DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	1	78
				(2)	HWY. 64-MILL CREEK (S)			

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

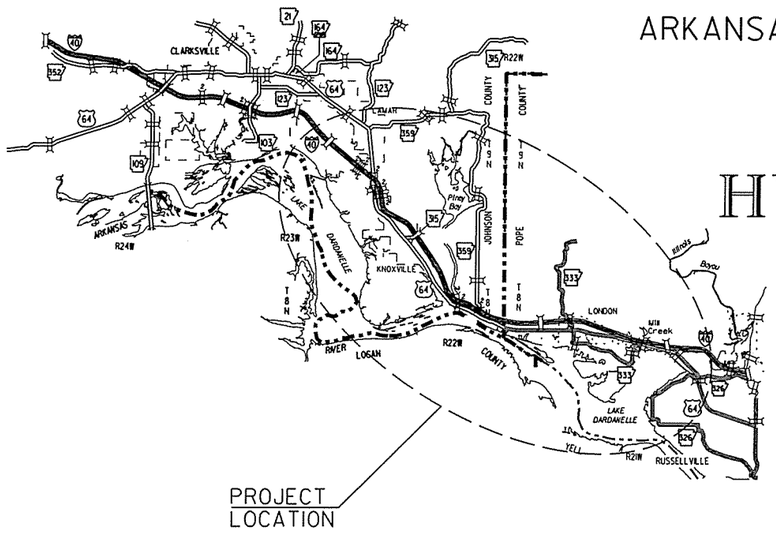
HWY. 64 - MILL CREEK (S)

JOHNSON & POPE COUNTIES

ROUTE 40 SECTION 21 & 22

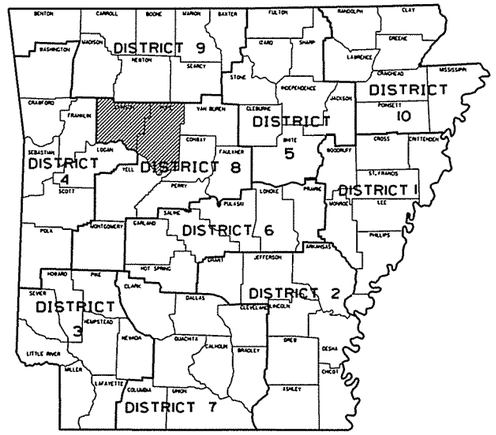
FEDERAL AID PROJ. BIM-B40-0(222) & 9050

JOB BB0803



VICINITY MAP

NOT TO SCALE



ARK. HWY. DIST. NO. 8

BRIDGE DATA

△1 STA. 3418+71.70 BR. END
EXISTING 111.18' BRIDGE NO. A3778
39'-0" CLEAR ROADWAY
STA. 3419+82.88 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△2 STA. 3418+61.36 BR. END
EXISTING 111.18' BRIDGE NO. B3778
39'-0" CLEAR ROADWAY
STA. 3419+72.54 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△3 STA. 3732+39.50 BR. END
EXISTING 132.17' BRIDGE NO. A3314
39'-0" CLEAR ROADWAY
STA. 3733+71.67 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△4 STA. 3732+39.50 BR. END
EXISTING 132.17' BRIDGE NO. B3314
39'-0" CLEAR ROADWAY
STA. 3733+71.67 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△5 STA. 3916+64.80 BR. END
EXISTING 131.17' BRIDGE NO. A3316
39'-0" CLEAR ROADWAY
STA. 3917+95.97 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△6 STA. 3916+72.18 BR. END
EXISTING 131.17' BRIDGE NO. B3316
39'-0" CLEAR ROADWAY
STA. 3918+03.55 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

STRUCTURES OVER 20'-0" SPAN

[1] STA. 3407+00 IN PLACE
QUAD. 6' X 7' X 382' R.C. BOX CULV'T.
D.A. 880 ACRES, C = 1.0
RETAIN

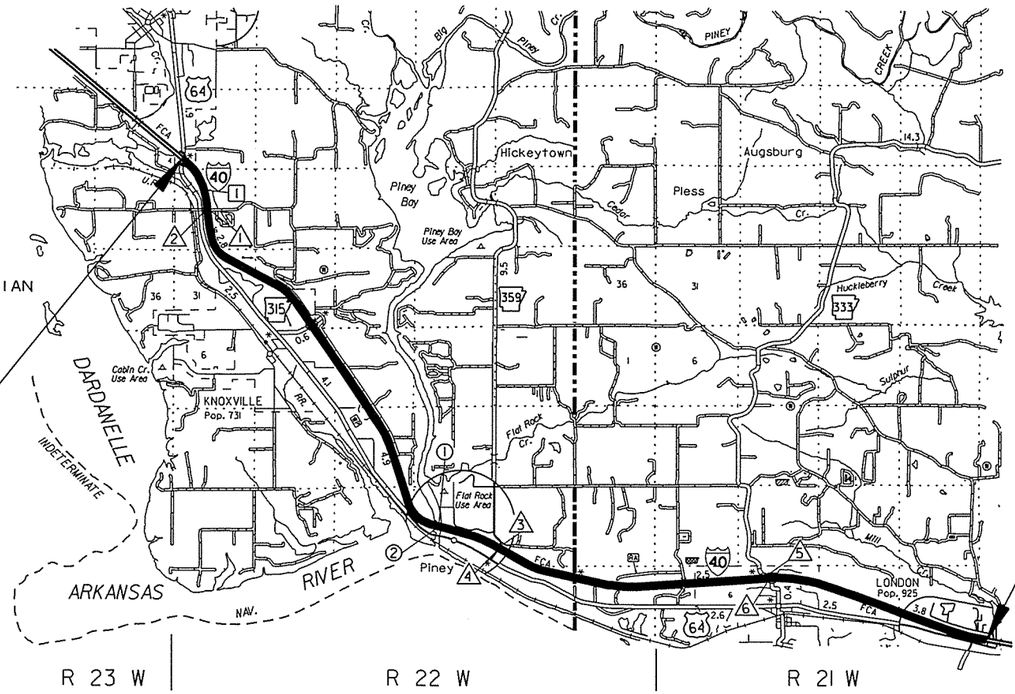
EXCEPTIONS TO JOB BB0803 (BRIDGES)

① STA. 3686+30.05 BR. END
712.12' BRIDGE NO. A3313
39'-0" CLEAR ROADWAY
STA. 3693+42.17 BR. END

② STA. 3686+50.05 BR. END
652.12' BRIDGE NO. B3313
39'-0" CLEAR ROADWAY
STA. 3693+02.17 BR. END

TOTAL LENGTH OF EXCEPTIONS
652.12' MEASURED ALONG ℄ MEDIAN

R 23 W | R 22 W | R 21 W



T 9 N

T 8 N

STA. 3382+43.24
BEGIN JOB BB0803
(LOG MILE 63.8)

STA. 4068+27.56
END JOB BB0803
(LOG MILE 76.8)

DESIGN TRAFFIC DATA

DESIGN YEAR	2014
2014 ADT	25,000
2034 ADT	33,000
2034 DHV	3,630
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	33%
DESIGN SPEED	70 MPH

APPROVED

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

DEPUTY DIRECTOR AND CHIEF ENGINEER

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°24'50"	LATITUDE = N 35°20'37"	LATITUDE = N 35°19'28"
LONGITUDE = W 93°23'02"	LONGITUDE = W 93°19'03"	LONGITUDE = W 93°12'25"

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF	PROJECT	68584.32	FEET OR	12.989	MILES
NET " "	ROADWAY	67557.68	"	12.795	"
NET " "	BRIDGES	374.52	"	.071	"
NET " "	PROJECT	67932.20	"	12.866	"

5/14/2014

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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
				6	ARK.			
				JOB NO.		BB0803	2	78

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
6-11-14

INDEX OF SHEETS

GENERAL NOTES

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

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
620-1	MULCH COVER
JOB BB0803	BRIDGE DECK REPAIR
JOB BB0803	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0803	CONCRETE DITCH PAVING
JOB BB0803	COORDINATION OF WORK
JOB BB0803	ELECTRONIC SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0803	EMPLOYMENT REPORTING
JOB BB0803	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0803	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0803	HYDRODEMOLITION
JOB BB0803	LATEX MODIFIED CONCRETE OVERLAY
JOB BB0803	MAINTENANCE OF TRAFFIC
JOB BB0803	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB0803	MANDATORY USE OF INTERNET BIDDING
JOB BB0803	PARTNERING REQUIREMENTS
JOB BB0803	PERCENT WITHIN LIMITS
JOB BB0803	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB BB0803	REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKER
JOB BB0803	SEQUENCE OF CONSTRUCTION
JOB BB0803	SITE USE (A + C METHOD)
JOB BB0803	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB BB0803	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0803	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0803	TRENCHING AND SHOULDER PREPARATION
JOB BB0803	UNDERDRAIN FLUSHING AND REHABILITATION
JOB BB0803	UTILITY ADJUSTMENTS
JOB BB0803	VALUE ENGINEERING
JOB BB0803	WARM MIX ASPHALT
JOB BB0803	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB0803	WIRE ROPE SAFETY FENCE (POST REPAIR)
JOB BB0803	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB0803	WRSF TRAINING WORKSHOP

6/4/2014

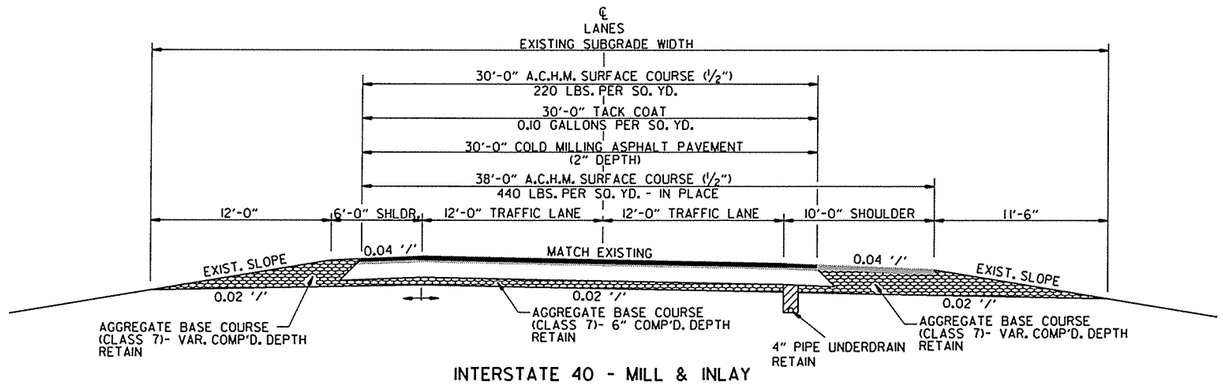
RBB0803.DGN

INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & GENERAL NOTES

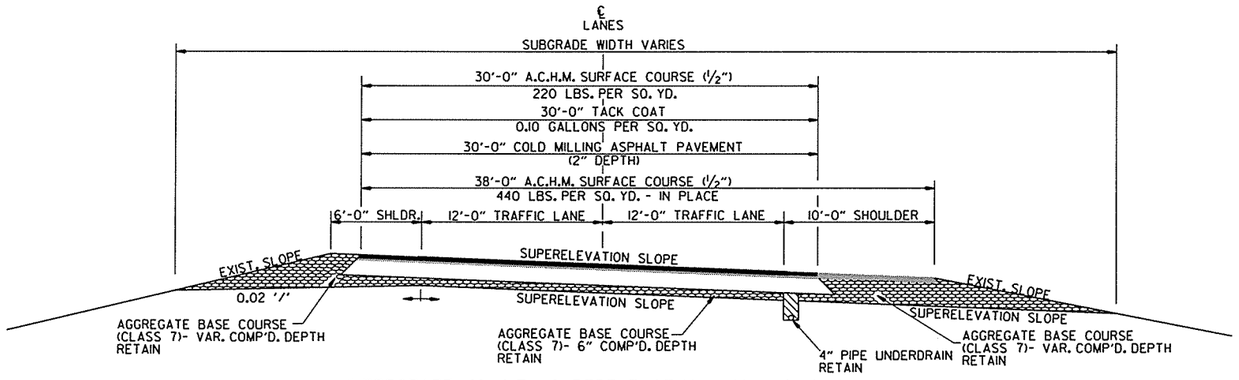
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	3	78

(2) TYPICAL SECTIONS OF IMPROVEMENT

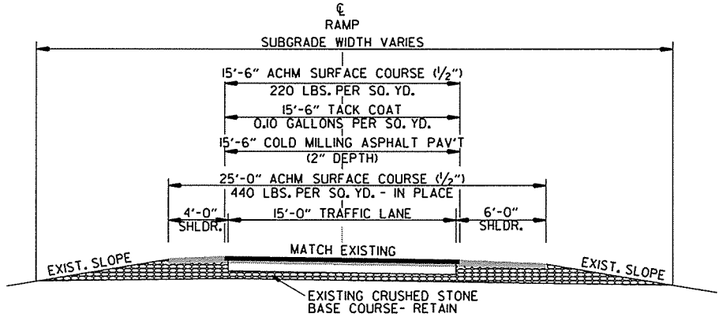
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



INTERSTATE 40 - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



INTERSTATE 40 WITH SUPERELEVATION - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



TYPICAL RAMP - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)

TYPICAL SECTIONS OF IMPROVEMENT

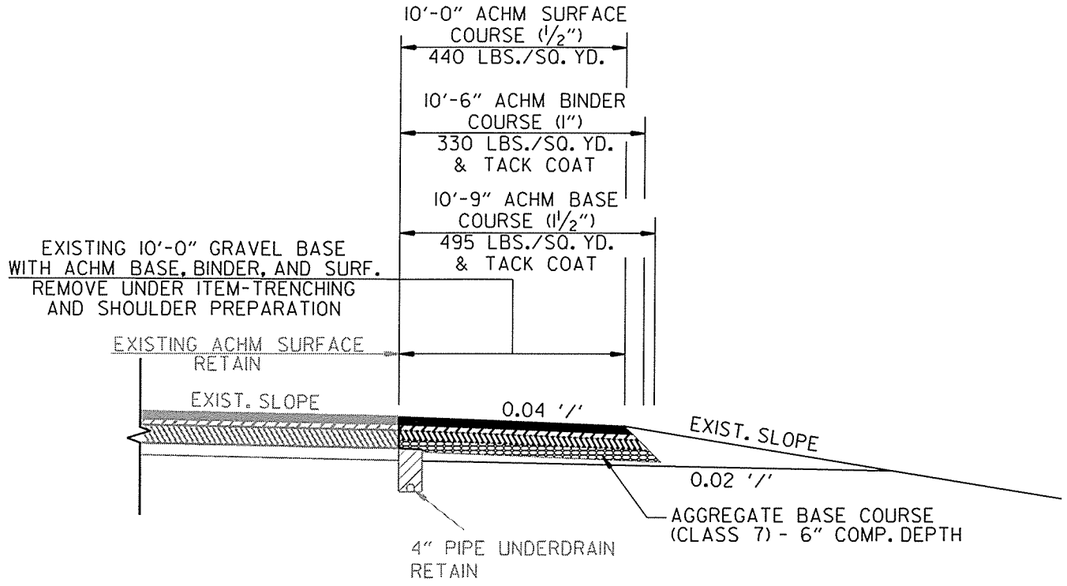
5/14/2014

RBB0803.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	4	78

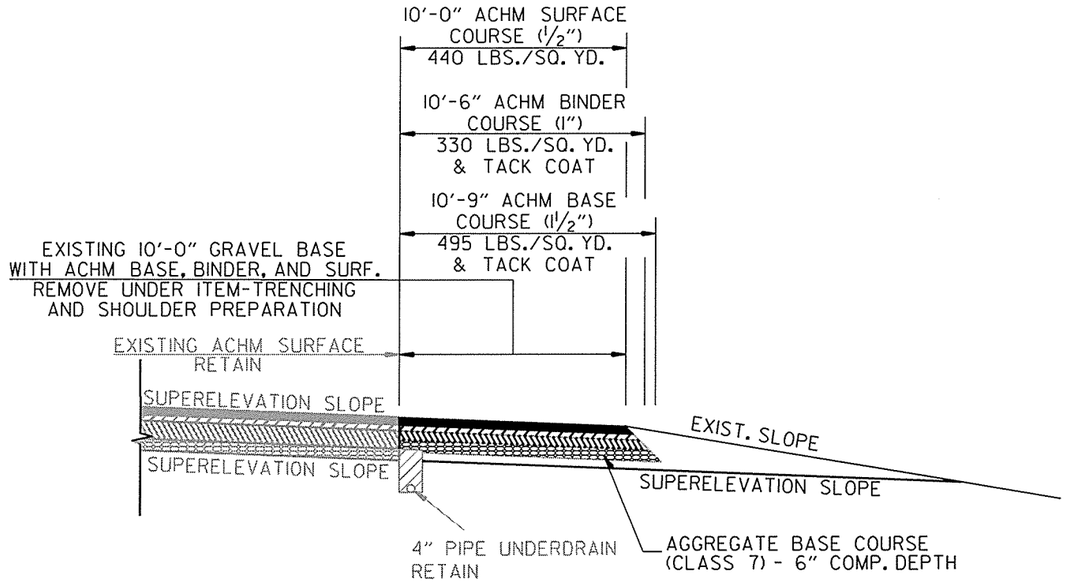
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



TYPICAL SECTION OF SHOULDER RECONSTRUCTION
FOR MAINTENANCE OF TRAFFIC

STA. 3415+95.20 TO STA. 3418+35.20 (LT. OF LT. MAIN LANES)
STA. 3420+19.38 TO STA. 3422+59.38 (LT. OF LT. MAIN LANES)
STA. 3729+63.00 TO STA. 3732+03.00 (LT. OF LT. MAIN LANES)
STA. 3734+08.17 TO STA. 3736+48.17 (LT. OF LT. MAIN LANES)
STA. 3415+84.86 TO STA. 3418+24.86 (RT. OF RT. MAIN LANES)
STA. 3420+09.04 TO STA. 3422+49.04 (RT. OF RT. MAIN LANES)
STA. 3729+63.00 TO STA. 3732+03.00 (RT. OF RT. MAIN LANES)
STA. 3734+08.17 TO STA. 3736+48.17 (RT. OF RT. MAIN LANES)



TYPICAL SECTION OF SHOULDER RECONSTRUCTION
FOR MAINTENANCE OF TRAFFIC

STA. 3913+88.30 TO STA. 3916+28.30 (LT. OF LT. MAIN LANES)
STA. 3918+32.47 TO STA. 3920+72.47 (LT. OF LT. MAIN LANES)
STA. 3913+95.68 TO STA. 3916+35.68 (RT. OF RT. MAIN LANES)
STA. 3918+40.05 TO STA. 3920+80.05 (RT. OF RT. MAIN LANES)

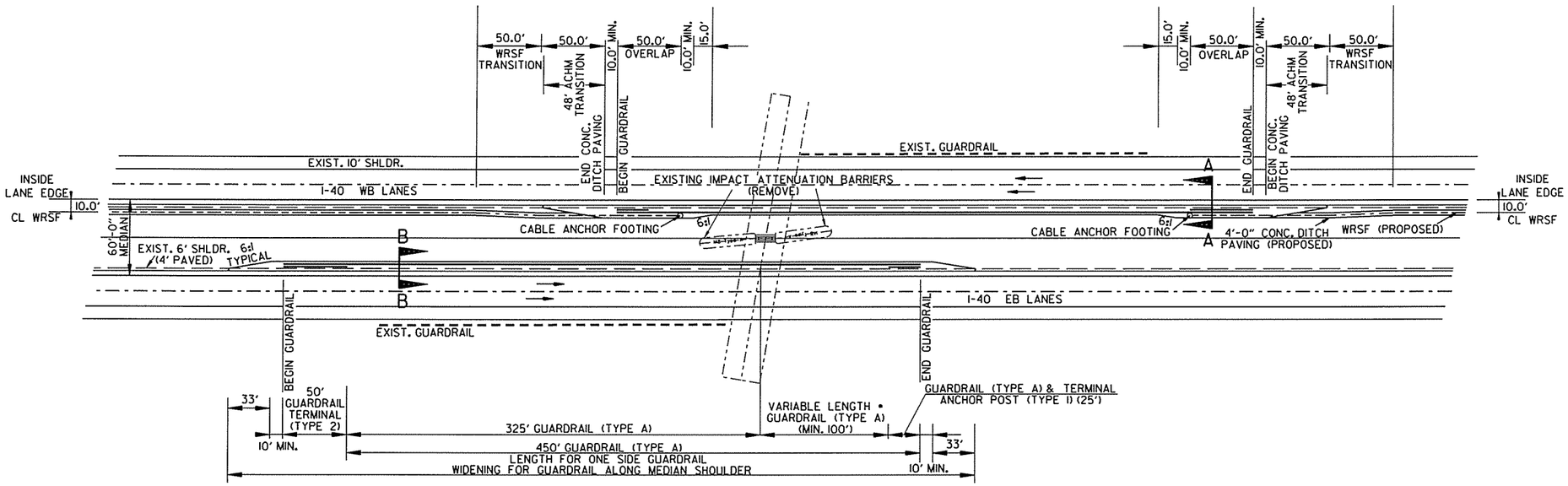
RBB0803.DGN 5/14/2014

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	5	78

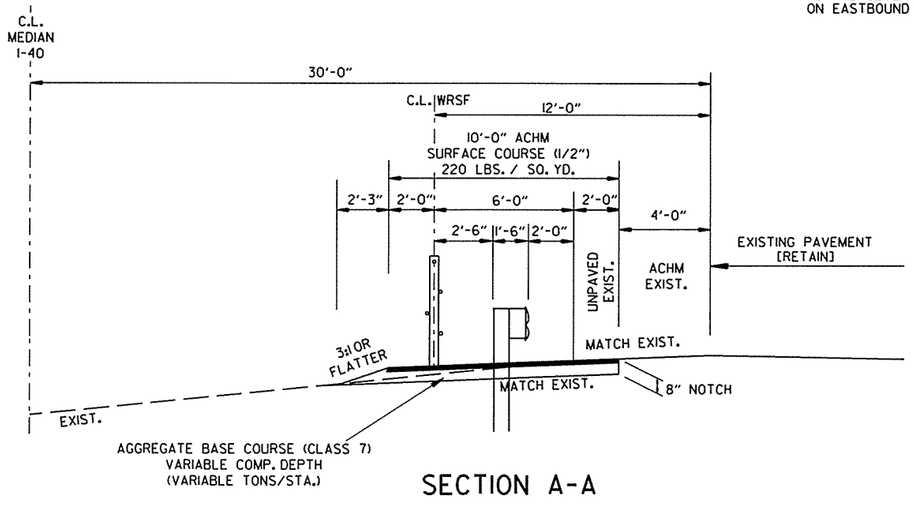
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

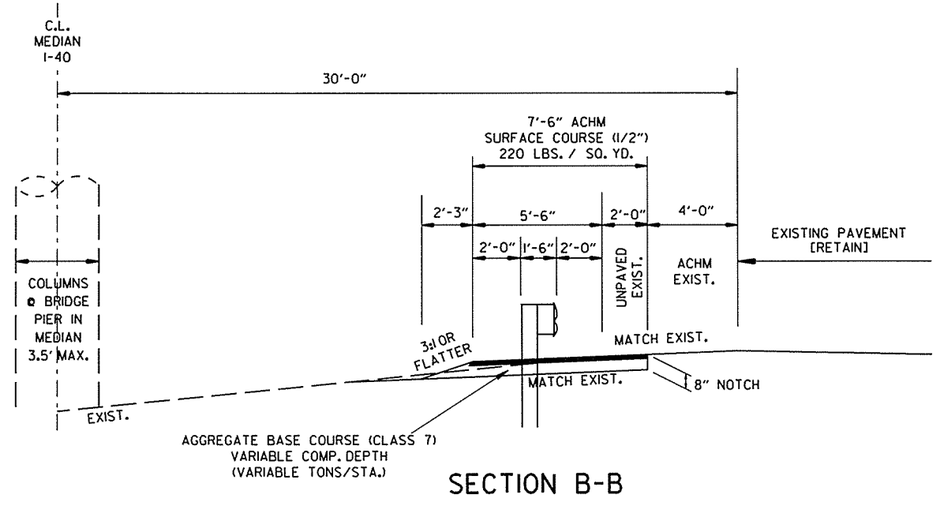


DETAIL AT OVERPASSES

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



SECTION A-A



SECTION B-B

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

5/14/2014

RBB0803.DGN

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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(2) SPECIAL DETAILS

STATE OF ARKANSAS
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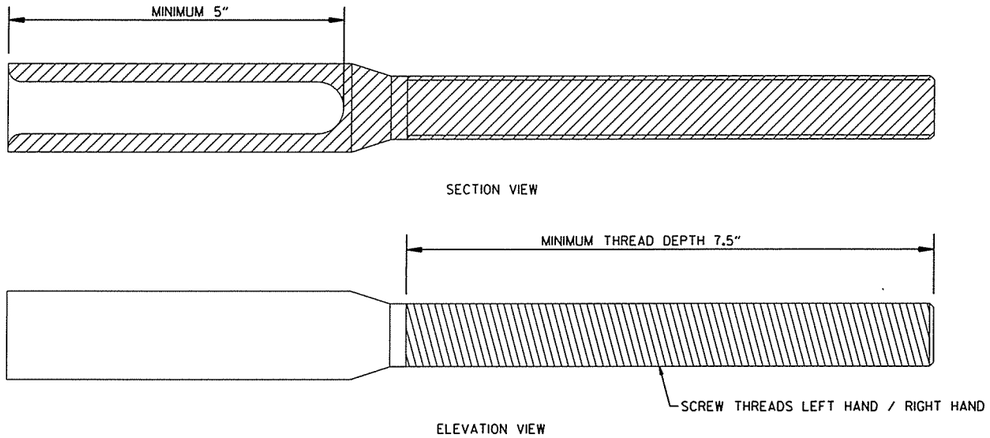
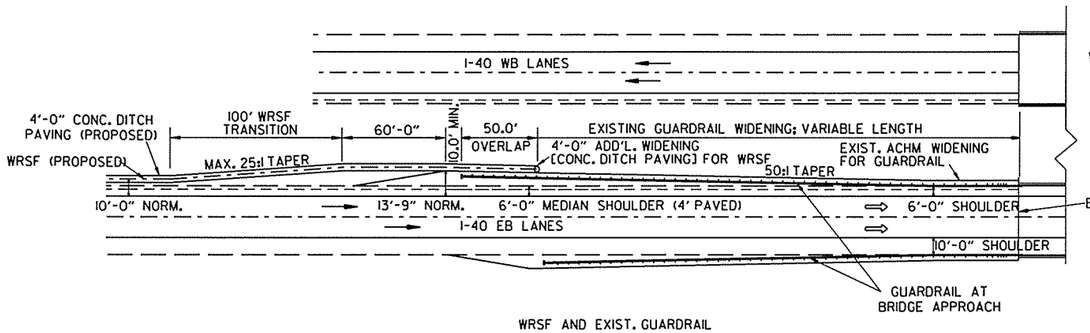
No. 11425
TRINITY D. SMITH
5-28-14



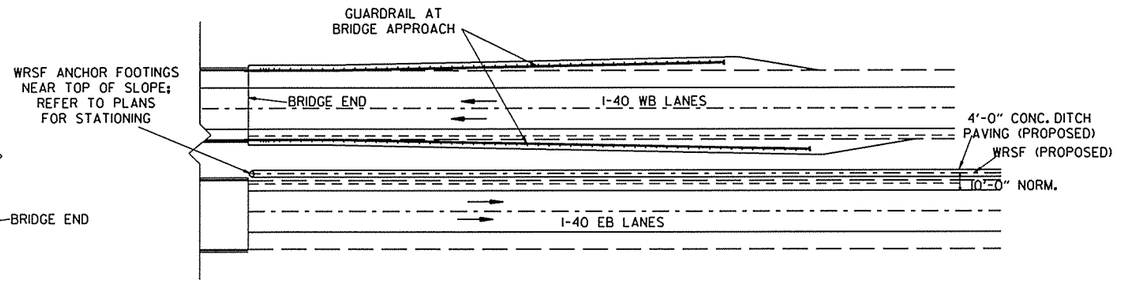
NOTE:

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

THREADED TERMINAL DETAIL



WRSF AND EXIST. GUARDRAIL ON SAME SIDE OF MEDIAN



WRSF AND EXIST. GUARDRAIL ON OPPOSITE SIDES OF MEDIAN

DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

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

5/14/2014

RBB0803.DGN

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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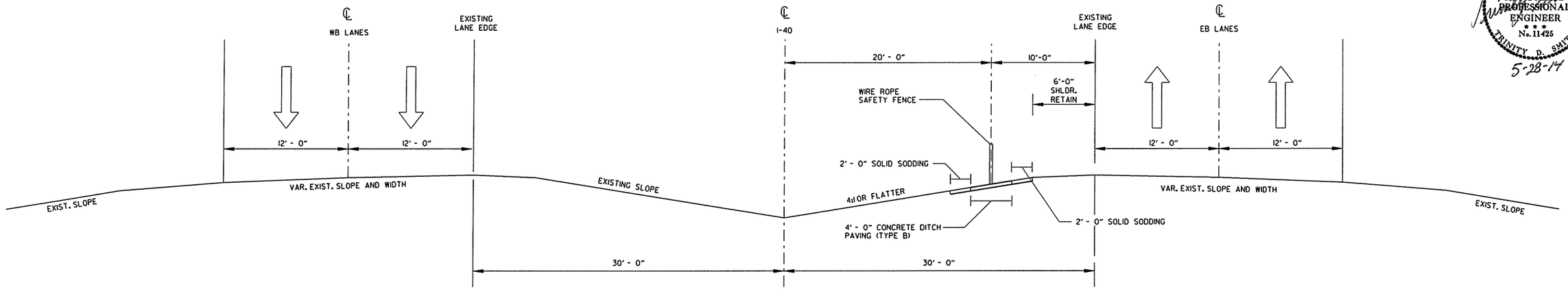
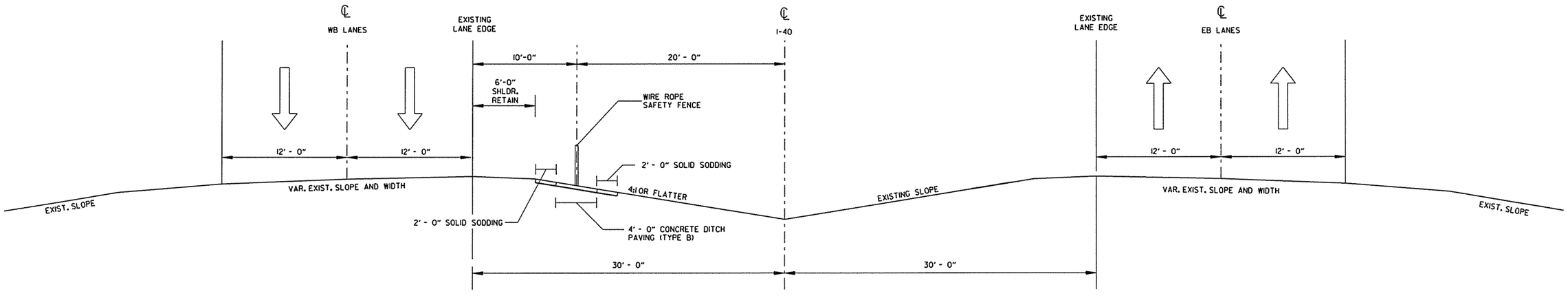
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



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



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

5/14/2014

RBB0803.DGN

SPECIAL DETAILS

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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(2) SPECIAL DETAILS

STATE OF ARKANSAS
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No. 11425
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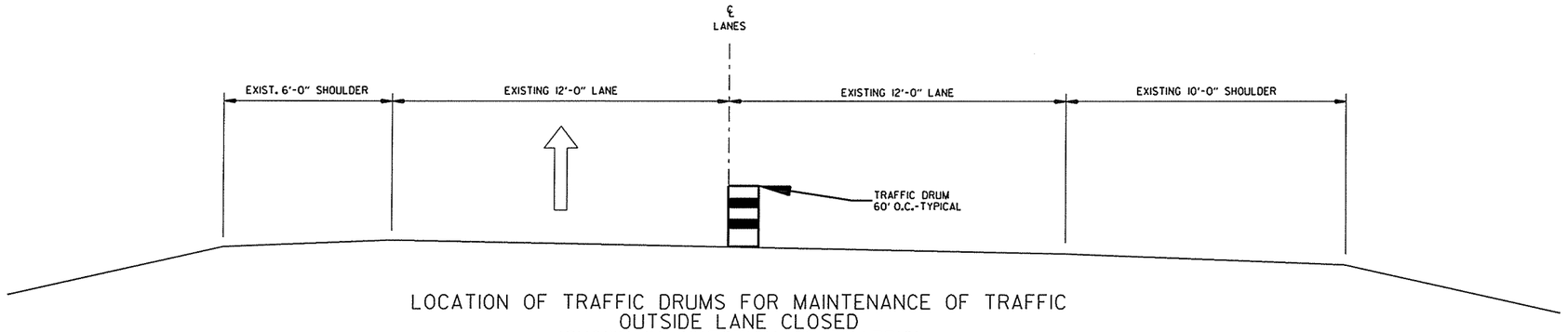
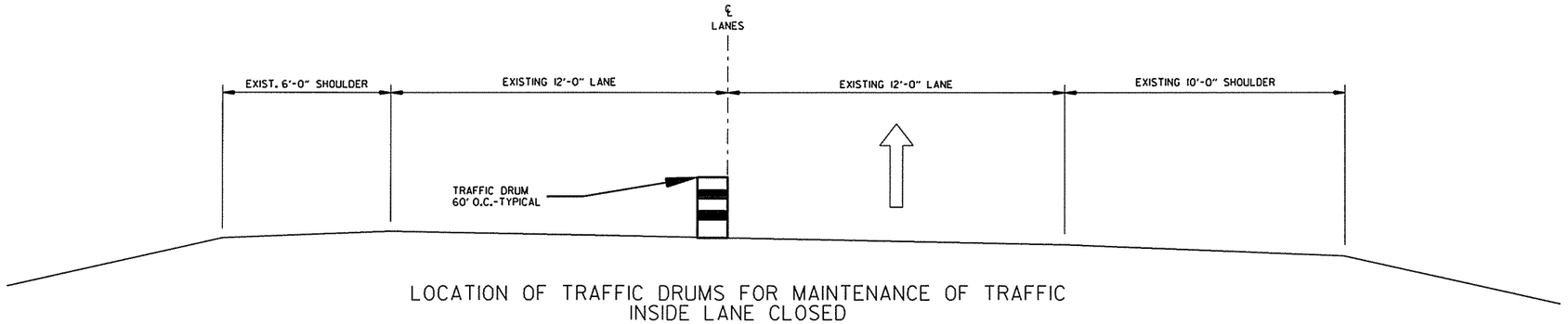
5-28-14



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
OUTSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

5/14/2014

RBB0803.DGN

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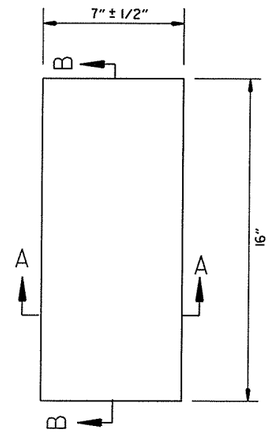
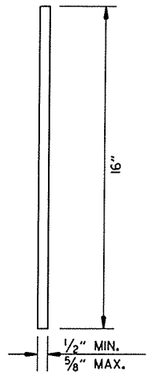
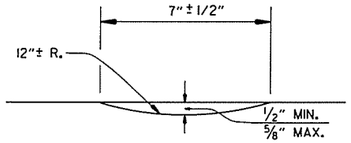
(2) SPECIAL DETAILS



PLAN

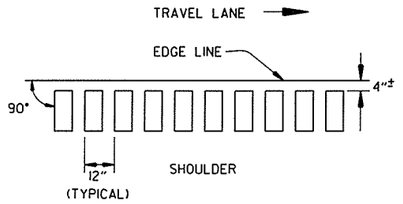


SECTION B-B

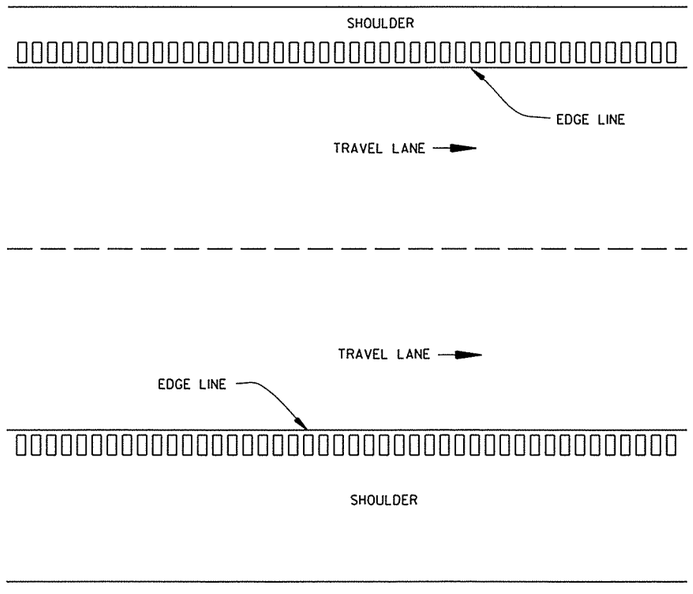


SECTION A-A

DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



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 ACCOMMODATE VARIATIONS IN THE EDGE LINE.
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.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

RBB0803.DGN 5/14/2014

SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	10	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

STA. 3382+43.24
BEGIN JOB BB0803
(LOG MILE 63.8)

RAMP 3

EXIST. R/W & C. OF A.

PI 3399+11

STA. 3383+12
BEGIN WRSF

STA. 3382+43.24
BR. END

BR. NO. A6868

S 48°09'01" E

BR. NO. B6868

STA. 3380+85
END WRSF
JOB 012168

PC 3383+02.96

STA. 3383+11.26
BR. END

RAMP 2

EXIST. R/W & C. OF A.

EXIST. R/W

3385 3390 3395 3400 3405 3410

+54.70

700' ACCEL. LANE

300' TAPER

PI = 3399+11.89
Δ = 43°08'08" RT.
D = 1°24'27"
T = 1608.94'
L = 3064.43'
PC = 3383+02.96
PT = 3413+67.39

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-5 SAND BAG DITCH CHECKS

E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

EXIST. R/W

EXIST. R/W & C. OF A.

