JOB 100739

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS

HWY. 49/PARKER RD. WB
TURN LANE EXT. (JONESBORO) (S)

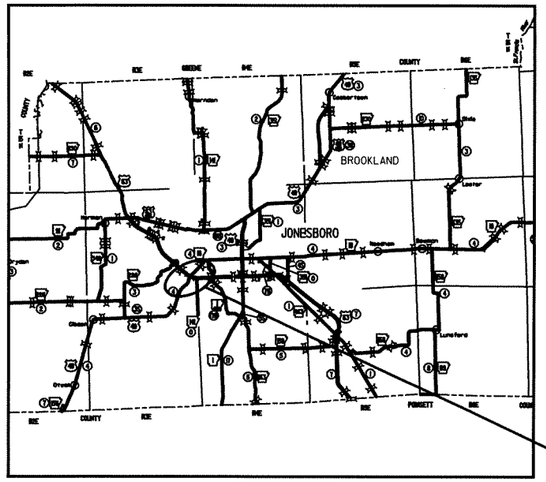
CRAIGHEAD COUNTY

ROUTE 63 SECTION 6
FAP STPP-A144(4)

JOB 100739

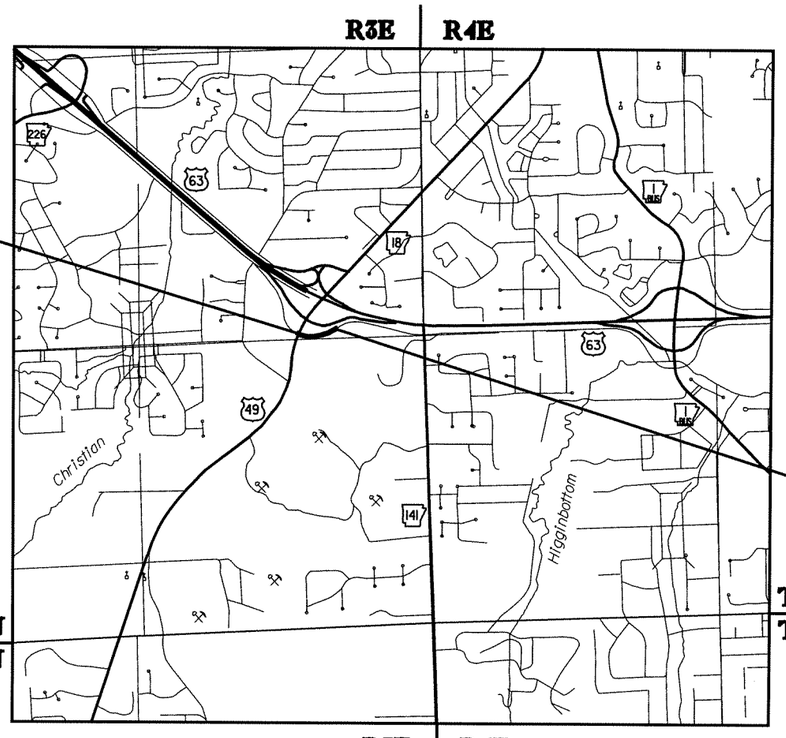
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	1	23

(2) HWY. 49/PARKER RD. WB
TURN LANE EXT. (JONESBORO) (S)



VICINITY MAP

NOT TO SCALE



N

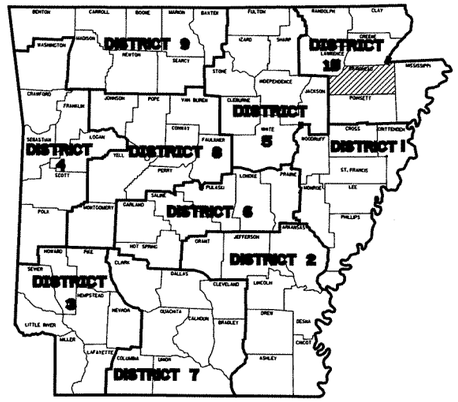
STA. 50+50.00 ℄ PARKER RD.
BEGIN JOB 100739

STA. 55+56.31 ℄ PARKER RD.
END JOB 100739

BEGIN-POINT OF PROJECT
LAT. 35°48'26"N
LONG. 90°43'18"W

MID-POINT OF PROJECT
LAT. 35°48'26"N
LONG. 90°43'16"W

END-POINT OF PROJECT
LAT. 35°48'26"N
LONG. 90°43'12"W



ARK. HWY. DIST. NO. 10

DESIGN TRAFFIC DATA - HWY. 63

DESIGN YEAR	2031
2011 ADT	31,900
2031 ADT	57,800
2031 DHV	6,358
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	10%

DESIGN TRAFFIC DATA - PARKER RD.

DESIGN YEAR	2031
2011 ADT	6,000
2031 ADT	10,800
2031 DHV	1188
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	3%
DESIGN SPEED	40 MPH

LENGTH COMPUTED ALONG C.L. OF PARKER RD.

GROSS LENGTH OF PROJECT	506.31 FEET OR	0.096 MILES
NET LENGTH OF ROADWAY	506.31 FEET OR	0.096 MILES
NET LENGTH OF BRIDGES	0.00 FEET OR	0.000 MILES
NET LENGTH OF PROJECT	506.31 FEET OR	0.096 MILES

P.E. 100739
F.A.P. 56CO-A144-004

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14517
PAUL ROBBINS
7-19-11

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	2	23

(2) INDEX OF SHEETS, GOVERNING SPECS. & NOTES

INDEX OF SHEETS

SHEET NO.	TITLE	DRWG.NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS AND GENERAL NOTES		
3	TYPICAL SECTIONS OF IMPROVEMENT		
4	TEMPORARY EROSION CONTROL DETAILS		
5	MAINTENANCE OF TRAFFIC DETAILS		
6	PERMANENT PAVEMENT MARKINGS		
7	QUANTITIES		
8	SUMMARY OF QUANTITIES AND REVISIONS		
9	SURVEY CONTROL DETAILS		
10 - 11	PLAN AND PROFILE SHEETS		
12 - 13	SIGNALIZATION DETAILS		
14	CURBING DETAILS	CG-1	11-29-07
15	PAVEMENT MARKING DETAILS	PM-1	11-17-10
16	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC	SE-2	10-18-96
17	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	11-17-10
18	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	3-11-10
19	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	10-15-09
20	TEMPORARY EROSION CONTROL DEVICES	TEC-1	11-18-98
21	TEMPORARY EROSION CONTROL DEVICES	TEC-3	11-03-94
22 - 23	CROSS SECTIONS		

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	FHWA-1273 REVISIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-2	MANUAL FOR ASSESSING SAFETY HARDWARE (MASH)
105-1	CONSTRUCTION CONTROL MARKINGS
105-2	EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
107-1	WORKER VISIBILITY
108-1	LIQUIDATED DAMAGES
303-1	AGGREGATE BASE COURSE
404-1	PRODUCTION VERIFICATION OF ASPHALT CONCRETE HOT MIX
409-1	MINERAL AGGREGATES
410-3	DENSITY TESTING FOR ACHM LEVELING COURSES AND BOND BREAKERS
600-1	WATER FOR VEGETATION
603-1	MAINTENANCE OF TRAFFIC
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
711-1	CONCRETE PULL BOX
719-2	THERMOPLASTIC PAVEMENT MARKING MATERIAL
JOB 100739	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 100739	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 100739	INTERNET BIDDING
JOB 100739	LOOP WIRING - CLASSIFIED
JOB 100739	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 100739	UTILITY ADJUSTMENTS
JOB 100739	WARM MIX ASPHALT

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
6. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
7. 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.

TRAFFIC SIGNAL NOTES

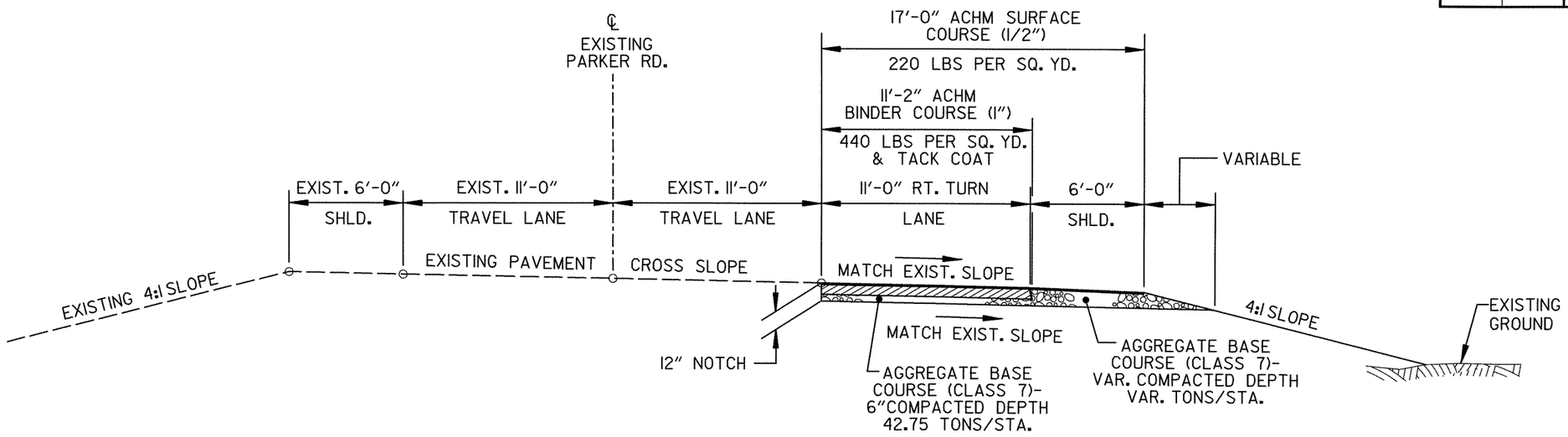
1. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2002) NATIONAL ELECTRICAL CODE, NFPA 101 (2000) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
2. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH AASHTO, THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
3. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE DETAILS MAY BE USED.
4. ALL BOXES SHALL BE (TYPE 1 HD) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE 2" DIAMETER UNLESS SPECIFIED ON PLANS.
5. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
6. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
7. TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14517
PAUL ROBBINS
7-19-11

INDEX OF SHEETS, GOVERNING SPECS. & 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.		100739	3	23

(2) **TYPICAL SECTIONS OF IMPROVEMENT**

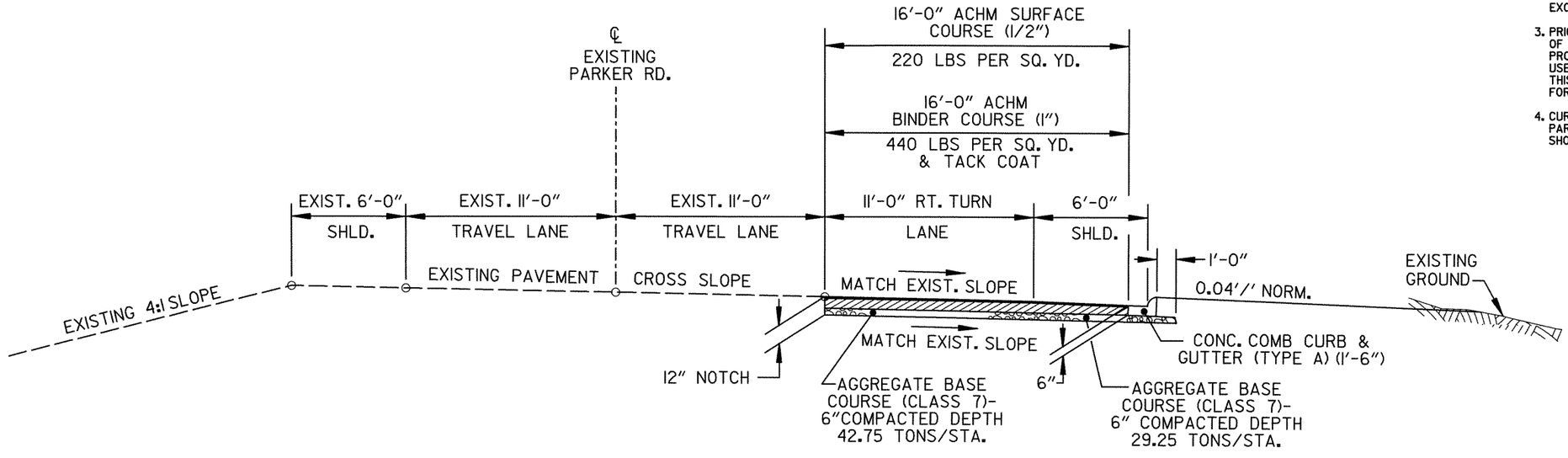


NOTCH & WIDENING
SUPERELEVATION SECTION
WESTBOUND PARKER RD.

