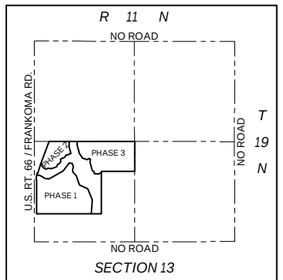
SAPULPA, OKLAHOMA
(INC. POPULATION 20, 544)

THIS ENTIRE PROJECT IS LOCATED WITHIN THE CORPORATE AND URBAN CITY LIMITS OF THE CITY OF SAPULPA.

COUNTY MAP



SECTION MAP
SCALE: 1"=2000'

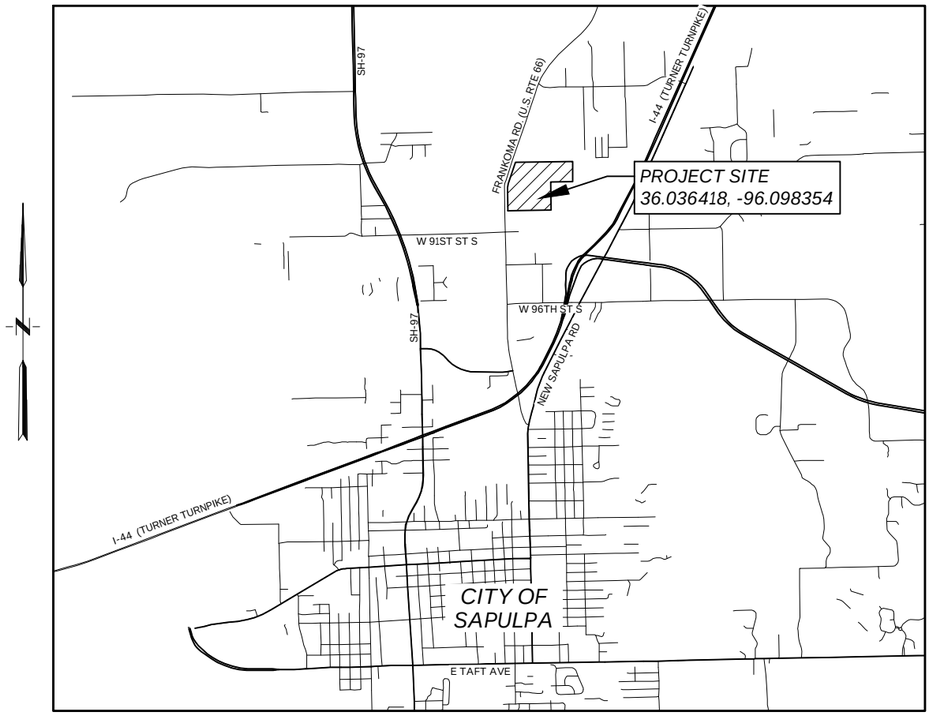
CITY OF SAPULPA OKLAHOMA

SAPULPA DEVELOPMENT AUTHORITY (SDA)

ROUTE 66 INDUSTRIAL PARK PHASE 3 - ALTERNATE 02 SITE DEVELOPMENT & BOX CULVERT

VOLUME 2 of 4

BID PLANS
JANUARY 9, 2026



LOCATION MAP
SCALE: NTS

INDEX OF DRAWINGS - VOLUME 2 - PHASE 3
THIS PLAN SET - SEE SHEET 02

INDEX OF DRAWINGS - VOLUME 1 - PHASE 1 & 2
SEPARATE PLAN SET

FRONT DOCUMENTS AND TECHNICAL SPECIFICATIONS - VOLUME 3 - PHASES 1, 2, & 3
SEPARATE DOCUMENT

PROJECT STANDARDS - VOLUME 4
PHASES 1, 2, & 3
SEPARATE DOCUMENT PACKAGE

"WE HEREBY CERTIFY THAT THE ACCEPTED DRAINAGE PLAN WILL BE IMPLEMENTED AS DESIGNED AND "AS-BUILT" DRAWINGS PREPARED OF THE COMPLETED DRAINAGE FACILITIES UNDER THE GENERAL SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF OKLAHOMA. WE FURTHER CERTIFY THAT WE ARE AWARE OF OUR RESPONSIBILITIES AS THE OWNER OF RECORD FOR THIS PIECE OF PROPERTY, AND THAT WE MAY BE HELD CORPORATELY LIABLE FOR ANY VIOLATIONS ON THIS PROPERTY RESULTING FROM THE FAILURE TO COMPLY WITH THE PROVISIONS OF THE ADOPTED ORDINANCES AND REGULATIONS OF THE CITY OF SAPULPA GOVERNING DRAINAGE FACILITIES. SAID PROVISIONS INCLUDE , BUT ARE NOT LIMITED TO, RESPONSIBILITIES FOR PROPER CONSTRUCTION, CONSTRUCTION PROCEDURES AND MAINTENANCE OF THE DRAINAGE FACILITIES UPON COMPLETION"

CITY OF SAPULPA IN PARTNERSHIP WITH ADAPTED LAND MANAGEMENT, LLC

"I HEREBY CERTIFY THAT I AM FAMILIAR WITH THE ADOPTED ORDINANCES AND REGULATION OF THE CITY OF SAPULPA GOVERNING DRAINAGE FACILITIES; THAT THE FINAL DRAINAGE PLAN HAS BEEN PREPARED UNDER MY DIRECT ENGINEERING SUPERVISION; AND THAT THE ABOVE AND FOREGOING FINAL DRAINAGE PLANS COMPLIES WITH ALL GOVERNING ORDINANCES AND THE ADOPTED DRAINAGE STANDARDS OF THE CITY OF SAPULPA PERTAINING TO DRAINAGE FACILITIES TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF"

PLANS PREPARED BY:

KEITHLINE ENGINEERING GROUP, PLLC
8556 East 101st Street, Suite C
Tulsa, OK 74133
(918) 520-0069

CERTIFICATE OF AUTHORIZATION NO. 5736
RENEWAL DATE - June 30, 2027

Daniel A. Keithline, P.E. — 01/09/2026
OKLA. REG. P.E. No. 17348 — DATE

REGISTERED PROFESSIONAL ENGINEER — DANIEL A. KEITHLINE — 17348 — OKLAHOMA

James R. Umdenstock, P.E. — 01/09/2026
OKLA. REG. P.E. No. 11407 — DATE

REGISTERED PROFESSIONAL ENGINEER — JAMES ROBERT UMDENSTOCK — 11407 — OKLAHOMA

LEGEND

THESE STANDARD SYMBOLS WILL BE FOUND IN THE DRAWINGS

WV	WATER VALVE
WC	WATER CONTROL VALVE
WM	WATER MANHOLE
FH	FIRE HYDRANT
	SHRUB
	DECIDUOUS TREE
	VECIDUOUS TREE
PP	POWER POLE
	GUY WIRE
T	TELEPHONE UNDERGROUND MARKER
T	TELEPHONE PEDESTAL
T	TELEPHONE MANHOLE
SIGN	SIGN
	60D SPIKE
	MAIL BOX
G	GAS METER
FO	FIBER OPTIC PEDESTAL
TS	TRAFFIC SIGNAL POLE
E	ELECTRIC METER
LP	LIGHT POLE
TJ	TRAFFIC JUNCTION BOX
	FLOOD LIGHT
TV	CABLE TV UNDERGROUND MARKER
TV	CABLE TV PEDESTAL
	ELECTRIC OUTLET
	BOLLARDS
S	SANITARY SEWER MANHOLE
G	GAS VALVE
SD	STORM SEWER MANHOLE
	FOUND MONUMENTS
UM	UTILITY MARKER
V	VENT
FO	FIBER OPTICS

	HANDI-CAP RAMP
	RETAINING WALL
	LANDSCAPE HATCH
	STORM GRATE
	RIP-RAP
	ASPHALT
	CONCRETE
	GRAVEL
	DIRT
UP	UNDERGROUND PETROLEUM LINE
UT	UNDERGROUND TELEPHONE
SS	UNDERGROUND SANITARY SEWER
UG	UNDERGROUND GAS
UC	UNDERGROUND CABLE
WTR	UNDERGROUND WATER
STM	UNDERGROUND STORM SEWER
OHE	OVERHEAD ELECTRIC
X	FENCE
	CENTER LINE OF ROAD or CRL
	PROPERTY LINE
	SECTION LINE
	1/4 SECTION LINE
	PROPOSED RIGHT OF WAY
	EX. RIGHT OF WAY
	UTILITY EASMENT

UTILITY COORDINATION

UTILITY	*CONTACT*	*PHONE No.*
SBC	Brian Smither	(918) 596-4283
Public Service Co. of Oklahoma	Bob Pierce	(918) 599-2257
OG+E	Tim Dobrinski	(918) 227-6203
Oklahoma Natural Gas - Tulsa	Bill Morean	(918) 732-8462
ONG/Gas Transmission	Bill Morean	(918) 732-8462
Cox Communications	Ms. Michael Garrison	(918) 628-3633
AT&T Communication	P.J. McDermott	(816) 391-5077
TMUA Water	Anthony Wilkins	(918) 596-9566
Sapulpa - Water	Robert Petitt	(918) 224-5006
BNSF Railroads	Michael Messer, Roadmaster	(817) 352-2548
Sunco Logistics	Juan Vasquez	(218) 299-2553
Magellan	Alan Cates	(918) 630-2376

Note: Names and Numbers could Change.

GOVERNMENT SPECIFICATIONS:

1) 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - ENGLISH GOVERN.

2) CITY OF SAPULPA ENGINEERING DESIGN CRITERIA AND STANDARD SPECIFICATIONS, MARCH 18, 2018

1/9/2026 9:45:08 AM

SAPULPA INDUSTRIAL PARK - PHASE 3 - ALTERNATE 02 - SITE DEVELOPMENT & BOX CULVERT

INDEX OF DRAWINGS - VOLUME I

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02	G02	INDEX OF SHEETS
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04	G04	PROJECT OVERVIEW (PH 3)
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06	G06	PAY NOTES
07	G07	CONSTRUCTION NOTES
08	G08	SUMMARIES (1 OF 2)
09	G09	SUMMARIES (2 OF 2)
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20	B03	BRIDGE BOX CULVERT - PLAN
21	B04	BRIDGE BOX PROFILE
22	B05	BRIDGE BOX BARREL DETAIL
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ODOT STANDARD DETAIL SHEETS

ROADWAY 2019		TRAFFIC CONTROL 2009	
BMPR-0	(R-1) BEST MANAGEMENT PRACTICE REFERENCE MATRIX	TCS1-1-01	TRAFFIC CONTROL CONSTRUCTION NOTES
TESCA-0	(R-2) TYPICAL TEMPORARY EROSION SEDIMENT CONTROL APPLICATIONS	TCS2-1-00	TRAFFIC CONTROL TABLES AND NOTES
ECTRM1-0	(R-3) EROSION CONTROL / TURF REINFORCEMENT MAT INSTALLATION (1 OF 2)	TCS5-1-00	TYPICAL SIGN INSTALLATION
ECTRM2-0	(R-4) EROSION CONTROL / TURF REINFORCEMENT MAT INSTALLATION (2 OF 2)	TCS6-1-02	CHANNELIZING DEVICES
IPD-0	(R-5) INLET PROTECTION (AGGREGATE & REINFORCED SILT FENCE APPLICATIONS)	TCS7-1-02	ADVANCED WARNING SIGNS
RSF-0	(R-6) REINFORCED SILT FENCE INSTALLATION & APPLICATIONS		
TSD-0	(R-7) TEMPORARY SILT DIKE APPLICATIONS		
TFL-0	(R-8) TEMPORARY FIBER LOG APPLICATIONS		
TRFD-0	(R-9) TEMPORARY ROCK FILTER DAM APPLICATIONS		
TSB-1	(R-10) TEMPORARY SEDIMENT BASIN		
SCE-0	(R-11) STABILIZED CONSTRUCTION EXIT		
SD-0	(R-12) TEMPORARY SLOPE DRAIN		
CWA-0	(R-13) CONCRETE WASHOUT APPLICATIONS		
SSS-2-1	(R-14) SOLID SLAB SODDING		
ASCD-6-1	(R-15) ASPHALT SURFACING CONSTRUCTION DETAILS		
CSCD-6-3	(R-16) CONCRETE SURFACING CONSTRUCTION DETAILS		
PCES-5-2	(R-34) PREFABRICATED CULVERT END SECTIONS		
CDIP-2-3	(R-38) CAST-IN-PLACE CONCRETE DROP INLET (18–72 IN. RC PIPES)		
GPI-5-3	(R-40) CAST-IN-PLACE GRATED PIPE DROP INLET (18–42 IN.)		
SSCD-4-2	(R-41) STORM SEWER CONSTRUCTION DETAILS		
PCI-1-2	(R-42) PRECAST CURB INLET (DESIGNS 1–3)		
PGPI-0	(R-44) PRECAST GRATED PIPE DROP INLET		
CI-2-3	(R-45) CAST-IN-PLACE CURB INLETS		
SSIF-5-1	(R-46) STORM SEWER INLET FRAMES (CURB INLETS)		
CIG-4-1	(R-47) CAST IRON GRATES (CURB INLETS)		
MFC-5-2	(R-48) MANHOLE FRAME AND COVER		
MJB-4-2	(R-49) CAST-IN-PLACE MANHOLES AND JUNCTION BOXES		
PRM-1-3	(R-50) PRECAST ROUND MANHOLE		
PSM-1-3	(R-51) PRECAST SQUARE MANHOLE		
PMD-1-1	(R-52) PRECAST MANHOLE DETAILS		
CCI-1-0	(R-57) CONCRETE CULVERT INSTALLATION (1 OF 2)		
CCI-2-0	(R-58) CONCRETE CULVERT INSTALLATION (2 OF 2)		
MCI-1-0	(R-59) METAL CULVERT INSTALLATION (1 OF 3)		
PBB-1-3	(R-63) PIPE BEDDING AND BACKFILL		
DC-4-2	(R-69) PAVED DITCHES AND FLUMES		
RWF3-3-2	(R-73) RIGHT-OF-WAY FENCE STYLE CLF (CHAIN LINK FENCE)		

ODOT BRIDGE STANDARD DETAIL SHEETS

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RCB-E2-H5-0-2	(B-605E) RCB CULVERTS - END SECTION DETAILS 02
RCB-CW2-D4-0	(B-805E) RCB CULVERTS - CURTAIN WALL DETAILS
RCB-C2-6(2-12)	(B-531E) RCB CULVERTS - BARREL DETAILS DOUBLE
RCB-C3-20(2-8)	(B-562E) RCB CULVERTS - BARREL DETAILS TRIPLE

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361 - STD DETAIL FOR IN-LINE TEES FOR SERVICE CONNECTION
363 - RISER DETAIL WITH SLOPED TRENCH
401 - MANHOLE GRADE ADJUSTMENT
419 - MANHOLE OUTSIDE DROP CONNECTIONS
761 - STD INLETS & GRATES W/ ACCESS MANHOLE BACK OF CURB
762 - PRECAST STD INLETS & GRATES W/ ACCESS MANHOLE BACK OF CURB
771 - STANDARD DROP INLET 30", 36", AND 42" WITH NO ACCESS

PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 know what's below. Call before you dig.

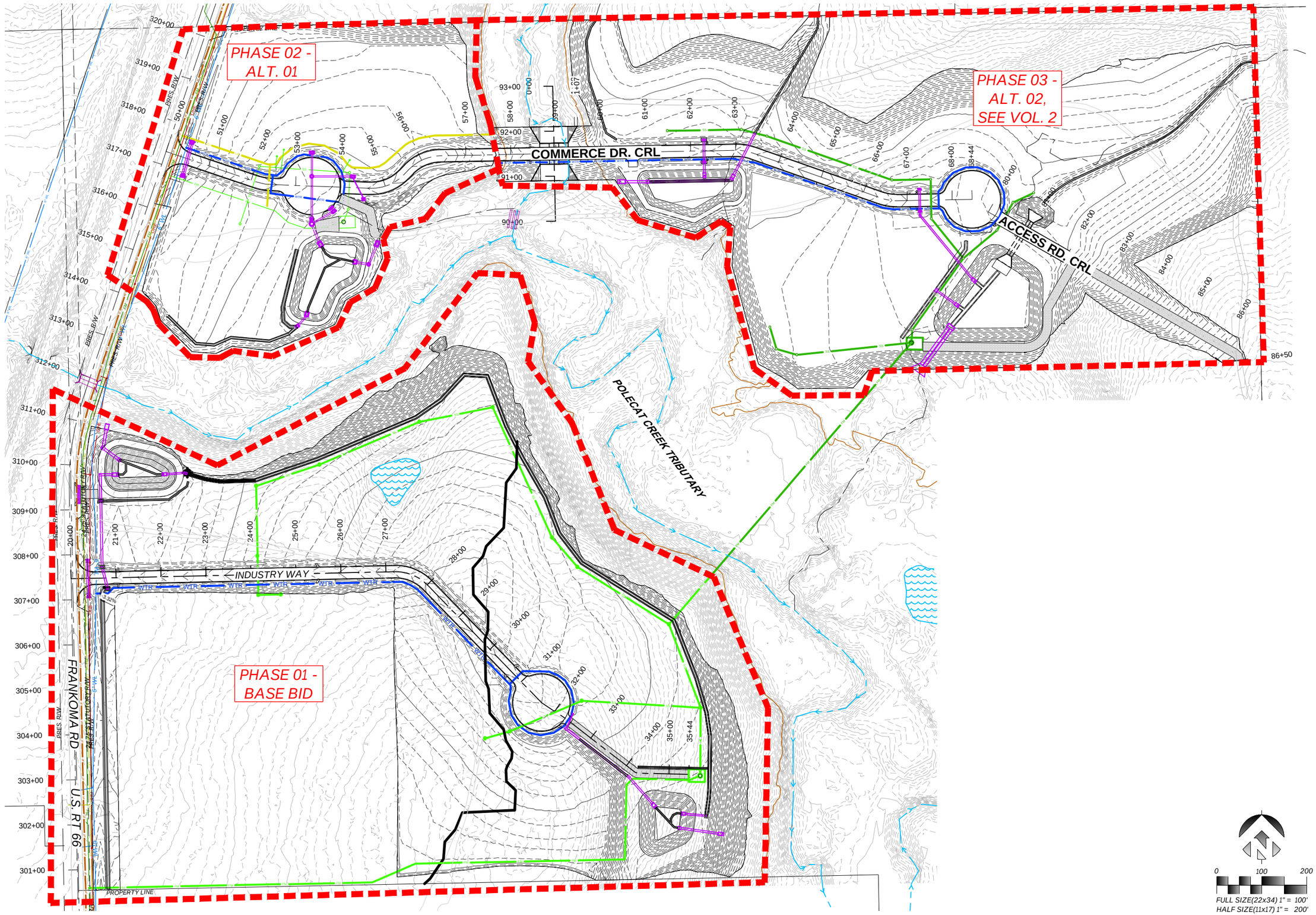
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

INDEX OF SHEETS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	02 OF 80
DRAWING:	G02

1/9/2026 9:45:09 AM



1/9/2026 9:45:22 AM

0 100 200

FULL SIZE(22x34) 1" = 100'
HALF SIZE(11x17) 1" = 200'

LICENCE PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 Know what's below. Call before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PROJECT OVERVIEW
(ALL PHASES)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	03 OF 80
DRAWING:	G03

CONSTRUCT CONC. DITCH

CONSTRUCT CONC. DITCH

CONSTRUCT CONC. DITCH

CONSTRUCT NEW 8" SANITARY SEWER '5'

COMMERCE DR. CRL

CONSTRUCT NEW RCB

CONSTRUCT NEW RCB

ACCESS RD. CRL

CONSTRUCT NEW DETENTION POND 'D'

CONSTRUCT CONC. DITCH

CONSTRUCT NEW WATER LINE 'C'

CONSTRUCT NEW 8" SANITARY SEWER '4'

CONSTRUCT NEW DETENTION POND 'E'

100-YR FLOOD BOUNDARY

CONSTRUCT NEW 8" SANITARY SEWER '6'

CONSTRUCT NEW 3" FORCE MAIN '3'

0 60 120

FULL SIZE(22x34) 1" = 60'
HALF SIZE(11x17) 1" = 120'

1/9/2026 9:45:29 AM

PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 Know what's below. Call before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PROJECT OVERVIEW
PHASE 3 (ALT. 2)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	04 OF 80
DRAWING:	G04

ROADWAY PAY QUANTITIES (PHASE 3, ALT 2)

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
191	--	201(A)1200	CLEARING AND GRUBBING	1	LSUM	1.
192	--	202(A)2200	UNCLASSIFIED EXCAVATION (PHASE 1 CUT)	2,3,4	CY	83,235.
193	--	202(D)2500	UNCLASSIFIED BORROW (PHASE 1 FILL)	3	CY	89,271.
194	--	205(A)6200	TYPE A-SALVAGED TOPSOIL	5	LSUM	1.
195	--	220 1100	SWPPP DOCUMENTATION AND MANAGEMENT	6	LSUM	1.
196	--	221(B)2300	TEMPORARY SILT FENCE	8	LF	3,000.
197	--	221(C)2410	REINFORCED SILT FENCE	8	LF	2,500.
198	--	221(F)2700	TEMPORARY ROCK FILTER DAM TYPE 1	8	CY	20.
199	--	221(G)2800	TEMPORARY FIBER LOG	8	LF	3,000.
200	--	230(A)7200	SOLID SLAB SODDING	16	SY	24,156.
201	--	232(A)9200	SEEDING METHOD A	7	AC	13.12
202	--	303(A)1200	AGGREGATE BASE TYPE A	9,10	CY	2,458.
203	--	310(B)5300	SUBGRADE, METHOD B	17,18	SY	7,346.
204	--	325 0100	SEPARATOR FABRIC	19	SY	10,876.
205	--	402(E)2600	TRAFFIC BOUND SURFACE COURSE TYPE E	11	TON	564.
206	--	407(B)7300	TACK COAT	13	GAL	713.
207	--	408 8100	PRIME COAT	12	GAL	1,483.
208	--	411(B)1330	SUPERPAVE, TYPE S3(PG 64-22 OK)	14	TON	1,995.
209	--	411(C)1430	SUPERPAVE, TYPE S4(PG 64-22 OK)	14	TON	665.
210	--	509(A)0210	CLASS AA CONCRETE (RCB & END SECTIONS)	--	CY	1,134.
211	--	509(D)0500	CLASS C CONCRETE (CURB OPENINGS & PAVED DITCH)	20,21,22,24	CY	99.
212	--	511(A)2200	REINFORCING STEEL	--	LB	167,861.
213	--	514(J)6100	TEMPORARY SHEET PILING	--	LSUM	1.
214	--	601(A)1100	TYPE I PLAIN RIPRAP	--	TON	2,321.
215	--	609(B)4330	1'-8" COMB.CRB.& GUT.(6" BARRIER)	22,23,25,26	LF	3,453.
216	--	610(A)5220	6" CONCRETE DRIVEWAY	22,23,25,26	SY	51.

STORM SEWER PAY QUANTITIES (PHASE 3, ALT 2)

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
217	--	509(C)0400	CLASS A CONCRETE, SMALL STRUCTURES	15	CY	72.1
218	--	611(A)7257	PRECAST CONC RND 5' DIA MANHOLE	30	EA	1.
219	--	611(B)7247	ADD'L DEPTH PRECAST RND 5' MANHOLE	31	VF	0.9
220	--	611(G)7962	INLET GPI TYPE 2 (DES. 9)	--	EA	2.
221	--	611(G)7966	INLET GPI TYPE 2 (DES. 10)	--	EA	2.
222	--	611(H)0474	ADD'L DEPTH IN INLET GPI TYPE 2	--	VF	1.42
223	--	613(V)8000	TRENCH EXCAVATION	--	CY	2,119.
224	--	613(A)5224	36" R.C. PIPE CLASS III	32,33	LF	282.69
225	--	613(A)5228	42" R.C. PIPE CLASS III	32,33	LF	98.27
226	--	613(A)5236	54" R.C.PIPE CLASS III	32,33	LF	47.39
227	--	613(A)5244	66" R.C.PIPE CLASS III	32,33	LF	204.12
228	--	613(A)5412	29" X 45" R.C.PIPE ELL. CLASS HE-III	32,33	LF	70.17
229	--	613(S)7700	STANDARD BEDDING MATERIAL, CLASS B	--	CY	307.

WATERLINE PAY QUANTITIES (PHASE 3, ALT 2)

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
230	2301	--	EXCAVATION AND BACKFILL, UNCLASSIFIED	W1	CY	483.
231	2304	--	8" DUCTILE IRON PIPE RESTRAINED JOINT	W2,W3,W4,W9,	LF	455.
232	2306	--	8" POLYVINYL CHLORIDE (PVC) PIPE	W2,W3,W4,W6,W9,	LF	588.
233	2306	--	8" POLYVINYL CHLORIDE (PVC) PIPE, RESTRAINED	W2,W3,W4,W6,W9,	LF	682.
234	2306	--	8" HDPE (DIRECTIONAL BORED)	--	LF	200.
235	2314	--	8" GATE VALVE	W5	EA	5.
236	2314	--	6" GATE VALVE	W5	EA	4.
237	2314	--	2" COMBO AIR RELEASE VALVE W/ CAN & LID	W3,W5	EA	2.
238	2315	--	STANDARD VALVE BOX	W8	EA	9.
239	2315	--	VALVE BOX EXTENSION	W8	EA	9.
240	2314	--	FIRE HYDRANT AND ASSEMBLY (3-WAY)(RJ)	W3,W5	EA	4.
241	2309	--	8" PVD TO HDPE COUPLING	W3,W5	EA	2.
242	2309	--	8" X 8" X 6" TEE (RJ)	W3,W5	EA	4.
243	2309	--	8" X 8" X 8" TEE (RJ)	W3,W5	EA	1.
244	2309	--	8" 11 1/4 DEGREE FITTING (RJ)	W3,W5	EA	6.
245	2309	--	8" 22 1/2 DEGREE FITTING (RJ)	W3,W5	EA	22.
246	2309	--	8" 45 DEGREE FITTING (RJ)	W3,W5	EA	14.
247	1107	--	HYDROSTATIC PRESSURE TESTING & DISINFECT	W9	LSUM	1.

SANITARY SEWER PAY QUANTITIES (PHASE 3, ALT 2)

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
248	2301	--	EXCAVATION AND BACKFILL, UNCLASSIFIED	S3	CY	1,385.
249	2304	--	8" DUCTILE IRON PIPE	S4	LF	159.
250	2310	--	8" PVC SDR 35	S4	LF	1,445.
251	2311	--	PRECAST ROUND 4' DIA MANHOLE	--	EA	14.
252	2311	--	ADD'L DEPTH PRECAST ROUND 4' MANHOLE	S5	VF	37.72
253	2312	--	IN-LINE TEE FOR FUTURE CONNECTION (8"x8"x6" TEE)	S2	EA	--
254	2310	--	MANHOLE VACUUM TEST	S1	LSUM	1.
255	2310	--	SEWER PIPE MANDREL TEST	--	LSUM	1.

FORCE MAIN PAY QUANTITIES (PHASE 3, ALT 2)

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
256	2301	--	EXCAVATION AND BACKFILL, UNCLASSIFIED	S3	CY	10.
257	2304	--	3" DUCTILE IRON PIPE, RESTRAINED	S4	LF	--
258	2310	--	3" POLYVINYL CHLORIDE (PVC) PIPE (CLASS 200 SDR21)	S4	LF	35.
259	2310	--	3" HDPE (DIRECTIONAL BORE)	0	LF	792.
260	2314	--	3" CHECK VALVE	--	EA	1.
261	2314	--	3" RESILIENT WEDGE GATE VALVE	--	EA	1.
262	2314	--	2" COMBO AIR RELEASE VALVE W/ CAN & LID	--	EA	--
263	2315	--	STANDARD VALVE BOX	--	EA	2.
264	2315	--	VALVE BOX EXTENSION	--	EA	2.
265	2309	--	3" HDPE TO PVC COUPLING	--	EA	2.
266	2309	--	3" 45 DEGREE BEND	--	EA	--
267	2309	--	3" 22 1/2 DEGREE BEND	--	EA	--
268	2309	--	3" 11.25 DEGREE BEND	--	EA	2.
269	1107	--	FORCEMAIN HYDROSTATIC PRESSURE TEST	--	LSUM	1.
270	--	624(E)3641	FENCE-STYLE CLF (8'HIGH, CLASS B)	--	LF	76.
271	--	624(F)3778	GATES-STYLE CLF (8'HIGH X 8'LONG)	--	EA	2.
272	--	SPEC	DUPLEX PACKAGE LIFT STATION, COMPLETE IN PLACE	--	LSUM	1.
273	--	SPEC	ON-SITE ELECTRICAL AND COMMUNICATIONS INSTALLATION	--	LSUM	1.
274	--	SPEC	WET-WELL, COMPLETE IN PLACE	--	LSUM	1.
275	--	SPEC	DIESEL GENERATOR, FUEL TANK, ENCLOSURE AND CONC. PAD	--	LSUM	1.
276	--	SPEC	SCADA ANTENNA	--	LSUM	1.
277	--	SPEC	INSTALL CONCRETE WET WELL INTERIOR EPOXY COATING	--	LSUM	1.

CONSTRUCTION PAY QUANTITIES (PHASE 3, ALT 2)

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
278	--	641 2110	MOBILIZATION	27	LSUM	1.
279	--	642(B)3300	CONSTRUCTION STAKING LEVEL II	28,29	LSUM	1.
280	--	880(J)7110	CONSTRUCTION TRAFFIC CONTROL	34	LSUM	1.

PHASE 3 ADDITIVE ALTERNATE 7
CONCRETE PAVEMENT INSTEAD OF ASPHALT PAVEMENT

ITEM NO.	SAPULPA SPEC. NO.	ODOT SPEC. NO.	DESCRIPTION	PAY NOTES	UNIT	QTY
301	--	414(B)5300	DOWEL JOINTED P.C.C.PAVT.(PLACEMENT)	35	SY	6,576.
302	--	414(G)5800	P.C. CONCRETE FOR PAVEMENT	35	CY	1,469.
303	--	609(A)4230	CONC.CURB(6" BARRIER-INTEGRAL)	35	LF	3,453.
304	--	--	DEDUCT 3" OF AGGREGATE BASE TYPE A	--	CY	-808.
305	--	--	DEDUCT ALL TACK COAT	--	TON	-713.
306	--	--	DEDUCT ALL PRIME COAT	--	TON	-1,483.
307	--	--	DEDUCT ALL SUPERPAVE, TYPE S3(PG 64-22 OK)	--	TON	-1,995.
308	--	--	DEDUCT ALL SUPERPAVE, TYPE S4(PG 64-22 OK)	--	TON	-665.
309	--	--	DEDUCT ALL 1'-8" COMB CURB & GUTTER	--	LF	-3,453.

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REVISION	BY	DATE

OKIE811 Know what's below. Call before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PAY QUANTITIES

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	05 OF 80
DRAWING:	G05

1/9/2026 9:45:38 AM

ROADWAY & STORM SEWER PAY NOTES

1. INCLUDES THE COST OF CLEARING, GRUBBING, REMOVING, AND DISPOSING OF VEGETATION AND DEBRIS WITHIN THE GRADING LIMITS. SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
2. ALL EXCAVTED MATERIAL NOT REQUIRED IN THE PROJECT SHALL BE STOCKPILED ONSITE WITH THE APPROPRIATE EROSION CONTROL MEASURES. FINAL STOCKPILE LOCATION OF THE STOCKPILE SHALL BE DETERMINED BY THE OWNER.
3. ESTIMATED QUANTITIY CALCULATED BY TAKING THE DIFFERENCE BETWEEN EXISTING GROUND AND FINAL GRADE OR TOP OF SUBGRADE. ESTIMATED QUANTITY ONLY. TO BE USED IN A MANNER APPROVED BY THE ENGINEER, FOR MISCELLANEOUS GRADING.
4. THE CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY. ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES.
5. AN ESTIMATED QUANTITY OF 12,100 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
7. PRICE BID TO INCLUDE COST OF (0-46-0) FERTILIZER, ESTIMATED AT 150 POUNDS PER 1,000 SY.
8. PRICE BID TO INCLUDE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSITION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
9. PAYMENT FOR THIS ITEM WILL BE THE THEORETICAL CROSS SECTION MULTIPLIED BY THE INSTALLED LENGTH.
10. INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.
11. ESTIMATED AT 125 LBS. PER CU. FT.
12. PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.
13. ESTIMATED AT 0.60 GALLONS PER SQUARE YARD OF ORIGINAL EMULSION OF TACK COAT (BEFORE DILUTION FOR APPLICATION) IN ACCORDANCE WITH SECTION 407.04.C. OF THE STANDARD SPECIFICATIONS.
14. ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.
15. THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.
16. PRICE BID INCLUDES FINE GRADING, FERTILIZER (0-46-0) APPLIED AT 150 LBS / 1,000 S.Y. AND ROLL SOD WITH HEAVY WEIGHT ROLLER.
17. SUBGRADE SOILS SHALL BE COMPACTED AS SPECIFIED IN ODOT STANDARDS SECTION 310.04, METHOD B WITH THE FOLLOWING EXCEPTIONS: SUBGRADE SOILS SHALL BE SCARIFIED TO A DEPTH OF NET LESS THAN 8", THE MOISTURE CONTENT OF THE SCARIFIED SOIL ADJUSTED TO NOT LESS THAN OPTIMUM AND COMPACTED WITH A RANGE OF 95% TO 98% OF STANDARD DENSITY AS DETERMINED BY AASHTO T-99. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
18. PROOFROLLING OF THE EXPOSED SUBGRADE AND PROPER COMPACTION OF FILL IS REQUIRED TO DETECT AND CORRECT UNSTABLE OR UNDESIRABLE MATERIAL TO CREATE SUPPORT FOR THE PLACED ELEMENTS. INCLUDES COST OF UNDERCUTTING FAILED SUBGRADE AND FILLING WITH ACCEPTABLE STRUCTURAL FILL MATERIAL.
19. MATERIAL SHALL BE MIRAFI HP370 OR APPROVED EQUAL. NO ADDITIOANL PAYMENT WILL BE MADE FOR THE REQUIRED 2-FT LAPPING OF FABRIC JOINTS.
20. INCLUDES COST FOR EXPANSION JOINT, CONSTRUCTION JOINT PER ODOT STD SSCD-4-2.
21. INCLUDES COST FOR SCORED JOINT AT 25' SPACING PER ODOT STD DC-4-2.
22. INCLUDES ALL COST OF SAWED JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS.
23. THIS ITEM SHALL BE MEASURED AS THE ACTUAL AMOUNT OF CURB AND/OR GUTTER INSTALLED. NO PAYMENT WILL BE MADE FOR CURB AND/OR GUTTER THROUGH DRIVEWAYS AND INLETS.
24. THE CURB OPENINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH XX ODOT STANDARD WITH PAVEMENT THICKNESS UNTIL FIRST CURTAIN WALL THEN REDUCED TO 5.25 INCH THICK CLASS A CONCRETE FLUME WITH 4 # 4 REBAR SPACED ACROSS THE WIDTH WITH TRANSVERSE BARS 18-INCHES ON CENTER. CONSTRUCT A 6-INCH CURB AT END TO DISSIPATE STORM WATER DOWN FLUME. THE ENTIRE FLUME UNIT COST FOR DESIGN 1 AND 2 SHALL BE PAID BY THE CUBIC YARD THAT INCLUDES EXCAVATION, GRADING, CONCRETE, TOOLED EDGE, REBAR, CURTAIN WALLS, EROSION CURB, BROOM FINISH, GREEN SAWING, CURING, BACKFILL, BACKER ROD AND SEALANT.
25. CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.
26. INCLUDES COST FOR 3/4" ISOLATION JOINT AT DRAINAGE STRUCTURES, STREET CURB RETURNS, AND AT THOSE LOCATIONS SHOWN ON THE PLANS. INCLUDES BUTT OR SAWED JOINTS SPACED AT 20-FT CENTERS MAX.
27. MAXIMUM OVERALL DOLLAR AMOUNT AND SCHEDULE OF PAYMENTS SHALL BE IN ACCORDANCE SECTION 641 OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.
28. CONSTRUCTION STAKING SHALL INCLUDE SURVEYING AND THE FURNISHING, PLACING, AND MAINTAINING OF THE CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION AND INSPECTION OF THE ENTIRE PROJECT.
29. THE COST TO REPLACE REMOVED OR DAMAGED SECTION CORNERS AND ALL OTHER PERMANENT RIGHT OF WAY MARKERS SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.
30. ALL MANHOLES SHALL BE COMPLETE IN PLACE. THIS PAY ITEM INCLUDES FRAME, COVER, CONCRETE AND ALL OTHER INCIDENTALS REQUIRED FOR PLACEMENT.
31. ADDITIONAL DEPTH IN A MANHOLE SHALL BE MEASURED FROM 6FT AS MEASURED FROM THE TOP OF RIM TO THE LOWEST FLOWLINE.
32. STORM SEWER PIPE SHALL BE RCP CLASS III FOR HS-20-44 LOADING IN ACCORDANCE WITH ODOT SPECIFICAITONS. THE JOINTS SHALL BE TONGUE AND GROOVE WITH OMNI FLEX GLASKET.
33. NO LIFTING HOLES WILL BE ALLOWED ON REINFORCED CONCRETE PIPES OR REINFORCED CONCRETE BOXES. ALL PIPE SHALL BE LIFTED WITH A DOUBLE PIPE SLING.
34. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THIS ITEM SHALL BE PAID PER CALENDAR DAYS FOR ALL NECESSARY TRAFFIC CONTROL
35. THE UNIT PRICE BID FOR 8-INCH DOWEL JOINTED P.C.C. PAVEMENT SHALL INCLUDE TO FURNISH AND INSTALL PER TYPICAL SECTION 2, COMPLETE. THE CONTRACTOR SHALL FURNISH A PROFILED 8-INCH AGGREGATE BASE PARALLEL TO SURFACE, 8-INCH DOWEL JOINTED 4,000 PSI P.C.C. PAVEMENT WITH PROPER POSITIONED (STD LTU-5) 1-INCH SMOOTH DOWELS TRANSVERSELY, #5 TIE BARS LONGITUDINAL JOINT, GREEN CONCRETE SAW CUT, DIMENSIONAL SAWCUT FOR ODOT BACKER ROD AND SEALED (STD LECS-5). THE USE OF FLY ASH IS ALLOWED. INTEGRAL GUTTER IS CONSTRUCTORS OPTION. NO PAYMENT FOR CURB AND GUTTER THROUGH DRIVEWAYS AND INLETS. INCLUDES ALL COST OF SAW JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL AND DRIVEWAY JOINTS. NO PARTIAL PAYMENT UNTIL PAVEMENT JOINTS ARE SEALED PER ODOT REQUIREMENTS. SURFACE SMOOTHNESS PROFILE SHALL MEET 1/8" PER 10-FOOT STRAIGHT EDGE IN EVERY DIRECTION. IF SURFACE TOLERANCE IS NOT MET, DIAMOND GRIND IS AN ACCEPTABLE CORRECTION. IF MORE THAN 20% OF SURFACE AREA IS REQUIRED TO BE CORRECTED PER 100-FOOT PAVEMENT SECTION, CONCRETE PAVEMENT SECTION SHALL BE REPLACED WITH NEW PAVEMENT. SAW CUT CONCRETE PANELS SHALL NOT EXCEED 15 FEET IN ANY ONE DIRECTION AND 12 FEET THE OTHER WAY.

WATERLINE PAY NOTES

W1 CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1½ -IN TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN THE UNIT PRICE FOR EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE.

W2 TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CONTRACTOR. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH SECTION 109.3 OF THE GENERAL SPECIFICATIONS.

A. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUSRECOR CORPORATION STOPS, AS DIRECTED BY THE CONTRACTOR. THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CONTRACTOR IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.

B. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY THE CONTRACTOR. ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO THE EXISTING SYSTEM.

C. ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH, AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

W3 BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.

W4 CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

W5 ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.

A. DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, STAR STARGRIP, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH UNCASED BORES, ONLY USPIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED.

B. POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT PERMITTED; SHOULD RJ PIPE BE SPECIFIED ON BORE, CASING IS REQUIRED.

C. HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT.

W6 TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. CONST SPEC 310.1 NOW ALLOWS #12 COPPER-CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.

W7 ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN THE COST OF PIPE. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.

W8 TOP OF VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE.

W9 PRESSURE TESTING AND CHLORINATION OF WATER MAINS BY THE CONTRACTOR SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED THE REQUIRED CONSTRUCTION AS-BUILT RECORDS.

SANITARY SEWER & FORCEMAIN PAY NOTES

S1 INCLUDES ALL COST TO MANHOLE VACUUM TESTING IN ACCORDANCE WITH CITY STANDARDS, SPECIFICATIONS, PART 109 - TESTING AND OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY REGULATIONS.

S2 INCLUDES ALL COST TO INSTALL IN-LINE SERVICE TEE AND SPECIFIED MARKER.

S3 CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN COST OF PIPE.

S4 TRACER WIRE AND DETECTABLE MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO MANHOLES ABOVE GROUND LEVEL AS PER CONST. SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC PIPE. CONST. SPEC 310.1 NOW ALLOWS #12 COPPER-CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC PIPE.

S5 ADDITIONAL VERTICAL FOOT OF MANHOLE SHALL PAID WHEN MANHOLE IS OVER 6'-0".

LICENCED PROFESSIONAL ENGINEER
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17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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BY	DATE	REVISION

OKIE811 Know what's below. Call before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PAY NOTES

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	06 OF 80
DRAWING:	G06

1/9/2026 9:45:40 AM

DESIGN DATA

1. CONCRETE CLASS 'AA' .....4,000 P.S.I. - STRUCTURES AND APRON
2. CONCRETE CLASS 'A' .....3,000 P.S.I. - CURB AND GUTTER, DRIVES AND FLUMES
3. REINFORCING STEEL .....60,000 P.S.I.

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE CURRENT CITY OF SAPULPA STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF SAPULPA SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
3. THE 22" X 34" PLANS ARE CONSIDERED FULL SIZE PLANS.
4. THE CONTRACTOR SHALL HAVE ONE (1) EXECUTED COPY OF THE CONTRACT DOCUMENTS AT THE JOB SITE AT ALL TIMES.
5. THE CONTRACTOR WILL HAVE____CALENDAR DAYS TO COMPLETE THE PHASE 1 WORK IN THE PROJECT. THE CONTRACTOR WILL HAVE____CALENDAR DAYS TO COMPLETE THE PHASE 2 WORK IN THE PROJECT. LIQUIDATED DAMAGES OF $_____.00 PER DAY WILL BE ASSESSED AGAINST THE CONTRACT AMOUNT UNTIL THE WORK IS COMPLETE IF THE PROJECT IS NOT COMPLETED IN THE AGREED TIME.
6. THE CONTRACTOR SHALL EXECUTE THE NOI AND EXECUTE ALL WORK ACCORDINGLY.
7. THE LOCATION OF UTILITY LINES, AS SHOWN ON THESE DRAWINGS, ARE BASED ON ATLAS INFORMATION, UTILITY COMPANY COMMENTS AND OBSERVED FEATURES. NEITHER THE CITY NOR THE ENGINEER ASSUMES OR IMPLIES ANY RESPONSIBILITY FOR THE ACCURACY OF THIS DATA. SERVICE LINES FROM THE MAIN UTILITY LINES TO ANY BUILDING OR FACILITY MAY NOT BE SHOWN. CONTRACTOR SHALL OBTAIN THE LOCATION OF THESE FROM THE UTILITY COMPANY AND SHALL BE HELD RESPONSIBLE FOR ANY DAMAGES TO THESE LINES OR ANY OTHER LINES OR UTILITIES DURING THE CONSTRUCTION OF THE PROJECT.
8. 2. THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC. A MINIMUM OF TWO (2) WORKING DAYS AND A MAXIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK IN ANY AREA. "CALL OKIE" 1-800-522-6543 OR 811
9. APPLICABLE ODOT STANDARDS ARE LISTED ON TITLE SHEET.
10. AN ENGINEERING SOIL INVESTIGATION WAS PERFORMED ON THIS SITE FOR USE BY ENGINEER ONLY. THE CONTRACTOR SHALL SATISFY HIMSELF OF ALL SITE CONDITIONS.
11. ALL WATER AND SEWER CONNECTION WORK SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF SAPULPA AND ODEQ WATER AND SEWER SPECIFICATIONS. THE APPROPRIATE LICENSED PROFESSIONAL SHALL COMPLETE THE WATER AND SEWER WORK.
12. CONTRACTOR SHALL BRACE UTILITY POLES AND GUY WIRES WITHIN 5 FEET OF ANY EXCAVATION. CONTRACTOR SHALL CONTACT POLE OWNER A MINIMUM OF THREE (3) WEEKS PRIOR TO BRACING AND/OR RELOCATING ANY UTILITY POLES.

WATER CONSTRUCTION NOTES

1. WHERE DESIGNATED, PROPOSED WATER MAIN SHALL CROSS SANITARY OR STORM SEWERS BY CENTERING FULL JOINT OF WATER MAIN PIPE ATOP EXISTING SANITARY OR SEWER MAIN WITH 24 INCH VERTICAL SPACING.
2. MINIMUM COVER OVER WATER LINES SHALL BE 3 FEET AND 4 FEET AT INTERSECTIONS, OR AS NOTED ON THE PLANS.
3. THE CITY OF SAPULPA FIELD ENGINEERING DEPARTMENT SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL AND COMPACTION.
4. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF SAPULPA.
5. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC, NOTICE OF ANY EXCAVATION NO LATER THAN 48 HOURS OR SOONER THAN 10 DAYS PRIOR TO COMMENCEMENT OF WORK (EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS). PHONE: 1-800-522-6543.
6. CONSTRUCTION FOR ALL ENGINEERING SERVICE FACILITIES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF TITLE 252, DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 626, PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ).
7. ANY CHANGES FROM THE APPROVED PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.

