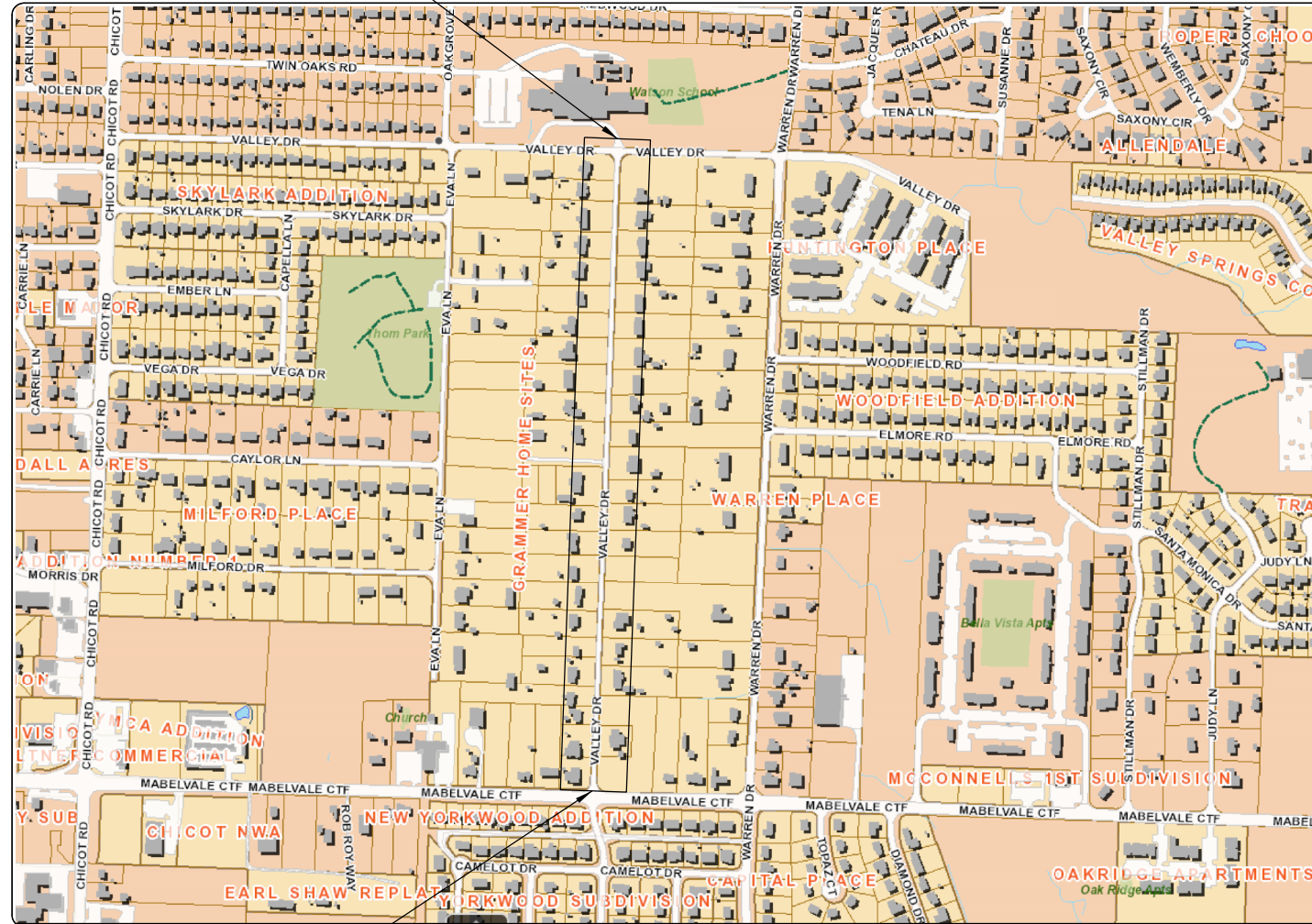


VALLEY DRIVE DRAINAGE IMPROVEMENTS

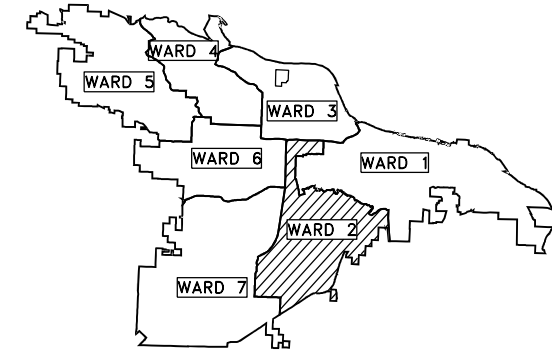
02 - 20 - ST - 171

PROJECT START
LOCATION
LAT: 34°39'44"
LONG: -92°21'22"



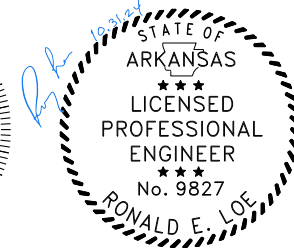
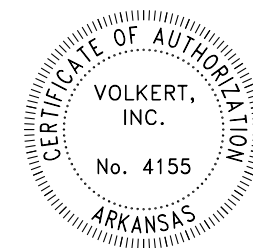
PROJECT START
LOCATION
LAT: 34°39'18"
LONG: -92°21'23"

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 WEST MARKHAM STREET
LITTLE ROCK, ARKANSAS 72201



PROJECT LOCATION - WARD 2

SHEET NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES, LEGEND, AND QUANTITIES
3	TYPICAL SECTIONS OF IMPROVEMENT
4	SIDEWALK UNDERDRAIN DETAIL
5	CROSS DRAIN TIE IN AT STA. 14+40 DETAIL
6	SIDEWALK DEPRESSION FOR YARD DRAINAGE
7-8	EXISTING CONDITIONS
9-12	TEMPORARY EROSION CONTROL DETAILS
13-15	SURVEY CONTROL DETAILS
16-19	PLAN AND PROFILE - DITCH
21-23	PLAN AND PROFILE - SIDEWALK
24-48	CROSS SECTIONS
49	REINFORCED CONCRETE BOX CULVERT STANDARD DETAIL



PREPARED BY:

VOLKERT

2100 RIVERDALE DR.
LITTLE ROCK, AR 72202
PHONE: (501) 817-7510

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
VALLEY DRIVE DRAINAGE IMPROVEMENTS

COVER SHEET

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

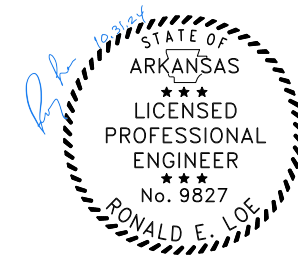


DRAWN BY
JDZ
DESIGNED
JDZ
CHECKED

DATE
10/30/2024
SCALE
1" = 50'

PROJECT NO.
02 - 20 - ST - 171
SHEET NO.

1



CLR PROJECT 02-20-ST-171
VALLEY DRIVE DRAINAGE IMPROVEMENTS

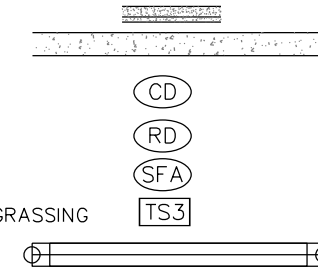
ITEM NO	ITEM DESCRIPTION	UNIT	QUANTITY
2.01	SITE PREPARATION (INCLUDES MOBILIZATION)	L.S.	1
3.01	UNCLASSIFIED EXCAVATION	C.Y.	394
3.02	COMPACTED EMBANKMENT	C.Y.	185
7.06	CONCRETE DRIVEWAY (6" THICK), STANDARD FINISH	S.F.	7407
9.04	CONCRETE SIDEWALK (4" THICK)	S.F.	11025
11.01	REINFORCED CONCRETE PRECAST BOX CULVERT (4' x 2')	L.F.	30
11.07	SPECIAL HEADWALL, WINGS, AND APRON	CY	3
13.15S	STORM DRAIN PIPES, 15" (SIDE DRAIN)	L.F.	340
13.18S	STORM DRAIN PIPES, 18" (SIDE DRAIN)	L.F.	80
13.24S	STORM DRAIN PIPES, 24" (SIDE DRAIN)	L.F.	380
14.01	SOLID SODDING (BERMUDA) INCLUDES 4" OF TOPSOIL	S.Y.	3035
17.01	PAVEMENT REPAIRS-UTILITY STREET CUT PW25	S.Y.	11
18.50	ACCESS RAMP (TYPE 3)	SF	65
18.50	ACCESS RAMP (TYPE 4)	SF	175
19.01	FINAL CLEAN UP	L.S.	1
22.10	MAILBOX RELOCATION	EA	17
24.02	CHECK DAM (CD)	C.Y.	38
24.05	ROCK DAM (RD)	CY	2
24.09	SEDIMENT BARRIER - BLOCK (SD-4) CURB INLET BLOCK	EA	1
24.11	SILT FENCE - TYPE A (SFA)	L.F.	75
26.10	TRENCH & EXCAVATION SAFETY	L.S.	1
605.00	CONCRETE DITCH PAVING	SY	85
719.12W	THERMOPLASTIC PAVEMENT MARKINGS 12" WHITE	L.F.	60
816.00	DUMPED RIPRAP (GROUTED)	CY	4
SP	SIDEWALK UNDERDRAIN	EA	3

NOTES:

- REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS AND OTHER ITEMS PAID IN LUMP SUM AS SITE PREPARATION.
- CONTRACTOR TO PROVIDE TEMPORARY MAILBOXES AS NEEDED DURING CONSTRUCTION PAID AS SITE PREPARATION.

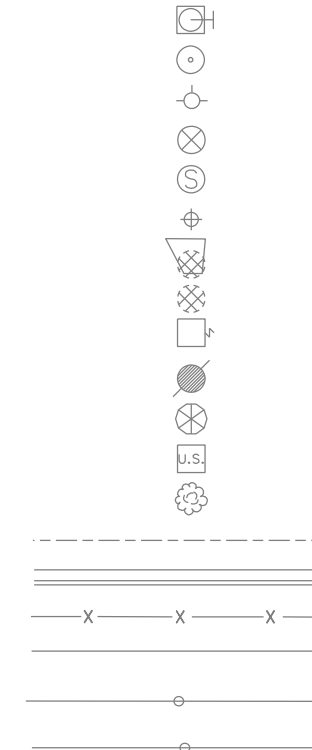
PROPOSED

- PROPOSED CURB
- PROPOSED CONCRETE
- CHECK DAM
- ROCK DAM
- SILT FENCE - TYPE A
- DISTURBED AREA STABILIZATION -PERMANENT GRASSING
- PROPOSED STORM DRAIN



EXISTING

- WATER VALVE
- WATER METER
- FIRE HYDRANT
- GAS METER
- SIGN POST
- BENCHMARK
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- TELEPHONE UTILITY BOX
- UTILITY POLE
- GUY WIRE
- MAILBOX
- TREE/BUSH
- PROPERTY LINE
- CURB
- FENCE
- OVERHEAD ELECTRIC
- UNDERGROUND TELEPHONE
- GAS LINE



REVISIONS	DATE

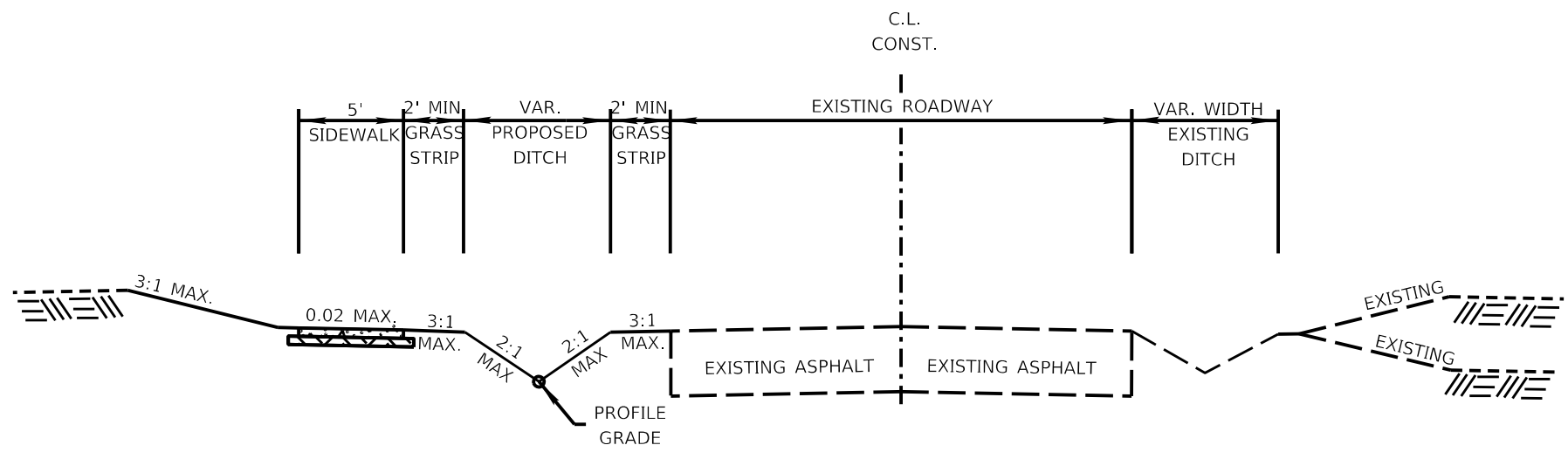
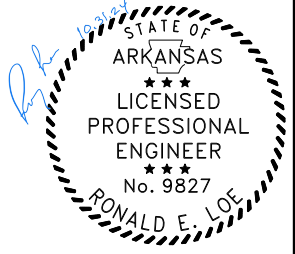
CITY OF LITTLE ROCK, ARKANSAS
VALLEY DRIVE DRAINAGE IMPROVEMENTS
 GENERAL NOTES, LEGEND, AND QUANTITIES

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY JDZ
DESIGNED JDZ
CHECKED
DATE 10/30/2024
SCALE N/A
PROJECT NO. 02-20-ST-171
SHEET NO. 2

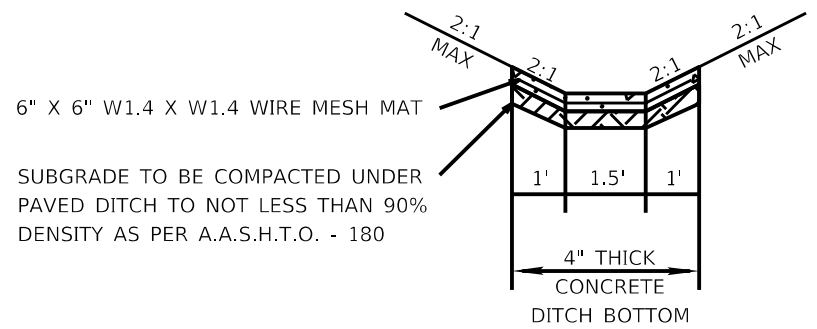
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	3	49
TYPICAL SECTIONS OF IMPROVEMENT						



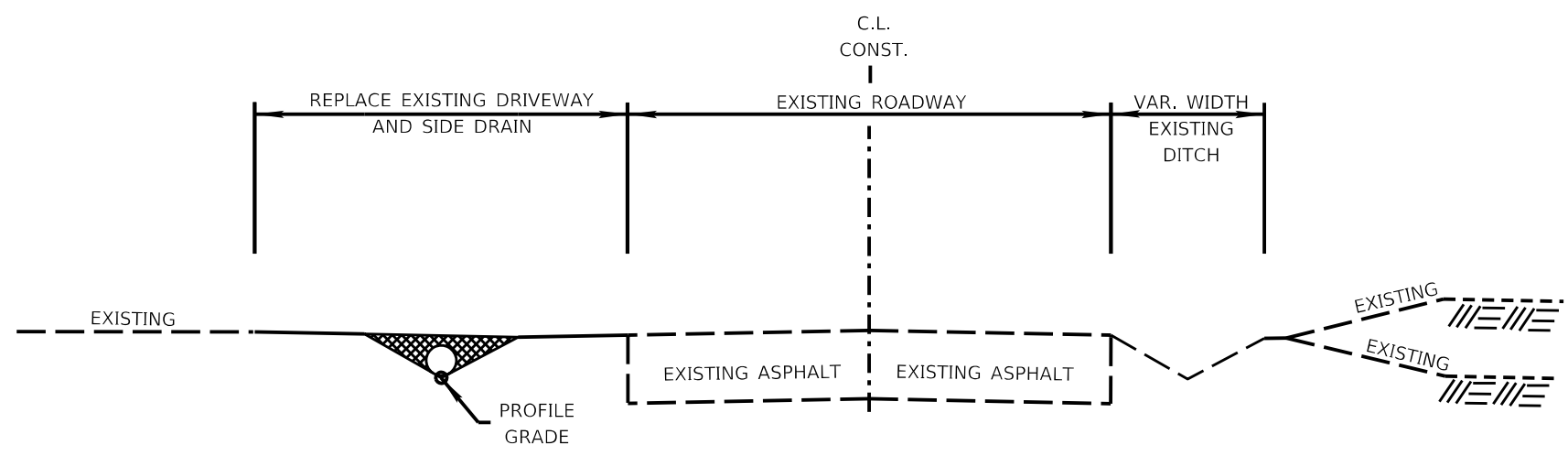
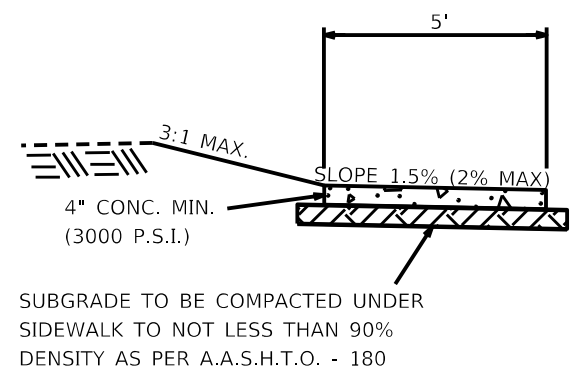
TYPICAL SECTION

VALLEY DRIVE (LOCAL RESIDENTIAL)
STA. 10+21.71 TO STA. 36+07.05

CONCRETE BOTTOM DITCH



PROPOSED SIDEWALK

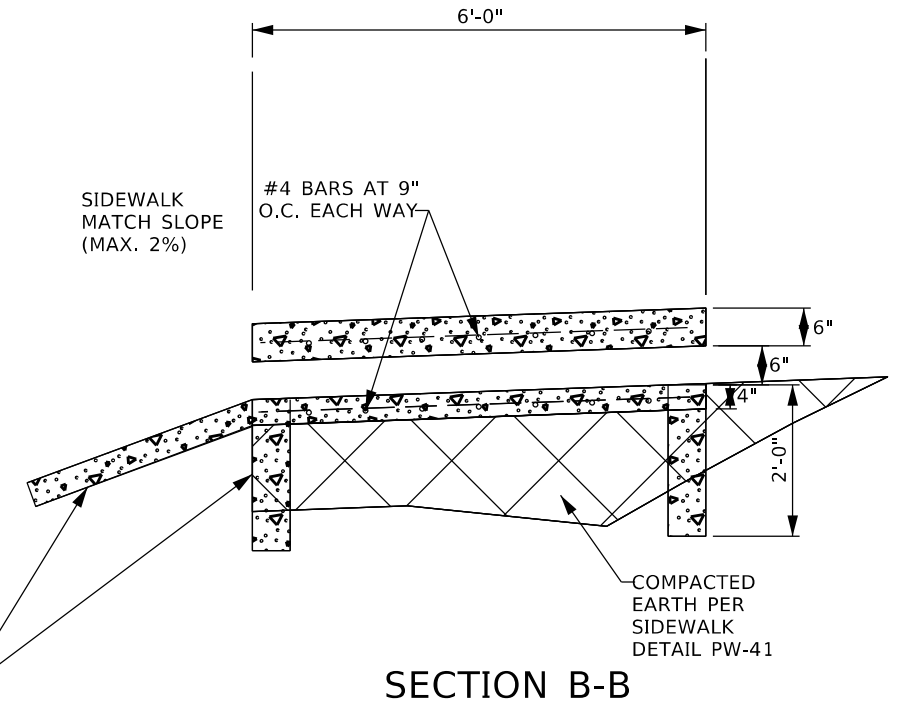
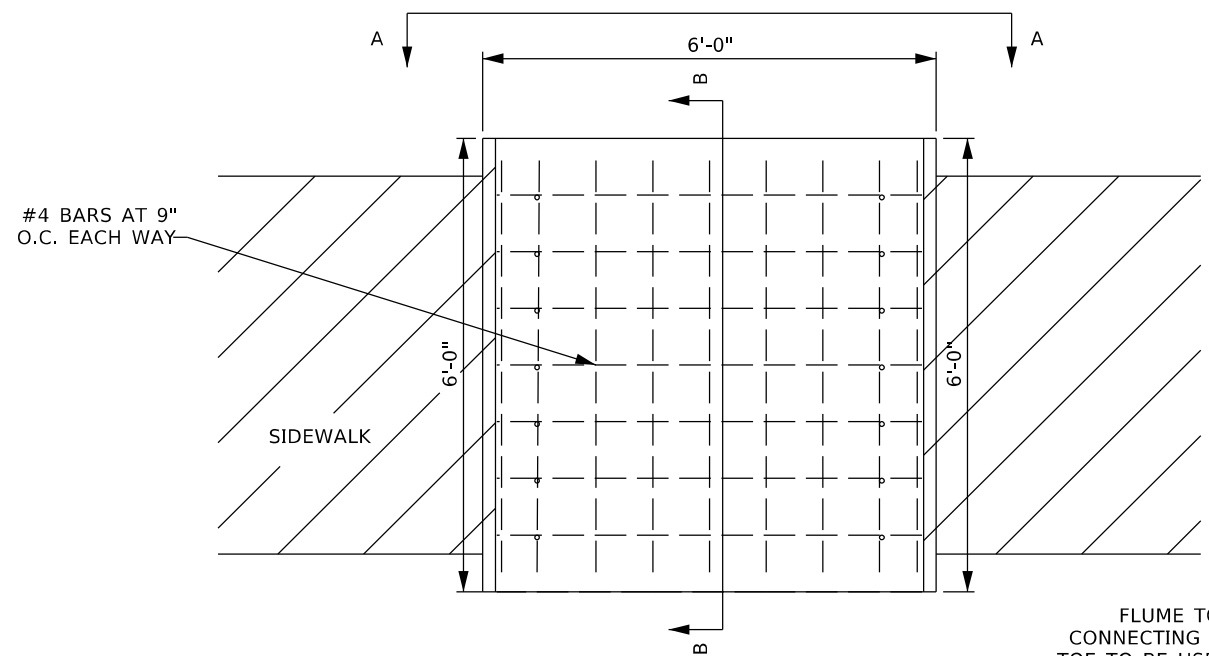
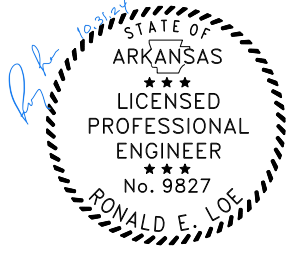


TYPICAL SECTION AT DRIVEWAY

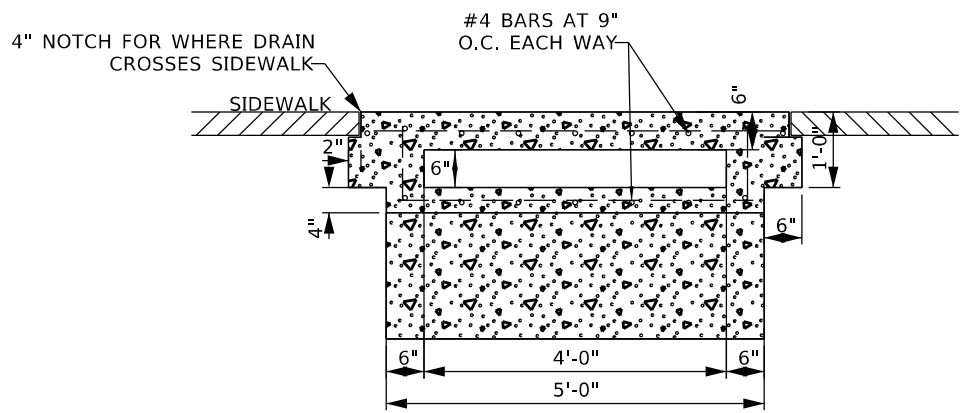
VALLEY DRIVE (LOCAL RESIDENTIAL)
STA. 10+21.71 TO STA. 36+07.05

02 - VALLEY_TYPICAL SECTIONS.DGN CREATED: 2/5/2024 10:30:2024 SAVED: 10/30/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
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SIDEWALK UNDERDRAIN DETAIL						

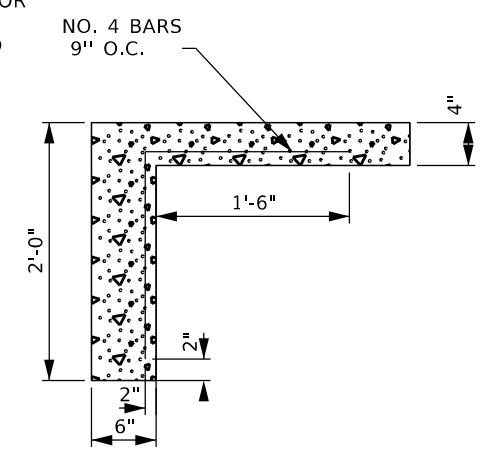


FLUME TO BE USED WHEN CONNECTING TO PAVED DITCH, TOE TO BE USED AT ALL OTHER LOCATIONS



SECTION A-A
CROSSING SIDEWALK

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



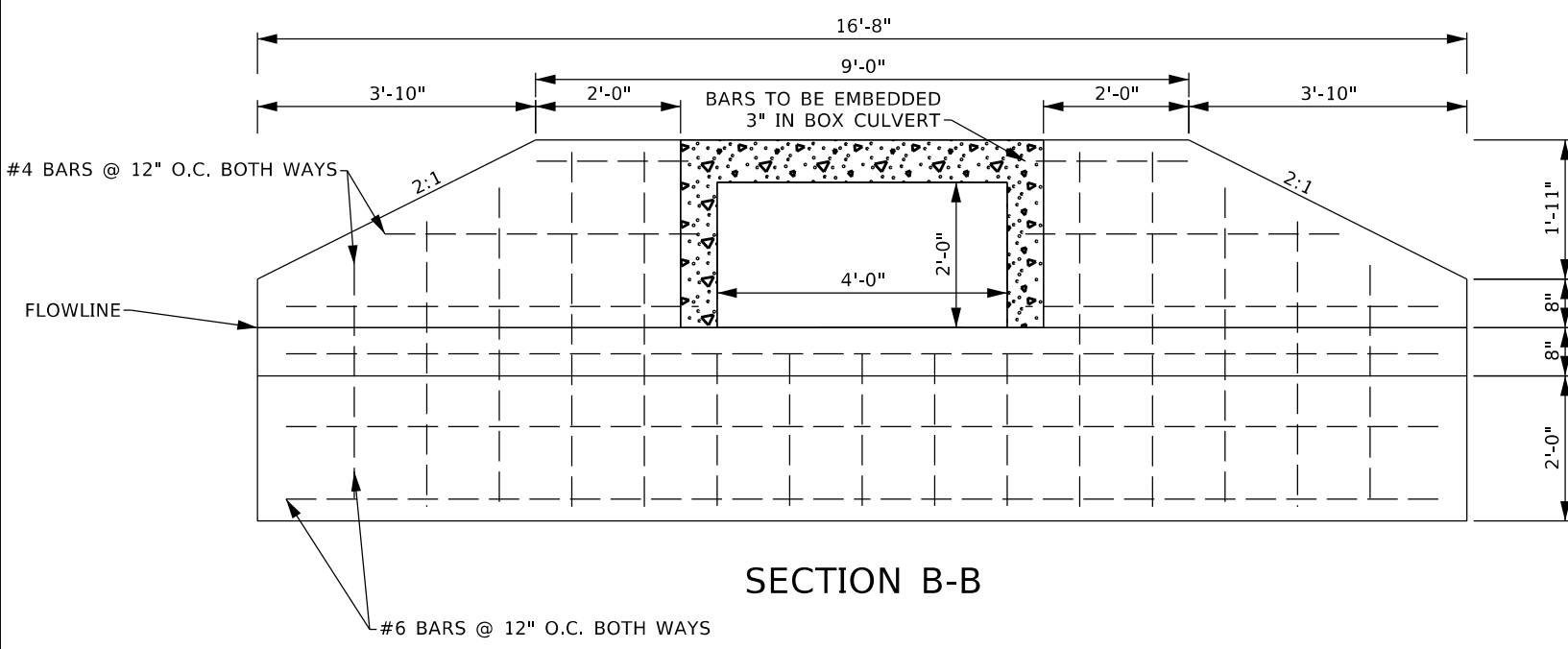
TOE WALL

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

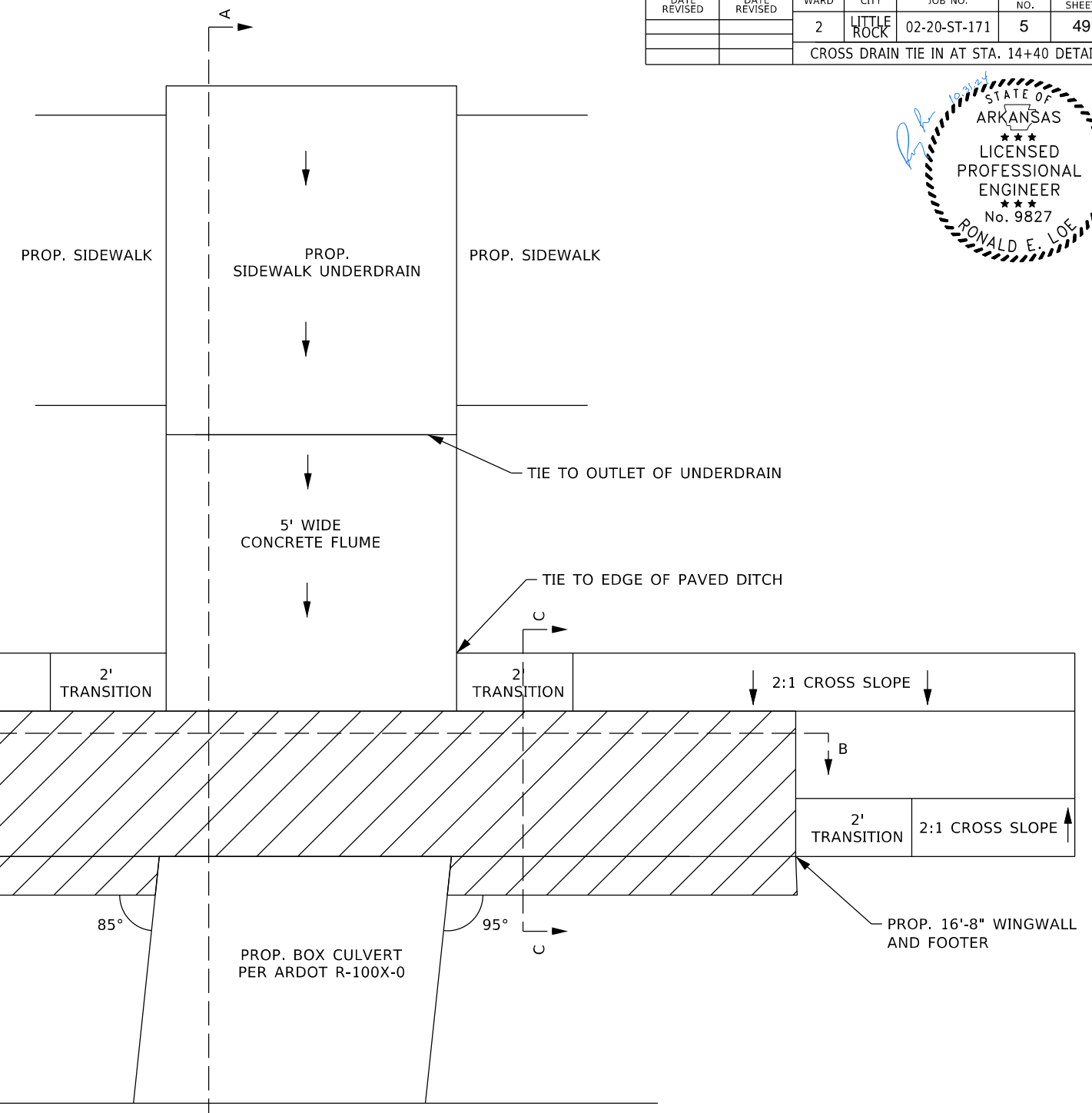
SIDEWALK UNDERDRAIN

NOT TO SCALE

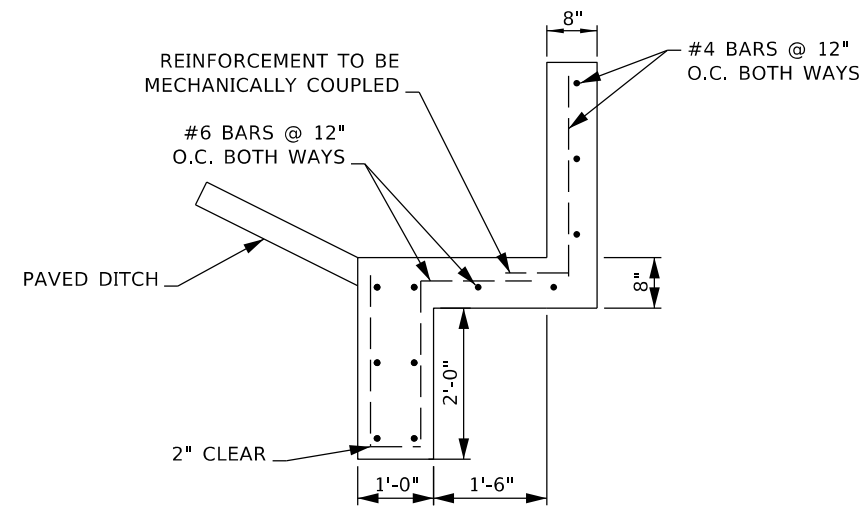
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	5	49
CROSS DRAIN TIE IN AT STA. 14+40 DETAIL						



