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WORKSPACE: ARDOT_191752_012442_Hydrodemolition Bridge Preservation (2023)\S\Design\CIVIL\Drawings\012442_04_BRIDGE_DATA.dgn
Y:\Projects\ARDOT_191752_012442_Hydrodemolition Bridge Preservation (2023)\S\Design\CIVIL\Drawings\012442_04_BRIDGE_DATA.dgn
REVISED DATE: **REDATE**

LEGEND



- HYDRODEMOLITION

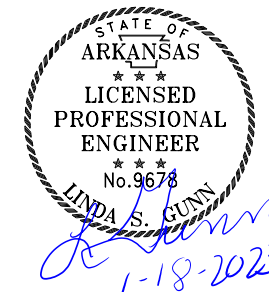
BRIDGE DATA

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	2	41
BRIDGE DATA						



1 HWY. 77, SEC. 05 LOG MILE 1.919 BR. END OVER BIG CREEK 211'-6" BRIDGE NO. 02003 27'-0" CLEAR ROADWAY (HYDRODEMOLITION)	8 HWY. 64, SEC. 14 LOG MILE 7.083 BR. END OVER BAYOU DEVIEW 330'-0" BRIDGE NO. 03819 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)	15 HWY. 13, SEC. 09 LOG MILE 20.347 BR. END OVER BAYOU TWO PRAIRIE 245'-0" BRIDGE NO. 05663 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)
2 HWY. 147, SEC. 01 LOG MILE 13.851 BR. END OVER DITCH NO. 50 75'-0" BRIDGE NO. 05135 43'-0" CLEAR ROADWAY (HYDRODEMOLITION)	9 HWY. 79, SEC. 9B LOG MILE 7.555 BR. END OVER ARKANSAS RIVER 2501'-0" BRIDGE NO. 05211 62'-0" CLEAR ROADWAY (HYDRODEMOLITION)	16 HWY. 79, SEC. 04 LOG MILE 10.477 BR. END OVER BRUSHY CREEK 100'-0" BRIDGE NO. 03613 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)
3 HWY. 147, SEC. 01 LOG MILE 12.812 BR. END OVER DITCH NO. 49 84'-0" BRIDGE NO. 05134 43'-0" CLEAR ROADWAY (HYDRODEMOLITION)	10 HWY. 70, SEC. 03 LOG MILE 9.024 BR. END OVER HOLLEY CREEK 100'-0" BRIDGE NO. 00326 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)	17 HWY. 79, SEC. 02 LOG MILE 3.645 BR. END OVER U.P. R.R. 302'-2 1/2" BRIDGE NO. 01978 24'-0" CLEAR ROADWAY (HYDRODEMOLITION)
4 HWY. 64, SEC. 15 LOG MILE 11.306 BR. END OVER CANEY CREEK 40'-4" BRIDGE NO. 00521 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)	11 HWY. 24, SEC. 05 LOG MILE 15.209 BR. END OVER CANEY CREEK 240'-3" BRIDGE NO. 02640 24'-0" CLEAR ROADWAY (HYDRODEMOLITION)	18 HWY. 143, SEC. 01 LOG MILE 2.725 BR. END OVER KINGS RIVER 426'-11 9/16" BRIDGE NO. 05571 26'-0" CLEAR ROADWAY (HYDRODEMOLITION)
5 HWY. 64, SEC. 15 LOG MILE 6.651 BR. END OVER BRUSHY CREEK RELIEF 150'-0" BRIDGE NO. 00516 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)	12 HWY. 71, SEC. 16 LOG MILE 15.898 BR. END OVER DYE CREEK 73'-11" BRIDGE NO. A1425 56'-0" CLEAR ROADWAY (HYDRODEMOLITION)	19 HWY. 21, SEC. 04 LOG MILE 9.287 BR. END OVER KINGS RIVER 302'-2" BRIDGE NO. 03263 24'-0" CLEAR ROADWAY (HYDRODEMOLITION)
6 HWY. 64, SEC. 15 LOG MILE 6.514 BR. END OVER L'ANGUILLE RIVER 240'-0" BRIDGE NO. 00515 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)	13 HWY. 183, SEC. 01 LOG MILE 5.177 BR. END OVER HURRICANE CREEK 210'-0" BRIDGE NO. 05397 39'-0" CLEAR ROADWAY (HYDRODEMOLITION)	20 HWY. 21, SEC. 04 LOG MILE 8.474 BR. END OVER KINGS RIVER 302'-2" BRIDGE NO. 03366 24'-0" CLEAR ROADWAY (HYDRODEMOLITION)
7 HWY. 64, SEC. 14 LOG MILE 7.281 BR. END OVER BAYOU DEVIEW 330'-0" BRIDGE NO. 03820 28'-0" CLEAR ROADWAY (HYDRODEMOLITION)	14 HWY. 15, SEC. 11 LOG MILE 0.385 BR. END OVER BAYOU METO 245'-0" BRIDGE NO. 05481 26'-0" CLEAR ROADWAY (HYDRODEMOLITION)	

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012442	3	41
		INDEX OF SHEETS AND STANDARD DRAWINGS				



INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
1	TITLE SHEET		
2	BRIDGE DATA		
3	INDEX OF SHEETS AND STANDARD DRAWINGS		
4	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
5 - 13	TYPICAL SECTIONS OF IMPROVEMENT		
14 - 20	SPECIAL DETAILS		
21 - 27	MAINTENANCE OF TRAFFIC DETAILS		
28 - 29	PERMANENT PAVEMENT MARKING DETAILS		
30 - 35	QUANTITIES		
36	SCHEDULE OF BRIDGE QUANTITIES	ALL BRIDGES	65853
37	SUMMARY OF QUANTITIES AND REVISIONS		
38	BRIDGE PRESERVATION DATA TABLE – DISTRICTS 1, 2, 3, 4, 6, 7, & 9	ALL BRIDGES	65854
39	BACKWALL MODIFICATION DETAILS	05211	65855
40	RAILING REPAIR DETAILS	00521	65856
41	CONCRETE REPAIR DETAILS	ALL BRIDGES	65857

BRIDGE STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
55060	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY SLAB ON BEAM/GIRDER BRIDGES	06-25-20
55062	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY REINFORCED CONCRETE SLAB STRUCTURES	06-25-20
55063	STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY VOIDED CONCRETE SLAB STRUCTURES	06-25-20
55064	STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATION	11-07-19

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
PM-1	PAVEMENT MARKING DETAILS	02-27-20
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	08-12-21
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

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012442	4	41
GOVERNING SPECIFICATIONS & GENERAL NOTES						

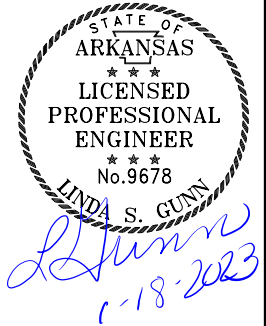
GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL AND CONTAINED LIVESTOCK IF FENCING OF PASTURES IS SEVERED.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED IF AND WHERE DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- PREPARATORY WORK, SUCH AS CLIPPING THE GRASS AND DEBRIS FROM THE EDGE OF THE EXISTING ROADWAY, WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED A PART OF THE OTHER ITEMS OF WORK. AFTER THE ROADWAY IS COMPLETED, THIS MATERIAL SHALL BE PULLED UP TO THE EDGE OF THE NEW PAVEMENT AT LOCATIONS WHERE THE DROP OFF IS GREATER THAN 4" RESULTING FROM THE TRANSITION ROADWAY IMPROVEMENTS. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.
- ASPHALT DEBRIS RESULTING FROM THE PREPARAORY WORK SHALL BE REMOVED FROM THE PROJECT. THIS MATERIAL SHALL NOT BE BURIED OR STOCKPILED WITHIN THE RIGHT OF WAY.
- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO MODIFY THEIR SCHEDULE, DURING WORK, WHEN SPECIAL EVENTS OR OCCURRENCES MAY CAUSE TRAFFIC TO BECOME CONGESTED.
- THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- COLD MILLED MATERIAL IN THIS PROJECT IS TO REMAIN THE PROPERTY OF THE COUNTIES IN DISTRICTS 1, 2, 3, 4, 6, 7, & 9. THE CONTRACTOR SHALL HAUL THE MATERIAL TO A NEARBY STOCKPILE IFAND WHERE DIRECTED BY THE ENGINEER. NO MATERIAL SHALL BE STOCKPILED OR BURIED ON SITE. REMOVAL OF COLD MILLING MATERIAL SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEM "COLD MILLING OF ASPHALT PAVEMENT". ALSO, REFER TO QUANTITY BOX NOTES FOR "COLD MILLING OF ASPHALT PAVEMENT".
- ROADWAY COLD MILLED TRANSITION SHALL BE OVERLAID WITHIN 7 CALENDAR DAYS. IF AN AREA OF THE PROJECT HAS BEEN COLD MILLED AND IS NOT OVERLAID ON OR BEFORE THE 7TH DAY, NO ADDITIONAL COLD MILLING SHALL TAKE PLACE UNTIL THE MILLED AREA IS OVERLAID.
- 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.
- 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 IF AND WHERE DIRECTED BY THE ENGINEER.
- WHEN EXISTING DROP INLETS ARE ENCOUNTERED ON THE APPROACH GUTTERS, THE CONTRACTOR SHALL REMOVE DEBRIS FROM THE GRATE AND DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER TO ESTABLISH POSITIVE DRAINAGE. THERE SHALL BE NO DIRECT PAYMENT FOR FULFILLING THIS REQUIREMENT, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
- BRIDGE PRESERVATION PROJECTS AND PAVEMENT PRESERVATION PROJECTS ARE ONGOING SIMULTANEOUSLY IN ALL DISTRICTS IN ARKANSAS. THE CONTRACTOR SHALL COORDINATE THE WORK SCHEDULE AND PRIORITIZE BRIDGE REHABILITATION IF AND WHERE DIRECTED BY THE ENGINEER IN THE DISTRICT IN ORDER FOR THE BRIDGE REHABILITATION TO BE COMPLETED BEFORE THE ASSOCIATED PAVEMENT PRESERVATION PROJECT BEGINS WORK. THERE SHALL BE NO DIRECT PAYMENT FOR FULFILLING THIS REQUIREMENT, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

GOVERNING SPECIFICATIONS

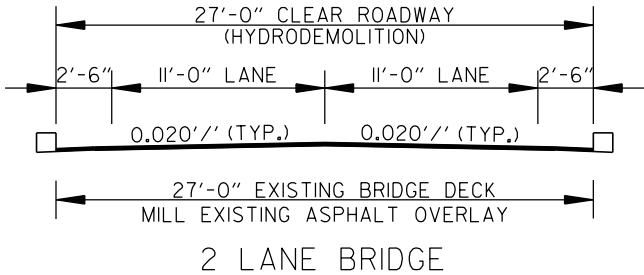
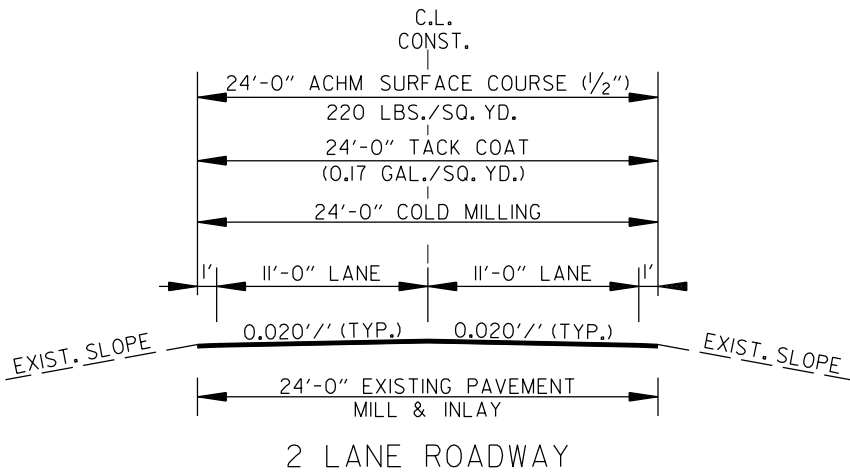
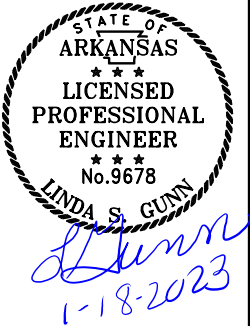
ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB 012442
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
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
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
410-4	EVALUATION OF ACHM SUBLOT REPLACEMENT MATERIAL
501-2	CEMENT
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)
800-1	STRUCTURES
802-4	CEMENT
804-2	REINFORCING STEEL FOR STRUCTURES
JOB 012442	ASSESSMENT OF WORKING DAYS – MAINTENANCE OF TRAFFIC
JOB 012442	BIDDING REQUIREMENTS AND CONDITIONS
JOB 012442	BRIDGE BACKWALL MODIFICATION
JOB 012442	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS
JOB 012442	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 012442	BUY AMERICA-CONSTRUCTION MATERIALS
JOB 012442	CARGO PREFERENCE ACT REQUIREMENTS
JOB 012442	COLD MILLING - COUNTY PROPERTY
JOB 012442	CONCRETE BRIDGE DECK CURING AND SURFACE TREATMENT RESTRICTIONS
JOB 012442	CONCRETE REPAIRS
JOB 012442	COORDINATION OF WORK
JOB 012442	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 012442	DESIGN OF ASPHALT MIXTURES - AGGREGATES
JOB 012442	DETAILS FOR RIVER TRAFFIC SAFETY
JOB 012442	DETAILS FOR SAFETY OF STREAM TRAFFIC
JOB 012442	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 012442	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 012442	HYDRODEMOLITION - CLASS 1
JOB 012442	INSURANCE, CONSTRUCTION, AND FLAGGING REQUIREMENTS ON RAILROAD PROPERTY (UPRR)
JOB 012442	JOINT REHABILITATION FOR BRIDGE DECKS
JOB 012442	LATEX MODIFIED CONCRETE OVERLAY
JOB 012442	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 012442	MAINTENANCE OF TRAFFIC
JOB 012442	MANDATORY ELECTRONIC CONTRACT
JOB 012442	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 012442	NESTING SITES OF MIGRATORY BIRDS
JOB 012442	PARTNERING REQUIREMENTS
JOB 012442	PORTABLE TRAFFIC SIGNAL SYSTEM
JOB 012442	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 012442	PRICE ADJUSTMENT FOR FUEL
JOB 012442	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICE OR EQUIPMENT
JOB 012442	RAILING REPAIR
JOB 012442	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB 012442	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 012442	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 012442	UTILITY ADJUSTMENTS
JOB 012442	VALUE ENGINEERING
JOB 012442	WARM MIX ASPHALT
JOB 012442	WATER POLLUTION CONTROL



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REVISED DATE: \$*REDATE\$*

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012442	5	41
TYPICAL SECTIONS OF IMPROVEMENT						

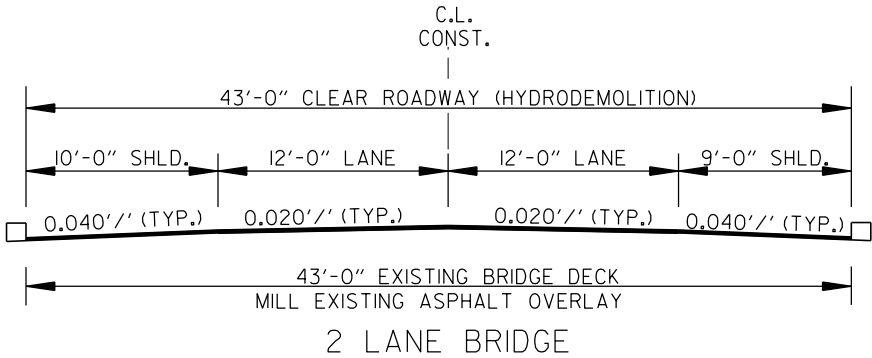
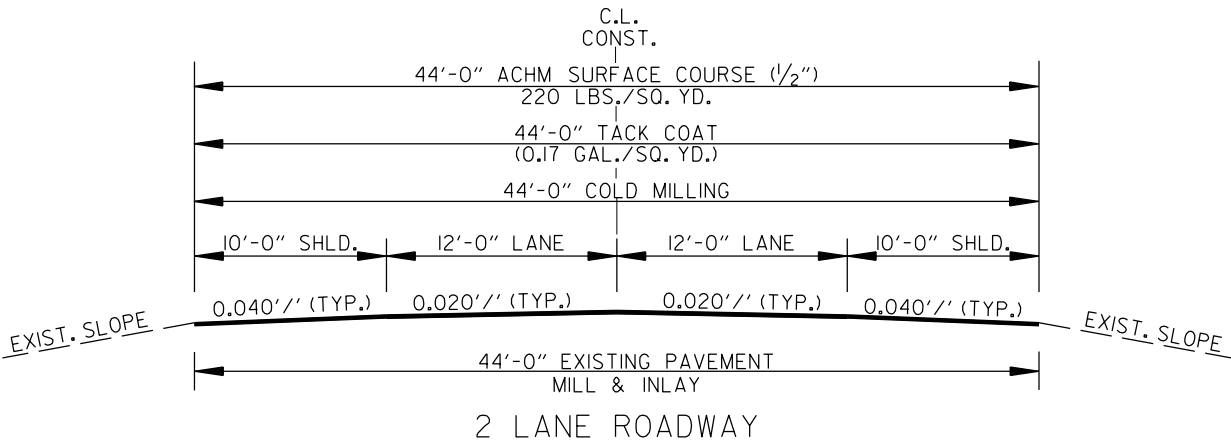


27 FT. CLEAR ROADWAY BRIDGE - HYDRODEMOLITION
(ROADWAY TRANSITIONS)

APPROX. DEPTH OF
ASPHALT ON DECK

△ - BR NO. 02003 - HWY. 77 5"

- NOTES:
- STRINGLINE WILL BE USED TO MAINTAIN A UNIFORM HORIZONTAL ALIGNMENT.
 - THE CONTRACTOR SHALL FURNISH & MAINTAIN STD. W8-11 "UNEVEN LANES" SIGNS (48" X 48") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS.
 - LONGITUDINAL JOINTS ARE TO BE PLACED PER TYPICAL SECTION IN ACCORDANCE WITH STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2014 EDITION, SECTION 410.07 UNLESS OTHERWISE APPROVED IF AND WHERE BY THE ENGINEER.
 - ALL CROSS SLOPES ARE TO MATCH EXISTING CROSS SLOPES UNLESS OTHERWISE APPROVED BY THE ENGINEER.



43 FT. CLEAR ROADWAY BRIDGE - HYDRODEMOLITION
(ROADWAY TRANSITIONS)

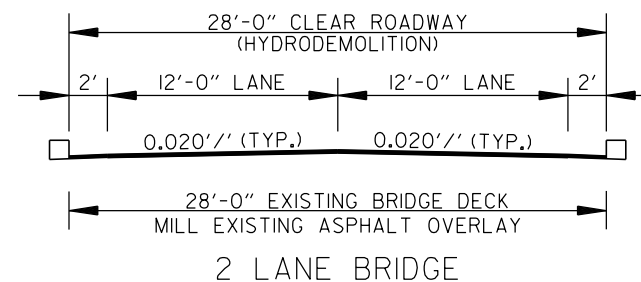
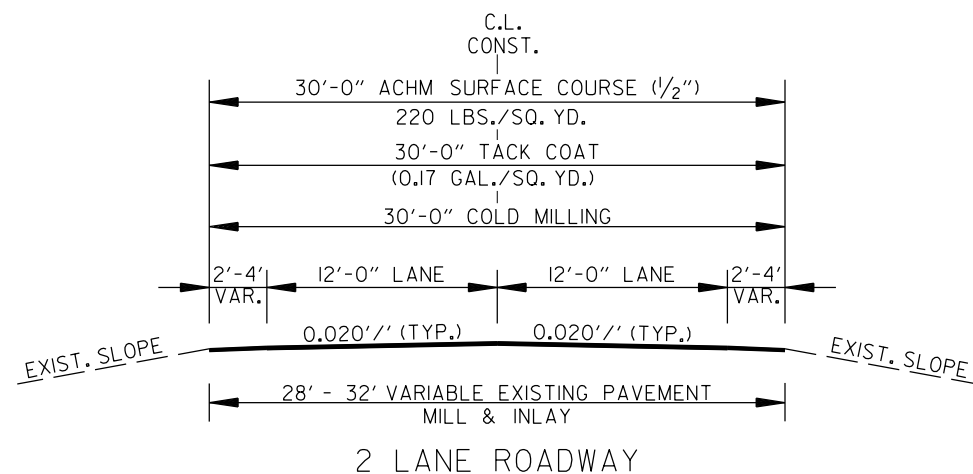
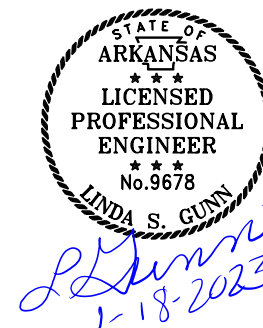
APPROX. DEPTH OF
ASPHALT ON DECK

△ - BR NO. 05135 - HWY. 147 1/2"

△ - BR NO. 05134 - HWY. 147 4"

- NOTES:
- BRIDGE NOS. 2 & 3 HAVE VOIDED SLAB DECKS. REFER TO BR. STANDARD DRAWING NO. 55063.
 - BRIDGE NO. 3 HAS AN AT-GRADE RAILROAD TRACK AT THE SOUTH APPROACH. THERE IS 40 FT. FROM THE BRIDGE END TO THE RAILROAD RIGHT-OF-WAY FOR THE ROADWAY TRANSITION. PER ARDOT, a) THE RAILROAD RIGHT-OF-WAY IS AN EXCEPTION TO THIS PROJECT AND b) AUTHORIZATION TO REPLACE THE BRIDGE DECK ASPHALT OVERLAY HAS NOT BEEN APPROVED.

	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
			6	ARK.	012442	6	41
			TYPICAL SECTIONS OF IMPROVEMENT				



28 FT. CLEAR ROADWAY BRIDGE - HYDRODEMOLITION
(ROADWAY TRANSITIONS)

APPROX. DEPTH OF
ASPHALT ON DECK

4 - BR NO. 00521 - HWY. 64

2"

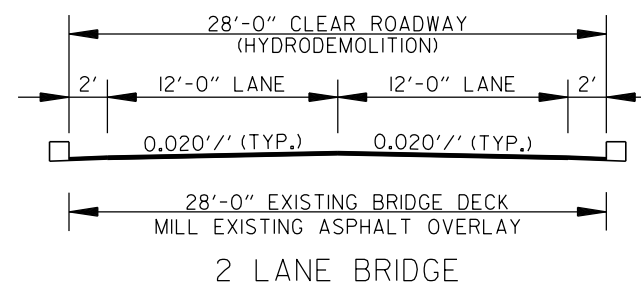
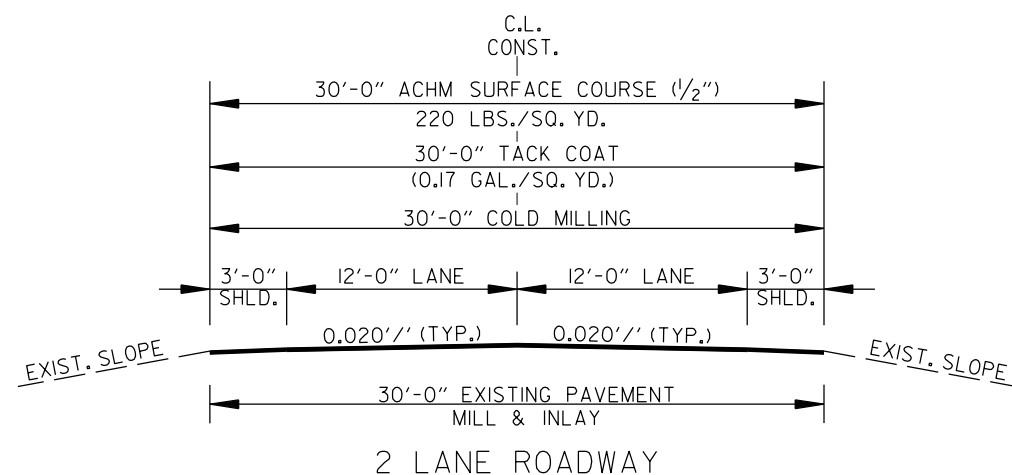
5 - BR NO. 00516 - HWY. 64

2"

NOTE: BRIDGE NOS. 4 & 5 HAVE VOIDED
SLAB DECKS. REFER TO BRIDGE STANDARD
DRAWING NO. 55063.

NOTES:

1. STRINGLINE WILL BE USED TO MAINTAIN A UNIFORM HORIZONTAL ALIGNMENT.
2. THE CONTRACTOR SHALL FURNISH & MAINTAIN STD. W8-II "UNEVEN LANES" SIGNS (48" X 48") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS.
3. LONGITUDINAL JOINTS ARE TO BE PLACED PER TYPICAL SECTION IN ACCORDANCE WITH STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2014 EDITION, SECTION 410.07 UNLESS OTHERWISE APPROVED IF AND WHERE BY THE ENGINEER.
4. ALL CROSS SLOPES ARE TO MATCH EXISTING CROSS SLOPES UNLESS OTHERWISE APPROVED BY THE ENGINEER.



28 FT. CLEAR ROADWAY BRIDGE - HYDRODEMOLITION
(ROADWAY TRANSITIONS)

APPROX. DEPTH OF
ASPHALT ON DECK

△ 6 - BR NO. 00515 - HWY. 64

3"

7 - BR NO. 03820 - HWY. 64

4''

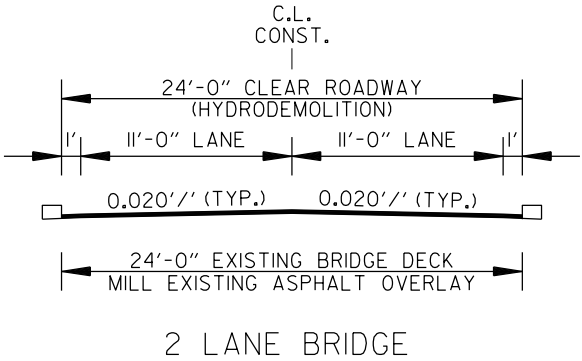
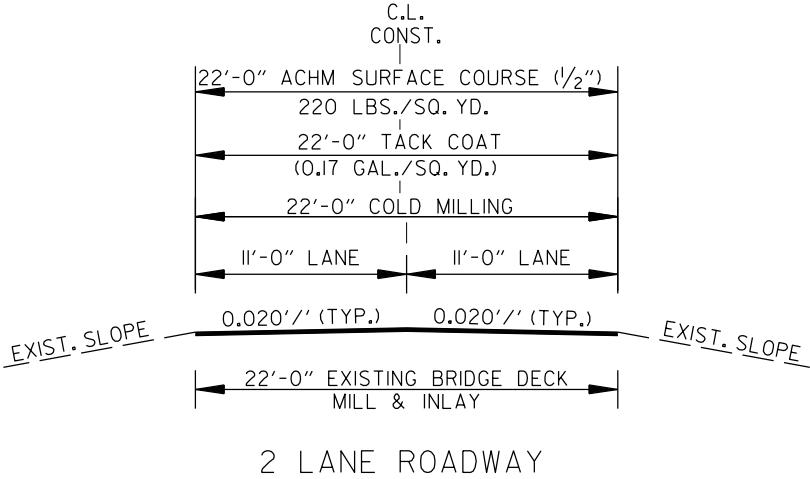
△ 8 - BR NO. 03819 - HWY. 64

4''

NOTE: BRIDGE NOS. 6, 7, & 8 HAVE VOIDED
SLAB DECKS. REFER TO BRIDGE STANDARD
DRAWING NO. 55063.

