

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.	012229		1	13
2 SHOULDER RUMBLE STRIPS/STRIPES (SEL. SECS.)(DISTS. 2,3,7)(S)								

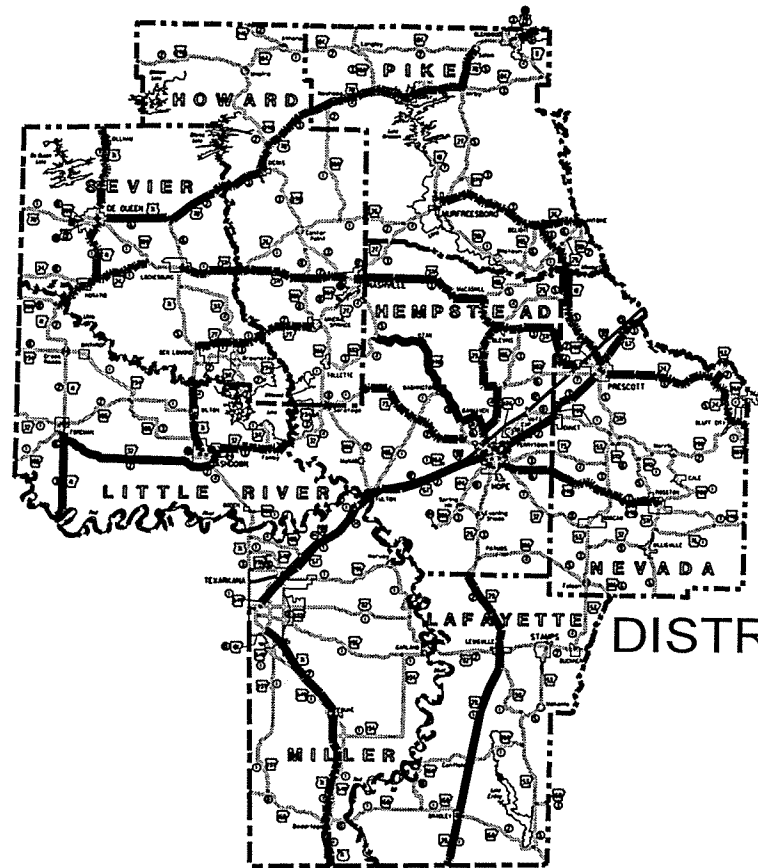
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
 CONSTRUCTION PLANS FOR STATE HIGHWAY

SHOULDER RUMBLE  
 STRIPS / STRIPES  
 (SEL. SECS.)(DISTS. 2,3,7) (S)

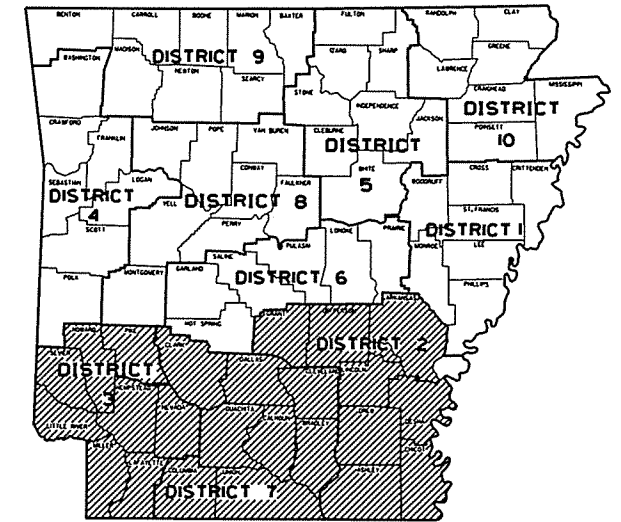
VARIOUS COUNTIES

JOB 012229

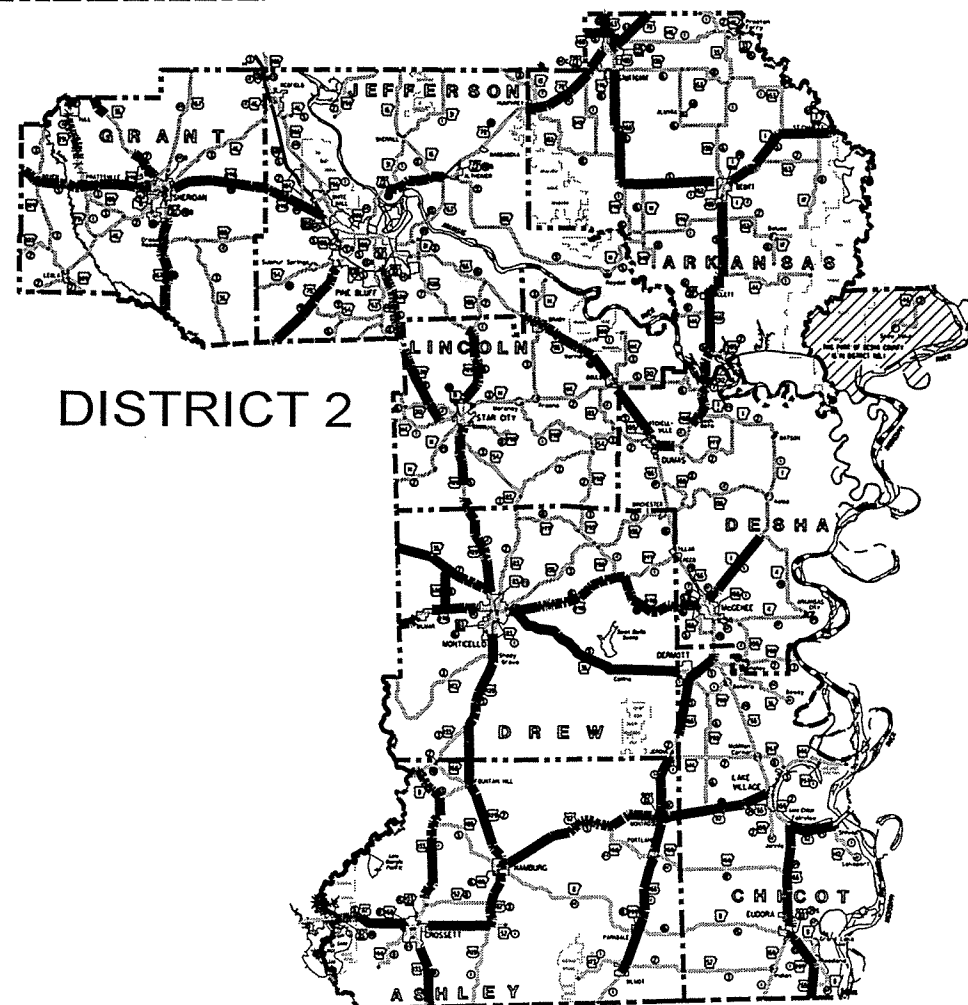
FED. AID PROJ. PEN-0076(104)



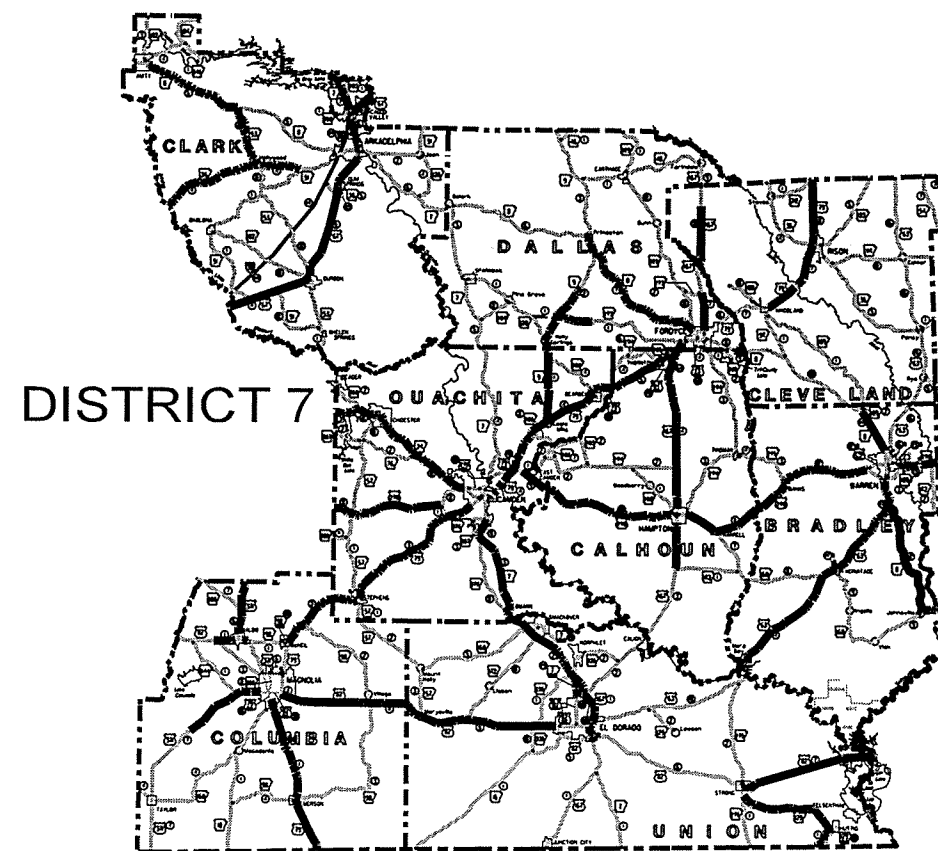
DISTRICT 3



ARK. HWY. DIST. NOS. 2,3 & 7



DISTRICT 2



DISTRICT 7

NO LENGTH INVOLVED

P.E. 012229

APPROVED



*M.E. Banks*

DEPUTY DIRECTOR  
 AND CHIEF ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						012229	2	13

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



### GOVERNING SPECIFICATIONS

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

### INDEX OF SHEETS

SHEET NO.	TITLE	DRWG. NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES		
3 - 6	SPECIAL DETAILS		
7 - 9	QUANTITIES		
10	SUMMARY OF QUANTITIES AND REVISIONS		
11	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	12-15-11
12	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	9-12-13
13	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	10-15-09