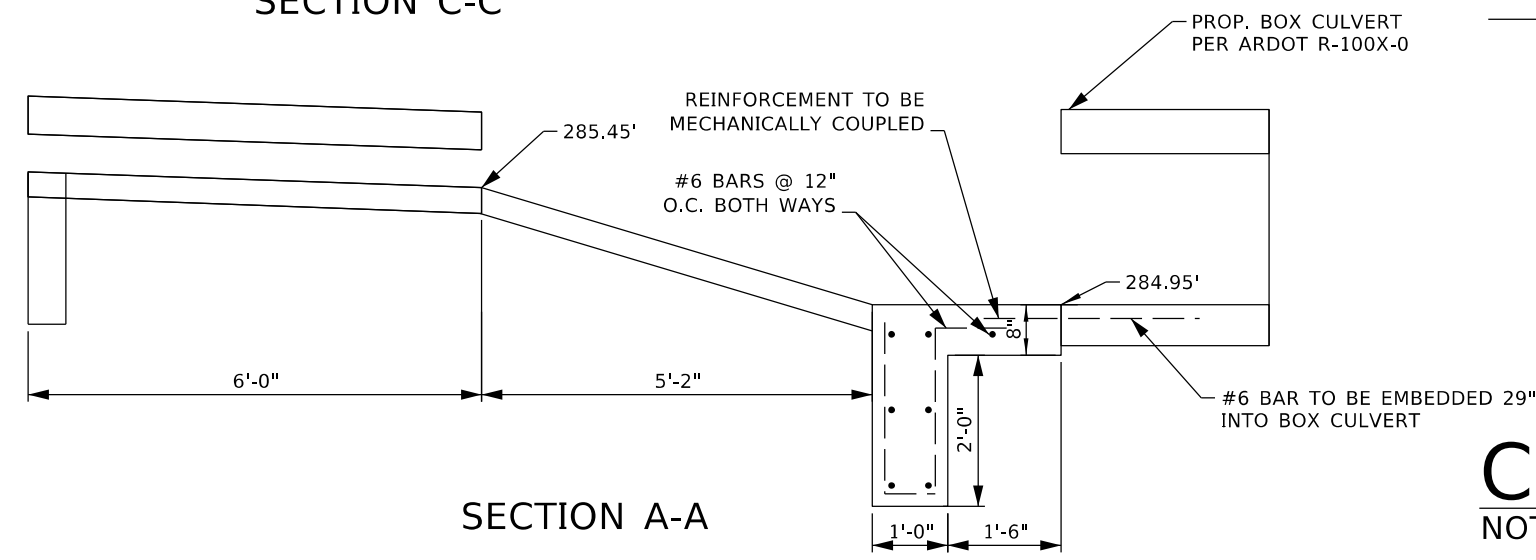
SECTION B-B



PLAN VIEW



SECTION C-C



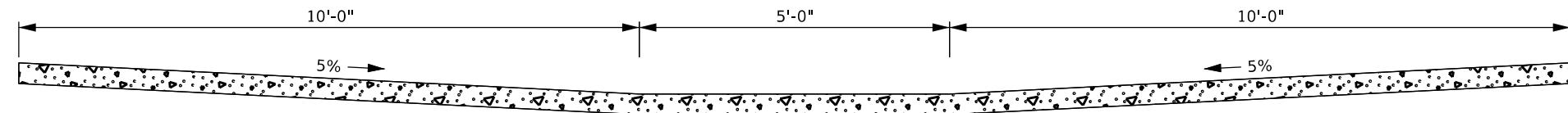
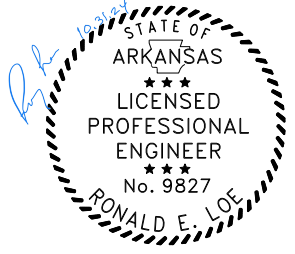
SECTION A-A

CROSS DRAIN TIE IN AT STA. 14+40

NOT TO SCALE

ARDOT_BORDERS.CEL CREATED: 11/9/2022 11:09:22 AM SAVED: 6/17/2023 10:00:00 AM

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	6	49
SIDEWALK DEPRESSION FOR YARD DRAINAGE						

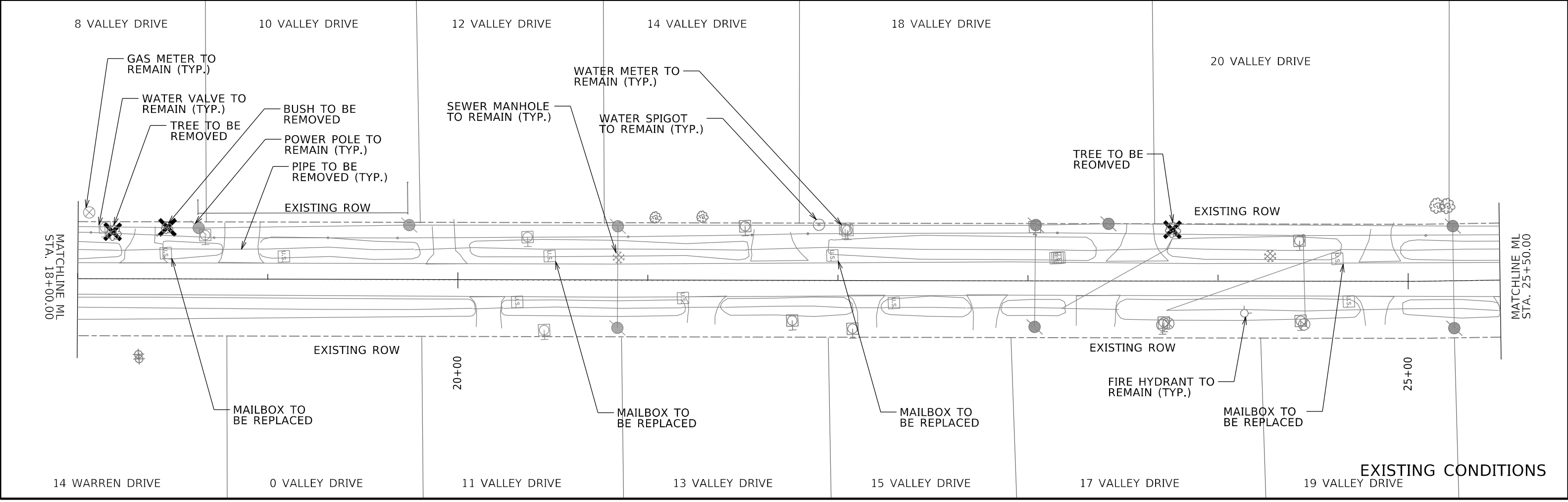
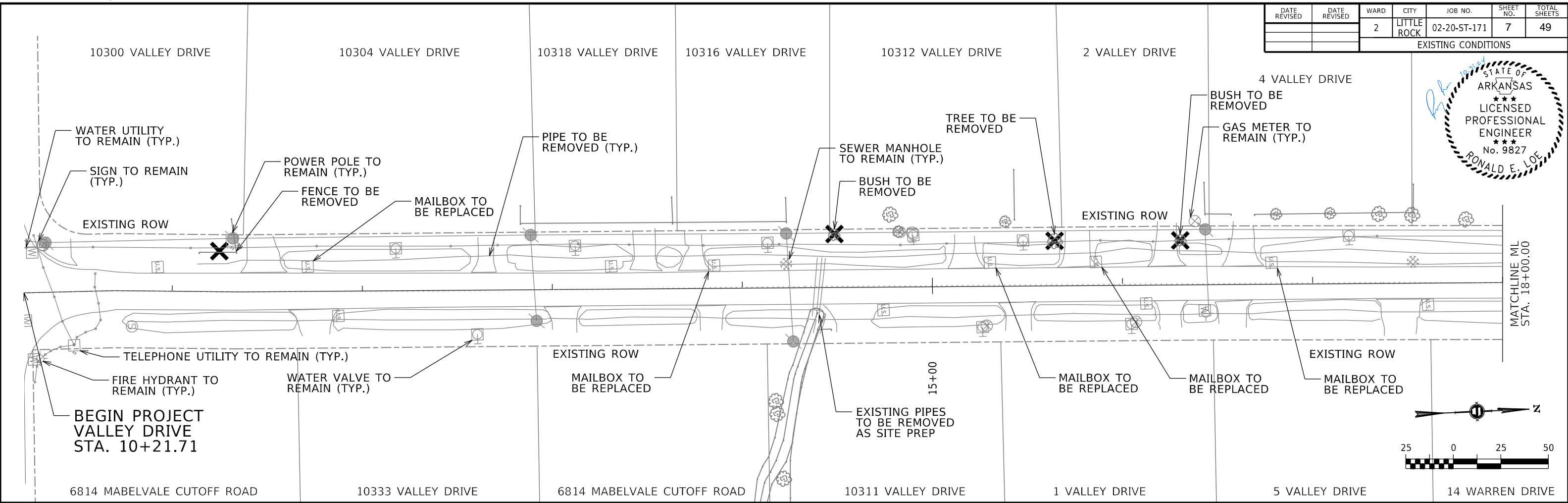
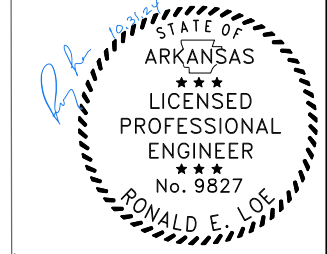


TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE FLOW OF WATER OVER SIDEWALK INTO DITCH.

SIDEWALK DEPRESSION FOR YARD DRAINAGE

NOT TO SCALE

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	7	49



OX - VALLEY_EXISTING CONDITIONS.DGN
 CREATED: 5/20/2024
 SAVED: 6/13/2024

22 VALLEY DRIVE

24 VALLEY DRIVE

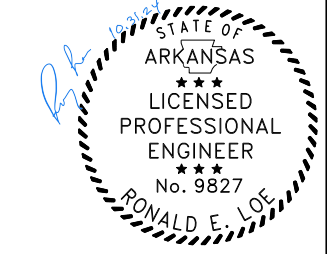
26 VALLEY DRIVE

28 VALLEY DRIVE

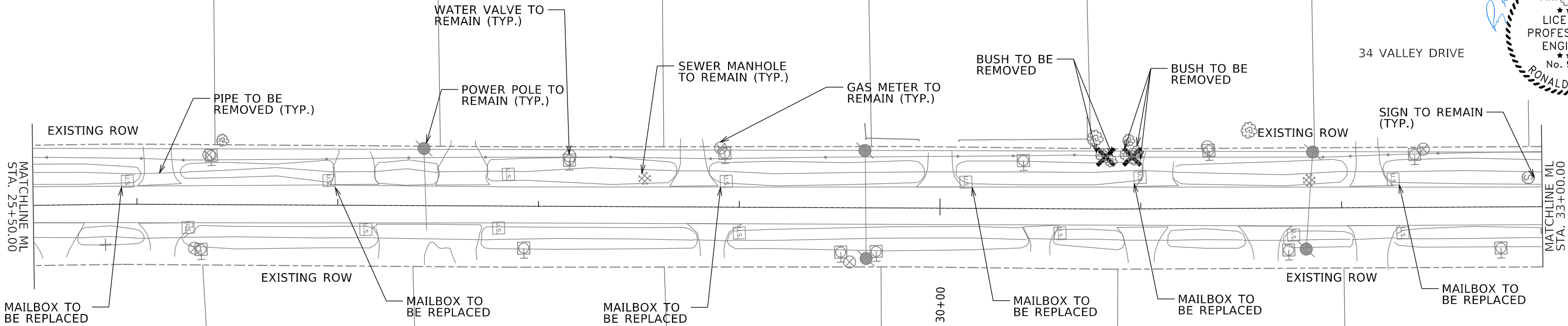
30 VALLEY DRIVE

32 VALLEY DRIVE

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	8	49



34 VALLEY DRIVE



MATCHLINE ML STA. 25+50.00

MATCHLINE ML STA. 33+00.00

21 VALLEY DRIVE

23 VALLEY DRIVE

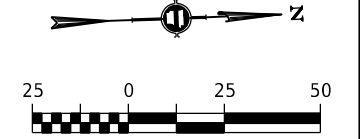
25 VALLEY DRIVE

27 VALLEY DRIVE

29 VALLEY DRIVE

31 VALLEY DRIVE

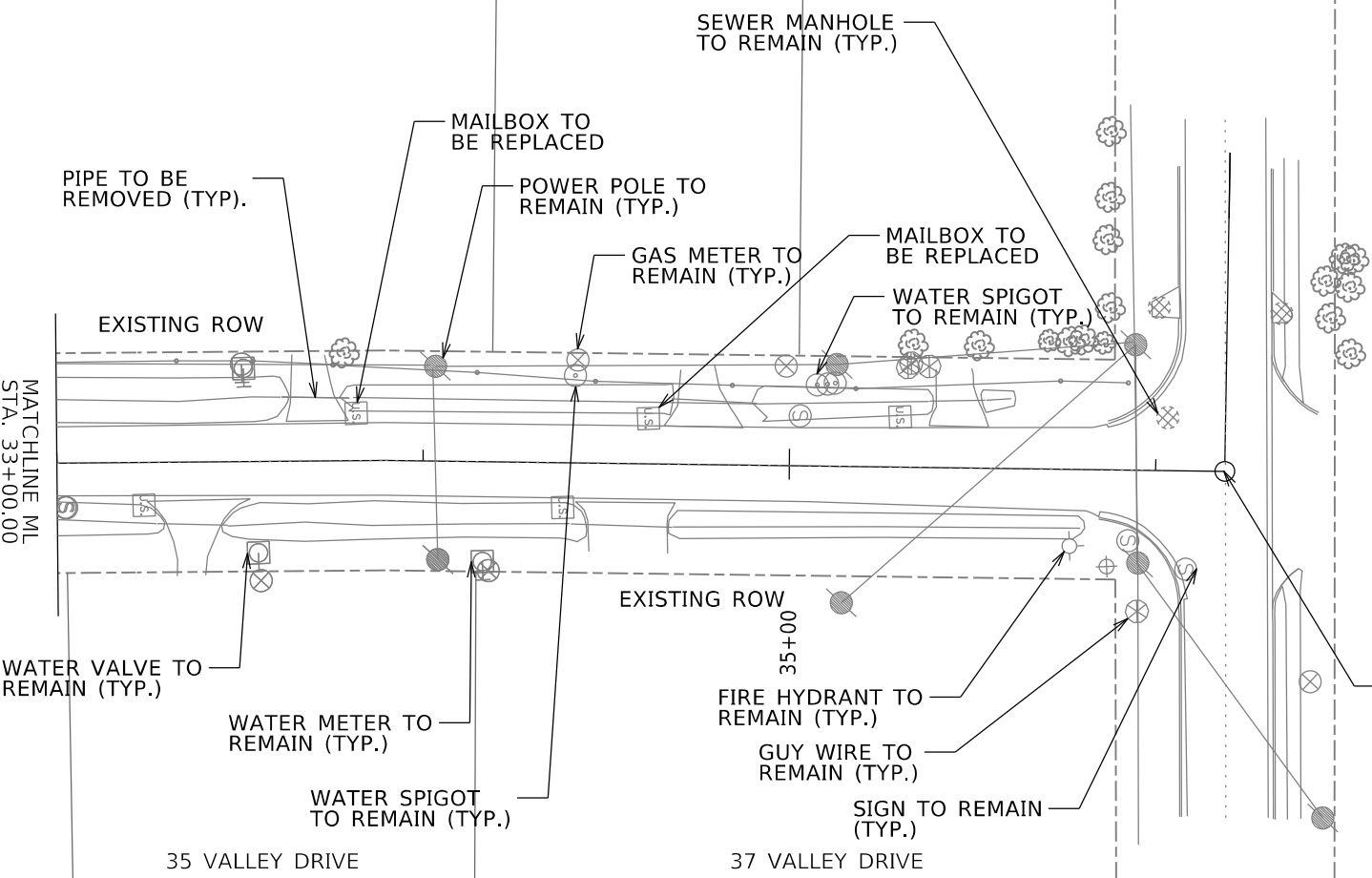
33 VALLEY DRIVE



36 VALLEY DRIVE

38 VALLEY DRIVE

40 VALLEY DRIVE



MATCHLINE ML STA. 33+00.00

END PROJECT VALLEY DRIVE STA. 36+18.90

35 VALLEY DRIVE

37 VALLEY DRIVE

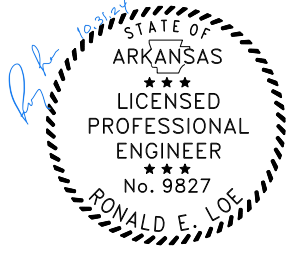
39 VALLEY DRIVE

37 VALLEY DRIVE

EXISTING CONDITIONS

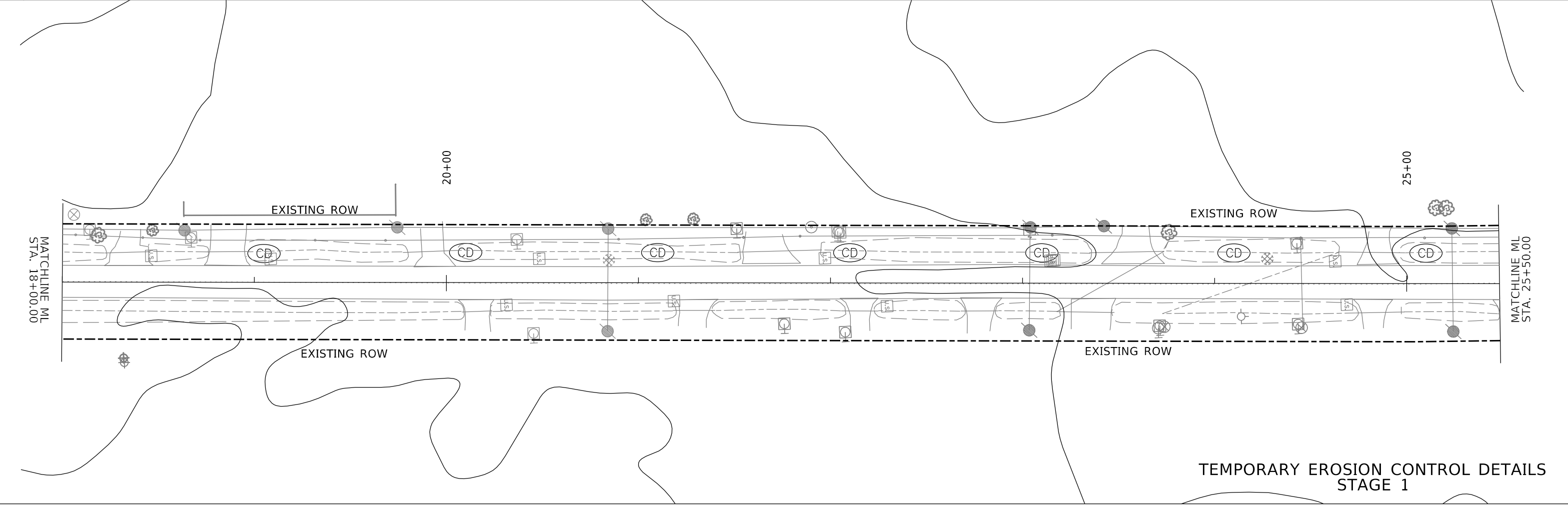
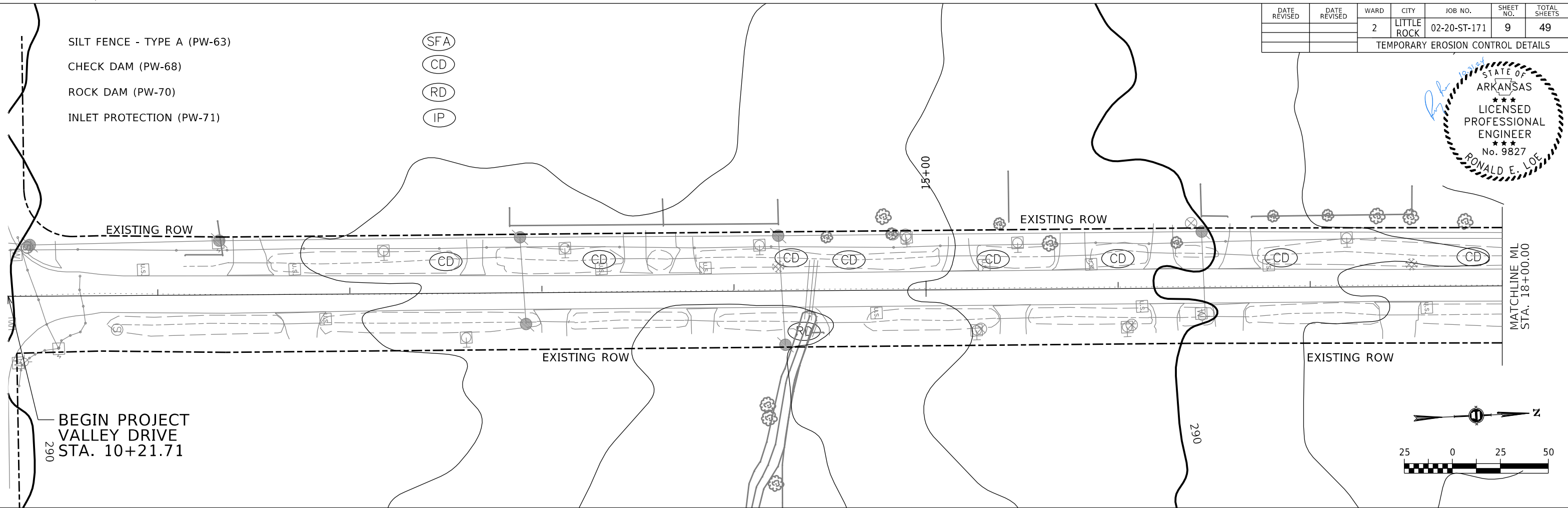
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DATE REVISIONS	DATE REVISIONS	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	9	49
TEMPORARY EROSION CONTROL DETAILS						



- SILT FENCE - TYPE A (PW-63)
- CHECK DAM (PW-68)
- ROCK DAM (PW-70)
- INLET PROTECTION (PW-71)

- (SFA)
- (CD)
- (RD)
- (IP)



TEMPORARY EROSION CONTROL DETAILS
 STAGE 1

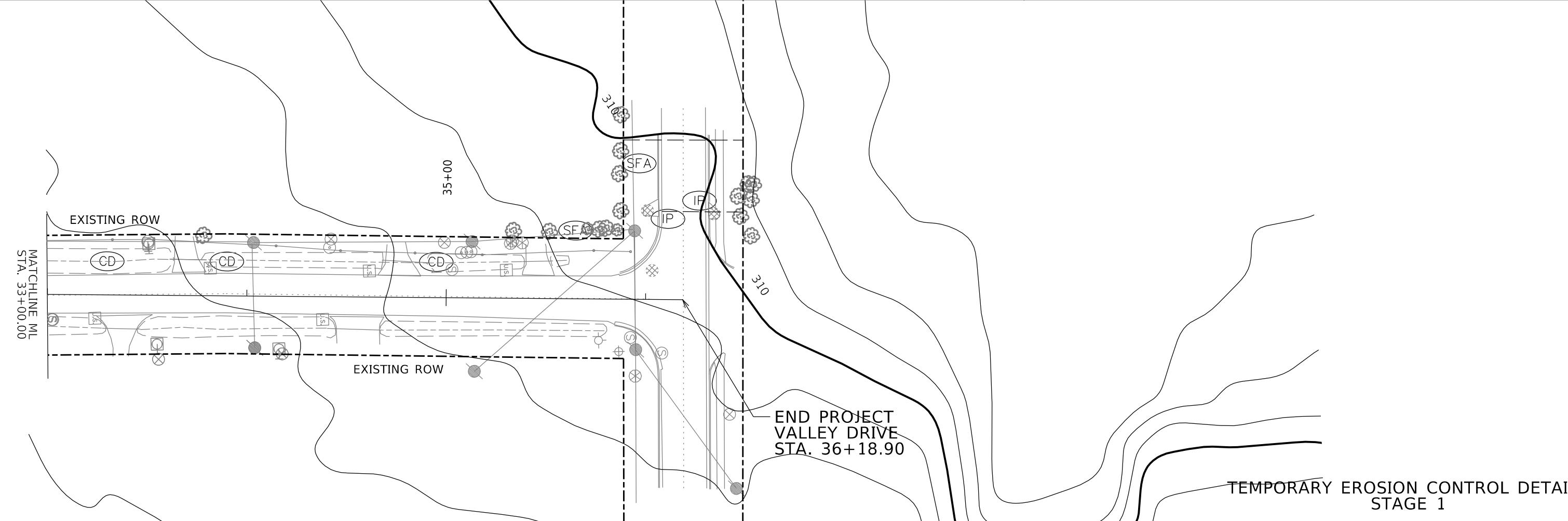
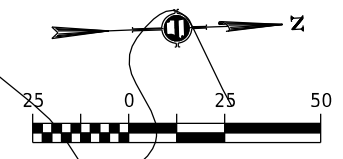
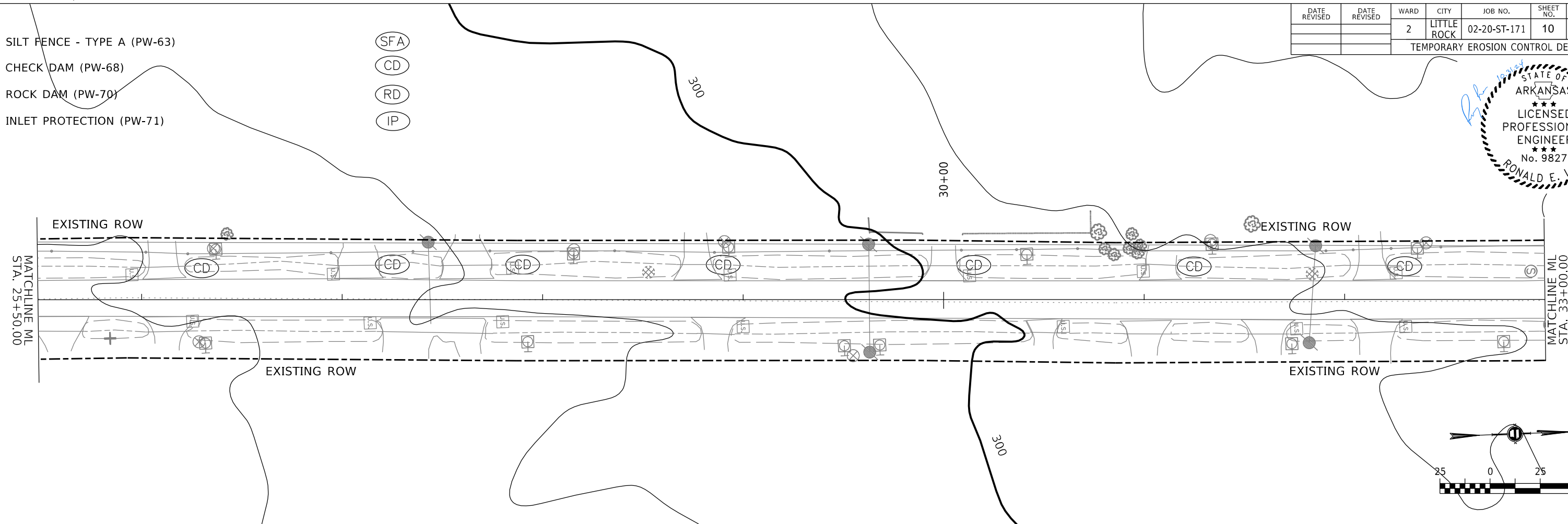
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	10	49

