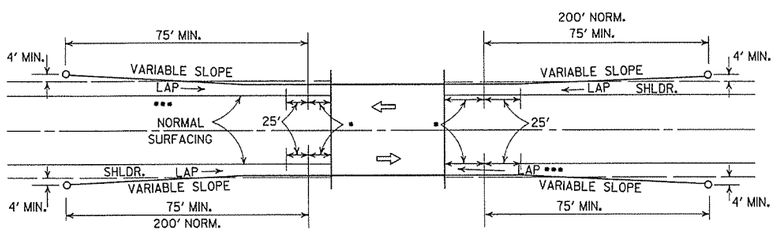
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



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

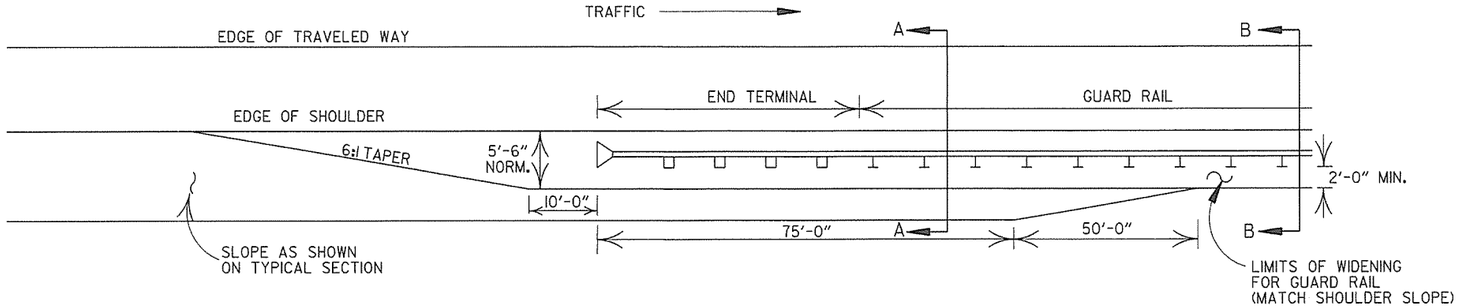
- • THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

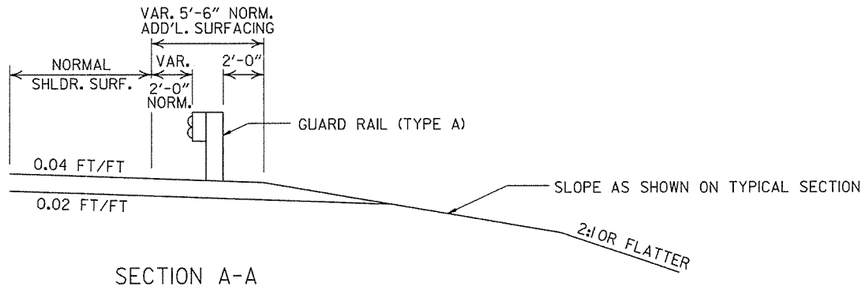
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

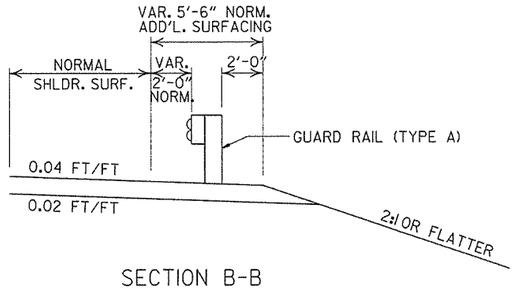
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





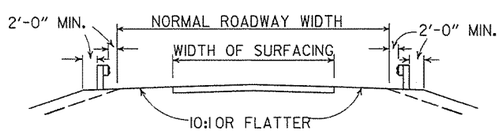
SECTION A-A



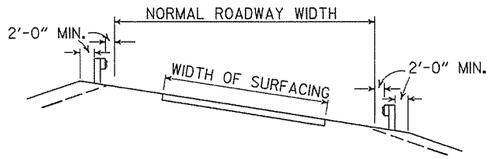
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

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

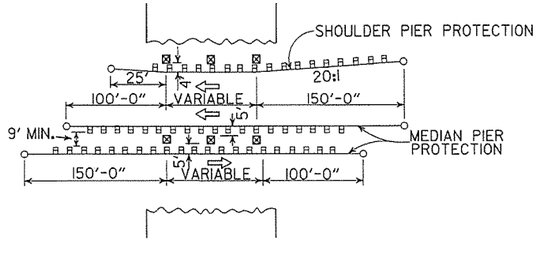


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



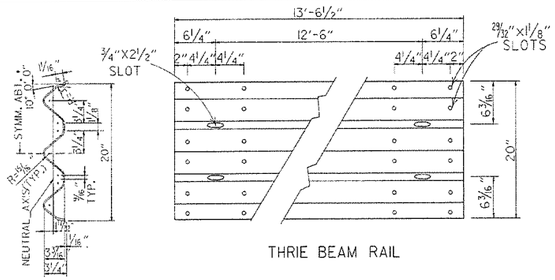
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

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

ARKANSAS STATE HIGHWAY COMMISSION

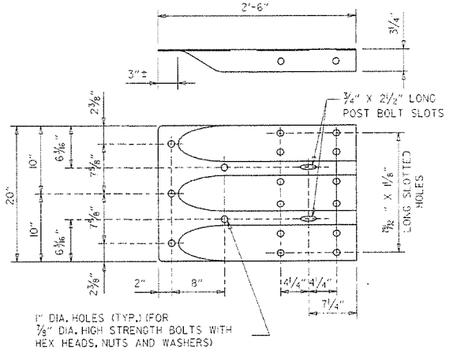
GUARD RAIL DETAILS

STANDARD DRAWING GR-9A

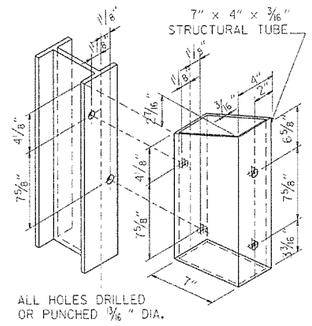


THRIE BEAM RAIL

SECTION THRU THRIE BEAM RAIL

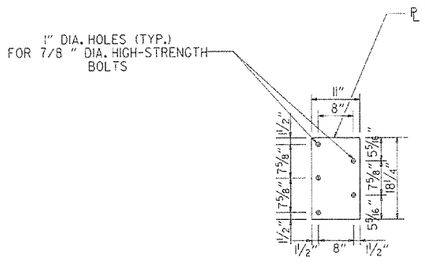


SPECIAL END SHOE



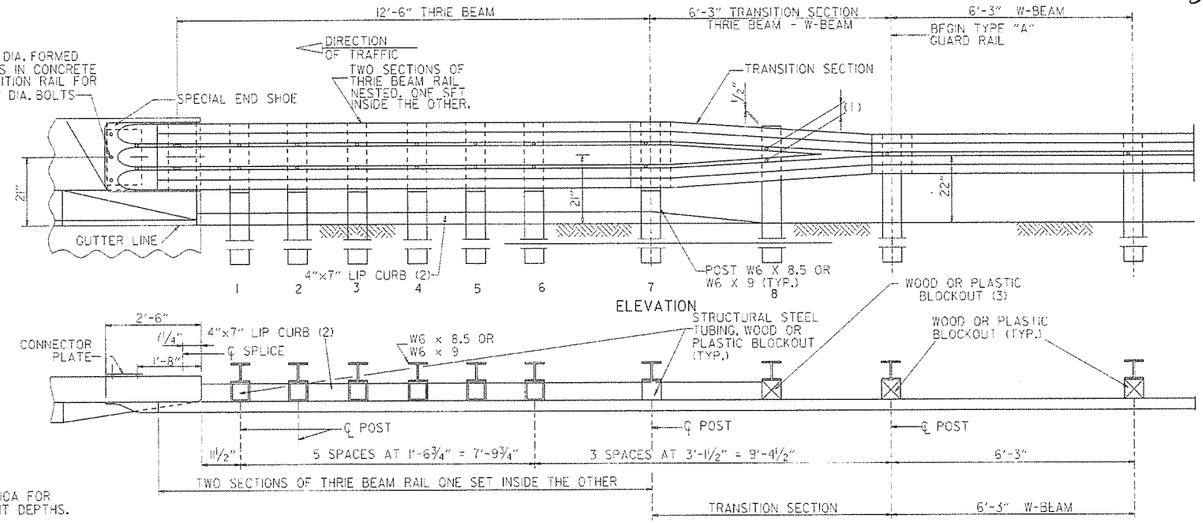
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL

ATTACH BLOCKOUT TO POST USING ⅝" DIA. HEX HEAD BOLTS WITH 1½" O.D. CUT STEEL WASHERS AND NUT.



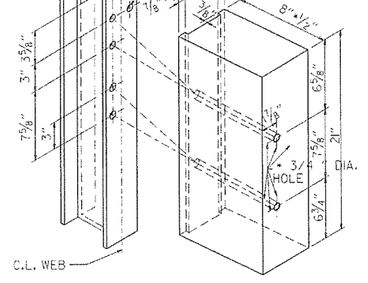
CONNECTOR PLATE

NOTE:
SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.



