

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	061685	1	24
				② HWY. 161 - HWY. 31 (S)				

"A FULLY CONTROLLED ACCESS FACILITY"
 ARKANSAS DEPARTMENT OF TRANSPORTATION
 CONSTRUCTION PLANS FOR STATE HIGHWAY

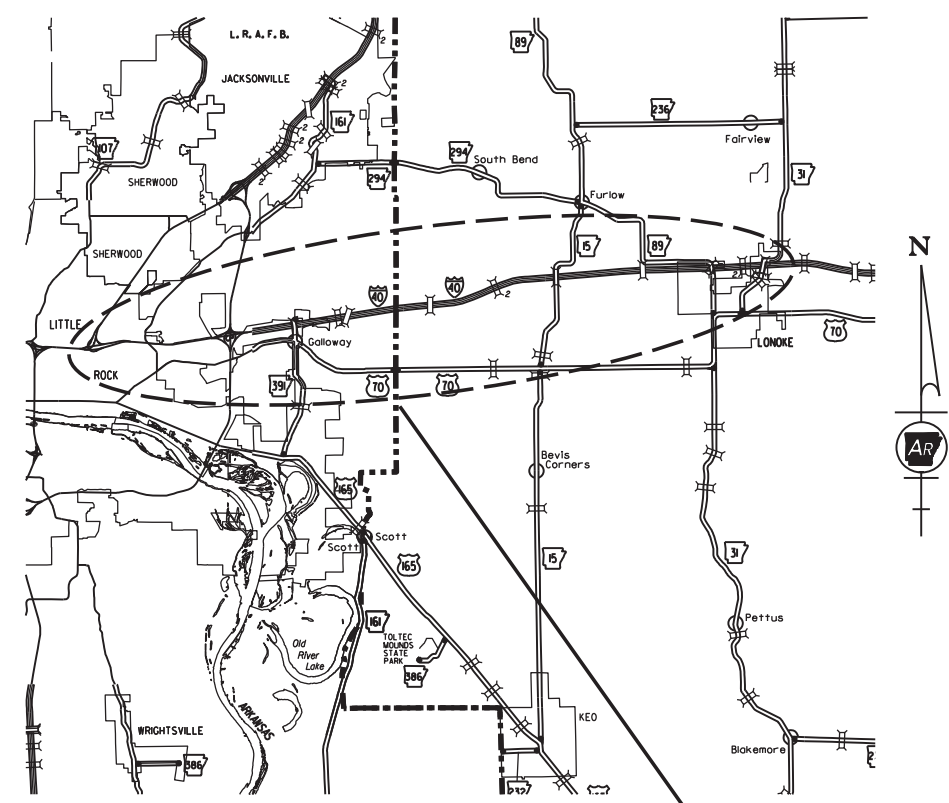
HWY. 161 - HWY. 31 (S)

PULASKI & LONOKE COUNTIES

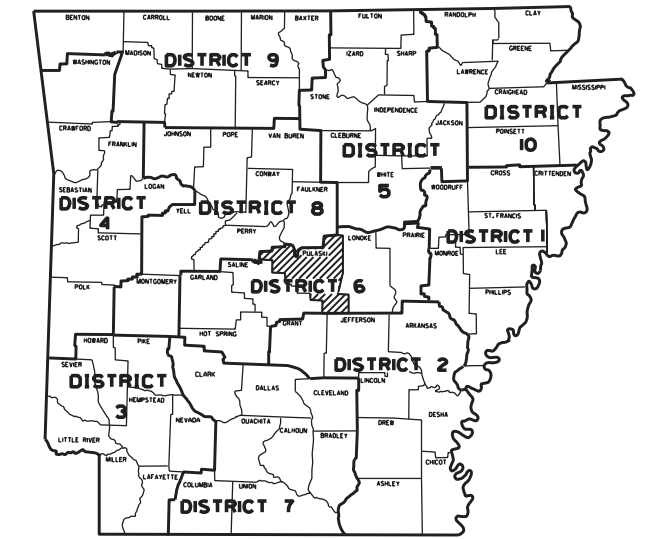
ROUTE 40 SECTIONS 33 & 41

JOB 061685

FED. AID PROJ. NHFP-40-3(139)



VICINITY MAP
PROJECT LOCATION



ARK. HWY. DIST. NO. 6

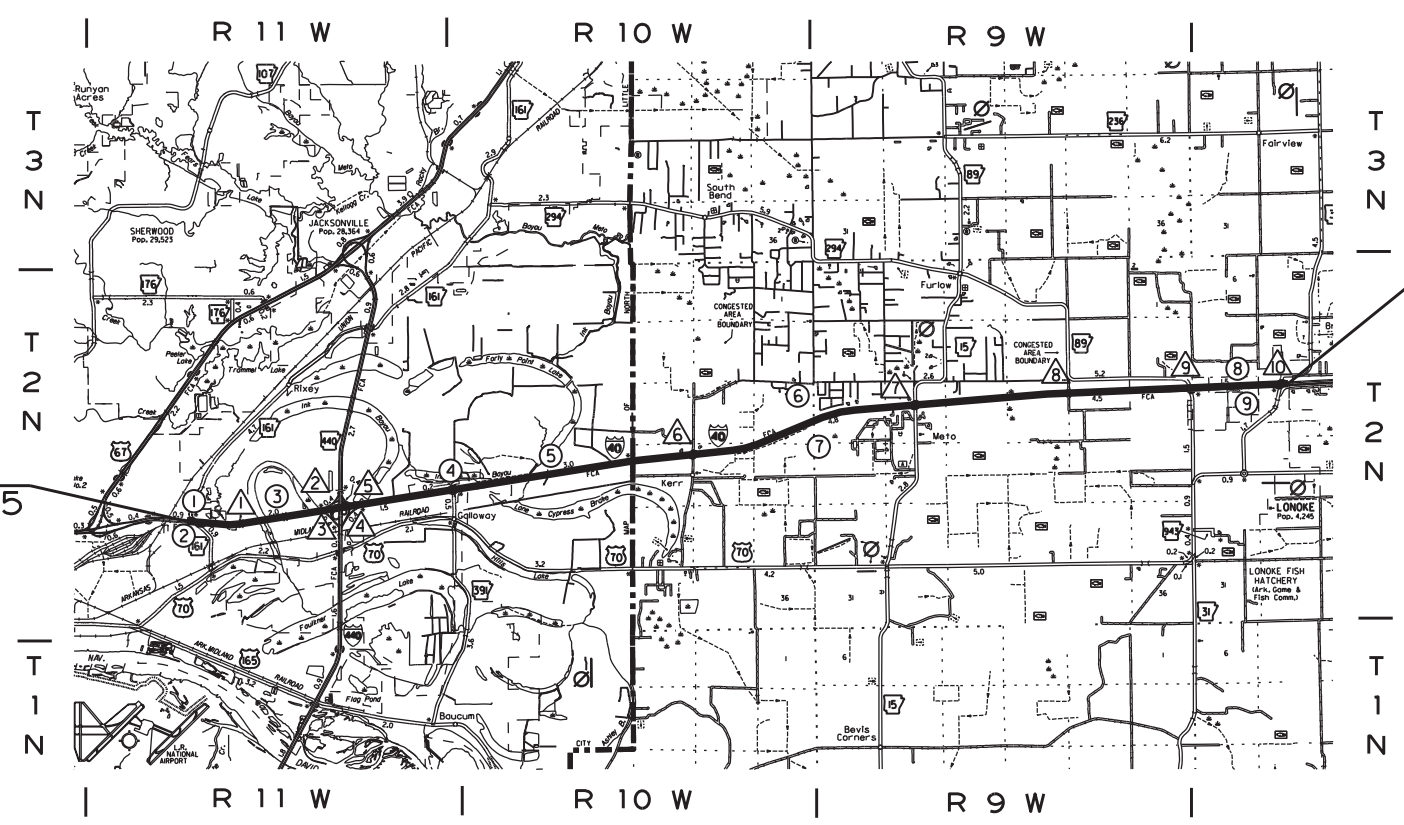
NOT TO SCALE

DESIGN TRAFFIC DATA

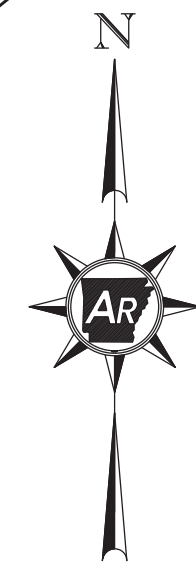
DESIGN YEAR	-----	2041
2021 ADT	-----	49,000
2041 ADT	-----	57,000
2041 DHV	-----	0.60
DIRECTIONAL DISTRIBUTION	-----	0.60
TRUCKS	-----	4.7%
DESIGN SPEED	-----	75 MPH

BRIDGE DATA

- | | | |
|---|---|---|
| ① LOG MILE 156.50
56'-0" CLEAR ROADWAY
255.00' TOTAL LENGTH
BR. NO. A6821
POLYMER OVERLAY | ② LOG MILE 156.52
56'-0" CLEAR ROADWAY
255.00' TOTAL LENGTH
BR. NO. B6821
POLYMER OVERLAY | ③ LOG MILE 158.02
20'-0" CLEAR ROADWAY
209.00' TOTAL LENGTH
BR. NO. 03269
HYDRODEMOLITION |
| ④ LOG MILE 160.81
26'-0" CLEAR ROADWAY
222.00' TOTAL LENGTH
BR. NO. 03197
HYDRODEMOLITION | ⑤ LOG MILE 162.39
26'-0" CLEAR ROADWAY
259.00' TOTAL LENGTH
BR. NO. 03198
HYDRODEMOLITION | ⑥ LOG MILE 166.76
40'-0" CLEAR ROADWAY
342.00' TOTAL LENGTH
BR. NO. A6872
POLYMER OVERLAY |
| ⑦ LOG MILE 166.76
40'-0" CLEAR ROADWAY
342.00' TOTAL LENGTH
BR. NO. B6872
POLYMER OVERLAY | ⑧ LOG MILE 174.01
40'-0" CLEAR ROADWAY
224.00' TOTAL LENGTH
BR. NO. A6873
POLYMER OVERLAY | ⑨ LOG MILE 174.01
40'-0" CLEAR ROADWAY
223.60' TOTAL LENGTH
BR. NO. B6873
POLYMER OVERLAY |
| △ LOG MILE 157.29
26'-0" CLEAR ROADWAY
216.00' TOTAL LENGTH
BR. NO. 03195
RETAIN | △ LOG MILE 158.77
27'-10" CLEAR ROADWAY
451.00' TOTAL LENGTH
BR. NO. 05711
RETAIN | △ LOG MILE 158.94
46'-10" CLEAR ROADWAY
888.00' TOTAL LENGTH
BR. NO. A5985
RETAIN |
| △ LOG MILE 158.94
52'-00" CLEAR ROADWAY
888.00' TOTAL LENGTH
BR. NO. B5985
RETAIN | △ LOG MILE 158.94
52'-00" CLEAR ROADWAY
888.00' TOTAL LENGTH
BR. NO. B5985
RETAIN | LOG MILE 156.30
BEGIN JOB 061685 |
| △ LOG MILE 159.07
25'-00" CLEAR ROADWAY
619.00' TOTAL LENGTH
BR. NO. 05712
RETAIN | △ LOG MILE 164.81
24'-0" CLEAR ROADWAY
210.00' TOTAL LENGTH
BR. NO. 03222
RETAIN | △ LOG MILE 168.58
39'-0" CLEAR ROADWAY
308.00' TOTAL LENGTH
BR. NO. A3224
RETAIN |
| △ LOG MILE 171.16
20'-0" CLEAR ROADWAY
226.00' TOTAL LENGTH
BR. NO. 03225
RETAIN | △ LOG MILE 173.15
40'-0" CLEAR ROADWAY
212.00' TOTAL LENGTH
BR. NO. 07205
RETAIN | △ LOG MILE 174.58
31'-8" CLEAR ROADWAY
222.00' TOTAL LENGTH
BR. NO. 03228
RETAIN |



LOG MILE 174.90
END JOB 061685



APPROVED



Date: 2021.05.21
11:56:47 -05'00'

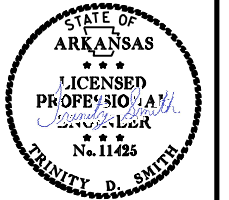
DEPUTY DIRECTOR
AND CHIEF ENGINEER

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 34°46'45"	LATITUDE = N 34°47'34"	LATITUDE = N 34°48'15"
LONGITUDE = W 92°12'23"	LONGITUDE = W 92°02'38"	LONGITUDE = W 91°52'55"

GROSS LENGTH OF PROJECT	98208.00	FEET	OR	18.600	MILES
NET " " ROADWAY	97387.20	"	"	18.445	"
NET " " BRIDGES	820.80	"	"	0.155	"
NET " " PROJECT	98208.00	"	"	18.600	"

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-08-21				6	ARK.			
						JOB NO. 061685	2	24

2 INDEX OF SHEETS AND STANDARD DRAWINGS



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INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
1	TITLE SHEET		
2	INDEX OF SHEETS AND STANDARD DRAWINGS		
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
4 - 5	TYPICAL SECTIONS OF IMPROVEMENT		
6 - 7	SPECIAL DETAILS		
8 - 18	MAINTENANCE OF TRAFFIC DETAILS		
19	PERMANENT PAVEMENT MARKING DETAILS		
20 - 22	QUANTITIES		
23	SCHEDULE OF BRIDGE QUANTITIES	A&B6821, 03195, 03269, 03197, 03198, A&B6872, 03225, 07205, A&B6873	61833
24	SUMMARY OF QUANTITIES AND REVISIONS		

BRIDGE STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
55060	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY SLAB ON BEAM/GIRDER BRIDGES	06-26-20
55064	STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATIONS	11-07-19

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
GR-6	GUARDRAIL DETAILS	11-07-19
GR-9	GUARDRAIL DETAILS	11-07-19
GR-10	GUARDRAIL DETAILS	11-07-19
GR-11	GUARDRAIL DETAILS	11-07-19
GR-12	GUARDRAIL DETAILS	11-07-19
GRT-1	GUARDRAIL DETAILS	11-07-19
PM-1	PAVEMENT MARKING DETAILS	02-27-20
PM-2	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	05-14-20
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TR-1A	DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMP (NON-REINFORCED)	08-22-02

5/30/2020
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GOVERNING SPECIFICATIONS

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-28-21				6	ARK.			
						JOB NO. 061685	3	24

2 GOVERNING SPECIFICATIONS & GENERAL NOTES



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NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB 061685
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
400-7	TRACKLESS TACK
404-3	DESIGN OF ASPHALT MIXTURES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
600-2	INCIDENTAL CONSTRUCTION
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
617-1	GUARDRAIL TERMINAL (TYPE 2)
621-1	FILTER SOCKS
800-1	STRUCTURES
804-2	REINFORCING STEEL FOR STRUCTURES
JOB 061685	AIRPORT CLEARANCE REQUIREMENTS
JOB 061685	ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC
JOB 061685	BIDDING REQUIREMENTS AND CONDITIONS
JOB 061685	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS
JOB 061685	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS
JOB 061685	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 061685	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 061685	CARGO PREFERENCE ACT REQUIREMENTS
JOB 061685	COLD MILLINGS IN RECYCLED ASPHALT PAVEMENT
JOB 061685	COORDINATION OF WORK
JOB 061685	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 061685	ENHANCED THERMOPLASTIC PAVEMENT MARKING
JOB 061685	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 061685	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 061685	HYDRODEMOLITION - CLASS 1
JOB 061685	LATEX MODIFIED CONCRETE OVERLAY
JOB 061685	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 061685	MAINTENANCE OF TRAFFIC
JOB 061685	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB 061685	MANDATORY ELECTRONIC CONTRACT
JOB 061685	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 061685	PARTNERING REQUIREMENTS
JOB 061685	PERCENT WITHIN LIMITS
JOB 061685	POLYMER OVERLAY
JOB 061685	PORTABLE TRAFFIC SIGNAL SYSTEM
JOB 061685	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 061685	RESTRICTIONS ON THE USE OF RECYCLED ASPHALT PAVEMENT MATERIAL
JOB 061685	SEQUENCE OF CONSTRUCTION - ALTERNATE CONCEPTUAL PROPOSAL (ACP)
JOB 061685	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB 061685	SPECIAL CLEARING
JOB 061685	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB 061685	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 061685	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 061685	UNDERDRAIN INSPECTION AND FLUSHING
JOB 061685	UTILITY ADJUSTMENTS
JOB 061685	VALUE ENGINEERING
JOB 061685	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY
JOB 061685	WARM MIX ASPHALT
JOB 061685	WELLHEAD PROTECTION

GENERAL NOTES

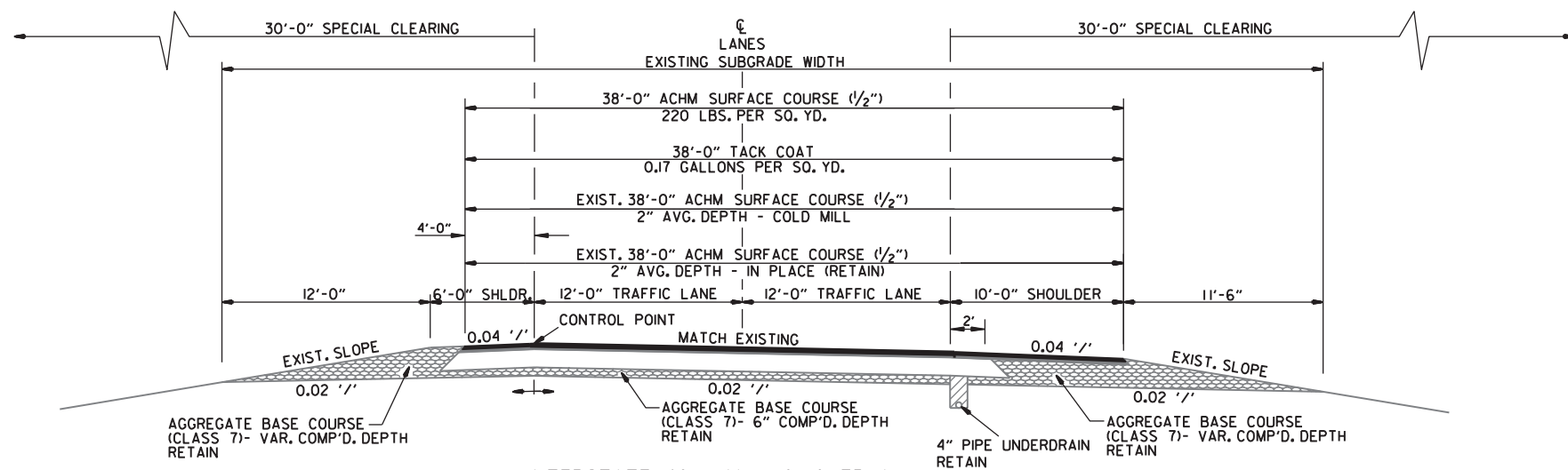
1. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
3. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
4. ALL 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 ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
6. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.

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				6	ARK.			
						JOB NO. 061685	4	24

2 TYPICAL SECTIONS OF IMPROVEMENT

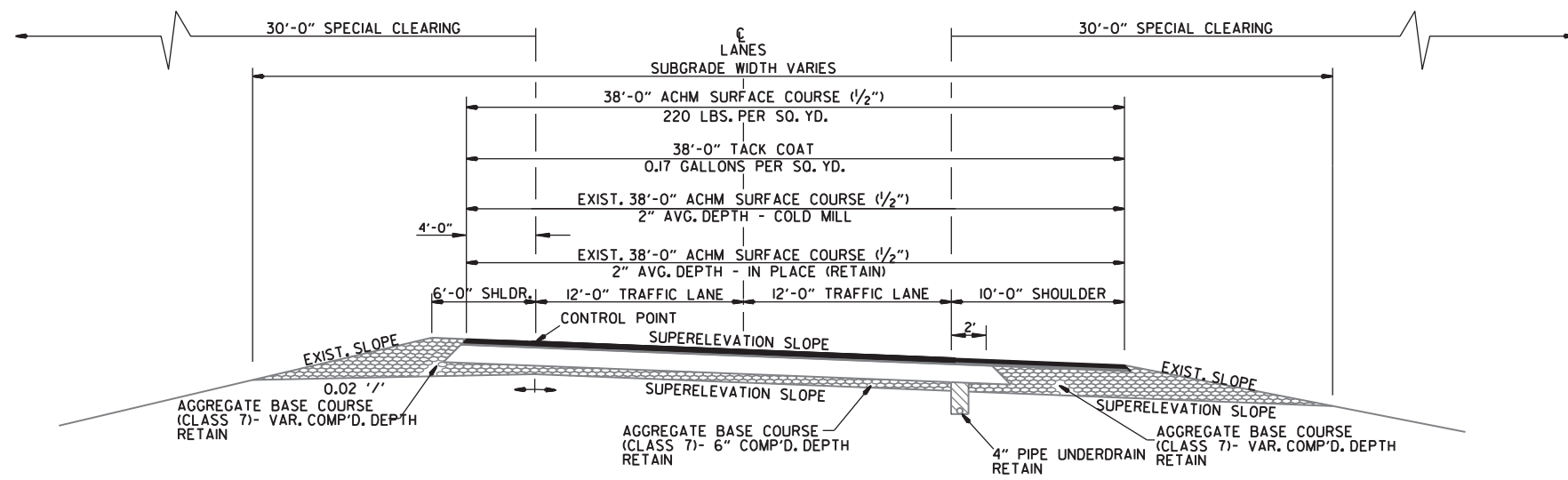


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INTERSTATE 40 - MILL & OVERLAY
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES		RIGHT MAIN LANES	
LOG MILE 156.72 TO LOG MILE 156.75	LOG MILE 156.75 TO LOG MILE 156.82	LOG MILE 156.95 TO LOG MILE 158.32	LOG MILE 158.32 TO LOG MILE 158.43
LOG MILE 156.82 TO LOG MILE 158.36	LOG MILE 158.36 TO LOG MILE 158.55	LOG MILE 158.43 TO LOG MILE 159.06	LOG MILE 159.06 TO LOG MILE 159.25
LOG MILE 158.55 TO LOG MILE 159.19	LOG MILE 159.19 TO LOG MILE 159.28	LOG MILE 159.25 TO LOG MILE 159.27	LOG MILE 159.27 TO LOG MILE 159.48
LOG MILE 159.28 TO LOG MILE 160.56	LOG MILE 160.56 TO LOG MILE 160.81	LOG MILE 159.48 TO LOG MILE 160.45	LOG MILE 160.45 TO LOG MILE 160.53
LOG MILE 160.81 TO LOG MILE 161.02	LOG MILE 161.02 TO LOG MILE 161.30	LOG MILE 160.53 TO LOG MILE 160.91	LOG MILE 160.91 TO LOG MILE 161.10
LOG MILE 161.30 TO LOG MILE 164.38	LOG MILE 164.38 TO LOG MILE 164.62	LOG MILE 161.10 TO LOG MILE 164.50	LOG MILE 164.50 TO LOG MILE 164.59
LOG MILE 164.62 TO LOG MILE 164.87	LOG MILE 164.87 TO LOG MILE 164.97	LOG MILE 164.59 TO LOG MILE 164.84	LOG MILE 164.84 TO LOG MILE 165.10
LOG MILE 164.97 TO LOG MILE 166.68	LOG MILE 166.68 TO LOG MILE 166.76	LOG MILE 165.10 TO LOG MILE 166.68	LOG MILE 166.68 TO LOG MILE 166.76
LOG MILE 166.76 TO LOG MILE 168.11	LOG MILE 168.11 TO LOG MILE 168.38	LOG MILE 166.76 TO LOG MILE 168.20	LOG MILE 168.20 TO LOG MILE 168.31
LOG MILE 168.38 TO LOG MILE 168.71	LOG MILE 168.71 TO LOG MILE 169.00	LOG MILE 168.31 TO LOG MILE 168.63	LOG MILE 168.63 TO LOG MILE 169.03
LOG MILE 169.00 TO LOG MILE 169.35	LOG MILE 169.35 TO LOG MILE 169.46	LOG MILE 169.03 TO LOG MILE 169.35	LOG MILE 169.35 TO LOG MILE 169.54
LOG MILE 169.46 TO LOG MILE 172.41	LOG MILE 172.41 TO LOG MILE 172.67	LOG MILE 169.54 TO LOG MILE 172.66	LOG MILE 172.66 TO LOG MILE 172.76
LOG MILE 172.67 TO LOG MILE 172.91	LOG MILE 172.91 TO LOG MILE 173.02	LOG MILE 172.76 TO LOG MILE 173.29	LOG MILE 173.29 TO LOG MILE 173.49
LOG MILE 173.02 TO LOG MILE 173.90	LOG MILE 173.90 TO LOG MILE 173.96	LOG MILE 173.49 TO LOG MILE 173.91	LOG MILE 173.91 TO LOG MILE 173.97
LOG MILE 173.96 TO LOG MILE 174.09	LOG MILE 174.09 TO LOG MILE 174.38	LOG MILE 173.97 TO LOG MILE 174.28	LOG MILE 174.28 TO LOG MILE 174.36
LOG MILE 174.38 TO LOG MILE 174.74	LOG MILE 174.74 TO LOG MILE 174.82	LOG MILE 174.36 TO LOG MILE 174.64	



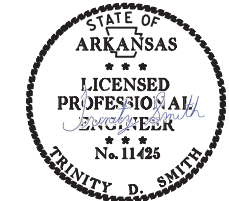
INTERSTATE 40 WITH SUPERELEVATION - MILL & OVERLAY
(SHOWN IN DIRECTION OF TRAFFIC)

5/12/2021

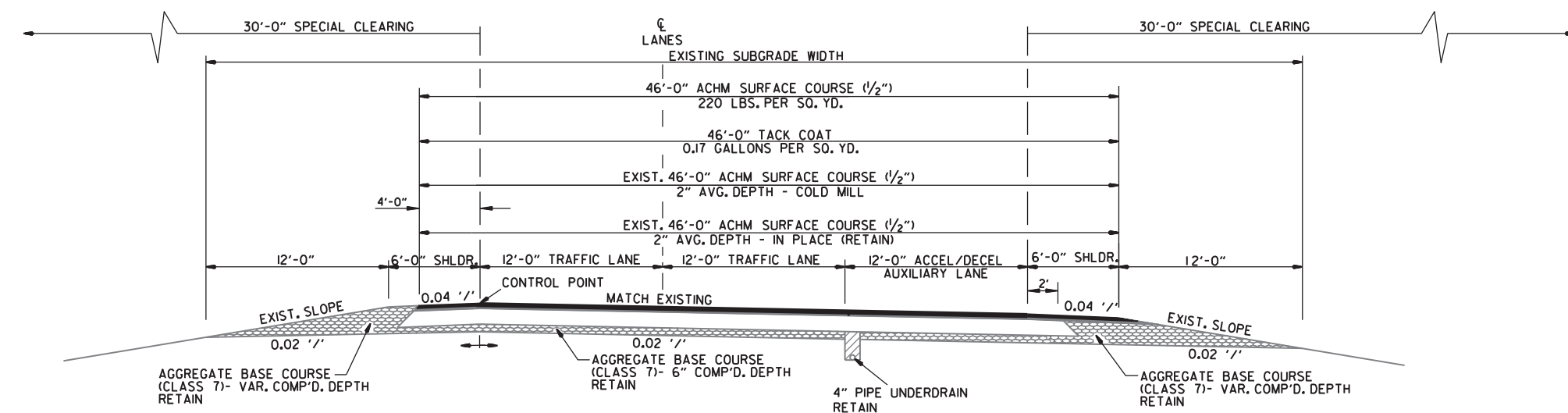
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				6	ARK.			
				JOB NO.	061685		5	24

② TYPICAL SECTIONS OF IMPROVEMENT

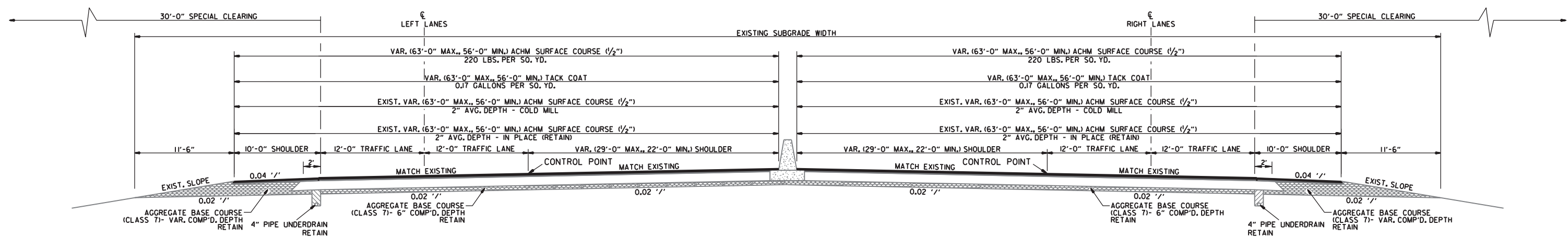


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INTERSTATE 40 WITH ACCEL/DECEL/AUXILIARY LANE - MILL & OVERLAY
(SHOWN IN DIRECTION OF TRAFFIC)

LEFT MAIN LANES	RIGHT MAIN LANES
LOG MILE 158.36 TO LOG MILE 158.55	LOG MILE 156.73 TO LOG MILE 156.95
LOG MILE 160.56 TO LOG MILE 160.81	LOG MILE 159.06 TO LOG MILE 159.25
LOG MILE 161.02 TO LOG MILE 161.30	LOG MILE 159.27 TO LOG MILE 159.48
LOG MILE 164.38 TO LOG MILE 164.62	LOG MILE 160.91 TO LOG MILE 161.10
LOG MILE 168.11 TO LOG MILE 168.38	LOG MILE 164.84 TO LOG MILE 165.10
LOG MILE 168.71 TO LOG MILE 169.00	LOG MILE 168.63 TO LOG MILE 169.03
LOG MILE 172.41 TO LOG MILE 172.67	LOG MILE 169.35 TO LOG MILE 169.54
LOG MILE 174.09 TO LOG MILE 174.38	LOG MILE 173.29 TO LOG MILE 173.49
	LOG MILE 174.64 TO LOG MILE 174.90



INTERSTATE 40 - MILL & OVERLAY

LEFT MAIN LANES	RIGHT MAIN LANES
LOG MILE 156.30 TO LOG MILE 156.42	LOG MILE 156.30 TO LOG MILE 156.44
LOG MILE 156.49 TO LOG MILE 156.72	LOG MILE 156.50 TO LOG MILE 156.73

TYPICAL SECTIONS OF IMPROVEMENT

5/12/2021
R061685.DGN

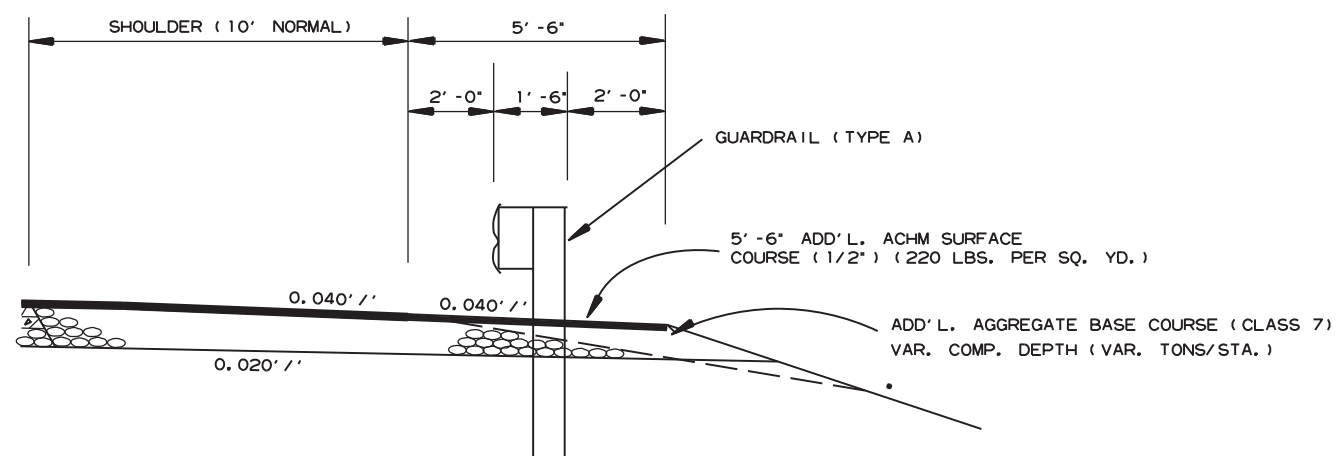
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-22-21				6	ARK.			
						JOB NO. 061685	6	24

② SPECIAL DETAILS



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• NOTE: REFER TO STD. DWG. GR-9 FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.