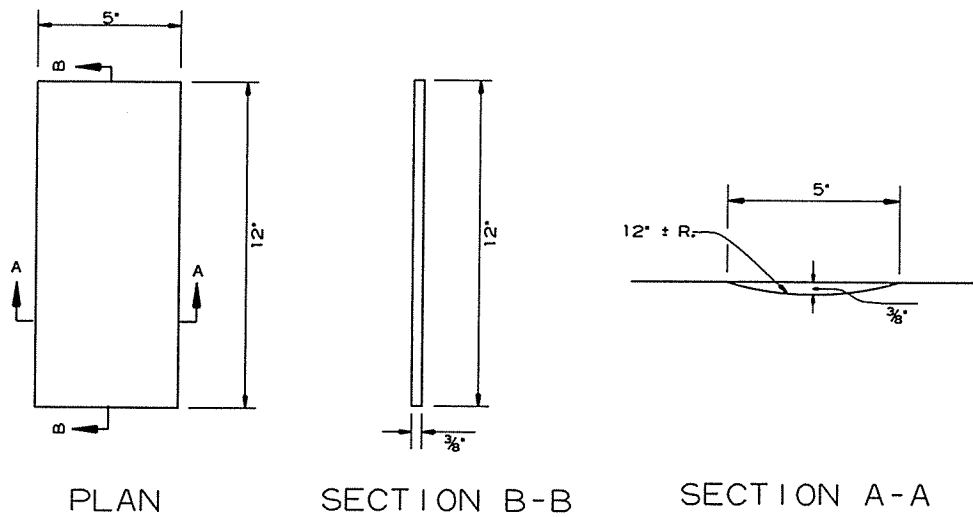
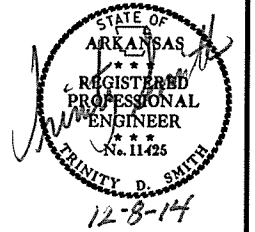
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
JOB 012229	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 012229	MAINTENANCE OF TRAFFIC
JOB 012229	MANDATORY USE OF INTERNET BIDDING
JOB 012229	PARTNERING REQUIREMENTS
JOB 012229	RUMBLE STRIPES
JOB 012229	RUMBLE STRIPS
JOB 012229	SEQUENCE OF CONSTRUCTION
JOB 012229	VALUE ENGINEERING

### GENERAL NOTES

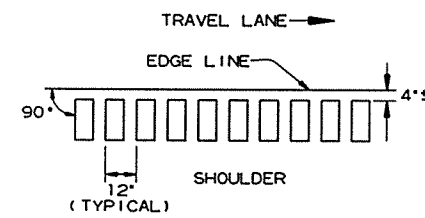
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- SHOULDER RUMBLE STRIPS/STRIPES SHALL NOT BE CONSTRUCTED ACROSS PUBLIC INTERSECTIONS, DRIVEWAYS, BRIDGES, OR APPROACH GUTTERS, AS DIRECTED BY THE ENGINEER.
- PLAN LOCATIONS AND QUANTITIES FOR RUMBLE STRIPS AND RUMBLE STRIPES ARE SUBJECT TO CHANGE IN THE FIELD IF AND WHERE DIRECTED BY THE ENGINEER. THIS INCLUDES, BUT IS NOT LIMITED TO, POOR OR DETERIORATING PAVEMENT CONDITIONS THAT WOULD RESULT IN INCONSISTENT INSTALLATION OF RUMBLE STRIPS OR RUMBLE STRIPES.

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. 012229							3	13

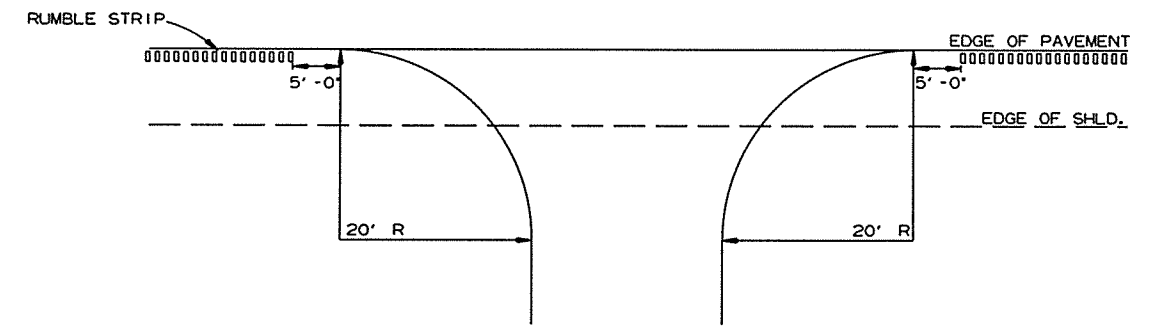
② SPECIAL DETAILS



DETAILS OF RUMBLE STRIPS



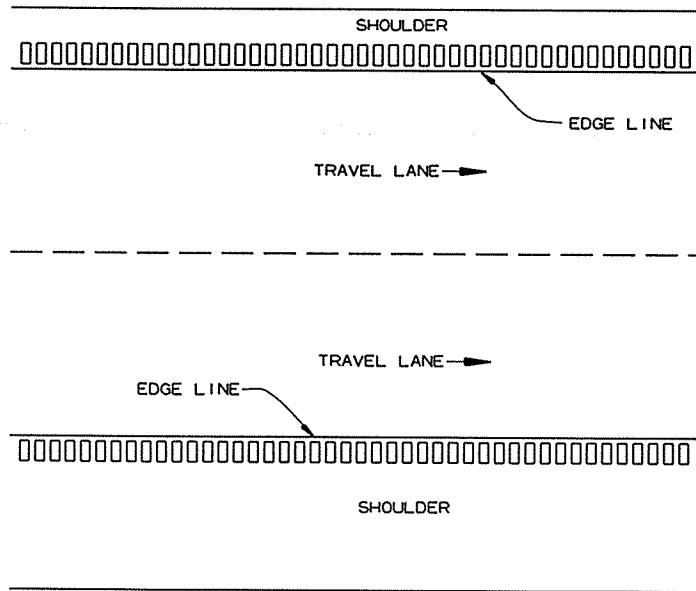
LOCATION PLAN OF RUMBLE STRIPS  
LEFT OR RIGHT SHOULDER



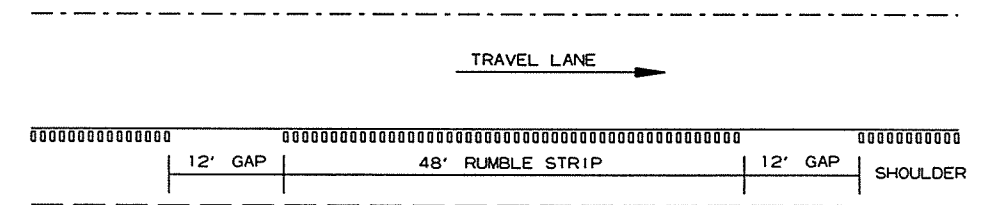
DETAIL FOR RUMBLE STRIP GAP  
AT DRIVEWAY TURNOUTS

GENERAL NOTES

1. RUMBLE STRIPS SHALL NOT BE INSTALLED ON CURB SECTIONS, BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, RESIDENTIAL OR COMMERCIAL DRIVEWAYS OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPS SHALL NOT BE INSTALLED ON A PAVED SHOULDER THAT IS USED AS A DECELERATION LANE FOR THE LENGTH DEEMED APPROPRIATE BY THE ENGINEER.
3. THE 4' OFFSET FROM THE EDGE LINE MAY BE INCREASED TO AVOID LONGITUDINAL JOINTS. IN ALL CASES, THE LATERAL DEVIATION FROM THE PLANNED OFFSET SHOULD BE KEPT TO A MINIMUM.
4. RUMBLE STRIPS SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE SHOULDER. PAYMENT SHALL ONLY INCLUDE THAT PORTION OF THE SHOULDER ON WHICH RUMBLE STRIPS HAVE BEEN CONSTRUCTED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR GAPS, DRIVEWAYS, TURNOUTS, OR OTHER PUBLIC ROAD INTERSECTIONS WHERE RUMBLE STRIPS HAVE NOT BEEN CONSTRUCTED.
5. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 12" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.



PLAN VIEW



NOTE: GAP PATTERN SHALL BE ADJUSTED BY THE ENGINEER IN THE FIELD ALLOWING FOR DRIVEWAYS TO SERVE AS THE GAP.

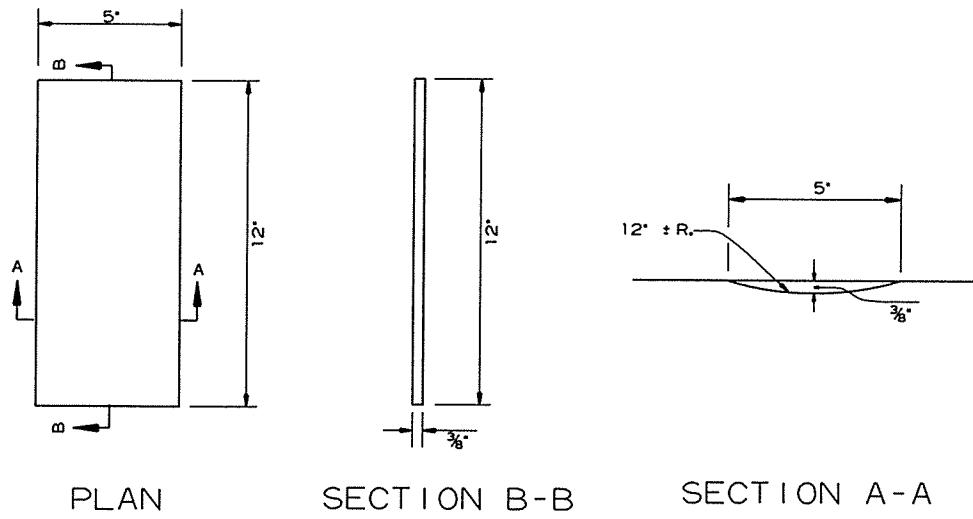
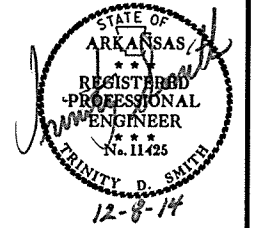
DETAIL FOR GAP PATTERN RUMBLE STRIP