(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.

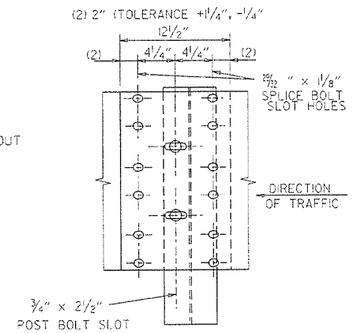
THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS



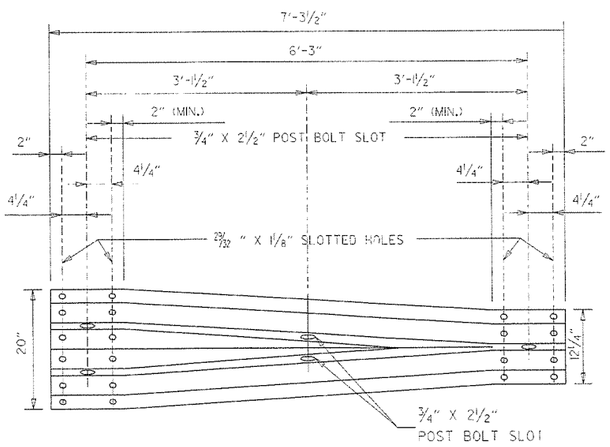
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



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.

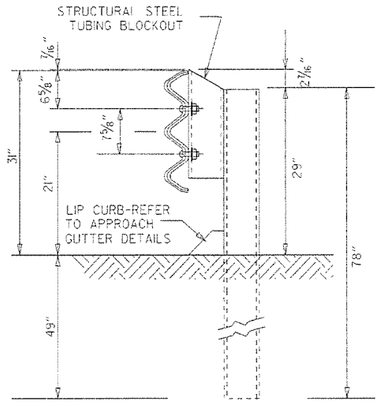
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

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	

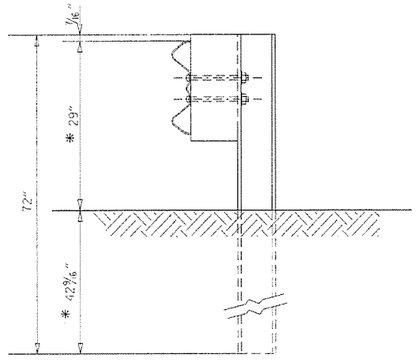
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

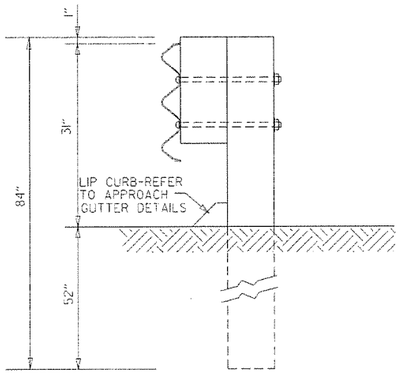


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

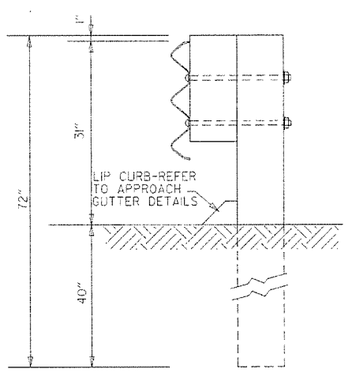


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

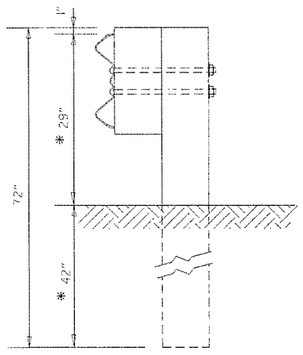
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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 9.7f (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

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.

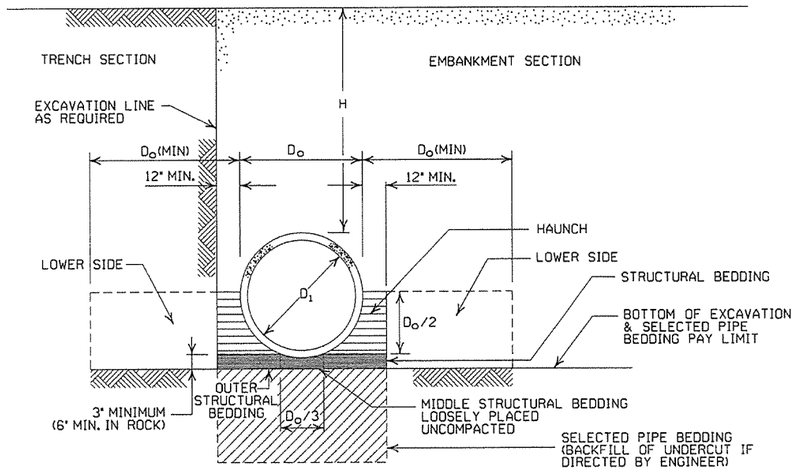
- LEGEND -

D_i = 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

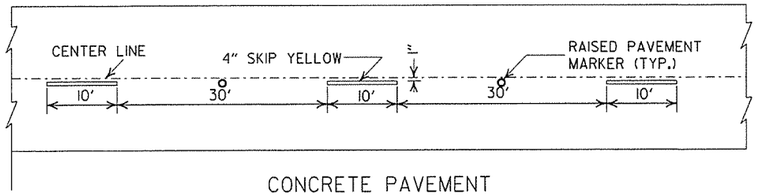
NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

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	

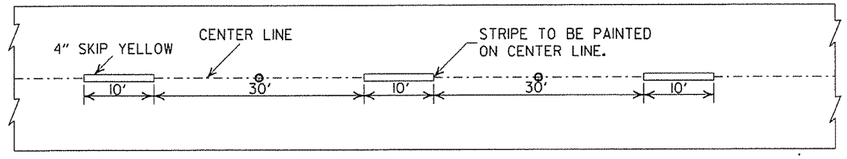
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

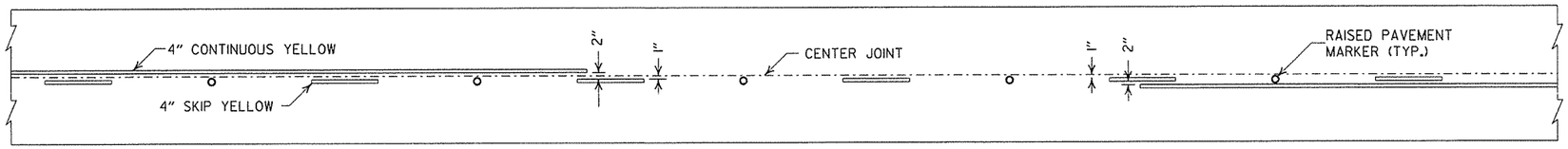


CONCRETE PAVEMENT

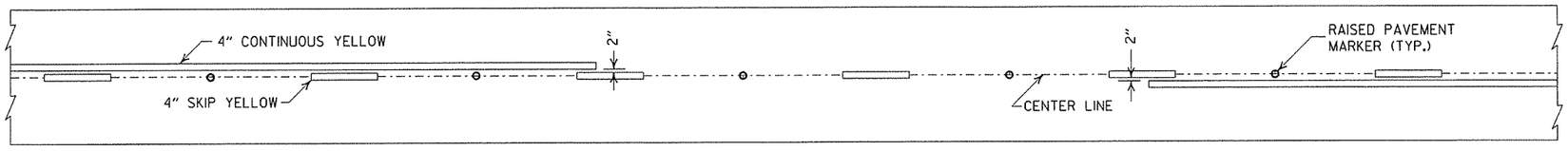


ASPHALT PAVEMENT

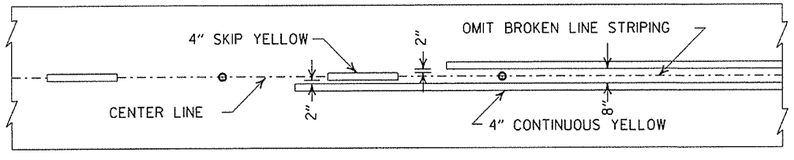
BROKEN LINE STRIPING



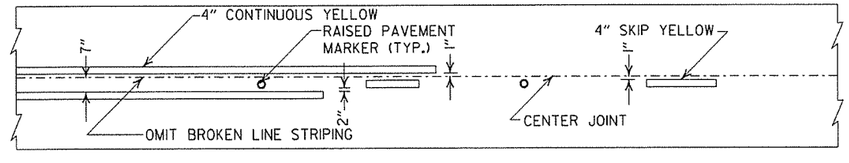
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

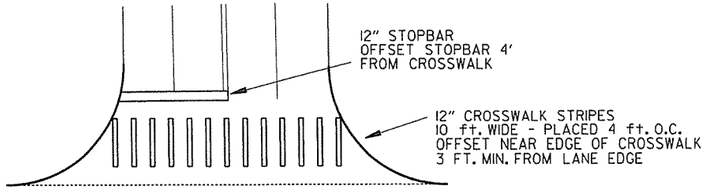


ASPHALT PAVEMENT



CONCRETE PAVEMENT

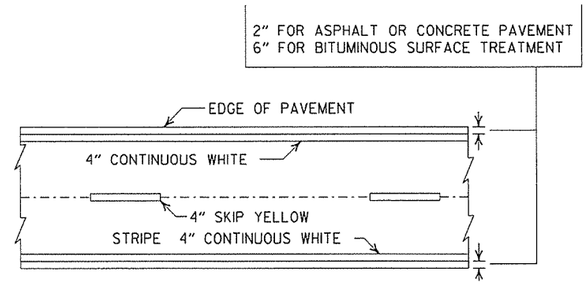
STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS

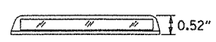
NOTES:

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.