ROADWAY CONSTRUCTION NOTES

1. PERMANENT PAVEMENT SECTION SLOPE PROTECTION: INSTALL SOLID SLAB SOD ON APPROVED TOP SOIL GRADE AT ALL ROADWAY AND DRIVEWAY FORE SLOPES, DITCH BOTTOMS AND 4 FOOT OF BACK SLOPE PER ODOT SSS-1.
2. PHYSICAL MATERIAL TESTING FOR QUALITY ASSURANCE SHALL BE FURNISHED BY THE CONTRACTOR.
3. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.
4. NO FILL, SPOIL, BEDDING MATERIAL OR EQUIPMENT MAY BE STORED OVERNIGHT WITHIN THE FLOOD PLAIN LIMITS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION, PERMITTING, AND EXECUTION OF A STORMWATER POLLUTION PREVENTION PLAN (SWP3). THE CONTRACTOR SHALL PROVIDE ALL DOCUMENTATION REQUIRED O FSWP3 FOR REVIEW AND APPROVAL OF THE PLAN BY FEDERAL, STATE AND LOCAL AUTHORITIES. THIS INCLUDES, BUT IT NOT LIMITED TO, THE NOTICE OF INTENT AND NOTICE OF TERMINATION.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY ORANGE SAFETY FENCING AROUND ALL EXCAVATION, INCLUDING TRENCHES, PITS, VAULTS, ETC. TO MAINTAIN SECURITY AND SAFETY FOR ANIMALS, CHILDREN OR ANY BYSTANDER. THE COST OF ORANGE SAFETY FENCING SHALL BE INCLUDED IN OTHER PAY ITEMS.
7. BACKFILL UNDER ALL PAVED SURFACES SHALL BE TYPE "A" AGGREGATE BASE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED BY A VIBRATORY HAND TAMPER TO 95% OF THE STANDARD PROCTOR DENSITY, AS MEASURED BY THE NUCLEAR DENSITY METHOD.
8. THE CONTRACTOR SHALL PROVIDE A DETAILED ACCESS PLAN FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS, CONSTRUCTION ACTIVITIES AND PERMITS THAT MAY BE NEEDED FOR THE IMPLEMENTATIONS OF THIS PLAN.
9. ALL DAMAGED PAVEMENT SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCLEMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY STREET EXCAVATION. IF EXCESS MOISTURE DOES ENTER THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY EFFECTED BY THE EXCESS MOISTURE, THE CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUB-BASE AT THEIR SOLE EXPENSE.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING. NO SEPARATE PAVEMENT WILL BE MADE FOR THIS WORK.
12. THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.
13. ALL FILL SOIL MATERIAL UTILIZED IN THE PAVEMENT BEDDING SHALL CONSIST OF 'NON-EXPANSIVE CLAYS' STRUCTURAL FILL APPROVED BY TESTING FIRM. FILL MATERIAL SHALL BE INSTALLED IN HORIZONTAL LAYERS AND BENCH INTO THE NATIVE EMBANKMENT.
14. ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT THE RIGHT-OF-WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
15. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY AN FEDERAL, STATE OR LOCAL LOW OR REGULATION.
16. ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALK CAUSED BY THE CONTRACTORS OPERATION SHALL BE REPAIRED TO THE ENGINEERS SATISFACTION AND SHALL BE ACCOMPLISHED AT THE CONTRACTORS SOLE EXPENSE.
17. IF THE CONTRACTOR ENCOUNTERS VOIDS WHEN PATCHING STREETS, THE CONTRACTOR SHALL CALL NOTIFY THE ENGINEER FOR AN INSPECTION BEFORE PROCEEDING WITH WORK.
18. THE PROJECT SHALL BE CONSTRUCTED WITH CONTINUOUS FLOW OF MATERIAL SUPPLIED TO THE PROJECT SUCH THAT THE LAYDOWN MACHINE WILL REMAIN IN MOTION. ANY DELAY IN FORWARD PROGRESSION OF THE LAYDOWN MACHINE MAY REQUIRE A TRANSVERSE JOINT AS DIRECTED BY THE ENGINEER.
19. MASONRY STRUCTURES ARE PROHIBITED.
20. ALL CONCRETE CURB AND GUTTERS SHALL BE MONOLITHIC POURS. DOWELED-ON CURBS WILL NOT BE ALLOWED.
21. CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIALS IN THE FLOODPLAIN.

TRAFFIC CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL, IN COOPERATION WITH THE CITY, DEVELOP AND SUBMIT FOR APPROVAL A TRAFFIC CONTROL PLAN (TCP), TO THE CITY OF SAPULPA ENGINEERING DEPARTMENT. THIS TCP SHALL DETAIL SUCH MEASURES AS MAY BE REQUIRED TO ESTABLISH, INSTALL, MAINTAIN AND OPERATE A COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROL SYSTEM DURING THE ENTIRE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL PLACE TRAFFIC CONTROL FLAGMEN, BARRICADES, SIGNS, SIGNALS OR OTHER DEVICES AS MAY BE REQUIRED.
2. CONSTRUCTION SIGNAGE WILL BE INSTALLED IN A MANNER APPROVED BY A CERTIFIED TRAFFIC CONTROL CONTRACTOR, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR THE FILE OF THE ENGINEER PRIOR TO BEGINNING WORK.
3. THE CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS. ALL SIGNS SHALL BE HANDLED IN A MANNER SO AS NOT TO DAMAGE THE SIGN AND/OR POST. ALL TRAFFIC SIGNS REMOVED DUE TO CONSTRUCTION SHALL BE REINSTALLED BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING OR COVER ALL PERMANENT ROAD SIGNS AFFECTED BY THE CONSTRUCTION OPERATIONS; IN ADDITION, HE SHALL STORAGE AND REINSTALL AT A LATER LATE AFTER PROJECT IS COMPLETE.
5. AT ALL TIMES, LOCAL AND THOUGH TRAFFIC SHALL BE MAINTAINED DURING THE ROADWAY PROJECT UNLESS PERMITTED OTHERWISE.
6. ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE AT ALL TIMES.
7. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A RECORD OF ALL SIGNS AND MARKINGS TO INSURE PROPER REINSTALLATION BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REINSTALLATION OF ALL EXISTING TRAFFIC SIGNS AND MARKING REMOVED OR DAMAGED AS PART OF THIS PROJECT. EXISTING SIGNS THAT ARE TO BE REINSTALLED SHOULD BE STORED BY THE CONTRACTOR AND THE CONTRACTOR SHALL USE EXTRAORDINARY CARE TO ENSURE THAT ANY TRAFFIC SIGNS REMOVED ARE NOT DAMAGED. ALL TRAFFIC SIGNS THAT HAVE BEEN REMOVED SHALL BE THOROUGHLY CLEANED PRIOR TO REINSTALLATION BY THE CONTRACTOR. ANY TRAFFICS SIGN THAT HAS BEEN DAMAGED, DEGRADED, OR DESTROYED BY THE CONTRACTOR SHALL BE REPLACED WITH A NEW ONE. ANY UNUSED SIGNS SHALL BE RETURNED BY THE CONTRACTOR TO THE CITY OF SAPULPA.
10. ALL SIGNS REMOVED SHALL BECOME THE PROPERTY OF THE CITY. THE CONTRACTOR SHALL NEATLY STACK SUCH MATERIAL AT A LOCATION ON THE JOB SITE AS DIRECTED BY THE ENGINEER. THE PRICE BID SHALL INCLUDE THE REMOVAL OF ALL FOOTINGS BELOW GROUND LEVEL OR AS DIRECTED BY THE ENGINEER. FOOTINGS TO BECOME THE PROPERTY OF THE CONTRACTOR.
11. ALL PERMANENT PLASTIC PAVEMENT MARKINGS SHALL BE EXTRUDED-APPLIED THERMOPLASTIC. MECHANICALLY APPLIED PREFORMED PLASTIC TAPE ("COLD TAPE") WILL NOT BE ACCEPTED.
12. ROADSIDE HAZARDS SHALL BE COMPLETELY BARRICADED AROUND THEIR PERIMETER FOR SAFETY OF PEDESTRIANS AND VEHICLES. NO BARRICADES SHALL BE PLACED UNTIL ALL ADVANCED SIGNING IS IN PLACE.
13. ALL CHANNELING DEVICES, TYPE III BARRICADES, ETC. SHALL BE WEIGHTED DOWN WITH NON-HAZARDOUS MATERIAL WHEN NECESSARY OR WHEN DIRECTED BY THE CITY OR THE ENGINEER.
14. ALL ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TYPE 'A' WARNING LIGHTS.
15. ALL TYPE III BARRICADES SHALL BE FURNISHED WITH A MINIMUM OF TWO (2) TYPE 'A' WARNING LIGHTS.
16. ALL CHANNELING DEVICES SHALL BE PROVIDED WITH TYPE 'C' WARNING LIGHTS.

LICENCE PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 Know what's below. Call before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

CONSTRUCTION NOTES

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	JANUARY 9, 2026
SHEET:	07 OF 80
DRAWING:	G07

1/9/2026 9:45:41 AM

SUMMARY OF DRAINAGE STRUCTURES (PHASE 3, ALT 2)

STR. NO.	DRAWNG NO.	ROADWAY STATION, OFF	STORM SEWER STATION	DESCRIPTION	ELEVATION				CLASS 'A' CONCRETE, SMALL STRUCTURES	REINFORCING STEEL	PRECAST MANHOLES			CAST-IN-PLACE INLET GPI TYPE 2					CAST-IN-PLACE INFLOW/OUTFLOW DISSIPATOR				V-NOTCH WEIR OUTLET	CAST-IN-PLACE STANDARD DROP INLET (COT)								REINFORCED CONCRETE PIPE						
					TOP OF APRON	TOP OF GRATE	TOP OR RIM OR COVER	FLOWLINE (OUT)			ROUND 5' DIA	ADDT' DEPTH 5' DIA	TOTAL DEPTH	DESIGN 9	DESIGN 10	ADDT' DEPTH DESIGN 9	ADDL DEPTH DES. 10	TOTAL DEPTH	36" PIPE CONNECTION	42" PIPE CONNECTION	48" PIPE CONNECTION	54" PIPE CONNECTION		TYPE 1			TYPE 2					R.C. PIPE CLASS-III					TRENCH EXCAVATION	STD. BEDDING MATERIAL
																								36" SDI W/ COVER	ADDT'L DEPTH	TOTAL DEPTH	30" SDI W/ COVER	36" SDI W/ COVER	42" SDI W/ COVER	ADDT'L DEPTH	TOTAL DEPTH	36" ROUND	42" ROUND	54" ROUND	66" ROUND	29" X 45" ELLIPTITAL		
					ELEV.	ELEV.	ELEV.	ELEV.	CY	LB	EA	VF	VF	EA	EA	VF	VF	VF	EA	EA	EA	EA	EA	EA	VF	VF	EA	EA	EA	VF	VF	LF	LF	LF	LF	LF	CY	CY
D1.1		62+36.94, 14.00 LT	--	CURB OPENING (SEE OTHER SUMMERIES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D1.2	D01	62+29.80, 24.67 LT	10+91.13	INLET GPI TYPE 2 DES. 9	683.98	684.36	--	680.71	--	--	--	--	--	1.	--	--	--	3.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46.31	77.2	17.1
D1.3		62+36.94, 14.00 RT	--	CURB OPENING (SEE OTHER SUMMERIES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D1.4	D01	62+29.64, 24.64 RT	10+41.82	INLET GPI TYPE 2 DES. 9	683.89	684.27	--	680.40	--	--	--	--	--	1.	--	0.22	--	3.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	23.86	39.8	8.8
D1.5	D01	62+29.51, 49.99 RT	10+16.47	DETENTION INFLOW DISSAPATOR FOR 42" PIPE	--	--	--	680.28	6.2	425.	--	--	--	--	--	--	--	--	--	1.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D2.1	D02	63+30.86, 39.13 LT	21+11.89	SDI TYPE 2 FOR 42" RCP	686.09	--	687.17	680.00	3.18	292.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.	1.22	7.17	--	98.27	--	--	--	211.1	37.3
D2.2	D02	62+94.65, 54.98 RT	20+11.87	DETENTION INFLOW DISSAPATOR FOR 42" PIPE	--	--	--	679.50	6.2	425.	--	--	--	--	--	--	--	--	--	1.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D3.1	D01	61+02.82, 66.21 RT	70+70.08	V-NOTCH WEIR OUTLET	--	--	685.61	678.70	4.81	601.28	--	--	--	--	--	--	--	--	--	--	--	--	1.	--	--	--	--	--	--	--	--	--	47.39	--	--	125.6	23.7
D3.2	D01	60+52.69, 65.22 RT	70+19.94	DETENTION OUTFLOW DISSAPATOR FOR 54" PIPE	--	--	--	680.28	9.9	687.	--	--	--	--	--	--	--	--	--	--	--	1.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E1.2		67.21.79, 14.00 LT	--	CURB OPENING (SEE OTHER SUMMERIES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E1.3	D03	67+27.84, 24.67 LT	32+74.82	INLET GPI TYPE 2 DES. 10	682.62	683.00	--	678.37	--	--	--	--	--		1.	--	0.44	4.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46.40	--	--	--	86.	14.8
E1.5		67.21.79, 14.00 LT	--	CURB OPENING (SEE OTHER SUMMERIES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E1.6	D03	67+28.02, 24.69 RT	32+25.45	INLET GPI TYPE 2 DES. 10	682.62	683.00	--	678.05	--	--	--	--	--	--	1.	--	0.76	4.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.05	--	--	--	9.4	1.6
E1.7	D03	67+28.05, 33.76 RT	32+16.39	RND 5' DIA MANHOLE	--	--	684.83	677.93	--	--	1.	0.90	6.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	181.11	--	--	--	492.1	58.
E1.8	D03	--	30+32.78	DETENTION INFLOW DISSAPATOR FOR 36" PIPE	--	--	681.33	677.00	4.	274.	--	--	--	--	--	--	--	--	1.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E2.2	D04	--	41+16.41	CUSTOM 9' DUAL WEIR	--	--	686.01	675.	16.02	1,166.74	--	--	--	--	--	--	--	--	--	--	--	--	1.	--	--	--	--	--	--	--	--	--	--	--	--	204.12	--	920.3	129.6
E2.3	D04	--	40+14.94	SPECIAL OUTFALL FOR DOUBLE 66" RCP	--	--	681.04	674.5	14.	1,053.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E3.1	D06	--	60+03.04	SDI TYPE1 FOR 36" PIPE	685.27	--	686.35	677.35	3.81	338.95	--	--	--	--	--	--	--	--	--	--	--	--	--	1.	3.73	9.	--	--	--	--	--	50.13	--	--	--	157.3	16.
E3.2	D06	--	60+55.17	DETENTION INFLOW DISSAPATOR FOR 36" PIPE	--	--	680.83	676.99	4.	274.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
				TOTALS					72.1	5,537.	1.	0.90	6.90	2.	2.	0.22	1.20	17.10	2.	2.	--	1.	2.	1.	3.73	9.00	--	--	1.	1.22	7.17	282.69	98.27	47.39	204.12	70.17	2,119.	307.

SUMMARY OF PAVED DITCHES (PHASE 3, ALT 2)

SHEET NO.	STATION, CRL			NAME	2' BOTTOM PAVED DITCH DES. NO. 1 (ODOT STD DC-4-2)			4' BOTTOM PAVED DITCH DES. NO. 2B (ODOT STD DC-4-2)			6' BOTTOM PAVED DITCH DES. NO. 2B (ODOT STD DC-4-2)		
					LENGTH	CURTAIN WALLS (50' SPACING & BENDS)	CLASS C CONCRETE	LENGTH	CURTAIN WALLS (50' SPACING & BENDS)	CLASS C CONCRETE	LENGTH	CURTAIN WALLS (50' SPACING & BENDS)	CLASS C CONCRETE
					LF	EA	CY	LF	EA	CY	LF	EA	CY
D02	21+16.35	TO	24+11.12	NORTH OFFSITE COLLECTION	294.77	5.	15.7	--	--	--	--	--	--
D04	41+25.16	TO	42+83.91	POND E TRICKLE CHANNEL	--	--	--	--	--	--	158.75	4.	21.2
D04	44+67.57	TO	45+00.00	EAST OFFSITE COLLECTION	32.43	--	1.7	--	--	--	--	--	--
D05	45+00.00		50+40.46	EAST OFFSITE COLLECTION	540.46	7.	28.6	--	--	--	--	--	--
D04				POND E PERIMETER DITCH	--	--	--	262.	6.	28.2	--	--	--
				POND D TRICKLE CHANNEL									
				TOTALS	867.	12.	47.	262.	6.	28.	159.	4.	21.

SUMMARY OF CULVERTS (PHASE 3, ALT 2)

DRAWING NO.	STATION	DESCRIPTION	ELEVATIONS		LENGTH	CLASS AA CONCRETE	REINFORCING STEEL	TYPE I PLAIN RIPRAP (24")
			HIGHEST FLOWLINE	LOWEST FLOWLINE				
					LF	CY	LB	TON
R08	58+96.31	UPSTREAM APRON, CURTAIN WALL, & HEADWALL	664.16	664.04	36.67	186.88	21,270.	789.
R08	58+96.31	20' SPAN X 12' HIGH TRIPLE CELL	664.04	663.87	47.33	443.5	87,626.8	--
R08	58+96.31	DOWNSTREAM APRON, CURTAIN WALL, & HEADWALL	663.87	663.75	36.67	186.88	21,270.	929.85
D04	80+91.13	UPSTREAM APRON	667.40	667.34	21.83	24.6	3,490.	481.8
D04	80+91.13	6' SPAN X 5' HIGH DOUBLE CELL	667.34	677.07	90	126.	16,776.	--
D04	80+91.13	DOWNSTREAM APRON	677.07	677.00	21.83	24.6	3,490.	120.15
		TOTALS				992.	153,923.	2,321.

SUMMARY OF CURB OPENINGS (PHASE 3, ALT 2)

DRAWING NO.	I.D.	STATION, SIDE			DESCRIPTION	FLUME LENGTH	9" CURTAIN WALL	12" CURTAIN WALL	CLASS C CONCRETE	REINFORCING STEEL
						LF	EA	EA	CY	LBS
R03	--	58+43.18	,	L	CURB OPENING DESIGN 2	7.67	1.	1.	0.4	35.8
R03	--	58+43.18	,	R	CURB OPENING DESIGN 2	7.67	1.	1.	0.4	35.8
R04	D1.1	62+36.94	,	L	CURB OPENING DESIGN 2	7.67	1.	1.	0.4	35.8
R04	D1.3	62+36.94	,	R	CURB OPENING DESIGN 2	7.67	1.	1.	0.4	35.8
R05	E1.2	67+21.79	,	L	CURB OPENING DESIGN 2	7.67	1.	1.	0.4	35.8
R05	E1.5	67+21.79	,	R	CURB OPENING DESIGN 2	7.67	1.	1.	0.4	35.8
R06	E1.4	80+30.63	,	R	CURB OPENING DESIGN 1	7.67	1.	1.	0.5	35.8
R06	E1.1	80+37.30	,	L	CURB OPENING DESIGN 1	7.67	1.	1.	0.5	35.8
					TOTALS	64.	8.	8.	3.	286.

SUMMARY OF ROADWAY AND RELATED QUANTITIES (PHASE 3, ALT 2)

DRAWING NO.	STATION, CRL			STREET, NOTE	SUBGRADE METHOD 'B'	SEPARATOR FABRIC	AGGREGATE BASE TYPE A	1'-8" COMB. CRB. & GUT. (6" BARRIER)	PRIME COAT	6" SUPERPAVE, TYPE S3 (PG 64-22 OK)	TACK COAT	2" SUPERPAVE, TYPE S4 (PG 64-22 OK)	6" DRIVEWAY	TRAFFIC BOUND SURFACE COURSE TYPE E
					SY	SY	CY	LF	GAL	TON	GAL	TON	SY	TON
R03	53+98.94	TO	59+00.00	COMMERCE DR.	1,876.7	2,449.4	625.6	1,030.8	364.4	489.7	174.9	163.2	--	--
R04	59+00.00	TO	64+00.00	COMMERCE DR.	1,839.9	2,373.9	613.3	961.3	361.1	485.3	173.3	161.8	--	--
R05	64+00.00	TO	67+69.30	COMMERCE DR.	1,367.8	1,778.1	455.9	738.6	266.7	358.5	128.	119.5	--	--
R05	67+69.30	TO	68+44.46	COMMERCE DR., CUL-DE-SAC	1,589.8	1,778.1	529.9	338.9	357.2	480.1	171.5	160.	--	--
R06	80+17.55	TO	84+00.00	SIDE ROAD	670.6	883.5	223.5	383.4	134.3	180.5	64.5	60.2	--	125.
R07	84+00.00	TO	86+50.34	SIDE ROAD	--	554.7	--	--	--	--	--	--	--	156.
R04	60+71.47			WEST POND ACCESS ROAD	--	50.9	8.5	--	--	--	--	--	50.9	--
R06	82+20.96			EAST POND ACCESS ROAD	--	1,007.	--	--	--	--	--	--	--	283.2
				TOTALS	7,346.	10,876.	2,458.	3,453.	1,483.	1,995.	713.	665.	51.	564.

DANIEL A. KEITHLINE
LICENCED PROFESSIONAL ENGINEER
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

SUMMARIES
(1 OF 2)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	08 OF 80
DRAWING:	G08

1/9/2026 9:45:42 AM

SUMMARY OF SANITARY SEWER MANHOLES (PHASE 3, ALT 2)

DRAWING NO.	STATION	STR. I.D.	DESCRIPTION	ELEVATION: TOP OF COVER	ELEVATION: PIPE FLOWLIN @ MH CENTER	PRECAST ROUND MANHOLE: 4' DIA MANHOLE	PRECAST ROUND MANHOLE: ADDITIONAL DEPTH 4' DIA MANHOLE	PRECAST ROUND MANHOLE: TOTAL DEPTH
				ELEV.	ELEV.	EA	VF	VF
S01	10+00.00	4.1	PRECAST ROUND 8' DIA WET WELL					
S01	10+28.61	4-2	PRECAST ROUND 4' DIA MH	686.99	673.57	1.	7.42	13.42
S01	12+24.09	4-3	PRECAST ROUND 4' DIA MH w/ OUTSIDE DROP CONNECITON	686.82	674.35	1.	6.47	12.47
S01	13+21.78	4-4	PRECAST ROUND 4' DIA MH	687.35	681.49	1.	--	5.86
S01	13+92.43	4-5	PRECAST ROUND 4' DIA MH	688.03	681.78	1.	0.25	6.25
S01	14+43.21	4-6	PRECAST ROUND 4' DIA MH	688.28	682.03	1.	0.25	6.25
S02	21+12.77	5-1	PRECAST ROUND 4' DIA MH	685.27	676.87	1.	2.4	8.4
S02	22+00.34	5-2	PRECAST ROUND 4' DIA MH	685.72	677.22	1.	2.5	8.5
S02	22+86.08	5-3	PRECAST ROUND 4' DIA MH	686.66	678.37	1.	2.29	8.29
S03	25+80.71	5-4	PRECAST ROUND 4' DIA MH	688.53	679.55	1.	2.98	8.98
S03	26+37.74	5-5	PRECAST ROUND 4' DIA MH	688.24	679.79	1.	2.45	8.45
S03	28+04.37	5-6	PRECAST ROUND 4' DIA MH	687.26	680.45	1.	0.81	6.81
S04	32+55.85	6-1	PRECAST ROUND 4' DIA MH	688.89	679.77	1.	3.12	9.12
S04	33+03.47	6-2	PRECAST ROUND 4' DIA MH	689.44	679.96	1.	3.48	9.48
S04	33+53.94	6-3	PRECAST ROUND 4' DIA MH	689.47	680.17	1.	3.3	9.3
					TOTALS	14.	37.72	121.58

SUMMARY OF WATERLINE (PHASE 3, ALT 2)

DRAWNG NO.	ALIGNMENT NAME	STATIONING			FITTINGS: PVC TO HDPE COUPLING	FITTINGS: 8"x8"x8" TEE, RJ	FITTINGS: 8"x8"x6" TEE, RJ	FITTINGS: 8" 45 DEG. BEND, RJ	FITTINGS: 8" 22.5 DEG. BEND, RJ	FITTINGS: 8" 11.25 DEG. BEND, RJ	VALVES: 8" GATE VALVE, RJ	VALVES: 6" GATE VALVE, RJ	VALVES: 2" AIR RELEASE VALVE ASSEMBLY	VALVES: 3-WAY FIRE HYDRANT	VALVES: VALVE BOX	VALVES: VALVE BOX EXTENTION	PIPE: 8" HDPE DIRECTION BORE	PIPE: 8" PVC	PIPE: 8" PVC RESTRAINED	PIPE: 8" DUCTILE IRON RESTRAINED	PIPE: BEDDING MATERIAL	PIPE: EXCAVATION & BACKFILL
					EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	CY	CY
W01	WL 'C'	10+00.00	TO	11+00.00	--	--	--	--	1.	--	1.	--	--	--	1.	1.	--	57.	43.	--	14.1	26.4
W01	WL 'C'	11+00.00	TO	12+00.00	--	--	--	--	2.	--	--	--	--	--	--	--	--	100.	--	--	14.1	46.3
W01	WL 'C'	12+00.00	TO	13+00.00	--	--	--	--	1.	--	--	--	1.	--	--	--	--	34.	66.	--	14.1	15.7
W01	WL 'C'	13+00.00	TO	14+00.00	--	--	1.	--	--	--	1.	1.	--	1.	2.	2.	--	61.	39.	--	14.1	28.2
W01	WL 'C'	14+00.00	TO	15+00.00	1.	--	--	--	1.	--	--	--	--	--	--	--	100.	--	--	--	--	--
W02	WL 'C'	15+00.00	TO	16+00.00	1.	--	--	--	1.	--	--	--	--	--	--	--	100.	--	--	--	--	--
W02	WL 'C'	16+00.00	TO	17+00.00	--	--	1.	--	--	1.	1.	1.	--	1.	2.	2.	--	26.	74.	--	14.1	12.
W02	WL 'C'	17+00.00	TO	18+00.00	--	--	--	--	--	--	--	--	--	--	--	--	--	94.	6.	--	14.1	43.5
W02	WL 'C'	18+00.00	TO	19+00.00	--	--	--	5.	--	1.	--	--	--	--	--	--	--	--	100.	--	14.1	--
W02	WL 'C'	19+00.00	TO	20+00.00	--	--	--	3.	--	1.	--	--	--	--	--	--	--	--	100.	--	14.1	--
W03	WL 'C'	20+00.00	TO	21+00.00	--	--	1.	--	--	1.	1.	1.	1.	1.	2.	2.	--	38.	62.	--	14.1	17.6
W03	WL 'C'	21+00.00	TO	22+00.00	--	--	--	--	--	--	--	--	--	--	--	--	--	88.	12.	--	14.1	40.7
W03	WL 'C'	22+00.00	TO	23+00.00	--	--	--	--	--	2.	--	--	--	--	--	--	--	90.	10.	--	14.1	41.7
W03	WL 'C'	23+00.00	TO	24+00.00	--	1.	1.	5.	2.	--	1.	1.	--	1.	2.	2.	--	--	70.	30.	14.1	13.9
W03	WL 'C'	24+00.00	TO	25+00.00	--	--	--	--	3.	--	--	--	--	--	--	--	--	--	100.	100.	28.3	46.3
W04	WL 'C'	25+00.00	TO	26+00.00	--	--	--	--	4.	--	--	--	--	--	--	--	--	--	--	100.	14.1	46.3
W04	WL 'C'	26+00.00	TO	27+00.00	--	--	--	--	3.	--	--	--	--	--	--	--	--	--	--	100.	14.1	46.3
W04	WL 'C'	27+00.00	TO	28+00.00	--	--	--	1.	4.	--	--	--	--	--	--	--	--	--	--	100.	14.1	46.3
W04	WL 'C'	28+00.00	TO	28+25.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25.	3.5	11.6
				TOTALS	2.	1.	4.	14.	22.	6.	5.	4.	2.	4.	9.	9.	200.	588.	682.	455.	242.	483.

SUMMARY OF SANITARY SEWER PIPE (PHASE 3, ALT 2)

DRAWING NO.	ALIGNMENT NAME	STATIONING			8" PVC	8" DIP	IN-LINE TEE (FUTURE CONNECTION)	BEDDING MATERIAL	EXCAVATION & BACKFILL
					LF	LF	EA	CY	CY
S01	SS '4'	10+00.00	TO	10+28.61	28.61	--	--	4.	26.5
S01	SS '4'	10+28.61	TO	12+24.09	195.48	--	--	27.7	181.
S01	SS '4'	12+24.09	TO	13+21.78	97.69	--	--	13.8	63.3
S01	SS '4'	13+21.78	TO	13+92.43	--	70.65	--	10.	39.3
S01	SS '4'	13+92.43	TO	14+43.21	50.78	--	--	7.2	28.2
S02	SS '5'	20+00.00	TO	21+12.77	112.77	--	--	16.	104.4
S02	SS '5'	21+12.77	TO	22+00.34	--	87.57	--	12.4	73.
S02	SS '5'	22+00.34	TO	22+86.08	85.74	--	--	12.1	71.4
S03	SS '5'	22+86.08	TO	25+80.71	294.63	--	--	41.7	272.8
S03	SS '5'	25+80.71	TO	26+37.74	57.03	--	--	8.1	52.8
S03	SS '5'	26+37.74	TO	28+04.37	166.63	--	--	23.6	154.3
S04	SS '6'	30+00.00	TO	32+55.85	255.85	--	--	36.2	236.9
S04	SS '6'	32+55.85	TO	33+03.47	47.62	--	--	6.7	39.7
S04	SS '6'	33+03.47	TO	33+53.94	50.47	--	--	7.1	42.1
				TOTALS	1,445.	159.	--	227.	1,385.

SUMMARY OF FORCE MAIN (PHASE 3, ALT 2)

SHEET NO.	ALIGNMENT NAME	STATIONING			FITTINGS: PVC TO HDPE COUPLING	FITTINGS: 4" 45 DEG. BEND, RJ	FITTINGS: 4" 22.5 DEG. BEND, RJ	FITTINGS: 4" 11.25 DEG. BEND, RJ	VALVES: 4" CHECK VALVE, RJ	VALVES: 4" GATE VALVE, RJ	VALVES: 2" COMBO AIR RELEASE VALVE W/CAN & LID	VALVES: VALVE BOX	VALVES: VALVE BOX EXTENTION	PIPE: 4" PVC SDR 35	PIPE: 4" HDPE (DIRECTION BORE)	PIPE: RESTRAINED 4" DUCTILE IRON	PIPE: BEDDING MATERIAL	PIPE: EXCAVATION & BACKFILL
					EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	CY	CY
S06	FM '1'	40+00.00	TO	41+00.00	1.	--	--	1.	1.	1.	--	2.	2.	11.	90.	--	1.1	3.3
S06	FM '1'	41+00.00	TO	42+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S06	FM '1'	42+00.00	TO	43+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S06	FM '1'	43+00.00	TO	44+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S06	FM '1'	44+00.00	TO	45+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S07	FM '1'	45+00.00	TO	46+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S07	FM '1'	46+00.00	TO	47+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S07	FM '1'	47+00.00	TO	48+00.00	--	--	--	--	--	--	--	--	--	--	100.	--	--	--
S07	FM '1'	48+00.00	TO	48+25.97	1.	--	--	1.	--	--	--	--	--	24.	2.	--	2.3	7.1
				TOTALS	2.	--	--	2.	1.	1.	--	2.	2.	35.	792.	--	3.	10.

Plans and Estimates Prepared by:
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REVISION | BY | DATE

PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

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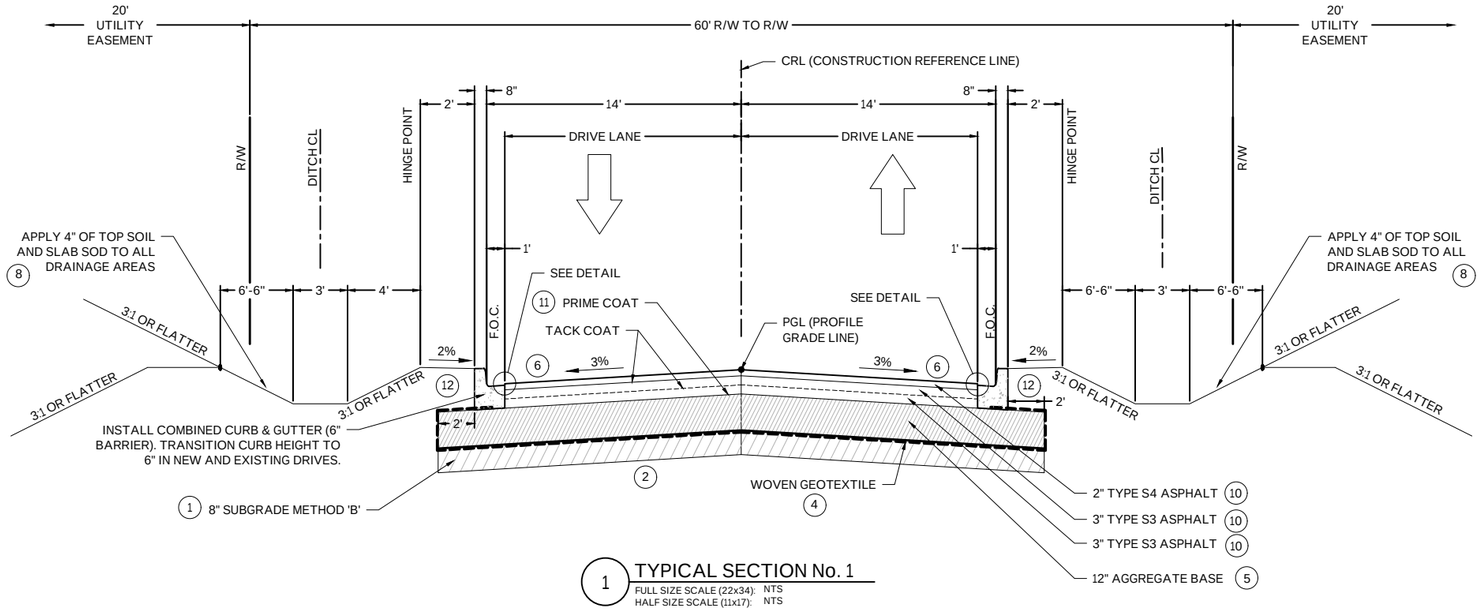
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

SUMMARIES
(2 OF 2)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	09 OF 80
DRAWING:	G09

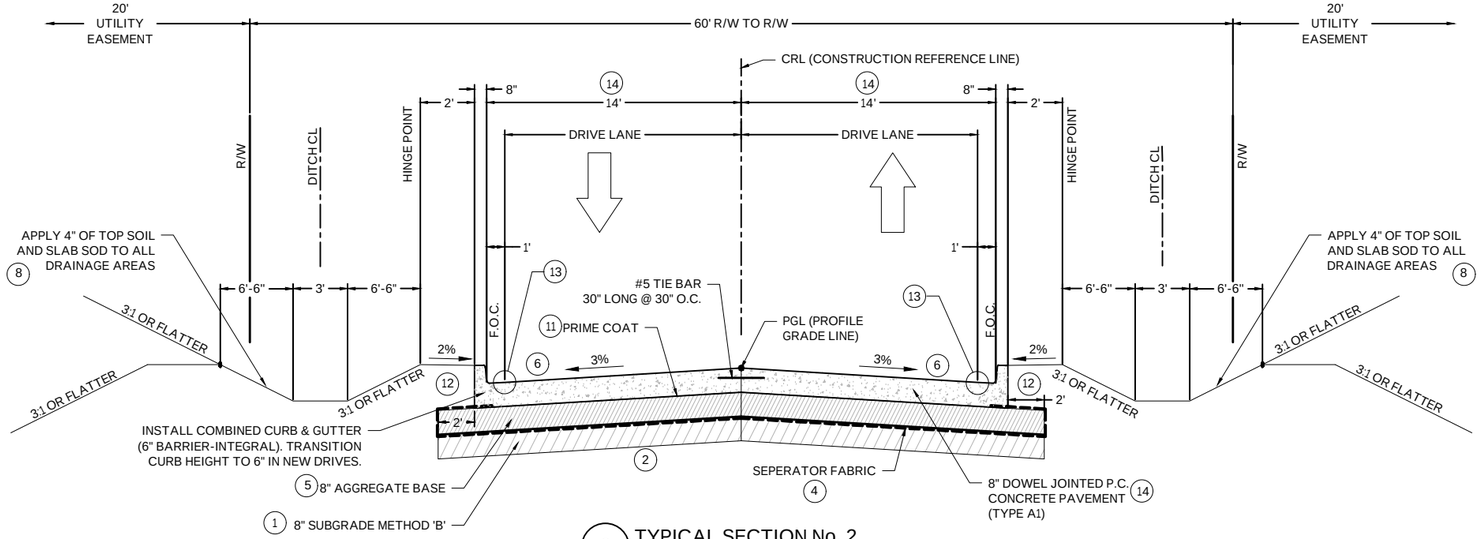
1/9/2026 9:45:43 AM



1 TYPICAL SECTION No. 1

FULL SIZE SCALE (22x34): NTS
HALF SIZE SCALE (11x17): NTS

PHASE '3' (ADD. ALT. 2) -COMMERCE DR. - STA. 54+00 TO 68+44
PHASE '3' (ADD. ALT. 2) - SIDE ROAD - STA. 80+00 TO 82+00



2 TYPICAL SECTION No. 2

FULL SIZE SCALE (22x34): NTS
HALF SIZE SCALE (11x17): NTS

PHASE '3' (ADD. ALT. 7) - COMMERCE DR. - STA. 54+00 TO 68+44
PHASE '3' (ADD. ALT. 7) - SIDE ROAD - STA. 80+00 TO 82+00

GENERAL NOTES

TOPSOILING NOTE

The Contractor shall strip all of the available topsoil, stockpile it and place it back on the section in accordance with Section 205 of the current ODOT Standard Specification. Reserved topsoil shall be spread first on the completed slopes of the cut sections and the remainder on completed fill slopes or other Priority Areas located be the Engineer. All additional costs associated with operation shall be included in the Pay Items for salvaged topsoil, lump sum.

The Grading Line as shown on the typical and cross sections it to the top of the topsoil. Earthwork Quantities were not adjusted for salvage and the Topsoil Quantity is included.

ROUNDING NOTE

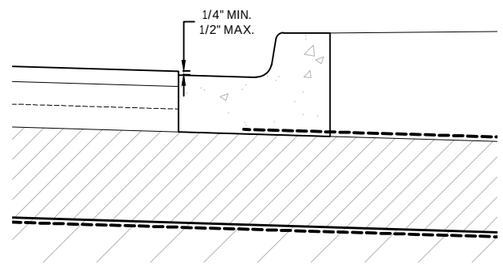
Intersection of cut and fill slopes with the ground line are to be rounded as a part of the finish operations. Rounding shall be 5' minimum for smaller cuts and fills, to 15' maximum for larger cuts and fills or as designated by the Engineer. Cost of rounding to be included in the price bid for other items of work.

BACKFILLING NOTE

To be Backfilled and Compacted as a part of the Finishing Operations. This work will be measured and paid for as unclassified borrow with no rocks or organics.

TYPICAL SECTION NOTES

1. *Subgrade soils* shall be compacted as specified in ODOT Standards Section 310.04, Method B with the following exceptions: Subgrade soils shall be scarified to a depth of net less than 8", the moisture content of the scarified soil adjusted to not less than optimum and compacted with a range of 94% to 98% of standard density as determined by AASHTO T-99. Cost to be included in other items of work.
2. All *fill soil material* utilized in the roadway bedding shall consist of 'non-expansive clays' structural fill approved by testing firm. Fill material shall be installed in horizontal layers and bench into the native embankment.
3. *Proofrolling* of the exposed subgrade and proper compaction of fill is required to detect and correct unstable or undesirable material to create support for the placed elements. Failed subgrade shall be undercut and filled with acceptable structural fill material.
4. *High performance woven polypropylene geotextile* for subgrade separation, soil reinforcement, confinement and filtration reinforcement. Inert to biological degradation and naturally encountered chemicals. An approved equal to Mirafi HP 370.
5. *Aggregate base* shall be crushed stone meeting the gradation requirements of Type A as specified in ODOT Standard Section 703.01(d). Type A aggregate base shall be placed on native subgrade soils and compacted to not less than 98% of Standard Proctor Density as determined by AASHTO T-99. Aggregate base shall be placed and compacted in lifts which will result in a maximum compacted thickness of 6".
6. Normal cross slope will be as shown on the typical sections. When connecting to existing pavement the new pavement *Transition/Rotation rate* shall be 0.0005 foot per foot from the PGL to match at existing pavement profile.
7. The top surface of the *Type S4 Asphalt* shall be completed a ½" higher than gutter pan edge.
8. Permanent Pavement Section Slope Protection: Install *solid slab sod* on approved top soil grade at all roadway and driveway fore slopes, ditch bottoms and 4 foot of back slope per ODOT SSS-1. Place either 8" of topsoil or topsoil mixed with mulch underneath all drainage areas.
9. *All longitudinal and transverse joints* are to be green concrete sawed ASAP after placement then dimensioned sawed and sealed at all curb and gutter, drive, roadway, sidewalk and median joints in accordance with ODOT Standard LCES-2.
10. Type S3 asphalt to be superpave (PG 64-22 OK), Type S4 to be superpave (PG 70-28 OK)
11. Prime coat to be replaced with Tack coat on edges as approved by engineer.
12. Backfill and compact as part of the finishing operations. This material will obtained from excess excavation. No payment will be made for finishing operations.
13. Longitudinal Tie Joint, See drawing R02, detail 06.
14. Successful contractor to submit a concrete joint layout and rebar plan for approval prior to beginning work.



3 ODOT ASCD-6
6" BARRIER CURB DETAIL

FULL SIZE SCALE (22x34): NTS
HALF SIZE SCALE (11x17): NTS

LICENCED PROFESSIONAL ENGINEER
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REVISION	BY	DATE

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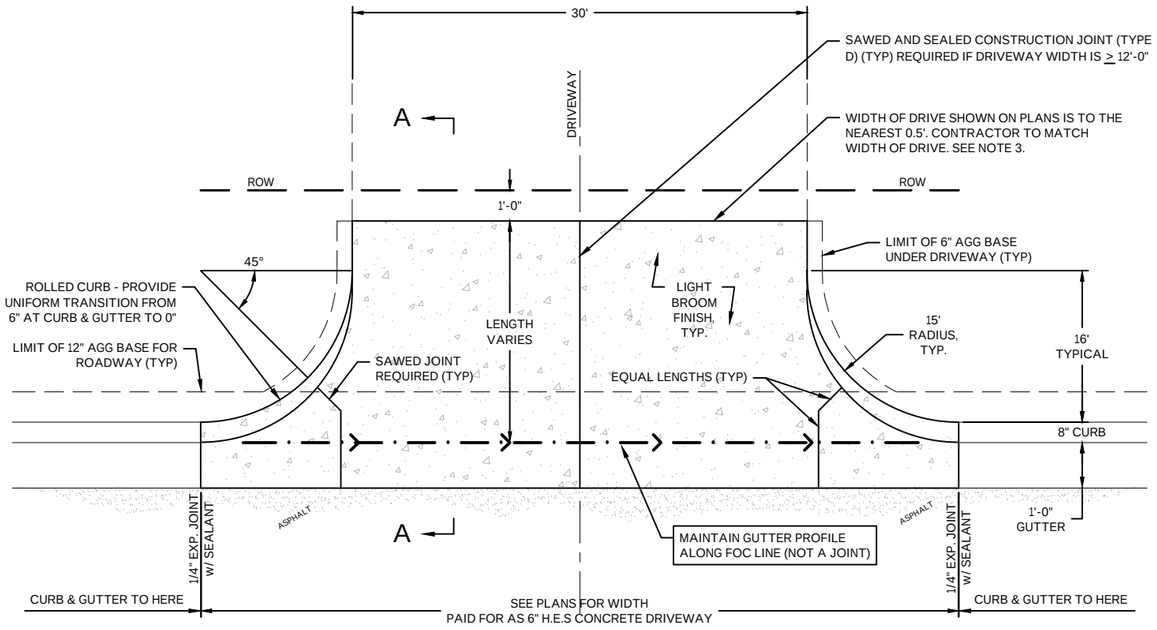
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

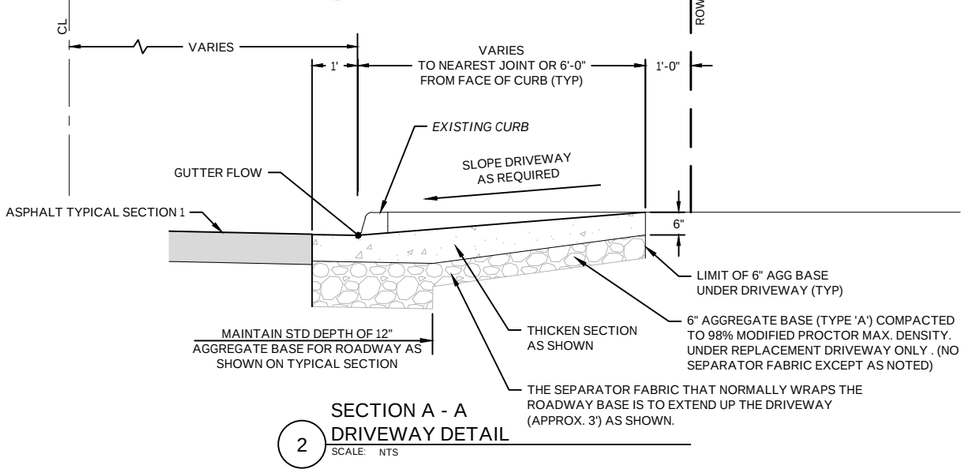
TYPICAL SECTIONS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	*JANUARY 9, 2026*
SHEET:	10 *OF* 80
DRAWING:	R01

1/9/2026 9:45:45 AM



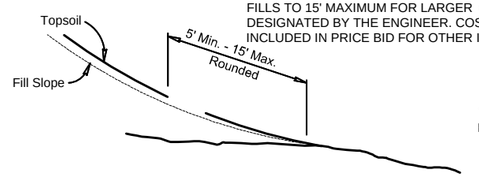
1 PLAN
DRIVEWAY DETAIL
SCALE: NTS



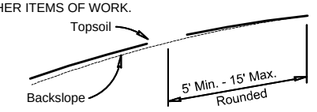
2 SECTION A - A
DRIVEWAY DETAIL
SCALE: NTS

ROUNDING DETAIL

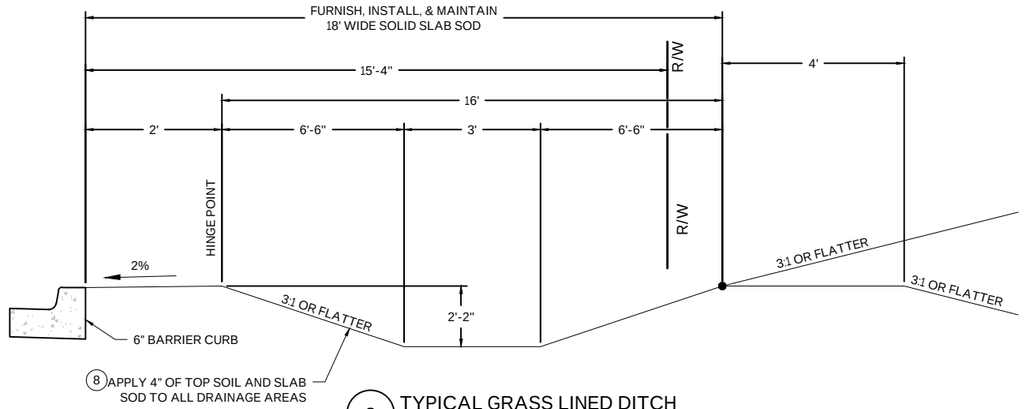
INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.