r012229.dgn Special Details

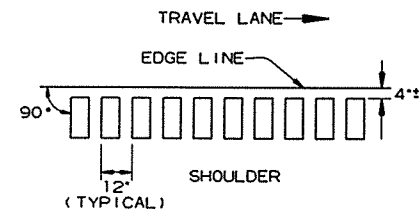
11/18/14

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. 012229							4	13

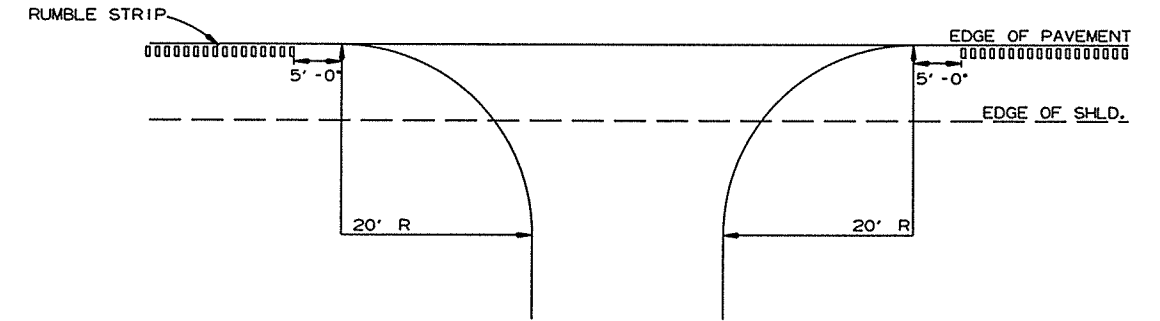
② SPECIAL DETAILS



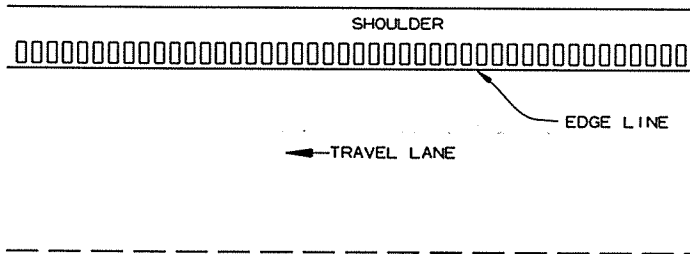
DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS  
LEFT OR RIGHT SHOULDER



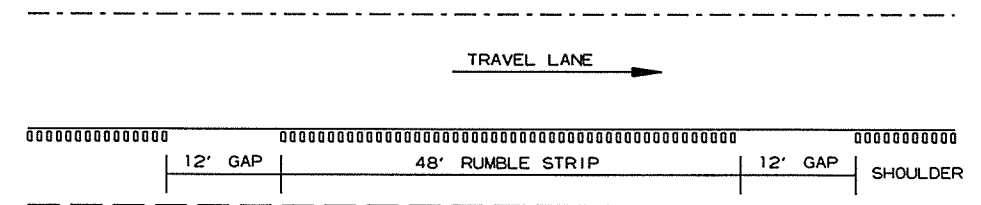
DETAIL FOR RUMBLE STRIP GAP  
AT DRIVEWAY TURNOUTS



PLAN VIEW

GENERAL NOTES

1. RUMBLE STRIPS SHALL NOT BE INSTALLED ON CURB SECTIONS, BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, RESIDENTIAL OR COMMERCIAL DRIVEWAYS OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPS SHALL NOT BE INSTALLED ON A PAVED SHOULDER THAT IS USED AS A DECELERATION LANE FOR THE LENGTH DEEMED APPROPRIATE BY THE ENGINEER.
3. THE 4" OFFSET FROM THE EDGE LINE MAY BE INCREASED TO AVOID LONGITUDINAL JOINTS. IN ALL CASES, THE LATERAL DEVIATION FROM THE PLANNED OFFSET SHOULD BE KEPT TO A MINIMUM.
4. RUMBLE STRIPS SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE SHOULDER. PAYMENT SHALL ONLY INCLUDE THAT PORTION OF THE SHOULDER ON WHICH RUMBLE STRIPS HAVE BEEN CONSTRUCTED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR GAPS, DRIVEWAYS, TURNOUTS, OR OTHER PUBLIC ROAD INTERSECTIONS WHERE RUMBLE STRIPS HAVE NOT BEEN CONSTRUCTED.
5. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 12' LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.

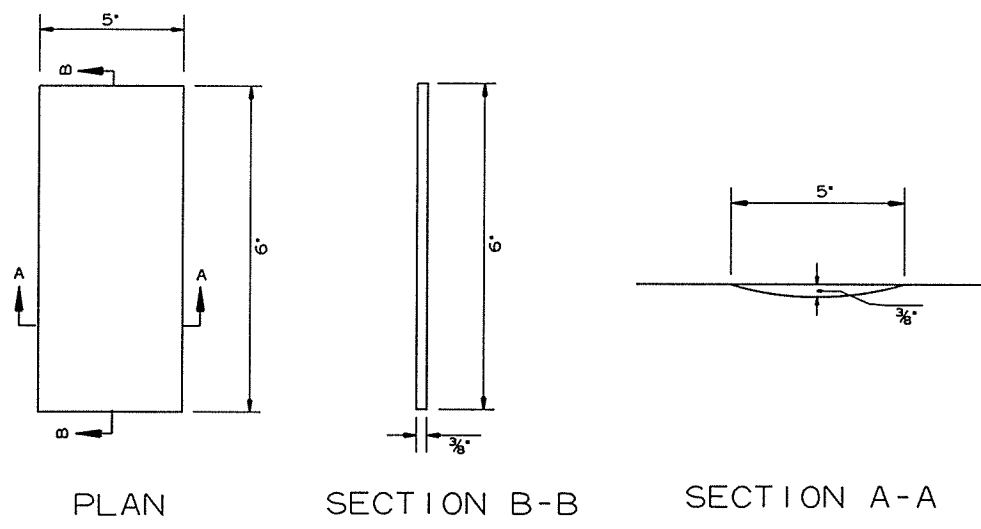


NOTE: GAP PATTERN SHALL BE ADJUSTED BY THE ENGINEER IN THE FIELD ALLOWING FOR DRIVEWAYS TO SERVE AS THE GAP.

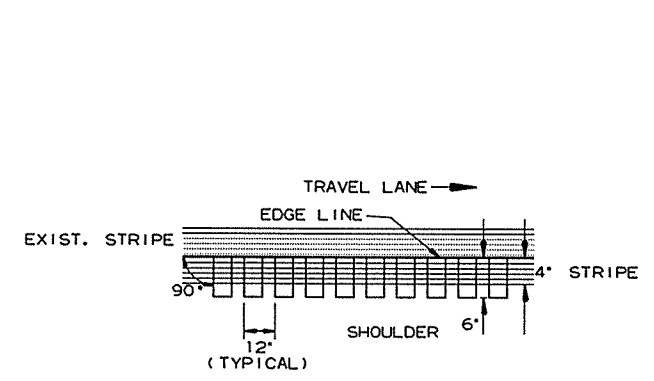
DETAIL FOR GAP PATTERN RUMBLE STRIP

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
01-16-15				6	ARK.			
JOB NO. 012229							5	13

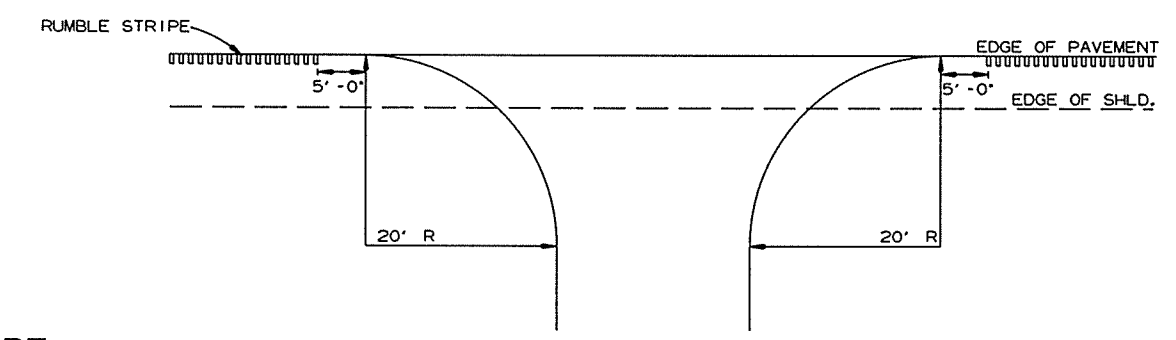
2 SPECIAL DETAILS



DETAILS OF RUMBLE STRIPE



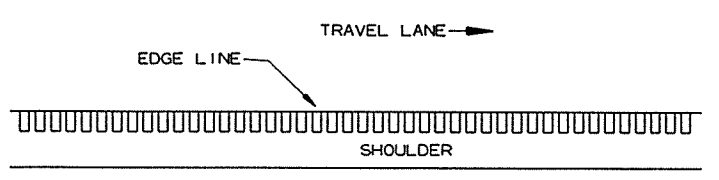
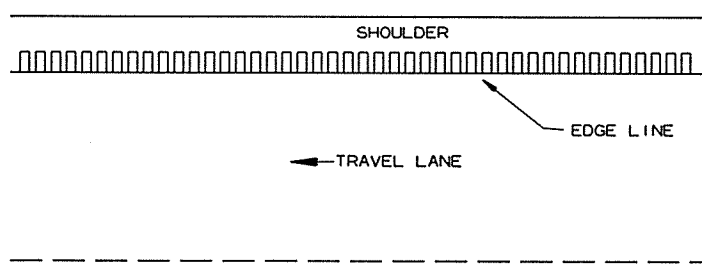
LOCATION PLAN OF RUMBLE STRIPE  
LEFT OR RIGHT SHOULDER



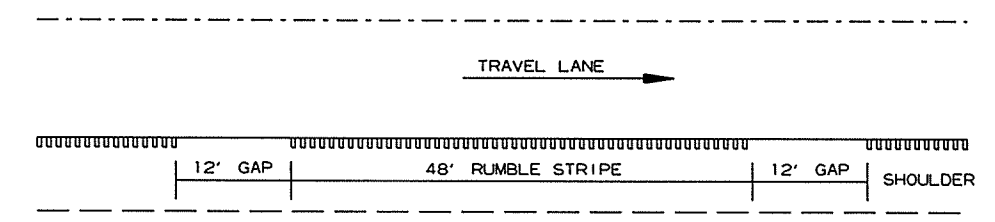
DETAIL FOR RUMBLE STRIPE GAP  
AT DRIVEWAY TURNOUTS

GENERAL NOTES

1. RUMBLE STRIPES SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, RESIDENTIAL OR COMMERCIAL DRIVEWAYS.
2. RUMBLE STRIPES SHALL NOT BE INSTALLED ON A PAVED SHOULDER THAT IS USED AS A DECELERATION LANE FOR THE LENGTH DEEMED APPROPRIATE BY THE ENGINEER.
3. RUMBLE STRIPES SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE SHOULDER. PAYMENT SHALL ONLY INCLUDE THAT PORTION OF THE SHOULDER ON WHICH RUMBLE STRIPES HAVE BEEN CONSTRUCTED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR GAPS, DRIVEWAYS, TURNOUTS, OR OTHER PUBLIC ROAD INTERSECTIONS WHERE RUMBLE STRIPES HAVE NOT BEEN CONSTRUCTED.
4. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 6' LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.



