DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	1	51
				(4)	GASSVILLE SCHOOL ST. WIDENING (S)			

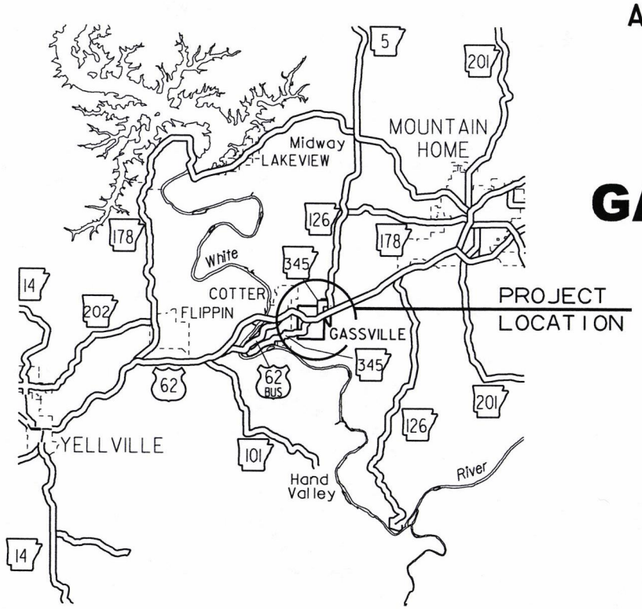
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR PROPOSED CITY STREET

GASSVILLE SCHOOL ST. WIDENING (S)

SCHOOL ST.

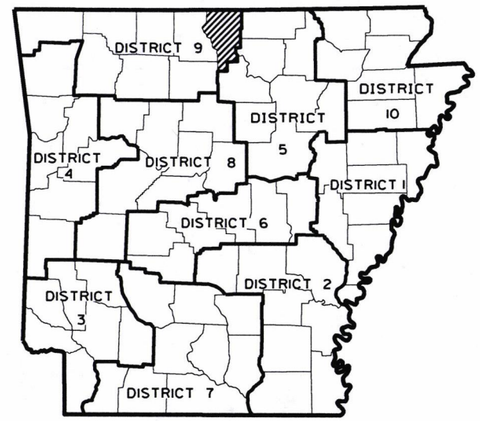
BAXTER COUNTY

JOB C03004



VICINITY MAP

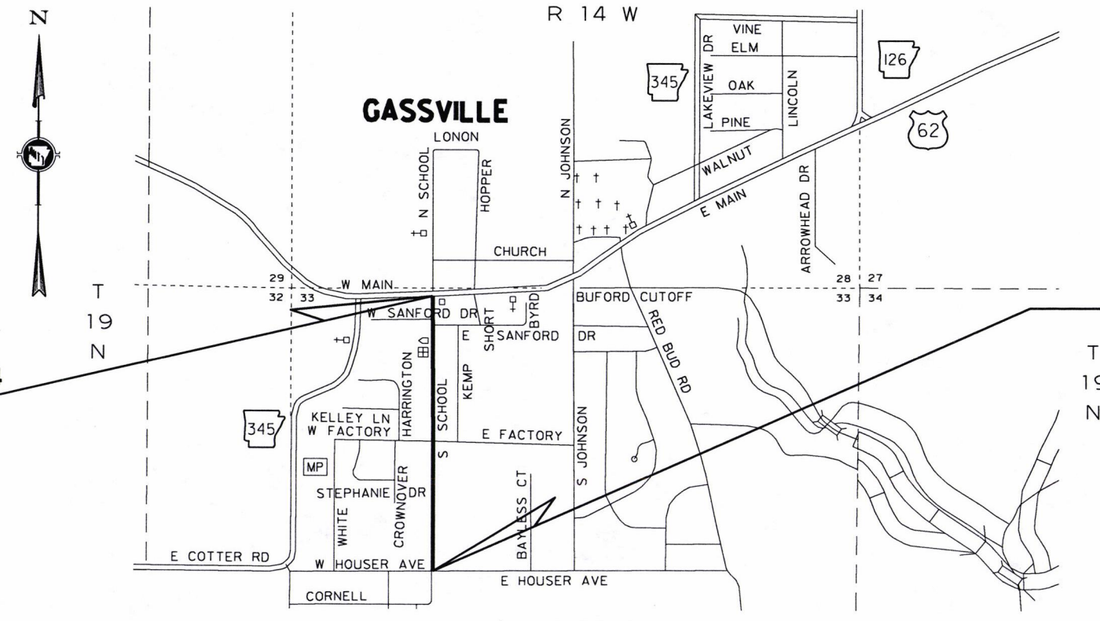
NOT TO SCALE



ARK. HWY. DIST. NO. 9

DESIGN TRAFFIC DATA

DESIGN YEAR	2037
2017 ADT	550
2037 ADT	700
2037 DHV	105
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	3 %
DESIGN SPEED	30 MPH



STA. 100+00 - BEGIN JOB C03004

STA. 125+93 - END JOB C03004

APPROVED

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7836
M.E. BANKS

7-27-17

DEPUTY DIRECTOR
AND CHIEF ENGINEER

PROJECT COORDINATES

	BEGIN	MID-POINT	END
LAT.	N 36°16'59.0"	N 36°16'46.3"	N 36°16'33.2"
LONG.	W 92°29'43.9"	W 92°29'44.3"	W 92°29'44.8"

GROSS LENGTH OF PROJECT		2593.00	FEET	OR	0.491	MILES
NET	"	" ROADWAY	2593.00	"	" 0.491	"
NET	"	" BRIDGES	0.00	"	" 0.000	"
NET	"	" PROJECT	2593.00	"	" 0.491	"

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	2	51

4 INDEX OF SHEETS AND STANDARD DRAWINGS

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS AND STANDARD DRAWINGS
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 5	TYPICAL SECTIONS OF IMPROVEMENT
6	DETAILS OF DRIVEWAYS
7	DETAILS OF MODIFIED DROP INLETS
8 - 11	TEMPORARY EROSION CONTROL DETAILS
12 - 15	QUANTITIES
16	SUMMARY OF QUANTITIES AND REVISIONS
17 - 21	SURVEY CONTROL DETAILS
22 - 29	PLAN AND PROFILE SHEETS
30 - 51	CROSS SECTIONS

NOTE: CROSS SECTIONS NOT INCLUDED IN PROSPECTIVE BIDDERS' PLANS MAY BE OBTAINED UPON REQUEST.

ROADWAY STANDARD DRAWINGS

DRWG. NO.	TITLE	DATE
CG-1	CURBING DETAILS	11-29-07
DR-1	DETAILS OF DRIVEWAYS & ISLAND	02-27-14
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
MB-1	MAILBOX DETAILS	11-18-04
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PM-1	PAVEMENT MARKING DETAILS	06-01-17
PU-1	DETAILS OF PIPE UNDERDRAIN	04-10-03
SHS-1	STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES	09-12-13
SHS-2	U-CHANNEL POST ASSEMBLIES	02-27-14
SI-1	DETAILS OF SPECIAL ITEMS	09-12-13
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	04-13-17
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	09-02-15
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	09-02-15
TEC-1	TEMPORARY EROSION CONTROL DEVICES	12-15-11
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05

STATE OF ARKANSAS
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No. 5368
DAVID R. MAYO, JR.
7/27/2017

INDEX OF SHEETS AND STANDARD DRAWINGS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-18-17				6	ARK.			
				JOB NO.	C03004		3	51
				(4) GOVERNING SPECIFICATIONS AND GENERAL NOTES				

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
100-3	CONTRACTOR'S LICENSE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
303-1	AGGREGATE BASE COURSE
400-1	TACK COATS
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
620-1	MULCH COVER
JOB C03004	BIDDING REQUIREMENTS AND CONDITIONS
JOB C03004	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB C03004	MANDATORY ELECTRONIC CONTRACT
JOB C03004	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB C03004	RECYCLED ASPHALT SHINGLES
JOB C03004	SHORING FOR CULVERTS
JOB C03004	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB C03004	UTILITY ADJUSTMENTS
JOB C03004	WARM MIX ASPHALT
JOB C03004	WELLHEAD PROTECTION

GENERAL NOTES

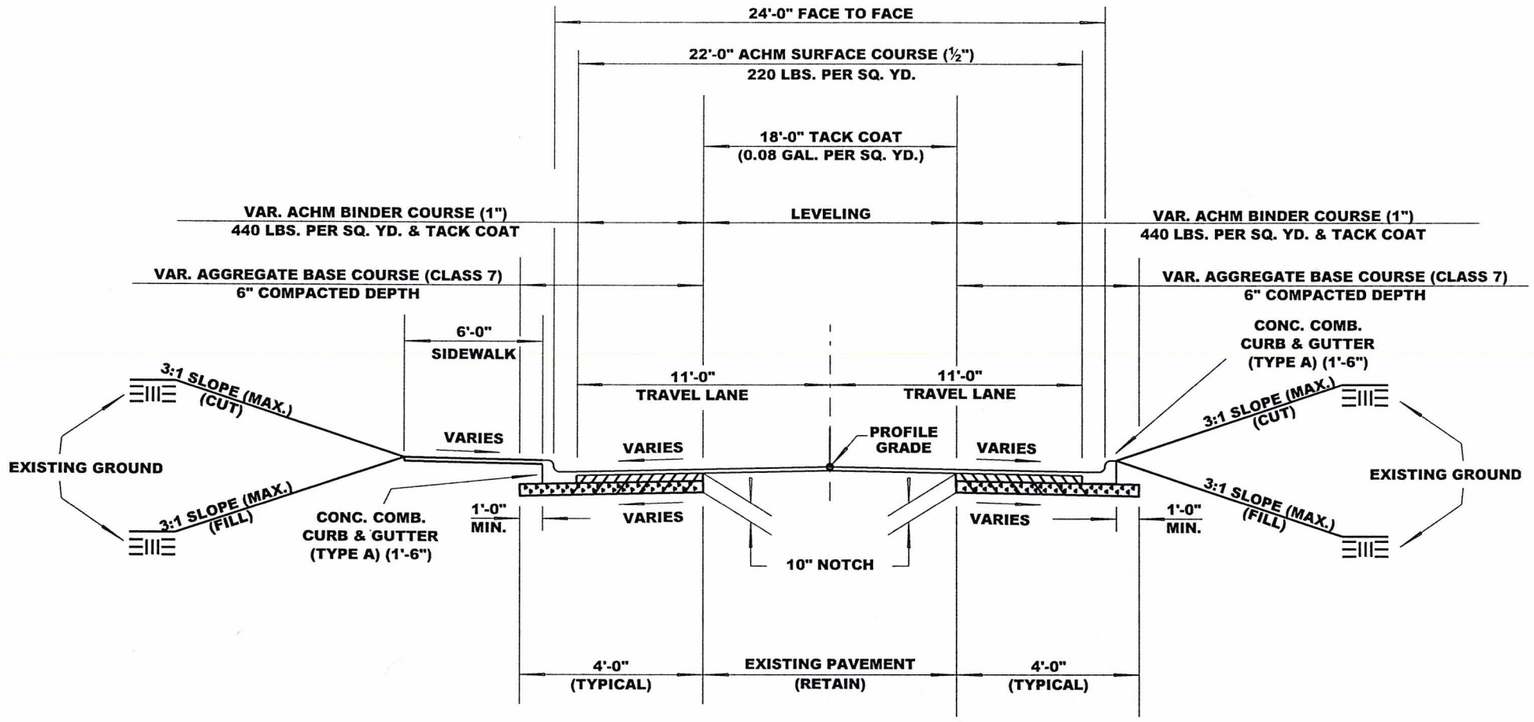
1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN IN PLANS
2. UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE MOVED BY THE OWNERS
3. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014.
4. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
6. TEMPORARY EASEMENTS ARE PROVIDED FOR CONTRACTOR ACCESS. AREAS OUTSIDE THE CONSTRUCTION LIMITS SHALL NOT BE CLEARED OR GRUBBED UNLESS DIRECTED BY THE ENGINEER.
7. LEVELING SHALL BE PLACED AND COMPACTED IN A SEPARATE OPERATION UNLESS DIRECTED BY THE ENGINEER.
8. DRIVEWAY EXCAVATION WILL BE CONSIDERED PART OF THE OTHER ITEMS OF WORK. DISPOSAL OF MATERIAL PRODUCED FROM DRIVEWAY EXCAVATION SHALL BE AS DIRECTED BY THE ENGINEER. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.
9. ASPHALT AND OTHER DEBRIS RESULTING FROM PREPARATORY WORK SHALL BE REMOVED FROM THE PROJECT. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.
10. PAVEMENT TO BE REMOVED SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. PAVEMENT SHALL BE REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT RETAINED. ANY DAMAGE TO RETAINED PAVEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR SHALL REMOVE AND RESET EXISTING MAILBOX POSTS AND MAILBOXES TO THE PROPER HEIGHT AT COMPLETION OF THE OVERLAY. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS INCLUDED IN THE VARIOUS OTHER PAY ITMES OF THE CONTRACT. IF THE CONTRACTOR DAMAGES THE EXISTING POST OR MAILBOX, THE POST OR MAILBOX SHALL BE REPLACED WITH AN ACCEPTABLE ITEM, AT NO COST TO THE DEPARTMENT.
12. BORROW MATERIAL FOR DRIVEWAYS WILL BE CONSIDERED PART OF THE OTHER ITEMS OF WORK. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, BUT FULL COMPENSATION THEREFOR WILL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICES BID FOR THE VARIOUS OTHER ITEMS OF WORK.
13. THE ROAD WILL REMAIN OPEN TO THROUGH TRAFFIC DURING CONSTRUCTION.
14. UNCLASSIFIED EXCAVATION AND COMPACTED EMBANKMENT REQUIRED TO CONSTRUCT THE PROJECT TO THE PLAN LINES AND GRADE WILL BE CONSIDERED PART OF THE OTHER ITEMS OF WORK.

STATE OF ARKANSAS
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No. 5368
DAVID R. MAYO, JR.
8/18/2017

GOVERNING SPECIFICATIONS AND 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.		C03004	4	51

(4) TYPICAL SECTIONS OF IMPROVEMENT



NOTE: REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

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

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

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

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.

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS 1" OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGE SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

TYPICAL SECTION

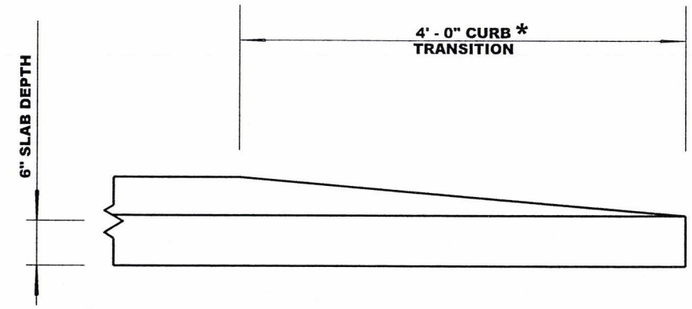
STA. 100+00 - STA. 126+00

TYPICAL SECTION OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
7/27/2017

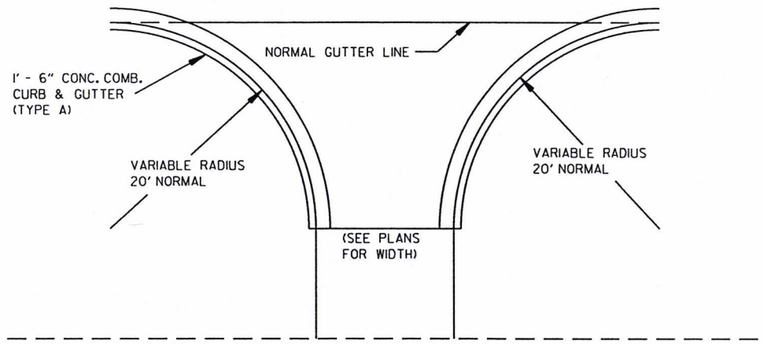
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				6	ARK.			
				JOB NO.		C03004	5	51

4 TYPICAL SECTIONS OF IMPROVEMENT

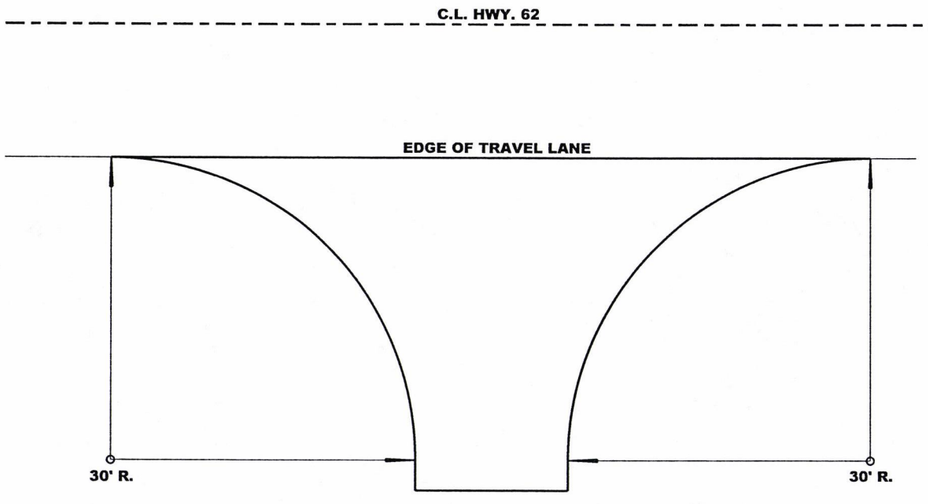


CONCRETE COMBINATION CURB AND GUTTER TERMINATION

* CONSTRUCT TRANSITION AS SHOWN WHERE TERMINATION IS NOT ADJACENT TO OTHER STRUCTURES.



DETAIL OF CITY STREET TURNOUT



DETAIL OF HWY. 62 TURNOUT

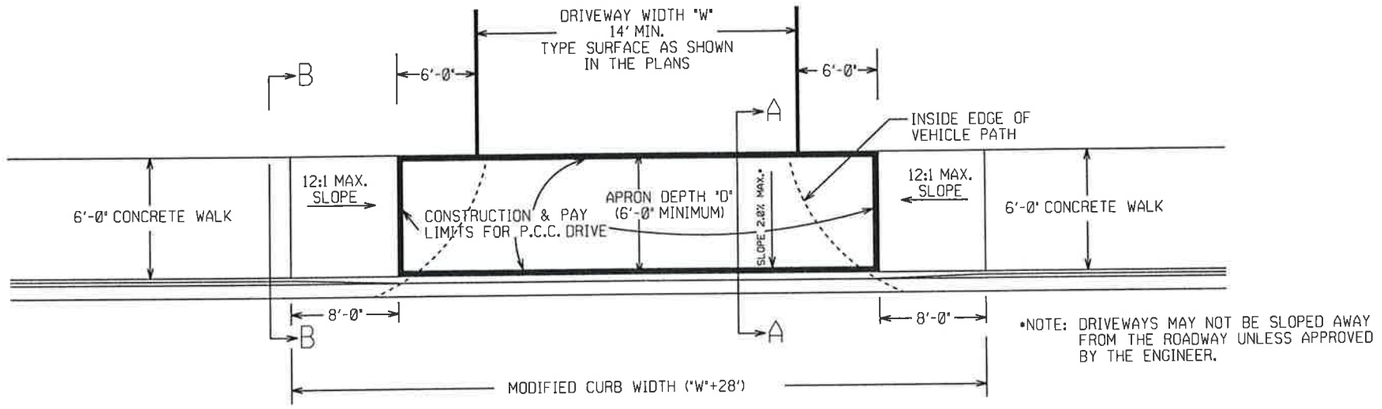
STA. 100 + 00

SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
7/27/2017

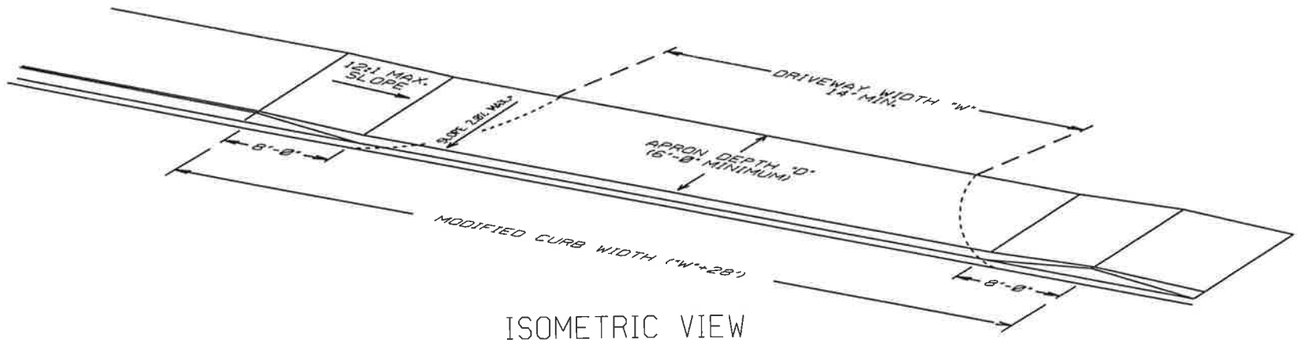
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08-07-17				6	ARK.			
				JOB NO.		C03004	6	51

④ DETAILS OF DRIVEWAYS

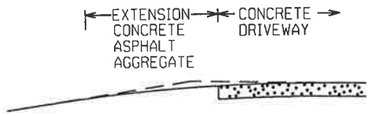


*NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.

PLAN VIEW



ISOMETRIC VIEW



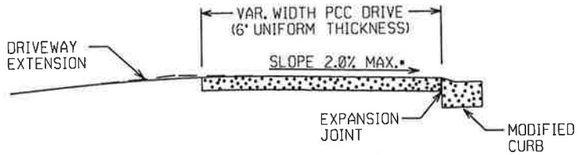
EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")

THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS



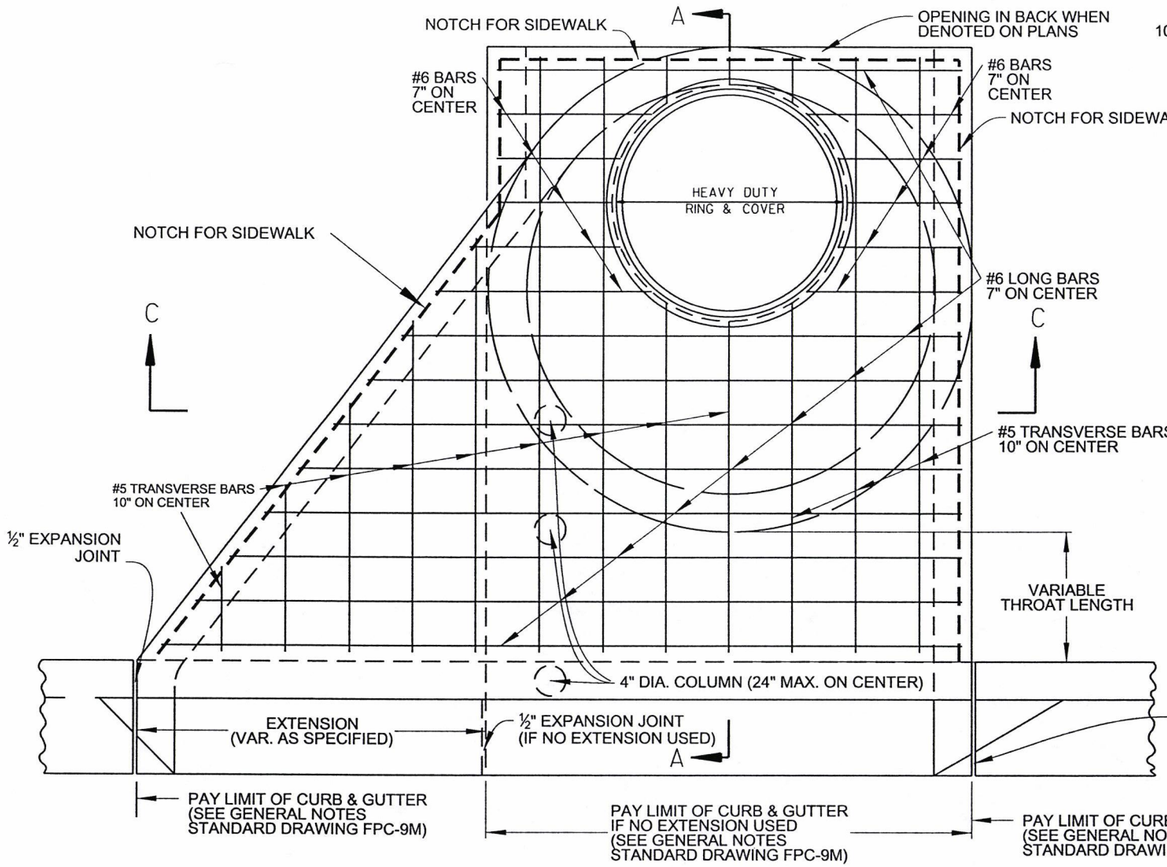
SECTION A-A

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/8/2017

DETAILS OF DRIVEWAYS

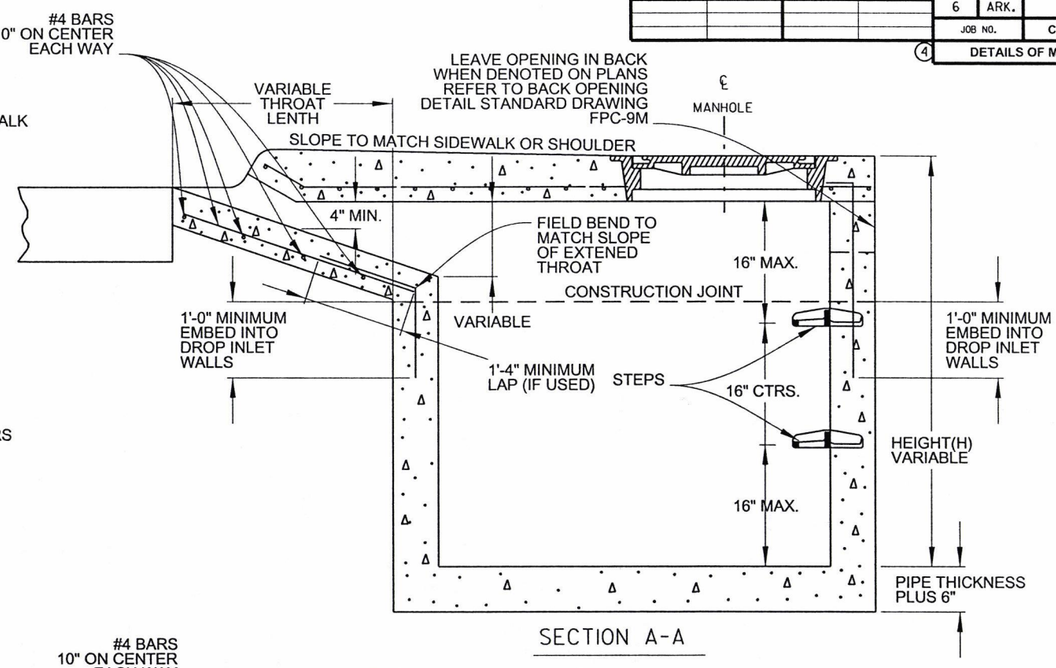
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				6	ARK.			
				JOB NO.		C03004	7	51

4 DETAILS OF MODIFIED DROP INLETS

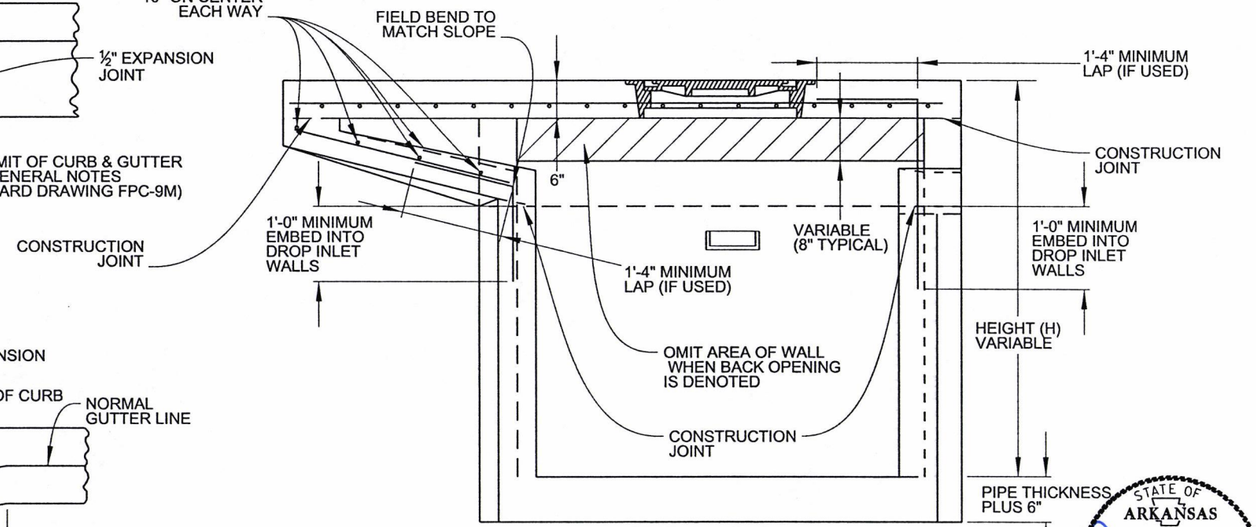


PLAN - W/SINGLE EXTENSION

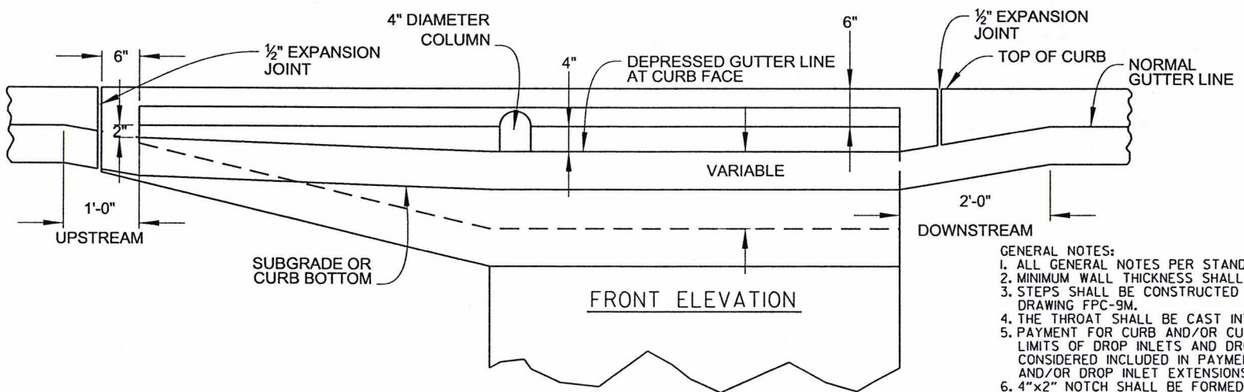
NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.



SECTION A-A



SECTION C-C



FRONT ELEVATION

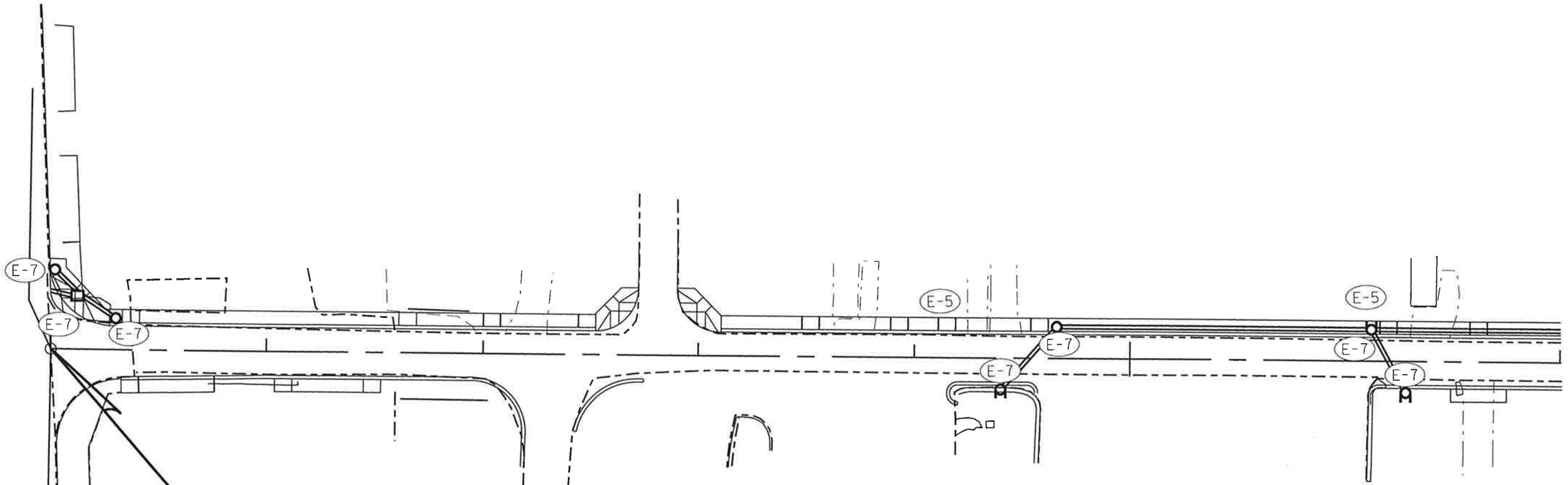
GENERAL NOTES:
1. ALL GENERAL NOTES PER STANDARD DRAWING FPC-9M APPLY.
2. MINIMUM WALL THICKNESS SHALL BE PER STANDARD DRAWING FPC-9M.
3. STEPS SHALL BE CONSTRUCTED AND INSTALLED PER STANDARD DRAWING FPC-9M.
4. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
5. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
6. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO STANDARD DRAWING FPC-9M DETAIL OF NOTCH FOR SIDEWALKS.
7. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED AND INSTALLED PER STANDARD DRAWING FPC-9M.
8. PIPE CONNECTIONS SHALL BE PER STANDARD DRAWING FPC-9M.

STATE OF ARKANSAS
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DETAILS OF MODIFIED DROP INLETS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
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4 EROSION CONTROL



STA. 100+00 - BEGIN JOB C03004

TEMPORARY EROSION CONTROL

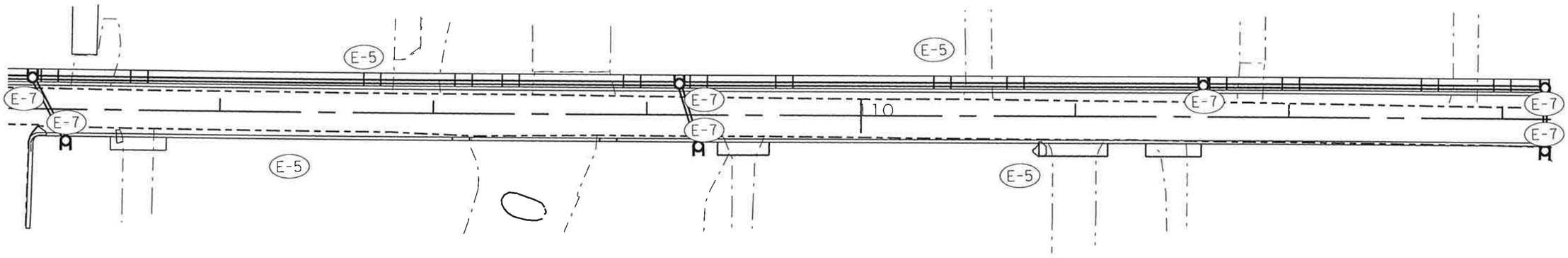
SAND BAG DITCH CHECKS (E-5)	SEDIMENT REMOVAL AND DISPOSAL
STA. 104+00 LT. = 20 BAGS	3 CU. YDS
STA. 106+00 LT. = 20 BAGS	3 CU. YDS

DROP INLET SILT FENCE (E-7)	SEDIMENT REMOVAL AND DISPOSAL
STA. 100+01 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 10012 JCT. BOX LT. = 25 LIN. FT.	1 CU. YDS
STA. 10030 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 104+40 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 104+66 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 106+12 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 106+28 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS

DATE OF REVISION	REVISION

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08-07-17				6	ARK.			
				JOB NO.		C03004	9	51
				(4)	EROSION CONTROL			



TEMPORARY EROSION CONTROL

SAND BAG DITCH CHECKS (E-5)	SEDIMENT REMOVAL AND DISPOSAL
STA. 107+40 RT. = 20 BAGS	3 CU. YDS
STA. 107+60 RT. = 20 BAGS	3 CU. YDS
STA. 110+30 RT. = 20 BAGS	3 CU. YDS
STA. 110+70 LT. = 20 BAGS	3 CU. YDS

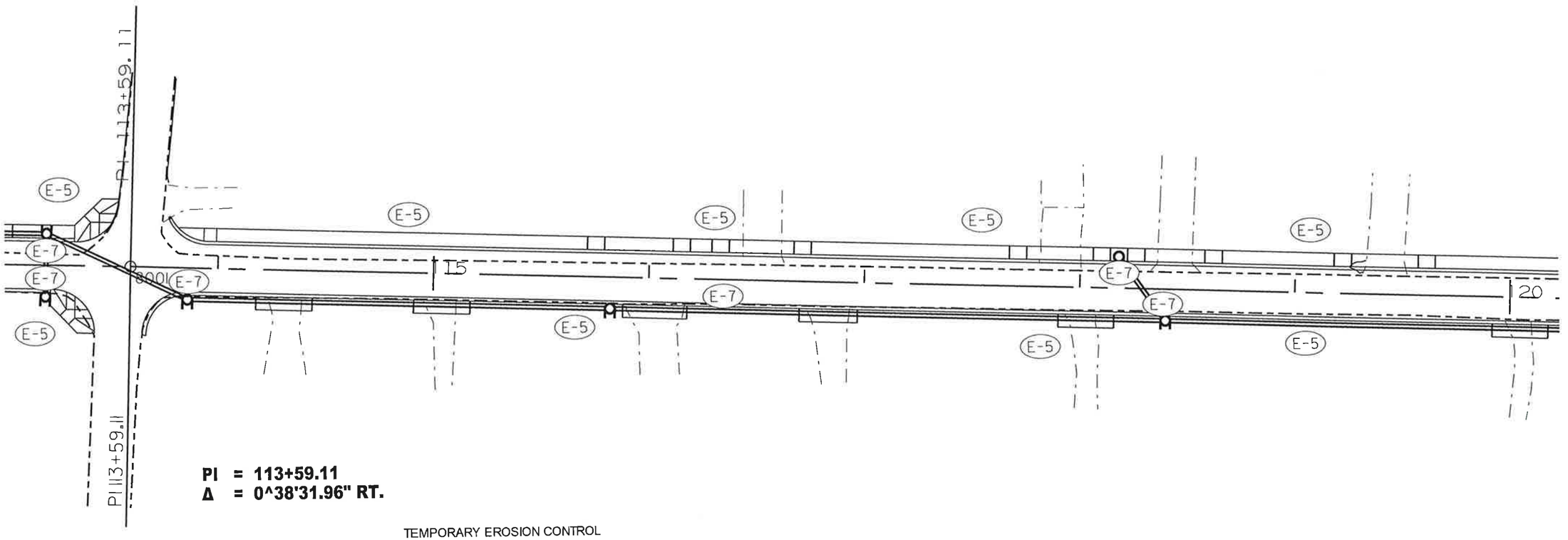
DROP INLET SILT FENCE (E-7)	SEDIMENT REMOVAL AND DISPOSAL
STA. 109+15 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 109+24 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS

DATE OF REVISION	REVISION

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4 EROSION CONTROL



PI = 113+59.11
Δ = 0^38'31.96" RT.

TEMPORARY EROSION CONTROL

SAND BAG DITCH CHECKS (E-5)	SEDIMENT REMOVAL AND DISPOSAL
STA. 113+15 RT. = 20 BAGS	3 CU. YDS
STA. 113+25 LT. = 20 BAGS	3 CU. YDS
STA. 114+85 RT. = 20 BAGS	3 CU. YDS
STA. 115+65 RT. = 20 BAGS	3 CU. YDS
STA. 116+30 LT. = 20 BAGS	3 CU. YDS
STA. 117+55 LT. = 20 BAGS	3 CU. YDS
STA. 117+80 RT. = 20 BAGS	3 CU. YDS
STA. 119+10 RT. = 20 BAGS	3 CU. YDS
STA. 119+10 LT. = 20 BAGS	3 CU. YDS

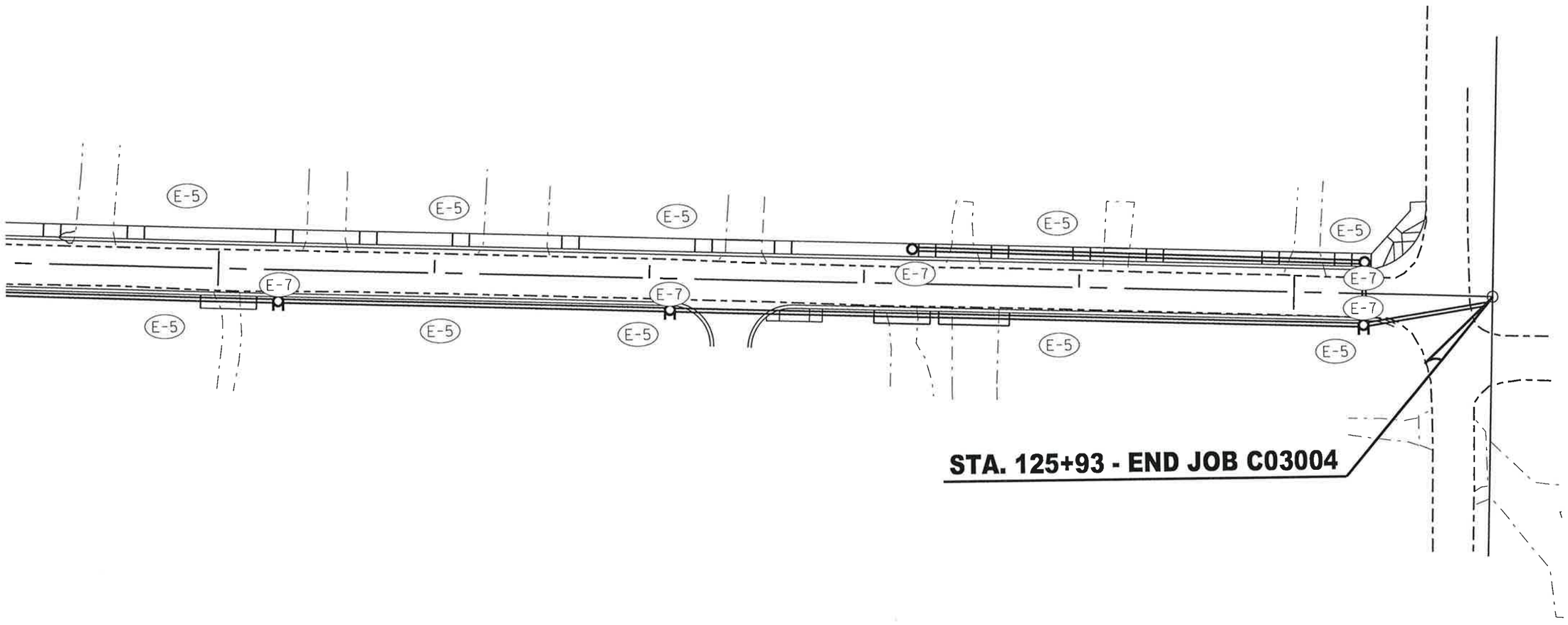
DROP INLET SILT FENCE (E-7)	SEDIMENT REMOVAL AND DISPOSAL
STA. 113+20 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 113+20 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 113+86 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 115+82 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 118+18 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 118+40 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO JR.
8/8/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.		C03004	11	51

④ EROSION CONTROL



TEMPORARY EROSION CONTROL

SAND BAG DITCH CHECKS (E-5)	SEDIMENT REMOVAL AND DISPOSAL
STA. 119+75 LT. = 20 BAGS	3 CU. YDS
STA. 119+85 RT. = 20 BAGS	3 CU. YDS
STA. 121+00 RT. = 20 BAGS	3 CU. YDS
STA. 121+10 LT. = 20 BAGS	3 CU. YDS
STA. 121+95 RT. = 20 BAGS	3 CU. YDS
STA. 122+15 LT. = 20 BAGS	3 CU. YDS
STA. 123+90 RT. = 20 BAGS	3 CU. YDS
STA. 123+90 LT. = 20 BAGS	3 CU. YDS
STA. 125+25 RT. = 20 BAGS	3 CU. YDS
STA. 125+30 LT. = 20 BAGS	3 CU. YDS

DROP INLET SILT FENCE (E-7)	SEDIMENT REMOVAL AND DISPOSAL
STA. 120+28 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 122+10 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 123+22 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS
STA. 125+33 RT. DROP INLET RT. = 25 LIN. FT.	1 CU. YDS
STA. 125+33 LT. DROP INLET LT. = 25 LIN. FT.	1 CU. YDS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/8/2017

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				6	ARK.			
				JOB NO.		C03004	12	51

(4) QUANTITIES

CLEARING AND GRUBBING

STATION	STATION	CLEARING	GRUBBING
		STATION	STATION
102+00	103+00	1	1
115+00	116+00	1	1
122+00	124+00	2	2
TOTAL:		4	4

REMOVAL AND DISPOSAL OF SIDEWALKS

STATION	STATION	SIDE	REMOVAL AND DISPOSAL OF SIDEWALKS
			SQ. YDS.
100+00	100+31	LEFT	63
TOTAL:			63

REMOVAL AND DISPOSAL OF DROP INLET

STATION	STATION	SIDE	REMOVAL AND DISPOSAL OF DROP INLET
			EACH
100+00	100+04	LEFT	1
TOTAL:			1

REMOVAL AND RELOCATION OF SIGN

STATION	DESCRIPTION	SIDE	REMOVAL AND RELOCATION OF SIGN
			EACH
102+00	STREET SIGN	RIGHT	1
102+60	POLICE DEPARTMENT	LEFT	1
102+99	STREET SIGN	LEFT	1
113+26	CITY PARK	RIGHT	1
113+45	STREET SIGN	LEFT	1
122+21	STREET SIGN	RIGHT	1
125+57	STREET SIGN	RIGHT	1
TOTAL:			7

REMOVAL AND DISPOSAL OF CURB AND GUTTER

STATION	STATION	SIDE	REMOVAL AND DISPOSAL OF CURB AND GUTTER
			LINEAR FEET
100+00	(HWY. 62)	LEFT	10
100+09	100+30	LEFT	21
100+73	101+15	RIGHT	43
104+19	104+59	RIGHT	45
106+10	106+22	RIGHT	15
TOTAL:			134

REMOVAL AND DISPOSAL OF PIPE CULVERTS

STATION	DESCRIPTION	SIDE	REMOVAL AND DISPOSAL OF PIPE CULVERTS
			EACH
106+43	12" X 28' RCP SIDE DRAIN	LT.	1
106+64	15" X 20' CMP SIDE DRAIN	RT.	1
107+92	12" X 25' RCP SIDE DRAIN	LT.	1
108+65	12" X 41' CMP SIDE DRAIN	LT.	1
109+40	17" X 13" X 31' CMP SIDE DRAIN	RT.	1
110+54	12" X 20' CMP SIDE DRAIN	LT.	1
110+98	15" X 30' CMP SIDE DRAIN	RT.	1
111+45	15" X 20' CMP SIDE DRAIN	RT.	1
111+83	12" X 22' RCP SIDE DRAIN	LT.	1
112+83	12" X 16' RCP SIDE DRAIN	LT.	1
113+51	18" X 39' CMP SIDE DRAIN	RT.	1
113+61	18" X 25' CMP SIDE DRAIN	LT.	1
114+32	12" X 18' RCP SIDE DRAIN	RT.	1
115+04	15" X 20' CMP SIDE DRAIN	RT.	1
116+02	12" X 28' RCP SIDE DRAIN	RT.	1
116+52	18" X 20' CMP SIDE DRAIN	LT.	1
116+84	18" X 28' RCP SIDE DRAIN	RT.	1
117+90	15" X 26' CMP SIDE DRAIN	LT.	1
117+99	15" X 24' CMP SIDE DRAIN	RT.	1
118+02	15" X 22' CMP SIDE DRAIN	RT.	1
118+44	15" X 20' CMP SIDE DRAIN	LT.	1
119+33	15" X 3' RCP SIDE DRAIN	RT.	1
119+41	15" X 20' RCP SIDE DRAIN	LT.	1
120+04	15" X 18' CMP SIDE DRAIN	RT.	1
120+49	15" X 20' CMP SIDE DRAIN	LT.	1
121+37	15" X 34' CMP SIDE DRAIN	LT.	1
122+33	18" X 24' CMP SIDE DRAIN	RT.	1
122+44	15" X 20' CMP SIDE DRAIN	LT.	1
122+67	15" X 12' RCP SIDE DRAIN	RT.	1
123+19	15" X 18' CMP SIDE DRAIN	RT.	1
123+46	15" X 20' CMP SIDE DRAIN	LT.	1
123+53	18" X 24' CMP SIDE DRAIN	RT.	1
124+17	22" X 15" X 20' CMP SIDE DRAIN	LT.	1
125+04	18" X 18' CMP SIDE DRAIN	LT.	1
TOTAL:			34

REMOVAL AND DISPOSAL OF ROCK WALLS

STATION	STATION	SIDE	REMOVAL AND DISPOSAL OF ROCK WALLS
			LINEAR FEET
124+30	124+96	LEFT	66
125+11	125+51	LEFT	40
TOTAL:			106

REMOVAL AND DISPOSAL OF SIGNS

STATION	SIDE	DESCRIPTION	REMOVAL AND DISPOSAL OF SIGNS
			EACH
100+30	LEFT	R1-1 (STOP SIGN)	1
101+72	RIGHT	R2-1 (SPEED LIMIT)	1
102+49	RIGHT	R1-1 (STOP SIGN)	1
102+69	LEFT	R1-1 (STOP SIGN)	1
113+49	LEFT	R1-1 (STOP SIGN)	1
113+72	RIGHT	R1-1 (STOP SIGN)	1
123+18	LEFT	R2-1 (SPEED LIMIT)	1
125+50	RIGHT	R1-1 (STOP SIGN)	1
125+55	LEFT	R1-1 (STOP SIGN)	1
TOTAL:			9

TEMPORARY EROSION CONTROL

STATION	STATION	LOCATION	SAND BAG DITCH CHECKS (E-5)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	SEDIMENT REMOVAL AND DISPOSAL
			BAGS	LIN. FT.	LIN. FT.	CU. YDS
100+00	125+93	MAIN LANES	500*	525*		96*
*ENTIRE PROJECT AS DIRECTED BY ENGINEER					200*	6*
TOTALS:			500*	525*	200*	102*

BASIS OF ESTIMATE:

WATER..... 20.4 M.G. / ACRE OF SEEDING, TEMPORARY SEEDING

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

*NOTE: QUANTITIES ARE ESTIMATED. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

FLOWABLE SELECT MATERIAL

STATION	DESCRIPTION	SIDE	FLOWABLE SELECT MATERIAL
			CU. YDS.
125+69	20" X 15" X 37' CMP CROSS DRAIN	LEFT	7
TOTAL:			7

REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS

STATION	STATION	SIDE	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS
			SQ. YDS.
103+63	103+74	LEFT	14
104+35	104+47	LEFT	28
106+30	106+43	LEFT	5
106+55	106+69	RIGHT	33
107+81	107+94	LEFT	6
108+46	108+83	LEFT	37
109+36	109+54	RIGHT	27
110+47	110+62	LEFT	30
110+87	111+13	RIGHT	44
111+77	111+89	LEFT	5
112+77	112+89	LEFT	6
116+42	116+63	LEFT	44
118+33	118+56	LEFT	39
119+31	119+54	LEFT	41
120+39	120+60	LEFT	41
121+20	121+54	LEFT	40
122+32	122+55	LEFT	39
123+41	123+63	RIGHT	44
125+00	125+13	LEFT	34
TOTAL:			557

STATE OF ARKANSAS
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				6	ARK.			
				JOB NO.		C03004	13	51