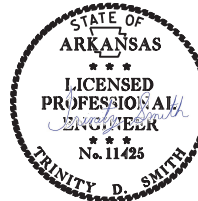
WIDENING FOR GUARDRAIL

5/31/2020

R061685.DGN

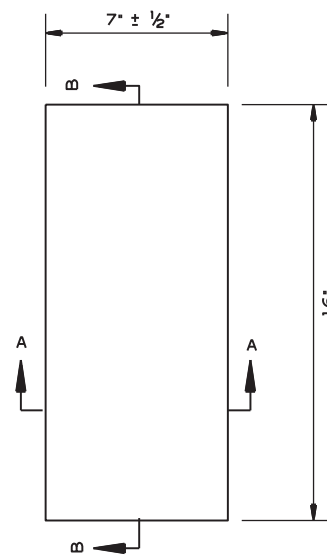
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 061685							7	24

2 SPECIAL DETAILS

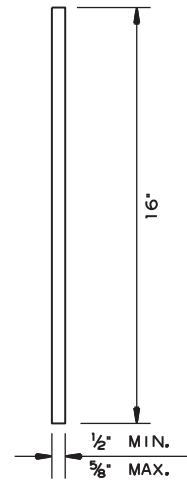


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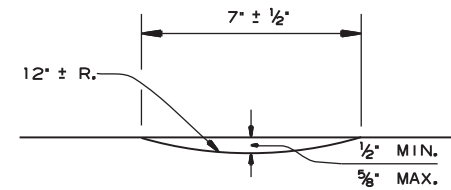
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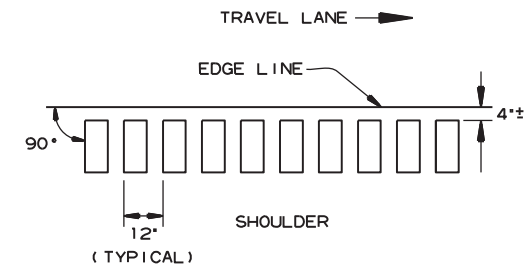
PLAN



SECTION B-B

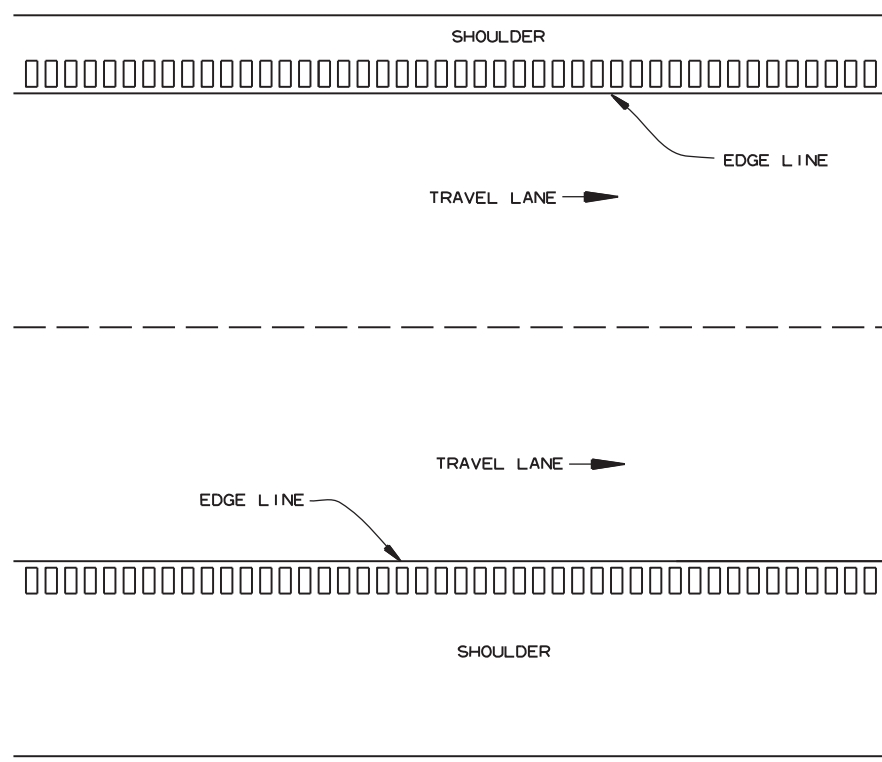


SECTION A-A



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

DETAILS OF RUMBLE STRIPS



PLAN VIEW

NOTES:

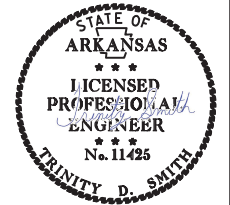
1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4' FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE 1/2" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

5/31/2020

R061685.DGN

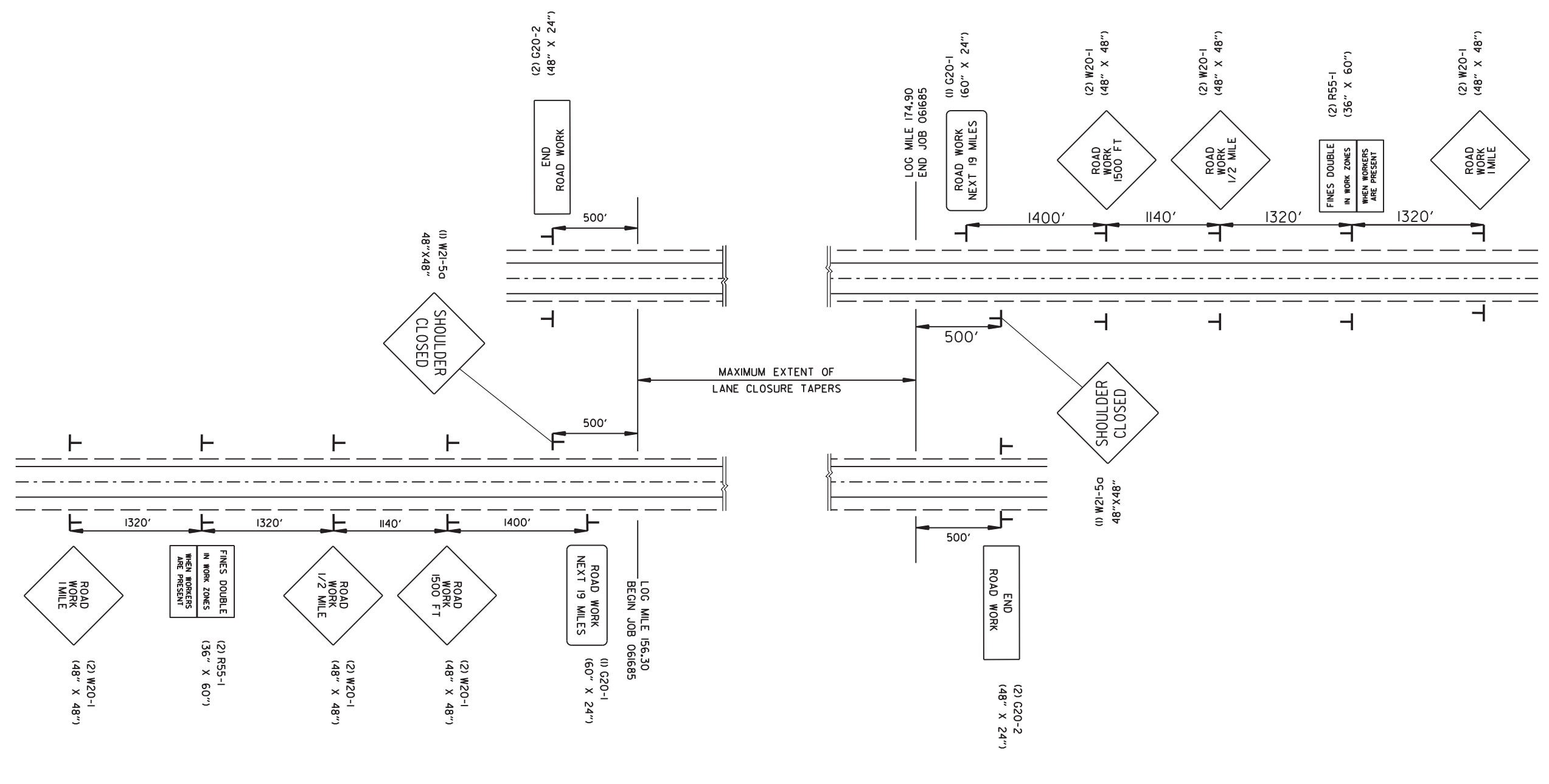
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		8	24
				JOB NO.		061685		

2 MAINTENANCE OF TRAFFIC DETAILS



May 21 2021 8:22 AM
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PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

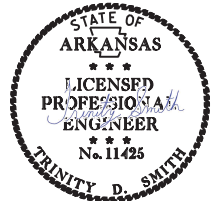


PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

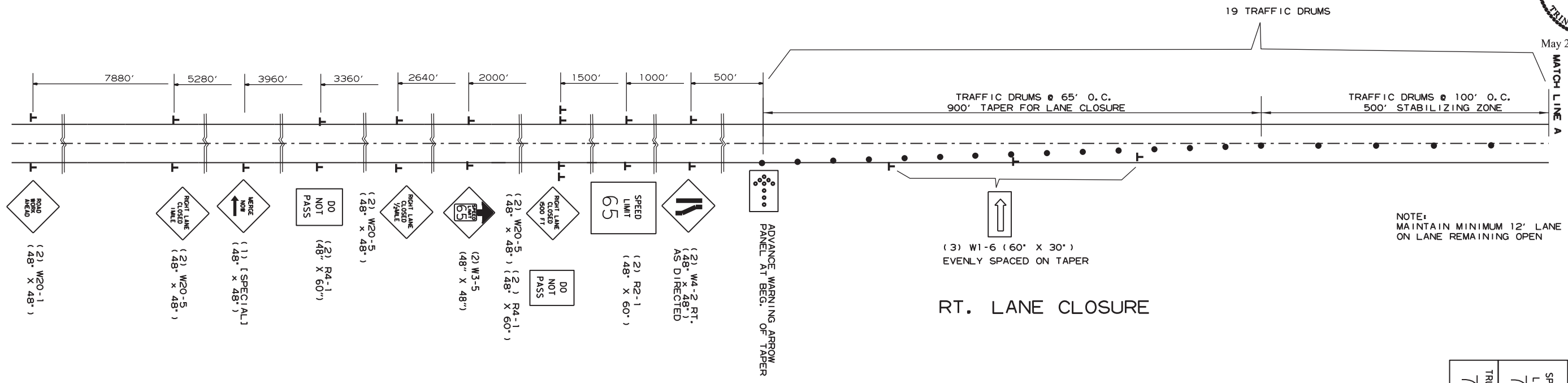
ADVANCE SIGNS AT JOB ENDS
MAINTENANCE OF TRAFFIC DETAILS

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. 061685	9	24

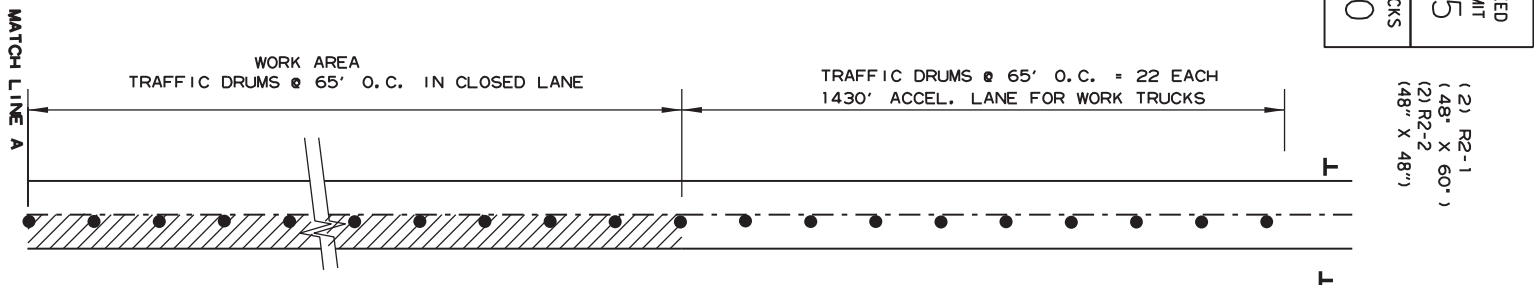
② MAINTENANCE OF TRAFFIC DETAILS



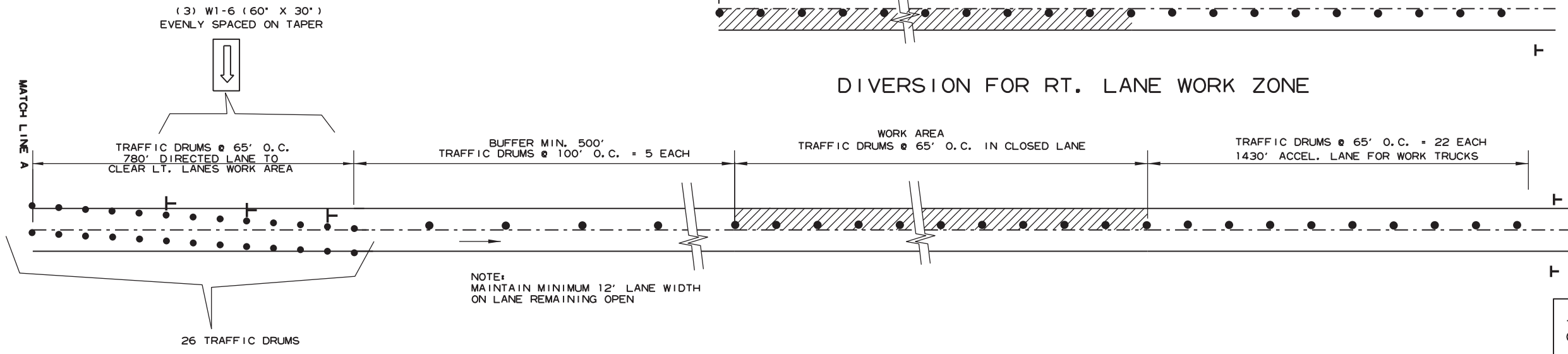
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SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMP WITHIN THE WORK ZONE.



DIVERSION FOR RT. LANE WORK ZONE



DIVERSION FOR LT. LANE WORK ZONE

LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

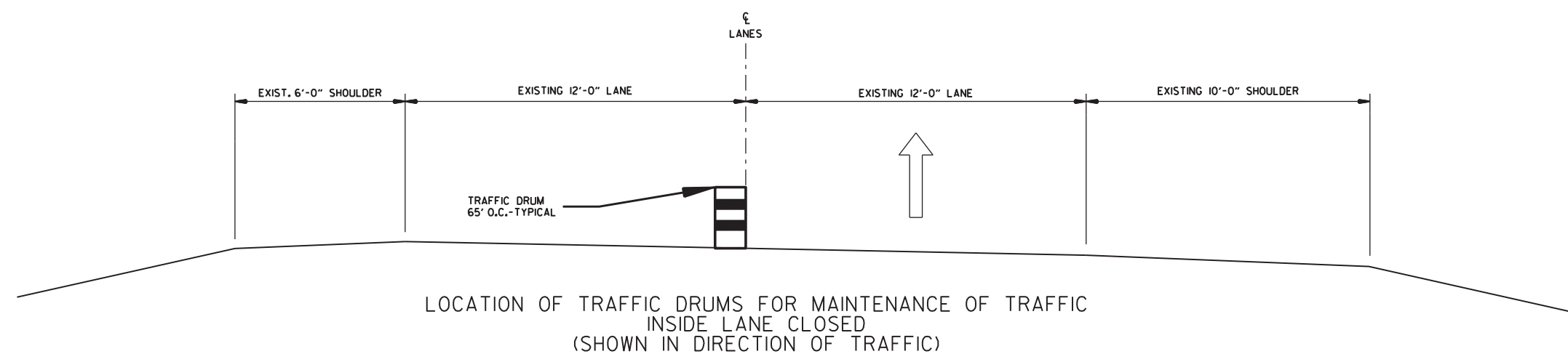
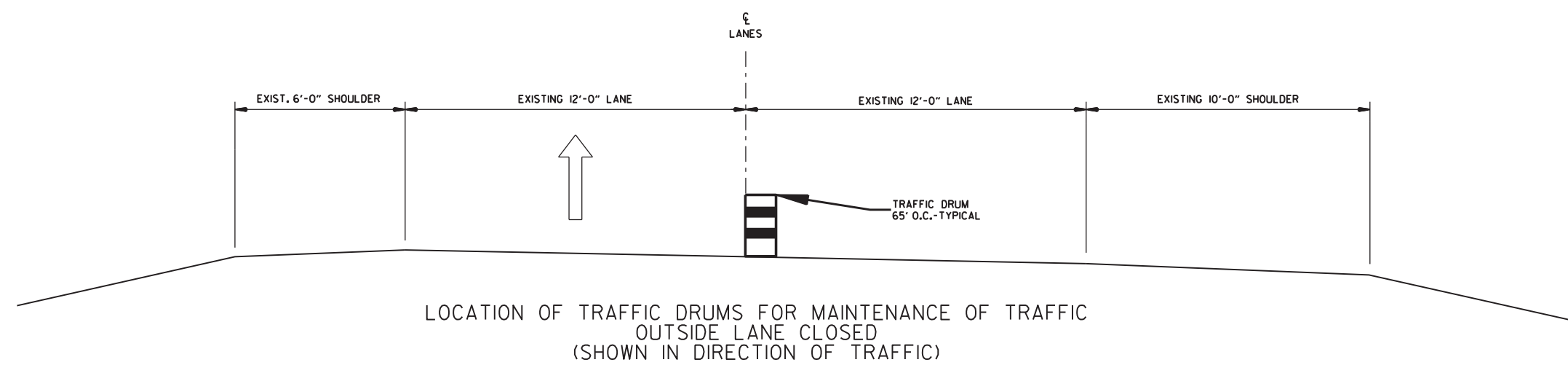
PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

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. 061685	10	24

② MAINTENANCE OF TRAFFIC DETAILS



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DETAIL OF MAIN LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

4/27/2021
R061685.DGN

ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMP
 ROAD WORK AHEAD (1) = 16 SQ. FT.
 END ROAD WORK (1) = 8 SQ. FT.

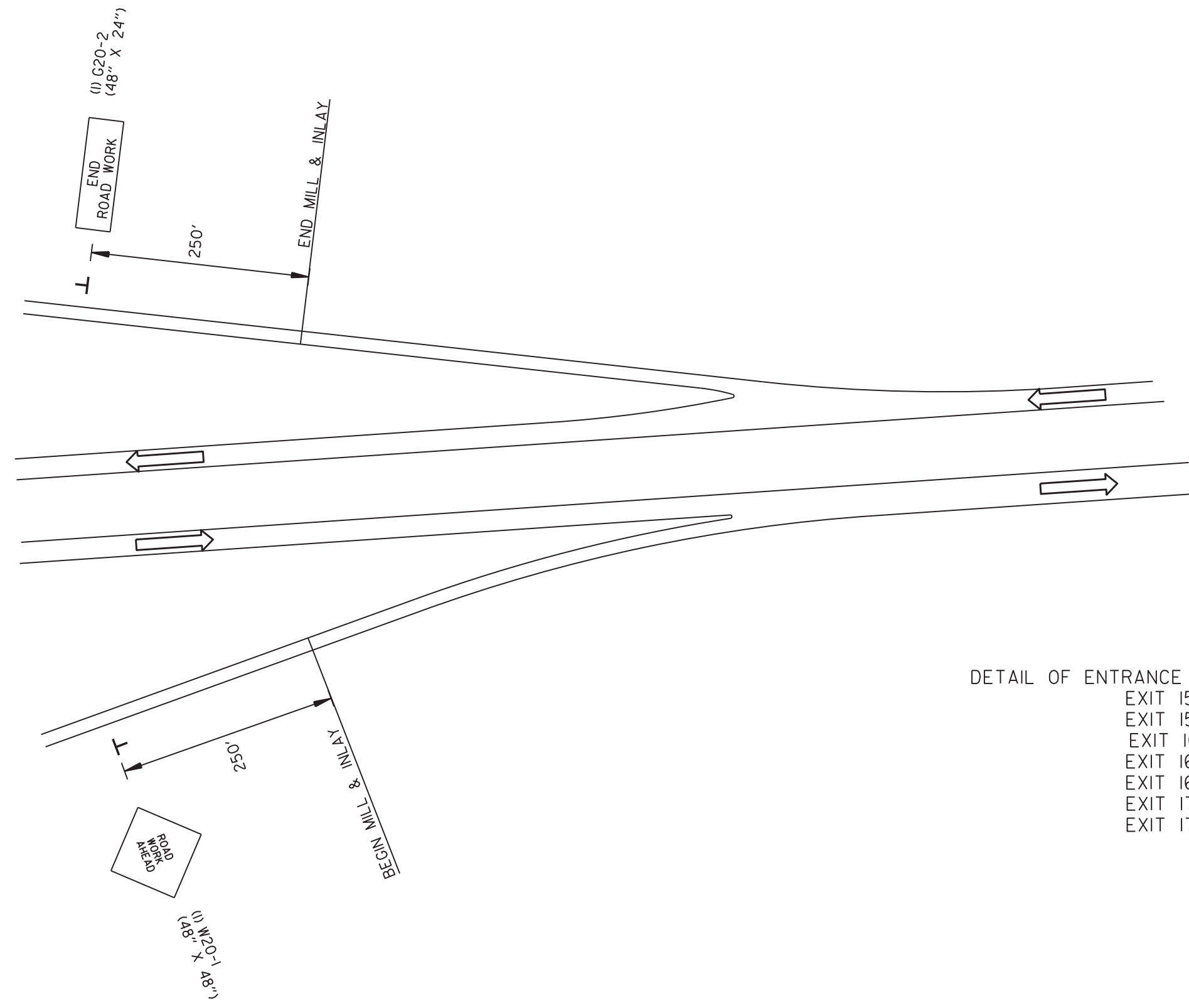
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 061685							11	24

② MAINTENANCE OF TRAFFIC DETAILS



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DETAIL OF ENTRANCE AND EXIT RAMP

- EXIT 156
- EXIT 159
- EXIT 161
- EXIT 165
- EXIT 169
- EXIT 173
- EXIT 175

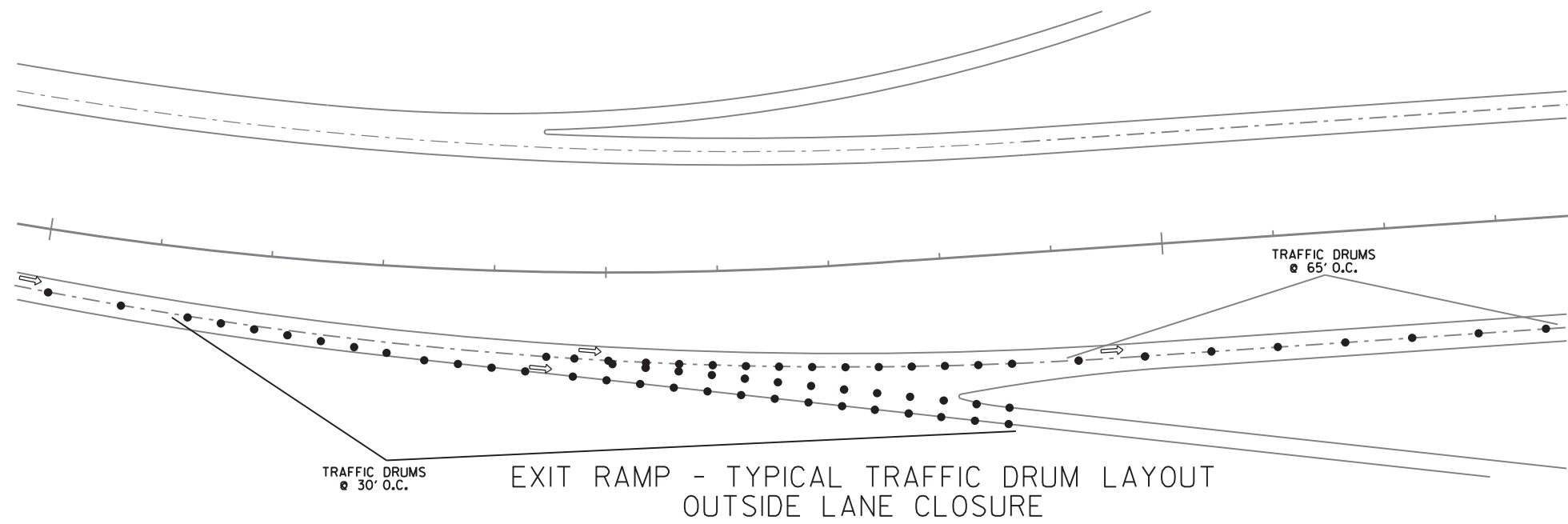
DETAIL OF RAMPS
 MAINTENANCE OF TRAFFIC DETAILS

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. 061685							12	24

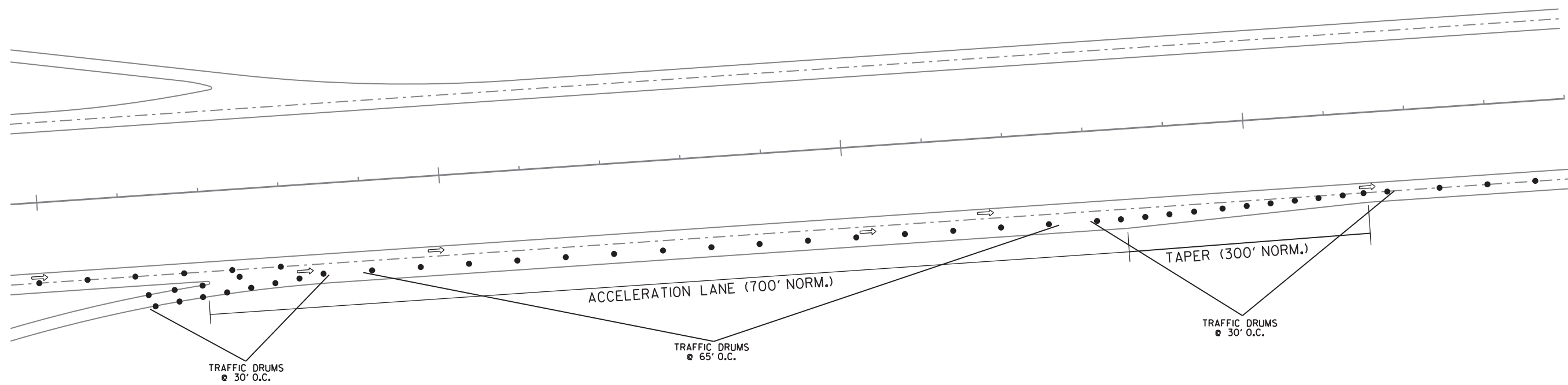
② MAINTENANCE OF TRAFFIC DETAILS



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TRAFFIC DRUMS @ 30' O.C.
TRAFFIC DRUMS @ 65' O.C.
EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE



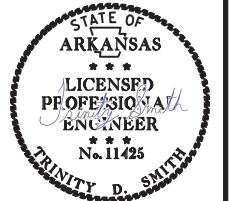
TRAFFIC DRUMS @ 30' O.C.
TRAFFIC DRUMS @ 65' O.C.
ACCELERATION LANE (700' NORM.)
TAPER (300' NORM.)
ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

DETAIL OF RAMPS WITH LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

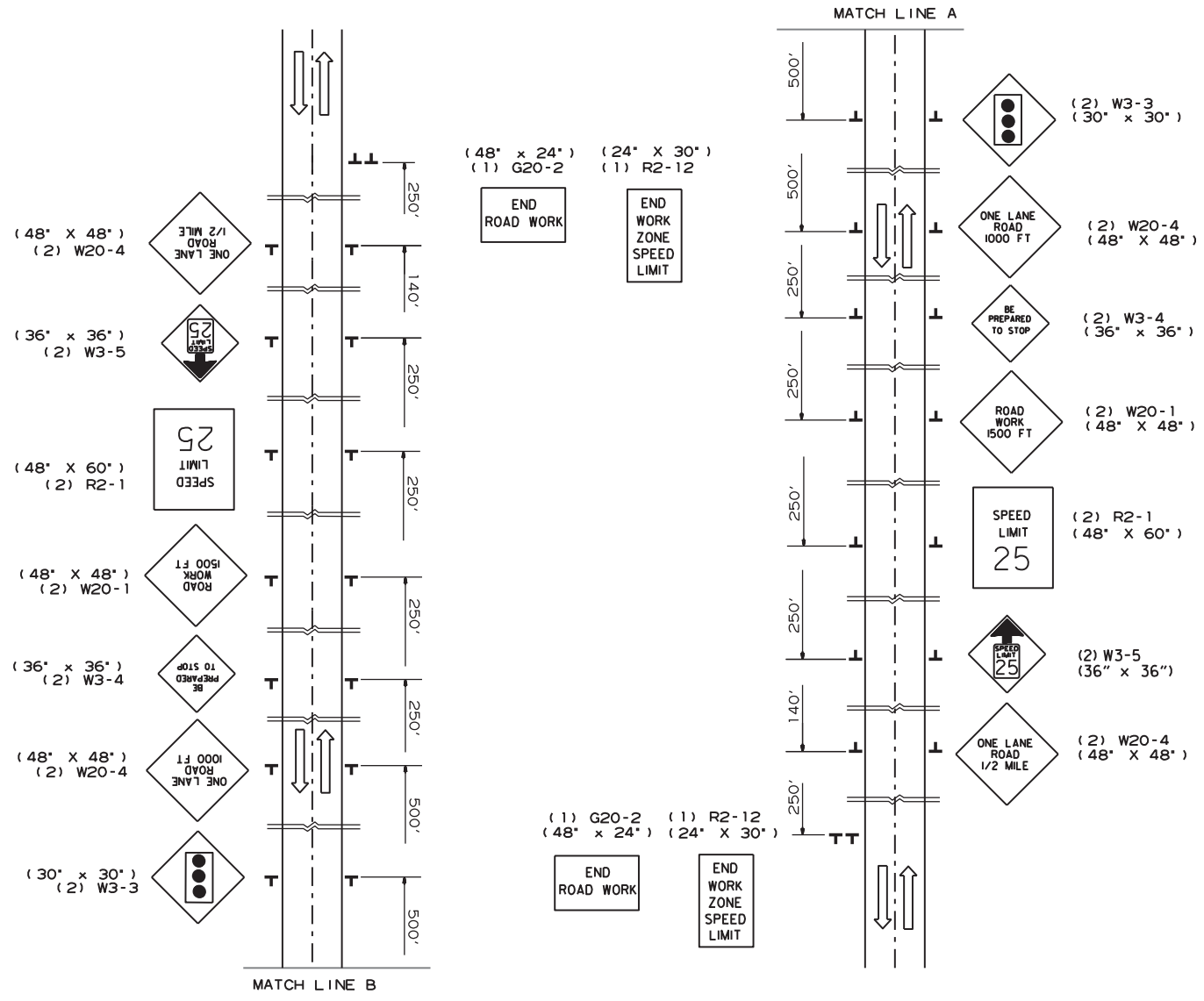
4/27/2021
R061685.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	061685		13	24