PLAN VIEW



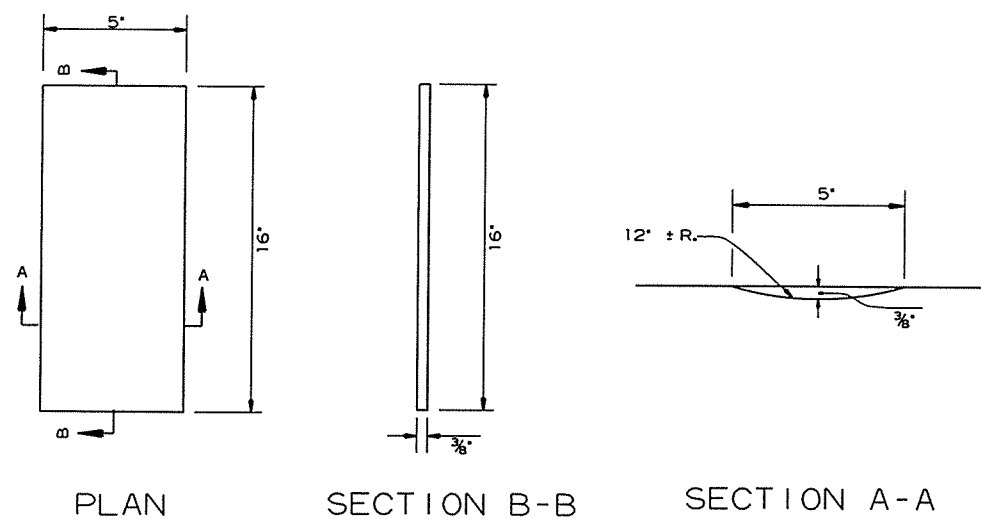
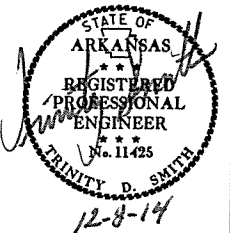
NOTE: GAP PATTERN SHALL BE ADJUSTED BY THE ENGINEER IN THE FIELD ALLOWING FOR DRIVEWAYS TO SERVE AS THE GAP.

DETAIL FOR GAP PATTERN RUMBLE STRIPE

r012229.dgn SpecialDetails 01/15/15

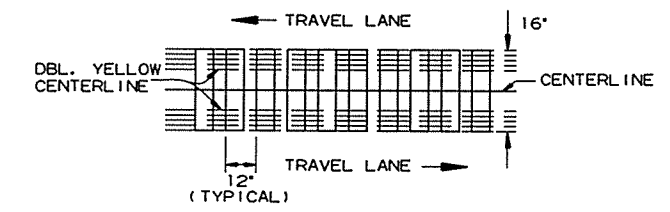
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 012229							6	13

2 SPECIAL DETAILS

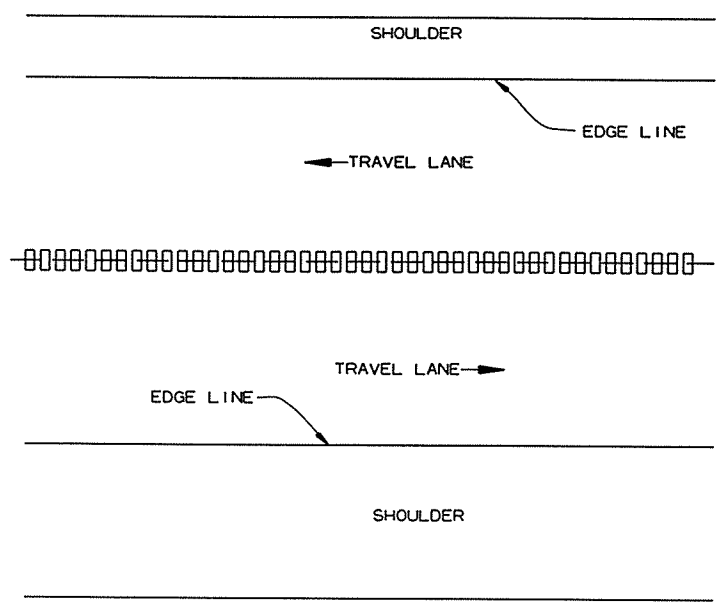


PLAN SECTION B-B SECTION A-A

DETAILS OF CENTERLINE RUMBLE STRIPS



LOCATION PLAN OF CENTERLINE RUMBLE STRIPS



PLAN VIEW

GENERAL NOTES

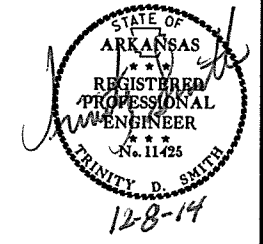
1. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPS SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE CENTERLINE.
3. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16' LENGTH. SOME VARIATION TO SUIT SLOPE BREAKS MAY BE NECESSARY.

r012229.dgn Speical Details

11/18/14

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.		012229	7	13

2 QUANTITIES



RUMBLE STRIPES IN ASPHALT SHOULDERS

COUNTY	DIST.	RTE.	SEC.	BEGIN LM	END LM	LENGTH	* RUMBLE STRIPES		THERMOPLASTIC PAVEMENT MARKINGS (4" WHITE)	
							MILES	NO. OF SHLDRS	LIN.FT.	NO. OF SHLDRS
ARKANSAS	2	1	5	0.00	3.99	3.99	2	33708	2	42134
LINCOLN	2	65	16	0.00	10.60	10.60	4	179098	4	223872
DESHA	2	65	17	0.33	4.40	4.07	2	34383	2	42979
CHICOT	2	65	17	4.69	5.38	0.69	2	5829	2	7286
CHICOT	2	65	21	4.66	14.47	9.81	2	82875	2	103594
CHICOT	2	65	21	14.70	15.89	1.19	2	10053	2	12566
CHICOT	2	65	22	0.09	0.23	0.14	2	1183	2	1478
CHICOT	2	65	22	0.67	3.60	2.93	2	24753	2	30941
JEFFERSON	2	79	9	0.00	7.57	7.57	2	63951	2	79939
JEFFERSON	2	79	9	8.20	10.33	2.13	2	17994	2	22493
JEFFERSON	2	79	9	11.10	11.37	0.27	2	2281	2	2851
ARKANSAS	2	79	11	0.00	4.59	4.59	2	38776	2	48470
ARKANSAS	2	79	11	4.82	5.60	0.78	2	6589	2	8237
ARKANSAS	2	79	11	5.90	10.81	4.91	2	41480	2	51850
ARKANSAS	2	79	11	12.22	12.48	0.26	2	2196	2	2746
ARKANSAS	2	79	11	15.39	17.33	1.94	2	16389	2	20486
JEFFERSON	2	79	9B	10.49	11.59	1.10	2	9293	2	11616
ASHLEY	2	82	8	0.87	2.08	1.21	2	10222	2	12778
ASHLEY	2	82	8	3.30	8.30	5.00	2	42240	2	52800
ASHLEY	2	82	8	10.82	14.79	3.97	2	33539	2	41923
ASHLEY	2	82	8	17.26	23.61	6.35	2	53645	2	67056
ASHLEY	2	82	9	0.00	2.76	2.76	2	23316	2	29146
ASHLEY	2	82	9	4.87	5.37	0.50	2	4224	2	5280
ASHLEY	2	82	9	10.67	10.90	0.23	2	1943	2	2429
ASHLEY	2	82	9	12.97	13.18	0.21	2	1774	2	2218
ASHLEY	2	82	9	13.37	13.71	0.34	2	2872	2	3590
ASHLEY	2	82	9	14.86	15.19	0.33	2	2788	2	3485
ASHLEY	2	82	9	15.64	16.32	0.68	2	5745	2	7181
ASHLEY	2	82	9	17.15	17.40	0.25	2	2112	2	2640
ASHLEY	2	82	9	19.43	21.48	2.05	2	17318	2	21648
CHICOT	2	82	10	0.00	6.96	6.96	2	58798	2	73498
CHICOT	2	82	10	8.52	9.96	1.44	2	12165	2	15206
ASHLEY	2	165	1	7.26	8.82	1.56	2	13179	2	16474
ASHLEY	2	165	1	15.74	16.59	0.85	2	7181	2	8976
ASHLEY	2	165	1	21.70	21.83	0.13	2	1098	2	1373
CHICOT	2	165	3	7.80	10.01	2.21	2	18670	2	23338
ARKANSAS	2	165	5	0.64	1.30	0.66	2	5576	2	6970
ARKANSAS	2	165	5	7.57	12.45	4.88	2	41226	2	51533
ARKANSAS	2	165	5	23.96	46.53	22.57	2	190671	2	238339
ARKANSAS	2	165	6	0.16	0.42	0.26	2	2196	2	2746
ARKANSAS	2	165	6	2.48	4.68	2.20	2	18586	2	23232
GRANT	2	270	9	0.00	3.04	3.04	2	25682	2	32102
GRANT	2	270	9	6.89	7.40	0.51	2	4308	2	5386
GRANT	2	270	9	7.47	14.58	7.11	2	60065	2	75082
GRANT	2	270	10	0.84	11.04	10.20	2	86170	2	107712
JEFFERSON	2	270	11	0.00	2.61	2.61	2	22049	2	27562
DREW	2	278	14	0.00	1.99	1.99	2	16812	2	21014
DREW	2	278	15	2.52	5.37	2.85	2	24077	2	30096
DREW	2	278	15	5.69	23.57	17.88	2	151050	2	188813
DESHA	2	278	16	0.00	2.58	2.58	2	21796	2	27245
ASHLEY	2	425	2	0.67	9.52	8.85	2	74765	2	93456
ASHLEY	2	425	2	9.71	12.18	2.47	2	20867	2	26083
DREW	2	425	3	2.30	3.50	1.20	2	10138	2	12672
DREW	2	425	3	5.71	6.70	0.99	2	8364	2	10454
DREW	2	425	3	10.10	11.01	0.91	2	7688	2	9610
DREW	2	425	4	5.55	7.24	1.69	2	14277	2	17846
DREW	2	425	4	8.32	10.12	1.80	2	15206	2	19008
LINCOLN	2	425	5	0.00	6.40	6.40	2	11827	2	14784
LINCOLN	2	425	6	4.59	5.55	0.96	2	8110	2	10138
LINCOLN	2	425	6	5.55	5.72	0.17	4	2872	4	3590
LINCOLN	2	425	6	6.07	6.37	0.30	4	5069	4	6336
LINCOLN	2	425	6	6.37	7.48	1.11	2	9377	2	11722
JEFFERSON	2	530	6	1.11	2.50	1.39	2	11743	2	14678
JEFFERSON	2	530	6	2.75	8.05	5.30	2	44774	2	55968
LINCOLN	2	530	8	0.00	8.74	8.74	2	73836	2	92294
GRANT	2	35	2	0.00	2.16	2.16	2	18248	2	22810
DREW	2	35	7	6.04	10.45	4.41	2	37256	2	46570
DESHA	2	1	1	0.64	6.88	6.24	2	52716	2	65894
DREW	2	35	8	0.00	5.65	5.65	2	47731	2	59664
ASHLEY	2	133	0	0.00	6.76	6.76	2	57108	2	71386
ASHLEY	2	133	1	3.63	15.05	11.42	2	96476	2	120595
DREW	2	278	15	1.94	2.52	0.58	2	4900	2	6125
ARKANSAS	2	63	12	0.00	2.04	2.04	2	17234	2	21542
TOTALS:						249.88		2204506		2755634