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.

DATE	REVISION	FILMED
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

ARKANSAS STATE HIGHWAY COMMISSION

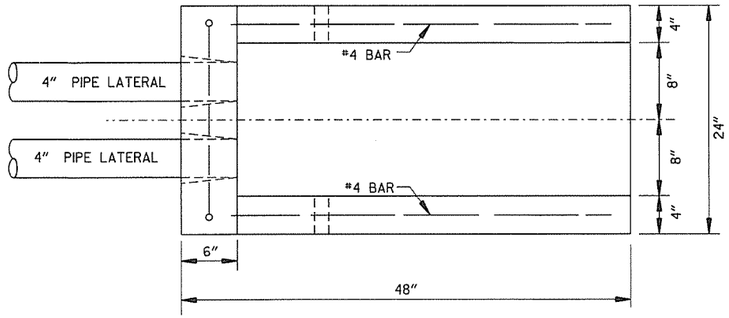
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

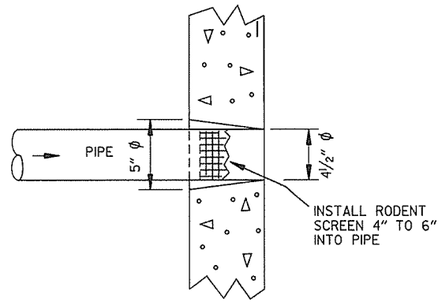
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

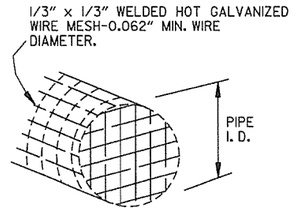
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



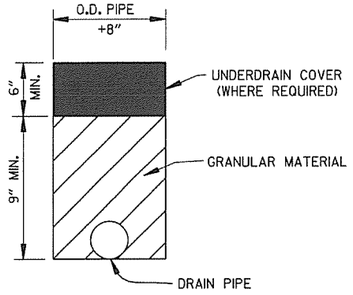
PLAN VIEW

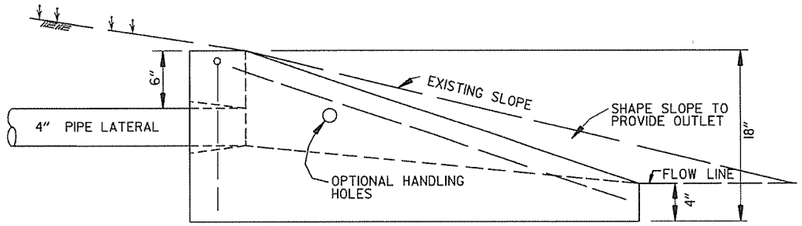


DETAIL OF HOLE FOR 4" PIPE

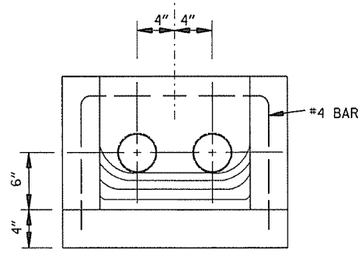


DETAIL OF RODENT SCREEN

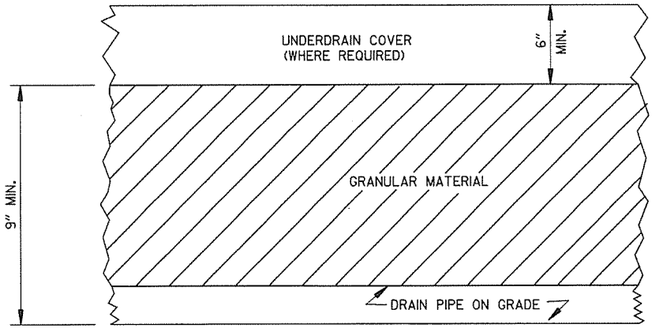




SIDE VIEW

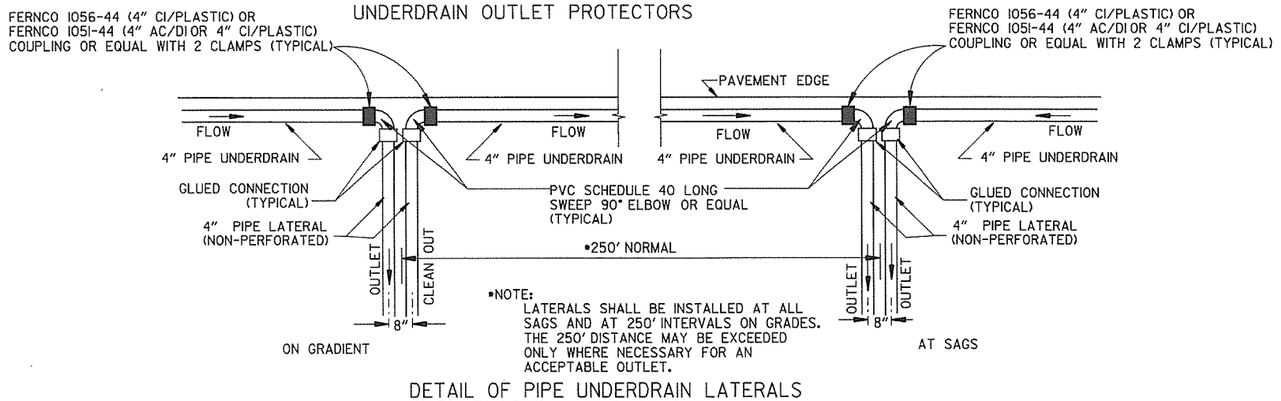


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

DATE	REVISION	DATE FILMED
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

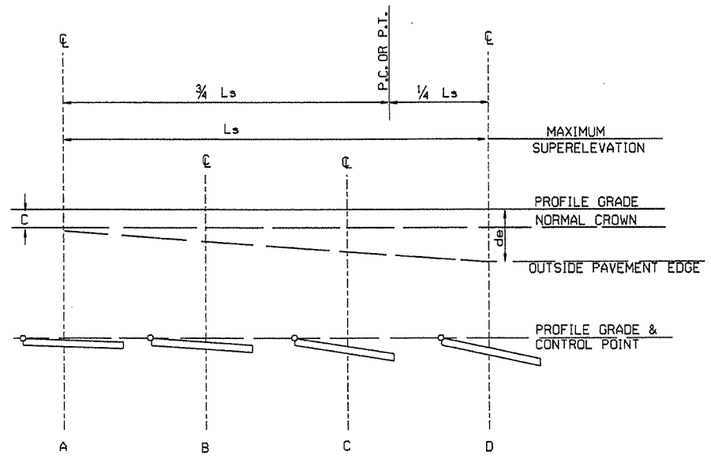
STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

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	250	350	0.037	275	350
1° 15′	N. C.			R. C.			0.026			0.032			0.037	250	350	0.041			0.046		
1° 30′	N. C.			0.021			0.031	200		0.037	225	350	0.043			0.048			0.054		
1° 45′	N. C.			0.025	175		0.036			0.043			0.049			0.055			0.062		
2° 00′	R. C.			0.028			0.040		300	0.048			0.055			0.062			0.070		
2° 15′	R. C.			0.031			0.045			0.053			0.061			0.069	265		0.078	300	400
2° 30′	0.021			0.034			0.049			0.058			0.067			0.075	280		0.085	315	
2° 45′	0.023			0.037			0.053			0.063			0.072			0.081	300		0.091	335	
3° 00′	0.025	150		0.040		250	0.057			0.067	230		0.077	260		0.087	315	400	0.096	350	450
3° 15′	0.027			0.043			0.061			0.072	245		0.082	275		0.090	325		0.098	360	
3° 30′	0.029			0.046			0.065	205		0.076	255		0.086	285		0.095	340		0.100	360	
3° 45′	0.031		250	0.049			0.069	215		0.080	265		0.090	295	400	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	300	0.100	290													
8° 30′	0.061			0.087	225																
9° 00′	0.063			0.089	230																
10° 00′	0.068	160		0.094	235																
11° 00′	0.072	170		0.097	250																
12° 00′	0.076	175		0.099	250																
13° 00′	0.080	180		0.100	250																
14° 00′	0.083	190																			
15° 00′	0.086	195																			
16° 00′	0.089	200																			
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 = $S = -\frac{L(de-C)}{Ls} - C$

