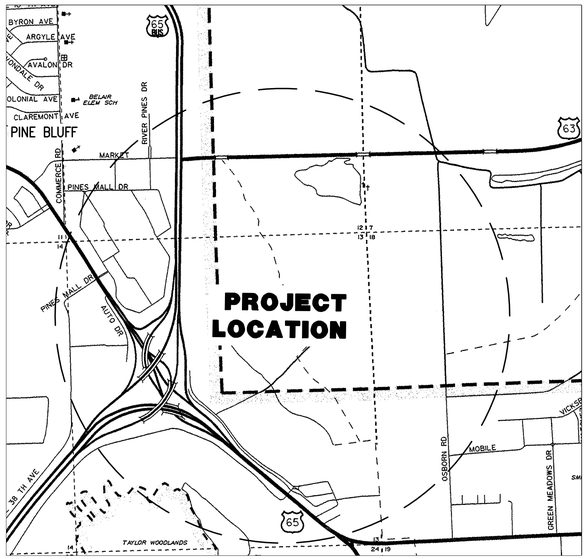
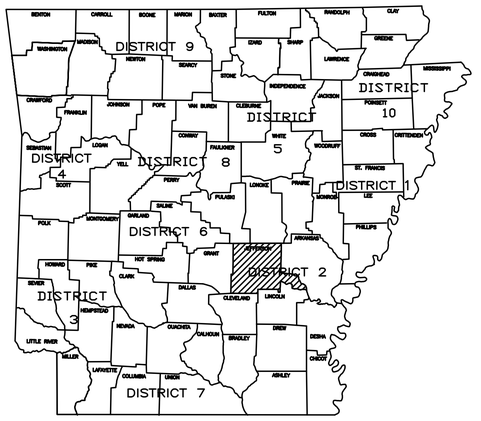
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	1	151
				(2)	SARACEN CASINO RESORT (PINE BLUFF) (S)			

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS

SARACEN CASINO RESORT (PINE BLUFF) (S) JOB NO. 19-5708

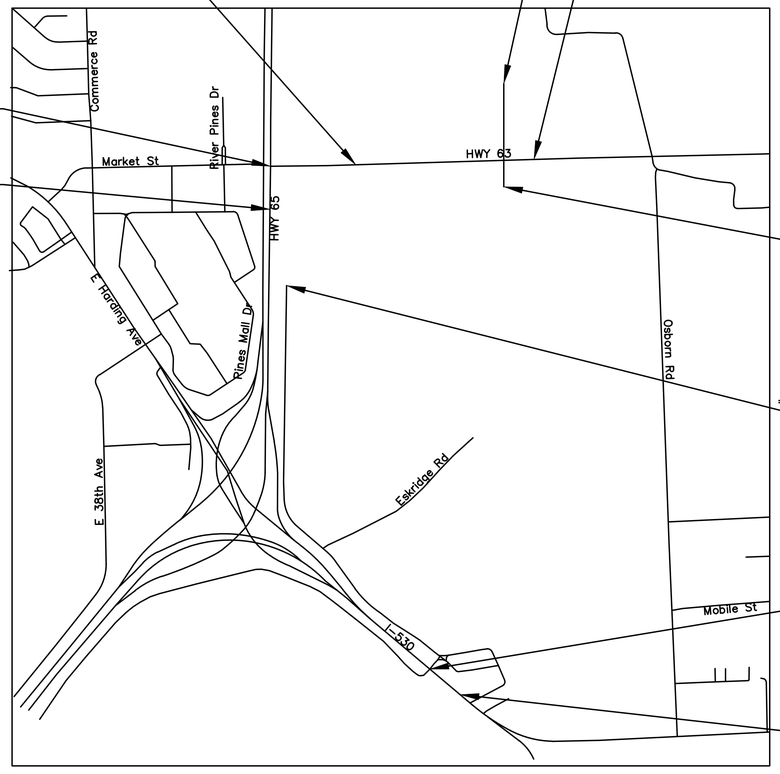


VICINITY MAP



ARK. HIGHWAY DIST. 2

NOT TO SCALE



STA. 15+58.98
BEGIN JOB 19-5708

STA. 11+88.57
BEGIN SARACEN RESORT DR.

STA. 35+39.31
END JOB 19-5708

STA. 105+22.85
BEGIN HWY. 65B IMPROVEMENTS

STA. 109+93.51
END HWY. 65B IMPROVEMENTS

T 6 S

R 9 W

STA. 22+50.00
END SARACEN RESORT DR.

STA. 50+50.00
BEGIN I-530 FRONTAGE RD. IMPROVEMENTS

STA. 105+66.20
END I-530 FRONTAGE RD. IMPROVEMENTS

STA. 17+24.00
BEGIN HWY. 65 IMPROVEMENTS

STA. 21+64.07
END HWY. 65 IMPROVEMENTS

DESIGN TRAFFIC DATA

DESIGN YEAR.....2041
2021 ADT.....14120
2041 ADT.....17230
DIRECTIONAL DISTRIBUTION.....0.50
TRUCKS.....7%
DESIGN SPEED.....25 MPH

	BEGIN PROJECT	MID-POINT PROJECT	END PROJECT
LATITUDE	N 34° 12' 46.82"	N 34° 12' 46.75"	N 34° 12' 46.69"
LONGITUDE	W 91° 57' 48.71"	W 91° 57' 38.52"	W 91° 57' 28.31"

GROSS LENGTH OF PROJECT	9468.69 FT. OR	1.79 MILES
NET LENGTH OF ROADWAY	9468.69 FT. OR	1.79 MILES
NET LENGTH OF BRIDGES	0.00 FT. OR	0.00 MILES
NET LENGTH OF PROJECT	9468.69 FT. OR	1.79 MILES

CERTIFICATE OF AUTHORIZATION McCLELLAND CONSULTING ENGINEERS, INC. No. 24 ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15912 MANYEESH KRISHNAN 01-24-2020

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 TITLE SHEET.dwg 2/3/20 at 7:39am

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	3	151
				(2)	GENERAL NOTE AND GOVERNING SPECS			

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.

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
410-1_____	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
JOB 19-5708_	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB 19-5708_	SEQUENCE OF CONSTRUCTION
JOB 19-5708_	SOIL STABILIZATION
JOB 19-5708_	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS

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				6	ARK.			
				JOB NO.		19-5708		151

2 INDEX OF SHEETS AND STANDARD DRAWINGS

INDEX OF SHEETS

SHEET NO.		TITLE	BRIDGE NO.	DRWG.NO.
1		TITLE SHEET PAGE 1		
2		INDEX OF SHEETS AND STANDARD DRAWINGS		
3		GENERAL NOTES AND GOVERNING SPECIFICATIONS		
4 - 12		TYPICAL SECTIONS OF IMPROVEMENT		
13 - 17		SPECIAL DETAILS		
18 - 20		TEMPORARY EROSION CONTROL DETAILS		
21 - 28		MAINTENANCE OF TRAFFIC DETAILS		
29 - 31		PERMANENT PAVEMENT MARKING DETAILS		
32 - 41		SURVEY CONTROL DETAILS		
42 - 58		PLAN AND PROFILE SHEETS		
59 - 70		LIGHTING PLANS		
71 - 76		SIGN PLACEMENT DETAILS		
77		CURBING DETAILS		
78		DETAILS OF DRIVEWAYS & ISLANDS		
79		FLARED END SECTION		
80		FLARED END SECTION		
81		DETAILS OF DROP INLET (TYPE MO)		
82		GUARD RAIL DETAILS		
83		GUARD RAIL DETAILS		
84		GUARD RAIL DETAILS		
85		GUARD RAIL DETAILS		
86		GUARD RAIL DETAILS		
87		PRECAST BOX CULVERT DETAILS		
88		CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING		
89		PAVEMENT MARKING DETAILS		
90		PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS		
91		DETAILS OF PIPE UNDERDRAIN		
92		REINFORCED CONCRETE BOX CULVERT DETAILS		
93		EXCAVATION PAY LIMITS, BACKFILL, & SODDING FOR BOX CULVERTS		
94		METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS		
95		HEAVY DUTY PULL BOX		
96		TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC		
97		STANDARD HIGHWAY SIGN AND SUPPORT ASSEMBLIES		
98		U-CHANNEL POST ASSEMBLIES		
99		STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		
100		STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		
101		STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		
102		TEMPORARY EROSION CONTROL DEVICES		
103		TEMPORARY EROSION CONTROL DEVICES		
104		TEMPORARY EROSION CONTROL DEVICES		
105		DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS		
106		DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS		
107		DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS		
108		DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS		
109 - 151		CROSS SECTIONS		

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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	4	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

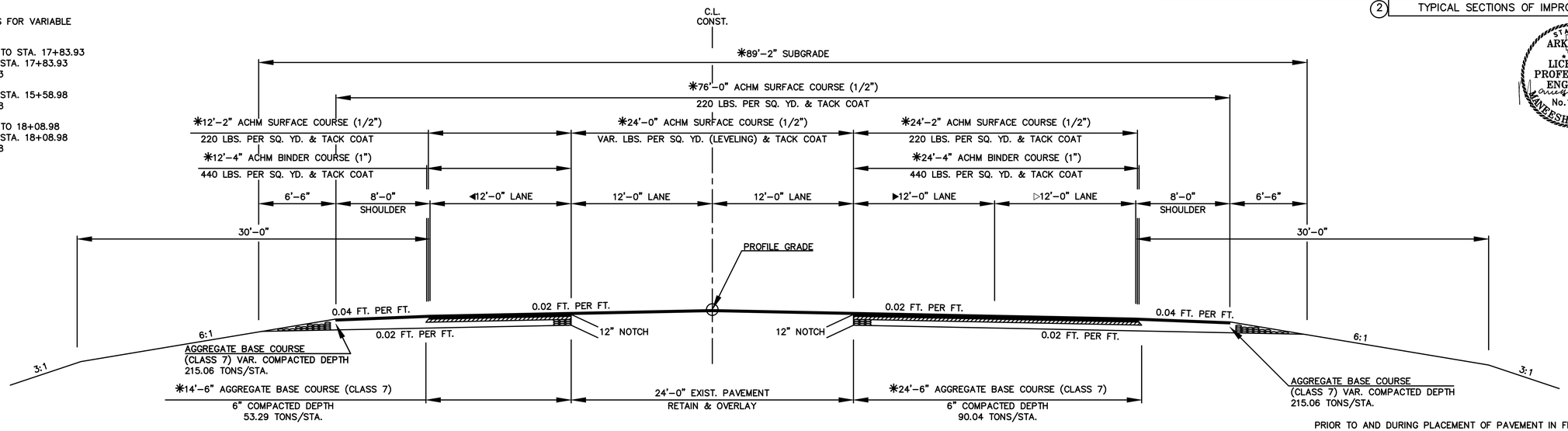
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MANEESH KRISHNA
No.15912
01-24-2020

✱ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

◀ 0'–0" FROM STA. 15+58.98 TO STA. 17+83.93
TRANSITION FROM 0'–0" AT STA. 17+83.93
TO 12'–0" AT STA. 19+08.93

▶ TRANSITION FROM 0'–0" AT STA. 15+58.98
TO 12'–0" AT STA. 17+08.98

▷ 0'–0" FROM STA. 15+58.98 TO 18+08.98
TRANSITION FROM 0'–0" AT STA. 18+08.98
TO 12'–0" AT STA. 19+58.98



TYPICAL SECTION OF IMPROVEMENT
HWY. 63 STA. 15+58.98 TO STA. 19+58.98

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 CONTACT ITEMS.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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

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.

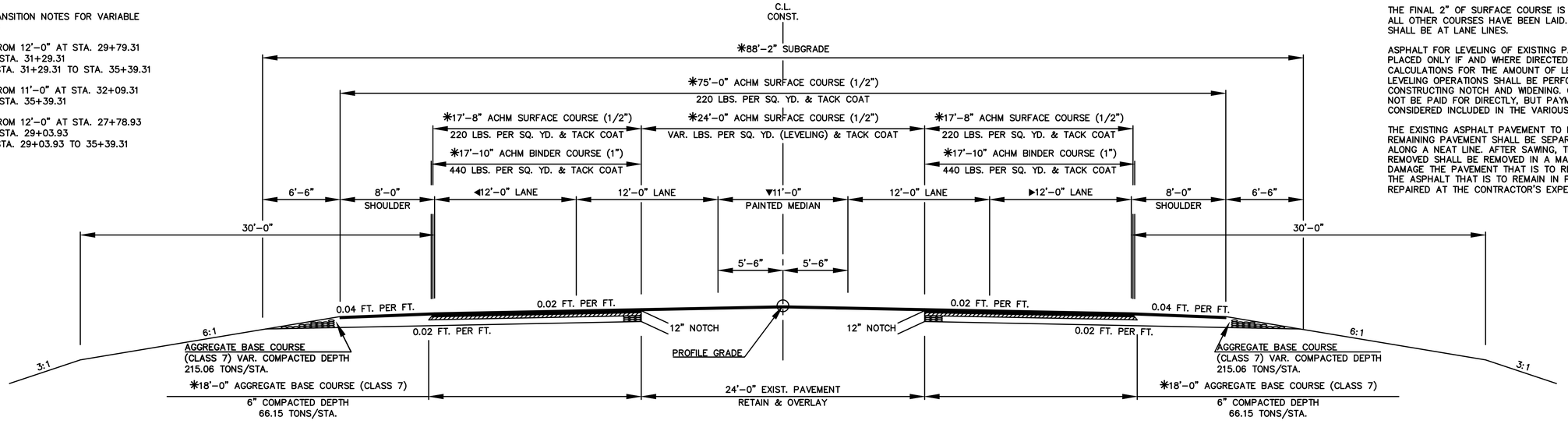
THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

✱ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

◀ TRANSITION FROM 12'–0" AT STA. 29+79.31
TO 0'–0" AT STA. 31+29.31
0'–0" FROM STA. 31+29.31 TO STA. 35+39.31

▼ TRANSITION FROM 11'–0" AT STA. 32+09.31
TO 0'–0" AT STA. 35+39.31

▶ TRANSITION FROM 12'–0" AT STA. 27+78.93
TO 0'–0" AT STA. 29+03.93
0'–0" FROM STA. 29+03.93 TO 35+39.31



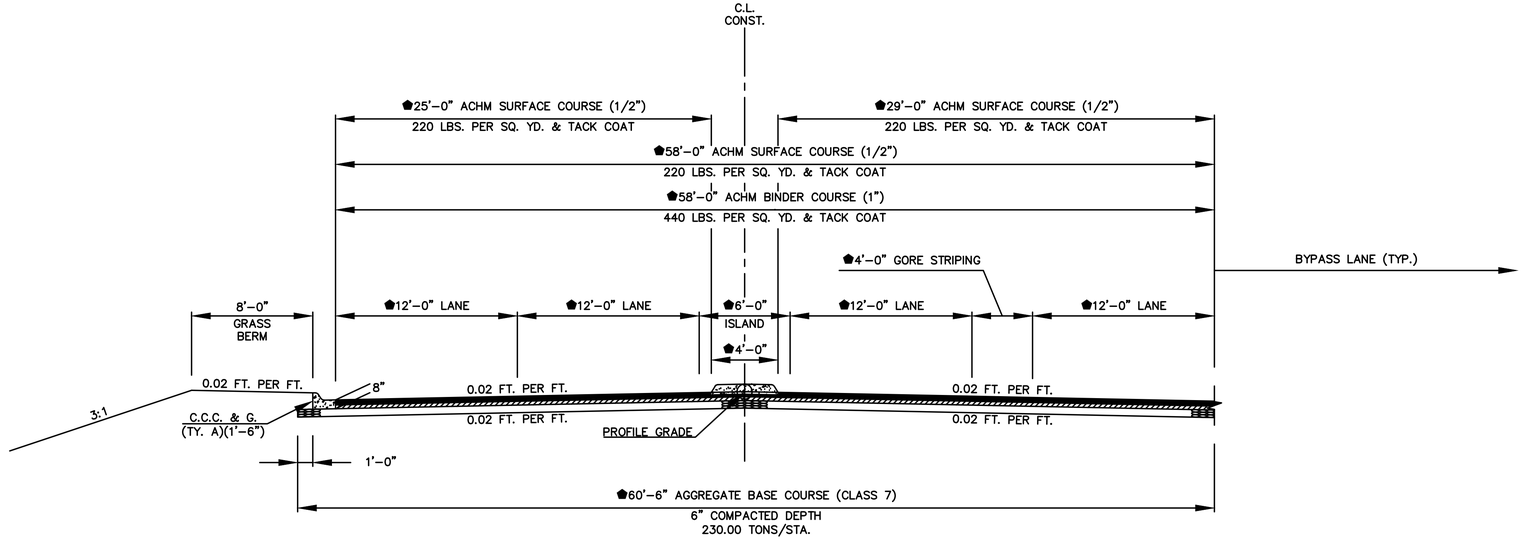
TYPICAL SECTION OF IMPROVEMENT
HWY. 63 STA. 27+22.47 TO STA. 35+39.31

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 TYP SECTIONS.dwg 1/30/20 at 2:32pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	5	151
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

⬟ SEE SPECIAL DETAILS FOR VARIABLE LANE/ISLAND WIDTHS AT ROUNDABOUT APPROACHES



TYPICAL SECTION OF IMPROVEMENT
HWY. 63 STA. 19+58.98 TO STA. 22+33.93

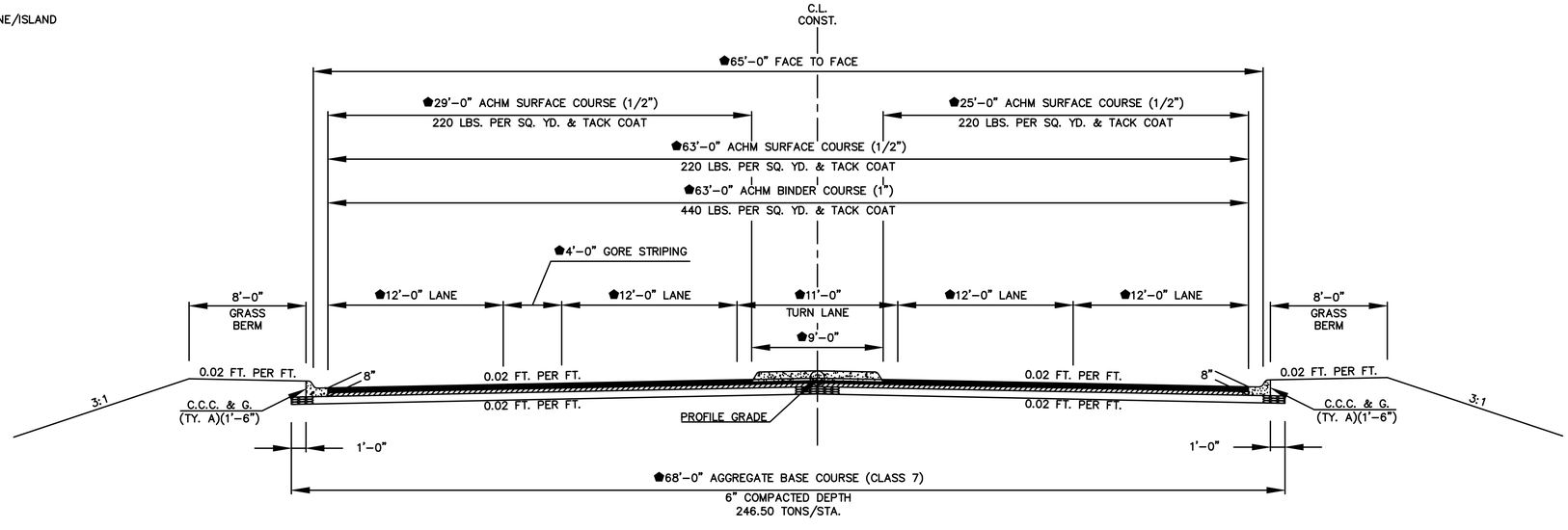
PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTACT ITEMS.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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

⬟ SEE SPECIAL DETAILS FOR VARIABLE LANE/ISLAND WIDTHS AT ROUNDABOUT APPROACHES



TYPICAL SECTION OF IMPROVEMENT
HWY. 63 STA. 24+53.93 TO STA. 27+22.47

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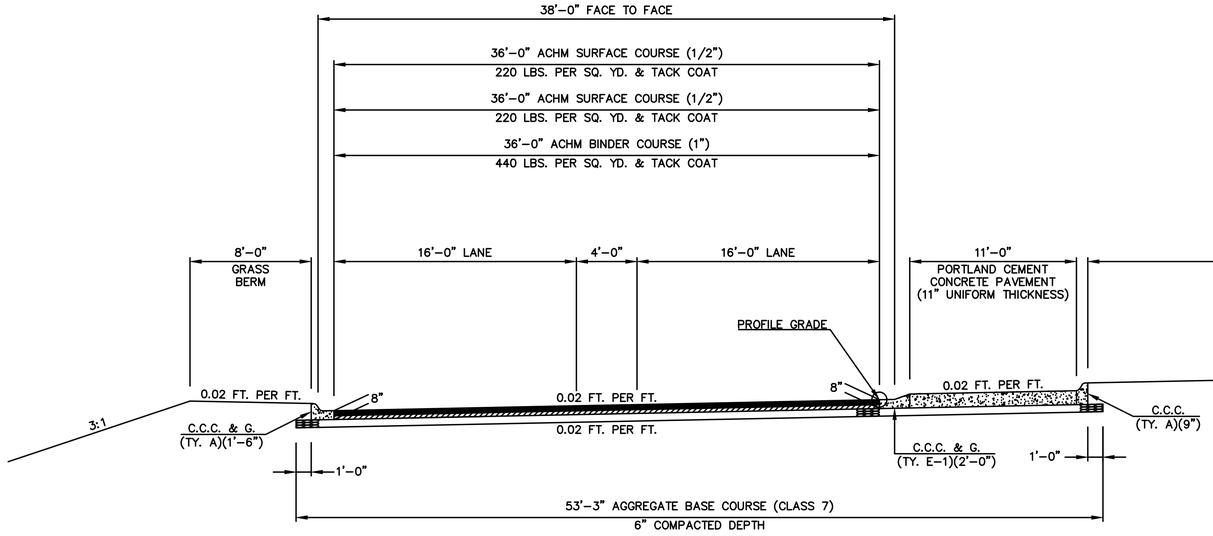
				6	ARK.			
				JOB NO.		19-5708	6	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



C.L. ROUNDABOUT

TYPICAL SECTION OF IMPROVEMENT
ROUNDABOUT STA. 10+00.00 TO STA. 14+64.96

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 CONTACT ITEMS.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

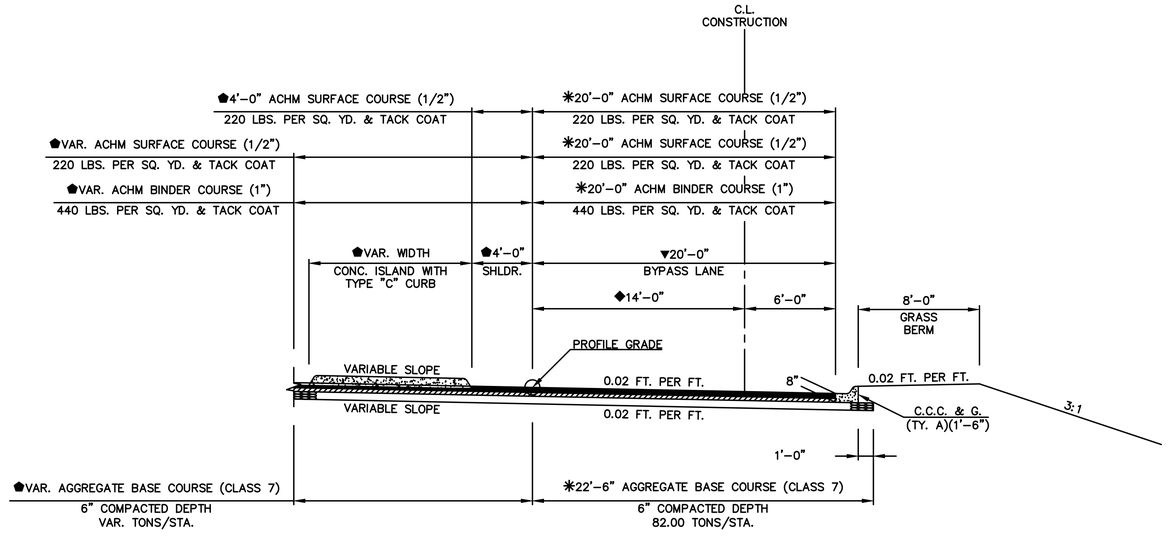
THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

✳ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

⬟ SEE SPECIAL DETAILS FOR VARIABLE LANE/ISLAND WIDTHS AT ROUNDABOUT APPROACHES

▼ TRANSITION FROM 12'-0" AT STA. 40+00.00 TO 20'-0" AT STA. 41+18.23

◆ TRANSITION FROM 6'-0" AT STA. 40+00.00 TO 14'-0" AT STA. 41+18.23



TYPICAL SECTION OF IMPROVEMENT
BYPASS LANE STA. 40+00.00 TO STA. 45+69.71

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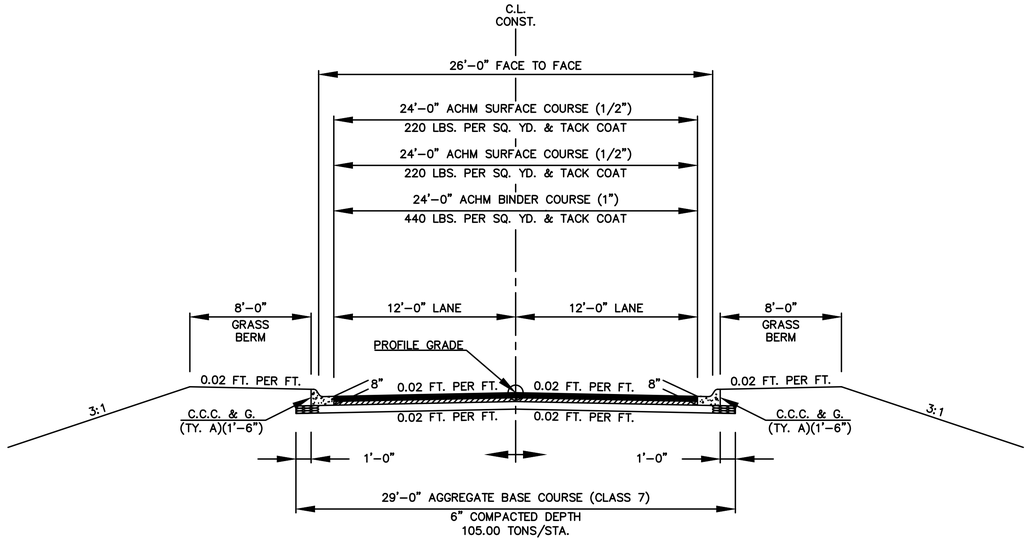
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
		2019-10-09		6	ARK.			
				JOB NO.		19-5708	7	151
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



TYPICAL SECTION OF IMPROVEMENT
SARACEN RESORT DR. STA. 11+88.57 TO STA. 16+08.19

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 CONTACT ITEMS.

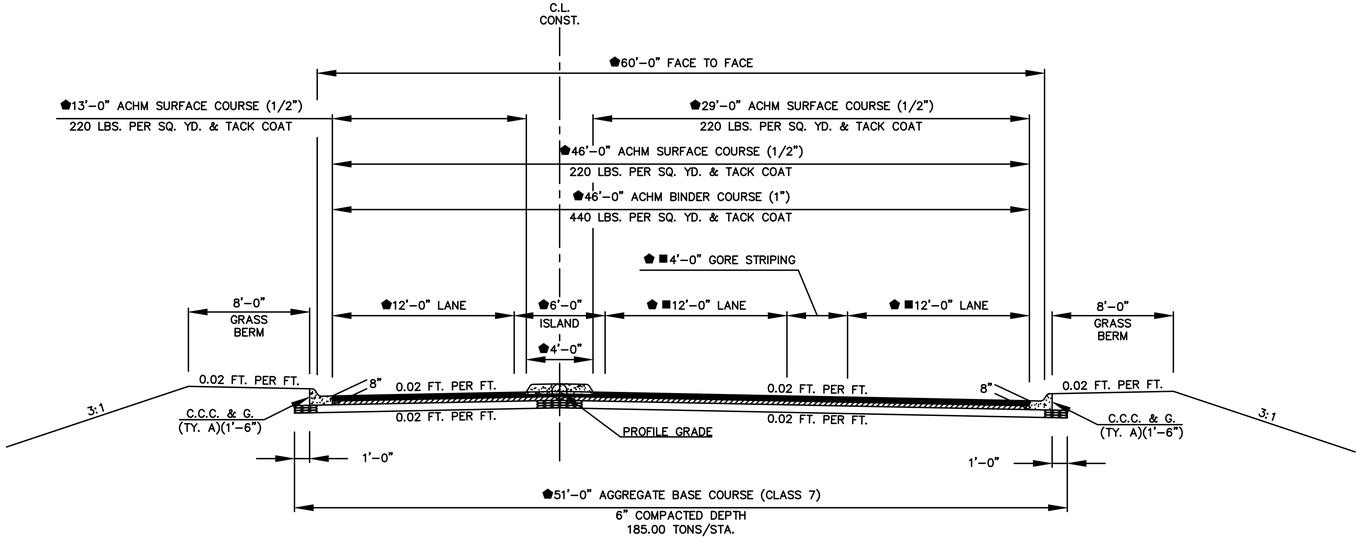
REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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

⬟ SEE SPECIAL DETAILS FOR VARIABLE LANE/ISLAND WIDTHS AT ROUNDABOUT APPROACHES

■ TRANSITION FROM (1) 12'-0" LANE AT STA. 16+08.19 TO (2) 15'-0" LANES & (1) 4'-0" PAINTED GORE AT STA. 18+75.38



TYPICAL SECTION OF IMPROVEMENT
SARACEN RESORT DR. STA. 16+08.19 TO STA. 19+10.79

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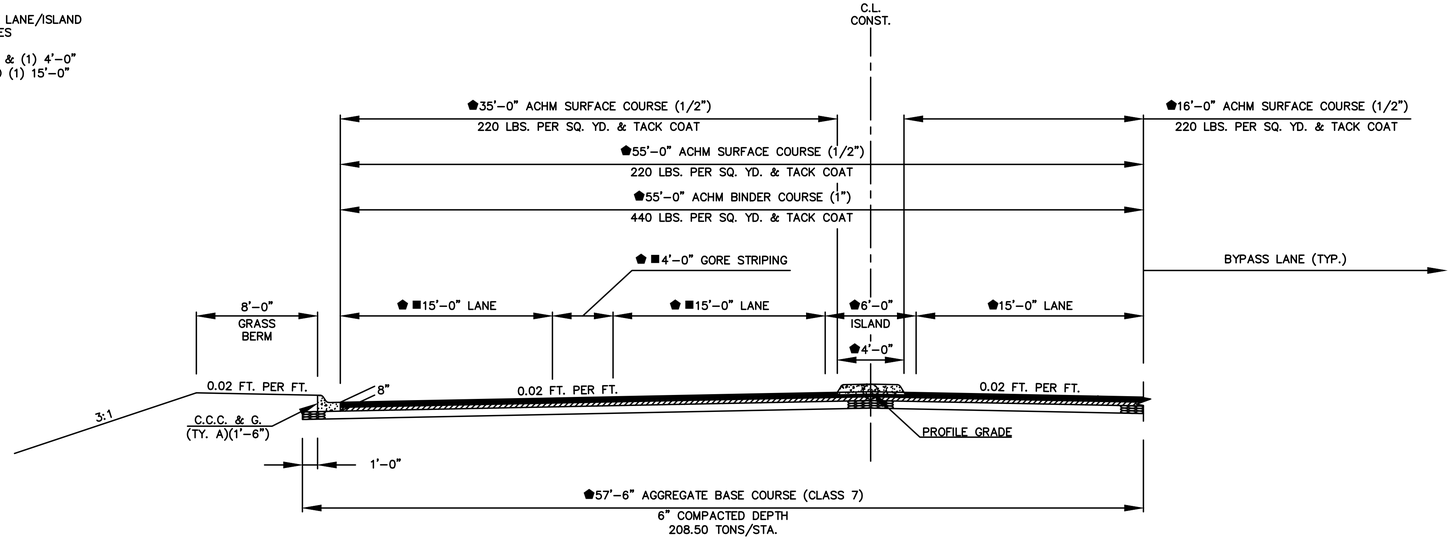
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	8	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

⬟ SEE SPECIAL DETAILS FOR VARIABLE LANE/ISLAND WIDTHS AT ROUNDABOUT APPROACHES

■ TRANSITION FROM (2) 15'-0" LANES & (1) 4'-0" PAINTED GORE AT STA. 21+21.45 TO (1) 15'-0" LANE AT STA. 22+94.97



TYPICAL SECTION OF IMPROVEMENT
SARACEN RESORT DR. STA. 20+91.15 TO STA. 24+76.51

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 CONTACT ITEMS.

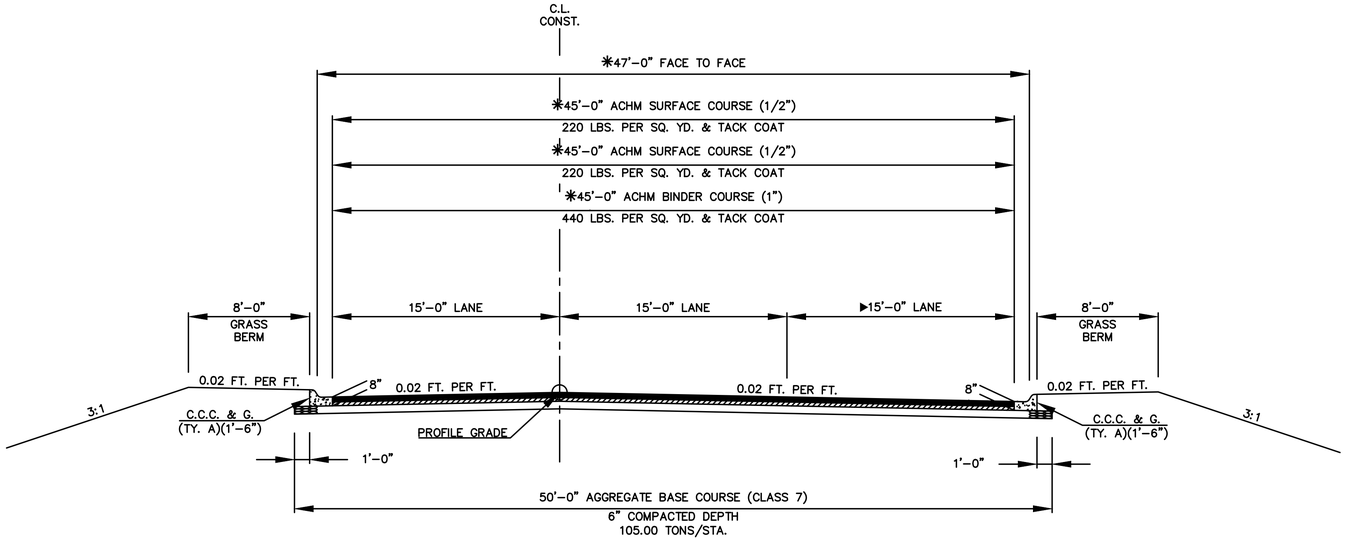
REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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

✳ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

▶ TRANSITION FROM 20'-0" AT STA. 24+75.95 TO 15'-0" AT STA. 26+20.73
TRANSITION FROM 15'-0" AT STA. 28+20.70 TO 0'-0" AT STA. 31+86.62



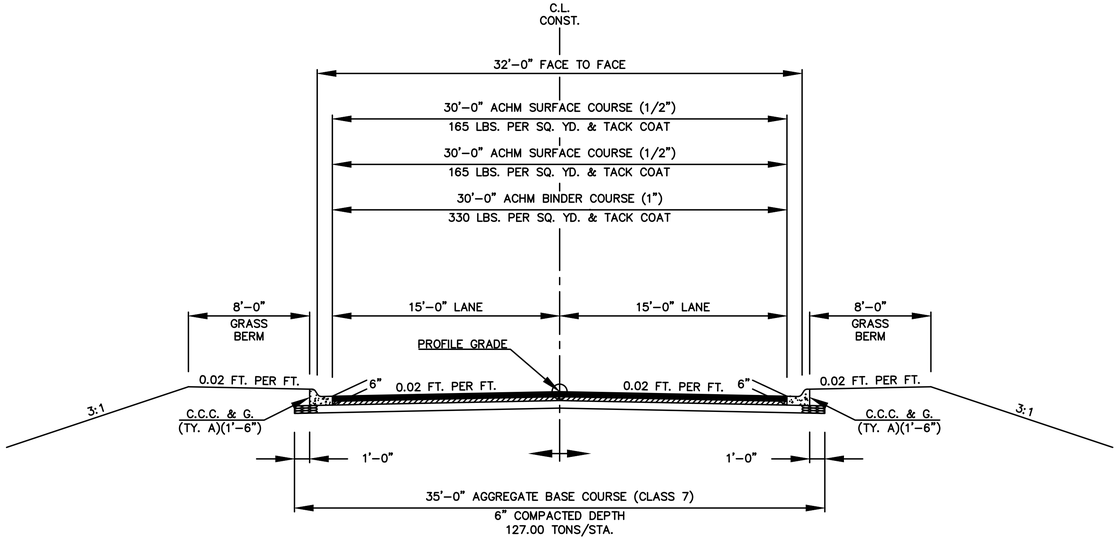
TYPICAL SECTION OF IMPROVEMENT
SARACEN RESORT DR. STA. 24+76.51 TO STA. 31+87.18

W:\20\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 TYP SECTIONS.dwg 1/30/20 at 2:32pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	9	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



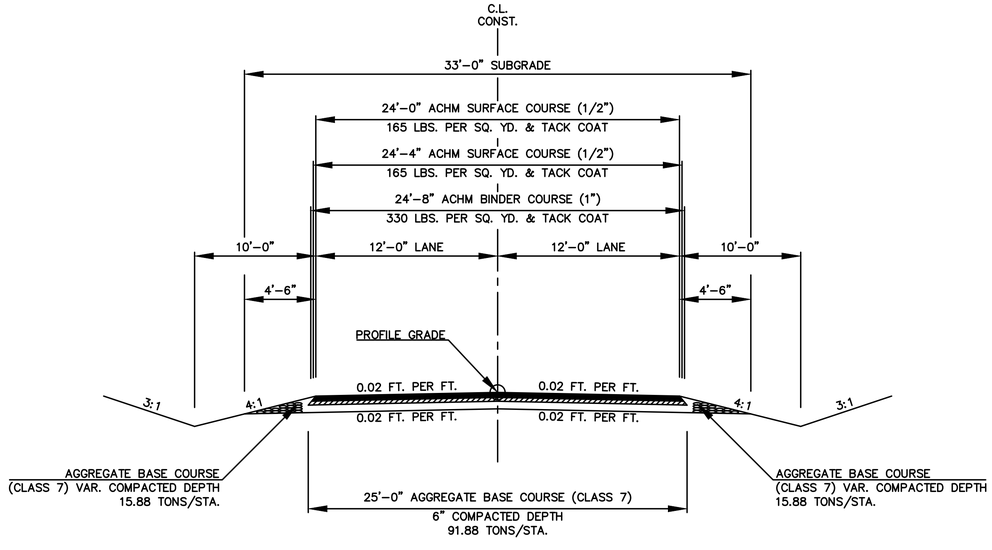
TYPICAL SECTION OF IMPROVEMENT
QUAPAW RD. STA. 15+93.90 TO STA. 17+47.02

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 CONTACT ITEMS.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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



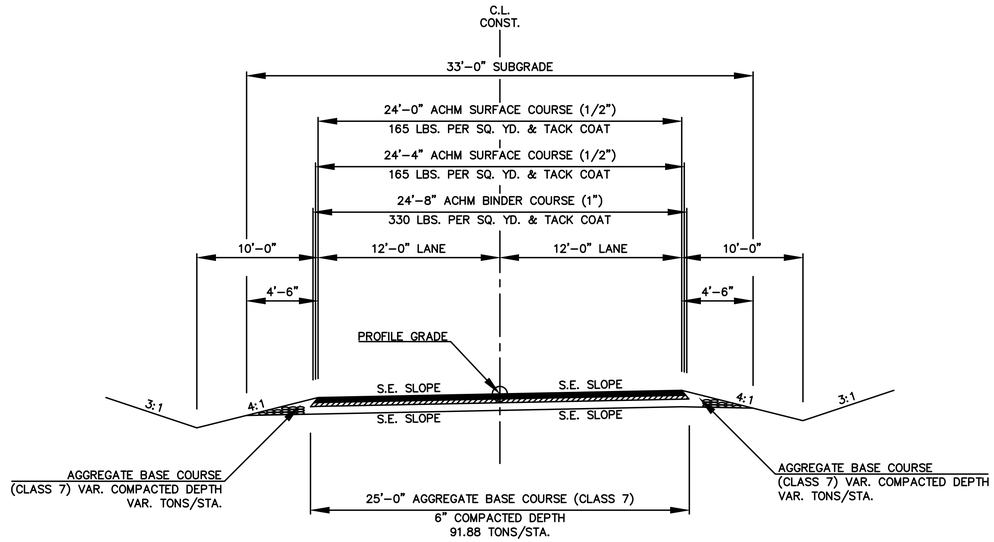
TYPICAL SECTION OF IMPROVEMENT – TANGENT SECTION
I-530 FRONTAGE RD. STA. 50+50.00 TO STA. 76+65.39
QUAPAW RD. STA. 10+15.01 TO STA. 15+93.90

W:\20\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 TYP SECTIONS.dwg 1/30/20 at 2:32pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	10	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



TYPICAL SECTION OF IMPROVEMENT – SUPERELEVATED SECTION
I-530 FRONTAGE RD. STA. 50+50.00 TO STA. 76+65.39

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 CONTACT ITEMS.

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

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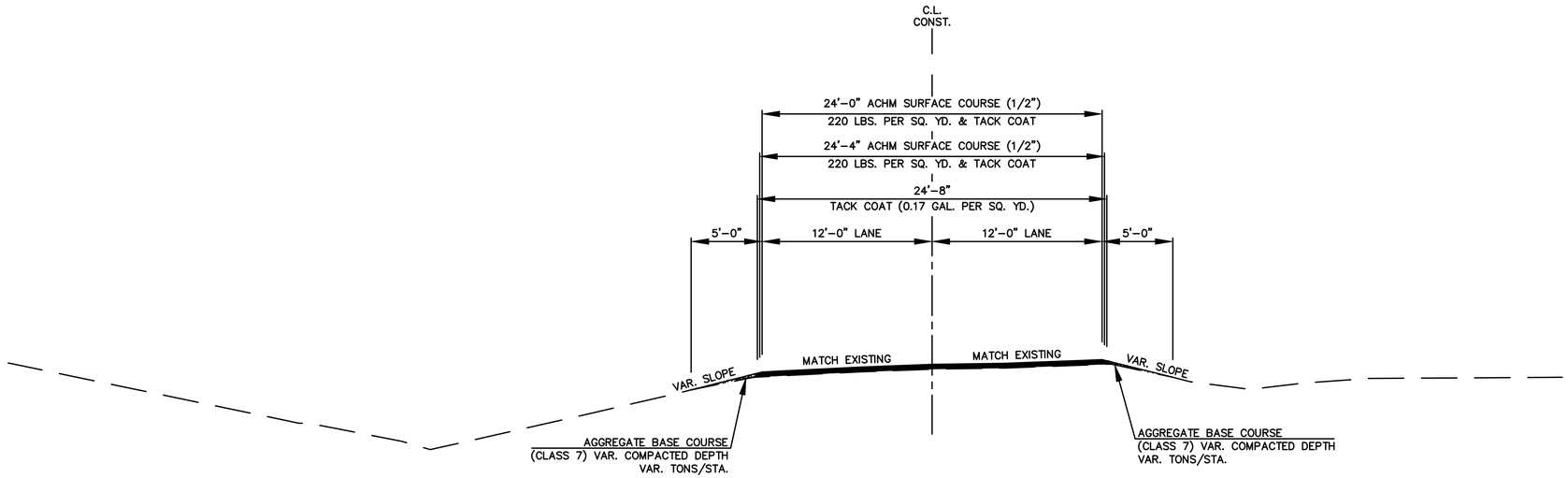
THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.



TYPICAL SECTION OF IMPROVEMENT – OVERLAY SECTION
I-530 FRONTAGE RD. STA. 76+65.39 TO STA. 93+40.38

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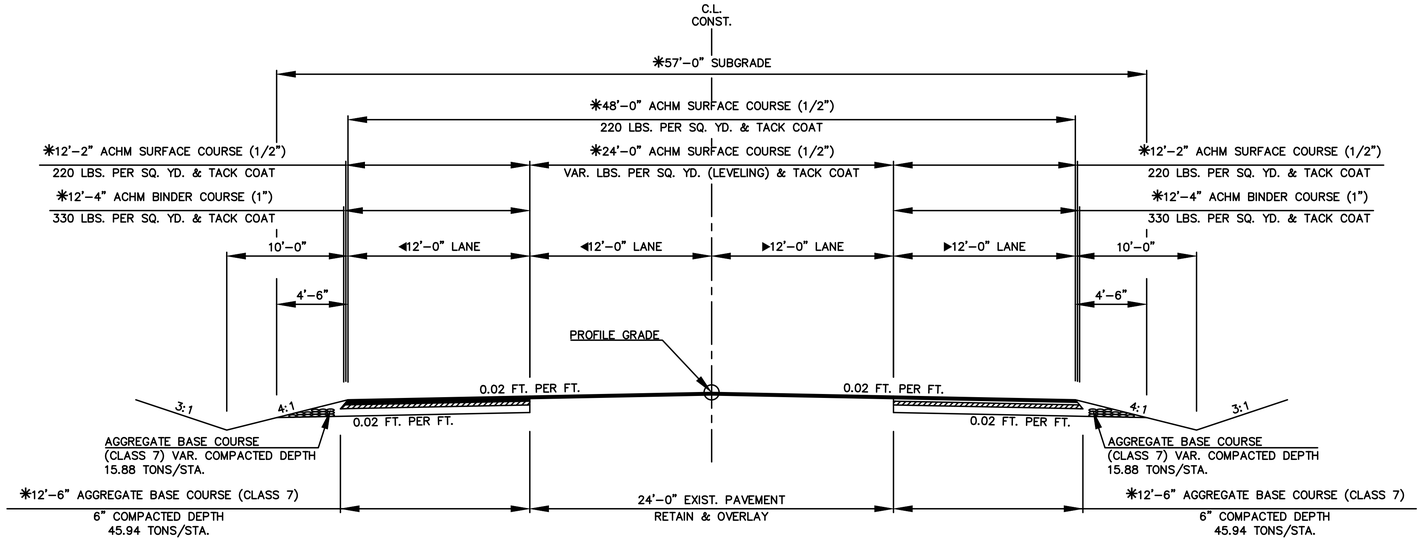
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	10	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

✱ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

◀ TRANSITION FROM (1) 12'-0" LANE AT STA. 93+40.38 TO (2) 12'-0" LANES AT STA. 96+62.09

▶ TRANSITION FROM (1) 12'-0" LANE AT STA. 99+23.39 TO (2) 12'-0" LANES AT STA. 100+73.39



TYPICAL SECTION OF IMPROVEMENT – TANGENT SECTION
I-530 FRONTAGE RD. STA. 93+40.38 TO STA. 105+66.20

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 CONTACT ITEMS.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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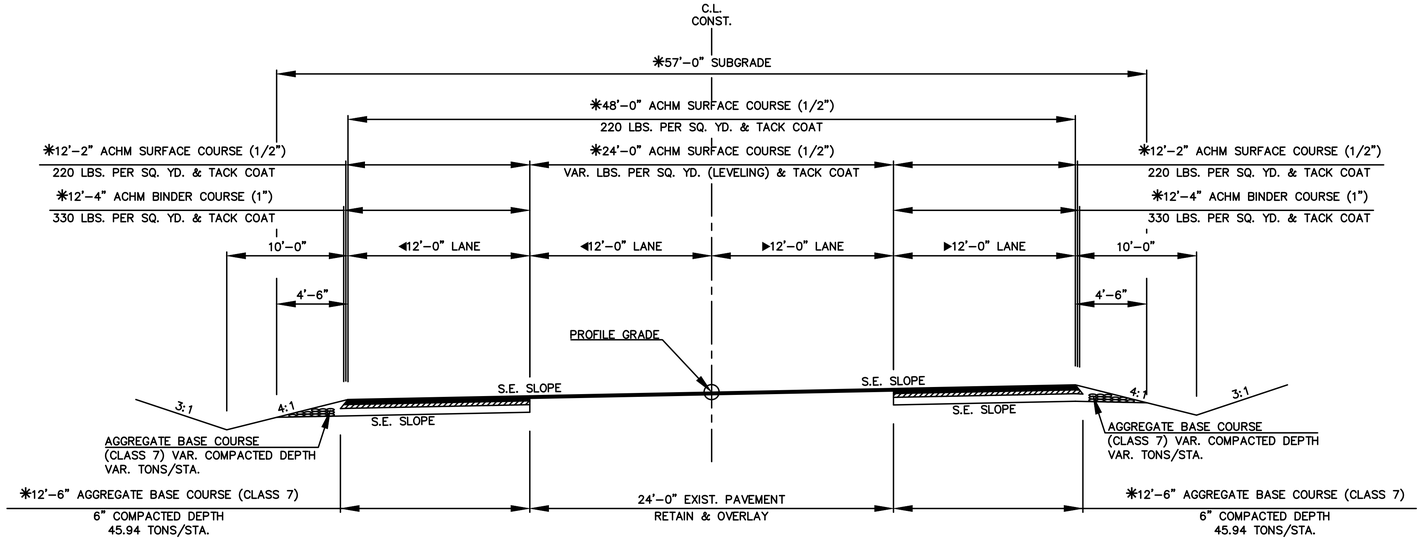
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

✱ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

◀ TRANSITION FROM (1) 12'-0" LANE AT STA. 93+40.38 TO (2) 12'-0" LANES AT STA. 96+62.09

▶ TRANSITION FROM (1) 12'-0" LANE AT STA. 99+23.39 TO (2) 12'-0" LANES AT STA. 100+73.39



TYPICAL SECTION OF IMPROVEMENT – SUPERELEVATED SECTION
I-530 FRONTAGE RD. STA. 93+40.38 TO STA. 105+66.20

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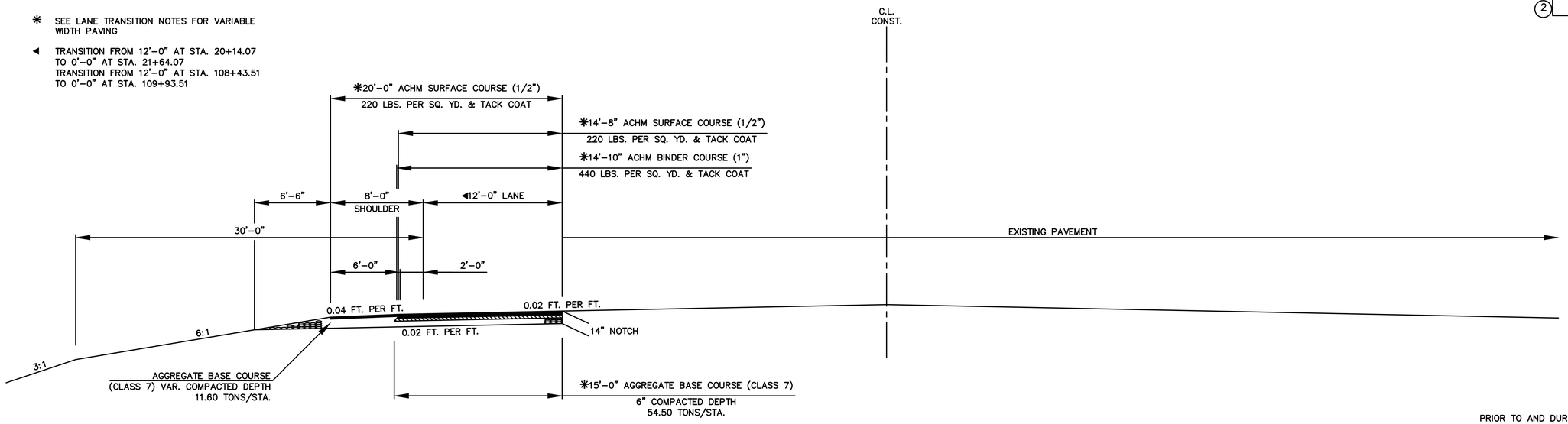
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	12	151

(2) TYPICAL SECTIONS OF IMPROVEMENT

✱ SEE LANE TRANSITION NOTES FOR VARIABLE WIDTH PAVING

◄ TRANSITION FROM 12'-0" AT STA. 20+14.07 TO 0'-0" AT STA. 21+64.07
TRANSITION FROM 12'-0" AT STA. 108+43.51 TO 0'-0" AT STA. 109+93.51



TYPICAL SECTION OF IMPROVEMENT
HWY. 65 STA. 17+24.00 TO STA. 21+64.07
HWY. 65B STA. 105+22.85 TO STA. 109+93+51

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 CONTACT ITEMS.

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 TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF TOLERANCE INDICATED.

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

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 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 REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

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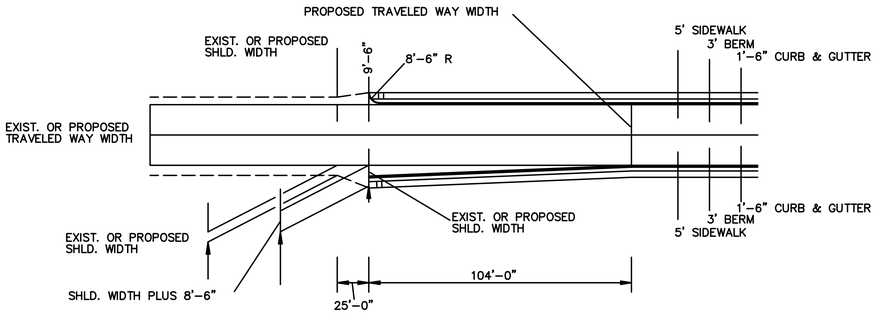
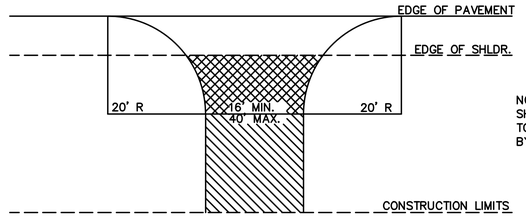
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	13	151
				(2)	SPECIAL DETAILS			



TRANSITION FROM OPEN SHOULDER
TO 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
(I-530 FRONTAGE RD.)

STATE OF ARKANSAS
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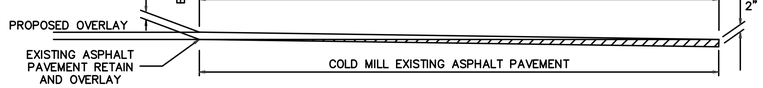
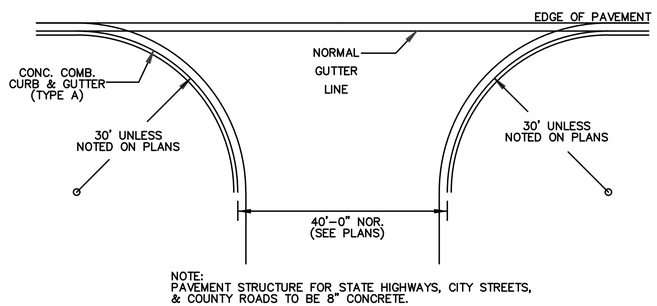
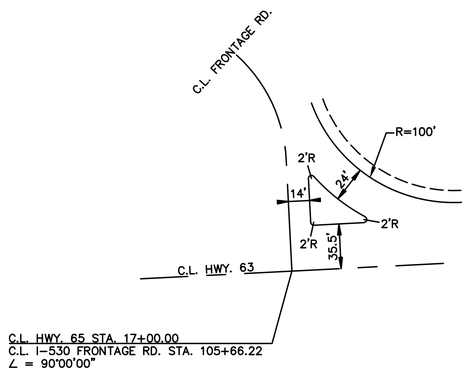


DETAIL FOR TRANSITIONS



DETAIL FOR DRIVEWAY TURNOUTS
(SARACEN RESORT DR.)



ISLAND DETAILS
(TYPE C CURB FACE)

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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	14	151

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

ROUNDABOUT POINT TABLE (BOX 1 OF 3)			
POINT	STATION	OFFSET	ELEVATION
RB–1	20+75.71	24.00' LT.	212.21
RB–2	20+95.23	0.00'	212.68
RB–3	21+13.05	0.00'	212.68
RB–4	21+32.68	23.81' RT.	212.19
RB–5	21+55.03	0.88' LT.	212.65
RB–6	21+94.98	39.87' RT.	212.25
RB–7	22+02.49	52.11' LT.	212.25
RB–8	22+22.01	28.11' LT.	212.47
RB–9	22+20.07	15.09' RT.	212.55
RB–10	22+36.74	24.72' RT.	212.64
RB–11	22+40.19	36.59' LT.	212.64
RB–12	22+47.81	73.24' LT.	212.42
RB–13	22+62.69	78.96' RT.	212.64
RB–14	22+94.18	61.76' LT.	213.25
RB–15	23+91.93	62.55' RT.	213.26
RB–16	24+40.06	73.24' RT.	212.42
RB–17	24+47.67	36.59' RT.	212.64
RB–18	24+51.12	24.72' LT.	212.64
RB–19	24+54.06	33.61' RT.	212.45
RB–20	24+59.90	58.91' LT.	212.25
RB–21	24+67.53	15.24' LT.	212.48
RB–22	24+73.58	57.61' RT.	212.15
RB–23	24+90.04	41.51' LT.	211.93
RB–24	25+40.27	0.15' RT.	212.39
RB–25	25+60.16	25.86' LT.	211.82
RB–26	25+80.84	5.50' RT.	212.17
RB–27	26+00.36	29.50' RT.	211.63
RB–28	26+46.47	29.50' LT.	211.50
RB–29	26+46.47	5.50' LT.	211.98

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT AT FINAL SURFACE ELEVATION.

ROUNDABOUT POINT TABLE (BOX 2 OF 3)			
POINT	STATION	OFFSET	ELEVATION
RB–30	16+92.20	16.01' RT.	207.44
RB–31	17+70.39	24.58' RT.	208.62
RB–32	17+80.47	0.00'	209.34
RB–33	18+52.53	72.84' RT.	212.22
RB–34	18+67.60	93.47' RT	212.46
RB–35	18+75.38	46.57' RT.	212.64
RB–36	18+83.45	22.61' LT.	211.80
RB–37	19+06.55	11.45' LT.	212.64
RB–38	20+92.34	20.69' RT.	212.64
RB–39	21+12.46	89.30' LT.	212.46
RB–40	21+12.92	41.69' LT.	212.64
RB–41	21+21.45	33.49' LT.	212.35
RB–42	21+43.83	59.15' LT.	212.10
RB–43	21+94.19	32.26' LT.	210.75
RB–44	22+04.62	0.00'	211.10

NOTE: POINTS ARE BASED ON SARACEN RESORT DR. ALIGNMENT AT FINAL SURFACE ELEVATION.

ROUNDABOUT POINT TABLE (BOX 3 OF 3)			
POINT	STATION	OFFSET	ELEVATION
RB–45	40+00.00	6.00' LT.	212.23
RB–46	40+00.00	6.00' RT.	211.99
RB–47	40+53.45	9.60' LT.	212.21
RB–48	41+18.23	6.00' RT.	211.64
RB–49	43+84.97	14.00' LT	209.88
RB–50	43+84.97	6.00' RT.	209.48

NOTE: POINTS ARE BASED ON BYPASS LANE ALIGNMENT AT FINAL SURFACE ELEVATION.

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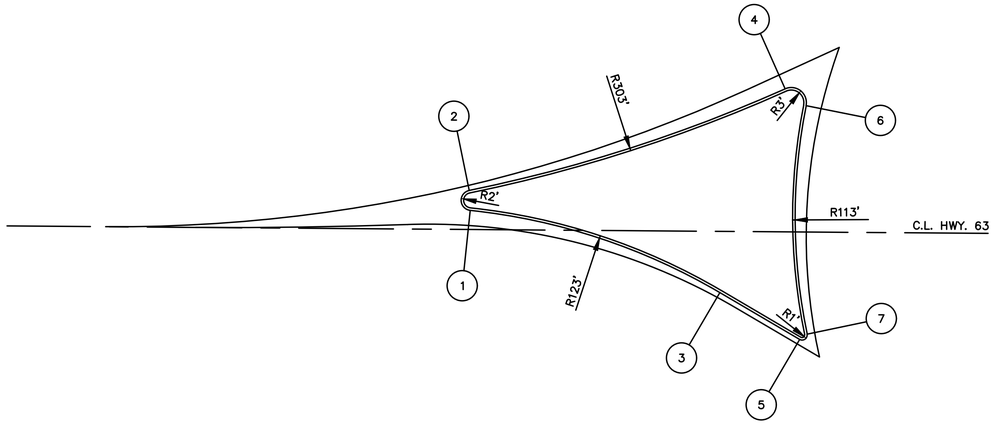
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	15	151

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



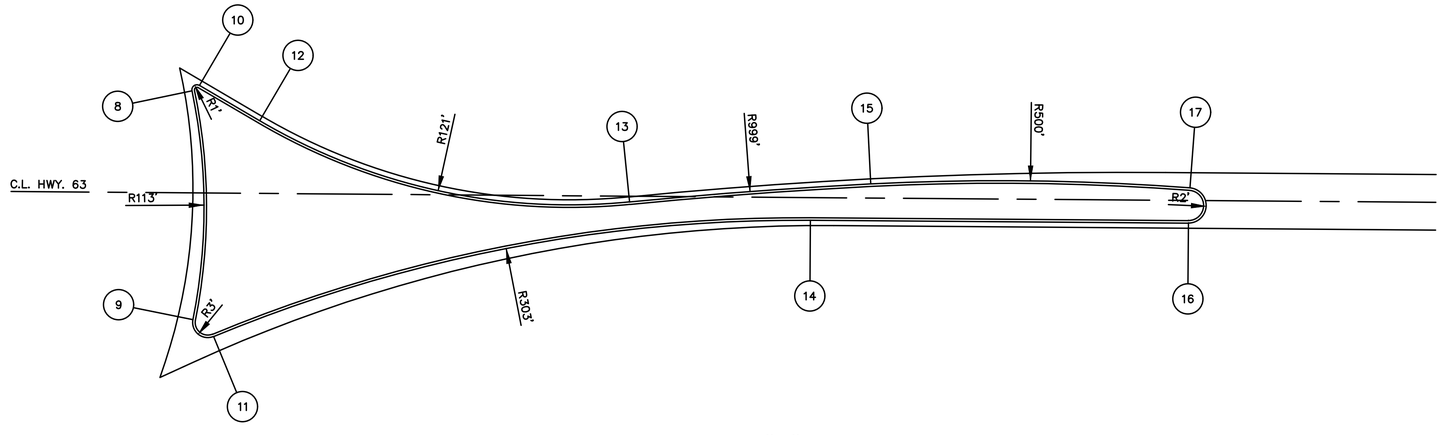
SPLITTER ISLAND "A" DETAIL
HWY. 63
STA. 21+67.15 TO STA. 22+34.28

SPLITTER ISLAND POINT TABLE (BOX 1 OF 5)				
POINT	STATION	OFFSET	BOTTOM ELEV.	TOP ELEV.
1	21+67.15	7.72' LT.	212.40	213.07
2	21+67.37	3.77' LT.	212.45	213.12
3	22+16.94	12.13' RT.	212.39	213.06
4	22+29.54	28.31' LT.	212.30	212.97
5	22+32.80	21.29' RT.	212.35	213.02
6	22+33.73	25.01' LT.	212.33	213.00
7	22+34.28	20.21' RT.	212.43	213.10

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.
VARIABLE WIDTH CONCRETE ISLAND 8" NORMAL UNIFORM THICKNESS (TYP.) WITH TYPE "C" CURB FACE (TYPICAL ALL SIDES).
CONCRETE ISLAND SHALL BE CONSTRUCTED ON TOP OF ULTIMATE PAVEMENT SECTION (LESS FINAL LIFT OF ACHM SURFACE COURSE).

SPLITTER ISLAND POINT TABLE (BOX 2 OF 5)				
POINT	STATION	OFFSET	BOTTOM ELEV.	TOP ELEV.
8	24+53.59	20.21' LT.	212.37	213.04
9	24+54.11	25.09' RT.	212.33	213.00
10	24+55.06	21.29' LT.	212.35	213.02
11	24+58.23	28.42' RT.	212.29	212.96
12	24+67.03	14.38' LT.	212.32	212.99
13	25+40.38	1.15' RT.	212.20	212.87
14	25+76.22	4.50' RT.	212.04	212.71
15	25+88.12	2.79' LT.	212.03	212.70
16	26+51.03	4.50' RT.	211.82	212.49
17	26+51.31	2.49' LT.	211.86	212.53

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.
VARIABLE WIDTH CONCRETE ISLAND 8" NORMAL UNIFORM THICKNESS (TYP.) WITH TYPE "C" CURB FACE (TYPICAL ALL SIDES).
CONCRETE ISLAND SHALL BE CONSTRUCTED ON TOP OF ULTIMATE PAVEMENT SECTION (LESS FINAL LIFT OF ACHM SURFACE COURSE).



SPLITTER ISLAND "B" DETAIL
HWY. 63
STA. 24+53.59 TO STA. 26+51.31

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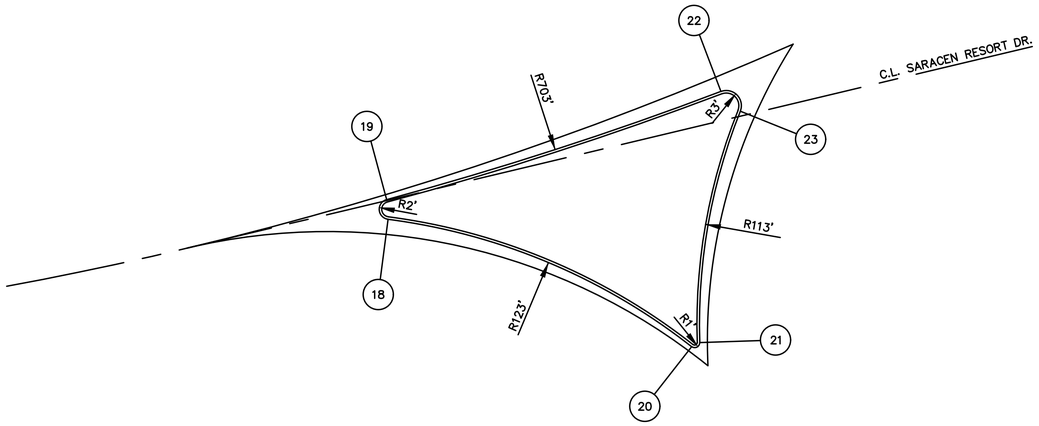
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	16	151
				2	SPECIAL DETAILS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



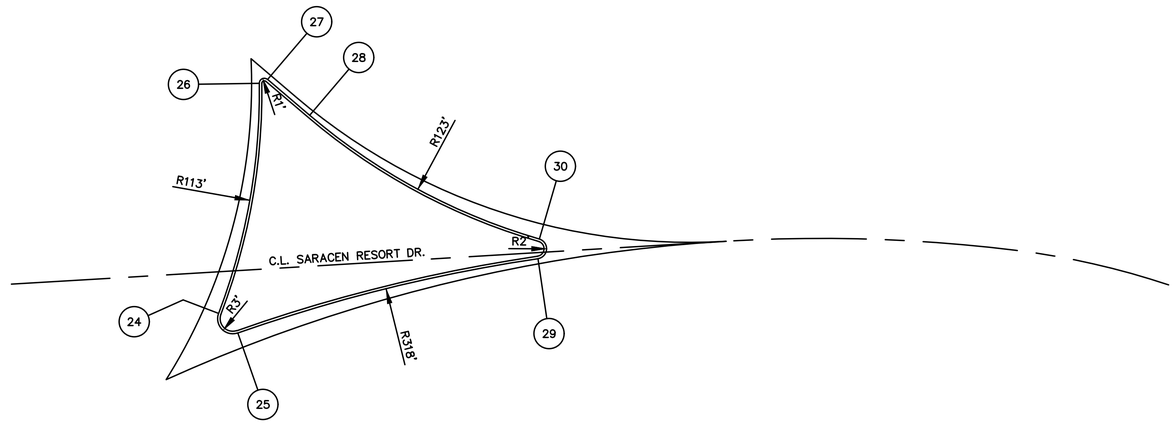
SPLITTER ISLAND "C" DETAIL
SARACEN RESORT DR.
STA. 18+20.49 TO STA. 18+93.31

SPLITTER ISLAND POINT TABLE (BOX 3 OF 5)				
POINT	STATION	OFFSET	BOTTOM ELEV.	TOP ELEV.
18	18+20.49	3.69' RT.	210.24	210.91
19	18+21.14	0.18' LT.	210.22	210.89
20	18+73.11	42.16' RT.	212.31	212.98
21	18+74.88	41.74' RT.	212.35	213.02
22	18+90.48	5.66' LT.	212.19	212.86
23	18+93.31	0.95' LT.	212.36	213.03

NOTE: POINTS ARE BASED ON SARACEN RESORT DR. ALIGNMENT.
VARIABLE WIDTH CONCRETE ISLAND 8" NORMAL UNIFORM THICKNESS (TYP.) WITH TYPE "C" CURB FACE (TYPICAL ALL SIDES).
CONCRETE ISLAND SHALL BE CONSTRUCTED ON TOP OF ULTIMATE PAVEMENT SECTION (LESS FINAL LIFT OF ACHM SURFACE COURSE).

SPLITTER ISLAND POINT TABLE (BOX 4 OF 5)				
POINT	STATION	OFFSET	BOTTOM ELEV.	TOP ELEV.
24	21+03.46	8.23' RT.	212.41	213.08
25	21+07.02	12.35' RT.	212.28	212.95
26	21+14.24	36.74' LT.	212.32	212.99
27	21+15.93	37.42' LT.	212.29	212.96
28	21+23.81	29.84' LT.	212.15	212.82
29	21+67.24	1.22' RT.	211.48	212.15
30	21+67.74	2.66' LT.	211.48	212.15

NOTE: POINTS ARE BASED ON SARACEN RESORT DR. ALIGNMENT.
VARIABLE WIDTH CONCRETE ISLAND 8" NORMAL UNIFORM THICKNESS (TYP.) WITH TYPE "C" CURB FACE (TYPICAL ALL SIDES).
CONCRETE ISLAND SHALL BE CONSTRUCTED ON TOP OF ULTIMATE PAVEMENT SECTION (LESS FINAL LIFT OF ACHM SURFACE COURSE).



SPLITTER ISLAND "D" DETAIL
SARACEN RESORT DR.
STA. 21+03.46 TO STA. 21+67.74

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 1/30/20 at 2:26pm

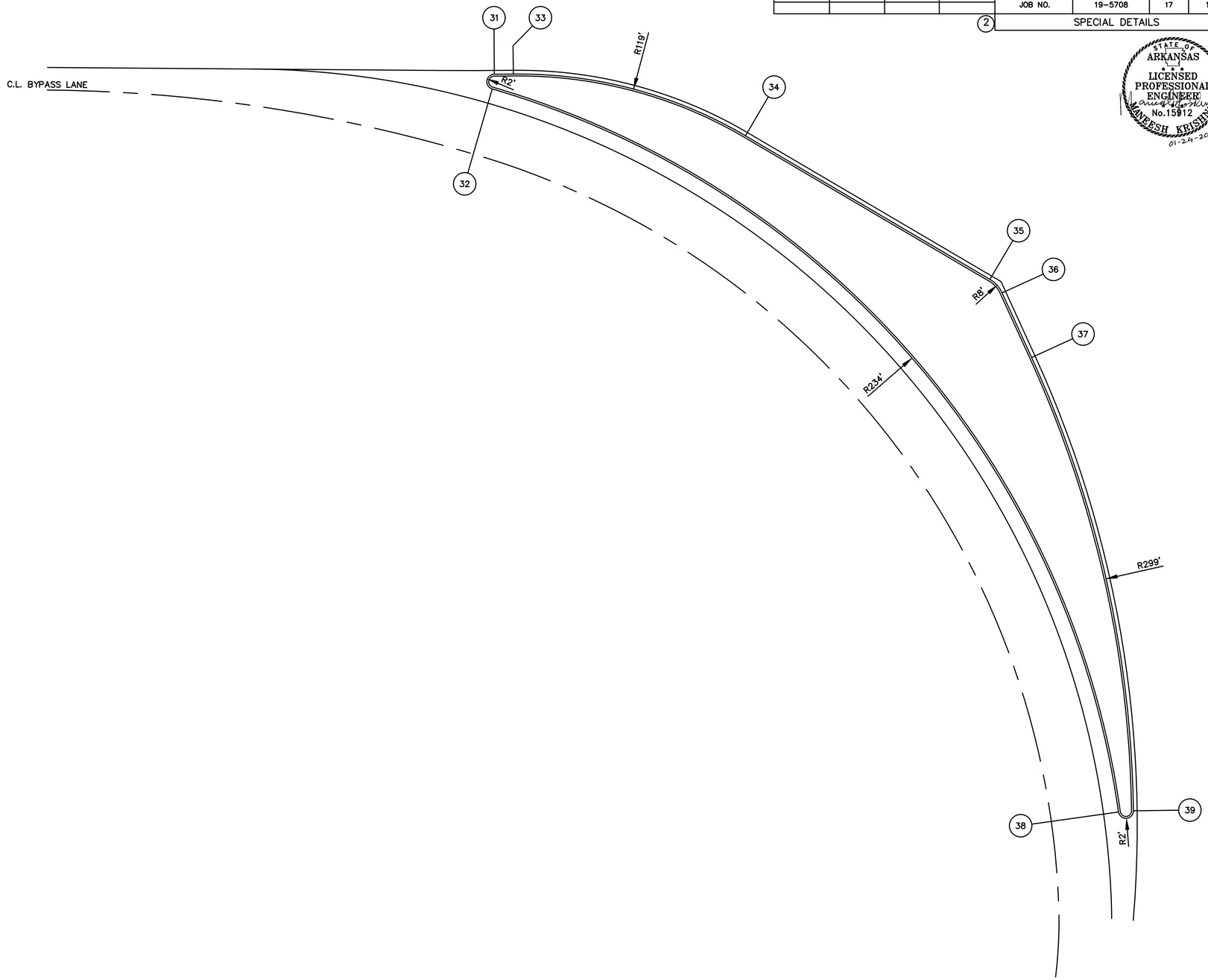
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	17	151

2 SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-29-2020

SPLITTER ISLAND POINT TABLE (BOX 5 OF 5)				
POINT	STATION	OFFSET	BOTTOM ELEV.	TOP ELEV.
31	41+14.13	21.90' LT.	212.01	212.68
32	41+14.70	18.00' LT.	211.94	212.61
33	41+18.69	23.42' LT.	212.01	212.68
34	41+74.32	34.29' LT.	212.06	212.73
35	42+36.97	47.35' LT.	212.35	213.02
36	42+40.91	47.45' LT.	212.35	213.02
37	42+56.08	42.95' LT.	212.19	212.86
38	43+62.76	18.00' LT.	210.17	210.84
39	43+62.99	21.98' LT.	210.35	211.02

NOTE: POINTS ARE BASED ON BYPASS LANE ALIGNMENT.
VARIABLE WIDTH CONCRETE ISLAND 8" NORMAL UNIFORM THICKNESS (TYP.) WITH TYPE "C" CURB FACE (TYPICAL ALL SIDES).
CONCRETE ISLAND SHALL BE CONSTRUCTED ON TOP OF ULTIMATE PAVEMENT SECTION (LESS FINAL LIFT OF ACHM SURFACE COURSE).



SPLITTER ISLAND "E" DETAIL
BYPASS LANE
STA. 41+14.13 TO STA. 43+62.99

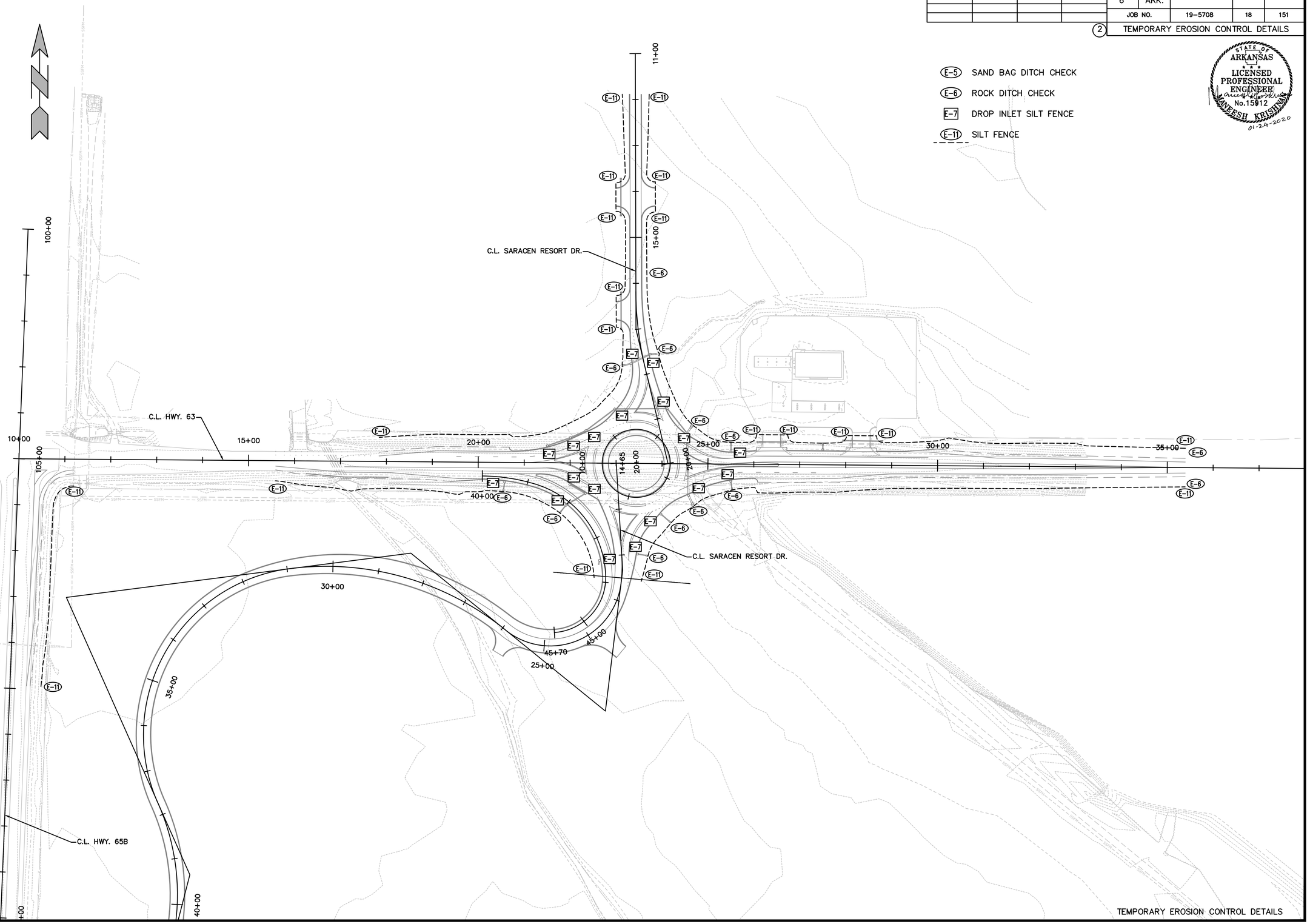
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 1/30/20 at 2:26pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	18	151

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
E-7 DROP INLET SILT FENCE
(E-11) SILT FENCE



TEMPORARY EROSION CONTROL DETAILS

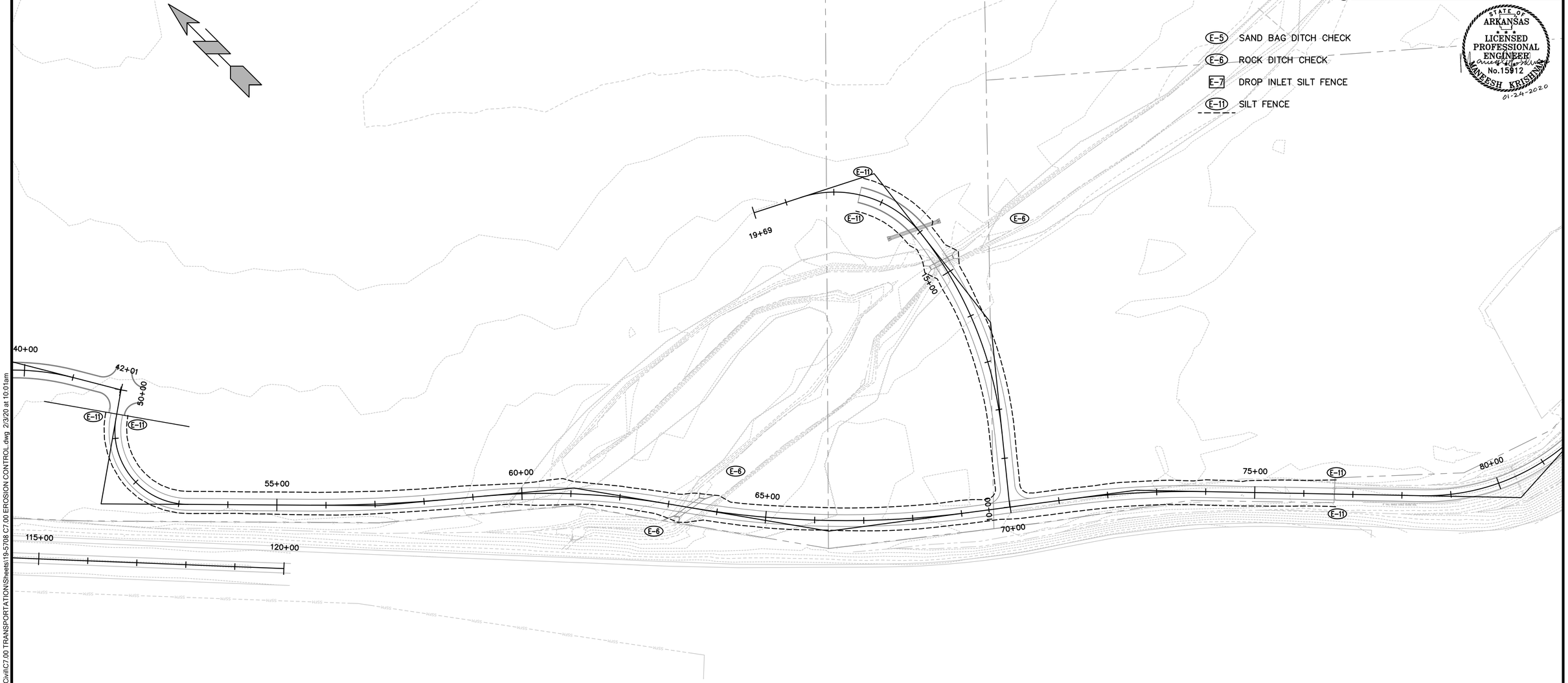
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 EROSION CONTROL.dwg 2/3/20 at 10:00am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	19	151

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

E-5 SAND BAG DITCH CHECK
E-6 ROCK DITCH CHECK
E-7 DROP INLET SILT FENCE
E-11 SILT FENCE



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TEMPORARY EROSION CONTROL DETAILS

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	20	151

(2) TEMPORARY EROSION CONTROL DETAILS

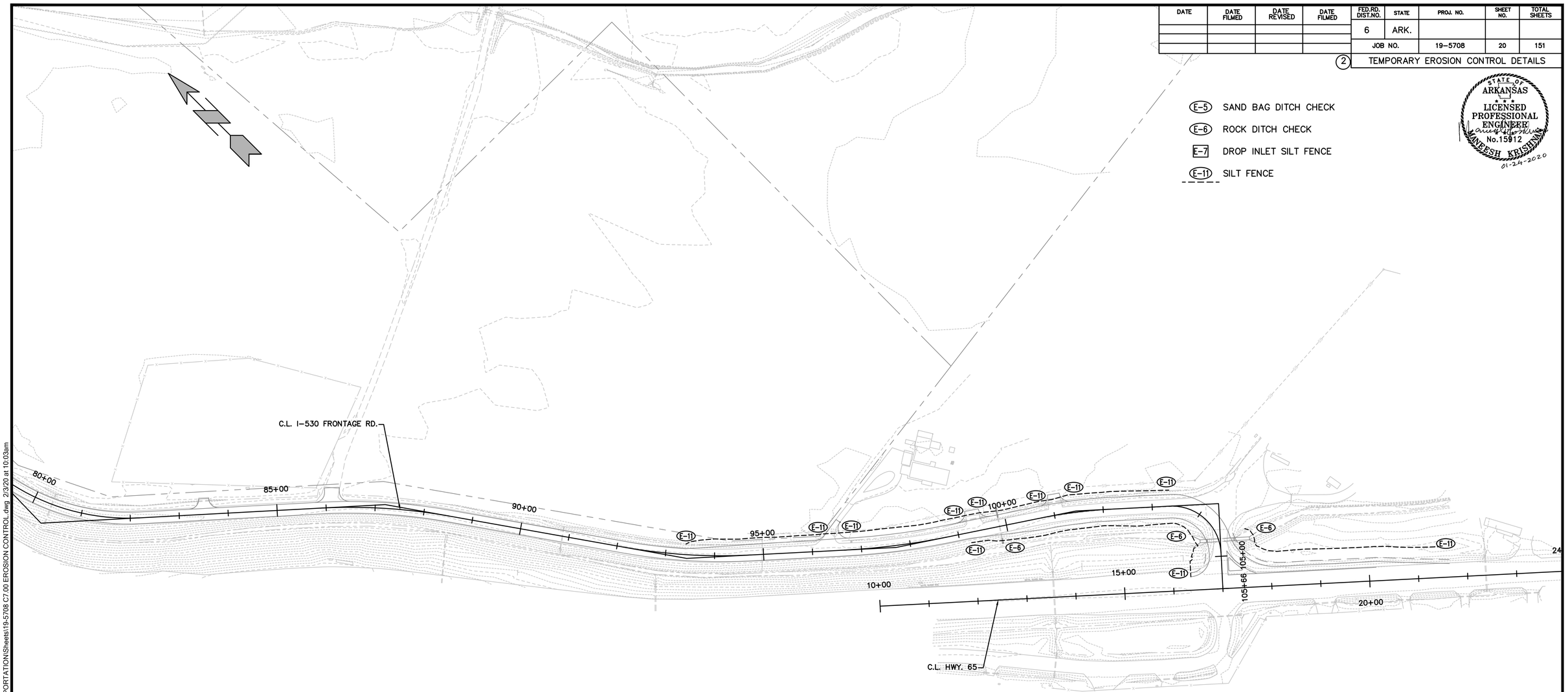
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNAN
01-24-2020

(E-5) SAND BAG DITCH CHECK

(E-6) ROCK DITCH CHECK

E-7 DROP INLET SILT FENCE

(E-11) SILT FENCE



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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	21	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

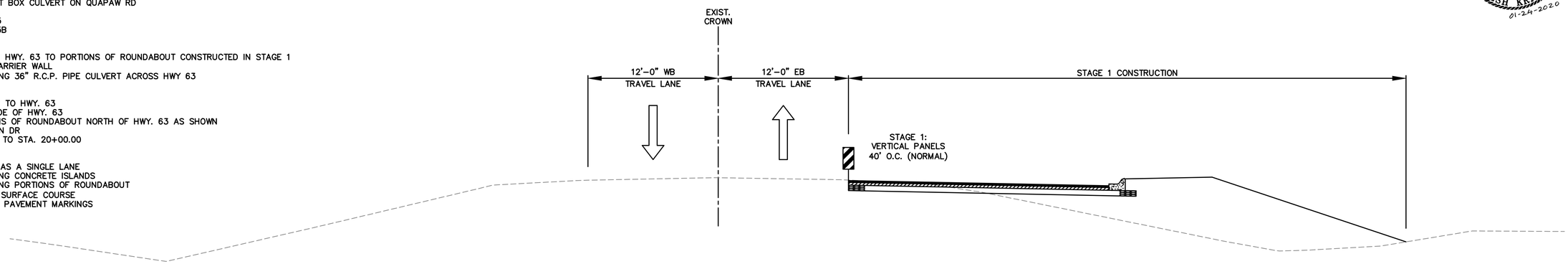
SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

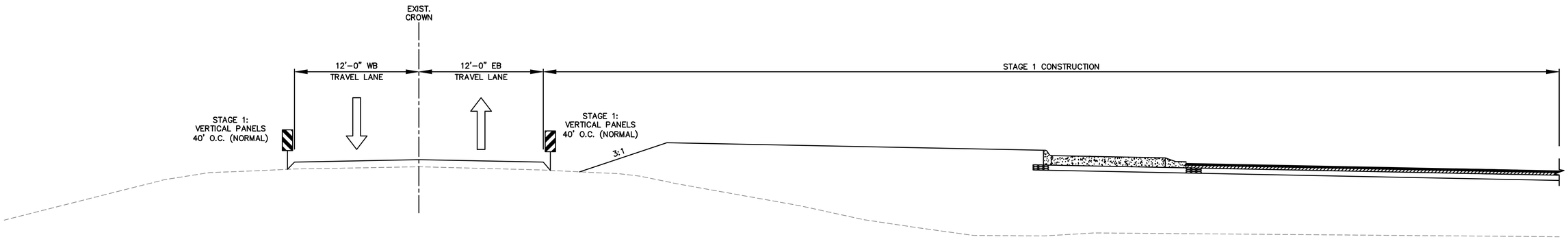
STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS



MAINTENANCE OF TRAFFIC – PAVEMENT WIDENING HWY. 63
STAGE 1 – TYPICAL SECTION



MAINTENANCE OF TRAFFIC – PAVEMENT WIDENING ROUNDABOUT
STAGE 1 – TYPICAL SECTION

MAINTENANCE OF TRAFFIC DETAILS
STAGE 1

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 M.O.T.dwg 1/30/20 at 2:36pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	22	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

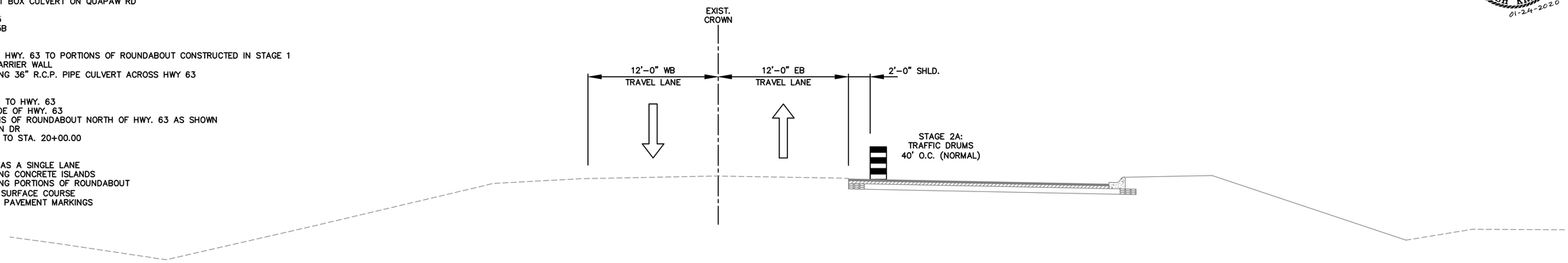
SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS



MAINTENANCE OF TRAFFIC – PAVEMENT WIDENING HWY. 63
STAGE 2A – TYPICAL SECTION

MAINTENANCE OF TRAFFIC – PAVEMENT WIDENING HWY. 63
STAGE 2A – TYPICAL SECTION

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 M.O.T.dwg 1/30/20 at 2:36pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	23	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SEQUENCE OF CONSTRUCTION

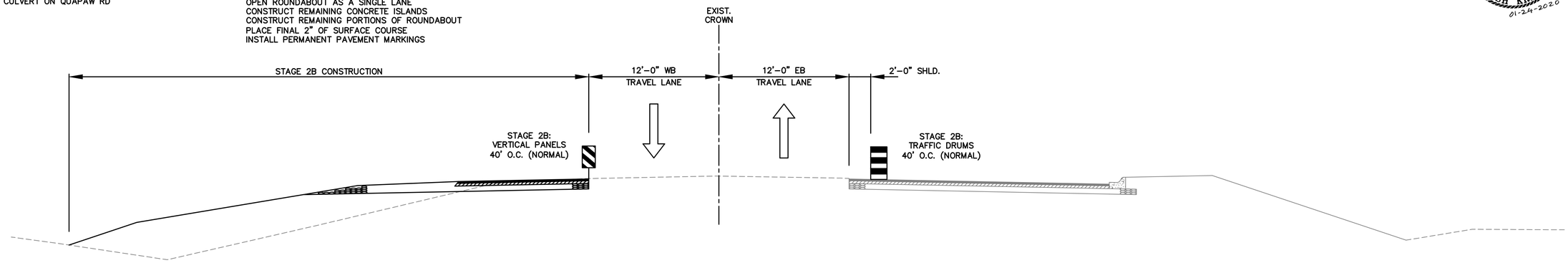
STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

SEQUENCE OF CONSTRUCTION CONT.