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

RUMBLE STRIPES IN ASPHALT SHOULDERS

COUNTY	DIST.	RTE.	SEC.	BEGIN LM	END LM	LENGTH	* RUMBLE STRIPES		REFLECTORIZED PAVEMENT MARKINGS (4" WHITE)	
							MILES	NO. OF SHLDRS	LIN.FT.	NO. OF SHLDRS
JEFFERSON	2	79	9	7.57	8.20	0.63	2	5322	2	6653
ASHLEY	2	425	2	9.52	9.71	0.19	2	1605	2	2006
ASHLEY	2	82	8	2.08	3.30	1.22	2	10307	2	12883
ARKANSAS	2	79	11	5.60	5.90	0.30	2	2534	2	3168
ARKANSAS	2	79	11	4.59	4.82	0.23	2	1943	2	2429
ASHLEY	2	165	1	21.83	28.66	6.83	2	57700	2	72125
ARKANSAS	2	165	5	12.45	20.90	8.45	2	71386	2	89232
DREW	2	425	3	6.70	7.20	0.50	2	4224	2	5280
DESHA	2	65	17	5.38	5.75	0.37	2	3126	2	3907
ASHLEY	2	165	1	16.59	17.68	1.09	2	9208	2	11510
CHICOT	2	82	10	6.96	8.52	1.56	2	13179	2	16474
ARKANSAS	2	1	5	3.99	13.94	9.95	2	84058	2	105072
ARKANSAS	2	165	5	1.30	2.45	1.15	2	9715	2	12144
JEFFERSON	2	79	9	10.33	10.68	0.35	2	2957	2	3696
ASHLEY	2	165	1	8.82	15.74	6.92	2	58460	2	73075
CHICOT	2	165	3	0.00	7.80	7.80	2	65894	2	82368
CHICOT	2	65	21	14.47	14.70	0.23	2	1943	2	2429
ARKANSAS	2	165	5	0.00	0.64	0.64	2	5407	2	6758
ARKANSAS	2	165	5	2.63	7.57	4.94	2	41733	2	52166
ASHLEY	2	165	1	4.29	7.26	2.97	2	25091	2	31363
DESHA	2	165	4	7.23	9.09	1.86	2	15713	2	19642
ASHLEY	2	82	9	17.40	19.43	2.03	2	17149	2	21437
ASHLEY	2	82	9	10.90	12.97	2.07	2	17487	2	21859
ASHLEY	2	82	9	13.18	13.37	0.19	2	1605	2	2006
ASHLEY	2	82	9	13.71	14.86	1.15	2	9715	2	12144
ASHLEY	2	82	9	15.32	15.64	0.32	2	2703	2	3379
ASHLEY	2	82	9	2.76	4.87	2.11	2	17825	2	22282
ASHLEY	2	82	9	16.32	17.15	0.83	2	7012	2	8765
ASHLEY	2	82	9	5.37	10.67	5.30	2	44774	2	55968
ASHLEY	2	82	8	0.55	0.87	0.32	2	2703	2	3379
CHICOT	2	65	22	3.60	7.73	4.13	2	34890	2	43613
DREW	2	278	14	1.99	2.24	0.25	2	2112	2	2640
LINCOLN	2	425	5	6.40	7.86	1.46	2	12334	2	15418
LINCOLN	2	425	6	5.72	6.07	0.35	2	2957	2	3696
GRANT	2	270	9	5.64	6.89	1.25	2	10560	2	13200
DREW	2	425	4	10.12	11.71	1.59	2	13432	2	16790
ASHLEY	2	82	8	14.79	17.26	2.47	2	20867	2	26083
ARKANSAS	2	165	5	46.53	46.68	0.15	2	1267	2	1584
ASHLEY	2	165	1	18.08	21.70	3.62	2	30582	2	38227
GRANT	2	291	1	9.51	14.84	5.33	2	45028	2	56285
DREW	2	35	7	10.45	11.14	0.69	2	5829	2	7286
GRANT	2	291	1	6.79	6.97	0.18	2	1521	2	1901
GRANT	2	291	1	7.73	7.83	0.10	2	845	2	1056
GRANT	2	291	1	8.73	8.92	0.19	2	1605	2	2006
ASHLEY	2	8	13	0.00	4.46	4.46	2	37678	2	47098
DESHA	2	1	1	6.88	9.79	2.91	2	24584	2	30730
DREW	2	35	7	0.00	6.04	6.04	2	51026	2	63782
DREW	2	35	8	5.65	20.26	14.61	2	123425	2	154282
GRANT	2	35	2	2.16	2.29	0.13	2	1098	2	1373
GRANT	2	35	2	7.82	11.54	3.72	2	31427	2	39283
TOTALS:						126.13		1065545		1331932

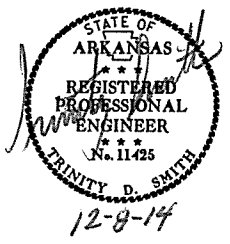
\* QUANTITY ESTIM





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. 012229							9	13

2 QUANTITIES



**RUMBLE STRIPS IN ASPHALT SHOULDERS**

COUNTY	DIST.	RTE.	SEC.	BEGIN LM	END LM	LENGTH	* RUMBLE STRIPS IN ASPHALT SHOULDERS	
							MILES	LIN.FT.
UNION	7	7	2	0.00	10.80	10.80	4	182477
OUACHITA	7	7	3	1.00	12.60	11.60	4	195994
OUACHITA	7	7	4	0.00	0.40	0.40	2	3379
CLARK	7	7	7	0.70	1.80	1.10	2	9293
CLARK	7	7	7	2.90	5.20	2.30	2	19430
BRADLEY	7	8	12	0.00	13.50	13.50	2	114048
OUACHITA	7	24	6	13.50	16.90	3.40	2	28723
CLARK	7	26	4	11.60	16.10	4.50	2	38016
BRADLEY	7	63	17	0.30	3.90	3.60	2	30413
BRADLEY	7	63	17	5.20	6.80	1.60	2	13517
BRADLEY	7	63	17	10.20	11.50	1.30	2	10982
BRADLEY	7	63	17	13.00	26.20	13.20	2	111514
CLARK	7	67	4	0.20	8.80	8.60	2	72653
CLARK	7	67	5	0.50	5.50	5.00	2	42240
CLARK	7	67	5	6.30	13.90	7.60	2	64205
CLARK	7	67	6	2.30	3.70	1.40	2	11827
CLARK	7	67	6	5.00	7.40	2.40	2	20275
OUACHITA	7	79	4	0.70	1.30	0.60	4	10138
OUACHITA	7	79	4	1.30	1.60	0.30	2	2534
OUACHITA	7	79	4	1.60	1.90	0.30	4	5069
OUACHITA	7	79	4	1.90	8.10	6.20	2	52378
OUACHITA	7	79	4	8.10	20.30	12.20	4	206131
CALHOUN	7	79	5	0.00	8.60	8.60	4	145306
DALLAS	7	79	6	0.00	0.90	0.90	4	15206
CLEVELAND	7	79	7	4.10	12.40	8.30	2	70118
UNION	7	129	1	0.00	13.60	13.60	2	114893
UNION	7	167	1	13.90	19.40	5.50	2	46464
CALHOUN	7	167	3	8.60	11.20	2.60	2	21965
CALHOUN	7	167	3	13.10	13.60	0.50	2	4224
CALHOUN	7	167	4	0.60	2.20	1.60	2	13517
CALHOUN	7	167	4	5.10	17.60	12.50	2	105600
DALLAS	7	167	7	0.50	2.00	1.50	2	12672
DALLAS	7	167	7	2.00	4.30	2.30	4	38861
CLEVELAND	7	167	8	2.10	6.50	4.40	4	74342
CALHOUN	7	278	11	5.10	10.10	5.00	2	42240
BRADLEY	7	278	12	0.00	3.30	3.30	2	27878
BRADLEY	7	278	12	4.00	13.80	9.80	2	82790
BRADLEY	7	278	13	3.40	6.80	3.40	2	28723
TOTALS:						195.70		2090035

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

NOTE: QUANTITIES INCLUDED HAVE NOT BEEN REDUCED TO ALLOW FOR CROSSING PUBLIC ROAD INTERSECTIONS, DRIVEWAYS, BRIDGES OR APPROACH GUTTERS. FINAL QUANTITIES FOR SHOULDER RUMBLE STRIPS/STRIPES WILL BE LESS THAN THE QUANTITY INDICATED ABOVE. THE WIDTH AND STRUCTURAL CONDITION OF THE SHOULDER SHALL BE VERIFIED BY THE ENGINEER BEFORE RUMBLE STRIPS/STRIPES ARE INSTALLED. REFLECTORIZED PAINT AND THERMOPLASTIC PAVEMENT MARKINGS SHALL BE PLACED ACCORDING TO THE STANDARD SPECIFICATIONS.

