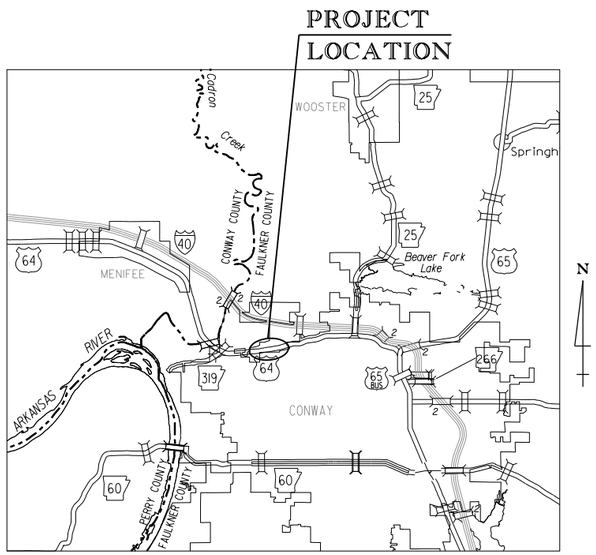
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6/10/2024		6	ARK.	080634	1	80
		HWY. 64/HOGAN LN. ROUNDABOUT (CONWAY) (S)				



ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

HWY. 64/HOGAN LN. ROUNDABOUT (CONWAY) (S)

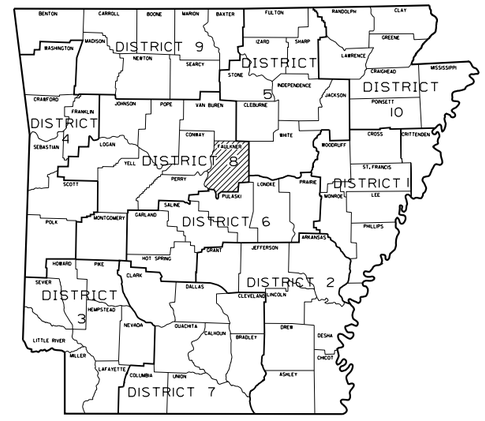
FAULKNER COUNTY

ROUTE 64 SECTION 8

JOB 080634

FED. AID PROJ. CRTLC-STPC-STPLC-9095(40)

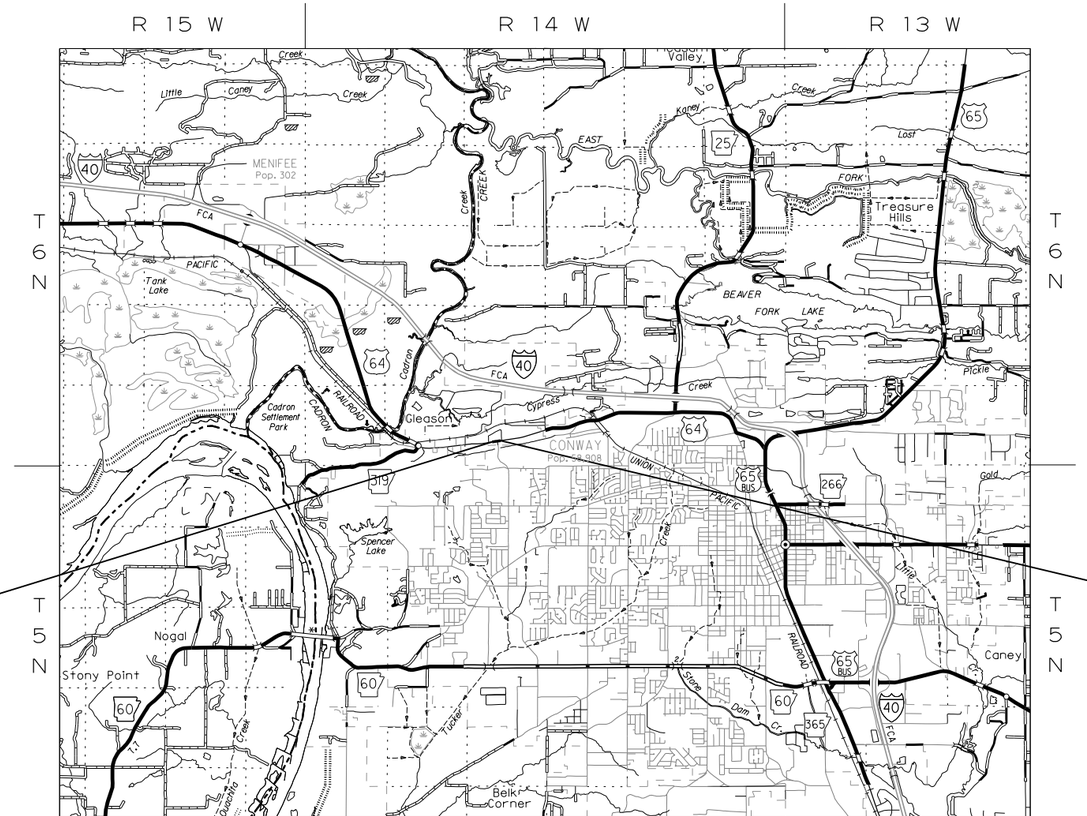
NOT TO SCALE



ARKANSAS HIGHWAY DISTRICT 8

· DESIGN TRAFFIC DATA ·

DESIGN YEAR	2044
2024 ADT	11,000
2044 ADT	14,000
2044 DHV	1,540
DIRECTIONAL DISTRIBUTION	60%
TRUCKS	5%
DESIGN SPEED	55 MPH



STA. 12+00.00
BEGIN JOB 080634
L.M. 1.31

STA. 25+50.00
END JOB 080634

PROJECT COORDINATES

	BEGIN	MID-POINT	END
LATITUDE	N 35°06'42"	N 35°06'42"	N 35°06'44"
LONGITUDE	W 92°30'06"	W 92°29'58"	W 92°29'51"
STATION	12+00.00	19+00.00	25+50.00

GROSS LENGTH OF PROJECT	1350.00	FEET OR	0.256 MILES
NET LENGTH OF ROADWAY	1350.00	FEET OR	0.256 MILES
NET LENGTH OF BRIDGES	0.00	FEET OR	0.00 MILES
NET LENGTH OF PROJECT	1350.00	FEET OR	0.256 MILES

GARVER LLC
CERTIFICATE OF AUTHORIZATION
No. 766
ARKANSAS-ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14994
DUSTIN L. TACKETT

Digitally Signed 06/10/2024

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	2	80
		INDEX OF SHEETS AND STANDARD DRAWINGS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN

Digitally Signed 02/21/2024

INDEX OF SHEETS

NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
CDP-1	CONCRETE DITCH PAVING	12-08-16
CG-1	CURBING DETAILS	11-29-07
CPTJ-6A	TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)	11-07-19
DR-1	DETAILS OF DRIVEWAYS & ISLANDS	05-19-22
DR-2	DETAILS OF DRIVEWAYS & STREET TURNOUTS	05-19-22
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
FPC-9E	DETAILS OF DROP INLETS (TYPE C)	08-22-02
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
MB-1	MAILBOX DETAILS	11-18-04
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PM-1	PAVEMEN ETAILS	02-27-20
SHS-1	STANDAR IGNS AND SUPPORTS ASSEMBLIES	09-12-13
SHS-2	U-CHANNI EMBLIES	07-25-19
SHS-3	DETAIL OI Y SIGN SUPPORTS FOR GUIDE SIGNS	05-19-22
SHS-4	DETAIL OI Y SIGN SUPPORTS FOR STANDARD SIGNS	09-12-13
SHS-5	DETAILS (N PANELS	09-12-13
SI-1	DETAILS (EMS	10-25-18
SI-2	REINFOR(TE RETAINING WALL (WITHCUT LIVE LOAD SURCHARGE)	05-14-20
TC-1	STANDAR ONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDAR ONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDAR ONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WF-1	WIRE FENCE TYPE A AND B	08-22-02

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6/10/2024		6	ARK.	080634	3	80
		GOVERNING SPECIFICATIONS AND GENERAL NOTES				

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA_____	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273__	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273__	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273__	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273__	SUPPLEMENT - WAGE RATE DETERMINATION
100-3_____	CONTRACTOR'S LICENSE
100-4_____	DEPARTMENT NAME CHANGE
102-2_____	ISSUANCE OF PROPOSALS
102-3_____	PREQUALIFICATION OF BIDDERS
103-2_____	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4_____	MAINTENANCE DURING CONSTRUCTION
107-2_____	RESTRAINING CONDITIONS
108-1_____	LIQUIDATED DAMAGES
108-2_____	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1_____	PROTECTION OF WATER QUALITY AND WETLANDS
210-1_____	UNCLASSIFIED EXCAVATION
303-1_____	AGGREGATE BASE COURSE
306-1_____	QUALITY CONTROL AND ACCEPTANCE
400-1_____	TACK COATS
400-4_____	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5_____	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6_____	LIQUID ANTI-STRIP ADDITIVE
400-7_____	TRACKLESS TACK
404-3_____	DESIGN OF ASPHALT MIXTURES
409-2_____	ASPHALT LABORATORY FACILITY
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
416-1_____	RECYCLED ASPHALT PAVEMENT
501-2_____	CEMENT
502-1_____	WELDED WIRE REINFORCEMENT
505-1_____	PORTLAND CEMENT CONCRETE DRIVEWAY
600-2_____	INCIDENTAL CONSTRUCTION
603-1_____	LANE CLOSURE NOTIFICATION
604-1_____	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3_____	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
605-1	CONCRETE DITCH PAVING
620-1_____	MULCH COVER
621-1_____	FILTER SOCKS
632-1_____	CONCRETE ISLAND
634-1_____	CURBING
700-2_____	TRAFFIC CONTROL FACILITIES
723-1_____	GENERAL REQUIREMENTS FOR SIGNS
730-1_____	BREAKAWAY SIGN SUPPORT
800-1_____	STRUCTURES
802-4_____	CEMENT
804-2_____	REINFORCING STEEL FOR STRUCTURES
JOB 080634__	BASIC ELECTRICAL REQUIREMENTS
JOB 080634__	BIDDING REQUIREMENTS AND CONDITIONS
JOB 080634__	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 080634__	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 080634__	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 080634__	CARGO PREFERENCE ACT REQUIREMENTS
JOB 080634__	CLASS C FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT AND CLASS S(AE) CONCRETE
JOB 080634__	COLD MILLING - COUNTY PROPERTY
JOB 080634__	CONCRETE PULL BOX
JOB 080634__	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 080634__	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 080634__	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 080634__	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 080634__	ELECTRICAL DEMOLITION AND RELOCATION WORK
JOB 080634__	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 080634__	LED ROADWAY ILLUMINATION POLE
JOB 080634__	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 080634__	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB 080634__	LONGITUDINAL TINING
JOB 080634__	MANDATORY ELECTRONIC CONTRACT
JOB 080634__	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 080634__	OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 080634__	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT
JOB 080634__	PARTNERING REQUIREMENTS
JOB 080634__	PEDESTAL TYPE SERVICE POINT ASSEMBLY
JOB 080634__	PERCENT AIR VOIDS AND NDESIGN FOR ACHM MIX DESIGNS
JOB 080634__	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 080634__	PRICE ADJUSTMENT FOR FUEL
JOB 080634__	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 080634__	RESTRICTIONS ON THE USE OF RECYCLED ASPHALT PAVEMENT MATERIAL
JOB 080634__	SHORING FOR CULVERTS
JOB 080634__	SOIL STABILIZATION
JOB 080634__	STORM WATER POLLUTION PREVENTION PLAN
JOB 080634__	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 080634__	TEXTURED COATING FINISH (CAST-IN PLACE RETAINING WALLS)
JOB 080634__	UTILITY ADJUSTMENTS
JOB 080634__	VALUE ENGINEERING
JOB 080634__	WARM MIX ASPHALT
JOB 080634__	WATER POLLUTION CONTROL

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN

Digitally Signed 06/10/2024

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. 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.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT. AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
10. 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.
11. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

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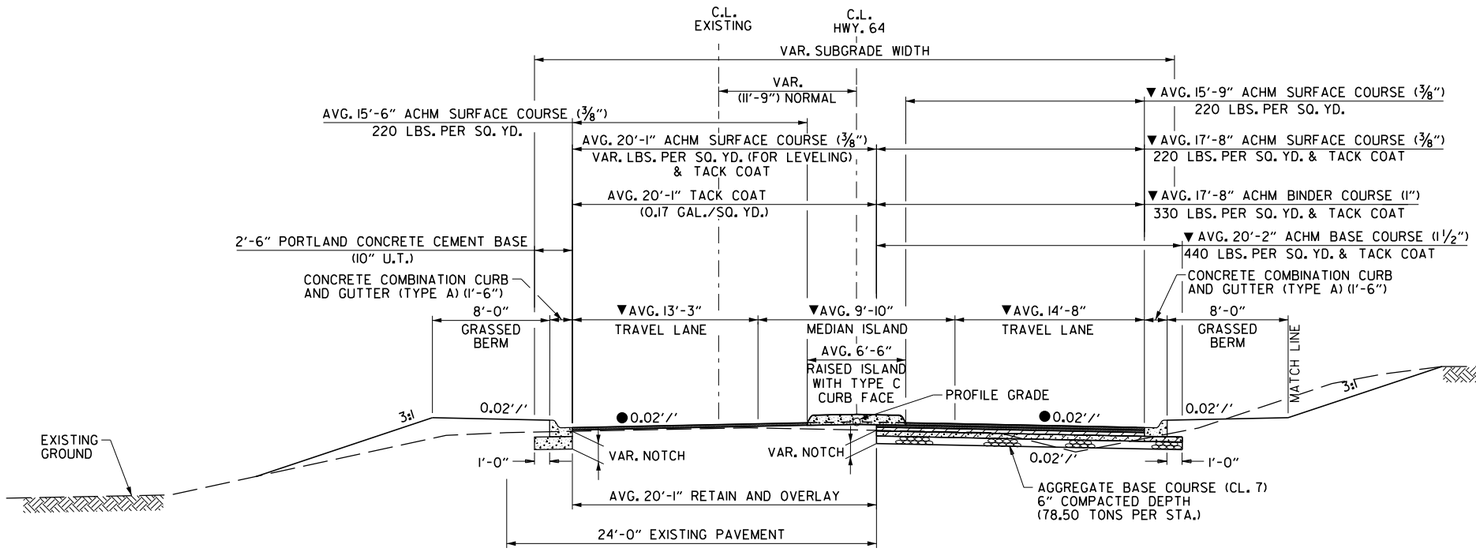
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	4	80
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024



HWY. 64 TYPICAL SECTION

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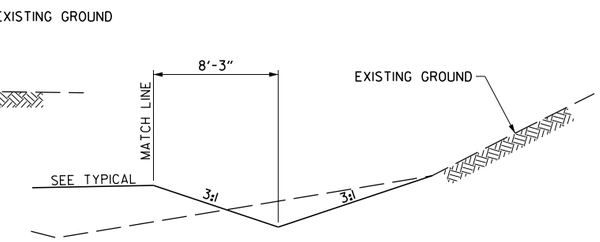
STA. 19+94.50 TO STA. 25+50.00



STA. 14+75.00 TO STA. 17+74.93

▼SEE SPECIAL DETAILS FOR VARIABLE LANE AND/OR ISLAND WIDTHS IN AREA OF ROUNDABOUT AND FOR LEFT TURN LANE LIMITS AND DIMENSIONS

●SEE SPECIAL DETAILS FOR VARIABLE CROSS SLOPES IN AREA OF ROUNDABOUT

NOTE: SEE PLAN AND PROFILE SHEETS FOR EXACT LIMITS OF CURB AND ISLAND LOCATIONS

NOTE: SEE RETAINING WALL DETAILS FOR RETAINING WALL ON RT. FROM STA. 23+17.24 TO STA. 25+50.00

NOTES:

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

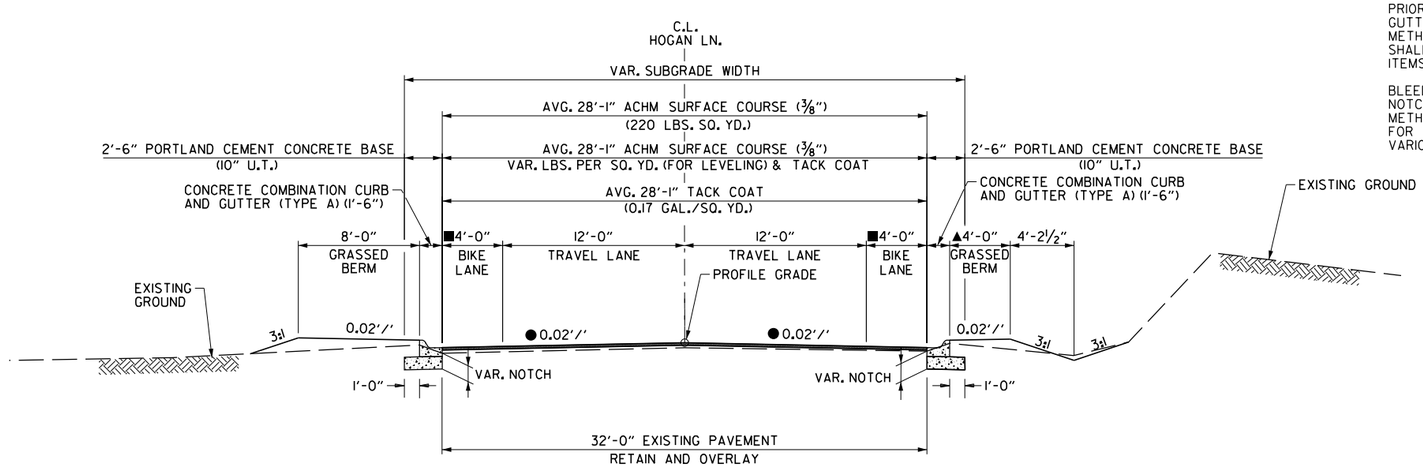
THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

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

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

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

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



HOGAN LN. TYPICAL SECTION

STA. 52+00.00 TO STA. 52+28.00

■TRANSITION FROM 4' AT STA. 52+00.00 TO 0' AT STA. 52+28.00

▲TRANSITION FROM 4' AT STA. 52+20.00 TO 8' AT STA. 52+28.00

●SEE SPECIAL DETAILS FOR VARIABLE CROSS SLOPES IN AREA OF ROUNDABOUT

NOTE: SEE PLAN AND PROFILE SHEETS FOR EXACT LIMITS OF CURB AND ISLAND LOCATIONS

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	5	80
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
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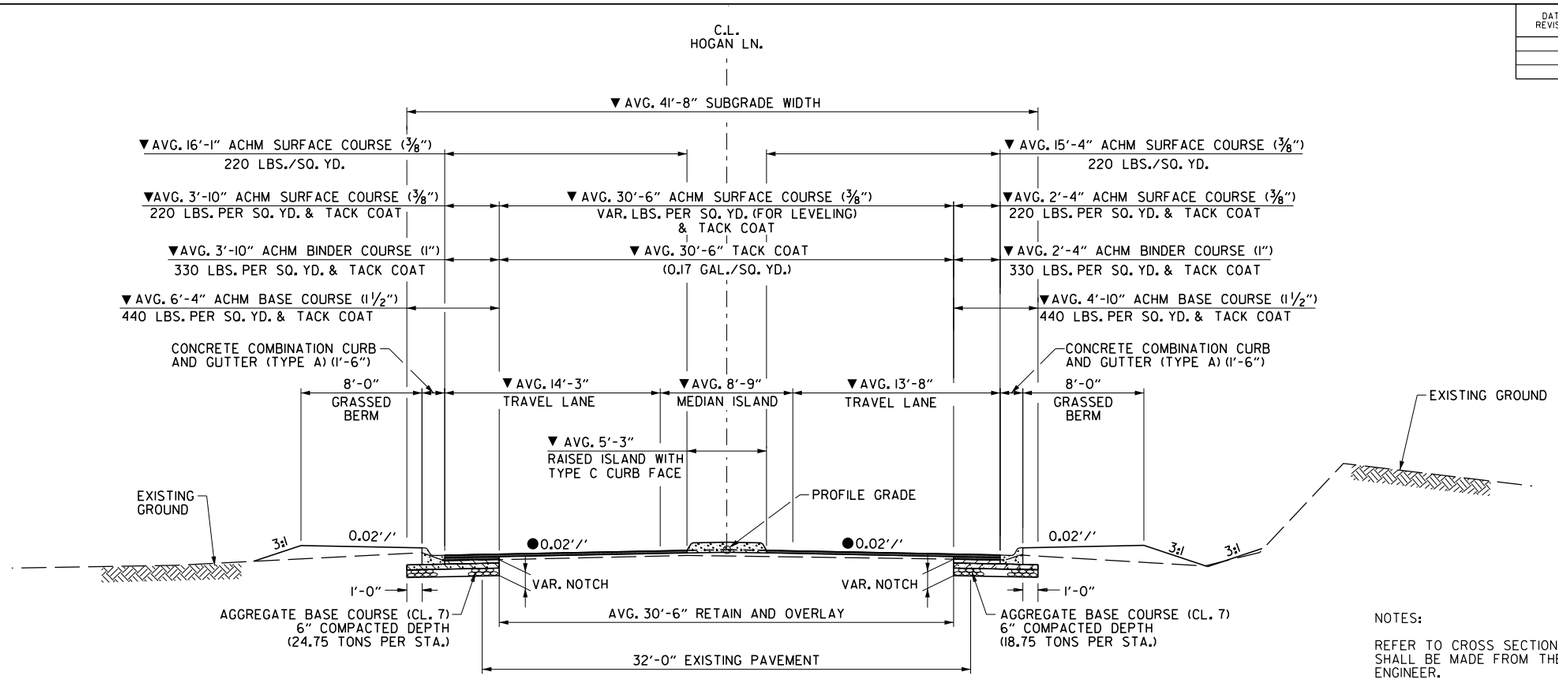
RICHARD C. CORBYN
Digitally Signed 02/21/2024



HOGAN LN. TYPICAL SECTION

STA. 52+28.00 TO STA. 54+64.22

▼SEE SPECIAL DETAILS FOR VARIABLE LANE AND/OR ISLAND WIDTHS IN AREA OF ROUNDABOUT

●SEE SPECIAL DETAILS FOR VARIABLE CROSS SLOPES IN AREA OF ROUNDABOUT

NOTE: SEE PLAN AND PROFILE SHEETS FOR EXACT LIMITS OF CURB AND ISLAND LOCATIONS

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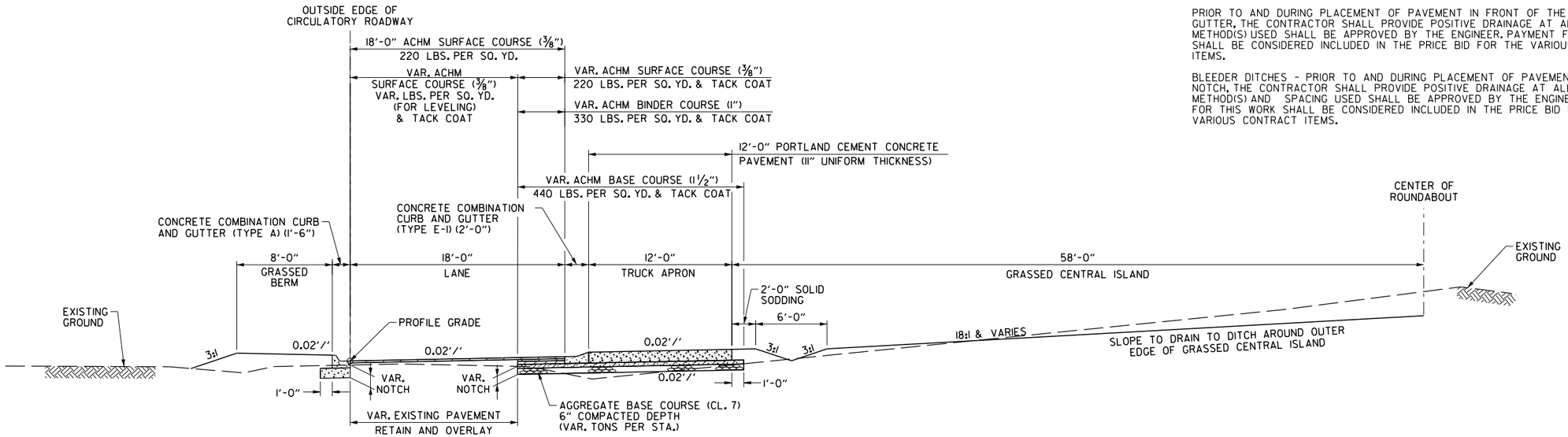

CIRCULATORY ROADWAY TYPICAL SECTION

STA. 1+00.00 TO STA. 1+19.97
STA. 2+56.79 TO STA. 3+17.21
STA. 4+20.16 TO STA. 4+80.73
STA. 6+46.00 TO STA. 6+65.49

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		6	ARK.	080634	6	80
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
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No. 18314
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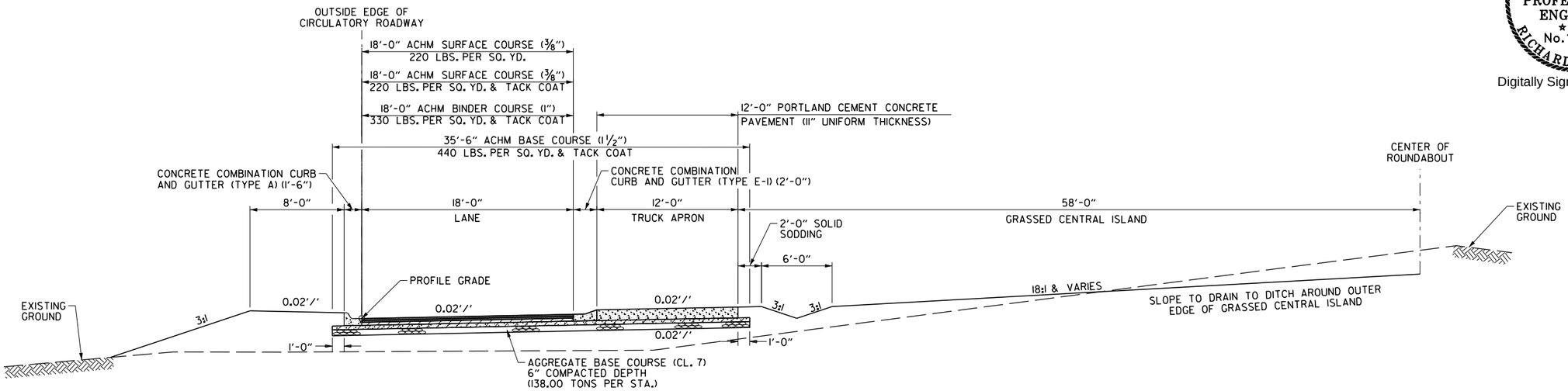
Digitally Signed 02/21/2024



CIRCULATORY ROADWAY TYPICAL SECTION

STA. 1+19.97 TO STA. 2+56.79
STA. 3+17.21 TO STA. 4+20.16
STA. 4+80.73 TO STA. 6+46.00

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

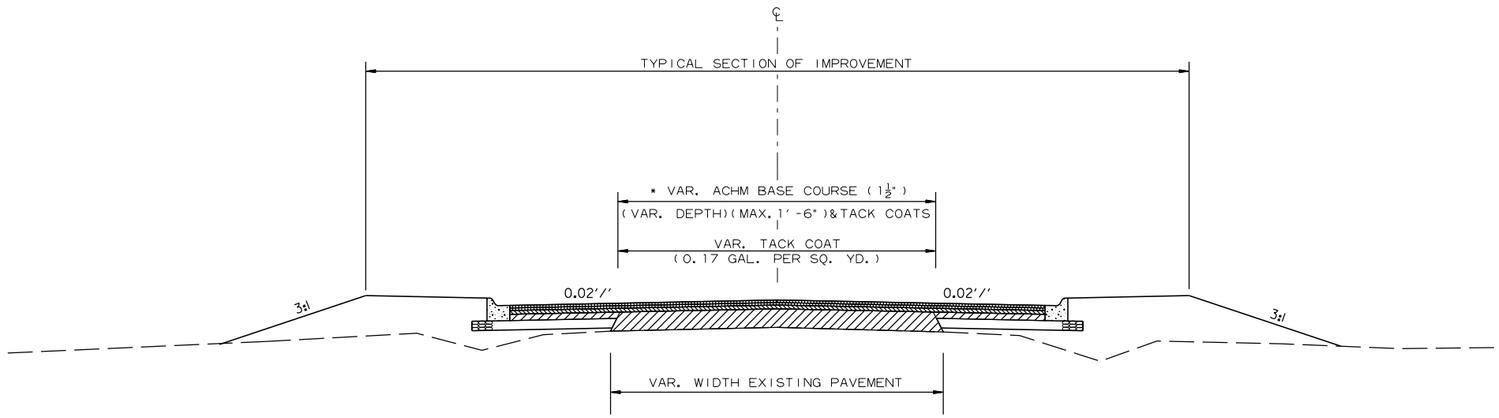
THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

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

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	7	80
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN

Digitally Signed 02/21/2024



* 6" AGGREGATE BASE COURSE (CLASS 7)
TO BE REPLACED WITH A.C.H.M. BASE COURSE (1½")

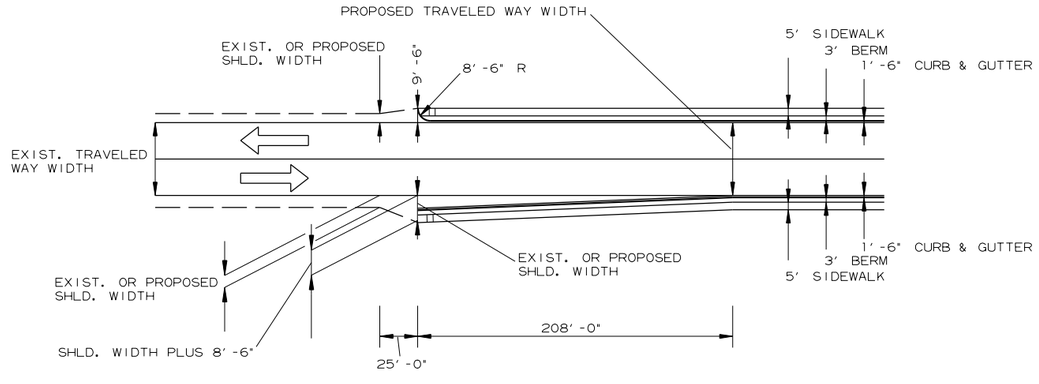
METHOD OF RAISING GRADE

NOTES:

(1) THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

(2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.

(3) IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09 OF THE STANDARD SPECIFICATIONS.



TRANSITION FROM OPEN SHOULDER TO CURB & GUTTER SECTION

WBCallaway 2/20/2024 9:43:06 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	8	80
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN

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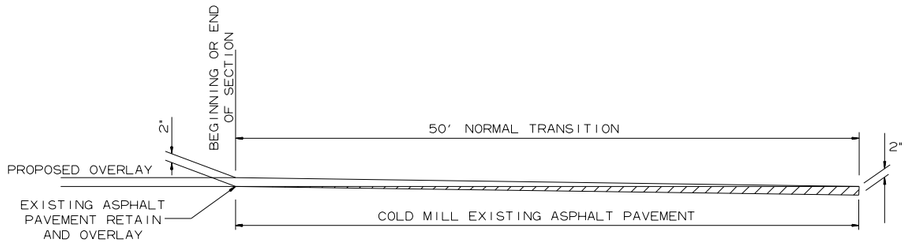
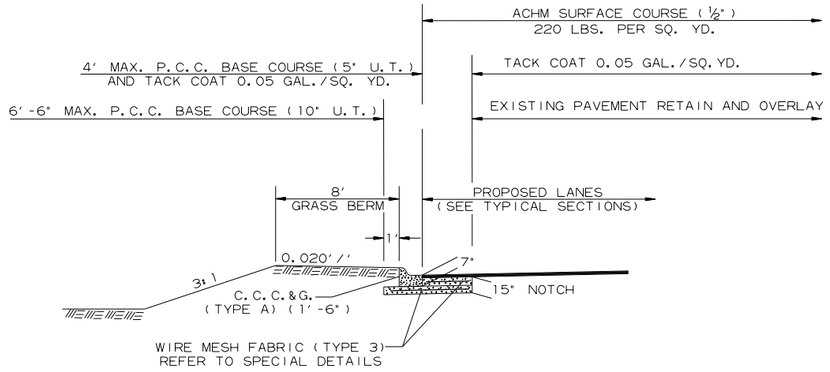
DETAIL FOR TRANSITIONS
(HWY. 64)

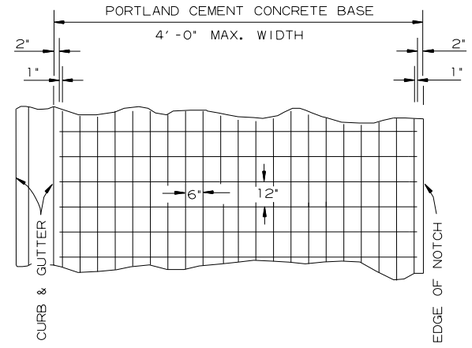


DETAIL FOR TRANSITIONS
(BOONE LOOP RD.)



P.C.C. BASE WIDENING DETAIL

P.C.C. BASE WIDENING TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.



6" X 12" MESH FABRIC (TYPE 3) (W5.5 X W2.9) = 4.26 LBS./SQ.YD.

NOTES:

1. LAP MESH FABRIC MIN. 12" LONGITUDINALLY AND MIN. 6" TRANSVERSELY.
2. MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12".
3. MESH FABRIC (TYPE 3) WILL NOT BE PAID FOR DIRECTLY, BUT FULL COMPENSATION THEREFORE WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE BID PER SQ. YD. FOR PORTLAND CEMENT CONCRETE BASE (XX" U.T.)

DETAIL OF REINFORCING STEEL FOR PAVEMENT (MESH FABRIC TYPE 3)

WBCallaway 2/20/2024 9:43:07 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	9	80
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
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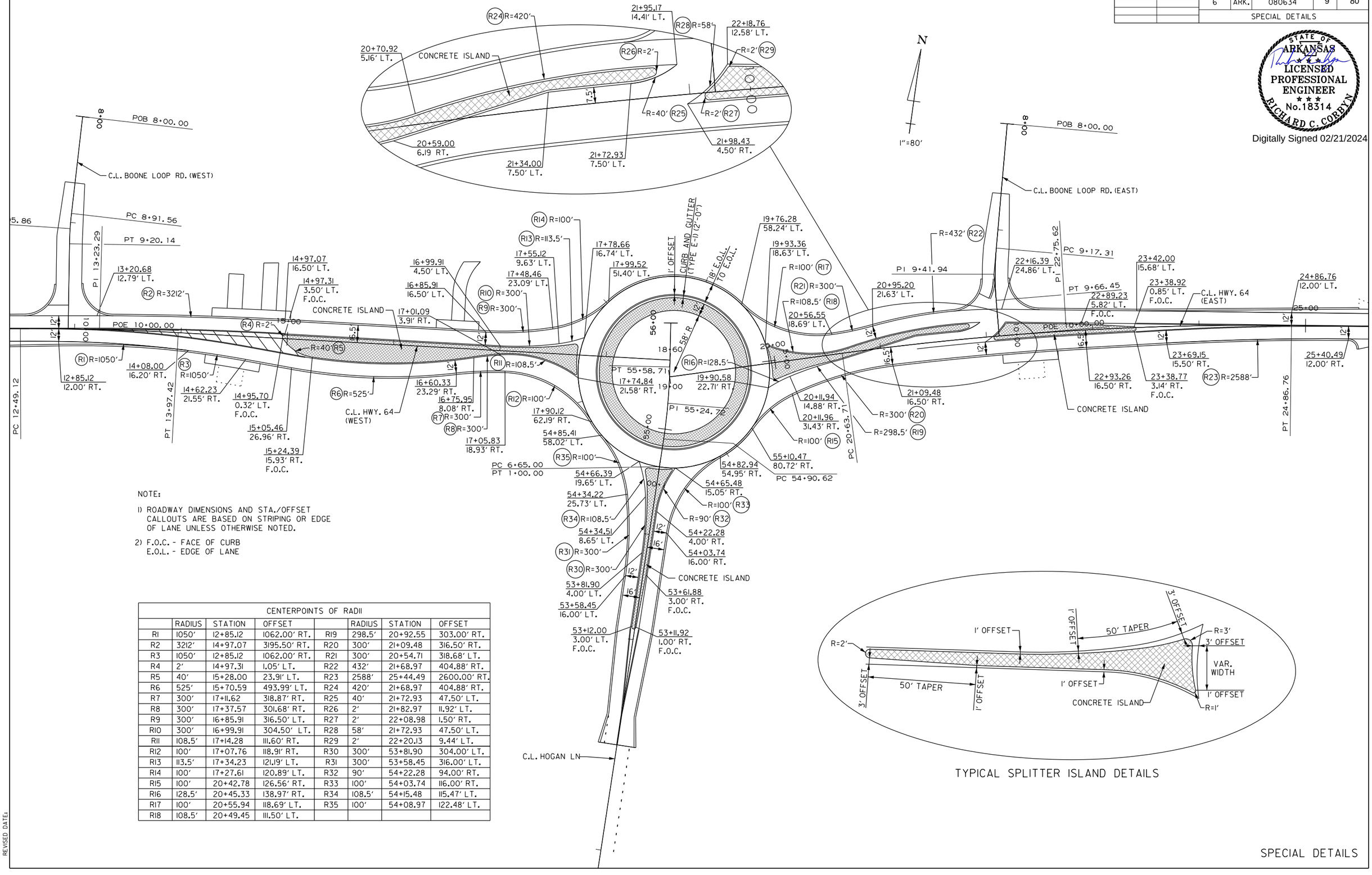

NOTE:

1) ROADWAY DIMENSIONS AND STA./OFFSET CALLOUTS ARE BASED ON STRIPING OR EDGE OF LANE UNLESS OTHERWISE NOTED.

2) F.O.C. - FACE OF CURB
E.O.L. - EDGE OF LANE

CENTERPOINTS OF RADII							
	RADIUS	STATION	OFFSET		RADIUS	STATION	OFFSET
R1	1050'	12+85.12	1062.00' RT.	R19	298.5'	20+92.55	303.00' RT.
R2	3212'	14+97.07	3195.50' RT.	R20	300'	21+09.48	316.50' RT.
R3	1050'	12+85.12	1062.00' RT.	R21	300'	20+54.71	318.68' LT.
R4	2'	14+97.31	1.05' LT.	R22	432'	21+68.97	404.88' RT.
R5	40'	15+28.00	23.91' LT.	R23	2588'	25+44.49	2600.00' RT.
R6	525'	15+70.59	493.99' LT.	R24	420'	21+68.97	404.88' RT.
R7	300'	17+11.62	318.87' RT.	R25	40'	21+72.93	47.50' LT.
R8	300'	17+37.57	301.68' RT.	R26	2'	21+82.97	11.92' LT.
R9	300'	16+85.91	316.50' LT.	R27	2'	22+08.98	1.50' RT.
R10	300'	16+99.91	304.50' LT.	R28	58'	21+72.93	47.50' LT.
R11	108.5'	17+14.28	111.60' RT.	R29	2'	22+20.13	9.44' LT.
R12	100'	17+07.76	118.91' RT.	R30	300'	53+81.90	304.00' LT.
R13	113.5'	17+34.23	121.19' LT.	R31	300'	53+58.45	316.00' LT.
R14	100'	17+27.61	120.89' LT.	R32	90'	54+22.28	94.00' RT.
R15	100'	20+42.78	126.56' RT.	R33	100'	54+03.74	116.00' RT.
R16	128.5'	20+45.33	138.97' RT.	R34	108.5'	54+15.48	115.47' LT.
R17	100'	20+55.94	118.69' LT.	R35	100'	54+08.97	122.48' LT.
R18	108.5'	20+49.45	111.50' LT.				

TYPICAL SPLITTER ISLAND DETAILS

SPECIAL DETAILS

WBCalloway 2/20/2024 9:43:3 AM
WORKSPACE: AHTD
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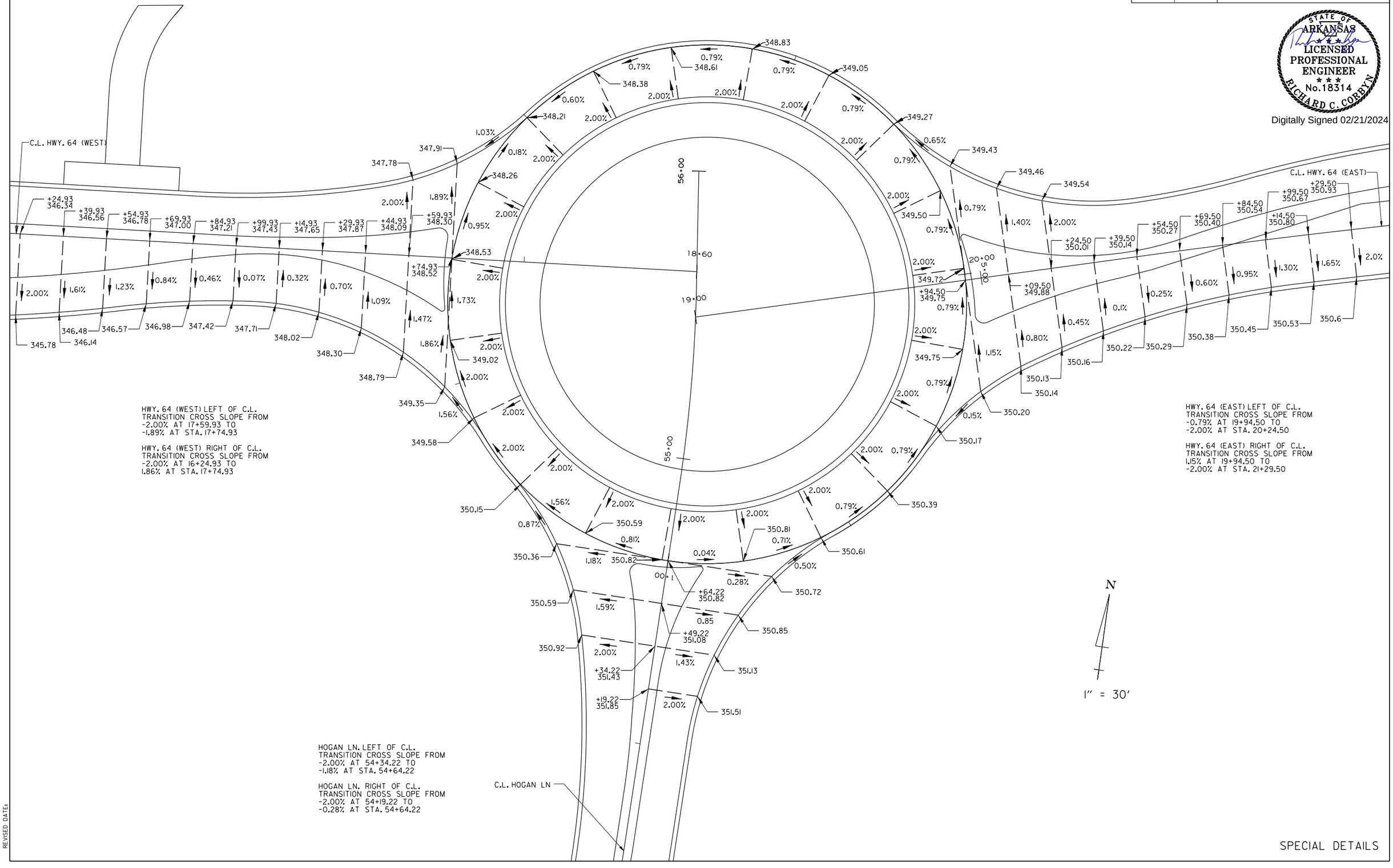
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	10	80
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024



HWY. 64 (WEST) LEFT OF C.L.
TRANSITION CROSS SLOPE FROM
-2.00% AT 17+59.93 TO
-1.89% AT STA. 17+74.93

HWY. 64 (WEST) RIGHT OF C.L.
TRANSITION CROSS SLOPE FROM
-2.00% AT 16+24.93 TO
1.86% AT STA. 17+74.93

HWY. 64 (EAST) LEFT OF C.L.
TRANSITION CROSS SLOPE FROM
-0.79% AT 19+94.50 TO
-2.00% AT STA. 20+24.50

HWY. 64 (EAST) RIGHT OF C.L.
TRANSITION CROSS SLOPE FROM
1.15% AT 19+94.50 TO
-2.00% AT STA. 21+29.50

HOGAN LN. LEFT OF C.L.
TRANSITION CROSS SLOPE FROM
-2.00% AT 54+34.22 TO
-1.18% AT STA. 54+64.22

HOGAN LN. RIGHT OF C.L.
TRANSITION CROSS SLOPE FROM
-2.00% AT 54+19.22 TO
-0.28% AT STA. 54+64.22

WBCallaway 2/20/2024 9:43:16 AM
WORKSPACE: AHTD
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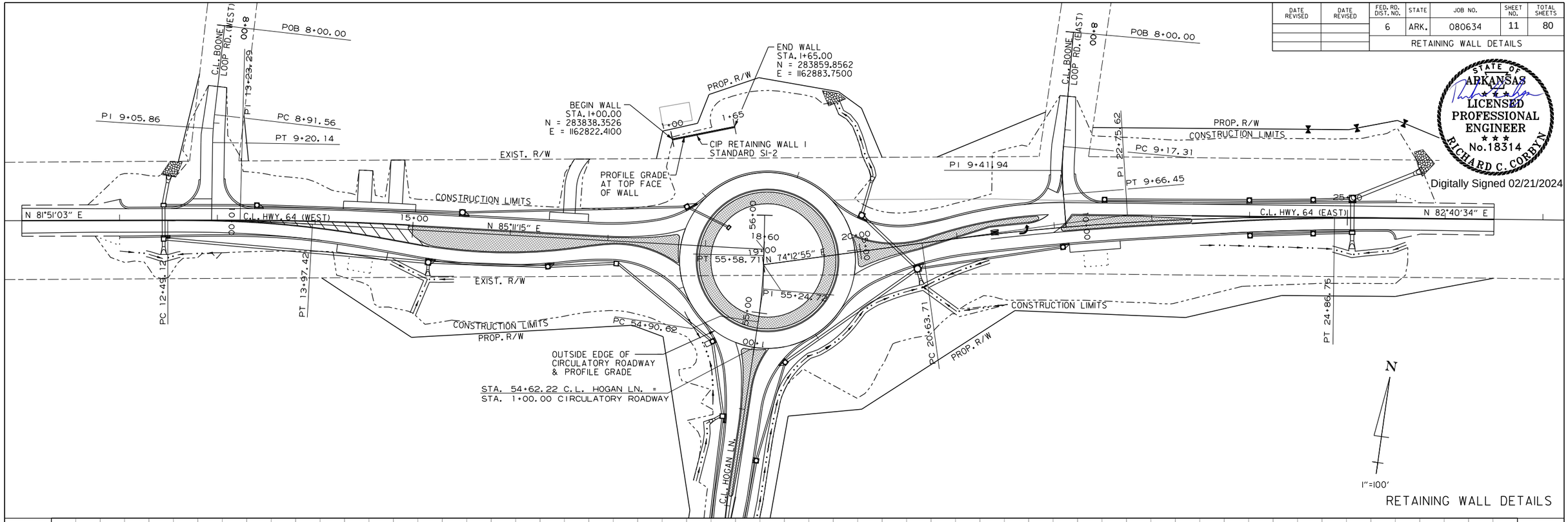
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	11	80
		RETAINING WALL DETAILS				



RETAINING WALL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
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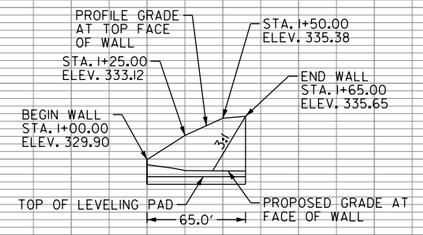

CIP RETAINING WALL I

370 360 350 340 330 320 310 300 290 280

0+00 1+00 2+00 3+00

WBCalloway
WORKSPACE: AHTD
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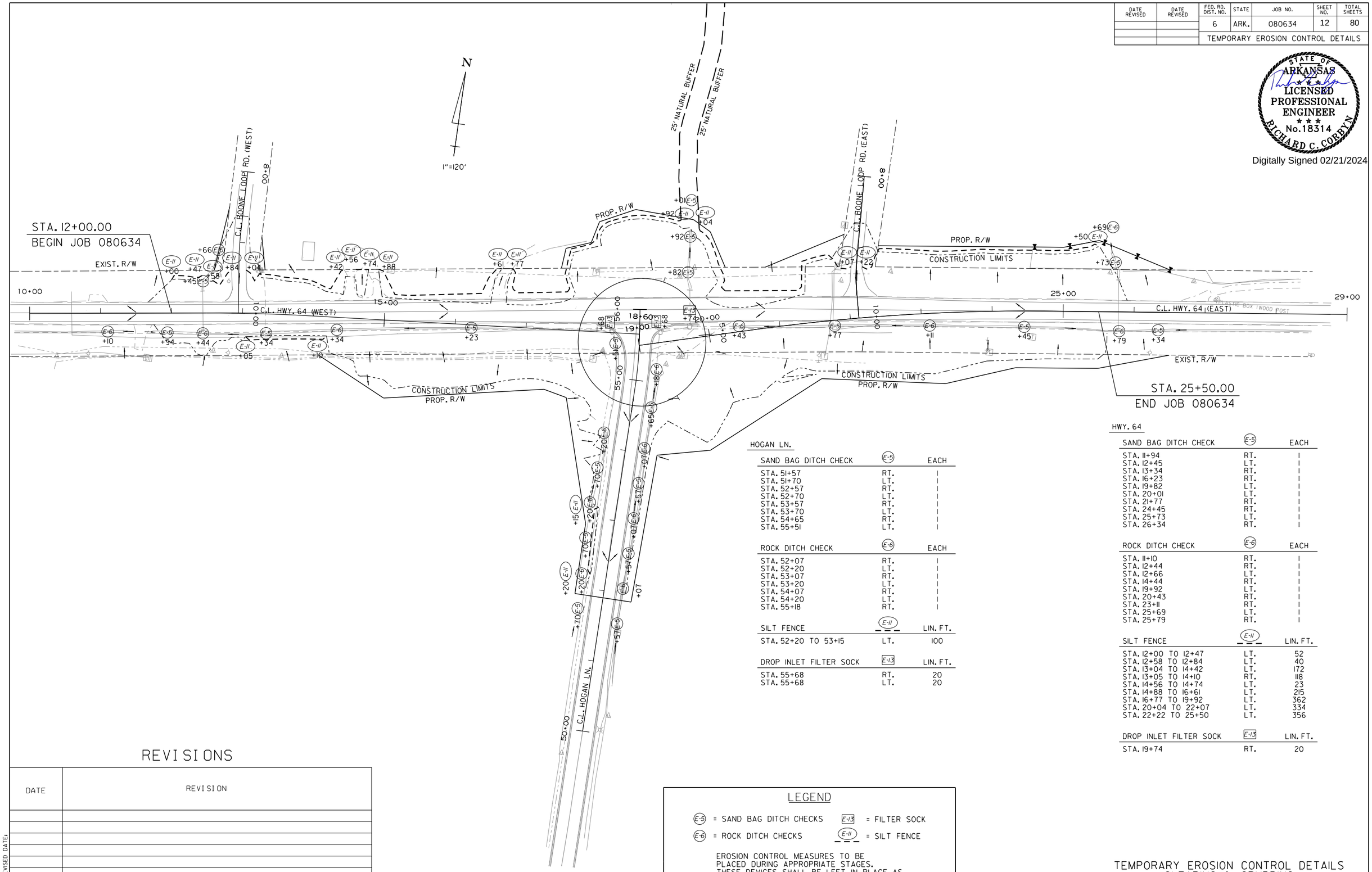
2/21/2024 2:07:43 PM
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	12	80
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024



HOGAN LN.

SAND BAG DITCH CHECK (E-5)		EACH
STA. 51+57	RT.	1
STA. 51+70	LT.	1
STA. 52+57	RT.	1
STA. 52+70	LT.	1
STA. 53+57	RT.	1
STA. 53+70	LT.	1
STA. 54+65	RT.	1
STA. 55+51	LT.	1

ROCK DITCH CHECK (E-6)		EACH
STA. 52+07	RT.	1
STA. 52+20	LT.	1
STA. 53+07	RT.	1
STA. 53+20	LT.	1
STA. 54+07	RT.	1
STA. 54+20	LT.	1
STA. 55+18	RT.	1

SILT FENCE (E-11)		LIN. FT.
STA. 52+20 TO 53+15	LT.	100

DROP INLET FILTER SOCK (E-13)		LIN. FT.
STA. 55+68	RT.	20
STA. 55+68	LT.	20

HWY. 64

SAND BAG DITCH CHECK (E-5)		EACH
STA. 11+94	RT.	1
STA. 12+45	LT.	1
STA. 13+34	RT.	1
STA. 16+23	RT.	1
STA. 19+82	LT.	1
STA. 20+01	LT.	1
STA. 21+77	RT.	1
STA. 24+45	RT.	1
STA. 25+73	LT.	1
STA. 26+34	RT.	1

ROCK DITCH CHECK (E-6)		EACH
STA. 11+10	RT.	1
STA. 12+44	RT.	1
STA. 12+66	LT.	1
STA. 14+44	RT.	1
STA. 19+92	LT.	1
STA. 20+43	RT.	1
STA. 23+11	RT.	1
STA. 25+69	LT.	1
STA. 25+79	RT.	1

SILT FENCE (E-11)		LIN. FT.
STA. 12+00 TO 12+47	LT.	52
STA. 12+58 TO 12+84	LT.	40
STA. 13+04 TO 14+42	LT.	172
STA. 13+05 TO 14+10	RT.	118
STA. 14+56 TO 14+74	LT.	23
STA. 14+88 TO 16+61	LT.	215
STA. 16+77 TO 19+92	LT.	362
STA. 20+04 TO 22+07	LT.	334
STA. 22+22 TO 25+50	LT.	356

DROP INLET FILTER SOCK (E-13)		LIN. FT.
STA. 19+74	RT.	20

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-13) = FILTER SOCK
(E-6) = ROCK DITCH CHECKS
(E-11) = SILT FENCE

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

REVISIONS

DATE	REVISION

WBCalloway 2/20/2024 9:43:26 AM
WORKSPACE: AHTD
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REVISED DATE:

TEMPORARY EROSION CONTROL DETAILS
CLEARING & GRUBBING

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	13	80
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
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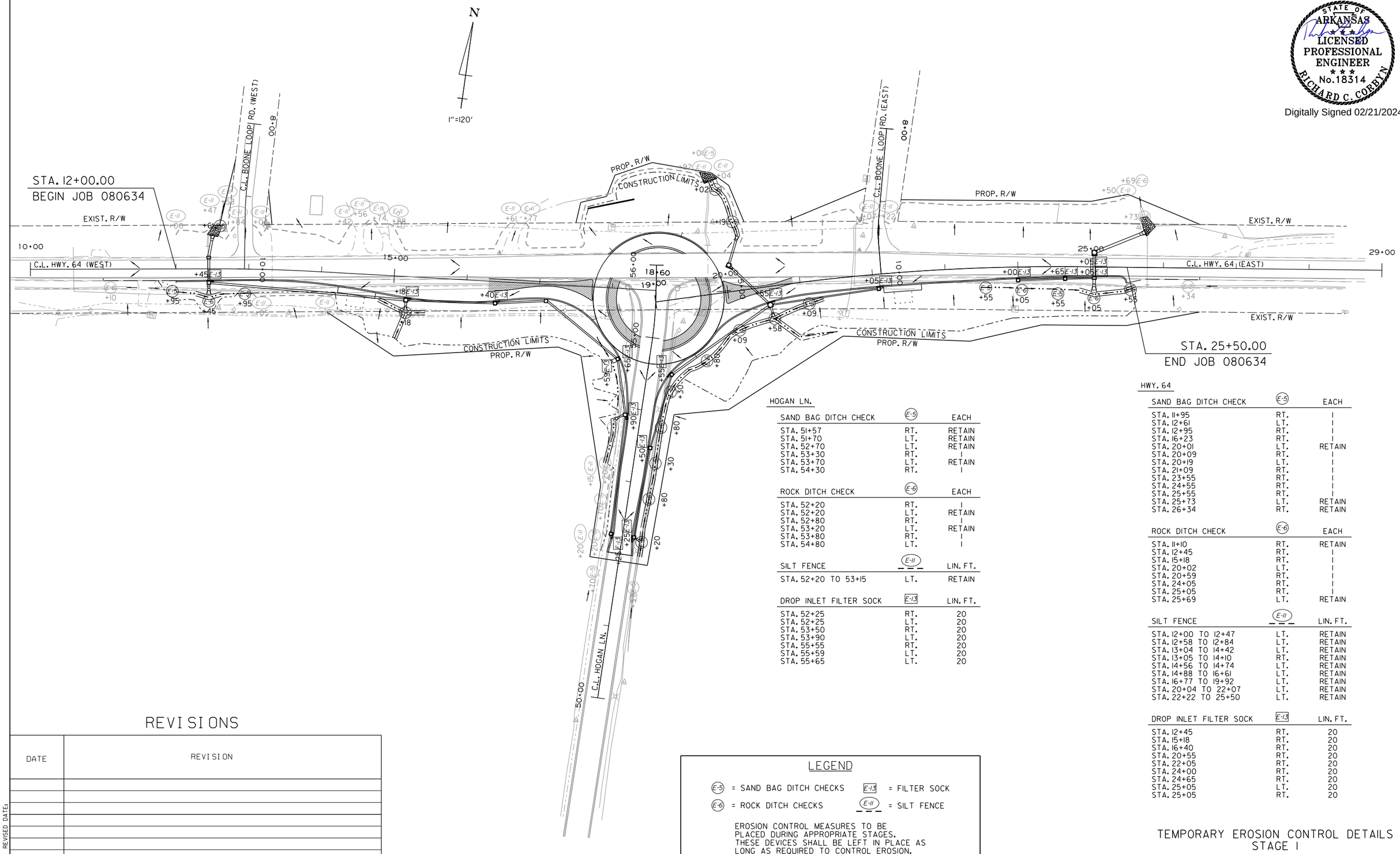

HOGAN LN.

SAND BAG DITCH CHECK	E-5	EACH
STA. 51+57	RT.	RETAIN
STA. 51+70	LT.	RETAIN
STA. 52+70	LT.	RETAIN
STA. 53+30	RT.	I
STA. 53+70	LT.	RETAIN
STA. 54+30	RT.	I

ROCK DITCH CHECK	E-6	EACH
STA. 52+20	RT.	I
STA. 52+20	LT.	RETAIN
STA. 52+80	RT.	I
STA. 53+20	LT.	RETAIN
STA. 53+80	RT.	I
STA. 54+80	LT.	I

SILT FENCE	E-II	LIN. FT.
STA. 52+20 TO 53+15	LT.	RETAIN

DROP INLET FILTER SOCK	E-13	LIN. FT.
STA. 52+25	RT.	20
STA. 52+25	LT.	20
STA. 53+50	RT.	20
STA. 53+90	LT.	20
STA. 55+55	RT.	20
STA. 55+59	LT.	20
STA. 55+65	LT.	20

HWY. 64

SAND BAG DITCH CHECK	E-5	EACH
STA. 11+95	RT.	I
STA. 12+61	LT.	I
STA. 12+95	RT.	I
STA. 16+23	RT.	I
STA. 20+01	LT.	RETAIN
STA. 20+09	RT.	I
STA. 20+19	LT.	I
STA. 21+09	RT.	I
STA. 23+55	RT.	I
STA. 24+55	RT.	I
STA. 25+55	RT.	I
STA. 25+73	LT.	RETAIN
STA. 26+34	RT.	RETAIN

ROCK DITCH CHECK	E-6	EACH
STA. 11+10	RT.	RETAIN
STA. 12+45	RT.	I
STA. 15+18	RT.	I
STA. 20+02	LT.	I
STA. 20+59	RT.	I
STA. 24+05	RT.	I
STA. 25+05	RT.	I
STA. 25+69	LT.	RETAIN

SILT FENCE	E-II	LIN. FT.
STA. 12+00 TO 12+47	LT.	RETAIN
STA. 12+58 TO 12+84	LT.	RETAIN
STA. 13+04 TO 14+42	LT.	RETAIN
STA. 13+05 TO 14+10	RT.	RETAIN
STA. 14+56 TO 14+74	LT.	RETAIN
STA. 14+88 TO 16+61	LT.	RETAIN
STA. 16+77 TO 19+92	LT.	RETAIN
STA. 20+04 TO 22+07	LT.	RETAIN
STA. 22+22 TO 25+50	LT.	RETAIN

DROP INLET FILTER SOCK	E-13	LIN. FT.
STA. 12+45	RT.	20
STA. 15+18	RT.	20
STA. 16+40	RT.	20
STA. 20+55	RT.	20
STA. 22+05	RT.	20
STA. 24+00	RT.	20
STA. 24+65	RT.	20
STA. 25+05	LT.	20
STA. 25+05	RT.	20

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-13 = FILTER SOCK
E-6 = ROCK DITCH CHECKS
E-II = SILT FENCE

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

REVISIONS

DATE	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE I

WBCalloway 2/20/2024 9:43:33 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	14	80
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
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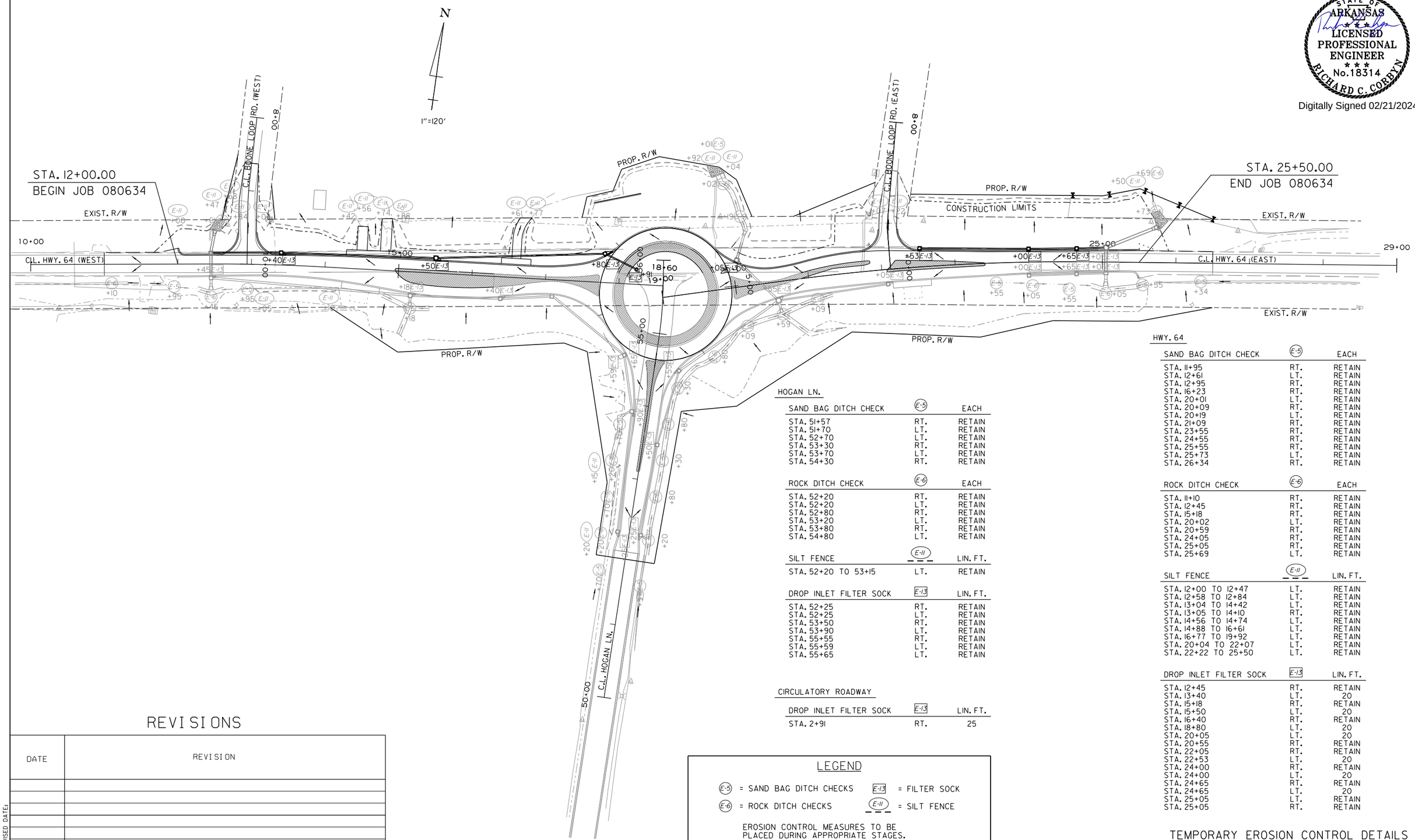

HWY. 64

SAND BAG DITCH CHECK	E-5	EACH
STA. 11+95	RT.	RETAIN
STA. 12+61	LT.	RETAIN
STA. 12+95	RT.	RETAIN
STA. 16+23	RT.	RETAIN
STA. 20+01	LT.	RETAIN
STA. 20+09	RT.	RETAIN
STA. 20+19	LT.	RETAIN
STA. 21+09	RT.	RETAIN
STA. 23+55	RT.	RETAIN
STA. 24+55	RT.	RETAIN
STA. 25+55	RT.	RETAIN
STA. 25+73	LT.	RETAIN
STA. 26+34	RT.	RETAIN

ROCK DITCH CHECK	E-6	EACH
STA. 11+10	RT.	RETAIN
STA. 12+45	RT.	RETAIN
STA. 15+18	RT.	RETAIN
STA. 20+02	LT.	RETAIN
STA. 20+59	RT.	RETAIN
STA. 24+05	RT.	RETAIN
STA. 25+05	RT.	RETAIN
STA. 25+69	LT.	RETAIN

SILT FENCE	E-11	LIN. FT.
STA. 12+00 TO 12+47	LT.	RETAIN
STA. 12+58 TO 12+84	LT.	RETAIN
STA. 13+04 TO 14+42	LT.	RETAIN
STA. 13+05 TO 14+10	RT.	RETAIN
STA. 14+56 TO 14+74	LT.	RETAIN
STA. 14+88 TO 16+61	LT.	RETAIN
STA. 16+77 TO 19+92	LT.	RETAIN
STA. 20+04 TO 22+07	LT.	RETAIN
STA. 22+22 TO 25+50	LT.	RETAIN

DROP INLET FILTER SOCK	E-13	LIN. FT.
STA. 12+45	RT.	RETAIN
STA. 13+40	LT.	20
STA. 15+18	RT.	RETAIN
STA. 15+50	LT.	20
STA. 16+40	RT.	RETAIN
STA. 18+80	LT.	20
STA. 20+05	LT.	20
STA. 20+55	RT.	RETAIN
STA. 22+05	RT.	RETAIN
STA. 22+53	LT.	20
STA. 24+00	RT.	RETAIN
STA. 24+00	LT.	20
STA. 24+65	RT.	RETAIN
STA. 24+65	LT.	20
STA. 25+05	LT.	RETAIN
STA. 25+05	RT.	RETAIN

HOGAN LN.