TEMPORARY EROSION CONTROL DETAILS



- SILT FENCE - TYPE A (PW-63)
- CHECK DAM (PW-68)
- ROCK DAM (PW-70)
- INLET PROTECTION (PW-71)

- (SFA)
- (CD)
- (RD)
- (IP)



TEMPORARY EROSION CONTROL DETAILS
STAGE 1

OX - VALLEY_EC_STG1.DGN CREATED: 5/29/2024 10:30/2024 SAVED: 10/30/2024

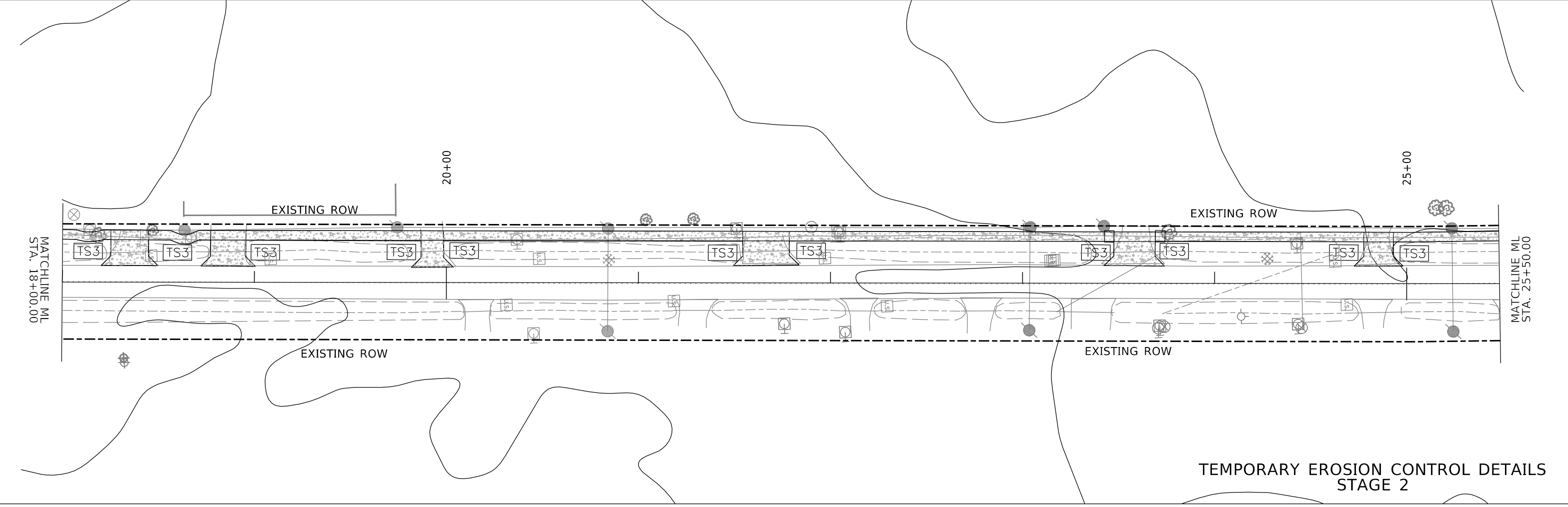
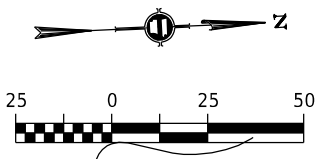
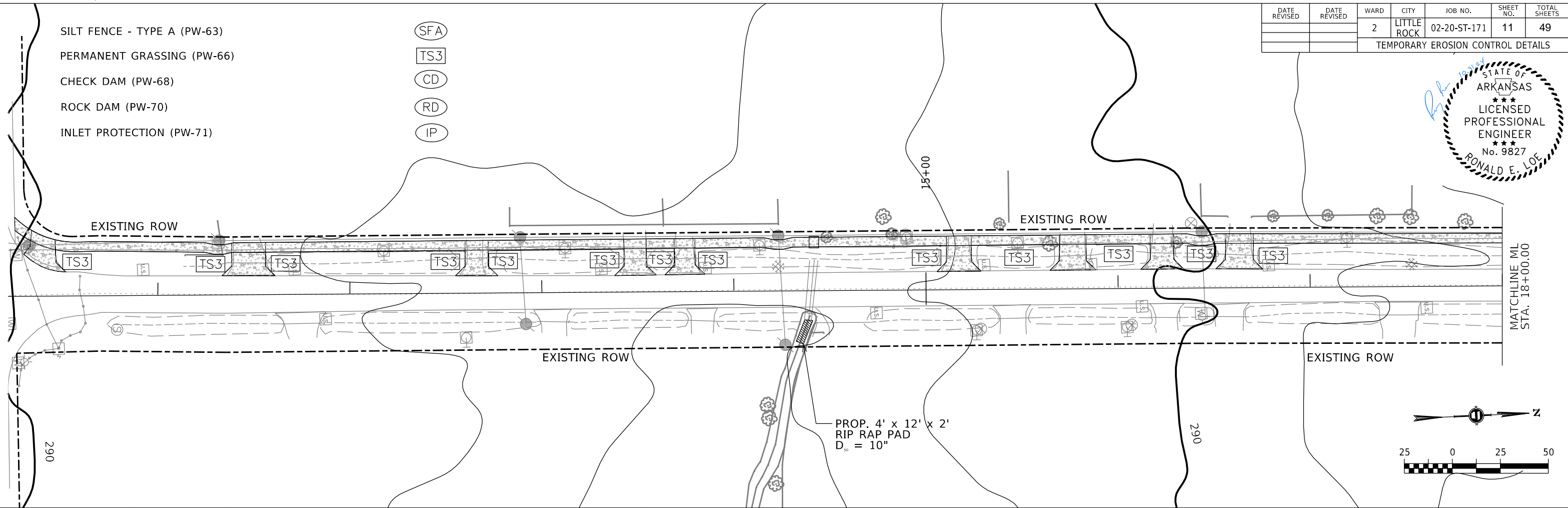
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	11	49

TEMPORARY EROSION CONTROL DETAILS



- SILT FENCE - TYPE A (PW-63)
- PERMANENT GRASSING (PW-66)
- CHECK DAM (PW-68)
- ROCK DAM (PW-70)
- INLET PROTECTION (PW-71)

- (SFA)
- [TS3]
- (CD)
- (RD)
- (IP)

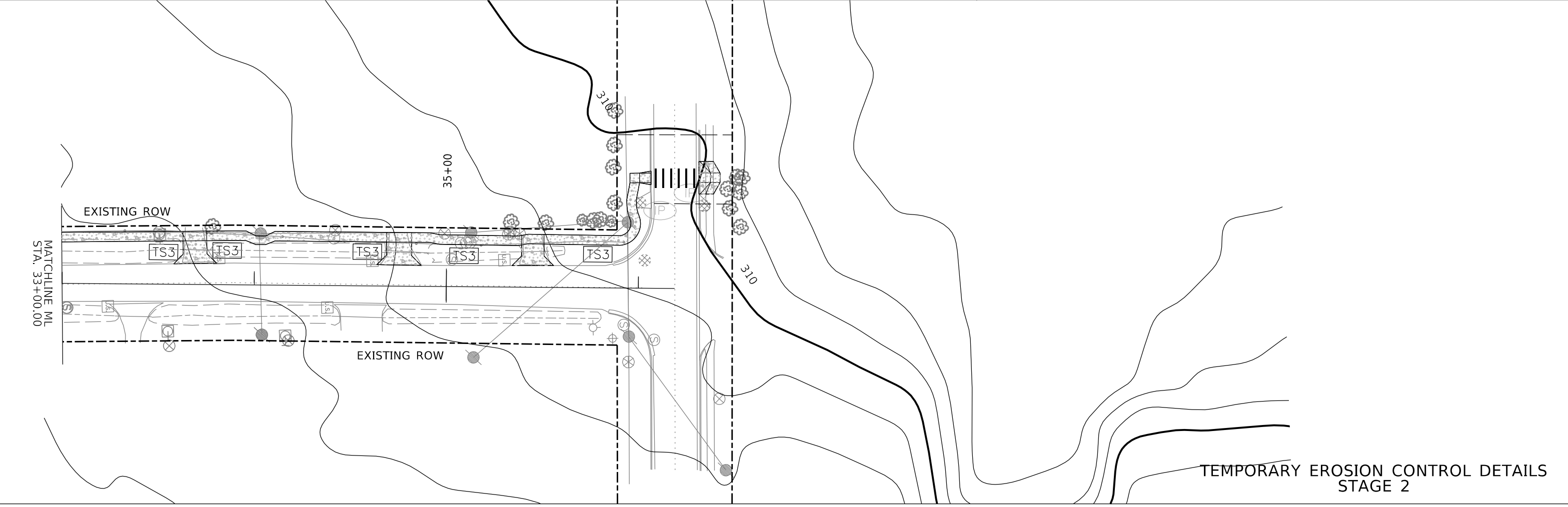
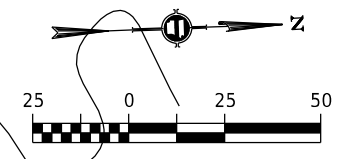
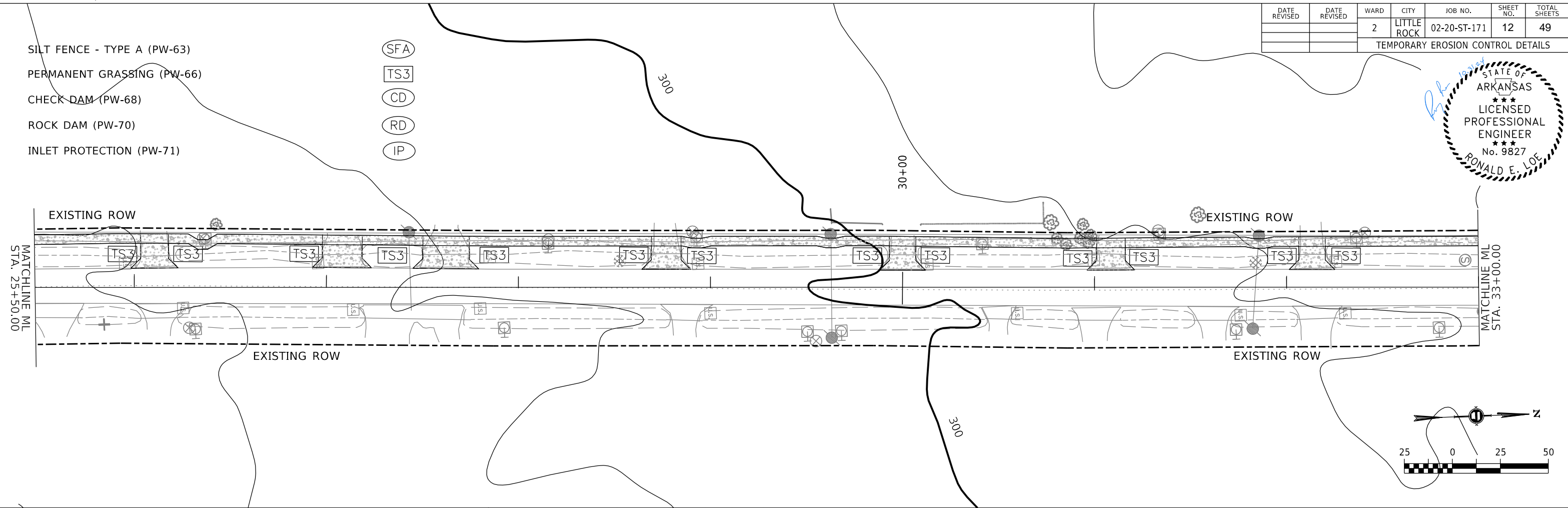


TEMPORARY EROSION CONTROL DETAILS
 STAGE 2

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	12	49
TEMPORARY EROSION CONTROL DETAILS						

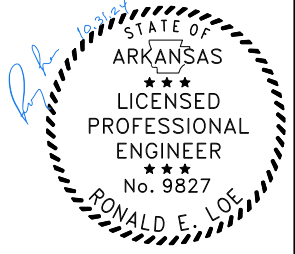
- SILT FENCE - TYPE A (PW-63)
- PERMANENT GRASSING (PW-66)
- CHECK DAM (PW-68)
- ROCK DAM (PW-70)
- INLET PROTECTION (PW-71)

- (SFA)
- [TS3]
- (CD)
- (RD)
- (IP)



TEMPORARY EROSION CONTROL DETAILS
STAGE 2

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	13	49
SURVEY CONTROL DETAILS						



CL VALLEY DRIVE

POINT	STATION	TYPE	NORTHING	EASTING	ELEVATION
1000	10+00.00	POB	117253.904	1205160.670	290.51'
1001	14+32.97	PI	117686.588	1205176.305	287.36'
1005	19+82.07	PI	118235.268	1205198.286	293.14'
1008	24+47.55	PI	118700.413	1205215.883	294.93'
1010	29+41.26	PI	119193.973	1205234.221	300.58'
1012	33.38+84	PI	119591.454	1205248.127	304.44'
1015	36+18.82	POE	119870.838	1205295.957	308.56'

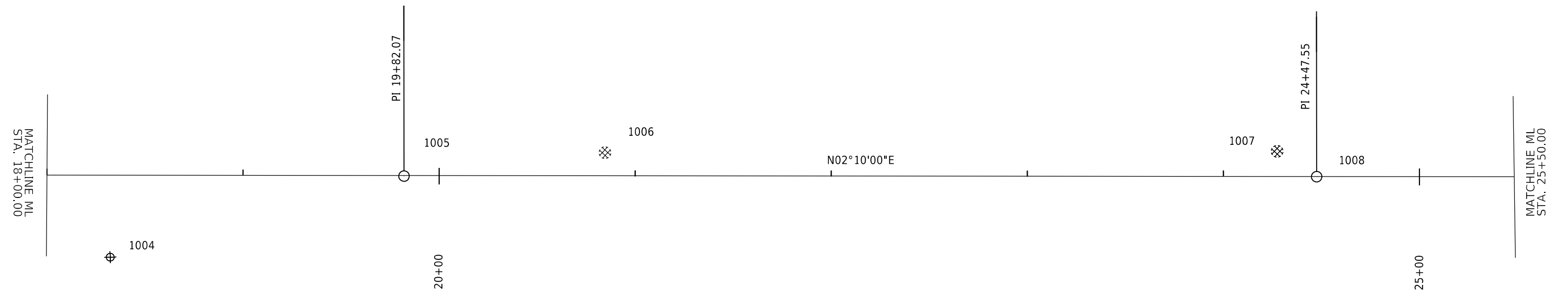
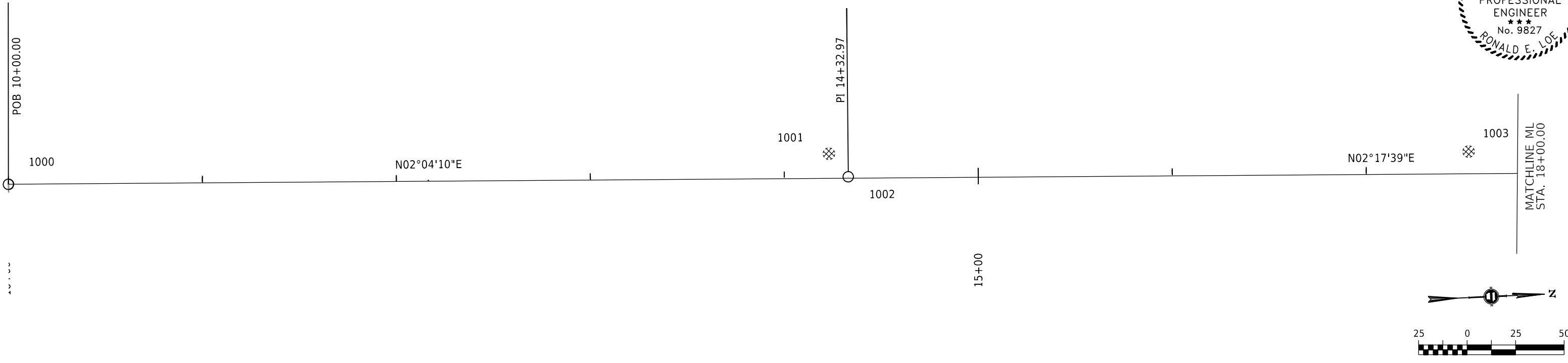
SURVEY CONTROL

POINT	STATION	HORIZONTAL OFFSET	TYPE	NORTHING	EASTING	ELEVATION
1004	18+32.08	41.976'	Survey Control	118084.006	1205234.083	292.06'
1013	35+86.78	26.518'	Survey Control	119837.712	1205284.851	306.80'
1016	BEYOND PROJECT EXTENTS		Survey Control	119963.258	1204858.198	316.01'

FIELD TIES

POINT	STATION	HORIZONTAL OFFSET	TYPE	NORTHING	EASTING	ELEVATION
1001	14+23.12	12.014'	Manhole Cover	117677.18	1205163.97	286.51'
1003	17+52.84	10.876'	Manhole Cover	118006.66	1205177.71	292.08'
1006	20+84.57	12.18'	Manhole Cover	118338.15	1205190.18	292.95'
1007	24+27.39	12.846'	Manhole Cover	118680.75	1205202.20	294.91'
1009	28+52.82	14.178'	Manhole Cover	119105.82	1205216.82	298.05'
1011	31+83.83	13.595'	Manhole Cover	119436.65	1205229.76	301.80'
1014	36+03.14	14.395'	Manhole Cover	119855.78	1205244.79	308.73'

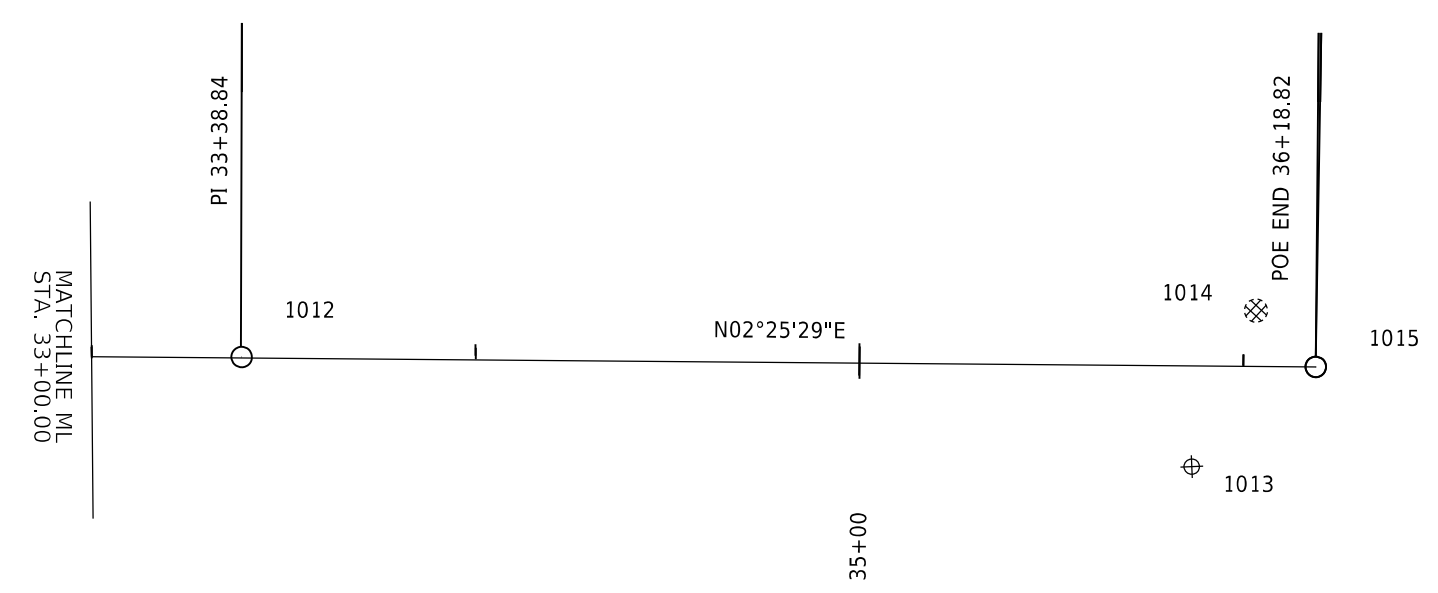
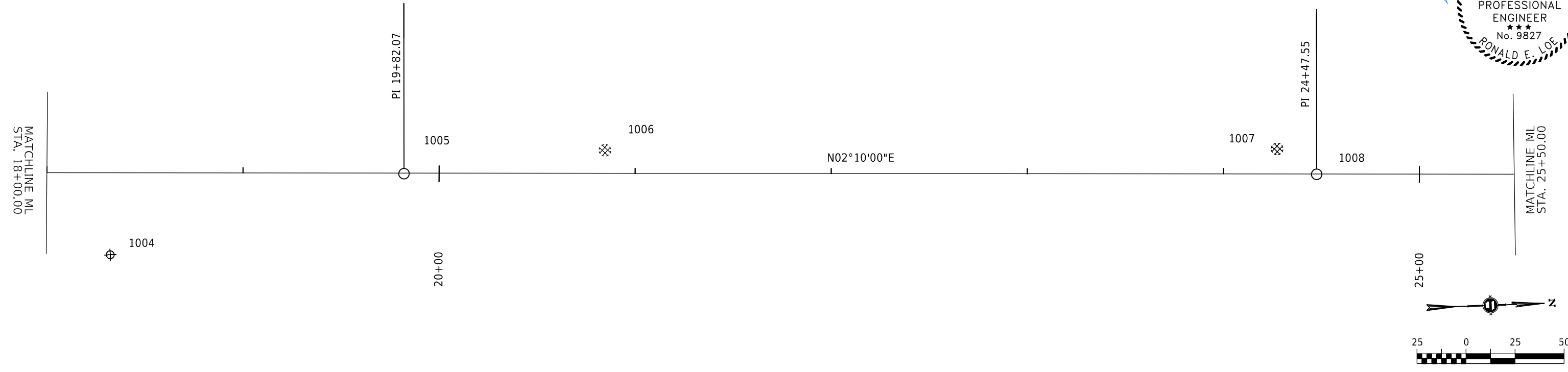
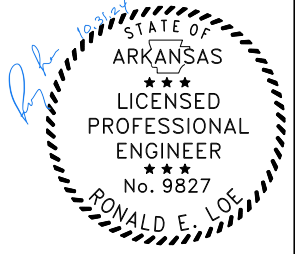
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	14	49
SURVEY CONTROL DETAILS						



SURVEY CONTROL DETAILS

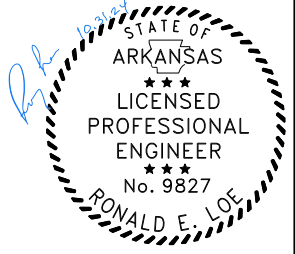
OX - VALLEY_FIELD_TIES.DGN CREATED: 5/29/2024 5:29:24 PM SAVED: 6/11/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	15	49
SURVEY CONTROL DETAILS						

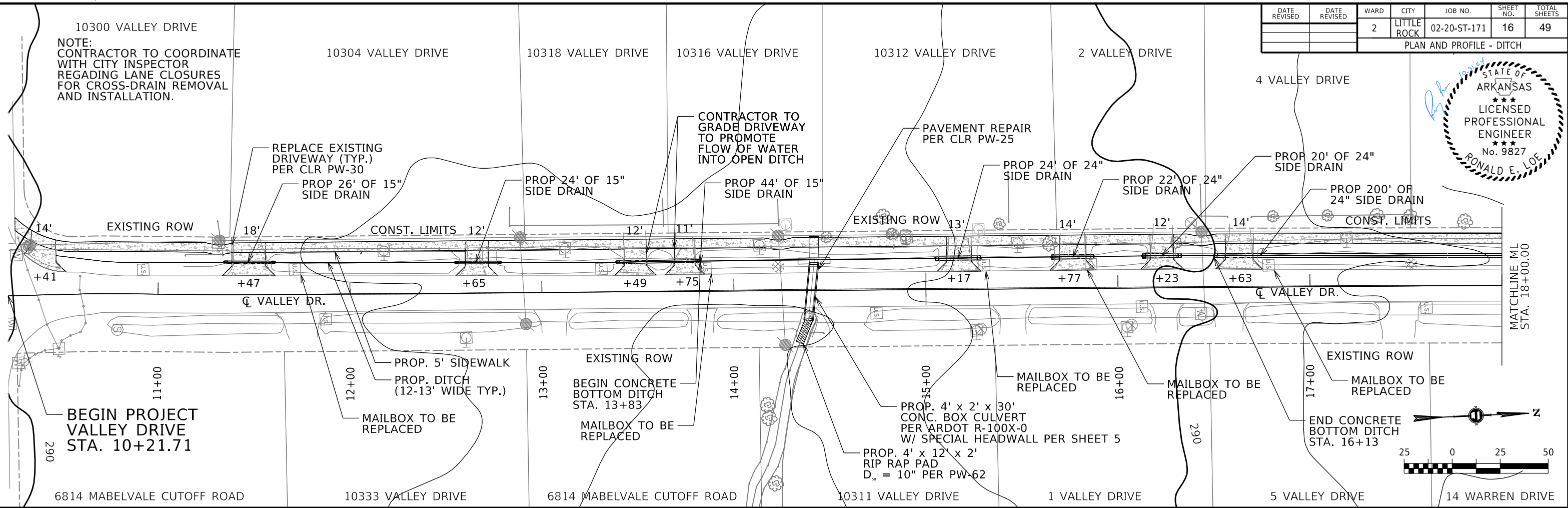


SURVEY CONTROL DETAILS

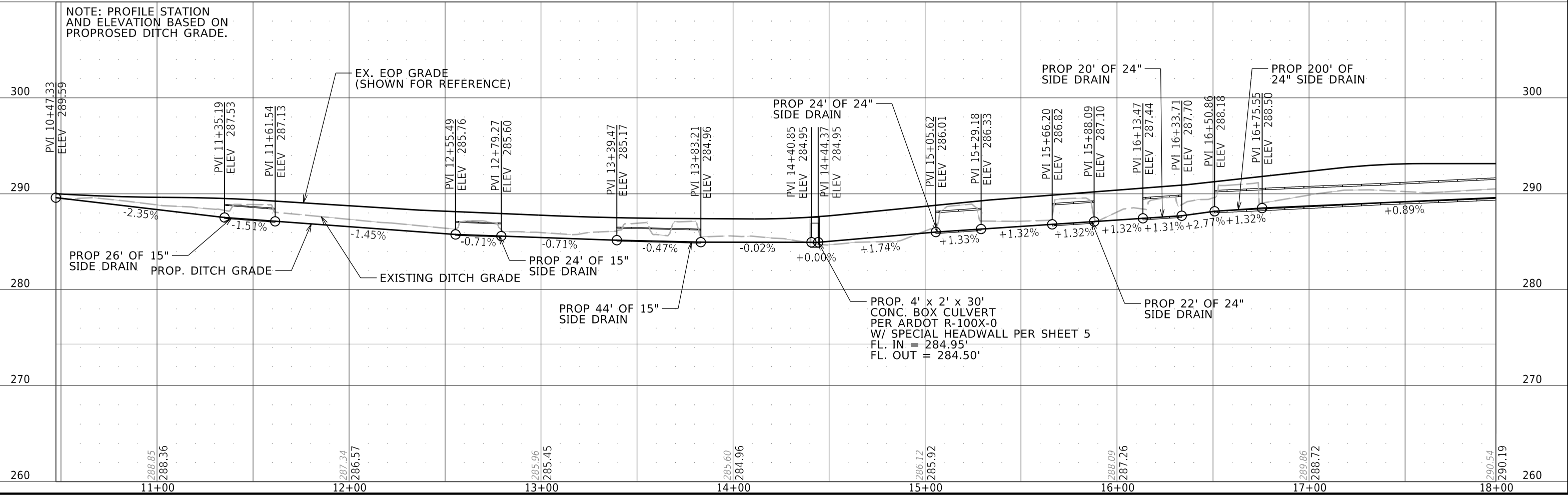
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	16	49
PLAN AND PROFILE - DITCH						



10300 VALLEY DRIVE
 NOTE: CONTRACTOR TO COORDINATE WITH CITY INSPECTOR REGARDING LANE CLOSURES FOR CROSS-DRAIN REMOVAL AND INSTALLATION.