4 QUANTITIES

STRUCTURES

STATION	DESCRIPTION	PIPE CULVERT ALTERNATES		DROP INLETS		JUNCTION BOX (TYPE E)	SELECTED PIPE BEDDING*	STANDARD DRAWING NUMBERS
		18" R.C.P. (CLASS III)	18" S.L.P.P.M.C.C.S.P.	TYPE MO	4' EXTENSION			
		LF		EACH		EACH	CUYD	
100+01	DROP INLET ON LT.			1	2			FPC-9, FPC-9M
100+04	EXTEND EXISTING STORM DRAIN ON LT.	10	10				1*	PCC-1
100+07	STORM DRAIN ON LT.	13	13				1*	PCC-1
100+12	JUNCTION BOX (TYPE E) ON LT.					1		FPC-9
100+21	STORM DRAIN ON LT.	17	17				1*	PCC-1
100+30	DROP INLET ON LT.			1				FPC-9, FPC-9M
104+40	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
104+53	STORM CROSS DRAIN	35	35				2*	PCC-1
104+66	DROP INLET ON LT.			1				FPC-9, FPC-9M
105+39	STORM DRAIN ON LT.	142	142				9*	PCC-1
106+12	DROP INLET ON LT. WITH BACK OPENING			1				FPC-9, FPC-9M
106+20	STORM CROSS DRAIN	30	30				2*	PCC-1
106+28	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
107+64	STORM DRAIN ON LT.	299	299				19*	PCC-1
109+15	DROP INLET ON LT. WITH BACK OPENING			1				FPC-9, FPC-9M
109+19	STORM CROSS DRAIN	26	26				2*	PCC-1
109+24	DROP INLET ON RT. WITH BACK OPENING			1	1			FPC-9, FPC-9M
110+38	STORM DRAIN ON LT.	241	241				16*	PCC-1
111+60	DROP INLET ON LT. WITH BACK OPENING			1				FPC-9, FPC-9M
112+40	STORM DRAIN ON LT.	156	156				10*	PCC-1
113+20	DROP INLET ON RT. WITH BACK OPENING			1	1			FPC-9, FPC-9M
113+20	STORM CROSS DRAIN	25	25				2*	PCC-1
113+20	DROP INLET ON LT. WITH BACK OPENING			1				FPC-9, FPC-9M
113+53	STORM CROSS DRAIN	68	68				4*	PCC-1
113+86	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
114+84	STORM DRAIN ON RT.	192	192				12*	PCC-1
115+82	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
117+11	STORM DRAIN ON RT.	254	254				16*	PCC-1
118+18	DROP INLET ON LT.			1				FPC-9, FPC-9M
118+29	STORM CROSS DRAIN	32	32				2*	PCC-1
118+40	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
119+34	STORM DRAIN ON RT.	184	184				12*	PCC-1
120+28	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
121+19	STORM DRAIN ON RT.	178	178				12*	PCC-1
122+10	DROP INLET ON RT. WITH BACK OPENING			1	1			FPC-9, FPC-9M
123+22	DROP INLET ON LT.			1				FPC-9, FPC-9M
123+72	STORM DRAIN ON RT.	319	319				21*	PCC-1
124+28	STORM DRAIN ON LT.	207	207				13*	PCC-1
125+33	DROP INLET ON RT. WITH BACK OPENING			1				FPC-9, FPC-9M
125+33	DROP INLET ON LT.			1				FPC-9, FPC-9M
125+33	STORM CROSS DRAIN	25	25				2*	PCC-1
125+63	STORM DRAIN ON RT.	56	56				4*	PCC-1
TOTALS:		2509	2509	20	5	1	163*	

BASIS OF ESTIMATE:
WATER.....12.6 GALLONS PER SQUARE YARD

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: MODIFIED DROP INLETS SHALL BE USED WHERE DIRECTED BY THE ENGINEER. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, BUT FULL COMPENSATION WILL BE CONSIDERED INCLUDED IN PRICES BID FOR VARIOUS OTHER ITEMS OF WORK.
*QUANTITIES ARE ESTIMATED. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL			
			LIME	SEEDING	MULCH COVER	WATER
			TONS	ACRES	ACRES	M. GALS.
100+00	125+61	ENTIRE PROJECT	1	0.47	0.47	47.9
TOTALS:			1	0.47	0.47	47.9

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

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	WIDTH	DESCRIPTION	SQ. YDS.
100+00	102+74	VARIES	INTERSECTION HWY. 62	533*
102+00	102+74	VARIES	INTERSECTION W. SANFORD	139*
102+75	104+15	10.00	RT. MAIN LANE	156*
104+59	106+10	5.00	RT. MAIN LANE	84*
113+20	113+86	VARIES	INTERSECTION FACTORY STREET	110*
122+31	122+47	30.00	INTERSECTION S. SCHOOL	53*
125+35	125+82	VARIES	INTERSECTION HOUSER AVENUE	317*
ENTIRE PROJECT			AS DIRECTED BY ENGINEER	200*
TOTALS:				1592*

* QUANTITIES ARE ESTIMATED. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

MANHOLES ADJUSTED TO GRADE

STATION	SIDE	MANHOLES ADJUSTED TO GRADE
		EACH
116+10	LEFT	1
120+07	LEFT	1
122+25	LEFT	1
125+54	LEFT	1
TOTALS:		4

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08-07-17				6	ARK.			
08-18-17				JOB NO.		C03004	14	51
				(4)		QUANTITIES		

CONCRETE WALKS AND WHEELCHAIR RAMPS

STATION	STATION	WIDTH	DESCRIPTION	CONCRETE WALKS	WHEELCHAIR RAMPS (TYPE 1)	WHEELCHAIR RAMPS (TYPE 3)
				SQYD	SQYD	SQYD
100+00	100+27	VARIES	WHEELCHAIR RAMP (TYPE 1) ON LT.		37	
101+61	102+08	6.00	CONCRETE WALK ON LT.	31		
102+44	102+52	6.00	CONCRETE WALK ON LT.	5		
102+52	102+72	VARIES	WHEELCHAIR RAMP (TYPE 1) ON LT.		30	
102+90	103+11	VARIES	WHEELCHAIR RAMP (TYPE 1) ON LT.		30	
103+10	103+56	6.00	CONCRETE WALK ON LT.	31		
103+89	104+19	6.00	CONCRETE WALK ON LT.	20		
104+54	106+24	6.00	CONCRETE WALK ON LT.	113		
106+58	107+75	6.00	CONCRETE WALK ON LT.	78		
108+10	108+40	6.00	CONCRETE WALK ON LT.	20		
108+89	109+28	6.00	CONCRETE WALK ON LT.	26		
109+60	110+42	6.00	CONCRETE WALK ON LT.	55		
110+68	111+71	6.00	CONCRETE WALK ON LT.	69		
111+97	112+70	6.00	CONCRETE WALK ON LT.	49		
112+96	113+33	6.00	CONCRETE WALK ON LT.	25		
113+22	113+43	VARIES	WHEELCHAIR RAMP (TYPE 1) ON RT.		30	
113+33	113+53	VARIES	WHEELCHAIR RAMP (TYPE 1) ON LT.		30	
113+81	113+99	VARIES	WHEELCHAIR RAMP (TYPE 3) ON LT.			9
113+99	115+79	6.00	CONCRETE WALK ON LT.	120		
116+11	116+37	6.00	CONCRETE WALK ON LT.	17		
116+67	117+75	6.00	CONCRETE WALK ON LT.	72		
118+06	118+30	6.00	CONCRETE WALK ON LT.	16		
118+58	119+26	6.00	CONCRETE WALK ON LT.	45		
119+57	120+34	6.00	CONCRETE WALK ON LT.	51		
120+65	121+16	6.00	CONCRETE WALK ON LT.	34		
121+59	122+29	6.00	CONCRETE WALK ON LT.	47		
122+58	123+33	6.00	CONCRETE WALK ON LT.	50		
123+59	124+05	6.00	CONCRETE WALK ON LT.	31		
124+31	124+93	6.00	CONCRETE WALK ON LT.	41		
125+19	125+36	6.00	CONCRETE WALK ON LT.	11		
125+36	125+61	VARIES	WHEELCHAIR RAMP (TYPE 1) ON LT.		37	
TOTALS:				1057	194	9

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION*	COMPACTED EMBANKMENT*
			CUBIC YARDS	
100+00	125+93	ENTIRE PROJECT	100*	100*
TOTALS:			100*	100*

*NOTE: QUANTITIES ARE ESTIMATED. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER FOR UNDERCUT AND/OR MISCELLANEOUS GRADING. PLEASE SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

STATION	SIDE	STANDARD SIGN NUMBER								SUPPORT ASSEMBLIES		STANDARD DRAWING NUMBER
		R1-1 (STOP)		R2-1 (SPEED LIMIT)		OM-3L		OM-3R		TYPE A	TYPE C	
		NO.	SQ. FT.	NO.	SQ. FT.	NO.	SQ. FT.	NO.	SQ. FT.	EACH		
100+30	LEFT	1	6.25							1		SHS 1&2
101+72	RIGHT			1	5.00					1		SHS 1&2
102+49	RIGHT	1	6.25							1		SHS 1&2
102+69	LEFT	1	6.25							1		SHS 1&2
113+49	LEFT	1	6.25							1		SHS 1&2
113+72	RIGHT	1	6.25							1		SHS 1&2
123+18	LEFT			1	5.00					1		SHS 1&2
125+50	RIGHT	1	6.25							1		SHS 1&2
125+55	LEFT	1	6.25							1		SHS 1&2
125+49	RIGHT							1	3.00		1	SHS 1&2
125+59	LEFT					1	3.00				1	SHS 1&2
TOTALS:		7	43.75	2	10.00	1	3.00	1	3.00	9	2	

NOTE: ALL STANDARD SIGN BLANKS TO BE 0.08" THICK. REFER TO STANDARD DRAWING SHS - 2 FOR CHANNEL POST SPLICING DETAILS.

CURB AND GUTTER

STATION	STATION	DESCRIPTION	CURB AND GUTTER
			LINEAR FEET
100+33	102+72	LEFT	310
103+10	113+53	LEFT	1089
113+74	125+61	LEFT	1209
100+33	102+20	RIGHT	217
102+42	102+75	RIGHT	43
104+15	104+59	RIGHT	65
106+10	113+43	RIGHT	948
113+65	122+31	RIGHT	894
122+47	125+48	RIGHT	316
TOTAL:			5091

REFLECTORIZED PAINT PAVEMENT MARKING

STATION		YELLOW MARKING
		4" CONT.
FROM	TO	LINEAR FEET
100+00	125+93	5186
TOTAL:		5186

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

TRAFFIC CONTROL DEVICES

LOCATION	W20-1 (ROAD WORK AHEAD		G20-1 (ROAD WORK NEXT X.X MILES)		G20-2 (END ROAD WORK)		VERTICAL PANELS*	TRAFFIC DRUMS*	STANDARD DRAWING NUMBER
	NO.	SQ. FT.	NO.	SQ. FT.	NO.	SQ. FT.	EACH	EACH	
STA. 100+00 RT.			1	16.00					TC-1, TC-2, TC-3
STA. 100+00 LT.					1	10.00			TC-1, TC-2, TC-3
STA.102+45 RT.	1	16.00							TC-1, TC-2, TC-3
STA. 102+65 LT.	1	16.00							TC-1, TC-2, TC-3
STA. 113+46 LT.	1	16.00							TC-1, TC-2, TC-3
STA. 113+72 RT.	1	16.00							TC-1, TC-2, TC-3
STA. 125+50 LT.			1	16.00					TC-1, TC-2, TC-3
STA. 125+62 RT.					1	10.00			TC-1, TC-2, TC-3
STA. 125+93 RT.			1	16.00					TC-1, TC-2, TC-3
STA. 125+99 LT.					1	10.00			TC-1, TC-2, TC-3
STA. 126+43 RT.	1	16.00							TC-1, TC-2, TC-3
ENTIRE PROJECT							50*	50*	
TOTAL:	5	80.00	3	48.00	3	30.00	50*	50*	

NOTE: LOCATION OF THE TRAFFIC CONTROL DEVICES TO BE AS DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

*NOTE: ESTIMATED QUANTITY. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

PORTLAND CEMENT CONCRETE DRIVEWAY

STATION	STATION	SIDE	DRIVEWAY WIDTH "W"	PORTLAND CEMENT CONCRETE DRIVEWAY
			FT.	SQ. YDS.
100+33	101+61	LEFT	116	85
100+33	100+76	RIGHT	31	29
101+12	101+45	RIGHT	21	22
102+08	102+44	LEFT	24	24
103+56	103+89	LEFT	21	47
104+19	104+54	LEFT	23	50
106+24	106+58	LEFT	22	48
106+49	106+75	RIGHT	14	34
107+75	108+10	LEFT	23	50
108+40	108+89	LEFT	37	76
109+28	109+60	LEFT	20	21
109+32	109+58	RIGHT	14	34
110+42	110+68	LEFT	14	34
110+83	111+15	RIGHT	20	45
111+33	111+59	RIGHT	14	17
111+71	111+97	LEFT	14	17
112+70	112+96	LEFT	14	34
114+18	114+44	RIGHT	14	17
114+91	115+17	RIGHT	14	17
115+79	116+11	LEFT	20	21
115+88	116+18	RIGHT	18	20
116+37	116+67	LEFT	18	41
116+70	116+97	RIGHT	15	18
117+75	118+06	LEFT	19	21
117+90	118+16	RIGHT	14	17
118+30	118+58	LEFT	16	37
119+26	119+57	LEFT	19	43
119+92	120+18	RIGHT	14	17
120+34	120+65	LEFT	19	43
121+16	121+59	LEFT	31	65
122+29	122+58	LEFT	17	39
122+58	122+86	RIGHT	16	19
123+05	123+31	RIGHT	14	17
123+35	123+68	RIGHT	21	47
123+33	123+59	LEFT	14	17
124+05	124+31	LEFT	14	17
124+93	125+19	LEFT	14	34
TOTAL:				1234

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/18/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.	C03004		15	51
				(4)	QUANTITIES			

BASE AND SURFACING QUANTITIES

STATION	STATION	LOCATION	LENGTH	TACK COAT				AGGREGATE BASE COURSE (CLASS 7)		DOUBLE TACK ON BASE COURSE				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				PAVEMENT REPAIR OVER CULVERTS (ASPHALT)			
				AVG. WIDTH FEET	SQ. YD.	GALLONS PER SQ. YD.	GALLONS	TONS/STA.	TONS	AVG. WIDTH FEET	SQ. YD.	GALLONS PER SQ. YD.	GALLONS	AVG. WIDTH FEET	LBS./SQ. YD.	SQ. YD.	TON	AVG. WIDTH FEET	LBS./SQ. YD.	SQ. YD.	TON	AVG. WIDTH FEET	LBS./SQ. YD.	SQ. YD.	TON
100+00	100+33	INTERSECTION HWY. 62	33.00	VARIES	127.50	0.08	10.2											VARIES	220	127.5	14.0				
100+28	101+60	PARKING LOT ON RIGHT	132.00	VARIES	624.20	0.08	49.9											VARIES	660	624.2	206.0				
100+33	102+20	RT. MAIN LANE	217.00	11.0	265.20	0.08	21.2	16	34.7	1.25	30.1	0.17	5.1	4.00	440	96.4	21.2	11.00	220	265.2	29.2				
100+33	101+65	LT. MAIN LANE	191.00	11.0	233.40	0.08	18.7	16	30.6	1.25	26.5	0.17	4.5	4.00	440	84.9	18.7	11.00	220	233.4	25.7				
100+39	101+55	COMMERCIAL DRIVE ON LEFT	5.50	116.0	70.90	0.08	5.7			116.00	70.9	0.17	12.1					116.00	440	70.9	15.6				
100+39	100+70	COMMERCIAL DRIVE ON RIGHT	5.00	31.0	17.20	0.08	1.4			31.00	17.2	0.17	2.9					31.00	440	17.2	3.8				
101+18	101+39	COMMERCIAL DRIVE ON RIGHT	5.50	21.0	12.80	0.08	1.0			21.00	12.8	0.17	2.2					21.00	440	12.8	2.8				
101+65	102+72	LT. MAIN LANE	119.00	11.0	145.40	0.08	11.6	VARIES	39.9	VARIES	61.5	0.17	10.5	VARIES	440	25.2	5.5	11.00	220	145.4	16.0				
102+14	102+38	COMMERCIAL DRIVE ON LEFT	10.50	24.0	28.00	0.08	2.2			24.00	28.0	0.17	4.8					24.00	440	28.0	6.2				
102+20	102+42	INTERSECTION W. SANFORD DR.	22.00	VARIES	160.30	0.08	12.8											VARIES	220	166.2	18.3				
102+42	102+75	RT. MAIN LANE	43.00	VARIES	59.40	0.08	4.8	16	6.9	1.25	6.0	0.17	1.0	4.00	440	19.1	4.2	VARIES	220	59.4	6.5				
102+72	103+10	INTERSECTION E. SANFORD DR.	38.00	VARIES	83.10	0.08	6.6											VARIES	220	83.1	9.1				
102+75	104+15	RT. MAIN LANE	140.00	11.0	171.10	0.08	13.7											11.00	220	171.1	18.8				
103+10	106+00	LT. MAIN LANE	323.00	11.0	394.80	0.08	31.6	16	51.7	1.25	44.9	0.17	7.6	4.00	440	143.6	31.6	11.00	220	394.8	43.4				
104+15	104+59	RT. MAIN LANE	65.00	11.0	79.40	0.08	6.4	16	10.4	1.25	9.0	0.17	1.5	4.00	440	28.9	6.4	11.00	220	79.4	8.7				
104+45	104+63	PAVEMENT REPAIR	30.00																			7.50	1100	25.0	13.8
104+59	106+10	RT. MAIN LANE	151.00	11.0	184.60	0.08	14.8											11.00	220	184.6	20.3				
106+00	113+53	LT. MAIN LANE	766.00	11.0	936.20	0.08	74.9	VARIES	291.4	VARIES	494.7	0.17	84.1	VARIES	440	260.6	57.3	11.00	220	936.2	103.0				
106+10	108+00	RT. MAIN LANE	197.00	11.0	240.80	0.08	19.3	VARIES	69.7	VARIES	112.3	0.17	19.1	VARIES	440	52.1	11.5	11.00	220	240.8	26.5				
106+14	106+25	PAVEMENT REPAIR	21.00																			7.50	1100	17.5	9.6
108+00	113+43	RT. MAIN LANE	751.00	11.0	917.90	0.08	73.4	16	120.2	1.25	104.3	0.17	17.7	4.00	440	333.8	73.4	11.00	220	917.9	101.0				
108+24	108+71	PRIVATE DRIVE ON RIGHT	1.75	47.0	9.10	0.08	0.7			47.00	9.1	0.17	1.5					47.00	220	9.1	1.0				
109+16	109+24	PAVEMENT REPAIR	20.00																			7.50	1100	16.7	9.2
109+34	109+54	PRIVATE DRIVE ON LEFT	10.50	20.0	23.30	0.08	1.9			20.00	23.3	0.17	4.0					20.00	220	23.3	2.6				
111+39	111+53	PRIVATE DRIVE ON RIGHT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
113+20		PAVEMENT REPAIR	16.00																			7.50	1100	13.3	7.3
113+37	113+81	PAVEMENT REPAIR	47.00																			7.50	1100	39.2	21.6
113+43	113+65	INTERSECTION W. FACTORY ST.	22.00	VARIES	100.40	0.08	8.0											VARIES	220	100.4	11.0				
113+53	113+74	INTERSECTION E. FACTORY ST.	21.00	VARIES	108.40	0.08	8.7											VARIES	220	108.4	11.9				
113+65	122+31	RT. MAIN LANE	894.00	11.0	1092.70	0.08	87.4	16	143.0	1.25	124.2	0.17	21.1	4.00	440	397.3	87.4	11.00	220	1092.7	120.2				
113+74	125+61	LT. MAIN LANE	1209.00	11.0	1477.70	0.08	118.2	VARIES	473.4	VARIES	819.1	0.17	139.2	VARIES	440	449.7	98.9	11.00	220	1477.7	162.5				
114+24	114+38	PRIVATE DRIVE ON RIGHT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
114+97	115+11	PRIVATE DRIVE ON RIGHT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
115+85	116+05	PRIVATE DRIVE ON LEFT	10.50	20.0	23.30	0.08	1.9			20.00	23.3	0.17	4.0					20.00	220	23.3	2.6				
115+94	116+12	PRIVATE DRIVE ON RIGHT	10.50	18.0	21.00	0.08	1.7			18.00	21.0	0.17	3.6					18.00	220	21.0	2.3				
116+76	116+91	PRIVATE DRIVE ON RIGHT	10.50	15.0	17.50	0.08	1.4			15.00	17.5	0.17	3.0					15.00	220	17.5	1.9				
117+81	118+00	PRIVATE DRIVE ON LEFT	10.50	19.0	22.20	0.08	1.8			19.00	22.2	0.17	3.8					19.00	220	22.2	2.4				
117+96	118+10	PRIVATE DRIVE ON RIGHT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
118+22	118+38	PAVEMENT REPAIR	28.00																			7.50	1100	23.3	12.8
119+98	120+12	PRIVATE DRIVE ON RIGHT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
122+31	122+47	INTERSECTION S. SCHOOL PLACE	16.00	VARIES	79.50	0.08	6.4											VARIES	220	79.5	8.7				
122+35	122+52	PRIVATE DRIVE ON LEFT	10.50	17.0	19.80	0.08	1.6			17.00	19.8	0.17	3.4					17.00	220	19.8	2.2				
122+47	125+48	RT. MAIN LANE	316.00	11.0	386.20	0.08	30.9	16	50.6	1.25	43.9	0.17	7.5	4.00	440	140.4	30.9	11.00	220	386.2	42.5				
122+64	122+80	PRIVATE DRIVE ON RIGHT	1.50	16.0	2.70	0.08	0.2			16.00	2.7	0.17	0.5					16.00	220	2.7	0.3				
123+11	123+25	PRIVATE DRIVE ON RIGHT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
123+39	123+53	PRIVATE DRIVE ON LEFT	10.50	14.0	16.30	0.08	1.3			14.00	16.3	0.17	2.8					14.00	220	16.3	1.8				
124+11	124+25	PRIVATE DRIVE ON LEFT	10.50	14.0	16.30	0.08	1.3															7.50	1100	15.8	8.7
125+33		PAVEMENT REPAIR	19.00																			7.50	1100	32.5	17.9
125+45	125+83	PAVEMENT REPAIR	39.00															VARIES	220	86.1	9.5				
125+48	125+85	INTERSECTION W. HOUSER AVE.	37.00	VARIES	86.10	0.08	6.9											VARIES	220	120.0	13.2				
125+61	125+85	INTERSECTION E. HOUSER AVE.	24.00	VARIES	120.00	0.08	9.6														100.0*				
ENTIRE PROJECT		AS DIRECTED BY THE ENGINEER							600.0*																100.9
MAINTENANCE OF TRAFFIC							677.9		1922.5				387.1				447.0				1184.1				
TOTAL:							**678**		**1923**				**387**				**447**				**1184**				**101**
USE:																									

BASIS OF ESTIMATE:

TACK COAT_____ 0.08 GALS. PER SQ. YD.
AGGREGATE BASE COURSE (CLASS 7)_____ 31 TONS PER STATION (TYPICAL)
ACHM BINDER COURSE (1")_____ 440 LBS. PER SQ. YD. (TYPICAL)
ACHM SURFACE COURSE (1/2")_____ 220 LBS. PER SQ. YD. (TYPICAL)

N_{max} = 115

PROPORTION BY WEIGHT:

MINERAL AGGREGATE IN ACHM BINDER COURSE (1")_____ 95.7%
ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")_____ 4.3%
MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")_____ 94.7%
ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")_____ 5.3%

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/8/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
08-18-17				JOB NO.		C03004	16	51
				(4) SUMMARY OF QUANTITIES AND REVISIONS				

SUMMARY OF QUANTITIES

ITEM NO.	ITEM		QUANTITY	UNIT
201	CLEARING		4	STA
201	GRUBBING		4	STA
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		134	LF
202	REMOVAL AND DISPOSAL OF ROCK WALLS		106	LF
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		557	SQYD
202	REMOVAL AND DISPOSAL OF SIDEWALKS		63	SQYD
202	REMOVAL AND DISPOSAL OF DROP INLETS		1	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		34	EACH
202	REMOVAL AND DISPOSAL OF SIGNS		9	EACH
202	REMOVAL AND RELOCATION OF SIGN		7	EACH
206	FLOWABLE SELECT MATERIAL		7	CUYD
210	UNCLASSIFIED EXCAVATION		100	CUYD
210	COMPACTED EMBANKMENT		100	CUYD
SS&303	AGGREGATE BASE COURSE (CLASS 7)		1923	TON
SS&401	TACK COAT		1065	GAL
SPSS406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		428	TON
SPSS406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")		19	TON
SPSS407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		1121	TON
SPSS407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		63	TON
412	COLD MILLING ASPHALT PAVEMENT		1592	SQYD
505	PORTLAND CEMENT CONCRETE DRIVEWAY		1234.00	SQYD
601	MOBILIZATION		1.00	L.S.
603	MAINTENANCE OF TRAFFIC		1.00	L.S.
SS&604	SIGNS		158	SQFT
SS&604	TRAFFIC DRUMS		50	EACH
SS&604	VERTICAL PANELS		50	EACH
* 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	2509	LF
* 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	2509	LF
606	SELECTED PIPE BEDDING		163	CUYD
609	DROP INLETS (TYPE MO)		20	EACH
609	JUNCTION BOXES (TYPE E)		1	EACH
609	DROP INLET EXTENSIONS (4')		5	EACH
610	MANHOLES ADJUSTED TO GRADE		4	EACH
615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)		101	TON
620	LIME		1	TON
620	SEEDING		0.47	ACRE
SS&620	MULCH COVER		0.47	ACRE
620	WATER		47.9	MGAL
621	SILT FENCE		200	LF
621	SAND BAG DITCH CHECKS		500	BAG
621	DROP INLET SILT FENCE		525	LF
621	SEDIMENT REMOVAL AND DISPOSAL		102	CUYD
633	CONCRETE WALKS		1057	SQYD
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1'6")		5091	LF
635	ROADWAY CONSTRUCTION CONTROL		1.00	L.S.
641	WHEELCHAIR RAMPS (TYPE 1)		194	SQYD
641	WHEELCHAIR RAMPS (TYPE 3)		9	SQYD
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (4")		5186	LF
726	STANDARD SIGN		59.75	SQFT
729	CHANNEL POST SIGN SUPPORT (TYPE A)		9	EACH
729	CHANNEL POST SIGN SUPPORT (TYPE C)		2	EACH

* DENOTES ALTERNATE BID ITEMS

REVISIONS

DATE	REVISON	SHEET NUMBER
08-07-17	REVISED DRIVEWAY DIMENSION NOTES ON SHEET 6; REMOVED CONTROL INFORMATION AND REVISED OVAL SHAPES ON SHEETS 8-11; REVISED 'TRAFFIC CONTROL DEVICES' AND 'PORTLAND CEMENT CONCRETE DRIVEWAY' TABLES ON SHEET 14; REVISED TACK COAT AND ACHM SURFACE COURSE QUANTITIES ON SHEETS 15-16; ADDED 'VERTICAL PANELS' ON SHEET 16; REVISED R.O.W. AND FACTORY STREET ANNOTATION ON SHEETS 19, 20, & 26; ADDED OUTLINE OF EXISTING DRIVEWAYS ON SHEETS 22, 24, 26, &28; REMOVED SIDE DRAIN NOTE ON SHEET 24; REVISED CROSS SECTION AT 102+28 ON SHEET 32	6, 8-11, 14, 15-16, 19-20, 22, 24, 26, 28, & 32
08-18-17	ADDED NOTE REGARDING EARTHWORK ON SHEET 3; REVISED NOTE REGARDING EARTHWORK ON SHEET 14	3, 14 & 16

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/18/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	17	51

4 SURVEY CONTROL DETAILS

APPROXIMATE MIDPOINT:
LAT: 36°16'46.3725"
LONG: 092°29'44.4997"

SURVEY CONTROL COORDINATES
Project Name: sc03004
Date: 8/22/2014
Coordinate System: Arkansas State Plane Coordinates
Horizontal Control Based on Opus Solution Pn 3-8, Vertical Control Based on RTK Derived Elevations
Projected to Ground Coordinates
Units: U.S. Survey Foot

COORDINATES LISTED BELOW ARE GROUND (Localized) COORDINATES !!!!

Point No.	Northing	SY	Easting	SX	Elevation	SZ	Feature Code	Point Description
1	707522.376	0.043	1165961.094	0.039	700.592	0.008	CTL	PD:STD AHTD MON STAMPED PN;1
2	707496.7137	0.0360	1166241.109	0.0360	691.827	0.008	CTL	PD:STD AHTD MON STAMPED PN;2
3	707472.764	0.0000	1166762.326	0.0000	705.088	0.008	CTL	PD:STD AHTD MON STAMPED PN;3
4	708068.551	0.0360	1166265.934	0.0330	704.958	0.007	CTL	PD:STD AHTD MON STAMPED PN;4
5	708797.165	0.0280	1166249.356	0.0220	726.319	0.007	CTL	PD:STD AHTD MON STAMPED PN;5
6	709426.2088	0.0420	1166301.921	0.0290	748.089	0.006	CTL	PD:STD AHTD MON STAMPED PN;6
7	709844.4554	0.0240	1166318.844	0.0230	769.457	0.003	CTL	PD:STD AHTD MON STAMPED PN;7
8	710151.8759	0.0000	1166345.477	0.0000	769.615	0.000	CTL	PD:STD AHTD MON STAMPED PN;8
9	710156.6729	0.0350	1166748.124	0.0300	773.500	0.054	CTL	PD:STD AHTD MON STAMPED PN;9
10	710059.3671	0.0460	1165849.903	0.0290	760.597	0.003	CTL	PD:STD AHTD MON STAMPED PN;10

*Standard Primary Control Monument - Rebar and Cap - Standard - 5/8"x 24" Rebar with 2"Aluminum Cap stamped: "(include all common information here)" plus other markings indicated in the point description of the individual point. AHTD monuments will be stamped "Arkansas Hwy & Trans Dept" with "PN: ###" & "Job ######". Monuments that are set by Consultants will be stamped "Arkansas Hwy & Trans Dept" with "PN:###", "Job#######", & "PS####". The consultant Professional Surveyor in charge will stamp his/her PS license number on the cap.
**Standard GPS Control Point Monument - 5/8" x 48" Rebar with 2.5"Aluminum Cap stamped: "(include all common information here)" plus other markings indicated in the point description of the individual point. These monuments will be stamped "Ark. State Hwy Trans. Dept.", "GPS Survey", & "Point No. ######".
SX, SY, SZ – Represents the standard error estimate of the coordinate values of each point at the 67% confidence level (one sigma) based on the least squares analysis of the control network. See the AASHTO SDMS Technical Data Guide data tag definition for SX:, SY:, and SZ: for additional information. These values shall be used when control points are added and the entire network is reprocessed using least square analysis. A value of 0.001 is defined as fixed (no adjustment) in the least square analysis process. A value of 30 is defined as location by handheld GPS device or scaled from USGS Quadmap.
Reference Control points (1500 series) shall be used to re-establish horizontal datum if the primary control has been destroyed. These reference control points shall not be used for vertical control unless the elevation has been established from the project datum with 3-wire level techiniques.
All additional project control shall be occupied, measured, and adjusted with direct survey ties to at least two of the control points listed in the table above. New survey control shall not be independent of the survey control listed above. This includes horizontal coordinates and elevations.

Positional Accuracy:
Horizontal - GPS (1.0 cm± 1PPM) PN: N/A
Horizontal - Primary (2.0cm± 20PPM): PN: 1-10
Horizontal - Secondary (3 cm ± 50PPM): PN: N/A
Vertical - NGS 1st Order (±4mm x Vdist in km) PN: N/A
Vertical - NGS 2nd Order (±6mm x Vdist in km) PN: 1-10
Vertical - NGS 3rd Order (±8mm x Vdist in km) PN: N/A

Horizontal Datum: NAD 1983 (1997) State Plane Zone: 0301-North Zone
The adjustment year is based on metadata in the SDMS Control file
A project CAF of: 0.999974366 has been used to compute the above coordinates.
The project CAF shall have a minimum precision of 9 digits right of the decimal.
This CAF is intended for use within the project limits only.
Grid Distance = Ground Distance X CAF
If Coordinates are listed as Ground:
To compute Grid Coordinates, multiply the Ground Coordinates by CAF about the origin of X=0 & Y=0
If Coordinates are listed as Grid:
To compute Ground Coordinates, divide the Grid Coordinates by CAF about the origin of X=0 & Y=0

Vertical Datum: NAVD 1988 based NGS BM:
A project Elevation Factor of: 0.999966181 has been computed and incorporated in the above CAF.
This is based on the average elevation of the project: 707.048 Feet
3-Wire Leveling techniques have been used to establish elevations on Points:
From NGS BM: *SEE HEADER

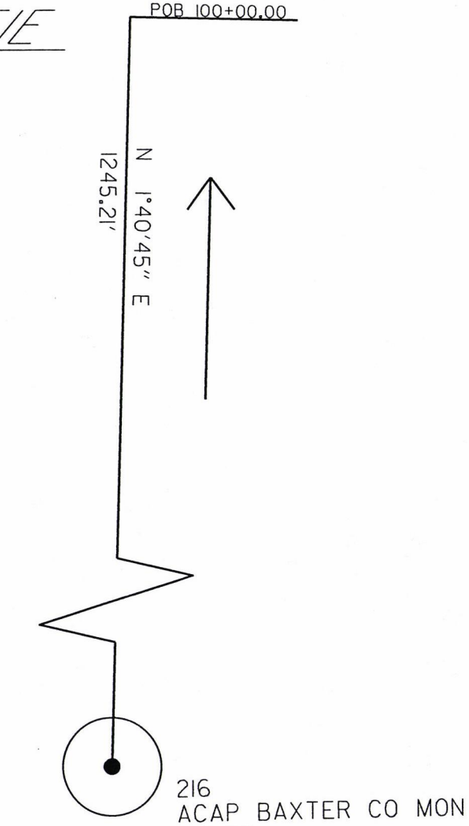
Basis of Bearing: Grid Bearings based on GPS Points 230020-230026
Convergence Angle is: 00-17-18 LEFT at PN: 6
LT: 36°16'53" N LG: 092°29'44" W
Grid Azimuth = Astronomical Azimuth - Convergence Angle

Note: Information in Italics is for clarification only. It is not to be part of the actual Control Table or Control Detail Sheets.

CONSTRUCTION CENTERLINE COORDINATES

POINT NAME	NORTHING	EASTING	DESCRIPTION	STATION
8000	710079.81102	1166305.93433	POB	100+00.00
8001	708721.08603	1166273.65494	PI	113+59.11
8002	707487.94841	1166230.52524	POE	125+93.00

LAND TIE

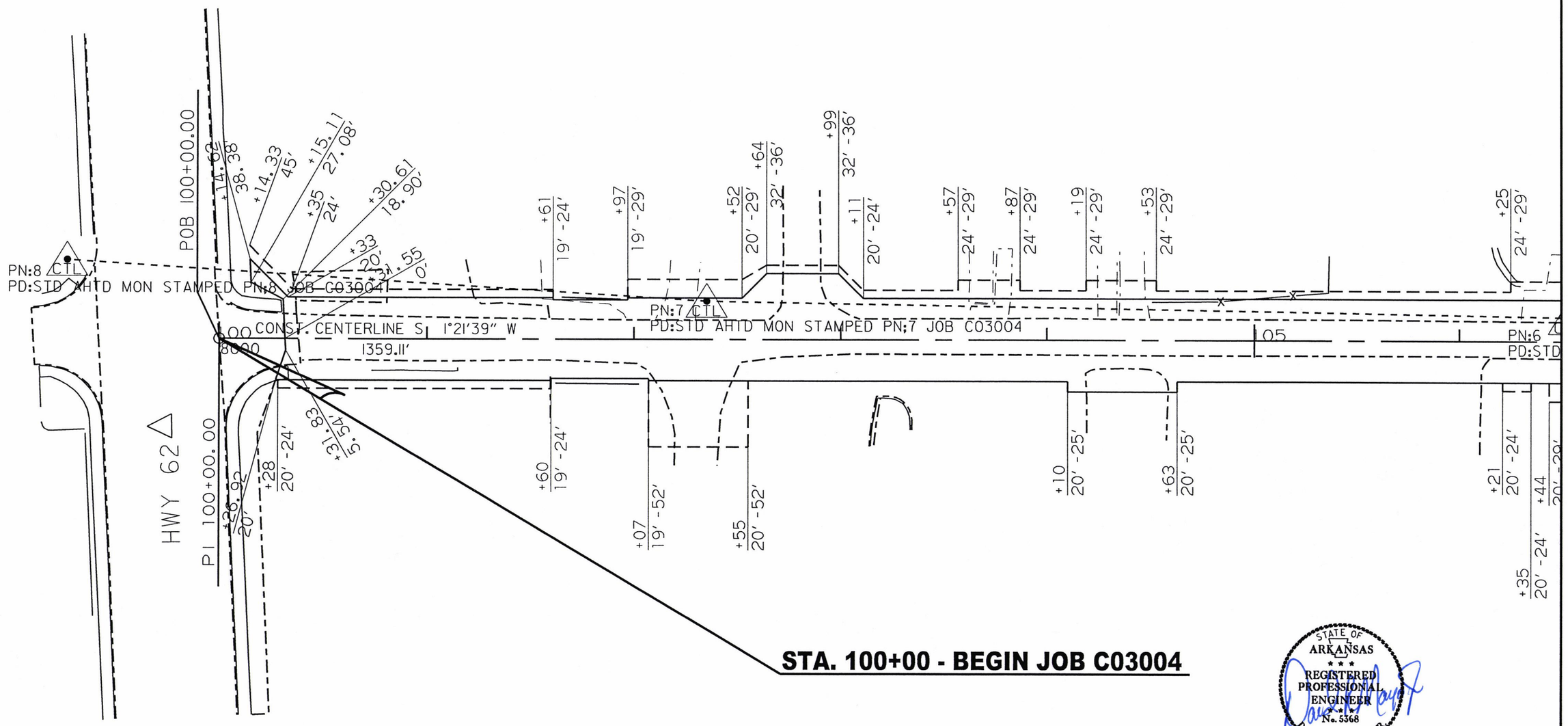


216
ACAP BAXTER CO MON
NWI/16

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
7/27/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	18	51

4 SURVEY CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
7/27/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.		C03004	19	51

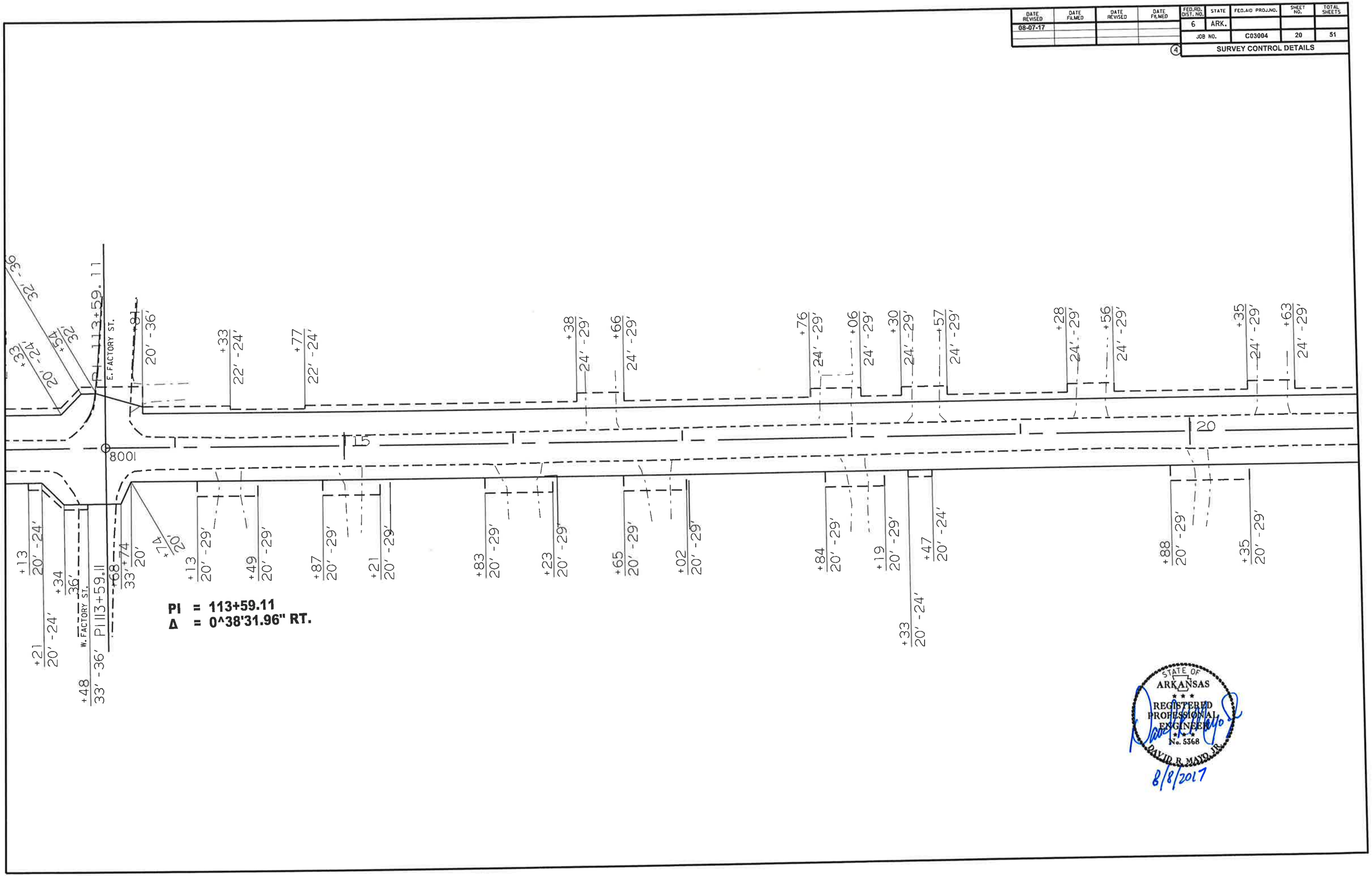
4 SURVEY CONTROL DETAILS

+25 24'-29'
+57 24'-29'
+76 24'-29'
+09 24'-29'
+41 24'-29'
+88 24'-29'
+43 24'-29'
+67 24'-29'
+72 24'-29'
+94 24'-29'
+72 24'-29'
+94 24'-29'
45° 32'-36'
54° 32'
33° 20'-24'
PI 113+59.11
E. FACTORY ST.
+81 20'-36'
10
800
+21 20'-24'
+44 20'-29'
+80 20'-29'
+65.02 20'
40° 55.44'
18.81'
*10.09 20'
+20 20'-29'
+62 20'-29'
+10.10 18.92'
+78 20'-29'
+29 20'-29'
+63 20'-29'
+20 20'-29'
+13 20'-24'
+34 36'
W. FACTORY ST.
+68 33'-74
20'
+14
+35 20'-24'
+48 33'-36'
PI 113+59.11

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
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DAVID R. MAYO JR.
8/8/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.		C03004	20	51

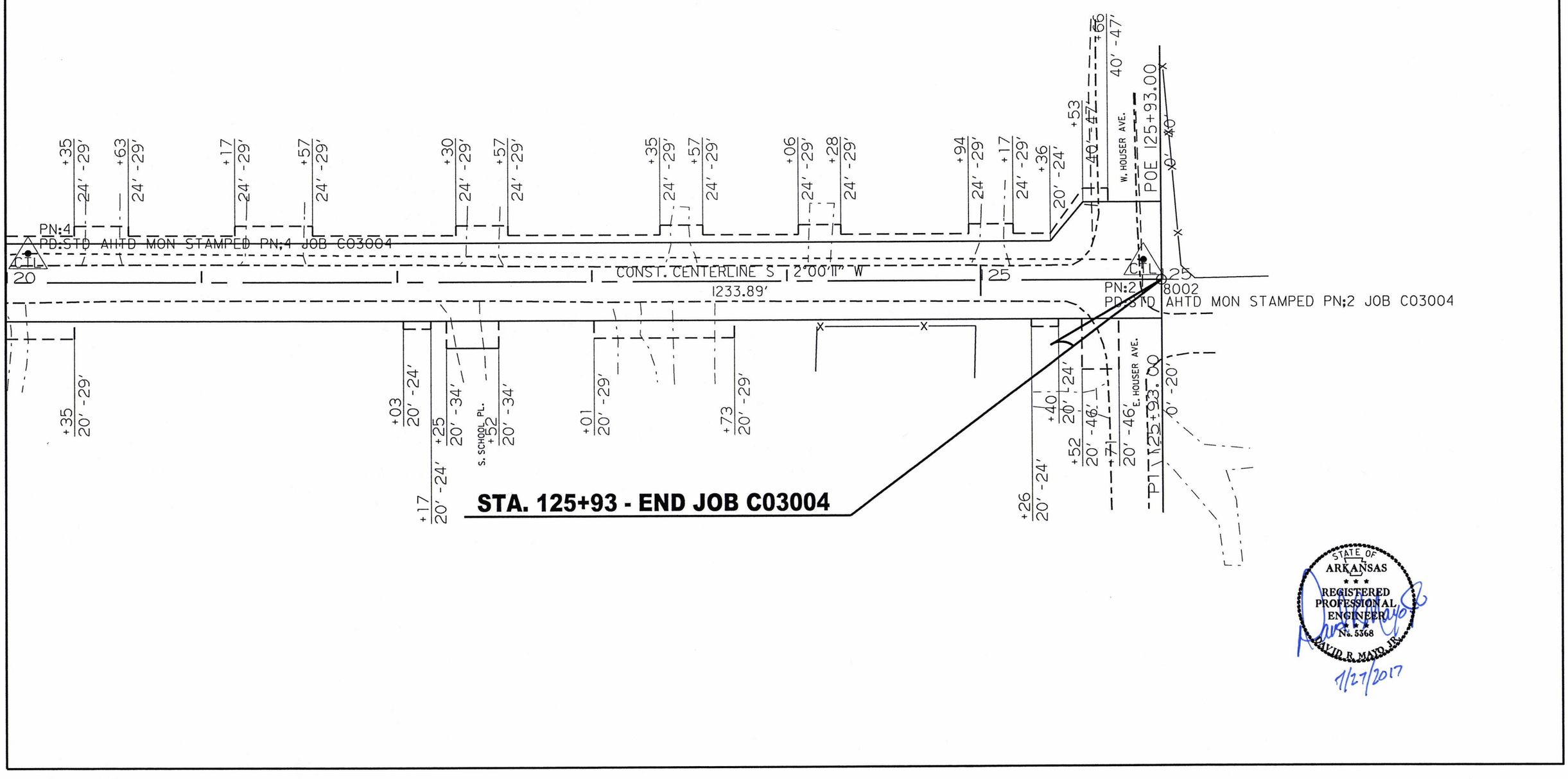
4 SURVEY CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO JR.
8/8/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	21	51

4 SURVEY CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
1/27/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
08-07-17			

FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
	JOB NO.	C03004	22	51

4 PLAN AND PROFILE SHEETS

CLEARING
STA. 102+00 TO STA. 103+00 = 1 STATION
GRUBBING
STA. 102+00 TO STA. 103+00 = 1 STATION

STA. 100+01 - CONSTRUCT
DROP INLET ON LT.
& 18" x 13' R.C. PIPE OUTLET
CONNECT TO J.B. @ STA. 100+12 LT.
TY MO = 4' I.D.
HEIGHT = 3' - 6"

STA. 100+12 - CONSTRUCT
JUNCTION BOX ON LT.
& 18" X 10' R.C. PIPE OUTLET
EXTEND FROM EXISTING PIPE
@ STA. 100+00 LT. TO JUNCTION BOX
TY = E

STA. 100+30 - CONSTRUCT
DROP INLET ON LT.
& 18" x 17' R.C. PIPE OUTLET
CONNECT TO JUNCTION BOX @ STA. 100+12 LT.
TY = MO
HEIGHT = 3' - 6"

STA. 104+66 - CONSTRUCT
DROP INLET ON LT.
& 18" x 142' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 106+12 LT.
TY = MO
HEIGHT = 6' - 0"

STA. 106+12 - CONSTRUCT
DROP INLET ON LT.
WITH OPENING IN BACK
& 18" x 299' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 109+15 LT.
TY = MO
HEIGHT = 5' - 5"

STA. 100+30
R1-1
ON LT.
6.25 SQ. FT.

STA. 100+00 - STA. 100+31
CONCRETE WALKS = 63 SQ. YDS.
ON LT.
REMOVE

STA. 101+61 - STA. 102+08 - CONSTRUCT
CONCRETE WALKS = 31 SQ. YDS.
ON LT.

STA. 102+44 - STA. 102+52 - CONSTRUCT
CONCRETE WALKS = 5 SQ. YDS.
ON LT.

STA. 102+81
CITY STREET TURNOUT
ON LT.
OVERLAY

STA. 103+10 - STA. 103+56 - CONSTRUCT
CONCRETE WALKS = 31 SQ. YDS.
ON LT.

STA. 103+89 - STA. 104+19 - CONSTRUCT
CONCRETE WALKS = 20 SQ. YDS.
ON LT.

STA. 104+54 - STA. 106+24 - CONSTRUCT
CONCRETE WALKS = 113 SQ. YDS.
ON LT.

STA. 100+30
R1-1 ON LT.
REMOVE

STA. 100+00 - (HWY. 62)
C.C. CURB & GUTTER = 10'
ON LT.
REMOVE

STA. 100+33 - STA. 102+72 - CONSTRUCT
C.C. CURB & GUTTER = 310'
ON LT.

STA. 102+52 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 30 SQ. YDS.
ON LT.

STA. 102+66
REMOVE AND REINSTALL
POLICE DEPT. SIGN
ON LT.
1 EACH

STA. 102+90 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 30 SQ. YDS.
ON LT.

STA. 103+10 - STA. 113+53 - CONSTRUCT
C.C. CURB & GUTTER = 1089'
ON LT.

STA. 100+00
DROP INLET ON LT.
REMOVE

STA. 100+09 - STA. 100+30
C.C. CURB & GUTTER = 21'
ON LT.
REMOVE

STA. 100+33 - STA. 101+61 - CONSTRUCT
P.C.C. DRIVEWAY = 85 SQ. YDS.
ON LT.

STA. 100+00 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 37 SQ. YDS.
ON LT.

STA. 102+08 - STA. 102+44 - CONSTRUCT
P.C.C. DRIVEWAY = 24 SQ. YDS.
ON LT.

STA. 103+63 - STA. 103+74
CONCRETE DRIVEWAY = 14 SQ. YDS.
ON LT.
REMOVE

STA. 103+56 - STA. 103+89 - CONSTRUCT
P.C.C. DRIVEWAY = 47 SQ. YDS.
ON LT.

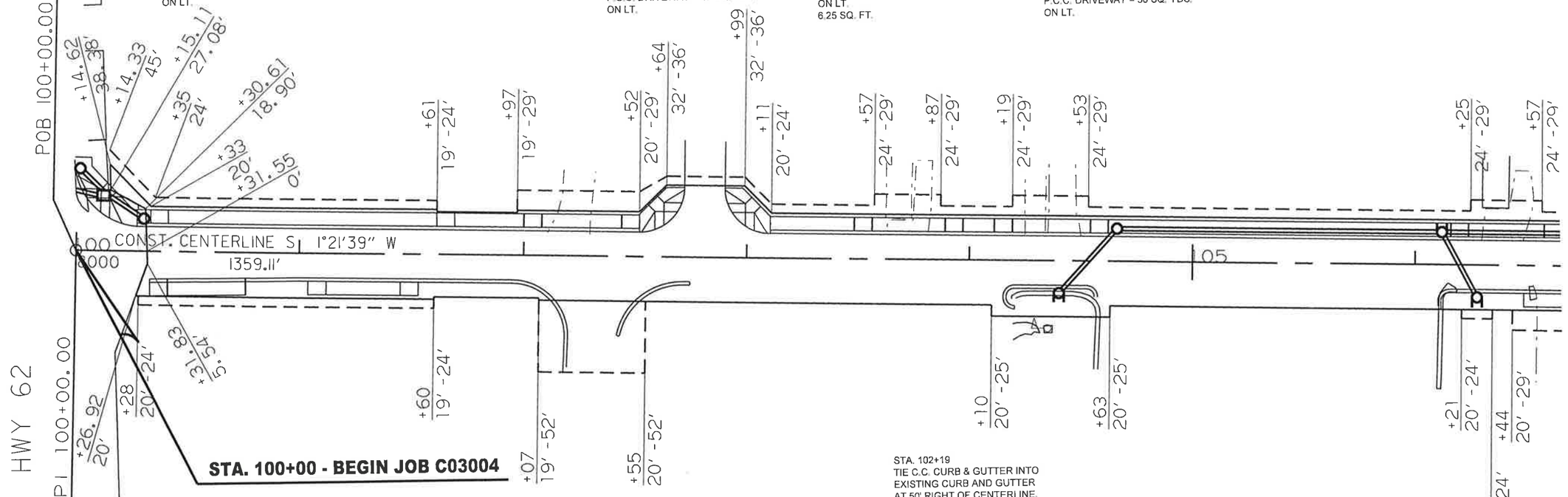
STA. 102+69
R1-1 ON LT.
REMOVE

STA. 102+69
R1-1
ON LT.
6.25 SQ. FT.