STA. 3415+85
END WRSF
3415

STA. 3418+71.70 BR. END

BR. NO. A3778

STA. 3419+82.88 BR. END

STA. 3422+52
BEGIN WRSF

8" GAS LINE

PC 3433+63.14

3410 3415 3420 3425 3430 3435 3440

S 5°00'53" E

BR. NO. B3778

STA. 3418+61.36 BR. END

STA. 3419+72.54 BR. END

PT 3413+67.39

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

8" GAS LINE

5/14/2014

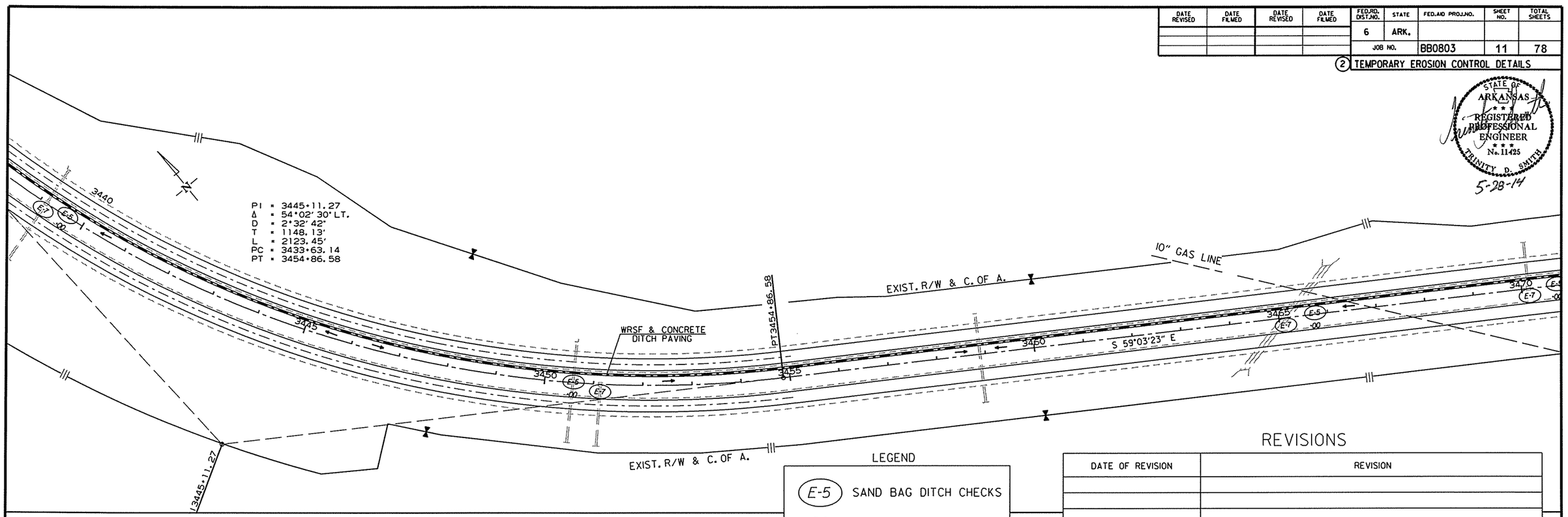
RBB0803.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	11	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



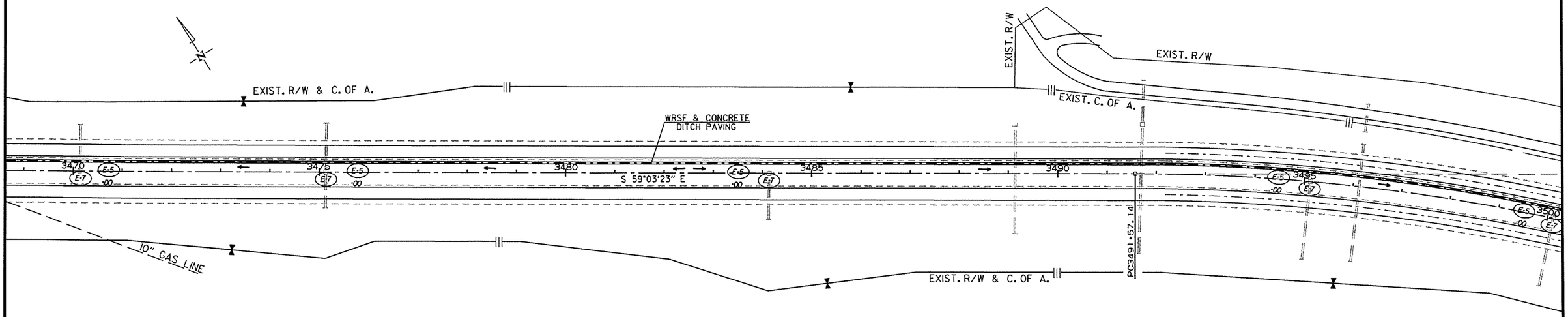
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



TEMPORARY EROSION CONTROL DETAILS

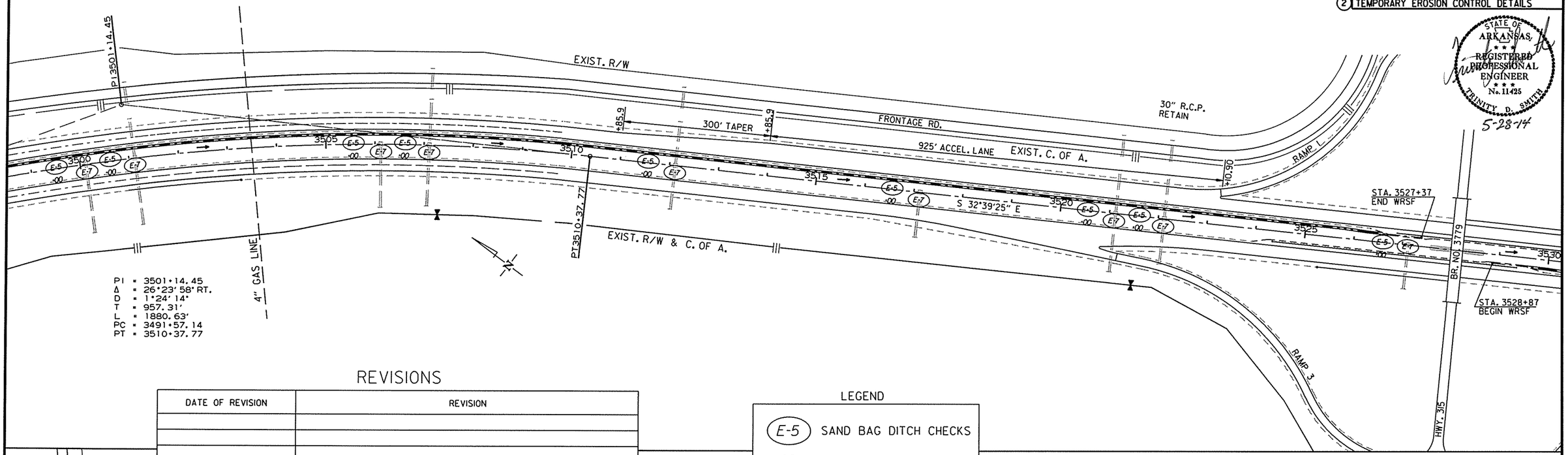
5/14/2014

RBB0803.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	12	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



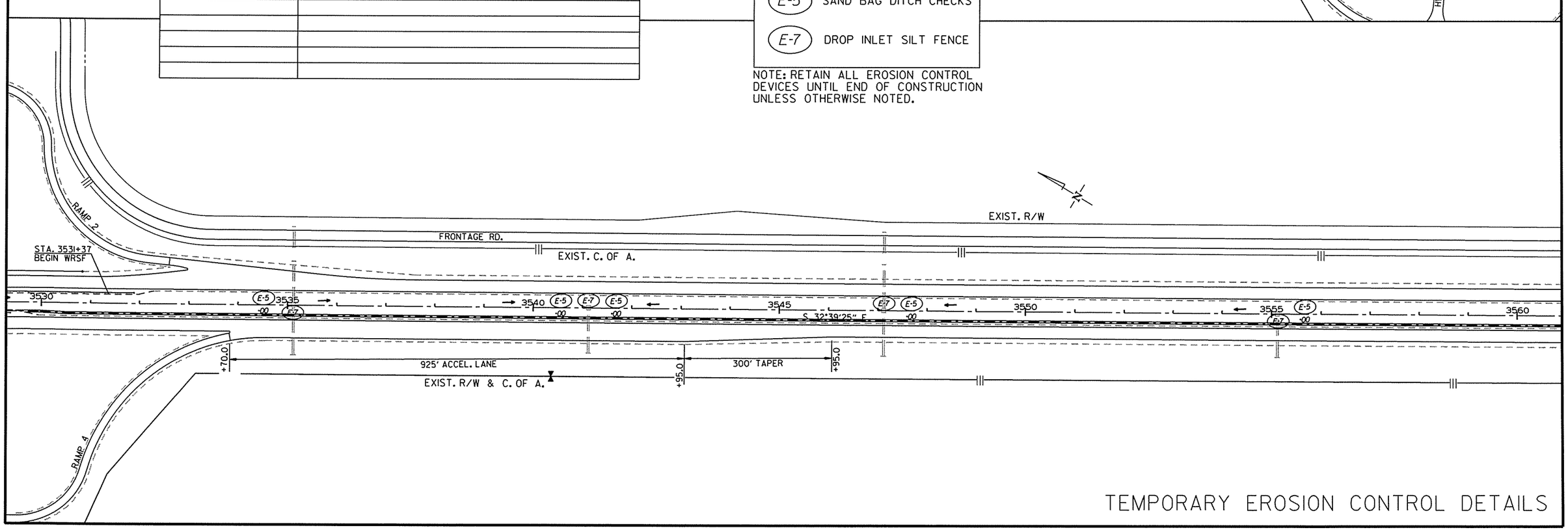
REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



TEMPORARY EROSION CONTROL DETAILS

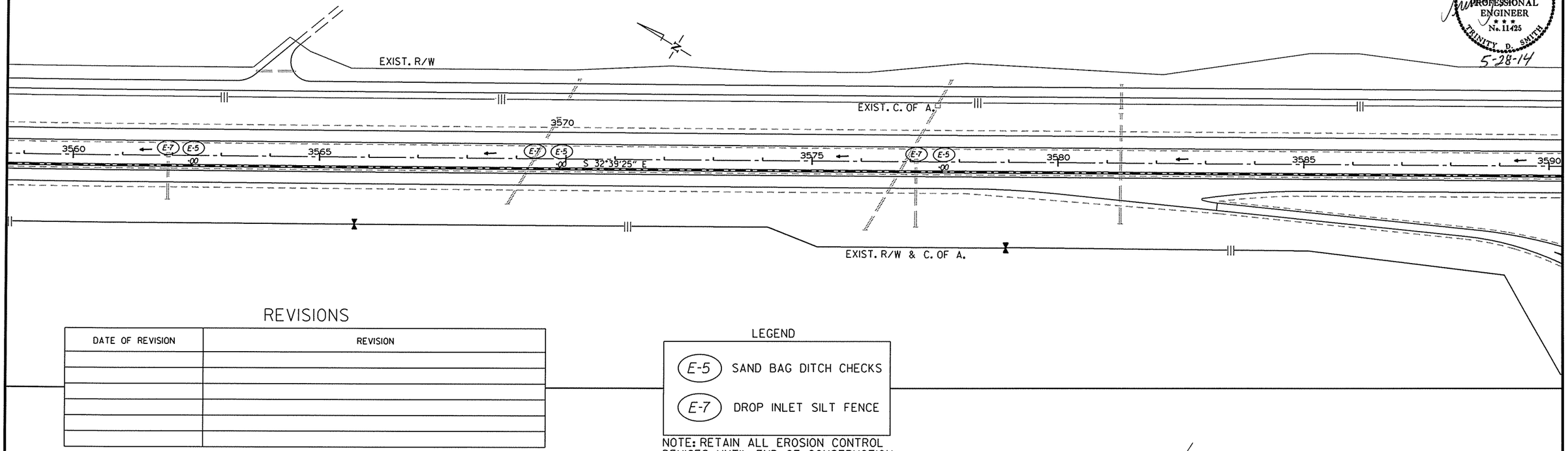
5/14/2014

RBB0803.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	13	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



REVISIONS

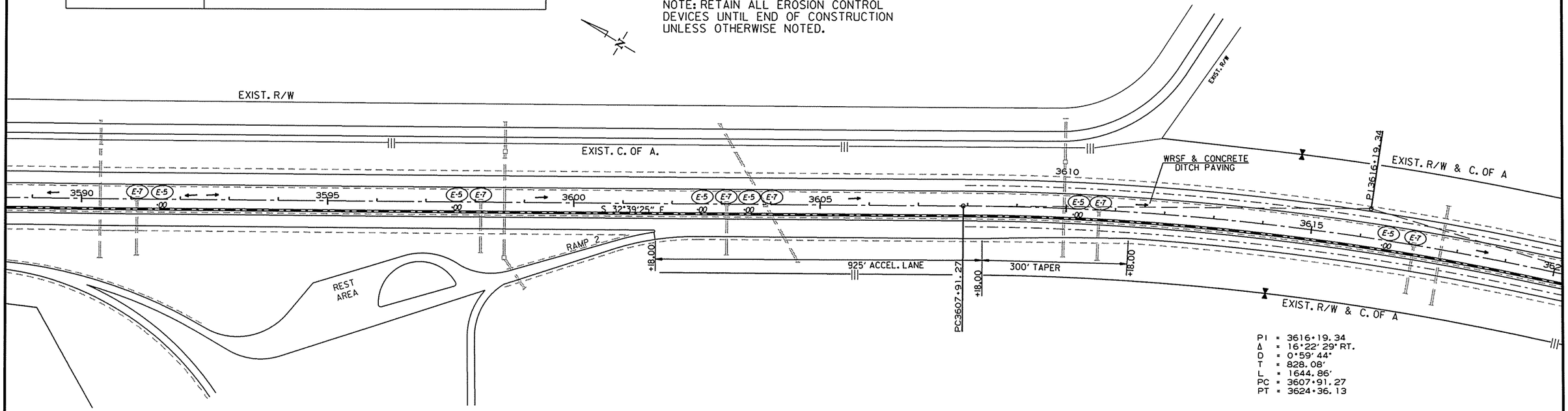
DATE OF REVISION	REVISION

LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



PI = 3616+19.34
Δ = 16°22'29" RT.
D = 0°59'44"
T = 828.08'
L = 1644.86'
PC = 3607+91.27
PT = 3624+36.13

TEMPORARY EROSION CONTROL DETAILS

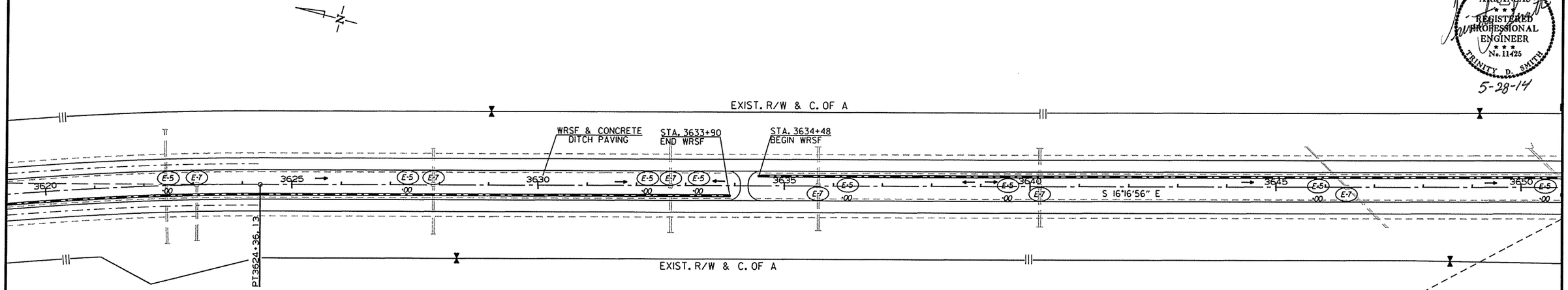
5/14/2014

RBB0803.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	14	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



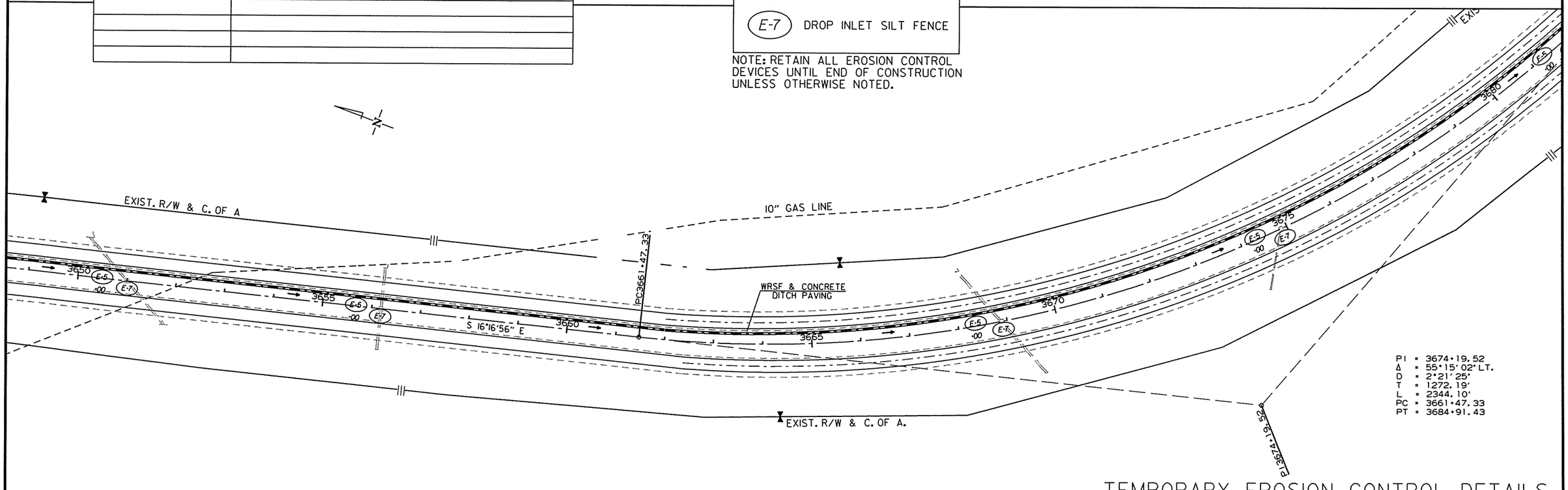
REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



5/14/2014

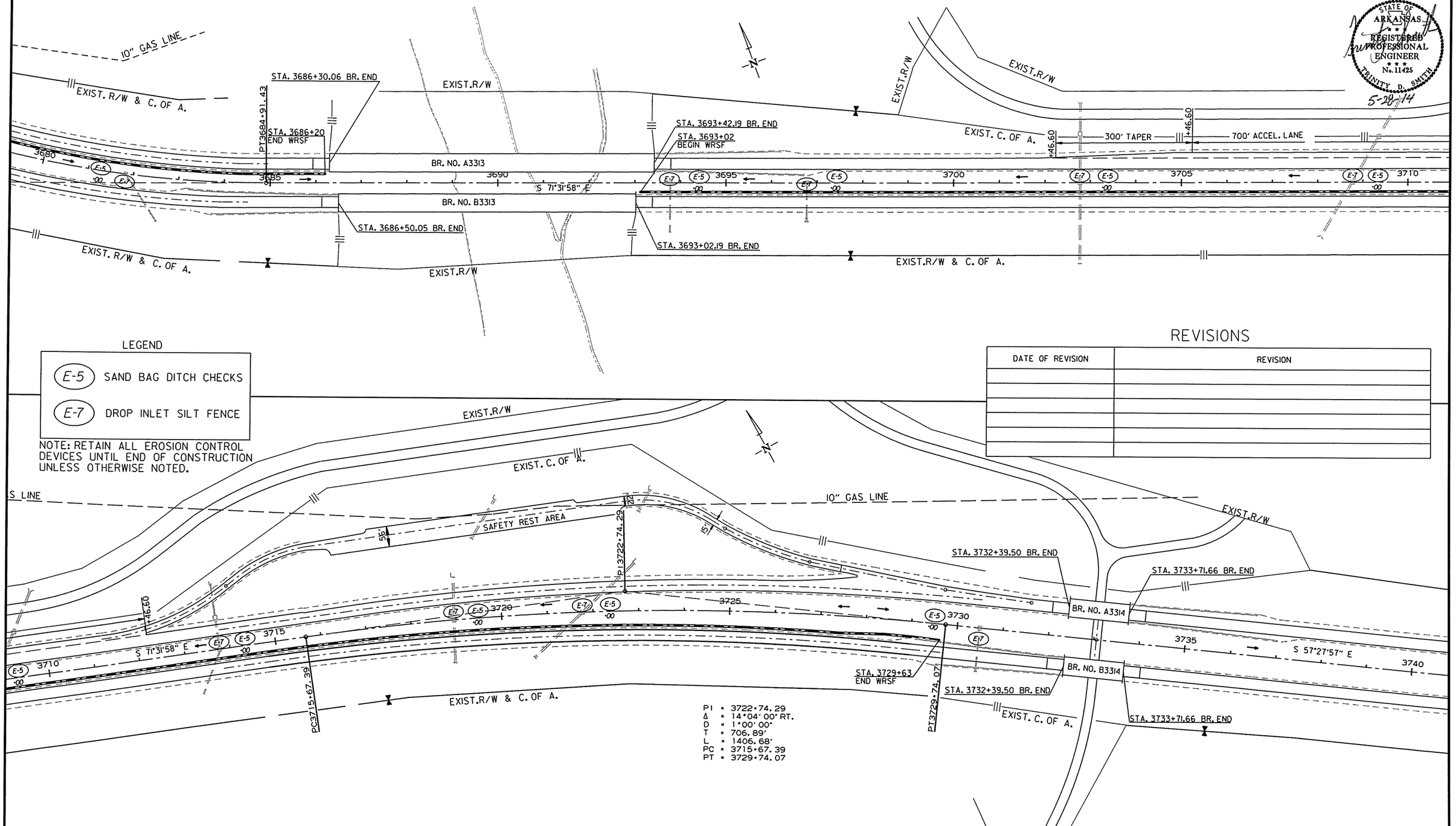
RBB0803.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	15	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-29-14



LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

PI = 3722+74.29
Δ = 14°04'00" RT.
D = 1°00'00"
T = 706.89'
L = 1406.68'
PC = 3715+67.39
PT = 3729+74.07

REVISIONS

DATE OF REVISION	REVISION

5/14/2014

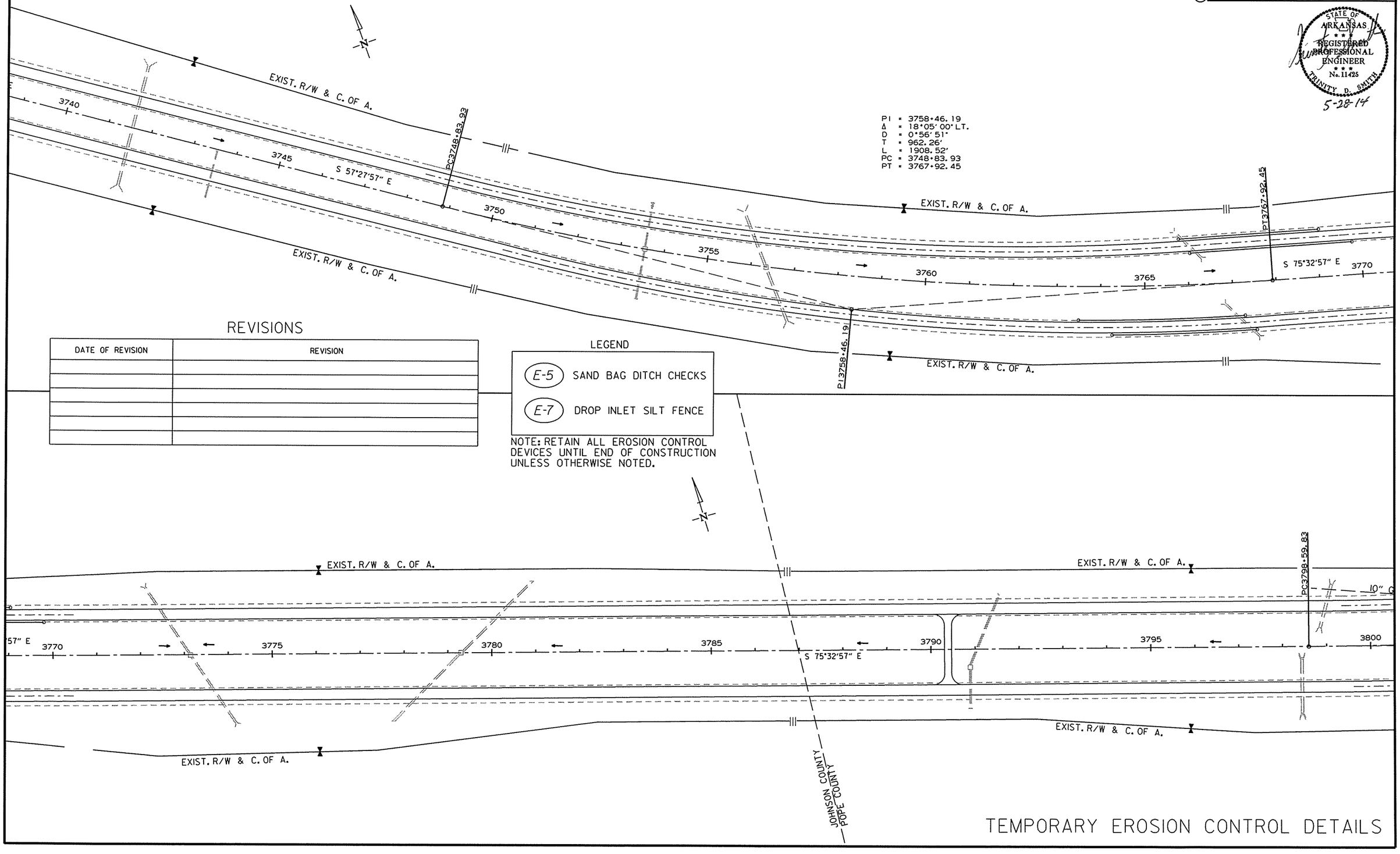
RBB0803.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	16	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



PI = 3758+46.19
Δ = 18°05'00" LT.
D = 0°56'51"
T = 962.26'
L = 1908.52'
PC = 3748+83.93
PT = 3767+92.45

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

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RBB0803.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0803	17	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

PI = 3815+92.34
Δ = 16°20'00" LT.
D = 0°28'29"
T = 1732.51'
L = 3441.52'
PC = 3798+59.83
PT = 3833+01.35

SEWAGE TREATMENT - IN PLACE RETAIN

10" GAS
EXIST. R/W & C. OF A.
+60.00
300' TAPER
+60.00
700' ACCELERATION LANE
3800
3805
3810
3815
3820
3825
3830
PI 3815+92.34
10" GAS
EXIST. R/W & C. OF A.
EXIST. R/W & C. OF A.

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

PT 3833+01.35
3830
3835
3840
3845
N 88°07'03" E
3850
3855
3860
BR. NO. 3315
EXIST. R/W & C. OF A.
EXIST. R/W & C. OF A.
EXIST. R/W
EXIST. R/W
EXIST.

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TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	18	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

EXIST. R/W

EXIST. R/W & C. OF A.

BR. NO. 3315

3860 3865 3870 3875 3880 3885 3890

N 88°07'03" E

+62.00

300' TAPER

EXIST. R/W & C. OF A.

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-5 SAND BAG DITCH CHECKS

E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

EXIST. R/W

EXIST. R/W & C. OF A.

RAMP 4

EXIST. C. OF A.

STA. 3916+64.80 BR. END

STA. 3917+95.97 BR. END

BR. NO. A3316

+62.00

700' ACCELERATION LANE

3890 3895 3900 3905 3910 3915 3920

N 88°07'03" E

92'

92'

BR. NO. B3316

PC3912+62.18

RAMP 1

STA. 3916+72.18 BR. END

STA. 3918+03.55 BR. END

EXIST. R/W & C. OF A.

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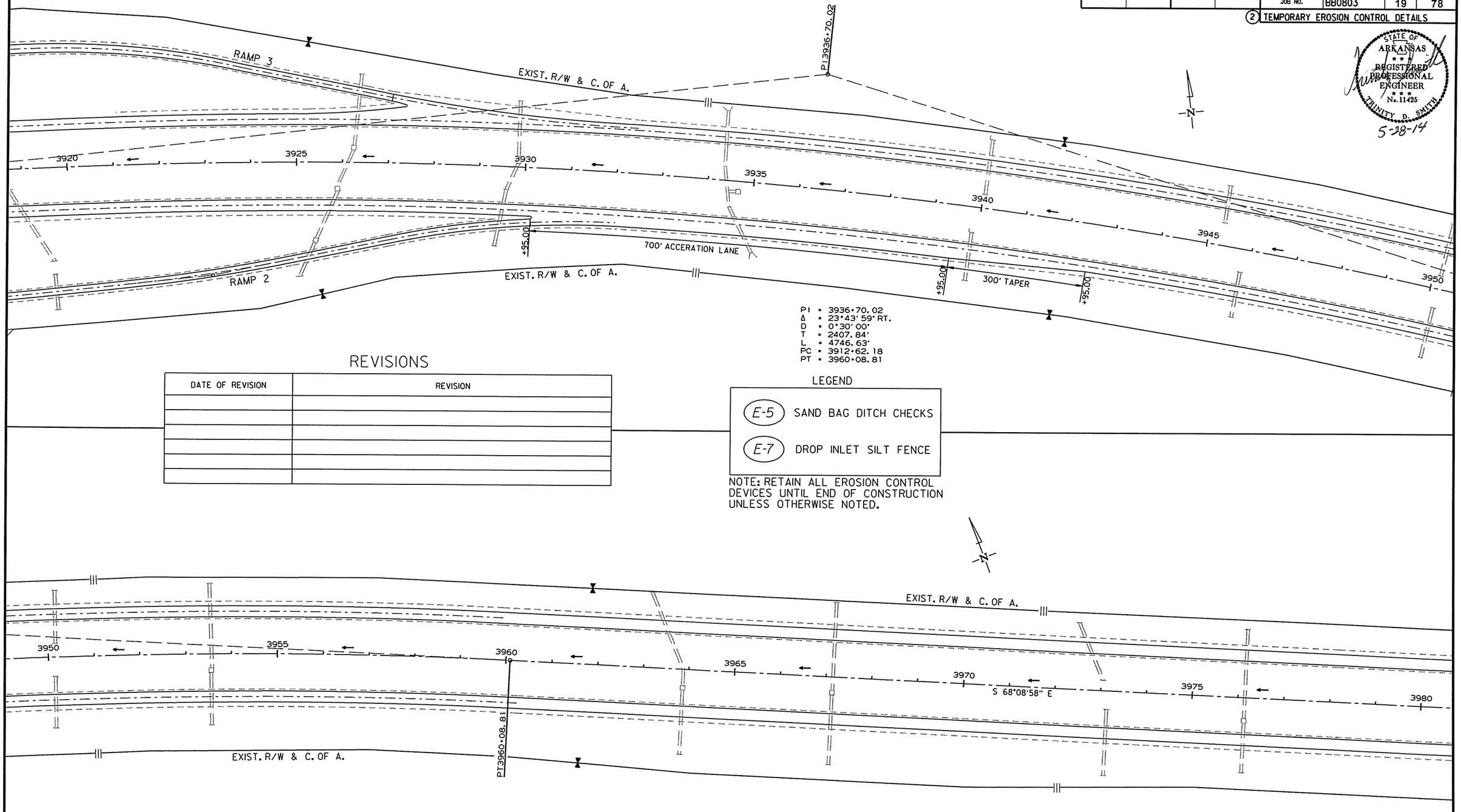
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	19	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

5/14/2014

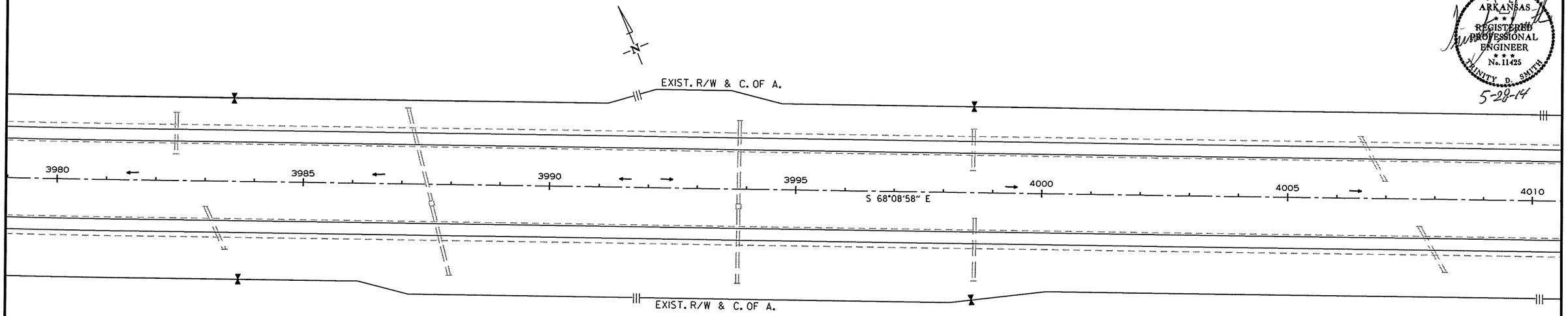
RBB0803.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	20	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



REVISIONS

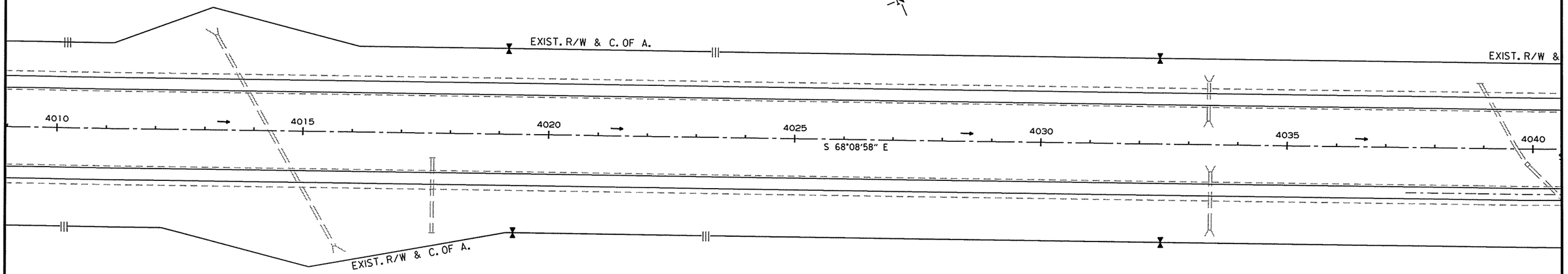
DATE OF REVISION	REVISION

LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



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RBB0803.DGN

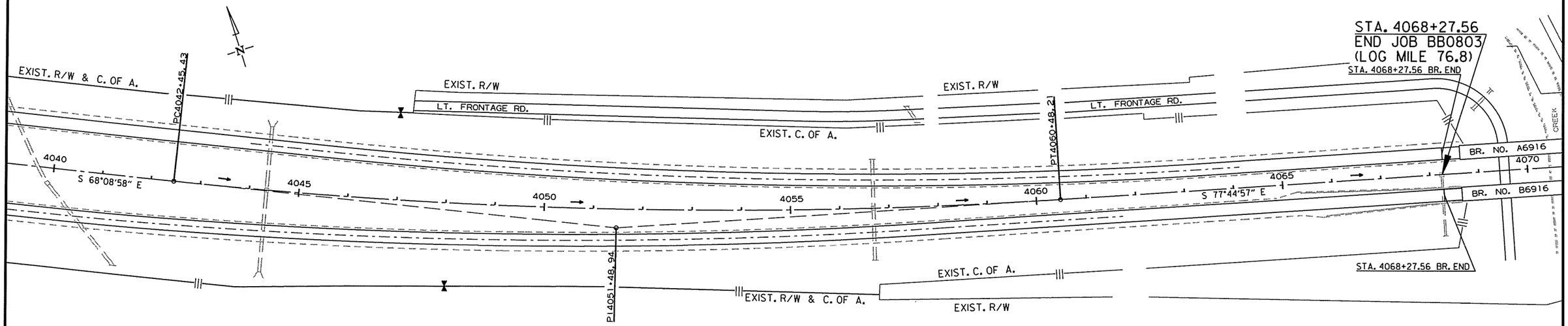
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	21	78

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

PI = 4051+48.94
Δ = 9°35'59" LT.
D = 0°31'57"
T = 903.50'
L = 1802.78'
PC = 4042+45.43
PT = 4060+48.21



REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

TEMPORARY EROSION CONTROL DETAILS

5/14/2014

RBB0803.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	22	78

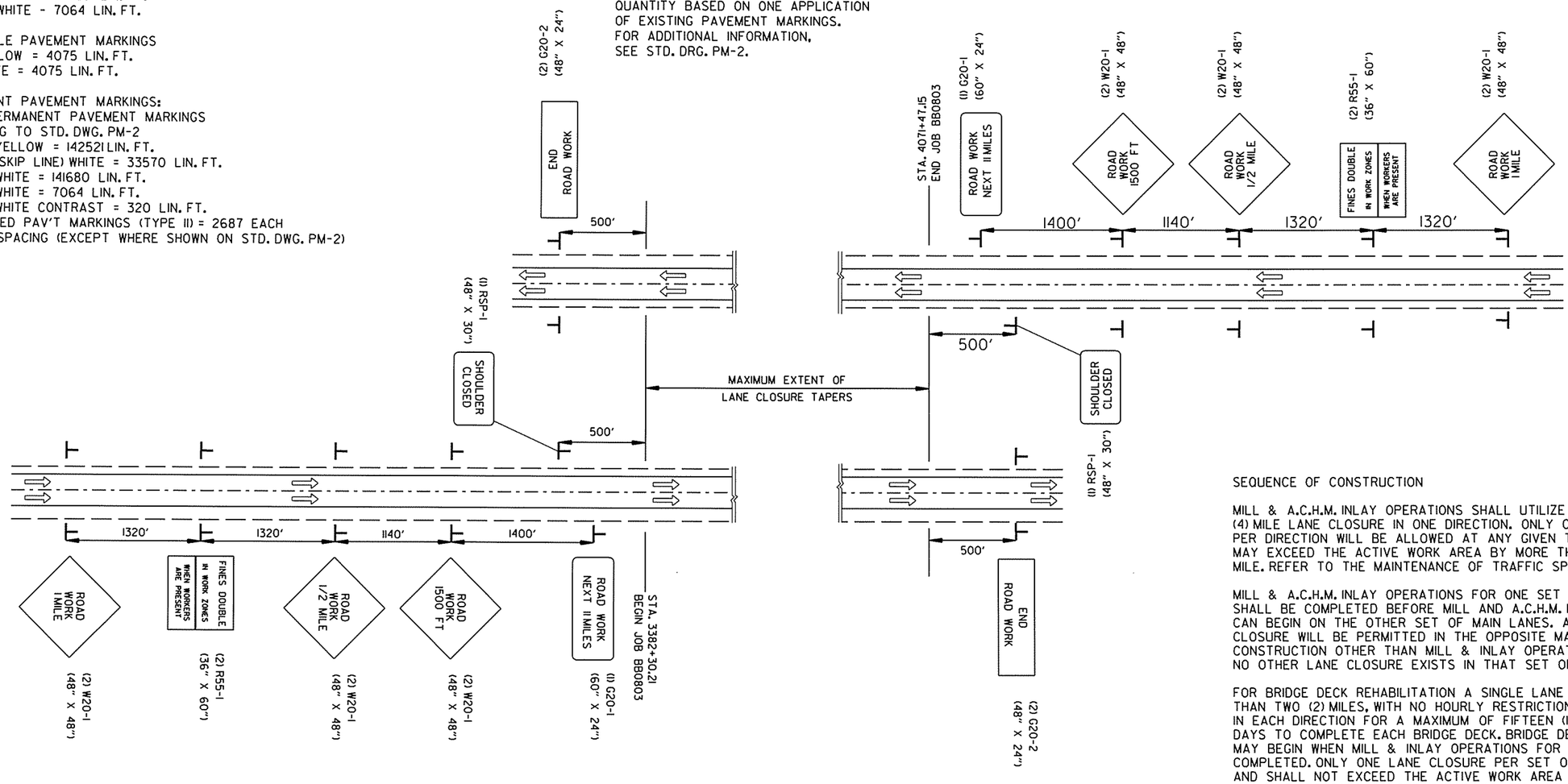
(2) MAINTENANCE OF TRAFFIC

CONSTRUCTION PAVEMENT MARKINGS:
APPLY CONSTRUCTION PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" YELLOW - 142521 LIN. FT.
- 4" (SKIP LINE) WHITE - 33890 LIN. FT.
- 4" WHITE - 141680 LIN. FT.
- 8" WHITE - 7064 LIN. FT.

REMOVABLE PAVEMENT MARKINGS
- YELLOW = 4075 LIN. FT.
- WHITE = 4075 LIN. FT.

PERMANENT PAVEMENT MARKINGS:
APPLY PERMANENT PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" YELLOW = 142521 LIN. FT.
- 4" (SKIP LINE) WHITE = 33570 LIN. FT.
- 4" WHITE = 141680 LIN. FT.
- 8" WHITE = 7064 LIN. FT.
- 4" WHITE CONTRAST = 320 LIN. FT.
- RAISED PAV'T MARKINGS (TYPE II) = 2687 EACH
- 80' SPACING (EXCEPT WHERE SHOWN ON STD. DWG. PM-2)

NOTE:
CONSTRUCTION PAVEMENT MARKINGS QUANTITY BASED ON ONE APPLICATION OF EXISTING PAVEMENT MARKINGS. FOR ADDITIONAL INFORMATION, SEE STD. DRG. PM-2.



PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
6-6-14

SEQUENCE OF CONSTRUCTION

MILL & A.C.H.M. INLAY OPERATIONS SHALL UTILIZE A SINGLE FOUR (4) MILE LANE CLOSURE IN ONE DIRECTION. ONLY ONE LANE CLOSURE PER DIRECTION WILL BE ALLOWED AT ANY GIVEN TIME. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

MILL & A.C.H.M. INLAY OPERATIONS FOR ONE SET OF MAIN LANES SHALL BE COMPLETED BEFORE MILL AND A.C.H.M. INLAY OPERATIONS CAN BEGIN ON THE OTHER SET OF MAIN LANES. A TWO (2) MILE LANE CLOSURE WILL BE PERMITTED IN THE OPPOSITE MAIN LANES FOR CONSTRUCTION OTHER THAN MILL & INLAY OPERATIONS AS LONG AS NO OTHER LANE CLOSURE EXISTS IN THAT SET OF LANES.

FOR BRIDGE DECK REHABILITATION A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES, WITH NO HOURLY RESTRICTIONS, WILL BE PERMITTED IN EACH DIRECTION FOR A MAXIMUM OF FIFTEEN (15) CONSECUTIVE CALENDAR DAYS TO COMPLETE EACH BRIDGE DECK. BRIDGE DECK REHABILITATION OPERATIONS MAY BEGIN WHEN MILL & INLAY OPERATIONS FOR A SET OF LANES HAS BEEN COMPLETED. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. PRECAST CONCRETE BARRIER WALL WILL BE PROVIDED FOR BRIDGE DECK REHABILITATION AS SHOWN IN THE PLANS. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

RBB0803.DGN 6/3/2014

MAINTENANCE OF TRAFFIC ADVANCE SIGNS AT JOB ENDS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	23	78

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

TEMPORARY RUMBLE STRIP ARRAYS (12) TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

7880′ | 150′ 250′ 250′ | 5280′ | 3960′ | 3360′ | 2640′ | 2000′ | 1500′ | 1000′ | 500′

- ROAD WORK AHEAD — (2) W20-1 (48″ X 48″)
- RUMBLE STRIPS AHEAD — (2) [SPECIAL] (48″ X 48″)
- RIGHT LANE CLOSED 1MILE — (2) W20-5 (48″ X 48″)
- MERGE HERE — (1) [SPECIAL] (48″ X 48″)
- DO NOT PASS — (2) R4-1 (48″ X 60″)
- RIGHT LANE CLOSED ½MILE — (2) W20-5 (48″ X 48″)
- REDUCED SPEED AHEAD — (2) R2-5A (48″ X 60″)
- RIGHT LANE CLOSED 500 FT — (2) W20-5 (48″ X 48″)
- DO NOT PASS — (2) R4-1 (48″ X 60″)
- SPEED LIMIT 60 — (2) R2-1 (48″ X 60″)
- (2) W4-2 RT. (48″ X 48″) AS DIRECTED
- ADVANCE WARNING ARROW PANEL AT BEG. OF TAPER

19 TRAFFIC DRUMS

TRAFFIC DRUMS @ 60′ O.C.
840′ TAPER FOR LANE CLOSURE

TRAFFIC DRUMS @ 100′ O.C.
500′ STABILIZING ZONE

MATCH LINE A

(3) W1-6 (60″ X 30″)
EVENLY SPACED ON TAPER

NOTE:
MAINTAIN MINIMUM 12′ LANE WIDTH
ON LANE REMAINING OPEN

RT. LANE CLOSURE

SPEED LIMIT 70 / TRUCKS 65

(2) R2-1 (48″ X 60″)
(2) R2-2 (48″ X 48″)

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

MATCH LINE A

WORK AREA
TRAFFIC DRUMS @ 60′ O.C. IN CLOSED LANE

TRAFFIC DRUMS @ 60′ O.C. = 22 EACH
1320′ ACCEL. LANE FOR WORK TRUCKS

DIVERSION FOR RT. LANE WORK ZONE

(3) W1-6 (60″ X 30″)
EVENLY SPACED ON TAPER

MATCH LINE A

TRAFFIC DRUMS @ 60′ O.C.
720′ DIRECTED LANE TO CLEAR LT. LANES WORK AREA

BUFFER MIN. 500′
TRAFFIC DRUMS @ 100′ O.C. = 5 EACH

WORK AREA
TRAFFIC DRUMS @ 60′ O.C. IN CLOSED LANE

TRAFFIC DRUMS @ 60′ O.C. = 22 EACH
1320′ ACCEL. LANE FOR WORK TRUCKS

NOTE:
MAINTAIN MINIMUM 12′ LANE WIDTH
ON LANE REMAINING OPEN

26 TRAFFIC DRUMS

DIVERSION FOR LT. LANE WORK ZONE

SPEED LIMIT 70 / TRUCKS 65

(2) R2-1 (48″ X 60″)
(2) R2-2 (48″ X 48″)

MAINTENANCE OF TRAFFIC LANE CLOSURE

5/14/2014

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ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMPS
ROAD WORK AHEAD (5) = 80 SQ. FT.
END ROAD WORK (5) = 40 SQ. FT.