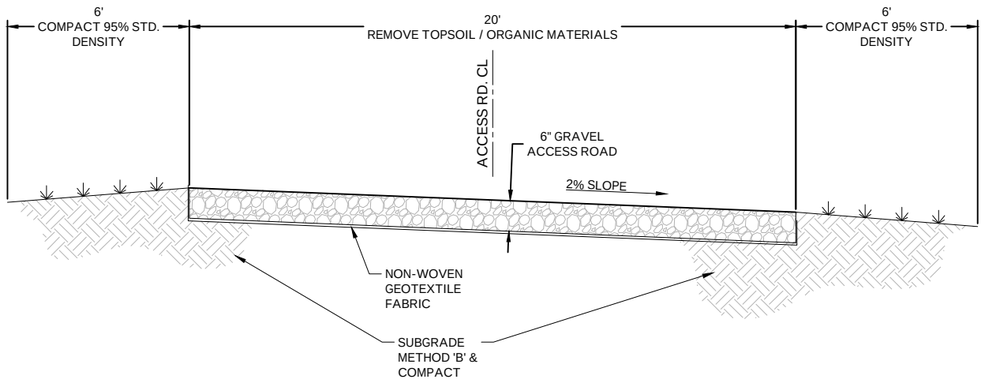
TOE OF FILL ROUNDING



TOP OF CUT ROUNDING

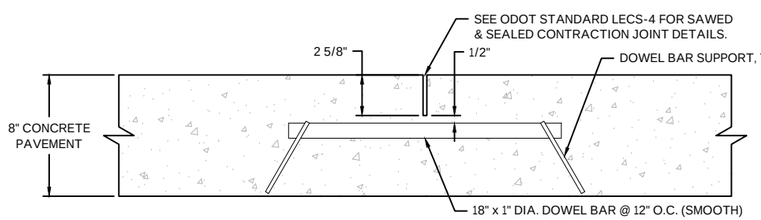


3 TYPICAL GRASS LINED DITCH
FULL SIZE SCALE (22x34): NTS
HALF SIZE SCALE (11x17): NTS

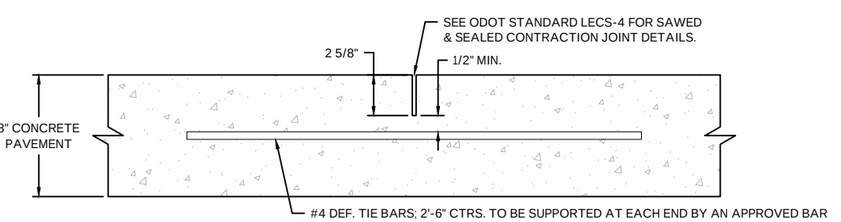


4 PHASE 3 - ACCESS RD. TYPICAL SECTION
FULL SIZE SCALE (22x34): NTS
HALF SIZE SCALE (11x17): NTS

PHASE '3' - ACCESS RD. - STA. 82+00 TO 86+50



5 TRANSVERSE DOWELED CONTRACTION JOINT
SCALE: NTS



6 LONGITUDINAL TIE JOINT
SCALE: NTS

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DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PAVEMENT & DITCH DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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DRAWING:	R02

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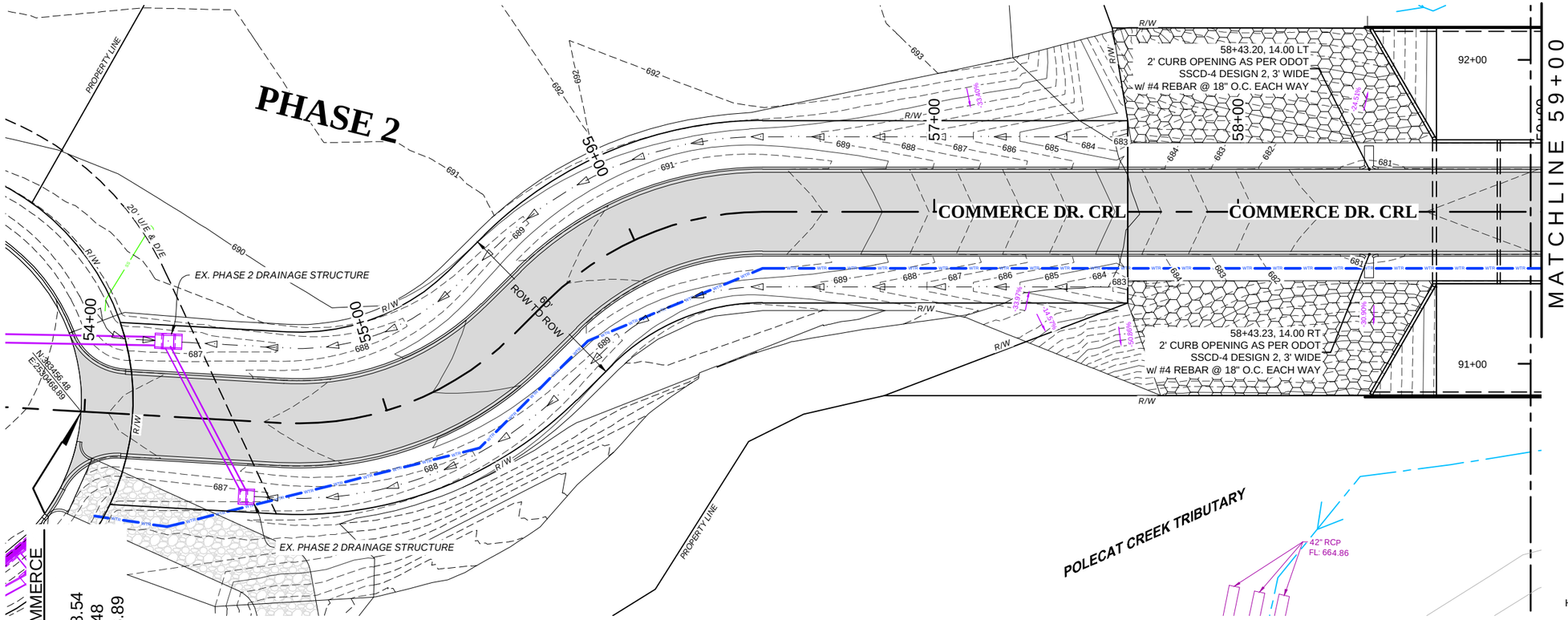

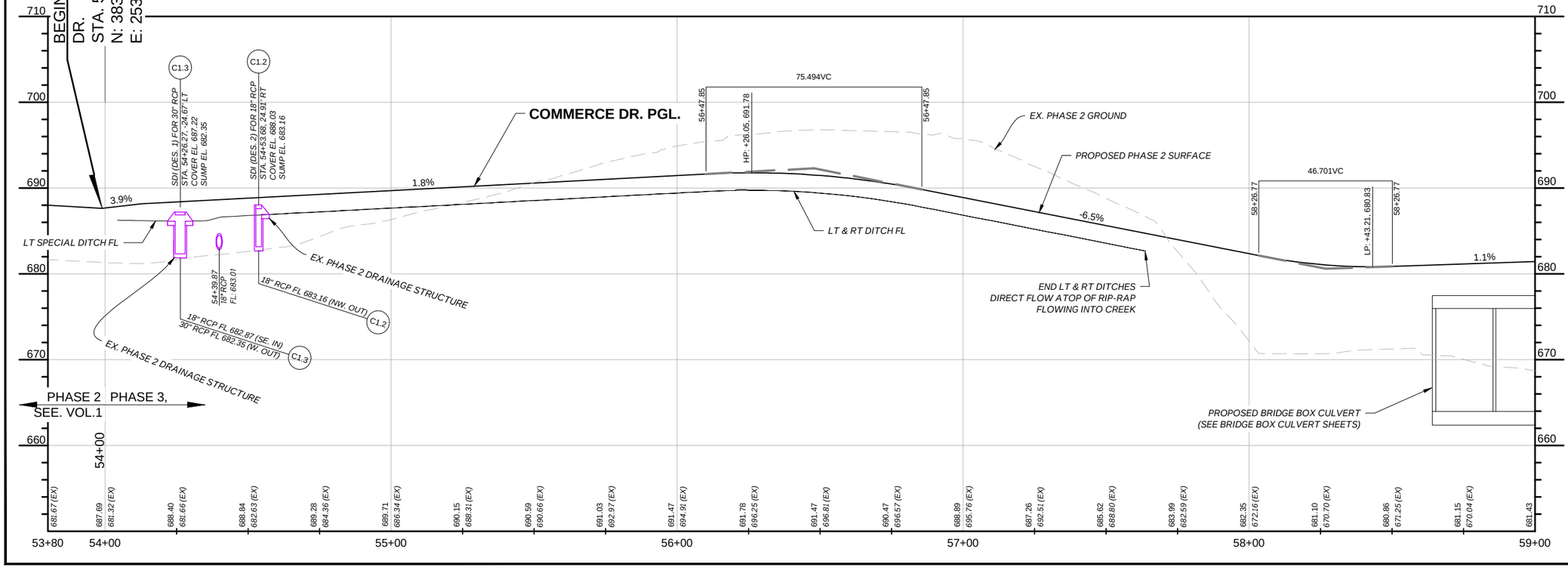

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
COMMERCE DR.
STA 53+99 T0
STA 59+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
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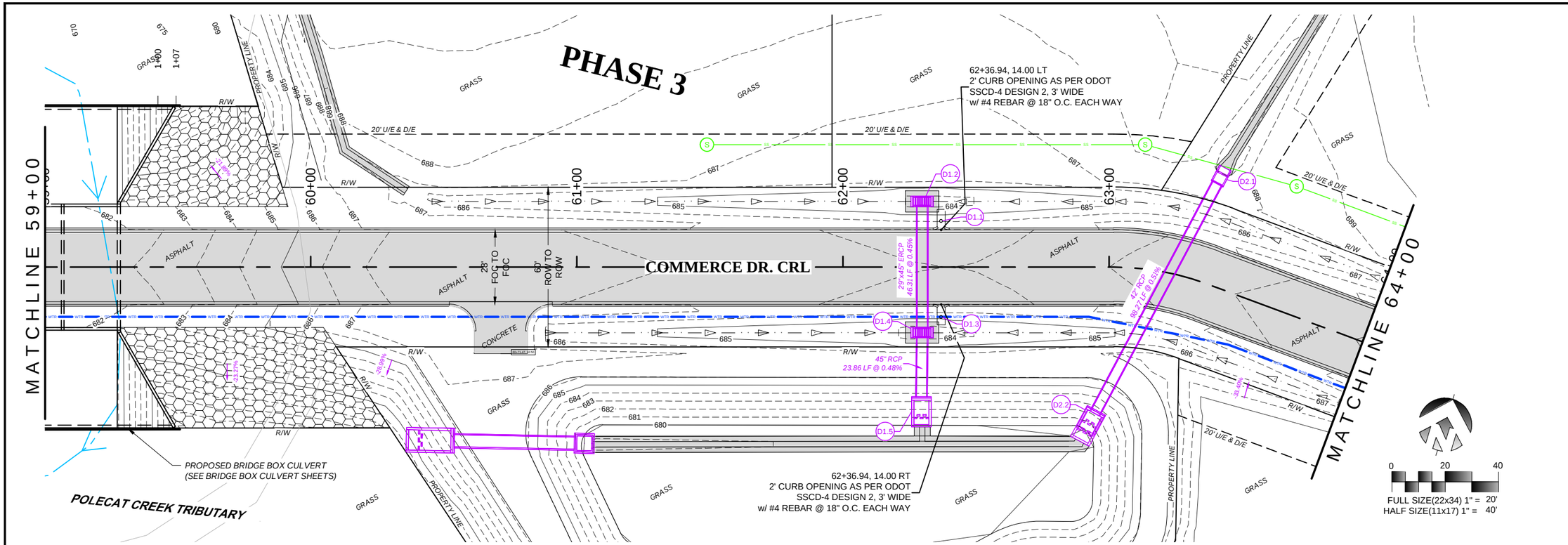

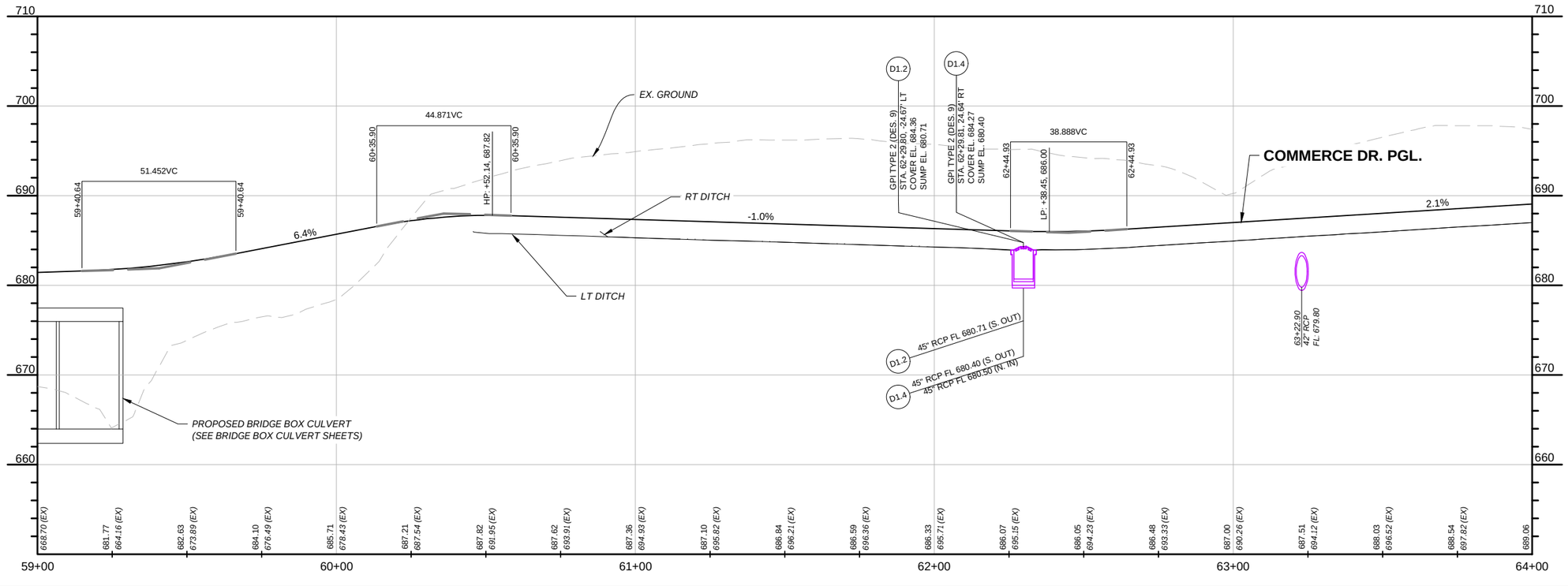

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
COMMERCE DR.
STA 59+00 TO
STA 64+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
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SHEET:	13 OF 80
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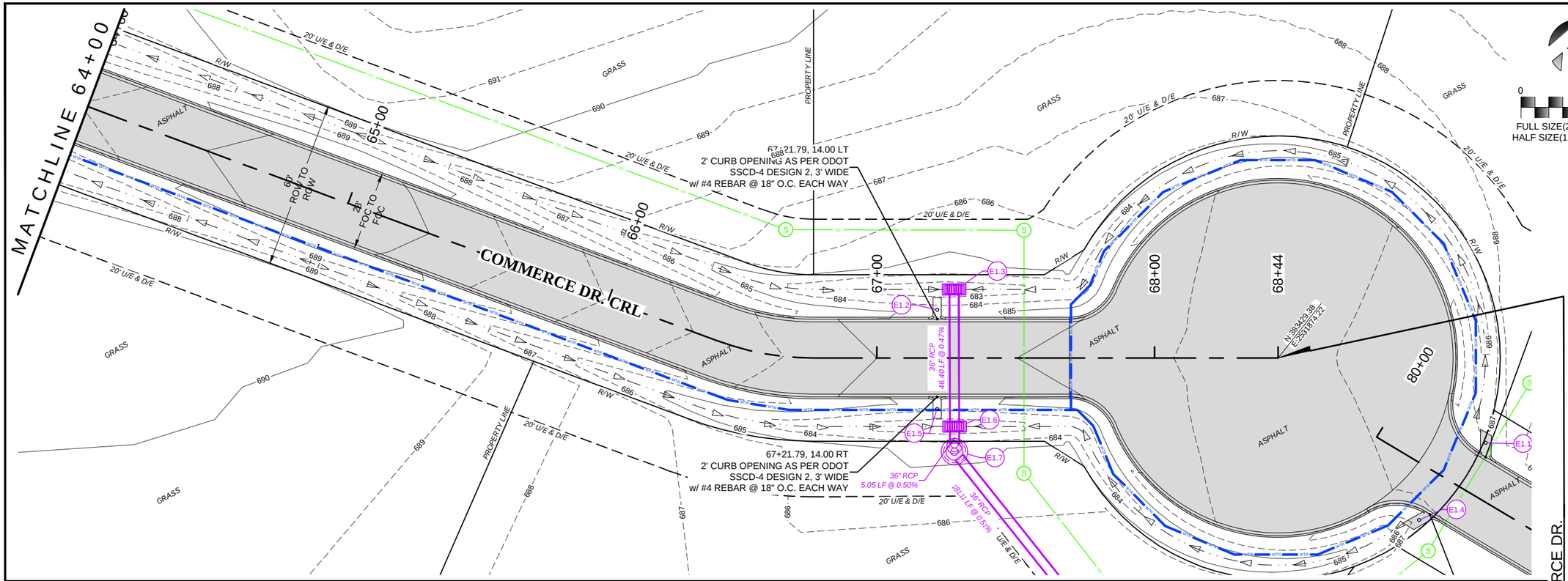
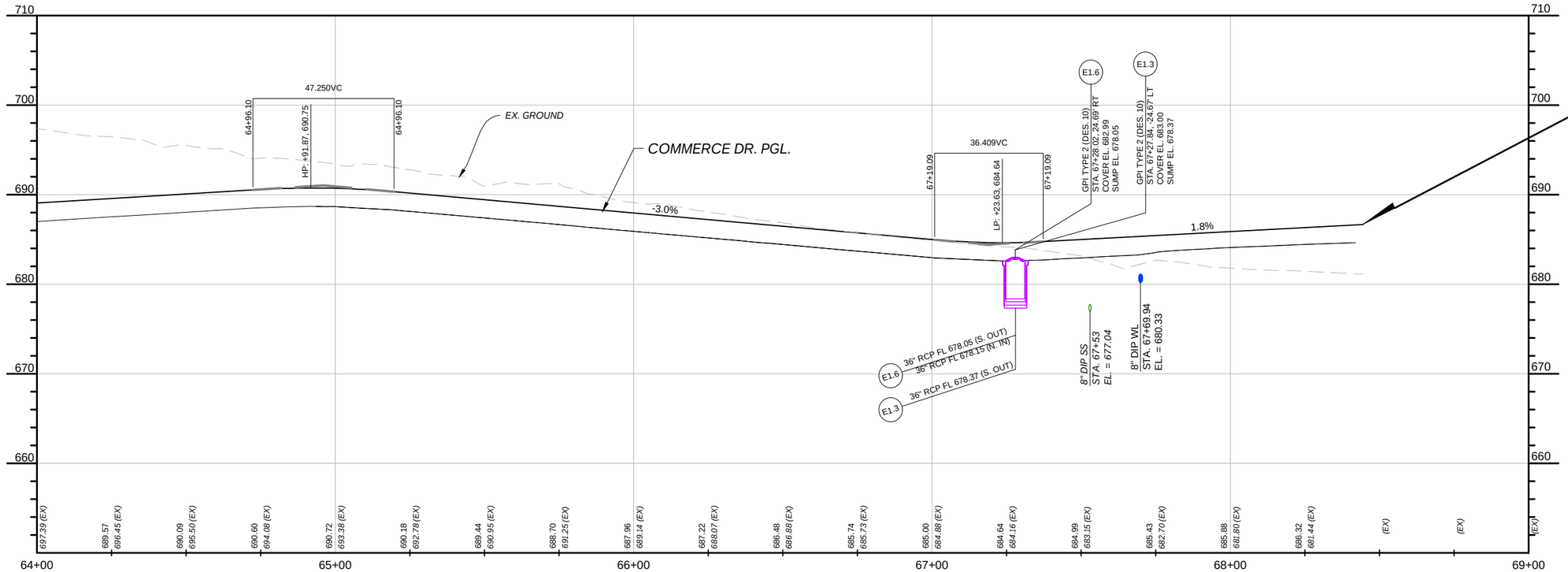


END COMMERCE DR.
STA. 68+44
N: 383429.38
E: 2531874.22



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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE COMMERCE DR. STA 64+00 TO STA 68+44

PROJECT #	24.11
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DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
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DRAWING:	R05

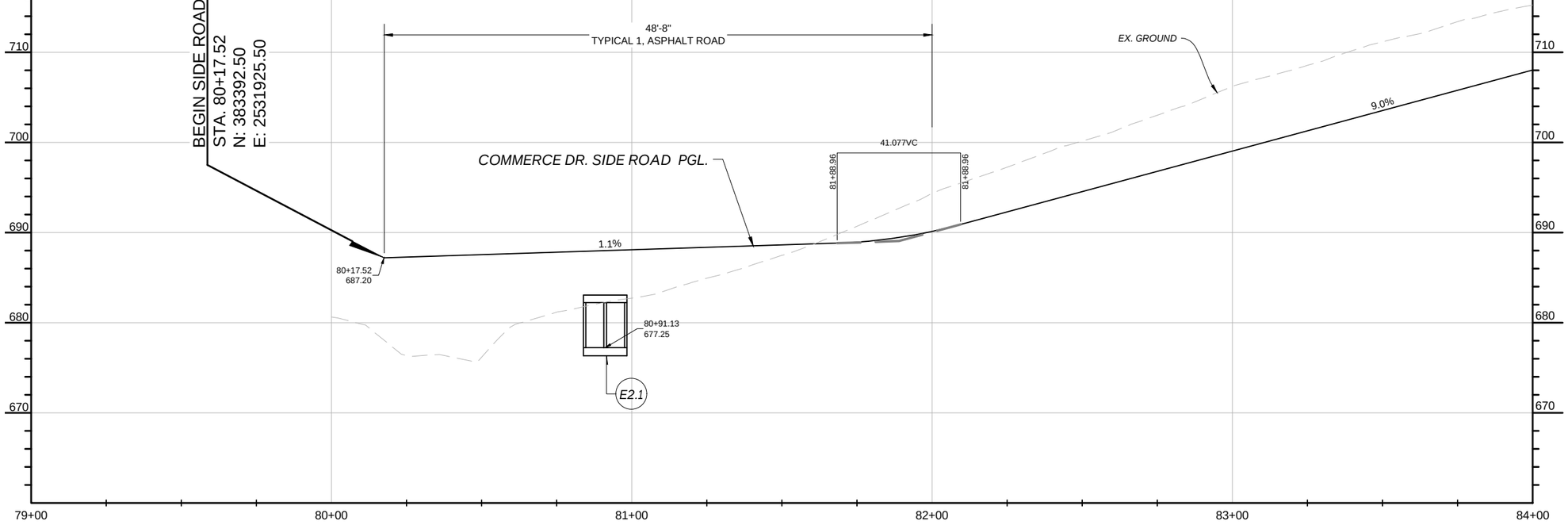
80+37.30, 14.00 LT
2' CURB OPENING AS PER ODOT
SSCD-4 DESIGN 1, 3' WIDE
w/ #4 REBAR @ 18" O.C. EACH WAY

80+30.63, 14.00 RT
2' CURB OPENING AS PER ODOT
SSCD-4 DESIGN 1, 3' WIDE
w/ #4 REBAR @ 18" O.C. EACH WAY

SEE DRAINAGE SHEET - STORM ALIGNMENT E2

MATCHLINE 84+00

0 20 40
FULL SIZE(22x34) 1" = 20'
HALF SIZE(11x17) 1" = 40'



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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 3)
PLAN & PROFILE
SIDE ROAD
LINE_4

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
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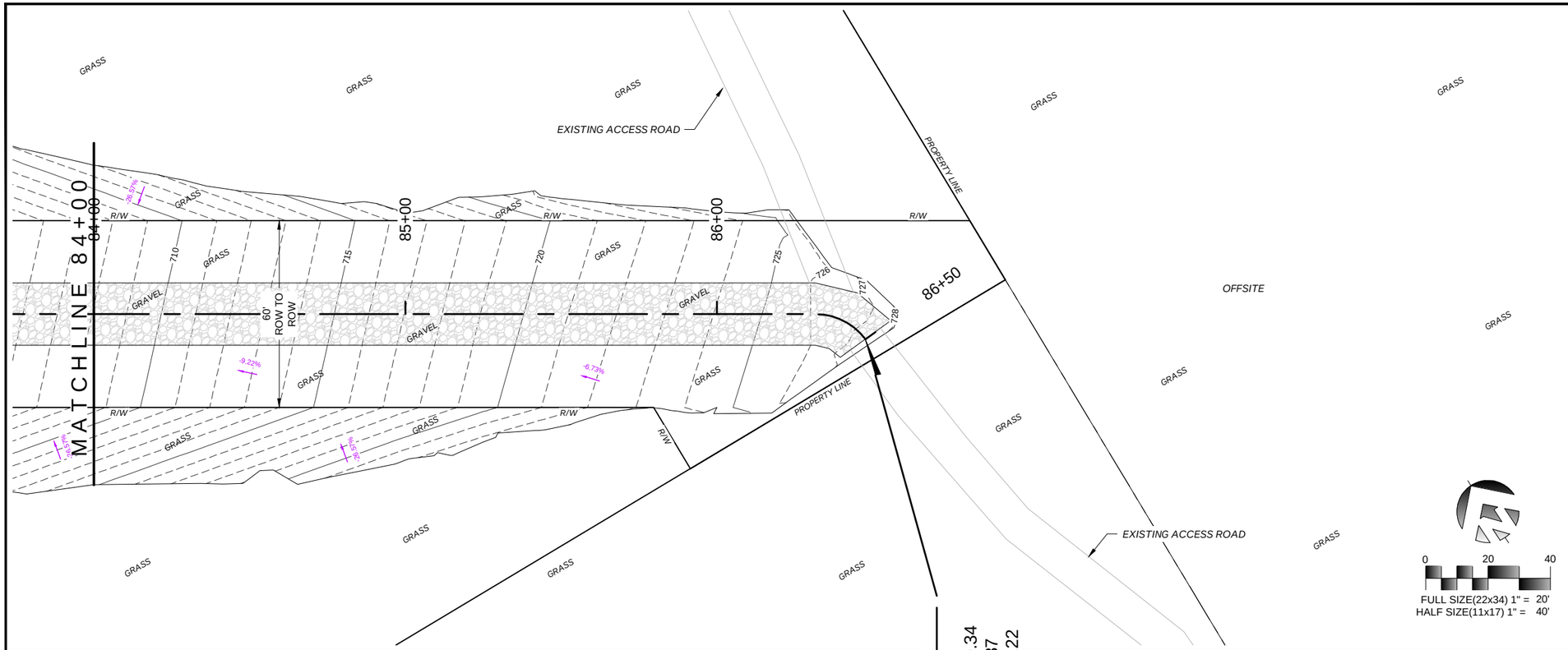

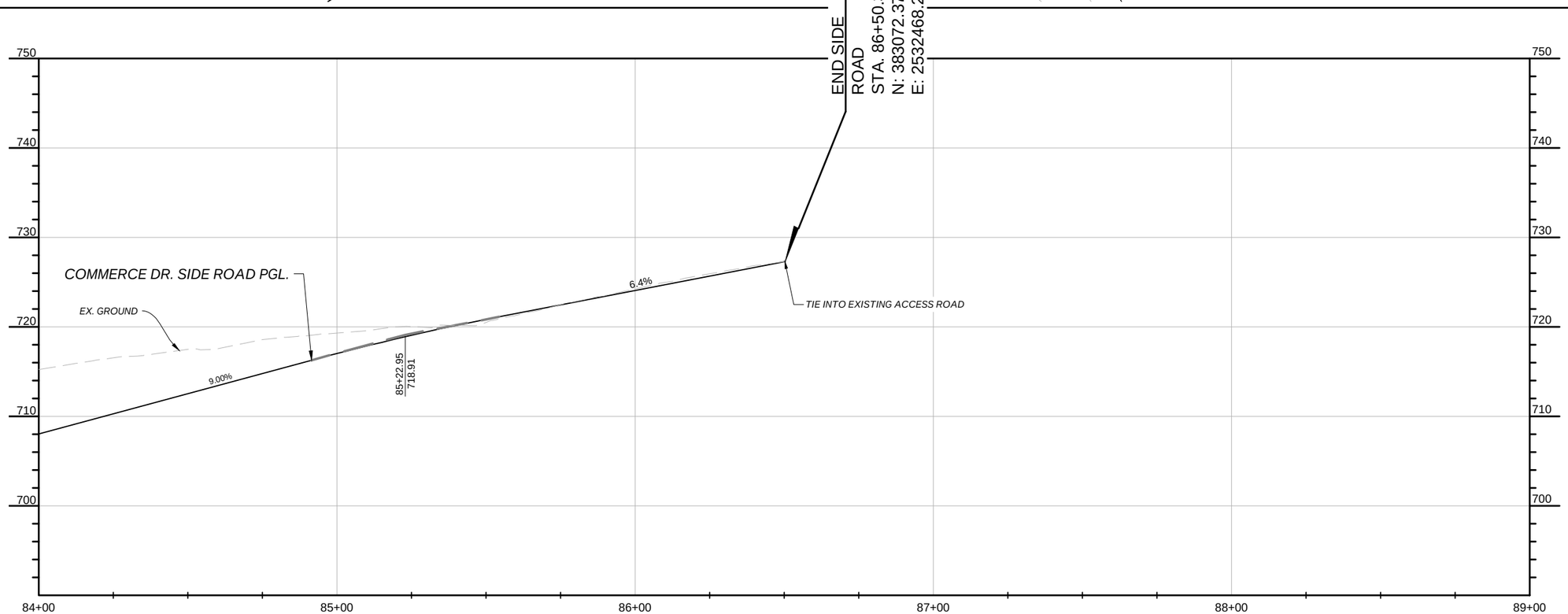

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
SIDE ROAD
LINE_4

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
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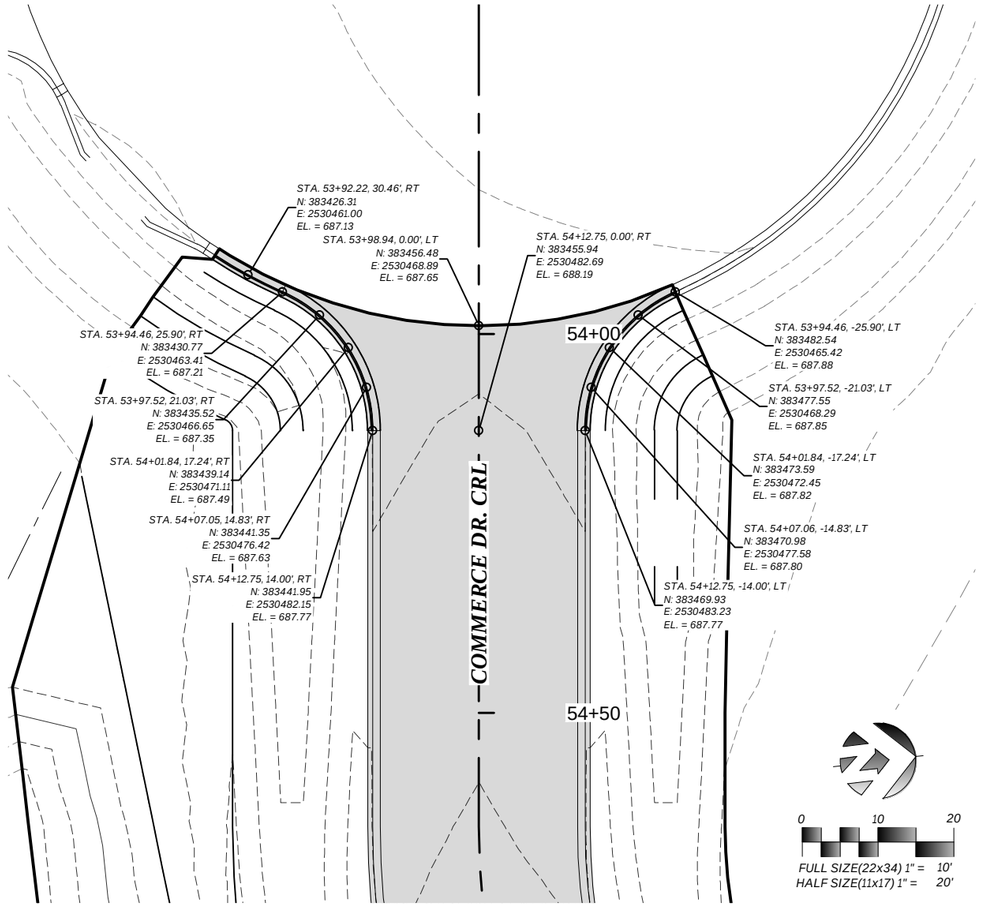
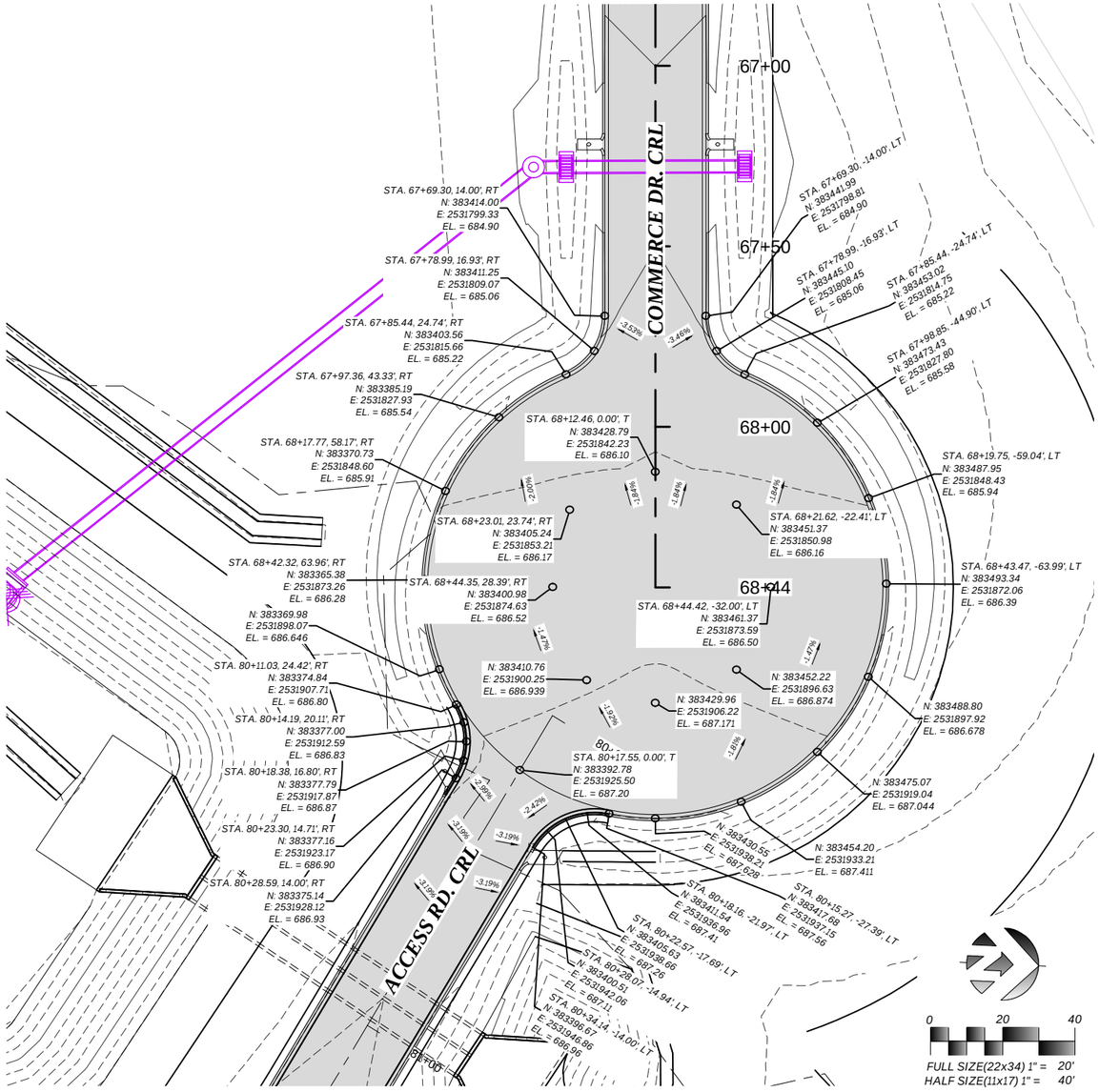


1 *INTERSECTION @ PHASE 2 COMMERCE DR. & PHASE 3 COMMERCE DR.*

FULL SIZE SCALE (22x34): 1" = 10'
HALF SIZE SCALE (11x17): 1" = 20'



2 *CUL-DE-SAC @ COMMERCE DR.*

FULL SIZE SCALE (22x34): 1" = 20'
HALF SIZE SCALE (11x17): 1" = 40'

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3
INTERSECTION
DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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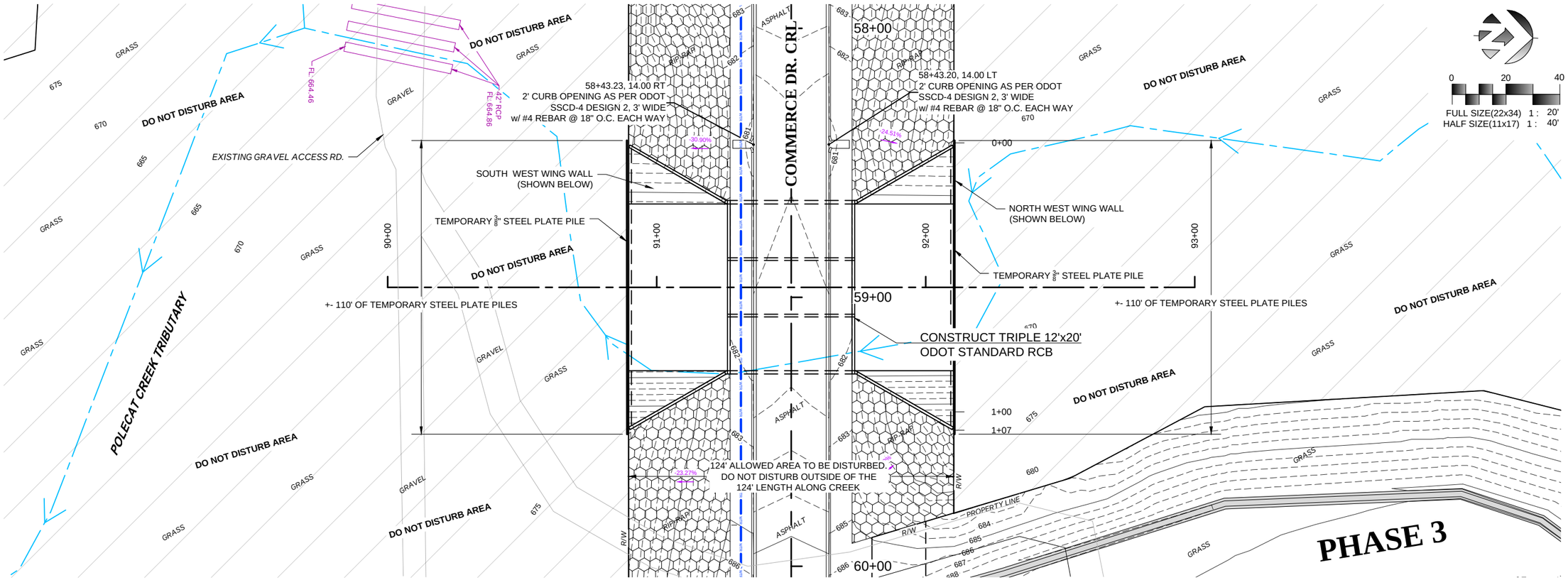
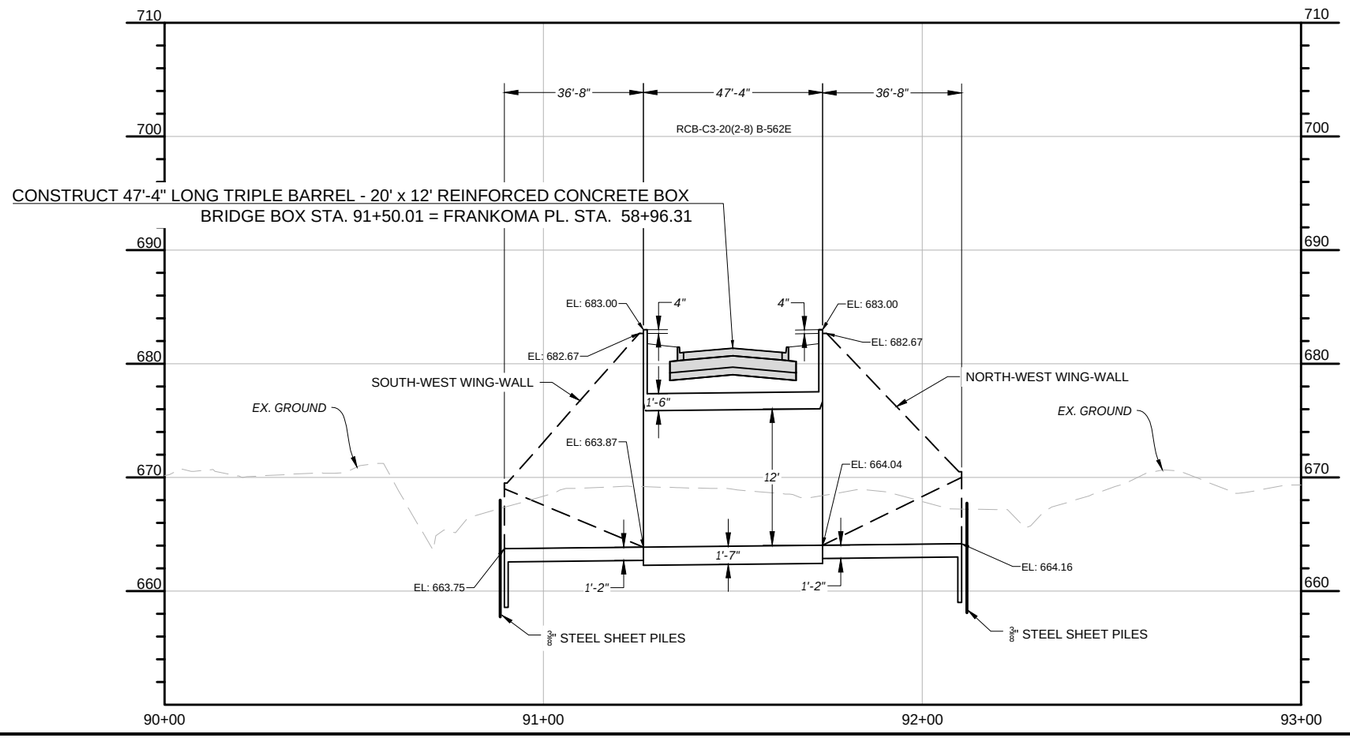
DRAWING:	R08