(SHOWN IN DIRECTION OF TRAFFIC)
STA. 51+24.00 - STA. 55+56.31

NOTES:

1. 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.
2. 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.
3. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB OR 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.
4. CURB AND GUTTER CONSTRUCTED ON OUTSIDE LT. SHOULDER OF PARKER ROAD SHALL EXTEND AROUND THE RADIUS OF HWY. 49 AS SHOWN ON PLANS.



NOTCH & WIDENING
SUPERELEVATION SECTION WITH CURB
AND GUTTER
WESTBOUND PARKER RD.

(SHOWN IN DIRECTION OF TRAFFIC)
STA. 50+50.00 - STA. 51+24.00

STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
No. 14617
PAUL ROBBINS
7-19-11

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	4	23

(2) TEMPORARY EROSION CONTROL DETAILS

PI 101+15.41

S 57°59'50" E

CONCRETE DRAIN

HWY. 49 (SOUTHWEST DR.)

PARKER RD.

STA. 100+00.00 HWY. 49=
STA. 50+00.00 PARKER ROAD
◁ 92°41'52"

BEGIN CONSTRUCTION
STA. 50+50.00 ℄ PARKER RD.
ELEV. 381.50

END CONSTRUCTION
STA. 55+56.31 ℄ PARKER RD.
ELEV. 367.60

CONST. LIMITS

N 10°15'38" E

50+00

100+00

55+00

+50 33'

S 57°59'50" E

N 65°30'00" E

EXIST. ROW

PAVED PARKING

CONCRETE DRAIN

DROP INLET

RETAINING WALL

CURB

PI 52+54.09

EROSION CONTROL LEGEND

E-II	SILT FENCE

REVISIONS

DATE	DESCRIPTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14577
PAUL ROBBINS
7-19-11

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		100739	5	23

(2) MAINTENANCE OF TRAFFIC DETAILS

45+00

ROAD WORK AHEAD — (I) W20-1 (48" X 48")

EXIST. ROW

END ROAD WORK — (I) G20-2 (48" X 24")

500'

S 51°59'50" E

PI 101+45.41

PI 47+57.29

PARKER RD.

EXIST. ROW

N 10°15'38" E

50+00

HWY. 63 EXIT RAMP

ROAD WORK AHEAD — (I) W20-1 (48" X 48")

END ROAD WORK — (I) G20-2 (48" X 24")

N 44°23'28" E

HWY. 49 (SOUTHWEST DR.)

500' (MIN.)

HWY. 63 ENT. RAMP

105+00

END ROAD WORK — (I) G20-2 (48" X 24")

500'

STA. 100+00.00 HWY. 49=
STA. 50+00.00 PARKER ROAD
∢ 92°41'52"

BEGIN CONSTRUCTION
STA. 50+50.00 ℄ PARKER RD.
ELEV. 381.50

TRAFFIC DRUMS @ 20' SPACING - 33 TOTAL

200' TAPER

100+00

PARKER RD.

S 51°59'50" E

N 65°30'00" E

EXIST. ROW

EXIST. ROW

PI 52+54.09

500'

55+00

END CONSTRUCTION
STA. 55+56.31 ℄ PARKER RD.
ELEV. 367.60

SHOULDER CLOSED — (I) RSP-1 (48" X 30")

ROAD WORK 500 FT — (I) W20-1 (48" X 48")

ROAD WORK 1000 FT — (I) W20-1 (48" X 48")

ROAD WORK 1500 FT — (I) W20-1 (48" X 48")

END ROAD WORK — (I) G20-2 (48" X 24")

EXIST. ROW

END ROAD WORK — (I) G20-2 (48" X 24")

EXIST. ROW

EXIST. ROW

HWY. 49 (SOUTHWEST DR.)

EXIST. ROW

ROAD WORK AHEAD — (I) W20-1 (48" X 48")

95+00

STATE OF ARKANSAS
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No. 14517
PAUL ROBBINS
7-19-11

MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		100739	6	23

(2) PERMANENT PAVEMENT MARKINGS

HWY. 63 ENT. RAMP

HWY. 49 (SOUTHWEST DR.)

P1101+15.41

CONCRETE DRAIN

PARKER RD.

N 9°50' E

N 10°15'38" E

STA. 100+00.00 HWY. 49=
STA. 50+00.00 PARKER ROAD
◁ 92°41'52"

BEGIN CONSTRUCTION
STA. 50+50.00 ℄ PARKER RD.
ELEV. 381.50

END CONSTRUCTION
STA. 55+56.31 ℄ PARKER RD.
ELEV. 367.60

12" STOP LINE

WORD "ONLY"

4" SOLID WHITE

RT. TURN ARROW WHITE

4" SOLID WHITE

WORD "ONLY"

4" SOLID DBL. YELLOW

RT. TURN ARROW WHITE

LT. AND THROUGH COMB. ARROW WHITE

200' TAPER

50'

60'

60'

60'

60'

PARKER RD.

EXIST. ROW

S 57°59'50" E

S 100+00

470'

LT. AND THROUGH COMB. ARROW WHITE

N 65°30'00" E

RT. TURN ARROW WHITE

4" SOLID WHITE

LT. TURN AND THROUGH COMB. ARROW WHITE

DROP INLET

CONCRETE DRAIN

EXIST. ROW

EXIST. ROW

EXIST. ROW

EXIST. ROW

CURB

PAVED PARKING

CURB

CURB

PAVED PARKING

P152+54.09

55+00

00+50

HWY. 49 (SOUTHWEST DR.)

NOTE: THE CONTRACTOR SHALL REMOVE ALL CONFLICTING PAVEMENT MARKINGS PRIOR TO PLACING NEW MARKINGS.

STATE OF ARKANSAS
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No. 14517
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7-19-11

PERMANENT PAVEMENT MARKINGS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/7/11				6	ARK.			
				JOB NO.		100739	7	23

(2) QUANTITIES

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL				
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN.FT.	CU. YD.
50+50	55+56		0.16	0.32	0.16	16.3	0.16	0.16	0.16	3.3	510	19
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.												
TOTALS:			**0.16**	**0.32**	**0.16**	**16.3**	**0.16**	**0.16**	**0.16**	**3.3**	**510**	**19**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING.
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING.

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

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

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS
				NO.	SQ. FT.	EACH
W20-1	ROAD WORK 1500 FT.	48"x48"	1	1	16	
W20-1	ROAD WORK 1000 FT.	48"x48"	1	1	16	
W20-1	ROAD WORK 500 FT.	48"x48"	1	1	16	
W20-1	ROAD WORK AHEAD	48"x48"	4	4	64	
G20-2	END ROAD WORK	48"x24"	5	5	40	
RSP-1	SHOULDER CLOSED	48"x30"	1	1	10	
	TRAFFIC DRUMS					33
TOTALS:					**162**	**33**

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	REMOVAL OF PERMANENT PAVEMENT MARKINGS	THERMOPLASTIC PAVEMENT MARKINGS				
		4" WHITE	4" YELLOW	12" WHITE	WORDS	ARROWS
	LIN.FT.	LIN.FT.			EACH	
REMOVAL OF PERMANENT PAVEMENT MARKINGS	1701					
RAISED PAVEMENT MARKERS TYPE II						
THERMOPLASTIC PAVEMENT MARKINGS WHITE (4")		1274				
THERMOPLASTIC PAVEMENT MARKINGS YELLOW (4")			940			
THERMOPLASTIC PAVEMENT MARKINGS WHITE (12")				35		
THERMOPLASTIC PAVEMENT MARKINGS WORDS					2	
THERMOPLASTIC PAVEMENT MARKINGS ARROWS						6
TOTALS:	**1701**	**1274**	**940**	**35**	**2**	**6**

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

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
704	FEEDER WIRE	162	LIN. FT.
710	NON-METALLIC CONDUIT (2")	146	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	2	EACH
SP	LOOP WIRING CLASS III (2)	1048	LIN. FT.

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
50+50	55+56	PARKER RD. WIDENING	184	195
TOTALS:			**184**	**195**

SEE SECTION 104.03 OF THE STD. SPECS.
NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1' 6")
			LIN. FT.
50+44	51+24	PARKER RD.	108
TOTAL:			**108**

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22
			FEET			FEET				FEET			TON	FEET			TON
50+50	51+24	PARKER RD. RT. TURN LANE WIDENING W/CURB & GUTTER	74.0	VAR.	53.3	16.0	131.6	0.03	3.9	16.0	131.6	440.0	29.0	16.0	131.6	220.0	14.5
51+24	55+56	PARKER RD. RT. TURN LANE WIDENING	432.0	VAR.	388.0	17.0	816.0	0.03	24.5	11.2	537.6	440.0	118.3	17.0	816.0	220.0	89.8
TOTALS:					**441.3**				**28.4**				**147.3**				**104.3**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
ACHM BINDER COURSE (1").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT .....0.03 GAL. PER SQ. YD.

STATE OF ARKANSAS
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PAUL ROBBINS
9-7-11

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/7/11				6	ARK.			
				JOB NO.		100739	8	23

(2) SUMMARY OF QUANTITIES & REVISIONS

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
210	UNCLASSIFIED EXCAVATION	184	CU. YD.
210	COMPACTED EMBANKMENT	195	CU. YD.
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	441	TON
401	TACK COAT	28	GAL.
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	139	TON
SP, SS, & 406	ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1")	8	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	98	TON
SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")	6	TON
601	MOBILIZATION	1.00	LUMP SUM
SS & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	162	SQ. FT.
SS & 604	TRAFFIC DRUMS	33	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	1701	LIN. FT.
620	LIME	1	TON
620	SEEDING	0.16	ACRE
620	MULCH COVER	0.32	ACRE
SS & 620	WATER	19.6	M.GAL.
621	TEMPORARY SEEDING	0.16	ACRE
621	SILT FENCE	510	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	19	CU. YD.
623	SECOND SEEDING APPLICATION	0.16	ACRE
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	108	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
704	FEEDER WIRE	162	LIN. FT.
710	NON-METALLIC CONDUIT (2")	146	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)	2	EACH
SS & 719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	1274	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	35	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	940	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	2	EACH
SS & 719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	6	EACH
SP	LOOP WIRING CLASS III (2)	1048	LIN. FT.

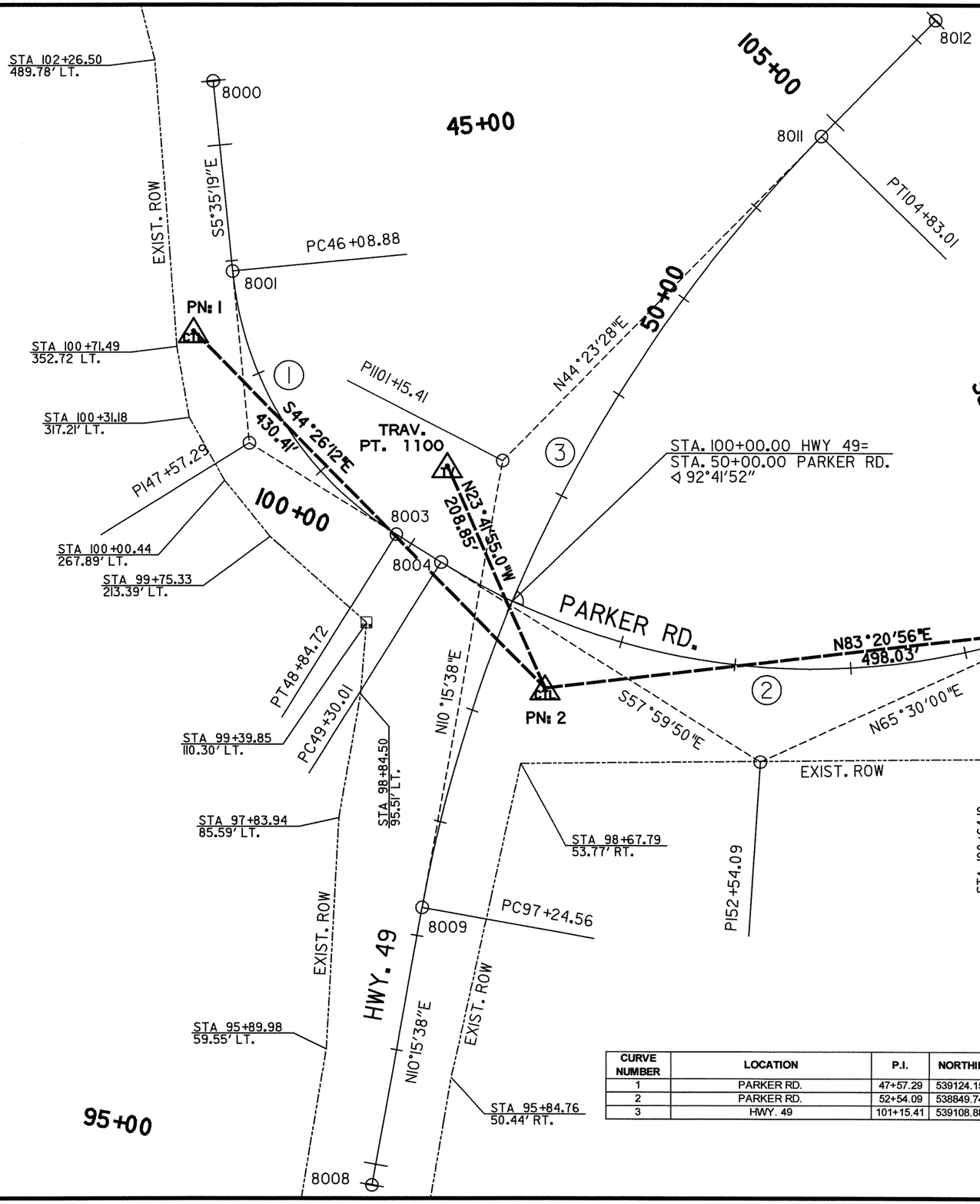
REVISION BOX

DATE	REVISION	SHEET NUMBER
9/7/2011	REMOVED EXTRA (NON-ESSENTIAL) COLUMNS FROM BASE AND SURFACING QUANTITY BOX	7, 8

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14517
PAUL ROBBINS
9-7-11

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	9	23

(2) **SURVEY CONTROL DETAILS**



CONSTRUCTION C.L.