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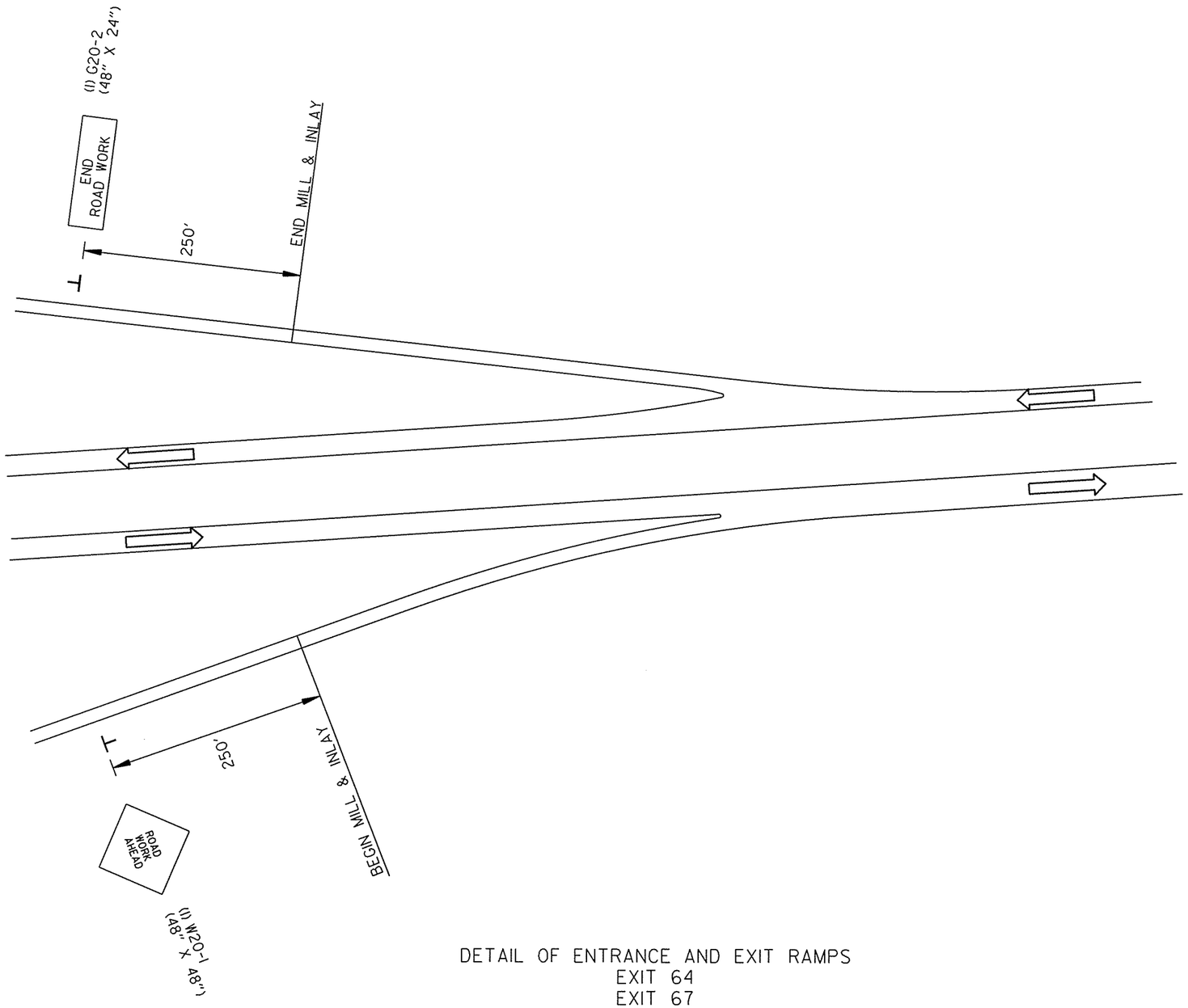
				6	ARK.			
				JOB NO.		BB0803	24	78

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



DETAIL OF ENTRANCE AND EXIT RAMPS
EXIT 64
EXIT 67
EXIT 74

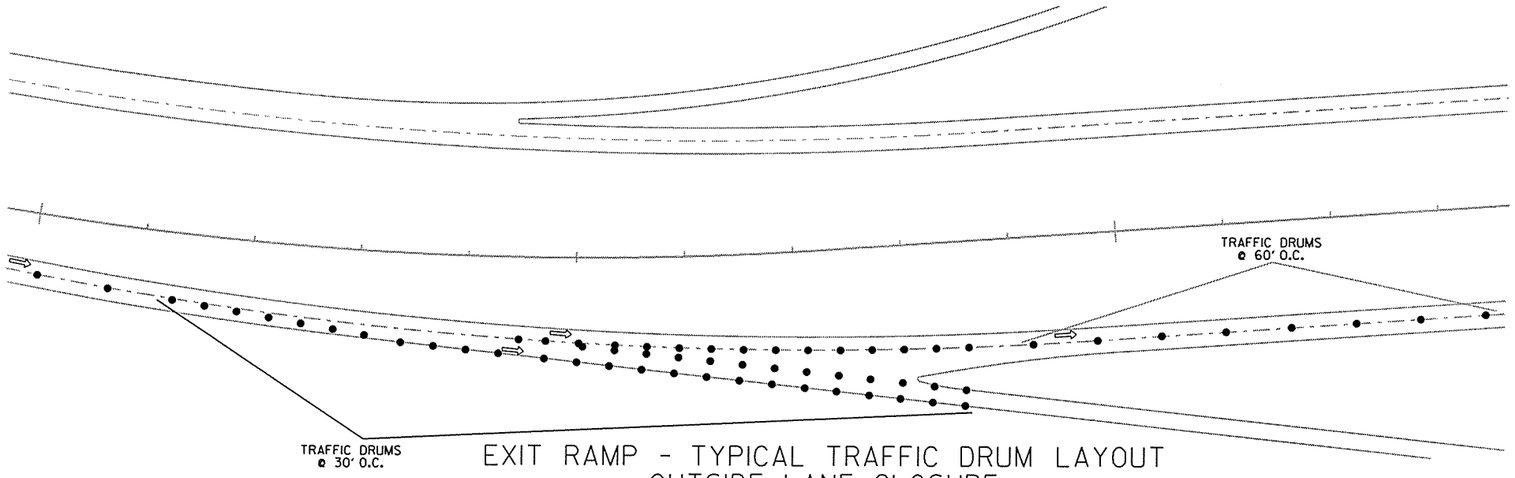
RBB0803.DGN 5/14/2014

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS

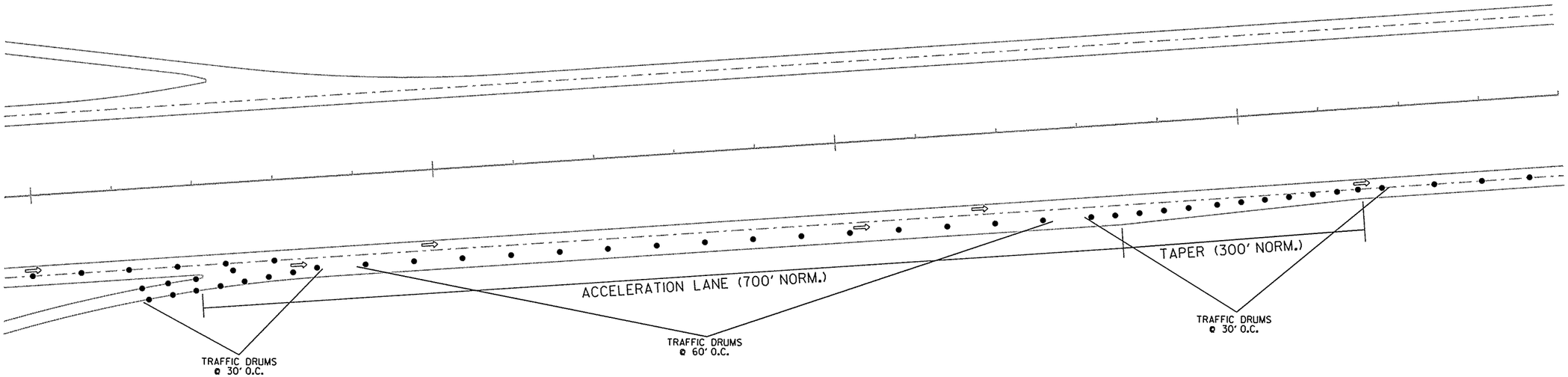
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	25	78

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

EXIT 64:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 67:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 74:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS WITH LANE CLOSURE

5/14/2014
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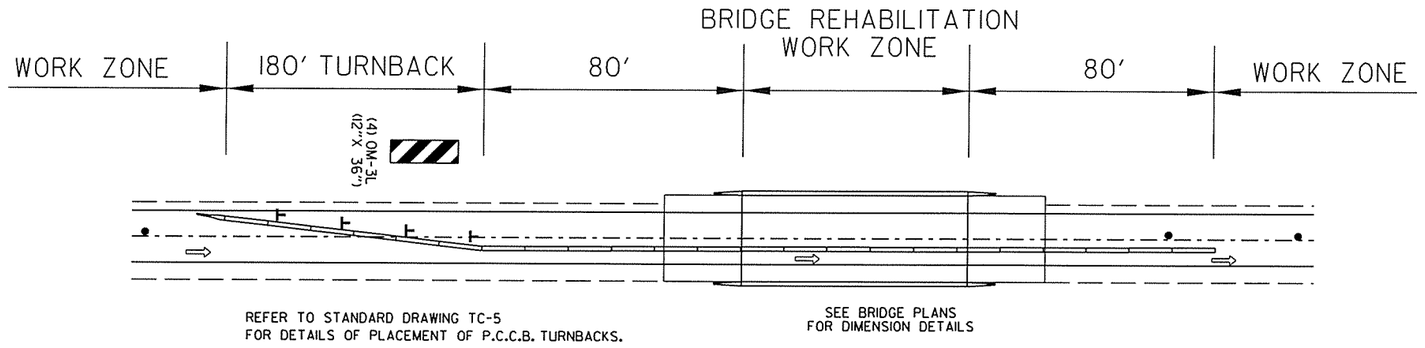
PRECAST CONCRETE BARRIER WALL (6 LOCATIONS - 12 INSTALLATIONS)
(I) FURNISH AND INSTALL = 493 LIN. FT.
(II) RELOCATE = 493 LIN. FT. (PER INSTALLATION)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	26	78
				(2) MAINTENANCE OF TRAFFIC				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14



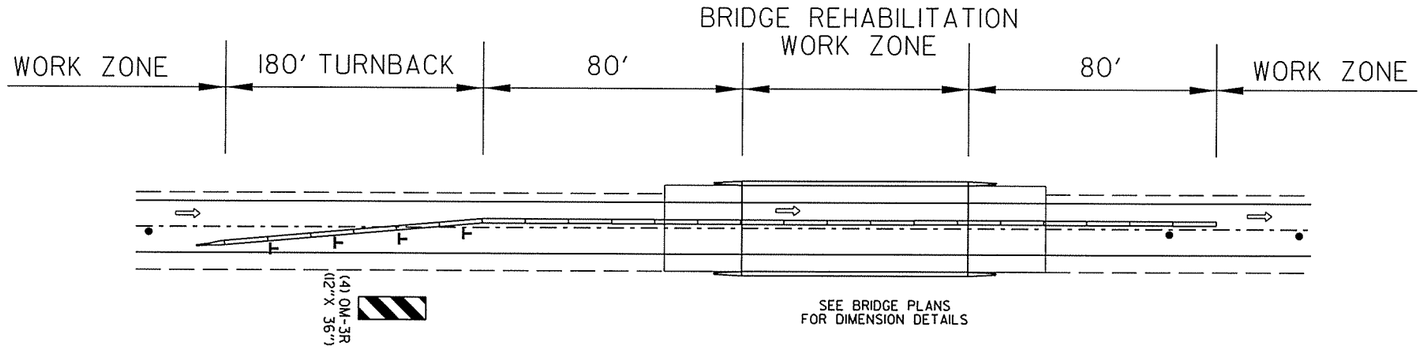
REFER TO STANDARD DRAWING TC-5
FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

SEE BRIDGE PLANS
FOR DIMENSION DETAILS

NOTE: OM-3L SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

DIVERSION FOR LT. LANE BRIDGE DECK REHABILITATION

1 SET OF THIS NEEDED FOR JOB BB0803.



REFER TO STANDARD DRAWING TC-5
FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

SEE BRIDGE PLANS
FOR DIMENSION DETAILS

NOTE: OM-3R SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

DIVERSION FOR RT. LANE BRIDGE DECK REHABILITATION

1 SET OF THIS NEEDED FOR JOB BB0803.

NOTE:
BRIDGE DECK REHABILITATION CAN BE PERFORMED FOLLOWING THE COMPLETION OF MAIN LANE MILL & INLAY OPERATIONS. REFER TO SHEET 23 FOR DETAIL OF TRAFFIC SHIFT USING TRAFFIC DRUMS. REFER TO SHEET 22 FOR SEQUENCE OF CONSTRUCTION DETAILS.

RBB0803.DGN 5/14/2014

MAINTENANCE OF TRAFFIC DETAILS
WORK ZONE - BRIDGE DECK REHABILITATION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	27	78

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
6-6-14

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE PROJECT	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	HIGH PERFORMANCE PAVEMENT MARKING			
				TYPE II (WHITE/RED)	4" WHITE	4" (SKIP LINE) WHITE	4" WHITE	4" YELLOW	8" WHITE
	LIN. FT. - EACH	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.			
CONSTRUCTION PAVEMENT MARKINGS	325155	325155							
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	8150		8150						
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	2687			2687					
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")	320				320				
HIGH PERFORMANCE PAVEMENT MARKING (SKIP LINE) WHITE (4")	33570					33570			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	141680						141680		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	142521							142521	
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")	7064								7064
TOTALS:		**325155**	**8150**	**2687**	**320**	**33570**	**141680**	**142521**	**7064**

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

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	ENTIRE PROJECT	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN
			LIN. FT. - EACH		NO.	SQ. FT.	EACH	LIN. FT.		DAY	WEEK
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK 1/2 MILE	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	4	64.0					
W20-1	ROAD WORK AHEAD	48"x48"	9	9	9	144.0					
G20-2	END ROAD WORK	48"x24"	9	9	9	72.0					
G20-1	ROAD WORK NEXT XX MILES	60"x24"	2	2	2	20.0					
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	4	4	4	64.0					
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	4	4	4	64.0					
W20-5	RIGHT LANE CLOSED 1500 FT.	48"X48"	4	4	4	64.0					
SPECIAL	MERGE NOW W/ ARROW	48"X48"	2	2	2	32.0					
R2-5A	REDUCED SPEED AHEAD	48"X60"	4	4	4	80.0					
R55-1	FINES DOUBLE IN WORK ZONES	36"X60"	4	4	4	60.0					
OM-3L	OBJECT MARKER	12"X36"	4	4	4	12.0					
OM-3R	OBJECT MARKER	12"X36"	4	4	4	12.0					
W1-6	LARGE ARROW	48"X24"	12	12	12	96.0					
R4-1	DO NOT PASS	48"X60"	8	8	8	160.0					
R2-1	SPEED LIMIT 60 MPH	48"X60"	7	7	7	140.0					
R2-1	SPEED LIMIT 70 MPH	48"X60"	4	4	4	80.0					
R2-2	TRUCKS SPEED LIMIT 65 MPH	48"X60"	4	4	4	80.0					
W4-2 RT.	MERGE RIGHT	48"x48"	4	4	4	64.0					
RSP-1	SHOULDER CLOSED	48"X30"	2	2	2	20.0					
SPECIAL	RUMBLE STRIPS AHEAD	48"X48"	4	4	4	64.0					
	TRAFFIC DRUMS		883	883			883				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		493	493				493			
	RELOCATING PRECAST CONCRETE BARRIER		5423	5423					5423		
	ADVANCE WARNING ARROW PANEL		2	2						170	
	PORTABLE CHANGEABLE MESSAGE SIGN		6	6							102
TOTALS:						**1520.0**	**883**	**493**	**5423**	**170**	**102**

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

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

6/3/2014

RBB0803.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	28	78

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKER

LOG MILE	LOG MILE	LOCATION	PLOWABLE PAVEMENT MARKER
			EACH
63.8	76.8	ENTIRE PROJECT	1450
TOTAL:			1450

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
3523+95	3529+96	LT. OF RT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT HWY. 315 OVERPASS	119	
3526+30	3532+31	RT. OF LT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT HWY. 315 OVERPASS	119	
* ENTIRE	PROJECT	TO BE USED IF AND WHERE		50*
		DIRECTED BY THE ENGINEER		
TOTALS:			238	50

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

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL		
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SAND BAG DITCH CHECKS (E-5)	DROP INLET SILT FENCE (E-7)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	BAG	LIN. FT.	CU. YD.
ENTIRE	PROJECT	MAIN LANES	3.24	6.48	3.24	330.5	3.24	1298	1400	111
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			0.81	1.62	0.81	82.6	0.81	325	350	28
TOTALS:			4.05	8.10	4.05	413.1	4.05	1623	1750	139

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

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

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

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH	
3524+37.25	3529+37.25	LEFT OF RIGHT MAIN LANES	450	1	1
3526+86.86	3531+86.86	RIGHT OF LEFT MAIN LANES	450	1	1
TOTALS:			900	2	2

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER

STATION	LOCATION	EACH
3528+12	HWY. 315 OVERPASS	2
TOTAL:		2

FLUSHING UNDERDRAIN

STA.	STA.	LOCATION	LIN. FT.
3382+80	3418+35	LT. MAIN LANES	3555
3420+19	3685+94	LT. MAIN LANES	26575
3693+79	3732+03	LT. MAIN LANES	3824
3734+08	3916+28	LT. MAIN LANES	18220
3918+32	4068+28	LT. MAIN LANES	14996
3383+48	3418+25	RT. MAIN LANES	3477
3420+09	3686+14	RT. MAIN LANES	26605
3693+39	3732+03	RT. MAIN LANES	3864
3734+08	3916+36	RT. MAIN LANES	18228
3918+40	4068+28	RT. MAIN LANES	14988
TOTAL:			134332

SHOULDER RECONSTRUCTION FOR MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	TACK COAT .03 GAL PER SQ. YD.		ACHM BASE COURSE (1-1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TRENCHING AND SHOULDER PREPARATION
			LIN. FT.	AREA SQ. YD.	GAL.	AVG. WIDTH FEET	AREA SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	AREA SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	AREA SQ. YD	LBS. PER SQ. YD.	TON	STATION
3415+95.20	3418+35.20	LT. OF LT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3420+19.38	3422+59.38	LT. OF LT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3729+63.00	3732+03.00	LT. OF LT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3734+08.17	3736+48.17	LT. OF LT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3913+88.30	3916+28.30	LT. OF LT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3918+32.47	3920+72.47	LT. OF LT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3415+84.86	3418+24.86	RT. OF RT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3420+09.04	3422+49.04	RT. OF RT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3729+63.00	3732+03.00	RT. OF RT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3734+08.17	3736+48.17	RT. OF RT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3913+95.68	3916+35.68	RT. OF RT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
3918+40.05	3920+80.05	RT. OF RT. MAIN LANES	240.00	566.67	17.00	10.75	286.67	495.00	70.95	10.50	280.00	330.00	46.20	10.00	266.67	440.00	58.67	2.40
TOTALS:					204.00		3440.04		851.40		3360.00		554.40		3200.04		704.04	28.80

BASIS OF ESTIMATE: ACHM SURFACE COURSE (1/2") MIN AGG = 94.5%..... ASPH BINDER (PG 76-22) = 5.5%
ACHM BINDER COURSE (1") MIN AGG = 95.5%..... ASPH BINDER (PG 76-22) = 4.5%
ACHM BASE COURSE (1-1/2") MIN AGG = 96.0%..... ASPH BINDER (PG 76-22) = 4.0%
NMAX = 205 FOR PG 76-22

5/16/2014
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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
				6	ARK.			
				JOB NO.		BB0803	29	78

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		MAIN LANES		
3382+79.74	3418+35.20	LT. MAIN LANES	30	11851.53
3420+19.38	3685+93.55	LT. MAIN LANES	30	88580.57
3693+78.67	3732+03.00	LT. MAIN LANES	30	12747.77
3734+08.17	3916+28.30	LT. MAIN LANES	30	60733.77
3918+32.47	4068+27.56	LT. MAIN LANES	30	49983.63
3383+47.76	3418+24.86	RT. MAIN LANES	30	11590.33
3420+09.04	3686+13.55	RT. MAIN LANES	30	88681.70
3693+38.67	3732+03.00	RT. MAIN LANES	30	12881.10
3734+08.17	3916+35.68	RT. MAIN LANES	30	60758.37
3918+40.05	4068+27.56	RT. MAIN LANES	30	49958.37
		ADDITIONAL FOR ENTRANCE AND EXIT RAMPS		
3393+62.50	3403+15.85	EXIT 64 RT. MAIN LANES- ACCELERATION LANE AND TAPER	VARIES	1167.15
3388+13.71	3393+63.71	EXIT 64 RAMP 2 - ENTRANCE RAMP	15.5	947.22
3387+88.89	3390+85.59	EXIT 64 LT. MAIN LANES - TURN OUT	VARIES	319.03
3383+32.55	3388+82.55	EXIT 64 RAMP 3 - EXIT RAMP	15.5	947.22
3510+94.87	3523+23.09	EXIT 67 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1456.86
3523+21.25	3528+71.25	EXIT 67 RAMP 1 - ENTRANCE RAMP	15.5	947.22
3531+23.67	3537+57.38	EXIT 67 LT. MAIN LANES - TURN OUT	VARIES	960.07
3527+09.77	3532+59.77	EXIT 67 RAMP 2 - EXIT RAMP	15.5	947.22
3516+16.99	3523+05.98	EXIT 67 RT. MAIN LANES - TURN OUT	VARIES	1015.96
3521+23.46	3526+73.46	EXIT 67 RAMP 3 - EXIT RAMP	15.5	947.22
3533+82.18	3546+07.21	EXIT 67 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1453.48
3528+33.93	3533+83.93	EXIT 67 RAMP 4 - ENTRANCE RAMP	15.5	947.22
3578+13.70	3585+13.41	REST AREA RT. MAIN LANES - TURN OUT	VARIES	1030.43
3583+23.71	3588+73.71	REST AREA RAMP 1 - EXIT RAMP	15.5	947.22
3601+63.55	3611+27.95	REST AREA RT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1103.19
3598+65.04	3601+65.04	REST AREA RAMP 2 - ENTRANCE RAMP	15.5	516.67
3701+86.62	3712+23.98	SAFETY REST AREA LT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1194.44
3712+22.47	3715+22.47	SAFETY REST AREA RAMP 1 - ENTRANCE RAMP	15.5	516.67
3725+57.44	3731+55.72	SAFETY REST AREA LT. MAIN LANES - TURN OUT	VARIES	742.01
3724+37.34	3727+37.34	SAFETY REST AREA RAMP 2 - EXIT RAMP	15.5	516.67
3811+36.21	3820+69.34	REST AREA LT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1111.09
3820+68.48	3824+18.48	REST AREA RAMP 1 - ENTRANCE RAMP	15.5	602.78
3836+83.35	3841+71.85	REST AREA LT. MAIN LANES - TURN OUT	VARIES	796.88
3834+47.16	3837+97.16	REST AREA RAMP 2 - EXIT RAMP	15.5	602.78
3902+22.51	3907+90.38	EXIT 74 RT. MAIN LANES - TURN OUT	VARIES	615.25
3906+19.48	3911+69.48	EXIT 74 RAMP 1 -EXIT RAMP	15.5	947.22
3930+15.27	3942+46.25	EXIT 74 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1512.04
3924+66.37	3930+16.37	EXIT 74 RAMP 2 - ENTRANCE RAMP	15.5	947.22
3925+26.45	3932+40.29	EXIT 74 LT. MAIN LANES - TURN OUT	VARIES	889.10
3921+56.59	3927+06.59	EXIT 74 RAMP 3 -EXIT RAMP	15.5	947.22
3887+85.84	3897+57.17	EXIT 74 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1146.15
3897+56.23	3903+06.23	EXIT 74 RAMP 4 - ENTRANCE RAMP	15.5	947.22
TOTAL:				477455.26

NOTE: VARIABLE MILLING DEPTH. THE DEPTH OF MILLING SHALL BE AS DIRECTED BY THE ENGINEER. THAT CONTRACTOR SHALL HAUL THE MATERIAL GENERATED FROM COLD MILLING OPERATIONS TO LOCATIONS DESIGNATED BY THE ENGINEER. ONCE PLACED, THE MATERIAL WILL BECOME PROPERTY OF THE DEPARTMENT. THE MATERIAL SHALL BE PLACED AT THE DESIGNATED LOCATION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL STOCK PILE THE MATERIAL IN SUCH A WAY THAT IT CAN BE EASILY MEASURED USING THE AVERAGE END AREA METHOD. THE AREA DESIGNATED FOR COLD MILLING MATERIAL STORATE FOR MATERIALS GENERATED IS AS FOLLOWED: SOUTHWEST QUADRANT OF EXIT 64.

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
3383+12	3415+85	LEFT OF RIGHT MAIN LANES	3273.00	4	1454.67	1454.67	18.33
3422+59	3526+77	RIGHT OF LEFT MAIN LANES	10418.00	4	4630.22	4630.22	58.34
3529+47	3633+90	LEFT OF RIGHT MAIN LANES	10443.00	4	4641.33	4641.33	58.48
3634+48	3686+20	RIGHT OF LEFT MAIN LANES	5172.00	4	2298.67	2298.67	28.96
3693+02	3729+63	LEFT OF RIGHT MAIN LANES	3661.00	4	1627.11	1627.11	20.50
TOTALS:					14652.00	14652.00	184.61

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

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
3382+71	3387+36	LT. OF LT. MAIN LANES	465
3388+84	3418+35	LT. OF LT. MAIN LANES	2951
3420+19	3523+20	LT. OF LT. MAIN LANES	10301
3523+23	3531+24	LT. OF LT. MAIN LANES	801
3532+61	3685+94	LT. OF LT. MAIN LANES	15333
3693+79	3712+21	LT. OF LT. MAIN LANES	1842
3712+24	3725+57	LT. OF LT. MAIN LANES	1333
3727+38	3732+03	LT. OF LT. MAIN LANES	465
3734+08	3820+46	LT. OF LT. MAIN LANES	8638
3820+68	3836+83	LT. OF LT. MAIN LANES	1615
3837+98	3897+56	LT. OF LT. MAIN LANES	5958
3897+57	3916+29	LT. OF LT. MAIN LANES	1872
3918+31	3925+26	LT. OF LT. MAIN LANES	695
3927+08	4068+28	LT. OF LT. MAIN LANES	14120
3383+58	3393+63	RT. OF RT. MAIN LANES	1005
3393+65	3418+25	RT. OF RT. MAIN LANES	2460
3420+09	3521+22	RT. OF RT. MAIN LANES	10113
3523+06	3533+82	RT. OF RT. MAIN LANES	1076
3533+85	3583+23	RT. OF RT. MAIN LANES	4938
3585+13	3601+64	RT. OF RT. MAIN LANES	1651
3601+66	3686+14	RT. OF RT. MAIN LANES	8448
3693+39	3732+03	RT. OF RT. MAIN LANES	3864
3734+08	3906+18	RT. OF RT. MAIN LANES	17210
3907+90	3916+21	RT. OF RT. MAIN LANES	831
3918+26	3930+15	RT. OF RT. MAIN LANES	1189
3930+17	4068+28	RT. OF RT. MAIN LANES	13811
3382+89	3418+35	RT. OF LT. MAIN LANES	3546
3420+19	3685+94	RT. OF LT. MAIN LANES	26575
3693+79	3732+03	RT. OF LT. MAIN LANES	3824
3734+08	3916+29	RT. OF LT. MAIN LANES	18221
3918+31	4068+28	RT. OF LT. MAIN LANES	14997
3383+39	3418+25	LT. OF RT. MAIN LANES	3486
3420+09	3686+14	LT. OF RT. MAIN LANES	26605
3693+39	3732+03	LT. OF RT. MAIN LANES	3864
3734+08	3916+21	LT. OF RT. MAIN LANES	18213
3918+26	4068+28	LT. OF RT. MAIN LANES	15002
TOTAL:			267318

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

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE	* WRSF ANCHOR	WRSF MAINTENANCE MATERIALS	**WRSF POST REPAIR
			LIN. FT	EACH	LUMP SUM	EACH
3383+12.00	3415+85.00	LEFT OF RIGHT MAIN LANES	3273.00	2		
3422+59.00	3527+37.00	RIGHT OF LEFT MAIN LANES	10478.00	2		
3528+87.00	3633+90.00	LEFT OF RIGHT MAIN LANES	10503.00	2		
3634+48.00	3686+20.00	RIGHT OF LEFT MAIN LANES	5172.00	2		
3693+02.00	3729+63.00	LEFT OF RIGHT MAIN LANES	3661.00	2		
ENTIRE	PROJECT				1.00	50
TOTALS:			33087.00	10	1.00	50

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

5/21/2014

RBB0803.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	30	78

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET			FEET				FEET			TON
MAIN LANES													
3382+79.74	3418+35.20	LT. MAIN LANES	3555.46			30.00	11851.53	0.10	1185.15	30.00	11851.53	220.00	1303.67
3420+19.38	3685+93.55	LT. MAIN LANES	26574.17			30.00	88580.57	0.10	8858.06	30.00	88580.57	220.00	9743.86
3693+78.67	3732+03.00	LT. MAIN LANES	3824.33			30.00	12747.77	0.10	1274.78	30.00	12747.77	220.00	1402.25
3734+08.17	3916+28.30	LT. MAIN LANES	18220.13			30.00	60733.77	0.10	6073.38	30.00	60733.77	220.00	6680.71
3918+32.47	4068+27.56	LT. MAIN LANES	14995.09			30.00	49983.63	0.10	4998.36	30.00	49983.63	220.00	5498.20
3383+47.76	3418+24.86	RT. MAIN LANES	3477.10			30.00	11590.33	0.10	1159.03	30.00	11590.33	220.00	1274.94
3420+09.04	3686+13.55	RT. MAIN LANES	26604.51			30.00	88681.70	0.10	8868.17	30.00	88681.70	220.00	9754.99
3693+38.67	3732+03.00	RT. MAIN LANES	3864.33			30.00	12881.10	0.10	1288.11	30.00	12881.10	220.00	1416.92
3734+08.17	3916+35.68	RT. MAIN LANES	18227.51			30.00	60758.37	0.10	6075.84	30.00	60758.37	220.00	6683.42
3918+40.05	4068+27.56	RT. MAIN LANES	14987.51			30.00	49958.37	0.10	4995.84	30.00	49958.37	220.00	5495.42
ADDITIONAL FOR ENTRANCE AND EXIT RAMPS													
3393+62.50	3403+15.85	EXIT 64 RT. MAIN LANES- ACCELERATION LANE AND TAPER	953.35			VARIES	1167.15	0.10	116.72	VARIES	1167.15	220.00	128.39
3388+13.71	3393+63.71	EXIT 64 RAMP 2 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3387+88.89	3390+85.59	EXIT 64 LT. MAIN LANES - TURN OUT	296.70			VARIES	319.03	0.10	31.90	VARIES	319.03	220.00	35.09
3383+32.55	3388+82.55	EXIT 64 RAMP 3 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3510+94.87	3523+23.09	EXIT 67 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1228.22			VARIES	1456.86	0.10	145.69	VARIES	1456.86	220.00	160.25
3523+21.25	3528+71.25	EXIT 67 RAMP 1 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3531+23.67	3537+57.38	EXIT 67 LT. MAIN LANES - TURN OUT	633.71			VARIES	960.07	0.10	96.01	VARIES	960.07	220.00	105.61
3527+09.77	3532+59.77	EXIT 67 RAMP 2 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3516+16.99	3523+05.98	EXIT 67 RT. MAIN LANES - TURN OUT	688.99			VARIES	1015.96	0.10	101.60	VARIES	1015.96	220.00	111.76
3521+23.46	3526+73.46	EXIT 67 RAMP 3 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3533+82.18	3546+07.21	EXIT 67 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1225.03			VARIES	1453.48	0.10	145.35	VARIES	1453.48	220.00	159.88
3528+33.93	3533+83.93	EXIT 67 RAMP 4 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3578+13.70	3585+13.41	REST AREA RT. MAIN LANES - TURN OUT	699.71			VARIES	1030.43	0.10	103.04	VARIES	1030.43	220.00	113.35
3583+23.71	3588+73.71	REST AREA RAMP 1 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3601+63.55	3611+27.95	REST AREA RT. MAIN LANES - ACCELERATION LANE AND TAPER	964.40			VARIES	1103.19	0.10	110.32	VARIES	1103.19	220.00	121.35
3598+65.04	3601+65.04	REST AREA RAMP 2 - ENTRANCE RAMP	300.00			15.50	516.67	0.10	51.67	15.50	516.67	220.00	56.83
3701+86.62	3712+23.98	SAFETY REST AREA LT. MAIN LANES - ACCELERATION LANE AND TAPER	1037.36			VARIES	1194.44	0.10	119.44	VARIES	1194.44	220.00	131.39
3712+22.47	3715+22.47	SAFETY REST AREA RAMP 1 - ENTRANCE RAMP	300.00			15.50	516.67	0.10	51.67	15.50	516.67	220.00	56.83
3725+57.44	3731+55.72	SAFETY REST AREA LT. MAIN LANES - TURN OUT	598.28			VARIES	742.01	0.10	74.20	VARIES	742.01	220.00	81.62
3724+37.34	3727+37.34	SAFETY REST AREA RAMP 2 - EXIT RAMP	300.00			15.50	516.67	0.10	51.67	15.50	516.67	220.00	56.83
3811+36.21	3820+69.34	REST AREA LT. MAIN LANES - ACCELERATION LANE AND TAPER	933.13			VARIES	1111.09	0.10	111.11	VARIES	1111.09	220.00	122.22
3820+68.48	3824+18.48	REST AREA RAMP 1 - ENTRANCE RAMP	350.00			15.50	602.78	0.10	60.28	15.50	602.78	220.00	66.31
3836+83.35	3841+71.85	REST AREA LT. MAIN LANES - TURN OUT	488.50			VARIES	796.88	0.10	79.69	VARIES	796.88	220.00	87.66
3834+47.16	3837+97.16	REST AREA RAMP 2 - EXIT RAMP	350.00			15.50	602.78	0.10	60.28	15.50	602.78	220.00	66.31
3902+22.51	3907+90.38	EXIT 74 RT. MAIN LANES - TURN OUT	567.87			VARIES	615.25	0.10	61.53	VARIES	615.25	220.00	67.68
3906+19.48	3911+69.48	EXIT 74 RAMP 1 -EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3930+15.27	3942+46.25	EXIT 74 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1230.98			VARIES	1512.04	0.10	151.20	VARIES	1512.04	220.00	166.32
3924+66.37	3930+16.37	EXIT 74 RAMP 2 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3925+26.45	3932+40.29	EXIT 74 LT. MAIN LANES - TURN OUT	713.84			VARIES	889.10	0.10	88.91	VARIES	889.10	220.00	97.80
3921+56.59	3927+06.59	EXIT 74 RAMP 3 -EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
3887+85.84	3897+57.17	EXIT 74 LT. MAIN LANES - ACCELERATION LANE AND TAPER	971.33			VARIES	1146.15	0.10	114.62	VARIES	1146.15	220.00	126.08
3897+56.23	3903+06.23	EXIT 74 RAMP 4 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	220.00	104.19
ADDITIONAL FOR WIDENING FOR GUARDRAIL													
3523+95.11	3529+96.11	LEFT OF RIGHT MAIN LANES	601.00	29.50	177.30					VARIES	504.28	220.00	55.47
3526+29.91	3532+30.91	RIGHT OF LEFT MAIN LANES	601.00	29.50	177.30					VARIES	504.28	220.00	55.47
TOTALS:					**354.60**		**477455.26**		**47745.54**		**478463.82**		**52630.97**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR (PG 76-22)

5/14/2014

RBB0803.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0803	31	78

① A&B3314 - QUANTITIES - 55516
A&B3316
A&B3778

SCHEDULE OF BRIDGE QUANTITIES - JOB BB0803

LOG MILE	UNIT OF STRUCTURE	ITEM NO.	802	803	803	804	809	SP JOB BB0803	SP JOB BB0803	SP JOB BB0803
		ITEM	GROOVING	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	SILICONE JOINT SEALANT	HYDRODEMOLITION	BRIDGE DECK REPAIR	LATEX MODIFIED CONCRETE OVERLAY (1½" THICK)
		UNIT	SQ. YD.	GAL.	LIN. FT.	LBS.	LIN. FT.	SQ. YD.	SQ. FT.	SQ. YD.
73.97	EXISTING BRIDGE NO. A3316		530	11.7	258	500	168	573.3	774	574.5
73.97	EXISTING BRIDGE NO. B3316		530	11.7	258	500	168	573.3	774	574.5
70.48	EXISTING BRIDGE NO. A3314		535	11.6	260	500	168	577.8	780	579.0
70.48	EXISTING BRIDGE NO. B3314		535	11.6	260	500	168	577.8	780	579.0
64.55	EXISTING BRIDGE NO. A3778		448	9.9	218	500	169	484.4	654	485.5
64.55	EXISTING BRIDGE NO. B3778		448	9.9	218	500	169	484.4	654	485.5
	TOTALS FOR JOB NO. BB0803		3026	66.4	1472	3000 ①	1010	3271.0	4416 ①	3278.0

① This quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.

STEWART LINZ
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL FUSELIER
4/16/14
BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
HWY. 64 - MILL CREEK (S)
JOHNSON AND POPE COUNTIES

ROUTE 40 SEC. 21 & 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSL DATE: 02/10/14 FILENAME: bbb0806_ql.dgn
CHECKED BY: CMH DATE: 4/17/14 SCALE: NO SCALE
DESIGNED BY: — DATE: —

BRIDGE NO. A&B3314, A&B3316 A&B3778 DRAWING NO. 55516

PRINT DATE: 17-APR-2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
7-16-14				6	ARK.			
				JOB NO.		BB0803	32	78

(2) SUMMARY OF QUANTITIES AND REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-16-14

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM		QUANTITY 9050	QUANTITY BIM-B40-0(222)	QUANTITY	UNIT
210	UNCLASSIFIED EXCAVATION			238	238	CU. YD.
210	COMPACTED EMBANKMENT			50	50	CU. YD.
SP & 215	TRENCHING AND SHOULDER PREPARATION			29	29	STATION
303	AGGREGATE BASE COURSE (CLASS 7)			355	355	TON
401	TACK COAT			47950	47950	GAL.
SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")			817	817	TON
SP & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")			34	34	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")			529	529	TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")			25	25	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")			50402	50402	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")			2933	2933	TON
412	COLD MILLING ASPHALT PAVEMENT			477455	477455	SQ. YD.
601	MOBILIZATION			1.00	1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC			1.00	1.00	LUMP SUM
604	SIGNS			1520	1520	SQ. FT.
604	TRAFFIC DRUMS			883	883	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER			493	493	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER			5423	5423	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS			325155	325155	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS			8150	8150	LIN. FT.
604	ADVANCE WARNING ARROW PANEL			170	170	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN			102	102	WEEK
SP & 605	CONCRETE DITCH PAVING (TYPE B)		14652		14652	SQ. YD.
617	GUARDRAIL (TYPE A)			900	900	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)			2	2	EACH
617	TERMINAL ANCHOR POSTS (TYPE 1)			2	2	EACH
620	LIME			8	8	TON
620	SEEDING			4.05	4.05	ACRE
SS & 620	MULCH COVER			4.05	4.05	ACRE
620	WATER		184.6	413.1	597.7	M.GAL.
621	SAND BAG DITCH CHECKS			1623	1623	BAG
621	DROP INLET SILT FENCE			1750	1750	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL			139	139	CU. YD.
623	SECOND SEEDING APPLICATION			4.05	4.05	ACRE
624	SOLID SODDING		14652		14652	SQ. YD.
635	ROADWAY CONSTRUCTION CONTROL			1.00	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS			267318	267318	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING (SKIP LINE) WHITE (4")	(ALTERNATE NO. 1)		33570	33570	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE (SKIP LINE) WHITE (4")	(ALTERNATE NO. 2)		33570	33570	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)		141680	141680	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)		141680	141680	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)		142521	142521	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)		142521	142521	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)		320	320	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)		320	320	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)		7064	7064	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)		7064	7064	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)			2687	2687	EACH
SP	FLUSHING UNDERDRAIN			134332	134332	LIN. FT.
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER			2	2	EACH
SP	REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKER			1450	1450	EACH
SP	WIRE ROPE SAFETY FENCE		33087		33087	LIN. FT.
SP	WIRE ROPE SAFETY FENCE (POST REPAIR)		50		50	EACH
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS		1.00		1.00	LUMP SUM
	STRUCTURES OVER 20' SPAN					
636	BRIDGE CONSTRUCTION CONTROL			1.00	1.00	LUMP SUM
802	GROOVING			3026	3026	SQ. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT			66.4	66.4	GAL.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT			1472	1472	LIN. FT.
804	REINFORCING STEEL - BRIDGE (GRADE 60)			3000	3000	LBS.
809	SILICONE JOINT SEALANT			1010	1010	LIN. FT.
SP	HYDRODEMOLITION			3271.0	3271.0	SQ. YD.
SP	BRIDGE DECK REPAIR			4416	4416	SQ. FT.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)			3278.0	3278.0	SQ. YD.

* DENOTES ALTERNATE BID ITEMS

REVISIONS

DATE	REVISION	SHEET NUMBER
7/16/2014	REVISED SP "EMPLOYMENT REPORTING"	32

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SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	33	78

(2) PLAN SHEETS

STA. 3382+62 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-8" WITH
18" X 124' R.C. PIPE CULVERT TO LT.
RETAIN

STA. 3390+07 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-0" WITH
24" X 96' R.C. PIPE CULVERT TO LT.
RETAIN

STA. 3403+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-3" WITH
24" X 120' R.C. PIPE CULVERT TO RT.
RETAIN

STA. 3406+15 IN PLACE
QUAD. 6' X 7' X 382' R.C. BOX CULVERT
D.A. 880 ACRES, C = 1.0
RETAIN

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STA. 3409+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-10" WITH
18" X 140' C.M. PIPE CULVERT
RETAIN

STA. 3382+43.24
BEGIN JOB BB0803
(LOG MILE 63.8)

STA. 3383+12
BEGIN WRSF

STA. 3382+43.24
BR. END

BR. NO. A6868

S 48°09'01" E

BR. NO. B6868

STA 3380+85
END WRSF
JOB 012168

PC3383+02.96

STA. 3383+11.26
BR. END

RAMP 3

EXIST. R/W & C. OF A.

RAMP 2

EXIST. R/W & C. OF A.