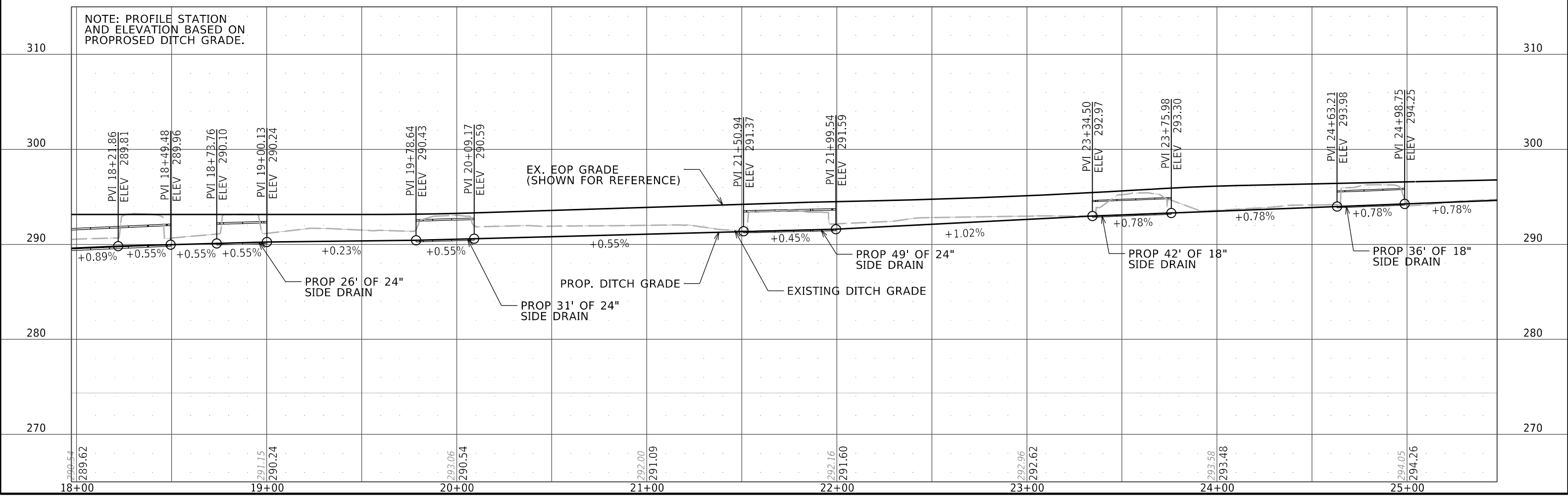
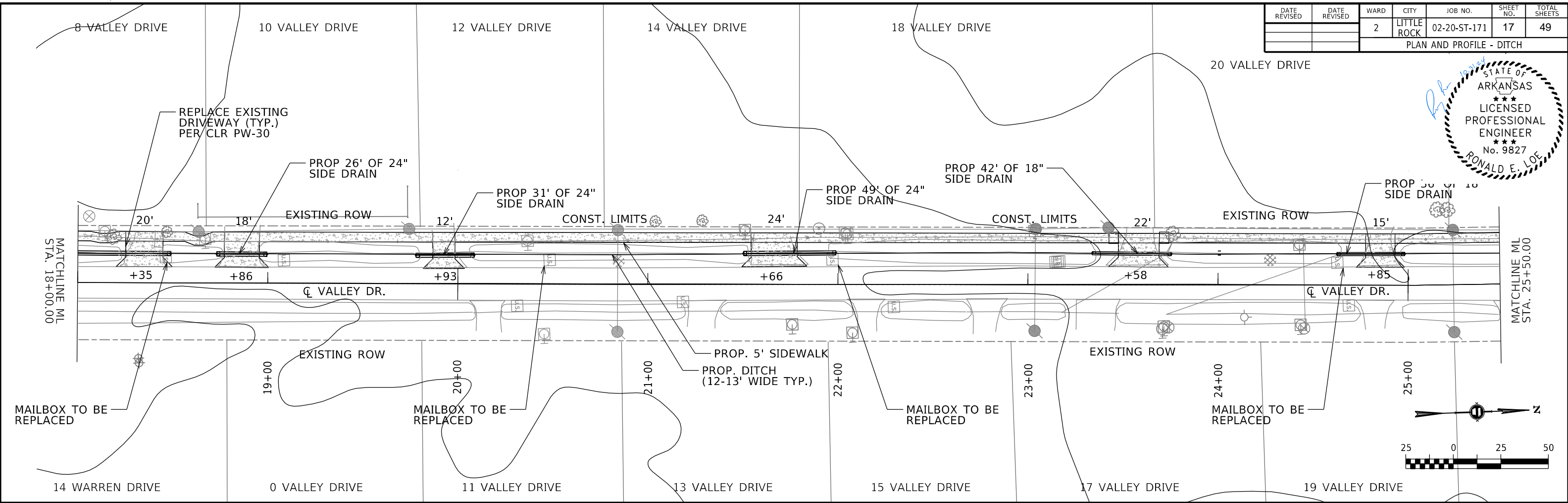
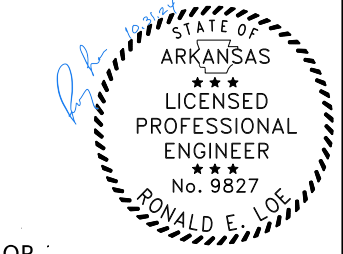


NOTE: PROFILE STATION AND ELEVATION BASED ON PROPOSED DITCH GRADE.



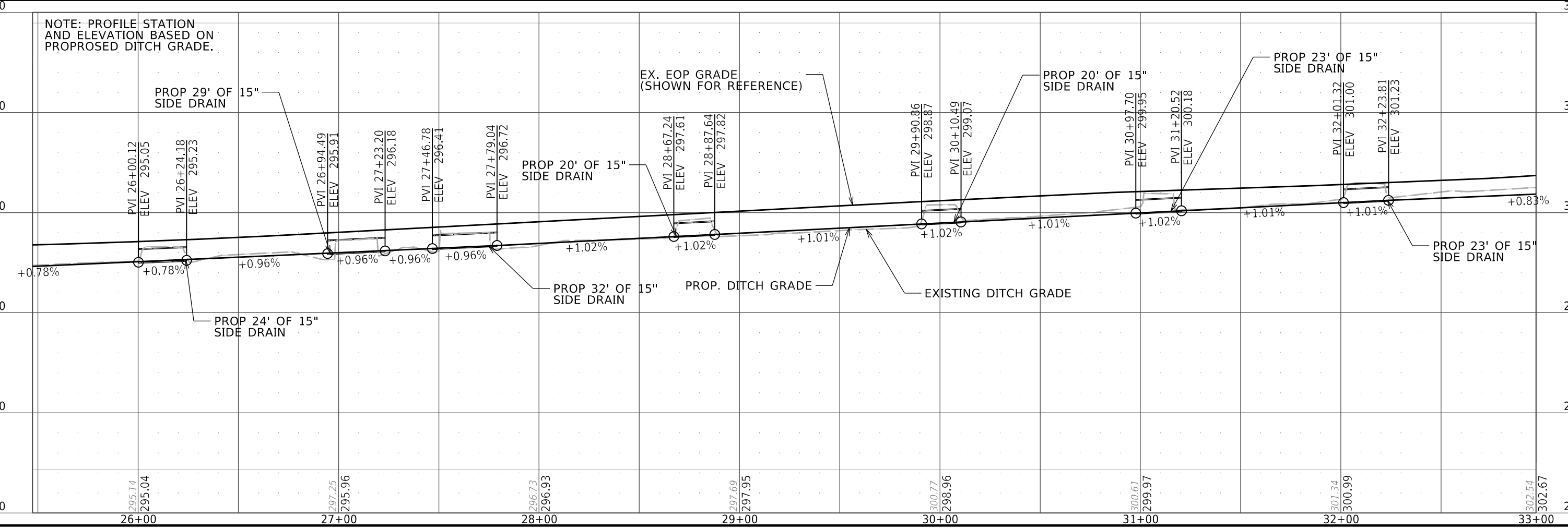
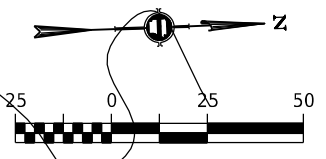
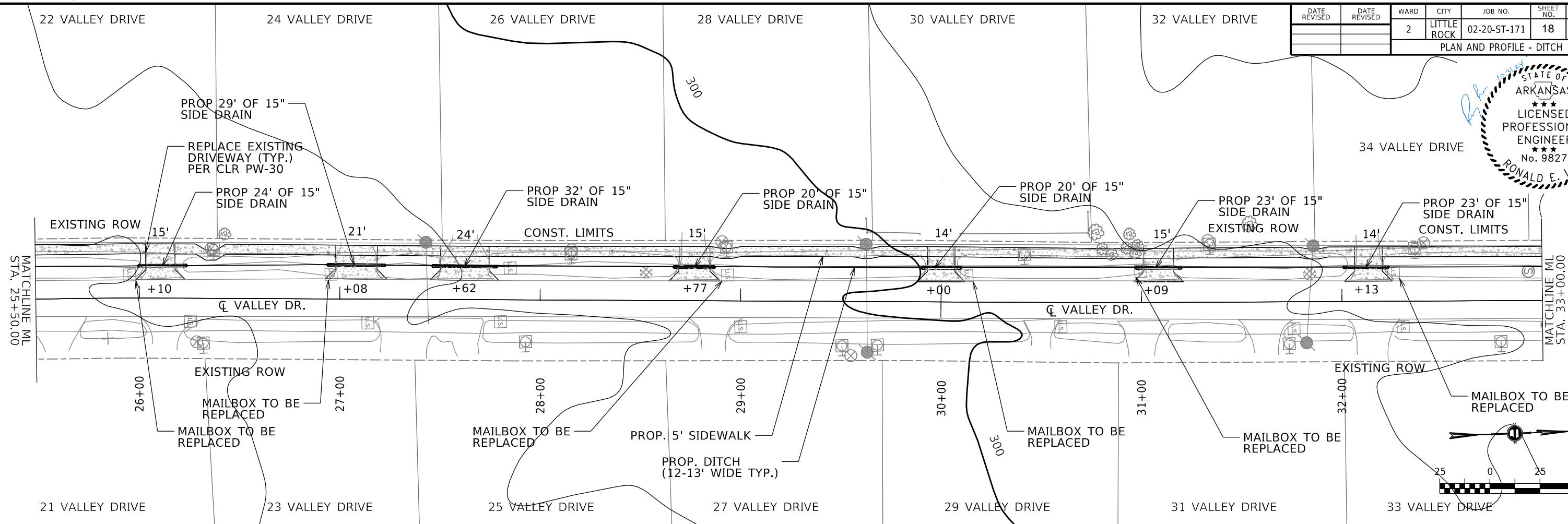
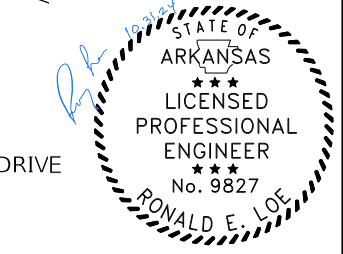
03 - VALLEY_PLAN AND PROFILE - DITCH.DGN CREATED: 3/12/2024 SAVED: 10/30/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	17	49



03 - VALLEY_PLAN AND PROFILE - DITCH.DGN CREATED: 3/12/2024 SAVED: 10/30/2024

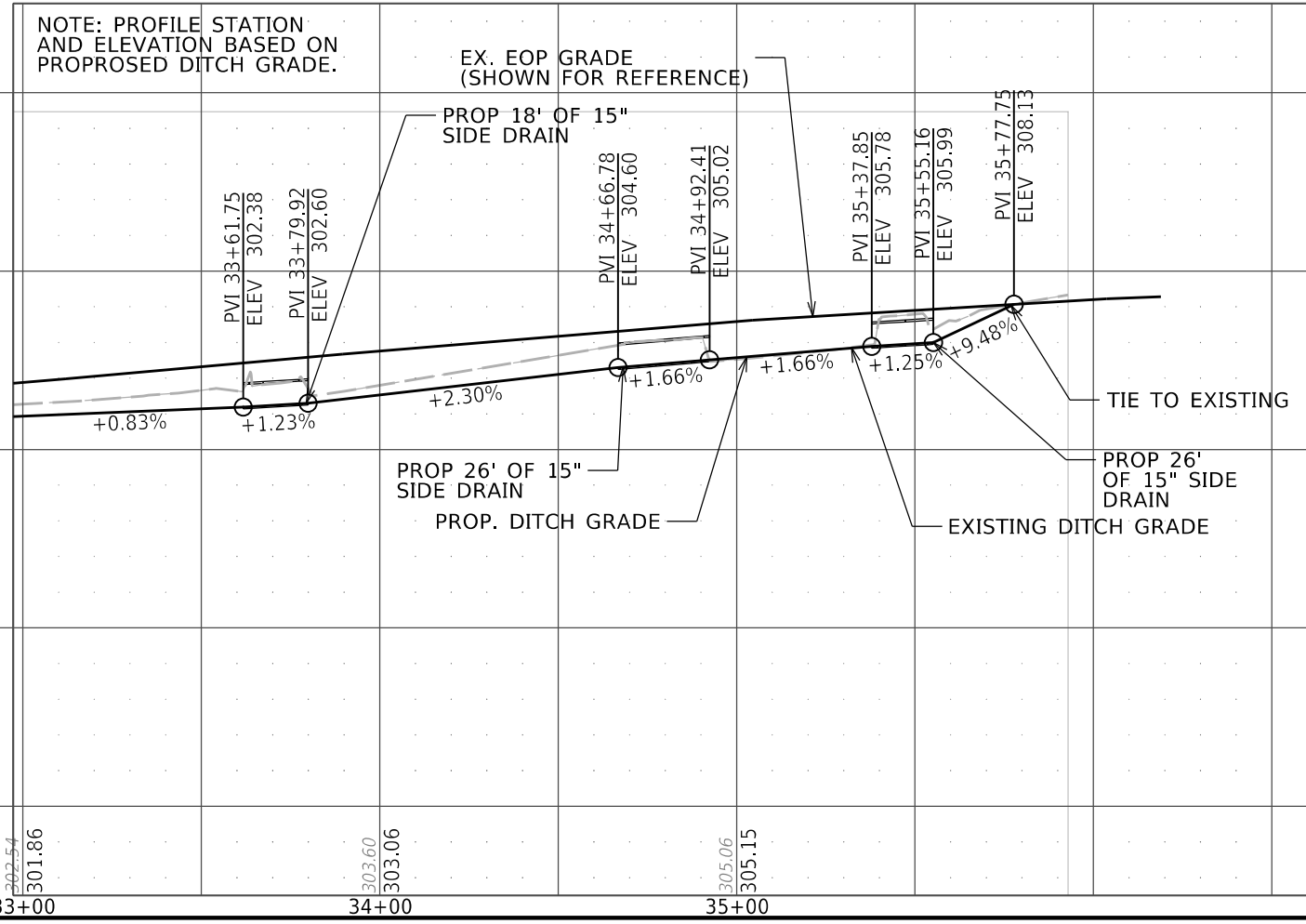
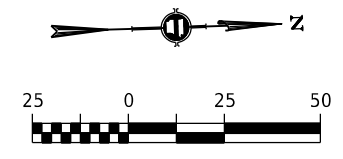
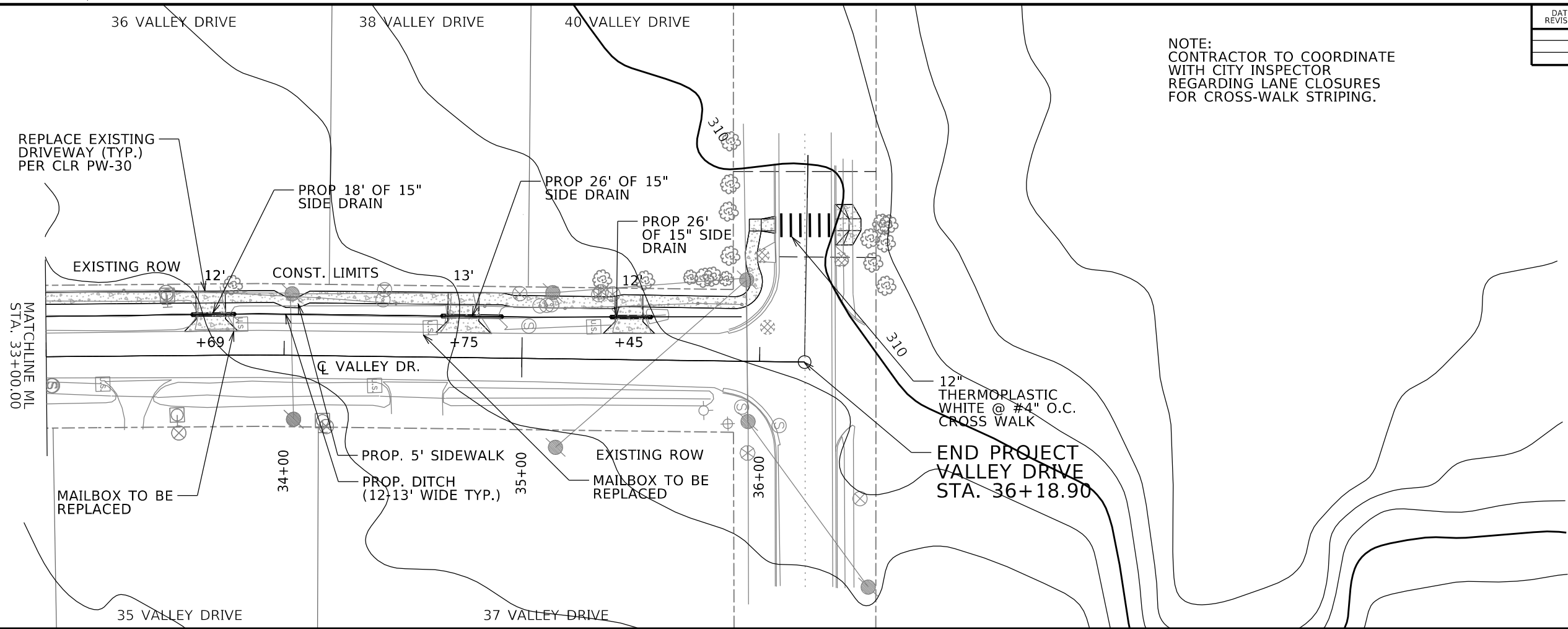
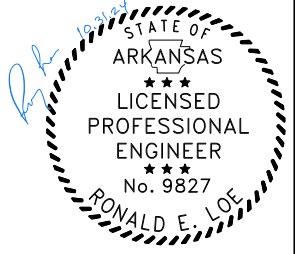
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	18	49



03 - VALLEY_PLAN AND PROFILE - DITCH.DGN CREATED: 3/12/2024 SAVED: 10/30/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	19	49
PLAN AND PROFILE - DITCH						

NOTE:
CONTRACTOR TO COORDINATE
WITH CITY INSPECTOR
REGARDING LANE CLOSURES
FOR CROSS-WALK STRIPING.

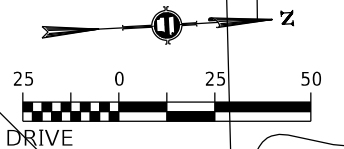
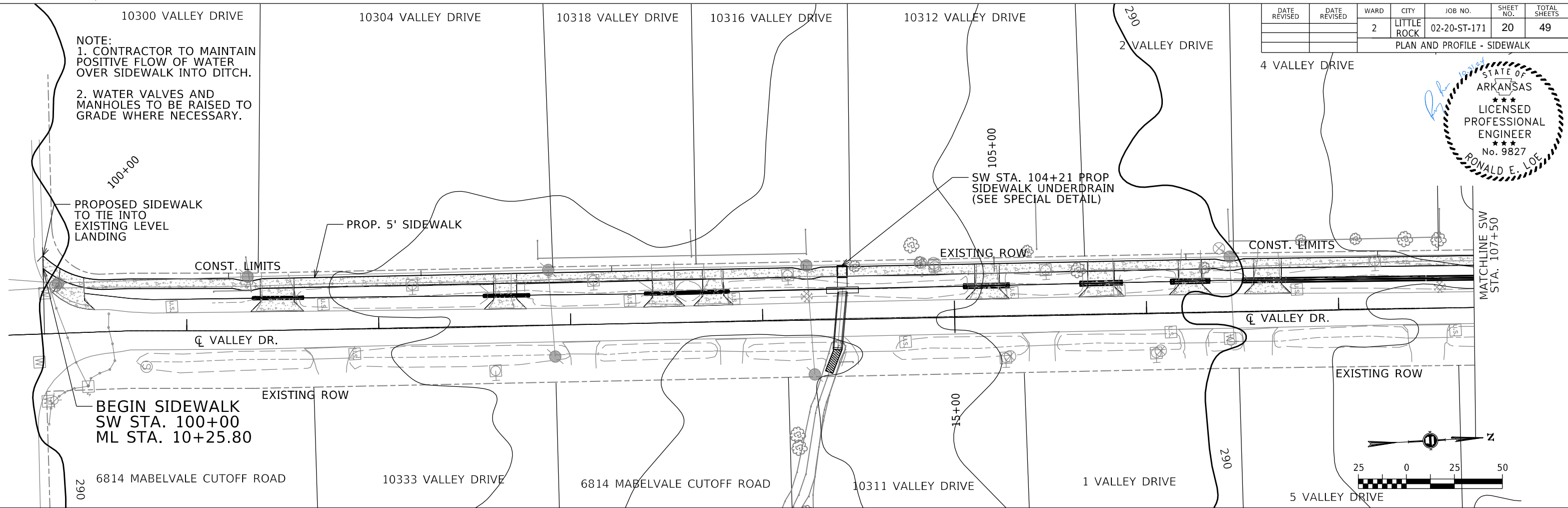


03 - VALLEY_PLAN_AND_PROFILE - DITCH.DGN CREATED: 3/12/2024 10:00:00 AM SAVED: 9/9/2024 10:00:00 AM

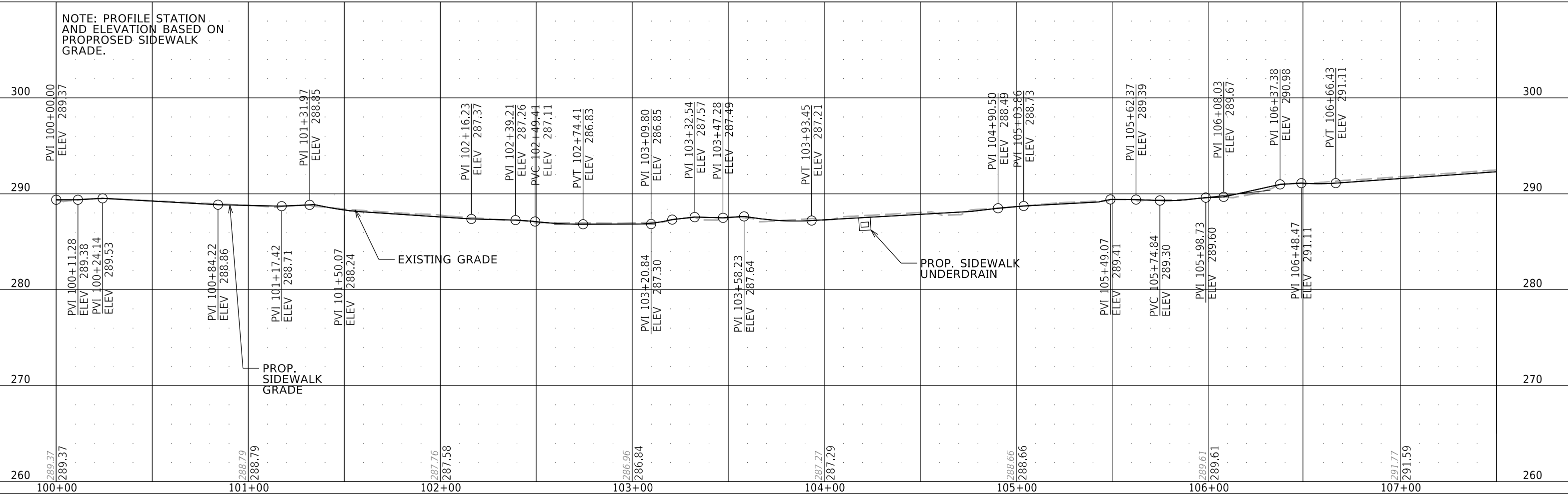
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	20	49
PLAN AND PROFILE - SIDEWALK						



NOTE:
 1. CONTRACTOR TO MAINTAIN POSITIVE FLOW OF WATER OVER SIDEWALK INTO DITCH.
 2. WATER VALVES AND MANHOLES TO BE RAISED TO GRADE WHERE NECESSARY.

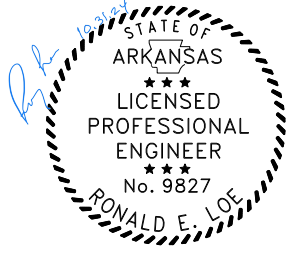


OX - VALLEY_PLAN AND PROFILE - SIDEWALK.DGN CREATED: 6/7/2024 - SAVED: 10/29/2024

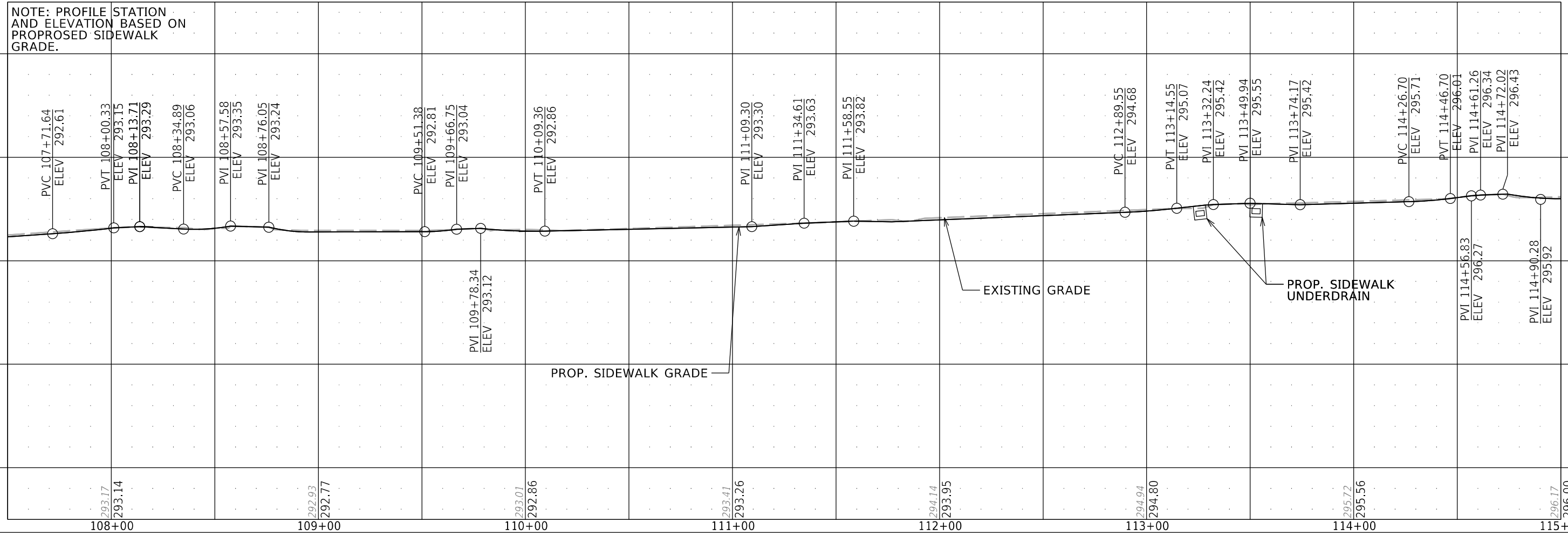
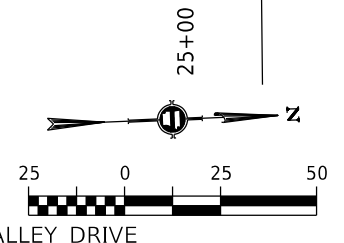
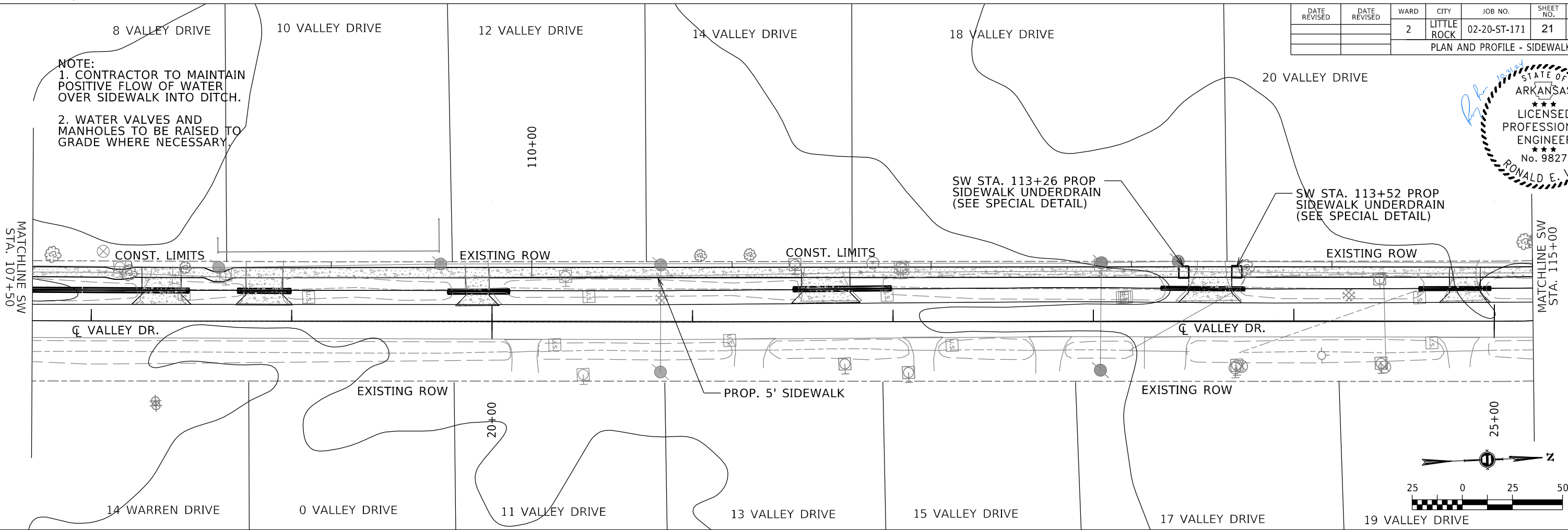


DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	21	49

PLAN AND PROFILE - SIDEWALK



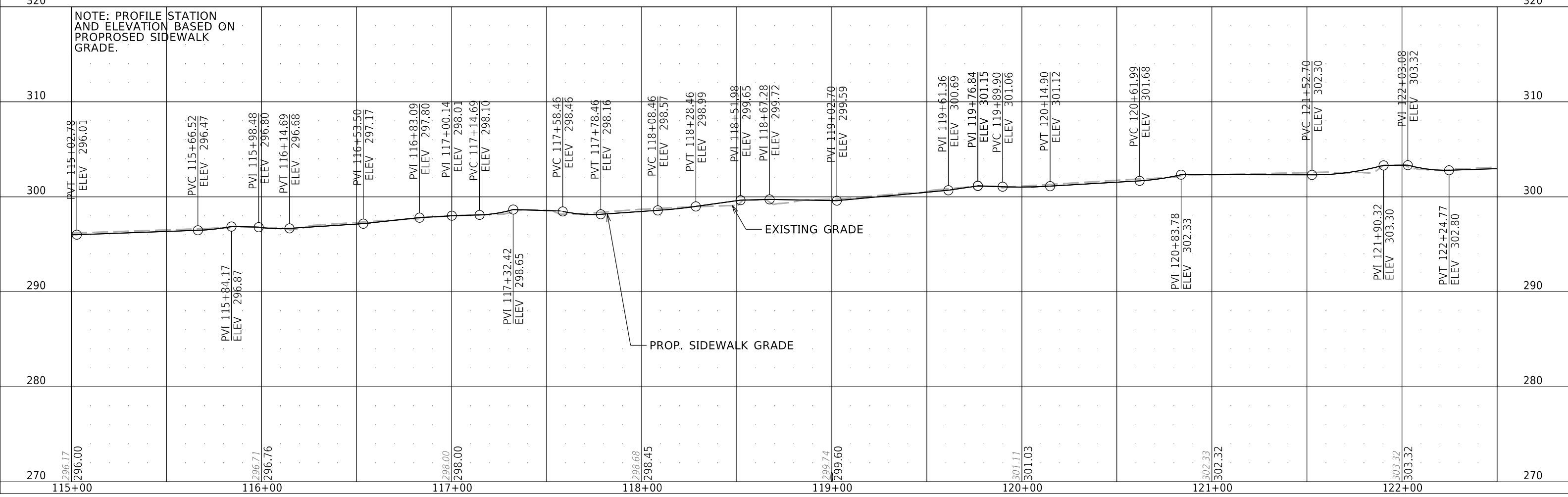
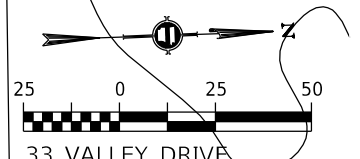
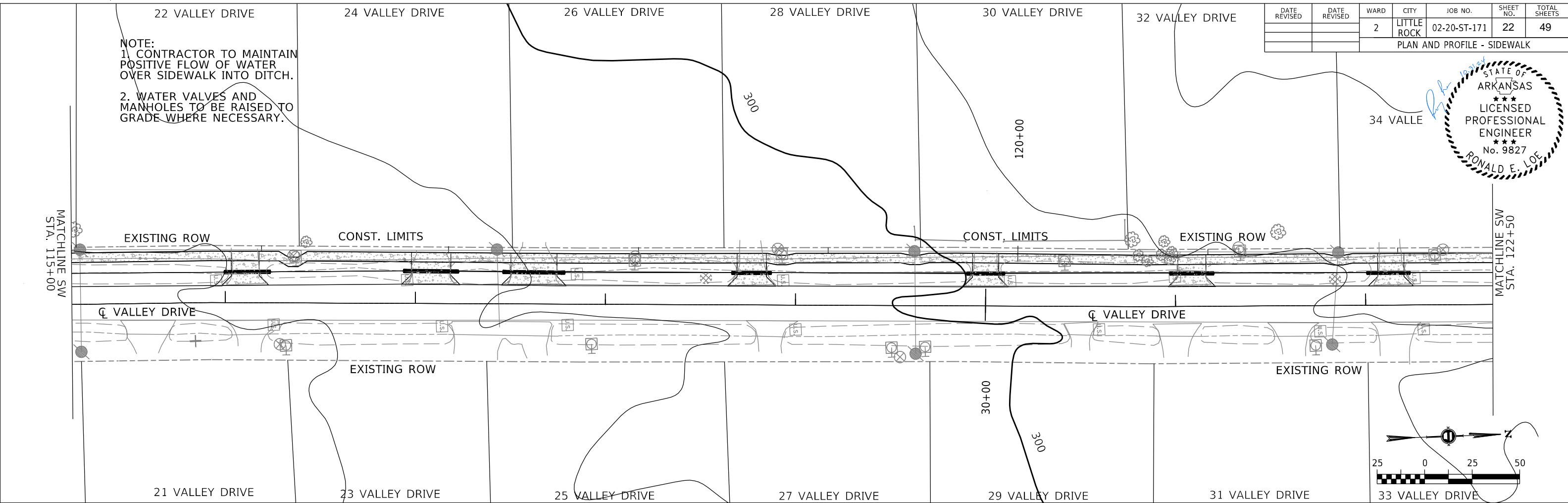
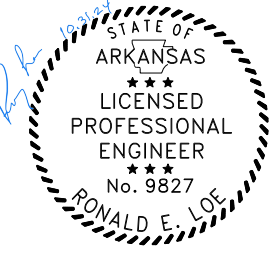
NOTE:
 1. CONTRACTOR TO MAINTAIN POSITIVE FLOW OF WATER OVER SIDEWALK INTO DITCH.
 2. WATER VALVES AND MANHOLES TO BE RAISED TO GRADE WHERE NECESSARY.