2 MAINTENANCE OF TRAFFIC DETAILS

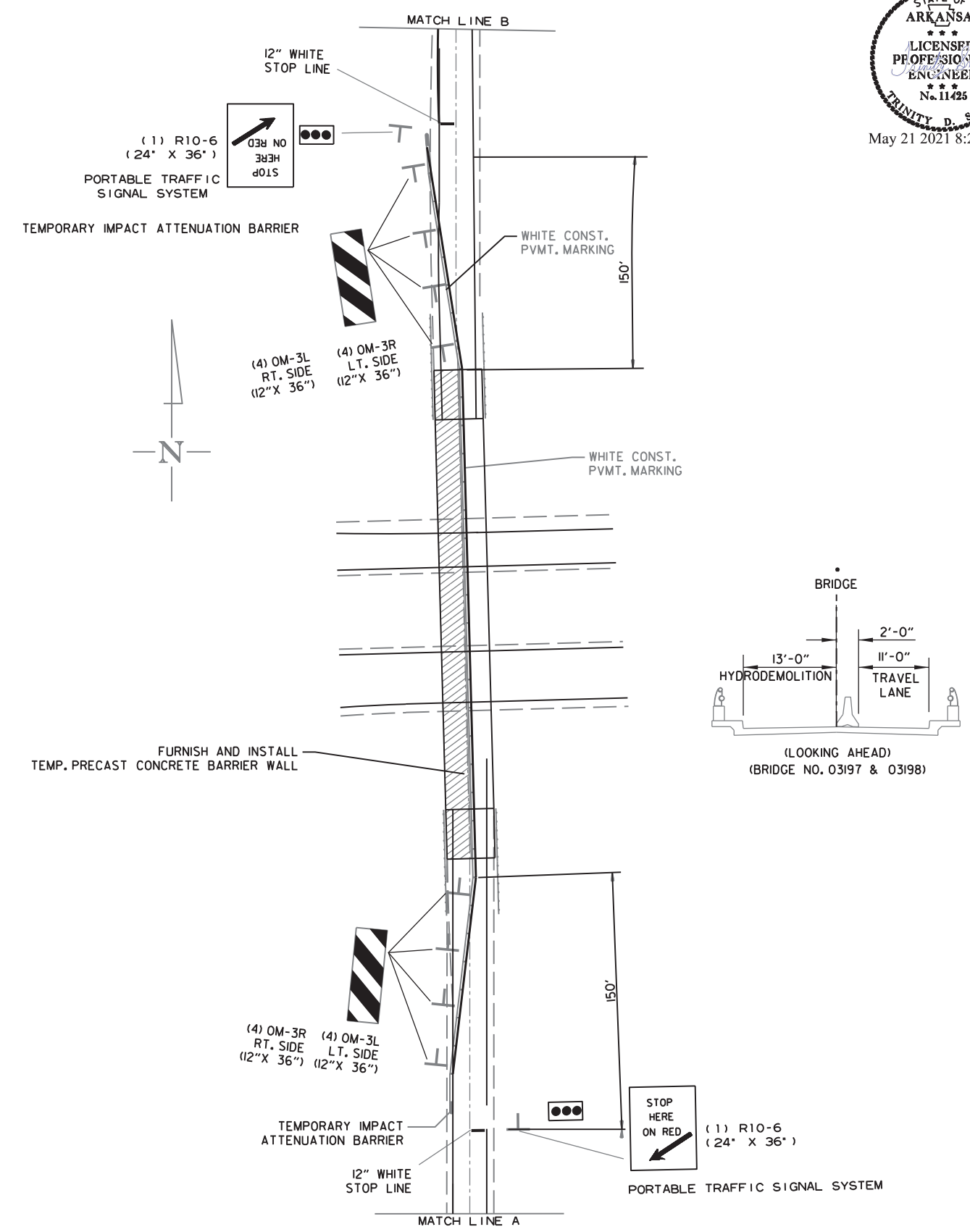


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BRIDGE 03197
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 1200 LIN. FT.
RELOCATE P.C.C.B. = 1200 LIN. FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 4 EACH

BRIDGE 03198
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 1280 LIN. FT.
FURNISH & INSTALL P.C.C.B. = 640 LIN. FT.
TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH
RELOCATE P.C.C.B. = 640 LIN. FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH



BRIDGE NO. 03197 & 03198
MAINTENANCE OF TRAFFIC DETAILS

R061685.DGN 4/27/2021

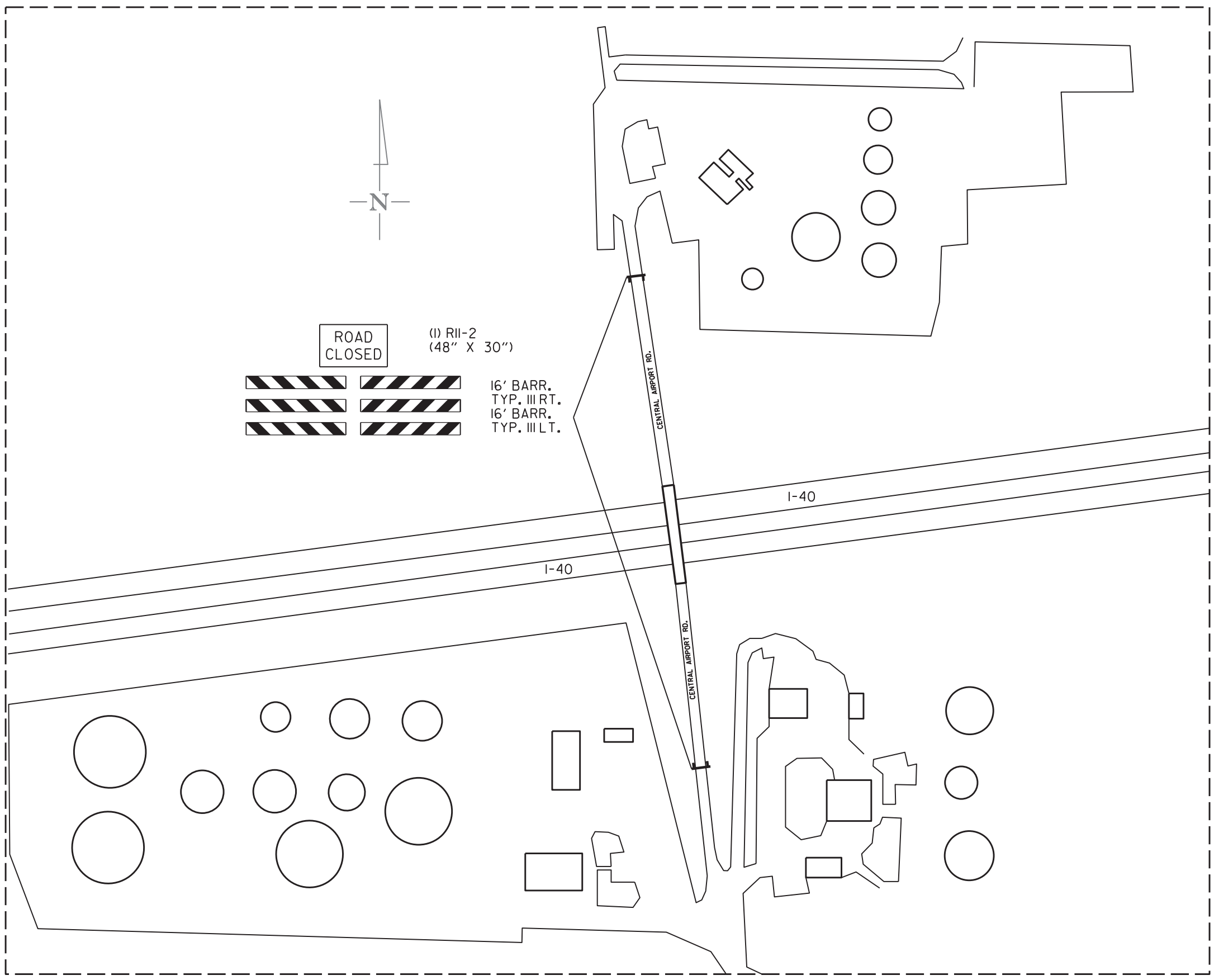
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO.	061685
								14
								24

② MAINTENANCE OF TRAFFIC DETAILS



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- SEQUENCE OF CONSTRUCTION:
- 1ST WEEKEND ROAD CLOSURE:
 - INSTALL BARRICADES AS SHOWN.
 - BEGIN HYDRODEMOLITION ON ONLY ONE TRAVEL LANE.
 - REMOVE BARRICADES WHEN HYDRODEMOLITION IS COMPLETE.
 - 2ND WEEKEND ROAD CLOSURE:
 - INSTALL BARRICADES AS SHOWN.
 - BEGIN HYDRODEMOLITION ON REMAINING TRAVEL LANE.
 - REMOVE BARRICADES WHEN HYDRODEMOLITION IS COMPLETE.



ROAD CLOSED (1) RII-2 (48" X 30")

- 16' BARR. TYP. III RT.
- 16' BARR. TYP. III LT.

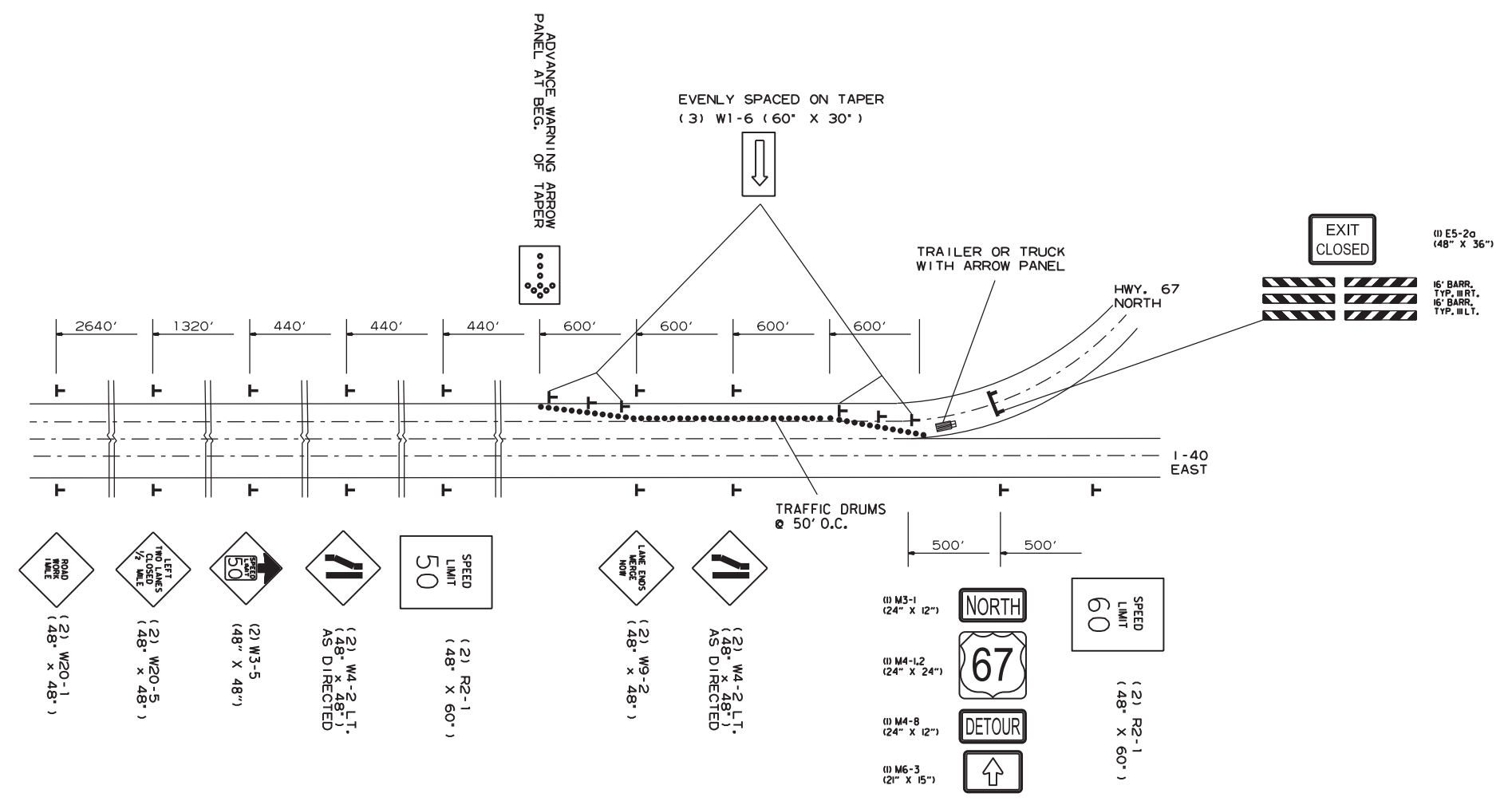
4/27/2021 R061685.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 061685							15	24

② MAINTENANCE OF TRAFFIC DETAILS



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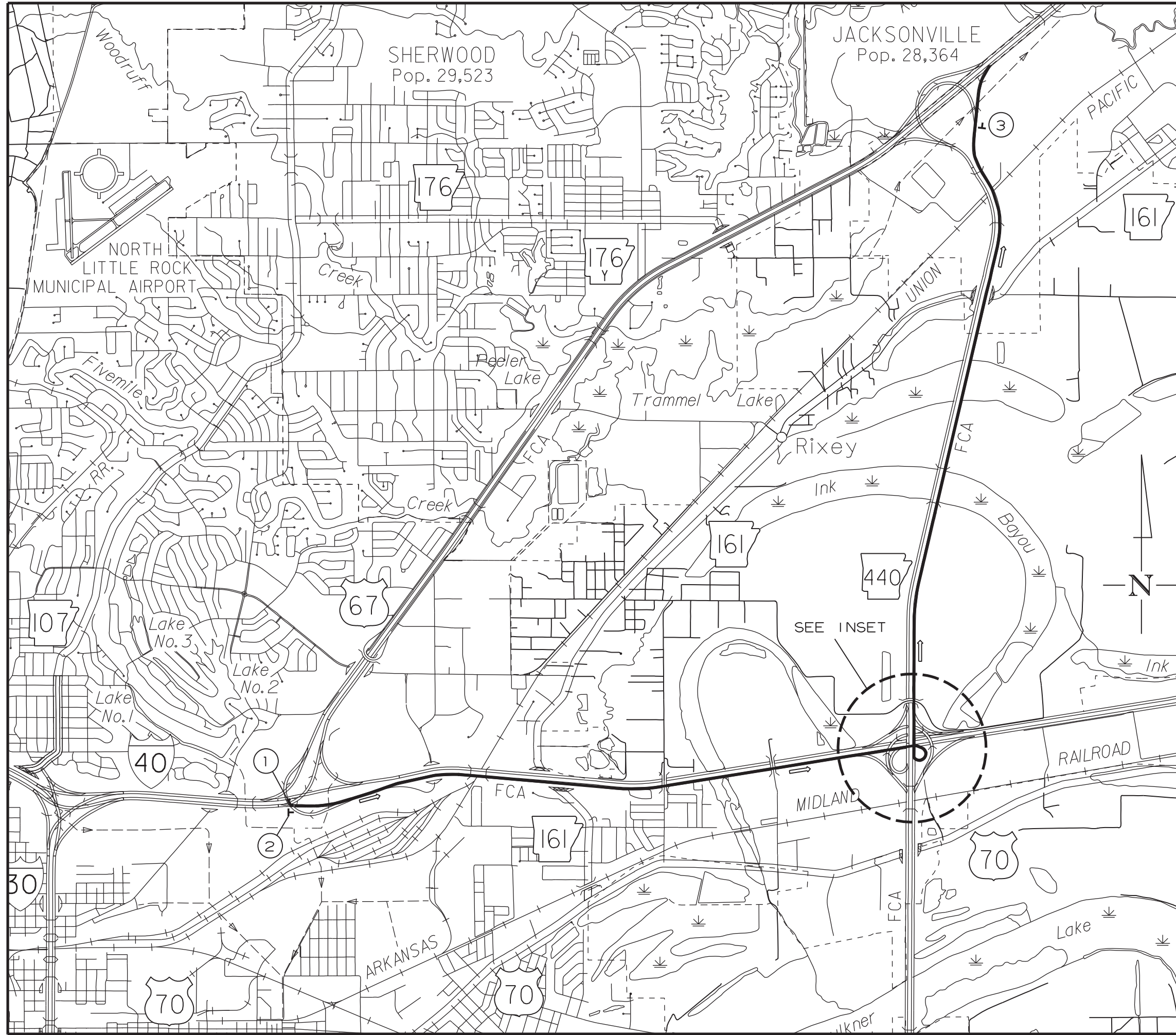
HWY. 67 NB RAMP CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

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. 061685	16	24

② MAINTENANCE OF TRAFFIC DETAILS



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①

EXIT CLOSED (E5-2a) (48" X 36")

16' BARR. TYP. H.R.T.
16' BARR. TYP. M.L.T.

②

NORTH (M3-1) (24" X 12")

67 (M4-L2) (24" X 24")

DETOUR (M4-8) (24" X 12")

↑ (M6-3) (21" X 15")

③

NORTH (M3-1) (24" X 12")

67 (M4-L2) (24" X 24")

DETOUR (M4-8) (24" X 12")

↗ (M6-2) (21" X 15")

HWY. 67 NB RAMP CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

R061685.DGN 4/27/2021

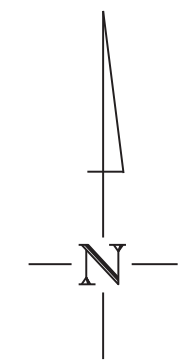
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 061685	17	24

② MAINTENANCE OF TRAFFIC DETAILS



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EANES RD.



②

	(1) M3-1 (24" X 12")
	(1) M4-L2 (24" X 24")
	(1) M4-B (24" X 12")
	(1) M6-3 (21" X 15")

③

	(1) M3-1 (24" X 12")
	(1) M4-L2 (24" X 24")
	(1) M4-B (24" X 12")
	(1) M6-2 (21" X 15")

T ③

F ②

F ③

4/27/2021

R061685.DGN

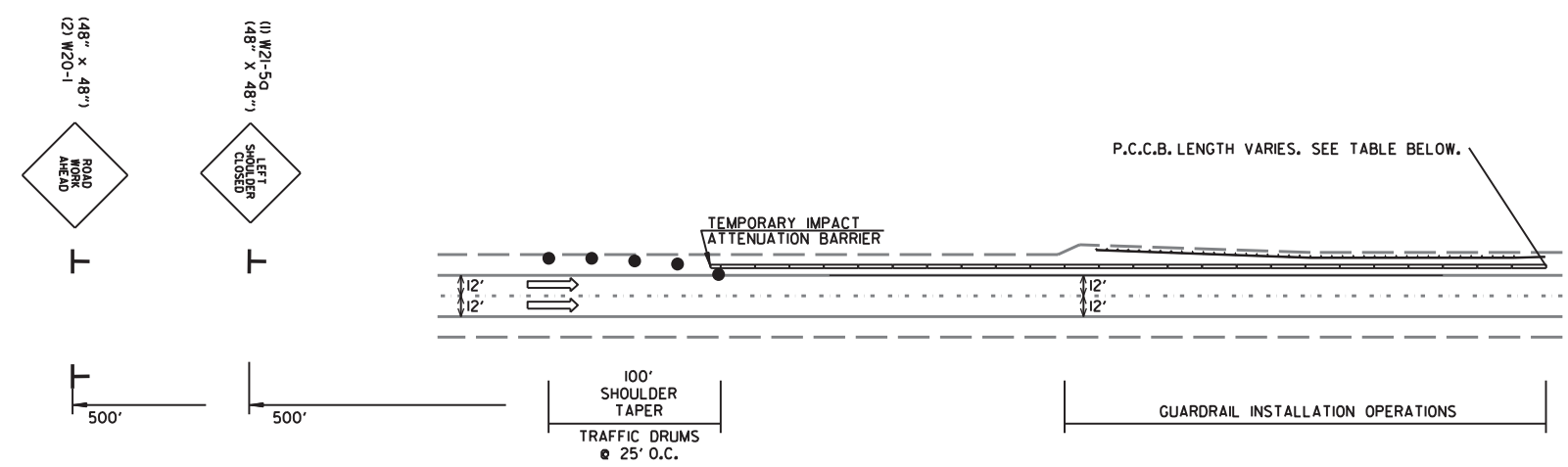
I-40/HWY. 440 INTERCHANGE INSET
MAINTENANCE OF TRAFFIC DETAILS

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. 061685	18	24

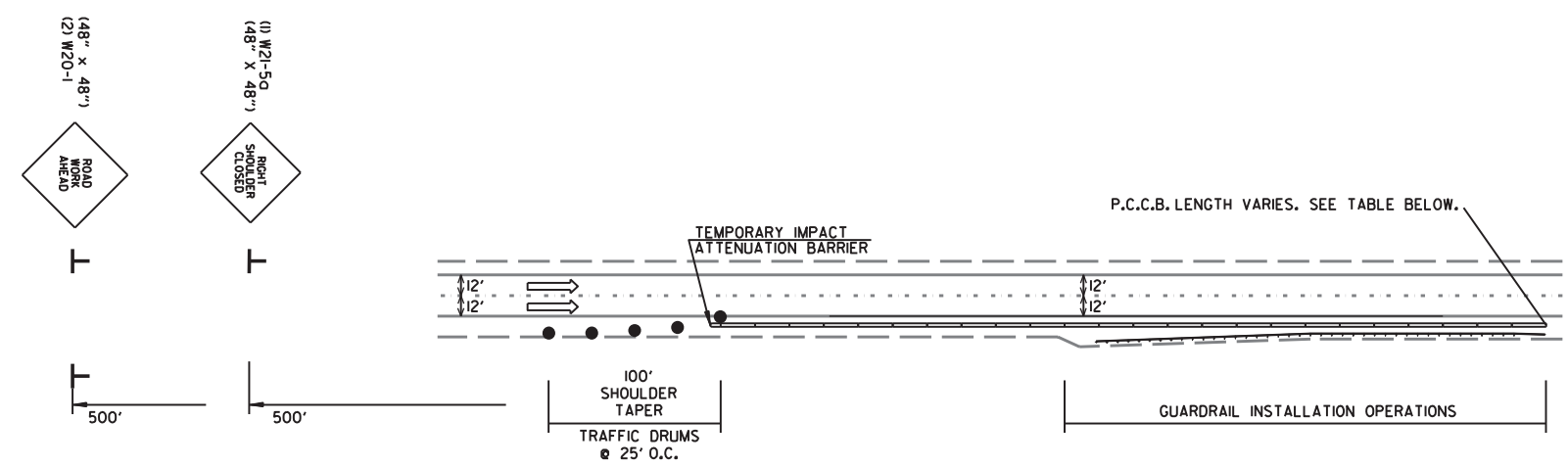
② MAINTENANCE OF TRAFFIC DETAILS



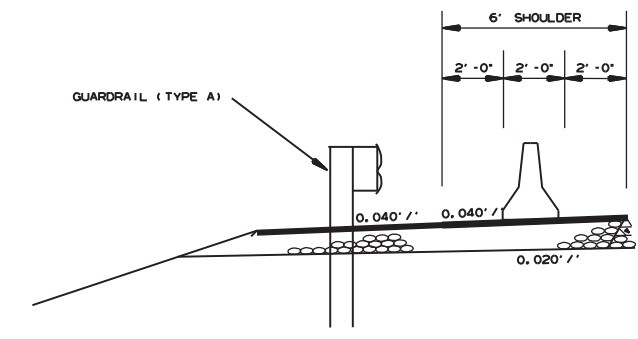
May 21 2021 8:24 AM



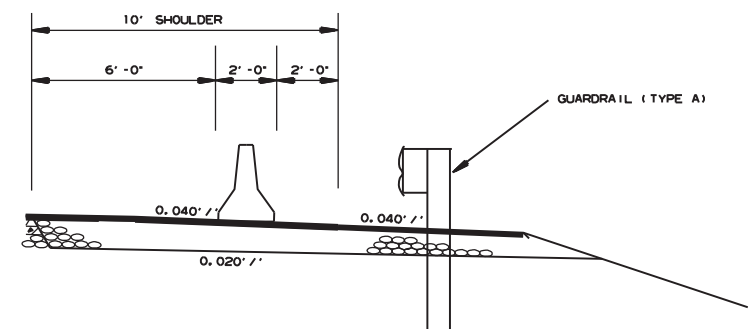
LOCATION	P.C.C.B. LENGTH
LT. SIDE OF HWY. 67 SOUTH TO I-40 WEST	760'



LOCATION	P.C.C.B. LENGTH
RT. SIDE OF I-40 EAST TO HWY. 67 NORTH	880'



P.C.C.B. SHOULDER PLACEMENT (SHOWN IN DIRECTION OF TRAFFIC)



P.C.C.B. SHOULDER PLACEMENT (SHOWN IN DIRECTION OF TRAFFIC)

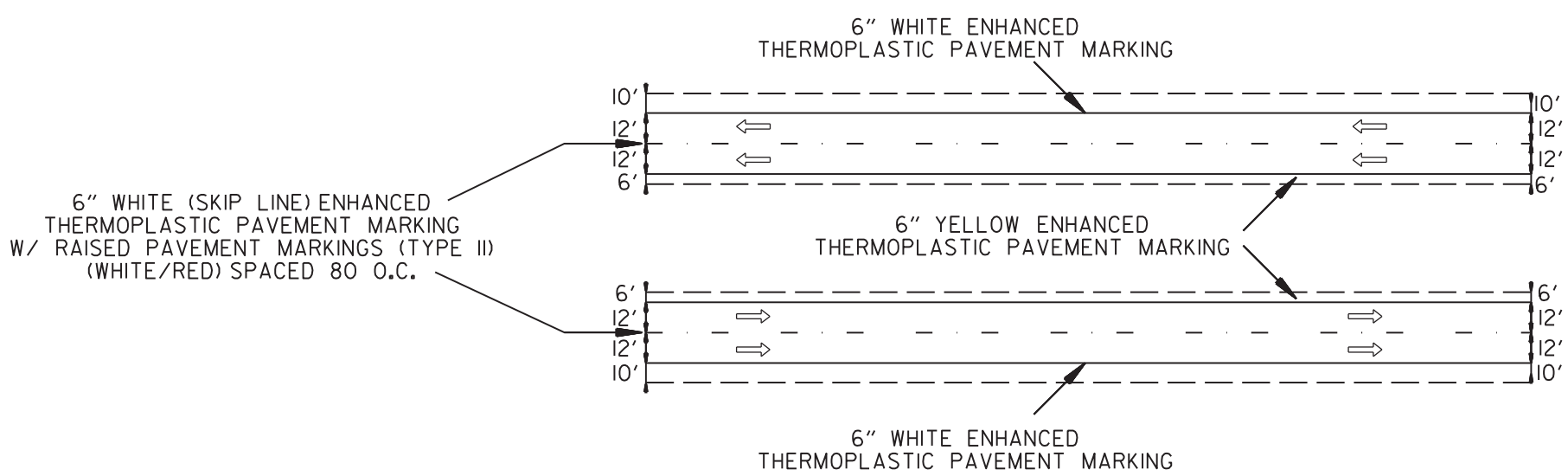
PRECAST CONCRETE BARRIER WALL PLACEMENT FOR GUARDRAIL INSTALLATION OPERATIONS

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.							061685	19	24

② PERMANENT PAVEMENT MARKING DETAILS



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FINAL STRIPING DETAIL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-22-21				6	ARK.			
JOB NO. 061685							20	24

2 QUANTITIES



Jun 23 2021 7:45 PM

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ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	LT. SIDE OF HWY. 67 SOUTH TO I-40 WEST	RT. SIDE OF I-40 EAST TO HWY. 67 NORTH	BRIDGE 03269	BRIDGE 03197	BRIDGE 03198	I-40 LOG MILE 156.30 TO LOG MILE 174.90	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN. BARR. (REPAIR)	TEMP. IMPACT ATTEN. BARR. (RELOCATION)	* ADVANCE WARNING ARROW PANEL	* PORTABLE CHANGEABLE MESSAGE SIGN	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	
										NO.	SQ. FT.		EACH	RIGHT									LEFT
W20-1	ROAD WORK 1500 FT.	48"x48"		2				4	6	6	96.0												
W20-1	ROAD WORK 1/2 MILE	48"x48"	2					4	6	6	96.0												
W20-1	ROAD WORK 1 MILE	48"x48"	2					4	6	6	96.0												
W20-1	ROAD WORK AHEAD	48"x48"						16	16	16	256.0												
G20-2	END ROAD WORK	48"x24"	1					16	17	17	136.0												
G20-1	ROAD WORK NEXT xx MILES	60"x24"						2	2	2	20.0												
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"						2	2	2	32.0												
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"						2	2	2	32.0												
W20-5	RIGHT LANE CLOSED 1500 FT.	48"x48"						2	2	2	32.0												
SPECIAL	MERGE NOW W/ ARROW	48"x48"						1	1	1	16.0												
W3-5	REDUCED SPEED AHEAD (50)	48"x60"		2				2	2	2	40.0												
W3-5	REDUCED SPEED AHEAD (65)	48"x60"						2	2	2	40.0												
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"						4	4	4	60.0												
E5-2A	EXIT CLOSED	24"x24"		1				1	1	1	4.0												
M3-1	NORTH	24"x12"		5				5	5	5	10.0												
M4-1.2	HWY. 67	24"x24"		5				5	5	5	20.0												
M4-8	DETOUR	24"x12"		5				5	5	5	10.0												
M6-2	ARROW	21"x15"		3				3	3	3	6.6												
M6-3	ARROW	21"x15"		2				2	2	2	4.4												
OM-3L	OBJECT MARKER	12"x36"			8			8	8	8	24.0												
OM-3R	OBJECT MARKER	12"x36"			8			8	8	8	24.0												
W1-6	LARGE ARROW	48"x24"		6				6	12	12	96.0												
R4-1	DO NOT PASS	48"x60"						2	2	2	40.0												
R11-2	ROAD CLOSED	48"x30"			2			2	2	2	20.0												
W21-5A	SHOULDER CLOSED	48"x48"						10	10	10	160.0												
R2-1	SPEED LIMIT 50 MPH	48"x60"		2				2	2	2	40.0												
R2-1	SPEED LIMIT 65 MPH	48"x60"						2	2	2	40.0												
R2-1	SPEED LIMIT 75 MPH	48"x60"						2	2	2	40.0												
R2-2	TRUCKS 70	48"x48"						2	2	2	32.0												
W4-2 LT.	MERGE LEFT	48"x48"	2	2				4	4	4	64.0												
W4-2 RT.	MERGE RIGHT	48"x48"						2	2	2	32.0												
W9-2	LANE ENDS MERGE NOW	48"x48"		2				2	2	2	32.0												
R2-1	SPEED LIMIT 25 MPH	48"x60"			4			4	4	4	80.0												
R2-12	END WORKZONE SPEED LIMIT	24"x30"			2			2	2	2	10.0												
R10-6	STOP HERE ON RED	24"x36"			2			2	2	2	12.0												
W3-3	SIGNAL AHEAD	30"x30"			4			4	4	4	25.0												
W3-4	BE PREPARED TO STOP	36"x36"			4			4	4	4	36.0												
W3-5	REDUCED SPEED AHEAD (25)	36"x36"			4			4	4	4	36.0												
W20-4	ONE LANE ROAD 1000 FT.	48"x48"			4			4	4	4	64.0												
W20-4	ONE LANE ROAD 1/2 MILE	48"x48"			4			4	4	4	64.0												
W20-5	LEFT TWO LANES CLOSED 1/2 MILE	48"x48"		2				2	2	2	32.0												
TRAFFIC DRUMS			58	52				414	472			472											
TYPE III BARRICADE-RT. (16')				1	2				3				48										
TYPE III BARRICADE-LT. (16')				1	2				3					48									
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER				880				640	1520						1520								
RELOCATING PRECAST CONCRETE BARRIER			760				1200	640	2600							2600							
TEMPORARY IMPACT ATTENUATION BARRIER			1					2	3								3						
TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)			1	1			4	2	8									8					
TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)			1	1			4	2	10										10				
ADVANCE WARNING ARROW PANEL			1	2				1	4											53			
PORTABLE CHANGEABLE MESSAGE SIGN			1	1				2	4												22		
PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED							1	1	1													1.00	
TOTALS:										2010.0	472	48	48	1520	2600	3	8	10	53	22	1.00		

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

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR ONE SIDE OF THE ROADWAY FOR 4 MILES OF THE JOB. HOWEVER, THE INSTALLATION OF TRAFFIC DRUMS SHALL NEVER EXCEED THE ACTUAL WORK AREA BY MORE THAN 1/4 MILE, UNLESS APPROVED BY THE ENGINEER.