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TYPICAL SECTIONS OF IMPROVEMENT						



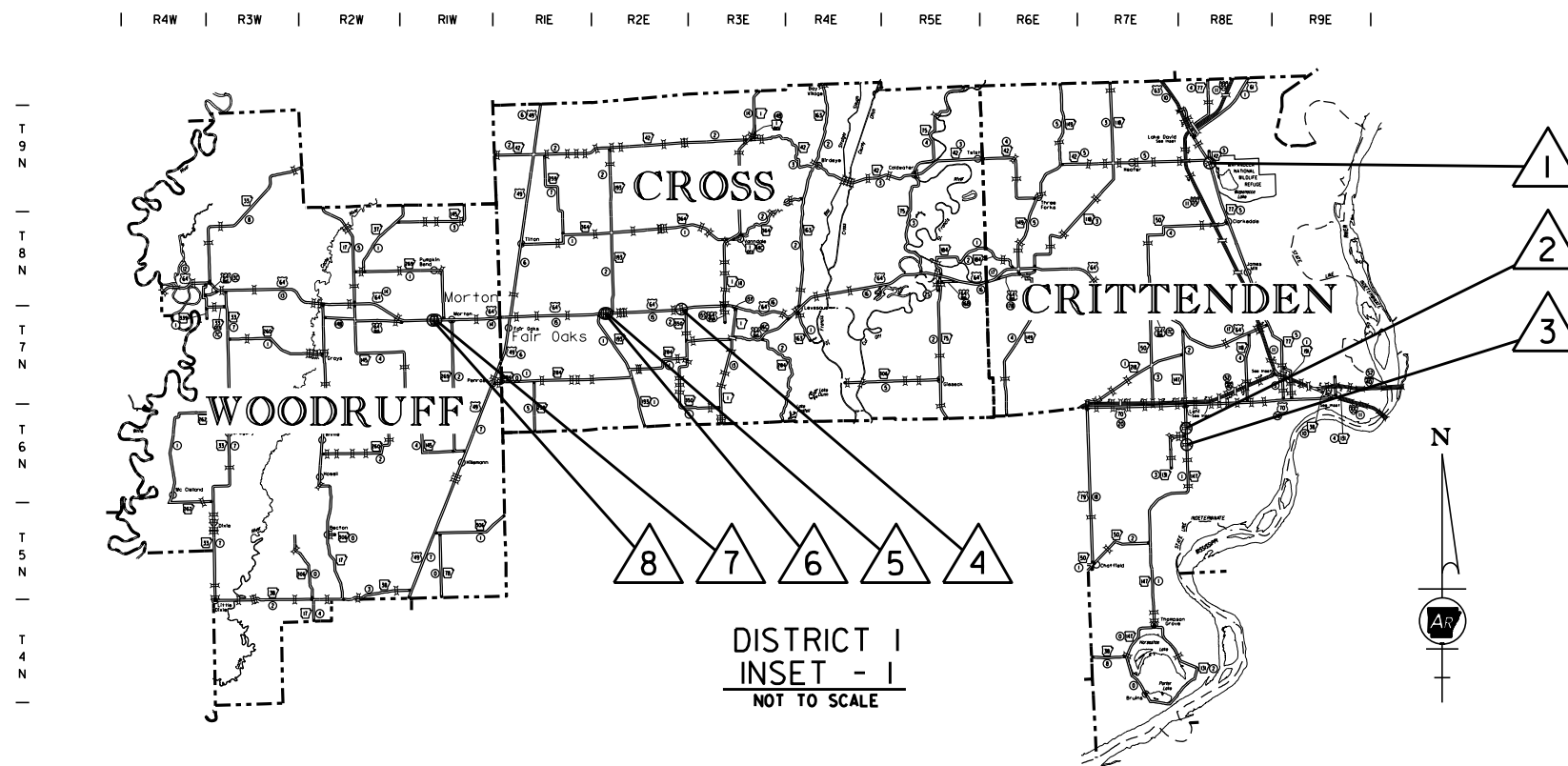
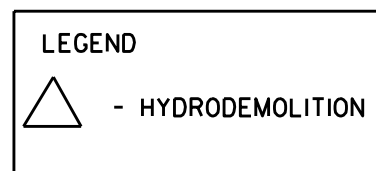
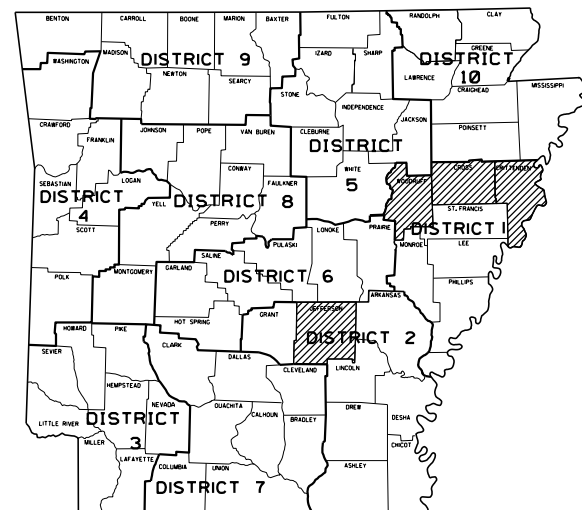
- NOTES:
1. STRINGLINE WILL BE USED TO MAINTAIN A UNIFORM HORIZONTAL ALIGNMENT.
 2. THE CONTRACTOR SHALL FURNISH & MAINTAIN STD. W8-II "UNEVEN LANES" SIGNS (48" X 48") WITH BLACK LEGEND ON ORANGE BACKGROUND AT ALL LONGITUDINAL JOINTS DURING MILLING AND PAVING OPERATIONS.
 3. LONGITUDINAL JOINTS ARE TO BE PLACED PER TYPICAL SECTION IN ACCORDANCE WITH STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2014 EDITION, SECTION 410.07 UNLESS OTHERWISE APPROVED IF AND WHERE BY THE ENGINEER.
 4. ALL CROSS SLOPES ARE TO MATCH EXISTING CROSS SLOPES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

24 FT. CLEAR ROADWAY BRIDGE - HYDRODEMOLITION
(ROADWAY TRANSITIONS)

	APPROX. DEPTH OF ASPHALT ON DECK
19 - BR NO. 03263 - HWY. 21: KING'S RIVER BR.	2"
20 - BR NO. 03366 - HWY. 21: KING'S RIVER BR.	2"

NOTE: BR. NOS. 19 & 20: THE BRIDGE DECKS WERE RECENTLY OVERLAID WITH ACHM SURFACE COURSE BY THE DISTRICT UNTIL THIS BRIDGE PRESERVATION PROJECT COULD BE AWARDED.

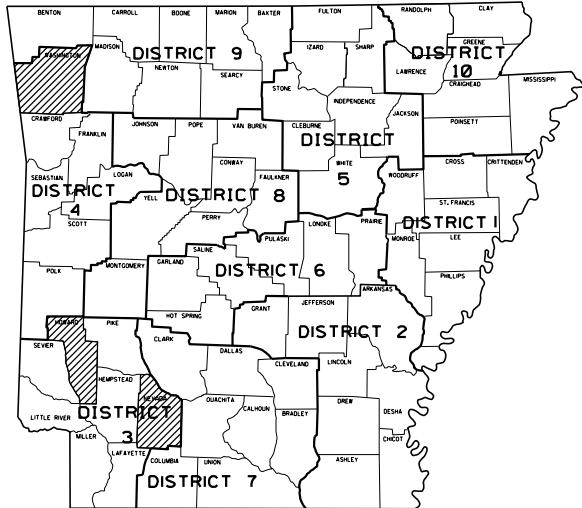
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2-17-2023		6	ARK.	012442	14	41
		SPECIAL DETAILS				



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	15	41
SPECIAL - DETAILS						



L. Gunn
2-21-23



ARKANSAS HIGHWAY DISTRICT 3 & 4

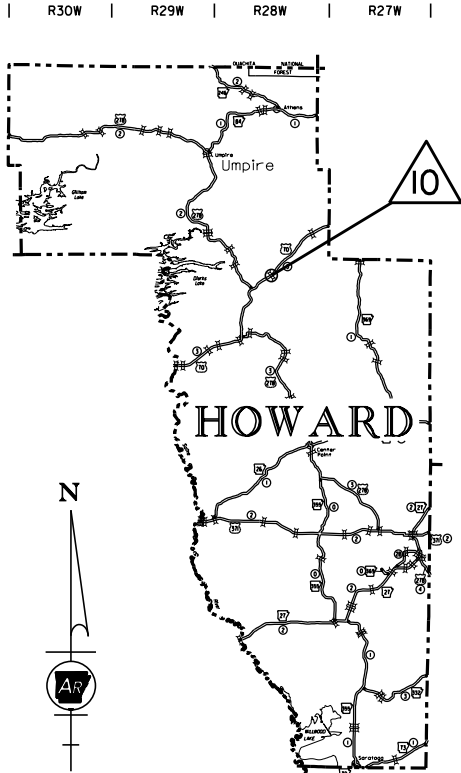
LEGEND

- HYDRODEMOLITION

HWY. 70, SEC. 03
LOG MILE 9.024 BR. END
OVER HOLLEY CREEK
100'-0" BRIDGE NO. 00326
28'-0" CLEAR ROADWAY
(HYDRODEMOLITION)

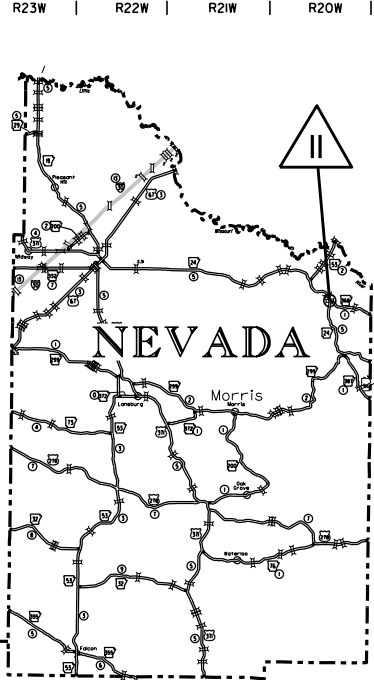
HWY. 24, SEC. 05
LOG MILE 15.209 BR. END
OVER CANEY CREEK
240'-3" BRIDGE NO. 02640
24'-0" CLEAR ROADWAY
(HYDRODEMOLITION)

HWY. 71, SEC. 16
LOG MILE 15.898 BR. END
OVER DYE CREEK
73'-11" BRIDGE NO. A1425
56'-0" CLEAR ROADWAY
(HYDRODEMOLITION)



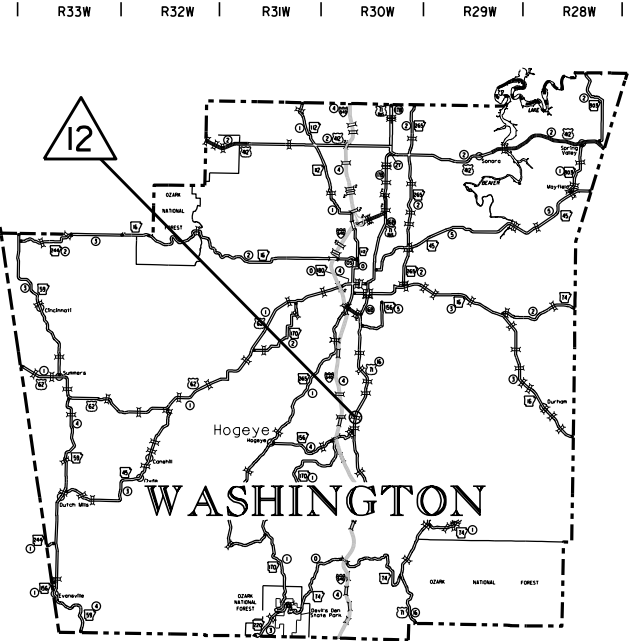
DISTRICT 3
INSET - 3
NOT TO SCALE

T 5 S
T 6 S
T 7 S
T 8 S
T 9 S
T 10 S
T 11 S



DISTRICT 3
INSET - 4
NOT TO SCALE

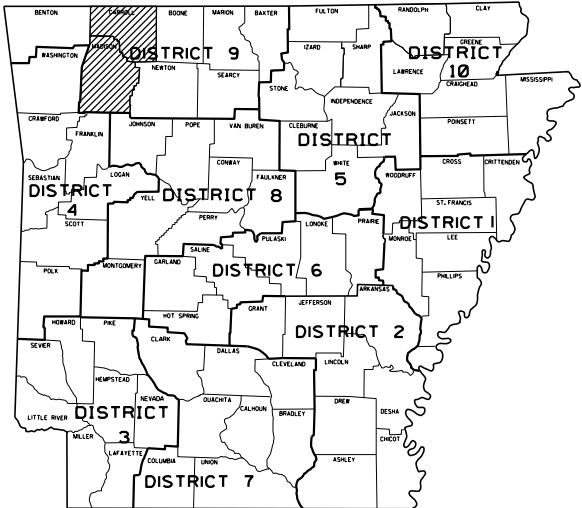
T 9 S
T 10 S
T 11 S
T 12 S
T 13 S
T 14 S



DISTRICT 4
INSET - 5
NOT TO SCALE

T 18 N
T 17 N
T 16 N
T 15 N
T 14 N
T 13 N

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	17	41
SPECIAL - DETAILS						



ARKANSAS HIGHWAY DISTRICT 9

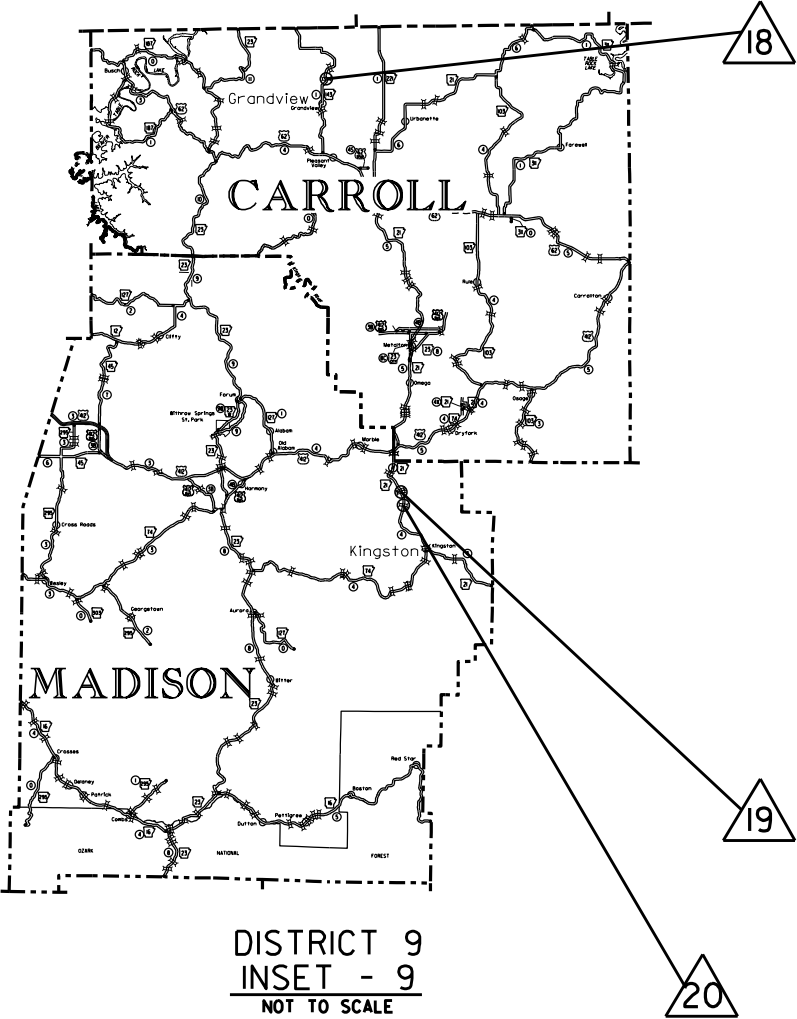
LEGEND

- HYDRODEMOLITION

- HWY. 143, SEC. 01
LOG MILE 2.725 BR. END
OVER KINGS RIVER
426'-11 9/16" BRIDGE NO. 05571
26'-0" CLEAR ROADWAY
(HYDRODEMOLITION)
- HWY. 21, SEC. 04
LOG MILE 9.287 BR. END
OVER KINGS RIVER
302'-2" BRIDGE NO. 03263
24'-0" CLEAR ROADWAY
(HYDRODEMOLITION)
- HWY. 21, SEC. 04
LOG MILE 8.474 BR. END
OVER KINGS RIVER
302'-2" BRIDGE NO. 03366
24'-0" CLEAR ROADWAY
(HYDRODEMOLITION)

R28W | R27W | R26W | R25W | R24W | R23W | R22W

T 21 N
—
T 20 N
—
T 19 N
—
T 18 N
—
T 17 N
—
T 16 N
—
T 15 N
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T 14 N
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T 13 N



DISTRICT 9
INSET - 9
NOT TO SCALE

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REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	18	41
		SPECIAL DETAILS				



L. Gunn
2-21-23

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	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
	2-17-2023		6	ARK.	012442	19	41
			SPECIAL DETAILS				

BR. #9 - 052II: "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER"
AND "RELOCATING PRECAST CONCRETE BARRIER".
REFER TO BRIDGE PLAN SHEETS FOR BACKWALL REPAIR DETAILS.

NOTES FOR BR. #9 - 05221:

NOTES FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER" AND "RELOCATING PRECAST CONCRETE BARRIER":

BR. #4 - 00521: "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER"
FOR RAILING REPAIR. REFER TO BRIDGE PLAN SHEETS FOR
RAILING REPLACEMENT DETAILS.

NOTES:

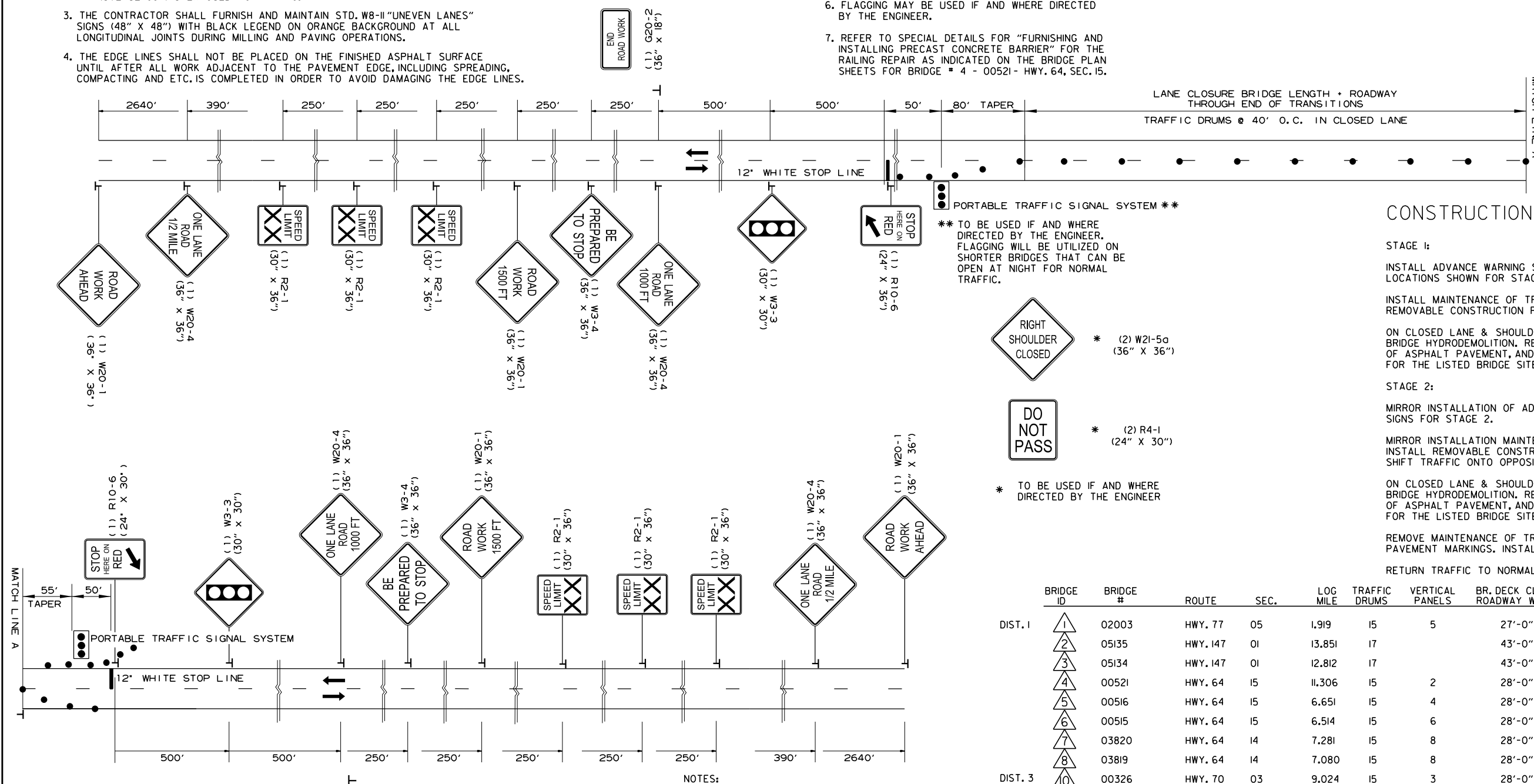
*** SPECIAL END UNITS ARE TO BE INCLUDED IN THE BID PRICE FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER".

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	21	41
		MAINTENANCE OF TRAFFIC DETAILS				

MAINTENANCE OF TRAFFIC NOTES:

MAINTENANCE OF TRAFFIC NOTES (CONT.):



STAGE 1:

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE I AND REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (12" WH. STOP LINES).

ON CLOSED LANE & SHOULDER - RT. (BRIDGE AND ROADWAY): CONSTRUCT
BRIDGE HYDRODEMOLITION. REFER TO THE QUANTITY SHEETS COLD MILLING
OF ASPHALT PAVEMENT, AND ACHM SURFACE COURSE TRANSITIONS
FOR THE LISTED BRIDGE SITES.

STAGE 2:

MIRROR INSTALLATION MAINTENANCE OF TRAFFIC DEVICES FOR STAGE 2 AND
INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (12" WH. STOP LINES).
SHIFT TRAFFIC ONTO OPPOSITE LANE FOR STAGE 2.

ON CLOSED LANE & SHOULDER - LT. (BRIDGE AND ROADWAY): CONSTRUCT
BRIDGE HYDRODEMOLITION. REFER TO THE QUANTITY SHEETS COLD MILLING
OF ASPHALT PAVEMENT, AND ACHM SURFACE COURSE TRANSITIONS
FOR THE LISTED BRIDGE SITES.

REMOVE MAINTENANCE OF TRAFFIC DEVICES & REMOVABLE CONSTRUCTION
PAVEMENT MARKINGS. INSTALL PERMANENT PAVEMENT MARKINGS.

RETURN TRAFFIC TO NORMAL PATTERN ON ROADWAY.

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE	TRAFFIC DRUMS	VERTICAL PANELS	BR. DECK CLEARANCE ROADWAY WIDTH
DIST. 1	1	02003	HWY. 77	05	1.919	15	5	27'-0"
	2	05135	HWY. 147	01	13.851	17		43'-0"
	3	05134	HWY. 147	01	12.812	17		43'-0"
	4	00521	HWY. 64	15	11.306	15	2	28'-0"
	5	00516	HWY. 64	15	6.651	15	4	28'-0"
	6	00515	HWY. 64	15	6.514	15	6	28'-0"
	7	03820	HWY. 64	14	7.281	15	8	28'-0"
	8	03819	HWY. 64	14	7.080	15	8	28'-0"
DIST. 3	10	00326	HWY. 70	03	9.024	15	3	28'-0"
	11	02640	HWY. 24	05	15.209	15	6	24'-0"
DIST. 6	13	05397	HWY. 183	01	5.177	20		39'-0"
	14	05481	HWY. 15	11	0.385	15	6	26'-0"
	15	05663	HWY. 13	09	20.347	15	6	28'-0"
DIST. 7	17	01978	HWY. 79	02	3.645	15	8	24'-0"
DIST. 9	18	05571	HWY. 143	01	2.725	15	11	26'-0"
	19	03263	HWY. 21	04	9.287	15	8	24'-0"
	20	03366	HWY. 21	04	8.474	15	8	24'-0"

LEGEND

NOTES:

1. VERTICAL PANELS ARE SUBSTITUTED FOR TRAFFIC DRUMS ON BRIDGES WITH 40'-0" OR LESS BRIDGE DECK WIDTH IF AND WHERE DIRECTED BY THE ENGINEER.
2. A QUANTITY OF "RELOCATING PRECAST CONCRETE BARRIER" HAS BEEN PROVIDED IN THE PLANS FOR DECK REHABILITATION ON BRIDGE # 2 - 05135 AND MAY BE SUBSTITUTED FOR THE TRAFFIC DRUMS SHOWN IF AND WHERE DIRECTED BY THE ENGINEER.
3. "RELOCATING PRECAST CONC. BARRIER" HAS NOT BEEN PROVIDED FOR BR. # 3 - 05134; BECAUSE OF THE RAILROAD TRACK, THE ENGINEER HAS THE OPTION OF A FIELD DECISION TO USE CONCRETE BARRIER WALL AT THIS LOCATION IF IT CAN BE UTILIZED SAFELY.
4. SPECIAL END UNITS ARE TO BE RELOCATED WITH THE BARRIER WALL AND ARE TO BE INCLUDED IN THE PRICE BID FOR THE CONTRACT ITEM "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER".

LANE CLOSURE WITH PORTABLE TRAFFIC
SIGNAL SYSTEM OR FLAGGING WITH
TRAFFIC DRUMS FOR HYDRODEMOLITION
(VAR. CLEAR ROADWAY ON THE BRIDGE DECKS)

ADVANCE WARNING
(2 LANE ROADWAY)
MAINTENANCE OF
TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	23	41
		MAINTENANCE OF TRAFFIC DETAILS				

LEGEND

NOTES:

2. CONCRETE BARRIER WALL IS NOT PROVIDED FOR THE LENGTH OF BR. #9 BECAUSE THE CLEAR ROADWAY WIDTH IN EACH TRAVEL DIRECTION IS 30 FEET.

INSIDE LANE CLOSURE
(SHOWN IN DIRECTION OF TRAFFIC; MIRROR
LAYOUT FOR TRAFFIC IN OPPOSITE DIRECTION)
STAGE I

NOTE:
MAINTAIN EXISTING LANE WIDTH
ON LANE REMAINING OPEN

The diagram illustrates the Stage 2 construction sequence for an outside lane closure. It shows a horizontal layout of a road with various zones and signs. From left to right, the zones are:

- 1500'**: A section with two diamond-shaped advance warning signs for "ROAD WORK AHEAD" (W20-1) and "RIGHT LANE CLOSED AHEAD" (W20-5).
- 1000'**: A section with a diamond-shaped sign for "LANE CLOSURE AHEAD" (W4-2).
- 500'**: A section with a series of black dots representing traffic drums.
- TAPER FOR LANE CLOSURE - 180 FT.**: A section with a series of black dots representing traffic drums.
- TRAFFIC DRUMS @ 30 FT. O.C. SPACING**: A section with a series of black dots representing traffic drums.
- TRAFFIC DRUMS @ 60 FT. O.C. SPACING**: A section with a series of black dots representing traffic drums.
- WORK AREA - 2572 FT.**: A section with a hatched pattern representing the work area.
- 100' DOWNSTREAM TAPER**: A section with a series of black dots representing traffic drums.
- TRAFFIC DRUMS @ 30 FT. O.C. SPACING**: A section with a series of black dots representing traffic drums.
- 500'**: A section with a series of black dots representing traffic drums.

Additional details include:

- A note: "NOTE: MAINTAIN EXISTING LANE WIDTH ON LANE REMAINING OPEN".
- A sign on the right: "ROAD WORK (36" X 18")".
- Text: "OUTSIDE LANE CLOSURE (SHOWN IN DIRECTION OF TRAFFIC; MIRROR LAYOUT FOR TRAFFIC IN OPPOSITE DIRECTION) STAGE 2".
- Text: "CONSTRUCTION SEQUENCE STAGE 1: INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS SHOWN FOR STAGE 1.".
- Text: "NOTES: 1. VERTICAL PANELS MAY BE SUBSTITUTED FOR".

OUTSIDE LANE CLOSURE
(SHOWN IN DIRECTION OF TRAFFIC; MIRROR
LAYOUT FOR TRAFFIC IN OPPOSITE DIRECTION)
STAGE 2

NOTE:
MAINTAIN EXISTING LANE WIDTH
ON LANE REMAINING OPEN

CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS SHOWN FOR STAGE I.

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE I
TO MOVE TRAFFIC TO OUTSIDE TRAVEL LANES & SHOULDERS.

CONSTRUCT HYDRODEMOLITION ON BRIDGE FOR INSIDE TRAVEL LANES
AND SHOULDERS.

STAGE 2:

RETAIN ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS SHOWN ON THE STAGE 2 ADVANCE WARNING DETAILS.

INSTALL STAGE 2 MAINTENANCE OF TRAFFIC DEVICES AND REMOVABLE
CONSTRUCTION PAVEMENT MARKINGS. SHIFT TRAFFIC TO INSIDE LANES.

CONSTRUCT HYDRODEMOLITION ON BRIDGE FOR OUTSIDE TRAVEL LANES AND SHOULDERS.

RETURN TRAFFIC TO NORMAL PATTERN ON ROADWAY. INSTALL PERMANENT PAVEMENT MARKINGS UNDER TRAFFIC.

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE	TRAFFIC DRUMS	BR. DECK CLEAR ROADWAY WIDTH
DIST. 2		052II	HWY. 79	9B	7.555	I20	60'-0"
						OR	
						TRAFFIC DRUMS: 36 EACH	
						VERTICAL PANELS: 84 EACH	

1. VERTICAL PANELS MAY BE SUBSTITUTED FOR TRAFFIC DRUMS IF AND WHERE DIRECTED BY THE ENGINEER IN THE WORK AREA ON THE BRIDGE. PAYMENT WILL BE BASED ON ACTUAL FIELD USAGE BY THE CONTRACTOR.

2. MOT PLAN QUANTITIES REFLECT ENOUGH TRAFFIC DRUMS OR VERTICAL PANELS FOR WORK TO BE ONGOING IN BOTH TRAVEL DIRECTIONS ON THE BRIDGE. ONE LANE AND SHOULDER IN EACH TRAVEL DIRECTION FOR THE ENTIRE LENGTH OF THE BRIDGE MAY BE CLOSED WITH THE APPROVAL OF THE ENGINEER IF GAINFUL WORK CAN BE ACCOMPLISHED IN BOTH DIRECTIONS.