OX - VALLEY_PLAN AND PROFILE - SIDEWALK.DGN CREATED: 6/7/2024 10:24:00 AM SAVED: 6/17/2024 10:24:00 AM

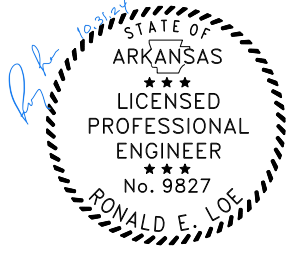
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	22	49
PLAN AND PROFILE - SIDEWALK						

NOTE:
 1. CONTRACTOR TO MAINTAIN POSITIVE FLOW OF WATER OVER SIDEWALK INTO DITCH.
 2. WATER VALVES AND MANHOLES TO BE RAISED TO GRADE WHERE NECESSARY.



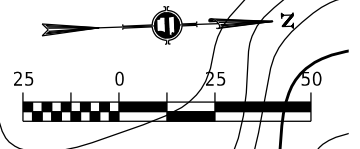
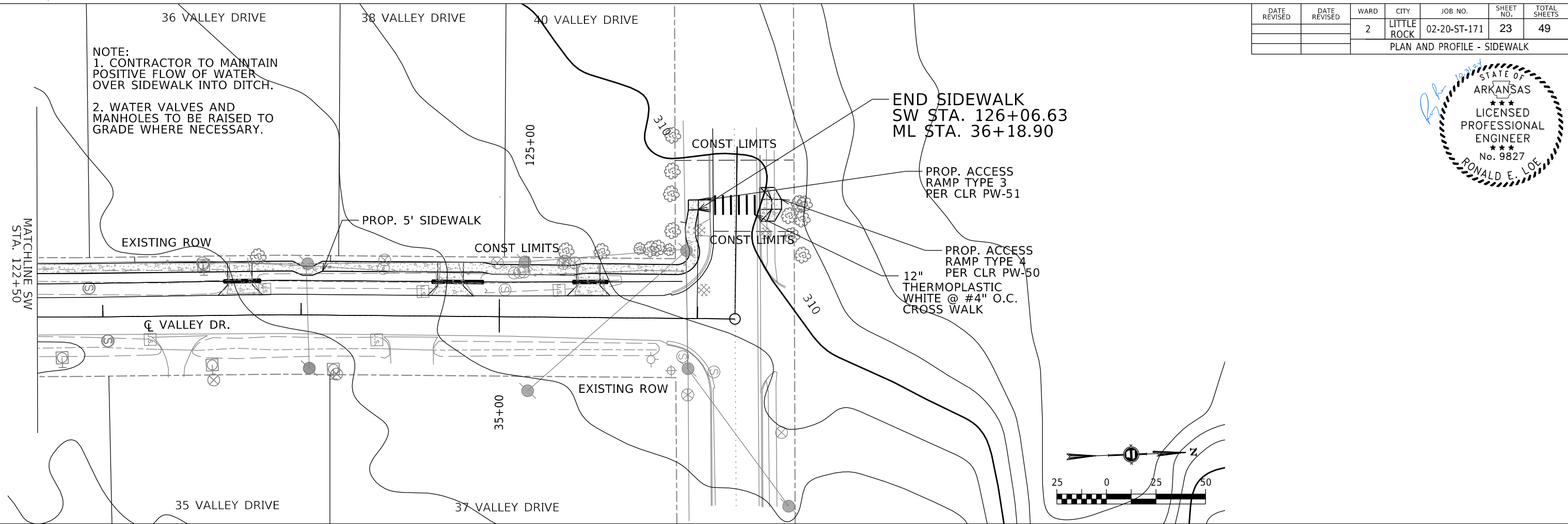
OX - VALLEY_PLAN AND PROFILE - SIDEWALK.DGN CREATED: 6/7/2024 6:11/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	23	49
PLAN AND PROFILE - SIDEWALK						

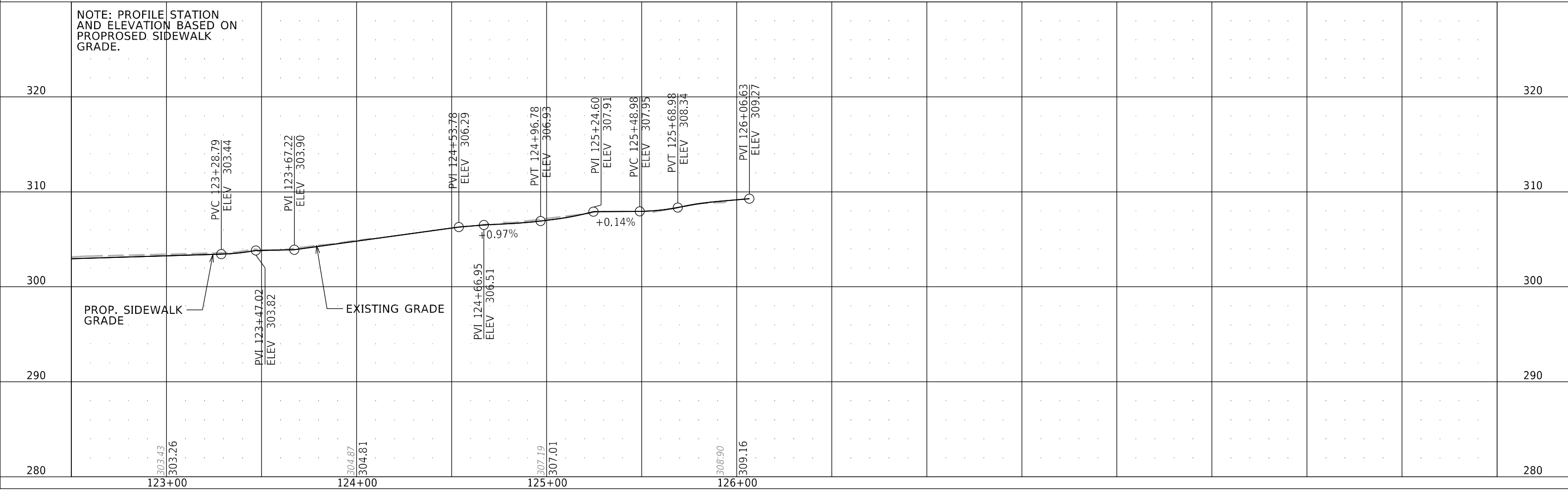


NOTE:
 1. CONTRACTOR TO MAINTAIN POSITIVE FLOW OF WATER OVER SIDEWALK INTO DITCH.
 2. WATER VALVES AND MANHOLES TO BE RAISED TO GRADE WHERE NECESSARY.

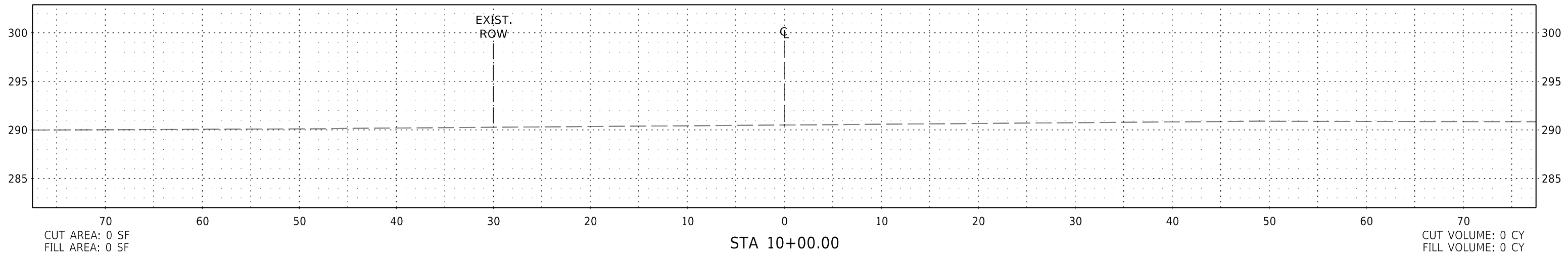
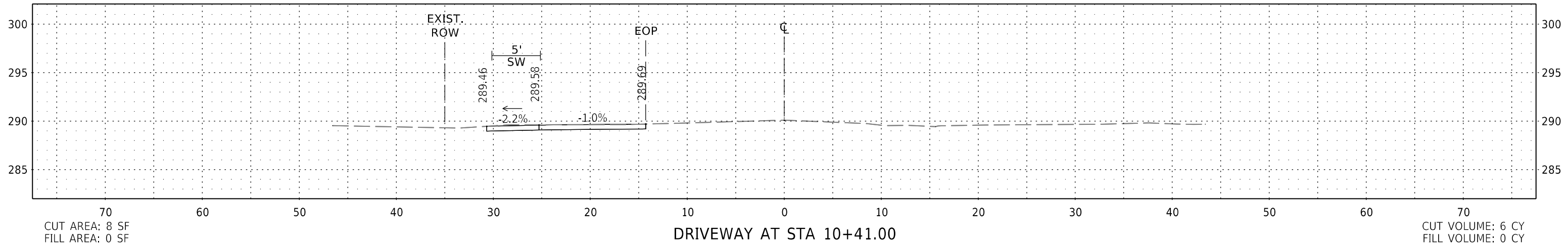
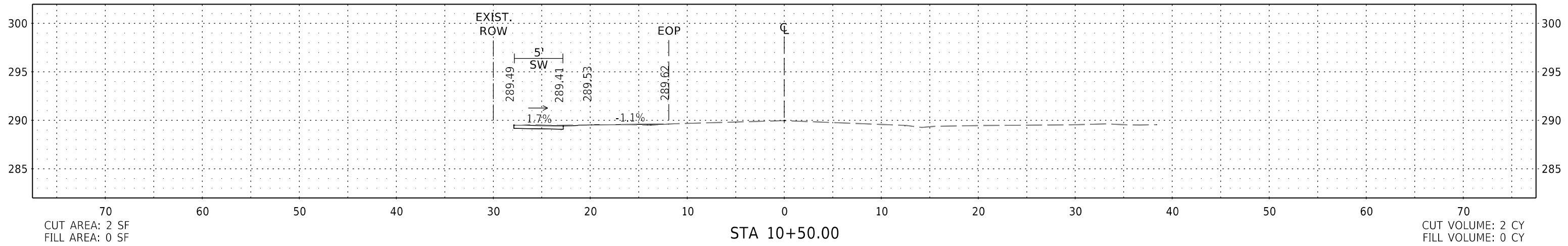
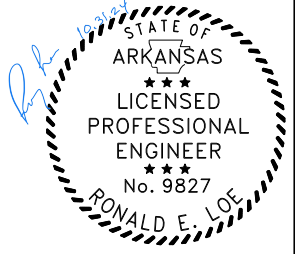
END SIDEWALK
 SW STA. 126+06.63
 ML STA. 36+18.90



NOTE: PROFILE STATION AND ELEVATION BASED ON PROPOSED SIDEWALK GRADE.

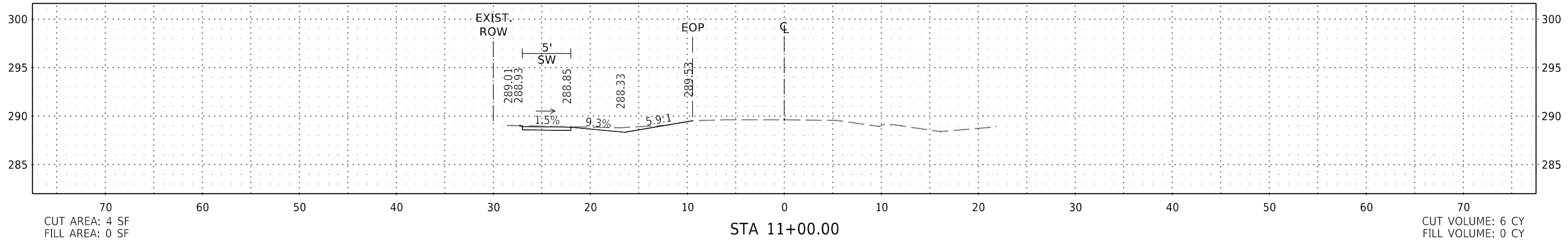
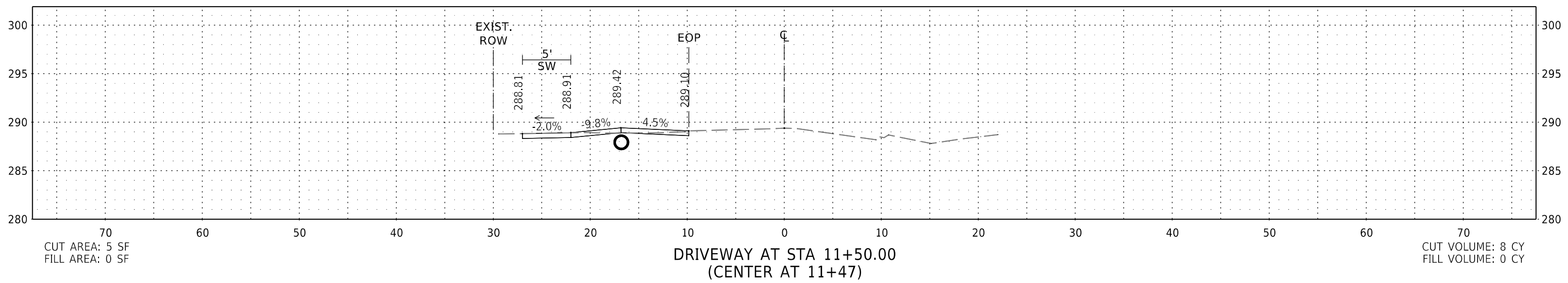
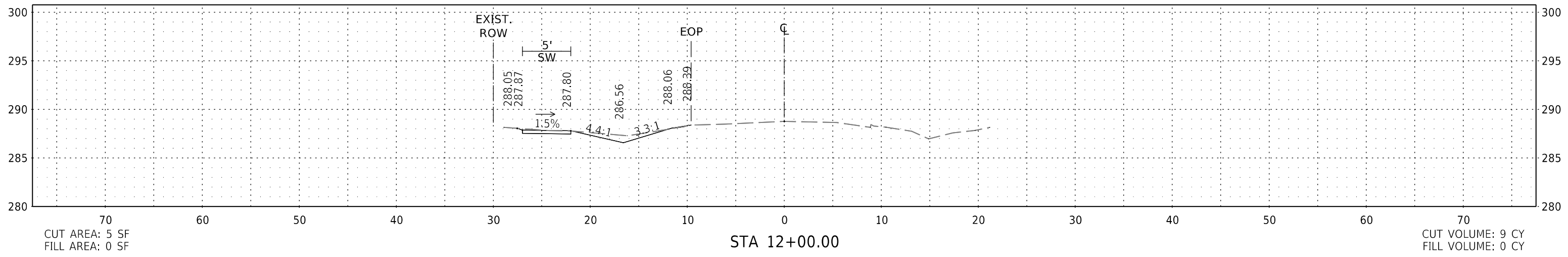
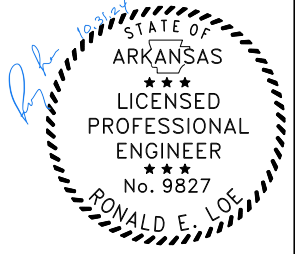


DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	24	49
CROSS SECTIONS						



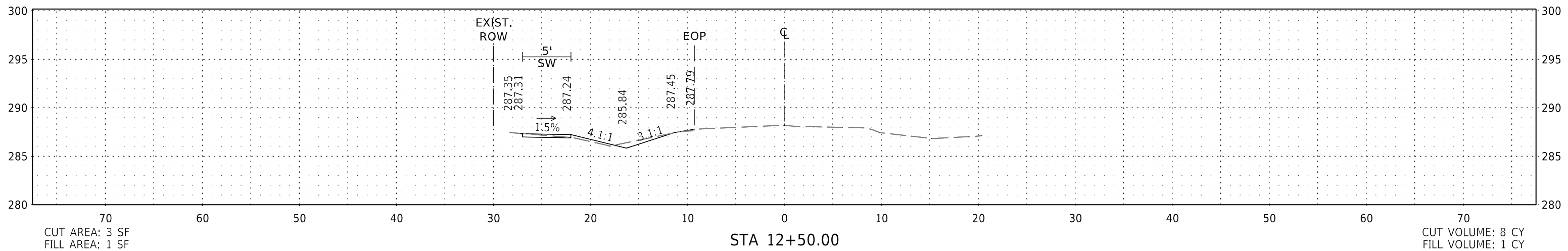
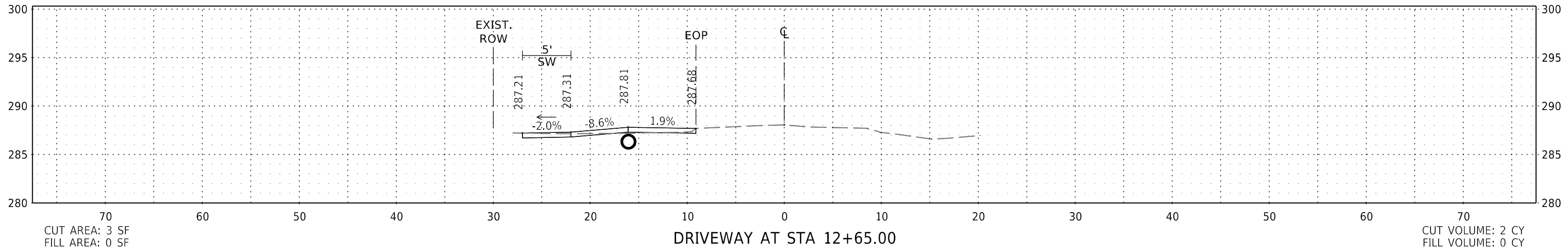
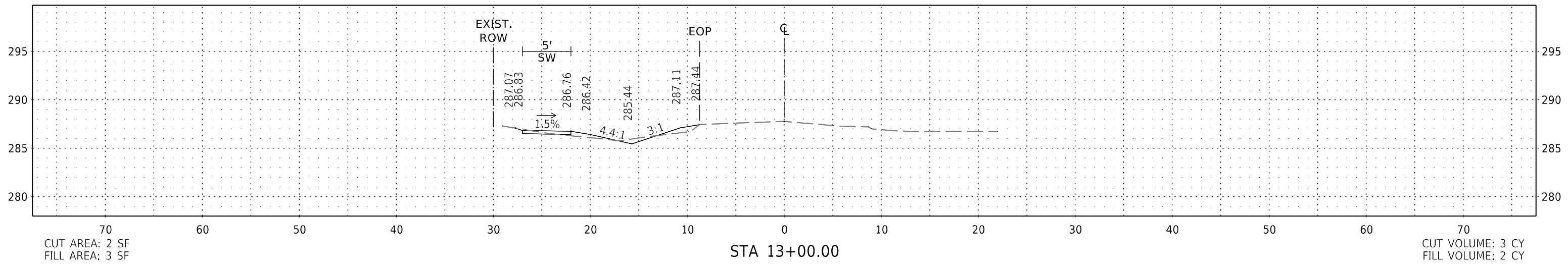
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	25	49
CROSS SECTIONS						



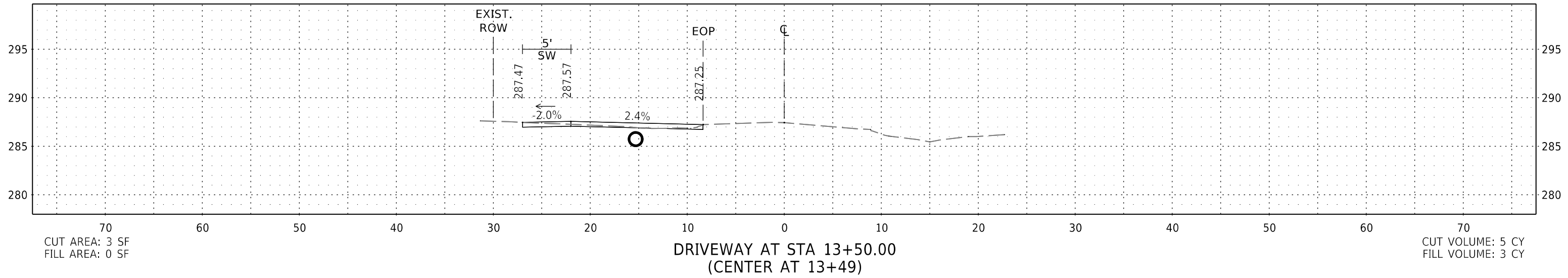
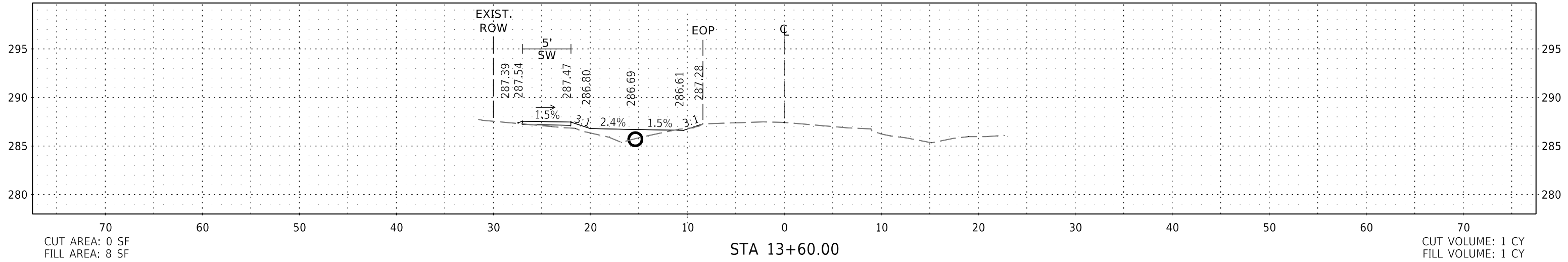
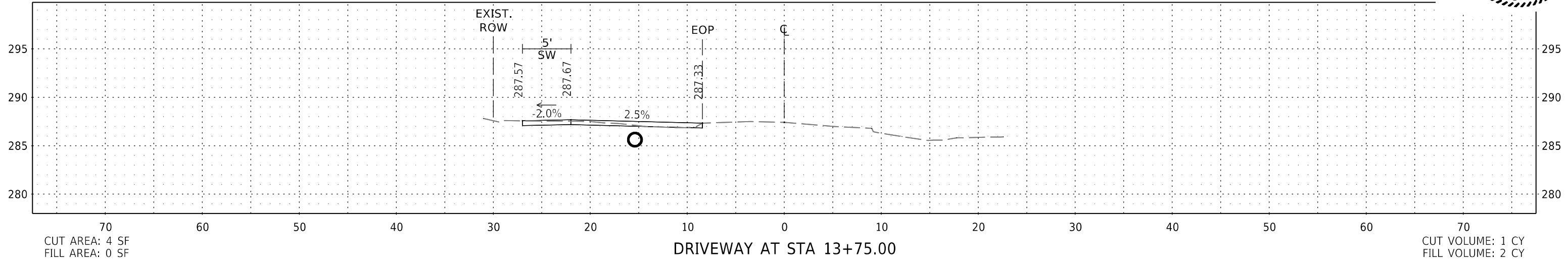
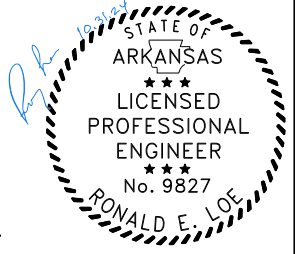
OX - VALLEY_XS.DGN CREATED: 5/24/2024 SAVED: 6/11/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	26	49
CROSS SECTIONS						



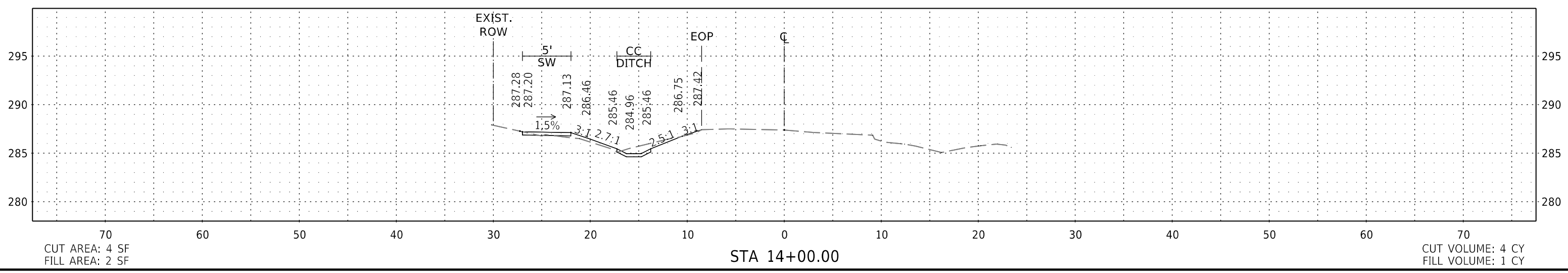
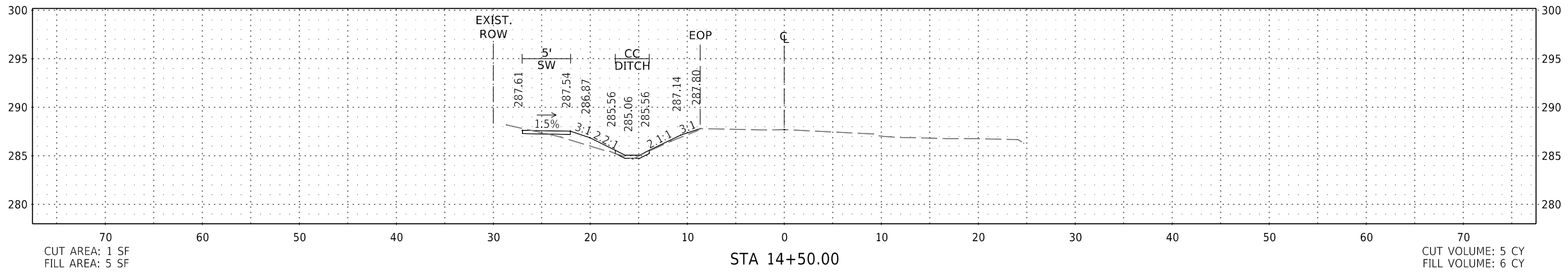
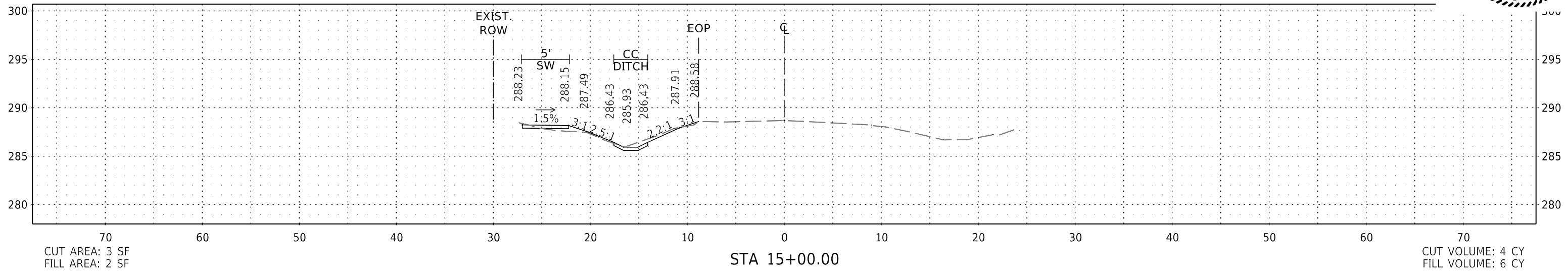
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:24:24 PM SAVED: 6/11/2024 10:00:00 AM