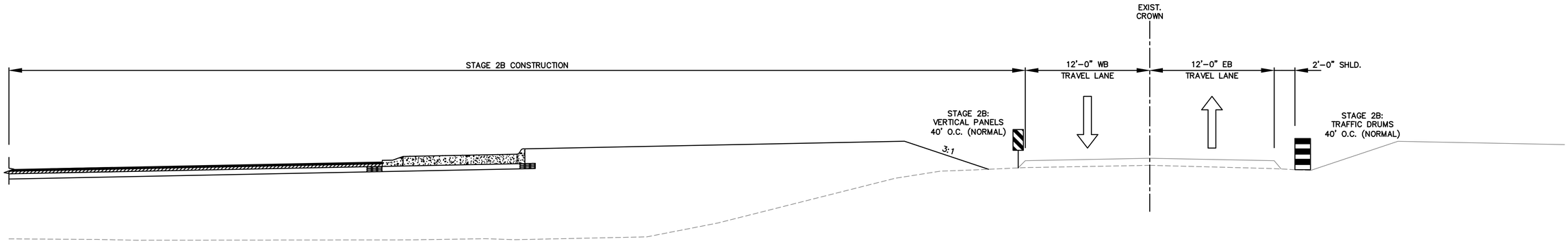
STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS



MAINTENANCE OF TRAFFIC – PAVEMENT WIDENING HWY. 63
STAGE 2B – TYPICAL SECTION



MAINTENANCE OF TRAFFIC – PAVEMENT WIDENING HWY. 63
STAGE 2B – TYPICAL SECTION

MAINTENANCE OF TRAFFIC DETAILS
STAGE 2B

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 M.O.T.dwg 1/30/20 at 2:36pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	24	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MANEESH KRISHNA
No.15912
01-24-2020

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

- STAGE 1 TRAFFIC DRUM
- STAGE 1 VERTICAL PANEL
- STAGE 1 CONSTRUCTION
- STAGE 1 OVERLAY UNDER TRAFFIC
- STAGE 1 TRAFFIC

TRAFFIC DRUMS @ 40' O.C. = 13 EACH
HWY. 65B

TRAFFIC DRUMS @ 40' O.C. = 3 EACH
HWY. 63

148' OF ADDITIONAL TEMPORARY PAVEMENT FROM EDGE OF TRUCK APRON TO EDGE OF TRUCK APRON FOR MAINTENANCE OF TRAFFIC AT 0.50% TO CENTER OF ROUNDABOUT.

VERTICAL PANELS @ 40' O.C. = 56 EACH
HWY. 63 STA. 15+58.98 TO STA. 35+39.31

ROAD WORK 1500 FT — (1) W20-1 (48" X 48")
ROAD WORK 1000 FT — (1) W20-1 (48" X 48")
ROAD WORK AHEAD — (1) W20-1 (48" X 48")
END ROAD WORK — (1) G20-2 (48" X 24")

C.L. HWY. 63
C.L. HWY. 65B
C.L. SARACEN RESORT DR.
4" SOLID WHITE
4" DOUBLE YELLOW
500'
100+00
105+00
110+00
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
45+70
11+00
15+00

MAINTENANCE OF TRAFFIC DETAILS
STAGE 1

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 M.O.T.dwg 1/30/20 at 2:36pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	25	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

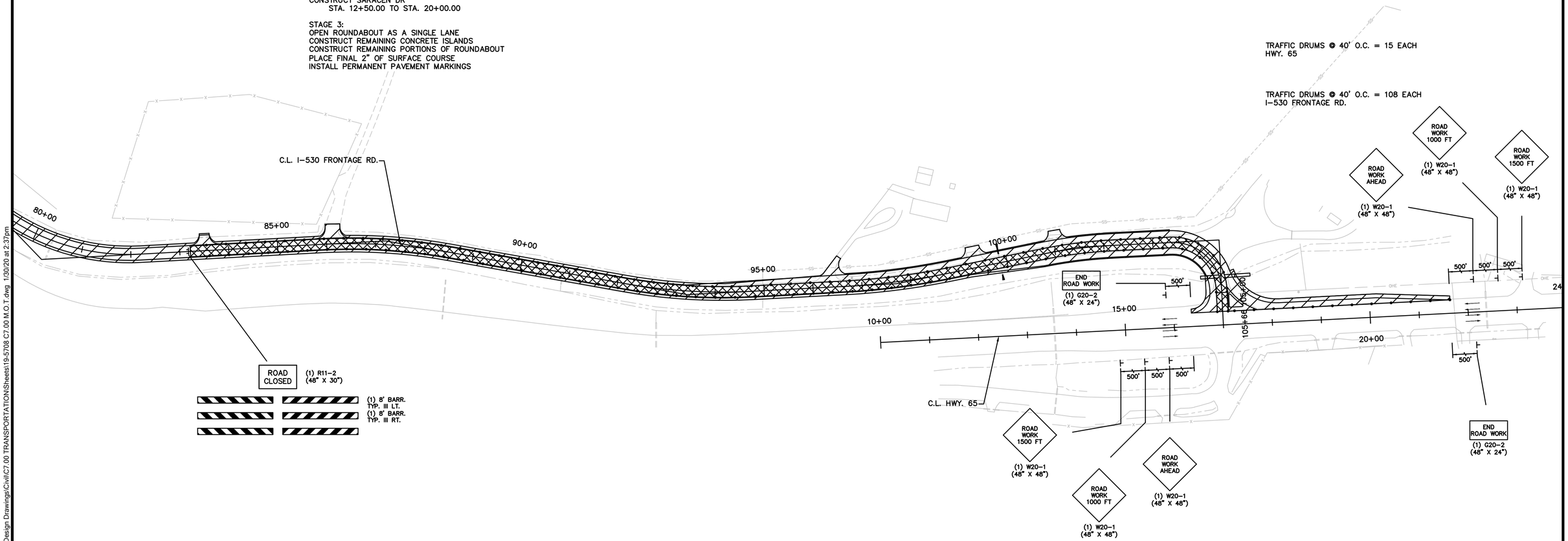
STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

- STAGE 1 TRAFFIC DRUM
- STAGE 1 VERTICAL PANEL
- STAGE 1 CONSTRUCTION
- STAGE 1 OVERLAY UNDER TRAFFIC
- STAGE 1 TRAFFIC

TRAFFIC DRUMS @ 40' O.C. = 15 EACH
HWY. 65

TRAFFIC DRUMS @ 40' O.C. = 108 EACH
I-530 FRONTAGE RD.



MAINTENANCE OF TRAFFIC DETAILS
STAGE 1

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 M.O.T.dwg 1/30/20 at 2:37pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	26	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

- STAGE 2A TRAFFIC DRUM
- STAGE 2A VERTICAL PANEL
- STAGE 2A CONSTRUCTION
- STAGE 2A OVERLAY UNDER TRAFFIC
- STAGE 2A TRAFFIC

VERTICAL PANELS @ 40' O.C. = 7 EACH
HWY. 63 (RETAIN FROM PREVIOUS STAGE)

TRAFFIC DRUMS @ 123' O.C. = 123 EACH
HWY. 63

C.L. HWY. 63
C.L. HWY. 65B
C.L. SARACEN RESORT DR.

ROAD WORK 1500 FT — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
ROAD WORK 1000 FT — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
ROAD WORK AHEAD — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
END ROAD WORK — (1) G20-2 (48" X 24") RETAIN FROM PREVIOUS STAGE
(1) W1-6 (48" X 24")
(1) W1-4L (48" X 48")
(1) W1-4R (48" X 48")
25 M.P.H. — (1) W13-1 (18" X 18")
W1-8 — 8 CHEVRONS PLACED BACK TO BACK (4L & 4R)
4" SOLID WHITE
4" DOUBLE YELLOW
TEMPORARY PRECAST BARRIER W/ SPECIAL END UNITS (TYP.)
ROAD CLOSED — (1) R11-2 (48" X 30")
TYPE III BARRICADE (TYP.)
500'
10+00 15+00 20+00 25+00 30+00 35+00 40+00 45+00 45+70 14+65 105+00 110+00

MAINTENANCE OF TRAFFIC DETAILS
STAGE 2A

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708.C7.00.M.O.T.dwg 1/30/20 at 2:37pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	27	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

- STAGE 2B TRAFFIC DRUM
- STAGE 2B VERTICAL PANEL
- STAGE 2B CONSTRUCTION
- STAGE 2B OVERLAY UNDER TRAFFIC
- STAGE 2B TRAFFIC

VERTICAL PANELS @ 40' O.C. = 49 EACH
HWY. 63 (RETAIN FROM STAGE 1)

TRAFFIC DRUMS @ 40' O.C. = 49 EACH
HWY. 63

C.L. SARACEN RESORT DR.
C.L. HWY. 63
C.L. HWY. 65B
C.L. SARACEN RESORT DR.

4" SOLID WHITE
4" DOUBLE YELLOW
4" SOLID WHITE

ROAD WORK 1500 FT — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
ROAD WORK 1000 FT — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
ROAD WORK AHEAD — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
END ROAD WORK — (1) G20-2 (48" X 24") RETAIN FROM PREVIOUS STAGE
500'

ROAD CLOSED (1) R11-2 (48" X 30")
TYPE III BARRICADE (TYP.)

MAINTENANCE OF TRAFFIC DETAILS
STAGE 2B

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 M.O.T.dwg 2/3/20 at 10:09am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	28	151

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT SOUTH OF HWY. 63 AS SHOWN
CONSTRUCT BYPASS LANE
CONSTRUCT SARACEN DR
STA. 20+00.00 TO STA. 22+50.00
CONSTRUCT I-530 FRONTAGE RD.
CONSTRUCT PRECAST BOX CULVERT ON I-530 FRONTAGE RD.
STA. 63+43.12
EXTEND R.C. BOX CULVERT ON LEFT AND RIGHT SIDE OF I-530 FRONTAGE RD
STA. 104+66.73
CONSTRUCT QUAPAW RD.
CONSTRUCT PRECAST BOX CULVERT ON QUAPAW RD
STA. 15+24.29
CONSTRUCT HWY. 65
CONSTRUCT HWY. 65B

STAGE 2A:
SHIFT TRAFFIC FROM HWY. 63 TO PORTIONS OF ROUNDABOUT CONSTRUCTED IN STAGE 1
INSTALL PRECAST BARRIER WALL
CONSTRUCT REMAINING 36" R.C.P. PIPE CULVERT ACROSS HWY 63

STAGE 2B:
SHIFT TRAFFIC BACK TO HWY. 63
CONSTRUCT LEFT SIDE OF HWY. 63
CONSTRUCT PORTIONS OF ROUNDABOUT NORTH OF HWY. 63 AS SHOWN
CONSTRUCT SARACEN DR
STA. 12+50.00 TO STA. 20+00.00

STAGE 3:
OPEN ROUNDABOUT AS A SINGLE LANE
CONSTRUCT REMAINING CONCRETE ISLANDS
CONSTRUCT REMAINING PORTIONS OF ROUNDABOUT
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

TRAFFIC DRUMS @ 20' O.C. = 155 EACH HWY. 63

TRAFFIC DRUMS @ 10' O.C. = 80 EACH HWY. 63

- STAGE 3 TRAFFIC DRUM
- STAGE 3 VERTICAL PANEL
- STAGE 3 CONSTRUCTION
- STAGE 3 OVERLAY UNDER TRAFFIC
- STAGE 3 TRAFFIC

ROAD WORK 1500 FT — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
ROAD WORK 1000 FT — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
ROAD WORK AHEAD — (1) W20-1 (48" X 48") RETAIN FROM PREVIOUS STAGE
END ROAD WORK — (1) G20-2 (48" X 24") RETAIN FROM PREVIOUS STAGE
500'
C.L. HWY. 63
C.L. HWY. 65B
C.L. SARACEN RESORT DR.
4" SOLID YELLOW
4" SOLID WHITE
YIELD LINE STRIPING (TYP.)
(1) R1-2 (48" X 48" X 48")
(1) R6-4a (48" X 24")
100+00
105+00
110+00
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
45+70
11+00
15+00
R=100'
R=80'
14+25
20+80

MAINTENANCE OF TRAFFIC DETAILS
STAGE 3

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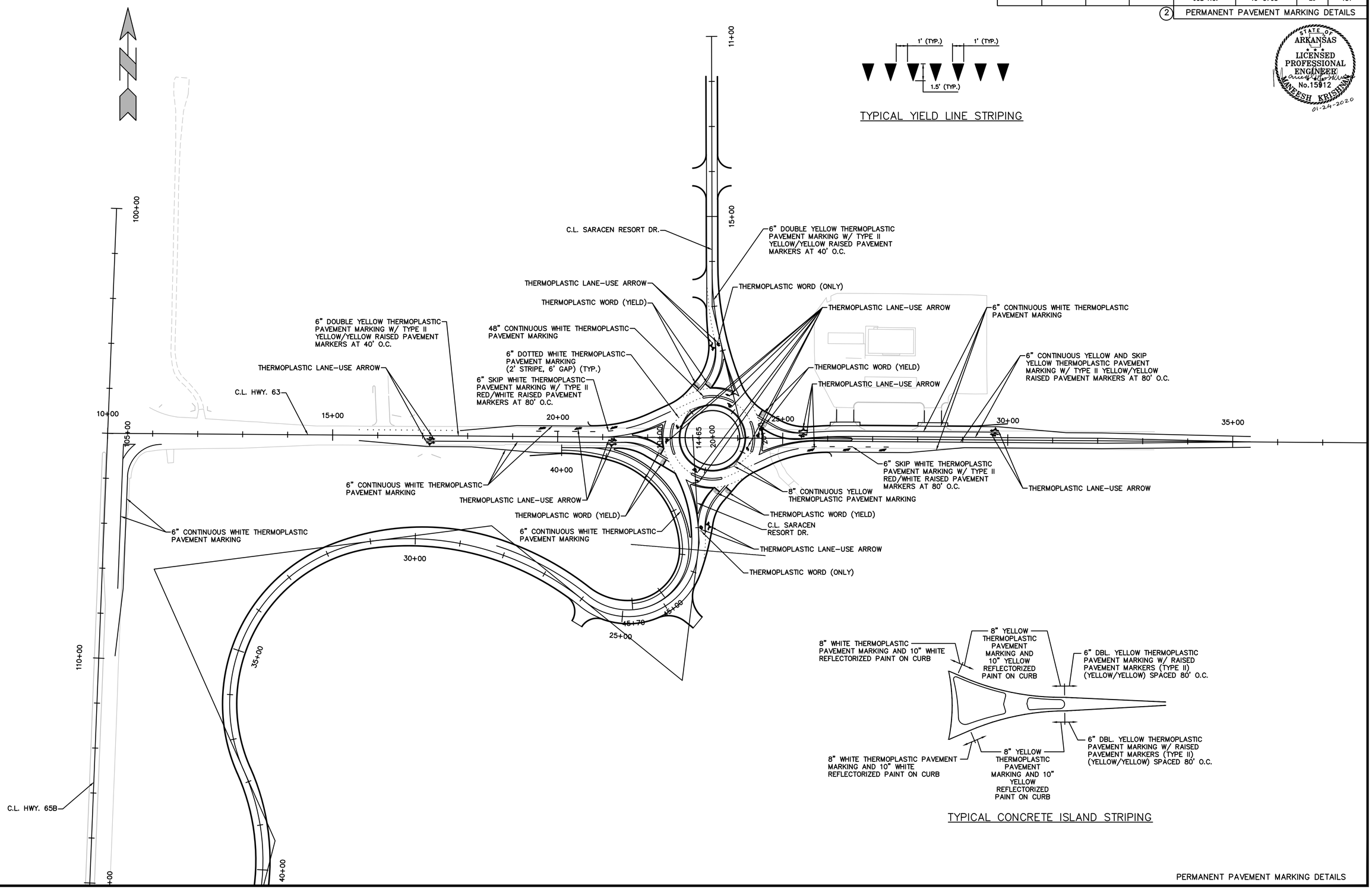
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	29	151

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

TYPICAL YIELD LINE STRIPING



TYPICAL CONCRETE ISLAND STRIPING

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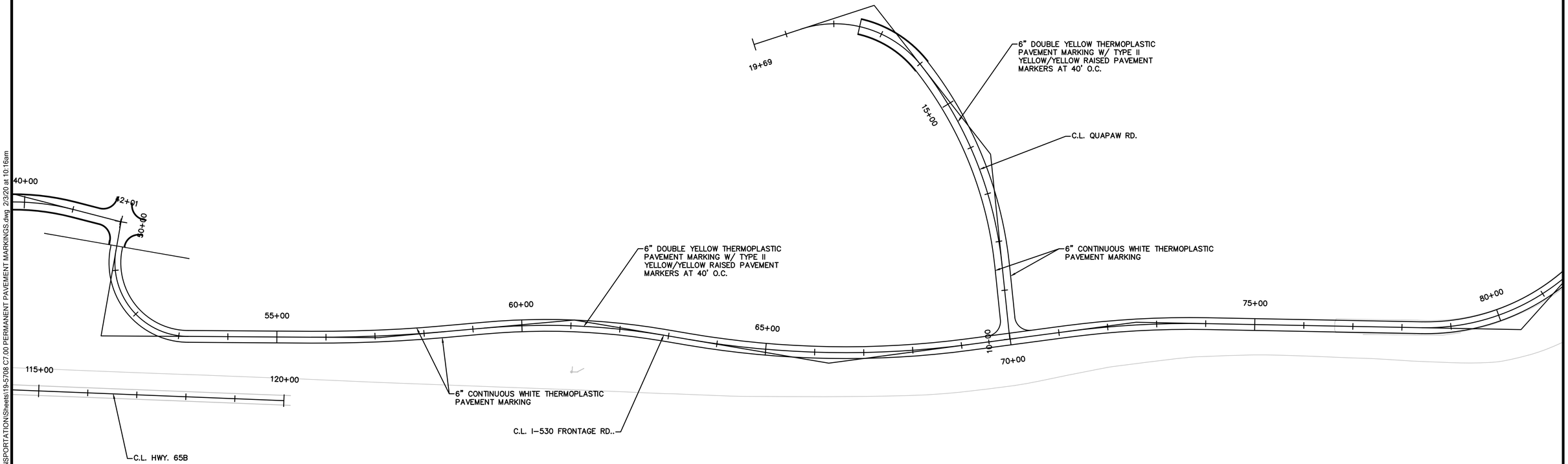
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	30	151
				(2)	PERMANENT PAVEMENT MARKING DETAILS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



PERMANENT PAVEMENT MARKING DETAILS

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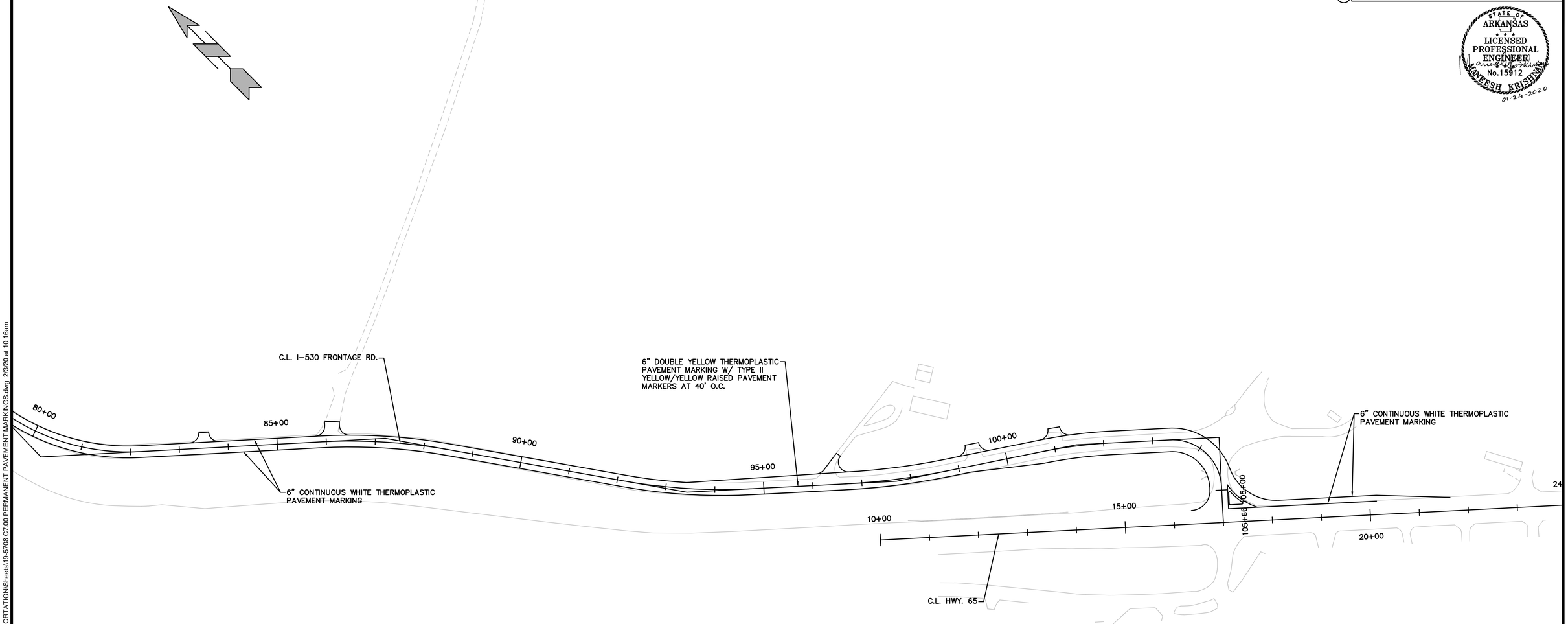
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	31	151

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNAN
01-24-2020



PERMANENT PAVEMENT MARKING DETAILS

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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	32	151

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SURVEYOR'S NOTES:

HORIZONTAL COORDINATES FOR THIS PROJECT ARE ARKANSAS STATE PLANE SOUTH ZONE AND ELEVATIONS ARE NAVD88 BASED ON AN O.P.U.S. SOLUTION.

CONTOUR INTERVAL = 1 FOOT.

THIS IS A TOPOGRAPHIC SURVEY ONLY AND IN NO WAY SHOULD BE INTERPRETED AS A PROPERTY BOUNDARY SURVEY. ANY PROPERTY LINES SHOWN ARE FOR REFERENCE ONLY AND HAVE NOT BEEN VERIFIED.

FIELD WORK FOR THIS SURVEY WAS COMPLETED JANUARY, 2019.

NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.

BURIED UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN BASED ON VISUAL INSPECTION OF MANHOLES AND OTHER SURFACE FEATURES. McCLELLAND CONSULTING ENGINEERS HAS ACCURATELY DEPICTED THE UNDERGROUND AND SUBSURFACE FEATURES TO THE BEST OF THEIR KNOWLEDGE AND ABILITY. ANY CONSTRUCTION AT THIS SITE SHOULD ONLY BE DONE AFTER CONTACTING ARKANSAS ONE CALL AT 1-800-482-8998 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

THE SANITARY SEWER FORCE MAIN LOCATION SHOWN ON THE DRAWING WAS PROVIDED BY PINE BLUFF WASTEWATER UTILITY, OF PINE BLUFF, ARKANSAS, AND WAS NOT FIELD VERIFIED BY MCCLELLAND CONSULTING ENGINEERS. MCCLELLAND CONSULTING ENGINEERS MAKES NO STATEMENT AS TO THE COMPLETENESS NOR ACCURACY OF THIS INFORMATION.

CONTROL DATA

Point #	Northing	Easting	Elevation	Description
10	1875096.9980	1323057.7610	207.62	FOUND REBAR & CAP
11	1868341.4320	1329577.7300	204.86	60D NAIL
12	1862782.9560	1331099.4010	204.04	NGS MONUMENT EH1566
13	1872917.7980	1322803.8730	207.47	60D NAIL
14	1872695.4260	1322950.3060	206.63	60D NAIL
18	1872206.0520	1323086.7360	206.28	60D NAIL
19	1872187.0990	1323316.9340	206.37	60D NAIL
20	1872380.8240	1323401.9820	206.84	60D NAIL
21	1872607.0790	1323321.7470	206.90	60D NAIL
22	1872881.7570	1323122.4630	207.11	60D NAIL
23	1873075.1380	1322925.5510	206.93	60D NAIL
25	1872607.5720	1323024.8410	206.41	60D NAIL
26	1872340.0940	1323230.2180	205.95	60D NAIL
27	1872455.3610	1323170.5050	206.54	60D NAIL
28	1872206.0520	1323086.7360	206.28	60D NAIL
29	1872187.0990	1323316.9340	206.37	60D NAIL
30	1869910.0320	1324151.0680	204.26	60D NAIL
31	1869684.6460	1324295.2920	204.31	60D NAIL
32	1875092.6310	1324411.1800	211.05	60D NAIL
33	1875345.1620	1324429.5590	208.50	60D NAIL

CONTROL DATA

Point #	Northing	Easting	Elevation	Description
100	1874984.1190	1323458.0430	209.10	ALUMINUM AHTD CAP IN HEADWALL
101	1874989.9160	1323485.1010	208.99	1/2" REBAR WITH MCE CAP
102	1874975.6760	1322841.2260	209.08	1/2" REBAR WITH MCE CAP
103	1871523.6100	1322801.7230	205.90	1/2" REBAR WITH MCE CAP
104	1872431.8110	1322713.0560	209.46	1/2" REBAR WITH MCE CAP
105	1872945.5680	1322747.6710	206.57	CHISELED "X" IN NORTH END OF HEADWALL

HWY 63 CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8001	POB	10+00.00	1875030.5681	1322748.6831
8003	POE	43+43.93	1875005.2243	1326092.5186

HWY 65B CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8000	POB	100+00.00	1875530.1732	1322768.5508
8002	POE	120+00.00	1873531.7528	1322689.0800

HWY 65 CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8039	POB	10+00.00	1869680.8587	1323924.3284
8040	POE	24+00.00	1868742.6849	1324963.4771

I-530 FRONTAGE ROAD CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8004	POB	50+00.00	1873863.6345	1323053.3220
8005	PC	50+58.49	1873873.6954	1322995.7037
8006	PI	52+35.83	1873904.1993	1322821.0105
8007	PT	53+19.11	1873726.8664	1322819.9049
8008	PC	55+69.87	1873476.1084	1322818.3415
8009	PI	57+07.03	1873338.9452	1322817.4863
8010	PT	58+43.99	1873202.3277	1322829.7397
8011	PC	59+22.06	1873124.5720	1322836.7137
8012	PI	61+07.19	1872940.1814	1322853.2520
8013	PT	62+90.28	1872757.6451	1322822.3665
8014	PC	63+42.95	1872705.7162	1322813.5801
8015	PI	66+31.27	1872421.4337	1322765.4790
8016	PT	69+15.27	1872135.6208	1322803.4427
8017	PC	71+14.37	1871938.2530	1322829.6586
8018	PI	72+58.89	1871794.9954	1322848.6871
8019	PT	74+02.85	1871650.5056	1322845.9422
8020	PC	78+41.02	1871212.4168	1322837.6200
8021	PI	80+42.67	1871010.8071	1322833.7900
8022	PT	82+19.25	1870876.0937	1322983.8348
8023	PC	85+88.13	1870629.6558	1323258.3190
8024	PI	87+20.65	1870541.1253	1323356.9250
8025	PT	88+52.00	1870432.4262	1323432.7227
8026	PC	92+12.39	1870136.8066	1323638.8632
8027	PI	93+44.07	1870028.7936	1323714.1824
8028	PT	94+74.60	1869940.6807	1323812.0391
8029	PC	96+64.88	1869813.3595	1323953.4401
8030	PI	97+70.85	1869742.4471	1324032.1943
8031	PT	98+76.44	1869683.8965	1324120.5268
8032	PC	100+73.39	1869575.0883	1324284.6807
8033	PI	101+44.67	1869535.7032	1324344.0993
8034	PT	102+15.69	1869487.9324	1324397.0115
8035	PC	103+35.56	1869407.6068	1324485.9826
8036	PI	104+35.56	1869340.5944	1324560.2075
8037	PT	104+92.64	1869266.3695	1324493.1951
8038	POE	105+66.20	1869211.7718	1324443.9027

SARACEN RESORT DR. NORTH CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8041	POB	11+00.00	1875912.3702	1324090.7146
8042	PC	16+18.04	1875394.3313	1324091.7956
8043	PI	16+99.62	1875312.7486	1324091.9659
8044	PT	17+80.47	1875233.3917	1324110.8932
8045	POE	20+00.00	1875019.8576	1324161.8228

ROUNDABOUT CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8046	POB	10+00.00	1875020.9433	1324018.5781
8046	POE	14+64.96	1875020.9433	1324018.5781

SARACEN RESORT DR. SOUTH CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8047	POB	20+00.00	1875020.7121	1324049.0835
8048	PC	22+04.62	1874816.4602	1324061.3519
8049	PI	22+33.40	1874787.7313	1324063.0775
8050	PCC	22+62.02	1874759.1654	1324059.5682
8051	PI	25+41.98	1874481.2954	1324025.4324
8052	PRC	25+92.22	1874657.7113	1323808.0516
8053	PI	28+57.78	1323601.8519	1874825.0532
8054	PCC	30+94.02	1874791.2558	1323338.4523
8055	PI	35+84.58	1874728.8233	1322851.8858
8056	PRC	37+73.73	1874280.7109	1323051.4855
8057	PI	39+44.01	1874125.1712	1323120.7664
8058	PT	41+01.39	1873960.2936	1323078.2482
8004	POE	42+01.21	1873863.6345	1323053.3220

QUAPAW RD. CONSTRUCTION CENTERLINE

Point #	TYPE	STATION	NORTHING	EASTING
8059	POB	10+00.00	1872052.6242	1322814.4669
8060	PC	11+50.96	1872068.1999	1322964.6169
8061	PI	13+78.42	1872091.6697	1323190.8667
8062	PCC	15+93.90	1872231.8594	1323369.9942
8063	PI	17+51.31	1872328.8725	1323493.9526
8064	PT	18+68.61	1872478.5761	1323445.3105
8065	POE	19+68.61	1872573.6816	1323414.4085

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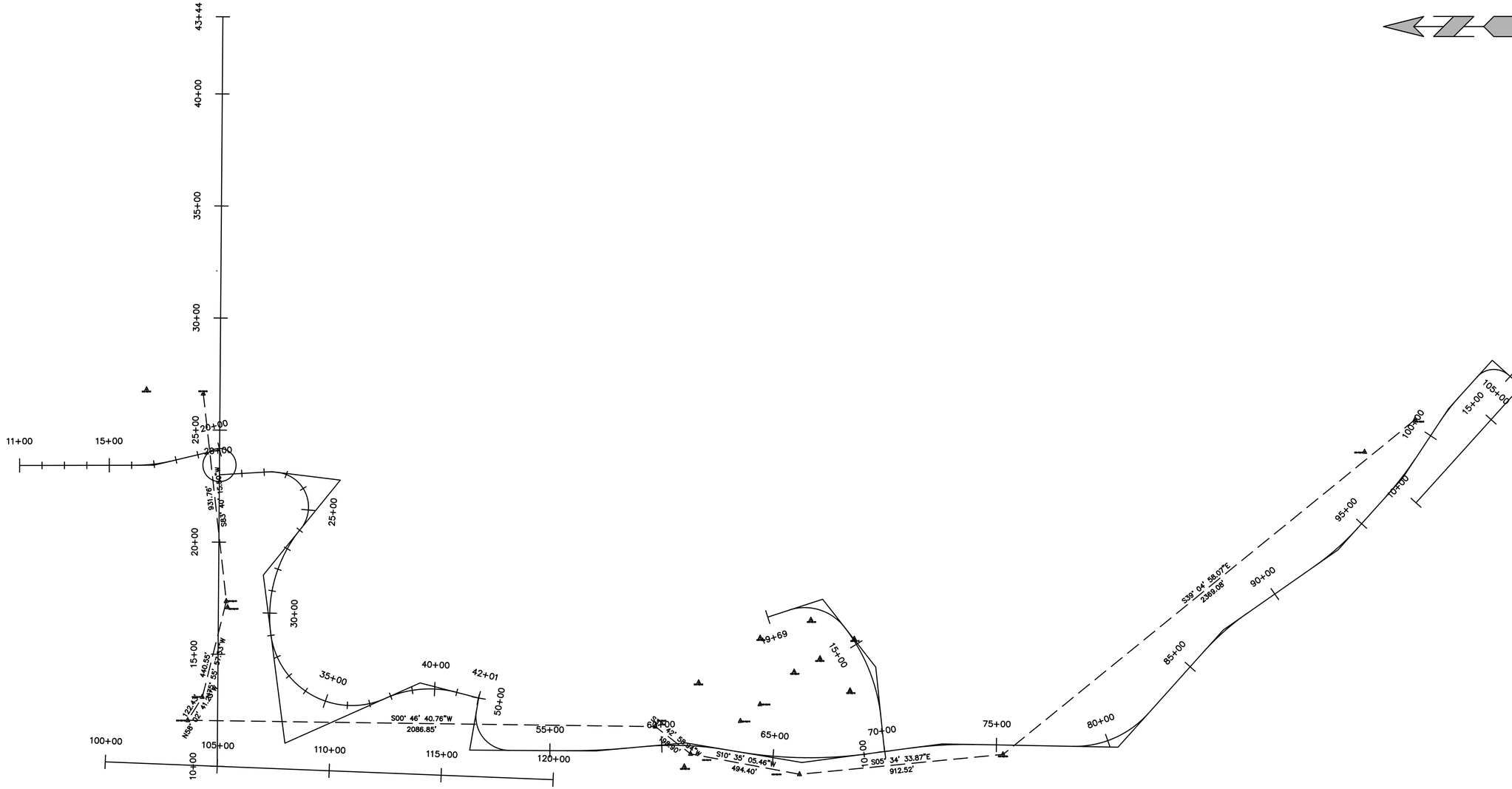
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	33	151

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



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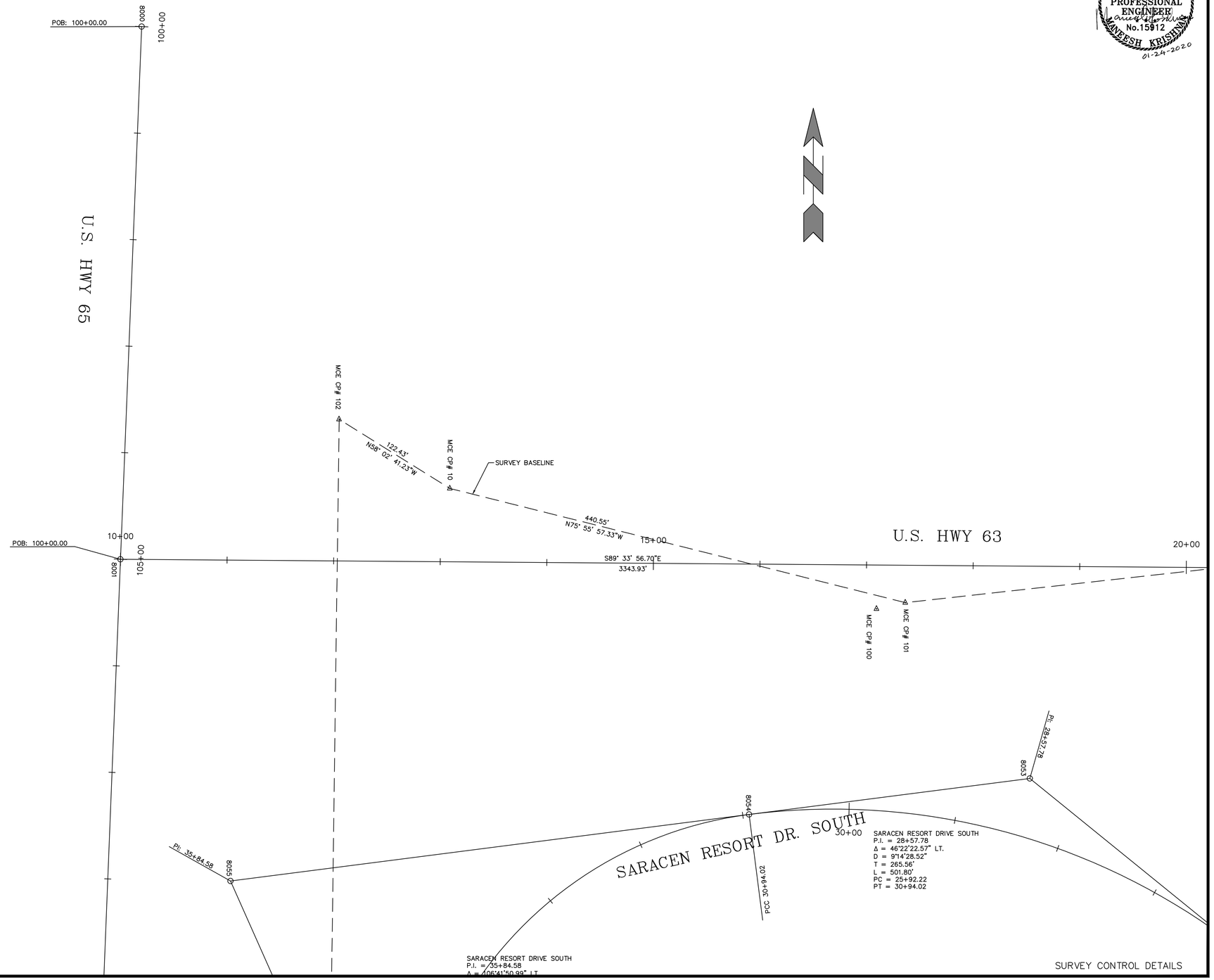
				JOB NO.		19-5708	34	151
				(2)	SURVEY CONTROL DETAILS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



SURVEY CONTROL DETAILS

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				JOB NO.		19-5708	35	151
				(2)	SURVEY CONTROL DETAILS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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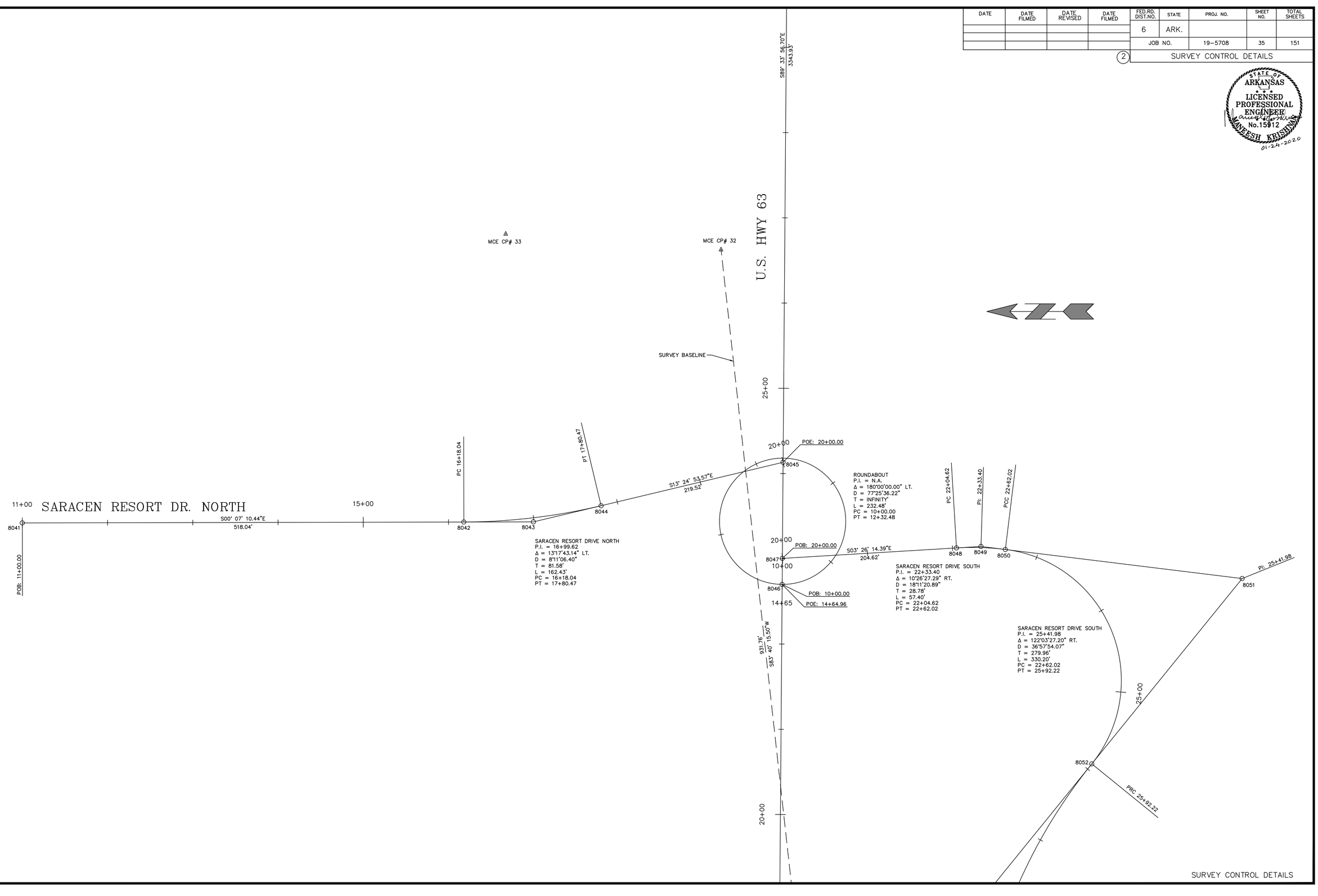
MANEESH KRISHNA
01-24-2020



W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SURVEY CONTROL.dwg, 2/3/20 at 10:24am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	36	151

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SURVEY CONTROL.dwg 2/3/20 at 10:24am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	37	151

2 SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SARACEN RESORT DRIVE SOUTH
P.I. = 35+84.58
Δ = 106°41'50.99" LT.
D = 15°41'50.91"
T = 490.56'
L = 679.71'
PC = 30+94.02
PT = 37+73.73

PRC 37+73.73

SARACEN RESORT DRIVE SOUTH
P.I. = 39+44.01
Δ = 38°28'10.30" RT.
D = 11°44'27.38"
T = 170.27'
L = 327.65'
PC = 37+73.73
PT = 41+01.39

SARACEN RESORT DR. SOUTH

35+00

40+00

50+00

42+01

8055 PI: 35+84.58

8056

8057 PI: 39+44.01

8058 PT 41+01.39

POE: 42+01.21

S14° 27' 36.84"W
99.82'
POB: 50+00.00

8004

S80° 05' 42.79"W
58.49'

8005 PC 50+58.49

SURVEY BASELINE

S00° 46' 40.76"W
2086.85'

I-530 FRONTAGE RD.
P.I. = 52+35.83
Δ = 99°32'51.21" LT.
D = 38°11'49.87"
T = 177.34'
L = 260.61'
PC = 50+58.49
PT = 53+19.11

PT 53+19.11

PC 55+69.87

I-530 FRONTAGE RD.
P.I. = 57+07.03
Δ = 5°28'56.82" LT.
D = 2°00'00.00"
T = 137.17'
L = 274.12'
PC = 55+69.87
PT = 58+43.99

PI: 52+35.83

8006

8007

S00° 21' 26.00"W
250.76'

55+00

8008

8009

PI: 57+07.03

110+00

S02° 16' 38.18"W
2000.00'

115+00

POE: 120+00.00

120+00

8002

U.S. HWY 65

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SURVEY CONTROL.dwg 2/3/20 at 10:24am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	38	151

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

QUAPAW RD.
P.I. = 17+51.31
Δ = 69°57'09.09" LT.
D = 25°27'53.25"
T = 157.41'
L = 274.70'
PC = 15+93.90
PT = 18+68.61

8063 PI: 17+51.31
8064
8065 100.00' N18° 00' 00.57"W
POE: 19+68.61
19+69
PT 18+68.61
PCC 15+93.90
8062
QUAPAW RD.
15+00
8061 PI: 13+78.42
8060
PC 11+50.96
N84° 04' 39.53"E 150.96'
70+00
10+00
8059
POB: 10+00.00
S07° 33' 58.15"E 199.10'
8016
PT 69+15.27

I-530 FRONTAGE RD.
P.I. = 66+31.27
Δ = 17°10'11.06" LT.
D = 3°00'00.00"
T = 288.32'
L = 572.32'
PC = 63+42.95
PT = 69+15.27

8015 PI: 66+31.27
S10° 35' 05.46"W 494.40'
65+00
8014
S09° 36' 12.91"W 52.67'
8013
PT 62+90.28
PC 63+42.95

I-530 FRONTAGE RD.
P.I. = 61+07.19
Δ = 14°43'43.73" RT.
D = 4°00'00.00"
T = 185.13'
L = 368.22'
PC = 59+22.06
PT = 62+90.28

S37° 42' 59.94"W 198.90'
PI: 61+07.19
8012
60+00
8011
PC 59+22.06
8010
S05° 07' 30.82"E 78.07'
PT 58+43.99

I-530 FRONTAGE RD.
P.I. = 57+07.03
Δ = 5°28'56.82" LT.
D = 2°00'00.00"
T = 137.17'
L = 274.12'
PC = 55+69.87
PT = 58+43.99

PC 55+69.87
8008
55+00
8009
PI: 57+07.03
POE: 120+00.00
120+00
8002

MCE CP# 20
MCE CP# 21
MCE CP# 26
MCE CP# 27
MCE CP# 22
MCE CP# 18
MCE CP# 25
MCE CP# 23
MCE CP# 14
MCE CP# 13
MCE CP# 105
MCE CP# 104
MCE CP# 19

U.S. HWY 65

SURVEY CONTROL DETAILS

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SURVEY CONTROL.dwg 2/3/20 at 10:24am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	39	151
				(2)	SURVEY CONTROL DETAILS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MANEESH KRISHNA
No.15912
01-24-2020

QUAPAW RD.

8062

CC 15+93.90

MCE CP# 19

15+00

PI: 13+78.42

8061

QUAPAW RD.
P.I. = 13+78.42
Δ = 32°07'31.01" LT.
D = 7°15'09.47"
T = 227.46'
L = 442.95'
PC = 11+50.96
PT = 15+93.90

MCE CP# 18

8060

PC 11+50.96

N84° 04' 39.53"E
150.96'

PT 69+15.27

PC 71+14.37

PI: 72+58.89

PT 74+02.85

8016

S07° 33' 58.15"E
199.10'

10+00

70+00

8059

8017

8018

8019

75+00

S01° 05' 17.90"W
438.17'

8020

PC 78+41.02

8021

PI: 80+42.62

80+00

PT 82+19.25

8022

S48° 04' 54.55"E
368.88'

POB: 10+00.00

I-530 FRONTAGE RD.
P.I. = 72+58.89
Δ = 8°39'16.04" RT.
D = 3°00'00.00"
T = 144.52'
L = 288.48'
PC = 71+14.37
PT = 74+02.85

I-530 FRONTAGE RD.
P.I. = 80+42.67
Δ = 49°10'12.44" LT.
D = 13°00'00.00"
T = 201.65'
L = 378.23'
PC = 78+41.02
PT = 82+19.25

I-530 FRONTAGE RD.

MCE CP# 103

S05° 34' 33.87"E
912.52'

U.S. HWY 65

SURVEY BASELINE

SURVEY CONTROL DETAILS

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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	40	151

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

SURVEY BASELINE

S39° 04' 58.07"E
2369.08'

MCE CP# 30 ⌀

PC 85+88.13

PI 87+20.65

PT 88+52.00

85+00

S48° 04' 54.55"E
368.88'

8023

8024

I-530 FRONTAGE RD.
P.I. = 87+20.65
Δ = 13°11'35.19" RT.
D = 5°00'00.00"
T = 132.52'
L = 263.86'
PC = 85+88.13
PT = 88+52.00

I-530 FRONTAGE RD.

8025

90+00

S34° 53' 19.35"E
360.40'

PC 92+12.39

8026

I-530 FRONTAGE RD.
P.I. = 93+44.07
Δ = 13°06'38.02" LT.
D = 5°00'00.00"
T = 131.68'
L = 262.21'
PC = 92+12.39
PT = 94+74.60

8027

PI 93+44.07

PT 94+74.60

95+00

S47° 59' 57.38"E
190.28'

8028

8029

PC 96+64.88

I-530 FRONTAGE RD.
P.I. = 97+70.85
Δ = 8°27'45.42" LT.
D = 4°00'00.00"
T = 105.98'
L = 211.57'
PC = 96+64.88
PT = 98+76.44

8030

PI 97+70.85

U.S. HWY 65

10+00

8039

POB: 10+00.00

SURVEY CONTROL DETAILS

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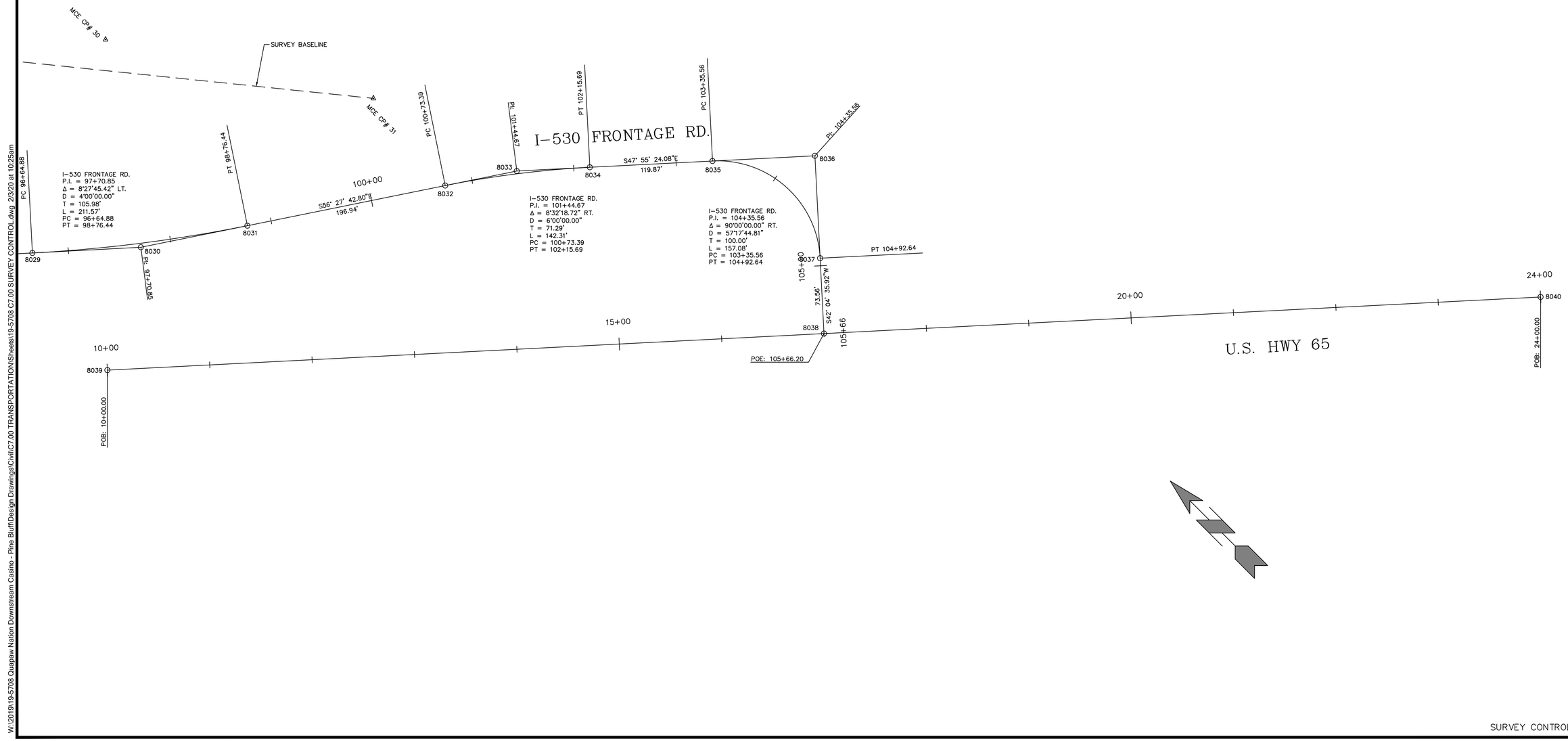
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	41	151
				(2) SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	42	151

(2) PLAN – HWY. 63

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MANEESH KRISHNA
No.15912
01-24-2020

(MO-1) STA. 21+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 50' PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 22+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-2) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 34' PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 22+33.93 TYPE MO INLET = 4'–0" DIA.

(MO-3) STA. 22+33.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 75' PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 22+96.26 TYPE MO INLET = 4'–0" DIA.

(MO-4) STA. 22+96.26 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 111' PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 24+10.46 TYPE MO INLET = 4'–0" DIA.

(MO-5) STA. 21+99.75 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 36' PIPE CULVERT CONNECT TO DROP INLET ON RT. © STA. 22+33.93 TYPE MO INLET = 4'–0" DIA.

(MO-6) STA. 22+33.93 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 46' PIPE CULVERT CONNECT TO DROP INLET ON RT. © STA. 24+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-7) STA. 24+10.46 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 65' PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 24+53.93 TYPE MO INLET = 4'–0" DIA.

(MO-8) STA. 24+53.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 36" X 133' PIPE CULVERT CONNECT TO DROP INLET ON RT. © STA. 24+58.29 TYPE MO INLET = 4'–0" DIA.

(MO-9) STA. 25+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 11' PIPE CULVERT CONNECT TO FES ON LT. © STA. 25+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-10) STA. 27+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 7' PIPE CULVERT CONNECT TO FES ON LT. © STA. 27+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-11) STA. 24+58.29 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 36" X 25' PIPE CULVERT CONNECT TO F.E.S. ON RT. © STA. 24+69.36 TYPE MO INLET = 4'–0" DIA.

(MO-12) STA. 25+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 18' PIPE CULVERT CONNECT TO F.E.S. ON RT. © STA. 25+53.25 TYPE MO INLET = 4'–0" DIA.

(MO-13) STA. 40+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 14' PIPE CULVERT CONNECT TO F.E.S. ON RT. © STA. 40+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-14) STA. 42+00.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 15' PIPE CULVERT CONNECT TO F.E.S. ON RT. © STA. 42+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-15) STA. 43+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 8' PIPE CULVERT CONNECT TO BOX CULVERT (BY OTHERS) TYPE MO INLET = 4'–0" DIA.

(MO-16) STA. 17+58.62 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 24" X 42' PIPE CULVERT CONNECT TO DROP INLET ON RT. © STA. 17+70.03 TYPE MO INLET = 4'–0" DIA.

(MO-17) STA. 17+70.03 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 24" X 11' PIPE CULVERT CONNECT TO F.E.S. ON RT. © STA. 17+69.98 TYPE MO INLET = 4'–0" DIA.

(MO-18) STA. 21+16.33 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 22' PIPE CULVERT CONNECT TO F.E.S. ON LT. © STA. 21+36.61 TYPE MO INLET = 4'–0" DIA.

(MO-19) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 16' PIPE CULVERT CONNECT TO F.E.S. ON LT. © STA. 22+05.08 TYPE MO INLET = 4'–0" DIA.

(1) OUTSIDE LANE EDGE
PC = 21+13.05, 24.00' RT.
PCC = 21+32.68, 23.81' RT.
Δ = 1°05'55.11" LT.
R = 1024.00
T = 9.82'
L = 19.64'

(2) OUTSIDE LANE EDGE
PCC = 21+32.68, 23.81' RT.
PT = 21+94.98, 39.87' RT.
Δ = 31°05'55.11" RT.
R = 120.00'
T = 33.39'
L = 65.13'

(3) OUTSIDE LANE EDGE
PC = 20+96.48, 35.17' RT.
PT = 22+50.00, 15.00' RT.
Δ = 29°22'57.54" RT.
R = 300.00'
T = 78.65'
L = 153.85'

(4) OUTSIDE LANE EDGE
PC = 22+50.00, 19.88' LT.
PCC = 21+94.19, 32.26' LT.
Δ = 5°40'36.43" LT.
R = 612.00
T = 30.34'
L = 60.64'

(5) OUTSIDE LANE EDGE
PCC = 21+94.19, 32.26' LT.
PT = 21+43.83, 59.15' LT.
Δ = 31°33'06.24" RT.
R = 105.00'
T = 29.66'
L = 57.82'

(6) OUTSIDE LANE EDGE
PC = 21+12.46, 89.30' LT.
PT = 24+40.06, 73.24' RT.
Δ = 25°00'00.49" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(7) OUTSIDE LANE EDGE
PC = 24+73.58, 57.61' RT.
PT = 26+00.36, 29.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(8) OUTSIDE LANE EDGE
PC = 26+46.27, 29.50' LT.
PCC = 25+60.16, 25.86' LT.
Δ = 4°50'06.79" LT.
R = 1024.00
T = 43.23'
L = 86.42'

(9) OUTSIDE LANE EDGE
PCC = 25+60.16, 25.86' LT.
PT = 24+90.04, 41.51' LT.
Δ = 34°50'06.79" RT.
R = 120.00'
T = 37.65'
L = 72.96'

(10) OUTSIDE LANE EDGE
PC = 24+59.90, 58.91' LT.
PCC = 18+83.45, 22.61' LT.
Δ = 37°07'34.24" RT.
R = 125.00'
T = 41.98'
L = 81.00'

(11) OUTSIDE LANE EDGE
PCC = 18+83.45, 22.61' LT.
PT = 16+08.19, 12.00' LT.
Δ = 22°19'12.01" RT.
R = 700.00'
T = 138.10'
L = 272.69'

(12) OUTSIDE LANE EDGE
PC = 16+92.20, 16.01' RT.
PCC = 17+70.39, 24.58' RT.
Δ = 6°24'10.01" LT.
R = 724.00
T = 40.50'
L = 80.91'

(13) OUTSIDE LANE EDGE
PCC = 17+70.39, 24.58' RT.
PT = 18+52.53, 72.84' RT.
Δ = 46°57'23.75" RT.
R = 120.00'
T = 52.12'
L = 98.35'

(14) OUTSIDE LANE EDGE
PC = 18+67.60, 93.47' RT.
PT = 22+47.81, 73.24' LT.
Δ = 25°00'00.41" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(15) OUTSIDE LANE EDGE
PC = 22+02.49, 52.11' LT.
PT = 20+75.71, 24.00' LT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(16) INSIDE LANE EDGE
PC = 21+13.05, 0.00' RT.
PCC = 21+55.03, 0.88' LT.
Δ = 2°24'21.88" LT.
R = 1000.00
T = 21.00'
L = 41.99'

(17) INSIDE LANE EDGE
PCC = 21+55.03, 0.88' LT.
PT = 22+20.07, 15.09' RT.
Δ = 32°24'22.09" RT.
R = 120.00'
T = 34.87'
L = 67.87'

(18) INSIDE LANE EDGE
PC = 20+95.23, 0.00' RT.
PT = 22+22.01, 28.11' LT.
Δ = 25°00'00.00" LT.
R = 300.00
T = 66.51'
L = 130.90'

(19) INSIDE LANE EDGE
PC = 20+92.34, 20.69' RT.
PT = 22+04.62, 0.00' RT.
Δ = 20°52'54.12" RT.
R = 315.00'
T = 58.05'
L = 114.80'

(20) INSIDE LANE EDGE
PC = 21+21.45, 33.49' LT.
PT = 22+04.62, 0.00' RT.
Δ = 43°52'17.69" LT.
R = 120.00
T = 48.33'
L = 91.88'

(21) INSIDE LANE EDGE
PC = 24+54.06, 33.61' RT.
PT = 25+80.84, 5.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(22) INSIDE LANE EDGE
PC = 24+67.53, 15.24' LT.
PCC = 25+40.27, 0.15' RT.
Δ = 36°05'46.08" LT.
R = 120.00
T = 39.10'
L = 75.60'

(23) INSIDE LANE EDGE
PCC = 25+40.27, 0.15' RT.
PT = 26+46.47, 5.50' LT.
Δ = 6°05'46.08" RT.
R = 1000.00'
T = 53.25'
L = 106.40'

(24) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 19+06.55, 11.45' LT.
Δ = 10°22'34.60" LT.
R = 700.00
T = 63.56'
L = 126.77'

(25) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 18+75.38, 46.57' RT.
Δ = 52°16'09.09" RT.
R = 120.00'
T = 58.88'
L = 109.47'

SARACEN RESORT DR.
P.I. = 35+84.58
Δ = 106°41'50.99" LT.
D = 15°41'50.91"
T = 490.56'
L = 679.71'
PC = 30+94.02
PT = 37+73.73
NO SUPER

SARACEN RESORT DR.
P.I. = 28+57.78
Δ = 46°22'22.57" LT.
D = 9°14'28.52"
T = 265.56'
L = 501.80'
PC = 25+92.22
PT = 30+94.02
NO SUPER

SARACEN RESORT DR.
P.I. = 25+41.98
Δ = 122°03'27.20" RT.
D = 36°57'54.07"
T = 279.96'
L = 330.20'
PC = 22+62.02
PT = 25+92.22
NO SUPER

SARACEN RESORT DR.
P.I. = 16+99.62
Δ = 13°17'43.14" LT.
D = 8°11'06.40"
T = 81.58'
L = 162.43'
PC = 16+18.04
PT = 17+80.47
NO SUPER

SARACEN RESORT DR.
P.I. = 22+33.40
Δ = 10°26'27.29" RT.
D = 18°11'20.89"
T = 28.78'
L = 57.40'
PC = 22+04.62
PT = 22+62.02
NO SUPER

STA. 15+58.98
BEGIN JOB 19–5708

STA. 16+26.32 TO STA. 18+03.35 RT. OF C.L. HWY. 63 CONSTRUCT GUARDRAIL (TYPE A) = 178' WITH GUARDRAIL TERMINAL (TYPE 2) = 2 EACH AND TERMINAL ANCHOR POST (TYPE 1) = 2 EACH

STA. 24+66.18 CONSTRUCT F.E.S. ON LT. & 36" X 13' PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 24+53.93

STA. 24+69.36 CONSTRUCT F.E.S. ON RT.

STA. 40+50.00 CONSTRUCT F.E.S. ON RT.

STA. 42+00.00 CONSTRUCT F.E.S. ON RT.

STA. 17+61.93 OVERFLOW STRUCTURE (BY OTHERS) 24" X 14' R.C. PIPE CULVERT CONNECT TO DROP INLET ON LT. © STA. 17+58.62

STA. 17+69.98 CONSTRUCT F.E.S. ON RT.

STA. 21+36.61 CONSTRUCT F.E.S. ON LT.

STA. 22+05.08 CONSTRUCT F.E.S. ON LT.

C.L. HWY. 63 STA. 10+00.00 = C.L. HWY. 65B STA. 105+00.00 ∠ = 88°06'36"

C.L. HWY. 63 STA. 24+13.18 = C.L. SARACEN RESORT DR. STA. 30+00.00 ∠ = 76°09'03"

C.L. HWY. 63 STA. 23+00.44 = C.L. SARACEN RESORT DR. STA. 20+00.00 ∠ = 86°07'42"

C.L. HWY. 65B
C.L. HWY. 63
C.L. SARACEN RESORT DR.
EXISTING R/W
CONST. LIMITS
PROPOSED R/W
C.L. ROUNDABOUT
CONCRETE COMBINATION CURB AND GUTTER (1'–6")
LINE A
LINE A-1
LINE B
LINE C
LINE D
LINE E
LINE F
LINE G
PC 30+94.02
PI 35+84.58
PI 28+57.78
PC 40+00.00
PCC 41+18.23
PI 16+99.62
PT 17+80.47
PRC 25+92.22
PCC 43+84.97
PI 45+69.71
PCC 22+62.02
PI 22+33.40
PC 22+04.62
S89° 33' 56.70"E
S5° 26' 14.39"E
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
45+70
110+00
105+00
R=75'
200'
150'
148'
125'
325'
24'
36'
48'
60'
40'
20'
30'
18'
12'
15'
6'
2'

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 PLAN AND PROFILE.dwg, 2/3/20 at 10:29am

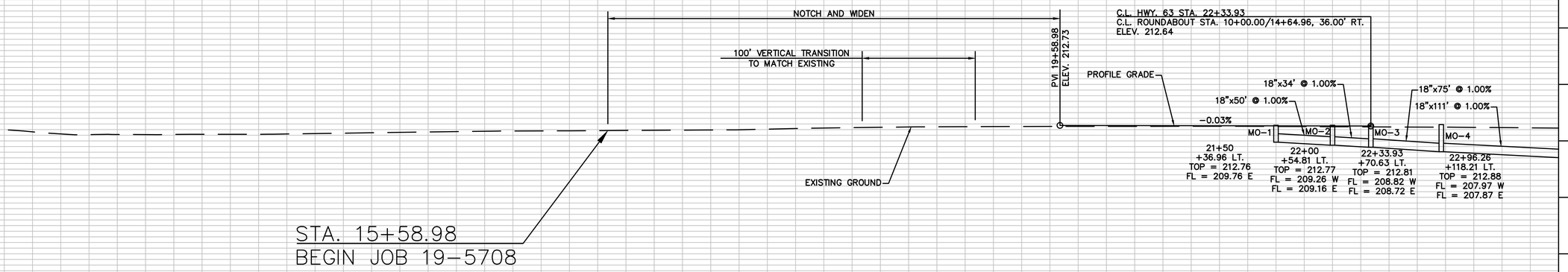
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	43	151

(2) PROFILE – HWY. 63

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

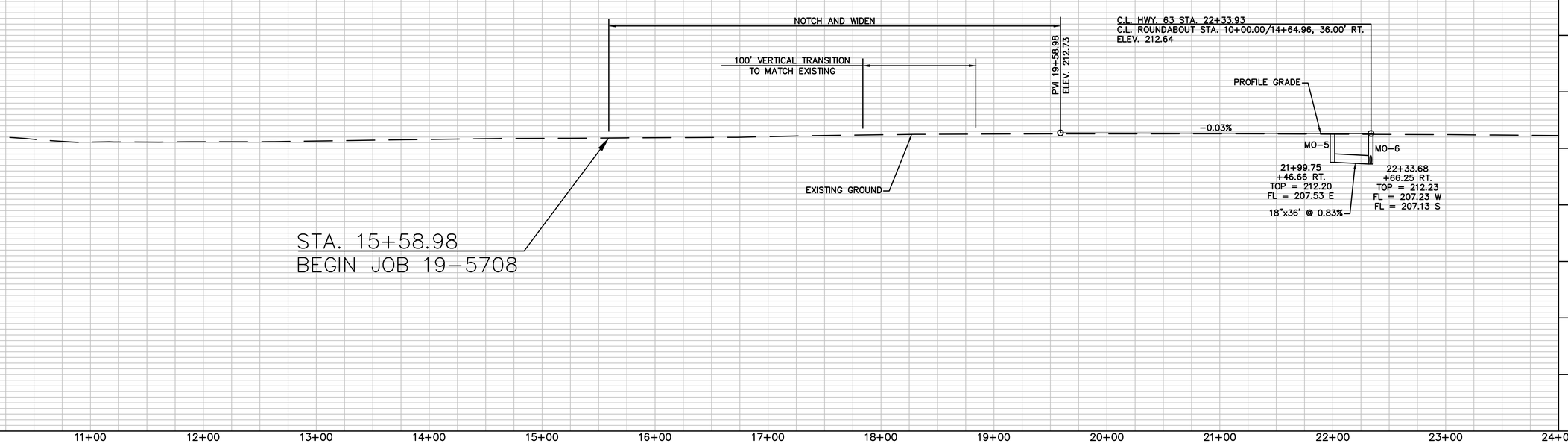
SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

LEFT SIDE (HWY. 63) – STA. 15+58.98 TO 22+33.93



SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

RIGHT SIDE (HWY. 63) – STA. 15+58.98 TO 23+33.93



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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	44	151

(2) PLAN – HWY. 63

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MANEESH KRISHNA
No.15912
01-24-2020

(MO-1) STA. 21+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 50' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-2) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 34' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+33.93 TYPE MO INLET = 4'–0" DIA.

(MO-3) STA. 22+33.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 75' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+96.26 TYPE MO INLET = 4'–0" DIA.

(MO-4) STA. 22+96.26 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 111' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+10.46 TYPE MO INLET = 4'–0" DIA.

(MO-5) STA. 21+99.75 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 36' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 22+33.93 TYPE MO INLET = 4'–0" DIA.

(MO-6) STA. 22+33.93 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 46' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 42+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-7) STA. 24+10.46 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 65' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+53.93 TYPE MO INLET = 4'–0" DIA.

(MO-8) STA. 24+53.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 36" X 133' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 24+58.29 TYPE MO INLET = 4'–0" DIA.

(MO-9) STA. 25+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 11' PIPE CULVERT CONNECT TO FES ON LT. @ STA. 25+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-10) STA. 27+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 7' PIPE CULVERT CONNECT TO FES ON LT. @ STA. 27+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-11) STA. 24+58.29 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 36" X 25' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 24+69.36 TYPE MO INLET = 4'–0" DIA.

(MO-12) STA. 25+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 18' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 25+53.25 TYPE MO INLET = 4'–0" DIA.

(MO-13) STA. 40+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 14' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 40+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-14) STA. 42+00.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 15' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 42+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-15) STA. 43+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 8' PIPE CULVERT CONNECT TO BOX CULVERT (BY OTHERS) TYPE MO INLET = 4'–0" DIA.

(MO-16) STA. 17+58.62 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 24" X 42' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 17+70.03 TYPE MO INLET = 4'–0" DIA.

(MO-17) STA. 17+70.03 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 24" X 11' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 17+69.98 TYPE MO INLET = 4'–0" DIA.

(MO-18) STA. 21+16.33 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 22' PIPE CULVERT CONNECT TO F.E.S. ON LT. @ STA. 21+36.61 TYPE MO INLET = 4'–0" DIA.

(MO-19) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 16' PIPE CULVERT CONNECT TO F.E.S. ON LT. @ STA. 22+05.08 TYPE MO INLET = 4'–0" DIA.

C.L. SARACEN RESORT DR.
PC 16+18.04
PI 16+99.62
PT 17+80.47
LINE C
LINE A
LINE A-1
LINE B
LINE D
LINE E
LINE F
LINE G
LINE H
CONST. LIMITS

SARACEN RESORT DR.
P.I. = 16+99.62
Δ = 13°17'43.14" LT.
D = 8°11'06.40"
T = 81.58'
L = 162.43'
PC = 16+18.04
PT = 17+80.47
NO SUPER

STA. 17+69.98 CONSTRUCT F.E.S. ON RT.

STA. 24+66.18 CONSTRUCT F.E.S. ON LT. & 36" X 13' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+53.93

STA. 24+66.18 CONSTRUCT F.E.S. ON LT. & 36" X 13' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+53.93

C.L. HWY. 63 STA. 24+13.18
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 76°09'03"

STA. 25+50.00 CONSTRUCT F.E.S. ON LT.

STA. 27+50.00 CONSTRUCT F.E.S. ON LT.

CONCRETE COMBINATION CURB AND GUTTER (1'–6")

REPLACE EXISTING 18" RCP

REPLACE EXISTING 18" RCP

EXISTING R/W

150'

330'

C.L. HWY. 63

STA. 35+39.31
END JOB 19-5708

S89° 33' 56.70"E

25+00
30+00
35+00
40+00
45+00
10+00
14+65
20+00

C.L. ROUNDABOUT

STA. 25+53.25 CONSTRUCT F.E.S. ON RT.

325'

125'

EXISTING R/W

C.L. HWY. 63 STA. 23+00.44
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 86°07'42"

CONST. LIMITS

PC 22+04.62

PI 22+33.40

PCC 22+62.02

STA. 21+36.61 CONSTRUCT F.E.S. ON LT.

STA. 22+05.08 CONSTRUCT F.E.S. ON LT.

SARACEN RESORT DR.
P.I. = 25+41.98
Δ = 122°03'27.20" RT.
D = 36°57'54.07"
T = 279.96'
L = 330.20'
PC = 22+62.02
PT = 25+92.22
NO SUPER

SARACEN RESORT DR.
P.I. = 22+33.40
Δ = 10°26'27.29" RT.
D = 18°11'20.89"
T = 28.78'
L = 57.40'
PC = 22+04.62
PT = 22+62.02
NO SUPER

C.L. BYPASS LANE

C.L. SARACEN RESORT DR.

(1) OUTSIDE LANE EDGE
PC = 21+13.05, 24.00' RT.
PCC = 21+32.68, 23.81' RT.
Δ = 1°05'55.11" LT.
R = 1024.00
T = 9.82'
L = 19.64'

(2) OUTSIDE LANE EDGE
PCC = 21+32.68, 23.81' RT.
PT = 21+94.98, 39.87' RT.
Δ = 31°05'55.11" RT.
R = 120.00'
T = 33.39'
L = 65.13'

(3) OUTSIDE LANE EDGE
PC = 20+96.48, 35.17' RT.
PT = 22+50.00, 15.00' RT.
Δ = 29°22'57.54" RT.
R = 300.00'
T = 78.65'
L = 153.85'

(4) OUTSIDE LANE EDGE
PC = 22+50.00, 19.88' LT.
PCC = 21+94.19, 32.26' LT.
Δ = 5°40'36.43" LT.
R = 612.00
T = 30.34'
L = 60.64'

(5) OUTSIDE LANE EDGE
PCC = 21+94.19, 32.26' LT.
PT = 21+43.83, 59.15' LT.
Δ = 31°33'06.24" RT.
R = 105.00'
T = 29.66'
L = 57.82'

(6) OUTSIDE LANE EDGE
PC = 21+12.46, 89.30' LT.
PT = 24+40.06, 73.24' LT.
Δ = 25°00'00.49" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(7) OUTSIDE LANE EDGE
PC = 24+73.58, 57.61' RT.
PT = 26+00.36, 29.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(8) OUTSIDE LANE EDGE
PC = 26+46.27, 29.50' LT.
PCC = 25+60.16, 25.86' LT.
Δ = 4°50'06.79" LT.
R = 1024.00
T = 43.23'
L = 86.42'

(9) OUTSIDE LANE EDGE
PCC = 25+60.16, 25.86' LT.
PT = 24+90.04, 41.51' LT.
Δ = 34°50'06.79" RT.
R = 120.00'
T = 37.65'
L = 72.96'

(10) OUTSIDE LANE EDGE
PC = 24+59.90, 58.91' LT.
PCC = 18+83.45, 22.61' LT.
Δ = 37°07'34.24" RT.
R = 125.00'
T = 41.98'
L = 81.00'

(11) OUTSIDE LANE EDGE
PCC = 18+83.45, 22.61' LT.
PT = 16+08.19, 12.00' LT.
Δ = 22°19'12.01" RT.
R = 700.00'
T = 138.10'
L = 272.69'

(12) OUTSIDE LANE EDGE
PC = 16+92.20, 16.01' RT.
PCC = 17+70.39, 24.58' RT.
Δ = 6°24'10.01" LT.
R = 724.00
T = 40.50'
L = 80.91'

(13) OUTSIDE LANE EDGE
PCC = 17+70.39, 24.58' RT.
PT = 18+52.53, 72.84' RT.
Δ = 46°57'23.75" RT.
R = 120.00'
T = 52.12'
L = 98.35'

(14) OUTSIDE LANE EDGE
PC = 18+67.60, 93.47' RT.
PT = 22+47.81, 73.24' LT.
Δ = 25°00'00.41" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(15) OUTSIDE LANE EDGE
PC = 22+02.49, 52.11' LT.
PT = 20+75.71, 24.00' LT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(16) INSIDE LANE EDGE
PC = 21+13.05, 0.00' RT.
PCC = 21+55.03, 0.88' LT.
Δ = 2°24'21.88" LT.
R = 1000.00
T = 21.00'
L = 41.99'

(17) INSIDE LANE EDGE
PCC = 21+55.03, 0.88' LT.
PT = 22+20.07, 15.09' RT.
Δ = 32°24'22.09" RT.
R = 120.00'
T = 34.87'
L = 67.87'

(18) INSIDE LANE EDGE
PC = 20+95.23, 0.00' RT.
PT = 22+22.01, 28.11' LT.
Δ = 25°00'00.00" LT.
R = 300.00
T = 66.51'
L = 130.90'

(19) INSIDE LANE EDGE
PC = 20+92.34, 20.69' RT.
PT = 22+04.62, 0.00' RT.
Δ = 20°52'54.12" RT.
R = 315.00'
T = 58.05'
L = 114.80'

(20) INSIDE LANE EDGE
PC = 21+21.45, 33.49' LT.
PT = 22+04.62, 0.00' RT.
Δ = 43°52'17.69" LT.
R = 120.00
T = 48.33'
L = 91.88'

(21) INSIDE LANE EDGE
PC = 24+54.06, 33.61' RT.
PT = 25+80.84, 5.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(22) INSIDE LANE EDGE
PC = 24+67.53, 15.24' LT.
PCC = 25+40.27, 0.15' RT.
Δ = 36°05'46.08" LT.
R = 120.00
T = 39.10'
L = 75.60'

(23) INSIDE LANE EDGE
PCC = 25+40.27, 0.15' RT.
PT = 26+46.47, 5.50' LT.
Δ = 6°05'46.08" RT.
R = 1000.00'
T = 53.25'
L = 106.40'

(24) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 19+06.55, 11.45' LT.
Δ = 10°22'34.60" LT.
R = 700.00
T = 63.56'
L = 126.77'

(25) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 18+75.38, 46.57' RT.
Δ = 52°16'09.09" RT.
R = 120.00'
T = 58.88'
L = 109.47'

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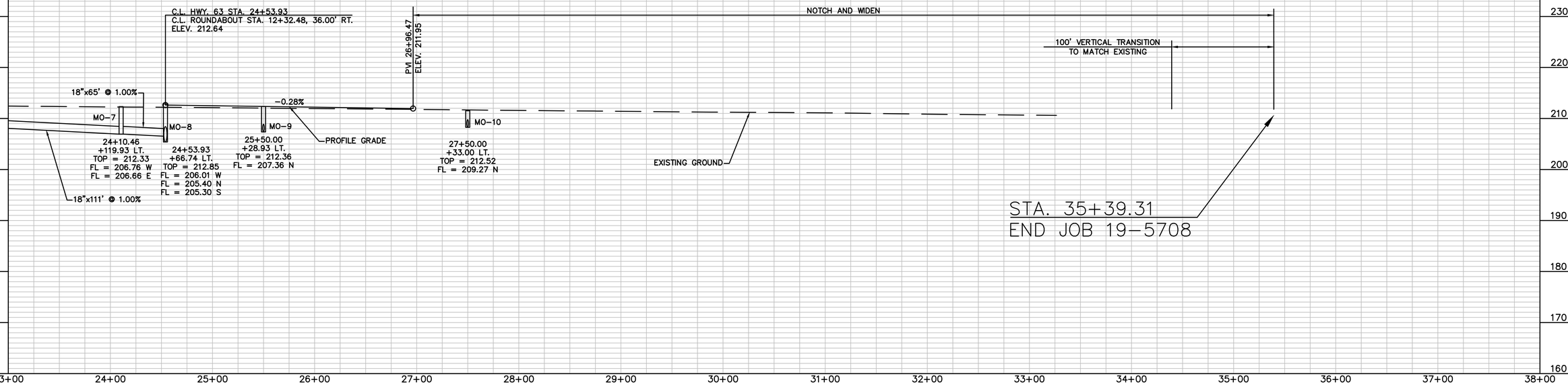
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	45	151

(2) PROFILE – HWY. 63

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

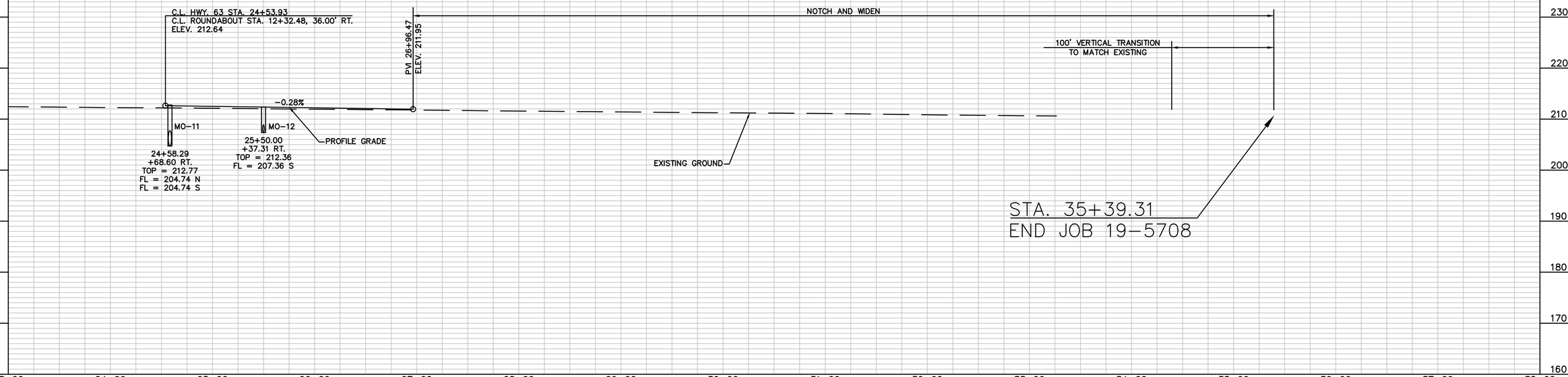
SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

LEFT SIDE (HWY. 63) – STA. 24+53.93 TO 35+39.31



SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

RIGHT SIDE (HWY. 63) – STA. 24+53.93 TO 35+39.31



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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	46	151

2 PLAN AND PROFILE – ROUNDABOUT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

C.L. SARACEN RESORT DR.
CONST. LIMITS
C.L. ROUNDABOUT STA. 10+00.00
C.L. ROUNDABOUT STA. 14+64.96
C.L. HWY. 63 STA. 22+69.93
∠ = 90°00'00.00"
PROPOSED R/W
CONCRETE COMBINATION CURB AND GUTTER (1'-6")
EXISTING R/W
C.L. HWY. 63
S89° 33' 56.70"E
C.L. ROUNDABOUT
P.I. = N.A.
Δ = 360°00'00" LT.
D = 77°25'36"
T = N.A.
L = 464.96'
PC = 10+00.00
PT = 14+64.96
NO SUPER
PT 17+80.47
C.L. ROUNDABOUT STA. 12+32.48
C.L. HWY. 63 STA. 24+17.93
∠ = 90°00'00.00"
C.L. HWY. 63 STA. 24+13.18
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 76°09'03"
C.L. HWY. 63 STA. 23+00.44
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 86°07'42"
PC 40+00.00
PI 28+57.78
PCC 30+94.02
PCC 41+18.23
PC 22+04.62
PI 22+33.40
PCC 43+84.97
LINE A
LINE A-1
LINE B
LINE C
LINE D
LINE E
LINE F
LINE G
LINE H
LINE I
LINE J
MO-1 MO-2 MO-3 MO-4 MO-5 MO-6 MO-7 MO-8 MO-9 MO-10 MO-11 MO-12 MO-13 MO-14 MO-15 MO-16 MO-17 MO-18 MO-19
CONST. LIMITS
CONCRETE COMBINATION CURB AND GUTTER (1'-6")
EXISTING R/W
SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

C.L. ROUNDABOUT STA. 10+00.00
C.L. HWY. 63 STA. 22+69.93
ELEV. 213.36

C.L. ROUNDABOUT STA. 12+32.48
C.L. HWY. 63 STA. 24+17.93
ELEV. 213.36

C.L. ROUNDABOUT STA. 14+64.96
C.L. HWY. 63 STA. 22+69.93
ELEV. 213.36

PROFILE GRADE
0.00%
EXISTING GROUND

250 240 230 220 210 200 190 180 170 160
5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 PLAN AND PROFILE.dwg, 2/3/20 at 10:35am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	47	151

(2) PLAN AND PROFILE – BYPASS LANE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

STA. 43+87.46
END BYPASS LANE

STA. 40+00.00
BEGIN BYPASS LANE

C.L. SARACEN RESORT DR.
C.L. ROUNDABOUT
C.L. HWY. 63 STA. 23+00.44
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 86°07'42"
CONST. LIMITS
CONCRETE COMBINATION CURB AND GUTTER (1'-6")
C.L. HWY. 63
EXISTING R/W
PROPOSED R/W
C.L. BYPASS LANE
PC 40+00.00
PCC 41+18.23
PC 43+84.97
PI 45+69.71
PI 25+41.98
PI 16+99.62
PC 22+0
PI 22+3
PCC 22+6
PFC 25+92.22
S3° 24' 53.5"E
S3° 26' 14.48"E
R=1468'
325'
24'
36'
40'
15+00
20+00
14+65
10+00
40+00
45+00
45+70
25+00

BYPASS LANE
P.I. = 40+59.54
Δ = 16°41'08.06" RT.
D = 14°06'44.14"
T = 59.54'
L = 118.23'
PC = 40+00.00
PT = 41+18.23
NO SUPER

BYPASS LANE
P.I. = 42+71.60
Δ = 70°45'10.45" RT.
D = 26°31'32.97"
T = 153.37'
L = 266.73'
PC = 41+18.23
PT = 43+84.97
NO SUPER

BYPASS LANE
P.I. = 45+01.27
Δ = 88°12'33.79" RT.
D = 47°44'47.34"
T = 116.31'
L = 184.75'
PC = 43+84.97
PT = 45+69.71
NO SUPER

SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

NOTE: SARACEN RESORT DR. STA. 43+87.46 TO 45+69.71 BY OTHERS

C.L. HWY. 63 STA. 20+08.92, 16.00' RT. =
C.L. BYPASS LANE STA. 40+00.00, 14.00' LT.
ELEV. 212.39

PROFILE GRADE
EXISTING GROUND
PVC 41+38.91 ELEV. 211.97
PVI 41+88.91 ELEV. 211.82
PVT 42+38.91 ELEV. 211.33
PVC 44+69.71 ELEV. 209.04
PVT 45+69.71 ELEV. 208.54
PVI 45+19.71 ELEV. 208.54
-0.30%
-0.99%
0.00%
MO-13
MO-14
MO-15
40+50.00 +9.50 RT. TOP = 212.37 FL = 207.37 S
42+00.00 +9.50 RT. TOP = 211.79 FL = 206.79 N FL = 206.69 S
43+50.00 +9.50 RT. TOP = 210.35 FL = 205.35 S
K 144.90 VC = 100.00' e = -0.09'
K 101.00 VC = 100.00' e = 0.12'
C.L. SARACEN RESORT DR. STA. 24+75.95, 15.00' RT. =
C.L. BYPASS LANE STA. 45+69.71, 14.00' LT.