STA. 102+99
REMOVE AND REINSTALL
STREET SIGN
ON LT.
1 EACH

STA. 104+35 - STA. 104+47
CONCRETE DRIVEWAY = 28 SQ. YDS.
ON LT.
REMOVE

STA. 104+19 - STA. 104+54 - CONSTRUCT
P.C.C. DRIVEWAY = 50 SQ. YDS.
ON LT.



STA. 102+19
TIE C.C. CURB & GUTTER INTO
EXISTING CURB AND GUTTER
AT 50' RIGHT OF CENTERLINE.

STA. 100+33 - STA. 101+76 - CONSTRUCT
P.C.C. DRIVEWAY = 29 SQ. YDS.
ON RT.

STA. 101+12 - STA. 101+45 - CONSTRUCT
P.C.C. DRIVEWAY = 22 SQ. YDS.
ON RT.

STA. 101+72
R2-1 ON RT.
REMOVE

STA. 102+49
R1-1 ON RT.
REMOVE

STA. 104+19 - STA. 104+59
C.C. CURB & GUTTER = 45'
ON RT.
REMOVE

STA. 100+73 - STA. 101+15
C.C. CURB & GUTTER = 43'
ON RT.
REMOVE

STA. 102+42 - STA. 102+75 - CONSTRUCT
C.C. CURB & GUTTER = 43'
ON RT.

STA. 101+72
R2-1
ON RT.
5.00 SQ. FT.

STA. 102+49
R1-1
ON RT.
6.25 SQ. FT.

STA. 104+15 - STA. 104+59 - CONSTRUCT
C.C. CURB & GUTTER = 65'
ON RT.

STA. 106+10 - STA. 106+22
C.C. CURB & GUTTER = 15'
ON RT.
REMOVE

STA. 100+33 - STA. 102+20 - CONSTRUCT
C.C. CURB & GUTTER = 217'
ON RT.

STA. 102+00
REMOVE AND REINSTALL
STREET SIGN
ON RT.
1 EACH

STA. 102+31
CITY STREET TURNOUT
ON RT.
OVERLAY

STA. 104+40 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 35' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 104+66 LT.
TY = MO
HEIGHT = 4' - 10"

STA. 106+28 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 30' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 106+12 LT.
TY = MO
HEIGHT = 4' - 0"

STATE OF ARKANSAS
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DAVID R. MAYO, JR.
8/8/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	C03004		23	51
				4	PLAN AND PROFILE SHEETS			

STA. 100+00 - BEGIN JOB C03004

LEFT SIDE

790 780 770 760 750 740 730 720

100+00.00 769.12

101+60.52 772.28

104+03.93 762.41

105+45.07 753.82

106+16.45 750.03

1.97%

-4.05%

-6.08%

-5.31%

-4.09%

4.07%

e=-1.33'
VC=176'
K=29.30

e=-0.23'
VC=89'
K=43.96

e=0.08'
VC=85'
K=110.09

e=0.05'
VC=31'
K=25.55

18"x 10' @ 0.20%

18"x 17' @ 0.20%

18"x 35' @ 4.81%

18"x 142' @ 5.42%

18"x 299' @

STA. 100+01
TOP ELEV.=770.0
F.L. ELEV.=766.85

STA. 100+12
TOP ELEV.=769.96
F.L. ELEV.=765.88

STA. 100+30
TOP ELEV.=769.41
F.L. ELEV.=765.91

STA. 104+66
TOP ELEV.=758.97
F.L. ELEV.=752.97

STA. 106+12
TOP ELEV.=750.66
F.L. ELEV.=745.28

99+50 100+00 105+00 106+50

RIGHT SIDE

790 780 770 760 750 740 730 720

100+00.00 769.12

101+60.52 772.28

104+03.93 762.41

105+45.07 753.82

106+16.45 750.03

1.97%

-4.05%

-6.08%

-5.31%

-4.09%

e=-1.33'
VC=176'
K=29.30

e=-0.23'
VC=89'
K=43.96

e=0.08'
VC=85'
K=110.09

e=0.05'
VC=31'
K=25.55

18"x 35' @ 4.81%

STA. 104+40
TOP ELEV.=760.46
F.L. ELEV.=755.65

STA. 106+28
TOP ELEV.=749.85
F.L. ELEV.=745.86

STA. 100+00 - BEGIN JOB C03004

STATE OF ARKANSAS
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No. 5368
DAVID R. MAYO JR.
7/27/2017

99+50 100+00 105+00 106+50

SCHOOL ST.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.		C03004	24	51
				(4)	PLAN AND PROFILE SHEETS			

STA. 106+43
12" x 28' R.C.
SIDE DRAIN ON LT.
REMOVE

STA. 107+92
12" x 25' R.C.
SIDE DRAIN ON LT.
REMOVE

STA. 108+65
12" x 41' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 109+15 - CONSTRUCT
DROP INLET ON LT.
WITH BACK OPENING
& 18" x 241' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 111+60 LT.
TY = MO
HEIGHT = 4' - 2"

STA. 110+54
12" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 111+60 - CONSTRUCT
DROP INLET ON LT.
WITH BACK OPENING
& 18" x 156' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 113+20 LT.
TY = MO
HEIGHT = 4' - 0"

STA. 111+83
12" x 22' R.C.
SIDE DRAIN ON LT.
REMOVE

STA. 106+30 - STA. 106+43
CONCRETE DRIVEWAY = 5 SQ. YDS.
ON LT.
REMOVE

STA. 107+81 - STA. 107+94
CONCRETE DRIVEWAY = 6 SQ. YDS.
ON LT.
REMOVE

STA. 108+46 - STA. 108+83
CONCRETE DRIVEWAY = 37 SQ. YDS.
ON LT.
REMOVE

STA. 110+47 - STA. 110+62
CONCRETE DRIVEWAY = 30 SQ. YDS.
ON LT.
REMOVE

STA. 111+77 - STA. 111+89
CONCRETE DRIVEWAY = 5 SQ. YDS.
ON LT.
REMOVE

STA. 112+77 - STA. 112+89
CONCRETE DRIVEWAY = 6 SQ. YDS.
ON LT.
REMOVE

STA. 106+24 - STA. 106+58 - CONSTRUCT
P.C.C. DRIVEWAY = 48 SQ. YDS.
ON LT.

STA. 107+75 - STA. 108+10 - CONSTRUCT
P.C.C. DRIVEWAY = 50 SQ. YDS.
ON LT.

STA. 108+40 - STA. 108+89 - CONSTRUCT
P.C.C. DRIVEWAY = 76 SQ. YDS.
ON LT.

STA. 109+28 - STA. 109+60 - CONSTRUCT
P.C.C. DRIVEWAY = 21 SQ. YDS.
ON LT.

STA. 110+42 - STA. 110+68 - CONSTRUCT
P.C.C. DRIVEWAY = 34 SQ. YDS.
ON LT.

STA. 111+71 - STA. 111+97 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON LT.

STA. 112+70 - STA. 112+96 - CONSTRUCT
P.C.C. DRIVEWAY = 34 SQ. YDS.
ON LT.

STA. 106+58 - STA. 107+75 - CONSTRUCT
CONCRETE WALKS = 78 SQ. YDS.
ON LT.

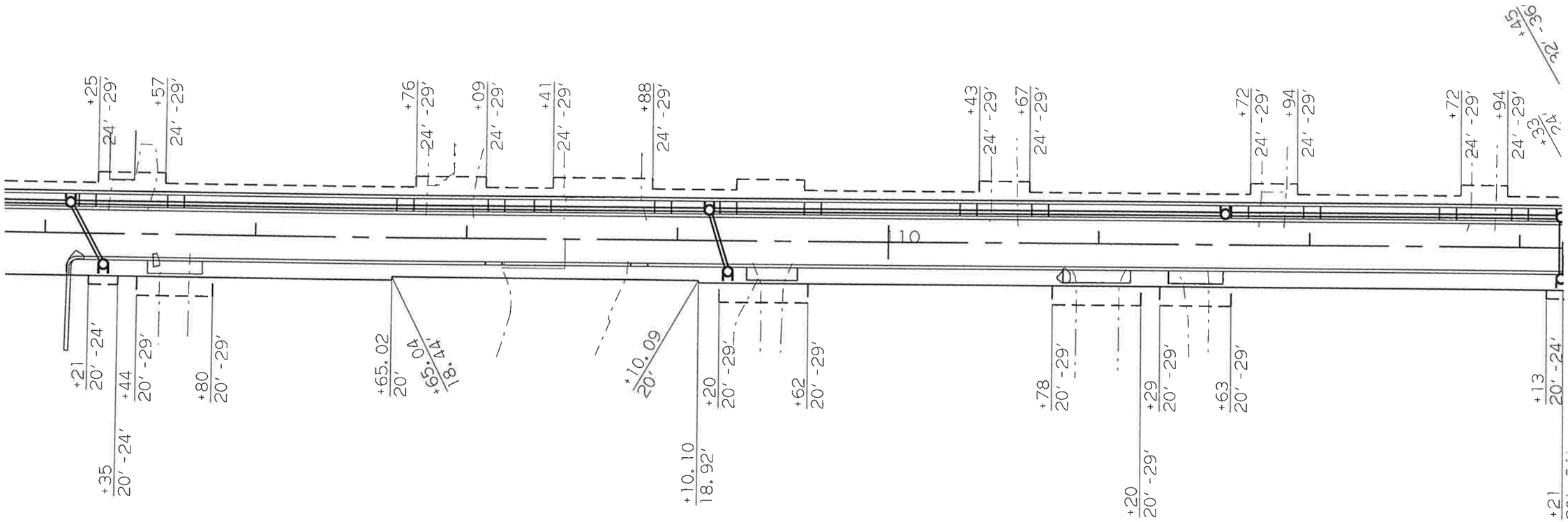
STA. 108+10 - STA. 108+40 - CONSTRUCT
CONCRETE WALKS = 20 SQ. YDS.
ON LT.

STA. 108+89 - STA. 109+28 - CONSTRUCT
CONCRETE WALKS = 26 SQ. YDS.
ON LT.

STA. 109+60 - STA. 110+42 - CONSTRUCT
CONCRETE WALKS = 55 SQ. YDS.
ON LT.

STA. 110+68 - STA. 111+71 - CONSTRUCT
CONCRETE WALKS = 69 SQ. YDS.
ON LT.

STA. 111+97 - STA. 112+70 - CONSTRUCT
CONCRETE WALKS = 49 SQ. YDS.
ON LT.



STA. 106+49 - STA. 106+75 - CONSTRUCT
P.C.C. DRIVEWAY = 34 SQ. YDS.
ON RT.

STA. 106+55 - STA. 106+69
CONCRETE DRIVEWAY = 33 SQ. YDS.
ON RT.
REMOVE

STA. 106+10 - STA. 113+43 - CONSTRUCT
C.C. CURB & GUTTER = 948'
ON RT.

STA. 106+64
15" x 20' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 108+47
15" x 60' C.M.
SIDE DRAIN ON RT.
RETAIN

STA. 109+24 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 26' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 109+15 LT.
TY = MO
HEIGHT = 3' - 6"

STA. 109+36 - STA. 109+54
CONCRETE DRIVEWAY = 27 SQ. YDS.
ON RT.
REMOVE

STA. 109+32 - STA. 109+58 - CONSTRUCT
P.C.C. DRIVEWAY = 34 SQ. YDS.
ON RT.

STA. 109+40
17" x 13" x 31' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 110+87 - STA. 111+13
CONCRETE DRIVEWAY = 44 SQ. YDS.
ON RT.
REMOVE

STA. 110+83 - STA. 111+15 - CONSTRUCT
P.C.C. DRIVEWAY = 45 SQ. YDS.
ON RT.

STA. 110+98
15" x 30' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 111+33 - STA. 111+59 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON RT.

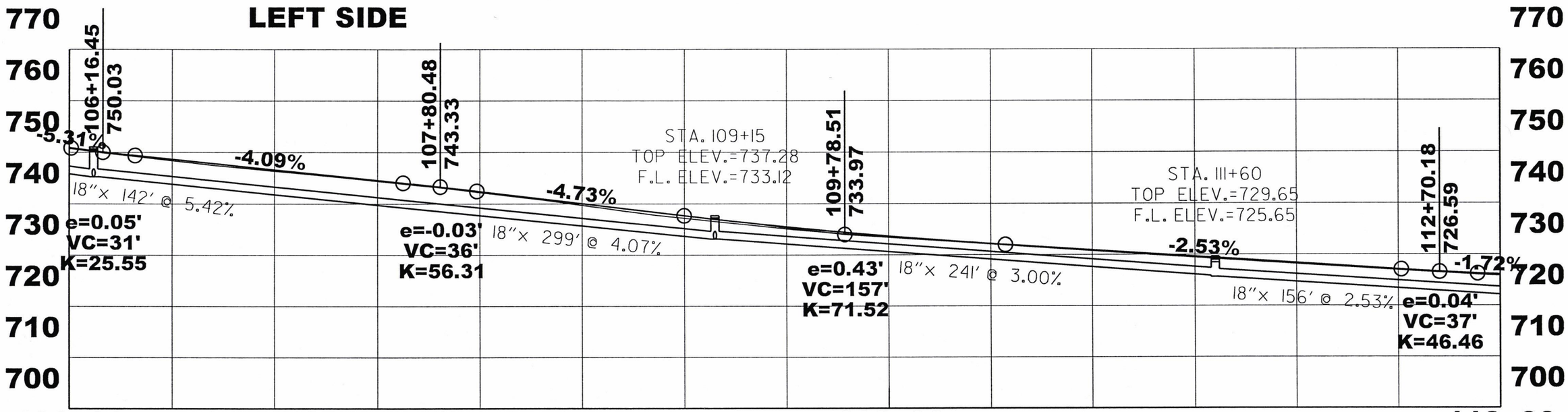
STA. 111+45
15" x 20' C.M.
SIDE DRAIN ON RT.
REMOVE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
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8/8/2017

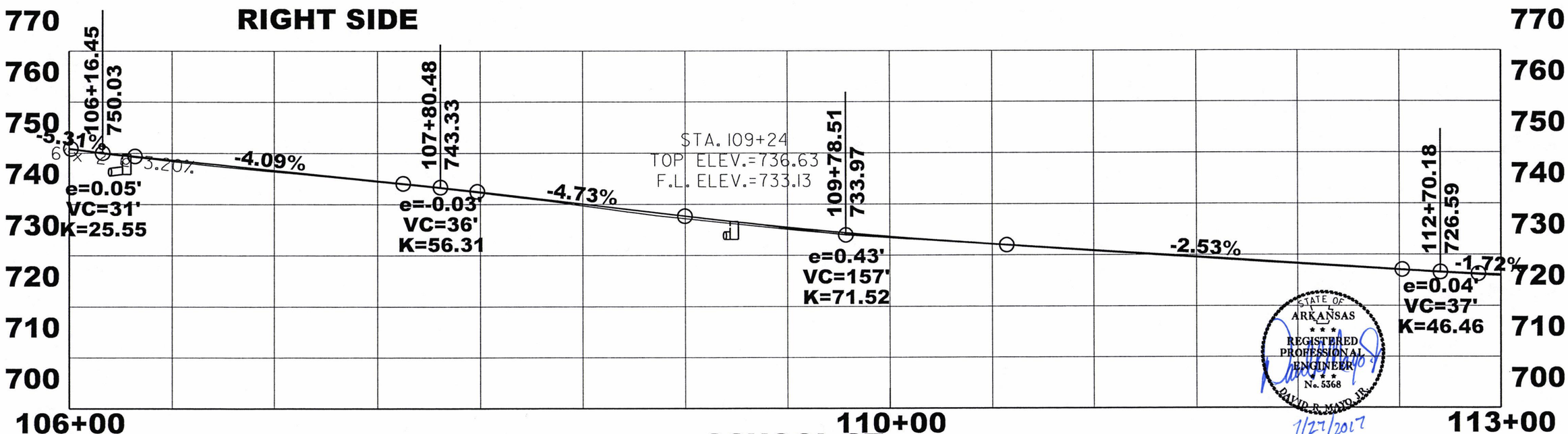
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	25	51

(4) PLAN AND PROFILE SHEETS

LEFT SIDE



RIGHT SIDE



SCHOOL ST.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO JR.
1/27/2017

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.		C03004	26	51
				(4) PLAN AND PROFILE SHEETS				

CLEARING
STA. 115+00 TO STA. 116+00 = 1 STATION
GRUBBING
STA. 115+00 TO STA. 116+00 = 1 STATION

STA. 112+83
12" x 16' R.C.
SIDE DRAIN ON LT.
REMOVE

STA. 113+20 - CONSTRUCT
DROP INLET ON LT.
WITH OPENING IN BACK
& 18" x 68' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 113+86 RT.
TY = MO
HEIGHT = 4' - 3"

STA. 113+61
18" x 25' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 116+52
18" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 117+90
15" x 26' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 118+18 - CONSTRUCT
DROP INLET ON LT.
& 18" x 32' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 118+40 RT.
TY = MO
HEIGHT = 4' - 1"

STA. 118+44
15" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 113+74 - STA. 125+61 - CONSTRUCT
C.C. CURB & GUTTER = 1209'
ON LT.

STA. 113+33 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 30 SQ. YDS.
ON LT.

STA. 113+81 - CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 9.00 SQ. YDS.
ON LT.

STA. 115+79 - STA. 116+11 - CONSTRUCT
P.C.C. DRIVEWAY = 21 SQ. YDS.
ON LT.

STA. 116+42 - STA. 116+63
CONCRETE DRIVEWAY = 44 SQ. YDS.
ON LT.
REMOVE

STA. 116+10
MANHOLE ADJUSTED TO GRADE = 1 EACH
ON LT.

STA. 118+33 - STA. 118+56
CONCRETE DRIVEWAY = 39 SQ. YDS.
ON LT.
REMOVE

STA. 112+96 - STA. 113+33 - CONSTRUCT
CONCRETE WALKS = 25 SQ. YDS.
ON LT.

STA. 113+64
CITY STREET TURNOUT
ON LT.
OVERLAY

STA. 113+99 - STA. 115+79 - CONSTRUCT
CONCRETE WALKS = 120 SQ. YDS.
ON LT.

STA. 116+11 - STA. 116+37 - CONSTRUCT
CONCRETE WALKS = 17 SQ. YDS.
ON LT.

STA. 116+37 - STA. 116+67 - CONSTRUCT
P.C.C. DRIVEWAY = 41 SQ. YDS.
ON LT.

STA. 116+67 - STA. 117+75 - CONSTRUCT
CONCRETE WALKS = 72 SQ. YDS.
ON LT.

STA. 117+75 - STA. 118+06 - CONSTRUCT
P.C.C. DRIVEWAY = 21 SQ. YDS.
ON LT.

STA. 118+06 - STA. 118+30 - CONSTRUCT
CONCRETE WALKS = 16 SQ. YDS.
ON LT.

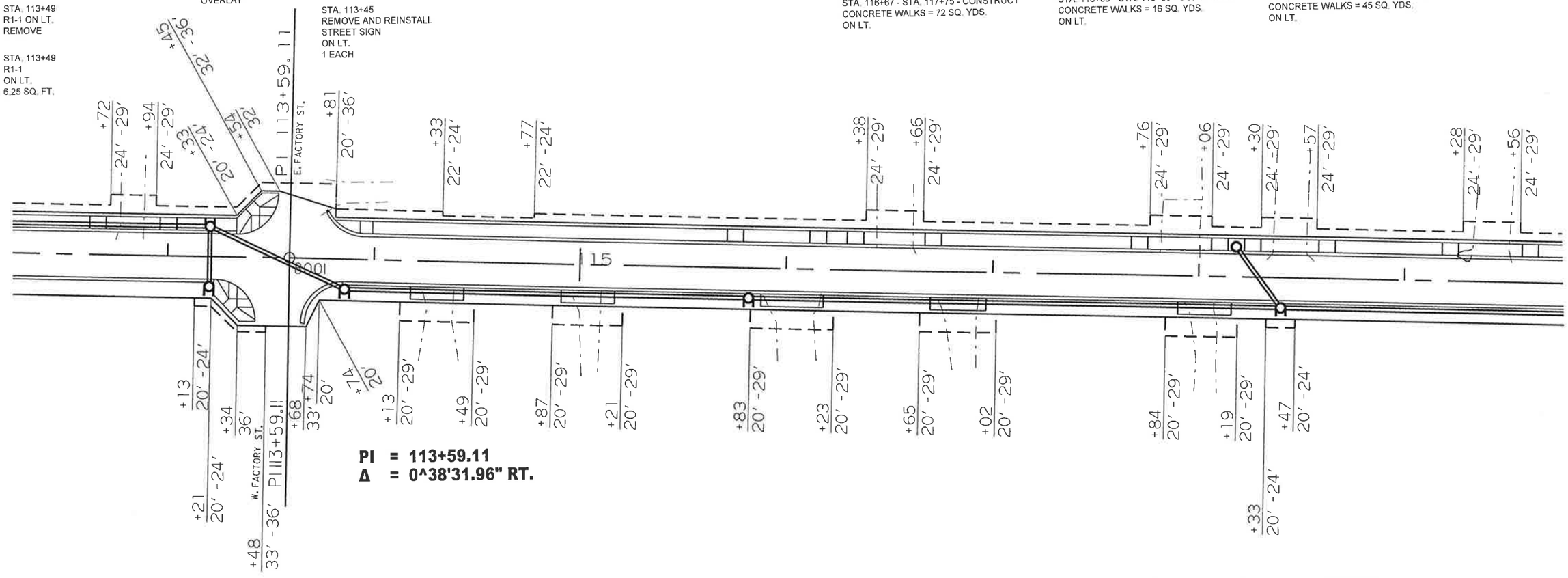
STA. 118+30 - STA. 118+58 - CONSTRUCT
P.C.C. DRIVEWAY = 37 SQ. YDS.
ON LT.

STA. 118+58 - STA. 119+26 - CONSTRUCT
CONCRETE WALKS = 45 SQ. YDS.
ON LT.

STA. 113+49
R1-1 ON LT.
REMOVE

STA. 113+49
R1-1
ON LT.
6.25 SQ. FT.

STA. 113+45
REMOVE AND REINSTALL
STREET SIGN
ON LT.
1 EACH



PI = 113+59.11
Δ = 0^38'31.96" RT.

STA. 113+26
REMOVE AND REINSTALL
CITY PARK SIGN
ON RT.
1 EACH

STA. 113+72
R1-1 ON RT.
REMOVE

STA. 113+72
R1-1
ON RT.
6.25 SQ. FT.

STA. 114+18 - STA. 114+44 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON RT.

STA. 114+91 - STA. 115+17 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON RT.

STA. 115+88 - STA. 116+18 - CONSTRUCT
P.C.C. DRIVEWAY = 20 SQ. YDS.
ON RT.

STA. 116+70 - STA. 116+97 - CONSTRUCT
P.C.C. DRIVEWAY = 18 SQ. YDS.
ON RT.

STA. 117+90 - STA. 118+16 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON RT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/8/2017

STA. 113+08 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 30.07 SQ. YDS.
ON RT.

STA. 113+22 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 30.07 SQ. YDS.
ON RT.

STA. 113+54
CITY STREET TURNOUT
ON RT.
OVERLAY

STA. 113+65 - STA. 122+31 - CONSTRUCT
C.C. CURB & GUTTER = 894'
ON RT.

STA. 117+99
15" X 24' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 113+20 - CONSTRUCT
DROP INLET ON RT.
WITH OPENING IN BACK
& 18" x 25' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 113+20 LT.
TY = MO
HEIGHT = 4' - 3"

STA. 113+51
18" x 39' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 113+86 - CONSTRUCT
DROP INLET ON RT.
WITH OPENING IN BACK
& 18" x 192' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 115+82 RT.
TY = MO
HEIGHT = 4' - 5"

STA. 114+32
12" x 18' R.C.
SIDE DRAIN ON RT.
REMOVE

STA. 115+04
15" x 20' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 115+82 - CONSTRUCT
DROP INLET ON RT.
WITH OPENING IN BACK
& 18" x 254' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 118+40 RT.
TY = MO
HEIGHT = 5' - 0"

STA. 116+02
12" x 28' R.C.
SIDE DRAIN ON RT.
REMOVE

STA. 116+84
18" x 28' R.C.
SIDE DRAIN ON RT.
REMOVE

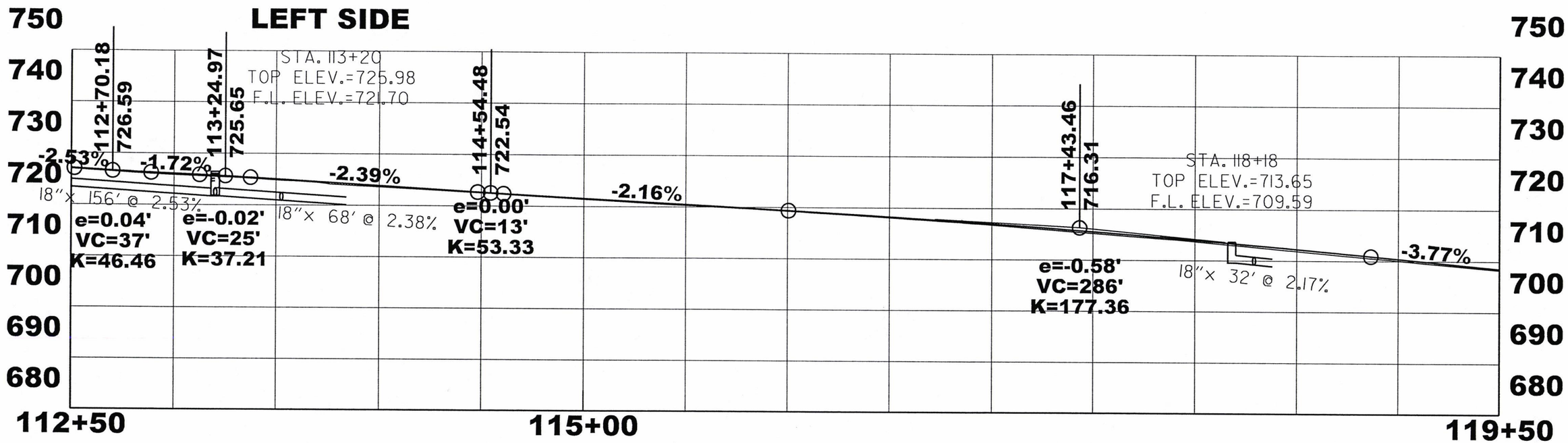
STA. 118+02
15" X 22' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 118+40 - CONSTRUCT
DROP INLET ON RT.
WITH OPENING IN BACK
& 18" x 184' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 120+28 RT.
TY = MO
HEIGHT = 4' - 1"

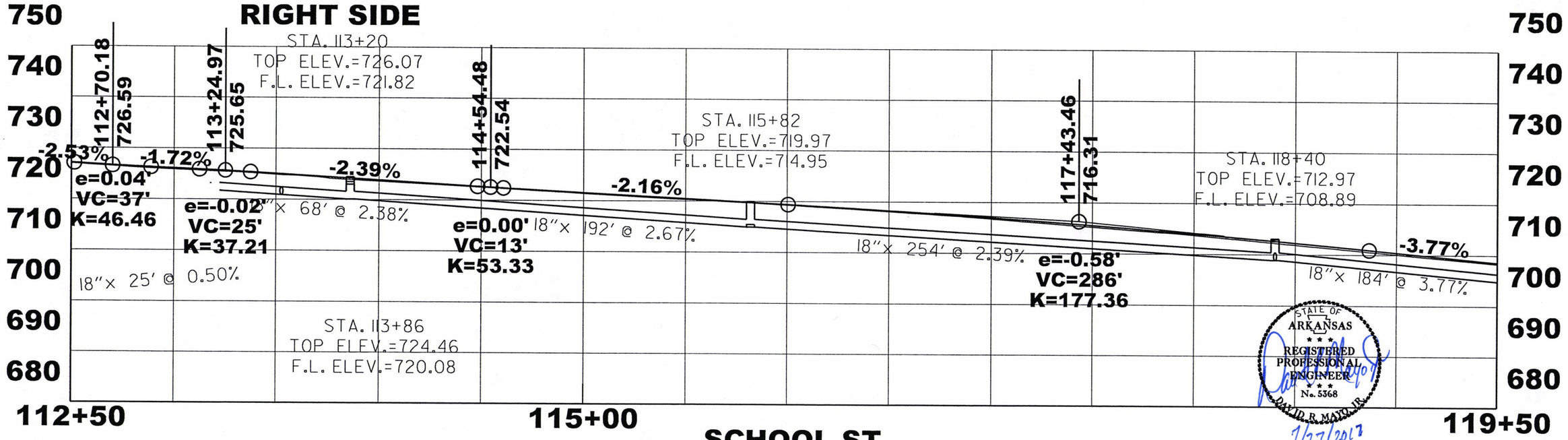
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	27	51

(4) PLAN AND PROFILE SHEETS

LEFT SIDE



RIGHT SIDE



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
7/27/2017

SCHOOL ST.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.HIG. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
08-07-17				6	ARK.			
				JOB NO.		C03004	28	51
				PLAN AND PROFILE SHEETS				

STA. 119+41
15" x 20' R.C.
SIDE DRAIN ON LT.
REMOVE

STA. 120+49
15" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 121+37
15" x 34' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 122+44
15" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 123+22 - CONSTRUCT
DROP INLET ON LT.
& 18" x 207' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 125+33 LT.
TY = MO
HEIGHT = 3' - 10"

STA. 123+46
15" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 124+17
22" x 15" x 20' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 125+04
18" x 18' C.M.
SIDE DRAIN ON LT.
REMOVE

STA. 125+33 - CONSTRUCT
DROP INLET ON LT.
& 18" x 25' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 125+33 RT.
TY = MO
HEIGHT = 4' - 0"

STA. 125+69
20" x 15" x 40' C.M.
SIDE DRAIN ON LT.
PLUG AND ABANDON

STA. 119+31 - STA. 119+54
CONCRETE DRIVEWAY = 40.8 SQ. YDS.
ON LT.
REMOVE

STA. 120+39 - STA. 120+60
CONCRETE DRIVEWAY = 41 SQ. YDS.
ON LT.
REMOVE

STA. 121+20 - STA. 121+54
CONCRETE DRIVEWAY = 40 SQ. YDS.
ON LT.
REMOVE

STA. 122+32 - STA. 122+55
CONCRETE DRIVEWAY = 39 SQ. YDS.
ON LT.
REMOVE

STA. 122+25
MANHOLE ADJUSTED TO GRADE = 1 EACH
ON LT.

STA. 125+00 - STA. 125+13
CONCRETE DRIVEWAY = 34 SQ. YDS.
ON LT.
REMOVE

STA. 125+55
R1-1 ON LT.
REMOVE

STA. 123+18
R2-1 ON LT.
REMOVE

STA. 119+26 - STA. 119+57 - CONSTRUCT
P.C.C. DRIVEWAY = 43 SQ. YDS.
ON LT.

STA. 120+34 - STA. 120+65 - CONSTRUCT
P.C.C. DRIVEWAY = 43 SQ. YDS.
ON LT.

STA. 121+16 - STA. 121+59 - CONSTRUCT
P.C.C. DRIVEWAY = 65 SQ. YDS.
ON LT.

STA. 122+29 - STA. 122+58 - CONSTRUCT
P.C.C. DRIVEWAY = 39 SQ. YDS.
ON LT.

STA. 123+33 - STA. 123+59 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON LT.

STA. 124+05 - STA. 124+31 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON LT.

STA. 124+93 - STA. 125+19 - CONSTRUCT
P.C.C. DRIVEWAY = 34 SQ. YDS.
ON LT.

STA. 125+55
R1-1
ON LT.
6.25 SQ. FT.

STA. 123+18
R2-1
ON LT.
5.00 SQ. FT.

STA. 119+57 - STA. 120+34 - CONSTRUCT
CONCRETE WALKS = 51 SQ. YDS.
ON LT.

STA. 120+65 - STA. 121+16 - CONSTRUCT
CONCRETE WALKS = 34.0 SQ. YDS.
ON LT.

STA. 121+59 - STA. 122+29 - CONSTRUCT
CONCRETE WALKS = 47 SQ. YDS.
ON LT.

STA. 122+58 - STA. 123+33 - CONSTRUCT
CONCRETE WALKS = 50 SQ. YDS.
ON LT.

STA. 123+59 - STA. 124+05 - CONSTRUCT
CONCRETE WALKS = 31 SQ. YDS.
ON LT.

STA. 124+31 - STA. 124+93 - CONSTRUCT
CONCRETE WALKS = 41 SQ. YDS.
ON LT.

STA. 125+19 - STA. 125+36 - CONSTRUCT
CONCRETE WALKS = 11 SQ. YDS.
ON LT.

CLEARING
STA. 122+00 TO STA. 124+00 = 2 STATION
GRUBBING
STA. 122+00 TO STA. 124+00 = 2 STATION

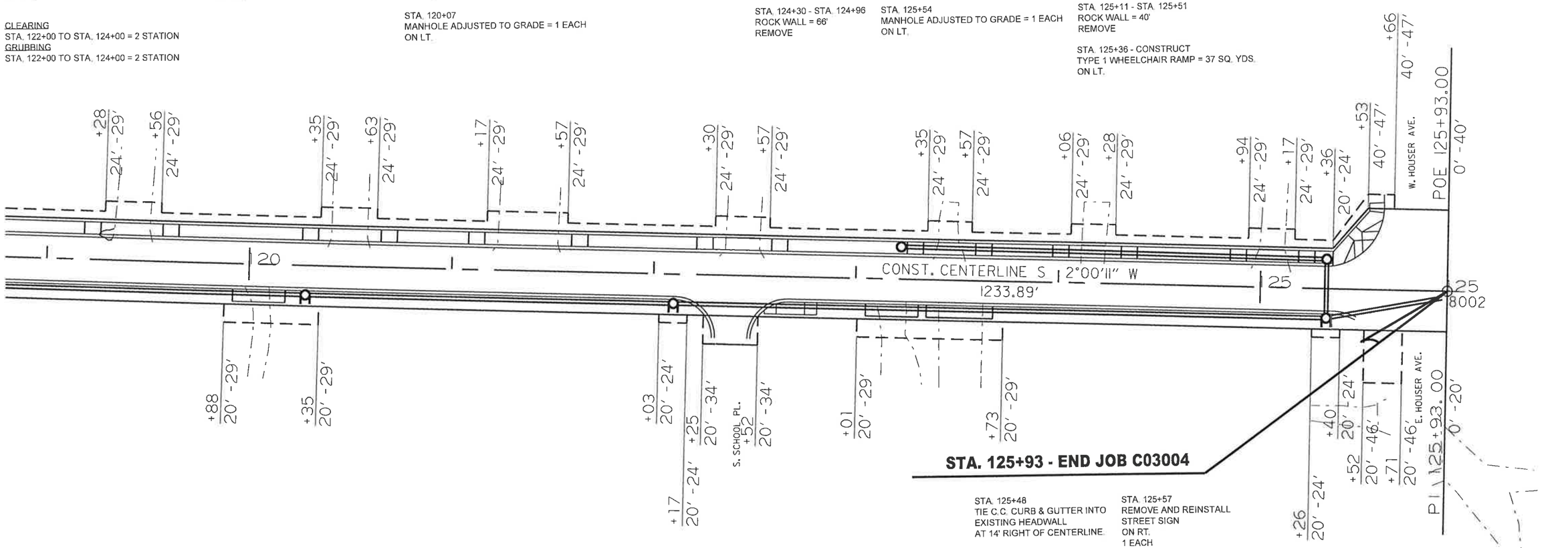
STA. 120+07
MANHOLE ADJUSTED TO GRADE = 1 EACH
ON LT.

STA. 124+30 - STA. 124+96
ROCK WALL = 66'
REMOVE

STA. 125+54
MANHOLE ADJUSTED TO GRADE = 1 EACH
ON LT.

STA. 125+11 - STA. 125+51
ROCK WALL = 40'
REMOVE

STA. 125+36 - CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 37 SQ. YDS.
ON LT.



STA. 125+48
TIE C.C. CURB & GUTTER INTO
EXISTING HEADWALL
AT 14' RIGHT OF CENTERLINE.

STA. 125+57
REMOVE AND REINSTALL
STREET SIGN
ON RT.
1 EACH

STA. 119+92 - STA. 120+18 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON RT.

STA. 122+21
REMOVE AND REINSTALL
STREET SIGN
ON RT.
1 EACH

STA. 122+39
CITY STREET TURNOUT
ON RT.
OVERLAY

STA. 122+58 - STA. 122+86 - CONSTRUCT
P.C.C. DRIVEWAY = 19 SQ. YDS.
ON RT.

STA. 122+47 - STA. 125+48 - CONSTRUCT
C.C. CURB & GUTTER = 316'
ON RT.

STA. 123+05 - STA. 123+31 - CONSTRUCT
P.C.C. DRIVEWAY = 17 SQ. YDS.
ON RT.

STA. 123+41 - STA. 123+63
CONCRETE DRIVEWAY = 44 SQ. YDS.
ON RT.
REMOVE

STA. 123+35 - STA. 123+68 - CONSTRUCT
P.C.C. DRIVEWAY = 47 SQ. YDS.
ON RT.

STA. 125+55
R1-1 ON RT.
REMOVE

STA. 125+55
R1-1
ON RT.
6.25 SQ. FT.

STA. 119+33
15" x 3' R.C.
SIDE DRAIN ON RT.
REMOVE

STA. 120+04
15" x 18' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 120+28 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 178' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 122+10 RT.
TY = MO
HEIGHT = 4' - 0"

STA. 122+10 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 319' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 125+33 RT.
TY = MO
HEIGHT = 4' - 0"

STA. 122+33
18" x 24' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 122+67
15" x 12' R.C.
SIDE DRAIN ON RT.
REMOVE

STA. 123+19
15" x 18' C.M.
SIDE DRAIN ON RT.
REMOVE

STA. 123+53
18" x 24' C.M.
SIDE DRAIN ON RT.
REMOVE

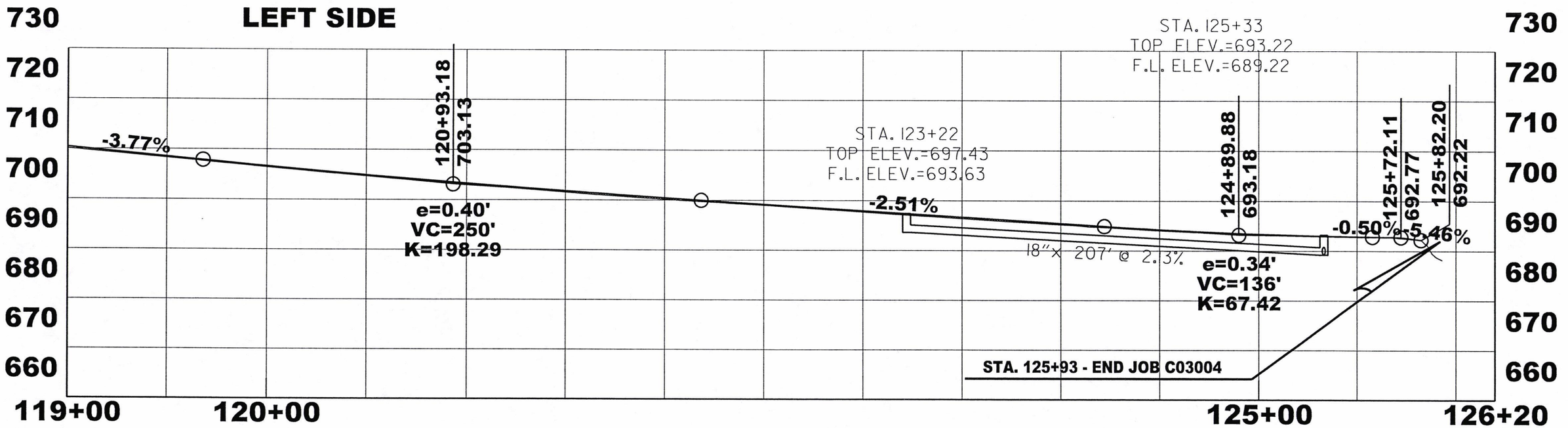
STA. 125+33 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 56' R.C. PIPE OUTLET
TY = MO
HEIGHT = 4' - 2"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO, JR.
8/8/2017

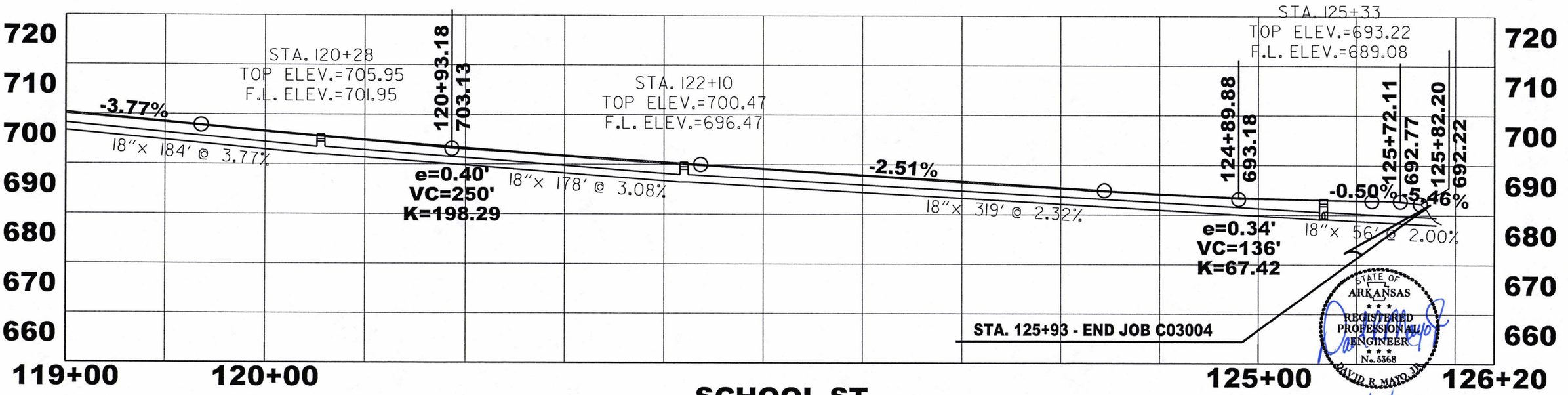
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		C03004	29	51

④ PLAN AND PROFILE SHEETS

LEFT SIDE

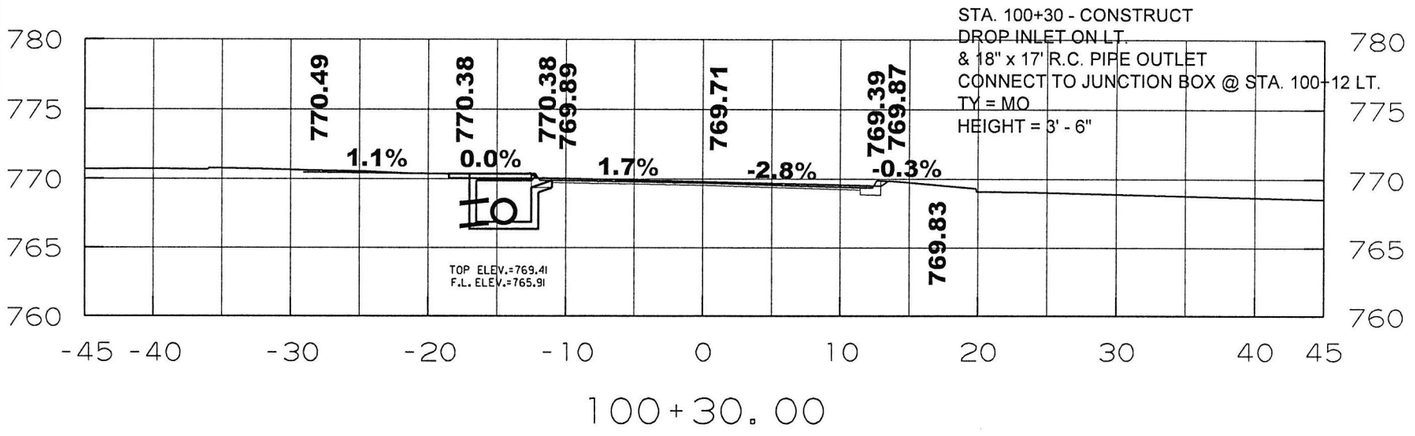


RIGHT SIDE

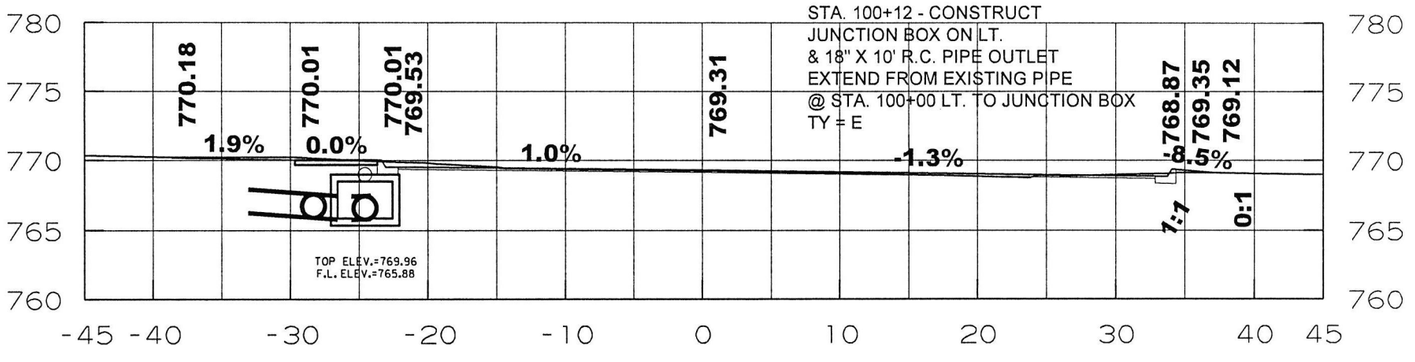


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5368
DAVID R. MAYO JR.
7/27/2017

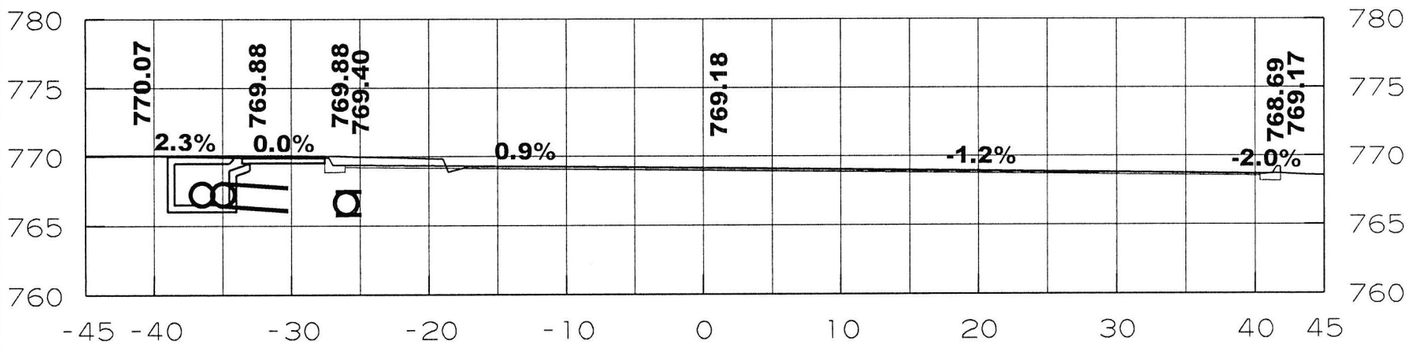
SCHOOL ST.