EXIST. R/W

3390

3395

3400

3405

3410

+54.70

700' ACCEL. LANE

+54.70

300' TAPER

+54.70

PI 3399+11

PI = 3399+11.89
Δ = 43°08'08" RT.
D = 1°24'27"
T = 1608.94'
L = 3064.43'
PC = 3383+02.96
PT = 3413+67.39

STA. 3418+71.70 BR. END
EXISTING 111.18' BRIDGE NO. A3778
39'0" CLEAR ROADWAY
STA. 3419+82.88 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION
EXISTING APPROACH SLABS &
GUTTERS - RETAIN

EXIST. R/W

EXIST. R/W

STA. 3418+61.36 BR. END
EXISTING 111.18' BRIDGE NO. B3778
39'0" CLEAR ROADWAY
STA. 3419+72.54 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION
EXISTING APPROACH SLABS &
GUTTERS - RETAIN

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

STA. 3415+85
END WRSF
3415

STA. 3418+71.70 BR. END

BR. NO. A3778

STA. 3419+82.88 BR. END

STA. 3422+59
BEGIN WRSF

8" GAS LINE

PC3433+63.14

3410

3420

3425

3430

3435

3440

S 5°00'53" E

BR. NO. B3778

PT3413+67.39

STA. 3418+61.36 BR. END

STA. 3419+72.54 BR. END

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

8" GAS LINE

STA. 3414+13 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-6" WITH
18" X 122' C.M. PIPE CULVERT
RETAIN

STA. 3420+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-11" WITH
24" X 168' R.C. PIPE CULVERT
RETAIN

STA. 3426+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-11" WITH
24" X 86' R.C. PIPE CULVERT TO RT.
RETAIN

STA. 3432+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-8" WITH
18" X 142' C.M. PIPE CULVERT
RETAIN

STA. 3432+42 IN PLACE
36" X 256' R.C. PIPE CULVERT
"L" HEADWALL ON LT.
D.A. 12 AC., C = 1.0
RETAIN

STA. 3439+14 IN PLACE
24" X 218' R.C. PIPE CULVERT
"L" HEADWALL ON LT.
D.A. 2 AC., C = 1.0
RETAIN

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				6	ARK.			
				JOB NO.		080803	34	78

(2) PLAN SHEETS

STA. 3450+58 IN PLACE
24" X 206' R.C. PIPE CULVERT
"L" HEADWALL ON LT.
D.A. 3 AC., C = 1.0
RETAIN

STA. 3451+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-10" WITH
18" X 122' C.M. PIPE CULVERT
RETAIN

STA. 3458+89 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-8" X 5'-9" WITH
36" X 182' C.M. PIPE CULVERT
D.A. 13 AC., C = 1.0
RETAIN

STA. 3465+14 IN PLACE
DBL. 6' X 5' X 270' R.C. BOX CULVERT
(45° LT. FWD. SKEW)
TYPE K DROP INLET IN MEDIAN
4' X 4'-0" X 4'-8"
D.A. 245 ACRES, C = 1.0
RETAIN

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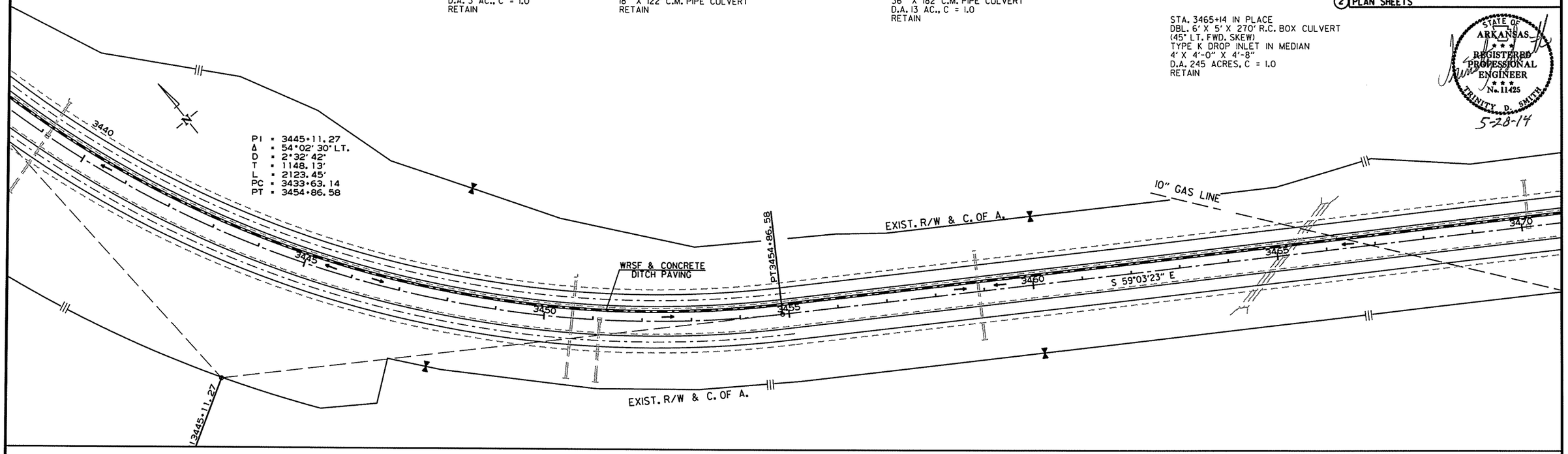
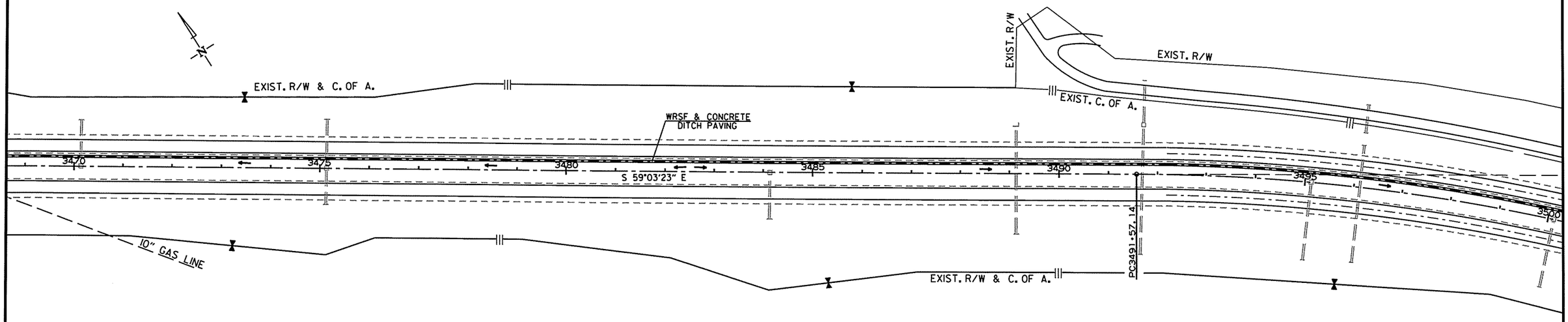
PI = 3445+11.27
Δ = 54°02'30" LT.
D = 2°32'42"
T = 1148.13'
L = 2123.45'
PC = 3433+63.14
PT = 3454+86.58





STA. 3470+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-5" WITH
24" X 90' R.C. PIPE CULVERT
RETAIN

STA. 3475+14 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-1" X 4'-1" WITH
30" X 172' R.C. PIPE CULVERT
D.A. 10 AC., C = 1.0
RETAIN

STA. 3484+13 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-1" WITH
24" X 86' R.C. PIPE CULVERT
RETAIN

STA. 3489+14 IN PLACE
30" X 218' R.C. PIPE CULVERT
WITH L HDWL. ON LT.
RETAIN

STA. 3491+69 IN PLACE
TYPE H DROP INLET IN LT. MEDIAN
4' X 5'-3" X 5'-7" WITH
42" X 84' R.C. PIPE TO LT. &
42" X 258' R.C. PIPE TO RT.
RETAIN

STA. 3495+13 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-5" WITH
18" X 154' R.C. PIPE CULVERT
RETAIN

STA. 3496+12 IN PLACE
24" X 238' R.C. PIPE CULVERT
D.A. = 2 AC., C = 1.0
RETAIN

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				6	ARK.			
				JOB NO.		880803	35	78

(2) PLAN SHEETS

STA. 3500+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-5" WITH
18" X 126' R.C. PIPE CULVERT
RETAIN

STA. 3501+12 IN PLACE
42" X 216' R.C. PIPE CULVERT
D.A. = 18 AC., C = 1.0
RETAIN

STA. 3506+11 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-8" WITH
18" X 124' R.C. PIPE CULVERT
RETAIN

STA. 3507+11 IN PLACE
24" X 204' R.C. PIPE CULVERT
RETAIN

STA. 3512+12 IN PLACE
24" X 174' R.C. PIPE CULVERT
WITH TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-11"
RETAIN

STA. 3517+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-5" WITH
24" X 88' R.C. PIPE CULVERT
RETAIN

STA. 3522+12 IN PLACE
30 X 178' R.C. PIPE CULVERT
WITH TYPE H DROP INLET IN MEDIAN
4' X 4'-1" X 5'-8"
RETAIN

STA. 3527+11 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-1" WITH
24" X 86' R.C. PIPE CULVERT
RETAIN

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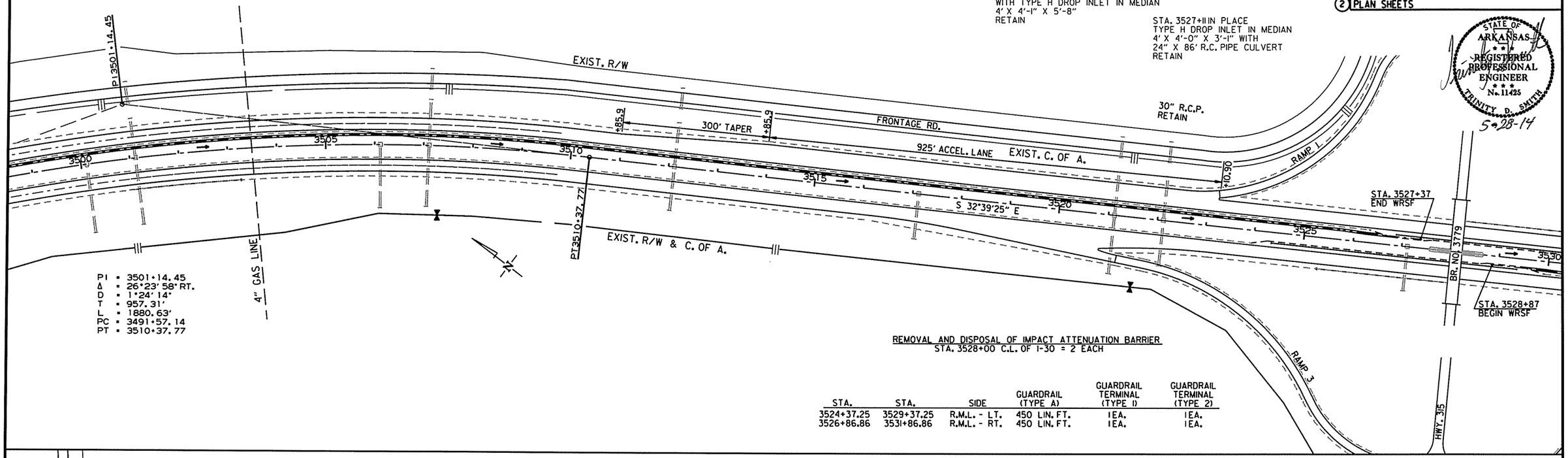
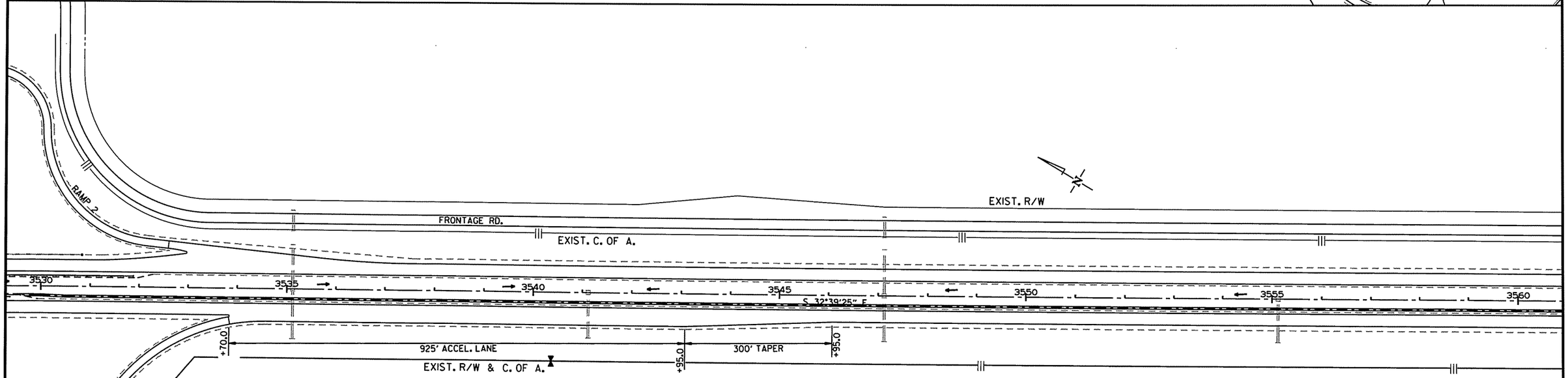


REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 3528+00 C.L. OF I-30 = 2 EACH

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
3524+37.25	3529+37.25	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
3526+86.86	3531+86.86	R.M.L. - RT.	450 LIN. FT.	1 EA.	1 EA.



STA. 3535+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 6'-0" WITH
30" X 190' R.C. PIPE CULVERT
RETAIN

STA. 3541+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-3" WITH
24" X 88' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3547+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-1" X 4'-9" WITH
30" X 178' R.C. PIPE CULVERT
RETAIN

STA. 3555+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-11" WITH
24" X 82' R.C. PIPE OUTLET TO RT.
RETAIN

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(2) PLAN SHEETS

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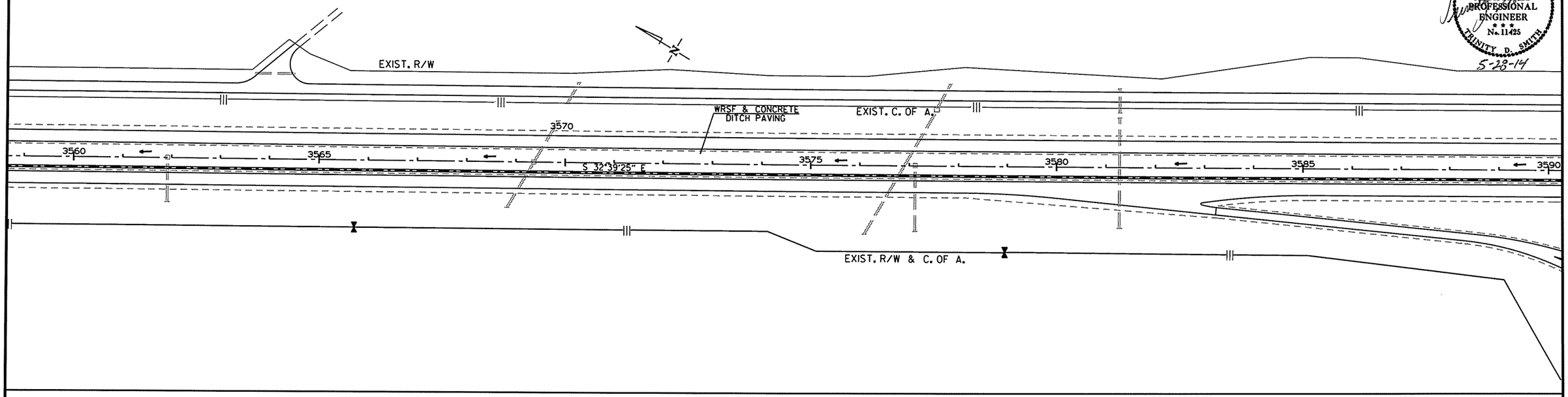
STA. 3561+91 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-11" WITH
24" X 86' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3569+36 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 5'-5" X 6'-4" WITH
36" X 202' R.C. PIPE CULVERT
(30° LT. FWD. SKEW)
RETAIN

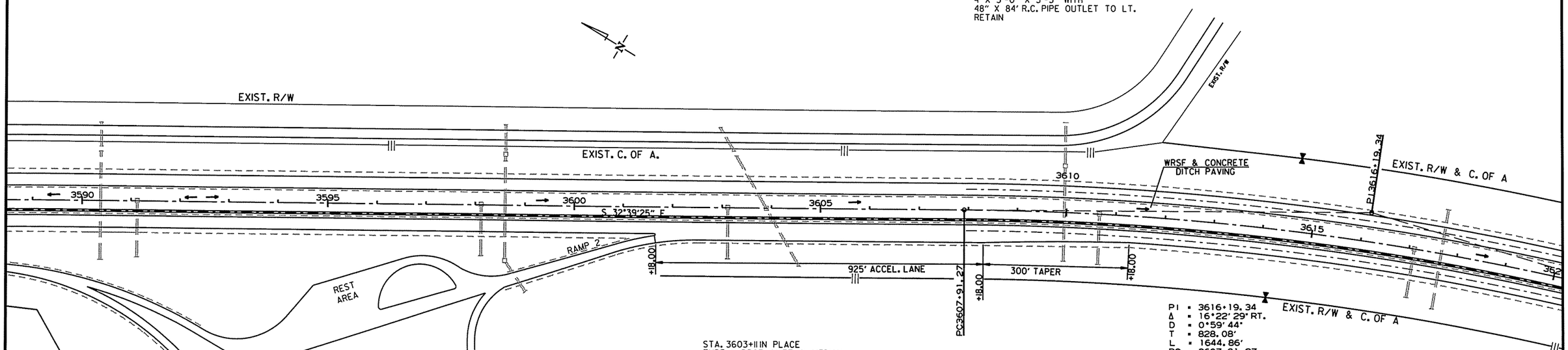
STA. 3576+90 IN PLACE
TYPE H DROP INLET IN LT. MEDIAN
4' X 6'-1" X 5'-1" WITH
42" X 288' R.C. PIPE CULVERT
(30° LT. FWD. SKEW)
D.A. = 26 AC., C = 0.8
RETAIN

STA. 3577+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-6" WITH
18" X 130' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3581+27 IN PLACE
30" X 178' R.C. PIPE CULVERT
D.A. = 10 AC., C = 0.8
RETAIN



LT. FRONT. RD.
STA. 3610+84 IN PLACE
TYPE H DROP INLET ON RT.
4' X 5'-0" X 5'-3" WITH
48" X 84' R.C. PIPE OUTLET TO LT.
RETAIN



PI = 3616+19.34
Δ = 16°22'29" RT.
D = 0°59'44"
T = 828.08'
L = 1644.86'
PC = 3607+91.27
PT = 3624+36.13

STA. 3590+38 IN PLACE
42" X 220' R.C. PIPE CULVERT
D.A. = 26 AC., C = 0.8
RETAIN

STA. 3591+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 5'-2" WITH
24" X 110' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3598+12 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 2'-5" WITH
18" X 100' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3598+60 IN PLACE
48" X 198' R.C. PIPE CULVERT
D.A. = 33 AC., C = 0.8
RETAIN

STA. 3603+11 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 5'-2" WITH
24" X 100' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3603+89 IN PLACE
36" X 256' R.C. PIPE CULVERT
D.A. = 13 AC., C = 0.5
RETAIN

STA. 3609+95 IN PLACE
48" X 192' R.C. PIPE CULVERT
D.A. = 40 AC., C = 0.8
HDWL ON RT.-CONNECTRD TO
DROP INLET ON LT.
RETAIN

STA. 3610+66 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-2" WITH
24" X 94' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3617+10 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 6'-0" WITH
24" X 96' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3617+67 IN PLACE
42" X 204' R.C. PIPE CULVERT
D.A. = 26 AC., C = 0.8
RETAIN

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STA. 3622+45 IN PLACE
48" X 232' R.C. PIPE CULVERT
D.A. = 39 AC., C = 0.8
RETAIN

STA. 3623+07 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-0" X 3'-0" WITH
24" X 110' R.C. PIPE OUTLET TO RT.
RETAIN

STA. 3627+87 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-1" X 4'-4" OVER
30" X 172' R.C. PIPE CULVERT
D.A. = 10 AC., C = 0.8
RETAIN

STA. 3632+69 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4'-1" X 4'-6" OVER
30" X 182' R.C. PIPE CULVERT
RETAIN

STA. 3635+69 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4' X 3'-6" OVER
24" X 170' R.C. PIPE CULVERT
RETAIN

STA. 3640+20 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4' X 4'-6" OVER
30" X 160' R.C. PIPE CULVERT
RETAIN

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				6	ARK.			
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(2) PLAN SHEETS

STA. 3646+44 IN PLACE
TYPE H DROP INLET IN MEDIAN
5' X 5' X 7'-6" OVER
36" X 224' R.C. PIPE CULVERT
(30' RT. FWD. SKEW)
RETAIN

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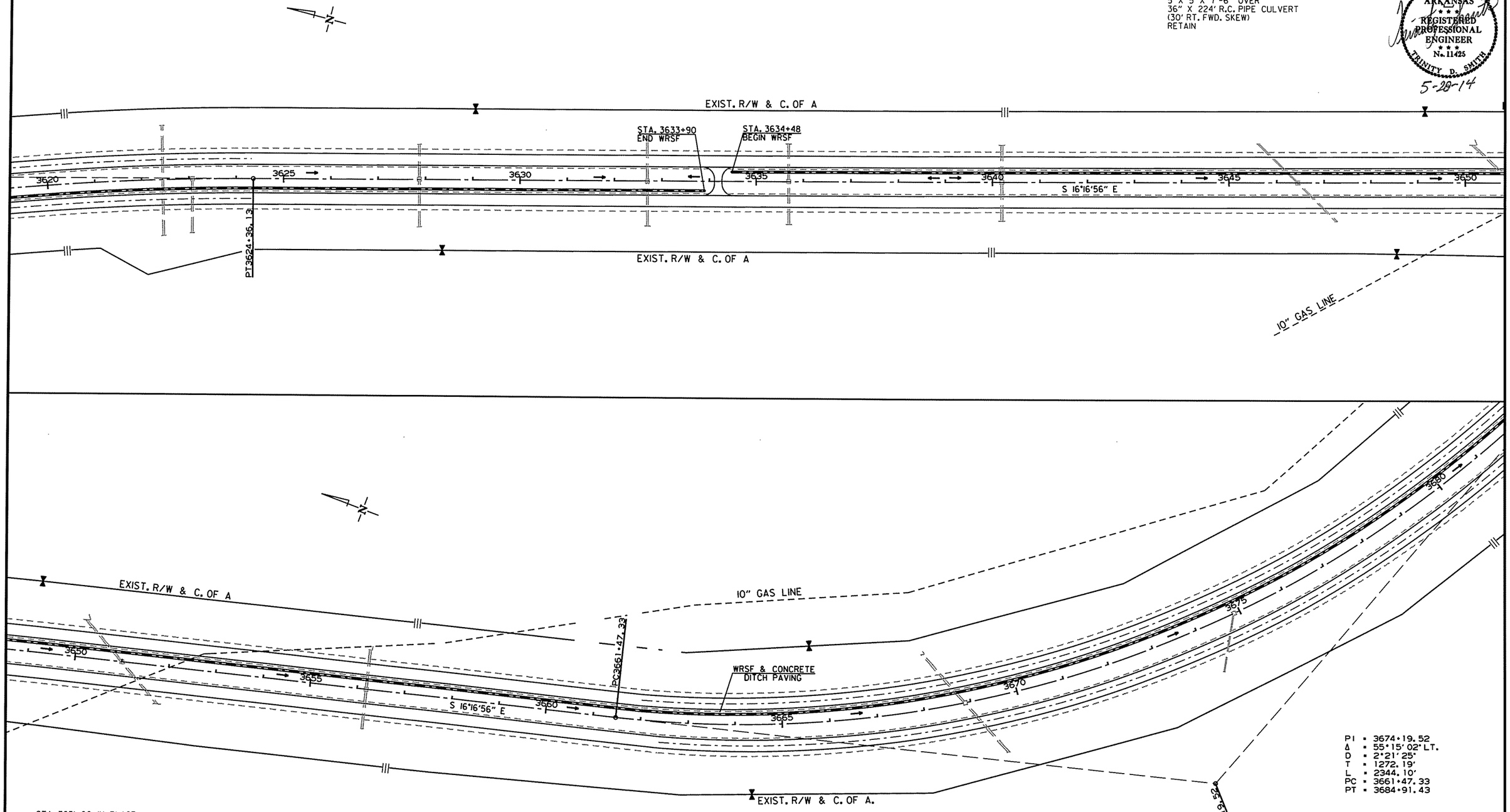

PI = 3674+19.52
Δ = 55°15'02" LT.
D = 2°21'25"
T = 1272.19'
L = 2344.10'
PC = 3661+47.33
PT = 3684+91.43

STA. 3651+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
6' X 6' X 7'-9" OVER
42" X 222' R.C. PIPE CULVERT
(30° RT. FWD. SKEW)
RETAIN

STA. 3656+19 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' X 4' X 3'-9" OVER
24" X 166' R.C. PIPE CULVERT
RETAIN

STA. 3668+89 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
7' X 6' X 8'-0" OVER
48" X 274' R.C. PIPE CULVERT
(45° RT. FWD. SKEW)
RETAIN

STA. 3674+87 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' X 4' X 4'-0" WITH
24" X 120' R.C. PIPE CULVERT TO RT.
(30' LT. FWD. SKEW)
RETAIN

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				6	ARK.			
				JOB NO.		BB0803	38	78

(2) PLAN SHEETS

STA. 3681+82 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' X 4' X 3'-9" WITH
24" X 126' R.C. PIPE CULVERT TO RT.
(45° LT. FWD. SKEW)
RETAIN

STA. 3693+77 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' X 4' X 7'-0" OVER
24" X 112' R.C. PIPE CULVERT TO RT.
RETAIN

STA. 3696+77 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' X 4' X 3'-9" OVER
24" X 82' R.C. PIPE CULVERT TO RT.
RETAIN

STA. 3702+77 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
5' X 5' X 5'-6" OVER
42" X 182' R.C. PIPE CULVERT
RETAIN

STA. 3708+77 IN PLACE
TYPE "K" DROP INLET IN MEDIAN
5' X 5' X 8'-0" OVER
5' X 5' X 350' R.C. BOX CULVERT
(30° LT. FWD. SKEW)
RETAIN

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10" GAS LINE
EXIST. R/W & C. OF A.
STA. 3686+30.05 BR. END
EXIST.R/W
PT 3684+91.43
STA. 3686+20 END WRSF
STA. 3693+42.17 BR. END
STA. 3693+02 BEGIN WRSF
EXIST. C. OF A.
EXIST.R/W
EXIST.R/W
+46.60
300' TAPER
+46.60
700' ACCEL. LANE
3680
3685
3690
3695
3700
3705
3710
BR. NO. A3313
S 71°31'58" E
BR. NO. B3313
STA. 3686+50.05 BR. END
STA. 3693+02.17 BR. END
EXIST. R/W & C. OF A.
EXIST.R/W
BIG PINEY CREEK
EXIST.R/W & C. OF A.

NOTE: BRIDGE NO. A3313 & B3313 ARE EXCEPTIONS TO JOB BB0803.

EXIST.R/W
EXIST. C. OF A.
S LINE
10" GAS LINE
EXIST.R/W
SAFETY REST AREA
58'
15'
PI 3722+74.29
+46.60
3710
3715
3720
3725
3730
3735
3740
S 71°31'58" E
S 57°27'57" E
PC 3715+67.39
EXIST.R/W & C. OF A.
STA. 3729+63 END WRSF
PT 3729+74.07
STA. 3732+39.50 BR. END
STA. 3733+71.67 BR. END
BR. NO. A3314
BR. NO. B3314
EXIST. C. OF A.

STA. 3732+39.50 BR. END
EXISTING 132.17' BRIDGE NO. A3314
39'-0" CLEAR ROADWAY
STA. 3733+71.67 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION
EXISTING APPROACH SLABS & GUTTERS - RETAIN

STA. 3732+39.50 BR. END
EXISTING 132.17' BRIDGE NO. B3314
39'-0" CLEAR ROADWAY
STA. 3733+71.67 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION
EXISTING APPROACH SLABS & GUTTERS - RETAIN

PI = 3722+74.29
Δ = 14°04'00" RT.
D = 1°00'00"
T = 706.89'
L = 1406.68'
PC = 3715+67.39
PT = 3729+74.07

STA. 3713+77 IN PLACE
TYPE "H" DROP INLET IN MED.
4' X 6' X 5'-0" WITH
30" X 100' R.C. PIPE CULVERT TO RT.
(30° LT. FWD. SKEW)
RETAIN

STA. 3713+77 IN PLACE
TYPE "H" DROP INLET IN LT. MED.
4' X 6' X 5'-0" WITH
24" X 62' R.C. PIPE CULVERT TO LT. UNDER RAMP
"L" HEADWALL ON LT.
30" X 70' R.C. PIPE CULVERT UNDER LT. MAIN LANES
RETAIN

STA. 3718+95 IN PLACE
TYPE "H" DROP INLET IN MED.
5' X 5' X 5'-6" OVER
42" X 188' R.C. PIPE CULVERT
RETAIN

STA. 3721+77 IN PLACE
TYPE "H" DROP INLET IN MED.
7' X 6' X 5'-6" OVER
42" X 300' R.C. PIPE CULVERT
(45° LT. FWD. SKEW)
RETAIN

STA. 3730+49 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' X 4' X 4'-0" WITH
24" X 92' R.C. PIPE CULVERT TO RT.
RETAIN

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(2) PLAN SHEETS

STA. 3741+56 IN PLACE
5' X 4' X 280' R.C. BOX CULVERT
RETAIN

STA. 3743+55 IN PLACE
24" X 108' R.C. PIPE CULVERT
UNDER RT. MAIN LANES
RETAIN

STA. 3753+54 IN PLACE
TYPE R DROP INLET IN MEDIAN
4' X 3' X 3'-4" OVER
30" X 212' R.C. PIPE CULVERT
RETAIN

STA. 3756+34 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
5' X 5' X 2'-0" OVER
5' X 5' X 270' R.C. BOX CULVERT
(15° RT. FWD. SKEW)
RETAIN

STA. 3766+03 IN PLACE
4' X 4' X 88' R.C. BOX CULVERT
UNDER LT. MAIN LANES
(30° RT. FWD. SKEW)
RETAIN

STA. 3767+25 IN PLACE
4' X 4' X 110' R.C. BOX CULVERT
UNDER RT. MAIN LANES
(30° RT. FWD. SKEW)
RETAIN

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No. 11425
TRINITY D. SMITH
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PI = 3758+46.19
Δ = 18°05'00" LT.
D = 0°56'51"
T = 962.26'
L = 1908.52'
PC = 3748+83.93
PT = 3767+92.45

EXIST. R/W & C. OF A.

3740

3745

S 57°27'57" E

PC 3748+83.93

3750

3755

3760

3765

PT 3767+92.45

S 75°32'57" E

3770

EXIST. R/W & C. OF A.

PI 3758+46.19

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

STA. 3791+43 IN PLACE
DBL. 30" R.C. PIPE
RETAIN

STA. 3799+00 IN PLACE
5' X 5' R.C. BOX CULVERT
RETAIN

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

PC 3798+59.83

10" G

57" E

3770

3775

3780

3785

3790

S 75°32'57" E

3795

3800

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

JOHNSON COUNTY
POPE COUNTY

STA. 3773+14 IN PLACE
TYPE "K" DROP INLET IN MEDIAN
4' X 6' X 2'-0" OVER
5' X 4' X 374' R.C. BOX CULVERT
(30° RT. FWD. SKEW)
RETAIN

STA. 3779+29 IN PLACE
TYPE R DROP INLET IN MEDIAN
9'-11" X 3' X 5'-5" OVER
48" X 434' R.C. PIPE CULVERT
(45° RT. FWD. SKEW)
RETAIN

STA. 3790+89 IN PLACE
TYPE "A" DROP INLET
9'-2" x 3' x 3'-4"
DBL. 30" R.C. PIPE
RETAIN

STA. 3798+43 IN PLACE
5' X 5' R.C. BOX CULVERT
RETAIN

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				6	ARK.			
				JOB NO.		BB0803	40	78

(2) PLAN SHEETS

BLDG.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

3807+37 IN PLACE
DBL. 4' X 4' R.C. BOX CULVERT
RETAIN

STA. 3813+38 IN PLACE
TYPE "T" DROP INLET
4' X 4' R.C. BOX CULVERT
RETAIN

PI = 3815+92.34
Δ = 16°20'00" LT.
D = 0°28'29"
T = 1732.51'
L = 3441.52'
PC = 3798+59.83
PT = 3833+01.35

SEWAGE TREATMENT-IN PLACE RETAIN

10" GAS

EXIST. R/W & C. OF A.

+60.00

300' TAPER

+60.00

700' ACCELERATION LANE

3800 3805 3810 3815 3820 3825 3830

10" GAS

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

PI 3815+92.34

STA. 3807+38 IN PLACE
6' X 6' R.C. BOX CULVERT
RETAIN

STA. 3814+02 IN PLACE
TYPE "T" DROP INLET
2'-6" X 3' H=I'
4'X4' R.C. BOX CULVERT
RETAIN

STA. 3825+06 IN PLACE
6' X 8' R.C. BOX CULVERT
TYPE "T" DROP INLET
2'-6" X 3' H=I'
RETAIN

STA. 3840+46 IN PLACE
42" R.C.P.
RETAIN

STA. 3847+80 IN PLACE
6'X5' R.C. BOX CULVERT
RETAIN

EXIST. R/W & C. OF A.

PT 3833+01.35

3830 3835 3840 3845 N 88°07'03" E 3850 3855 3860

BR. NO. 3315

EXIST. R/W & C. OF A.

EXIST. R/W

STA. 3841+08 IN PLACE
42" STEEL GRATE ASSEMBLY
42" R.C.P.
RETAIN

STA. 3849+13 IN PLACE
TYPE "T" DROP INLET
H=4'-4"
6'X5' R.C. BOX CULVERTS
RETAIN

STA. 3853+35 IN PLACE
TYPE "R" DROP INLET
4'X3' H=3'-10"
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN

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				6	ARK.			
				JOB NO.		BB0803	41	78

(2) PLAN SHEETS

STATE OF ARKANSAS
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TRINITY D. SMITH
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STA. 3865+13
TYPE "T" DROP INLET H=1'
6'X8' R.C. BOX CULVERTS
RETAIN

STA. 3872+24 IN PLACE
TYPE "T" DROP INLET H=1'
5'-10" X 3' X 4'-10"
48" STEEL GRATE ASSEMBLY
48" R.C.P.
RETAIN

STA. 3877+28 IN PLACE
6' X 6' R.C. BOX CULVERT
TYPE "T" DROP INLET H=0'-10"
RETAIN

STA. 3886+58 IN PLACE
42" R.C.P.
RETAIN

EXIST. R/W

EXIST. R/W & C. OF A.

300' TAPER

+62.00

BR. NO. 3315

3860 3865 3870 3875 3880 3885 3890

N 88°07'03" E

EXIST. R/W & C. OF A.

STA. 3872+76 IN PLACE
TYPE "T" DROP INLET H=1'
5'-10" X 3' X 4'-10"
48" R.C.P.
RETAIN

STA. 3881+64 IN PLACE
TYPE "R" DROP INLET
4' X 3' X 2'-10"
24" R.C.P.
RETAIN

STA. 3886+58 IN PLACE
42" R.C.P.
RETAIN

STA. 3901+26 IN PLACE
TYPE "H" DROP INLET
5' X 5' I-OPENING
4'-7" X 3' X 3'-8" JCT. BOX
36" R.C.P.
RETAIN

STA. 3905+35 IN PLACE
48" STEEL GRATE ASSEMBLY
48" R.C.P.
RETAIN

STA. 3913+78 IN PLACE
48" R.C.P.
RETAIN

STA. 3918+55 (RAMP 3) IN PLACE
48" R.C.P.
RETAIN

STA. 3918+65 IN PLACE
48" R.C.P.
RETAIN

STA. 3916+64.80 BR. END
EXISTING 131.17' BRIDGE NO. A3316
39'-0" CLEAR ROADWAY
STA. 3917+95.97 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION
EXISTING APPROACH SLABS & GUTTERS - RETAIN

STA. 3916+72.18 BR. END
EXISTING 131.17' BRIDGE NO. B3316
39'-0" CLEAR ROADWAY
STA. 3918+03.55 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION
EXISTING APPROACH SLABS & GUTTERS - RETAIN

EXIST. R/W

EXIST. C. OF A.

RAMP 4

EXIST. R/W & C. OF A.

700' ACCELERATION LANE

+62.00

STA. 3916+64.80 BR. END

STA. 3917+95.97 BR. END

BR. NO. A3316

3890 3895 3900 3905 3910 3915 3920

92'

92'

N 88°07'03" E

BR. NO. B3316

PC 3912+62.18

STA. 3916+72.18 BR. END

STA. 3918+03.55 BR. END

RAMP 1

EXIST. R/W & C. OF A.

STA. 3894+24 IN PLACE
TYPE "R" DROP INLET
4' X 3' X 4'-10"
48" R.C.P.
RETAIN

STA. 3900+57 IN PLACE
TYPE "R" DROP INLET
5' X 3' X 3'-10"
36" R.C.P.
RETAIN

STA. 3905+07 IN PLACE
TYPE "R" DROP INLET
5'-7" X 3' X 5'-3"
48" R.C.P.
RETAIN

STA. 3909+45 (RAMP 1) IN PLACE
24" R.C.P.
RETAIN

STA. 3914+28 IN PLACE
48" R.C.P.
RETAIN

STA. 3915+67 (RAMP 1) IN PLACE
48" R.C.P.
RETAIN

STA. 3918+98 IN PLACE
48" R.C.P.
RETAIN

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				6	ARK.			
				JOB NO.		880803	42	78

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

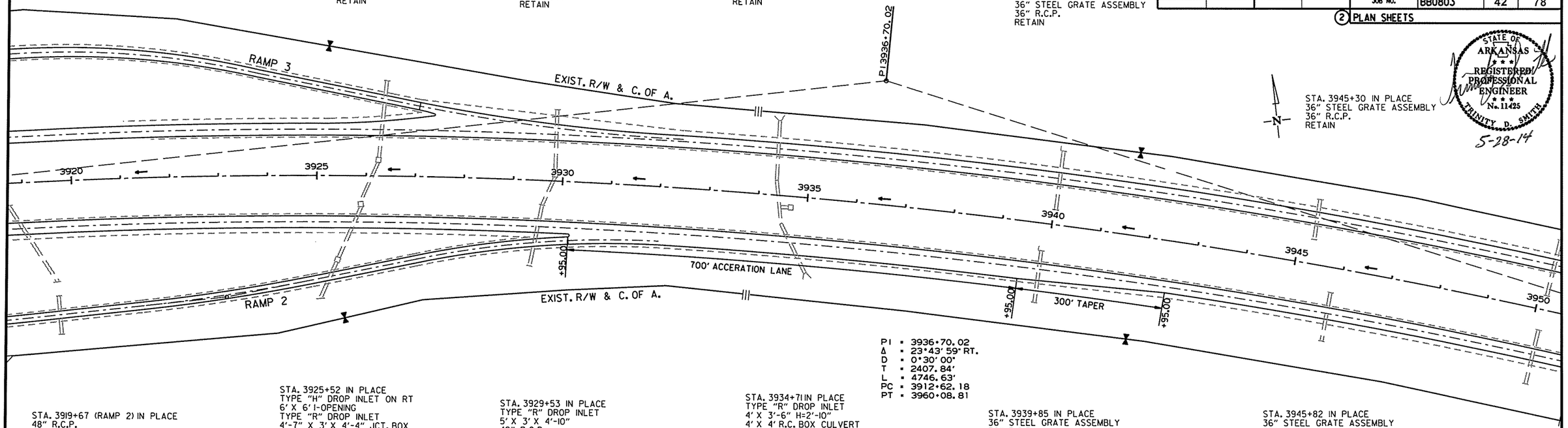
STA. 3926+28 IN PLACE
4' X 3' H=3'-8" JCT. BOX
36" R.C.P.
RETAIN

STA. 3929+84 IN PLACE
JCT. BOX
48" R.C.P.
RETAIN

STA. 3934+32 IN PLACE
4' X 4' R.C. BOX CULVERT
RETAIN

STA. 3940+05 IN PLACE
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN

STA. 3945+30 IN PLACE
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN



PI = 3936+70.02
Δ = 23°43'59" RT.
D = 0°30'00"
T = 2407.84'
L = 4746.63'
PC = 3912+62.18
PT = 3960+08.81

STA. 3919+67 (RAMP 2) IN PLACE
48" R.C.P.
RETAIN

STA. 3925+52 IN PLACE
TYPE "H" DROP INLET ON RT
6' X 6' 1-OPENING
TYPE "R" DROP INLET
4'-7" X 3' X 4'-4" JCT. BOX
36" R.C.P.
RETAIN

STA. 3929+53 IN PLACE
TYPE "R" DROP INLET
5' X 3' X 4'-10"
48" R.C.P.
RETAIN

STA. 3934+71 IN PLACE
TYPE "R" DROP INLET
4' X 3'-6" H=2'-10"
4' X 4' R.C. BOX CULVERT
24" R.C.P. FROM INLET TO BOX
RETAIN

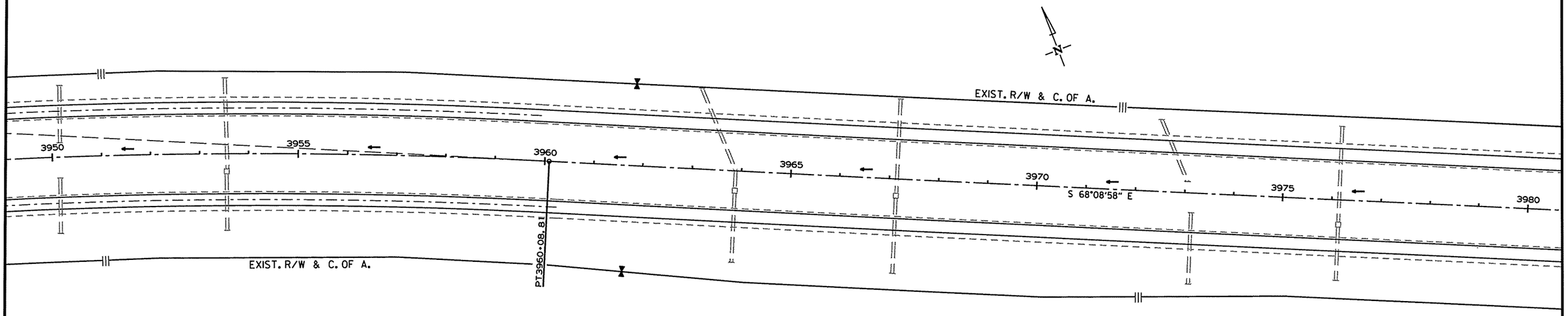
STA. 3939+85 IN PLACE
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN

STA. 3945+82 IN PLACE
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN

STA. 3950+18 IN PLACE
48" R.C.P.
RETAIN

STA. 3963+45 IN PLACE
6' X 3' H=4'-10" JCT. BOX
48" R.C.P.
RETAIN

STA. 3972+72 IN PLACE
42" R.C.P.
RETAIN



STA. 3950+13 IN PLACE
48" STEEL GRATE ASSEMBLY
48" R.C.P.
RETAIN

STA. 3953+56 IN PLACE
48" R.C.P.
RETAIN

STA. 3963+88 IN PLACE
TYPE "R" DROP INLET
4'-10" X 3' H=4'-10"
48" R.C.P.
RETAIN

STA. 3967+15 IN PLACE
TYPE "R" DROP INLET
4' X 3" H=4'-6"
36" R.C.P.
RETAIN

STA. 3973+14 IN PLACE
42" STEEL GRATE ASSEMBLY
42" R.C.P.
RETAIN

STA. 3976+15 IN PLACE
TYPE "R" DROP INLET
4' X 3' H=4'-6"
42" R.C.P.
RETAIN

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				6	ARK.			
				JOB NO.		BB0803	43	78
				(2) PLAN SHEETS				

STA. 3982+40 IN PLACE
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN

STA. 3993+85 IN PLACE
48" X 140' R.C. PIPE CULVERT
UNDER L.M.L.
RETAIN

STA. 3998+60 IN PLACE
36" X 84' R.C. PIPE CULVERT
UNDER L.M.L.
RETAIN

STA. 4006+65 IN PLACE
24" X 104' R.C. PIPE CULVERT
UNDER L.M.L.
(30° RT. FWD. SKEW)
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

EXIST. R/W & C. OF A.

3980 3985 3990 3995 4000 4005 4010

S 68°08'58" E

EXIST. R/W & C. OF A.

STA. 3983+20 IN PLACE
36" STEEL GRATE ASSEMBLY
36" R.C.P.
RETAIN

STA. 3987+62 IN PLACE
TYPE "R" DROP INLET
5'-10" X 3' H=5'-5"
48" R.C.P.
RETAIN

STA. 3993+85 IN PLACE
48" X 152' R.C. PIPE CULVERT
UNDER R.M.L.
D.A. = 25 AC., C = 1.0
RETAIN

STA. 3998+65 IN PLACE
36" X 128' R.C. PIPE CULVERT
UNDER R.M.L.
D.A. = 10 AC., C = 1.0
RETAIN

STA. 4007+90 IN PLACE
24" X 108' R.C. PIPE CULVERT
UNDER R.M.L.
(30° RT. FWD. SKEW)
RETAIN

STA. 4033+40 IN PLACE
5' X 5' X 80' R.C. BOX CULVERT
UNDER L.M.L.
RETAIN

EXIST. R/W & C. OF A.

EXIST. R/W &

4010 4015 4020 4025 4030 4035 4040

S 68°08'58" E

EXIST. R/W & C. OF A.

STA. 4014+33 IN PLACE
5' X 5' X 492' R.C. BOX CULVERT
UNDER R.M.L.
D.A. = 55 AC., C = 1.0
(30° RT. FWD. SKEW)
RETAIN

STA. 4017+64 IN PLACE
24" X 108' R.C. PIPE CULVERT
UNDER R.M.L.
(30° RT. FWD. SKEW)
RETAIN

STA. 4033+45 IN PLACE
5' X 5' X 118' R.C. BOX CULVERT
UNDER R.M.L.
D.A. = 61 AC., C = 1.0
(30° RT. FWD. SKEW)
RETAIN

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				6	ARK.			
				JOB NO.		BB0803	44	78
				(2) PLAN SHEETS				

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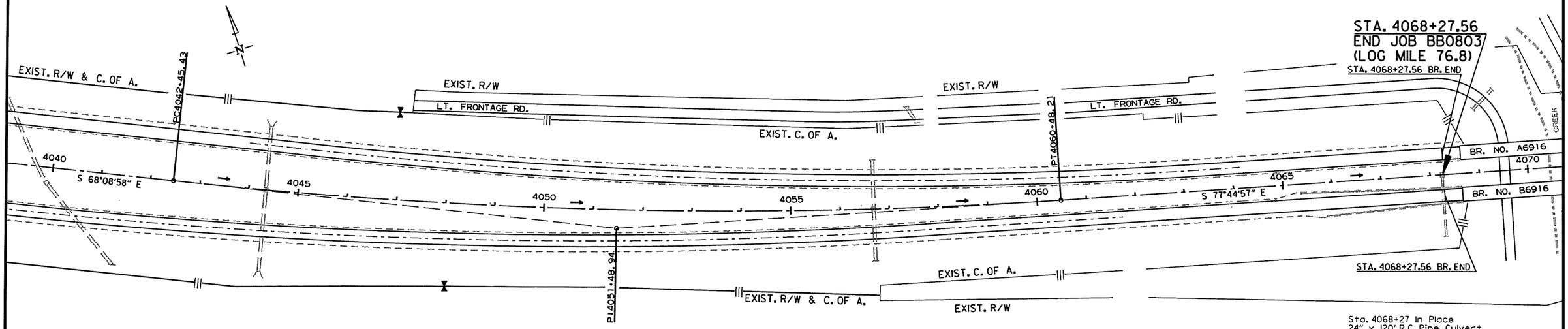
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-28-14

STA. 4039+14 IN PLACE
36" X 144' R.C. PIPE CULVERT
UNDER L.M.L.
(30° RT. FWD. SKEW)
RETAIN

PI = 4051+48.94
Δ = 9°35'59" LT.
D = 0°31'57"
T = 903.50'
L = 1802.78'
PC = 4042+45.43
PT = 4060+48.21



Sta. 4068+27 In Place
24" x 120' R.C. Pipe Culvert
Under R.L.M.
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x3'-6"
RETAIN

STA. 4040+50 IN PLACE
36" X 236' R.C. PIPE CULVERT
UNDER R.M.L.
(45° RT. FWD. SKEW)
D.A. 13 AC., C = 1.0
RETAIN

STA. 4044+35 IN PLACE
4' X 4' X 294' R.C. BOX CULVERT
TYPE K DROP INLET IN MEDIAN
4'-0" X 4'-0" X H = 1'-4"
D.A. = 38 AC., C = 1.0
RETAIN

STA. 4056+69 IN PLACE
48" X 204' R.C. PIPE CULVERT
D.A. 24 AC., C = 1.0
WITH TYPE H DROP INLET IN MED.
4'-0" X 6'-0" X4'-10"
RETAIN

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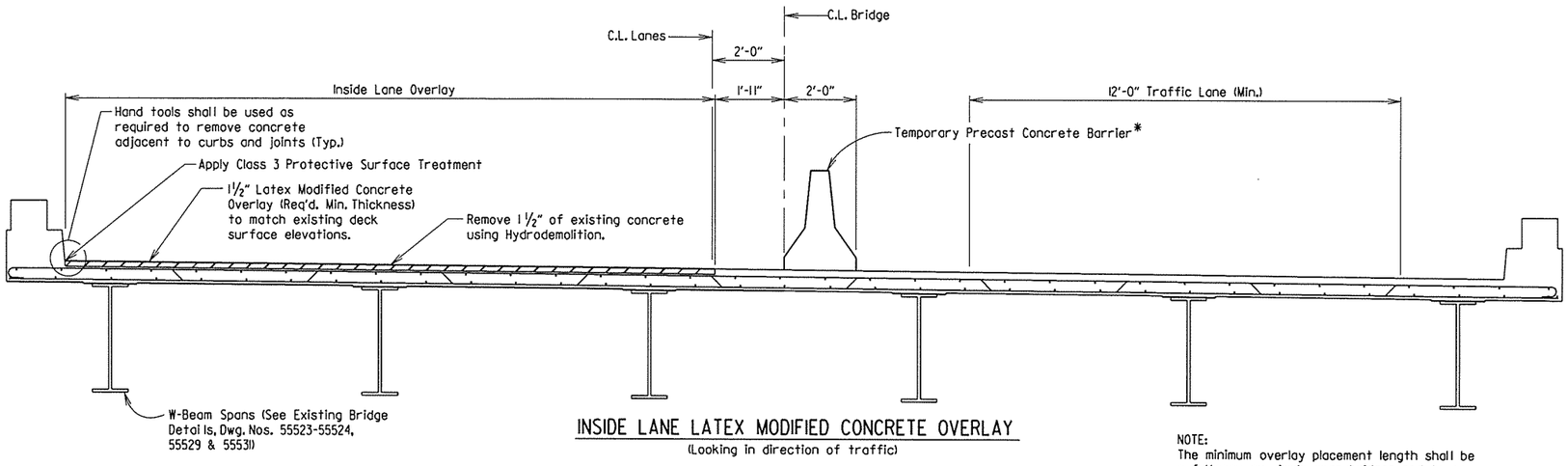
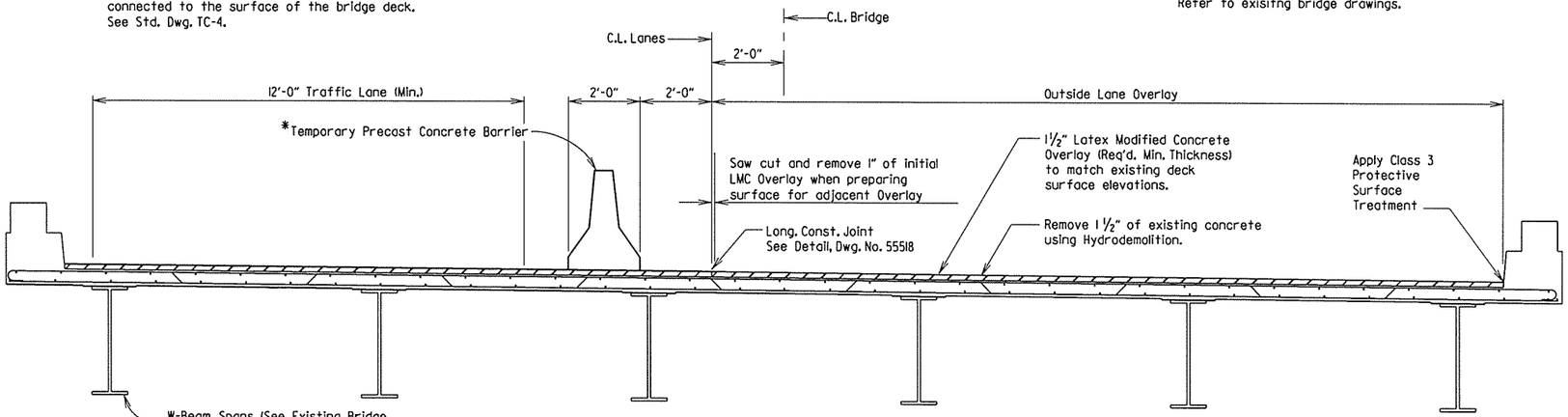


INSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)

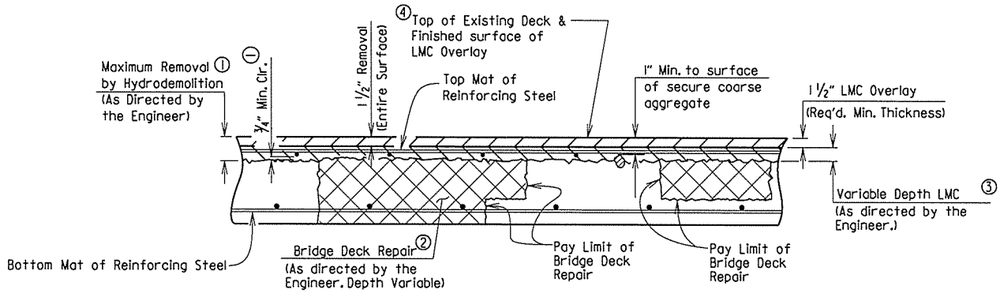
NOTE:
The minimum overlay placement length shall be a fullspan on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to exisitng bridge drawings.