250 240 230 220 210 200 190 180 170 160

35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 PLAN AND PROFILE.dwg 2/3/20 at 10:35am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	48	151

(2) PLAN – SARACEN RESORT DR.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MANEESH KRISHNA
No.15912
01-24-2020

(1) OUTSIDE LANE EDGE
PC = 21+13.05, 24.00' RT.
PCC = 21+32.68, 23.81' RT.
Δ = 1°05'55.11" LT.
R = 1024.00
T = 9.82'
L = 19.64'

(2) OUTSIDE LANE EDGE
PCC = 21+32.68, 23.81' RT.
PT = 21+94.98, 39.87' RT.
Δ = 31°05'55.11" RT.
R = 120.00'
T = 33.39'
L = 65.13'

(3) OUTSIDE LANE EDGE
PC = 20+96.48, 35.17' RT.
PT = 22+50.00, 15.00' RT.
Δ = 29°22'57.54" RT.
R = 300.00'
T = 78.65'
L = 153.85'

(4) OUTSIDE LANE EDGE
PC = 22+50.00, 19.88' LT.
PCC = 21+94.19, 32.26' LT.
Δ = 5°40'36.43" LT.
R = 612.00
T = 30.34'
L = 60.64'

(5) OUTSIDE LANE EDGE
PCC = 21+94.19, 32.26' LT.
PT = 21+43.83, 59.15' LT.
Δ = 31°33'06.24" RT.
R = 105.00'
T = 29.66'
L = 57.82'

(6) OUTSIDE LANE EDGE
PC = 21+12.46, 89.30' LT.
PT = 24+40.06, 73.24' RT.
Δ = 25°00'00.49" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(7) OUTSIDE LANE EDGE
PC = 24+73.58, 57.61' RT.
PT = 26+00.36, 29.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(8) OUTSIDE LANE EDGE
PC = 26+46.27, 29.50' LT.
PCC = 25+60.16, 25.86' LT.
Δ = 4°50'06.79" LT.
R = 1024.00
T = 43.23'
L = 86.42'

(9) OUTSIDE LANE EDGE
PCC = 25+60.16, 25.86' LT.
PT = 24+90.04, 41.51' LT.
Δ = 34°50'06.79" RT.
R = 120.00'
T = 37.65'
L = 72.96'

(10) OUTSIDE LANE EDGE
PC = 24+59.90, 58.91' LT.
PCC = 18+83.45, 22.61' LT.
Δ = 37°07'34.24" RT.
R = 125.00'
T = 41.98'
L = 81.00'

(11) OUTSIDE LANE EDGE
PCC = 18+83.45, 22.61' LT.
PT = 16+08.19, 12.00' LT.
Δ = 22°19'12.01" RT.
R = 700.00'
T = 138.10'
L = 272.69'

(12) OUTSIDE LANE EDGE
PC = 16+92.20, 16.01' RT.
PCC = 17+70.39, 24.58' RT.
Δ = 6°24'10.01" LT.
R = 724.00
T = 40.50'
L = 80.91'

(13) OUTSIDE LANE EDGE
PCC = 17+70.39, 24.58' RT.
PT = 18+52.53, 72.84' RT.
Δ = 46°57'23.75" RT.
R = 120.00'
T = 52.12'
L = 98.35'

(14) OUTSIDE LANE EDGE
PC = 18+67.60, 93.47' RT.
PT = 22+47.81, 73.24' LT.
Δ = 25°00'00.41" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(15) OUTSIDE LANE EDGE
PC = 22+02.49, 52.11' LT.
PT = 20+75.71, 24.00' LT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(16) INSIDE LANE EDGE
PC = 21+13.05, 0.00' RT.
PCC = 21+55.03, 0.88' LT.
Δ = 2°24'21.88" LT.
R = 1000.00
T = 21.00'
L = 41.99'

(17) INSIDE LANE EDGE
PCC = 21+55.03, 0.88' LT.
PT = 22+20.07, 15.09' RT.
Δ = 32°24'22.09" RT.
R = 120.00'
T = 34.87'
L = 67.87'

(18) INSIDE LANE EDGE
PC = 20+95.23, 0.00' RT.
PT = 22+22.01, 28.11' LT.
Δ = 25°00'00.00" LT.
R = 300.00
T = 66.51'
L = 130.90'

(19) INSIDE LANE EDGE
PC = 20+92.34, 20.69' RT.
PT = 22+04.62, 0.00' RT.
Δ = 20°52'54.12" RT.
R = 315.00'
T = 58.05'
L = 114.80'

(20) INSIDE LANE EDGE
PC = 21+21.45, 33.49' LT.
PT = 22+04.62, 0.00' RT.
Δ = 43°52'17.69" LT.
R = 120.00
T = 48.33'
L = 91.88'

(21) INSIDE LANE EDGE
PC = 24+54.06, 33.61' RT.
PT = 25+80.84, 5.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(22) INSIDE LANE EDGE
PC = 24+67.53, 15.24' LT.
PCC = 25+40.27, 0.15' RT.
Δ = 36°05'46.08" RT.
R = 120.00
T = 39.10'
L = 75.60'

(23) INSIDE LANE EDGE
PCC = 25+40.27, 0.15' RT.
PT = 26+46.47, 5.50' LT.
Δ = 6°05'46.08" RT.
R = 1000.00'
T = 53.25'
L = 106.40'

(24) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 19+06.55, 11.45' LT.
Δ = 10°22'34.60" LT.
R = 700.00
T = 63.56'
L = 126.77'

(25) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 18+75.38, 46.57' RT.
Δ = 52°16'09.09" RT.
R = 120.00'
T = 58.88'
L = 109.47'

STA. 11+88.57
BEGIN SARACEN RESORT DR.

STA. 17+61.93 OVERFLOW STRUCTURE (BY OTHERS)
24" X 14' R.C. PIPE CULVERT
CONNECT TO DROP INLET ON
LT. @ STA. 17+58.62

STA. 15+93.18 CONSTRUCT
CURB CUT ON LT.

CONST. LIMITS

PC 16+18.04

SARACEN RESORT DR.
P.I. = 16+99.62
Δ = 13°17'43.14" LT.
D = 8°11'06.40"
T = 81.58'
L = 162.43'
PC = 16+18.04
PT = 17+80.47
NO SUPER

PT 17+80.47

PROPOSED R/W

STA. 27+50.00 CONSTRUCT
F.E.S. ON LT.

EXISTING R/W

LINE I

STA. 24+66.18 CONSTRUCT
F.E.S. ON LT.
& 36" X 13' PIPE CULVERT
CONNECT TO DROP INLET ON
LT. @ STA. 24+53.93

STA. 25+50.00 CONSTRUCT
F.E.S. ON LT.

C.L. HWY. 63 STA. 24+13.18
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 76°09'03"

LINE J

LINE H

STA. 25+53.25 CONSTRUCT
F.E.S. ON RT.

STA. 24+69.36 CONSTRUCT
F.E.S. ON RT.

PROPOSED R/W

CONST. LIMITS

C.L. ROUNABOUT

LINE A

LINE G

PI 22+33.40

PCC 22+62.02

STA. 21+36.61 CONSTRUCT
F.E.S. ON LT.

STA. 22+05.08 CONSTRUCT
F.E.S. ON LT.

S89° 33' 56.70"E

S0° 07' 10.44"E

S3° 26' 14.39"E

11+00

15+00

20+00

14+65

10+00

45+00

45+70

25+00

CONSTRUCT 18" X 70' RCP W/ F.E.S

C.L. SARACEN RESORT DR.

INSTALL 18" X 70' RCP W/ F.E.S

PI 16+99.62

STA. 15+93.18 CONSTRUCT
CURB CUT ON RT.

PROPOSED R/W

STA. 17+69.98 CONSTRUCT
F.E.S. ON RT.

C.L. HWY. 63 STA. 22+92.41
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 86°07'42"

CONST. LIMITS

PROPOSED R/W

PCC 43+84.97

PI 45+69.71

STA. 42+00.00 CONSTRUCT
F.E.S. ON RT.

PCC 41+18.23

CONST. LIMITS

EXISTING R/W

LINE D

STA. 40+50.00 CONSTRUCT
F.E.S. ON RT.

CONCRETE COMBINATION CURB
AND GUTTER (1'-6")

PC 40+00.00

C.L. HWY. 63

EXISTING R/W

PRC 25+92.22

C.L. SARACEN RESORT DR.

PI 28+57.78

(MO-1) STA. 21+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 50' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-2) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 34' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+33.93 TYPE MO INLET = 4'–0" DIA.

(MO-3) STA. 22+33.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 75' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+96.26 TYPE MO INLET = 4'–0" DIA.

(MO-4) STA. 22+96.26 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 111' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+10.46 TYPE MO INLET = 4'–0" DIA.

(MO-5) STA. 21+99.75 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 36' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 22+33.93 TYPE MO INLET = 4'–0" DIA.

(MO-6) STA. 22+33.93 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 46' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 42+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-7) STA. 24+10.46 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 65' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+53.93 TYPE MO INLET = 4'–0" DIA.

(MO-8) STA. 24+53.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 36" X 133' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 24+58.29 TYPE MO INLET = 4'–0" DIA.

(MO-9) STA. 25+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 11' PIPE CULVERT CONNECT TO FES ON LT. @ STA. 25+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-10) STA. 27+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 7' PIPE CULVERT CONNECT TO FES ON LT. @ STA. 27+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-11) STA. 24+58.29 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 36" X 25' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 24+69.36 TYPE MO INLET = 4'–0" DIA.

(MO-12) STA. 25+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 18' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 25+53.25 TYPE MO INLET = 4'–0" DIA.

(MO-13) STA. 40+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 14' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 40+50.00 TYPE MO INLET = 4'–0" DIA.

(MO-14) STA. 42+00.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 15' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 42+00.00 TYPE MO INLET = 4'–0" DIA.

(MO-15) STA. 43+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 8' PIPE CULVERT CONNECT TO BOX CULVERT (BY OTHERS) TYPE MO INLET = 4'–0" DIA.

(MO-16) STA. 17+58.62 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 24" X 42' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 17+70.03 TYPE MO INLET = 4'–0" DIA.

(MO-17) STA. 17+70.03 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 24" X 11' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 17+69.98 TYPE MO INLET = 4'–0" DIA.

(MO-18) STA. 21+16.33 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 22' PIPE CULVERT CONNECT TO F.E.S. ON LT. @ STA. 21+36.61 TYPE MO INLET = 4'–0" DIA.

(MO-19) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 16' PIPE CULVERT CONNECT TO F.E.S. ON LT. @ STA. 22+05.08 TYPE MO INLET = 4'–0" DIA.

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 PLAN AND PROFILE.dwg 2/3/20 at 10:36am

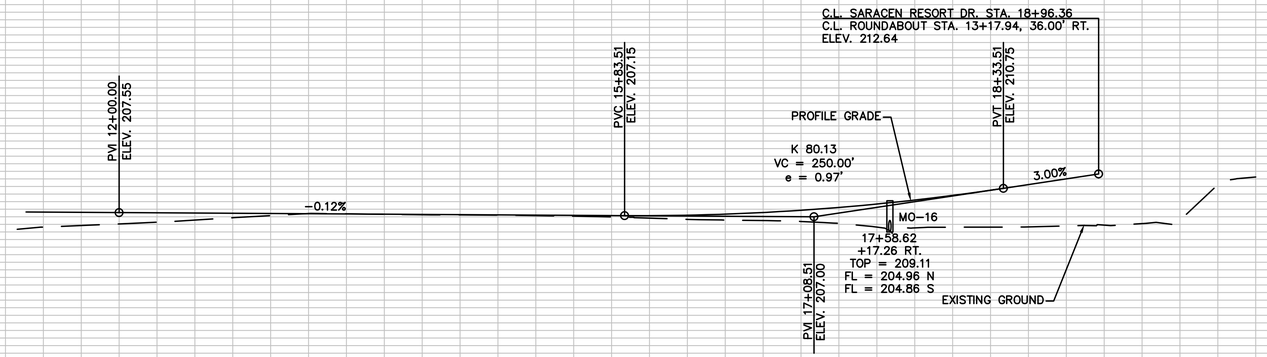
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	49	151

(2) PROFILE – SARACEN RESORT DR.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

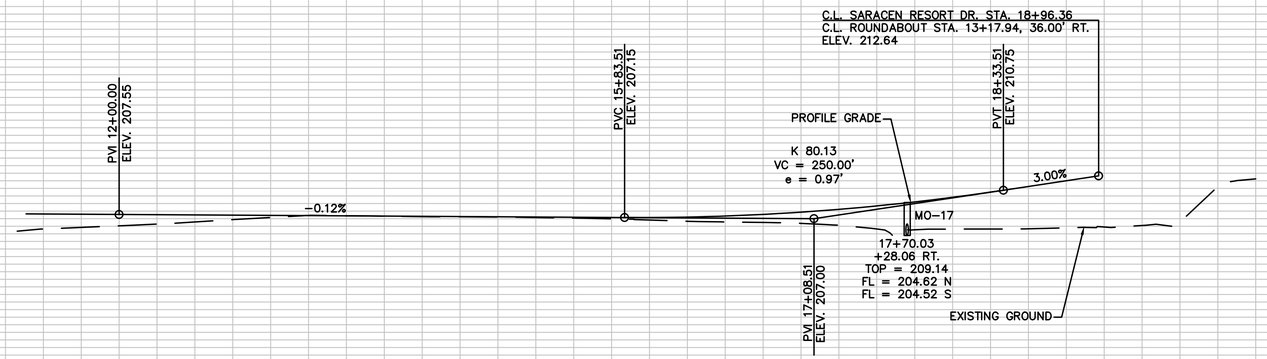
SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

LEFT SIDE (SARACEN RESORT DR.) – STA. 12+50.00 TO 18+96.36



SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

RIGHT SIDE (SARACEN RESORT DR.) – STA. 12+50.00 TO 18+96.36



W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 PLAN AND PROFILE.dwg, 2/3/20 at 10:36am

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	50	151

(2) PLAN – SARACEN RESORT DR.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

(1) OUTSIDE LANE EDGE
PC = 21+13.05, 24.00' RT.
PCC = 21+32.68, 23.81' RT.
Δ = 1°05'55.11" LT.
R = 1024.00
T = 9.82'
L = 19.64'

(2) OUTSIDE LANE EDGE
PCC = 21+32.68, 23.81' RT.
PT = 21+94.98, 39.87' RT.
Δ = 31°05'55.11" RT.
R = 120.00'
T = 33.39'
L = 65.13'

(3) OUTSIDE LANE EDGE
PC = 20+96.48, 35.17' RT.
PT = 22+50.00, 15.00' RT.
Δ = 29°22'57.54" RT.
R = 300.00'
T = 78.65'
L = 153.85'

(4) OUTSIDE LANE EDGE
PC = 22+50.00, 19.88' LT.
PCC = 21+94.19, 32.26' LT.
Δ = 5°40'36.43" LT.
R = 612.00
T = 30.34'
L = 60.64'

(5) OUTSIDE LANE EDGE
PCC = 21+94.19, 32.26' LT.
PT = 21+43.83, 59.15' LT.
Δ = 31°33'06.24" RT.
R = 105.00'
T = 29.66'
L = 57.82'

(6) OUTSIDE LANE EDGE
PC = 21+12.46, 89.30' LT.
PT = 24+40.06, 73.24' RT.
Δ = 25°00'00.49" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(7) OUTSIDE LANE EDGE
PC = 24+73.58, 57.61' RT.
PT = 26+00.36, 29.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(8) OUTSIDE LANE EDGE
PC = 26+46.27, 29.50' LT.
PCC = 25+60.16, 25.86' LT.
Δ = 4°50'06.79" LT.
R = 1024.00
T = 43.23'
L = 86.42'

(9) OUTSIDE LANE EDGE
PCC = 25+60.16, 25.86' LT.
PT = 24+90.04, 41.51' LT.
Δ = 34°50'06.79" RT.
R = 120.00'
T = 37.65'
L = 72.96'

(10) OUTSIDE LANE EDGE
PC = 24+59.90, 58.91' LT.
PCC = 18+83.45, 22.61' LT.
Δ = 37°07'34.24" RT.
R = 125.00'
T = 41.98'
L = 81.00'

(11) OUTSIDE LANE EDGE
PCC = 18+83.45, 22.61' LT.
PT = 16+08.19, 12.00' LT.
Δ = 22°19'12.01" RT.
R = 700.00'
T = 138.10'
L = 272.69'

(12) OUTSIDE LANE EDGE
PC = 16+92.20, 16.01' RT.
PCC = 17+70.39, 24.58' RT.
Δ = 6°24'10.01" LT.
R = 724.00
T = 40.50'
L = 80.91'

(13) OUTSIDE LANE EDGE
PCC = 17+70.39, 24.58' RT.
PT = 18+52.53, 72.84' RT.
Δ = 46°57'23.75" RT.
R = 120.00'
T = 52.12'
L = 98.35'

(14) OUTSIDE LANE EDGE
PC = 18+67.60, 93.47' RT.
PT = 22+47.81, 73.24' LT.
Δ = 25°00'00.41" RT.
R = 125.00'
T = 27.71'
L = 54.54'

(15) OUTSIDE LANE EDGE
PC = 22+02.49, 52.11' LT.
PT = 20+75.71, 24.00' LT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(16) INSIDE LANE EDGE
PC = 21+13.05, 0.00' RT.
PCC = 21+55.03, 0.88' LT.
Δ = 2°24'21.88" LT.
R = 1000.00
T = 21.00'
L = 41.99'

(17) INSIDE LANE EDGE
PCC = 21+55.03, 0.88' LT.
PT = 22+20.07, 15.09' RT.
Δ = 32°24'22.09" RT.
R = 120.00'
T = 34.87'
L = 67.87'

(18) INSIDE LANE EDGE
PC = 20+95.23, 0.00' RT.
PT = 22+22.01, 28.11' LT.
Δ = 25°00'00.00" LT.
R = 300.00
T = 66.51'
L = 130.90'

(19) INSIDE LANE EDGE
PC = 20+92.34, 20.69' RT.
PT = 22+04.62, 0.00' RT.
Δ = 20°52'54.12" RT.
R = 315.00'
T = 58.05'
L = 114.80'

(20) INSIDE LANE EDGE
PC = 21+21.45, 33.49' LT.
PT = 22+04.62, 0.00' RT.
Δ = 43°52'17.69" LT.
R = 120.00
T = 48.33'
L = 91.88'

(21) INSIDE LANE EDGE
PC = 24+54.06, 33.61' RT.
PT = 25+80.84, 5.50' RT.
Δ = 25°00'00.00" RT.
R = 300.00'
T = 66.51'
L = 130.90'

(22) INSIDE LANE EDGE
PC = 24+67.53, 15.24' LT.
PCC = 25+40.27, 0.15' RT.
Δ = 36°05'46.08" LT.
R = 120.00
T = 39.10'
L = 75.60'

(23) INSIDE LANE EDGE
PCC = 25+40.27, 0.15' RT.
PT = 26+46.47, 5.50' LT.
Δ = 6°05'46.08" RT.
R = 1000.00'
T = 53.25'
L = 106.40'

(24) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 19+06.55, 11.45' LT.
Δ = 10°22'34.60" LT.
R = 700.00
T = 63.56'
L = 126.77'

(25) INSIDE LANE EDGE
PC = 17+80.47, 0.00' RT.
PT = 18+75.38, 46.57' RT.
Δ = 52°16'09.09" RT.
R = 120.00'
T = 58.88'
L = 109.47'

(MO-1) STA. 21+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 50' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+00.00 TYPE MO INLET = 4'-0" DIA.

(MO-2) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 34' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+33.93 TYPE MO INLET = 4'-0" DIA.

(MO-3) STA. 22+33.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 75' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 22+96.26 TYPE MO INLET = 4'-0" DIA.

(MO-4) STA. 22+96.26 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 111' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+10.46 TYPE MO INLET = 4'-0" DIA.

(MO-5) STA. 21+99.75 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 36' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 22+33.93 TYPE MO INLET = 4'-0" DIA.

(MO-6) STA. 22+33.93 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 46' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 42+00.00 TYPE MO INLET = 4'-0" DIA.

(MO-7) STA. 24+10.46 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 65' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+53.93 TYPE MO INLET = 4'-0" DIA.

(MO-8) STA. 24+53.93 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 36" X 133' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 24+58.29 TYPE MO INLET = 4'-0" DIA.

(MO-9) STA. 25+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 11' PIPE CULVERT CONNECT TO FES ON LT. @ STA. 25+50.00 TYPE MO INLET = 4'-0" DIA.

(MO-10) STA. 27+50.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 7' PIPE CULVERT CONNECT TO FES ON LT. @ STA. 27+50.00 TYPE MO INLET = 4'-0" DIA.

(MO-11) STA. 24+58.29 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 36" X 25' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 24+69.36 TYPE MO INLET = 4'-0" DIA.

(MO-12) STA. 25+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 18' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 25+53.25 TYPE MO INLET = 4'-0" DIA.

(MO-13) STA. 40+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 14' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 40+50.00 TYPE MO INLET = 4'-0" DIA.

(MO-14) STA. 42+00.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 15' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 42+00.00 TYPE MO INLET = 4'-0" DIA.

(MO-15) STA. 43+50.00 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 18" X 8' PIPE CULVERT CONNECT TO BOX CULVERT (BY OTHERS) TYPE MO INLET = 4'-0" DIA.

(MO-16) STA. 17+58.62 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 24" X 42' PIPE CULVERT CONNECT TO DROP INLET ON RT. @ STA. 17+70.03 TYPE MO INLET = 4'-0" DIA.

(MO-17) STA. 17+70.03 CONSTRUCT DROP INLET ON RT. WITH 4' EXTENSION & 24" X 11' PIPE CULVERT CONNECT TO F.E.S. ON RT. @ STA. 17+69.98 TYPE MO INLET = 4'-0" DIA.

(MO-18) STA. 21+16.33 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 22' PIPE CULVERT CONNECT TO F.E.S. ON LT. @ STA. 21+36.61 TYPE MO INLET = 4'-0" DIA.

(MO-19) STA. 22+00.00 CONSTRUCT DROP INLET ON LT. WITH 4' EXTENSION & 18" X 16' PIPE CULVERT CONNECT TO F.E.S. ON LT. @ STA. 22+05.08 TYPE MO INLET = 4'-0" DIA.

STA. 22+50.00
END SARACEN RESORT DR.

STA. 21+36.61 CONSTRUCT F.E.S. ON LT.

STA. 22+05.08 CONSTRUCT F.E.S. ON LT.

SARACEN RESORT DR.
P.I. = 25+41.98
Δ = 122°03'27.20" RT.
D = 36°57'54.07"
T = 279.96'
L = 330.20'
PC = 22+62.02
PT = 25+92.22
NO SUPER

SARACEN RESORT DR.
P.I. = 22+33.40
Δ = 10°26'27.29" RT.
D = 18°11'20.89"
T = 28.78'
L = 57.40'
PC = 22+04.62
PT = 22+62.02
NO SUPER

SARACEN RESORT DR.
P.I. = 28+57.78
Δ = 46°22'22.57" LT.
D = 9°14'28.52"
T = 265.56'
L = 501.80'
PC = 25+92.22
PT = 30+94.02
NO SUPER

SARACEN RESORT DR.
P.I. = 16+99.62
Δ = 13°17'43.14" LT.
D = 8°11'06.40"
T = 81.58'
L = 162.43'
PC = 16+18.04
PT = 17+80.47
NO SUPER

STA. 42+00.00 CONSTRUCT F.E.S. ON RT.

STA. 40+50.00 CONSTRUCT F.E.S. ON RT.

STA. 25+53.25 CONSTRUCT F.E.S. ON RT.

STA. 24+69.36 CONSTRUCT F.E.S. ON RT.

STA. 27+50.00 CONSTRUCT F.E.S. ON LT.

STA. 25+50.00 CONSTRUCT F.E.S. ON LT.

STA. 24+66.18 CONSTRUCT F.E.S. ON LT. & 36" X 13' PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 24+53.93

STA. 17+61.93 OVERFLOW STRUCTURE (BY OTHERS) 24" X 14' R.C. PIPE CULVERT CONNECT TO DROP INLET ON LT. @ STA. 17+58.62

STA. 17+69.98 CONSTRUCT F.E.S. ON RT.

C.L. HWY. 63 STA. 24+13.18
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 76°09'03"

C.L. HWY. 63 STA. 23+00.44
C.L. SARACEN RESORT DR. STA. 20+00.00
∠ = 86°07'42"

C.L. SARACEN RESORT DR.

C.L. HWY. 63

CONCRETE COMBINATION CURB AND GUTTER (1'-6")

PROPOSED R/W

EXISTING R/W

CONST. LIMITS

C.L. ROUNDABOUT

PI 25+41.98
PRC 25+92.22
PCC 43+84.97
PI 45+69.71
PI 22+33.40
PCC 22+62.02
LINE F PC 22+04.62
PT 22+62.02
PC 40+00.00
PI 24+57.78
PCC 30+94.02
PCC 4+18.23
PT 17+80.47
PI 16+99.62

S89° 33' 56.70"E

S53° 26' 14"E

LINE A, B, C, D, E, F, G, H, I, J, A-1

25+00, 30+00, 45+00, 45+70, 20+00, 40+00, 15+00

125', 325', 150', 40', 60', 36', 24', 47', 148', 14+65

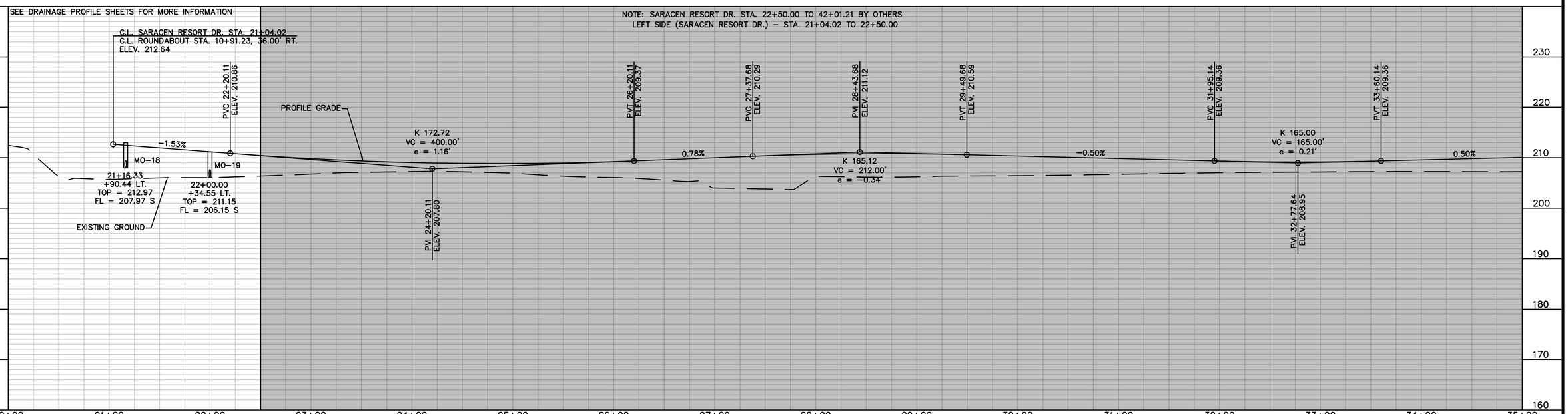
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	51	151

(2) PROFILE – SARACEN RESORT DR.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

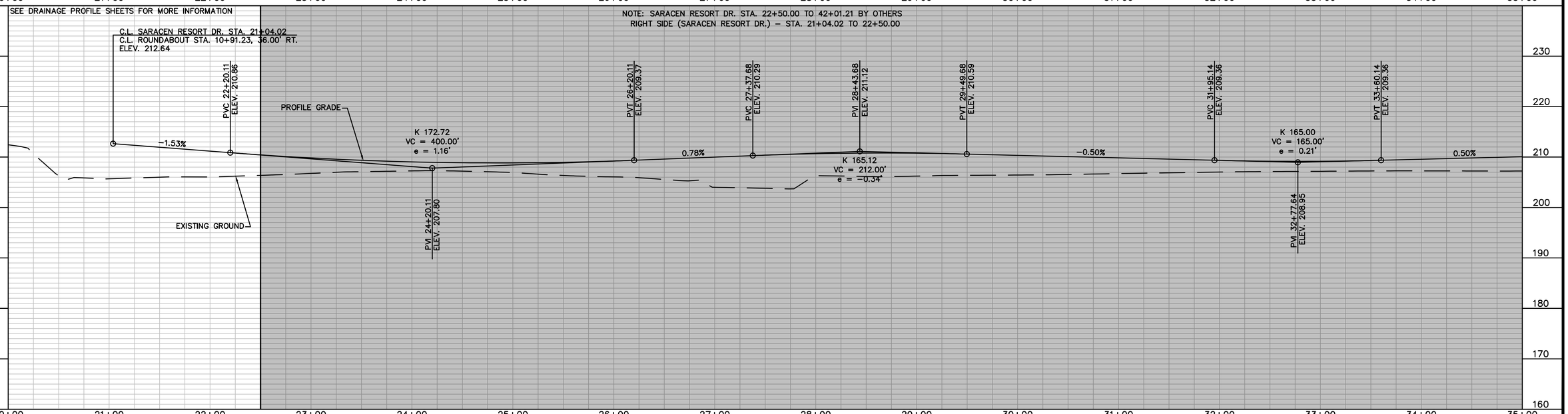
SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

NOTE: SARACEN RESORT DR. STA. 22+50.00 TO 42+01.21 BY OTHERS
LEFT SIDE (SARACEN RESORT DR.) – STA. 21+04.02 TO 22+50.00



SEE DRAINAGE PROFILE SHEETS FOR MORE INFORMATION

NOTE: SARACEN RESORT DR. STA. 22+50.00 TO 42+01.21 BY OTHERS
RIGHT SIDE (SARACEN RESORT DR.) – STA. 21+04.02 TO 22+50.00



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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	52	151

2 PLAN AND PROFILE – FRONTAGE RD.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

C.L. SARACEN DR. STA. 42+01.21
C.L. I-530 FRONTAGE RD. STA. 50+00.00
∠ = 94°33'19.63"

PT 41+01.39

40+00

S14° 27' 36.84"W

42+01

50+00

STA. 50+50.00
BEGIN I-530 FRONTAGE RD.

N80° 05' 42.79"E

PC 50+58.49

I-530 FRONTAGE RD.
P.I. = 52+35.83
Δ = 99°32'51.21" LT.
D = 38°11'49.87"
T = 177.34'
L = 260.61'
PC = 50+58.49
PT = 53+19.11
NO SUPER

I-530 FRONTAGE RD.
P.I. = 57+07.03
Δ = 5°28'56.82" LT.
D = 2°00'00.00"
T = 137.17'
L = 274.12'
PC = 55+69.87
PT = 58+43.99
e = 0.028 '/'
Ls = 200'

I-530 FRONTAGE RD.
P.I. = 61+07.19
Δ = 14°43'43.73" RT.
D = 4°00'00.00"
T = 185.13'
L = 368.22'
PC = 59+22.06
PT = 62+90.28
e = 0.051 '/'
Ls = 200'

STA. 63+43.95 CONSTRUCT SINGLE
8' X 4' X 63' PRECAST BOX
CULVERT WITH 3:1 WINGS LT. & RT. ON 45° LT. FWD. SKEW
FL = 203.20 N
FL = 202.90 S

PT 53+19.11
PC 55+69.87
PT 58+43.99
PC 59+22.06
PI 61+07.19
PT 62+90.28
PC 63+42.95

CONST. LIMITS
55+00
S0° 21' 26.00"W
60+00
S5° 07' 30.82"E
S9° 36' 12.91"W
65+00
EXISTING R/W
CONST. LIMITS

PI 52+35.83
115+00
C.L. I-530 FRONTAGE RD.
120+00
PI 57+07.03

NOTE: I-530 FRONTAGE RD. STA. 50+00.00 TO 50+50.00 BY OTHERS

STA. 54+19.87 BEGIN SUPERELEVATION RT.
STA. 56+19.87 MAX SUPERELEVATION (0.028'/')
STA. 56+83.02 MAX SUPERELEVATION (0.028'/')
STA. 58+83.02 END SUPERELEVATION RT.

STA. 58+83.02 BEGIN SUPERELEVATION LT.
STA. 60+83.02 MAX SUPERELEVATION (0.051'/')
STA. 61+16.61 MAX SUPERELEVATION (0.051'/')
STA. 63+16.61 END SUPERELEVATION LT.

C.L. SARACEN RESORT DR. STA. 42+01.77
C.L. I-530 FRONTAGE RD. STA. 50+00.00
ELEV. 210.21

PROFILE GRADE
-0.10%
EXISTING GROUND

PVC 62+68.95
ELEV. 208.94
K 750.00
VC = 150.00'
e = 0.04'
PVT 64+18.95
ELEV. 208.94
PVI 63+43.95
ELEV. 208.87

250 240 230 220 210 200 190 180 170 160

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00

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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	53	151

(2) PLAN AND PROFILE – FRONTAGE RD.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

I-530 FRONTAGE RD.
P.I. = 66+31.27
Δ = 17°10'11.06" LT.
D = 3°00'00.00"
T = 288.32'
L = 572.32'
PC = 63+42.95
PT = 69+15.27
e = 0.040 '/'
Ls = 200'

I-530 FRONTAGE RD.
P.I. = 72+58.89
Δ = 8°39'16.04" RT.
D = 3°00'00.00"
T = 144.52'
L = 288.48'
PC = 71+14.37
PT = 74+02.85
e = 0.040 '/'
Ls = 200'

CONST. LIMITS
C.L. QUAPAW RD.
PC 11+50.96
N84° 04' 39.53"E
PT 69+15.27
PC 71+14.37
PI 72+58.89
PT 74+02.85
PC 78+41.02
30'
CONST. LIMITS
65+00
70+00
75+00
80+00
S7° 33' 58.15"E
S1° 05' 17.90"W
C.L. I-530 FRONTAGE RD.
CONST. LIMITS
EXISTING R/W
PI 66+31.27
C.L. QUAPAW RD. STA. 10+00.00
C.L. I-530 FRONTAGE RD. STA. 69+99.00
∠ = 88°21'22.32"

STA. 63+16.61 BEGIN SUPERELEVATION RT.
STA. 65+16.61 MAX SUPERELEVATION (0.040'/')
STA. 68+14.82 MAX SUPERELEVATION (0.040'/')
STA. 70+14.82 END SUPERELEVATION RT.

STA. 70+14.82 BEGIN SUPERELEVATION LT.
STA. 72+14.82 MAX SUPERELEVATION (0.040'/')
STA. 73+52.85 MAX SUPERELEVATION (0.040'/')
STA. 75+52.85 END SUPERELEVATION LT.

PVC 69+24.00 ELEV. 209.45
PVI 69+99.00 ELEV. 209.52
PVT 70+74.00 ELEV. 209.26
PROFILE GRADE
PVC 74+82.20 ELEV. 207.83
PVT 76+32.20 ELEV. 207.50
PVC 77+56.67 ELEV. 207.40
PVI 78+31.67 ELEV. 207.34
PVT 79+06.67 ELEV. 207.18
PVC 79+67.67 ELEV. 207.05
0.10%
K 333.18
VC = 150.00'
e = -0.08'
-0.35%
K 560.44
VC = 150.00'
e = 0.05'
-0.08%
K 1142.49
VC = 150.00'
e = -0.02'
-0.21%
K 12609.03
VC = 150.00'
e = 0.00'
EXISTING GROUND
PVI 75+57.20 ELEV. 207.57

250 240 230 220 210 200 190 180 170 160

65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00

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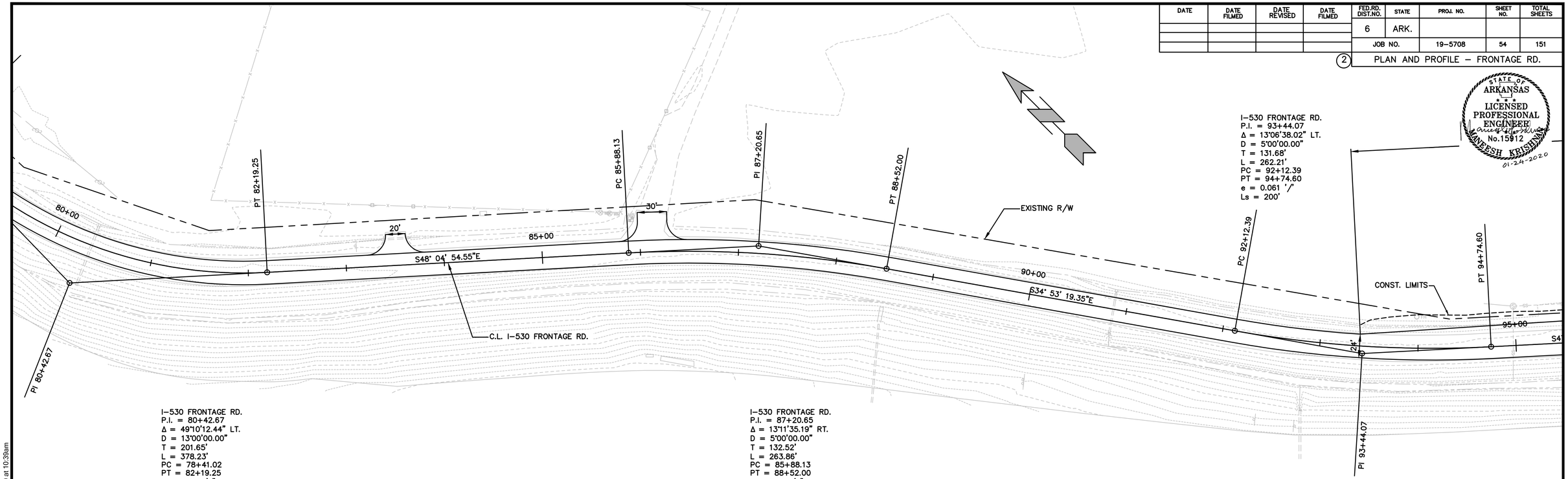
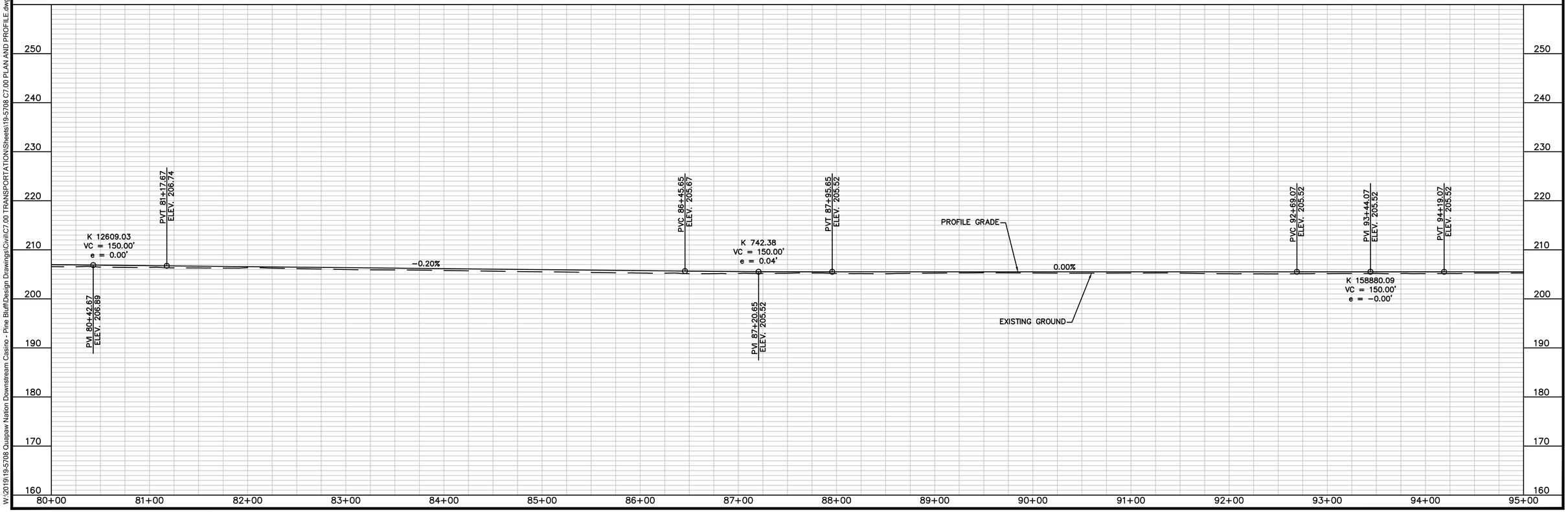
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	54	151

(2) PLAN AND PROFILE – FRONTAGE RD.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
Manjeesh Kalsi
No.15912
MANJEESH KRISHNA
01-24-2020





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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	55	151

(2) PLAN AND PROFILE – FRONTAGE RD.

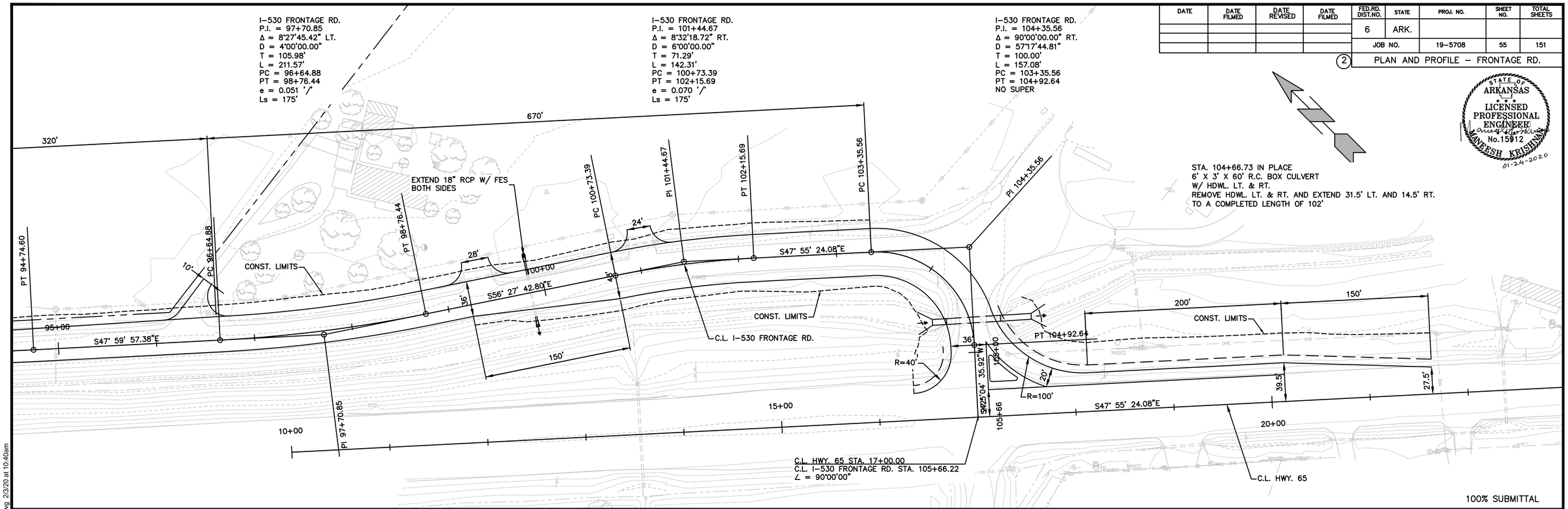
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

I–530 FRONTAGE RD.
P.I. = 97+70.85
Δ = 8°27'45.42" LT.
D = 4°00'00.00"
T = 105.98'
L = 211.57'
PC = 96+64.88
PT = 98+76.44
e = 0.051 '/'
Ls = 175'

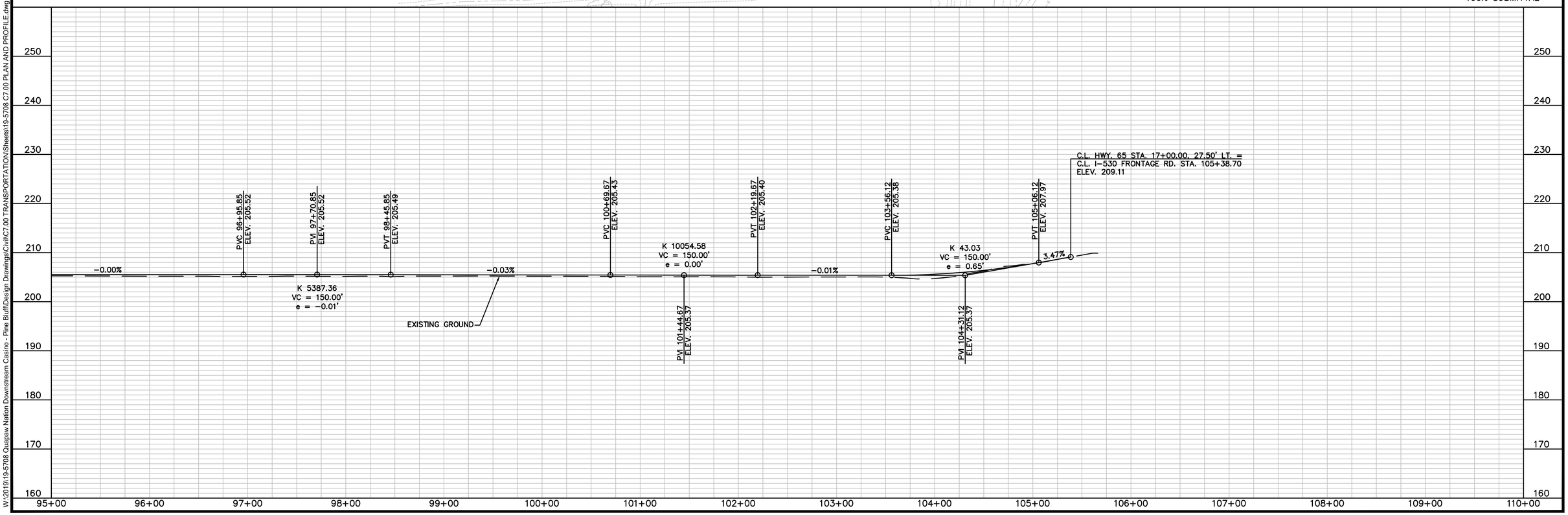
I–530 FRONTAGE RD.
P.I. = 101+44.67
Δ = 8°32'18.72" RT.
D = 6°00'00.00"
T = 71.29'
L = 142.31'
PC = 100+73.39
PT = 102+15.69
e = 0.070 '/'
Ls = 175'

I–530 FRONTAGE RD.
P.I. = 104+35.56
Δ = 90°00'00.00" RT.
D = 57°17'44.81"
T = 100.00'
L = 157.08'
PC = 103+35.56
PT = 104+92.64
NO SUPER

STA. 104+66.73 IN PLACE
6' X 3' X 60' R.C. BOX CULVERT
W/ HDWL. LT. & RT.
REMOVE HDWL. LT. & RT. AND EXTEND 31.5' LT. AND 14.5' RT.
TO A COMPLETED LENGTH OF 102'



100% SUBMITTAL



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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	56	151

(2) PLAN AND PROFILE – QUAPAW RD.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

QUAPAW RD.
P.I. = 13+78.42
Δ = 32°07'31.01" LT.
D = 7°15'09.47"
T = 227.46'
L = 442.95'
PC = 11+50.96
PT = 15+93.90
NO SUPER

QUAPAW RD.
P.I. = 17+51.31
Δ = 69°57'09.09" LT.
D = 25°27'53.25"
T = 157.41'
L = 274.70'
PC = 15+93.90
PT = 18+68.61
NO SUPER

C.L. I-530 FRONTAGE RD.

PT 18+68.61

19+69

N18° 00' 00.57"W

PT 69+15.27

PC 11+50.96

PCC 15+93.90

30'

C.L. QUAPAW RD.

CONST. LIMITS

10+00

70+00

S7° 33' 58.15"E

150'

N84° 04' 39.53"E

15+00

CONST. LIMITS

PI 17+51.31

STA. 16+09.07 CONSTRUCT DOUBLE
24" X 100' RCP W/ F.E.S.
FL = 203.50 N
FL = 203.00 S

C.L. QUAPAW RD. STA. 10+00.00
C.L. I-530 FRONTAGE RD. STA. 69+99.00
∠ = 88°21'22.32"

PC 71+14.37

PI 23+78.42

STA. 15+24.29 REMOVE EXISTING CMP
CONSTRUCT SINGLE
8' X 4' X 50' PRECAST BOX CULVERT
FL = 201.97 N
FL = 201.50 S

PVI 10+15.01
ELEV. 209.17

PROFILE GRADE

−0.15%

PVC 14+24.29
ELEV. 208.54

K 305.87
VC = 200.00'
e = 0.16'

PVI 15+24.29
ELEV. 208.39

PVT 16+24.29
ELEV. 208.89

0.50%

PVI 17+47.02
ELEV. 209.50

EXISTING GROUND

250 240 230 220 210 200 190 180 170 160

9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

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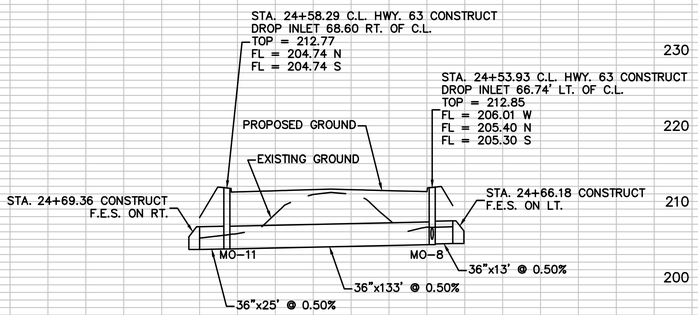
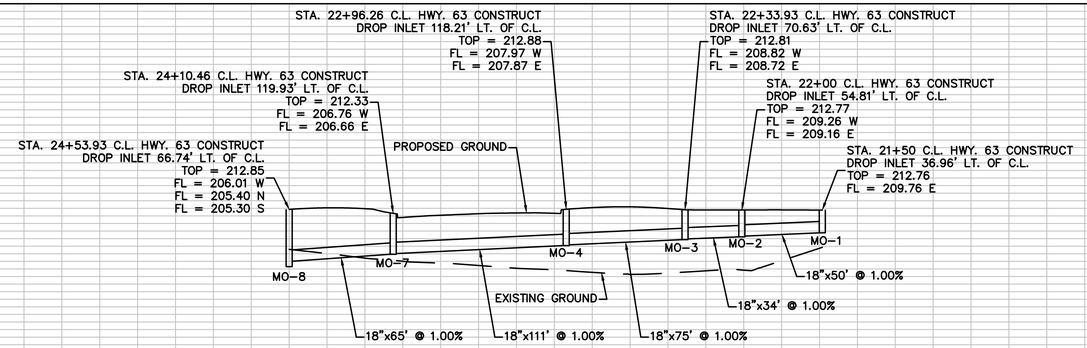
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	57	151

(2) DRAINAGE PROFILES

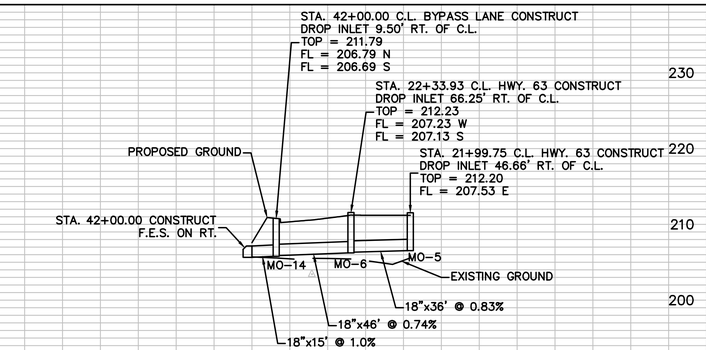
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



LINE A



LINE A-1



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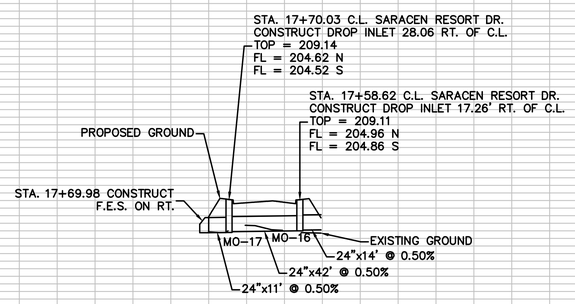

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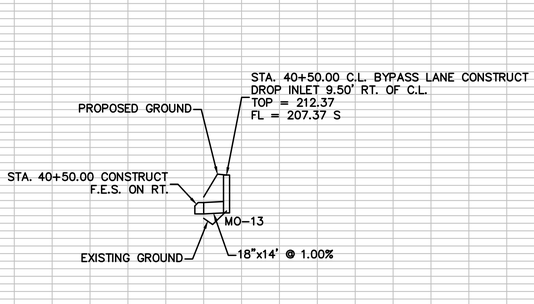

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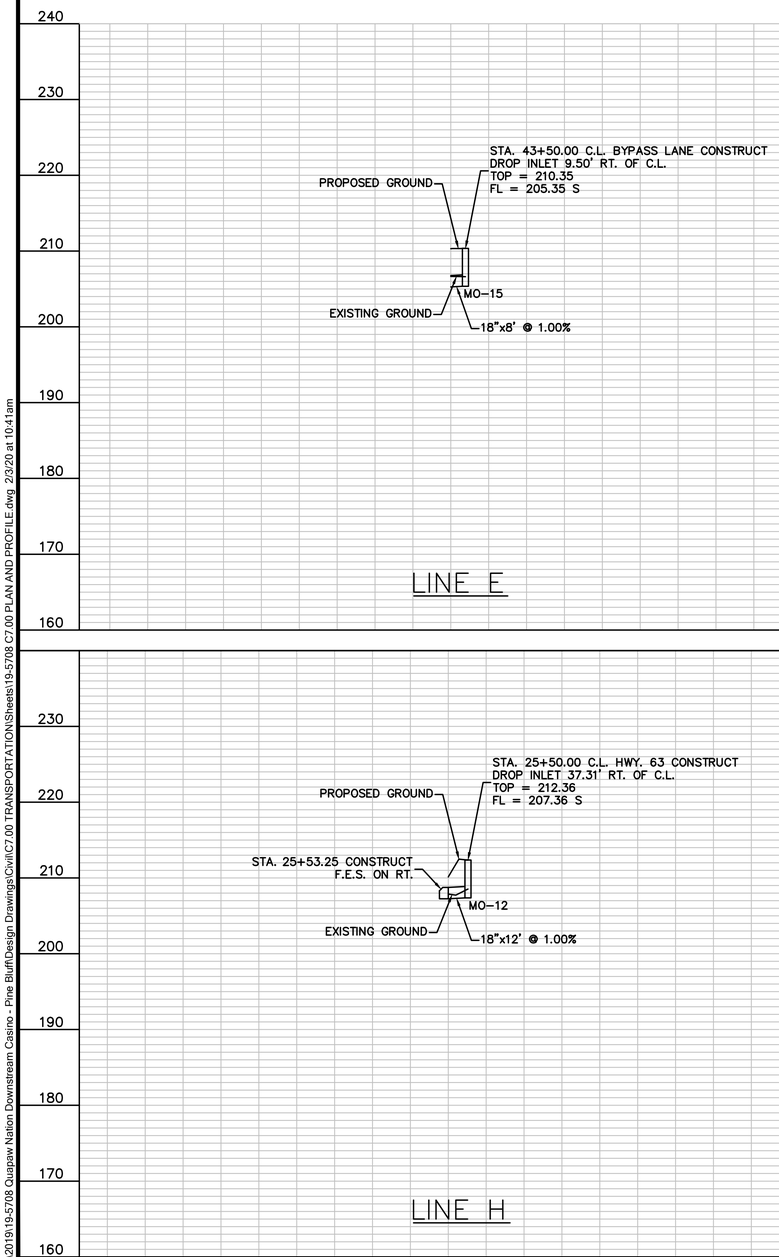
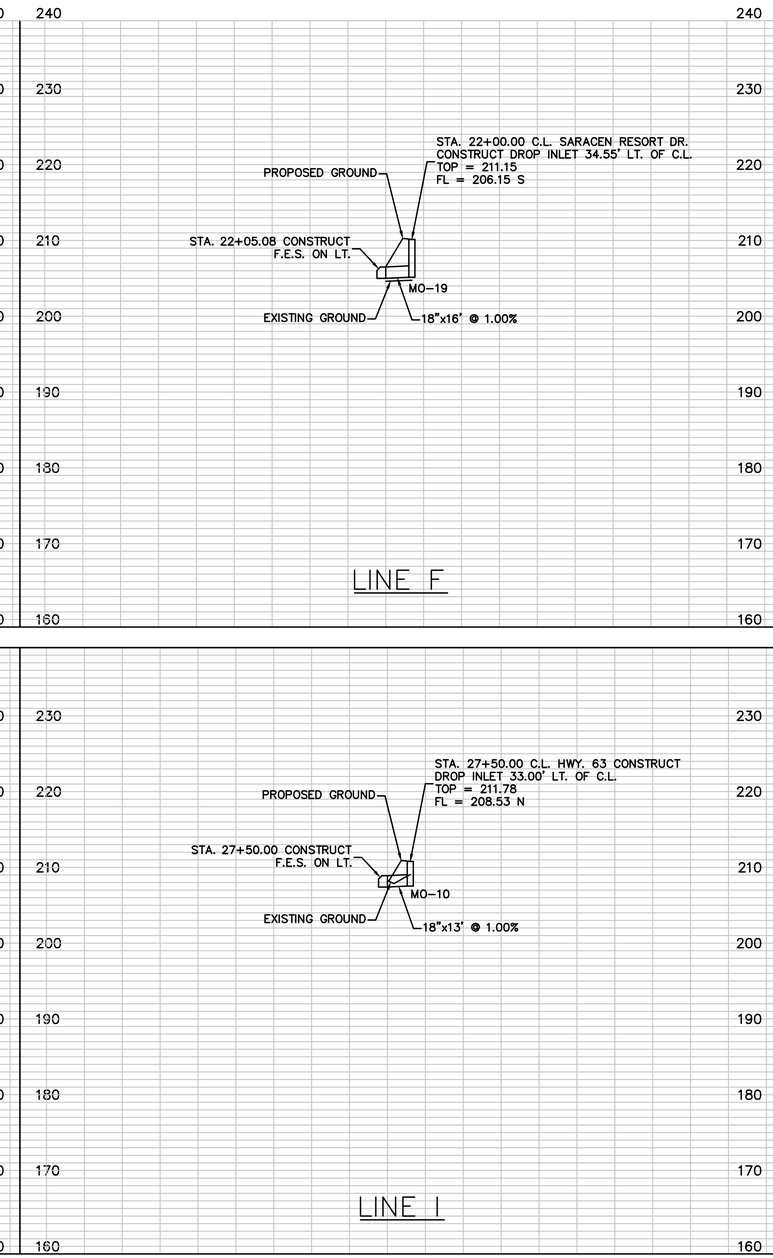
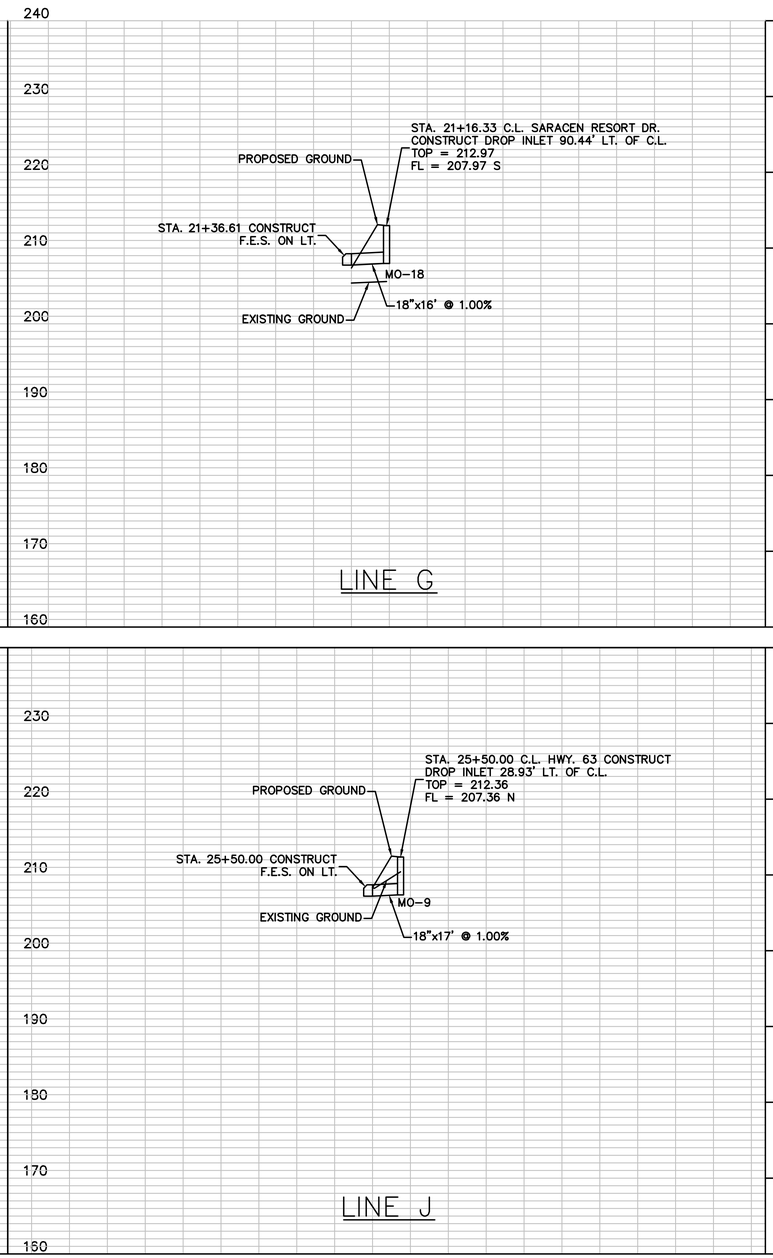
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	58	151

2 DRAINAGE PROFILES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020







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DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E1	

2

POWER, LIGHTING & SYSTEM LEGEND

- UNDER CABINET LIGHT FIXTURE
- 1x4 FLUORESCENT LIGHT
- 2x4 FLUORESCENT LIGHT
- EL — FLUORESCENT LIGHT WITH EMERGENCY LIGHT (EL) BATTERY 1400 LUMENS MINIMUM FOR 2 LAMPS
- 2x2 FLUORESCENT LIGHT
- RECESSED LIGHT, UNLESS OTHERWISE SHOWN
- WALL MOUNTED LIGHT–MOUNTING HEIGHT AS INDICATED
- LED EXIT LIGHT, CEILING MOUNTED OR AS INDICATED, DARKENED AREA INDICATES FACE, ARROWS INDICATE DIRECTION OF EGRESS
- EMERGENCY EXIT LIGHT, WALL MOUNT 7'–6" A.F.F. OR AS NOTED
- 4 FT. STRIP FLUORESCENT LIGHT
- S — LIGHT SWITCH, MTD. 4'–0" A.F.F.
- S_2 — LIGHT SWITCH, 2 POLE, MTD 4'–0" A.F.F.
- S_3 — LIGHT SWITCH, 3–WAY, MTD. 4'–0" A.F.F.
- S_4 — LIGHT SWITCH, 4–WAY, MTD. 4'–0" A.F.F.
- S_P — LIGHT SWITCH WITH PILOT LIGHT, MTD. 4'–0" A.F.F.
- 20 AMP DUPLEX RECEPTACLE MTD. HORIZ. 6" ABOVE COUNTER TOP UNLESS OTHERWISE SHOWN
- 20 AMP DUPLEX RECEPTACLE MTD. 18" A.F.F., WITH #12 GROUND WIRE, GFCI INDICATES GROUND FAULT CIRCUIT INTERRUPTER, WP INDICATES WEATHERPROOF WHILE IN USE ENCLOSURE AND COVER
- SINGLE RECEPTACLE, RATINGS AS NOTED
- S_M — HP RATED TOGGLE SWITCH, 1 OR 2 POLES AS REQUIRED W/OVERLOADS
- OR — NON–FUSED DISCONNECT SWITCH, SIZE AS NOTED
- OR — COMBINATION DISCONNECT AND MOTOR STARTER, SIZE AS NOTED. FUSED TYPE SHOWN.
- F OR — FUSED DISCONNECT SWITCH, SIZE AS NOTED
- PUSHBUTTON STATION, NEMA 4X
- ELECTRICAL PANEL, SURFACE MOUNTED, 5'–6" TO TOP OF ENCLOSURE
- ELECTRICAL PANEL, RECESSED MOUNTED, 5'–6" TO TOP OF ENCLOSURE
- EQUIPMENT CABINET SIZE AS NOTED, RECESSED MOUNTED, 5'–6" TO TOP OF ENCLOSURE
- EQUIPMENT CABINET SIZE AS NOTED, SURFACE MOUNTED, 5'–6" TO TOP OF ENCLOSURE
- L–1 — HOME RUN TO PANEL, RECEPTACLES AND EQUIPMENT SHALL HAVE GREEN GROUND WIRE. LETTER(S) INDICATE NAME OF PANEL, NUMBER(S) INDICATE CIRCUIT NUMBERS
- J — JUNCTION BOX (PER DETAIL)

- BRANCH CIRCUIT WITH PHASE, NEUTRAL, SWITCHED PHASE AND EQUIPMENT GROUNDING CONDUCTORS
- W — TELEPHONE OR DATA OUTLET, SINGLE GANG BOX MTD. 18" A.F.F. WITH 3/4"C STUB TO ABOVE LAY–IN CEILING. "W" INDICATES 4'–6" MTD. HEIGHT FOR WALL PHONE.
- 3/4" PLYWOOD TELEPHONE BACKBOARD, SIZE AS NOTED, MTD. 5'–6" TO TOP
- JUNCTION BOX 42 CUBIC INCH MINIMUM CAPACITY
- FLOOR TELEPHONE OUTLET, CAST JUNCTION–BOX
- WALL TELEPHONE/DATA OUTLET
- S — DOOR SWITCH MOUNTED IN DOOR JAMB
- DOOR BUTTON WEATHER PROOF, 50" A.F.F.
- B — DOOR BUZZER MTD 7'–0" A.F.F.
- H OR MH — H–1 MH–1 — HANDHOLE OR MANHOLE, IDENTIFIER SHOWN, REFER TO HANDHOLE OR MANHOLE SCHEDULE FOR SIZE
- CIRCUIT BREAKER, TRIP RATING SHOWN, 3–POLE UNLESS NOTED
- FUSE, CURRENT LIMITING, RATING AS SHOWN
- TRANSFORMER, RATINGS AS SHOWN
- M — 10 HP — ELECTRIC MOTOR, HORSEPOWER SHOWN
- MOTOR STARTER, SIZE AS SHOWN OR REQUIRED. FVNR UNLESS NOTED
- H O A — HAND–OFF–AUTO STARTER CONTROLS
- VARIABLE FREQUENCY DRIVE
- 4–4" — DUCT BANK, IDENTIFIER SHOWN. REFER TO DUCT BANK SCHEDULE FOR SIZE AND CONFIGURATION.
- 3/4" x 10' COPPER CLAD GROUND ROD
- SA — SURGE ARRESTOR
- G — * kW — GENERATOR
- ATS/BP/IS 3P400 — ATS
- WEATHERHEAD
- CABLE CONNECTION
- K — K1 — KIRK KEY INTERLOCK
- CLOSE TWO OUT OF THREE
- INTERCEPT CONDUIT. PULL NEW FEEDER THE ENTIRE LENGTH OF CIRCUIT.
- XXX — LIGHT FIXTURE NUMBER

2(3#8 + 1#8 + 1#10EG) 3/4" GRS

- CONDUIT TYPE (SEE ABBREVIATIONS) REFER TO SPECIFICATIONS IF NOT SHOWN
- CONDUIT SIZE
- GROUNDING (GROUND) CONDUCTOR, NUMBER AND SIZE
- GROUNDED (NEUTRAL) CONDUCTOR, NUMBER AND SIZE
- PHASE (HOT) CONDUCTOR, NUMBER AND SIZE
- NUMBER OF SETS

LINE TYPES

- ——— FURNISH + INSTALL NEW
- ····· FURNISH + INSTALL NEW

GENERAL NOTES:

1. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE UTILIZED ON THE PROJECT.

ABBREVIATIONS

A	AMP
ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLER UNIT
AIC	AMPS INTERRUPTING CAPACITY
AM	AMP–METER
ANN	ANNUNCIATOR
AP	AERIAL PRIMARY
AS	AERIAL SECONDARY
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
BFI	BLOWN FUSE INDICATOR
BKR	BREAKER
C	CONDUIT
CGRS	PVC COATED GALVANIZED RIGID STEEL
CKT	CIRCUIT
COM	COMMON
CONT	CONTINUOUS
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CORD SET
CU	COEFFICIENT OF UTILIZATION
CU	CONDENSING UNIT
DEB	DIRECT EARTH BURIED
EC	EMPTY OR EMBEDDED CONDUIT
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
EGC	EQUIPMENT GROUND CONDUCTOR
EL	ELEVATION
EMT	ELECTRICAL METALLIC TUBING
ETM	ELASPED TIME METER
FA	FIRE ALARM
FAP	FIRE ALARM PANEL
FC	FAN COIL
FLR	FLOOR
FOC	FIBER OPTIC CABLE
FS	FLOAT SWITCH
FT	FEET
FVNR	FULL VOLTAGE NON–REVERSING STARTER
FVR	FULL VOLTAGE REVERSING STARTER
G	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HOA	HAND–OFF–AUTO
HP	HORSEPOWER OR HEAT PUMP
HR	HOUR
JB	JUNCTION BOX
kVA	KILOVOLT–AMPERE
kVAR	KILOVOLT–AMPERE, REACTIVE
kW	KILOWATT
L	LINE (PHASE)
LA	LIGHTNING ARRESTOR
L.O.	LUGS ONLY
LSI	LONG–TIME, SHORT–TIME, INSTANTANEOUS TRIP UNIT
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MM	MAINTENANCE MODE (ENERGY–REDUCING MAINTENANCE SWITCHING WITH LOCAL STATUS)
MS	MOTOR STARTER
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NFDS	NON–FUSED DISCONNECT SWITCH
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHEAD
OL	OVERLOAD
OPGP	OFFICE PRINCIPAL GROUND POINT
PB	PUSH BUTTON
PDSC	POWER DISTRIBUTION SERVICES CABINET
PEC	PHOTO ELECTRIC CELL
PF	POWER FACTOR
PFR	POWER FAIL RELAY
PL	PILOT LIGHT
PMR	PHASE MONITOR RELAY
PNL	PANEL
PTT	PUSH–TO–TEST
PVC	SCHEDULE 40 POLYVINYL CONDUIT
RECPT	RECEPTACLE
RM	ROOM
RVAT	REDUCED VOLTAGE AUTO–TRANSFORMER STARTER
S	SECOND
SA	SURGE ARRESTER
SDBC	SOFT DRAWN BARE COPPER
SE	SERVICE ENTRANCE
SHT	SHEET
SN	SOLID NEUTRAL
SS	STAINLESS STEEL
STA	STATION
SW	SWITCH
TC	TIME CLOCK
TEL	TELEPHONE
TD	TIME DELAY
TDD	TIME DELAY ON DE–ENERGIZATION
TDE	TIME DELAY ON ENERGIZATION
TYP	TYPICAL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
UG	UNDER GROUND
UH	UNIT HEATER
UP	UNDERGROUND PRIMARY
US	UNDERGROUND SECONDARY
VA	VOLT–AMP
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLT–METER
W	WATT OR WIRE
WH	WEATHER HEAD
WM	WATT METER
WP	WEATHERPROOF
W/	WITH
XMFR	TRANSFORMER

CONTROL SCHEMATIC LEGEND

- WIRING WITHIN PANEL
- WIRING TO FIELD DEVICE
- PUSHBUTTON SWITCH, NORMALLY OPEN
- PUSHBUTTON SWITCH, NORMALLY CLOSED
- SELECTOR SWITCH, NUMBER OF POSITIONS AND CONTACTS AS SHOWN
- RELAY CONTACT, NORMALLY OPEN
- RELAY CONTACT, NORMALLY CLOSED
- TIME DELAY CONTACT, CLOSE ON ENERGIZATION
- TIME DELAY CONTACT, OPEN ON ENERGIZATION
- TIME DELAY CONTACT, OPEN ON DE–ENERGIZATION
- TIME DELAY CONTACT, CLOSE ON DE–ENERGIZATION
- LEVEL SWITCH
- PRESSURE SWITCH
- LIMIT SWITCH CONTACT, NORMALLY OPEN
- LIMIT SWITCH CONTACT, NORMALLY CLOSED
- LIMIT SWITCH CONTACT, HELD OPEN
- LIMIT SWITCH CONTACT, HELD CLOSED
- RELAY COIL, "TR" INDICATES "TIMING RELAY"
- PILOT LIGHT; "A" INDICATES "AMBER LENS" "G" INDICATES "GREEN LENS" "R" INDICATES "RED LENS"
- SOLENOID
- ETM — ELAPSED TIME METER
- TERMINAL BLOCK
- ELECTRICAL CONNECTION
- FUSE, AMPERE RATING AS SHOWN OR REQUIRED "BFI" INDICATES "BLOWN FUSE INDICATOR" TYPE
- GROUND CONNECTION TO ENCLOSURE GROUND BAR

STATE OF ARKANSAS — 2-17-20 — LICENSED PROFESSIONAL ENGINEER — BENJAMIN H. RAINWATER — No. 18640

P:\PRODUCTION\PROJECTS\MCCLELLAND CONSULTING ENGINEERS\MCE-113 SARACEN CASINO ROADWAY LIGHTING\DWG\E01_LEGEND.DWG
2/17/2020 10:10 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E2	

LIGHTING CALCULATION PHOTOMETRIC RESULTS

LOCATION	AVG.	UNIFORMITY(AVG./MIN.)
HWY 63 ROUNDABOUT	2.1	2.3
HWY 63 WEST OF ROUNDABOUT	0.9	3.0
HWY 63 EAST OF ROUNDABOUT	1.2	3.0
NORTH OF ROUNDABOUT	1.3	2.6
FRONTAGE ROAD	1.0	2.5
HWY 65 (POLES 46-49)	1.1	2.8
HWY 65 (POLES 38-45)	1.1	2.8

JUNCTION BOX LOCATIONS ARE SCHEMATIC IN NATURE. COORDINATE FINAL JUNCTION BOX LOCATIONS WITH POLE BASE, SIDEWALK, AND OTHER OBSTRUCTIONS AT EACH POLE LOCATION. (TYPICAL)

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#1 CIR. #21, 23

SERVICE TRANSFORMER TX-1 (BY ELECTRIC UTILITY)

2-2" SCHEDULE 80 CONDUIT FOR PRIMARY SERVICE CABLES. PRIMARY CABLES BY ELECTRIC UTILITY.

SERVICE EQUIPMENT SHALL BE LOCATED OUTSIDE OF HIGHWAY CLEARZONE. COORDINATE WITH ELECTRIC UTILITY FOR SERVICE.

CP#1 COMMERCIAL PEDESTAL METERED SWITCHED LOAD CENTER. SEE DETAILS.

1-1/2" PVC CONDUIT WITH 2C/#6 & 1C/#6 EGC FOR CP#1 CIR. #17, 19

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#1 CIR. #18, 20

1-1/2" PVC CONDUIT WITH 2C/#6 & 1C/#6 EGC FOR CP#1 CIR. #22, 24

GENERAL NOTES:

1. ALL POLE BASES SHALL BE BREAKAWAY TYPE.
2. POLES AT ROUNDABOUT SHALL BE LOCATED 8'-9" FROM BACK OF CURB.
3. POLES AT LOCATIONS OTHER THAN ROUNDABOUT SHALL BE LOCATED 15' FROM EDGE OF ROADWAY.
4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC UTILITY FOR UTILITY SERVICE TO EACH CONTROL PEDESTAL LOCATION. OVERHEAD DISTRIBUTION TO THE CONTROL PEDESTAL LOCATIONS MAY NOT BE EXISTING.
5. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY TO FURNISH AND INSTALL CONDUIT AND WIRE AS SHOWN ON PLANS. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND COORDINATE WORK WITH ALL EXISTING AND NEW DRAINAGE STRUCTURES, ROADWAYS, UNDERGROUND UTILITIES, AND OTHER EXISTING OR NEW CONDITIONS.
6. GENERAL NOTES SHALL APPLY TO ALL SUBSEQUENT LIGHTING PLANS.
7. CONDUIT BETWEEN JUNCTION BOXES SHALL BE AS INDICATED ON DRAWINGS. CONDUIT BETWEEN JUNCTION BOX AND LIGHT POLE BASE AS INDICATED ON LIGHT POLE BASE DETAIL.

MATCHLINE "A"

MATCHLINE "B"

MATCHLINE "C"

1 E2 ELECTRICAL ROADWAY LAYOUT I

SCALE: 1" = 50'

50 25 0 50 100 150

SCALE: 1" = 50'

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640
2-17-20

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2/17/2020 10:13 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED
02/17/2020			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		19-57-08	E3	

2

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
No. 18640
BENJAMIN H. RAINWATER

S1 — 10 — P10, 15+14.30 32.25' LT.

PC 16+18.04

S1 — 11 — P11, 16+88.16 32.92' LT.

PI 16+99.62

JUNCTION BOX LOCATIONS ARE SCHEMATIC IN NATURE. COORDINATE FINAL JUNCTION BOX LOCATIONS WITH POLE BASE, SIDEWALK, AND OTHER OBSTRUCTIONS AT EACH POLE LOCATION. (TYPICAL)

PT 17+80.47

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#1 CIR. #21, 23

P8, 23+17.59 163.05' LT. — S4 — 8

MATCHLINE "B"

P12, 24+15.68 122.5... — S4

MATCHLINE "A"

S4 — 7

12

P13, 25+17.45 40.63' LT. — S4 — 13

S3 — P17, 27+04.82 44.50' RT. — 17

S3 — P18, 28+61.88 36.61' RT. — 18

S3 — P19, 30+28.13 30.59' RT. — 19

S1 — P20, 31+78.45 30.59' RT. — 20

S1 — P21, 33+36.78 30.59' RT. — 21

S1 — P22, 34+99.78 27.66' RT. — 22

S4 — P16, 24+77.48 67.89' RT. — 16

MATCHLINE "B"

S4 — P15, 23+63.19 68.12' RT.

PC 22+04.62 — 15

PI 22+33.40

PCC 22+62.02

1-1/2" PVC CONDUIT WITH 2C/#6 & 1C/#6 EGC FOR CP#1 CIR. #22, 24

1/E3 ELECTRICAL ROADWAY LAYOUT II
SCALE: 1" = 50'

50 25 0 50 100 150

SCALE: 1" = 50'

N

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2/17/2020 10:17 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E4	

2

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
No. 18640
BENJAMIN H. RAINWATER

JUNCTION BOX LOCATIONS ARE SCHEMATIC IN NATURE. COORDINATE FINAL JUNCTION BOX LOCATIONS WITH POLE BASE, SIDEWALK, AND OTHER OBSTRUCTIONS AT EACH POLE LOCATION. (TYPICAL)

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#1 CIR. #21, 23

SERVICE TRANSFORMER TX-1 (BY ELECTRIC UTILITY)

2-2" SCHEDULE 80 CONDUIT FOR PRIMARY SERVICE CABLES. PRIMARY CABLES BY ELECTRIC UTILITY.

CP#1 COMMERCIAL PEDESTAL METERED SWITCHED LOAD CENTER. SEE DETAILS.

1-1/2" PVC CONDUIT WITH 2C/#6 & 1C/#6 EGC FOR CP#1 CIR. #17, 19

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#1 CIR. #18, 20

1-1/2" PVC CONDUIT WITH 2C/#6 & 1C/#6 EGC FOR CP#1 CIR. #22, 24

MATCHLINE "A"

MATCHLINE "B"

PC 16+18.04

PT 17+80.47

PI 16+99.62

PI 22+33.40

PC 22+04.62

PCC 22+62.02

PCC 41+18.23

PC 40+00.00

PI 28+57.78

PCC 25+92.22

PCC 43+84.97

PI 45+69.71

1 E4 **ELECTRICAL ROADWAY LAYOUT III**
SCALE: 1" = 50'

50 25 0 50 100 150
SCALE: 1" = 50'

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2/17/2020 10:19 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E5	
				(2)				

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
No. 18640
BENJAMIN H. RAINWATER

GENERAL NOTE:

1. LIGHTING FOR THIS SECTION OF CASINO ENTRANCE ROADWAY IS INCLUDED IN A DIFFERENT PROJECT.

MATCHLINE "C"

PCC 30+94.02

1-1/2" PVC CONDUIT WITH 2C/#6 & 1C/#6 EGC FOR CP#1 CIR. #17, 19

PRC 37+72.73

PI 39+44.01

PT 41+01.39

PC 50+58.49

PT 53+19.11

PC 55+69.87

PI 52+35.83

MATCHLINE "D"

46 47 48 49

S3 S3 S3 S3

PI 35+24.28

JUNCTION BOX LOCATIONS ARE SCHEMATIC IN NATURE. COORDINATE FINAL JUNCTION BOX LOCATIONS WITH POLE BASE, SIDEWALK, AND OTHER OBSTRUCTIONS AT EACH POLE LOCATION. (TYPICAL)

(1) E5 ELECTRICAL ROADWAY LAYOUT IV

SCALE: 1" = 50'

50 25 0 50 100 150

SCALE: 1" = 50'

MATCHLINE "D"

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2/17/2020 10:22 AM

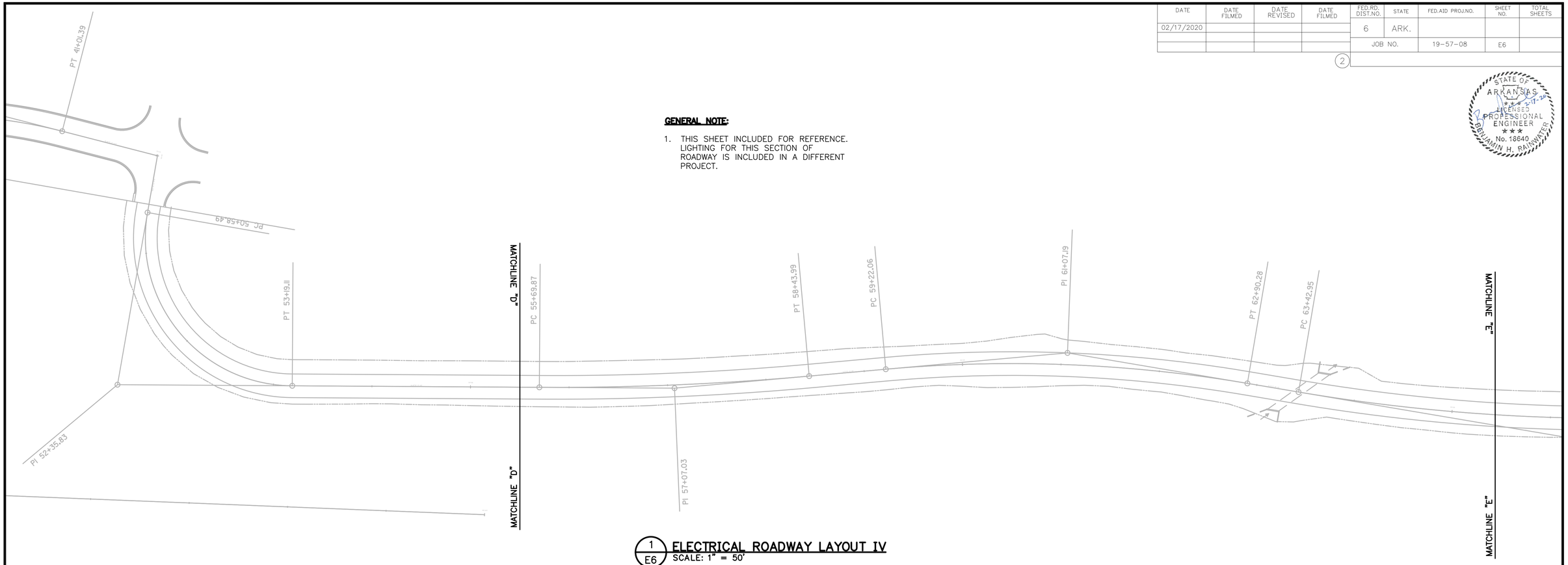
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E6	

(2)

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
No. 18640
BENJAMIN H. RAINWATER

GENERAL NOTE:

1. THIS SHEET INCLUDED FOR REFERENCE. LIGHTING FOR THIS SECTION OF ROADWAY IS INCLUDED IN A DIFFERENT PROJECT.



1/E6 ELECTRICAL ROADWAY LAYOUT IV
SCALE: 1" = 50'

50 25 0 50 100 150

SCALE: 1" = 50'

N

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2/3/2020 7:51 PM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E7	
				(2)				

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640

PT 18+68.61
PCC 15+93.90
PI 23+78.42
PC 11+50.96
PT 69+15.27
PC 71+14.37
PI 72+58.89
PT 74+02.85
PC 78+41.02
PI 66+31.27

MATCHLINE "E"
MATCHLINE "E"
MATCHLINE "G"
MATCHLINE "G"

PE3, 76+18.16 27.00' LT.
PE2, 77+65.98 27.00' LT.
PE1, 79+74.59 27.00' LT.

L1A
S1
1
23
24
25

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#3 CIR. #18, 20

KEYED NOTES:

1. FIXTURE 23 NOT INCLUDED IN LIGHTING CALCULATIONS. FIXTURE TYPE AND LOCATION PER CASINO PARKING LOT AND ENTRANCE SPECIFICATIONS.

1/E7 **ELECTRICAL ROADWAY LAYOUT VI**
SCALE: 1" = 50'

50 25 0 50 100 150
SCALE: 1" = 50'

N

P:\PRODUCTION\PROJECTS\MCCLELLAND CONSULTING ENGINEERS\MCE-113 SARACEN CASINO ROADWAY LIGHTING\DWG\E07_ELECTRICAL ROADWAY LAYOUT VI.DWG
2/17/2020 10:24 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E8	

2

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640

CP#3 COMMERCIAL PEDESTAL METERED SWITCHED LOAD CENTER. SEE DETAILS.

SERVICE TRANSFORMER TX-3 (BY ELECTRIC UTILITY)

2-2" SCHEDULE 80 CONDUIT FOR PRIMARY SERVICE CABLES. PRIMARY CABLES BY ELECTRIC UTILITY.

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#3 CIR. #17, 19

JUNCTION BOX LOCATIONS ARE SCHEMATIC IN NATURE. COORDINATE FINAL JUNCTION BOX LOCATIONS WITH POLE BASE, SIDEWALK, AND OTHER OBSTRUCTIONS AT EACH POLE LOCATION. (TYPICAL)

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#3 CIR. #18, 20

SERVICE EQUIPMENT SHALL BE LOCATED OUTSIDE OF HIGHWAY CLEARZONE. COORDINATE WITH ELECTRIC UTILITY FOR SERVICE.

MATCHLINE "G"

MATCHLINE "H"

PI 80+42.67

PT 82+19.25

PC 85+88.13

PI 87+20.65

PT 88+52.00

PC 92+12.39

PT 94+74.60

PI 93+44.07

25 26 27 28 29 30 31 32

S1

PED. 79+74.59 67.99' LT.

PED. 81+29.26 67.99' LT.

PED. 82+09.27 67.99' LT.

PED. 85+47.24 67.99' LT.

PED. 87+54.87 67.99' LT.

PED. 89+48.25 67.99' LT.

PED. 91+97.31 67.99' LT.

PED. 94+08.19 34.00' LT.