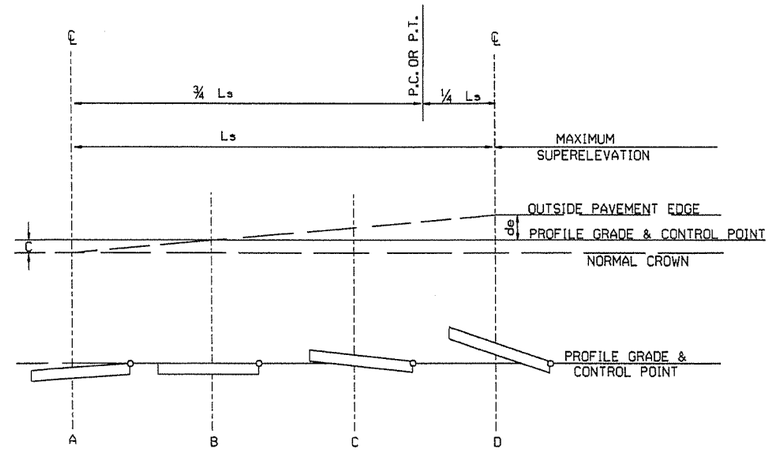
ABBREVIATIONS

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 = $S = +\frac{L(de+C)}{Ls} - C$

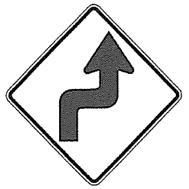
DATE	REVISION	DATE FILMED
01-09-87	ISSUED	578-1-15-87

ARKANSAS STATE HIGHWAY COMMISSION

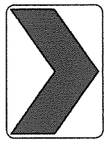
TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1

R1-1
30"X30"

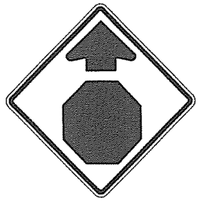


W1-3
30"X30"
(LT. OR RT.)



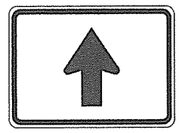
W1-8
18"X24"

W2-5
30"X30"

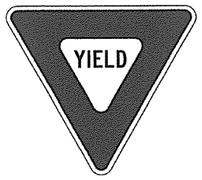


W3-1
36"X36"

W5-1
36"X36"



M6-3
21"X15"

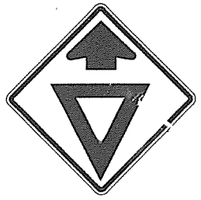


R1-2
36"X36"X36"

W1-4
30"X30"
(LT. or RT.)

W2-1
30"X30"

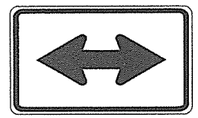
S1-1
36"X36"



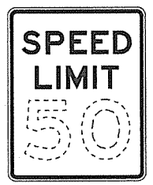
W3-2
36"X36"

County
Route Marker
M1-6
24"X24"

NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.

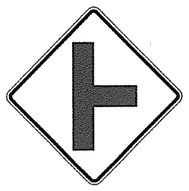


M6-4
21"X15"



R2-1
24"X30"

W1-5
30"X30"
(LT. or RT.)

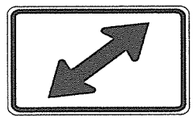


W2-2
30"X30"

W5-2
36"X36"

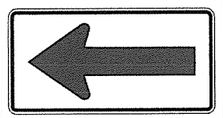
W8-3
36"X36"

R1-3P
18"X6"

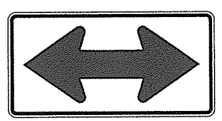


M6-5
21"X15"

W1-1
30"X30"
(LT. or RT.)



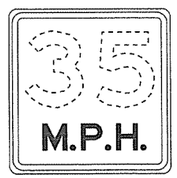
W1-6
48"X24"



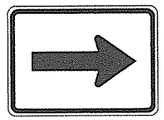
W1-7
48"X24"

W2-3
30"X30"
(LT. or RT.)

W5-3
36"X36"

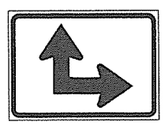


W13-1P
18"X18"



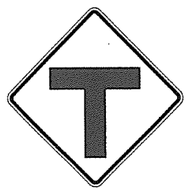
M6-1
21"X15"

NOTE: ALL M6 SIGNS TO BE MADE WITH REFLECTORIZED YELLOW ARROW & BORDER WITH BLUE BACKGROUND.

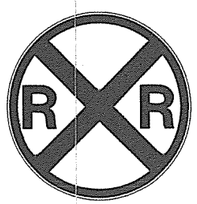


M6-6
21"X15"

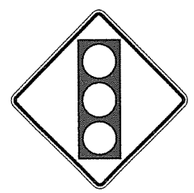
W1-2
30"X30"
(LT. or RT.)



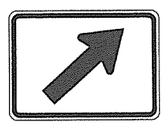
W2-4
30"X30"



W10-1
36" DIAMETER



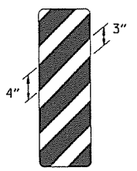
W3-3
36"X36"



M6-2
21"X15"

S4-3P
24"X8"

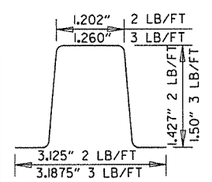
S4-2P
24"X10"



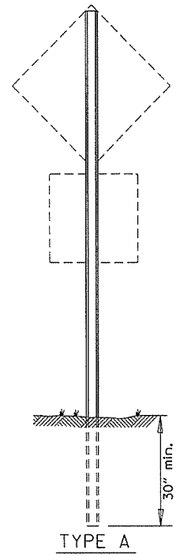
OM-3
12"X36"
(LT. or RT.)

MINIMUM DIMENSIONS SHOWN

SUPPORT SECTION

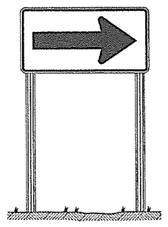


(U-CHANNEL)
STANDARD SUPPORT
ASSEMBLIES

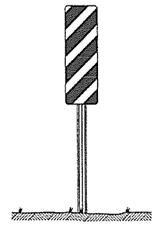


TYPE A

NOTE: LENGTH OF SIGN POSTS SHALL BE DETERMINED SO AS TO PROVIDE FOR MINIMUM VERTICAL CLEARANCES AS CALLED FOR IN THE SPECIFICATIONS PLUS A MINIMUM VERTICAL PENETRATION OF 30" IN THE SOIL.



TYPE B



TYPE C

MINIMUM WEIGHT

TYPE A & B = 3 LBS./FT.
TYPE C = 2 LBS./FT.

STANDARD HIGHWAY SIGNS

DATE	REVISION	DATE FILMED
9-12-13	DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P	
4-17-08	REVISED SIGN DESIGNATION - W3-1 & W3-2	
4-10-03	REVISED W5-2, W8-3, OM-3; ADDED WI-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED W14-3	877-9-15-78
9-2-76	POST WT.	623-9-3-76
5-3-76	STEEL POST WT. FROM 2"-3#; ADDED S4-2 & S4-3	504-5-3-76
8-12-74	REV. WT. TYPE "C" ASSEMBLY	500-8-21-74
12-21-72	ADDED M6-2,3,4,5,6	500-12-21-72
12-1-72	ISSUED	562-12-1-72

SUPPORT ASSEMBLIES

ARKANSAS STATE HIGHWAY COMMISSION

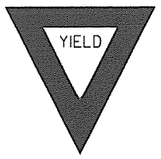
STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

STANDARD DRAWING SHS-1

R1-1

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

R1-2



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

R2-1

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

R2-5A

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

R2-5C

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

R4-1

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

R4-2

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

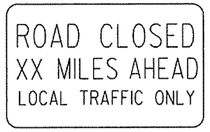
R5-1

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

RII-2

48"X30"

RII-3A



60"X30"

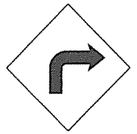
RII-4

60"X30"

RSP-1

48"X30"

WI-1



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

WI-2

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

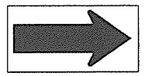
WI-3

STD. 48"X48"

WI-4

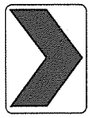
STD. 48"X48"

WI-6



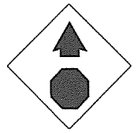
STD. 48"X24"
SPECIAL 60"X30"

WI-8



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

W3-1

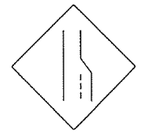


STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2

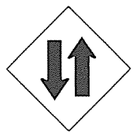


STD. 36"X36"
FWY. 48"X48"

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"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

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

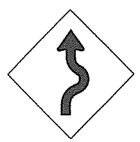
W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

WI-4b

STD. 48"X48"

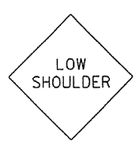
R56-1

STD. 18"X18"

W8-11

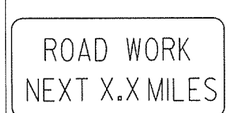
STD. 36"X36"
FWY. 48"X48"

W8-9



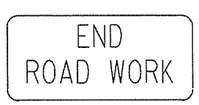
STD. 36"X36"
FWY. 48"X48"

G20-1



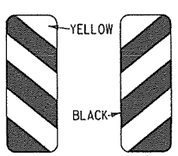
60"X24"

G20-2



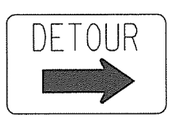
48"X24"

OM-3L OM-3R



12"X36"

M4-9



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

M4-10

48"X18"

R55-1

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

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.