*Temporary Precast Concrete Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



OUTSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job Special Provision "Bridge Deck Repair".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

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				6	ARK.			
				JOB NO.		BB0803	45	78

① A&B33I4 - LMC OVERLAY - 55517
A&B3316
A&B3778

GENERAL NOTES:
CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable special provisions and Supplemental Specifications. Unless otherwise noted in the plans Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at allphases of this work.

HYDRODEMOLITION: The designated area of the existing bridge deck shall receive hydrodemolition in accordance with the Job Special Provision "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0803 "Hydrodemolition."

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0803 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The designated area of the existing bridge deck and the approach slabs and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0803 "Latex Modified Concrete Overlay".

These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0803 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid in accordance with SP Job BB0803 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, the approach slabs, and the approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0803 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT : The longitudinal joint between the LMC overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0803 "Latex Modified Concrete Overlay".

Transverse and longitudinal construction joints separating adjacent overlay placements sha ll be prepared and sealed in accordance with the joint details on Dwg. No. 55518.

The roadway surface of the LMC overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL L. FUSELIER
BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

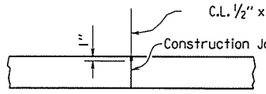
DRAWN BY: CSL DATE: 02/06/14
CHECKED BY: CMH DATE: 4/14/14
DESIGNED BY: STD DATE:
FILENAME: bb0803.concoverlay.dgn
SCALE: NO SCALE

BRIDGE NO. A&B3314, A&B3316 DRAWING NO. 55517
A&B3778

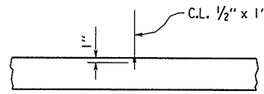
PRINT DATE: 14-APR-2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0803	46	78
				(1)	A&B3314 - LMC OVERLAY - 55518			

A&B3316
A&B3778



Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02 (h) and 501.05 (j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.

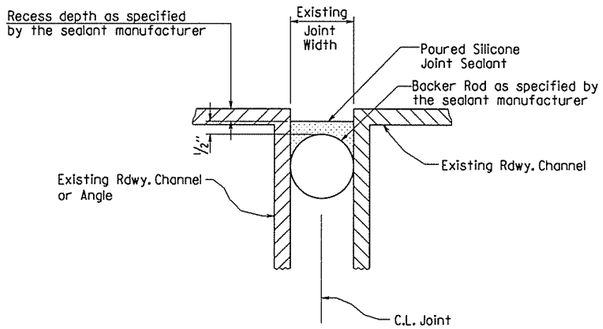


Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02 (h) and 501.05 (j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL
No Scale

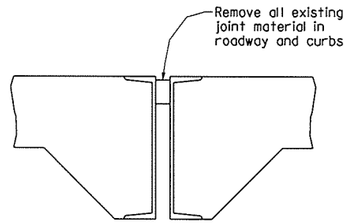
TRANSVERSE OVERLAY JOINT DETAIL
No Scale



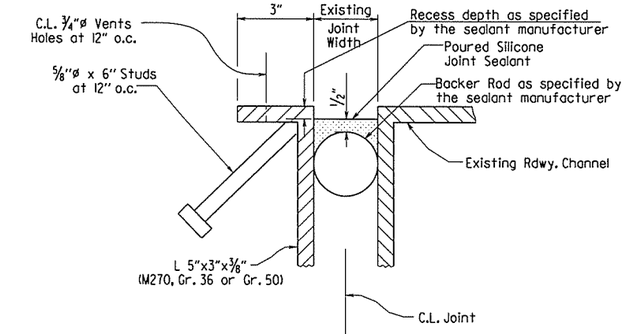
Notes: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silcone Joint Sealant".

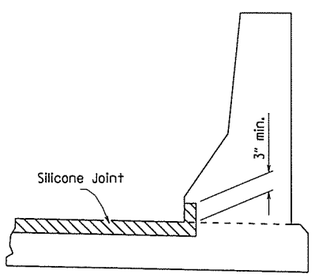
POURED SILICONE JOINT SEAL DETAILS
No Scale



REMOVAL DETAILS AT INT. BENTS
Scale: 1½" = 1'-0"

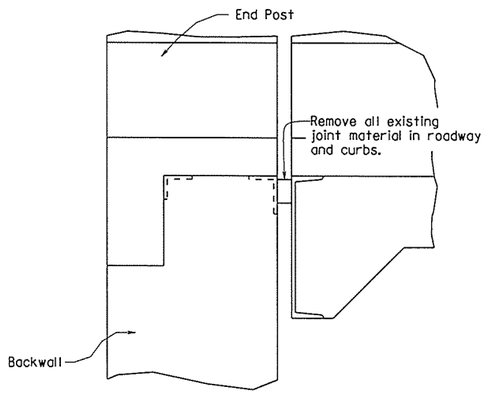


DETAIL "A"
No Scale



Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

JOINT SEAL PLACEMENT AT CURB
No Scale



REMOVAL DETAILS AT END BENTS
No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL S. USELTON

BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF
LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSL DATE: 02/06/14 FILENAME: bb0803_concoverlay.dgn
CHECKED BY: CMW DATE: 4/17/14 SCALE: NO SCALE
DESIGNED BY: STD DATE:

BRIDGE NO. A&B3314, A&B3316 A&B3778 DRAWING NO. 55518

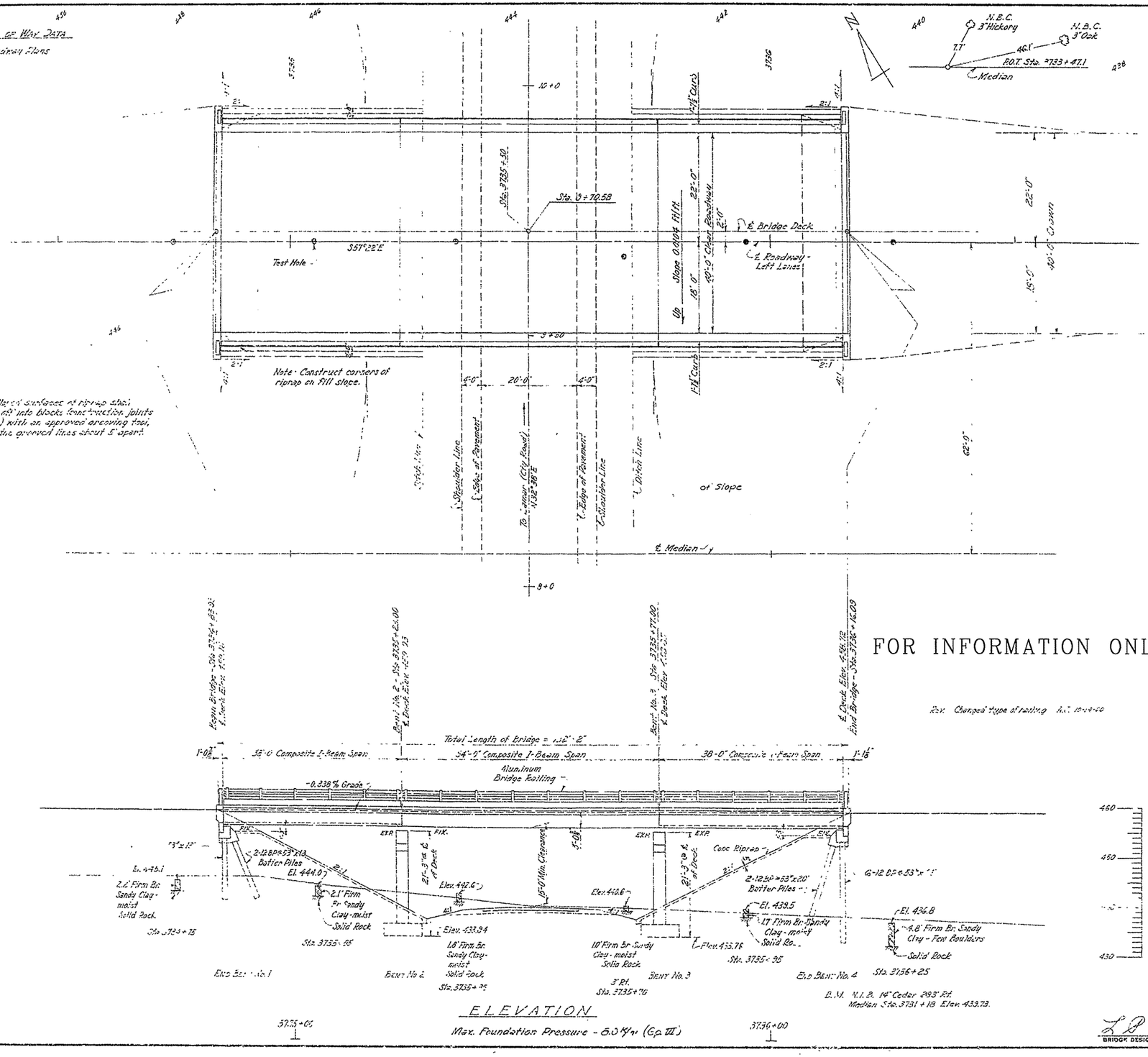
PRINT DATE: 17-APR-2014

FED. ROAD	STATE	FED. AID	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK	I-40-2(12)66		47	182
JOB No.	~~54 3~~			147	178

BB0803

Right of Way Data

See Roadway Plans



STATE | FED. AID PROJ. | SHEET NO. | TOTAL SHEETS
5 | BRI. 1-40-2(12)68 | 48 | 122
JOB NO. 060767 | 48 | 78
BB0803

Point of Way Data
See Roadway Plans

Note: Sloped surfaces of riprap shall be marked off into blocks (construction joints optional) with an approved grooving tool, spacing the grooved lines about 5' apart.

Note: Construct corners of riprap on fill slope.

For Location Sketch see Dwg. No. 112B5

For General Notes and List of detail drawings see Dwg. No. 112B3

Rev. Changed type of railing A.T. 1-12-69

ELEVATION

Max. Foundation Pressure - 8.0 K/sf (Gp. IV)

B.M. N.I.B. 14" Cedar 263' Rt. Median Sta 3731+18 Elev. 439.75

FOR INFORMATION ONLY

LAYOUT OF OVERPASS (EIGHT LANES) OVER COUNTY ROAD BIG PINEY CREEK - LONDON JOHNSON COUNTY

ROUTE (UNNUMBERED) SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.C. DATE: 7-22-68
TRACED BY: DATE:
CHECKED BY: S.A.H. DATE: 12-5-68
SCALE:

55520.

BRIDGE NO. 331-B DRAWING NO. ~~112B0~~

L. D. Caslan
BRIDGE DESIGN ENGINEER

FED. ROAD NO.	STATE	FED. AID PROJECT	SHEET NO.	TOTAL SHEETS
6	ARK.	[illegible]	49	78
JOB NO.	BB0803			

PLAN of END BENT

ELEVATION - END BENT

ELEVATION - INTERMEDIATE BENT

SECTION A-A

DETAIL A
Scale: 1"=1'0"

PILE SPLICE DETAIL
Scale: 3/4"=1'0"

TYPICAL BRACING
INTERMEDIATE H PILE BENT

END VIEW

END VIEW

Note.
The lengths of bracing members shall be determined in the field. Each member shall be one continous angle and shall be welded to the steel bearing piles as shown. Angle bracing shall be measured and paid for as "Structural Steel in Beam Spans".

*TABLE of VARIABLES—REFER TO NOTE 15

SPAN LENGTH	INTERIOR BEAM	'a'	'b'	'c'
35' thru 42'	24 WF 76	2'-8 3/4"	1 1/16	1 1/16
43' thru 49'	27 WF 94	2'-11 1/2	4 5/16	4 5/16
50' thru 54'	30 WF 108	3'-2 1/2	7 1/8	7 1/8

BAR LIST

Mark	Size	No. each Interior	No. each End	Length A	B	Pin Dia	Bending Diagram
P1	#8	4	4	41'-4"	Straight		
P2	#6	4	4	41'-4"	Straight		
P3	#6	4	4	49'-4"	21'-6"	15' 2 1/4"	
P4	#6	18	18	6'-3"	2'-2"	2'-0" 12 1/4"	
P5	#4	29	69	8'-11"	2'-0"	2'-0" 7 1/2"	
P6	#4	-	8	40'-0"	Straight		
P7	#4	-	80	4'-6"	Straight		
P8	#4	-	40	4'-0"	-	1 1/2"	
P9 to P12	#4	-	2 each	Varies 5'-1 1/4 to 5'-4 3/4	Straight		
P13	#4	-	2	3'-10 1/2"	Straight		
P14 to P17	#4	-	2 each	Varies 3'-8 1/2 to 5'-4 3/4	-	1 1/2"	
P18	#4	-	2	5'-10 1/2"	Straight		
P19	#4	-	6	4'-8"	Straight		
P20	#4	-	14	6'-6"			
P21	#4	-	4	5'-0"	Straight		
P22	#4	-	4	6'-2"	-	1 1/2"	
P23	#6	-	4	9'-11"	-	2 1/4"	
P24	#6	-	4	11'-4"	-	2 1/4"	
P25	#4	-	2	4'-11"	0'-5"	1'-5"	1 1/2"
TO1	#5	-	12	5'-3"	Straight		
TO2	#3	-	9	6'-11"	2'-9"	0'-6"	1 1/4"

Dimensions are ctr. to ctr. of bars

NOTE
All Concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.
All piling shall be driven to a minimum capacity of 35 tons per pile. Piling shall be either 12BP53#, 16" Cast Precast Concrete Piles, or Concrete Filled Metal Shell Piles as shown on the Layout.
Intermediate Bents not to be used for Spans over 45'

FOR INFORMATION ONLY

DETAILS OF STANDARD PILE BENTS
FOR 35' TO 54' COMPOSITE I-BEAM SPANS
40' CLEAR ROADWAY - 1'-7 7/8" CURBS
ROADWAY SLOPED 0.0104'

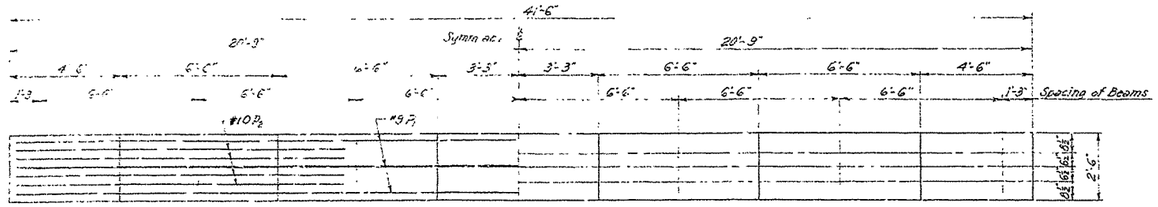
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

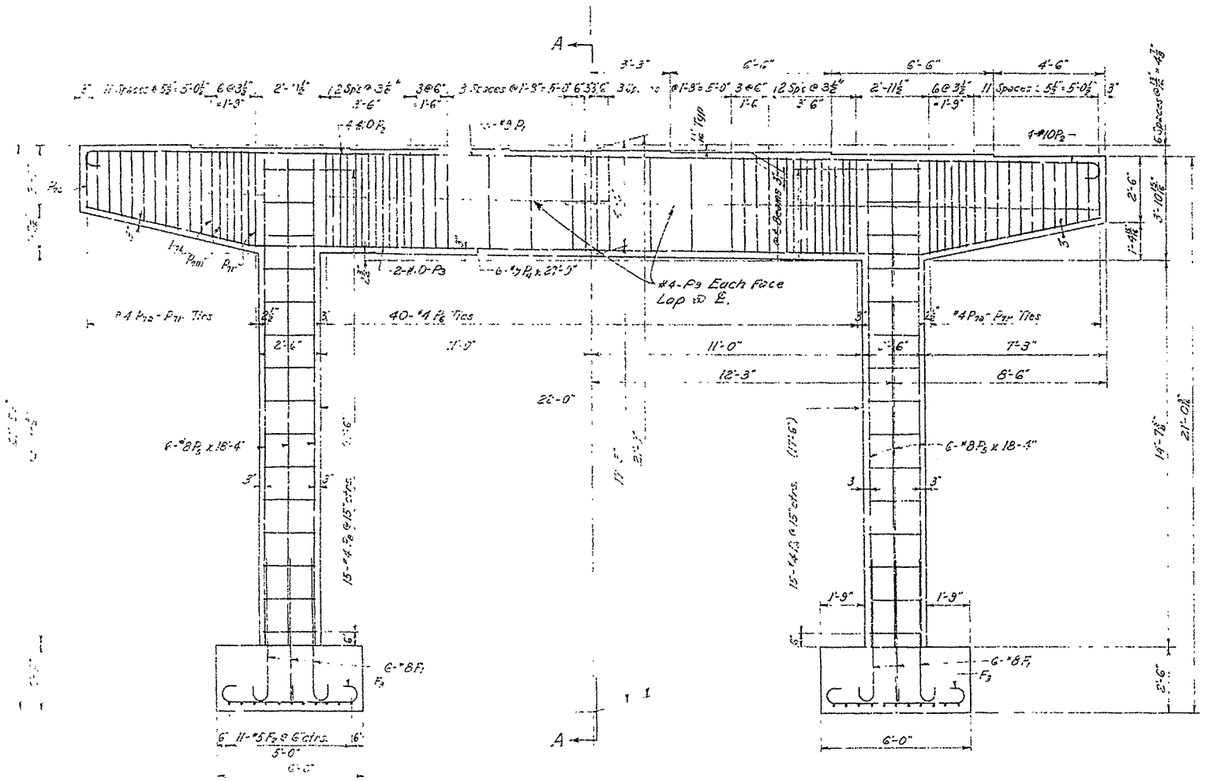
DRAWN BY M.G. DATE 10-20-61
TRACED BY: DATE:
CHECKED BY: DATE:
SCALE 3/8"=1'-0" or as noted

BRIDGE NO. 55521
DRAWING NO. 54-674

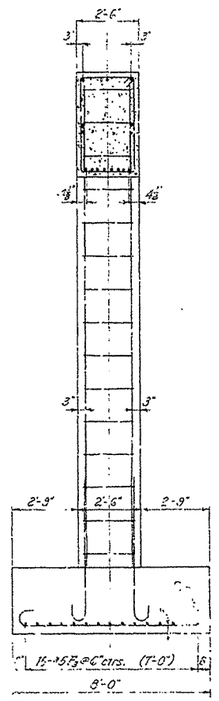
BRIDGE ENGINEER



PLAN OF CAP



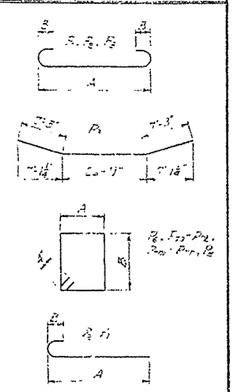
ELEVATION



SECTION A-A

BAR LIST - EACH BENT

MARK	SIZE	NO. REQ'D	LENGTH	A	B	PIN DIA.	BENDING DIAGRAM
P1	#9	3	43'-7"	[illegible]	0'-10"	9"	
P2	#10	8	15'-0"	[illegible]	[illegible]	10"	
P3	#10	2	41'-5"				
P4	#9	6	27'-0"	Straight			
P5	#8	12	13'-4"	Straight			
P6	#4	40	11'-11"	2'-1"	3'-7"	½"	
P12 to P11	#4	2 ea.	Varies from 9'-[illegible]" to 11'-1"	2'-1"	Var. 1'-2½" 2'-2" to 3'-2"	1½"	
P10 to P11	#4	2 ea.	Varies from 11'-2½" to 11'-10"	2'-1"	Var. 3'-2½" 3'-2½" to 3'-4½"	1½"	
P8	#4	30	8'-11"	2'-1"	2'-1"	1½"	
F1	#5	12	5'-8½"	5'-7"	0'-3"	8"	
F2	#5	22	5'-3"	4'-6"	0'-5"	3¾"	
F3	#5	30	5'-3"	3'-6"	0'-5"	3¾"	
P9	#4	4	21'-4"	Straight			



Dimensions are to centers of bars

NOTES

All concrete to be Class A in columns and footings, and Class S in caps
For Superstructure Details and General Notes see Dwgs. No. 11263, 11290, 11365

FOR INFORMATION ONLY

Revised, Changed No. & Bars 1-40 & Added F3 Bars. 1-24-63. W.P.

DETAILS OF BENTS NOS. 2 & 3
OVERPASSES OVER COUNTY ROAD
BIG PINEY CREEK - LOWELL
JOHNSON COUNTY
ROUTE SEC.

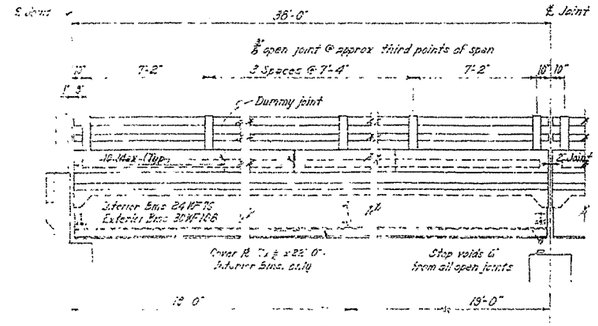
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.J. DATE: [illegible]
TRACED BY: DATE:
CHECKED BY: E.A.W. DATE: 12-[illegible] SCALE: ¼" = 1'-0"

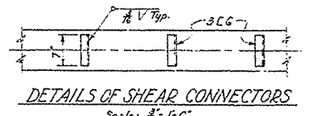
55522

BRIDGE NO. 3814 A & B DRAWING NO. ~~11363~~

L. D. Shelton
BRIDGE DESIGN ENGINEER



ELEVATION
Scale: ¼"

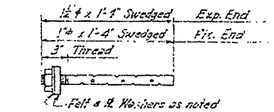


DETAILS OF SHEAR CONNECTORS
Scale: ¾" = 1'-0"

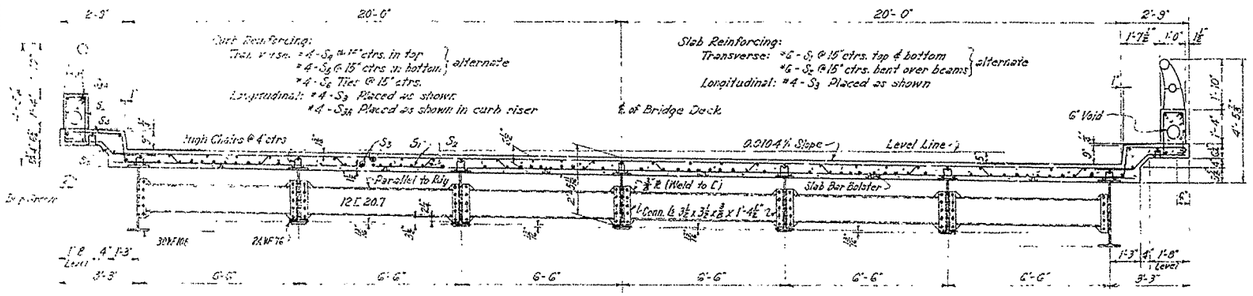
SPACING FOR SHEAR CONNECTORS

NOTE: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: ¾ diameter stud in place of 1.82 inches of channel, ⅞ diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

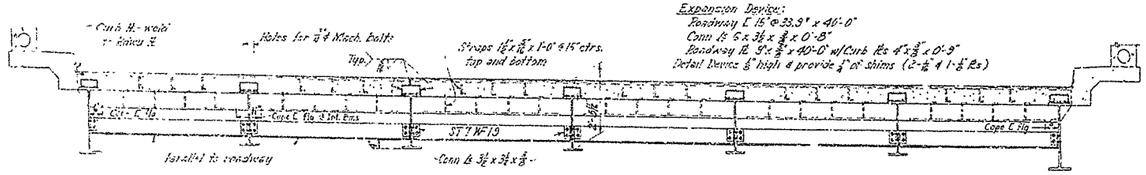
Channel sections will be used as basis for measurement of structural steel in shear connectors.



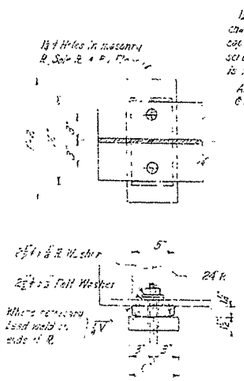
DETAIL OF ANCHOR BOLT
Scale: 1½" = 1'-0"



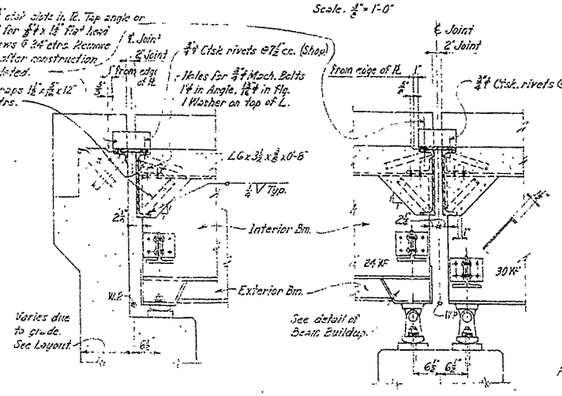
SECTION A-A
Scale: ⅜" = 1'-0"



SECTION B-B
Scale: ⅜" = 1'-0"

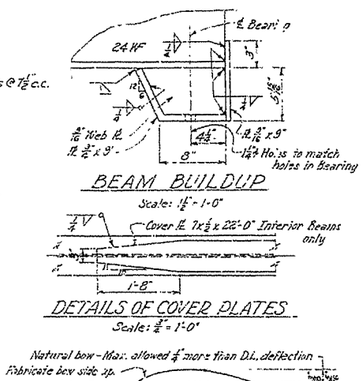


FIXED BEARING PLATES
Scale: 1½" = 1'-0"



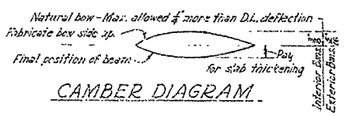
JOINT AT END BENT
Scale: ¾" = 1'-0"

JOINT AT INT. BENT
Scale: ¾" = 1'-0"



BEAM BUILDUP
Scale: 1½" = 1'-0"

DETAILS OF COVER PLATES
Scale: ⅜" = 1'-0"



CAMBER DIAGRAM

BAR LIST

MARK	SIZE	NO.	LENGTH	PIN DIA.	BENDING DIAGRAM
S1	#6	62	41'-2"	Str.	
S2	#6	30	42'-2"	2¼"	
S3	#4	103	37'-6"	Str.	
S3A	#4	12	12'-1"	Str.	
S4	#4	62	5'-5"	1½"	
S5	#4	60	4'-3"	1½"	
S6	#4	62	5'-4"	1½"	

Dimensions are to centers of bars.

GENERAL NOTES

For General Notes see Dwgs. No. 11235 & 11290
For Details of Aluminum Railing, Details of Curb Riser Joints see Dwg. No. 11239

Details of Reinforcing Steel

FOR INFORMATION ONLY

DETAILS OF
38'-0" COMPOSITE I-BEAM SPAN
40' CLEAR ROADWAY I-7½ WEB
ROADWAY: 0.010 4" SLOPE
ROUTE 40 (INT) SEC. 5

Revised no. 8s Bars as Distribution Steel 1-25-62 VP

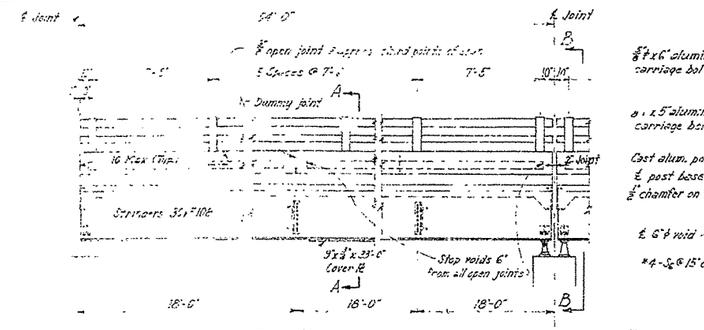
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: ... DATE: 9-30-59
TRACED BY: ... DATE: ... SCALE: 1" = 1'-0"
CHECKED BY: ... DATE: 12-21-59

L P Carlson
BRIDGE DESIGN ENGINEER

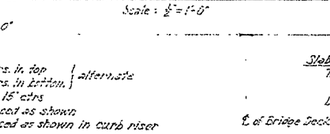
BRIDGE NO. 3314 A & B DRAWING NO. 55523

F.A.P. I-AR-2(10)63
BB0803
45 182
51 78



ELEVATION

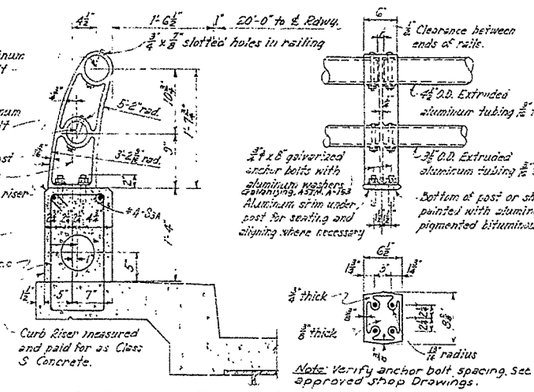
Scale: ⅜" = 1'-0"



PLAN OF DUMMY JOINT PLAN OF OPEN JOINT

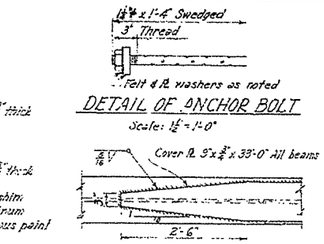
DETAILS OF CURB RISER JOINTS

Scale: ½" = 1'-0"



DETAILS OF ALUMINUM RAILING

Scale: 1" = 1'-0"



DETAIL OF ANCHOR BOLT

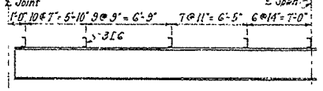
Scale: 1½" = 1'-0"

DETAILS OF COVER PLATES

Scale: ¾" = 1'-0"

DETAILS OF SHEAR CONNECTORS

Scale: ¾" = 1'-0"

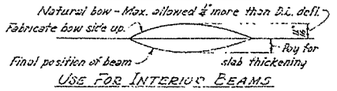


SPACING FOR SHEAR CONNECTORS

NOTE: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: ¾" diameter stud in place of 1.82 inches of channel, ⅞" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

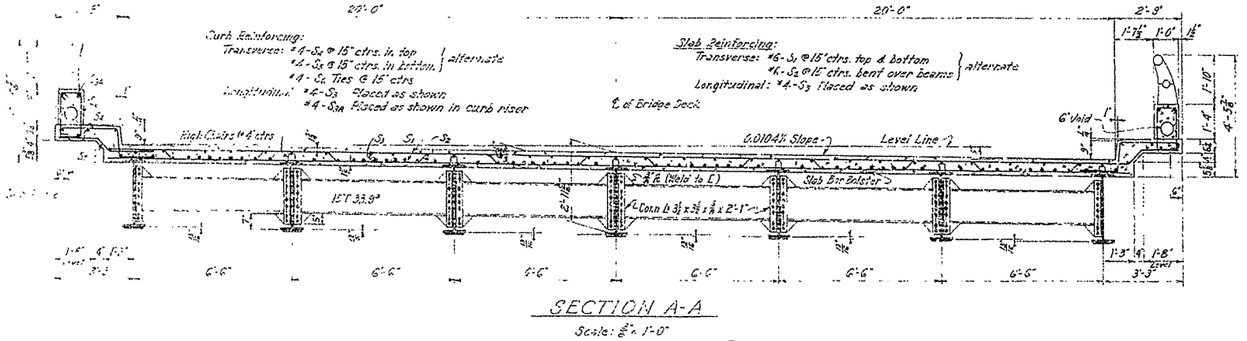
Channel sections will be used as basis for measurement of structural steel in shear connectors

USE FOR EXTERIOR BEAMS



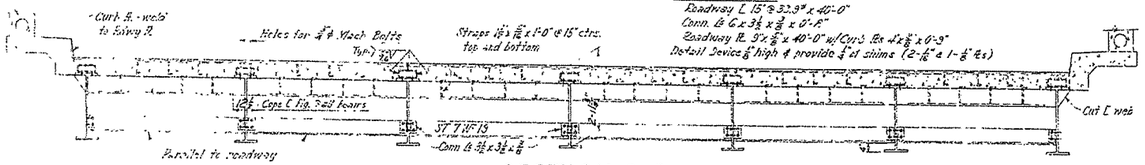
USE FOR INTERIOR BEAMS

CAMBER DIAGRAMS



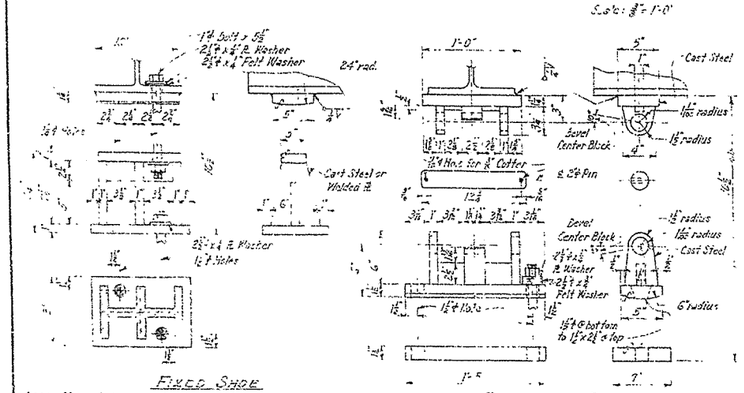
SECTION A-A

Scale: ⅜" = 1'-0"



SECTION B-B

Scale: ⅜" = 1'-0"



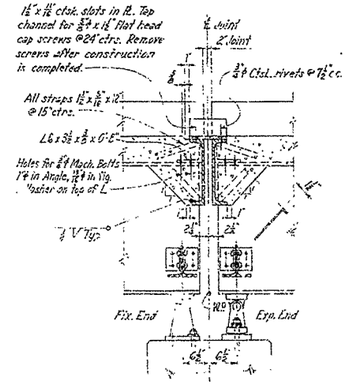
FIXED SHOE

EXPANSION SHOE

Note: To adjust for grade increase thickness of Fixed Bearing sole plate or Expansion Bearing masonry plate, which ever is on upgrade side. See Table of Plate Thicknesses.

DETAILS OF BEARINGS

Scale: 1½" = 1'-0"



JOINT AT INT BENT

Scale: ¾" = 1'-0"

Fixed Shoe: Top plate & base plate welded to core. All interseeting surfaces at 90° shall be ground to ¼ inch fillet welds, all others shall be sealed by ¼ steel back weld.

145-2(16)
~~546~~ 52
46 182
78
BB0803

BAR LIST

MARK	SIZE	No.	LENGTH	PIN DIA.	BENDING DIAGRAM
S1	#6	88	41'-2"	Str.	
S2	#6	43	42'-2"	2¼"	
S3	#4	2C 4	27'-7"	Str.	
S3A	#4	12	17'-6"	Str.	
S4	#4	88	5'-3"	1½"	
S5	#4	86	4'-3"	1½"	
S6	#4	88	5'-4"	1½"	

Dimensions are to centers of bars

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered ¾" unless otherwise noted.

Field connections to be riveted or bolted with high strength bolts

Rivets: ¾"ϕ. Open holes ⅞"ϕ except where noted otherwise.

Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used, whichever is less

All welded connections to be ⅜" fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for welded Highway and Railway Bridges, 5th Edition 1956.

Shop Paint: - All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: - 1st Coat - Red lead tinted with lamp black. 2nd Coat - Aluminum Paint

All bearing plates and rock way expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally seated in a manner set forth in the Specifications. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

Reinforcing steel to be deformed bars of intermediate grade or hard grade. The reinforcing steel is to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."

Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approval secured before fabrication is begun.

All chamfers on concrete riser for rail are to be ¾".

Shop drawings showing details of railing shall be submitted and approval secured before fabrication is begun.

The aluminum bridge railing, including posts and fasteners, shall be paid for at the unit price bid per linear foot for "Aluminum Bridge Railing."

A rail connection utilizing set screws is an acceptable alternate and may be supplied at the contractor's option.

Outside surfaces of flanges of cast aluminum posts shall be given a No 220 grit belt finish after which all exposed surfaces of posts shall receive one coat of clear lacquer.

Slab Pouring Note: Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section has cured not less than 72 hours shall elapse before pouring the end sections. The end sections may be poured simultaneously. If not poured simultaneously, 48 hrs shall elapse between end section pours.

Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1953.

Anchor bolts shall be galvanized to conform to ASTM Specification, Designation A-153

Design Specifications: A.A.S.H.O. '61

Live Loading: H20-S16 and Special Interstate Loading of 2 - 24,000# axles spaced 4'-0" apart

	Interior Beam	Exterior Beam
1. Dead Load:		
a. To WF Beam	528# + 1.1(wt. of ¾"ϕ WF)	688# + 1.1(wt. of ¾"ϕ WF)
b. To Composite Beam	125#	127#
2. Live Load:		
a. To each Composite Beam	1.192 wheels Impact	1.196 wheels = Impact

Unit Stresses:

Class S Concrete (n=10)	1,200 psi
Structural Steel	18,000 psi
Reinforcing Steel	20,000 psi

FOR INFORMATION ONLY

Revised No. S3 Bars as Distribution Steel. 1-25-62. V.P.
Revised: Added Anchor Bolt note 6-14-62 A.T.

DETAILS OF 54'-0" COMPOSITE I-BEAM SPAN 40' CLEAR ROADWAY I-T½ CURBS ROADWAY: C.010¼" SLOPE

ROUTE 40 INT SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK

DRAWN BY A.T. DATE 11-30-60
TRACED BY DATE SCALE As Shown
CHECKED BY E.W.N DATE 12-15-60

L. P. Vickers
BRIDGE DESIGN ENGINEER

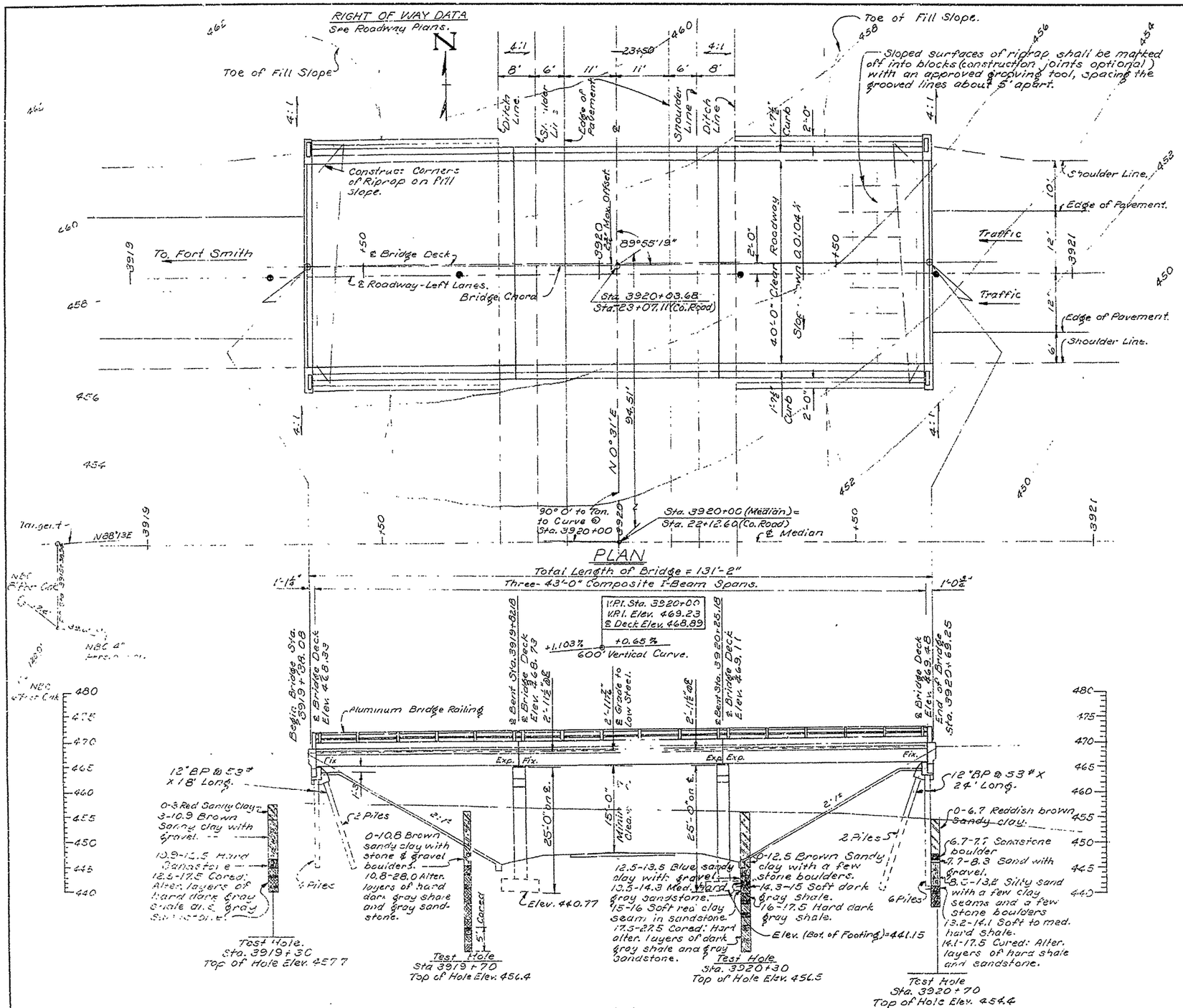
55524

BRIDGE NO. 33-4.6 & 8 DRAWING NO. ~~H-936~~

FED. ROAD DIV.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	[illegible]-70-		51	182
JOB No.		~~5461~~		53	178

BB0803

RIGHT OF WAY DATA
See Roadway Plans.