1 E8 ELECTRICAL ROADWAY LAYOUT VII

SCALE: 1" = 50'

50 25 0 50 100 150

SCALE: 1" = 50'

P:\PRODUCTION\PROJECTS\MCCLELLAND CONSULTING ENGINEERS\MCE-113 SARACEN CASINO ROADWAY LIGHTING\DWG\E08_ELECTRICAL ROADWAY LAYOUT VII.DWG
2/17/2020 10:25 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E9	

2

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640

JUNCTION BOX LOCATIONS ARE SCHEMATIC IN NATURE. COORDINATE FINAL JUNCTION BOX LOCATIONS WITH POLE BASE, SIDEWALK, AND OTHER OBSTRUCTIONS AT EACH POLE LOCATION. (TYPICAL)

MATCHLINE "H"

MATCHLINE "H"

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#3 CIR. #17, 19

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#4 CIR. #18, 20

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#4 CIR. #17, 19

1" PVC CONDUIT WITH 2C/#8 & 1C/#8 EGC FOR CP#4 CIR. #21, 23

CP#4 COMMERCIAL PEDESTAL METERED SWITCHED LOAD CENTER. SEE DETAILS.

SERVICE TRANSFORMER TX-4 (BY ELECTRIC UTILITY)

2-2" SCHEDULE 80 CONDUIT FOR PRIMARY SERVICE CABLES. PRIMARY CABLES BY ELECTRIC UTILITY.

SERVICE EQUIPMENT SHALL BE LOCATED OUTSIDE OF HIGHWAY CLEARZONE. COORDINATE WITH ELECTRIC UTILITY FOR SERVICE.

PC 96+64.88

PT 98+76.44

PC 100+73.39

PI 101+44.67

102+15.69

PC 103+35.56

PI 104+35.56

PT 104+94.24

PT 97+70.85

33 34 35 36 37 38 39 40 41 42 43 44 45

S1 S3

P23, 25+25.31, 48.00' LT.
P24, 97+30.43, 47.40' LT.
P25, 100+00.00, 48.00' LT.
P26, 101+64.40, 48.00' LT.
P37, 103+48.27, 38.00' LT.
P28, 17+78.77, 48.00' LT.
P29, 19+11.72, 50.00' LT.
P44, 20+68.91, 53.00' LT.
P45, 22+36.71, 53.00' LT.
P40, 11+69.93, 48.00' LT.
P41, 12+75.88, 48.00' LT.
P42, 14+27.84, 48.00' LT.
P43, 15+79.79, 48.00' LT.

1 / E9 ELECTRICAL ROADWAY LAYOUT VIII
SCALE: 1" = 50'

50 25 0 50 100 150

SCALE: 1" = 50'

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2/17/2020 10:26 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E10	

2

STATE OF ARKANSAS
2-17-20
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640

UN-SWITCHED LOAD CENTER #1 LAYOUT

VOLTS 120/240 Φ 1 W 3 — CAT. NO. MILBANK CP3B51110A22SL1, OR EQUAL.
MAIN: 100A — LOCATION:
SOURCE: FROM METER
MOUNT: PEDESTAL BKR. SPACES 16 — FEEDER AMPS 100A — ENCLOSURE: NEMA 3R

LOAD DESCRIPTION	WIRE SIZE	CIR	BKR	BKR	CIR	WIRE SIZE	LOAD DESCRIPTION
M1 FROM METER (MAIN DISC.)	#3	1	2P	20	2	#12	PHOTOCELL CONTROL CIRCUIT
		3	100	20	8	#12	GFI DUPLEX OUTLET (LOCAL)
SPARE CIRCUIT BREAKER		5	2P	2P	4	#6	C1 TO SWITCHED LOAD CENTER
		7	60	60	6		
FUTURE SPACE		9		2P	10		SURGE ARRESTER DEVICE
FUTURE SPACE		11		60	12		
FUTURE SPACE		13			14		FUTURE SPACE
FUTURE SPACE		15			16		FUTURE SPACE

NOTE:
FURNISH AND INSTALL BREAKERS AS SHOWN.

SWITCHED LOAD CENTER #1 LAYOUT (CONTACTOR CONTROLLED)

VOLTS 120/240 Φ 1 W 3 — CAT. NO. MILBANK CP3B51110A22SL1, OR EQUAL.
SOURCE FROM UN-SWITCHED LOAD CENTER — LOCATION:
MOUNT: PEDESTAL BKR. SPACES 16 — FEEDER AMPS 100A — ENCLOSURE: NEMA 3R

LOAD DESCRIPTION	WIRE SIZE	CIR	BKR	BKR	CIR	WIRE SIZE	LOAD DESCRIPTION
POLE LIGHTS 46-49 (1164 VA)	#6	17	2P	2P	18	#8	POLE LIGHTS 1-6 (1219 VA)
		19	20	20	20		
POLE LIGHTS 7-13 (2146 VA)	#8	21	2P	2P	22	#6	POLE LIGHTS 14-22 (2631 VA)
		23	20	20	24		
FUTURE SPACE		25			26		FUTURE SPACE
FUTURE SPACE		27			28		FUTURE SPACE
FUTURE SPACE		29			30		FUTURE SPACE
FUTURE SPACE		31			32		FUTURE SPACE

NOTE:
FURNISH AND INSTALL BREAKERS AS SHOWN.

C1 LOAD

SCHEMATIC - COMMERCIAL PEDESTAL #1

UN-SWITCHED LOAD CENTER #3 LAYOUT

VOLTS 120/240 Φ 1 W 3 — CAT. NO. MILBANK CP3B51110A22SL1, OR EQUAL.
MAIN: 100A — LOCATION:
SOURCE: FROM METER
MOUNT: PEDESTAL BKR. SPACES 16 — FEEDER AMPS 100A — ENCLOSURE: NEMA 3R

LOAD DESCRIPTION	WIRE SIZE	CIR	BKR	BKR	CIR	WIRE SIZE	LOAD DESCRIPTION
M1 FROM METER (MAIN DISC.)	#3	1	2P	20	2	#12	PHOTOCELL CONTROL CIRCUIT
		3	100	20	8	#12	GFI DUPLEX OUTLET (LOCAL)
SPARE CIRCUIT BREAKER		5	2P	2P	4	#6	C1 TO SWITCHED LOAD CENTER
		7	60	60	6		
FUTURE SPACE		9		2P	10		SURGE ARRESTER DEVICE
FUTURE SPACE		11		60	12		
FUTURE SPACE		13			14		FUTURE SPACE
FUTURE SPACE		15			16		FUTURE SPACE

NOTE:
FURNISH AND INSTALL BREAKERS AS SHOWN.

SWITCHED LOAD CENTER #3 LAYOUT (CONTACTOR CONTROLLED)

VOLTS 120/240 Φ 1 W 3 — CAT. NO. MILBANK CP3B51110A22SL1, OR EQUAL.
SOURCE FROM UN-SWITCHED LOAD CENTER — LOCATION:
MOUNT: PEDESTAL BKR. SPACES 16 — FEEDER AMPS 100A — ENCLOSURE: NEMA 3R

LOAD DESCRIPTION	WIRE SIZE	CIR	BKR	BKR	CIR	WIRE SIZE	LOAD DESCRIPTION
POLE LIGHTS 27-34 (1584 VA)	#8	17	2P	2P	18	#8	POLE LIGHTS 23-26 (828 VA)
		19	20	20	20		
SPARE CIRCUIT BREAKER		21	2P	2P	22		SPARE CIRCUIT BREAKER
		23	20	20	24		
FUTURE SPACE		25			26		FUTURE SPACE
FUTURE SPACE		27			28		FUTURE SPACE
FUTURE SPACE		29			30		FUTURE SPACE
FUTURE SPACE		31			32		FUTURE SPACE

NOTE:
FURNISH AND INSTALL BREAKERS AS SHOWN.

C1 LOAD

SCHEMATIC - COMMERCIAL PEDESTAL #3

1 E10 **ELECTRICAL SCHEDULES**
SCALE: NONE

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2/17/2020 10:28 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E11	

(2)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640
2-17-20

UN-SWITCHED LOAD CENTER #4 LAYOUT

VOLTS 120/240 Φ 1 W 3 — CAT. NO. MILBANK CP3B51110A22SL1, OR EQUAL.
MAIN: 100A — LOCATION:
SOURCE: FROM METER
MOUNT: PEDESTAL BKR. SPACES 16 — FEEDER AMPS 100A — ENCLOSURE: NEMA 3R

LOAD DESCRIPTION	WIRE SIZE	CIR	BKR	BKR	CIR	WIRE SIZE	LOAD DESCRIPTION
M1 FROM METER (MAIN DISC.)	#3	1	2P	20	2	#12	PHOTOCELL CONTROL CIRCUIT
		3	100	20	8	#12	GFI DUPLEX OUTLET (LOCAL)
SPARE CIRCUIT BREAKER		5	2P	2P	4	#6	C1 TO SWITCHED LOAD CENTER
		7	60	60	6		
FUTURE SPACE		9		2P	10		SURGE ARRESTER DEVICE
FUTURE SPACE		11		60	12		
FUTURE SPACE		13			14		FUTURE SPACE
FUTURE SPACE		15			16		FUTURE SPACE

NOTE:
FURNISH AND INSTALL BREAKERS AS SHOWN.

SWITCHED LOAD CENTER #4 LAYOUT (CONTACTOR CONTROLLED)

VOLTS 120/240 Φ 1 W 3 — CAT. NO. MILBANK CP3B51110A22SL1, OR EQUAL.
SOURCE FROM UN-SWITCHED LOAD CENTER — LOCATION:
MOUNT: PEDESTAL BKR. SPACES 16 — FEEDER AMPS 100A — ENCLOSURE: NEMA 3R

LOAD DESCRIPTION	WIRE SIZE	CIR	BKR	BKR	CIR	WIRE SIZE	LOAD DESCRIPTION
POLE LIGHTS 39-43 (1455 VA)	#8	17	2P	2P	18	#8	POLE LIGHTS 35-38 (978 VA)
		19	20	20	20		
POLE LIGHTS 44-45 (582 VA)	#8	21	2P	2P	22		SPARE
		23	20	20	24		
FUTURE SPACE		25			26		FUTURE SPACE
FUTURE SPACE		27			28		FUTURE SPACE
FUTURE SPACE		29			30		FUTURE SPACE
FUTURE SPACE		31			32		FUTURE SPACE

NOTE:
FURNISH AND INSTALL BREAKERS AS SHOWN.

C1 LOAD

SCHEMATIC - COMMERCIAL PEDESTAL #4

(1 E11) **ELECTRICAL SCHEDULES**
SCALE: NONE

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2/17/2020 10:28 AM

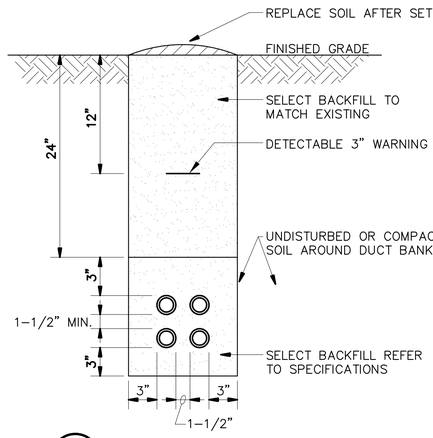
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
02/17/2020				6	ARK.			
				JOB NO.		19-57-08	E12	

2

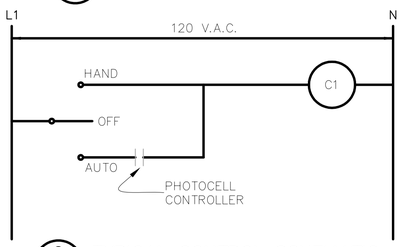
LIGHTING -- FIXTURE SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	DESCRIPTION	LAMP TYPE	FIXTURE WATTAGE	VOLTAGE	POLE TYPE	ARM TYPE	COMMENTS
S1	AMERICAN ELECTRIC LIGHTING	ATB2 40BLEDE15 MVOLT 3K R2 COLOR MP HK SH XX	TYPE 2 SINGLE HEAD, **4000K COLOR TEMPERATURE**	LED	198 W	240 V	39' - RTS3978BP2NDBK TBASE RFD309712	6" - BR1055 COLOR	FURNISH AND INSTALL DUAL IN-LINE FUSE
S2	AMERICAN ELECTRIC LIGHTING	ATB0 30BLEDE15 MVOLT 3K R4 COLOR MP HK SH XX	TYPE 4 SINGLE HEAD, **4000K COLOR TEMPERATURE**	LED	145 W	240 V	39' - RTS3978BP2NDBK TBASE RFD309712	6" - BR1055 COLOR	FURNISH AND INSTALL DUAL IN-LINE FUSE
S3	AMERICAN ELECTRIC LIGHTING	ATB2 60BLEDE15 MVOLT 3K R4 COLOR MP HK SH XX	TYPE 4 SINGLE HEAD, **4000K COLOR TEMPERATURE**	LED	291 W	240 V	39' - RTS3978BP2NDBK TBASE RFD309712	6" - BR1055 COLOR	FURNISH AND INSTALL DUAL IN-LINE FUSE
S4	AMERICAN ELECTRIC LIGHTING	ATB2 80BLEDE15 MVOLT 3K R4 COLOR MP HK SH XX	TYPE 4 SINGLE HEAD, **4000K COLOR TEMPERATURE**	LED	388 W	240 V	39' - RTS3978BP2NDBK TBASE RFD309712	6" - BR1055 COLOR	FURNISH AND INSTALL DUAL IN-LINE FUSE
L1A	ARRLUX	SLB240-T4M-30K-GR-ADAPTOR BRACKET; TYPE 3	SINGLE HEAD, **4000K COLOR TEMPERATURE**	LED	234 W	240 V	KW RSP30-4.0-11-GRAY-DM3120-CPL-XHH-BC		FURNISH AND INSTALL DUAL IN-LINE FUSE; MATCH EXISTING FIXTURES

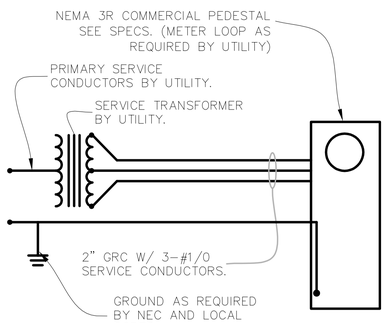
NOTE: FIXTURES SHALL BE SUPPLIED WITH SHORTING CAPS. LIGHTING CIRCUITS SHALL BE CONTROLLED VIA POWER PEDESTAL PHOTOCELL.



1 E12 **TRENCH DETAIL**
SCALE: NONE



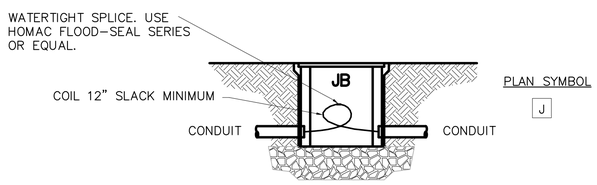
2 E12 **TYPICAL CONTROL SCHEMATIC**
SCALE: NONE



3 E12 **TYPICAL POWER SCHEMATIC**
SCALE: NONE

ELECTRICAL DUCT NOTES:

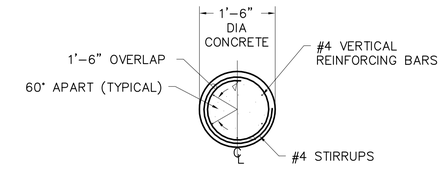
1. CONTRACTOR SHALL STAKE THE DUCT INSTALLATION IN PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES.
2. CONTRACTOR SHALL ADJUST THE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING UTILITIES.
3. SIMILAR CONSTRUCTION FOR OTHER DUCT SIZES. SEE DUCT BANK SCHEDULE FOR QUANTITY AND SIZES.
4. INSTALL DUCT CONDUIT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING (TYPICAL ALL DUCTS).
5. OFFSETS AND BENDS OVER 10 DEGREES AND ELBOWS IN PVC CONDUIT RUNS SHALL BE GALVANIZED RIGID STEEL CONDUIT.
6. NO PVC SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB OR ENCASEMENT, PVC SHALL CONVERT TO GALVANIZED RIGID STEEL CONDUIT PRIOR TO ITS EMERGENCE.
7. INSTALL GROUND RODS AT ENDS OF ELECTRICAL DUCT OR CONNECT TO GROUND RING BY EXOTHERMIC WELD.
8. INSTALL CONDUCTORS AND CABLES AS NOTED ON DRAWING. INSTALL PULLWIRE IN ALL SPARE DUCTS.
9. MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS, DRIVEWAYS AND PARKING LOTS SHALL BE 24".
10. MINIMUM COVER REQUIREMENTS FOR ELECTRICAL SECONDARY SERVICE DUCT BANKS SHALL BE 30".
11. MINIMUM COVER REQUIREMENTS FOR ELECTRICAL PRIMARY SERVICE DUCT BANKS SHALL BE 36".



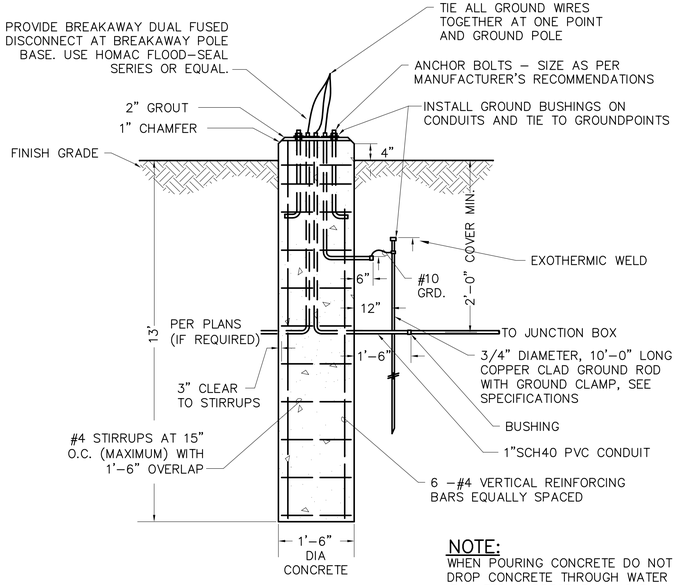
4 E12 **TYPICAL PULL BOX DETAIL**
SCALE: NONE

PULL BOX DETAIL NOTES:

1. **REFER TO ARDOT SD-06 STANDARD PULL BOX DETAIL INCLUDED IN PLANS FOR DETAILED INFORMATION.**
2. GROUND PULL POX WITH 3/4" x 10'-0" COPPERCLAD GROUND ROD VIA OPENING PER ARDOT SD-06 STANDARD PULL BOX DETAIL.
3. PROVIDE HANDHOLE WITH 2-2"C STUBOUTS IN EACH FACE, CAPPED WATERTIGHT. REFER TO PLANS FOR CONDUIT REQUIREMENTS AT EACH LOCATION.
4. PROVIDE MINIMUM 3' SLACK CABLE LOOP FOR EACH CABLE.
5. COLOR CODE, TAG AND IDENTIFY ALL CABLES IN HANDHOLE.
6. EXACT LOCATION OF EACH HANDHOLE SHALL BE APPROVED BY THE OWNER AND ENGINEER.



BASE PLAN



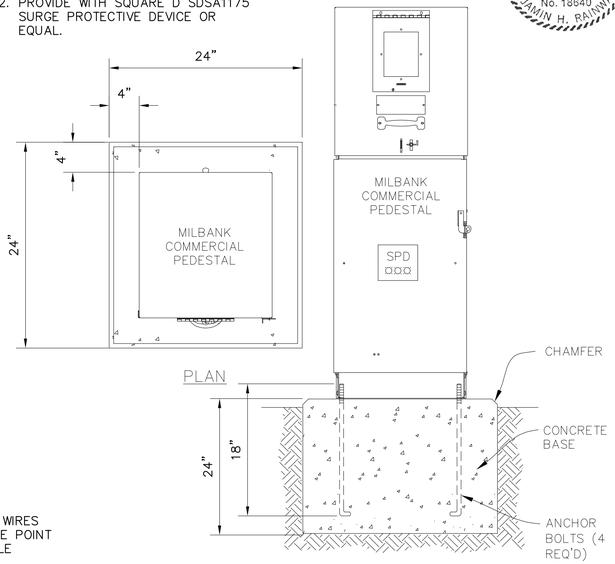
BASE ELEVATION

NOTE:
WHEN POURING CONCRETE DO NOT DROP CONCRETE THROUGH WATER IF WATER IS PRESENT IN HOLE.

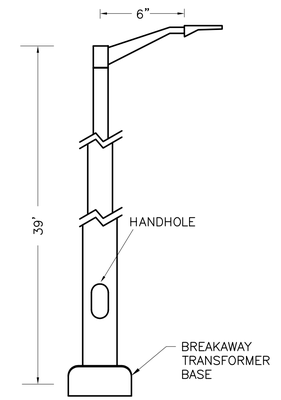
5 E12 **LIGHT POLE BASE DETAILS**
SCALE: N.T.S.

1. VERIFY BOLT CIRCLE AND MOUNTING WITH MANUFACTURER.
2. FURNISH AND INSTALL CONDUIT WITH CONDUCTORS AS SHOWN ON PLANS.
3. THE DISTANCE BETWEEN FINISHED GRADE AND TOP OF POLE FOUNDATION SHALL BE 4 INCHES.

1. PROVIDE PEDESTAL WITH HEADLIGHT SHIELD TO PREVENT FALSE TRIGGERING DUE TO HEADLIGHTS. ORIENT PHOTOCELL TO PREVENT FALSE TRIGGERING.
2. PROVIDE WITH SQUARE D SDSA1175 SURGE PROTECTIVE DEVICE OR EQUAL.



6 E12 **TYPICAL PEDESTAL MOUNTING DETAIL**
SCALE: NONE



7 E12 **LIGHT POLE DETAIL**
SCALE: NONE

NOTES:

1. REFER TO LIGHT FIXTURE SCHEDULE FOR FIXTURE, POLE, BREAKAWAY BASE, AND CONNECTIONS BASIS OF DESIGN.
2. SIZE BASE PLATE, CONNECTIONS, BOLTS, AND COVER PER MANUFACTURERS DETAILS.
3. REFER TO LIGHT FIXTURE SCHEDULE FOR POLE TYPE L1A. TYPE L1A NOT DEPICTED HERE.

STATE OF ARKANSAS
2/17/20
LICENSED PROFESSIONAL ENGINEER
BENJAMIN H. RAINWATER
No. 18640

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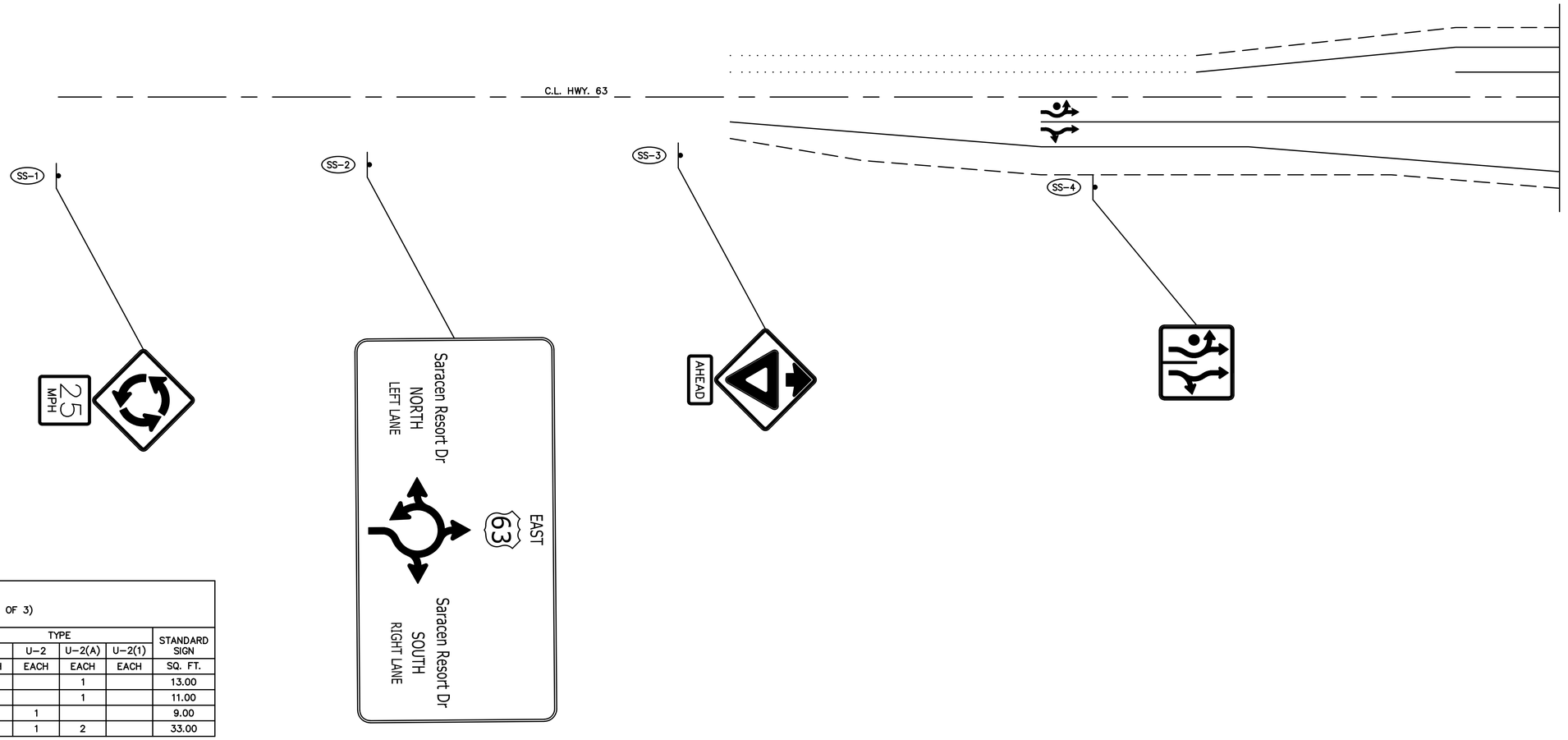
2/17/2020 11:17 AM

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	71	151

(2) SIGN PLACEMENT DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



STANDARD SIGNS U-CHANNEL POSTS (BOX 1 OF 3)							
SIGN NO.	STATION	OFFSET	TYPE				STANDARD SIGN
			U-1	U-2	U-2(A)	U-2(1)	
			EACH	EACH	EACH	EACH	SQ. FT.
SS-1	12+34.93	38.01' RT.			1		13.00
SS-3	15+34.93	28.13' RT.			1		11.00
SS-4	17+34.93	43.50' RT.		1			9.00
SUBTOTALS:				1	2		33.00

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.

SIGN NO.	STATION	OFFSET	I-BEAM STRUCTURE TYPE			STANDARD SIGN	GUIDE SIGN			I-BEAM BREAKAWAY SIGN SUPPORT											
										STEEL SECT. A-572		SIGN POST LENGTH			STUB POST			FOOTINGS			SIGN POST & STUB
			G-1	G-2	G-3	SQ. FT.	LENGTH	HEIGHT		BEAM	LBS	H-1	H-2	H-3	H-1	H-2	H-3	DIA.	DEPTH	EMBED.	
							LIN. FT.	LIN. FT.	SQ. FT.			LIN. FT.			LIN. FT.			LIN. FT.			LBS
SS-2	13+34.93	32.64' RT.		1			15.50	8.00	124.00	W8	18.00	17.75	19.25		5.67	5.67		3.00	8.00	5.33	870.12
SS-27	34+52.93	27.42' LT.		1			15.50	8.00	124.00	W8	18.00	17.75	19.25		5.67	5.67		3.00	8.00	5.33	870.12
TOTALS:				2					248.00												1740.24

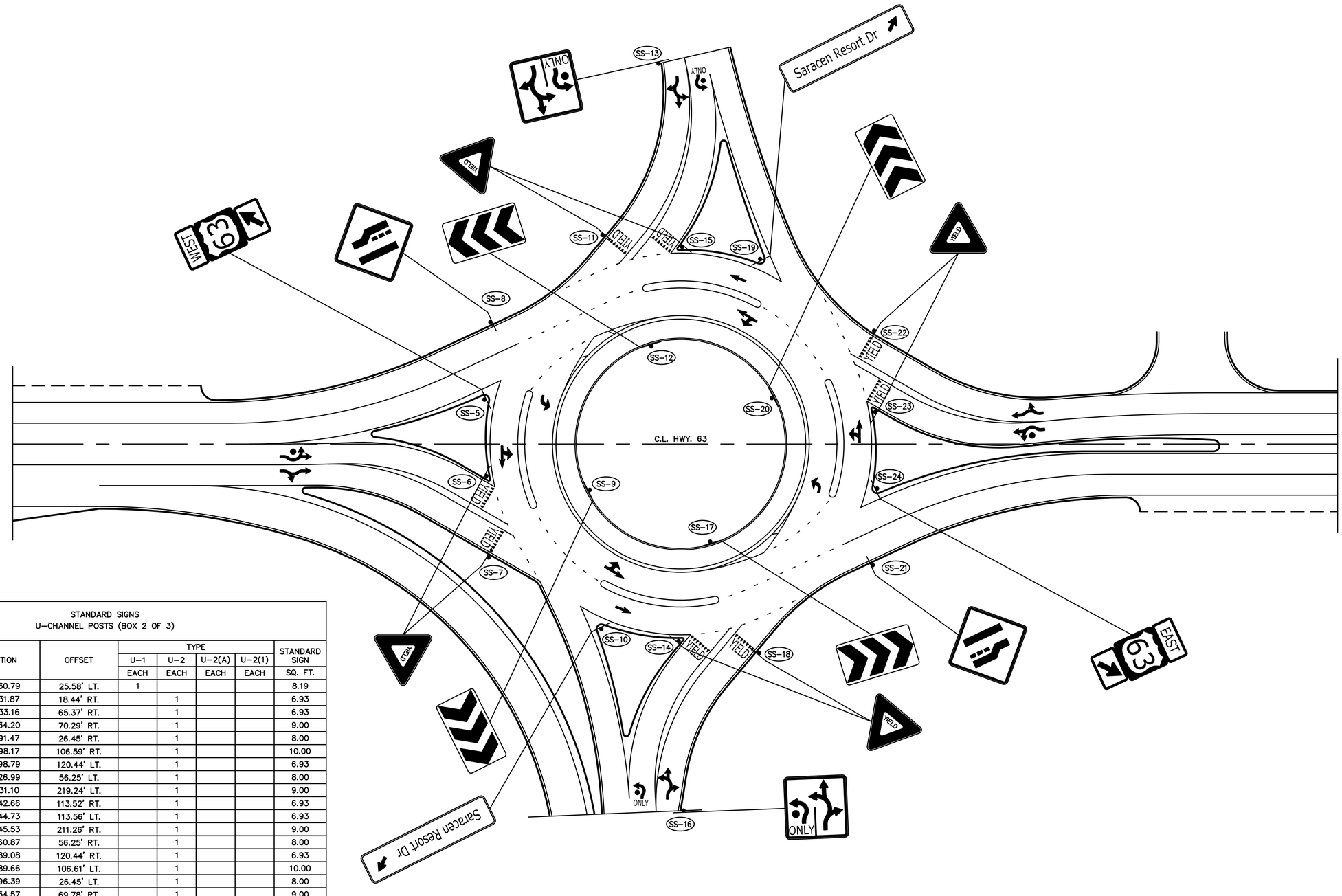
NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 2/3/20 at 5:02pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	72	151

(2) SIGN PLACEMENT DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020



STANDARD SIGNS
U-CHANNEL POSTS (BOX 2 OF 3)

SIGN NO.	STATION	OFFSET	TYPE				STANDARD SIGN
			U-1	U-2	U-2(A)	U-2(1)	
			EACH	EACH	EACH	EACH	SQ. FT.
SS-5	22+30.79	25.58' LT.	1				8.19
SS-6	22+31.87	18.44' RT.		1			6.93
SS-7	22+33.16	65.37' RT.		1			6.93
SS-8	22+34.20	70.29' RT.		1			9.00
SS-9	22+91.47	26.45' RT.		1			8.00
SS-10	22+98.17	106.59' RT.		1			10.00
SS-11	22+98.79	120.44' LT.		1			6.93
SS-12	23+26.99	56.25' LT.		1			8.00
SS-13	23+31.10	219.24' LT.		1			9.00
SS-14	23+42.66	113.52' RT.		1			6.93
SS-15	23+44.73	113.56' LT.		1			6.93
SS-16	23+45.53	211.26' RT.		1			9.00
SS-17	23+60.87	56.25' RT.		1			8.00
SS-18	23+89.08	120.44' RT.		1			6.93
SS-19	23+89.66	106.61' LT.		1			10.00
SS-20	23+96.39	26.45' LT.		1			8.00
SS-21	24+54.57	69.78' RT.		1			9.00
SS-22	24+55.34	65.25' LT.		1			6.93
SS-23	24+55.99	18.44' LT.		1			6.93
SS-24	24+57.06	25.65' RT.	1				8.19
SUBTOTALS:			2	18			159.82

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 2/3/20 at 5:03pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	73	151

(2) SIGN PLACEMENT DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

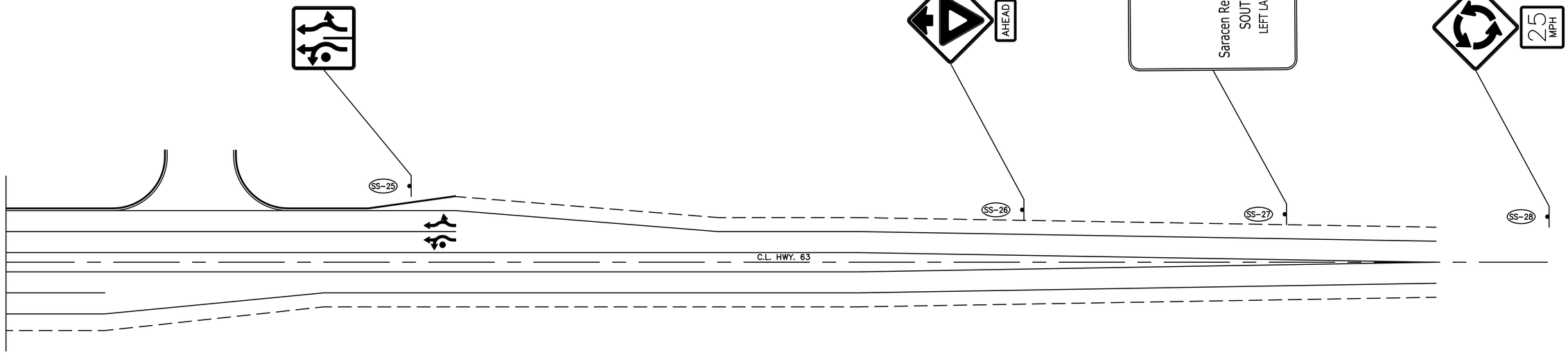
STANDARD SIGNS
U-CHANNEL POSTS (BOX 3 OF 3)

SIGN NO.	STATION	OFFSET	TYPE U-1 EACH	TYPE U-2 EACH	TYPE U-2(A) EACH	TYPE U-2(1) EACH	STANDARD SIGN SQ. FT.
SS-25	29+52.93	43.50' LT.		1			9.00
SS-26	33+02.93	29.92' LT.			1		11.00
SS-28	36+02.93	26.00' LT.			1		13.00
SUBTOTALS:				1	2		33.00
TOTALS:			2	20	4		225.82

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.

SIGN NO.	STATION	OFFSET	I-BEAM STRUCTURE TYPE G-1	G-2	G-3	STANDARD SIGN SQ. FT.	GUIDE SIGN LENGTH LIN. FT.	HEIGHT LIN. FT.	SQ. FT.	I-BEAM BREAKAWAY SIGN SUPPORT: STEEL SECT. A-572 BEAM	LBS	SIGN POST LENGTH H-1 LIN. FT.	H-2 LIN. FT.	H-3 LIN. FT.	STUB POST H-1 LIN. FT.	H-2 LIN. FT.	H-3 LIN. FT.	FOOTINGS DIA. LIN. FT.	DEPTH LIN. FT.	EMBED. LIN. FT.	SIGN POST & STUB LBS
SS-2	13+34.93	32.64' RT.		1			15.50	8.00	124.00	W8	18.00	17.75	19.25		5.67	5.67		3.00	8.00	5.33	870.12
SS-27	34+52.93	27.42' LT.		1			15.50	8.00	124.00	W8	18.00	17.75	19.25		5.67	5.67		3.00	8.00	5.33	870.12
TOTALS:				2					248.00												1740.24

NOTE: POINTS ARE BASED ON HWY. 63 ALIGNMENT.



W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 2/3/20 at 5:03pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	74	151

(2) SIGN PLACEMENT DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

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

LEGEND – RED (RETOREFLECTIVE)
BACKGROUND – WHITE (RETOREFLECTIVE)

SS-6
SS-7
SS-11
SS-14
SS-15
SS-18
SS-22
SS-23

W2-6 (36" X 36")

SYMBOL – BLACK
BACKGROUND – YELLOW (RETOREFLECTIVE)

SS-1
SS-28

R6-4a (48" X 24")

LEGEND – BLACK
BACKGROUND – WHITE (RETOREFLECTIVE)
NO BORDER

SS-9
SS-12
SS-17
SS-20

W13-1 (24" X 24")

SYMBOL – BLACK
BACKGROUND – YELLOW (RETOREFLECTIVE)

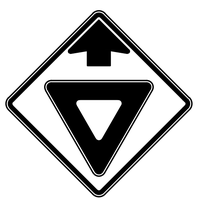
SS-1
SS-28

W16-9p (24" X 12")

SYMBOL – BLACK
BACKGROUND – YELLOW (RETROREFLECTIVE)

SS-3
SS-26

W2-2 (36" X 36")



BORDER & ARROW – BLACK
SYMBOL – WHITE BORDER / RED BACKGROUND (RETROREFLECTIVE)
BACKGROUND – YELLOW (RETROREFLECTIVE)

SS-3
SS-26

W4-2R (36" X 36")

SYMBOL – BLACK
BACKGROUND – YELLOW (RETROREFLECTIVE)

SS-8
SS-21

M3-4 (24" X 12")

LEGEND – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

SS-5

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 1/30/20 at 2:27pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	75	151

(2) SIGN PLACEMENT DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-29-2020

M3-2 (24" X 12")

LEGEND – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

SS-24

R3-8 (36" X 36")

LEGEND – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

SS-4
SS-25

M1-4 (24" X 24")

SHIELD – WHITE (RETROREFLECTIVE)
BACKGROUND – BLACK
NUMERALS – BLACK

SS-5
SS-24

R3-8 (36" X 36")

LEGEND – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

SS-13
SS-16

M6-2R (21" X 15")

LEGEND – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

SS-5
SS-24

D1-1d (80" X 18")

LEGEND, BORDER – WHITE (RETROREFLECTIVE)
BACKGROUND – GREEN (RETROREFLECTIVE)

SS-10
SS-19

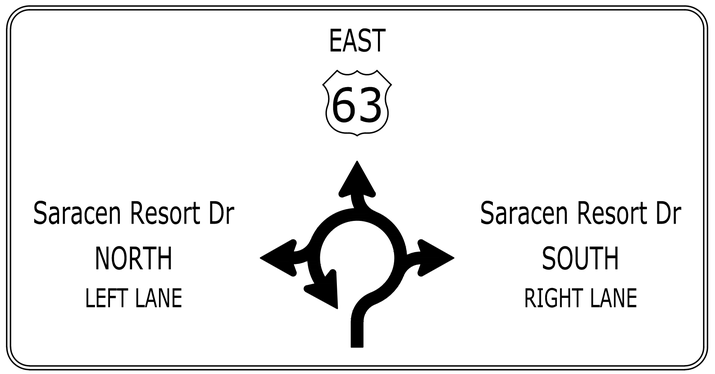
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 1/30/20 at 2:27pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	76	151

(2) SIGN PLACEMENT DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15912
MANEESH KRISHNA
01-24-2020

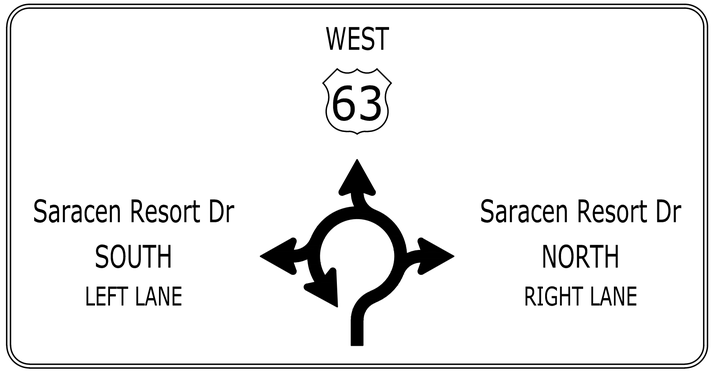
D1-5 (185" X 96")



SS-2

LEGEND, BORDER – WHITE (RETROREFLECTIVE)
BACKGROUND – GREEN (RETROREFLECTIVE)

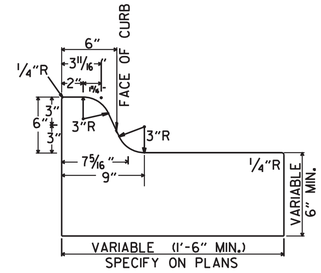
D1-5 (185" X 96")



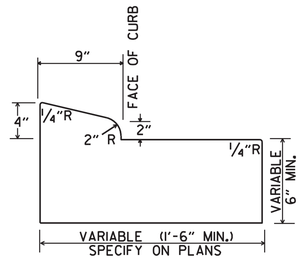
SS-27

LEGEND, BORDER – WHITE (RETROREFLECTIVE)
BACKGROUND – GREEN (RETROREFLECTIVE)

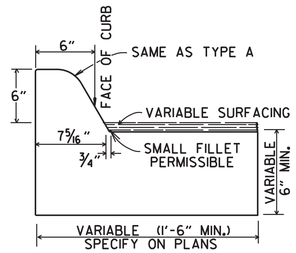
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\Sheets\19-5708 C7.00 SPECIAL DETAILS.dwg 1/30/20 at 2:28pm



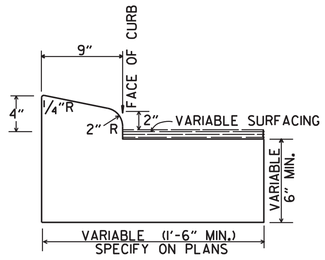
TYPE A



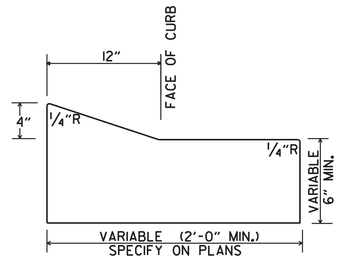
TYPE B-1



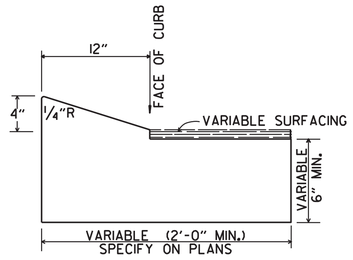
TYPE C



TYPE B-2

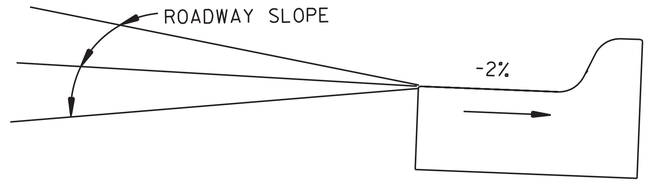


TYPE E-1



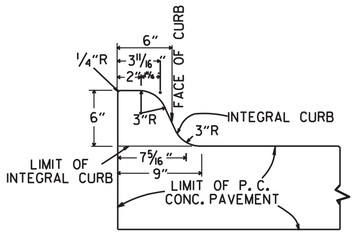
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

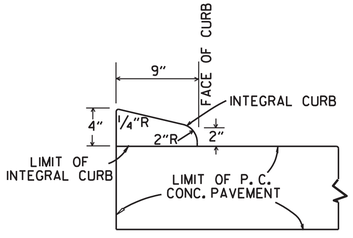


DETAIL OF GUTTER SLOPE

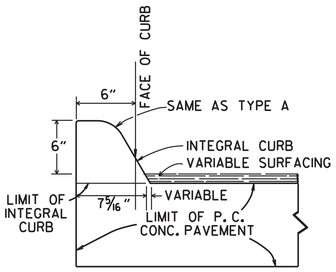
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

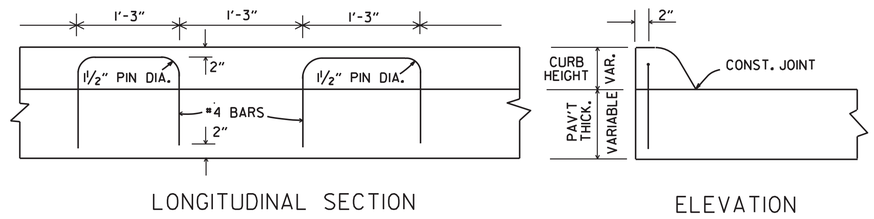


TYPE B

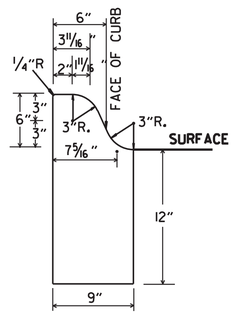


TYPE C

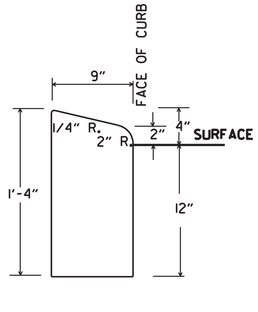
INTEGRAL CURB



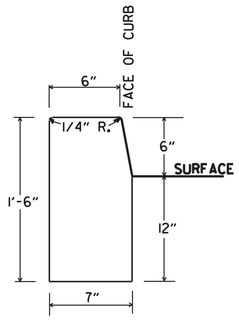
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



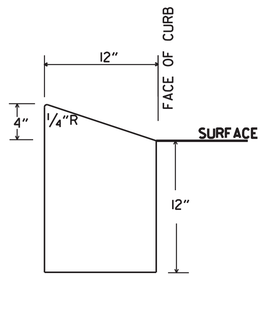
TYPE A



TYPE B

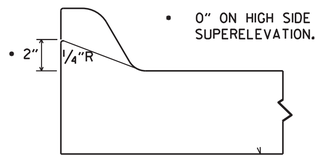


TYPE D



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.

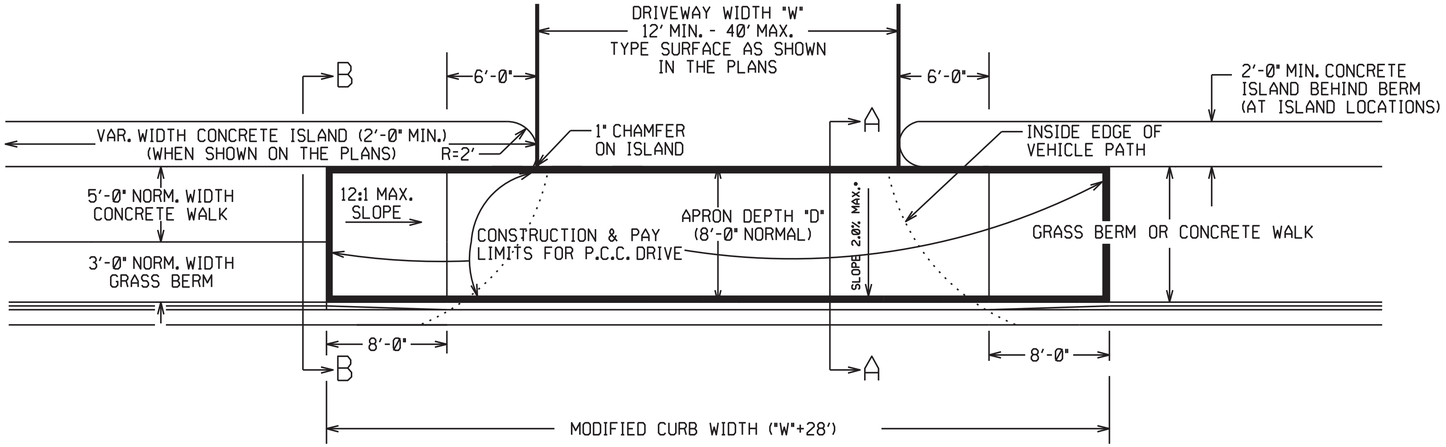
DETAILS OF MODIFIED CURB

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

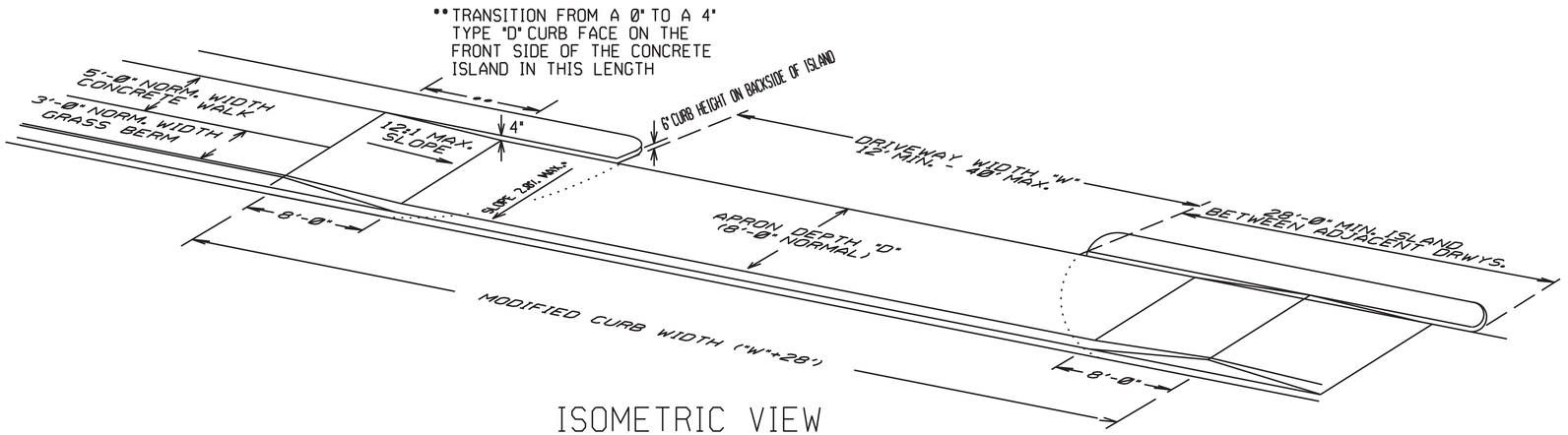
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

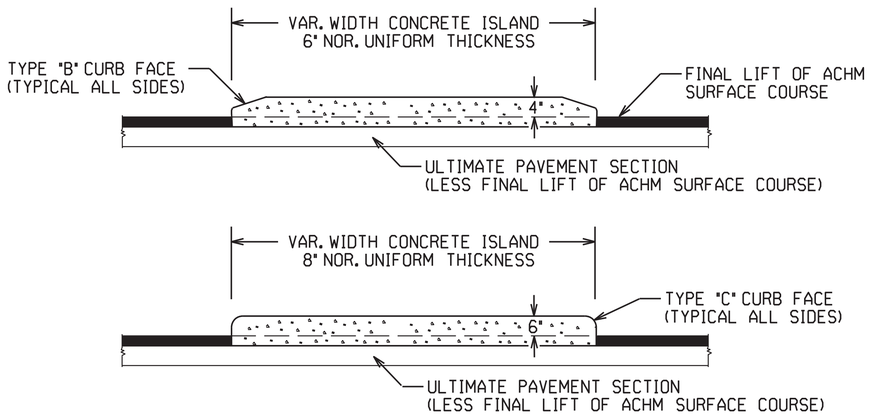
STANDARD DRAWING CG-1



PLAN VIEW

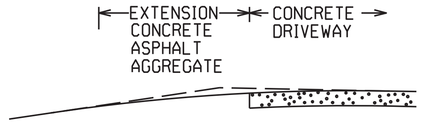


ISOMETRIC VIEW



CURBED ISLANDS FOR CHANNELIZATION

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".



EXTENSION TYPICAL SECTIONS

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

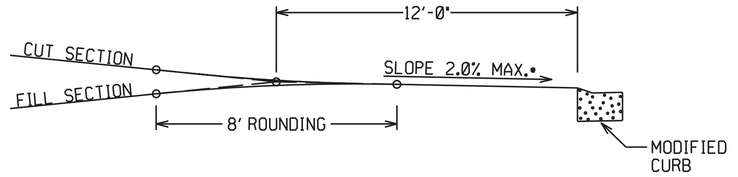
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

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

4: AGGREGATE - 6" AGGREGATE BASE COURSE

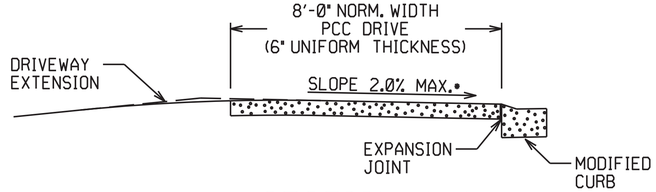
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

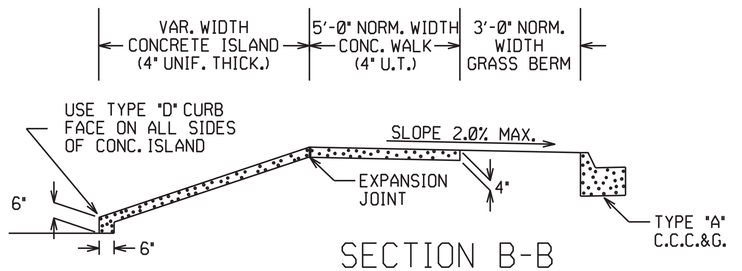


DRIVEWAY VERTICAL ALIGNMENT DETAILS

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



SECTION A-A



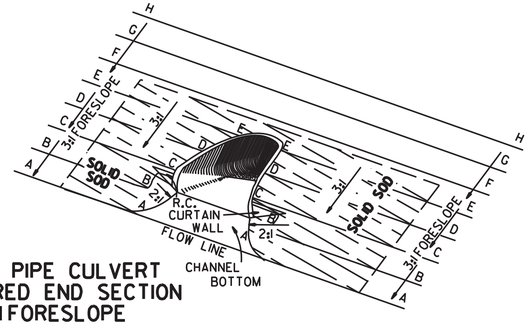
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
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

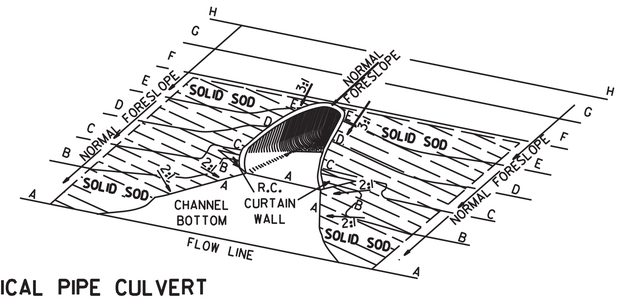
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

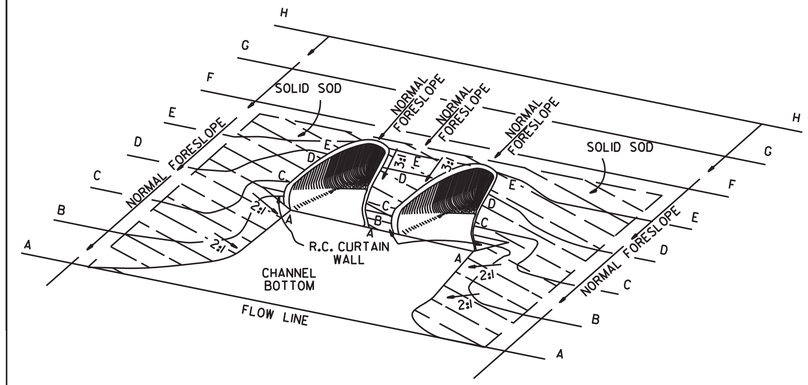
STANDARD DRAWING DR-1



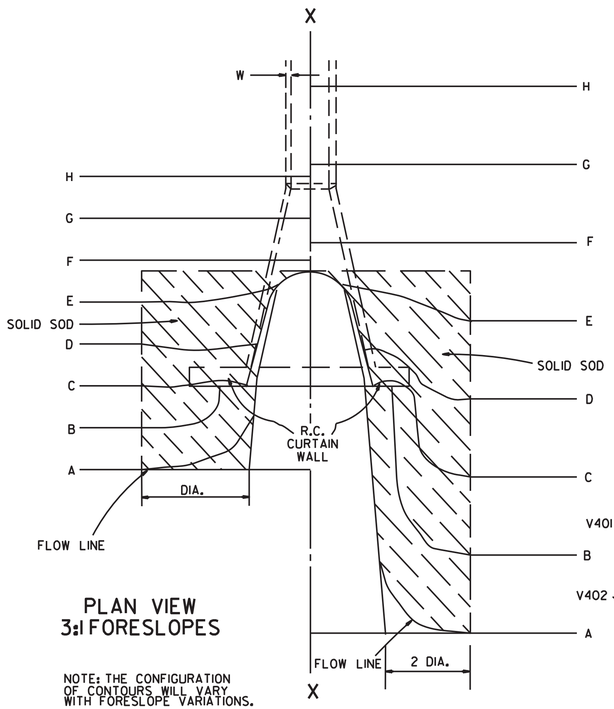
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



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

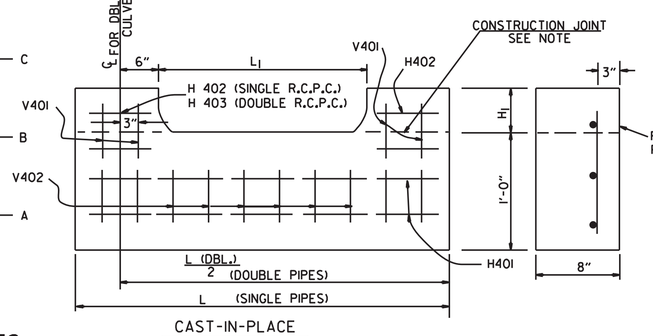
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

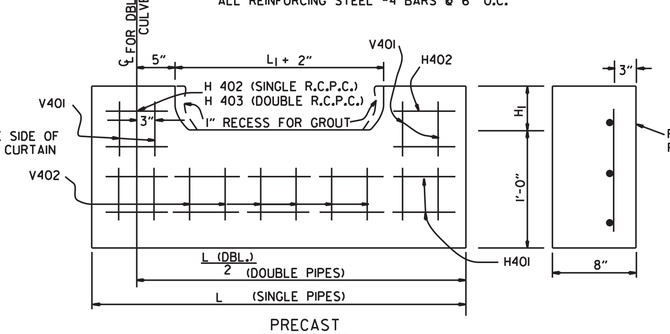
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	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

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT									
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	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.

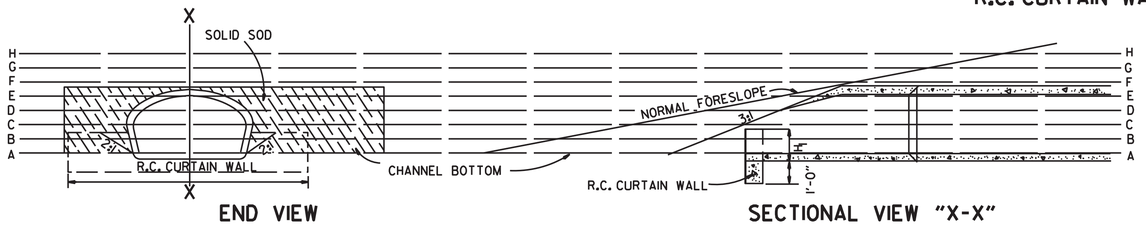
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.			DOUBLE R.C.P.C.		
	3:1	4:1	6:1	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"	36	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 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

SECTIONAL VIEW "X-X"

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

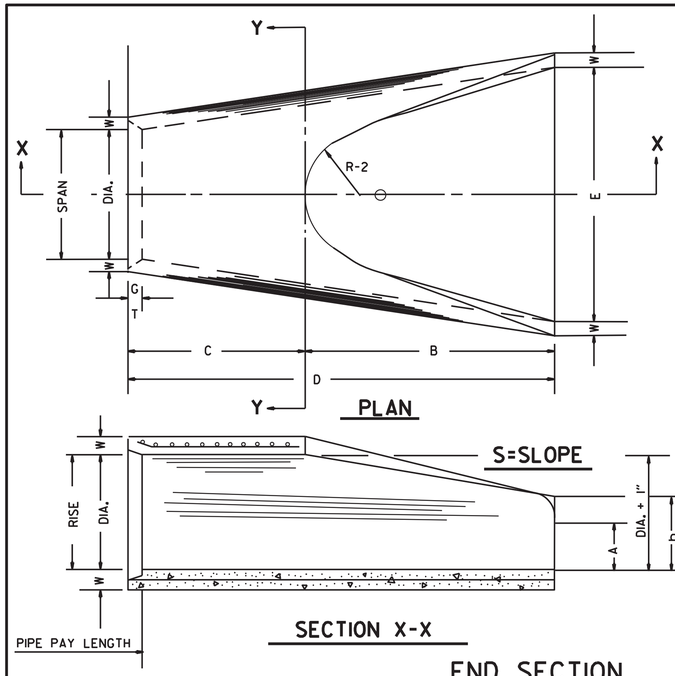


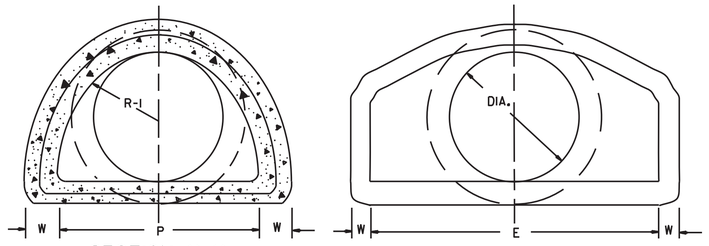
TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + I"	P	R-I	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 11/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¼"	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"	53⅜"	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 5/16"	24"	5"	13250	4'-6"

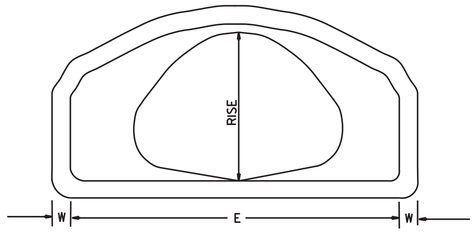
ARCH PIPE

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 13/16"	20"	3"	2½:1
36	43¾	44	26⅝	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"	77⅛"	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.

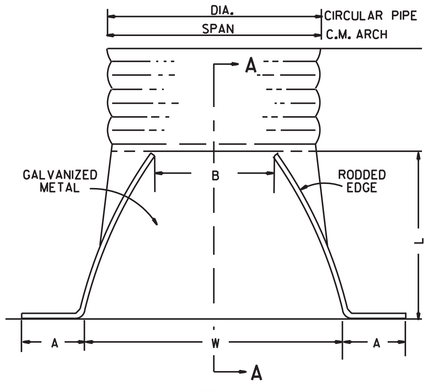


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

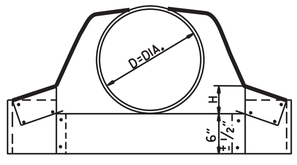


END VIEW
CONCRETE ARCH PIPE

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS



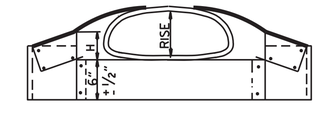
NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.



CIRCULAR PIPE

CIRCULAR PIPE

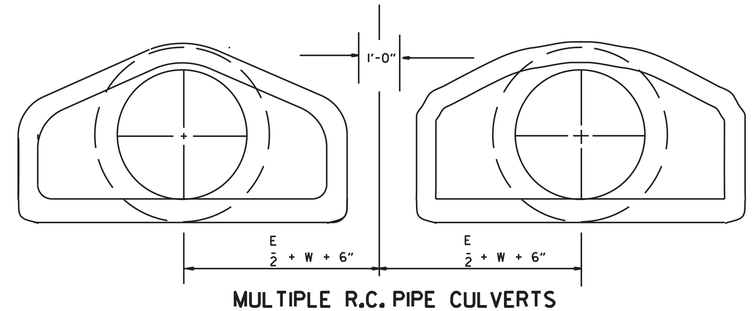
D. DIA.	GAUGE	A I" ±	B. MAX.	H I" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12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



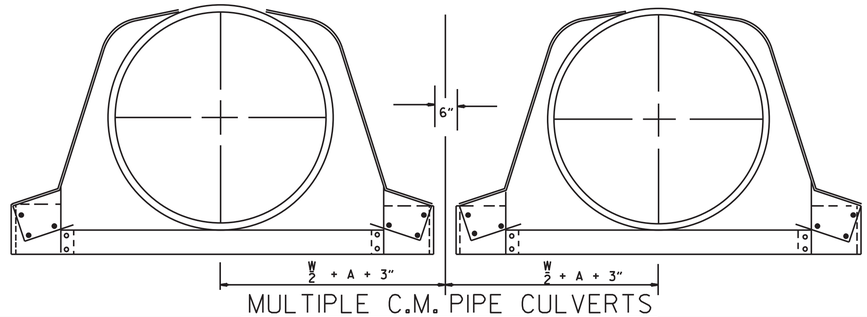
C.M. ARCH PIPE

C.M. ARCH PIPE

EQUIV. DIA.	SPAN	RISE	A I" ±	B MAX.	H I" ±	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



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

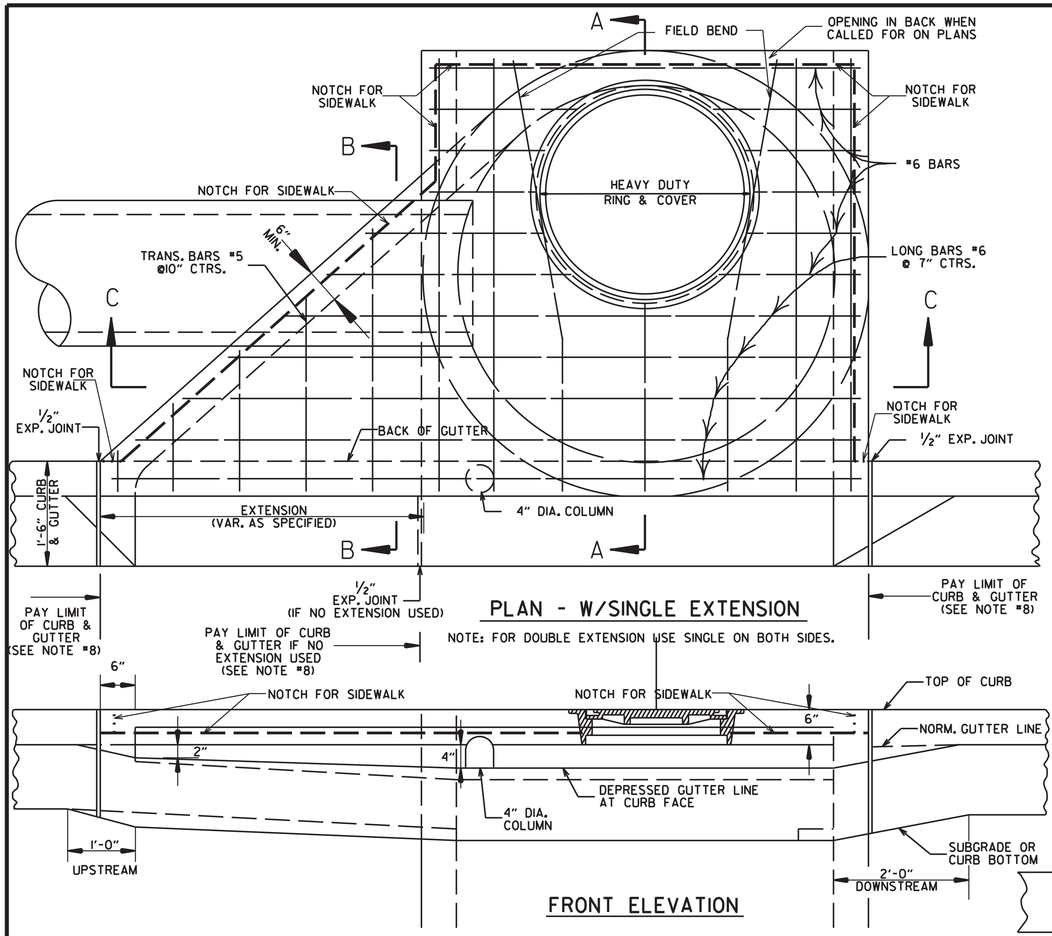
END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

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

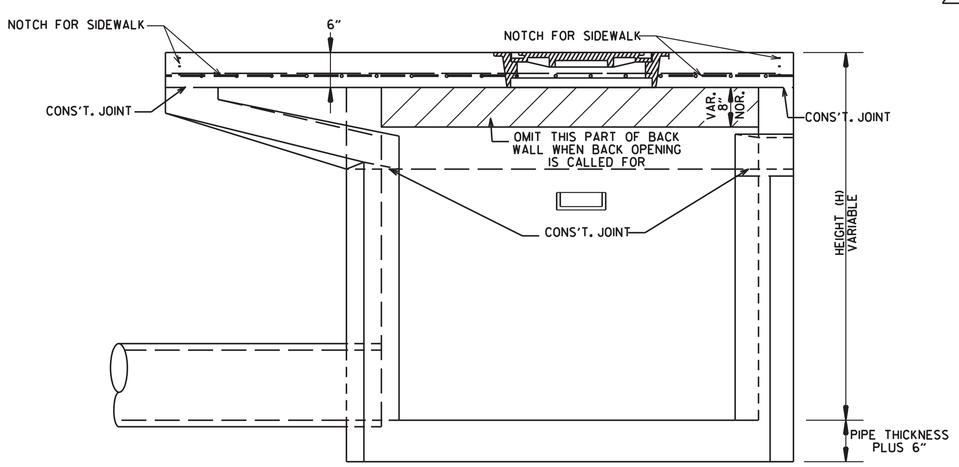
STANDARD DRAWING FES-2



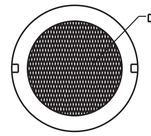
PLAN - W/SINGLE EXTENSION

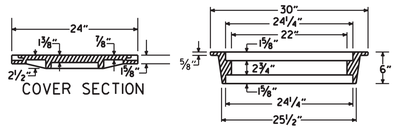
NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

FRONT ELEVATION



SECTION C-C

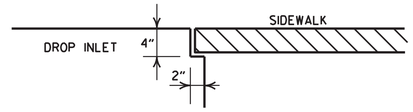




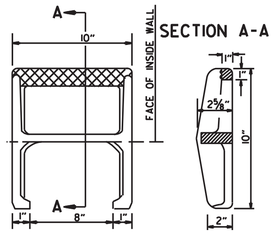
APPROXIMATE TOTAL WEIGHT = 333 LBS.

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



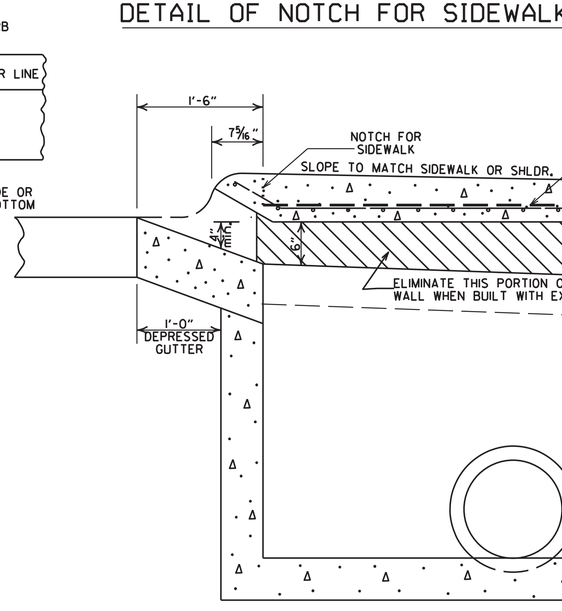
SECTION A-A

APPROX. WEIGHT = 11 LBS. (CAST IRON)

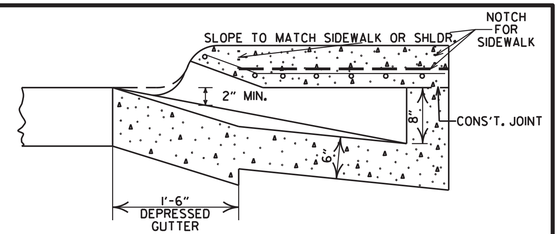
PLAN

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

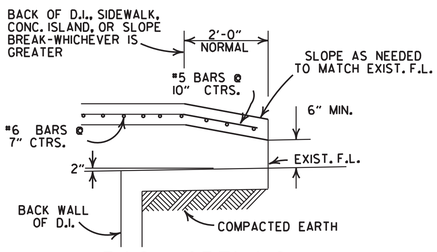
DETAIL OF STEP FOR DROP INLET



SECTION A-A



SECTION B-B



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 3/4" 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. 1 1/2" 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.

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

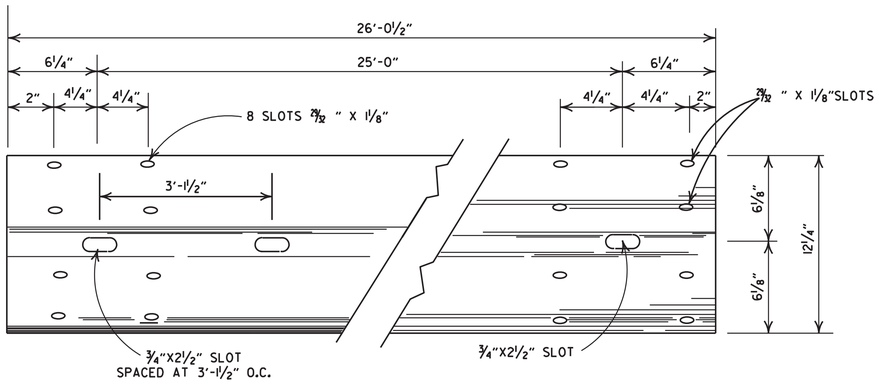
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS: CAST IN PLACE	MINIMUM WALL THICKNESS: PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

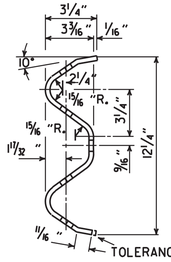
DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL 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	
12-2-95	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
8-15-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
3-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-3-23-89
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)

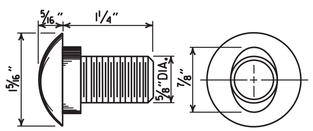
STANDARD DRAWING FPC-9M



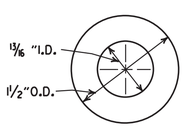


DETAILS OF W-BEAM GUARDRAIL

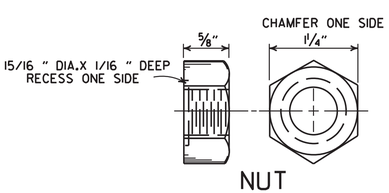
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



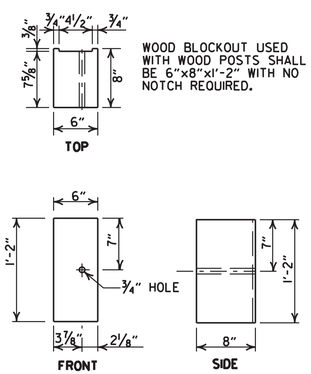
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

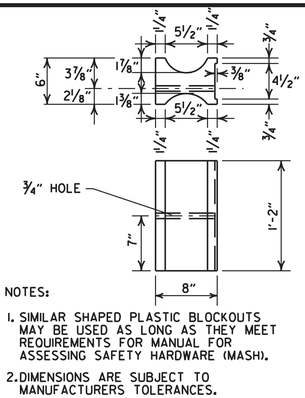


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

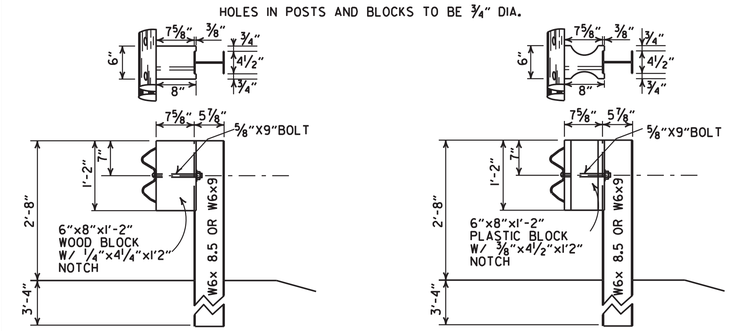
WOOD BLOCKOUT (W-BEAM)



NOTES:

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

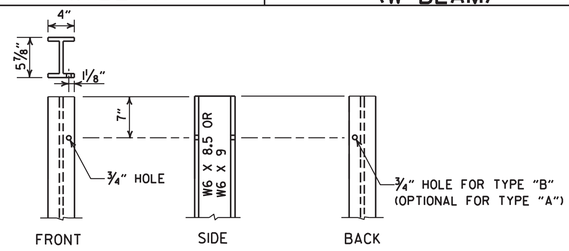
PLASTIC BLOCKOUT (W-BEAM)



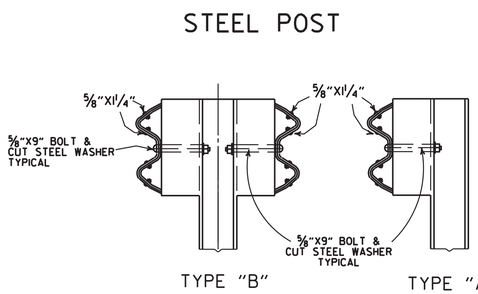
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



STEEL POST



TYPE "B" TYPE "A"

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

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

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

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

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

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

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

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

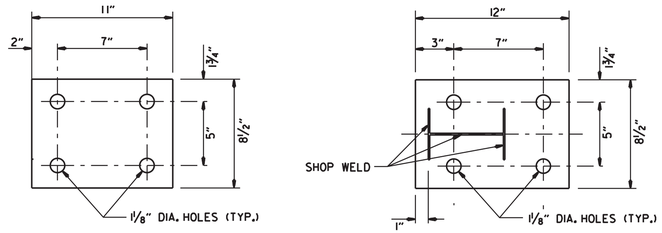
DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

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

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

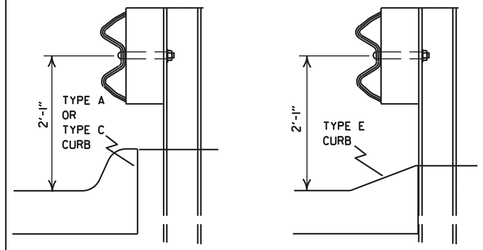
STANDARD DRAWING GR-6



WASHER PLATE

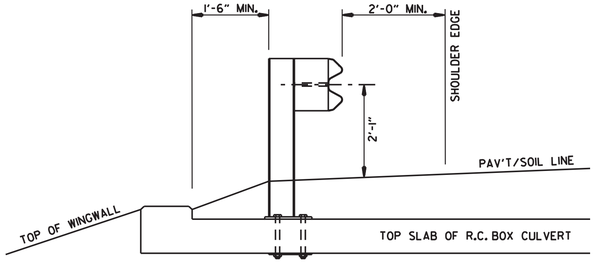
BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.

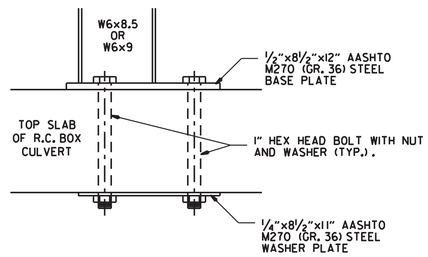


DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.

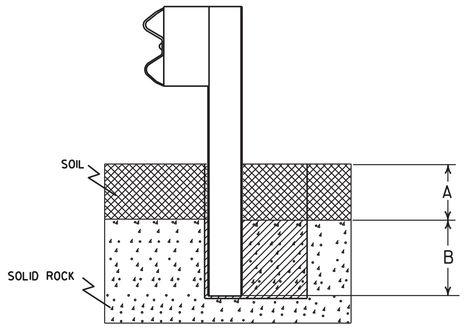


SECTION A-A

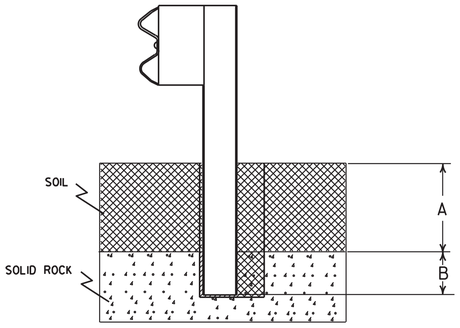


DETAIL OF CONNECTION

Case 1

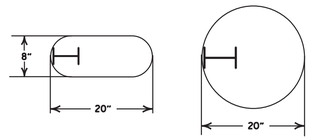


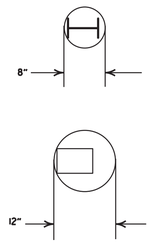
Case 2



Plan View Steel Posts

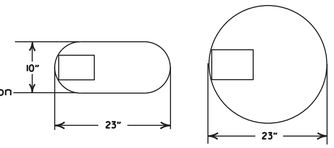
Either hole configuration acceptable





Plan View Wood Posts

Either hole configuration acceptable



Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

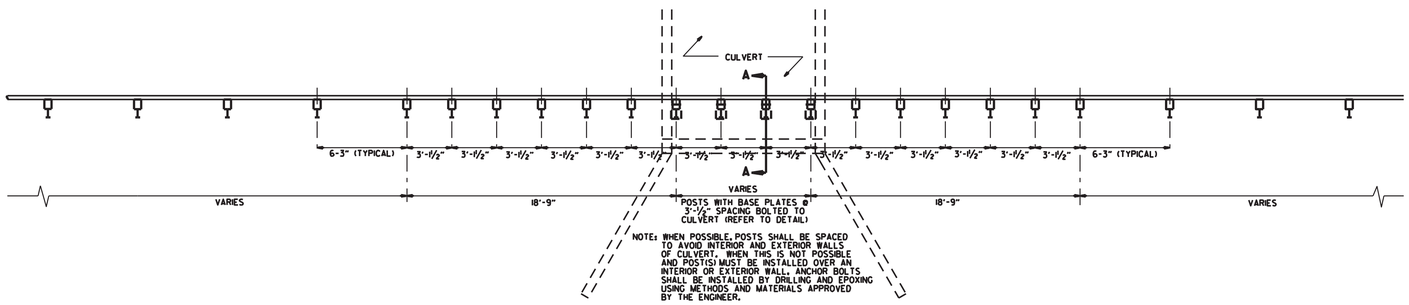
Zone A:
Backfill according to Section 617.03(a).

Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



PLAN LAYOUT OF TYPE A GUARDRAIL AT LOW-FILL CULVERTS

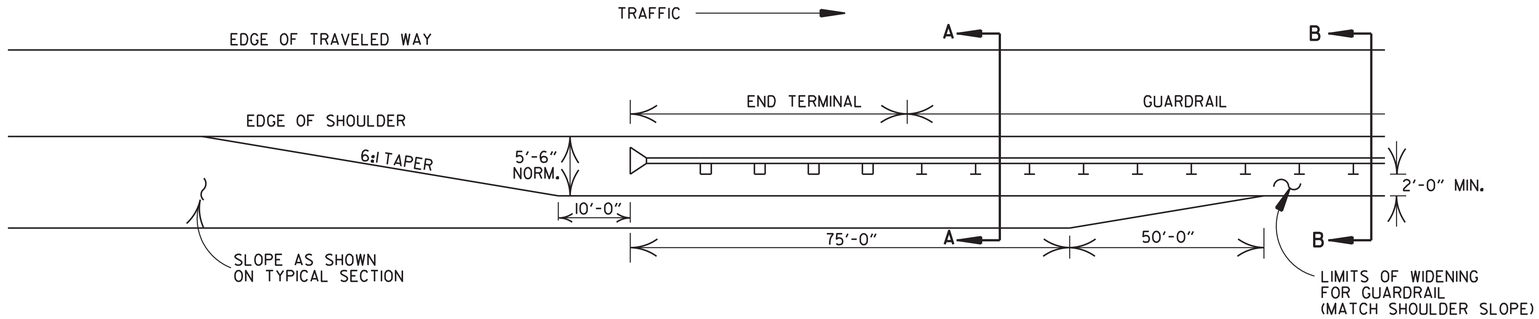
NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARDRAIL POSTS AS SHOWN ON STD. DWG. GR-6.

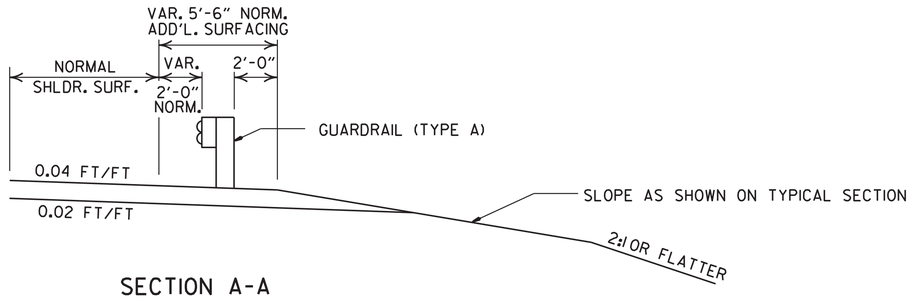
DATE	REVISION	FILMED
11-07-19	RENUMBERED, RENAMED, REVISED REFERENCE	
11-16-17	REVISED GUARDRAIL HEIGHT	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
04-12-07	REVISED DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARDRAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARDRAIL PLACEMENT AT LOW-FILL CULVERTS	
03-30-00	REMOVED CONCRETE INSERT ANCHOR	
08-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADDED DET. OF GUARDRAIL CONNECTION TO R.C. BOX CULV'T., DELETED DET. OF STEEL LINE POST CONN. & ADDED DET. OF GUARDRAIL PLACE. BEHIND CURB & DET. OF POSTPLACE. IN SOLID ROCK	
04-03-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
06-02-94	REVISED ALTERNATE POST SIZE	
08-05-93	REVISED STEEL POST SIZE	
10-01-92	REDRAWN & REVISED	10-1-92
08-02-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
07-15-88	CONFORMED TO 1988 SPECS	
03-04-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-09-87	REDRAWN & REVISED	803-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

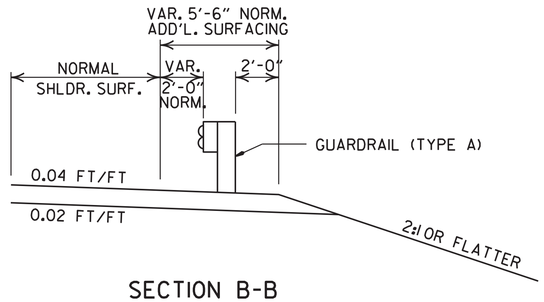
GUARDRAIL DETAILS

STANDARD DRAWING GR-7



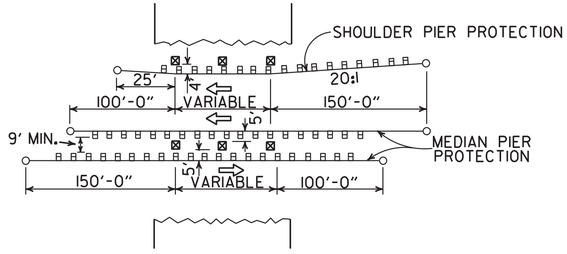


SECTION A-A



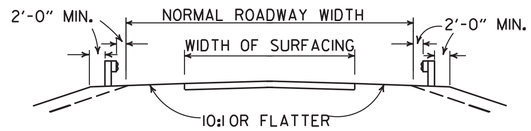
SECTION B-B

DETAILS OF WIDENING FOR GUARDRAIL

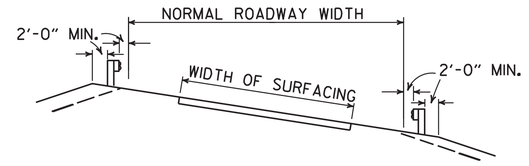


METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

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



SECTION ON TANGENT



SECTION ON CURVE

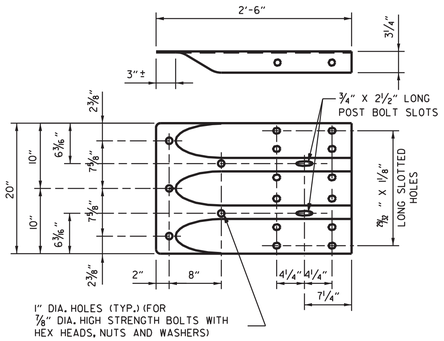
DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY

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

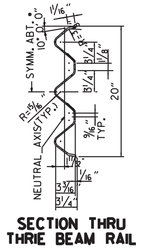
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

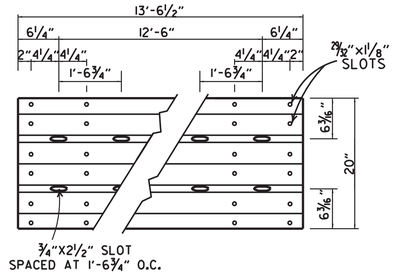
STANDARD DRAWING GR-9



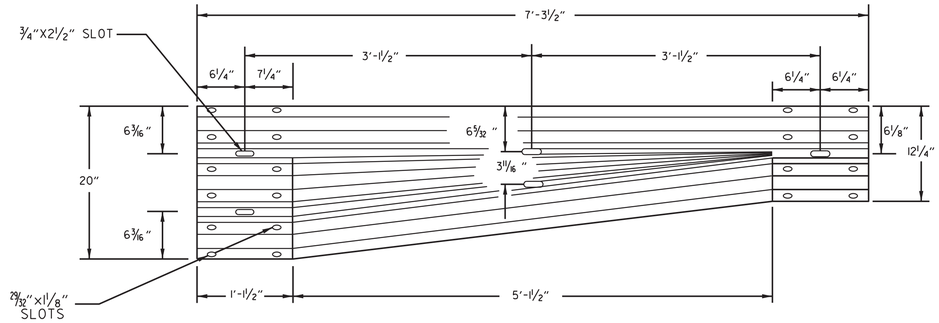
SPECIAL END SHOE



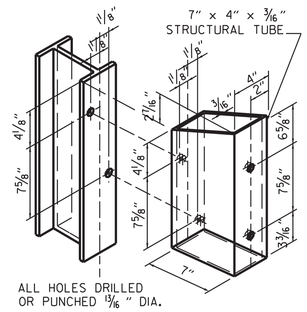
SECTION THRU THRIE BEAM RAIL



THRIE BEAM RAIL



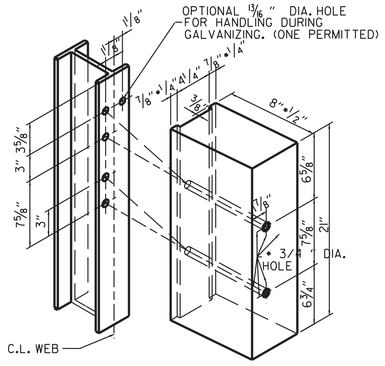
TRANSITION SECTION



ATTACH BLOCKOUT TO POST USING 5/8" DIA. HEX HEAD BOLTS WITH 1 1/2" O.D. CUT STEEL WASHERS AND NUT.