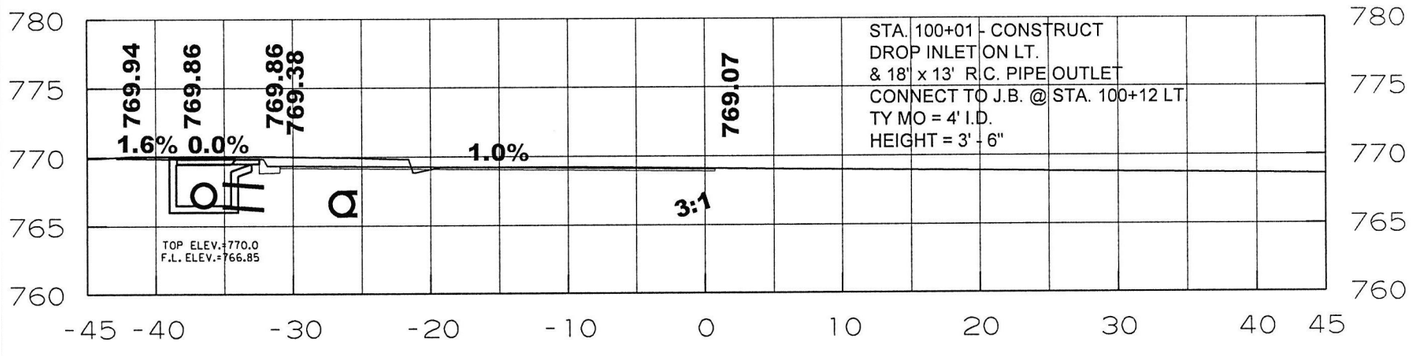
100+30.00



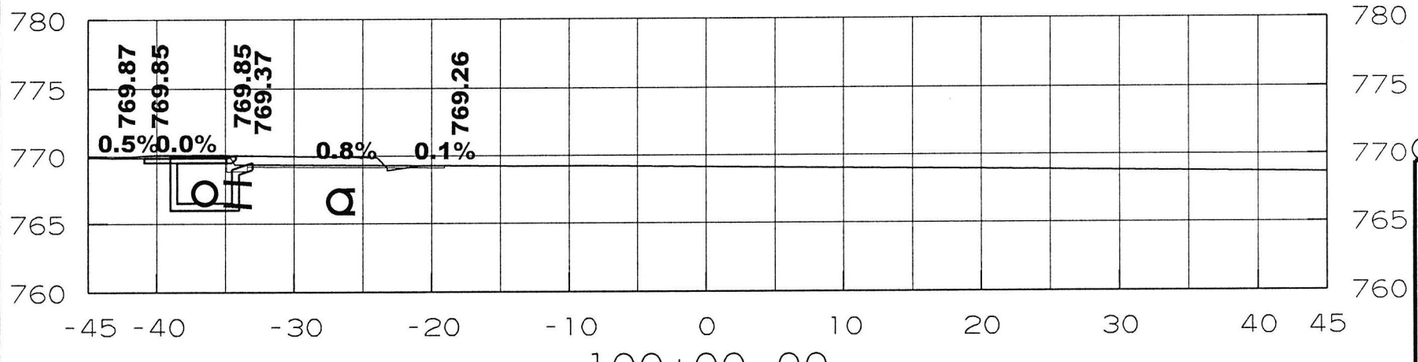
100+12.00



100+03.00



100+01.00

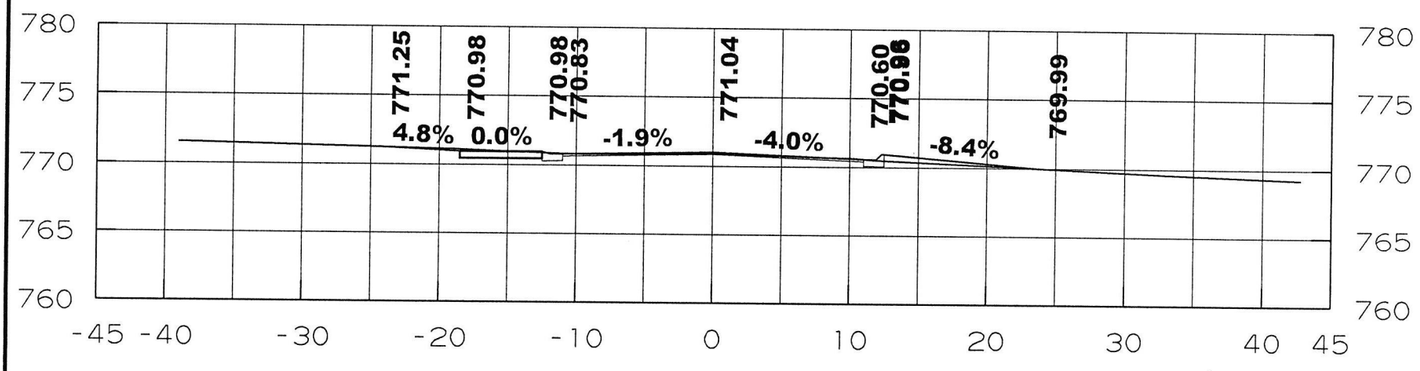


100+00.00
MATCH EXISTING
BEGIN JOB C03004

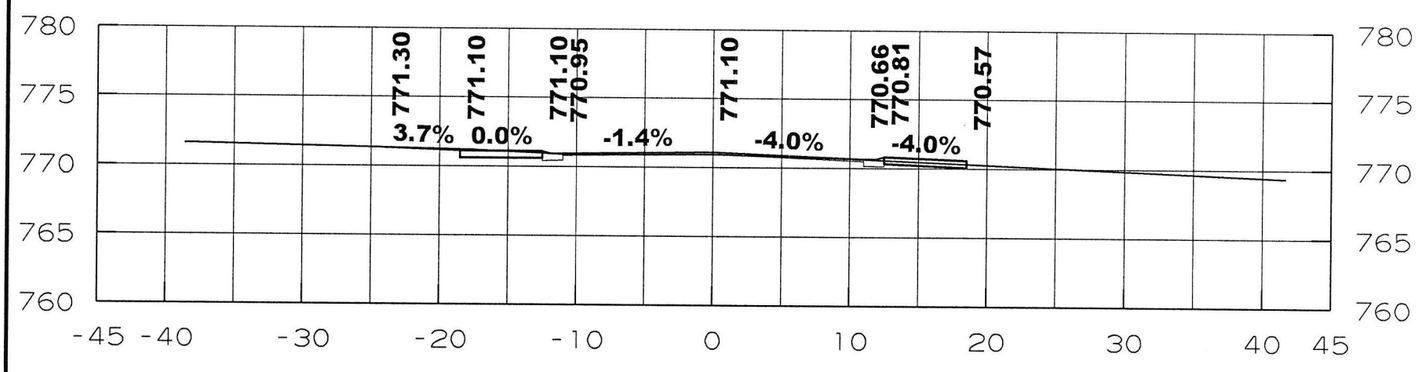
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		30	51

JOB NO. C03004

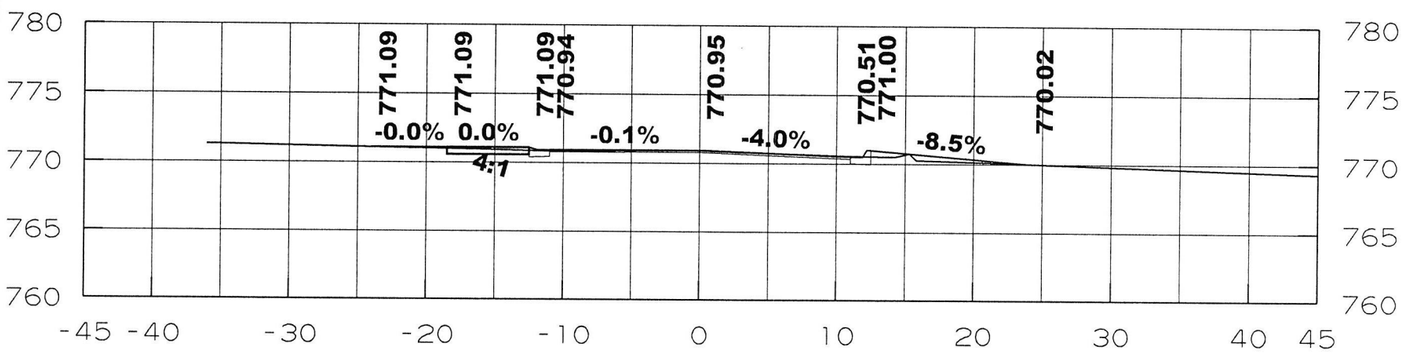
4 CROSS SECTIONS STA. 100+00.00 TO 100+30.00



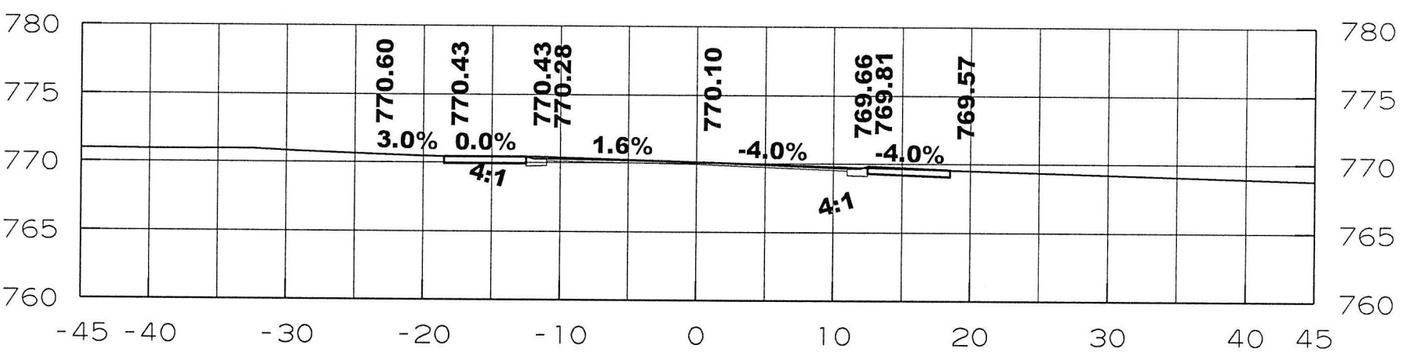
101+50.00



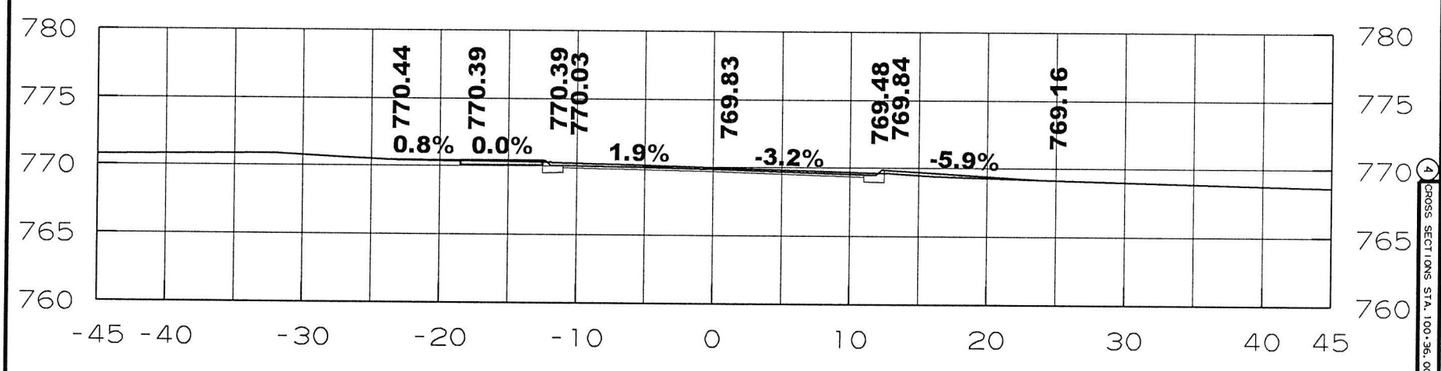
101+36.00



101+00.00

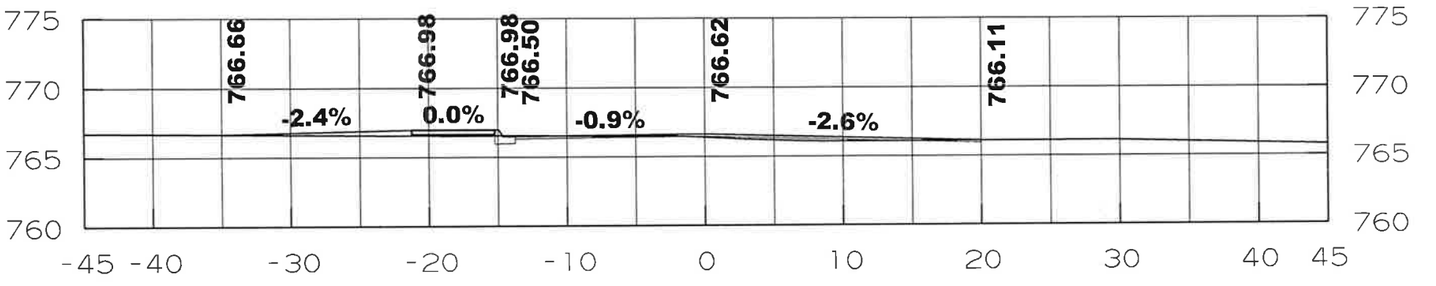


100+50.00

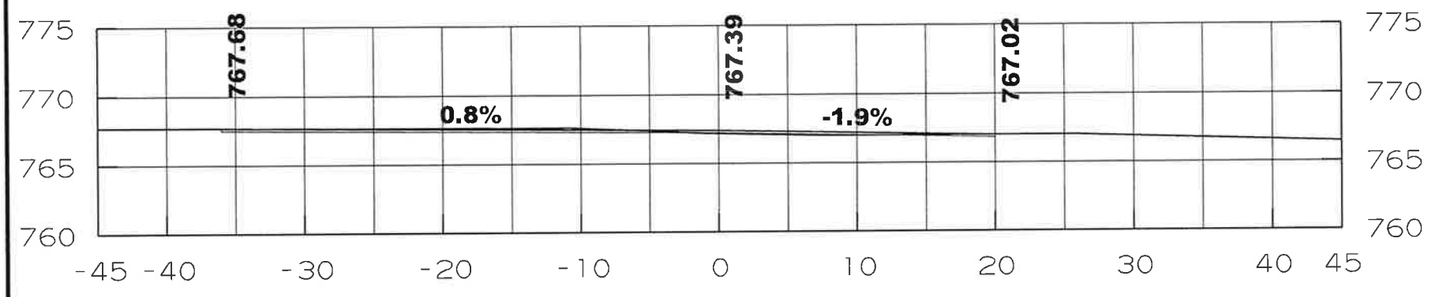


100+36.00

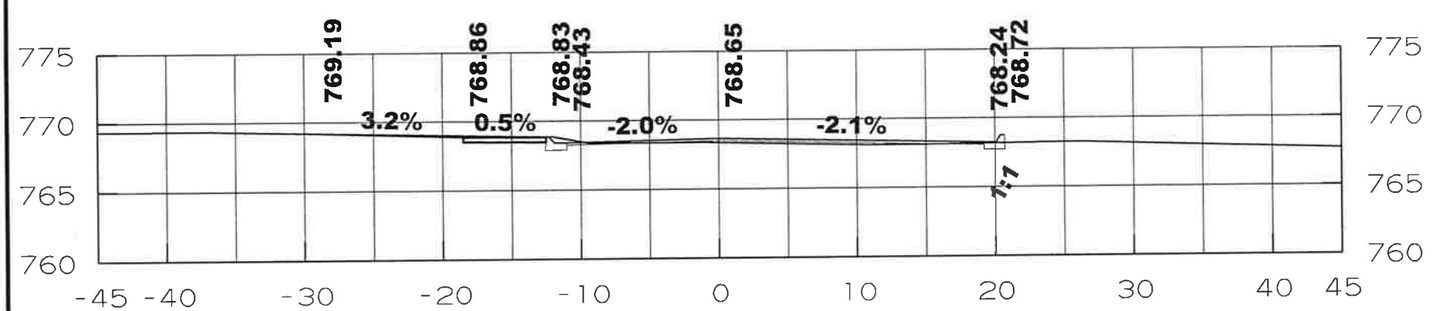
DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
4	
CROSS SECTIONS STA. 100+36.00 TO 101+50.00	
JOB NO.	6
ARK.	
FED.ROAD DIST.NO.	
STATE	
CO3004	
FED.AID PROJ.NO.	
31	
SHEET NO.	
51	
TOTAL SHEETS	



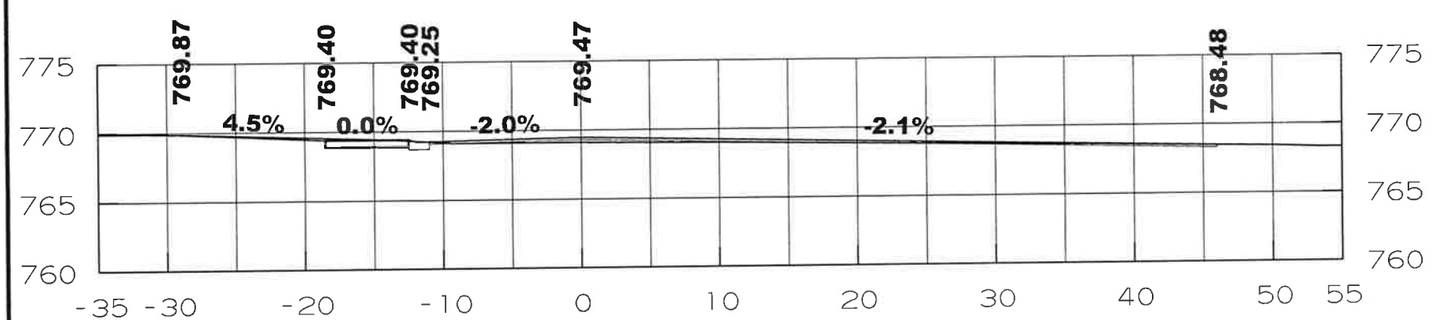
103+00.00



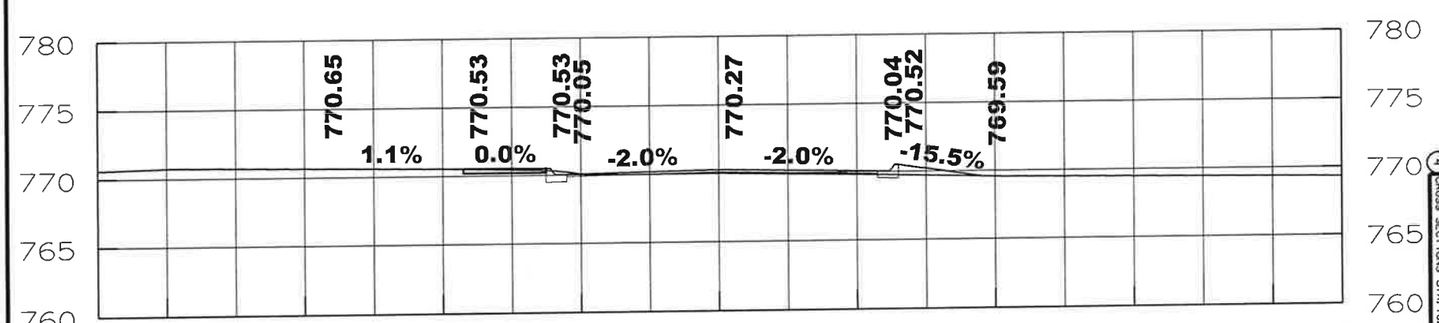
102+81.00



102+50.00



102+28.00



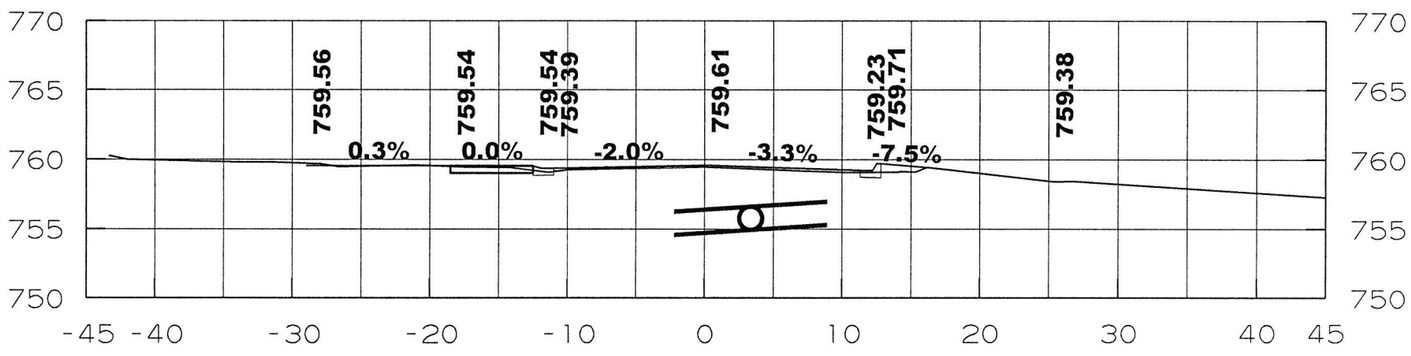
102+00.00

4 CROSS SECTIONS STA. 102+00.00 TO 103+00.00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
08-01-17			

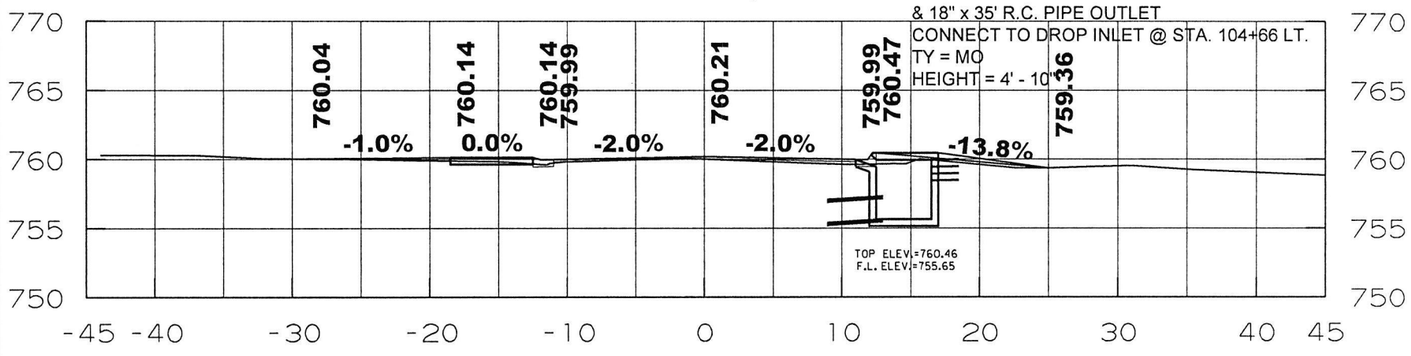
JOB NO.	STATE	FED.RD. PROJ.NO.	SHEET NO.	TOTAL SHEETS
C03004	ARK.		32	51

FED.RD. DIV.NO. 6

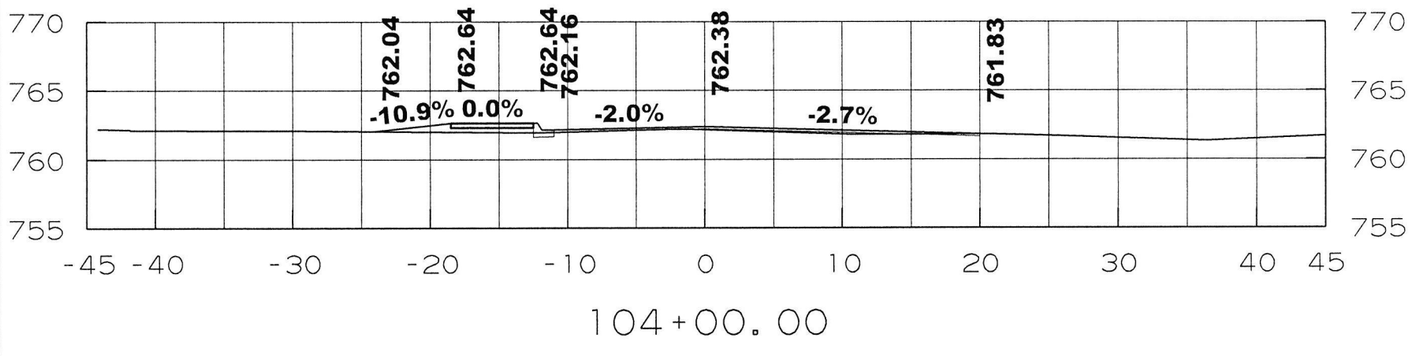


104+50.00

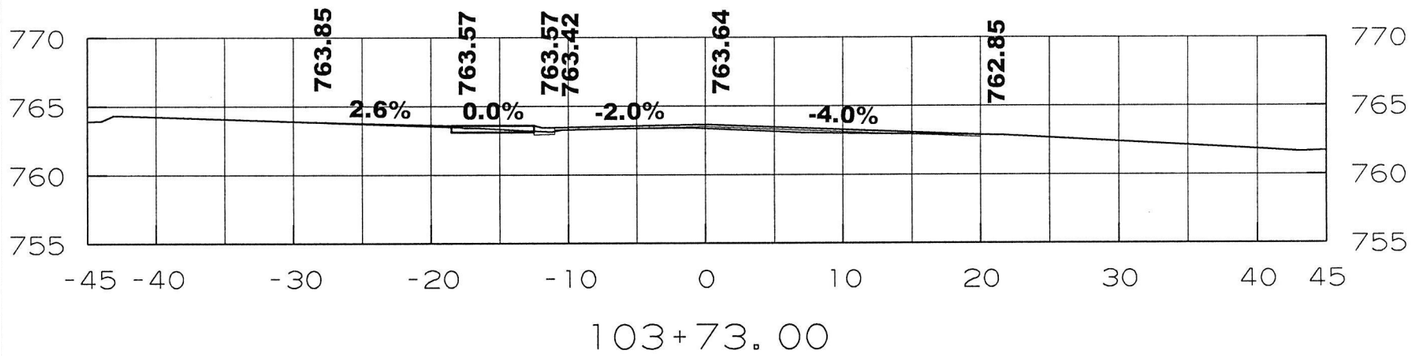
STA. 104+40 - CONSTRUCT
DROP INLET ON RT.
WITH BACK OPENING
& 18" x 35' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 104+66 LT.
TY = MO
HEIGHT = 4' - 10"



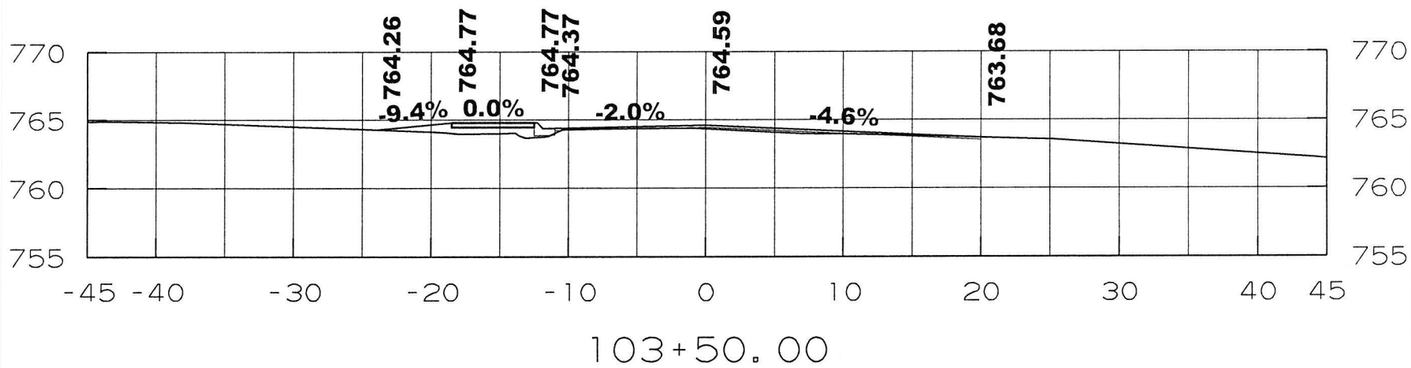
104+40.00



104+00.00



103+73.00

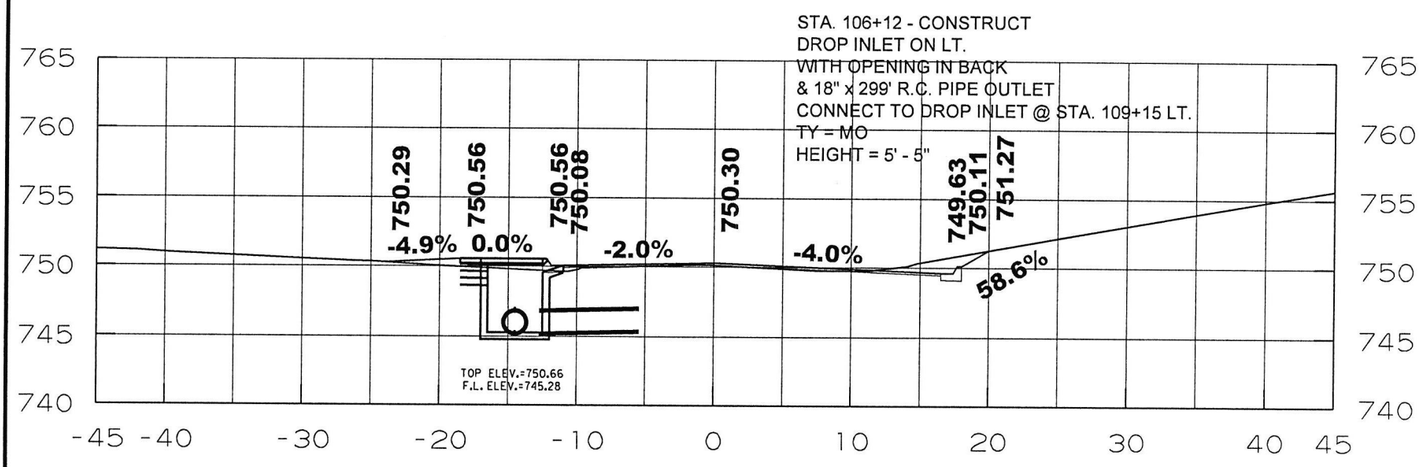


103+50.00

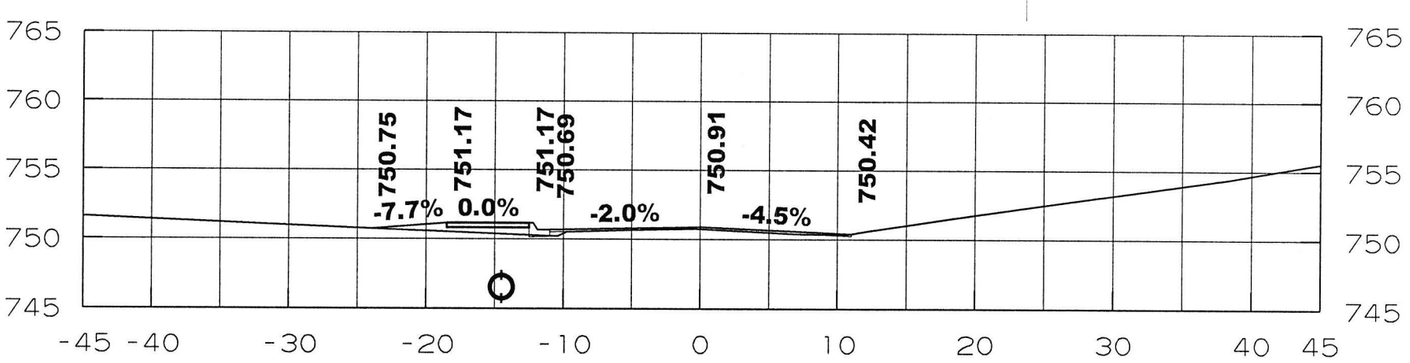
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIV.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		33	51

4 CROSS SECTIONS STA. 103+50.00 TO 104+50.00

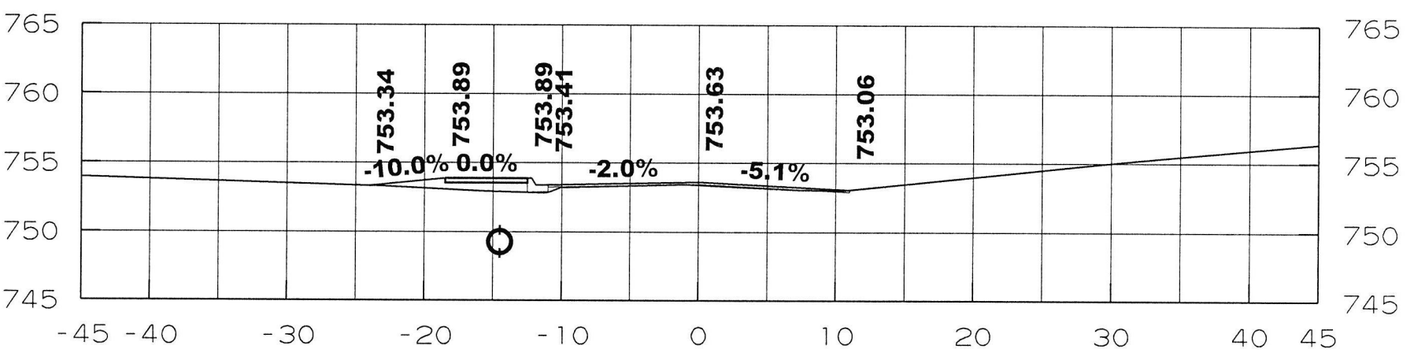
JOB NO. C03004



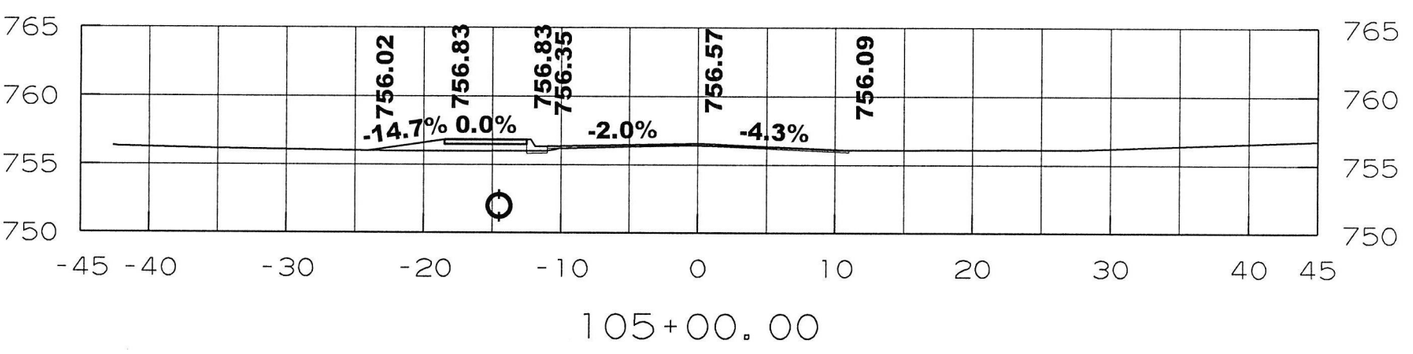
106+12.00



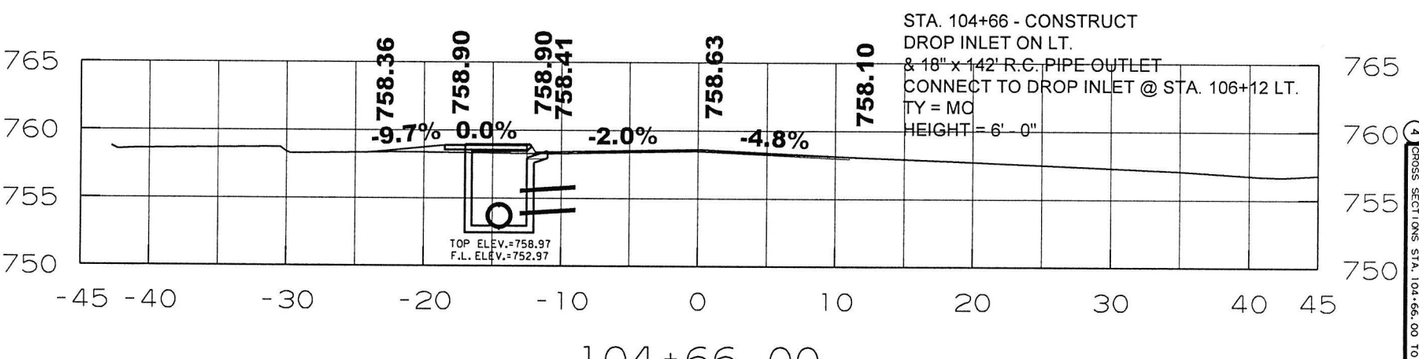
106+00.00



105+50.00



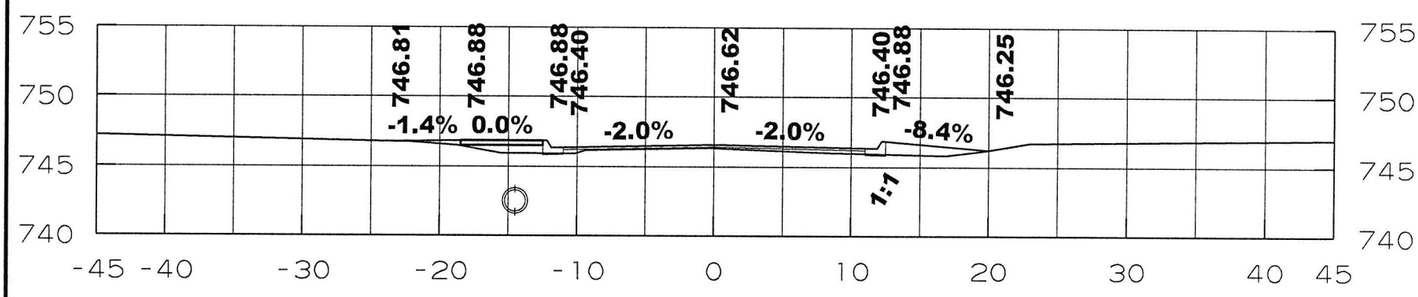
105+00.00



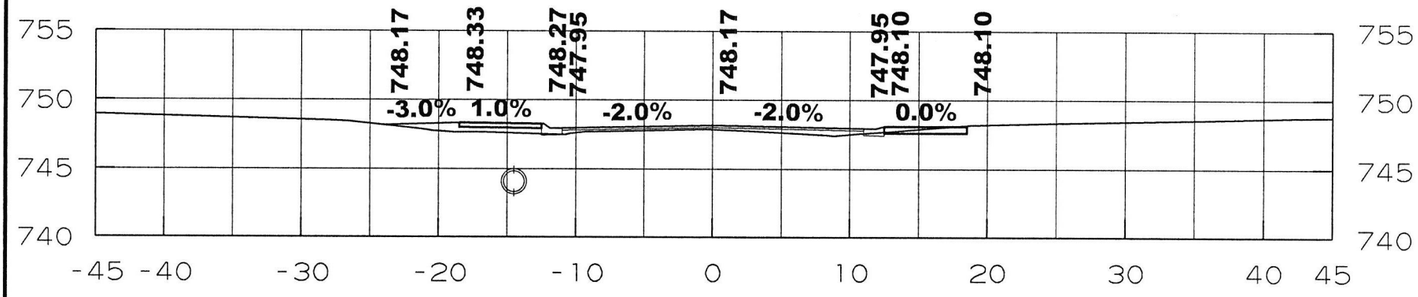
104+66.00

DATE REVISED	
DATE PLANS	
DATE REVISED	
DATE PLANS	
FED. ROAD REGION	6
STATE	ARK.
FED.AID PROJ.NO.	
SHEET NO.	34
TOTAL SHEETS	51
JOB NO.	C03004

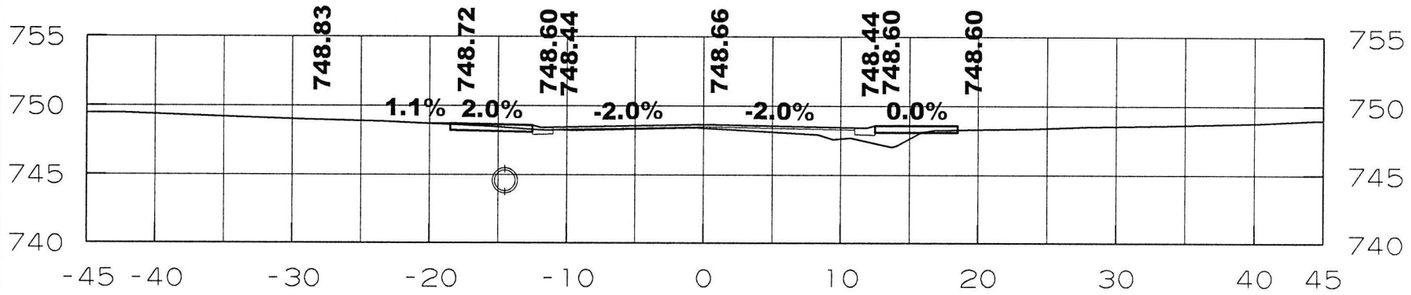
4 CROSS SECTIONS STA. 104+66.00 TO 106+12.00



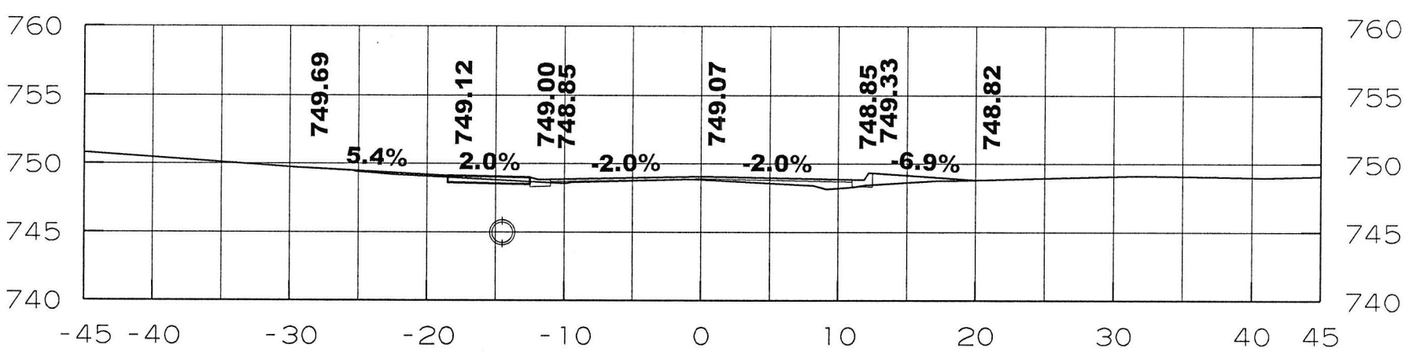
107+00.00



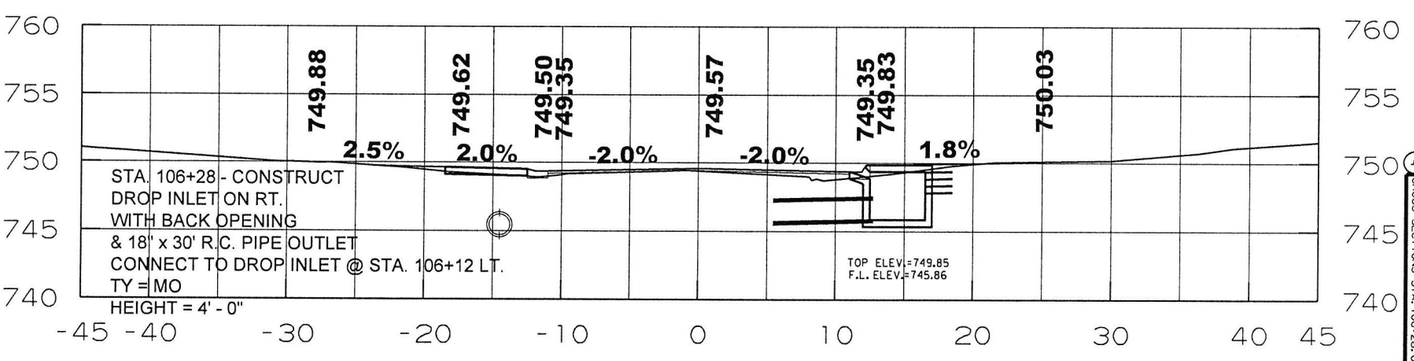
106+62.00



106+50.00



106+40.00

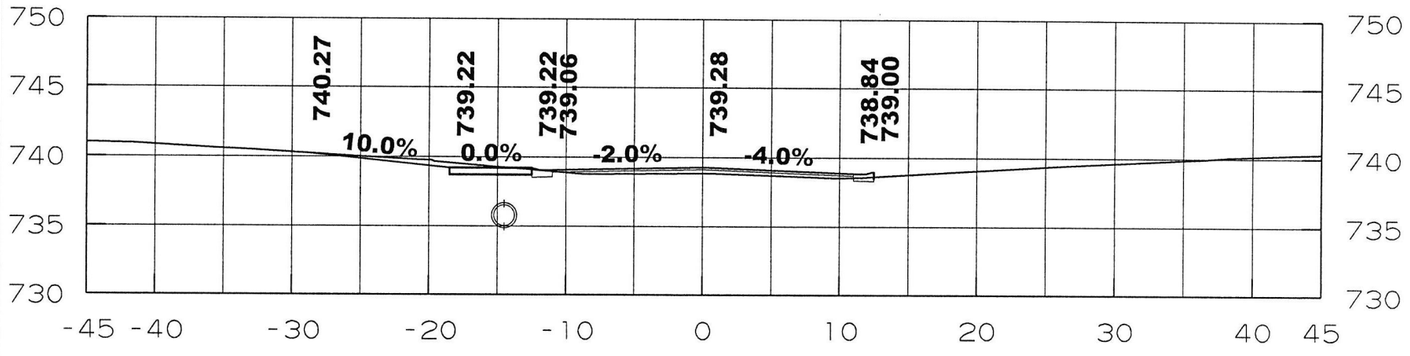


106+28.00

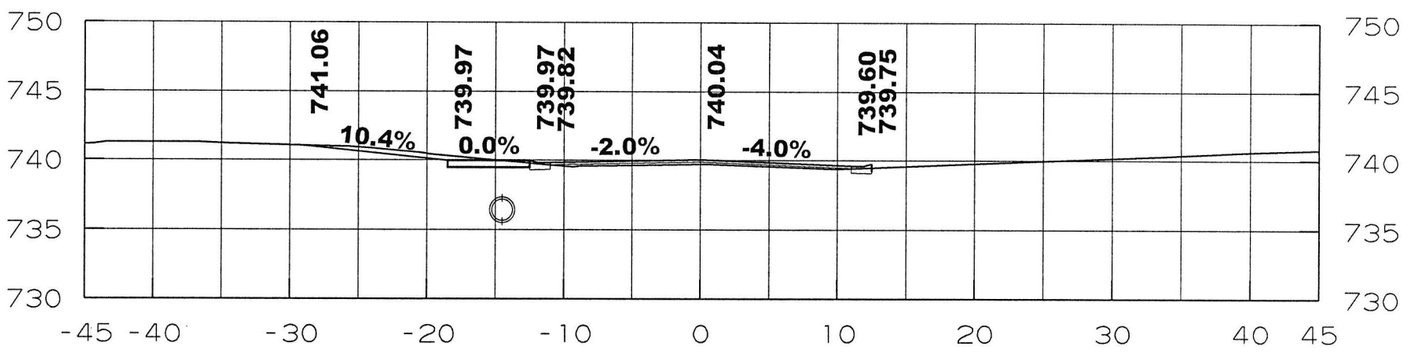
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

4 CROSS SECTIONS STA. 106+28.00 TO 107+00.00

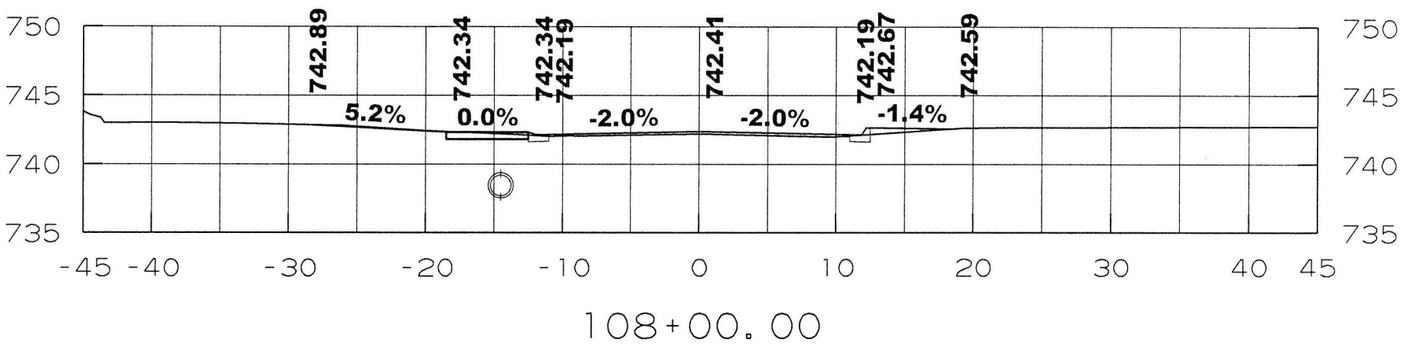
JOB NO.	FED.ROD. DIV.NO.
C03004	6
STATE	
ARK.	
FED.AID PROJ.NO.	
SHEET NO.	TOTAL SHEETS
35	51



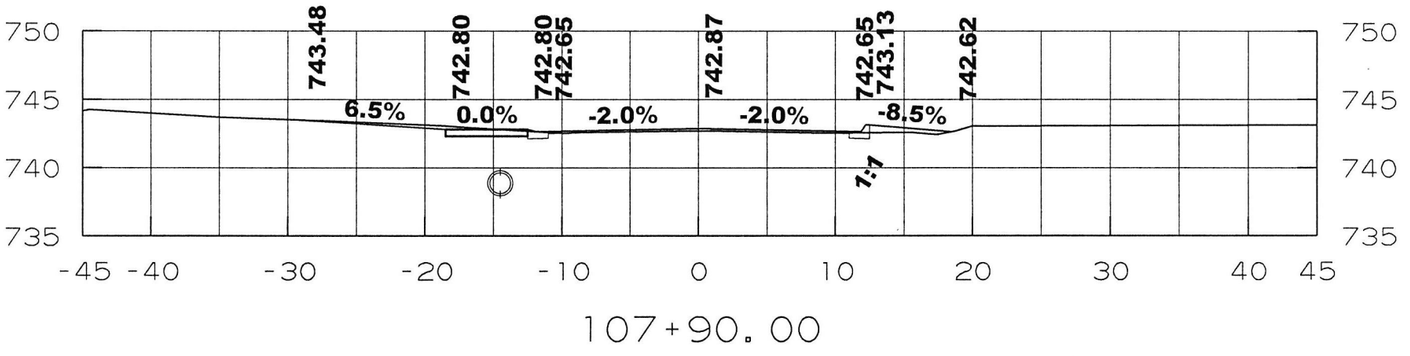
108+66.00



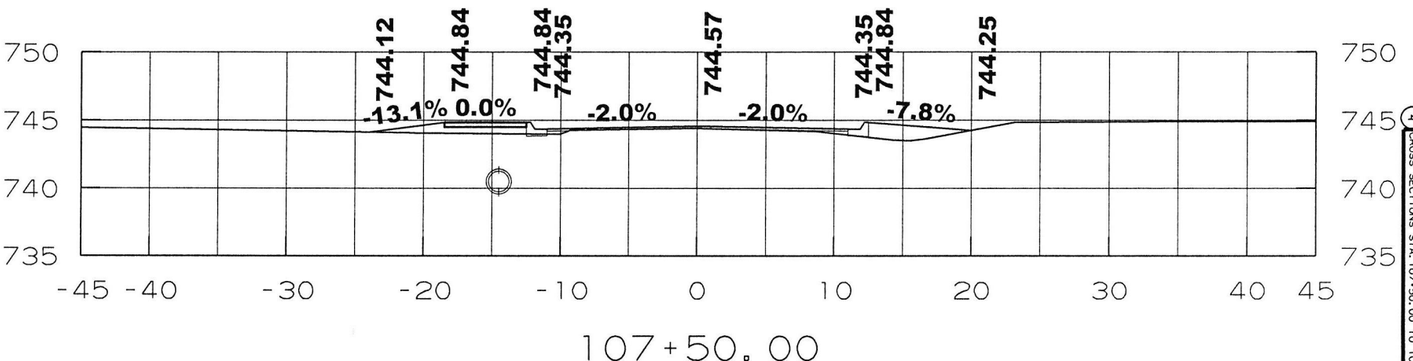
108+50.00



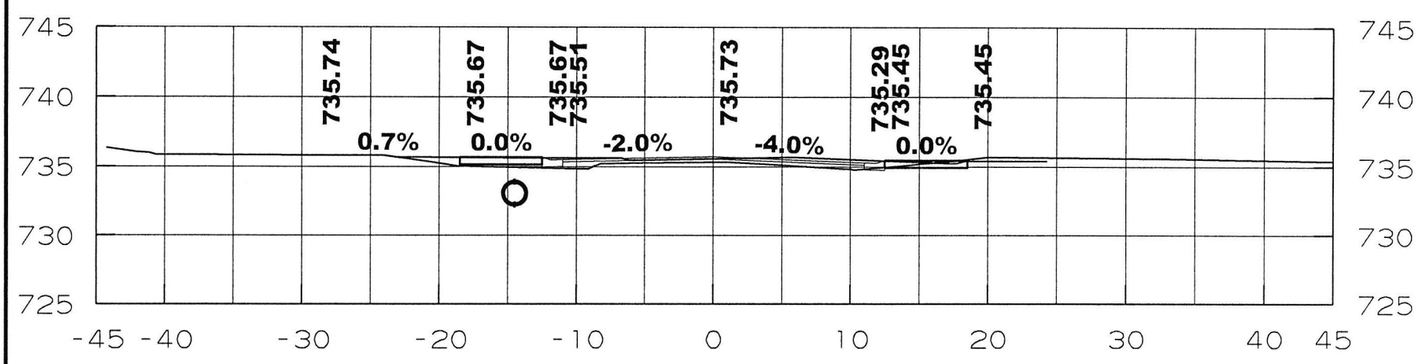
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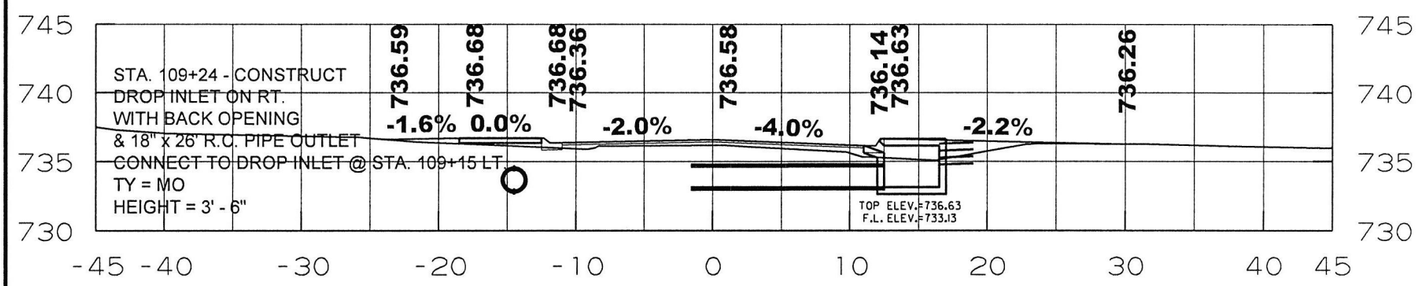
107+90.00