SAND BAG DITCH CHECK	E-5	EACH
STA. 51+57	RT.	RETAIN
STA. 51+70	LT.	RETAIN
STA. 52+70	LT.	RETAIN
STA. 53+30	RT.	RETAIN
STA. 53+70	LT.	RETAIN
STA. 54+30	RT.	RETAIN

ROCK DITCH CHECK	E-6	EACH
STA. 52+20	RT.	RETAIN
STA. 52+20	LT.	RETAIN
STA. 52+80	RT.	RETAIN
STA. 53+20	LT.	RETAIN
STA. 53+80	RT.	RETAIN
STA. 54+80	LT.	RETAIN

SILT FENCE	E-11	LIN. FT.
STA. 52+20 TO 53+15	LT.	RETAIN

DROP INLET FILTER SOCK	E-13	LIN. FT.
STA. 52+25	RT.	RETAIN
STA. 52+25	LT.	RETAIN
STA. 53+50	RT.	RETAIN
STA. 53+90	LT.	RETAIN
STA. 55+55	RT.	RETAIN
STA. 55+59	LT.	RETAIN
STA. 55+65	LT.	RETAIN

CIRCULATORY ROADWAY

DROP INLET FILTER SOCK	E-13	LIN. FT.
STA. 2+91	RT.	25

LEGEND

E-5 = SAND BAG DITCH CHECKS
E-13 = FILTER SOCK
E-6 = ROCK DITCH CHECKS
E-11 = SILT FENCE

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

REVISIONS

DATE	REVISION

WBCallaway 2/20/2024 9:43:39 AM
WORKSPACE: AHTD
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REVISED DATE:

TEMPORARY EROSION CONTROL DETAILS
STAGE 2

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	15	80
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
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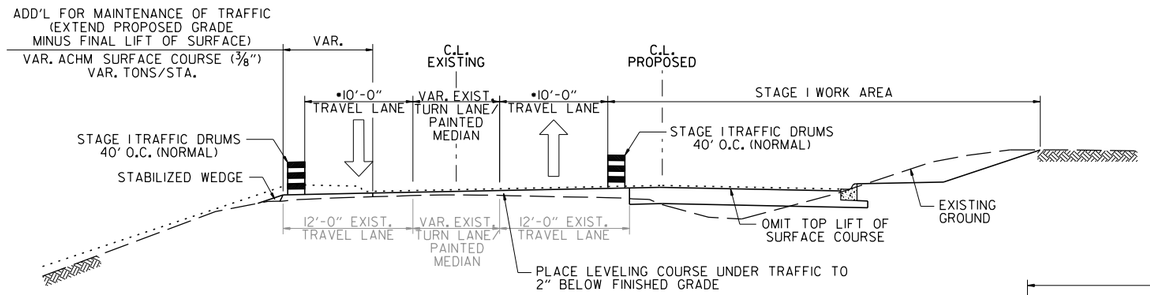
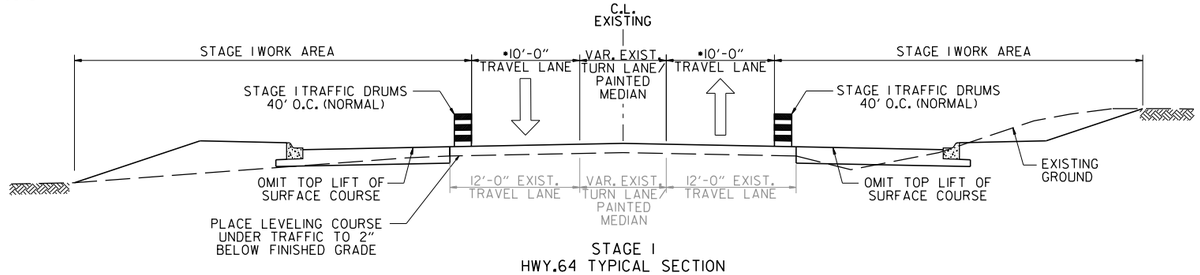


STAGE I
HWY.64 TYPICAL SECTION

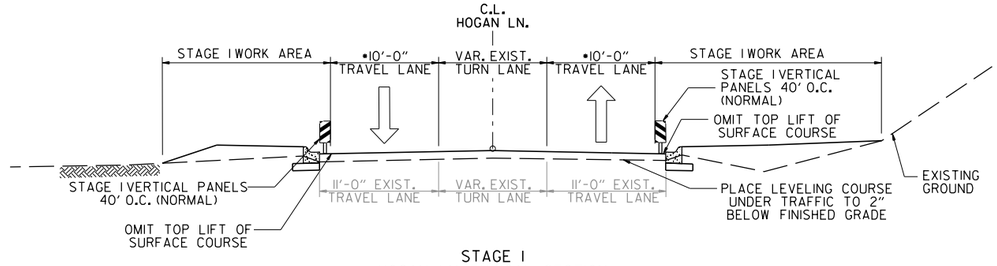
STA. 12+00.00 TO STA. 17+91.00
STA. 19+80.00 TO STA. 25+50.00



STAGE I
HWY.64 TYPICAL SECTION

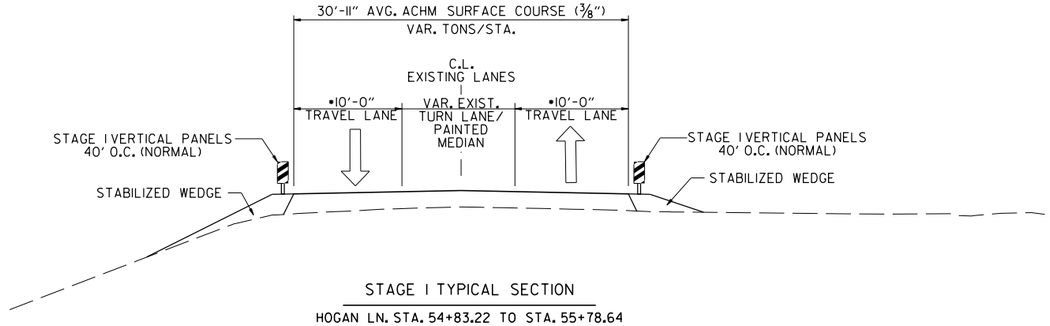
STA. 17+91.00 TO STA. 19+80.00

• A MINIMUM LANE WIDTH OF 10' SHALL BE MAINTAINED DURING CONSTRUCTION. WHERE FEASIBLE, 11' LANES SHALL BE UTILIZED.



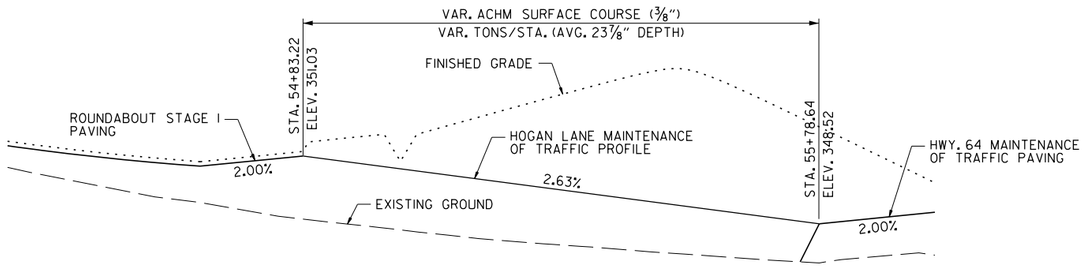
STAGE I
HOGAN LN. TYPICAL SECTION

STA. 52+00.00 TO STA. 54+83.22

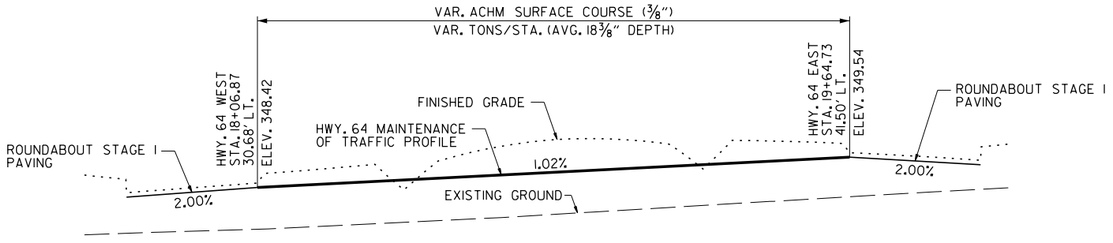


STAGE I TYPICAL SECTION

HOGAN LN. STA. 54+83.22 TO STA. 55+78.64



HOGAN LANE STAGE I PROFILE



HWY. 64 STAGE I PROFILE

MAINTENANCE OF TRAFFIC DETAILS
STAGE I

WBCalloway 2/20/2024 9:43:48 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	16	80
		MAINTENANCE OF TRAFFIC DETAILS				

STAGE 1 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN TRAFFIC ON EXISTING LANES.

2) INSTALL ADVANCE WARNING SIGNS, CHANNELIZING DEVICES, AND CONSTRUCTION STRIPING AS SHOWN.

3) CONSTRUCT DRAINAGE STRUCTURES AS SHOWN.

4) CONSTRUCT NOTCH AND WIDEN SECTIONS OF HWY 64, CIRCULATORY ROADWAY, AND HOGAN LN AS SHOWN TO WITHIN 2" OF FINAL GRADE.

5) CONSTRUCT HWY. 64 (WEST) SPLITTER ISLAND FROM STA. 16+30 TO STA. 17+74 AND HWY. 64 (EAST) SPLITTER ISLAND FROM STA. 19+94 TO STA. 20+90.

6) OVERLAY OR METHOD OF RAISING GRADE UNDER TRAFFIC ON HWY. 64 AND HOGAN LN. TO WITHIN 2" OF FINAL GRADE.

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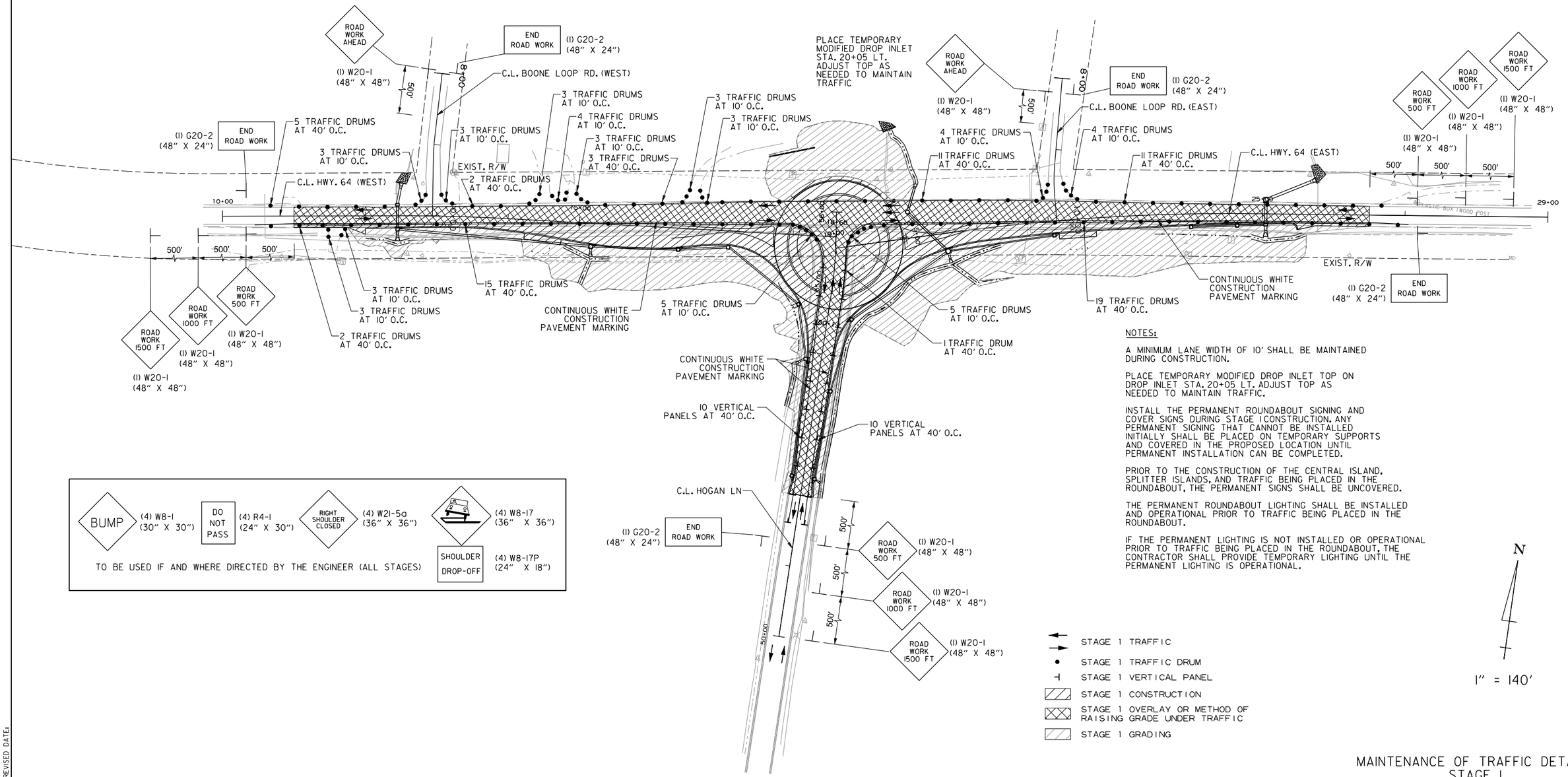

NOTES:

A MINIMUM LANE WIDTH OF 10' SHALL BE MAINTAINED DURING CONSTRUCTION.

PLACE TEMPORARY MODIFIED DROP INLET TOP ON DROP INLET STA. 20+05 LT. ADJUST TOP AS NEEDED TO MAINTAIN TRAFFIC.

INSTALL THE PERMANENT ROUNDABOUT SIGNING AND COVER SIGNS DURING STAGE 1 CONSTRUCTION. ANY PERMANENT SIGNING THAT CANNOT BE INSTALLED INITIALLY SHALL BE PLACED ON TEMPORARY SUPPORTS AND COVERED IN THE PROPOSED LOCATION UNTIL PERMANENT INSTALLATION CAN BE COMPLETED.

PRIOR TO THE CONSTRUCTION OF THE CENTRAL ISLAND, SPLITTER ISLANDS, AND TRAFFIC BEING PLACED IN THE ROUNDABOUT, THE PERMANENT SIGNS SHALL BE UNCOVERED.

THE PERMANENT ROUNDABOUT LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO TRAFFIC BEING PLACED IN THE ROUNDABOUT.

IF THE PERMANENT LIGHTING IS NOT INSTALLED OR OPERATIONAL PRIOR TO TRAFFIC BEING PLACED IN THE ROUNDABOUT, THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING UNTIL THE PERMANENT LIGHTING IS OPERATIONAL.

- STAGE 1 TRAFFIC
- STAGE 1 TRAFFIC DRUM
- STAGE 1 VERTICAL PANEL
- STAGE 1 CONSTRUCTION
- STAGE 1 OVERLAY OR METHOD OF RAISING GRADE UNDER TRAFFIC
- STAGE 1 GRADING

N

1" = 140'

MAINTENANCE OF TRAFFIC DETAILS
STAGE 1

WBCallaway 2/20/2024 9:43:48 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	17	80
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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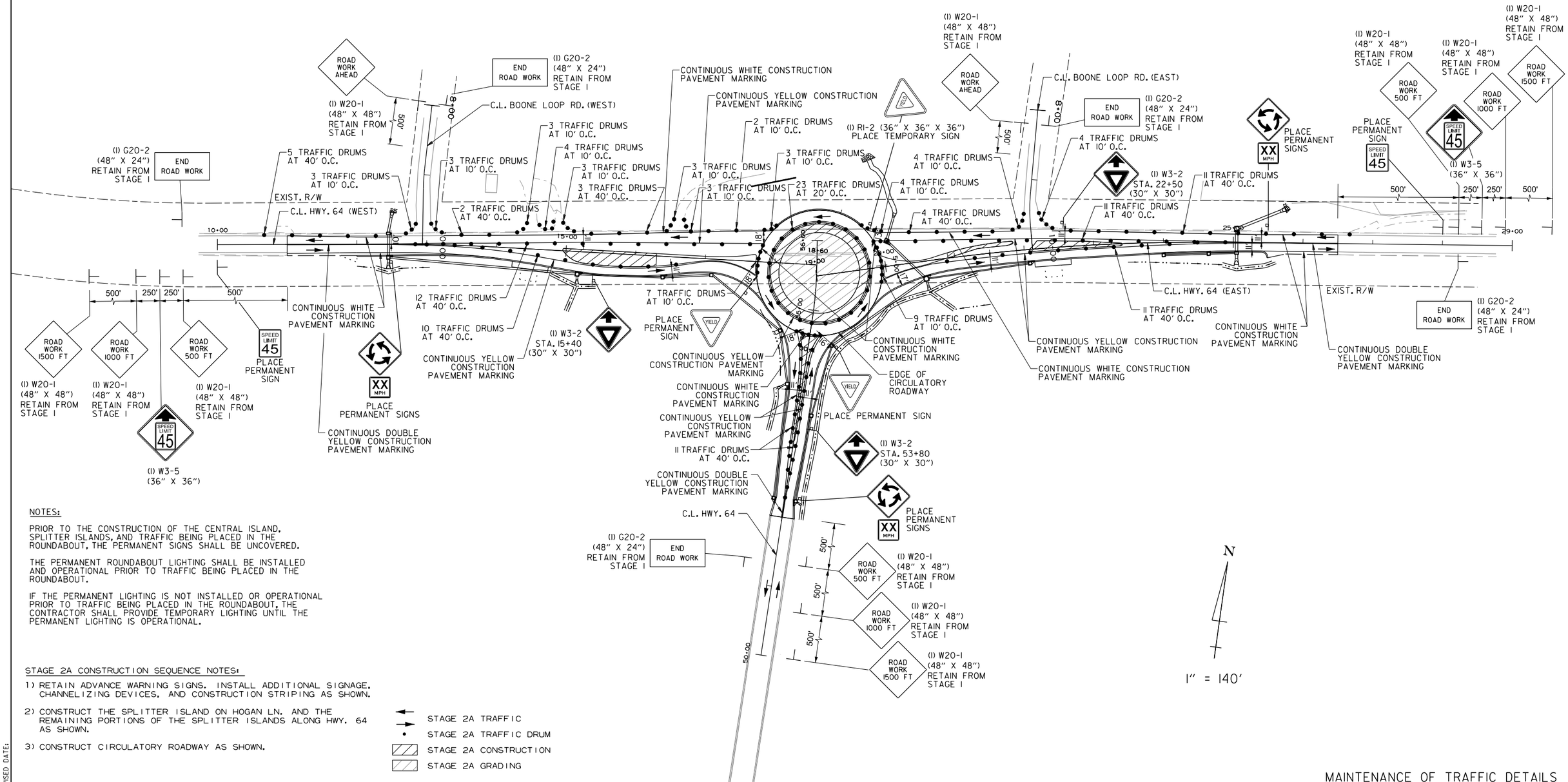

NOTES:

PRIOR TO THE CONSTRUCTION OF THE CENTRAL ISLAND, SPLITTER ISLANDS, AND TRAFFIC BEING PLACED IN THE ROUNDABOUT, THE PERMANENT SIGNS SHALL BE UNCOVERED.

THE PERMANENT ROUNDABOUT LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO TRAFFIC BEING PLACED IN THE ROUNDABOUT.

IF THE PERMANENT LIGHTING IS NOT INSTALLED OR OPERATIONAL PRIOR TO TRAFFIC BEING PLACED IN THE ROUNDABOUT, THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING UNTIL THE PERMANENT LIGHTING IS OPERATIONAL.

STAGE 2A CONSTRUCTION SEQUENCE NOTES:

1) RETAIN ADVANCE WARNING SIGNS. INSTALL ADDITIONAL SIGNAGE, CHANNELIZING DEVICES, AND CONSTRUCTION STRIPING AS SHOWN.

2) CONSTRUCT THE SPLITTER ISLAND ON HOGAN LN. AND THE REMAINING PORTIONS OF THE SPLITTER ISLANDS ALONG HWY. 64 AS SHOWN.

3) CONSTRUCT CIRCULATORY ROADWAY AS SHOWN.

STAGE 2A TRAFFIC
STAGE 2A TRAFFIC DRUM
STAGE 2A CONSTRUCTION
STAGE 2A GRADING

MAINTENANCE OF TRAFFIC DETAILS
STAGE 2A

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	18	80
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
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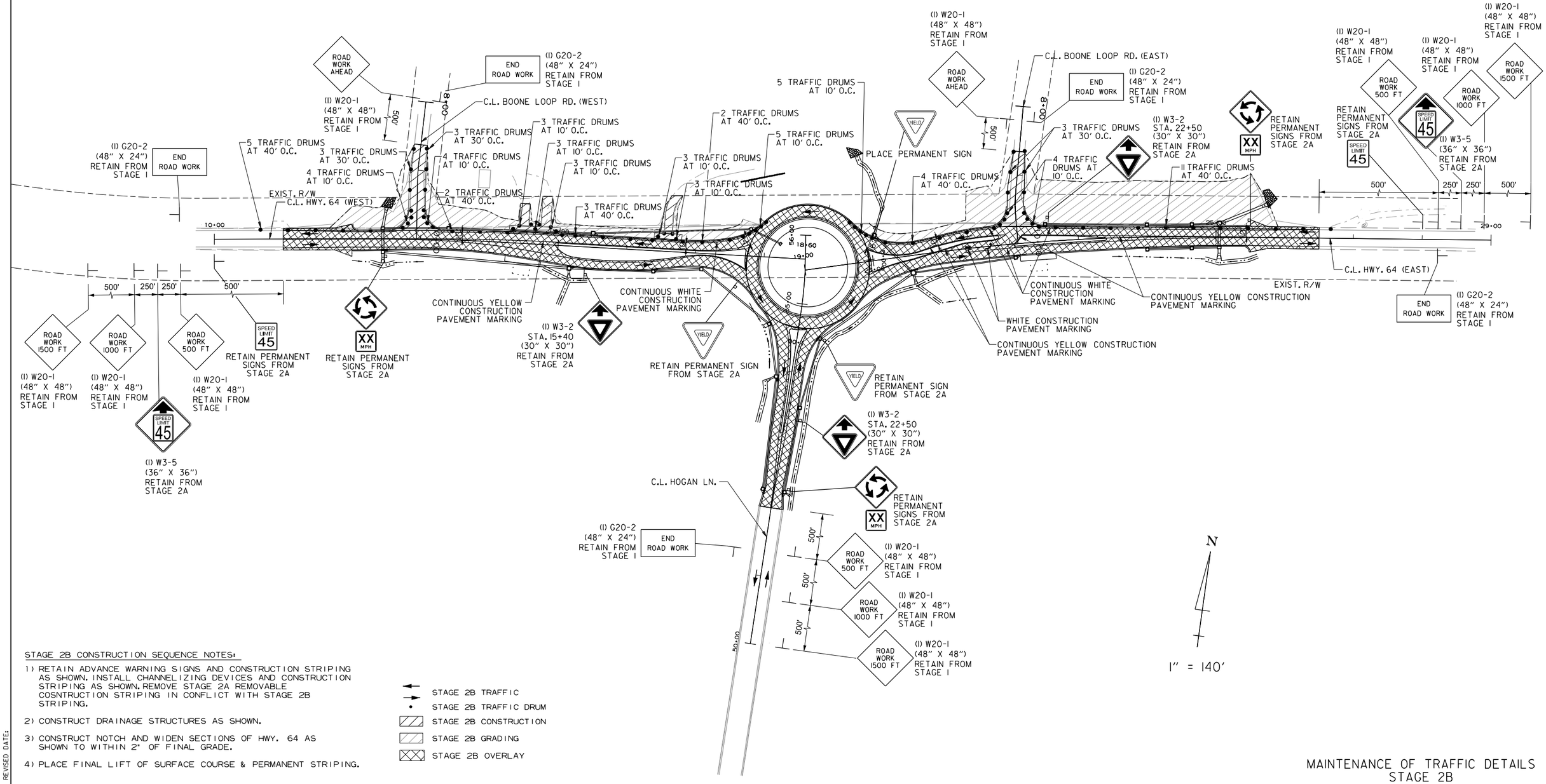

STAGE 2B CONSTRUCTION SEQUENCE NOTES:

1) RETAIN ADVANCE WARNING SIGNS AND CONSTRUCTION STRIPING AS SHOWN. INSTALL CHANNELIZING DEVICES AND CONSTRUCTION STRIPING AS SHOWN. REMOVE STAGE 2A REMOVABLE COSNTRUCTION STRIPING IN CONFLICT WITH STAGE 2B STRIPING.

2) CONSTRUCT DRAINAGE STRUCTURES AS SHOWN.

3) CONSTRUCT NOTCH AND WIDEN SECTIONS OF HWY. 64 AS SHOWN TO WITHIN 2" OF FINAL GRADE.

4) PLACE FINAL LIFT OF SURFACE COURSE & PERMANENT STRIPING.

- STAGE 2B TRAFFIC
- STAGE 2B TRAFFIC DRUM
- STAGE 2B CONSTRUCTION
- STAGE 2B GRADING
- STAGE 2B OVERLAY

MAINTENANCE OF TRAFFIC DETAILS
STAGE 2B

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2/20/2024 9:44:01 AM
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	19	80
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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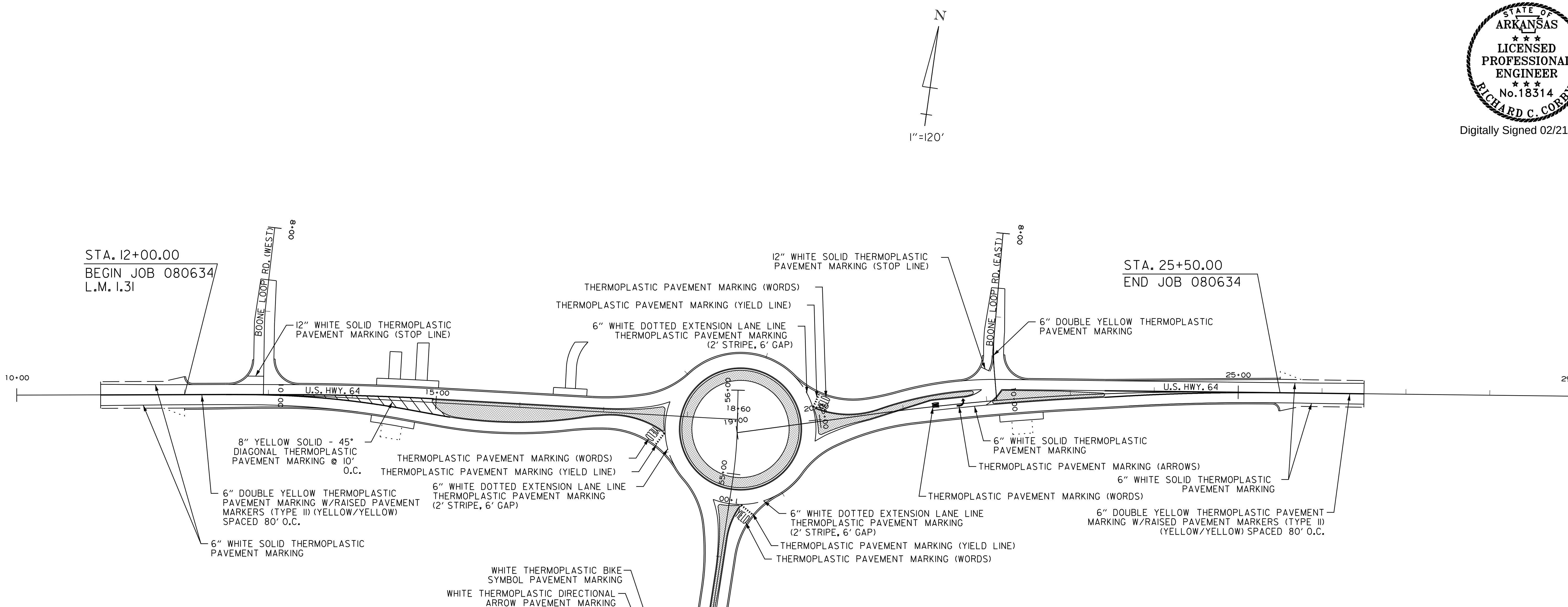
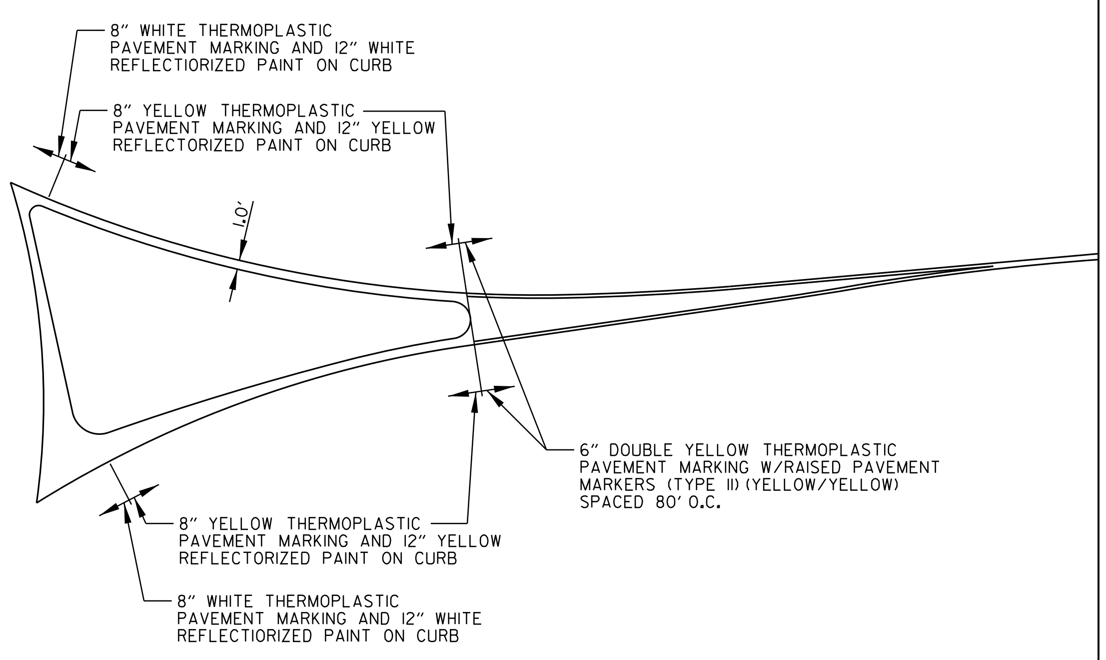
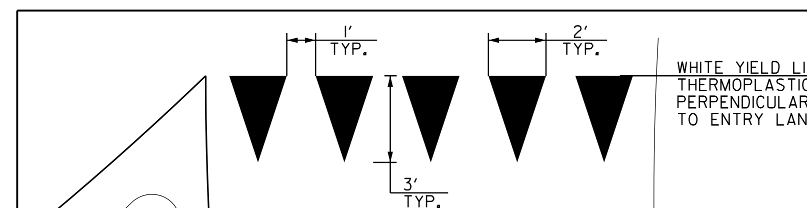


N
1"=120'
STA. 12+00.00
BEGIN JOB 080634
L.M. 1.31
BOONE LOOP RD. (WEST)
8+00
12" WHITE SOLID THERMOPLASTIC PAVEMENT MARKING (STOP LINE)
10+00
U.S. HWY. 64
15+00
8" YELLOW SOLID - 45° DIAGONAL THERMOPLASTIC PAVEMENT MARKING @ 10' O.C.
6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW) SPACED 80' O.C.
6" WHITE SOLID THERMOPLASTIC PAVEMENT MARKING
THERMOPLASTIC PAVEMENT MARKING (WORDS)
THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)
6" WHITE DOTTED EXTENSION LANE LINE THERMOPLASTIC PAVEMENT MARKING (2' STRIPE, 6' GAP)
18+60
19+00
56+00
55+00
20+00
12" WHITE SOLID THERMOPLASTIC PAVEMENT MARKING (STOP LINE)
BOONE LOOP RD. (EAST)
6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING
STA. 25+50.00
END JOB 080634
25+00
29+00
6" WHITE SOLID THERMOPLASTIC PAVEMENT MARKING
THERMOPLASTIC PAVEMENT MARKING (ARROWS)
THERMOPLASTIC PAVEMENT MARKING (WORDS)
6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW) SPACED 80' O.C.
WHITE THERMOPLASTIC BIKE SYMBOL PAVEMENT MARKING
WHITE THERMOPLASTIC DIRECTIONAL ARROW PAVEMENT MARKING
12" WHITE DOTTED EXTENSION LANE LINE THERMOPLASTIC PAVEMENT MARKING (2' STRIPE, 6' GAP)
HOGAN LN.
50+00



8" WHITE THERMOPLASTIC PAVEMENT MARKING AND 12" WHITE REFLECTORIZED PAINT ON CURB
8" YELLOW THERMOPLASTIC PAVEMENT MARKING AND 12" YELLOW REFLECTORIZED PAINT ON CURB
1.0'
6" DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING W/RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW) SPACED 80' O.C.
8" YELLOW THERMOPLASTIC PAVEMENT MARKING AND 12" YELLOW REFLECTORIZED PAINT ON CURB
8" WHITE THERMOPLASTIC PAVEMENT MARKING AND 12" WHITE REFLECTIORIZED PAINT ON CURB

TYPICAL SPLITTER ISLAND STRIPING



TYPICAL YIELD LINE STRIPING

PERMANENT PAVEMENT MARKING DETAILS

WBCalloway 2/20/2024 9:44:02 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	20	80
		SOIL BORING LOG				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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RICHARD C. CORBYN

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SOIL BORING LOG

BORING NO.	APPROX. STATION	SAMPLE	WATER	ATTERBERG LIMITS			PERCENT PASSING #200	UNIFIED CLASS.	AASHTO CLASS.
				LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY			
B-S378	14+00	0-5	16	41	21	20	68	-	A-7-6
B-S379	14+00	0-5	9	38	21	17	70	-	A-6
B-S380	21+00	0-5	14	25	16	9	59	-	A-4
B-S381	21+00	0-5	10	34	19	15	59	-	A-6
B-RV382	21+00	0-5	-	29	18	11	49	-	A-6

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMIT SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

SOIL BORING LOG

WBCallaway 2/20/2024 9:44:08 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	21	80
		QUANTITIES				

STATE OF ARKANSAS
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CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2A	STAGE 2B	END OF JOB	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS		REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKING								REFLECTORIZED PAINT PAVEMENT MARKING	
						WORDS	ARROWS		TYPE II (YELLOW/YELLOW)	6" WHITE	6" YELLOW	8" YELLOW	12" WHITE	YIELD LINE	WORDS	ARROWS	BIKE EMBLEMS	12" WHITE	12" YELLOW
	LIN. FT. - EACH				LIN. FT.	EACH		LIN. FT.	EACH	LIN. FT.					EACH			LIN. FT.	
CONSTRUCTION PAVEMENT MARKINGS	2398	5545	1941		9884														
CONSTRUCTION PAVEMENT MARKINGS (WORDS)		1				1													
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)		1					1												
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS			1182					1182											
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)				35					35										
THERMOPLASTIC PAVEMENT MARKING WHITE (6")				1167						1167									
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")				2991							2991								
THERMOPLASTIC PAVEMENT MARKING YELLOW (8")				1626								1626							
THERMOPLASTIC PAVEMENT MARKING WHITE (12")				31									31						
THERMOPLASTIC PAVEMENT MARKING (YELD LINE)				51										51					
THERMOPLASTIC PAVEMENT MARKING (WORDS)				4											4				
THERMOPLASTIC PAVEMENT MARKING (ARROWS)				2												2			
THERMOPLASTIC PAVEMENT MARKING (BIKE EMBLEMS)				1													1		
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (12")				119														119	
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (12")				1505															1505
TOTALS:					**9884**	**1**	**1**	**1182**	**35**	**1167**	**2991**	**1626**	**31**	**51**	**4**	**2**	**1**	**119**	**1505**

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

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2A	STAGE 2B	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED	VERTICAL PANELS	TRAFFIC DRUMS
			LIN. FT. - EACH				SQ. FT.	EACH	
W3-2	YIELD AHEAD	30"x30"		3	3	3	18.8		
W3-5	REDUCED SPEED LIMIT AHEAD	36"x36"		2	2	2	18.0		
W20-1	ROAD WORK 1500 FT.	48"x48"	3	3	3	3	48.0		
W20-1	ROAD WORK 1000 FT.	48"x48"	3	3	3	3	48.0		
W20-1	ROAD WORK 500 FT.	48"x48"	3	3	3	3	48.0		
W20-1	ROAD WORK AHEAD	48"x48"	2	2	2	2	32.0		
G20-2	END ROAD WORK	48"x24"	5	5	5	5	40.0		
R1-2	YIELD	36"x36"x36"		1		1	3.9		
	VERTICAL PANELS		20			20		20	
	TRAFFIC DRUMS		114	174	80	174			174
TOTALS:							**256.7**	**20**	**174**

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

WBCallaway 2/20/2024 9:44:09 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	22	80
		QUANTITIES				

STATE OF ARKANSAS
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CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
12+00	18+60	HWY. 64 (WEST)	7	7
19+00	25+50	HWY. 64 (EAST)	7	7
52+00	55+49	HOGAN LN.	4	4
TOTALS:			**18**	**18**

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE
			LIN. FT.
24+57	26+50	HWY. 64 (EAST) LT.	266
TOTAL:			**266**

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CURB AND GUTTER	HEADWALLS	SIGNS
			LIN. FT.	EACH	EACH
11+00	11+00	HWY. 64 (WEST) RT.			1
12+41	12+47	HWY. 64 (WEST) LT.		1	
12+42	12+42	HWY. 64 (WEST) RT.			1
12+42	12+47	HWY. 64 (WEST) RT.		1	
12+74	12+74	HWY. 64 (EAST) LT.			1
16+09	16+09	HWY. 64 (EAST) LT.			1
19+25	19+25	HWY. 64 (EAST) LT.			1
19+77	19+85	HWY. 64 (EAST) LT.		1	
19+83	19+83	HWY. 64 (EAST) LT.			1
21+93	21+93	HWY. 64 (EAST) LT.			1
25+75	25+80	HWY. 64 (EAST) LT.		1	
25+75	25+81	HWY. 64 (EAST) RT.		1	
25+78	25+78	HWY. 64 (EAST) RT.			1
25+96	25+96	HWY. 64 (EAST) LT.			1
52+00	55+76	HOGAN LN. LT.	388		
52+00	55+80	HOGAN LN. RT.	421		
TOTALS:			**809**	**5**	**9**

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	DROP INLETS
		EACH	EACH
18+21	HWY. 64 (WEST) LT.		1
19+31	HWY. 64 (EAST) LT.		1
19+74	HWY. 64 (EAST) LT.		1
17+10	HWY. 64 (WEST) LT.	1	
55+08	HOGAN LN. LT.	1	
55+25	HOGAN LN. RT.	1	
19+34	HWY. 64 (EAST) RT.	1	
19+77	HWY. 64 (EAST) RT.	1	
TOTALS:		**5**	**3**

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

FLOWABLE SELECT MATERIAL

STATION	LOCATION	CU. YD.
19+78	HWY. 64 (EAST)	6
25+78	HWY. 64 (EAST)	5
TOTAL:		**11**

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
11+00.00	12+00.00	HWY. 64 (WEST) TRANSITION	32.07	356.32
12+00.00	15+55.00	HWY. 64 (WEST) MAINLANES	17.09	674.14
52+00.00	53+42.26	HOGAN LN.	24.64	389.41
24+20.00	25+50.00	HWY. 64 (EAST) MAINLANES	27.38	395.42
25+50.00	26+50.00	HWY. 64 (EAST) TRANSITION	32.00	355.56
08+62.57	09+11.95	BOONE LOOP WEST	18.36	100.71
08+65.71	09+15.71	BOONE LOOP EAST	15.67	87.07
TOTAL:				**2358.63**

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

CONCRETE BASE

STATION	STATION	LOCATION	LENGTH	PORTLAND CEMENT CONCRETE BASE			
				AVG. WID.	10" U.T.	AVG. WID.	5" U.T.
			FEET	FEET	SQ. YD.	FEET	SQ. YD.
11+75.00	13+47.61	HWY. 64 (WEST) RT. - NOTCH AND WIDEN	172.61	5.43	104.20	3.30	63.38
11+75.00	12+52.66	HWY. 64 (WEST) LT. - NOTCH AND WIDEN	77.66	2.78	24.03	0.98	8.43
13+36.07	17+96.35	HWY. 64 (WEST) LT. - NOTCH AND WIDEN	460.28	2.57	131.23	0.02	1.04
52+00.00	54+06.56	HOGAN LN. LT. - NOTCH AND WIDEN	206.56	2.91	66.70	0.38	8.75
52+00.00	54+31.76	HOGAN LN. RT. - NOTCH AND WIDEN	231.76	2.74	70.55	0.23	5.88
19+75.22	21+71.48	HWY. 64 (EAST) LT. - NOTCH AND WIDEN	196.26	2.71	59.02	0.04	0.89
22+51.48	25+75.00	HWY. 64 (EAST) LT. - NOTCH AND WIDEN	323.52	3.43	123.38	1.11	40.01
23+94.97	25+75.00	HWY. 64 (EAST) RT. - NOTCH AND WIDEN	180.03	3.69	73.77	1.49	29.87
9+56.34	9+88.34	BOONE LP. (WEST) RT. - NOTCH AND WIDEN	30.00	7.69	25.64	3.97	13.22
9+57.16	9+87.16	BOONE LP. (WEST) LT. - NOTCH AND WIDEN	30.00	5.87	19.56	2.08	6.93
8+65.71	9+46.14	BOONE LP. (EAST) RT. - NOTCH AND WIDEN	80.43	2.52	22.56	1.19	10.65
8+65.71	9+45.62	BOONE LP. (EAST) LT. - NOTCH AND WIDEN	79.91	1.39	12.33		
TOTALS:					**732.97**		**189.05**

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
ENTIRE	PROJECT	TO BE USED IF AND WHERE	
		DIRECTED BY THE ENGINEER	100
TOTAL:			**100**

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

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
ENTIRE	PROJECT	HWY. 64 EAST - STAGE 1	6810	297
ENTIRE	PROJECT	HWY. 64 EAST - STAGE 2	39	2167
ENTIRE	PROJECT	HWY. 64 WEST - STAGE 1	6064	436
ENTIRE	PROJECT	HWY. 64 WEST - STAGE 2	50	524
ENTIRE	PROJECT	HOGAN LANE - STAGE 1	268	195
ENTIRE	PROJECT	CIRCULATORY ROADWAY - STAGE 1	2465	3540
ENTIRE	PROJECT	CIRCULATORY ROADWAY - STAGE 2		1433
ENTIRE	PROJECT	DRIVEWAYS	35	
TOTALS:			**15731**	**8592**

NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	10	20
DIRECTED BY THE ENGINEER		
TOTALS:	**10**	**20**

BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC…25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC……..…….....50 GAL./MILE

CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH	PORTLAND CEMENT CONCRETE PAVEMENT	
				AVG. WIDTH	11" U.T.
			LIN. FT.	LIN. FT.	SQ. YD.
1+00	6+65	ROUNDABOUT - TRUCK APRON	402	12	536
TOTAL:					**536**

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN

Digitally Signed 06/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6/10/2024		6	ARK.	080634	23	80
		QUANTITIES				

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
12+27.00	12+62.00	HWY. 64 (WEST) RT.	36.00	6.00	24.00	16.00	0.20
14+80.00	15+45.00	HWY. 64 (WEST) RT.	69.00	6.00	46.00	30.67	0.39
15+05.00	15+18.00	HWY. 64 (WEST) RT.	36.00	6.00	24.00	16.00	0.20
19+84.22	20+58.00	HWY. 64 (EAST) RT.	81.00	6.00	54.00	36.00	0.45
20+58.00	21+30.00	HWY. 64 (EAST) RT.	74.00	6.00	49.33	32.89	0.41
20+58.00	20+90.00	HWY. 64 (EAST) RT.	39.00	6.00	26.00	17.33	0.22
23+13.00	25+54.00	HWY. 64 (EAST) RT.	281.00	4.00	124.89	124.89	1.57
24+85.00	25+60.00	HWY. 64 (EAST) RT.	81.00	6.00	54.00	36.00	0.45
19+96.00	20+23.00	HWY. 64 (EAST) LT.	88.00	6.00	58.67	39.11	0.49
05+66.63	06+06.38	CIRCULATORY ROADWAY	49.00	6.00	32.67	21.78	0.27
52+00.00	52+35.00	HOGAN LN. RT.	35.00	6.00	23.33	15.56	0.20
52+40.00	54+68.89	HOGAN LN. RT.	242.00	6.00	161.33	107.56	1.36
53+20.00	53+80.00	HOGAN LN. LT.	64.00	6.00	42.67	28.44	0.36
TOTALS:					**720.89**	**522.23**	**6.57**

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (3/8") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	STANDARD DRAWINGS
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	
14+49	LT.	HWY. 64 WEST	14	14+28	14+65	32.92	50.34	5.54	20.56	DR-1
14+50	RT.	HWY. 64 WEST	24	14+24	14+76	46.22				DR-1
14+81	LT.	HWY. 64 WEST	14	14+65	15+02	32.85	69.01	7.59	28.18	DR-1
16+59	LT.	HWY. 64 WEST	12	16+39	16+79	35.56	77.47	8.52	31.63	DR-1
22+40	RT.	HWY. 64 WEST	24	22+14	22+66	46.22				DR-1
* ENTIRE PROJECT TEMPORARY DRIVES									100.00	
TOTALS:						**193.77**	**196.82**	**21.65**	**180.37**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8").....93.7% MIN. AGGR.....6.3% ASPHALT BINDER

THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, WILL BE ALLOWED TO SUBSTITUTE A HIGHER PERFORMANCE GRADE ASPHALT SURFACE COURSE FOR DRIVEWAYS AND MINOR SIDE STREET CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

** FOR INFORMATION ONLY

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

STATION	LOCATION	WIDTH	LENGTH	TON
		FEET		
12+45	HWY. 64 (WEST)	9.67	25.26	24
17+93	HWY. 64 (WEST)	7.92	23.13	18
20+15	HWY. 64 (EAST)	9.08	21.8	19
20+11	HWY. 64 (EAST)	9.08	14.94	13
25+05	HWY. 64 (EAST)	10.25	27.42	27
TOTAL:				**101**

AVG. DEPTH = 16"

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	210
ENGINEER	
TOTAL:	**210**

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

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE A)
			LIN. FT.
24+57	26+50	HWY. 64 (EAST) LT.	203
TOTAL:			**203**

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL						TEMPORARY EROSION CONTROL										
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SOLID SODDING	TEMPORARY SEEDING	MULCH COVER	WATER	FILTER SOCKS (18") (E-13)	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	LIN. FT.	BAG	CU.YD.	LIN. FT.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING										46	396	48		1772			102
ENTIRE	PROJECT	STAGE 1										368	264	30					38
ENTIRE	PROJECT	STAGE 2										161							7
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			3.97	7.94	3.97	452.6	3.97	3786	4.77	4.77	97.3	100	100		100		100	100	104
TOTALS:			**3.97**	**7.94**	**3.97**	**452.6**	**3.97**	**3786**	**4.77**	**4.77**	**97.3**	**675**	**760**	**78**	**100**	**1772**	**100**	**100**	**251**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING
FILTER SOCKS.....23 LIN. FT./LOCATION
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

WBCallaway 6/10/2024 7:35:57 AM
WORKSPACE: AHTD
L:\2017\170176S4 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_QTY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	24	80
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024

EROSION CONTROL MATTING

STATION	STATION	LOCATION	LENGTH	CLASS 3
			LIN. FT.	SQ. YD.
12+00.00	12+27.00	HWY. 64 (WEST) RT.	27.00	24.00
12+62.18	14+20.00	HWY. 64 (WEST) RT.	157.82	140.28
15+45.00	17+82.55	HWY. 64 (WEST) RT.	237.55	211.16
53+85.00	54+89.77	HOGAN LN. LT.	104.77	93.13
23+18.00	24+85.00	HWY. 64 (EAST) RT.	167.00	148.44
1+00.00	6+65.49	CIRCULATORY ROADWAY	365.00	324.44
TOTAL:				**941.45**

NOTE: AVERAGE WIDTH = 8'-0"

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND
			SQ.YD.
14+95	HWY. 64	TYPE C	483
53+10	HOGAN LN.	TYPE C	138
21+85	HWY. 64	TYPE C	194
22+07	HWY. 64	TYPE C	142
TOTAL:			**957**

DUMPED RIPRAP AND FILTER BLANKET

STATION	LOCATION	DUMPED RIPRAP	FILTER BLANKET
		CU. YD.	SQ. YD.
12+45	OUTLET OF PIPE CULVERT LT.	27	23
20+23	END OF CONC. DITCH PAVING LT.	21	22
25+05	OUTLET OF PIPE CULVERT LT.	22	33
TOTALS:		**70**	**78**

*NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)
	EACH	
ENTIRE PROJECT	1	1
TOTALS:	**1**	**1**

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1' 6")	TYPE E-1 (2' 0")
			LIN. FT.	LIN. FT.
12+02	12+81	HWY. 64 WEST LT.	100	
13+07	18+60	HWY. 64 WEST LT.	554	
19+18	21+99	HWY. 64 EAST LT.	311	
22+26	25+50	HWY. 64 EAST LT.	322	
1+00	6+65	HOGAN LN ROUNDABOUT		440
12+00	18+00	HWY. 64 WEST RT.	593	
52+00	54+83	HOGAN LN. LT.	275	
52+00	54+46	HOGAN LN. RT.	238	
19+00	25+49	HWY. 64 EAST RT.	627	
TOTALS:			**3020**	**440**

RETAINING WALLS

STATION	STATION	LOCATION	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	TEXTURED COATING FINISH
			CU.YDS.	POUNDS	CU.YDS.	SQ.YD.
1+00	1+65	HWY. 64 (WEST) LT. (WALL 1)	30.91	3887	104	42
TOTALS:			30.91	3887	104	42

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III)					PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2			FLARED END SECTIONS FOR R.C. PIPE CULVERTS					DROP INLETS TYPE			DROP INLETS EXT.		JUNCT. BOXES	SOLID SODDING	WATER	STD. DWG. NOS.
		18"	24"	30"	36"	42"	18"	24"	30"	18"	24"	30"	36"	42"	C	E	MO	4'	8'	(TYPE E)			
		LIN. FT.								EACH								EACH			SQ.YD.	M.GAL.	
12+45	HWY. 64 (WEST) - CONSTRUCT JUNCTION BOX LT. W/ PIPE OUTLET W/ F.E.S.				23								1							1	17	0.21	PCC-1, ,FES-1, FES- 2, FPC-9
12+45	HWY. 64 (WEST) - CONSTRUCT DROP INLET RT. W/EXT.& W/ PIPE OUTLET				32										1			1					PCC-1, FPC-9E
12+45	HWY. 64 (WEST) - CONSTRUCT PIPE OUTLET RT. W/ F.E.S.				12								1								17	0.21	PCC-1, FES-1, FES-2
13+40	HWY. 64 (WEST) - CONSTRUCT DROP INLET LT. W/EXT.& W/ PIPE OUTLET	92															1	1					PCC-1, FPC-9E, FPC-9M
15+18	HWY. 64 (WEST) - CONSTRUCT DROP INLET RT. W/EXT.& W/ PIPE OUTLET								258								1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
15+18	HWY. 64 (WEST) - CONSTRUCT PIPE OUTLET RT. W/ F.E.S.			6								1									13	0.16	PCC-1, FES-1, FES-2
15+50	HWY. 64 (WEST) - CONSTRUCT DROP INLET LT. W/EXT.& W/ PIPE OUTLET						207										1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
16+40	HWY. 64 (WEST) - CONSTRUCT DROP INLET RT. W/EXT.& W/ PIPE OUTLET							119									1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
17+10	HWY. 64 (WEST) - CONSTRUCT JUNCTION BOX RT. W/ PIPE OUTLET .							67												1			PCC-1, FES-1, FES-2, FPC-9, PCM-1
17+80	HWY. 64 (WEST) - CONSTRUCT DROP INLET LT. W/EXT.& W/ PIPE OUTLET						226										1		1				PCC-1, FPC-9E, FPC-9M, PCM-1
20+05	HWY. 64 (EAST) - CONSTRUCT DROP INLET LT. W/EXT & W/ PIPE OUTLET W/F.E.S.			33								1					1	1			13	0.16	PCC-1, FPC-9E, FPC-9M, FES-1, FES-2
20+55	HWY. 64 (EAST) - CONSTRUCT DROP INLET RT. W/EXT & W/ PIPE OUTLET			75													1	1					PCC-1, FPC-9E, FPC-9M
20+58	HWY. 64 (EAST) - CONSTRUCT PIPE OUTLET RT. W/ F.E.S.			8								1									13	0.16	PCC-1, FES-1, FES-2
22+07	HWY. 64 (EAST) - CONSTRUCT DROP INLET RT. W/EXT & W/ PIPE OUTLET						146										1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
22+53	HWY. 64 (EAST) - CONSTRUCT DROP INLET LT. W/ PIPE OUTLET						145										1						PCC-1, FPC-9E, FPC-9M, PCM-1
24+00	HWY. 64 (EAST) - CONSTRUCT DROP INLET LT. W/ PIPE OUTLET						62										1						PCC-1, FPC-9E, FPC-9M, PCM-1
24+00	HWY. 64 (EAST) - CONSTRUCT DROP INLET RT. W/ PIPE OUTLET						61										1						PCC-1, FPC-9E, FPC-9M, PCM-1
24+65	HWY. 64 (EAST) - CONSTRUCT DROP INLET RT. W/ PIPE OUTLET						36										1						PCC-1, FPC-9E, FPC-9M, PCM-1
24+65	HWY. 64 (EAST) - CONSTRUCT DROP INLET LT. W/ PIPE OUTLET						36										1						PCC-1, FPC-9E, FPC-9M, PCM-1
25+05	HWY. 64 (EAST) - CONSTRUCT DROP INLET LT. W/ PIPE OUTLET					66								1			1				23	0.29	PCC-1, FPC-9E, FPC-9M, FES-1, FES-2
25+05	HWY. 64 (EAST) - CONSTRUCT DROP INLET RT. W/ PIPE OUTLET					32									1								PCC-1, FPC-9E
25+05	HWY. 64 (EAST) - CONSTRUCT PIPE OUTLET RT. W/ F.E.S.					7								1							23	0.29	PCC-1, FES-1, FES-2
52+20	HOGAN LN. - CONSTRUCT PIPE OUTLET RT. W/ F.E.S.	2								1											5	0.06	PCC-1, FES-1, FES-2
52+25	HOGAN LN. - CONSTRUCT DROP INLET RT. W/EXT. & W/ PIPE OUTLET						122										1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
52+25	HOGAN LN. - CPNSTRUCT DROP INLET LT. W/EXT. & W/ PIPE OUTLET						161										1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
53+50	HOGAN LN. - CONSTRUCT DROP INLET RT. W/ PIPE OUTLET						102										1						PCC-1, FPC-9E, FPC-9M, PCM-1
53+80	HOGAN LN. - CONSTRUCT PIPE OUTLET LT. W/ F.E.S.		7								1										8	0.10	PCC-1, FES-1, FES-2
53+90	HOGAN LN. - CONSTRUCT DROP INLET LT. W/EXT. & W/ PIPE OUTLET							74							1			1					PCC-1, FPC-9E, PCM-1
54+55	HOGAN LN. - CONSTRUCT DROP INLET RT. W/EXT. & W/ PIPE OUTLET								162								1	1					PCC-1, FPC-9E, FPC-9M, PCM-1
54+65	HOGAN LN. - CONSTRUCT DROP INLET LT. W/BACK OPENING & W/ PIPE OUTLET							124									1						PCC-1, FPC-9E, FPC-9M, PCM-1
2+91	CIRCULATORY ROADWAY - CONSTRUCT DROP INLET W/ PIPE OUTLET	46														1							PCC-1, FPC-9
TOTALS:		**140**	**7**	**122**	**67**	**105**	**1304**	**384**	**430**	**1**	**1**	**3**	**2**	**2**	**3**	**1**	**19**	**12**	**1**	**2**	**132**	**1.64**	

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

WBCallaway 2/20/2024 9:44:24 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_QTY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	25	80
		QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN

Digitally Signed 04/30/2024

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BASE COURSE (1 1/2")					ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (3/8")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22		AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22									TOTAL PG 70-22
						TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON																		
			FEET			FEET			FEET				FEET			TON		FEET			TON		FEET			TON		FEET			TON
MAIN LANES																													
11+00.00	12+00.00	HWY.64 (WEST) - TRANSITION	100.00						33.79	375.43	63.82	63.82																	
12+00.00	17+74.93	HWY. 64 (WEST) - NOTCH AND WIDEN	574.93	78.50	451.32	55.50	3545.40	177.27				177.27	20.17	1288.27	440.00	283.42		17.67	1128.57	330.00	186.21	17.67	1128.57	220.00	124.14	31.25	1996.28	220.00	219.59	343.73
19+94.50	25+50.00	HWY. 64 (EAST) - NOTCH AND WIDEN	555.50	78.50	436.07	55.50	3425.58	171.28				171.28	20.17	1244.73	440.00	273.84		17.67	1090.43	330.00	179.92	17.67	1090.43	220.00	119.95	31.25	1928.82	220.00	212.17	332.12
25+50.00	26+50.00	HWY. 64 (EAST) - TRANSITION	100.00						33.81	375.69	63.87	63.87																	
52+00.00	52+28.00	HOGAN LN - NOTCH AND WIDEN	28.00																							28.08	87.37	220.00	9.61	9.61
52+28.00	54+64.22	HOGAN LN - NOTCH AND WIDEN	236.22	43.50	102.76	23.50	616.80	30.84				30.84	11.17	293.18	440.00	64.50		6.17	161.94	330.00	26.72	6.17	161.94	220.00	17.81	31.42	824.58	220.00	90.70	108.51
* 1+00.00	1+19.97	CIRCULATORY ROADWAY - NOTCH AND WIDEN	17.97	VAR.	9.68	VAR.	35.32	1.77				1.77	VAR.	27.67	440.00	6.09		VAR.	3.82	330.00	0.63	VAR.	3.82	220.00	0.42	18.00	35.94	220.00	3.95	4.37
* 1+19.97	2+56.79	CIRCULATORY ROADWAY	123.14	138.00	169.93	71.50	978.28	48.91				48.91	35.50	485.72	440.00	106.85		18.00	246.28	330.00	40.64	18.00	246.28	220.00	27.09	18.00	246.28	220.00	27.09	54.18
* 2+56.79	3+17.21	CIRCULATORY ROADWAY - NOTCH AND WIDEN	54.37	VAR.	36.41	VAR.	155.02	7.75				7.75	VAR.	104.04	440.00	22.89		VAR.	27.03	330.00	4.46	VAR.	27.03	220.00	2.97	18.00	108.74	220.00	11.96	14.93
* 3+17.21	4+20.16	CIRCULATORY ROADWAY	92.66	138.00	127.87	71.50	736.13	36.81				36.81	35.50	365.49	440.00	80.41		18.00	185.32	330.00	30.58	18.00	185.32	220.00	20.39	18.00	185.32	220.00	20.39	40.78
* 4+20.16	4+80.73	CIRCULATORY ROADWAY - NOTCH AND WIDEN	54.50	VAR.	36.65	VAR.	156.00	7.80				7.80	VAR.	104.70	440.00	23.03		VAR.	27.21	330.00	4.49	VAR.	27.21	220.00	2.99	18.00	109.00	220.00	11.99	14.98
* 4+80.73	6+46.00	CIRCULATORY ROADWAY	148.75	138.00	205.28	71.50	1181.74	59.09				59.09	35.50	586.74	440.00	129.03		18.00	297.50	330.00	49.09	18.00	297.50	220.00	32.73	18.00	297.50	220.00	32.73	65.46
* 6+46.00	6+65.49	CIRCULATORY ROADWAY - NOTCH AND WIDEN	17.54	VAR.	9.34	VAR.	33.51	1.68				1.68	VAR.	26.68	440.00	5.87		VAR.	3.41	330.00	0.56	VAR.	3.41	220.00	0.38	18.00	35.08	220.00	3.86	4.24
8+62.57	9+87.73	BOONE LOOP RD (WEST) - NOTCH AND WIDEN	125.16	VAR.	57.65	9.35	130.03	6.50				6.50	3.32	46.19	440.00	10.16		3.09	43.02	330.00	7.10	2.94	40.82	220.00	4.49	26.00	361.57	220.00	39.77	44.26
8+65.71	9+74.75	BOONE LOOP RD (EAST) - NOTCH AND WIDEN	109.04	VAR.	54.12	12.93	156.66	7.83				7.83	4.51	54.64	440.00	12.02		4.29	51.96	330.00	8.57	4.13	50.07	220.00	5.51	25.33	306.89	220.00	33.76	39.27
ADDITIONAL FOR LEVELING																													
12+00.00	16+05.00	HWY. 64 (WEST) - NOTCH AND WIDEN	405.00			20.08	903.60	45.18	20.08	903.60	153.61	198.79										20.08	903.60	VAR.	49.45					49.45
19+94.50	25+50.00	HWY. 64 (EAST) - NOTCH AND WIDEN	555.50			20.08	1239.38	61.97	20.08	1239.38	210.69	272.66										20.08	1239.38	VAR.	384.08					384.08
52+00.00	52+28.00	HOGAN LN - NOTCH AND WIDEN	28.00			28.08	87.36	4.37	28.08	87.36	14.85	19.22										28.08	87.36	VAR.	0.32					0.32
52+28.00	53+83.00	HOGAN LN - NOTCH AND WIDEN	155.00			30.50	525.28	26.26	30.50	525.28	89.30	115.56										30.50	525.28	VAR.	33.28					33.28
9+12.57	9+87.73	BOONE LOOP RD (WEST) - NOTCH AND WIDEN	75.16			24.42	203.93	10.20	24.42	203.93	34.67	44.87										24.42	203.93	VAR.	64.85					64.85
9+15.71	9+74.75	BOONE LOOP RD (EAST) - NOTCH AND WIDEN	59.04			24.67	161.84	8.09	24.67	161.84	27.51	35.60										24.67	161.84	VAR.	76.12					76.12
ADDITIONAL FOR METHOD OF RAISING GRADE																													
16+05.00	17+74.93	HWY. 64 (WEST) - NOTCH AND WIDEN	169.93			60.51	1142.50	57.13	20.17	380.83	64.74	121.87	20.17	380.83	VAR.	53.99		20.17	380.83	330.00	62.84	20.17	380.83	220.00	41.89					41.89
53+83.00	54+64.22	HOGAN LN - NOTCH AND WIDEN	81.22			91.50	825.74	41.29	30.50	275.25	46.79	88.08	30.50	275.25	VAR.	96.21		30.50	275.25	330.00	45.42	30.50	275.25	220.00	30.28					30.28
1+00.00	1+19.97	CIRCULATORY ROADWAY - NOTCH AND WIDEN	19.97			40.98	40.98	2.05	13.66	30.32	5.15	7.20	13.66	30.31	VAR.	25.74		13.66	30.31	330.00	5.00	13.66	30.31	220.00	3.33					3.33
2+56.79	3+17.21	CIRCULATORY ROADWAY - NOTCH AND WIDEN	60.42			34.56	34.56	1.73	11.52	77.37	13.15	14.88	11.52	77.34	VAR.	50.15		11.52	77.34	330.00	12.76	11.52	77.34	220.00	3.51					8.51
4+20.16	4+80.73	CIRCULATORY ROADWAY - NOTCH AND WIDEN	60.57			34.86	34.86	1.74	11.62	78.17	13.29	15.03	11.62	78.20	VAR.	56.15		11.62	78.20	330.00	12.90	11.62	78.20	220.00	3.60					8.60
6+46.00	6+65.49	CIRCULATORY ROADWAY - NOTCH AND WIDEN	19.49			41.46	41.46	2.07	13.82	29.92	5.09	7.16	13.82	29.93	VAR.	25.29		13.82	29.93	330.00	4.94	13.82	29.93	220.00	3.29					3.29
ADDITIONAL FOR MAINTENANCE OF TRAFFIC																													
12+00.00	17+74.93	HWY. 64 (WEST)	574.93																									VAR.	129.41	129.41
18+06.87	19+64.73	HWY. 64	157.86																									VAR.	548.04	548.04
19+94.50	25+50.00	HWY. 64 (EAST)	555.50																									VAR.	83.96	83.96
54+83.22	55+78.64	HOGAN LN	95.42																									VAR.	712.08	712.08
TOTALS:					**1697.08**		**16391.96**	**819.61**		**4744.37**	**806.53**	**1626.14**		**5499.91**		**1325.71**			**4138.35**		**682.83**		**7255.65**		**1062.87**		**7274.49**		**2273.69**	**3336.56**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (3/8").....93.7% MIN. AGGR.....6.3% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.5% MIN. AGGR.....4.5% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

* LENGTH SHOWN IS MEASURED ALONG THE CENTER OF THE CIRCULATORY ROADWAY WITHIN THE SHOWN STATION RANGE.

WBCalloway 4/23/2024 10:35:35 AM
WORKSPACE: AHTD
L:\20\7\01\7654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_QTY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	26	80
		SIGN QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 02/21/2024

SUMMARY OF SIGNING QUANTITIES

ITEM NUMBER	ITEM	UNIT	ESTIMATED QUANTITY
SS & 725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	SQ. FT.	85
SS & 726	STANDARD SIGN	SQ. FT.	176
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)	EACH	15
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2)	EACH	3
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)	EACH	3
SS & 730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	POUND	698

SIGN NO./LOCATION	STANDARD ROADSIDE SIGNS TO BE MOUNTED	SQUARE TUBE POST ASSEMBLIES					
		G-1	G-2	G2-1	G2-2	G2-3	G2-4
		EACH	EACH	EACH	EACH	EACH	EACH
SS-HWY64-23-STA10+00EB	R2-1	1					
SS-HWY64-23-STA10+00WB	R2-1	1					
SS-HWY64-23-STA12+50EB	W2-6, W13-1P				1		
SS-HWY64-23-STA16+00WB	M1-4, M3-4	1					
SS-HWY64-23-STA15+05EB	R4-7	1					
SS-HWY64-23-STA17+60EB	R1-2, R6-1R					1	
SS-HWY64-23-STA18+10EB	R6-4	1					
SS-HWY64-23-STA19+60WB	R6-4	1					
SS-HWY64-23-STA20+05WB	R1-2, R6-1R					1	
SS-HWY64-23-STA21+00EB	M1-4, M3-2	1					
SS-HWY64-23-STA23+35WB	R4-7	1					
SS-HWY64-23-STA25+50WB	W2-6, W13-1P				1		
SS-HWY64-23-STA28+00EB	R2-1	1					
SS-HWY64-23-STA28+00WB	R2-1	1					
SS-HOGANLN-23-STA52+30NB	W2-6, W13-1P				1		
SS-HOGANLN-23-STA53+15NB	R4-7	1					
SS-HOGANLN-23-STA54+50NB	R1-2, R6-1R					1	
SS-HOGANLN-23-STA55+00NB	R6-4	1					
SS-BLRW-23-STA9+75SB	R1-1	1					
SS-BLRE-23-STA9+65SB	R1-1, R6-1L, R3-2	1					
SS-BLRE-23-STA9+95SB	R5-1	1					
TOTALS		15	0	0	3	3	0

STANDARD ROADSIDE SIGN SHEET ALUMINUM 0.100" THICKNESS (5 SF OR LESS)					
SIGN NO.	SIZE OF SIGN	UNIT AREA (SQ. FT.)	QUANTITY REQUIRED	TOTAL SIGN AREA (SQ. FT.)	LEGEND/BACKGROUND
R2-1	24" x 30"	5.00	2	10.00	BLACK/WHITE
R2-1	36" x 48"	12.00	2	24.00	BLACK/WHITE
R3-2	24" x 24"	4.00	1	4.00	BLACK/WHITE
R4-7	24" x 30"	5.00	3	15.00	BLACK/WHITE
R6-1R	36" x 12"	3.00	4	12.00	BLACK/BLACK
R6-4	30" x 24"	5.00	3	15.00	BLACK/WHITE
M1-4	24" x 24"	4.00	2	8.00	BLACK/WHITE
M3-2	24" x 12"	2.00	1	2.00	BLACK/WHITE
M3-4	24" x 12"	2.00	1	2.00	BLACK/WHITE
W13-1P	24" x 24"	4.00	3	12.00	BLACK/YELLOW
TOTAL 0.100" THICKNESS				**104.00**	

STANDARD ROADSIDE SIGNS SHEET ALUMINUM 0.125" THICKNESS (GREATER THAN 5 SF)					
SIGN NO.	SIZE OF SIGN	UNIT AREA (SQ. FT.)	QUANTITY REQUIRED	TOTAL SIGN AREA (SQ. FT.)	LEGEND/BACKGROUND
R1-1	36" x 36"	7.46	2	14.92	WHITE/RED
R1-2	48" x 48" x 48"	6.93	3	20.79	RED/WHITE
R5-1	36" x 36"	9	1	9.00	RED/WHITE
W2-6	36" x 36"	9	3	27.00	BLACK/YELLOW
TOTAL 0.125" THICKNESS				**71.71**	

SIGN NO./LOCATION	STRUCTURE TYPE	SIGN				BREAKAWAY SIGN SUPPORT										EXIT NUMBER PANEL			
			GUIDE SIGN			STEEL SECT. A-572		Sign Post Length		STUB POST		FOOTINGS			SIGN POST AND STUB	LEGEND	TYPE		
	TYPE	STANDARD SIGN	LENGTH	HEIGHT	AREA			H-1	H-2	H-1	H-2	DIA.	DEPTH	EMBED.			A	B	C
	G-2	SQ. FT.	FT.	FT.	SQ. FT.	BEAM	LBS	LIN FT		LIN FT		LIN FT			POUND		SQ. FT.		
GM-HWY64-23-STA13+50EB	1		6.50	6.50	42.25	W6	9	15.25	16.225	3.66	3.66	1.5	5	3.33	349.22				
GM-HWY64-23-STA24+50WB	1		6.50	6.50	42.25	W6	9	15.25	16.225	3.66	3.66	1.5	5	3.33	349.22				
TOTALS:	**2**				**84.5**										**698.44**		**0.00**	**0.00**	**0.00**

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM		QUANTITY	UNIT
201	CLEARING		18	STATION
201	GRUBBING		18	STATION
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		809	LIN. FT.
202	REMOVAL AND DISPOSAL OF FENCE		266	LIN. FT.
202	REMOVAL AND DISPOSAL OF DROP INLETS		3	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		5	EACH
202	REMOVAL AND DISPOSAL OF HEADWALLS		5	EACH
202	REMOVAL AND DISPOSAL OF SIGNS		9	EACH
SP & 202	REMOVAL AND DISPOSAL OF LUMINAIRE POLE AND FOUNDATION		2	EACH
SS & 206	FLOWABLE SELECT MATERIAL		11	CU. YD.
SP, SS, & 210	UNCLASSIFIED EXCAVATION		15731	CU. YD.
SP & 210	COMPACTED EMBANKMENT		8592	CU. YD.
SP & 210	SOIL STABILIZATION		100	TON
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)		1877	TON
SP, SS, & 309	PORTLAND CEMENT CONCRETE BASE (5" UNIFORM THICKNESS)		189	SQ. YD.
SP, SS, & 309	PORTLAND CEMENT CONCRETE BASE (10" UNIFORM THICKNESS)		733	SQ. YD.
SS & 401	TACK COAT		1646	GAL.
SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")		1269	TON
SP, SS, & 405	ASPHALT BINDER (PG 64-22) IN ACHM BASE COURSE (1 1/2")		57	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		652	TON
SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")		31	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")		3148	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (3/8")		1	TON
SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (3/8")		210	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT		2359	SQ. YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		10	TON
SP, SS, & 501	PORTLAND CEMENT CONCRETE PAVEMENT (11" UNIFORM THICKNESS)		536	SQ. YD.
SP, SS, & 505	PORTLAND CEMENT CONCRETE DRIVEWAY		193.77	SQ. YD.
601	MOBILIZATION		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1	EACH
SS & 603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
SS & 604	SIGNS		257	SQ. FT.
SS & 604	TRAFFIC DRUMS		174	EACH
SS & 604	VERTICAL PANELS		20	EACH
604	CONSTRUCTION PAVEMENT MARKINGS		9884	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)		1	EACH
604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)		1	EACH
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		1182	LIN. FT.
SP, SS, & 605	CONCRETE DITCH PAVING (TYPE B)		721	SQ. YD.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		140	LIN. FT.
* SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	1304	LIN. FT.
* SS & 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	1304	LIN. FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		7	LIN. FT.
* SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	384	LIN. FT.
* SS & 606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	384	LIN. FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		122	LIN. FT.
* SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	430	LIN. FT.
* SS & 606	30" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	430	LIN. FT.
SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		67	LIN. FT.
SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		105	LIN. FT.
SS & 606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
SS & 606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		3	EACH
SS & 606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2	EACH
SS & 606	42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2	EACH
SS & 606	SELECTED PIPE BEDDING		210	CU. YD.
SS & 609	DROP INLETS (TYPE C)		3	EACH
SS & 609	DROP INLETS (TYPE E)		1	EACH
SS & 609	DROP INLETS (TYPE MO)		19	EACH
SS & 609	JUNCTION BOXES (TYPE E)		2	EACH
SS & 609	DROP INLET EXTENSIONS (4')		12	EACH
SS & 609	DROP INLET EXTENSIONS (8')		1	EACH
SS & 615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)		101	TON
SS & 619	WIRE FENCE (TYPE A)		203	LIN. FT.
620	LIME		8	TON
620	SEEDING		3.97	ACRE
SS & 620	MULCH COVER		8.74	ACRE
620	WATER		558.1	M. GAL.
621	TEMPORARY SEEDING		4.77	ACRE
621	SILT FENCE		1772	LIN. FT.
621	SAND BAG DITCH CHECKS		760	BAG
621	DROP INLET SILT FENCE		100	LIN. FT.
621	SEDIMENT BASIN		100	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN		100	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL		251	CU. YD.
621	ROCK DITCH CHECKS		78	CU. YD.
SS & 621	FILTER SOCK (18")		675	LIN. FT.
623	SECOND SEEDING APPLICATION		3.97	ACRE
624	SOLID SODDING		4440	SQ. YD.
626	EROSION CONTROL MATTING (CLASS 3)		941	SQ. YD.
SP, SS, & 632	CONCRETE ISLAND		957	SQ. YD.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")		3020	LIN. FT.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE E-1) (2' 0")		440	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
637	MAILBOXES		1	EACH
637	MAILBOX SUPPORTS (SINGLE)		1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/8 A.W.G., E.G.C.)		850	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/10 A.W.G., E.G.C.)		1400	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G., E.G.C.)		1200	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES		630	LIN. FT.
710	NON-METALLIC CONDUIT (2")		2300	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)		19	EACH
SP	LED ROADWAY ILLUMINATION POLE (18,700 LUMENS, DECORATIVE, T-BASE, 30')		14	EACH
SP	PEDESTAL TYPE SERVICE POINT (100 AMP)		1	EACH
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (12")		119	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (12")		1505	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")		1167	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")		31	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")		2991	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")		1626	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)		4	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)		2	EACH
719	THERMOPLASTIC PAVEMENT MARKING (BIKE EMBLEMS)		1	EACH
719	THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)		51	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		35	EACH
SS & 725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)		85	SQ. FT.
SS & 726	STANDARD SIGN		176	SQ. FT.
SS & 730	BREAKAWAY SIGN SUPPORT (TYPE G-2)		698	POUND
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)		15	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2)		3	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)		3	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY		104	CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY		30.91	CU. YD.
SP	TEXTURED COATING FINISH		42	SQ. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)		3887	POUND
SS & 816	FILTER BLANKET		78	SQ. YD.
SS & 816	DUMPED RIPRAP		70	CU. YD.