ALL HOLES DRILLED OR PUNCHED 13/16" DIA.

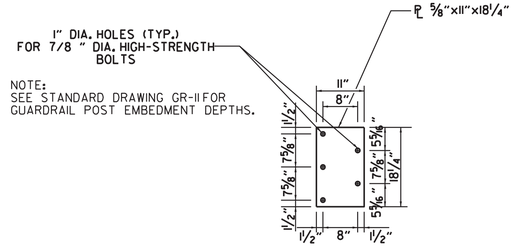
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

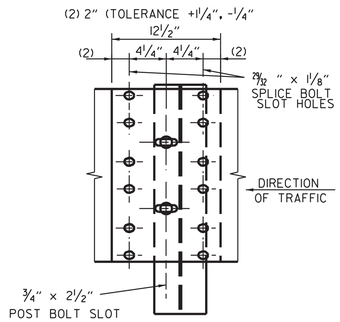
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



NOTE:
SEE STANDARD DRAWING GR-11 FOR GUARDRAIL POST EMBEDMENT DEPTHS.

CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING 7/8" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



THRIE BEAM RAIL SPLICE AT POST

GENERAL NOTES:

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

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

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

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

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

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

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

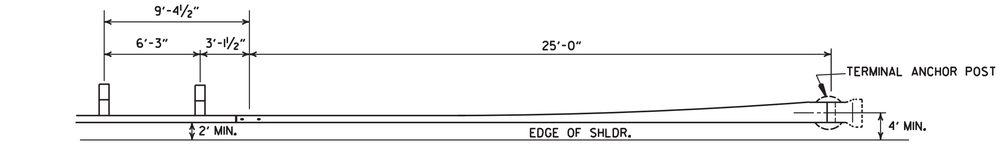
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

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

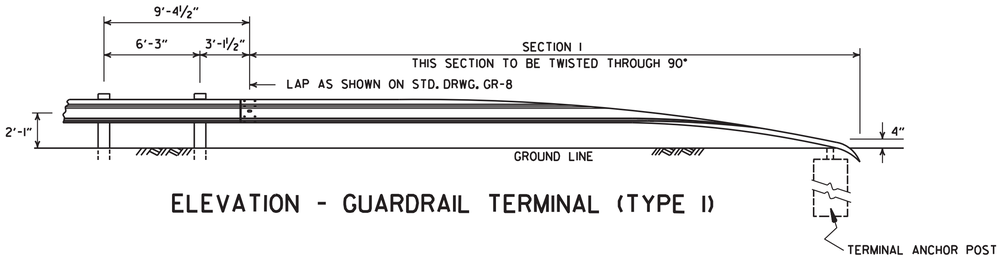
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING GR-10

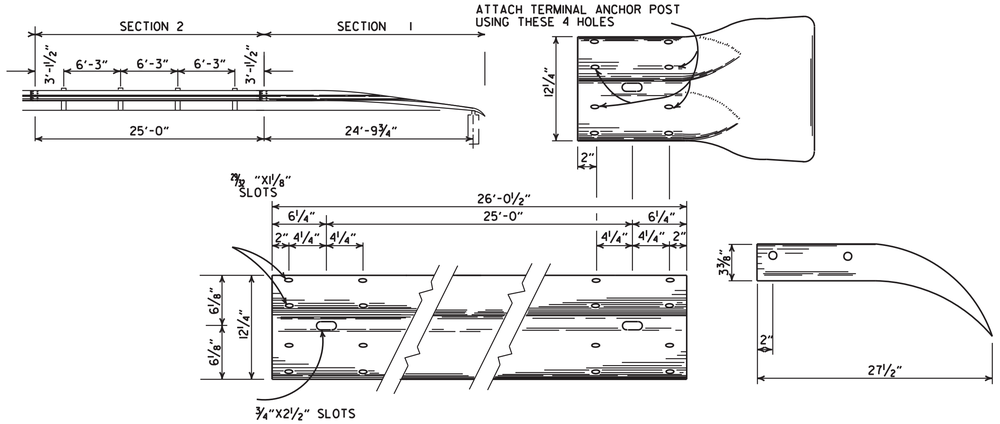


PLAN - GUARDRAIL TERMINAL (TYPE I)



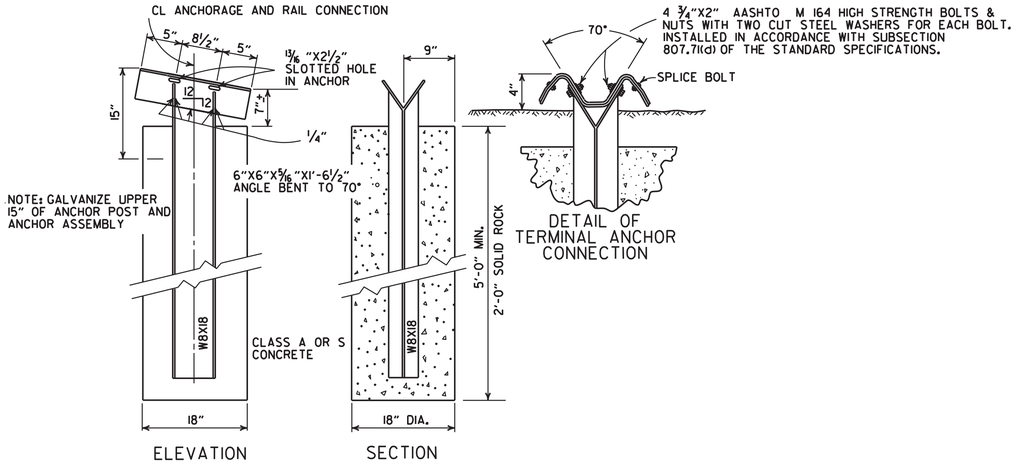
ELEVATION - GUARDRAIL TERMINAL (TYPE I)

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



SECTION I

TERMINAL SECTION



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

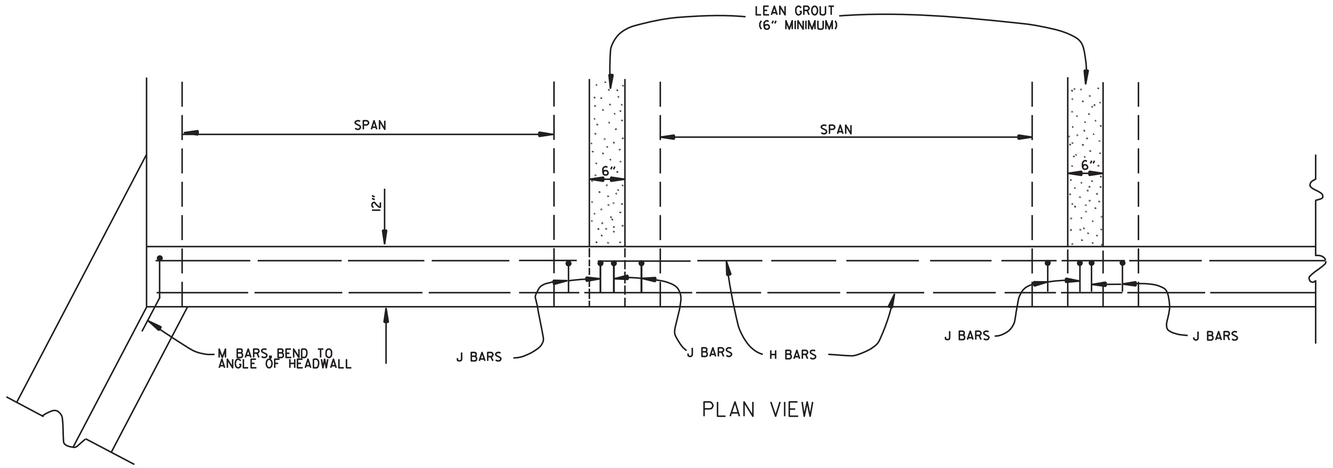
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

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

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

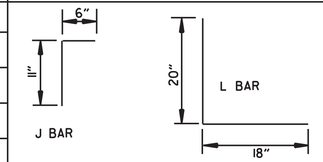
STANDARD DRAWING GRT-1



PLAN VIEW

BAR LIST

BAR	NO.	SIZE	LENGTH	BAR BENDING DIAGRAM
H	2	#4	•	
I	•	#4	•	
J	•	#4	1'-5"	
L	•	#4	3'-2"	
M	•	#4	1'-8"	



• NOTE: LENGTH AND NUMBER OF BARS VARIES WITH SIZE OF CULVERT

GENERAL NOTES

WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY CASTING BARS IN CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING. J BARS AND M BARS SHALL BE EMBEDDED A MINIMUM OF 10" IN PRECAST BOX.

WINGS, FOOTINGS, APRONS AND CURTAIN WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WING DRAWING. STEEL AND CONCRETE QUANTITIES WILL BE ADJUSTED TO FIT THE IN-PLACE WIDTH & HEIGHT OF THE PRECAST CONCRETE BOX CULVERTS.

ALL EXPOSED CORNERS TO HAVE ¾" CHAMFERS.

WINGWALLS AND FOOTINGS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

ALL CONCRETE, REINFORCING STEEL, LEAN GROUT, MEMBRANE WATERPROOFING, DRAINAGE FILL MATERIAL, GEOTEXTILE FILTER FABRIC, LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR INSTALLING PRECAST BOX CULVERTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR THE ITEMS AS SPECIFIED IN SECTION 607 OF THE STANDARD SPECIFICATIONS.

LEAN GROUT SHALL CONSIST OF A SAND CEMENT MIXTURE MEETING THE FOLLOWING REQUIREMENTS:
PORTLAND CEMENT SHALL BE TYPE I AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
SAND SHALL MEET THE REQUIREMENTS OF FINE AGGREGATE AS SPECIFIED IN SECTION 802.02 OF THE STANDARD SPECIFICATIONS.
THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE.
THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENTS. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND THOROUGHLY RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL ALL VOIDS.

MEMBRANE WATERPROOFING CONFORMING TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO ALL BOX CULVERT JOINTS.

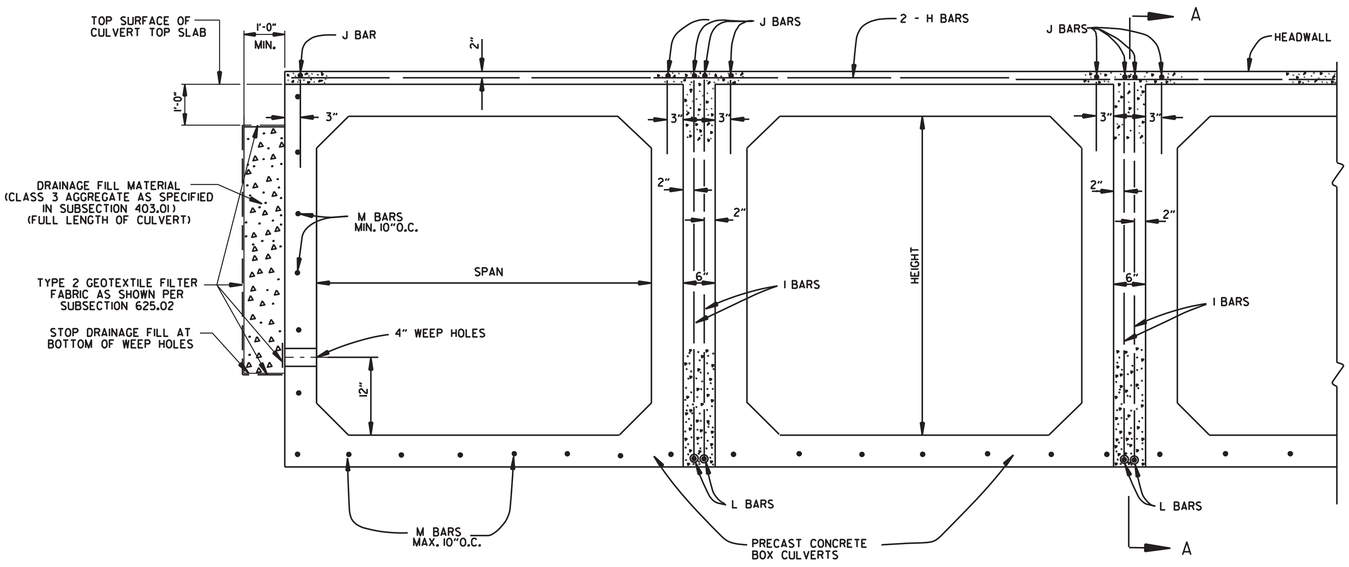
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

IN OUTER BARRELS, ONE WEEP HOLE IS REQUIRED IN EXTERIOR WALLS OF EACH PRECAST CULVERT SECTION. WEEP HOLES SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" IN THE ASSEMBLED CULVERT AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

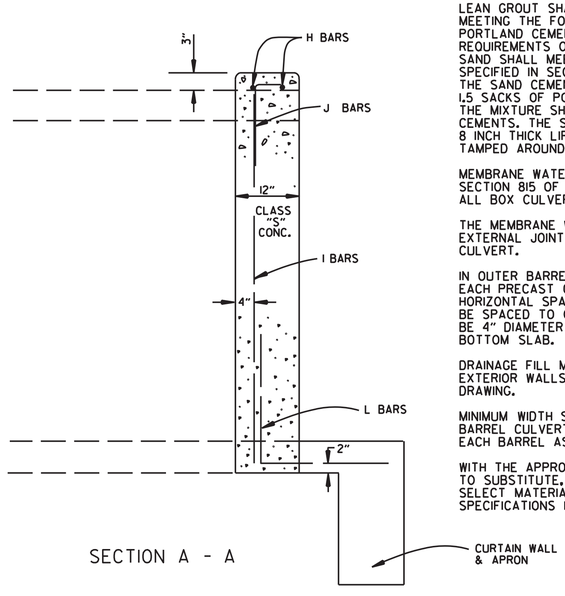
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT. SEE DETAILS ON THIS DRAWING.

MINIMUM WIDTH SHALL BE 12" (6" ON EACH SIDE OF JOINT). ON MULTIPLE BARREL CULVERTS, MEMBRANE WATERPROOFING SHALL BE APPLIED TO EACH BARREL AS DESCRIBED ABOVE.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, FLOWABLE SELECT MATERIAL CONFORMING TO SECTION 206 OF THE STANDARD SPECIFICATIONS IN LIEU OF LEAN GROUT.



END VIEW



SECTION A - A

DATE	REVISION	DATE FILMED
1-28-15	REVISED GEOTEXTILE FABRIC PLACEMENT	
12-15-11	ADDED NOTE & DTLS FOR WEEP HOLE AND DRAINAGE FILL	
10-15-09	ADDED GENERAL NOTE	
11-10-05	REVISED SPACING OF "M" BARS	
4-10-03	REVISED GENERAL NOTES	
10-18-96	CORRECTED AASHTO REF.	
10-1-92	ADDED NOTE FOR MEMBRANE WATERPROOFING	
8-15-91	ADDED NOTE FOR LEAN GROUT	
11- 8-90	REVISED FOR 1991 SPECS	
11-30-89	ISSUED: JABE	

ARKANSAS STATE HIGHWAY COMMISSION

PRECAST CONCRETE BOX CULVERTS

STANDARD DRAWING PBC-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	31 5/16	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)(i).

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.

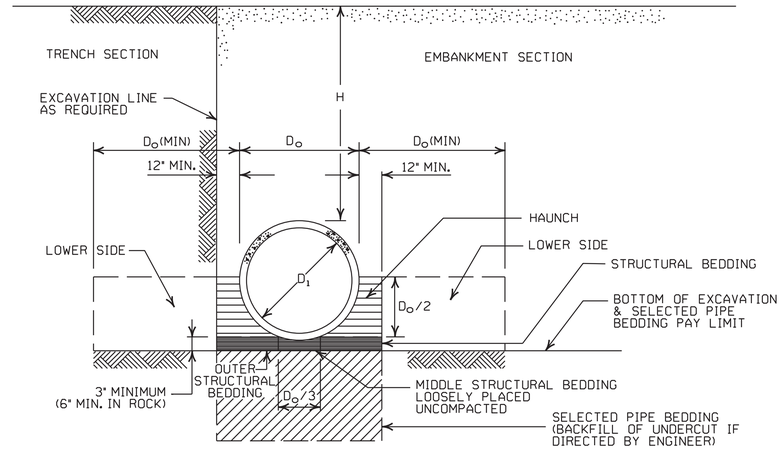
- LEGEND -

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.

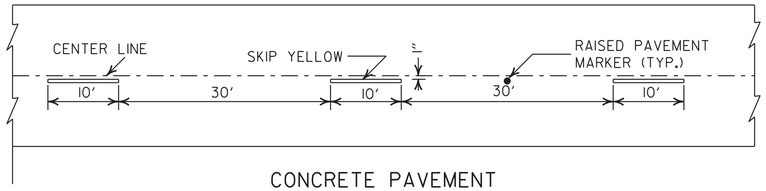
DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

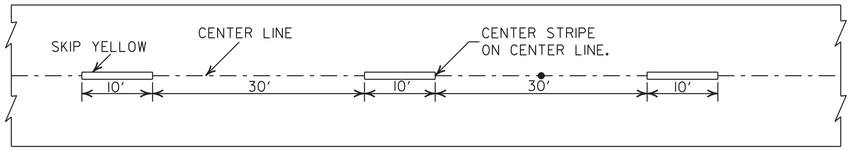
CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

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.

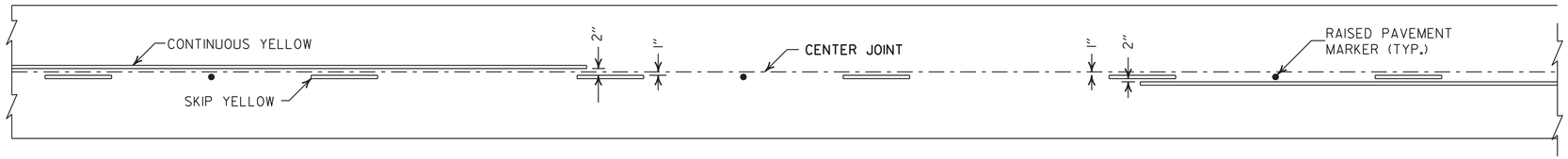


CONCRETE PAVEMENT

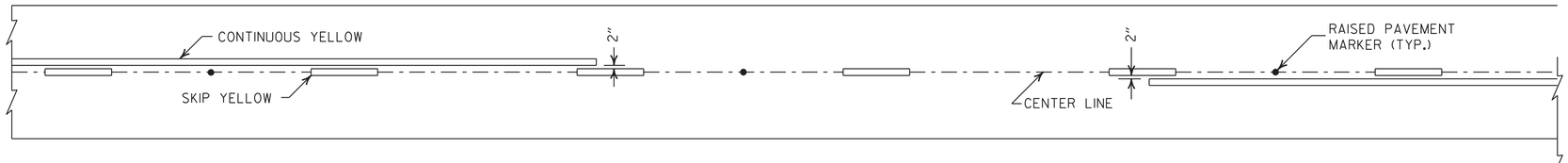


ASPHALT PAVEMENT

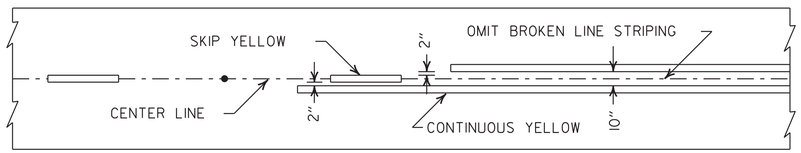
BROKEN LINE STRIPING



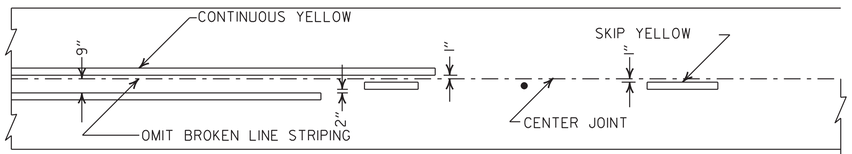
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

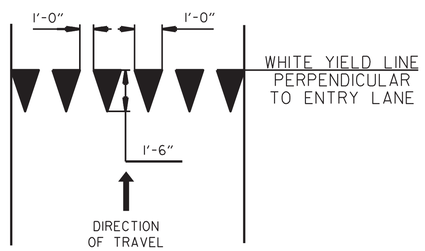


ASPHALT PAVEMENT

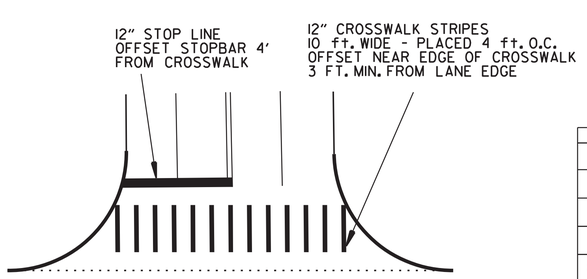


CONCRETE PAVEMENT

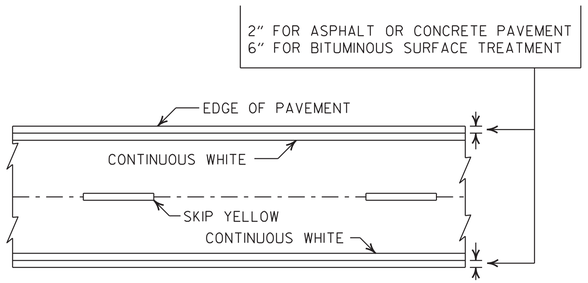
STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL



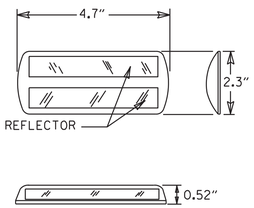
CROSSWALK AND STOPBAR DETAILS



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
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

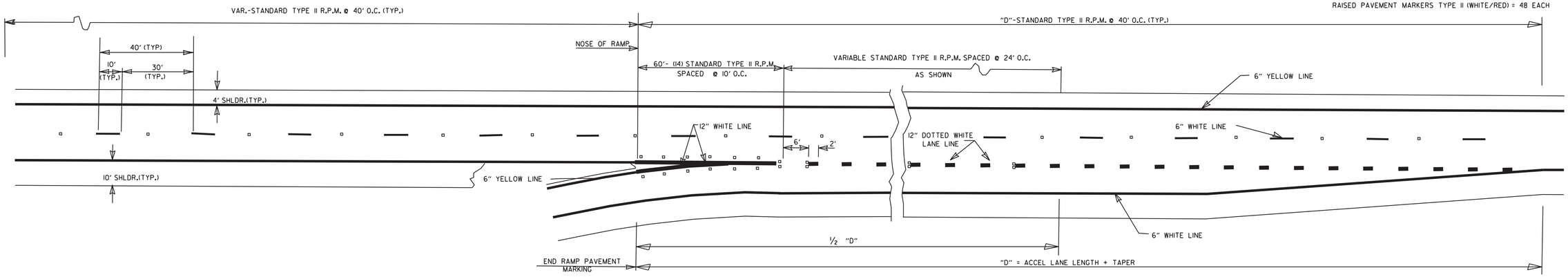
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

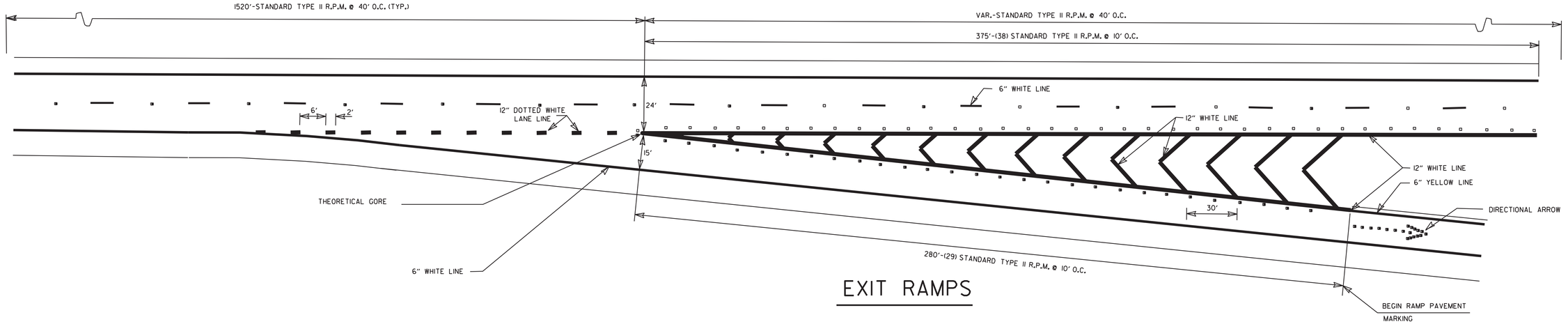
12" WHITE = 370 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

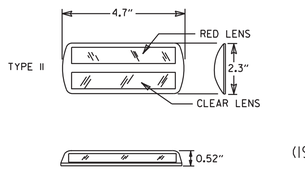
6" WHITE = 280 LIN. FT.
12" WHITE = 1195 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH



ENTRANCE RAMPS

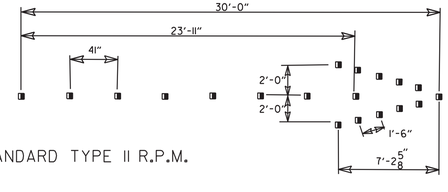


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

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



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

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

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

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

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

ARKANSAS STATE HIGHWAY COMMISSION

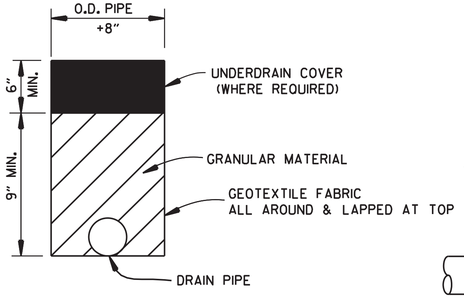
PAVEMENT MARKING DETAILS ON ACCESS CONTROLLED ROADWAYS

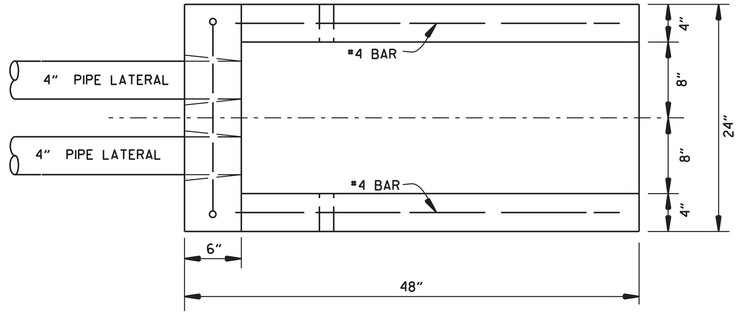
STANDARD DRAWING PM-2

NOTE:

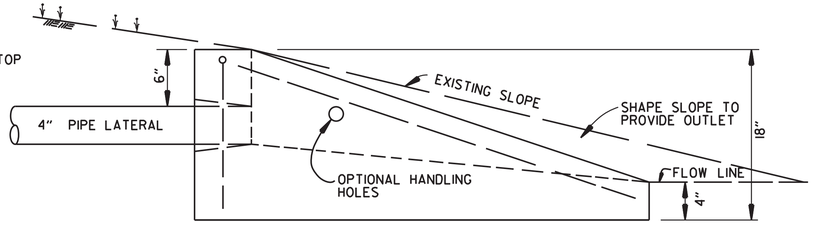
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

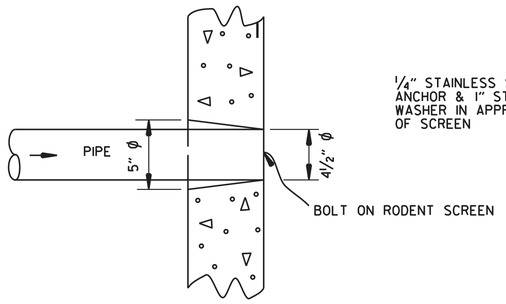




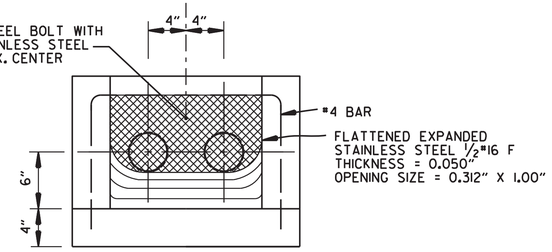
PLAN VIEW



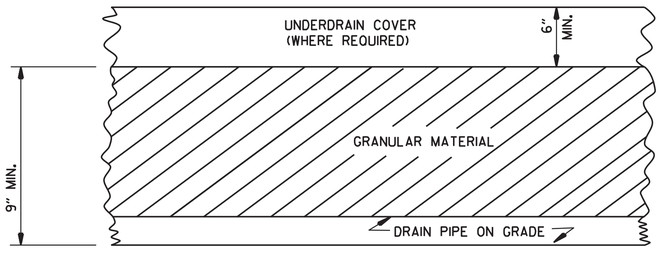
SIDE VIEW



DETAIL OF HOLE FOR 4" PIPE

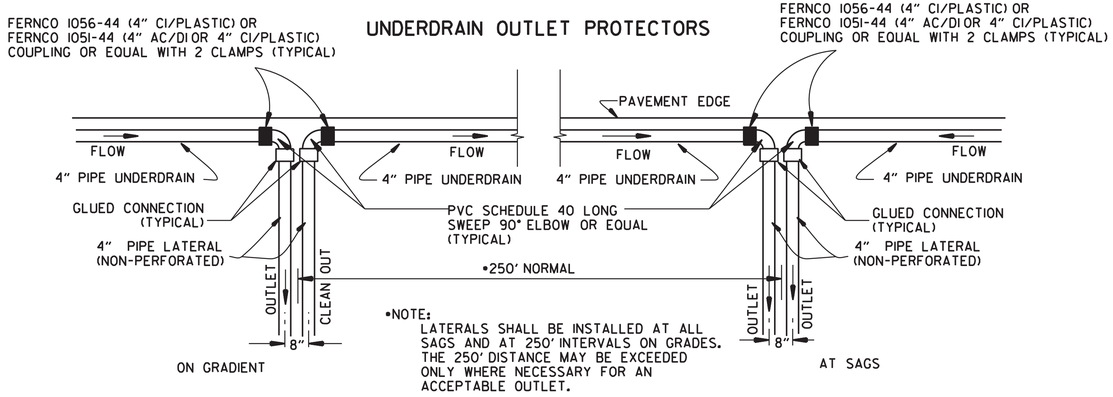


FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

DATE	REVISION	DATE FILMED
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

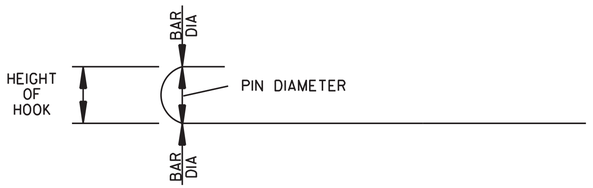
DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2¼"	4"
4	3 "	4½"
5	3¾"	5"
6	4½"	6"
7	5¼"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2¾ INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.



NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

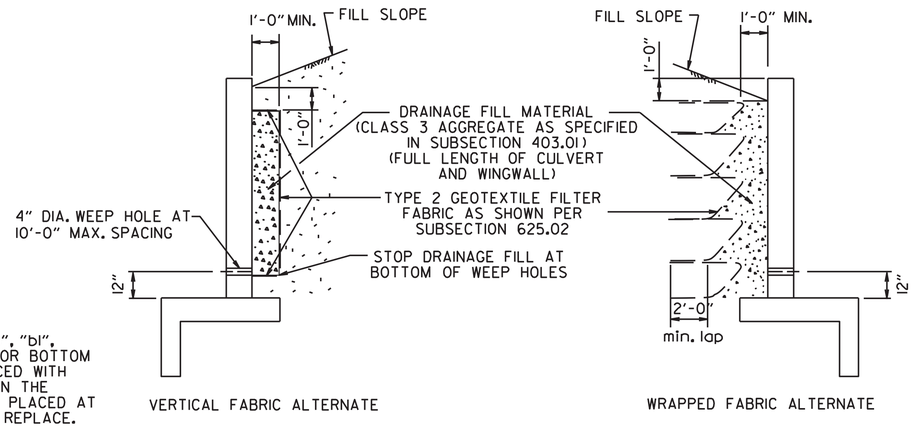
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "b1", "b2" OR "b3"	LENGTH OF HOOKED BAR	LENGTH OF STRAIGHT BAR
#4	L + 1' - 0"	SEE "c" BAR LENGTH
#5	L + 1' - 2"	SEE "c" BAR LENGTH
#6	L + 1' - 4"	SEE "c" BAR LENGTH
#7	L + 1' - 8"	SEE "c" BAR LENGTH
#8	L + 1' - 10"	SEE "c" BAR LENGTH
#9	L + 2' - 6"	SEE "c" BAR LENGTH

L = "OW" - 3 INCHES



WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

REINFORCING STEEL SHALL BE AASHTO M 31 OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

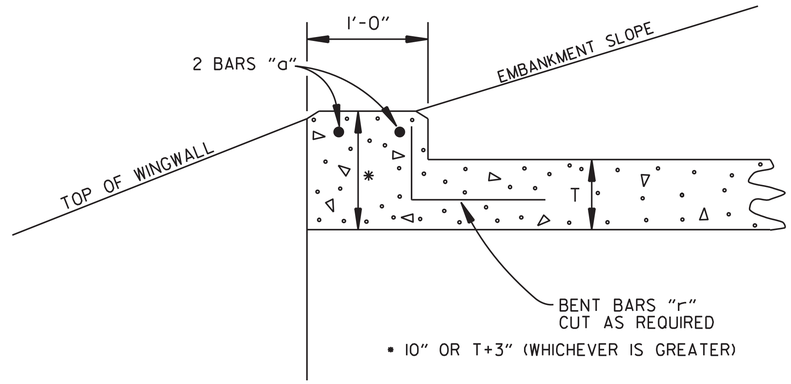
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS ½ INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.



NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

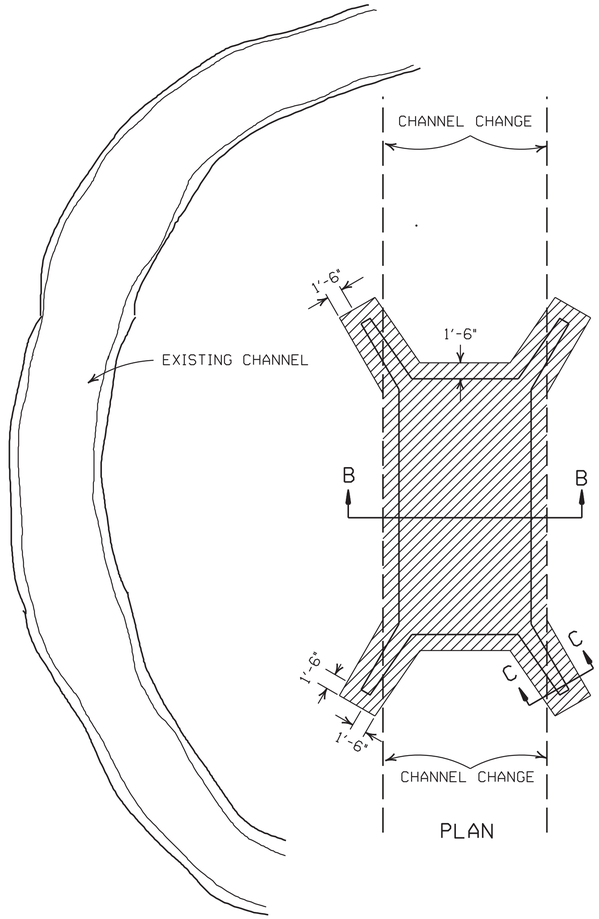
R.C. BOX CULVERT HEADWALL MODIFICATIONS

DATE	REVISION	DATE FILMED
7/26/12	REV. DRAINAGE FILL MATERIAL & DETAIL	
12/15/11	REQUIRE WEEP HOLES IN BOX CULVERT WALLS	
5-25-06	REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM	
11-16-01	ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES	
10-18-96	REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM	
10-12-95	MOVED SOLID SODDING DETAIL TO RCB-2	
6-2-94	ADDED SOLID SODDING PLAN DETAIL	
8-5-93	REVISED PIN DIAMETER TO SPECS.	
8-15-91	DRAWN AND ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

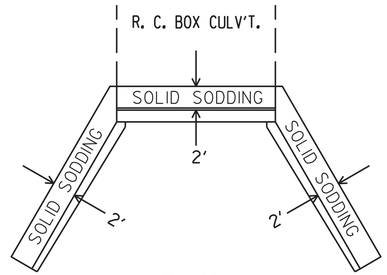
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



PLAN

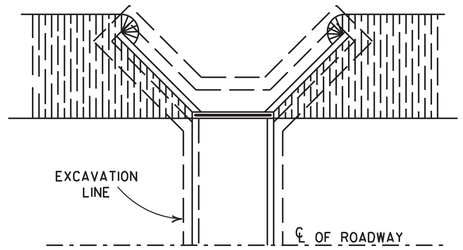
SOLID SODDING



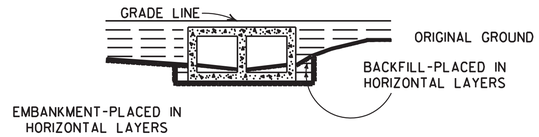
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

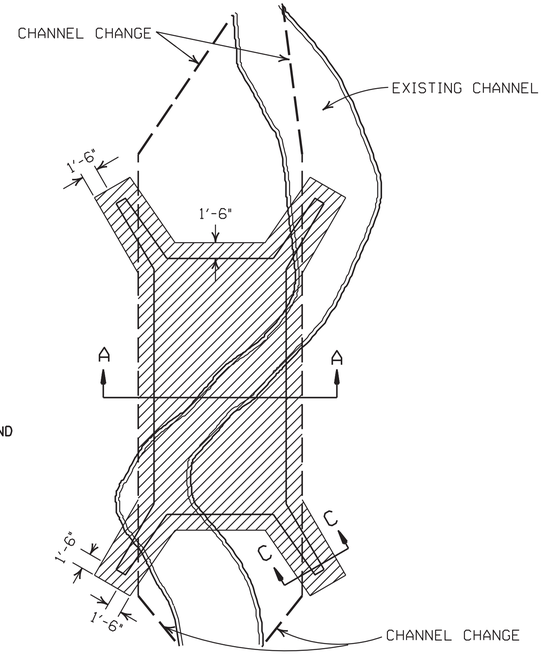


PLAN



LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT



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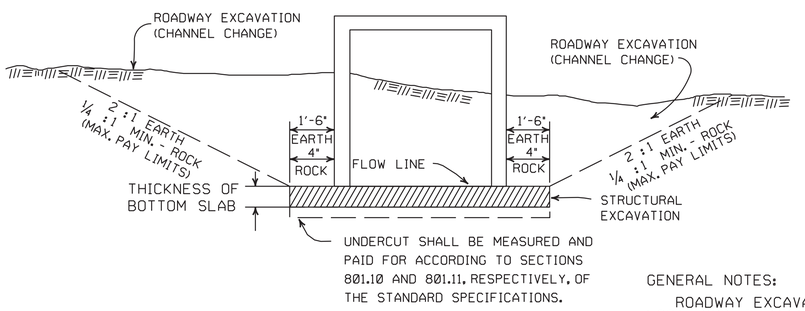
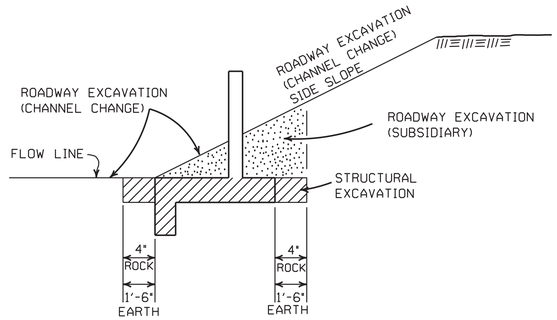
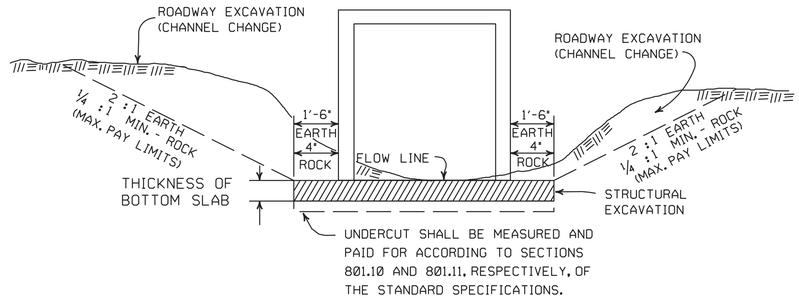


SECTION B-B

DETAILS FOR NEW CHANNELS



SECTION C-C



SECTION A-A

DETAILS THROUGH EXISTING CHANNELS

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

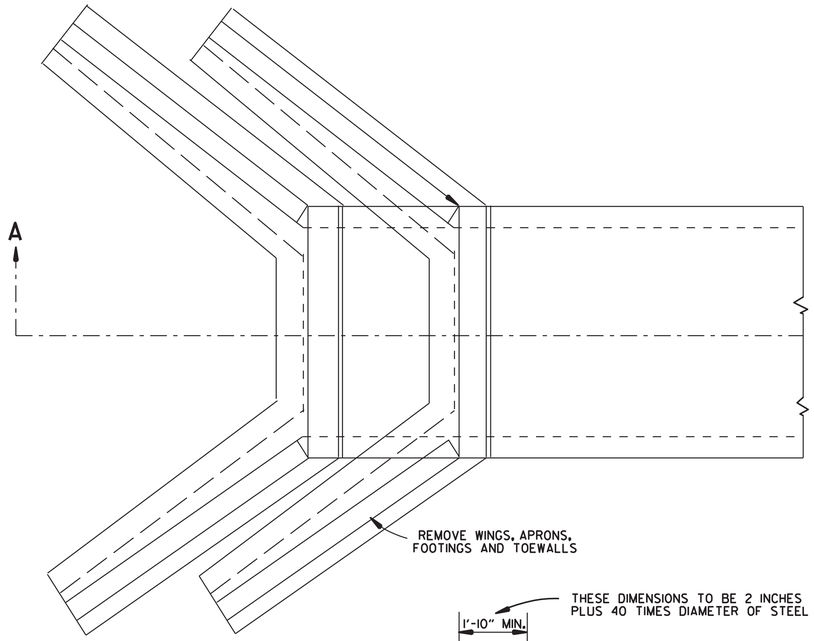
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

DATE	REVISION	FILMED
11-20-03	REVISED SECTION A-A NOTE	
8-22-02	REVISED SECTION B-B NOTE	
10-12-95	COMBINED 1891B AND 1888A	
1-4-83	REVISED GENERAL NOTES	674-1-4-83
	AND ADDED MAXIMUM PAY	
	LIMIT NOTES.	
2-2-76	EXCAV. PAY LIMITS	917-2-2-76
10-2-72	REVISED AND REDRAWN	564-10-16-72

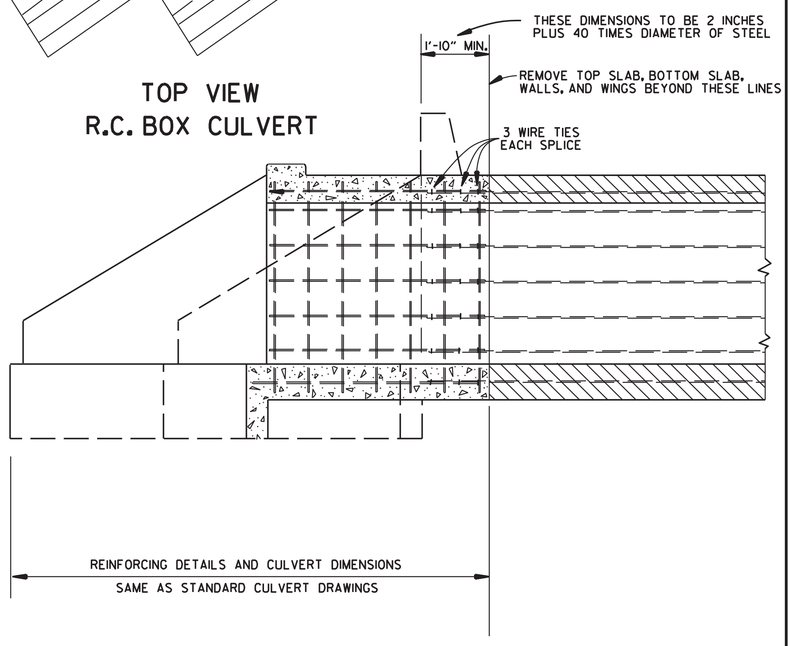
ARKANSAS STATE HIGHWAY COMMISSION

EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

STANDARD DRAWING RCB-2

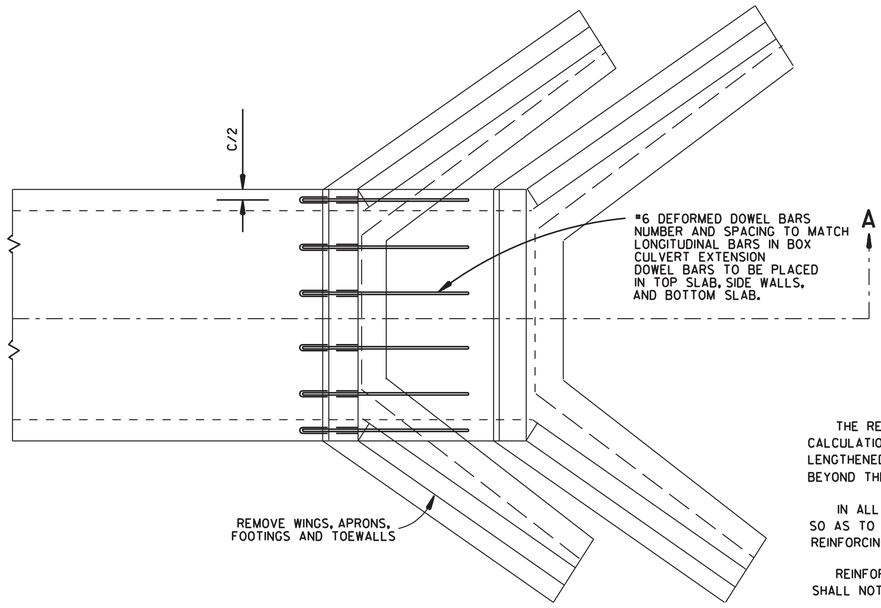


TOP VIEW
R.C. BOX CULVERT

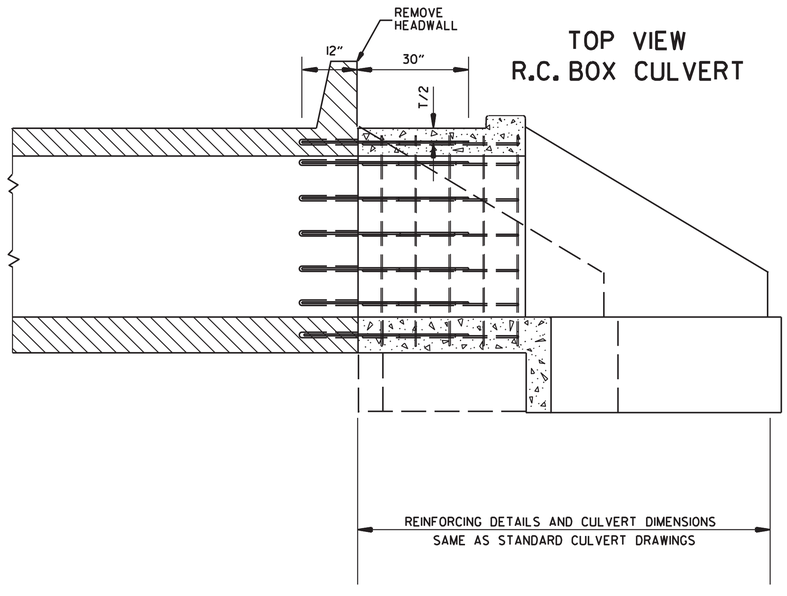


SECTION A-A

METHOD 1



TOP VIEW
R.C. BOX CULVERT



SECTION A-A

METHOD 2

GENERAL NOTES

	USE FOR METHOD
THE RESIDENT ENGINEER WILL MAKE INDIVIDUAL CALCULATIONS OF QUANTITIES FOR EACH STRUCTURE LENGTHENED, MAKING NO ALLOWANCE FOR OVERBREAKAGE BEYOND THE LINES INDICATED.	1
IN ALL INSTANCES CONCRETE SHALL BE REMOVED SO AS TO PERMIT FULL 40 DIAMETER SPLICE OF REINFORCING STEEL.	1
REINFORCING STEEL REMOVED FROM EXISTING STRUCTURE SHALL NOT BE REUSED IN CONSTRUCTING EXTENSION.	1&2
ON R.C. BOX CULVERTS THAT HAVE AN EXISTING CONCRETE APRON; THE CONCRETE APRON SHALL BE REMOVED WITH THE WINGS. THE COST OF REMOVING ALL OLD CONCRETE WILL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR NEW CONCRETE OF THE CLASS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.	1&2
MATERIALS FOR SECURING DOWEL BARS SHALL MEET THE REQUIREMENTS OF SECTION 507.02 OF THE STANDARD SPECIFICATIONS.	2
DOWEL BARS SHALL BE INSTALLED AS FOLLOWS; THE DRILLING PROCEDURE SHALL BE APPROVED BY THE ENGINEER, THE FILLING SYSTEM SHALL BE APPROVED BY THE ENGINEER, AND SHALL BE AN INJECTION-TYPE SYSTEM WHICH WILL INSURE THAT SUFFICIENT MATERIAL IS INJECTED SO IT COMPLETELY SURROUNDS THE BARS AND FILLS THE HOLES.	2
THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER METHOD 1 OR METHOD 2, REGARDLESS OF WHICH METHOD IS USED. PAY QUANTITIES WILL BE CALCULATED BASED ON METHOD 1.	1&2

NOTE:
NO PART OF THIS STANDARD IS TO BE USED FOR ANY DETAILS RELATIVE TO NEW CONSTRUCTION.

SEE STANDARD DRAWING LISTED IN TABULATION OF STRUCTURES FOR ALL NEW CONSTRUCTION DETAILS.

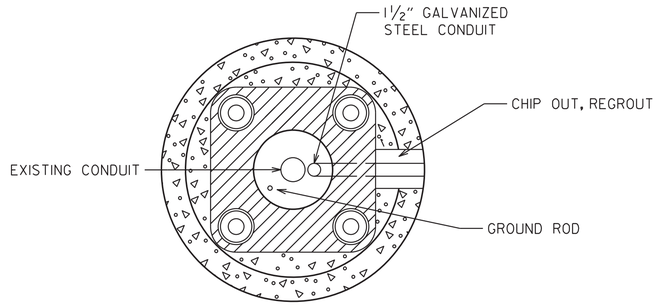
DATE	REVISION	DATE FILM
10-12-95	CHANGED DRAWING * FROM 144-A	
4-1-93	ADDED GENERAL NOTE	
10-1-92	ADDED ALT. METHOD OF EXTENSION	
11-30-89	REDRAWN	
1-4-83	ELIMINATED CONCRETE CLASS	
12-20-56	RETRACED	

ARKANSAS STATE HIGHWAY COMMISSION

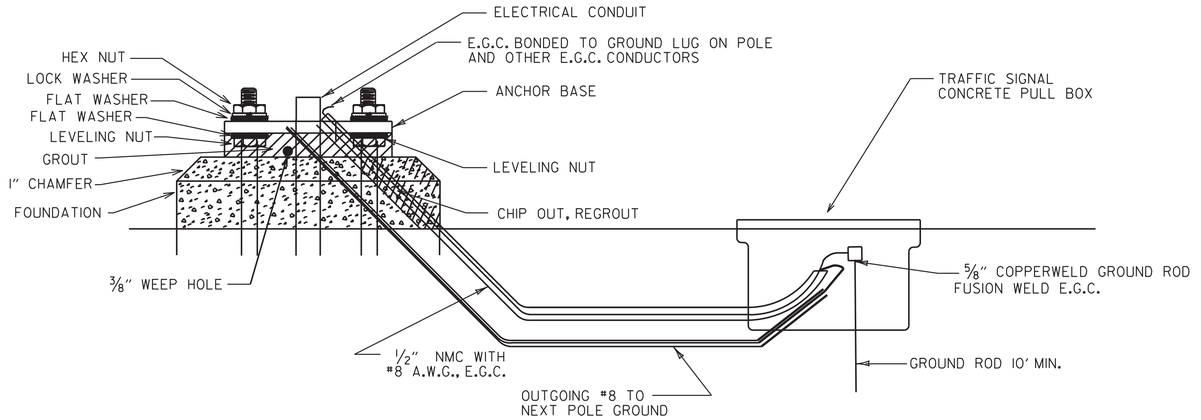
METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS

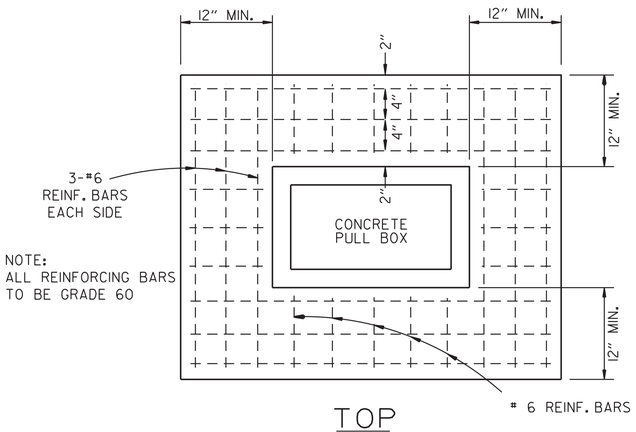
STANDARD DRAWING RCB-3

CONDUIT ENTRY TO EXISTING POLE BASE

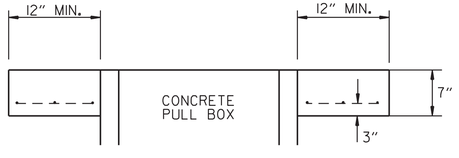


ANCHOR BASE



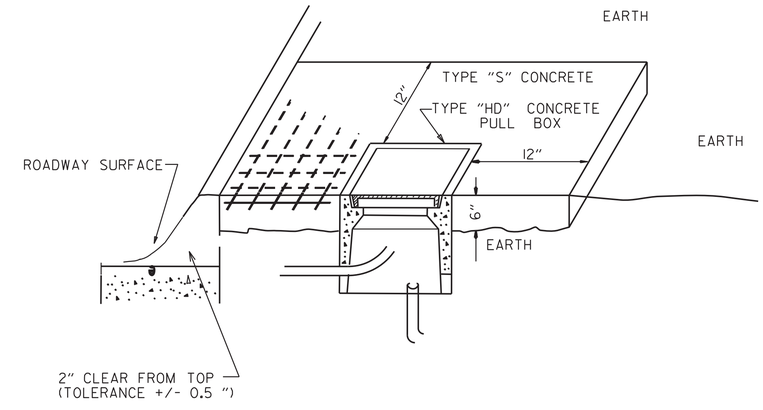


TOP



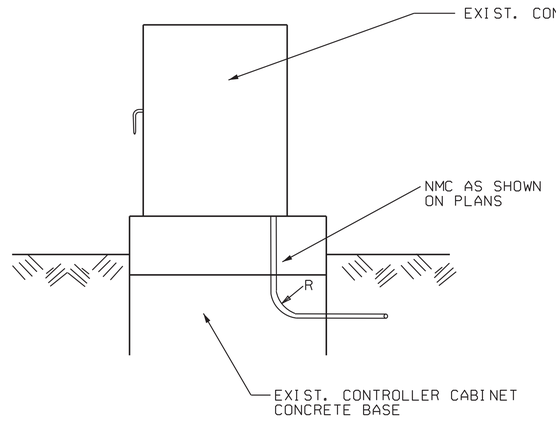
ELEVATION

TYPE "HD" CONCRETE PULL BOX DETAIL



NOTE:
ALL TYPE 1 AND TYPE 2 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 7" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE 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 CONCRETE PULL BOX IS REQUIRED IN CONCRETE.

CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



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

DATE	REVISION	FILMED
11-16-17	REVISED NOTES	
09-02-15	REVISED PULL BOX DEPTH	
09-12-13	ISSUED AS STANDARD DRAWING	
05-21-09	REVISED GROUNDING	
07-31-08	ADDED & REVISED CONDUIT ENTRY	
06-23-04	REVISED CLEARANCE AT CURB ENTRY	
01-04-02	ADDED REINFORCING TO BOX APRON	
07-02-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

HEAVY DUTY PULL BOX

STANDARD DRAWING SD-6

SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH			35 MPH			40 MPH			45 MPH			50 MPH			55 MPH			60 MPH			65 MPH			70 MPH			75 MPH		
	e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)		e	Ls (FT)	
		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE		MINIMUM	DESIRABLE
0° 15'	NC			NC			NC			NC			NC			NC			NC			NC			NC			NC		
0° 30'	NC			NC			NC			NC			NC			NC			RC	96		RC	96		RC	96		0.022	101	
0° 45'	NC			NC			NC			NC			RC	96		RC	96		0.024	106		0.026	110		0.030	120		0.032	125	
1° 00'	NC			NC			NC			RC	90		0.022	101		0.026	110		0.030	120		0.034	130		0.038	139		0.042	149	300
1° 15'	NC			NC			RC	84		0.022	95		0.028	115		0.032	125		0.038	139		0.042	149		0.046	158	300	0.052	173	
1° 30'	NC			RC	78		0.022	88		0.028	108		0.032	125		0.038	139		0.044	154		0.050	168	300	0.056	182		0.062	197	
1° 45'	RC	72		RC	78		0.026	97		0.030	113		0.036	134		0.044	154		0.050	168	300	0.056	182		0.064	202		0.070	216	
2° 00'	RC	72		0.024	86		0.028	101		0.034	122		0.042	149		0.048	163		0.056	182		0.064	202		0.070	216		0.080	240	350
2° 15'	RC	72		0.026	90		0.032	109		0.038	131		0.046	158		0.054	178	300	0.062	197		0.070	216		0.078	235	350	0.088	259	
2° 30'	0.022	75		0.028	94		0.034	113		0.042	140		0.050	168		0.058	187		0.068	211		0.076	230		0.086	254		0.096	278	
2° 45'	0.024	79		0.030	98		0.038	122		0.046	149	200	0.054	178	250	0.064	202		0.072	221		0.082	245		0.092	269		0.100	288	400
3° 00'	0.026	83		0.034	105		0.040	126		0.050	158		0.058	187		0.068	211		0.078	235		0.088	259		0.098	283	400	D MAX = 2° 45'		
3° 15'	0.028	86		0.036	109		0.044	134	200	0.052	162		0.062	197		0.072	221		0.082	245		0.092	269	350	0.100	288		D MAX = 3° 30'			
3° 30'	0.030	90		0.038	113		0.046	139		0.056	171		0.066	206		0.076	230		0.086	254		0.096	278		D MAX = 4° 15'						
3° 45'	0.032	93		0.040	117		0.050	147		0.058	176		0.070	216		0.080	240		0.090	264		0.098	283								
4° 00'	0.034	97		0.042	121	200	0.052	151		0.062	185		0.072	221		0.084	250		0.094	274	350	0.100	288								
4° 15'	0.036	100		0.044	125		0.054	155		0.064	189		0.076	230		0.086	254		0.096	278		D MAX = 5° 15'									
4° 30'	0.036	100	200	0.046	129		0.056	160		0.068	198		0.078	235		0.090	264		0.098	283											
4° 45'	0.038	104		0.048	133		0.060	168		0.070	203	250	0.082	245		0.092	269	350	0.100	288											
5° 00'	0.040	108		0.050	137		0.062	172		0.072	207		0.084	250		0.094	274		D MAX = 6° 30'											
5° 30'	0.044	115		0.054	144		0.066	181		0.078	221		0.088	259	300	0.098	283													
6° 00'	0.046	119		0.058	152		0.070	189		0.082	230		0.092	269		0.100	288													
6° 30'	0.050	126		0.062	160		0.074	198	250	0.086	239		0.096	278		D MAX = 8° 25'														
7° 00'	0.052	130		0.064	164		0.078	206		0.090	248		0.098	283																
7° 30'	0.054	133		0.068	172		0.080	210		0.092	252	300	0.100	288																
8° 00'	0.058	140		0.070	176		0.084	219		0.094	257		D MAX = 10° 30'																	
8° 30'	0.060	144		0.072	179		0.086	223	250	0.096	261																			
9° 00'	0.062	148		0.076	187	250	0.088	227		0.098	266																			
9° 30'	0.064	151		0.078	191		0.092	235		0.100	270																			
10° 00'	0.066	155		0.080	195		0.094	240		D MAX = 13° 45'																				
11° 00'	0.070	162		0.084	203		0.096	244																						
12° 00'	0.074	169		0.088	211	250	0.098	248																						
13° 00'	0.076	173		0.090	215		0.100	252	300																					
14° 00'	0.080	180		0.094	222		D MAX = 19° 30'																							
15° 00'	0.082	184		0.096	226																									
16° 00'	0.086	191		0.098	230																									
17° 00'	0.088	194		0.100	234																									
18° 00'	0.090	198	250	D MAX = 25° 30'																										
19° 00'	0.092	202																												
20° 00'	0.094	205																												
21° 00'	0.096	209																												
22° 00'	0.096	209																												
23° 00'	0.098	212																												
24° 00'	0.098	212																												
25° 00'	0.100	216																												

D MAX = 28° 30'

ABBREVIATIONS

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

GENERAL NOTES

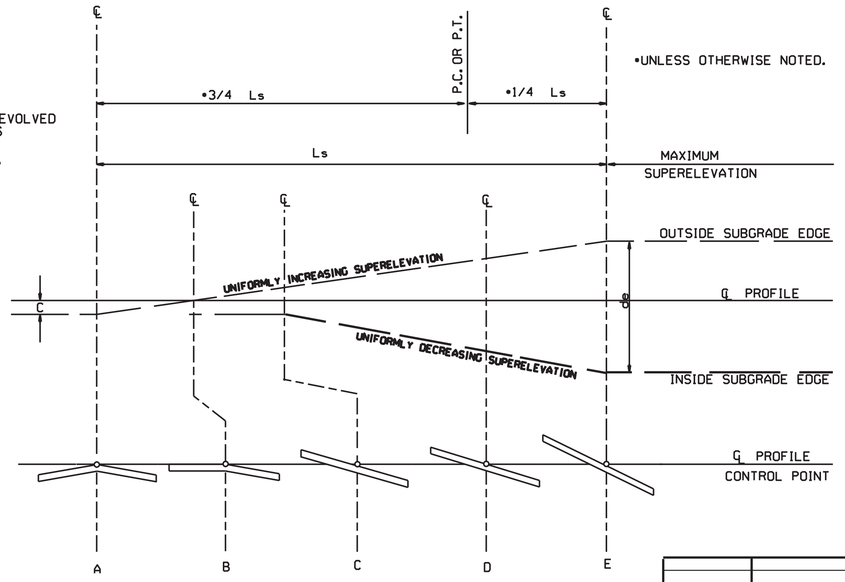
1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED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

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

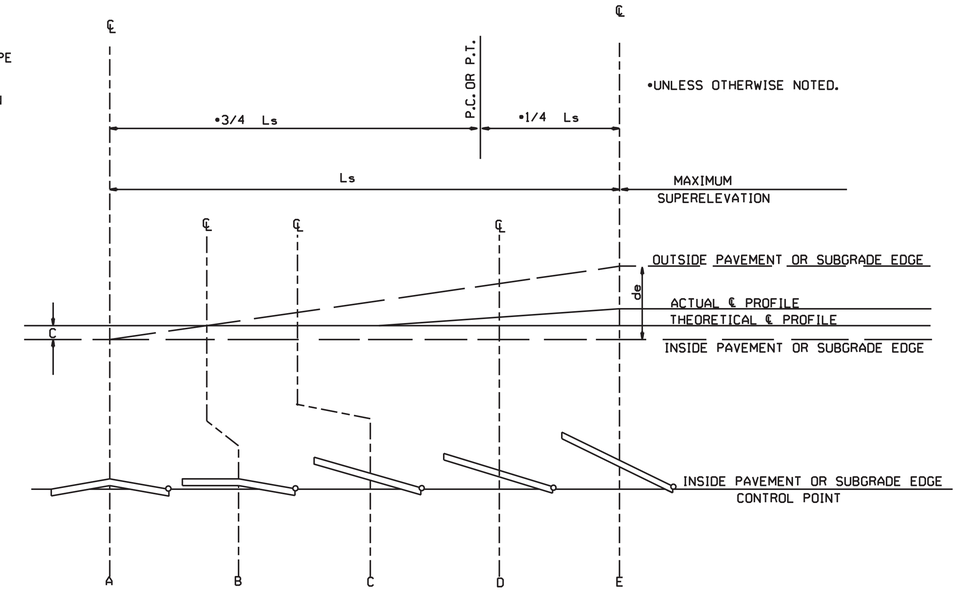
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

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

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



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE



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

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

DATE	REVISION	DATE FILMED
11-07-19	REVISED SUPERELEVATION TABLE	
10-18-96	ADDED FORMULA	
01-09-87	ISSUED	534-1-9-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

STANDARD DRAWING SE-2

R1-1
30"X30"

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

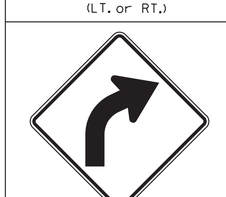
W1-8
18"X24"

W2-5
30"X30"

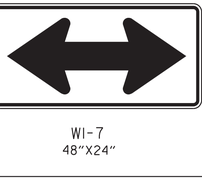
W3-1
36"X36"

W5-1
36"X36"

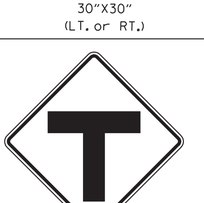
M6-3
21"X15"



R1-2
36"X36"X36"

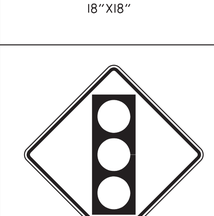


W1-4
30"X30"
(LT. or RT.)

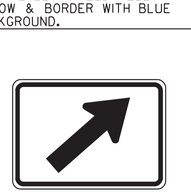


W2-1
30"X30"

S1-1
36"X36"



W3-2
36"X36"

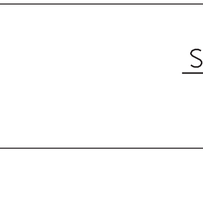


County
Route Marker
M1-6
24"X24"

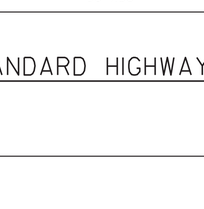
NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.

M6-4
21"X15"

R2-1
24"X30"

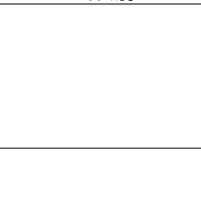


W1-5
30"X30"
(LT. or RT.)



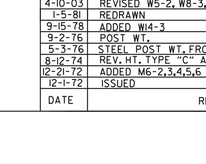
W2-2
30"X30"

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

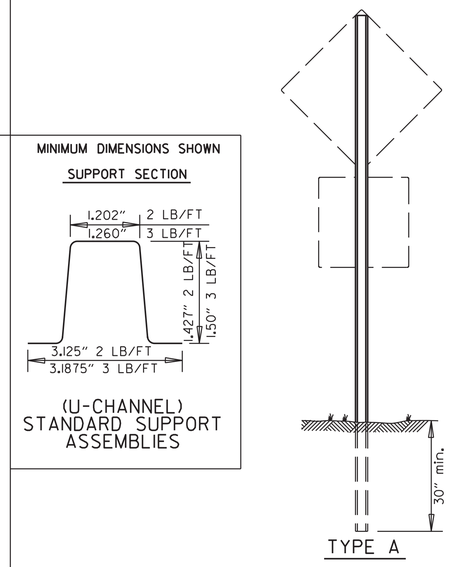
W3-3
36"X36"

M6-2
21"X15"

S4-3P
24"X8"

S4-2P
24"X10"

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



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

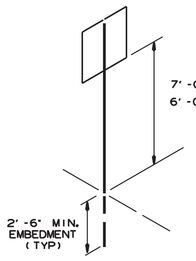
SUPPORT ASSEMBLIES

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 W14-3	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

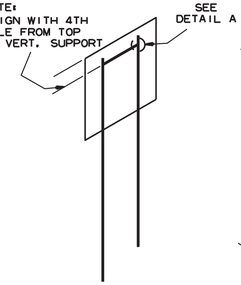
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

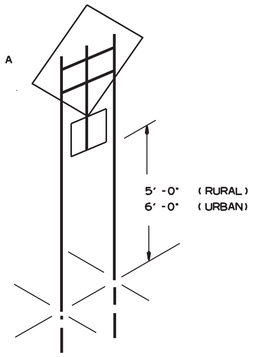
STANDARD DRAWING SHS-1



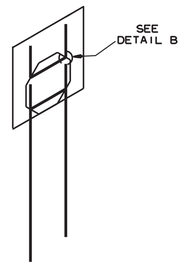
U-1



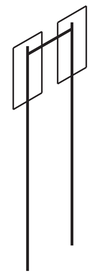
U-2



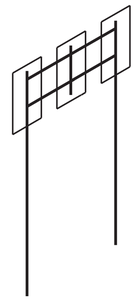
U-2 (A)



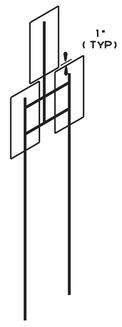
U-2 (B)



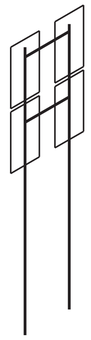
U-2 (1)



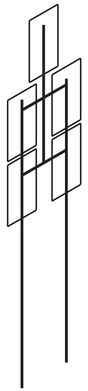
U-2 (2)



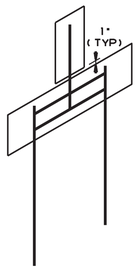
U-2 (3)



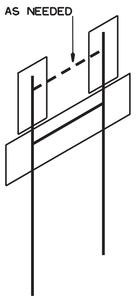
U-2 (4)



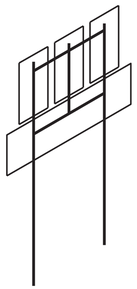
U-2 (5)



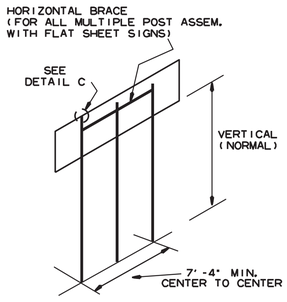
U-2 (6)



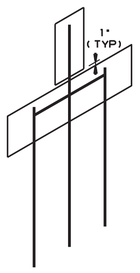
U-2 (7)



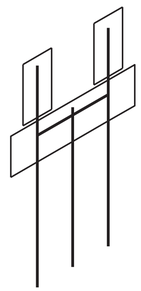
U-2 (8)



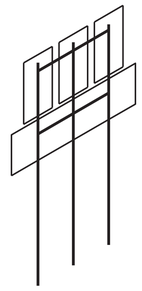
U-3



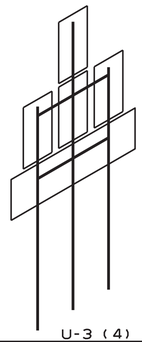
U-3 (1)



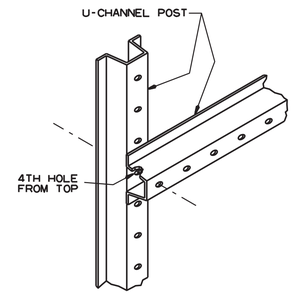
U-3 (2)



U-3 (3)

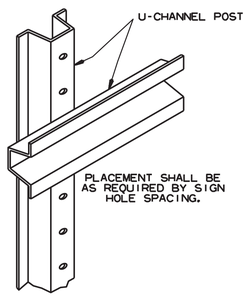


U-3 (4)



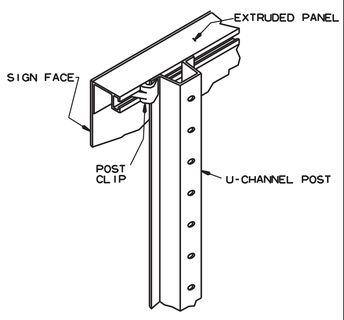
DETAIL A

SHOWING HORIZONTAL BRACE



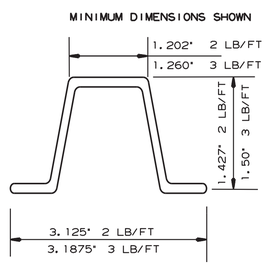
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



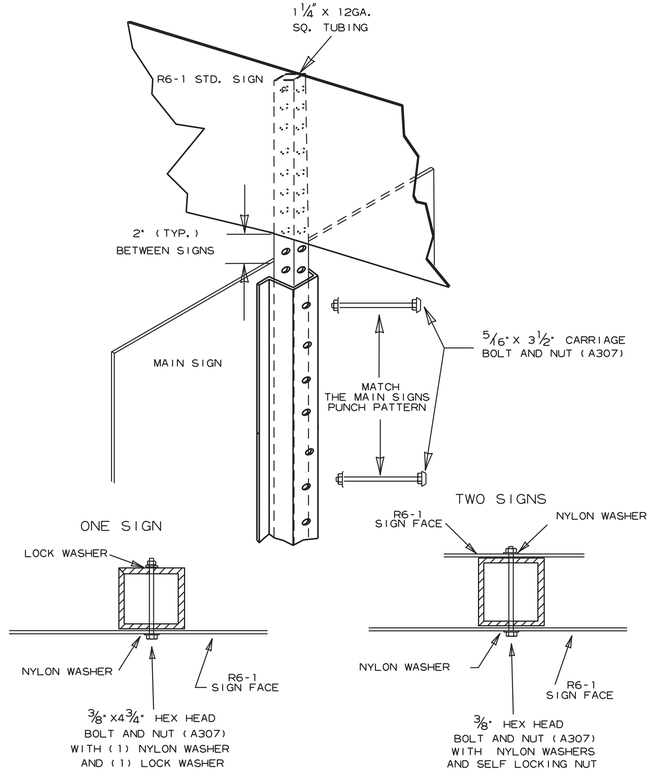
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



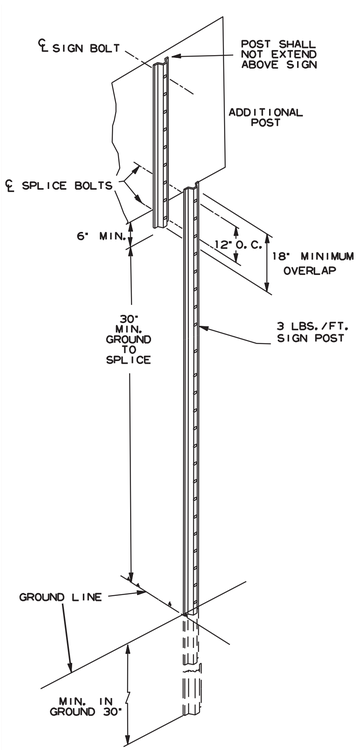
DETAIL C

U-CHANNEL POST



DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

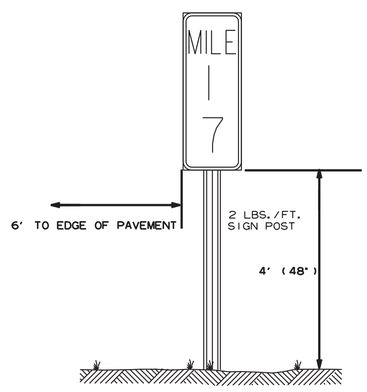
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

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

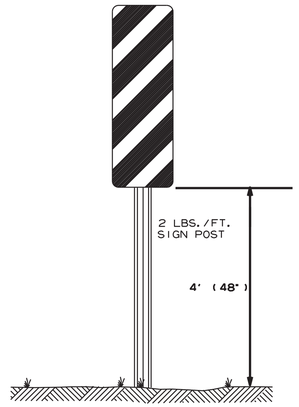
NORMAL INSTALLATIONS WILL REQUIRE 5/16" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

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

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"

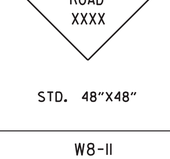
R4-1

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

R4-2

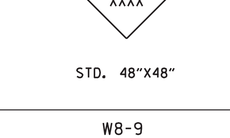
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



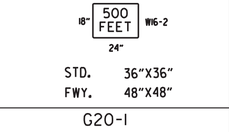
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



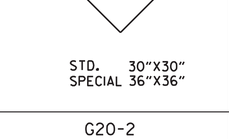
48"X30"

R11-3A



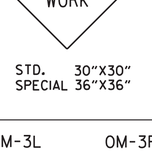
60"X30"

R11-4



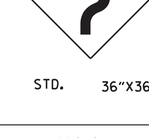
60"X30"

W21-5a



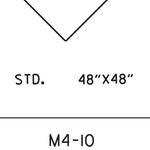
STD. 36"X36"
FWY. 48"X48"

W1-1



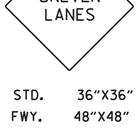
STD. 36"X36"
FWY. 48"X48"

W1-2



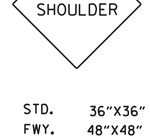
STD. 36"X36"
FWY. 48"X48"

W1-3



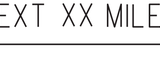
STD. 48"X48"

W1-4



STD. 48"X48"

W1-6

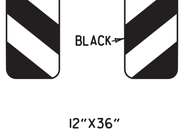


STD. 48"X24"
SPECIAL 60"X30"

W1-8

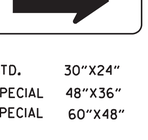
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2

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

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

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

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

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

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

W1-4b

STD. 48"X48"

R56-1

STD. 18"X18"

W8-11

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

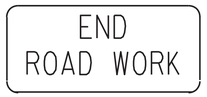
W8-9

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

G20-1

60"X24"

G20-2



48"X24"

OM-3L OM-3R

12"X36"

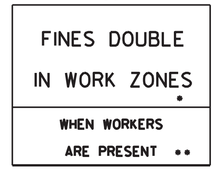
M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



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.

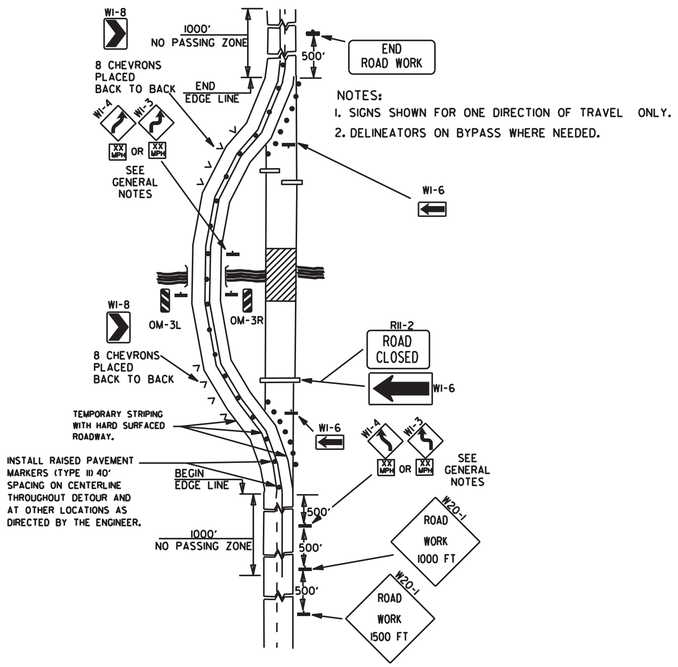
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED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

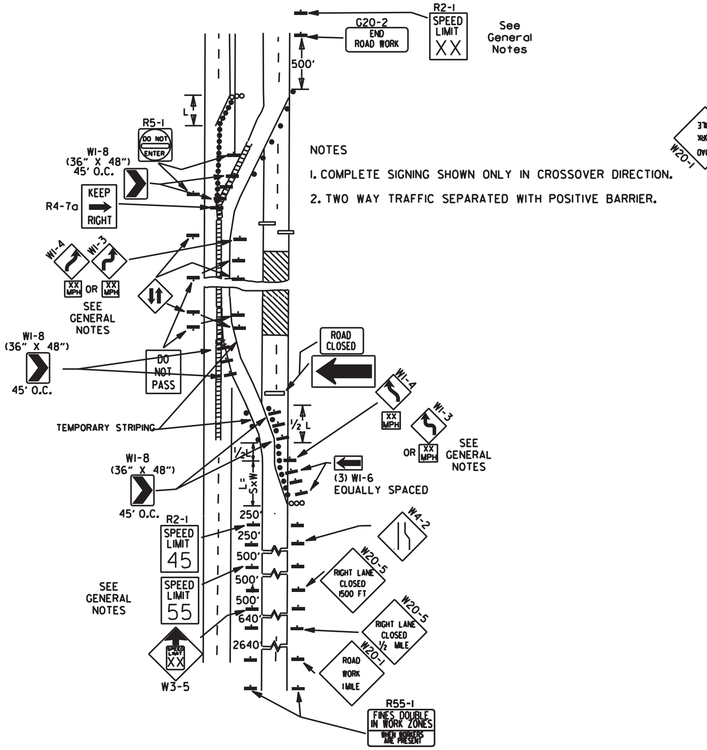
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

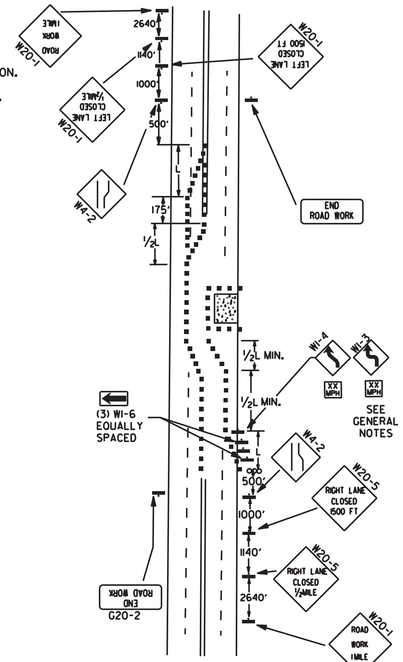
STANDARD DRAWING TC-1



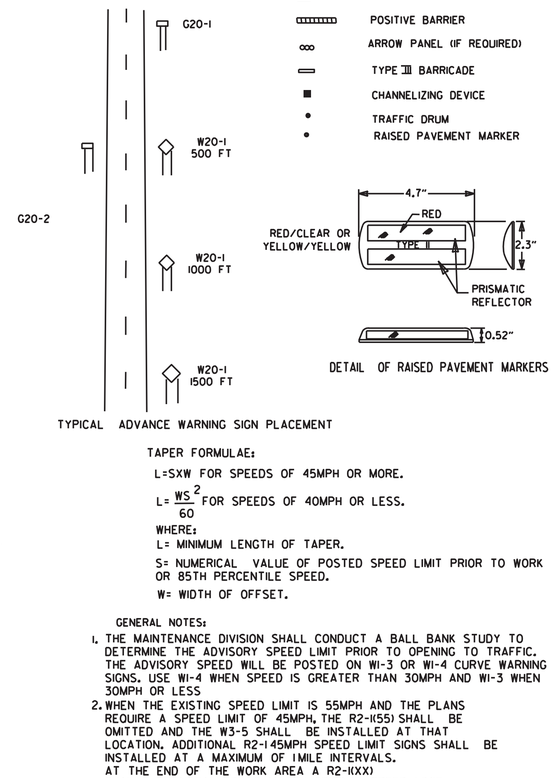
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



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



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



TYPICAL ADVANCE WARNING SIGN PLACEMENT

DETAIL OF RAISED PAVEMENT MARKERS

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

WHERE:

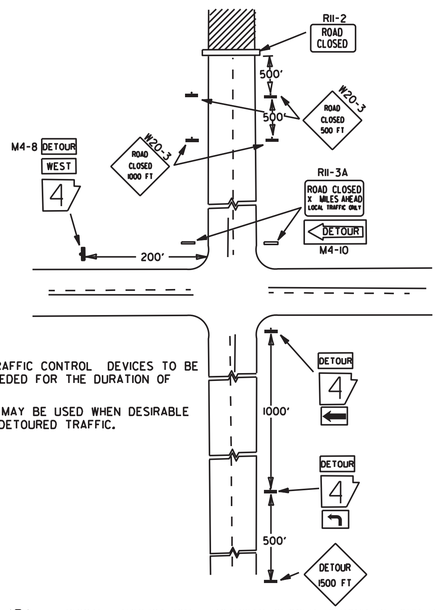
L= MINIMUM LENGTH OF TAPER.

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

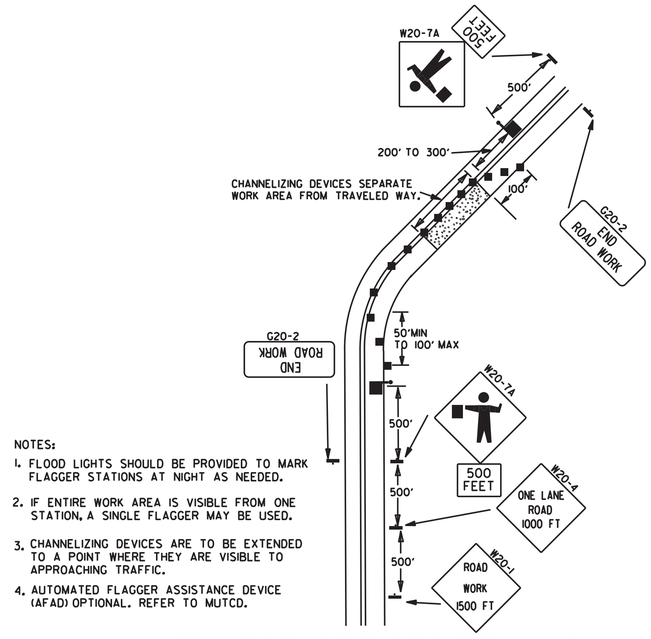
W= WIDTH OF OFFSET.

GENERAL NOTES:

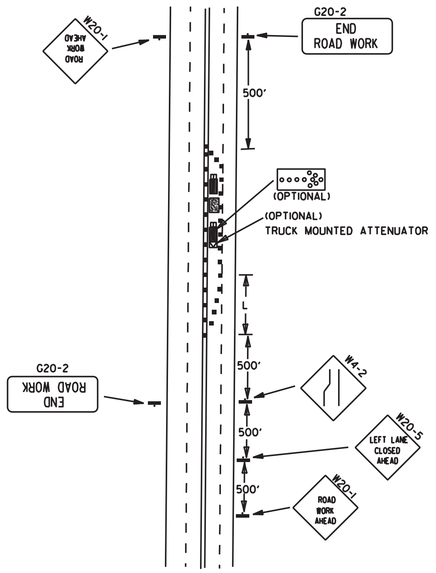
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT 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.
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).