DESCRIPTION	HORIZONTAL ALIGNMENT POINT	STATION	PARKER RD. NORTHING	EASTING
POB	8000	44+44.36	539435.6029	1691190.6180
PC	8001	46+08.88	539271.8627	1691206.6397
PT	8003	48+84.72	539045.5026	1691346.9496
PC	8004	49+30.01	539021.5000	1691385.3574
PT	8006	55+24.77	538984.1429	1691955.0913
POE	8007	56+84.15	539050.2362	1692100.1203

DESCRIPTION	HORIZONTAL ALIGNMENT POINT	STATION	HWY. 49 NORTHING	EASTING
POB	8008	94+81.92	538485.5281	1691325.6275
PC	8009	97+24.56	538724.2836	1691368.8466
PT	8011	104+83.01	539388.1856	1691711.8897
POE	8012	106+23.21	539488.3667	1691809.9634

BASIS FOR BEARING:
GRID NORTH FROM AHTD GPS, SEE NOTES

SURVEY CONTROL COORDINATES

Project Name: s100739s02
Date: 7/121/2011

Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	539220.4800	1691173.1701	391.57	CTL	5/8" Rebar w/2" AHTD cap
2	538913.1239	1691474.4655	383.95	CTL	5/8" Rebar w/2" AHTD cap
3	538970.8354	1691969.1863	368.58	CTL	5/8" Rebar w/2" AHTD cap
1100	539104.3830	1691390.5520	388.22	TV	8" MAG nail

(other markings indicated in the point description of the individual point).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.9999349540 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME. s100672go.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

BASIS OF BEARINGS:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: AHTD GPS PN:160012 (Prj CTL #102, NGS PID: HC 65+19
CONVERGENCE ANGLE: 0-45-30 RIGHT AT PN: 6
LT: 35-48-21.4 LG: 090-41-49.2
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

CURVE NUMBER	LOCATION	P.I.	NORTHING	EASTING	Δ	D	R	T	L	E	P.C.	P.T.
1	PARKER RD.	47+57.29	539124.1556	1691221.0926	52°24'31" LT.	19°00'00"	301.56'	148.41'	275.83'	34.54'	46+08.88	48+84.72
2	PARKER RD.	52+54.09	538849.7479	1691660.1874	56°30'10" LT.	9°30'00"	603.11'	324.08'	594.77'	81.56'	49+30.11	55+24.77
3	HWY. 49	101+15.41	539108.8876	1691438.4671	34°07'50" RT.	4°30'00"	1273.24'	758.46'	758.46'	58.64'	97+24.56	104+83.01

SCALE IN FEET
0 50 100 200

STATE OF ARKANSAS
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No. 14317
PAUL ROBBINS
7-19-11

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	10	23

(2) PLAN AND PROFILE

PARKER RD.
P.I. = 47+57.29
N = 539124.1556
E = 1691221.0926
DELTA = 52°24'31" LT.
DOC = 19°00'00"
T = 148.41'
L = 275.83'
R = 301.56'
E = 34.54'
P.C = 46+08.88
P.T. = 48+84.72

P.I. 101+15.41

N 44°23'28" E

HWY. 49 (SOUTHWEST DR.)

HWY. 63 ENT. RAMP

HWY. 49
P.I. = 101+15.41
N = 539108.8876
E = 1691438.4671
DELTA = 34°07'50" RT.
DOC = 4°30'00"
T = 390.85'
L = 758.46'
R = 1273.24'
E = 58.64'
P.C = 97+24.56
P.T. = 104+83.01

STA. 50+44 TO STA. 51+24 CONSTRUCT CONCRETE CURB AND GUTTER (TYPE A) (I-6") = 143 LIN. FT.

S 57°59'50" E

STA. 100+00.00 HWY. 49=
STA. 50+00.00 PARKER ROAD
◁ 92°41'52"

STA. 50+44 (LT.) BEGIN PROPOSED CURB & GUTTER

NOTE: CURB & GUTTER CONSTRUCTED ON OUTSIDE LT. SHOULDER OF PARKER RD. SHALL EXTEND AROUND RADIUS OF HWY. 49 AS SHOWN ON PLANS.

BEGIN CONSTRUCTION
STA. 50+50.00 ℄ PARKER RD.
ELEV. 381.50

R=37'

CONST. LIMITS

STA. 51+24 (LT.) END PROPOSED CURB & GUTTER

CONST. LIMITS

200' TAPER

6' SHLD.

3 @ 11' LANES

33'

PARKER RD.

6'X50', Q LOOP DETECTOR (TYP.)

6'X6' LOOP DETECTOR

6' SHLD.

EXIST. ROW

N 10°15'38" E

50+00

HWY. 49 (SOUTHWEST DR.)

EXIST. ROW

EXIST. ROW

RETAINING WALL

EXIST. ROW

100+00

N 65°30'00" E

55+00

P.I. 52+54.09

LEGEND

- TYPE I HD PULL BOX
- 2" N.M.C.-NON-METALLIC CONDUIT

REMOVING & REINSTALLING SIGNS (BY AHTD)

STA. 50+86.50 PARKER RD. LT. = 1 EACH
STA. 52+14.75 PARKER RD. LT. = 1 EACH
STA. 54+03.26 PARKER RD. LT. = 1 EACH

REMOVING & REINSTALLING STREET LIGHTS (BY CITY)

STA. 52+04.82 LT. = 1 EACH
STA. 54+67.05 LT. = 1 EACH

END CONSTRUCTION
STA. 55+56.31 ℄ PARKER RD.
ELEV. 367.60

PARKER RD.
P.I. = 52+54.09
N = 538849.7479
E = 1691660.1874
DELTA = 56°30'10" LT.
DOC = 9°30'00"
T = 324.08'
L = 594.77'
R = 603.11'
E = 81.56'
e = MATCH EXIST.
P.C = 49+30.01
P.T. = 55+24.77

NOTE: TWO 6'X50' QUADRUPOLE LOOP DETECTORS SHALL BE INSTALLED TO REPLACE THE TWO EXISTING LOOP DETECTORS THAT WILL BE DAMAGED BY CONSTRUCTION. THE NEW LOOP DETECTORS SHALL BE INSTALLED AND CONFIGURED TO MATCH THE EXISTING DETECTORS. THE CONTRACTOR SHALL VERIFY THE EXISTING CONFIGURATION PRIOR TO BEGINNING CONSTRUCTION. NO OTHER MODIFICATIONS TO THE EXISTING TRAFFIC SIGNAL ARE ANTICIPATED. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

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No. 14517
PAUL ROBBINS
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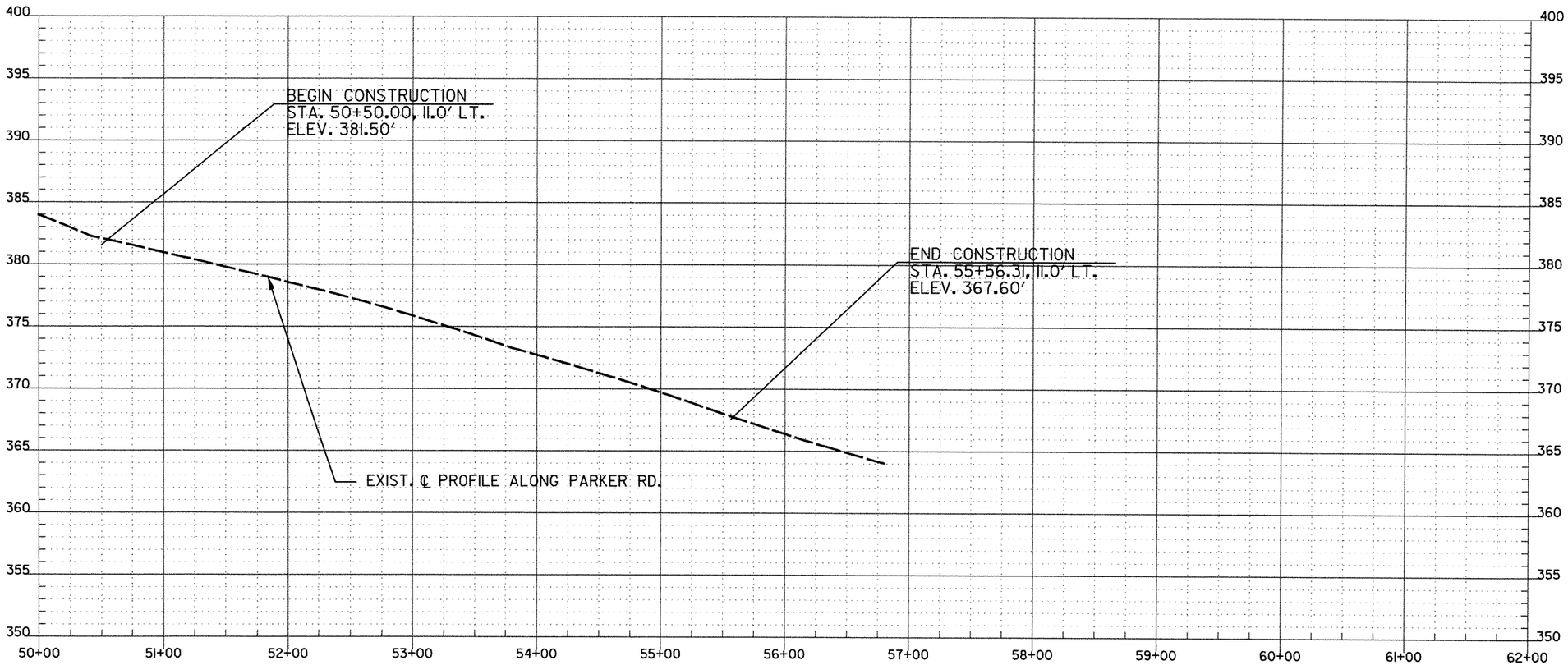
HWY. 49/PARKER RD. WB TURN LANE PLAN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PRO.J.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	11	23
				(2)	PLAN AND PROFILE			



NOTE: THE FINISHED GRADE OF THE PARKER RD. RIGHT TURN LANE WILL BE AN EXTENSION OF THE EXIST. ℄ PROFILE GRADE. SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14917
PAUL ROBBINS
7-19-11

HWY. 49/PARKER RD. WB TURN LANE PROFILE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	12	23

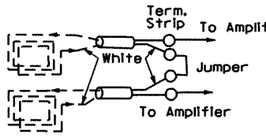
(2) SIGNALIZATION DETAILS

LOOP DETECTOR INSTALLATION AND TESTING

NOTES:

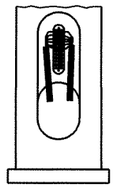
1. Loops with a perimeter greater than 40' shall have two turns. Loops with a perimeter less than or equal to 40' shall have three turns, unless otherwise noted on the plans. Quadrupole loops shall be two turns (2-4-2 configuration) unless otherwise noted.
2. Loop and feeder wire shall be continuous without splices except at the loop/feeder wire splice as shown. Splice shall be rosin soldered and waterproofed with an accepted splice kit. Drain wire shall be grounded in cabinet and insulated at loop to feeder splice.
3. The loop to feeder splice, feeder jacket and jacket of loop wire in duct shall be completely sealed and waterproofed.
4. Contractor may make connections to signal cable and loop to feeder connection at terminal strips mounted to pole inside hand hold cover as shown in detail. Terminals must be easily accessible, but protected against accidental contact. Connection of power carrying circuits must be separated from loop or logic circuits. All connections to terminal strips shall utilize spade lugs or as approved by the Engineer.
5. Each loop shall have a separate "feeder wire" unless otherwise noted. All feeder wires shall be labeled as to loop number as designated on the plans.
6. All loop wire entering pull boxes shall be enclosed in conduit. Each loop wire shall enter pull box or pole base through a separate piece of one inch (1"Ø) conduit.
7. Loop wire from loop to conduit is not twisted. Loop wire in the conduit must be twisted two to five turns per foot.
8. Warranty period for loops shall not commence until tested by the contractor and accepted by the Engineer. Contractor shall perform test and provide a record to the Engineer as listed in the Detector Loop Testing procedure.
9. Unless otherwise approved by the Engineer, backer rod shall be installed in short sections spaced not more than 18" apart and wedged into slot to hold cable in place. Cable shall be totally encapsulated in sealer.
10. "Hot Pour" sealer shall not be allowed with 705-Loop Wiring in Duct.
11. Where underground splices of signal cable are required, connections shall be soldered and completely waterproofed to the satisfaction of the Engineer. Waterproofing shall extend a minimum of two inches past the signal cable jacket and shall completely cover all individual conductors of the signal cable. Waterproofing does not apply to connections made in pole bases.
12. Contractor shall connect a separate neutral for each load switch represented on each signal pole. Only one neutral is required for pedestrian signals. A separate 5c (typical) is provided for pedestrian push buttons.
13. Traffic controller cabinet and layout shall be such that it is not necessary to shut down power or remove load switches in order to easily test or modify detector inputs to controller. Controller cabinet shall be wired such power to load switches cannot backfeed to load switch power buss during flash operation.

SERIES CONNECTED LOOPS

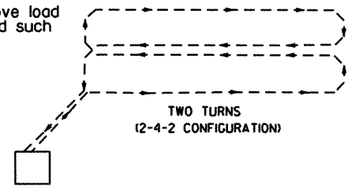


Wind loops counterclockwise; tag wire exiting slot and tie to white lead of feeder wire; when loops are tied to same vehicle detector, series connect in cabinet as shown.

HANDHOLE TERMINAL

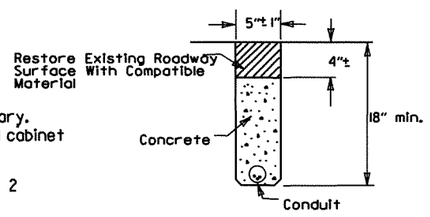


QUADRUPOLE LOOP



TRENCHING DETAIL

(FOR SAW CUT TRENCH IN ROADWAY)



TYPICAL PROCEDURE FOR DETECTOR LOOP TESTING

(1) Disconnect and test continuity (< 10 ohms) If continuity is bad, go to test 3

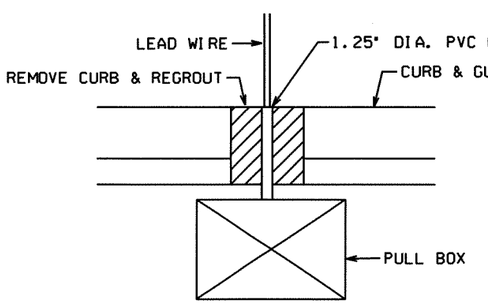
(2) Test insulation (@ 500 volt test > 10 Meg-ohm)

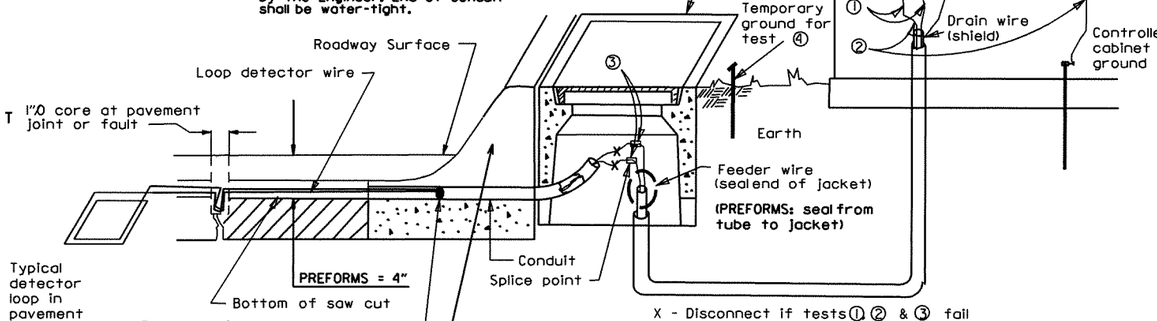
If tests 1& 2 are good, no further testing is necessary. Recorded results consist of tests 1& 2 from control cabinet with feeder wire connected to loop.

(3) Open splice (do not break connection) repeat test 1& 2 If test 3 is bad, go to test 4

(4) Break splice, install jumper in cabinet, repeat tests 1& 2 separately for feeder and for loop

Failures typically result from broken wire in pavement, faulty insulation of loop or feeder wire, or poorly insulated splice connection.



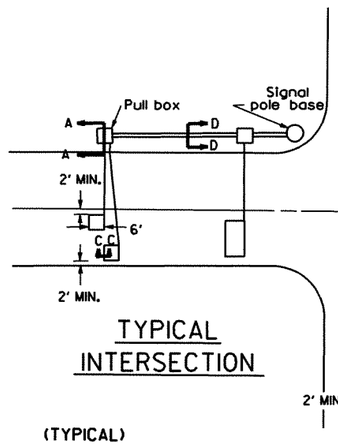


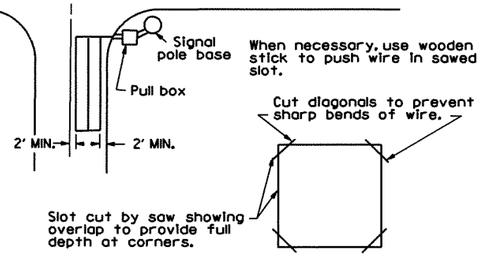
SECTION A-A

1'-6" concrete combination curb and gutter

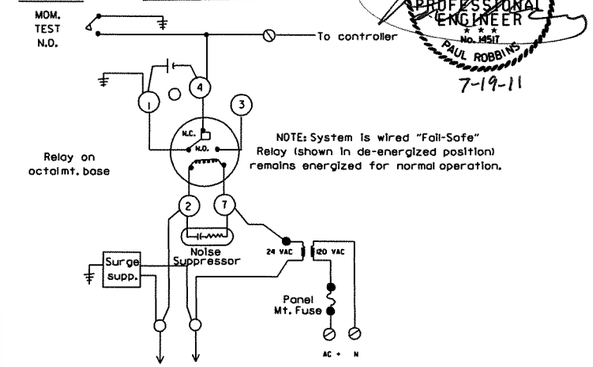
TYPICAL INTERSECTION

(TYPICAL)



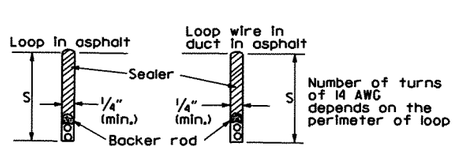


TRAFFIC SIGNAL PRE-EMPTION INTERFACE WIRING DIAGRAM



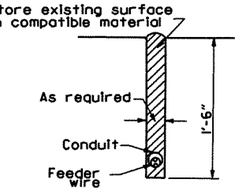
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER PAUL ROBBINS MO. MSIT 7-19-11

TYPICAL SECTIONS FOR PULSE AND PRESENCE LOOP DETECTORS



SECTION C-C

S=2½" in asphalt
S=1½" in concrete



SECTION D-D

SPECIAL NOTE

IF FEEDER WIRE JACKET IS LEFT UNSEALED and WATER IS ALLOWED TO ENTER JACKET, CONTRACTOR WILL BE REQUIRED TO REPLACE FEEDER AT NO COST TO THE DEPARTMENT.

A.H.T.D. STANDARD DETAILS

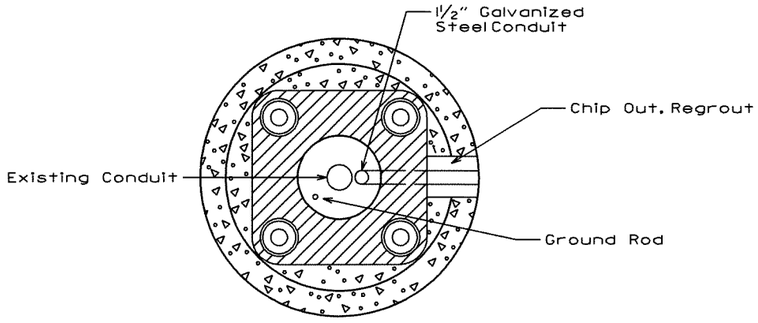
DATE	REVISION	DATE FILM
5-17-01	REVISED	
4-11-01	REVISED	
2-4-00	REVISED PRE-EMPTION TEST SWITCH	
11-18-98	REVISED NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

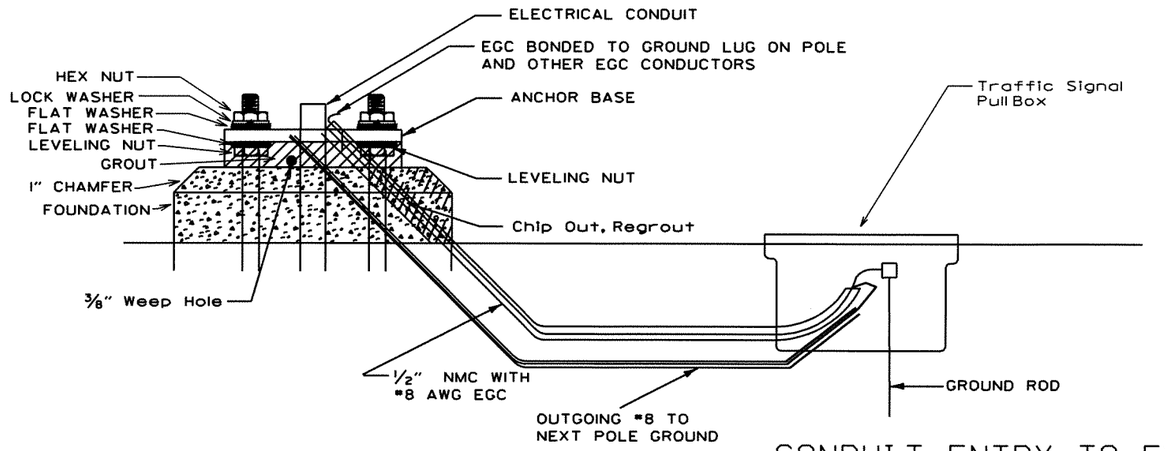
SIGNALIZATION DETAIL (Loop Detector Installation)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	13	23
				(2) SIGNALIZATION DETAILS				

CONDUIT ENTRY TO EXISTING POLE BASE

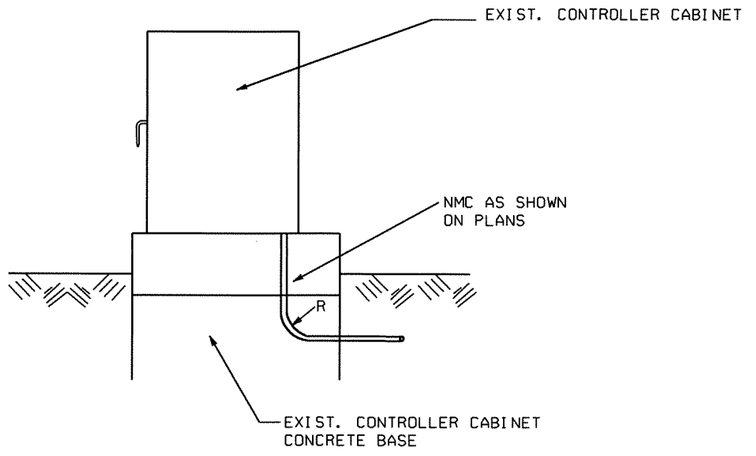


ANCHOR BASE

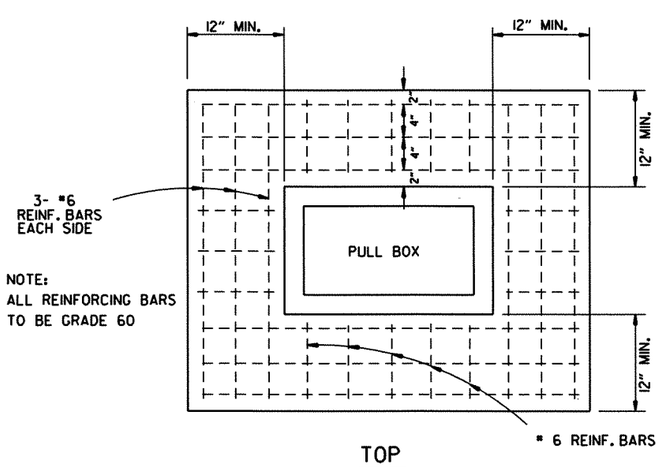


STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14517 PAUL ROBBINS 7-19-11