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
6/10/2024	ADDED FED. AID PROJ. NUMBER, ADDED SS 102-3 "PREQUALIFICATION OF BIDDERS". ADDED SP "ELECTRICAL CONDUCTORS FOR LUMINAIRES", "LED ROADWAY ILLUMINATION POLE", AND "PEDESTAL TYPE SERVICE POINT". REVISED SP "CONCRETE PULL BOX" AND "ELECTRICAL CONDUCTORS-IN-CONDUIT". REMOVED SP "ROADWAY ILLUMINATION ASSEMBLY" AND "SERVICE POINT ASSEMBLY (UNDERGROUND SECONDARY SERVICE, ROADWAY LIGHTING)". REVISED SUMMARY OF QUANTITIES FOR LIGHTING SP AND PLAN REVISIONS. REVISED "ELECTRICAL CONDUCTORS-IN-CONDUIT (_C/A.W.G.,___)" PAY ITEM NAMES AND QUANTITIES. REVISED CONCRETE PULL BOX, ROADWAY ILLUMINATION POLE, AND SERVICE POINT PAY ITEM NAMES. ADDED "ELECTRICAL CONDUCTORS FOR LUMINAIRES" PAY ITEM AND QUANTITY. REVISED ELECTRICAL LEGEND AND NOTES, LIGHTING INSTALLATION PLAN, AND ELECTRICAL DETAILS. REVISED DRIVEWAYS & TURNOUTS ASPHALT BINDER CONTENT TO MATCH BASE AND SURFACING ASPHALT BINDER CONTENT.	1, 3, 23, 27, 38, 40, 43-44

SUMMARY OF QUANTITIES AND REVISIONS

Digitally Signed 06/10/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN

DATE REVISED	DATE REVISED	DATE REVISED
6/10/2024		

SUMMARY OF QUANTITIES AND REVISIONS

FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	080634	27	80

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	28	80
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN

Digitally Signed 02/21/2024

SURVEY CONTROL COORDINATES

Project Name: s080634
Date: 5/6/2020
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	283494.9195	1159459.9296	317.332	GPS	ARDOT STD. MON. STAMPED PN: 1
2	283628.4564	1160762.9975	326.881	GPS	ARDOT STD. MON. STAMPED PN: 2
3	283671.7844	1162371.3997	340.650	CTL	ARDOT STD. MON. STAMPED PN: 3
4	283791.8913	1162910.0842	346.233	CTL	ARDOT STD. MON. STAMPED PN: 4
5	283896.4510	1163681.8546	351.362	CTL	ARDOT STD. MON. STAMPED PN: 5
6	283009.2013	1162949.7685	384.711	CTL	ARDOT STD. MON. STAMPED PN: 6
900	283811.0912	1162992.6283	344.023	TBM	CHSLD SQ CUT IN CENTER OF HW

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.999957701450 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME s080634gi.ctl
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS STATIC OBSERVATIONS ON POINTS 1&2
CONVERGENCE ANGLE: 0°17'26.94" LEFT AT LAT N35°06'43.01" LON W92°29'59.17"
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

ALIGNMENT NAME: HWY. 64 (WEST)

POINT	STATION	TYPE	NORTHING	EASTING
8000	10+00.00	POB	283648.8101	1162076.0953
8001	12+49.12	PC	283684.1241	1162322.7032
8002	13+97.42	PT	283700.8607	1162470.0341
8003	18+60.00	POE	283739.6693	1162930.9803

ALIGNMENT NAME: BOONE LOOP RD. (WEST)

POINT	STATION	TYPE	NORTHING	EASTING
8014	8+00.00	POB	283889.3548	1162352.8487
8015	8+91.56	PC	283797.8260	1162355.1219
8016	9+20.14	PT	283769.3332	1162357.2549
8017	10+00.00	POE	283690.0938	1162367.1802

ALIGNMENT NAME: HWY. 64 (EAST)

POINT	STATION	TYPE	NORTHING	EASTING
8004	19+00.00	POB	283723.9963	1162932.7683
8005	20+63.71	PC	283768.5297	1163090.3064
8006	24+86.76	PT	283853.1870	1163504.4023
8007	29+00.00	POE	283905.8659	1163914.2741

ALIGNMENT NAME: BOONE LOOP RD. (EAST)

POINT	STATION	TYPE	NORTHING	EASTING
8018	8+00.00	POB	284003.6346	1163213.6670
8019	9+17.31	PC	283886.4879	1163219.7883
8020	9+66.45	PT	283837.8756	1163226.5382
8021	10+00.00	POE	283805.1573	1163233.9830

ALIGNMENT NAME: HOGAN LN.

POINT	STATION	TYPE	NORTHING	EASTING
8008	50+00.00	POB	283174.7493	1162929.5824
8009	54+90.62	PC	283665.3377	1162935.3843
8010	55+58.71	PT	283733.2839	1162931.7431
8011	56+00.00	POE	283774.2775	1162926.8458

ALIGNMENT NAME: CIRCULATORY ROADWAY

POINT	STATION	TYPE	NORTHING	EASTING
8012	1+00.00	PC	283638.9342	1162935.0721
8013	6+65.49	PT	283638.9342	1162935.0723

WBCallaway 2/20/2024 9:44:54 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_SC_01.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	29	80
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024

PN:2
PD:ARDOT STD. MON. STAMPED PN:2

C.L. BOONE LOOP RD. (WEST)
PI = 9+05.86
Δ = 5°43'01" LT.
D = 20°00'00"
T = 14.30'
L = 28.58'
PC = 8+91.56
PT = 9+20.14
e = NO SUPER

8014 POB 8+00.00
S 17°25'22" E 91.56'
C.L. BOONE LOOP RD. (WEST)
8015 PI 9+05.86
PC 8+91.56
PT 9+20.14
8016 S 7°39'23" E 79.86'
PI 13+23.29
8017
STA. 12+94.00 C.L. HWY. 64 (WEST) = STA. 10+00.00 C.L. BOONE LOOP RD. (WEST) ∢90°00'00"
10+00 SURVEY BASELINE N 88°27'25" E 1608.99'
N 81°51'03" E 249.12'
8000 8001 8002
POB 10+00.00
STA. 12+00.00
BEGIN JOB 080634
L.M. 1.31
PC 12+49.12
PT 13+97.42
PN:3
PD:ARDOT STD. MON. STAMPED PN:3

C.L. HWY. 64 (WEST)
PI = 13+23.29
Δ = 3°20'12" RT.
D = 2°15'00"
T = 74.17'
L = 148.30'
PC = 12+49.12
PT = 13+97.42
e = NO SUPER

CIRCULATORY ROADWAY
PI = N/A
Δ = 360°00'00" RT.
D = 63°39'43"
T = N/A
L = 565.49'
PC = 1+00.00
PT = 6+65.49
e = NO SUPER

STA. 18+60.00 C.L. HWY. 64 (WEST) = STA. 55+65.15 C.L. HOGAN LN. ∢88°00'00"
STA. 17+74.93 C.L. HWY. 64 (WEST) = STA. 2+43.91 CIRCULATORY ROADWAY ∢82°53'32"
15+00 SURVEY BASELINE N 77°25'51" E 551.91'
N 85°11'15" E 462.58'
N 6°48'45" W 41.29'
56+00
8011 18+60
19+00
8003 N 74°12'55" E 163.71'
8010 8004 8005
20+00
10+00
PN:4
PD:ARDOT STD. MON. STAMPED PN:4
PN:900
PD:CHSLD SQ CUT IN CENTER OF HW
POE 56+00.00
POE 18+60.00
C.L. HWY. 64 (WEST)
PT 55+58.71
POB 19+00.00
55+00
8009
PC 54+90.62
PC 1+00.00
PT 6+65.49
8012 8013
PI 55+24.72
PC 20+63.71
STA. 54+64.22 C.L. HOGAN LN. = STA. 1+00.00 CIRCULATORY ROADWAY ∢90°00'00"
STA. 19+00.00 C.L. HWY. 64 (EAST) = STA. 55+49.37 C.L. HOGAN LN. ∢80°00'00"
STA. 19+94.50 C.L. HWY. 64 (EAST) = STA. 5+02.09 CIRCULATORY ROADWAY ∢87°33'41"
C.L. HOGAN LN.
PI = 55+24.72
Δ = 7°29'24" LT.
D = 11°00'00"
T = 34.10'
L = 68.09'
PC = 54+90.62
PT = 55+58.71
e = NO SUPER
C.L. HOGAN LN.
N 0°40'39" E 490.62'
50+00
8008 POB 50+00.00

C.L. BOONE LOOP RD. (EAST)
PI = 9+41.94
Δ = 9°49'40" LT.
D = 20°00'00"
T = 24.63'
L = 49.14'
PC = 9+17.31
PT = 9+66.45
e = NO SUPER

8018 POB 8+00.00
S 2°59'28" E 117.31'
C.L. BOONE LOOP RD. (EAST)
8019 PI 9+41.94
PC 9+17.31
PI 22+75.62
PT 9+66.45
8020
8021 S 12°49'8" E 33.55'
10+00
SURVEY BASELINE N 82°17'04" E 778.82'
25+00
N 82°40'34" E 413.24'
29+00
8006 8007
C.L. HWY. 64 (EAST)
STA. 22+12.00 C.L. HWY. 64 (EAST) = STA. 10+00.00 C.L. BOONE LOOP RD. (EAST) ∢90°00'00"
PT 24+86.76
POE 29+00.00
STA. 25+50.00
END JOB 080634
PN:5
PD:ARDOT STD. MON. STAMPED PN:5

C.L. HWY. 64 (EAST)
PI = 22+75.62
Δ = 8°27'39" RT.
D = 2°00'00"
T = 211.91'
L = 423.05'
PC = 20+63.71
PT = 24+86.76
e = NO SUPER

N

120 60 0 120
Scale: 1" = 120'
ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

PN:6
PD:ARDOT STD. MON. STAMPED PN:6

SURVEY CONTROL DETAILS

WBCalloway 2/20/2024 9:44:58 AM
WORKSPACE: AHTD
L:\201\1701\7654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_SC_02.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	30	80
		PLAN LAYOUT - HWY. 64				

STA. 12+45 CONSTRUCT
JUNCTION BOX LT. H=9'-2"
WITH 36"x23' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO F.E.S. AT STA. 12+52 LT.
TYPE E JUNCTION BOX = 4'-6"x3'
DUMPED RIPRAP = 27 CU.YD.

STA. 13+40 CONSTRUCT
DROP INLET LT. H=5'-6" W/ 4' EXT.
WITH 18"x92' PIPE OUTLET
TO JUNCTION BOX AT STA. 12+45 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 92 LIN. FT.

STA. 15+50 CONSTRUCT
DROP INLET LT. H=4'-6" W/ 4' EXT.
WITH 18"x207' PIPE OUTLET
TO DROP INLET AT STA. 13+40 LT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4'x5'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 207 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 207 LIN. FT.

STA. 17+80 CONSTRUCT
DROP INLET LT. H=5'-4" W/ 8' EXT.
WITH 18"x226' PIPE OUTLET
TO DROP INLET AT STA. 15+50 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 226 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 226 LIN. FT.

STA. 20+05 CONSTRUCT
DROP INLET LT. H=7'-6" W/ 4' EXT.
WITH 30"x33' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO F.E.S. AT STA. 20+23 LT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 5'x4'

STA. 22+53 CONSTRUCT
DROP INLET LT. H=4'-6"
WITH 18"x145' PIPE OUTLET
TO DROP INLET AT STA. 24+00 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 145 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 145 LIN. FT.

STATE OF ARKANSAS
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Digitally Signed 02/21/2024

STA. 24+00 CONSTRUCT
DROP INLET LT. H=5'-6"
WITH 18"x62' PIPE OUTLET
TO DROP INLET AT STA. 24+65 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 62 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 62 LIN. FT.

STA. 24+65 CONSTRUCT
DROP INLET LT. H=6'-0"
WITH 18"x36' PIPE OUTLET
TO DROP INLET AT STA. 25+05 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 36 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 36 LIN. FT.

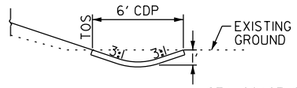
STA. 25+05 CONSTRUCT
DROP INLET LT. H=8'-4"
WITH 42"x66' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO F.E.S OUTLET 25+74.83 LT.
TYPE MO DROP INLET = 6' DIA.
TYPE C DROP INLET = 5'x6'
DUMPED RIPRAP = 22 CU.YD.

C.L. BOONE LOOP RD. (WEST)
PI = 9+05.86
Δ = 5°43'01" LT.
D = 20°00'00"
T = 14.30'
L = 28.58'
PC = 8+91.56
PT = 9+20.14
e = NO SUPER

STA. 14+49 CONSTRUCT
APPROACH LT. = 10 CU. YDS.

STA. 14+81 CONSTRUCT
APPROACH LT. = 10 CU. YDS.

STA. 16+59 CONSTRUCT
APPROACH LT. = 15 CU. YDS.



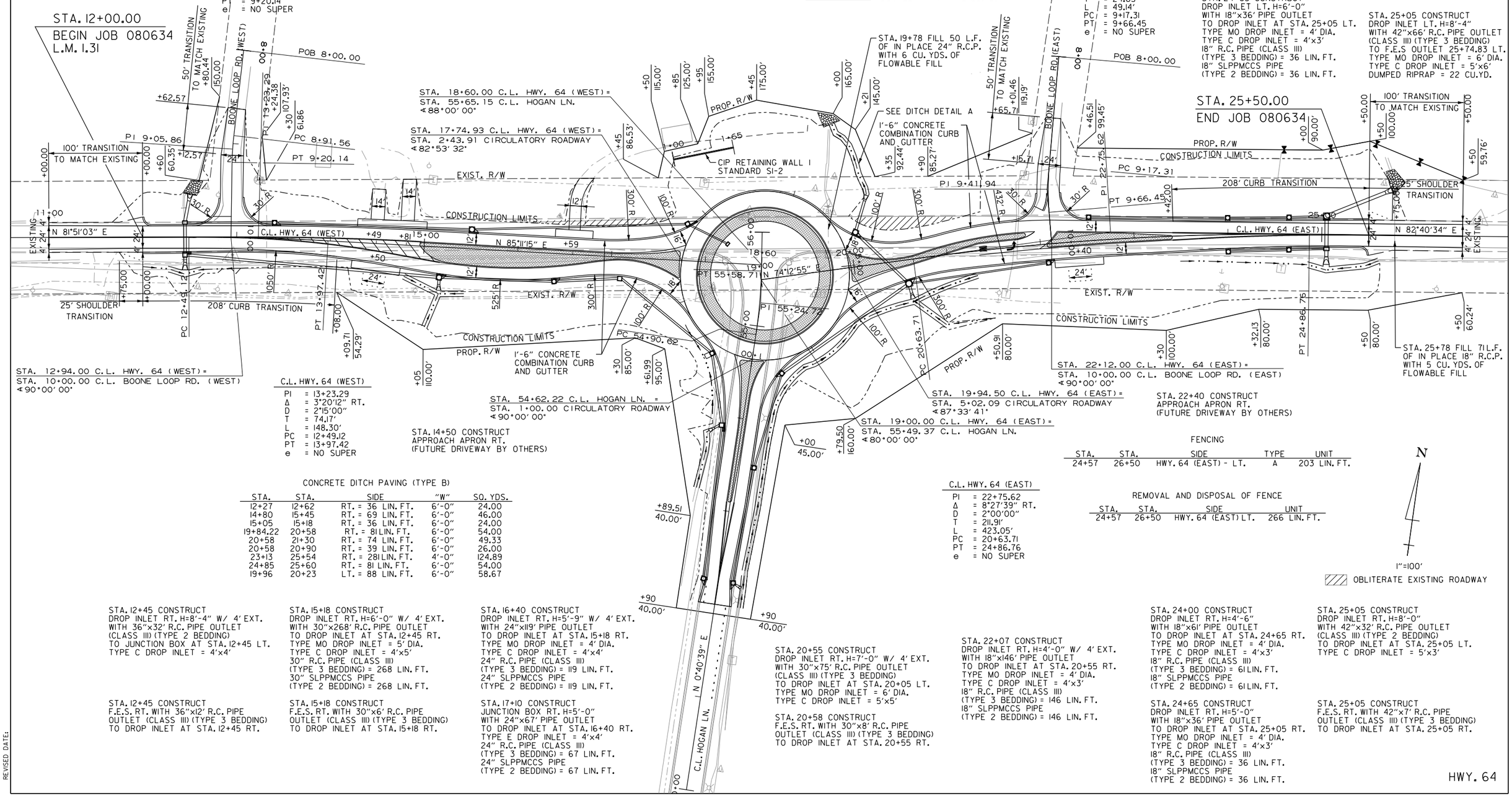
DITCH DETAIL A

STA. 20+23 CONSTRUCT
DUMPED RIPRAP = 21 CU.YD.

C.L. BOONE LOOP RD. (EAST)
PI = 9+41.94
Δ = 9°49'40" LT.
D = 20°00'00"
T = 24.63'
L = 49.14'
PC = 9+17.31
PT = 9+66.45
e = NO SUPER

STA. 19+78 FILL 50 L.F.
OF IN PLACE 24" R.C.P.
WITH 6 CU. YDS. OF
FLOWABLE FILL

STA. 25+78 FILL 71 L.F.
OF IN PLACE 18" R.C.P.
WITH 5 CU. YDS. OF
FLOWABLE FILL



C.L. HWY. 64 (WEST)
PI = 13+23.29
Δ = 3°20'12" RT.
D = 2°15'00"
T = 74.17'
L = 148.30'
PC = 12+49.12
PT = 13+97.42
e = NO SUPER

C.L. HWY. 64 (EAST)
PI = 22+75.62
Δ = 8°27'39" RT.
D = 2°00'00"
T = 211.91'
L = 423.05'
PC = 20+63.71
PT = 24+86.76
e = NO SUPER

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
12+27	12+62	RT. = 36 LIN. FT.	6'-0"	24.00
14+80	15+45	RT. = 69 LIN. FT.	6'-0"	46.00
15+05	15+18	RT. = 36 LIN. FT.	6'-0"	24.00
19+84.22	20+58	RT. = 81 LIN. FT.	6'-0"	54.00
20+58	21+30	RT. = 74 LIN. FT.	6'-0"	49.33
20+58	20+90	RT. = 39 LIN. FT.	6'-0"	26.00
23+13	25+54	RT. = 281 LIN. FT.	4'-0"	124.89
24+85	25+60	RT. = 81 LIN. FT.	6'-0"	54.00
19+96	20+23	LT. = 88 LIN. FT.	6'-0"	58.67

FENCING

STA.	STA.	SIDE	TYPE	UNIT
24+57	26+50	HWY. 64 (EAST) - LT.	A	203 LIN. FT.

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	UNIT
24+57	26+50	HWY. 64 (EAST) LT.	266 LIN. FT.

N
1"=100'
OBLITERATE EXISTING ROADWAY

STA. 12+45 CONSTRUCT
DROP INLET RT. H=8'-4" W/ 4' EXT.
WITH 36"x32' R.C. PIPE OUTLET
(CLASS III) (TYPE 2 BEDDING)
TO JUNCTION BOX AT STA. 12+45 LT.
TYPE C DROP INLET = 4'x4'

STA. 12+45 CONSTRUCT
F.E.S. RT. WITH 36"x12' R.C. PIPE
OUTLET (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 12+45 RT.

STA. 15+18 CONSTRUCT
DROP INLET RT. H=6'-0" W/ 4' EXT.
WITH 30"x268' R.C. PIPE OUTLET
TO DROP INLET AT STA. 12+45 RT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4'x5'
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 268 LIN. FT.
30" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 268 LIN. FT.

STA. 15+18 CONSTRUCT
F.E.S. RT. WITH 30"x6' R.C. PIPE
OUTLET (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 15+18 RT.

STA. 16+40 CONSTRUCT
DROP INLET RT. H=5'-9" W/ 4' EXT.
WITH 24"x119' PIPE OUTLET
TO DROP INLET AT STA. 15+18 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 119 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 119 LIN. FT.

STA. 17+10 CONSTRUCT
JUNCTION BOX RT. H=5'-0"
WITH 24"x67' PIPE OUTLET
TO DROP INLET AT STA. 16+40 RT.
TYPE E DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 67 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 67 LIN. FT.

STA. 20+55 CONSTRUCT
DROP INLET RT. H=7'-0" W/ 4' EXT.
WITH 30"x75' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 20+05 LT.
TYPE MO DROP INLET = 6' DIA.
TYPE C DROP INLET = 5'x5'

STA. 20+58 CONSTRUCT
F.E.S. RT. WITH 30"x8' R.C. PIPE
OUTLET (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 20+55 RT.

STA. 22+07 CONSTRUCT
DROP INLET RT. H=4'-0" W/ 4' EXT.
WITH 18"x146' PIPE OUTLET
TO DROP INLET AT STA. 20+55 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 146 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 146 LIN. FT.

STA. 24+00 CONSTRUCT
DROP INLET RT. H=4'-6"
WITH 18"x61' PIPE OUTLET
TO DROP INLET AT STA. 24+65 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 61 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 61 LIN. FT.

STA. 24+65 CONSTRUCT
DROP INLET RT. H=5'-0"
WITH 18"x36' PIPE OUTLET
TO DROP INLET AT STA. 25+05 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 36 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 36 LIN. FT.

STA. 25+05 CONSTRUCT
DROP INLET RT. H=8'-0"
WITH 42"x32' R.C. PIPE OUTLET
(CLASS III) (TYPE 2 BEDDING)
TO DROP INLET AT STA. 25+05 LT.
TYPE C DROP INLET = 5'x3'

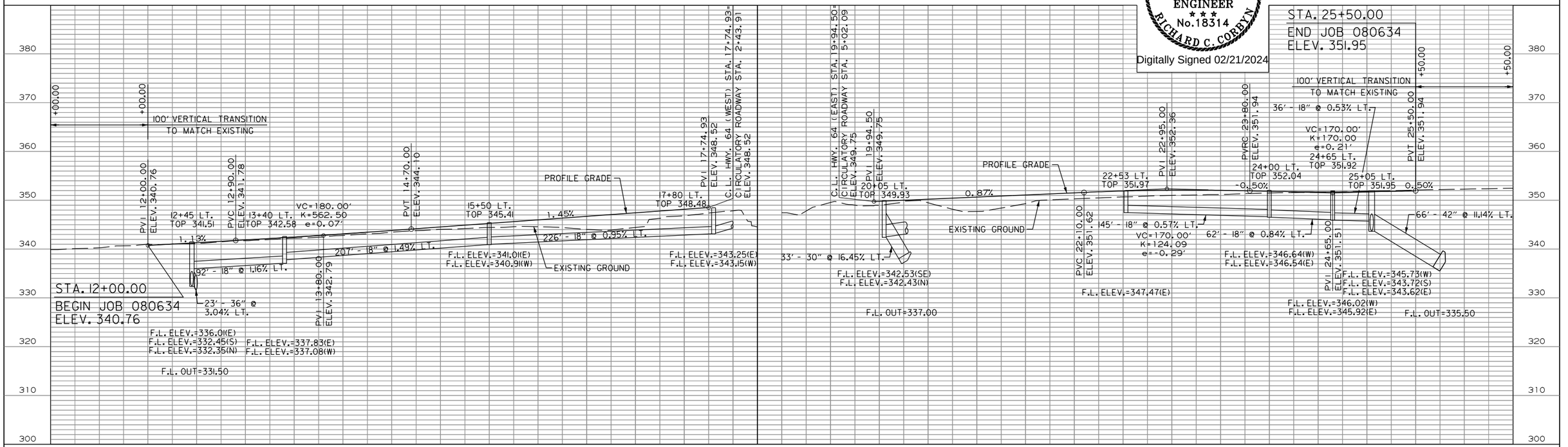
STA. 25+05 CONSTRUCT
F.E.S. RT. WITH 42"x7' R.C. PIPE
OUTLET (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 25+05 RT.

WBCalloway 2/20/2024 9:45:01 AM
WORKSPACE: AHTD
L:\20171701654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_PL_Hwy.64_01.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	31	80
		PROFILE LAYOUT - HWY. 64				

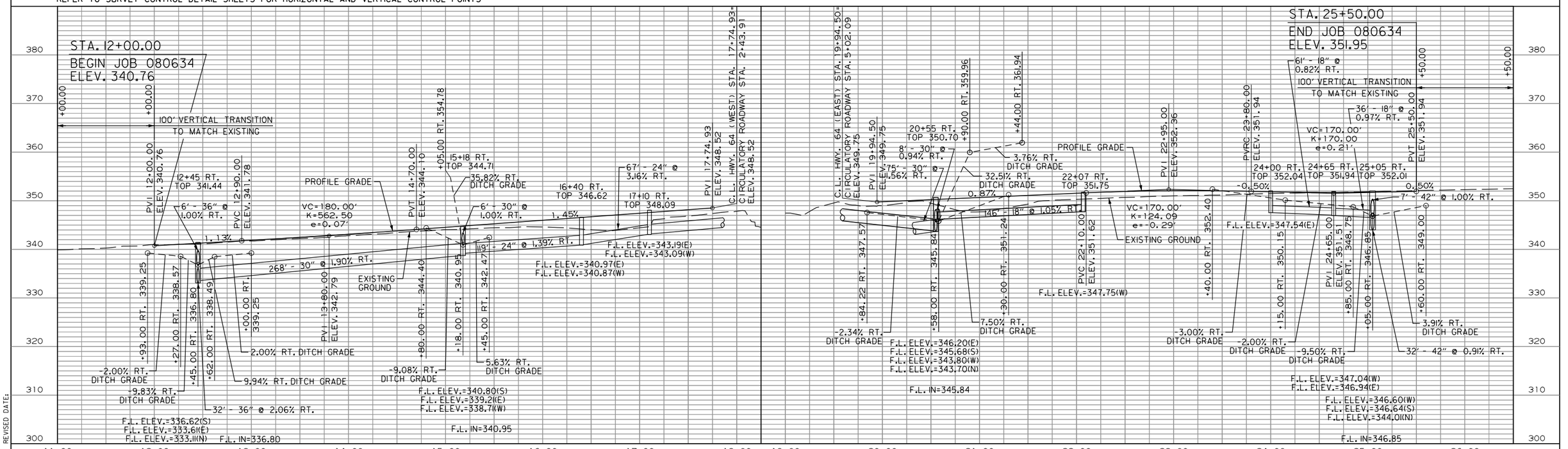
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024

HWY. 64 LT. SIDE PROFILE



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL POINTS

HWY. 64 RT. SIDE PROFILE



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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	32	80
		PLAN LAYOUT - HOGAN LN.				

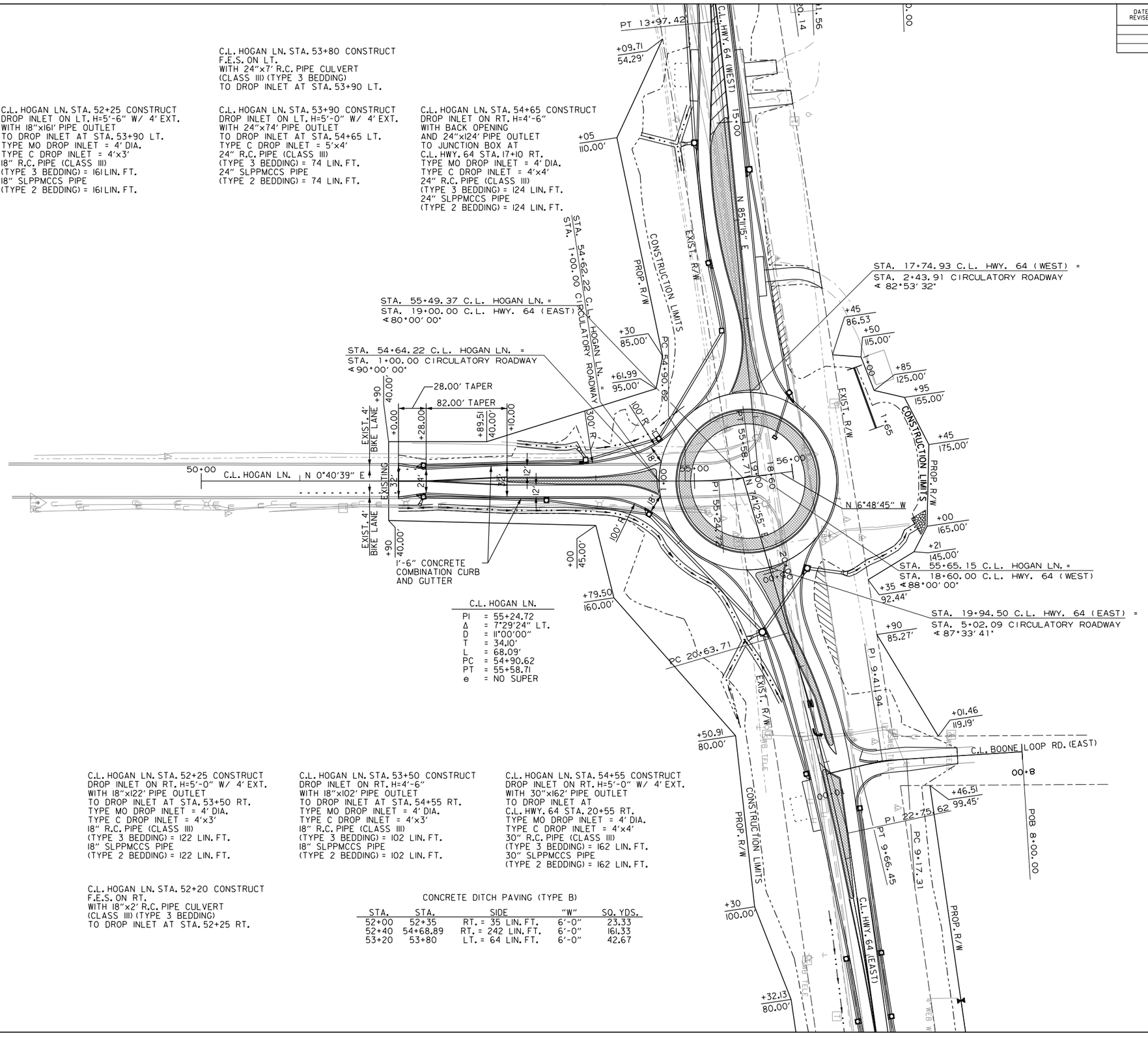
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024

C.L. HOGAN LN. STA. 52+25 CONSTRUCT
DROP INLET ON LT. H=5'-6" W/ 4' EXT.
WITH 18"x16I' PIPE OUTLET
TO DROP INLET AT STA. 53+90 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 16I LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 16I LIN. FT.

C.L. HOGAN LN. STA. 53+80 CONSTRUCT
F.E.S. ON LT.
WITH 24"x7' R.C. PIPE CULVERT
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 53+90 LT.

C.L. HOGAN LN. STA. 53+90 CONSTRUCT
DROP INLET ON LT. H=5'-0" W/ 4' EXT.
WITH 24"x74' PIPE OUTLET
TO DROP INLET AT STA. 54+65 LT.
TYPE C DROP INLET = 5'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 74 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 74 LIN. FT.

C.L. HOGAN LN. STA. 54+65 CONSTRUCT
DROP INLET ON RT. H=4'-6"
WITH BACK OPENING
AND 24"x124' PIPE OUTLET
TO JUNCTION BOX AT
C.L. HWY. 64 STA. 17+10 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 124 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 124 LIN. FT.



C.L. HOGAN LN.
PI = 55+24.72
Δ = 7°29'24" LT.
D = 11°00'00"
T = 34.10'
L = 68.09'
PC = 54+90.62
PT = 55+58.71
e = NO SUPER

C.L. HOGAN LN. STA. 52+25 CONSTRUCT
DROP INLET ON RT. H=5'-0" W/ 4' EXT.
WITH 18"xI02' PIPE OUTLET
TO DROP INLET AT STA. 53+50 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = I22 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = I22 LIN. FT.

C.L. HOGAN LN. STA. 52+20 CONSTRUCT
F.E.S. ON RT.
WITH 18"x2' R.C. PIPE CULVERT
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 52+25 RT.

C.L. HOGAN LN. STA. 53+50 CONSTRUCT
DROP INLET ON RT. H=4'-6"
WITH 18"xI02' PIPE OUTLET
TO DROP INLET AT STA. 54+55 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = I02 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = I02 LIN. FT.

C.L. HOGAN LN. STA. 54+55 CONSTRUCT
DROP INLET ON RT. H=5'-0" W/ 4' EXT.
WITH 30"xI62' PIPE OUTLET
TO DROP INLET AT
C.L. HWY. 64 STA. 20+55 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = I62 LIN. FT.
30" SLPPMCCS PIPE
(TYPE 2 BEDDING) = I62 LIN. FT.

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
52+00	52+35	RT. = 35 LIN. FT.	6'-0"	23.33
52+40	54+68.89	RT. = 242 LIN. FT.	6'-0"	I6I.33
53+20	53+80	LT. = 64 LIN. FT.	6'-0"	42.67

N

I"=I00'

OBLITERATE EXISTING ROADWAY

HOGAN LN.

WBCalloway 2/20/2024 9:45:04 AM
WORKSPACE: AHTD
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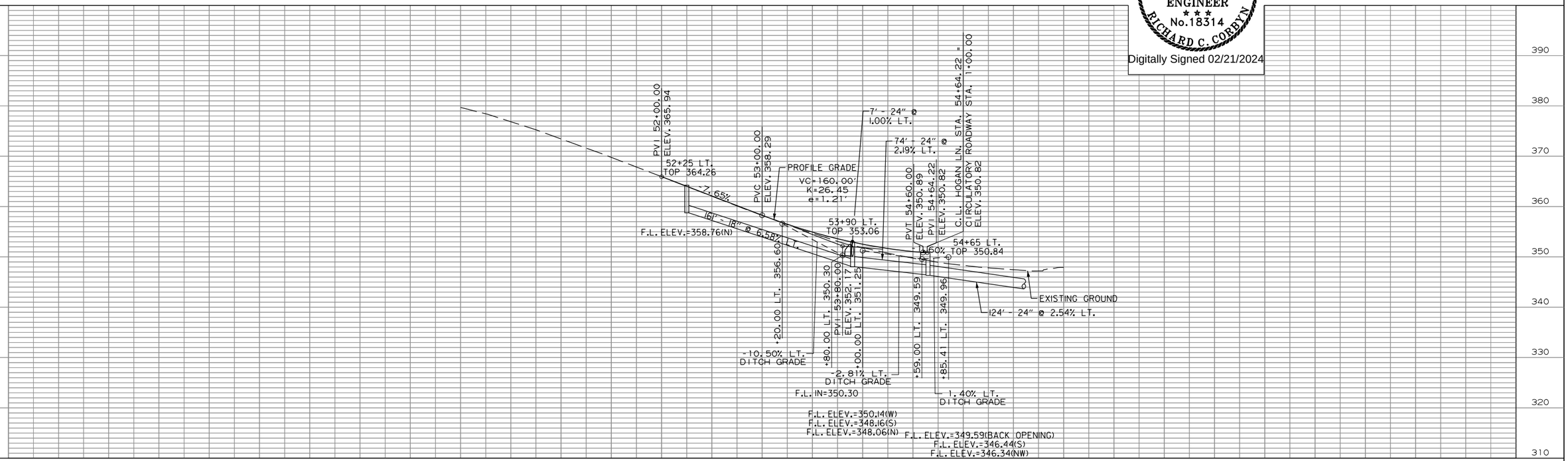
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	33	80
		PROFILE LAYOUT - HOGAN LN.				

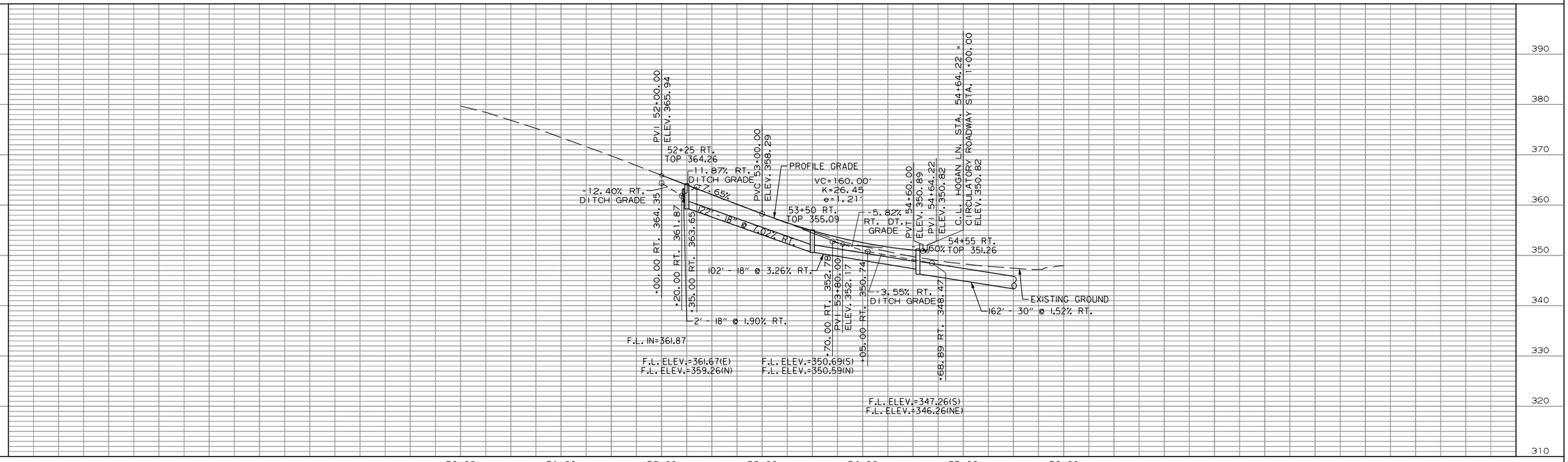
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024

HOGAN LN. LT. SIDE PROFILE



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL POINTS

HOGAN LN. RT. SIDE PROFILE



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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	34	80

PLAN & PROFILE - CIRCULATORY ROADWAY

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18314
RICHARD C. CORBYN
Digitally Signed 02/21/2024

STA. 2+91 CONSTRUCT AREA INLET ON RT. H=4'-6", WITH 18"x46' R.C. PIPE OUTLET (CLASS III) (TYPE 3 BEDDING) TO DROP INLET AT STA. 17+80 LT. TYPE E DROP INLET = 3'-6"x2'

STRUCTURE LOCATION BASED ON AERIAL IMAGERY

STA. 55+49.37 C.L. HOGAN LN. = STA. 19+00.00 C.L. HWY. 64 (EAST) = 80°00'00"

CIP RETAINING WALL STANDARD SI-2

2'-0" CONCRETE COMBINATION CURB AND GUTTER (TYPE E-1)

1'-6" CONCRETE COMBINATION CURB AND GUTTER

TRUCK APRON

C.L. BOONE LOOP RD. (WEST)

POB 8+00.00

PI 9+05.86

PC 8+91.56

PT 9+20.14

PI 13+23.29

EXIST. R/W

CONSTRUCTION LIMITS

N 81°51'03" E

C.L. HWY. 64 (WEST)

N 85°11'15" E

PC 12+43.12

PT 13+97.42

EXIST. R/W

CONSTRUCTION LIMITS

PC 54+90.62

STA. 2+43.91 CIRCULATORY ROADWAY
STA. 17+74.93 C.L. HWY. 64 (WEST) = ∢82°53'32"
STA. 54+62.22 C.L. HOGAN LN. = STA. 1+00.00 CIRCULATORY ROADWAY

CIRCULATORY ROADWAY
PI = N/A
Δ = 360°00'00" RT.
D = 63°39'43"
T = N/A
L = 565.49'
PC = 1+00.00
PT = 6+65.49
e = NO SUPER

C.L. HOGAN LN.

PI 9+41.94

PT 9+66.45

PC 20+63.71

CONSTRUCTION LIMITS

STA. 5+02.09 CIRCULATORY ROADWAY
STA. 19+94.50 C.L. HWY. 64 (EAST) = ∢87°33'41"

OUTSIDE EDGE OF CIRCULATORY ROADWAY & PROFILE GRADE

STA. 18+60.00 C.L. HWY. 64 (WEST) = STA. 15+65.15 C.L. HOGAN LN. = 88°00'00"

STA. 1+00.00 CIRCULATORY ROADWAY
STA. 54+64.22 C.L. HOGAN LN. = ∢90°00'00"

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	"W"	SQ. YDS.
5+66.33	6+06.38	LT. = 49 LIN. FT.	6'-0"	32.67

N

1"=100'

OBLITERATE EXISTING ROADWAY

CIRCULATORY ROADWAY

C.L. HOGAN LN. STA. 54+64.22 = CIRCULATORY ROADWAY STA. 1+00.00
ELEV. 350.82

PVI 1+10.00
ELEV. 351.12

VC=100.00'
K=35.84
e=-0.35'

+63.05 LT. 349.96

PVT 1+60.00
ELEV. 350.12

+78.50 LT. 350.40

2.00%

2.85% LT. DITCH GRADE

PVC 2+20.00
ELEV. 348.92

C.L. HWY. 64 (WEST) STA. 17+74.93 = CIRCULATORY ROADWAY STA. 2+43.91
ELEV. 348.52

VC=100.00'
K=35.84
e=0.35'

PVT 3+20.00
ELEV. 348.32

2+91 RT.
TOP 348.22

PVI 2+70.00
ELEV. 347.92

46' - 18" @ 1.5% RT.

F.L. ELEV.=343.72(NW)

PROFILE GRADE

0.79%

EXISTING GROUND

C.L. HWY. 64 (EAST) STA. 19+94.50 = CIRCULATORY ROADWAY STA. 5+02.09
ELEV. 349.75

+66.33 LT. 347.57

+06.38 LT. 348.47

PVC 6+25.49
ELEV. 350.73

2.25% LT. DITCH GRADE

C.L. HOGAN LN. STA. 54+64.22 = CIRCULATORY ROADWAY STA. 6+65.49
ELEV. 350.82

VC=100.00'
K=35.84
e=-0.35'

390 380 370 360 350 340 330 320 310 300

1+00 2+00 3+00 4+00 5+00 6+00 7+00

CIRCULATORY ROADWAY

WBCallaway 2/21/2024 2:04:55 PM
WORKSPACE: AHTD
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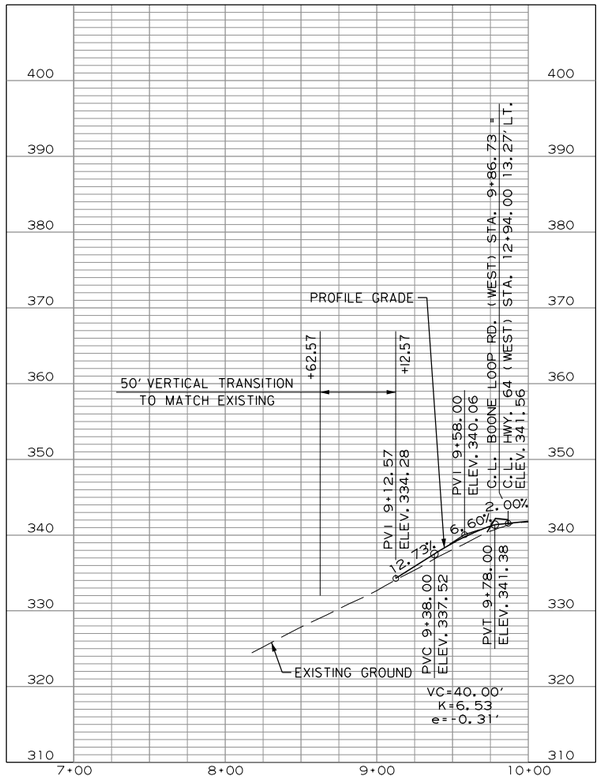
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	35	80
		PROFILE - SIDE ROADS				

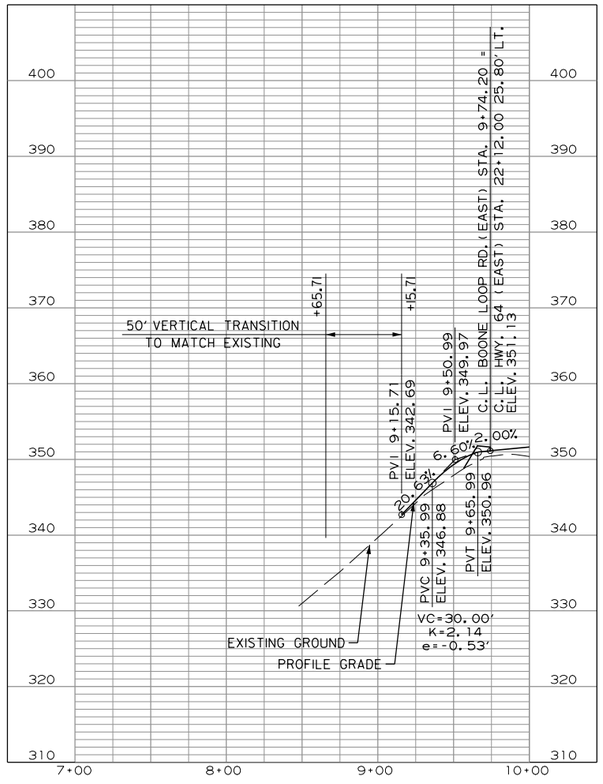
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 18314
RICHARD C. CORBYN

Digitally Signed 02/21/2024

BOONE LOOP RD. (WEST) PROFILE AT STA. 12+94.00



BOONE LOOP RD. (EAST) PROFILE AT STA. 22+12.00



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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	36	80
		SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 02/21/2024

N

HWY. 64 (WEST)

HWY. 64 (EAST)

BOONE LOOP RD. (WEST)

BOONE LOOP RD. (EAST)

HOGAN LN.

10+00 15+00 18+60 19+00 20+00 25+00 29+00

8+00 0+00 56+00 55+00 1+00 50+00

INSTALL SS-HWY64-23-STA10•00WB

INSTALL SS-BLRW-23-STA9•75SB

INSTALL SS-HWY64-23-STA16•00WB

INSTALL SS-HWY64-23-STA18•10EB

INSTALL SS-HWY64-23-STA19•60WB

INSTALL SS-HWY64-23-STA20•05WB

INSTALL SS-BLRE-23-STA9•65SB

INSTALL SS-HWY64-23-STA23•35WB

INSTALL GM-HWY64-23-STA24•50WB

INSTALL SS-HWY64-23-STA25•50WB

INSTALL SS-HWY64-23-STA28•00WB

INSTALL SS-HWY64-23-STA10•00EB

INSTALL SS-HWY64-23-STA12•50EB

INSTALL SS-HWY64-23-STA15•05EB

INSTALL GM-HWY64-23-STA13•50EB

INSTALL SS-HWY64-23-STA17•60EB

INSTALL SS-HWY64-23-STA21•00EB

INSTALL SS-BLRE-23-STA9•95SB

INSTALL SS-HWY64-23-STA28•00EB

INSTALL SS-HOGANLN-23-STA55•00NB

INSTALL SS-HOGANLN-23-STA54•50NB

INSTALL SS-HOGANLN-23-STA53•15NB

INSTALL SS-HOGANLN-23-STA52•30NB

WBCalloway 2/20/2024 9:45:38 AM
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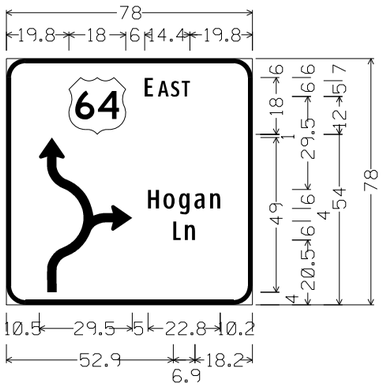
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	37	80
		SIGN PLACEMENT SHEET				

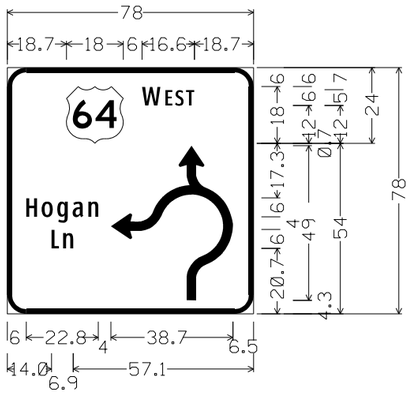
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 02/21/2024



6.0" Radius, 1.5" Border, White on Green;
US 64 M1-4;
"E", ClearviewHwy-2-W;
"AST", ClearviewHwy-2-W;
"Hogan", ClearviewHwy-2-W;
"Ln", ClearviewHwy-2-W;

GM-HWY64-23-STA13+50EB



6.0" Radius, 1.5" Border, White on Green;
US 64 M1-4;
"W", ClearviewHwy-2-W;
"EST", ClearviewHwy-2-W;
"Hogan", ClearviewHwy-2-W;
"Ln", ClearviewHwy-2-W;

GM-HWY64-23-STA24+50WB

M3-4 (24" X 12")
M1-4 (24" X 24")

SS-HWY64-23-STA16+00WB

M3-2 (24" X 12")
M1-4 (24" X 24")

SS-HWY64-23-STA21+00EB

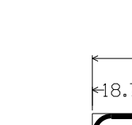
R2-1(24" X 30")

SS-HWY64-23-STA10+00WB
SS-HWY64-23-STA28+00EB

R1-1(36" X 36")

SS-BLRW-43-STA9+75SB

R6-1R (36" X 12")



R1-1(36" X 36")

R3-2 (24" X 24")

SS-BLRE-43-STA9+65SB

R6-1R (36" X 12")

R1-2 (48" X 48" X 48")

SS-HWY64-23-STA17+60EB
SS-HWY64-23-STA20+05WB
SS-HOGANLN-23-STA54+50NB

R2-1(36" X 48")

SS-HWY64-23-STA10+00EB
SS-HWY64-23-STA28+00WB

R4-7 (24" X 30")

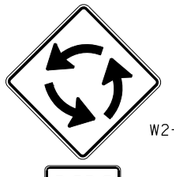
SS-HWY64-23-STA15+05EB
SS-HWY64-23-STA23+35WB
SS-HOGANLN-23-STA53+15NB

R5-1(36" X 36")

SS-BLRE-43-STA9+95SB

R6-4 (30" X 24")

SS-HWY64-23-STA18+10EB
SS-HWY64-23-STA19+60WB
SS-HOGANLN-23-STA55+00NB



W2-6 (36" X 36")
W13-1P (24" X 24")

SS-HWY64-23-STA12+50EB
SS-HWY64-23-STA25+50WB
SS-HOGANLN-23-STA52+30NB

WBCallaway 2/20/2024 9:45:47 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6/10/2024		6	ARK.	080634	38	80
		ELECTRICAL LEGEND AND NOTES				

CONSTRUCTION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NFPA70, CURRENT EDITION), LIFE SAFETY CODE (NFPA 101, CURRENT EDITION), UNDERGROUND FACILITIES DAMAGE PREVENTION ACT (§4-27-101ET SEQ.), AND LOCAL ELECTRICAL CODE. IN ADDITION, ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER, TO ENSURE ARKANSAS STATE CODES (14-28-101ET SEQ. AND 20-31-101ET SEQ.) ARE MET. THE DOCUMENTATION SHALL INCLUDE:
   (1) ELECTRICIANS' LICENSE INFORMATION AND EXPIRATION DATE.
   (2) THE RATIO OF LICENSED-ELECTRICIAN-TO-APPRENTICE-ELECTRICIANS.
   (3) PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (https://www.ark.org/labor/electrician/search.php)
   ALL LICENSES SHALL BE VALID AND CURRENT

3. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS ONE CALL CENTER IN ACCORDANCE WITH UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ARKANSAS ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE CALL CENTER.

4. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NO LONGER NECESSARY.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES DAMAGED DURING THE CONSTRUCTION.

6. 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 NOTED.

7. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY A PUSHING OR BORING METHOD OR AS DIRECTED BY ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" AS PER NEC.

8. NON-DESTRUCTIVE MEG TEST AND CURRENT LEAKAGE TEST SHALL BE PERFORMED ON NEW CONDUCTORS, IN THE PRESENCE OF FIELD INSPECTOR. THE TEST VOLTAGE SHALL BE LIMITED TO 600 VOLTS. ANY CONDUCTORS NOT MEETING THE MINIMUM ACCEPTABLE VALUE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE USING NEW CONDUCTOR. THE RESULTS SHALL BE DOCUMENTED AND PROVIDED TO THE JOB ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED BY MEG TEST WHILE DEVICES OR ACCESSORIES ARE STILL CONNECTED AND SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. SEE ELECTRICAL SPECIAL PROVISIONS.

9. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT CONTRACTOR'S EXPENSE.

10. EACH ROADWAY ILLUMINATION POLE SHALL BE BONDED TO EQUIPMENT GROUNDING CONDUCTOR PER NEC. SEE ARTICLES 250 AND 410.

11. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

12. ALL LUMINAIRE ASSEMBLIES SHALL HAVE BUG RATING OF U-0.

13. BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

14. PULL CABLE SHALL BE MINIMUM 1/4" PULL NYLON OR POLYESTER ROPE, OR 1200 LBS PULL TAPE WHEN PULLING CONDUCTORS. STEEL CABLE OR FISH TAPE SHALL NOT BE USED. CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY NEC FOR CONDUCTORS USED.

15. ALL CONCRETE PULL BOXES SHALL BE TYPE 2 HD UNLESS OTHERWISE INDICATED ON THE PLANS.

16. SLACK CABLES IN PULL BOXES SHALL BE 3 FEET.

17. CONDUCT A MINIMUM 14-DAY BURN TEST FOR THE COMPLETE LIGHTING SYSTEM. REPLACE BURNED OUT AND NOTICEABLY DIM LUMINAIRES; MALFUNCTIONING EQUIPMENT SHALL BE CORRECTED, AND RETEST THE SYSTEM. OTHERWISE REMOVE AND REPLACE WITH NEW EQUIPMENT.

18. SEE STANDARD DRAWING SD-6 FOR PULL BOX CONSTRUCTION.

19. ALL METAL POLES SHALL BE BONDED TO E.G.C. PER NEC 410 PART IV AND PART V.

20. THE CONTRACTOR SHALL LABEL ALL CONDUCTORS IN PULL BOXES AND AT SPLICE POINTS.

21. CONDUCTORS SHALL CONTINUOUSLY RUN DIRECTLY FROM SERVICE POINTS TO ELECTRICAL DEVICES AND/OR PULL BOXES WITHOUT SPLICES BEING MADE IN THE CONDUIT. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.

22. ALL SPLICES SHALL BE WATERTIGHT AND UL-LISTED FOR CONTINUOUS USE IN SUBMERSIBLE INSTALLATION.

23. E.G.C. SHALL BE EXOTHERMICALLY BONDED TO GROUND ROD.

24. 2C/_A.W.G._*_ E.G.C. INDICATES TWO CURRENT CARRYING CONDUCTORS AND ONE E.G.C.

25. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENT FOR CLEARANCE ABOVE ROADWAY AND MEET POLE SCHEDULE AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY. POLE FOUNDATION SHALL BE AT THE SAME ELEVATION LEVEL OF THE ROADWAY. WORK WILL BE SUBSIDIARY TO THE LED ROADWAY ILLUMINATION POLE PAY ITEM.

26. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY (MAINTENANCE AUTHORITY) TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL PROVIDE THE SERVICE POINT ASSEMBLY PER PLANS SET AND CONTRACT PRIOR TO THE DATE ELECTRICAL COMPANIES PROVIDE SERVICE.

27. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, AND JUNCTION BOXES. TAGS SHALL BE EMBOSSED, STAMPED, OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.
   EXAMPLES FOR CONDUIT:
   SERVICE POINT TO PULL BOX 1(SP TO PB-1)
   PULL BOX 1TO SERVICE POINT (PB-1TO SP)
   PULL BOX 1TO PULL BOX 2 (PB-1TO PB-2)

28. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES AND POLE BASES. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.

29. CONDUIT SHALL BE BURIED NOT LESS THAN 18" DEPTH BELOW THE FINAL GRADE, AND MINIMUM 24" DEPTH UNDER THE ROADWAY AND SIDEWALK, UNLESS OTHERWISE INDICATED ON THE PLANS.

30. PRIOR TO THE ORDERING OF ALL LIGHTING EQUIPMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COPY OF THE APPLICABLE BROCHURES CONTAINING THE DESIGN CRITERIA FOR THE EQUIPMENT WHICH THE CONTRACTOR PROPOSES TO INSTALL FOR APPROVAL. THE SPECIFIC ITEMS THAT ARE PROPOSED FOR USE SHALL BE CLEARLY MARKED IN THE APPLICABLE BORCHURES. A LIST SHALL BE ATTACHED TO IDENTIFY THE PAY ITEM AND CONTAIN THE MANUFACTURER, QUANTITY, MODEL, AND IDENTIFYING DESCRIPTIONS OF EACH ITEM. ADEQUATE ENGINEERING DATA, ESSENTIAL SHOP DRAWINGS, AND SCHEMATIC DIAGRAMS SHALL BE PROVIDED FOR REVIEW. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED FOR CONSIDERATION AND SHALL BE RETURNED FOR CORRECTION WITHOUT REVIEW.

IF ENGINEER DETERMINED THAT THE EQUIPMENT SUBMITTAL MEETS THE DESIGN CRITERIA, AN APPROVAL WILL BE PROVIDED. IF THE EQUIPMENT SUBMITTAL FOR USE IS REJECTED, THE CONTRACTOR SHALL RE-SUBMIT THE EQUIPMENT SUBMITTAL WITHIN FIFTEEN (15) DAYS OF NOTIFICATION OF EQUIPMENT REJECTION. THE EQUIPMENT RESUBMITTAL WILL BE CONSIDERED THE STARTING POINT OF A NEW APPROVAL CYCLE AS DESCRIBED.

ELECTRICAL SYMBOLS LEGEND

- EXISTING DECORATIVE LIGHT FIXTURE TO BE REMOVED AND FOUNDATION DEMOLISHED, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION.
- EXISTING DECORATIVE LIGHT FIXTURE TO REMAIN, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION.
- PB / LPB14 L14 — NEW LUMINAIRE, ARM, LIGHT POLE, FOUNDATION AND PULLOX ASSEMBLY, SEE NOTES, PLANS AND SCHEDULES FOR MORE INFORMATION.
- REMOVE EXISTING STREET LIGHTING CIRCUIT(S) AND ABANDON CONDUIT
- EXISTING STREET LIGHTING CIRCUIT(S) AND CONDUIT TO REMAIN
- CONDUIT & WIRE AS NOTED IN NOTES AND IN SCHEDULES.
- PB — PULL BOX
- RELAY CONTACT, NORMALLY OPEN.
- 20A/2P — CIRCUIT BREAKER, TRIP RATING SHOWN, 2-POLE UNLESS NOTED OTHERWISE.
- SPD — SURGE PROTECTIVE DEVICE WITH INDICATING LIGHTS.
- OR — 3/4" x 10' COPPER CLAD GROUND ROD.
- SP — SERVICE POINT LOCATION
- 20 AMP DUPLEX RECEPTACLE, WITH GROUND WIRE, "GFCI" INDICATES GROUND FAULT CIRCUIT INTERRUPTER.

ABBREVIATIONS

A	AMP
ABC	ABOVE COUNTER
ACS	ACCESS CONTROL SYSTEM
ACU	AIR CONDITIONING UNIT
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CAPACITY
AM	AMP-METER
ANN	ANNUNCIATOR
AP	AERIAL PRIMARY
AS	AERIAL SECONDARY
ATS	
AUX	AUXILIARY
BFI	BLOWN FUSE INDICATOR
BI	BYPASS ISOLATION
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CGRS	PVC COATED GALVANIZED RIGID STEEL
CKT	CIRCUIT
COM	COMMON
CONT	CONTINUOUS
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CRI	COLOR RENDERING INDEX
CS	CORD SET
CU	COEFFICIENT OF UTILIZATION
DEB	DIRECT EARTH BURIED
EC	EMPTY OR EMBEDDED CONDUIT
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
EL	ELEVATION
EMT	ELECTRICAL METALLIC TUBING
ETM	ELASPED TIME METER
FC	FAN COIL
FDS	FUSED DISCONNECT SWITCH
FOC	FIBER OPTIC CABLE
FVNR	FULL VOLTAGE NON-REVERSING STARTER
FVR	FULL VOLTAGE REVERSING STARTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER OR HEAT PUMP
IDS	INTRUSION DETECTION SYSTEM
HR	HOUR
IG	ISOLATED GROUND
ISP	INDIVIDUALLY SHIELDED PAIR
JB	JUNCTION BOX
kVA	KILOVOLT-AMPERE
kVAR	KILOVOLT-AMPERE, REACTIVE
kW	KILOWATT
LA	LIGHTNING ARRESTER
LC	LIGHTING CONTACTOR
LLF	LIGHT LOSS FACTOR
LO	LUGS ONLY
LOR	LOCAL-OFF-REMOTE
LSI	LONG, SHORT, INSTANTANEOUS
LSIG	LONG, SHORT, INSTANTANEOUS, GROUND
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MN	MASS NOTIFICATION
MON	MONACO
MS	MOTOR STARTER
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NFDS	NON-FUSED DISCONNECT SWITCH
NL	NIGHT LIGHT
OH	OVERHEAD
OHP	OVERHEAD PRIMARY
OHS	OVERHEAD SECONDARY
OL	OVERLOAD
PB	PUSH BUTTON
PEC	PHOTO ELECTRIC CELL
PF	POWER FACTOR
PFCC	POWER FACTOR CORRECTION CAPACITOR
PL	PILOT LIGHT
PMR	PHASE MONITOR RELAY
PNL	PANEL
PTT	PUSH-TO-TEST
PTZ	PAN-TILT-ZOOM
PVC	SCHEDULE 40 POLYVINYL CONDUIT
RECPT	RECEPTACLE
RVAT	REDUCED VOLTAGE AUTO-TRANSFORMER STARTER
SA	SURGE ARRESTER
SDBC	SOFT DRAWN BARE COPPER
SE	SERVICE ENTRANCE
SN	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
STA	STATION
SW	SWITCH
TC	TIME CLOCK
TD	TIME DELAY
TDD	TIME DELAY ON DE-ENERGIZATION
TDE	TIME DELAY ON ENERGIZATION
TEL	TELEPHONE
THD	TOTAL HARMONIC DISTORTION
TMGB	TELECOMMUNICATIONS MAIN GROUND BAR
TGB	TELECOMMUNICATIONS GROUND BAR
TR	TAMPER RESISTANT
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UGP	UNDERGROUND PRIMARY
UGS	UNDERGROUND SECONDARY
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLT-AMP
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLT-METER
W	WATT OR WIRE
WAP	WIRELESS ACCESS POINT
WH	WEATHER HEAD
WM	WATT METER
WP	WEATHERPROOF
XFMR	TRANSFORMER

GENERAL NOTES:

1. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET BUT NOT BE UTILIZED ON THE PROJECT.
2. LIGHTING LEGEND SHOWS EXAMPLE IDENTIFIERS. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFIC REQUIREMENTS.
3. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARDS AND DETAILS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
4. CONDUIT INSTALLED UNDER ROADWAY SECTIONS SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD MAY BE USED.
5. CONTRACTOR MAY USE HDPE OR PVC FOR BORING. SECTIONAL PVC SHALL BE UL LISTED AND MARKED FOR USE IN DIRECTIONAL BORING.

SUMMARY OF LIGHTING QUANTITIES

ITEM NO.	ITEM	QUANTITIES TOTAL	UNIT
SP&202	REMOVAL AND DISPOSAL OF LUMINAIRE POLE AND FOUNDATION	2	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/8 A.W.G., E.G.C.)	850	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/10 A.W.G., E.G.C.)	1400	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G., E.G.C.)	1200	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	630	LIN. FT.
710	NON-METALLIC CONDUIT (2")	2300	LIN. FT.
SP,SS,&711	CONCRETE PULL BOX (TYPE 2 HD)	19	EACH
SP	LED ROADWAY ILLUMINATION POLE (18,700 LUMENS, DECORATIVE, T-BASE, 30')	14	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (100 AMP)	1	EACH

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21040
JAMES K. SCHMITT
Digitally Signed 06/10/2024

WBCalloway 6/10/2024 7:36:11 AM
WORKSPACE: AHTD
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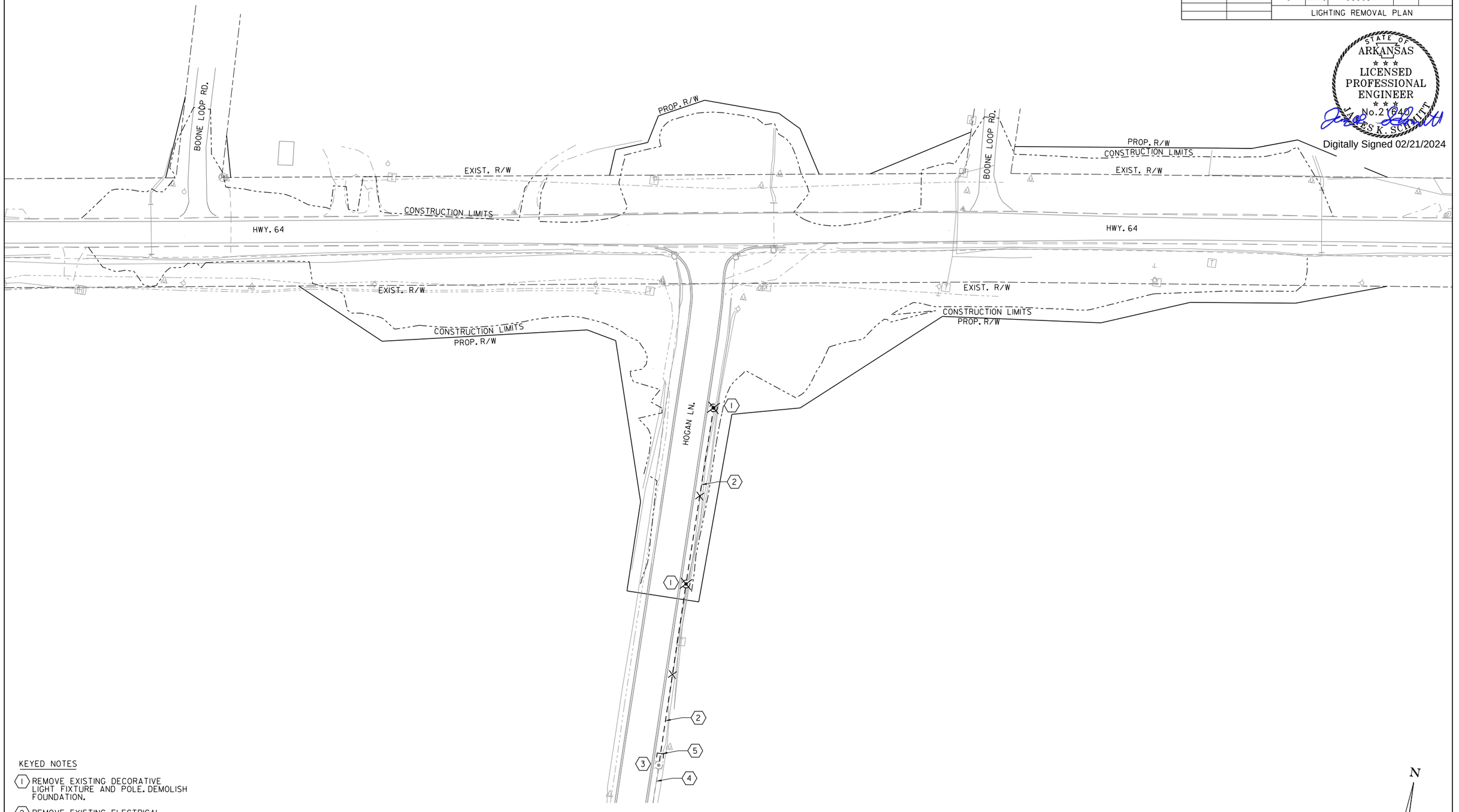
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	39	80
		LIGHTING REMOVAL PLAN				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21640
JAMES K. SCHMITT
Digitally Signed 02/21/2024



KEYED NOTES

1. REMOVE EXISTING DECORATIVE LIGHT FIXTURE AND POLE. DEMOLISH FOUNDATION.
2. REMOVE EXISTING ELECTRICAL CIRCUIT FROM EXISTING CONDUIT. ABANDON CONDUIT IN PLACE.
3. EXISTING DECORATIVE LIGHT FIXTURE AND POLE TO REMAIN.
4. EXISTING ELECTRICAL CIRCUIT AND CONDUIT TO REMAIN.
5. FIELD LOCATE EXISTING CONDUIT, CUT AND CAO WATERTIGHT WITHIN 5' OF EXISTING LIGHT POLE.