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



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



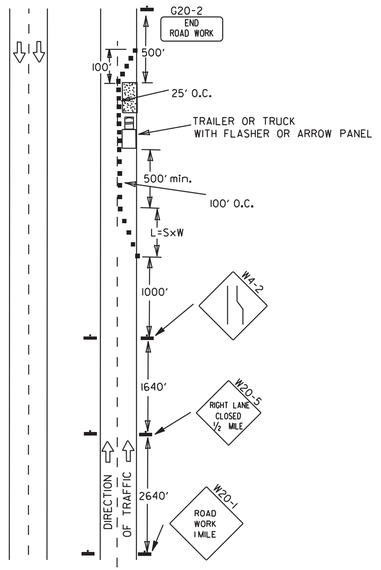
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
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	

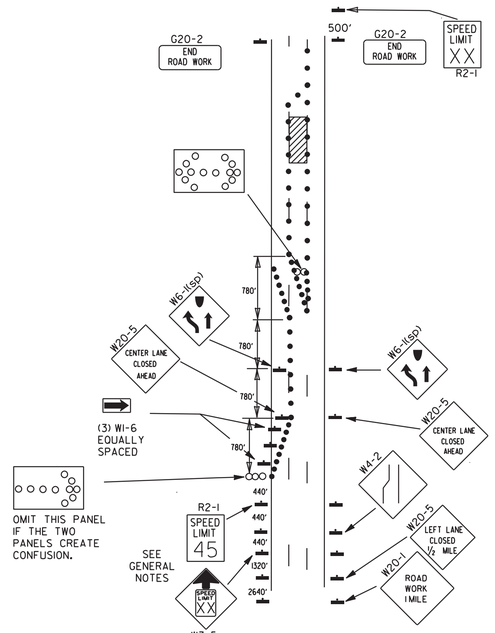
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

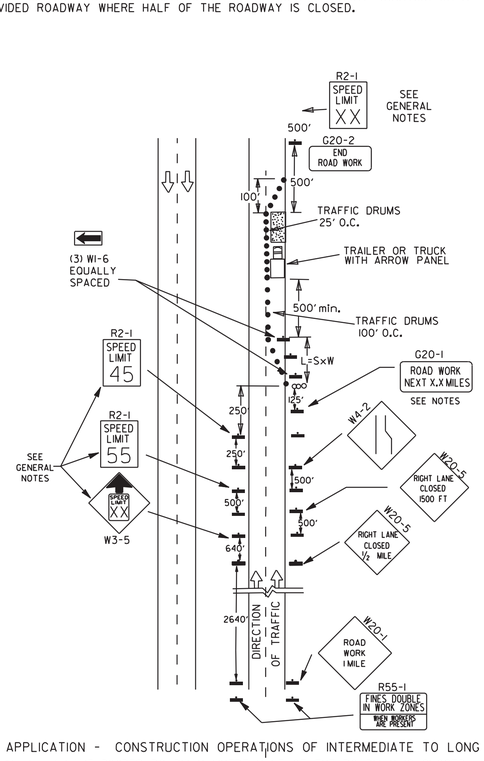
STANDARD DRAWING TC-2



(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.



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

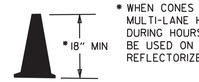
KEY:

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

GENERAL NOTES:

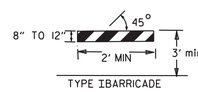
1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF 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.
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).

CHANNELIZING DEVICES



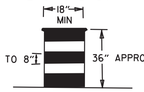
* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

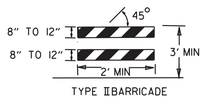
CONES



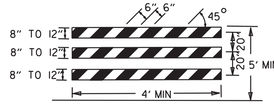
TYPE I BARRICADE

PLASTIC DRUM



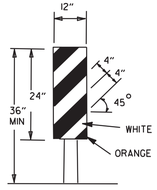


TYPE II BARRICADE



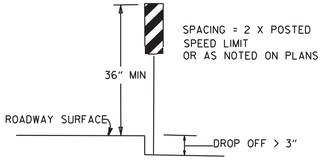
TYPE III BARRICADE

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

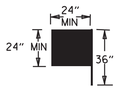


VERTICAL PANEL
VP-1R

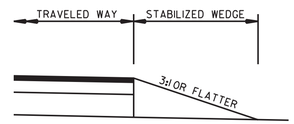
VERTICAL PANEL PLACEMENT



FLAG



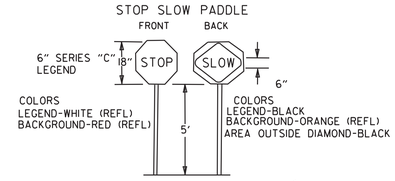
FLAG SHALL BE OF GOOD GRADE RED MATERIAL



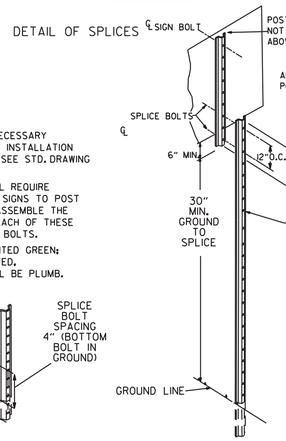
STABILIZED WEDGE

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

STOP SLOW PADDLE



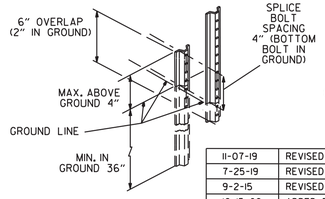
DETAIL OF SPLICES

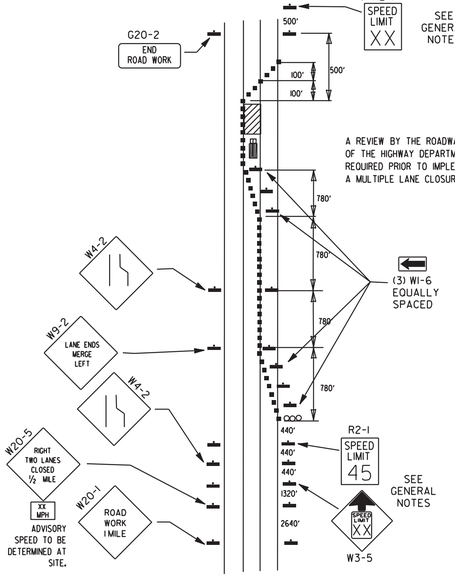


NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.





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.

TRAFFIC CONTROL DEVICES

NON-INTERSTATE

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING	W8-11 AND LANE STRIPING
> 2"	CENTERLINE	STANDARD LANE CLOSURE	STANDARD LANE CLOSURE
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS
> 6" ≤ 12"	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]
> 12" ≤ 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[1]	PRECAST CONCRETE BARRIER[3] & EDGE LINES
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER[3] & EDGE LINES	PRECAST CONCRETE BARRIER[3] & EDGE LINES

INTERSTATE

VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2]
> 2" ≤ 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. 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.
4. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.

DATE	REVISION	FILMED
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	

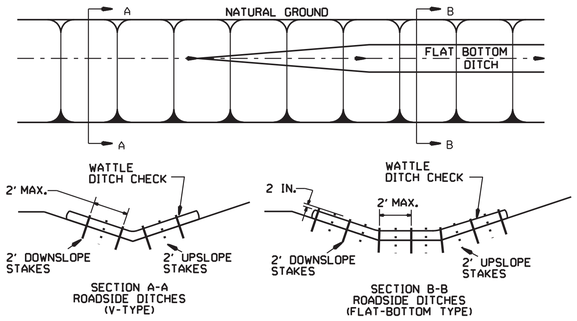
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

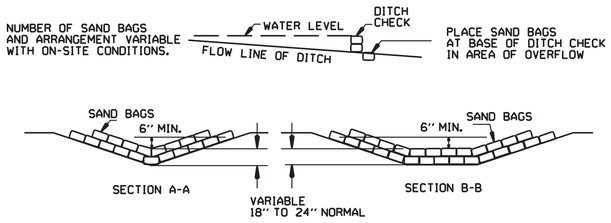
STANDARD DRAWING TC-3

GENERAL NOTES

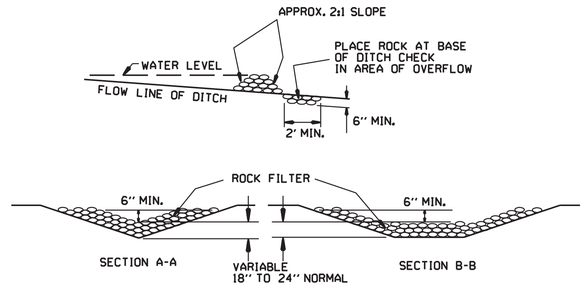
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

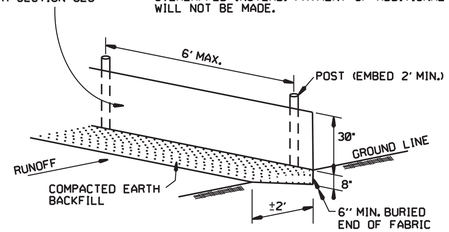


ROCK DITCH CHECK (E-6)

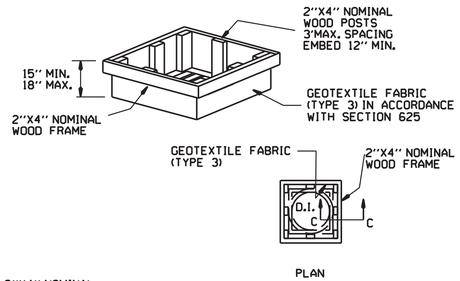
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

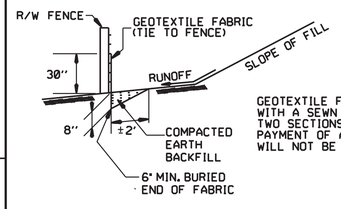
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)

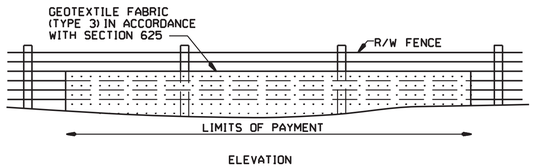


DROP INLET SILT FENCE (E-7)



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.



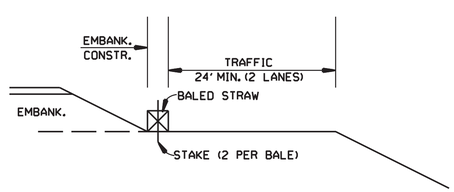
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

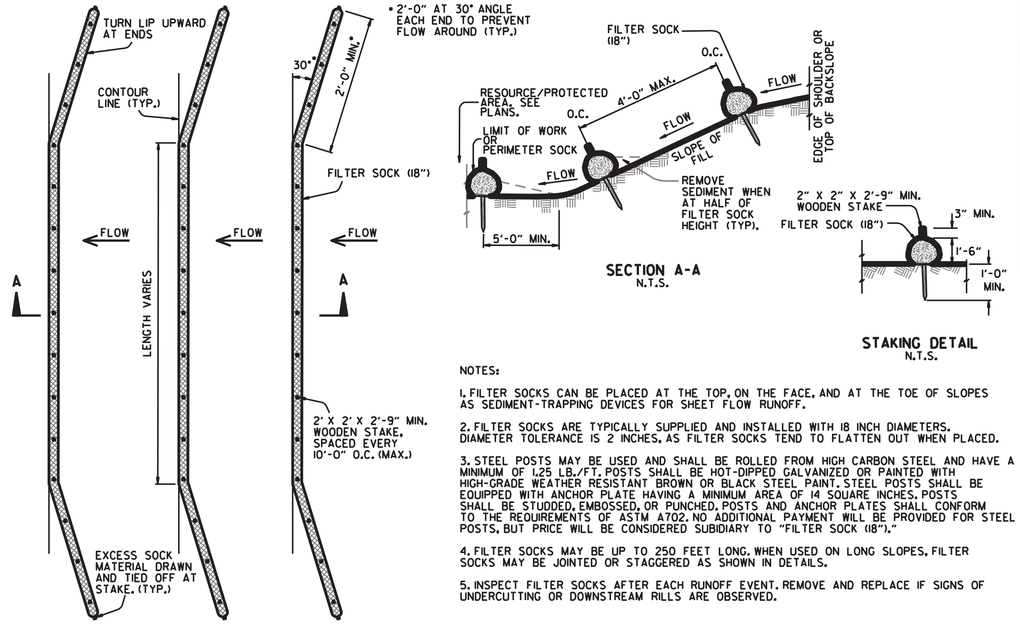
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

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)



PLAN VIEW
N.T.S.

SECTION A-A
N.T.S.

STAKING DETAIL
N.T.S.

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.

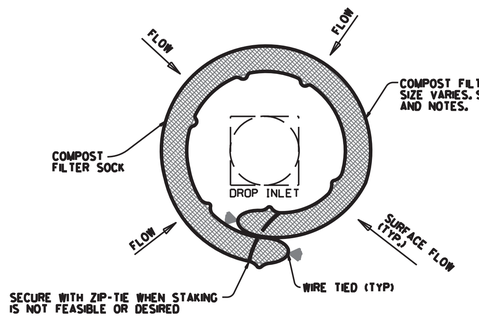
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES. AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

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")."

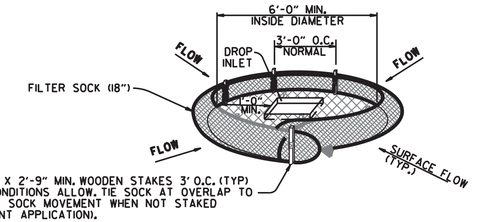
4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

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)



DROP INLET PLAN VIEW
N.T.S.



DROP INLET PERSPECTIVE VIEW
N.T.S.

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.

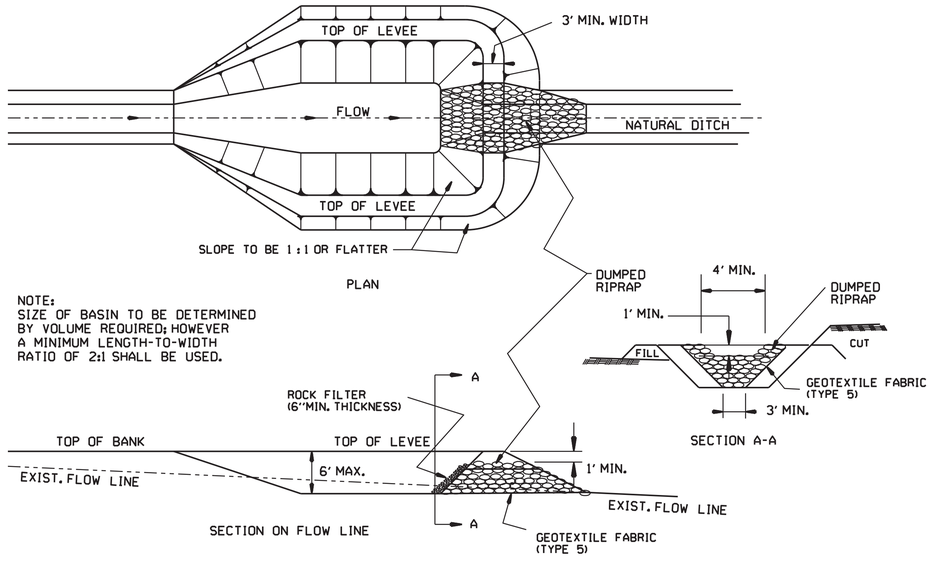
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

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

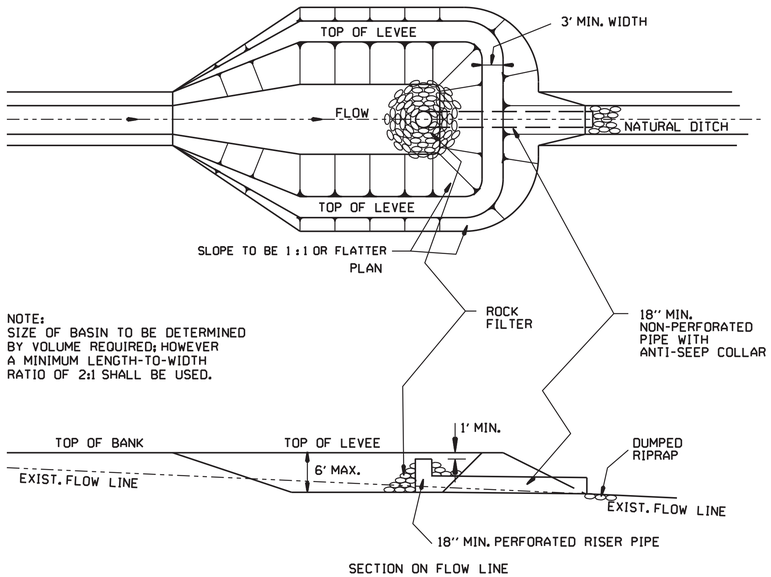
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

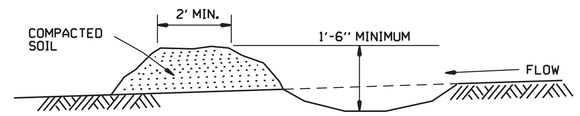
STANDARD DRAWING TEC-1



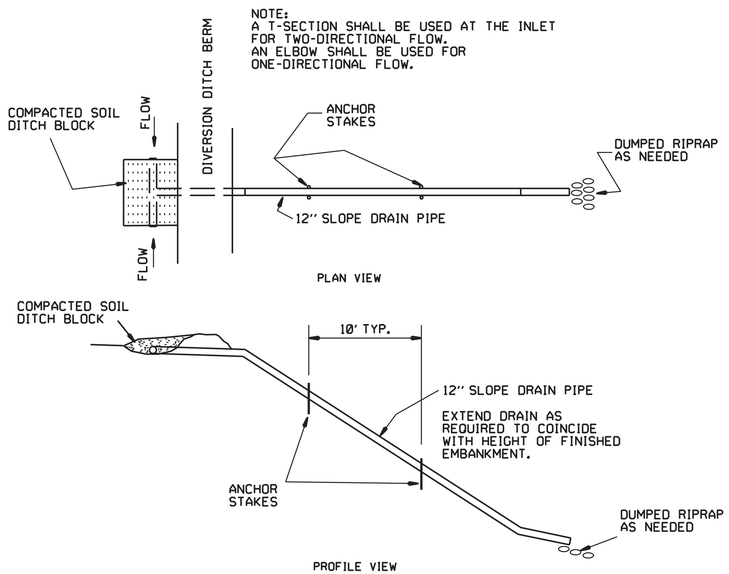
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



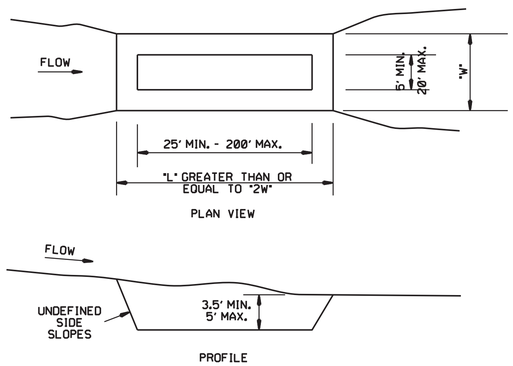
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



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

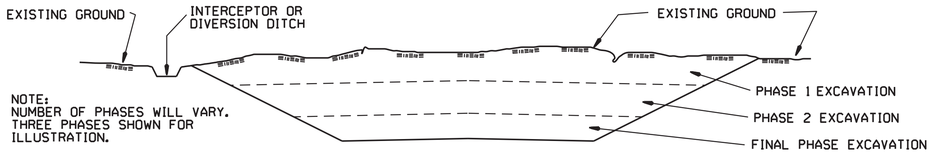
STANDARD DRAWING TEC-2

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



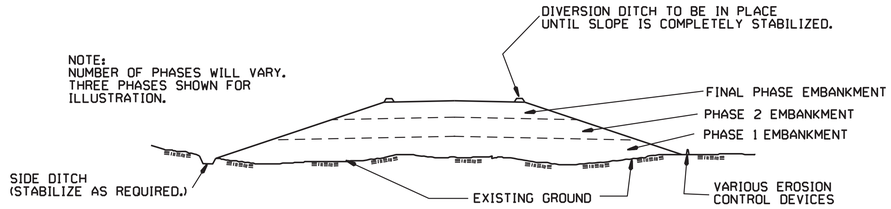
GENERAL NOTE

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.

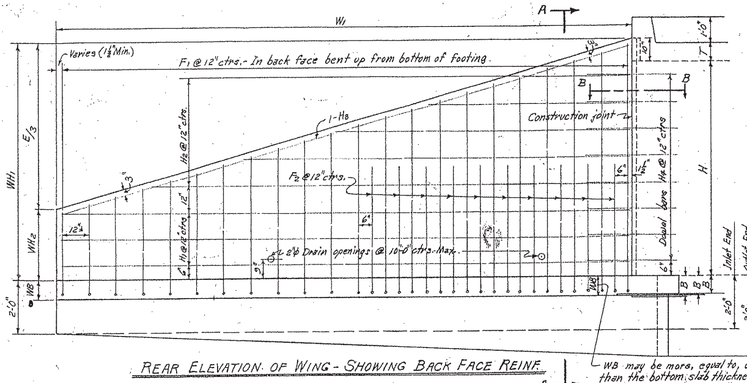
DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

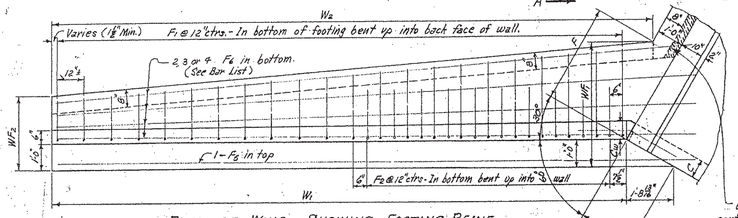
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3

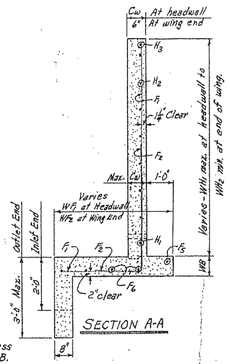
FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					



REAR ELEVATION OF WING - SHOWING BACK FACE REINF.



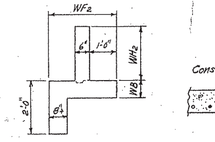
PLAN OF WING - SHOWING FOOTING REINF.



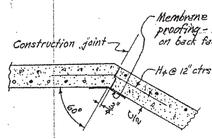
SECTION A-A

WB may be more, equal to, or less than the bottom slab thickness B.

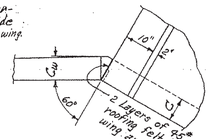
When B is more than WB, the shaded portion of the apron shall be made the same thickness as the barrel base B.



END VIEW OF WING



SECTION B-B THRU CONSTRUCTION JOINT



DETAIL AT TOP OF WING

NOTE:- Payment for membrane waterproofing and roofing felt to be included in the price bid for Class S Concrete.

WING DIMENSIONS

CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HEADWALL = C	WINGWALL HEIGHTS AT HEADWALL	WINGWALL HEIGHTS AT END OF WING	WIDTHS OF WING FOOTINGS AT HEADWALL	WIDTHS OF WING FOOTINGS AT END OF WING	PERPENDICULAR FOOTING DIMENSION	PERPENDICULAR DIST. FROM HDWL. TO END OF WING	LENGTH OF WING WALLS	INSIDE FOOTING DIMENSION	* QUANTITY PER WING CLASS S CONCRETE INLET END	* QUANTITY PER WING CLASS S CONCRETE OUTLET END
H	WB	Cw	WH1	WH2	WF1	WF2	F	E	W1	W2	Cu.Yd.	Cu.Yd.
2'	7"	6"	2'-10"	0'-8"	2'-4"	2'-0"	0'-11⅞"	6'-6"	7'-6"	7'-1½"	0.889	0.986
3'	7"	6"	3'-10"	1'-0"	2'-8"	2'-1½"	1'-3⅜"	8'-6"	9'-3⅜"	9'-2⅝"	1.338	1.466
4'	7"	6"	4'-10"	1'-2"	3'-0"	2'-3"	1'-5"	10'-6"	12'-1⅝"	12'-1⅝"	1.868	2.027
5'	7"	6"	5'-10"	1'-8"	3'-4"	2'-9⅛"	2'-1⅞"	12'-6"	14'-5⅝"	14'-7⅛"	2.478	2.668
		7"	5'-10"	1'-8"	3'-5"	2'-9⅝"	2'-1⅞"	12'-6"	14'-5⅝"	14'-7⅛"	2.582	2.772
6'	8"	7"	6'-10"	2'-0"	3'-8"	2'-6"	2'-6⅛"	14'-6"	16'-9"	17'-1⅝"	3.440	3.661
		7⅝"	6'-10"	2'-0"	3'-8"	2'-6"	2'-6⅛"	14'-6"	16'-9"	17'-1⅝"	3.511	3.732
		8"	6'-10"	2'-0"	3'-8"	2'-6"	2'-6⅛"	14'-6"	16'-9"	17'-1⅝"	3.582	3.803
7'	8⅝"	7⅝"	7'-10"	2'-4"	4'-2"	2'-7⅞"	3'-1⅝"	16'-6"	19'-0⅝"	19'-0⅝"	4.505	4.758
		8"	7'-10"	2'-4"	4'-2"	2'-7⅞"	3'-1⅝"	16'-6"	19'-0⅝"	19'-0⅝"	4.597	4.851
8'	9"	8"	8'-10"	2'-8"	4'-8"	2'-9"	3'-5"	18'-6"	21'-4⅝"	22'-0⅝"	5.761	6.047

* Quantity per wing does not include headwall or that portion of apron or toewall for the length W3.

APRON DIMENSION W3

W3 = (OW - 2F)

CLEAR SPAN S	CLEAR HEIGHT H	2 x FOOTING DIMENSION 2F	SINGLE BARREL CULVERT OW	SINGLE BARREL CULVERT W3	DOUBLE BARREL CULVERT OW	DOUBLE BARREL CULVERT W3	TRIPLE BARREL CULVERT OW	TRIPLE BARREL CULVERT W3	QUADRUPLE BARREL CULVERT OW	QUADRUPLE BARREL CULVERT W3	QUINTUPLE BARREL CULVERT OW	QUINTUPLE BARREL CULVERT W3
4'	2'	1'-11⅞"	5'-0"	3'-0⅛"	9'-8"	7'-8⅛"	14'-4"	12'-4⅛"	19'-0"	17'-0⅛"	23'-8"	21'-8⅛"
	3'	2'-8⅛"	5'-0"	2'-3⅜"	9'-8"	6'-11⅛"	14'-4"	11'-7⅜"	19'-0"	16'-3⅝"	23'-8"	20'-11⅞"
	4'	3'-6"	5'-0"	1'-6"	9'-8"	6'-2"	14'-4"	10'-10"	19'-0"	15'-6"	23'-8"	20'-2"
	5"	4'-3⅜"	5'-0"	0'-8⅝"	9'-8"	5'-4⅜"	14'-4"	10'-0⅜"	19'-0"	14'-8⅜"	23'-8"	19'-9⅞"
	6'	5'-0⅝"	5'-2"	0'-1⅛"	9'-11"	4'-10⅛"	14'-8"	9'-7⅛"	19'-5"	14'-4⅛"	24'-2"	19'-1⅛"
5'	3'	2'-8⅛"	6'-0"	3'-3⅜"	11'-8"	8'-11⅛"	17'-4"	14'-7⅜"	23'-0"	20'-3⅜"	28'-8"	25'-11⅜"
	4'	3'-6"	6'-0"	2'-6"	11'-8"	8'-2"	17'-4"	13'-10"	23'-0"	19'-6"	28'-8"	25'-2"
	5"	4'-3⅜"	6'-0"	1'-8⅝"	11'-8"	7'-5⅜"	17'-4"	13'-0⅜"	23'-0"	18'-8⅜"	28'-8"	24'-9⅞"
	6'	5'-0⅝"	6'-2"	1'-1⅞"	11'-11"	6'-10⅛"	17'-8"	12'-7⅛"	23'-5"	18'-4⅛"	29'-2"	24'-1⅛"
	7'	6'-2⅛"	6'-5"	0'-0⅝"	12'-1"	5'-10⅝"	17'-11"	11'-8⅝"	23'-9"	17'-11⅝"	29'-7"	23'-4⅝"
6'	3'	2'-8⅛"	7'-0"	4'-3⅜"	13'-8"	10'-11⅛"	20'-4"	17'-7⅜"	27'-0"	24'-3⅜"	33'-8"	30'-11⅜"
	4"	3'-6"	7'-0"	3'-6"	13'-8"	10'-2"	20'-4"	16'-10"	27'-0"	23'-6"	33'-8"	30'-2"
	5"	4'-3⅜"	7'-0"	2'-8⅝"	13'-8"	9'-5⅜"	20'-4"	16'-0⅜"	27'-0"	22'-8⅜"	33'-8"	29'-9⅞"
	6'	5'-0⅝"	7'-2"	2'-1⅞"	13'-11"	8'-10⅛"	20'-8"	15'-7⅛"	27'-5"	22'-2⅛"	34'-2"	29'-1⅛"
	7'	6'-2⅛"	7'-5"	1'-0⅝"	14'-1"	7'-10⅝"	20'-11"	14'-8⅝"	27'-9"	21'-5⅝"	34'-7"	28'-4⅝"
	8'	7'-1⅝"	7'-8"	0'-0"	14'-2"	6'-10"	21'-0"	13'-8"	27'-10"	20'-6"	34'-8"	27'-8"
8'	4'	3'-6"	9'-0"	5'-6"	19'-6"	14'-2"	26'-8"	22'-10"	35'-0"	31'-6"	43'-8"	40'-2"
	5'	4'-3⅜"	9'-2"	4'-10⅜"	17'-11"	13'-7⅜"	26'-8"	21'-11⅜"	35'-5"	31'-1⅜"	44'-2"	39'-10⅜"
	6'	5'-0⅝"	9'-2"	4'-1⅞"	17'-11"	12'-10⅛"	26'-8"	21'-0⅝"	35'-5"	30'-0⅝"	44'-2"	39'-1⅞"
	7'	6'-2⅛"	9'-5"	3'-0⅝"	18'-1"	11'-10⅝"	26'-11"	20'-0⅝"	35'-9"	29'-0⅝"	44'-7"	38'-4⅝"
	8'	7'-1⅝"	9'-8"	2'-0"	18'-2"	10'-10"	27'-0"	19'-0"	35'-10"	28'-0"	44'-8"	37'-8"
9'	5'	4'-3⅜"	10'-2"	5'-10⅜"	19'-11"	15'-7⅜"	29'-8"	25'-9⅜"	39'-5"	35'-1⅜"	49'-2"	44'-10⅜"
	6'	5'-0⅝"	10'-3"	5'-2⅛"	20'-1"	15'-0⅛"	29'-11"	24'-10⅛"	39'-9"	34'-3⅛"	49'-7"	44'-1⅛"
	7'	6'-2⅛"	10'-5"	4'-0⅝"	20'-1"	13'-10⅝"	29'-11"	23'-8⅝"	39'-9"	33'-0⅝"	49'-7"	43'-0⅝"
	8'	7'-1⅝"	10'-8"	3'-0"	20'-2"	12'-10"	30'-0"	22'-8"	39'-10"	32'-0"	49'-8"	42'-0"
10'	5'	4'-3⅜"	11'-2"	6'-10⅜"	21'-11"	17'-7⅜"	32'-8"	28'-9⅜"	43'-5"	39'-1⅜"	54'-2"	49'-10⅜"
	6'	5'-0⅝"	11'-3"	6'-2⅛"	22'-1"	17'-0⅛"	32'-11"	27'-10⅛"	43'-9"	38'-3⅛"	54'-7"	49'-1⅛"
	7'	6'-2⅛"	11'-5"	5'-0⅝"	22'-1"	15'-10⅝"	32'-11"	26'-8⅝"	43'-9"	37'-0⅝"	54'-7"	48'-0⅝"
	8'	7'-1⅝"	11'-8"	4'-0"	22'-2"	14'-10"	33'-0"	25'-8"	43'-10"	36'-0"	54'-8"	47'-8"
11'	6'	5'-0⅝"	12'-4"	7'-3⅛"	24'-2"	19'-1⅛"	36'-0"	30'-11⅛"	47'-10"	42'-3⅛"		
	7'	6'-2⅛"	12'-6"	6'-1⅝"	24'-2"	17'-11⅝"	36'-0"	29'-9⅝"	47'-10"	41'-1⅝"		
	8'	7'-1⅝"	12'-8"	5'-0"	24'-2"	16'-10"	36'-0"	28'-8"	47'-10"	40'-0"		
12'	6'	5'-0⅝"	13'-4"	8'-3⅛"	26'-2"	21'-1⅛"	39'-0"	33'-11⅛"	51'-10"	46'-3⅛"		
	7'	6'-2⅛"	13'-6"	7'-1⅝"	26'-2"	19'-11⅝"	39'-0"	32'-10⅝"	51'-10"	45'-1⅝"		
	8'	7'-1⅝"	13'-8"	6'-0"	26'-2"	18'-10"	39'-0"	31'-8"	51'-10"	44'-0"		

QUANTITIES

CLEAR SPAN S	CLEAR HEIGHT H	THICKNESS OF WING AT HEADWALL Cw	THICKNESS OF WING FOOTING WB	REINFORCING STEEL - LB. - FOR 4 WINGS	CLASS S CONCRETE - 4 WINGS HEADWALLS, WINGWALLS, FOOTINGS, TOEWALLS AND APRONS SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT
					Cu.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.
4'	2'	6"	7"	108.0	4.50	5.96	6.42	7.38	8.34
	3'	6"	7"	169.4	6.26	7.21	8.17	9.13	10.09
	4'	6"	7"	259.6	8.33	9.28	10.24	11.20	12.16
	5'	6"	7"	357.8	10.72	11.68	12.64	13.60	14.56
	6'	7"	8"	583.1	14.55	15.53	16.52	17.51	18.49
5'	3'	6"	7"	169.4	6.97	7.68	8.79	9.96	11.12
	4'	6"	7"	259.6	8.54	9.70	10.87	10.03	12.20
	5'	6"	7"	357.8	10.94	12.10	13.26	14.43	15.59
	6'	7"	8"	583.1	14.77	15.96	17.15	18.34	19.54
	7'	7⅞"	8⅝"	1139.6	18.94	20.15	21.37	22.59	23.80
6'	3'	6"	7"	169.4	6.68	8.06	9.42	10.80	12.18
	4'	6"	7"	259.6	8.75	10.15	11.49	12.87	14.25
	5'	6"	7"	357.8	11.15	12.53	13.89	15.27	16.65
	6'	7"	8"	583.1	14.98	16.39	17.78	19.18	20.59
	7'	7⅞"	8⅝"	1139.6	19.15	20.58	22.00	23.43	24.86
	8'	8"	9"	1925.6	25.09	25.53	26.96	28.39	29.83
7'	4'	6"	7"	259.6	8.97	10.58	12.15	13.76	15.35
	5'	6"	7"	357.8	11.36	12.97	14.58	16.15	17.75
	6'	7"	8"	583.1	15.20	16.82	18.42	20.04	21.66
	7'	7⅞"	8⅝"	1139.6	19.38	21.02	22.68	24.28	25.92
	8'	8"	9"	1925.6	24.32	25.97	27.60	29.25	30.89
8'	4'	6"	7"	259.6	9.19	11.03	12.82	14.65	16.45
	5'	7"	7"	357.8	12.03	13.89	15.70	17.55	19.36
	6'	7"	8"	583.1	15.92	17.27	19.09	20.93	22.75
	7'	7⅞"	8⅝"	1139.6	19.59	21.46	23.30	25.16	26.99
	8'	8"	9"	1925.6	24.54	26.41	28.24	30.11	31.96
9'	5'	7"	7"	357.8	12.26	14.39	16.87	18.95	20.97
	6'	7⅞"	8"	583.1	15.94	18.04	20.09	22.19	24.23
	7'	7⅞"	8⅝"	1139.6	19.81	21.91	23.96	26.06	28.10
	8'	8"	9"	1925.6	24.76	26.86	28.91	31.00	33.05
10'	5'	7"	7"	357.8	12.49	14.80	17.05	19.24	21.52
	6'	7⅞"	8"	583.1	16.17	18.50	20.77	22.99	25.28
	7'	7⅞"	8⅝"	1139.6	20.04	22.37	24.64	26.87	29.15
	8'	8"	9"	1925.6	24.98	27.31	29.58	31.81	34.10
11'	6'	8"	8"	583.1	16.69	19.27	21.76	24.23	
	7'	8"	8⅝"	1139.6	20.64	23.22	25.71	28.18	
	8'	8"	9"	1925.6	25.19	27.77	30.27	32.74	
12'	6'	8"	8"	583.1	16.92	19.75	22.95	25.18	
	7'	8"	8⅝"	1139.6	20.87	23.69	26.90	29.18	
	8'	8"	9"	1925.6	25.42	28.25	30.96	33.69	

* For reinforcing steel in Headwalls and Aprons, See Details of Standard Barrel Sections for R.C. Box Culverts for the desired Span and Height.

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾ chamfers.

REINFORCING STEEL:- Reinforcing steel to be deformed bars of intermediate or hard grade.

CONSTRUCTION JOINTS:- Construction joints between wingwall, footings and sidewalls shall be only where shown on plans.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

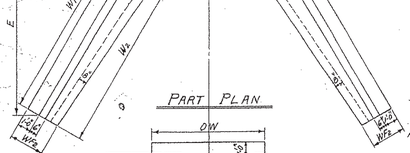
UNIT STRESSES:-

Class S Concrete (n=10) 1200#/□"
Reinforcing Steel 20,000#/□"

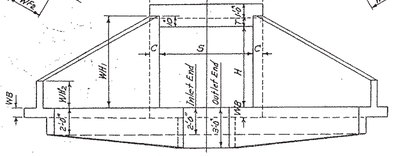
NOTE:- This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos. as listed below.

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-100X-0	R-200X-0	R-300X-0	R-400X-0	R-500X-0
R-100X-X1	R-200X-X1	R-300X-X1	R-400X-X1	R-500X-X1
R-100X-X2	R-200X-X2	R-300X-X2	R-400X-X2	
	R-200X-X3	R-300X-X3		

CLASS S CONCRETE

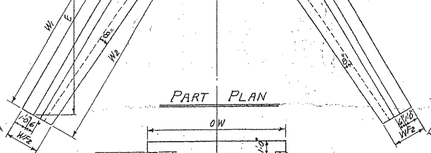


PART PLAN

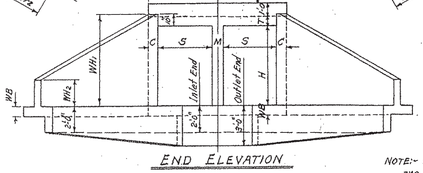


END ELEVATION

SINGLE BARREL CULVERT



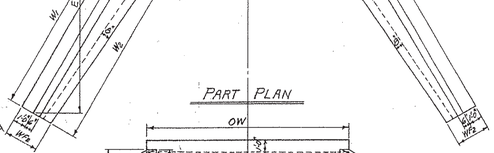
PART PLAN



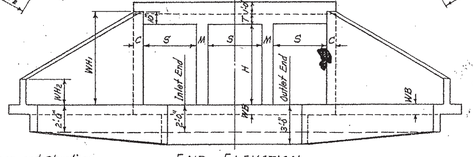
END ELEVATION

DOUBLE BARREL CULVERT

NOTE:- Plans and Elevations are not to scale.

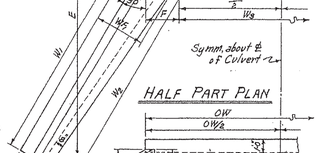


PART PLAN

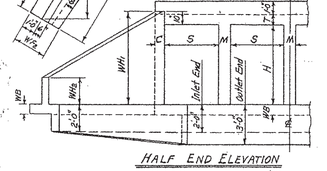


END ELEVATION

TRIPLE BARREL CULVERT

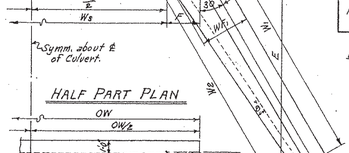


HALF PART PLAN

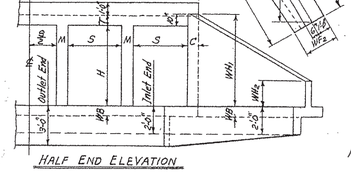


HALF END ELEVATION

QUADRUPLE BARREL CULVERT



HALF PART PLAN



HALF END ELEVATION

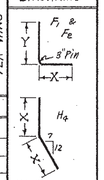
QUINTUPLE BARREL CULVERT

MEMBRANE:- A membrane waterproofing 12" wide, consisting of three mopings of waterproofing asphalt and two alternate layers of treated cotton fabric shall be applied to the back face of wing to cover the construction joints in wings.

BAR LIST FOR ONE WING - 4 REQUIRED

CLEAR HEIGHT H	F1 BENT: In bottom of footing, bent up into back face of wing. One bar of each length. SIZE	SPACING	NO. REQ'D	LENGTHS VARY MIN.	LENGTHS VARY MAX.	X MIN.	X MAX.	Y MIN.	Y MAX.	F2 BENT: In bottom of footing, bent up into back face of wing. Alt. with F1 bars. SIZE	SPACING	NO. REQ'D	LENGTH	X	Y	F5 STRAIGHT: Longitudinal in top of wing footing heel. SIZE	NO. REQ'D	LENGTH	F6 STRAIGHT: Longitudinal in bottom of wing footing toe. SIZE	NO. REQ'D	LENGTH	H1 STRAIGHT: Horizontal in back face of wing. SIZE	SPACING	NO. REQ'D	LENGTH	H2 STRAIGHT: Horizontal in back face of wing. One bar of each length. SIZE	SPACING	NO. REQ'D	LENGTHS VARY MAX.	LENGTHS VARY MIN.	H3 STRAIGHT: In back face of wing at top - on slope. SIZE	NO. REQ'D	LENGTH	H4 BENT: Dowels thru construction joint at headwall. SIZE	SPACING	NO. REQ'D	LENGTH	X	QUANTITY REINFORCING STEEL PER WING LB.
2'	#3	12"	8	1'-6"	3'-10"	0'-8"	1'-0"	0'-11"	2'-11"	—	—	—	—	—	—	#3	1	9'-8"	#3	2	8'-6"	#3	12"	1	7'-2"	#3	12"	1	—	9'-0"	#3	1	7'-9"	#3	12"	2	2'-8"	1'-9"	27.0
3'	#3	12"	10	2'-2"	5'-2"	0'-10"	1'-3"	1'-5"	4'-0"	—	—	—	—	—	—	#3	1	12'-0"	#3	2	11'-0"	#3	12"	1	9'-6"	#3	12"	2	7'-6"	9'-0"	#3	1	9'-9"	#3	12"	3	2'-8"	1'-9"	41.1
4'	#3	12"	13	2'-9"	6'-6"	0'-11"	1'-7"	1'-6"	5'-0"	—	—	—	—	—	—	#3	1	14'-9"	#3	3	13'-6"	#3	12"	1	11'-10"	#3	12"	3	10'-11"	9'-0"	#3	1	12'-2"	#3	12"	4	2'-8"	1'-9"	63.7
5'	#3	12"	15	2'-11"	7'-10"	1'-1"	1'-11"	1'-11"	6'-0"	#3	12"	4	3'-6"	1'-1"	2'-6"	#3	1	16'-8"	#3	3	16'-0"	#3	12"	2	14'-2"	#3	12"	3	10'-11"	9'-0"	#3	1	14'-7"	#3	12"	5	2'-8"	1'-9"	89.5
6'	#4	12"	17	3'-6"	9'-3"	1'-2"	2'-3"	2'-5"	7'-1"	#3	12"	4	4'-6"	1'-4"	3'-3"	#3	1	19'-0"	#3	3	18'-6"	#3	12"	2	16'-6"	#3	12"	4	14'-4"	9'-0"	#3	1	17'-0"	#3	12"	6	2'-8"	1'-9"	145.8
7'	#4	12"	20	3'-9"	10'-9"	1'-3"	2'-9"	2'-7"	8'-1"	#4	12"	7	5'-6"	1'-7"	4'-0"	#4	1	21'-4"	#4	4	21'-0"	#4	12"	2	18'-9"	#4	12"	5	17'-9"	9'-0"	#4	1	19'-5"	#4	12"	7	3'-6"	1'-9"	283.7
8'	#4	12"	22	4'-3"	12'-3"	1'-5"	3'-2"	3'-0"	9'-2"	#4	12"	10	6'-6"	1'-10"	4'-9"	#4	1	23'-8"	#4	4	23'-6"	#4	12"	3	21'-1"	#4	12"	5	17'-9"	9'-0"	#4	1	21'-10"	#4	12"	8	3'-6"	1'-9"	356.4

BAR BENDING DIAGRAMS



NOTE:- Dimensions are to bar centers.

REVISIONS:- Membrane added. 5-10-66 W.C.H.

Designed By:- W.C.H. 8-20-62. Checked By:- RMS 1-9-63
Drawn By:- W.C.H. 12-4-62. Checked By:- RMS 1-31-63
Quantities By:- W.C.H. 12-14-62. Rechecked By:- RMS 3-29-63

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS

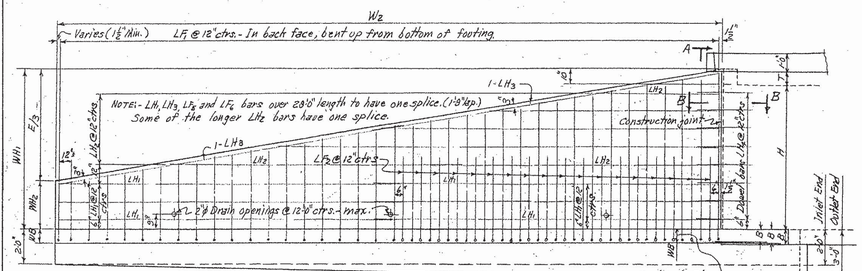
4', 5', 6', 7', 8', 9', 10', 11' & 12' SPANS — 3:1 SLOPES

SINGLES, DOUBLES, TRIPLES, QUADRUPLES & QUINTUPLES — ALL DEPTHS OF COVER FOR H = 8'-0" OR LESS

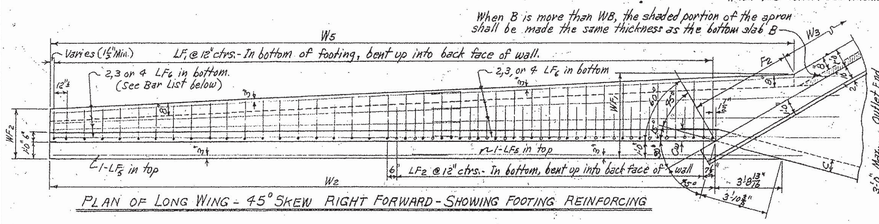
STANDARD DRAWING NO. W-X003-1

MYLAR

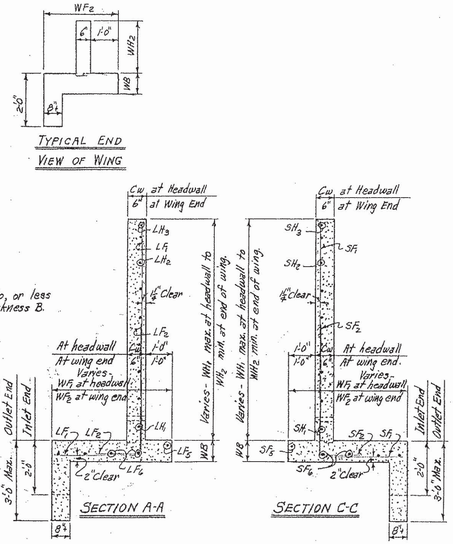
FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

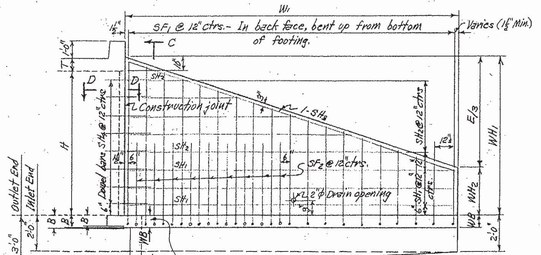


REAR ELEVATION OF LONG WING - 45° SKEW RIGHT FORWARD - SHOWING BACK FACE REINFORCING

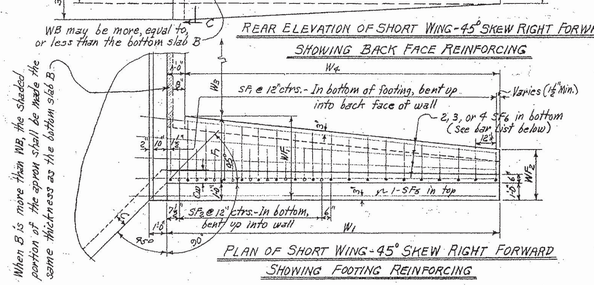


PLAN OF LONG WING - 45° SKEW RIGHT FORWARD - SHOWING FOOTING REINFORCING

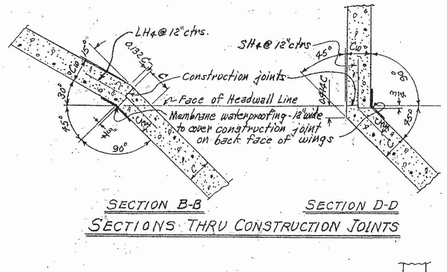




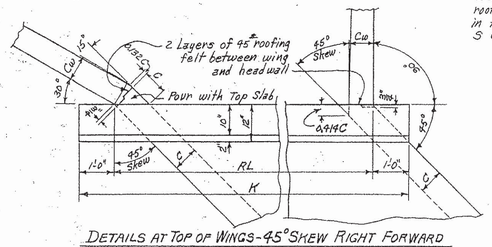
REAR ELEVATION OF SHORT WING - 45° SKEW RIGHT FORWARD - SHOWING BACK FACE REINFORCING



PLAN OF SHORT WING - 45° SKEW RIGHT FORWARD - SHOWING FOOTING REINFORCING



SECTIONS THRU CONSTRUCTION JOINTS



DETAILS AT TOP OF WINGS - 45° SKEW RIGHT FORWARD

NOTE:- Payment for the membrane waterproofing and roofing felt to be included in the price bid for Class S Concrete.

REGULAR WING DIMENSIONS - 3:1 SLOPES

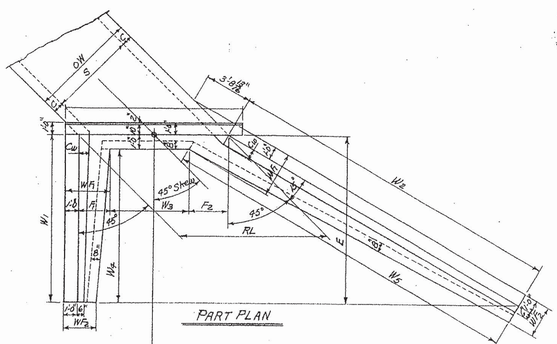
CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HDWL. & C	WINGWALL HEIGHTS AT END OF WING	WINGWALL HEIGHTS AT HDWL.	WIDTHS OF WING FOOTINGS AT END OF WING	WIDTHS OF WING FOOTINGS AT HDWL.	FOOTING DIMENSION PERPENDICULAR TO HEADWALL SHORT WING	FOOTING DIMENSION PERPENDICULAR TO HEADWALL LONG WING	PERPENDICULAR DIST. FROM HDWL. TO END OF WING	LENGTHS OF WINGWALLS SHORT WING	LENGTHS OF WINGWALLS LONG WING	INSIDE FOOTING DIMENSION SHORT WING	INSIDE FOOTING DIMENSION LONG WING	* QUANTITY PER WING CLASS S CONCRETE INLET END SHORT WING	INLET END LONG WING	OUTLET END SHORT WING	OUTLET END LONG WING
H	WB	Cw	WH1	WH2	WF1	WF2	F1	F2	E	W1	W2	W4	W5	CU.YD.	CU.YD.	CU.YD.	CU.YD.
2'	7"	6"	2'-10"	0'-8"	2'-8"	2'-0"	1'-4"	0'-11⅝"	6'-1½"	6'-6"	13'-0"	5'-6"	13'-3⅜"	0.743	1.572	0.829	1.741
3'	7"	6"	3'-10"	1'-0"	2'-8"	2'-1½"	1'-8"	1'-2⅝"	8'-1½"	8'-6"	17'-0"	7'-6"	17'-10⅜"	1.180	2.369	1.289	2.590
4'	7"	6"	4'-10"	1'-4"	3'-0"	2'-3"	2'-0"	2'-3⅜"	10'-6"	10'-6"	21'-0"	9'-6"	22'-5½"	1.567	3.295	1.700	3.577
5'	7"	6"	5'-10"	1'-8"	3'-2"	2'-4½"	2'-4"	2'-11⅝"	12'-6"	12'-6"	25'-0"	11'-6"	27'-0⅝"	2.088	4.367	2.241	4.705
		7"	5'-10"	1'-8"	3'-2"	2'-4½"	2'-4"	2'-11⅝"	12'-6"	12'-6"	25'-0"	11'-6"	27'-0⅝"	2.166	4.551	2.325	4.889
6'	8"	7"	6'-10"	2'-0"	3'-8"	2'-6"	2'-8"	3'-2⅝"	14'-6"	14'-6"	29'-0"	13'-6"	31'-7½"	2.894	6.055	3.078	6.450
		8"	6'-10"	2'-0"	3'-8"	2'-6"	2'-8"	3'-2⅝"	14'-6"	14'-6"	29'-0"	13'-6"	31'-7½"	3.009	6.306	3.192	6.700
7'	8½"	7½"	7'-10"	2'-8"	4'-2"	2'-7½"	3'-2"	4'-2⅝"	16'-6"	16'-6"	33'-0"	15'-6"	36'-5⅜"	3.794	7.930	4.003	8.385
		8"	7'-10"	2'-8"	4'-2"	2'-7½"	3'-2"	4'-2⅝"	16'-6"	16'-6"	33'-0"	15'-6"	36'-5⅜"	3.870	8.093	4.078	8.598
8'	9"	8"	8'-10"	2'-8"	4'-8"	2'-9"	3'-8"	5'-1⅛"	18'-6"	18'-6"	37'-0"	17'-6"	41'-4⅝"	4.835	10.136	5.088	10.651

* Quantity per wing does not include headwall or that portion of apron or toewall for the length W5.

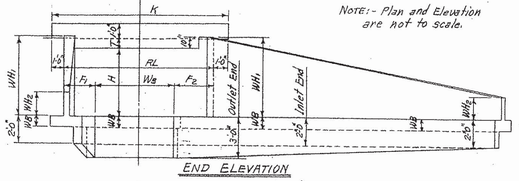
QUANTITIES

CLEAR SPAN	CLEAR HEIGHT	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HDWL.	REINFORCING ⊕ STEEL - LBS. PER 4 WINGS	CLASS S CONCRETE - 4 WINGS HEADWALLS, WINGWALLS, FOOTINGS, TOEWALLS AND APRONS					
					SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT	
S	H	Cw	WB	LB.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	CU.YD.	
4'	2'	6"	7"	142	6.15	7.50	8.86	10.22	11.58	
	3'	6"	7"	214	8.44	9.79	11.14	12.50	13.86	
	4'	6"	7"	328	11.13	12.48	13.84	15.20	16.56	
	5'	6"	7"	468	14.25	15.60	16.96	18.32	19.68	
	6'	7"	8"	763	19.23	20.62	22.02	23.41	24.81	
5'	3'	6"	7½	219	8.74	10.38	12.03	13.67	15.32	
	4'	6"	7"	328	11.98	13.07	14.72	16.37	18.02	
	5'	6"	7"	468	14.55	16.19	17.84	19.49	21.14	
	6'	7"	8"	763	19.53	21.21	22.90	24.59	26.28	
	7'	7½	8½	1475	26.98	26.69	28.91	30.14	31.86	
6'	3'	6"	7"	214	9.03	10.99	12.91	19.86	16.79	
	4'	6"	7"	328	11.78	13.49	15.60	17.56	19.48	
	5'	6"	7"	463	14.85	16.80	18.72	20.68	22.60	
	6'	7"	8"	763	19.83	21.82	23.79	25.78	27.76	
	7'	7½	8½	1475	25.28	27.30	29.31	31.33	33.35	
	8'	8"	9"	1872	31.70	33.74	35.75	37.79	39.81	
7'	4'	6"	7"	328	12.04	14.31	16.54	18.81	21.02	
	5'	6"	7"	463	15.15	17.93	19.65	21.93	24.13	
	6'	7"	8"	763	20.19	22.94	24.69	26.99	28.24	
	7'	7½	8½	1475	25.59	27.91	30.21	32.58	34.83	
	8'	8"	9"	1872	32.02	34.35	36.66	38.99	41.31	
8'	4'	6"	7"	328	12.35	14.95	17.49	20.08	22.57	
	5'	7"	7"	463	16.05	18.47	21.24	23.86	26.37	
	6'	7"	8"	763	20.95	23.07	25.64	28.24	30.77	
	7'	7½	8½	1475	25.90	28.54	31.13	33.78	36.32	
	8'	8"	9"	1872	32.33	34.97	37.56	40.21	42.80	
9'	5'	7"	7"	463	16.32	19.32	22.18	25.02	27.91	
	6'	7½	8"	763	21.16	24.18	27.02	29.99	32.81	
	7'	7½	8½	1475	26.21	29.18	32.08	34.94	37.86	
	8'	8"	9"	1872	32.63	35.61	38.51	41.37	44.29	
10'	5'	7"	7"	463	16.69	19.96	23.14	26.27	29.47	
	6'	7½	8"	763	21.98	24.77	27.99	31.18	34.36	
	7'	7½	8½	1475	26.53	29.82	33.04	36.19	39.42	
	8'	8"	9"	1872	32.95	36.25	39.46	42.62	45.86	
11'	6'	8"	8"	763	22.18	25.83	29.35	32.84		
	7'	8"	8½	1475	27.38	30.99	34.51	38.01		
	8'	8"	9"	1872	33.26	36.91	40.43	43.93		
12'	6'	8"	8"	763	22.50	26.51	30.33	34.19		
	7'	8"	8½	1475	27.66	31.64	35.49	39.35		
	8'	8"	9"	1872	33.58	37.58	41.91	45.27		

⊕ For reinforcing steel in Headwalls and Aprons, see Drawing Nos. of Barrel Sections listed below.



PART PLAN



END ELEVATION

NOTE:- Plan and Elevation are not to scale.

SINGLE BARREL CULVERT - 45° SKEW RIGHT FORWARD

Details of Culvert with 45° Skew Left Forward is reversed, see Drawing No. W-X45.

TYPICAL WING DETAILS

NOTE:- For remainder of General Plans and Elevations of Single, Double, Triple, Quadruple and Quintuple Span Culverts, see Std. Drawing No. W-X45. For values of RL, K and W5 for each box, see above Std. also.

MEMBRANE:- A membrane waterproofing 12" wide, consisting of three applings of waterproofing asphalt and two alternate layers of treated cotton fabric, shall be applied to the back face of wing to cover the construction joints in wings.

Revisions:- Membrane Added. 5-10-66 W.C.H.

BAR LIST FOR ONE SHORT AND ONE LONG WING — 2 EACH REQUIRED

CLEAR HEIGHT	WING LOCATION	SF1 & LF1 BENT: In bottom of footing, bent up into back face of wing. One bar (or two bars) of each length.						SF2 & LF2 BENT: In bottom of footing, bent up into back of wing. Alt. with F1 bars						SF3 & LF3 STRAIGHT: Longitudinal in top of wing footing heel.			SF6 & LF6 STRAIGHT: Longitudinal in bottom of wing footing toe.		
H	SHORT & LONG	SIZE	SPACING	NO. REQD	LENGTHS VARY MIN.	LENGTHS VARY MAX.	X	Y	SIZE	SPACING	NO. REQD	LENGTH	X	Y	SIZE	NO. REQD	LENGTH	SIZE	NO. REQD	LENGTH
2'	Short	#3	12"	7	1'-7"	3'-1"	0'-8"	1'-0"	#3	—	—	—	—	—	#3	1	8'-5"	#3	2	8'-0"
	Long	#3	12"	14	1'-5"	3'-1"	0'-8"	1'-0"	#3	—	—	—	—	—	#3	1	17'-5"	#3	2	16'-6"
3'	Short	#3	12"	9	2'-1"	5'-3"	0'-10"	1'-4"	#3	—	—	—	—	—	#3	1	10'-5"	#3	2	10'-0"
	Long	#3	12"	18	1'-11"	5'-3"	0'-10"	1'-4"	#3	—	—	—	—	—	#3	1	21'-4"	#3	2	20'-8"
4'	Short	#3	12"	11	2'-6"	6'-7"	0'-11"	1'-8"	#3	—	—	—	—	—	#3	1	12'-9"	#3	3	12'-0"
	Long	#3	12"	22	2'-4"	6'-7"	0'-11"	1'-8"	#3	—	—	—	—	—	#3	1	25'-6"	#3	3	24'-10"
5'	Short	#3	12"	13	2'-11"	7'-11"	1'-0"	2'-0"	#3	12"	3	3'-6"	1'-1"	2'-6"	#3	1	14'-5"	#3	3	13'-9"
	Long	#3	12"	26	2'-9"	7'-10"	1'-0"	1'-11"	#3	12"	6	3'-6"	1'-1"	2'-6"	#3	2	15'-8"	#3	6	15'-2"
6'	Short	#4	12"	15	3'-6"	9'-4"	1'-2"	2'-3"	#3	12"	3	4'-6"	1'-4"	3'-3"	#3	1	16'-8"	#3	3	15'-11"
	Long	#4	12"	30	3'-4"	9'-3"	1'-2"	2'-3"	#3	12"	6	4'-6"	1'-4"	3'-3"	#3	2	17'-8"	#3	6	18'-8"
7'	Short	#4	12"	17	3'-11"	10'-10"	1'-3"	2'-10"	#4	12"	6	5'-6"	1'-7"	4'-0"	#4	1	18'-4"	#4	4	18'-0"
	Long	#4	12"	34	3'-9"	10'-9"	1'-3"	2'-10"	#4	12"	12	5'-6"	1'-7"	4'-0"	#4	2	19'-9"	#4	8	20'-8"
8'	Short	#4	12"	19	4'-6"	12'-5"	1'-5"	3'-4"	#4	12"	9	6'-6"	1'-10"	4'-9"	#4	1	22'-4"	#4	4	20'-0"
	Long	#4	12"	38	4'-4"	12'-3"	1'-5"	3'-2"	#4	12"	18	6'-6"	1'-10"	4'-9"	#4	2	23'-9"	#4	8	22'-9"

CLEAR HEIGHT	WING LOCATION	SH1 & LH1 Horizontal in back face of wing.				SH2 & LH2 STRAIGHT: In back face of wing One bar of each length.				SH3 & LH3 In back face of wing at top - on slope			SH4 & LH4 BENT: Dowels thru construction joint at headwall.					BAR BENDING DIAGRAM	QUANTITY
H	SHORT & LONG	SIZE	SPACING	NO. REQD	LENGTH	SIZE	NO. REQD	LENGTHS VARY MAX.	LENGTHS VARY MIN.	SIZE	NO. REQD	LENGTH	SIZE	SPACING	NO. REQD	LENGTH	X		REINFORCING STEEL PER WING - LBS. SHORT WING	REINFORCING STEEL PER WING - LBS. LONG WING
2'	Short	#3	12"	1	4'-3"	#3	1	3'-5"	3'-3"	#3	1	6'-7"	#3	12"	2	2'-8"	1'-9"	SF1 & SF5 LF1 & LF2 3" Min.	29.4	96.3
	Long	#3	12"	1	—	#3	1	6'-6"	6'-4"	#3	1	12'-11"	#3	12"	2	11'-11"	"			
3'	Short	#3	12"	2	6'-3"	#3	1	5'-3"	5'-1"	#3	1	8'-8"	#3	12"	3	12"	"		36.8	70.3
	Long	#3	12"	2	18'-6"	#3	1	18'-6"	6'-6"	#3	1	14'-11"	#3	12"	3	11'-11"	"			
4'	Short	#3	12"	3	9'-3"	#3	1	7'-1"	6'-11"	#3	1	10'-9"	#3	12"	4	10'-8"	"	SH4 LH4 12 1/2	55.9	102.9
	Long	#3	12"	3	18'-6"	#3	1	18'-6"	6'-6"	#3	1	17'-1"	#3	12"	4	16'-11"	"			
5'	Short	#3	12"	3	9'-3"	#3	1	8'-10"	8'-8"	#3	1	12'-11"	#3	12"	5	"	"		77.7	153.7
	Long	#3	12"	3	18'-6"	#3	1	18'-6"	6'-6"	#3	1	20'-3"	#3	12"	5	"	"			
6'	Short	#3	12"	4	12'-3"	#3	1	10'-5"	10'-3"	#3	1	15'-0"	#3	12"	6	"	"	LH4 3/4 1/2	127.6	253.9
	Long	#3	12"	4	24'-6"	#3	1	24'-6"	6'-6"	#3	2	15'-5"	#3	12"	6	2'-8"	1'-11"			
7'	Short	#4	12"	5	15'-3"	#4	1	13'-9"	13'-7"	#4	1	17'-11"	#4	12"	7	3'-6"	1'-9"	Note:- Dimensions are to bar centers.	246.5	491.1
	Long	#4	12"	5	30'-6"	#4	2	17'-5"	6'-6"	#4	2	19'-6"	#4	12"	8	"	"			
8'	Short	#4	12"	5	18'-3"	#4	1	16'-5"	16'-3"	#4	1	19'-5"	#4	12"	8	3'-6"	1'-9"		312.5	623.6
	Long	#4	12"	5	36'-6"	#4	2	20'-0"	6'-6"	#4	2	21'-6"	#4	12"	8	"	"			

NOTE:- Bars for short wing shall be marked with prefix letter "S", while those for long wing shall be marked with letter "L".

* Length without splice. Bars over 28'0" length may be spliced. (1'-8" lap)

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾" chamfers.

REINFORCING STEEL:- Reinforcing steel to be deformed bars of intermediate or hard grade.

CONSTRUCTION JOINTS:- Construction joints between wingwall, footings and sidewalls shall be only where shown on plans.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

UNIT STRESSES:-
Class S Concrete (n=10) 1200#/□"
Reinforcing Steel 20,000#/□"

NOTE:- This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos.-

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-145X-0	R-245X-01	R-345X-01	R-445X-01	R-545X-01
	R-245X-02	R-345X-02	R-445X-02	R-545X-02
R-145X-1	R-245X-1	R-345X-1	R-445X-1	
	R-245X-2	R-345X-2		

CLASS S CONCRETE

ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS 45° SKEW

4, 5, 6, 7, 8, 9, 10, 11' & 12' SPANS — 3:1 SLOPES

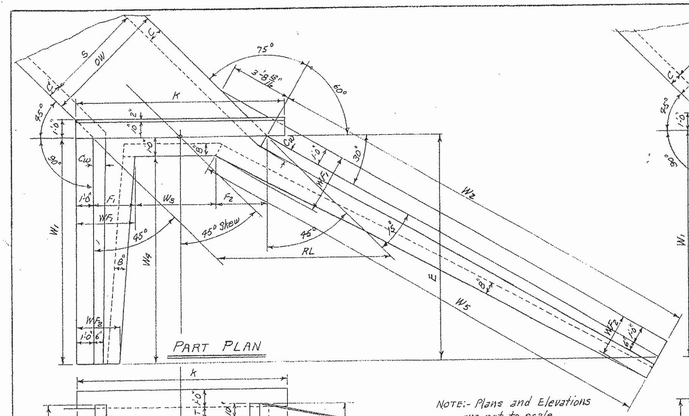
SINGLES, DOUBLES, TRIPLES, — ALL DEPTHS OF COVER

QUADRUPLES & QUINTUPLES — FOR H = 8'-0" OR LESS

STANDARD DRAWING NO. W-X453-1

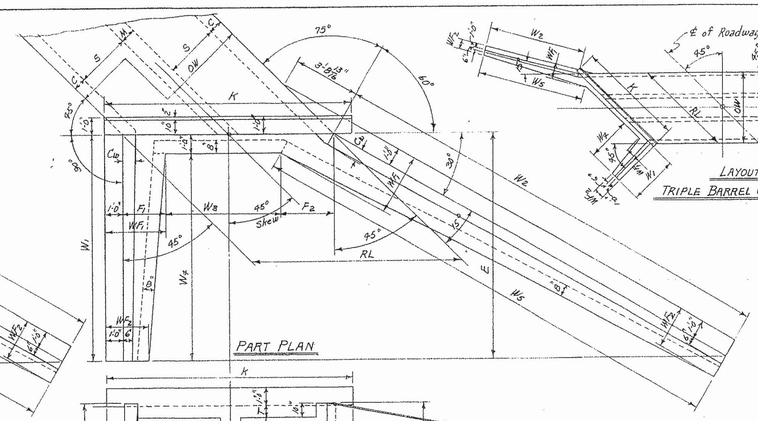
Designed By:- W.C.H. 5-13-63 Checked By:- J.E.M. 7-21-64
Drawn By:- W.C.H. 6-5-64 Checked By:- J.E.M. 7-21-64
Quantities By:- W.C.H. 7-2-64 Checked By:- J.E.M. 7-21-64

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					



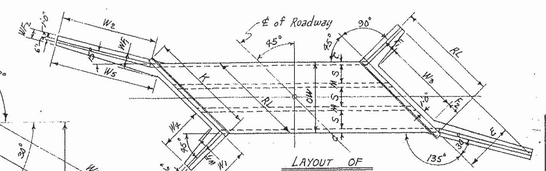
SINGLE BARREL CULVERT- 45° SKEW RIGHT FORWARD

Details of Culvert with 45° Skew Left Forward is reversed, see Layout below.

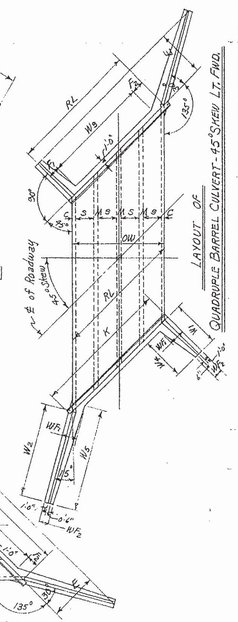


DOUBLE BARREL CULVERT- 45° SKEW RIGHT FORWARD

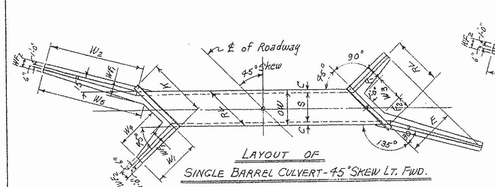
Details of Culvert with 45° Skew Left Forward is reversed, see Layout below.



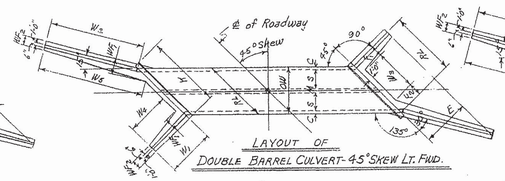
LAYOUT OF TRIPLE BARREL CULVERT- 45° SKEW LT. FWD.



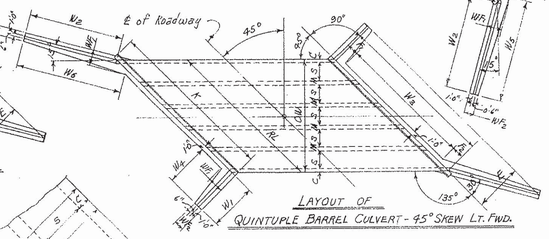
LAYOUT OF QUADRUPLE BARREL CULVERT- 45° SKEW LT. FWD.



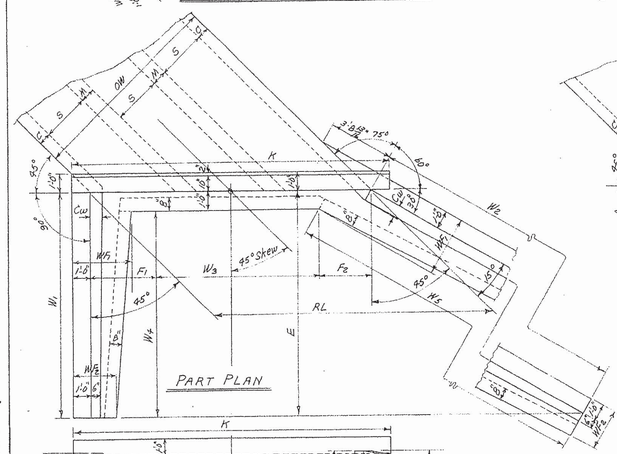
LAYOUT OF SINGLE BARREL CULVERT- 45° SKEW LT. FWD.



LAYOUT OF DOUBLE BARREL CULVERT- 45° SKEW LT. FWD.

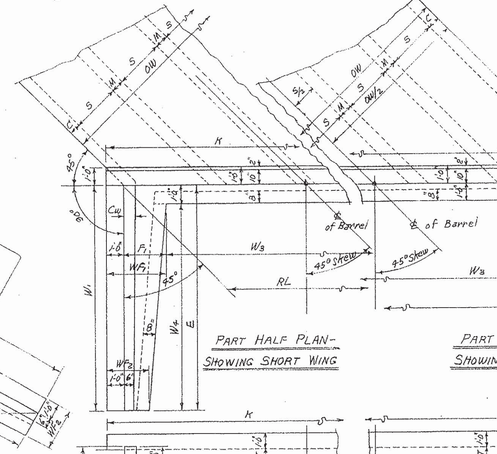


LAYOUT OF QUINTUPLE BARREL CULVERT- 45° SKEW LT. FWD.



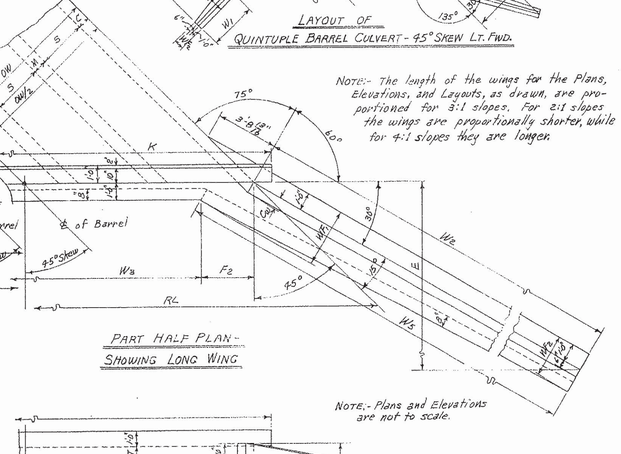
TRIPLE BARREL CULVERT- 45° SKEW RIGHT FORWARD

Details of Culvert with 45° Skew Left Forward is reversed, see Layout at top center of sheet.



QUADRUPLE BARREL CULVERT- 45° SKEW RT. FWD.

Details of Culvert with 45° Skew Left Forward is reversed, see Layout at above center.



QUINTUPLE BARREL CULVERT- 45° SKEW RT. FWD.

Details of Culvert with 45° Skew Left Forward is reversed, see Layout above.

NOTE:- The length of the wings for the Plans, Elevations, and Layouts, as drawn, are proportioned for 3:1 slopes. For 2:1 slopes the wings are proportionally shorter, while for 4:1 slopes they are longer.

NOTE:- Plans and Elevations are not to scale.

ROADWAY LENGTH RL — RL = OW x 1.4142 + K

HEADWALL LENGTH K — K = RL + (2'0")

APRON DIMENSION W3 — W3 = RL - (F1 + F2)

USE WITH DRAWING NO.	CLEAR SPAN S	CLEAR HEIGHT H	SUM OF DIMENSIONS F1 & F2	SINGLE BARREL CULVERT OW	SINGLE BARREL CULVERT RL	SINGLE BARREL CULVERT K	SINGLE BARREL CULVERT W3	DOUBLE BARREL CULVERT OW	DOUBLE BARREL CULVERT RL	DOUBLE BARREL CULVERT K	DOUBLE BARREL CULVERT W3	TRIPLE BARREL CULVERT OW	TRIPLE BARREL CULVERT RL	TRIPLE BARREL CULVERT K	TRIPLE BARREL CULVERT W3	QUADRUPLE BARREL CULVERT OW	QUADRUPLE BARREL CULVERT RL	QUADRUPLE BARREL CULVERT K	QUADRUPLE BARREL CULVERT W3	QUINTUPLE BARREL CULVERT OW	QUINTUPLE BARREL CULVERT RL	QUINTUPLE BARREL CULVERT K	QUINTUPLE BARREL CULVERT W3
(FOR H=8'0" & LESS) W-X452-1, W-X453-1 OR W-X454-1.	4'	2'	2'3"	5'0"	7'0"	9'0"	4'9"	9'8"	13'8"	15'8"	11'4"	14'4"	20'3"	22'3"	18'6"	19'0"	26'10"	28'10"	24'7"	23'8"	33'5"	35'5"	31'2"
		3'	3'3"	5'0"	"	"	3'9"	9'8"	"	"	10'4"	14'4"	"	"	17'0"	19'0"	"	"	23'7"	23'8"	"	"	30'2"
		4'	4'3"	5'0"	"	"	2'9"	9'8"	"	"	9'4"	14'4"	"	"	16'0"	19'0"	"	"	22'7"	23'8"	"	"	29'2"
		5'	5'3"	5'0"	7'0"	9'0"	1'9"	9'8"	13'8"	15'8"	8'4"	14'4"	20'3"	22'3"	15'0"	19'0"	26'10"	28'10"	21'7"	23'8"	33'5"	35'5"	28'2"
		6'	6'3"	5'0"	7'3"	9'3"	1'0"	9'11"	14'0"	16'0"	7'0"	14'8"	20'8"	22'8"	14'5"	19'5"	27'5"	29'5"	21'2"	24'2"	34'2"	36'2"	27'10"
	5'	3'	3'3"	6'0"	8'3"	10'3"	5'2"	11'8"	16'4"	18'4"	13'2"	17'4"	24'4"	26'4"	21'3"	23'0"	32'6"	34'6"	29'3"	28'8"	40'6"	42'6"	37'3"
		4'	4'3"	6'0"	"	"	4'2"	11'8"	"	"	12'2"	17'4"	"	"	20'3"	23'0"	"	"	28'3"	28'8"	"	"	36'3"
		5'	5'3"	6'0"	8'3"	10'3"	3'2"	11'8"	16'4"	18'4"	11'2"	17'4"	24'4"	26'4"	19'3"	23'0"	32'6"	34'6"	27'3"	28'8"	40'6"	42'6"	35'3"
		6'	6'3"	6'0"	8'3"	10'3"	2'5"	11'11"	16'10"	18'10"	10'7"	17'8"	24'8"	26'8"	17'8"	23'5"	33'1"	35'1"	24'10"	29'2"	41'3"	43'3"	34'2"
		7'	7'3"	6'3"	8'10"	10'10"	1'0"	12'1"	17'1"	19'1"	9'3"	17'11"	25'4"	27'4"	17'4"	23'9"	33'7"	35'7"	24'2"	29'7"	41'10"	43'10"	34'0"
	6'	3'	3'3"	7'0"	9'0"	11'0"	6'2"	13'8"	19'3"	21'4"	16'0"	20'4"	28'8"	30'9"	25'3"	27'0"	38'2"	40'2"	34'11"	33'8"	47'7"	49'7"	43'4"
		4'	4'3"	7'0"	"	"	5'2"	13'8"	"	"	15'0"	20'4"	"	"	29'3"	27'0"	"	"	33'1"	33'8"	"	"	43'4"
		5'	5'3"	7'0"	9'0"	11'0"	4'2"	13'8"	19'3"	21'4"	14'0"	20'4"	28'8"	30'9"	23'3"	27'0"	38'2"	40'2"	32'11"	33'8"	47'7"	49'7"	42'4"
		6'	6'3"	7'2"	10'1"	12'1"	3'0"	13'11"	19'8"	21'8"	13'5"	20'8"	29'2"	31'2"	22'1"	27'5"	38'9"	40'9"	32'6"	34'2"	48'3"	50'3"	42'0"
		7'	7'3"	7'3"	10'3"	12'3"	2'5"	14'1"	19'11"	21'11"	12'1"	20'11"	29'7"	31'7"	21'0"	27'9"	39'3"	41'3"	31'5"	34'7"	48'10"	50'11"	41'7"
		8'	8'3"	7'4"	10'4"	12'4"	1'1"	14'2"	20'2"	22'2"	10'9"	21'0"	29'8"	31'8"	20'5"	28'0"	39'8"	41'8"	30'1"	34'8"	49'0"	51'0"	39'9"
	7'	4'	4'3"	8'0"	11'3"	13'3"	7'1"	15'8"	22'1"	24'1"	17'10"	23'4"	33'0"	35'0"	28'0"	31'0"	43'10"	45'10"	39'6"	38'8"	54'8"	56'8"	50'5"
		5'	5'3"	8'0"	11'3"	13'3"	6'0"	15'9"	22'1"	24'1"	16'10"	23'4"	33'0"	35'0"	27'0"	31'0"	43'10"	45'10"	38'6"	38'8"	54'8"	56'8"	49'5"
		6'	6'3"	8'2"	11'4"	13'4"	5'3"	15'11"	22'3"	24'3"	16'2"	23'8"	33'5"	35'5"	27'2"	31'5"	44'5"	46'5"	38'2"	39'2"	55'2"	57'2"	49'11"
		7'	7'3"	8'3"	11'8"	13'8"	5'0"	16'1"	22'5"	24'5"	15'7"	23'11"	33'9"	35'10"	26'0"	31'7"	44'10"	46'10"	37'11"	39'7"	55'11"	57'11"	49'8"
		8'	8'3"	8'4"	11'9"	13'9"	4'6"	16'2"	22'6"	24'6"	15'1"	24'1"	34'1"	36'1"	25'1"	31'10"	45'2"	47'2"	36'9"	39'8"	56'2"	58'2"	49'5"
	8'	4'	4'3"	9'0"	12'8"	14'8"	8'5"	17'8"	24'11"	26'11"	19'4"	26'4"	37'2"	39'3"	32'1"	35'0"	49'6"	51'6"	44'3"	43'8"	61'9"	63'9"	57'6"
		5'	5'3"	9'2"	12'11"	14'11"	7'8"	17'11"	25'2"	27'2"	20'0"	26'8"	37'8"	39'8"	32'5"	35'5"	50'1"	52'1"	44'9"	44'2"	62'5"	64'5"	57'2"
		6'	6'3"	9'2"	12'11"	14'11"	6'10"	17'11"	25'2"	27'2"	19'0"	26'8"	37'8"	39'8"	31'5"	35'5"	50'1"	52'1"	43'9"	44'2"	62'5"	64'5"	56'2"
		7'	7'3"	9'3"	13'1"	15'1"	5'3"	18'1"	25'4"	27'4"	17'9"	26'11"	38'0"	40'0"	30'6"	35'8"	50'6"	52'6"	42'3"	44'7"	63'0"	65'0"	55'5"
		8'	9'3"	9'4"	13'2"	15'2"	3'11"	18'2"	25'8"	27'8"	16'5"	27'0"	38'2"	40'2"	28'11"	35'10"	50'8"	52'8"	41'5"	44'8"	63'2"	65'2"	53'10"
	9'	5'	5'3"	10'2"	14'4"	16'4"	9'7"	19'11"	28'2"	30'2"	22'10"	28'9"	41'0"	43'0"	33'6"	39'9"	55'10"	57'10"	50'5"	49'2"	69'6"	71'6"	64'3"
		6'	6'3"	10'3"	14'6"	16'6"	8'8"	20'1"	28'4"	30'4"	22'1"	29'1"	42'3"	44'3"	34'6"	39'9"	56'2"	58'2"	49'11"	49'7"	70'1"	72'1"	63'10"
		7'	7'3"	10'3"	14'6"	16'6"	6'8"	20'1"	28'4"	30'4"	20'7"	29'1"	42'3"	44'3"	34'6"	39'9"	56'2"	58'2"	48'8"	49'7"	70'1"	72'1"	62'8"
		8'	9'3"	10'4"	14'7"	16'7"	5'5"	20'2"	28'6"	30'6"	19'3"	30'0"	42'5"	44'5"	33'2"	39'10"	56'4"	58'4"	47'10"	49'8"	70'2"	72'3"	60'11"
	10'	5'	5'3"	11'2"	15'8"	17'8"	10'6"	21'11"	31'0"	33'0"	25'8"	32'8"	46'2"	48'2"	36'10"	43'5"	61'8"	63'8"	56'4"	56'2"	76'7"	78'7"	71'4"
		6'	6'3"	11'3"	15'11"	17'11"	9'7"	22'1"	31'2"	33'2"	28'4"	32'11"	46'6"	48'6"	36'3"	43'9"	61'10"	63'10"	55'6"	56'7"	77'0"	79'0"	70'7"
		7'	7'3"	11'3"	15'11"	17'11"	8'1"	22'1"	31'2"	33'2"	23'8"	32'11"	46'6"	48'6"	38'0"	43'9"	61'10"	63'10"	54'8"	56'7"	77'0"	79'0"	69'5"
		8'	9'3"	11'4"	16'0"	18'0"	6'9"	22'2"	31'4"	33'4"	22'1"	33'0"	46'8"	48'8"	37'0"	43'10"	61'11"	63'11"	53'8"	56'8"	77'2"	79'3"	68'10"
	11'	6'	6'3"	12'4"	17'5"	19'5"	11'2"	24'2"	34'2"	36'2"	27'11"	34'0"	50'11"	52'11"	39'9"	47'11"	67'3"	69'3"	61'0"	—	—	—	—
		7'	7'3"	12'5"	"	"	9'8"	24'2"	"	"	26'5"	34'0"	"	"	43'7"	47'11"	"	"	59'10"	—	—	—	—
		8'	9'3"	12'5"	"	"	8'2"	24'2"	"	"	24'11"	34'0"	"	"	41'7"	47'11"	"	"	58'2"	—	—	—	—
	12'	6'	6'3"	13'4"	18'10"	20'10"	12'7"	26'2"	37'0"	39'0"	30'8"	38'0"	55'1"	57'1"	43'8"	51'8"	73'3"	75'3"	67'0"	—	—	—	—
		7'	7'3"	13'4"	"	"	11'1"	26'2"	"	"	29'2"	38'0"	"	"	47'4"	51'10"	"	"	65'6"	—	—	—	—
		8'	9'3"	13'4"	"	"	9'7"	26'2"	"	"	27'8"	38'0"	"	"	45'0"	51'10"	"	"	64'0"	—	—	—	—
(FOR H=9'0" & OVER) W-X452-2, W-X453-2 OR W-X454-2	7'	9'	10'0"	8'6"	12'0"	14'0"	1'3"	16'5"	23'2"	25'2"	12'5"	24'4"	34'5"	36'5"	23'3"	32'3"	45'5"	47'5"	34'10"	40'2"	56'3"	58'3"	44'10"
	8'	9'	10'0"	9'6"	13'5"	15'5"	2'8"	18'5"	26'0"	28'0"	15'3"	27'4"	38'7"	40'7"	27'0"	36'3"	51'3"	53'3"	40'6"	45'2"	63'1"	65'1"	53'6"
		10'	12'3"	9'8"	13'8"	15'8"	1'9"	18'8"	26'4"	28'4"	14'7"	27'8"	39'1"	41'1"	26'11"	36'8"	51'10"	53'10"	39'7"	45'8"	64'0"	66'0"	52'3"
	9'	9'	10'9"	10'6"	14'10"	16'10"	4'1"	20'5"	28'10"	30'10"	18'1"	30'4"	42'10"	44'10"	32'1"	40'3"	56'11"	58'11"	46'3"	50'2"	70'11"	72'11"	60'2"
		10'	12'3"	10'8"	15'1"	17'1"	2'9"	20'8"	29'2"	31'2"	16'11"	30'8"	43'0"	45'0"	31'7"	40'8"	57'0"	59'0"	45'3"	50'8"	71'7"	73'7"	59'9"
		11'	13'9"	10'10"	15'3"	17'3"	1'6"	20'10"	29'5"	31'5"	15'8"	30'10"	43'2"	45'2"	29'10"	40'10"	57'3"	59'3"	43'11"	50'10"	71'10"	73'10"	58'7"
	10'	9'	10'9"	11'6"	16'3"	18'3"	5'4"	22'5"	31'3"	33'3"	20'11"	33'4"	47'1"	49'1"	34'4"	44'3"	62'7"	64'7"	51'9"	55'2"	78'1"	80'1"	67'3"
		10'	12'3"	11'8"	16'6"	18'6"	4'2"	22'10"	32'0"	34'0"	19'9"	33'8"	47'7"	49'7"	33'4"	44'8"	63'2"	65'2"	50'10"	55'8"	78'8"	80'8"	66'5"
		11'	13'9"	11'10"	16'8"	18'8"	2'11"	22'10"	32'3"	34'3"	19'6"	33'10"	47'10"	49'10"	34'1"	44'10"	63'3"	65'3"	49'7"	55'10"	78'11"	80'11"	65'2"
		12'	15'3"	12'0"	16'11"	18'11"	1'8"	23'0"	32'5"	34'5"	17'3"	34'0"	48'1"	50'1"	32'9"	45'0"	63'5"	65'5"	48'4"	56'0"	79'2"	81'2"	63'11"
	11'	9'	10'9"	12'6"	17'8"	19'8"	6'10"	24'5"	34'6"	36'6"	23'9"	36'8"	51'8"	53'8"	39'3"	48'8"	68'10"	70'10"	57'5"	—	—	—	—
		10'	12'3"	12'8"	17'11"	19'11"	5'7"	24'8"	34'10"	36'10"	22'7"	36'8"	51'10"	53'10"	38'7"	48'8"	68'11"	70'11"	55'6"	—	—	—	—
		11'	13'9"	13'0"	18'1"	20'1"	4'6"	24'10"	35'1"	37'1"	21'6"	36'10"	52'1"	54'1"	38'3"	48'10"	69'0"	71'0"	53'3"	—	—	—	—
		12'	15'3"	13'0"	18'2"	20'2"	3'1"	25'0"	35'2"	37'2"	20'1"	37'0"	52'3"	54'3"	37'0"	49'0"	69'1"	71'1"	51'3"	—	—	—	—
	12'	9'	10'9"	13'6"	18'7"	20'7"	8'3"	24'6"	33'7"	35'7"	26'2"	39'4"	55'5"	57'5"	44'0"	52'3"	73'10"	75'10"	63'1"	—	—	—	—
		10'	12'3"	13'8"	19'0"	21'0"	7'0"	24'8"	33'10"	35'10"	25'5"	39'8"	56'1"	58'1"	43'0"	52'8"	74'5"	76'5"	62'2"	—	—	—	—
		11'	13'9"	13'10"	19'3"	21'3"	5'3"	24'10"	34'1"	36'1"	24'2"	39'10"	56'6"	58'6"	42'1"	52'10"	74'10"	76'10"	60'11"	—	—	—	—
		12'	15'3"	14'0"	19'5"	21'5"	3'6"	25'0"	34'2"	36'2"	22'11"	40'0"	56'8"	58'8"	41'2"	53'0"	75'1"	77'1"	59'8"	—	—	—	—

NOTE:- This drawing to be used in conjunction with Standard Wing Drawings for 45° Skews for each slope as listed below.