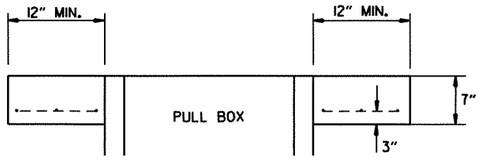
CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

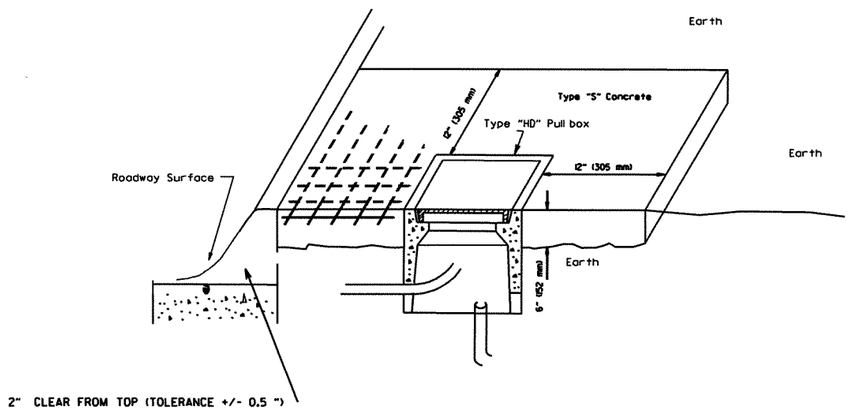


TOP



ELEVATION

Type "HD" Concrete Pull Box Detail



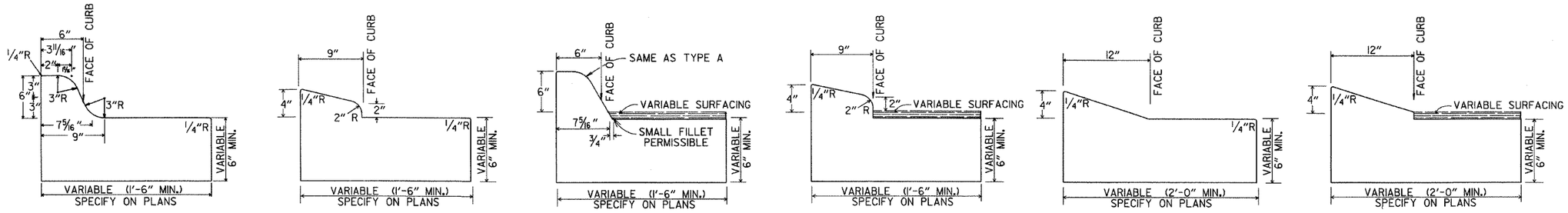
Note: All Type 1 and Type 2 HD pullboxes are installed with an apron of concrete 12" (305 mm) wide and 6" (152 mm) in depth. All payment shall be included in the price of the Type HD pullbox. Pullbox shall be installed flush to surrounding grade unless otherwise instructed by the engineer. The concrete shall be Class "S." Three #6 reinforcing bars in the apron on all sides of the pullbox is required in concrete.

DATE	REVISION	DATE FILM
5-21-09	REVISED GROUNDING	
7-31-08	ADDED & REVISED CONDUIT ENTRY	
6-23-04	REVISED CLEARANCE AT CURB ENTRY	
1-4-02	ADDED REINFORCING TO BOX APRON	
7-2-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

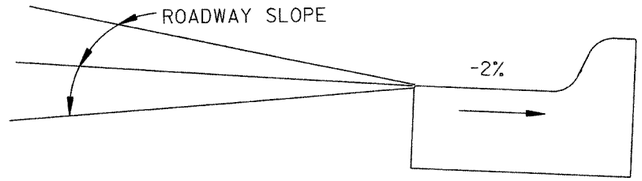
A.H.T.D. STANDARD DETAILS

ARKANSAS STATE HIGHWAY COMMISSION

SIGNALIZATION DETAIL (Heavy Duty Pull Box)

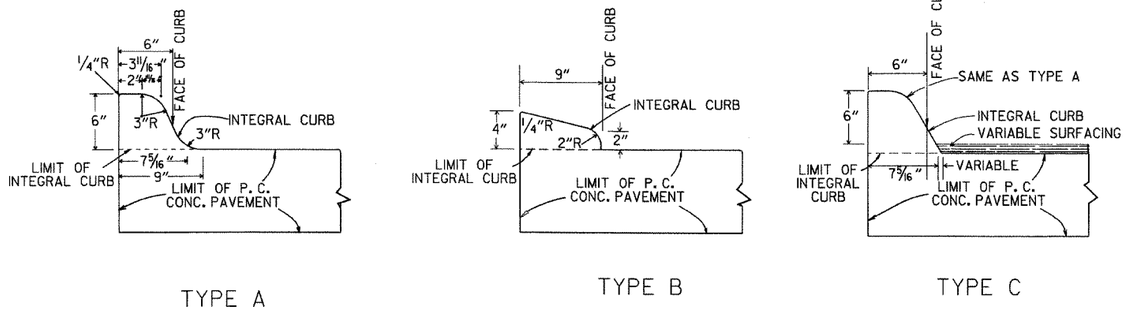


CONCRETE COMBINATION CURB AND GUTTER

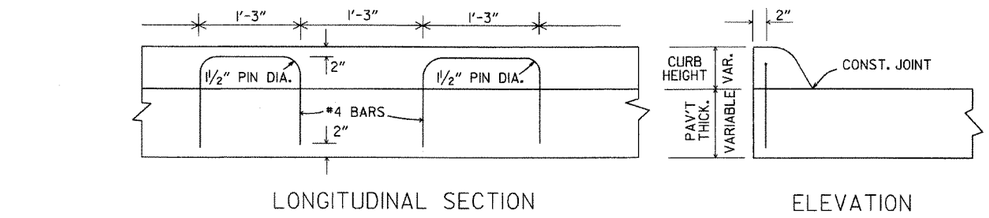


DETAIL OF GUTTER SLOPE

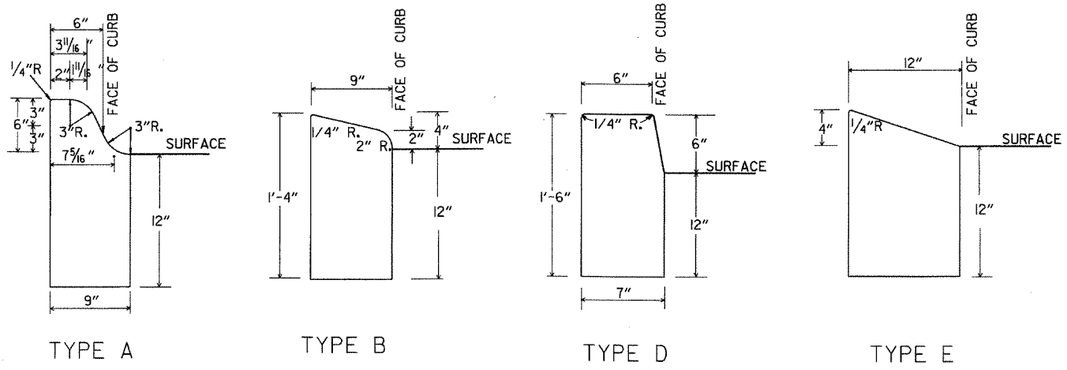
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



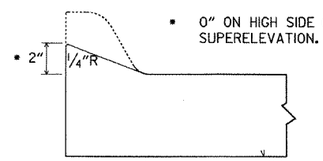
INTEGRAL CURB



ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



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.

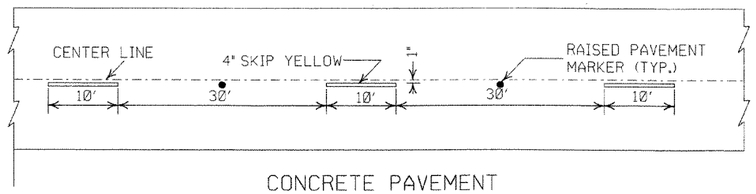
DETAILS OF MODIFIED CURB

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	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

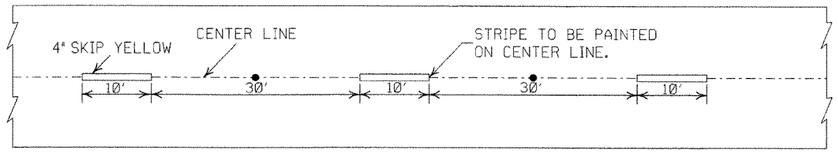
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

STANDARD DRAWING CG-1

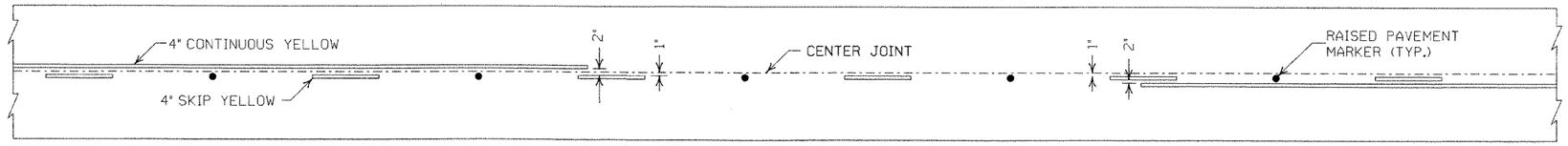


CONCRETE PAVEMENT

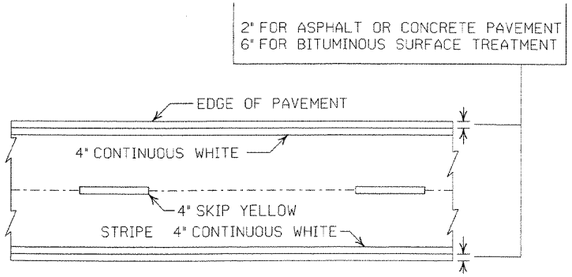


ASPHALT PAVEMENT

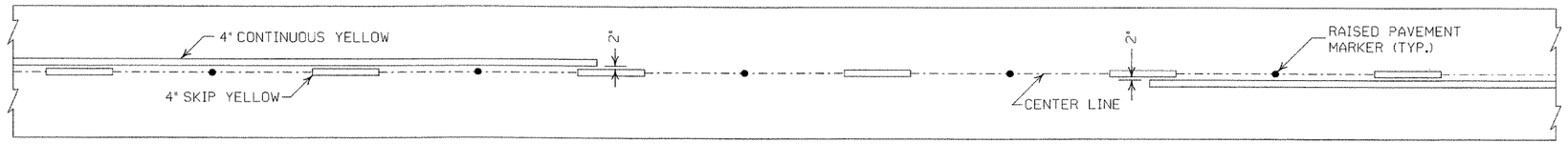
BROKEN LINE STRIPING



SOLID LINE STRIPING ON CONCRETE PAVEMENT



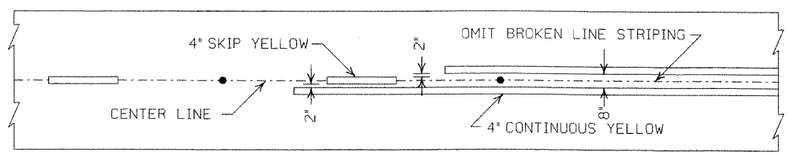
PAVEMENT EDGE LINE MARKING



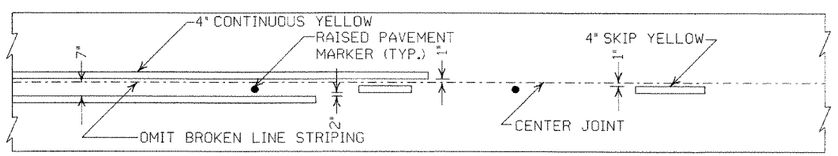
SOLID LINE STRIPING ON ASPHALT PAVEMENT

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

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

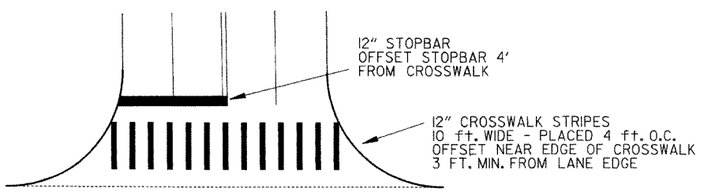


ASPHALT PAVEMENT



CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS

GENERAL NOTES:

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

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

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

NOTES:

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

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

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

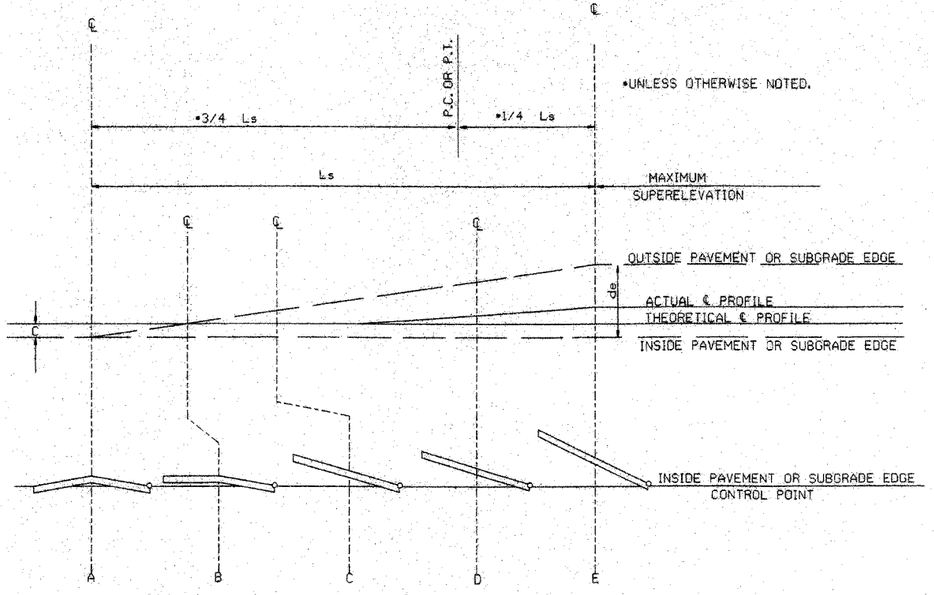
SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15′	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 30′	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 45′	N.C.			N.C.			R.C.			N.C.			0.023			0.028		
1° 00′	N.C.			N.C.			0.021			0.026			0.030			0.037	275	300
1° 15′	N.C.			R.C.			0.026			0.032			0.037			0.046		
1° 30′	N.C.			0.021			0.031	200		0.037	225		0.043	250		0.054		
1° 45′	N.C.			0.025	175		0.036			0.043		300	0.049		300	0.062		
2° 00′	R.C.			0.028			0.040			0.048			0.055			0.070		
2° 15′	R.C.			0.031			0.045		250	0.053			0.061			0.078	300	350
2° 30′	0.021			0.034			0.049			0.058			0.067			0.085	315	
2° 45′	0.023			0.037		200	0.053			0.063			0.072			0.091	335	
3° 00′	0.025			0.040			0.057			0.067	230		0.077	260		0.096	350	400
3° 15′	0.027			0.043			0.061			0.072	245		0.082	275		0.098	360	
3° 30′	0.029			0.046			0.065	205		0.076	255		0.086	285		0.100	360	
3° 45′	0.031	150		0.049			0.069	215		0.080	265		0.090	295				
4° 00′	0.033		200	0.051			0.072	225		0.083	270		0.093	305	350			
4° 30′	0.037			0.056			0.078	240		0.087	280		0.096	315				
5° 00′	0.040			0.061			0.083	250		0.091	295		0.098	320				
5° 30′	0.043			0.066	185		0.088	260		0.094	300	350						
6° 00′	0.046			0.070	190		0.092	270		0.096	305							
6° 30′	0.050			0.074	200		0.095	280	300	0.100	315							
7° 00′	0.053			0.078	210		0.098	285										
7° 30′	0.056			0.081	215		0.099	290										
8° 00′	0.058			0.084	220		0.100	290										
8° 30′	0.061			0.087	225	250												
9° 00′	0.063			0.089	230													
10° 00′	0.068	160		0.094	235													
11° 00′	0.072	170		0.097	250													
12° 00′	0.076	175		0.099	250													
13° 00′	0.080	180		0.100	250													
14° 00′	0.083	190																
15° 00′	0.086	195																
16° 00′	0.089	200																
17° 00′	0.091	200																
18° 00′	0.093	205																
19° 00′	0.095	210																
20° 00′	0.097	215	250															
21° 00′	0.098	215																
22° 00′	0.099	215																
23° 00′	0.099	215																
24° 00′	0.100	220																

D MAX = 24° 45′ | D MAX = 13° 15′ | D MAX = 8° 15′ | D MAX = 6° 30′ | D MAX = 5° 15′ | D MAX = 3° 30′

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

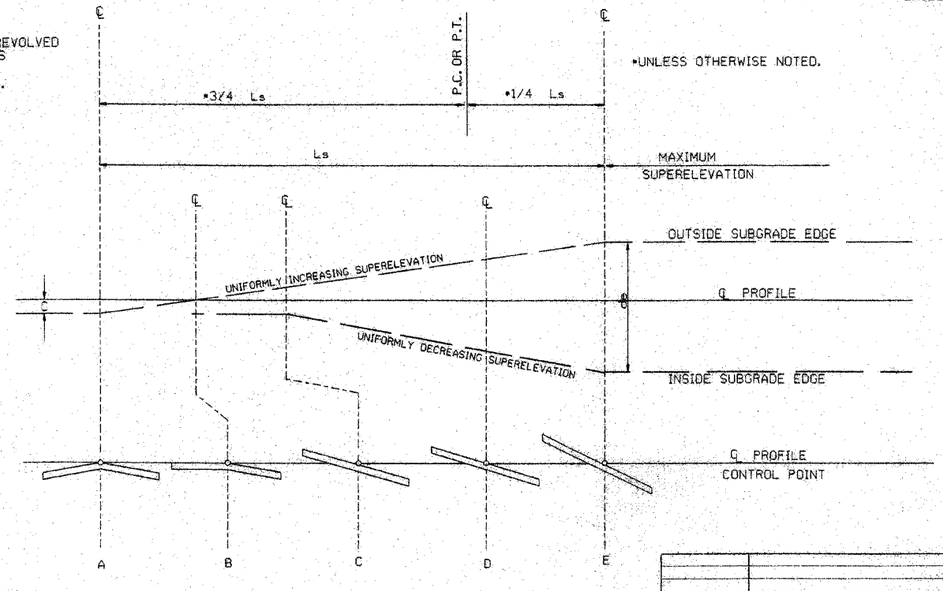
GENERAL NOTES

1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED - - - - - +20%
4 LANE UNDIVIDED - - - - - +50%
5 LANE UNDIVIDED - - - - - +80%
6 LANE UNDIVIDED - - - - - +100%

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$

DATE	REVISION	DATE FILMED
10-18-96	ADDED FORMULA	10-18-96
01-09-87	ISSUED	534-1-9-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

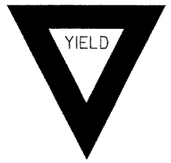
STANDARD DRAWING SE-2

FILE STDSE2.DGN

R1-1

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

R1-2



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

R2-1

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

R2-5A

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

R2-5C

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

R4-1

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

R4-2

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

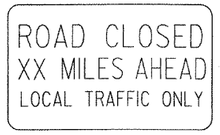
R5-1

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

R11-2

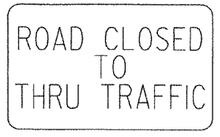
48"X30"

R11-3A



60"X30"

R11-4

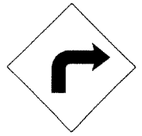


60"X30"

RSP-1

48"X30"

W1-1



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

W1-2

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

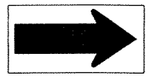
W1-3

STD. 48"X48"

W1-4

STD. 48"X48"

W1-6

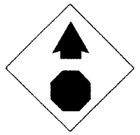


STD. 48"X24"
SPECIAL 60"X30"

W1-8

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

W3-1

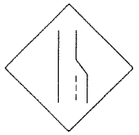


STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1

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"

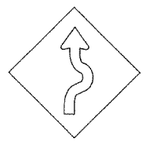
W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b

STD. 48"X48"

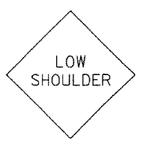
R56-1

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

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

36"X60"

* USE 6" C LETTERS
** USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.

3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

• 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.

• 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.

6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.

7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.

9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.

10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

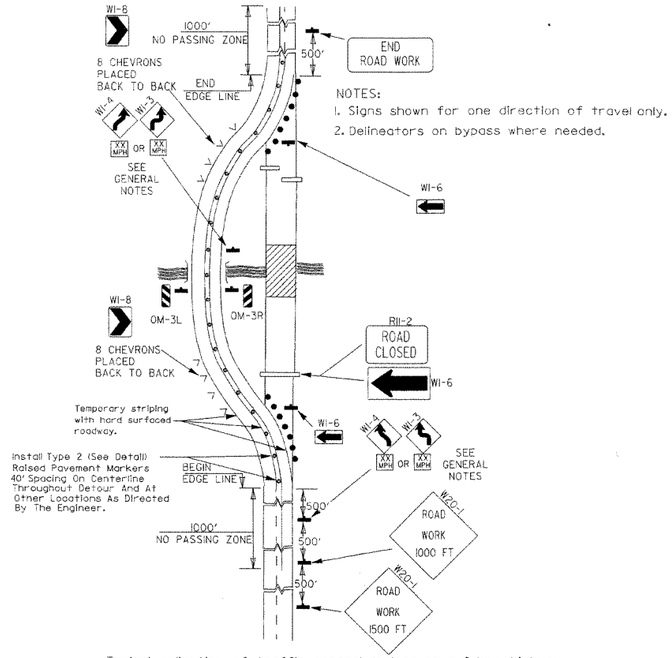
* NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

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

ARKANSAS STATE HIGHWAY COMMISSION

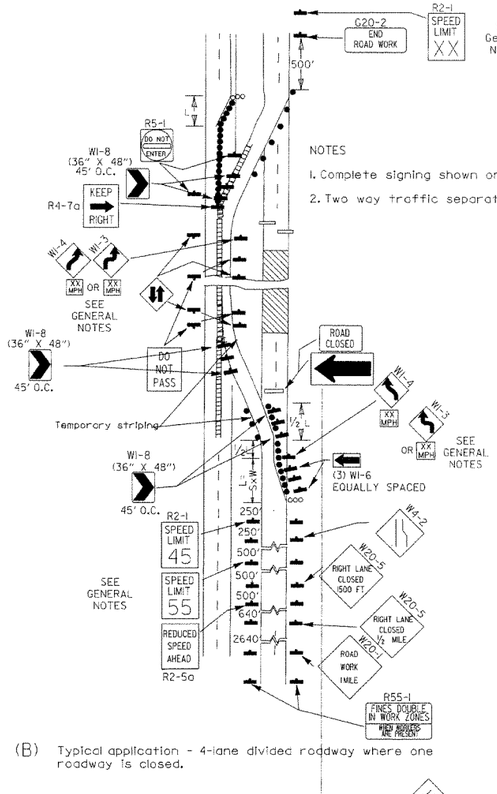
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



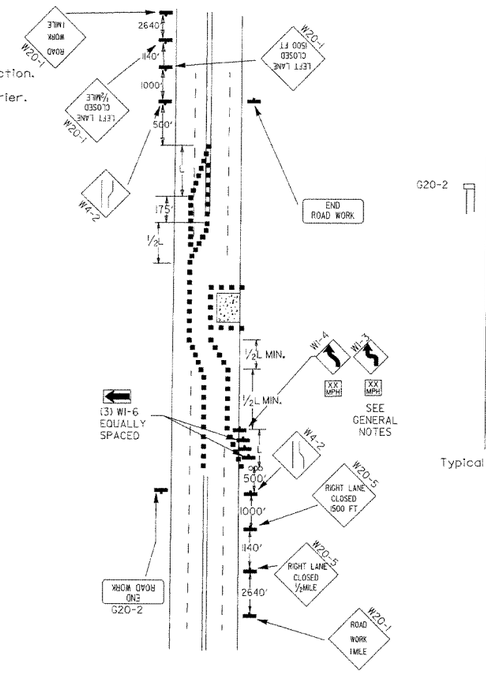
NOTES:
1. Signs shown for one direction of travel only.
2. Delineators on bypass where needed.