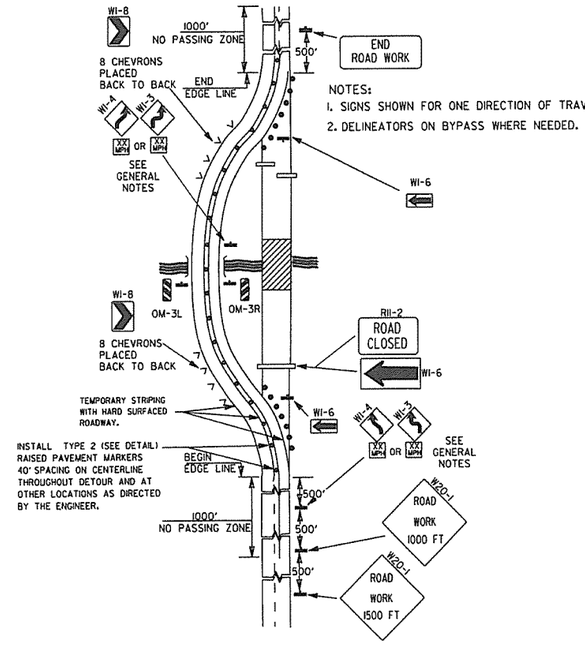
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

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

ARKANSAS STATE HIGHWAY COMMISSION

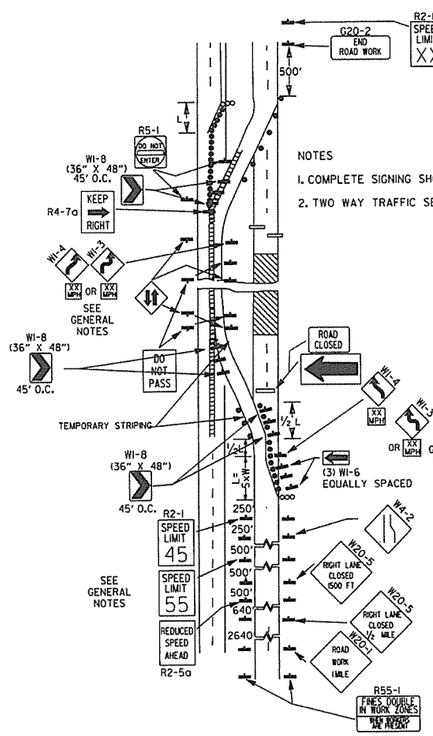
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



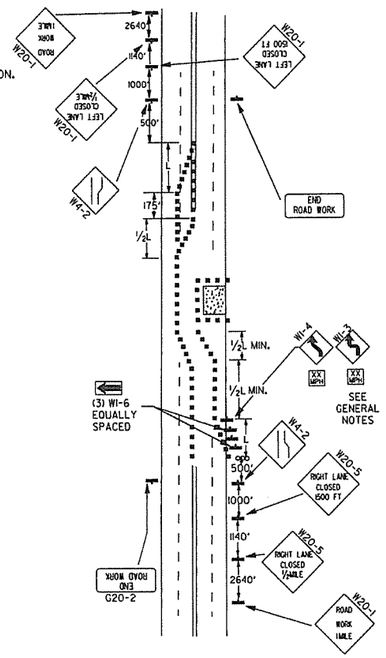
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

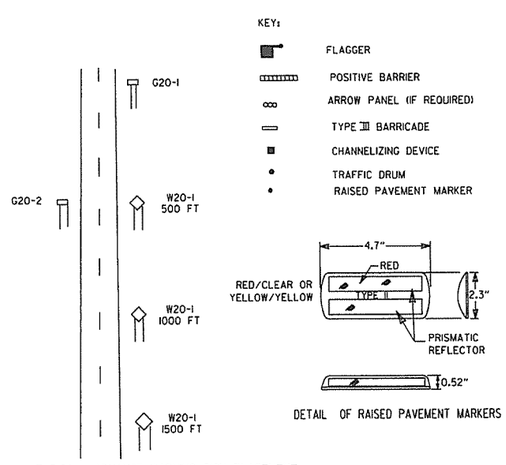


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

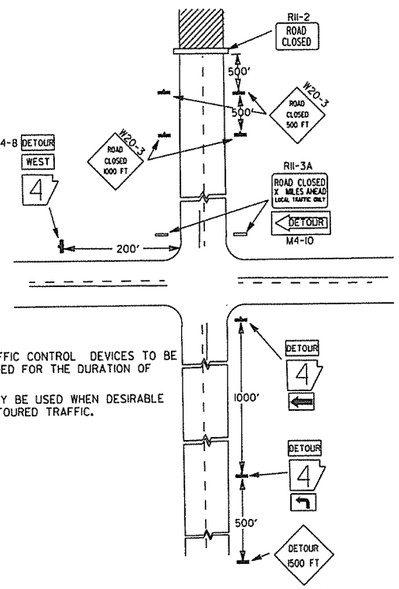
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



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

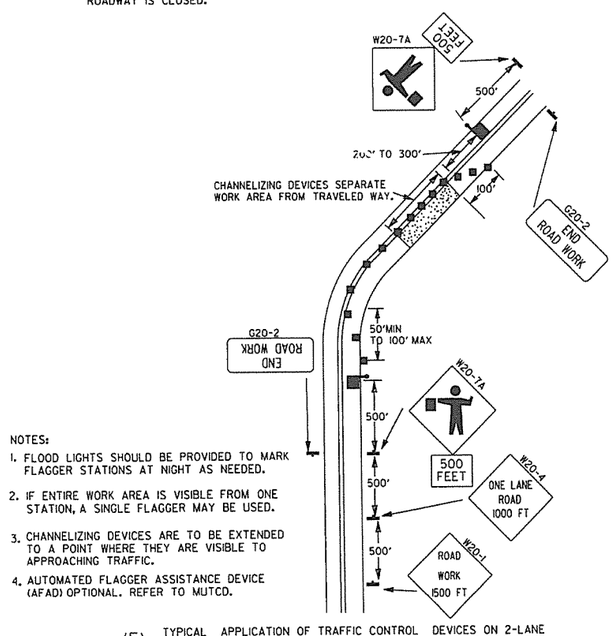


TYPICAL ADVANCE WARNING SIGN PLACEMENT



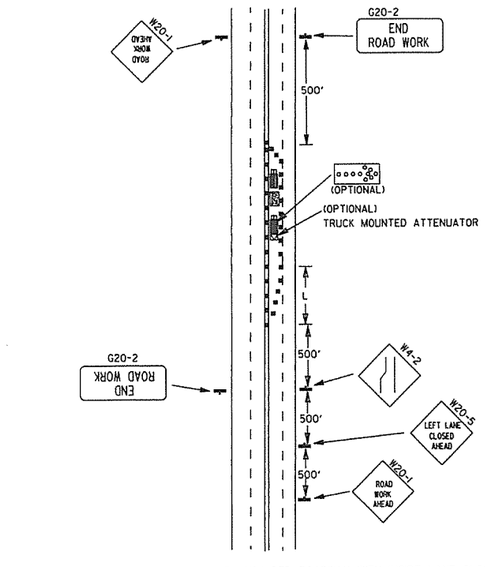
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



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

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



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

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

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

GENERAL NOTES:

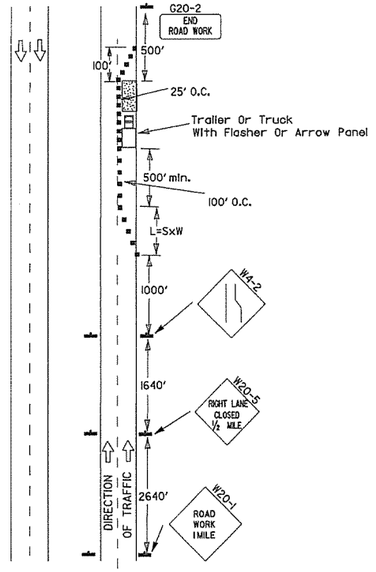
1. ADVISORY SPEED POSTED ON WI-3 OR WI-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED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

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

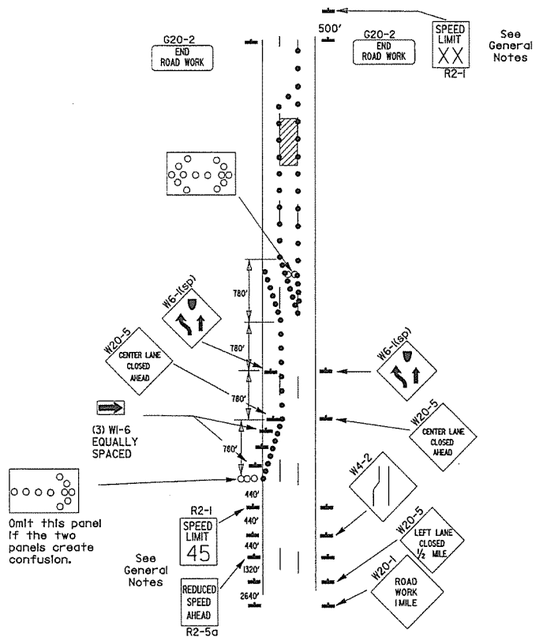
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