N

1"=100'

LIGHTING REMOVAL PLAN

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WORKSPACE: AHTD
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REVISED DATE:

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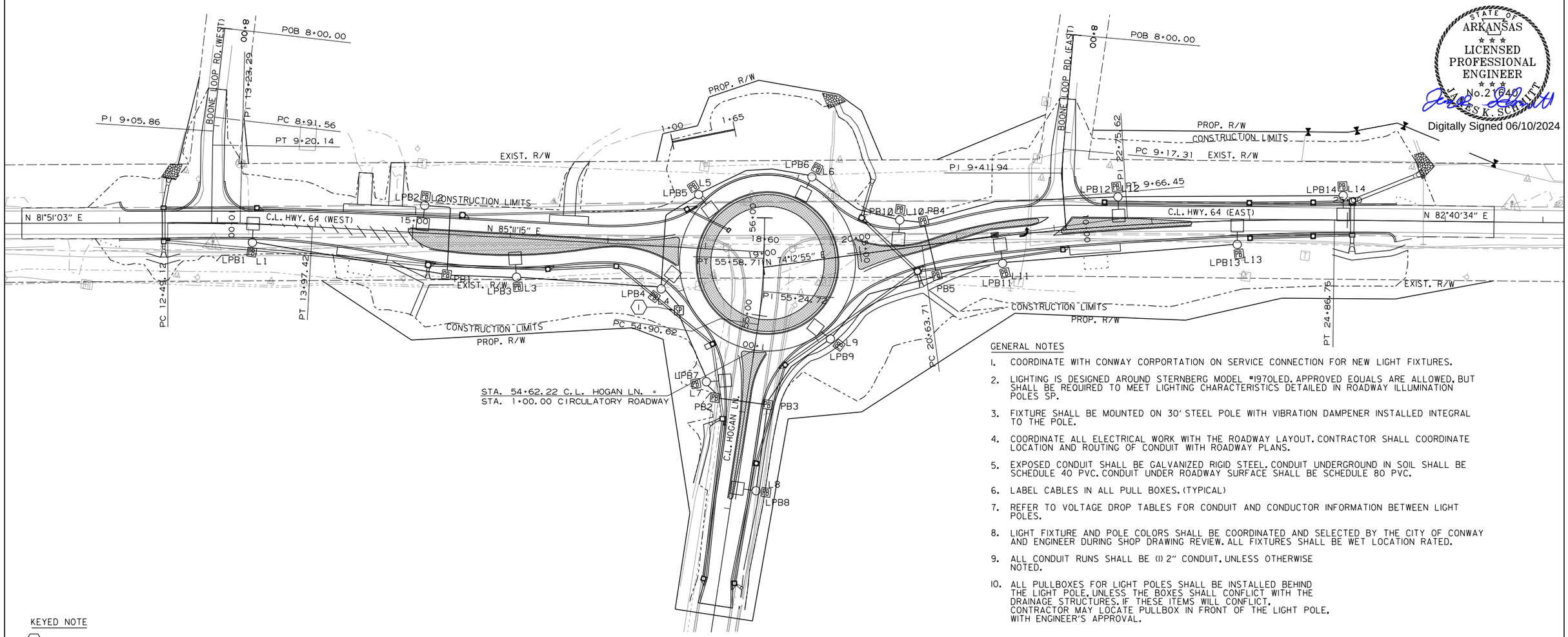

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21040
JAMES K. SCHMITT
Digitally Signed 06/10/2024

GENERAL NOTES

1. COORDINATE WITH CONWAY CORPORTATION ON SERVICE CONNECTION FOR NEW LIGHT FIXTURES.
2. LIGHTING IS DESIGNED AROUND STERNBERG MODEL #1970LED. APPROVED EQUALS ARE ALLOWED, BUT SHALL BE REQUIRED TO MEET LIGHTING CHARACTERISTICS DETAILED IN ROADWAY ILLUMINATION POLES SP.
3. FIXTURE SHALL BE MOUNTED ON 30' STEEL POLE WITH VIBRATION DAMPENER INSTALLED INTEGRAL TO THE POLE.
4. COORDINATE ALL ELECTRICAL WORK WITH THE ROADWAY LAYOUT. CONTRACTOR SHALL COORDINATE LOCATION AND ROUTING OF CONDUIT WITH ROADWAY PLANS.
5. EXPOSED CONDUIT SHALL BE GALVANIZED RIGID STEEL. CONDUIT UNDERGROUND IN SOIL SHALL BE SCHEDULE 40 PVC. CONDUIT UNDER ROADWAY SURFACE SHALL BE SCHEDULE 80 PVC.
6. LABEL CABLES IN ALL PULL BOXES. (TYPICAL)
7. REFER TO VOLTAGE DROP TABLES FOR CONDUIT AND CONDUCTOR INFORMATION BETWEEN LIGHT POLES.
8. LIGHT FIXTURE AND POLE COLORS SHALL BE COORDINATED AND SELECTED BY THE CITY OF CONWAY AND ENGINEER DURING SHOP DRAWING REVIEW. ALL FIXTURES SHALL BE WET LOCATION RATED.
9. ALL CONDUIT RUNS SHALL BE (1) 2" CONDUIT, UNLESS OTHERWISE NOTED.
10. ALL PULLBOXES FOR LIGHT POLES SHALL BE INSTALLED BEHIND THE LIGHT POLE, UNLESS THE BOXES SHALL CONFLICT WITH THE DRAINAGE STRUCTURES. IF THESE ITEMS WILL CONFLICT, CONTRACTOR MAY LOCATE PULLBOX IN FRONT OF THE LIGHT POLE, WITH ENGINEER'S APPROVAL.

KEYED NOTE

(1) APPROXIMATE SERVICE POINT LOCATION, COORDINATE WITH CONWAY CORPORTATION TO DETERMINE FINAL PLACEMENT.

POLE SCHEDULE							
POLE NO.	LIGHT FIXTUE	PULL BOX AT BASE	HEIGHT	ALIGNMENT	STATION	OFFSET	ORIENTATION ANGLE (PLAN NORTH=0°, ROTATION CCW)
L1	1 X A	YES	30'	HWY. 64 (WEST)	13+43	18.7' RT.	358°
L2	1 X A	YES	30'	HWY. 64 (WEST)	15+11	28.2' LT.	174°
L3	1 X A	YES	30'	HWY. 64 (WEST)	16+09	39.8' RT.	4°
L4	1 X A	YES	30'	HWY. 64 (WEST)	17+57	43.6' RT.	322°
L5	1 X A	YES	30'	HWY. 64 (WEST)	17+90	54.9' LT.	217°
L6	1 X A	YES	30'	HWY. 64 (EAST)	19+61	85.0' LT.	154°
L7	1 X A	YES	30'	HOGAN LN.	54+25	43.5' LT.	274°
L8	1 X A	YES	30'	HOGAN LN.	53+22	23.6' RT.	82°
L9	1 X A	YES	30'	HWY. 64 (EAST)	19+58	81.8' RT.	52°
L10	1 X A	YES	30'	HWY. 64 (EAST)	20+45	29.1' LT.	175°
L11	1 X A	YES	30'	HWY. 64 (EAST)	21+43	27.9' RT.	7°
L12	1 X A	YES	30'	HWY. 64 (EAST)	22+67	29.6' LT.	182°
L13	1 X A	YES	30'	HWY. 64 (EAST)	23+87	24.4' RT.	0°
L14	1 X A	YES	30'	HWY. 64 (EAST)	24+95	25.1' LT.	180°
SP-1	N/A	N/A	N/A	HWY. 64 (EAST)	17+76	64.6' RT.	310°

FIXTURE SCHEDULE						
TYPE	DESCRIPTION	DISTRIBUTION	LAMPS		VOLTAGE	REMARKS
		LUMEN OUTPUT (MINIMUM)	WATTS	TYPE		
A	FIXT STERN I-GLI970-S-BFS-40L40T2 -MDL0I2SA-R7-PE-HSHB OLD UBK	TYPE 2 18,700 LUMENS	158W	LED	I20V	1,2,3,4

FIXTURE SCHEDULE NOTES:

1. PROVIDE FIXTURES LISTED AND LABELED FOR WET LOCATION.
2. PROVIDE FIXTURE WITH A 7-PIN RECEPTACLE FOR FUTURE CONTROLS.
3. PROVIDE FIXTURE WITH 4000K COLOR TEMPERATURE.
4. PROVIDE FIXTURE WITH A BUG RATING OF U0.

ILLUMINATION DESIGN CRITERIA TABLE		
DESCRIPTION	AVG	AVG/MIN
ROUNDABOUTS AND APPROACHES	1.1 fc	4.0:1

CALCULATED STATISTICS (BASED ON 0.77 LLF)		
DESCRIPTION	AVG	AVG/MIN
ROUNDABOUTS AND APPROACHES	1.6 fc	4.0:1

LIGHTING CALCULATIONS NOTES:

1. LIGHTING CALCULATIONS WERE PERFORMED USING AGI32 VERSION 19.10 SOFTWARE.
2. LIGHTING LEVELS ARE IN FOOTCANDLE UNITS (fc).
3. DESIGN BASIS IS THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA, IESNA LIGHTING HANDBOOK, 10TH EDITION, IES RP-8-18, IES DG-19-08, AND AASHTO ROADWAY LIGHTING DESIGN GUIDE (OCT 2018).

N

1"=100'

LIGHTING INSTALLATION PLAN

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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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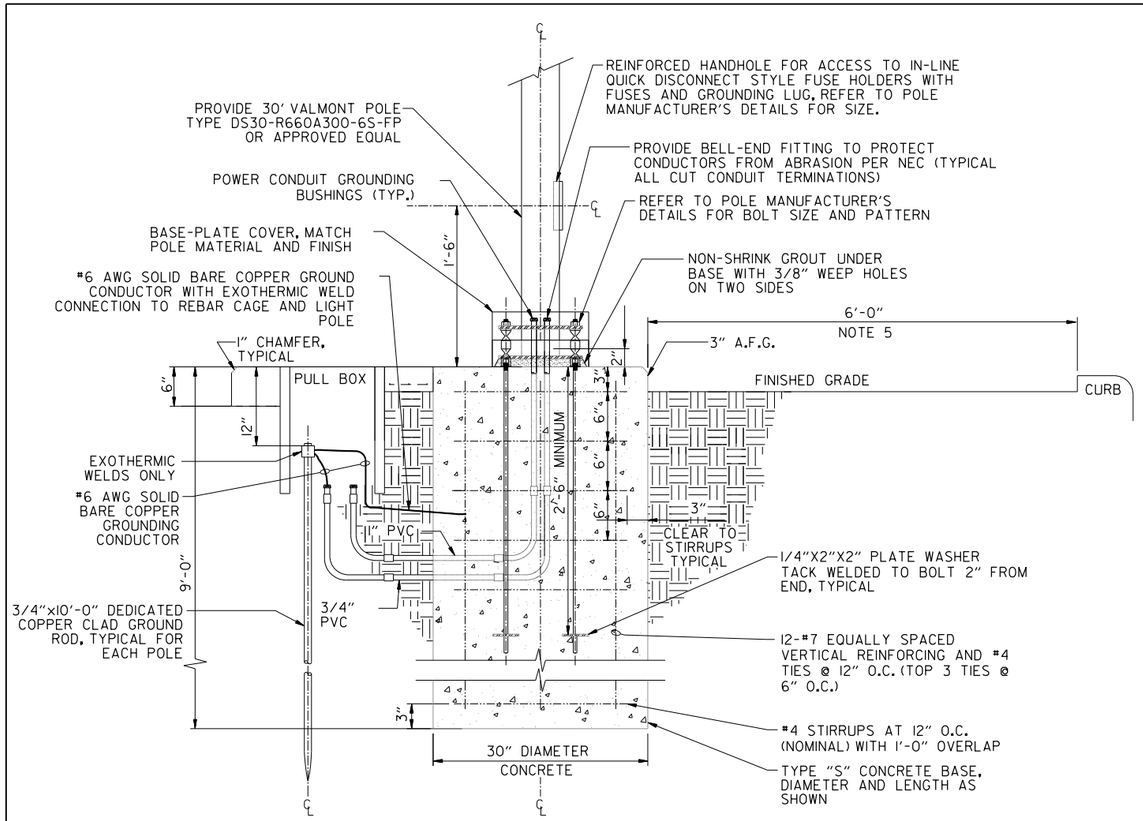
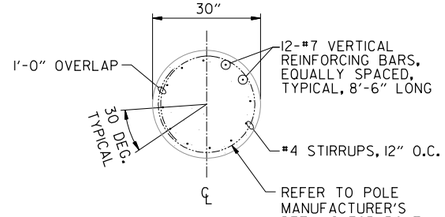
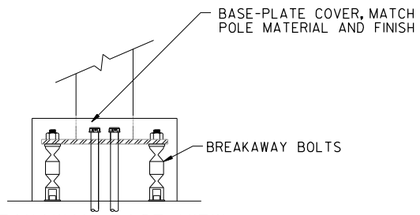
		ELECTRICAL DETAILS I				





CONCRETE BASE PLAN VIEW



BREAKAWAY BASE VIEW

NOTES:

1. ALL HARDWARE SHALL BE CORROSION RESISTANT, GALVANIZED RIGID STEEL.
2. CONSTRUCT FOUNDATION IN ACCORDANCE WITH POLE MANUFACTURER'S GUIDELINES, INSTALLING BOLT TEMPLATE LEVELING UNIT, ANCHOR BOLTS, FULL BASE-PLATE BOLT COVER, AND ACCESSORIES FOR A COMPLETE INSTALLATION.
3. REFER TO POLE SCHEDULE FOR CONDUIT AND CONDUCTOR SIZES. USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.
4. TIE POLE, EQUIPMENT GROUND AND ALL OTHER METAL EQUIPMENT AND GROUNDING LUGS TOGETHER USING #6 AWG SOLID BARE COPPER AND APPROVED GROUNDING CLAMPS AND CONNECT TO GROUND ROD SYSTEM.
5. MINIMUM 6'-0" CLEAR FROM BACK OF ROAD OR PARKING LOT CURB TO CLOSEST EDGE OF ROADLIGHTING LIGHT POLE BASE. WHERE LIGHT POLE BASES NEED TO BE LESS THAN 6'-0" TO AVOID CONFLICT WITH DRAINAGE STRUCTURES, POLES MAY BE LOCATED CLOSER TO THE ROADWAY EDGE WITH ENGINEER'S VERIFICATION AND APPROVAL
6. WHERE POLE FOUNDATION IS ON A SLOPED SURFACE PROVIDE 1' FLAT GRADE EARTH BEFORE RETURNING TO SLOPE. COORDINATE WITH ROADWAY PLANS.
7. METAL POLES SHALL BE GROUNDED PER NEC 410.30 AND PART V.
8. IF THE FINAL GRADE WHERE A LIGHT POLE WILL BE INSTALLED IS TOO STEEP TO ALLOW FOR THE PULLBOX TOBE INSTALLED LEVEL WITH THE LIGHT POLE FOUNDATION, THE CONTRACTOR MAY ADJUST THE PULLBOX TO MATCH THE SLOPE OF THE GRADE INSTEAD. CONTRACTOR SHALL VERIFY THESE LOCATIONS WITH THE ENGINEER PRIOR TO INSTALLATION.

B INDEPENDENT LIGHT POLE FOUNDATION DETAIL
SCALE: N.T.S.

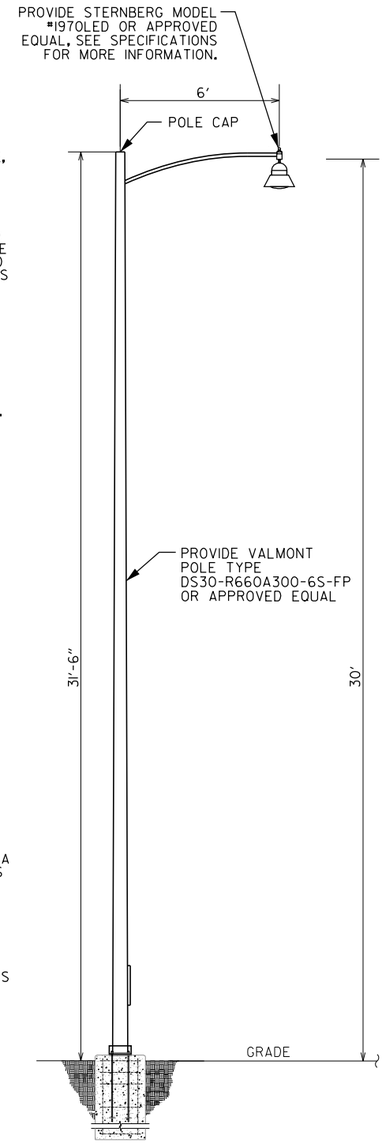
WARNING TAPE GENERAL NOTES:

1. POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND AND BLACK LETTERING.
2. TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND/OR EXCEEDING ALL INDUSTRY STANDARDS.

A UNDERGROUND DETECTABLE WARNING TAPE
SCALE: N.T.S.

GENERAL NOTES:

1. INSTALL NEW ROUND, TAPERED, STEEL POLE, ACCESSIBLE GROUNDING PROVISION, BASE COVER, VIBRATION DAMPER, AND ALL REQUIRED MOUNTING ACCESSORIES. POLE SHALL BE DESIGNED FOR THE TOTAL EFFECTIVE PROJECTED AREA OF ALL LIGHT FIXTURES AT A 90 MPH BASIC WIND SPEED WITH 3 SECOND GUST. ALL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION.
2. LIGHT FIXTURE, ARM, AND POLE COLORS SHALL BE BLACK OR APPROVED EQUAL. COLOR TO BE VERIFIED WITH ENGINEER AND CLIENT. STEEL POLE SHALL INCLUDE PRE-TREATMENT PROCESSES AND POWDER COAT FINISH TO PREVENT CORROSION. ALL FIXTURES TO BE WET LOCATION RATED.
3. FINAL ACCEPTANCE TESTING PROCEDURE SHALL CONSIST OF THE FOLLOWING:
   A. SUBMIT TEST PROCEDURE FOR REVIEW AND APPROVAL.
   B. CONDUCT MINIMUM 14-DAY FINAL ACCEPTANCE TEST FOR THE COMPLETE LIGHTING SYSTEM. CORRECT MALFUNCTIONING EQUIPMENT AND RETEST, OTHERWISE REMOVE AND REPLACE WITH NEW EQUIPMENT.
   C. REPLACE FAILING AND DIM LEDS AND RETEST.
   D. DURING FINAL ACCEPTANCE TEST PERIOD, TAKE FIELD LIGHT LEVEL MEASUREMENTS (ILLUMINANCE) ALONG THE ENTIRE STRUCTURE, IN A 10' GRID PATTERN COVERING ALL PAVED AREAS, WITH AN ILLUMINANCE METER THAT IS LED RATED. FIELD LEVEL MEASUREMENTS AND CALCULATIONS SHALL MEET OR EXCEED INITIAL LUMEN DESIGN CALCULATIONS. COORDINATE FIELD WORK WITH OWNER AND ENGINEER.
4. ACCEPTANCE CRITERIA SHALL CONSIST OF THE FOLLOWING:
   A. SUBMIT COMPLETE SHOP DRAWING DATA FOR FIXTURE AND LAMP, INCLUDING IES FILE AND LLF CALCULATION.
   B. SUBMIT COMPLETE POINT-BY-POINT PHOTOMETRIC LIGHTING ANALYSIS OF ALL GIVEN AREAS FOR BOTH INITIAL LUMEN AND LLF CALCULATIONS.
   C. LLF DESIGN, LIGHTING ANALYSIS VALUES SHALL MEET OR EXCEED THE ILLUMINATION DESIGN CRITERIA TABLE REQUIREMENTS, NO EXCEPTION.
5. LUMINAIRE ASSEMBLY SHALL BE OF THE FULL CUTOFF TYPE OR HAVE AN UPLIGHT RATING OF U0.



C SINGLE LIGHT FIXTURE ON POLE ELEVATION
SCALE: N.T.S.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21040
JAMES K. SCHMITT
Digitally Signed 02/21/2024

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WORKSPACE: AHTD
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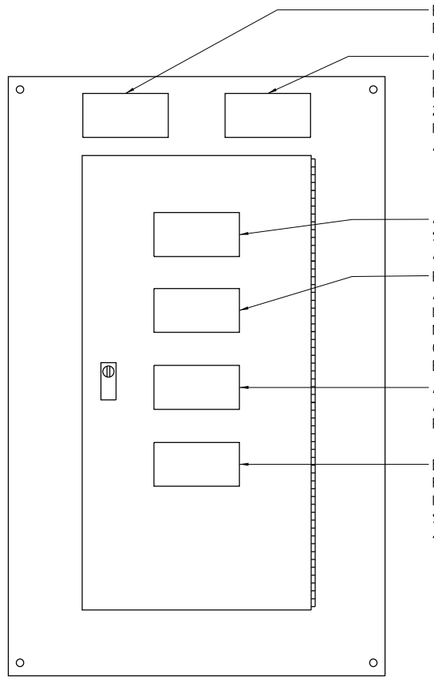
REVISED DATE:

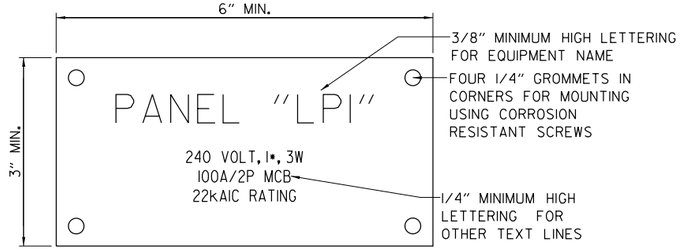
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	42	80
		ELECTRICAL DETAILS II				



PANEL FRONT VIEW

NAMEPLATE GENERAL NOTES:

1. INSTALL ALL NAME PLATES AND WARNING SIGNS IN ACCORDANCE WITH NEC AND NFPA 70E REQUIREMENTS.
2. INSTALL NAME PLATES AND WARNING SIGNS ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SWITCHES, CONTROL PANELS AND MOTOR CONTROL CENTERS.
3. EXTERIOR EQUIPMENT SHALL HAVE WEATHER-RESISTANT, NON-FADING NAME PLATES AND SIGNAGE.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL NAME PLATE AND SIGNAGE REQUIREMENTS.



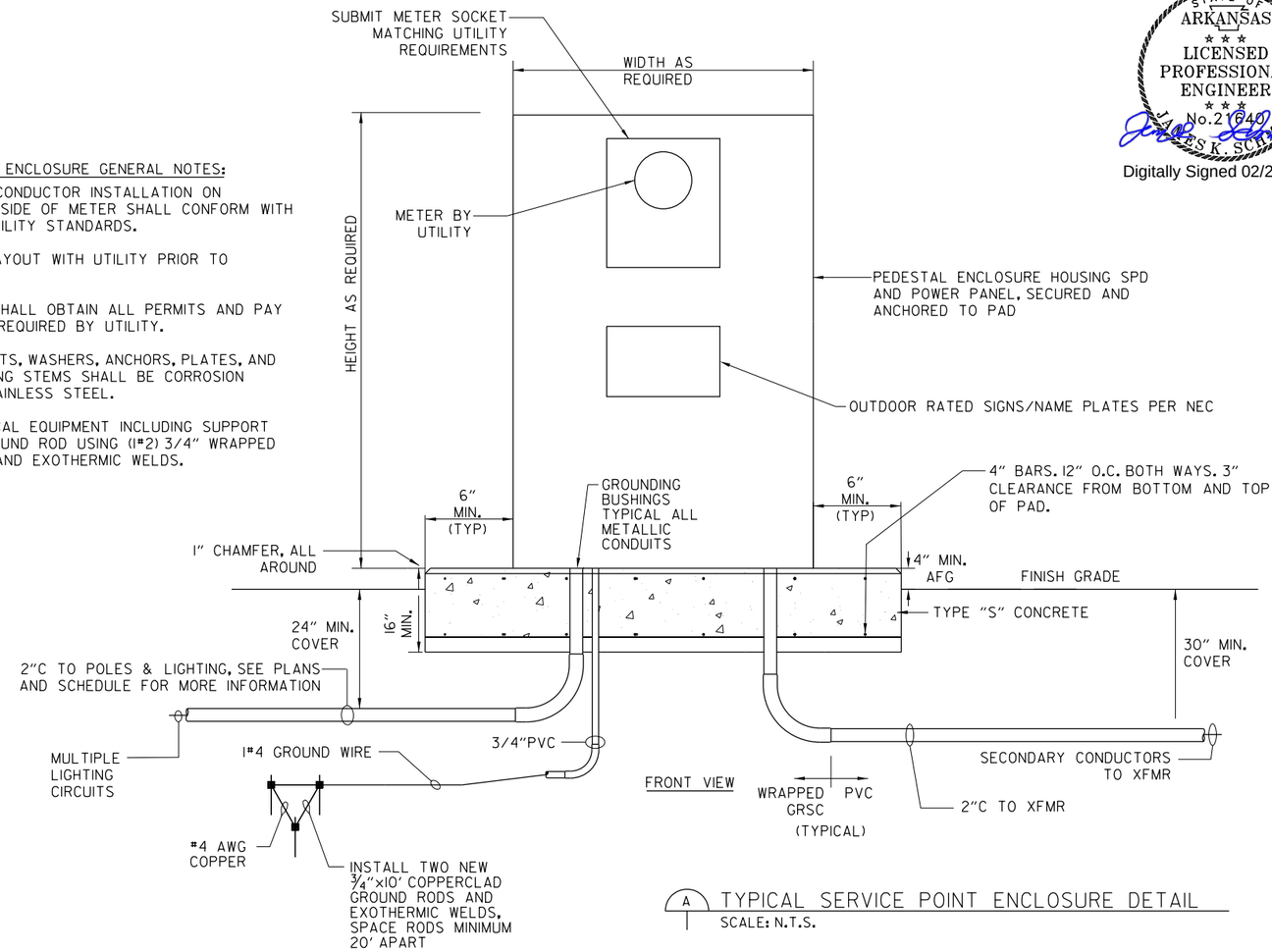
EQUIPMENT NAME PLATE NOTES:

1. INSTALL 2-PLEX ACRYLIC, WHITE ON BLACK CORE, MULTIPLE LINES TEXT, CUSTOM ENGRAVED NAME PLATES.
2. MOUNT WITH STAINLESS STEEL SCREWS.
3. SEAL SCREW HOLES WITH SILICONE RUBBER.
4. NAME PLATE INFORMATION SHALL INCLUDE:
   - A. IDENTIFICATION NAME
   - B. VOLTAGE SYSTEM
   - C. AMPACITY RATING AND TYPE
   - D. EQUIPMENT AIC RATING
   - E. FEEDER DESCRIPTION

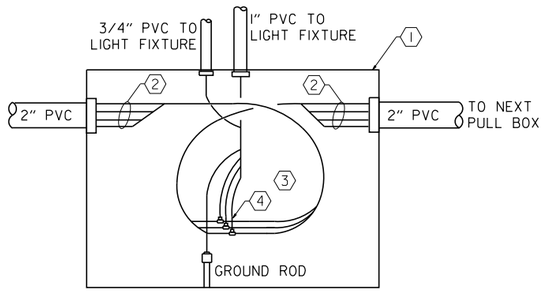
A ENGRAVED NAME PLATE AND SIGNAGE DETAIL
SCALE: N.T.S.

SERVICE POINT ENCLOSURE GENERAL NOTES:

1. CONDUIT AND CONDUCTOR INSTALLATION ON TRANSFORMER SIDE OF METER SHALL CONFORM WITH ELECTRICAL UTILITY STANDARDS.
2. COORDINATE LAYOUT WITH UTILITY PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED BY UTILITY.
4. ALL BOLTS, NUTS, WASHERS, ANCHORS, PLATES, AND OTHER MOUNTING STEMS SHALL BE CORROSION RESISTANT, STAINLESS STEEL.
5. BOND ELECTRICAL EQUIPMENT INCLUDING SUPPORT FRAME TO GROUND ROD USING (1*2) 3/4" WRAPPED GRS CONDUIT AND EXOTHERMIC WELDS.



A TYPICAL SERVICE POINT ENCLOSURE DETAIL
SCALE: N.T.S.



KEYED NOTES:

1. INSTALL TYPE "HD" PULL BOX AS PER ARDOT STANDARD SPECIFICATION 711 AND SP.
2. LOOP THE NEW LIGHTING CIRCUITS WITHIN EACH JUNCTION BOX, SLACK WIRE EQUAL TO ONE COMPLETE LOOP FOR FUTURE USE. NEATLY TRAIN AND LACE BRANCH CIRCUIT BUNDLES TOGETHER WITHIN THE BOX WITH A SEPARATE BUNDLE FOR EACH BRANCH CIRCUIT.
3. ALL CABLES, SPLICES, TERMINATIONS, ETC. SHALL BE RATED 600 VOLTS, WATERPROOF METHOD.
4. ALL CONDUCTORS SHALL BE CONTINUOUS FROM ORIGIN TO EQUIPMENT TERMINATION WITHOUT SPLICES. WHERE LIGHT FIXTURE TAPS ARE REQUIRED, TAPS SHALL BE MADE USING A SEALED, INSULATED PRESSURE CONNECTOR PROVIDING BOTH INSULATION AND JACKET EQUAL TO THE CABLE. CONNECTORS SHALL BE 600V RATED, 150 DEGREE C TEMPERATURE RATED, AND UL LISTED.

C INTERIOR PULLBOX VIEW
SCALE: N.T.S.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21640
JAMES K. SCHMITT
Digitally Signed 02/21/2024

WBCalloway 2/20/2024 9:45:57 AM
WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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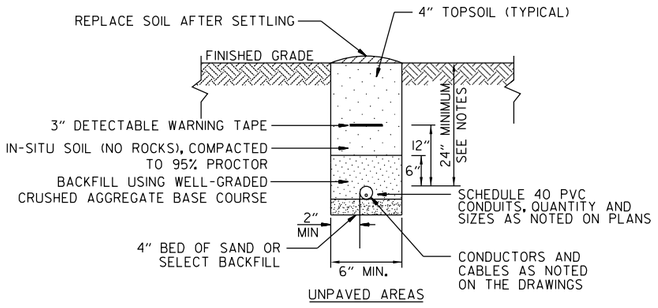
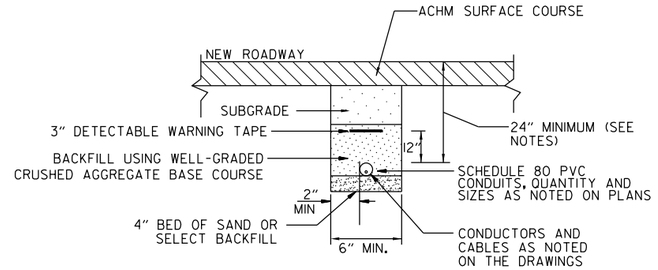
		ELECTRICAL DETAILS III				



UNPAVED AREAS



PAVED AREAS

ELECTRICAL DUCT NOTES:

1. CONTRACTOR SHALL STAKE THE DUCT INSTALLATION IN PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES. STAKING PLAN SHALL BE APPROVED BY OWNER AND ENGINEER PRIOR TO WORK.
2. CONTRACTOR SHALL ADJUST THE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING AND NEW UTILITIES.
3. SIMILAR CONSTRUCTION FOR OTHER DUCT SIZES.
4. INSTALL DUCT CONDUIT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING. UTILIZE LOCKING COLLARS OR HOLD DOWN BARS WITH ANCHORS TO PREVENT DUCT FLOTATION. (TYPICAL ALL DUCTS).
5. NO PVC SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB OR ENCASEMENT.
6. INSTALL CONDUCTORS AND CABLES AS NOTED ON DRAWING. INSTALL PULLWIRE IN ALL SPARE DUCTS/CONDUITS.
7. MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS, DRIVEWAYS AND PARKING LOTS SHALL BE 24".
8. VERTICAL AND HORIZONTAL DISTANCES BETWEEN CONDUITS SHALL BE 3" MINIMUM FOR DUCTS CONTAINING CIRCUITS OVER 600 VOLTS.
9. END BELLS OR COUPLINGS WITH REMOVABLE FACTORY PLUGS SHALL BE INSTALLED FLUSH WITH THE CONCRETE ENCASEMENT AT ACCESS POINTS.
10. ROCK REMOVAL SHALL BE CONSIDERED SUBSIDIARY TO DUCT INSTALLATION.

A NON-ENCASED ELECTRICAL DUCT BANK DETAILS
SCALE: N.T.S.

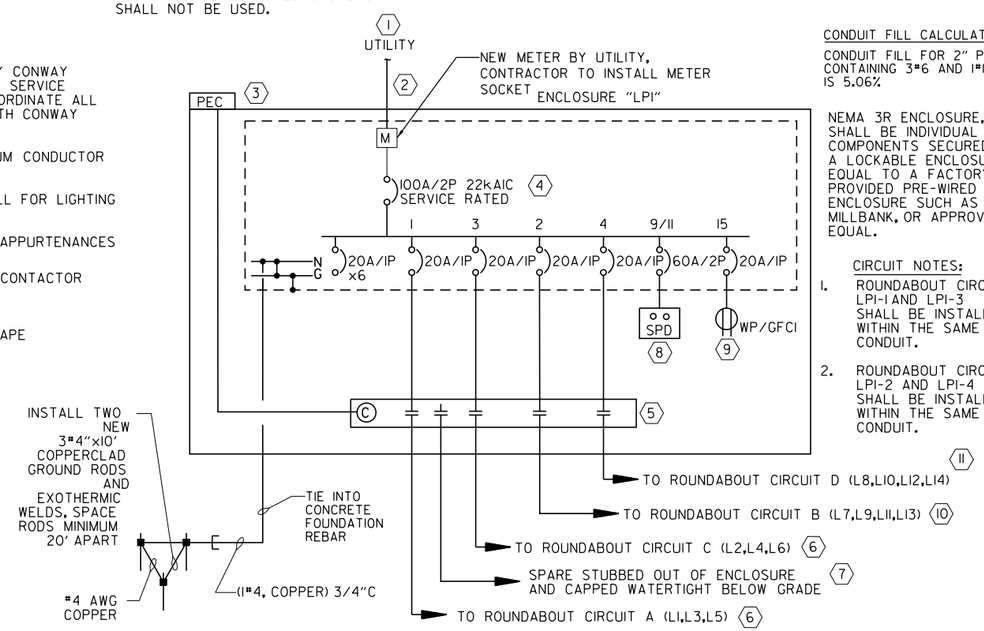
GENERAL NOTES

1. ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2023) NATIONAL ELECTRICAL CODE, NFPA 101 (2021) LIFE SAFETY CODE, STATE ELECTRICAL CODE, AND LOCAL ELECTRICAL CODE.
2. COORDINATE ELECTRICAL POWER SUPPLY WITH EQUIPMENT SUPPLIED.
3. COORDINATE ALL ELECTRICAL WORK AND POWER OUTAGES WITH CITY AND POWER UTILITY.
4. SERVICE WIRING SHALL BE MINIMUM TYPE THHN/THWN-2.
5. FEEDER AND BRANCH WIRING SHALL BE MINIMUM TYPE THHN/THWN-2.
6. EQUIPMENT SHORT CIRCUIT CURRENT RATINGS AND AVAILABLE INTERRUPTING CURRENT RATINGS SHALL BE FULLY RATED TO INTERRUPT SYMMETRICAL SHORT CIRCUIT CURRENT AVAILABLE AT TERMINALS. SERIES RATED SYSTEMS SHALL NOT BE USED.
7. NEUTRAL BUSES SHALL BE COPPER 100% RATED UNLESS OTHERWISE NOTED.
8. GROUND BUSES SHALL BE COPPER UNLESS OTHERWISE NOTED.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUITS.
10. INSTALL ALL CONDUCTORS AND CABLES IN CONDUIT UNLESS OTHERWISE NOTED.
11. INSTALL LUGS AND JUNCTION BOXES AS REQUIRED TO FIT WIRING.
12. INSTALL NEW TYPED PANEL SCHEDULES IN ALL ELECTRICAL PANELS INDICATING WORK PERFORMED.
13. THE POWER UTILITY POINT OF CONTACT IS DALE GOTTSPONER, CONWAY CORPORATION, PHONE NUMBER 501-450-6049.
14. CONDUIT FILL IS PER NEC 2023 CHAPTER 9 CALCULATIONS AND TABLES.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21040
JAMES K. SCHMIDT
Digitally Signed 06/10/2024

KEYED NOTES:

1. UTILITY TRANSFORMER BY CONWAY CORPORATION. SECONDARY SERVICE 240/120V, 1PHASE, 3W, COORDINATE ALL WORK AND EQUIPMENT WITH CONWAY CORPORATION
2. 3#2, 2"C, UTILIZE ALUMINUM CONDUCTOR FOR SERVICE
3. WEATHERPROOF PHOTOCELL FOR LIGHTING CONTROL
4. 100A PANEL BOARD AND APPURTENANCES WITH ENCLOSURE
5. TEN POLE 30A LIGHTING CONTACTOR
6. 2#10, 1#10 EGC, 2"C.
7. 2" CONDUIT WITH PULL TAPE
8. 3#6, 3/4"C.
9. 2#12, 1#12 EGC, 3/4"C.
10. 2#8, 1#8 EG, 2"C
11. 2#6, 1#6 EGC, 2"C.



C PROPOSED ONE LINE DIAGRAM FOR ROUNDABOUT LIGHTING
SCALE: N.T.S.

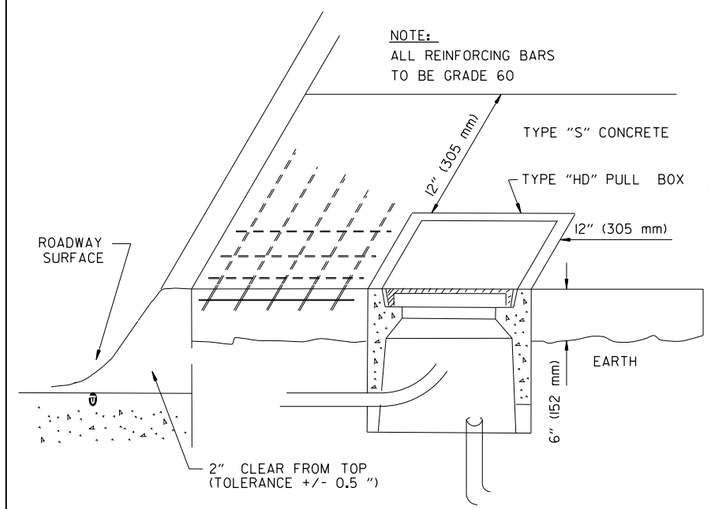
CONDUIT FILL CALCULATIONS:

CONDUIT FILL FOR 2" PVC CONTAINING 3#6 AND 1#10 EGC IS 5.06%

NEMA 3R ENCLOSURE, SHALL BE INDIVIDUAL COMPONENTS SECURED IN A LOCKABLE ENCLOSURE EQUAL TO A FACTORY PROVIDED PRE-WIRED ENCLOSURE SUCH AS MILLBANK, OR APPROVED EQUAL.

CIRCUIT NOTES:

1. ROUNDABOUT CIRCUIT LPI-1 AND LPI-3 SHALL BE INSTALLED WITHIN THE SAME 2" CONDUIT.
2. ROUNDABOUT CIRCUIT LPI-2 AND LPI-4 SHALL BE INSTALLED WITHIN THE SAME 2" CONDUIT.



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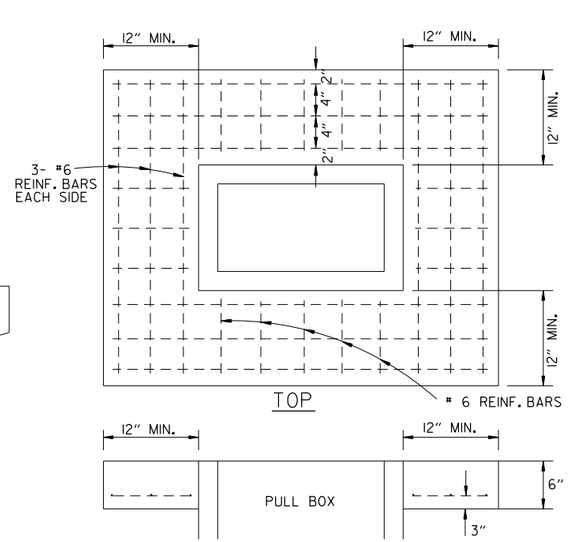

ELEVATION

B TYPE "HD" CONCRETE PULL BOX DETAIL
SCALE: N.T.S.

NOTES:

1. ALL TYPE HD PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" (305 MM) WIDE AND 6" (152 MM) IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD PULL BOX. PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S." THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE PULL BOX ARE REQUIRED IN CONCRETE.
2. UL LISTED PULL BOX AND EXTRA HEAVY-DUTY COVER SHALL BE DESIGNED FOR A TEST LOAD OF 33,750 LBS AND A DESIGN LOAD OF 22,500 LBS.
3. PULL BOX INTERIOR DIMENSIONS SHALL BE 24"L x 18"W x 18"D (OPEN BOTTOM).
4. PROVIDE MINIMUM 3' SLACK CABLE LOOP FOR EACH CABLE.
5. COLOR CODE, TAG AND IDENTIFY ALL CABLES IN UL LISTED PULL BOX.
6. EXACT LOCATION OF EACH UL LISTED PULL BOX SHALL BE APPROVED BY THE OWNER AND ENGINEER.

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WORKSPACE: AHTD
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REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6/10/2024		6	ARK.	080634	44	80
		ELECTRICAL DETAILS IV				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21640
JAMES K. SCHMITT
Digitally Signed 06/10/2024

PANEL NAME:	VOLTAGE	PHASE:	WIRE:	NEUTRAL RATING:	PANEL DESCRIPTION:
LP1	**120/240**	**1**	**3**	**100%**	**Lighting Panel**
MAINS:	MOUNTING:	MAX. NO. OF CIRCUITS:	MANUFACTURER:	PANEL A.I.C. RATING:	LOCATION:
100A MCB	**Surface**	**16**		**22,000**	**Exterior Pedestal**

NO	DESCRIPTION	BRANCH POLES	BRANCH BKR	WIRE (AWG)	VA L1	VA L2		Load Type	Load Type	VA L1	VA L2		WIRE (AWG)	BRANCH BKR	BRANCH POLES	DESCRIPTION	NO.
1	ROUNDABOUT CIRCUIT A (L1.L3,L5)	1	20	10	474			L	L	632			8	20	1	ROUNDABOUT CIRCUIT C (L2,L4,L6)	2
3	ROUNDABOUT CIRCUIT B (L7.L9,L11,L13)	1	20	10		474		L	L		632		6	20	1	ROUNDABOUT CIRCUIT D (L8,L10,L12,L14)	4
5	SPARE	1	20	-				-	-				-	20	1	SPARE	6
7	SPARE	1	20	-				-	-				-	20	1	SPARE	8
9	SPD	2	60	6				E	-				-	-	-	SPACE	10
11		-	-	6				E	-				-	-	-	SPACE	12
13	SPARE	1	20	-				-	-				-	-	-	SPACE	14
15	GFCI RECEPTACLE	1	20	12				R	-				-	-	-	SPACE	16

Description	Code	L1	L2		Total SUM	%
LIGHTING	L	1106	1106		2212	100
RECEPT	R	0	0		0	0
EQUIP.	E	0	0		0	0
OTHER		0	0		0	0
HVAC	H	0	0		0	0
CUSTOM	HC	0	0		0	0
ADDITIONAL		0	0		0	0
TOTAL		1106	1106		2212	
DEMAND		1106	1106		2212	100
%		50	50			

Design Load (kVA)
2.77
0.00
0.00
0.00
0.00
0.00
0.00
2.77

Spare 15%

Total Connected Load
9.2 Amps 2.21 kVA

Total Design Load *
13.6 Amps 3.25 kVA

* Total Design Load includes calculated Design Loads per NEC Demand Factors and the stated Spare Capacity.

VOLTAGE DROP CALCULATIONS

Panel ID	Location Description	# of Sets	Wire Size	One-Way Length (ft)	Line Current (Amps)	Voltage (Line-to-Line)	Phase	Power Factor (100% or 85%)	Wire Type	Conduit Type	Impedance (Ω/1000 ft)	Voltage Drop (Volts)	%VD
LP1-A	LP1-L4	1	10	55	3.96	120	1	85%	Copper	PVC	**1.1**	**0.47916**	**0.40%**
LP1-A	L4-L5	1	10	140	1.32	120	1	85%	Copper	PVC	**1.1**	**0.40656**	**0.34%**
LP1-A	L4-L3	1	10	175	2.64	119	1	85%	Copper	PVC	**1.1**	**1.0164**	**0.85%**
LP1-A	L3-L1	1	10	300	1.32	118	1	85%	Copper	PVC	**1.1**	**0.8712**	**0.74%**
												Total %VD	***2.33%***

Project: 17017654

VOLTAGE DROP CALCULATIONS

Panel ID	Location Description	# of Sets	Wire Size	One-Way Length (ft)	Line Current (Amps)	Voltage (Line-to-Line)	Phase	Power Factor (100% or 85%)	Wire Type	Conduit Type	Impedance (Ω/1000 ft)	Voltage Drop (Volts)	%VD
LP1-C	LP1-L4	1	10	55	3.96	120	1	85%	Copper	PVC	**1.1**	**0.47916**	**0.40%**
LP1-C	L4-L6	1	10	260	1.32	120	1	85%	Copper	PVC	**1.1**	**0.75504**	**0.63%**
LP1-C	L4-L2	1	10	340	1.32	119	1	85%	Copper	PVC	**1.1**	**0.98736**	**0.83%**
												Total %VD	***1.86%***

Project: 17017654

VOLTAGE DROP CALCULATIONS

Panel ID	Location Description	# of Sets	Wire Size	One-Way Length (ft)	Line Current (Amps)	Voltage (Line-to-Line)	Phase	Power Factor (100% or 85%)	Wire Type	Conduit Type	Impedance (Ω/1000 ft)	Voltage Drop (Volts)	%VD
LP1-B	LP1-L7	1	8	110	5.28	120	1	85%	Copper	PVC	**0.69**	**0.801504**	**0.67%**
LP1-B	L7-L9	1	8	190	3.96	119	1	85%	Copper	PVC	**0.69**	**1.038312**	**0.87%**
LP1-B	L9-L11	1	8	225	2.64	118	1	85%	Copper	PVC	**0.69**	**0.81972**	**0.69%**
LP1-B	L11-L13	1	8	270	1.32	117	1	85%	Copper	PVC	**0.69**	**0.491832**	**0.42%**
												Total %VD	***2.65%***

Project: 17017654

VOLTAGE DROP CALCULATIONS

Panel ID	Location Description	# of Sets	Wire Size	One-Way Length (ft)	Line Current (Amps)	Voltage (Line-to-Line)	Phase	Power Factor (100% or 85%)	Wire Type	Conduit Type	Impedance (Ω/1000 ft)	Voltage Drop (Volts)	%VD
LP1-D	LP1-PB	1	6	155	5.28	120	1	85%	Copper	PVC	**0.44**	**0.720192**	**0.60%**
LP1-D	PB-L8	1	6	115	1.32	119	1	85%	Copper	PVC	**0.44**	**0.133584**	**0.11%**
LP1-D	PB-PB	1	6	285	3.96	119	1	85%	Copper	PVC	**0.44**	**0.993168**	**0.83%**
LP1-D	PB-L10	1	6	50	1.32	118	1	85%	Copper	PVC	**0.44**	**0.05808**	**0.05%**
LP1-D	PB-L12	1	6	230	2.64	118	1	85%	Copper	PVC	**0.44**	**0.534336**	**0.45%**
LP1-D	L12-L14	1	6	260	1.32	118	1	85%	Copper	PVC	**0.44**	**0.302016**	**0.26%**
												Total %VD	***2.30%***

Project: 17017654

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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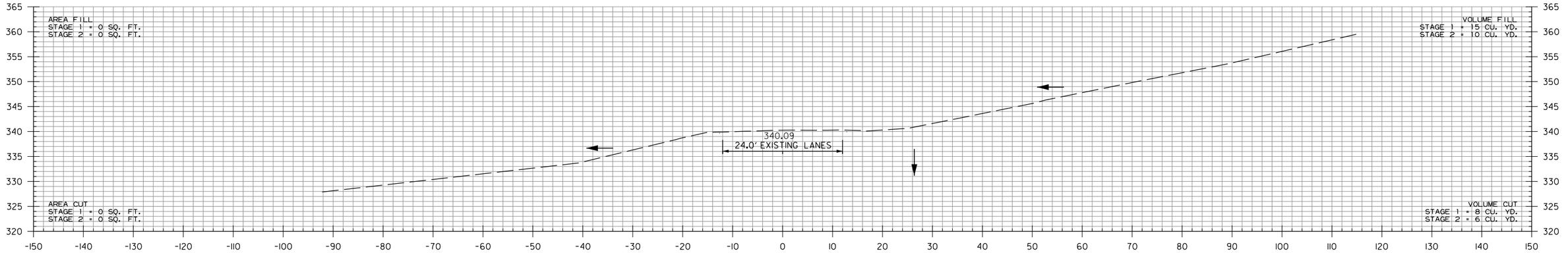
		CROSS SECTIONS				



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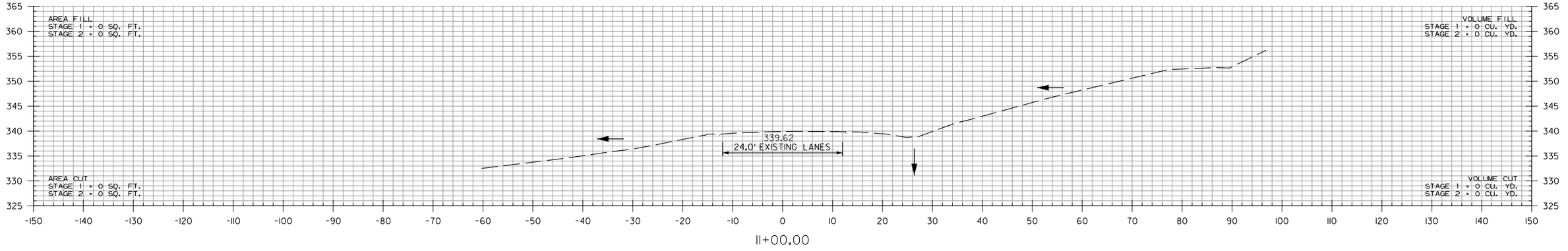

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STA. 11+00.00 BEGIN VERTICAL TRANSITION

HWY. 64
STA. 11+00 TO STA. 11+50

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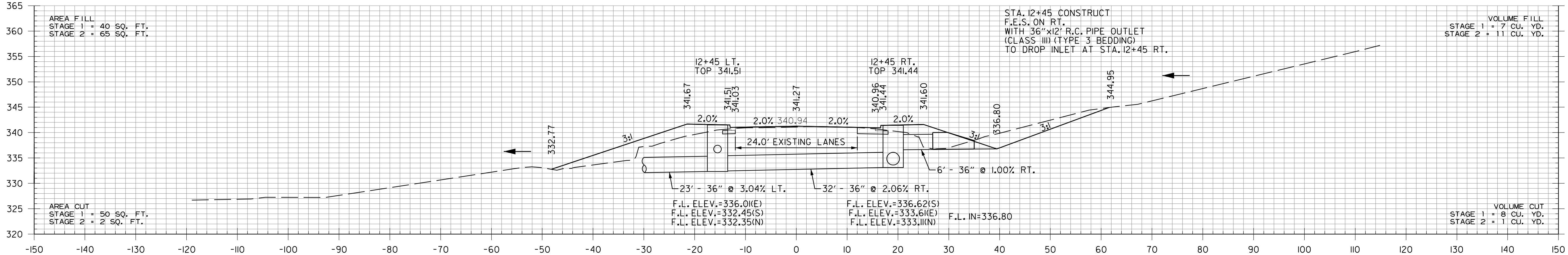
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	46	80
		CROSS SECTIONS				

STA. 12+45
BEGIN SP. DT. RT. 9.94%
ELEV. 336.80

STA. 12+45 CONSTRUCT
JUNCTION BOX ON LT. H=9'-2"
WITH 36"x23' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO F.E.S. AT STA. 12+52 LT.
TYPE E JUNCTION BOX = 4'-6"x3'

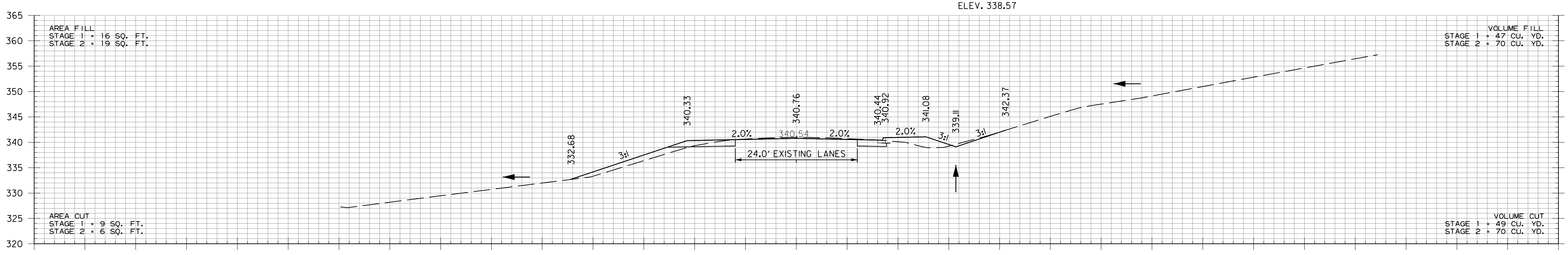
STA. 12+45 CONSTRUCT
DROP INLET ON RT. H=8'-4" W/ 4' EXT.
WITH 36"x32' R.C. PIPE OUTLET
(CLASS III) (TYPE 2 BEDDING)
TO JUNCTION BOX AT STA. 12+45 LT.
TYPE C DROP INLET = 4'x4'
TYPE MO DROP INLET = 6' DIA.



STA. 12+45
END SP. DT. RT. -9.83%
ELEV. 336.80

STA. 12+27
BEGIN SP. DT. RT. -9.83%
ELEV. 338.57

STA. 12+27
END SP. DT. RT. -2.00%
ELEV. 338.57



STA. 11+93
BEGIN SP. DT. RT. -2.00%
ELEV. 339.25

STA. 12+00.00 BEGIN JOB 080634
STA. 12+00.00 END VERTICAL TRANSITION

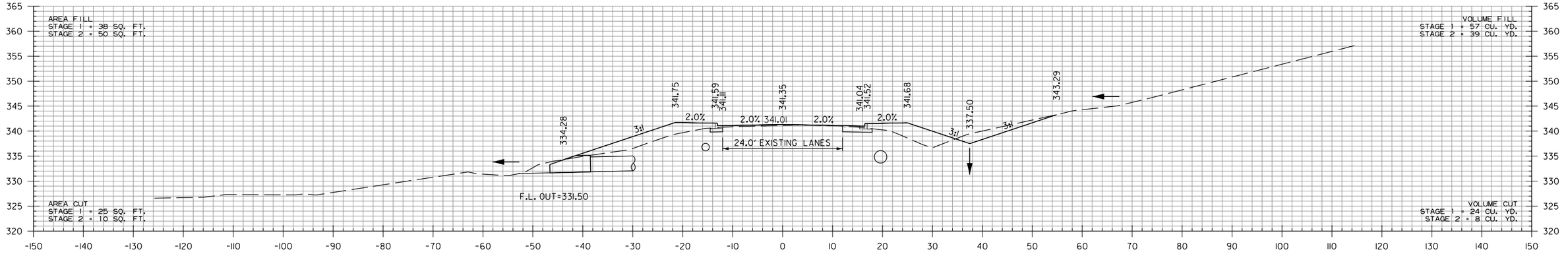
HWY. 64
STA. 12+00 TO STA. 12+45

WBCalloway 2/20/2024 9:46:15 AM
WORKSPACE: AHTD
L:\2017\7017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

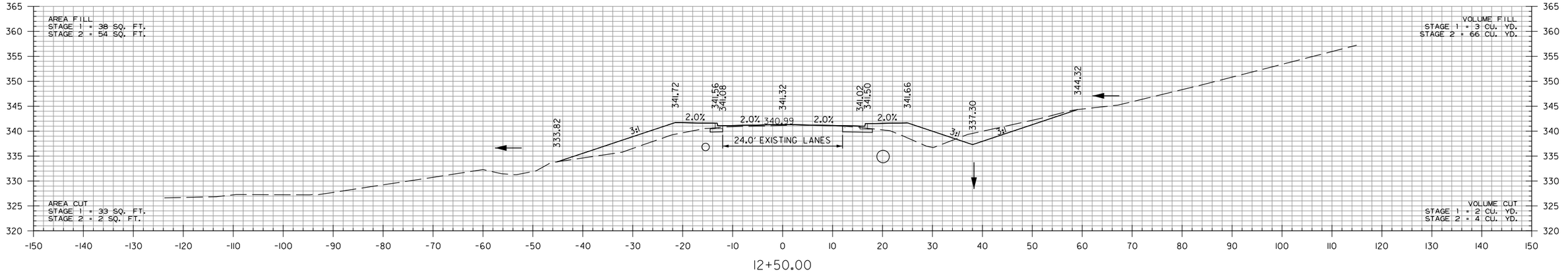
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	47	80
		CROSS SECTIONS				

STA. 12+62
BEGIN SP. DT. RT. 2.00%
ELEV. 338.49

STA. 12+62
END SP. DT. RT. 9.94%
ELEV. 338.49



12+52.00



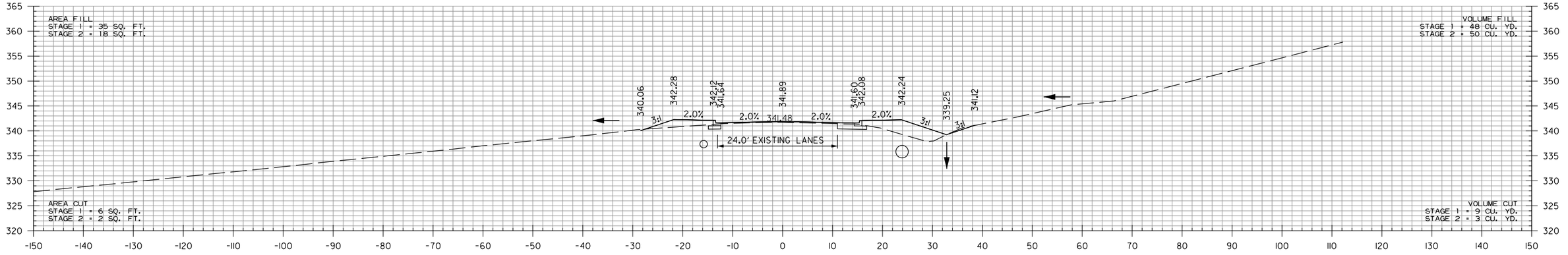
12+50.00

HWY. 64
STA. 12+50 TO STA. 12+52

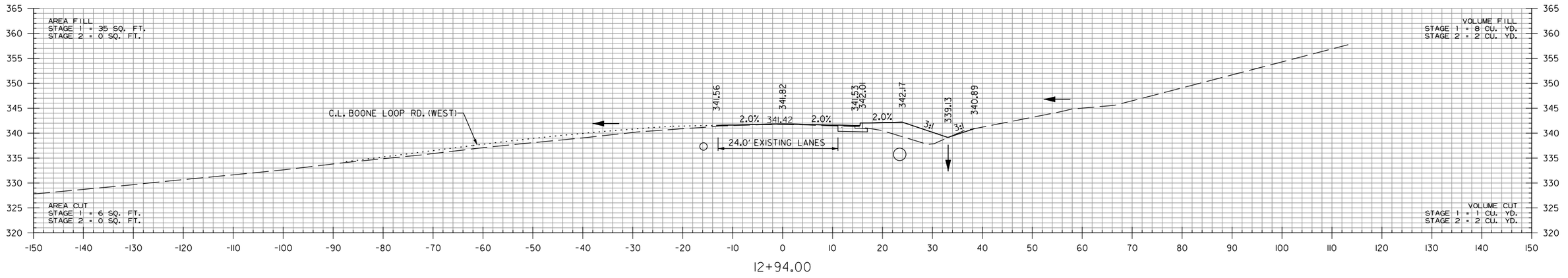
WBCallaway 2/20/2024 9:46:15 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	48	80
		CROSS SECTIONS				

STA. 13+00
END SP. DT. RT. 2.00%
ELEV. 339.25



13+00.00

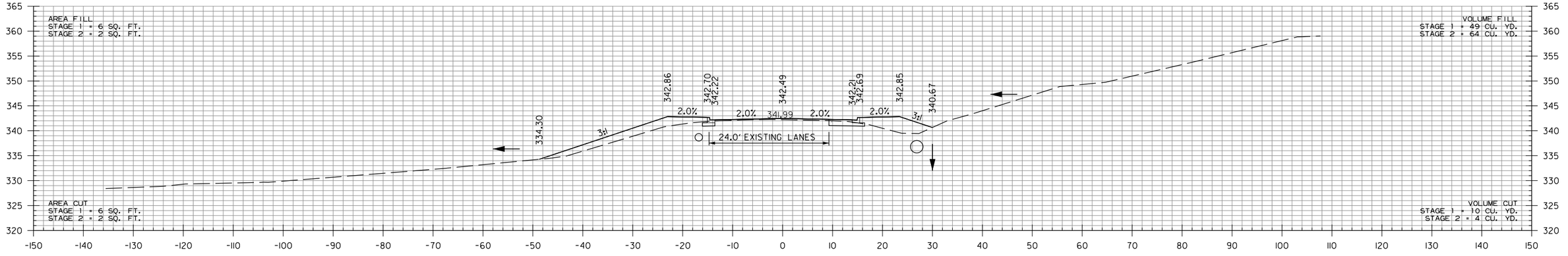


12+94.00

HWY. 64
STA. 12+94 TO STA. 13+00

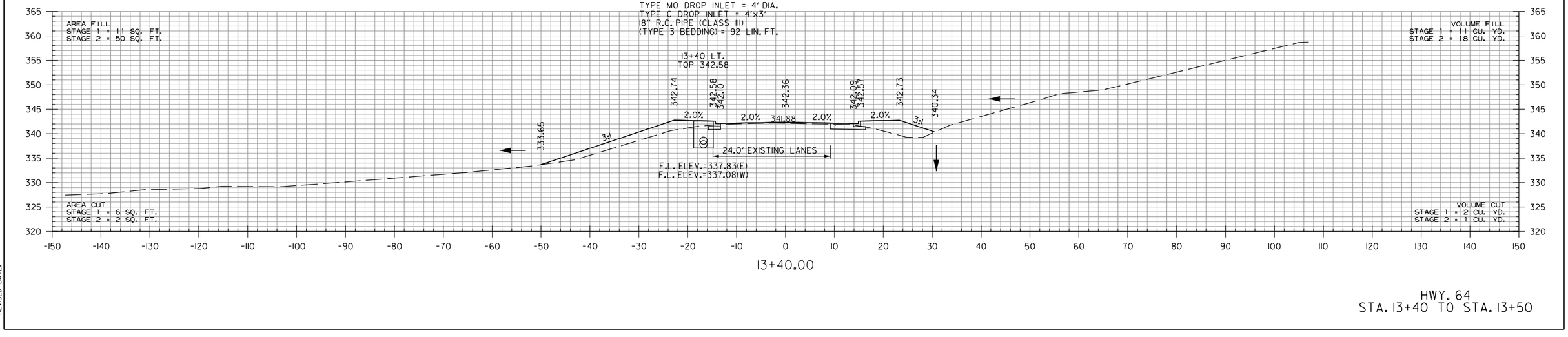
WBCallaway 2/20/2024 9:46:15 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r-080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	49	80
		CROSS SECTIONS				



13+50.00

STA. 13+40 CONSTRUCT
DROP INLET ON LT. H=5'-6" W/ 4' EXT.
WITH 18"x92' PIPE OUTLET
TO JUNCTION BOX AT STA. 12+45 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 92 LIN. FT.

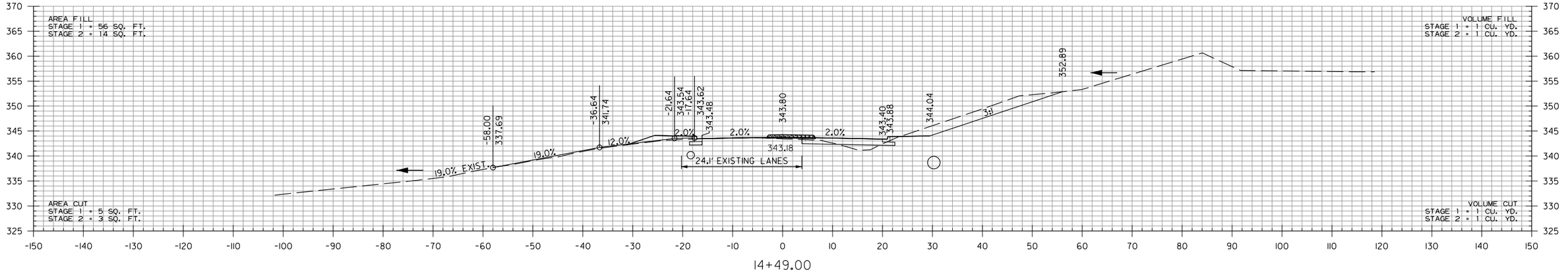


13+40.00

HWY. 64
STA. 13+40 TO STA. 13+50

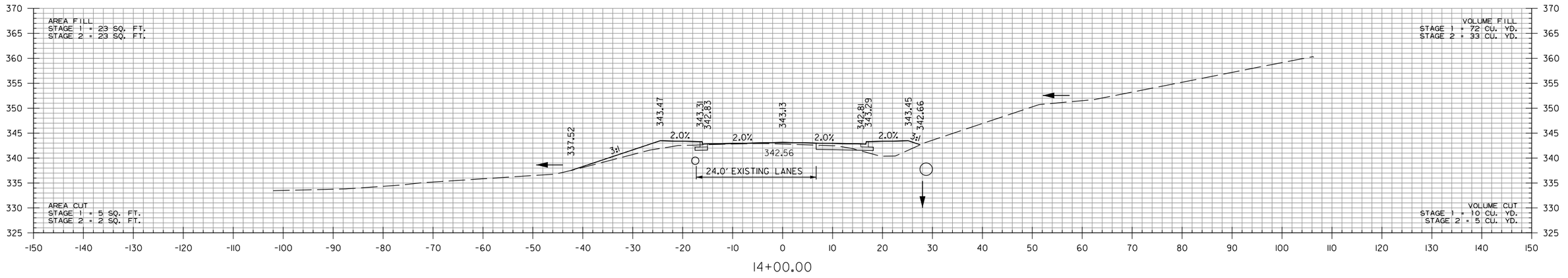
WBCallaway 2/20/2024 9:46:15 AM
WORKSPACE: AHTD
L:\20\7\0\7\654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	50	80
		CROSS SECTIONS				



14+49.00

STA. 14+49.00 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.