HORIZONTAL CURVE DATA
LEFT LANES

P.T. Sta. 3939+66.13
Δ = 23°44' Rt.
D = 0° 30'
T = 2407.86'
L = 4746.67'
R = 11459.16'
P.C. Sta. 3915+58.27

GENERAL NOTES

All concrete to be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Excavate a minimum of 6"6" into rock or shale.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 12" high and covering the middle third of both dimensions.

All piling shall be 12-BP-53 and shall be driven with an approved air, steam, or diesel hammer to a minimum capacity of 36 tons per pile, and to the material designated as sandstone or shale in the boring logs. Lengths of piling shown are for estimating purposes only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents shall be driven after the embankment is in place.

Substructure units shall be built perpendicular to bridge chord to 0°30' curve through bridge ends. Rail and curb lines shall be built on arcs parallel to the centerline of bridge.

For details of End Bents see Drawing No. 54674.

For details of Intermediate Bents see Drawing No. 11269-A.

For details of 43'0" Composite I-Beam Spans see Drawing No. 54647.

Bench Mark - "VIP" 6" Dia 2' Lt. Sta. 3923+09. Elevation - 49.68.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading: H20-S16 and Special Interstate Loading of two 24,000 lb. axles 4'0" on centers.

Unit Stresses:

Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1,200 psi
Structural Steel	18,000 psi
Reinforcing Steel	20,000 psi

FOR INFORMATION ONLY

(LEFT LANES)

LAYOUT OF LONDON INTERCHANGE

BIG PINEY CREEK — LONDON

POPE COUNTY

INT. ROUTE 40 SEC. 2.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KP DATE: 1-12-62
TRACED BY: DATE:
CHECKED BY: JWH DATE: 2-12-62
SCALE: 1"=10'-0"

55525

BRIDGE ENGINEER

BRIDGE NO. 3316 A. DRAWING NO. ~~11283~~

FED. ROAD No.	STATE	FED. NO. PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	ARK.	F-40-2(6)68		52	78
JOB No.		~~8461~~		54	78

BB0803

RIGHT OF WAY DATA
See Roadway Plans.

Sta. 3920+00 (Median) = Sta. 22+12.6 (Co. Road)

90°0' to Tan. to Curve @ Sta. 3920+00

N

Toe of Slope

Sloped surfaces of riprap shall be marked off into blocks (construction joints optional) with an approved grooving tool, spacing the grooved lines about 5' apart.

Ditch Line | Edge of Shoulder Line | Edge of Pavement | Shoulder Line | Ditch Line

8' | 6' | 11' | 11' | 6' | 8'

4:1 | 4:1 | 4:1 | 4:1

94.69'

21+50 | 21+00

1'-1½" Curb | 2'-0"

2.8% Max. Offset

N 0°31' E.

3920

90°04'41"

℄ Roadway - Right Lanes

℄ Bridge Deck

Br. ℄ Chord

240'

Sta. 3919+96.30
Sta. 21+17.71 (Co. Road)

℄ Roadway

40'-0" Clear

Slope Down @ 0.04 ft.

50

Traffic

Test Hole (Typ)

Traffic

Shoulder Line.

Edge of Pavement.

3921

To Russellville

12'

440

Edge of Pavement

10'

Shoulder Line

438

Construct Corners of Riprap on Fill Slope.

PLAN

Total Length of Bridge = 131'-2"
Three-43'-0" Composite I-Beam Spans.

1'-1½" | 1'-0½"

V.P.I. Sta. 3920+00
V.P.I. Elev. 456.06
℄ Deck Elev. 455.33

+1.14 % | +0.17 %
600' Vertical Curve

Begin Bridge Sta. 3919+30.70 ℄ Bridge Deck Elev. 454.84

2 Bent Sta. 3919+74.80 ℄ Bridge Deck Elev. 455.16

2-11½" on ℄

2-11½" ℄ Grade to Low Steel

2 Bent Sta. 3920+17.80 ℄ Bridge Deck Elev. 455.45

2-11½" on ℄

Bridge Deck Elev. 455.70

End of Bridge Sta. 3920+67.87

Aluminum Bridge Railing

Fix. | Exp. | Fix. | Exp. | Exp. | Fix.

12"BP @ 53# X 22' Long.

6 Piles

2 Piles

1'-3"

0-2 Gray red sandy clay with stone fragments.

2-4.5 Sandstone Boulder.

4.5-5.5 Brown sandy clay with stone fragments. Elev. 441.5

5.5-11.5 Cored: Hard alternate layers of dark gray shale and gray sandstone.

Test Hole Sta. 3919+30 Top of Hole Elev. 432.5

Bent No. ① 3919+00

25'-0" on ℄

105'-0" Minimum Clearance.

4-4.5 Gray red sandy clay with stone fragments.

4.5-6.5 Gray sandy clay with gravel.

6.5-7.5 Shale & Sandstone.

7.5-10.5 Gray sandy clay with 1"-2" seams of shale & sandstone.

10.5-11.5 Med. hard dark gray shale.

11.5-26.2 Hard shale & sandstone layers.

4'-1" Cored

Test Hole Sta. 3919+70 Top of Hole Elev. 432.2 ②

Elev. 427.49

25'-0" on ℄

2:1

2 Piles

6 Piles

12"BP @ 53# X 17' Long.

0-3.5 Gray red clay with stone fragments.

3.5-5.5 Sandstone boulder.

5-10 Gray sandy clay with gravel pockets

10-14 Hard dark gray shale. 11.5-12 Seam of shale.

14-26 Cored: Hard alternate layers of shale and sandstone.

Test Hole Sta. 3920+30 Top of Hole Elev. 440.7 ③

0-3 Gray clay with stone fragments.

3-5.5 Red clay with stone fragments.

5.5-6.1 Sandstone boulder.

6.1-7.5 Gray clay with stone fragments.

7.5-9 Hard Sandstone.

9-23.8 Cored: Hard alternate layers of dark gray shale & gray sandstone. Soft layer of shale from 10-12.6.

Test Hole Sta. 3920+70 Top of Hole Elev. 442.0 ④

Maximum Foundation Pressure = 8.0 ksf (Gp. III)

3921+00

ELEVATION

HORIZONTAL CURVE DATA
RIGHT LANES

P.I. Sta. 39+39+27.46
Δ = 23°44'16" Rt.
D = 0°30'
T = 2407.86'
L = 4746.67'
R = 11459.16'
P.C. Sta. 39+15+19.60

GENERAL NOTES

For general notes see Drawing No. 11293.
For reference points see Drawing No. 11293.

FOR INFORMATION ONLY

(RIGHT LANES)

LAYOUT OF LONDON INTERCHANGE

BIG PINEY CREEK — LONDON

POPE COUNTY

INT. ROUTE 40 SEC. 2.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: WP DATE: 1-22-68
TRACED BY: DATE:
CHECKED BY: DATE: 2-28-68
SCALE: 1" = 10'-0"

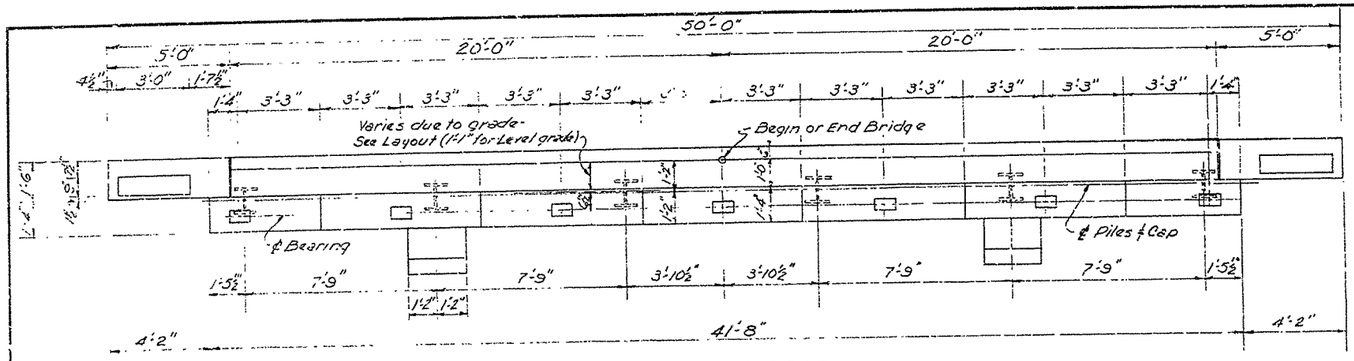
55526

BRIDGE ENGINEER

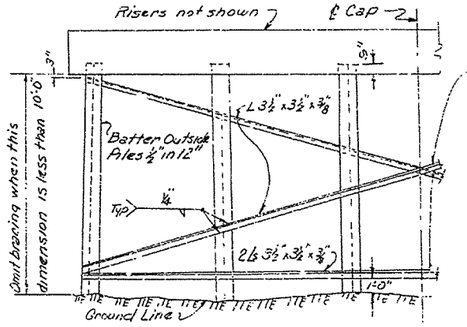
BRIDGE NO. 3316 B DRAWING NO. 11294A.

FED. ROAD No.	STATE	FED. AID PROJECT	HYPHC YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.				55	78

BB0803



PLAN of END BENT



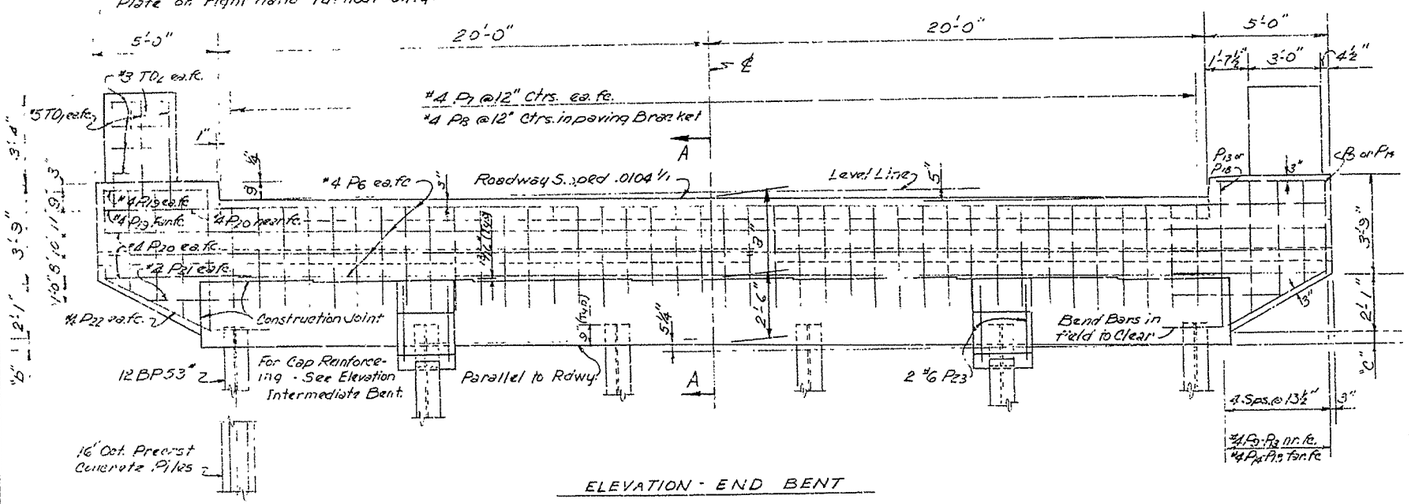
TYPICAL BRACING INTERMEDIATE 'H' PILE BENT

Note: The lengths of bracing members shall be determined in the field. Each member shall be one continous angle and shall be welded to the steel bearing piles as shown. Angle bracing shall be measured and paid for as "Structural Steel in Beam Spans".

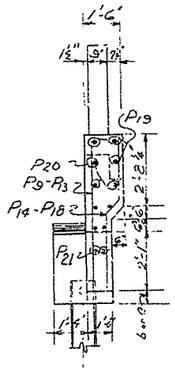
TABLE of VARIABLES

SPAN LENGTH	INTERIOR BEAM	"a"	"b"	"c"
35' thru 42'	24 WF 76#	2'-8⅝"	1'-1⅛"	1'-1⅝"
43 thru 49'	27 WF 94#	2'-11½"	4⅝"	4⅞"
50'	30 WF 108#	3'-2½"	1'-7⅛"	1'-7⅝"

Place Type C Standard Bridge Name Plate on right hand turnout only.

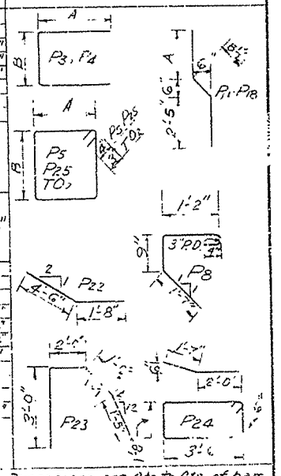


ELEVATION - END BENT

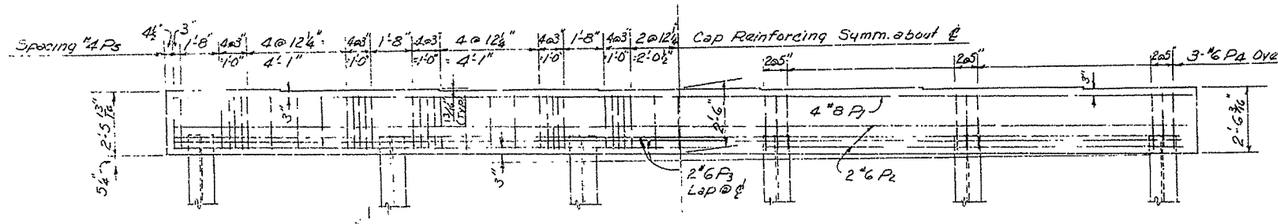


BAR LIST

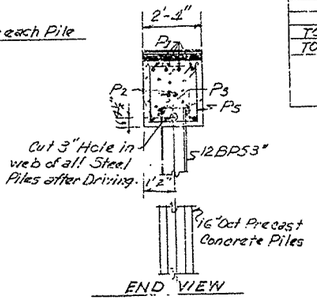
Mark	Size	No. each Bent Interior	No. each Bent End	Length	A	B	Pin Dia.	Bending Diagram
P1	#8	4	4	41'-4"	Straight			
P2	#6	4	4	41'-4"	Straight			
P3	#6	4	4	44'-4"	21'-6"	1'-5"	2¼"	
P4	#6	18	18	6'-1"	2'-2"	2'-0"	2¼"	
P5	#4	69	69	5'-11"	2'-0"	2'-2"	1½"	
P6	#4	-	8	40'-0"	Straight			
P7	#4	-	80	4'-6"	Straight			
P8	#4	-	40	4'-0"	-	-	1½"	
P9 to P12	#4	-	2 each	Varies by 1/4" 3'-6" to 5'-2¼"	Straight			
P13 P14	#4	-	2	5'-8" 3'-8½"	Straight Varies by 6¾"			
to P17	#4	-	2 each	to 5'-4¾"	to 0'-7" 2'-3½"	-	1½"	
P18	#4		2	5'-10½"	2'-9"			
P19	#4		6	4'-8"	Straight			
P20	#4	-	14	6'-6"	-	-	1½"	
P21	#4		4	5'-0"	Straight			
P22	#4		4	6'-2"	-	-	1½"	
P23	#6		4	9'-11"	-	-	2¼"	
P24	#6		4	11'-4"	-	-	2¼"	
P25	#4		2	4'-11"	0'-5"	1'-9"	1½"	
TO1	#3		12	5'-3"	Straight			
TO2	#3		8	6'-11"	2'-9"	0'-6"	1¼"	



Dimensions are Ctr. to Ctr. of bars.



ELEVATION - INTERMEDIATE BENT

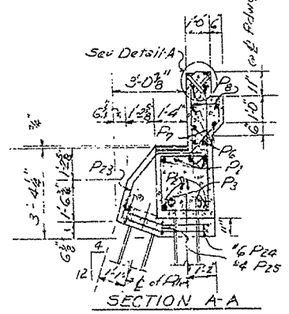


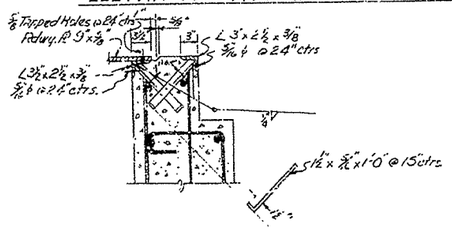
END VIEW

NOTE

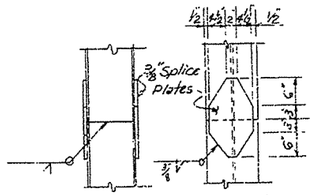
All Concrete to be Class S. All exposed corners to be chamfered ¾" unless otherwise noted.
All piling shall be driven to a minimum capacity of 36 tons per pile. Piling shall be either 12BP53", 16' Oct Precast Concrete Piles, or Concrete Filled Metal Shell Piles as shown on the Layout.

Intermediate Bents not to be used for Spans over 45'





DETAIL A
Scale: 1"=1'-0"



PILE SPLICE DETAIL
Scale: ¾"=1'-0"

Note: The contractor may, for his convenience and at his own expense provide as many as three splices per pile for steel bearing piling. Minimum spacing between splices shall be 5 feet.

FOR INFORMATION ONLY

Revised pile splice note 2-26-62 JDB

DETAILS OF STANDARD PILE BENTS
FOR 35' TO 50' COMPOSITE I-BEAM SPANS
40' CLEAR ROADWAY - 1'-7½" CURBS
ROADWAY SLOPED 0.0104 ft/ft

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: M.B. DATE: 10-20-61
TRACED BY: DATE:
CHECKED BY: J.E.M. DATE: 1-29-62
SCALE: ⅜"=1'-0" or as noted

BRIDGE ENGINEER

BRIDGE NO.

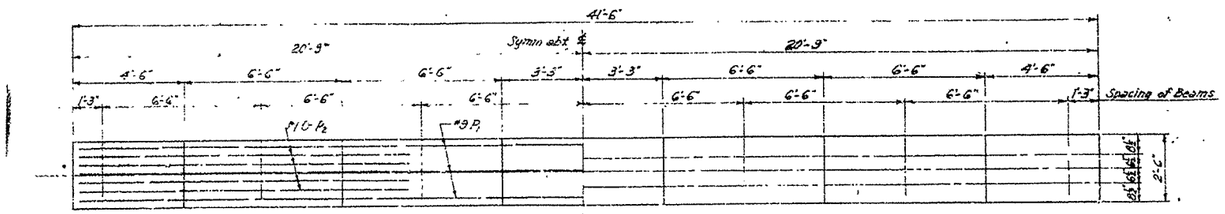
DRAWING NO. 57672A

55527

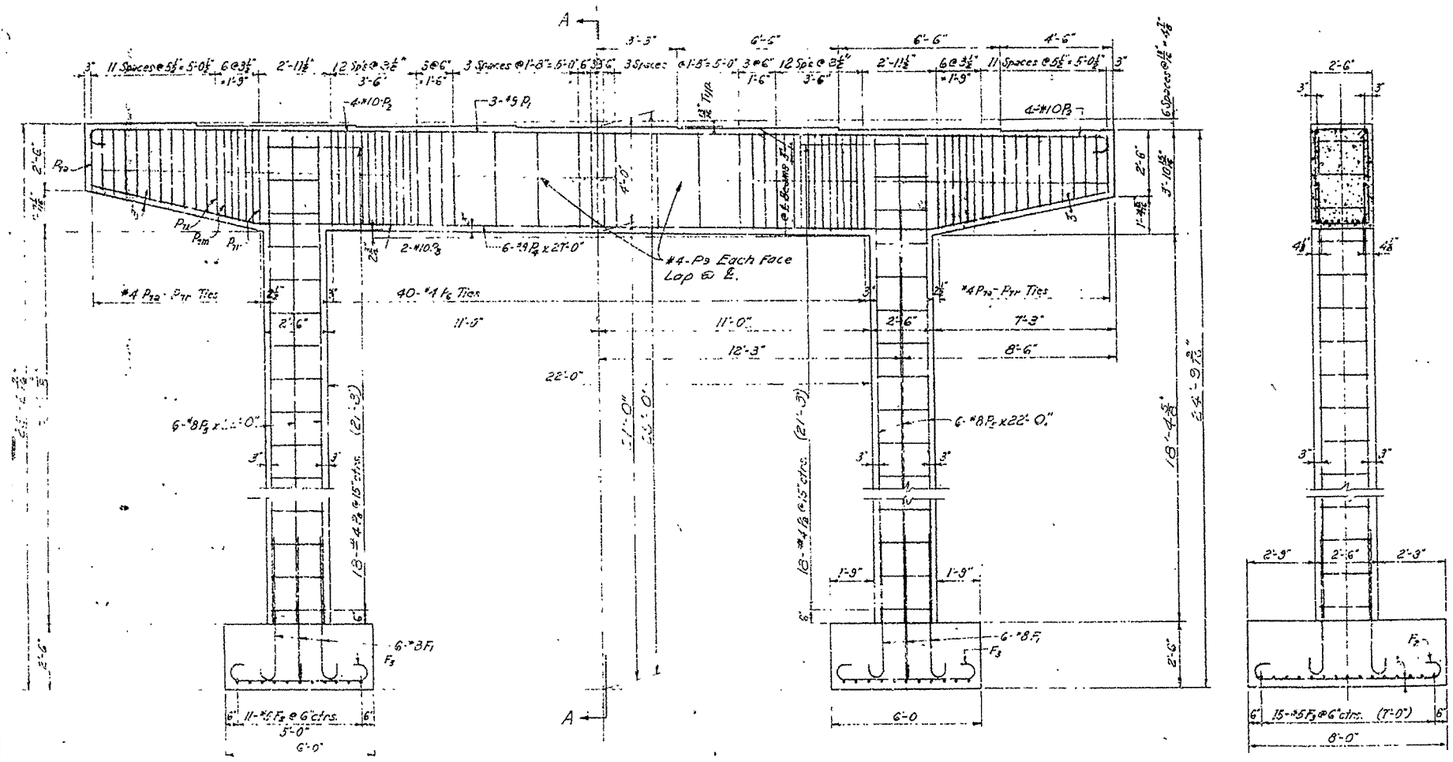
Revise P8 Bars Before Using

T-40-2(12)68
~~3461~~
BB0803

~~53~~ 162
56 78.



PLAN OF CAP

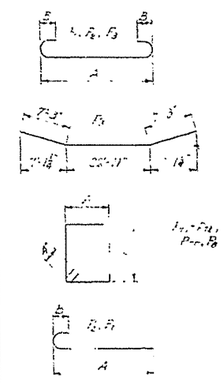


ELEVATION

SECTION A-A

BAR LIST - EACH BENT

MARK	SIZE	No. REQ'D	LENGTH	A	B	PIN DIA	BENDING DIAGRAM
P_1	#9	3	43'-6"	41'-0"	0'-10"	9"	
P_2	#10	8	15'-0"	13'-7½"	0'-11"	10"	
P_3	#10	2	41'-5"				
P_4	#8	6	23'-0"	Straight			
P_5	#8	12	23'-0"	Straight			
P_6	#4	40	11'-11"	2'-1"	3'-7"	1½"	
P_{12} to P_{27}	#4	2 ea.	Varies from 5'-1" to 11'-1"	2'-1"	Var. 1½" to 2'-2" to 3'-2"	1½"	
P_{28} to P_{37}	#4	2 ea.	Varies from 11'-2½" to 11'-10"	2'-1"	Var. 2½" to 2'-2½" to 3'-2½"	1½"	
P_8	#4	36	8'-11"	2'-1"	2'-1"	1½"	
F_1	#8	12	6'-4½"	5'-7"	0'-9"	8"	
F_2	#5	22	8'-3"	7'-6"	0'-5"	3⅜"	
F_3	#5	30	6'-3"	5'-6"	0'-5"	3⅜"	
P9	#4	4	21'-4"	Straight			



Dimensions are to centers of bars

NOTES

All concrete to be Class A in columns and footings, and Class S in caps.
For Superstructure Details and General Notes see Dwgs. 5462 & 5463.

FOR INFORMATION ONLY

Revised, Changed No. P6 Bars to 40 & Added P9 Bars. 1-24-63. T.P.

L. D. Carlson
BRIDGE DESIGN ENGINEER

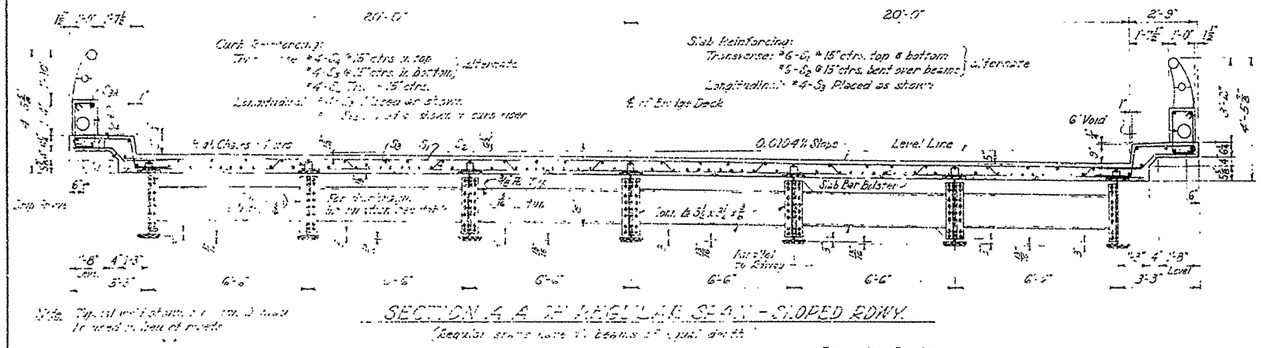
DETAILS OF BENTS NOS. 2 & 3
LONDON INTERCHANGE
BIG PINEY CREEK - LONDON
POPE COUNTY
INT. ROUTE 40 SEC. E

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.J. & T.P. DATE: 11-16-62 / 1-31-62
TRACED BY: ... DATE: ...
CHECKED BY: C.A.M. DATE: 12-20-62
SCALE: ½" = 1'-0"

55528

BRIDGE NO. 3316A & B DRAWING NO. 11294

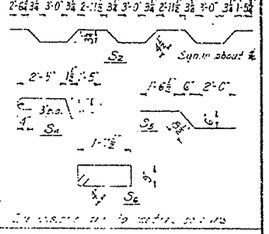


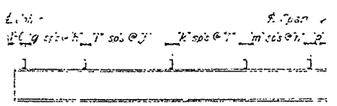
SECTION A-A OF REGULAR SPAN - SLOPED ROWY

(Regular spans have 11 beams at equal spacing)

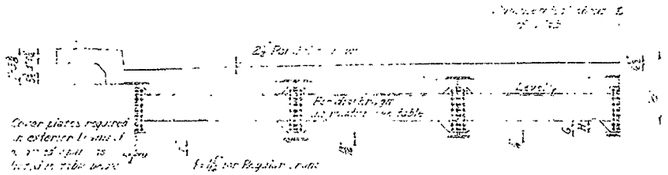
EAR LIST - ONE SPAN

MARK	SIZE	LENGTH	PIN DIA.	NUMBER REQUIRED EACH SPAN
S_1	6	41'-2"	Str.	56 58 60 62 64 66 66 68 70 72 74 80 82 88 90 98 106 114 122
S_2	6	42'-2"	2½"	26 28 29 30 31 32 32 33 34 35 36 39 40 43 44 48 52 56 60
S_3	4	3'-6"	Str.	
S_{3A}	4	⅝ + 1'-7"	Str.	
S_3	4	⅝ + 1'-0"	Str.	
S_4	4	5'-3"	1½"	56 58 60 62 64 66 66 68 70 72 74 80 82 86 94 98 106 114 122
S_5	4	4'-3"	1½"	56 56 58 60 62 64 64 66 68 70 72 78 80 86 86 96 104 112 120
S_6	4	5'-4"	1½"	58 58 60 62 64 66 66 68 70 72 74 80 82 88 90 98 106 114 122
S_{3A}	4	$\frac{S-(5'0")}{3}$	Str.	12

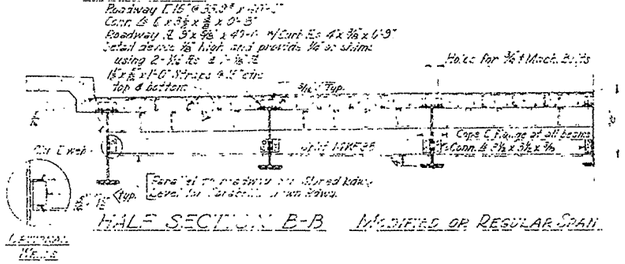




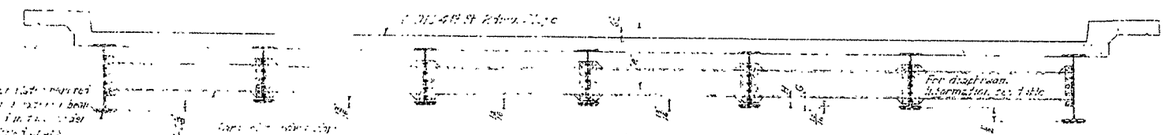
SPACING FOR CHANNEL SPLICE CONNECTORS



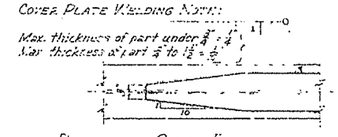
HALF SECTION A-A MODIFIED OR REGULAR SPAN
PARABOLIC CURVE



HALF SECTION B-B MODIFIED OR REGULAR SPAN



SECTION A-A OF MODIFIED SPAN - SLOPED ROWY



COVER PLATE WELDING NOTE:

DETAILS OF COVER PLATES

Not to Scale

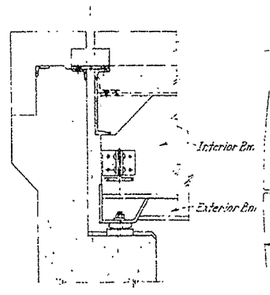
DIAPHRAGM TABLE

SPAN LENGTH	CHANNEL SIZE	REGULAR SPAN Ext. Beam No. Rivets	REGULAR SPAN Int. Beam No. Rivets	MODIFIED SPAN Ext. Beam No. Rivets	MODIFIED SPAN Int. Beam No. Rivets	G	H
35'-42'	12 [20.7	5	5	5	5	3½"	2¼"
43'-48'	12 [20.7	7	7	7	7	7"	5"
50'-72'	13 [33.9	8	8	8	8	7"	5"

VALUES OF "F" AND DEAD LOAD DEFL. FOR OUTSIDE BEAMS OF MODIFIED SPANS

SPAN	27WF94 F	27WF94 Δ	30WF108 F	30WF108 Δ	33WF130 F	33WF130 Δ	36WF160 F	36WF160 Δ
35	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
40	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
45	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
50	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
55	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
60	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
65	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
70	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16
75	1/4	3/16	1/4	3/16	1/4	3/16	1/4	3/16

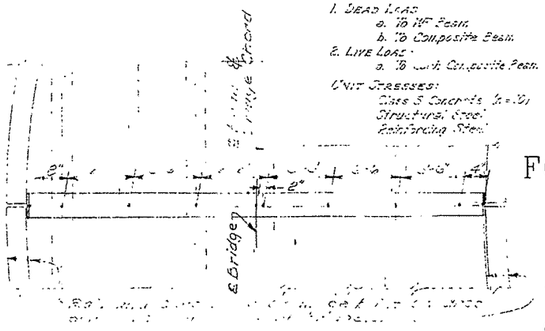
Use next larger connectors on outside beams of Modified Spans when using beams shown to right of heavy line.



JOINT AT END BENT
MODIFIED SPAN

Scale: ¾" = 1'-0"

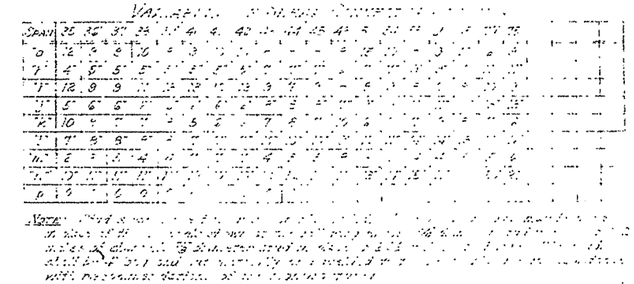
Note: Use this section instead of section shown on Dwg. No. 5452. For Details of beam build-ups see Dwg. No. 5462.



PLAN OF EXPANSION DEVICE - BR. #3316A&B

(Not to Scale.) (By WR)

BRIDGE ENGINEER



GENERAL NOTES

This drawing to be used with Drawing No. 5462 for complete details of Modified Span. Drawing No. 5462 Elevation, Drawing No. 5467 Section A-A of Modified Span does not apply.

For Type "B" Joint or Expansion Device and Type "A" Steel Slab see Dwg. No. 5467 for plans given for 28' roadway spans.

LENGTH SPECIFICATIONS:

LIVE LOADING: H20-44 and Special Interstate Loading of 3-24 K Axles spaced 5'-4" Centers

	Interior Beam	Exterior Beam
1. DEAD LOAD		
a. To WF Beam.	508 lbs + 3.5 (width of slab)	648 lbs + 3.5 (width of slab)
b. To Composite Beam.	135 lbs	135 lbs
2. LIVE LOAD		
a. To Wk. Composite Beam.	1.152 Wheels + Impact	1.152 Wheels + Impact

UNIT STRESSES:

Class S Concrete (f'c = 3000 psi)	1200 psi
Structural Steel	18,000 psi
Reinforcing Steel	20,000 psi

FOR INFORMATION ONLY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: DATE:

TRACED BY: DATE:

CHECKED BY: DATE:

SCALE:

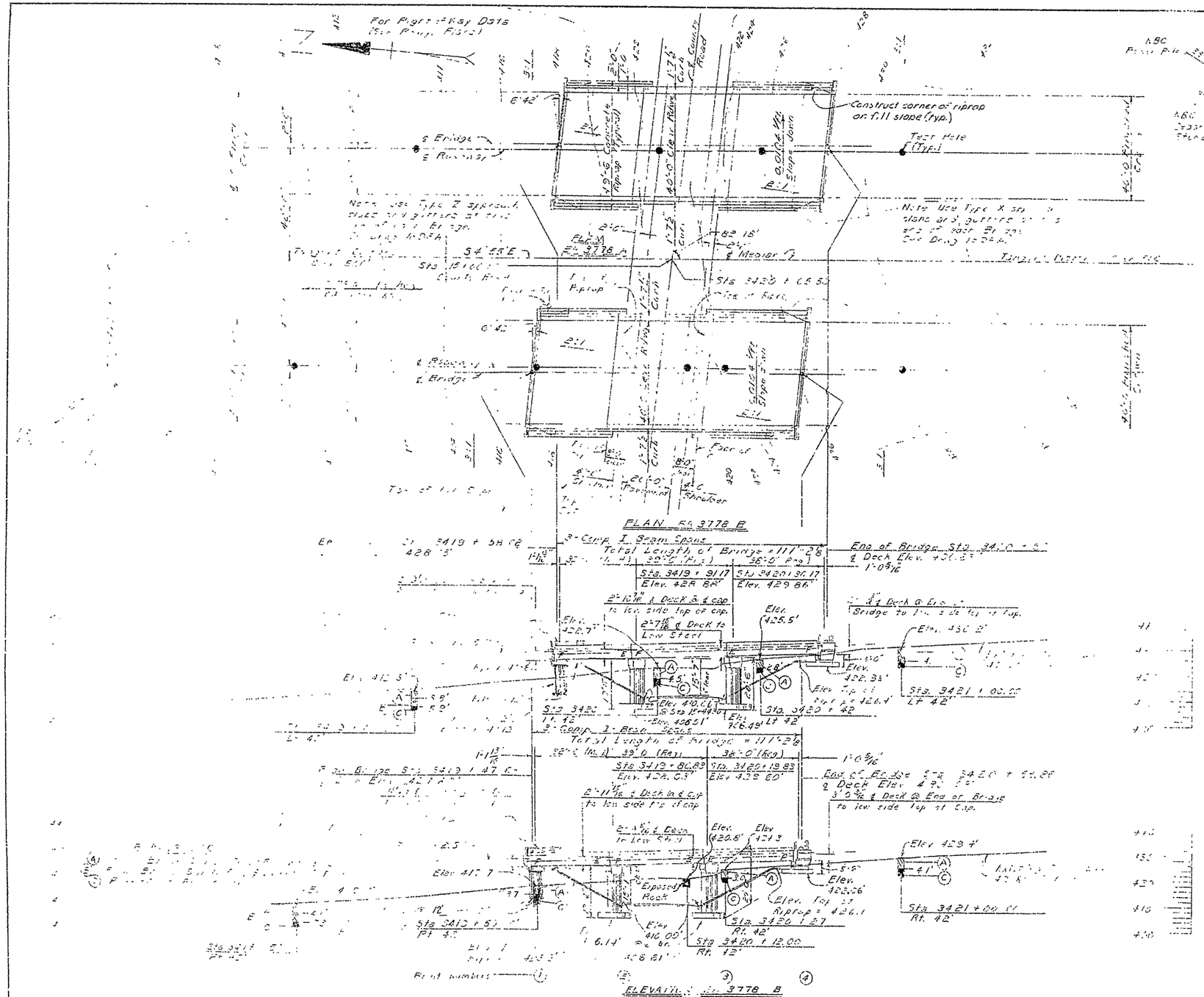
55529

BRIDGE NO.

DRAWING NO. ~~5467~~

FILE AS DWG NO. 5467A

BB0803 58 78



GENERAL NOTES

Bench Mark - ✕ on W.P.A. Marker 174' RT. Sta. 3420+24, Interstate at Median. Elevation 418.40.

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavations shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. All footings to be a minimum of 1'0" into solid rock.

For Details of End Bents see Dwg. No. 12303 [illegible]

For Details of Intermediate Bents see Dwg. No. 12302

For Details of Composite I-Beam Spans see Dwg. 14400 and Dwg. [illegible]

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS: [illegible]

Loading: H20-S16 and Special Interstate Loading of 2 - 24,000# axles spaced 4'0" on center.

Unit Stresses:	Class A Concrete (n=10)	940 psi
	Class S Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi
Foundation Pressure -		[illegible]

All piling shall be 12-BP-53 Steel Bearing Piles driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 30 tons per pile, and into the material designated as rock on the borings. Lengths of pile shown are for estimating quantities only. Order lengths shown; cut-off or build up, if necessary, to be paid for in accordance with Section 804, Standard Specifications. Piles in end bents shall be driven after embankment is in place.