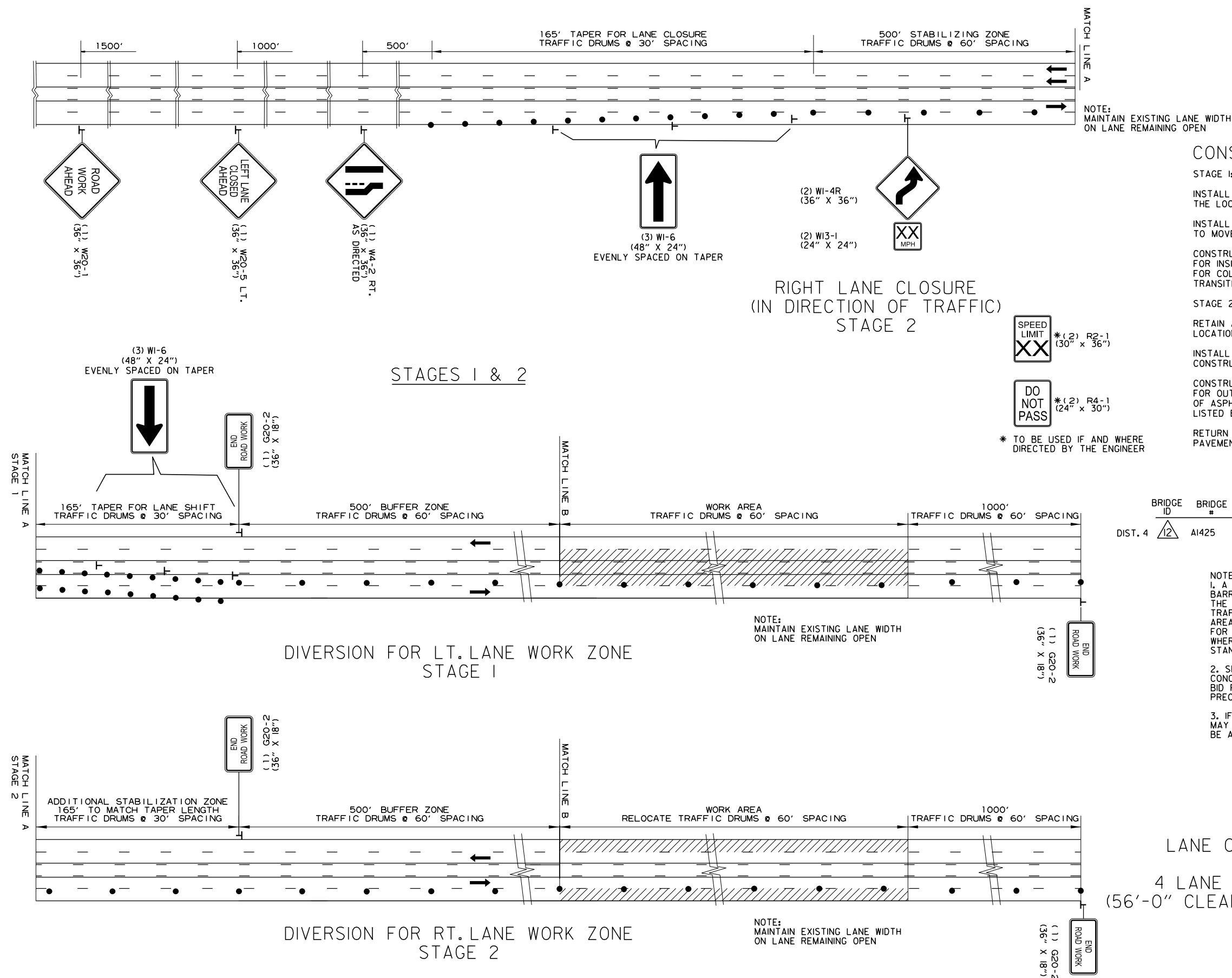
TRAFFIC DRUMS: 36 EACH
VERTICAL PANELS: 84 EACH

LANE CLOSURE WITH TRAFFIC DRUMS
FOR HYDRODEMOLITION
4 LANE W/ CONCRETE MEDIAN BARRIER BRIDGE
(60'-0" CLEAR ROADWAY WIDTH ON DECK)

ADVANCE WARNING
(4 LANE HIGHWAY
W/ CONCRETE MEDIAN BARRIER)
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	24	41
		MAINTENANCE OF TRAFFIC DETAILS				



STAGE 1:

INSTALL MAINTENANCE OF TRAFFIC DEVICES AS SHOWN IN STAGE I
TO MOVE TRAFFIC TO OUTSIDE TRAVEL LANES & SHOULDERS.

CONSTRUCT HYDRODEMOLITION ON BRIDGE AND ROADWAY TRANSITION
FOR INSIDE TRAVEL LANES & TURN LANE. REFER TO THE QUANTITY SHEETS
FOR COLD MILLING OF ASPHALT PAVEMENT, AND ACHM SURFACE COURSE
TRANSITIONS FOR THE LISTED BRIDGE SITES.

STAGE 2:

INSTALL STAGE 2 MAINTENANCE OF TRAFFIC DEVICES AND REMOVABLE CONSTRUCTION PAVEMENT MARKINGS. SHIFT TRAFFIC TO INSIDE LANES.

CONSTRUCT HYDRODEMOLITION ON BRIDGE AND ROADWAY TRANSITIONS
FOR OUTSIDE TRAVEL LANES. REFER TO THE QUANTITY SHEETS COLD MILLING
OF ASPHALT PAVEMENT, AND ACHM SURFACE COURSE TRANSITIONS FOR THE
LISTED BRIDGE SITES.

RETURN TRAFFIC TO NORMAL PATTERN ON ROADWAY. INSTALL PERMANENT PAVEMENT MARKINGS UNDER TRAFFIC.

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE	TRAFFIC DRUMS	BR. DECK CLEAR ROADWAY WIDTH
DIST. 4	12	AI425	HWY. 71	16	15.898	172	56'-0"

NOTE:
1. A QUANTITY OF "RELOCATING PRECAST CONC. BARRIER" HAS BEEN PROVIDED IN THE PLANS FOR THE BR. WORK AREA TO BE USED ALONG WITH THE TRAFFIC DRUMS DIRECTING TRAFFIC UPTO THE WORK AREA. SUBSTITUTION OF THE CONCRETE BARRIER FOR THE SHOWN TRAFFIC DRUMS WILL BE IF AND WHERE DIRECTED BY THE ENGINEER. REFER TO STANDARD DRAWINGS TC-4 AND TC-5.

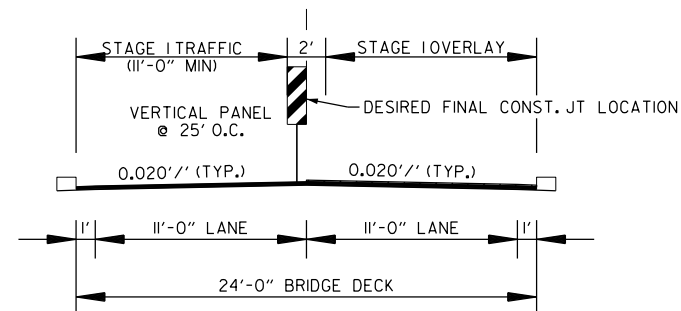
2. SPECIAL END UNITS ARE TO BE RELOCATED WITH THE CONCRETE BARRIER AND ARE TO BE INCLUDED IN THE PRICE BID FOR THE CONTRACT ITEM "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER".

3. IF AND WHERE DIRECTED BY THE ENGINEER, THE CONTRACTOR MAY WORK IN BOTH TRAVEL DIRECTIONS IF GAINFUL WORK CAN BE ACCOMPLISHED IN BOTH DIRECTIONS.

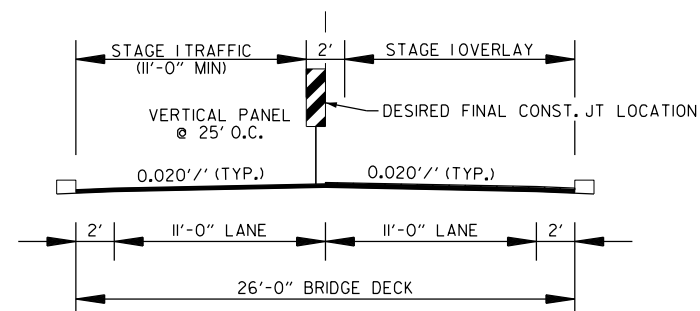
LANE CLOSURE WITH TRAFFIC DRUMS
FOR HYDRODEMOLITION
4 LANE W/ MEDIAN TURN LANE BRIDGE
(56'-0" CLEAR ROADWAY WIDTH ON BRIDGE DECK)

ADVANCE WARNING
(4 LANE W/ MEDIAN TURN LANE)
MAINTENANCE OF TRAFFIC DETAILS

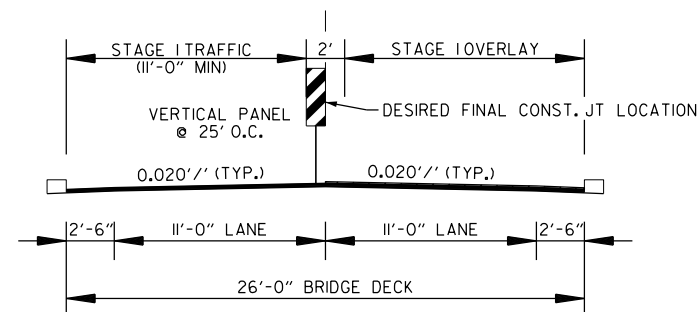
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		MAINTENANCE OF TRAFFIC DETAILS				



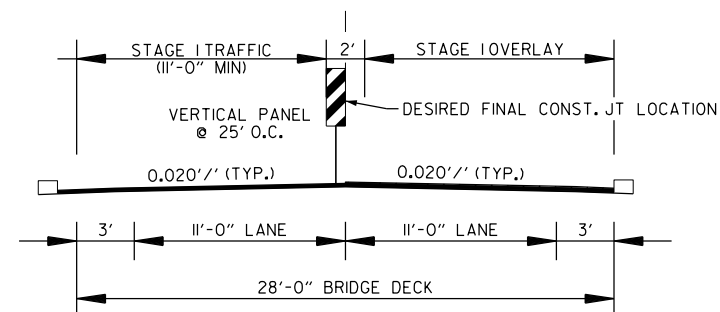
2 LANE BRIDGE



2 LANE BRIDGE

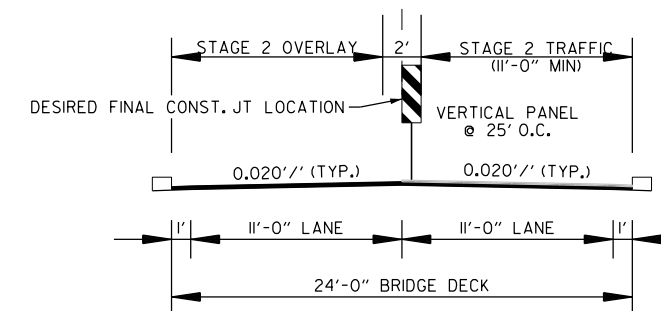


2 LANE BRIDGE

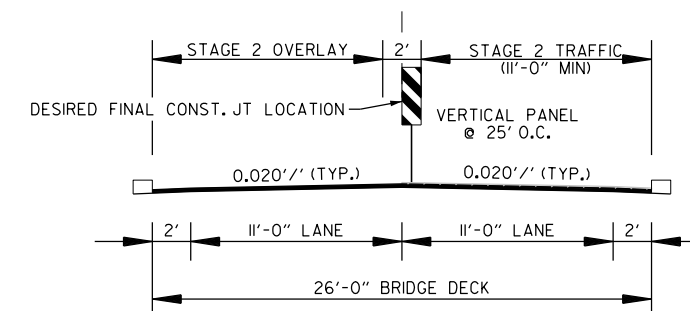


2 LANE BRIDGE

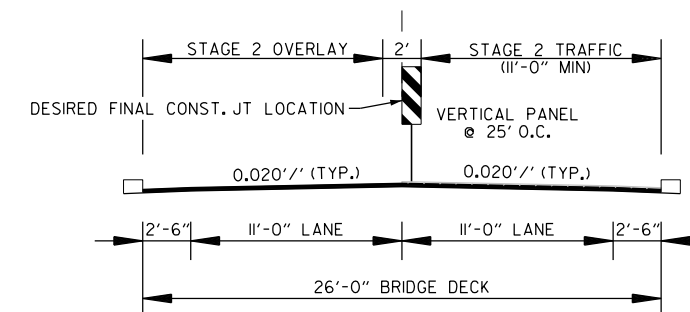
STAGE I



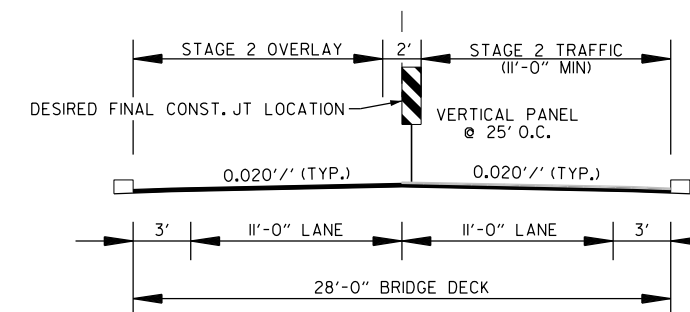
2 LANE BRIDGE



2 LANE BRIDGE

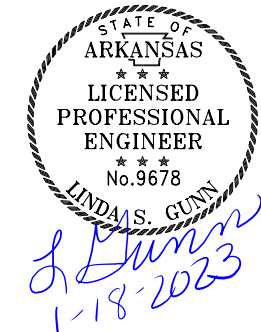


2 LANE BRIDGE



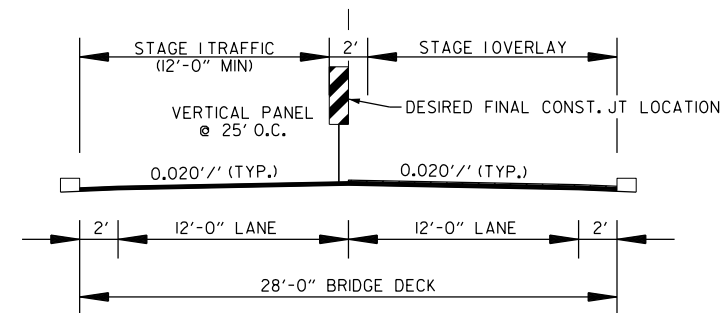
2 LANE BRIDGE

STAGE 2

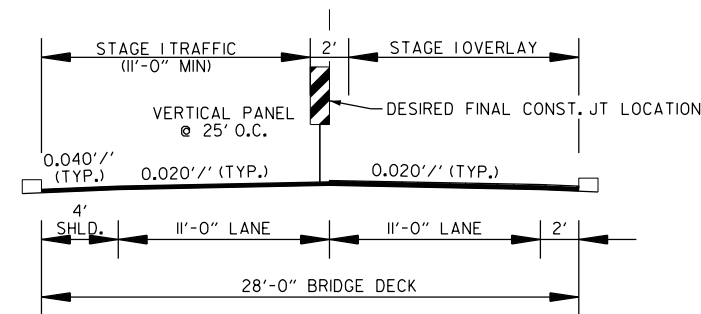


TYPICAL SECTIONS (2 LANE BRIDGES) MAINTENANCE OF TRAFFIC DETAILS

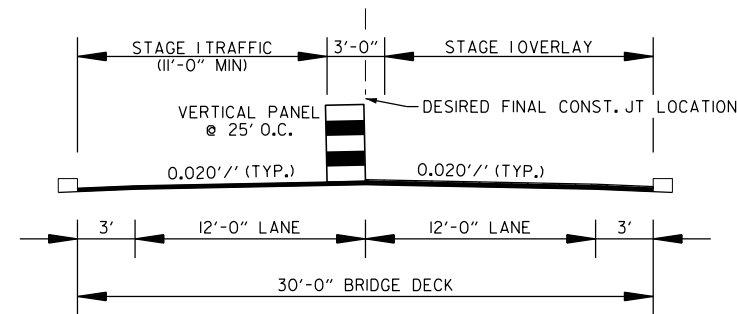
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		MAINTENANCE OF TRAFFIC DETAILS				



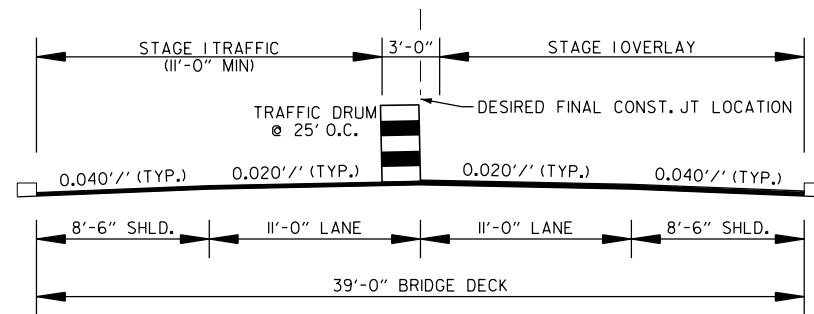
2 LANE BRIDGE



2 LANE BRIDGE



2 LANE BRIDGE



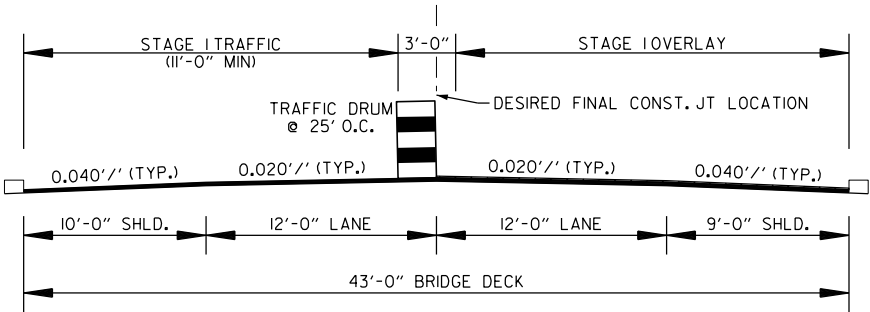
2 LANE BRIDGE

STAGE I

TYPICAL SECTIONS
(2 LANE BRIDGES)
MAINTENANCE
OF TRAFFIC DETAILS

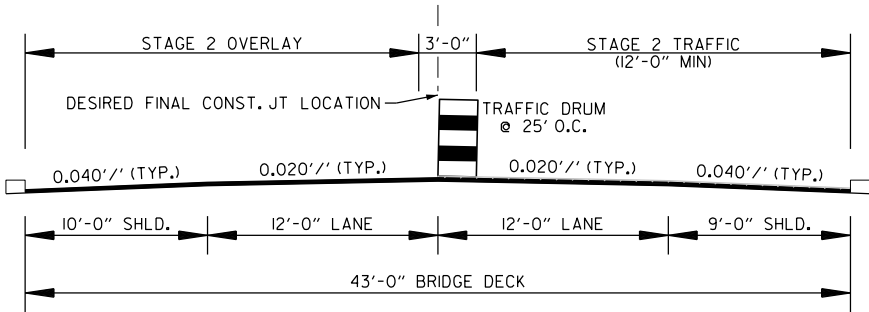
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REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	27	41
MAINTENANCE OF TRAFFIC DETAILS						



2 LANE BRIDGE

STAGE 1



2 LANE BRIDGE

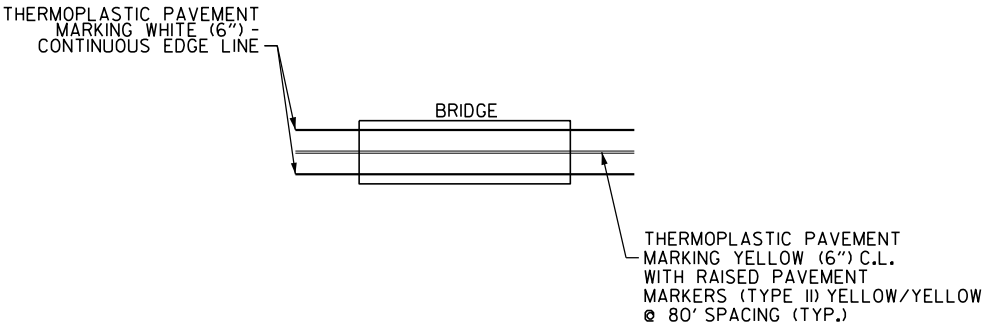
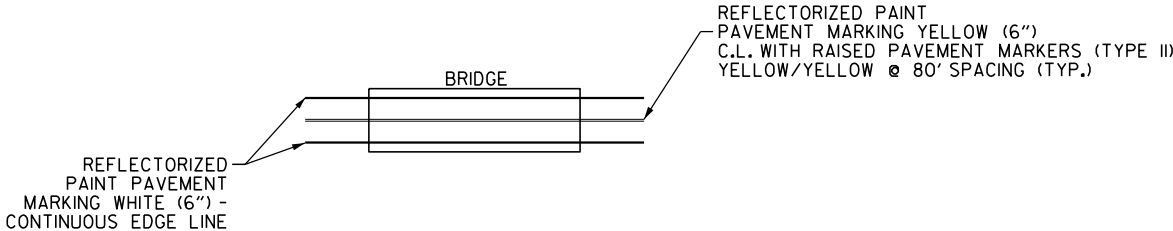
STAGE 2



TYPICAL SECTIONS
(2 LANE BRIDGES)
MAINTENANCE
OF TRAFFIC DETAILS

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WORKSPACE: ARDOT
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REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	28	41
		PERMANENT PAVEMENT MARKINGS DETAILS				



PERMANENT PAVEMENT MARKING DETAILS
TWO LANE ROADWAYS W/ BRIDGE

BRIDGES < 2,000 ADT

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE
DIST. 1	1	02003	HWY.77	5	1.919
DIST. 3	10	00326	HWY.70	3	9.024
	11	02640	HWY.24	5	15.209
DIST. 6	14	05481	HWY.15	11	0.385
	15	05663	HWY.13	9	20.347
DIST. 9	18	05571	HWY.143	1	2.725
	19	03263	HWY.21	4	9.287
	20	03366	HWY.21	4	8.474

- NOTES:
1. BRIDGE AND ROADWAY DIMENSIONS VARY FOR EACH SITE. REFER TO TYPICAL SECTIONS.
 2. PAVEMENT MARKINGS ARE TO BE PLACED FROM BEGINNING OF TRANSITION LEADING INTO EACH SITE THROUGH ENDING TRANSITION. REFER TO "COLD MILLING" ASPHALT PAVEMENT QUANTITY BOX FOR TRANSITION LENGTHS AT BRIDGE SITES.
 3. REFER TO "PERMANENT PAVEMENT MARKINGS" QUANTITY BOX FOR STRIPING AND RAISED PAVEMENT MARKER QUANTITIES AT EACH BRIDGE SITE.

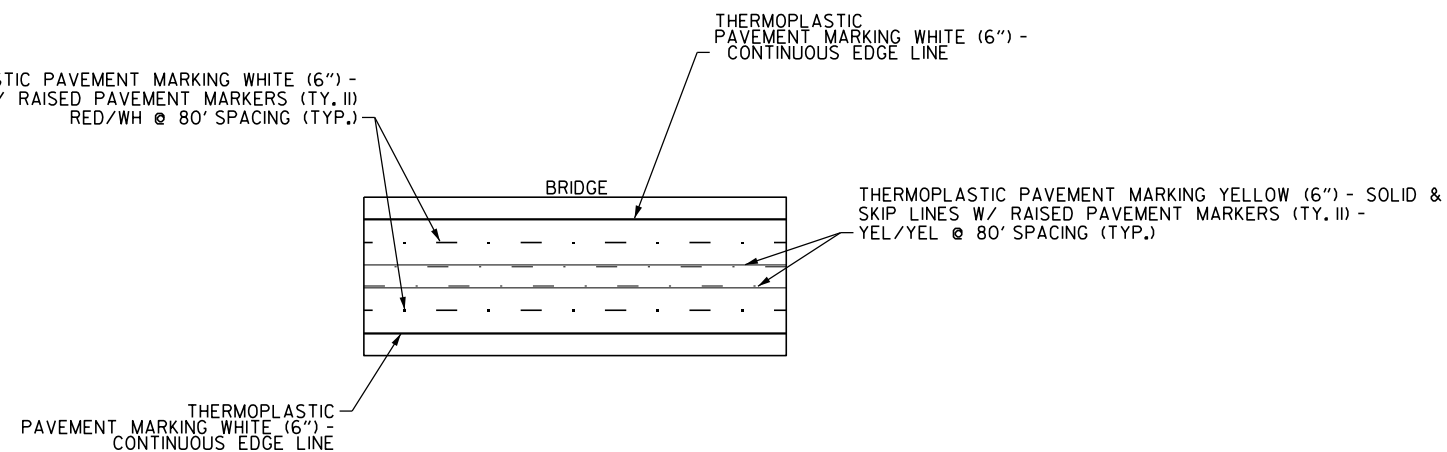
NOTE: THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMET OF THE FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

BRIDGES > 2,000 ADT

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE
DIST. 1	2	05135	HWY.147	1	13.851
	3	05134	HWY.147	1	12.812
	4	00521	HWY.64	15	11.306
	5	00516	HWY.64	15	6.651
	6	00515	HWY.64	15	6.514
	7	03820	HWY.64	14	7.281
	8	03819	HWY. 64	14	7.080
DIST. 6	13	05397	HWY.183	1	5.177
DIST. 7	16	03613	HWY.79	4	10.477
	17	01978	HWY.79	2	3.645

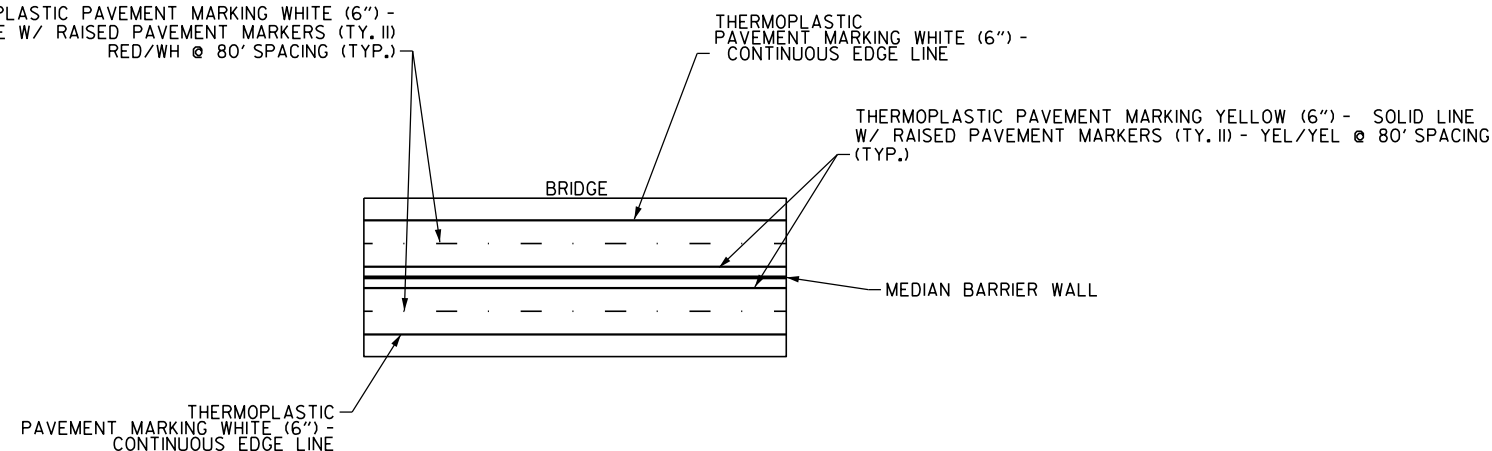
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	29	41
		PERMANENT PAVEMENT MARKINGS DETAILS				

	BRIDGE ID	BRIDGE #	ROUTE	SEC.	LOG MILE
DIST. 4	12	AI425	HWY.71	16	15.898



NOTES:

3. REFER TO "PERMANENT PAVEMENT MARKINGS"
QUANTITY BOX FOR STRIPING AND RAISED
PAVEMENT MARKER QUANTITIES AT EACH BRIDGE SITE.