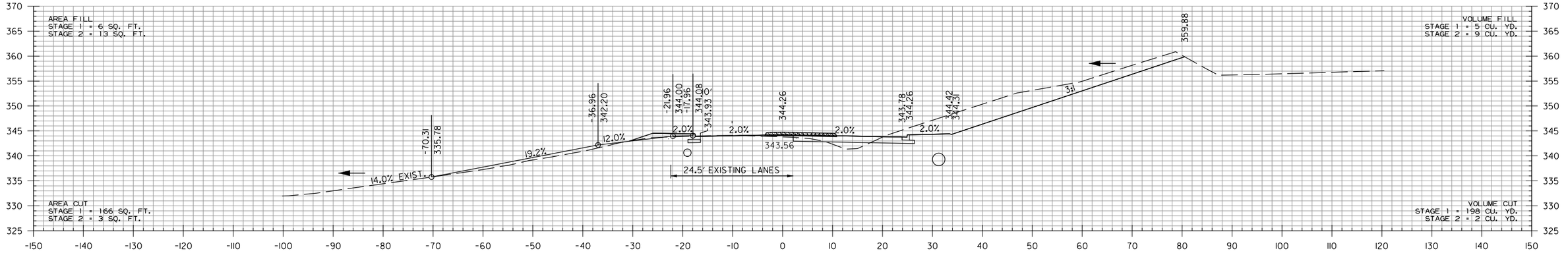


14+00.00

HWY. 64
STA. 14+00 TO STA. 14+49

WBCallaway 2/20/2024 9:46:15 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	51	80
		CROSS SECTIONS				

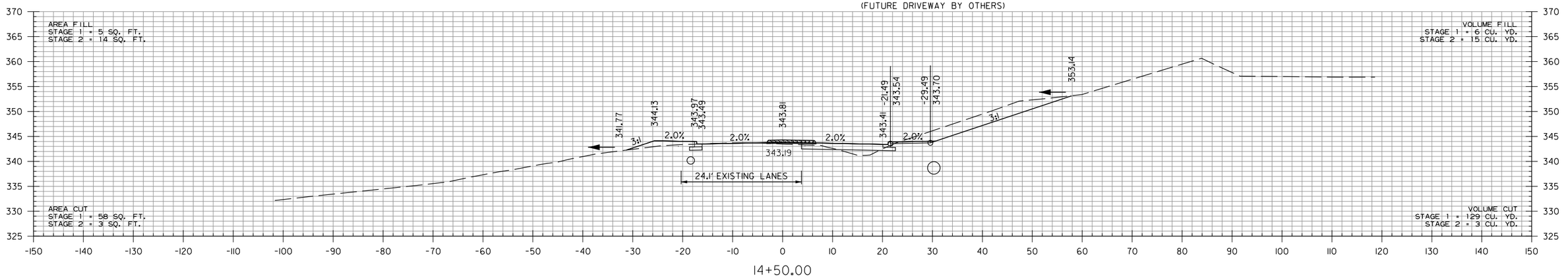


14+81.00

STA. 14+81.00 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.

STA. 14+80
BEGIN SP. DT. RT. -9.08%
ELEV. 344.40

STA. 14+50 CONSTRUCT
APPROACH APRON RT.
(FUTURE DRIVEWAY BY OTHERS)



14+50.00

HWY. 64
STA. 14+50 TO STA. 14+81

WBCallaway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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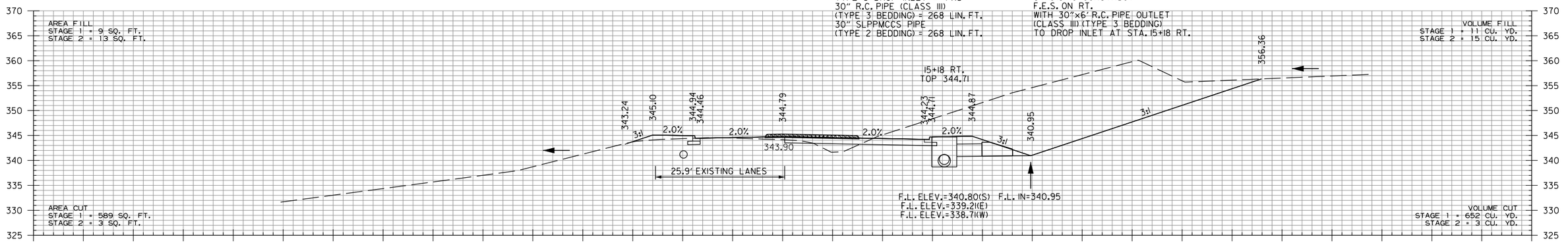
REVISED DATE:

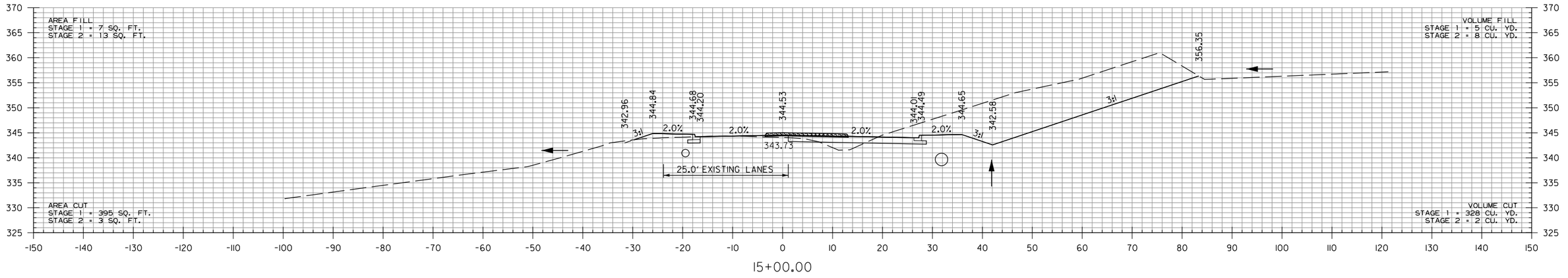
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	52	80
		CROSS SECTIONS				

STA. 15+18
BEGIN SP. DT. RT. 5.63%
ELEV. 340.95

STA. 15+18 CONSTRUCT
DROP INLET ON RT. H=6'-0" W/ 4' EXT.
WITH 30"x268' R.C. PIPE OUTLET
TO DROP INLET AT STA. 12+45 RT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4'x5'
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 268 LIN. FT.
30" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 268 LIN. FT.

STA. 15+18 CONSTRUCT
F.E.S. ON RT.
WITH 30"x6' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 15+18 RT.

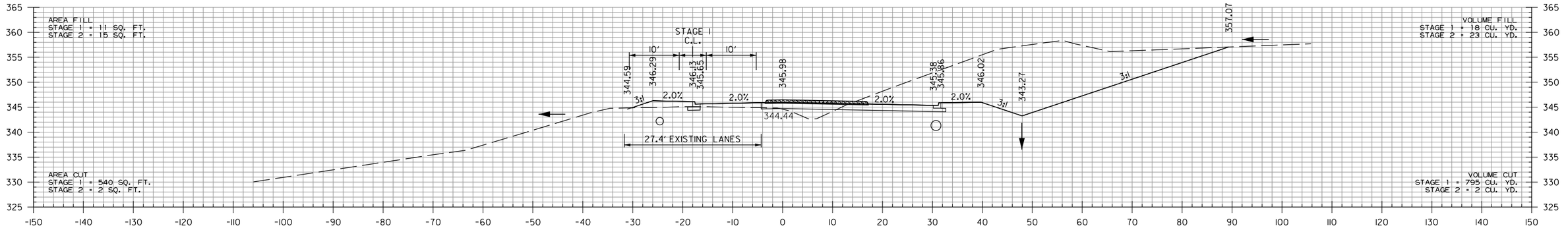




HWY. 64
STA. 15+00 TO STA. 15+18

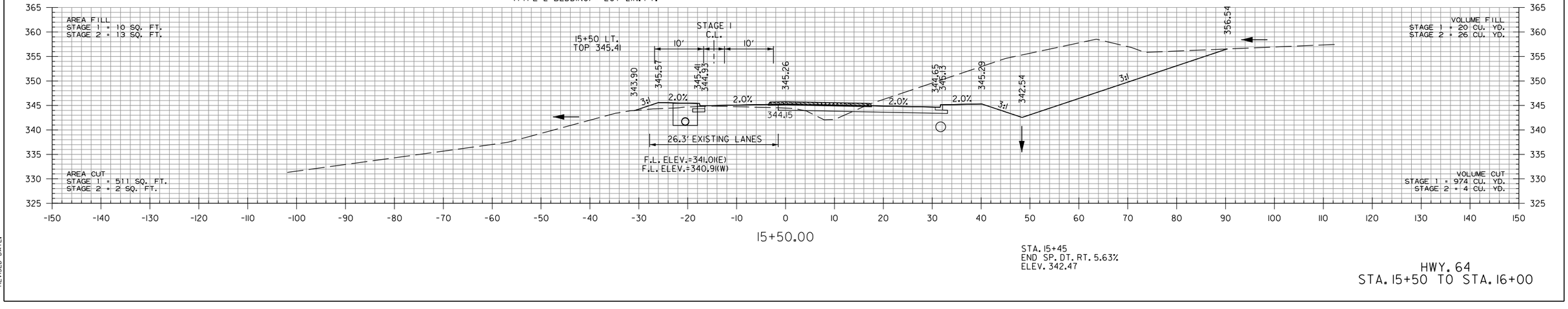
WBCallaway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	53	80
		CROSS SECTIONS				



16+00.00

STA. 15+50 CONSTRUCT
DROP INLET ON LT. H=4'-6" W/ 4' EXT.
WITH 18"x207' PIPE OUTLET
TO DROP INLET AT STA. 13+40 LT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4'x5'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 207 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 207 LIN. FT.



15+50.00

STA. 15+45
END SP. DT. RT. 5.63%
ELEV. 342.47

HWY. 64
STA. 15+50 TO STA. 16+00

WBCallaway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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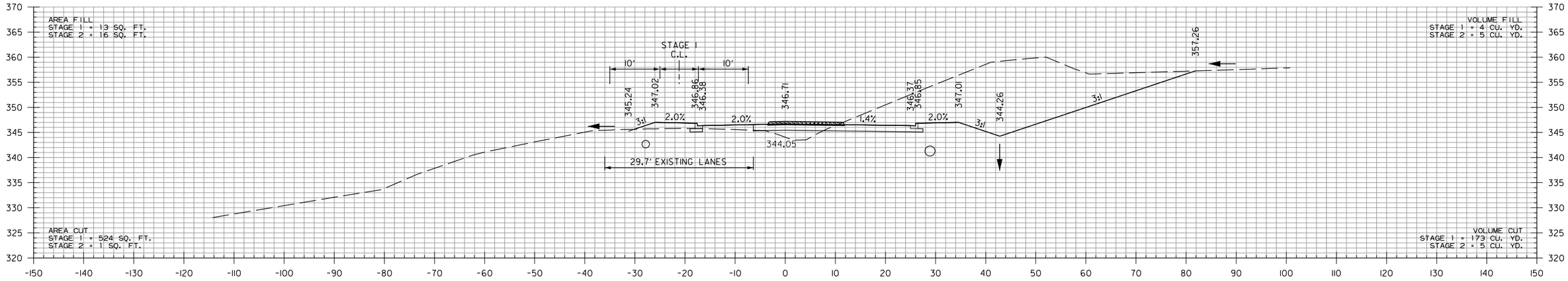
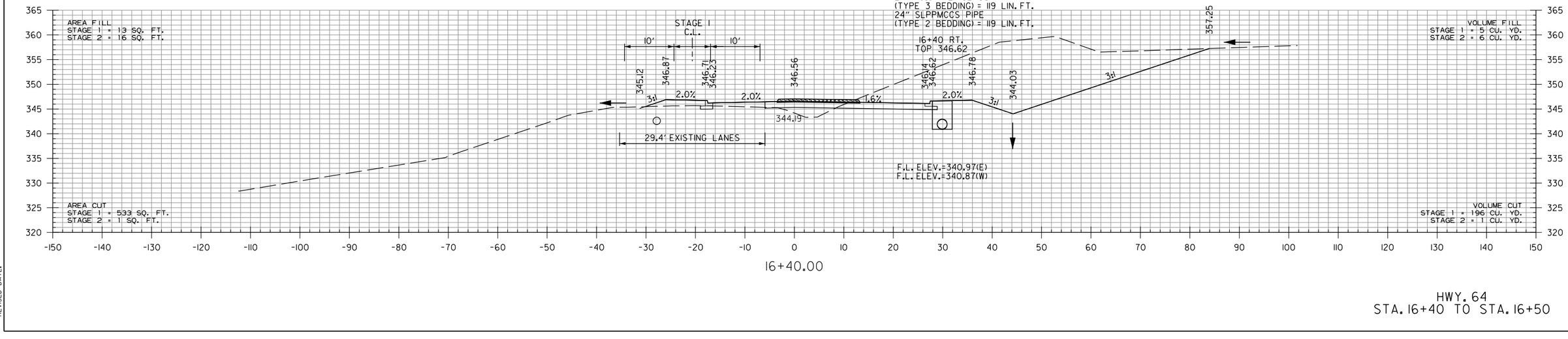
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	54	80
		CROSS SECTIONS				



16+50.00

STA. 16+40 CONSTRUCT
DROP INLET ON RT. H=5'-9" W/ 4' EXT.
WITH 24"x119' PIPE OUTLET
TO DROP INLET AT STA. 15+18 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 119 LIN. FT.
24" SLPPMCGS PIPE
(TYPE 2 BEDDING) = 119 LIN. FT.

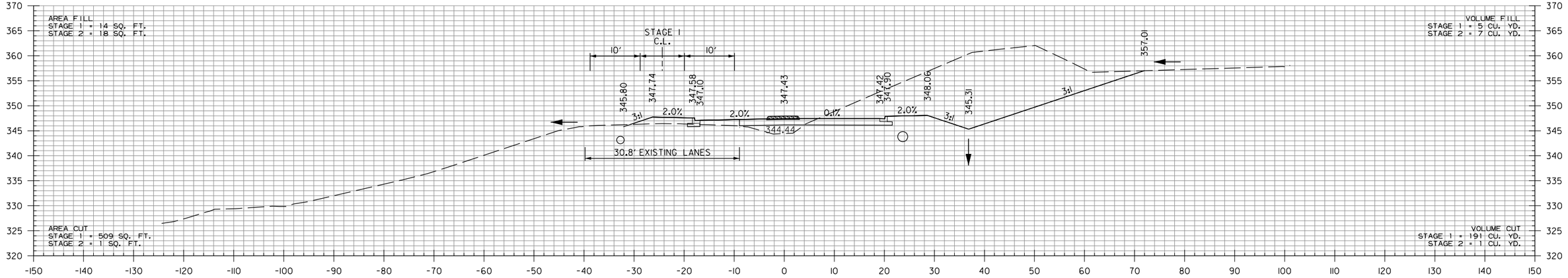


16+40.00

HWY. 64
STA. 16+40 TO STA. 16+50

WBCallaway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
L:\2017\170T654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

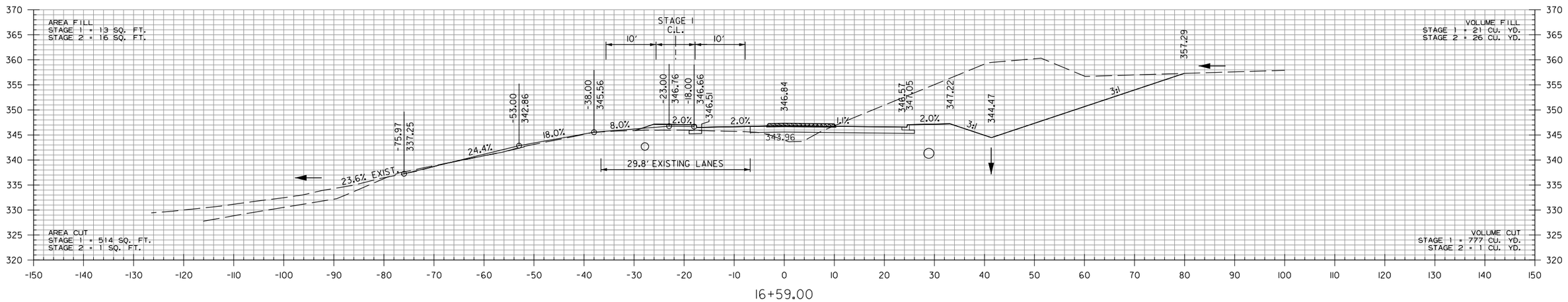
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	55	80
		CROSS SECTIONS				



17+00.00

NOTE:

DUE TO SKEW, EXISTING AND PROPOSED GRADES FOLLOW CENTER OF DRIVEWAY BEYOND EDGE OF CURB



16+59.00

STA. 16+59.00 CONSTRUCT APPROACH ON LT. = 15 CU. YDS.

HWY. 64
STA. 16+59 TO STA. 17+00

WBCallaway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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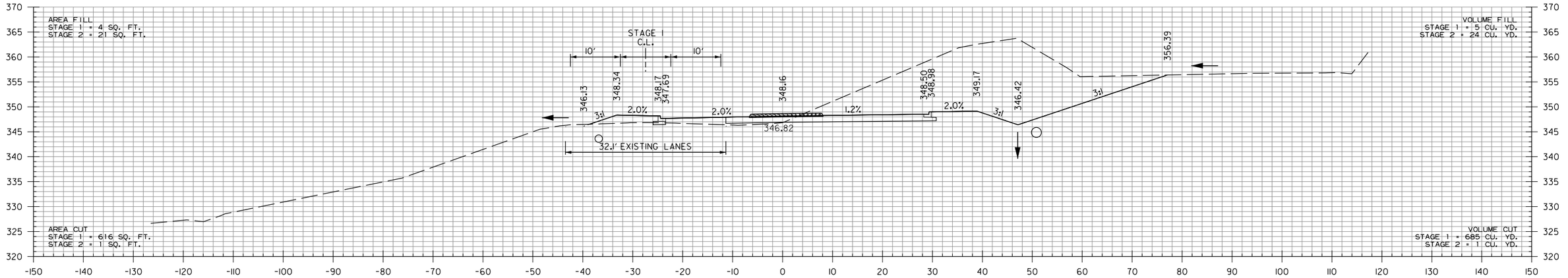
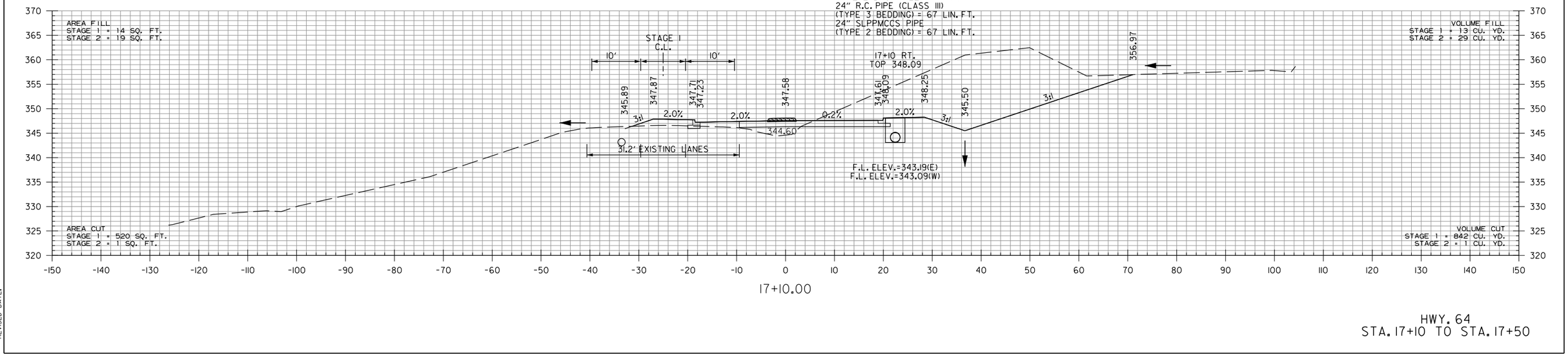
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	56	80
		CROSS SECTIONS				



17+50.00

STA. 17+10 CONSTRUCT
JUNCTION BOX ON RT. H=5'-0"
WITH 24"x67' PIPE OUTLET
TO DROP INLET AT STA. 16+40 RT.
TYPE E DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 67 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 67 LIN. FT.



17+10.00

HWY. 64
STA. 17+10 TO STA. 17+50

WBCalloway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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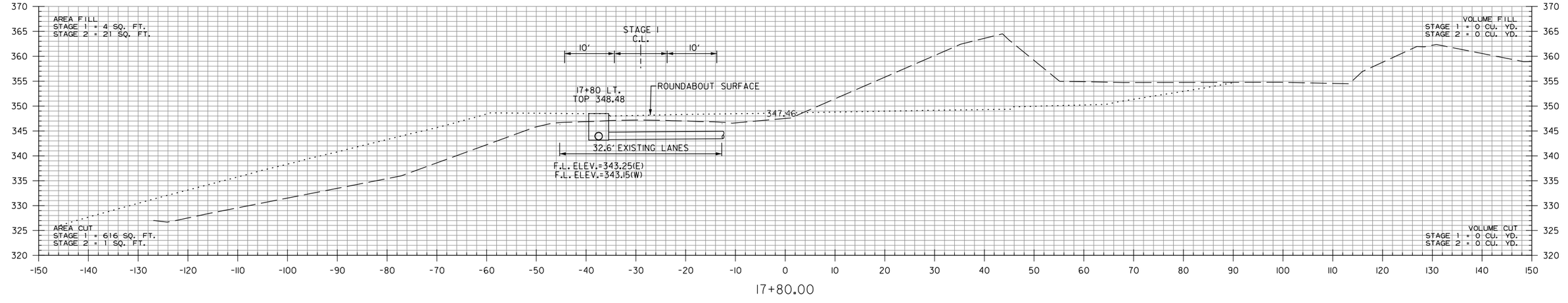
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	57	80
		CROSS SECTIONS				

STA. 17+80 CONSTRUCT
DROP INLET ON LT. H=5'-4" W/ 8' EXT.
WITH 18"x226' PIPE OUTLET
TO DROP INLET AT STA. 15+50 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 226 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 226 LIN. FT.



17+80.00

STA. 17+74.93 BEGIN ROUNDABOUT

HWY. 64
STA. 17+80 TO STA. 17+80

WBCallaway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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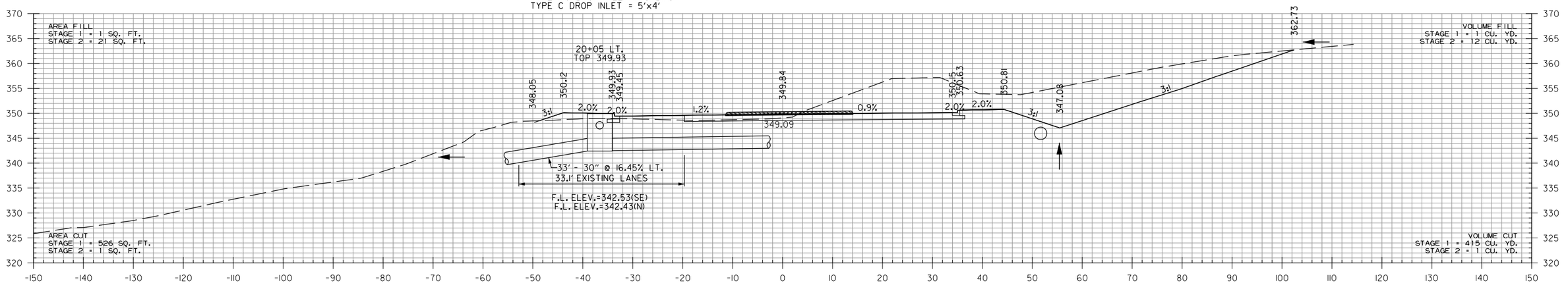
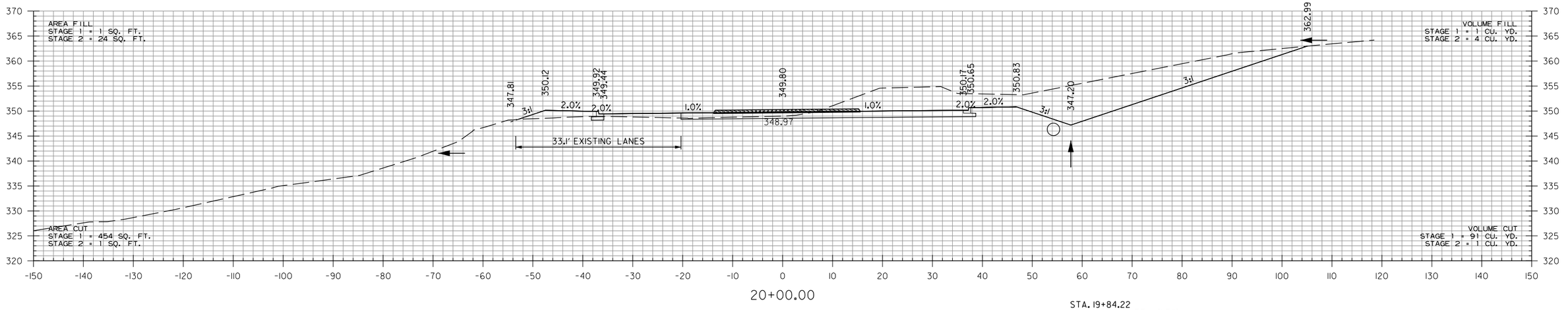
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	58	80
		CROSS SECTIONS				

STA. 20+05 CONSTRUCT
DROP INLET ON LT. H=7'-6" W/ 4' EXT.
WITH 30"x33' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO F.E.S. AT STA. 20+23 LT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 5'x4'



20+05.00



20+00.00

STA. 19+94.50 END ROUNDABOUT

STA. 19+84.22
BEGIN SP. DT. RT. -2.34%
ELEV. 347.57

HWY. 64
STA. 20+00 TO STA. 20+05

WBCalloway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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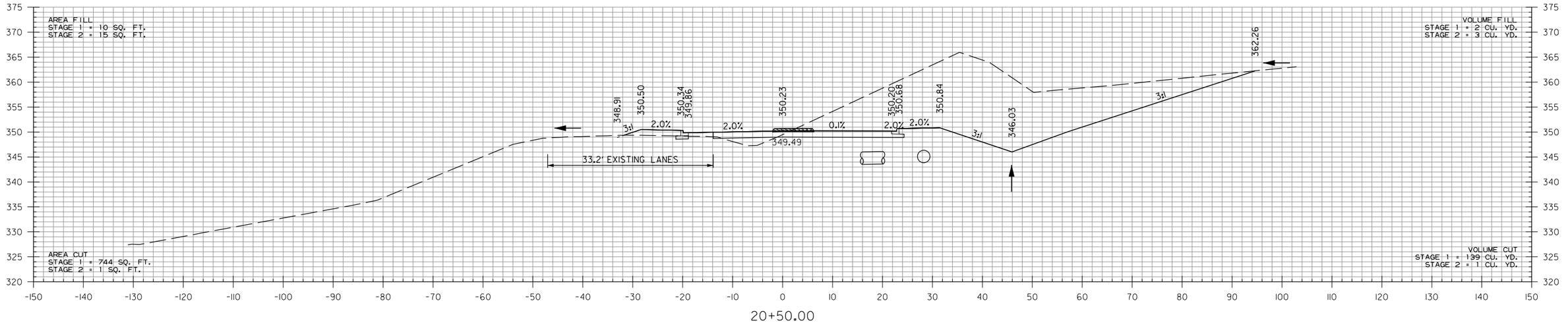
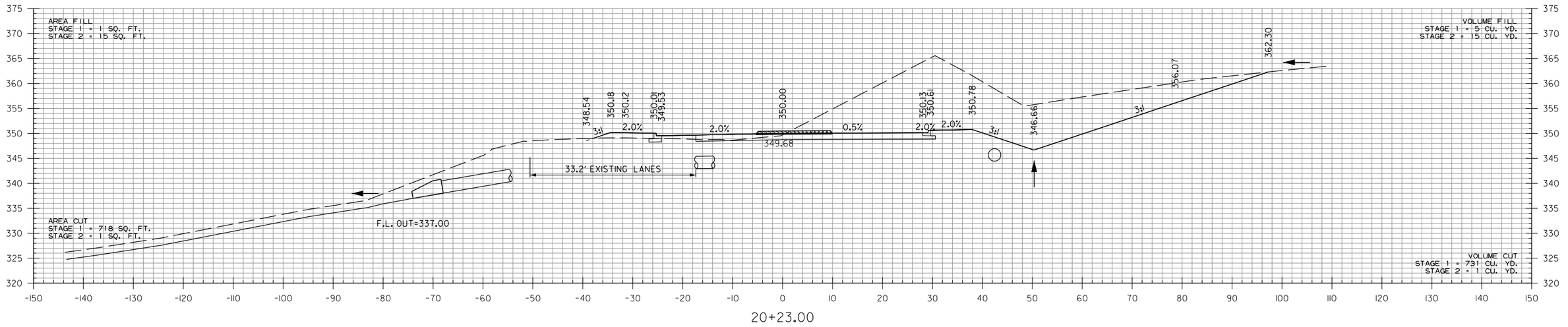
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	59	80
		CROSS SECTIONS				



20+50.00



20+23.00

HWY. 64
STA. 20+23 TO STA. 20+50

WBCalloway 2/20/2024 9:46:16 AM
WORKSPACE: AHTD
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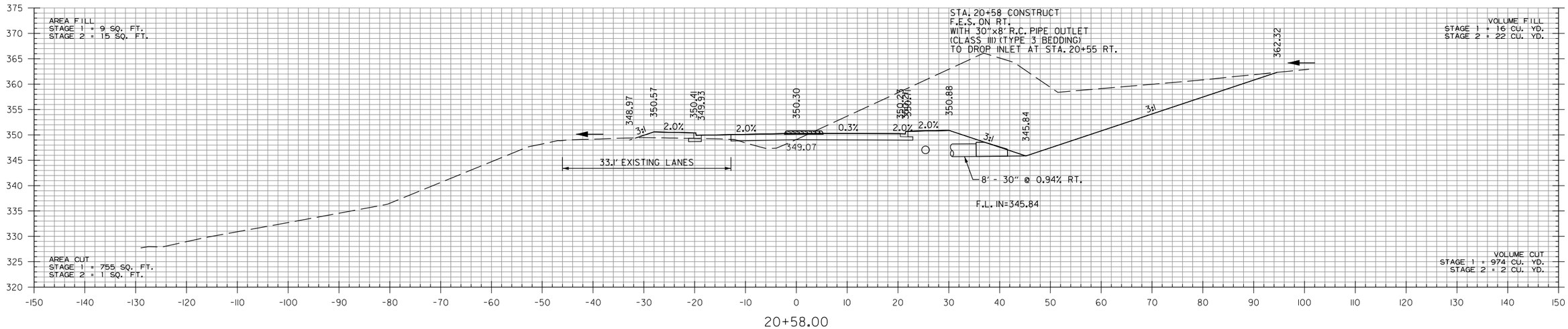
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	60	80
		CROSS SECTIONS				

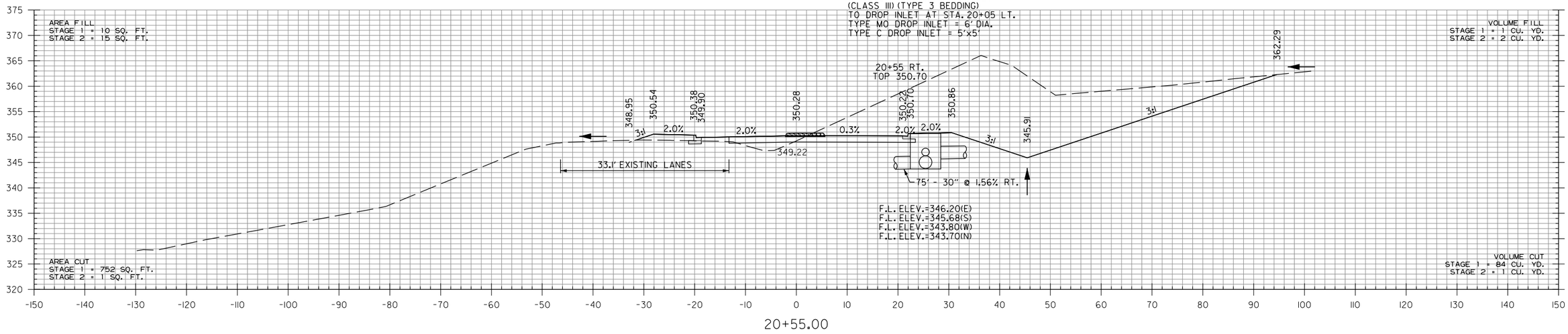
STA. 20+58
BEGIN SP. DT. RT. 7.50%
ELEV. 345.84



20+58.00

STA. 20+58
END SP. DT. RT. -2.34%
ELEV. 345.84

STA. 20+55 CONSTRUCT
DROP INLET ON RT. H=7'-0" W/ 4' EXT.
WITH 30"x75' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 20+05 LT.
TYPE MO DROP INLET = 6' DIA.
TYPE C DROP INLET = 5'x5'

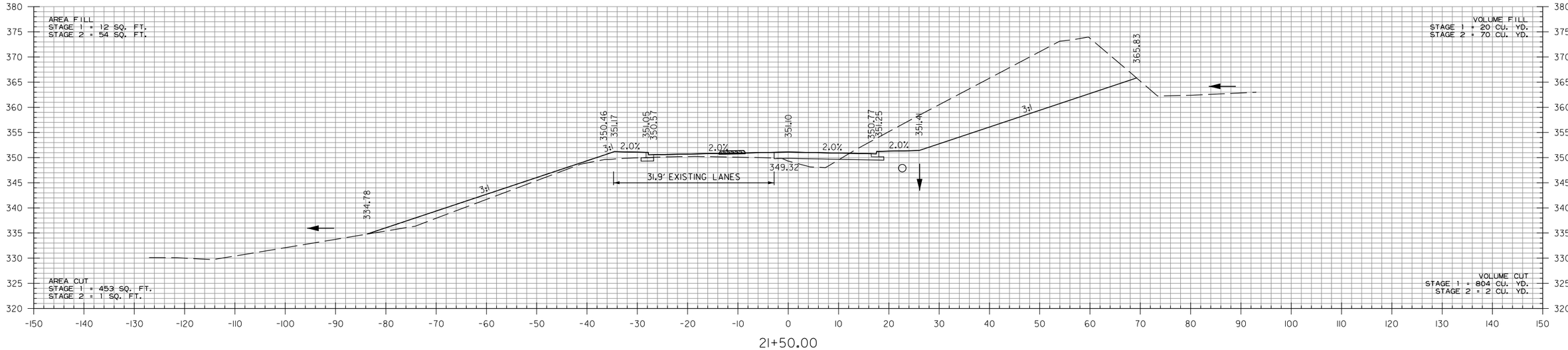


20+55.00

HWY. 64
STA. 20+55 TO STA. 20+58

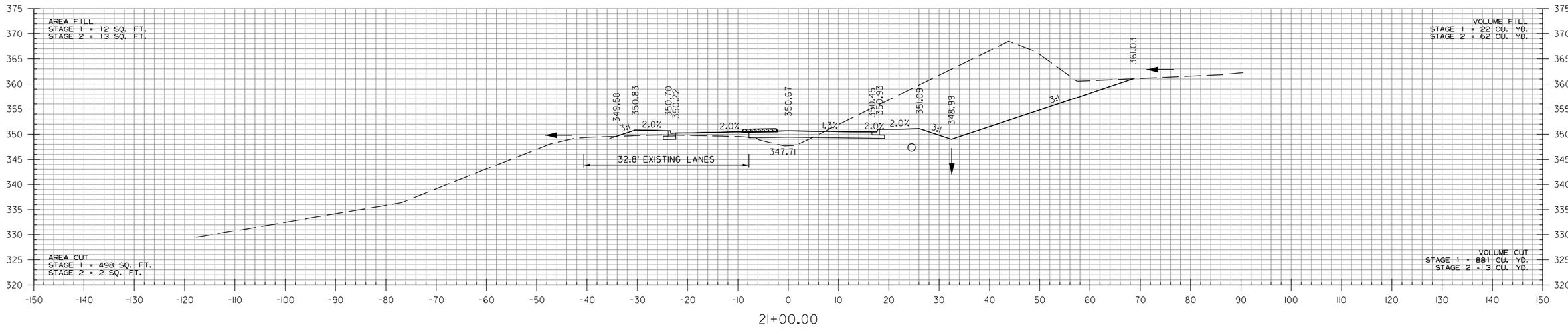
WBCalloway 2/20/2024 9:46:17 AM
WORKSPACE: AHTD
L:\2017\1701654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	61	80
		CROSS SECTIONS				



21+50.00

STA. 21+30
END SP. DT. RT. 7.50%
ELEV. 351.24

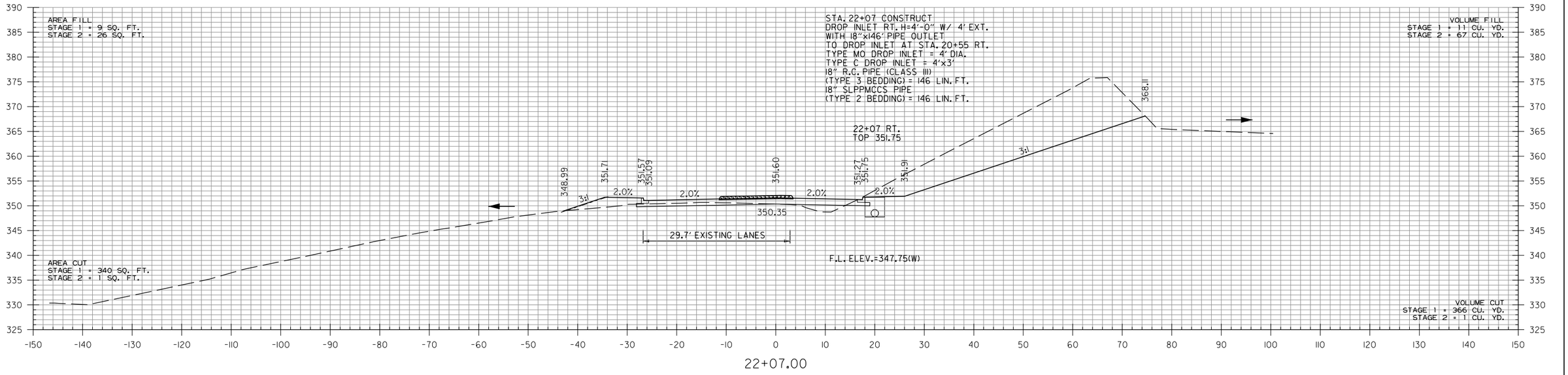


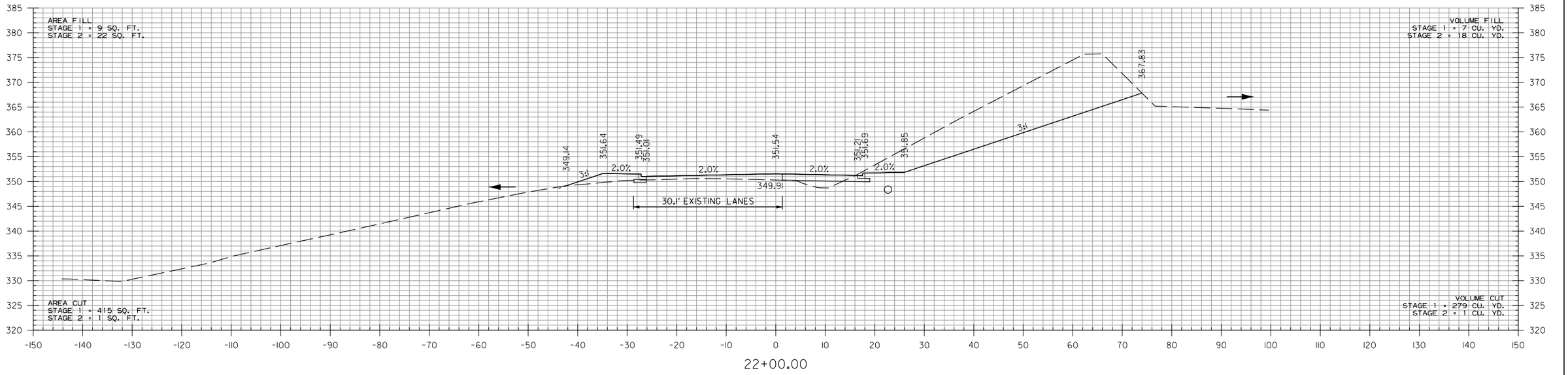
21+00.00

HWY. 64
STA. 21+00 TO STA. 21+50

WBCalloway 2/20/2024 9:46:17 AM
WORKSPACE: AHTD
L:\2017\1701654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	62	80
		CROSS SECTIONS				

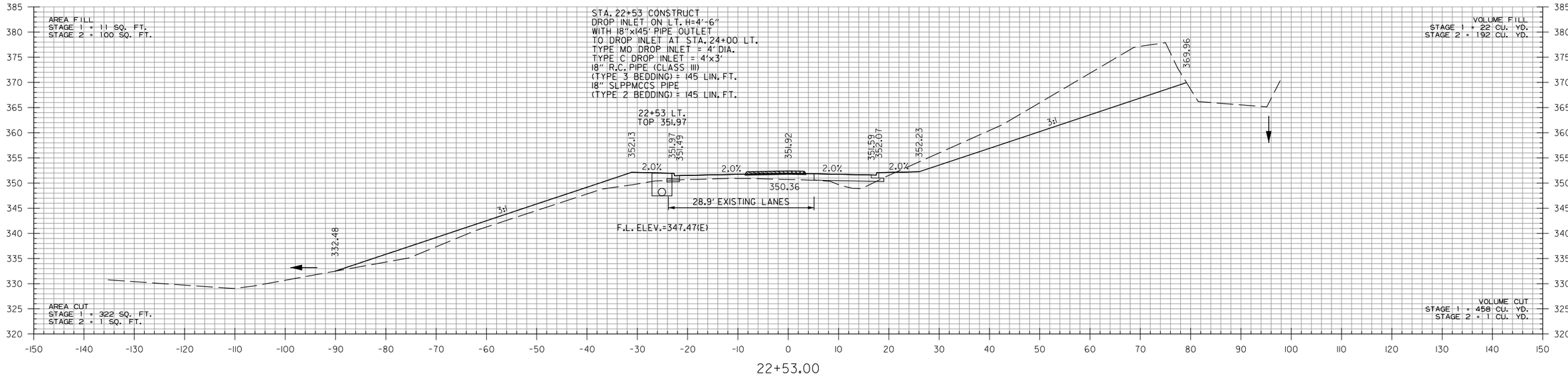


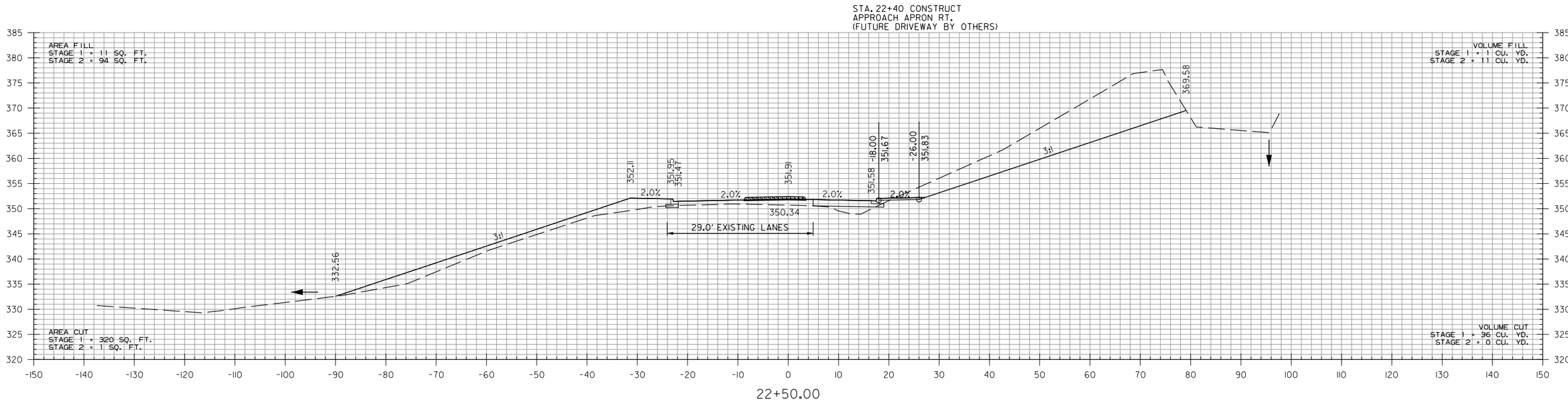


HWY. 64
STA. 22+00 TO STA. 22+07

WBCalloway
WORKSPACE: AHTD
L:\2017\1701654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
2/20/2024 9:46:17 AM
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	63	80
		CROSS SECTIONS				





HWY. 64
STA. 22+50 TO STA. 22+53

WBCalloway 2/20/2024 9:46:17 AM
WORKSPACE: AHTD
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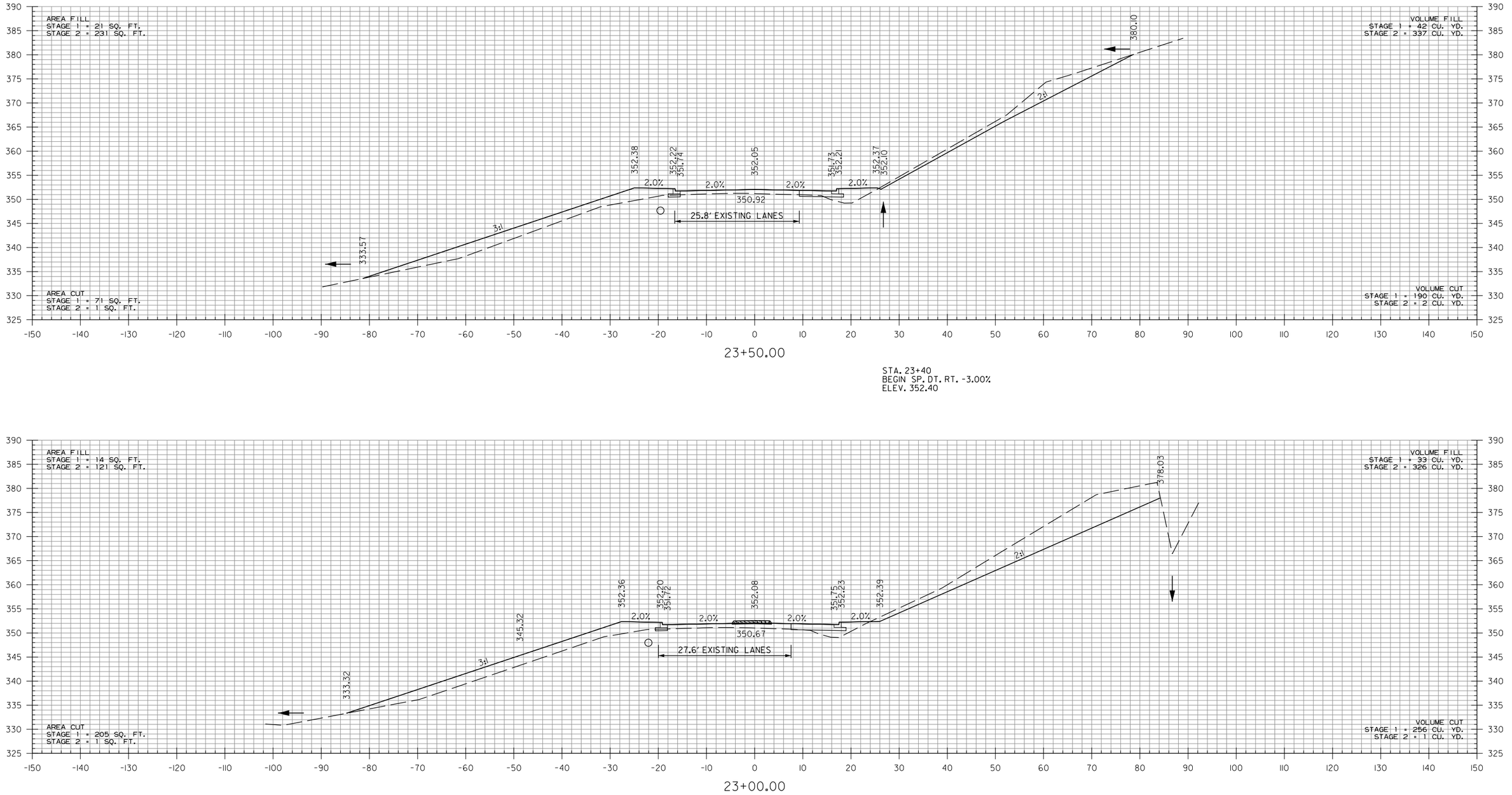
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	64	80
		CROSS SECTIONS				



HWY. 64
STA. 23+00 TO STA. 23+50

WBCalloway
WORKSPACE: AHTD
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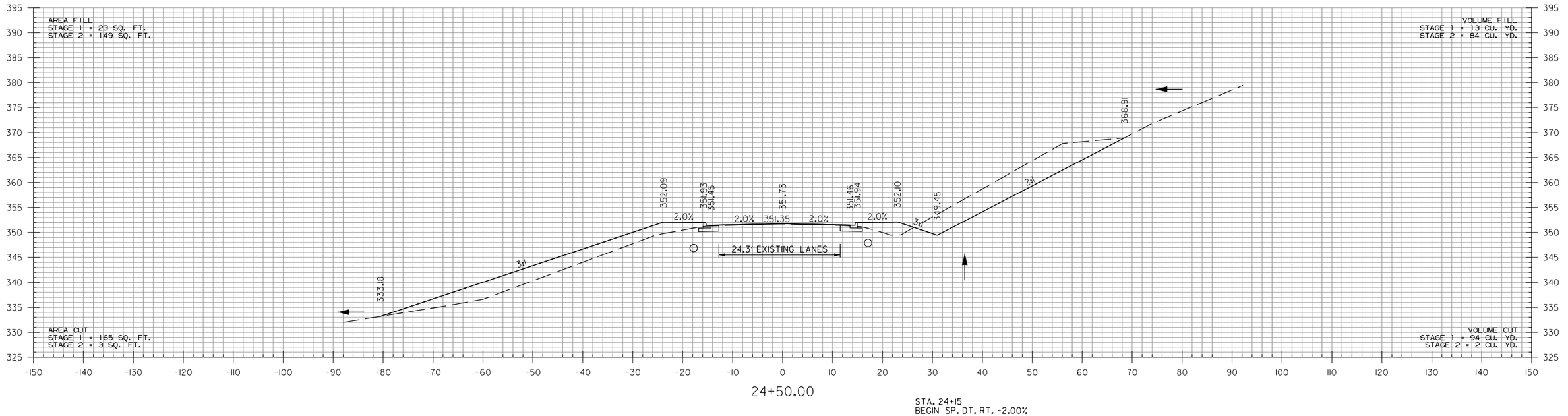
REVISED DATE:

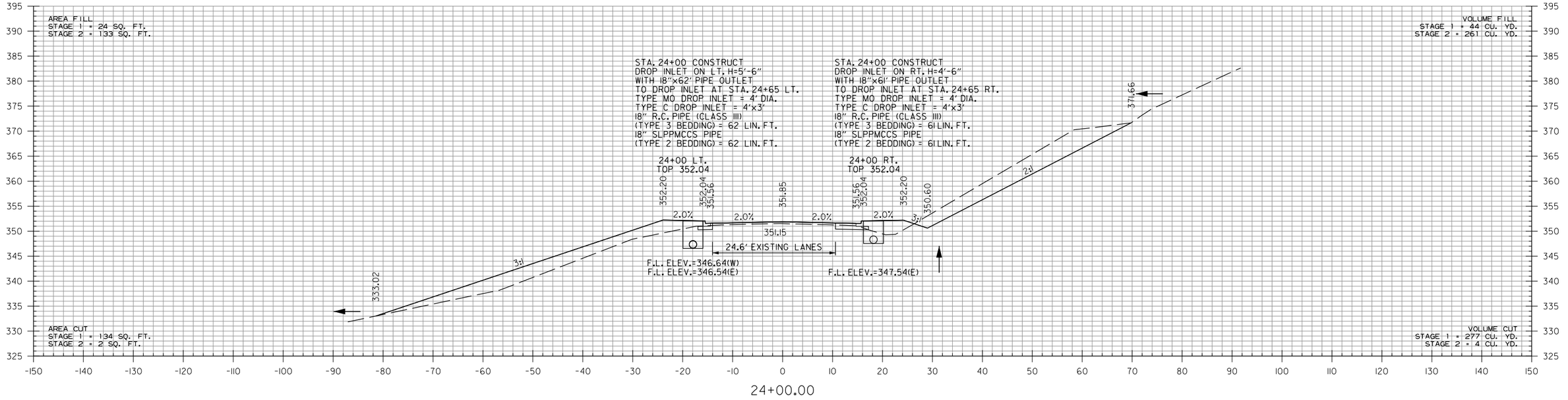
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	65	80
		CROSS SECTIONS				



24+50.00

STA. 24+15
BEGIN SP. DT. RT. -2.00%
ELEV. 350.15

STA. 24+15
END SP. DT. RT. -3.00%
ELEV. 350.15



24+00.00

HWY. 64
STA. 24+00 TO STA. 24+50

WBCalloway 2/20/2024 9:46:17 AM
WORKSPACE: AHTD
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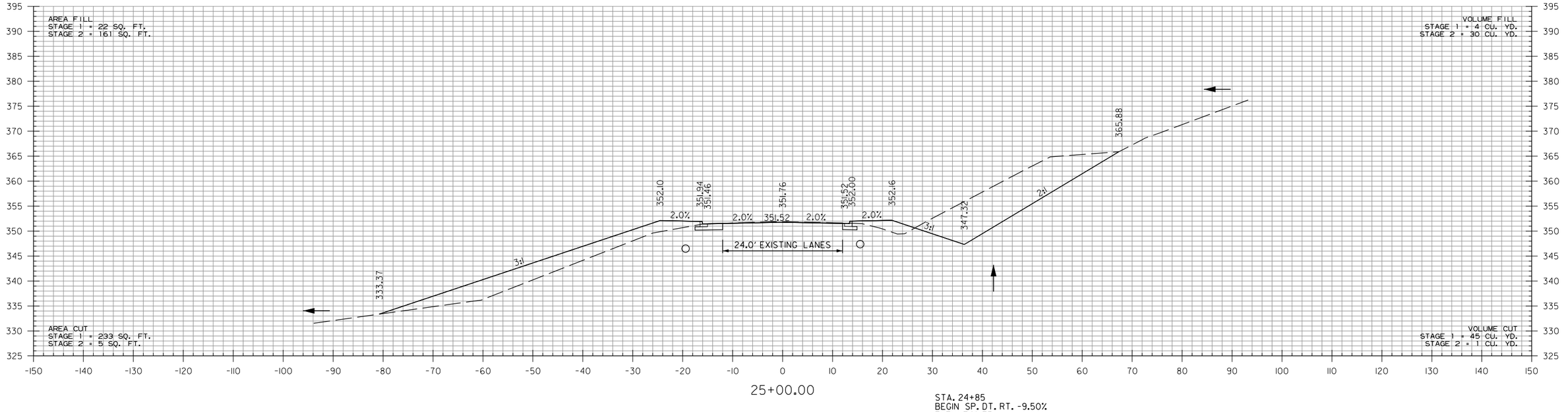
REVISED DATE:

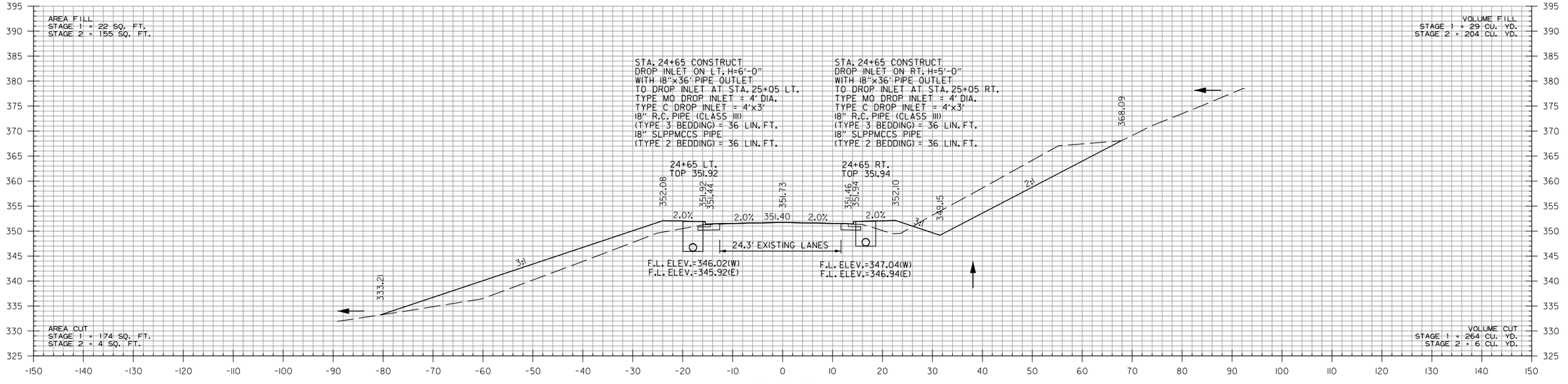
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	66	80
		CROSS SECTIONS				



25+00.00

STA. 24+85
BEGIN SP. DT. RT. -9.50%
ELEV. 348.75

STA. 24+85
END SP. DT. RT. -2.00%
ELEV. 348.75



24+65.00

HWY. 64
STA. 24+65 TO STA. 25+00

WBCallaway
2/20/2024 9:46:17 AM
WORKSPACE: AHTD
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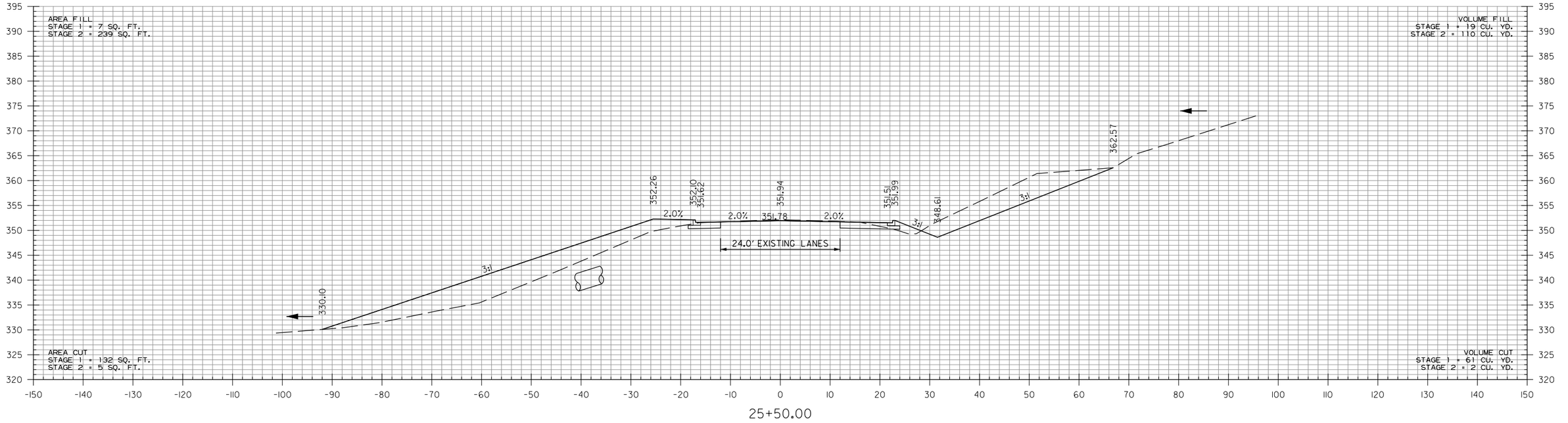
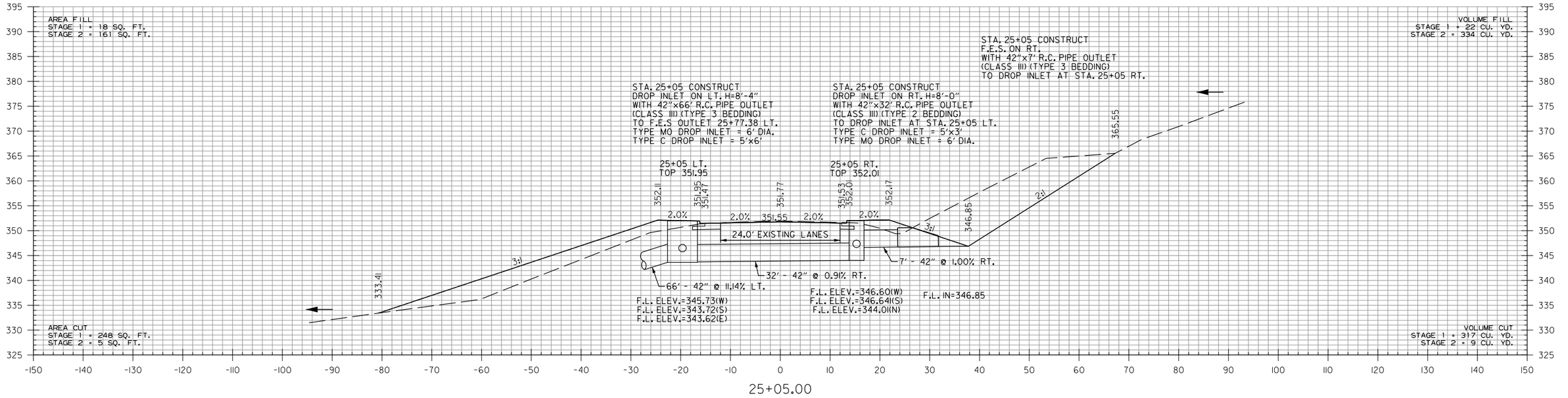
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	67	80
		CROSS SECTIONS				





HWY. 64
STA. 25+05 TO STA. 25+50

WBCallaway
2/20/2024 9:46:17 AM
WORKSPACE: AHTD
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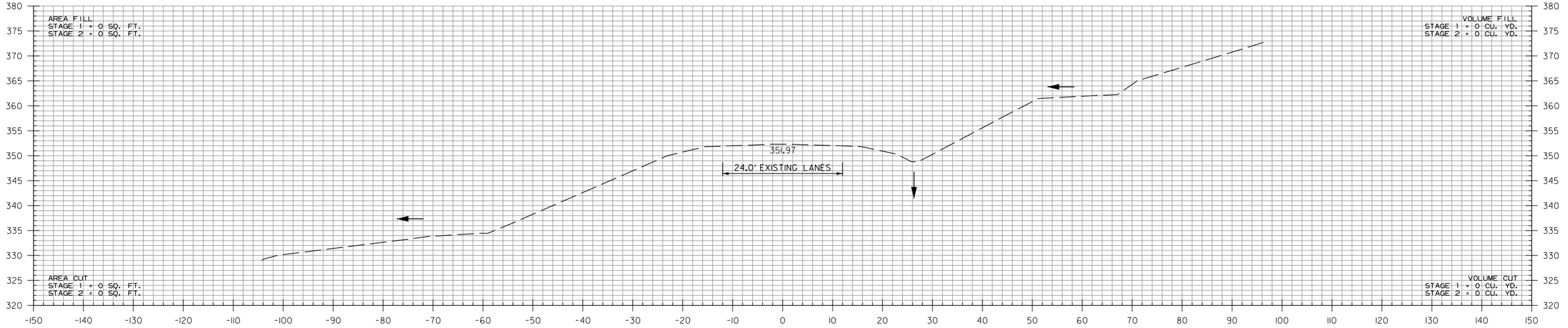
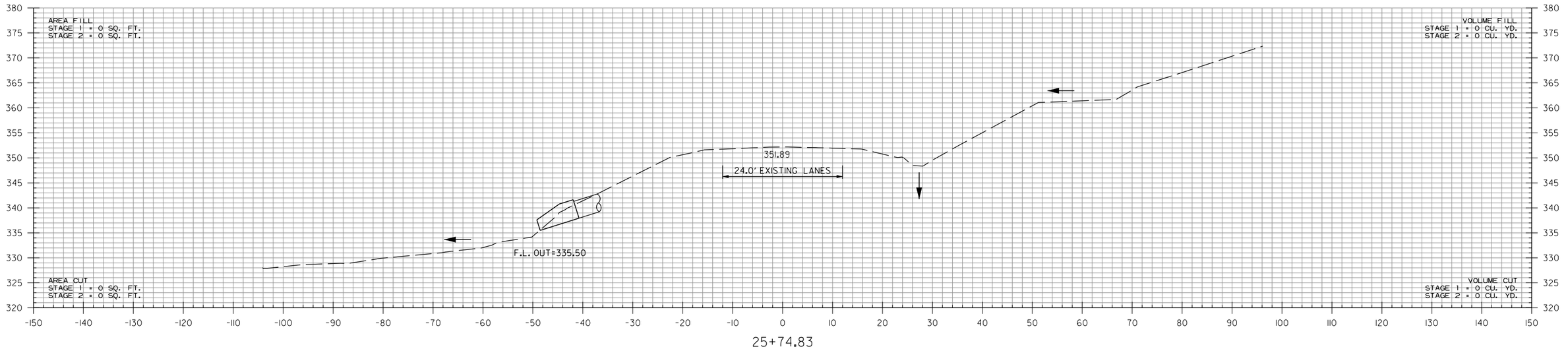
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	68	80
		CROSS SECTIONS				



26+00.00



25+74.83

STA. 25+50.00 BEGIN VERTICAL TRANSITION
STA. 25+50.00 END JOB 080634

STA. 25+60
END SP. DT. RT. 3.91%
ELEV. 349.00

HWY. 64
STA. 25+75 TO STA. 26+00

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WORKSPACE: AHTD
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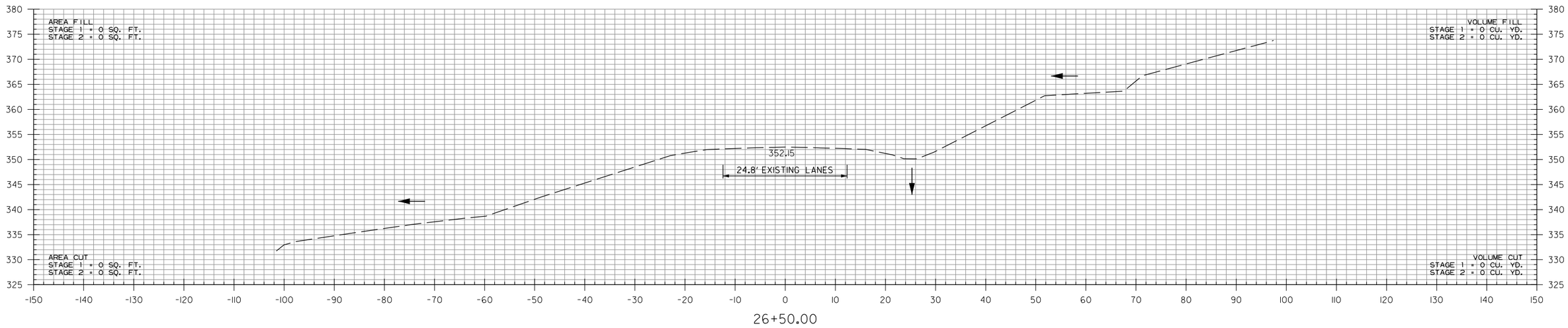
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	69	80
		CROSS SECTIONS				

STA. 26+50.00 END VERTICAL TRANSITION



HWY. 64
STA. 26+50 TO STA. 26+50

WBCallaway 2/20/2024 9:46:18 AM
WORKSPACE: AHTD
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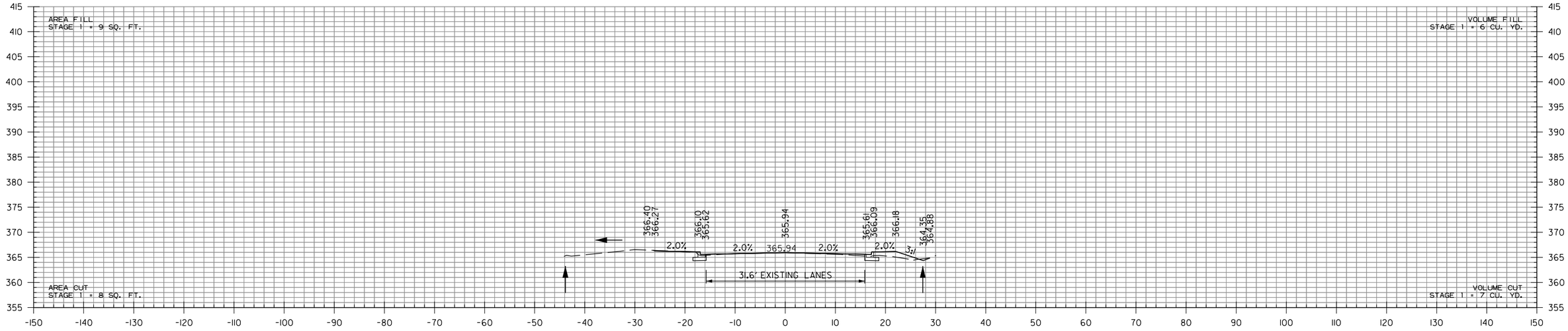
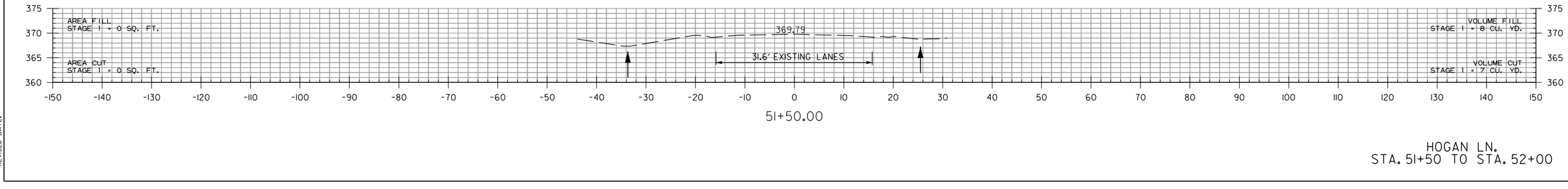
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	70	80
		CROSS SECTIONS				



52+00.00

STA. 52+00
BEGIN SP. DT. RT. -12.40%
ELEV. 364.35



51+50.00

HOGAN LN.
STA. 51+50 TO STA. 52+00

WBCalloway 2/20/2024 9:46:18 AM
WORKSPACE: AHTD
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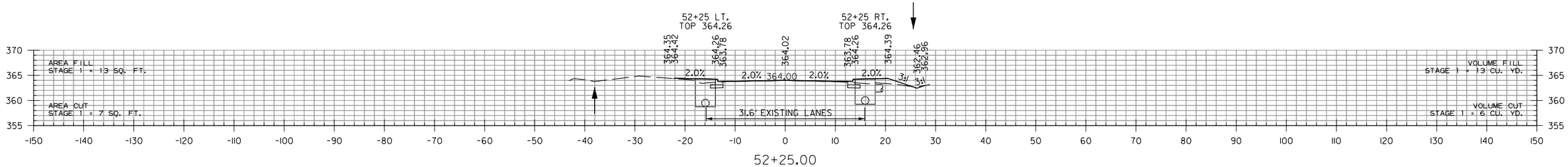
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	71	80
		CROSS SECTIONS				

STA. 52+35
END SP. DT. RT. 11.87%
ELEV. 363.65

C.L. HOGAN LN. STA. 52+25 CONSTRUCT
DROP INLET ON LT. H=5'-6" W/ 4' EXT.
WITH 18"x161' PIPE OUTLET
TO DROP INLET AT STA. 53+90 LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 161 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 161 LIN. FT.