FOR INFORMATION ONLY

LAYOUT OF OVERPASSES
COUNTY ROAD AT STA. 3420 + 05.50
CABIN CREEK-BIG PINEY CREEK
JOHNSON COUNTY
INT. ROUTE 40 SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

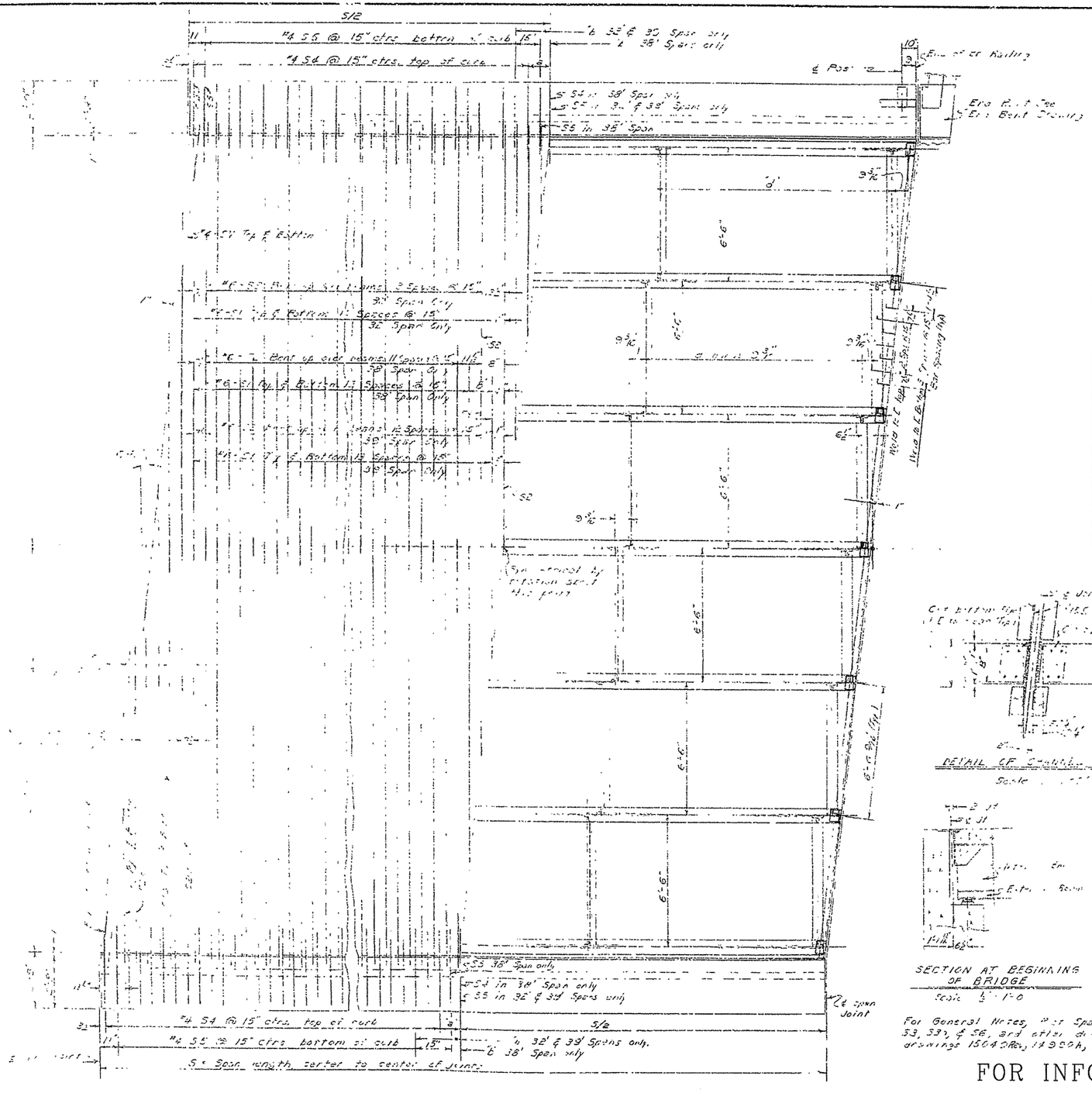
DRAWN BY: ______ DATE: ______
TRACED BY: ______ DATE: ______ SCALE: 1" = 20'
CHECKED BY: ______ DATE: ______

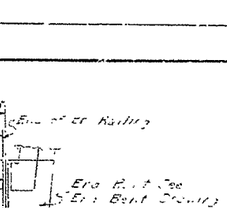
BRIDGE ENGINEER

BRIDGE NO. 3778 A&B DRAWING NO. ~~12299~~ 55530

BB0803

59 78



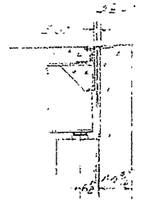


DETAIL OF EXPANSION CONNECTION

Scale

SECTION AT BEGINNING OF BRIDGE

Scale 1/2" = 1'-0



SECTION AT END OF BRIDGE

Scale 1/2" = 1'-0

BAR LIST FOR ONE SPAN

MARK	SIZE	LENGTH	No. Required for Span of			W.R.	FABRICATING DIAGRAM
			32'	38'	39'		
S1	#6	41'-3"	44	56	58	5716	
S1a-S1c	#6	Varies by 1'-3" to 38'-3"	Var.	Var.	Var.	5716	
S2	#6	42'-6"	61	77	77	5716	
S2a	#6	39'-1"	2	2	2	78	
S2b	#6	23'-3"	12	12	12	312	
S2c	#6	16'-3"	2	2	2	34	
S3	#4	5'-8"	14	14	14	58	
S3a	#4	Varies	12	12	12	50	
S4	#4	5'-5"	52	66	68	238	
S5	#4	4'-3"	52	60	62	178	
S6	#4	3'-4"	52	60	62	138	
S7	#4	41'-5"	4	4	4	34	

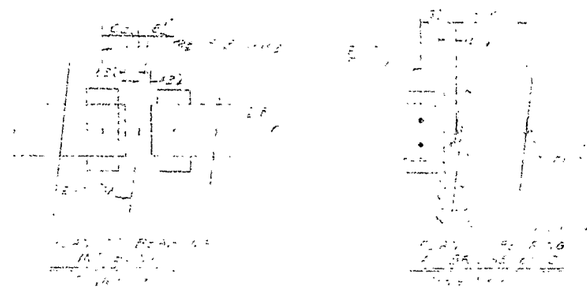


TABLE OF VARIABLES

Mark	A	B	S4 & S5 Stirrups At Ends	S4 & S5 Stirrups At Mid.
S1	5½	16"	5 @ 3", 11 @ 6"	5 @ 6", 11 @ 12"
S1a	14½	7"	5 @ 3", 11 @ 6"	5 @ 6", 11 @ 12"
S1b	23"	7"	5 @ 3", 11 @ 6"	5 @ 6", 11 @ 12"

DETAILS OF SPANS
32', 38' & 39' COMPOSITE I-BEAMS
COUNTY ROAD AT STA. 3420 + 05.50
CABIN CREEK – BIG PINEY CREEK
JOHNSON COUNTY
INT. ROUTE 40 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

For General Notes, Pier Spacing, placement of S1 thru S3, S3a & S6, and other details not shown, see drawings 15043 Sht. 1, 14900 Sht. 1, & 12303

FOR INFORMATION ONLY

DRAWN BY: JAS DATE: 1-12-62
TRACED BY: DATE:
CHECKED BY: D.E. DATE: 1-12-62
SCALE:

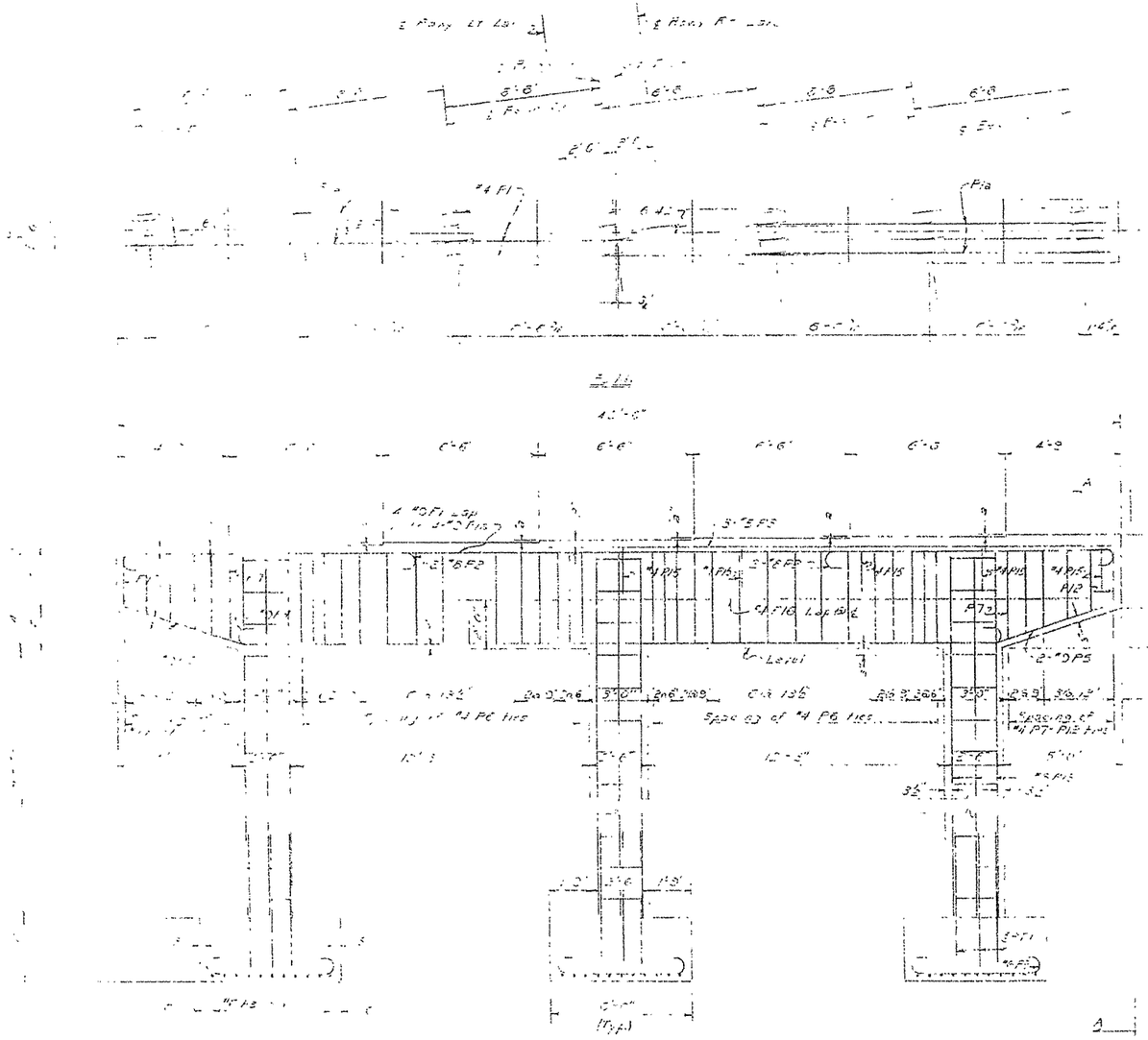
55531

BRIDGE ENGINEER

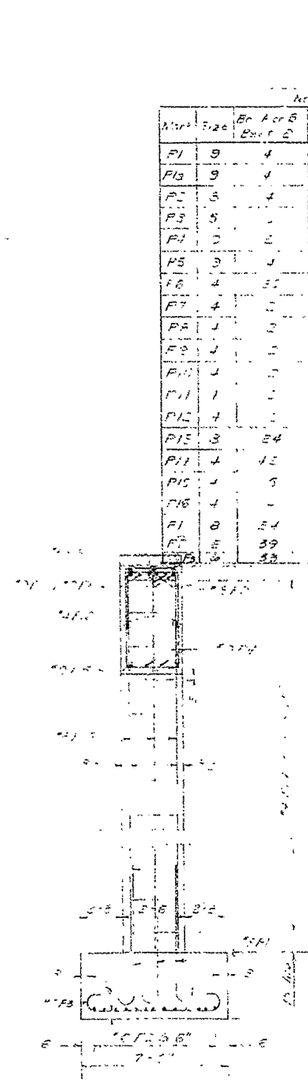
BRIDGE NO. 3778A&B DRAWING NO. ~~12304~~

BRAHAM BLUE PRINT CO

BB0803



ELEVATION
Bridge 3778A Looking forward
Bridge 3778B " " Back



SEC "A-A"

Mark	Size	Br Axis B Bent 2	Br 3778 B Bent 3	Br 3778A Bent 3	Length	A	B	Bar Dia
P1	9	4	4	4	30'-6"	30'-6"		9
P13	9	4	4	4	15'-6"	15'-6"	12	9
P2	8	4	4	4	41'-3	41'-3	9	8
P3	5	-	8	8	28'-3	28'		5
P4	3	2	2	2	53'-8	53'-8	12	3
P5	3	4	4	4	20'-10	19'-11	9"	3
P6	4	32	40	-	7'-11	3'-11½	3'-11½	4½
P7	4	2	2	-	11'-11	3'-11½	3'-11½	4½
P8	4	2	2	2	11'-6	3'-11½	3'-11½	4½
P9	4	2	2	2	11'-10	3'-11½	3'-11½	4½
P10	4	2	2	2	11'-5	3'-11½	3'-11½	4½
P11	4	2	2	2	8'-0	3'-11½	3'-11½	4½
P12	4	2	2	2	11'-5	3'-11½	3'-11½	4½
P15	3	84	84	84	8'-0 1/2"	5'-0"		
P11	4	42	42	42	8'-0	3'-11½	3'-11½	4½
P15	4	8	8	8	8'-0	3'-11½	3'-11½	4½
P16	4	-	4	4	8'-0	3'-11½	3'-11½	4½
P1	8	84	84	84	30'-6"	30'-6"		8
P2	8	84	84	84	41'-3	41'-3		8

TABLE OF VARIABLES

BENT	H'	Frg. Elev.	S'	S
Bent 2 Br. 3778A	9'-6"	406.51'	5/16	3'-9⅜"
Bent 2 Br 3778 B	13'-6"	406.14'	1/16	3'-0⅜"
Bent 3 Br. 3778A	26'-6"	406.79'	5/16	3'-9⅜"
Bent 3 Br. 3778B	20'-0"	406.61'	1/16	3'-0⅜"

FOR INFORMATION ONLY

DETAILS OF INTERMEDIATE BENTS
OVERPASSES COUNTY ROAD AT STA. 3420 + 05.50
CABIN CREEK-BIG PINEY CREEK
JOHNSON COUNTY
INT. ROUTE 40 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: [illegible] DATE: [illegible]
TRACED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
SCALE: 1" = 1'-0"

[illegible]
BRIDGE DESIGN ENGINEER

55532
BRIDGE NO. 3778A&B DRAWING NO. ~~12305~~

TABLE OF ELEVATIONS

	Elev A	Elev B	Elev C
SE A	428.22	427.93	425.63
SE B	427.56	428.09	425.38

PLAN

ELEVATION Br A

ELEVATION Br B

BAR LIST

Mk	Size	No. Req'd Br A	No. Req'd Br B	A	B	C	D	Bend
P1	5		9	7'-4"				2a
P1a	5	-	6	7'-10"	5'-5"	1'-11½"	1'-11½"	2a
P1b	5	-	6	7'-10"	5'-5"	1'-11½"	1'-11½"	2a
P1c	5	3	3	6'-2"	5'-5"	1'-11½"	1'-11½"	2a
P2	6	15	-	6'-9"	2'-5"	1'-11½"	1'-11½"	2a
P3	4	-	40	9'-0"	2'-5"	1'-11½"	1'-11½"	2a
P3a	4	-	21	9'-5"	2'-5"	1'-11½"	1'-11½"	2a
P3b	4	6	6	8'-0"	2'-5"	1'-11½"	1'-11½"	2a
P3c	4	61	-	9'-0"	2'-5"	1'-11½"	1'-11½"	2a
P4	4	82	82	4'-0"				Str
P7	4	41	41	4'-0"				Str
P8	4	4 ea	4 ea	3'-11" to 5'-7" Varies by 6"				Str
P13	4	3	3	8'-2"				Str
P14	4	6	5	7'-0"				Str
P16	4	2	2	5'-6"				Str
P18	4	2	2	7'-0"	5'-0"	2'-0"		1a
P19	4	2	2	8'-10"	6'-5"	2'-10"		1a
P20	3	3	3	5'-6"				Str
P21	4	5	5	7'-4"	5'-0"	2'-0"		1a
P22	4	5	2	5'-10"	4'-5"	2'-0"		1a
P23	4	4 ea	4 ea	5'-6" to 6'-5" Varies by 3"	2'-10"			1a
P24	4	2	2	11'-6"				1a
P25	5	2	2	5'-4"	2'-5"	1'-11½"		2a
P26	5	6	6	9'-0"				Str
P27	5	6	1	23'-10"				Str
P28	5	6	1	18'-5"				Str
P1c	6	6	1	6'-5"				Str
P1	8	6	-	36'-3"				Str
P2	6	18	6	22'-0"				Str
P5	4	4	6	23'-2"	23'-0"	1'-3"		2a
T01	5	12	6	5'-3"				Str
T02	5	12	8	5'-3"	2'-8"	2'-6"		1a

SECTION A-A

SPLICE DETAIL

The Contractor at his own expense may provide as many as three splices per pile for steel bearing piling. Minimum spacing between splices shall be 5 feet

PILE SPLICE DETAIL
Scale: 1" = 1'-0

GENERAL NOTES

Concrete to be Class S. All exposed corners to have ¾" chamfer unless otherwise noted.

BRIDGE ENGINEER

SECTIONS DIAGRAM

Dimensions are from ... to ...

END VIEW B B

DETAIL A

FOR INFORMATION ONLY

DETAILS OF END BENTS NO 1

OVERPASS CO. RD. AT STA. 342 0 + 5.50

CABIN CREEK - BIG PINEY CREEK

JOHNSON COUNTY

INT ROUTE 40 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: SSA DATE: 1-21-63

TRACED BY: DATE:

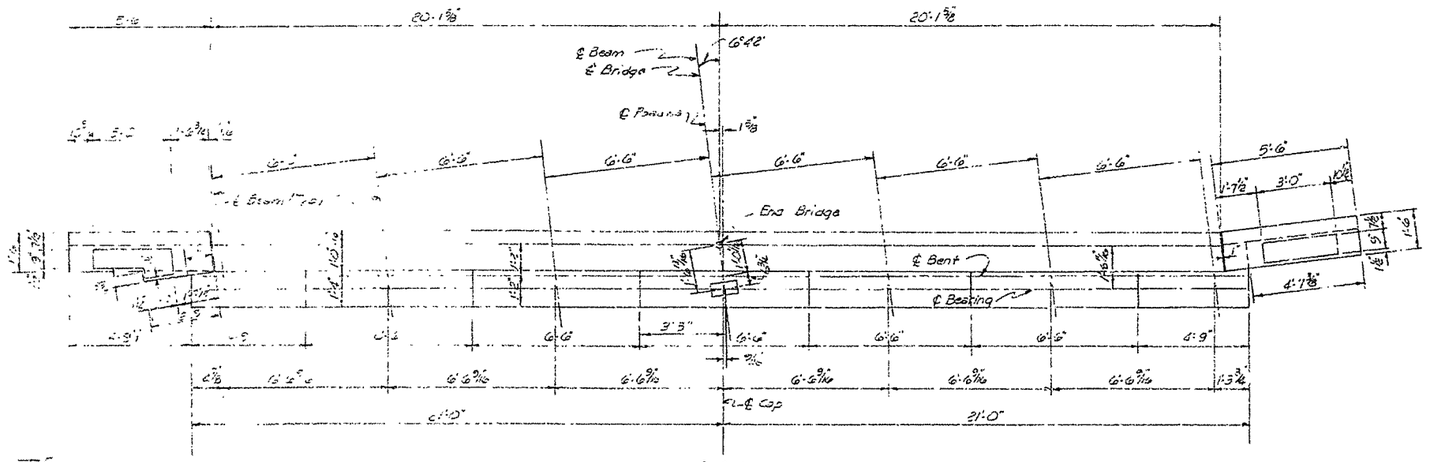
CHECKED BY: DFZ DATE: 2-5-62

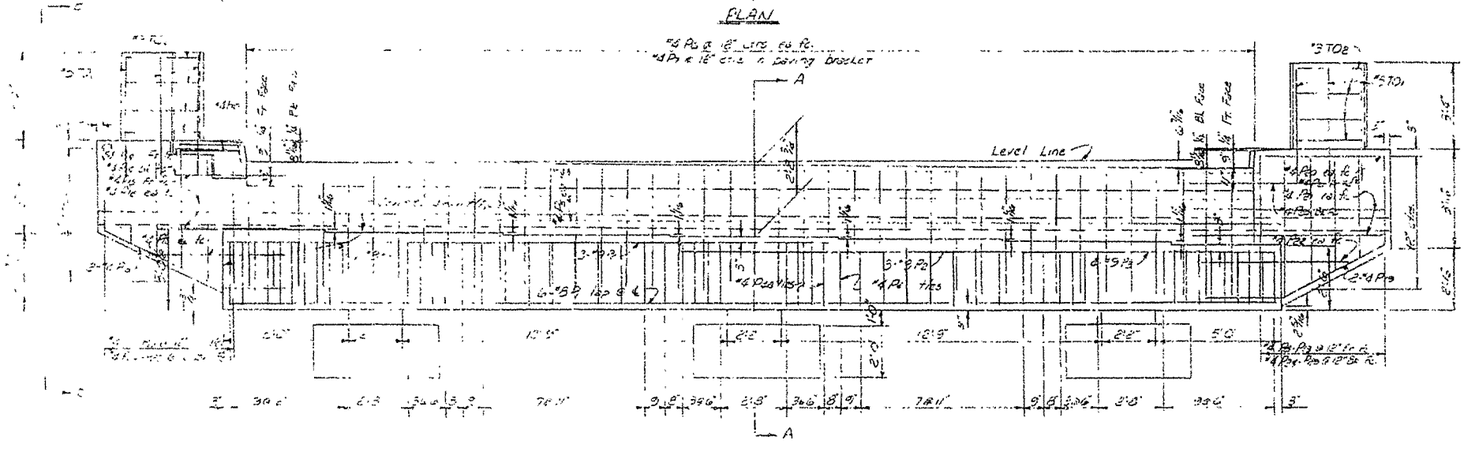
SCALE: 3/8" = 1'-0" or as noted

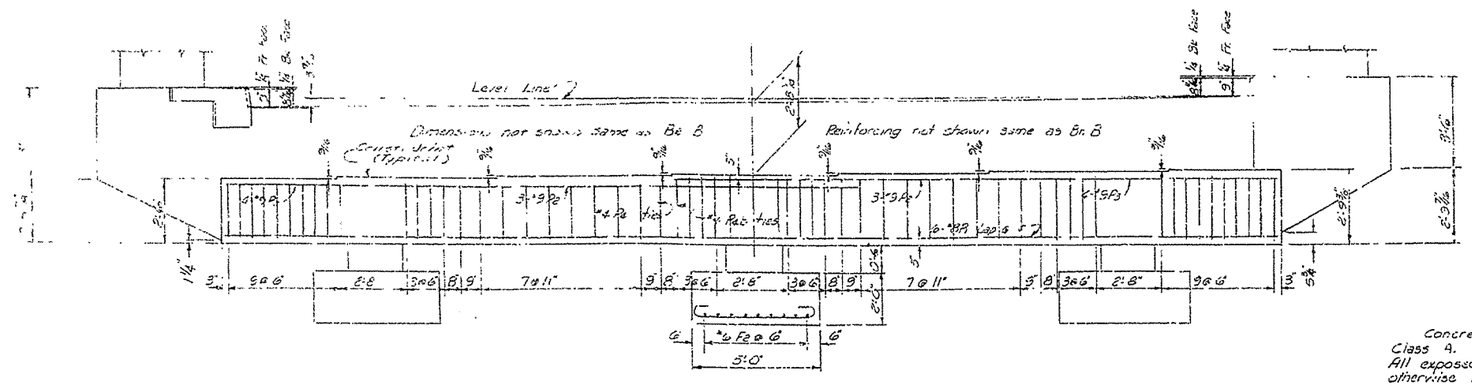
55533

BRIDGE NO. 3778A&B DRAWING NO. ~~12306~~

BB0803

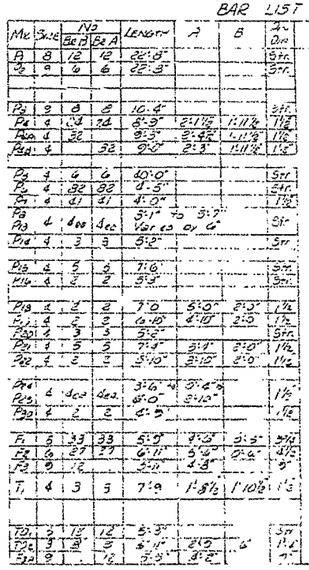




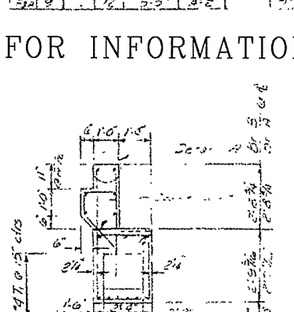


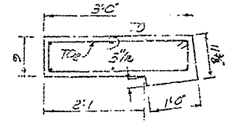
BAR LIST

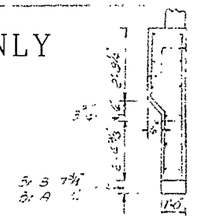
Mk	Size	No Be B	No Be A	Length	A	B	# Dia
A	8	12	12	22'-8"			5#
A2	8	6	6	22'-8"			5#
P2	3	8	8	16'-4"			2#
P4	4	24	24	8'-9"	2'-11½	1'-11½	11#
P4a	4	32		9'-3"	2'-11½	1'-11½	11#
P4a1	4		32	9'-0"	2'-3"	1'-11½	11#
P5	4	6	6	10'-0"			5#
P6	4	32	32	8'-3"			5#
P7	4	41	41	8'-0"			7#
P8				5'-1" To 5'-7"			
P8a	4	4 Bet	4 Bet	Var as per G			5#
P8d	4	3	3	5'-12"			5#
P15	4	5	5	7'-6"			5#
H19	4	2	2	5'-3"			3#
P19	4	2	2	7'-0"	5'-0"	2'-0"	7#
P20	4	2	2	6'-10"	4'-10"	2'-0"	7#
P20a	4	3	3	5'-6"			5#
P21	4	3	3	7'-9"	3'-9"	3'-0"	11#
P22	4	2	2	5'-10"	2'-10"	2'-0"	11#
P24	4	4 Bet	4 Bet	3'-6" To 6'-0"	2'-6" To 4'-10"		1#
P25	4	4 Bet	4 Bet	6'-0"	4'-10"		1#
P26	4	2	2	6'-5"			1#
F	5	33	33	5'-9"	3'-10"	2'-5"	5#
F2	6	27	27	6'-11"	5'-10"	2'-4"	9#
F3	6	16		2'-11"	1'-8"		3#
T	14	3	3	7'-9"	1'-8½	1'-10½	13#
T10	3	12	12	5'-3"			3#
T10a	3	8	8	6'-11"	5'-10"	2'-0"	6#
T12	3	12	12	5'-5"	3'-12"		3#

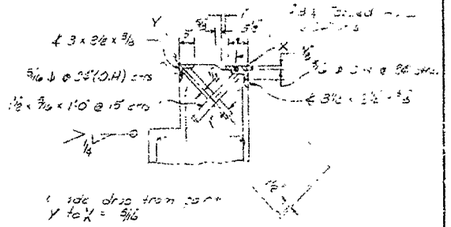


FOR INFORMATION ONLY









GENERAL NOTES

Concrete in footings and columns to be Class A. All other Concrete to be Class B. All exposed corners to have ¾" chamfer unless otherwise noted.

BRIDGE DESIGN ENGINEER

DETAILS OF END BENTS NO. 4

OVERPASS CO. RD. AT STA. 3420+05.50

CABIN CREEK - BIG PINEY CREEK

JOHNSON COUNTY

A.F. ROUTE 40 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: DFC DATE: 12-7-62

TRACED BY: DATE:

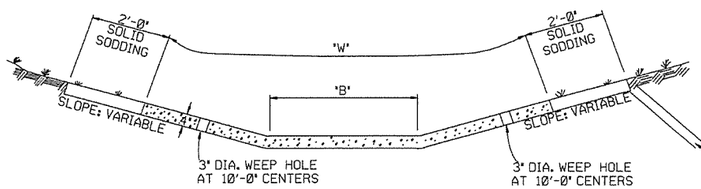
CHECKED BY: FMS DATE: 1-25-63

SCALE: ¼" = 1'-0"

55534

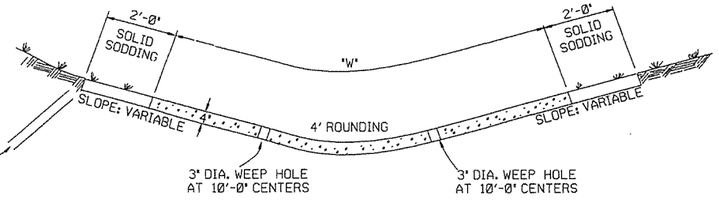
BRIDGE NO. 3778 A&B DRAWING NO. ~~12307~~

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



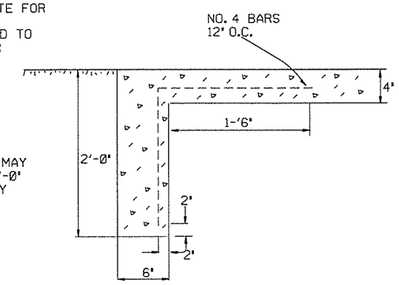
TYPE A

REFER TO TABULATION OF QUANTITIES FOR 'W' DIMENSIONS



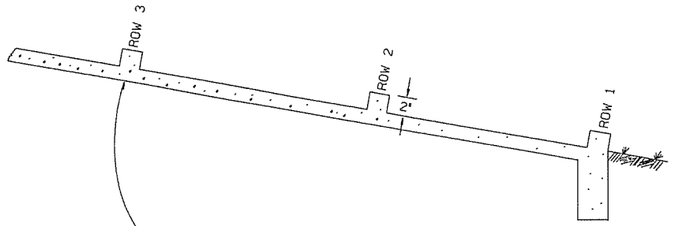
TYPE B

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



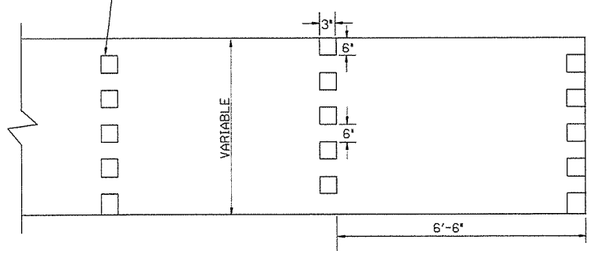
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

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



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

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

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

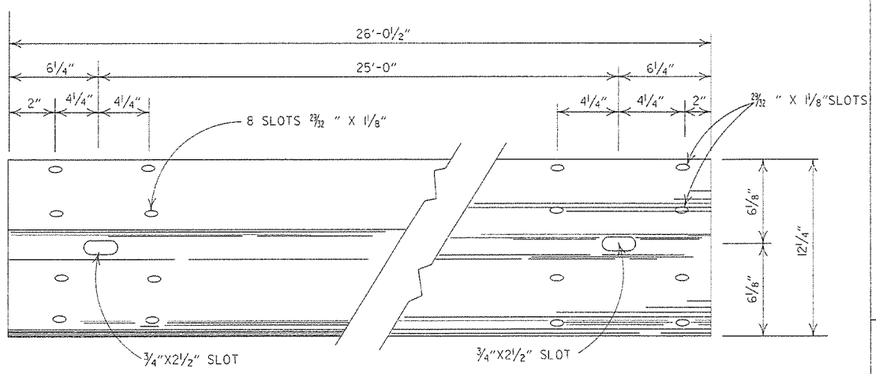
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

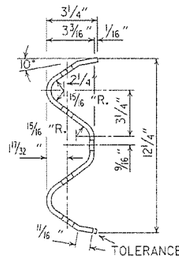
DATE	REVISION	DATE FILM'D
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED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

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1

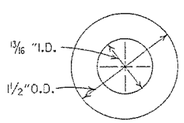




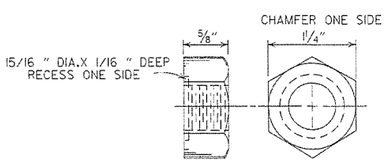
DETAILS OF
W-BEAM GUARD RAIL

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

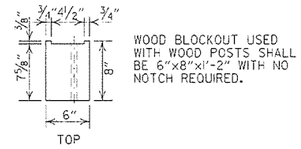
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

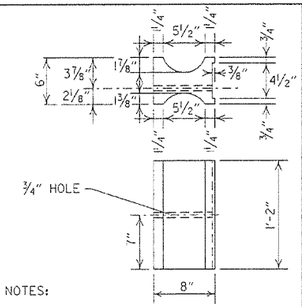


NUT



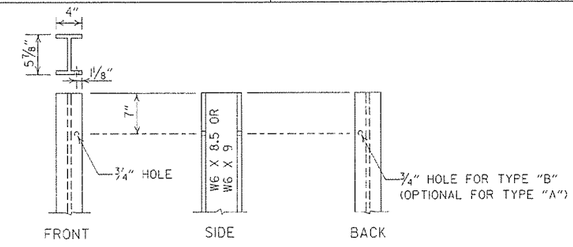
WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

WOOD BLOCKOUT
(W-BEAM)

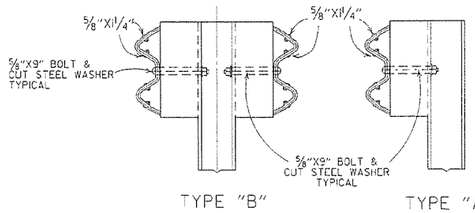


NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT
(W-BEAM)



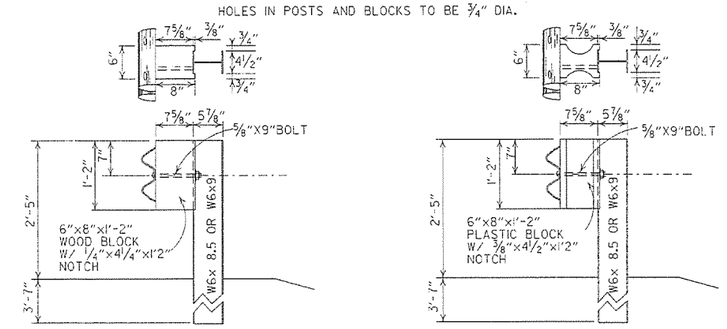
STEEL POST



TYPE "B" TYPE "A"

DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)

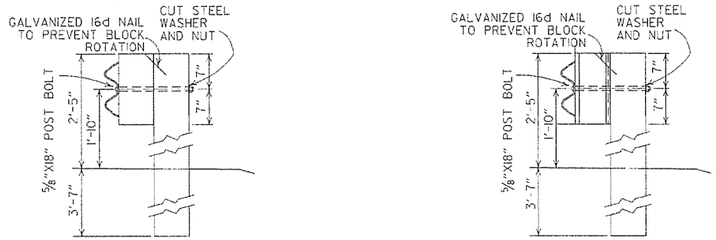
HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



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.

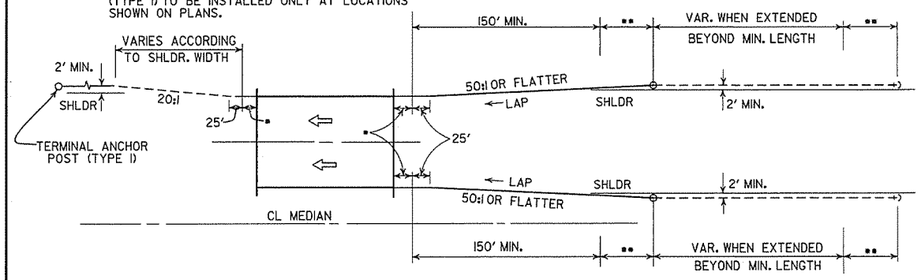
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
0-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD. DELETED CONC. POST & REV. GENERAL NOTE. DELETED DET. OF GUARD RAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK. & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE. REVISED HOLES IN STEEL POLES	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED 41 T. 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

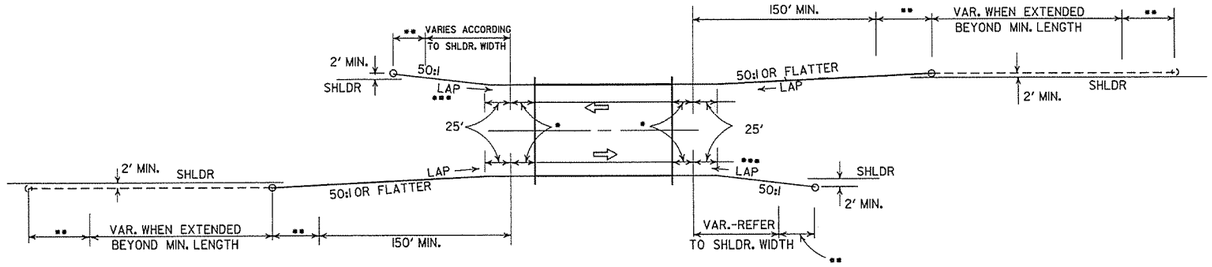
STANDARD DRAWING GR-8

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



ONE-WAY TRAFFIC

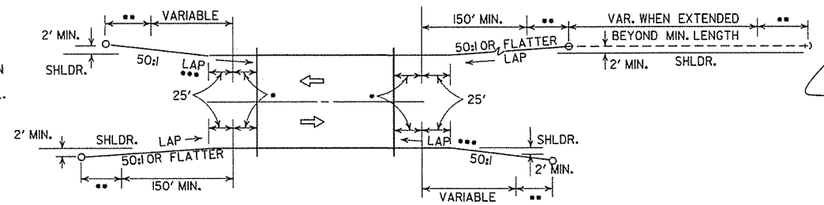
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

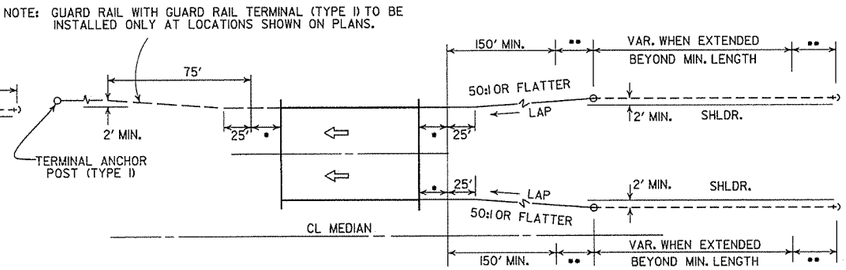
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• 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

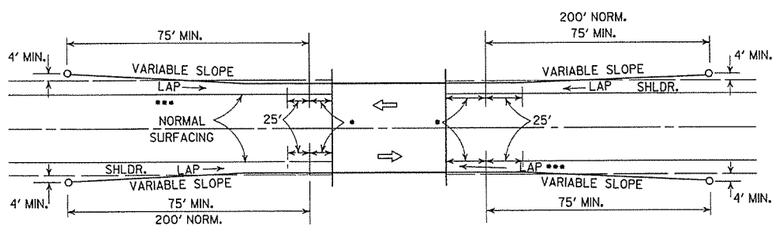
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



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

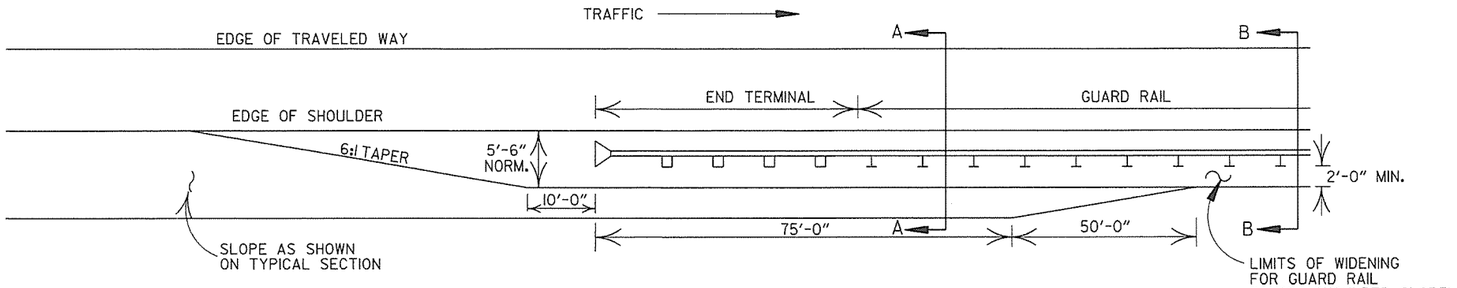
- ▪ THRIE BEAM GUARD RAIL TERMINAL
- ▪▪ GUARD RAIL TERMINAL (TYPE 2)

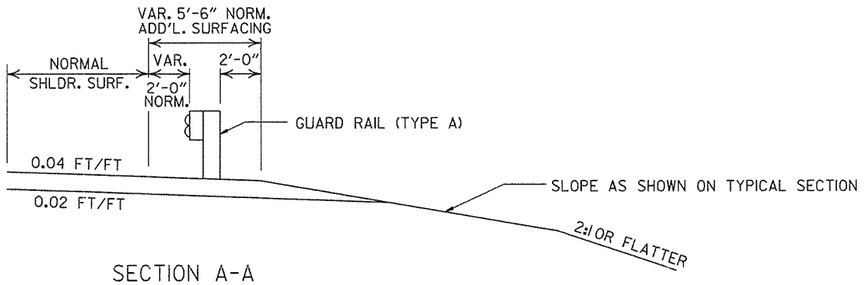
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87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

ARKANSAS STATE HIGHWAY COMMISSION

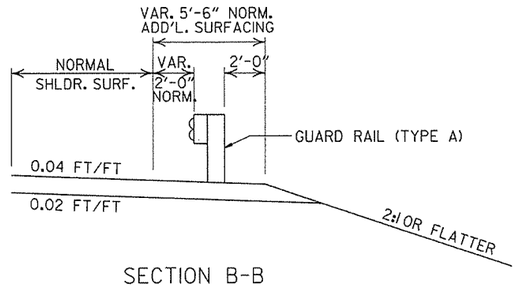
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





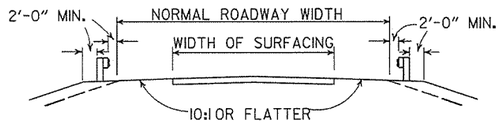
SECTION A-A



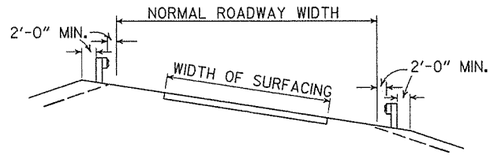
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

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

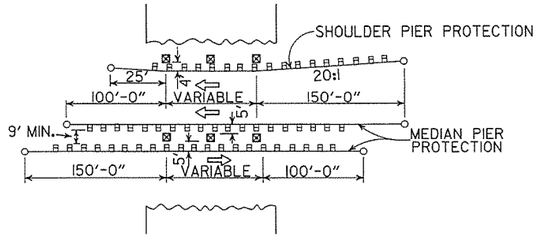


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



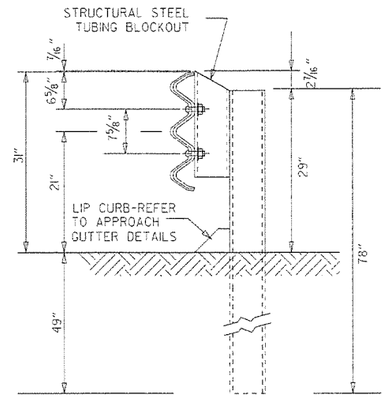
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

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

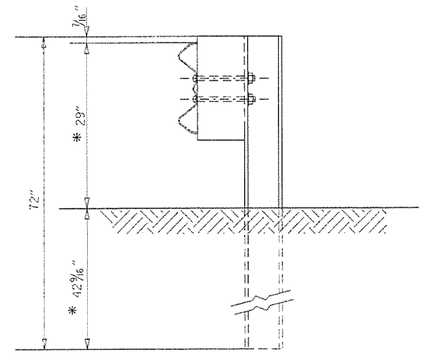
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-9A

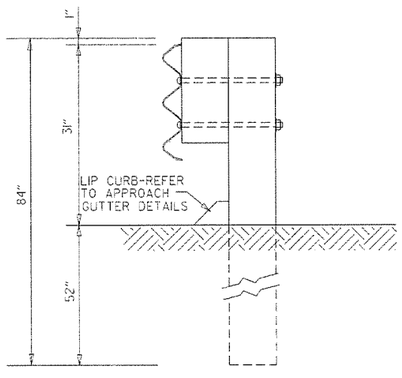


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

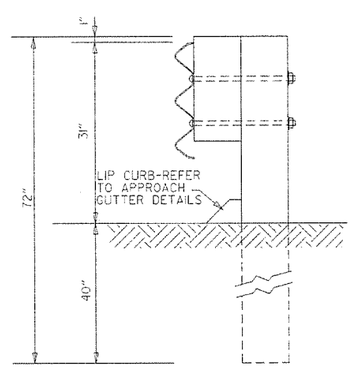


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

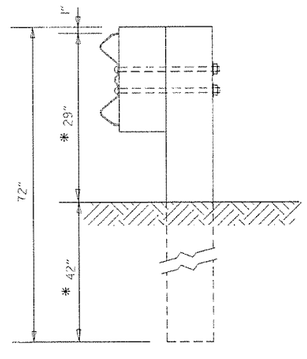
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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.

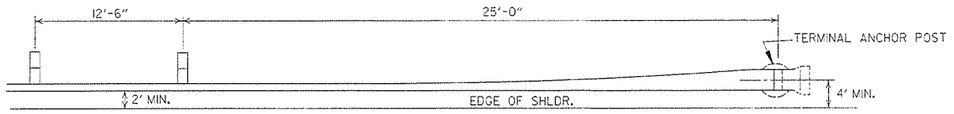
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

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	

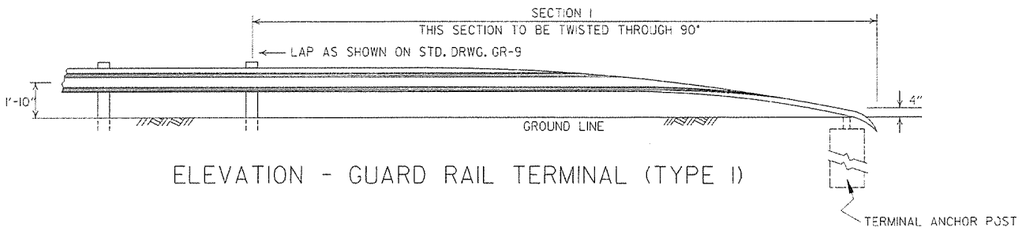
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

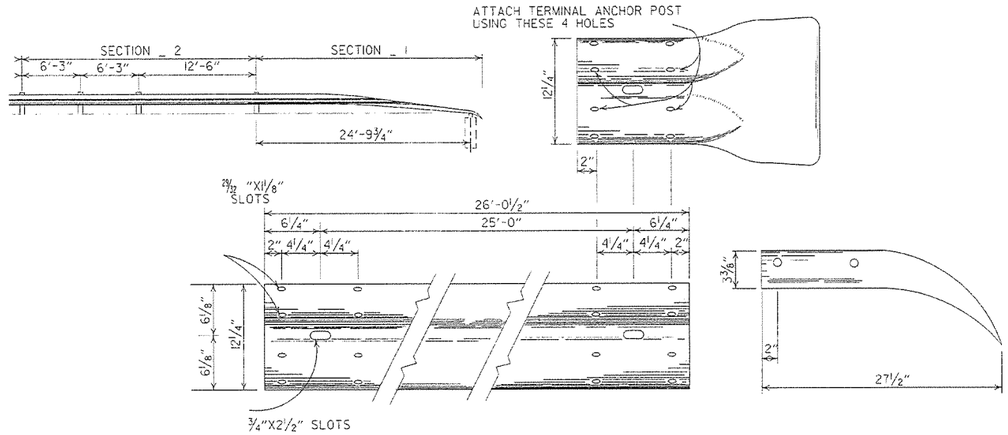


PLAN - GUARD RAIL TERMINAL (TYPE I)



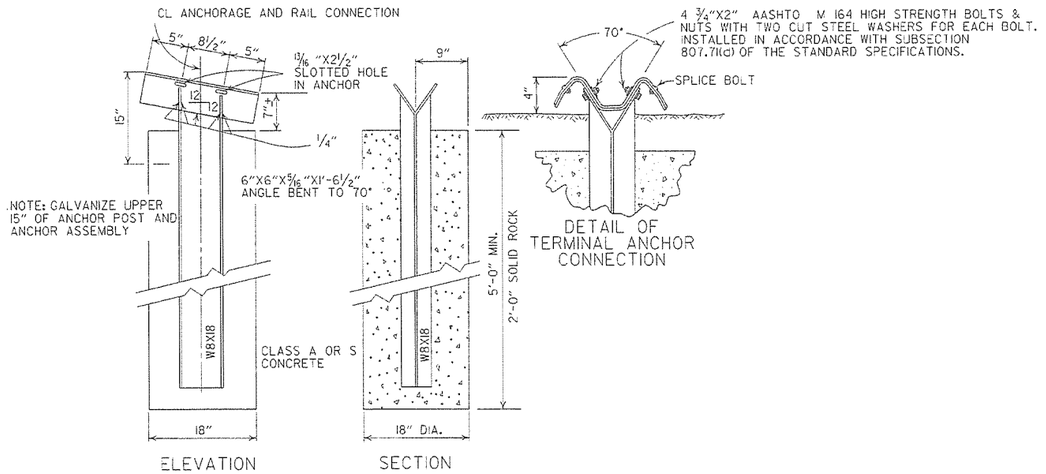
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

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



SECTION 1

TERMINAL SECTION



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

DETAIL OF TERMINAL ANCHOR POST (TYPE I)

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

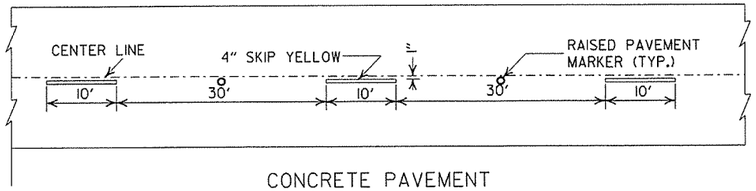
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

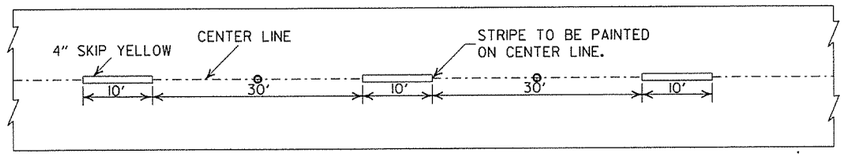
STANDARD DRAWING GRT-1

NOTES:

1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.