NOTES:

PERMANENT PAVEMENT MARKINGS DETAILS

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REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	30	41
QUANTITIES						



ADVANCE WARNING SIGNS AND DEVICES - DISTRICTS 1, 2, 3, 4, 7, & 9
LANE CLOSURE FOR HYDRODEMOLITION OVERLAY BRIDGES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	ADVANCE WARNING ARROW PANEL	PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED	PORTABLE CHANGEABLE MESSAGE SIGN	
			LIN. FT. - EACH			NO.	SQ. FT.								EACH
ADVANCE WARNING SIGNS - HIGHWAY															
W20-1	ROAD WORK 1500 FT.	36"x36"	8	8	8	8	72.0								
W20-1	ROAD WORK 1000 FT.	36"x36"	2	2	2	2	18.0								
W20-1	ROAD WORK 500 FT.	36"x36"	2	2	2	2	18.0								
W20-1	ROAD WORK AHEAD	36"x36"	16	16	16	16	144.0								
W20-4	ONE LANE ROAD 1/2 MILE	36"x36"	8	8	8	8	72.0								
W20-4	ONE LANE ROAD 1000 FT.	36"x36"	8	8	8	8	72.0								
W20-5	LEFT LANE CLOSED AHEAD	36"x36"	2	2	2	2	18.0								
W20-5	RIGHT LANE CLOSED AHEAD	36"x36"	2	2	2	2	18.0								
W20-5	RIGHT LANE CLOSED 1500 FT.	36"x36"	8	8	8	8	72.0								
W20-5	RIGHT LANE CLOSED 1/2 MILE	36"x36"	8	8	8	8	72.0								
W20-5	RIGHT LANE CLOSED 1 MILE	36"x36"	2	2	2	2	18.0								
G20-2	END ROAD WORK	36"x18"	16	16	16	16	72.0								
W1-4L	REVERSE CURVE LT.	36"x36"	6	6	6	6	54.0								
W1-4R	REVERSE CURVE RT.	36"x36"	6	6	6	6	54.0								
W3-3	ADVANCED TRAFFIC CONTROL - TRAFFIC SIGNAL	30"x30"	8	8	8	8	50.0								
W3-4	BE PREPARED TO STOP	36"x36"	8	8	8	8	72.0								
W13-1	SPEED LIMIT (ADVISORY)	24"x24"	8	8	8	8	32.0								
R2-1	SPEED LIMIT	30"x36"	24	24	24	24	180.0								
W9-3	CENTER LANE CLOSED AHEAD	36"x36"	2	2	2	2	18.0								
R10-6	STOP HERE ON RED	24"x36"	8	8	8	8	48.0								
W1-6	LARGE ARROW	48"x24"	15	15	15	15	120.0								
R4-1	DO NOT PASS	24"x30"	8	8	8	8	40.0								
W21-5a	RIGHT SHOULDER CLOSED	36"x36"	8	8	8	8	72.0								
W4-2 LT.	LANE ENDS (LEFT)	36"x36"	8	8	8	8	72.0								
W4-2 RT.	LANE ENDS (RIGHT)	36"x36"	8	8	8	8	72.0								
SPECIAL	MERGE NOW	36"x36"	8	8	8	8	72.0								
SUBTOTALS (DISTRICTS 1, 2, 3, 4, 7, & 9 - ADVANCE WARNING SIGNS - HIGHWAY):							1622.0								
ADVANCE DEVICES															
	VERTICAL PANELS				110			110							
	TRAFFIC DRUMS				350				350						
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER				550					550					
	RELOCATING PRECAST CONCRETE BARRIER				2200						2200				
	ADVANCE WARNING ARROW PANEL				301							301			
	PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED				115								115		
	PORTABLE CHANGEABLE MESSAGE SIGN				60									60	
SUBTOTALS (DISTRICT 1, 2, 3, 4, 7, & 9 - ADVANCE DEVICES):								110	350	550	2200	301	115	60	
STREAM TRAFFIC SIGNS															
	WARNING! BRIDGE CONSTRUCTION DOWNSTREAM	60"x36"			6		90.0								
	BRIDGE CONSTRUCTION AHEAD	48"x48"			6		96.0								
	BRIDGE CONSTRUCTION PORTAGE RIGHT - (ARROW)	48"x48"			6		96.0								
	WARNING! STAY WITHIN NAVIGATION CHANNEL	60"x36"			6		90.0								
SUBTOTAL (DISTRICT 9):							372.0								
PROJECT TOTALS (DISTRICTS 1, 2, 3, 4, 7, & 9):								1994.0	110	350	550	2200	301	115	60

MAINTENANCE OF TRAFFIC ITEMS ARE TO BE RELOCATED BETWEEN BRIDGE SITES AND DISTRICTS IF AND WHERE DIRECTED BY THE ENGINEER. THE TOTALS REPRESENT A MAXIMUM NUMBER OF MOT DEVICES AND ESTIMATED TIME USAGES.
TRAFFIC CONTROL DEVICES, WHERE SHOWN ON THE PLANS FOR PAYMENT, WILL BE PAID AT THE CONTRACT UNIT PRICE FOR EACH ITEM INVOLVED. ALL ADDITIONAL TRAFFIC CONTROL DEVICES BEYOND THE CONTRACT AMOUNT SHALL BE PROVIDED, MAINTAINED, AND REPLACED, IF NECESSARY, AT NO COST TO THE DEPARTMENT.

NOTES: ALL LOCATIONS HAVE BOTH HIGH AND LOW TRAFFIC VOLUMES IN DISTRICTS 1, 2, 3, 4, 6, 7, & 9 AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW TRAFFIC VOLUMES IN EACH DISTRICT.

* THE PORTABLE CHANGEABLE MESSAGE SIGN QUANTITY IS ESTIMATED AND BASED ON USE IF AND WHERE DIRECTED BY THE ENGINEER.

* THE PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED QUANTITY IS TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER FOR THE TWO LANE BRIDGE STRUCTURES.
TRAINED FLAGGERS ARE TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. TIME CHARGED FOR PAYMENT WILL BE BASED ON ACTUAL FIELD USAGE.

* REFER TO "DETAILS FOR SAFETY OF STREAM TRAFFIC" SPECIAL PROVISION. REQUIRED TEMPORARY WARNING LIGHTS ARE SUBSIDERARY TO THE PAY ITEM "MAINTENANCE OF TRAFFIC".

QUANTITIES ARE ESTIMATED FOR MAINTENANCE OF TRAFFIC ITEMS.
SEE SECTION 104.03 OF THE STD SPECS.

STATE OF
ARKANSAS

LICENSED
PROFESSIONAL
ENGINEER

No. 9678
LINDA S. GUNN
L. Gunn
2-21-23

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING	
						TYPE II	TYPE II	6"		6"	
						(WHITE/RED)	(YELLOW/YELLOW)	WHITE	YELLOW	WHITE	YELLOW
					LIN FT.	EACH		LIN. FT.			
1	02003	77	1.919	WHITE	1467						
				YELLOW	1423					1423	
				R.P.M.							1423
2	05135	147	13.851	WHITE	398			350			
				YELLOW	350				350		
				R.P.M.							
3	05134	147	12.812	WHITE	1016			968			
				YELLOW	968				968		
				R.P.M.							
4	00521	64	11.306	WHITE	529			481			
				YELLOW	481				481		
				R.P.M.							
5	00516	64	6.651	WHITE	748			700			
				YELLOW	700				700		
				R.P.M.							
6	00515	64	6.514	WHITE	1128			1080			
				YELLOW	1080				1080		
				R.P.M.							
7	03820	64	7.281	WHITE	1508			1460			
				YELLOW	1460				1460		
				R.P.M.							
8	03819	64	7.083	WHITE	1508			1460			
				YELLOW	1460				1460		
				R.P.M.							
SUBTOTAL (DIST. 1):					16224		49	6499	6499	1423	1423

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

BR.ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING	REFLECTORIZED PAINT PAVEMENT MARKING
						TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6" WHITE YELLOW	6" WHITE YELLOW
						LIN FT.	EACH	LIN. FT.	LIN. FT.
9	05211	79	7.555	WHITE	6301			6253	
				YELLOW R.P.M.	5002			5002	
SUBTOTAL (DIST. 2):					11303	63		6253	5002

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING	
						TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6"		6"	
						LIN FT.	EACH	WHITE LIN. FT.	YELLOW	WHITE LIN. FT.	YELLOW
10	00326	70	9.024	WHITE	1048					1000	
				YELLOW	1000						1000
				R.P.M.			6				
11	02640	24	15.209	WHITE	1125					1081	
				YELLOW	1081						1081
				R.P.M.			7				
SUBTOTAL (DIST. 3):					4254		13			2081	2081

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING	
						TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6"		6"	
						LIN FT.	EACH	WHITE LIN, FT.	YELLOW LIN, FT.	WHITE LIN, FT.	YELLOW LIN, FT.
12	A1425	71	15.898	WHITE	229			185			
				YELLOW R.P.M.	185				185		
SUBTOTAL (DIST. 4):					414	2	2	185	185		

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING		
						TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6"		6"		
						LIN FT.	EACH	WHITE LIN. FT.	YELLOW	WHITE LIN. FT.	YELLOW	
13	05397	183	5.177	WHITE	464			420				
				YELLOW R.P.M.	420			420				
14	05481	15	0.385	WHITE	534		3			490		
				YELLOW R.P.M.	490					490		
15	05663	13	20.347	WHITE	1338					1290		
				YELLOW R.P.M.	1290						1290	
SUBTOTAL (DIST. 6):					4536		14		420	420	1780	1780

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING	
						TYPE II (WHITE/RED)	TYPE II (YELLOW/YELLOW)	6"		6"	
						LIN FT.	EACH	WHITE LIN. FT.	YELLOW	WHITE LIN. FT.	YELLOW
16	03613	79	10.477	WHITE	800			800			
				YELLOW	800				800		
				R.P.M.			5				
17	01978	79	3.645	WHITE	1448			1404			
				YELLOW	1404				1404		
				R.P.M.			9				
SUBTOTAL (DIST. 7):					4452		14	2204	2204		

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

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REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	32	41
		QUANTITIES				



CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS - DIST. 9 (BOX 7 OF 7)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	DESCRIPTION	REMOVABLE CONST. PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING	
						TYPE II	TYPE II	6"		6"	
						(WHITE/RED)	(YELLOW/YELLOW)	WHITE	YELLOW	WHITE	YELLOW
						EACH		LIN, FT.		LIN, FT.	
18	05571	143	2.725	WHITE	898					854	
				YELLOW	854						854
				R.P.M.			5				
19	03263	21	9.287	WHITE	1048					1004	
				YELLOW	1004						1004
				R.P.M.			6				
20	03366	21	8.474	WHITE	1048					1004	
				YELLOW	1004						1004
				R.P.M.			6				
SUBTOTAL (DIST. 9):					5856		17			2862	2862

NOTE: 2 LANE ROADS HAVE BOTH HIGH AND LOW TRAFFIC VOLUME IN DISTRICT 9 AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW ROADS IN EACH DISTRICT.

FOR 2 LANE ROADS, THE 12" WHITE STOP BAR LIN. FT. QUANTITY FROM THE 2 LANE MAINTENANCE OF TRAFFIC DETAIL IS INCLUDED IN THE REMOVABLE CONSTRUCTION PAVEMENT MARKINGS COLUMN FOR STAGE 1AND STAGE 2 CONSTRUCTION.

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. C.L. STRIPING ON THE BRIDGE WILL BE DETERMINED IF AND WHERE DIRECTED BY THE ENGINEER.

SUBTOTALS DIST. 1 - (BOX 1 OF 7):	16224		49	6499	6499	1423	1423
SUBTOTALS DIST. 2 - (BOX 2 OF 7):	11303	63		6253	5002		
SUBTOTALS DIST. 3 - (BOX 3 OF 7):	4254		13			2081	2081
SUBTOTALS DIST. 4 - (BOX 4 OF 7):	414	2	2	185	185		
SUBTOTALS DIST. 6 - (BOX 5 OF 7):	4536		14	420	420	1780	1780
SUBTOTALS DIST. 7 - (BOX 6 OF 7):	4452		14	2204	2204		
SUBTOTALS DIST. 9 - (BOX 7 OF 7):	5856		17			2862	2862
PROJECT TOTALS:	47039	65	109	15561	14310	8146	8146

NOTE: 2 LANE ROADS HAVE BOTH HIGH AND LOW TRAFFIC VOLUME IN DISTRICT 2 AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. REFER TO PERMANENT PAVEMENT MARKING DETAILS FOR LIST OF HIGH AND LOW ROADS IN EACH DISTRICT.

FOR 2 LANE ROADS, THE 12" WHITE STOP BAR LIN. FT. QUANTITY FROM THE 2 LANE MAINTENANCE OF TRAFFIC DETAIL IS INCLUDED IN THE REMOVABLE CONSTRUCTION PAVEMENT MARKINGS COLUMN FOR STAGE 1AND STAGE 2 CONSTRUCTION.

THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

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REVISED DATE: **REVDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	33	41
QUANTITIES						



COLD MILLING ASPHALT PAVEMENT - DIST. 1 (BOX 1 OF 5)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
					INCHES			FEET
1	02003	77	1.919	BR. DECK	5	211.50	27	634.50
				TRANSITION	4.5	500.00	24	1333.33
2	05135	147	13.851	BR. DECK	1	75.00	43	358.33
				TRANSITION	2.5	100.00	44	488.89
3	05134	147	12.812	BR. DECK	4	84.00	43	401.33
				TRANSITION	4	240.00	44	1173.33
4	00521	64	11.306	BR. DECK	2	40.33	28	125.47
				TRANSITION	3	200.00	30	666.67
5	00516	64	6.651	BR. DECK	1	150.00	28	466.67
				TRANSITION	2.5	100.00	30	333.33
6	00515	64	6.514	BR. DECK	3	240.00	28	746.67
				TRANSITION	3.5	300.00	30	1000.00
7	03820	64	7.281	BR. DECK	4	330.00	28	1026.67
				TRANSITION	4	400.00	30	1333.33
8	03819	64	7.083	BR. DECK	4	330.00	28	1026.67
				TRANSITION	4	400.00	30	1333.33
SUBTOTAL (DIST. 1):								12448.52

*AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY. IF THE FIELD DEPTH OF ASPHALT ON THE DECK IS DETERMINED TO BE THICKER THAN THE DEPTH SHOWN, NO ADDITIONAL PAYMENT WILL BE MADE FOR GREATER DEPTHS.

** #3 - 05134 NOTE ON PAGE 5

COLD MILLING ASPHALT PAVEMENT - DIST. 3 (BOX 2 OF 5)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT	
					INCHES			FEET	FEET
10	00326	70	9.024	BR. DECK	4	100.00	28	311.11	
				TRANSITION	4	400.00	36	1600.00	
11	02640	24	15.209	BR. DECK	3	240.25	24	640.67	
				TRANSITION	3.5	300.00	32	1066.67	
SUBTOTAL (DIST. 3):									3618.45

*AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY. IF THE FIELD DEPTH OF ASPHALT ON THE DECK IS DETERMINED TO BE THICKER THAN THE DEPTH SHOWN, NO ADDITIONAL PAYMENT WILL BE MADE FOR GREATER DEPTHS.

COLD MILLING ASPHALT PAVEMENT - DIST. 6 (BOX 3 OF 5)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
					INCHES			FEET
15	05663	13	20.347	BR. DECK	4	245.00	28	762.22
				TRANSITION	4	400.00	36	1600.00
SUBTOTAL (DIST. 6):								2362.22

*AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY. IF THE FIELD DEPTH OF ASPHALT ON THE DECK IS DETERMINED TO BE THICKER THAN THE DEPTH SHOWN, NO ADDITIONAL PAYMENT WILL BE MADE FOR GREATER DEPTHS.

COLD MILLING ASPHALT PAVEMENT - DIST. 7 (BOX 4 OF 5)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT	
					INCHES			FEET	FEET
16	03613	79	10.477	BR. DECK	3	100.00	28	311.11	
				TRANSITION	3.5	300.00	40	1333.33	
17	01978	79	3.645	BR. DECK	4	302.21	24	805.89	
				TRANSITION	4	400.00	34	1511.11	
SUBTOTAL (DIST. 7):									3961.44

*AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY. IF THE FIELD DEPTH OF ASPHALT ON THE DECK IS DETERMINED TO BE THICKER THAN THE DEPTH SHOWN, NO ADDITIONAL PAYMENT WILL BE MADE FOR GREATER DEPTHS.

COLD MILLING ASPHALT PAVEMENT - DIST. 9 (BOX 5 OF 5)

BR. ID # (TITLE SHEET)	BRIDGE STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	* AVG. DEPTH OF ASPHALT	LENGTH	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT	
					INCHES			FEET	FEET
19	03263	21	9.287	BR. DECK	2	302.17	24	805.79	
				TRANSITION	3	200.00	22	488.89	
20	03366	21	8.474	BR. DECK	2	302.17	24	805.79	
				TRANSITION	3	200.00	22	488.89	
SUBTOTAL (DIST. 9):									2589.36

*AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY. IF THE FIELD DEPTH OF ASPHALT ON THE DECK IS DETERMINED TO BE THICKER THAN THE DEPTH SHOWN, NO ADDITIONAL PAYMENT WILL BE MADE FOR GREATER DEPTHS.

SUBTOTALS DIST. 1 - (BOX 1 OF 5):	12448.52
SUBTOTALS DIST. 3 - (BOX 2 OF 5):	3618.45
SUBTOTALS DIST. 6 - (BOX 3 OF 5):	2362.22
SUBTOTALS DIST. 7 - (BOX 4 OF 5):	3961.44
SUBTOTALS DIST. 9 - (BOX 5 OF 5):	2589.36
PROJECT TOTALS:	24979.99

*AVERAGE DEPTH OF ASPHALT IS ESTIMATED AND SHOWN FOR INFORMATION ONLY. IF THE FIELD DEPTH OF ASPHALT ON THE DECK IS DETERMINED TO BE THICKER THAN THE DEPTH SHOWN, NO ADDITIONAL PAYMENT WILL BE MADE FOR GREATER DEPTHS.

NOTE: COORDINATE COLD MILLING STOCKPILE LOCATIONS WITH DISTRICT ENGINEER. STOCKPILE LOCATIONS SHALL BE NO FURTHER THAN FIVE MILES FROM EACH SITE.

C:\\$for d\Weld 2/2/2023 10:31:44 AM
WORKSPACE: ARDOT
Y:\Projects\AR001\012442_Hydrodemolition Bridge Preservation (2023)\\$Design\CIVIL\Drawings\012442_08_0TY_001.dgn
REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	34	41
QUANTITIES						



BASE AND SURFACING - MAIN LANE TRANSITIONS - DIST. 1 (BOX 1 OF 5)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT		ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD.)	TOTAL GALLONS	TOTAL WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON	TOTAL PG 70-22 TON
1	02003	77	1.919	MAIN LANE TRANSITION	500.00	24	226.67	24	1333.33	220	146.67	
2	05135	147	13.851	MAIN LANE TRANSITION	100.00	44	83.11	44	488.89	220	53.78	
3	05134	147	12.812	MAIN LANE TRANSITION	400.00	44	332.45	44	1955.56	220	215.11	
4	00521	64	11.306	MAIN LANE TRANSITION	200.00	30	113.33	30	666.67	220	73.33	73.33
5	00516	64	6.651	MAIN LANE TRANSITION	200.00	30	113.33	30	666.67	220	73.33	
6	00515	64	6.514	MAIN LANE TRANSITION	300.00	30	170.00	30	1000.00	220	110.00	
7	03820	64	7.281	MAIN LANE TRANSITION	400.00	30	226.67	30	1333.33	220		146.67
8	03819	64	7.083	MAIN LANE TRANSITION	400.00	30	226.67	30	1333.33	220		146.67
SUBTOTAL (DIST. 1):							1492.23				672.22	366.67

BASIS OF ESTIMATE (DIST. 1)
ACHM SURFACE COURSE (1/2") PG 64-22.....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
ACHM SURFACE COURSE (1/2") PG 70-22.....95.1% MIN. AGGR.....4.9% ASPHALT BINDER
NOTE: THE ACHM SURFACE COURSE (70-22) IS IN ROADWAY LOCATIONS WITH HIGH TRUCK TRAFFIC.

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

BASE AND SURFACING - MAIN LANE TRANSITIONS - DIST. 3 (BOX 2 OF 5)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT		ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD. TOTAL WID.	TOTAL GALLONS	TOTAL WID.	SQ. YD.	POUND / SQ. YD.	TOTAL PG 64-22	TOTAL PG 70-22
						FEET		FEET			TON	TON
10	00326	70	9.024	MAIN LANE TRANSITION	400.00	36	272.00	36	1600.00	220	176.00	
11	02640	24	15.209	MAIN LANE TRANSITION	300.00	32	181.33	32	1066.67	220	117.33	
SUBTOTAL (DIST. 3):							453.33				293.33	

BASIS OF ESTIMATE (DIST. 3)
ACHM SURFACE COURSE (1/2") PG 64-22.....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

BASE AND SURFACING - MAIN LANE TRANSITIONS - DIST. 6 (BOX 3 OF 5)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT		ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD. TOTAL WID.	TOTAL GALLONS	TOTAL WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22	TOTAL PG 70-22
						FEET		FEET			TON	TON
15	05663	13	20.347	MAIN LANE TRANSITION	400.00	36	272.00	36	1600.00	220	176.00	
SUBTOTAL (DIST. 6):							272.00				176.00	

BASIS OF ESTIMATE (DIST. 6)
ACHM SURFACE COURSE (1/2") PG 64-22.....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

BASE AND SURFACING - MAIN LANE TRANSITIONS - DIST. 7 (BOX 4 OF 5)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT		ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD. TOTAL WID.	TOTAL GALLONS	TOTAL WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22	TOTAL PG 70-22
						FEET						
16	03613	79	10.477	MAIN LANE TRANSITION	300.00	40	226.67	40	1333.33	200	133.33	
17	01978	79	3.645	MAIN LANE TRANSITION	400.00	34	256.89	34	1511.11	200	151.11	
SUBTOTAL (DIST. 7):							483.56				284.44	

BASIS OF ESTIMATE (DIST. 7)
ACHM SURFACE COURSE (1/2") PG 64-22.....94.7% MIN. AGGR.....5.3% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

BASE AND SURFACING - MAIN LANE TRANSITIONS - DIST. 9 (BOX 5 OF 5)

BR. ID # (TITLE SHEET)	BR. STRUCTURE NO.	ROUTE	LOG MILE	LOCATION	TRANSITION LENGTH	TACK COAT		ACHM SURFACE COURSE (1/2")				
						(0.17 GAL. PER SQ. YD. TOTAL WID.	TOTAL GALLONS	TOTAL WID.	SQ.YD.	POUND / SQ.YD.	TOTAL PG 64-22 TON	TOTAL PG 70-22 TON
						FEET						
19	03263	21	9.287	MAIN LANE TRANSITION	200.00	22	83.11	22	488.89	200	48.89	
20	03366	21	8.474	MAIN LANE TRANSITION	200.00	22	83.11	22	488.89	200	48.89	
SUBTOTAL (DIST. 9):							166.22				97.78	

BASIS OF ESTIMATE (DIST. 9)
ACHM SURFACE COURSE (1/2") PG 64-22.....94.6% MIN. AGGR.....5.4% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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WORKSPACE: ARDOT
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REVISED DATE: **REVIDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	35	41
		QUANTITIES				



BASE AND SURFACING - MAIN LANE TRANSITIONS

SUBTOTALS & PROJECT TOTALS	TACK COAT	ACHM SURFACE COURSE (1/2")	
	TOTAL GALLONS	TOTAL PG 64-22 TON	TOTAL PG 70-22 TON
SUBTOTALS DIST. 1 - (BOX 1 OF 5):	1492.23	672.22	366.67
SUBTOTALS DIST. 3 - (BOX 2 OF 5):	453.33	293.33	
SUBTOTALS DIST. 6 - (BOX 3 OF 5):	272.00	176.00	
SUBTOTALS DIST. 7 - (BOX 4 OF 5):	483.56	284.44	
SUBTOTALS DIST. 9 - (BOX 5 OF 5):	166.22	97.78	
PROJECT TOTALS:	2867.34	1523.77	366.67

BASIS OF ESTIMATE (DIST. 1)
ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
ACHM SURFACE COURSE (1/2").....95.1% MIN. AGGR.....4.9% ASPHALT BINDER

BASIS OF ESTIMATE (DIST. 3)
ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

BASIS OF ESTIMATE (DIST. 6)
ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER

BASIS OF ESTIMATE (DIST. 7)
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER

BASIS OF ESTIMATE (DIST. 9)
ACHM SURFACE COURSE (1/2").....94.6% MIN. AGGR.....5.4% ASPHALT BINDER

MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22

TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

Clifford.Weld 2/20/2023 3:25:06 PM
WORKSPACE: ARDOT
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REVISED DATE:

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 012442

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
02-17-2023		6	ARK.	012442	36	41
ALL BRIDGES - QUANTITIES - 65853						

DISTRICT	SITE NO. ▲	COUNTY	ROUTE	SECTION	LOG MILE	BRIDGE NO.	SP & 509	SS & 802	SP & 803	SP & 803	SS & 804	SS & 809	SP JOB 012442	SP JOB 012442	SP JOB 012442	SP JOB 012442	SP JOB 012442	SP JOB 012442	SP JOB 012442	SP JOB 012442	SP JOB 012442
							JOINT REHABILITATION (TYPE A)	GROOVING	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	SILICONE JOINT SEALANT	BRIDGE BACKWALL MODIFICATION	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	HYDRODEMOLITION - CLASS 1	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	LATEX MODIFIED CONCRETE OVERLAY (VARIABLE DEPTH)	RAILING REPAIR	RIVER TRAFFIC SAFETY	SPALL REPAIR	SURFACE PATCHING
							LIN. FT.	SQ. YD.	GAL.	LIN. FT.	POUND	LIN. FT.	SQ. FT.	SQ. FT.	SQ. YD.	SQ. YD.	CU. YD.	LUMP SUM	LUMP SUM	SQ. FT.	SQ. FT.
1 ▲	1	CRITTENDEN	77	5	1.919	02003 ①		564.0	12.7	423	490	220 ⑤		571.1	635	637	13.27			20	10
	2	CRITTENDEN	147	1	13.851	05135 ①	172	334.0	7.2	150	280			322.5	359	360	7.49			15	5
	3	CRITTENDEN	147	1	12.812	05134 ①	179	374.0	8.1	168	310			361.2	402	403	8.38			5	45
	4	CROSS	64	15	11.306	00521 ①	56	250.0	5.6	180	220			252.0	280	281	5.86	1 ⑧		10	15
	5	CROSS	64	15	6.651	00516 ①	112	417.0	9.4	300	360			420.0	467	469	9.76			55	20
	6	CROSS	64	15	6.514	00515 ①	196	667.0	15.0	480	580			672.0	747	749	15.61			60	25
	7	WOODRUFF	64	14	7.281	03820 ①	336	917.0	20.5	660	790			924.0	1,027	1,030	21.46			50	15
	8	WOODRUFF	64	14	7.083	03819 ①	336	917.0	20.5	660	790			924.0	1,027	1,030	21.46			130	10
	9	PHILLIPS	1	7	4.009	03070 ①	104	320.0	7.3	250	280			325.0	362	363	7.55			10	5
	10	PHILLIPS	1	7	0.791	03069 ①	78	256.0	5.8	200	230			260.0	289	290	6.04			15	5
TOTALS FOR DISTRICT 1 ▲							1,569	5,016.0	112.1	3,471	4,330	220	5,031.8	5,595	5,612	116.88			370	155	
							1,387	4,440.0	99.0	3,021	3,820		4,446.8	4,944	4,959	103.29			345	145	
2 ▲	11	GRANT	270	9	12.314	02103 ①		609.0	13.8	476	530	256 ⑤		618.8	688	690	14.38			45	10
	9	JEFFERSON	79	9B	7.555	05211 ②		15,826.0	332.6	9,995	12,750	31 ⑤⑥	30 ⑦	14,992.5	16,659	16,682	347.60		1	40	
	13	DREW	425	3	0.172	03935 ①	112	250.0	5.6	180	220			252.0	280	281	5.86			5	
	14	ASHLEY	133	1	14.650	05498 ①	56	209.0	4.7	150	180			210.0	234	235	4.88				10
	15	ASHLEY	133	1	14.557	05497 ①	56	292.0	6.6	210	250			294.0	327	328	6.83			5	5
	TOTALS FOR DISTRICT 2 ▲						224	17,186.0	363.3	11,011	13,930	287	30	16,367.3	18,188	18,216	379.55			95	25
							15,826.0	332.6	9,995	12,750	31		14,992.5	16,659	16,682	347.60			40		
3	10	HOWARD	70	3	9.024	00326 ①	84	278.0	6.3	200	240			280.0	312	313	6.51			15	5
	11	NEVADA	24	5	15.209	02640 ①		556.0	12.7	476	490	196 ⑤		571.2	635	637	13.28			10	
	TOTALS FOR DISTRICT 3						84	834.0	19.0	676	730	196		851.2	947	950	19.79			25	5
4	12	WASHINGTON	71	16	15.898	A1425 ②③	56	422.0	8.9	148	350			400.5	445	446	9.29			15	15
	TOTALS FOR DISTRICT 4						56	422.0	8.9	148	350			400.5	445	446	9.29			15	15
6	13	SALINE	183	1	5.177	05397 ②	273	840.0	18.2	420	700			819.0	910	912	19.01			20	20
	14	LONOKE	15	11	0.385	05481 ②③	156	627.0	14.2	490	550			637.0	708	711	14.80			20	40
	15	LONOKE	13	9	20.347	05663 ①	168	681.0	15.3	490	590			686.0	763	765	15.94			5	5
	TOTALS FOR DISTRICT 6						597	2,148.0	47.7	1,400	1,840			2,142.0	2,381	2,388	49.75			45	65
7	16	OUACHITA	79	4	10.477	03613 ①	84	278.0	6.3	200	240			280.0	312	313	6.51				
	17	COLUMBIA	79	2	3.645	01978 ①	96	703.0	16.1	603	620	167 ⑤		722.9	804	807	16.80			35	10
	TOTALS FOR DISTRICT 7						180	981.0	22.4	803	860	167		1,002.9	1,116	1,120	23.31			35	10
9	18	CARROLL	143	1	2.725	05571 ②③		1,087.0	24.6	850	940	159 ⑥		1,105.0	1,228	1,232	25.67			15	15
	19	MADISON	21	4	9.287	03263 ①		700.0	16.0	600	620	172 ⑤		720.0	800	803	16.73			20	25
	20	MADISON	21	4	8.474	03366 ①		700.0	16.0	600	620	172 ⑤		720.0	800	803	16.73			20	20
	TOTALS FOR DISTRICT 9							2,487.0	56.6	2,050	2,180	503		2,545.0	2,828	2,838	59.13			55	60
TOTALS FOR JOB 012442 ▲							2,710	29,074.0	630.0	19,559	24,220 ④	1,373	30	28,340.7 ④	31,500	31,570	657.70 ④			640 ④	335 ④
							2,304	27,138.0	586.2	18,093	22,530	1,117		26,380.9	29,320	29,383	612.16			560	300

REFERENCE TABLE

BRIDGE NO.	EXISTING DWG. NO(S).
02003	4287 & 2357
05135	13835 & 15102
05134	13834 & 15101B
00521	11127 & 5421B
00516	11123 & 5421B
00515	11122 & 5421B
03820	12702 & 5421B
03819	12701 & 5421B
03070	9216 & 5416
03069	9215 & 5416
02103	4708 & 5125
05211	14543, 14544, 14549-14563, 14569-14574
03935	12969 & 15062
05498	17894 & 14936
05497	17893 & 14934
00326	8639 & 5475
02640	7364 & 5219B
A1425	24026, 1003, 11475, 24032-24034
05397	16330, 16331, 16333
05481	17816 & 14954
05663	20454 & 20457
03613	11795 & 5423
01978	4120, 2318, 2322, 4126, 4463, 4464
05571	18587 & 18591
03263	10129 & 5500-I
03366	10952, 5460, 5462

- ① EXISTING BRIDGE DECK HAS ASPHALT OVERLAY.
- ② EXISTING BRIDGE DECK HAS NO ASPHALT OVERLAY.
- 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.
- ⑤ EXISTING BRIDGE HAS SLIDER PLATE JOINTS TO BE PARTIALLY REMOVED AND REPLACED WITH POURED SILICONE JOINTS.
- ⑥ EXISTING BRIDGE HAS FILLED JOINTS TO BE REMOVED AND REPLACED WITH POURED SILICONE JOINTS.
- ⑦ SEE DWG. NO. 65855 FOR DETAILS OF BACKWALL MODIFICATION. AVERAGE DEPTH OF REPAIR IS ESTIMATED TO BE 2".
- ⑧ RAILING REPAIR QUANTITY INCLUDES CONCRETE POST REPAIR AND METAL BRIDGE RAILING REMOVAL AND REPLACEMENT. SEE DWG. NO. 65856 FOR DETAILS.