C.L. HOGAN LN. STA. 52+25 CONSTRUCT
DROP INLET ON RT. H=5'-0" W/ 4' EXT.
WITH 18"x122' PIPE OUTLET
TO DROP INLET AT STA. 53+50 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 122 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 122 LIN. FT.



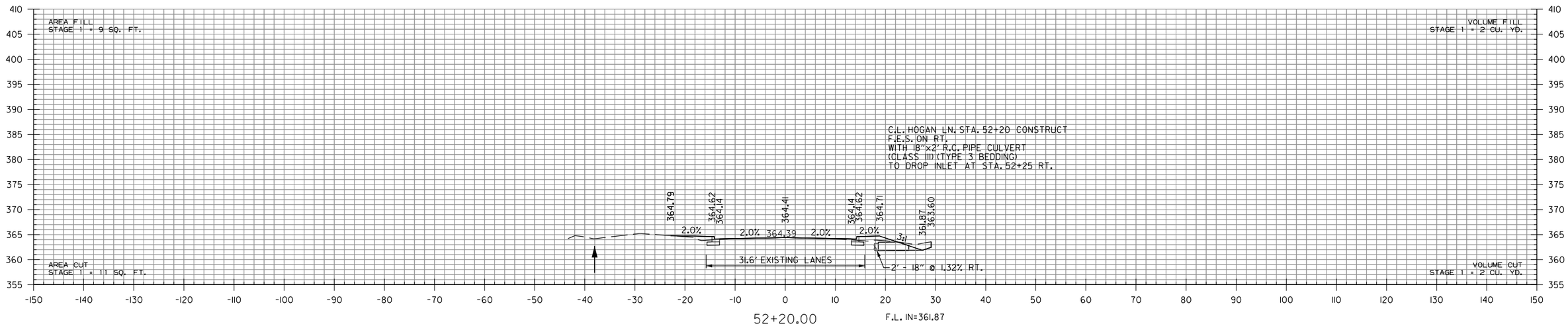
52+25.00

F.L. ELEV.=358.76(N)

F.L. ELEV.=361.67(E)
F.L. ELEV.=359.26(N)

STA. 52+20
BEGIN SP. DT. RT. 11.87%
ELEV. 361.87

C.L. HOGAN LN. STA. 52+20 CONSTRUCT
F.E.S. ON RT.
WITH 18"x2' R.C. PIPE CULVERT
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 52+25 RT.



52+20.00

F.L. IN=361.87

STA. 52+20
END SP. DT. RT. -12.40%
ELEV. 361.87

HOGAN LN.
STA. 52+20 TO STA. 52+25

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WORKSPACE: AHTD
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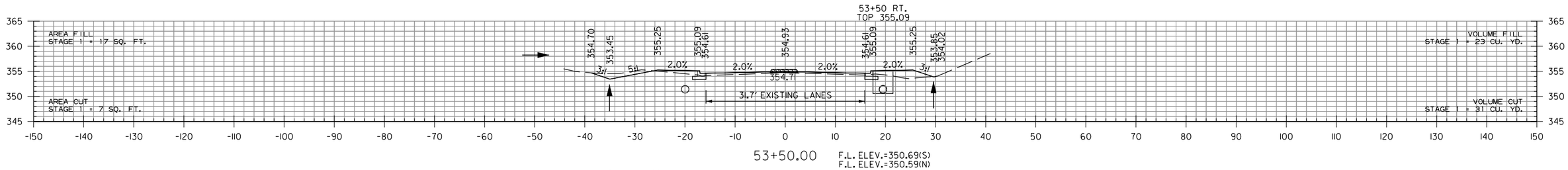
REVISED DATE:

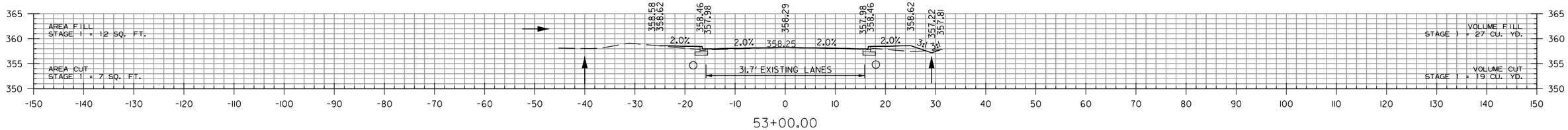
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	72	80
		CROSS SECTIONS				

C.L. HOGAN LN. STA. 53+50 CONSTRUCT
DROP INLET ON RT. H=4'-6"
WITH 18"x102' PIPE OUTLET
TO DROP INLET AT STA. 54+55 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 102 LIN. FT.
18" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 102 LIN. FT.

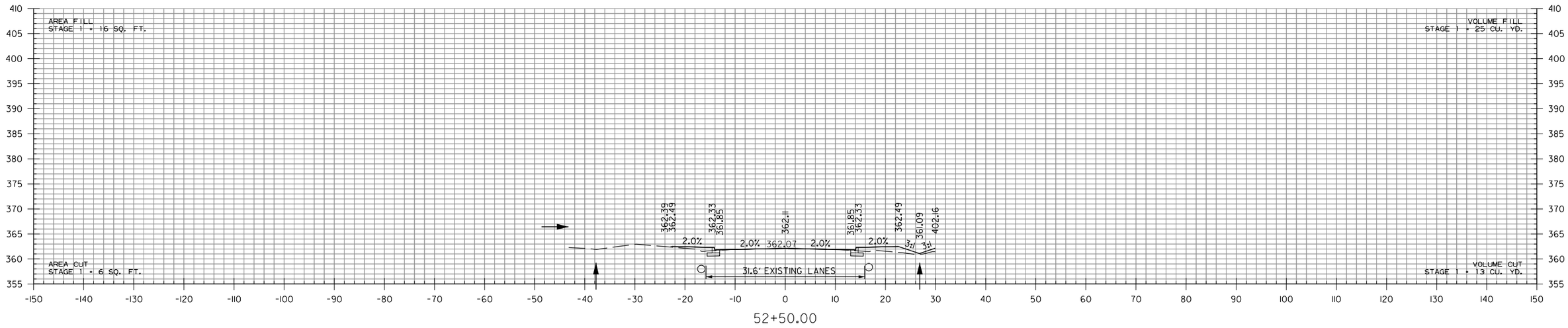


53+50.00 F.L. ELEV.=350.69(S)
F.L. ELEV.=350.59(N)

STA. 53+20
BEGIN SP. DT. LT. -10.50%
ELEV. 356.60



53+00.00



52+50.00

HOGAN LN.
STA. 52+50 TO STA. 53+50

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WORKSPACE: AHTD
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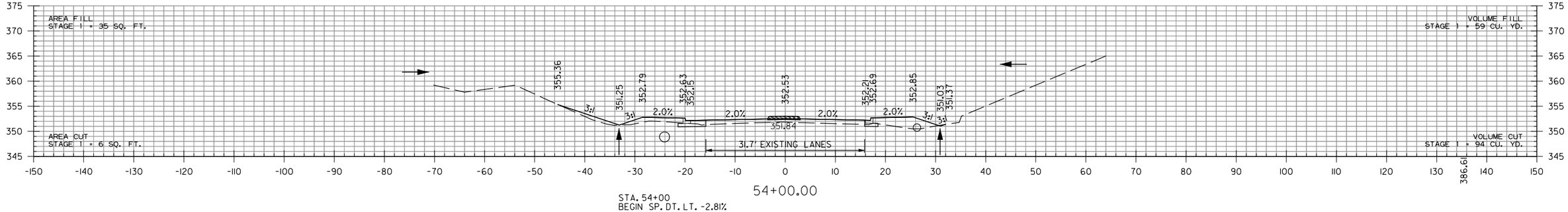
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	73	80
		CROSS SECTIONS				

STA. 54+05
BEGIN SP. DT. RT. -3.55%
ELEV. 350.74

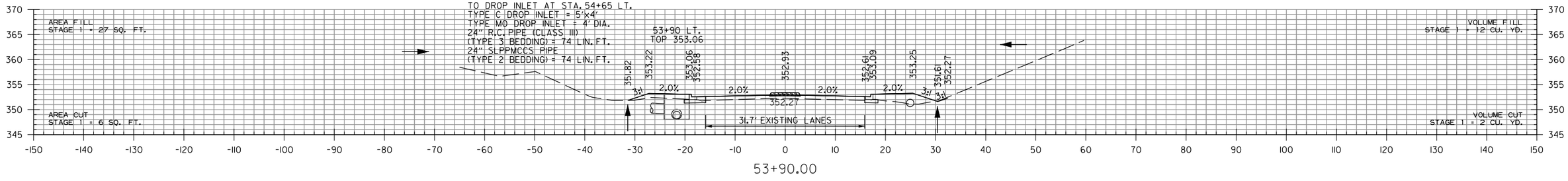
STA. 54+05
END SP. DT. RT. -5.82%
ELEV. 350.74



54+00.00

STA. 54+00
BEGIN SP. DT. LT. -2.81%
ELEV. 351.25

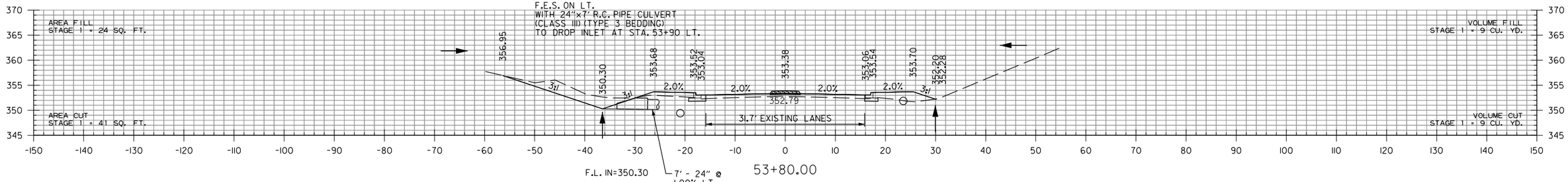
C.L. HOGAN LN. STA. 53+90 CONSTRUCT
DROP INLET ON LT. H=5'-0" W/ 4' EXT.
WITH 24"x74' PIPE OUTLET
TO DROP INLET AT STA. 54+65 LT.
TYPE C DROP INLET = 5'x4'
TYPE M0 DROP INLET = 4' DIA.
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 74 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 74 LIN. FT.



53+90.00

F.L. ELEV.=350.14(W)
F.L. ELEV.=348.16(S)
F.L. ELEV.=348.06(N)

C.L. HOGAN LN. STA. 53+80 CONSTRUCT
F.E.S. ON LT.
WITH 24"x7' R.C. PIPE CULVERT
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 53+90 LT.



53+80.00

STA. 53+80
END SP. DT. LT. -10.50%
ELEV. 350.30

STA. 53+70
BEGIN SP. DT. RT. -5.82%
ELEV. 352.78

HOGAN LN.
STA. 53+80 TO STA. 54+00

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WORKSPACE: AHTD
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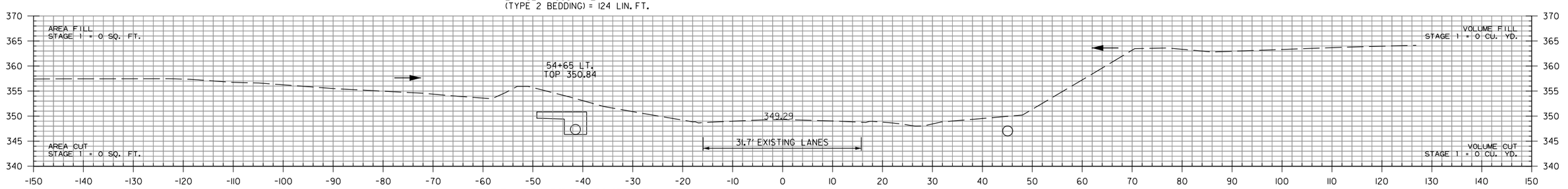
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	74	80
		CROSS SECTIONS				

STA. 54+85.41
END SP. DT. LT. 1.40%
ELEV. 349.96

C.L. HOGAN LN. STA. 54+65 CONSTRUCT
DROP INLET ON RT. H=4'-6"
WITH BACK OPENING
AND 24"x124' PIPE OUTLET
TO JUNCTION BOX AT
C.L. HWY. 64 STA. 17+10 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 124 LIN. FT.
24" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 124 LIN. FT.

STA. 54+68.89
END SP. DT. RT. -3.55%
ELEV. 348.47



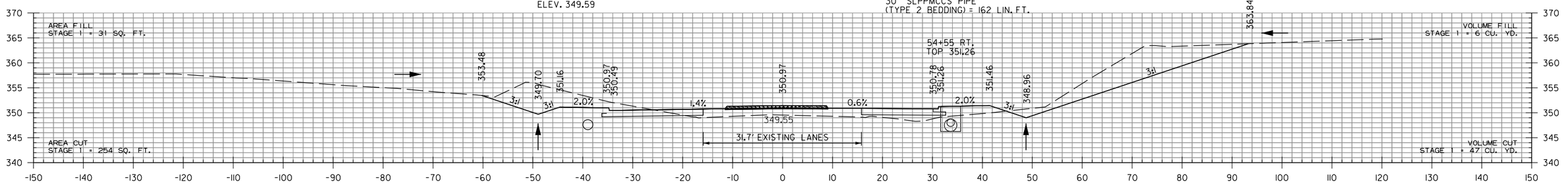
F.L. ELEV.=349.59(BACK OPENING)
F.L. ELEV.=346.44(S)
F.L. ELEV.=346.34(NW)

54+65.00

STA. 54+59
BEGIN SP. DT. LT. 1.40%
ELEV. 349.59

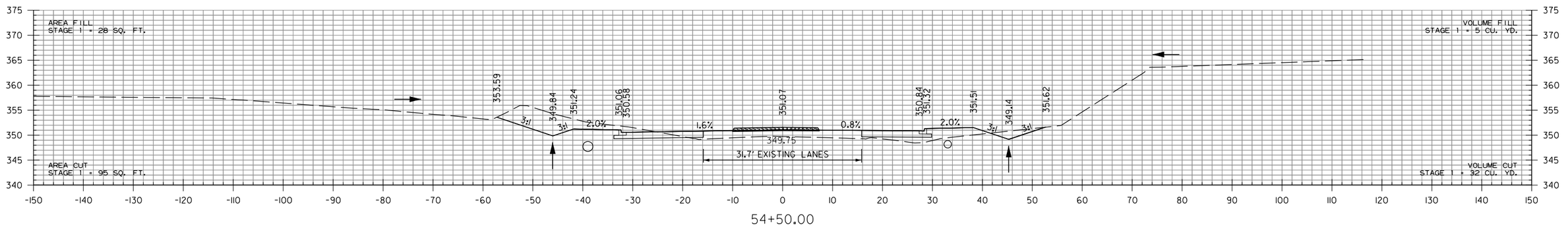
STA. 54+59
END SP. DT. LT. -2.81%
ELEV. 349.59

C.L. HOGAN LN. STA. 54+55 CONSTRUCT
DROP INLET ON RT. H=5'-0" W/ 4' EXT.
WITH 30"x162' PIPE OUTLET
TO DROP INLET AT
C.L. HWY. 64 STA. 20+55 RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x4'
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 162 LIN. FT.
30" SLPPMCCS PIPE
(TYPE 2 BEDDING) = 162 LIN. FT.



54+55.00

F.L. ELEV.=347.26(S)
F.L. ELEV.=346.26(NE)



54+50.00

HOGAN LN.
STA. 54+50 TO STA. 54+65

WBCallaway
WORKSPACE: AHTD
L:\2017\170176S4 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_ALL.dgn
REVISED DATE:
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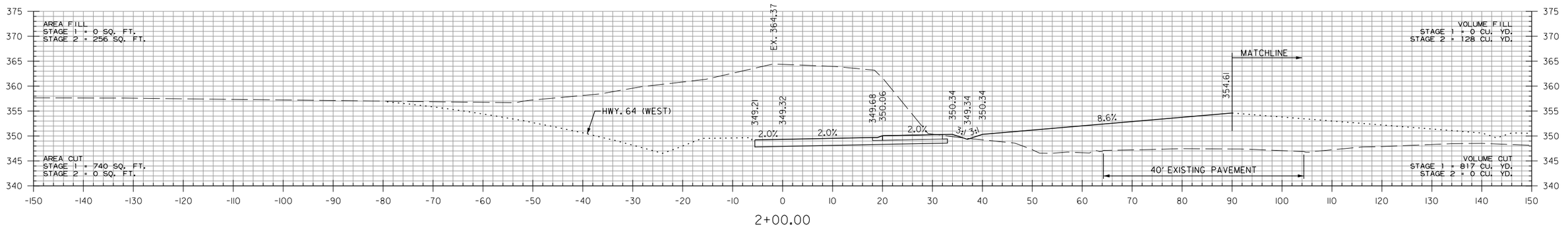
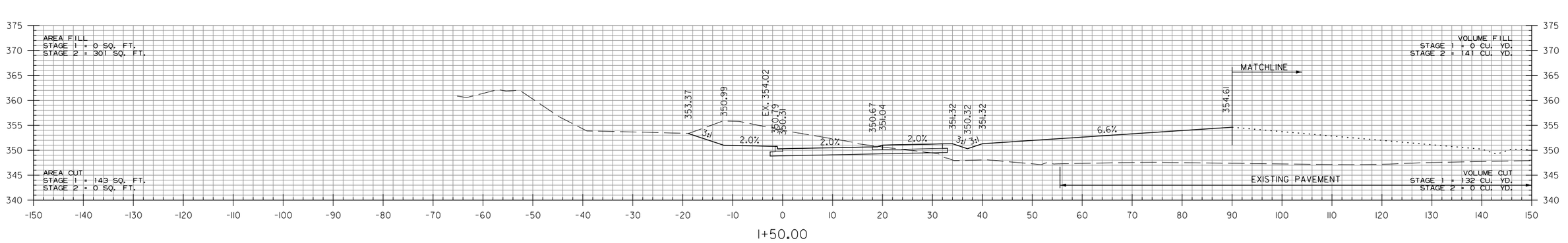
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	75	80
		CROSS SECTIONS				

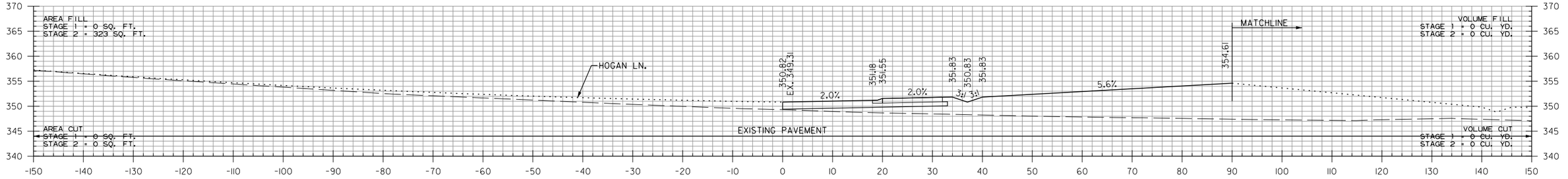
NOTE:
STAGE 2 EARTHWORK VOLUMES (INTERIOR OF CIRCULATORY ROADWAY) ARE FACTORED BY 0.25 OF THE CALCULATED VALUE (AREAxLENGTH) TO ACCOUNT FOR THE PIE/WEDGE SHAPE BETWEEN CROSS SECTIONS.



2+00.00



1+50.00



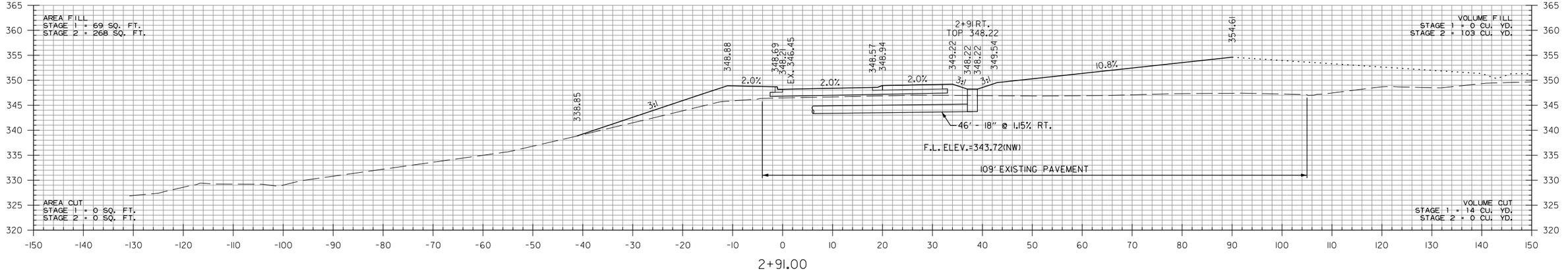
1+00.00

CIRCULATORY ROADWAY
STA. 1+00 TO STA. 2+00

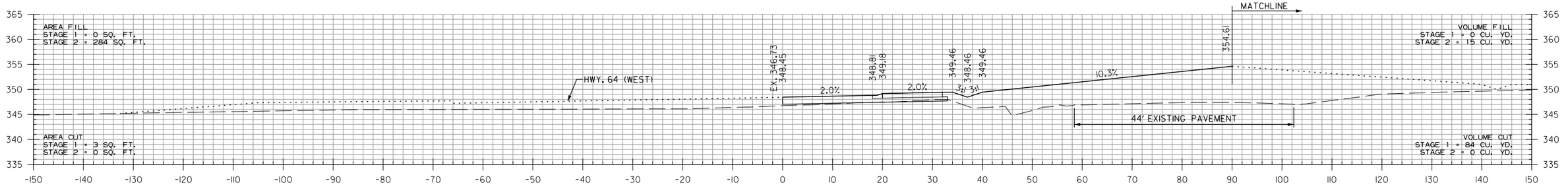
WBCallaway 2/20/2024 9:46:25 AM
WORKSPACE: AHTD
L:\20\T\T01\7654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_CIRCULATORY ROADWAY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	76	80
		CROSS SECTIONS				

STA. 2+91 CONSTRUCT
AREA INLET ON RT. H=4'-6".
WITH 18"x46' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
TO DROP INLET AT STA. 17+80 LT.
TYPE E DROP INLET = 3'-6"x2'



2+91.00



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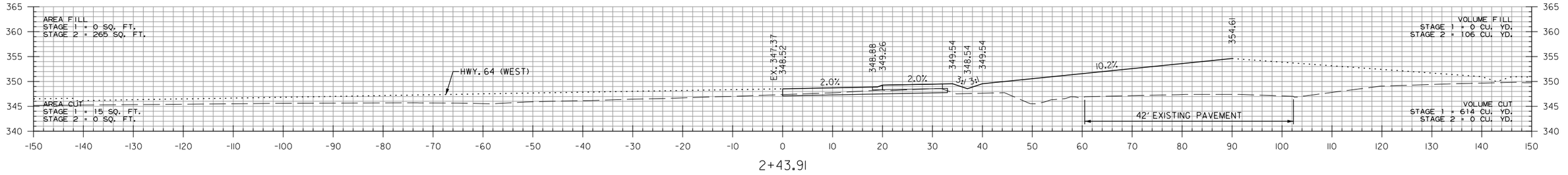

2+43.91

CIRCULATORY ROADWAY
STA. 2+44 TO STA. 2+91

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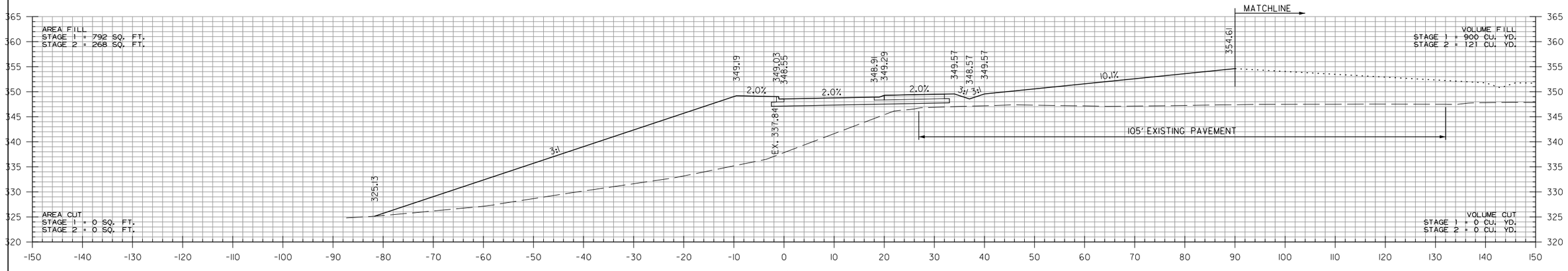
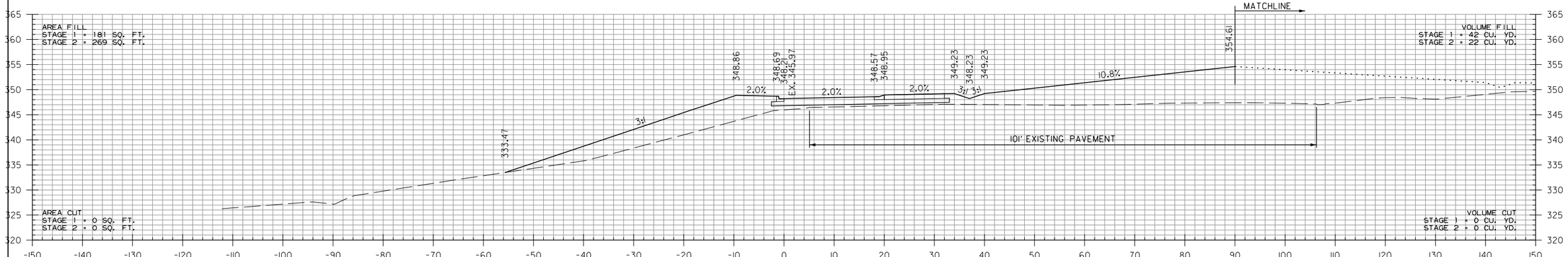
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	77	80
		CROSS SECTIONS				



3+50.00

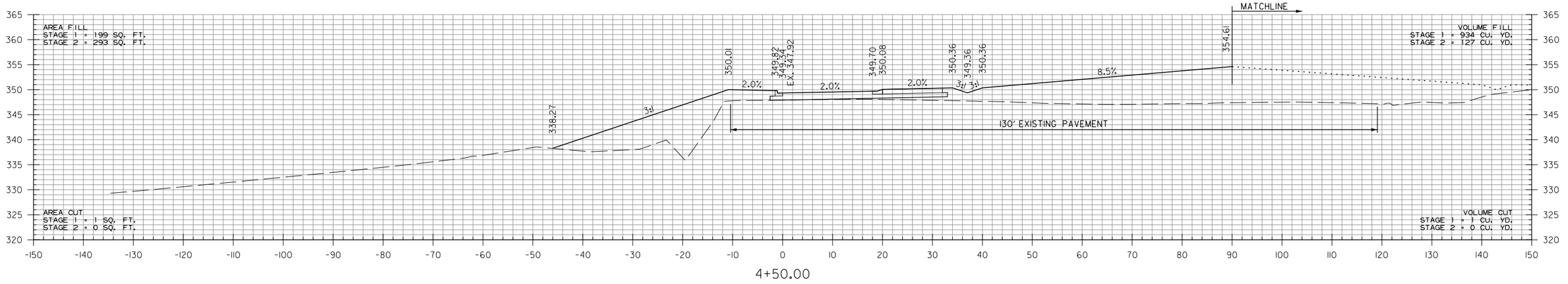


3+00.00

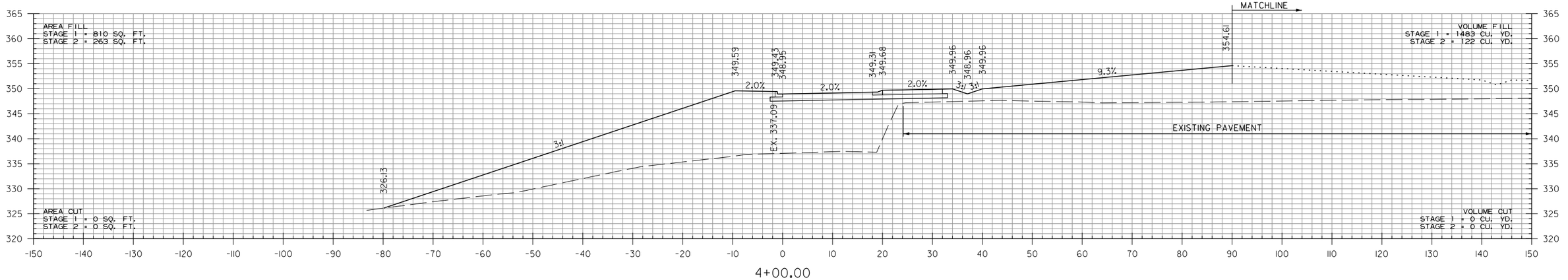
CIRCULATORY ROADWAY
STA. 3+00 TO STA. 3+50

WBCallaway 2/20/2024 9:46:25 AM
WORKSPACE: AHTD
L:\2017\17017654 - ARDOT 080634 Hwy64-Hogan Ln\Drawings\r080634_CX_CIRCULATORY ROADWAY.dgn
REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	78	80
		CROSS SECTIONS				



4+50.00



4+00.00

CIRCULATORY ROADWAY
STA. 4+00 TO STA. 4+50

WBCallaway 2/20/2024 9:46:25 AM
WORKSPACE: AHTD
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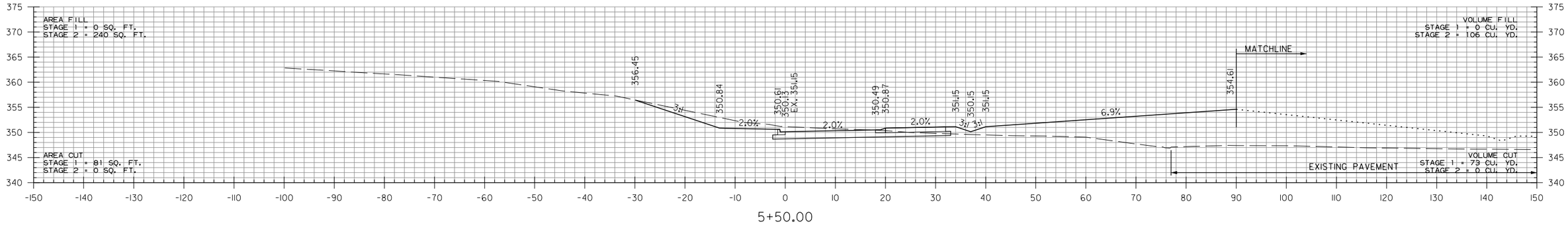
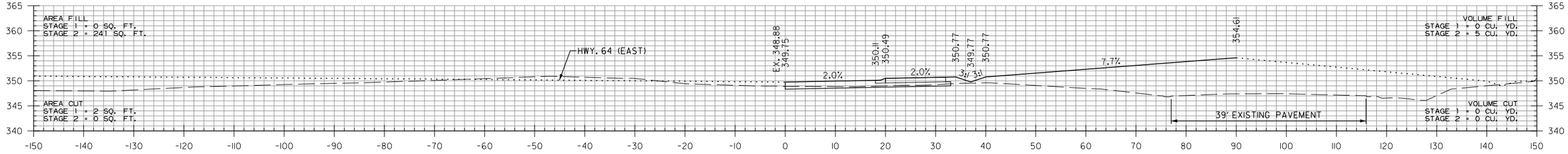
REVISED DATE:

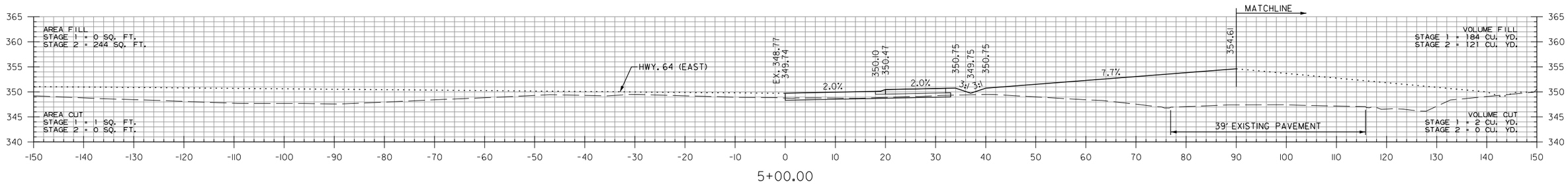
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	79	80
		CROSS SECTIONS				



5+50.00



5+02.09



5+00.00

CIRCULATORY ROADWAY
STA. 5+00 TO STA. 5+50

WBCalloway 2/20/2024 9:46:25 AM
WORKSPACE: AHTD
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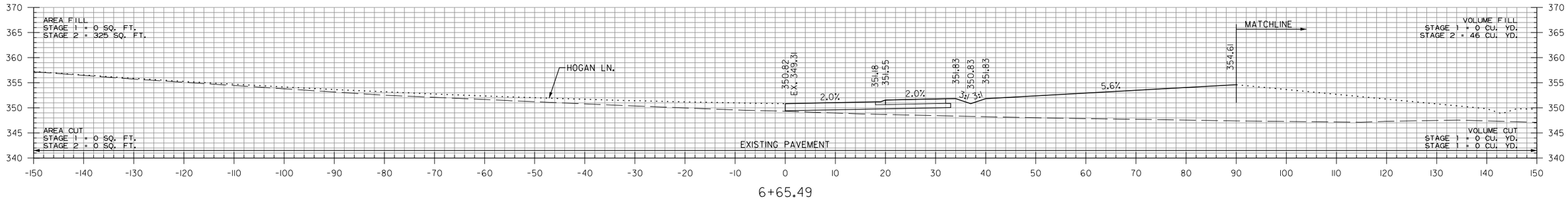
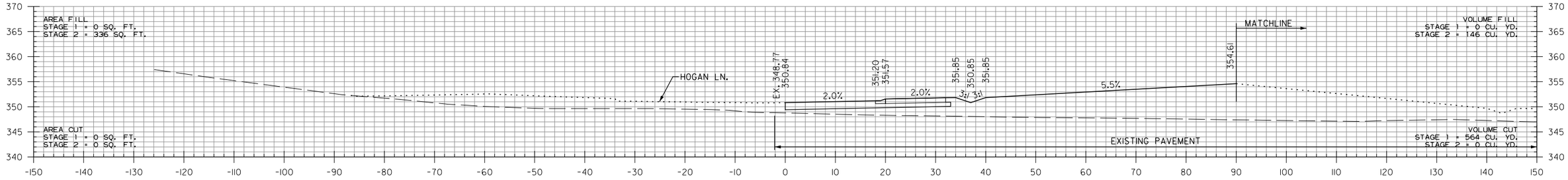
REVISED DATE:

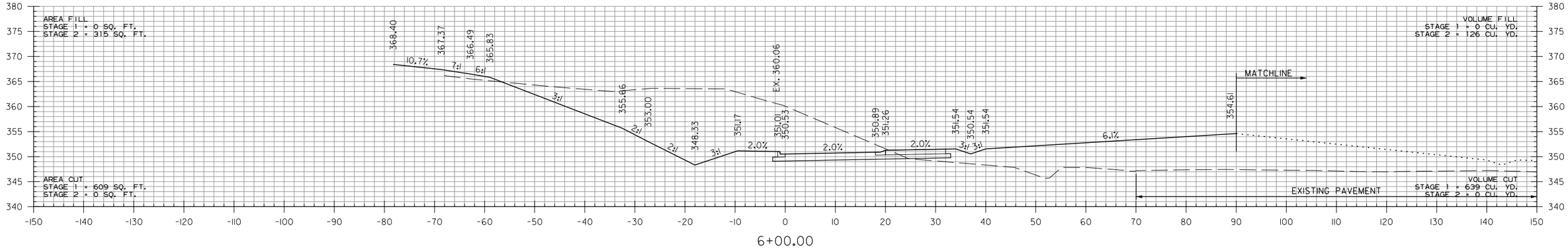
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	080634	80	80
		CROSS SECTIONS				



6+65.49



6+50.00



6+00.00

CIRCULATORY ROADWAY
STA. 6+00 TO STA. 6+65

WBCalloway 2/20/2024 9:46:25 AM
WORKSPACE: AHTD
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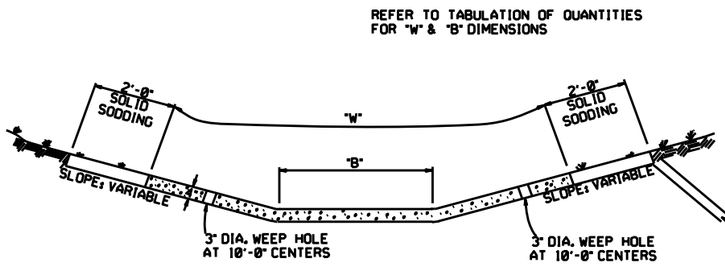
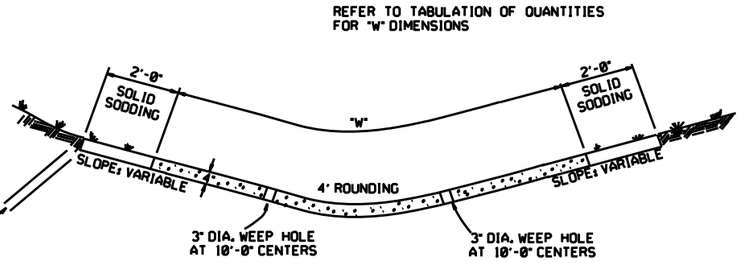
REVISED DATE:



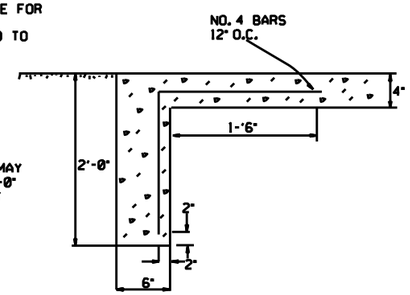
TYPE A

EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.



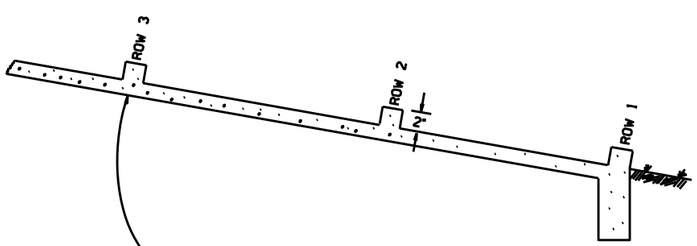
TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."



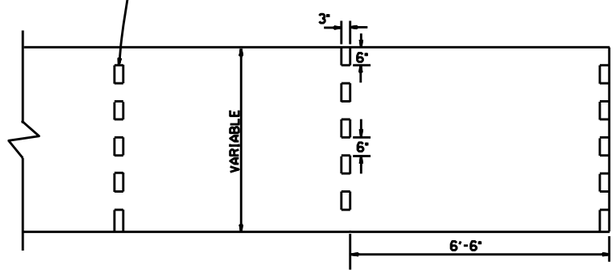
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

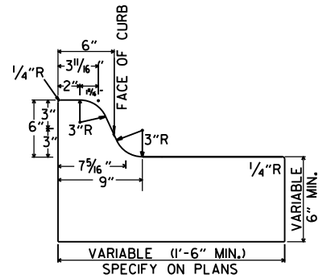
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45° INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
12-8-16	CORRECTED ENERGY DISSIPATOR DRAWING AND NOTE	
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

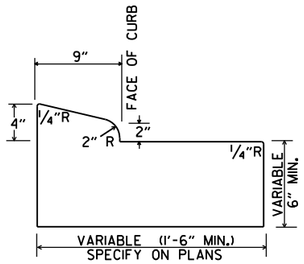
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

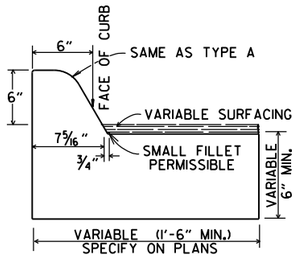
STANDARD DRAWING CDP-1



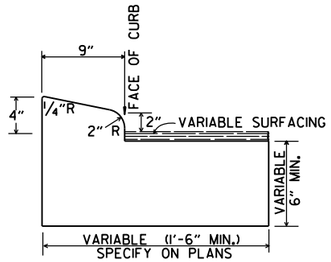
TYPE A



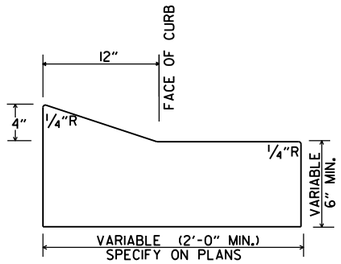
TYPE B-1



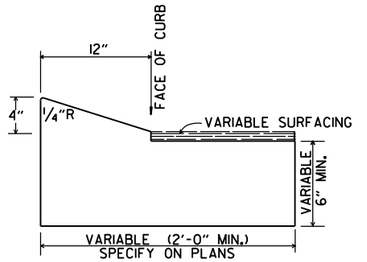
TYPE C



TYPE B-2

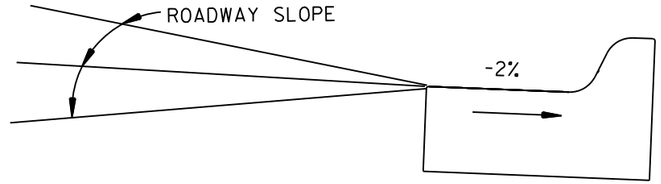


TYPE E-1



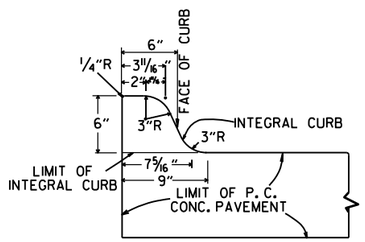
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

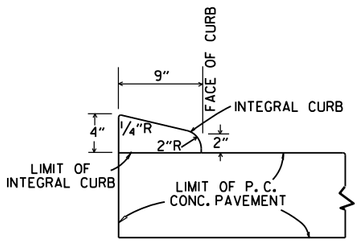


DETAIL OF GUTTER SLOPE

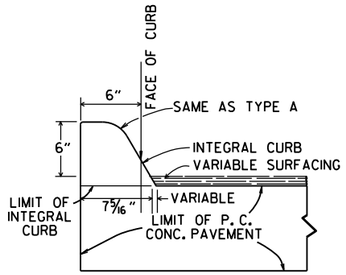
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

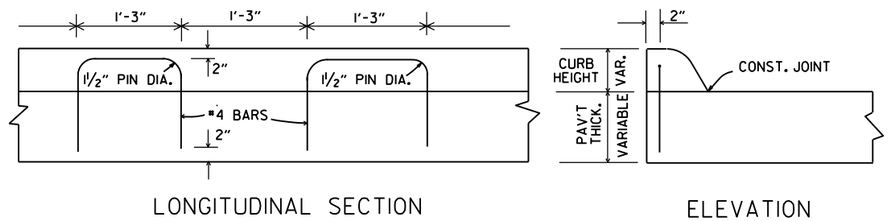


TYPE B



TYPE C

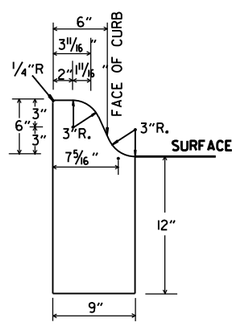
INTEGRAL CURB



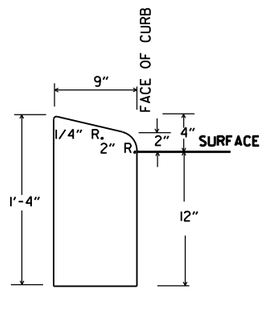
LONGITUDINAL SECTION

ELEVATION

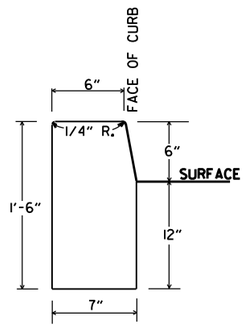
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



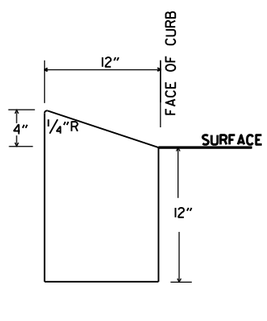
TYPE A



TYPE B

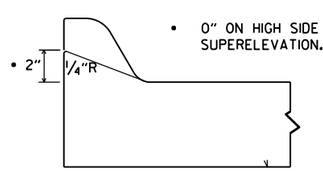


TYPE D



TYPE E

CONCRETE CURB



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

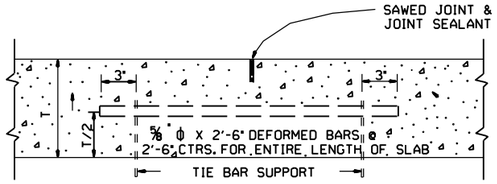
DETAILS OF MODIFIED CURB

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

ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

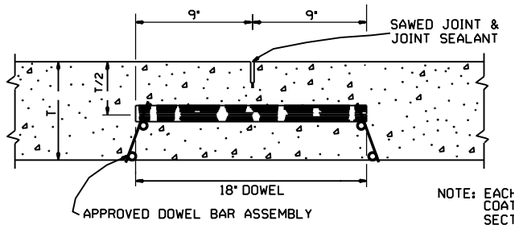
STANDARD DRAWING CG-1



LONGITUDINAL JOINT

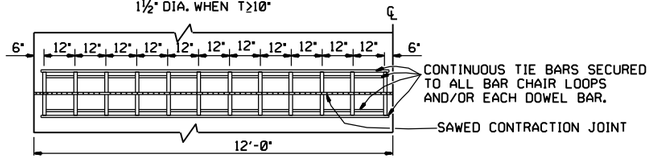
NOTE: THE TIE BAR SUPPORT SHOWN ABOVE MAY BE ELIMINATED IF OTHER APPROVED METHODS FOR PLACING AND SUPPORTING THE TIE BARS ARE PROVIDED.

TIE BARS SHALL BE 15" FROM TRANSVERSE JOINTS.



NOTE: EACH DOWEL TO BE COATED ACCORDING TO SECTION 502 OF THE STANDARD SPECIFICATIONS.

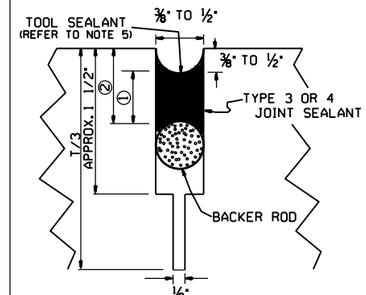
ROUND STEEL BAR DOWEL
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



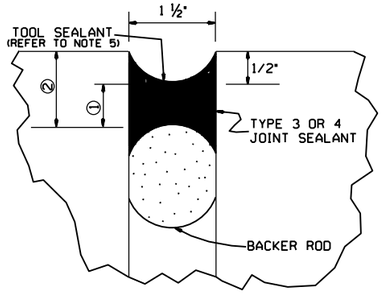
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



DETAIL OF SAWED CONTRACTION JOINT



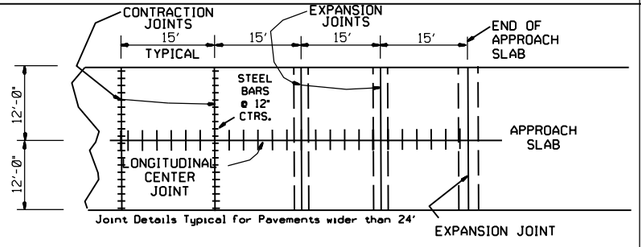
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

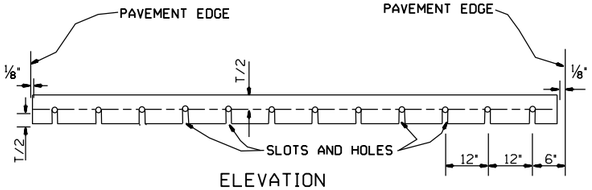
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
⅝	⅜	¾	⅝
¾	⅜	⅞	⅝
1 ½	¾	2	1 ¼

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅜	¾
⅜	¾	½	1

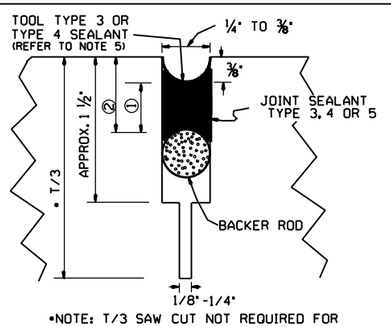


PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



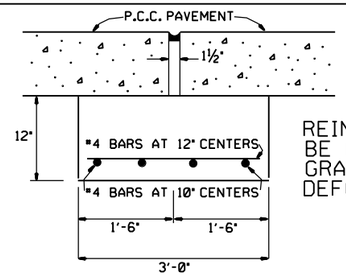
ELEVATION

NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.



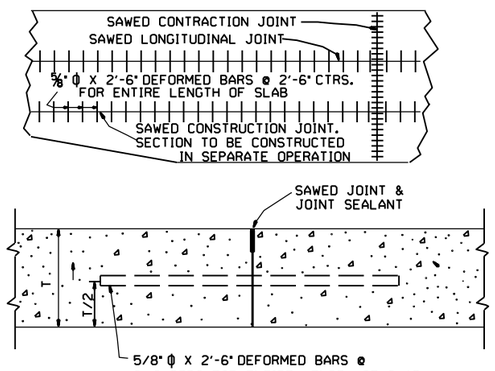
•NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT



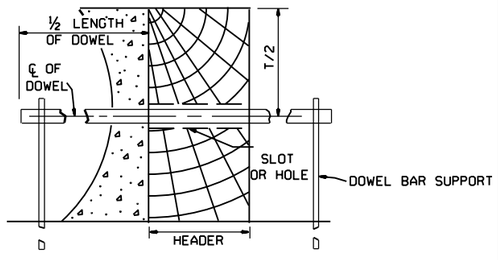
REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS



NOTE: TIE BARS SHALL BE 15" FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



SECTION

TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

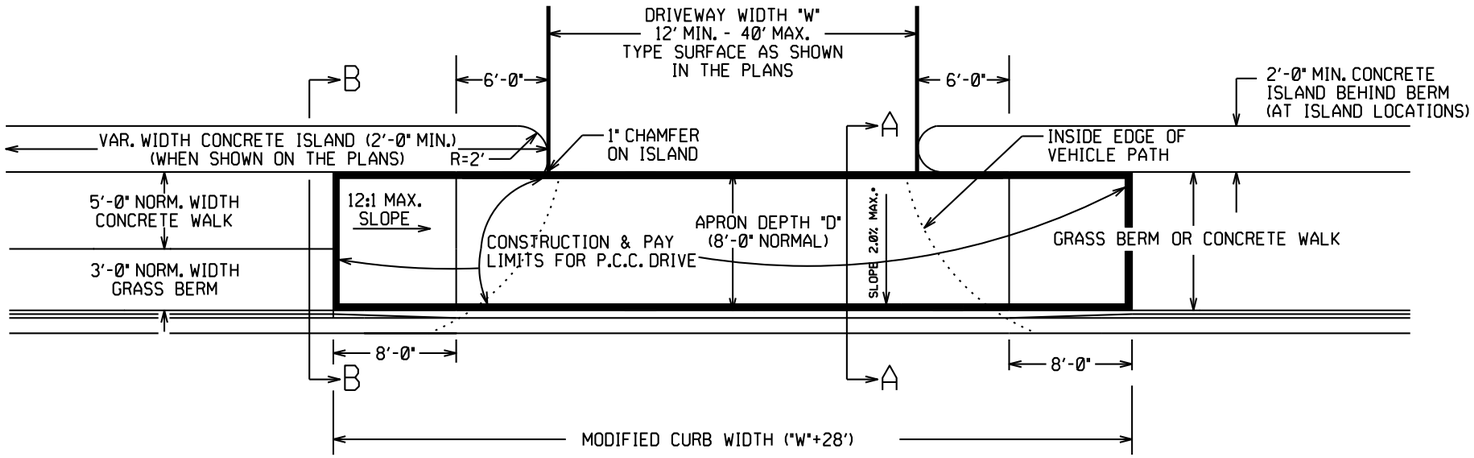
1. "T" DENOTES THICKNESS OF SLAB.
2. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR THE VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW. DOWEL BARS SHALL BE FIELD COATED FOR A MINIMUM DISTANCE OF 2" GREATER THAN HALF THE LENGTH OF THE BAR WITH AN APPROVED GREASE AS A BOND BREAKER JUST PRIOR TO PLACEMENT OF CONCRETE.
3. THE EXPANSION JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S" OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE SPECIFIED IN THE PLANS. PAYMENT FOR ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.
4. CONTRACTION JOINTS SHALL BE CONSTRUCTED ON 15' CENTERS.
5. TOOLING NOT REQUIRED FOR SELF-LEVELING SILICONE.
6. UNLESS OTHERWISE SPECIFIED IN THE PLANS, CONCRETE SHOULDERS SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS SHOWN HEREON. CONTRACTION JOINTS SHALL MATCH CONTRACTION JOINTS IN THE LANES.
7. TIE WIRES IN DOWEL BAR ASSEMBLIES SHALL NOT BE CUT PRIOR TO PLACEMENT OF PAVING CONCRETE.

DATE	REVISION	DATE FILMED
11-07-19	REV. EXP. JOINT REF ON APP. SLAB	
5-25-06	ADDED GENERAL NOTE 7	
10-9-03	REMOVED TIE BAR COATING & REVISED GENERAL NOTES	
11-16-01	ADDED TOOL SEALANT AND NOTE 5; REVISED NOTE 3	
4-26-96	REVISED CONTRACTION JOINT NOTE	
11- 3-94	ADDED NOTE RE: REINF. BARS	
4- 1-93	REVISED DOWEL BARS & GEN. NOTES	4- 1-93
10- 1-92	REVISED DOWEL SPACING	10- 1-92
8- 15-91	ADDED SPAC FOR CONTR JTS & DEL KEYWAY	
05-24-90	REVISED TIE BAR, DOWEL & JOINT SIZE	
01-25-90	ADDED EXPANSION JOINT	01-25-90
11-30-89	CHANGED T/4+1 TO T/3+1	11-30-89
03-23-89	ALTERED SAWED JOINT & ADDED NOTE	512-03-23-89
07-15-88	REVISED AND REDRAWN	632-07-15-88

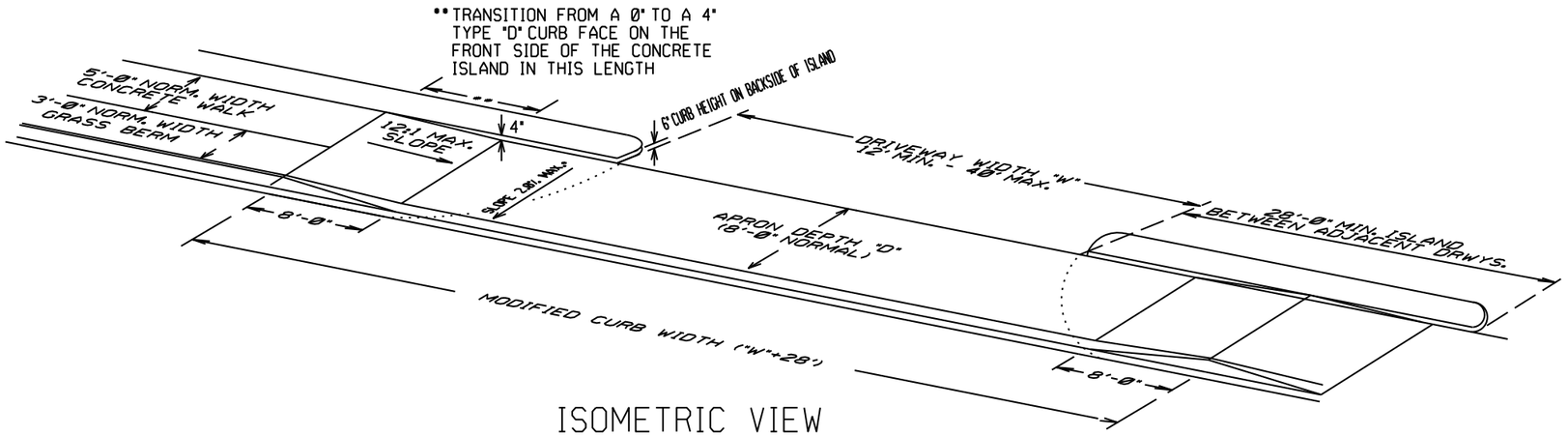
ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

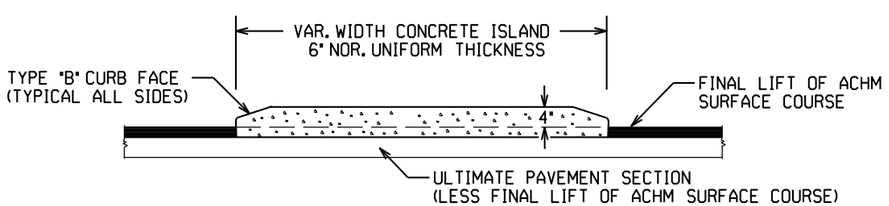
STANDARD DRAWING CPTJ - 6A



PLAN VIEW



ISOMETRIC VIEW

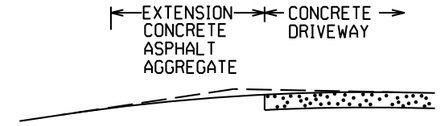


CURBED ISLANDS FOR CHANNELIZATION

CONCRETE ISLAND NOTES:

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

2. TRANSVERSE EXPANSION JOINTS, NOT LESS THAN 1/2" WIDE, SHALL BE PLACED AT MINIMUM INTERVAL OF 45'. TRANSVERSE JOINT SHALL BE CONSTRUCTED USING A JOINT FILLER COMPLYING WITH AASHTO M213.



EXTENSION TYPICAL SECTIONS

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

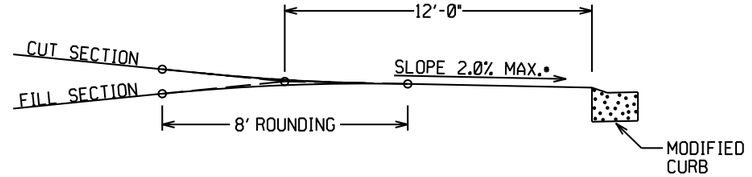
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

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

4: AGGREGATE - 6" AGGREGATE BASE COURSE

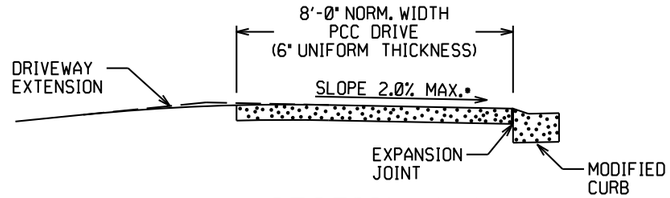
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

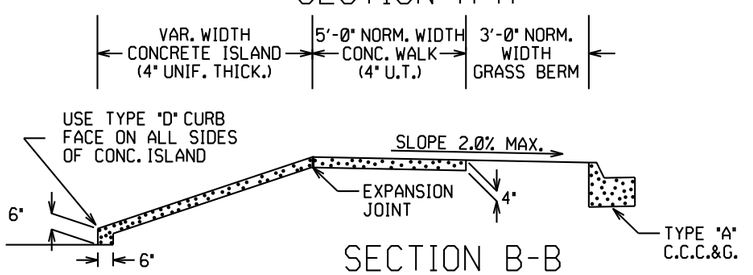


DRIVEWAY VERTICAL ALIGNMENT DETAILS

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



SECTION A-A



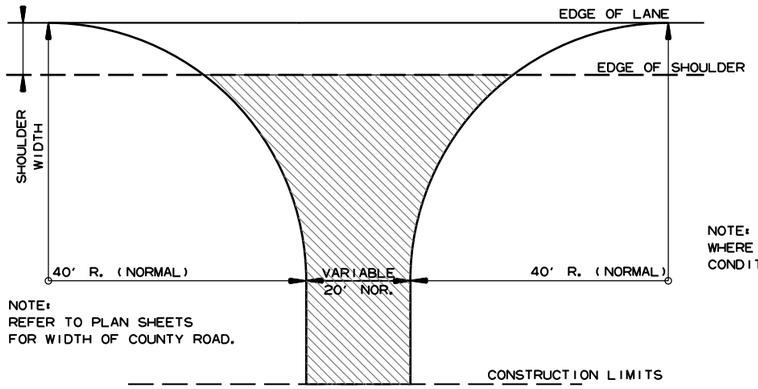
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		REVISED ISLAND NOTES
11-07-19		REVISED WALK DETAILS
2-27-14		REVISED PLAN & ISOMETRIC VIEW
11-29-07		ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL
11-10-05		REV. APRON SLOPE & DEPTH OF AGG. BASE.
8-22-02		ADDED ISLAND DETAILS & NOTES
3-30-00		REV. MOD. CURB WIDTH & TRANS. NOTE
11-19-98		REVISED NOTES
11-18-98		REDRAWN AND REISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

STANDARD DRAWING DR-1

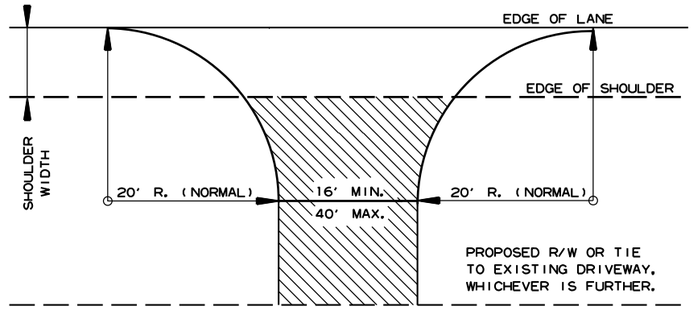


NOTE:
REFER TO PLAN SHEETS
FOR WIDTH OF COUNTY ROAD.

NOTE: TURNOUTS SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH, UNLESS OTHERWISE
SPECIFIED IN PLANS.

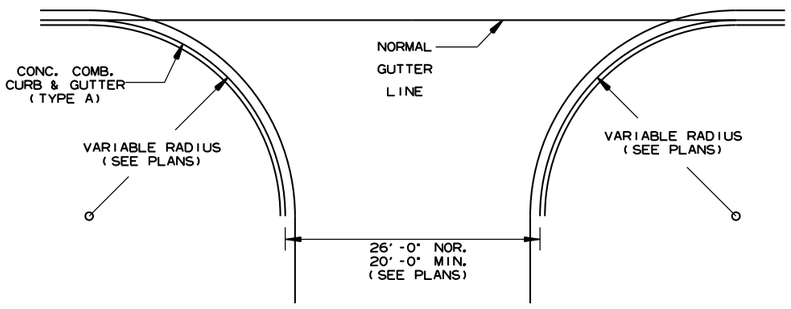
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION



NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

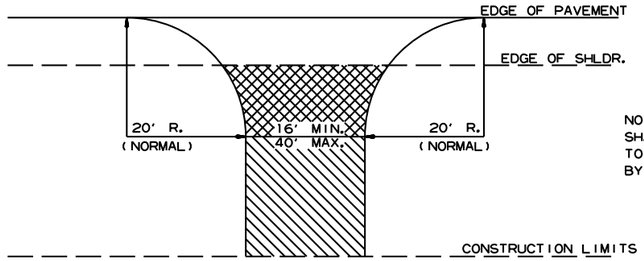
ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT OR
GRAVEL DRIVE EXISTING; OR 6"
CONCRETE IF CONCRETE DRIVE
EXISTING.

DETAIL FOR DRIVEWAY TURNOUTS OPEN SHOULDER SECTION (ARTERIALS)



NOTE:
PAVEMENT STRUCTURE FOR STATE HIGHWAYS, CITY STREETS,
& COUNTY ROADS TO BE SAME AS MAIN LANES.

DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS & STATE HIGHWAYS CURB & GUTTER SECTION



NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ASPHALT CONCRETE HOT MIX SURFACE
COURSE (220 LBS. PER SQ. YD.)
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR
6" CONCRETE IF CONCRETE DRIVE EXIST.