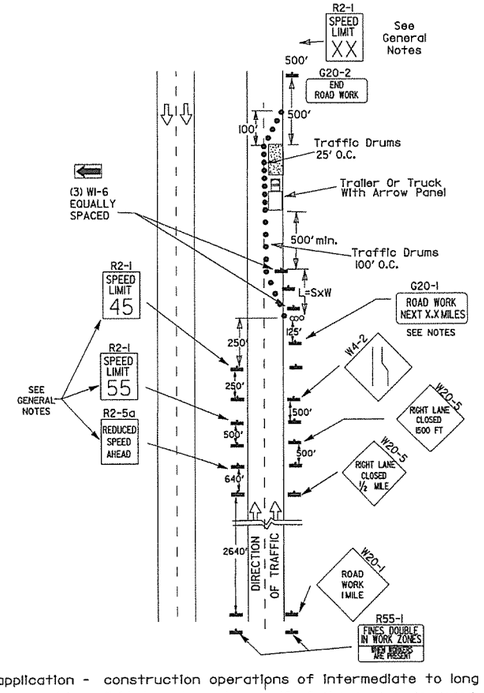
STANDARD DRAWING TC-2



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



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



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

KEY:

○○○ Arrow Panel (If Required)

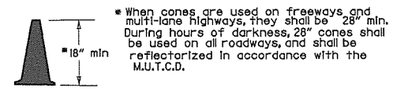
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

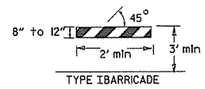
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional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

Channelizing devices



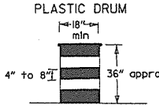
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

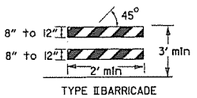
CONES



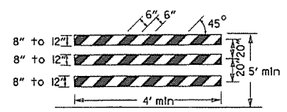
TYPE I BARRICADE

PLASTIC DRUM



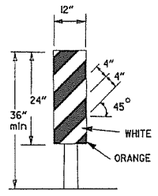


TYPE II BARRICADE



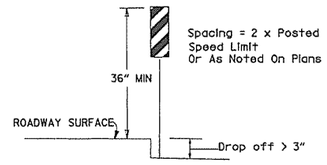
TYPE III BARRICADE

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



VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT



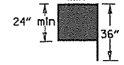
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

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

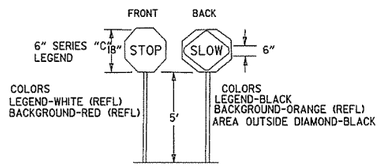
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

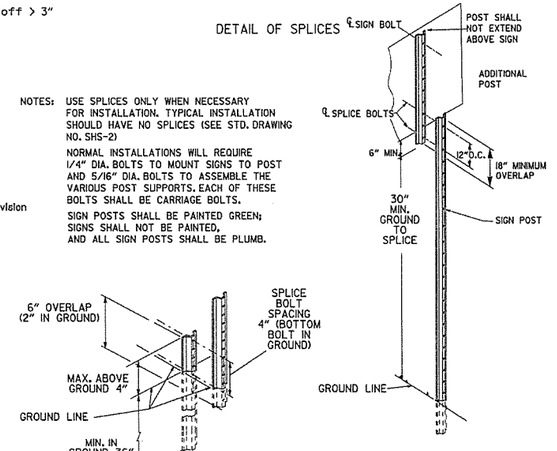
FLAG



Flag shall be of good grade red material

STOP SLOW PADDLE





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

DETAIL OF SPLICES

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

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

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

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

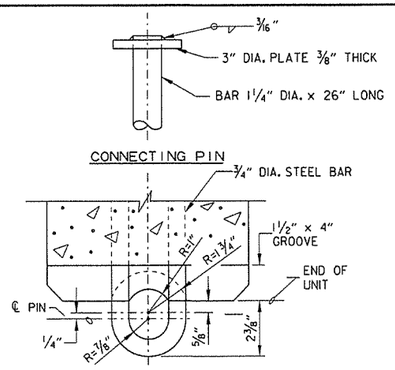
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

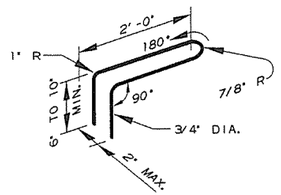
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

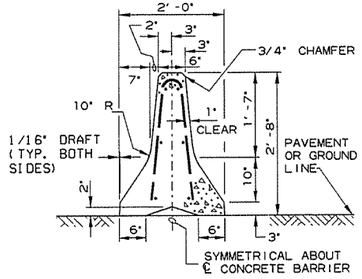
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", LIFTING HOLE, 90°, 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-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°, 1'-9", 1 1/2", 2'-1 3/8", 4 3/8"



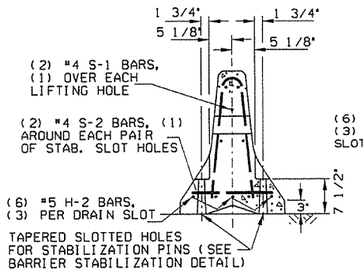
CONNECTION DETAILS



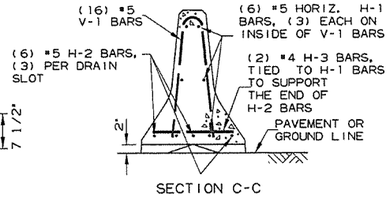
CONNECTION LOOP



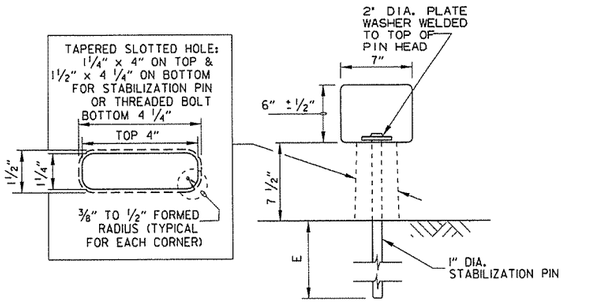
SECTION A-A



SECTION B-B



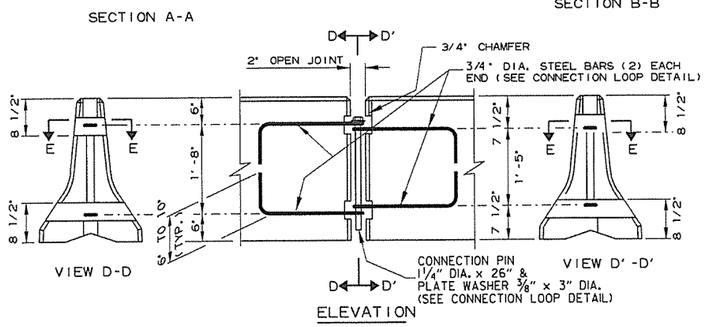
SECTION C-C



BARRIER STABILIZATION DETAIL

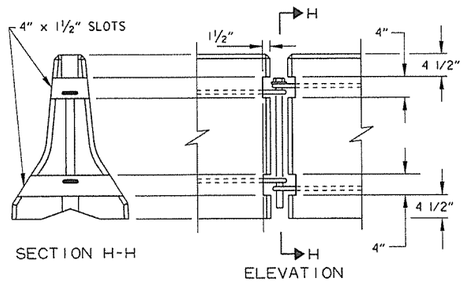
ROADWAY SECTION

(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas

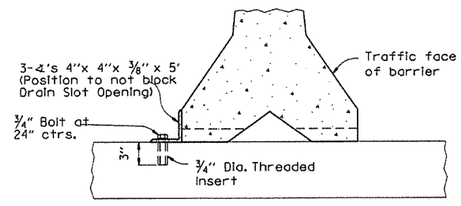


VIEW D-D VIEW D'-D'

ELEVATION



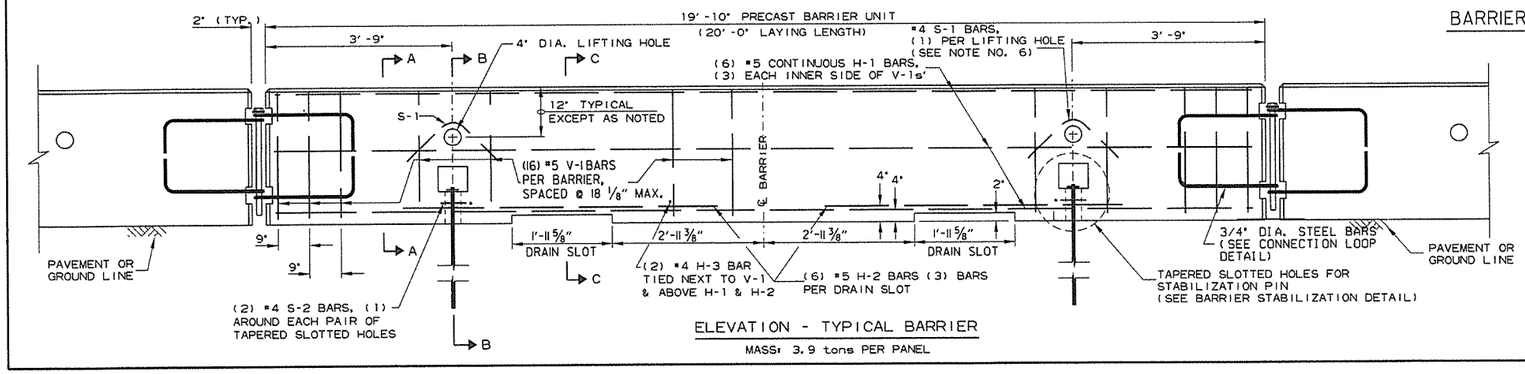
BARRIER REMOVAL SLOT DETAILS



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL

BRIDGE DECKS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

(1) The contractor shall furnish the Precast Concrete Barrier Units and shall be responsible for the manufacture, shipment, storage, placement and removal. At the completion of the project, the precast units will remain the property of the contractor.