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	27	49
CROSS SECTIONS						



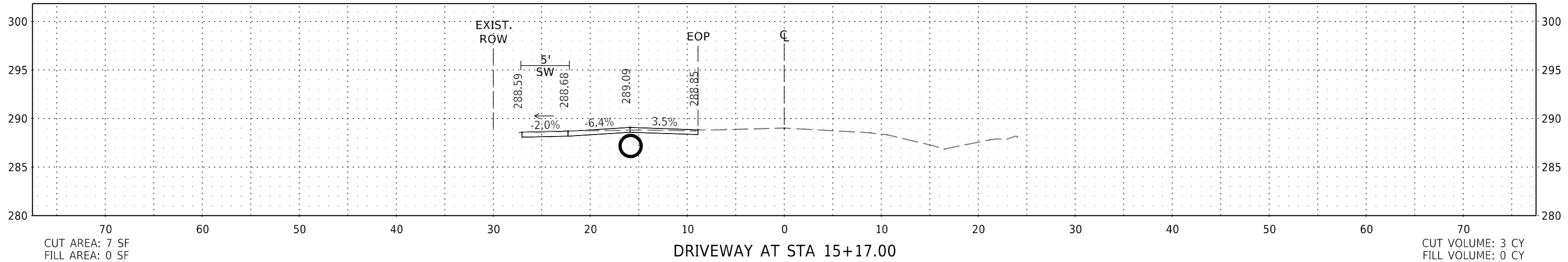
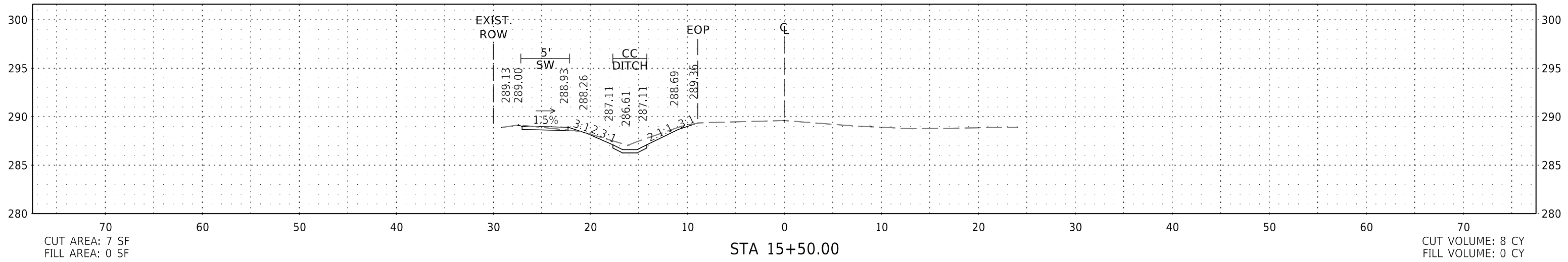
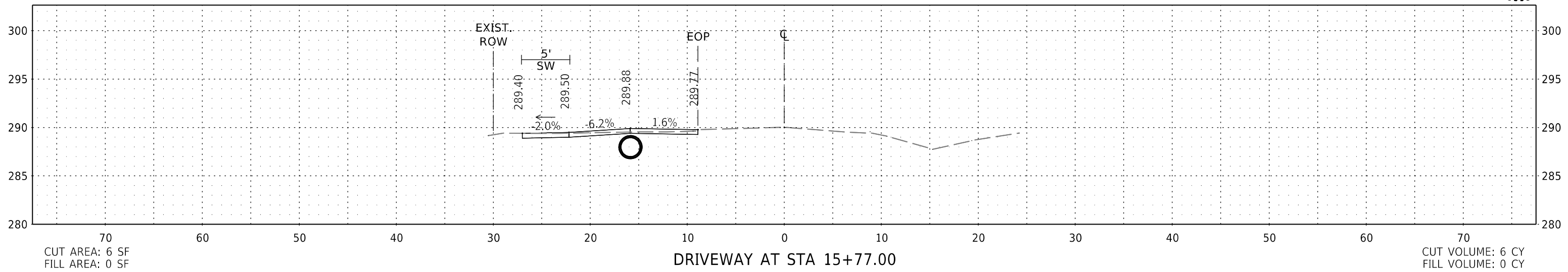
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:24:24 PM SAVED: 6/11/2024 10:11:11 AM

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	28	49
CROSS SECTIONS						



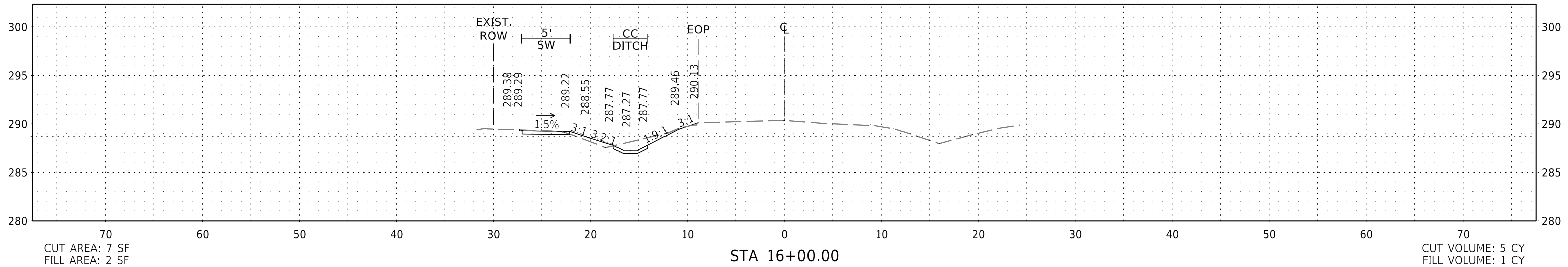
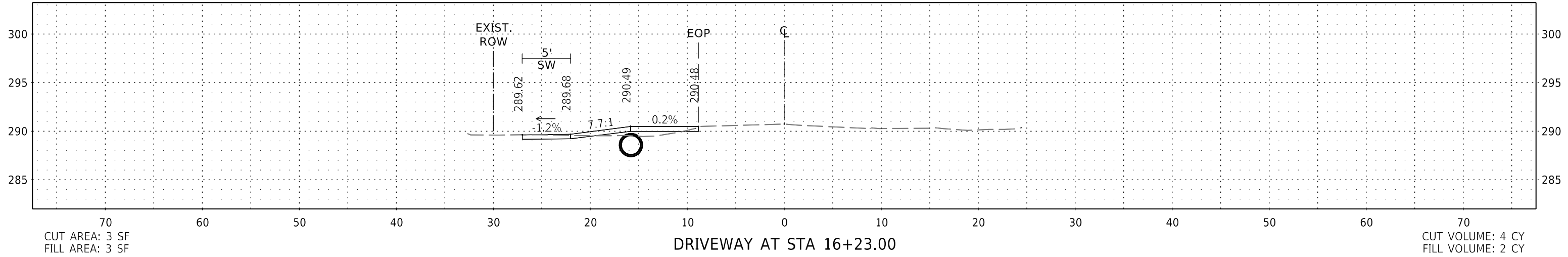
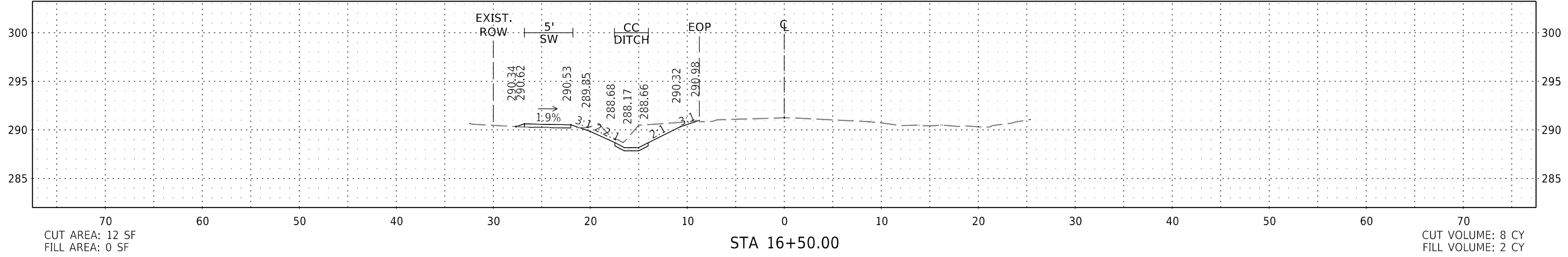
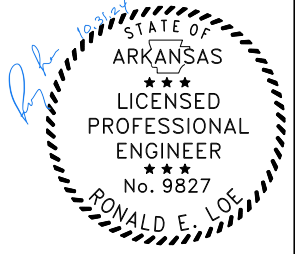
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28:24 PM SAVED: 5/28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	29	49
CROSS SECTIONS						



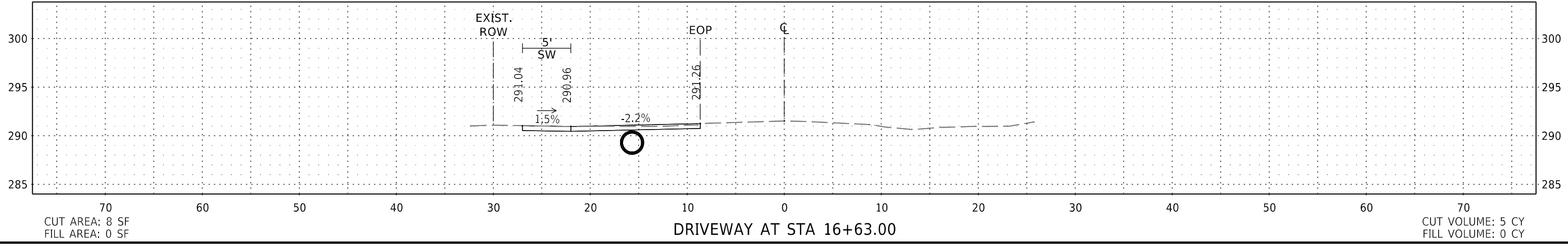
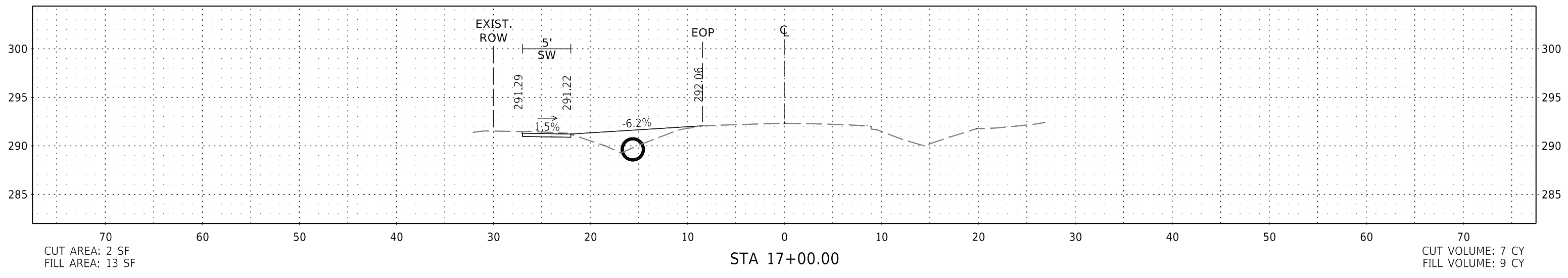
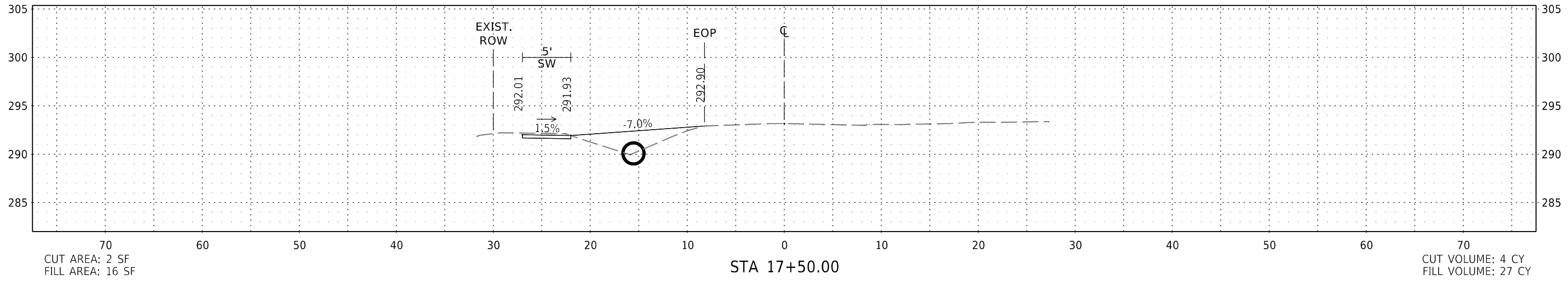
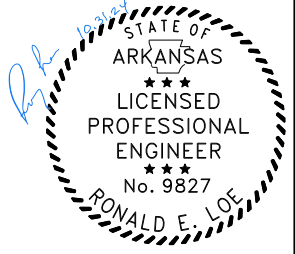
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	30	49
CROSS SECTIONS						



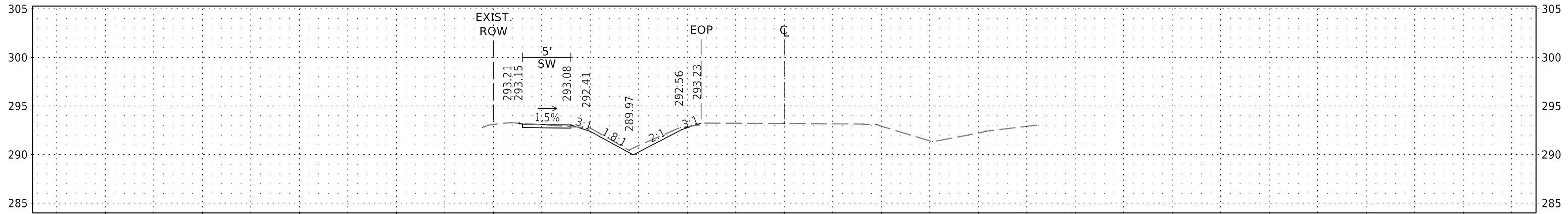
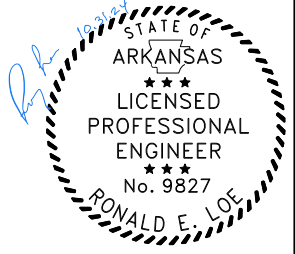
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:24:24 PM SAVED: 6/11/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	31	49
CROSS SECTIONS						



OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:29:24 PM SAVED: 5/29/2024

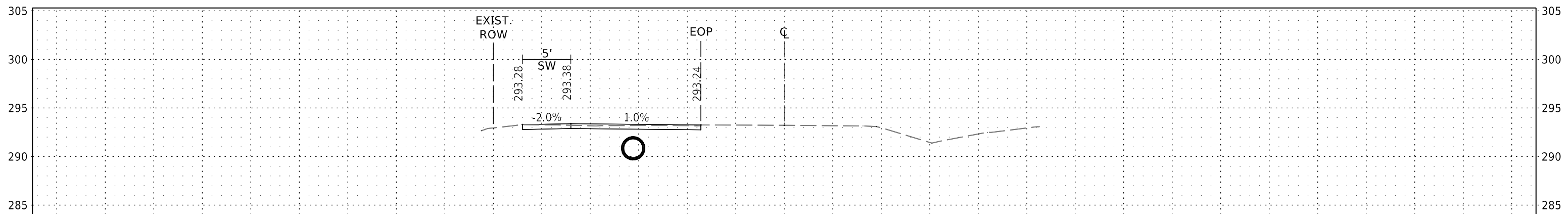
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	32	49
CROSS SECTIONS						



CUT AREA: 6 SF
 FILL AREA: 0 SF

STA 18+50.00

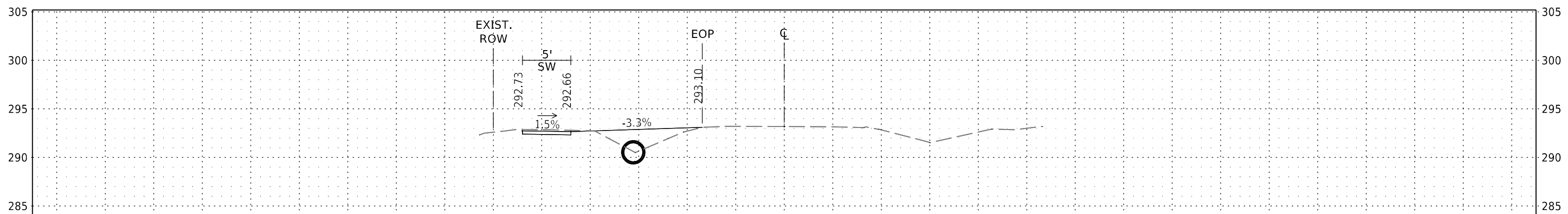
CUT VOLUME: 4 CY
 FILL VOLUME: 0 CY



CUT AREA: 7 SF
 FILL AREA: 0 SF

DRIVEWAY AT STA 18+35.00

CUT VOLUME: 6 CY
 FILL VOLUME: 8 CY



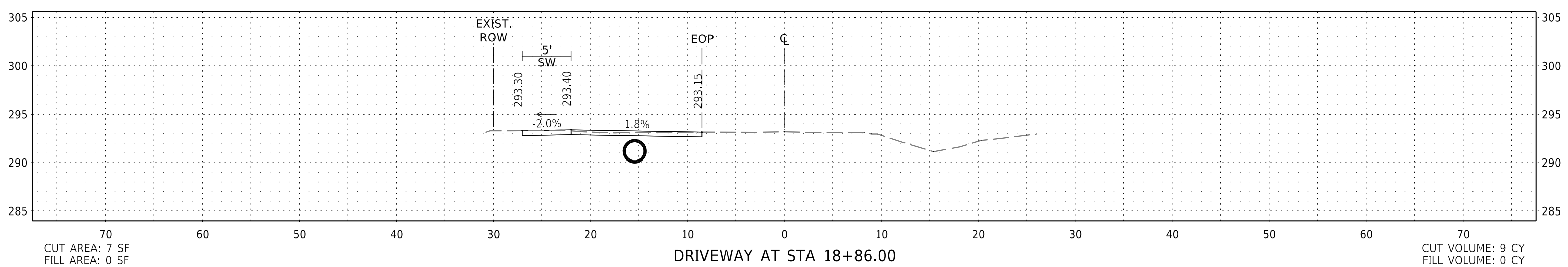
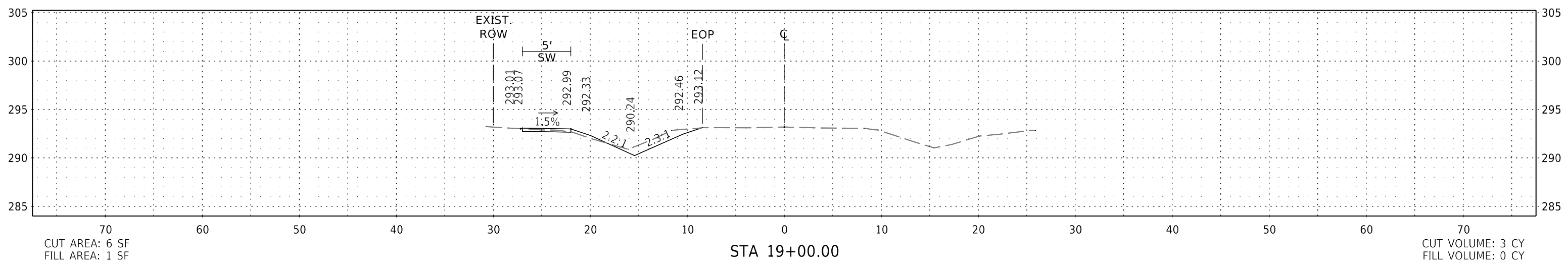
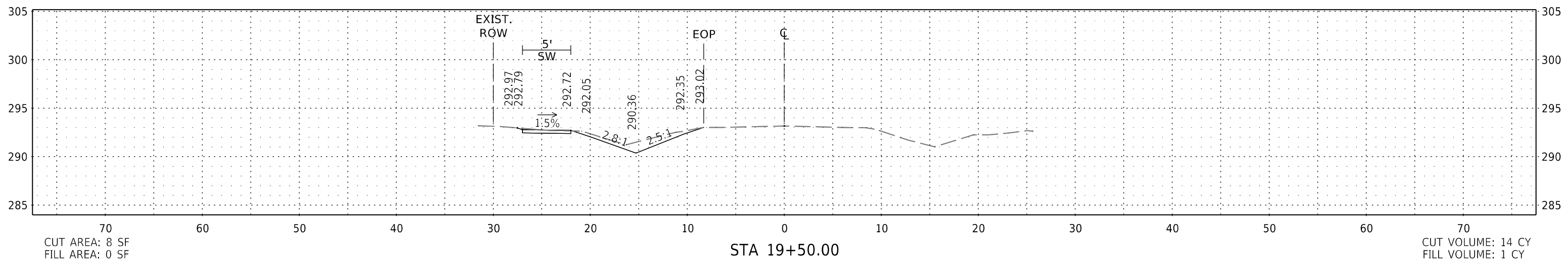
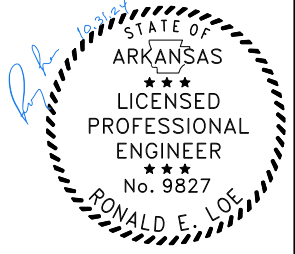
CUT AREA: 3 SF
 FILL AREA: 12 SF

STA 18+00.00

CUT VOLUME: 5 CY
 FILL VOLUME: 26 CY

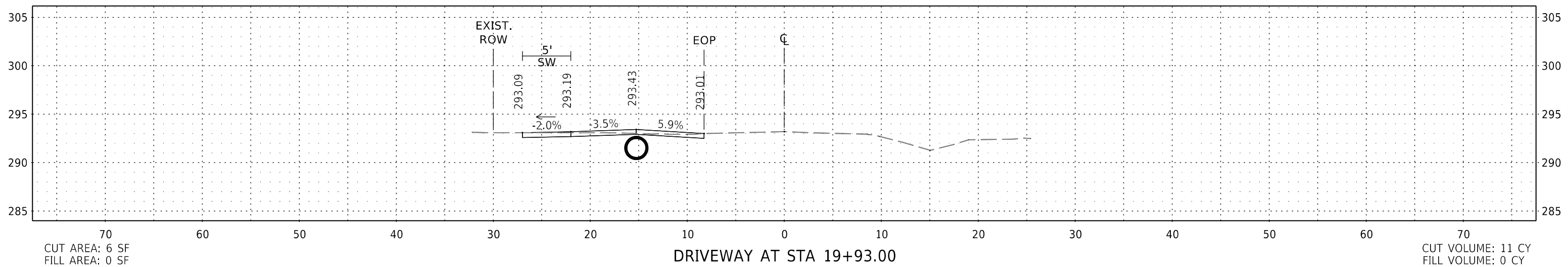
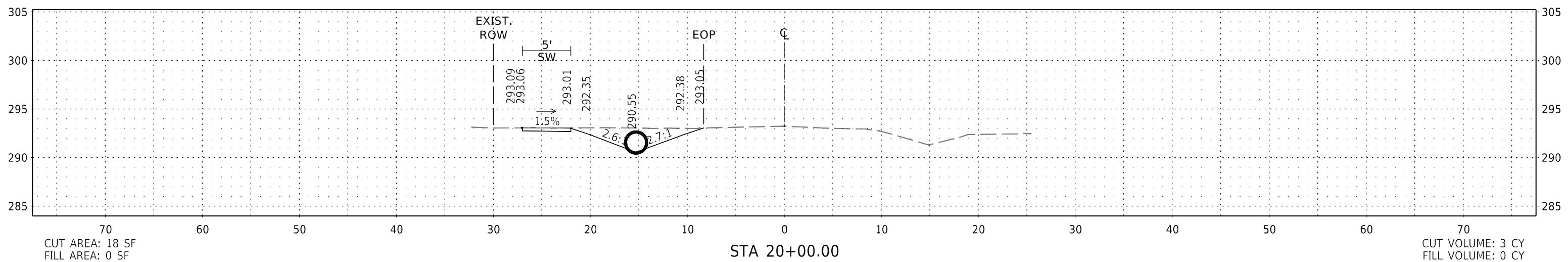
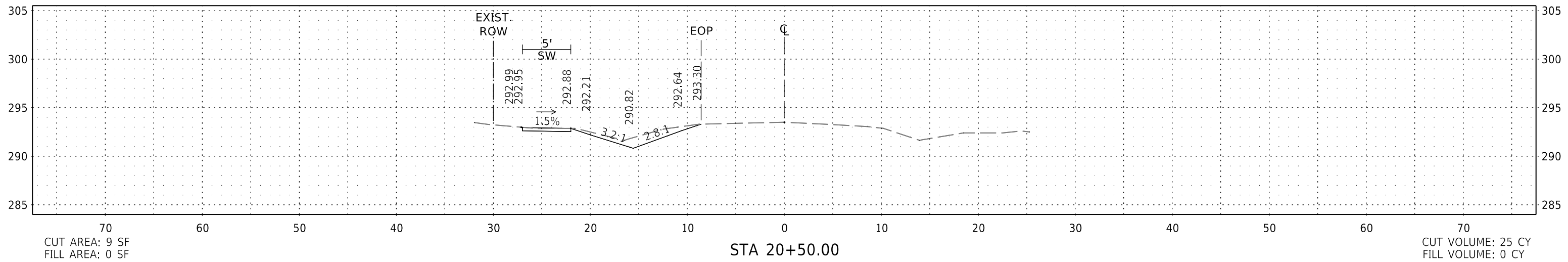
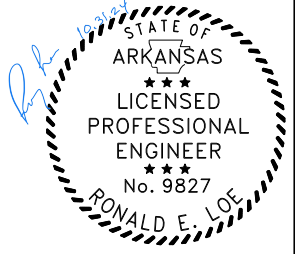
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	33	49
CROSS SECTIONS						



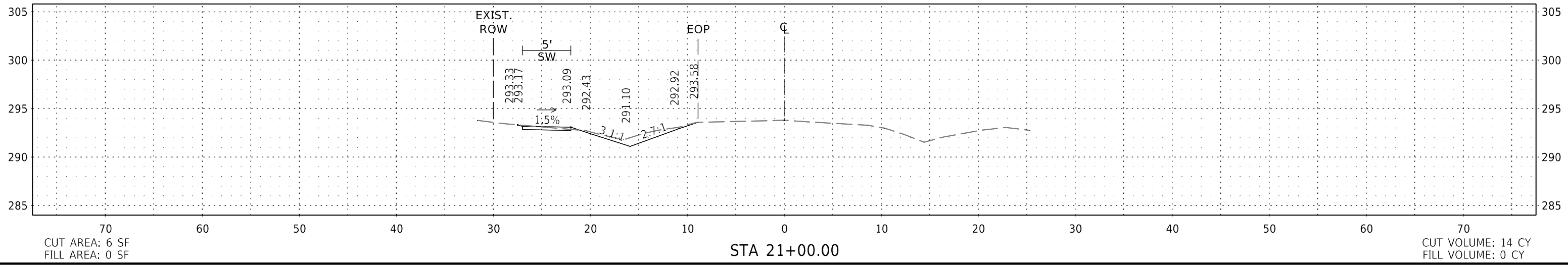
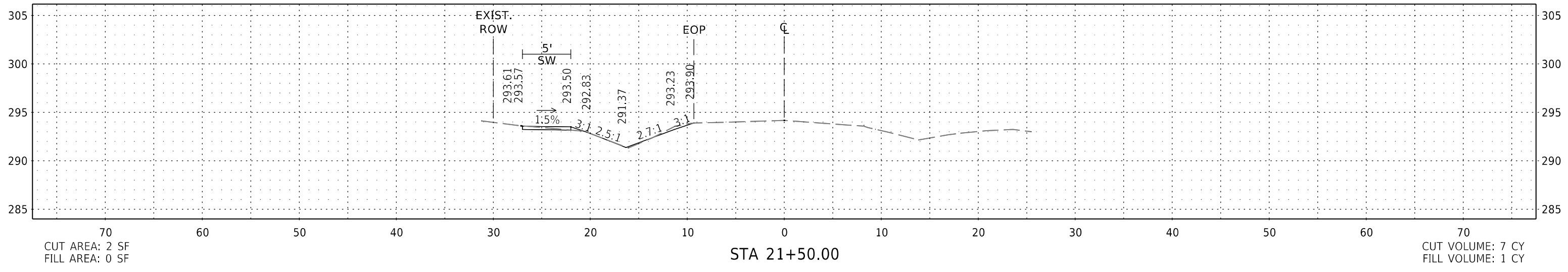
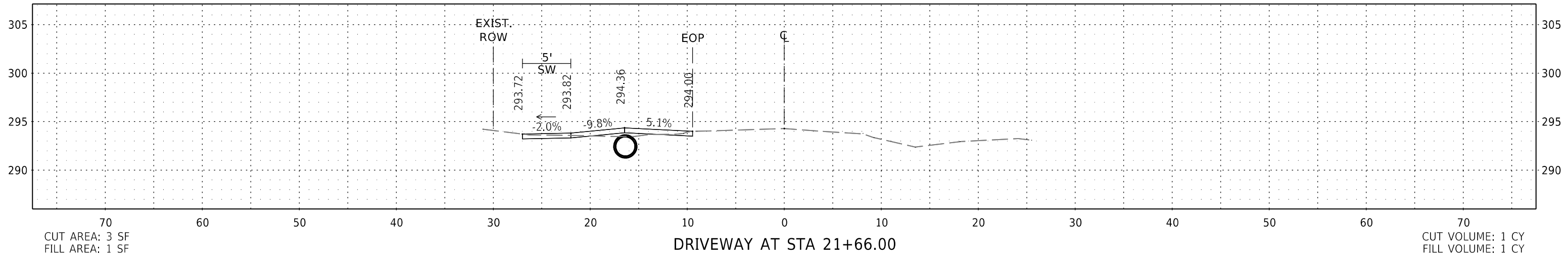
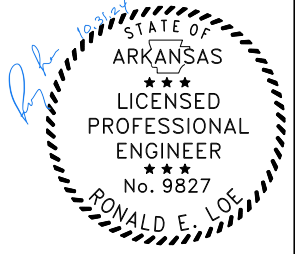
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	34	49
CROSS SECTIONS						