**RUMBLE STRIPES IN ASPHALT SHOULDERS**

COUNTY	DIST.	RTE.	SEC.	BEGIN LM	END LM	LENGTH	* RUMBLE STRIPES		REFLECTORIZED PAINT PAVEMENT MARKINGS (4" WHITE)	
							MILES	LIN.FT.	NO. OF SHLDRS	LIN.FT.
CLARK	7	7	7	1.80	2.90	1.10	2	9293	2	11616
COLUMBIA	7	98	1	0.00	1.70	1.70	2	14362	2	17952
CLARK	7	53	0	0.00	6.60	6.60	2	55757	2	69696
DALLAS	7	8	7	0.30	17.00	16.70	2	141082	2	176352
DALLAS	7	9	2	0.00	0.50	0.50	2	4224	2	5280
DALLAS	7	9	2	1.20	8.00	6.80	2	57446	2	71808
CLARK	7	26	4	0.00	11.30	11.30	2	95462	2	119328
BRADLEY	7	8	11	0.00	6.20	6.20	2	52378	2	65472
BRADLEY	7	8	12	13.50	16.40	2.90	2	24499	2	30624
OUACHITA	7	9	1	0.00	8.10	8.10	2	68429	2	85536
OUACHITA	7	24	6	0.00	5.00	5.00	2	42240	2	52800
OUACHITA	7	24	6	6.20	13.50	7.30	2	61670	2	77088
CLARK	7	8	5	2.00	6.60	4.60	2	38861	2	48576
CLARK	7	8	5	7.00	12.90	5.90	2	49843	2	62304
TOTALS:						84.70		715546		894432

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

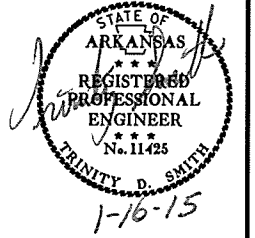
**RUMBLE STRIPES IN ASPHALT SHOULDERS**

COUNTY	DIST.	RTE.	SEC.	BEGIN LM	END LM	LENGTH	* RUMBLE STRIPES		THERMOPLASTIC PAVEMENT MARKINGS (4" WHITE)	
							MILES	LIN.FT.	NO. OF SHLDRS	LIN.FT.
UNION	7	7	2S	1.10	2.10	1.00	2	8448	2	10560
BRADLEY	7	63	17	3.90	5.20	1.30	2	10982	2	13728
BRADLEY	7	63	17	6.80	10.20	3.40	2	28723	2	35904
BRADLEY	7	63	17	26.20	28.20	2.00	2	16896	2	21120
COLUMBIA	7	79	1	0.00	5.30	5.30	2	44774	2	55968
COLUMBIA	7	79	1	6.50	16.60	10.10	2	85325	2	106656
COLUMBIA	7	79	2	3.70	10.60	6.90	2	58291	2	72864
OUACHITA	7	79	3	0.00	2.00	2.00	2	16896	2	21120
OUACHITA	7	79	3	3.70	18.00	14.30	2	120806	2	151008
CLEVELAND	7	79	8	0.40	7.30	6.90	2	58291	2	72864
COLUMBIA	7	82	4	2.90	15.90	13.00	2	109824	2	137280
UNION	7	82	5	0.00	16.60	16.60	2	140237	2	175296
UNION	7	82	7	1.40	14.80	13.40	2	113203	2	141504
CALHOUN	7	167	3	11.20	13.10	1.90	2	16051	2	20064
CALHOUN	7	167	4	2.20	5.10	2.90	2	24499	2	30624
OUACHITA	7	278	8	0.00	12.30	12.30	2	103910	2	129888
CALHOUN	7	278	10	0.00	2.90	2.90	2	24499	2	30624
CALHOUN	7	278	10	3.70	14.40	10.70	2	90394	2	112992
CALHOUN	7	278	11	1.00	4.40	3.40	2	28723	2	35904
COLUMBIA	7	371	6	0.00	5.30	5.30	2	44774	2	55968
COLUMBIA	7	371	7	3.10	12.10	9.00	2	76032	2	95040
OUACHITA	7	278	9	1.20	4.60	3.40	2	28723	2	35904
TOTALS:						148.00		1250301		1562880

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

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
01-05-15				6	ARK.			
01-16-15								
JOB NO.						012229	10	13

② SUMMARY OF QUANTITIES AND REVISIONS



SUMMARY OF QUANTITIES


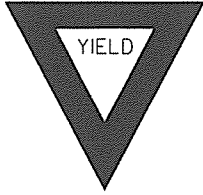
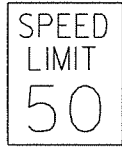
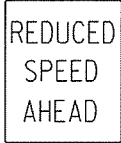





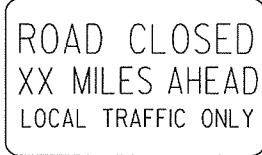
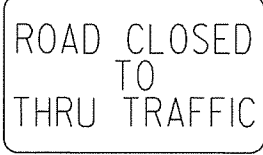

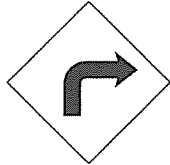
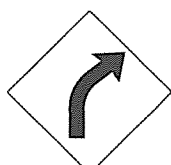
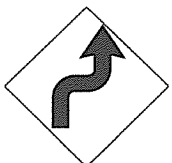

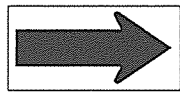
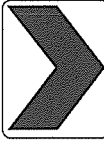
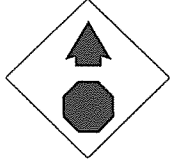
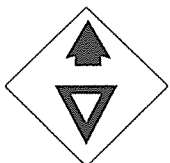
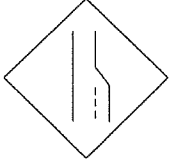



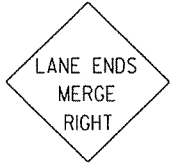


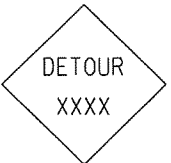


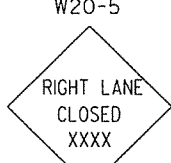
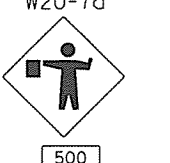

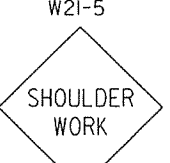
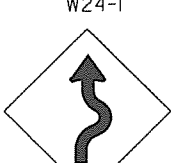
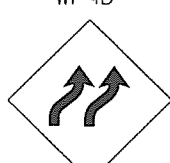


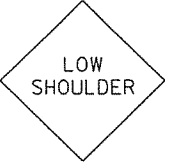

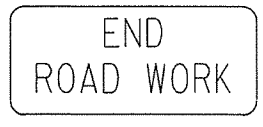
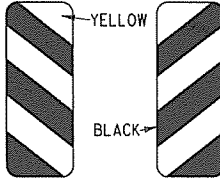
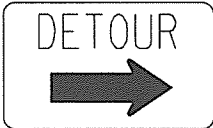

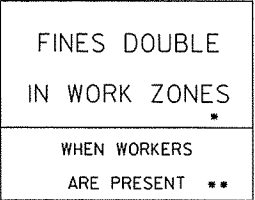
ITEM NUMBER	ITEM	QUANTITY	UNIT
601	MOBILIZATION	1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	5058577	LIN. FT.
SP & 642	CENTERLINE RUMBLE STRIPS IN ASPHALT ROADWAYS	1795	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (4")	2509055	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	4969963	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	3590	LIN. FT.
SP	RUMBLE STRIPES	5983207	LIN. FT.

NOTE: THE CONTRACTOR SHALL INSTALL THE RUMBLE STRIPS/STRIPES ON HWY. 278 SECTION 15 FROM L.M. 5.00 TO L.M. 7.00 BEFORE OTHER WORK CAN BEGIN.

NOTE: QUANTITIES INCLUDED HAVE NOT BEEN REDUCED TO ALLOW FOR CROSSING PUBLIC ROAD INTERSECTIONS, DRIVEWAYS, BRIDGES OR APPROACH GUTTERS. FINAL QUANTITIES FOR SHOULDER RUMBLE STRIPS/STRIPES WILL BE LESS THAN THE QUANTITY INDICATED ABOVE. THE WIDTH AND STRUCTURAL CONDITION OF THE SHOULDER SHALL BE VERIFIED BY THE ENGINEER BEFORE RUMBLE STRIPS/STRIPES ARE INSTALLED. REFLECTORIZED PAINT AND THERMOPLASTIC PAVEMENT MARKINGS SHALL BE PLACED ACCORDING TO THE STANDARD SPECIFICATIONS.