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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
REINFORCED
CONCRETE
BOX CULVERT

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
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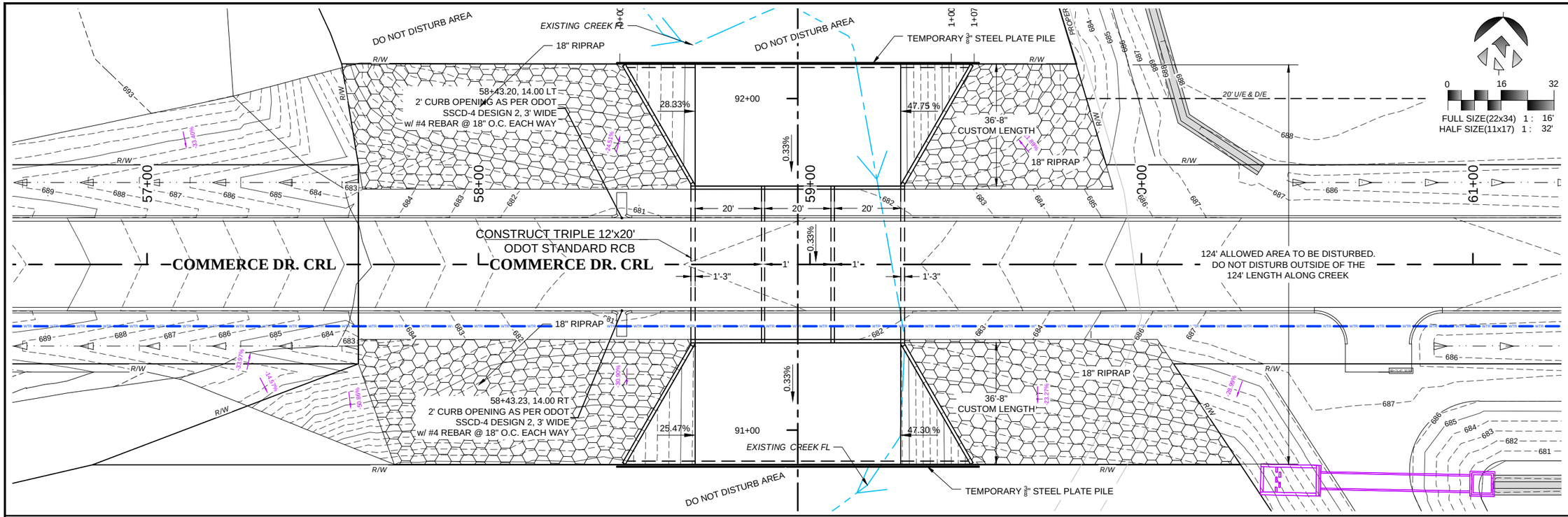

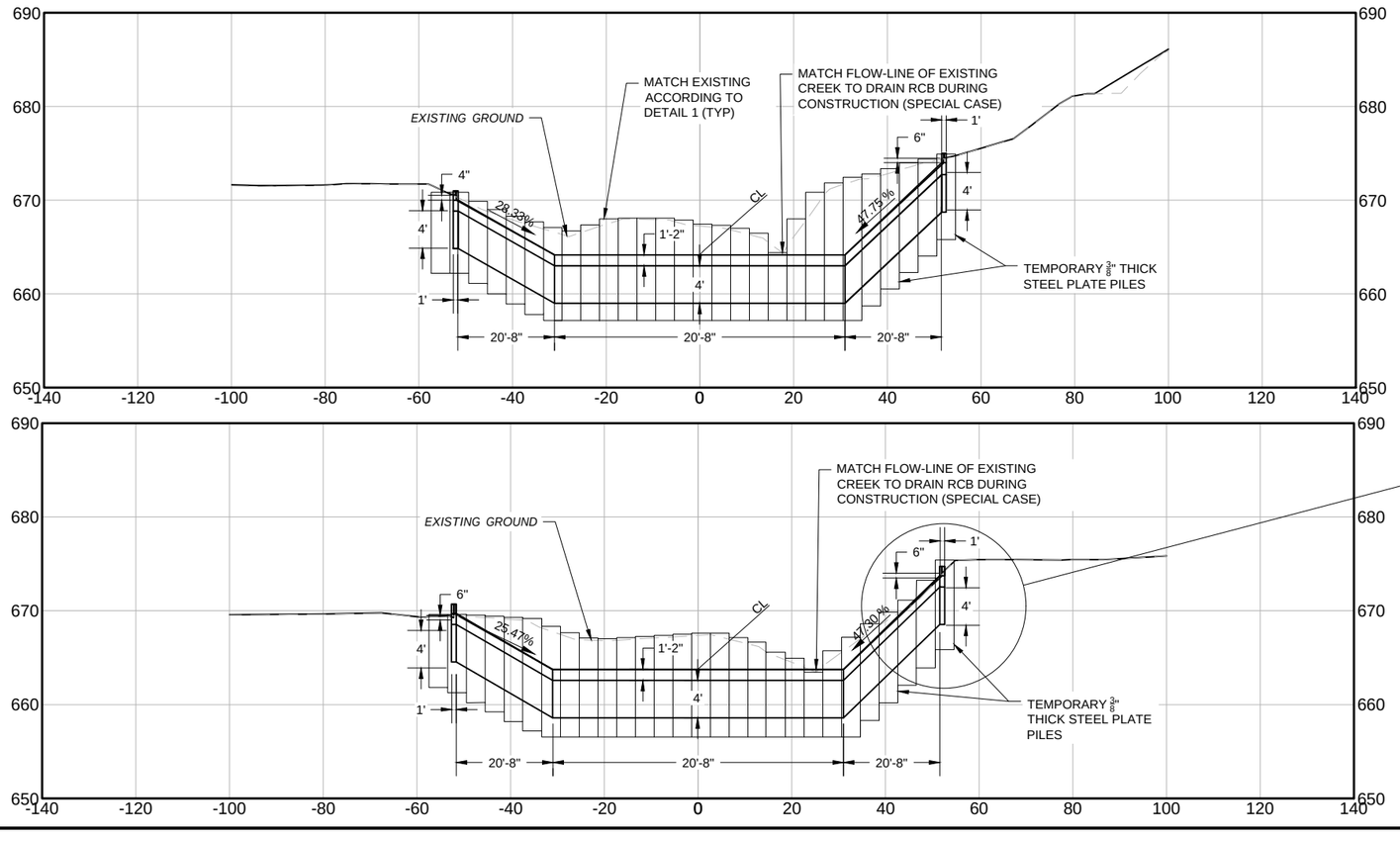

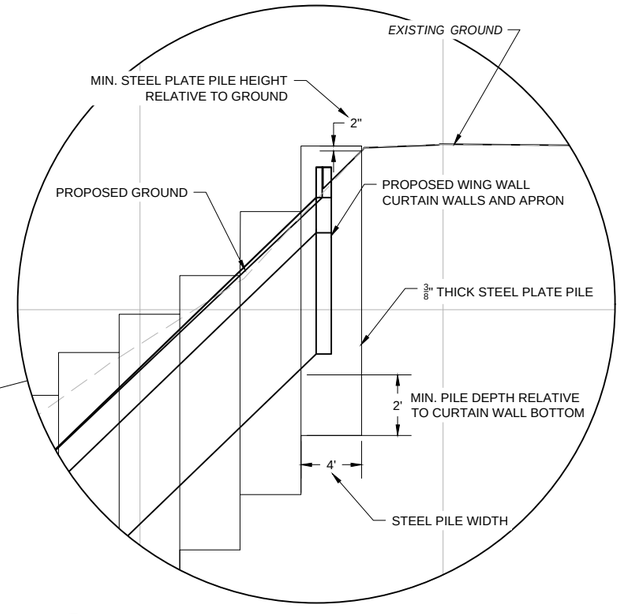

1 TEMPOARY STEEL PLATE PILE DETAIL
SCALE: 1" = 5'

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01/09/2026
OKLAHOMA

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

RCB APRON
CROSS SECTIONS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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DRAWING:	B02

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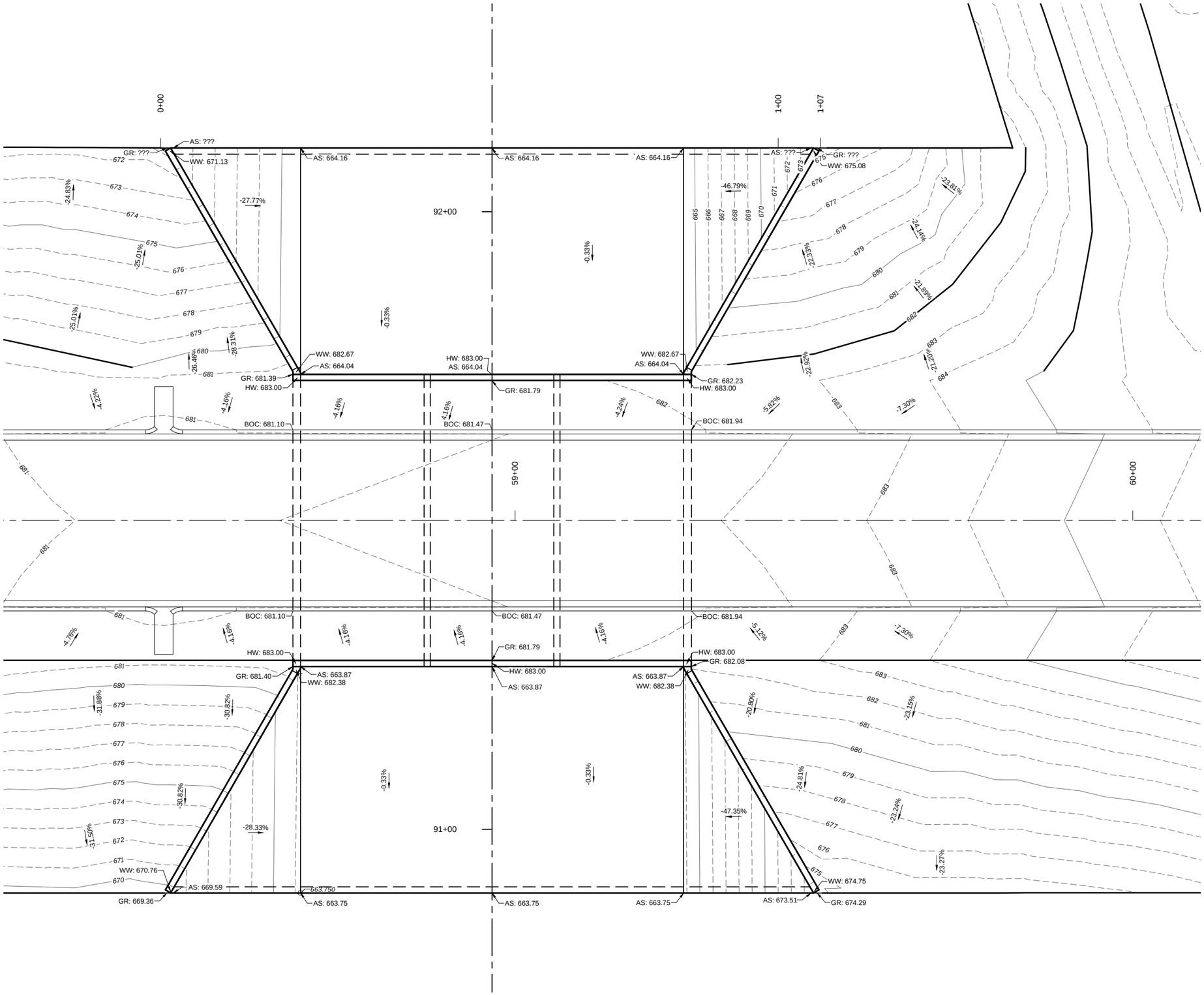

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SAPULPA, OKLAHOMA

BRIDGE BOX
CULVERT
PLAN

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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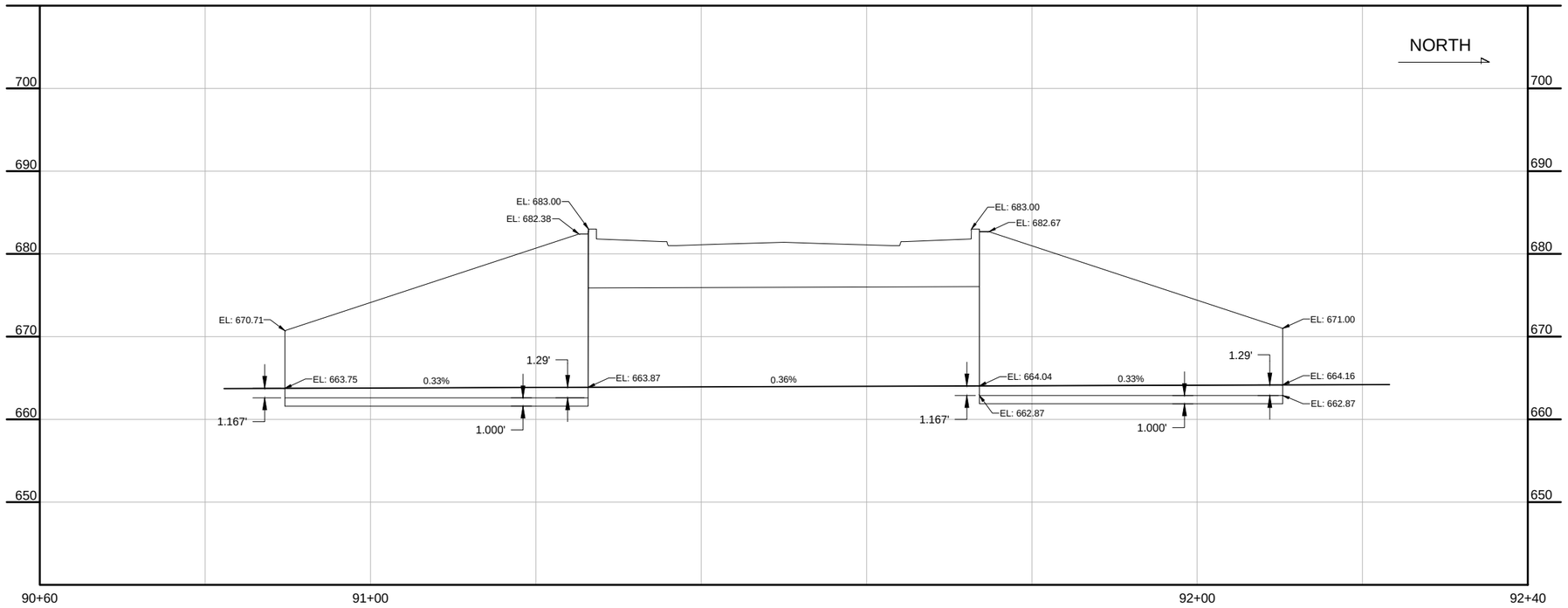
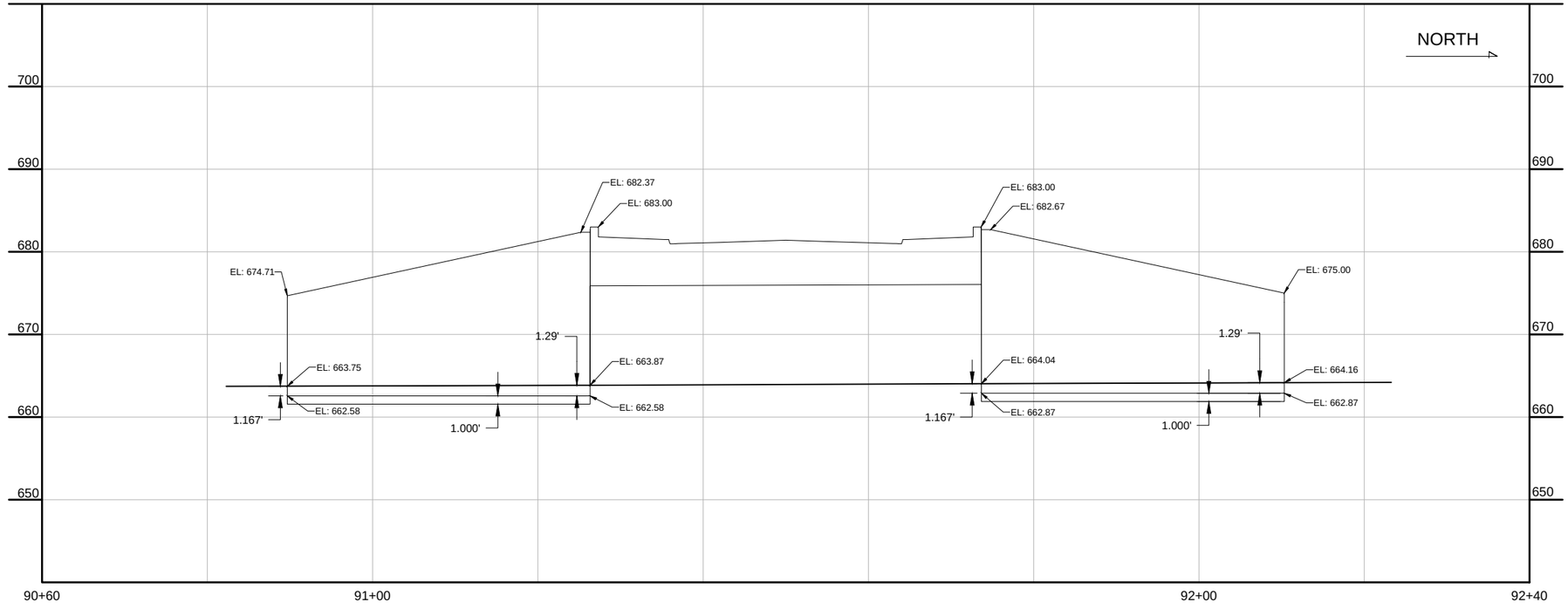


1 *BRIDGE BOX CULVERT - WEST WING WALLS AND FOOTING (SKEWED)*

SCALE: 1" = 8'



2 *BRIDGE BOX CULVERT - EAST WING WALLS AND FOOTINGS (SKEWED)*

SCALE: 1" = 8'

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BRIDGE BOX PROFILES

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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REINFORCING STEEL

SECTION DIMENSIONS						A1-BARS				A2-BARS				A3-BARS			
S	H	T	U	W	Z	Size	Spa	Length	Lbs/Ft	Size	Spa	Length	Lbs/Ft	Size	Spa	Length	Lbs/Ft
20'	12'	18"	19"	15"	12"	#8	6"	70'-11"	757.4	#9	6"	33'-5"	454.5	#4	6"	18'-4"	98.0

B1-BARS						B2-BARS					
Size	Spa	X	Y	Length	Lbs/Ft	Size	Spa	X	Y	Length	Lbs/Ft
#7	6"	3'-2"	4'-2"	7'-4"	60.0	#7	6"	3'-2"	13'-4"	16'-6"	134.9

C1-BARS				C2-BARS				C3-BARS				C4-BARS			
Size	Spa	Length	Lbs/Ft	Size	Spa	Length	Lbs/Ft	Size	Spa	Length	Lbs/Ft	Size	Spa	Length	Lbs/Ft
#5	12"	2'-8"	11.1	#5	12"	13'-4"	55.6	#5	12"	3'-0"	6.3	#5	12"	13'-4"	27.8

E1-BARS AT 12" MAX.			E2-BARS AT 12" MAX.		
No.	Size	Lbs/Ft	No.	Size	Lbs/Ft
272	#4	181.7	96	#4	64.1

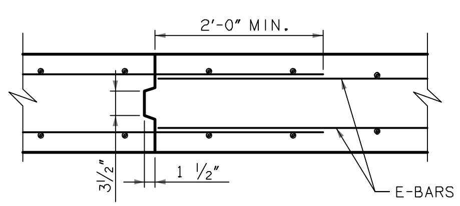
GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 1999 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
2. ALL CONCRETE EDGES SHALL HAVE A 1 ½" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.
3. ALL REINFORCING STEEL SHALL HAVE A 2" MINIMUM CLEAR COVER UNLESS OTHERWISE SHOWN.
4. THE QUANTITY FOR REINFORCING STEEL DOES NOT INCLUDE LAP SPLICES OF E1-BARS OR E2-BARS IN THE LENGTH OF THE BARREL OR AT TRANSVERSE CONSTRUCTION JOINTS. THE SPLICE LENGTH FOR E-BARS SHALL BE 24" MINIMUM. THE NUMBER OF SPLICES USED IS TO BE APPROVED BY THE ENGINEER. REINFORCING STEEL FOR SPLICES SHALL NOT BE MEASURED FOR PAYMENT, AND ALL COSTS WILL BE INCLUDED IN THE UNIT BID PRICE FOR REINFORCING STEEL.
5. TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED IN ALL CULVERTS 100 FT. OR MORE IN LENGTH. JOINTS SHALL BE SPACED AT 60 FT. MAX.
6. REINFORCING STEEL SHALL BE CONTINUOUS THROUGH THE TRANSVERSE CONSTRUCTION JOINT AND EXTEND A MIN. OF 24" INTO ADJACENT SECTION.

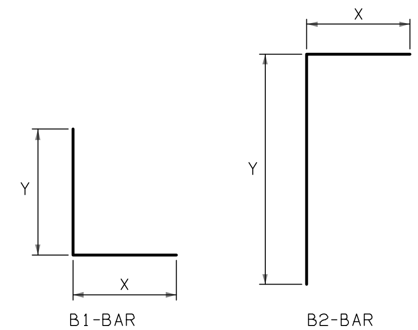
DESIGN DATA:

1. DESIGNED IN ACCORDANCE WITH 1998 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND INTERIM SPECIFICATIONS FROM 1999, 2000, 2001 AND 2002.
2. DESIGNED FOR HL-93 LOADING AND ODOT OVERLOAD TRUCK.
3. MATERIALS:
   CONCRETE (CLASS AA) f'c = 4 KSI
   REINFORCING STEEL fy = 60 KSI

SECTION DIMENSIONS		QUANTITIES		
		PER FOOT OF [TRIPLE] BARREL		BARREL LENGTH
S	H	CONC. (C.Y.)	REINF. (LBS.)	(FT.)
20	12	9.37	1851.4	47.333



RCB TRANSV. CONSTR. JOINT

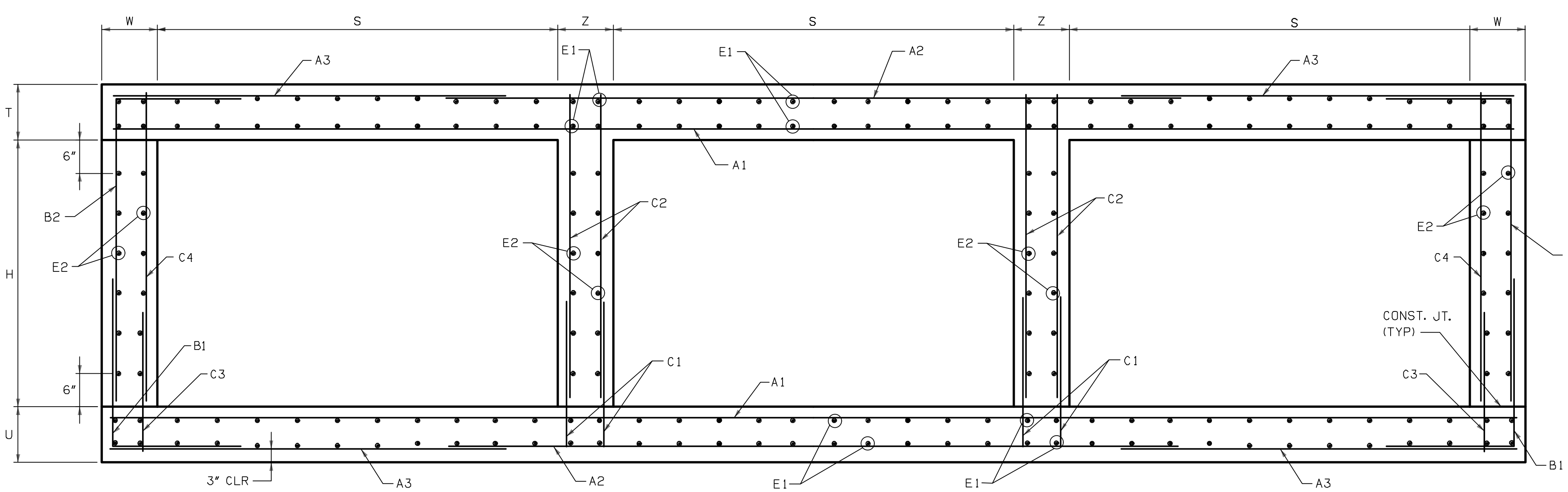


BAR BEND DIAGRAMS

NOTE: ALL "X" DIMENSIONS ARE HORIZONTAL IN BARREL SECTION. ALL "Y" DIMENSIONS ARE VERTICAL IN BARREL SECTION.

SECTION DIMENSIONS		BARREL QUANTITIES PER FOOT OF BARREL	
S	H	CONC. (C.Y.)	REINF. (LB.)
20'	12'	9.37	1851.4

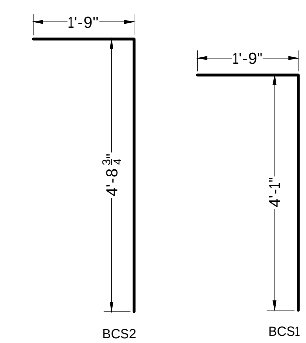
NOTE: NUMBER AND SPACING OF E-BARS SHOWN MAY NOT BE REPRESENTATIVE OF ACTUAL CULVERT SECTIONS, SEE SCHEDULE ABOVE FOR NUMBER AND SPACING OF E-BARS.



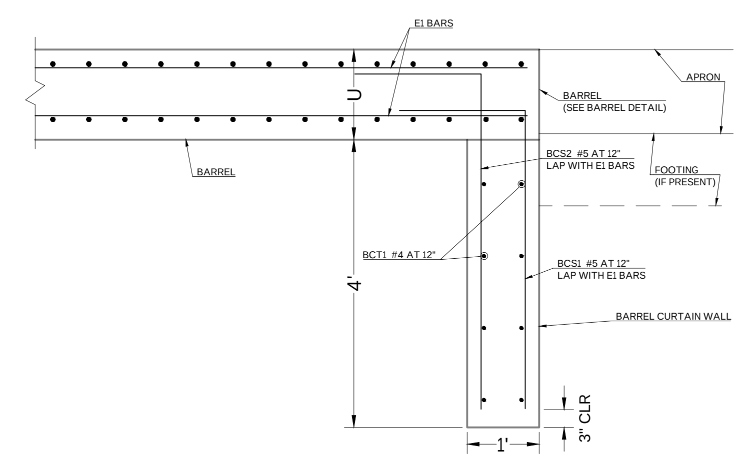
1 BARREL SECTION
SCALE: NTS

BARREL CURTAIN WALL BAR LIST (ONE CURTAIN WALL)							
MARK	SIZE	FORM	SPACING	QTY	LENGTH	REMARKS	TOTAL WEIGHT
				EA	FT		LBS
BCS1	#5	BNT	12"	64	5.83		389.16
BCS2	#5	BNT	12"	64	6.48		432.55
BCT1	#4	STR	12"	8	64.00		342.02
						TOTAL	1163.73

BARREL CURTAIN WALL QUANTITIES (ONE CURTAIN WALL)	
CONCRETE	REIN.
C.Y.	LBS.
9.5	1163.7



BAR BEND DIAGRAMS



2 BARREL CURTAIN WALL
SCALE: 3/4" = 1'

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OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 Know what's below 811 before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

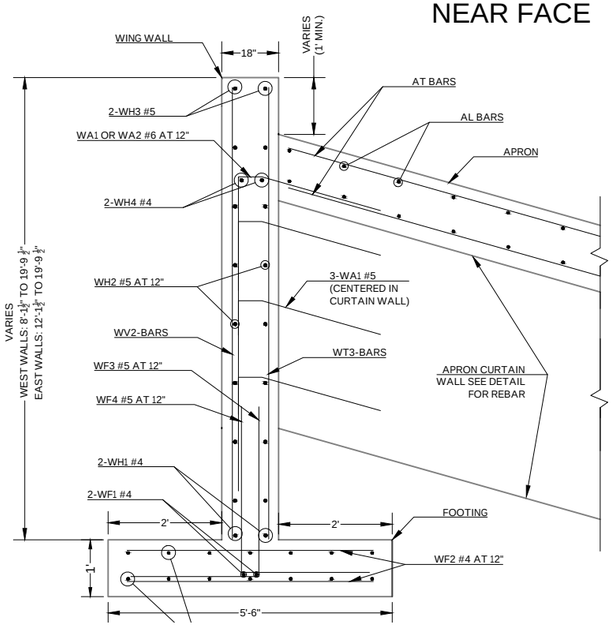
BRIDGE BOX
BARREL DETAIL

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	JANUARY 9, 2026

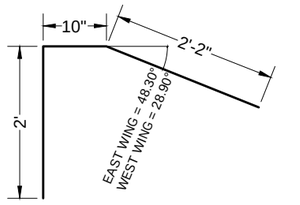
SHEET: 22 OF 80
DRAWING:

1/9/2026 9:48:20 AM

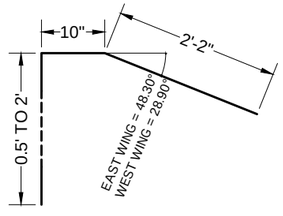
NEAR FACE



2 TYPICAL WING WALL TO APRON & CURTAIN WALL
SCALE: NTS

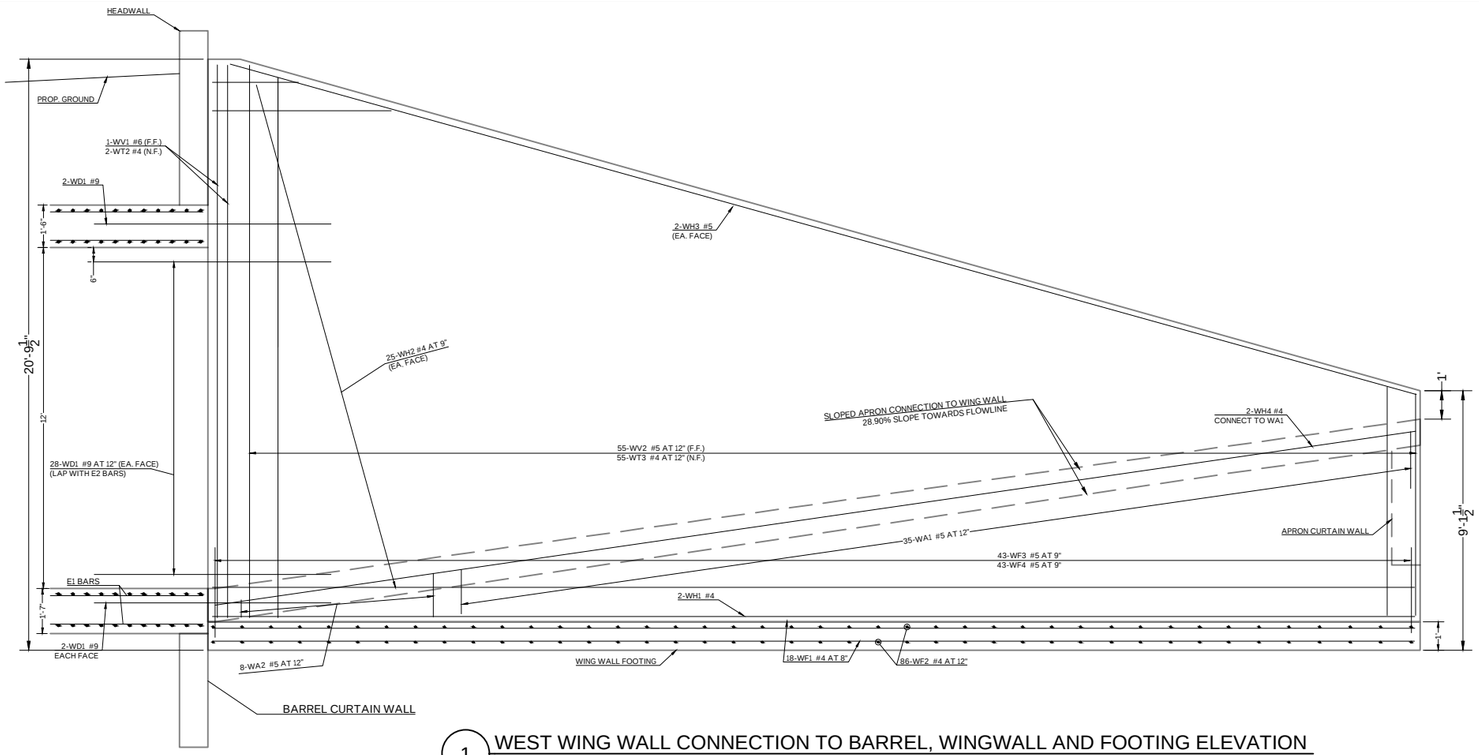


WA1

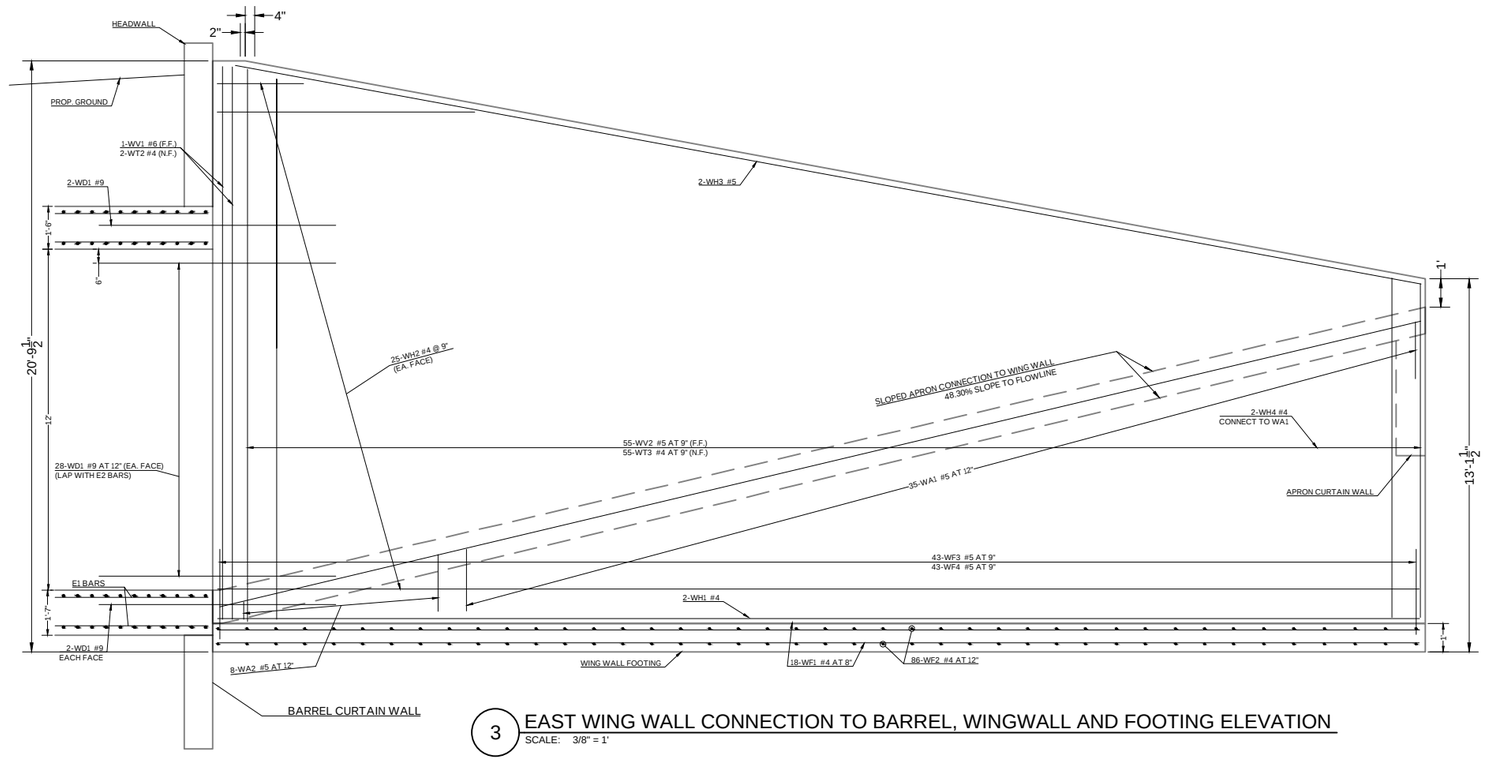


WA2

BENT BAR



1 WEST WING WALL CONNECTION TO BARREL, WINGWALL AND FOOTING ELEVATION
SCALE: 3/8" = 1'



3 EAST WING WALL CONNECTION TO BARREL, WINGWALL AND FOOTING ELEVATION
SCALE: 3/8" = 1'

1/9/2026 9:48:22 AM

PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE C Tulsa, Oklahoma 74133 (918) 369-7911

BY	DATE	REVISION

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

APRON
AND
WING WALL
DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*
SHEET:	23 *OF* 80
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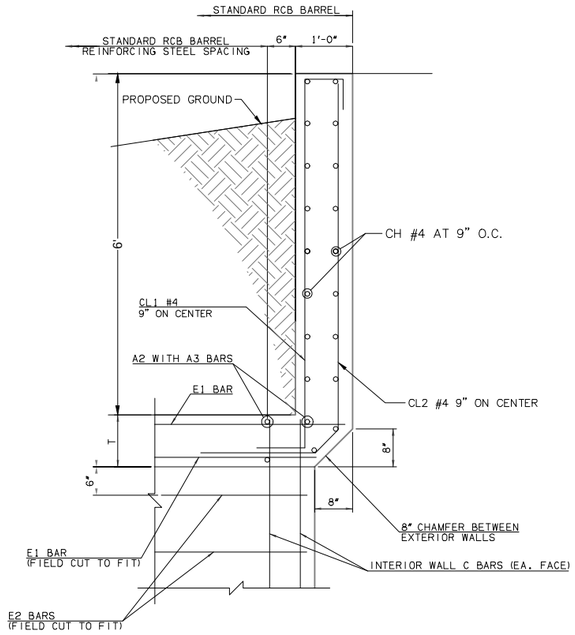
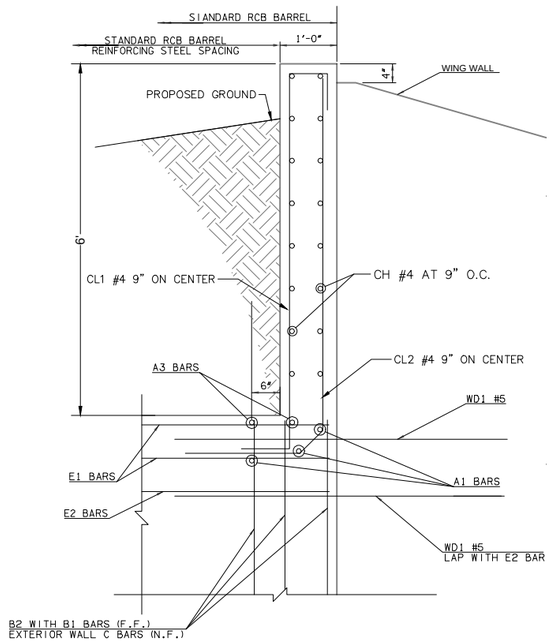
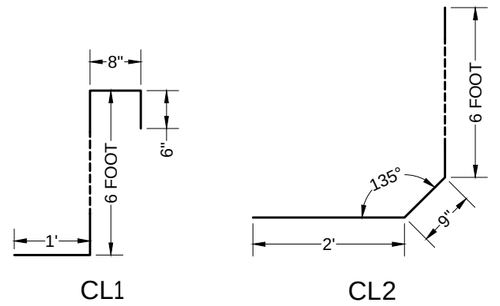


1 HEADWALL DETAIL AT INTERIOR WALL
SCALE: NTS



2 HEADWALL DETAIL AT EXTERIOR WALL
SCALE: NTS



BENT BAR

APRON CURTAIN WALL QUANTITIES (ONE CUTAIN WALL)	
CONCRETE C.Y.	REIN LBS
15.3	2107.7

APRON QUANTITIES (ONE APRON)	
CONCRETE C.Y.	REIN LBS
131.3	9713.9

HEADWALL QUANTITIES (ONE HEAD WALL)	
CONCRETE C.Y.	REIN LBS
14.3	1646.4

WING WALL QUANTITIES (ONE AVERAGE WING WALL)	
CONCRETE C.Y.	REIN LBS
43.5	4876.0

WINGWALL BAR LIST (ONE AVERAGE WINGWALL)							
MARK	SIZE	FORM	SPACING	QTY EA	LENGTH FT	REMARKS	TOTAL WEIGHT LBS
WD1	#9	BNT		28	8.33		793.0
WH1	#4	STR		2	42.593		56.9
WH2	#4	STR	9"	50	29.48	3.00' TO 42.29	984.6
WH3	#5	STR		2	43.32		90.4
WH4	#4	STR		2	42.69		57.0
WA1	#5	BNT	12"	38	4.5		178.4
WA2	#5	BNT	12"	7	3.75	CUT FOR 2" CLR	27.4
WT2	#4	STR		2	19.5		26.1
WT3	#4	STR	9"	55	14.65	7.29' TO 9.26'	538.2
WV1	#6	STR		1	19.5		29.3
WV2	#5	STR	9"	55	14.65	7.29' TO 9.26'	840.4
WF1	#4	STR	8"	18	40.5		487.0
WF2	#4	STR	12"	86	5.16		296.4
WF3	#5	BNT	12"	43	5.25		235.5
WF4	#5	BNT	12"	43	5.25		235.5
TOTAL							4876.0

HEADWALL BAR LIST (ONE HEADWALL)							
MARK	SIZE	FORM	SPACING	QTY EA	LENGTH FT	REMARKS	TOTAL WEIGHT LBS
CH	#4	STR	9"	16	64.17		685.8
CL1	#4	BNT	9"	85	8.17		463.7
CL2	#4	BNT	9"	85	8.75		496.8
TOTAL							1646.4

APRON CURTAIN WALL BAR LIST (ONE APRON CURTAIN WALL)							
MARK	SIZE	FORM	SPACING	QTY EA	LENGTH FT	REMARKS	TOTAL WEIGHT LBS
CS1	#5	BNT	12"	104	5.83		632.4
CS2	#5	BNT	12"	104	6.42		696.0
CT1	#4	STR	12"	16	21.00	FOR SLOPED APRON - 2 PER APRON	224.4
CT2	#4	STR	12"	8	61.38		512.1
AB1	#4	BNT	12"	16	4.00	ALIGNED WITH CT1 & CT2	42.8
						TOTAL	2107.7

HEADWALL BAR LIST (ONE HEADWALL)							
MARK	SIZE	FORM	SPACING	QTY EA	LENGTH FT	REMARKS	TOTAL WEIGHT LBS
CH	#4	STR	9"	16	64.17		685.8
CL1	#4	BNT	9"	85	8.17		463.7
CL2	#4	BNT	9"	85	8.75		496.8
TOTAL							1646.4

APRON BAR LIST (ONE APRON)							
MARK	SIZE	FORM	SPACING	QTY EA	LENGTH FT	REMARKS	TOTAL WEIGHT LBS
AD1	#4	STR		2	39.83		53.2
AL1	#4	STR	12"	128	40.00	EMBED 2.5' INTO BARREL	3420.2
AL2	#4	STR	12"	84	18.28	1' TO 53.75'	1025.7
AT1	#4	STR		8	19.75	ABOVE CURTAIN WALL	105.5
AT2	#4	STR		4	30.76	ABOVE CURTAIN WALL	82.2
AT3	#4	STR	12"	70	7.20	1.2' TO 20.6"	336.7
AT4	#5	STR	12"	70	7.20	1.2' TO 20.6'	525.7
AT5	#4	STR	12"	36	61.54		1479.9
AT6	#5	STR	12"	36	61.54		2310.7
AB1	#4	BNT	12"	140	4.00	CUT TO FIT IF NEEDED	374.1
TOTAL							9713.9

PROFESSIONAL ENGINEER
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01/09/2026
OKLAHOMA
LICENSED

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BY	DATE
REVISION	

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

APRON
AND
WING WALL
DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	JANUARY 9, 2026
SHEET:	24 OF 80
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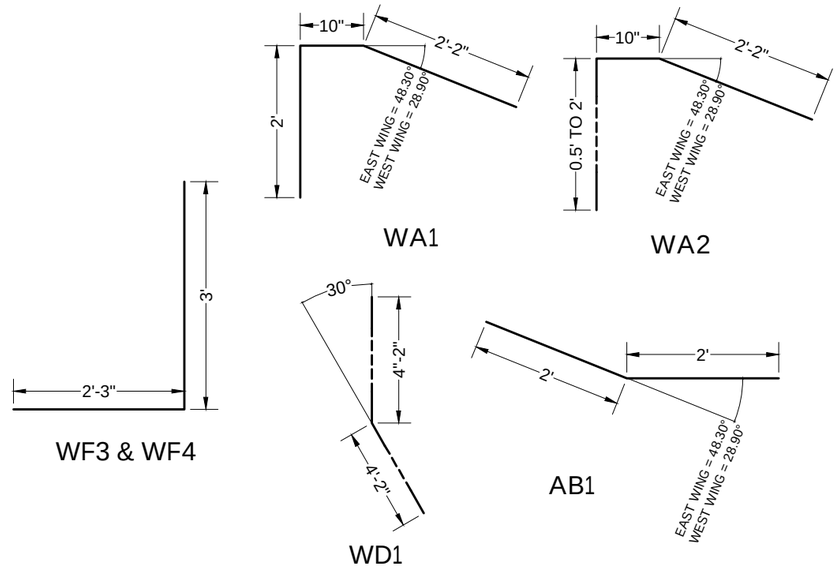
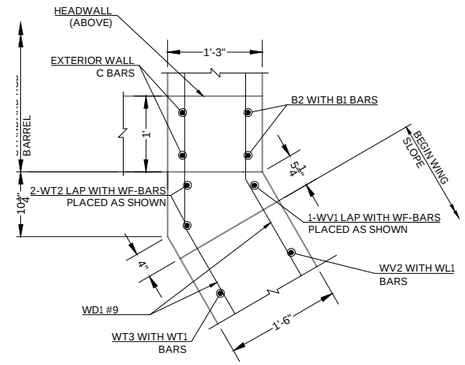
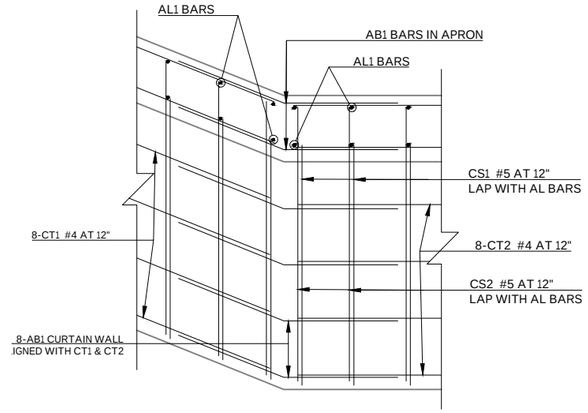