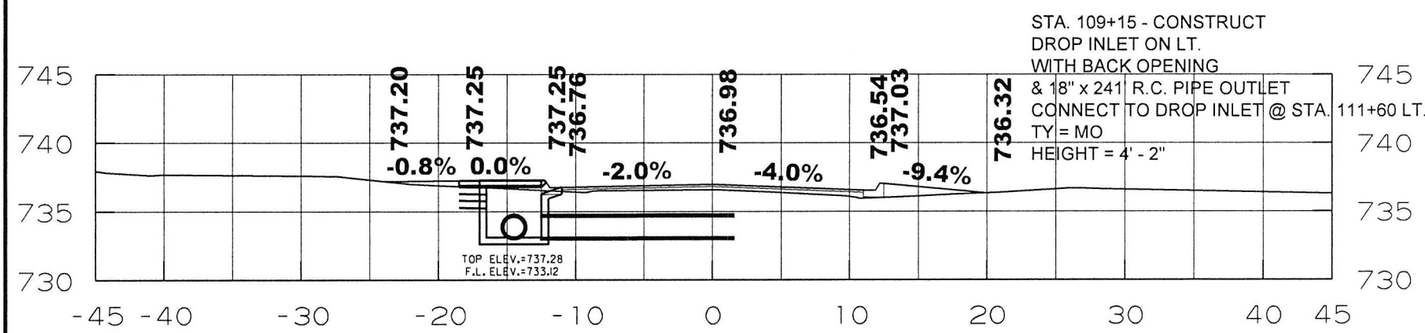
107+50.00



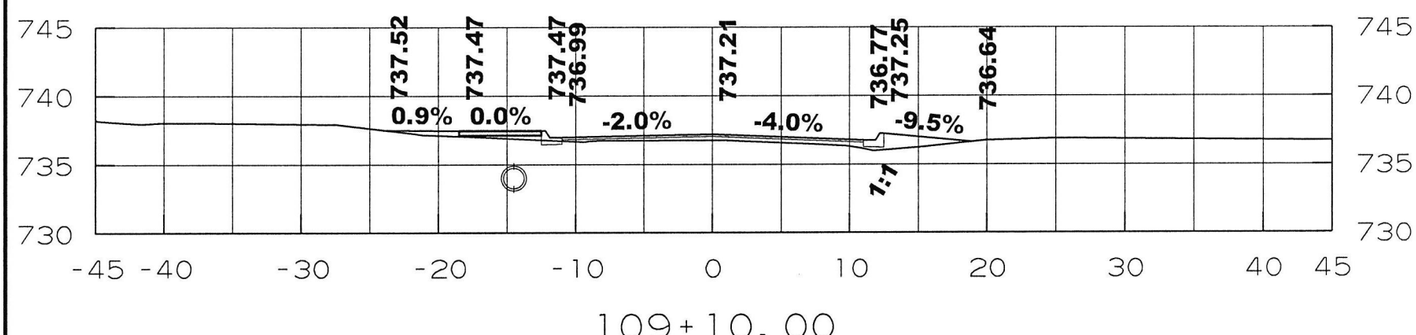
109+44.00



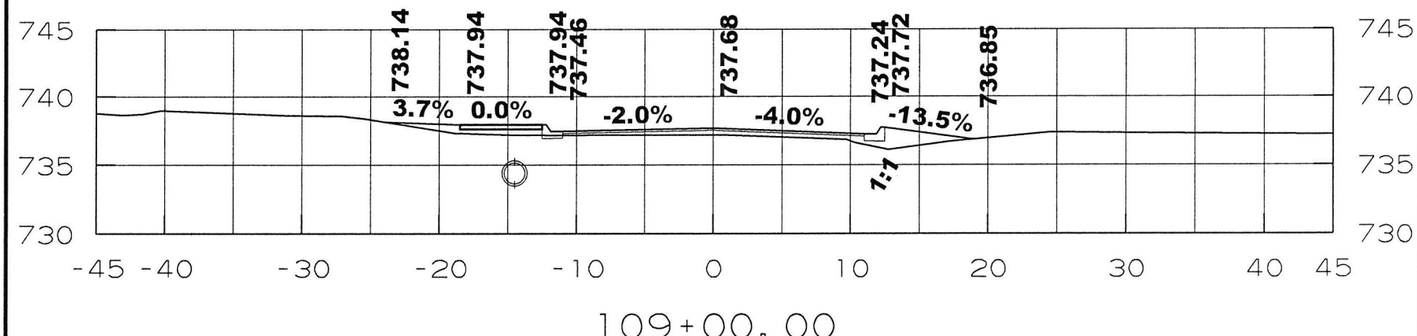
109+24.00



109+15.00



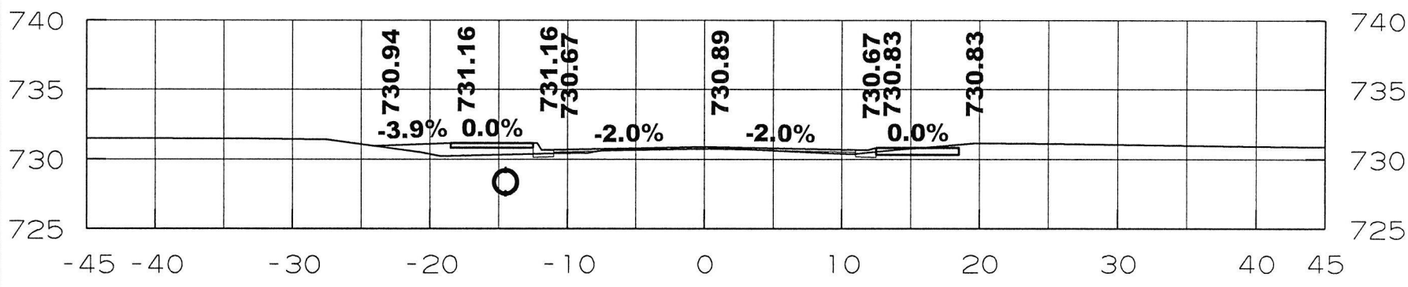
109+10.00



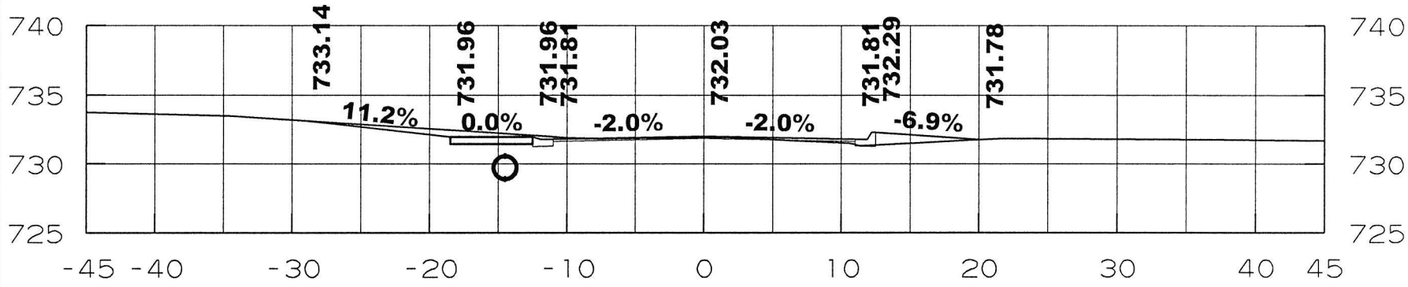
109+00.00

DATE REVISED							
DATE FILMED							
DATE REVISED							
DATE FILMED							
FED.RD. DIST. NO.	6						
STATE	ARK.						
FED.AID PROJ.NO.	C03004						
SHEET NO.	37						
TOTAL SHEETS	51						

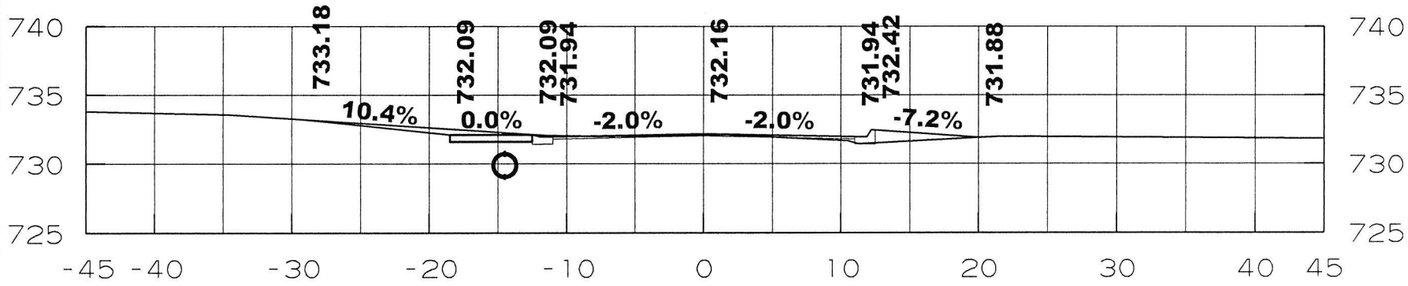
4 CROSS SECTIONS STA. 109+00.00 TO 109+44.00



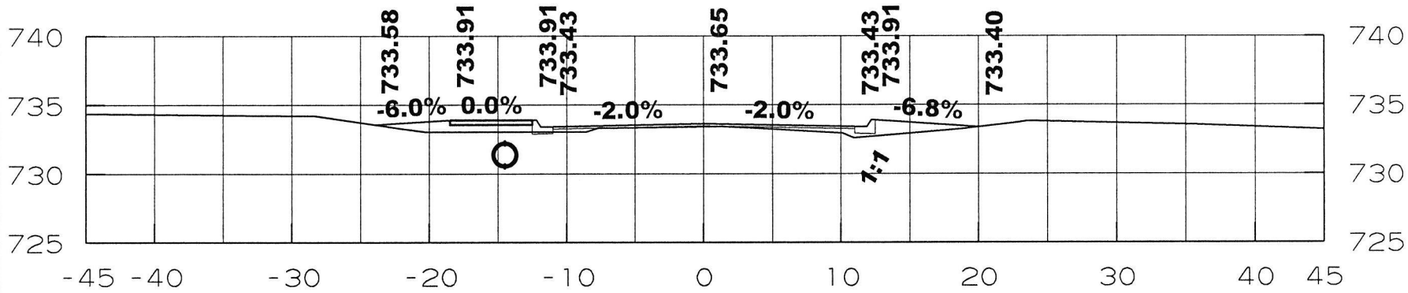
111+00.00



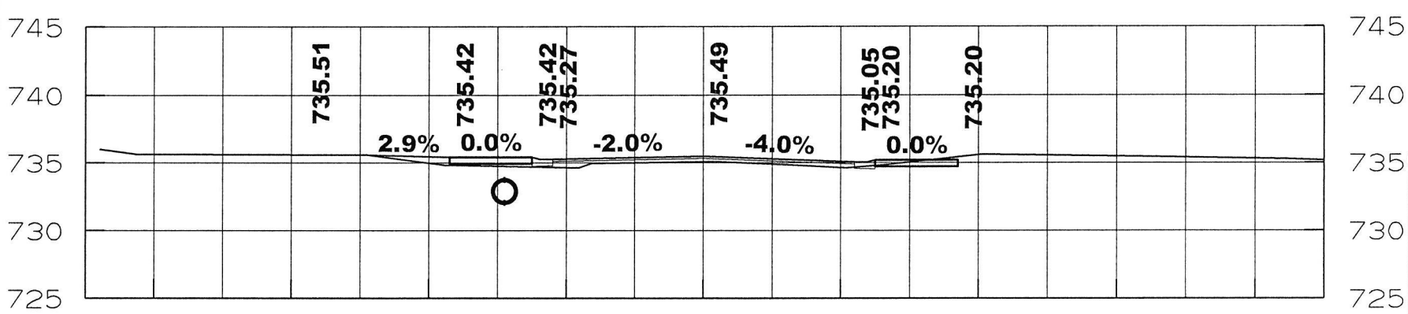
110+55.00



110+50.00

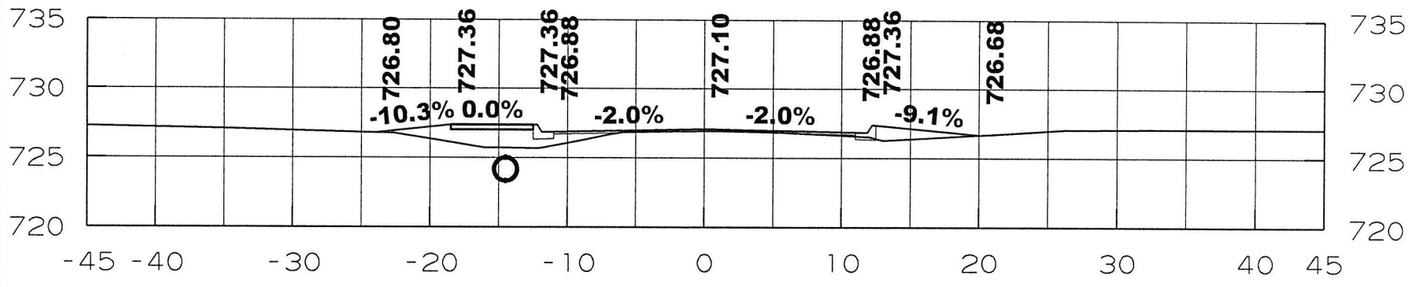


110+00.00

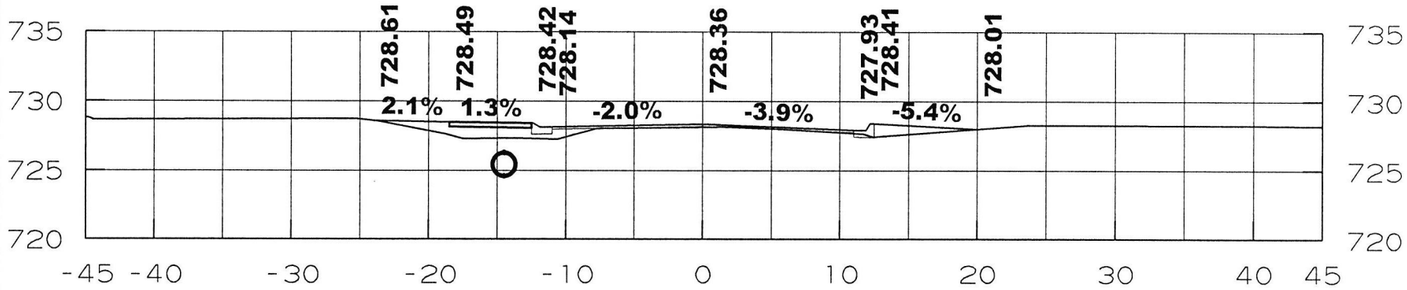


109+50.00

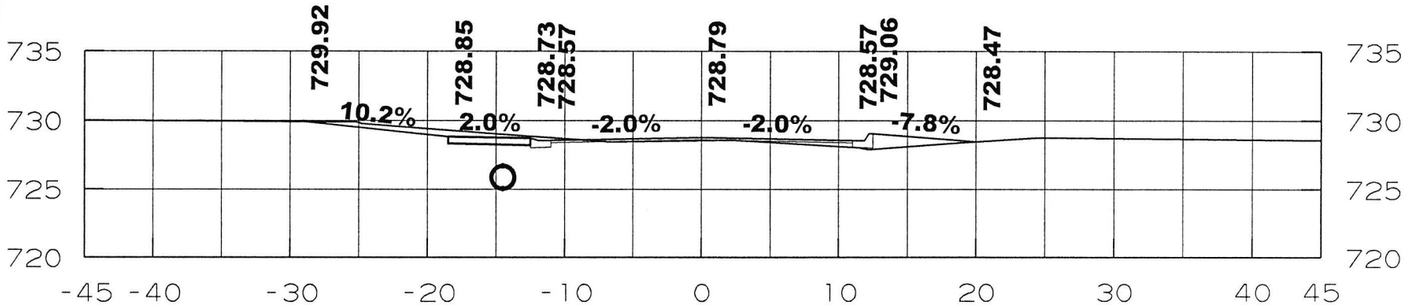
						DATE REVISED	
						DATE PLOTTED	
						DATE REVISED	
						DATE FILMED	
4	CROSS SECTIONS STA. 109+50.00 TO 111+00.00					FED.ROD. DIV.NO.	6
		JOB NO.		STATE	ARK.		
			C03004	FED.AID PROJ.NO.			
			38	SHEET NO.			
			51	TOTAL SHEETS			



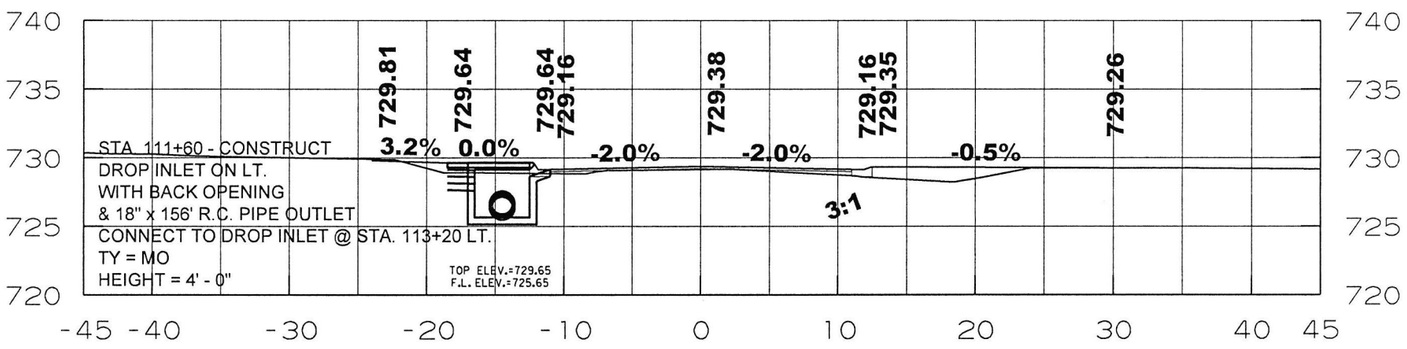
112+50.00



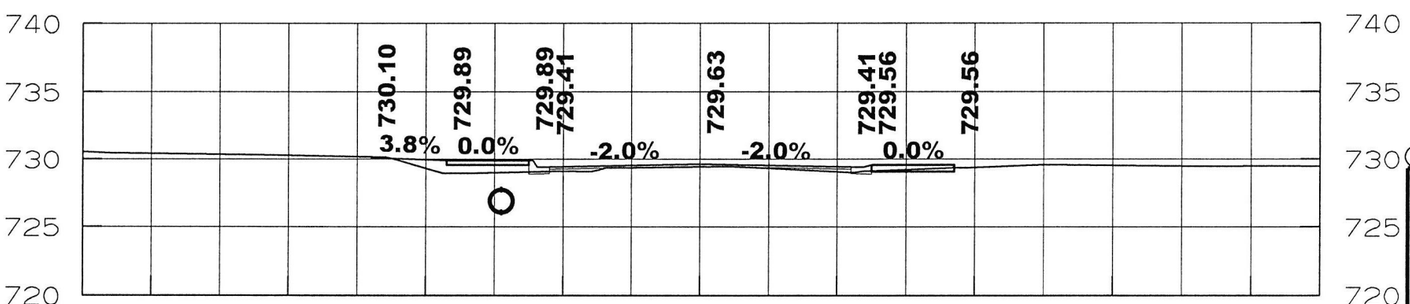
112+00.00



111+83.00



111+60.00

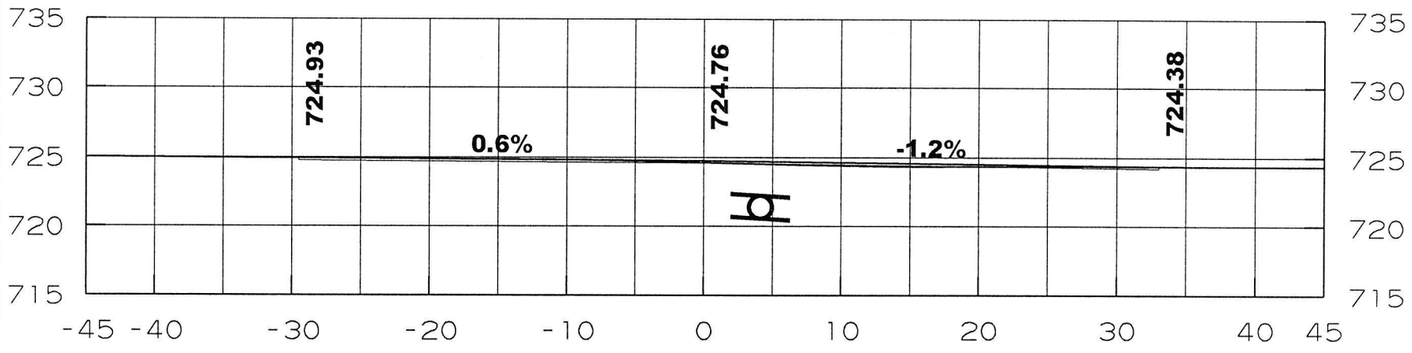


111+50.00

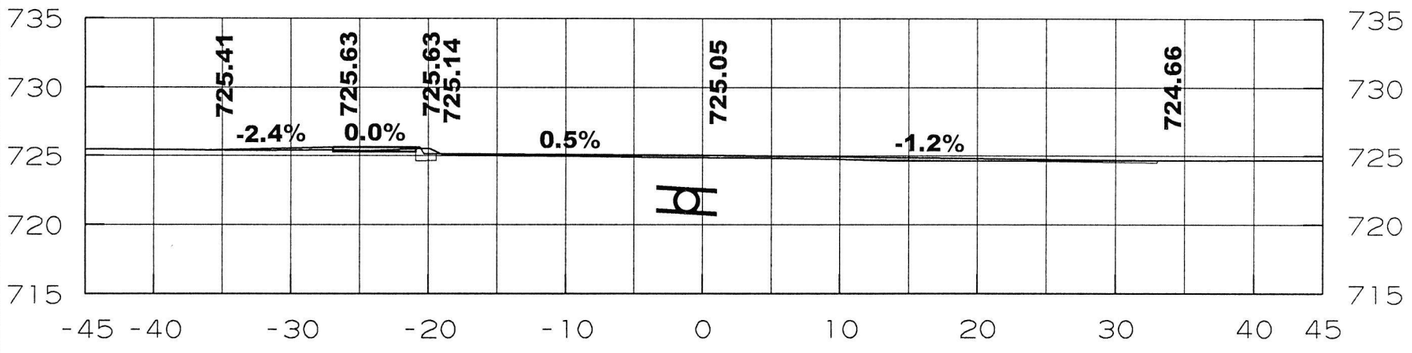
DATE REVISED	DATE FILMED
DATE REVISED	DATE FILMED
DATE REVISED	DATE FILMED

4 CROSS SECTIONS STA. 111+50.00 TO 112+50.00

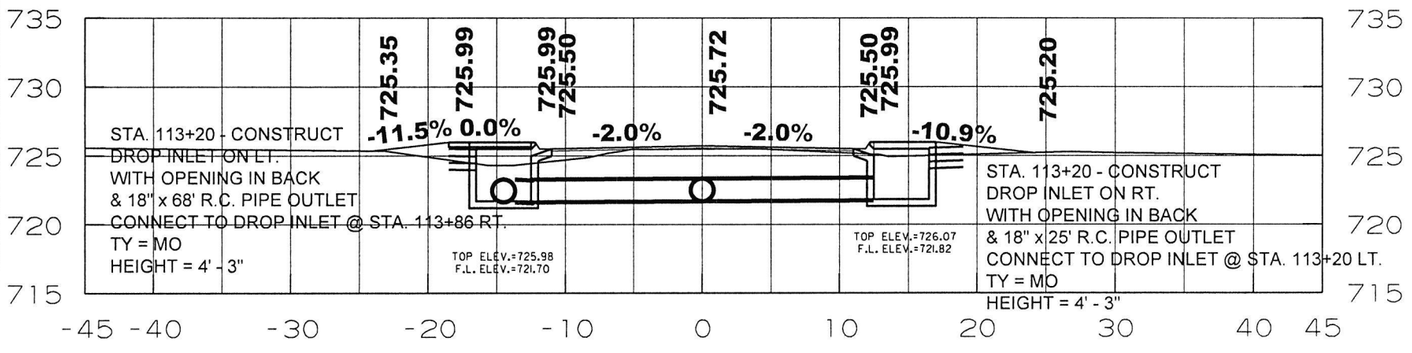
FEDERAL DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		C03004	39	51



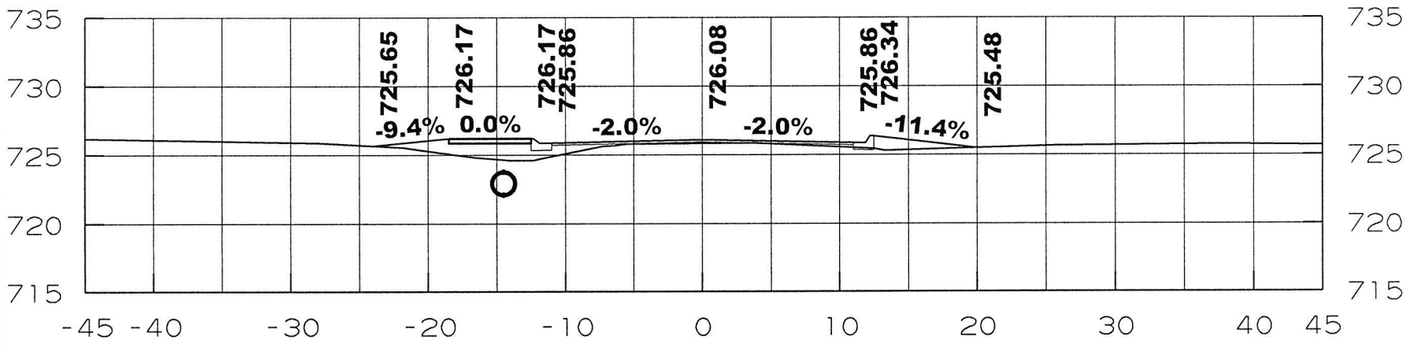
113+62.00



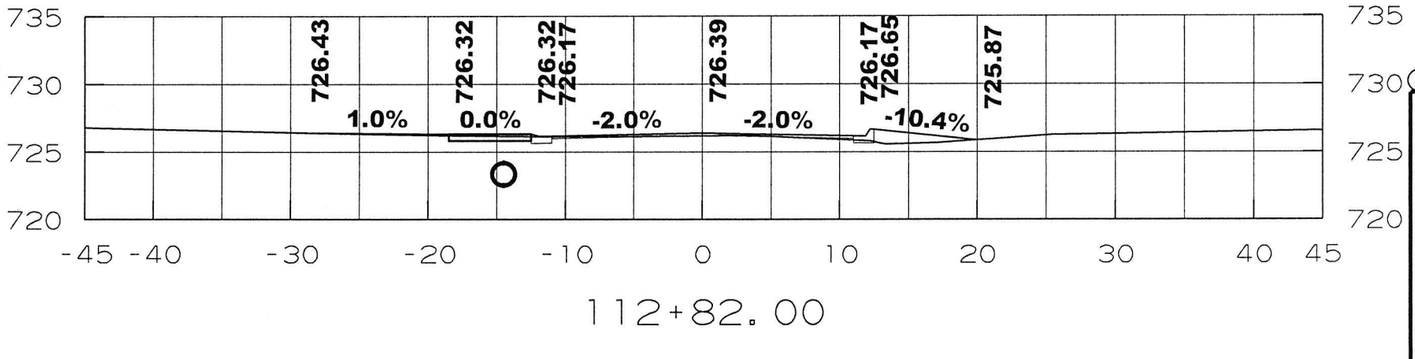
113+50.00



113+20.00



113+00.00

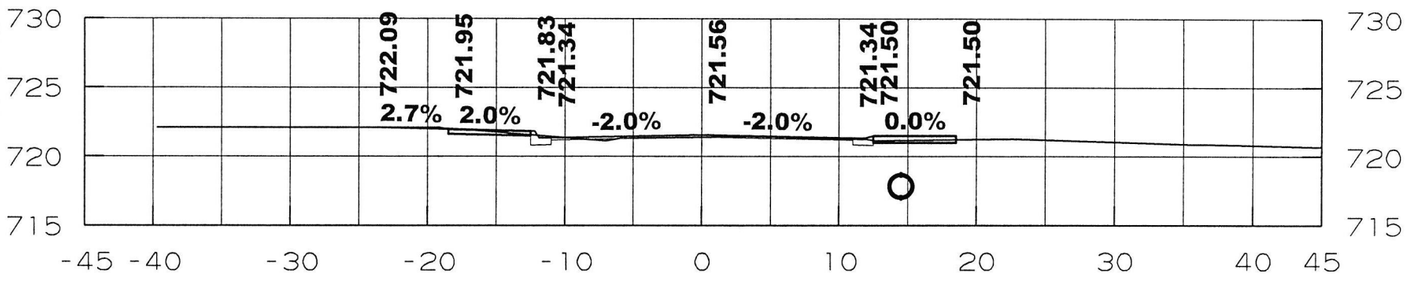


112+82.00

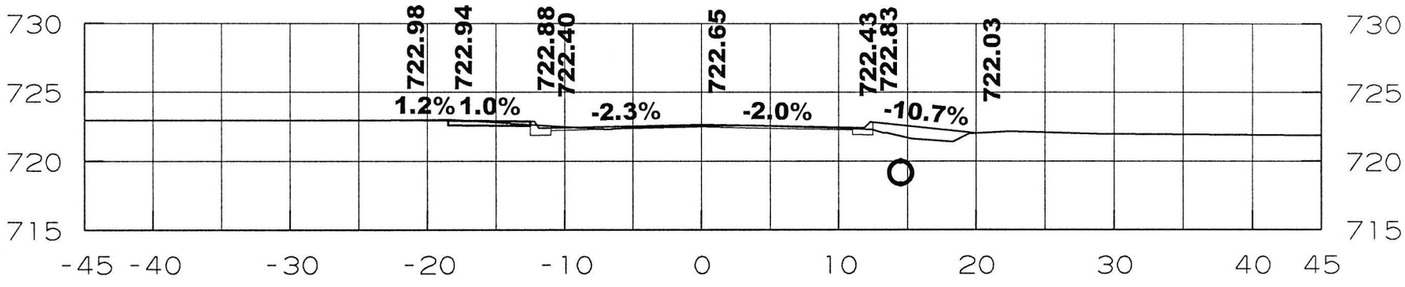
4 CROSS SECTIONS STA. 112+82.00 TO 113+62.00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

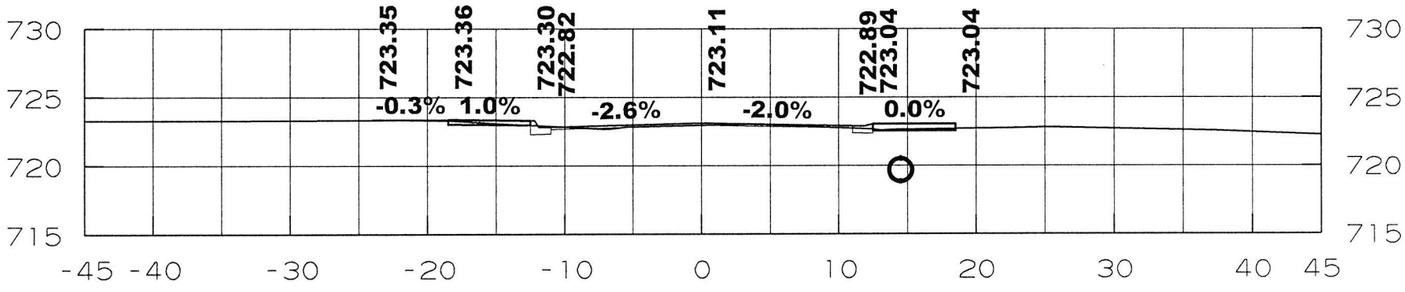
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.				
C03004			40	51



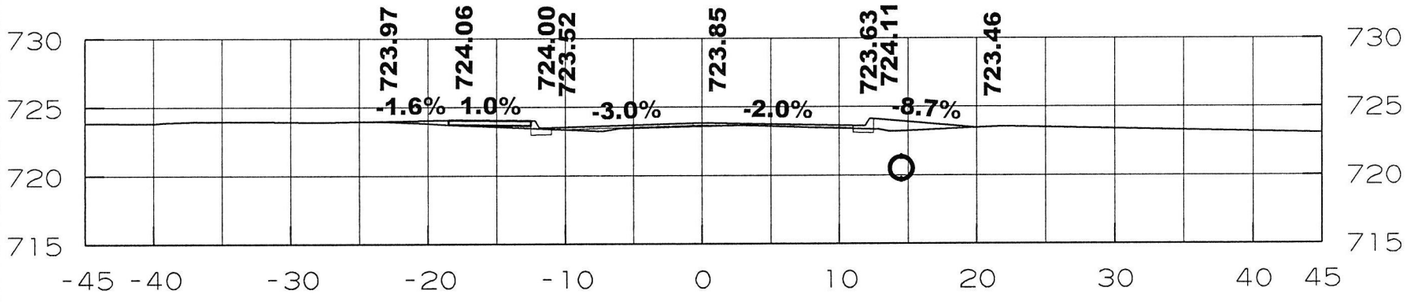
115+00.00



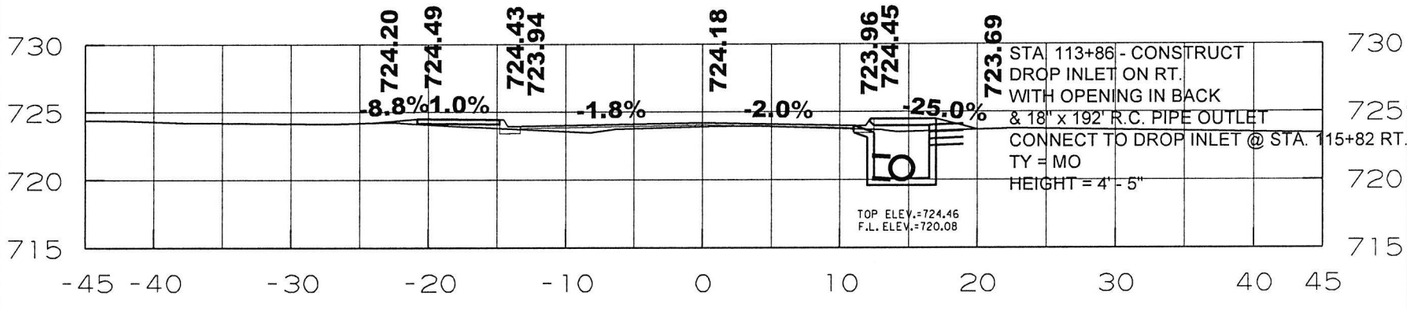
114+50.00



114+31.00



114+00.00



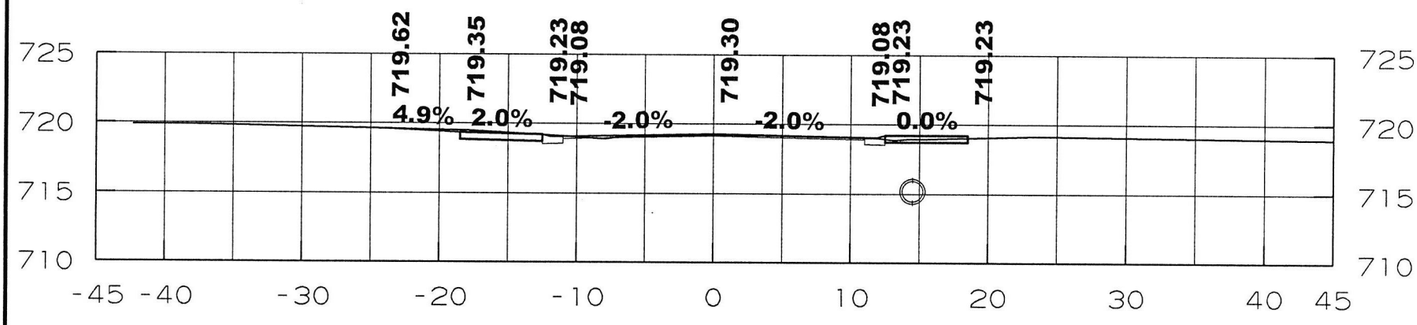
113+86.00

STA. 113+86 - CONSTRUCT
DROP INLET ON RT.
WITH OPENING IN BACK
& 18" x 192' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 115+82 RT.
TY = MO
HEIGHT = 4' - 5"

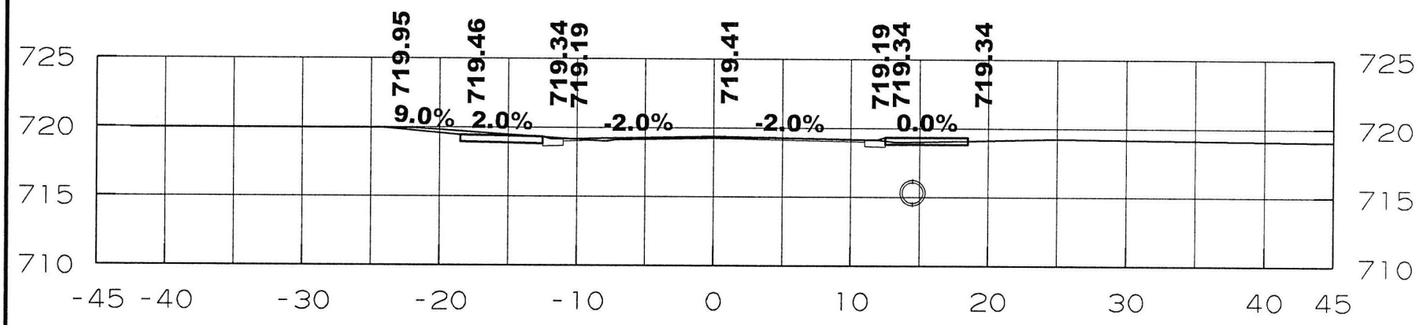
CROSS SECTIONS STA. 113+86.00 TO 115+00.00

DATE REVISED	DATE PLANED	DATE REVISED	DATE PLANED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	C03004	41	51

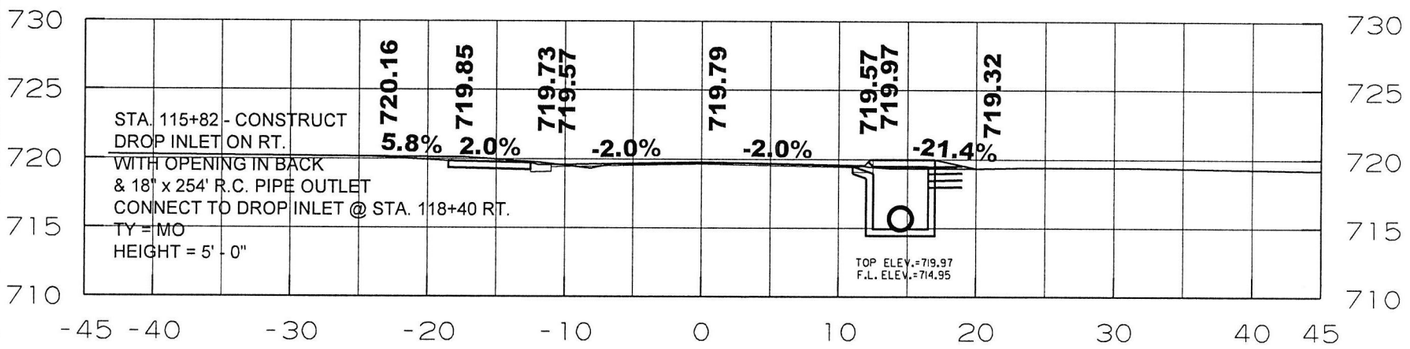
JOB NO.



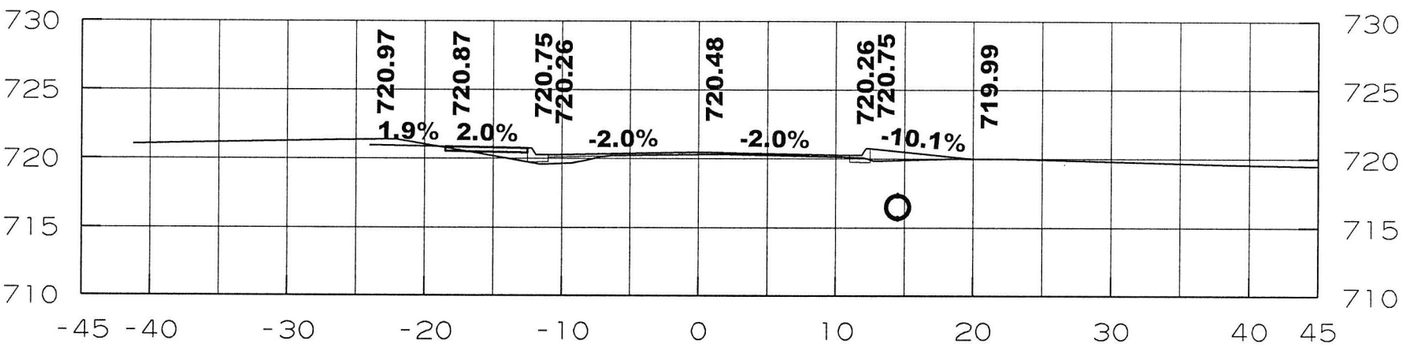
116+05.00



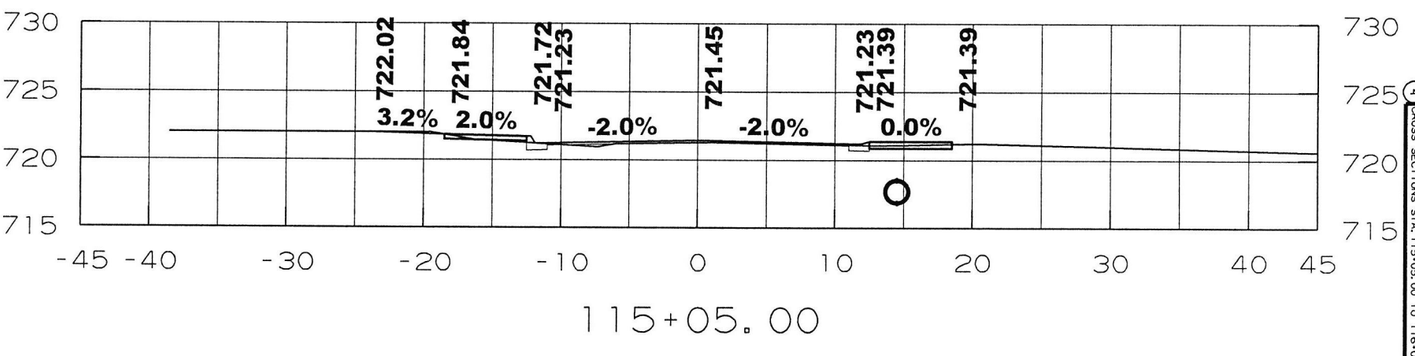
116+00.00



115+82.00



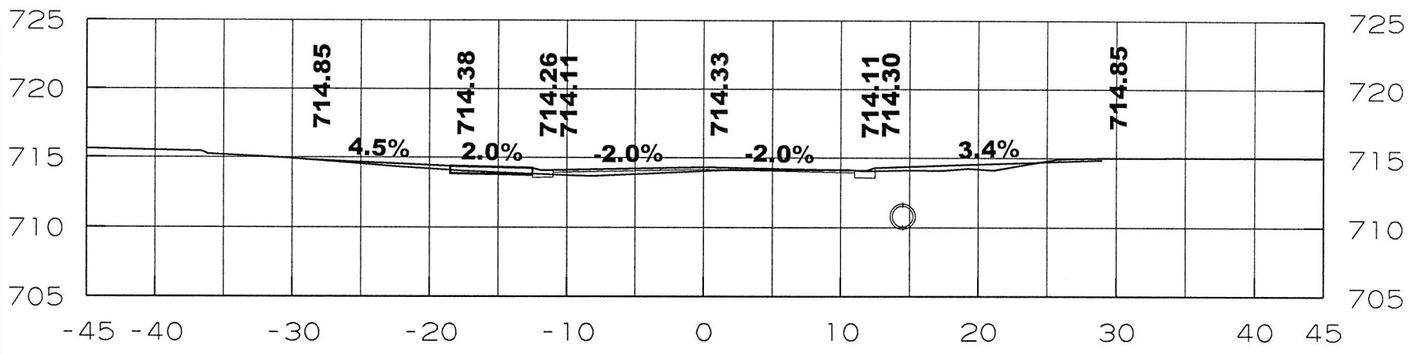
115+50.00



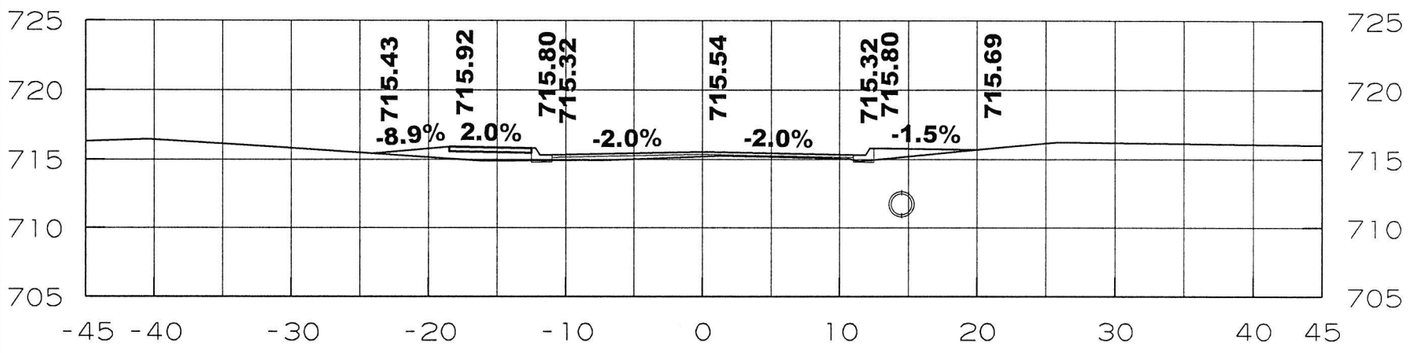
115+05.00

DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.ROAD DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	C03004
SHEET NO.	42
TOTAL SHEETS	51

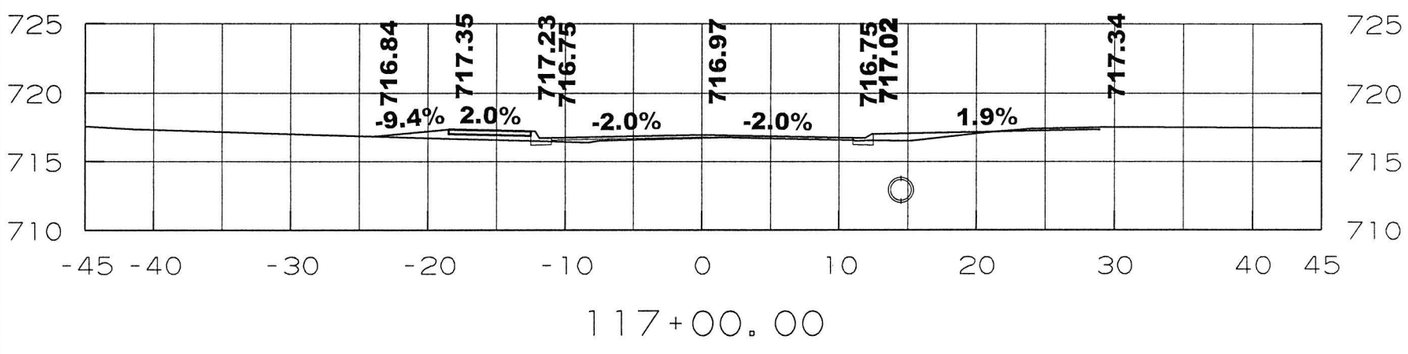
4 CROSS SECTIONS STA. 115+05.00 TO 116+05.00



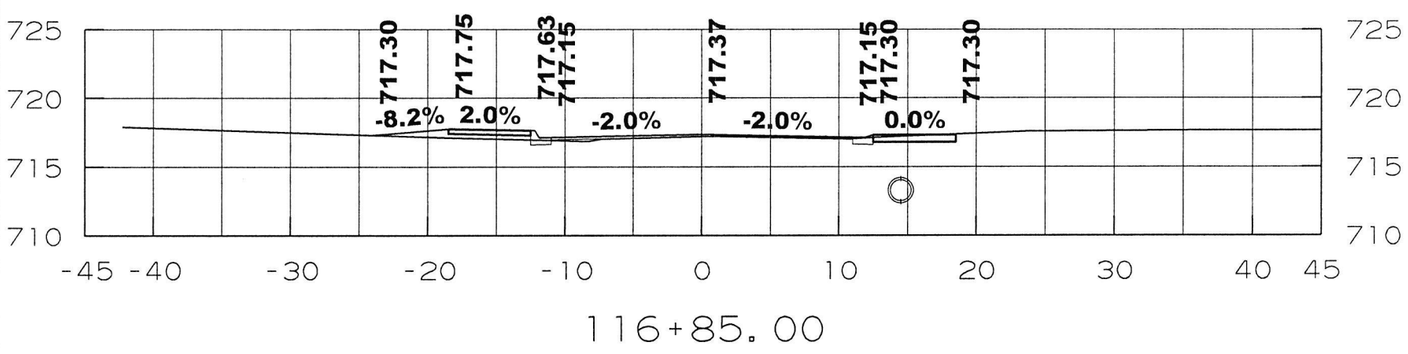
117+89.00



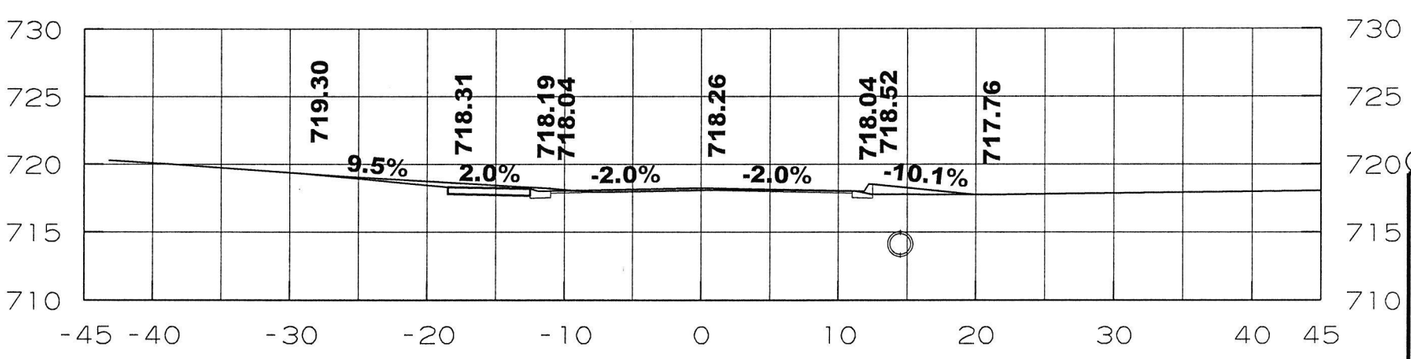
117+50.00



117+00.00



116+85.00

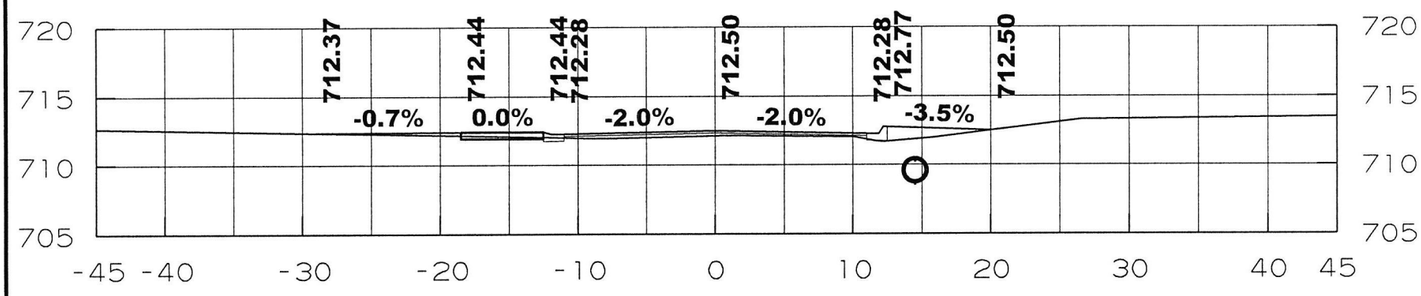


116+50.00

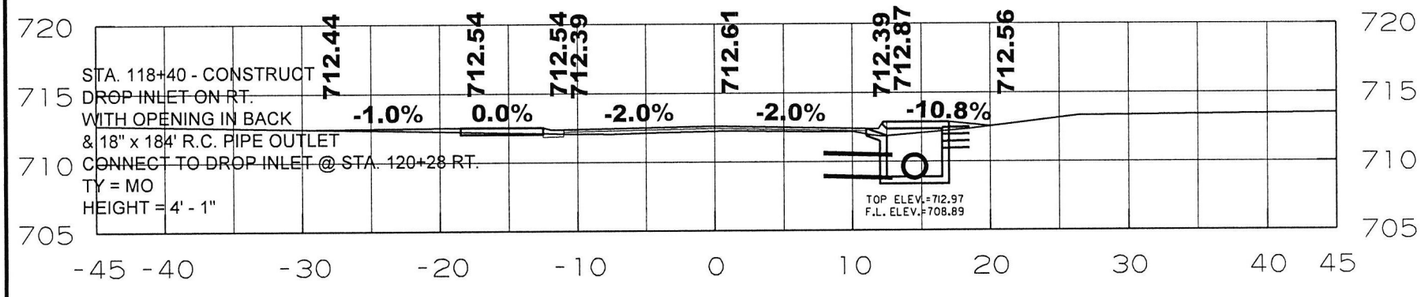
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FEDERAL DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		43	51