BRIDGES 03070, 03069, 02103, 03935, 05498, & 05497 REMOVED FROM JOB.
REVISED BY: MKL DATE: 2-17-2023
CHECKED BY: ERBB DATE: 2-17-2023



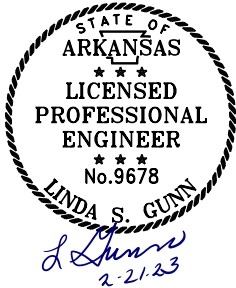
SCHEDULE OF BRIDGE QUANTITIES
HYDRODEMOLITION BRIDGE
PRESERVATION (2023) (S)
VARIOUS COUNTIES
ROUTE VARIES SECTION VARIES
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 09/2022 FILENAME: B012442_Q1.DGN
CHECKED BY: ERBB DATE: 10/2022 SCALE: NONE
DESIGNED BY: MKL DATE: 09/2022
BRIDGE NO. ALL BRIDGES DRAWING NO. 65853

BRIDGE ENGINEER
PRINT DATE: 2/20/2023

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WORKSPACE: ARDOT
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REVISED DATE: **REDATE**

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
2-17-2023		6	ARK.	012442	37	41
SUMMARY OF QUANTITIES AND REVISIONS						



SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	DIST. 1 QUANTITIES	DIST. 2 QUANTITIES	DIST. 3 QUANTITIES	DIST. 4 QUANTITIES	DIST. 6 QUANTITIES	DIST. 7 QUANTITIES	DIST. 9 QUANTITIES	PROJECT TOTAL QUANTITIES	UNIT
SS & 401	TACK COAT	1492		453		272	484	166	2867	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	986		278		167	269	93	1793	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	35		15		9	15	5	79	TON
SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")	18							18	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	12449		3618		2362	3961	2589	24980	SQ. YD.
601	MOBILIZATION	0.16	0.58	0.03	0.01	0.08	0.04	0.10	1.00	LUMP SUM
SP, SS, & 603	MAINTENANCE OF TRAFFIC	0.16	0.58	0.03	0.01	0.08	0.04	0.10	1.00	LUMP SUM
SS & 604	SIGNS								1994	SQ. FT.
SS & 604	TRAFFIC DRUMS								350	EACH
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	16224	11303	4254	414	4536	4452	5856	47039	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL								301	DAY
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	150	400						550	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER	700	400		1100				2200	LIN. FT.
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN								60	WEEK
SS & 604	VERTICAL PANELS								110	EACH
635	ROADWAY CONSTRUCTION CONTROL	0.16	0.58	0.03	0.01	0.08	0.04	0.10	1.00	LUMP SUM
SP	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED								115	WEEK
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")	1423		2081		1780		2862	8146	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")	1423		2081		1780		2862	8146	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	6499	6253		185	420	2204		15561	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	6499	5002		185	420	2204		14310	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	49	63	13	4	14	14	17	174	EACH
STRUCTURES OVER 20' SPAN										
SP & 509	JOINT REHABILITATION (TYPE A)	1387		84	56	597	180		2304	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	0.16	0.58	0.03	0.01	0.08	0.04	0.10	1.00	LUMP SUM
SS & 802	GROOVING	4440.0	15826.0	834.0	422.0	2148.0	981.0	2487.0	27138.0	SQ. YD.
SP & 803	CLASS 1 PROTECTIVE SURFACE TREATMENT	99.0	332.6	19.0	8.9	47.7	22.4	56.6	586.2	GAL.
SP & 803	CLASS 3 PROTECTIVE SURFACE TREATMENT	3021	9995	676	148	1400	803	2050	18093	LIN. FT.
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	3820	12750	730	350	1840	860	2180	22530	POUND
SS & 809	SILICONE JOINT SEALANT	220	31	196			167	503	1117	LIN. FT.
SP	BRIDGE BACKWALL MODIFICATION		30						30	SQ. FT.
SP	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	4446.8	14992.5	851.2	400.5	2142.0	1002.9	2545.0	26380.9	SQ. FT.
SP	HYDRODEMOLITION - CLASS 1	4944	16659	947	445	2381	1116	2828	29320	SQ. YD.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	4959	16682	950	446	2388	1120	2838	29383	SQ. YD.
SP	LATEX MODIFIED CONCRETE OVERLAY (VARIABLE DEPTH)	103.29	347.60	19.79	9.29	49.75	23.31	59.13	612.16	CU. YD.
SP	RAILING REPAIR	1.00							1.00	LUMP SUM
SP	RIVER TRAFFIC SAFETY		1.00						1.00	LUMP SUM
SP	SPALL REPAIR	345	40	25	15	45	35	55	560	SQ. FT.
SP	SURFACE PATCHING	145		5	15	65	10	60	300	SQ. FT.

REVISIONS

DATE	REVISION	SHEET NUMBER
02/17/23	BRIDGES 03070, 03069, 02103, 03935, 05498, AND 05497 WERE REMOVED FROM THE PROJECT PER ARDOT.	1, 2, 7-19, 21-24, 27-39
	THE FOLLOWING PLAN SHEET REVISIONS WERE MADE IN ADDITION TO THE REMOVAL OF BRIDGES:	
	ADDED QUANTITY FOR ADVANCE WARNING ARROW PANEL AND ADDED NOTE TO REVISIONS BOX.	
	TYPICAL SECTIONS FOR BRIDGES 03070, 03069, 02103, 03935, 05498, AND 05497 WERE REMOVED	
	INSETS FOR BRIDGES 03070, 03069, 02103, 03935, 05498, AND 05497 WERE REMOVED AND REMAINING INSETS CONSOLIDATED AND RENUMBERED LEAVING SHEET 18 BLANK	
	ALL QUANTITIES SHEETS WERE REVISED AND REVISIONS ADDED TO THE REVISIONS BOX	

Clifford.Weld 2/20/2023 3:25:28 PM
WORKSPACE: AR00T
Y:\Projects\AR00T_010152_012442_Hydrodemolition Bridge Preservation (2023)\S\Design\BRIDGE\Drawings\B012442_DT.dgn
REVISED DATE:

⚠ BRIDGES 03070, 03069, 02103, 03935, 05498,
& 05497 REMOVED FROM JOB.
REVISED BY: MKL DATE: 2-17-2023
CHECKED BY: ERBB DATE: 2-17-2023

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
02-17-2023		6	ARK.	012442	38	41
		ALL BRIDGES - DATA TABLE - 65854				

BRIDGE PRESERVATION DATA TABLE

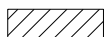
DISTRICT	CURRENT CONST. CONTRACT SITE NO. ⚠	BRIDGE NO.	ORIGINAL CONTRACT NO.	COUNTY	ROUTE	SECTION	SUPERSTRUCTURE TYPE	DECK TREATMENT STD. DRAWING	GRADE RAISE NEEDED FOR LMC OVERLAY?	BRIDGE JOINT TREATMENT STD. DRAWING	BRIDGE JOINT TREATMENT LOCATION
1 ⚠	1	02003	1-1123	CRITTENDEN	77	5	RCDG	55060	NO	55064	BENTS 1 - 8
	2	05135	11705	CRITTENDEN	147	1	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 1 - 4
	3	05134	11705	CRITTENDEN	147	1	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 1 - 4
	4	00521	11646	CROSS	64	15	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 & 3
	5	00516	11646	CROSS	64	15	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 - 5
	6	00515	11646	CROSS	64	15	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 - 8
	7	03820	11682	WOODRUFF	64	14	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 1 - 12
	8	03819	11682	WOODRUFF	64	14	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 1 - 12
	~~9~~	~~03070~~	~~11641~~	~~PHILLIPS~~	~~1~~	~~7~~	~~RC SLAB~~	~~55062~~	~~NO~~	~~NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.~~	~~BENTS 2 - 5~~
	~~10~~	~~03069~~	~~11641~~	~~PHILLIPS~~	~~1~~	~~7~~	~~RC SLAB~~	~~55062~~	~~NO~~	~~NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.~~	~~BENTS 2 - 4~~
2 ⚠	~~11~~	~~02103~~	~~6312~~	~~GRANT~~	~~270~~	~~9~~	~~I-BEAM~~	~~55060~~	~~NO~~	~~55064~~	~~BENTS 1 - 8~~
	9 ~~12~~	05211	2726 & 2727	JEFFERSON	79	9B	I-BEAM	55060	NO	55064 WITH BACKWALL MODIFICATION SEE DWG. NO. 65855	BACKWALL MODIFICATION: SOUTH BOUND ABUTMENT 1
	~~13~~	~~03935~~	~~2680~~	~~DREW~~	~~425~~	~~3~~	~~RC SLAB W/ VOIDS~~	~~55063~~	~~NO~~	~~NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.~~	~~BENTS 1 - 4~~
	~~14~~	~~05498~~	~~2776~~	~~ASHLEY~~	~~133~~	~~1~~	~~RC SLAB~~	~~55062~~	~~NO~~	~~NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.~~	~~BENTS 2 & 3~~
	~~15~~	~~05497~~	~~2776~~	~~ASHLEY~~	~~133~~	~~1~~	~~RC SLAB W/ VOIDS~~	~~55063~~	~~NO~~	~~NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.~~	~~BENTS 2 & 3~~
3	10 ~~16~~	00326	3454	HOWARD	70	3	RC SLAB	55062	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 - 4
	11 ~~17~~	02640	3554	NEVADA	24	5	I-BEAM	55060	NO	55064	BENTS 1 - 8
4	12 ~~18~~	A1425	9399 & 4878	WASHINGTON	71	16	RCDG & RC SLAB	55060/55062	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	INTERIOR BENT 1
6	13 ~~19~~	05397	6924	SALINE	183	1	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 1 - 7
	14 ~~20~~	05481	8958	LONOKE	15	11	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 - 7
	15 ~~21~~	05663	60024	LONOKE	13	9	RC SLAB	55062	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 - 7
7	16 ~~22~~	03613	7563	OUACHITA	79	4	RC SLAB W/ VOIDS	55063	NO	NO STD. DWG. - USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	BENTS 2 - 4
	17 ~~23~~	01978	7-204	COLUMBIA	79	2	RCDG & ENCASED I-BEAM	55060	NO	55064 & USE TYPE A JOINT REHAB AND SP. SEE ROADWAY SPECIAL DETAILS.	55064: BENTS 3, 5 - 8, & 10 TYPE A: BENTS 2, 4, 9, & 11
9	18 ~~24~~	05571	9615	CARROLL	143	1	I-BEAM	55060	NO	55064	BENTS 1 - 6
	19 ~~25~~	03263	9607	MADISON	21	4	I-BEAM	55060	NO	55064	BENT 1, PIERS 1 - 5, ABUTMENT 1
	20 ~~26~~	03366	9423	MADISON	21	4	I-BEAM	55060	NO	55064	BENTS 1 & 2, PIERS 1 - 5

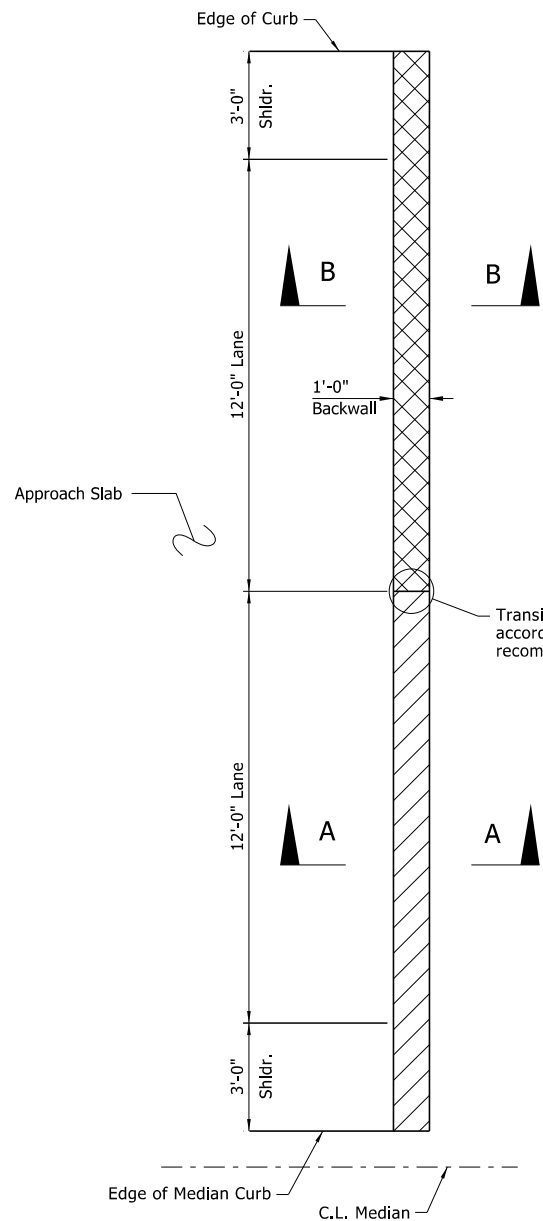


BRIDGE PRESERVATION DATA TABLE
DISTRICTS 1, 2, 3, 4, 6, 7, & 9
ROUTE VARIES SECTION VARIES
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: MKL DATE: 09/2022 FILENAME: B012442_DT.DGN
CHECKED BY: ERBB DATE: 10/2022 SCALE: NONE
DESIGNED BY: MKL DATE: 09/2022
BRIDGE ENGINEER
PRINT DATE: 2/20/2023
BRIDGE NO. ALL BRIDGES
DRAWING NO. 65854

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
02-17-2023		6	ARK.	012442	39	41
05211 - BACKWALL MODIFICATION - 65855						

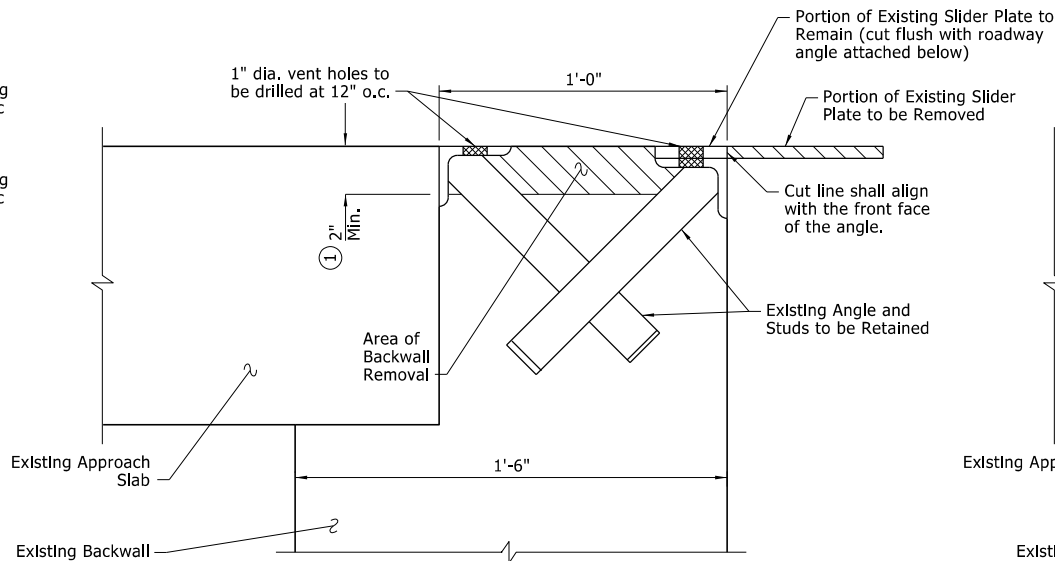
LEGEND

-  Denotes approximate extents of Backwall Modification corresponding with Stage 1 Construction in accordance with Maintenance of Traffic Plans. After backwall repairs are complete, the existing expansion joint shall be repaired per "DETAIL A".
-  Denotes approximate extents of Backwall Modification corresponding with Stage 2 Construction in accordance with Maintenance of Traffic Plans. After backwall repairs are complete, the existing expansion joint shall be repaired per "DETAIL B".



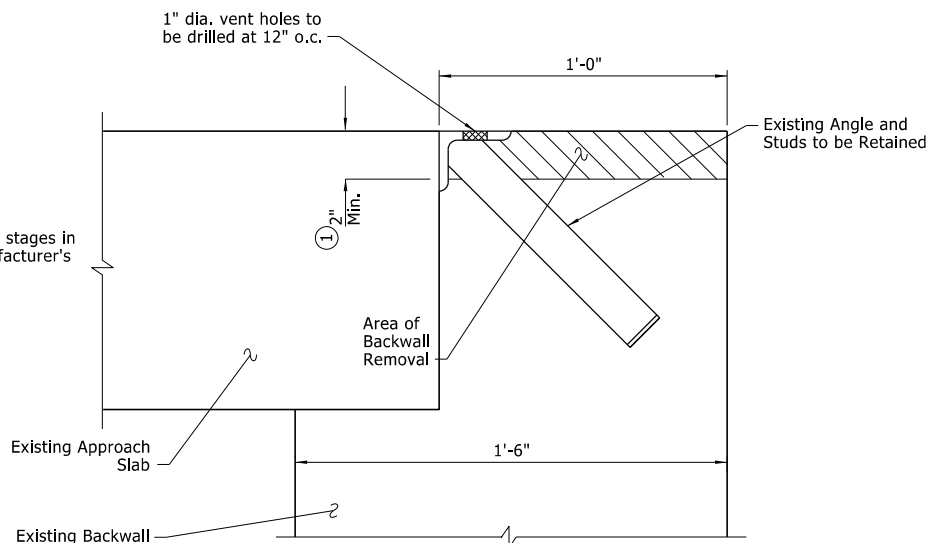
9
SITE NO. 12 - BRIDGE 05211
PLAN - ABUTMENT NO. 1
SOUTH BOUND LANES

Scale: $\frac{3}{8}$ " = 1'-0"



SECTION A-A REMOVAL

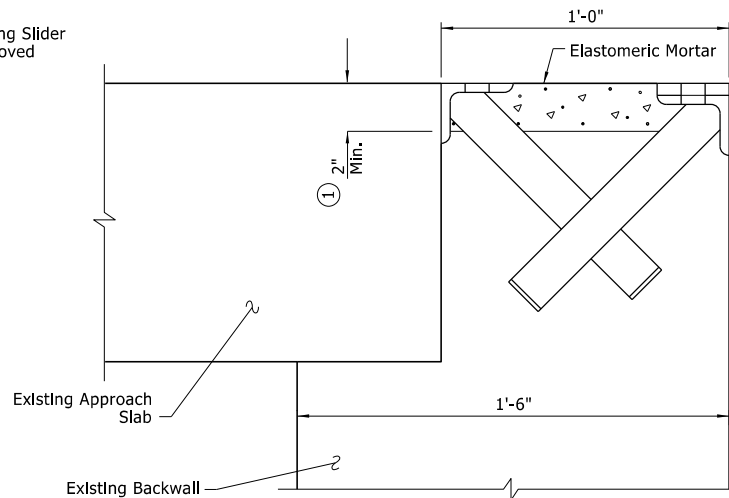
Scale: 3" = 1'-0"



SECTION B-B REMOVAL

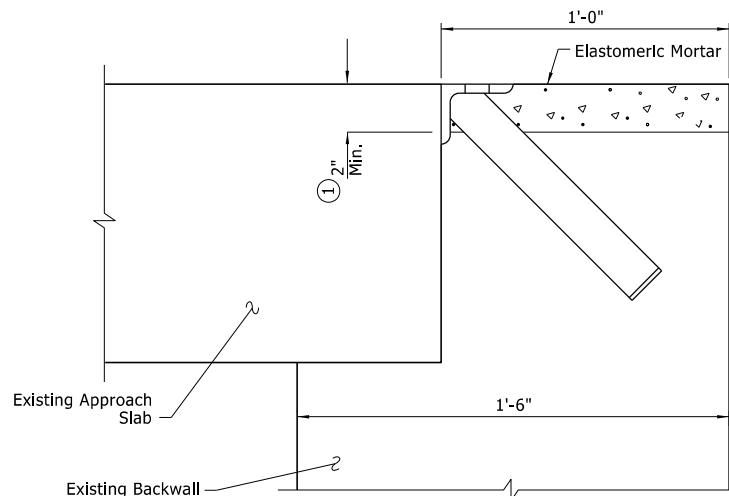
Scale: 3" = 1'-0"

- ① When thickness of broken or spalled concrete is greater than dimension shown, chip to sound concrete and sawcut squares/rectangle around damaged area. Where asphalt is present remove to a depth of sound concrete.



SECTION A-A CONSTRUCTION

Scale: 3" = 1'-0"



SECTION B-B CONSTRUCTION

Scale: 3" = 1'-0"

GENERAL NOTES

The proposed work is to be done in phases and consists of the removal of portions of the existing abutment backwall to sound concrete and replacement with elastomeric mortar in accordance with the details and SP Job 012442 "Bridge Backwall Modification" as well as joint repair. Stage construction phases shall be consistent with the Maintenance of Traffic Details. Backwall repair for both phases of construction shall be paid for as "BRIDGE BACKWALL MODIFICATION". Joint repair for both phases of construction shall be paid for as "SILICONE JOINT SEALANT".

Dimensions shown are based on original plans and limited field measurements. The Contractor shall check measurements and inspect conditions of concrete and joint armor anchorage and make adjustments to lengths and depths as necessary.

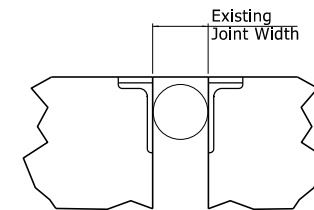
All material removed and not incorporated into the finished property shall become the property of the Contractor and shall be removed and disposed of. The portion of existing slider plate shall be removed and disposed of in accordance with Section 821. Removal and disposal of existing slider plate material will not be paid for directly, but shall be considered subsidiary to the item "SILICONE JOINT SEALANT".

Material used in the repair areas shall be elastomeric mortar in accordance with the requirements of SP Job 012442 "Bridge Backwall Modification".

Any repairs required between stage construction phases should be transitioned in accordance with the manufacturer's recommendations.

Elastomeric mortar shall be hand packed under the existing armor where present.

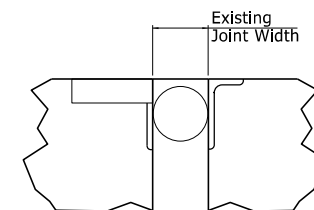
Saw cut rough edges of existing armor to create a clean transition.



DETAIL A

No Scale

NOTE:
See "SLIDER PLATE JOINT MODIFICATION"
on Std. Dwg. No. 55064 for additional
information.



DETAIL B

No Scale

NOTE:
See "POURED SILICONE JOINT SEAL
DETAILS" on Std. Dwg. No. 55064
for additional information.

BACKWALL MODIFICATION DETAILS
ROUTE 79 SECTION 9B
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 09/2022 FILENAME: B012442_BW1.DGN

CHECKED BY: ERBB DATE: 10/2022 SCALE: AS SHOWN

DESIGNED BY: MKL DATE: 09/2022

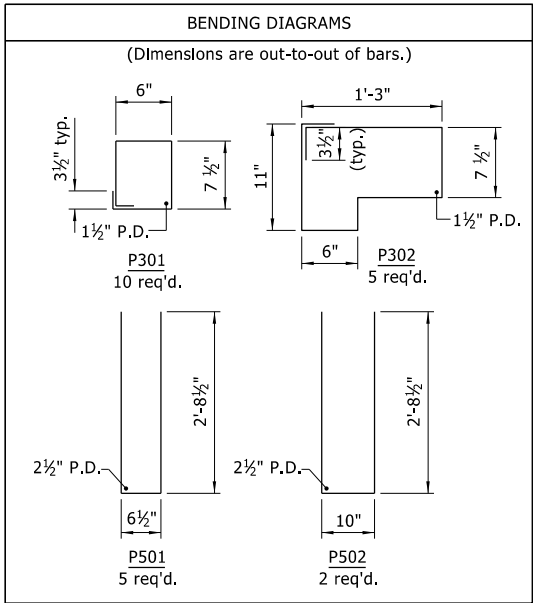
BRIDGE NO. 05211

DRAWING NO. 65855



BRIDGE ENGINEER
PRINT DATE: 2/20/2023

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WORKSPACE: ARDOT
Y:\Projects\VAR001_012422_Hydrodemolition Bridge Preservation (2023)\S\Design\BRIDGE Drawings\B012442_RAIL.dgn
REVISED DATE:



GENERAL NOTES

Dimensions shown are based on original plans and limited field measurements. The Contractor shall check measurements and make adjustments as necessary.

CONCRETE
Concrete shall be Class "S(AE)" with a minimum 28 day compressive strength $f'_c = 4,000$ psi and shall be poured in the dry.

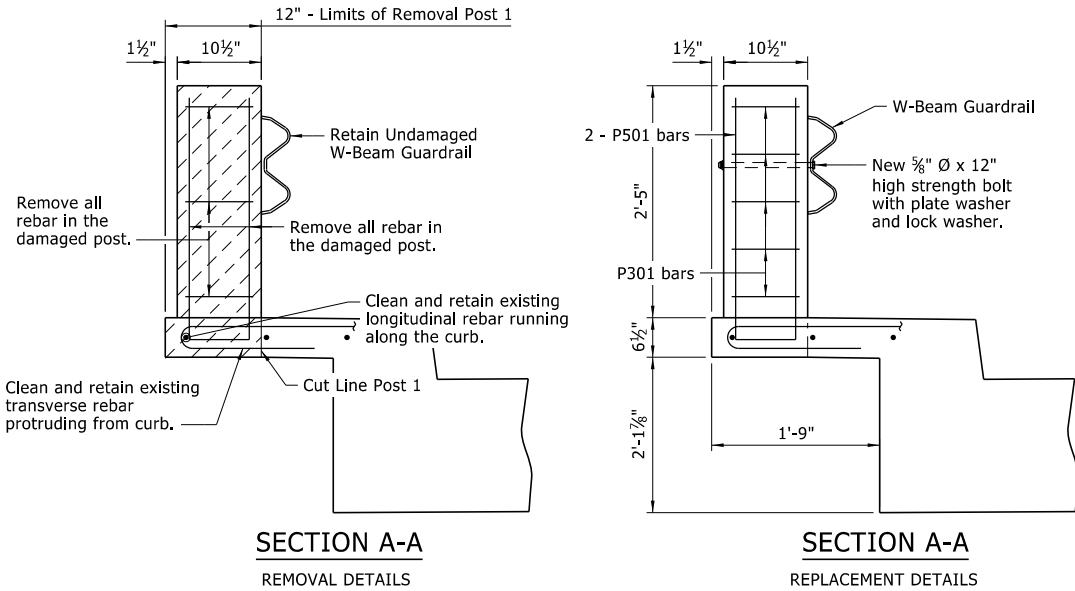
All exposed corners shall be chamfered $\frac{3}{4}$ " unless otherwise noted.