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE PROJECT	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		ENHANCED THERMOPLASTIC PAVEMENT MARKING		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING			
				TYPE II (WHITE/RED)	EACH	6"		12"		6"		6"	
						WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW
CONSTRUCTION PAVEMENT MARKINGS	461521	461521											
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	5702		5702										
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	4414			4414									
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	245520					245520							
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	196416					196416							
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	19585						19585						
THERMOPLASTIC PAVEMENT MARKING WHITE (6")	584							584					
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	584								584				
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")	1218									1218			
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")	1218										1218		
TOTALS:		461521	5702	4414	245520	196416	19585	584	584	1218	1218		

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

5/31/2020

R061685.DGN

QUANTITIES

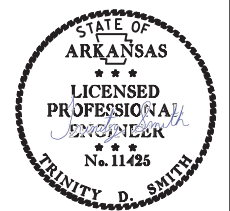
COLD MILLING ASPHALT PAVEMENT

LOG MILE	LOG MILE	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
MAIN LANES				
156.30	156.44	RT. MAIN LANES	59.50	4886.93
156.50	156.73	RT. MAIN LANES	59.50	8028.53
156.73	156.76	RT. MAIN LANES	49.00	862.40
156.76	156.95	RT. MAIN LANES	28.00	3121.07
156.95	158.32	RT. MAIN LANES	38.00	30541.87
158.32	158.43	RT. MAIN LANES	28.00	1806.93
158.43	159.06	RT. MAIN LANES	38.00	14044.80
159.06	159.25	RT. MAIN LANES	28.00	3121.07
159.25	159.27	RT. MAIN LANES	38.00	445.87
159.27	159.48	RT. MAIN LANES	28.00	3449.60
159.48	160.45	RT. MAIN LANES	38.00	21624.53
160.45	160.53	RT. MAIN LANES	28.00	1314.13
160.53	160.91	RT. MAIN LANES	38.00	8471.47
160.91	161.10	RT. MAIN LANES	28.00	3121.07
161.10	164.50	RT. MAIN LANES	38.00	75797.33
164.50	164.59	RT. MAIN LANES	28.00	1478.40
164.59	164.84	RT. MAIN LANES	38.00	5573.33
164.84	165.10	RT. MAIN LANES	28.00	4270.93
165.10	166.68	RT. MAIN LANES	38.00	35223.47
166.68	168.20	RT. MAIN LANES	38.00	32102.40
168.20	168.31	RT. MAIN LANES	28.00	1806.93
168.31	168.63	RT. MAIN LANES	38.00	7133.87
168.63	169.03	RT. MAIN LANES	28.00	6570.67
169.03	169.35	RT. MAIN LANES	38.00	7133.87
169.35	169.54	RT. MAIN LANES	28.00	3121.07
169.54	172.66	RT. MAIN LANES	38.00	69555.20
172.66	172.76	RT. MAIN LANES	28.00	1642.67
172.76	173.29	RT. MAIN LANES	38.00	11815.47
173.29	173.49	RT. MAIN LANES	28.00	3285.33
173.49	173.91	RT. MAIN LANES	38.00	9363.20
173.91	174.28	RT. MAIN LANES	38.00	6910.93
174.28	174.36	RT. MAIN LANES	28.00	1314.13
174.36	174.64	RT. MAIN LANES	38.00	6242.13
174.64	174.90	RT. MAIN LANES	28.00	4270.93
156.30	156.42	LT. MAIN LANES	59.50	4188.80
156.42	156.72	LT. MAIN LANES	59.50	8028.53
156.72	156.75	LT. MAIN LANES	38.00	668.80
156.75	156.82	LT. MAIN LANES	28.00	1149.87
156.82	158.36	LT. MAIN LANES	38.00	34331.73
158.36	158.55	LT. MAIN LANES	28.00	3121.07
158.55	159.19	LT. MAIN LANES	38.00	14267.73
159.19	159.28	LT. MAIN LANES	28.00	1478.40
159.28	160.56	LT. MAIN LANES	38.00	28535.47
160.56	160.81	LT. MAIN LANES	28.00	4106.67
160.81	161.02	LT. MAIN LANES	38.00	4681.60
161.02	161.30	LT. MAIN LANES	28.00	4599.47
161.30	164.38	LT. MAIN LANES	38.00	68663.47
164.38	164.62	LT. MAIN LANES	28.00	3942.40
164.62	164.87	LT. MAIN LANES	38.00	5573.33
164.87	164.97	LT. MAIN LANES	28.00	1642.67
164.97	166.68	LT. MAIN LANES	38.00	38121.60
166.68	168.11	LT. MAIN LANES	38.00	30096.00
168.11	168.38	LT. MAIN LANES	28.00	4435.20
168.38	168.71	LT. MAIN LANES	38.00	7356.80
168.71	169.00	LT. MAIN LANES	28.00	4763.73
169.00	169.35	LT. MAIN LANES	38.00	7802.67
169.35	169.46	LT. MAIN LANES	28.00	1806.93
169.46	172.41	LT. MAIN LANES	38.00	65765.33
172.41	172.67	LT. MAIN LANES	28.00	4270.93
172.67	172.91	LT. MAIN LANES	38.00	5350.40
172.91	173.02	LT. MAIN LANES	28.00	1806.93
173.02	173.09	LT. MAIN LANES	38.00	19618.13
173.09	174.09	LT. MAIN LANES	38.00	2898.13
174.09	174.38	LT. MAIN LANES	28.00	4763.73
174.38	174.74	LT. MAIN LANES	38.00	8025.60
174.74	174.82	LT. MAIN LANES	28.00	1314.13
174.82	174.90	LT. MAIN LANES	38.00	1783.47
ADDITIONAL FOR ACCELERATION LANES, DECELERATION LANES, AUXILIARY LANES, TURNOUTS, AND TAPERS				
156.76	156.95	EXIT 156 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2676.59
156.95	158.32	EXIT 156 LT. MAIN LANES - TURNOUT	VAR.	1236.70
158.32	158.43	EXIT 159 RT. MAIN LANES - TURNOUT	VAR.	1993.58
158.43	159.06	EXIT 159 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2154.71
159.06	159.25	EXIT 159 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2493.18
159.25	159.27	EXIT 159 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2207.71
159.27	159.48	EXIT 159 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	1041.50
159.48	158.55	EXIT 159 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	1436.95
158.55	159.19	EXIT 159 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	2360.06
159.19	160.56	EXIT 161 RT. MAIN LANES - TURNOUT	VAR.	2711.32
160.56	160.81	EXIT 161 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VAR.	3268.68
160.81	161.02	EXIT 161 LT. MAIN LANES - TURNOUT AND ACCELERATION LANE	VAR.	1290.05
161.02	164.38	EXIT 165 RT. MAIN LANES - TURNOUT	VAR.	3009.58
164.38	164.62	EXIT 165 RT. MAIN LANES - ACCEL LANE AND TAPER	VAR.	2630.43
164.62	164.87	EXIT 165 LT. MAIN LANES - TURNOUT	VAR.	1262.68
164.87	166.31	EXIT 169 RT. MAIN LANES - TURNOUT	VAR.	1660.02
166.31	168.63	EXIT 169 / TRUCK PARKING RT. MAIN LANES - AUXILIARY LANE	VAR.	5642.42
168.63	169.35	TRUCK PARKING RT. MAIN LANES - ACCEL LANE AND TAPER	VAR.	2713.02
169.35	169.54	EXIT 169 LT. MAIN LANES - MAIN LANES - ACCEL LANE AND TAPER	VAR.	2841.06
169.54	169.00	EXIT 169 / INSPECTION STATION LT. MAIN LANES - AUXILIARY LANE	VAR.	4848.37
169.00	169.35	INSPECTION STATION LT. MAIN LANES - TURNOUT	VAR.	1415.83
169.35	172.66	EXIT 173 RT. MAIN LANES - TURNOUT	VAR.	1440.79
172.66	173.29	EXIT 173 RT. MAIN LANES - ACCEL LANE AND TAPER	VAR.	2275.85
173.29	172.41	EXIT 173 LT. MAIN LANES - ACCEL LANE AND TAPER	VAR.	2829.88
172.41	172.91	EXIT 173 LT. MAIN LANES - TURNOUT	VAR.	1376.90
172.91	174.28	EXIT 175 RT. MAIN LANES - TURNOUT	VAR.	1222.94
174.28	174.64	EXIT 175 RT. MAIN LANES - ACCEL LANE AND TAPER	VAR.	3101.26
174.64	174.09	EXIT 175 LT. MAIN LANES - ACCEL LANE AND TAPER	VAR.	3116.12
174.09	174.74	EXIT 175 LT. MAIN LANES - TURNOUT	VAR.	1296.83
TOTAL:				865967.26

NOTE: THE AVERAGE MILLING DEPTH FOR THE PROJECT IS 2". THE CONTRACTOR SHALL HAUL THE MATERIAL GENERATED FROM COLD MILLING OPERATION TO LOCATIONS DESIGNATED BY THE ENGINEER AND DISTRIBUTE IT EVENLY UNTIL EACH LOCATION IS FULL. ONCE PLACED, THE MATERIAL WILL BECOME PROPERTY OF THE DEPARTMENT. THE MATERIAL SHALL BE PLACED AT THE DESIGNATED LOCATIONS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL STOCKPILE THE MATERIAL IN SUCH A WAY THAT IT CAN BE EASILY MEASURED USING THE AVERAGE END AREA METHOD. THE AREAS DESIGNATED FOR COLD MILLING MATERIAL STORAGE FOR THIS PROJECT ARE AS FOLLOWS: NORTHWEST QUADRANT OF THE INTERCHANGE AT I-40 AND HWY. 15 LOCATED AT LOG MILE 168.58

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		21	24
				JOB NO.	061685			

QUANTITIES



May 21 2021 8:25 AM

DocuSign

RUMBLE STRIPS IN ASPHALT SHOULDERS

LOG MILE	LOG MILE	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN. FT.
156.30	156.44	RT. OF RT. MAIN LANES	739
156.50	156.76	RT. OF RT. MAIN LANES	1373
156.76	158.43	RT. OF RT. MAIN LANES	8818
158.43	159.06	RT. OF RT. MAIN LANES	3326
159.06	159.27	RT. OF RT. MAIN LANES	1109
159.27	160.53	RT. OF RT. MAIN LANES	6653
160.53	160.91	RT. OF RT. MAIN LANES	2006
160.91	164.59	RT. OF RT. MAIN LANES	19430
164.59	164.84	RT. OF RT. MAIN LANES	1320
164.84	166.68	RT. OF RT. MAIN LANES	9715
166.68	168.31	RT. OF RT. MAIN LANES	8184
168.31	168.63	RT. OF RT. MAIN LANES	1690
168.63	169.03	RT. OF RT. MAIN LANES	2112
169.03	169.35	RT. OF RT. MAIN LANES	1690
169.35	172.76	RT. OF RT. MAIN LANES	18005
172.76	173.29	RT. OF RT. MAIN LANES	2798
173.29	173.91	RT. OF RT. MAIN LANES	3274
173.91	174.36	RT. OF RT. MAIN LANES	2059
174.36	174.64	RT. OF RT. MAIN LANES	1478
174.64	174.90	RT. OF RT. MAIN LANES	1373
156.30	156.42	LT. OF LT. MAIN LANES	634
156.42	156.75	LT. OF LT. MAIN LANES	1373
156.75	158.55	LT. OF LT. MAIN LANES	9504
158.55	159.19	LT. OF LT. MAIN LANES	3379
159.19	160.81	LT. OF LT. MAIN LANES	8554
160.81	161.02	LT. OF LT. MAIN LANES	1109
161.02	164.62	LT. OF LT. MAIN LANES	19008
164.62	164.87	LT. OF LT. MAIN LANES	1320
164.87	166.68	LT. OF LT. MAIN LANES	9557
166.68	168.31	LT. OF LT. MAIN LANES	8554
168.31	168.71	LT. OF LT. MAIN LANES	1742
168.71	169.00	LT. OF LT. MAIN LANES	1531
169.00	169.35	LT. OF LT. MAIN LANES	1848
169.35	172.67	LT. OF LT. MAIN LANES	17530
172.67	172.91	LT. OF LT. MAIN LANES	1267
172.91	173.90	LT. OF LT. MAIN LANES	5227
173.90	174.38	LT. OF LT. MAIN LANES	2218
174.38	174.74	LT. OF LT. MAIN LANES	1901
174.74	174.90	LT. OF LT. MAIN LANES	845
156.30	156.44	LT. OF RT. MAIN LANES	739
156.44	166.68	LT. OF RT. MAIN LANES	53803
166.68	173.90	LT. OF RT. MAIN LANES	37699
173.90	174.90	LT. OF RT. MAIN LANES	4963
156.30	156.44	LT. OF RT. MAIN LANES	739
156.50	166.68	LT. OF RT. MAIN LANES	53750
166.68	173.91	LT. OF RT. MAIN LANES	37752
173.91	174.90	LT. OF RT. MAIN LANES	4910
TOTAL:			388503

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

EROSION CONTROL

LOG MILE	LOG MILE	LOCATION	TEMPORARY EROSION CONTROL
			18" FILTER SOCKS
			(E-6)
			LIN. FT.
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			3000
TOTAL:			3000

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

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

GUARDRAIL

LOG MILE	LOG MILE	LOCATION	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH		
15.04	15.15	LT. SIDE OF HWY. 67 SOUTH TO I-40 WEST	550			1
0.10	0.23	RT. SIDE OF I-40 EAST TO HWY. 67 NORTH	675	1	1	
TOTALS:			1225	1	2	1

* LOG MILES BASED ON THEIR RESPECTIVE RAMPS.

REMOVAL AND DISPOSAL OF ITEMS

LOG MILE	LOG MILE	LOCATION	GUARDRAIL
			LIN. FT.
0.18	0.23	RT. SIDE OF I-40 EAST TO HWY. 67 NORTH	269
TOTAL:			269

* LOG MILES BASED ON THEIR RESPECTIVE RAMPS.

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	500
TOTAL:	500

NOTE: QUANTITY ESTIMATED. SEE SECTION 104.03 OF THE STD. SPECS.

FLUSHING UNDERDRAIN

LOG MILE	LOG MILE	LOCATION	FLUSHING UNDERDRAIN	UNDERDRAIN VIDEO INSPECTION
			LIN. FT.	LIN. FT.
156.30	156.42	I-40 LT. MAIN LANES	634	634
156.42	166.68	I-40 LT. MAIN LANES	53803	53803
166.68	173.90	I-40 LT. MAIN LANES	37699	37699
173.90	174.90	I-40 LT. MAIN LANES	4963	4963
156.30	156.44	I-40 RT. MAIN LANES	739	739
156.50	166.68	I-40 RT. MAIN LANES	53750	53750
166.68	173.91	I-40 RT. MAIN LANES	37752	37752
173.91	174.90	I-40 RT. MAIN LANES	4910	4910
ENTIRE PROJECT		TO BE USED AS DIRECTED BY THE ENGINEER		9000
TOTALS:			194250	203250

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

SPECIAL CLEARING

LOG MILE	LOG MILE	LOCATION	LENGTH	SPECIAL CLEARING STATION
156.30	156.42	LT. MEDIAN & RT. OF MAIN LANES	634	7
156.42	166.68	LT. MEDIAN & RT. OF MAIN LANES	53803	539
166.68	173.90	LT. MEDIAN & RT. OF MAIN LANES	37699	377
173.90	174.90	LT. MEDIAN & RT. OF MAIN LANES	4963	50
TOTAL:				973

BASE AND SURFACING												
LOG MILE	LOG MILE	LOCATION	LENGTH FEET	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	TOTAL WID. FEET	SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	TOTAL PG 76-22 TON
MAIN LANES												
156.30	156.44	RT. MAIN LANES	739.20			59.50	4886.93	830.78	59.50	4886.93	220.00	537.56
156.50	156.73	RT. MAIN LANES	1214.40			59.50	8028.53	1364.85	59.50	8028.53	220.00	883.14
156.73	156.76	RT. MAIN LANES	158.40			49.00	862.40	146.61	49.00	862.40	220.00	94.86
156.76	156.95	RT. MAIN LANES	1003.20			28.00	3121.07	530.58	28.00	3121.07	220.00	343.32
156.95	158.32	RT. MAIN LANES	7233.60			38.00	30541.87	5192.12	38.00	30541.87	220.00	3359.61
158.32	158.43	RT. MAIN LANES	580.80			28.00	1806.93	307.18	28.00	1806.93	220.00	198.76
158.43	159.06	RT. MAIN LANES	3326.40			38.00	14044.80	2387.62	38.00	14044.80	220.00	1544.93
159.06	159.25	RT. MAIN LANES	1003.20			28.00	3121.07	530.58	28.00	3121.07	220.00	343.32
159.25	159.27	RT. MAIN LANES	105.60			38.00	445.87	75.80	38.00	445.87	220.00	49.05
159.27	159.48	RT. MAIN LANES	1108.80			28.00	3449.60	586.43	28.00	3449.60	220.00	379.46
159.48	160.45	RT. MAIN LANES	5121.60			38.00	21624.53	3676.17	38.00	21624.53	220.00	2378.70
160.45	160.53	RT. MAIN LANES	422.40			28.00	1314.13	223.40	28.00	1314.13	220.00	144.55
160.53	160.91	RT. MAIN LANES	2006.40			38.00	8471.47	1440.15	38.00	8471.47	220.00	931.86
160.91	161.10	RT. MAIN LANES	1003.20			28.00	3121.07	530.58	28.00	3121.07	220.00	343.32
161.10	164.50	RT. MAIN LANES	17952.00			38.00	75797.33	12885.55	38.00	75797.33	220.00	8337.71
164.50	164.59	RT. MAIN LANES	475.20			28.00	1478.40	251.33	28.00	1478.40	220.00	162.62
164.59	164.84	RT. MAIN LANES	1320.00			38.00	5573.33	947.47	38.00	5573.33	220.00	613.07
164.84	165.10	RT. MAIN LANES	1372.80			28.00	4270.93	726.06	28.00	4270.93	220.00	469.80
165.10	166.68	RT. MAIN LANES	8342.40			38.00	35223.47	5987.99	38.00	35223.47	220.00	3874.58
166.68	168.20	RT. MAIN LANES	7803.20			38.00	32102.40	5457.41	38.00	32102.40	220.00	3531.26
168.20	168.31	RT. MAIN LANES	580.80			28.00	1806.93	307.18	28.00	1806.93	220.00	198.76
168.31	168.63	RT. MAIN LANES	1689.60			38.00	7133.87	1212.76	38.00	7133.87	220.00	784.73
168.63	169.03	RT. MAIN LANES	2112.00			28.00	6570.67	1117.01	28.00	6570.67	220.00	722.77
169.03	169.35	RT. MAIN LANES	1689.60			38.00	7133.87	1212.76	38.00	7133.87	220.00	784.73
169.35	169.54	RT. MAIN LANES	1003.20			28.00	3121.07	530.58	28.00	3121.07	220.00	343.32
169.54	172.66	RT. MAIN LANES	16473.60			38.00	69555.20	11824.38	38.00	69555.20	220.00	7651.07
172.66	172.76	RT. MAIN LANES	528.00			28.00	1642.67	279.25	28.00	1642.67	220.00	180.69
172.76	173.29	RT. MAIN LANES	2798.40			38.00	11815.47	2008.63	38.00	11815.47	220.00	1299.70
173.29	173.49	RT. MAIN LANES	1056.00			28.00	3285.33	558.51	28.00	3285.33	220.00	361.39
173.49	173.91	RT. MAIN LANES	2217.60			38.00	9363.20	1591.74	38.00	9363.20	220.00	1029.95
173.91	174.28	RT. MAIN LANES	1636.80			38.00	6910.93	1174.86	38.00	6910.93	220.00	760.20
174.28	174.36	RT. MAIN LANES	422.40			28.00	1314.13	223.40	28.00	1314.13	220.00	144.55
174.36	174.64	RT. MAIN LANES	1478.40			38.00	6242.13	1061.16	38.00	6242.13	220.00	686.63
174.64	174.90	RT. MAIN LANES	1372.80			28.00	4270.93	726.06	28.00	4270.93	220.00	469.80
ADDITIONAL FOR ACCELERATION LANES, DECELERATION LANES, AUXILIARY LANES, TURNOUTS, AND TAPERS												
156.76	156.95	EXIT 156 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1003.20			VAR.	2676.59	455.02	VAR.	2676.59	220.00	294.42
156.95	158.32	EXIT 156 LT. MAIN LANES - TURNOUT	369.60			VAR.	1236.70	210.24	VAR.	1236.70	220.00	136.04
158.32	158.43	EXIT 159 RT. MAIN LANES - TURNOUT	580.80			VAR.	1993.58	338.91	VAR.	1993.58	220.00	219.29
159.06	159.25	EXIT 159 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1003.20			VAR.	2154.71	366.30	VAR.	2154.71	220.00	237.02
159.25	159.48	EXIT 159 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1108.80			VAR.	2493.18	423.84	VAR.	2493.18	220.00	274.25
159.48	159.54	EXIT 159 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1003.20			VAR.	2207.71	375.31	VAR.	2207.71	220.00	242.85
159.54	159.28	EXIT 159 LT. MAIN LANES - TURNOUT	475.20			VAR.	1041.50	177.06	VAR.	1041.50	220.00	114.57
160.45	160.53	EXIT 161 RT. MAIN LANES - TURNOUT	422.40			VAR.	1436.95	244.28	VAR.	1436.95	220.00	158.06
160.53	161.10	EXIT 161 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1003.20			VAR.	2360.06	401.21	VAR.	2360.06	220.00	259.61
161.10	160.81	EXIT 161 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1320.00			VAR.	2711.32	460.92	VAR.	2711.32	220.00	298.25
161.10	161.30	EXIT 161 LT. MAIN LANES - TURNOUT AND DECELERATION LANE	1478.40			VAR.	3268.68	555.68	VAR.	3268.68	220.00	359.55
161.30	164.59	EXIT 165 RT. MAIN LANES - TURNOUT	475.20			VAR.	1290.05	219.31	VAR.	1290.05	220.00	141.91
164.59	165.10	EXIT 165 RT. MAIN LANES - ACCEL LANE AND TAPER	1372.80			VAR.	3009.58	511.63	VAR.	3009.58	220.00	331.05
165.10	164.62	EXIT 165 LT. MAIN LANES - ACCEL LANE AND TAPER	1267.20			VAR.	2630.43	447.17	VAR.	2630.43	220.00	289.35
164.62	164.97	EXIT 165 LT. MAIN LANES - TURNOUT	528.00			VAR.	1262.68	214.66	VAR.	1262.68	220.00	138.89
164.97	168.31	EXIT 169 RT. MAIN LANES - TURNOUT	580.80			VAR.	1660.02	282.20	VAR.	1660.02	220.00	182.60
168.31	169.03	EXIT 169 / TRUCK PARKING RT. MAIN LANES - AUXILIARY LANE	2112.00			VAR.	5642.42	959.21	VAR.	5642.42	220.00	620.67
169.03	169.54	TRUCK PARKING RT. MAIN LANES - ACCEL LANE AND TAPER	1003.20			VAR.	2713.02	461.21	VAR.	2713.02	220.00	298.43
169.54	168.38	EXIT 169 LT. MAIN LANES - ACCEL LANE AND TAPER	1425.60			VAR.	2841.06	482.98	VAR.	2841.06	220.00	312.52
168.38	169.00	EXIT 169 / INSPECTION STATION LT. MAIN LANES - AUXILIARY LANE	1531.20			VAR.	4848.37	824.22	VAR.	4848.37	220.00	533.32
169.00	169.46	INSPECTION STATION LT. MAIN LANES - TURNOUT	580.80			VAR.	1415.83	240.69	VAR.	1415.83	220.00	155.74
169.46	172.76	EXIT 173 RT. MAIN LANES - TURNOUT	528.00			VAR.	1440.79	244.93	VAR.	1440.79	220.00	158.49
172.76	173.49	EXIT 173 RT. MAIN LANES - ACCEL LANE AND TAPER	1056.00			VAR.	2275.85	386.89	VAR.	2275.85	220.00	250.34
173.49	172.67	EXIT 173 LT. MAIN LANES - ACCEL LANE AND TAPER	1372.80			VAR.	2829.88	481.08	VAR.	2829.88	220.00	311.29
172.67	173.02	EXIT 173 LT. MAIN LANES - TURNOUT	580.80			VAR.	1376.90	234.07	VAR.	1376.90	220.00	151.46
173.02	174.36	EXIT 175 RT. MAIN LANES - TURNOUT	422.40			VAR.	1222.94	207.90	VAR.	1222.94	220.00	134.52
174.36	174.90	EXIT 175 RT. MAIN LANES - ACCEL LANE AND TAPER	1372.80			VAR.	3101.26	527.21	VAR.	3101.26	220.00	341.14
174.90	174.38	EXIT 175 LT. MAIN LANES - ACCEL LANE AND TAPER	1531.20			VAR.	3116.12	529.74	VAR.	3116.12	220.00	342.77
174.38	174.82	EXIT 175 LT. MAIN LANES - TURNOUT	422.40			VAR.	1296.83	220.46	VAR.	1296.83	220.00	142.65
ADDITIONAL FOR GUARDRAIL WIDENING												
15.04	15.15	LT. SIDE OF HWY 67 SOUTH TO I40 WEST	626.50	27.25	170.72				7.50	522.08	220.00	57.43
0.10	0.18	RT. SIDE OF I40 EAST TO HWY 67 NORTH	451.50	27.25	123.03				5.50	275.92	220.00	30.35
TOTALS:						293.75	865967.26	147214.41		866765.26		95344.15

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2")..... 94.8% MIN. AGGR..... 5.2% ASPHALT BINDER
 MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
 TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
 * LOG MILES BASED ON THEIR RESPECTIVE RAMP.

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.	061685		22	24

2 QUANTITIES



May 21 2021 8:25 AM

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QUANTITIES

R061685.DGN 5/31/2020

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-28-2021				6	ARK.			
				JOB NO.		061685	23	24

① SEE TABLE - QUANTITIES - 61833

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 061685

I-40 LOG MILE	UNIT OF STRUCTURE	ITEM NO.	SS & 802	803	803	SS & 804	SS & 804	SS & 809	SP JOB 061685	SP JOB 061685	SP JOB 061685	SP JOB 061685	SP JOB 061685	SP JOB 061685
		ITEM	GROOVING	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	SILICONE JOINT SEALANT	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	HYDRODEMOLITION - CLASS 1	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	POLYMER OVERLAY
		UNIT	SQ. YD.	GAL.	LIN. FT.	LBS.	LBS.	LIN. FT.	SQ. FT.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. FT.	SQ. YD.
156.50	BRIDGE NO. A6821		-	-	-	-	600	-	-	-	-	-	705	1,568
156.52	BRIDGE NO. B6821		-	-	-	-	600	-	-	-	-	-	705	1,568
158.02	BRIDGE NO. 03269		395.0	9.2	416	355	-	-	415	463	465	465	-	-
160.81	BRIDGE NO. 03197 ①②		560.0	12.7	440	485	-	135	570	636	638	-	-	-
162.39	BRIDGE NO. 03198 ②③		655.0	14.8	512	565	-	163	665	740	742	-	-	-
166.76	BRIDGE NO. A6872					-	580	-	-	-	-	-	680	1,512
166.76	BRIDGE NO. B6872					-	580	-	-	-	-	-	680	1,512
174.01	BRIDGE NO. A6873					-	375	-	-	-	-	-	440	983
174.01	BRIDGE NO. B6873					-	375	-	-	-	-	-	440	983
TOTALS FOR JOB NO. 061685			1,610.0	36.7	1,368	④ 1,405	④ 3,110	298	④ 1,650	1,839	1,845	465	④ 3,650	8,126

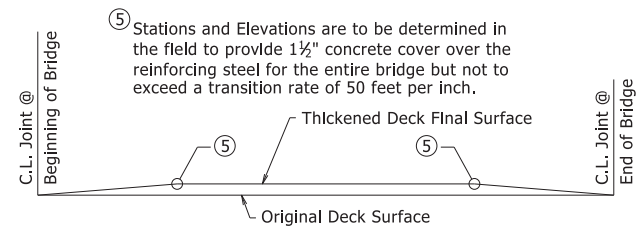
△ 1,380

- EXISTING BRIDGE DECKS DO NOT HAVE ASPHALT OVERLAYS.
- ① SEE "VERTICAL ALIGNMENT FOR LMC THICKENING".
- ② EXISTING BRIDGE HAS SLIDER PLATE JOINTS TO BE PARTIALLY REMOVED AND REPLACED WITH POURED SILICONE JOINTS.
- ③ EXISTING BRIDGE DECK HAS SPALLS FILLED WITH ASPHALT.
- ④ QUANTITY SHOWN IS FOR ESTIMATING AND BIDDING PURPOSES ONLY. ACTUAL QUANTITY, IF ANY, WILL BE DETERMINED IN THE FIELD.

JIM POOL
DESIGN SECTION SUPERVISOR

REFERENCE TABLE

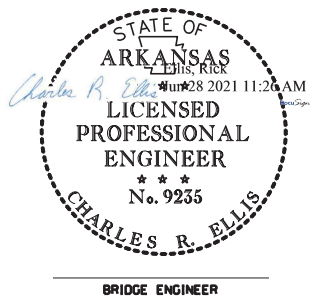
Bridge No.	Existing Dwg. No(s).	Applicable Std. Dwg. No(s).
A6821	41810	-
B6821	41811	-
03269	10217 & 10219	55060
03197	9797, 5462, & 5465	55060 & 55064
03198	9798, 9807, 5462, & 5465	55060 & 55064
A6872	43196	-
B6872	43197	-
A6873	43212	-
B6873	43213	-



Inspection reports indicate less than 1 1/2" concrete cover to reinforcing steel is present. LMC thickening will be required to increase the reinforcing steel cover in all spans. Additional tangent points may be allowed when approved by the Engineer.

VERTICAL ALIGNMENT FOR LMC THICKENING
Bridge No. 03197

△ Revised quantities and added pay item due to change in type of overlay for Bridge No. 03269.



SCHEDULE OF BRIDGE QUANTITIES
HWY. 161 - HWY. 31 (S)
PULASKI & LONOKE COUNTIES

ROUTE 40 SECS. 33 & 41
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JYP DATE: 5-19-2021 FILENAME: b061685_q1.dgn
CHECKED BY: KAP DATE: 5-19-2021 SCALE: No Scale
DESIGNED BY: DATE: BRIDGE NO. SEE TABLE DRAWING NO. 61833

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	SPECIAL CLEARING	973	STATION
202	REMOVAL AND DISPOSAL OF GUARDRAIL	269	LIN. FT.
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	294	TON
SS & 401	TACK COAT	147214	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	90386	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	4958	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	865967	SQ. YD.
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	500	TON
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	2010	SQ. FT.
SS & 604	BARRICADES	96	LIN. FT.
SS & 604	TRAFFIC DRUMS	472	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRER	1520	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER	2600	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	461521	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	5702	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL	53	DAY
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN	22	WEEK
SP, SS, & 611	UNDERDRAIN VIDEO INSPECTION	203250	LIN. FT.
SP	FLUSHING UNDERDRAIN	194250	LIN. FT.
SS & 617	GUARDRAIL (TYPE A)	1225	LIN. FT.
SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)	1	EACH
SS & 617	GUARDRAIL TERMINAL (TYPE 2)	2	EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL	1	EACH
SS & 621	FILTER SOCK (18")	3000	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	388503	LIN. FT.
SP	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	1.00	LUMP SUM
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")	1218	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (12")	1218	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")	1218	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (12")	1218	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	584	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	584	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	245520	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	19585	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	196416	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	4414	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	3	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	8	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)	10	EACH
STRUCTURES OVER 20' SPAN			
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
SS & 802	GROOVING	1610.0	SQ. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	36.7	GAL.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT	1368	LIN. FT.
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	1405	POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)	3110	POUND
SS & 809	SILICONE JOINT SEALANT	298	LIN. FT.
SP	VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	465	SQ. YD.
SP	HYDRODEMOLITION - CLASS 1	1839	SQ. YD.
SP	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	1650	SQ. FT.
SP	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	3650	SQ. FT.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	1380	SQ. YD.
SP	POLYMER OVERLAY	8126	SQ. YD.

REVISIONS

DATE	REVISION	SHEET NUMBER
06/08/2021	REVISED STANDARD DRAWINGS TC-2 & TC-3.	2 & 24
06/16/2021	REVISED MAINTENANCE OF TRAFFIC SPECIAL PROVISION	24
06/22/2021	REMOVED WORK WITH US SIGN SPECIAL DETAIL. REVISED SIGNS QUANTITY.	6, 20, & 24
06/28/2021	REVISED LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK) QUANTITY. ADDED VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK) QUANTITY. ADDED VERY EARLY STRENGTH LATEX MODIFIED CONCRETE OVERLAY SPECIAL PROVISION.	3, 23, & 24

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
06-08-21		06-28-21		6	ARK.			
06-16-21								
06-22-21						JOB NO. 061685	24	24

② SUMMARY OF QUANTITIES AND REVISIONS



Jun 28 2021 1:32 PM

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5/31/2020

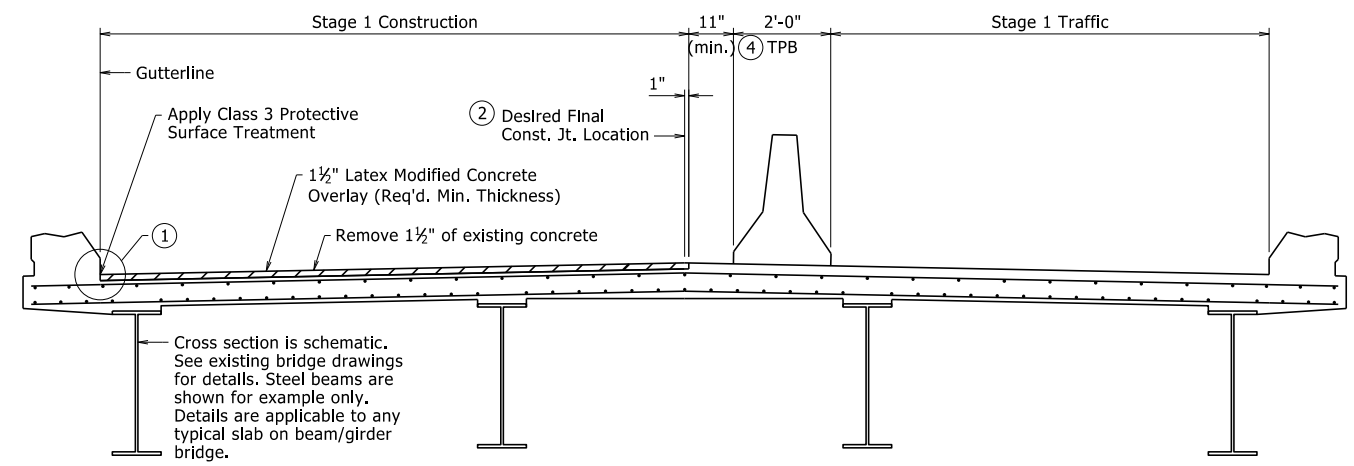
R061685.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1/9/2020				6	ARK.			
6/25/2020								
JOB NO.								