JOB NO. C03004

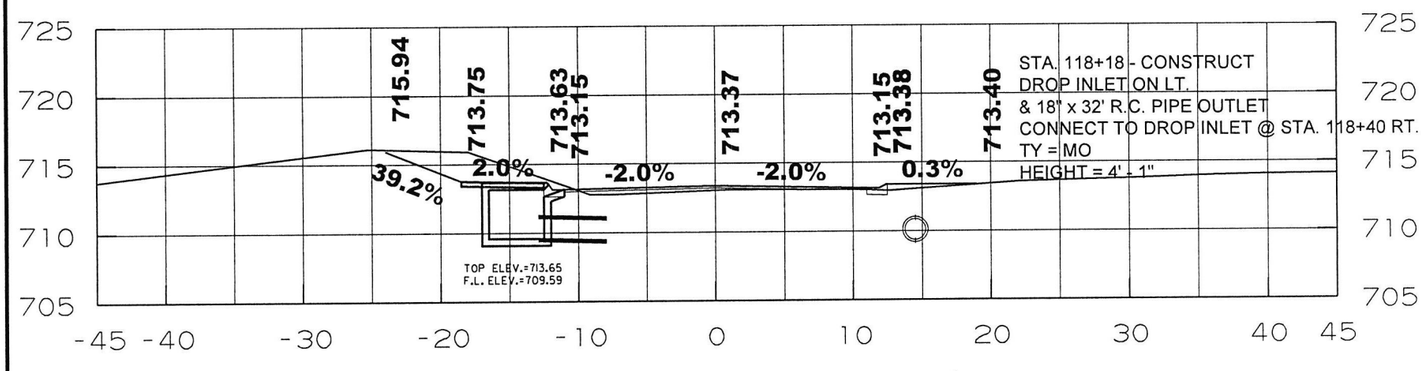
4 CROSS SECTIONS STA. 116+50.00 TO 117+89.00



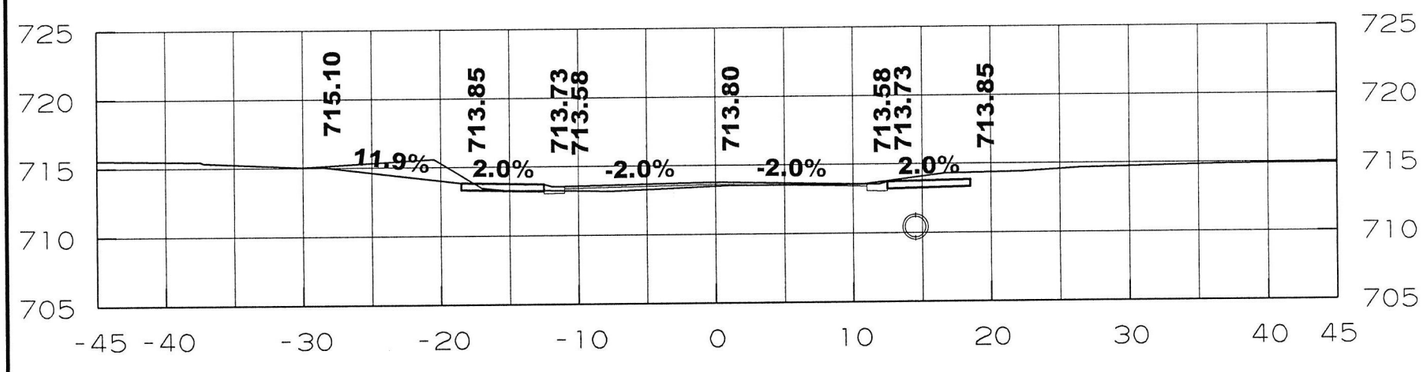
118+43.00



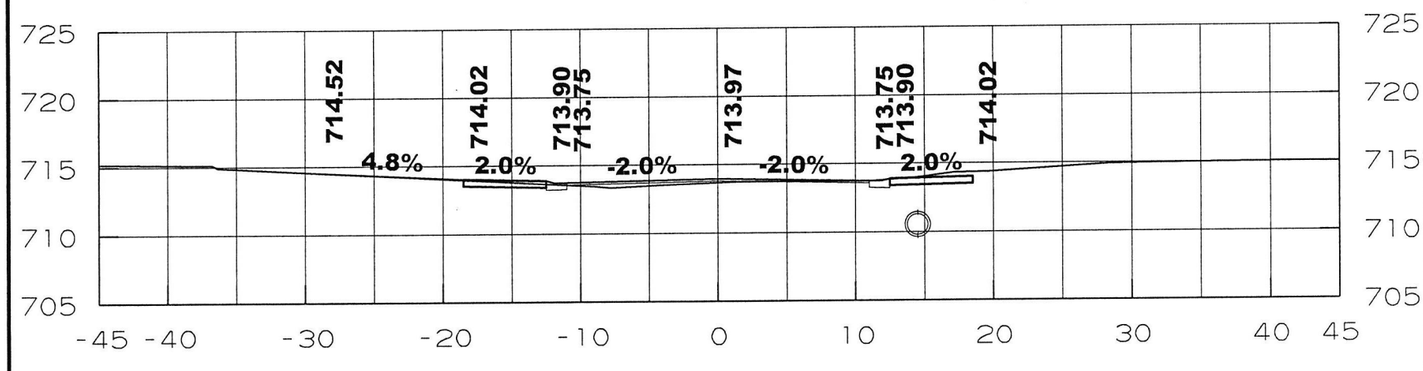
118+40.00



118+18.00

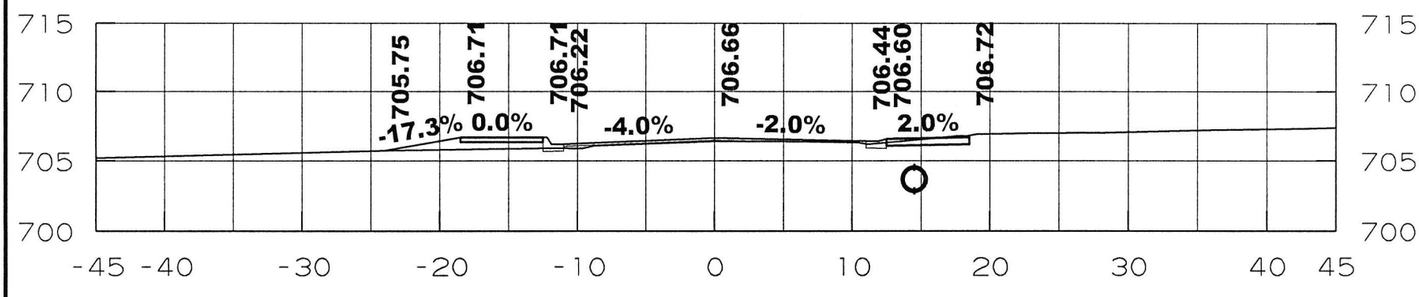


118+05.00

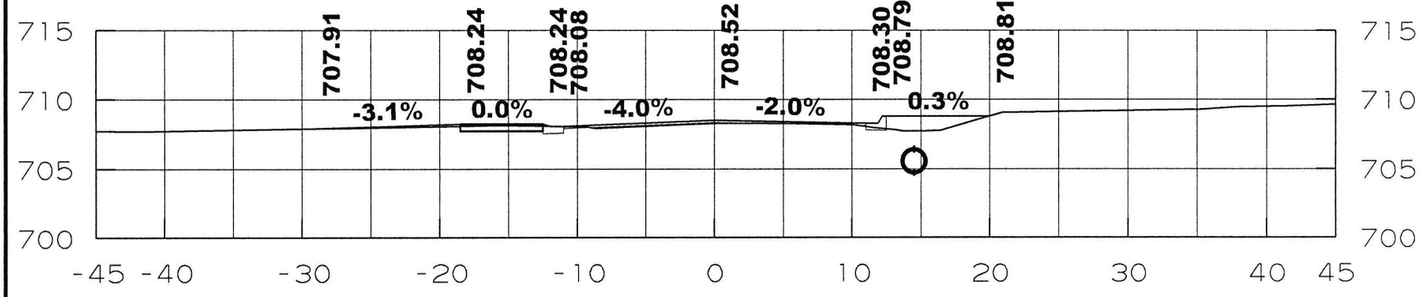


118+00.00

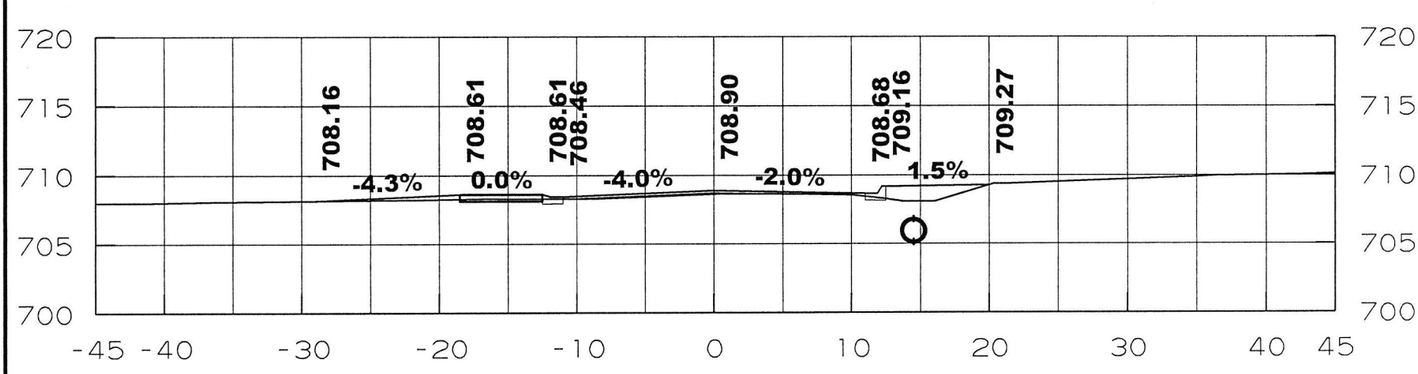
				DATE REVISED	
				DATE FILMED	
				DATE REVISED	
				DATE FILMED	
4	CROSS SECTIONS STA. 118+00.00 TO 118+43.00			FED.AID DIV.NO.	6
	JOB NO.	C03004		STATE	ARK.
				FED.AID PROJ.NO.	
		44		SHEET NO.	
		51		TOTAL SHEETS	



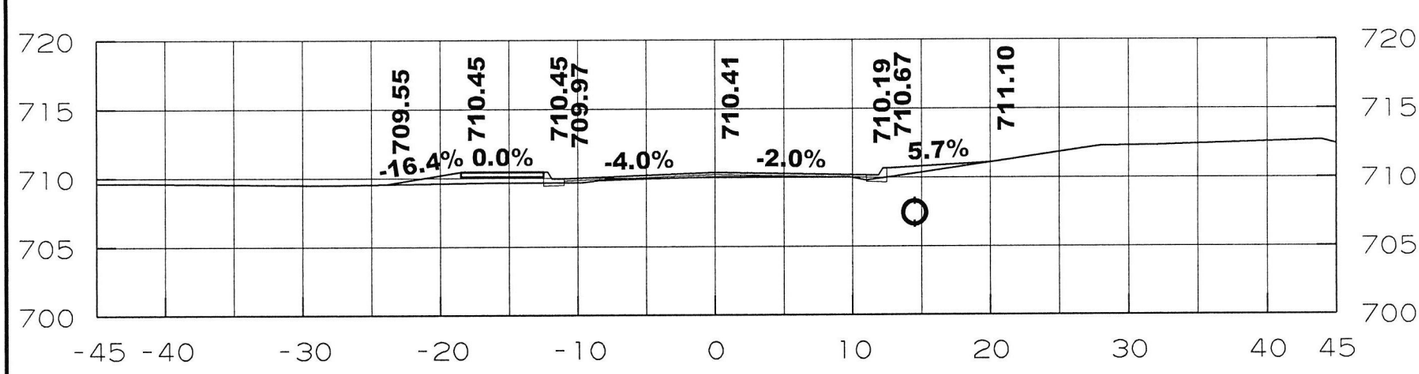
120+00.00



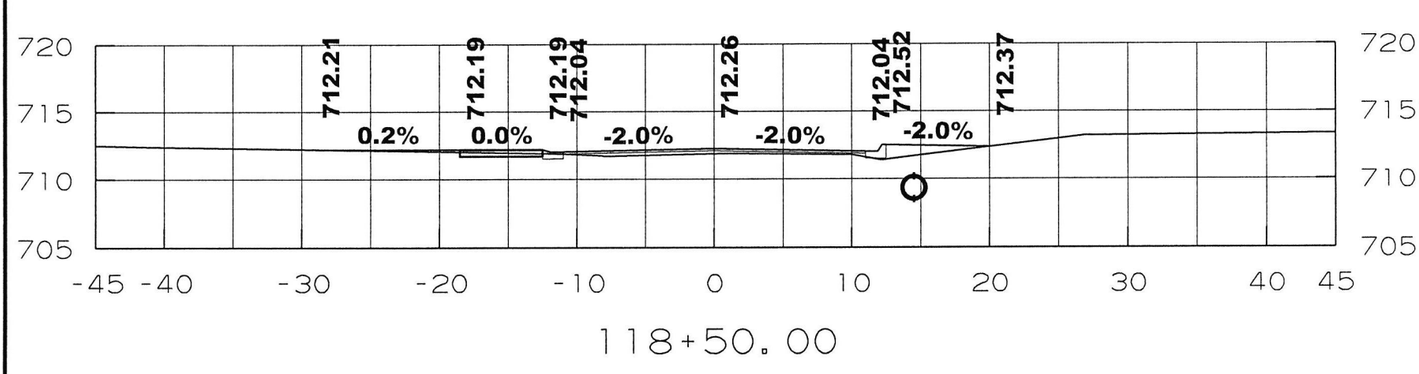
119+50.00



119+40.00



119+00.00

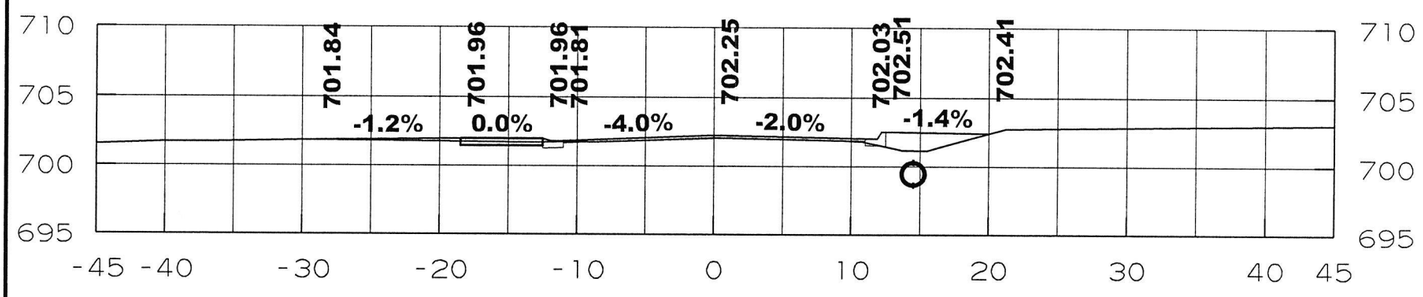


118+50.00

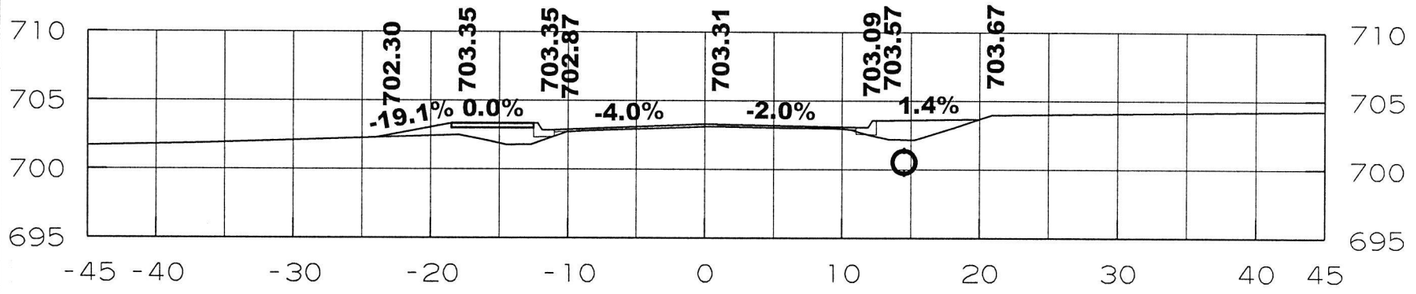
	DATE REVISED	DATE FILMED
	DATE REVISED	DATE FILMED
1		

CROSS SECTIONS STA. 118+50.00 TO 120+00.00

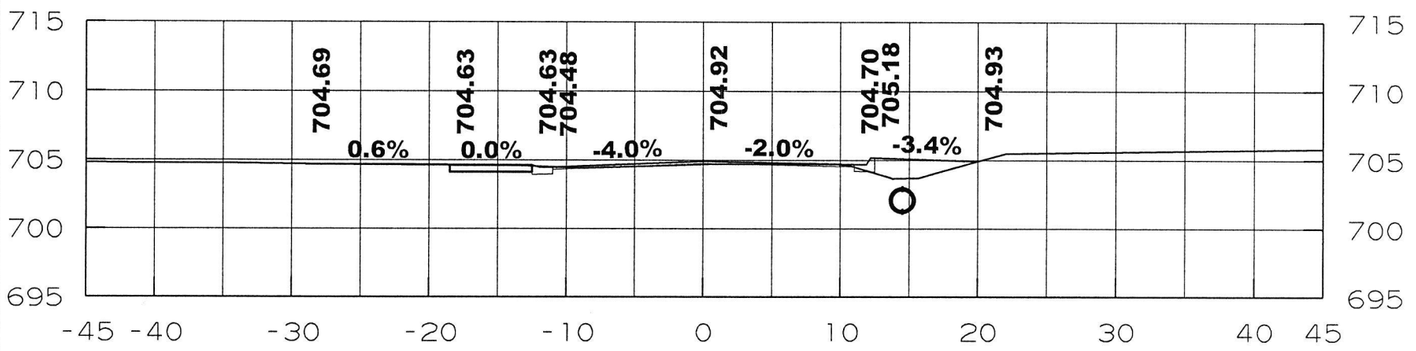
JOB NO.	FED.ROAD DIST.NO.	STATE
C03004	6	ARK.
SHEET NO.	FED.AID PROJ.NO.	
45		
TOTAL SHEETS		
51		



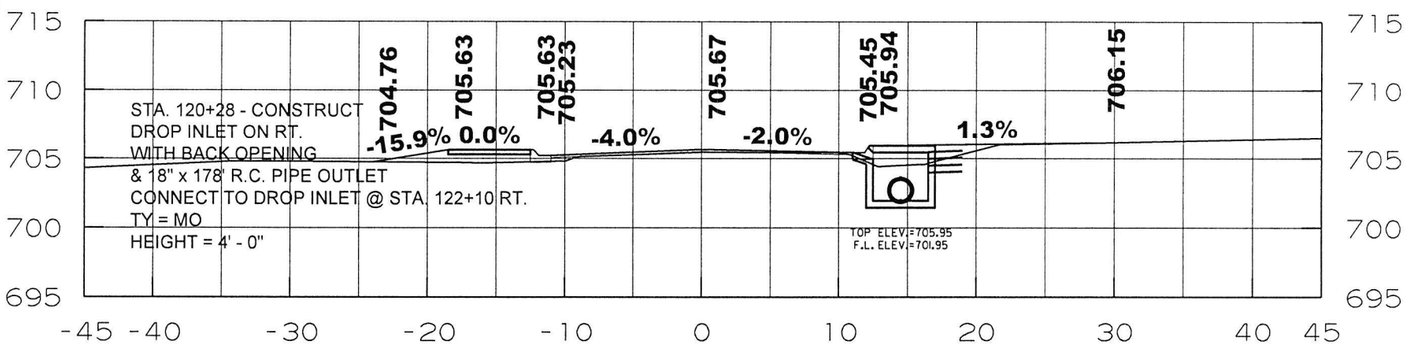
121+35.00



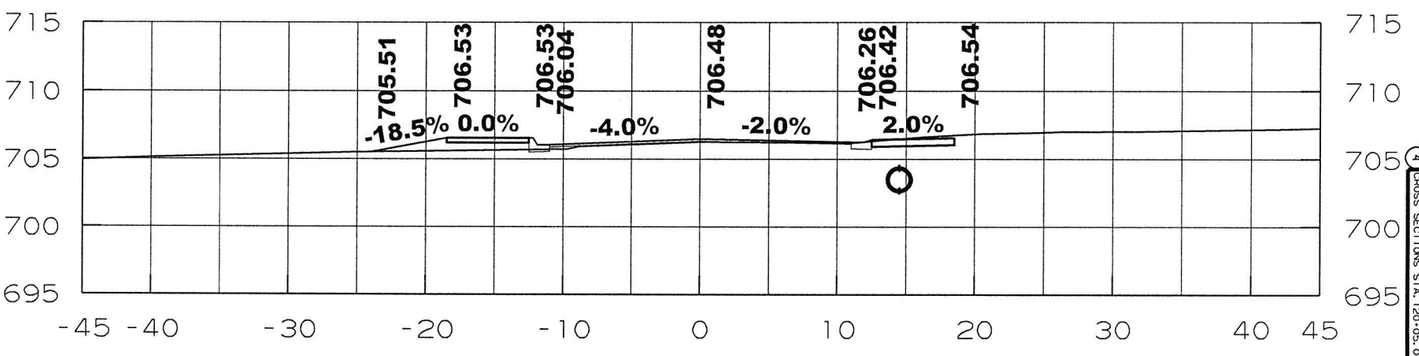
121+00.00



120+50.00



120+28.00



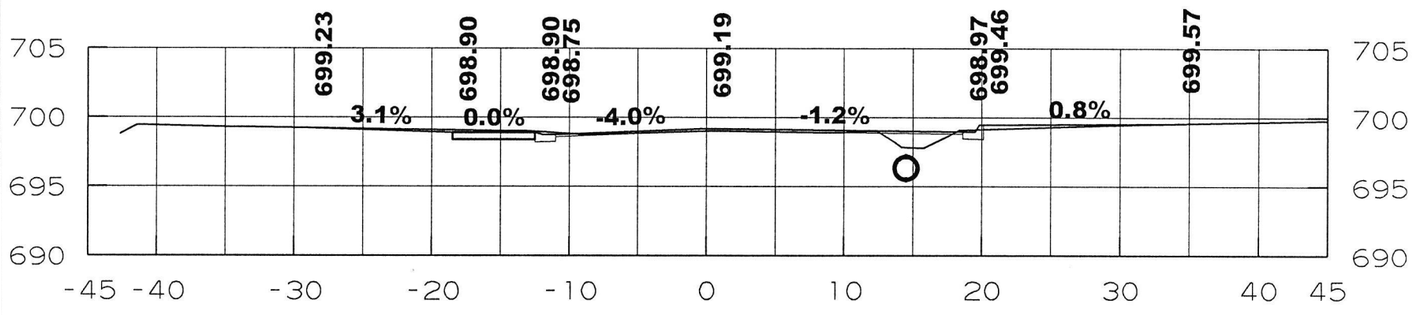
120+05.00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

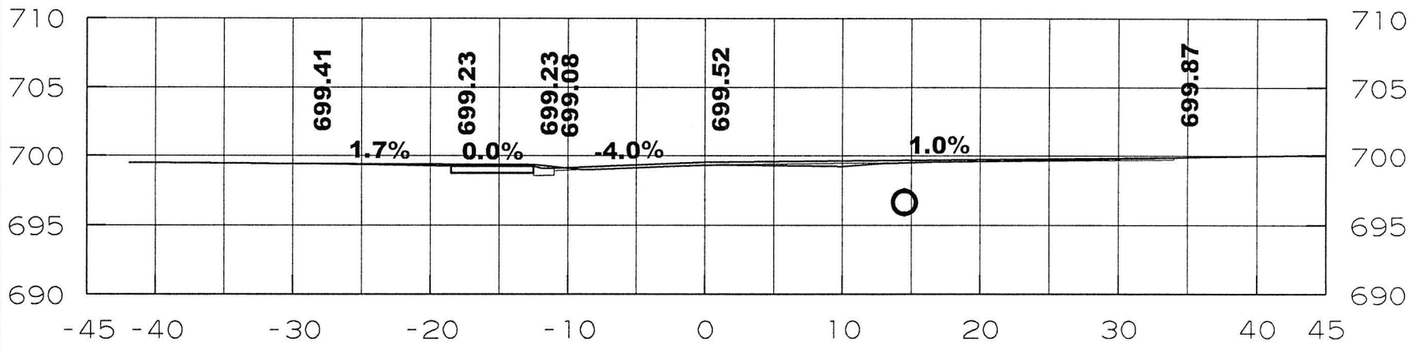
4 CROSS SECTIONS STA. 120+05.00 TO 121+35.00

FEDERAL OVERLAND NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		46	51

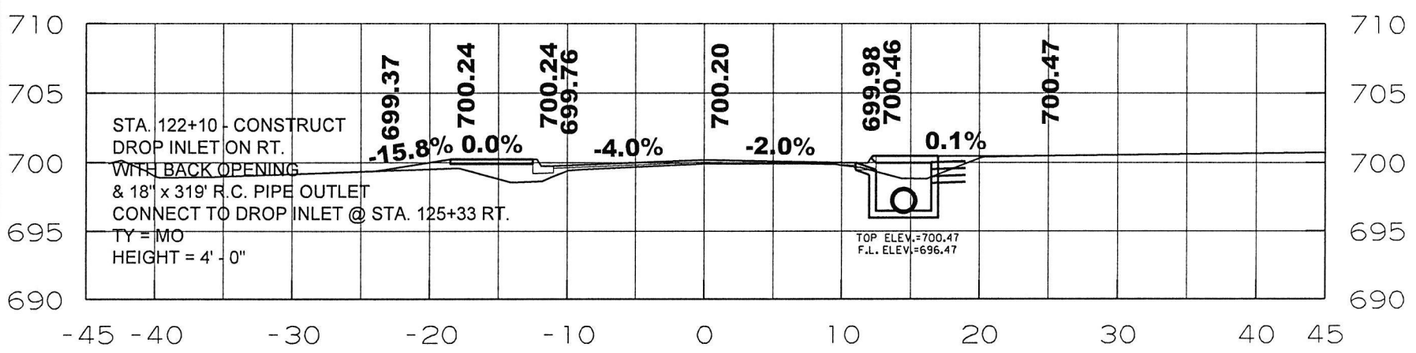
JOB NO. C03004



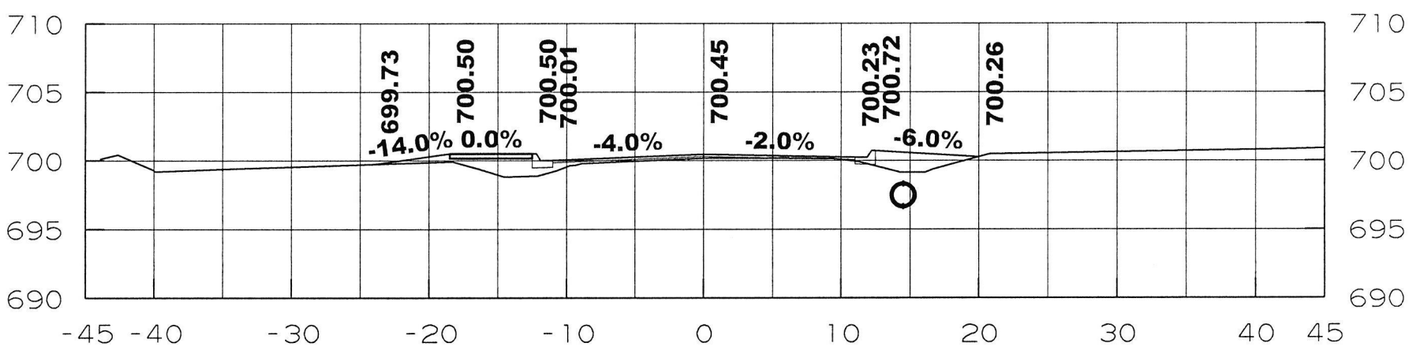
122+50.00



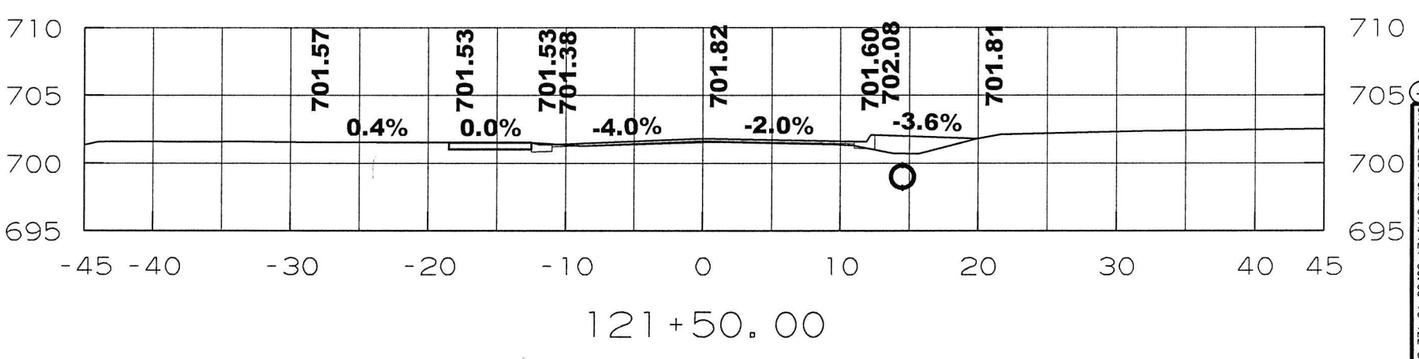
122+37.00



122+10.00

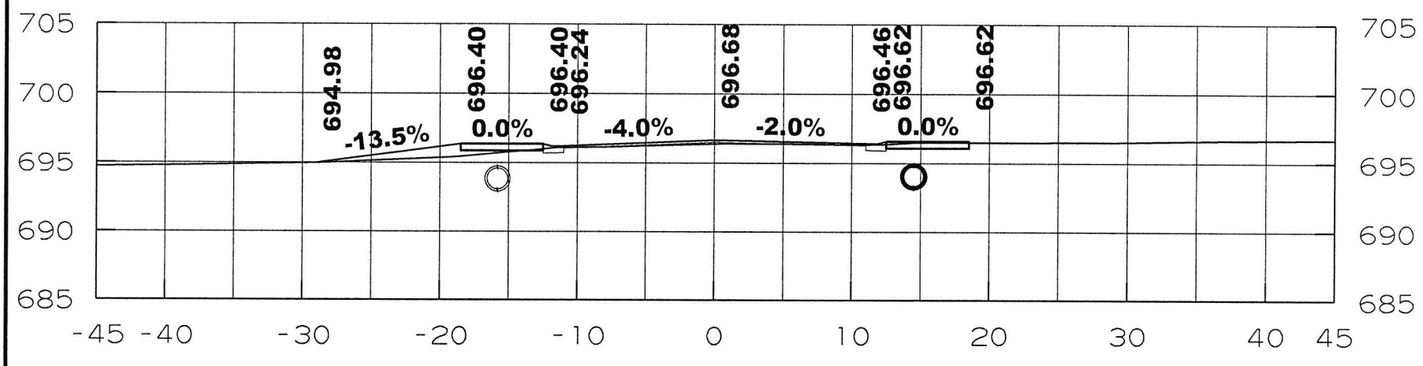


122+00.00

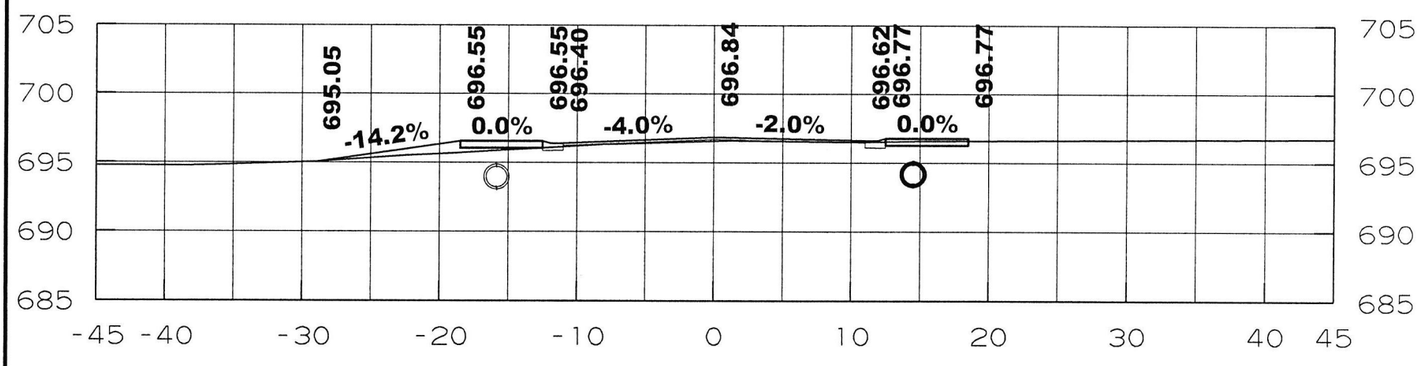


121+50.00

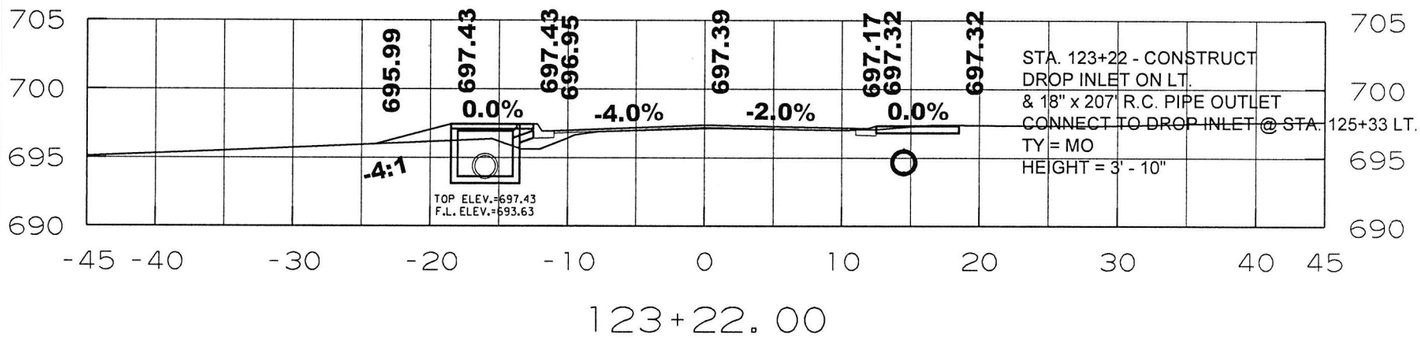
					DATE REVISED	
					DATE FILMED	
					DATE REVISED	
					DATE FILMED	
4	CROSS SECTIONS STA. 121+50.00 TO 122+50.00				FED.ROD. DIV.NO.	6
		JOB NO.	C03004		STATE	ARK.
					FED.AID PROJ.NO.	
					SHEET NO.	47
					TOTAL SHEETS	51



123+50.00

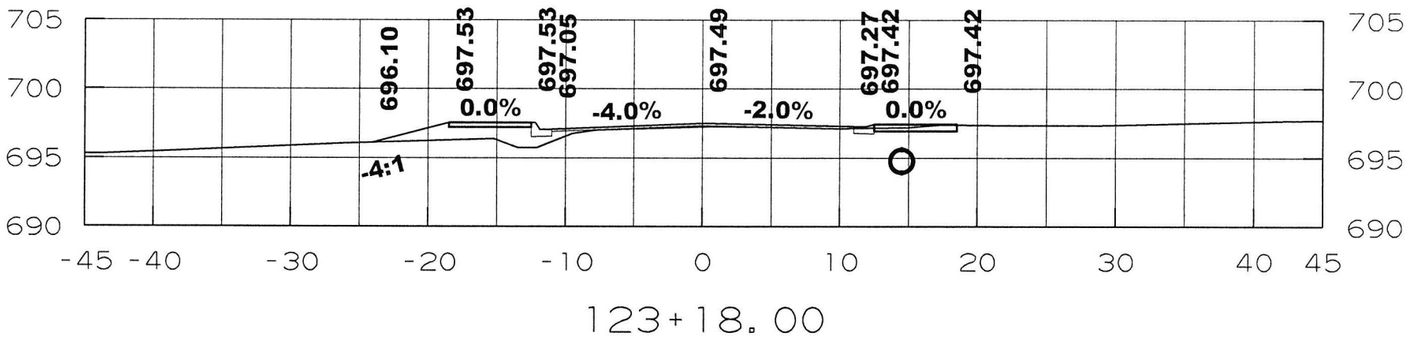


123+44.00

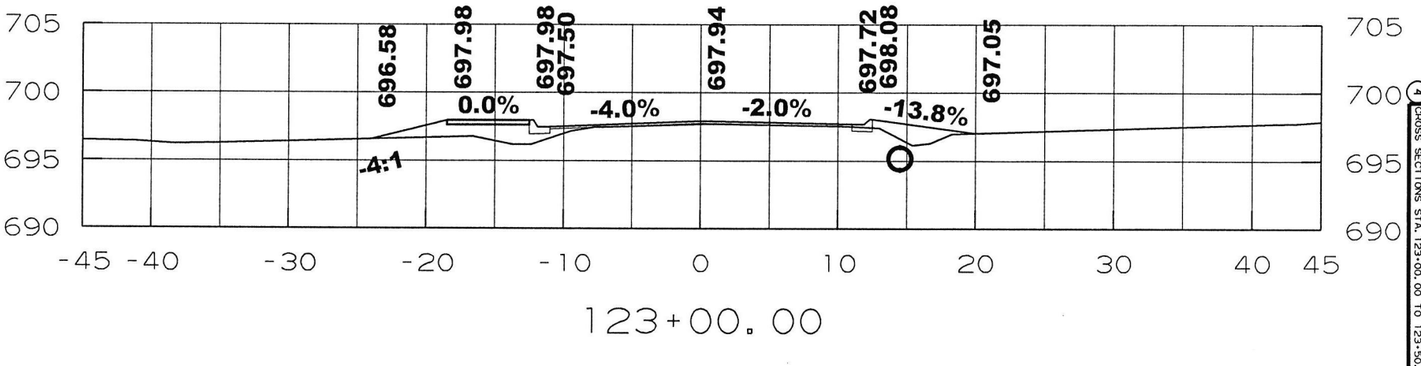


STA. 123+22 - CONSTRUCT
DROP INLET ON LT.
& 18" x 207' R.C. PIPE OUTLET
CONNECT TO DROP INLET @ STA. 125+33 LT.
TY = MO
HEIGHT = 3' - 10"

123+22.00



123+18.00

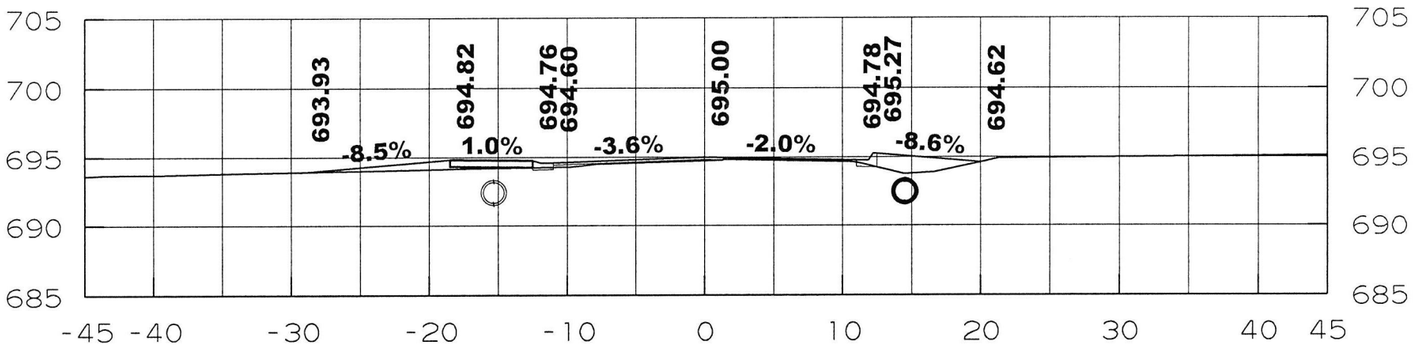


123+00.00

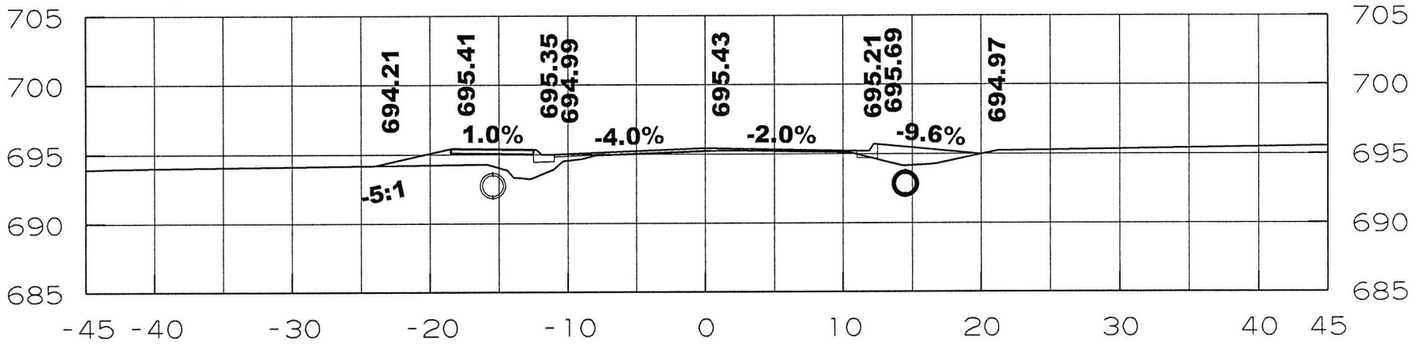
4 CROSS SECTIONS STA. 123+00.00 TO 123+50.00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		48	51

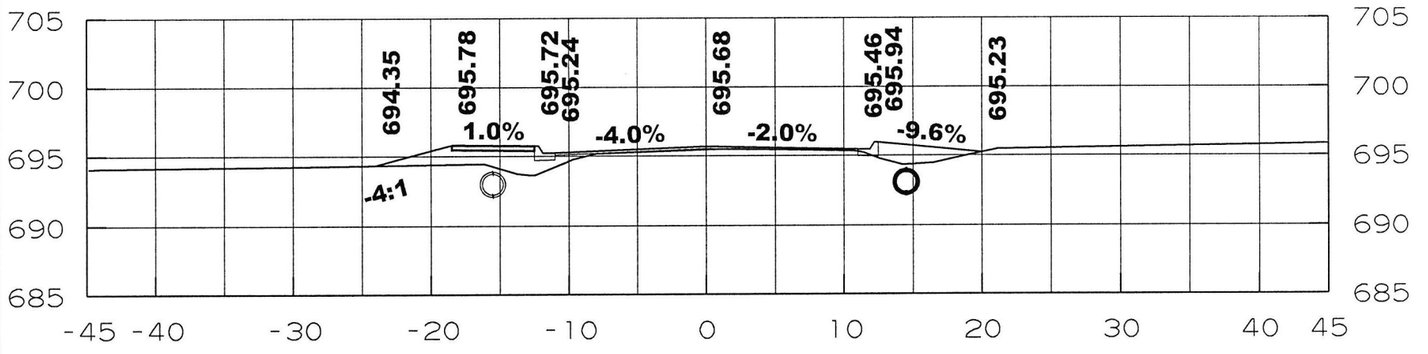
JOB NO. C03004



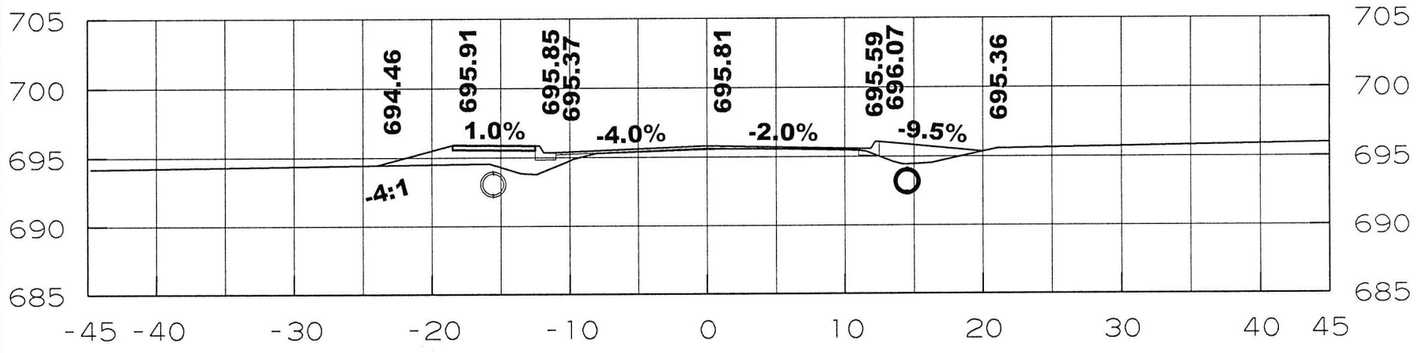
124+17.00



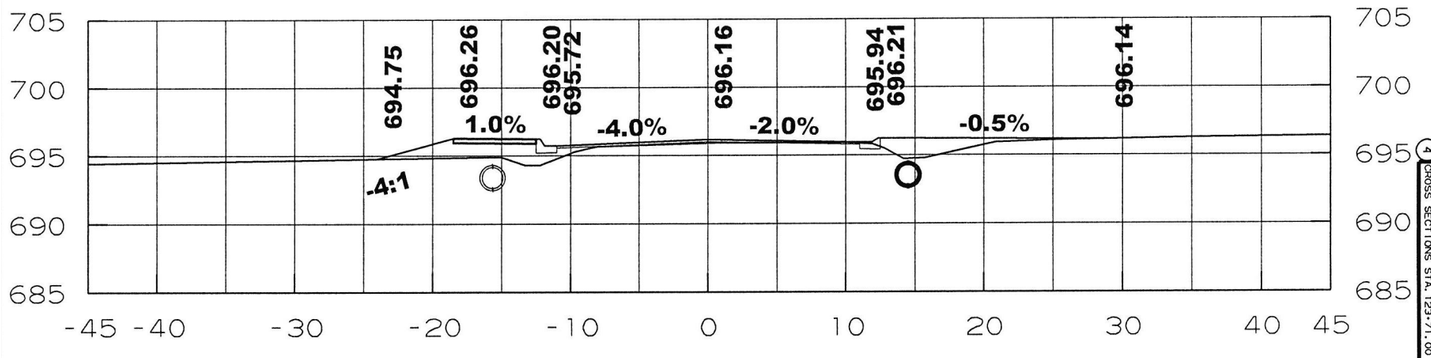
124+00.00



123+90.00

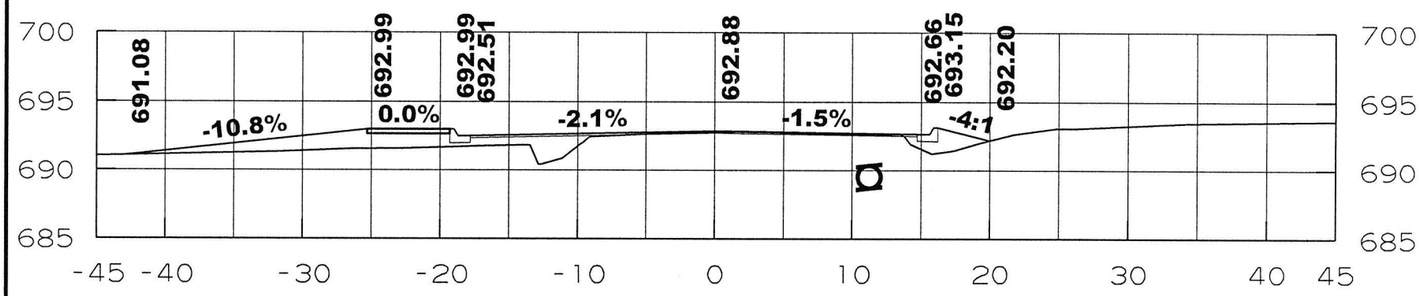


123+85.00

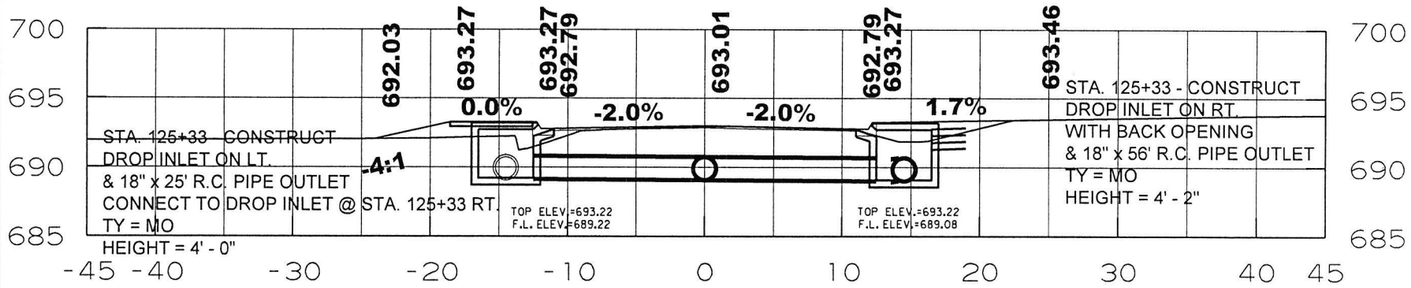


123+71.00

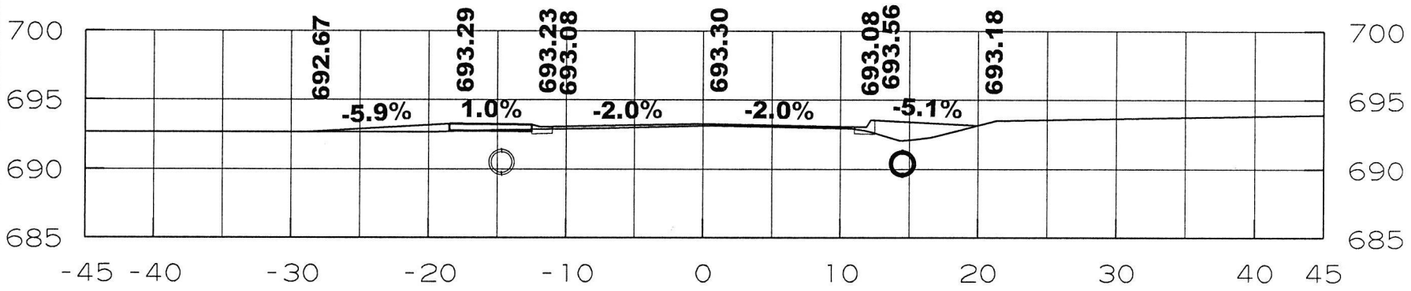
DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
4	CROSS SECTIONS STA. 123+71.00 TO 124+17.00
FED.RD. DIV.NO.	6
STATE	ARK.
JOB NO.	C03004
FED.AID PROJ.NO.	
SHEET NO.	49
TOTAL SHEETS	51