2:1 Slopes	3:1 Slopes	4:1 Slopes
W-X452-1 or W-X452-2	W-X453-1 or W-X453-2	W-X454-1 or W-X454-2.

NOTE:- This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos.-

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-145X-0	R-245X-01	R-345X-01	R-445X-01	R-545X-01
	R-245X-02	R-345X-02	R-445X-02	R-545X-02
R-145X-1	R-245X-1	R-345X-1	R-445X-1	
	R-245X-2	R-345X-2		

CLASS S CONCRETE

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS 45° SKEW

4', 5', 6', 7', 8', 9', 10', 11' & 12' SPANS — 2:1, 3:1 & 4:1 SLOPES

SINGLES, DOUBLES, TRIPLES, — ALL DEPTHS OF COVER

QUADRUPLES & QUINTUPLES — H= 2', 3', 4', 5', 6', 7', 8', 9', 10', 11' & 12'

STANDARD DRAWING No. W-X45

Designed by:- W.C.H. 5-16-63 Checked by:-
Drawn by:- W.C.H. 6-15-64 Checked by:- J.E.M. 6-23-64
Quantities by:- Checked by:-

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				
JOB No.					

BAR LIST FOR BARREL SECTION 60°-0" IN LENGTH

DEPTH OF COVER	CLEAR SPAN	CLEAR HEIGHT	"a" bars STRAIGHT In Top and Bottom Slabs of Barrel. 2 Add'l in Apron and Headwall- Each. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	"b" bars BENT - See Diagram below. In Top and Bottom Slabs of Barrel. Alternate with "a" bars. SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH	X	"d" bars STRAIGHT Longitudinal in Top Slab of Barrel SIZE	SPACING	NO. REQ'D	LENGTH	"d1" bars STRAIGHT Longitudinal in Sidewalls SIZE	SPACING	NO. REQ'D	LENGTH	"e" bars. STRAIGHT Longitudinal in Bottom Slab of Barrel SIZE	SPACING	NO. REQ'D	LENGTH	"f" bars STRAIGHT Verticals in Sidewalls SIZE	SPACING	NUMBER REQ'D 3:1	NUMBER REQ'D 4:1	LENGTH
D	S	H																											
0'-0" TO 5'-0" MAXIMUM	1 @ 4'	2'	#5	13"	120	120	4'-9"	#6	13"	110	110	5'-10"	4'-8"	#5	10½"	6	#4	16"	4	#4	12"	5	#4	12"	5	#4	12"	120	120	2'-11"
		3'			120	120	4'-9"			110	110	5'-10"	4'-8"			6			6			5			5			120	120	3'-11"
		4'			120	120	4'-9"			110	110	5'-10"	4'-8"			6			8			5			5			120	120	4'-11"
		5'			120	120	4'-9"			110	110	5'-10"	4'-8"			6			10			5			5			120	120	6'-11"
		6'			120	120	4'-11"			110	110	6'-0"	4'-10"			6			12			5			5			120	120	7'-11"
	1 @ 5'	3'	#6	13"	120	120	5'-9"	#6	13"	110	110	6'-10"	5'-8"	#5	10½"	7	#4	12"	6	#4	12"	6	#4	12"	6	#4	12"	120	120	4'-0"
		4'			120	120	5'-9"			110	110	6'-10"	5'-8"			7			8			6			6			120	120	5'-0"
		5'			120	120	5'-9"			110	110	6'-10"	5'-8"			7			10			6			6			120	120	6'-0"
		6'			120	120	5'-11"			110	110	7'-2"	5'-10"			7			12			6			6			120	120	7'-0"
		7'			120	120	6'-0"			110	110	7'-1"	5'-11"			7			14			6			6			120	120	8'-0"
	1 @ 6'	3'	#6	12"	128	128	6'-9"	#6	12"	118	118	7'-10"	6'-8"	#5	10½"	8	#4	12"	6	#4	12"	7	#4	12"	7	#4	12"	120	120	4'-1"
		4'			128	128	6'-9"			118	118	7'-10"	6'-8"			8			8			7			7			120	120	5'-1"
		5'			128	128	6'-9"			118	118	7'-10"	6'-8"			8			10			7			7			120	120	6'-1"
		6'			128	128	6'-11"			118	118	8'-0"	6'-10"			8			12			7			7			120	120	7'-1"
		7'			128	128	7'-0"			118	118	8'-1"	6'-11"			8			14			7			7			120	120	8'-1"
		8'			128	128	7'-1"			118	118	8'-2"	7'-0"			8			16			7			7			120	120	9'-1"
	1 @ 7'	4'	#6	11"	140	140	7'-9"	#6	11"	130	130	8'-10"	7'-8"	#5	10⅝"	9	#4	12"	8	#4	12"	8	#4	12"	8	#5	12"	120	120	5'-2"
		5'			140	140	7'-9"			130	130	8'-10"	7'-8"			9			10			8			8	#4	12"	120	120	6'-2"
		6'			140	140	7'-11"			130	130	9'-0"	7'-10"			9			12			8			8			120	120	7'-2"
		7'			140	140	8'-0"			130	130	9'-1"	7'-11"			9			14			8			8			120	120	8'-2"
		8'			140	140	8'-1"			130	130	9'-2"	8'-0"			9			16			8			8	10"	168	168	9'-2"
		9'			140	140	8'-3"			130	130	9'-4"	8'-2"			9			18			8			8	#5	12"	120	120	10'-2"
	1 @ 8'	5'	#7	12"	128	128	8'-9"	#6	12"	118	118	9'-10"	8'-8"	#5	10"	11	#4	12"	9	#4	12"	9	#4	12"	9	#4	12"	120	120	5'-6"
		6'			128	128	8'-11"			118	118	10'-0"	8'-10"			11			10			9			9			120	120	6'-8"
		7'			128	128	8'-11"			118	118	10'-1"	8'-11"			11			12			9			9			120	120	7'-8"
		8'			128	128	9'-0"			118	118	10'-2"	9'-0"			11			14			9			9			120	120	8'-8"
		9'			128	128	9'-2"			118	118	10'-4"	9'-2"			11			16			9			9	10"	168	168	9'-8"
		10'			128	128	9'-5"			118	118	10'-5"	9'-3"			11			18			9			9	#6	12"	120	120	10'-8"
		11'			128	128	9'-7"			118	118	10'-6"	9'-4"			11			20			9			9	11"	132	132	11'-9"
	1 @ 9'	5'	#7	11"	140	140	9'-11"	#7	11"	130	130	11'-0"	9'-10"	#5	10"	12	#4	12"	10	#4	12"	10	#4	12"	10	#4	12"	120	120	6'-5"
		6'			140	140	10'-0"			130	130	11'-1"	9'-11"			12			12			10			10			120	120	7'-5"
		7'			140	140	10'-0"			130	130	11'-1"	9'-11"			12			14			10			10			120	120	8'-5"
		8'			140	140	10'-1"			130	130	11'-2"	10'-0"			12			16			10			10	10"	168	168	9'-5"
		9'			140	140	10'-3"			130	130	11'-4"	10'-2"			12			18			10			10	11"	132	132	11'-5"
		10'			140	140	10'-5"			130	130	11'-6"	10'-4"			12			20			10			10	#5	12"	120	120	12'-5"
		11'			140	140	10'-7"			130	130	11'-8"	10'-6"			12			22			10			10	10"	168	168	12'-5"
	1 @ 10'	5'	#7	12"	128	128	10'-11"	#7	12"	118	118	12'-2"	10'-10"	#5	10"	13	#4	12"	10	#4	12"	11	#4	12"	11	#4	12"	120	120	6'-6"
		6'			128	128	11'-0"			118	118	12'-3"	10'-11"			13			12			11			11			120	120	7'-6"
		7'			128	128	11'-0"			118	118	12'-3"	10'-11"			13			14			11			11			120	120	8'-6"
		8'			128	128	11'-1"			118	118	12'-4"	11'-0"			13			16			11			11	10"	168	168	9'-6"
		9'			128	128	11'-3"			118	118	12'-6"	11'-2"			13			18			11			11	11"	132	132	11'-6"
		10'			128	128	11'-5"			118	118	12'-8"	11'-4"			13			20			11			11	#5	12"	120	120	12'-6"
		11'			128	128	11'-7"			118	118	12'-10"	11'-6"			13			22			11			11	10"	168	168	12'-6"
		12'			128	128	11'-9"			118	118	13'-0"	11'-8"			13			24			11			11	#6	12"	120	120	13'-6"
	1 @ 11'	6'	#7	11"	140	140	12'-1"	#7	11"	130	130	13'-1"	12'-0"	#5	9⅝"	15	#4	12"	12	#4	12"	12	#4	12"	12	#4	12"	120	120	7'-7"
		7'			140	140	12'-1"			130	130	13'-1"	12'-0"			15			14			12			12			120	120	8'-7"
		8'			140	140	12'-1"			130	130	13'-1"	12'-0"			15			16			12			12	10"	168	168	9'-7"
		9'			140	140	12'-3"			130	130	13'-2"	12'-2"			15			18			12			12	11"	132	132	11'-7"
		10'			140	140	12'-5"			130	130	13'-3"	12'-4"			15			20			12			12	10"	168	168	12'-7"
		11'			140	140	12'-7"			130	130	13'-4"	12'-6"			15			22			12			12	#6	12"	120	120	13'-7"
		12'			140	140	12'-9"			130	130	13'-5"	12'-8"			15			24			12			12					
	1 @ 12'	6'	#8	12"	128	128	13'-1"	#7	12"	118	118	14'-4"	13'-0"	#5	9⅝"	16	#4	12"	12	#4	12"	13	#4	12"	13					
		7'			128	128	13'-1"			118	118	14'-5"	13'-0"			16			14			13			13					
		8'			128	128	13'-1"			118	118	14'-6"	13'-0"			16			16			13			13					
		9'			128	128	13'-13"			118	118	14'-6"	13'-2"			16			18			13			13					
		10'			128	128	13'-15"			118	118	14'-8"	13'-4"			16			20			13			13					
		11'			128	128	13'-17"			118	118	14'-10"	13'-6"			16			22			13			13					
		12'			128	128	13'-19"			118	118	15'-0"	13'-8"			16			24			13			13					

BAR SIZE	PIN DIAM.	K	ADD FOR 2 HOOKS	BENDING DIAGRAM Bars "b".
#6	3"	5"	1'-2"	K, Pin Diam., X
#7	3½"	5⅜"	1'-9"	

NOTE:- Dimensions are to centers of bars.

DOWEL BARS FOR TWO HEADWALLS

SPAN	SIZE	SPACING	NO. REQD	LENGTH	X
4'	#4	11"±	12	2'-6"	1'-3"
5'	#4	11"±	14	2'-7"	1'-3⅛"
6'	#4	11"±	16	2'-8"	1'-9"
7'	#4	11"±	18	2'-9"	1'-9⅛"
8'	#4	11⅛"±	20	2'-11"	1'-9⅛"
9'	#4	11⅛"±	22	3'-0"	1'-6"
10'	#4	11⅛"±	24	3'-1"	1'-6⅛"
11'	#4	12"±	26	3'-2"	1'-7"
12'	#4	12"±	28	3'-3"	1'-7⅛"

Bars "r" Dowel bars in Headwalls. (X, 2, 12)

Designed By:- W.C.H. 1-23-63. Checked By:- EBG 5-8-63
Drawn By:- W.C.H. 2-8-63. Checked By:- EBG 5-8-63
Quantities By:- W.C.H. 2-12-63. Checked By:- EBG 5-24-63

DIMENSIONS

BARREL DIMENSIONS

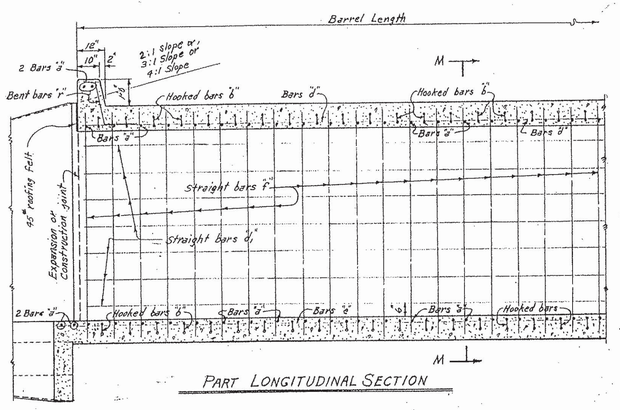
MARK DESIGN DEPTH OF COVER	CLEAR SPAN	CLEAR HEIGHT	SQ. FT. OPENING	OVERALL WIDTH	THICKNESS OF TOP SLAB	THICKNESS OF SIDEWALLS	THICKNESS OF BOTTOM SLAB	OVERALL HEIGHT
D	S	H	A	OW	T	C	B	OH
5'-0"	1 @ 4'	2'	8	5'-0"	7"	6"	6½"	3'-1⅝"
		3'	12	5'-0"		6"		4'-1⅝"
		4'	16	5'-0"		6"		5'-1⅝"
		5'	20	5'-0"		6"		6'-1⅝"
		6'	24	5'-2"		7"		7'-1⅝"
	1 @ 5'	3'	15	6'-0"	7½"	6"	7"	4'-2⅝"
		4'	20	6'-0"		6"		5'-2⅝"
		5'	25	6'-0"		6"		6'-2⅝"
		6'	30	6'-2"		7"		7'-2⅝"
		7'	35	6'-3"		7½"		8'-2⅝"
	1 @ 6'	3'	18	7'-0"	8"	6"	7½"	4'-3½"
		4'	24	7'-0"		6"		5'-3½"
		5'	30	7'-0"		6"		6'-3½"
		6'	36	7'-2"		7"		7'-3½"
		7'	42	7'-3"		7½"		8'-3½"
		8'	48	7'-4"		8"		9'-3½"
	1 @ 7'	4'	28	8'-0"	8½"	6"	8½"	5'-5"
		5'	35	8'-0"		6"		6'-5"
		6'	42	8'-2"		7"		7'-5"
		7'	49	8'-3"		7½"		8'-5"
		8'	56	8'-4"		8"		9'-5"
		9'	63	8'-6"		9"		10'-5"
	1 @ 8'	4'	32	9'-0"	9½"	6"	9½"	5'-7"
		5'	40	9'-2"		7"		6'-7"
		6'	48	9'-2"		7"		7'-7"
		7'	56	9'-3"		7½"		8'-7"
		8'	64	9'-4"		8"		9'-7"
		9'	72	9'-6"		9"		10'-7"
		10'	80	9'-8"		10"		11'-7"
	1 @ 9'	5'	90	10'-2"	10"	7"	10"	6'-8"
		6'	54	10'-3"		7½"		7'-8"
		7'	63	10'-3"		7½"		8'-8"
		8'	72	10'-4"		8"		9'-8"
		9'	81	10'-6"		9"		10'-8"
		10'	90	10'-8"		10"		11'-8"
		11'	99	10'-10"		11"		12'-8"
	1 @ 10'	5'	50	11'-2"	10½"	7"	11"	6'-9½"
		6'	60	11'-3"		7½"		7'-9½"
		7'	70	11'-3"		7½"		8'-9½"
		8'	80	11'-4"		8"		9'-9½"
		9'	90	11'-6"		9"		10'-9½"
		10'	100	11'-8"		10"		11'-9½"
		11'	110	11'-10"		11"		12'-9½"
		12'	120	12'-0"		12"		13'-9½"
	1 @ 11'	6'	66	12'-3"	11"	8"	11½"	7'-10⅝"
		7'	77	12'-3"		8"		8'-10⅝"
		8'	88	12'-4"		8"		9'-10⅝"
		9'	99	12'-6"		9"		10'-10⅝"
		10'	110	12'-8"		10"		11'-10⅝"
		11'	121	12'-10"		11"		12'-10⅝"
		12'	132	13'-0"		12"		13'-10⅝"
	1 @ 12'	6'	72	13'-3"	11½"	8"	12"	8'-0"
		7'	84	13'-3"		8"		9'-0"
		8'	96	13'-4"		8"		10'-0"
		9'	108	13'-6"		9"		11'-0"
		10'	120	13'-8"		10"		12'-0"
		11'	132	13'-10"		11"		13'-0"
		12'	144	14'-0"		12"		14'-0"

QUANTITIES

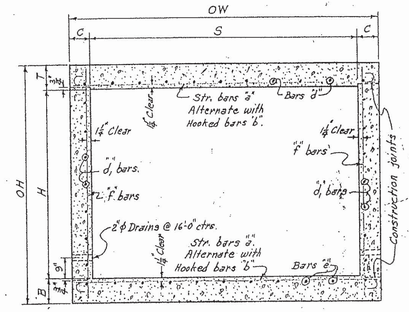
UNIT QUANTITIES

CLASS S CONC. PER LIN. FT. OF BARREL	REINFORCING STEEL PER LIN. FT. OF BARREL	REINFORCING STEEL ADDITIONAL PER LAP	REINFORCING STEEL ADDITIONAL TWO HEADWALLS & APRONS
CU.YD.	LB.	LB.	LB.
0.282	41.49	17.95	66.35
0.319	44.16	19.62	66.35
0.356	46.83	21.29	66.35
0.394	49.50	22.96	66.35
0.474	52.96	24.63	67.75
0.380	55.55	22.19	101.27
0.417	58.23	23.86	101.27
0.454	60.90	25.53	101.27
0.535	64.49	27.20	103.27
0.609	67.63	28.87	104.27
0.496	66.29	29.76	118.96
0.483	68.96	26.93	118.96
0.520	71.64	28.10	118.96
0.602	75.31	29.77	120.96
0.671	78.98	31.44	121.97
0.746	88.47	33.11	122.97
0.568	81.32	29.01	136.88
0.605	84.00	30.68	136.88
0.688	87.76	32.35	138.88
0.757	94.98	39.02	139.88
0.832	96.65	35.69	140.88
0.946	105.59	32.36	142.89
0.676	95.26	33.32	198.07
0.758	99.12	34.99	196.80
0.797	101.79	36.66	196.80
0.867	105.05	38.33	198.16
0.942	110.81	40.00	199.52
1.057	119.92	41.67	202.25
1.184	126.67	43.34	209.97
0.849	119.72	37.56	219.61
0.910	118.04	39.23	220.97
0.957	120.71	40.90	220.97
1.033	126.54	42.57	222.33
1.148	135.80	44.24	225.06
1.276	142.68	45.91	227.78
1.416	150.90	47.58	230.51
0.957	130.64	40.13	242.64
1.024	133.99	41.80	244.00
1.071	136.66	43.47	244.00
1.147	142.55	45.14	245.36
1.263	151.92	46.81	248.09
1.391	158.89	48.48	250.81
1.532	166.71	50.15	253.54
1.685	174.67	51.82	256.26
1.153	155.16	46.12	268.62
1.202	157.83	47.79	268.62
1.252	163.06	49.46	268.62
1.368	172.60	51.13	271.34
1.497	179.70	52.80	274.07
1.638	187.67	54.47	276.79
1.792	199.79	56.14	279.52
1.284	172.20	48.69	357.62
1.333	179.87	50.36	357.62
1.383	180.15	52.03	357.62
1.500	189.85	58.70	361.18
1.630	197.07	55.37	364.74
1.772	205.16	57.04	368.30
1.926	217.95	58.71	371.86

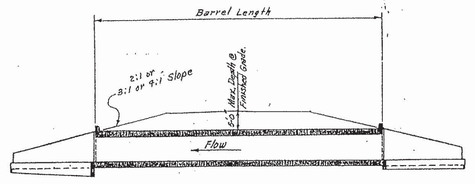
W-X002-1, W-X003-2, or W-X004-2.
W-X002-2 or W-X003-1 or W-X004-1



PART LONGITUDINAL SECTION



TYPICAL SECTION M-M



LONGITUDINAL SECTION

GENERAL NOTES:-

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾" chamfers.

REINFORCING STEEL:- Reinforcing to be deformed bars of intermediate or hard grade.

BAR LAP:- In computing the quantities of steel from the tables add one lap for each additional 33'-0" length of barrel over 32'-0". Lap longitudinal bars 30 diameters.

CONSTRUCTION JOINTS:- Construction joints between wingwalls, sidewalls and slabs shall be only where shown on plans.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

DESIGN LIVE LOAD

H20-S16 LOADING A.A.S.H.O. 1961
AND
SPECIAL MILITARY LOADING
Two 24,000 Lb. Axles @ 4'-0" ctrs.

UNIT STRESSES:-
Class S Concrete (n=10) 1200 #/□"
Reinforcing Steel 20,000 #/□"

NOTE:- This drawing to be used in conjunction with Standard Drawing Nos. W-X003-1 or W-X003-2 and W-X004-1 or W-X004-2. Also Drawing Nos. W-X002-1 or W-X002-2.

CLASS S CONCRETE

ARKANSAS STATE HIGHWAY COMMISSION

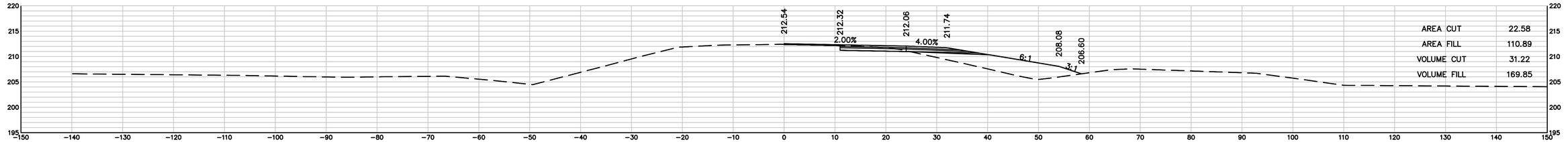
DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS

4', 5', 6', 7', 8', 9', 10', 11' & 12' SPANS — 3:1 OR 4:1 SLOPES
SINGLES — UNDER 5'-0" COVER

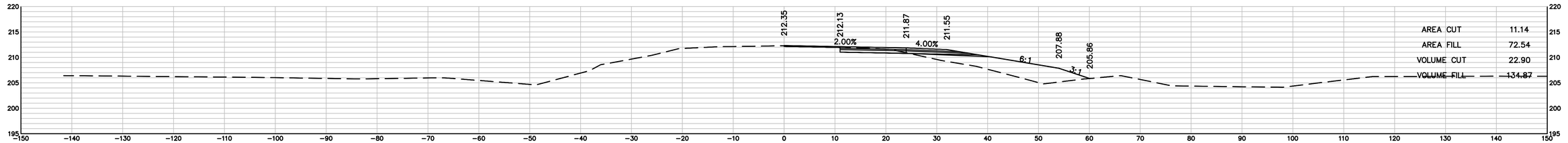
STANDARD DRAWING NO. R-100X-0

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	109	151

(2) CROSS SECTIONS



18+00.00



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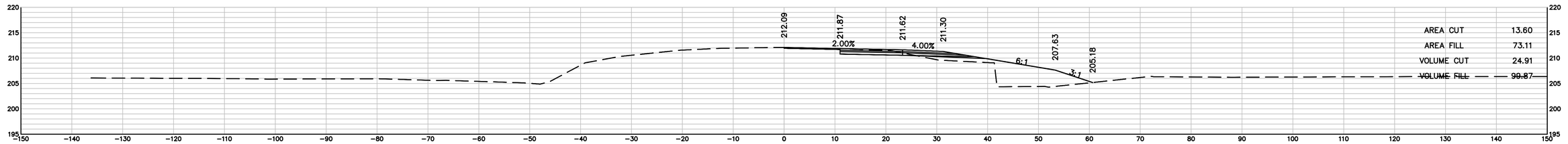

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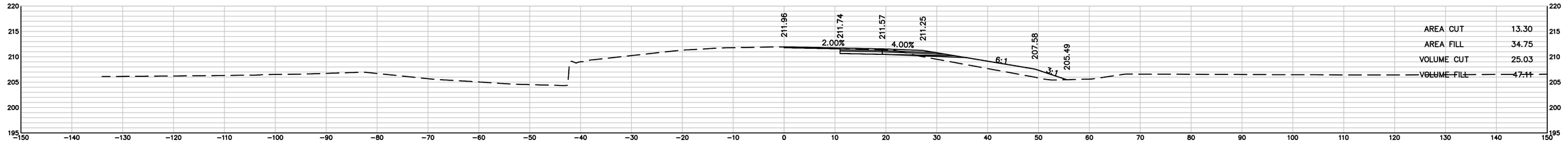
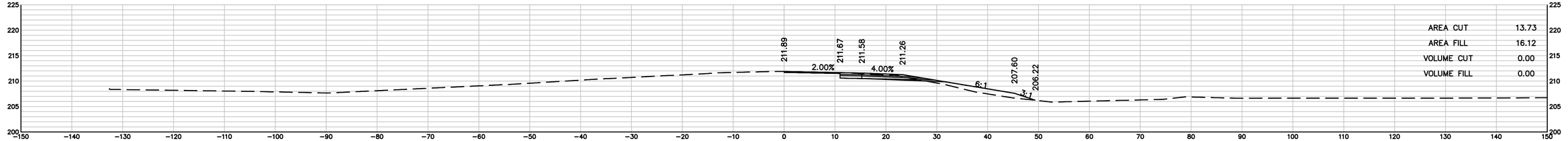


16+50.00



16+00.00

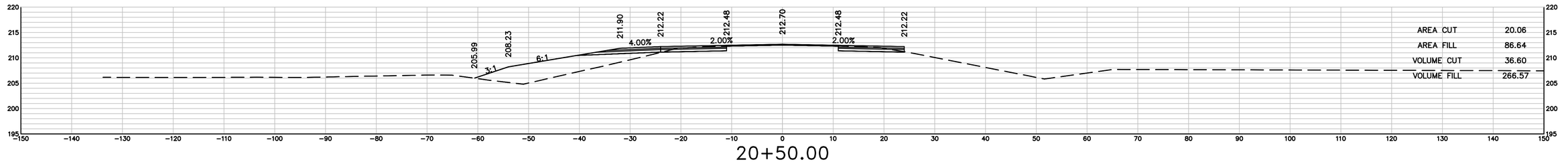
STA. 15+58.98 – BEGIN HWY. 63

STA. 16+00.00 TO STA. 18+00.00

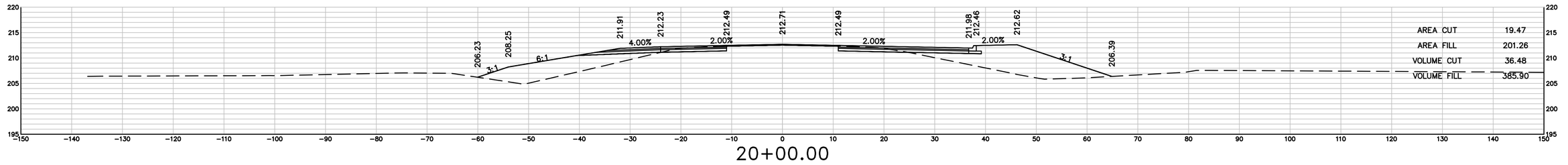
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:05pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	110	151

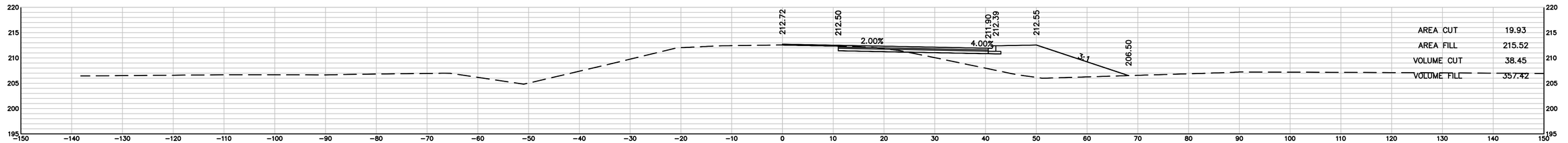
(2) CROSS SECTIONS



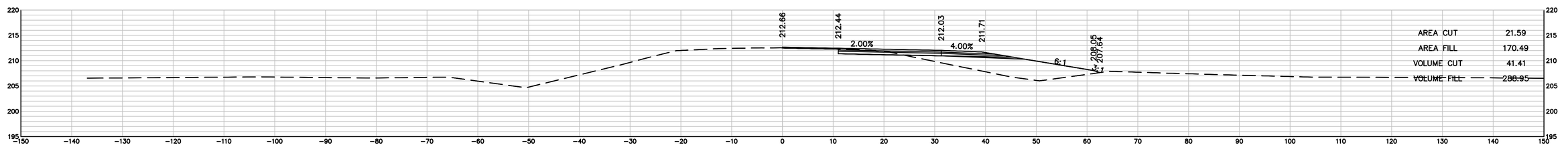
20+50.00



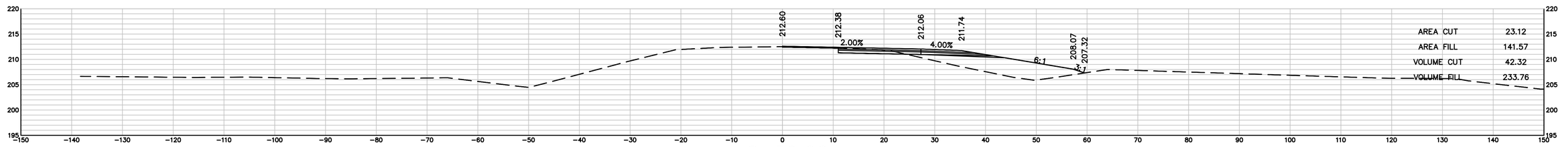
20+00.00



19+50.00



19+00.00



18+50.00

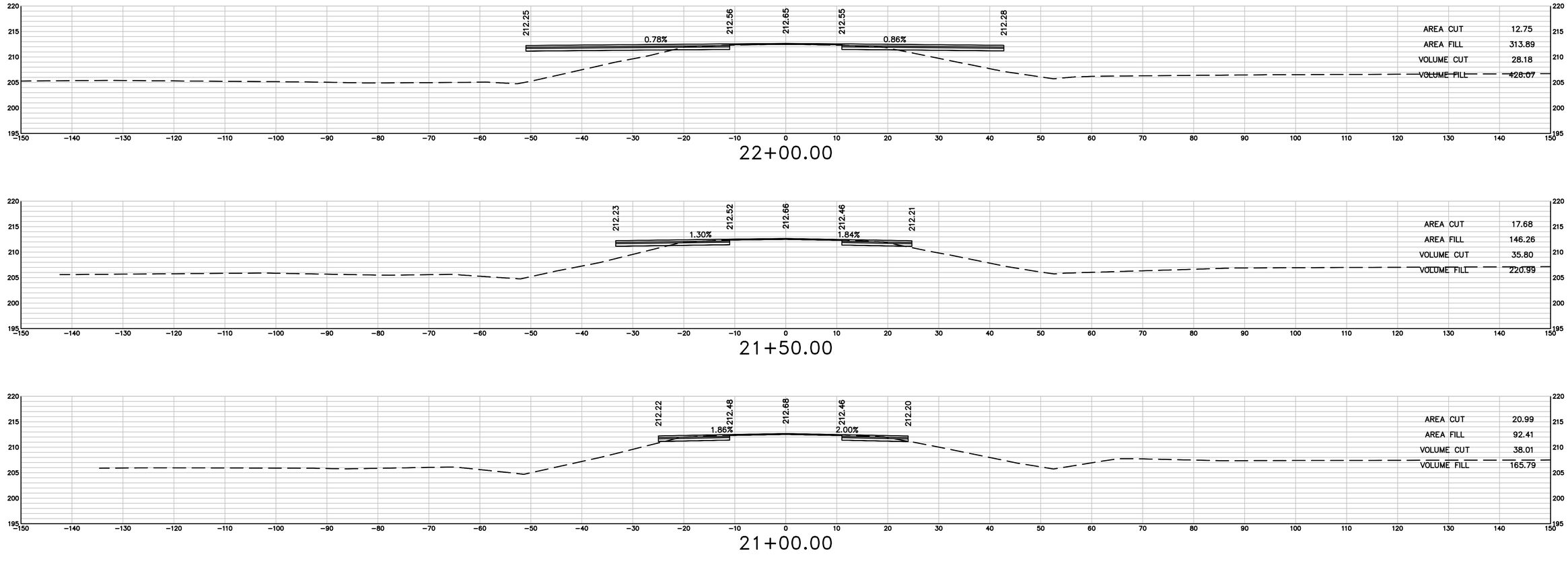
HWY. 63

STA. 18+50.00 TO STA. 20+50.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708.C7.00.CIVIL.dwg 1/30/20 at 3:05pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	111	151
				(2)	CROSS SECTIONS			

SEE ROUNDABOUT SPECIAL DETAIL SHEET FOR INFORMATION
FROM STA. 22+33.93 TO STA. 24+53.93



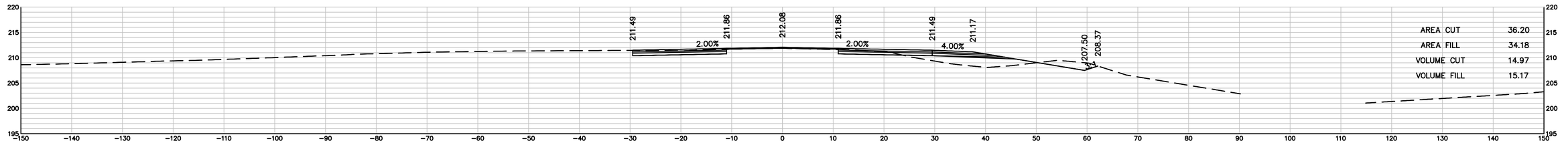
HWY. 63

STA. 21+00.00 TO STA. 22+00.00

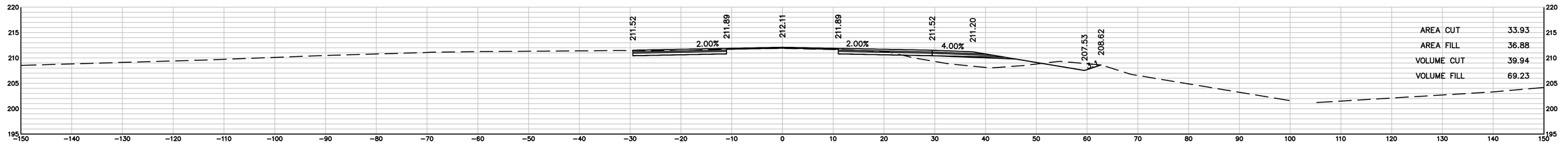
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:07pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	112	151

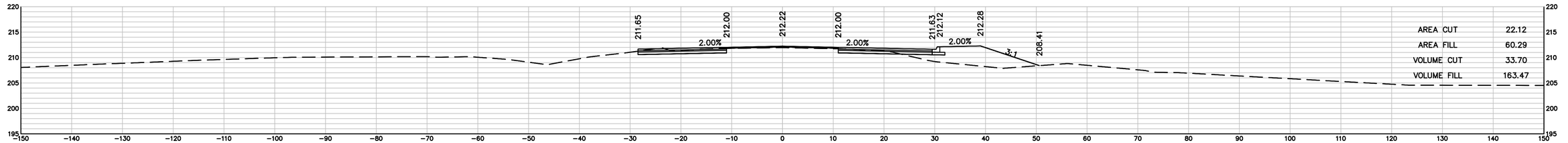
(2) CROSS SECTIONS



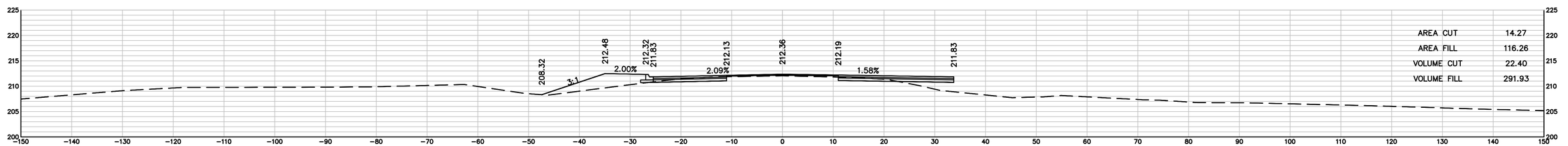
26+50.00



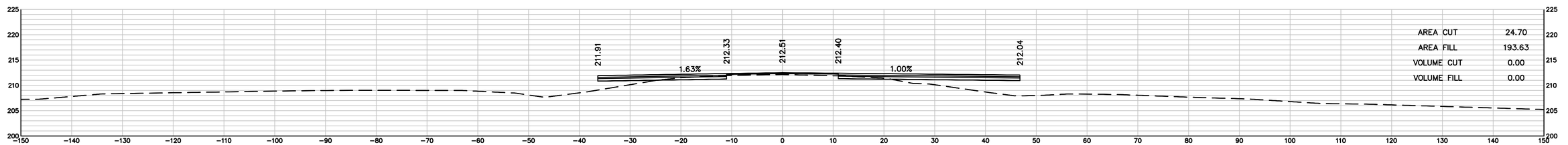
26+38.47



26+00.00



25+50.00



25+00.00

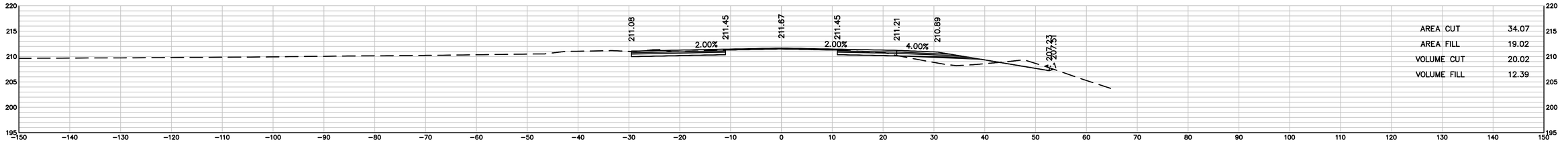
HWY. 63

STA. 25+00.00 TO STA. 26+50.00

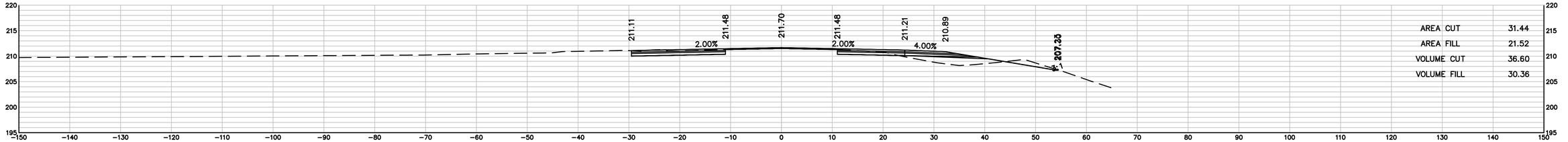
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708.C7.00.CIVIL.dwg 1/30/20 at 3:07pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	113	151

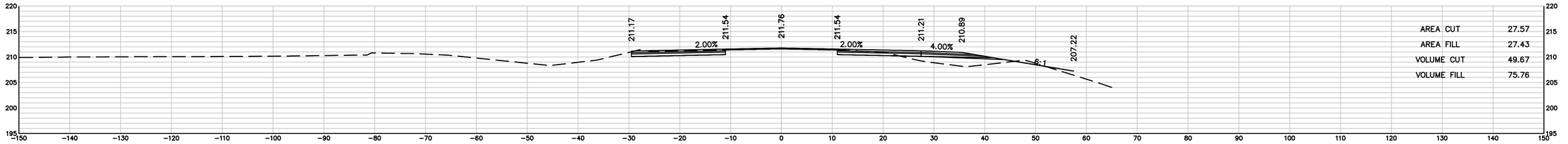
(2) CROSS SECTIONS



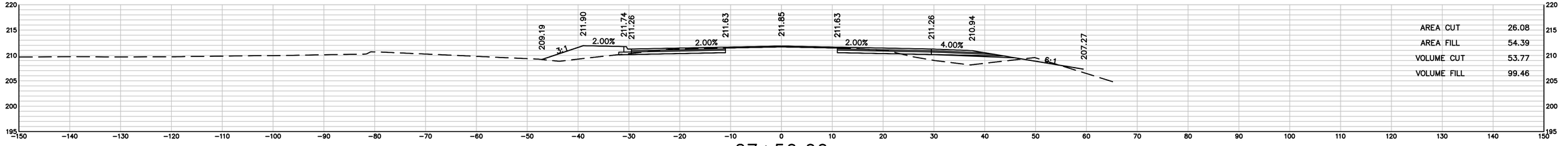
28+50.00



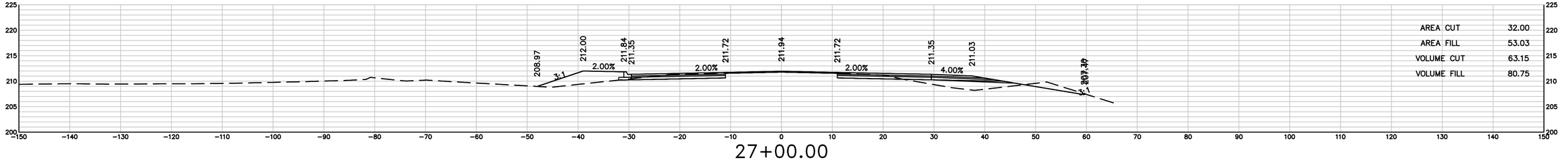
28+33.49



28+00.00



27+50.00



27+00.00

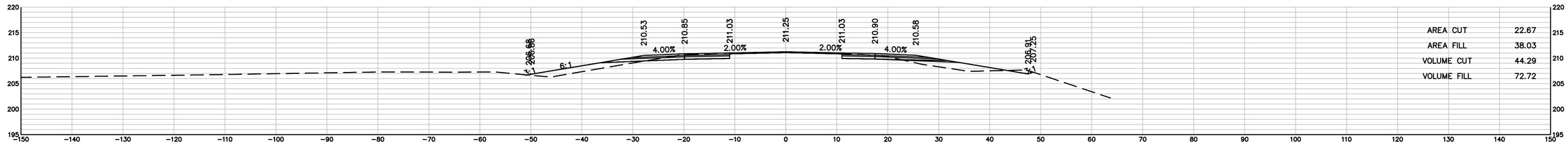
HWY. 63

STA. 27+00.00 TO STA. 28+50.00

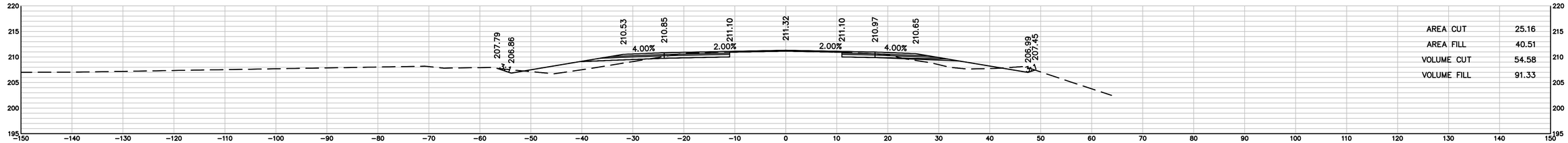
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:12pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	114	151

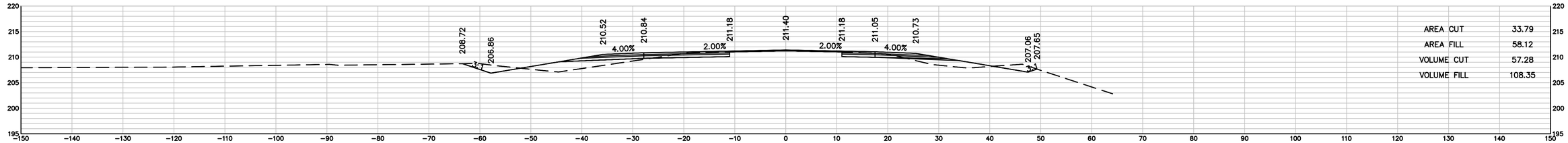
(2) CROSS SECTIONS



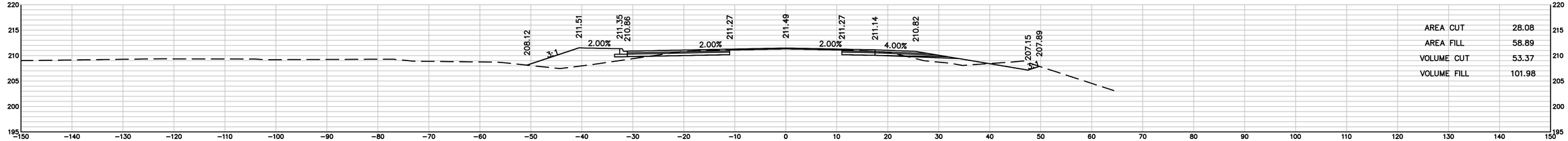
31+00.00



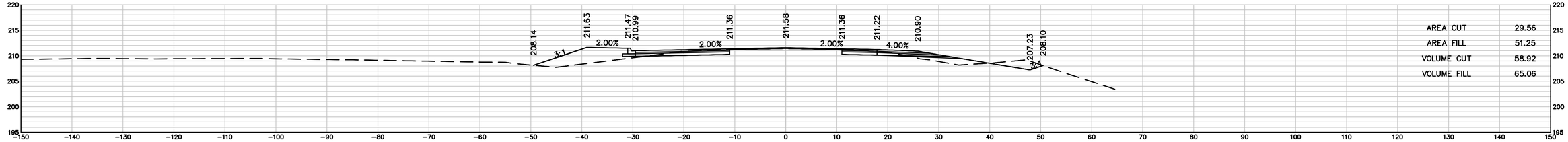
30+50.00



30+00.00



29+50.00



29+00.00

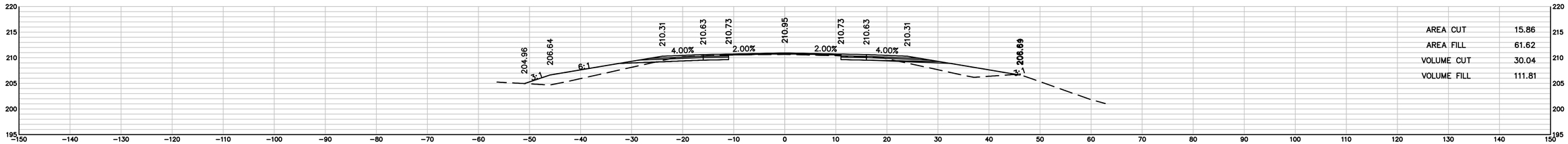
HWY. 63

STA. 29+00.00 TO STA. 31+50.00

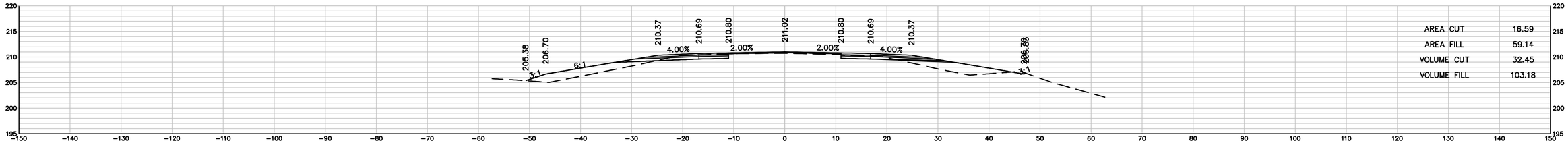
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:13pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	115	151

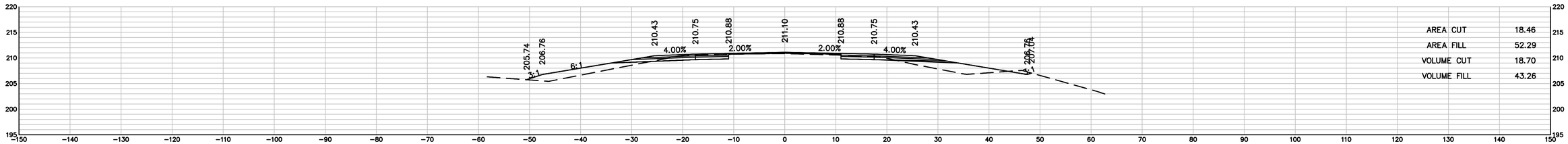
(2) CROSS SECTIONS



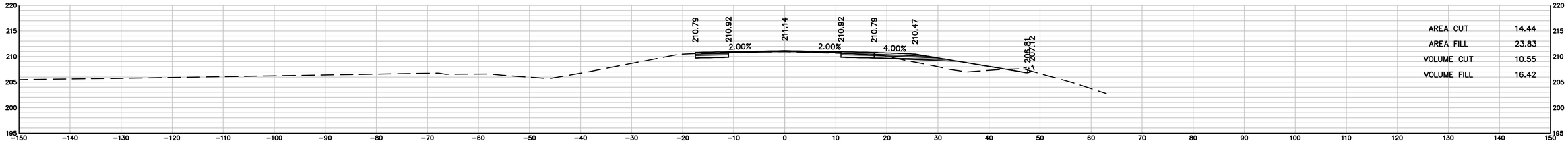
33+00.00



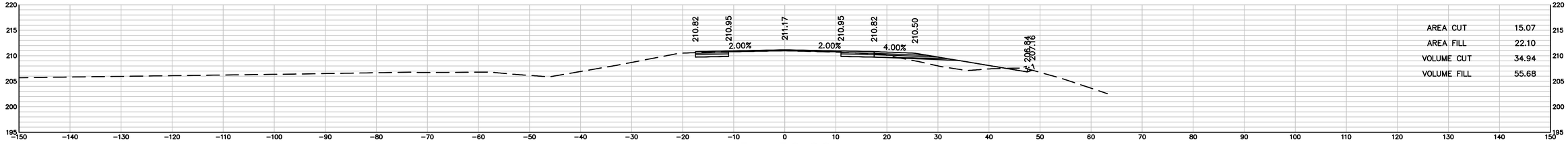
32+50.00



32+00.00



31+69.31



31+50.00

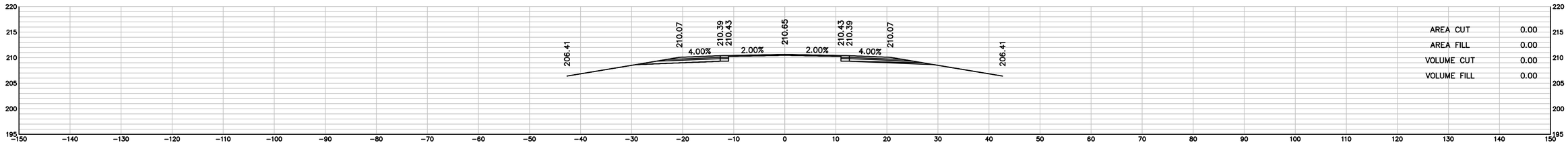
HWY. 63

STA. 31+50.00 TO STA. 33+00.00

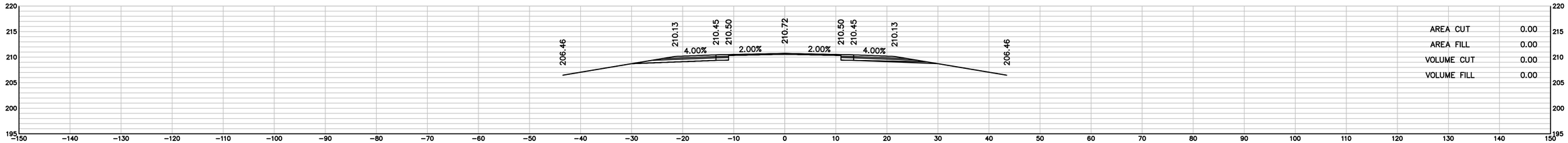
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:13pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	116	151
				(2)	CROSS SECTIONS			

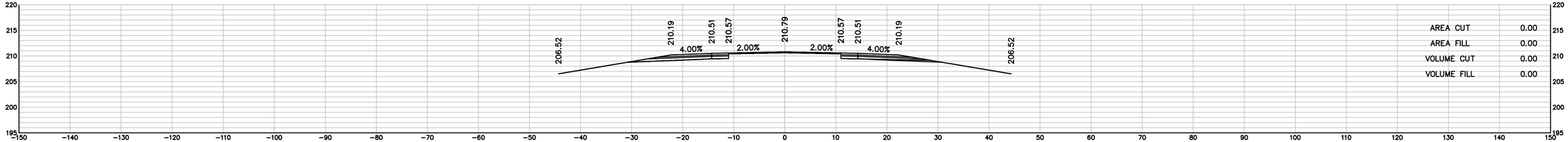
STA. 35+39.31 – END HWY. 63



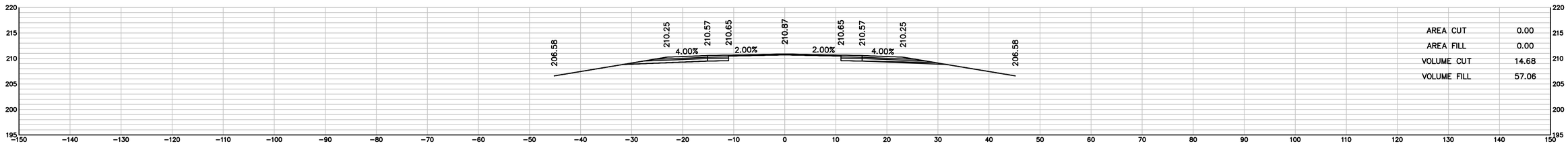
35+00.00



34+50.00



34+00.00



33+50.00

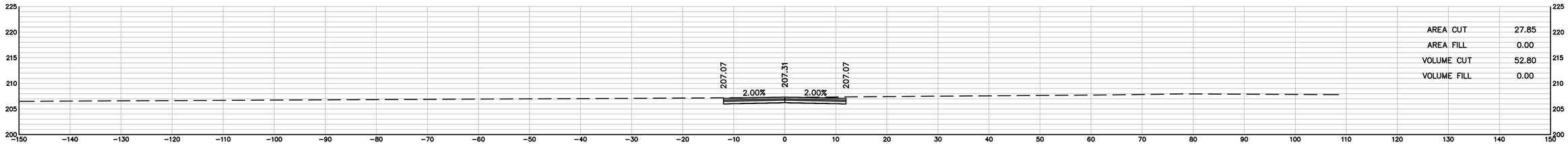
HWY. 63

STA. 33+50.00 TO STA. 35+00.00

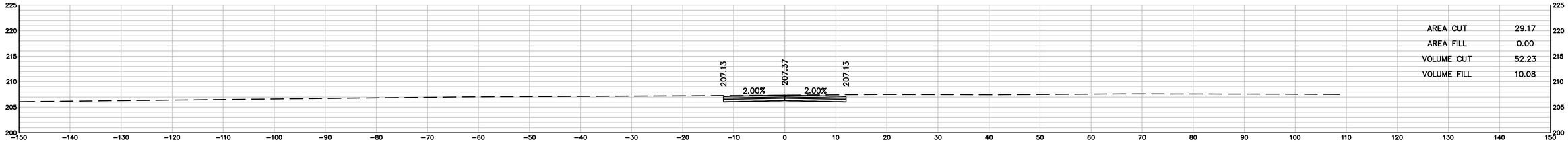
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:14pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	117	151

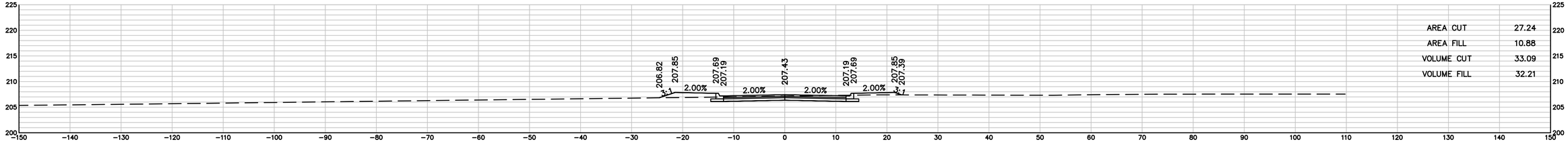
(2) CROSS SECTIONS



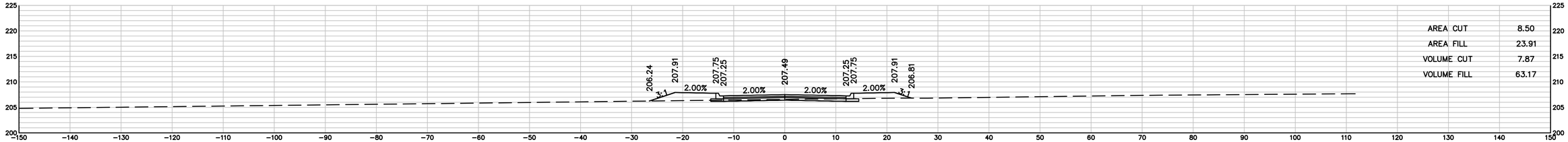
14+50.00



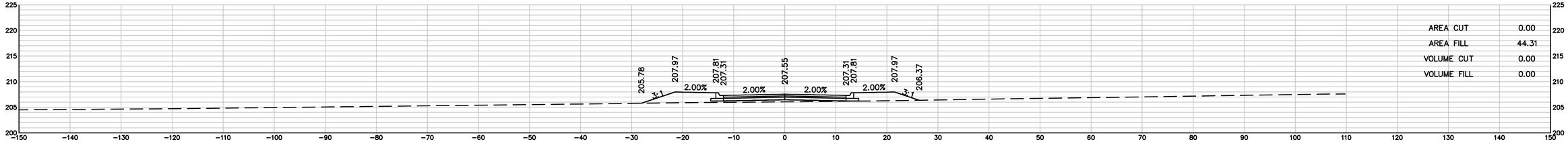
14+00.00



13+50.00



13+00.00



12+50.00

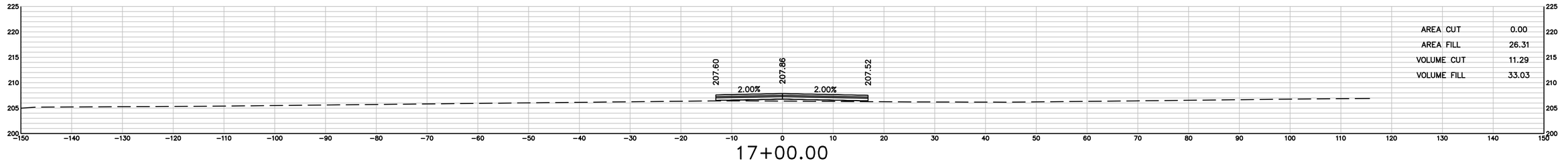
SARACEN RESORT DR.

STA. 12+50.00 TO STA. 14+50.00

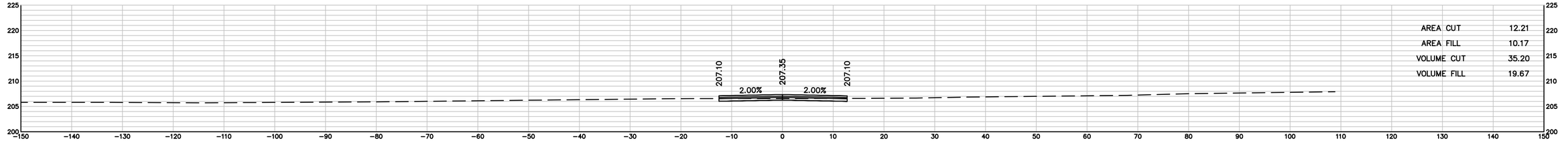
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:14pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	118	151

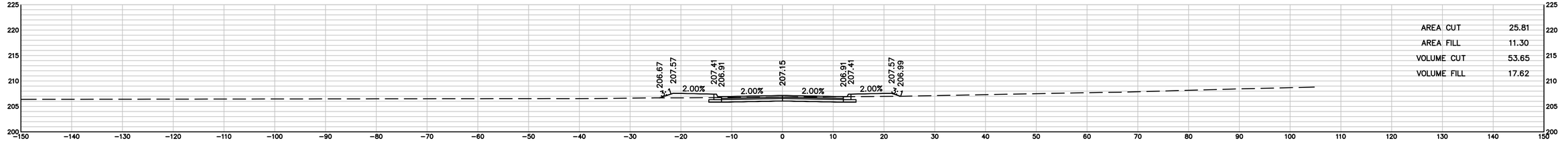
(2) CROSS SECTIONS



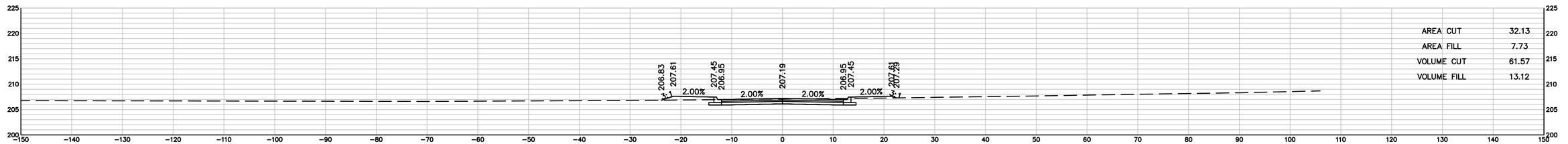
17+00.00



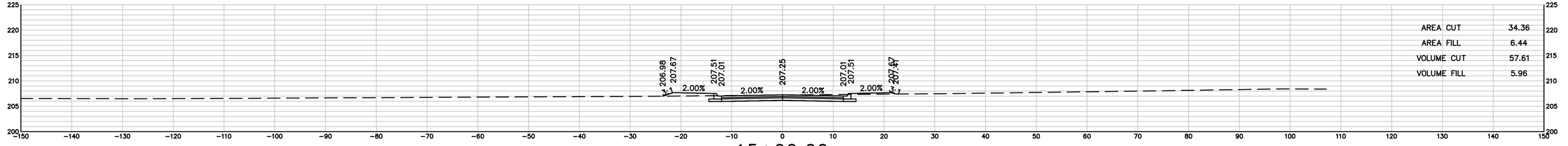
16+50.00



16+00.00



15+50.00



15+00.00

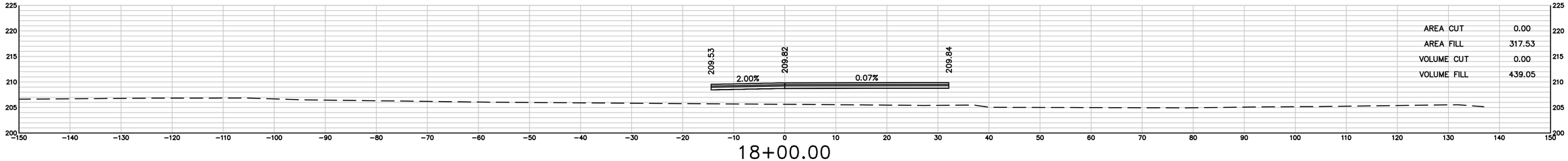
SARACEN RESORT DR.

STA. 15+00.00 TO STA. 17+00.00

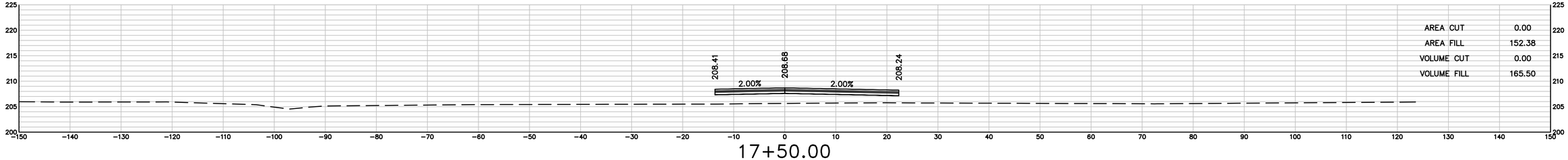
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:15pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	119	151
				(2)	CROSS SECTIONS			

SEE ROUNDABOUT SPECIAL DETAIL SHEET FOR INFORMATION
FROM STA. 18+96.36 TO STA. 21+04.02



18+00.00



17+50.00

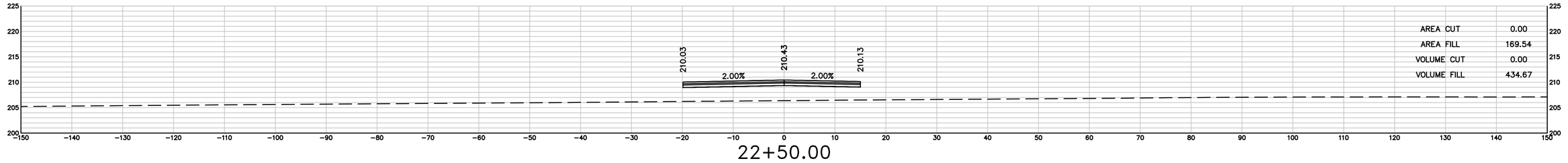
SARACEN RESORT DR.

STA. 17+50.00 TO STA. 18+00.00

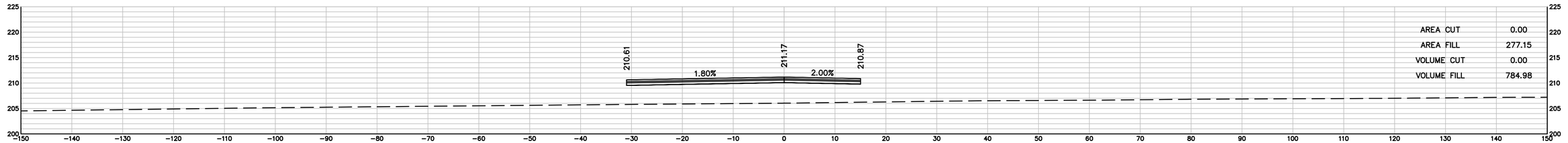
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:15pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
		2019-10-09		6	ARK.			
				JOB NO.		19-5708	120	151
				(2)	CROSS SECTIONS			

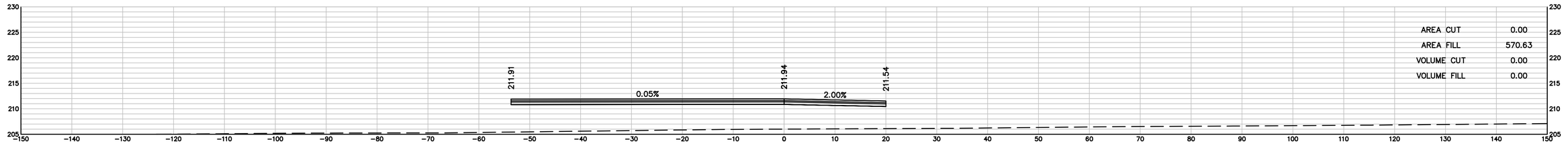
STA. 22+50.00 – END SARACEN RESORT DR.



22+50.00



22+00.00



21+50.00

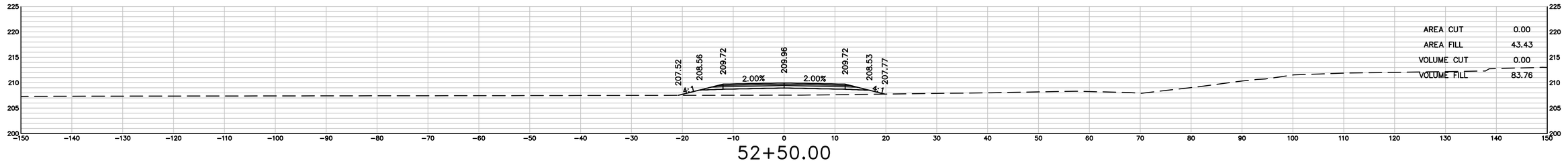
SARACEN RESORT DR.

STA. 21+50.00 TO STA. 23+50.00

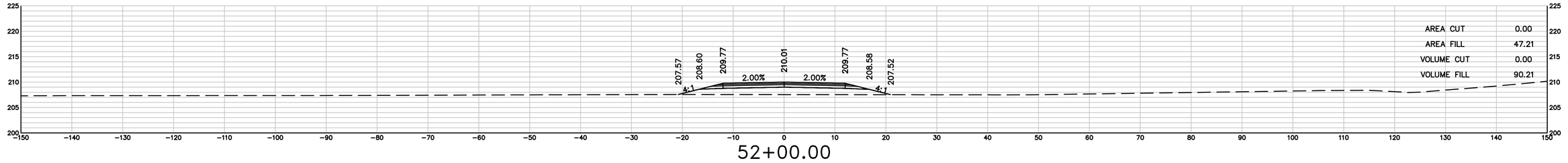
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:16pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	121	151

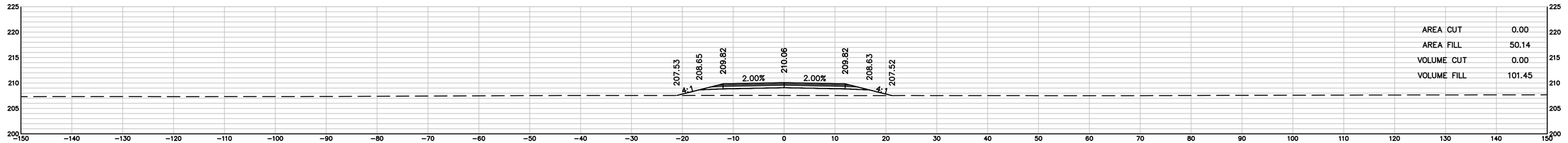
(2) CROSS SECTIONS



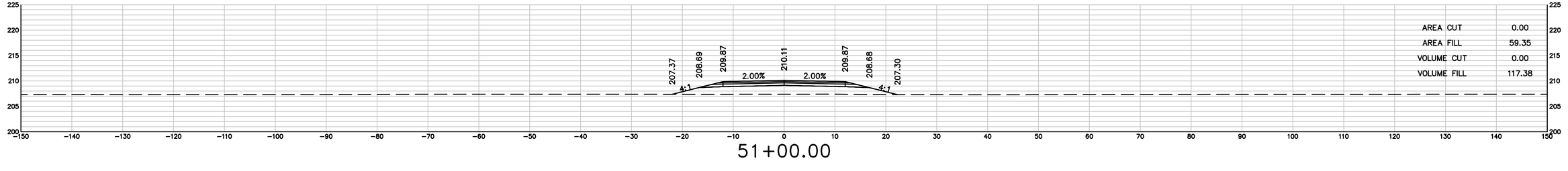
52+50.00



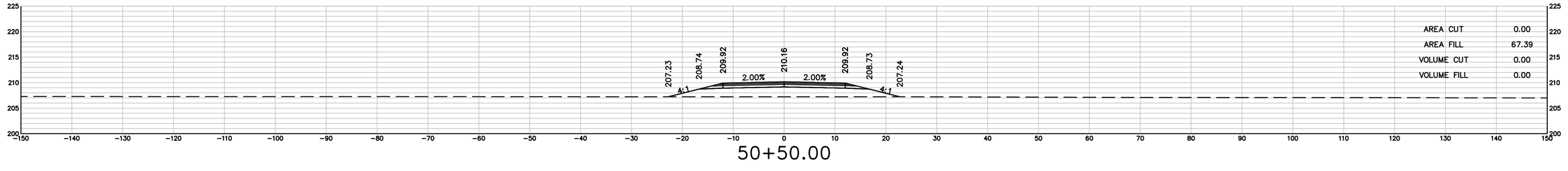
52+00.00



51+50.00



51+00.00



50+50.00

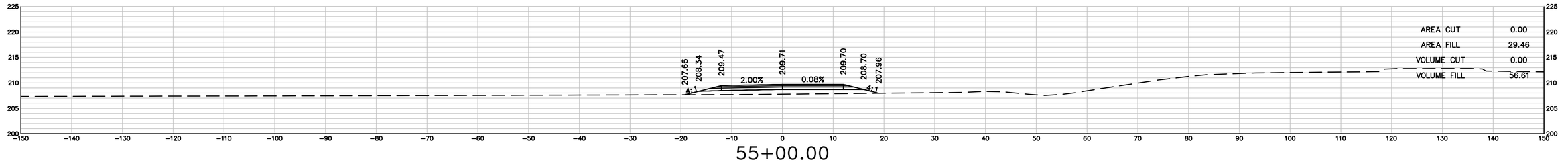
STA. 50+00.00 – BEGIN FRONTAGE RD.

STA. 50+50.00 TO STA. 52+50.00

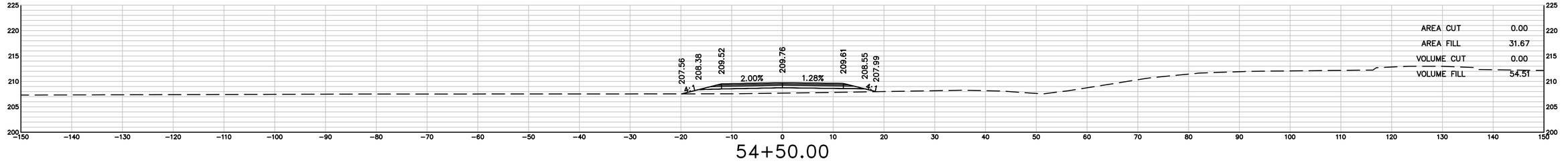
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:16pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	122	151

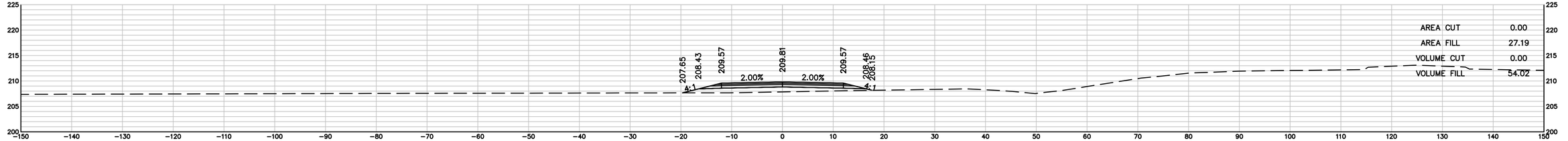
(2) CROSS SECTIONS



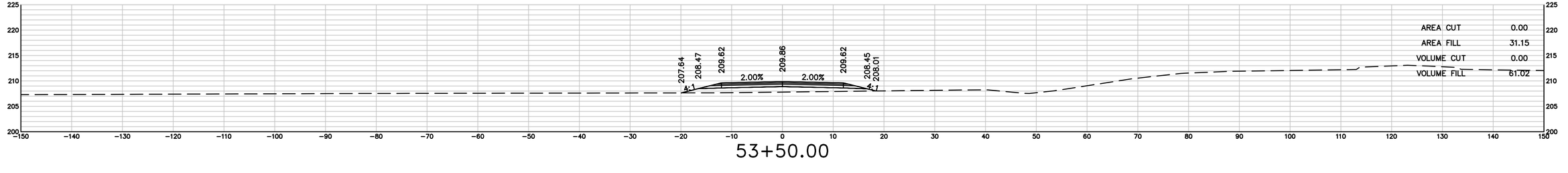
55+00.00



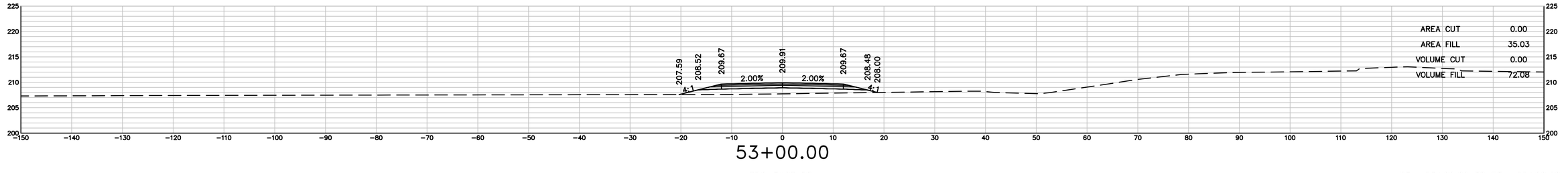
54+50.00



54+00.00



53+50.00



53+00.00

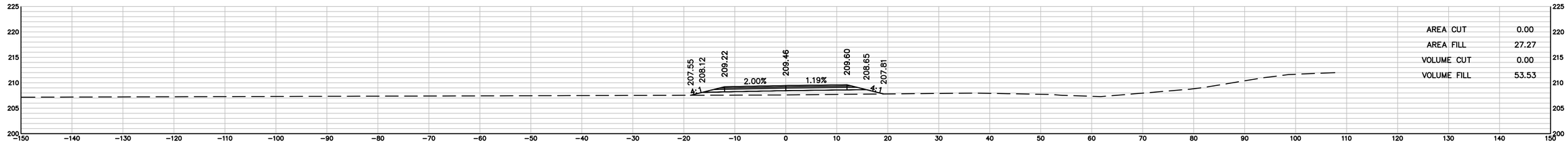
FRONTAGE RD.

STA. 53+00.00 TO STA. 55+00.00

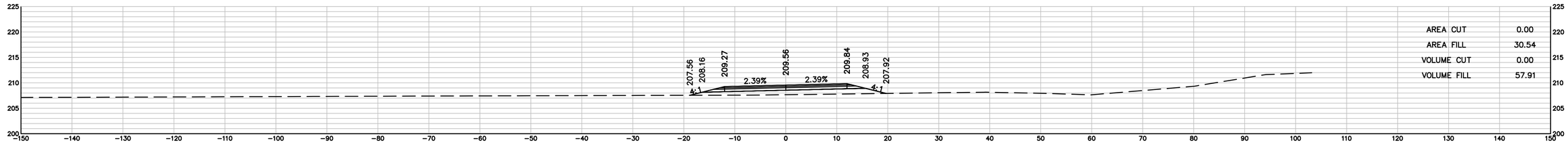
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:17pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	123	151

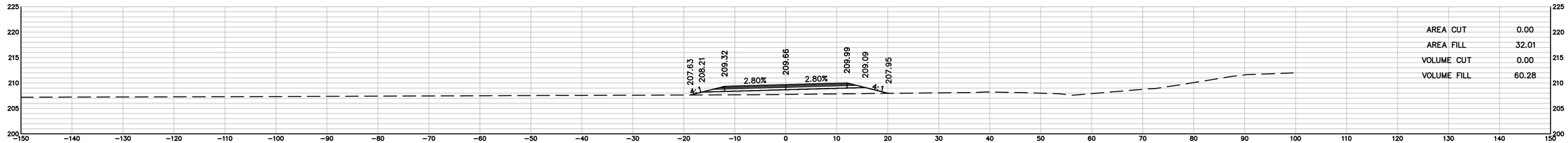
(2) CROSS SECTIONS



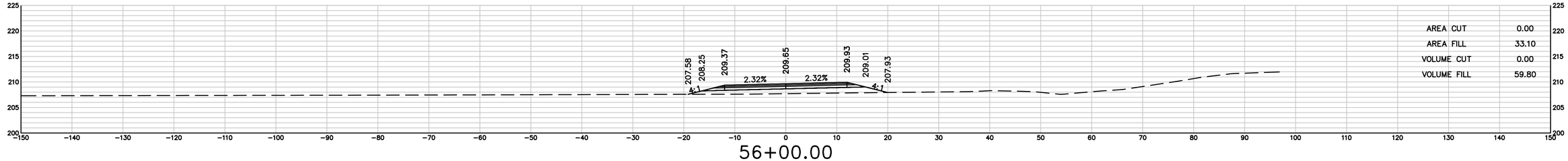
57+50.00



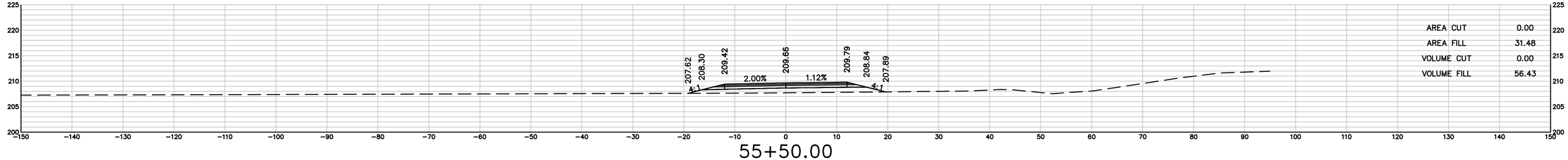
57+00.00



56+50.00



56+00.00



55+50.00

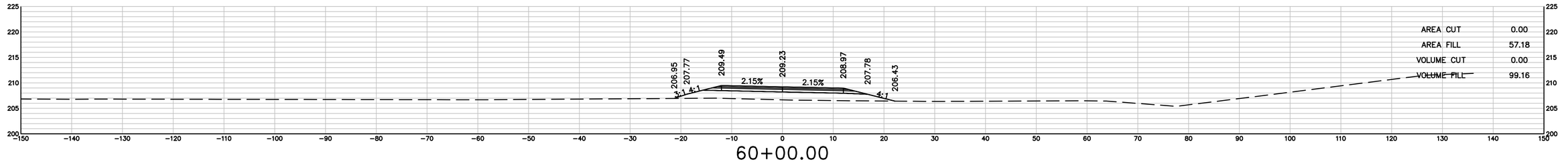
FRONTAGE RD.

STA. 55+50.00 TO STA. 57+50.00

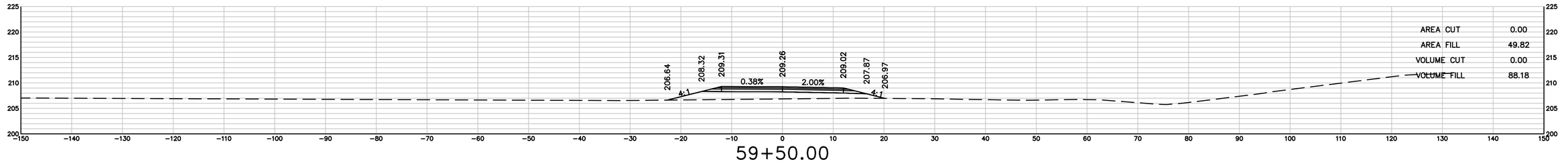
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:17pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	124	151

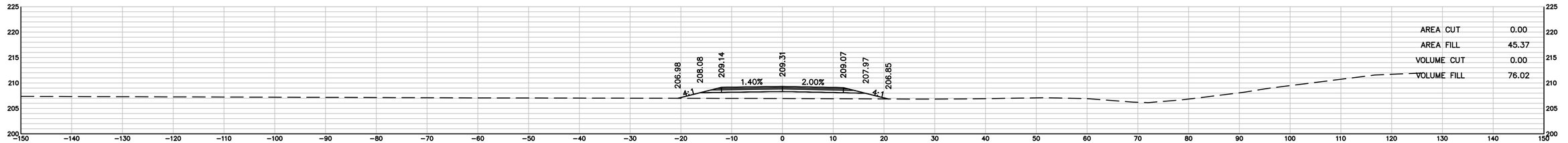
(2) CROSS SECTIONS



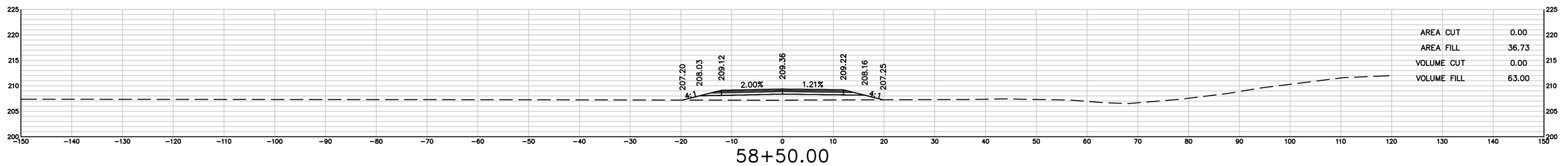
60+00.00



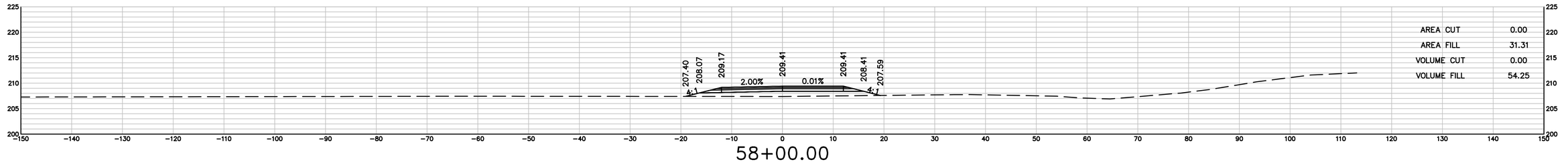
59+50.00



59+00.00



58+50.00



58+00.00

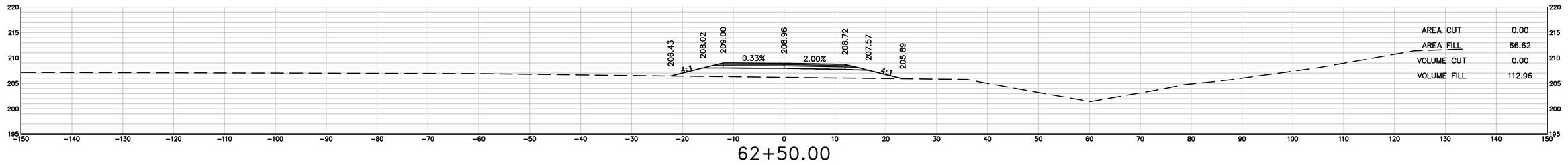
FRONTAGE RD.

STA. 58+00.00 TO STA. 60+00.00

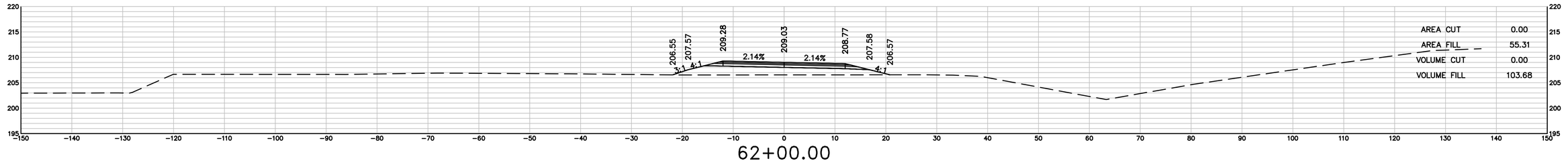
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:18pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	125	151

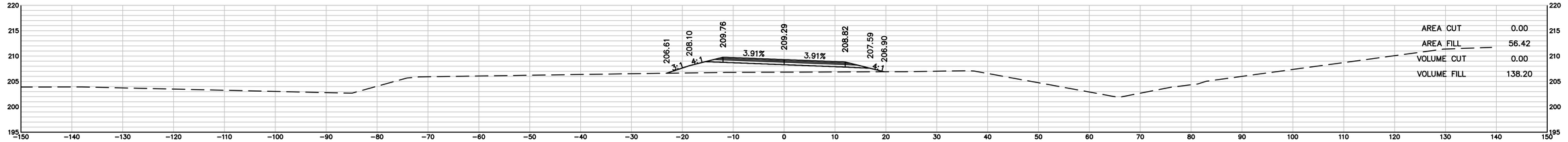
(2) CROSS SECTIONS



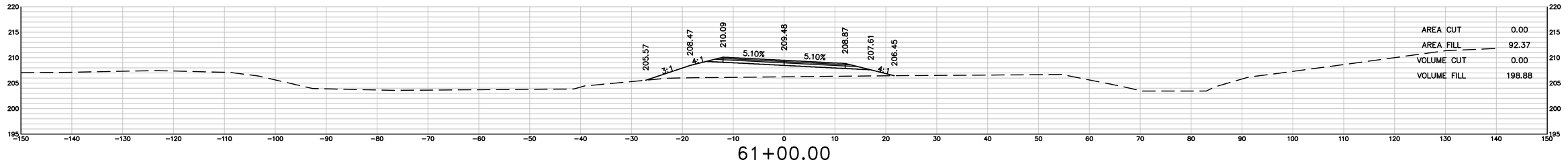
62+50.00



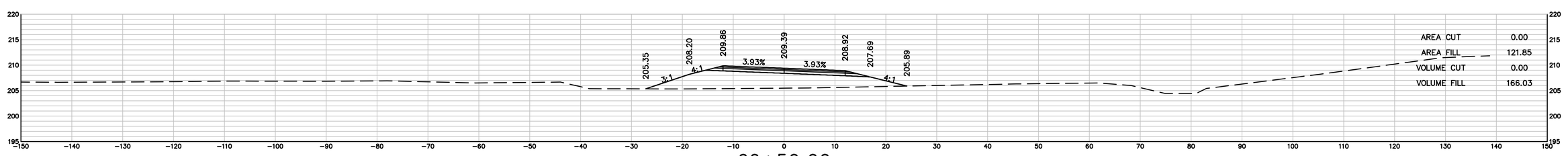
62+00.00



61+50.00



61+00.00



60+50.00

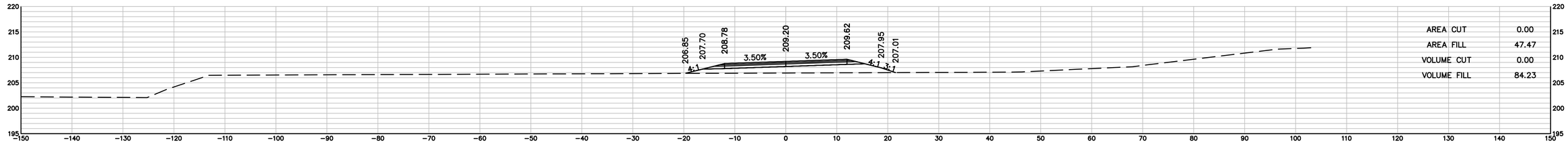
FRONTAGE RD.