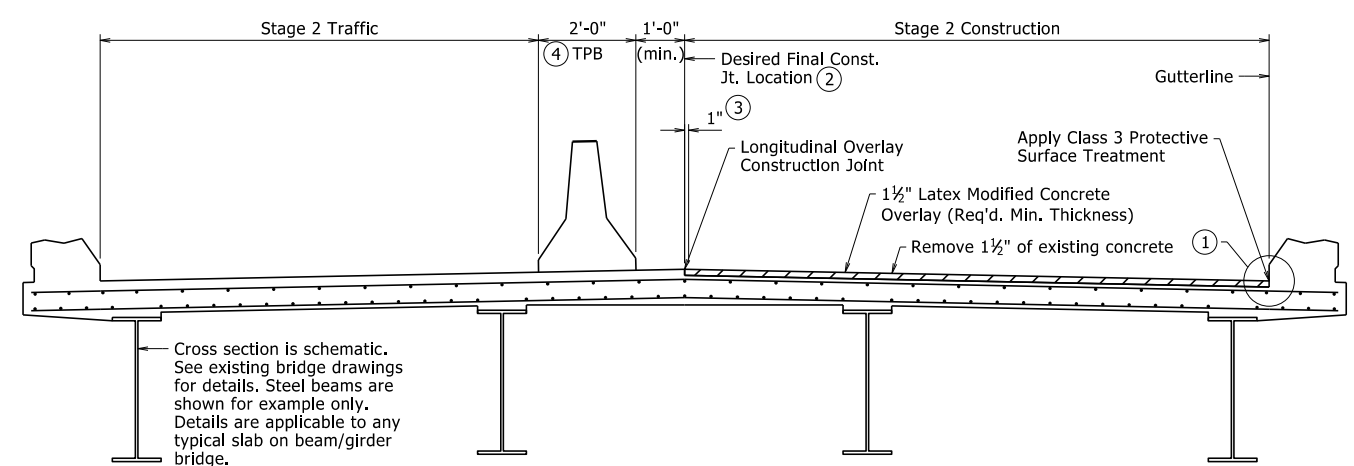
NOTE: Details shown are typical for staged construction. When full width rehabilitation of a bridge deck is possible, adjust hydrodemolition and latex modified concrete overlay operations and details accordingly.

Stages of construction and traffic refer to Bridge Rehabilitation Work Zones as shown in Maintenance of Traffic Details. Numbering is shown for general purposes. See Roadway Plans for specific sequencing.

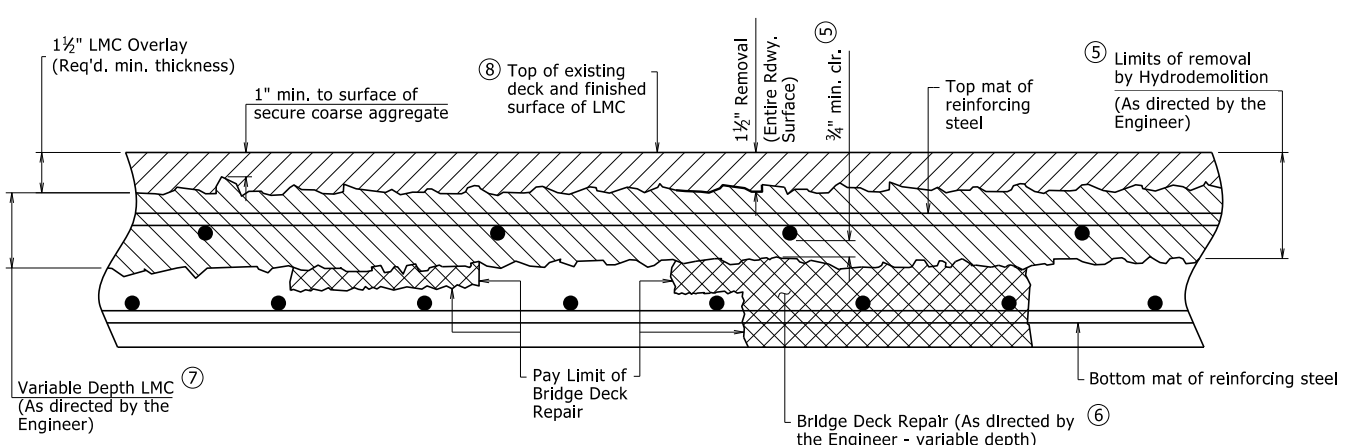
The minimum overlay placement length shall be a span length on simple span bridges and to an existing slab joint on continuous span bridges, unless otherwise approved by the Engineer. Refer to existing bridge drawings.



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY



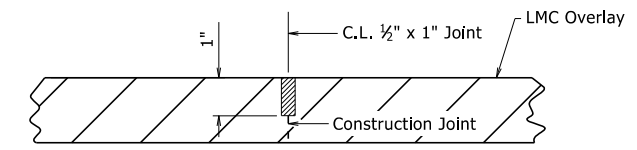
STAGE 2 LATEX MODIFIED CONCRETE OVERLAY



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

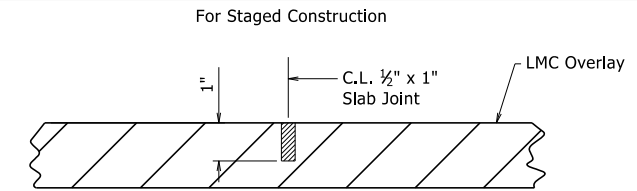
- 5 Removal of unsound concrete beyond 1 1/2" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of 3/4" clearance below the bar. This removal shall be subsidiary to the Item Job SP "Hydrodemolition - Class _".
- 6 Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job SP "Bridge Deck Repair for Latex Modified Concrete Overlays".
- 7 Depth varies to achieve minimum clearance below top mat of reinforcing steel, where required.
- 8 Finished surface of LMC Overlay shall match existing concrete deck surfaces unless Increase Is required to maintain minimum required LMC Overlay thickness and a minimum of 1 1/2" cover to reinforcing steel and shear connectors.

- 1 Hand tools shall be used as required to remove concrete adjacent to curbs, rails, and armored expansion joints.
- 2 For staged construction, the final construction joint location shall be established by the Engineer to satisfy MOT and construction requirements. The desired location is at the C.L. Bridge, C.L. Lane, or Edge of Lane, but in no case shall be positioned in the line of a wheel path.
- 3 For staged construction, saw cut and remove 1" of Initial Latex Modified Concrete Overlay when preparing surface for adjacent overlay.
- 4 For staged construction, Temporary Precast Barrier (TPB) shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4 for additional details. Plastic drums shall be used in lieu of concrete barriers where shown in the Roadway Plans, see Std. Dwg. TC-3 for additional details.



Use 1/2" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the overlay. Seal color shall be gray or other color similar to concrete.

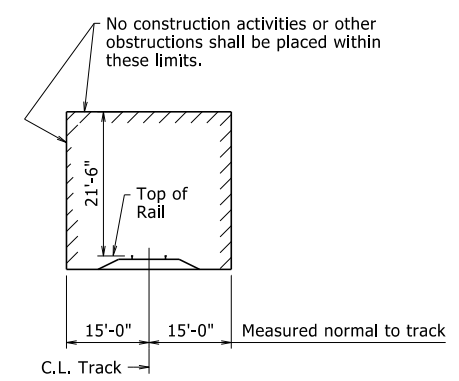
LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL



Use 1/2" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod will not be required. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend from gutterline to gutterline. Slab joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the overlay. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations. Pouring sequence construction joints shall align between stages of construction. The joint sealer shall extend across the deck from gutterline to gutterline. Seal color shall be gray or other color similar to concrete.

TRANSVERSE OVERLAY JOINT DETAIL

For Continuous Span Bridges



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

See Job SP "Insurance, Construction, and Flagging Requirements on Railroad Property" for additional railroad construction requirements.

- Modified Hydrodemolition SP reference to include "- Class _". By: KKY, Checked by: SWP; 1/9/2020.
- Modified Joint Rehabilitation to include unarmored joints. By: KKY, Checked by: SWP; 6/25/2020.

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on November 7, 2019. This copy is not a signed and sealed document.



GENERAL NOTES: 1 HYDRO/LMC OVERLAY - 55060

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Specifications unless otherwise noted in the Plans.

Details shown are schematic. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure(s).

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

Where applicable, construction activities for the existing bridge(s) over roadways and railroads shall be in accordance with the Job SP "Special Safety Requirements for Bridges" and as shown in "Minimum Construction Clearance Envelope".

HYDRODEMOLITION: The entire roadway surface of the existing bridge deck and approach slabs and gutters, as applicable, shall receive hydrodemolition in accordance with the Job SP "Hydrodemolition - Class _" to a planned depth of 1 1/2" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the Item Job SP "Hydrodemolition - Class _". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing steel.

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

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the hydrodemolition shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1 1/2" below the existing bridge deck surface in accordance with Job SP "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the Item Job SP "Latex Modified Concrete Overlay (1 1/2" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1 1/2" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1 1/2" LMC Overlay. This area shall be measured and paid for in accordance with Job SP "Latex Modified Concrete Overlay".

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

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job SP "Latex Modified Concrete Overlay". The roadway surface of the completed LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

JOINT REHABILITATION: After the placement of the LMC Overlay and if shown in the plans, the existing armored joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Standard Drawing No. 55064, and the existing unarmored joints shall be given a Type A Joint Rehabilitation as specified in Section 509 and Job SP "Joint Rehabilitation for Bridge Decks". Backwall repair, if shown in the plans or as directed by the Engineer, shall be completed prior to installation of the joint sealant.

If shown in the plans, the existing neoprene strip seal shall be removed and replaced. See "Strip Seal Joint Details" on Standard Drawing No. 55064.

NOTE: When "Very Early Strength Latex Modified Concrete Overlay (1 1/2" Thick)" is shown in the plans for a particular bridge, all reference to "Latex Modified Concrete Overlay" and "LMC" on this sheet shall be considered synonymous with "Very Early Strength Latex Modified Concrete Overlay" and "VESLMC" for that bridge. See Job SP "Very Early Strength Latex Modified Concrete Overlay" for additional information.

STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY SLAB ON BEAM/GIRDER BRIDGES

ROUTE SEC. ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

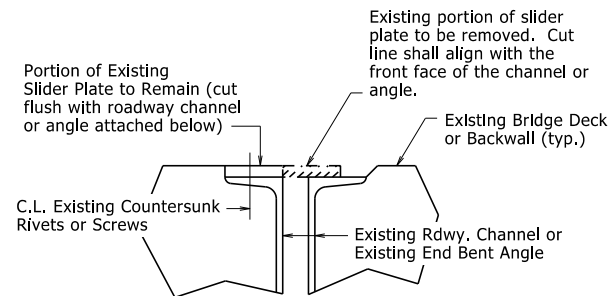
DRAWN BY: KKY DATE: 11/7/2019 FILENAME: b55060.dgn

CHECKED BY: SWP DATE: 11/7/2019 SCALE: None

DESIGNED BY: STD. DATE: DRAWING NO. 55060

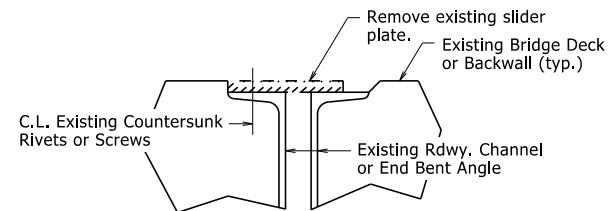
PRINT DATE: 6/25/2020

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		JOINT REPAIR - 55064		



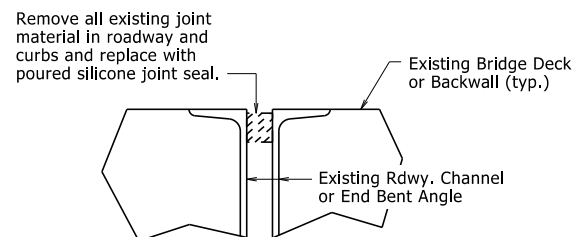
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS

At the direction of the Engineer, the portion of existing slider plate shown shall be removed and replaced with a new plate as shown in "SLIDER PLATE JOINT MODIFICATION". The portion of existing slider plate shall be removed and disposed of in accordance with Section 821. The cut face shall be ground square and flush with the face of the existing angle or channel. Removal and disposal of existing slider plate material will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant". Properly functioning slider plates need not be modified.



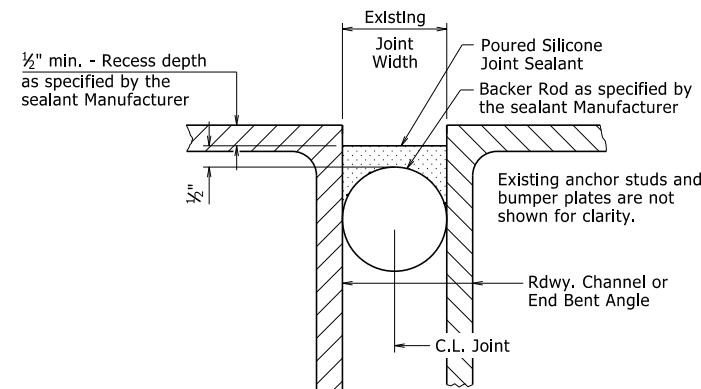
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS WITH GRADE RAISE

The existing slider plate shown shall be removed and replaced with new plates as shown in "JOINT MODIFICATION WITH GRADE RAISE". The existing slider plate shall be removed and disposed of in accordance with Section 821. Removal and disposal of existing slider plate material will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant".



REMOVAL DETAILS AT EXISTING FILLED JOINTS

The existing joint material shall be removed and disposed of in accordance with Section 821. Removal and disposal of existing joint material will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant".



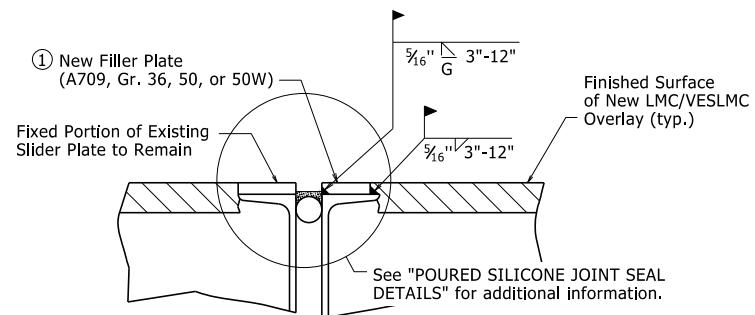
POURED SILICONE JOINT SEAL DETAILS

Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details, Section 809, and the Manufacturer's recommendations. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

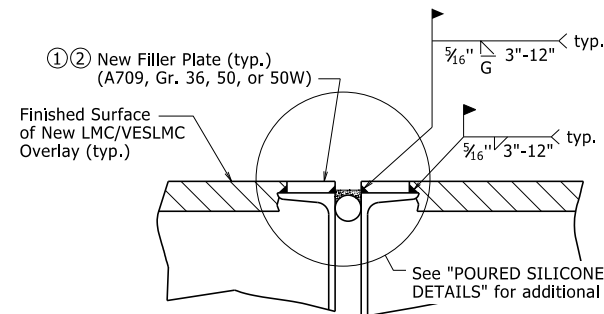
Backer rods shall be extended beyond the length of the poured joint in the initial joint repair area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint repair. Manufacturer's recommendations shall be followed to prevent sealant leakage during repair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

Backer rods shall be appropriately sized and set to the depth shown in the Manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.



SLIDER PLATE JOINT MODIFICATION

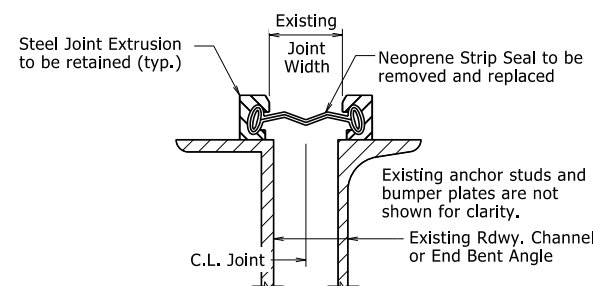


JOINT MODIFICATION WITH GRADE RAISE

1 New field attached plates atop existing roadway channels or angles are required. The plate thickness shall be adjusted as necessary to match surface of finished surface of LMC/VESLMC Overlay and the width shall be 3/8" less than the existing channel flange or angle width to allow for fillet weld as shown.

All new Structural Steel shall be ASTM A709 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat of paint is required and shall be applied in the fabricator's shop. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e). Structural Steel and Painting will not be paid for directly, but shall be subsidiary to the item "Silicone Joint Sealant".

2 Details shown are for an expansion joint where two bridge units meet. Eliminate filler plate on backwall and proceed with backwall repair in accordance with "BACKWALL REPAIR REMOVAL DETAIL" and "BACKWALL REPAIR INSTALLATION DETAIL" at end bents for bridge decks with grade raise, see Standard Drawing Number 55065.



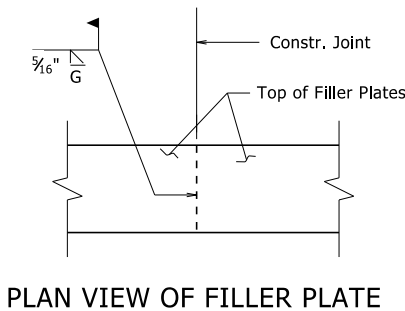
STRIP SEAL JOINT DETAILS

Existing neoprene strip seal joint material shall be completely removed and new neoprene strip seal joint material shall be installed across the entire width of the steel extrusions in accordance with these details, Section 809, and the Manufacturer's recommendations. Prior to installing the new joint material, the Contractor shall clean the steel extrusion at the Engineer's direction and in accordance with the new strip seal joint material Manufacturer's recommendations.

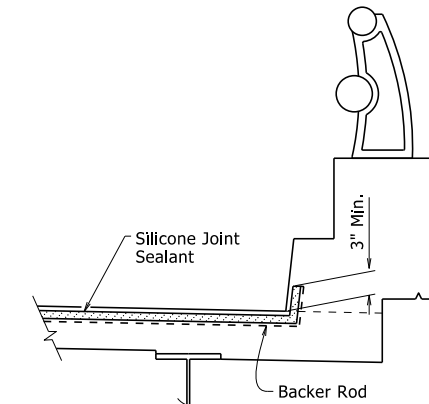
Removal and replacement of the existing neoprene strip seal joint material will require the removal of the parapet slider plates, where present. Parapet slider plates removed for this work shall be reinstalled after installation of the new neoprene strip seal joint material.

The new neoprene strip seal joint material shall provide a movement rating of four inches. The repaired expansion joint shall be capable of sealing the deck surface and parapet area to prevent moisture and other contaminants from descending through the joint.

All work and material associated with removing the existing joint material, cleaning the extrusions, removal and reinstallation of parapet slider plates, and installation of new joint material shall be paid for under the item "Modification of Existing Bridge Structure (Bridge No. _)".

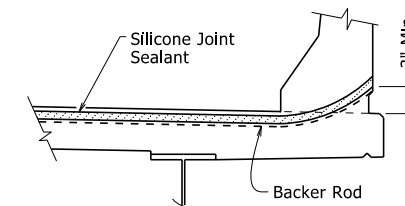


PLAN VIEW OF FILLER PLATE

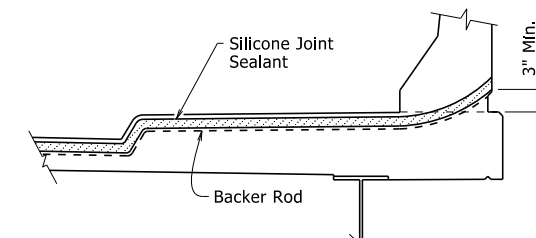


SILICONE JOINT SEAL PLACEMENT AT CURB

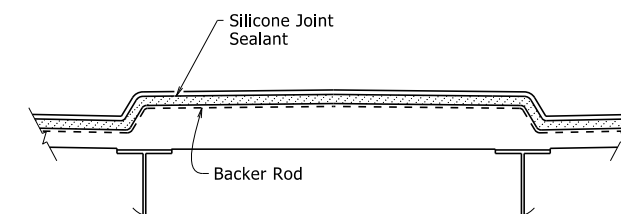
Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.



SILICONE JOINT SEAL PLACEMENT AT RAIL

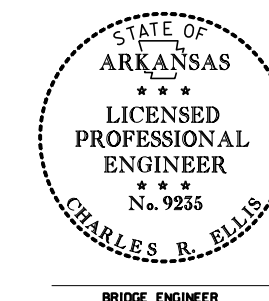


SILICONE JOINT SEAL PLACEMENT AT SIDEWALK



SILICONE JOINT SEAL PLACEMENT AT MEDIAN

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on November 7, 2019. This copy is not a signed and sealed document.



STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATIONS

ROUTE _____ SEC. _____

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

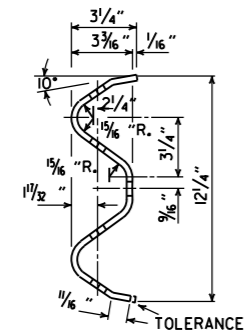
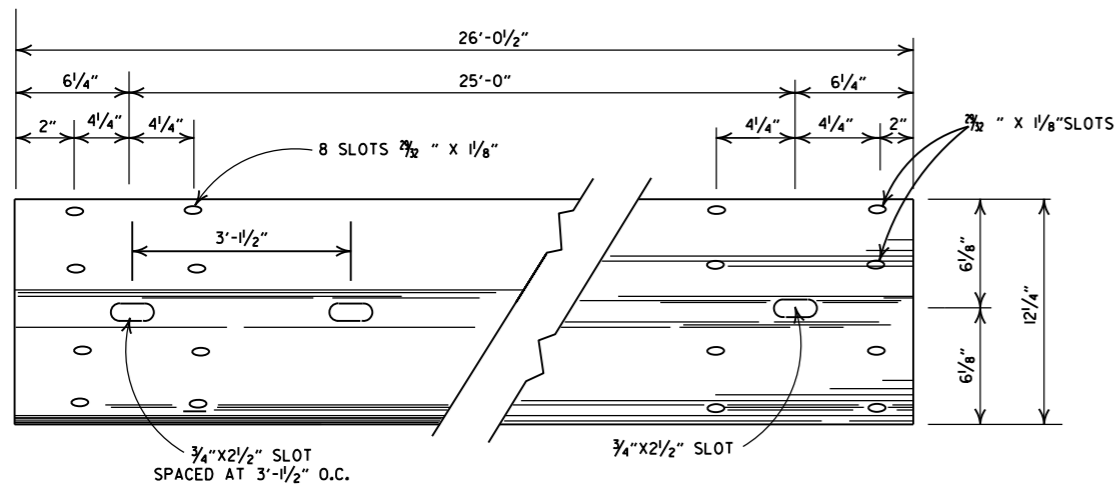
DRAWN BY: KWY DATE: 11/7/2019 FILENAME: b55064.dgn

CHECKED BY: SWP DATE: 11/7/2019 SCALE: None

DESIGNED BY: STD. DATE: _____

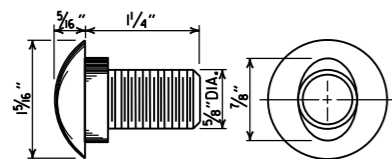
BRIDGE ENGINEER

DRAWING NO. 55064

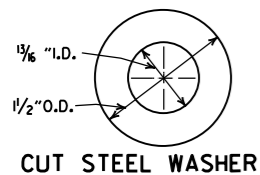


DETAILS OF W-BEAM GUARDRAIL

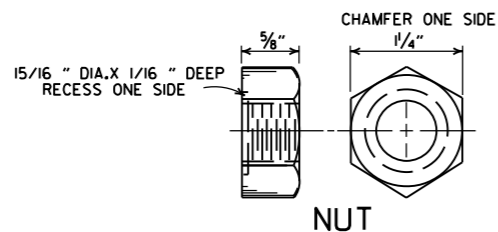
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



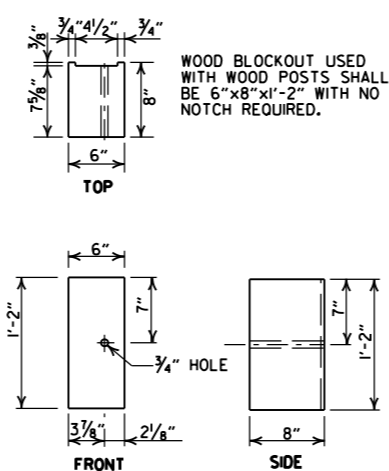
**SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH**



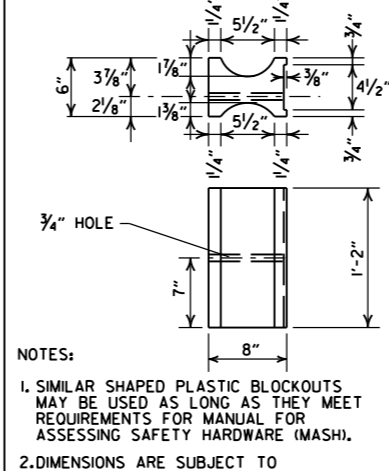
CUT STEEL WASHER



NUT

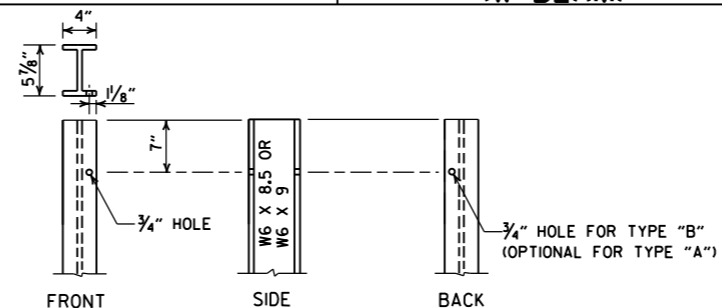


WOOD BLOCKOUT (W-BEAM)

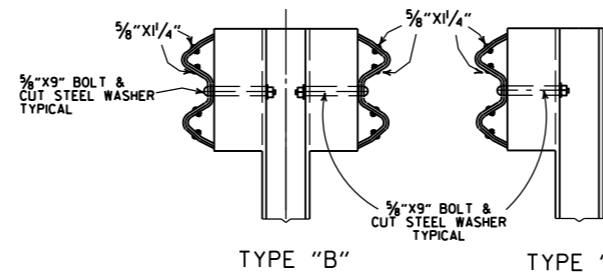


NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)



STEEL POST



DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

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

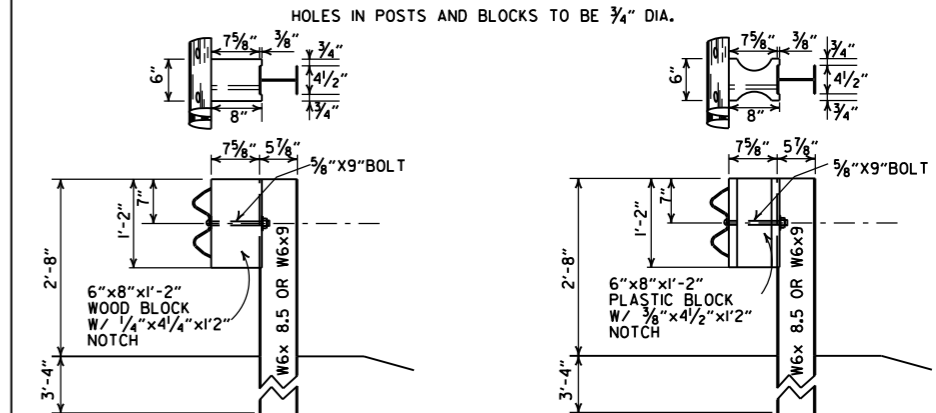
W-BEAM GUARDRAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

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

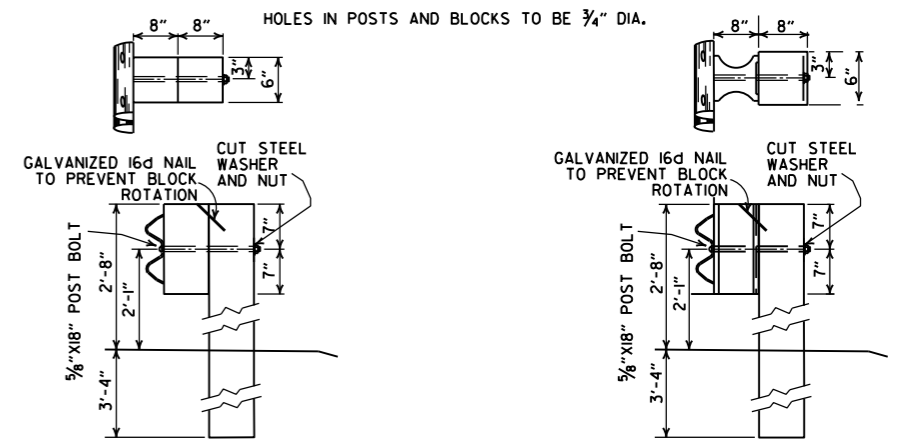
ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

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

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARDRAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARDRAIL.



**WOOD BLOCKOUT CONNECTIONS
PLASTIC BLOCKOUT CONNECTIONS
DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)**



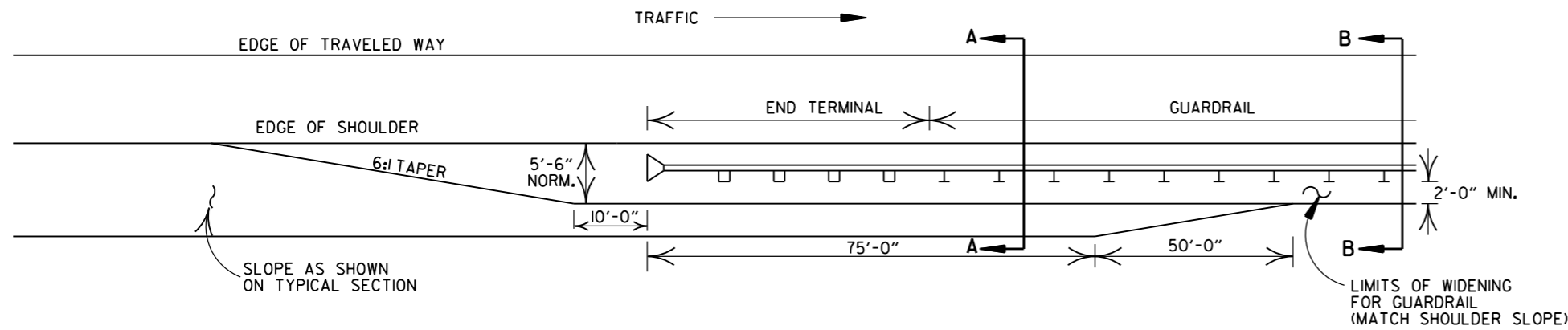
**WOOD BLOCKOUT CONNECTIONS
PLASTIC BLOCKOUT CONNECTIONS
DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)**

11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARDRAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87
DATE	REVISION	FILMED

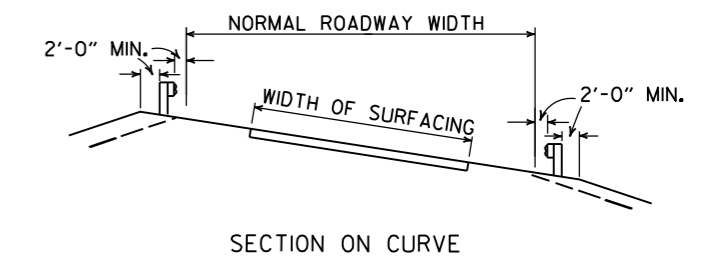
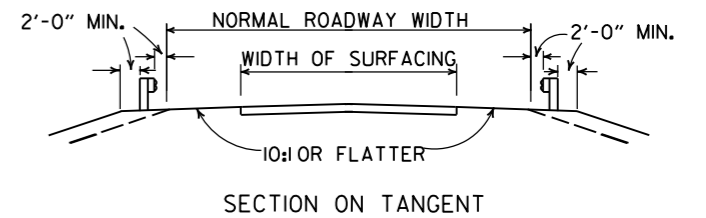
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

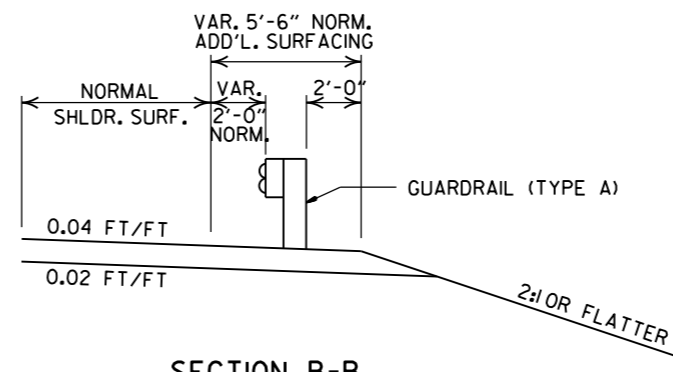
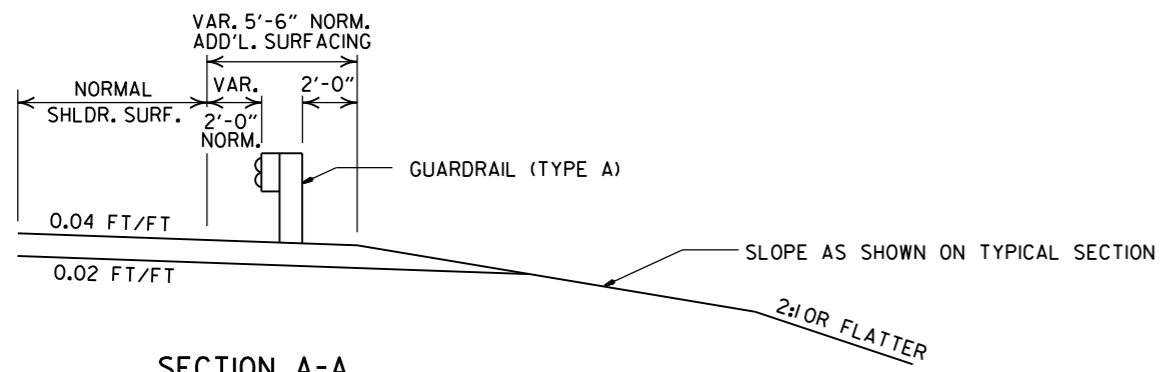
STANDARD DRAWING GR-6



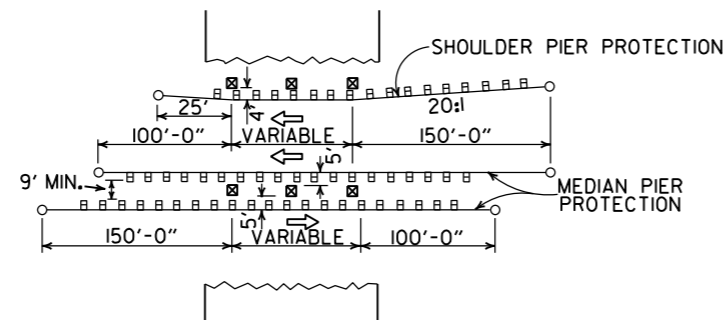
NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARDRAIL.



DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY



DETAILS OF WIDENING FOR GUARDRAIL



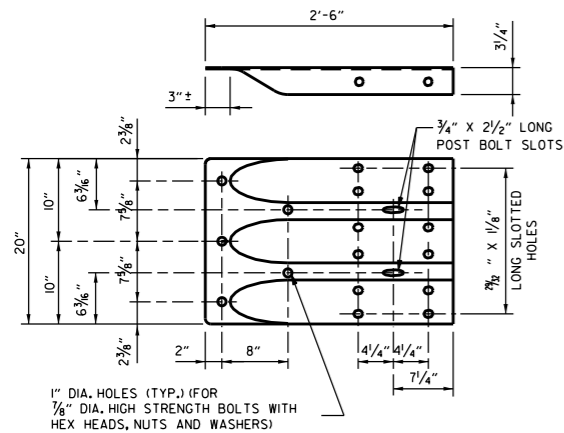
METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

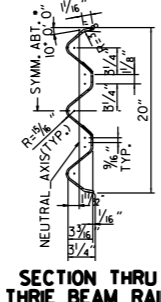
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

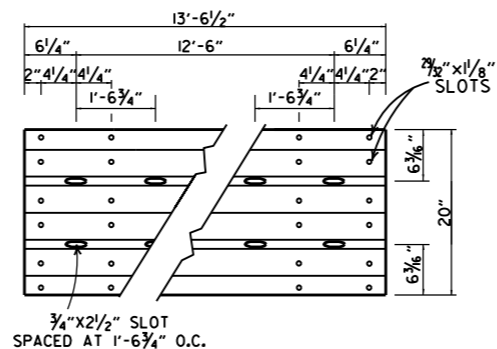
STANDARD DRAWING GR-9



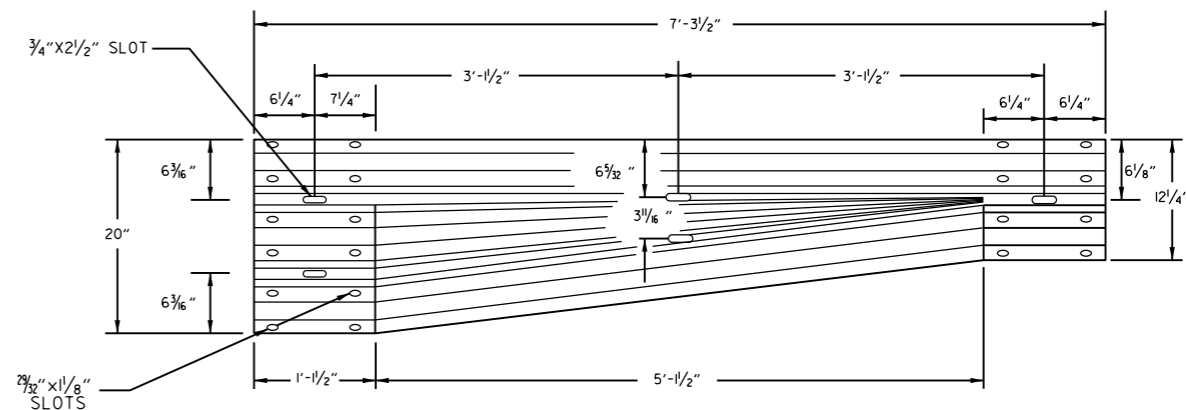
SPECIAL END SHOE



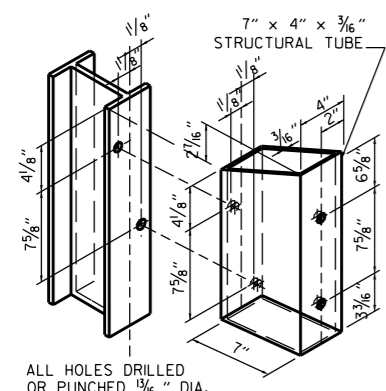
SECTION THRU THRIE BEAM RAIL



THRIE BEAM RAIL

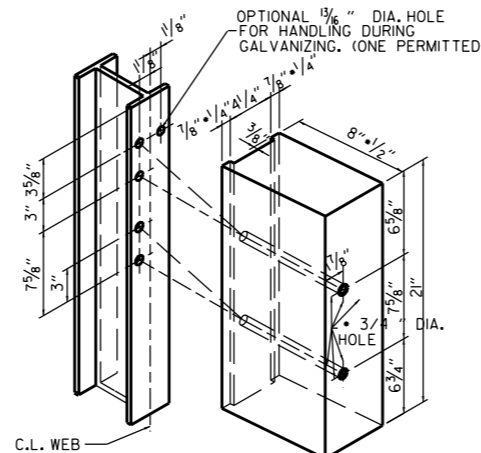


TRANSITION SECTION

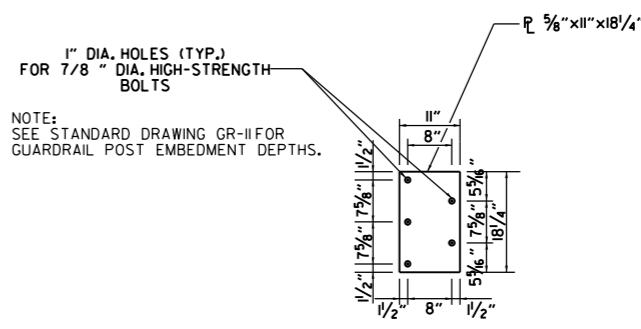


ATTACH BLOCKOUT TO POST USING 3/8" DIA. HEX HEAD BOLTS WITH 1/2" O.D. CUT STEEL WASHERS AND NUT.

STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



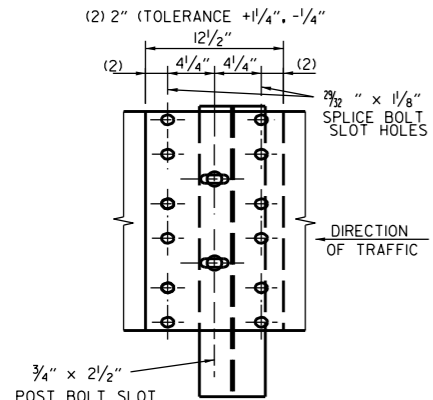
HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS



NOTE: SEE STANDARD DRAWING GR-II FOR GUARDRAIL POST EMBEDMENT DEPTHS.

CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING 3/8" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.

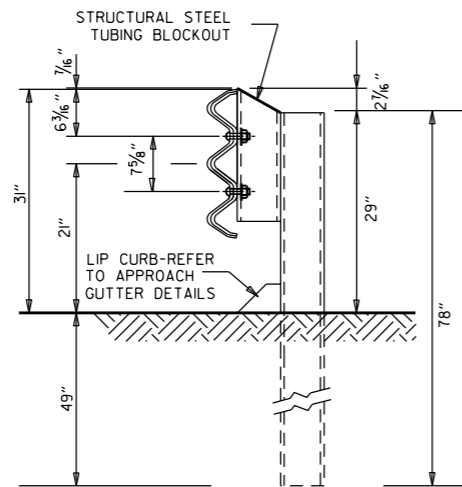


THRIE BEAM RAIL SPLICE AT POST

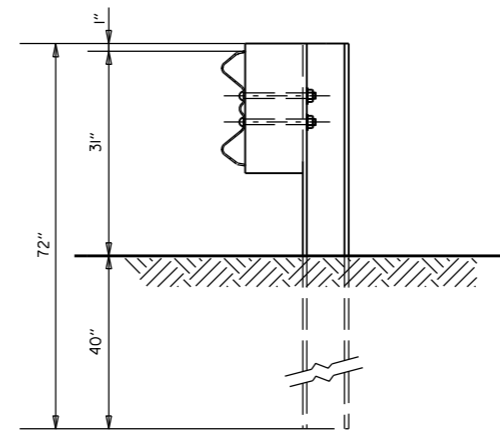
GENERAL NOTES:
 THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.
 RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.
 ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3"4" BEYOND IT.
 ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.
 REFER TO STD. DRWG. GR-II FOR POST DETAILS.
 USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.
 THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.
 WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7F (1400 F) OR NO. 1 1350 F SOUTHERN PINE.

DATE	REVISION	FILMED
03-30-00	DRAWN & ISSUED	
05-18-00	ADDED NOTE	
06-29-00	MOVED DIMENSION LINES	
08-22-02	REVISED NOTE (2)	
04-10-03	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
11-18-04	REVISED GENERAL NOTES	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-29-07	ADDED PLASTIC BLOCKOUTS	
07-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-16-17	REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THRIE BEAM GUARD RAIL CONNECTIONS AT BRIDGE ENDS TO STD. DRWG. GR-12	
11-07-19	RENAMED AND REVISED REFERENCES	

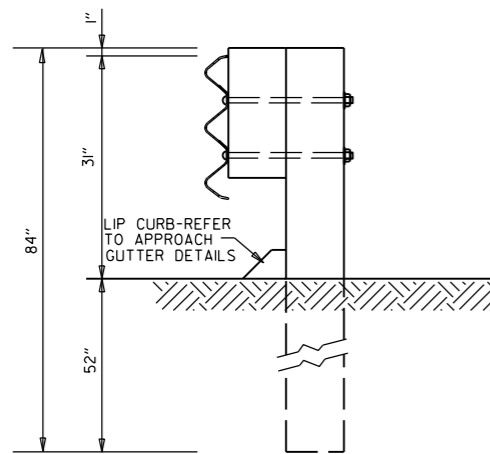
ARKANSAS STATE HIGHWAY COMMISSION
GUARDRAIL DETAILS
 STANDARD DRAWING GR-10



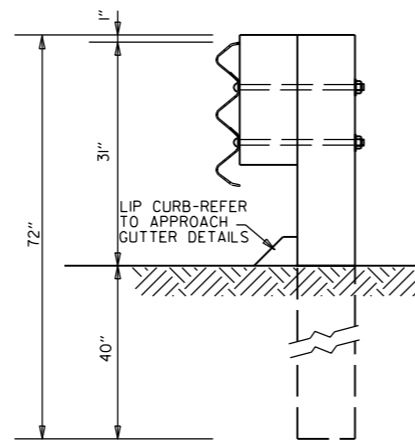
**THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7**



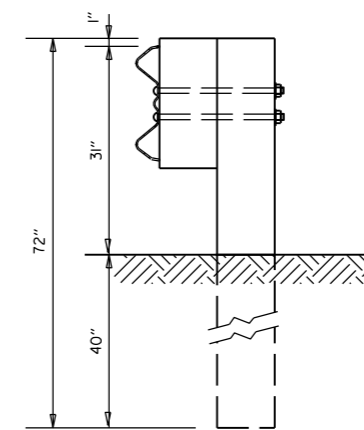
**W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8**



**THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6**



**THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7**

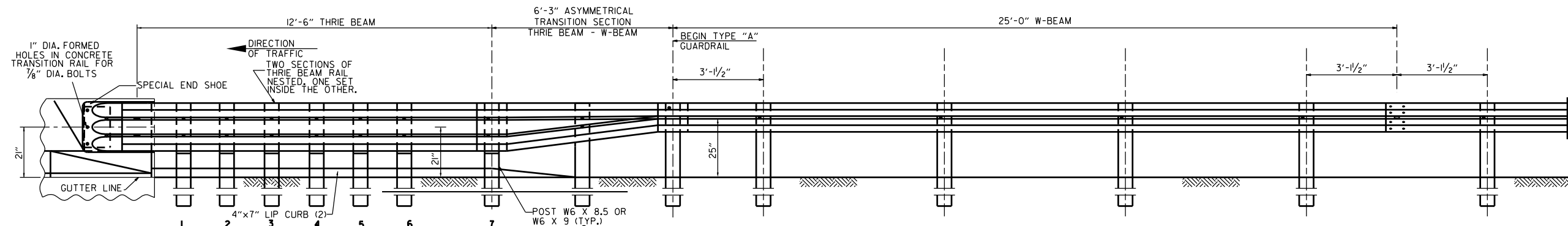


**W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8**

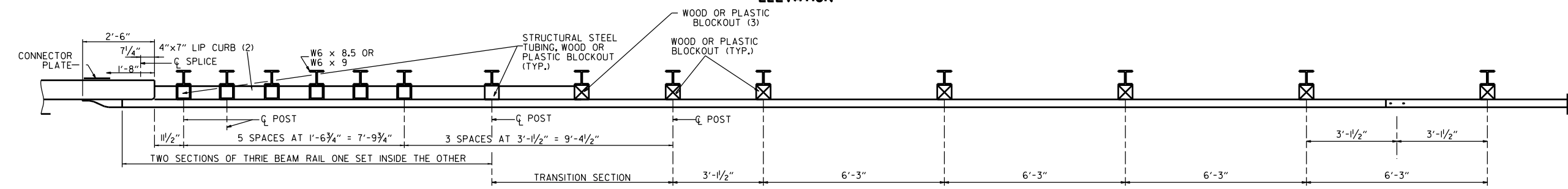
GENERAL NOTES:
RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

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

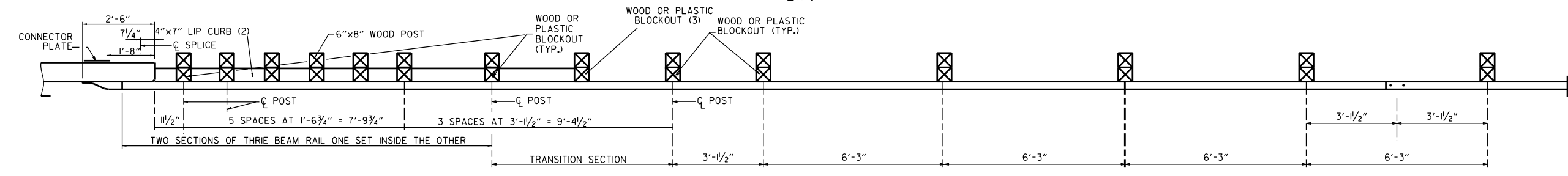
			ARKANSAS STATE HIGHWAY COMMISSION
11-07-19	RENAMED		GUARDRAIL DETAILS
11-16-17	REVISED GUARDRAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-II		
07-14-10	REVISED POST 8 DIMENSIONS		STANDARD DRAWING GR-II
11-29-07	ADDED PLASTIC BLOCKOUTS		
08-22-02	REVISED LIP CURB NOTE		
03-30-00	DRAWN & ISSUED		
DATE	REVISION	FILMED	



ELEVATION



PLAN



PLAN

- (1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
- (2) REFER TO APPROACH GUTTER DETAILS.
- (3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARDRAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-II FOR POST DETAILS.

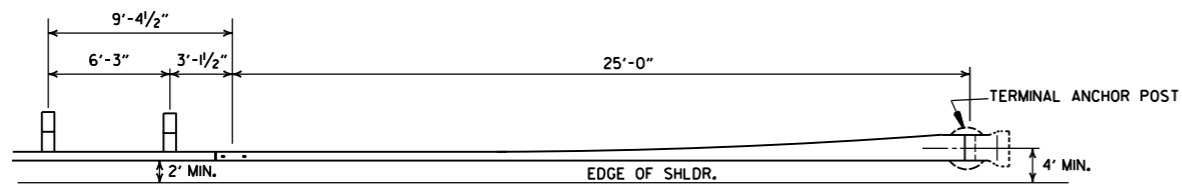
USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

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

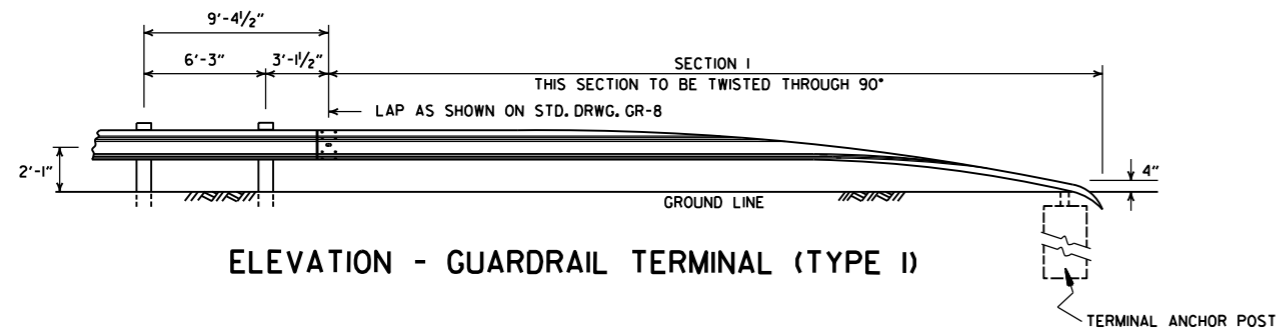
POSTS SHALL NOT BE PLACED AT SPLICE LOCATIONS ALONG W-BEAM RAILS.

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

			ARKANSAS STATE HIGHWAY COMMISSION
			GUARDRAIL DETAILS
			STANDARD DRAWING GR-12
05-14-20	REVISED NOTES		
11-07-19	RENAMED & REVISED REFERENCES		
11-16-17	RE-DRAWN FROM STD. DWG. GR-10 & ISSUED		
DATE	REVISION		FILMED

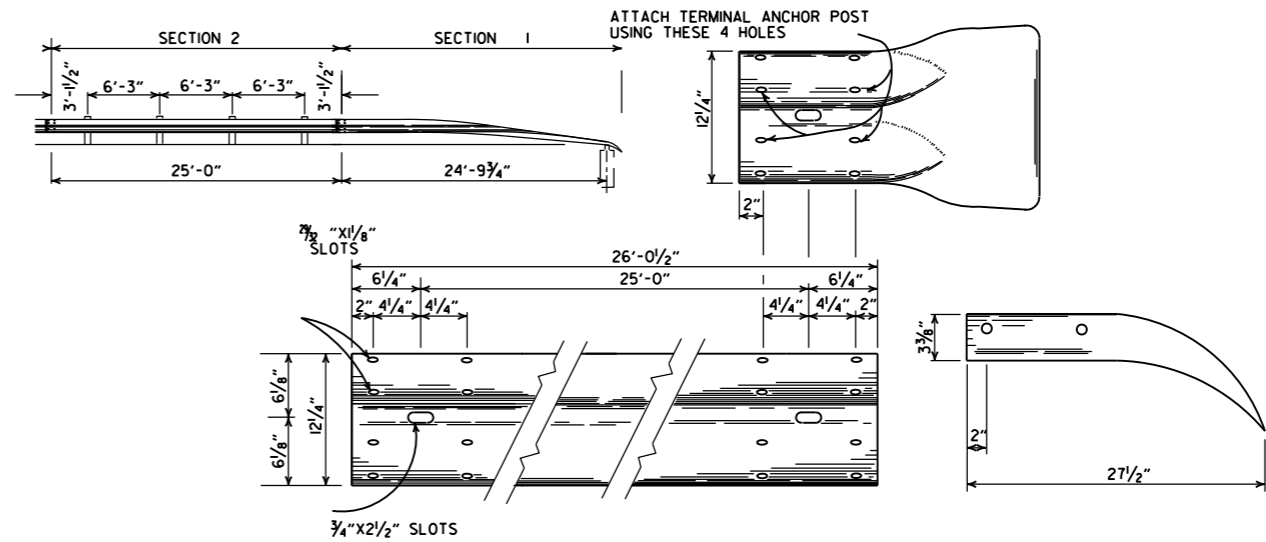


PLAN - GUARDRAIL TERMINAL (TYPE I)



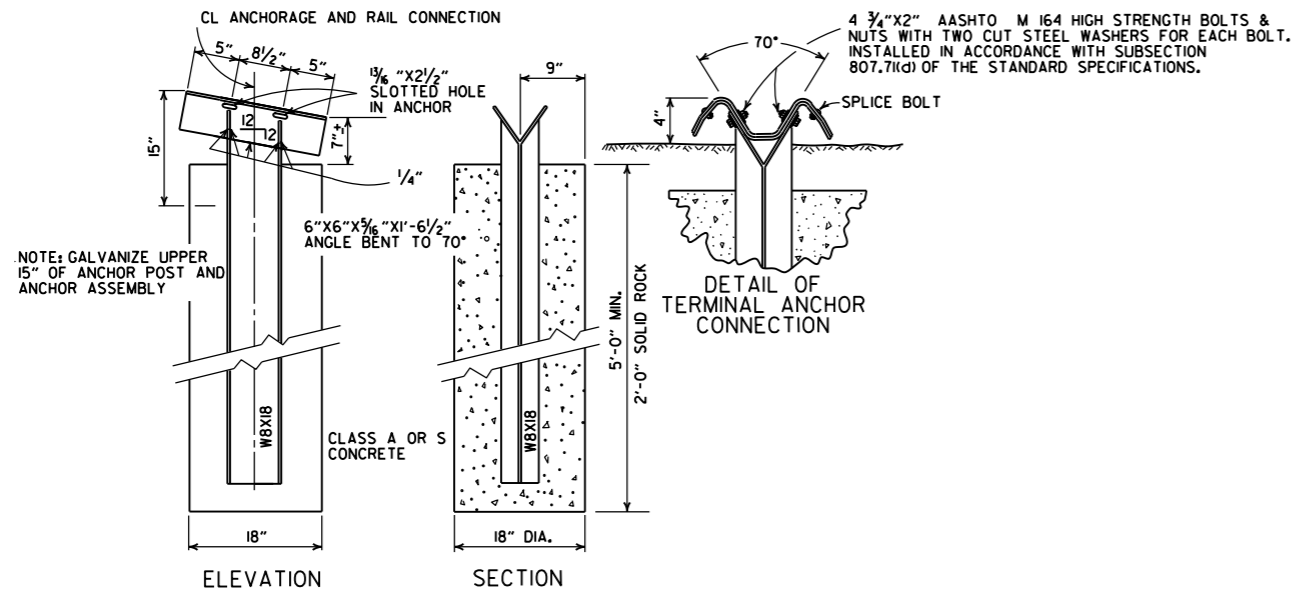
ELEVATION - GUARDRAIL TERMINAL (TYPE I)

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



SECTION 1

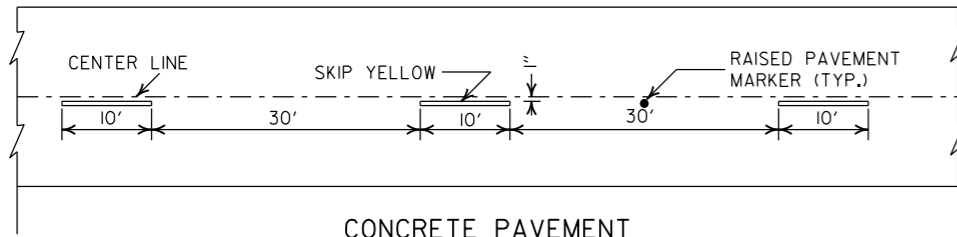
TERMINAL SECTION



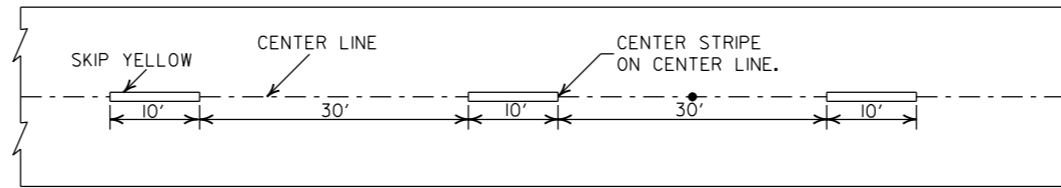
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

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

11-07-19	RENAMED & REVISED REFERENCE.		ARKANSAS STATE HIGHWAY COMMISSION
11-16-17	REVISED GUARDRAIL HEIGHT AND LOCATION OF POSTS		GUARDRAIL DETAILS
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"		
06-26-97	REVISED LAP NOTE		STANDARD DRAWING GRT-1
10-18-96	REVISED ASTM REF. TO AASHTO		
11-03-94	DIMENSION TERMINAL DETAIL		
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92	
10-01-92	DRAWN & ISSUED	10-1-92	
DATE	REVISION	FILMED	

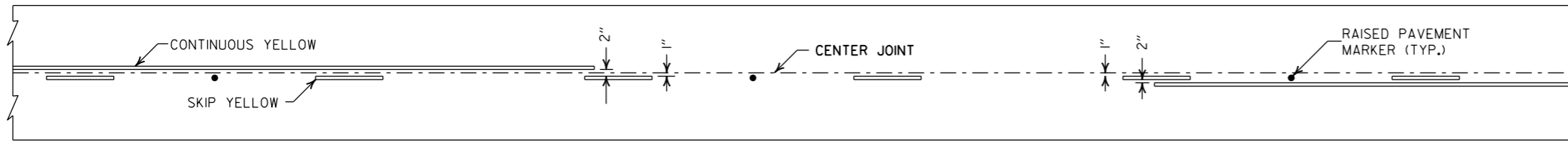


CONCRETE PAVEMENT

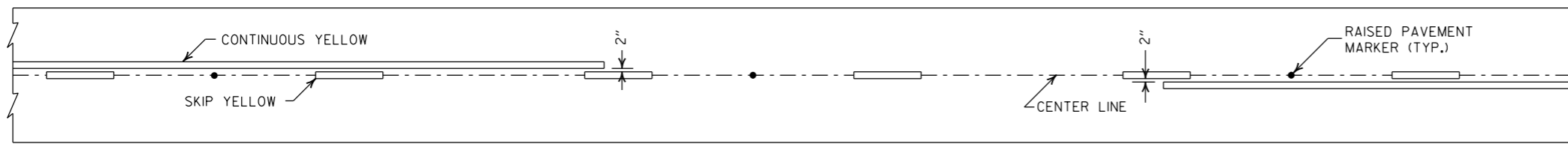


ASPHALT PAVEMENT

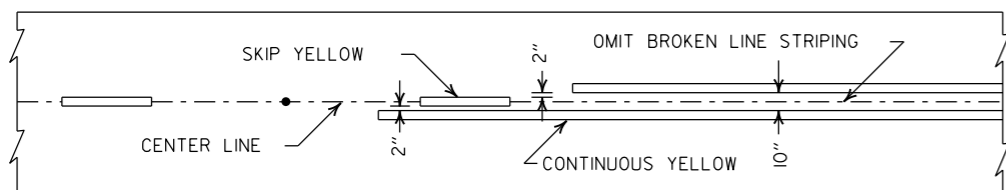
BROKEN LINE STRIPING



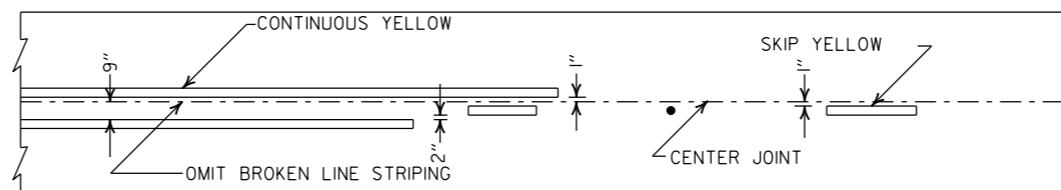
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

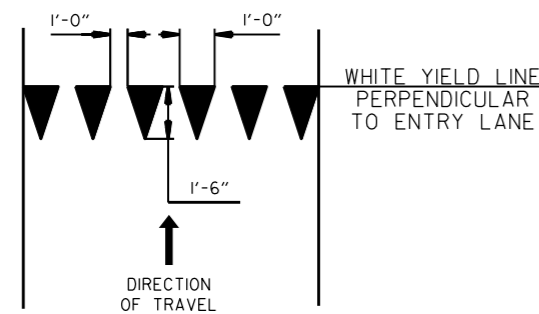


ASPHALT PAVEMENT

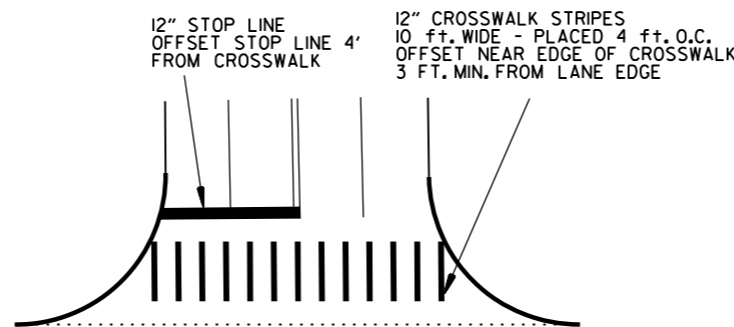


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

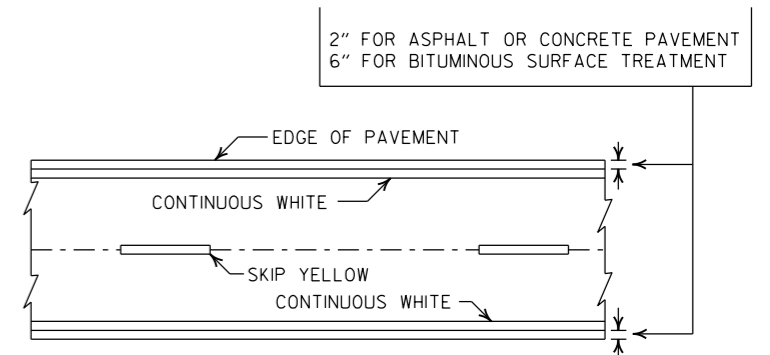


YIELD LINE DETAIL

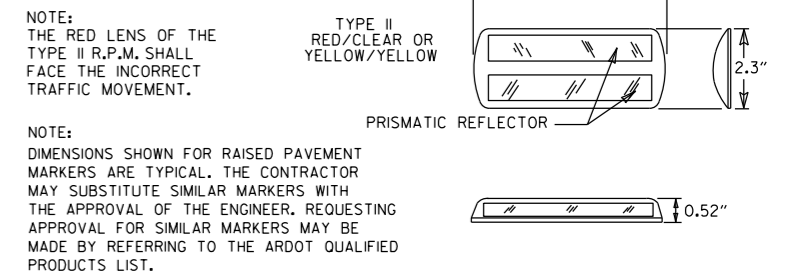


CROSSWALK AND STOP LINE DETAILS

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



PAVEMENT EDGE LINE MARKING



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

DATE	REVISION	FILMED
2-27-20	REVISED STOP LINE DETAILS	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTL.	
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