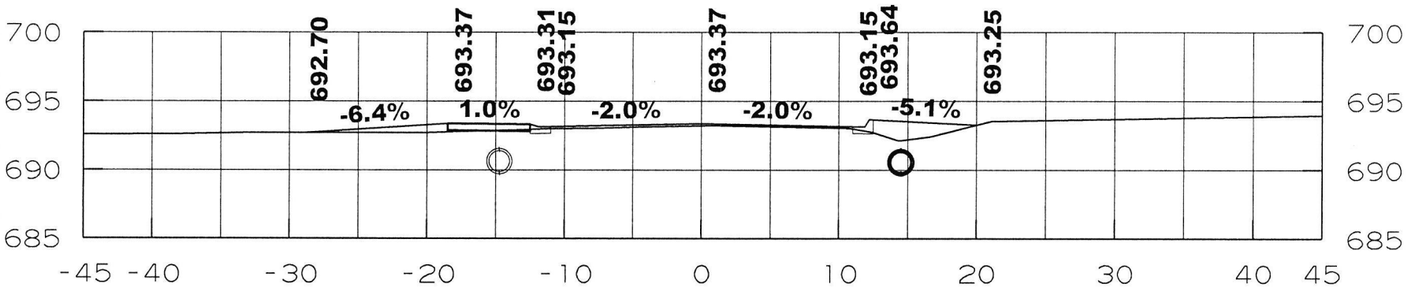
125+50.00



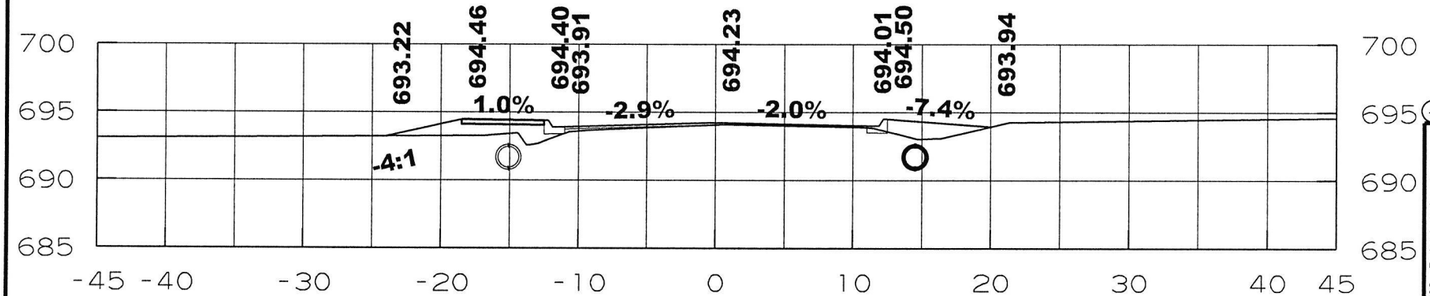
125+33.00



125+06.00



125+00.00

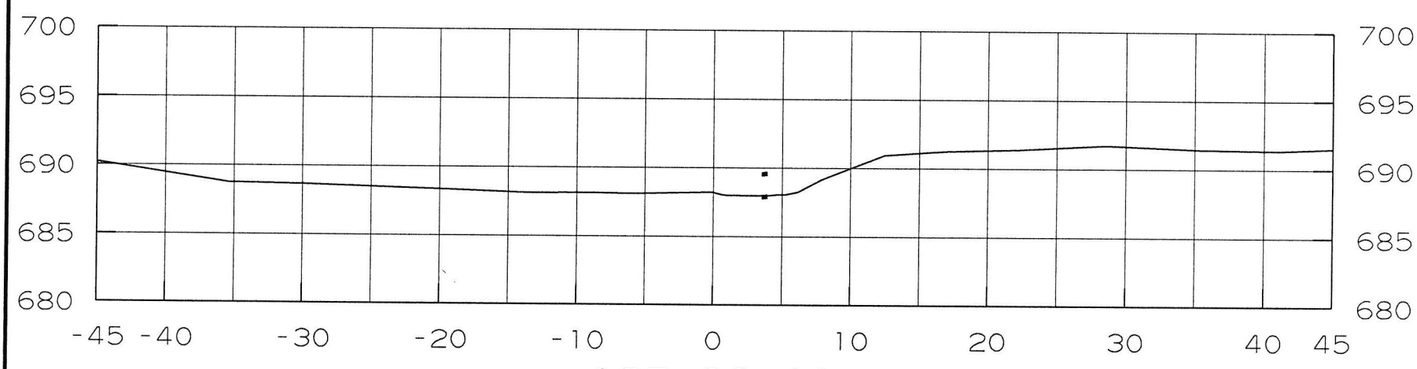


124+50.00

4 CROSS SECTIONS STA. 124+50.00 TO 125+50.00

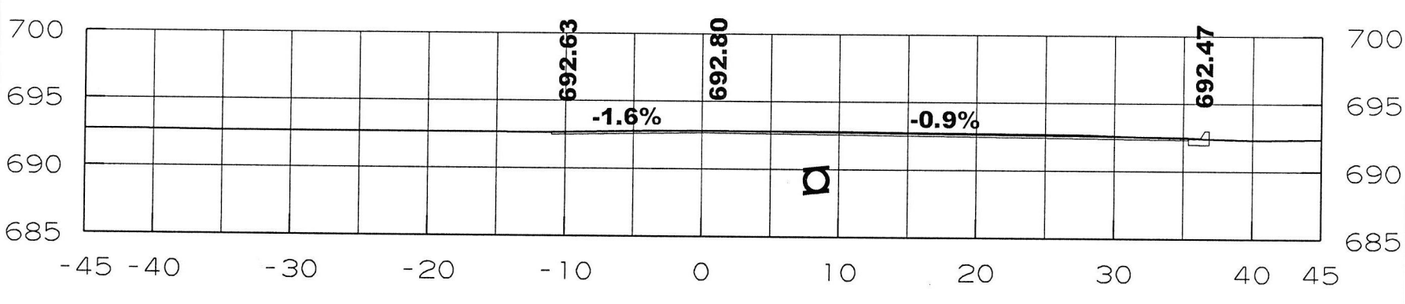
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.AID DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		50	51

JOB NO. C030004



125+93.00

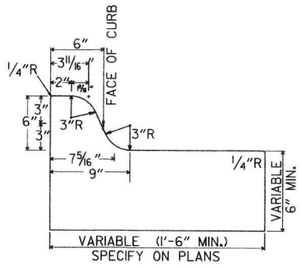
MATCH EXISTING
END JOB C03004



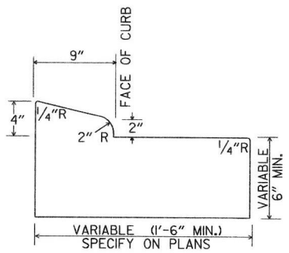
125+65.00

DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.RD. DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	C03004
SHEET NO.	51
TOTAL SHEETS	51

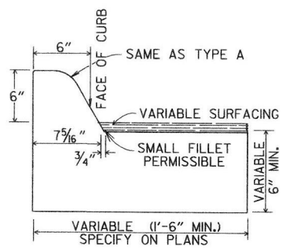
4 CROSS SECTIONS STA. 125+65.00 TO 125+93.00



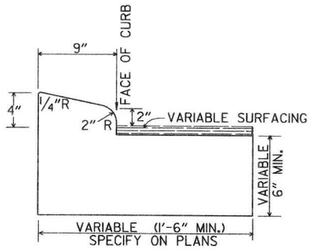
TYPE A



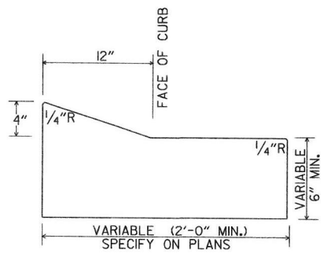
TYPE B-I



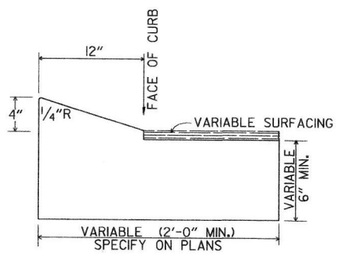
TYPE C



TYPE B-2

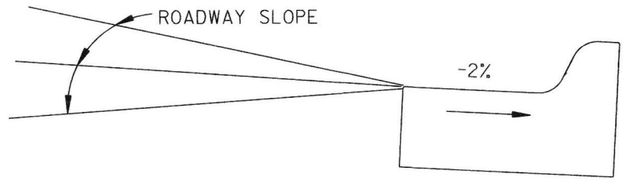


TYPE E-1



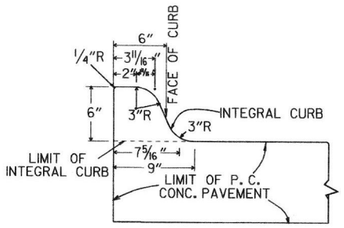
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

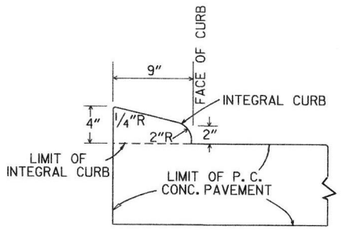


DETAIL OF GUTTER SLOPE

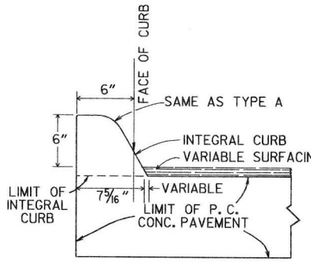
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

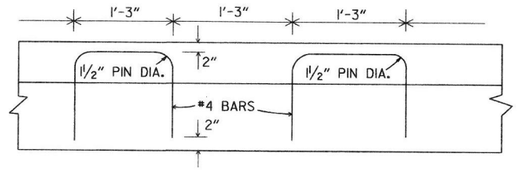


TYPE B

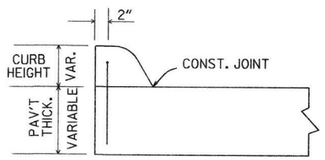


TYPE C

INTEGRAL CURB

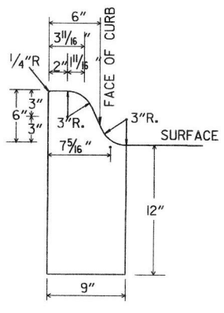


LONGITUDINAL SECTION

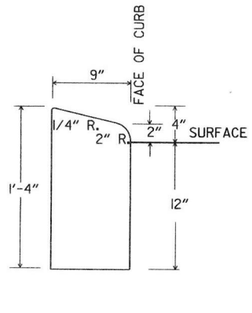


ELEVATION

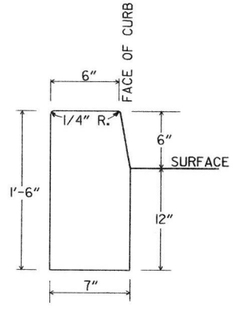
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



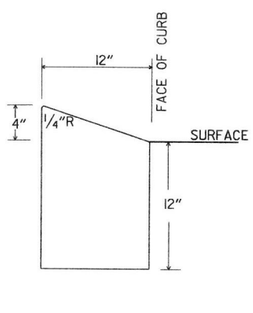
TYPE A



TYPE B

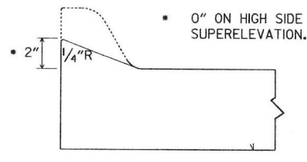


TYPE D



TYPE E

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

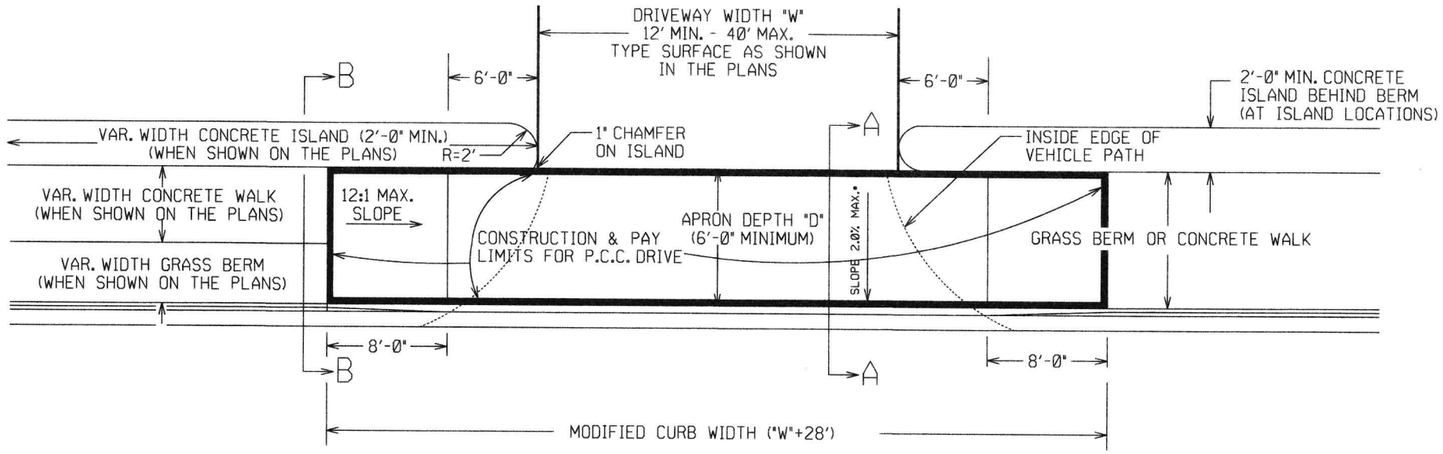
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIBLE DEPTH TYPE A & B I	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72

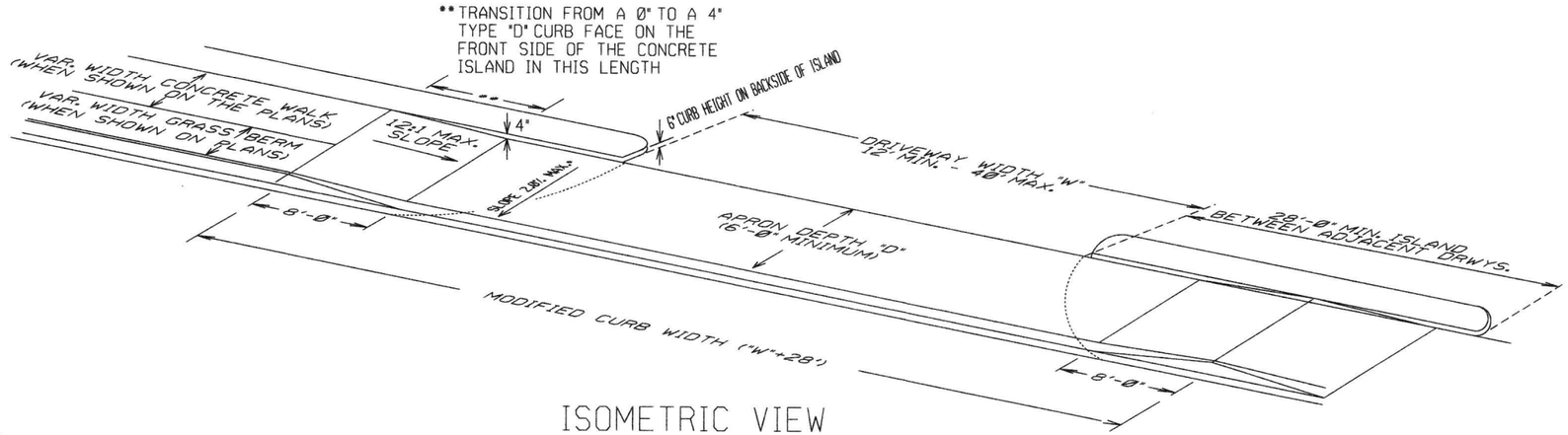
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

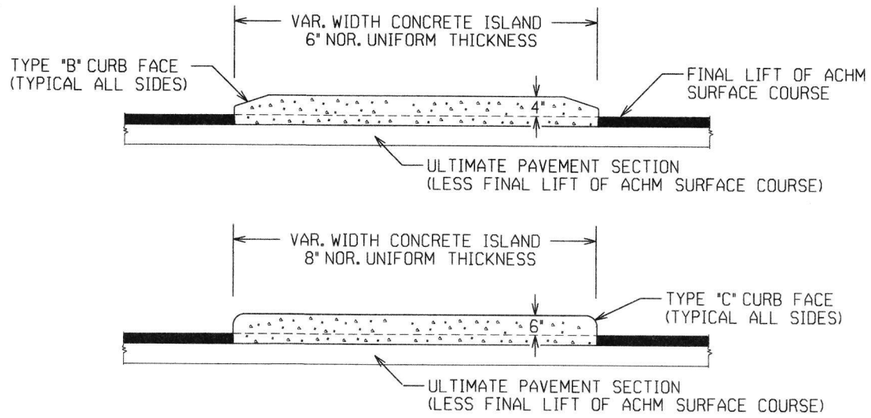
STANDARD DRAWING CG-1



PLAN VIEW

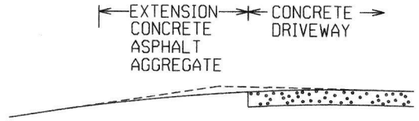


ISOMETRIC VIEW



CURBED ISLANDS FOR CHANNELIZATION

REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

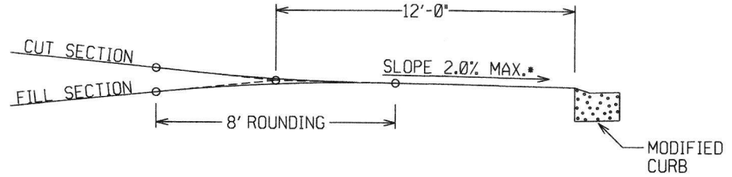
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE.(1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

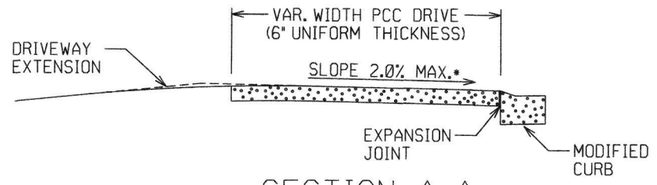
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

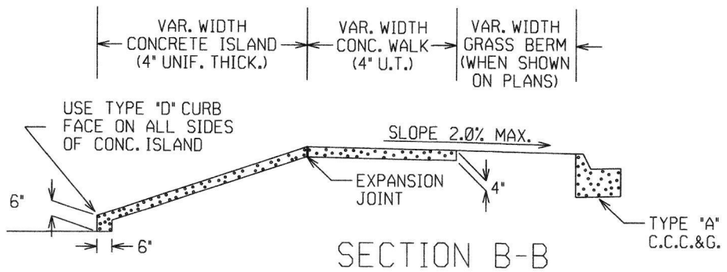


DRIVEWAY VERTICAL ALIGNMENT DETAILS

* NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



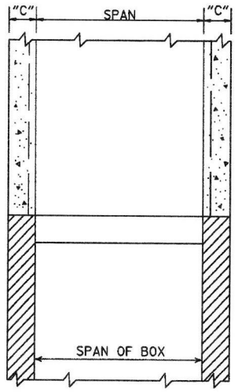
SECTION A-A



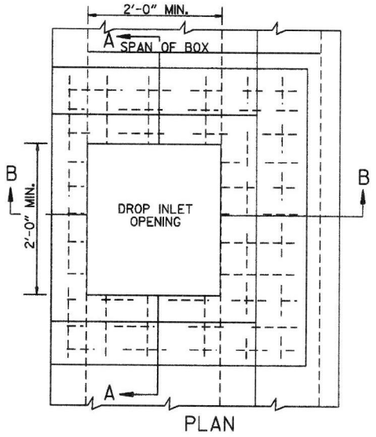
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
2-27-14		REVISED PLAN & ISOMETRIC VIEW
11-29-07		ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL
11-10-05		REV. APRON SLOPE & DEPTH OF AGG. BASE.
8-22-02		ADDED ISLAND DETAILS & NOTES
3-30-00		REV. MOD. CURB WIDTH & TRANS. NOTE
11-19-98		REVISED NOTES
11-18-98		REDRAWN AND REISSUED

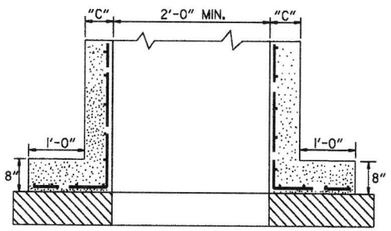
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



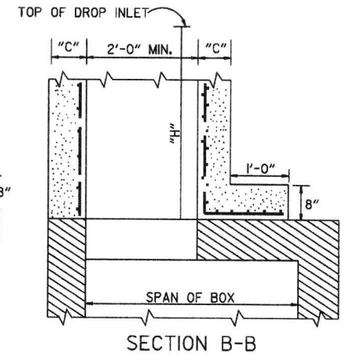
SECTION B-B



PLAN

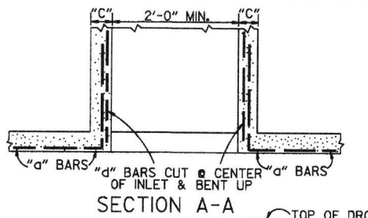


SECTION A-A

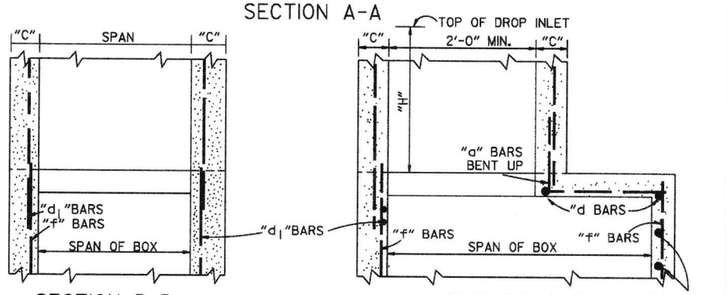


SECTION B-B

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



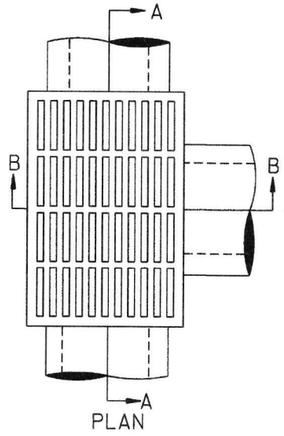
SECTION A-A



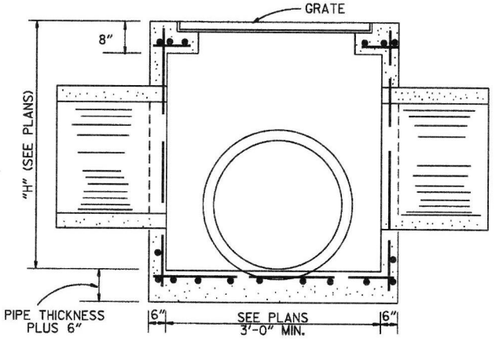
SECTION B-B SECTION B-B

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

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

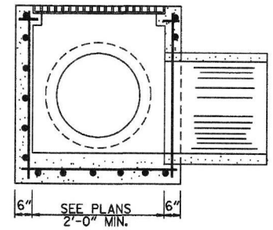


PLAN



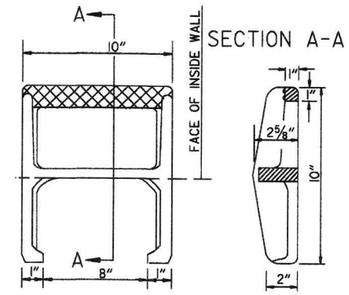
SECTION A-A

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



SECTION B-B

DROP INLET (TYPE E)

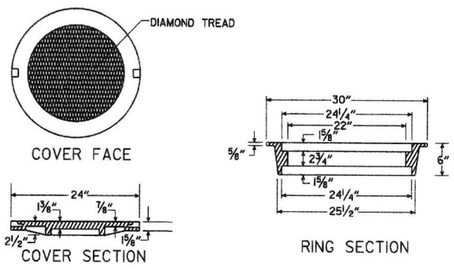


APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

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

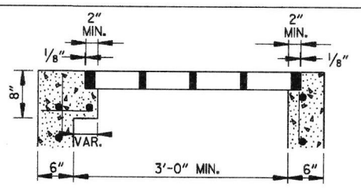
DETAIL OF STEP FOR DROP INLET



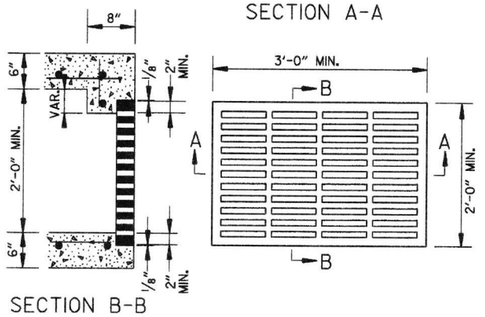
COVER SECTION RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



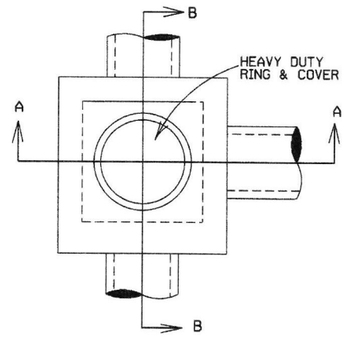
SECTION A-A



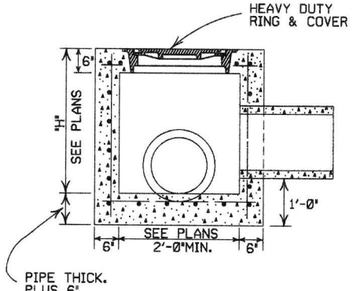
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

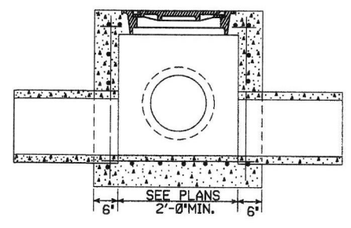


PLAN



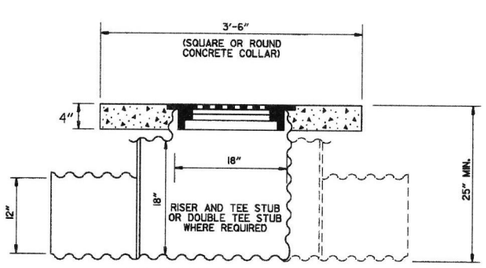
SECTION A-A

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

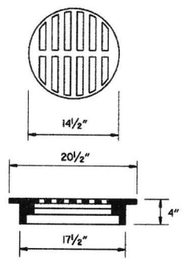


SECTION B-B

JUNCTION BOX (TYPE E)



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



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

DETAIL OF YARD DRAIN

GENERAL NOTES:

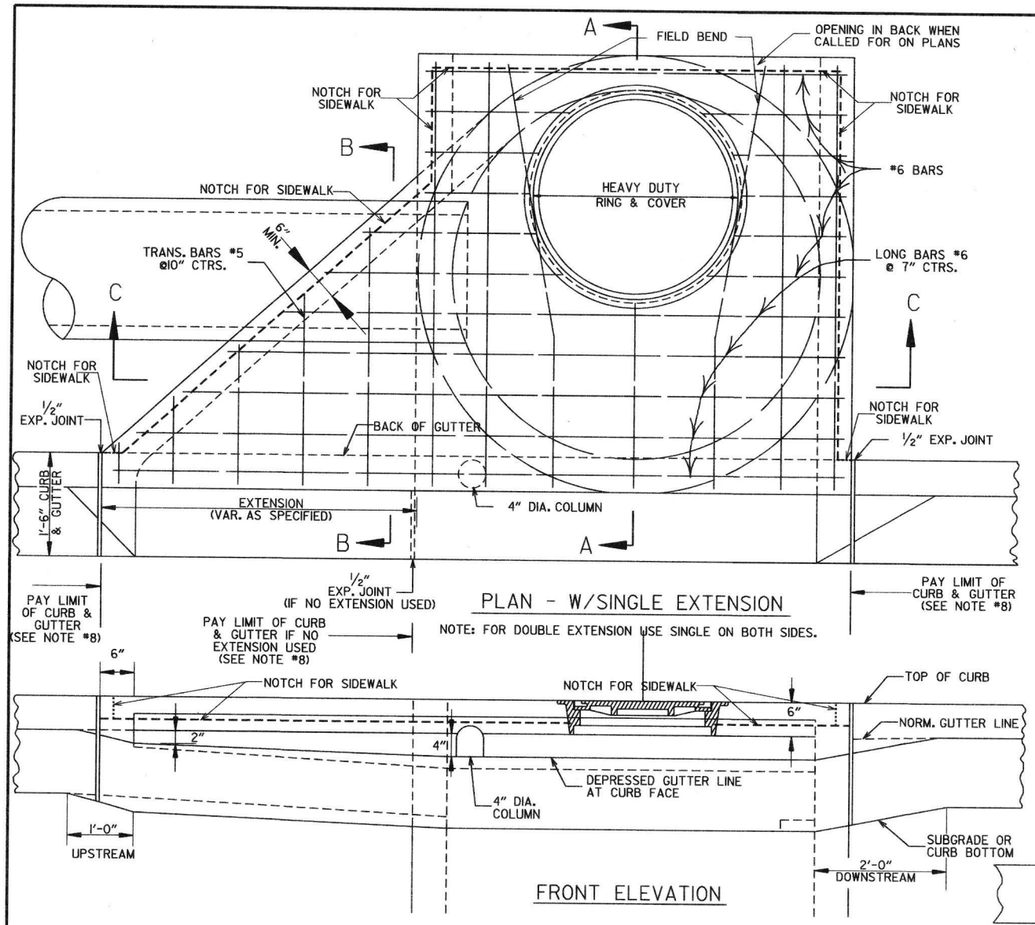
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS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

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

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

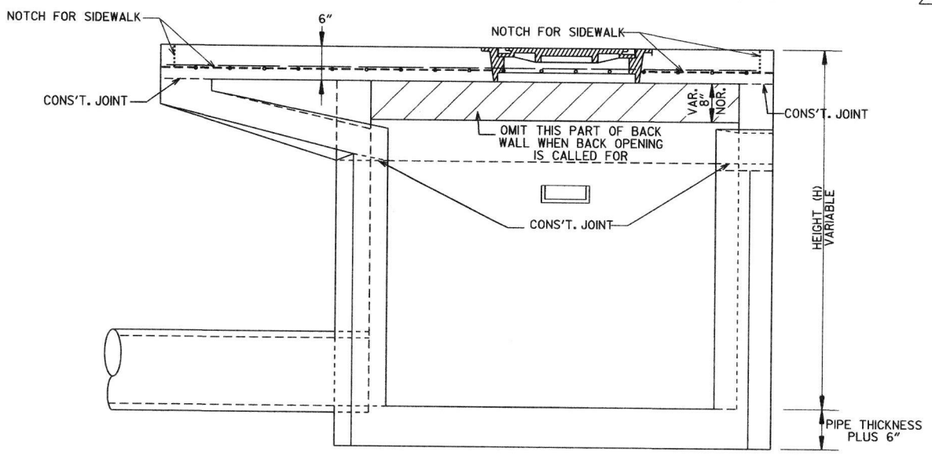
STANDARD DRAWING FPC-9



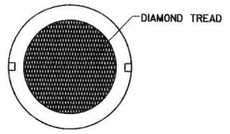
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

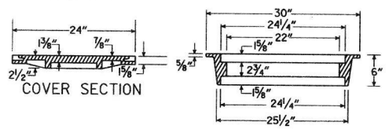
FRONT ELEVATION



SECTION C-C



COVER FACE



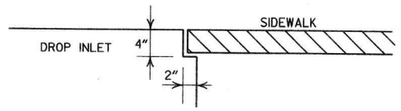
COVER SECTION

RING SECTION

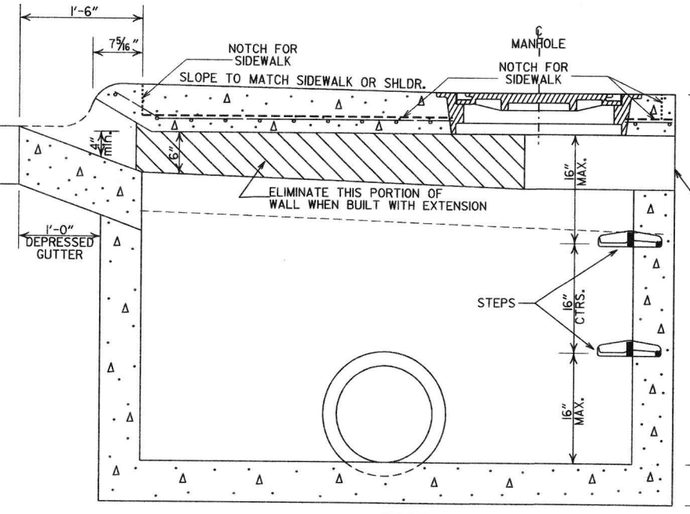
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

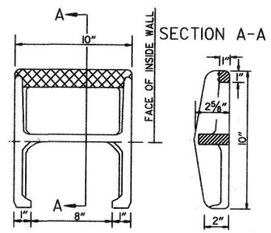
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO MI05 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS



SECTION A-E

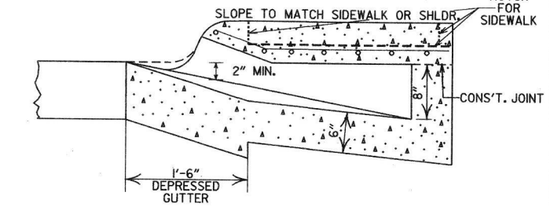


APPROX. WEIGHT = 11 LBS. (CAST IRON)

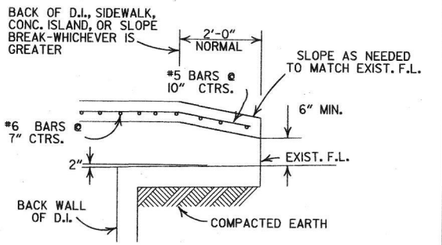
PLAN

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

DETAIL OF STEP FOR DROP INLET



SECTION B-B



BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

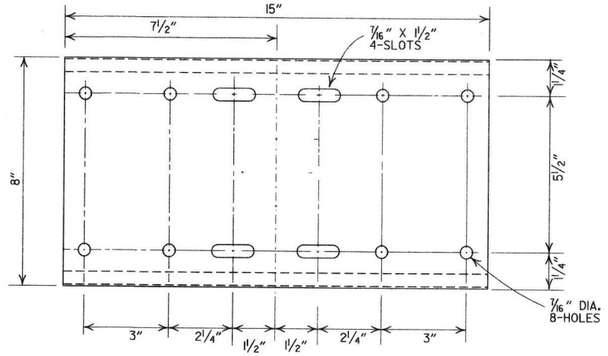
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 16 ADJ. OPENING DIMENSION	
10-12-95	CORRECTED *6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-15-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
5-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-5-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	630-7-15-88
1-14-87	MODIFIED WALL THICKNESS	785-1-14-87
6-12-87	ISSUED	4-6-12-87

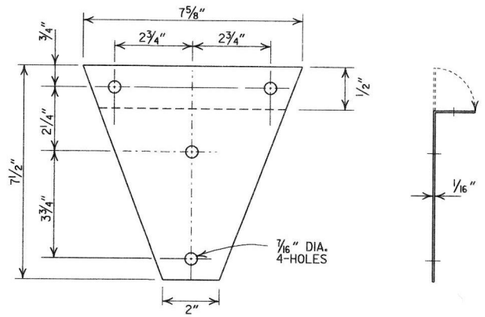
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M

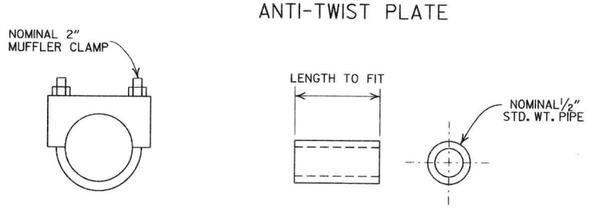


SHELF



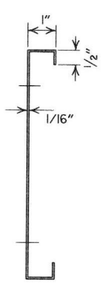
BRACKET

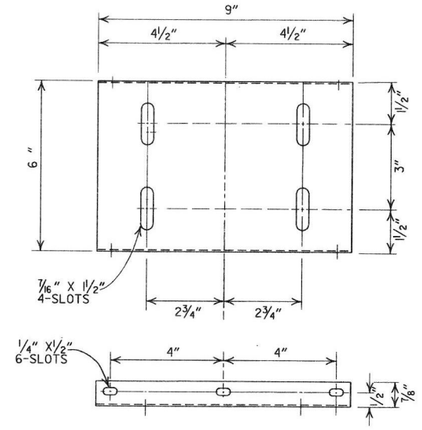
ANTI-TWIST PLATE



CLAMP

SPACER

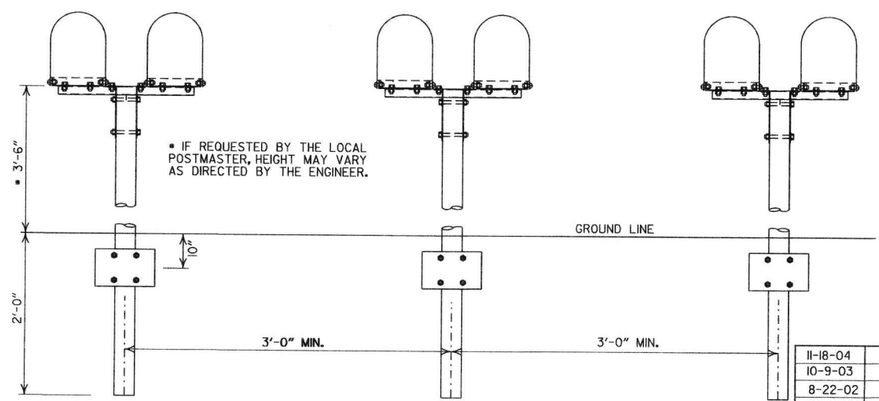




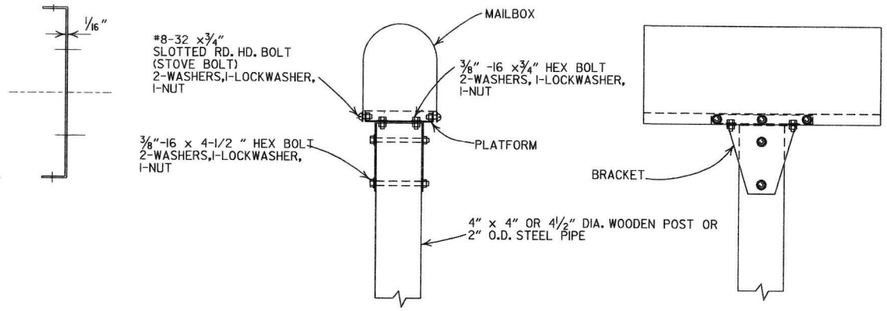
PLATFORM

GENERAL NOTES

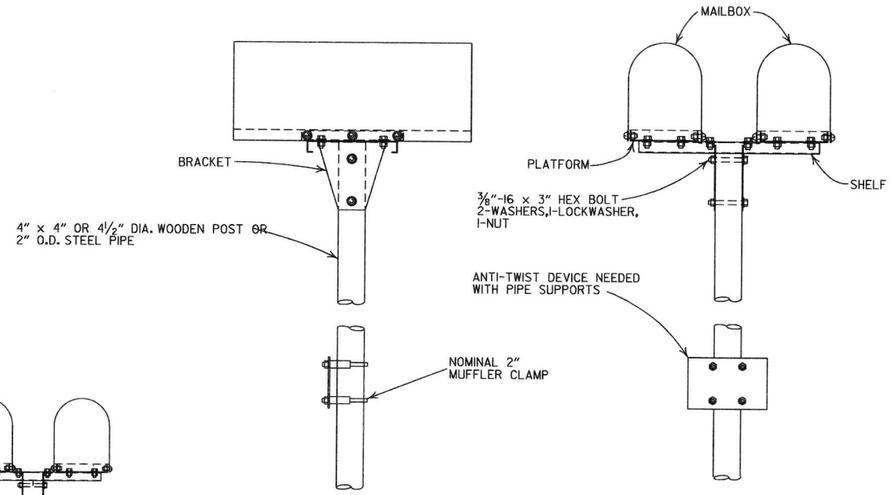
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF ¾" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 X ¾" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE AHTD QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



SPACING FOR MULTIPLE POST INSTALLATION



SINGLE INSTALLATION



DOUBLE INSTALLATION

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	20-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS

STANDARD DRAWING MB-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31⅝	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

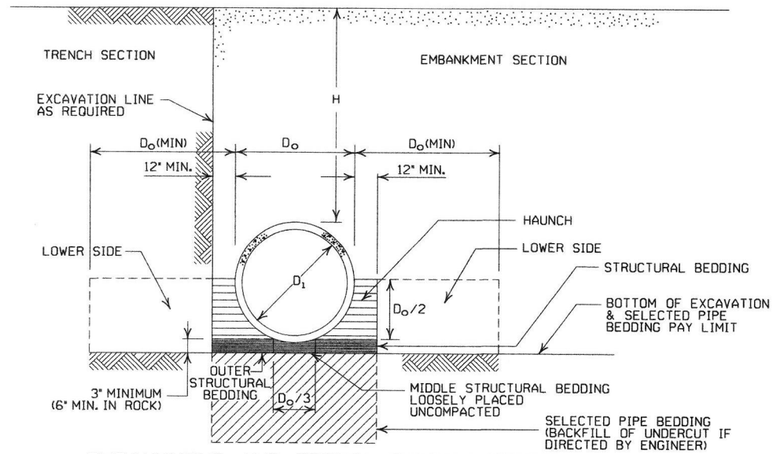
- LEGEND -

D_i = NORMAL INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

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

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

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

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM						
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

CORRUGATED METAL PIPE ARCHES

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL			ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM		
15	17x13	3	0.064	2	15	0.060	2	15
18	21x15	3	0.064	2	15	0.060	2	15
21	24x18	3	0.064	2.25	15	0.060	2.25	15
24	28x20	3	0.064	2.5	15	0.075	2.5	15
30	35x24	3	0.079	3	12	0.075	3	12
36	42x29	3½	0.079	3	12	0.105	3	12
42	49x33	4	0.079	3	12	0.105	3	12
48	57x38	5	0.109	3	13	0.135	3	13
54	64x43	6	0.109	3	14	0.135	3	14
60	71x47	7	0.138	3	15	0.164	3	15
66	77x52	8	0.168	3	15			
72	83x57	9	0.168	3	15			
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM					
				INSTALLATION TYPE 2	INSTALLATION TYPE 1	INSTALLATION TYPE 2	INSTALLATION TYPE 1	
36	40x31	5	0.079	3	2	12	15	
42	46x36	6	0.079	3	2	13	15	
48	53x41	7	0.079	3	2	13	15	
54	60x46	8	0.079	3	2	13	15	
60	66x51	9	0.079	3	2	13	15	
66	73x55	12	0.079	3	2	15	15	
72	81x59	14	0.079	3	2	15	15	
78	87x63	14	0.079	3	2	15	15	
84	95x67	16	0.109	3	2	15	15	
90	103x71	16	0.109	3	2	15	15	
96	112x75	18	0.109	3	2	15	15	
102	117x79	18	0.109	3	2	15	15	
108	128x83	18	0.138	3	2	15	15	

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

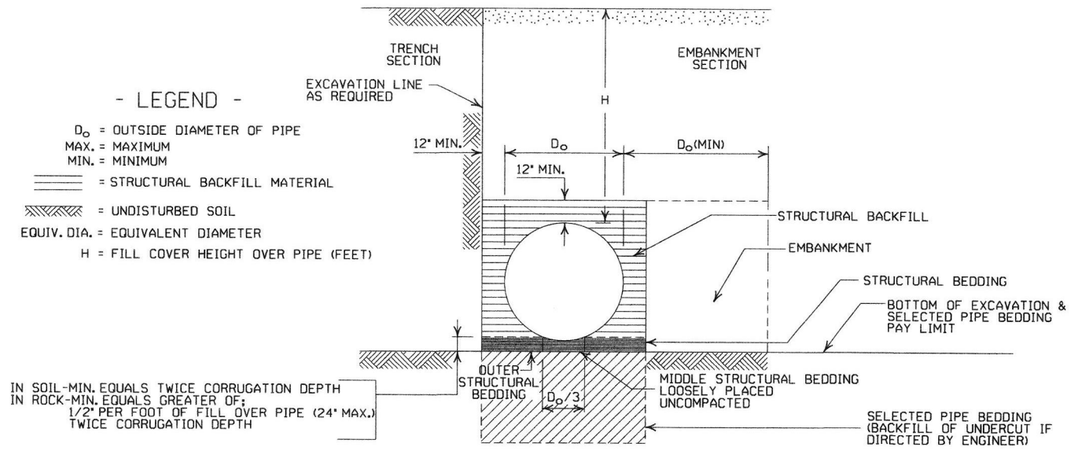
NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

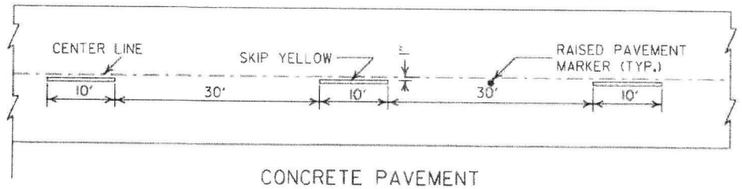
DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

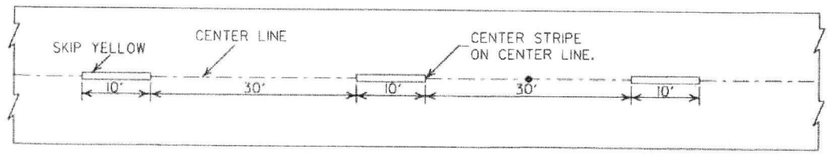
METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

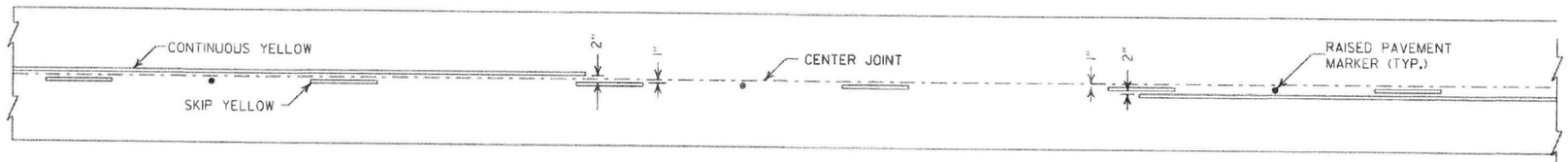


CONCRETE PAVEMENT

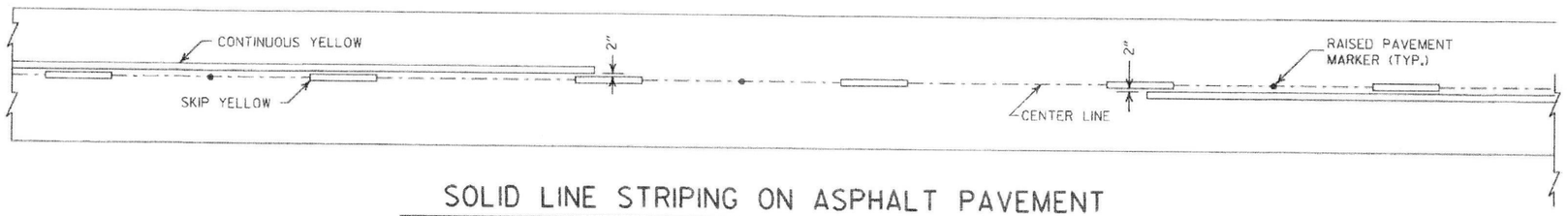


ASPHALT PAVEMENT

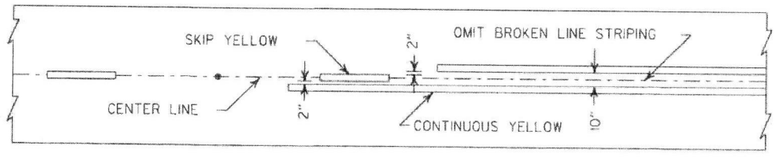
BROKEN LINE STRIPING



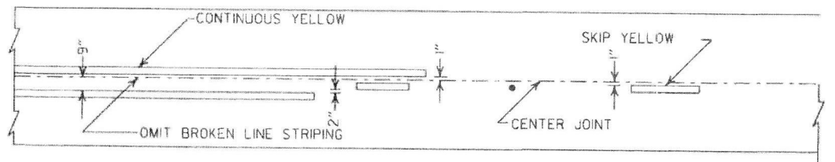
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

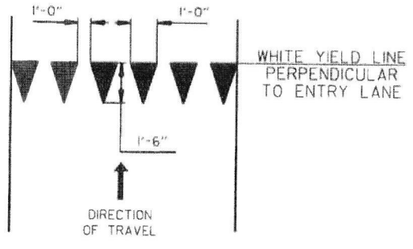


ASPHALT PAVEMENT

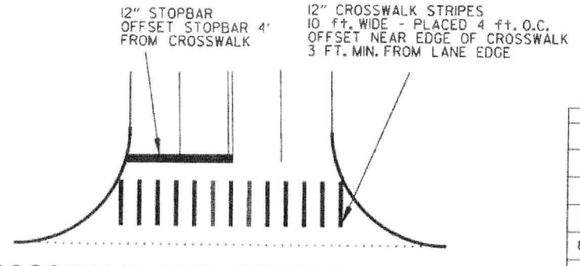


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

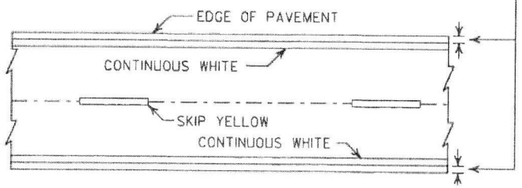


YIELD LINE DETAIL



CROSSWALK AND STOPBAR DETAILS

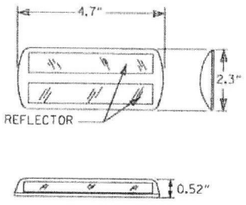
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING

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

TYPE II
RED/CLEAR OR
YELLOW/YELLOW



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.