STA. 60+50.00 TO STA. 62+50.00

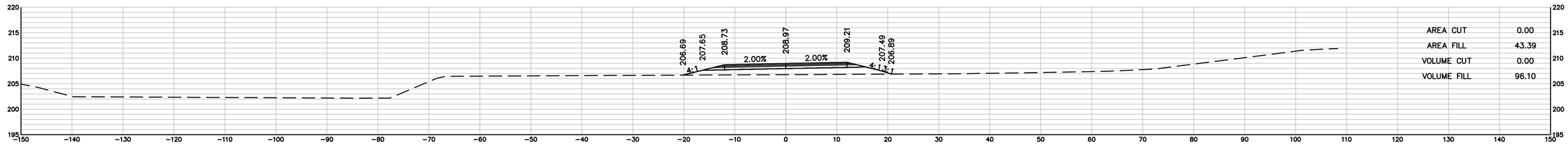
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:18pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	126	151

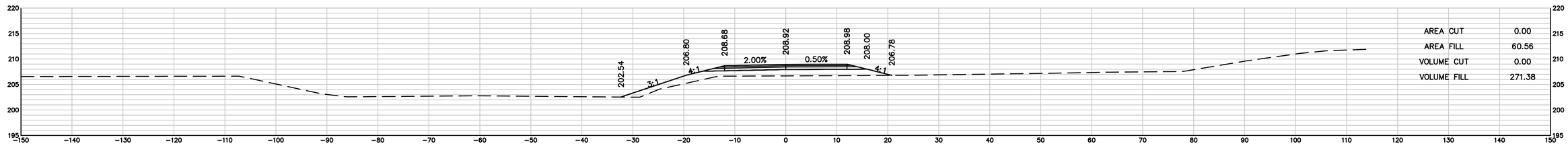
(2) CROSS SECTIONS



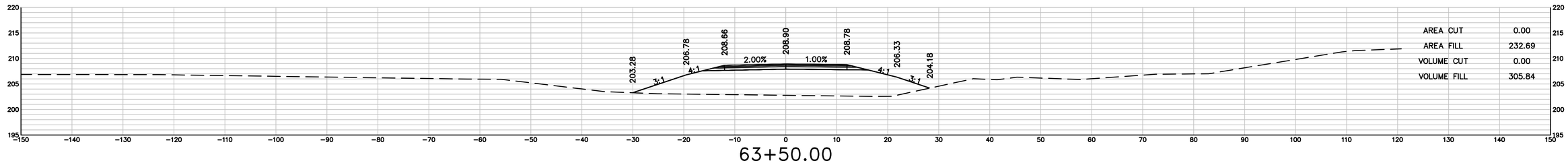
65+00.00



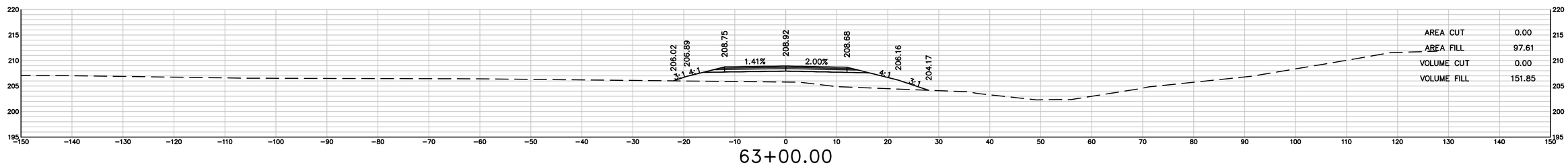
64+50.00



64+00.00



63+50.00



63+00.00

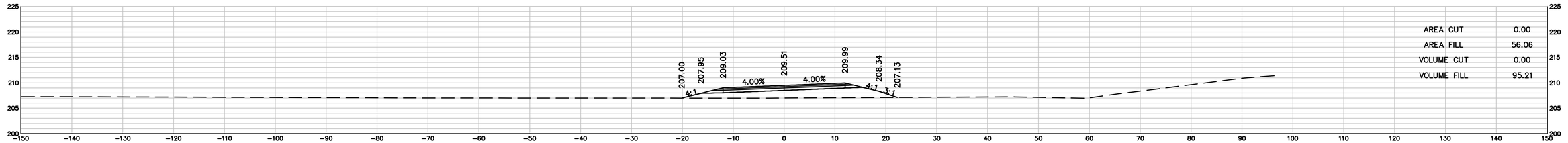
FRONTAGE RD.

STA. 63+00.00 TO STA. 65+00.00

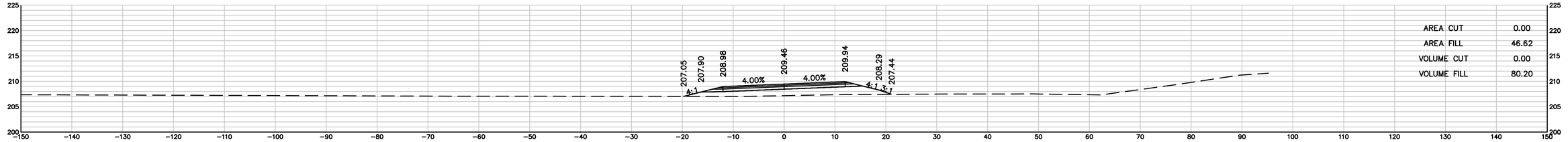
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:19pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	127	151

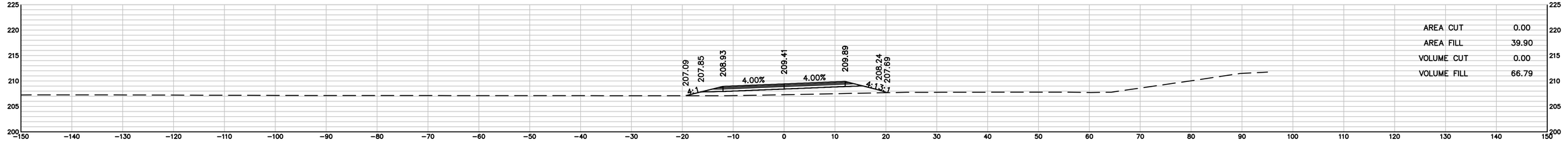
(2) CROSS SECTIONS



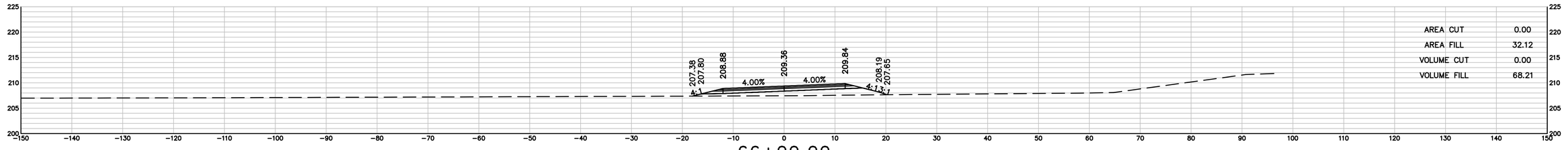
67+50.00



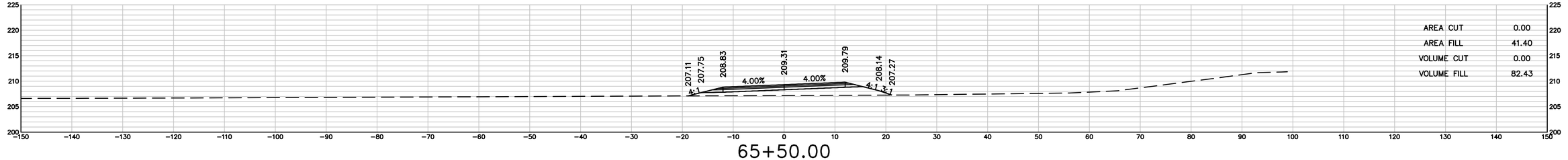
67+00.00



66+50.00



66+00.00



65+50.00

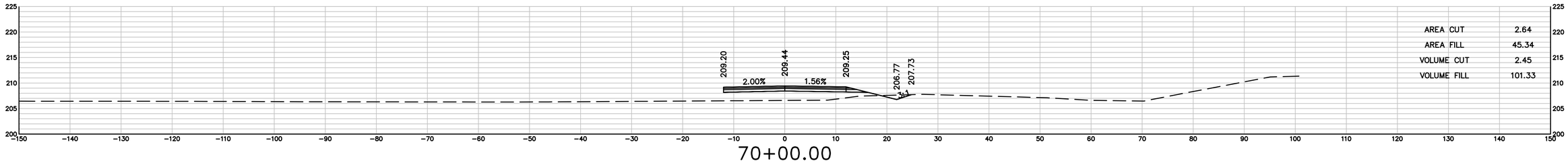
FRONTAGE RD.

STA. 65+50.00 TO STA. 67+50.00

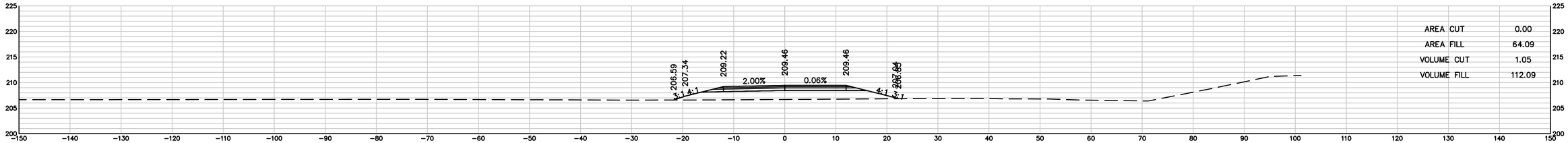
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:19pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	128	151

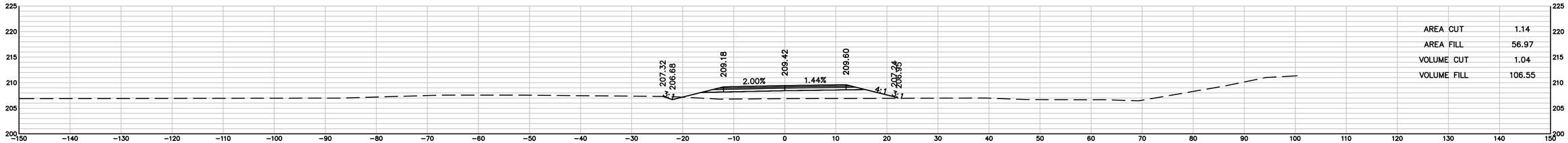
(2) CROSS SECTIONS



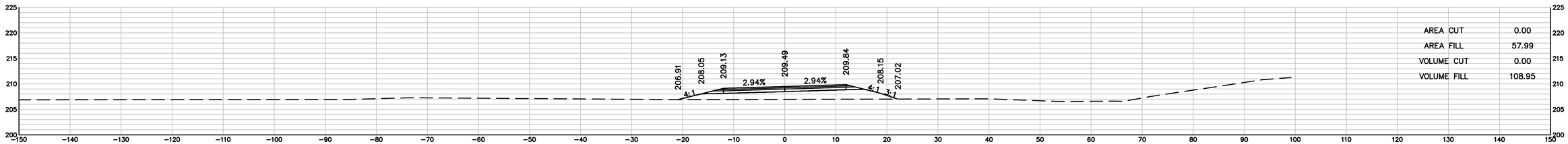
70+00.00



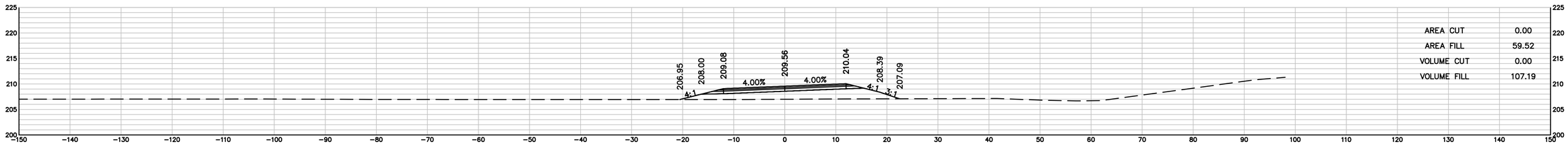
69+50.00



69+00.00



68+50.00



68+00.00

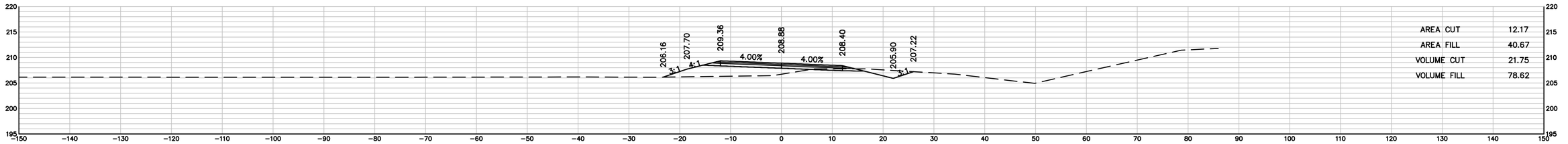
FRONTAGE RD.

STA. 68+00.00 TO STA. 70+00.00

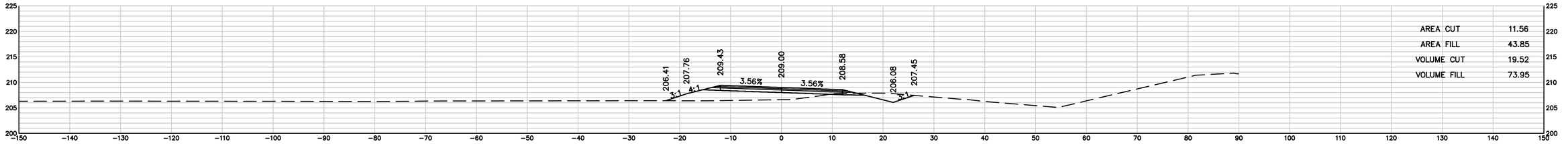
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:19pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	129	151

(2) CROSS SECTIONS



72+50.00



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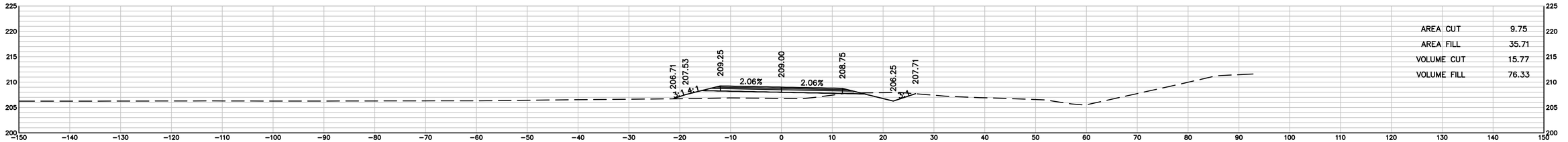
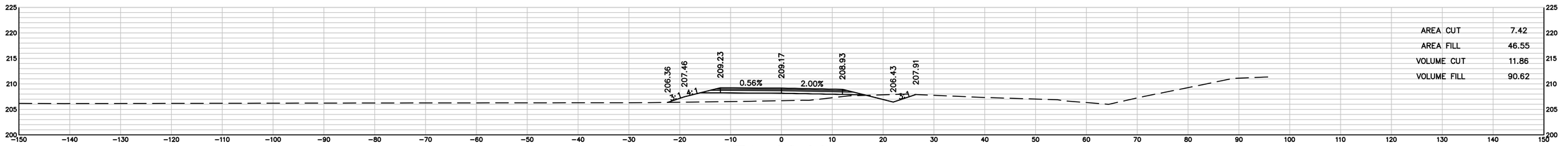
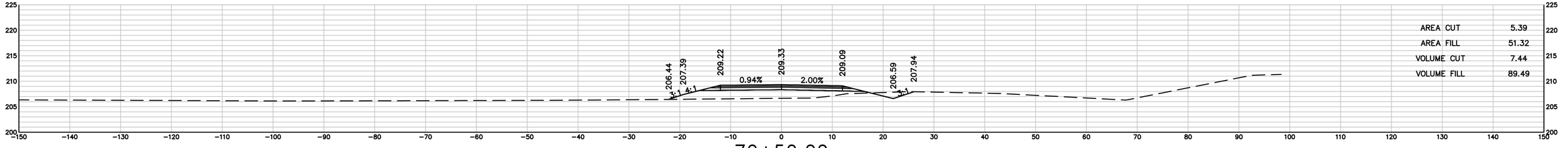


71+50.00



71+00.00



70+50.00

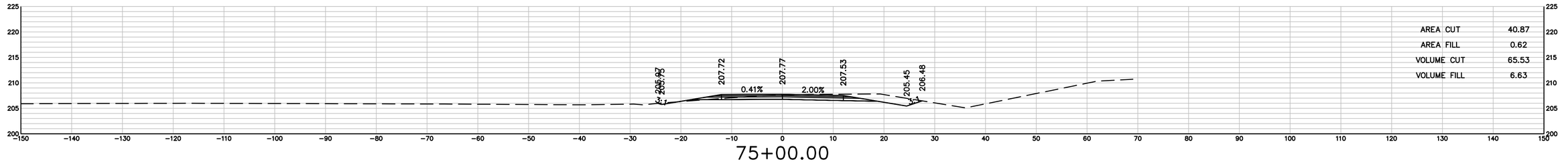
FRONTAGE RD.

STA. 70+50.00 TO STA. 72+50.00

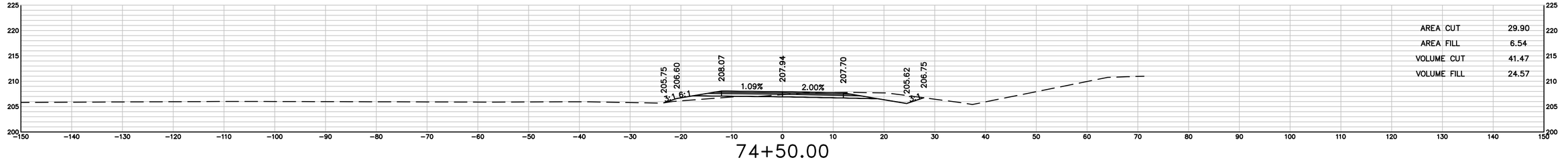
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:20pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	130	151

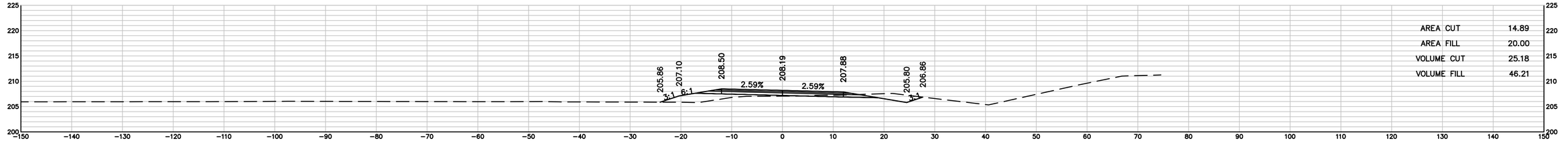
(2) CROSS SECTIONS



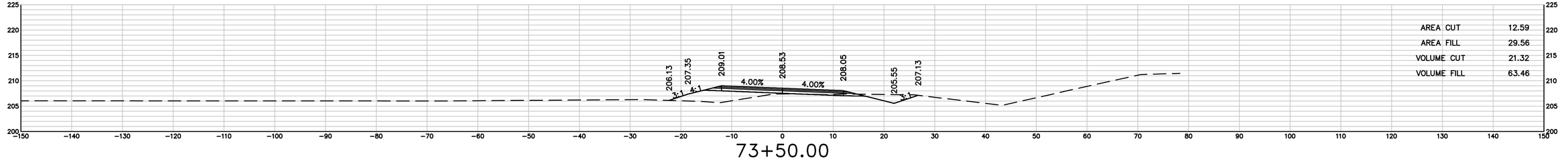
75+00.00



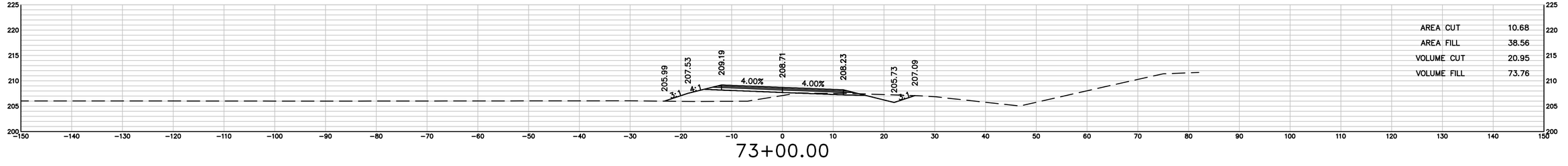
74+50.00



74+00.00



73+50.00



73+00.00

FRONTAGE RD.

STA. 73+00.00 TO STA. 75+00.00

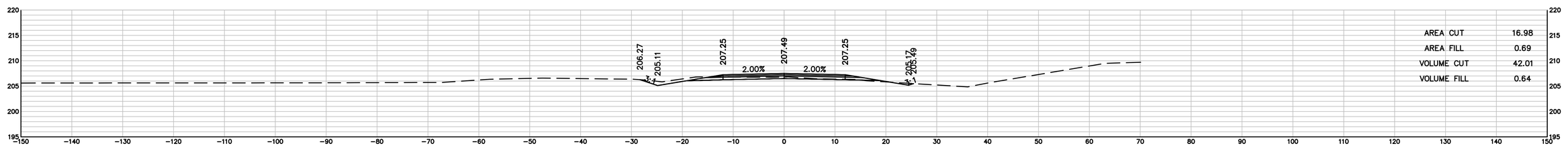
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:20pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	131	151

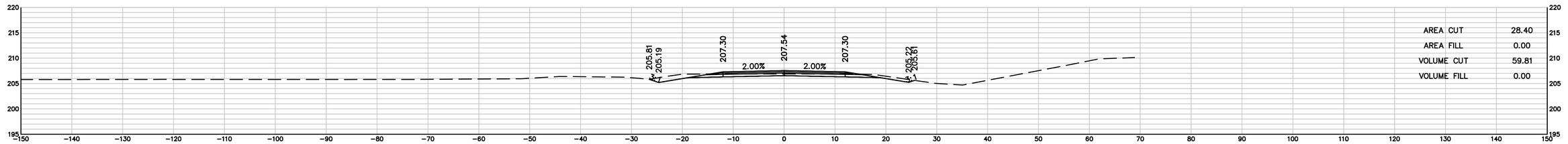
(2) CROSS SECTIONS

77+50.00

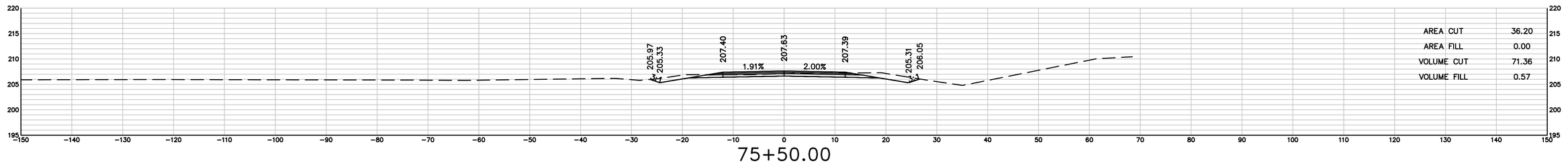
77+00.00



76+50.00



76+00.00



75+50.00

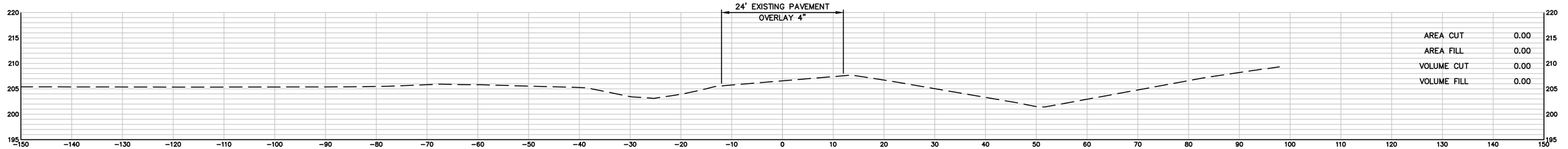
FRONTAGE RD.

STA. 75+50.00 TO STA. 77+50.00

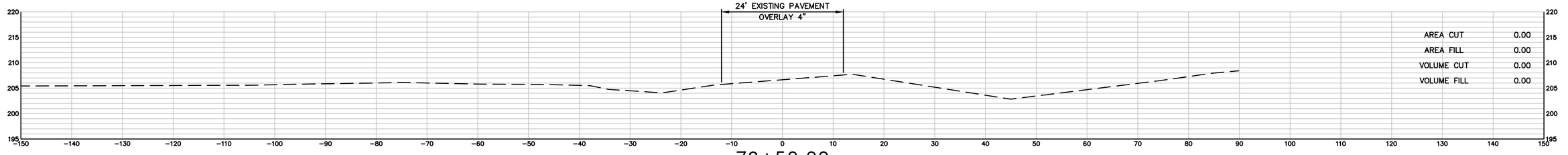
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:21pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	132	151

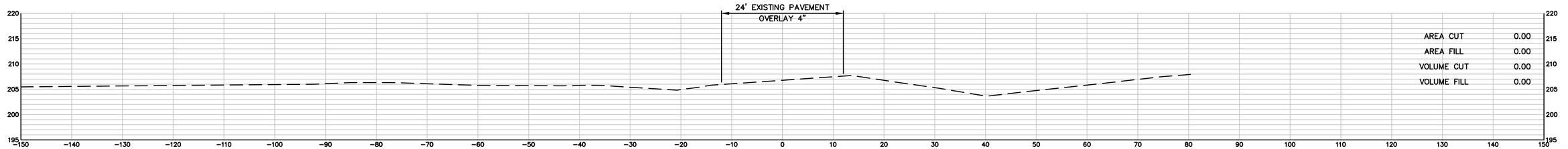
(2) CROSS SECTIONS



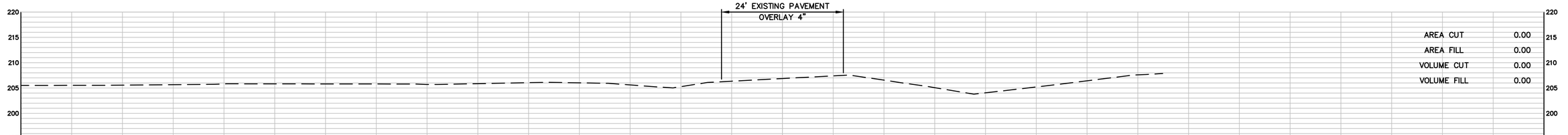
80+00.00



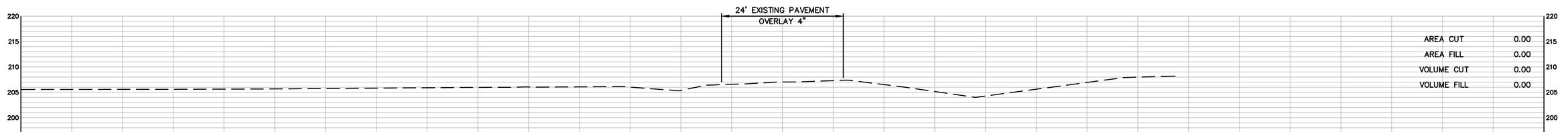
79+50.00



79+00.00



78+50.00



78+00.00

FRONTAGE RD.

STA. 78+00.00 TO STA. 80+00.00

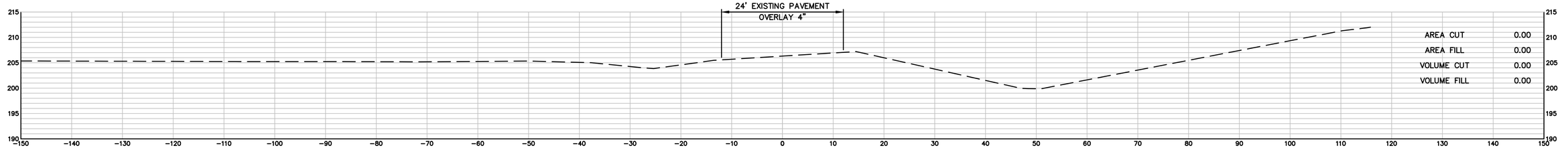
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:21pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	133	151

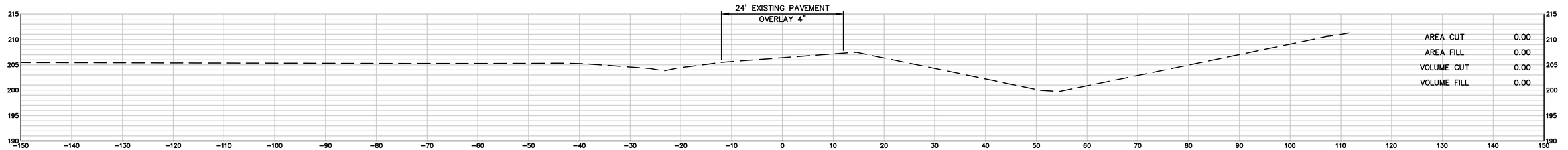
(2) CROSS SECTIONS

82+50.00

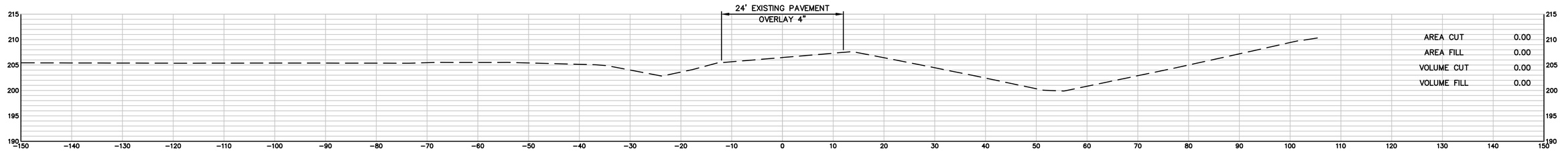
82+00.00



81+50.00



81+00.00



80+50.00

FRONTAGE RD.

STA. 80+50.00 TO STA. 82+50.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708.C7.00.CIVIL.dwg 1/30/20 at 3:22pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	134	151

(2) CROSS SECTIONS

85+00.00

84+50.00

84+00.00

83+50.00

83+00.00

FRONTAGE RD.

STA. 83+00.00 TO STA. 85+00.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708.C7.00.CIVIL.dwg 1/30/20 at 3:22pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	135	151

(2) CROSS SECTIONS

87+50.00

87+00.00

86+50.00

86+00.00

85+50.00

FRONTAGE RD.

STA. 85+50.00 TO STA. 87+50.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:23pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	136	151

(2) CROSS SECTIONS

90+00.00

89+50.00

89+00.00

88+50.00

88+00.00

FRONTAGE RD.

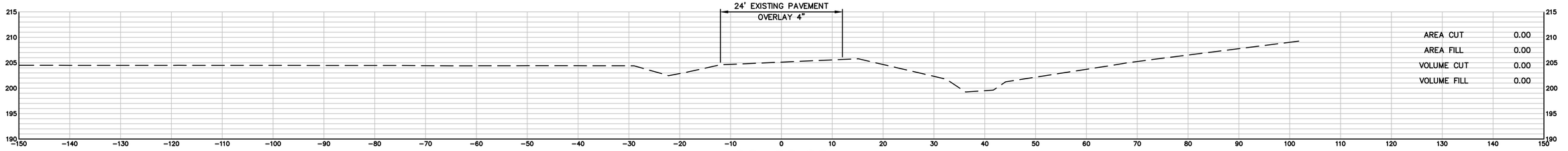
STA. 88+00.00 TO STA. 90+00.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708.C7.00.CIVIL.dwg 1/30/20 at 3:23pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	137	151

(2) CROSS SECTIONS

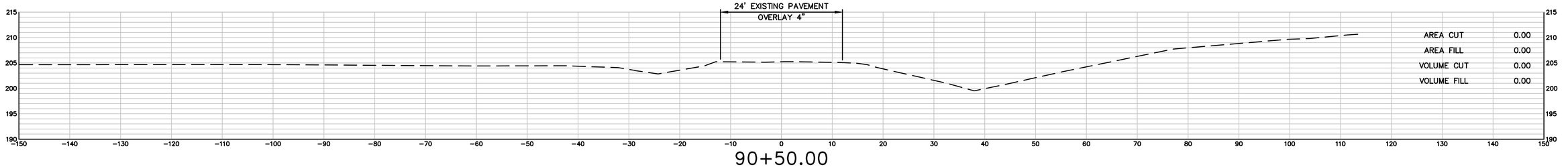
92+50.00



92+00.00

91+50.00

91+00.00



90+50.00

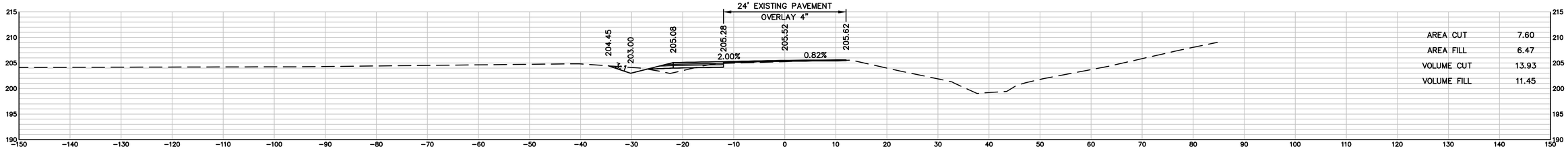
FRONTAGE RD.

STA. 90+50.00 TO STA. 92+50.00

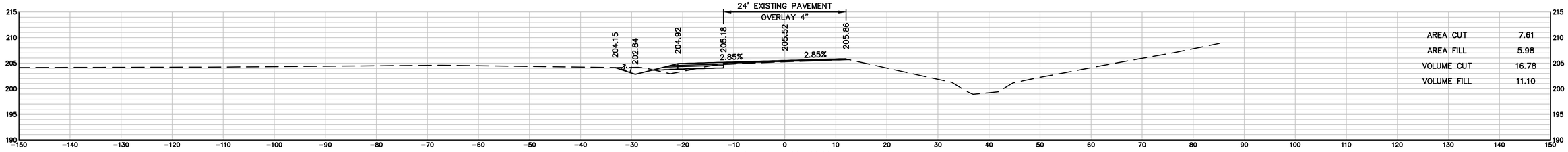
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:24pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	138	151

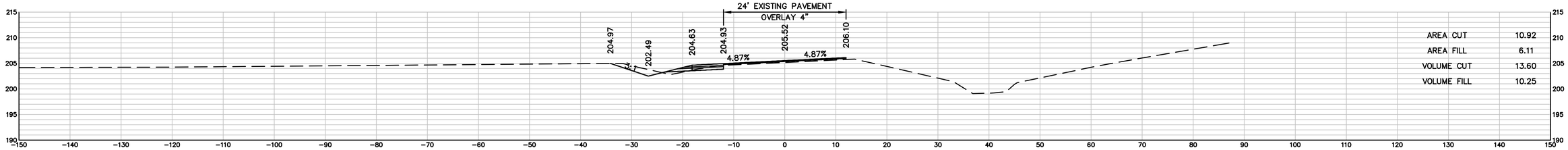
(2) CROSS SECTIONS



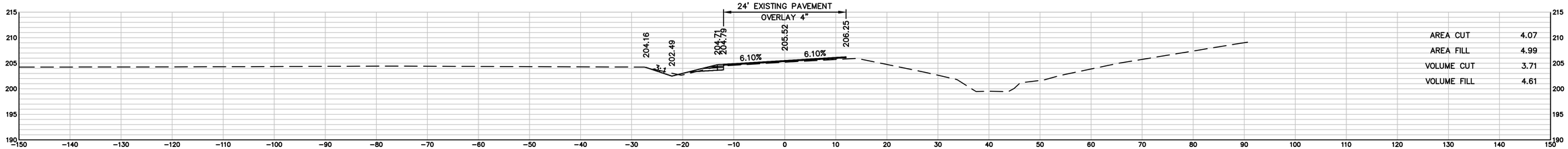
95+00.00



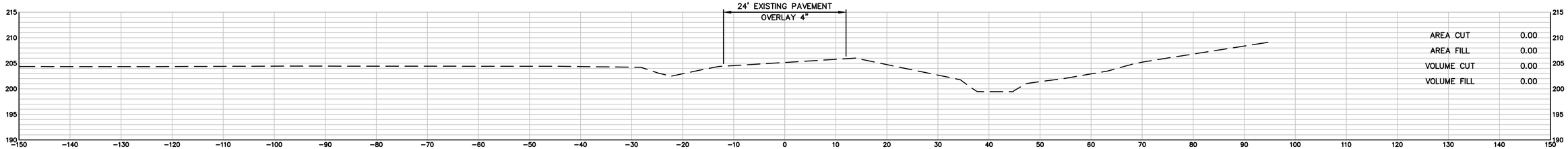
94+50.00



94+00.00



93+50.00



93+00.00

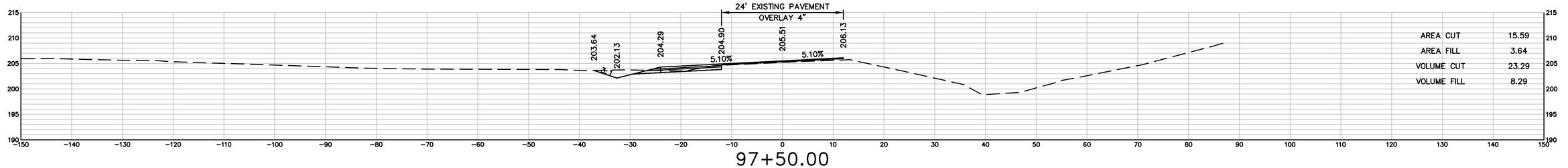
FRONTAGE RD.

STA. 93+00.00 TO STA. 95+00.00

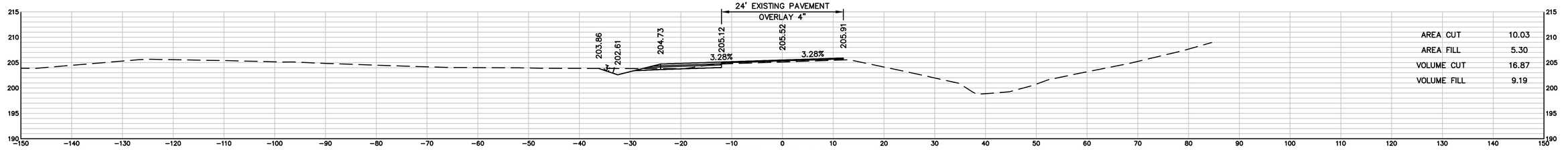
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:25pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	139	151

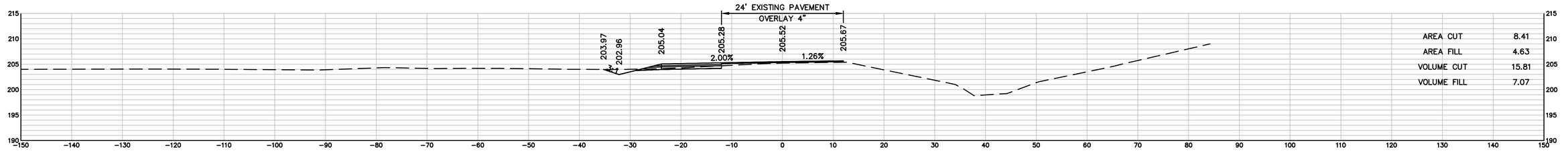
(2) CROSS SECTIONS



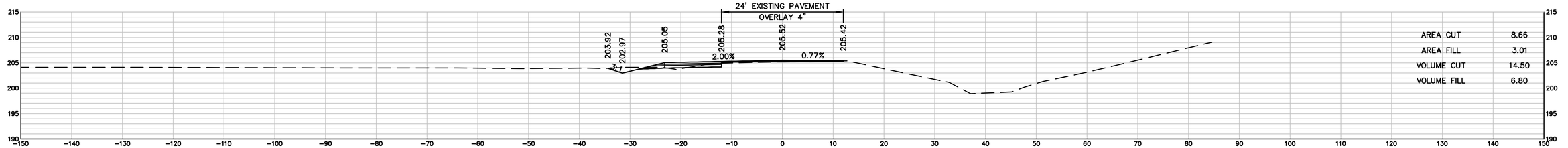
97+50.00



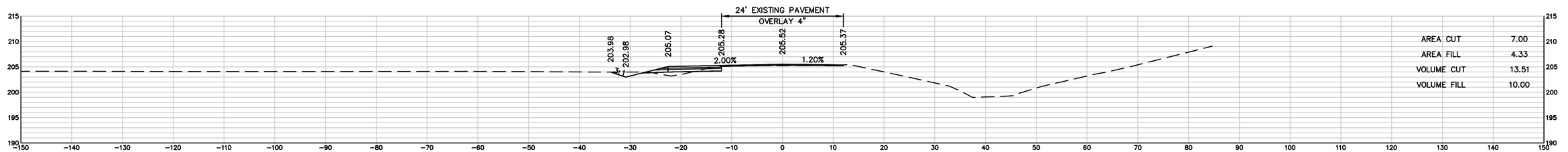
97+00.00



96+50.00



96+00.00



95+50.00

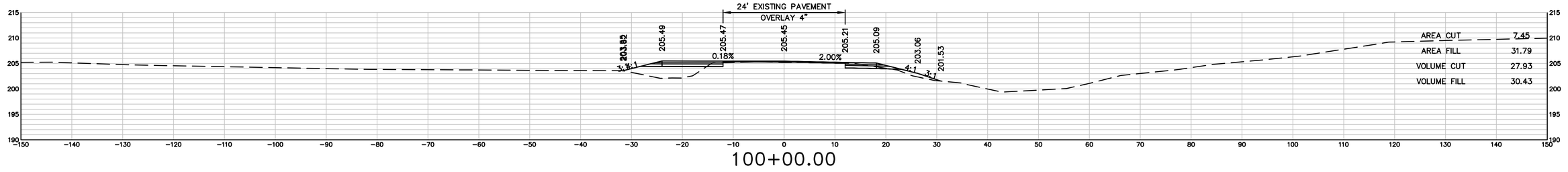
FRONTAGE RD.

STA. 95+50.00 TO STA. 97+50.00

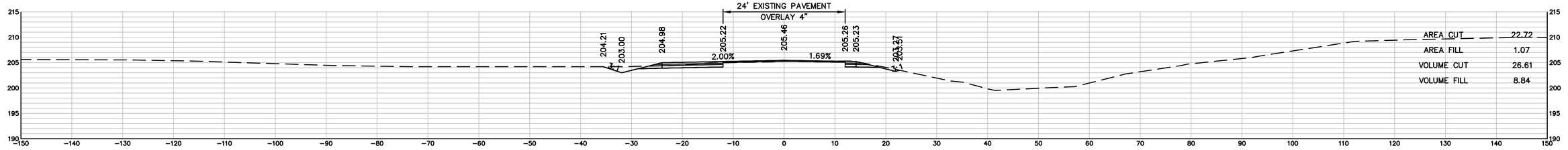
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:25pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	140	151

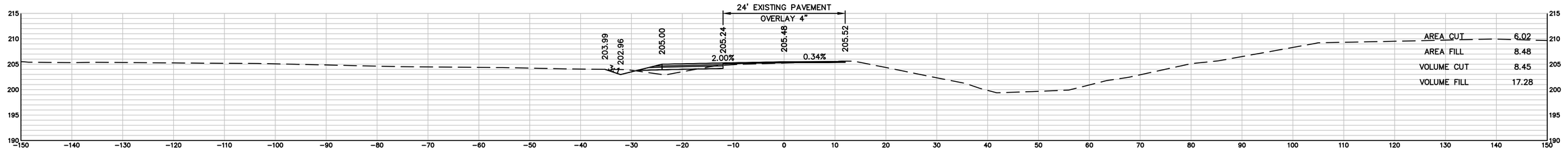
(2) CROSS SECTIONS



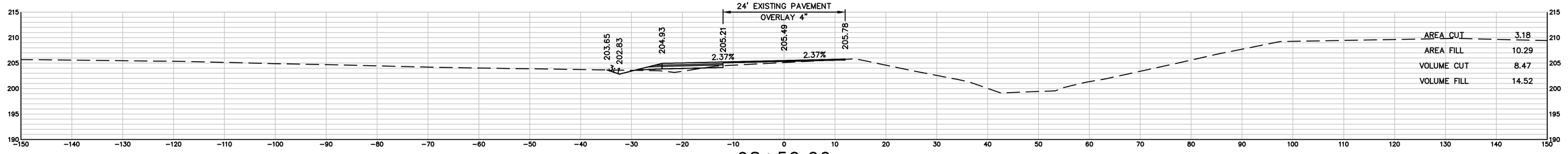
100+00.00



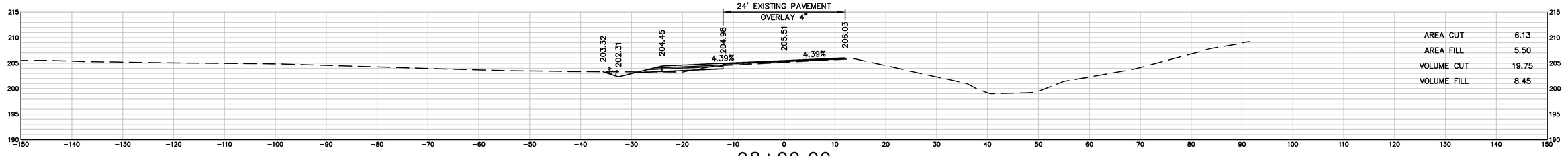
99+50.00



99+00.00



98+50.00



98+00.00

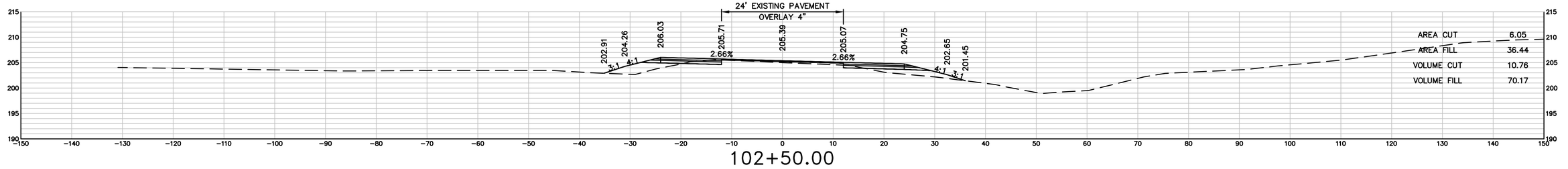
FRONTAGE RD.

STA. 98+00.00 TO STA. 100+00.00

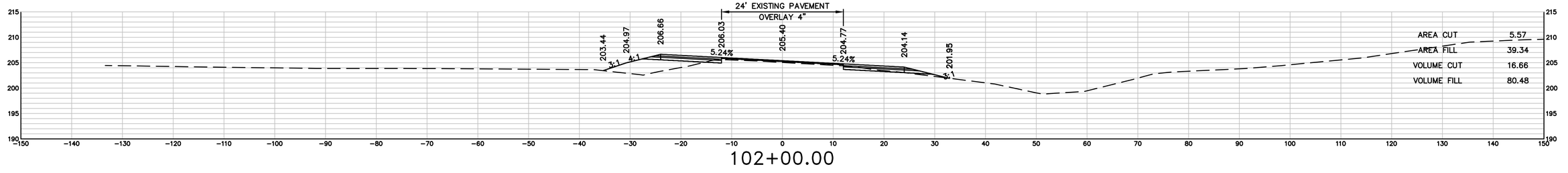
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:28pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	141	151

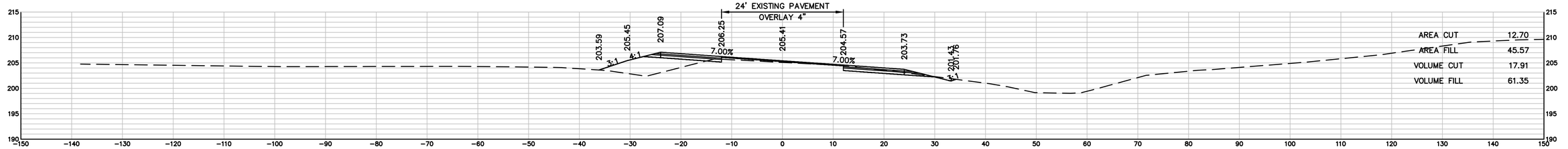
(2) CROSS SECTIONS



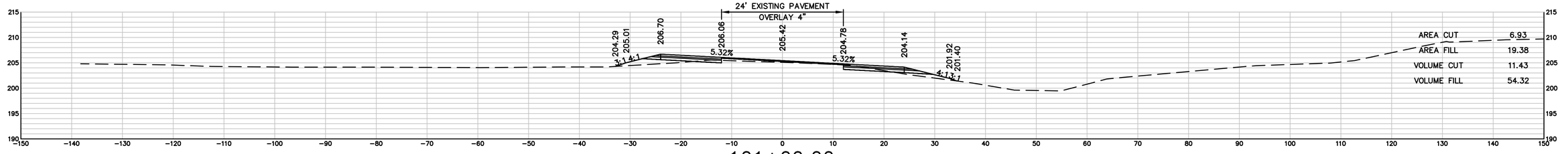
102+50.00



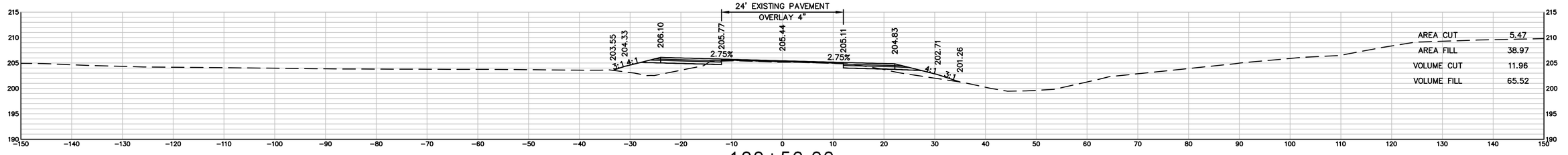
102+00.00



101+50.00



101+00.00



100+50.00

FRONTAGE RD.

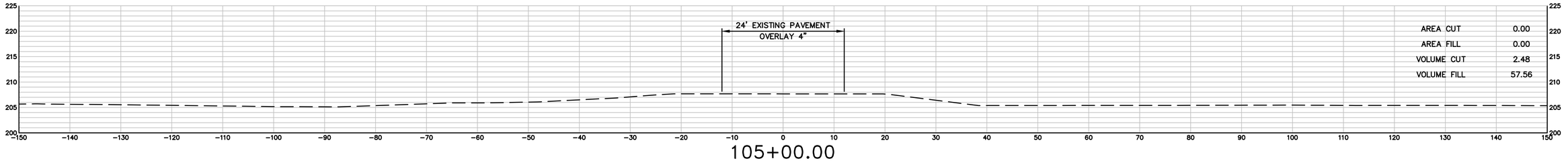
STA. 100+50.00 TO STA. 102+50.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:28pm

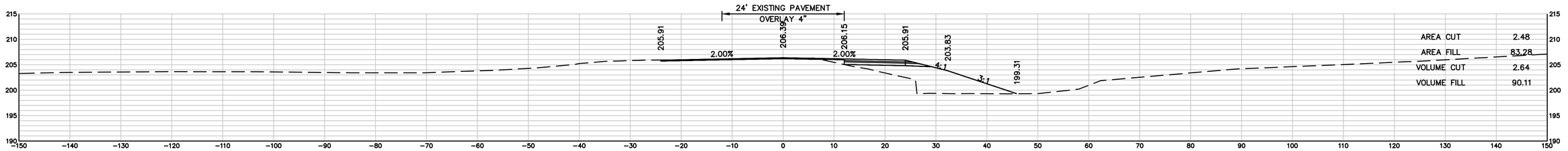
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	142	151

(2) CROSS SECTIONS

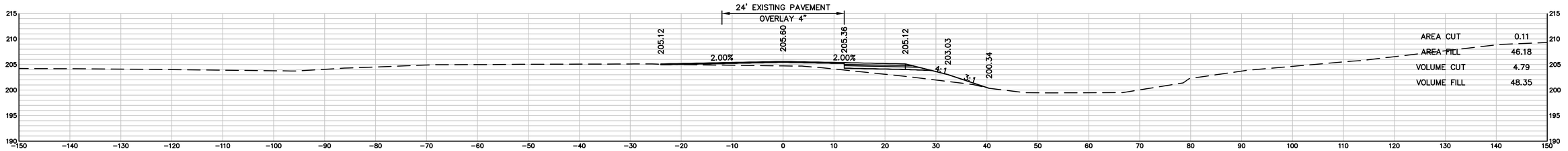
STA. 105+38.70 – END FRONTAGE RD.



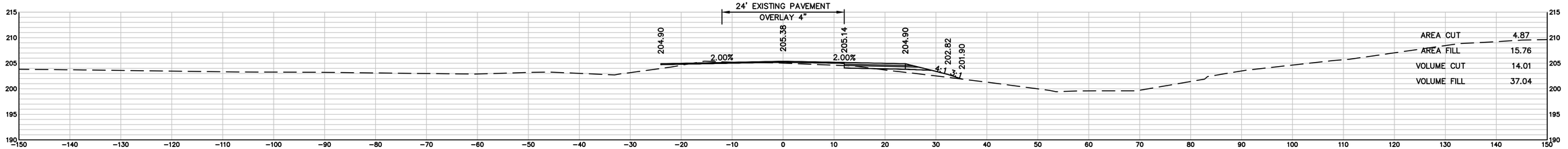
105+00.00



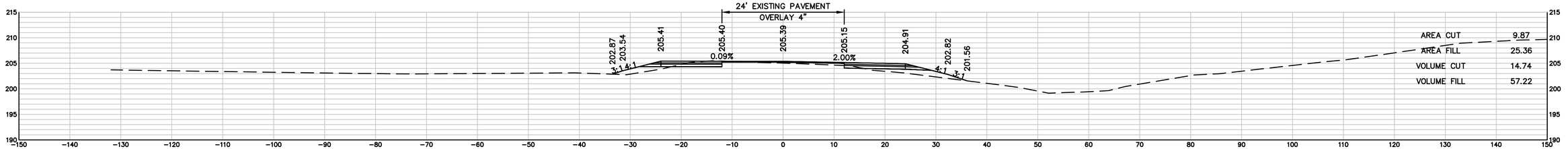
104+50.00



104+00.00



103+50.00



103+00.00

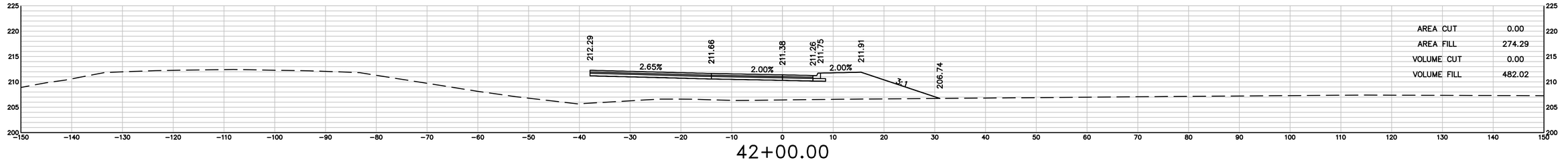
FRONTAGE RD.

STA. 103+00.00 TO STA. 105+00.00

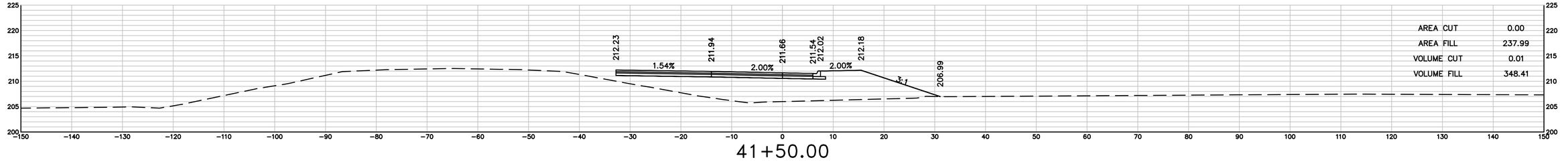
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:29pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	143	151

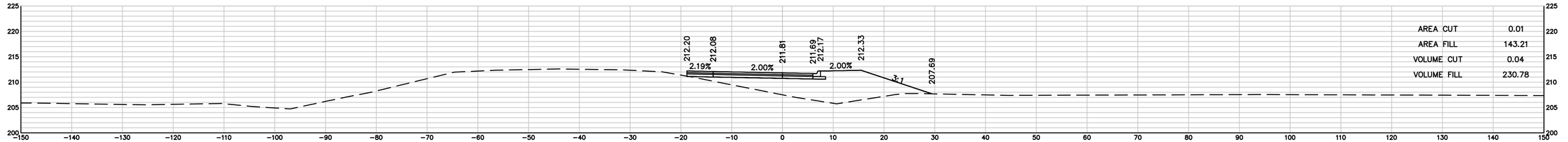
(2) CROSS SECTIONS



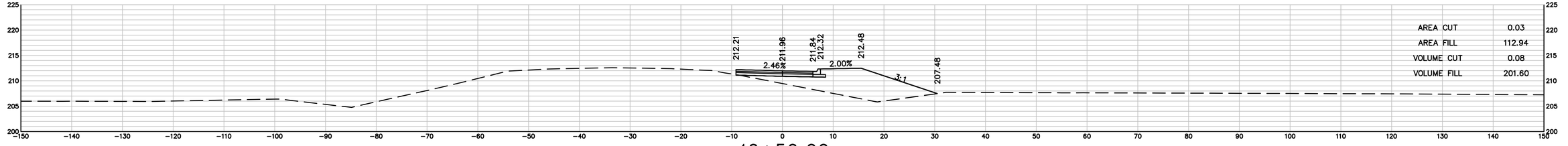
42+00.00



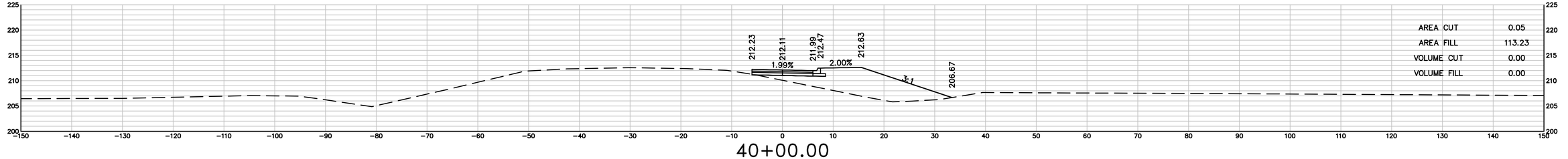
41+50.00



41+00.00



40+50.00



40+00.00

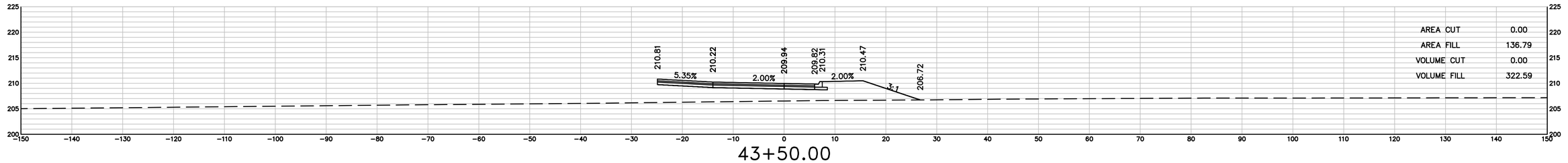
BYPASS LANE

STA. 40+00.00 TO STA. 42+00.00

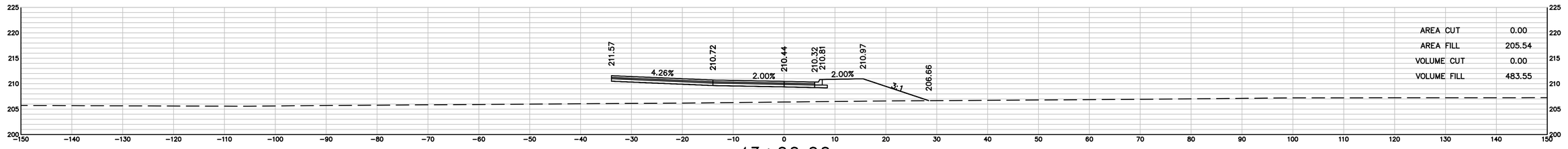
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:29pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
		2019-10-09		6	ARK.			
				JOB NO.		19-5708	144	151
				(2)	CROSS SECTIONS			

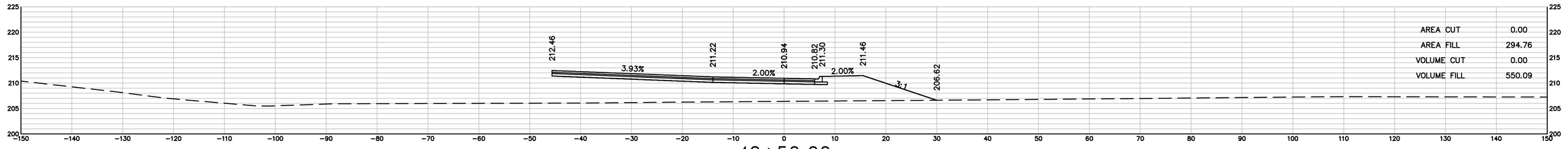
STA. 43+87.46 – END BYPASS LANE



43+50.00



43+00.00



42+50.00

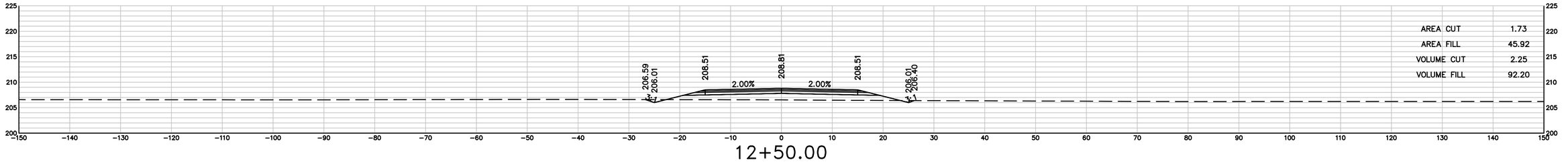
BYPASS LANE

STA. 42+50.00 TO STA. 44+50.00

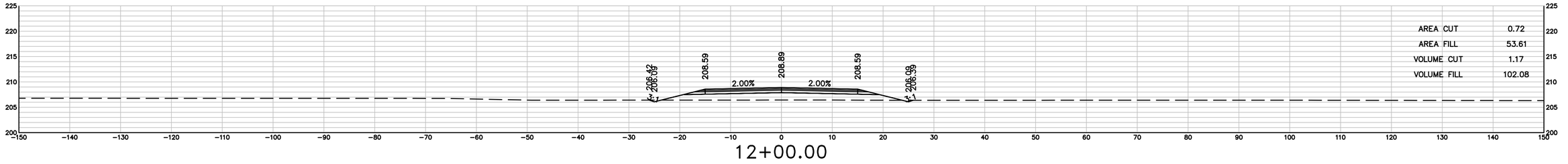
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:30pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	145	151

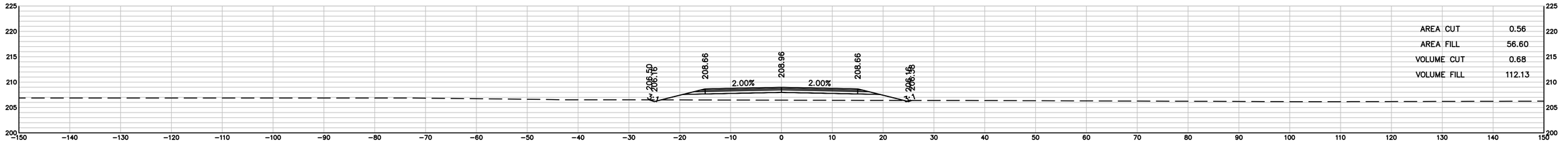
(2) CROSS SECTIONS



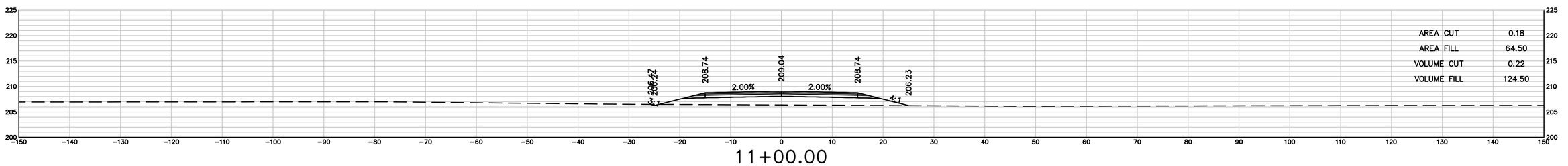
12+50.00



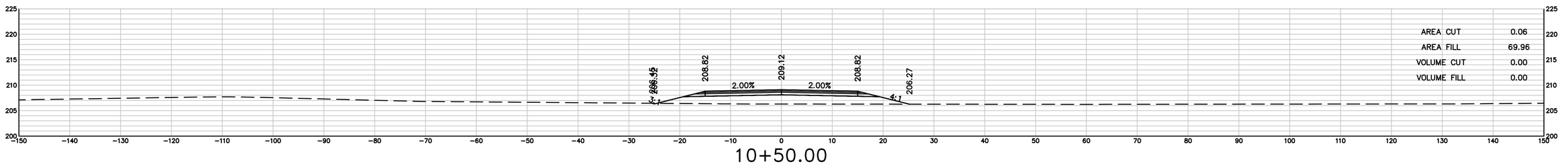
12+00.00



11+50.00



11+00.00



10+50.00

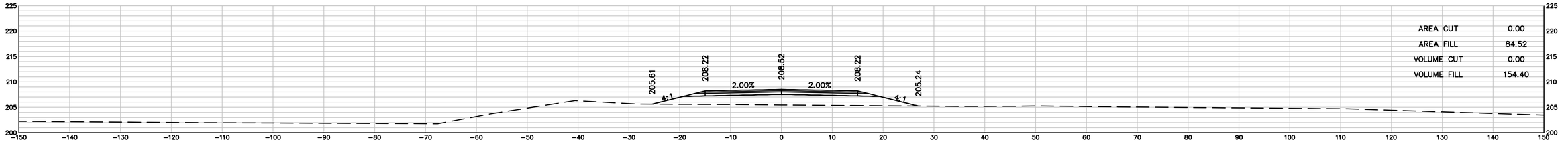
STA. 10+15.01 – BEGIN QUAPAW RD.

STA. 10+50.00 TO STA. 12+50.00

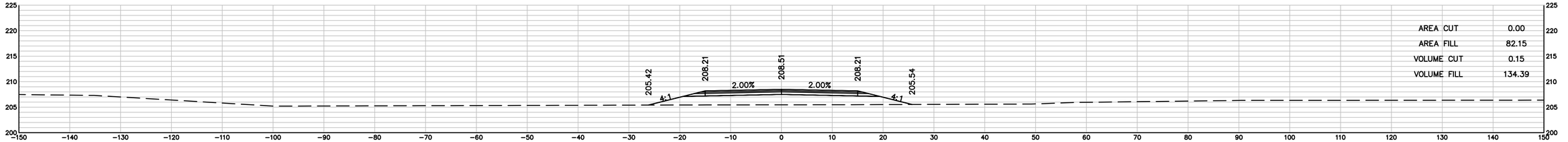
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:35pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	146	151

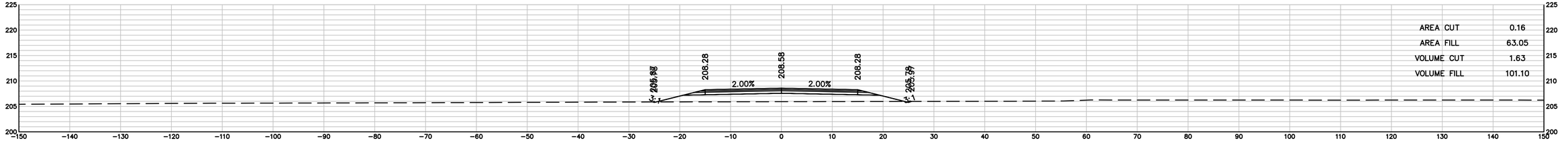
(2) CROSS SECTIONS



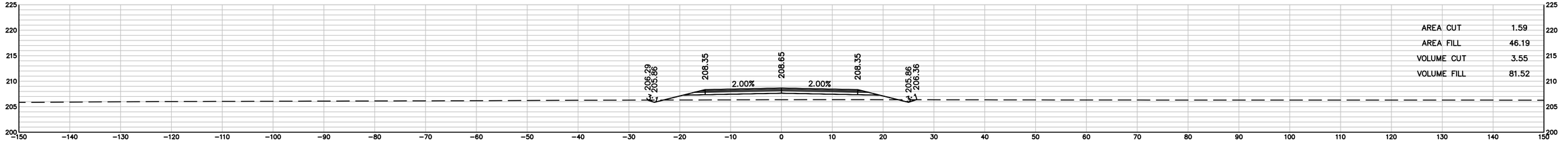
15+00.00



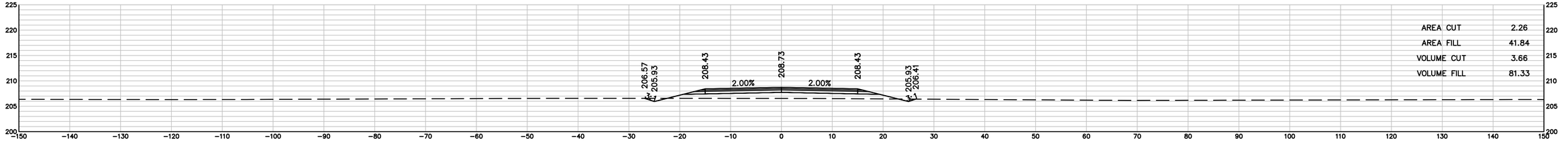
14+50.00



14+00.00



13+50.00



13+00.00

BEGIN QUAPAW RD.

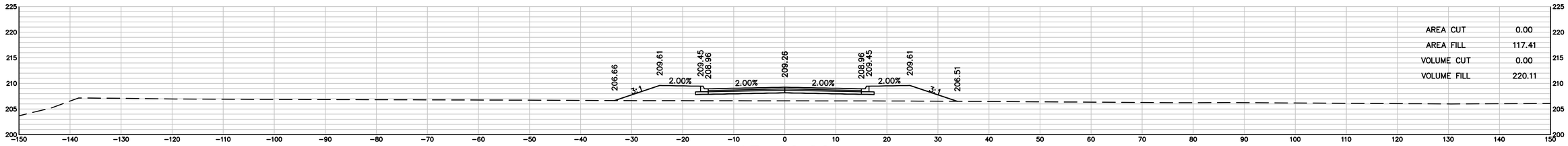
STA. 13+00.00 TO STA. 15+00.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:35pm

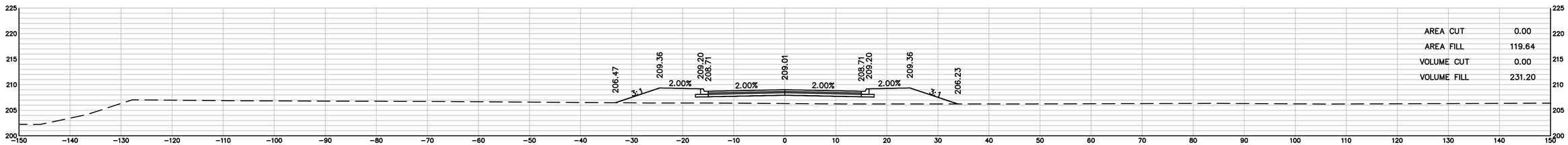
DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	147	151

(2) CROSS SECTIONS

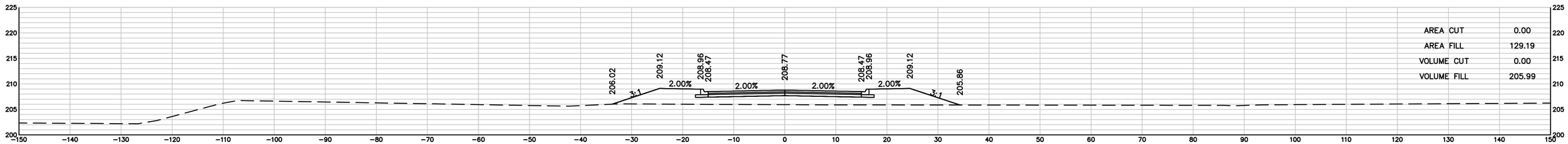
STA. 17+47.01 – END QUAPAW RD.



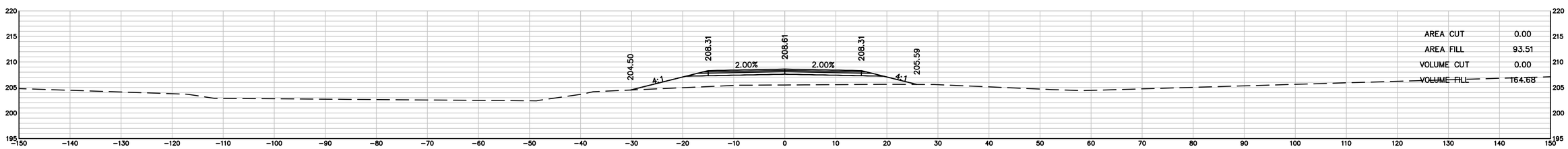
17+00.00



16+50.00



16+00.00



15+50.00

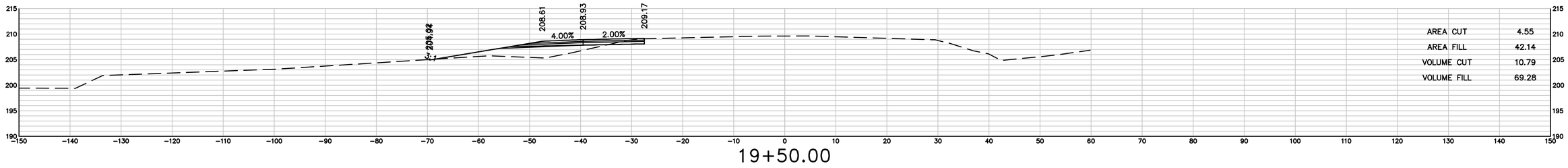
BEGIN QUAPAW RD.

STA. 15+50.00 TO STA. 17+00.00

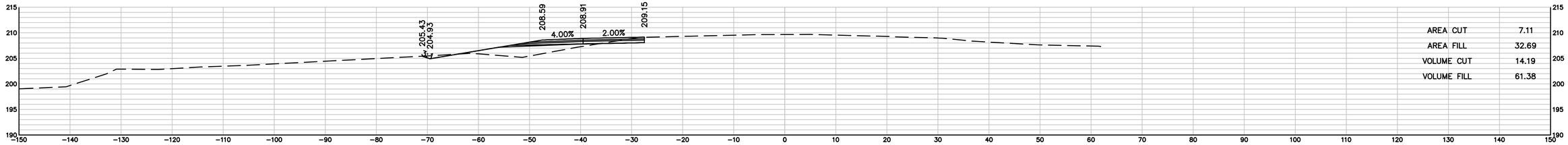
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:35pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	148	151

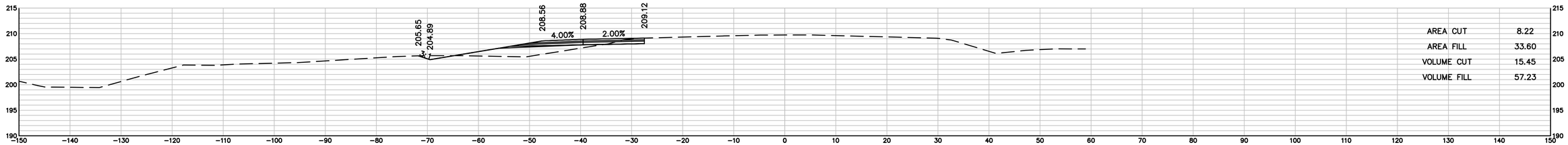
(2) CROSS SECTIONS



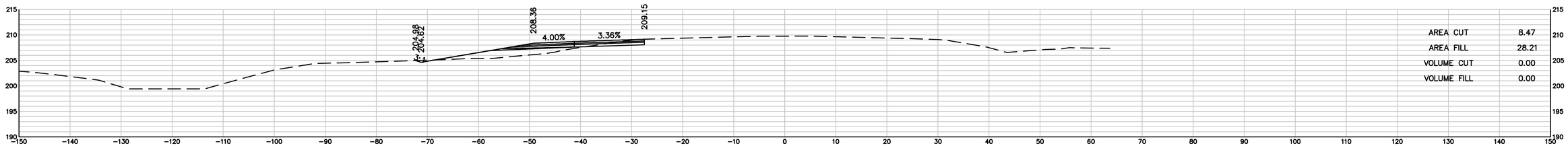
19+50.00



19+00.00



18+50.00



18+00.00

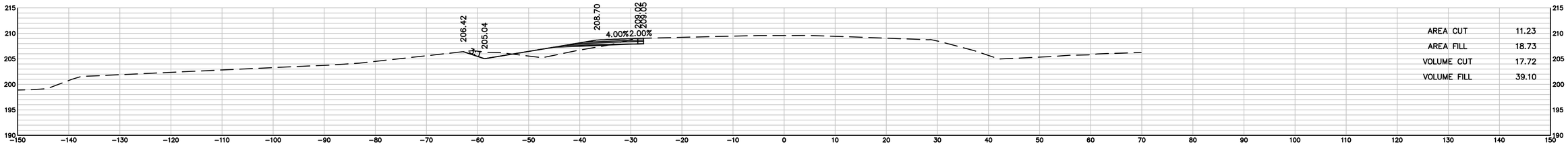
STA. 17+12.00 – BEGIN HWY. 65

STA. 18+00.00 TO STA. 19+50.00

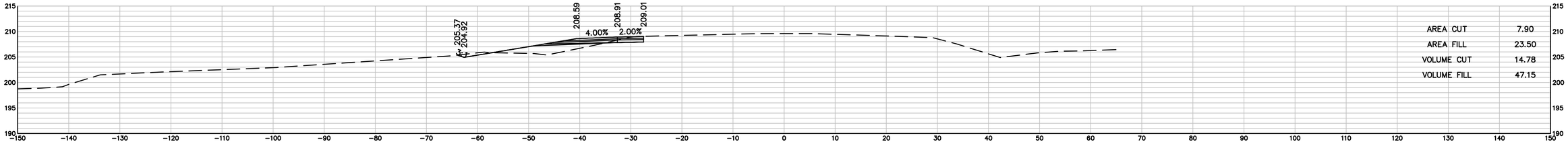
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:36pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	149	151
				(2)	CROSS SECTIONS			

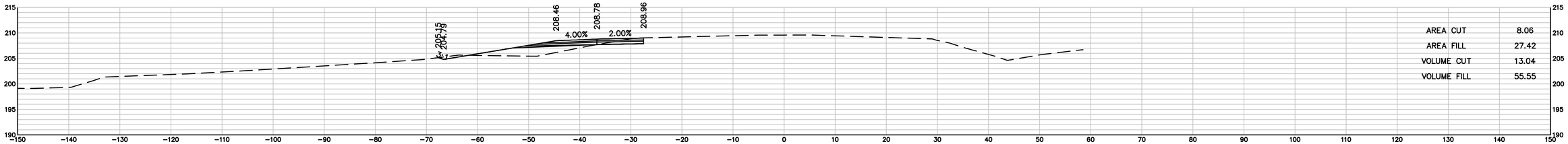
STA. 21+64.07 – END HWY. 65



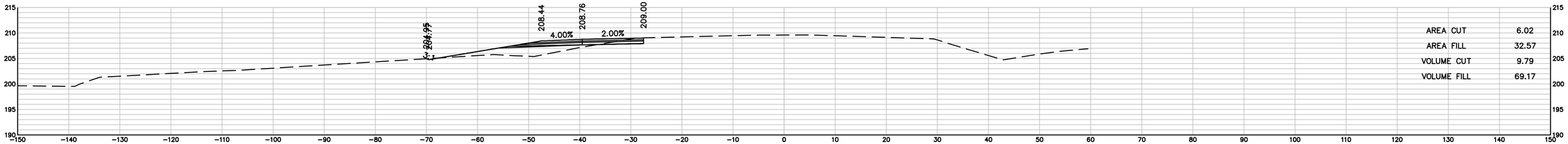
21+50.00



21+00.00



20+50.00



20+00.00

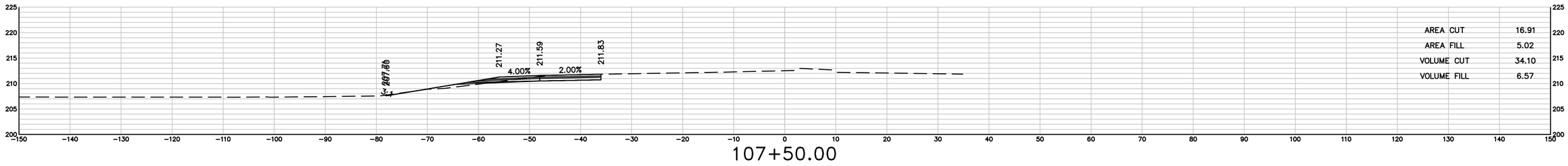
HWY. 65

STA. 20+00.00 TO STA. 21+50.00

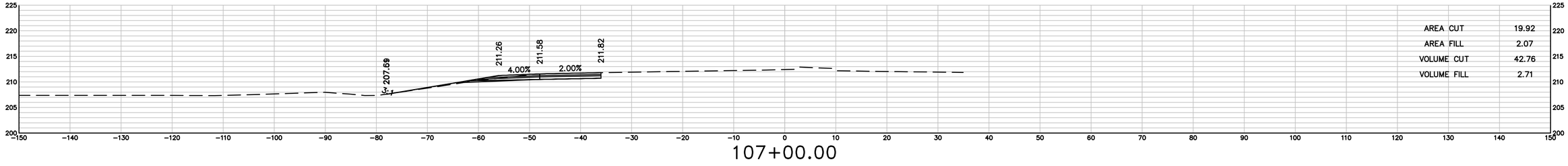
W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:37pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	150	151

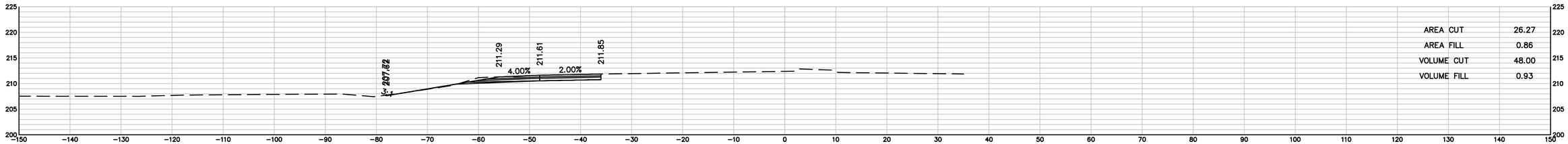
(2) CROSS SECTIONS



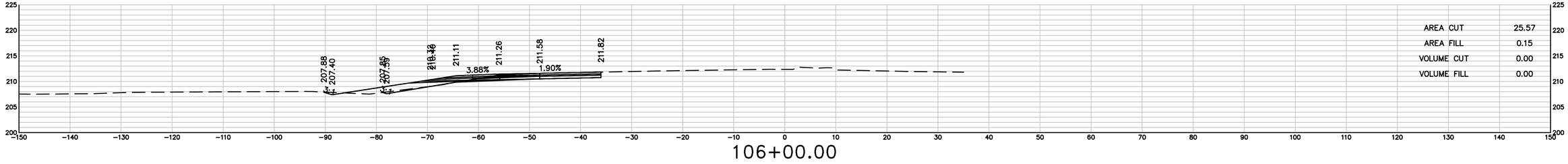
107+50.00



107+00.00



106+50.00



106+00.00

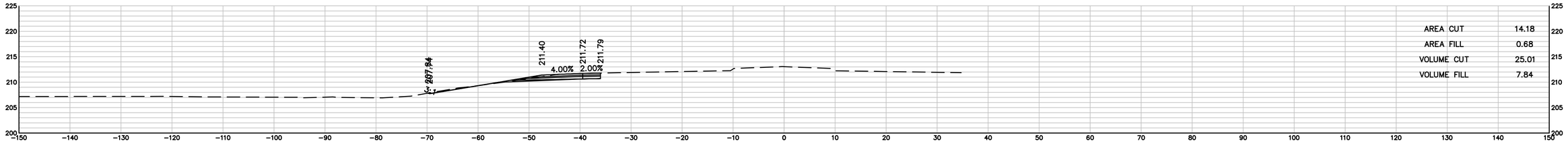
STA. 105+22.85 – BEGIN HWY. 65B

STA. 106+00.00 TO STA. 107+50.00

W:\2019\19-5708 Quapaw Nation Downstream Casino - Pine Bluff\Design Drawings\Civil\C7.00 TRANSPORTATION\19-5708 C7.00 CIVIL.dwg 1/30/20 at 3:37pm

DATE	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		19-5708	151	151
				(2)	CROSS SECTIONS			

STA. 109+93.51 – END HWY. 65B



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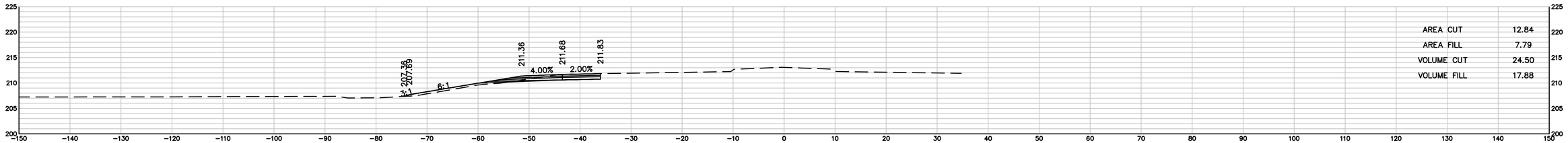

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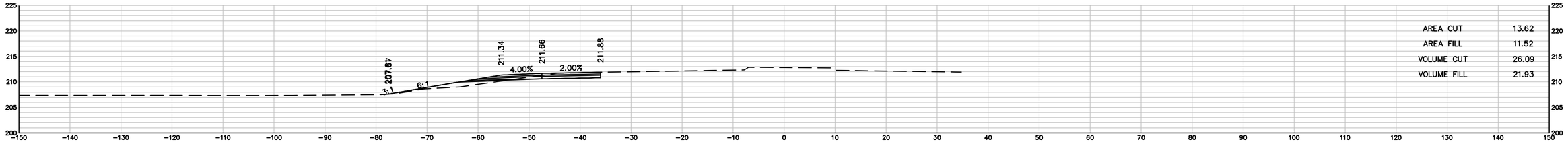

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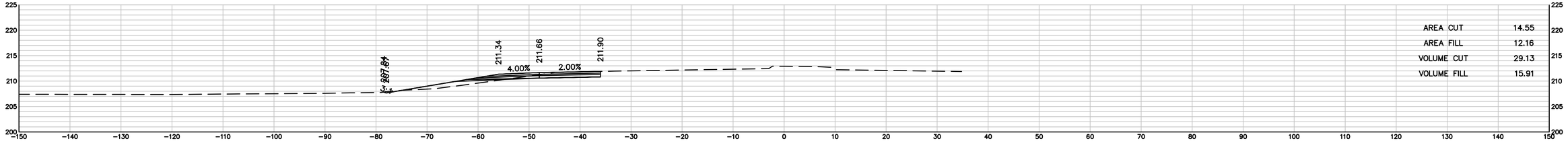

108+00.00

HWY. 65B

STA. 108+00.00 TO STA. 109+50.00

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