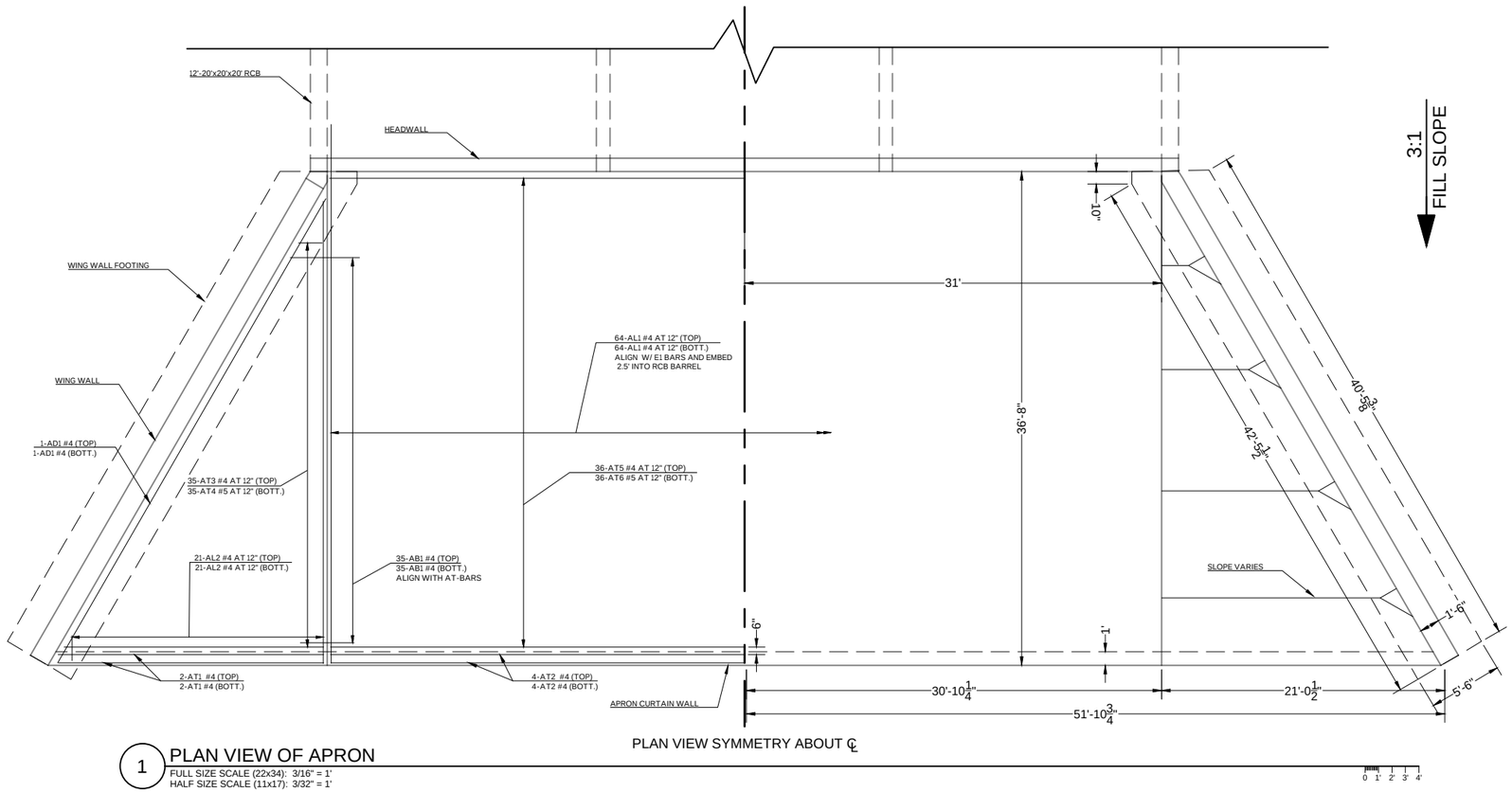
BENT BAR



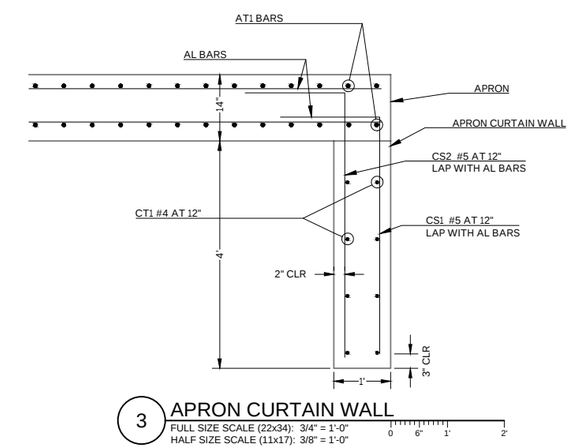
2 PLAN VIEW - WING TO BARREL CONNECTION
SCALE: NTS



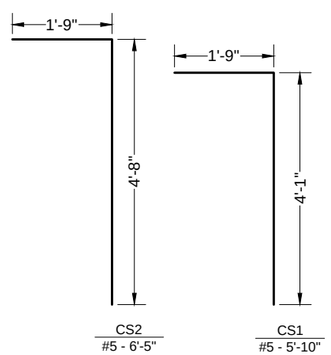
1 CUTAIN WALL - APRON TO SLOPED APRON
FULL SIZE SCALE (22x34): 3/4" = 1'-0"
HALF SIZE SCALE (11x17): 3/8" = 1'-0"
0 6" 1' 2'



1 PLAN VIEW OF APRON
FULL SIZE SCALE (22x34): 3/16" = 1'
HALF SIZE SCALE (11x17): 3/32" = 1'



3 APRON CURTAIN WALL
FULL SIZE SCALE (22x34): 3/4" = 1'-0"
HALF SIZE SCALE (11x17): 3/8" = 1'-0"
0 6" 1' 2'



BENT BAR

PROFESSIONAL ENGINEER
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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

APRON
AND
WING WALL
DETAILS

PROJECT #	24.11
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ATLAS PAGE NO.	--
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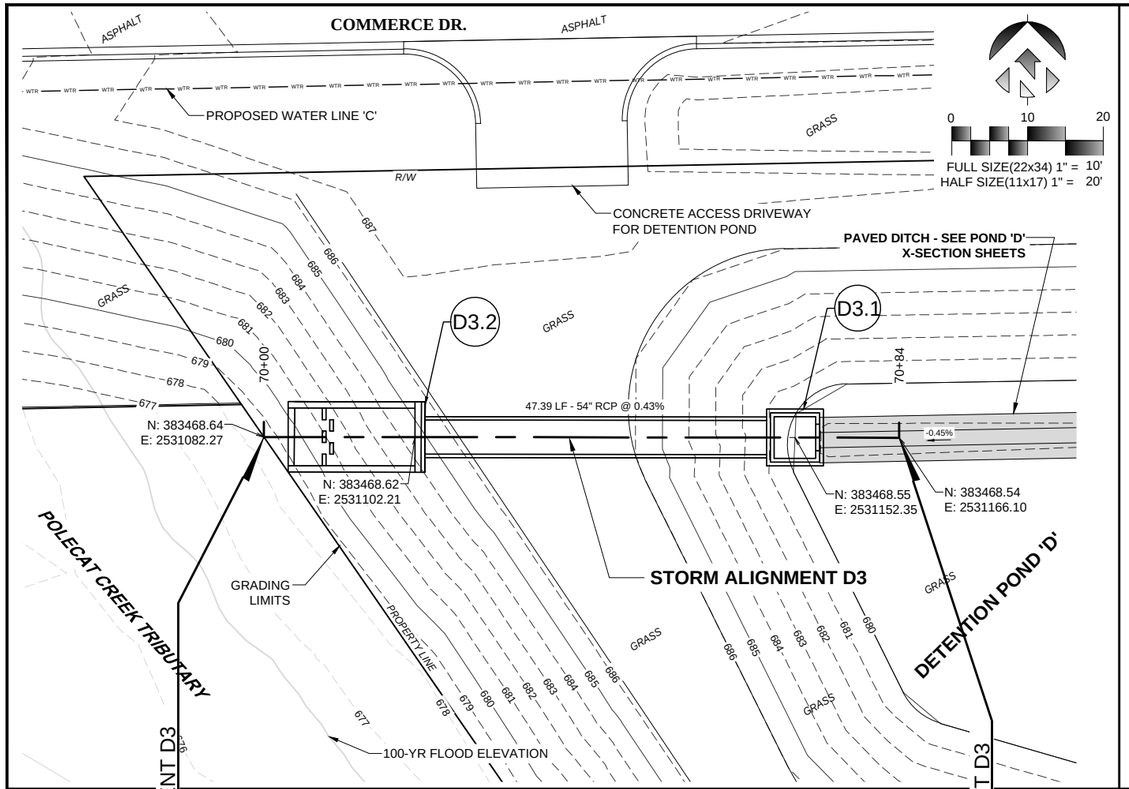

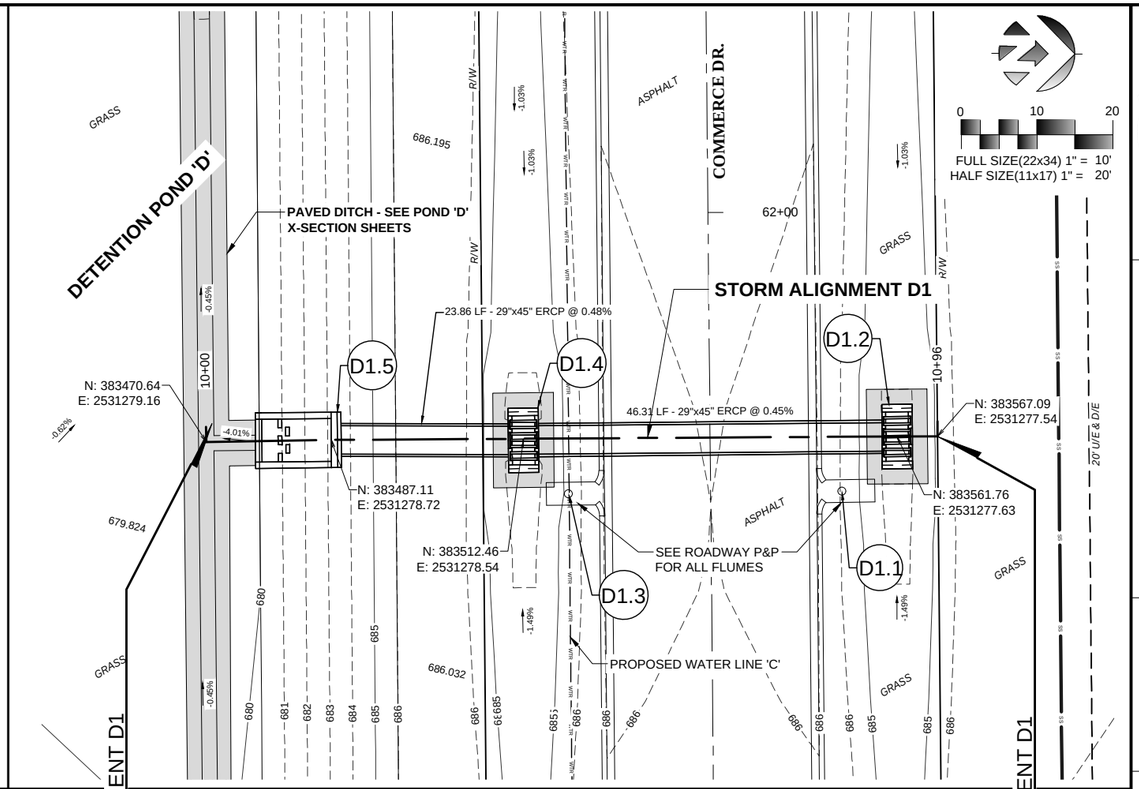

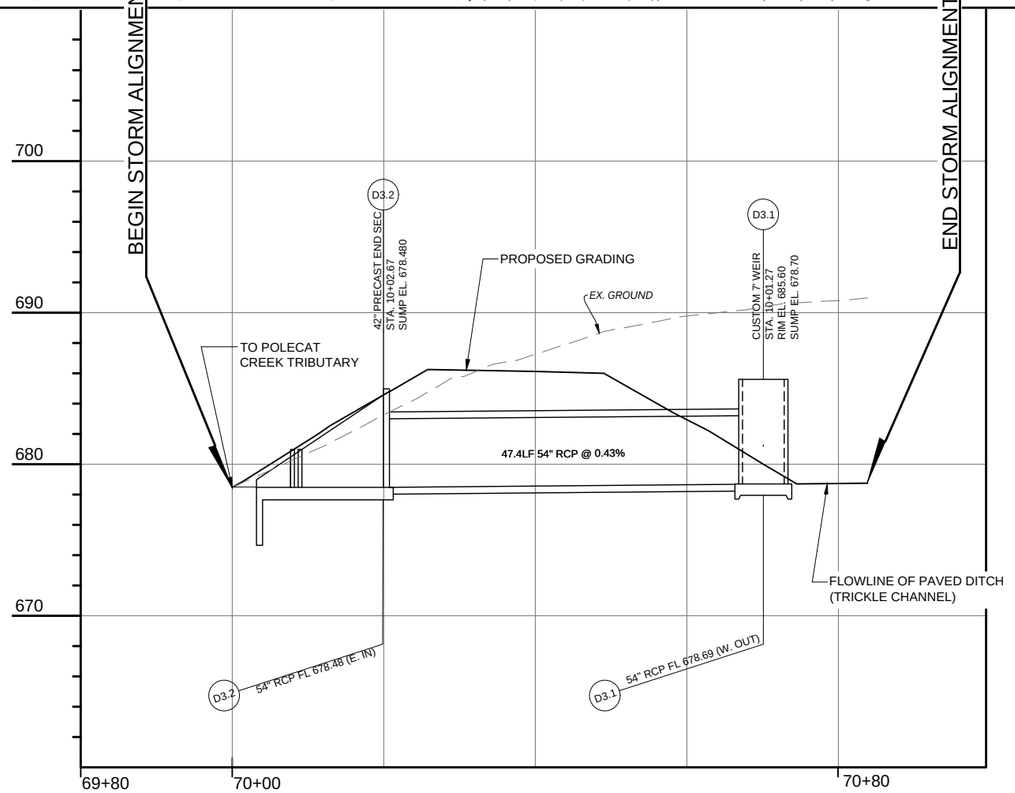

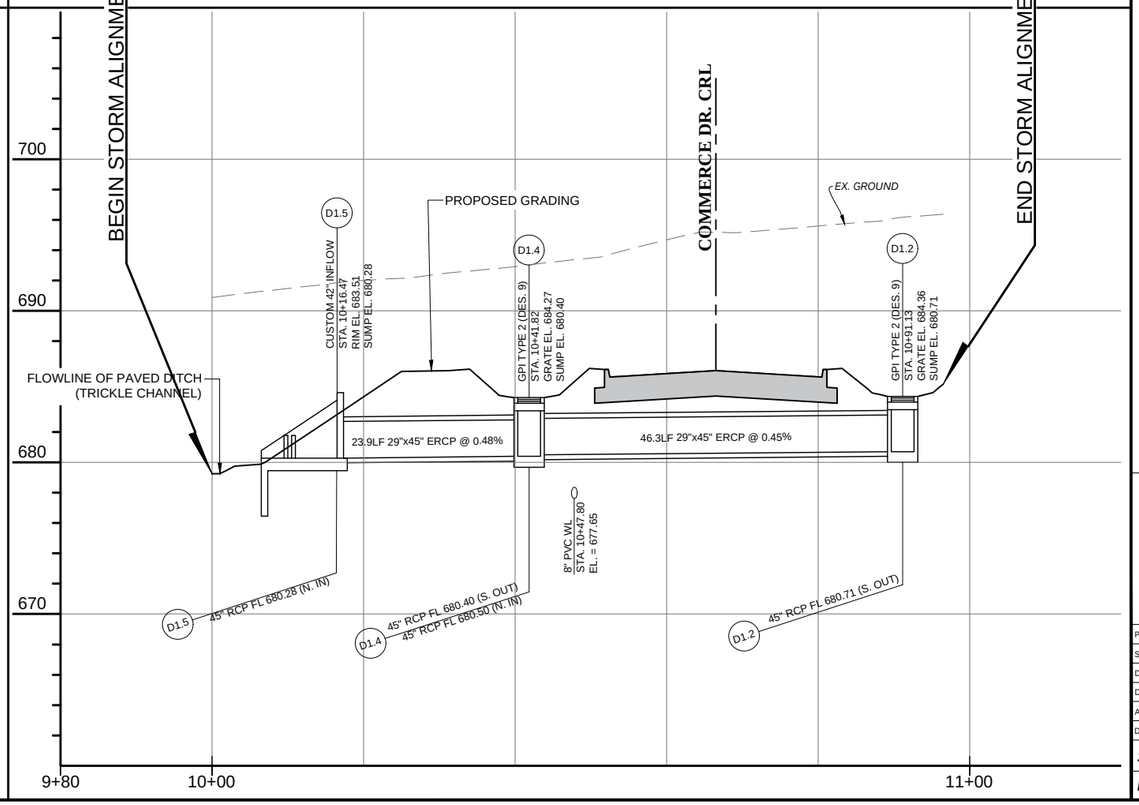

PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
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OKLAHOMA
LICENSED

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
STORM 'D1' &
STORM 'D3'

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*

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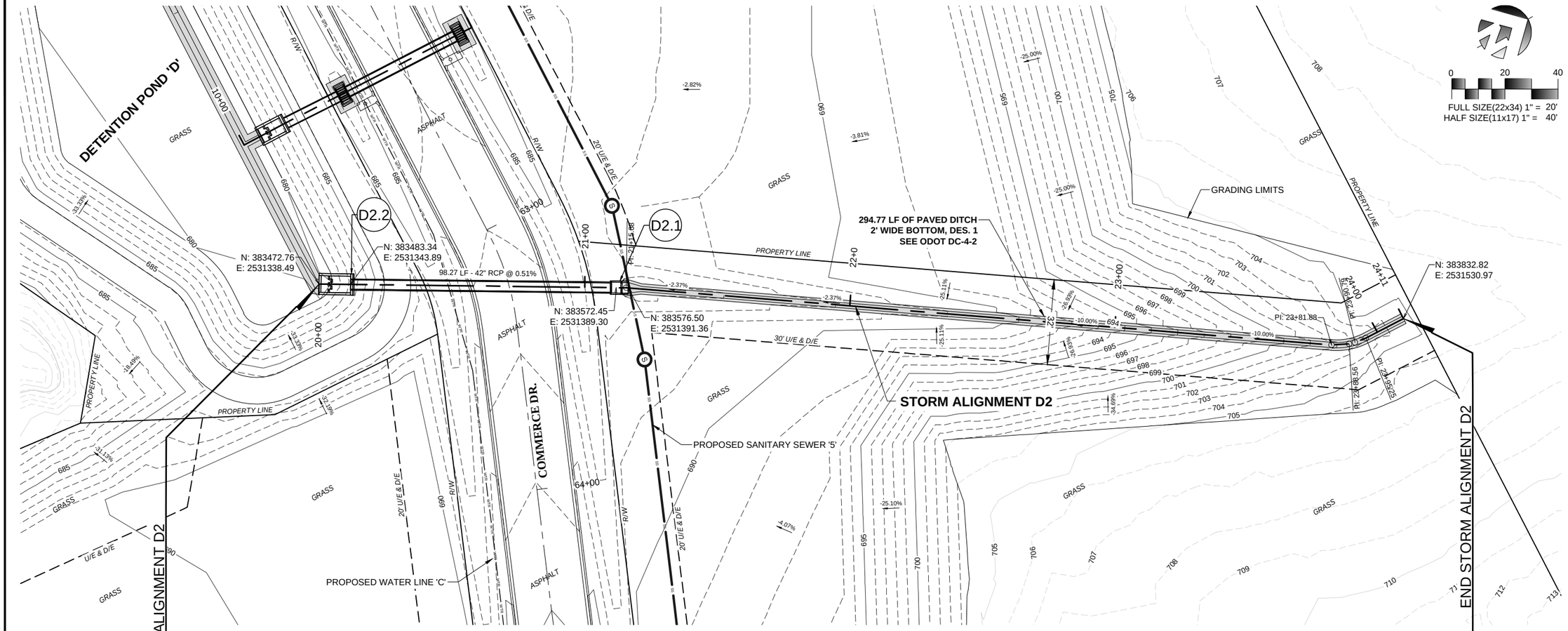

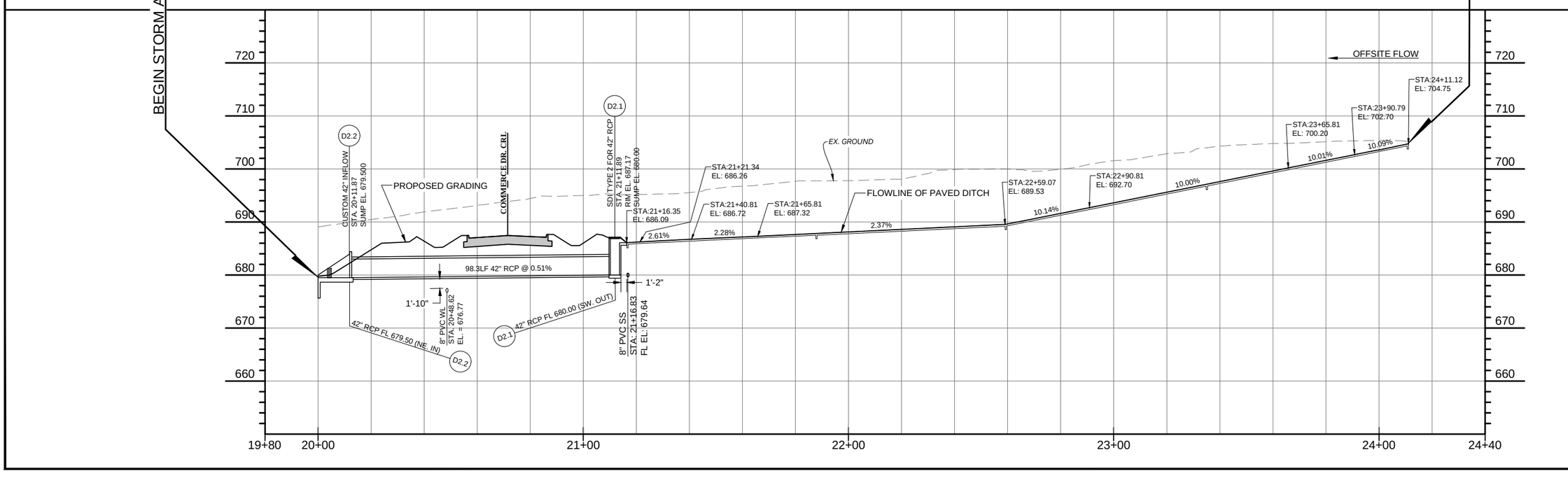

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REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
STORM 'D2'

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	27 OF 80
DRAWING:	D02

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19.70 LF OF ODOT STD DC-4-2 DESIGN NO. 2 - 4' BOTTOM WIDTH 2B - AT A 2.03% SLOPE DOWNSTREAM. TIE IN TO MAIN TRICKLE CHANNEL

INTERCEPTOR DITCH

5.05 LF - 36" RCP @ 0.50%

181.11 LF - 36" RCP @ 0.51%

46.40 LF - 36" RCP @ 0.47%

STORM ALIGNMENT E1

SANITARY SEWER '5'

PROPOSED SANITARY SEWER '4'

WATER LINE 'C'

DETENTION POND 'E'

COMMERCE DR.

PROPERTY LINE

R/W

U/E & D/E

GRASS

ASPHALT

E1.8 N: 383251.89 E: 2531875.35

N: 383230.67 E: 2531900.33

N: 383393.49 E: 2531758.45

N: 383402.53 E: 2531758.25

N: 383451.91 E: 2531757.17

N: 383457.24 E: 2531757.05

SEE ROADWAY P&P FOR ALL FLUMES

FULL SIZE(22x34) 1" = 10'
HALF SIZE(11x17) 1" = 20'

BEGIN STORM ALIGNMENT E1

END STORM ALIGNMENT E1

CUSTOM 36' INFLOW STA: 30+32.78 SUMP EL: 676.999

FLOWLINE OF PAVED DITCH (TRICKLE CHANNEL)

687.00

677.00

676.00

19'-8½"

1'-10¾"

8" PVC SS STA: 30+78.34 FL EL: 674.27

EX. GROUND

181.1LF 36" RCP @ 0.51%

46.4LF 36" RCP @ 0.47%

5.0LF 36" RCP @ 0.50%

2'

8" PVC WL STA: 32+31.48 EL: = 675.19

COT MH 775'5 STA: 32+16.39 RIM EL: 684.83 SUMP EL: 677.92

GPI TYPE 2 (DES. 10) STA: 32+25.45 GRATE EL: 682.99 SUMP EL 678.05

GPI TYPE 2 (DES. 10) STA: 32+74.82 GRATE EL: 683.00 SUMP EL: 678.37

E1.8 36" RCP FL 677.00 (NW. IN)

E1.7 36" RCP FL 677.92 (SE. OUT) 36" RCP FL 678.02 (N. IN)

E1.6 36" RCP FL 678.05 (S. OUT) 36" RCP FL 678.15 (N. IN)

E1.3 36" RCP FL 678.37 (S. OUT)

700
690
680
670

30+00 31+00 32+00

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JAMES R. UMDENSTOCK 11407 01/09/2026 PROFESSIONAL ENGINEER OKLAHOMA

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
STORM 'E1'

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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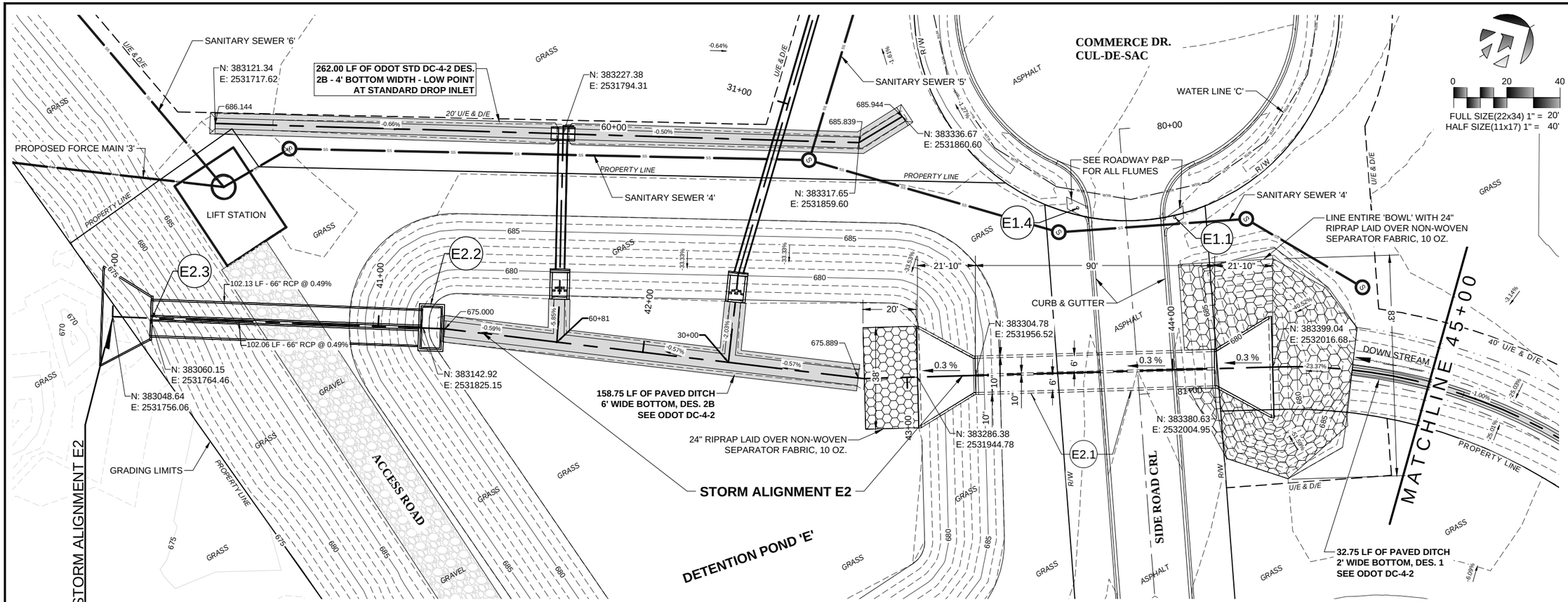
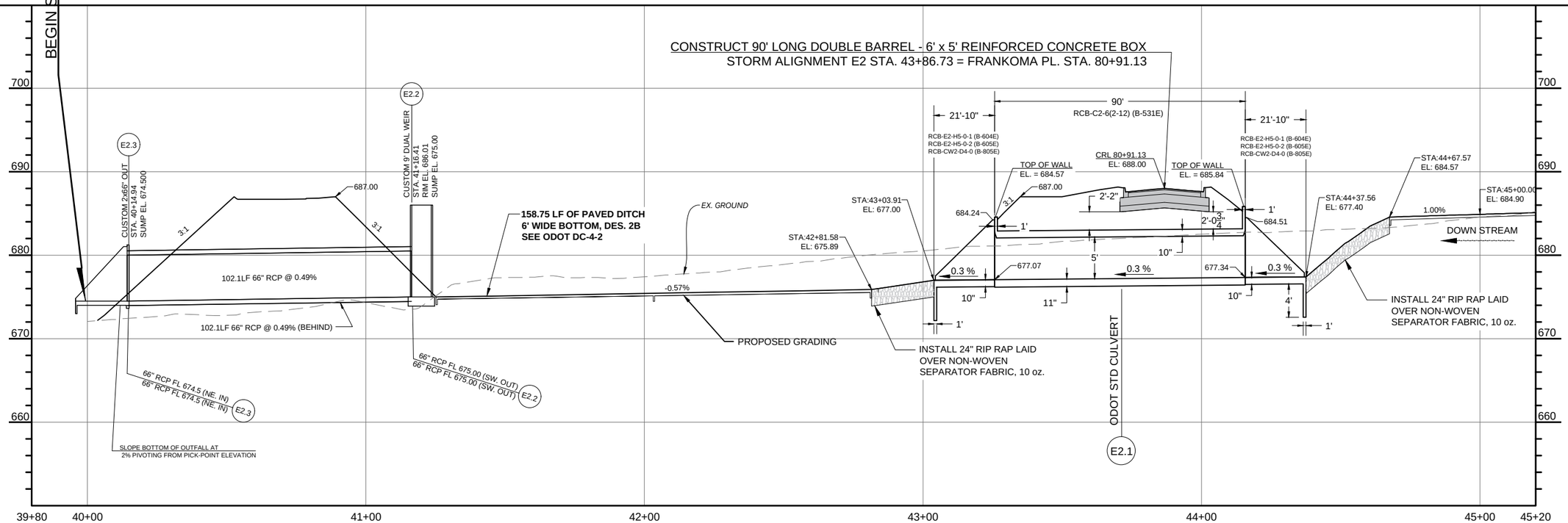
DRAWING:	D03





PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
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01/09/2026
OKLAHOMA

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
STORM 'E2'
STA 40+00 TO 45+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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DRAWING:	D04

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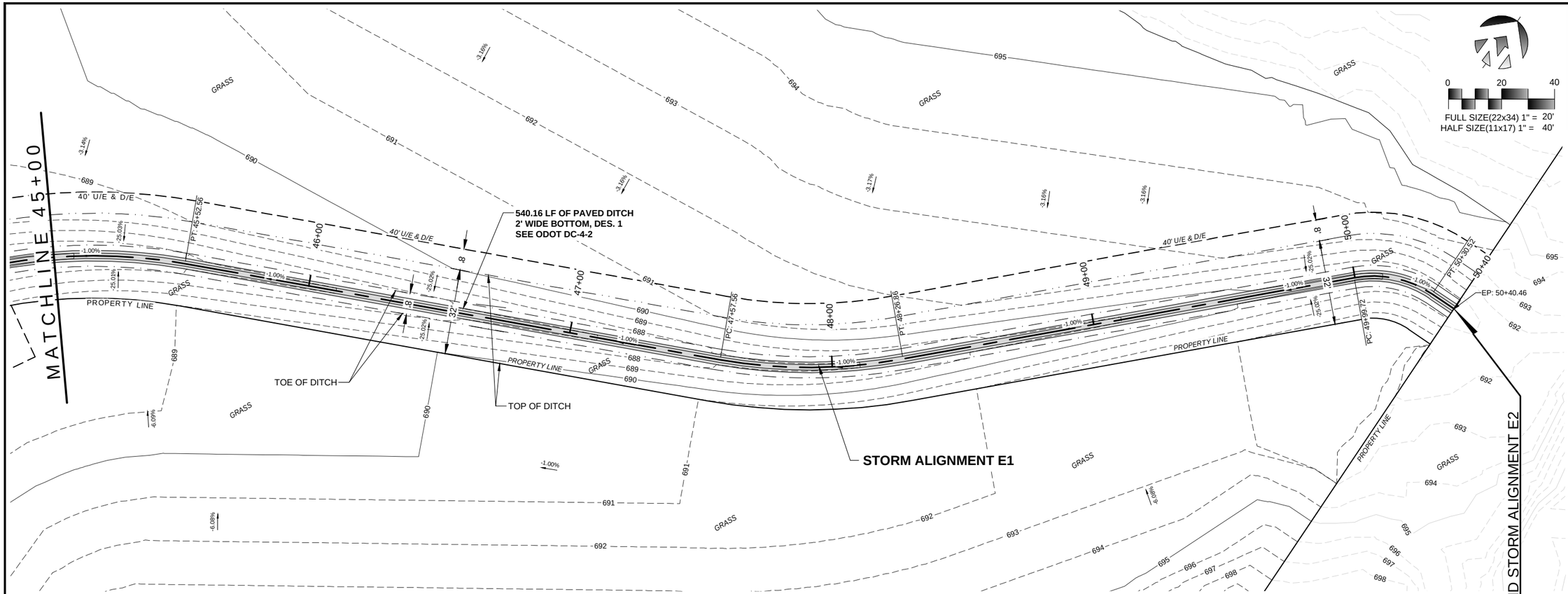

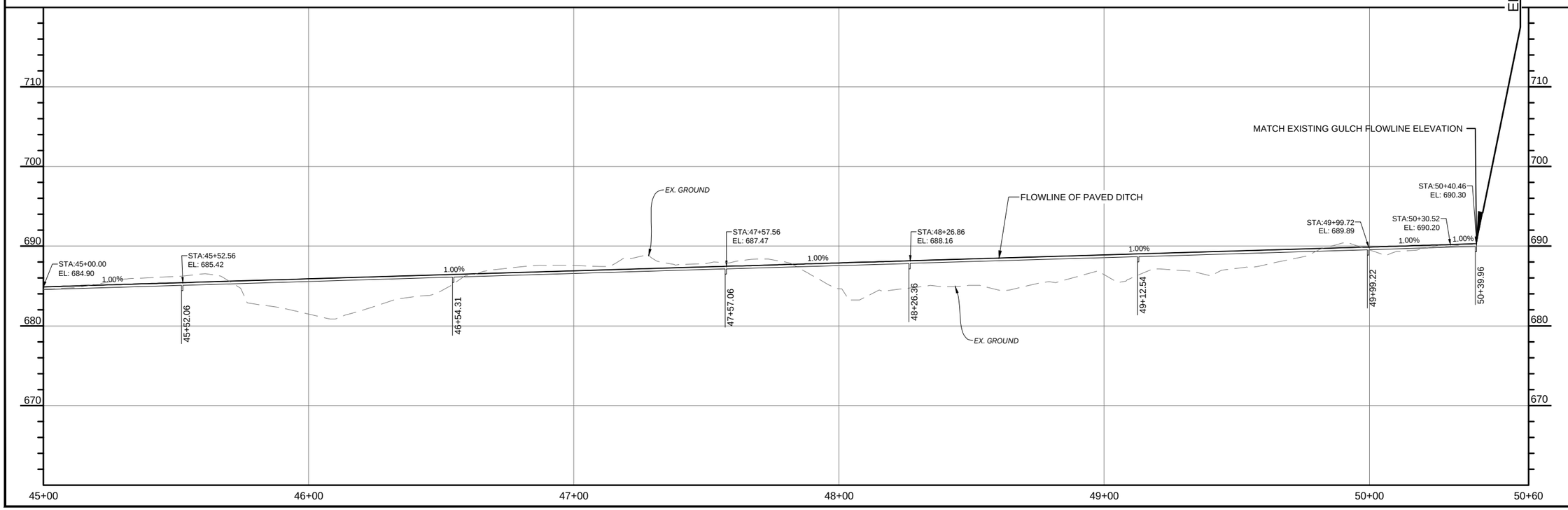

JAMES R. UMDENSTOCK
11407
01/09/2026
PROFESSIONAL ENGINEER
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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
STORM 'E2'
STA 45+00 TO 50+41

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	JANUARY 9, 2026
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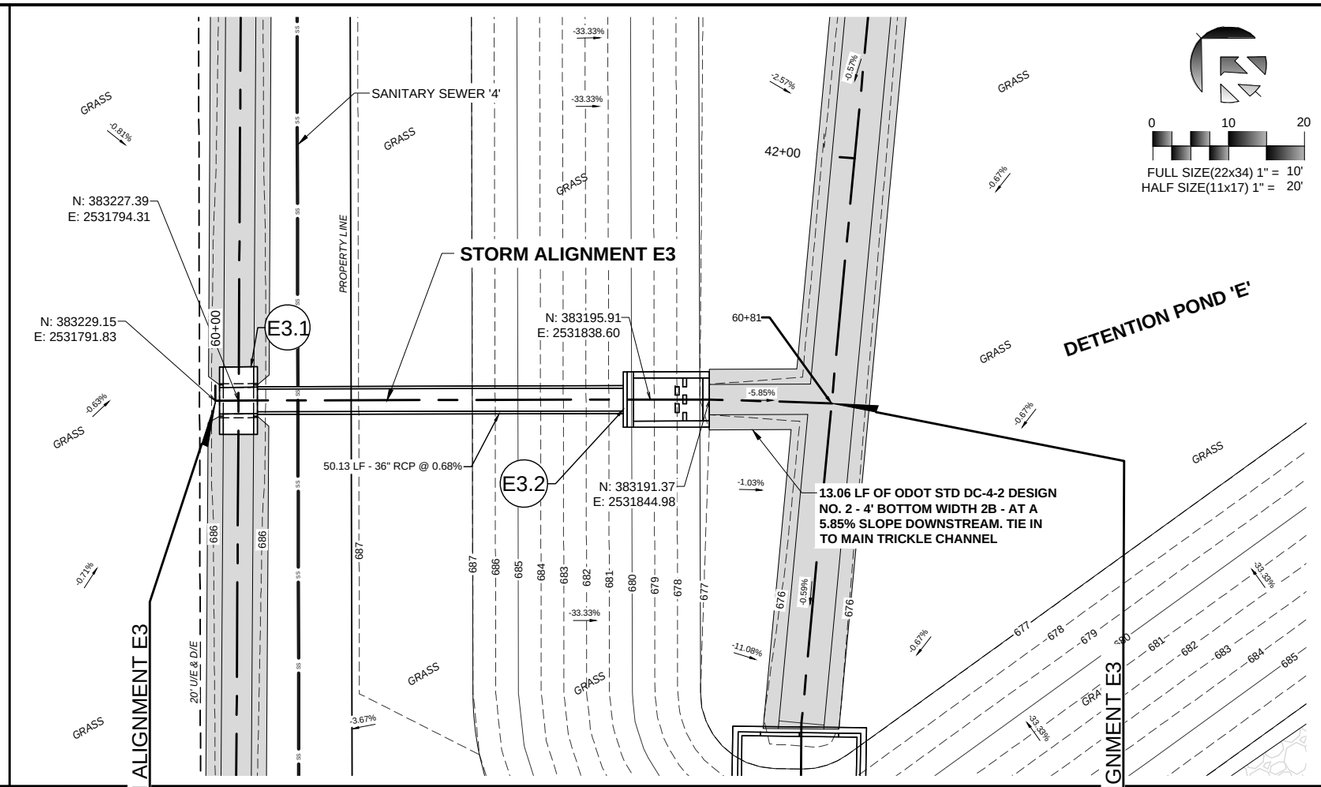
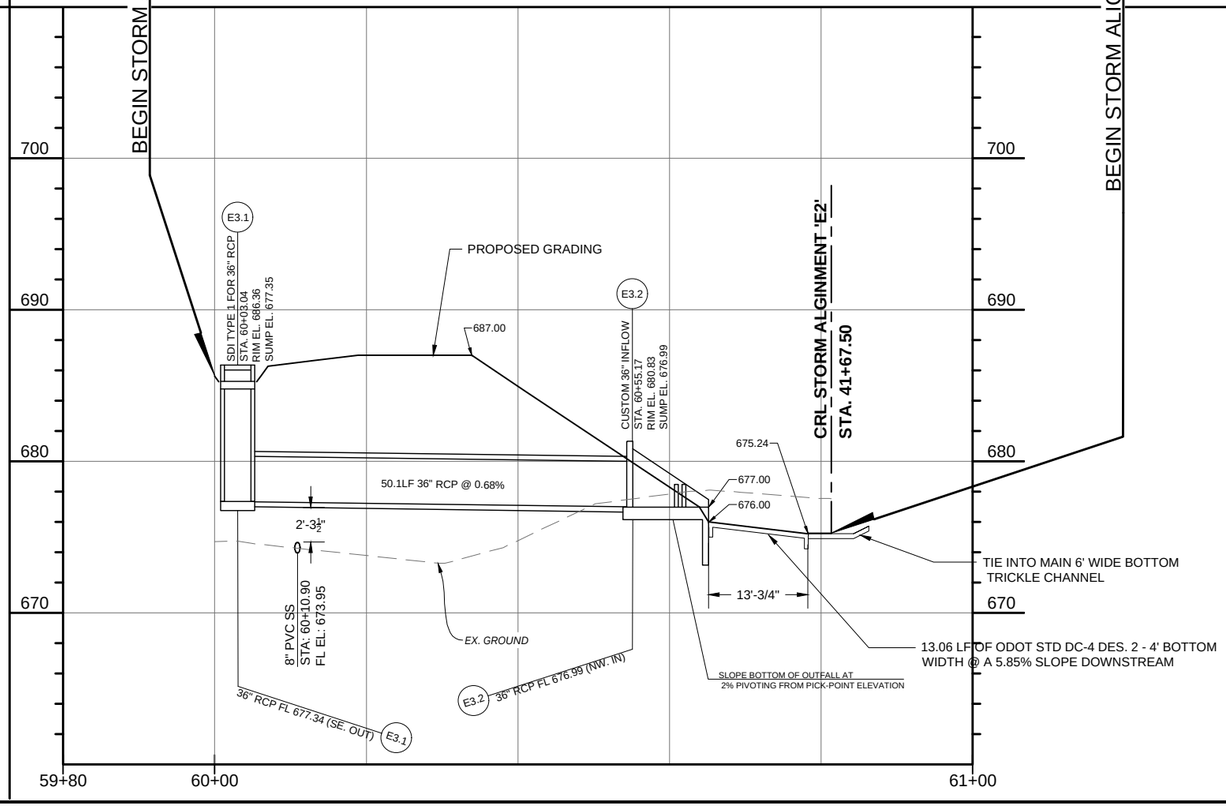
DRAWING:	D05

1/9/2026 9:49:01 AM





PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PLAN & PROFILE
STORM 'E3'