(2) Materials shall meet the following minimum requirements:
Concrete: 2500 psi compressive strength at 28 days.
Reinforcing Steel: AASHTO M 31 or M 53, Grade 60
Structural Steel: AASHTO-M270 Grade 36 shall be used for the Connection Pin, Connection Loops, and Stabilization Pins. A One Piece Pin with a 3" rounded top may be used in place of the detailed Connection Pin.
Delineators: Delineators shall be mounted at 10' spacing on top of precast barrier.

In applications where barrier wall is within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers.
Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices.
Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier". The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.

(3) Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 or Manual For Assessing Safety Hardware (MASH) will be accepted in lieu of the barrier shown. Drain slots shall be provided as needed or as directed by the Engineer. The Contractor shall furnish a certification of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) compliance for any other types of precast barrier to be used. The certification shall state that the precast concrete barrier meets the requirements of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. Mixing of shapes will not be allowed in a continuous line of units.

(4) Dowel holes in pavement or bridge slabs that are to remain in place shall be filled. Holes in concrete pavement and bridge slabs shall be filled with an approved non-shrink epoxy grout. Holes in asphalt pavement shall be filled with an approved asphalt joint filler. Payment for drilling and filling holes to be included in the price for various barrier items.

(5) Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.

(6) A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.

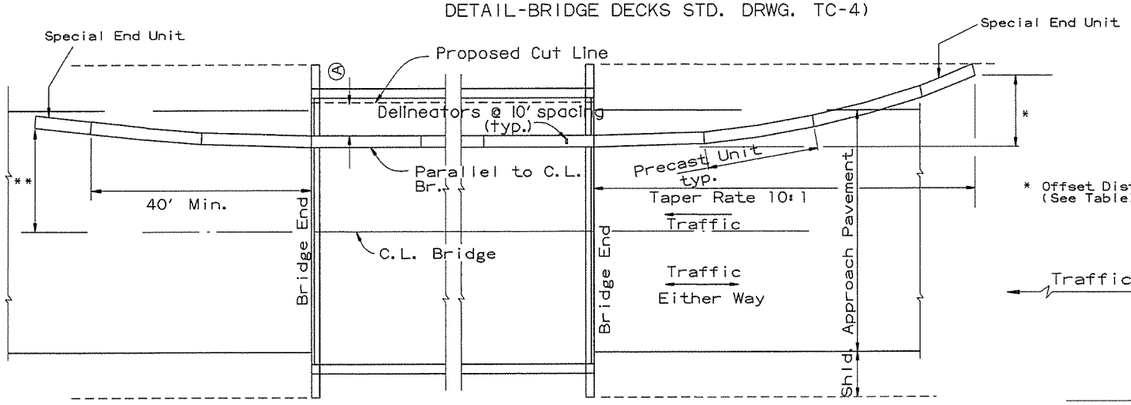
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

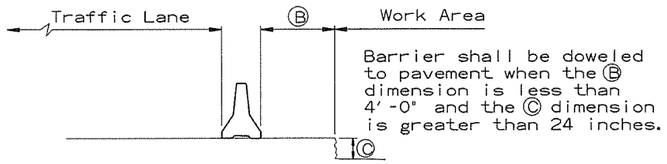
STANDARD DRAWING TC-4

Ⓐ 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

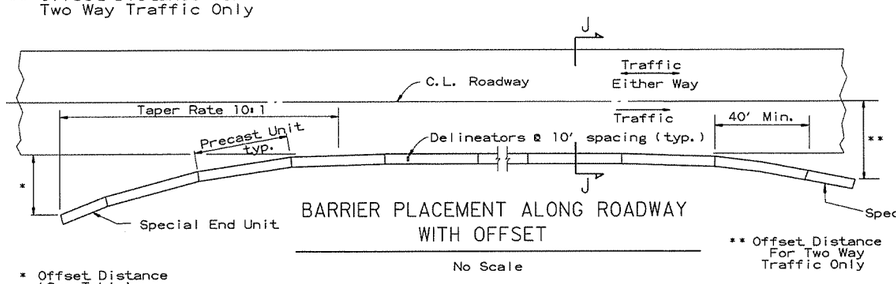


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

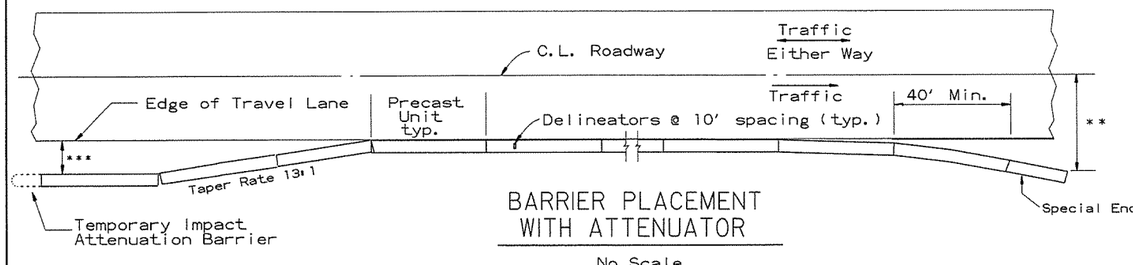
** Offset Distance For Two Way Traffic Only

* 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.

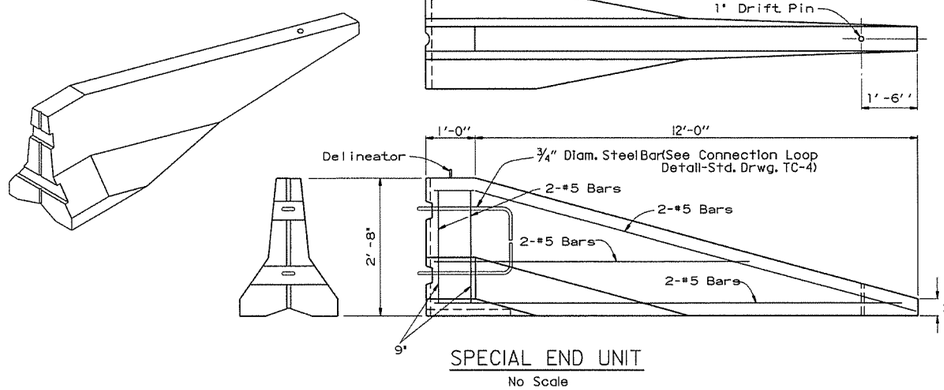


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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



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	

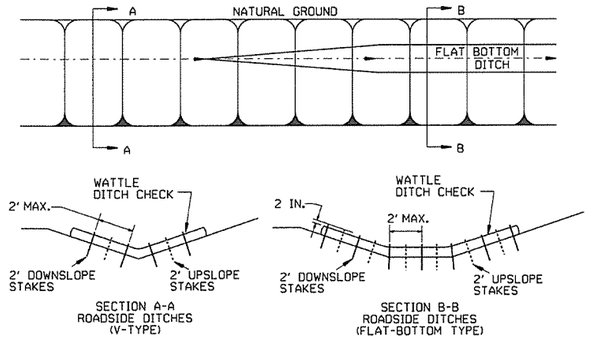
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

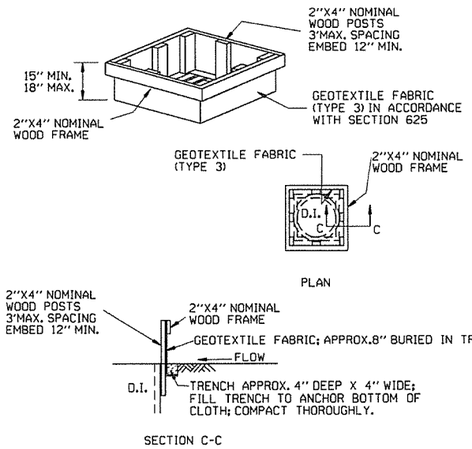
STANDARD DRAWING TC-5

GENERAL NOTES

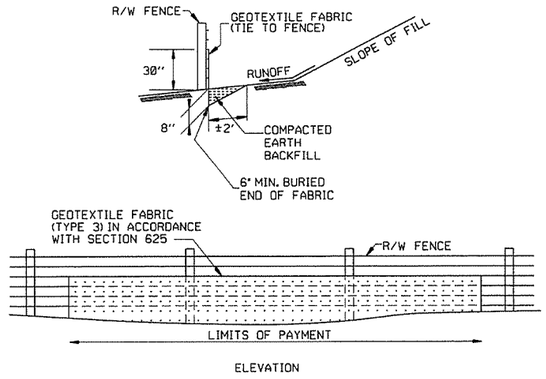
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