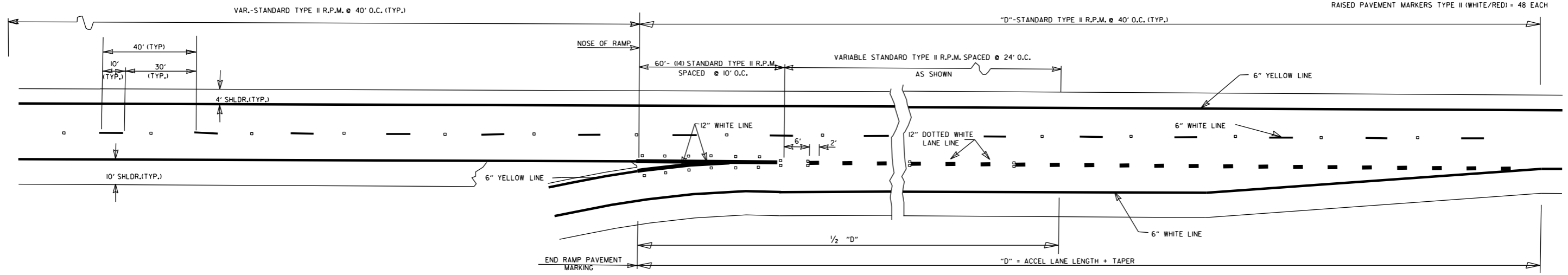
ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

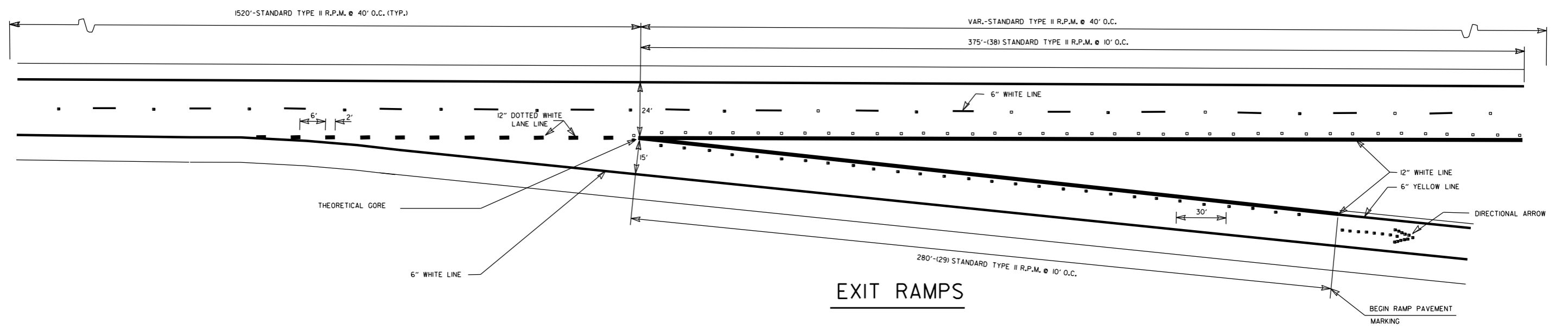
STANDARD DRAWING PM-1

ENTRANCE RAMP
12" WHITE = 370 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP
6" WHITE = 280 LIN. FT.
12" WHITE = 815 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH



ENTRANCE RAMPS

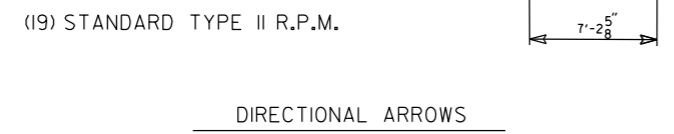
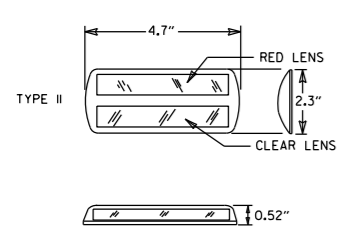


EXIT RAMPS

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

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

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



DATE	REVISION	FILMED
05-14-20	REMOVED CROSSHATCH MARKINGS ON EXIT RAMPS	
11-07-19	REVISED DOTTED PAV'T MARKINGS; ADDED CROSSHATCH MARKINGS ON EXIT RAMPS	
12-8-16	REVISED RAISED PAV'T MARKERS FOR 80' SPACING; REVISED WIDTH OF STRIPING	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95
		FILMED

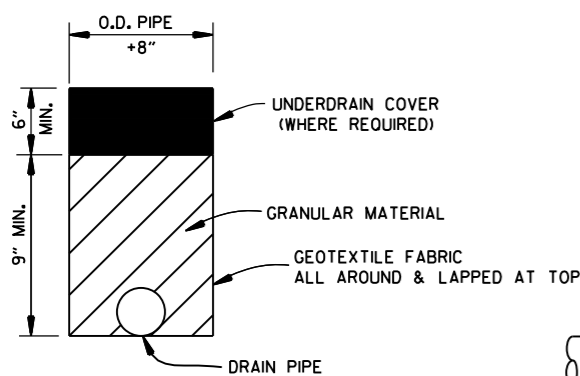
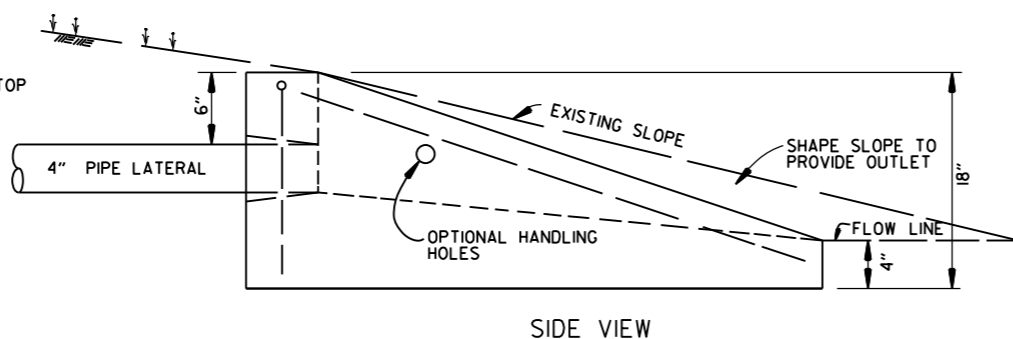
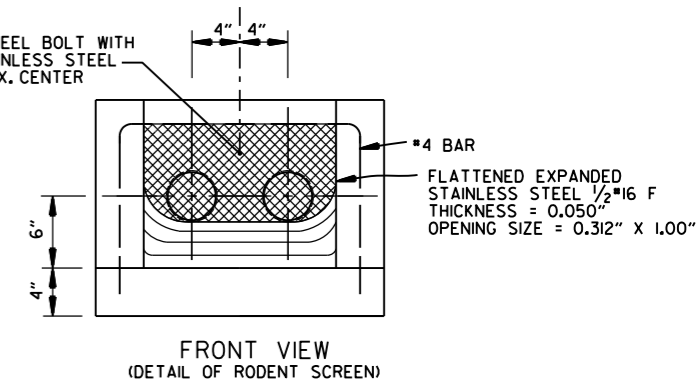
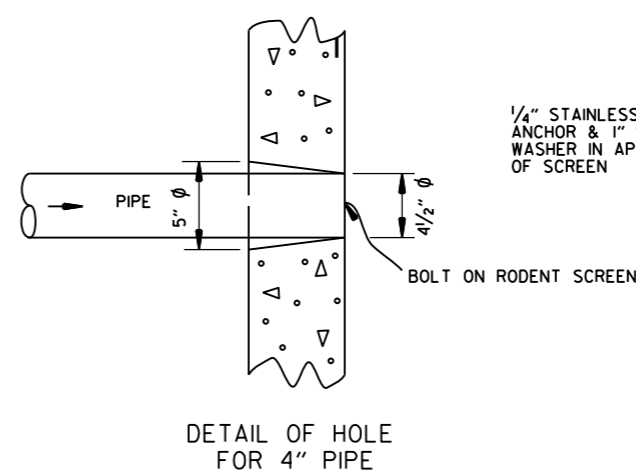
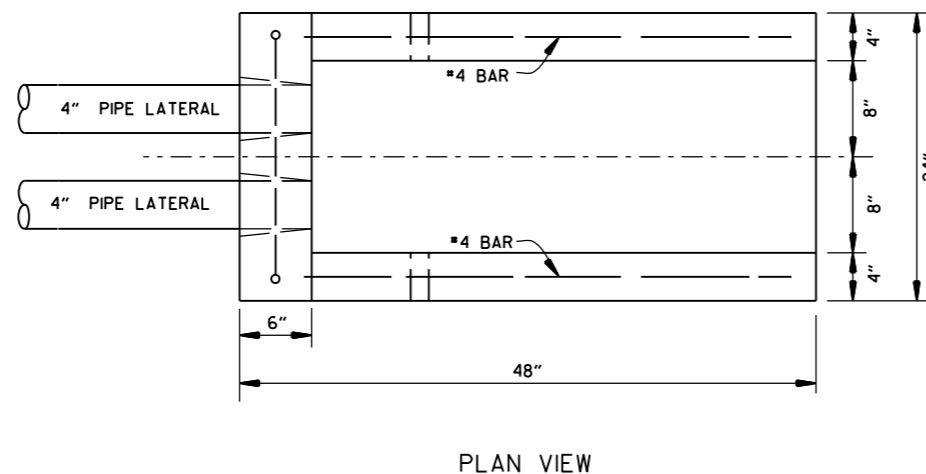
ARKANSAS STATE HIGHWAY COMMISSION

**PAVEMENT MARKING DETAILS
ON
ACCESS CONTROLLED ROADWAYS**

STANDARD DRAWING PM-2

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

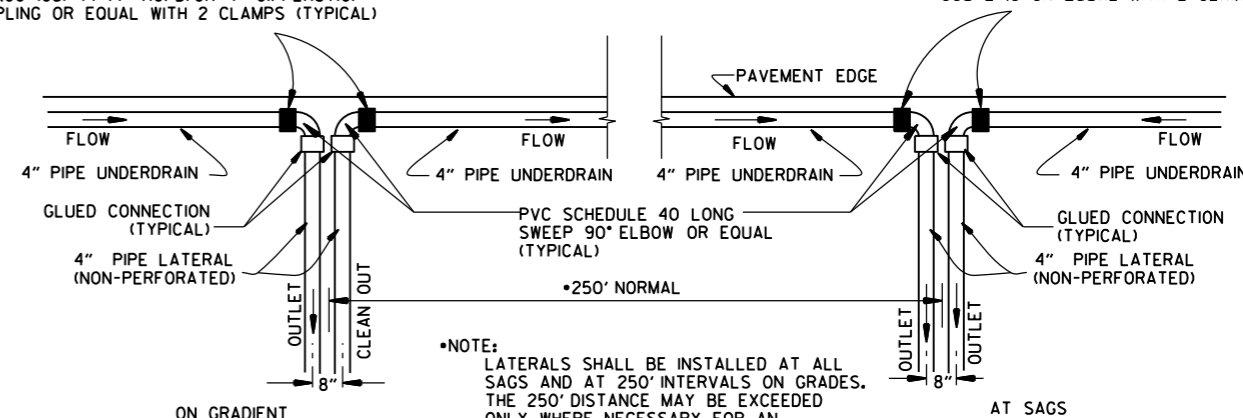
NOTE:
 1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.
 2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC, LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DI OR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)

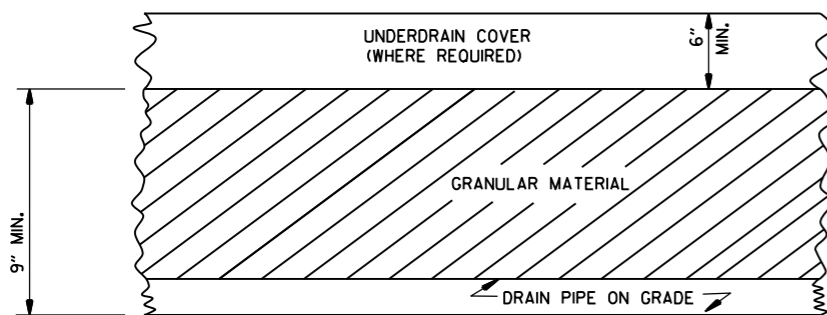
UNDERDRAIN OUTLET PROTECTORS

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DI OR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)



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

DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE
 NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.



DETAILS OF PIPE UNDERDRAIN

NOTES FOR PIPE UNDERDRAINS


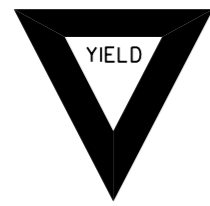







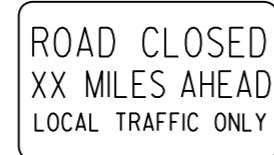
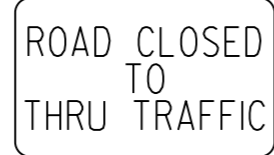

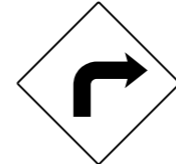

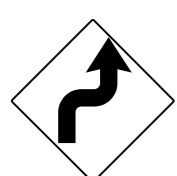

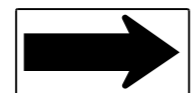

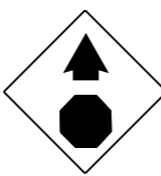

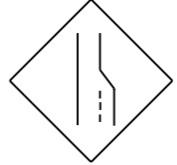

















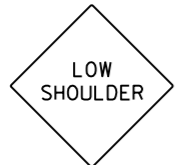
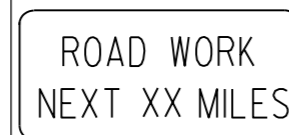
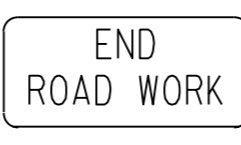
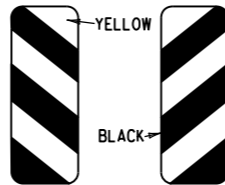


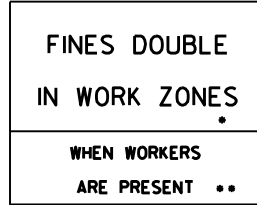
- GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
- 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
- EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."
- THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
- PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."
- ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."
- AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE: 5 1/2" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11-3-94	REVISED FOR DUAL LATERALS	11-3-94
10-1-92	SUBSTITUTED GEOTEXTILE	10-1-92
8-15-91	ADDED POLYETHYLENE PIPE	8-15-91
11-8-90	DELETED ALTERNATE NOTE	11-8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

<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>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</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>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>W21-5a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>WI-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>WI-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>WI-3</p>  <p>STD. 48"x48"</p>	<p>WI-4</p>  <p>STD. 48"x48"</p>	<p>WI-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>WI-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>18" 500 FEET 24" W16-2</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>WI-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>

ADVANCE DISTANCES
(XXXX)

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

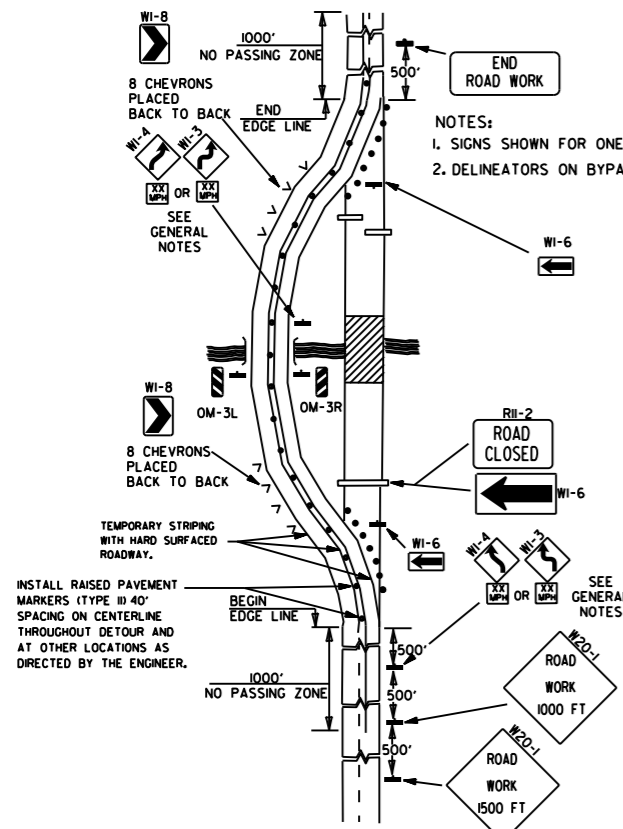
GENERAL NOTES:

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

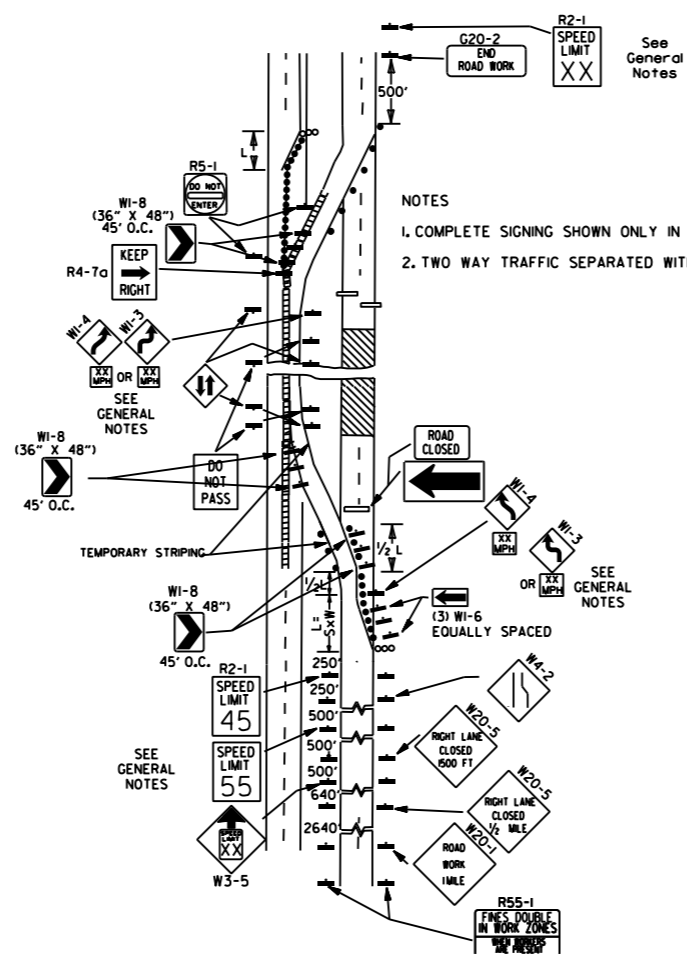
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED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

DATE	REVISION	FILMED
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

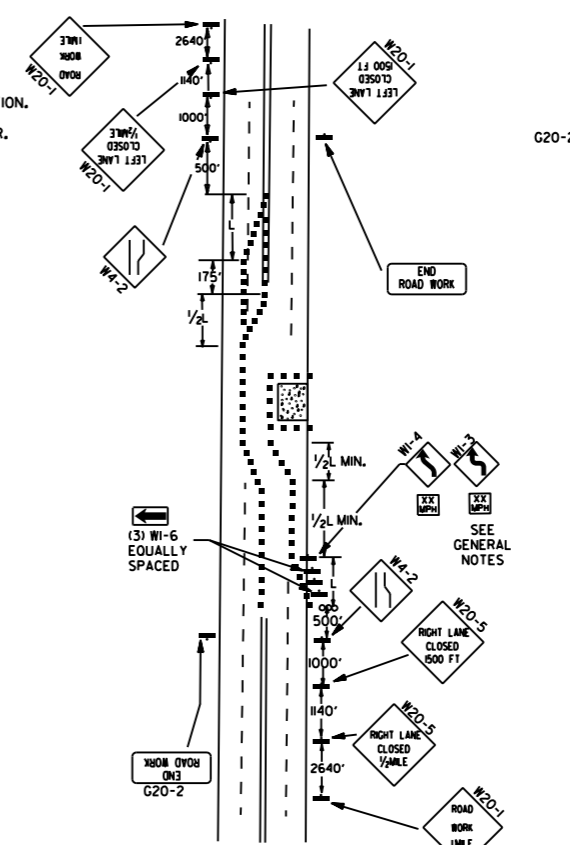
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



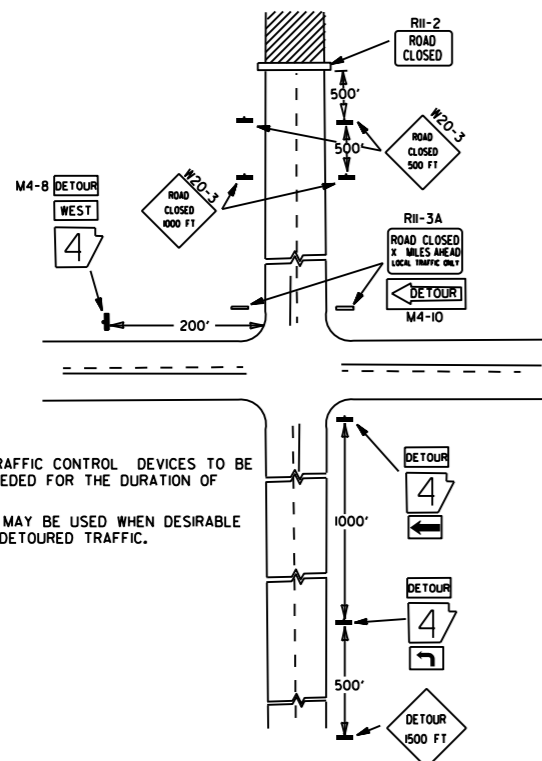
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



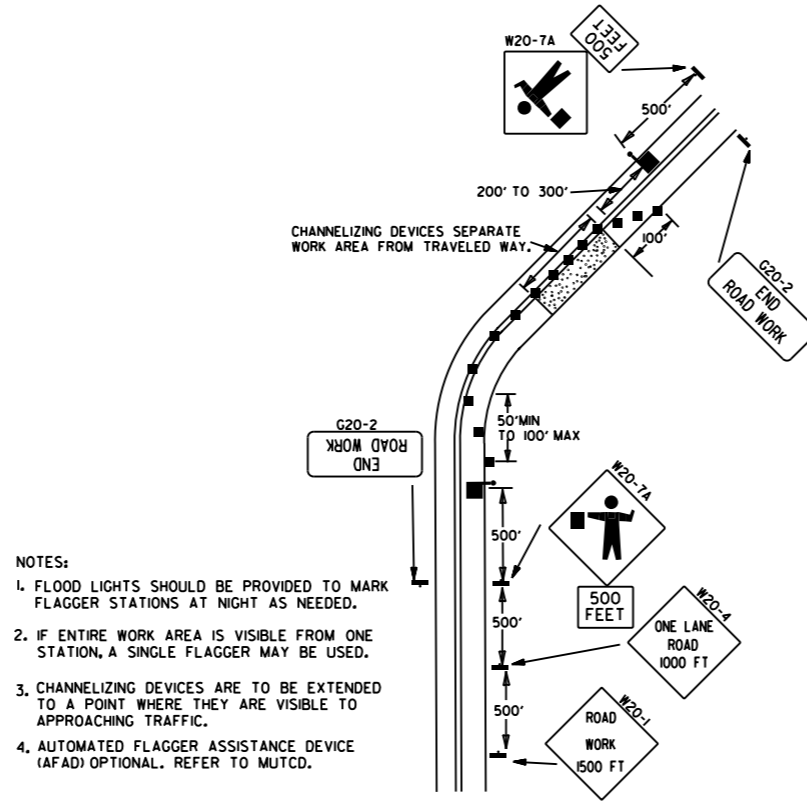
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



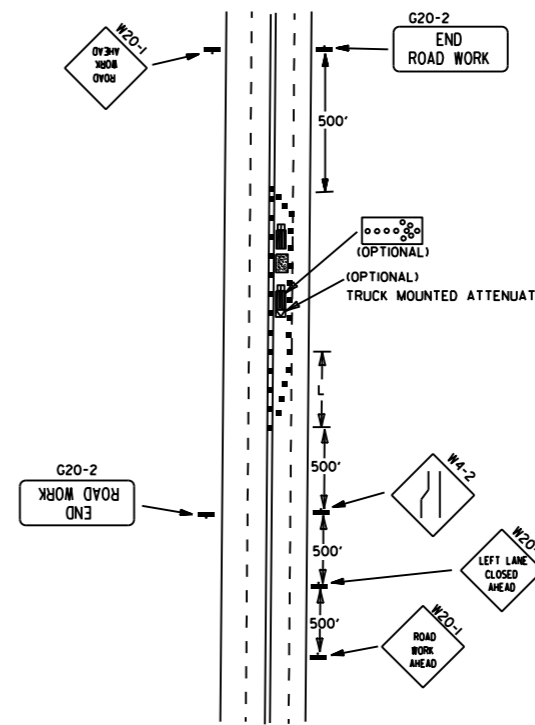
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



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

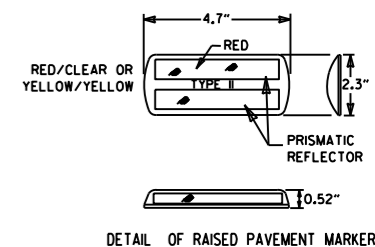


(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



(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



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

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

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

WHERE:

L = MINIMUM LENGTH OF TAPER.

S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

W = WIDTH OF OFFSET.

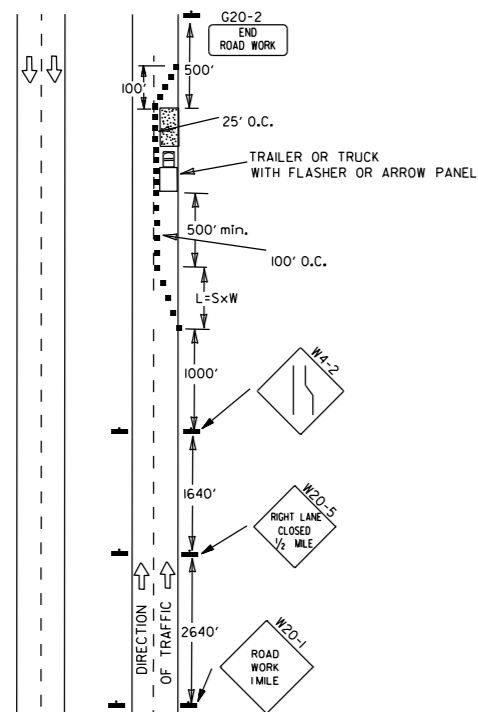
GENERAL NOTES:

1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45)MPH 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(65) SHALL BE OMITTED. ADDITIONAL R2-1(55)MPH 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. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.
9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

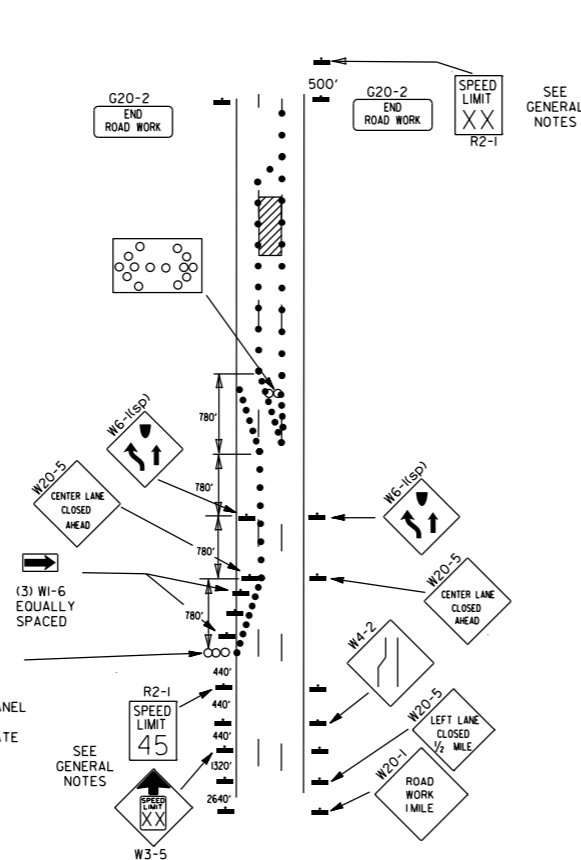
DATE	REVISION	FILED
05-20-21	REVISED NOTE 7	
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2



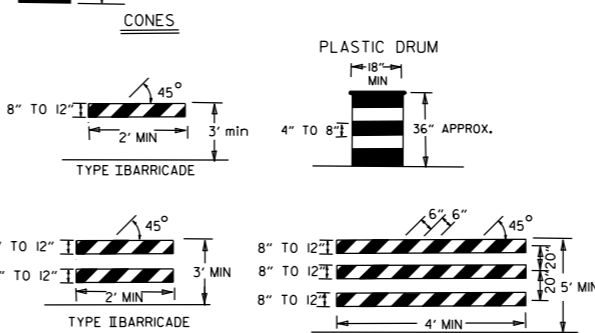
(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



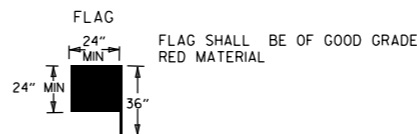
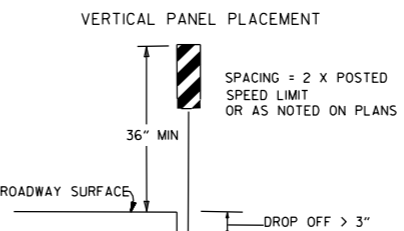
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

CHANNELIZING DEVICES

WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.



NOTE: FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.

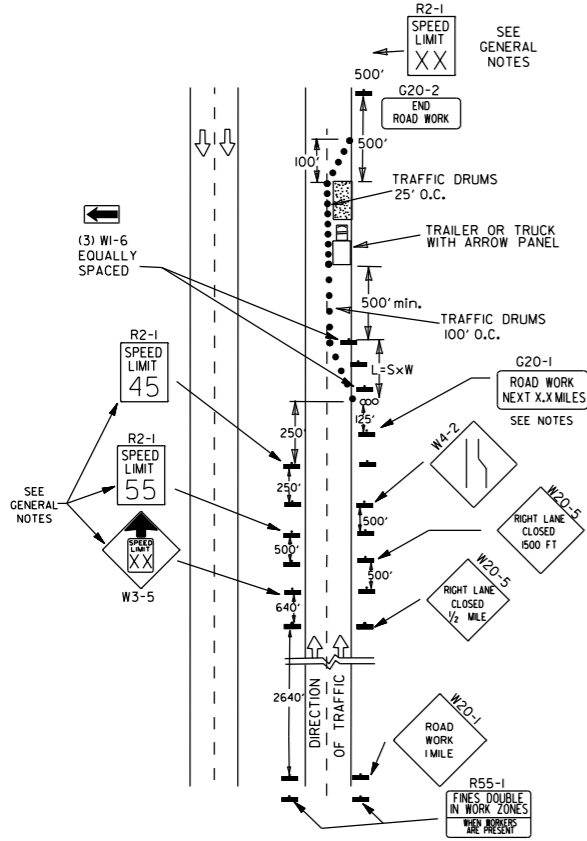


KEY:

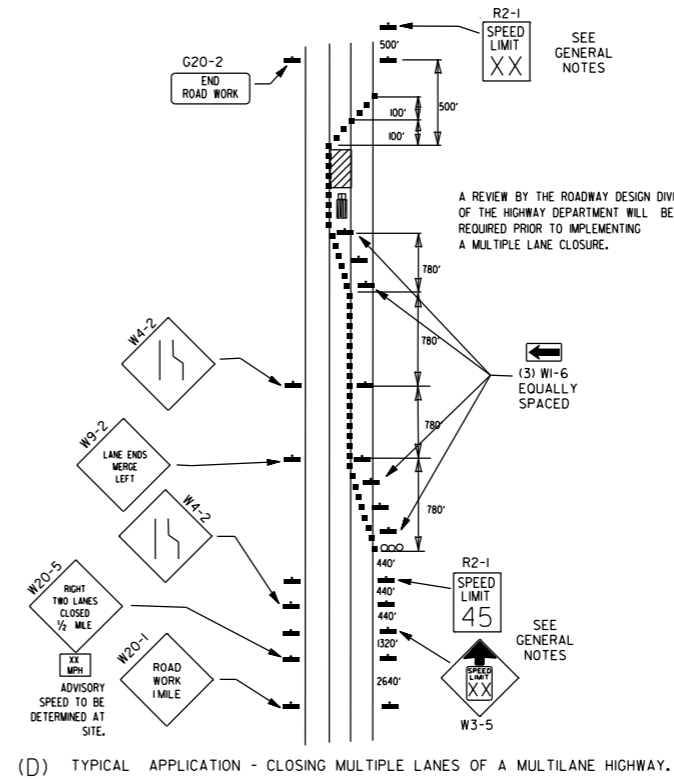
- ○ ○ ARROW PANEL (IF REQUIRED)
- CHANNELIZING DEVICE
- TRAFFIC DRUM

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-(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(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-(65) SHALL BE OMITTED. ADDITIONAL R2-1(55)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(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 SHOULD 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(1/2 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 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. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



(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.