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

DATE	REVISION	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
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
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

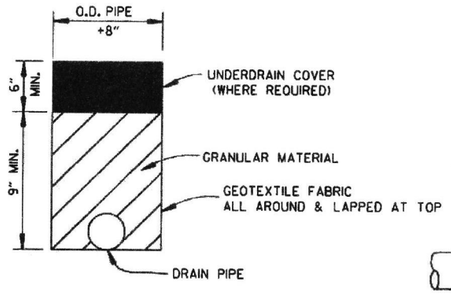
PAVEMENT MARKING DETAILS

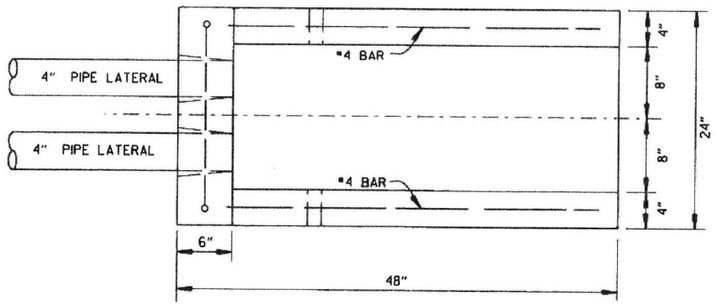
STANDARD DRAWING PM-1

NOTE:

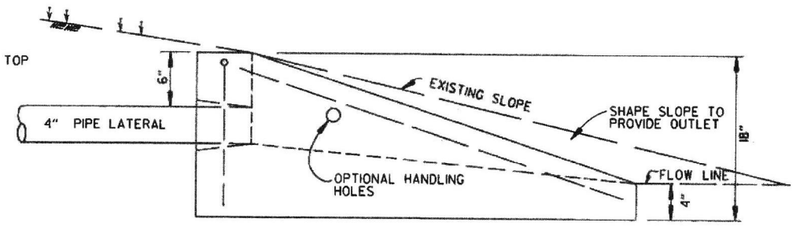
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

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

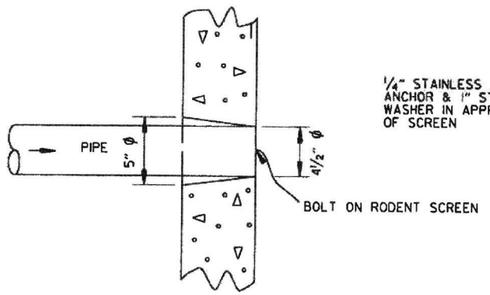




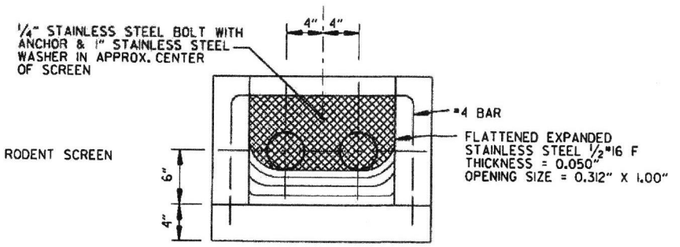
PLAN VIEW



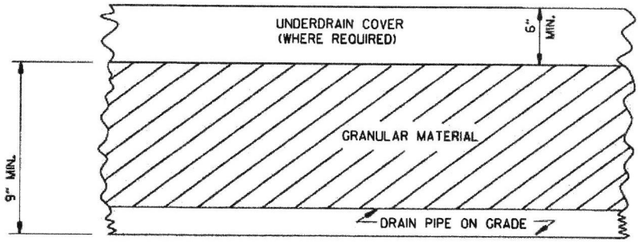
SIDE VIEW



DETAIL OF HOLE FOR 4" PIPE



FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

NOTES FOR PIPE UNDERDRAINS

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

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

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

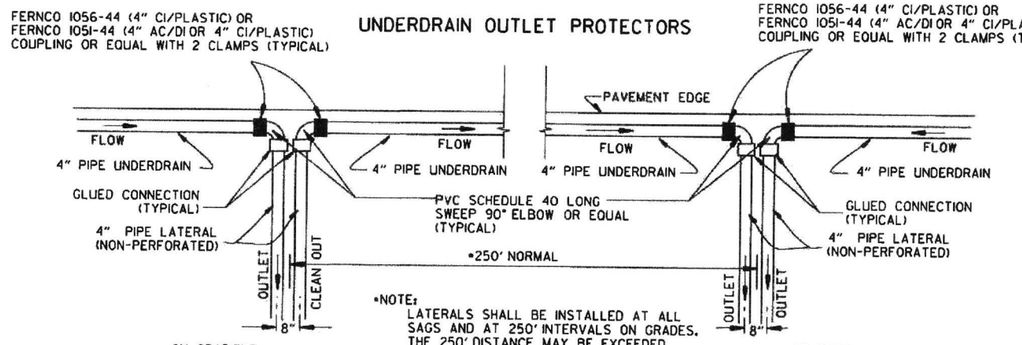
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

UNDERDRAIN OUTLET PROTECTORS



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

DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

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

DATE	REVISION	DATE FILMED
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
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



R1-1
30"X30"



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



W1-8
18"X24"



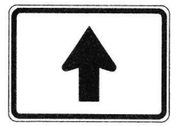
W2-5
30"X30"



W3-1
36"X36"



W5-1
36"X36"



M6-3
21"X15"



R1-2
36"X36"X36"



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



W2-1
30"X30"



S1-1
36"X36"

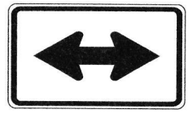


W3-2
36"X36"

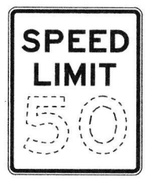


County
Route Marker
M1-6
24"X24"

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



M6-4
21"X15"



R2-1
24"X30"



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



W2-2
30"X30"



W5-2
36"X36"



W8-3
36"X36"



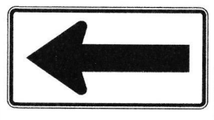
R1-3P
18"X6"



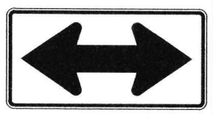
M6-5
21"X15"



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



W1-6
48"X24"



W1-7
48"X24"



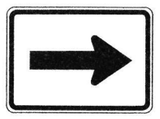
W2-3
30"X30"
(LT. or RT.)



W5-3
36"X36"

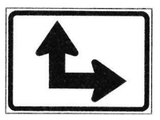


W13-1P
18"X18"



M6-1
21"X15"

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



M6-6
21"X15"



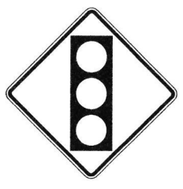
W1-2
30"X30"
(LT. or RT.)



W2-4
30"X30"



W10-1
36" DIAMETER



W3-3
36"X36"

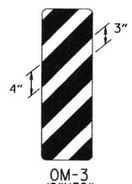


M6-2
21"X15"

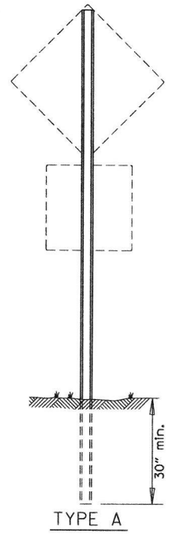


S4-3P
24"X8"

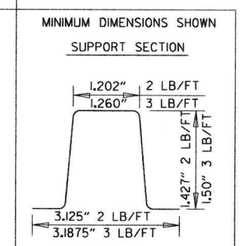
S4-2P
24"X10"



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

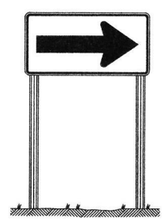


TYPE A

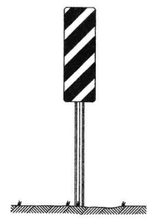


(U-CHANNEL)
STANDARD SUPPORT
ASSEMBLIES

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



TYPE B



TYPE C

MINIMUM WEIGHT

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

STANDARD HIGHWAY SIGNS

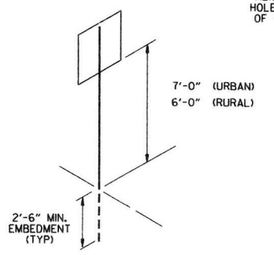
SUPPORT ASSEMBLIES

DATE	REVISION	DATE FILMED
9-12-13	DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P	
4-17-08	REVISED SIGN DESIGNATION - W3-1& W3-2	
4-10-03	REVISED W5-2, W8-3, OM-3; ADDED W1-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED W14-3	877-9-15-78
9-2-76	POST WT.	623-9-3-76
5-3-76	STEEL POST WT. FROM 2#-3#; ADDED S4-2 & S4-3	504-5-3-76
8-12-74	REV. HT. TYPE "C" ASSEMBLY	500-8-21-74
12-21-72	ADDED M6-2,3,4,5,6	500-12-21-72
12-1-72	ISSUED	562-12-1-72

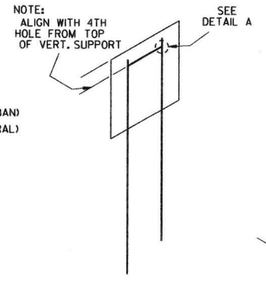
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

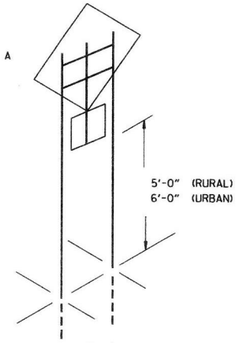
STANDARD DRAWING SHS-1



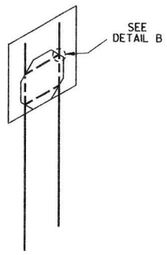
U-1



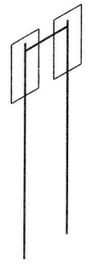
U-2



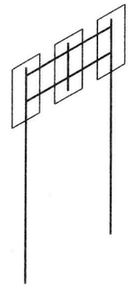
U-2 (A)



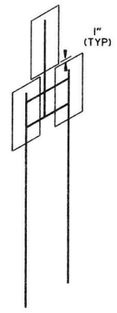
U-2 (B)



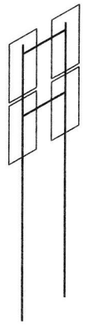
U-2 (1)



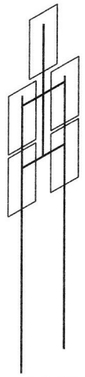
U-2 (2)



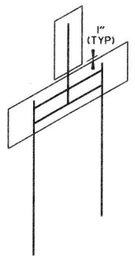
U-2 (3)



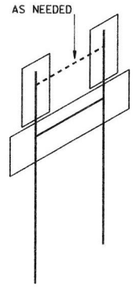
U-2 (4)



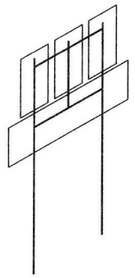
U-2 (5)



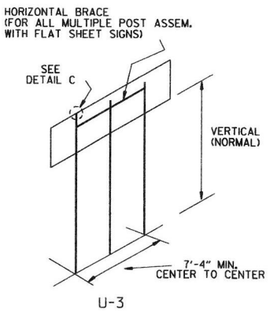
U-2 (6)



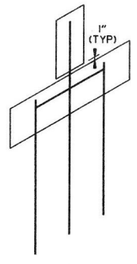
U-2 (7)



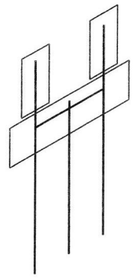
U-2 (8)



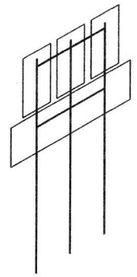
U-3



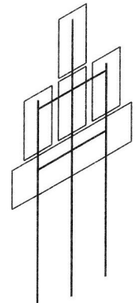
U-3 (1)



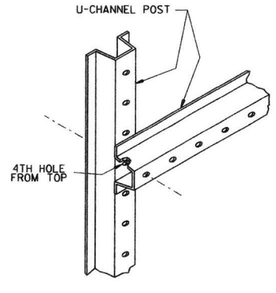
U-3 (2)



U-3 (3)

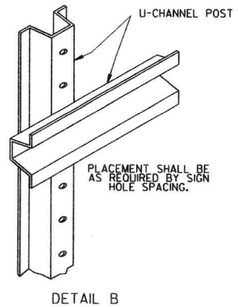


U-3 (4)



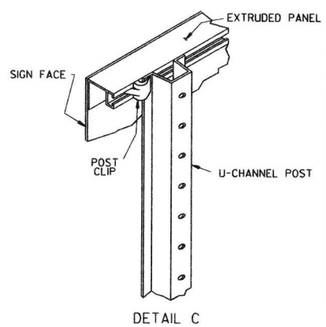
DETAIL A

SHOWING HORIZONTAL BRACE



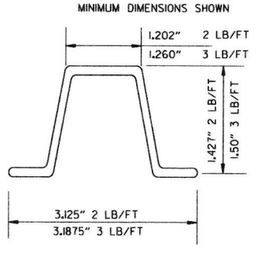
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



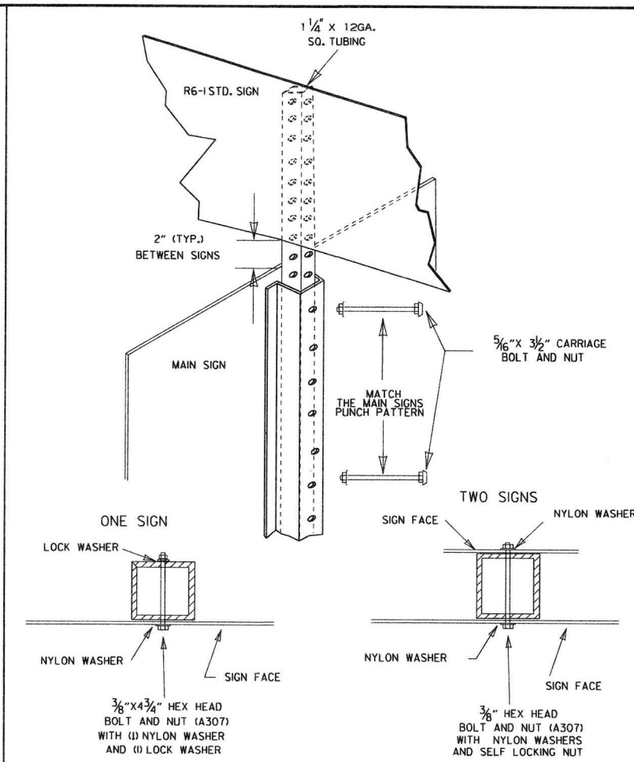
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



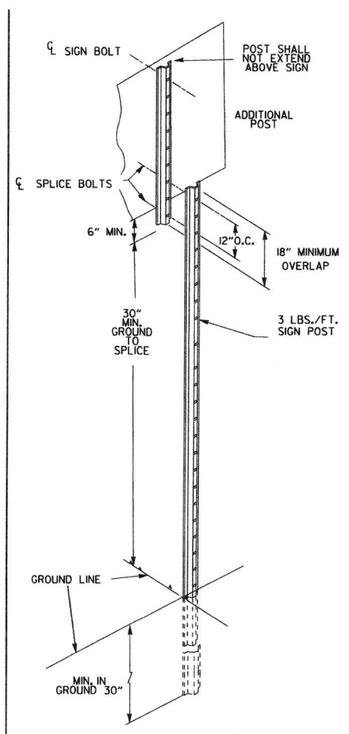
DETAIL C

U-CHANNEL POST



DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

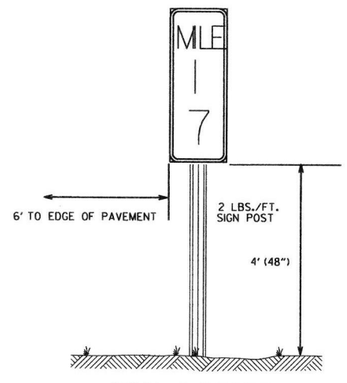
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL (F).

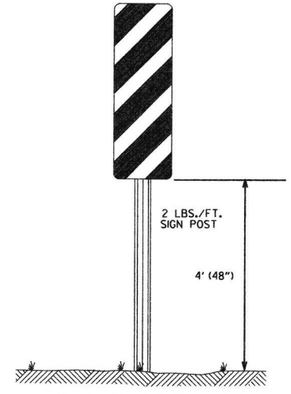
NORMAL INSTALLATIONS WILL REQUIRE $\frac{5}{16}$" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

THE POST FOR "TYPE U" SUPPORTS SHALL BE HOT DIP GALVANIZED.



TYPICAL MILE MARKER INSTALLATION



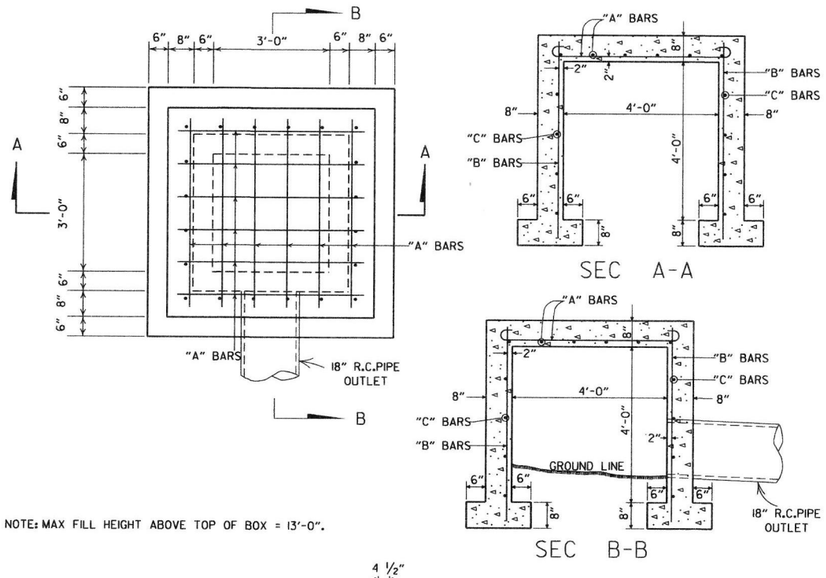
TYPICAL OM-3 INSTALLATION AT EDGE OF OBSTRUCTION

DATE	REVISION	FILMED
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

U-CHANNEL POST ASSEMBLIES

STANDARD DRAWING SHS-2

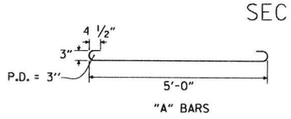


NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 1/2"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



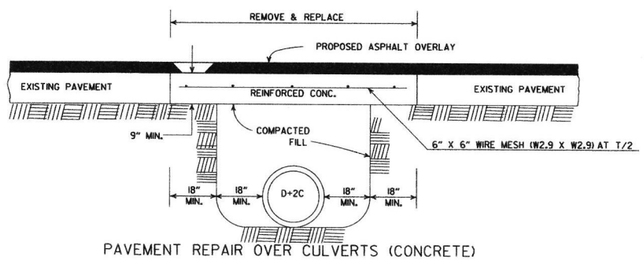
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

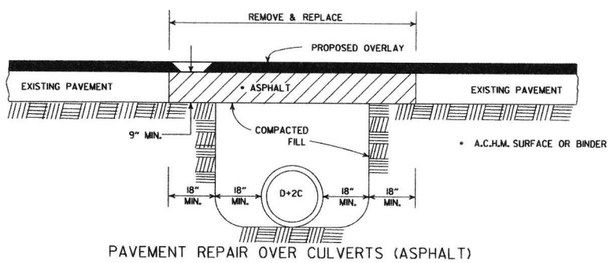
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITTIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



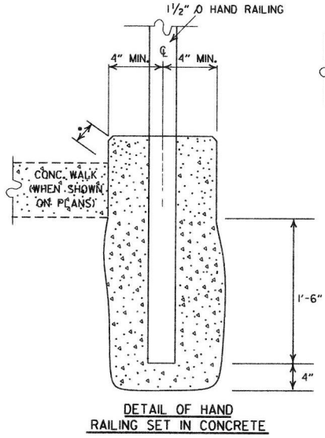
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



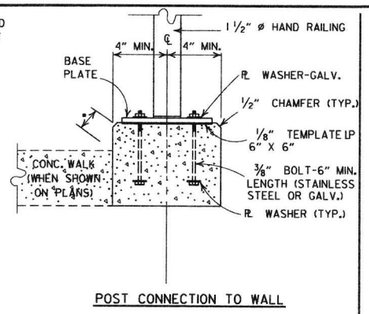
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

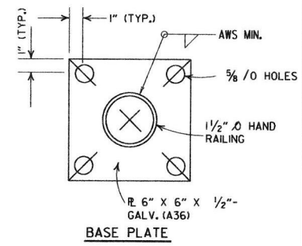
* A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

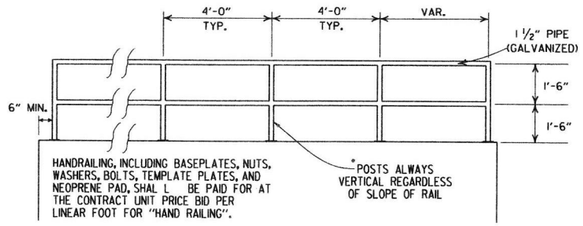


POST CONNECTION TO WALL

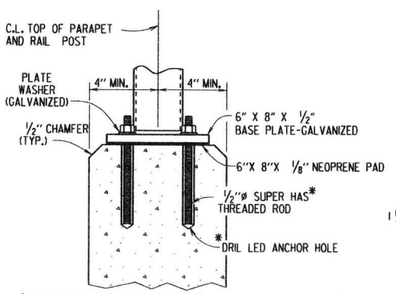


BASE PLATE

POST CONNECTION DETAILS



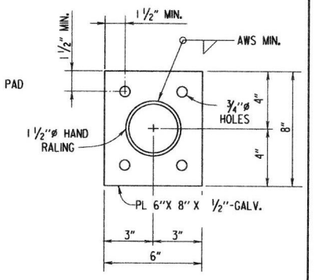
HAND RAILING SHALL CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 1/2" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

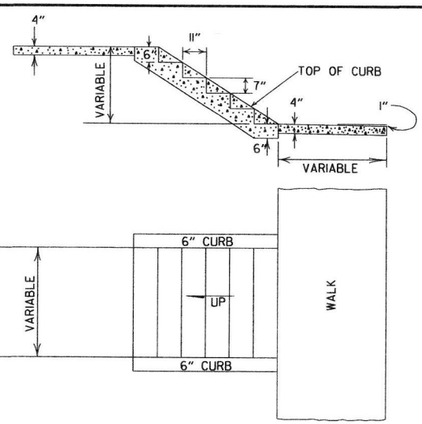
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS



GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-96	ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	10-1-92
8-15-91	DELETED HDWL MODIFICATION DETAIL	8-15-91
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-8-90
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	11-30-89
11-17-88	V. BARS BEHIND ARROW	665-11-17-88
7-15-88	REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	649-7-15-88
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DET& PAVEMENT REPAIR	674-4-20-79
2-2-76	12"MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI-1

R1-1



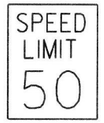
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



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

R2-1



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

W3-5



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

W3-5a



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

R4-1



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

R4-2



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

R5-1



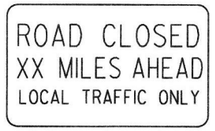
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



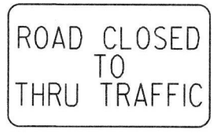
48"X30"

R11-3A



60"X30"

R11-4



60"X30"

W21-5a



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

W1-1



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

W1-2



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

W1-3



STD. 48"X48"

W1-4



STD. 48"X48"

W1-6



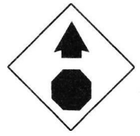
STD. 48"X24"
SPECIAL 60"X30"

W1-8



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

W3-1



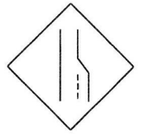
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1



STD. 36"X36"
SPECIAL 48"X48"

W6-3



EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7



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

W9-2



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

W13-1



STD. 24"X24"

W20-1



STD. 48"X48"

W20-2



STD. 48"X48"

W20-3



STD. 48"X48"

W20-4



STD. 48"X48"

W20-5



STD. 48"X48"

W20-7a



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

W21-2



STD. 30"X30"
SPECIAL 36"X36"

W21-5



STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b



STD. 48"X48"

R56-1



STD. 18"X18"

W8-11



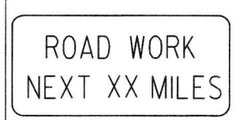
STD. 36"X36"
FWY. 48"X48"

W8-9



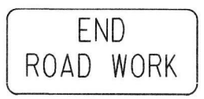
STD. 36"X36"
FWY. 48"X48"

G20-1



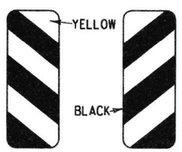
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

M4-9



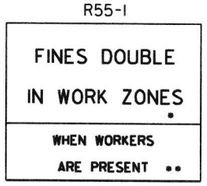
STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10



48"X18"

R55-1



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.

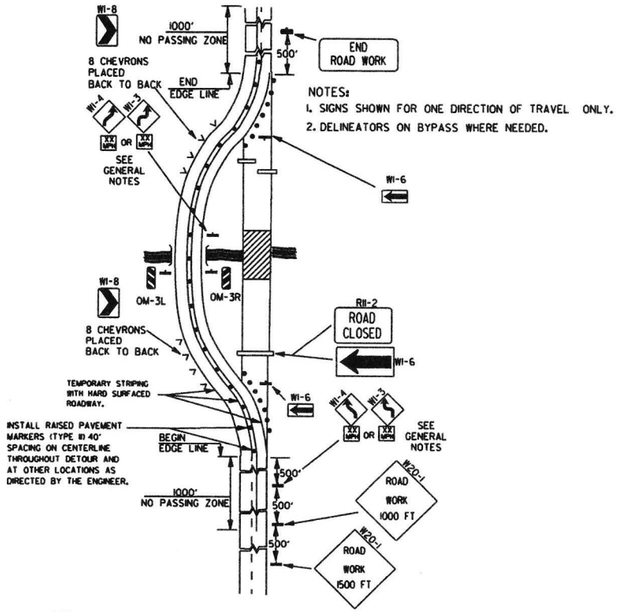
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

DATE	REVISION	FILMED
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

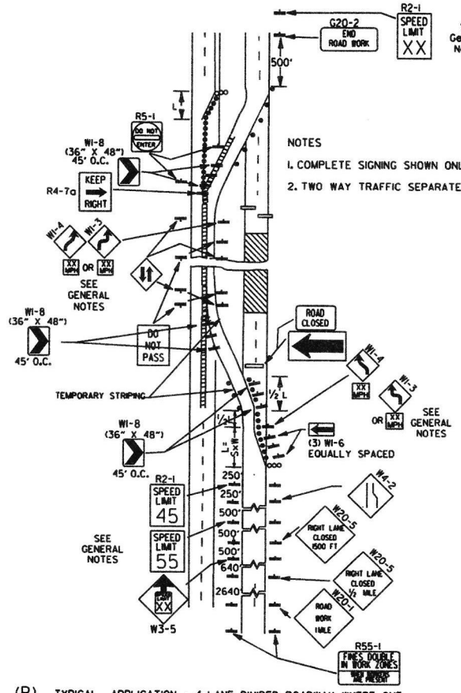
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



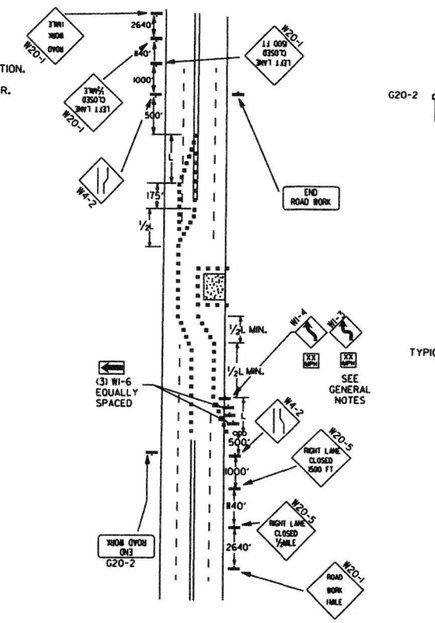
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

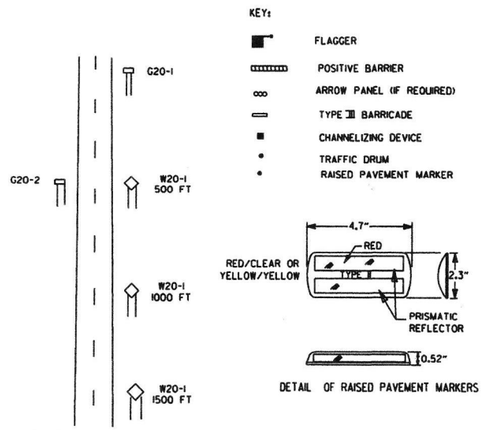


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(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

TAPER FORMULAE:

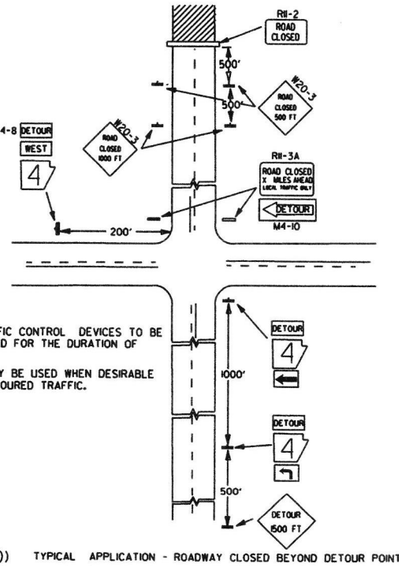
L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

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

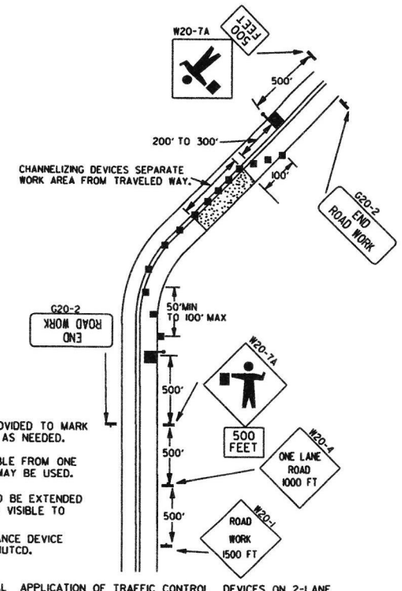
GENERAL NOTES:

1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.



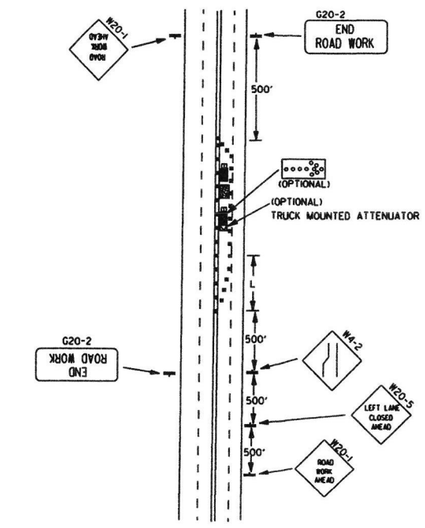
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



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

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



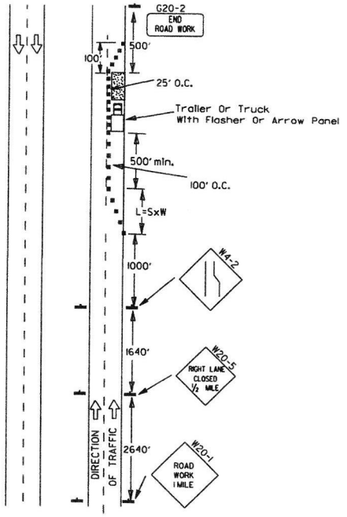
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-8-10	ADDED (AFAD)	
8-20-08	REVISED SIGN DESIGNATIONS	
8-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

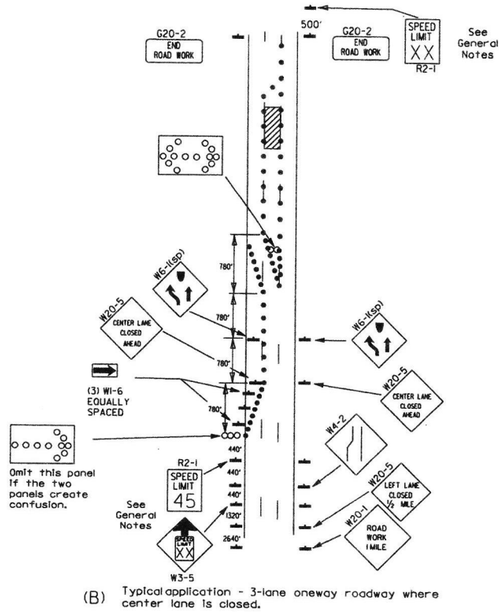
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

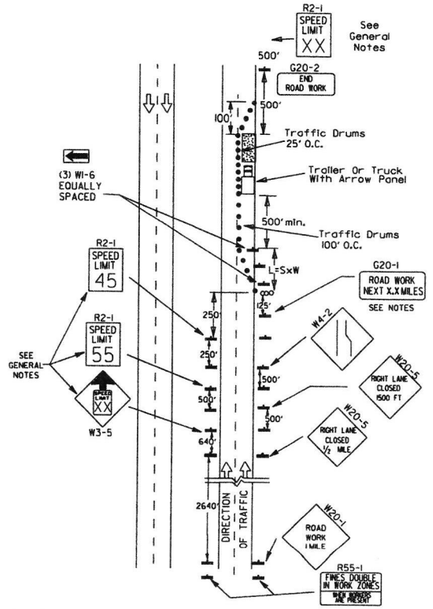
STANDARD DRAWING TC-2



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



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



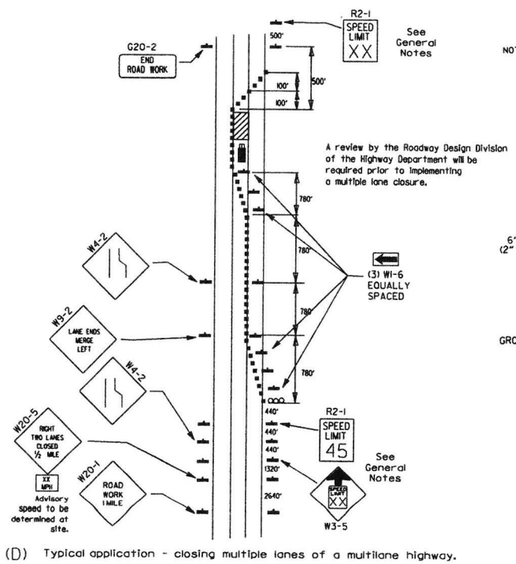
(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

- ○○○ Arrow Panel (If Required)
- ■ Channelizing Device
- ● Traffic drum

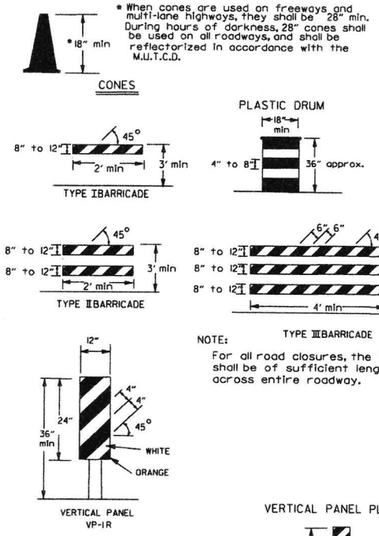
GENERAL NOTES:

1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.



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

Channelizing devices



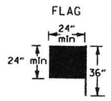
NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.

TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

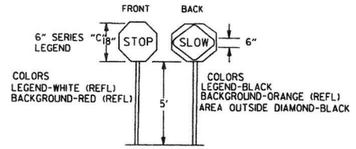
* When shown on the plans concrete barrier will be used.
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

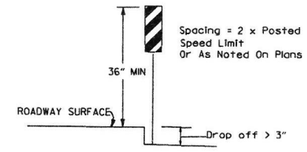


Flag shall be of good grade red material

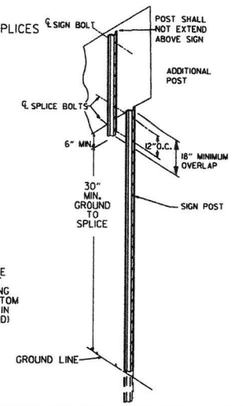
STOP SLOW PADDLE



VERTICAL PANEL PLACEMENT



DETAIL OF SPLICES



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

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

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

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
8-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

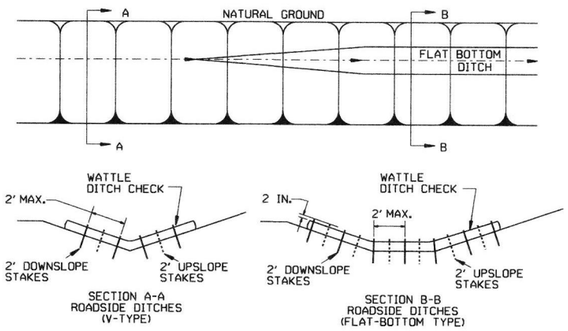
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

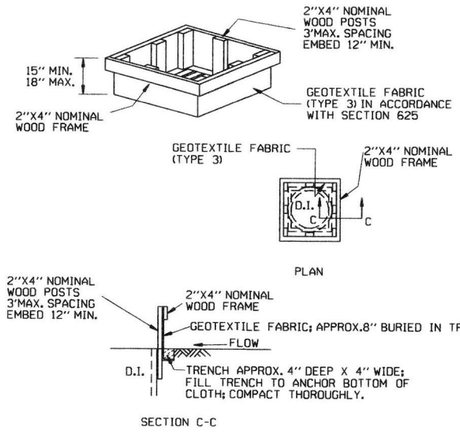
STANDARD DRAWING TC-3

GENERAL NOTES

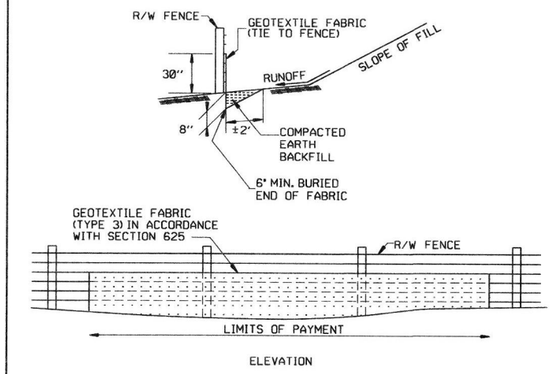
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

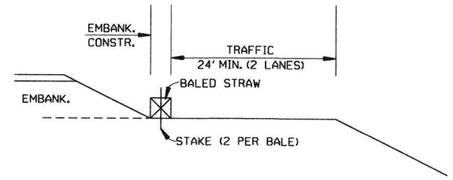
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

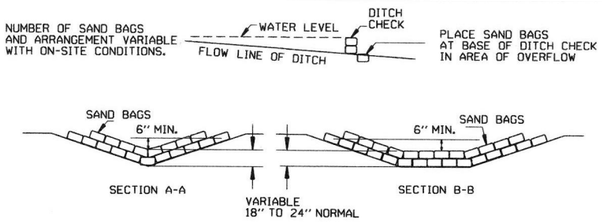
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

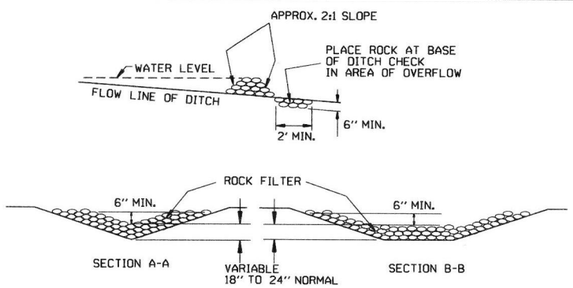
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



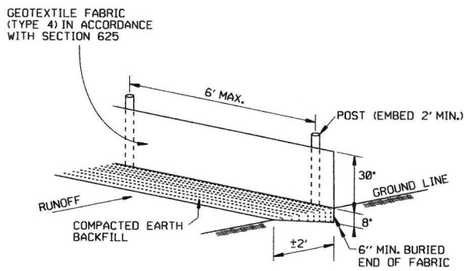
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

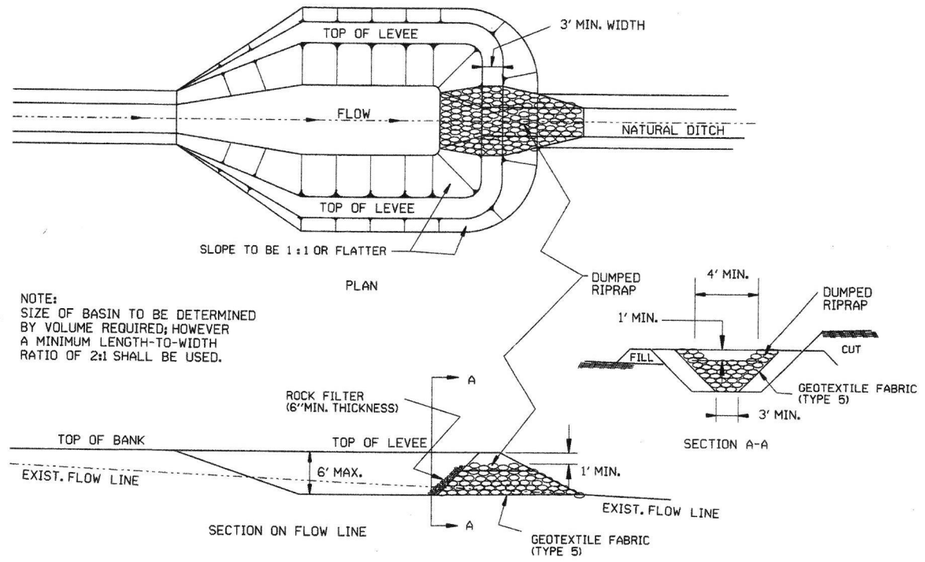
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

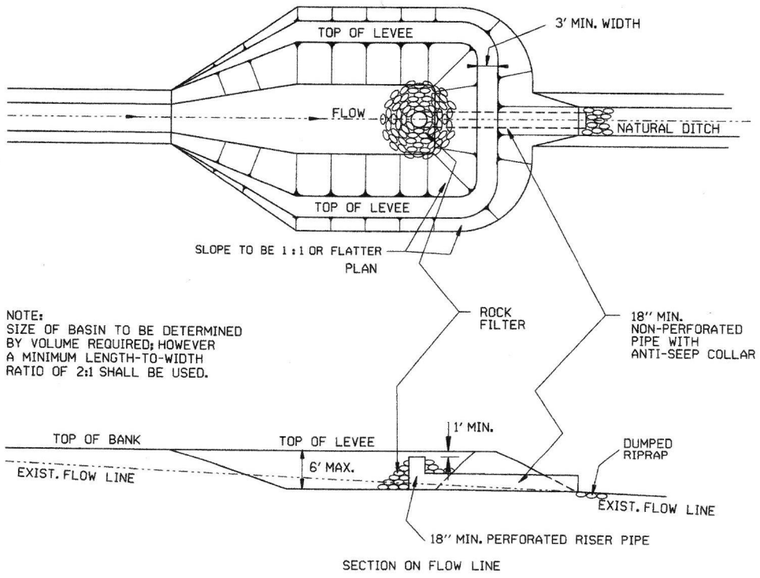
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

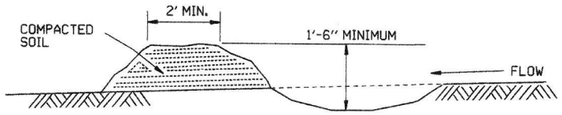
STANDARD DRAWING TEC-1



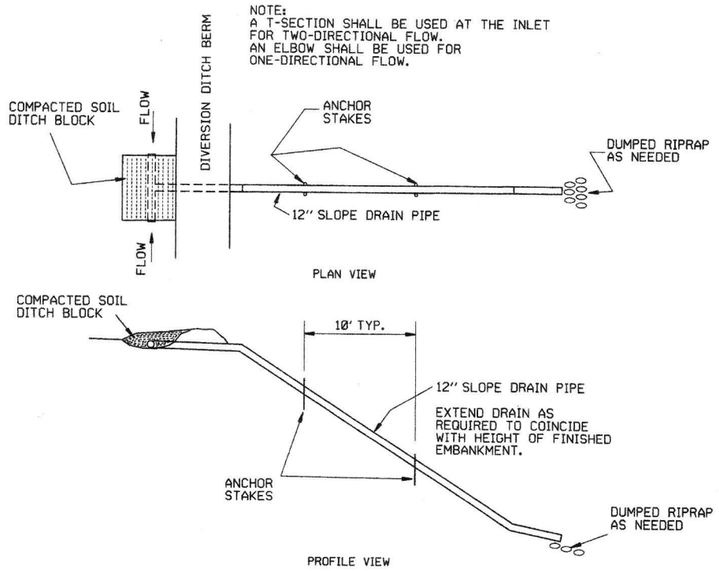
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



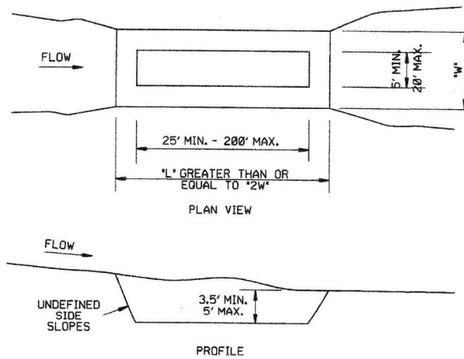
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

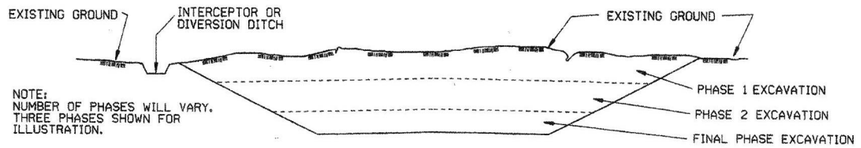
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



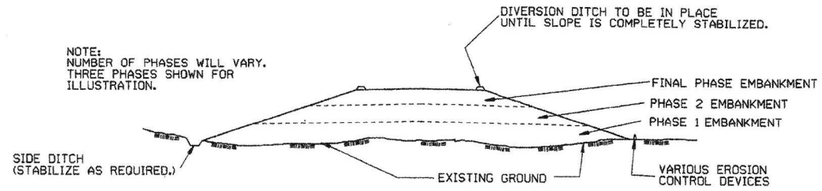
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

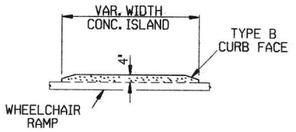
DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

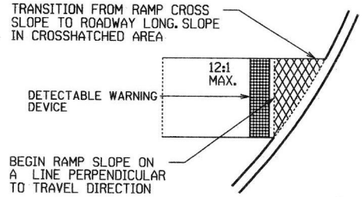
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3

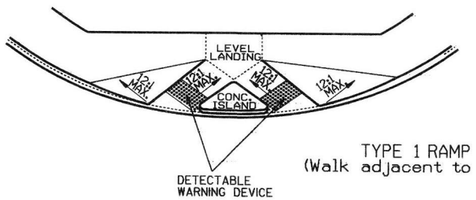
stdtec3.dgn



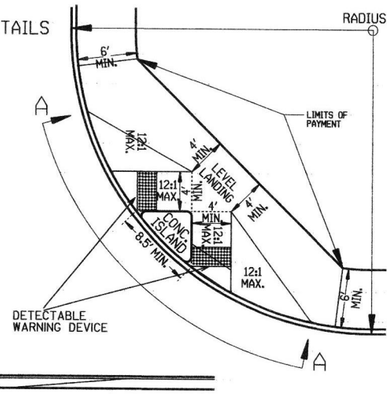
CONCRETE ISLAND DETAIL

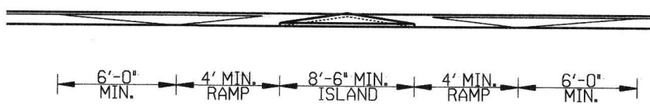


SLOPE TRANSITION DETAILS



TYPE 1 RAMP
(Walk adjacent to curb)

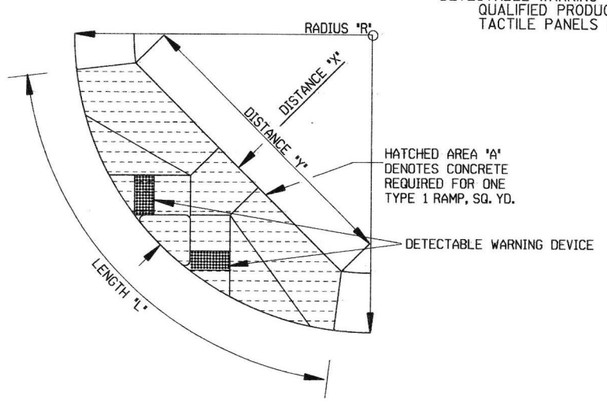




SECTION A-A

TYPE 1 RAMP DIMENSIONS AND QUANTITIES

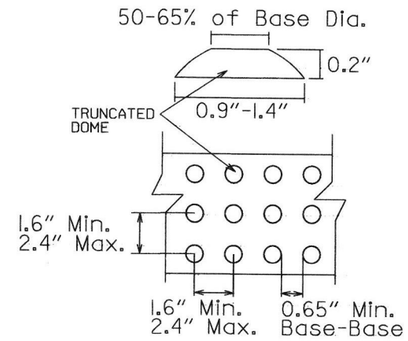
RADIUS 'R' FEET	DISTANCE 'X' FEET	DISTANCE 'Y' FEET	LENGTH 'L' FEET	RAMP AREA 'A' SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80



NOTE:
THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGTITUDINAL GRADE.

GENERAL NOTES FOR DETECTABLE WARNING DEVICES

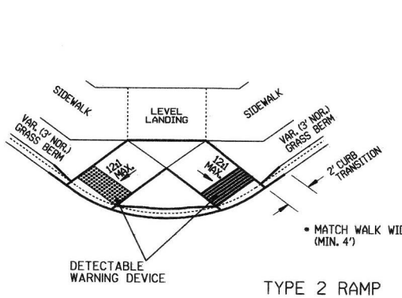
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
DETECTABLE WARNING DEVICE SHALL BE ON THE AHTD QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).



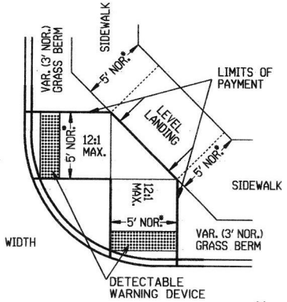
DETECTABLE WARNING DEVICE DETAIL

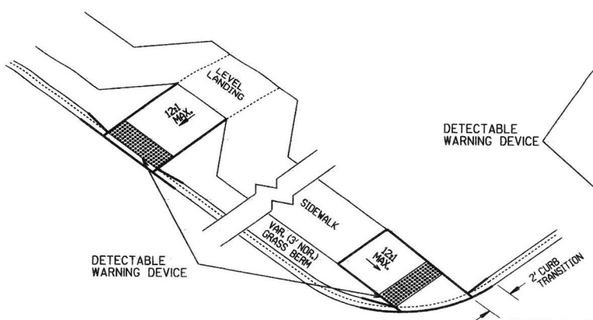
GENERAL NOTES:

IN NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED ON THE PLANS, WHEELCHAIR RAMPS ARE TO BE PROVIDED AT ALL CORNERS OF CURBED STREET INTERSECTIONS AND MID-BLOCK CROSSWALK LOCATIONS.
IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4".
THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE WALK WIDTH OR 36", WHICHEVER IS GREATER.
RAMPS SHALL BE MODIFIED AS NECESSARY TO INSURE THAT THEY ARE PARALLEL TO A LINE DRAWN FROM THE CENTER OF ONE RAMP TO THE CENTER OF THE RAMP ON THE OPPOSITE SIDE OF THE INTERSECTION.
THE DIMENSIONS AND QUANTITIES SHOWN ON THIS DRAWING ARE FOR A 90° INTERSECTION ONLY. DIMENSIONS AND QUANTITIES FOR SKEWED INTERSECTIONS WILL VARY, AND ARE TO BE DETERMINED BY THE ENGINEER.

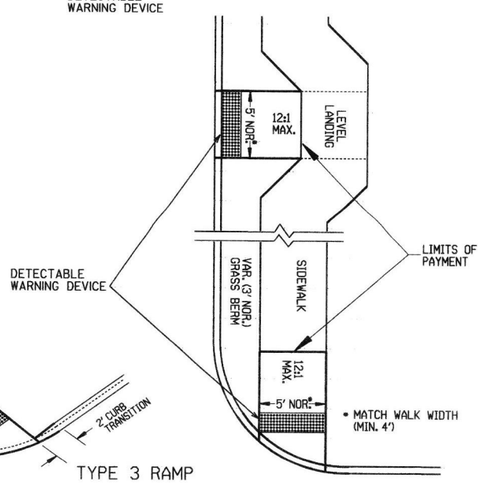


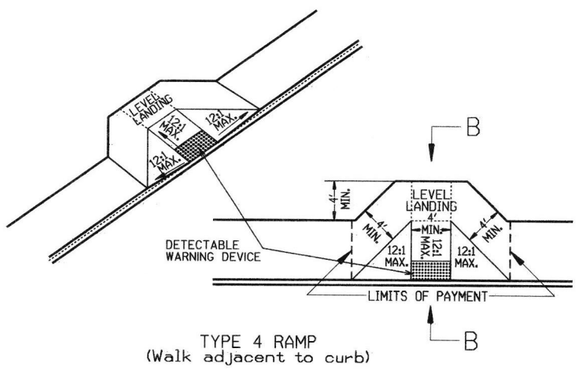
TYPE 2 RAMP



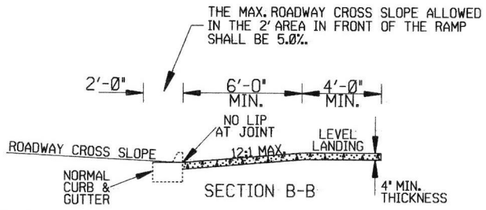


TYPE 3 RAMP





TYPE 4 RAMP
(Walk adjacent to curb)



SECTION B-B

RAMP SELECTION CRITERIA

FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.

AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD.SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM8%TO12%MAX.SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD."CONC. ISLD."IN PAY ITEM	-------
6-02-76	ISSUED-P.J.D.	299-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS

STANDARD DRAWING WR-1