REINFORCING STEEL
All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

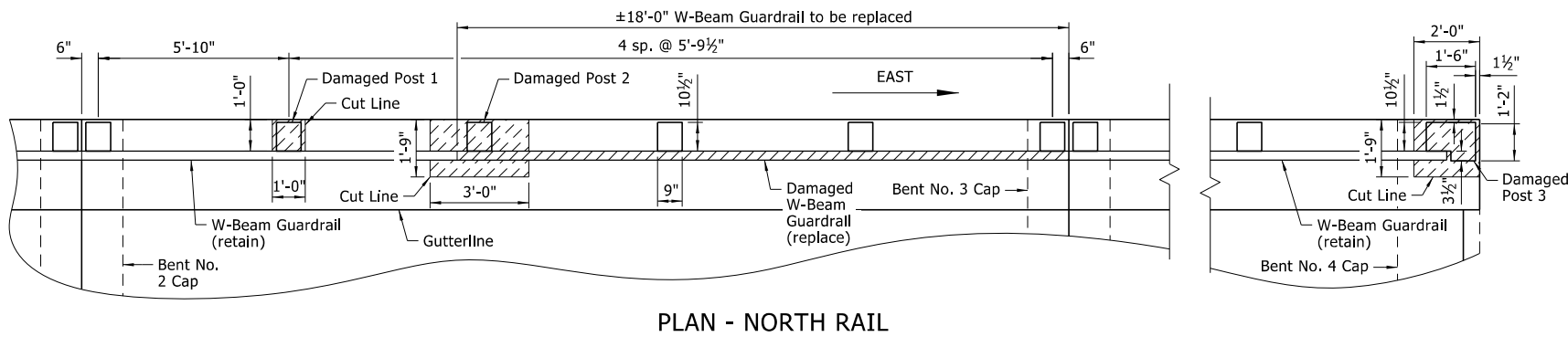
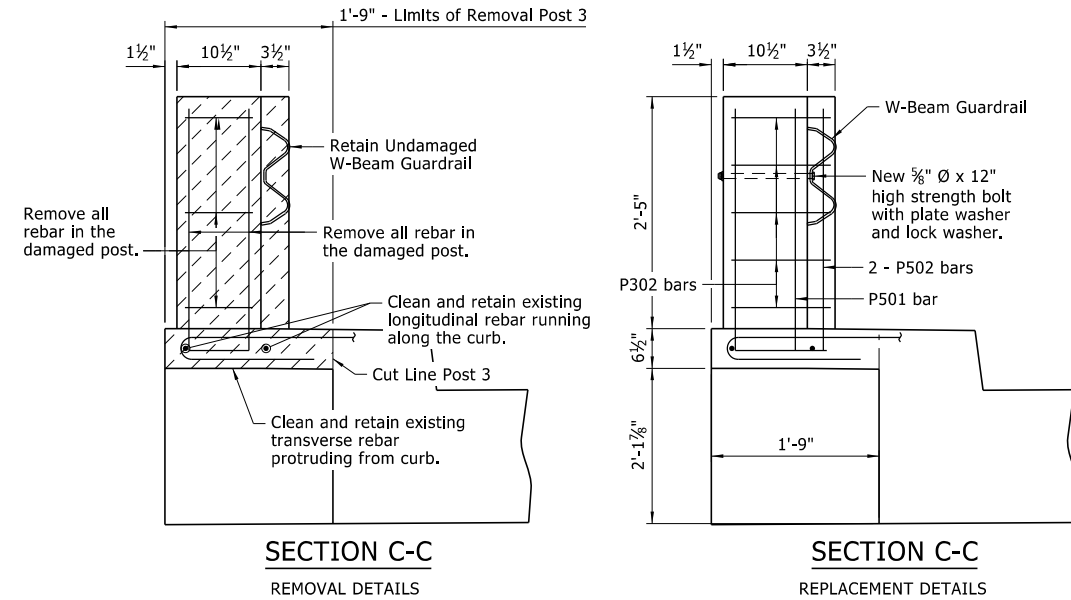
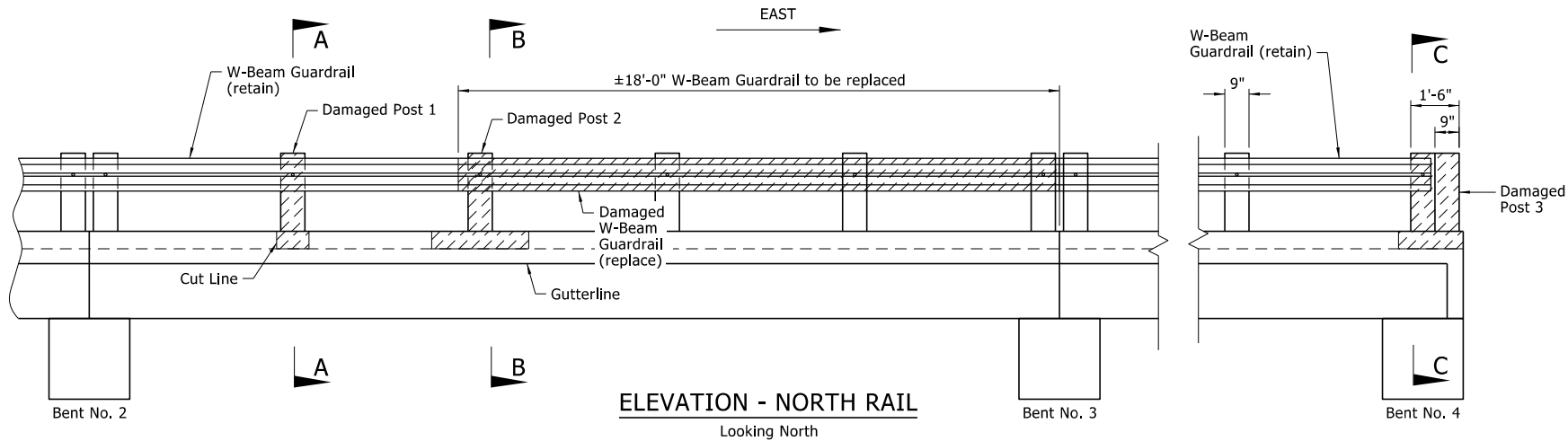
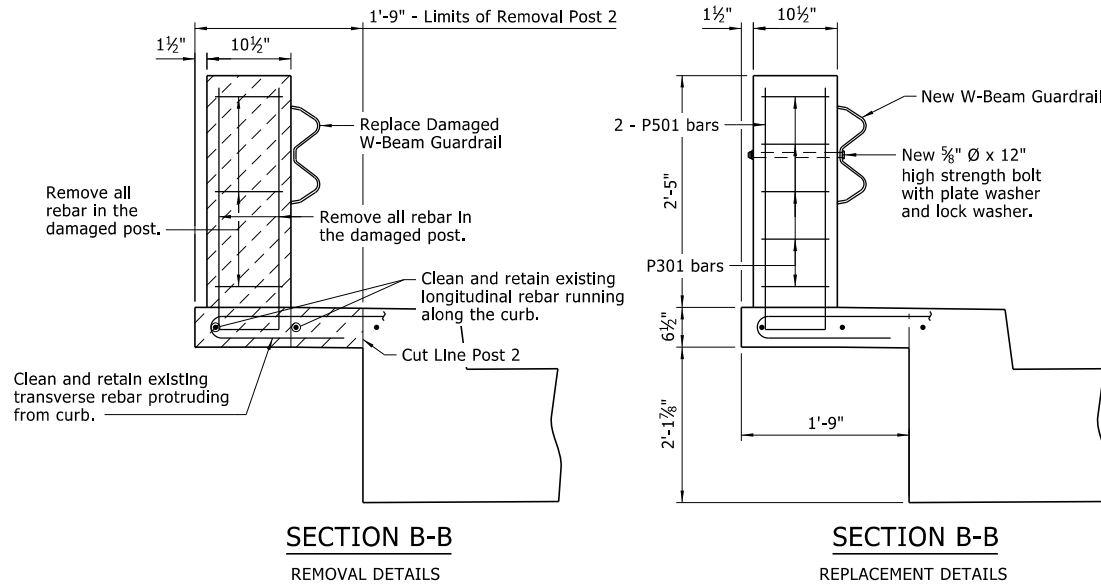
Exercise caution during the saw cutting operation. Any transverse or longitudinal reinforcement noted to be retained that is damaged during the saw cutting will be replaced at the Contractor's expense.

Any additional reinforcing required by the Engineer in the field that is to be doweled into existing concrete shall be installed into drilled holes and secured using an approved non-shrink grout or resin anchoring system listed on the QPL. The diameter of the drilled holes and the installation procedures shall be as recommended by the grout manufacturer or the resin anchoring system manufacturer.

The cost of all materials, labor, equipment, and incidentals to repair the damaged portion of railing, including guardrail, shall be included in the item "RAILING REPAIR". See SP Job 012442 "RAILING REPAIR".



Note:
Cut areas shown are based on limited field measurements. If curb spalling exists immediately adjacent to, but outside of the shown cut area, cut lines may be adjusted to encompass adjacent curb spalling. Any exposed transverse or longitudinal rebar in the curb shall be cleaned and retained. Any other area of the existing concrete curb that is spalled is to be repaired at the direction of the Engineer using items "SURFACE PATCHING" or "SPALL REPAIR". See SP Job 012442 "CONCRETE REPAIRS".



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20113
ETIHAN R. B. BAKER
BRIDGE ENGINEER
PRINT DATE: 1/18/2023

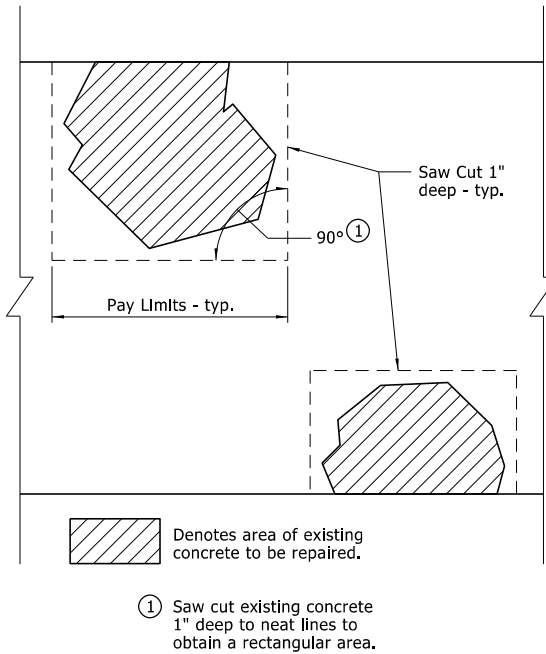
RAILING REPAIR DETAILS
ROUTE 64 SECTION 15
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
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CHECKED BY: ERBB DATE: 10/2022 SCALE: NONE
DESIGNED BY: MKL DATE: 09/2022
BRIDGE NO. 00521 DRAWING NO. 65856

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WORKSPACE: ARDOT
Y:\Projects\AR001\01752_012442_Hydrodemolition Bridge Preservation (2023)\S\Design\BRIDGE\Drawings\B012442_SPALL.dgn
REVISED DATE:

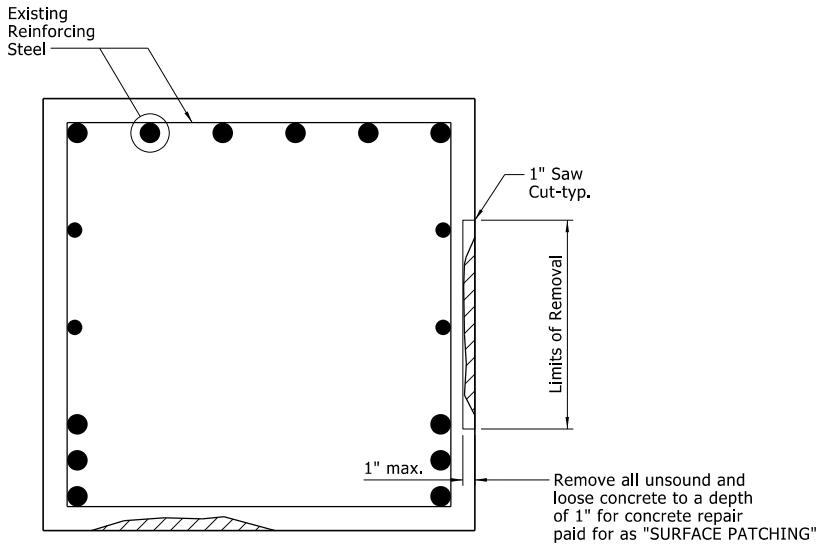
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012442	4I	4I
ALL BRIDGES - CONCRETE REPAIR - 65857						

CONCRETE REPAIR NOTES

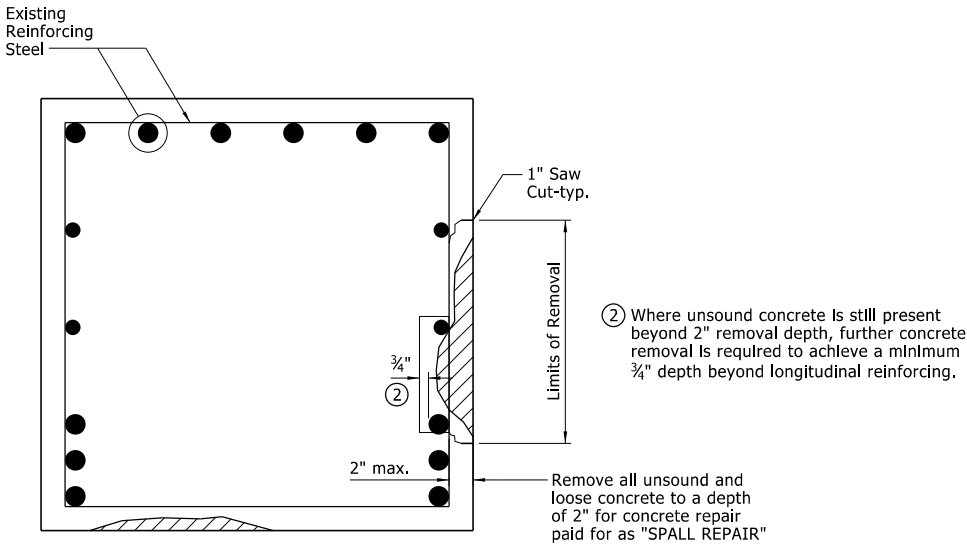
- Concrete repairs shall be performed in accordance with Special Provision Job. No. 012442 "CONCRETE REPAIRS".
- Limits shown are not exact areas and locations but are representative of potential spall repair areas to be encountered. The final limits and locations shall be determined by the Engineer.
- Concrete repairs shall consist of removing all unsatisfactory concrete described as follows: any loose, delaminated, unsound, severely spalled or deteriorated concrete and replacing with an approved material listed in Special Provision Job. No. 012442 "CONCRETE REPAIRS".
- Saw cut around all damaged areas as shown on the "SAW CUT DETAIL". Exercise caution during the saw cutting operation. Any reinforcement damaged during the saw cutting will be replaced at the contractor's expense.
- Concrete repairs shall be paid for under the item "SURFACE PATCHING" when the depth of repair is 1" or less.
- Concrete repairs shall be paid for under the item "SPALL REPAIR" when the depth of the repair exceeds 1". The minimum depth of spall repair shall extend to the face of transverse reinforcing steel or to sound concrete. The exposed reinforcing steel shall be blast cleaned prior to applying the concrete mortar.
- The surface of the concrete to be repaired under the items "SURFACE PATCHING" or "SPALL REPAIR" shall be prepared in accordance with the repair mortar manufacturer's recommendations.
- Areas to be repaired under the item "SURFACE PATCHING" shall utilize "Rapid Set Mortar Mix" manufactured by CTS Cement. The contractor may submit an alternate product for review and approval.
- Areas to be repaired under the item "SPALL REPAIR" shall utilize either "Rapid Set Mortar Mix" or "Rapid Set Concrete Mix" manufactured by CTS Cement. The appropriate product shall be determined by the actual depth of repair encountered. The contractor may submit an alternate product for approval.
- After all concrete repairs are completed, the repaired concrete surfaces shall receive a Class 2 Protective Surface Treatment. The Class 2 Treatment shall not be paid for directly but shall be considered subsidiary to the items "SURFACE PATCHING" or "SPALL REPAIR".



SAW CUT DETAIL



SURFACE PATCH DETAIL



SPALL REPAIR DETAIL



BRIDGE ENGINEER
PRINT DATE: 1/18/2023

CONCRETE REPAIR DETAILS
ROUTE VARIES SECTION VARIES
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MKL DATE: 09/2022 FILENAME: B012442_SPALL.DGN
CHECKED BY: ERBB DATE: 10/2022 SCALE: NONE
DESIGNED BY: MKL DATE: 09/2022
BRIDGE NO. ALL BRIDGES DRAWING NO. 65857

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.

The diagram illustrates the cross-section of a bridge deck during two stages of construction and traffic. The bridge is supported by steel beams (shown for example only) and a concrete slab.

Stage 1 Construction: This stage involves the initial concrete placement and curing. Key features include:

- ①** Apply Class 3 Protective Surface Treatment: Indicated by a circle at the left end of the slab.
- ②** Desired Final Const. Jt. Location: Indicated by a vertical line at the 11" mark.
- ③** 1½" Latex Modified Concrete Overlay (Req'd. Min. Thickness): Indicated by a hatched area on the top surface.
- ④** TPB (Traffic Partition Boundary): Indicated by a vertical line at the 2'-0" mark.
- Remove 1½" of existing concrete:** Indicated by a hatched area on the top surface between the 11" and 2'-0" marks.
- Gutterline:** Indicated by a vertical line at the left end of the slab.
- 11" (min.):** Dimension indicating the distance from the gutterline to the desired final construction joint location.
- 2'-0":** Dimension indicating the distance from the desired final construction joint location to the TPB.

Stage 1 Traffic: This stage involves the bridge being open to traffic. Key features include:

- 11" (min.):** Dimension indicating the distance from the gutterline to the desired final construction joint location.
- 2'-0":** Dimension indicating the distance from the desired final construction joint location to the TPB.

Notes:

- Cross section is schematic. See existing bridge drawings for details. Steel beams are shown for example only. Details are applicable to any typical slab on beam/girder bridge.

The diagram illustrates the cross-section of a bridge deck during Stage 2 Construction. It shows the existing bridge structure with steel beams and a concrete slab. The construction process involves removing a portion of the existing concrete and applying a new overlay. Key dimensions and components are labeled:

- Stage 2 Traffic:** The area to the left of the construction zone.
- Stage 2 Construction:** The area to the right of the construction zone.
- Desired Final Const. Jt. Location (2):** The location of the final construction joint.
- Gutterline:** The line indicating the edge of the road.
- Longitudinal Overlay Construction Joint:** The joint between the existing concrete and the new overlay.
- 1 1/2" Latex Modified Concrete Overlay (Req'd. Min. Thickness):** The new overlay material.
- Remove 1 1/2" of existing concrete:** The area of the existing concrete to be removed.
- Apply Class 3 Protective Surface Treatment:** The treatment applied to the new overlay.
- TPB (4):** The Traffic Protection Barrier.
- 1'-0" (min.):** The minimum distance from the TPB to the construction joint.
- 1":** The thickness of the overlay.
- (1):** A circular detail showing the cross-section of the overlay and the existing concrete.

A note at the bottom left states: "Cross section is schematic. See existing bridge drawings for details. Steel beams are shown for example only. Details are applicable to any typical slab on beam/girder bridge."

1 1/2" LMC Overlay (Req'd. min. thickness)

1" min. to surface of secure coarse aggregate

⑧ Top of existing deck and finished surface of LMC

1 1/2" Removal (Entire Rdwy. Surface)

3/4" min. clr.

⑤ Limits of removal by Hydrodemolition (As directed by the Engineer)

Top mat of reinforcing steel

⑦ Variable Depth LMC (As directed by the Engineer)

Pay Limit of Bridge Deck Repair

Bridge Deck Repair (As directed by the Engineer - variable depth)

⑥ Bottom mat of reinforcing steel

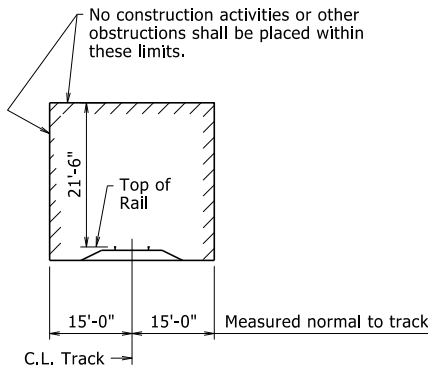
- ① ⑤ Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar. This removal shall 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 1½" cover to reinforcing steel and shear connectors.

-

For Staged Construction

Diagram illustrating a cross-section of a concrete slab with a central joint. The joint is labeled "C.L. 1/2" x 1" Slab Joint". The slab is divided into two halves by this joint. The right half is labeled "LMC Overlay". The left half is labeled "1" x 1" Slab Joint".

For Continuous Span Bridges



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

① Modified Hydrodemolition SP reference to include "- Class _".
By: KWY, Checked by: SWP; 1/9/2020.

② Modified Joint Rehabilitation to include unarmored joints.
By: KWY, 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.



BRIDGE ENGINEER

GENERAL NOTES:

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".

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 1½" 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 (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid 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.

2. 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 (1½" 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.

LITTLE ROCK, ARK.

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

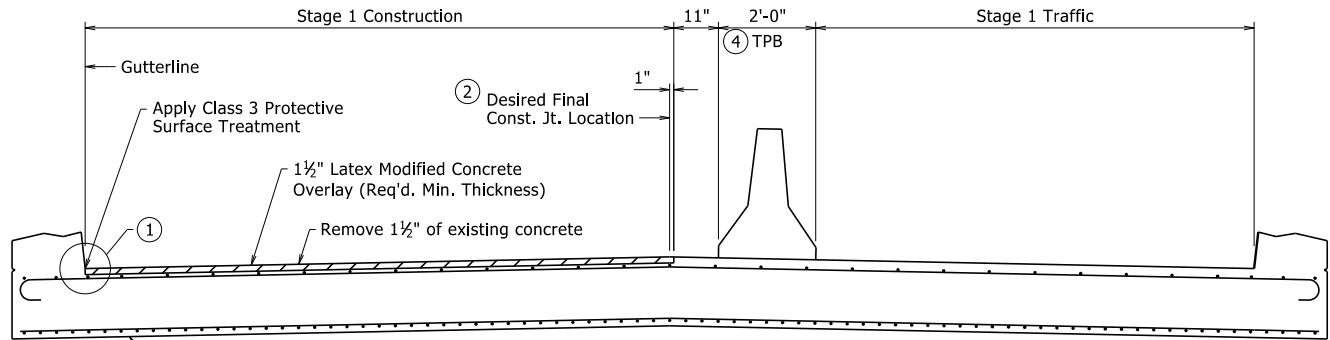
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None

DESIGNED BY: STD. DATE: -----

DRAWING NO. 55060

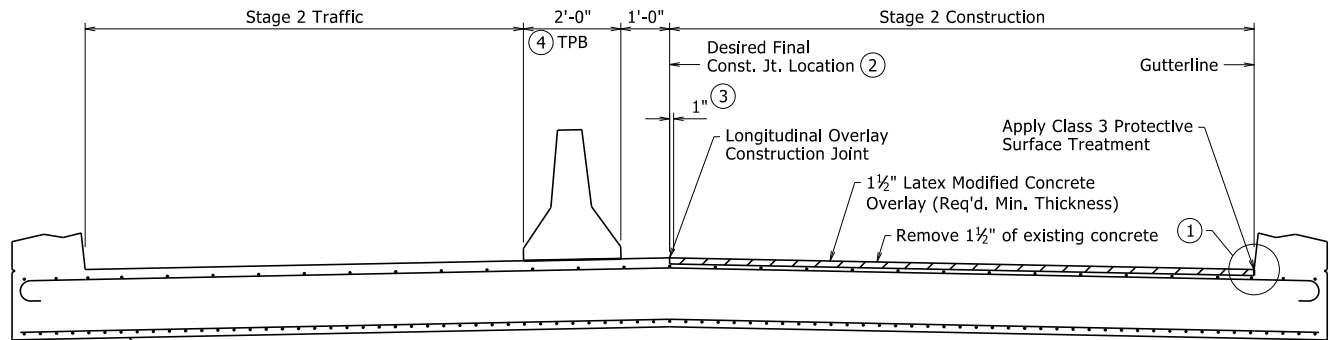
Stages of Construction refer to Bridge Rehabilitation Work Zones as shown in Maintenance of Traffic Details. Numbering is shown for general purposes. See Roadway Plans for specific sequencing.

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



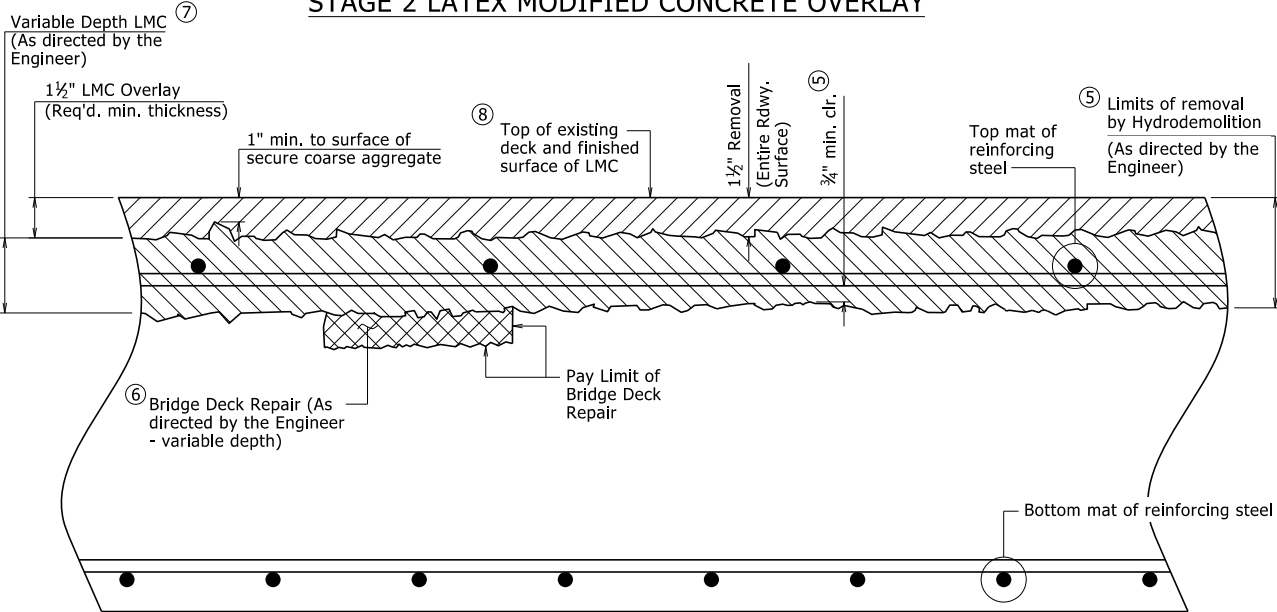
Cross section is schematic. See existing bridge drawings for details.

STAGE 1 LATEX MODIFIED CONCRETE OVERLAY



Cross section is schematic. See existing bridge drawings for details.

STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

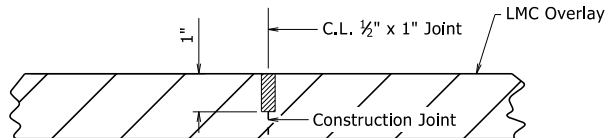


DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

- 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 _".
- 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".
- Depth varies to achieve minimum clearance below top mat of reinforcing steel, where required.
- 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.

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.

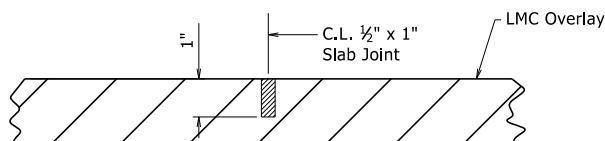
- Hand tools shall be used as required to remove concrete adjacent to curbs, rails, and armored expansion joints.
- For staged construction, the final construction joint location shall be established by the Engineer to satisfy MOT and construction requirements. The desired location is at the C.L. Bridge, C.L. Lane, or Edge of Lane, but in no case shall be positioned in the line of a wheel path.
- For staged construction, saw cut and remove 1" of initial Latex Modified Concrete Overlay when preparing surface for adjacent overlay.
- 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

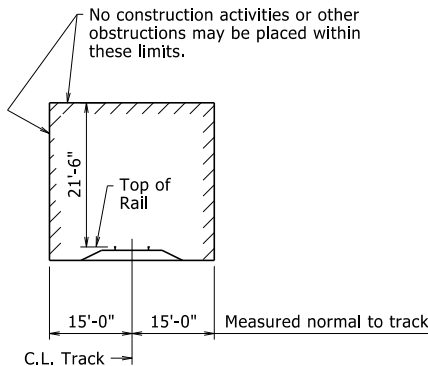
For Staged Construction



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

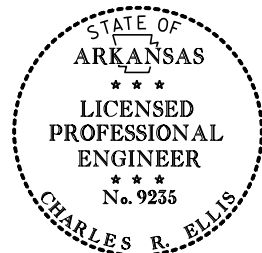


MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

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 for additional clarification of unarmored joint work. 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.



BRIDGE ENGINEER

GENERAL NOTES:

1

HYDRO/LMC OVERLAY - 55062

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.

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 REINFORCED CONCRETE SLAB STRUCTURES ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KKY DATE: 11/7/2019 FILENAME: b55062.dgn
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None
DESIGNED BY: STD. DATE: -----

DRAWING NO. 55062

Stages of Construction 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. Refer to existing bridge drawings.