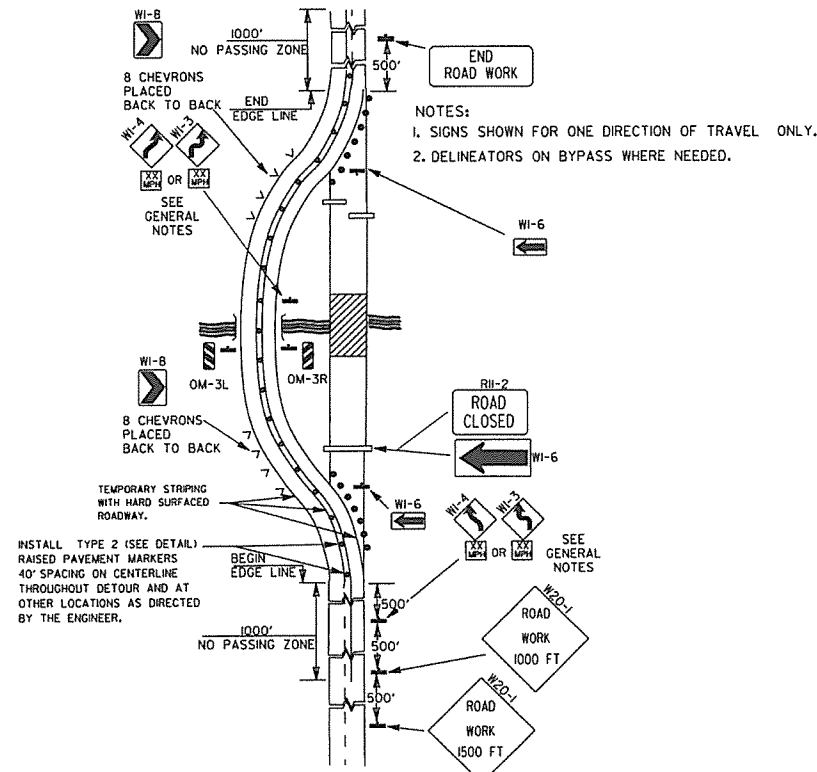
REVISIONS

DATE	REVISION	SHEET NUMBER
1/5/2015	REVISED SPECIAL PROVISION "RUMBLE STRIPS"	10
1/16/2015	REVISED LOCATION PLAN OF RUMBLE STRIPE DETAIL	5, 10

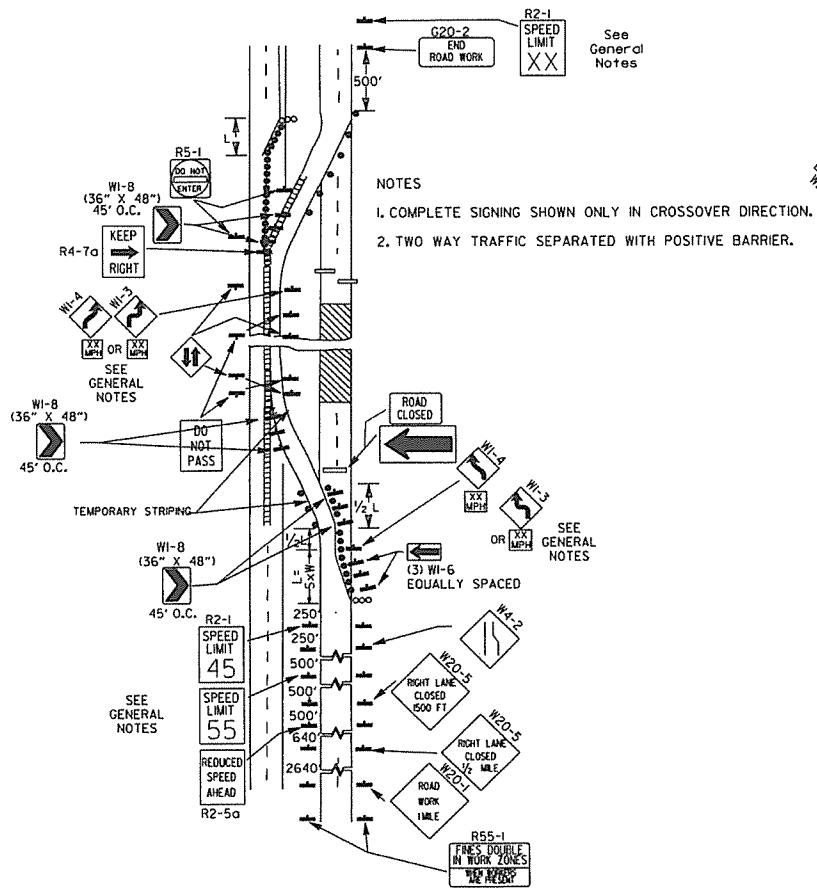
							ADVANCE DISTANCES (XXXX)	11
<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R2-5A</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R2-5C</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>500 FT 1000 FT 1500 FT</p> <p>1/2 MILE 3/4 MILE 1 MILE AHEAD</p>	
<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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, DEFACTED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.</li> <li>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.</li> <li>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.</li> </ol>								
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>RSP-1</p>  <p>48"x30"</p>	<p>W1-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>		
<p>W1-3</p>  <p>STD. 48"x48"</p>	<p>W1-4</p>  <p>STD. 48"x48"</p>	<p>W1-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>W1-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>		
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>	
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>W1-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>	
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60"</p> <p>* USE 6" C LETTERS ** USE 4" D LETTERS</p>	

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

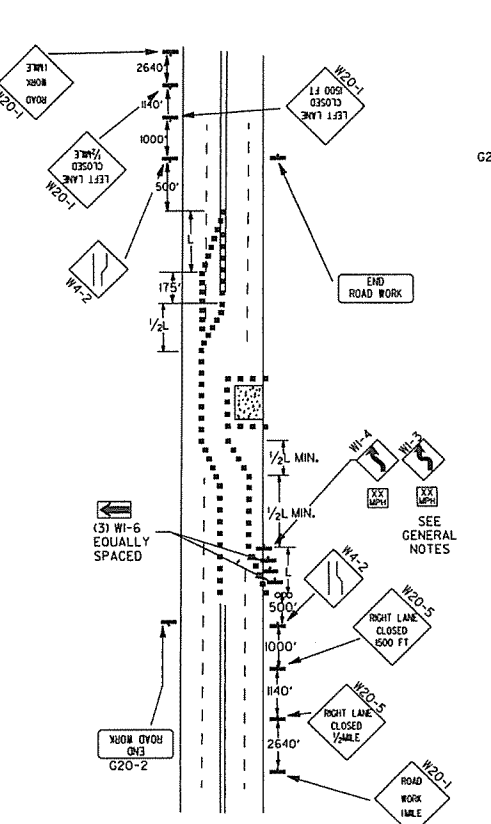
ARKANSAS STATE HIGHWAY COMMISSION  
STANDARD TRAFFIC CONTROLS  
FOR HIGHWAY CONSTRUCTION  
STANDARD DRAWING TC-1



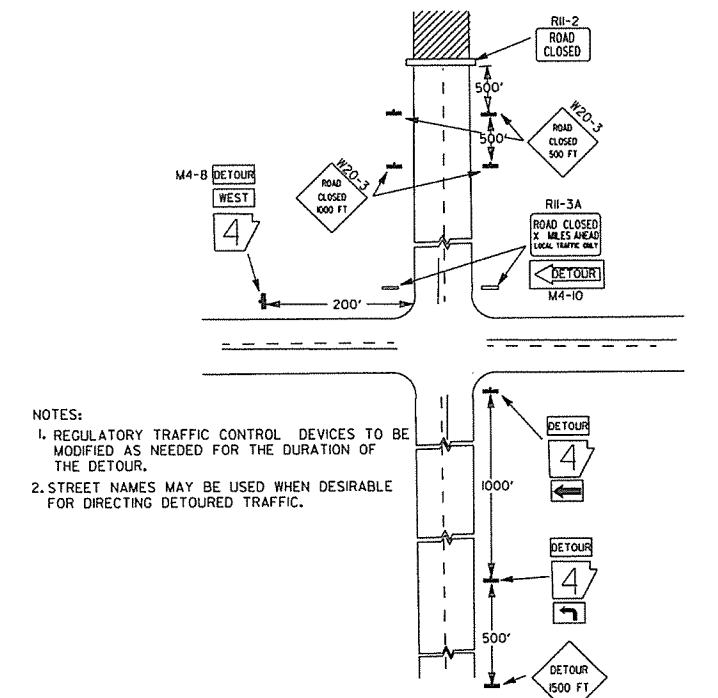
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



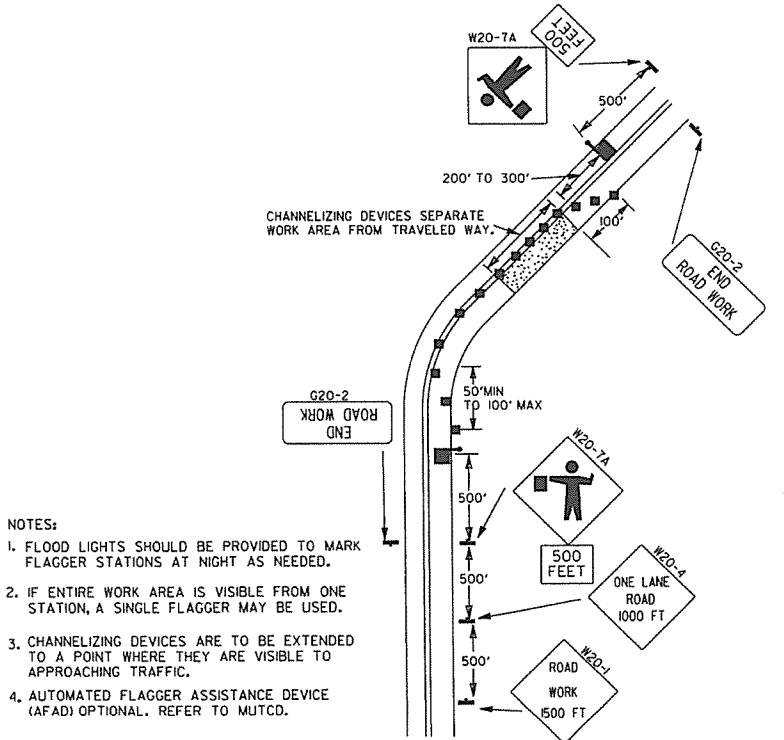
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



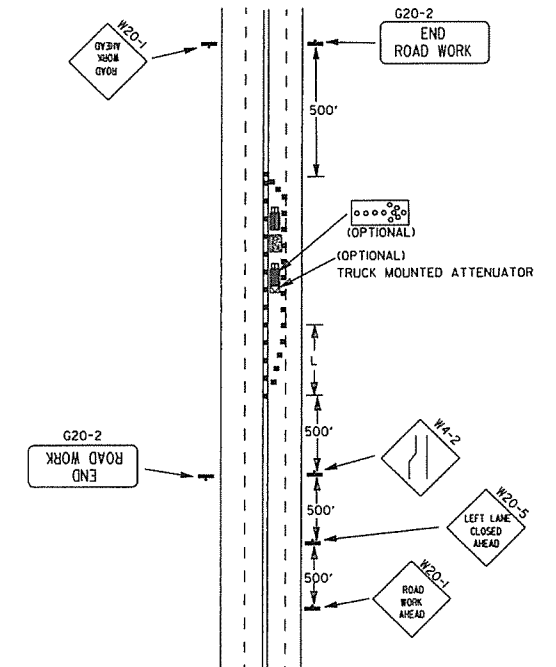
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