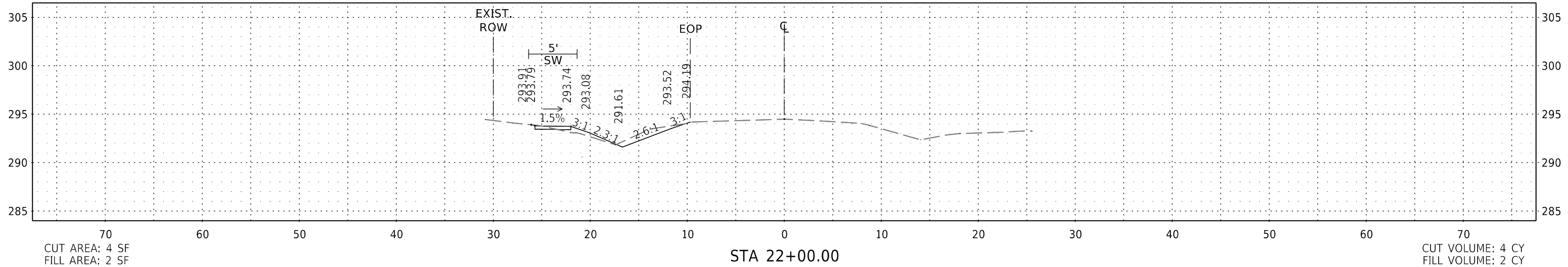
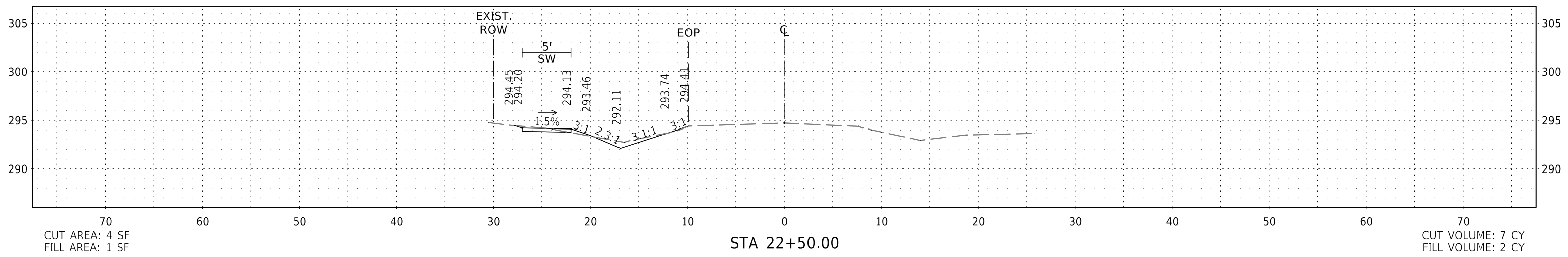
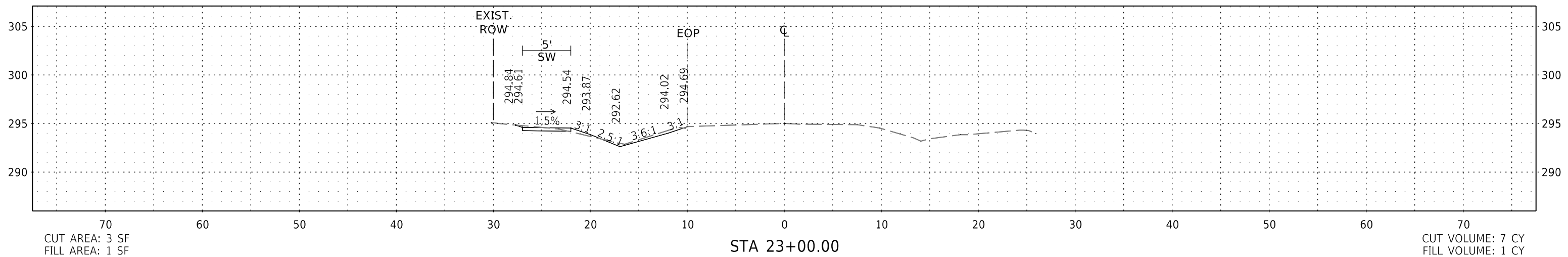
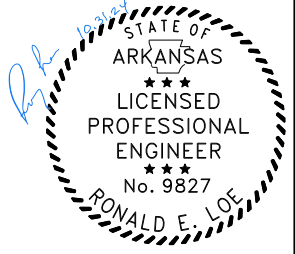
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	35	49
CROSS SECTIONS						



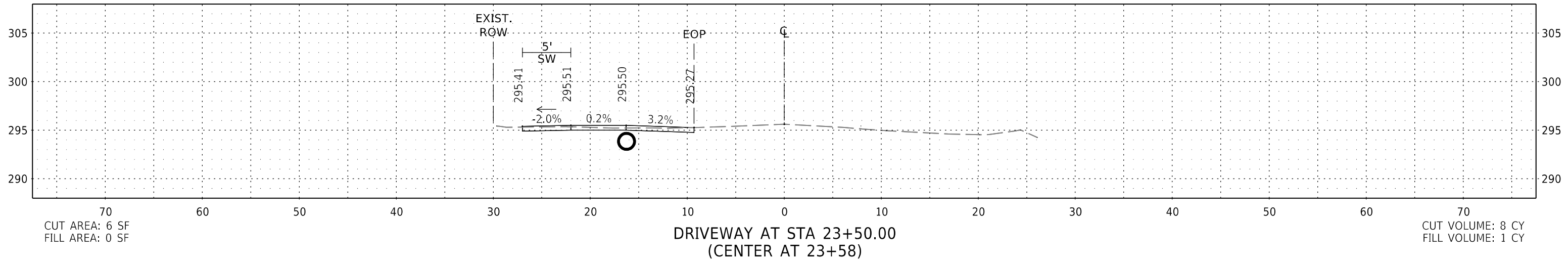
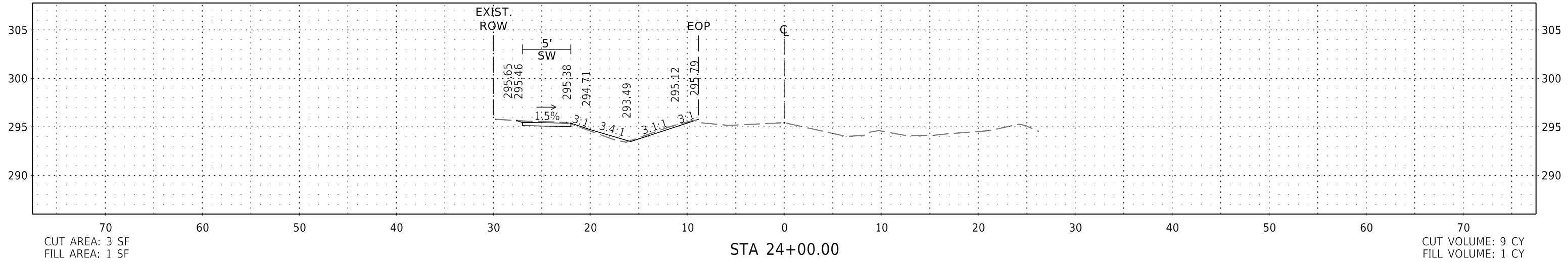
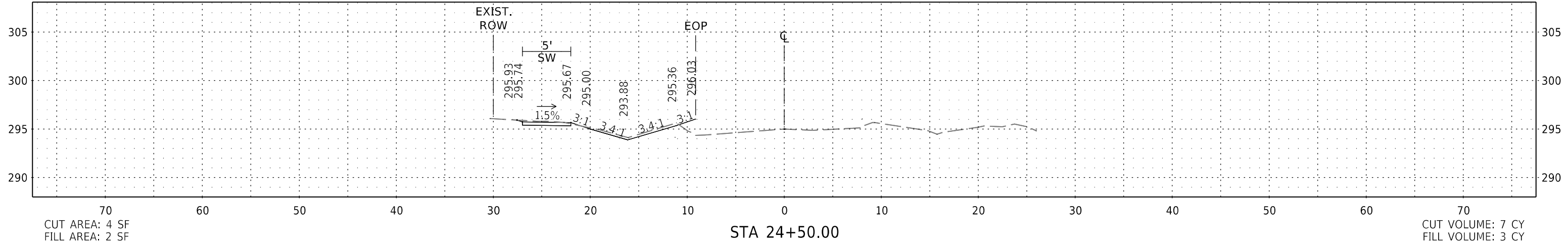
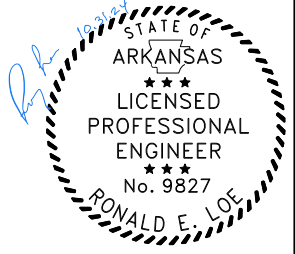
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28:24 PM SAVED: 5/28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	36	49
CROSS SECTIONS						



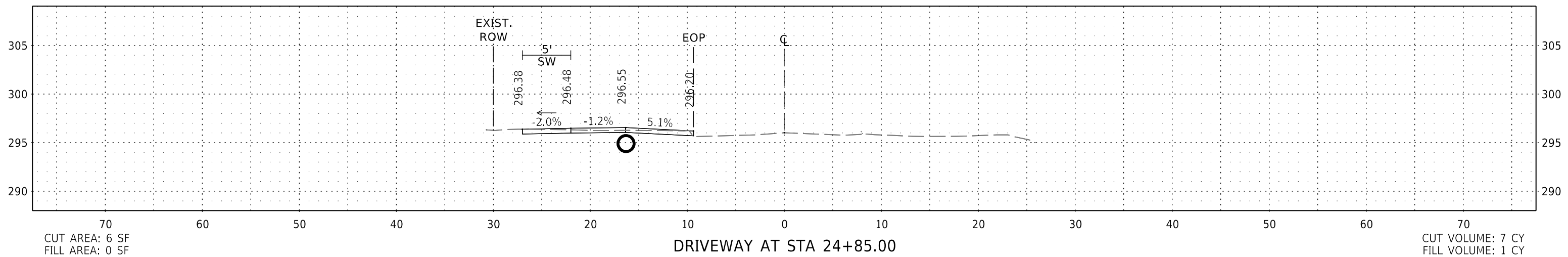
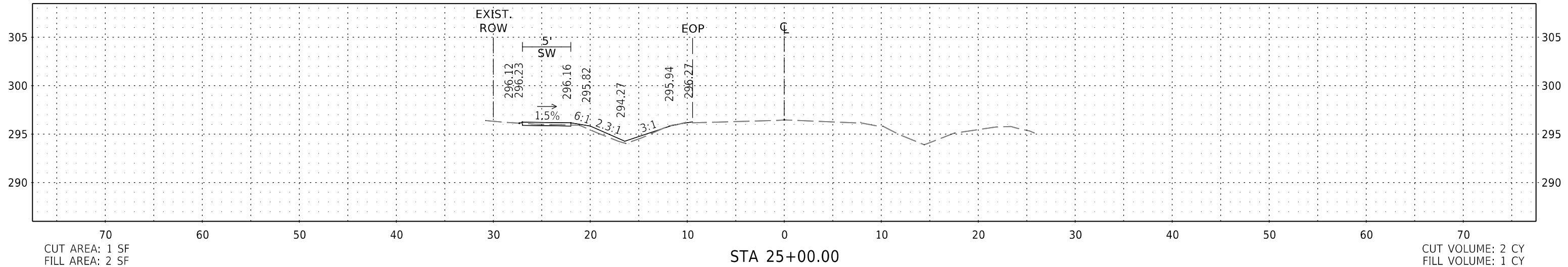
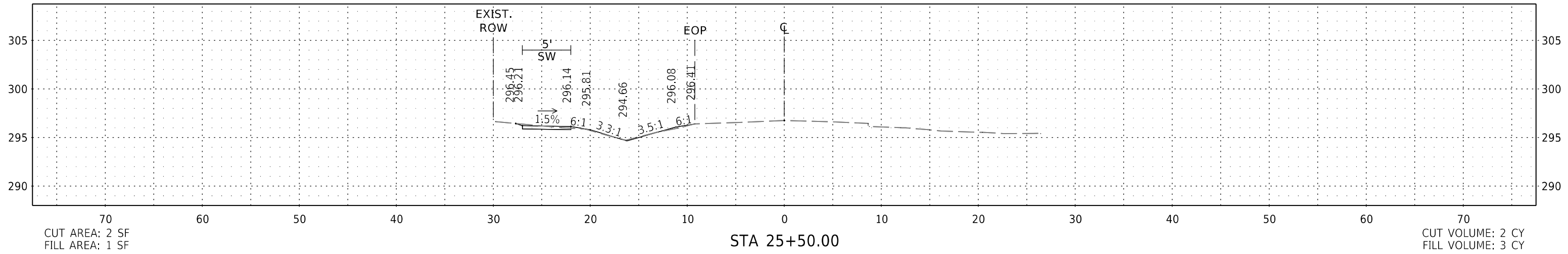
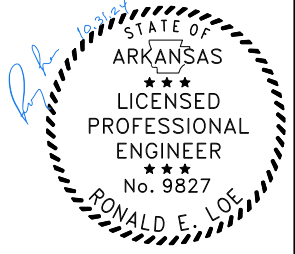
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	37	49
CROSS SECTIONS						



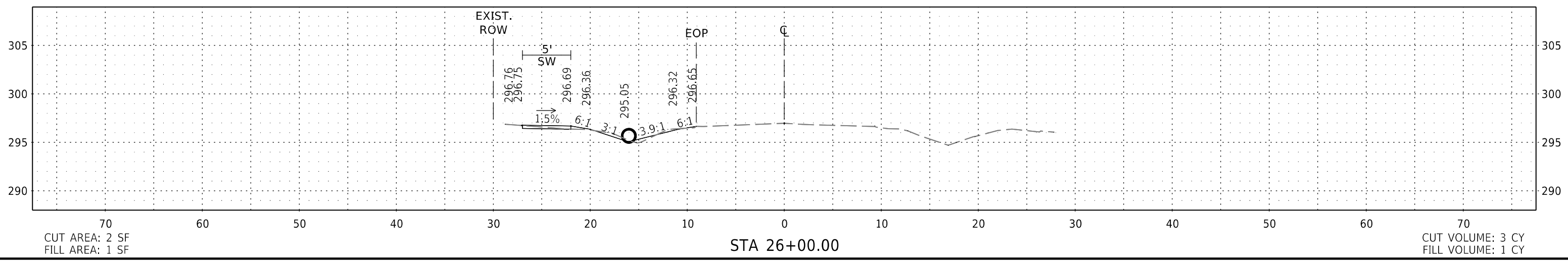
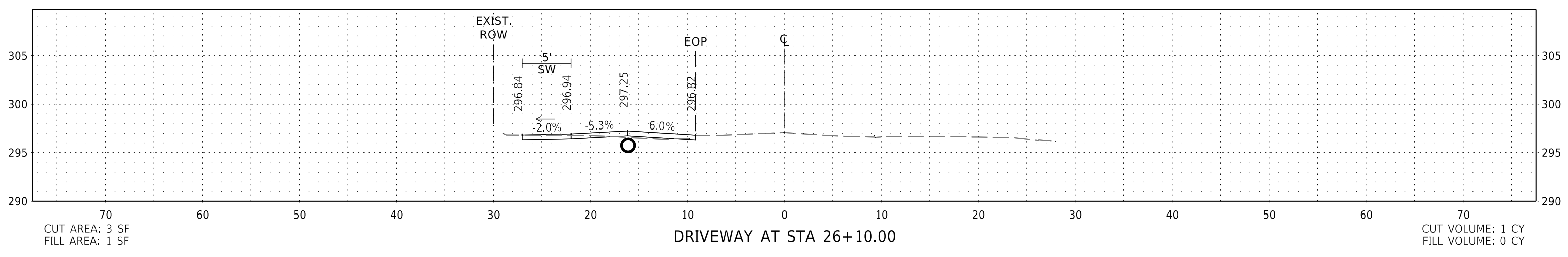
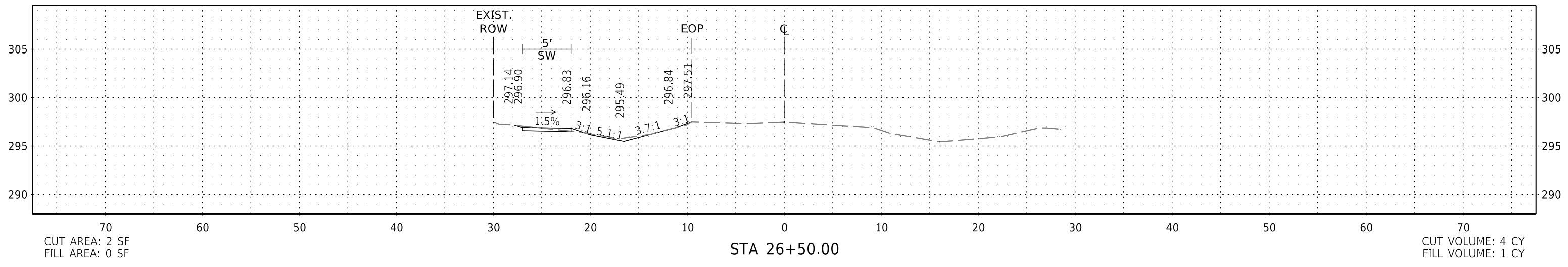
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	38	49
CROSS SECTIONS						



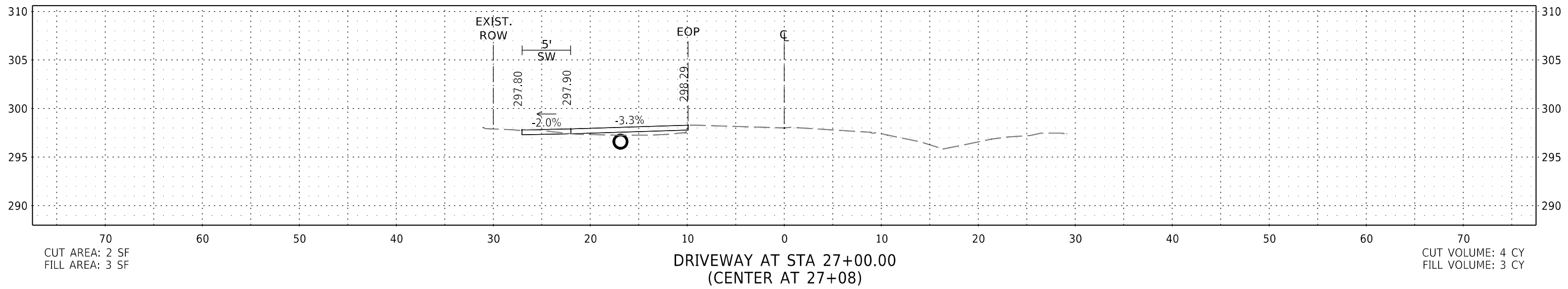
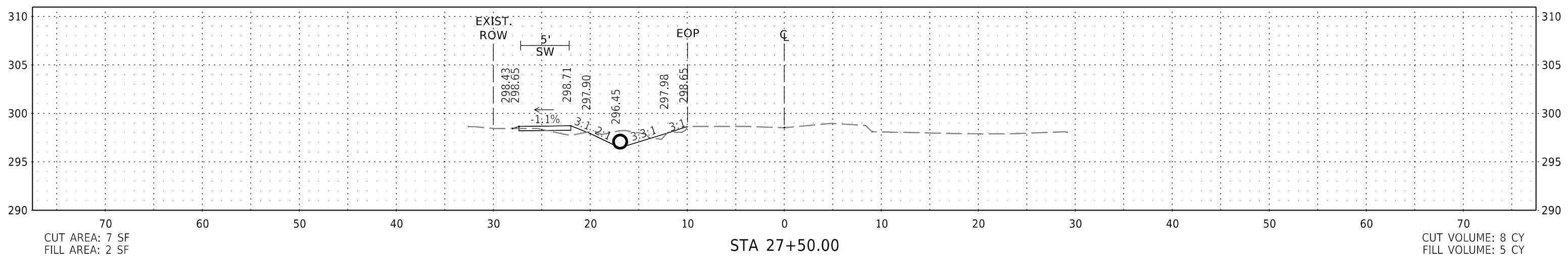
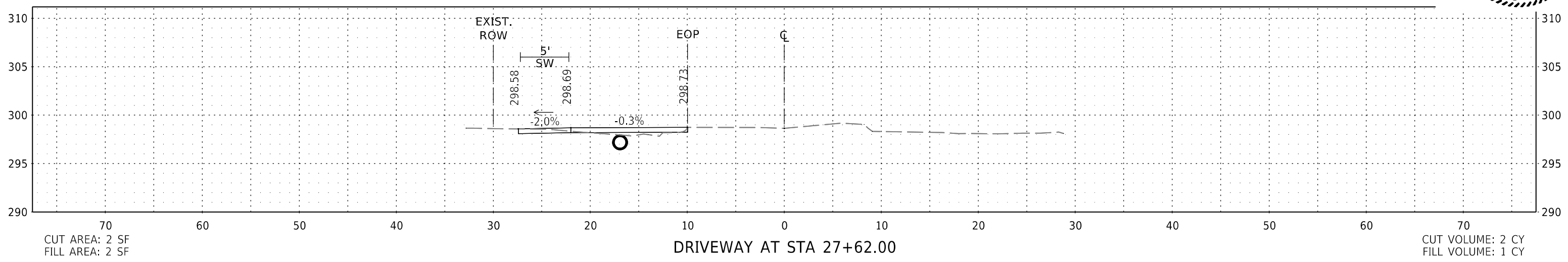
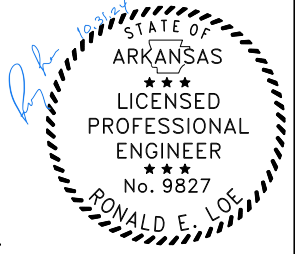
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	39	49
CROSS SECTIONS						



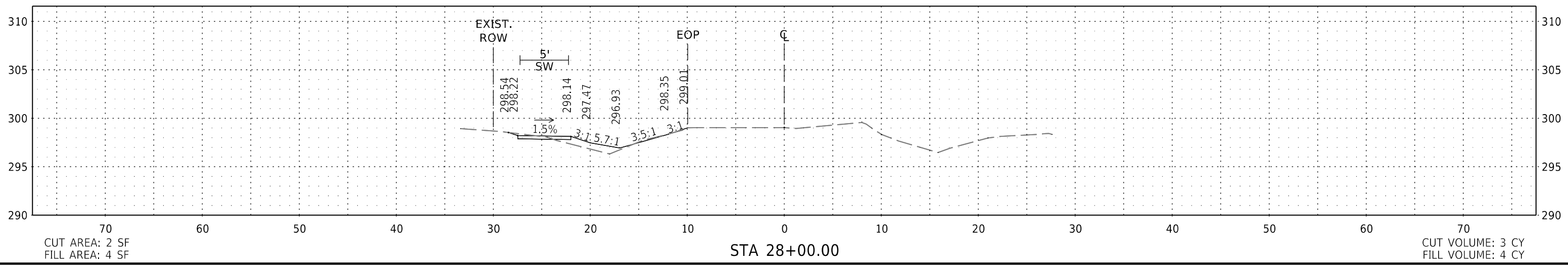
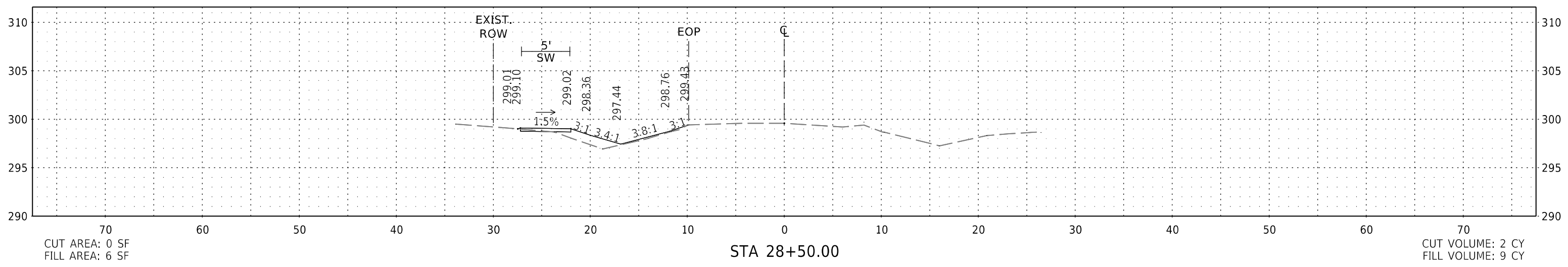
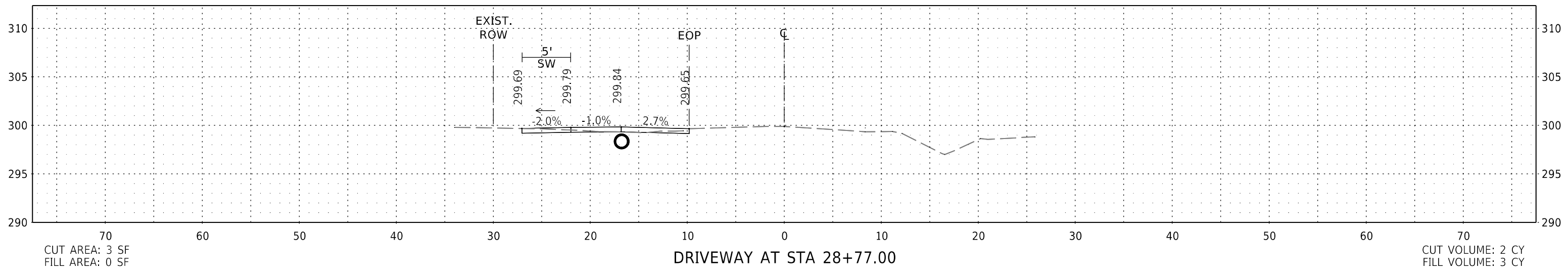
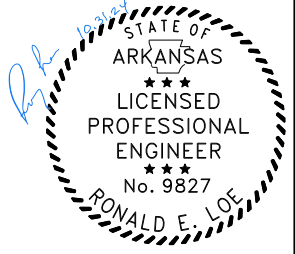
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	40	49
CROSS SECTIONS						



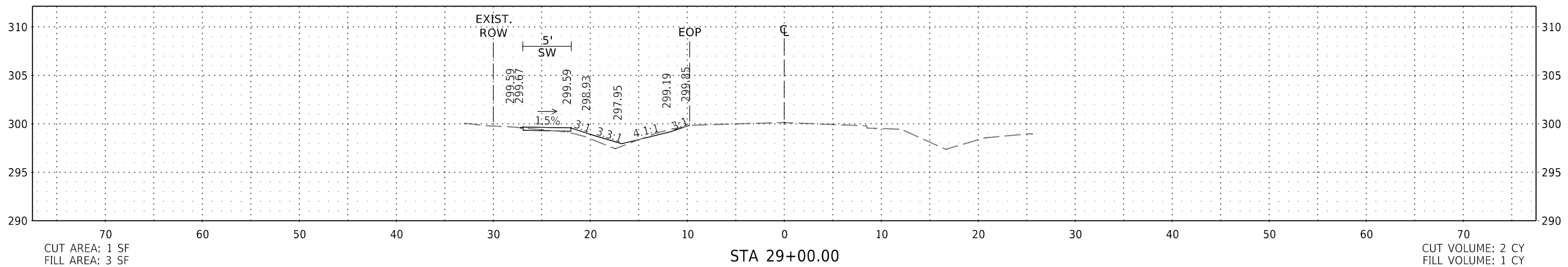
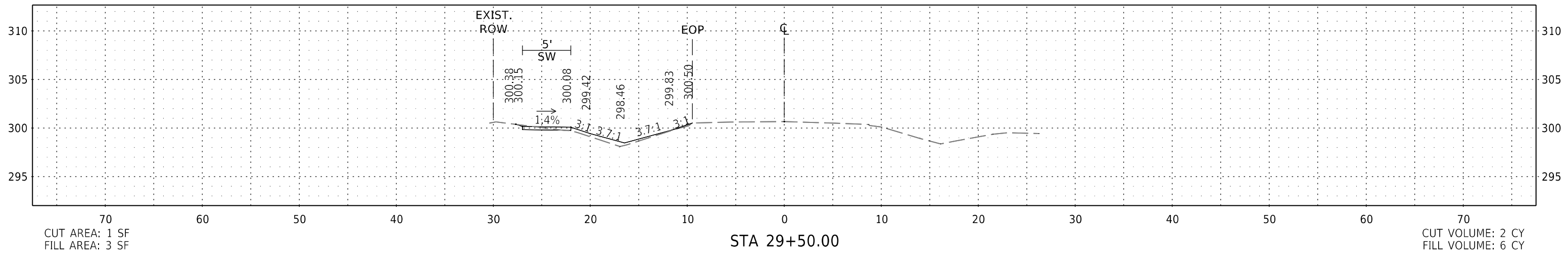
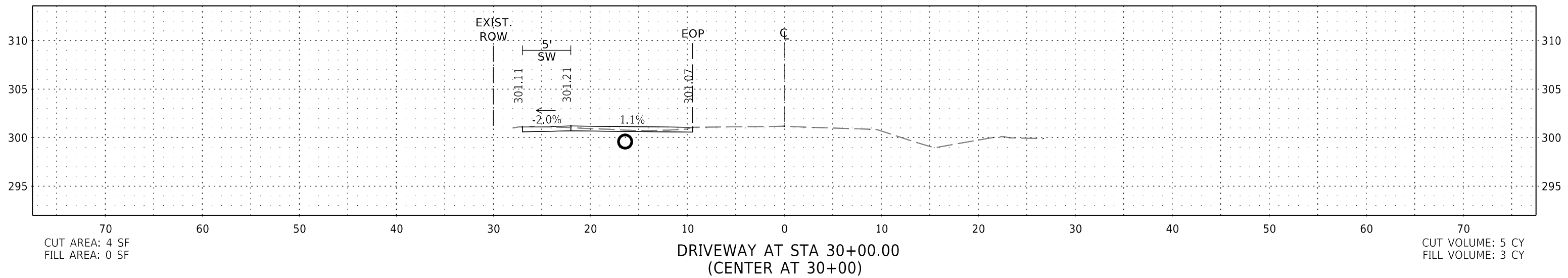
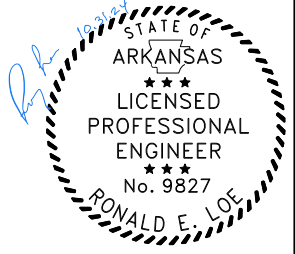
OX - VALLEY_XS.DGN CREATED: 5/24/2024 SAVED: 5/30/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	41	49
CROSS SECTIONS						