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.

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.				

GENERAL NOTES:

1

HYDRO/LMC OVERLAY - 55063

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 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the Item 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.

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the hydrodemolition shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" 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 (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with Job SP "Latex Modified Concrete Overlay".

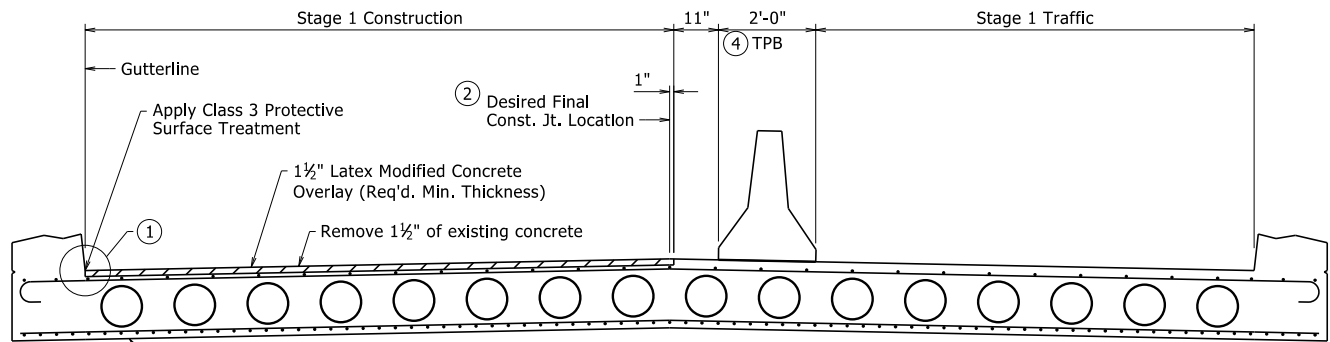
GROOVED FINISH: The LMC Overlay surface of the bridge deck and approach slabs and gutters, as applicable, shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job SP "Latex Modified Concrete Overlay".

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.

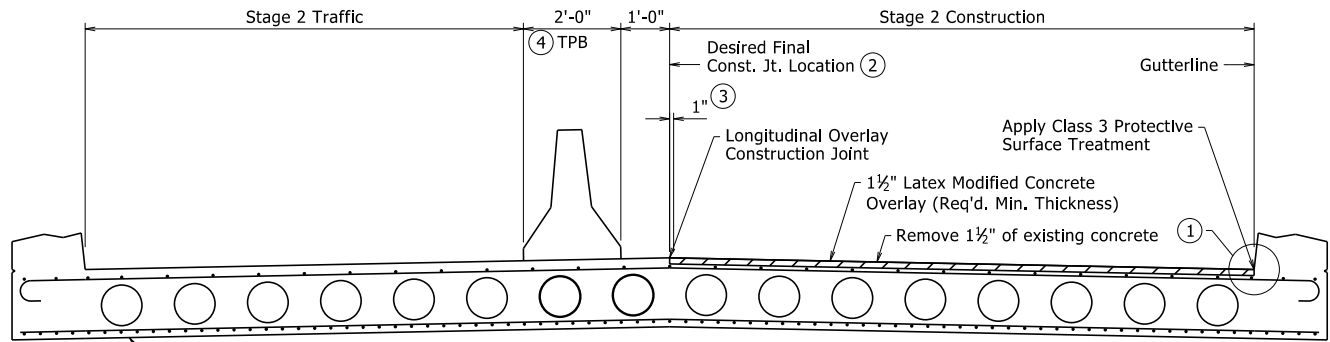
JOINT REHABILITATION: After the placement of the LMC Overlay and if shown in the plans, the existing armored joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Standard Drawing No. 55064, and the existing unarmored 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.

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

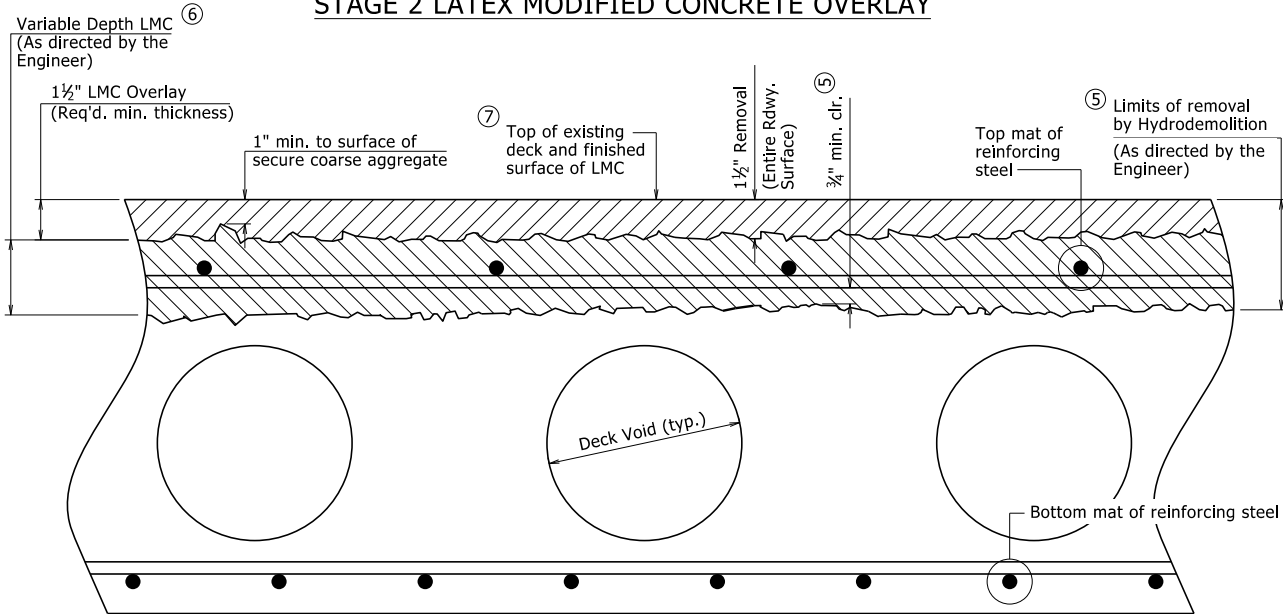
NOTE: When "Very Early Strength Latex Modified Concrete Overlay (1½" Thick)" is shown in the plans for a particular bridge, all reference to "Latex Modified Concrete Overlay" and "LMC" on this sheet shall be considered synonymous with "Very Early Strength Latex Modified Concrete Overlay" and "VESLMC" for that bridge. See Job SP "Very Early Strength Latex Modified Concrete Overlay" for additional information.



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY



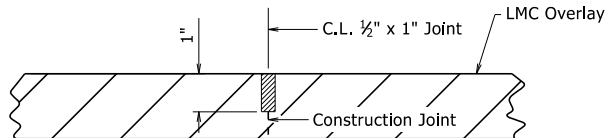
STAGE 2 LATEX MODIFIED CONCRETE OVERLAY



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

- 5 Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar. This removal shall be subsidiary to the item Job SP "Hydrodemolition - Class _".
- 6 Depth varies to achieve minimum clearance below top mat of reinforcing steel, where required.
- 7 Finished surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

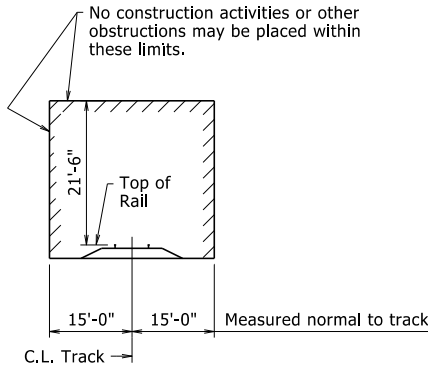
- 1 Hand tools shall be used as required to remove concrete adjacent to curbs and rails.
- 2 For staged construction, the final construction joint location shall be established by the Engineer to satisfy MOT and construction requirements. The desired location is at the C.L. Bridge, C.L. Lane, or Edge 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 ½" 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

For Staged Construction

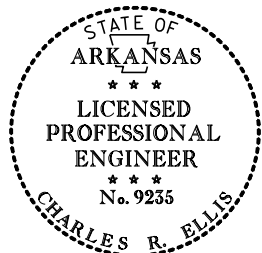


MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

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

If the hydrodemolition equipment blows through the deck and into a deck void, that area shall be the responsibility of the Contractor and shall be repaired at the Contractor's expense. The Contractor shall provide a method of handling unexpected blow through.

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.



BRIDGE ENGINEER

STANDARD DETAILS FOR HYDRODEMOLITION AND LMC OVERLAY VOIDED CONCRETE SLAB STRUCTURES

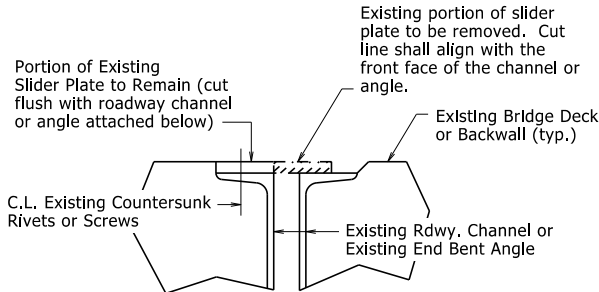
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KWY DATE: 11/7/2019 FILENAME: b55063.dgn
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None
DESIGNED BY: STD. DATE: -----

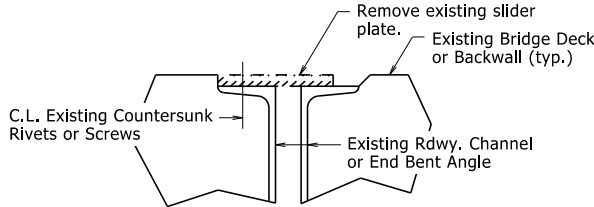
DRAWING NO. 55063

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.				
1JOINT REPAIR - 55064								



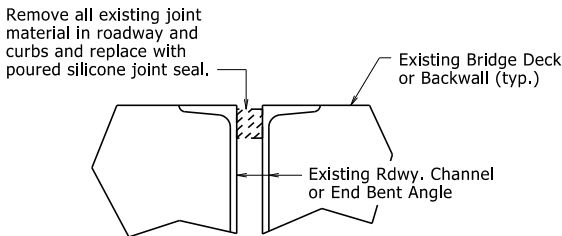
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS

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.



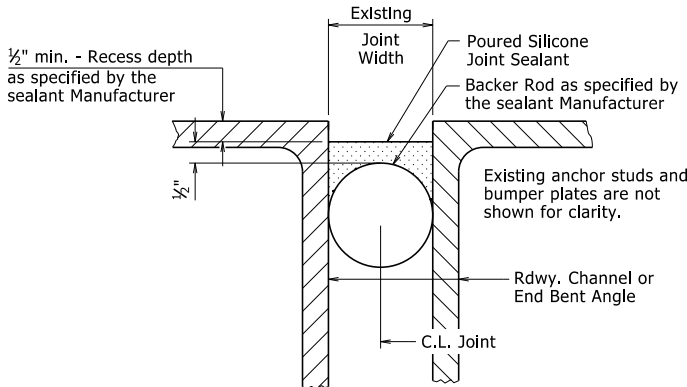
REMOVAL DETAILS AT EXISTING SLIDER PLATE JOINTS WITH GRADE RAISE

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".



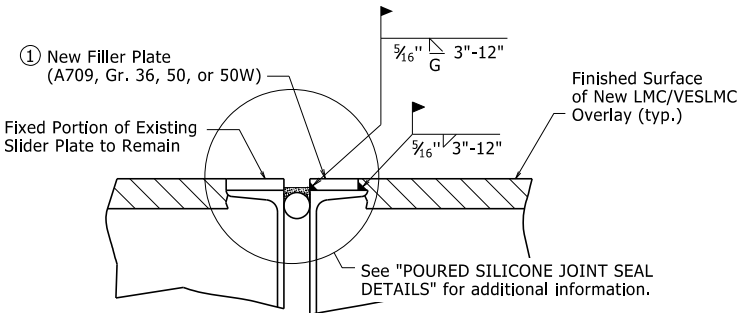
POURED SILICONE JOINT SEAL DETAILS

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".

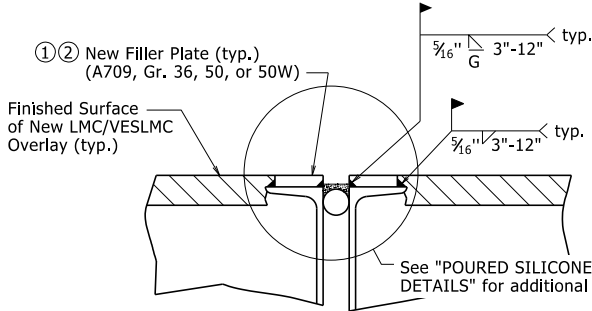
Backer rods shall be extended beyond the length of the poured joint in the initial joint repair area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint repair. Manufacturer's recommendations shall be followed to prevent sealant leakage during repair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

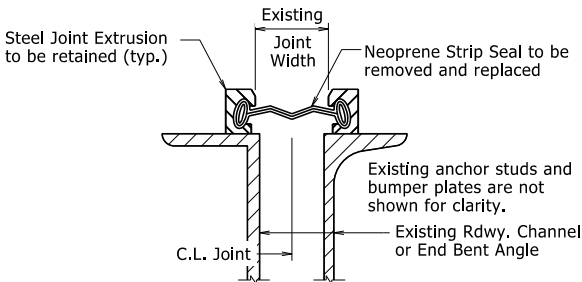


JOINT MODIFICATION WITH GRADE RAISE

- 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 $\frac{3}{8}$ " 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.



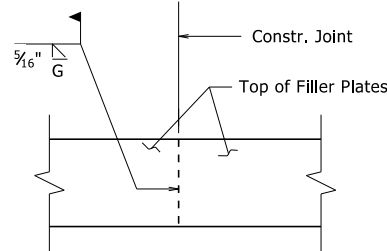
STRIP SEAL JOINT DETAILS

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.

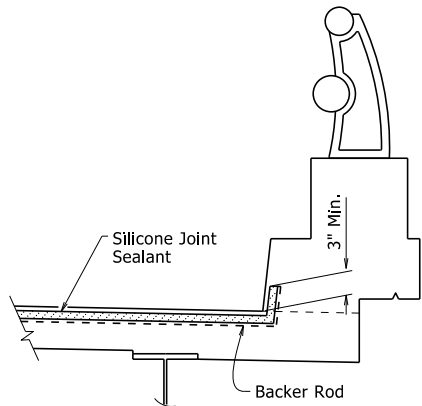
Removal and replacement of the existing neoprene strip seal joint material will require the removal of the parapet slider plates, where present. Parapet slider plates removed for this work shall be reinstalled after installation of the new neoprene strip seal joint material.

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. _)".

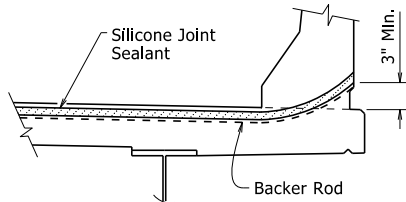


PLAN VIEW OF FILLER PLATE

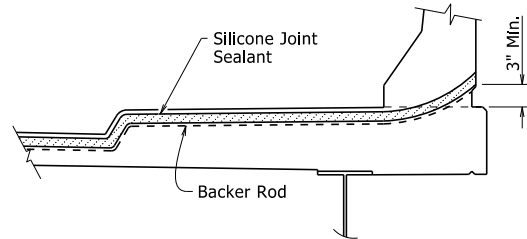


SILICONE JOINT SEAL PLACEMENT AT CURB

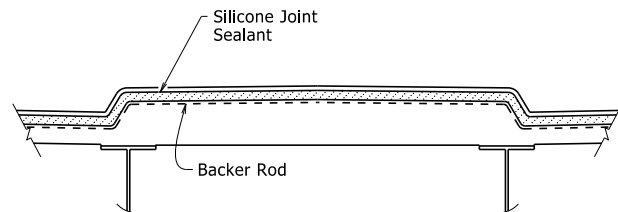
Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.



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.

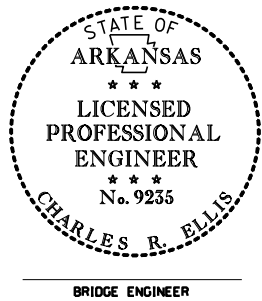
STANDARD DETAILS FOR JOINT REPAIRS & MODIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION

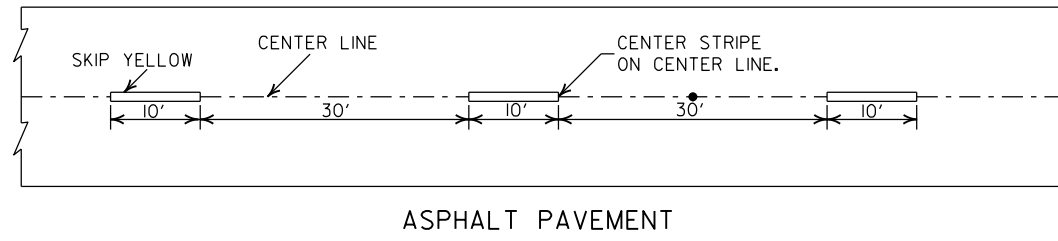
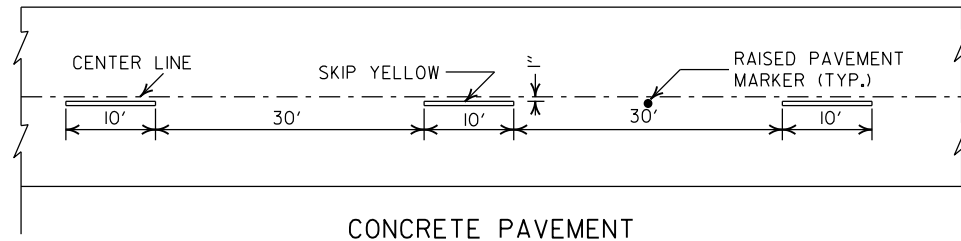
LITTLE ROCK, ARK.

DRAWN BY: KWK DATE: 11/7/2019 FILENAME: b55064.dgn
CHECKED BY: SWP DATE: 11/7/2019 SCALE: None
DESIGNED BY: STD. DATE: -----

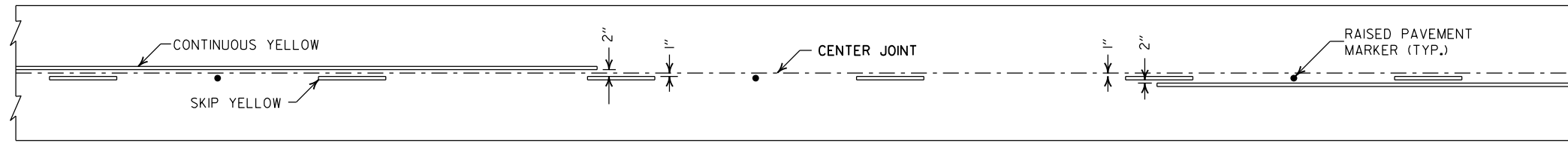
DRAWING NO. 55064



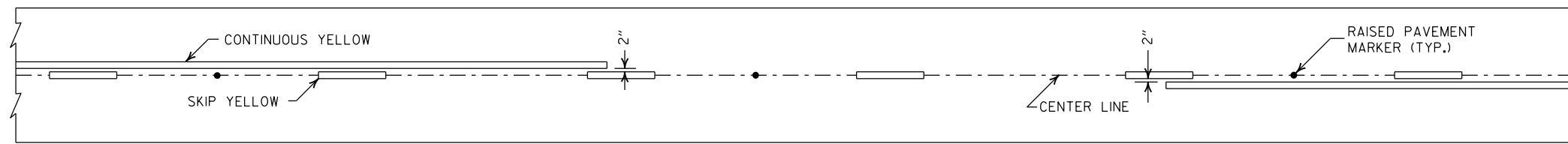
BRIDGE ENGINEER



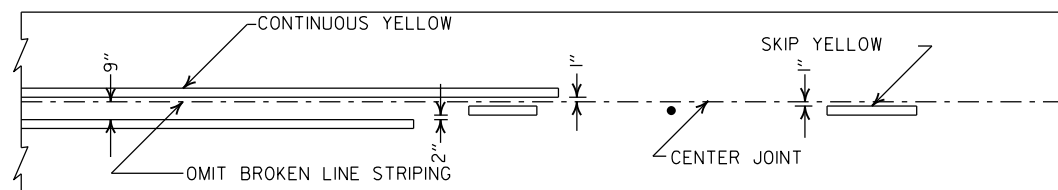
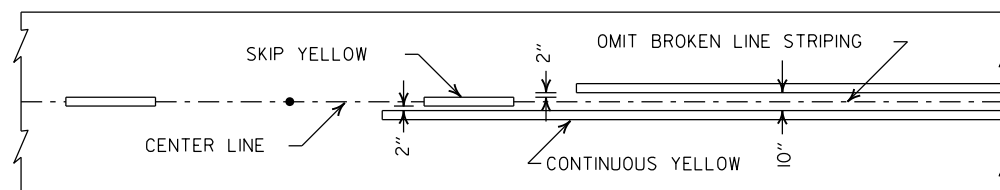
BROKEN LINE STRIPING



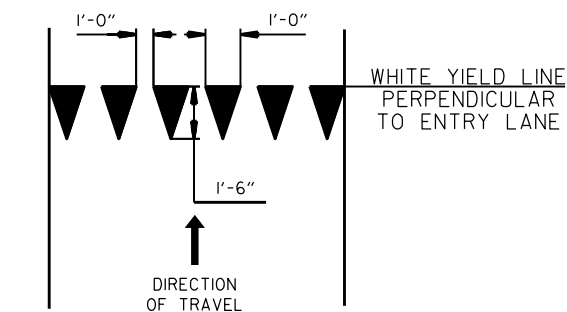
SOLID LINE STRIPING ON CONCRETE PAVEMENT



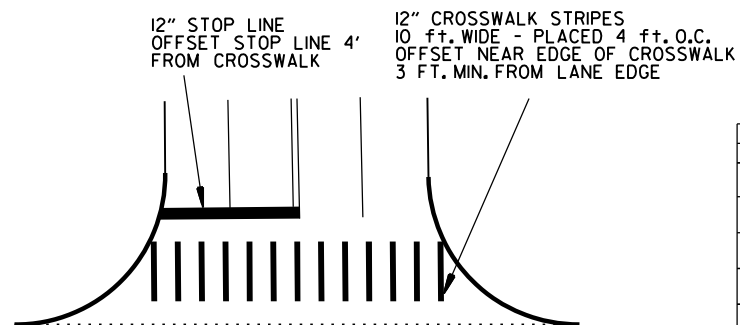
SOLID LINE STRIPING ON ASPHALT PAVEMENT



STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL

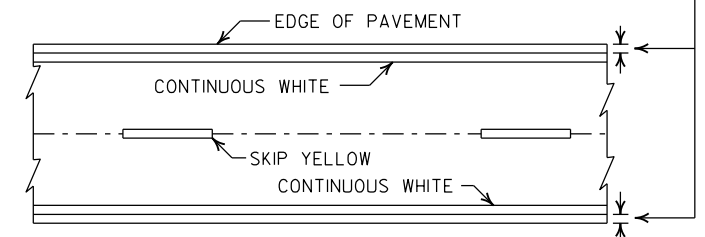


CROSSWALK AND STOP LINE DETAILS

NOTES:

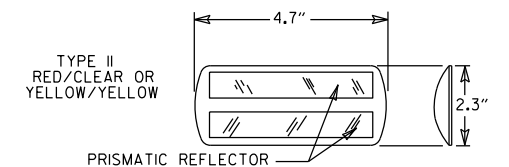
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

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

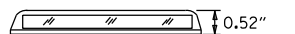


PAVEMENT EDGE LINE MARKING

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



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.



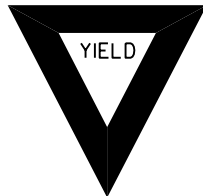
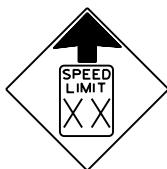
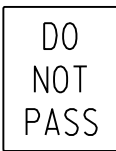
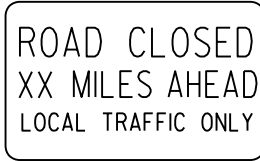
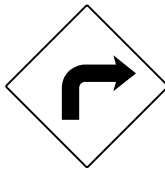
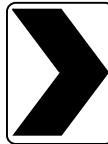
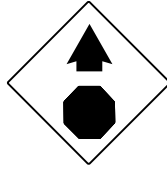
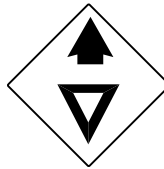
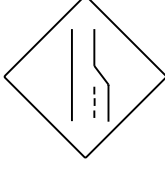
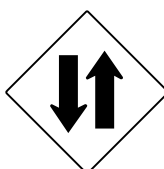
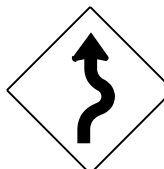
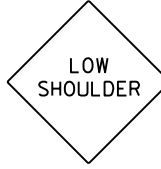
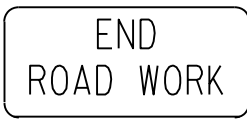
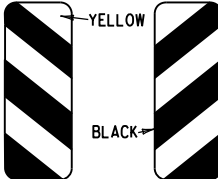
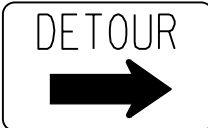
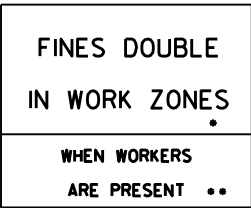
DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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 DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

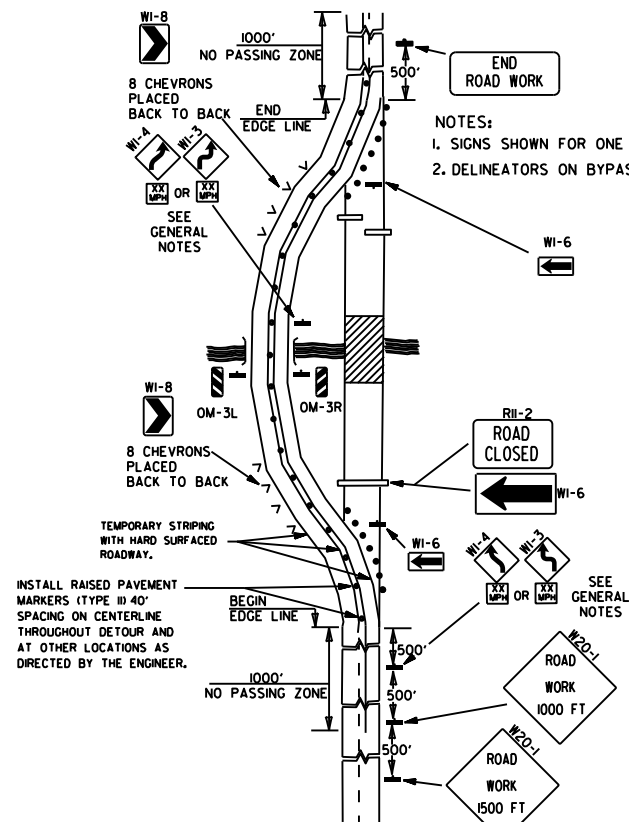
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