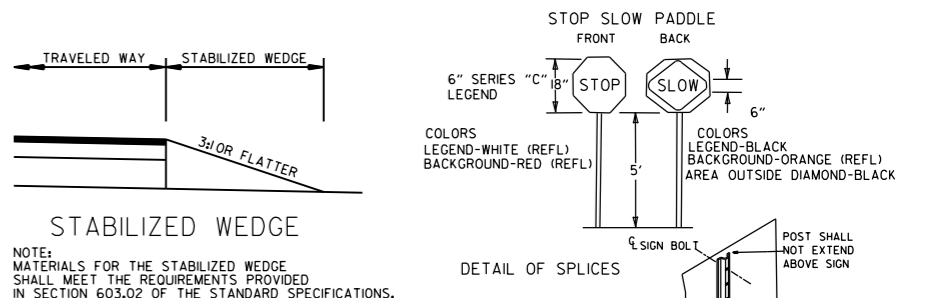
TRAFFIC CONTROL DEVICES

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING	W8-11 AND LANE STRIPING
> 2"	CENTERLINE	STANDARD LANE CLOSURE	STANDARD LANE CLOSURE
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS
≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING AND TRAFFIC DRUMS ⁽³⁾
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES

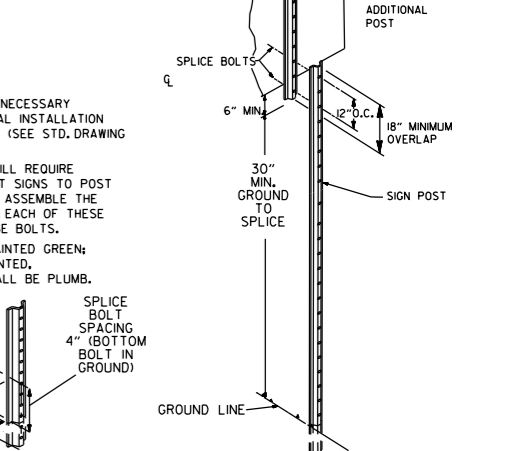
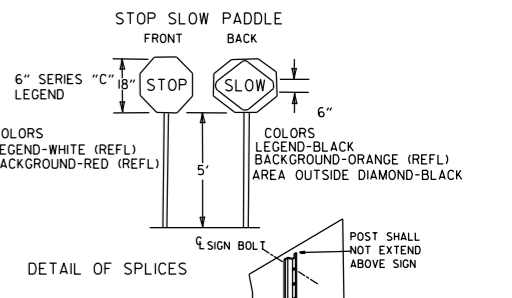
INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

- GENERAL NOTES:
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
 2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS.
 3. IF AND WHERE DIRECTED BY THE ENGINEER, A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL.
 4. IF AND WHERE DIRECTED BY THE ENGINEER, W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.

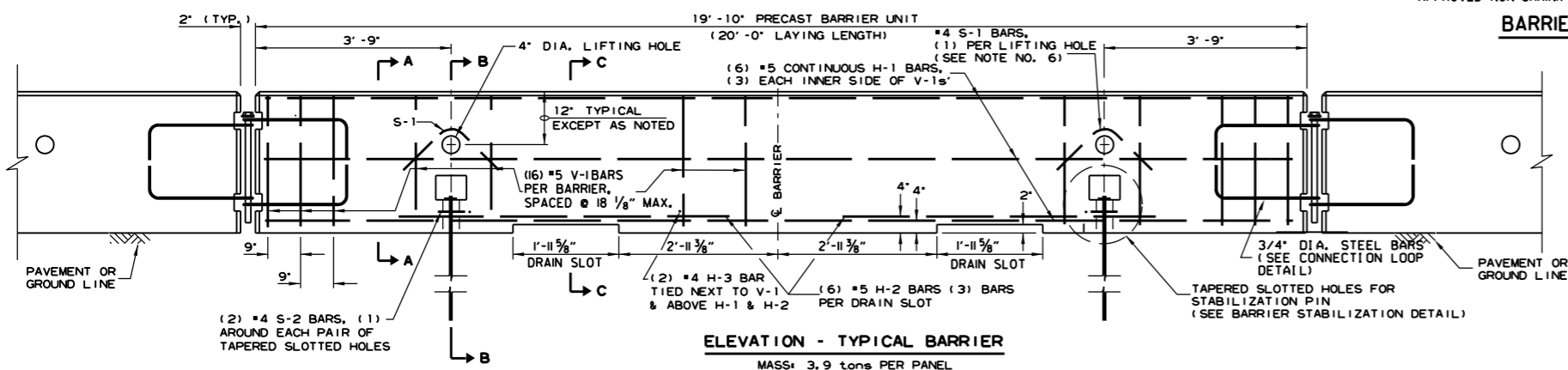
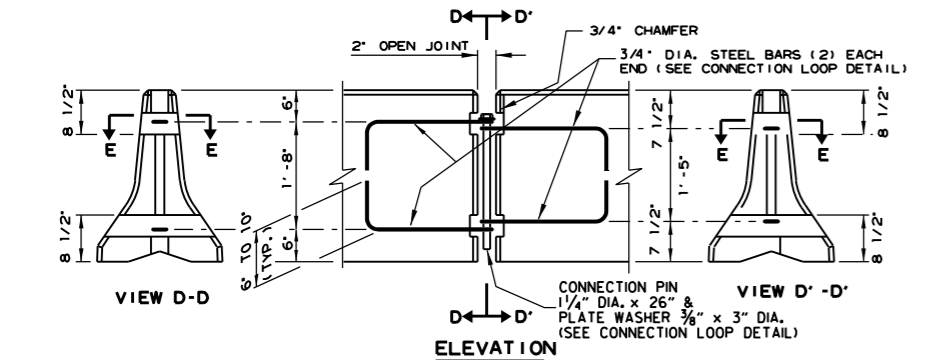
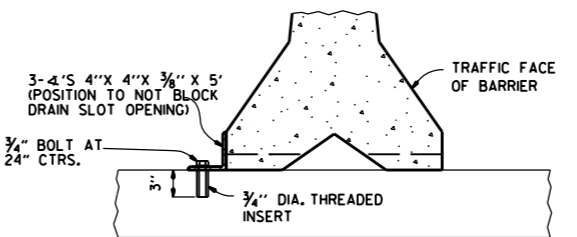
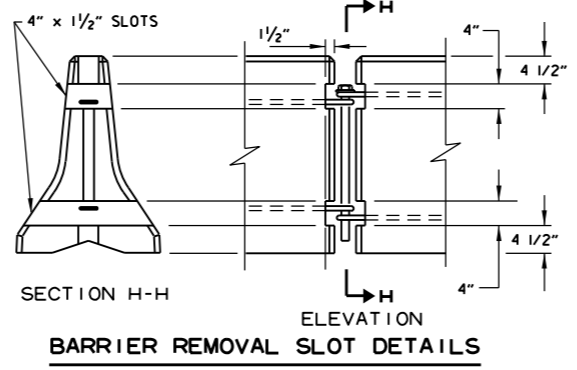
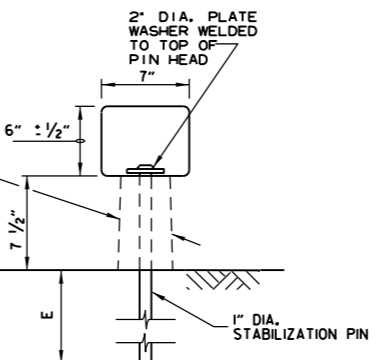
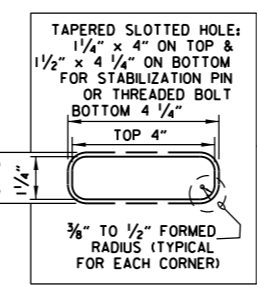
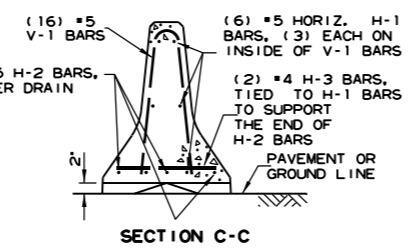
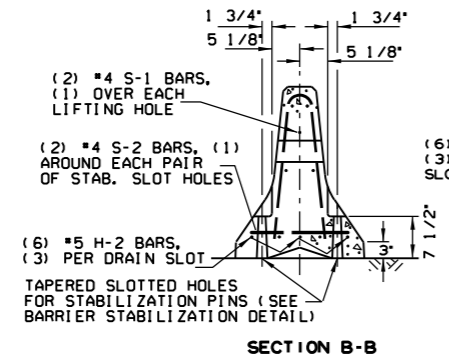
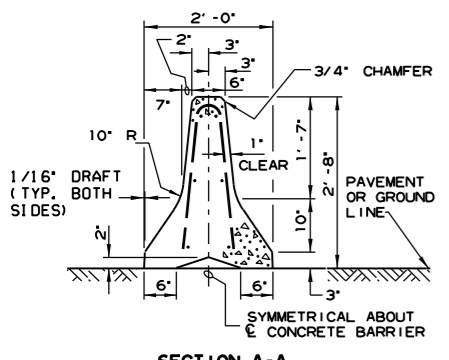
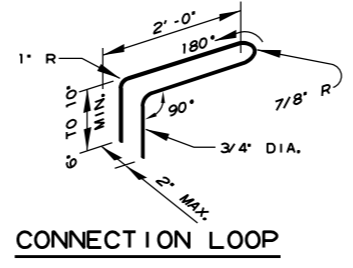
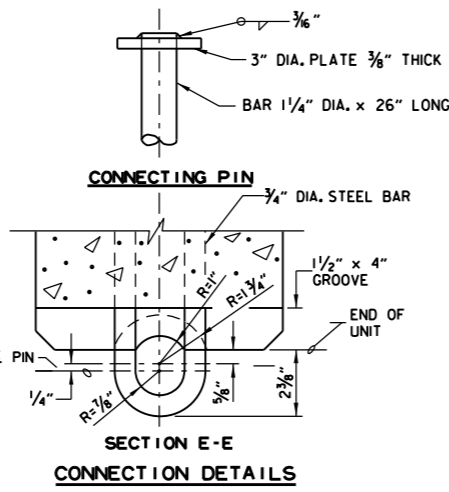


NOTE: MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.



DATE	REVISION	FILED
05-20-21	REVISED NOTE 10	
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE II	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
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	

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



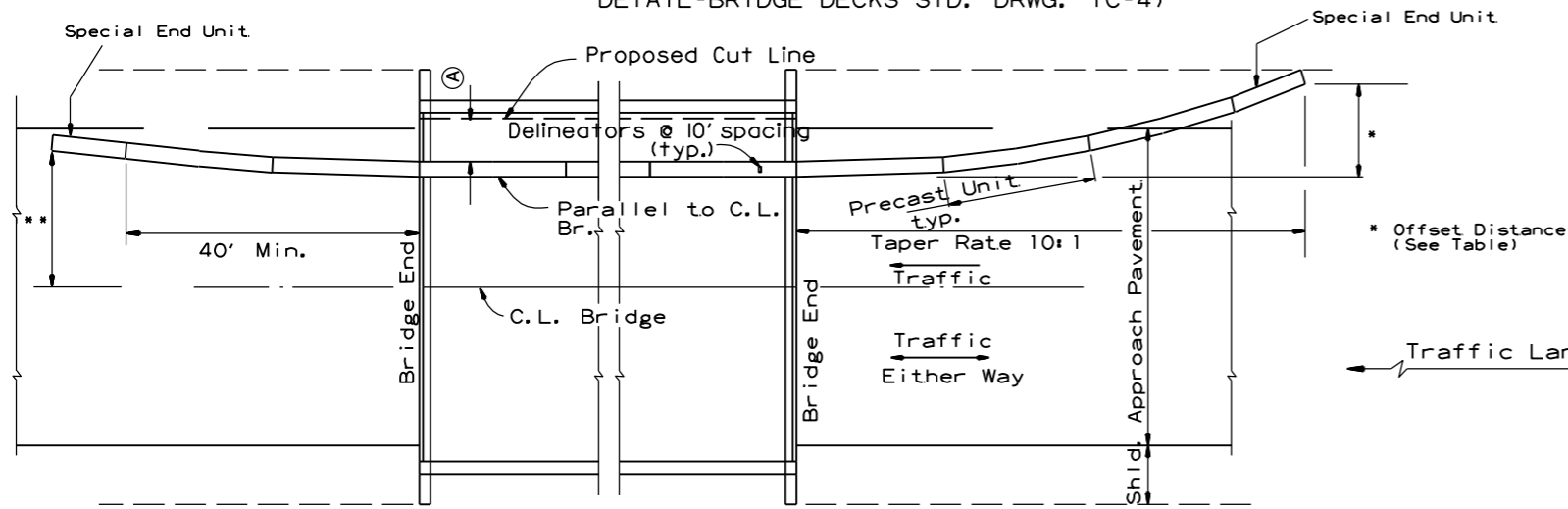
- GENERAL NOTES**
- THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
 - MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS. DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.
 - OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.
 - DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.
 - ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.
 - A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER
STANDARD DRAWING TC-4

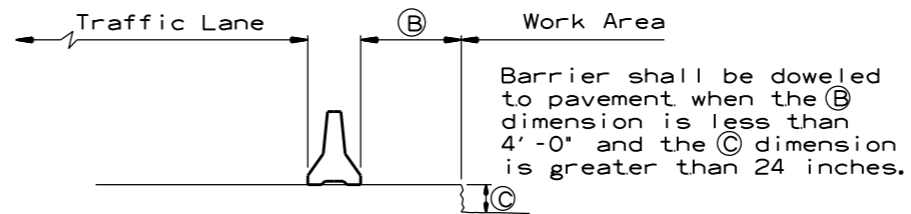
(A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

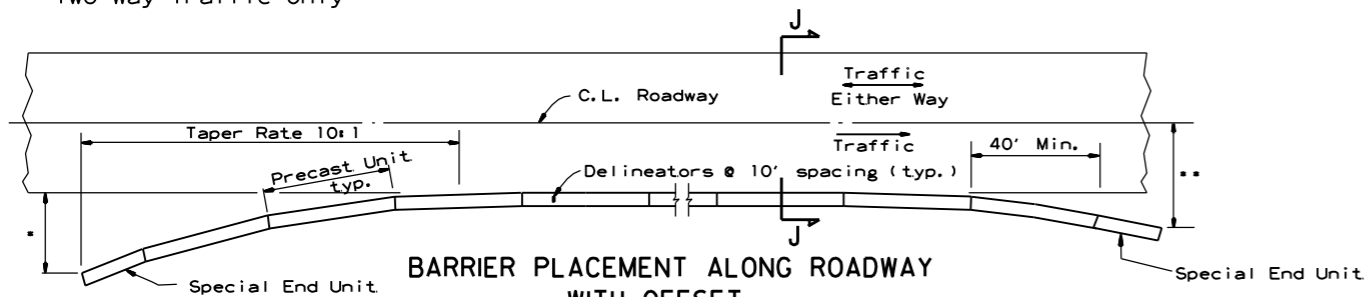
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

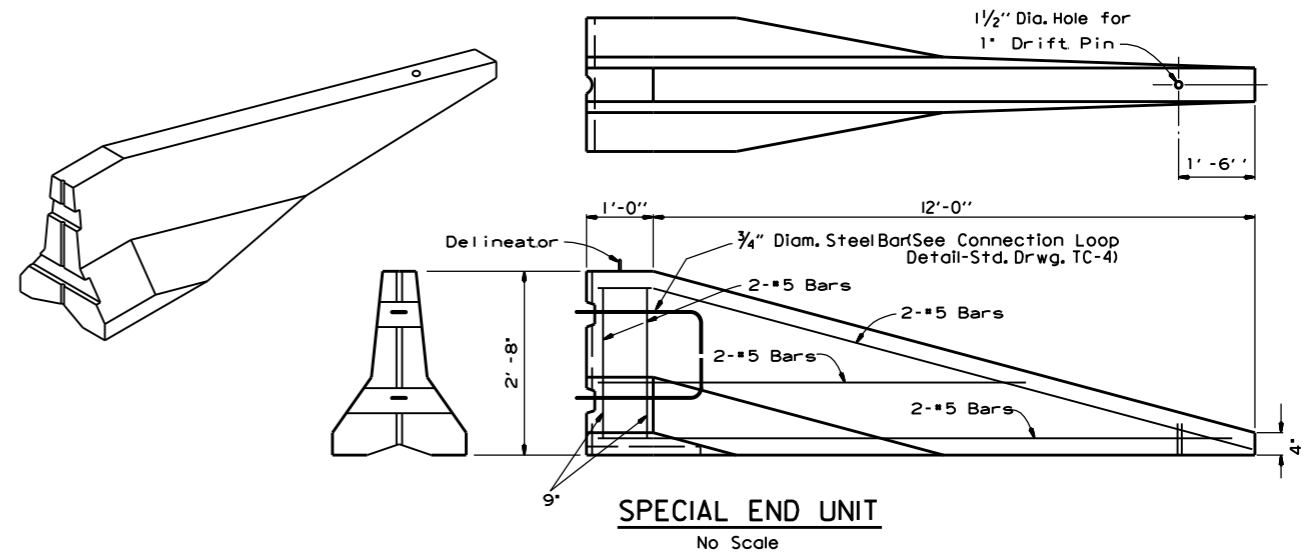
No Scale

* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see 'Barrier Placement With Attenuator' Detail shown below.

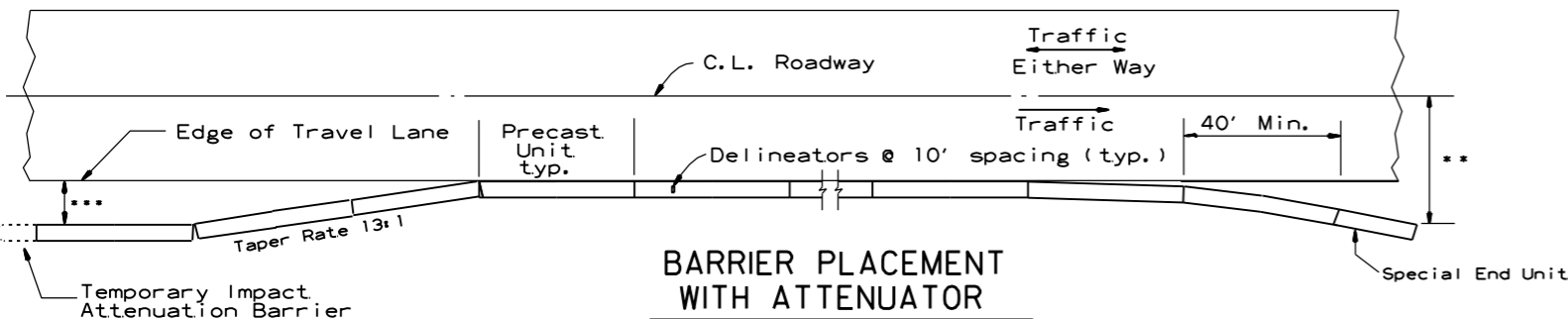


SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."



BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

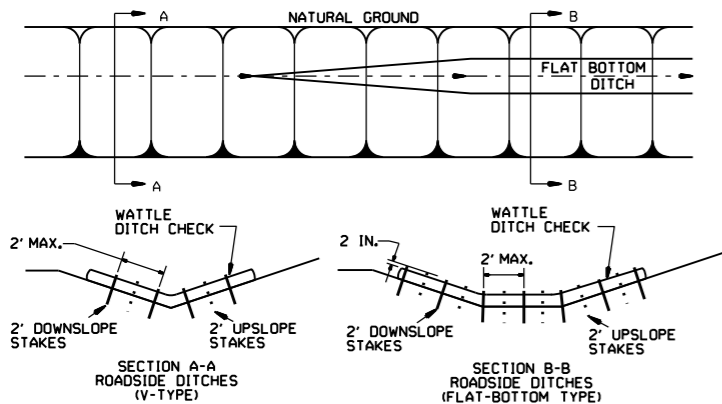
ARKANSAS STATE HIGHWAY COMMISSION

**STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER**

STANDARD DRAWING TC-5

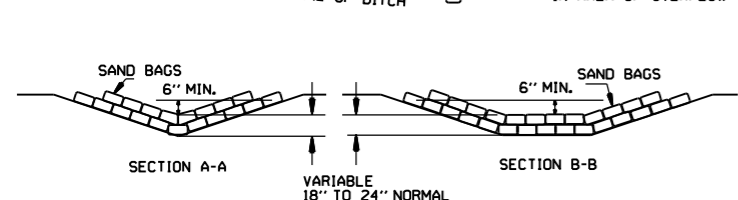
GENERAL NOTES

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

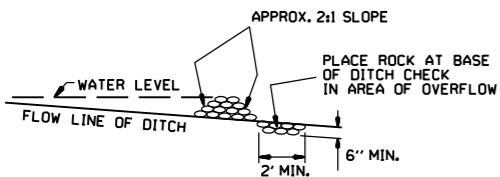


WATTLE DITCH CHECK (E-1)

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS. PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW.

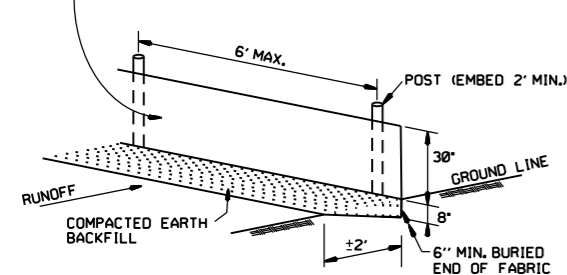


SAND BAG DITCH CHECK (E-5)

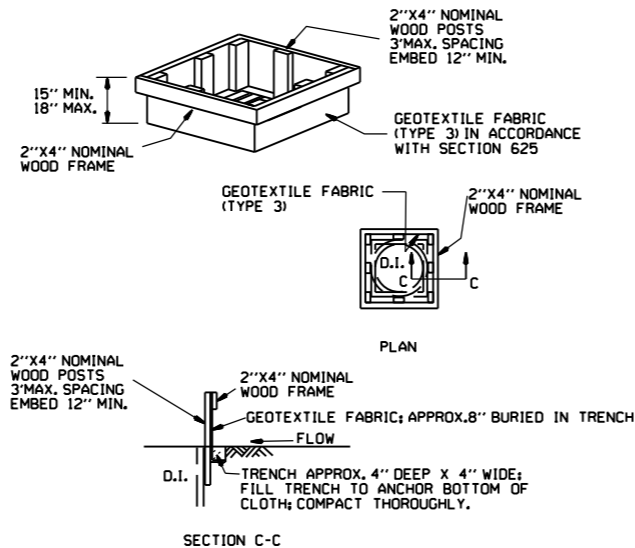


ROCK DITCH CHECK (E-6)

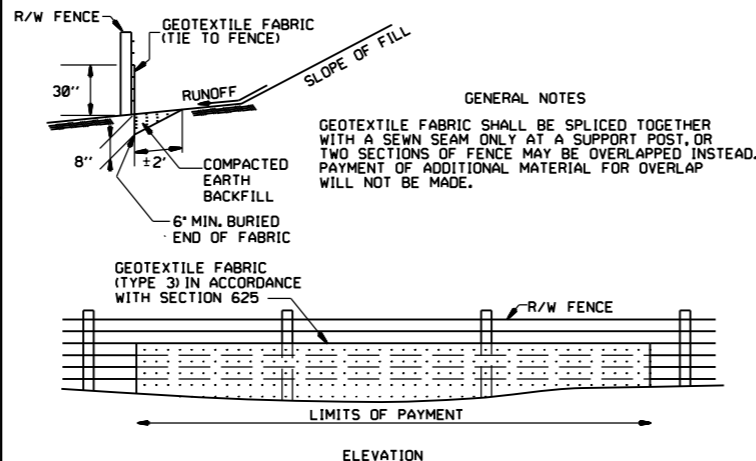
GENERAL NOTES
 GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625
 GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)

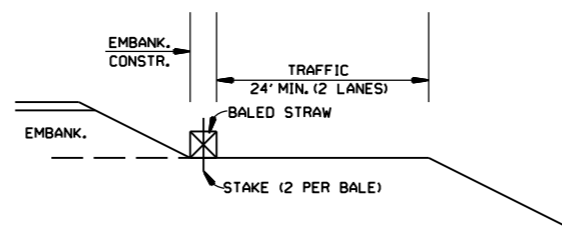


DROP INLET SILT FENCE (E-7)

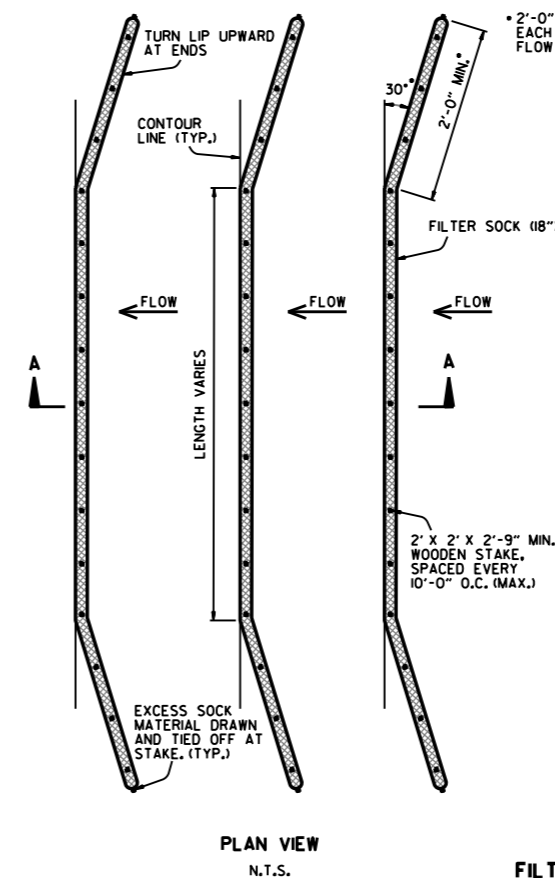


SILT FENCE ON R/W FENCE (E-4)

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.

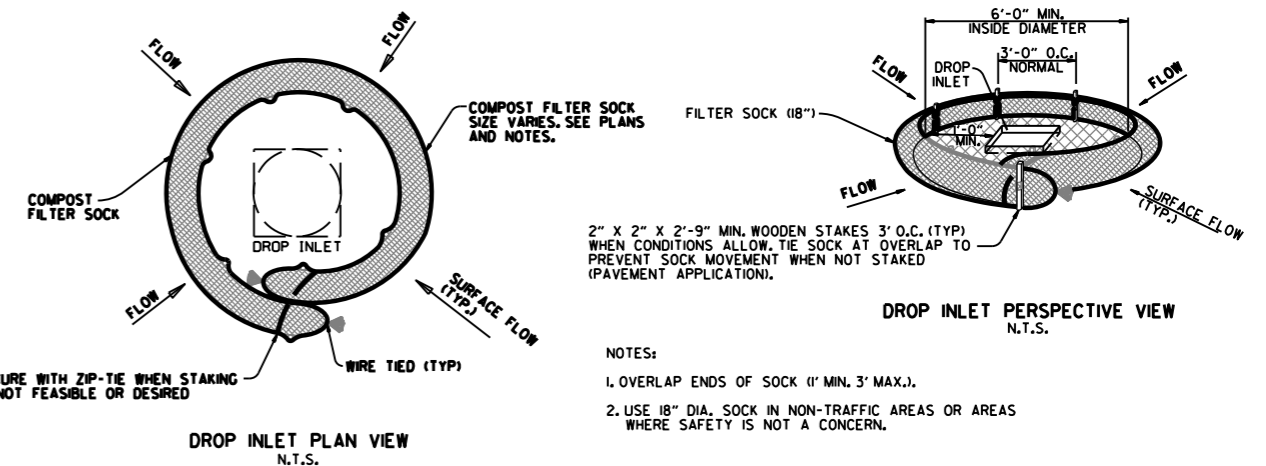


BALED STRAW FILTER BARRIER (E-2)



FILTER SOCK ALONG SLOPE (E-3)

NOTES:
 1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.
 2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.
 3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBSIDIARY TO "FILTER SOCK (18")."
 4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.
 5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

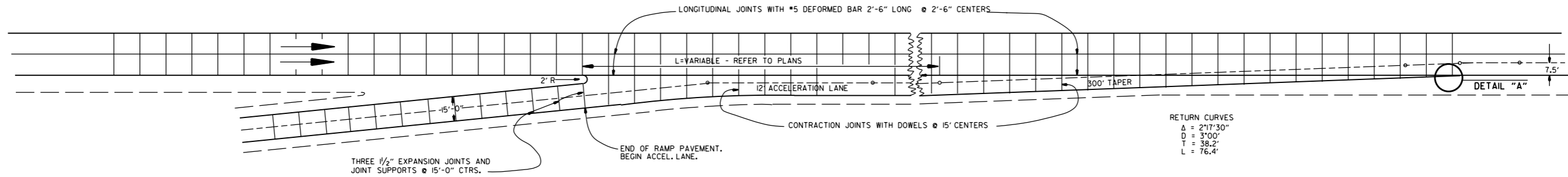


COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

NOTES:
 1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).
 2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

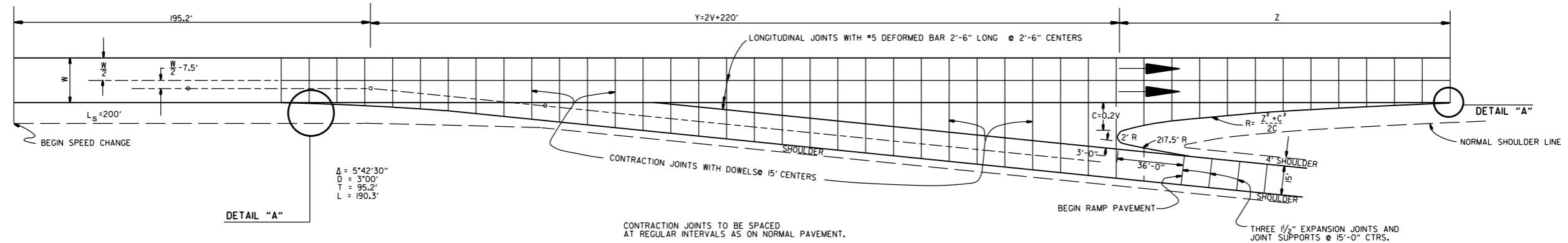
DATE	REVISION
11-16-17	ADDED FILTER SOCK E-3 AND E-13
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK
11-18-98	ADDED NOTES
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)
07-20-95	REVISED SILT FENCE E-4 AND E-11
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC
06-02-94	REVISED E-1, 4, 7 & 11; DELETED E-2 & 3
04-01-93	REDRAWN
10-01-92	REDRAWN
08-02-76	ISSUED R.D.M.

ARKANSAS STATE HIGHWAY COMMISSION
 TEMPORARY EROSION CONTROL DEVICES
 STANDARD DRAWING TEC-1



ENTRANCE RAMP

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

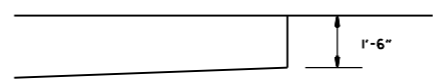


EXIT RAMP

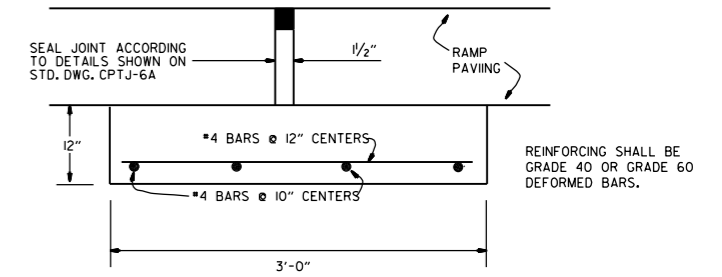
CONTRACTION JOINTS TO BE SPACED AT REGULAR INTERVALS AS ON NORMAL PAVEMENT.

EXIT RAMP

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



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

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

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

ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF STANDARD TURNOUT
FOR
ENTRANCE & EXIT RAMPS (NON-REINFORCED)
STANDARD DRAWING TR-1A