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	31 OF 80
DRAWING:	D06

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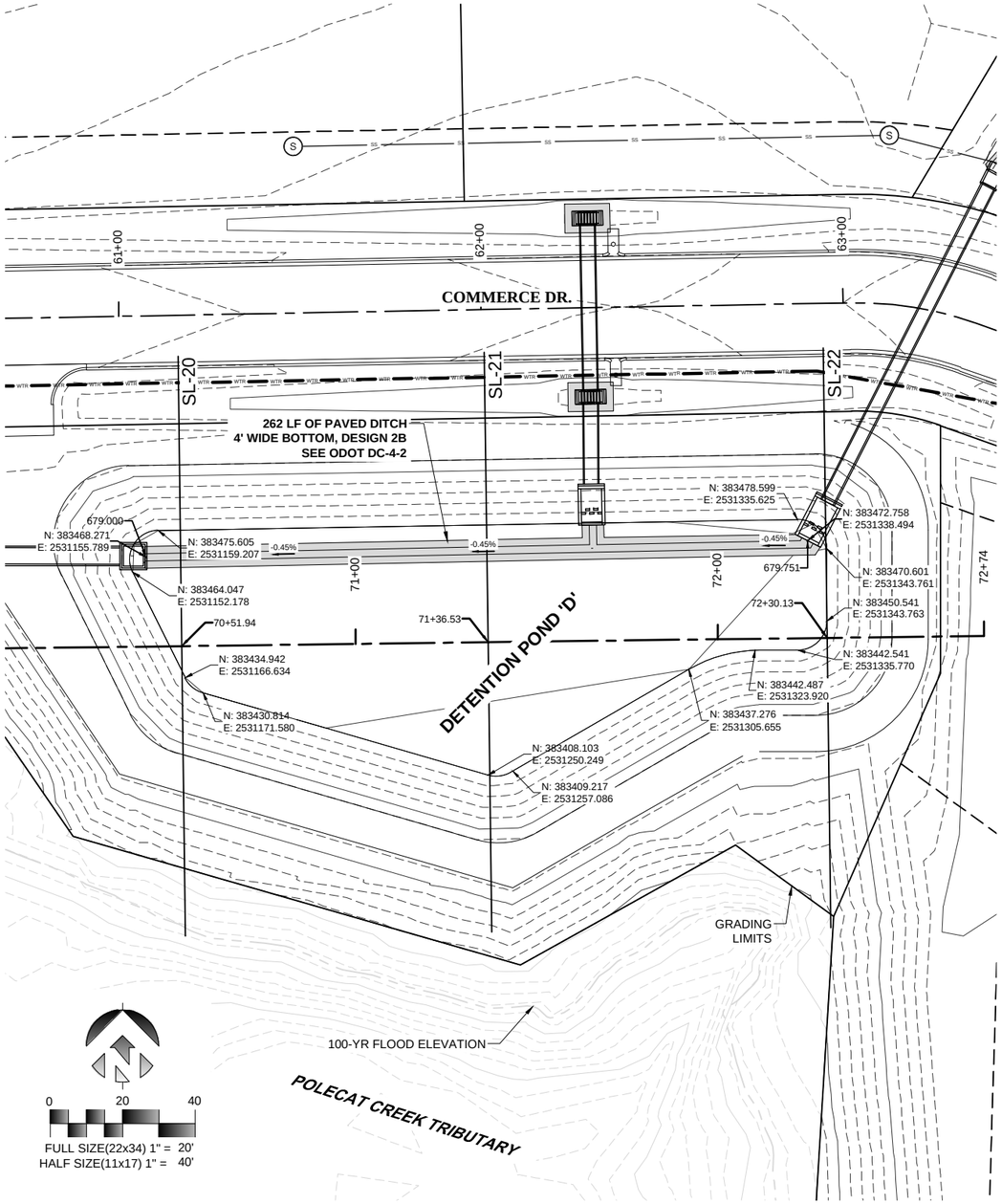
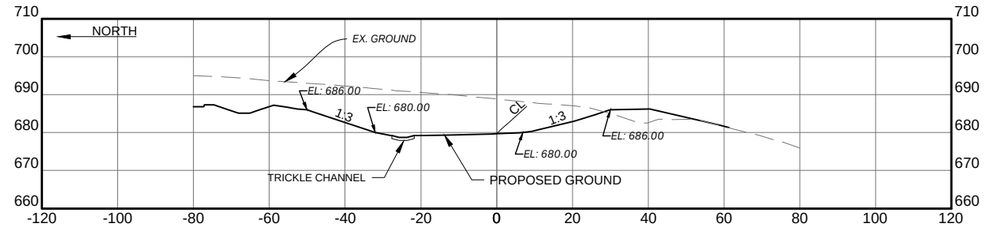


SL-20

70+51.94



SL-21

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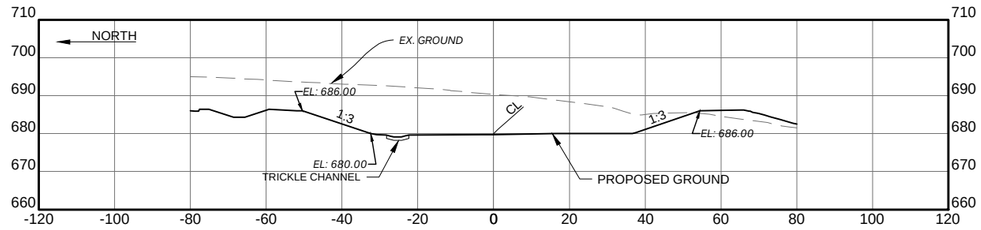

SL-22

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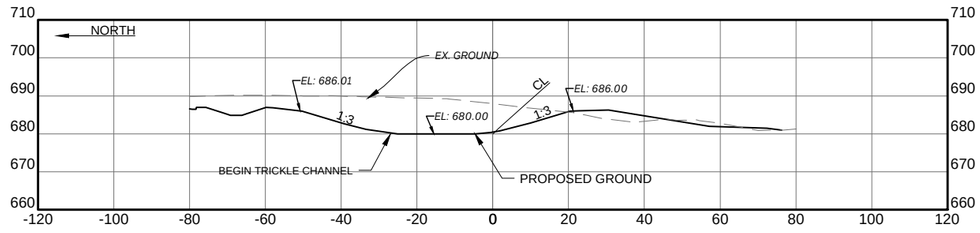

1 PHASE 3 - POND D - NORTH SOUTH CROSS SECTIONS

SCALE:

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
POND 'D'
CROSS SECTIONS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	32 OF 80
DRAWING:	D07

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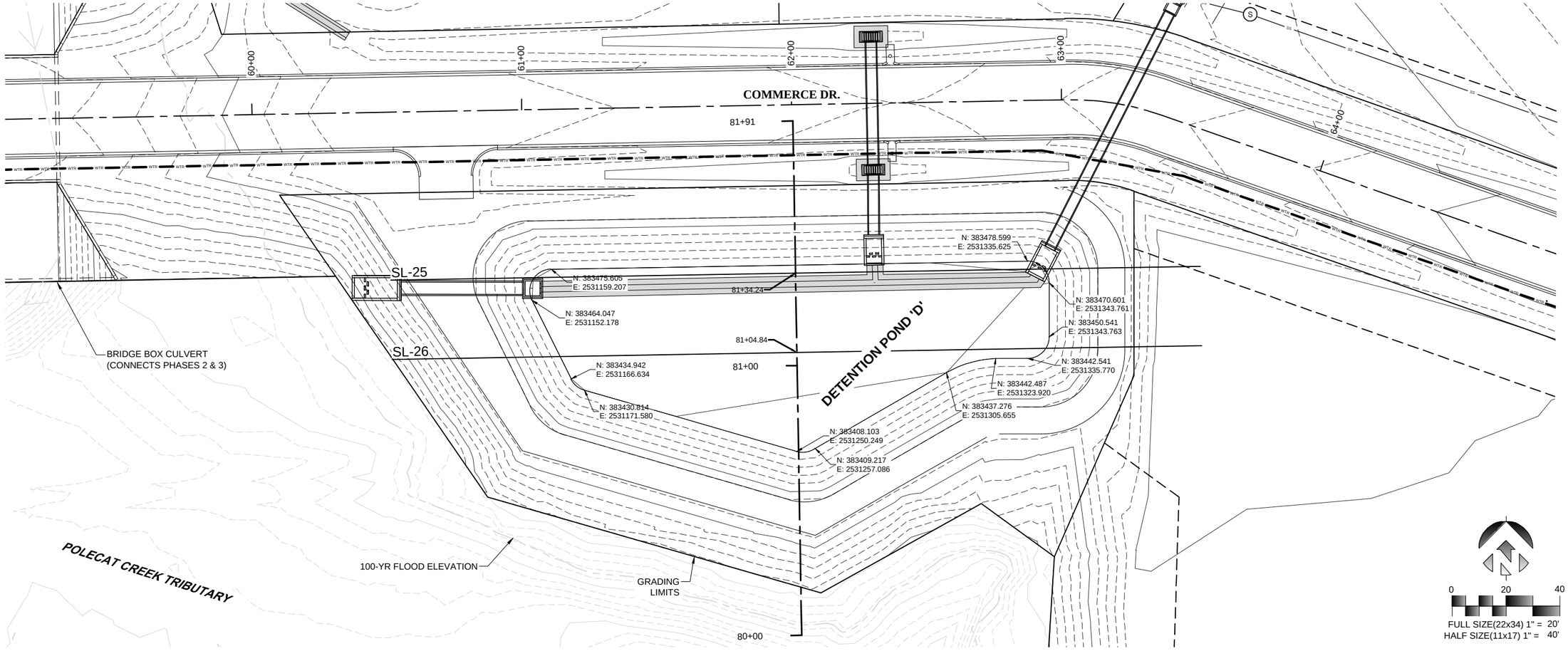
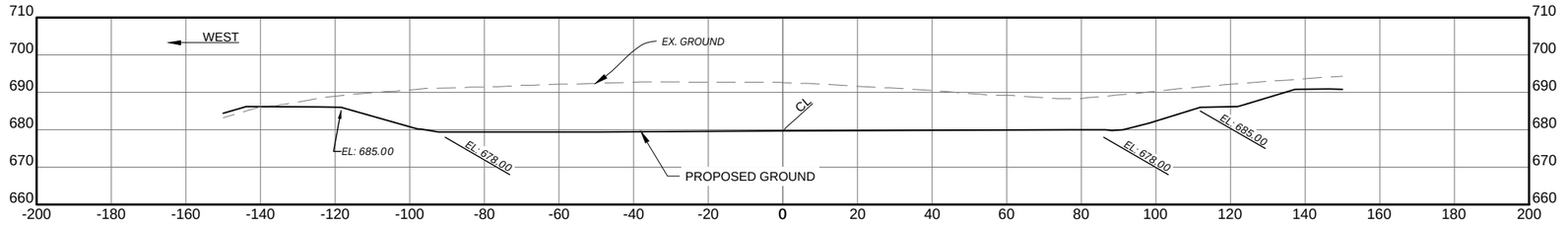


SL-25

81+34.24



SL-26

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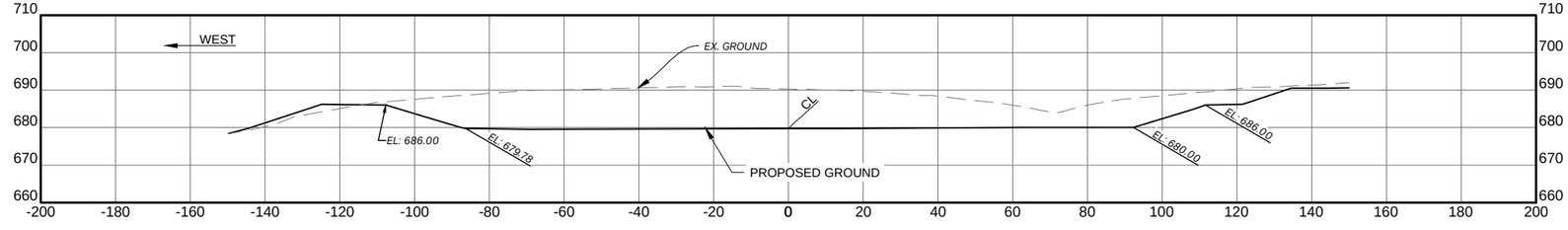

1 PHASE 3 - POND D - EAST WEST CROSS SECTIONS
SCALE:

JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA
PROFESSIONAL ENGINEER
LICENSED

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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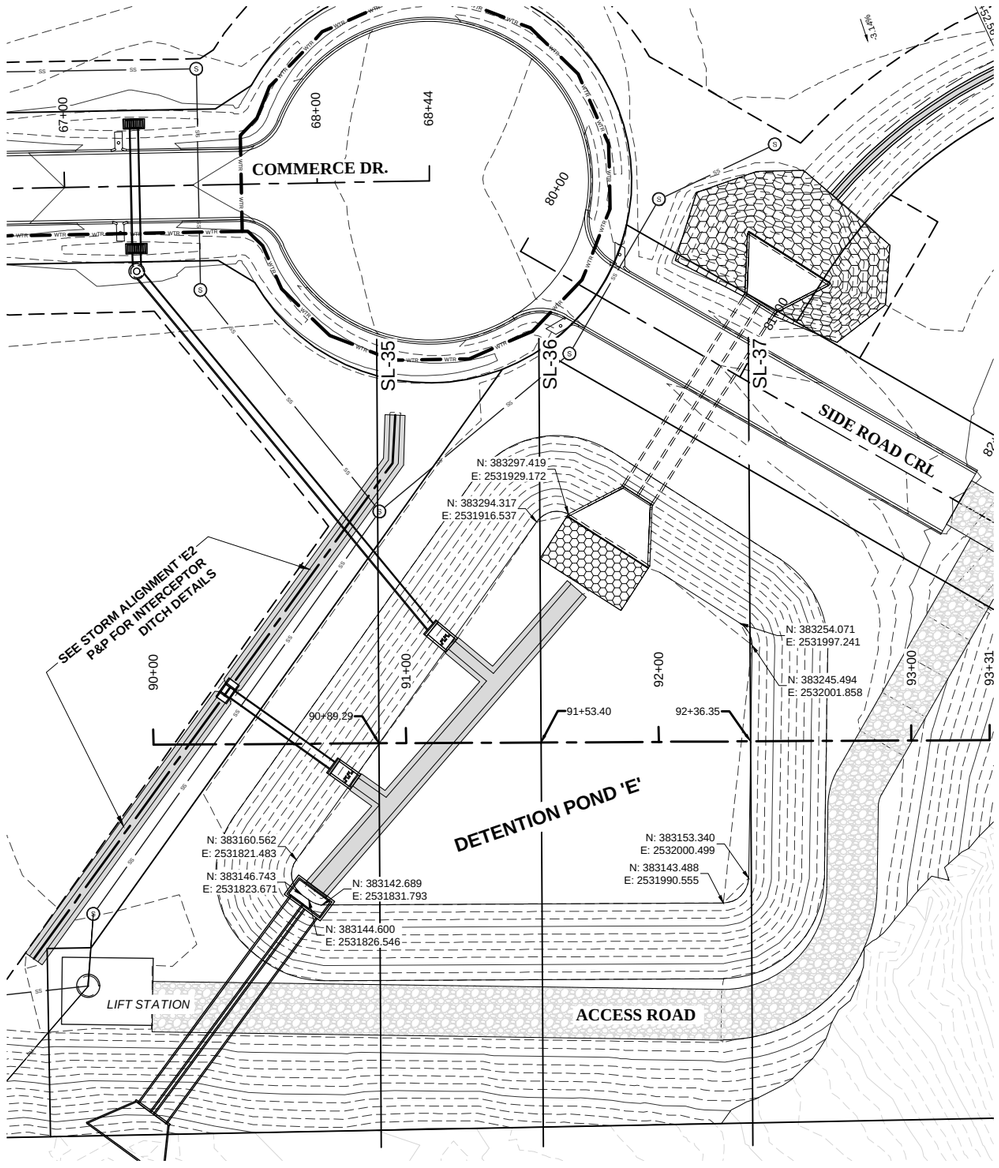
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
POND 'D'
CROSS SECTIONS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*
SHEET:	33 *OF* 80
DRAWING:	D08

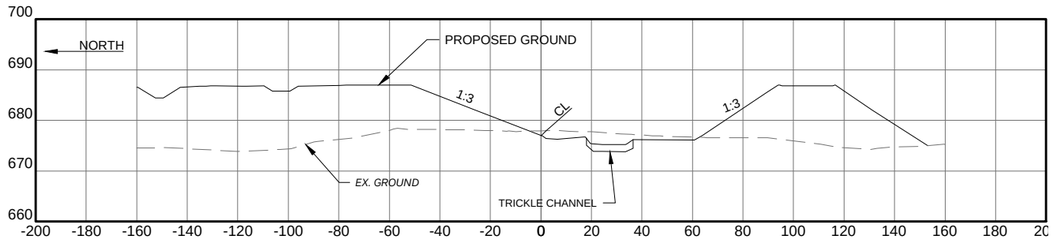
1/9/2026 9:49:37 AM



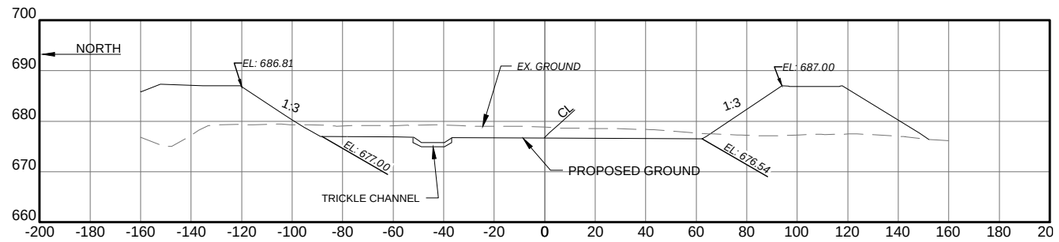
0 30 60

FULL SIZE(22x34) 1" = 30'
HALF SIZE(11x17) 1" = 60'

SL-35
90+89.29



SL-36
91+53.40



SL-37
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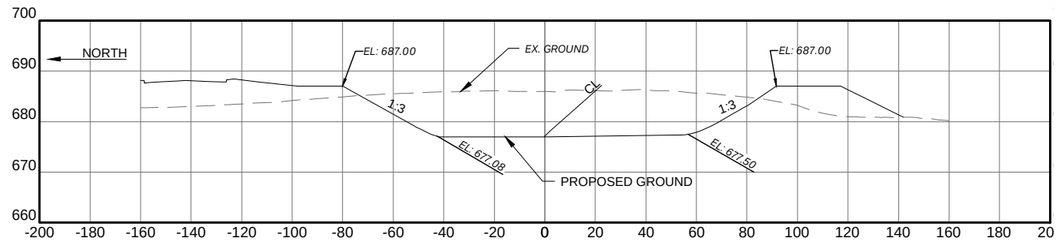

1 PHASE 3 - POND E - NORTH SOUTH CROSS SECTIONS
SCALE:

1/9/2026 9:49:51 AM

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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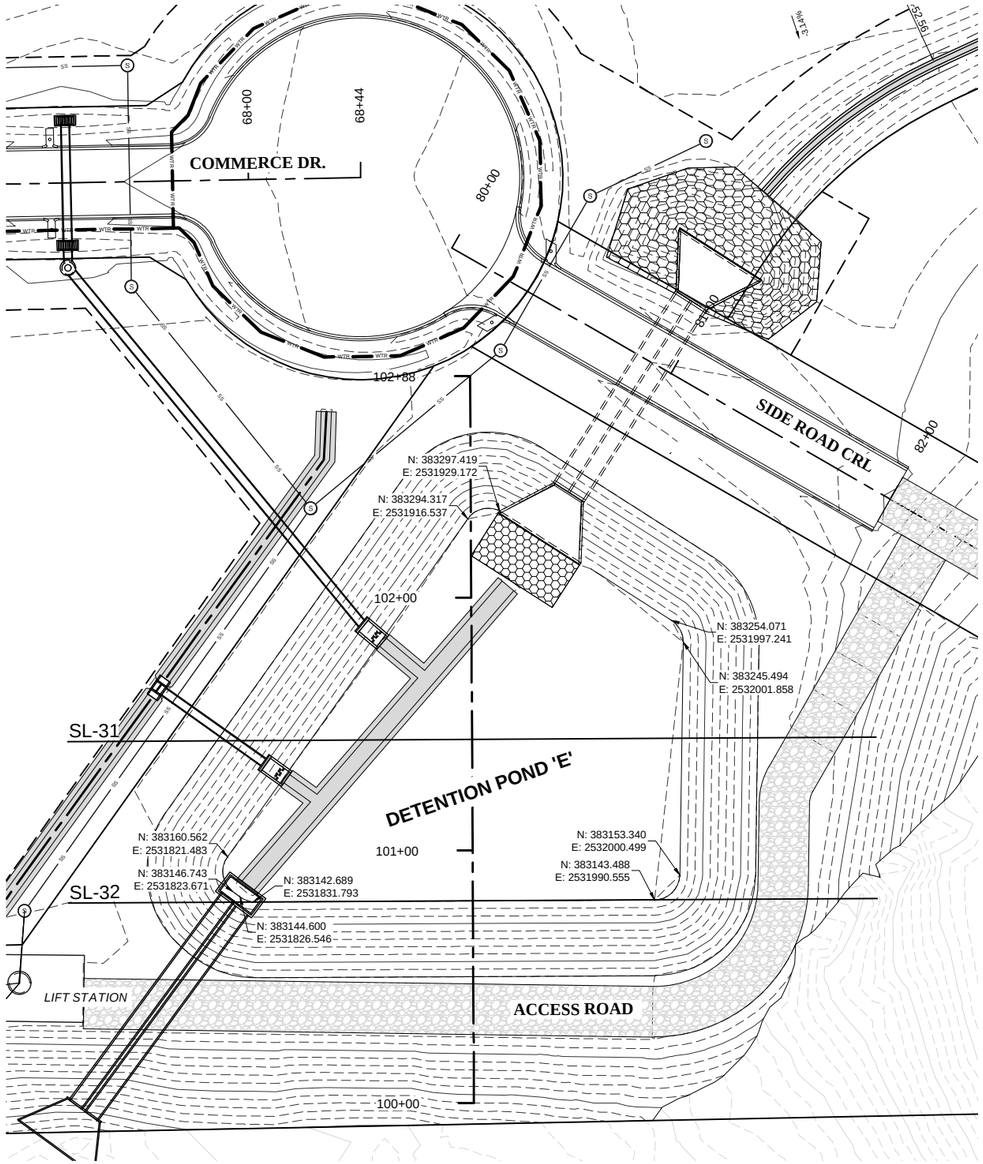
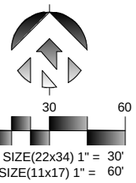
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
POND 'E'
CROSS SECTIONS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	34 OF 80
DRAWING:	D09





SL-31

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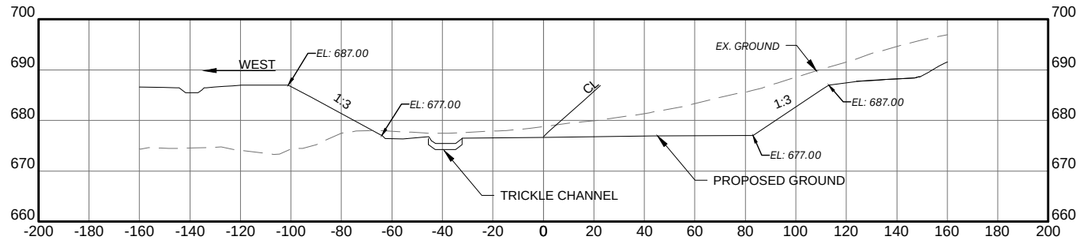

SL-32

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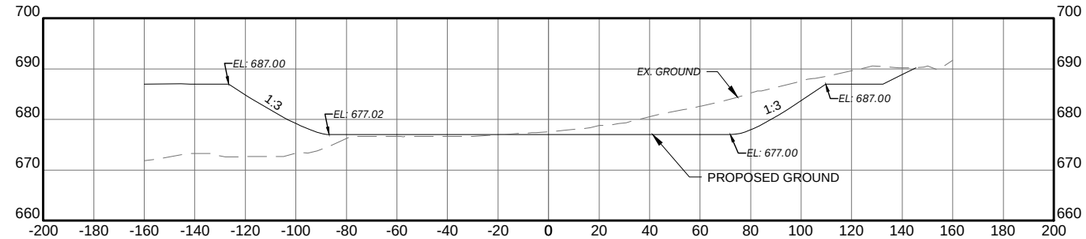

1 PHASE 3 - POND E - EAST WEST CROSS SECTIONS
SCALE:

1/9/2026 9:50:06 AM

JAMES R. UMDENSTOCK
LICENSED PROFESSIONAL ENGINEER
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

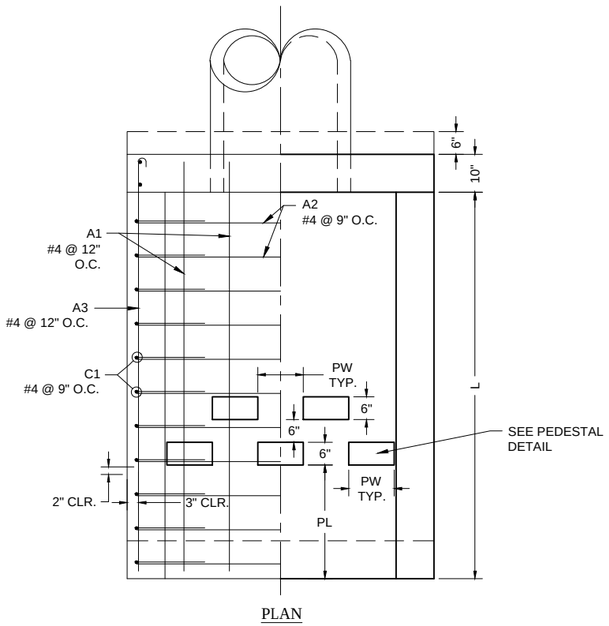
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
POND 'E'
CROSS SECTIONS

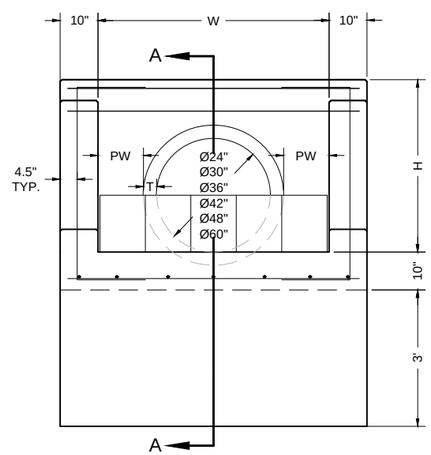
PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*
SHEET:	35 *OF* 80
DRAWING:	D10

SPECIAL STRUCTURE									REINFORCING STEEL																				
PIPE ID	DIMENSIONS							CONC	A1 -BENT		A2 - STRAIGHT		A3 - BENT		B1 - STRAIGHT		B2 - BENT		B3 - STRAIGHT		C1 - BENT		C2 - BENT		C3 - BENT		P1 - STRAIGHT		P2 - BENT		TOTAL
	H	L	W	T	P	PL	PW	CY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LBS
24"	3'-3"	7'	4'-6"	3"	1'-0"	2'-0"	10.75"	3.2	7'-3"	6	5'-10"	9	7'-3"	2	5'-10"	7	6'-8"	4	1'-6"	6	10" to 2'-10"	18	2'-8" to 7'-2"	6	6'-7"	2	6.75"	10	2'-1"	10	217.447
30"	3'-9.5"	8'-6"	5'-1"	3.5"	1'-3"	2'-6"	1'-0"	4	8'-9"	7	6'-5"	11	8'-9"	2	6'-5"	7	7'-1.5"	4	1'-6"	7	10" to 3'-4"	22	1'-11" to 8'-8"	8	8'-0"	2	6"	10	2'-4"	10	274.301
36"	4'-4"	10'	5'-8"	4"	1'-6"	3'-0"	1'-1.75"	5	10'-3"	7	7'-0"	13	10'-3"	2	7'-0"	7	7'-9"	4	1'-6"	7	10" to 3'-10"	26	3'-5" to 10'-2"	8	9'-7"	2	9.75"	10	2'-7"	10	329.464
42"	4'-10.5"	11'-10.5"	6'-3"	4.5"	1'-9"	3'-6	1'-3"	6.2	12'-1.5"	8	7'-3"	15	12'-1.5"	2	7'-3"	7	8'-2.5"	4	1'-6"	8	10" to 4'-4"	30	1'-0" to 12'-2"	10	12'-9.5"	2	11"	10	2'-10"	10	425.296
48"	5'-5"	13'-6"	6'-10"	5"	2'-0"	4'-0"	1'-4.4"	7.4	13'-9"	9	8'-2"	18	13'-9"	2	8'-2"	7	8'-10"	4	1'-6"	9	10" to 5'-1"	36	2'-5" to 13'-8"	12	13'-10"	2	1'-0"	10	3'-1"	10	498.849
54"	6'-9.5"	16'-9"	7'-7"	3.6"	2'-6"	4'-6"	1'-6.25"	9.9	17'	10	8'-11"	27	17'	2	8'-11"	7	10'-2.5"	4	1'-6"	10	11" to 6'-1"	44	3'-5" to 16'-11"	14	17'-1"	2	1'-2"	10	3'-7"	10	686.504

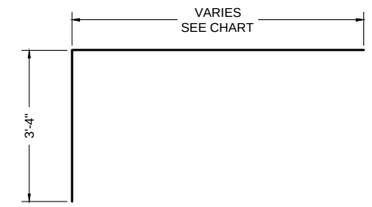
* CUT AS FIELD CONDITIONS REQUIRE



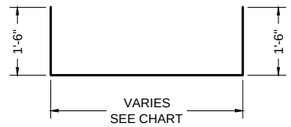
PLAN



ELEVATION



BAR A1



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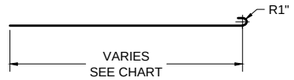

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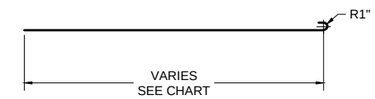

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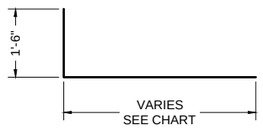
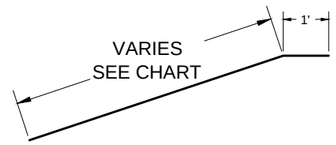
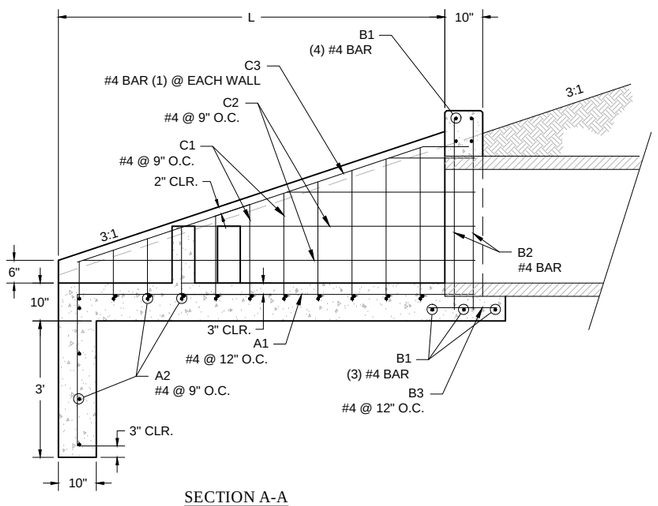


BAR C1



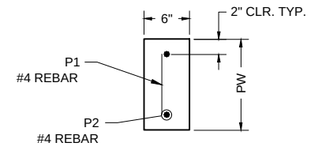
BAR C3



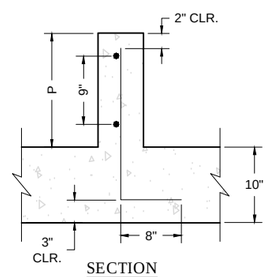
SECTION A-A

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF SAPULPA STANDARD SPECIFICATIONS.
2. ALL EXPOSED CONCRETE SURFACES SHALL HAVE A CARBORUNDUM FINISH.
3. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
4. MINIMUM DEPTH OF FILL OVER CULVERTS SHALL BE 1´-0".



PLAN



SECTION

1 SPECIAL 24", 30", 36", 48" & 60" OUTFALL STRUCTURE
SCALE: 1:20

PEDESTAL DETAIL
1:10

2 PEDESTAL DETAIL
SCALE: 1:10

1/9/2026 9:50:19 AM

PROFESSIONAL ENGINEER
LICENSED
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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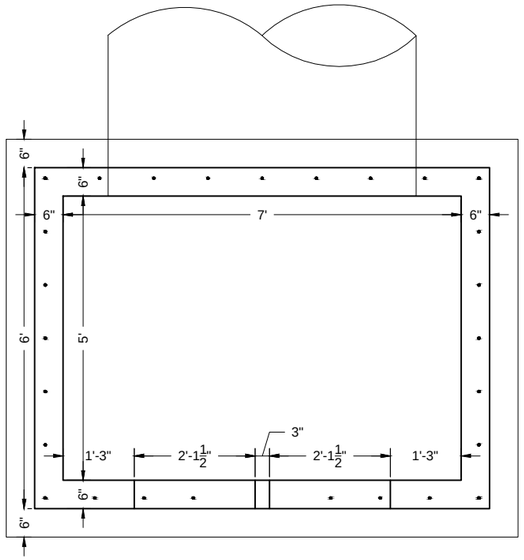
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

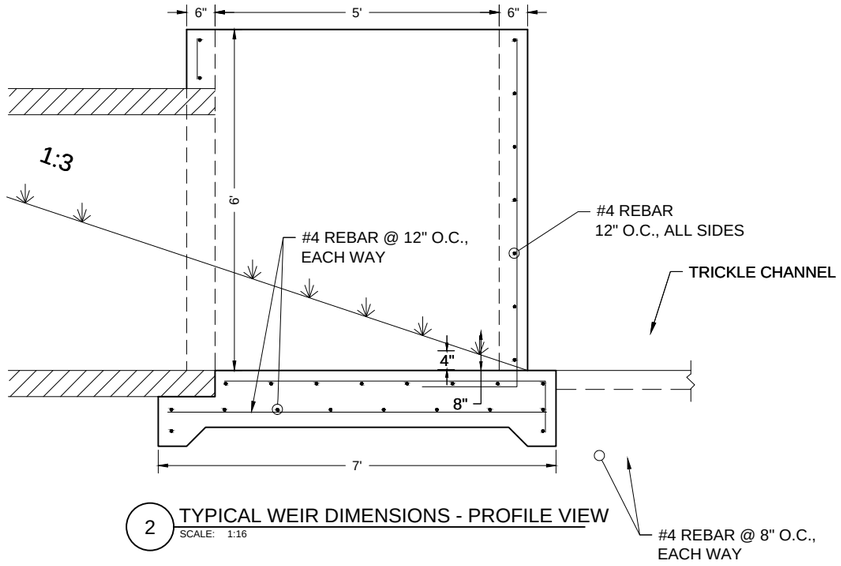
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
SPECIAL OUTFALL
STRUCTURES

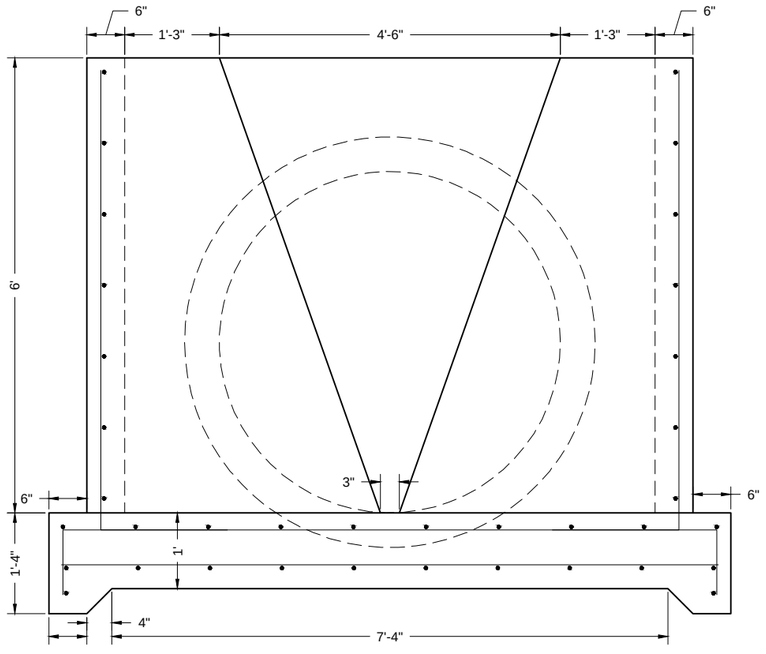
PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	36 OF 80
DRAWING:	D11



1 POND D - PLAN VIEW
SCALE: 3/4"=1'-0"



2 TYPICAL WEIR DIMENSIONS - PROFILE VIEW
SCALE: 1:16



4 PHASE 1 - DETENTION POND 'D' WEIR SHAPE DETIAL
SCALE: 1" = 1'-0"

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF SAPULPA STANDARD SPECIFICATIONS.
2. ALL EXPOSED CONCRETE SURFACES SHALL HAVE A CARBORUNDUM FINISH,
3. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
4. MINIMUM DEPTH OF FILL OVER CULVERTS SHALL BE 1'-0".

POND D WEIR QUANTITIES		
	CONC. (CY)	REIN. (LBS)
WALLS	2.20	267.20
FOOTING	2.61	334.08
TOTAL	4.81	601.28

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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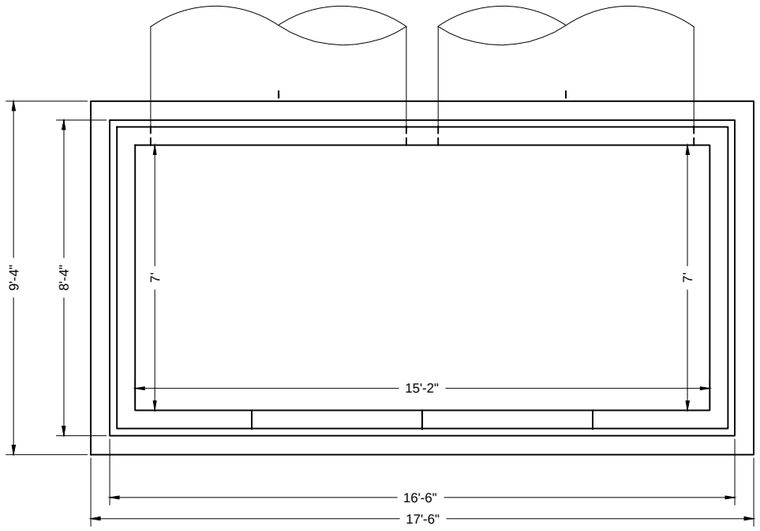
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

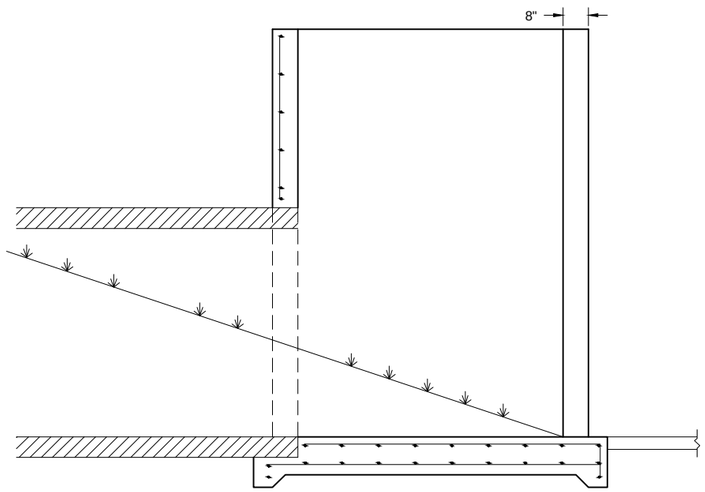
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

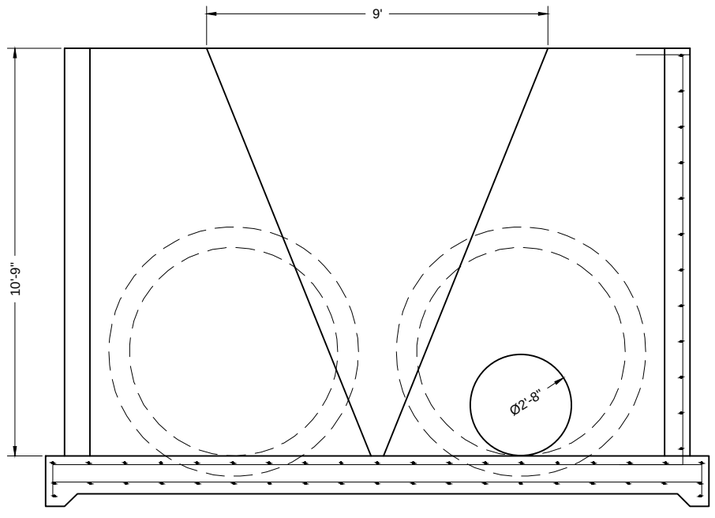
PHASE 3 (ALT. 2)
SPECIAL INLET
V-NOTCH WEIR
POND 'D'

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	37 OF 80
DRAWING:	D12

1/9/2026 9:50:20 AM







GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF SAPULPA STANDARD SPECIFICATIONS.
2. ALL EXPOSED CONCRETE SURFACES SHALL HAVE A CARBORUNDUM FINISH.
3. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
4. MINIMUM DEPTH OF FILL OVER CULVERTS SHALL BE 1´-0".

POND E WEIR QUANTITIES		
	CONC. (CY)	REIN. (LBS)
WALLS	9.52	628.28
FOOTING	6.50	538.46
TOTAL	16.02	1166.74

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 Know what's below. Call before you dig.

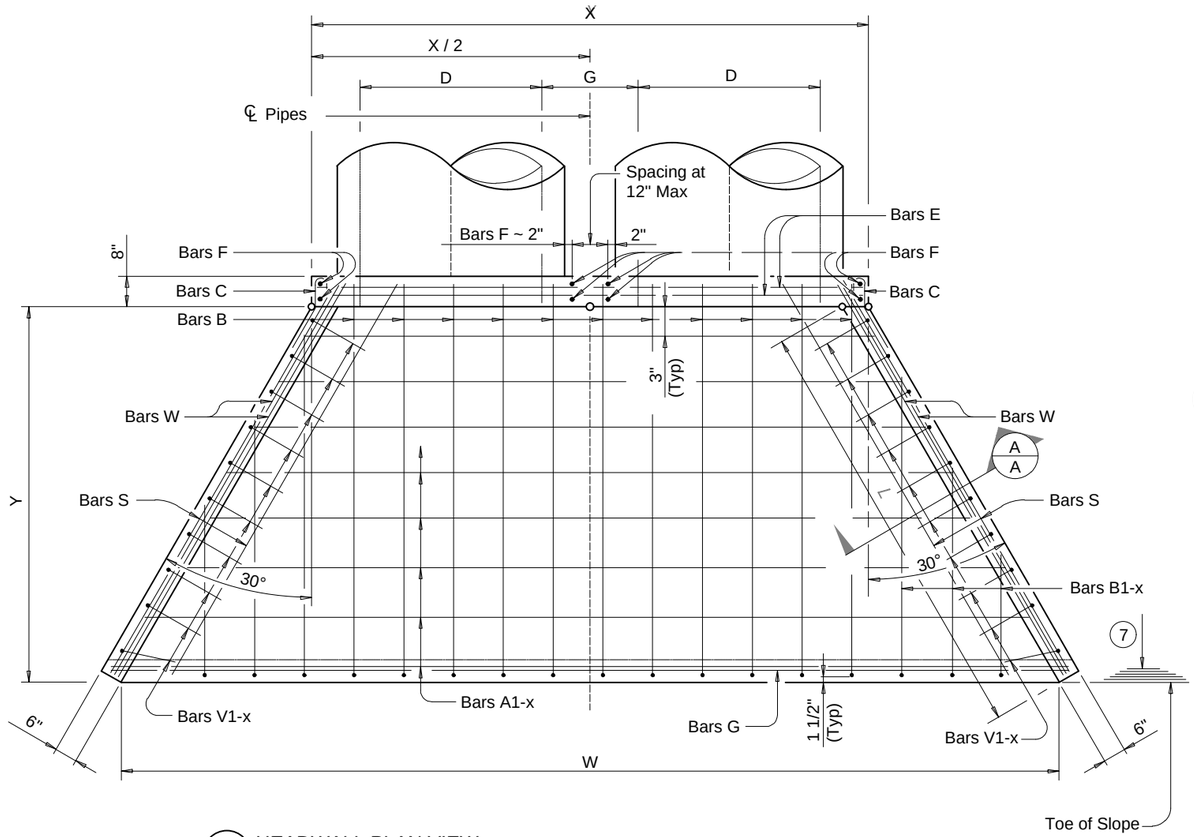
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
SPEICAL INLET
V-NOTCH WEIR
POND 'E'

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	38 OF 80
DRAWING:	D13

1/9/2026 9:50:20 AM



1 SECTION A-A
SCALE: N.T.S.

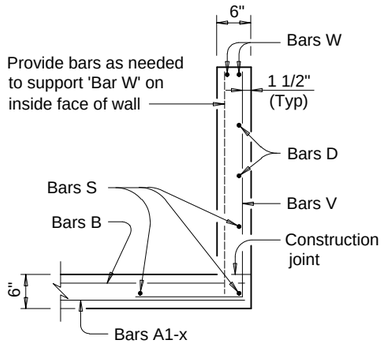
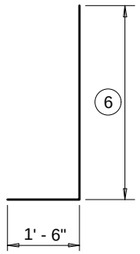


TABLE OF REINFORCING STEEL			
BAR	SIZE	SPA	NO.
A	#4	1'-0"	-
B	#3	1'-6"	-
C	#4	1'-0"	-
D	#3	1'-0"	-
E	#5	-	4
F	#5	-	-
G	#3	-	2
S	#4	-	6
V	#4	1'-0"	-
W	#5	-	4



BARS V

TABLE OF DIMENSIONS AND QUANTITIES FOR DUAL 66" RCP HEADWALL									
DIAMETER OF PIPE (D)	W	X	Y	L	G	K	H	Reinf (lbs)	Conc (CY)
66"	36'-10"	16'-7 1/2"	18'-6"	21'-4 1/4"	3'-3"	1'-3"	6'-9"	1053	14

1. Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.
2. For vehicle safety, construct curbs no more than 3" above finished grade. Reduce curb heights, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
3. Provide a 1'-0" footing as shown where required to maintain 4" minimum cover for pipes.
4. Dimensions shown are usual and maximum.
5. Quantities shown are for one structure end only (one headwall).
6. Min Length = 6" + 3" × ((12 × H - 7) / (12 × L))

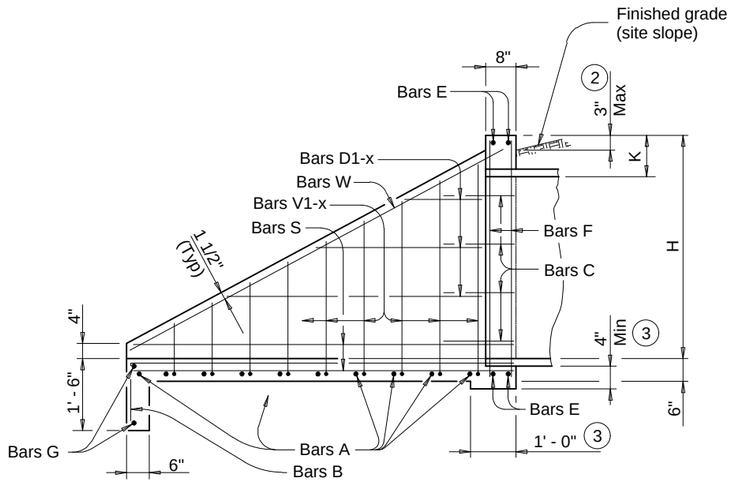
   Max Length = 12 × H - 3" × ((12 × H - 7) / (12 × L)) - 1"
7. Lengths of wings based on SL:1 slope along this line.