(A) Typical application of traffic control devices on a 2-lane highway where the entire roadway is closed and a bypass detour is provided.

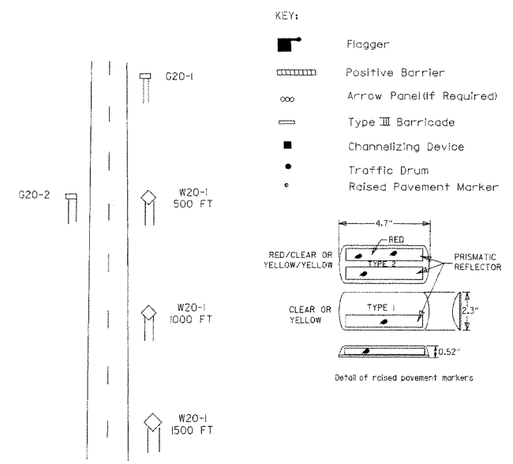


NOTES
1. Complete signing shown only in crossover direction.
2. Two way traffic separated with positive barrier.

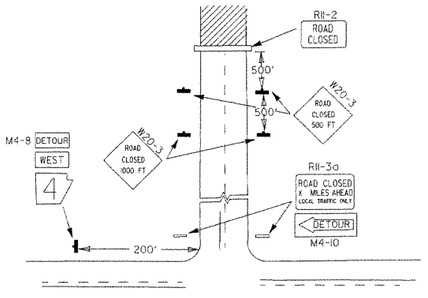
(B) Typical application - 4-lane divided roadway where one roadway is closed.



(C) Typical application - 4-lane undivided roadway where half of the roadway is closed.

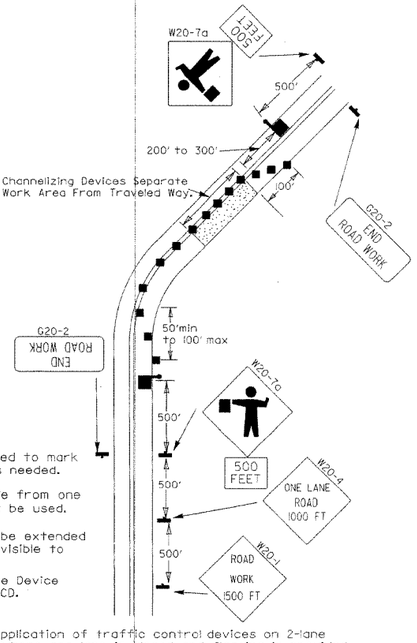


Typical advance warning sign placement



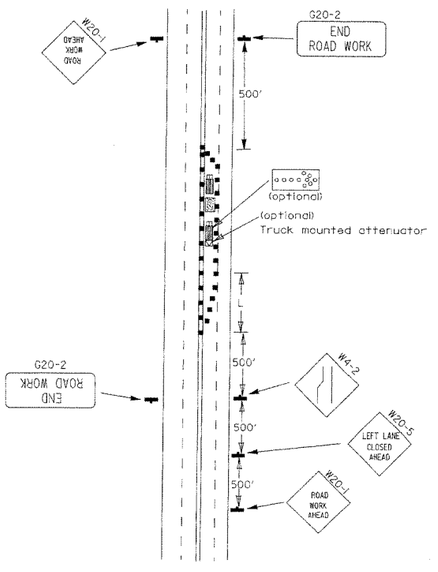
NOTES:
1. Regulatory traffic control devices to be modified as needed for the duration of the detour.
2. Street names may be used when desirable for directing detoured traffic.

(D) Typical application - roadway closed beyond detour point.



NOTES:
1. Flood lights should be provided to mark flagger stations at night as needed.
2. If entire work area is visible from one station, a single flagger may be used.
3. Channelizing devices are to be extended to a point where they are visible to approaching traffic.
4. Automated Flagger Assistance Device (AFAD) optional. Refer to MUTCD.

(E) Typical application of traffic control devices on 2-lane highway where one lane is closed and flagging is provided.



(F) Typical application - 4-lane undivided roadway with inside lane closed.

Taper formulae:

$L = 5xW$ for speeds of 45mph or more.

$L = \frac{WS^2}{60}$ for speeds of 40mph or less.

Where:
L= Minimum length of taper.
S= Numerical value of posted speed limit prior to work or 85th percentile speed.
W= Width of offset.

GENERAL NOTES:

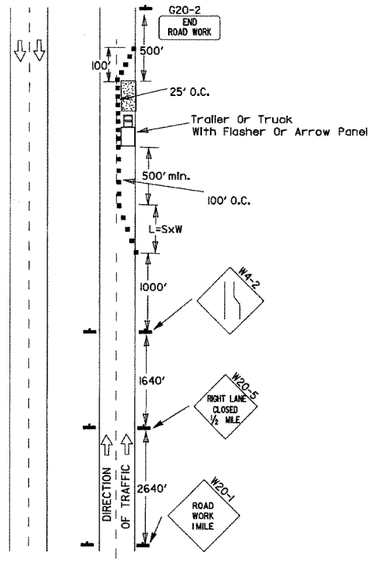
1. Advisory speed posted on WI-3 or WI-4 curve warning signs to be determined at site. Use WI-4 when speed is greater than 30mph and WI-3 when 30mph or less.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(xx) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(xx) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit, or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

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

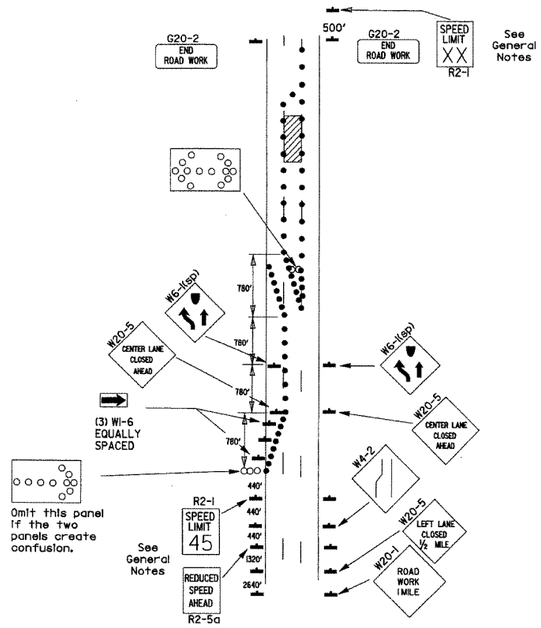
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

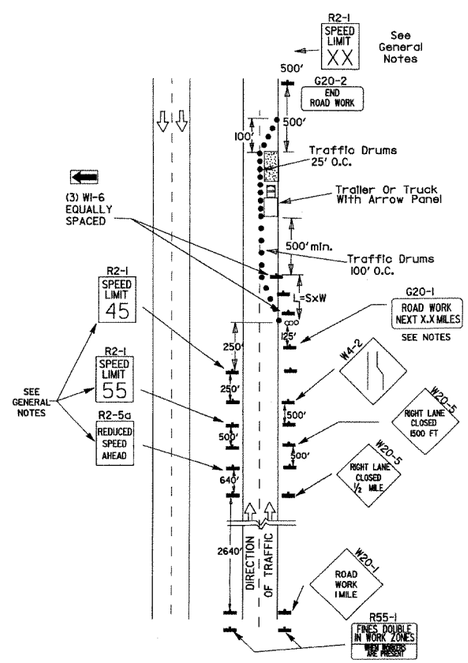
STANDARD DRAWING TC-2



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



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



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

KEY:

ooo Arrow Panel (If Required)

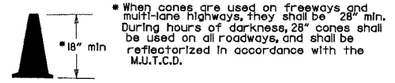
■ Channelizing Device

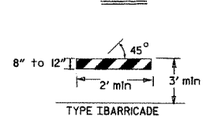
● Traffic drum

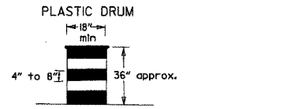
GENERAL NOTES:

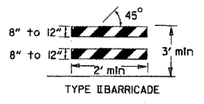
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional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

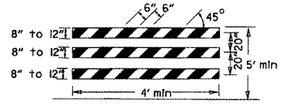
Channelizing devices



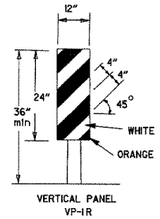




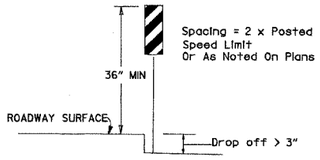




NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL PLACEMENT



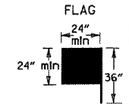
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

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

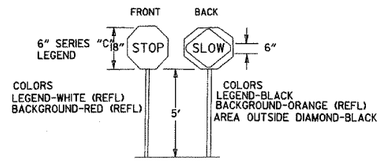
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

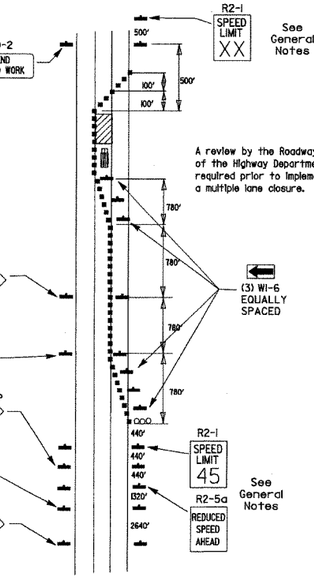
FLAG



Flag shall be of good grade red material

STOP SLOW PADDLE





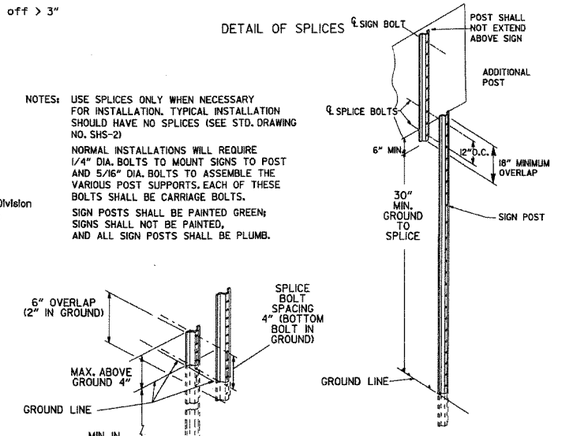
(D) Typical application - closing multiple lanes of a multilane highway.

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.

DETAIL OF SPLICES



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

ARKANSAS STATE HIGHWAY COMMISSION

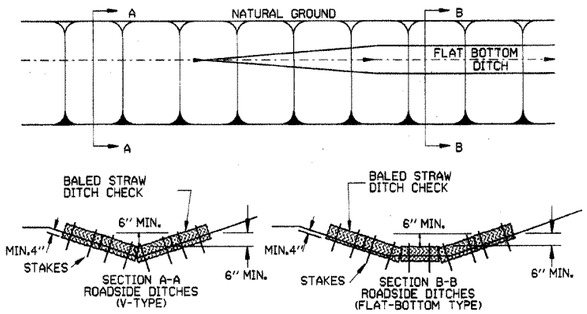
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

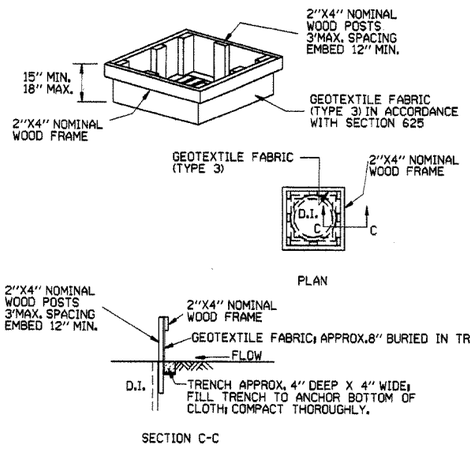
GENERAL NOTES

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.