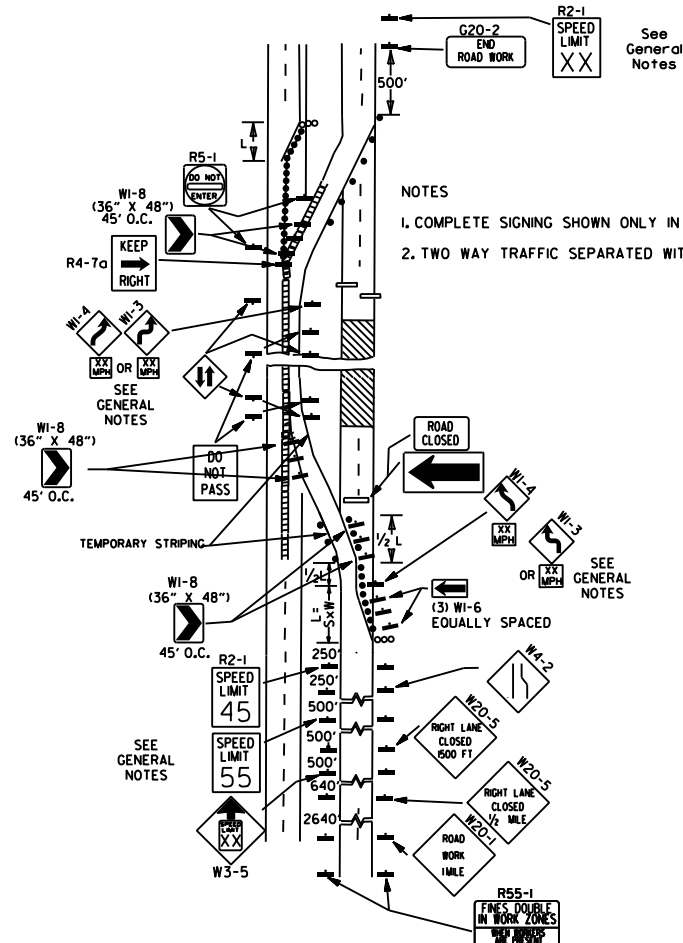
RI-I  STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"	RI-2  STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"	R2-I  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	W3-5  STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"	W3-5a  STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"	R4-I  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	R4-2  STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"	ADVANCE DISTANCES (XXXX) 500 FT 1/2 MILE 1000 FT 3/4 MILE 1500 FT 1 MILE AHEAD GENERAL NOTES: 1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION. 2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER. 3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED. 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE. 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3. 6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE. 7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS. 8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS. 9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT. 10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN. • NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF 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.
R5-I  STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"	R1I-2  48"x30"	R1I-3A  60"x30"	R1I-4  60"x30"	W2I-5a  STD. 36"x36" FWY. 48"x48"	WI-I  STD. 36"x36" FWY. 48"x48"	WI-2  STD. 36"x36" FWY. 48"x48"	
WI-3  STD. 48"x48"	WI-4  STD. 48"x48"	WI-6  STD. 48"x24" SPECIAL 60"x30"	WI-8  STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"	W3-I  STD. 36"x36" SPECIAL 48"x48"	W3-2  STD. 36"x36" SPECIAL 48"x48"	W4-2  STD. 36"x36" FWY. 48"x48"	
W5-I  STD. 36"x36" SPECIAL 48"x48"	W6-3  EXPWY. 36"x36" SPECIAL 48"x48"	W8-7  EXPWY. 36"x36" FWY. 48"x48"	W9-2  STD. 36"x36" FWY. 48"x48"	W13-I  STD. 24"x24"	W20-I  STD. 48"x48"	W20-2  STD. 48"x48"	W20-3  STD. 48"x48"
W20-4  STD. 48"x48"	W20-5  STD. 48"x48"	W20-7a  18" 500 FEET 24" W16-2 STD. 36"x36" FWY. 48"x48"	W2I-2  STD. 30"x30" SPECIAL 36"x36"	W2I-5  STD. 30"x30" SPECIAL 36"x36"	W24-I  STD. 36"x36"	WI-4b  STD. 48"x48"	R56-I  STD. 18"x18"
W8-II  STD. 36"x36" FWY. 48"x48"	W8-9  STD. 36"x36" FWY. 48"x48"	G20-I  60"x24"	G20-2  48"x24"	OM-3L OM-3R  12"x36"	M4-9  STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"	M4-10  48"x18"	R55-I  36"x60" • USE 6" C LETTERS •• USE 4" D LETTERS

II-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W2I-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	
DATE	REVISION	FILMED

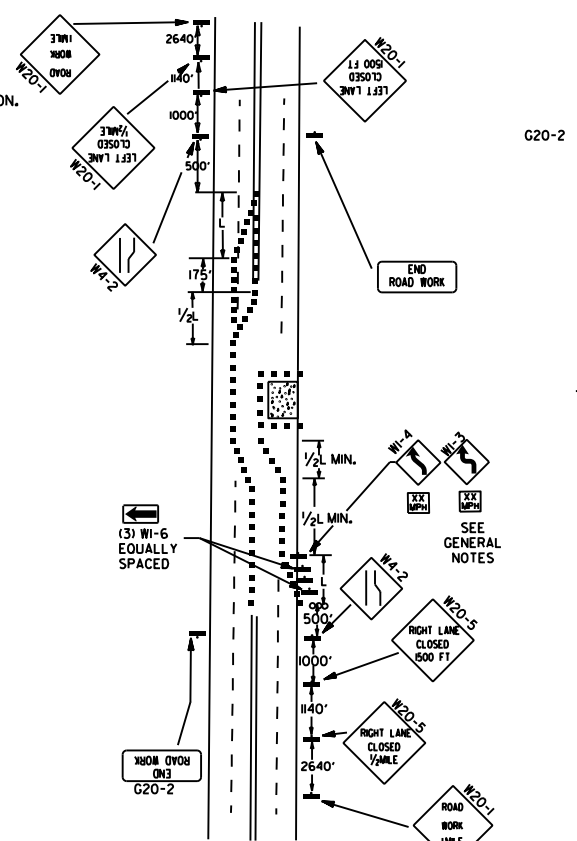
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



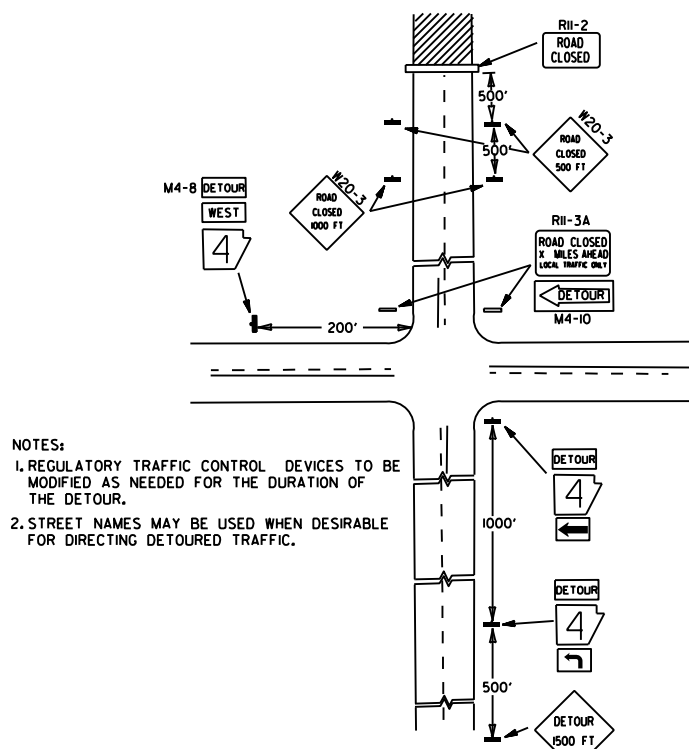
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



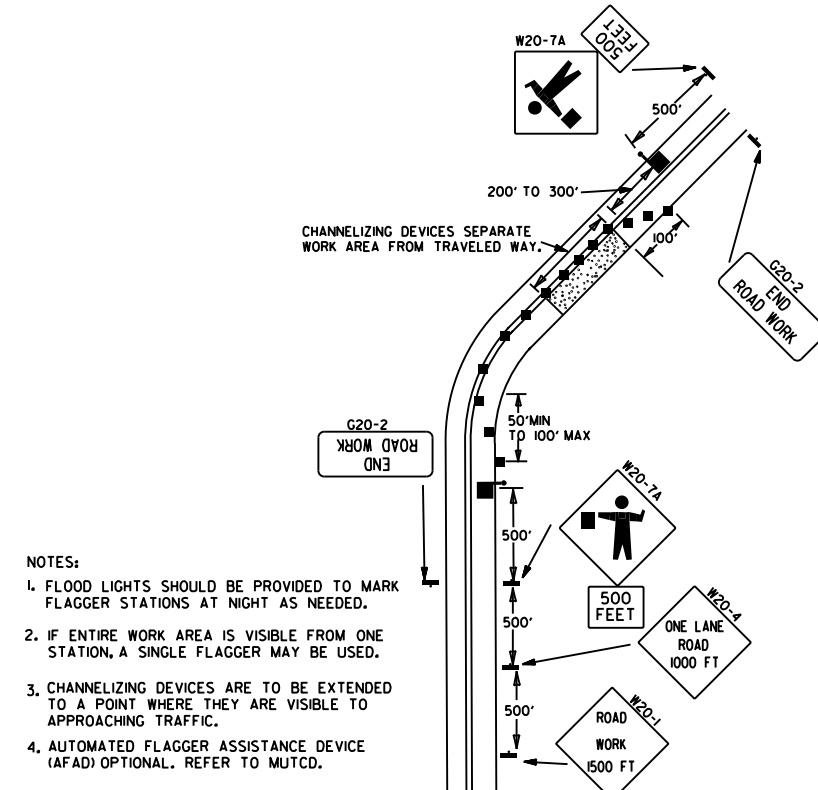
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



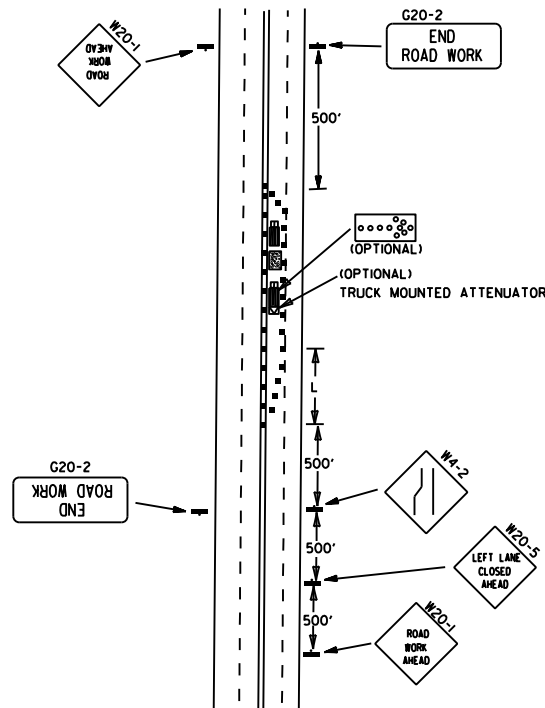
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



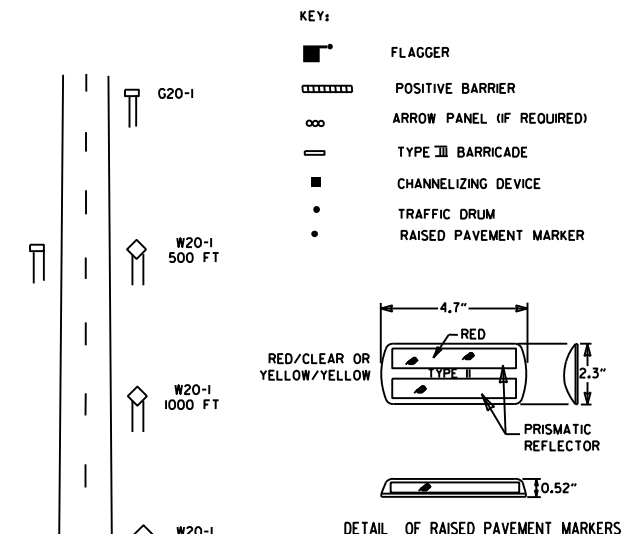
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(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.



- GENERAL NOTES:
- 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.
 - 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.
 - 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.
 - 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.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - 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.
 - 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.
 - 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).

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	
DATE	REVISION	FILMED

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

(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

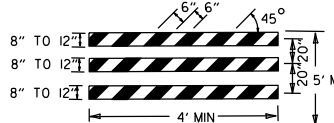
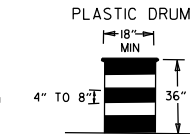
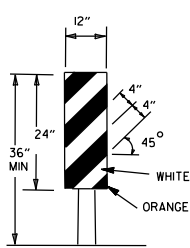
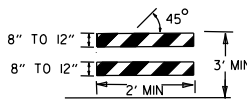
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

CHANNELIZING DEVICES



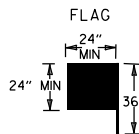
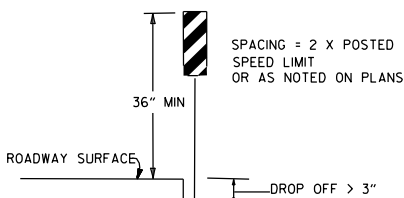
• WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

CONES



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

VERTICAL PANEL PLACEMENT



FLAG SHALL BE OF GOOD GRADE RED MATERIAL

KEY:

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

GENERAL NOTES:

- A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
- 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 45MPH 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.
- 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 55MPH 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.
- 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.
- WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
- PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
- 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.
- FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
- ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
- 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.
- 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).

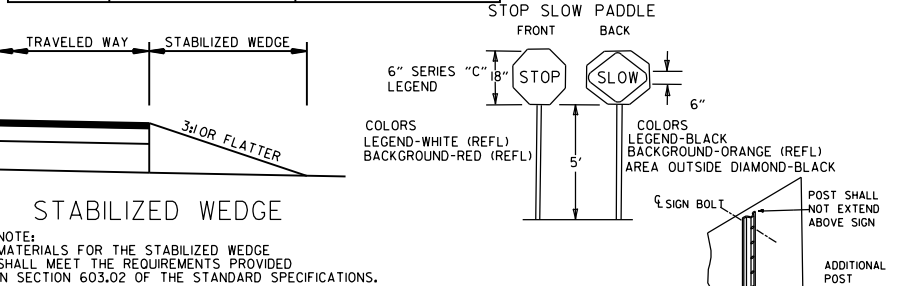
(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

TRAFFIC CONTROL DEVICES

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
≤ 3"	CENTERLINE	STANDARD LANE CLOSURE ⁽⁶⁾	STANDARD LANE CLOSURE ⁽⁶⁾
> 3"	CENTERLINE	STANDARD LANE CLOSURE ⁽⁶⁾	STANDARD LANE CLOSURE ⁽⁶⁾
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9 AND TRAFFIC DRUMS ⁽¹⁾	W8-9 AND TRAFFIC DRUMS ⁽¹⁾
> 3"	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 ⁽¹⁾
> 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⁾
> 18"	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
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 3"	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

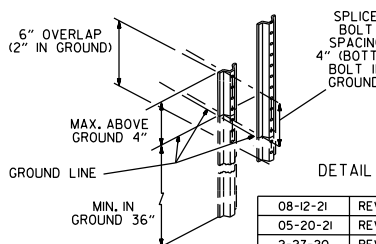
INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS



STABILIZED WEDGE

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

NOTES:
USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)
NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.
SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.



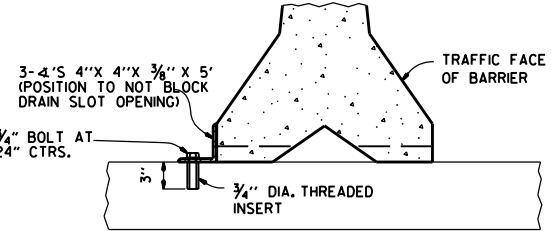
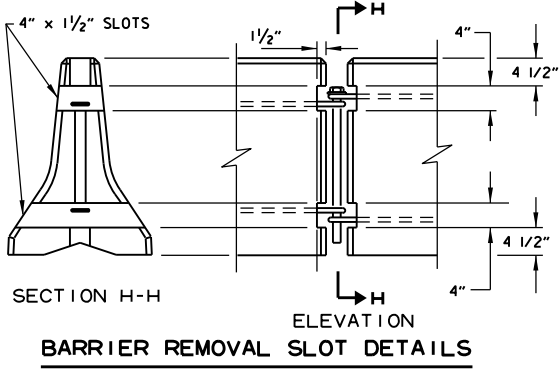
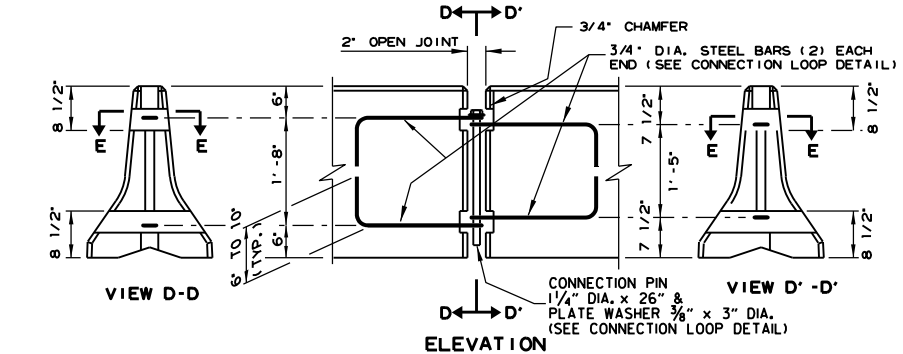
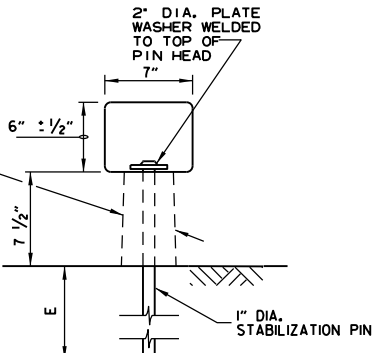
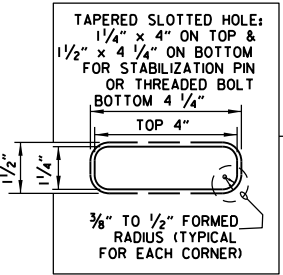
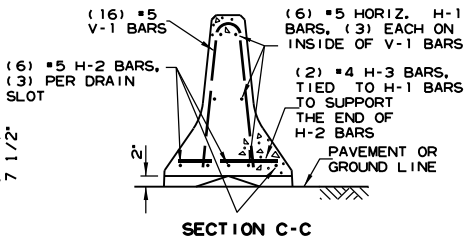
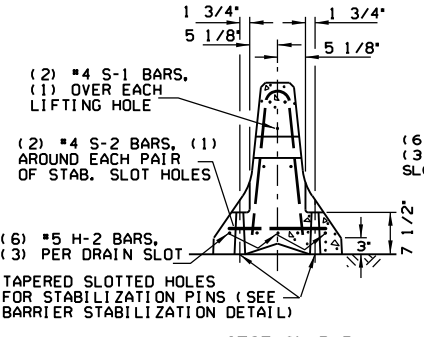
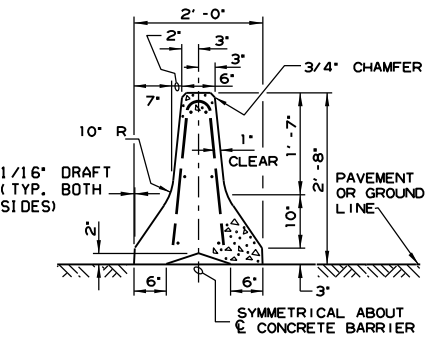
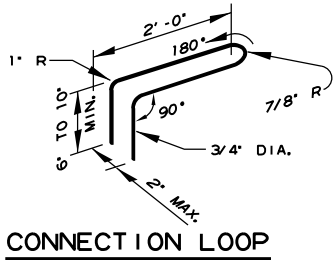
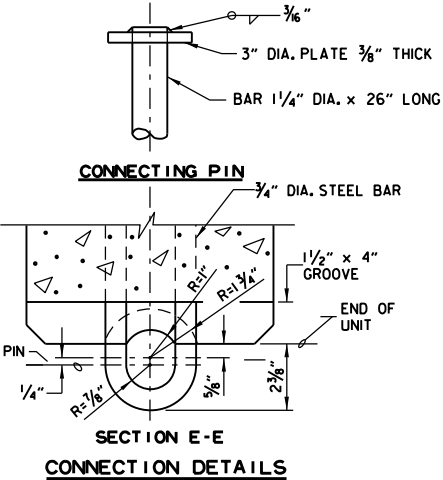
DETAIL OF SPLICES

DATE	REVISION	FILED
08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES	
05-20-21	REVISED NOTE 10	
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE 11	
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 W6-18 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION

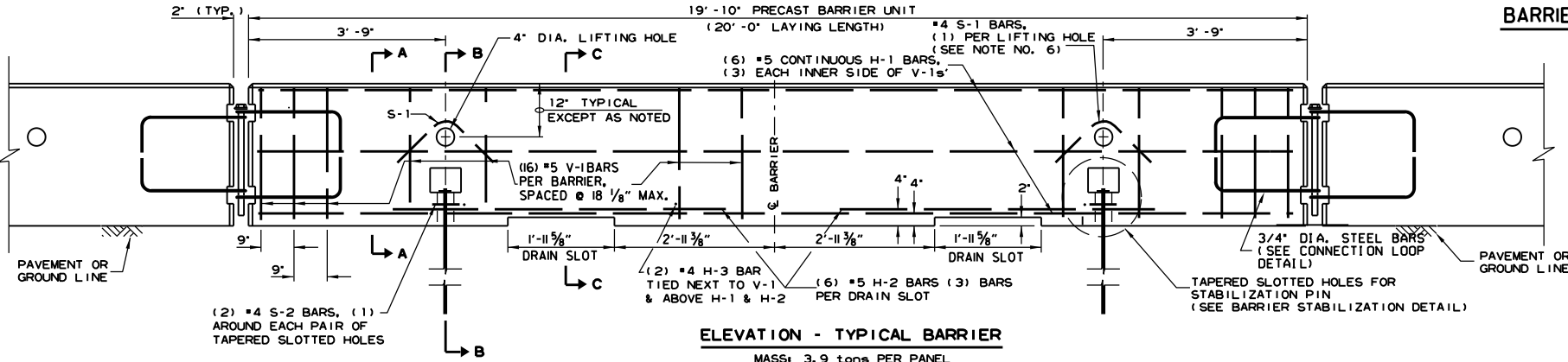
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT				
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4	(2)	
V-1	VERTICAL IN BARRIER (3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	



NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL BRIDGE DECKS



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 M 270 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 IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF 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.

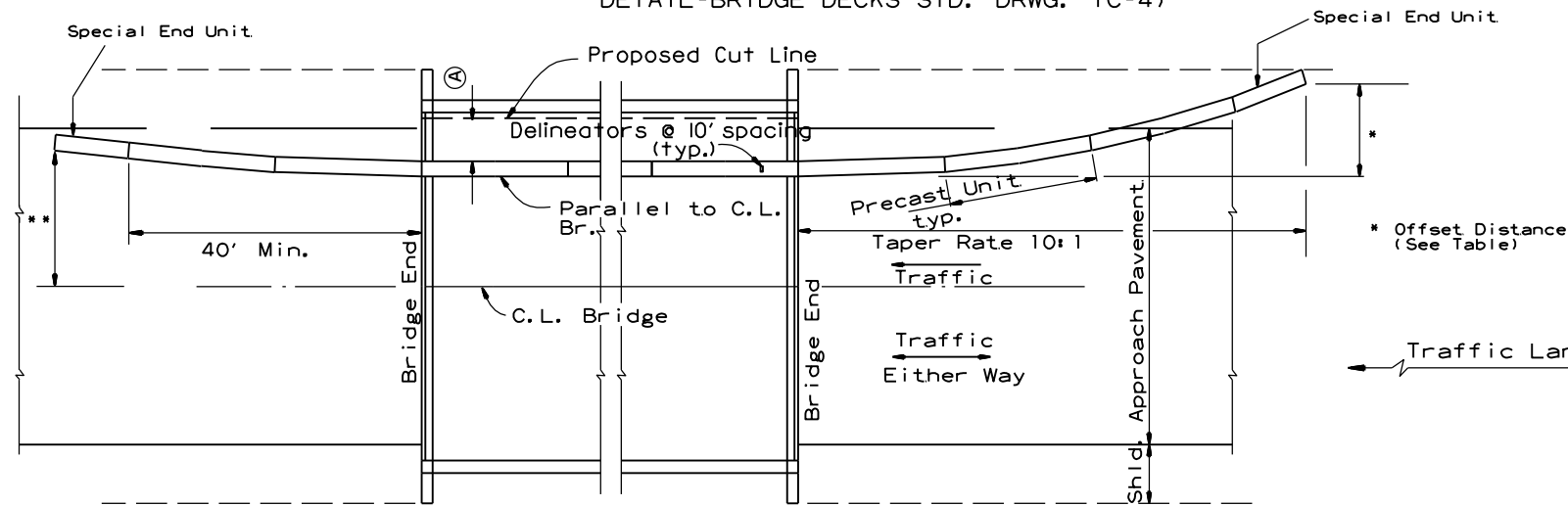
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION -
TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

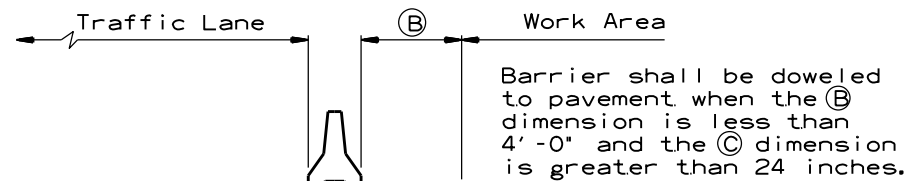
- (A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

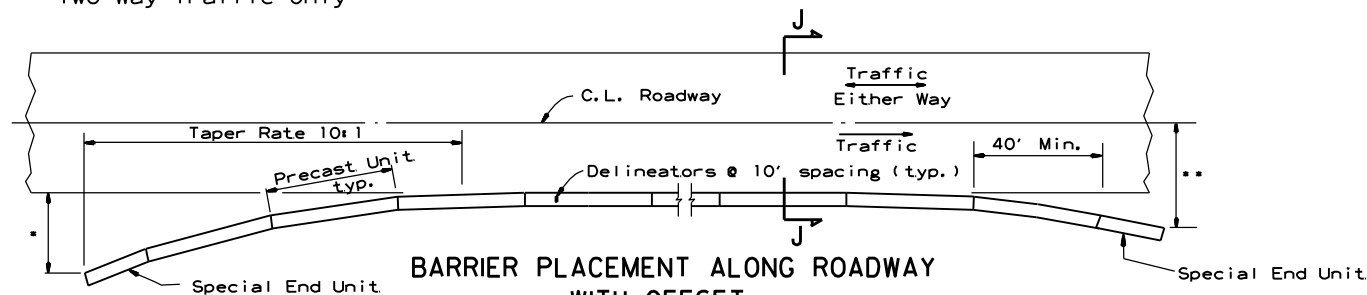
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

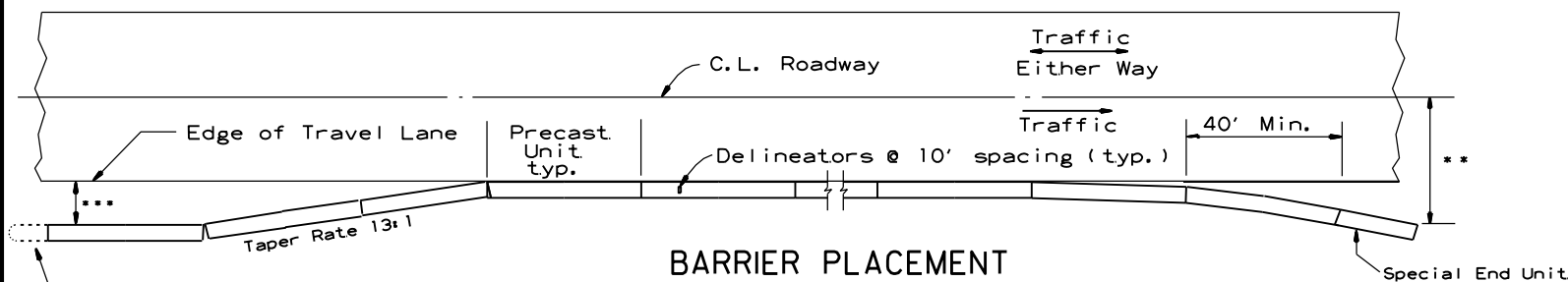
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

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

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

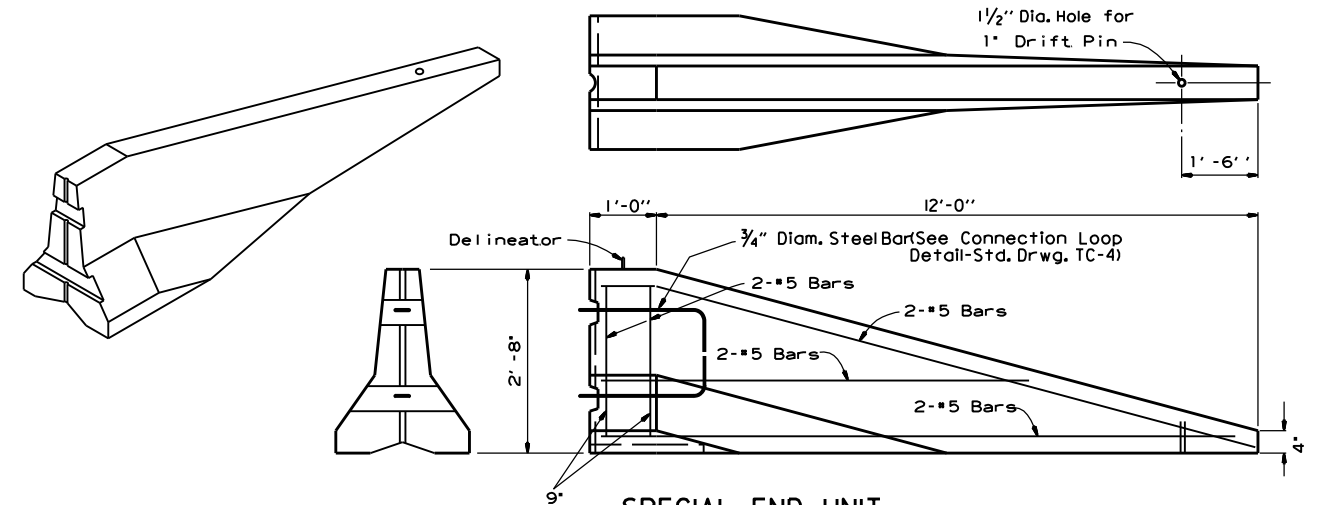


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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



SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with 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."

			ARKANSAS STATE HIGHWAY COMMISSION	
			STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER	
11-07-19	REVISED NOTE		STANDARD DRAWING TC-5	
10-15-09	ADDED REFERENCE TO MASH			
5-25-06	REVISED BARRIER PLACEMENT			
8-22-02	ISSUED NEW DRAWING			
DATE	REVISION	FILMED		