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide Class C concrete (f'c = 3,600 psi).

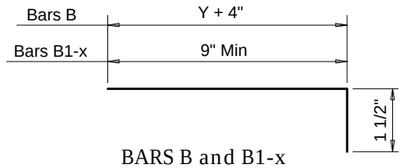
GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
Do not mount bridge rails of any type directly to these culvert headwalls.
This standard may not be used for wall heights, H, exceeding the values shown.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

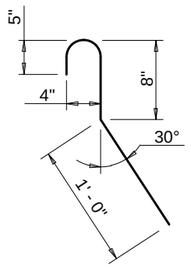
2 HEADWALL PLAN VIEW
SCALE: N.T.S.



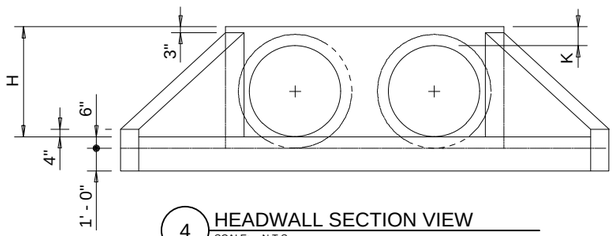
3 HEADWALL PROFILE OF WING-WALL
SCALE: N.T.S.



BARS B and B1-x



BARS CL
(Length = 2' - 5")



4 HEADWALL SECTION VIEW
SCALE: N.T.S.

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

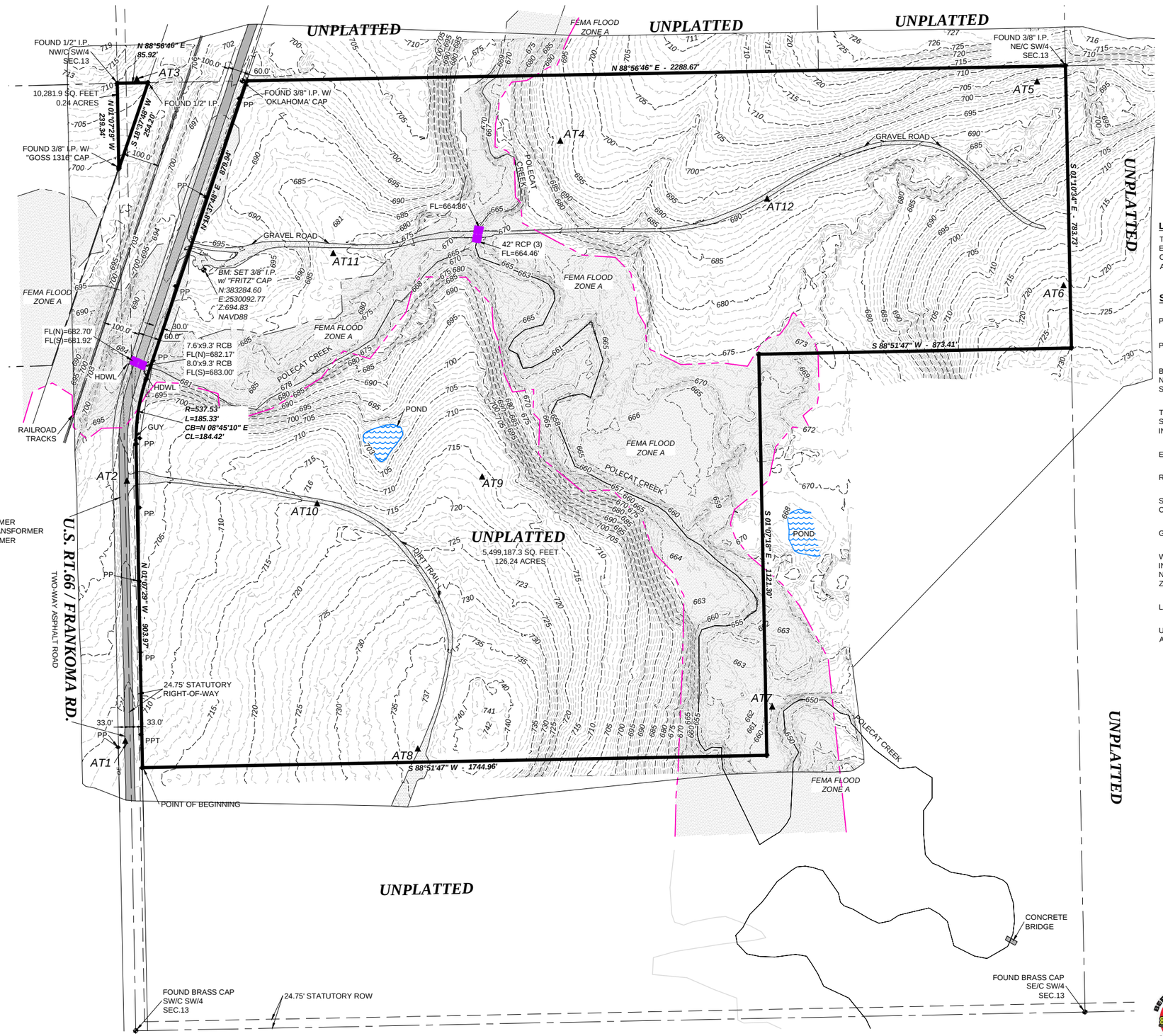
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
SPEICAL DUAL 66
INCH HEADWALL

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	39 OF 80
DRAWING:	D14

1/9/2026 9:50:24 AM



LEGEND

AC	=	AIR CONDITIONER
AD	=	AREA INLET
ASP	=	AUTO SPRINKLER
BC	=	BOTTOM OF CURB
B/L	=	BUILDING LINE
BM	=	BENCHMARK
BWF	=	BARBED WIRE FENCE
CATV	=	CABLE TV PEDESTAL
CL	=	CENTERLINE
CLB	=	CLIMB BARRIER
CLF	=	CHAIN LINK FENCE
CO	=	CLEAN OUT
CPS	=	COX POWER SUPPLY
CMP	=	CORRUGATED METAL PIPE
CPP	=	CORRUGATED PLASTIC PIPE
DGDI	=	DOUBLE GRATE DROP INLET
DIP	=	DUCTILE IRON PIPE
EM	=	ELECTRIC METER
EO	=	ELECTRIC OUTLET
EPED	=	ELECTRIC PEDESTAL
ET	=	ELECTRIC TRANSFORMER
FF	=	FINISH FLOOR
FG	=	FINISH GRADE
FH	=	FIRE HYDRANT
FP	=	FLAG POLE
FL	=	FLOWLINE
GLM	=	GAS LINE MARKER
GM	=	GAS METER
GR	=	GAS REGULATOR
GV	=	GAS VALVE
GL	=	GROUND LIGHT
GP	=	GUARD POST
GUY	=	GUY ANCHOR
HDWL	=	HEADWALL
HPP	=	HIGH POWER POLE
HPS	=	HANDICAP PARKING SIGN
HWF	=	HOG WIRE FENCE
ICV	=	IRRIGATION CONTROL VALVE
I.P.	=	IRON PIN
(L)	=	PER LEGAL DESCRIPTION
LP	=	LIGHT POLE
(M)	=	MEASURED DATA
MB	=	MAILBOX
MRK	=	UTILITY MARKER
MW	=	MONITORING WELL
(P)	=	PER PLAT
P/E	=	PIPELINE EASEMENT
PLF	=	PLASTIC FENCE
PLM	=	PIPELINE MARKER
PM	=	PARKING METER
PP	=	POWER POLE
PPD	=	POWER POLE W/ DROP SERVICE
PPDT	=	POWER POLE W/ DROP & TRANSFORMER
PPDLT	=	POWER POLE W/I DROP, LIGHT & TRANSFORMER
PPLT	=	POWER POLE W/ LIGHT & TRANSFORMER
PPM	=	POWER POLE W/ ELECTRIC METER
PPNS	=	POWER POLE / NO SERVICE
PPT	=	POWER POLE W/ TRANSFORMER
RCB	=	REINFORCED CONCRETE BOX
RCP	=	REINFORCED CONCRETE PIPE
RD	=	ROOF DRAIN
ROW	=	RIGHT-OF-WAY
SSLH	=	SANITARY SEWER LAMP HOLE
SSMH	=	SANITARY SEWER MANHOLE
S/B	=	SETBACK
SGDI	=	SINGLE GRATE DROP INLET
SH	=	SPRINKLER HEAD
SP	=	SIGN POST
STMH	=	STORM SEWER MANHOLE
STJB	=	STORM SEWER JUNCTION BOX
TM	=	TELEPHONE MANHOLE
TPED	=	TELEPHONE PEDESTAL
TC	=	TOP OF CURB
TD	=	TOP OF DECK
TG	=	TOP OF GRATE
TH	=	THRESHOLD
TR	=	TOP OF RIM
TS	=	TRAFFIC SIGN
TSLP	=	TRAFFIC SIGNAL LIGHT POLE
TSPB	=	TRAFFIC SIGNAL PULL BOX
TSMH	=	TRAFFIC SIGNAL MANHOLE
TVLT	=	TELEPHONE VAULT
TW	=	TOP OF WALL
U/E	=	UTILITY EASEMENT
UM	=	UTILITY MARKER
VP	=	VENT PIPE
WF	=	WATER FAUCET
WM	=	WATER METER
WSE	=	WATER SURFACE ELEVATION
WV	=	WATER VALVE
WDF	=	WOOD FENCE
(Z)	=	ZONING
— —	=	CENTERLINE
—X—	=	FENCE LINE
—OC—	=	OVERHEAD COMMUNICATION
—OE—	=	OVERHEAD ELECTRIC
—SS—	=	SANITARY SEWER
—ST—	=	STORM SEWER
TOP/TOE	=	TOP/TOE OF GROUND SLOPE
—UC—	=	UNDERGROUND COMMUNICATION
—UE—	=	UNDERGROUND ELECTRIC
—UG—	=	UNDERGROUND GAS
—UT—	=	UNDERGROUND TELEPHONE
—WL—	=	WATERLINE
	=	ZONE AE FLOODWAY
	=	ZONE A 1.0% CHANCE OF FLOOD
	=	ZONE SHADED "X" 0.2% CHANCE OF FLOOD

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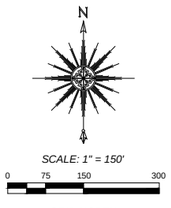
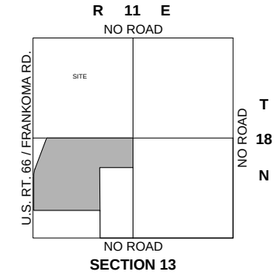




LOCATION MAP

SCALE: 1"=2000'

LEGAL DESCRIPTION - AS PROVIDED - BK. 1356, PG. 60

THE SOUTHWEST QUARTER OF SECTION THIRTEEN , TOWNSHIP EIGHTEEN NORTH, RANGE ELEVEN EAST, (SW/4 SEC.13-T18N-R11E) OF THE INDIAN BASE AND MERIDIAN, CREEK COUNTY, STATE OF OKLAHOMA, ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, LESS AND EXCEPT 2.75 ACRES FOR THE ST. LOUIS AND SAN FRANCISCO RAILROAD RIGHT OF WAY.

SURVEYOR'S NOTES

PREPARED FOR: KEITHLINE ENGINEERING GROUP, LLC

PHYSICAL ADDRESS: TBD, PARCEL ID:190014678, FRANKOMA RD., SAPULPA, CREEK COUNTY, OK 74066

BEARINGS ARE BASED UPON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM, (3501 OK N), NORTH AMERICAN DATUM 1983 (NAD83). MEASUREMENTS SHOWN ARE GRID DISTANCES IN U.S. SURVEY FEET.

TOPOGRAPHIC INFORMATION SHOWN HEREON IS RELATIVE TO NAVD 1988 DATUM PER ON-SITE OPUS SOLUTION AS THE PRIMARY BENCHMARK. SITE BENCHMARK AS SHOWN HEREON. CONTOUR INTERVAL IS 1'.

EASEMENTS MAY EXIST THAT ARE NOT SHOWN.

REFER TO CURRENT ZONING FOR NEW CONSTRUCTION GUIDELINES.

SET 3/8" IRON PIN W/ GREEN "FRITZ CA5848" CAP OR MAG NAIL W/ "FRITZ CA5848" WASHER AT ALL CORNERS UNLESS OTHERWISE NOTED AND SHOWN HEREON.

GROSS LAND AREA: 3,886,557.2 SQ. FEET OR 89.22 ACRES.

WE HAVE EXAMINED A MAP BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, CREEK COUNTY UNINCORPORATED AREAS, OKLAHOMA, COMMUNITY PANEL NO. 40037C0190D - MAY 18, 2009, WHICH INDICATES THE SUBJECT PROPERTY TO BE WITHIN SHADED ZONE A (AREAS DETERMINED TO BE INSIDE THE 1.0% ANNUAL CHANCE FLOODPLAIN).

LAST SITE VISIT: DECEMBER 18, 2024.

UNDERGROUND UTILITIES SHOWN HEREON WERE DERIVED FROM OBSERVABLE FIELD EVIDENCE. ALL UTILITIES MAY NOT BE SHOWN - CALL OKIE 1-800-522-6543!

SURVEY CONTROL TABLE				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
AT1	381966.962	2529872.867	711.62	SET MAG NAIL
AT2	382693.683	2529877.400	701.37	SET MAG NAIL
AT3	383817.269	2529904.735	707.86	SET 3/8" I.P. w/ "FRITZ" CAP
AT4	383644.058	2531088.123	691.87	SET 3/8" I.P. w/ "FRITZ" CAP
AT5	383809.749	2532420.909	698.79	SET 3/8" I.P. w/ "FRITZ" CAP
AT6	383240.119	2532494.763	721.29	SET 3/8" I.P. w/ "FRITZ" CAP
AT7	382062.720	2531680.470	659.63	SET 3/8" I.P. w/ "FRITZ" CAP
AT8	381944.728	2530689.946	736.11	SET 3/8" I.P. w/ "FRITZ" CAP
AT9	382705.370	2530869.989	716.16	SET 3/8" I.P. w/ "FRITZ" CAP
24517	383284.604	2530092.768	694.83	SET 3/8" I.P. w/ "FRITZ" CAP

CERTIFICATE OF SURVEY

FRITZ LAND SURVEYING, LLC AND THE UNDERSIGNED PROFESSIONAL LAND SURVEYOR, UNDER CERTIFICATE OF AUTHORIZATION CA #5848, DO HEREBY STATE THAT THIS PLAT OF SURVEY IS A TRUE AND ACCURATE REPRESENTATION OF THE SURVEY MADE ON THE GROUND AND OF THE FACTS AS FOUND AT THE TIME OF THE SURVEY AND THAT THIS PLAT MEETS OR EXCEEDS THE MINIMUM TECHNICAL STANDARDS ADOPTED BY THE OKLAHOMA STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

WITNESS MY HAND AND SEAL THIS 19th DAY OF DECEMBER, 2024.

ANDY FRITZ, PLS
OK LIC. 1694
CA #5848

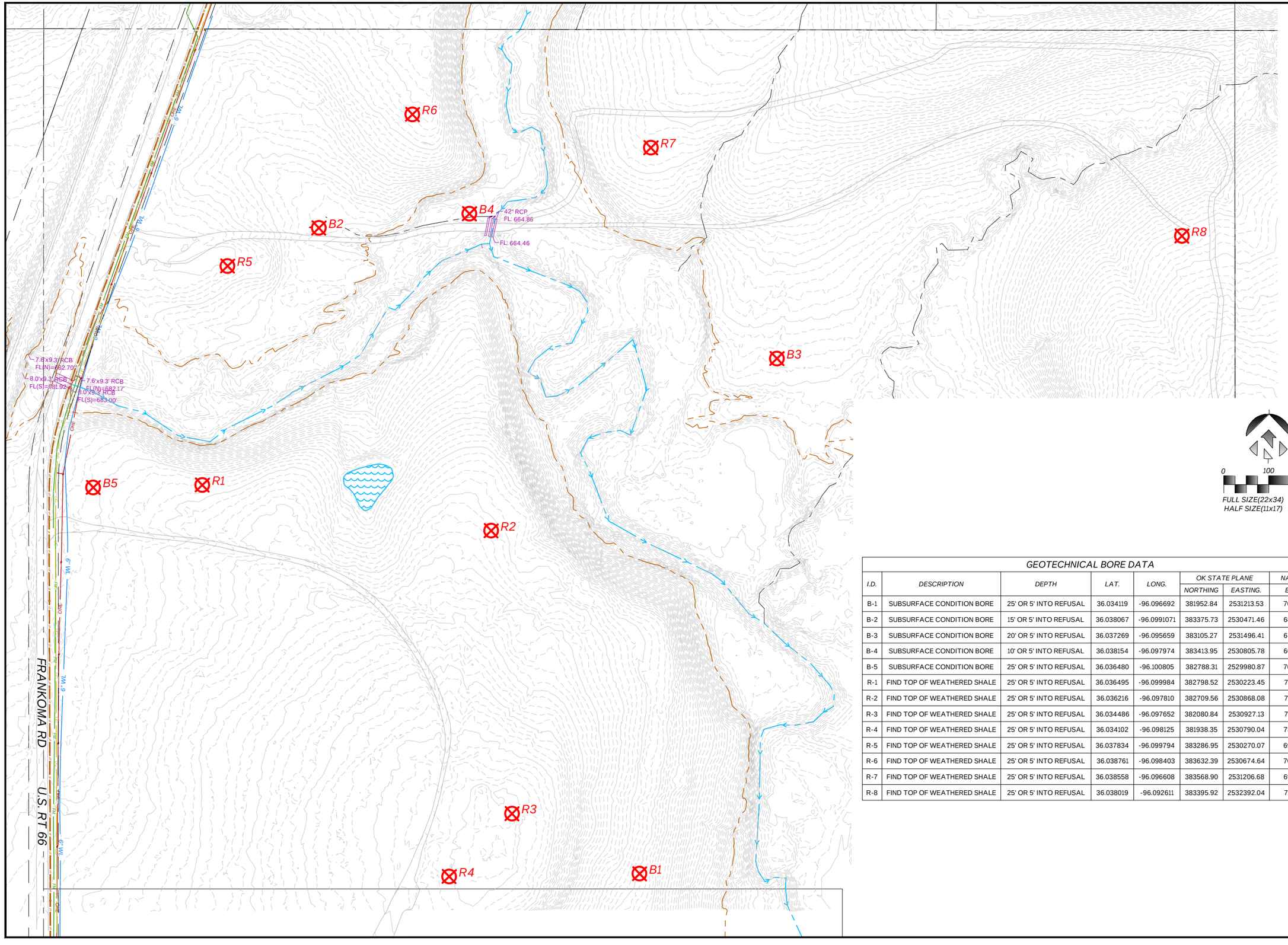
PLAT OF SURVEY w/ TOPO

PART OF THE SW/4 OF SEC.13, T18N, R11E

TBD, PARCEL ID:190014678, FRANKOMA RD., SAPULPA, CREEK COUNTY, OK 74066

SURVEY: AJN	DATE: 12.18.2024	PREPARED BY: FRITZ LAND SURVEYING, LLC 524 E. MAIN ST., JENKS, OK 74037 PH: 918-528-5121 FRITZLANDSURVEYING@GMAIL.COM C.A. # 5848 EXPIRES: 6-30-2026
DRAFT: GHM	DATE: 12.19.2024	
APPROVED: PLS	DATE: 12.19.2024	
REV:	PROJECT NO.: 24517	

BEFORE YOU DIG 811 CALL OKIE



GEOTECHNICAL BORE DATA

I.D.	DESCRIPTION	DEPTH	LAT.	LONG.	OK STATE PLANE NORTHING	OK STATE PLANE EASTING.	NAVD88 ELEV.
B-1	SUBSURFACE CONDITION BORE	25' OR 5' INTO REFUSAL	36.034119	-96.096692	381952.84	2531213.53	704.87
B-2	SUBSURFACE CONDITION BORE	15' OR 5' INTO REFUSAL	36.038067	-96.0991071	383375.73	2530471.46	680.62
B-3	SUBSURFACE CONDITION BORE	20' OR 5' INTO REFUSAL	36.037269	-96.095659	383105.27	2531496.41	676.60
B-4	SUBSURFACE CONDITION BORE	10' OR 5' INTO REFUSAL	36.038154	-96.097974	383413.95	2530805.78	669.32
B-5	SUBSURFACE CONDITION BORE	25' OR 5' INTO REFUSAL	36.036480	-96.100805	382788.31	2529980.87	704.34
R-1	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.036495	-96.099984	382798.52	2530223.45	708.19
R-2	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.036216	-96.097810	382709.56	2530868.08	716.26
R-3	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.034486	-96.097652	382080.84	2530927.13	740.81
R-4	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.034102	-96.098125	381938.35	2530790.04	739.83
R-5	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.037834	-96.099794	383286.95	2530270.07	694.67
R-6	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.038761	-96.098403	383632.39	2530674.64	703.64
R-7	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.038558	-96.096608	383568.90	2531206.68	697.52
R-8	FIND TOP OF WEATHERED SHALE	25' OR 5' INTO REFUSAL	36.038019	-96.092611	383395.92	2532392.04	710.40

PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

GEOTECHNICAL BORES

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	41 OF 80
DRAWING:	V02

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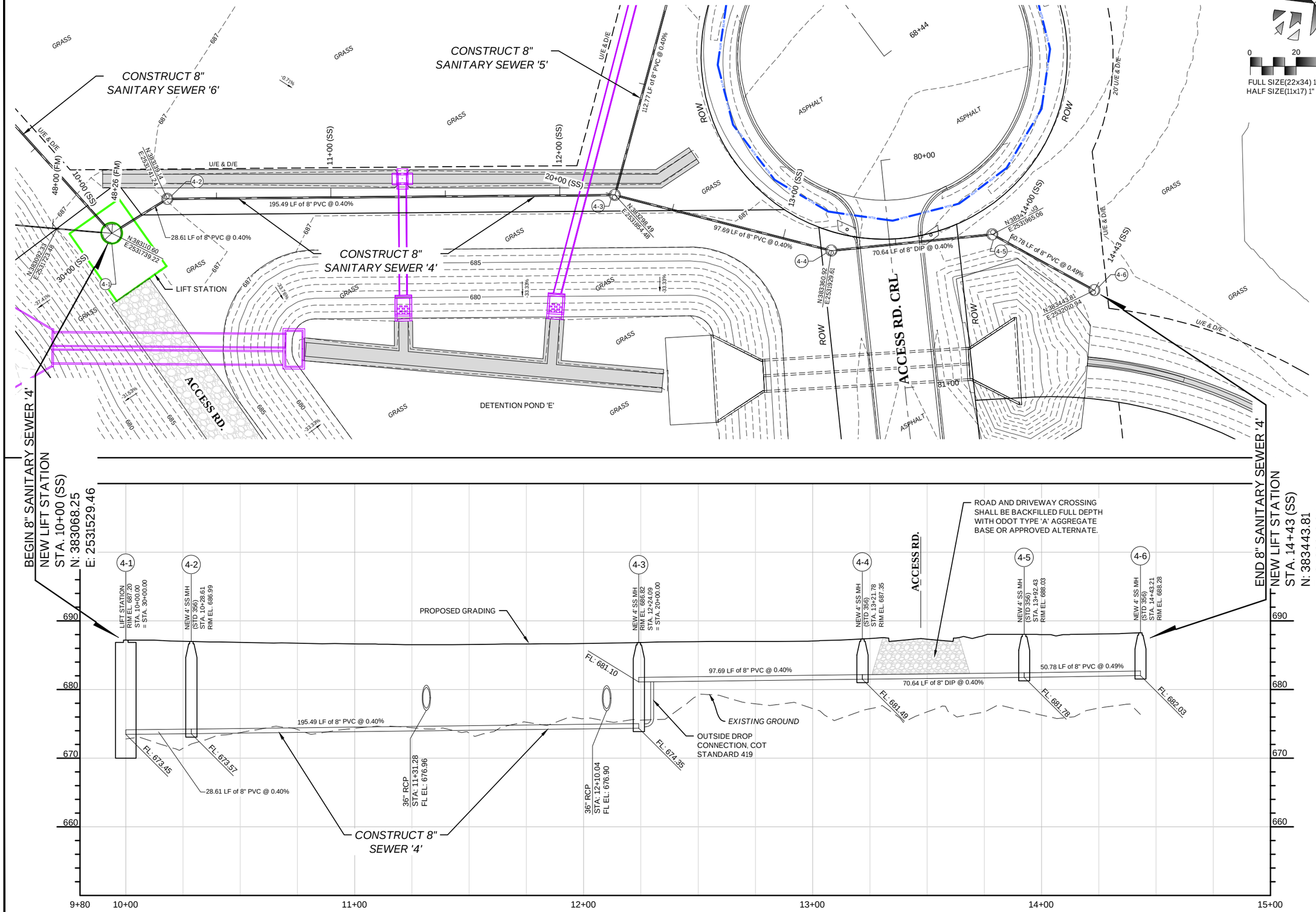

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JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA
PROFESSIONAL ENGINEER
LICENSED

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

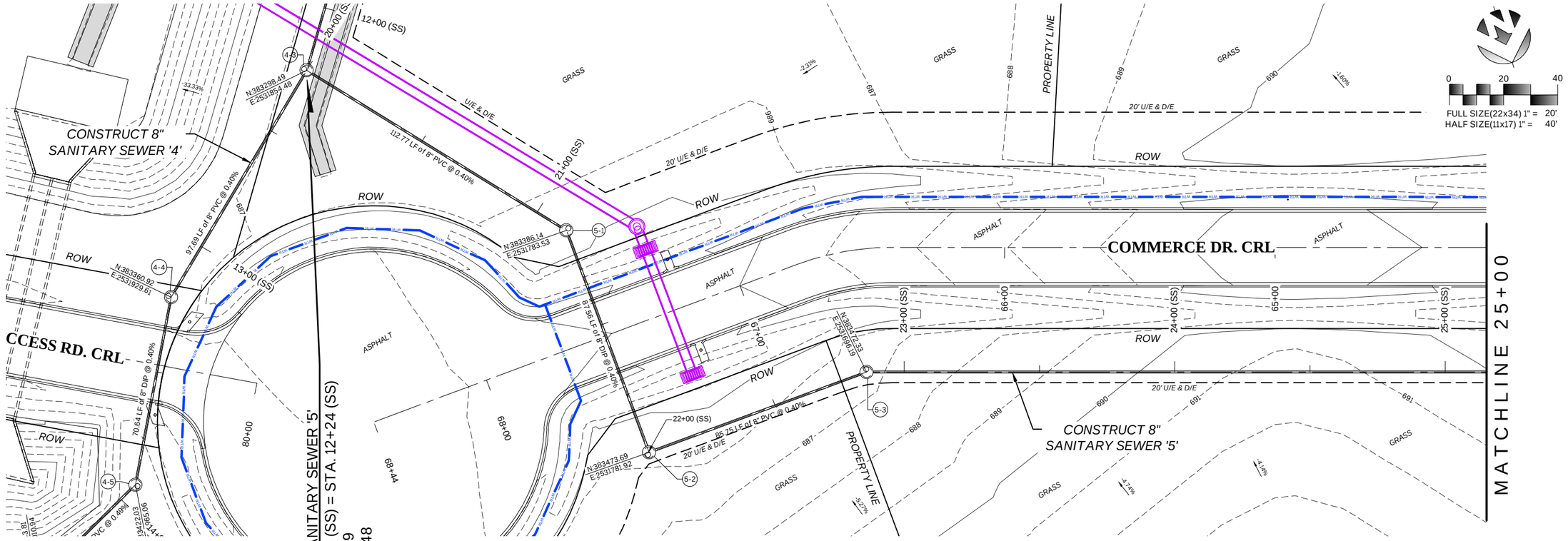
OKIE811
know what's below. Call before you dig.

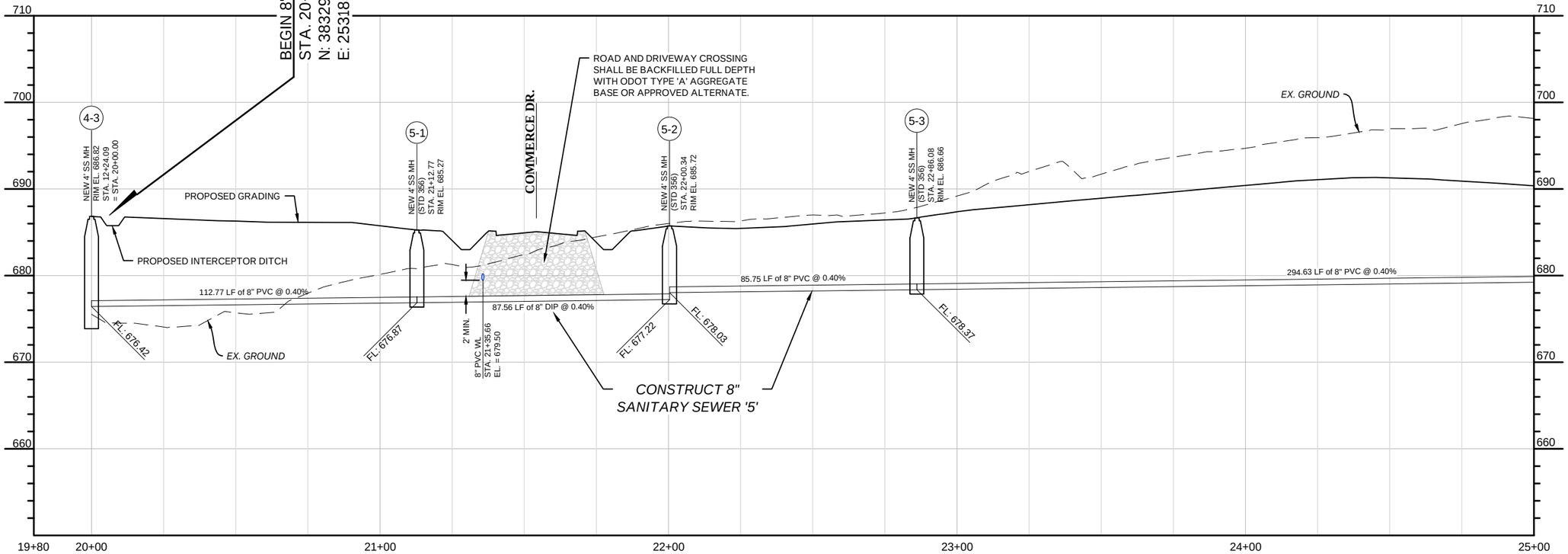
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
SANITARY SEWER '4'
STA 10+00(SS) TO
STA 14+43(SS)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	42 OF 80
DRAWING:	S01





PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA
LICENSED

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

OKIE811 Know what's below. Call before you dig.

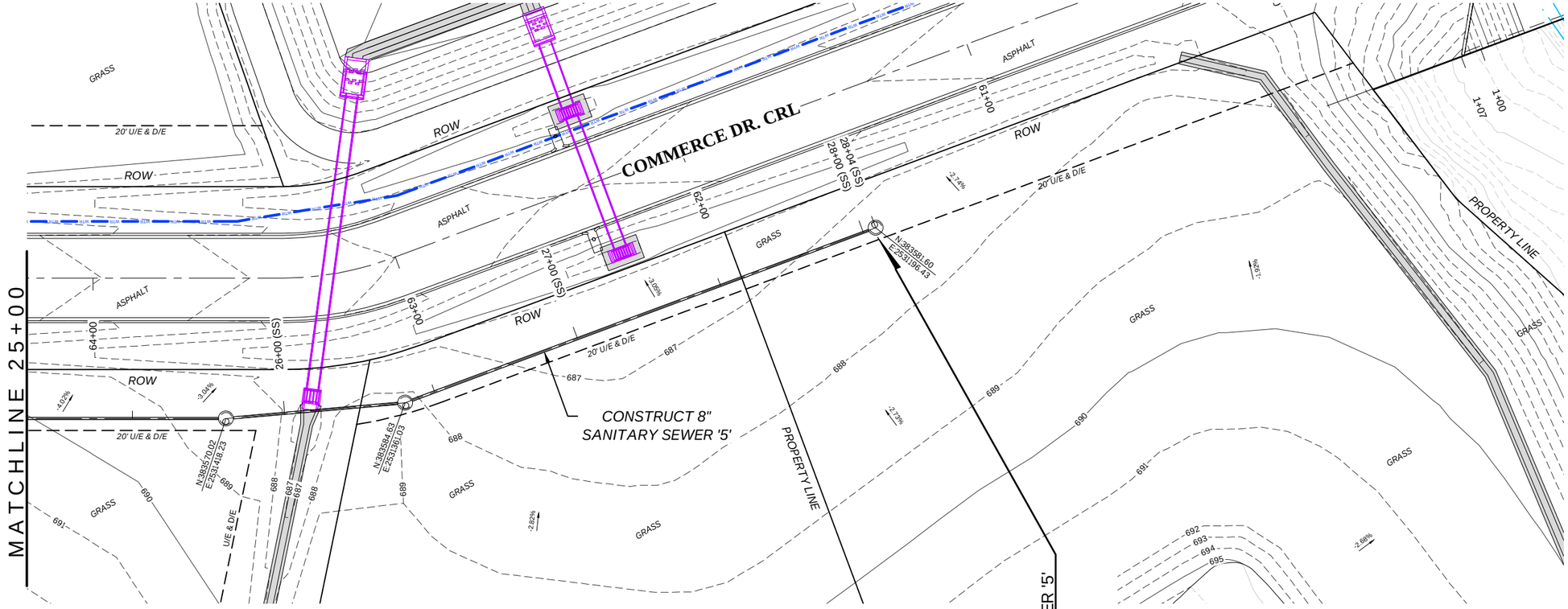
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

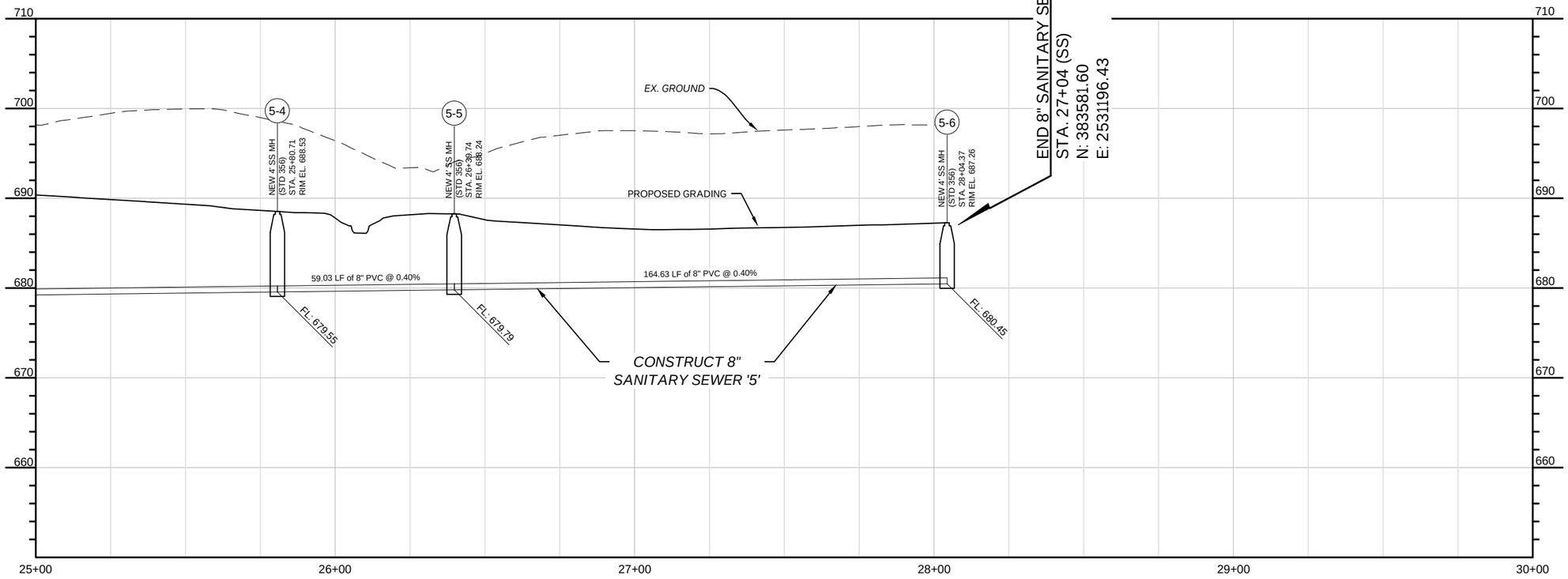
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
SANITARY SEWER '5'
STA 20+00(SS) TO
STA 25+00(SS)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	JANUARY 9, 2026
SHEET:	43 OF 80
DRAWING:	S02

1/9/2026 9:50:59 AM





0 20 40

FULL SIZE(22x34) 1" = 20'
HALF SIZE(11x17) 1" = 40'

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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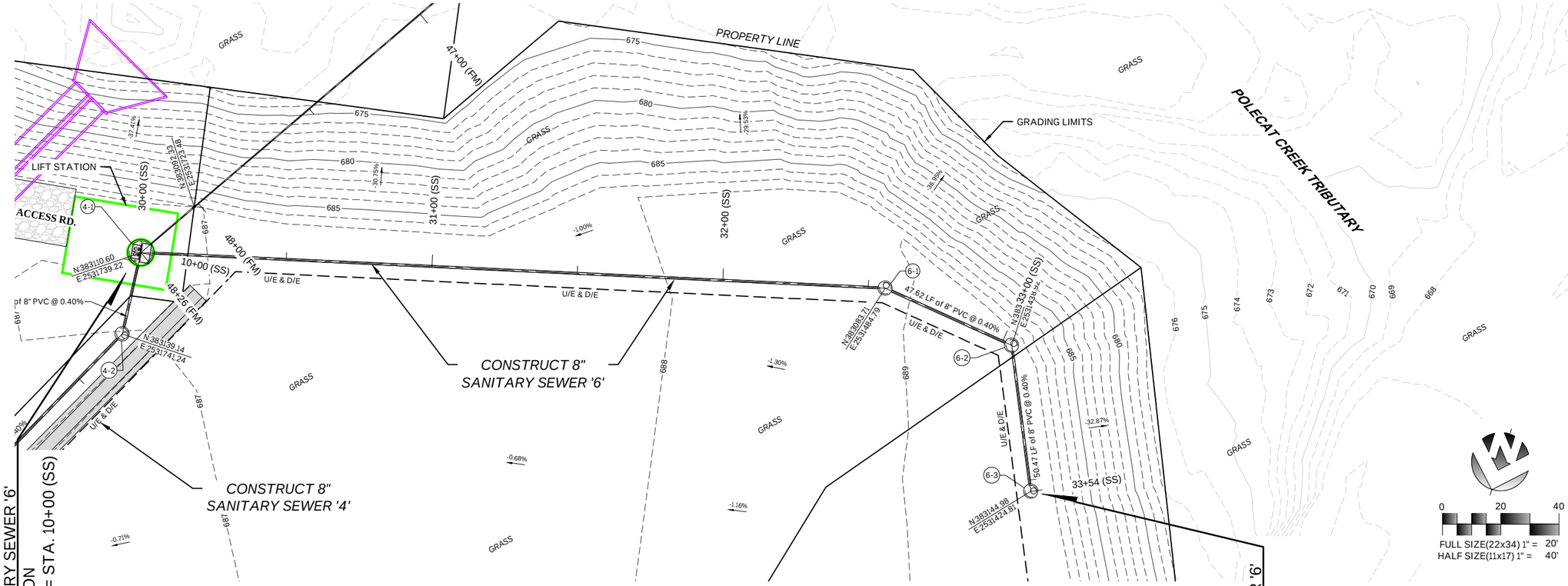
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

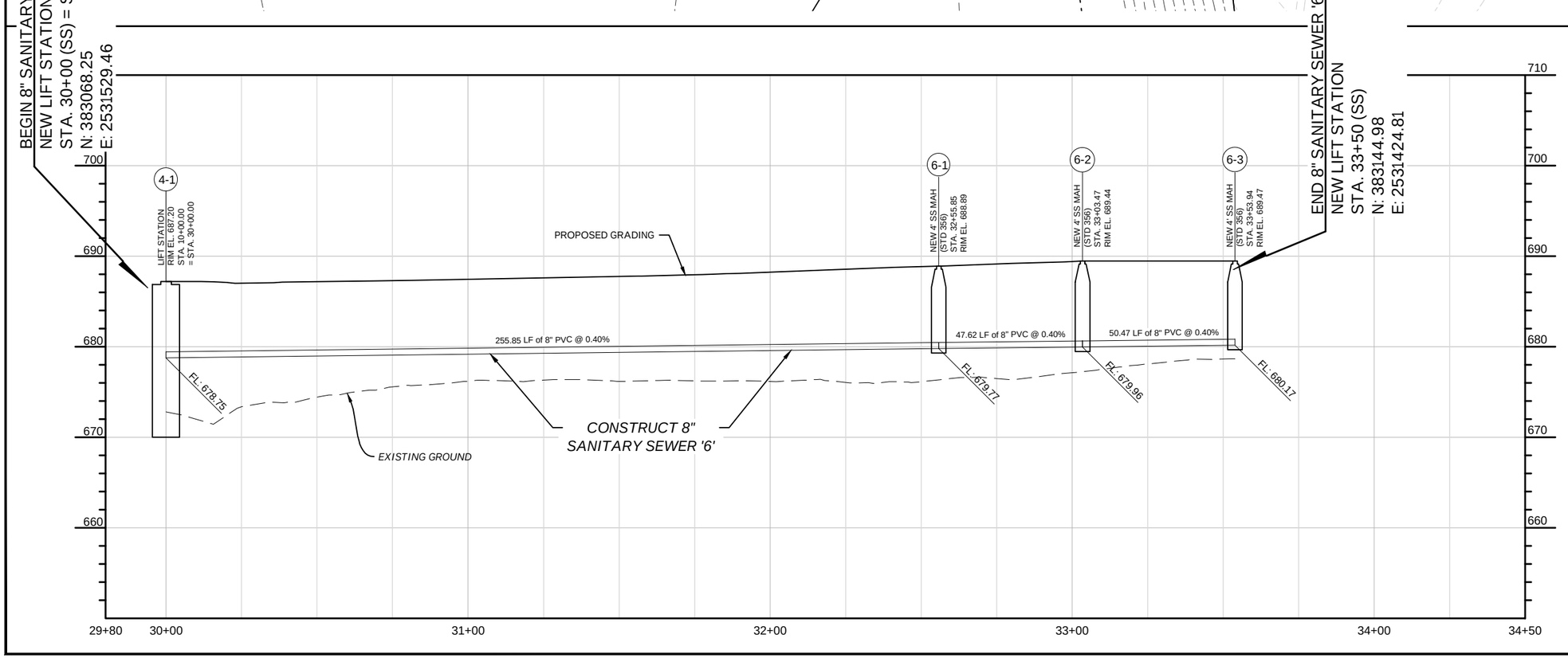
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
SANITARY SEWER '5'
STA 25+00(SS) TO
STA 27+04(SS)

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	JANUARY 9, 2026
SHEET:	44 OF 80
DRAWING:	S03

1/9/2026 9:51:06 AM





1/9/2026 9:51:14 AM

PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
KEITHLINE ENGINEERING GROUP
8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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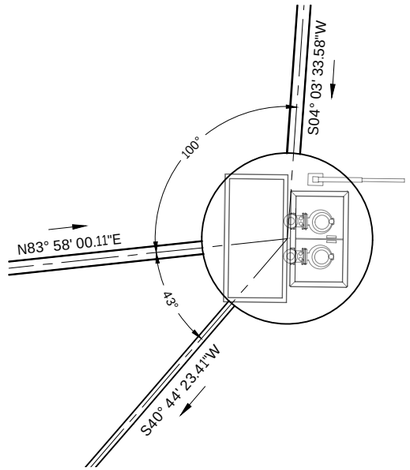
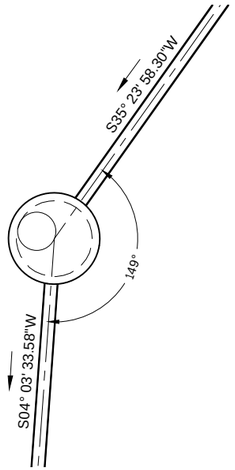
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