AGGREGATE BASE COURSE (CLASS 7)
9" COMP. DEPTH OR CONFORM
TO EXISTING DRIVEWAY

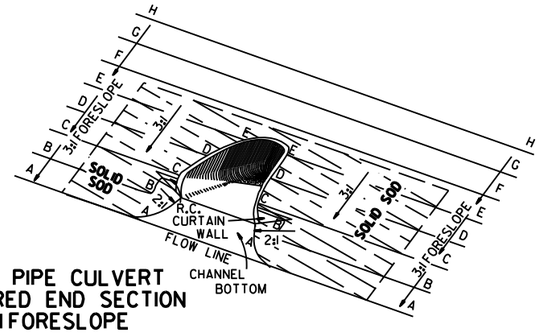
DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

DATE REV	DATE FILMED	DESCRIPTION
5-19-22		ISSUED

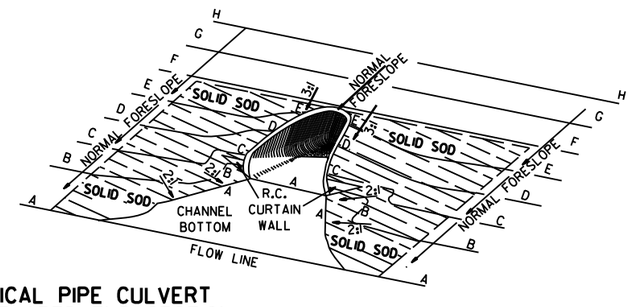
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & STREET TURNOUTS

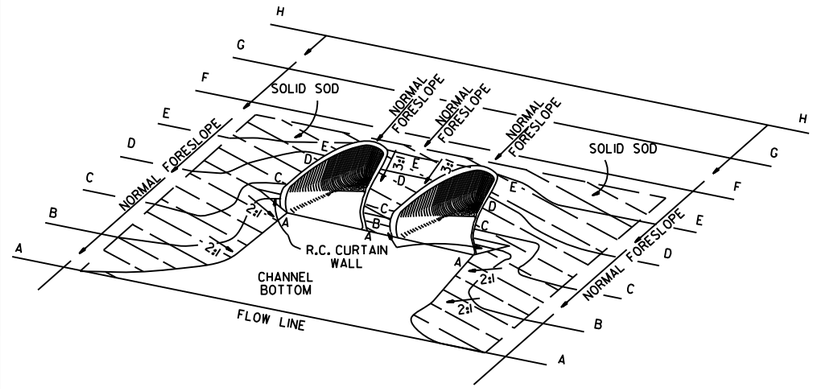
STANDARD DRAWING DR-2



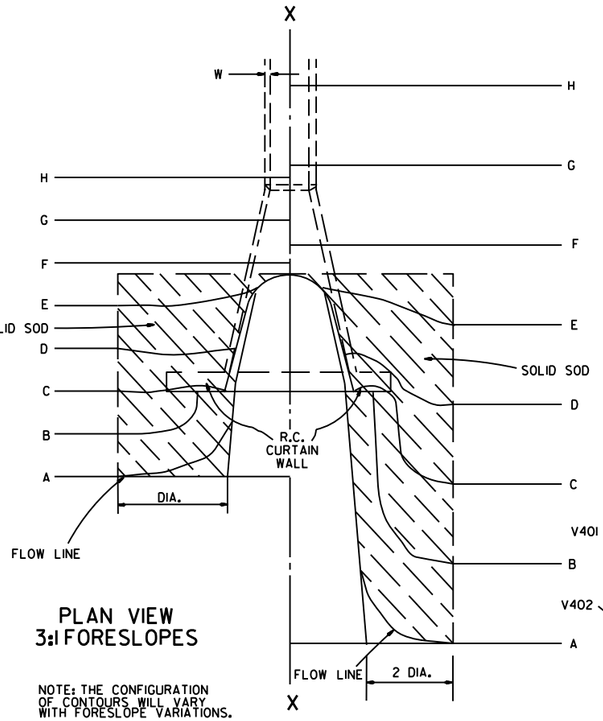
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES



PLAN VIEW
3:1 FORESLOPES

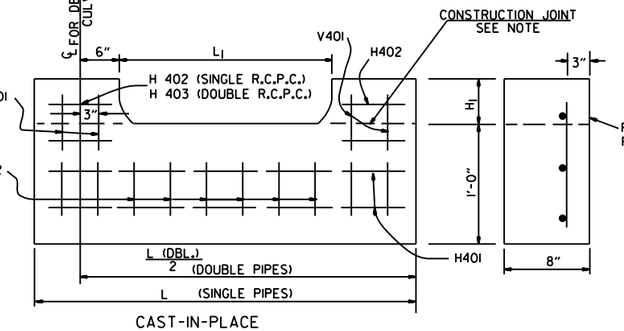
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

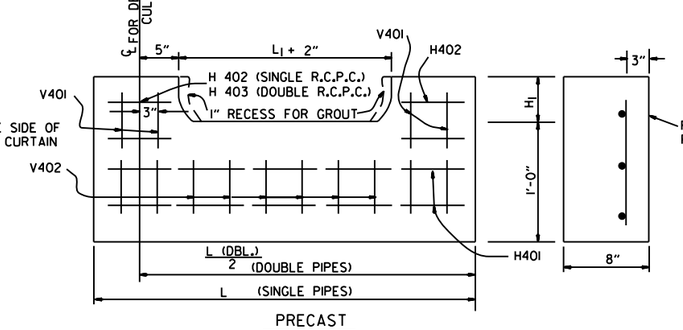
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	1'-11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



CAST-IN-PLACE

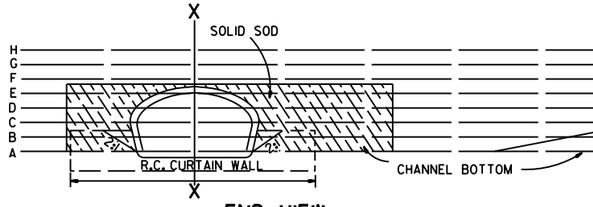
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



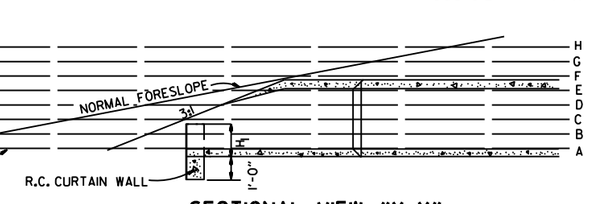
PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS



END VIEW



SECTIONAL VIEW "X-X"

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 3:1	4:1	6:1
	SQ. YDS.			SQ. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

STANDARD DRAWING FES-1

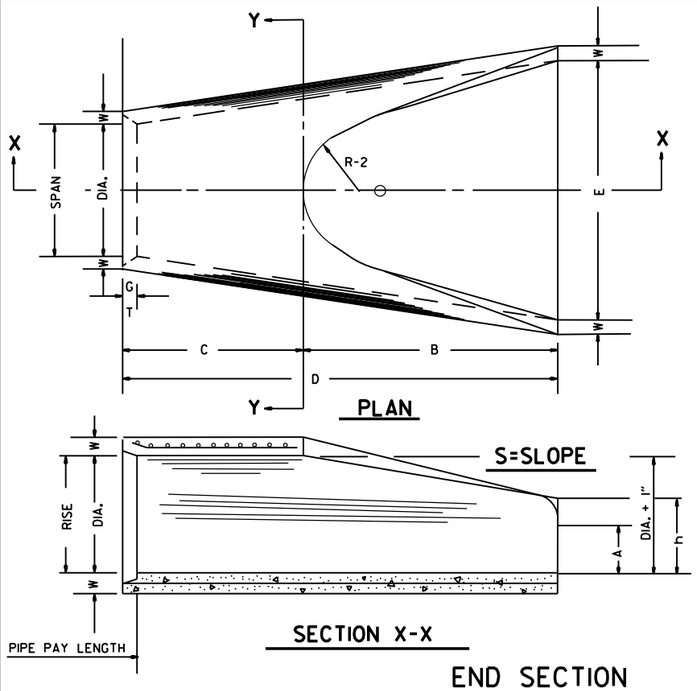
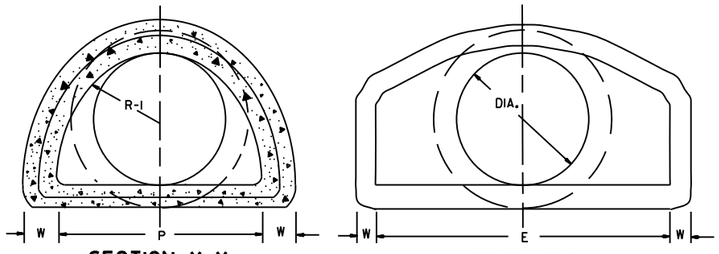


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3:1	25"	33 3/16"	16 15/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4 5/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	3:1	37"	47 13/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅞"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 13/16"	38 15/16"	24"	5"	13250	4'-6"

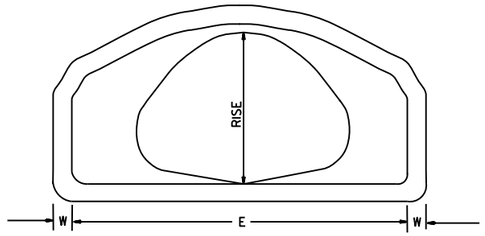


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

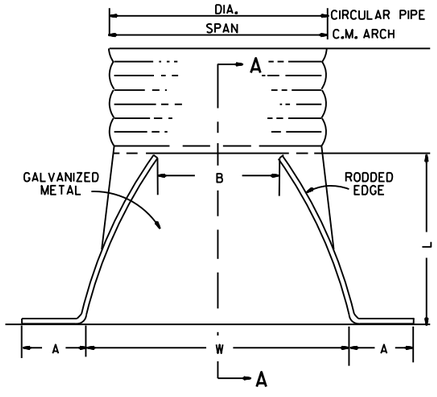
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 11/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 11/16"	20"	3"	2½:1
36	43¾	44	26⅜	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54 5/16"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

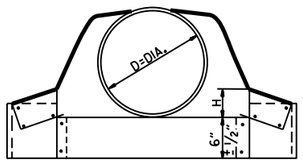
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

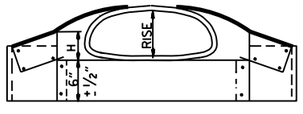


END VIEW
CONCRETE ARCH PIPE

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS







CIRCULAR PIPE

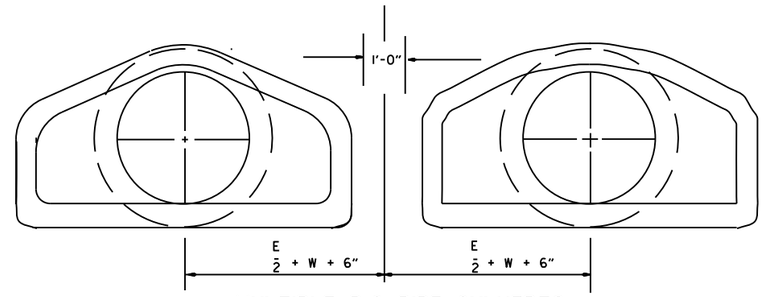
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

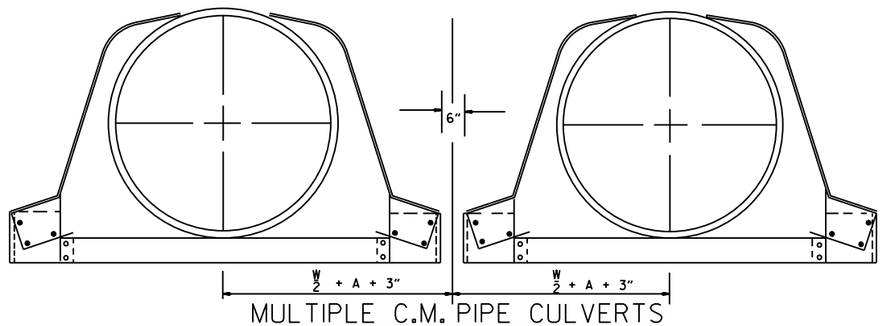
EQUIV. DIA.	SPAN	RISE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



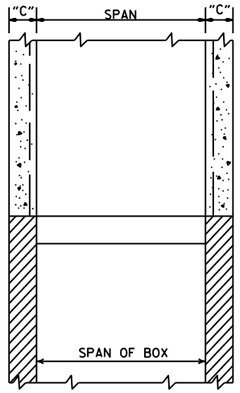
MULTIPLE C.M. PIPE CULVERTS

DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

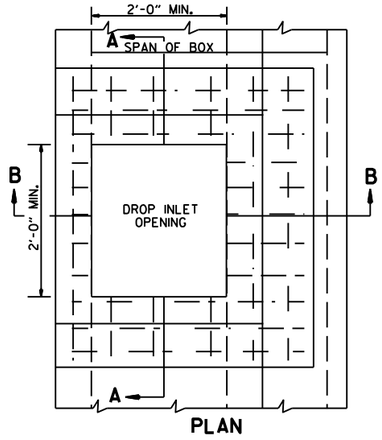
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

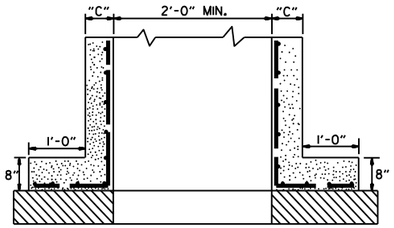
STANDARD DRAWING FES-2



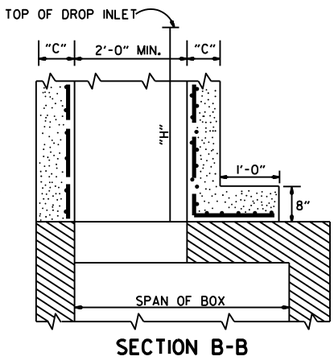
SECTION B-B



PLAN

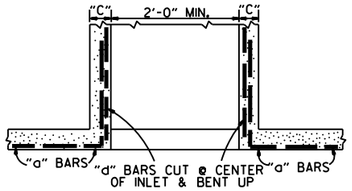


SECTION A-A

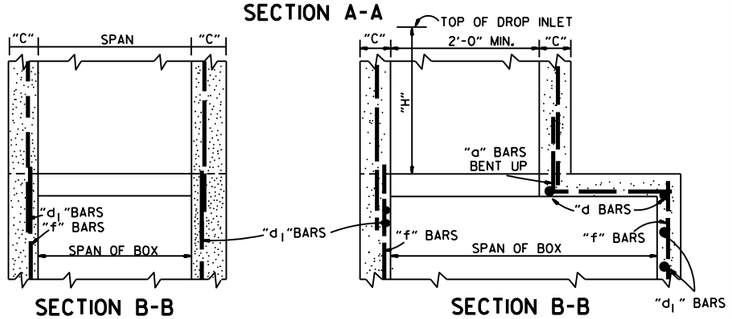


SECTION B-B

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



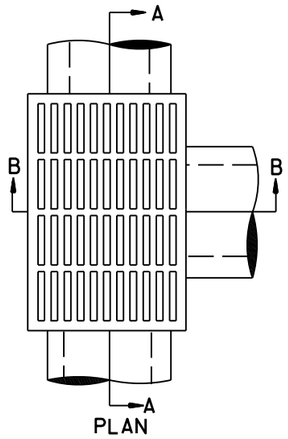
SECTION A-A



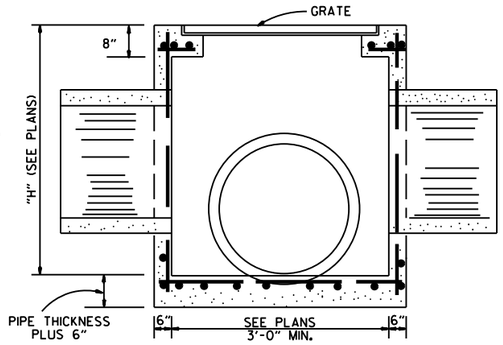
SECTION B-B SECTION B-B

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

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

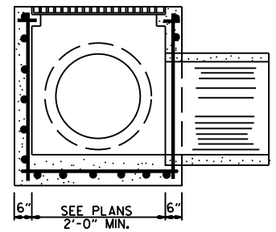


PLAN



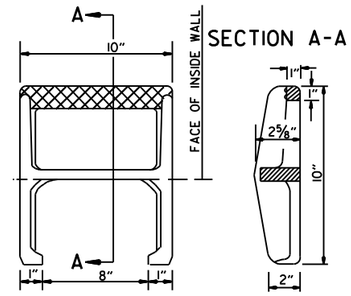
SECTION A-A

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



SECTION B-B

DROP INLET (TYPE E)

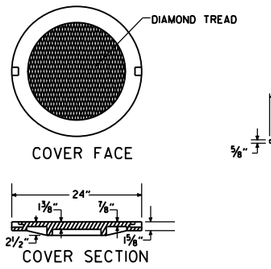


APPROX. WEIGHT = 11 LBS. (CAST IRON)

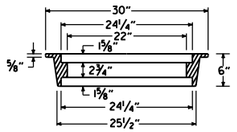
PLAN

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

DETAIL OF STEP FOR DROP INLET



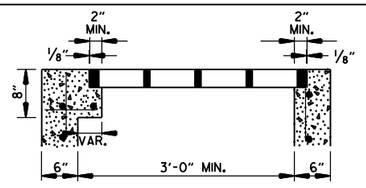
COVER SECTION



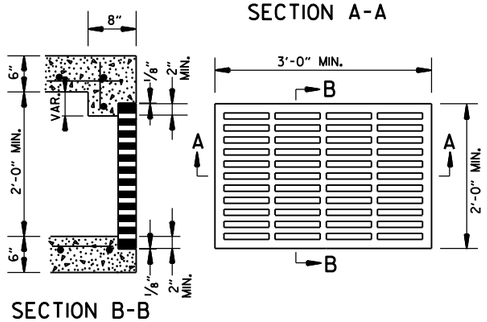
RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



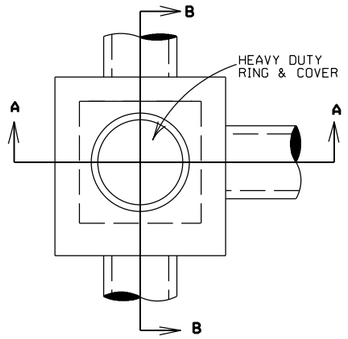
SECTION A-A



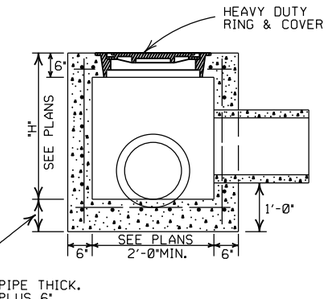
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

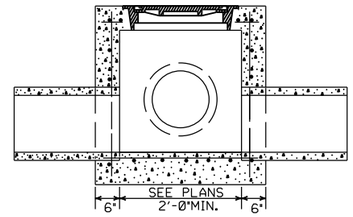


PLAN



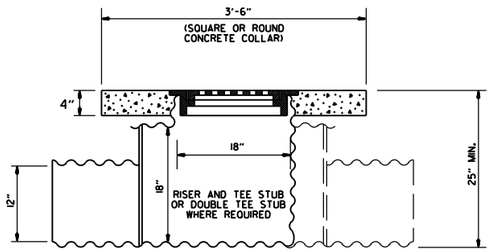
SECTION A-A

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

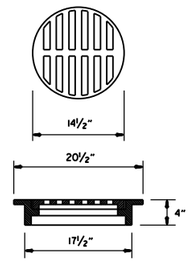


SECTION B-B

JUNCTION BOX (TYPE E)



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



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

DETAIL OF YARD DRAIN

GENERAL NOTES:

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

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

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

STANDARD DRAWING FPC-9

4'-0" LENGTH DROP INLET

PIPE SIZE	MIN. WIDTH	HEIGHT 5'-0" CLASS A CONC.	HEIGHT 5'-0" REINF. STEEL	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL
		CU. YDS.	POUNDS	CU. YDS.	POUNDS
18"	2'-6"	1.77	156	0.28	22
24"	2'-6"	1.79	156	0.28	22
30"	3'-2"	2.39	205	0.30	26
36"	3'-8"	2.63	236	0.32	28
42"	4'-4"	2.95	250	0.34	30
48"	4'-10"	3.21	265	0.36	32

NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

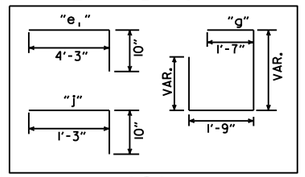
DROP INLET EXTENSION

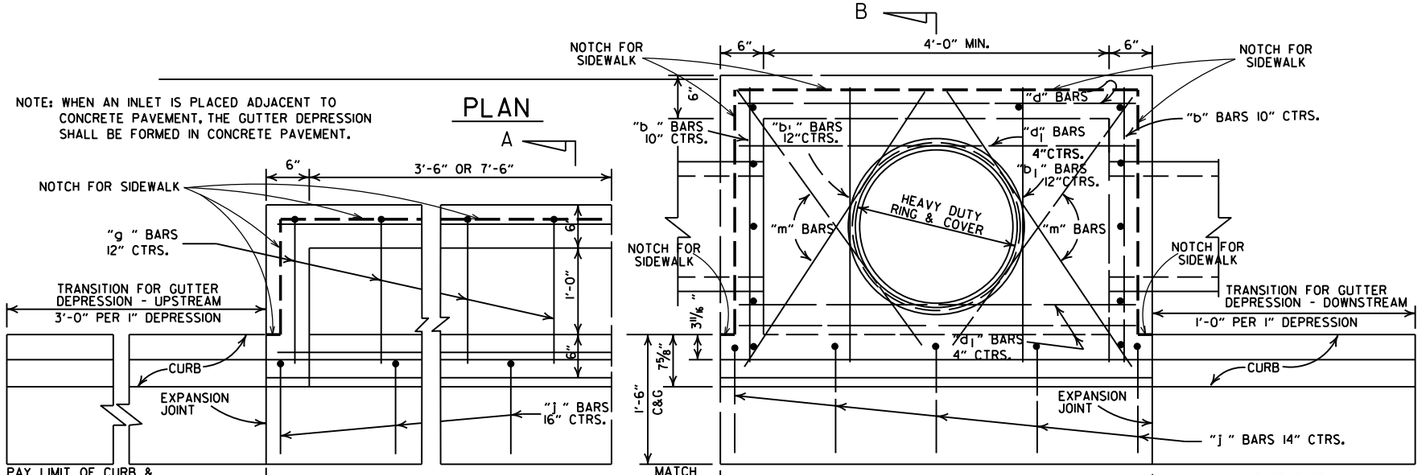
4'-0" CLASS A CONC.	4'-0" REINF. STEEL	8'-0" CLASS A CONC.	8'-0" REINF. STEEL
CU. YDS.	POUNDS	CU. YDS.	POUNDS
0.58	38	0.87	72
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.			
0.04	3		

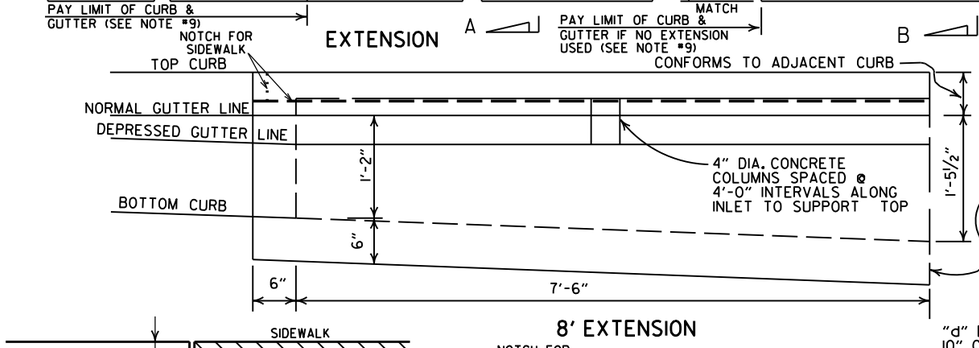
DEDUCT FROM QUANTITY COMPUTED FOR EACH PIPE ENTERING INLET

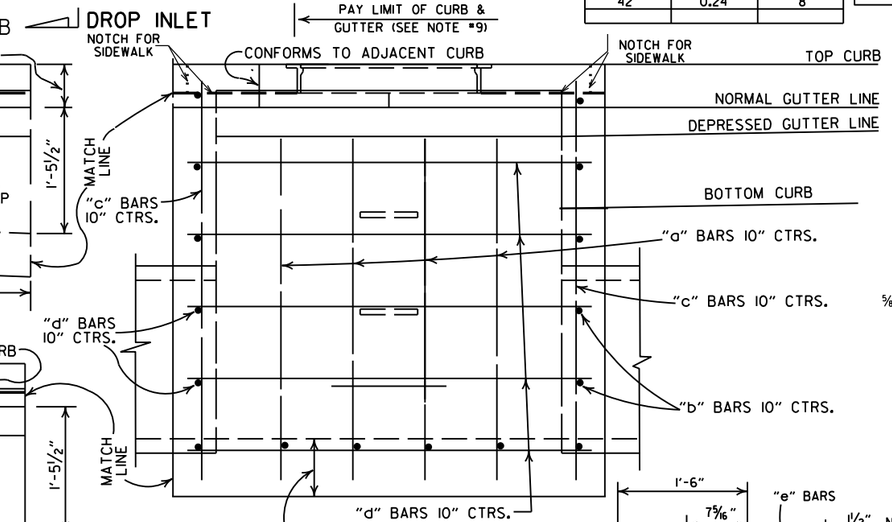
INSIDE DIA. PIPE	CLASS A CONC.	REINF. STEEL
INCHES	CU. YDS.	POUNDS
18	0.05	2
24	0.09	3
30	0.13	4
42	0.24	8

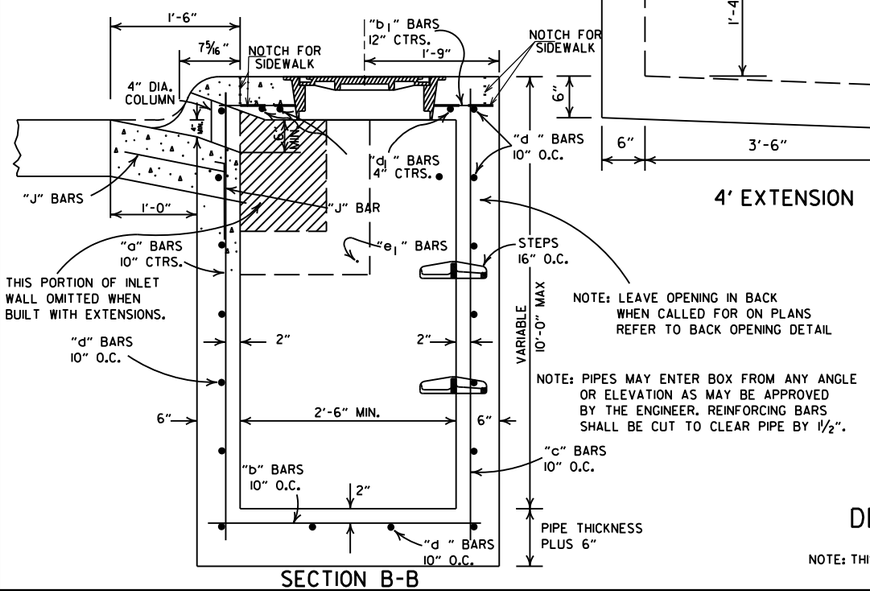
BAR DIAMETER

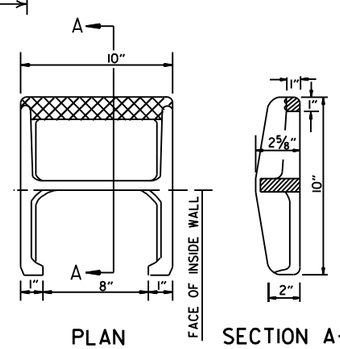


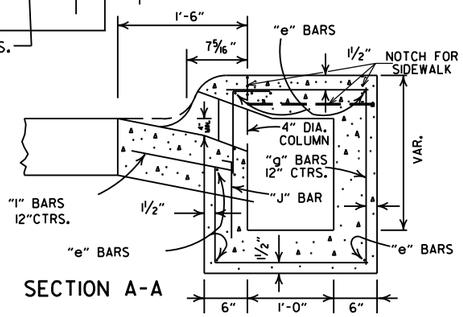


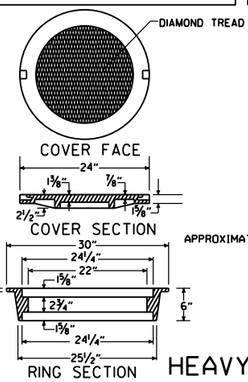






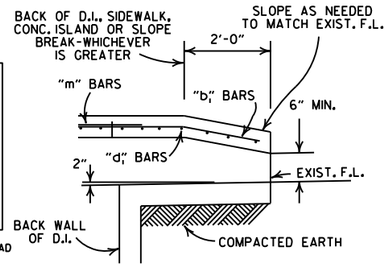






APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



BACK OPENING

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

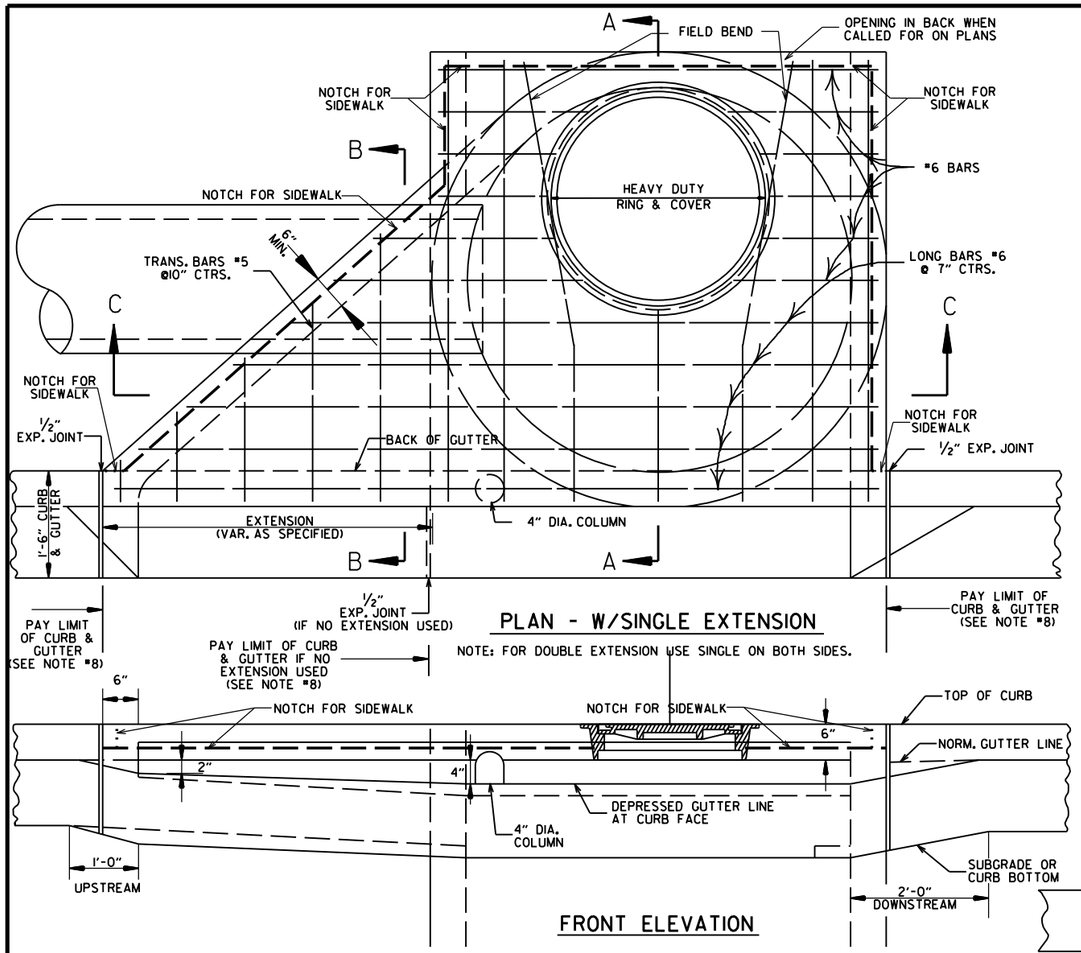
GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
3. ALL REINF. BARS SHALL BE #4 AND HAVE 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
6. WHEN PLANS CALL FOR DROP INLET OVER 10'-0" HIGH, FLOOR AND WALLS SHALL BE CONSTRUCTED AS SHOWN FOR TYPE "RM" DROP INLET (FPC-9D).
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
9. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
10. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
11. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
12. 4"×2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER ADDED NOTES 9,10,&11	
10-18-96	CORRECTED SPELLING	
4-26-96	ADDED NOTE 8 & REVISED (4')(8') EXTENSION TITLES	10-18-96
4-1-93	REVISED BACK OPENING & NOTE	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS (TYPE C)

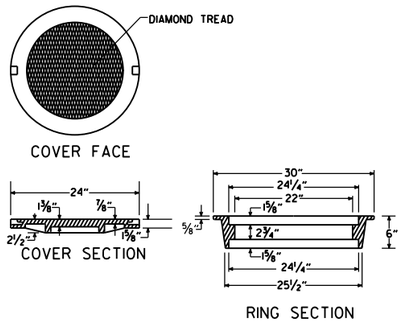
STANDARD DRAWING FPC-9E



PLAN - W/SINGLE EXTENSION

FRONT ELEVATION

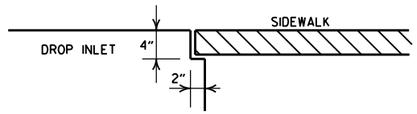
SECTION C-C



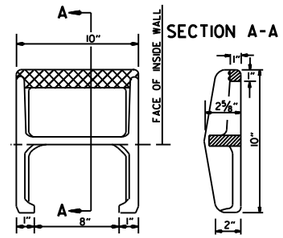
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS



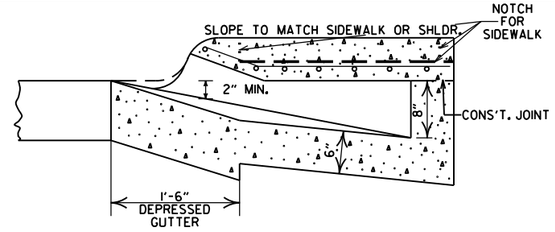
SECTION A-A

APPROX. WEIGHT = 11LBS. (CAST IRON)

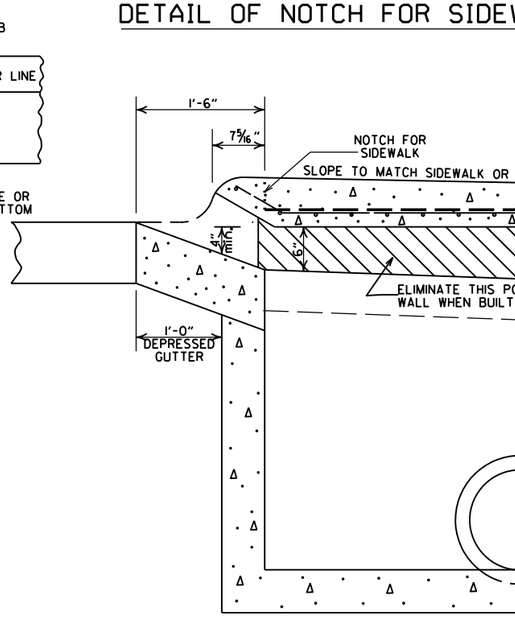
PLAN

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

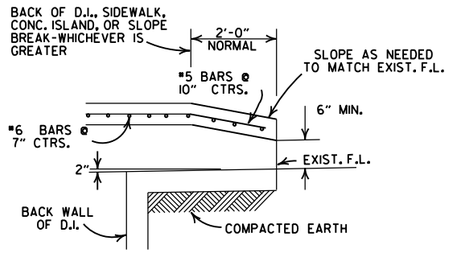
DETAIL OF STEP FOR DROP INLET



SECTION B-B



SECTION A-A



BACK OPENING

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

GENERAL NOTES:

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

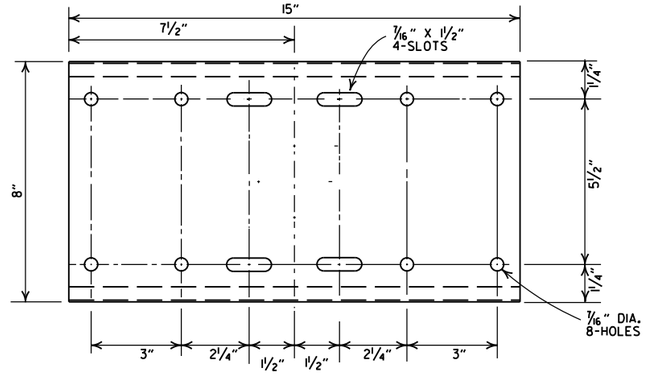
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 11, ADJ. OPENING DIMENSION	
10-12-95	CORRECTED #6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN, BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-16-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
5-23-89	ADDED NOTE 8 & MINIMUM WALL THICKNESS	513-5-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	629-7-15-88
1-14-87	MODIFIED WALL THICKNESS	783-1-14-87
6-12-87	ISSUED	4-6-12-87

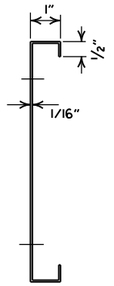
ARKANSAS STATE HIGHWAY COMMISSION

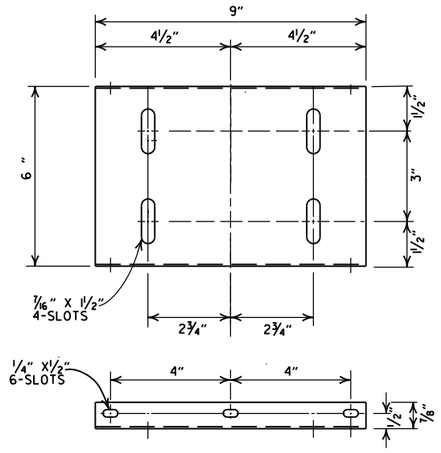
DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M

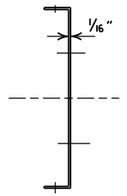


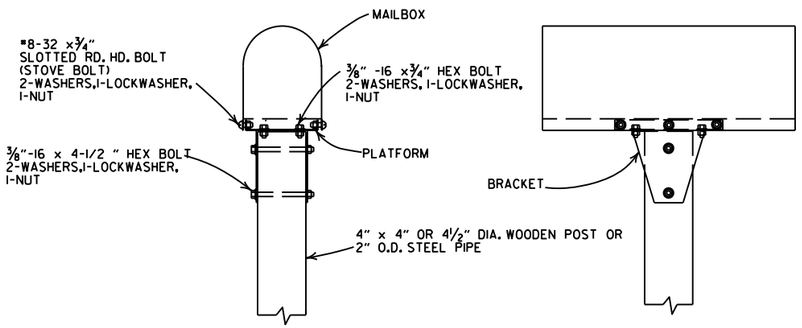
SHELF



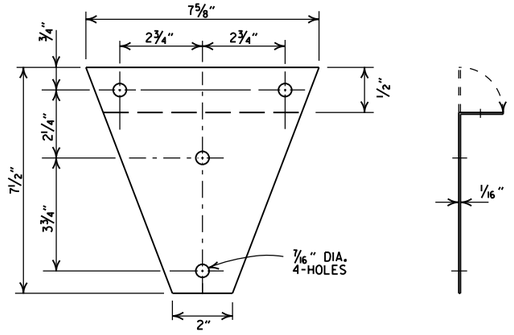


PLATFORM





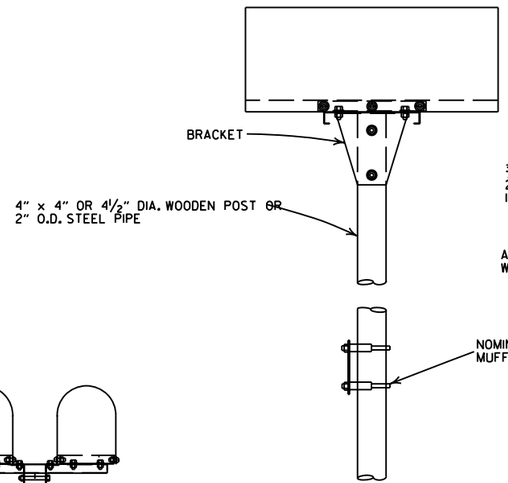
SINGLE INSTALLATION



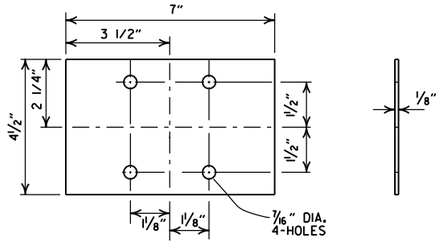
BRACKET

GENERAL NOTES

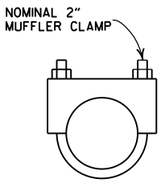
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF ¾" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 X¾" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



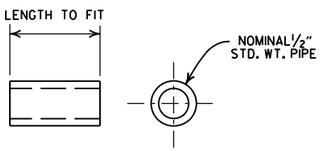
DOUBLE INSTALLATION



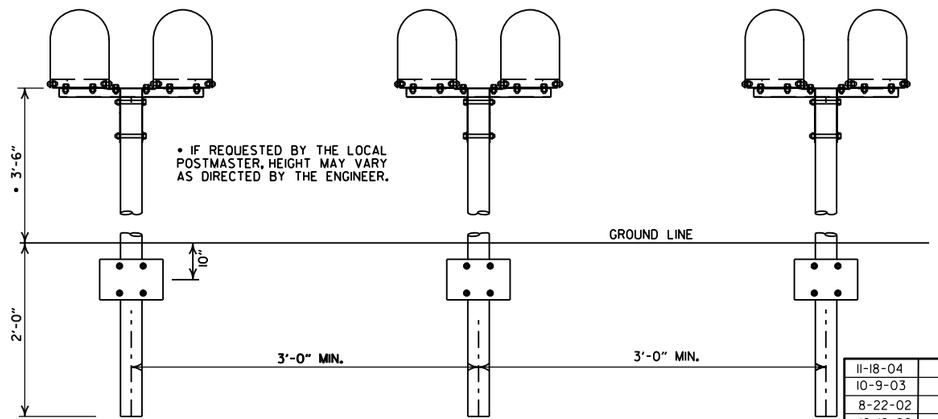
ANTI-TWIST PLATE



CLAMP



SPACER



SPACING FOR MULTIPLE POST INSTALLATION

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

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS

STANDARD DRAWING MB-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	ARDOT NOMINAL	AASHTO M 206	ARDOT NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31⅜	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

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

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

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

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

CONSTRUCTION SEQUENCE

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

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

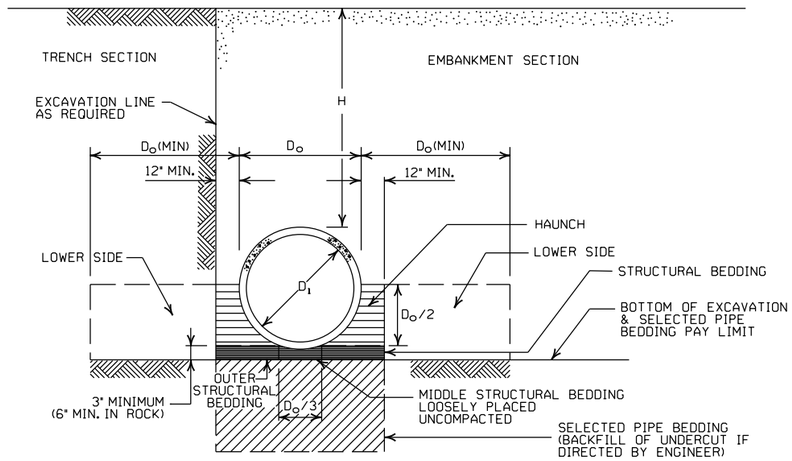
- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_O = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

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

* SM-3 WILL NOT BE ALLOWED.

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



EMBANKMENT AND TRENCH INSTALLATIONS

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

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

CORRUGATED ALUMINUM PIPE (ROUND)

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

CONSTRUCTION SEQUENCE

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

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

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

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

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

CORRUGATED METAL PIPE ARCHES

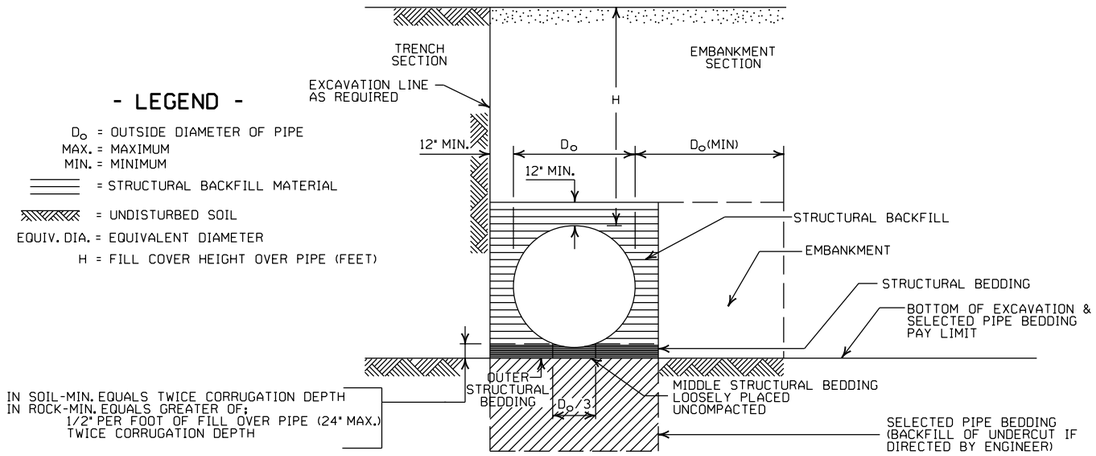
EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL			ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)	MAX. HEIGHT OF FILL, "H" (FT.)
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

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

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

- LEGEND -

D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)



EMBANKMENT AND TRENCH INSTALLATIONS

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

GENERAL NOTES

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

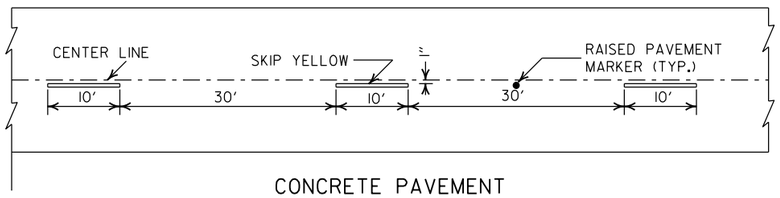
DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

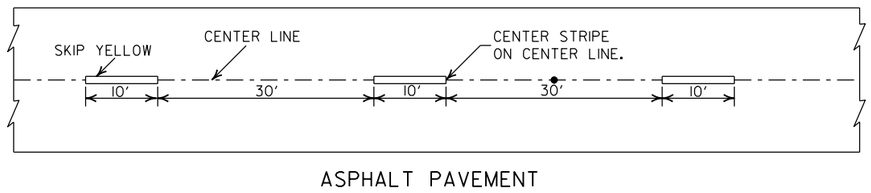
METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

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

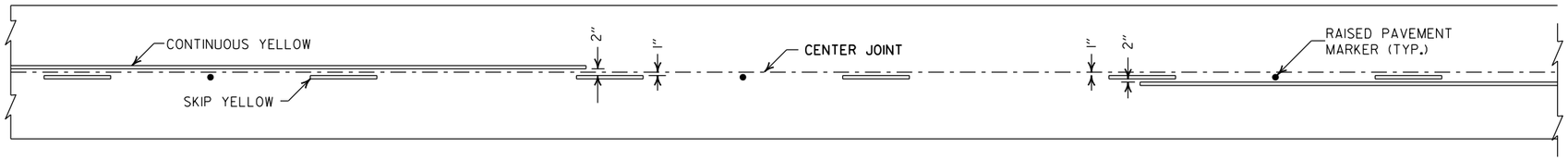


CONCRETE PAVEMENT

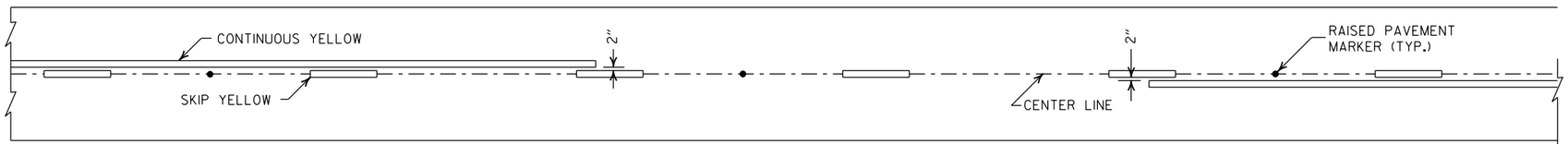


ASPHALT PAVEMENT

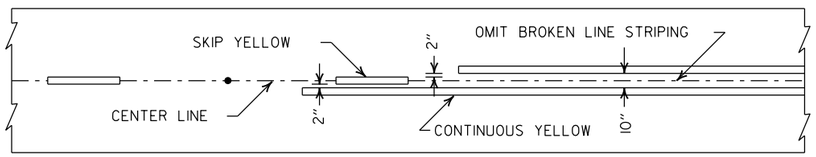
BROKEN LINE STRIPING



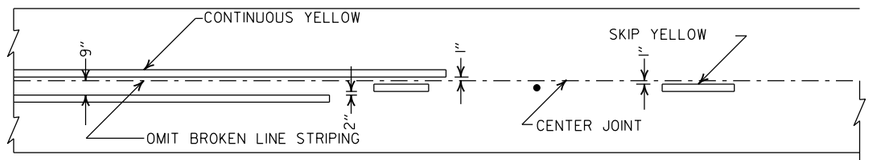
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

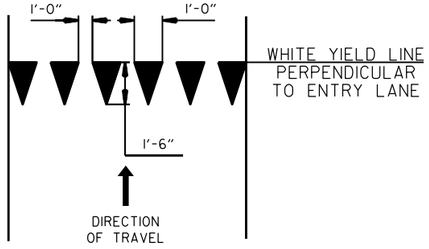


ASPHALT PAVEMENT

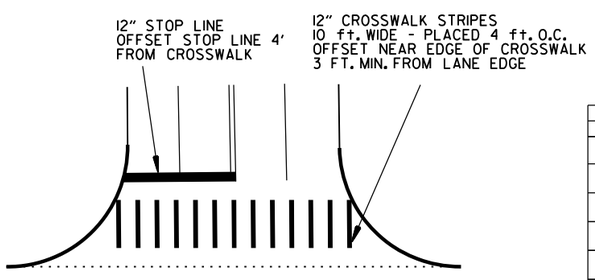


CONCRETE PAVEMENT

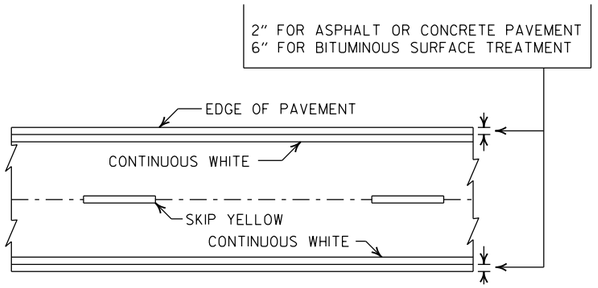
STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL



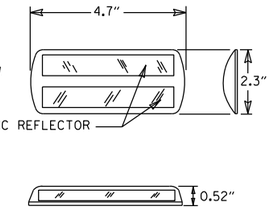
CROSSWALK AND STOP LINE DETAILS



PAVEMENT EDGE LINE MARKING

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

TYPE II
RED/CLEAR OR YELLOW/YELLOW



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

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

DATE	REVISION	FILMED
2-27-20	REVISED STOP LINE DETAILS	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

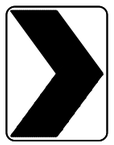
ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

R1-1
30"X30"

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



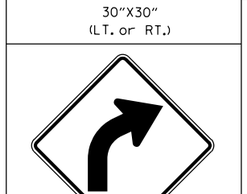
W1-8
18"X24"

W2-5
30"X30"

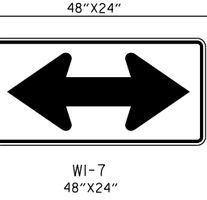
W3-1
36"X36"

W5-1
36"X36"

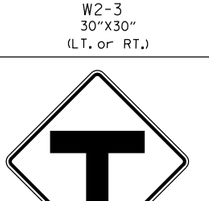
M6-3
21"X15"



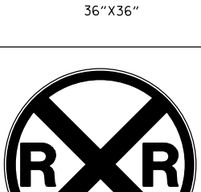
R1-2
36"X36"X36"



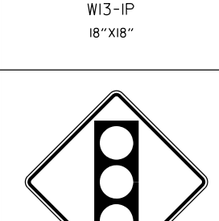
W1-4
30"X30"
(LT. or RT.)



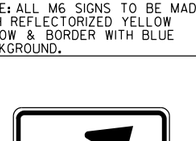
W2-1
30"X30"



S1-1
36"X36"

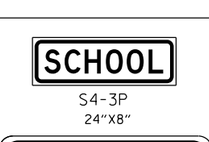


W3-2
36"X36"

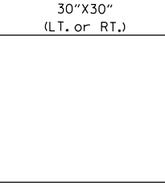


County
Route Marker
M1-6
24"X24"

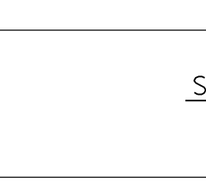
NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.



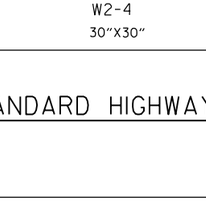
M6-4
21"X15"



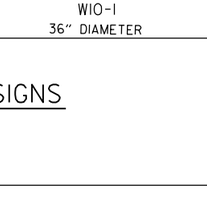
R2-1
24"X30"



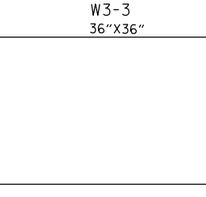
W1-5
30"X30"
(LT. or RT.)



W2-2
30"X30"

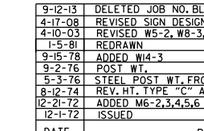


W5-2
36"X36"



W8-3
36"X36"

R1-3P
18"X6"



M6-5
21"X15"

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

W1-6
48"X24"

W1-7
48"X24"

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

W5-3
36"X36"

W13-1P
18"X18"

M6-1
21"X15"

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

M6-6
21"X15"

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

W2-4
30"X30"

W10-1
36" DIAMETER

W3-3
36"X36"

M6-2
21"X15"

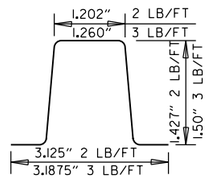
S4-3P
24"X8"

S4-2P
24"X10"

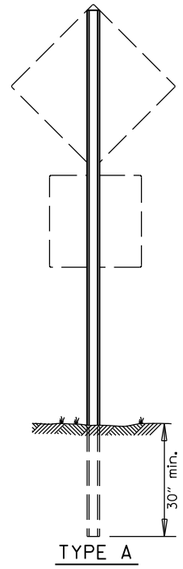
OM-3
12"X36"
(LT. or RT.)

MINIMUM DIMENSIONS SHOWN

SUPPORT SECTION



(U-CHANNEL)
STANDARD SUPPORT
ASSEMBLIES



TYPE A

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

TYPE B

TYPE C

MINIMUM WEIGHT

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

STANDARD HIGHWAY SIGNS

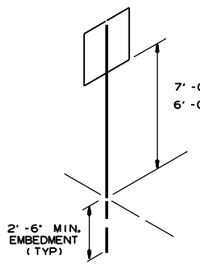
DATE	REVISION	DATE FILMED
9-12-13	DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P	
4-17-08	REVISED SIGN DESIGNATION - W3-1 & W3-2	
4-10-03	REVISED W5-2, W8-3, OM-3; ADDED WI-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED WI4-3	877-9-15-78
9-2-76	POST WT.	623-9-3-76
5-3-76	STEEL POST WT. FROM 2"-3"; ADDED S4-2 & S4-3	504-5-3-76
8-12-74	REV. HT. TYPE "C" ASSEMBLY	500-8-21-74
12-21-72	ADDED M6-2,3,4,5,6	500-12-21-72
12-1-72	ISSUED	562-12-1-72

SUPPORT ASSEMBLIES

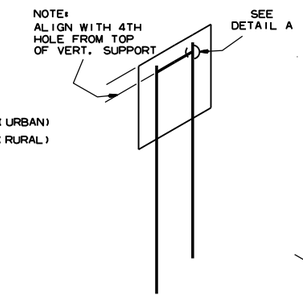
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD HIGHWAY SIGNS
AND SUPPORT ASSEMBLIES

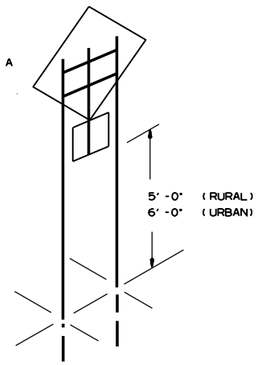
STANDARD DRAWING SHS-1



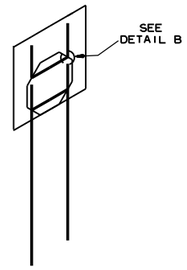
U-1



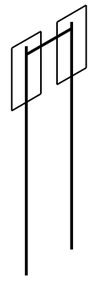
U-2



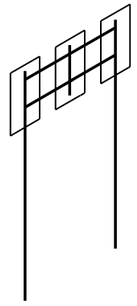
U-2 (A)



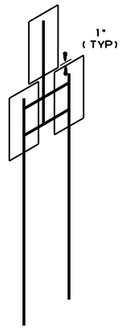
U-2 (B)



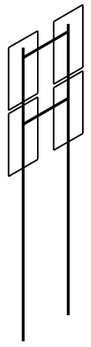
U-2 (1)



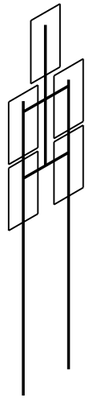
U-2 (2)



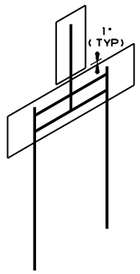
U-2 (3)



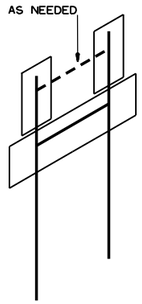
U-2 (4)



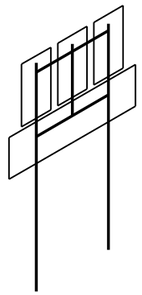
U-2 (5)



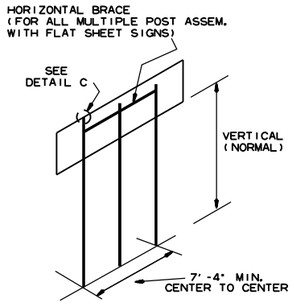
U-2 (6)



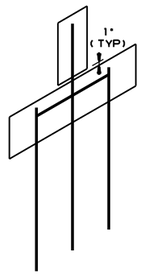
U-2 (7)



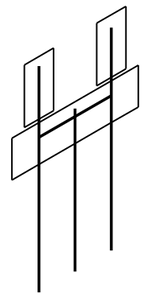
U-2 (8)



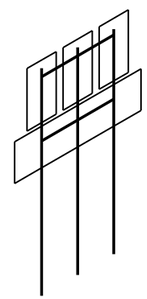
U-3



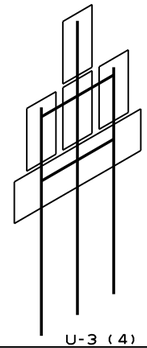
U-3 (1)



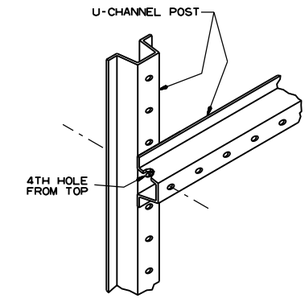
U-3 (2)



U-3 (3)

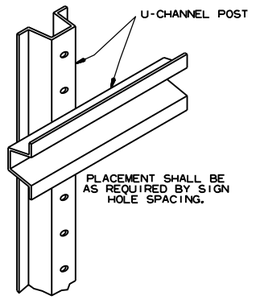


U-3 (4)



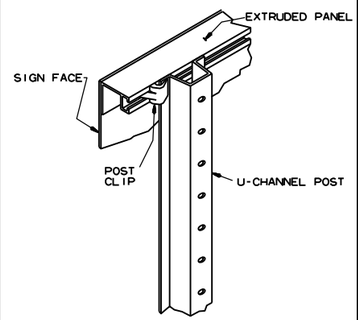
DETAIL A

SHOWING HORIZONTAL BRACE



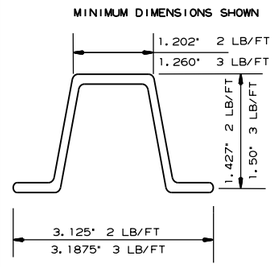
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



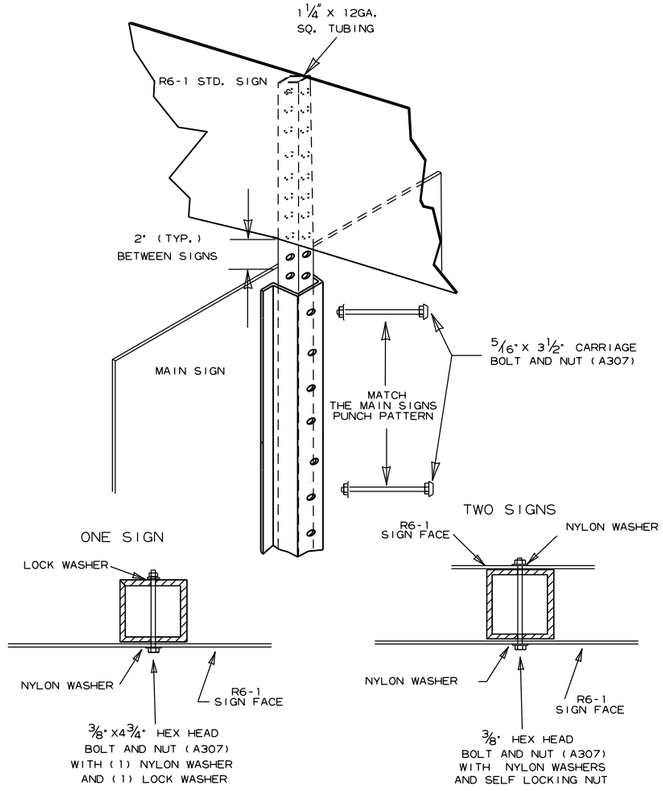
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



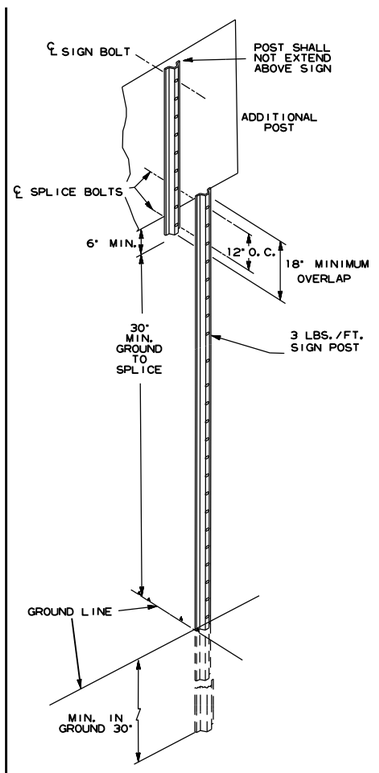
DETAIL C

U-CHANNEL POST



DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

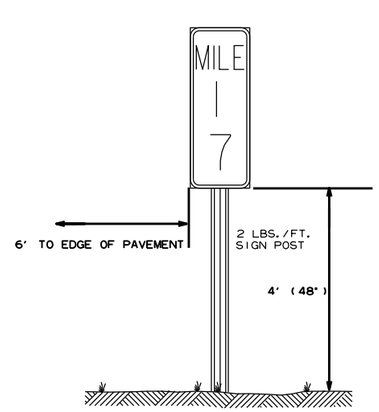
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

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

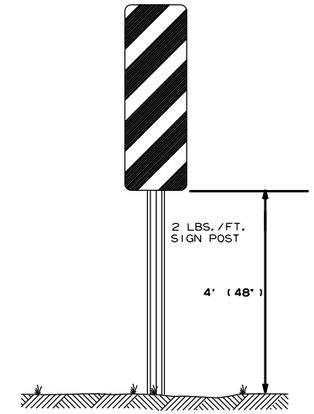
NORMAL INSTALLATIONS WILL REQUIRE 5/16" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

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



TYPICAL MILE MARKER INSTALLATION



TYPICAL OM-3 INSTALLATION AT EDGE OF OBSTRUCTION

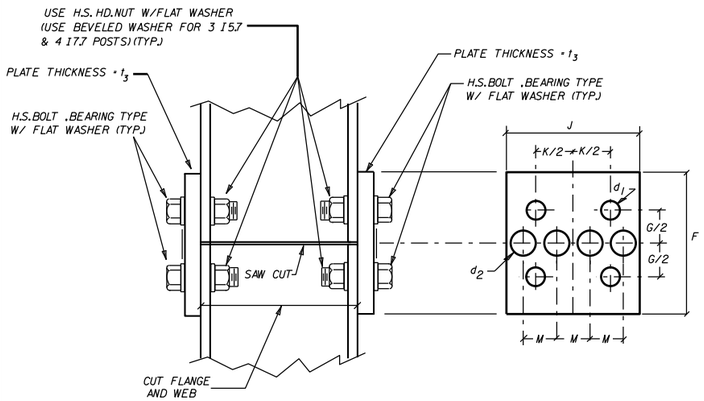
DATE	REVISION	FILMED
7-25-19	REVISED CARRIAGE BOLT WITH MATERIAL REQUIREMENT	
2-27-14	REVISED NOTES.	
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

U-CHANNEL POST ASSEMBLIES

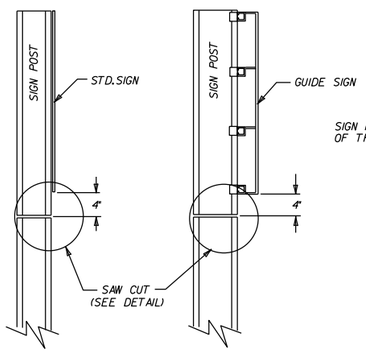
STANDARD DRAWING SHS-2

POST SIZE	BASE CONNECTION DATA											FUSE PLATE DATA									
	BOLT SIZE	BOLT TORQUE (INCH/LBS)	A	B	C	D	E	t_1	t_2	W	R	F	G		J	K	M	d_1	d_2	t_3	BOLT SIZE	WT.OF EACH FUSE PLATE LBS.
W 6X9												4¼"	2"		4"	2¼"	1"	9/16"	¾"	¼"	½" x 1½"	1.01
W 6X12	5/8" x 2¾"	450"-680"	5"	2"	1¼"	2¾"	1⅛"	¾"	½"	¼"	11/32"											
W 6X15												5"	2½"		6"	3½"	1½"	11/16"	1¼"	⅜"	⅝" x 2¼"	2.51
W 8X18												5"	2½"		5¼"	2¾"	1¼"	13/16"	1¼"	⅜"	¾" x 2¼"	2.26
W 8X21												5½"	2½"		5¼"	2¾"	1¼"	13/16"	1"	½"	¾" x 2¼"	3.35
W 10X22	¾" x 3½"	750"-1050"	6"	2¼"	1⅜"	3½"	1¼"	1"	¾"	5/16"	13/32"	6"	3"		5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾" x 2¼"	4.03
W 10X26																						
W 12X26												6"	3"		6½"	3½"	1⅝"	13/16"	1⅝"	½"	¾" x 2¼"	4.47



NOTE: USE H.S.HEX HEAD BOLTS,HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED.ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS,HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A36,ASTM-A441,ASTM-572 GRADE 50,OR ASTM-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN UNLIMITED TENSILE STRENGTH NOT TO EXCEED 80 KSI.

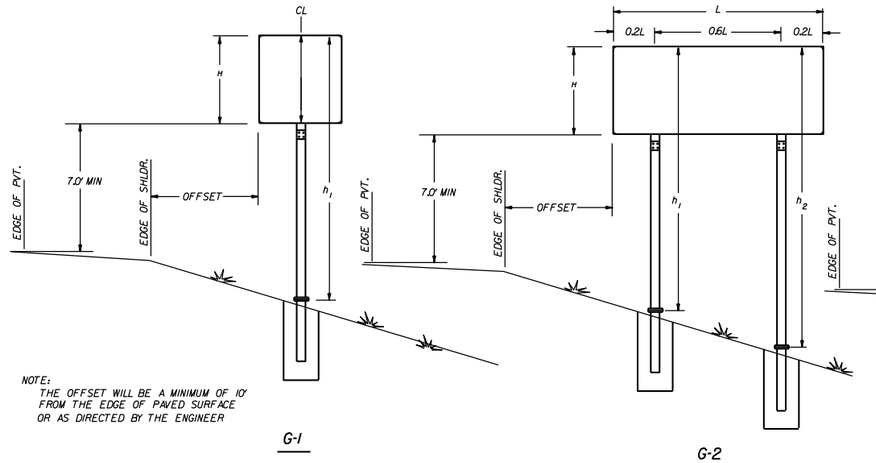
NOTE: BOLT HOLES,USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED. AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED. REPAIR OF CUT SURFACES AFTER GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A123.

STANDARD SIGNS GUIDE SIGNS

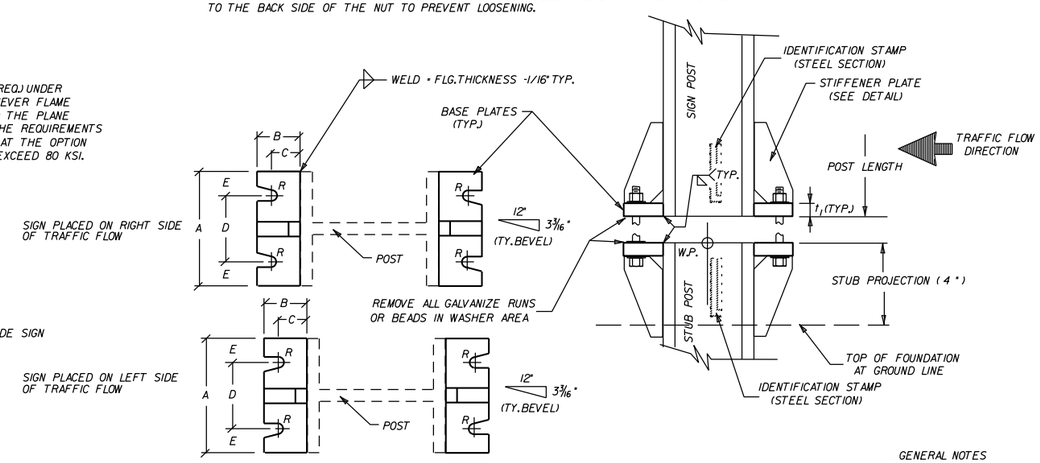
FUSE PLATE DETAILS



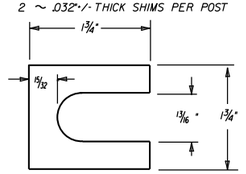
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

G-1 G-2 G-3

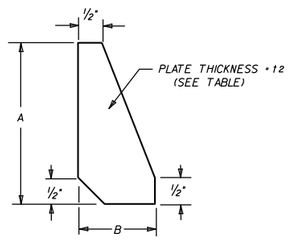
NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S.BOLTS WITH HEX HD.,HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT.SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC.IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST. THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR ,THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.



FURNISH 2 ~ .012"+/- THICK AND 2 ~ .032"+/- THICK SHIMS PER POST



SHIM DETAIL



STIFFENER PLATE DETAIL

GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

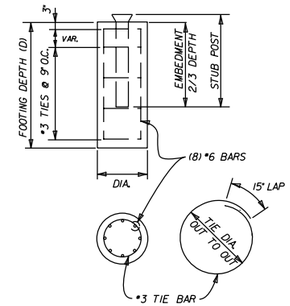
REFER TO THE PLANS FOR FOOTING DIMENSIONS.

EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

STEEL SCHEDULE

FOOTING DIAMETER	#3 TIE BARS		
	DIAMETER	BAR LENGTH	POUNDS
INCHES	INCHES	FEET	
18	12	4.39	1.65
24	18	5.96	2.24
30	24	7.53	2.83
36	30	9.1	3.42

FOOTING DEPTH	#6 STRAIGHT BARS		
	BAR LENGTH	NUMBER REQ'D.	POUNDS
FEET	FEET		
2.50	2.00	8	24.03
3.00	2.50	8	30.04
3.50	3.00	8	36.05
4.00	3.50	8	42.06
4.50	4.00	8	48.06
5.00	4.50	8	54.07
5.50	5.00	8	60.08
6.00	5.50	8	66.09
6.50	6.00	8	72.10
7.00	6.50	8	78.10
7.50	7.00	8	84.11
8.00	7.50	8	90.12



FOOTING QUANTITIES

FOOTING DEPTH	NUMBER TIE BARS REQ'D	18" DIAMETER		24" DIAMETER		30" DIAMETER		36" DIAMETER	
		CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL
FEET		CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)
2.50	4	0.16	31						
3.00	4	0.20	37						
3.50	5	0.23	44						
4.00	6	0.26	52	0.47	56				
4.50	6	0.29	58	0.52	62				
5.00	7	0.33	66	0.58	70	0.91	74		
5.50	8			0.64	78	1.00	83		
6.00	8			0.70	84	1.09	89	1.57	93
6.50	9					1.18	98	1.70	103
7.00	10					1.27	106	1.83	112
7.50	10							1.96	118
8.00	11							2.09	128

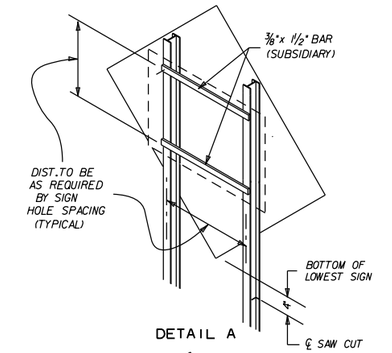
SIGN POST AND STUB POST

DATE	REVISION	FILMED
5-19-22	REVISED FUSE PLATE DETIALS' NOTE.	
9-12-13	ISSUED	

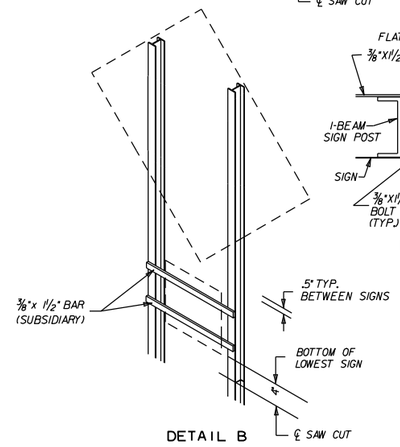
ARKANSAS STATE HIGHWAY COMMISSION

DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS

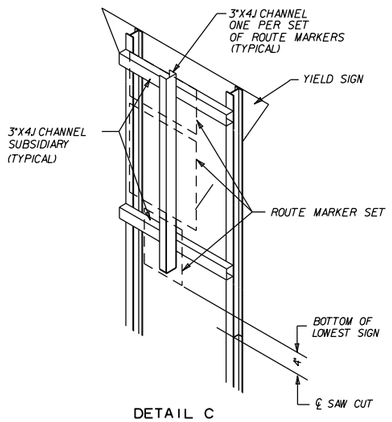
STANDARD DRAWING SHS-3



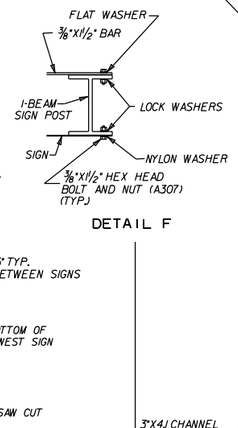
DETAIL A



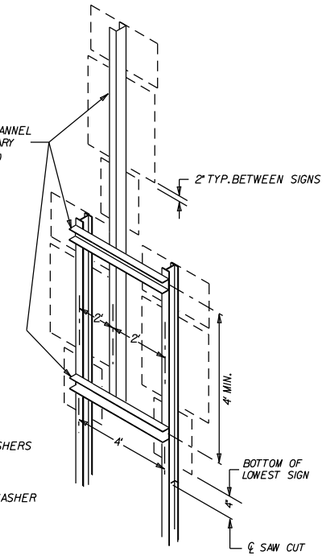
DETAIL B



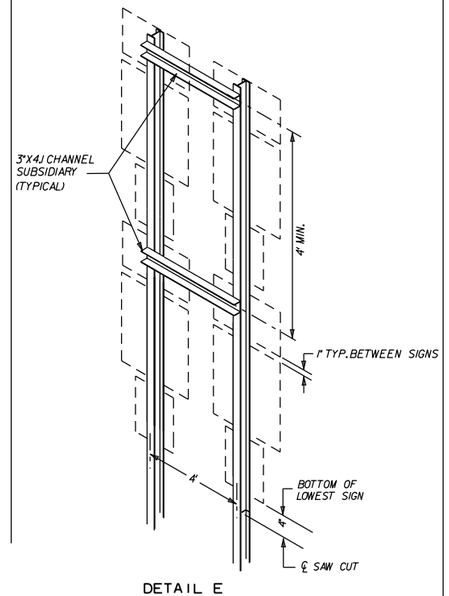
DETAIL C



DETAIL F



DETAIL D



DETAIL E

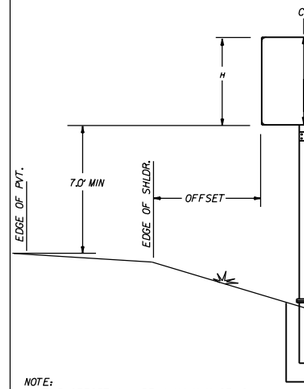
NOTE

ALL ADDITIONAL MOUNTING HARDWARE, BOLTS, NUTS, CHANNELS AND BAR STRAPS REQUIRED TO MOUNT SECONDARY SIGNS WILL BE CONSIDERED TO BE SUPPLEMENTAL TO THE MAIN SIGN SUPPORT SPECIFIED. PAYMENT WILL BE CONSIDERED SUBSIDIARY TO THE MAIN SUPPORT.

THE GALVANIZED STEEL CHANNEL AND BAR SUPPORTS MAY BE ASTM A-36.

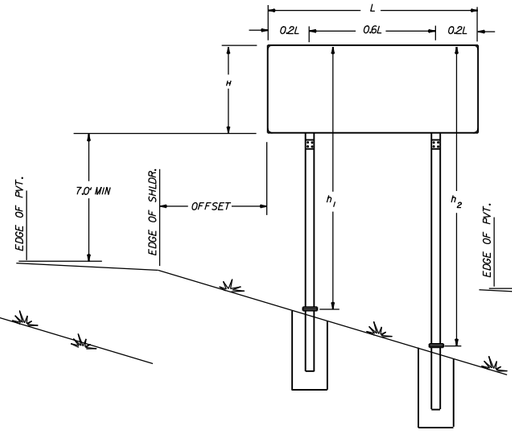
REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.

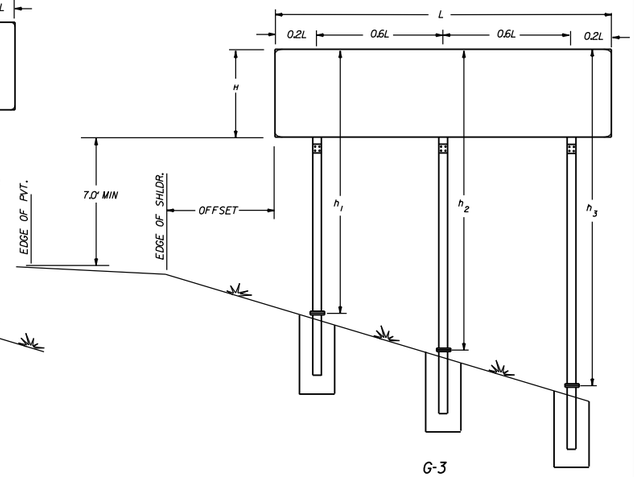


G-1

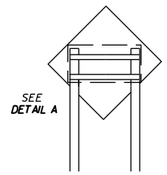
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.



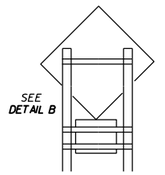
G-2



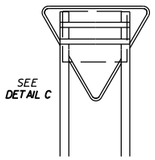
G-3



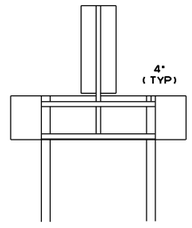
G2-1



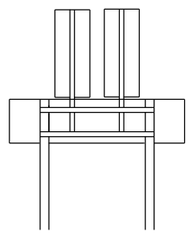
G2-2



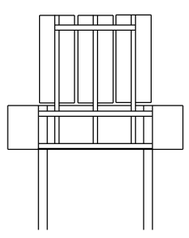
G2-3



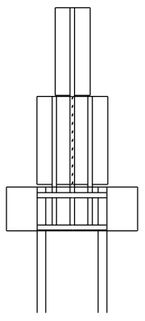
G2-4



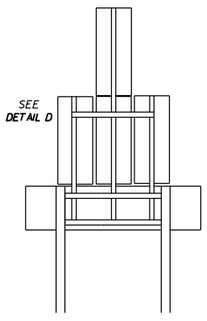
G2-5



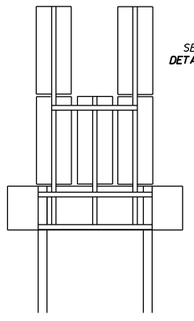
G2-6



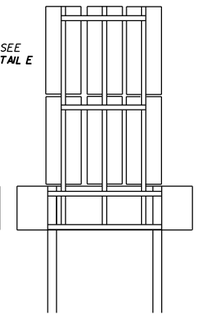
G2-7



G2-8



G2-9

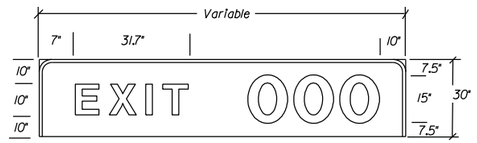


G2-10

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-4
DATE	REVISION	FILMED	

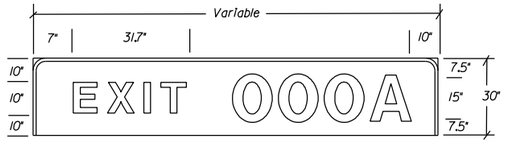
TYPICAL DETAIL

TYPE A



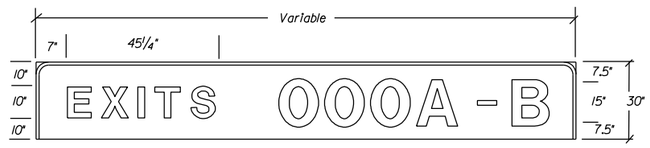
EXIT WITH 1 DIGIT 84"X30"=17.50 SF
EXIT WITH 2 DIGITS 96"X30"=20.0 SF
EXIT WITH 3 DIGITS 114"X30"=23.57 SF

TYPE B



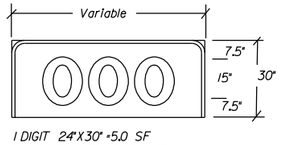
EXIT WITH 1 DIGIT PLUS "A"OR"B" 96"X30"=20.0 SF
EXIT WITH 2 DIGITS PLUS "A"OR"B" 114"X30"=23.57 SF
EXIT WITH 3 DIGITS PLUS "A"OR"B" 126"X30"=26.25 SF

TYPE C



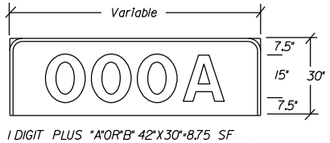
EXITS WITH 1 DIGIT PLUS "A"&"B" 132"X30"=27.50 SF
EXITS WITH 2 DIGITS PLUS "A"&"B" 150"X30"=31.25 SF
EXITS WITH 3 DIGITS PLUS "A"&"B" 168"X30"=35.00 SF

TYPE D



1 DIGIT 24"X30" =5.0 SF
2 DIGITS 42"X30" =8.75 SF
3 DIGITS 60"X30" =12.50 SF

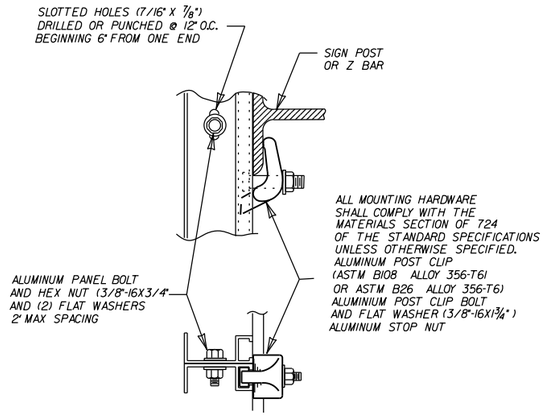
TYPE E

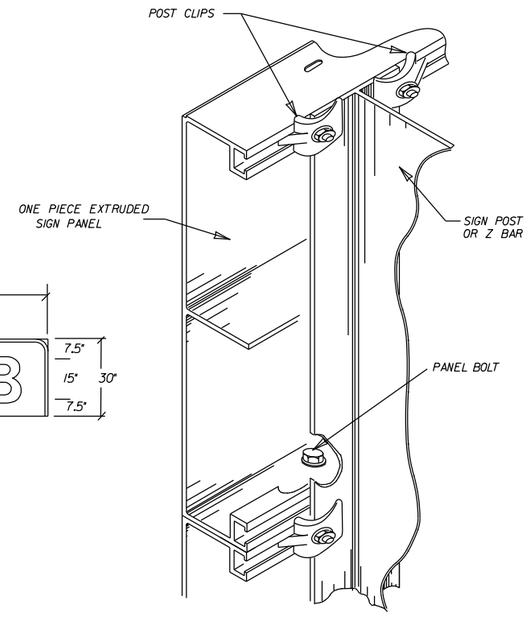


1 DIGIT PLUS "A"OR"B" 42"X30"=8.75 SF
2 DIGITS PLUS "A"OR"B" 60"X30"=12.50 SF
3 DIGITS PLUS "A"OR"B" 78"X30"=16.25 SF

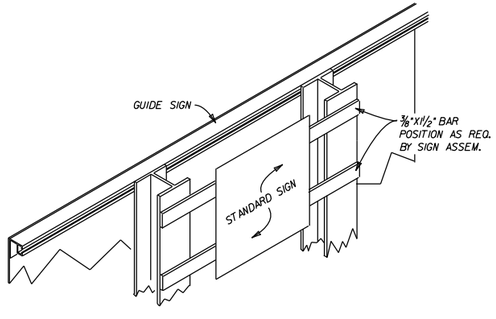
EXIT PANEL DETAILS

NOTE: EXIT NUMBER PANELS SHALL HAVE WHITE LEGENDS AND BORDERS. THE BACK GROUND COLOR WILL BE AS USE SPECIFIES. SHEETING TYPE WILL BE THE SAME AS THE GUIDE SIGN WHICH THE EXIT PANEL IS ATTACHED OR AS SPECIFIED IN THE PLANS. PAYMENT FOR ALL POST CLIPS, BOLTS, AND ANGLES SHALL BE SUBSIDIARY TO THE ITEM "EXIT NUMBER PANEL".

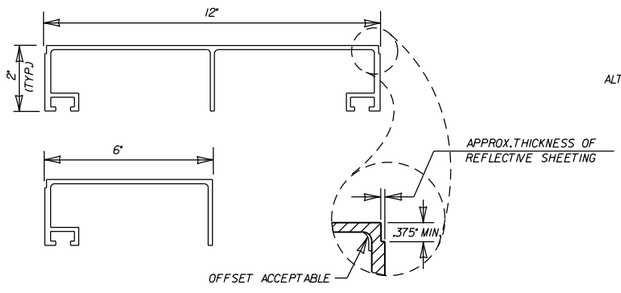




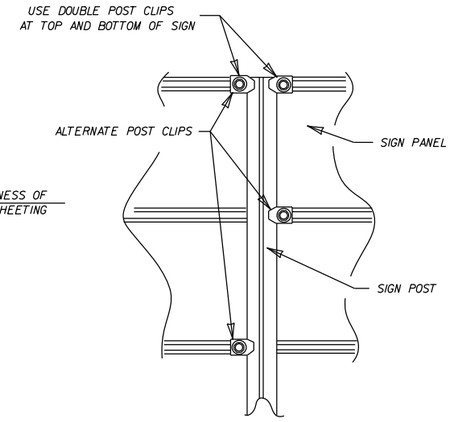
MOUNTING HARDWARE



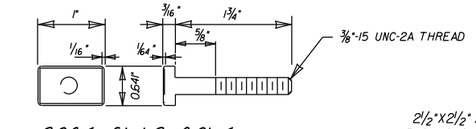
SECONDARY SIGN INSTALLATION ON BACKSIDE OF GUIDE SIGN



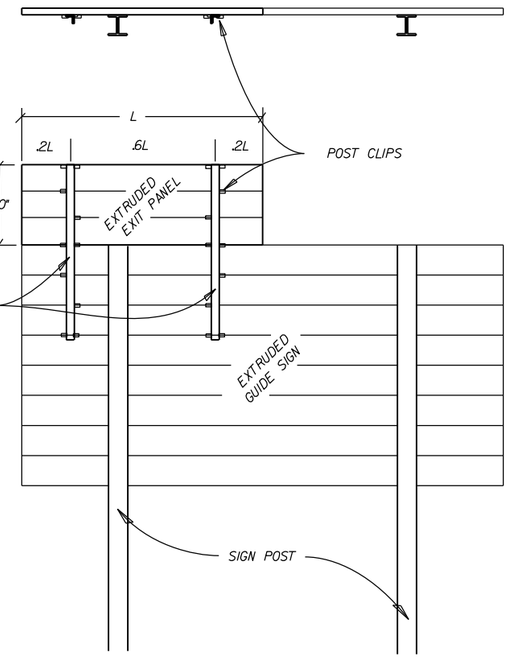
ONE PIECE EXTRUDED SIGN PANELS



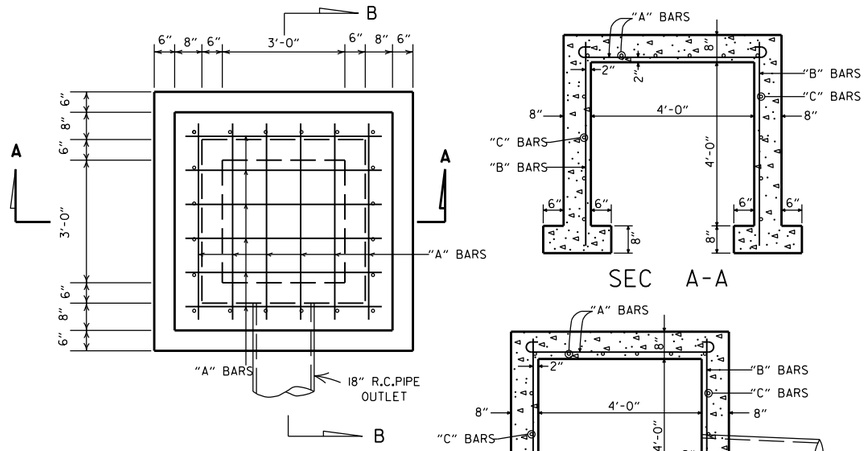
POST CLIP PLACEMENT



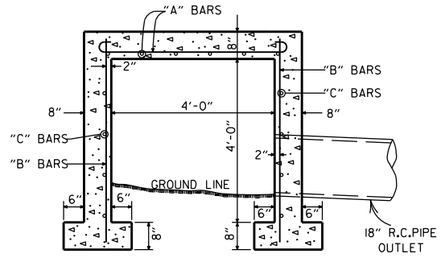
POST CLIP BOLT



			ARKANSAS STATE HIGHWAY COMMISSION
			DETAILS OF GUIDE SIGN PANELS
9-12-13	ISSUED		STANDARD DRAWING SHS-5
DATE	REVISION	FILMED	



SEC A-A



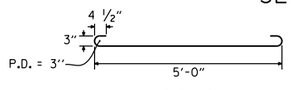
SEC B-B

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

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 ½"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



"A" BARS

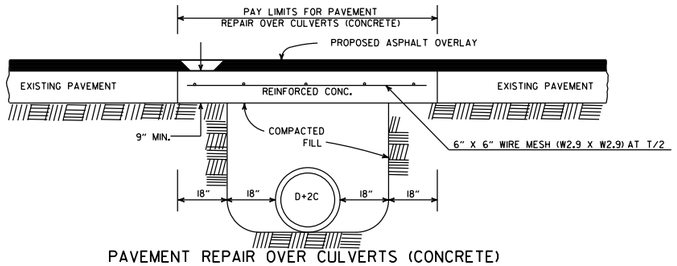
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

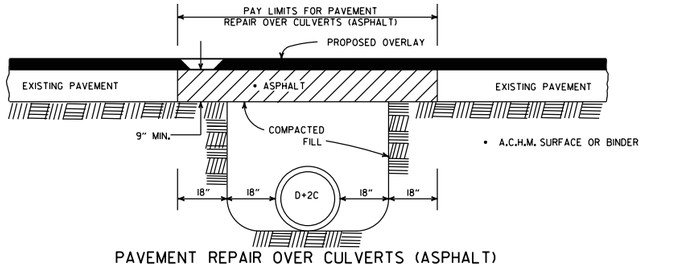
GENERAL NOTE:

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

REINFORCED CONCRETE SPRING BOX



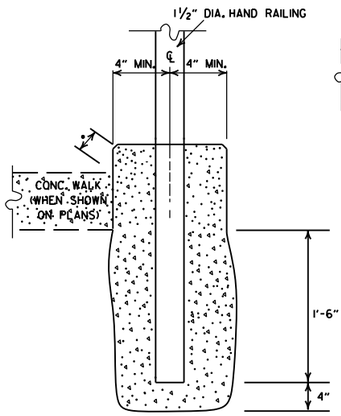
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



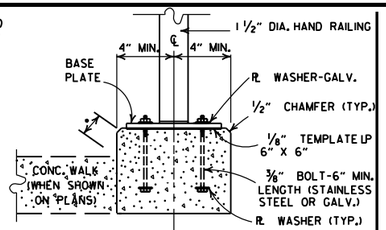
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

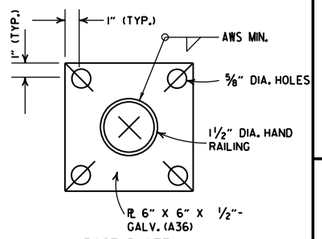
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

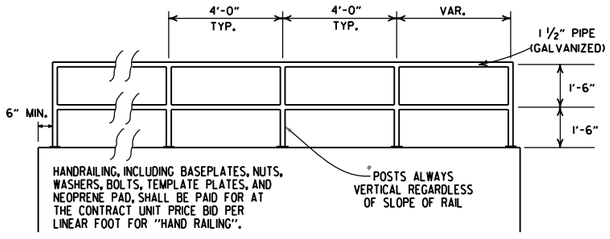


POST CONNECTION TO WALL

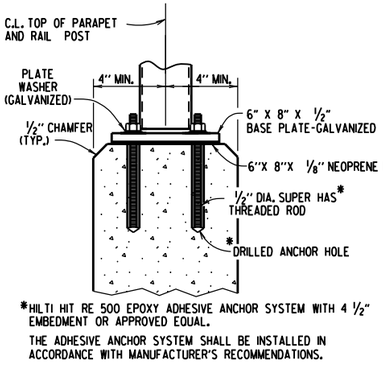


BASE PLATE

POST CONNECTION DETAILS



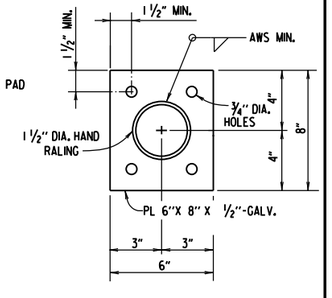
HAND RAILING SHALL CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

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

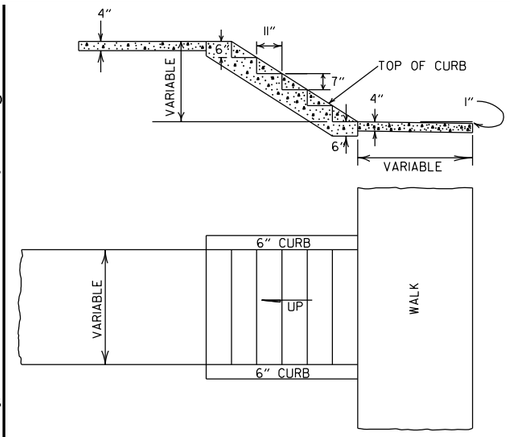
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS



GENERAL NOTES

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

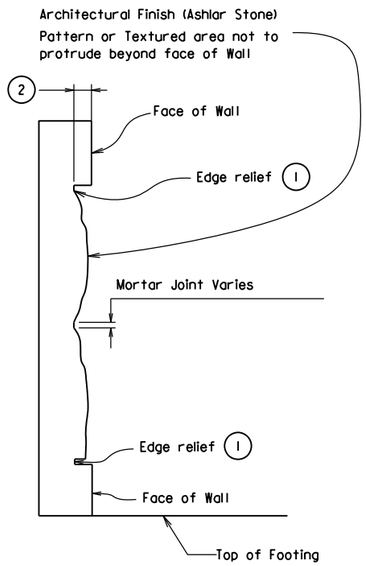
DETAILS OF CONCRETE STEPS & WALKS

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

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI - 1

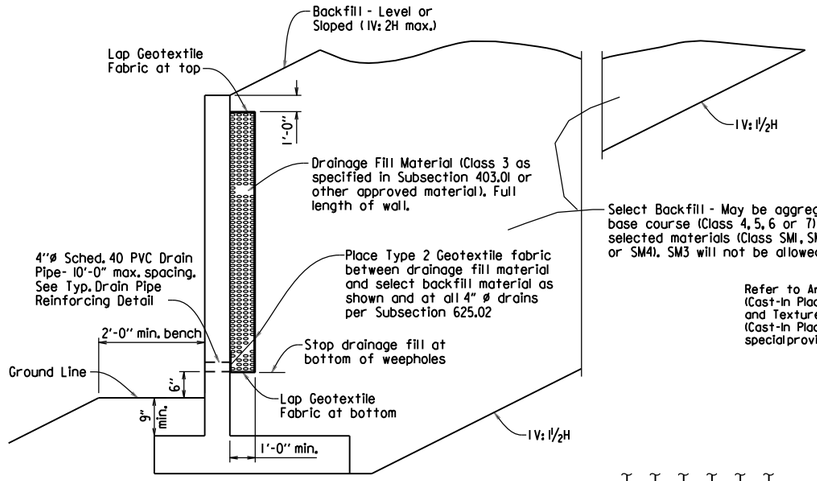


ARCHITECTURAL FINISH DETAILS

N.T.S.

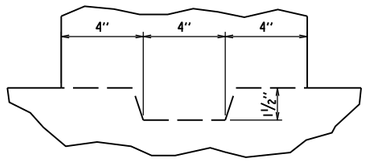
(1) Provide edge relief around perimeter of Texture. Edge relief dimensions shall match manufacturers edge distance.

(2) Depth of Ashlar Stone pattern approx. 1⅝". See SP "Architectural Finish".



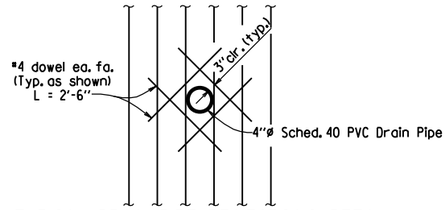
TYPICAL DRAINAGE & BACKFILL DETAILS

N.T.S



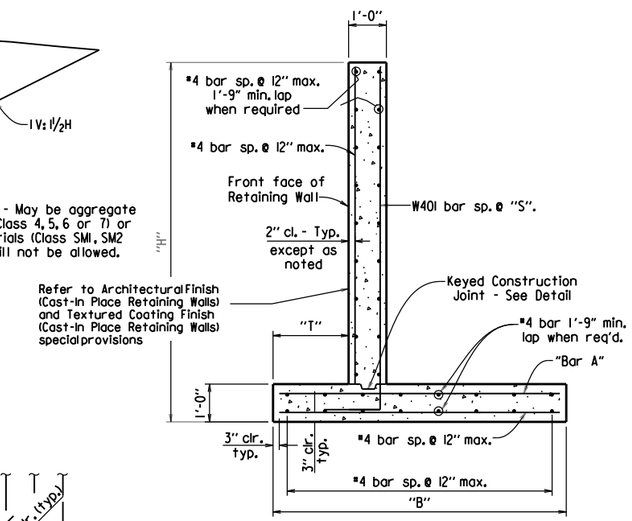
KEYED CONSTRUCTION JOINT DETAIL

N.T.S



TYPICAL DRAIN PIPE REINFORCING DETAIL

N.T.S



TYPICAL SECTION

N.T.S

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas Department of Transportation Standard Specifications for Highway Construction (Current Edition) with applicable supplemental specifications and special provisions. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Sixth Edition (2012).

LIVE LOAD: Live Load Surcharge is not included in the design of these walls. Vehicular Live Load shall not be allowed within a distance equal to one-half the height of the wall.

CONCRETE: Concrete shall be poured in the dry and all exposed corners to be chamfered ½". All concrete shall be Class S with a minimum 28 day compressive strength f'c = 3,500 psi. A Class 2 Surface finish shall be used on all surfaces of the concrete unless otherwise noted. Refer to Architectural Finish (Cast-in Place Retaining Walls) and Textured Coating Finish (Cast-in Place Retaining Walls) special provisions.

REINFORCING STEEL: All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Foundations for footings shall be prepared in accordance with subsection 801.04. Backfill for retaining walls shall be in accordance with subsection 801.08.

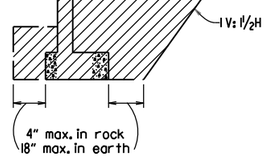
Waterproof Membrane (Type C), waterstops, preformed joints, weep holes & geotextile fabric shall not be paid for directly, but shall be considered subsidiary to Class S Concrete.

Drainage fill material (Class 3) and select backfill shall be measured and paid for as Compacted Embankment.

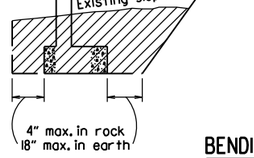
These details are not intended for use along streams or ditches without consideration for scour.

TABLE OF RETAINING WALL VARIABLES (SLOPED BACKFILL) (1V: 2H MAX.)

"H"	"T"	"B"	"S"	"Bar A" Size @ Spacing
3'-0"	9"	2'-6"	12"	#4 @ 12"
4'-0"	9"	3'-6"	12"	#4 @ 12"
5'-0"	9"	4'-6"	12"	#4 @ 12"
6'-0"	9"	5'-6"	12"	#4 @ 6"
7'-0"	9"	6'-6"	12"	#5 @ 6½"
8'-0"	1'-6"	8'-0"	7½"	#6 @ 6"
9'-0"	1'-11"	9'-6"	5"	#8 @ 6"



In Excavation



In Embankment

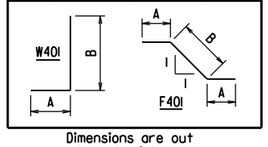
NOTE: Hatched area denotes maximum limits of pay excavation.

DETAILS OF EXCAVATION

N.T.S

BENDING DIAGRAMS

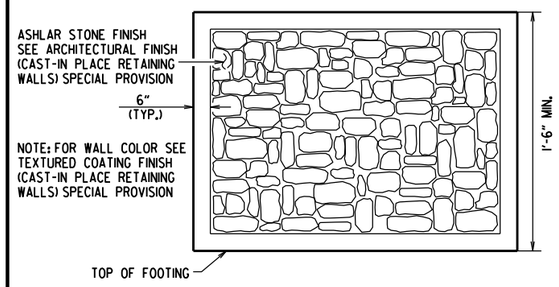
MARK	A	B	P.D.
W401	8"	"H" - 6"	3"
F401	1'-6"	1'-10"	2½"



Dimensions are out to out of bars.

TABLE OF RETAINING WALL VARIABLES (LEVEL BACKFILL)

"H"	"T"	"B"	"S"	"Bar A" Size @ Spacing
3'-0"	9"	2'-6"	12"	#4 @ 12"
4'-0"	9"	3'-6"	12"	#4 @ 12"
5'-0"	9"	4'-0"	12"	#4 @ 12"
6'-0"	9"	4'-6"	12"	#4 @ 12"
7'-0"	9"	5'-6"	12"	#4 @ 10"
8'-0"	9"	6'-0"	12"	#5 @ 10"
9'-0"	1'-0"	7'-0"	12"	#5 @ 6½"



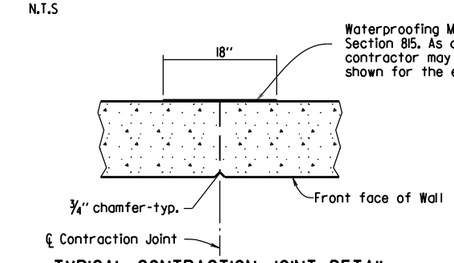
ASHLAR STONE FINISH DETAIL

NOTES:

Wall pattern shall be applied to the exposed surfaces of wall in accordance with SP "Architectural Finish (Cast-in Place Retaining Walls)" and as shown in the plans. Care shall be taken with form liner handling and installation to ensure aesthetic quality of the wall texturing is maintained. Where form liner panels require modification to conform to the location, dimensions and lines shown in the plans, the Contractor shall provide edge relief matching that of the unaltered form liner. Payment for wall texturing shall be in accordance with SP "Architectural Finish (Cast-in Place Retaining Walls)".

No adjustments will be made in concrete volume due to the use of "Architectural Finish". Class "S" Concrete shall be measured in accordance with Subsection 802.24(a). Care shall be taken in placing concrete to avoid segregation and to eliminate flow lines.

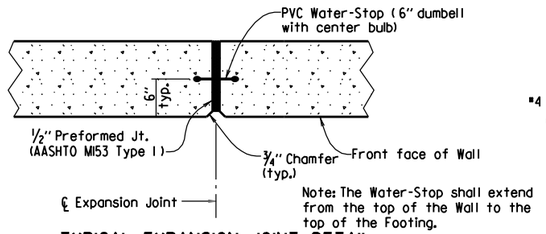
Class 3 Textured Coating Finish shall be applied to wall surfaces as specified in SP "Textured Coating Finish (Cast-in Place Retaining Walls)" and in accordance with Subsection 802.19(b)(3).



TYPICAL CONTRACTION JOINT DETAIL

N.T.S.

Note: 20'-0" Max. Spacing between Contraction Joints. Horizontal reinforcement shall be continuous through Contraction joints.

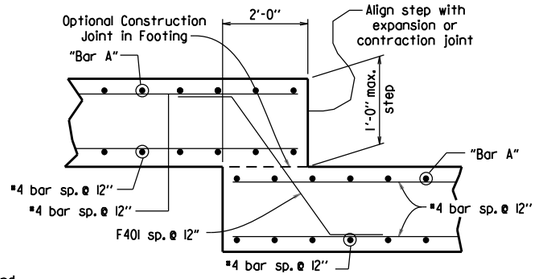


Note: The Water-Stop shall extend from the top of the Wall to the top of the Footing.

TYPICAL EXPANSION JOINT DETAIL

N.T.S.

Note: 60'-0" Max. Spacing between Expansion Joints. Horizontal reinforcing shall stop 2" from ℄ Expansion Joint.



FOOTING STEP DETAIL

N.T.S.

SEISMIC ZONE: These walls have been designed for the following site adjusted peak ground accelerations (A_S):
Level Backfill - $A_S \leq .40g$
Sloped Backfill (1V: 2H max.) - $A_S \leq .30g$

5-14-20	ADDED ASHLAR STONE FINISH DETIAL AND NOTES. REVISED TYP. SECTION AND GEN. NOTES.	
5-12-16	REVISED SLOPES FOR SELECT BACKFILL	
2-27-14	REVISED GENERAL NOTES	
7-26-12	DRAWING ISSUED	
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

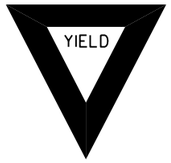
REINFORCED CONCRETE RETAINING WALL (WITHOUT LIVE LOAD SURCHARGE)

STANDARD DRAWING SI - 2

R1-1

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

R1-2



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

R2-1

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

W3-5

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

W3-5a

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

R4-1

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

R4-2

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

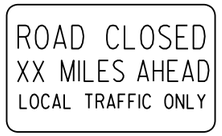
R5-1

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

RII-2

48"X30"

RII-3A



60"X30"

RII-4

60"X30"

W21-5a

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

WI-1

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

WI-2

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

WI-3

STD. 48"X48"

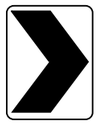
WI-4

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"

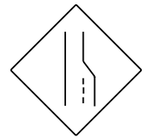
W3-1

STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

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

W9-2

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

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

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

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

W8-11

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

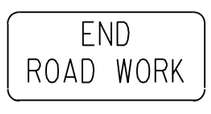
W8-9

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

G20-1

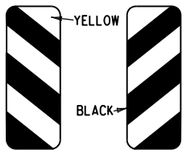
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

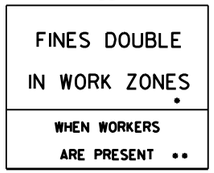
M4-9

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

M4-10

48"X18"

R55-1



36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

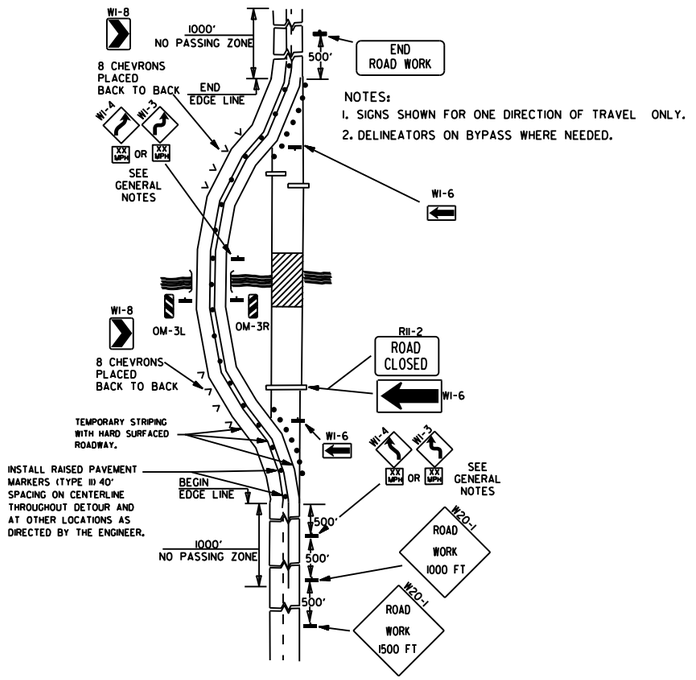
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED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

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

ARKANSAS STATE HIGHWAY COMMISSION

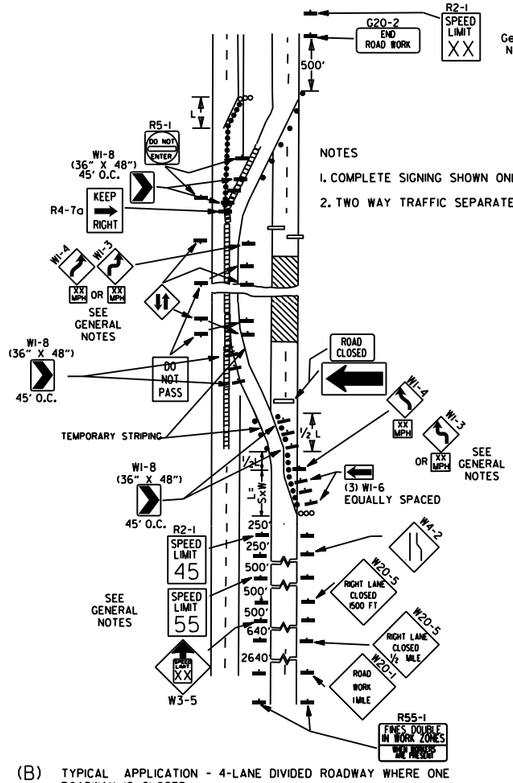
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



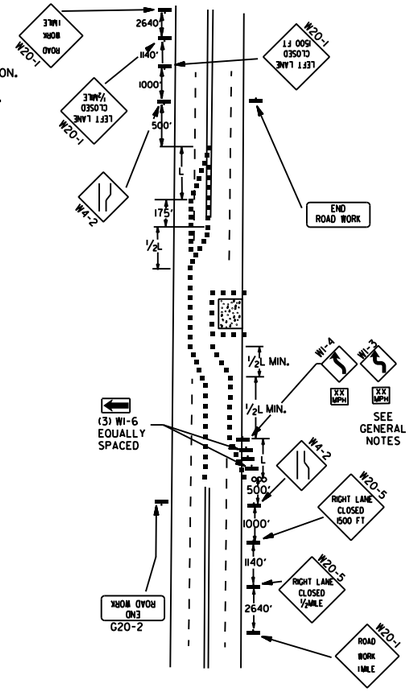
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

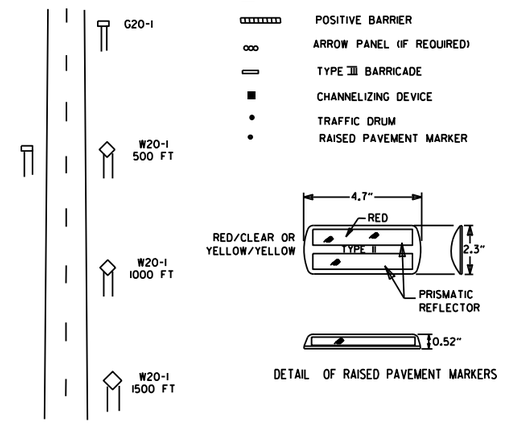


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

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



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



DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

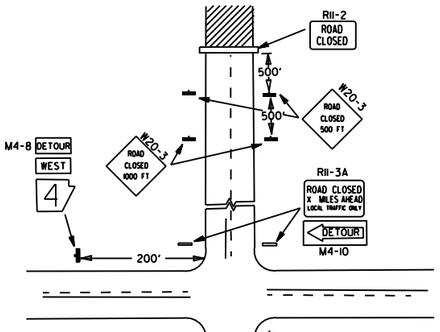
L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

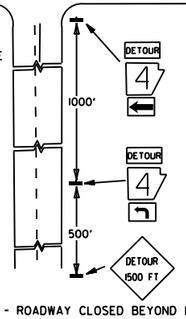
WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

GENERAL NOTES:

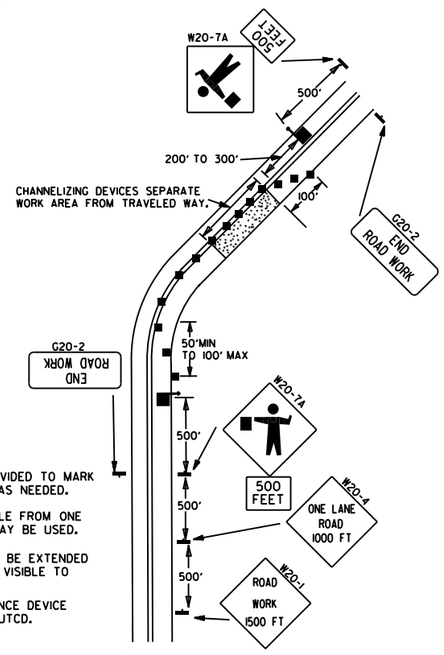
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT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



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

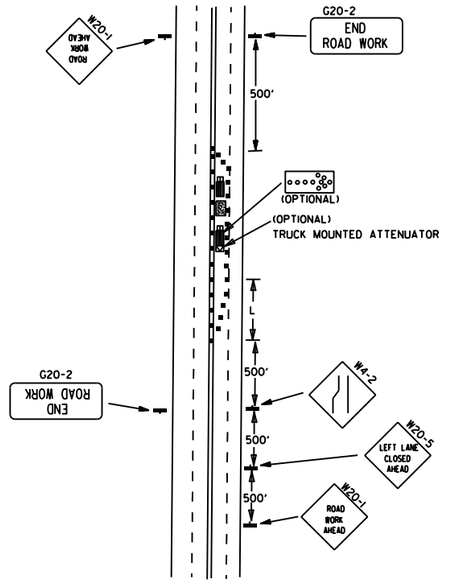


(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



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

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



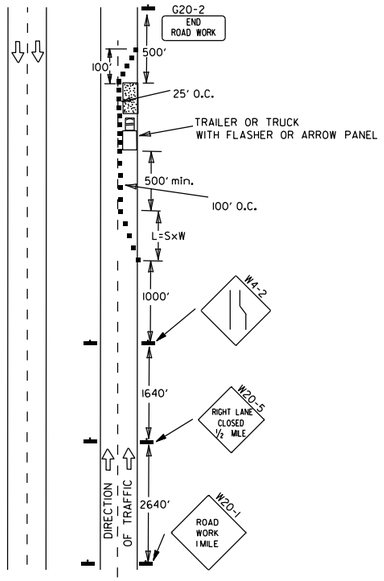
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

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

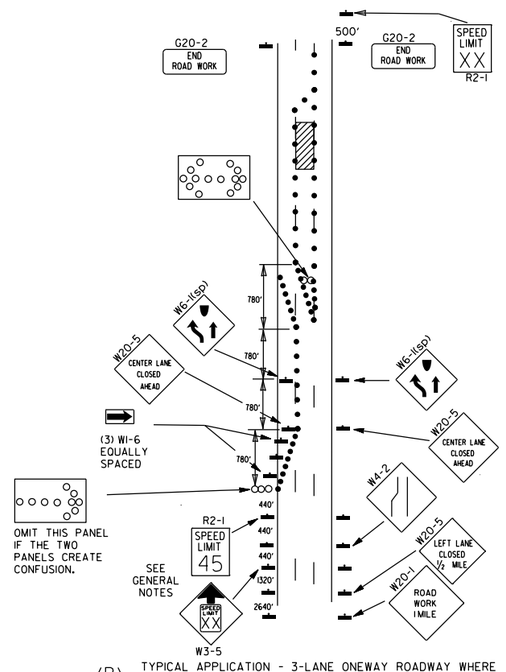
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2



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



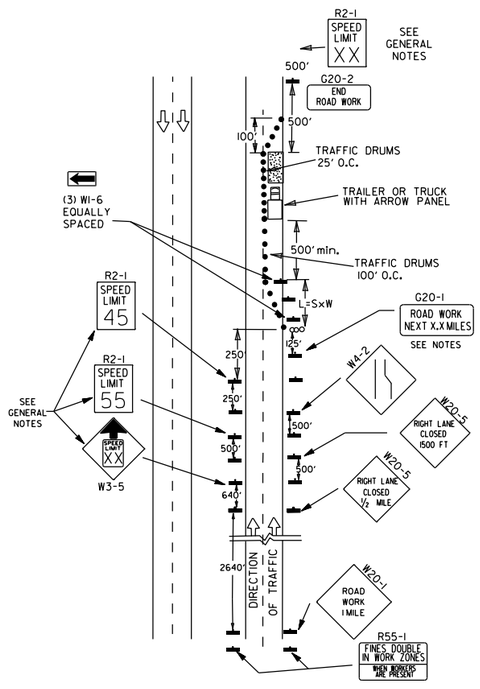
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

KEY:

- ARROW PANEL (IF REQUIRED)
- ■ CHANNELIZING DEVICE
- ● TRAFFIC DRUM

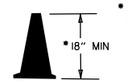
GENERAL NOTES:

1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS, AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
10. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



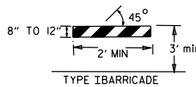
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

CHANNELIZING DEVICES



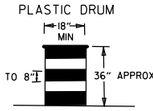
* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

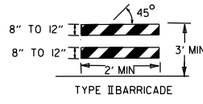
CONES



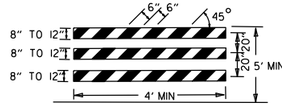
TYPE I BARRICADE

PLASTIC DRUM



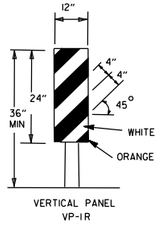


TYPE II BARRICADE



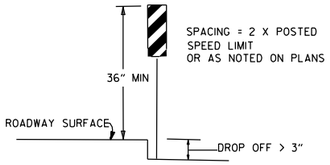
TYPE III BARRICADE

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

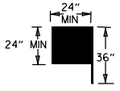


VERTICAL PANEL VP-1R

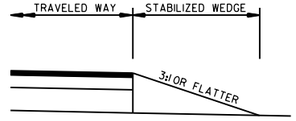
VERTICAL PANEL PLACEMENT



FLAG



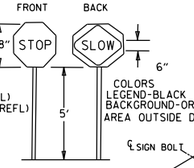
FLAG SHALL BE OF GOOD GRADE RED MATERIAL

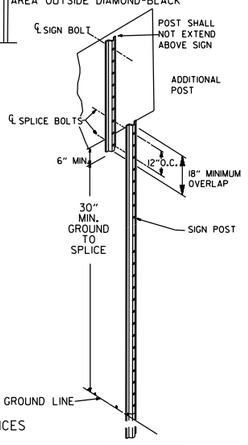


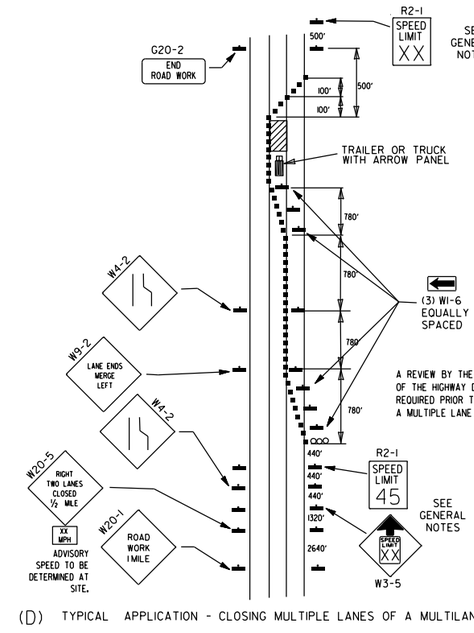
STABILIZED WEDGE

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

STOP SLOW PADDLE







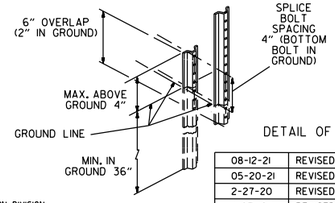
A REVIEW BY THE ROADWAY DESIGN DIVISION OF THE HIGHWAY DEPARTMENT WILL BE REQUIRED PRIOR TO IMPLEMENTING A MULTIPLE LANE CLOSURE.

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

NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-21)

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

TRAFFIC CONTROL DEVICES

NON-INTERSTATE

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 1"	CENTERLINE	W8-11	W8-11
> 1" ≤ 3"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 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" ≤ 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[1]
> 6" ≤ 18"	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" ≤ 24"	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" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2]
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

INTERSTATE AND NON-INTERSTATE

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

GENERAL NOTES:

1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED.
3. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
4. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
5. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.
6. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).

DATE	REVISION	FILMED
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 W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

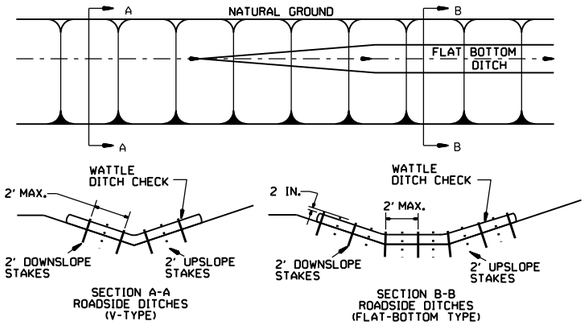
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

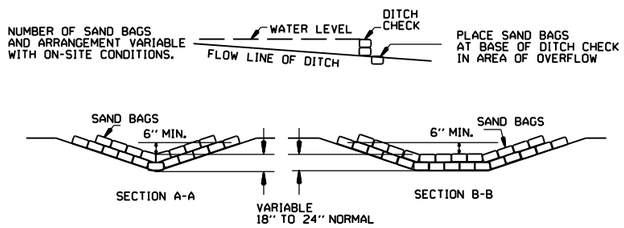
STANDARD DRAWING TC-3

GENERAL NOTES

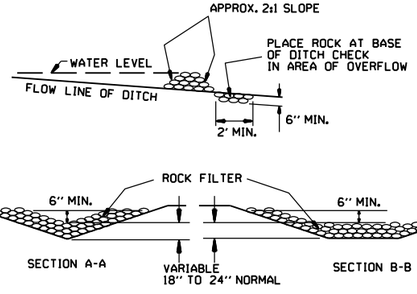
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

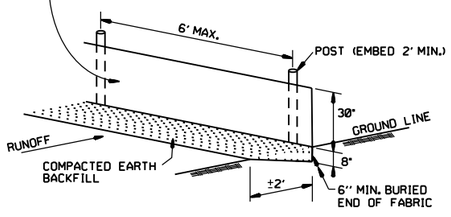


ROCK DITCH CHECK (E-6)

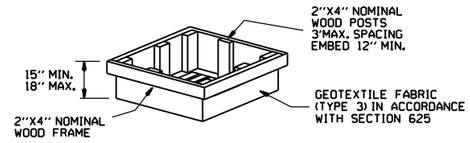
GENERAL NOTES

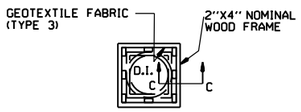
GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

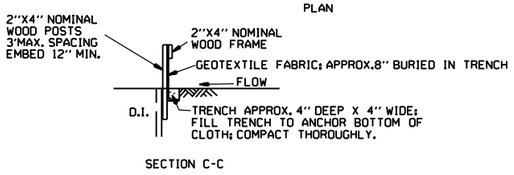
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



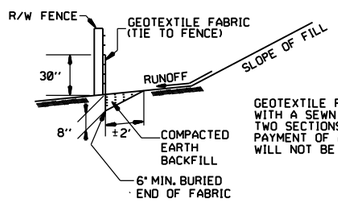
SILT FENCE (E-11)





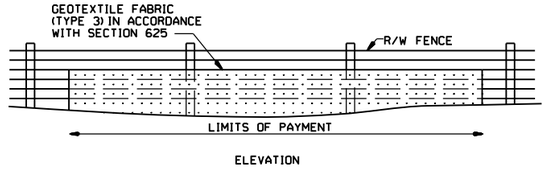


DROP INLET SILT FENCE (E-7)



GENERAL NOTES

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



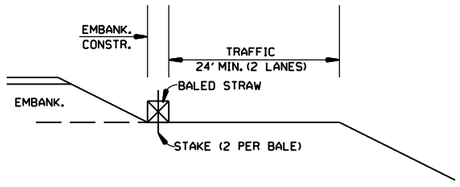
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

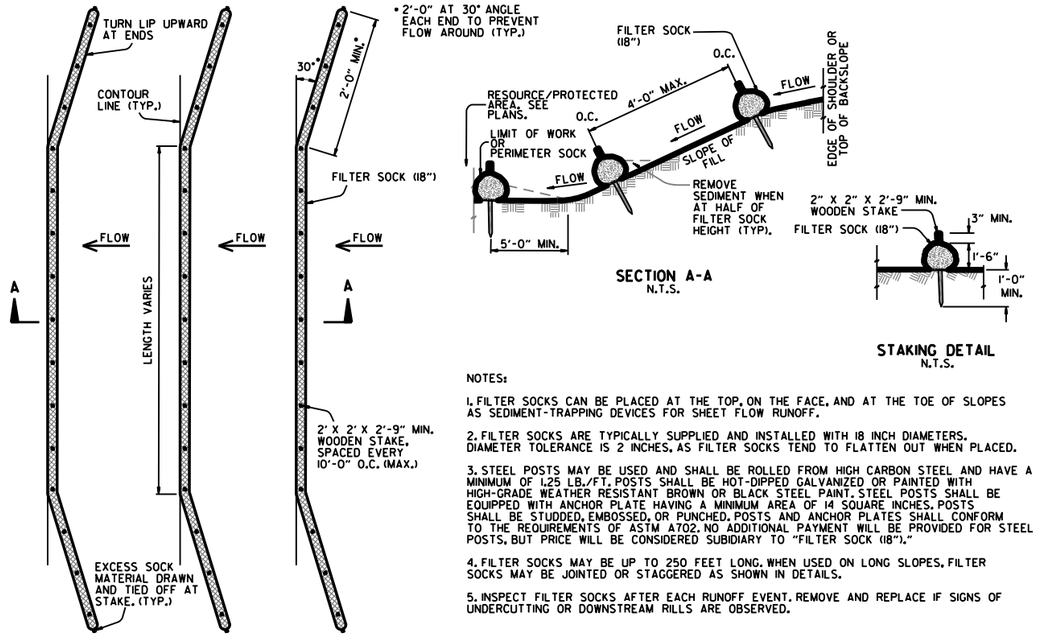
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

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



BALED STRAW FILTER BARRIER (E-2)



NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

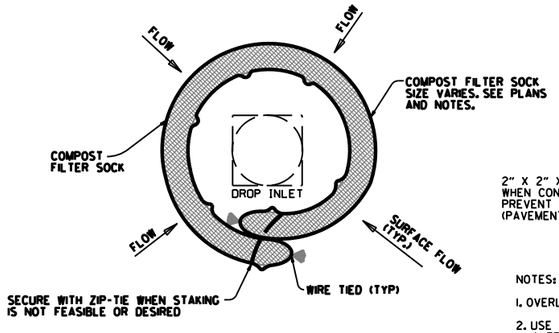
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

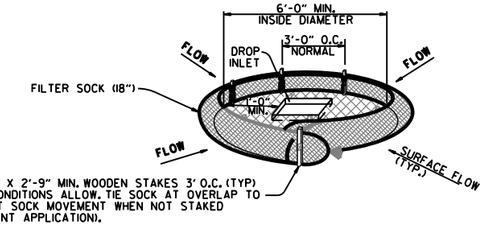
3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIDIARY TO "FILTER SOCK (18")."

4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

FILTER SOCK ALONG SLOPE (E-3)





NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

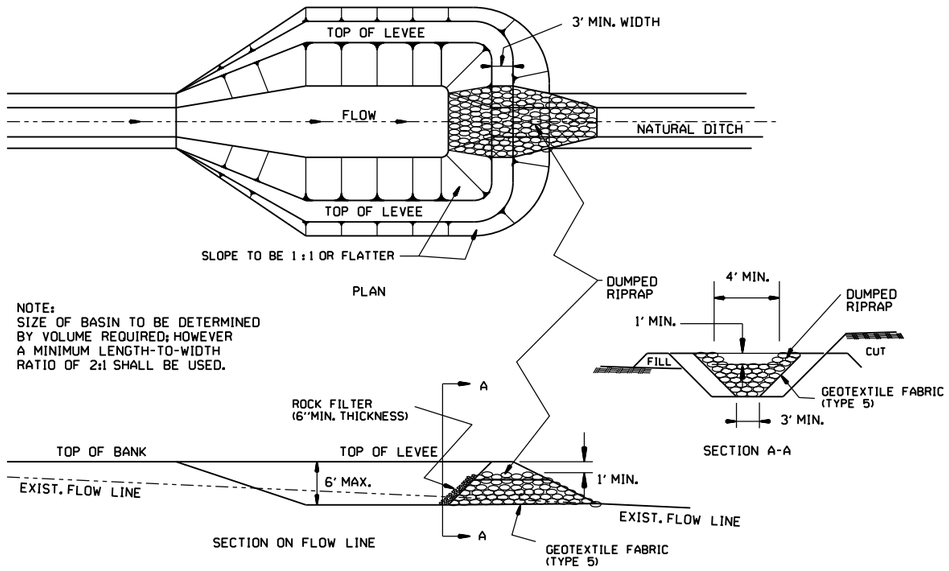
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION	FILMED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

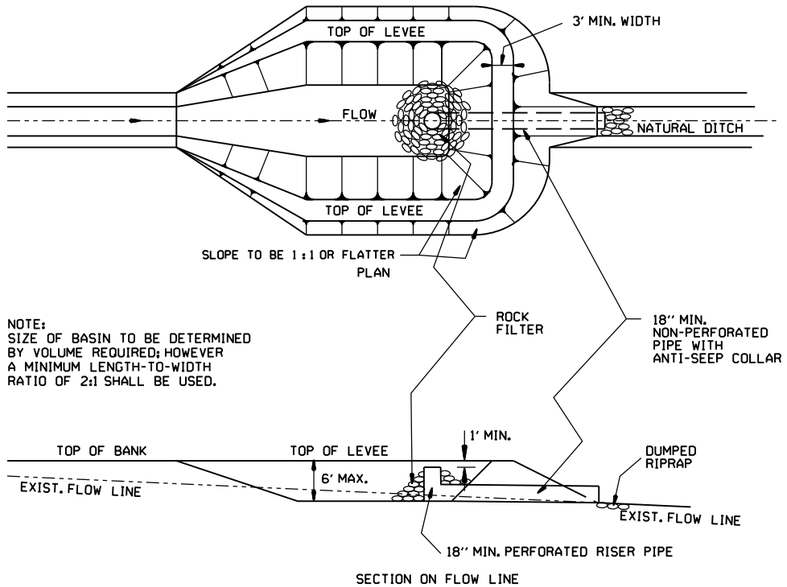
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

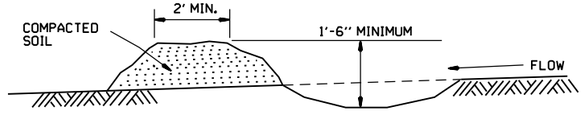
STANDARD DRAWING TEC-1



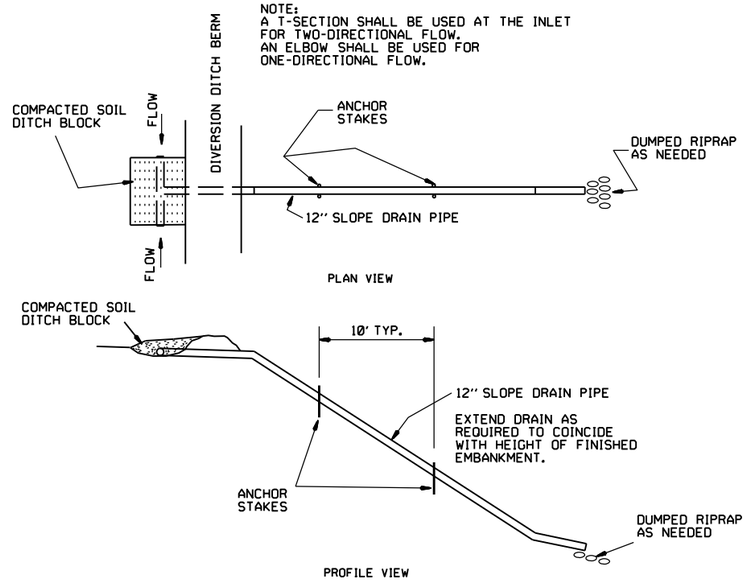
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



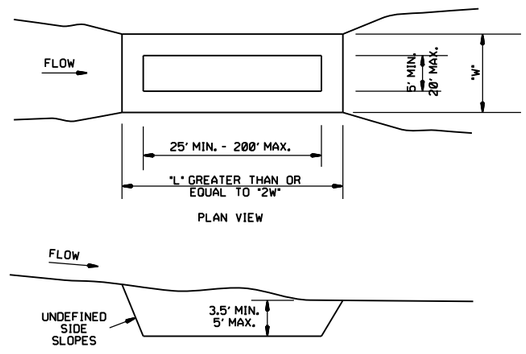
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

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

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

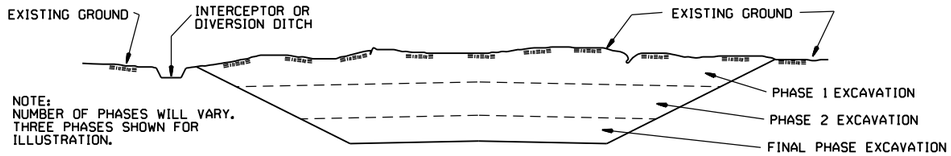
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

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

EXCAVATION



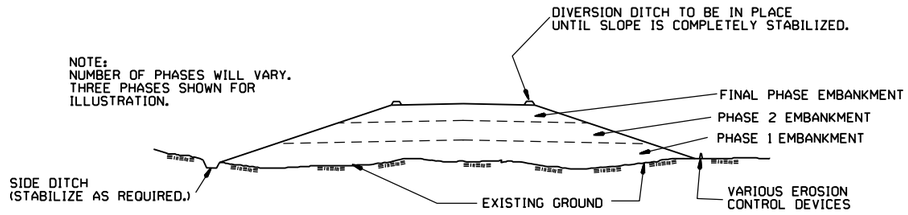
GENERAL NOTE

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

CONSTRUCTION SEQUENCE

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

EMBANKMENT



GENERAL NOTE

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

CONSTRUCTION SEQUENCE

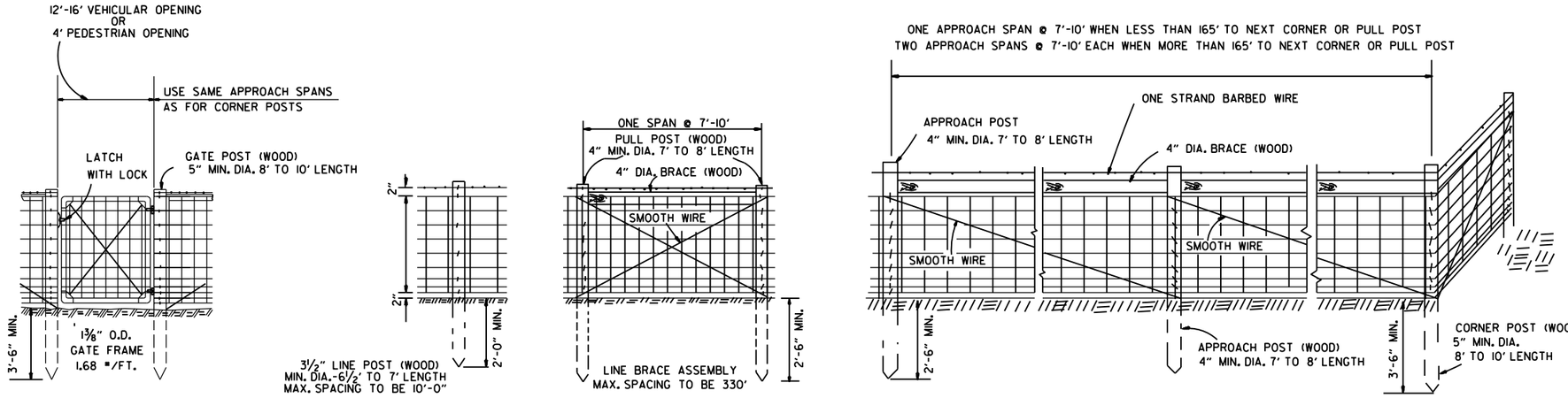
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD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

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

ARKANSAS STATE HIGHWAY COMMISSION

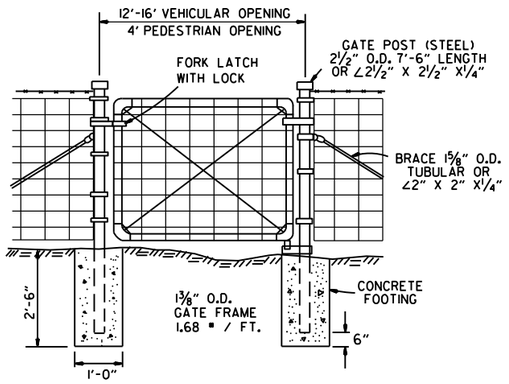
TEMPORARY EROSION CONTROL DEVICES

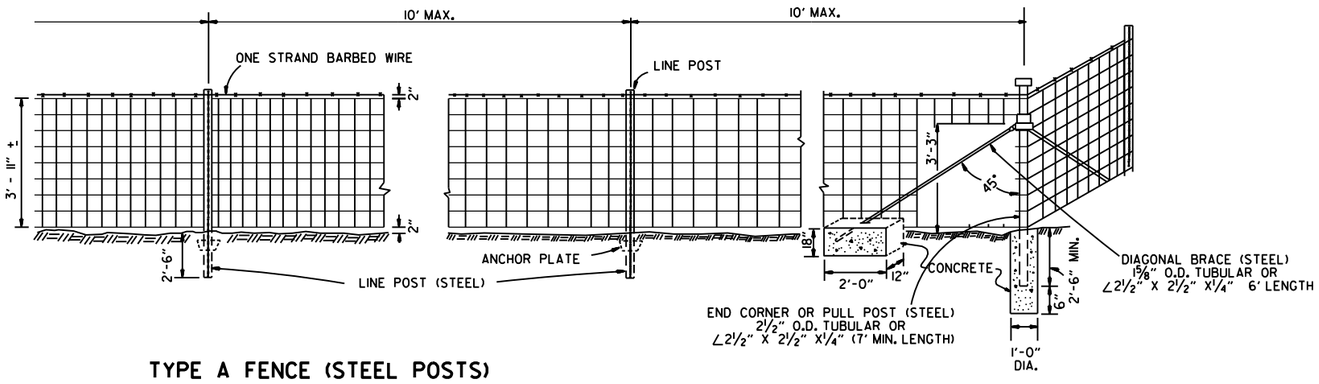
STANDARD DRAWING TEC-3



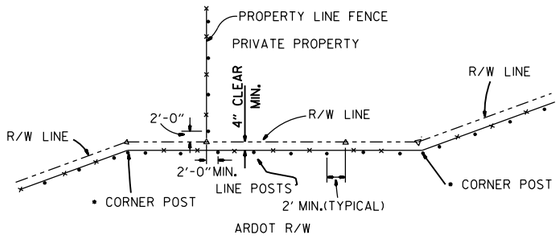
NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE A FENCE (WOOD POSTS)





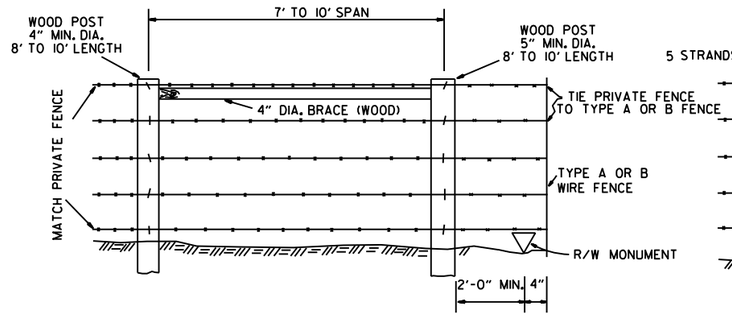
TYPE A FENCE (STEEL POSTS)



•NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

△ - R/W MONUMENTS
• - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION

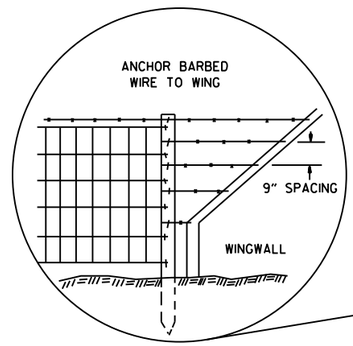


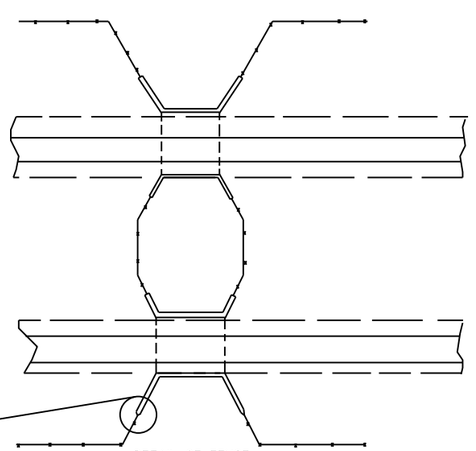
WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

PRIVATE FENCE TERMINAL INSTALLATION

SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE





DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFIEICNT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES	
	AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE A AND B

STANDARD DRAWING WF-1