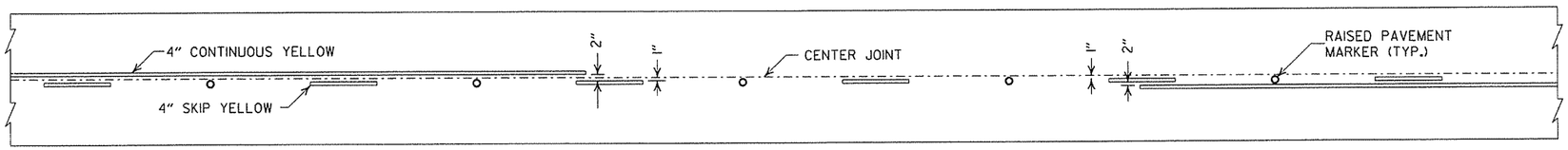


CONCRETE PAVEMENT

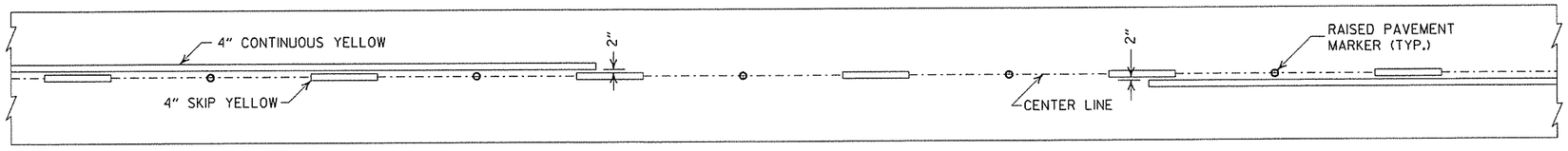


ASPHALT PAVEMENT

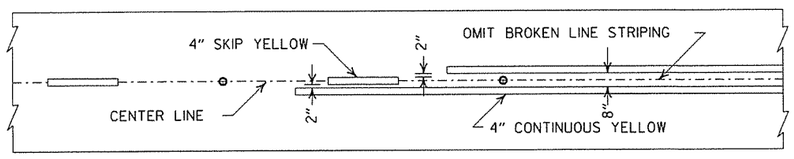
BROKEN LINE STRIPING



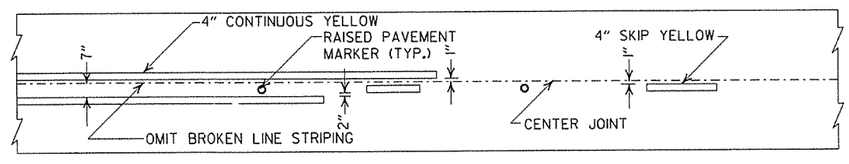
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT



ASPHALT PAVEMENT



CONCRETE PAVEMENT

GENERAL NOTES:

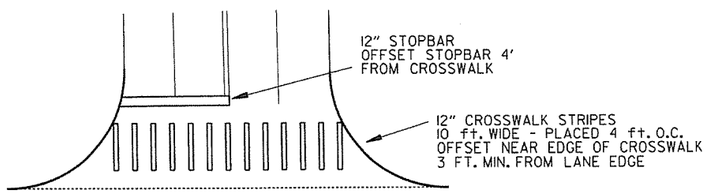
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:

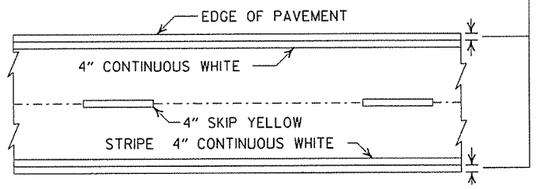
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

STRIPING AT ADJACENT NO PASSING LANES

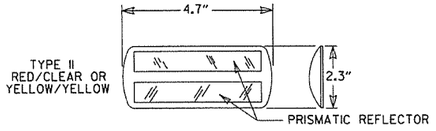


CROSSWALK AND STOPBAR DETAILS

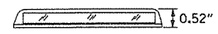
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



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

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

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

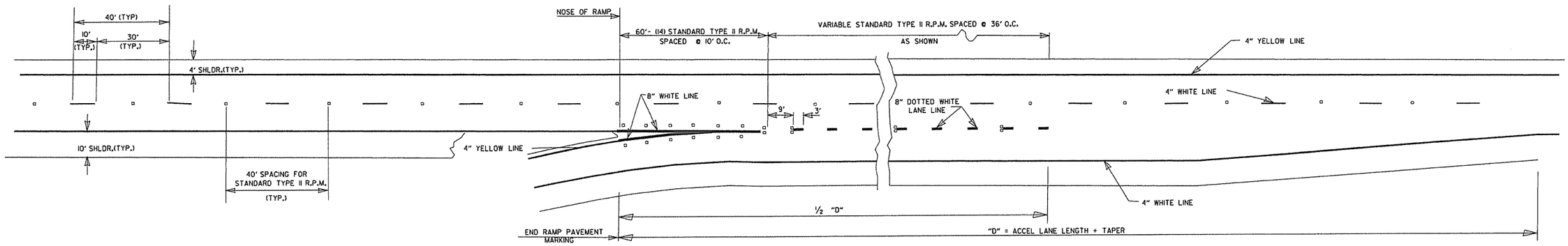
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

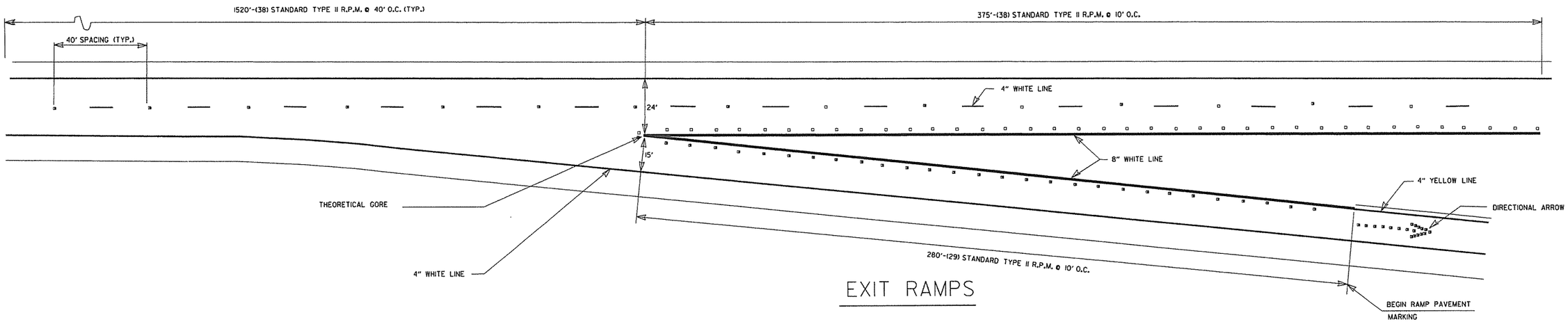
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

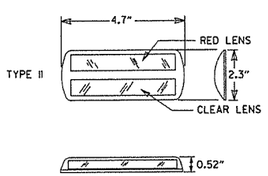
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

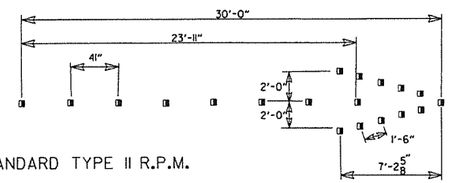


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTO QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

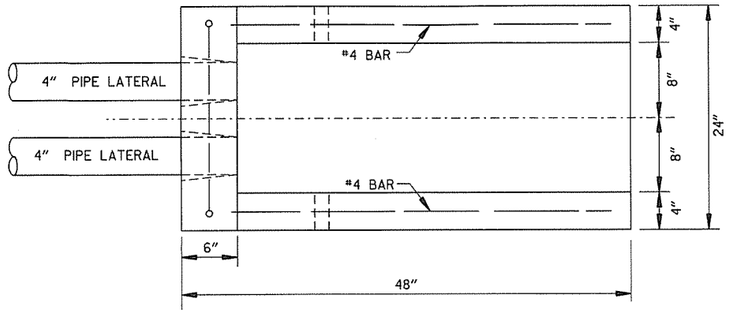
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

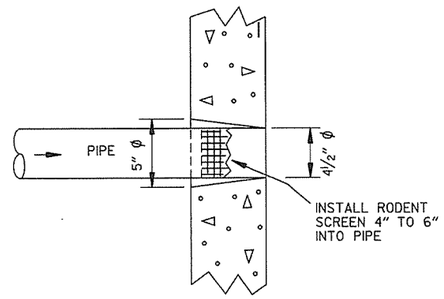
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

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

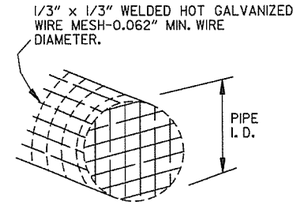
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



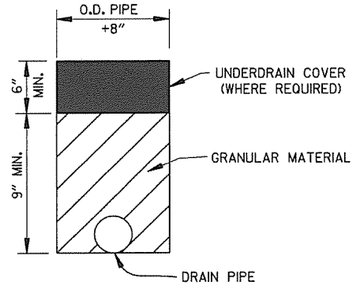
PLAN VIEW

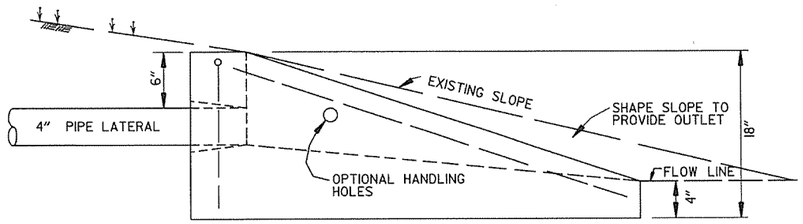


DETAIL OF HOLE FOR 4" PIPE

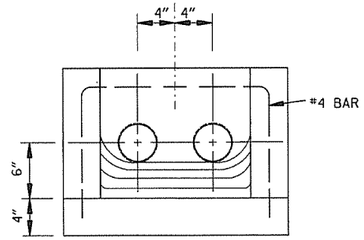


DETAIL OF RODENT SCREEN

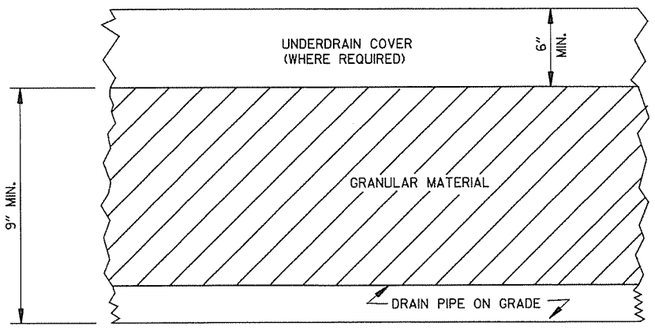




SIDE VIEW

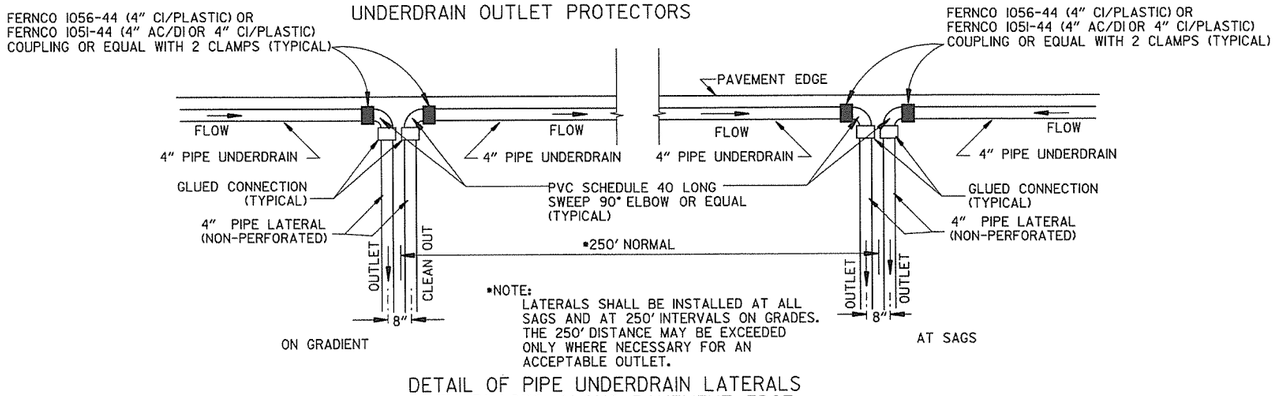


FRONT VIEW



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

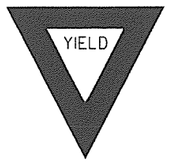
STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

RI-1

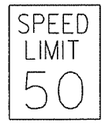
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

RI-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"

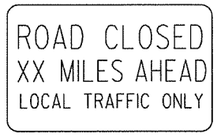
R5-1

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

RII-2

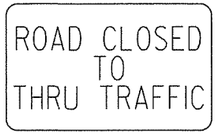
48"X30"

RII-3A



60"X30"

RII-4

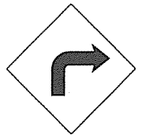


60"X30"

RSP-1

48"X30"

WI-1



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

WI-2

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

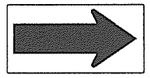
WI-3

STD. 48"X48"

WI-4

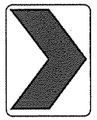
STD. 48"X48"

WI-6



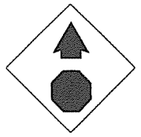
STD. 48"X24"
SPECIAL 60"X30"

WI-8



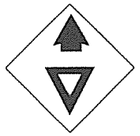
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



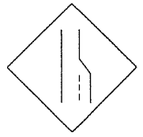
STD. 36"X36"
SPECIAL 48"X48"

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"

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

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

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

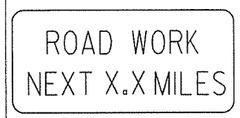
W8-11

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

W8-9

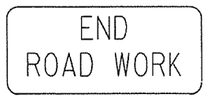
STD. 36"X36"
FWY. 48"X48"

G20-1



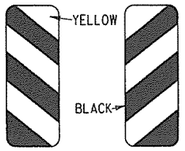
60"X24"

G20-2



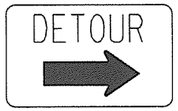
48"X24"

OM-3L OM-3R



12"X36"

M4-9



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

M4-10

48"X18"

R55-1

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.

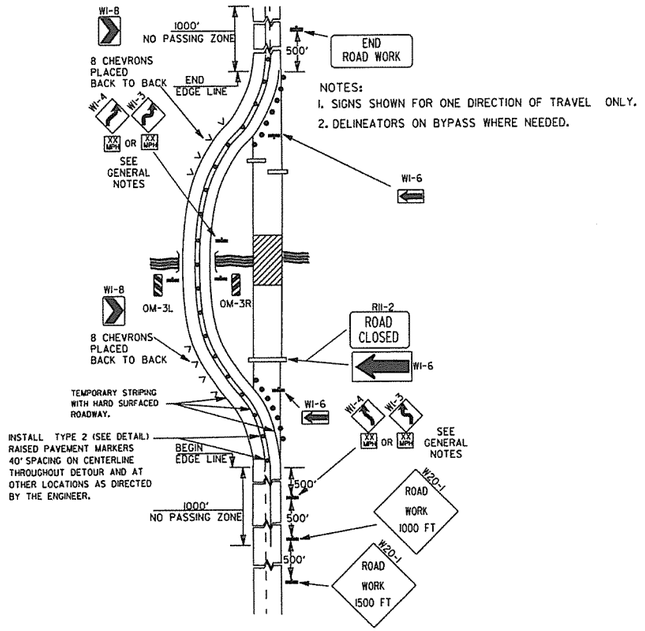
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

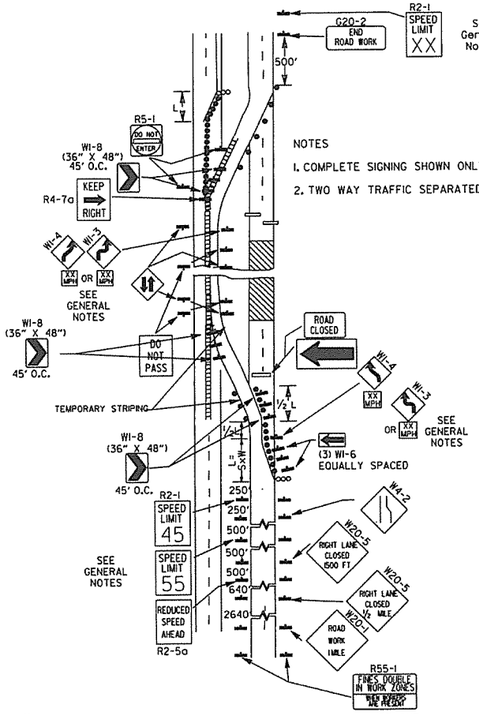
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



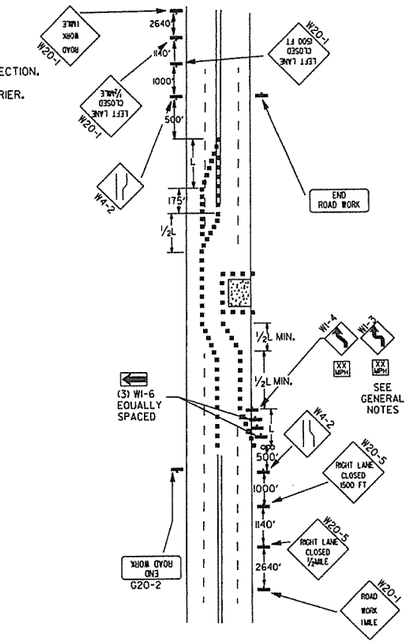
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

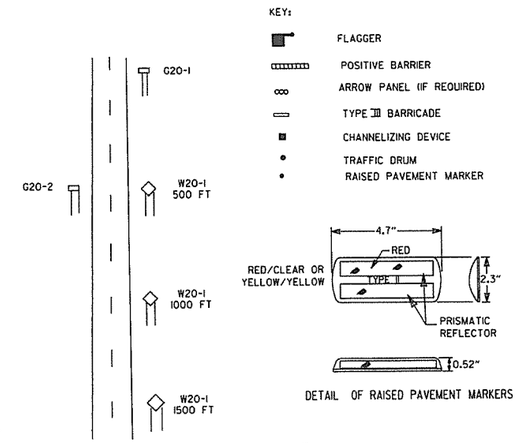


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

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

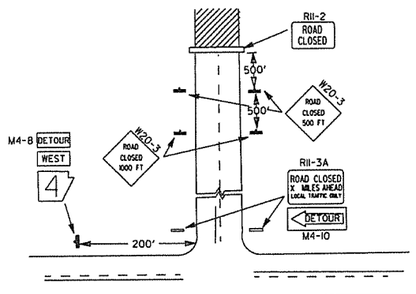


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

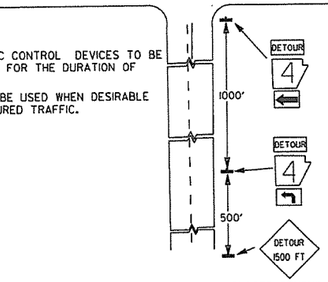


DETAIL OF RAISED PAVEMENT MARKERS

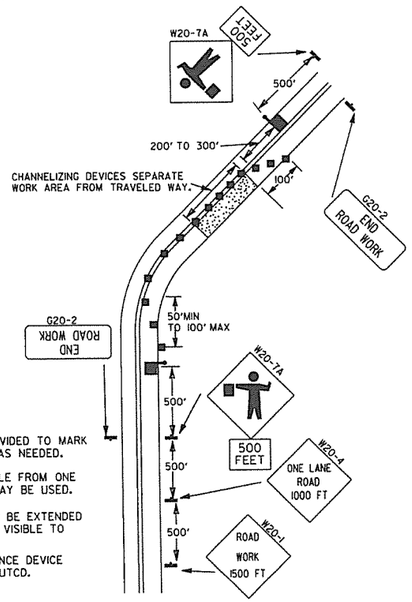
TYPICAL ADVANCE WARNING SIGN PLACEMENT



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

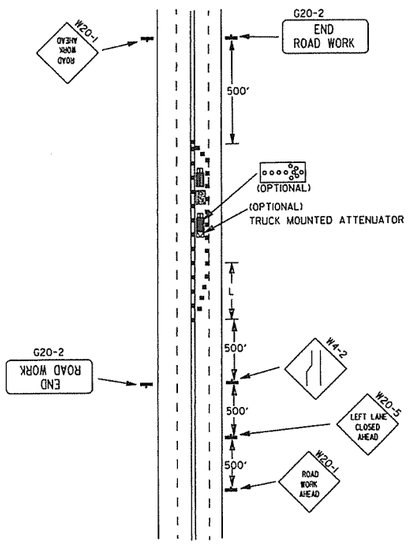


(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



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

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



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

TAPER FORMULAE:

$L = SXW$ FOR SPEEDS OF 45MPH OR MORE.

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

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

GENERAL NOTES:

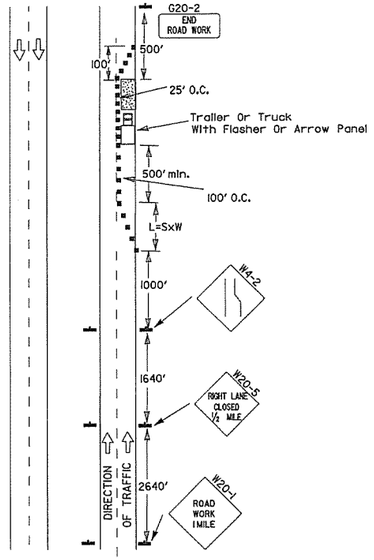
1. ADVISORY SPEED POSTED ON WI-3 OR WI-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH 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 R2-155MPH 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	FH.MED
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	

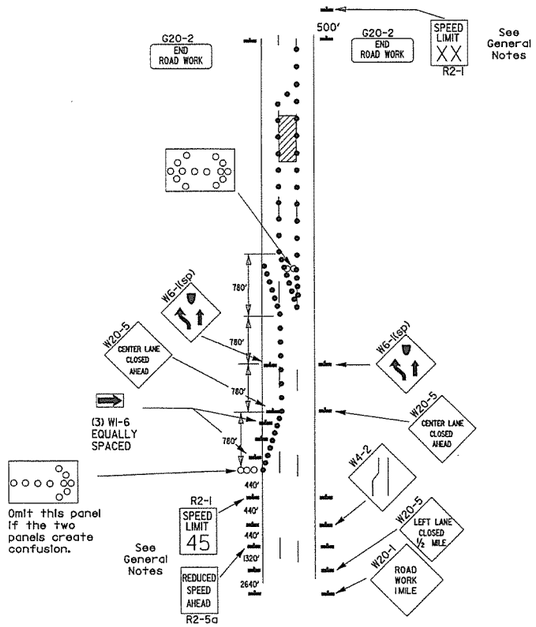
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

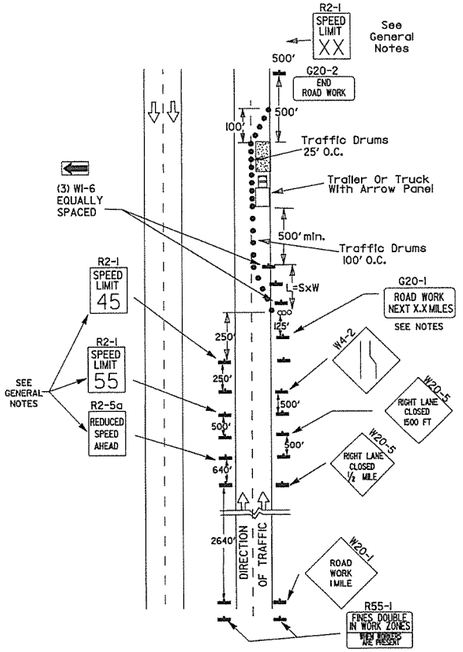
STANDARD DRAWING TC-2



(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 operatipns of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

○○○ Arrow Panel (If Required)

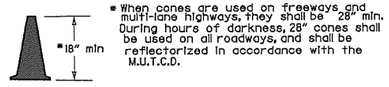
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

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

Channelizing devices



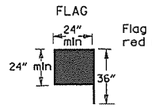
NOTE: For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.

TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

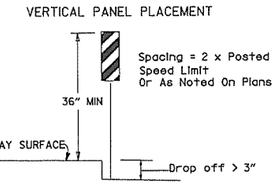
VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical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

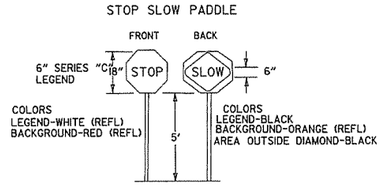
* When shown on the plans concrete barrier will be used.

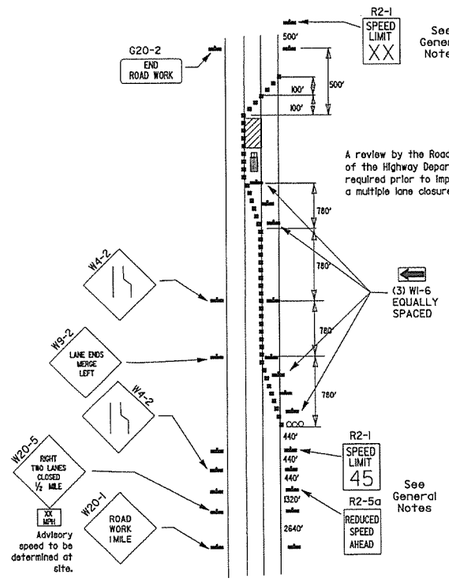
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



Flag shall be of good grade red material

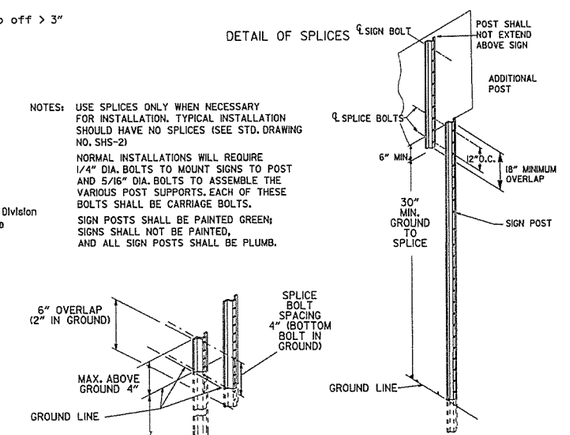






(D) Typical application - closing multiple lanes of a multilane highway.

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	

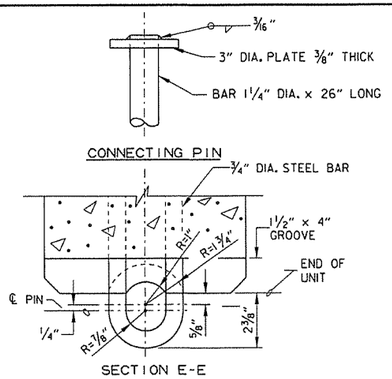
ARKANSAS STATE HIGHWAY COMMISSION

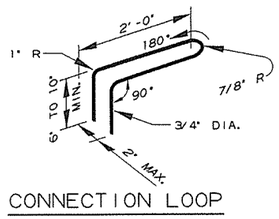
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

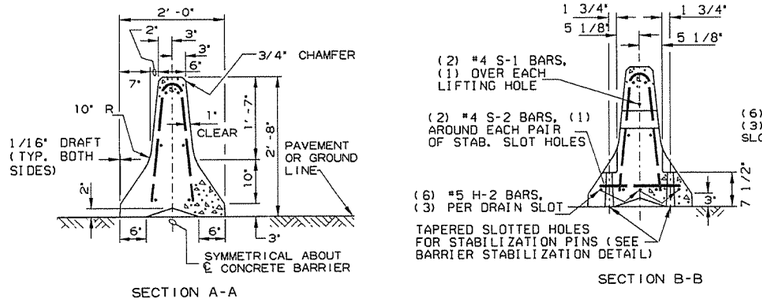
STANDARD DRAWING TC-3

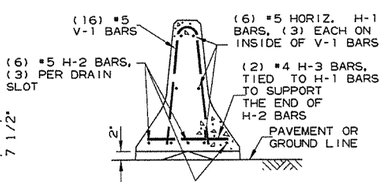
REINFORCING BAR TABLE PER BARRIER UNIT

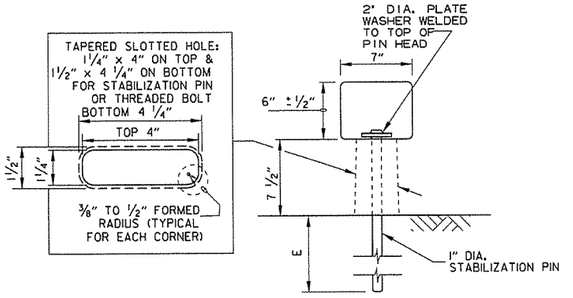
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", 90°, 3 3/8" R, LIFTING HOLE
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9"; 2 3/16" R; 12°; 9 1/2"; 4 3/8"; 2'-1 3/8"

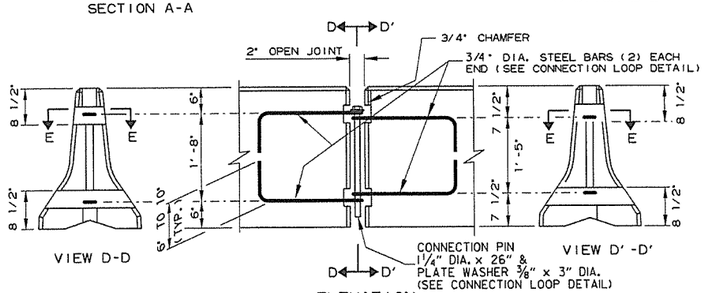


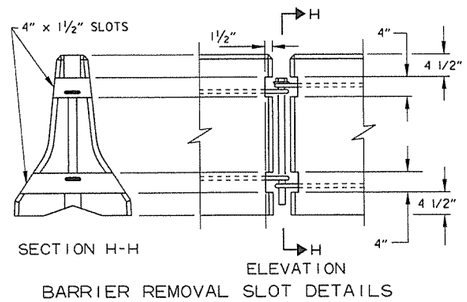


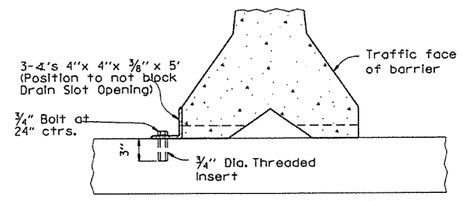


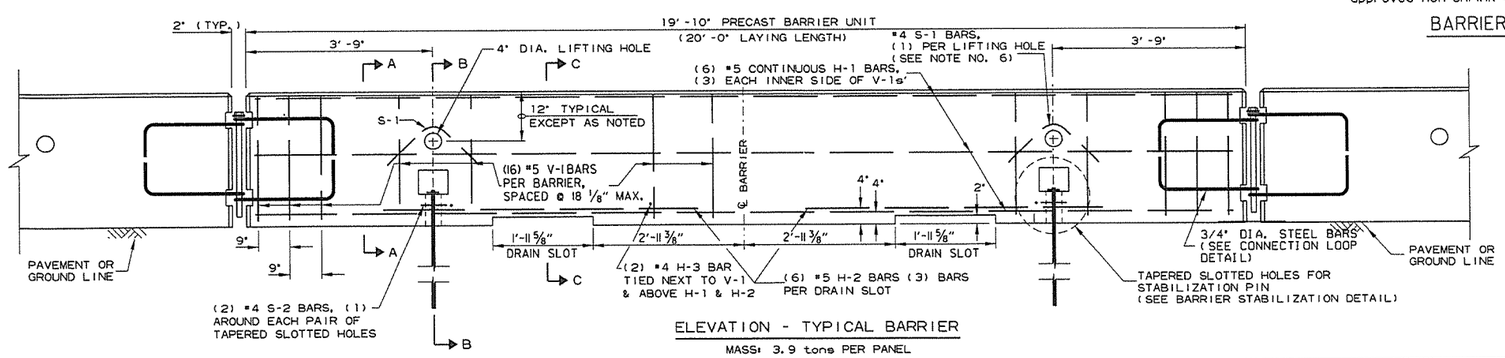












General Notes

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.

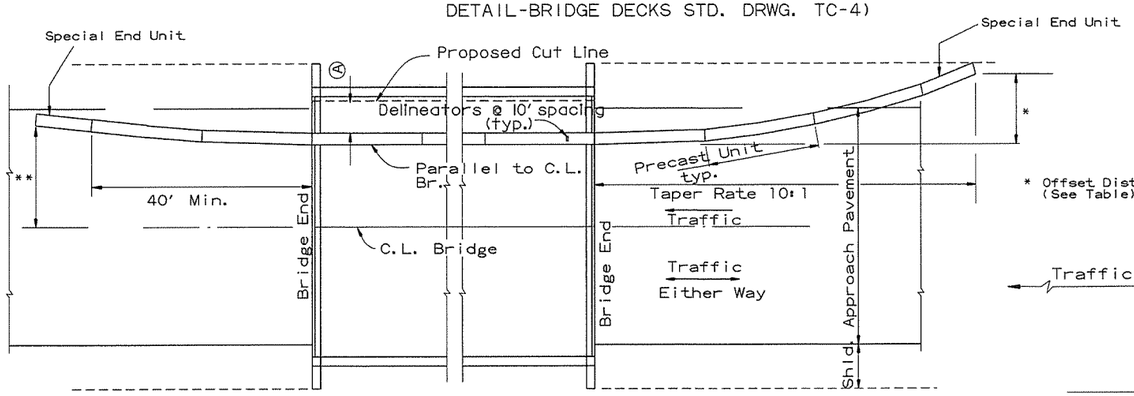
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

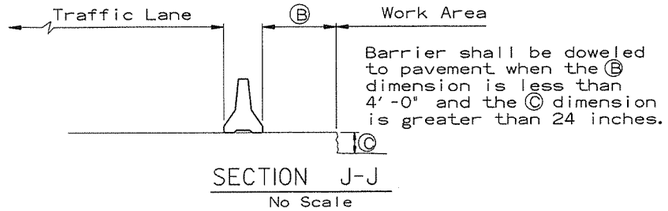
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

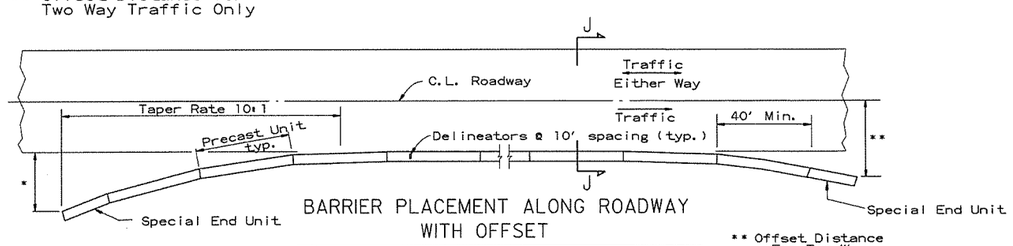
** Offset Distance for Two Way Traffic Only



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



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

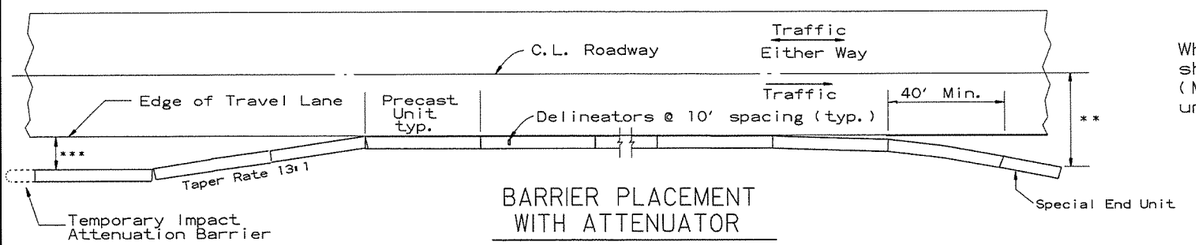
** Offset Distance For Two Way Traffic Only

* 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.

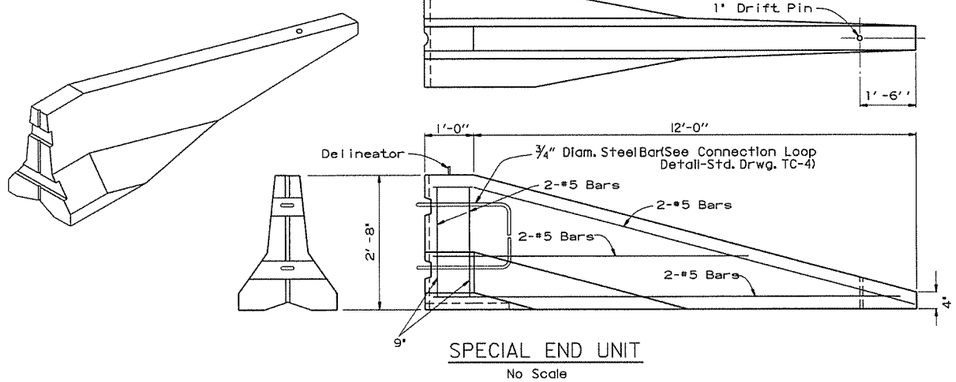


BARRIER PLACEMENT WITH ATTENUATOR

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	

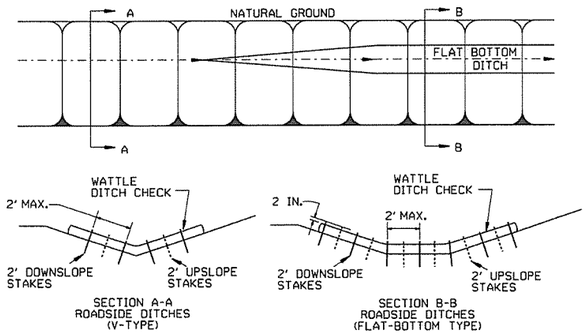
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

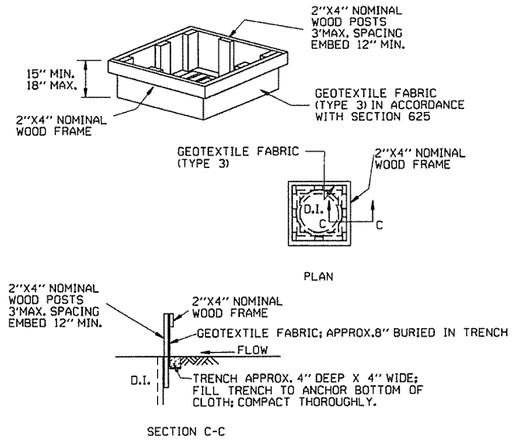
STANDARD DRAWING TC-5

GENERAL NOTES

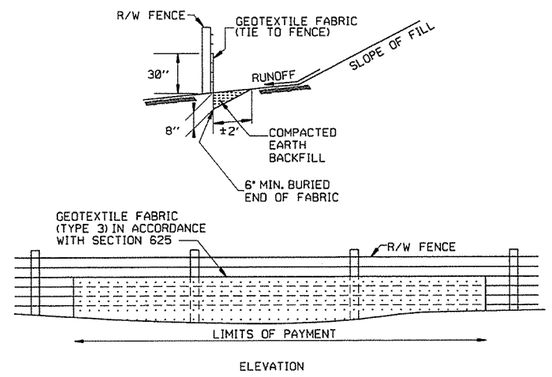
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

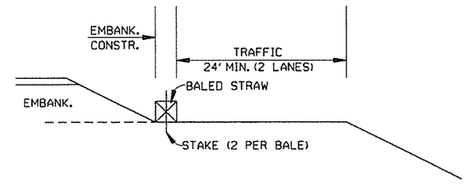
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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.

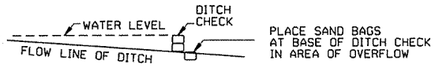
2. NO GAPS SHALL BE LEFT BETWEEN BALES.

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.

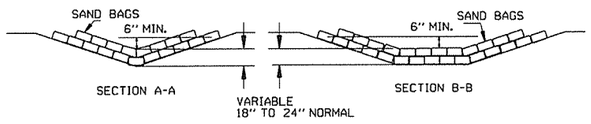


BALED STRAW FILTER BARRIER (E-2)

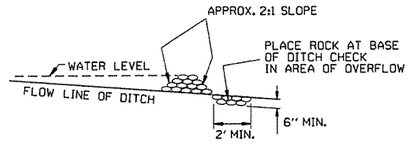
NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS.

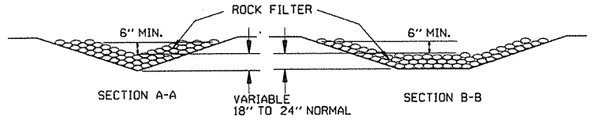


PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW

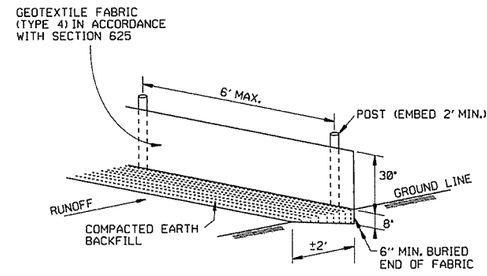


SAND BAG DITCH CHECK (E-5)





ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

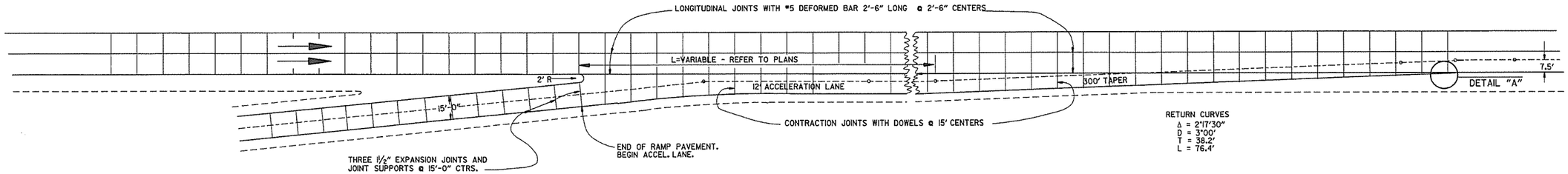
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

ARKANSAS STATE HIGHWAY COMMISSION

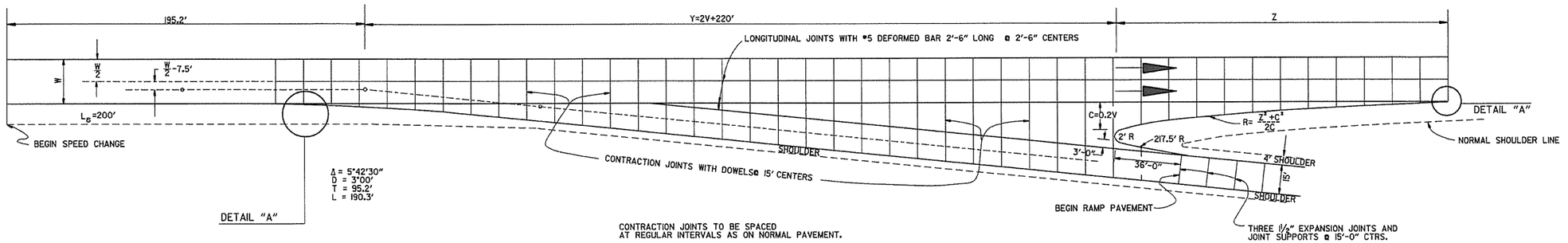
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-1



ENTRANCE RAMP

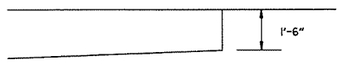
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



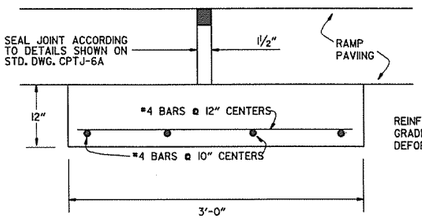
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	Y	NOSE OFFSET C	LENGTH NOSE TAPER Z	RETURN RADIUS R	ADDITIONAL SURFACING SQ. YDS.
40	300.0	8.0	96.0	580.0	602.43
50	320.0	10.0	120.0	725.0	687.29
60	340.0	12.0	168.0	1182.0	790.55
70	360.0	14.0	210.0	1582.0	902.27



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED. THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.

8-22-02	DELETED NOTE	
11-16-01	CORRECTED SPELLING ON ENTRANCE RAMP NOTE	
5-13-99	ADDED, EDITED AND DELETED NOTES	
11-03-94	ADDED NOTE RE: REINF. BARS	
10-1-92	ADDED DETAIL A & OTHER MINOR CHANGES	10-1-92
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORM'D TO 1988 SPECIFICATIONS	65C-7-15-88
3-2-81	ISSUED	511-10-2-72
DATE	REVISION	DATE FILM'D

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

STANDARD DRAWING TR-1A