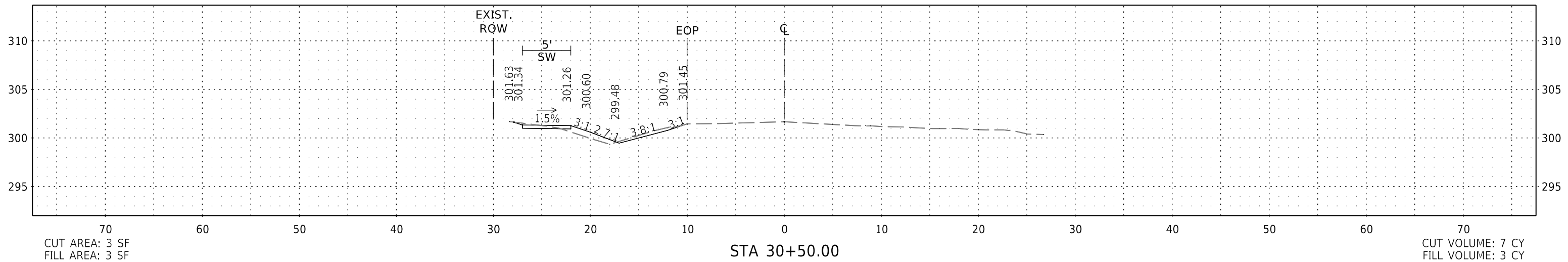
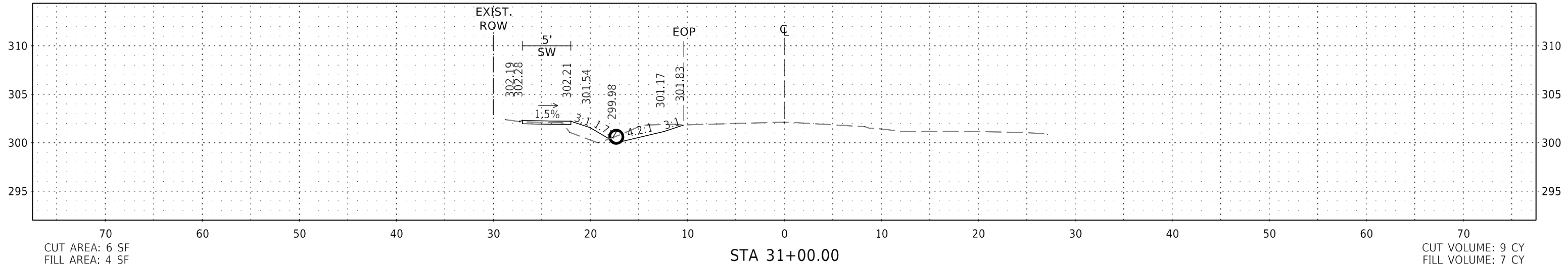
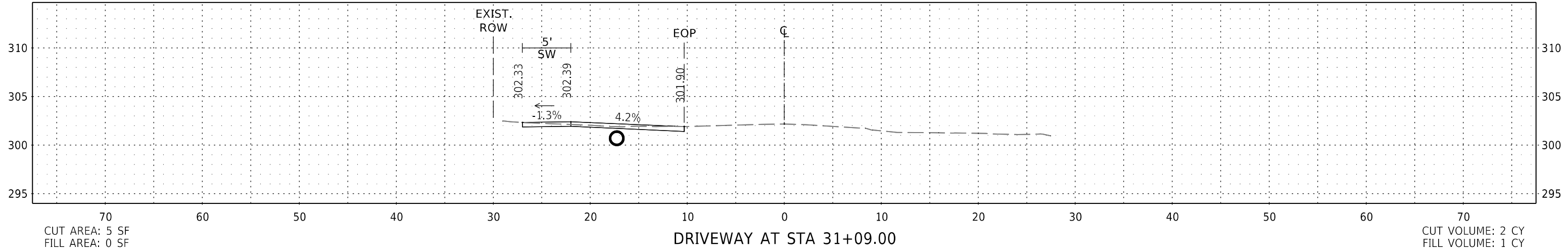
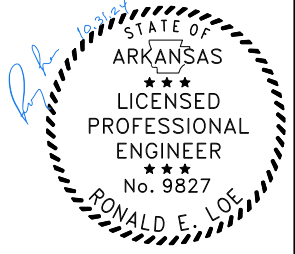
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	42	49
CROSS SECTIONS						



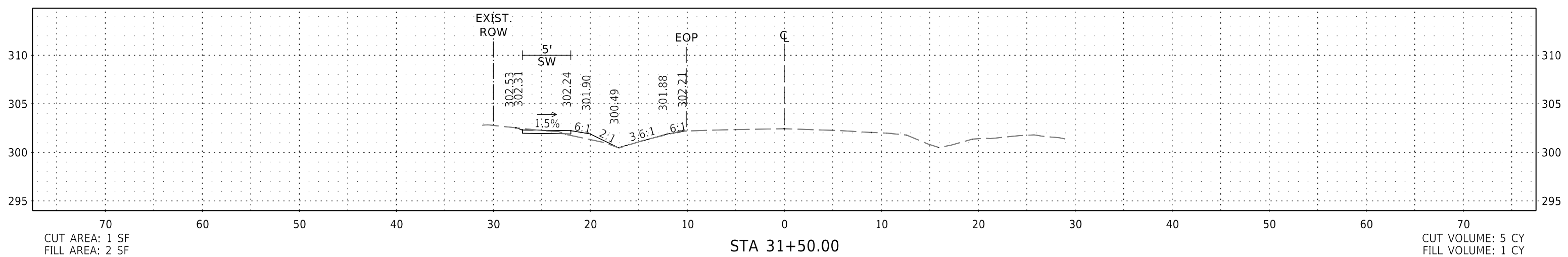
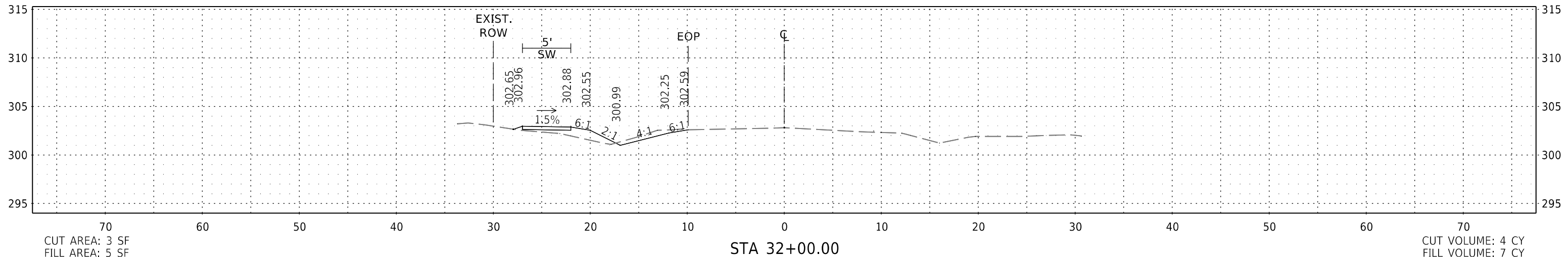
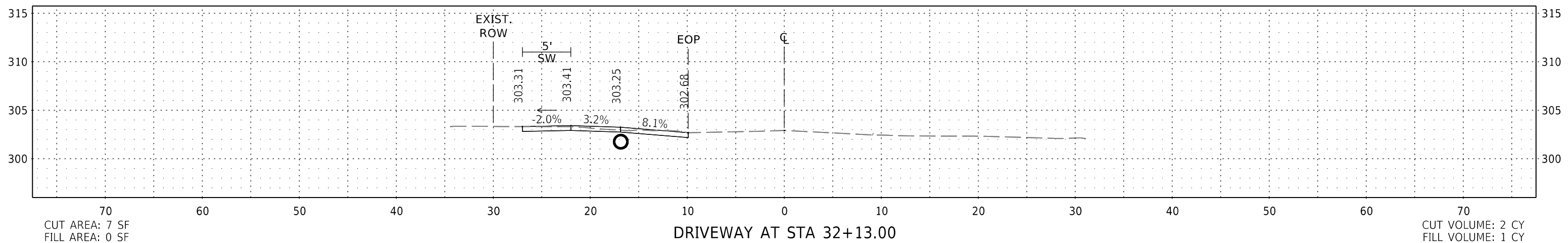
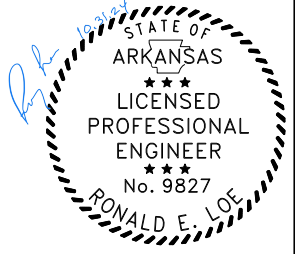
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	43	49
CROSS SECTIONS						



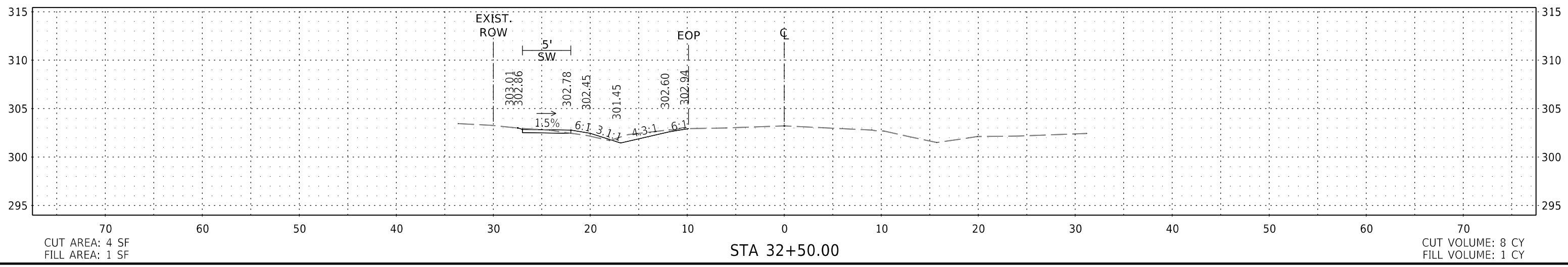
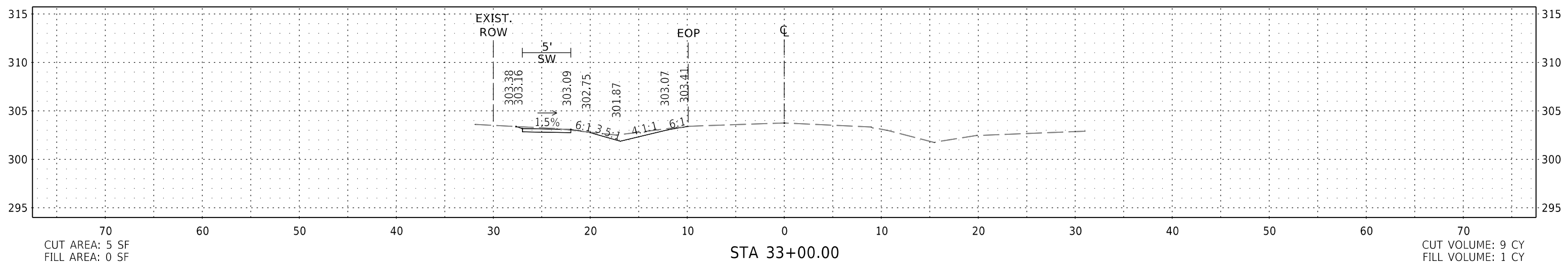
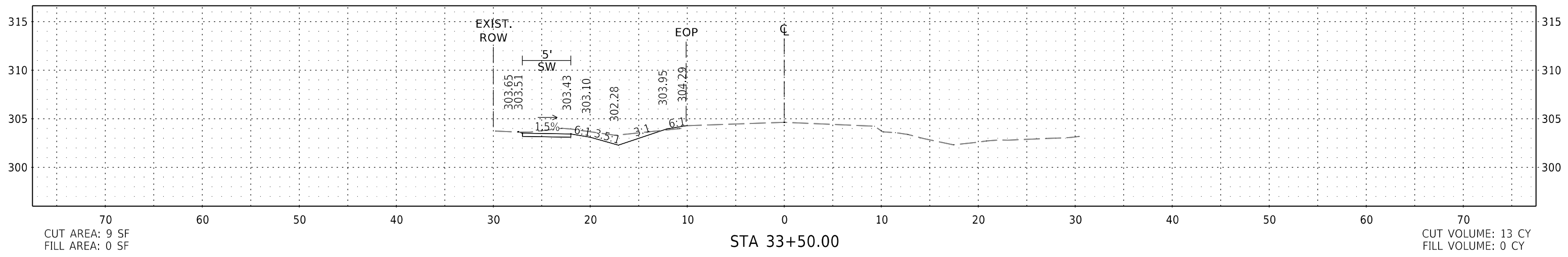
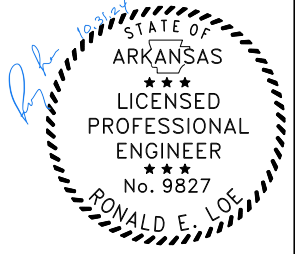
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	44	49
CROSS SECTIONS						



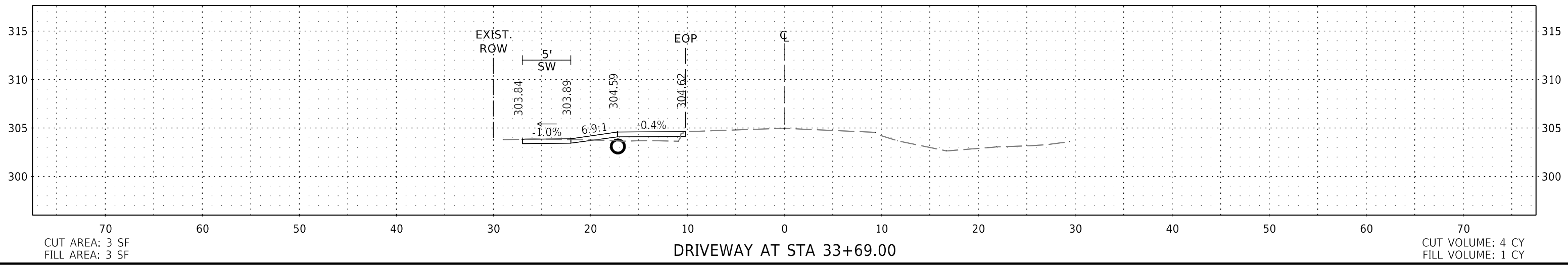
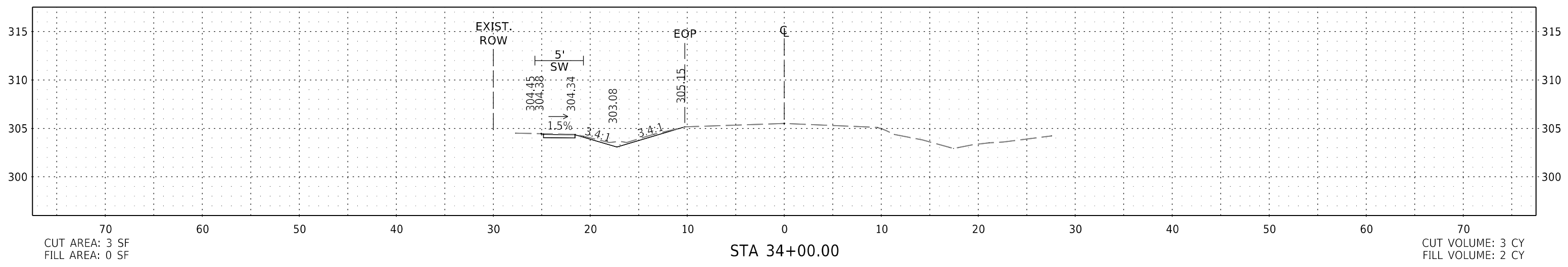
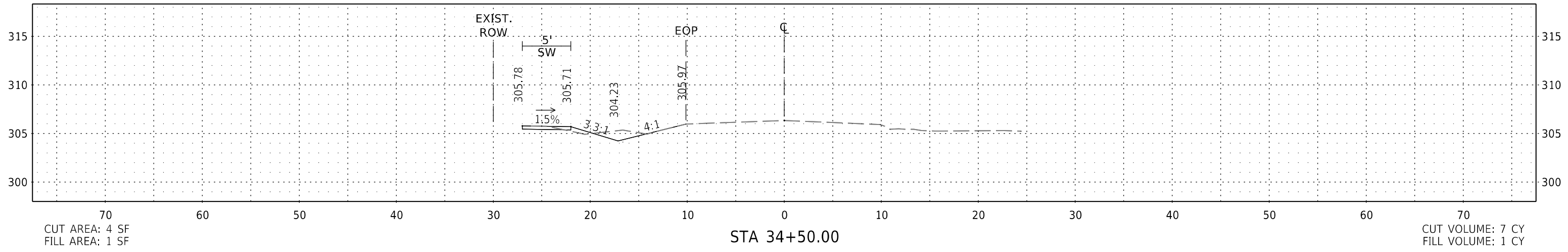
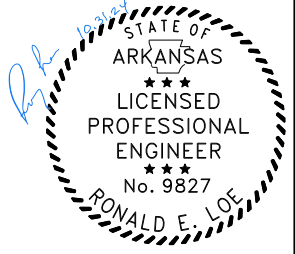
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DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	45	49
CROSS SECTIONS						



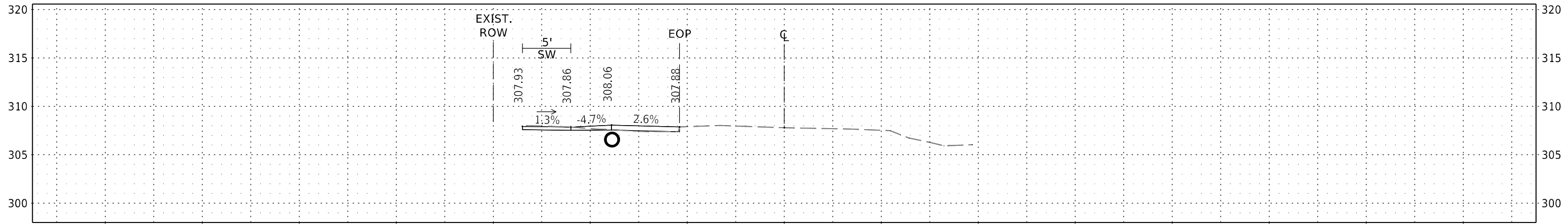
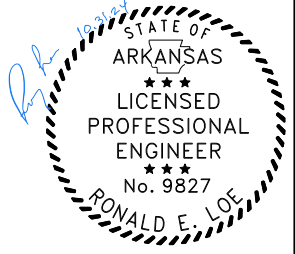
OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	46	49
CROSS SECTIONS						



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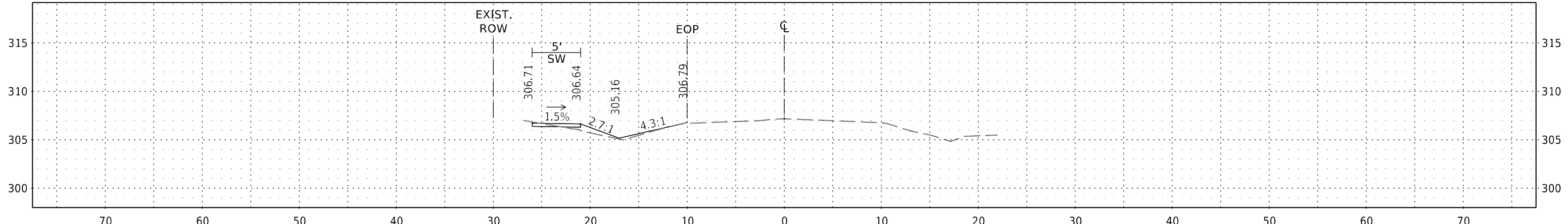
DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	47	49
CROSS SECTIONS						



CUT AREA: 3 SF
 FILL AREA: 0 SF

DRIVEWAY AT STA 35+50.00
 (CENTER AT 35+45)

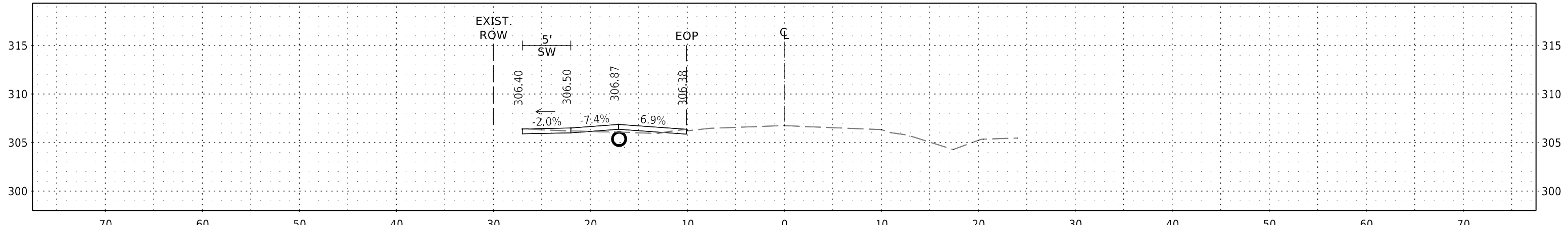
CUT VOLUME: 3 CY
 FILL VOLUME: 3 CY



CUT AREA: 1 SF
 FILL AREA: 3 SF

STA 35+00.00

CUT VOLUME: 1 CY
 FILL VOLUME: 2 CY



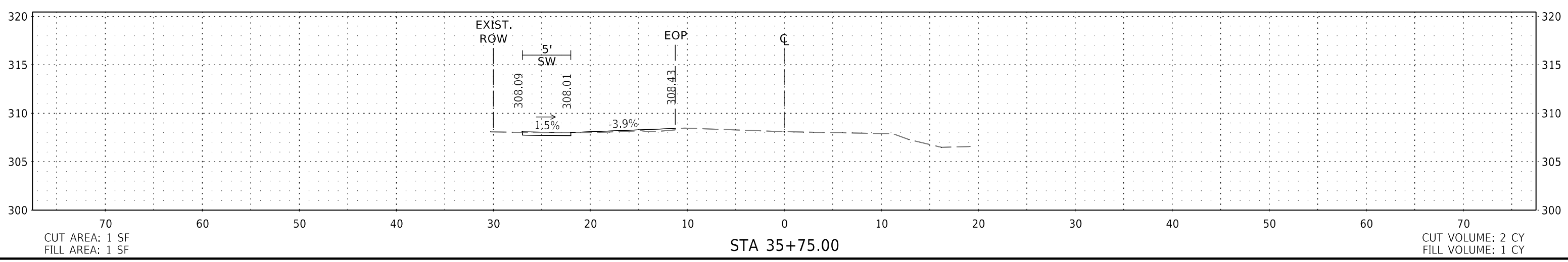
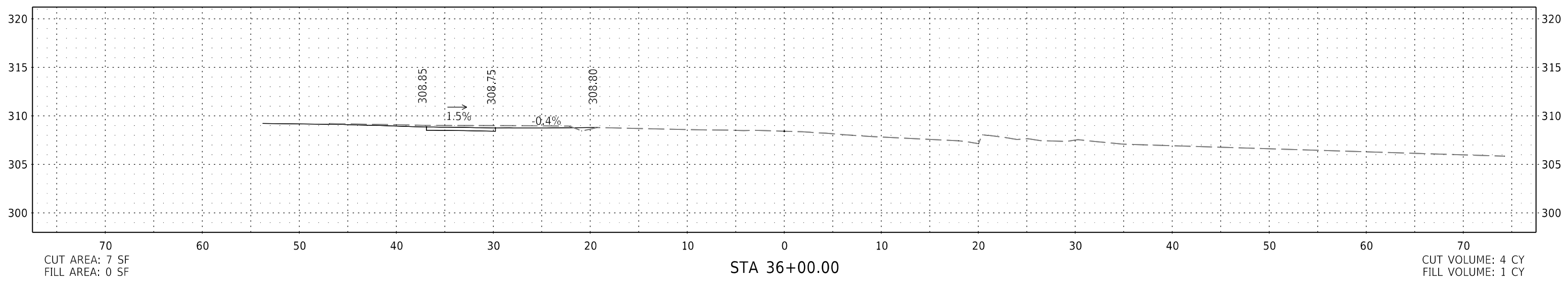
CUT AREA: 2 SF
 FILL AREA: 1 SF

DRIVEWAY AT STA 34+75.00

CUT VOLUME: 3 CY
 FILL VOLUME: 1 CY

OX - VALLEY_XS.DGN CREATED: 5/24/2024 5:28:24 PM SAVED: 5/28/2024

DATE REVISED	DATE REVISED	WARD	CITY	JOB NO.	SHEET NO.	TOTAL SHEETS
		2	LITTLE ROCK	02-20-ST-171	48	49
CROSS SECTIONS						



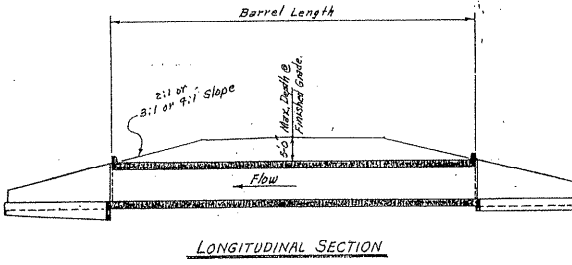
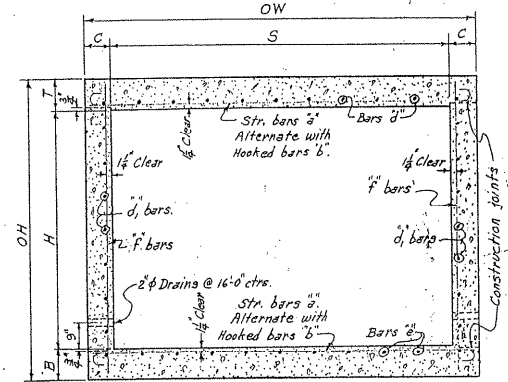
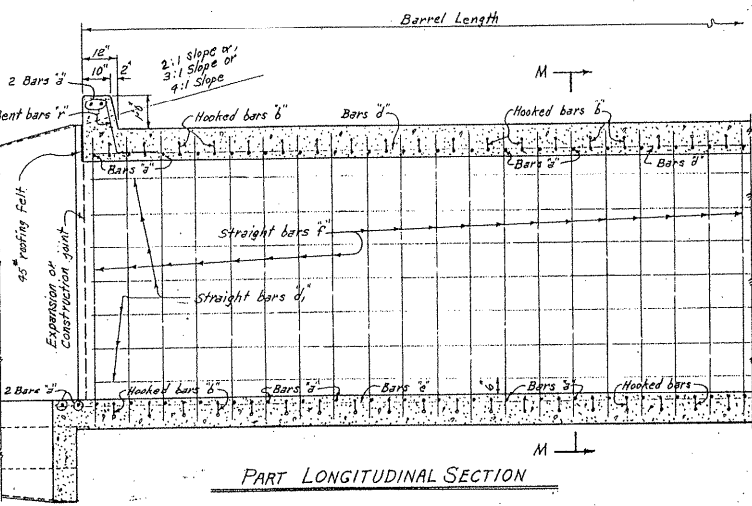
OX - VALLEY_XS.DGN CREATED: 5/24/2024 SAVED: 6/11/2024

BAR LIST FOR BARREL-SECTION 60'-0" IN LENGTH

DEPTH OF COVER	CLEAR SPAN	CLEAR HEIGHT	DIMENSIONS												QUANTITIES											
			a' bars				b' bars				c' bars				d' bars				e' bars				f' bars			
			STRAIGHT		BENT - See Diagram below		STRAIGHT		BENT - See Diagram below		STRAIGHT		BENT - See Diagram below		STRAIGHT		BENT - See Diagram below		STRAIGHT		BENT - See Diagram below		STRAIGHT		BENT - See Diagram below	
D	S	H	SIZE	NUMBER REQ'D	LENGTH	SIZE	NUMBER REQ'D	LENGTH	X	SIZE	NUMBER REQ'D	LENGTH	SIZE	NUMBER REQ'D	LENGTH	SIZE	NUMBER REQ'D	LENGTH	SIZE	NUMBER REQ'D	LENGTH	SIZE	NUMBER REQ'D	LENGTH		
				3:1	4:1		3:1	4:1		3:1	4:1		3:1	4:1		3:1	4:1		3:1	4:1		3:1	4:1		3:1	4:1

MAX. DESIGN DEPTH OF COVER	CLEAR SPAN	CLEAR HEIGHT	DIMENSIONS												QUANTITIES											
			BARREL DIMENSIONS				UNIT QUANTITIES																			
			S	H	A	OW	T	C	B	OH	CLASS S CONC. PER LIN. FT. OF BARREL	REINFORCING STEEL PER LIN. FT. OF BARREL	PER LAP	ADDITIONAL PER LAP	PER LIN. FT. OF BARREL	PER LIN. FT. OF BARREL	PER LIN. FT. OF BARREL	PER LIN. FT. OF BARREL								
D	S	H	A	OW	T	C	B	OH	CUYD.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.	LB.

Notes for details of wings and bar lists, see Drawing Nos. W-X002-1 or W-X003-1 or W-X004-1 or W-X002-2 or W-X003-2 or W-X004-2.



GENERAL NOTES:-
 CONCRETE:- All concrete to be Class S, and shall be poured in the dry.
 All exposed corners to have 3/8" 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 33'-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 25,000 lb. Axles @ 9'-0" ctrs.

UNIT STRESSES:-
 Class S Concrete (n=10) 1200 psi
 Reinforcing Steel 20,000 psi

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

BAR SIZE	PIN DIAM.	K	ADD FOR 2 HOOKS	BENDING DIAGRAM
#6	3"	5"	1'-2"	
#7	3 1/2"	5 3/4"	1'-4"	

NOTE:- Dimensions are to centers of bars.

SPAN	SIZE	SPACING	NO. REB'D	LENGTH	X	Bars "n"
4'	#4	11"	12	2'-6"	1'-3"	Dowel bars in Headwalls.
5'	#4	11"	14	2'-7"	1'-3 1/2"	
6'	#4	11"	16	2'-8"	1'-4"	
7'	#4	11"	18	2'-9"	1'-4 1/2"	
8'	#4	11 1/2"	20	2'-11"	1'-5 1/2"	
9'	#4	11 1/2"	22	3'-0"	1'-6"	
10'	#4	11 1/2"	24	3'-1"	1'-6 1/2"	
11'	#4	12"	26	3'-2"	1'-7"	
12'	#4	12"	28	3'-3"	1'-7 1/2"	

Designed By: W.C.H. 1-23-63. Checked By: B.H.S. 5-8-63.
 Drawn By: W.C.H. 2-8-63. Checked By: B.H.S. 5-24-63.
 Quantities By: W.C.H. 2-12-63. Checked By: B.H.S. 5-24-63.