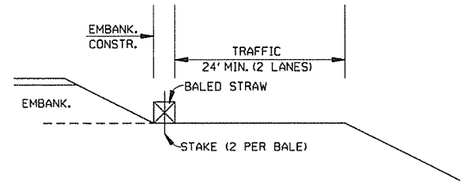
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

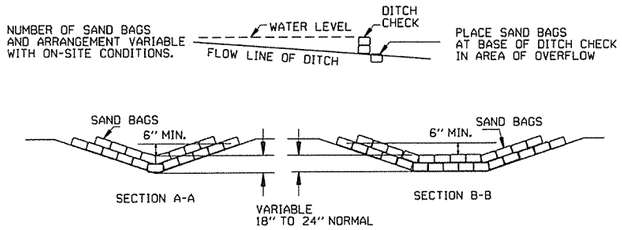
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

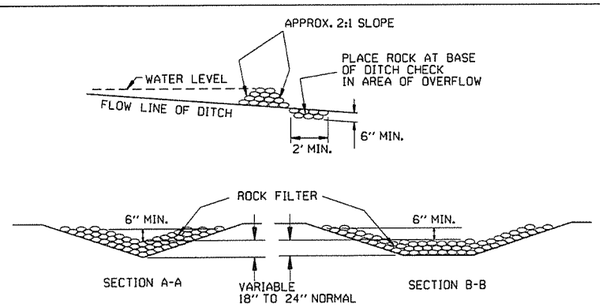
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



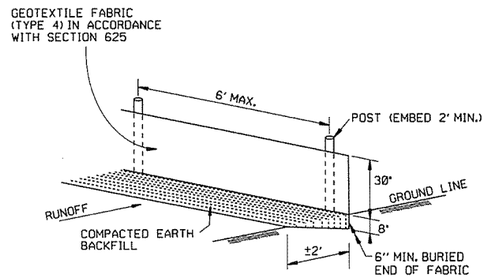
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

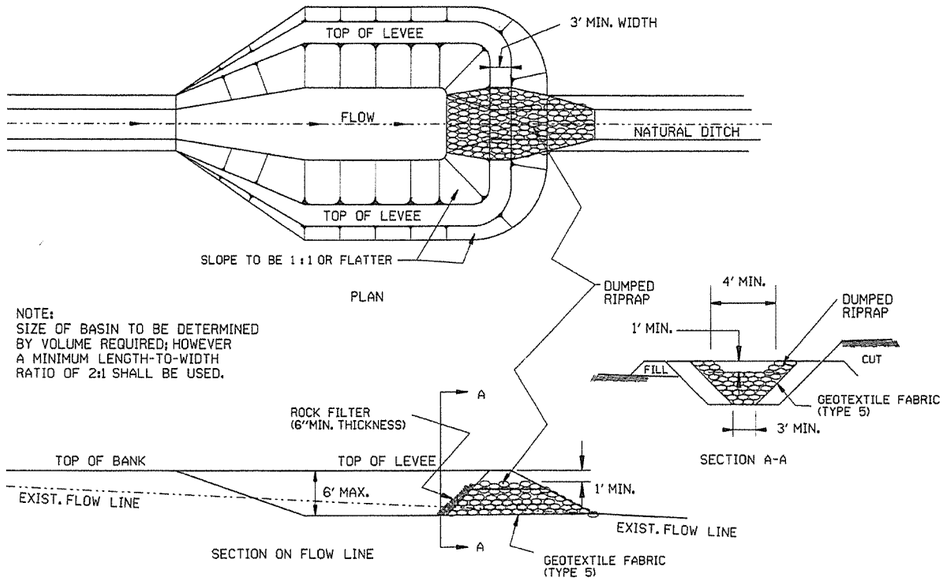
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

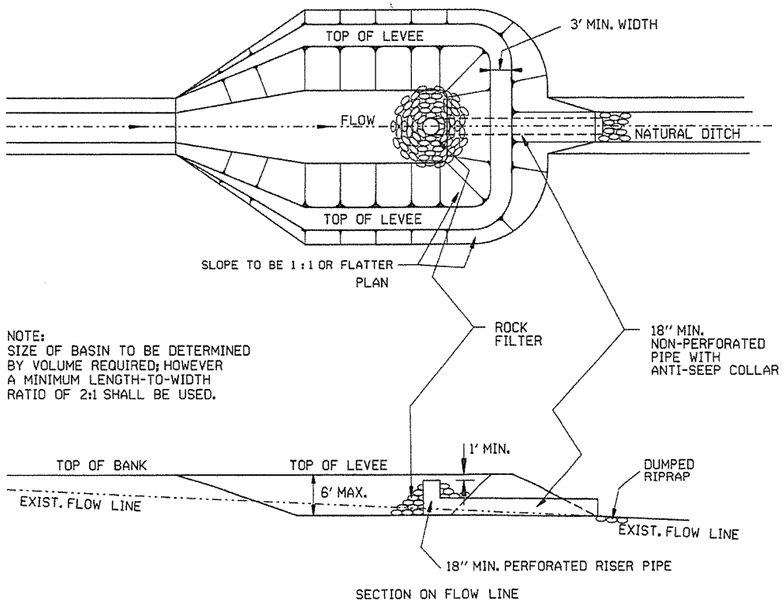
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

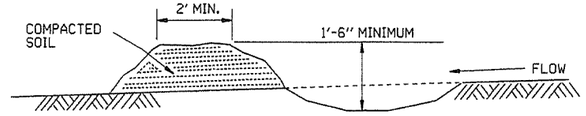
STANDARD DRAWING TEC-1



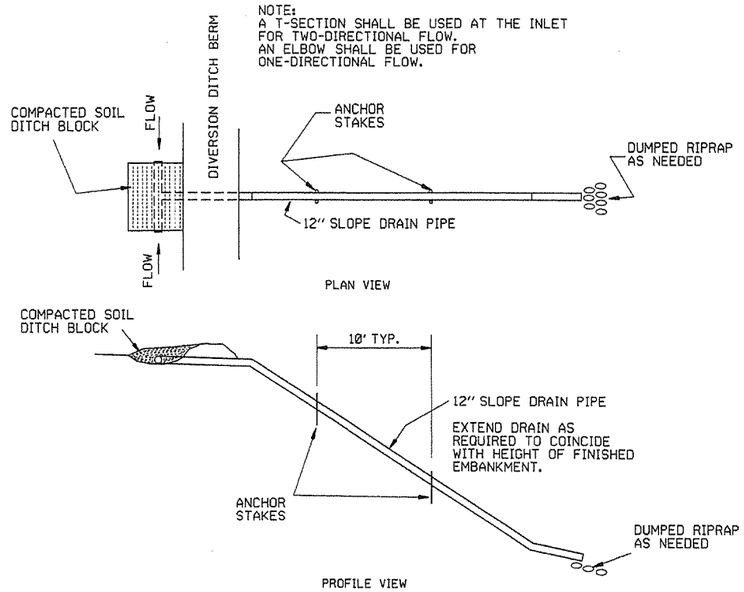
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



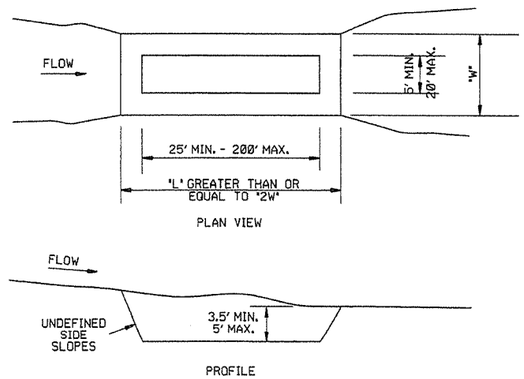
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



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

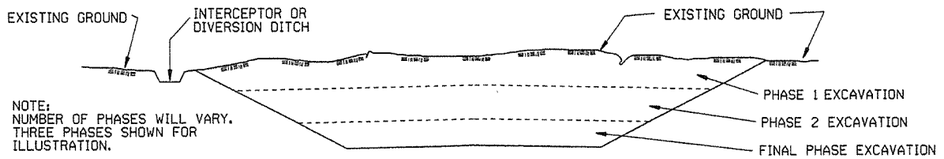
STANDARD DRAWING TEC-2

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



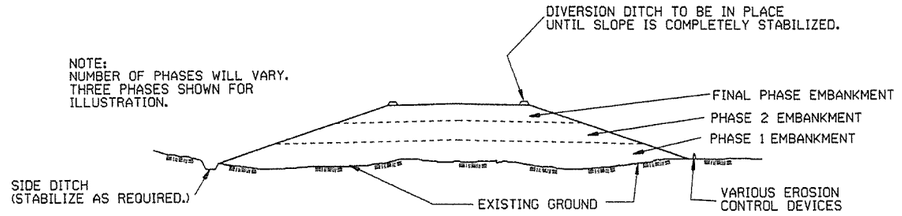
GENERAL NOTE

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