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

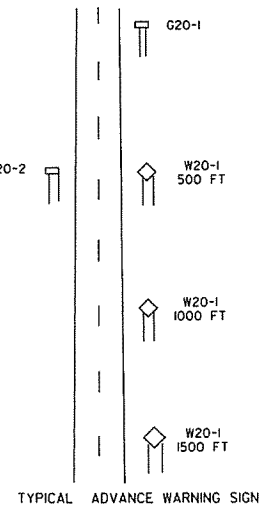
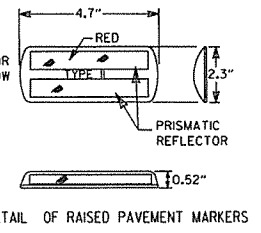


(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



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

- KEY:
- FLAGGER
  - POSITIVE BARRIER
  - ARROW PANEL (IF REQUIRED)
  - TYPE III BARRICADE
  - CHANNELIZING DEVICE
  - TRAFFIC DRUM
  - RAISED PAVEMENT MARKER



TAPER FORMULAE:

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

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

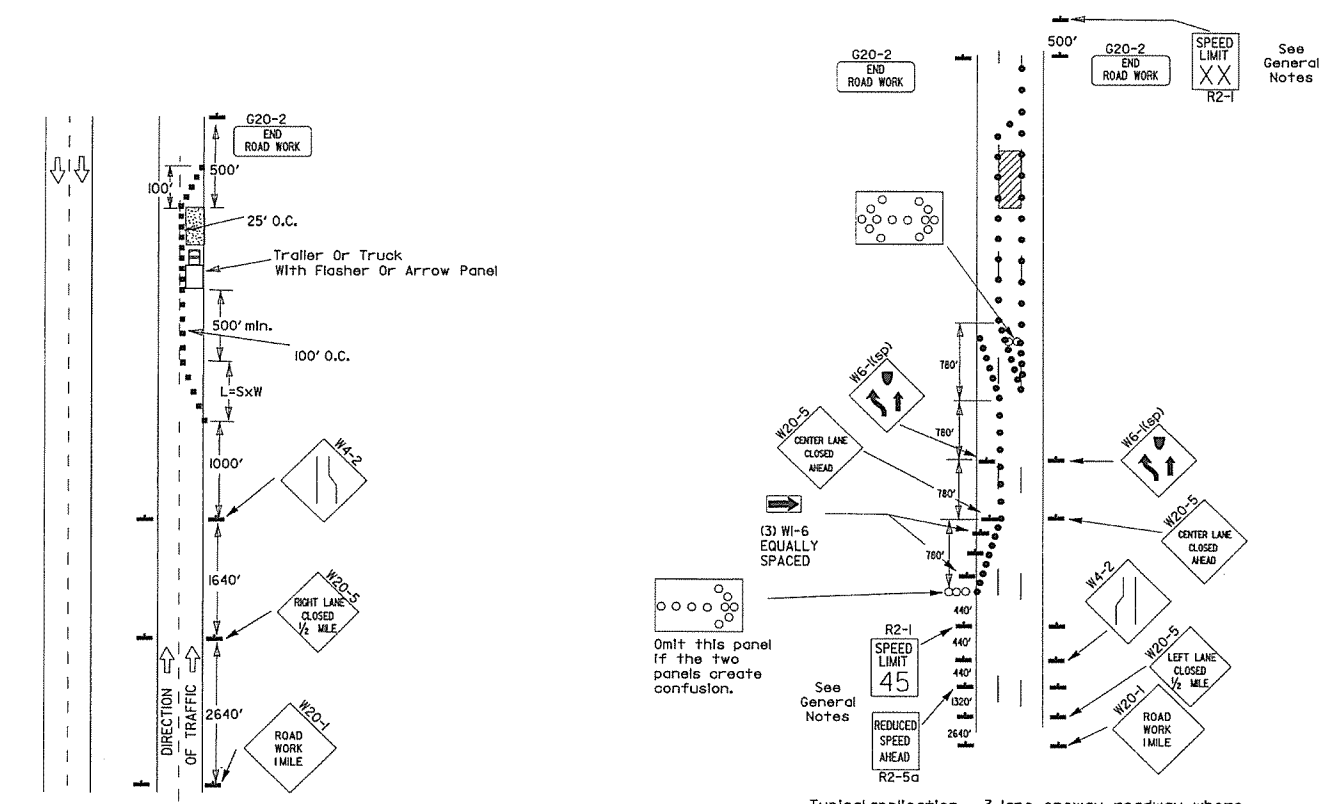
WHERE:

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

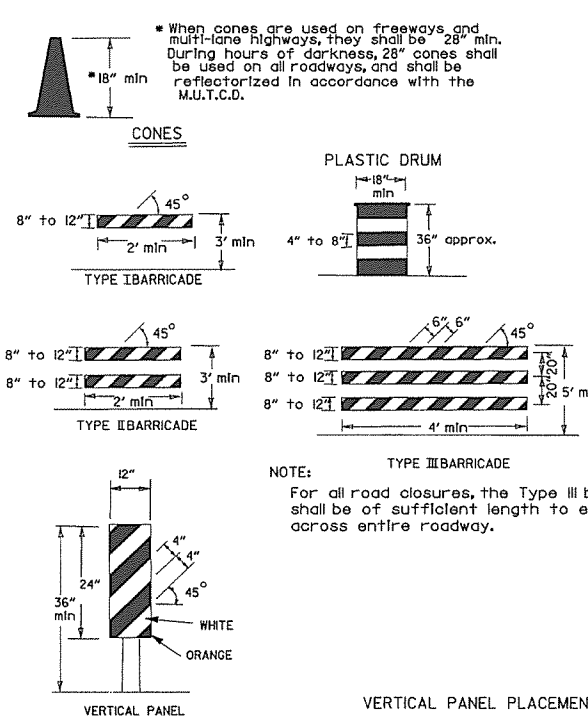
- GENERAL NOTES:
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
  2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(45) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
  3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
  4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
  5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
  6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
  7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER, WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.

DATE	REVISION	FILED
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-1-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

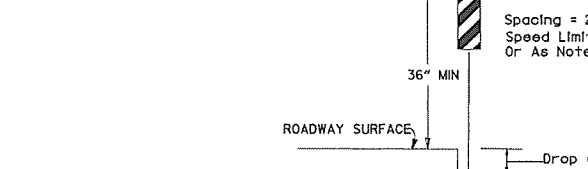
Channelizing devices



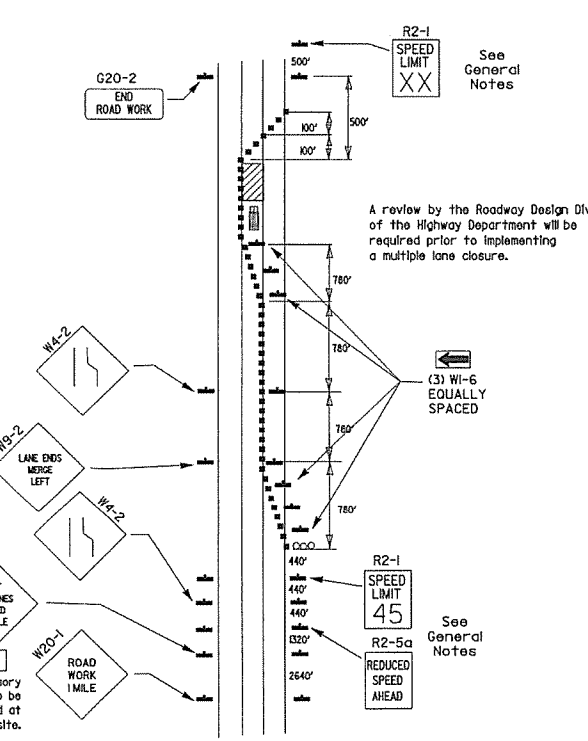
(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(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.



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

- KEY:
- Arrow Panel (if Required)
  - Channelizing Device
  - Traffic drum

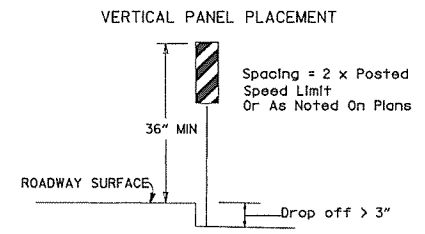
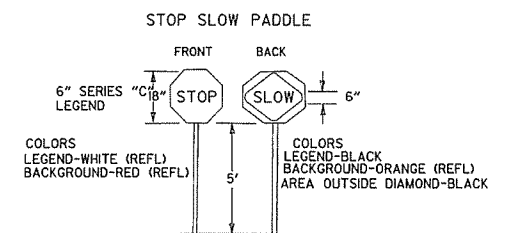
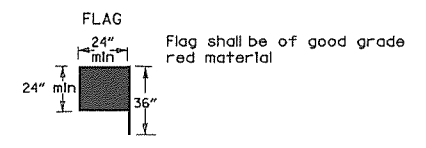
GENERAL NOTES:

1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5a shall be installed at that location. Additional R2-145mph speed limit signs shall be installed at a maximum of 1/2 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(65) shall be omitted. Additional R2-155mph speed limit signs shall be installed at a maximum of 1/2 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.

TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

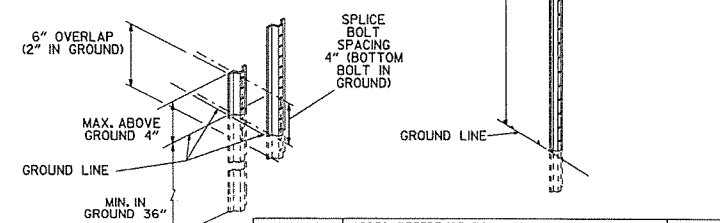
VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-II
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical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



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	FILED
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	