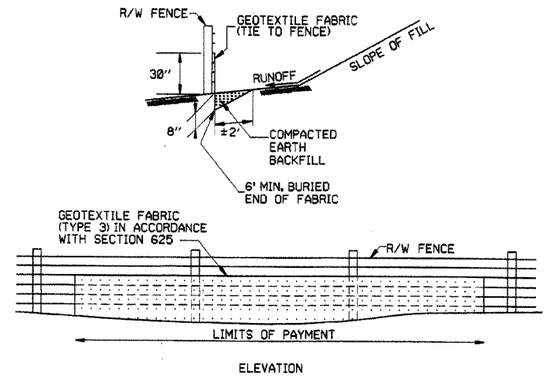
2. STRAW BALES SHALL BE KEYED INTO SOIL A MINIMUM OF 4" AND NO GAPS SHALL BE LEFT BETWEEN BALES.



BALED STRAW DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

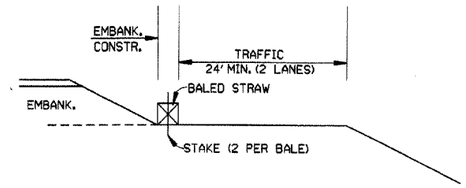
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

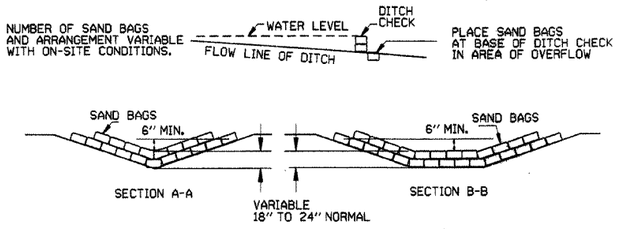
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

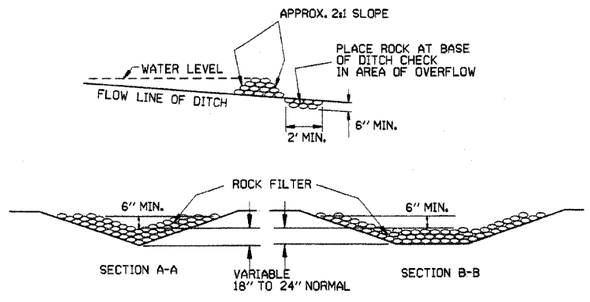
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



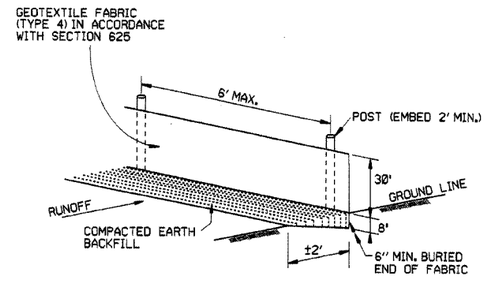
BALED STRAW FILTER BARRIER (E-2)



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
11-18-98	ADDED NOTES	11-18-98
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	Rev. E-4 & E-11 Min. 13' Buried End of Fabric	
6-2-94	Revised E-1,4,7, & 11; Deleted E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

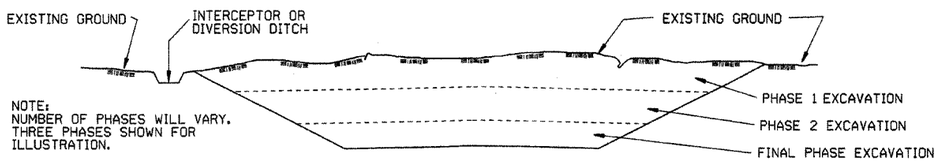
STANDARD DRAWING TEC-1

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

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

EXCAVATION



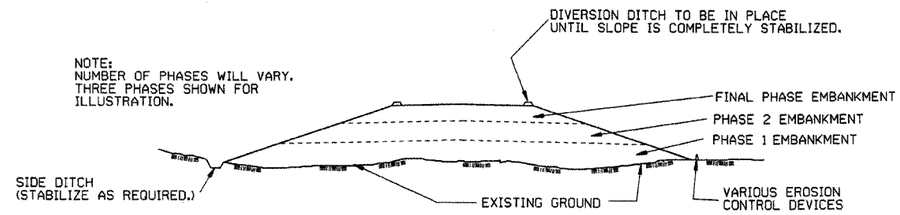
GENERAL NOTE

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

CONSTRUCTION SEQUENCE

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

EMBANKMENT



GENERAL NOTE

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

CONSTRUCTION SEQUENCE

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

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

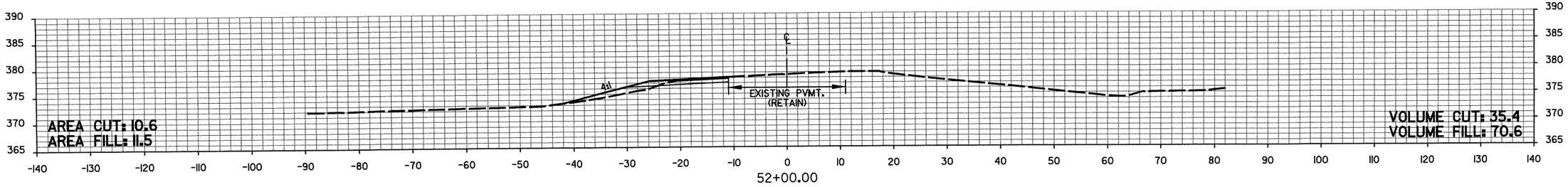
ARKANSAS STATE HIGHWAY COMMISSION

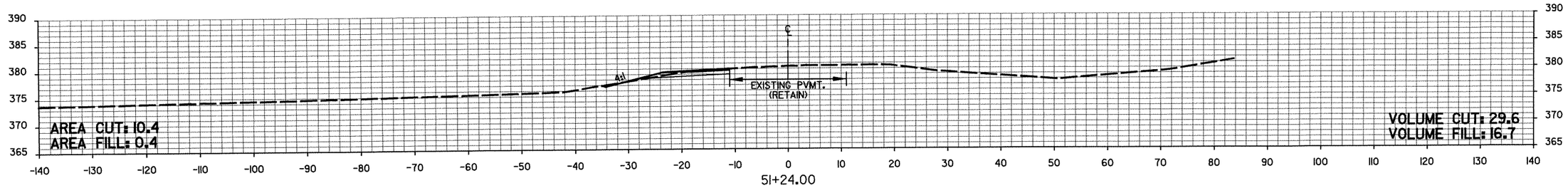
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3

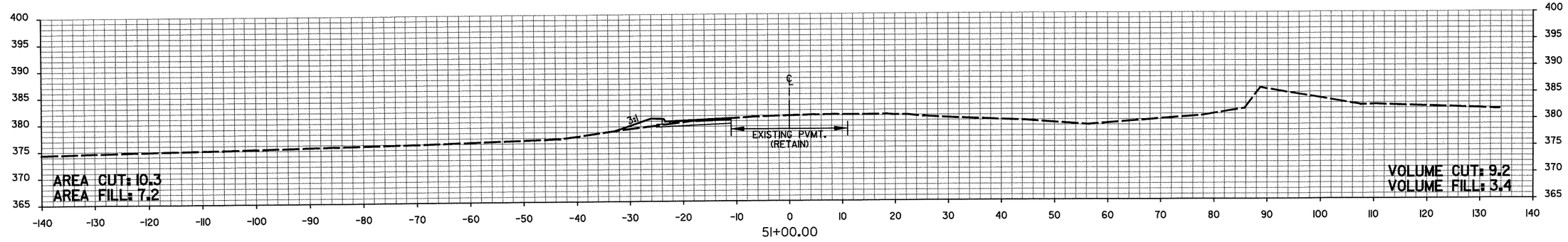
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	22	23

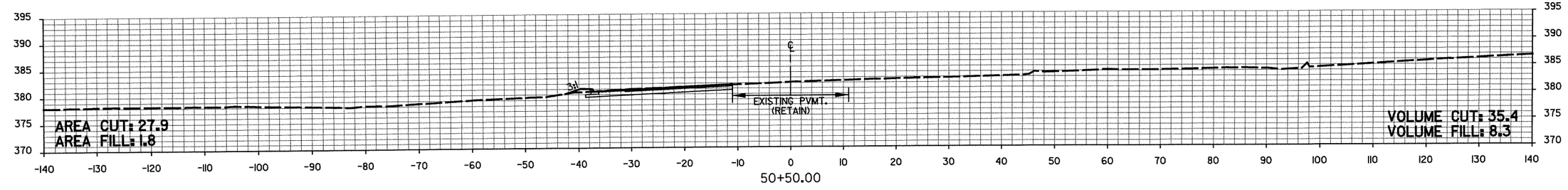
(2) CROSS SECTIONS





STA. 51+24.00 END CONC. COMB. CURB & GUTTER

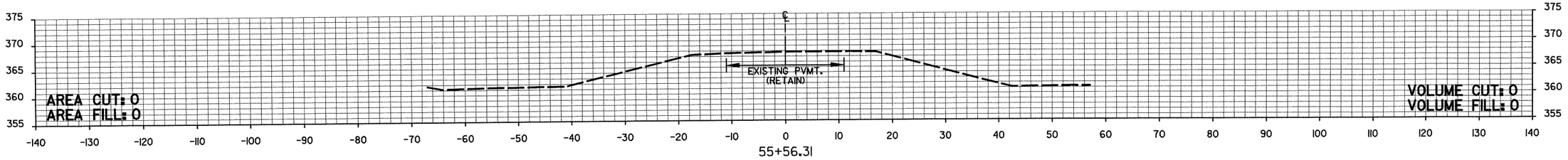




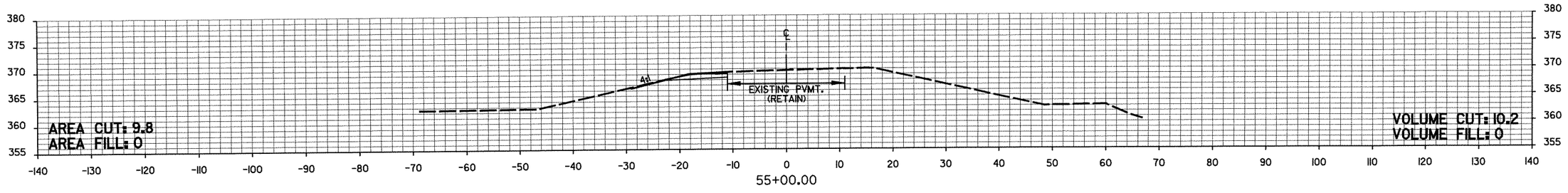
STA. 50+50.00 BEGIN JOB 100739

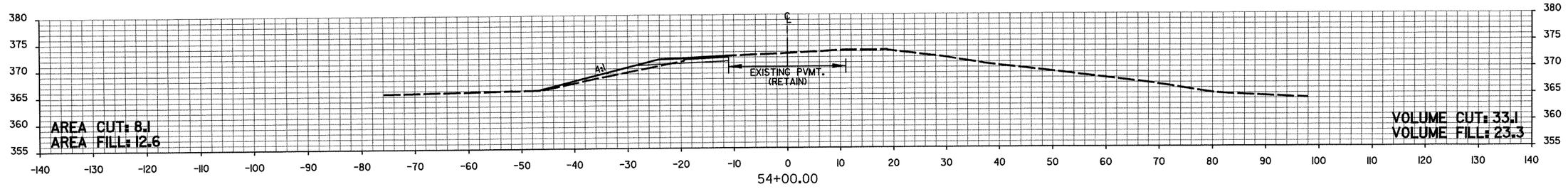
STA. 50+50.00 TO STA. 52+00.00
PARKER RD. WB TURN LANE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100739	23	23
				(2)	CROSS SECTIONS			

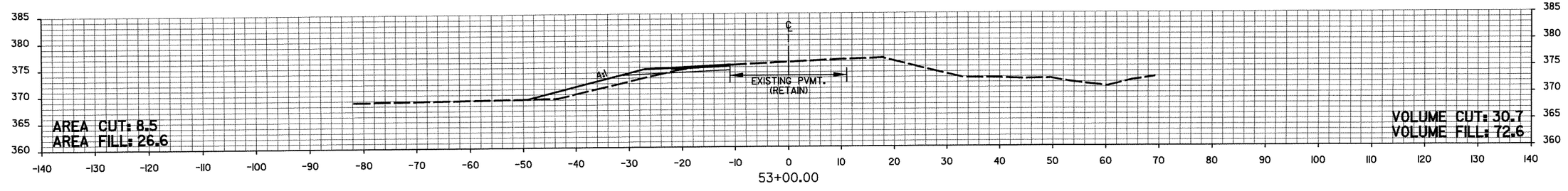


STA. 55+56.31 END JOB 100739





STA. 53+50.00 BEGIN 200' TAPER



STA. 53+00.00 TO STA. 55+56.31
PARKER RD. WB TURN LANE