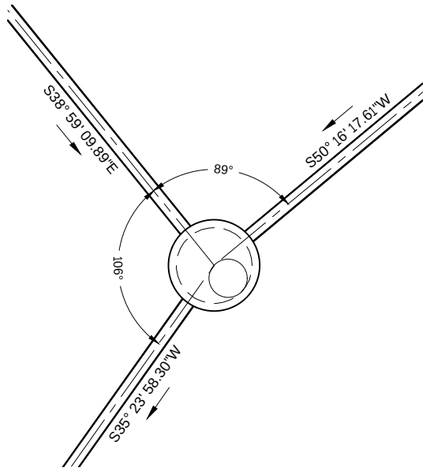
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

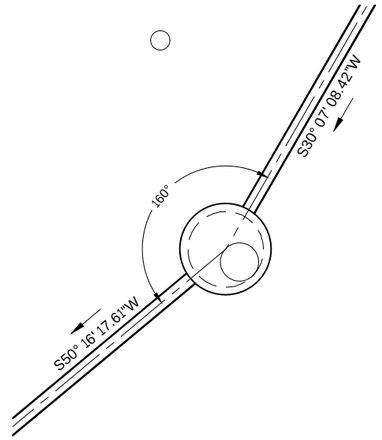
PLAN & PROFILE
SANITARY SEWER '6'
STA 30+00(SS) TO
STA 33+54(SS)

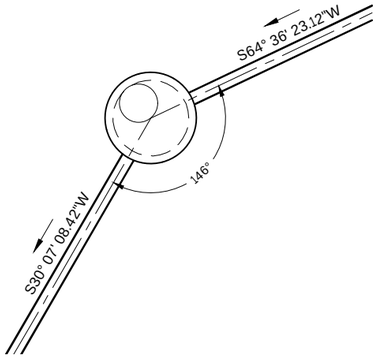
PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*
SHEET:	45 *OF* 80
DRAWING:	S04

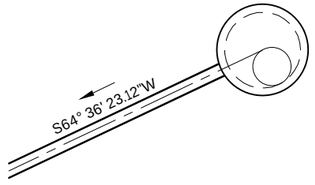


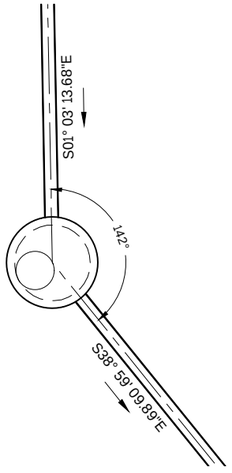


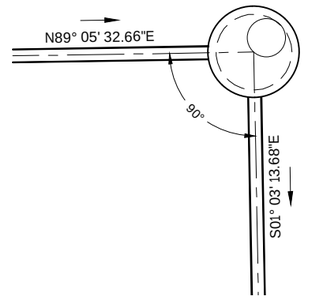












JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA
PROFESSIONAL ENGINEER
LICENSED

Plans and Estimates Prepared by:
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8556 E. 101ST ST., STE.C Tulsa, Oklahoma 74133 (918) 369-7911

REVISION	BY	DATE

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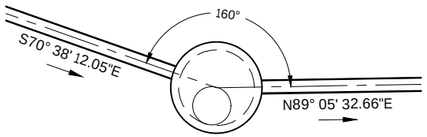
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

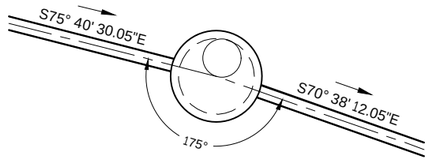
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
SANITARY SEWER
MANHOLE
DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	46 OF 80
DRAWING:	S05

1/9/2026 9:51:22 AM





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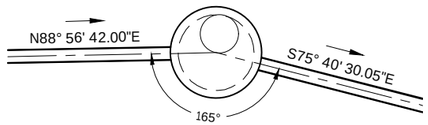

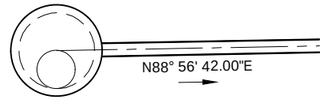

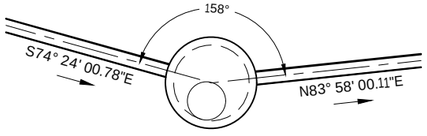

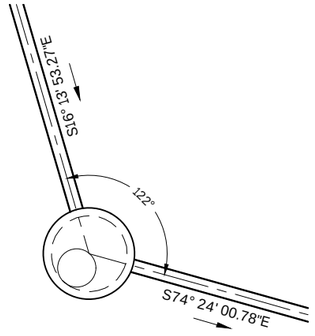

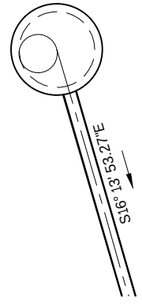

1/9/2026 9:52:03 AM

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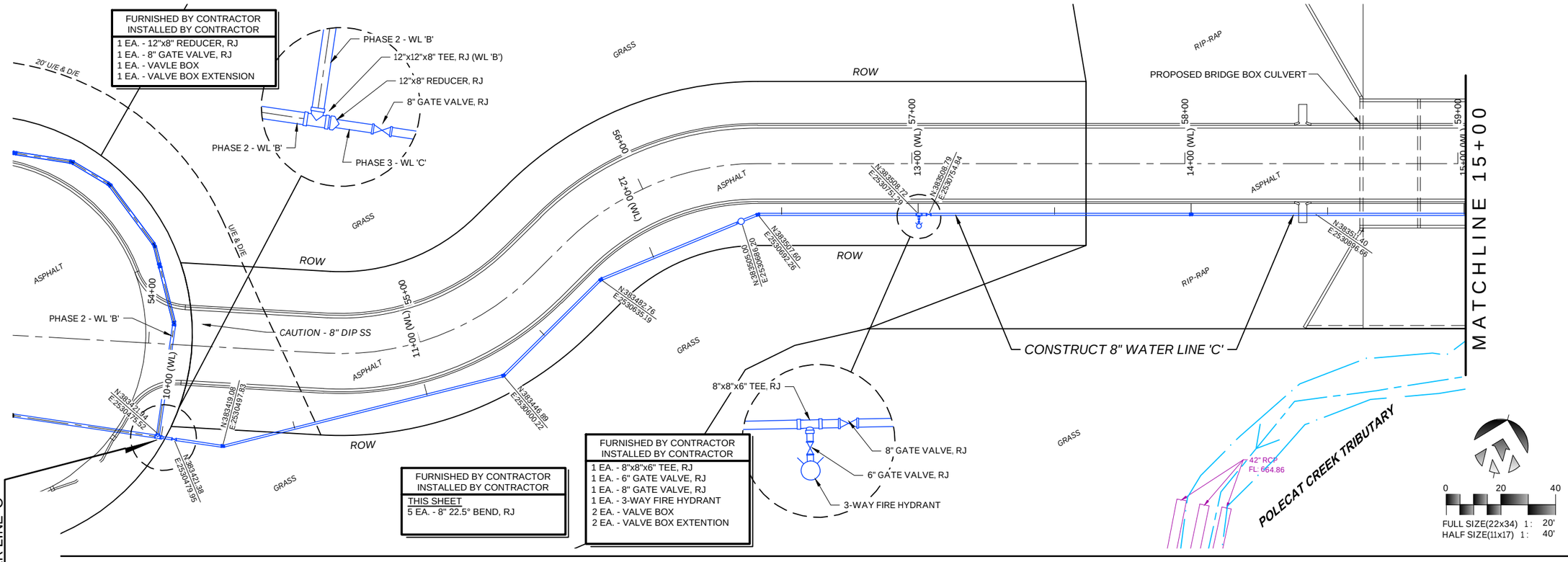
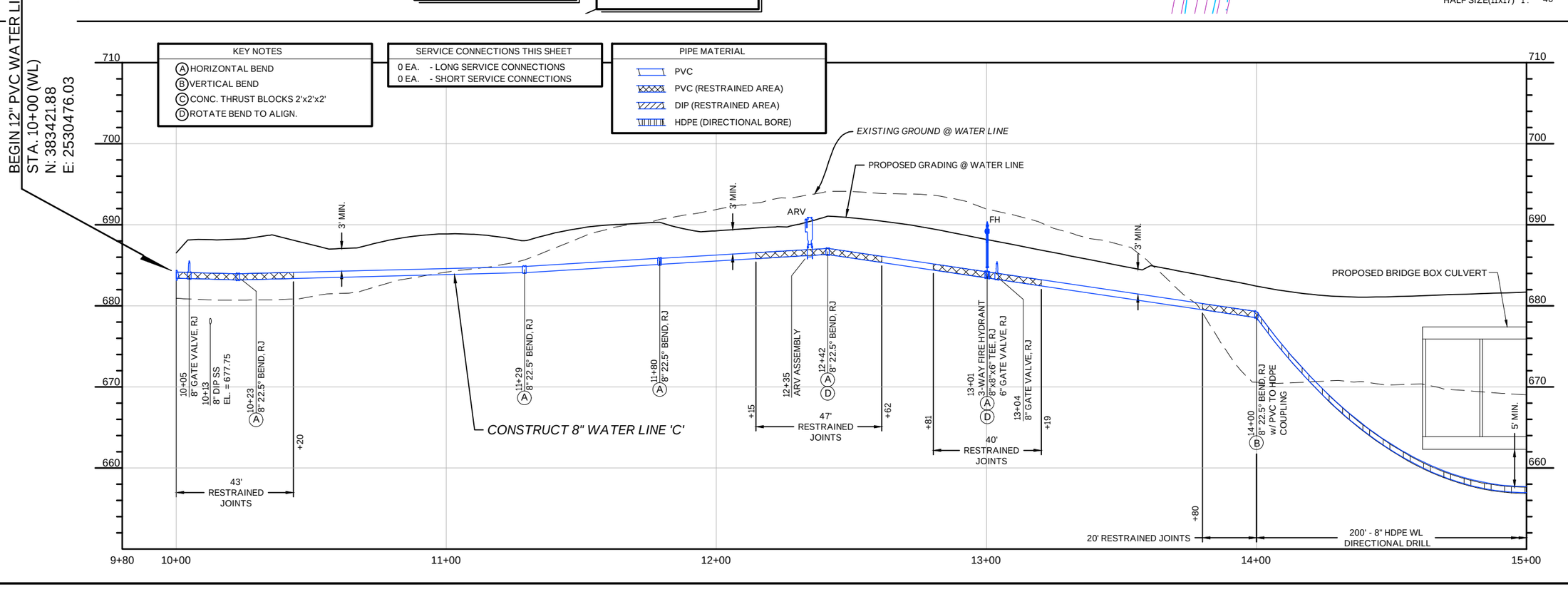
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2) SANITARY SEWER MANHOLE DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	47 OF 80
DRAWING:	S06





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REVISION	BY	DATE

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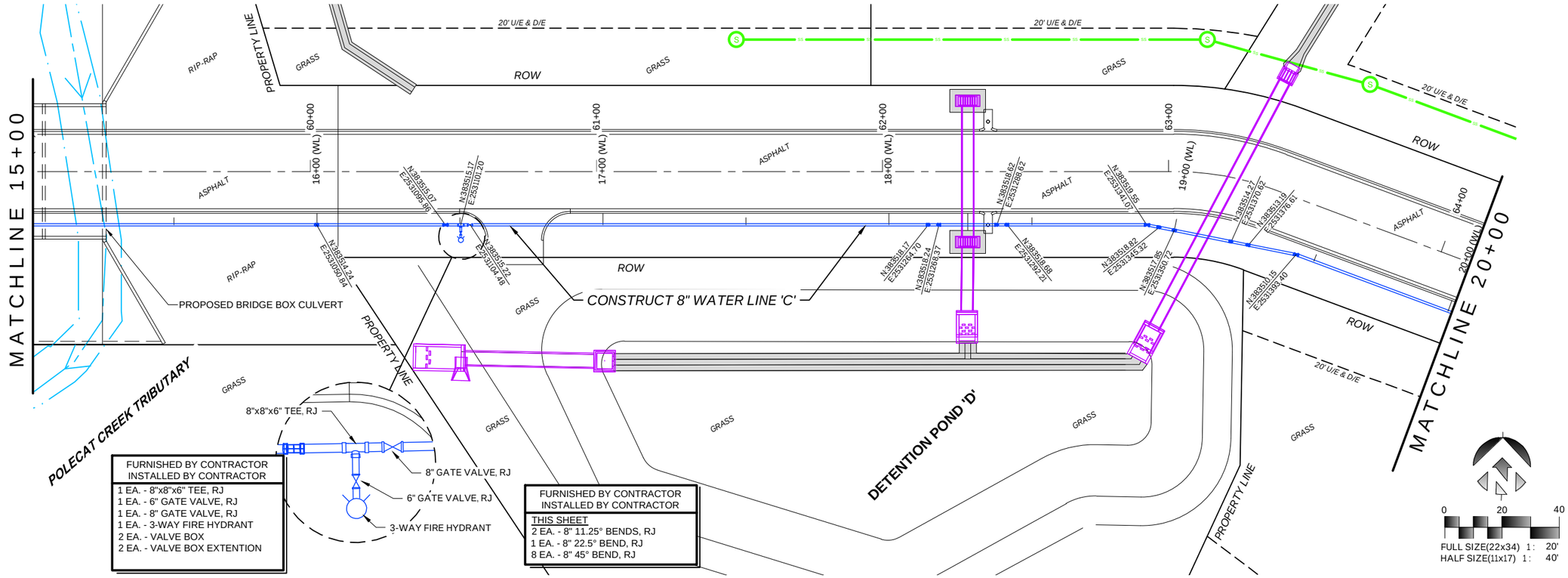
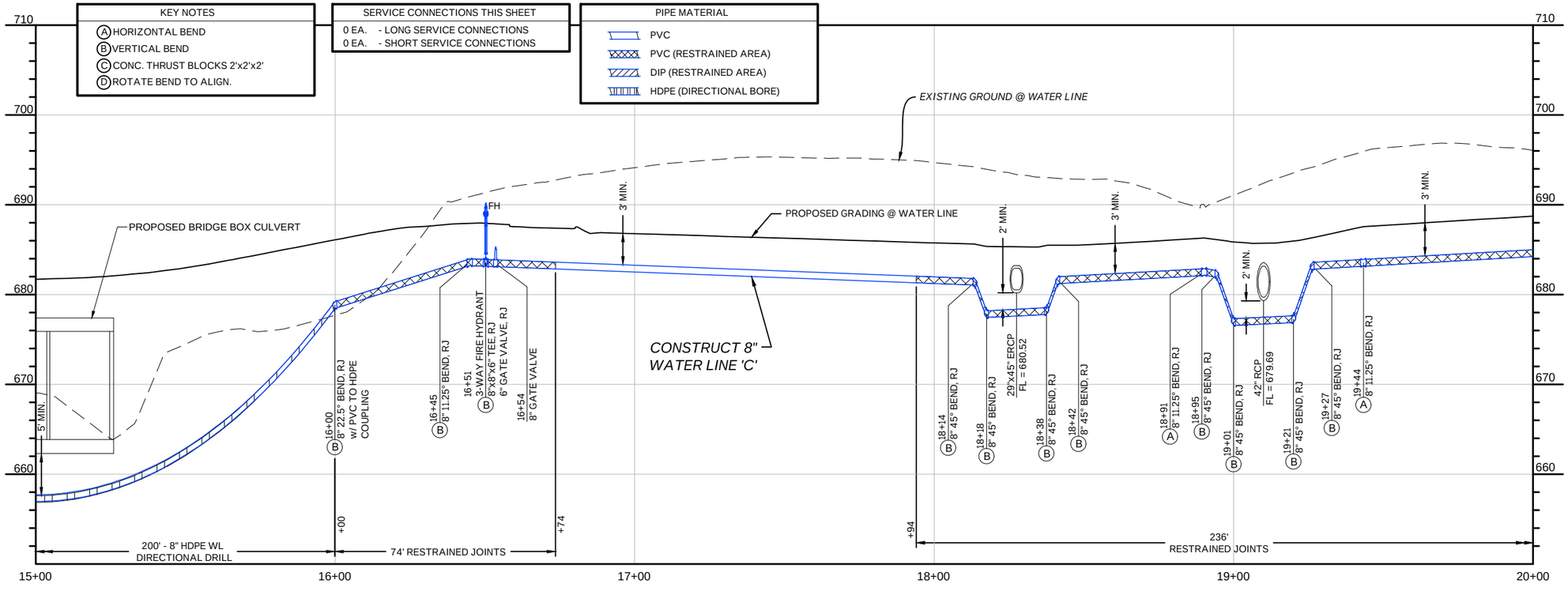
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
WATER LINE 'C'
STA 10+00 TO
STA 15+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*
SHEET:	48 *OF* 80
DRAWING:	W01





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REVISION	BY	DATE

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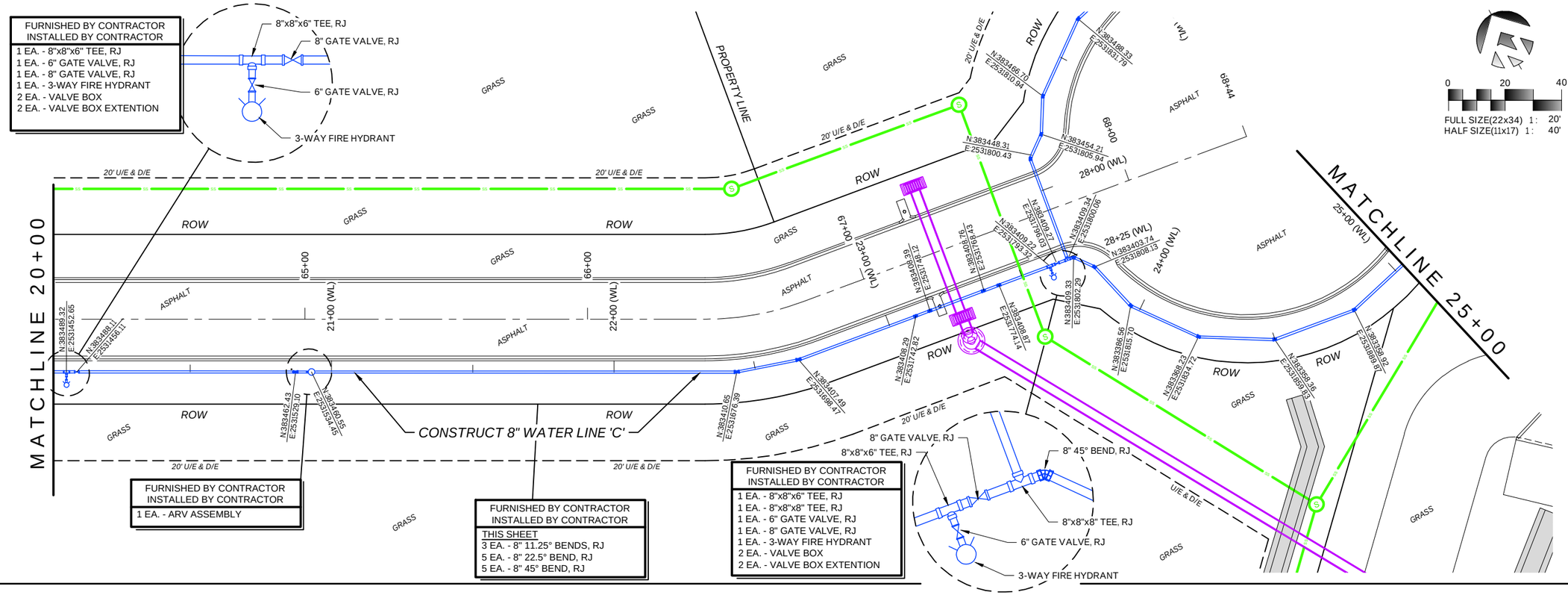
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

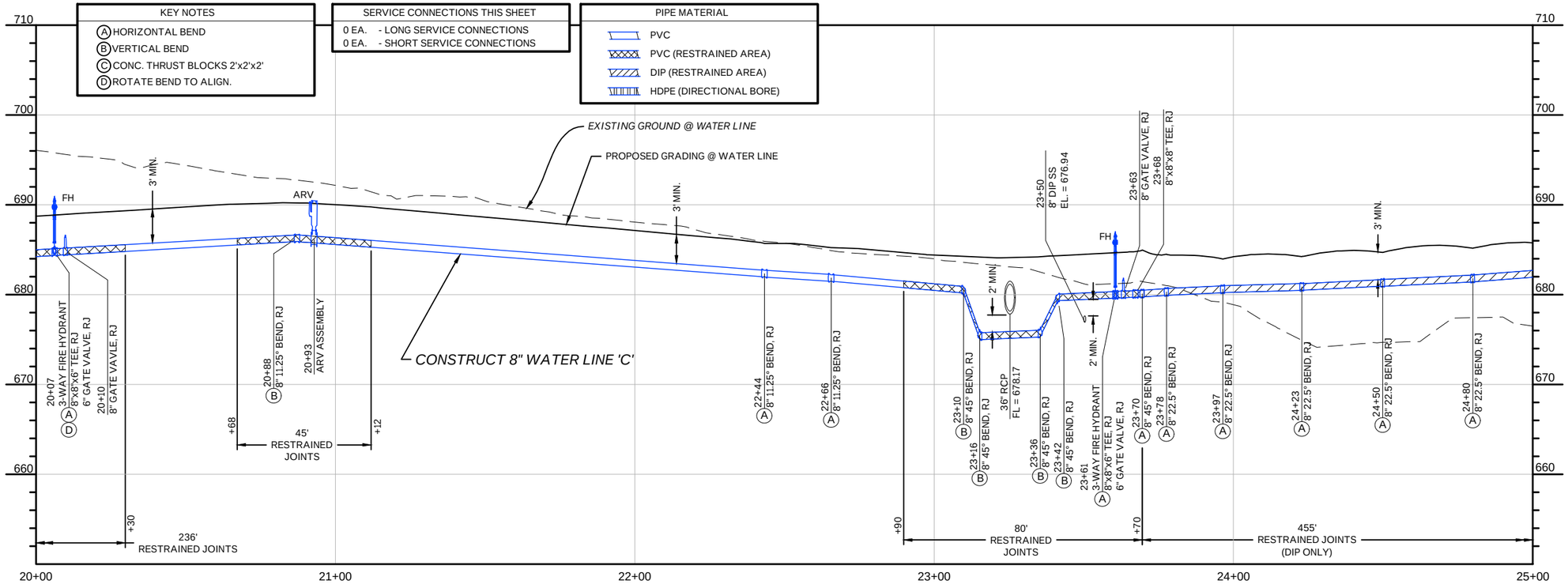
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
WATER LINE 'C'
STA 15+00 TO
STA 20+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	49 OF 80
DRAWING:	W02

1/9/2026 9:53:01 AM





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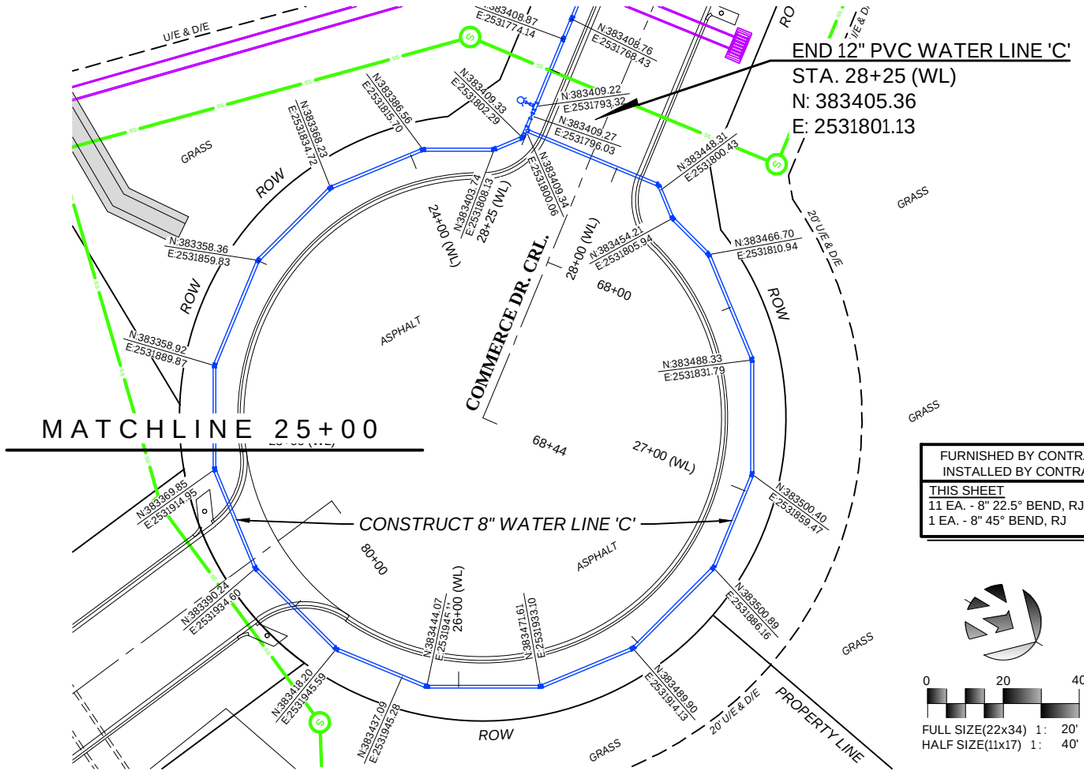
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
WATER LINE 'C'
STA 20+00 TO
STA 25+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	50 OF 80
DRAWING:	W03

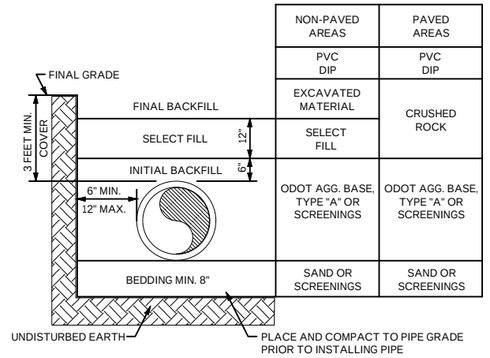
1/9/2026 9:53:16 AM



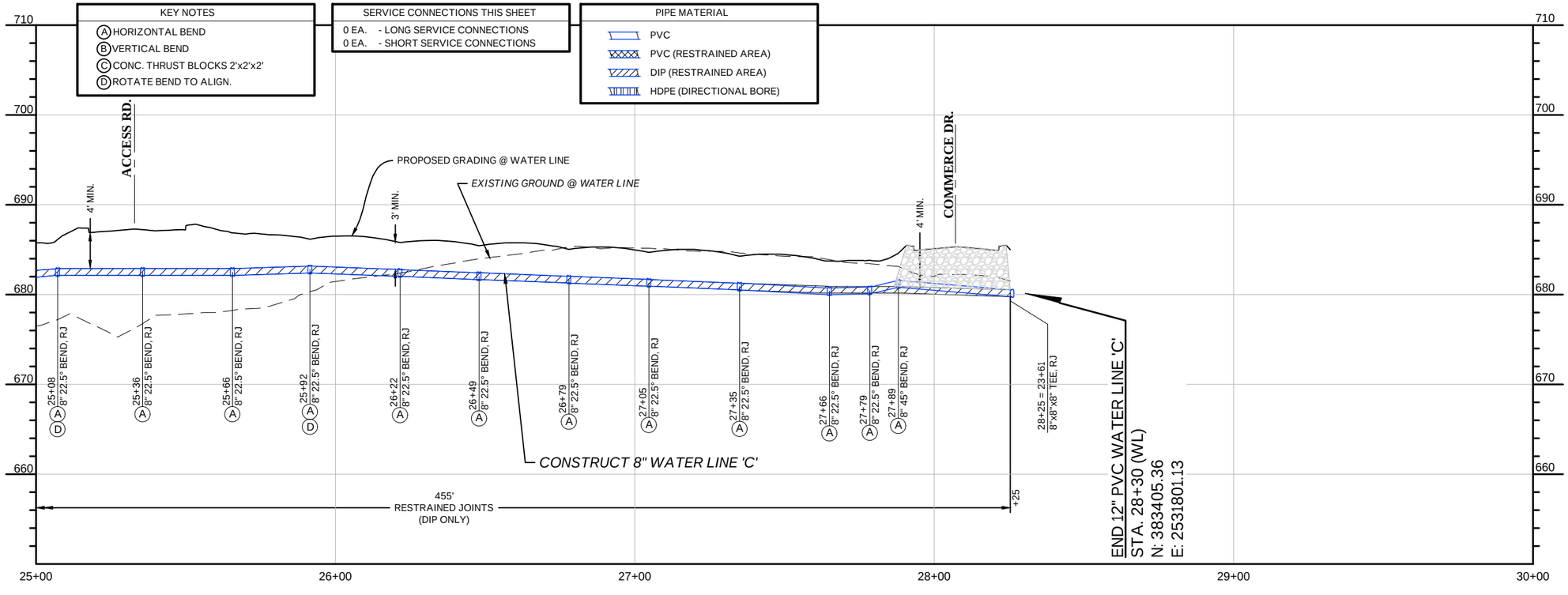
FURNISHED BY CONTRACTOR INSTALLED BY CONTRACTOR
THIS SHEET
11 EA. - 8" 22.5° BEND, RJ
1 EA. - 8" 45° BEND, RJ

0 20 40

FULL SIZE(22x34) 1: 20'
HALF SIZE(11x17) 1: 40'



	NON-PAVED AREAS	PAVED AREAS
	PVC DIP	PVC DIP
FINAL BACKFILL	EXCAVATED MATERIAL	CRUSHED ROCK
SELECT FILL	SELECT FILL	
INITIAL BACKFILL	ODOT AGG. BASE, TYPE "A" OR SCREENINGS	ODOT AGG. BASE, TYPE "A" OR SCREENINGS
BEDDING MIN. 8"	SAND OR SCREENINGS	SAND OR SCREENINGS



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JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA
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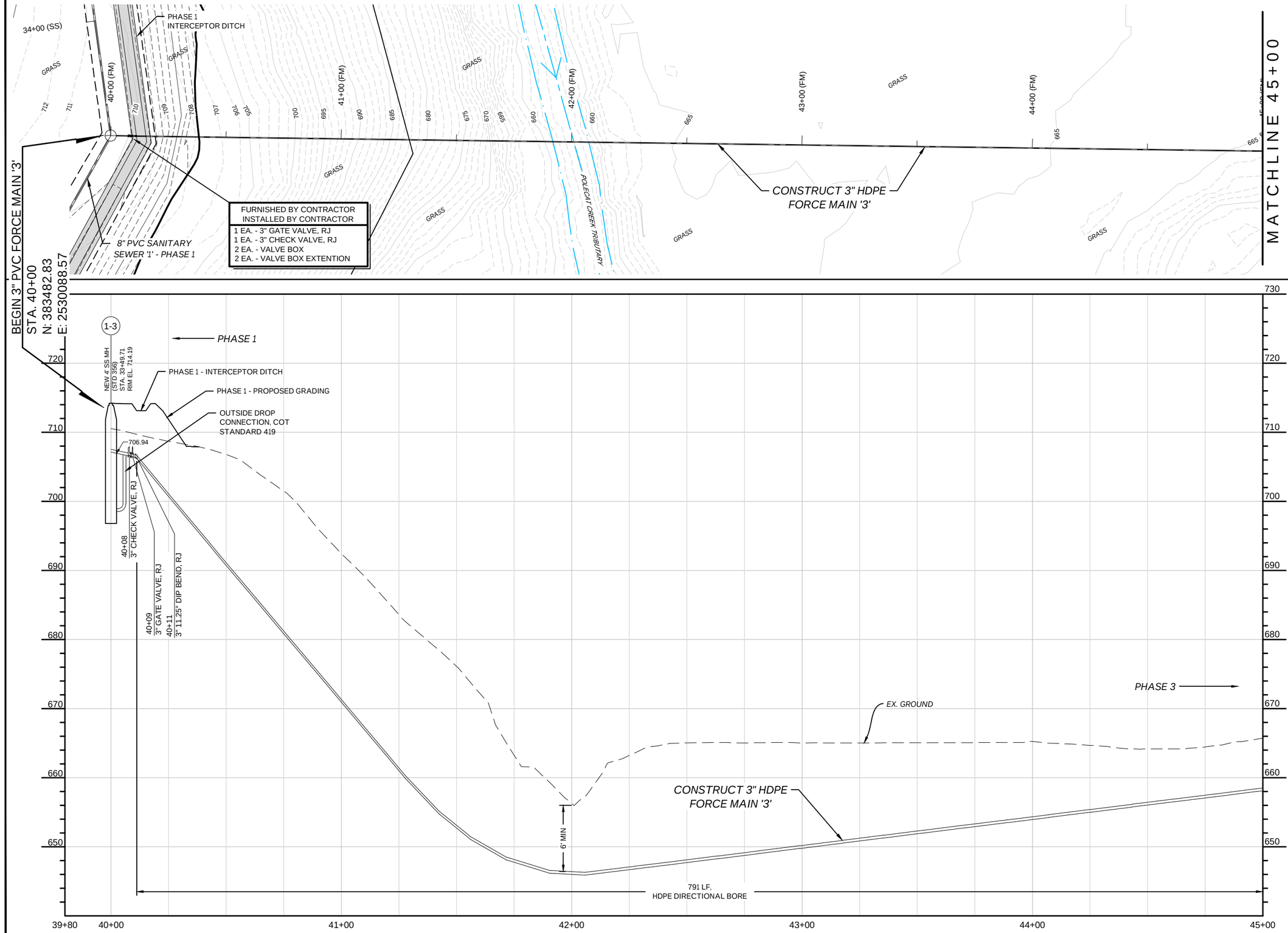
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
WATER LINE 'C'
STA 25+00 TO
STA 28+30

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	51 OF 80
DRAWING:	W04

1/9/2026 9:53:32 AM



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JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

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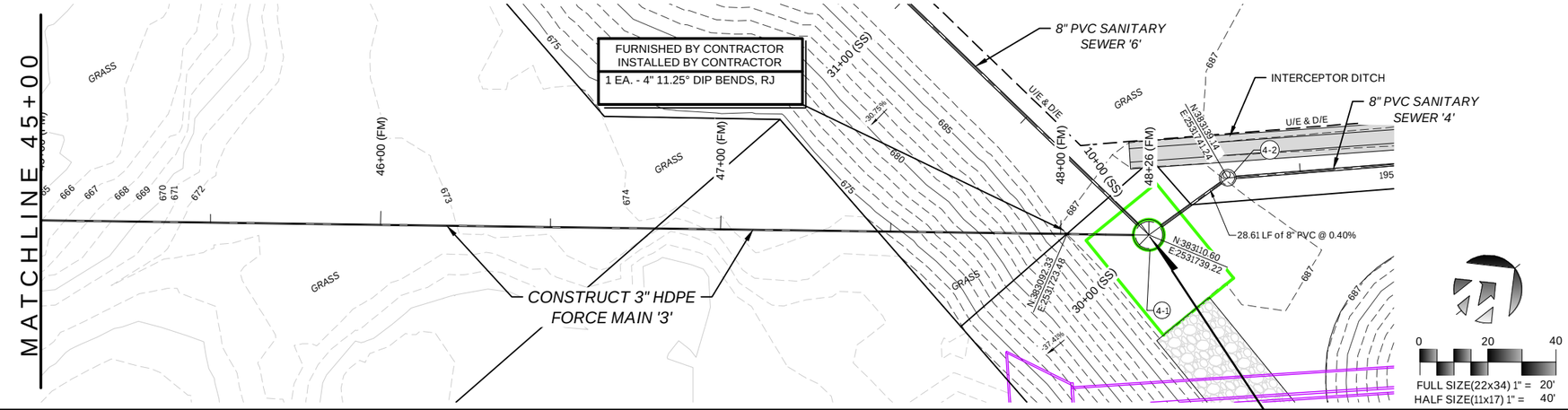
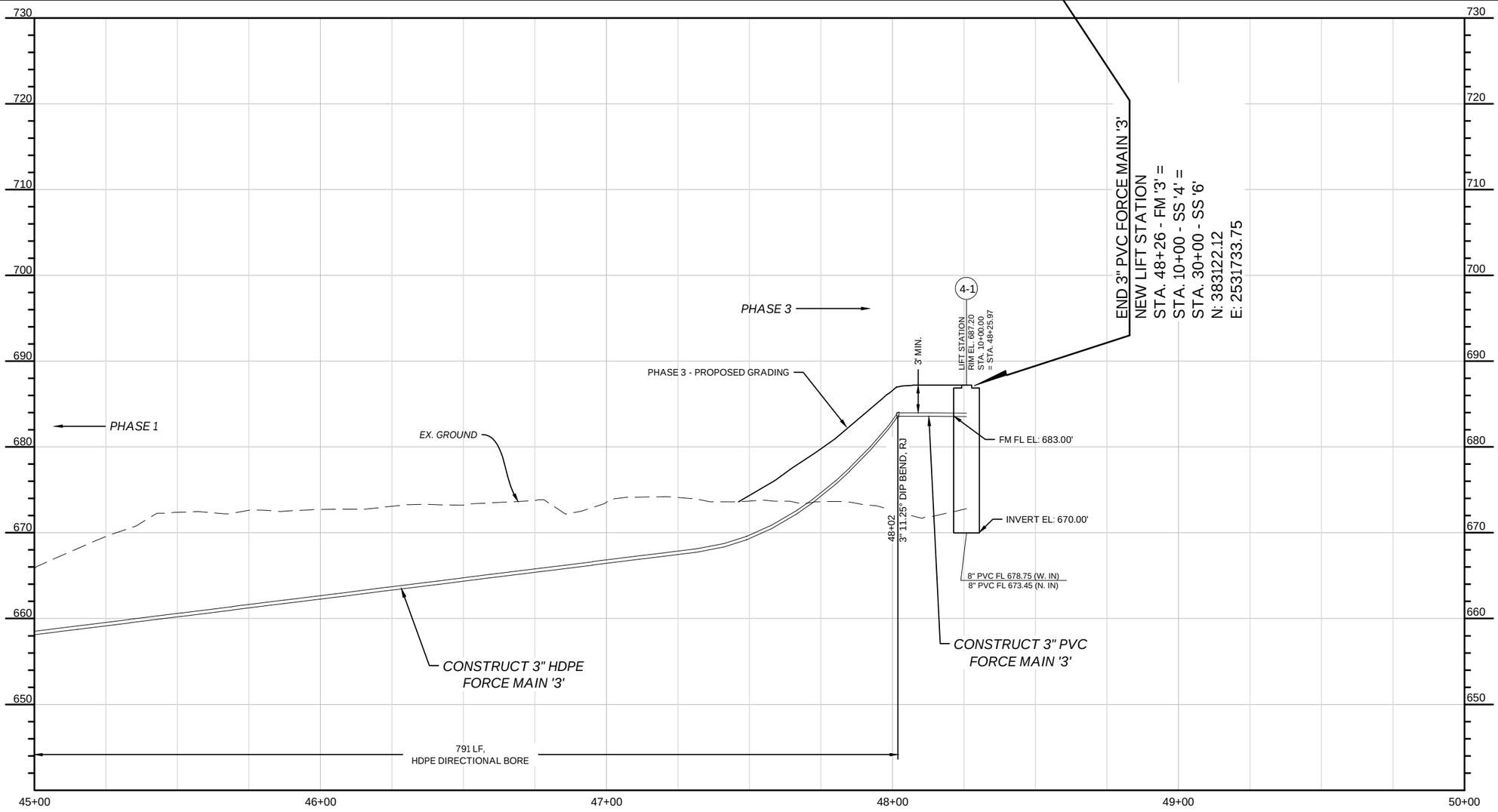
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
FORCE MAIN '3'
STA 40+00 TO
STA 45+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	52 OF 80
DRAWING:	S07





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01/09/2026
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REVISION	BY	DATE

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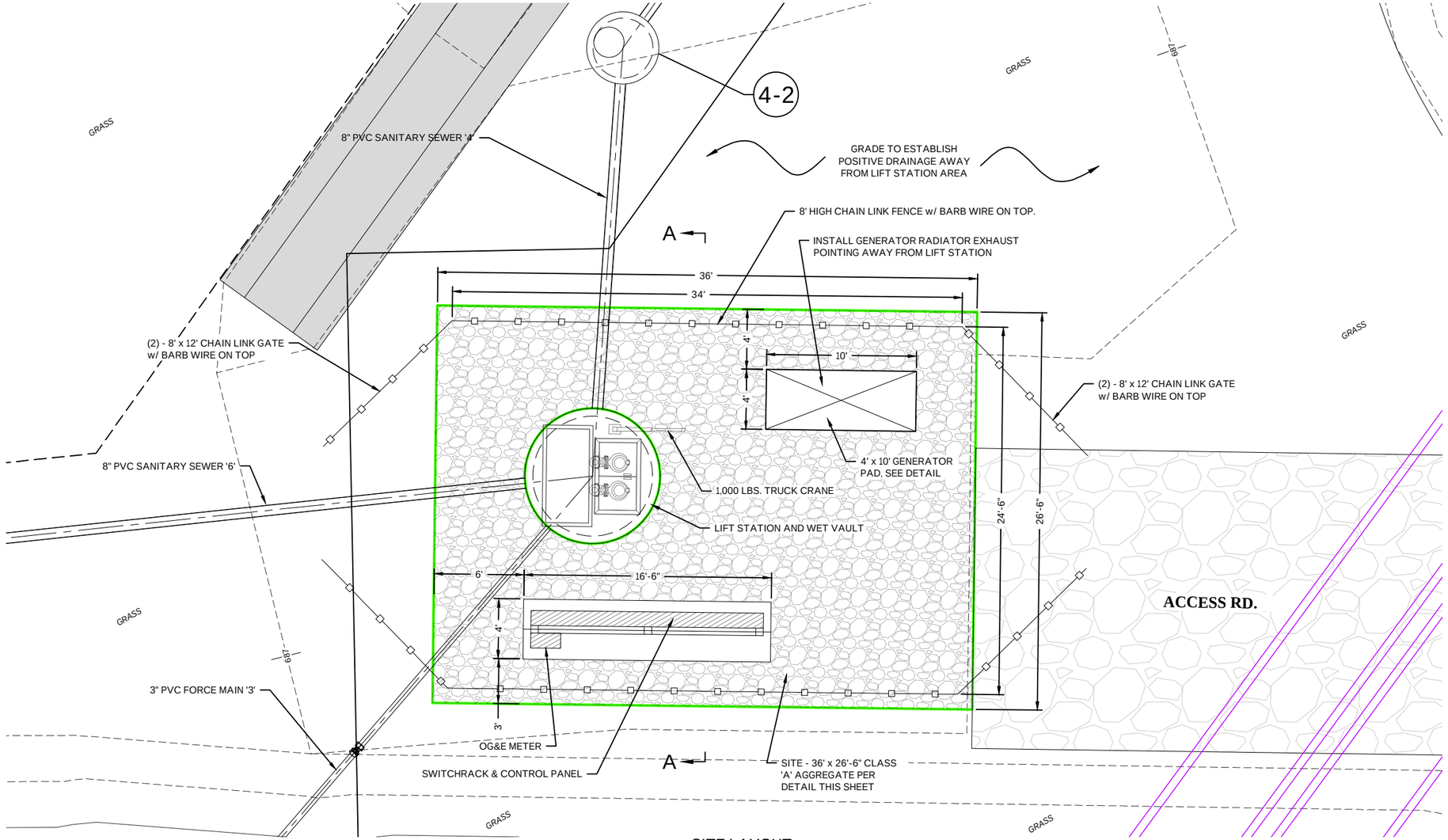
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PLAN & PROFILE
FORCE MAIN '3'
STA 45+00 TO
STA 48+26

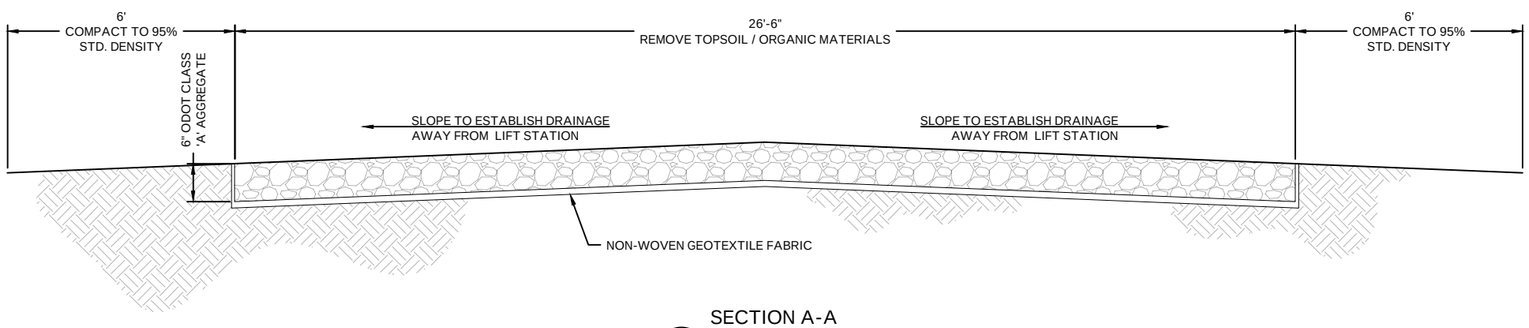
PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	53 OF 80
DRAWING:	S08

1/9/2026 9:54:09 AM



1 SITE LAYOUT
LIFT STATION '3'

FULL SIZE SCALE (22x34): 1" = 4'
HALF SIZE SCALE (11x17): 1" = 8'



2 SECTION A-A
LIFT STATION SITE PAD

FULL SIZE SCALE (22x34): NTS
HALF SIZE SCALE (11x17): NTS

1/9/2026 9:54:20 AM

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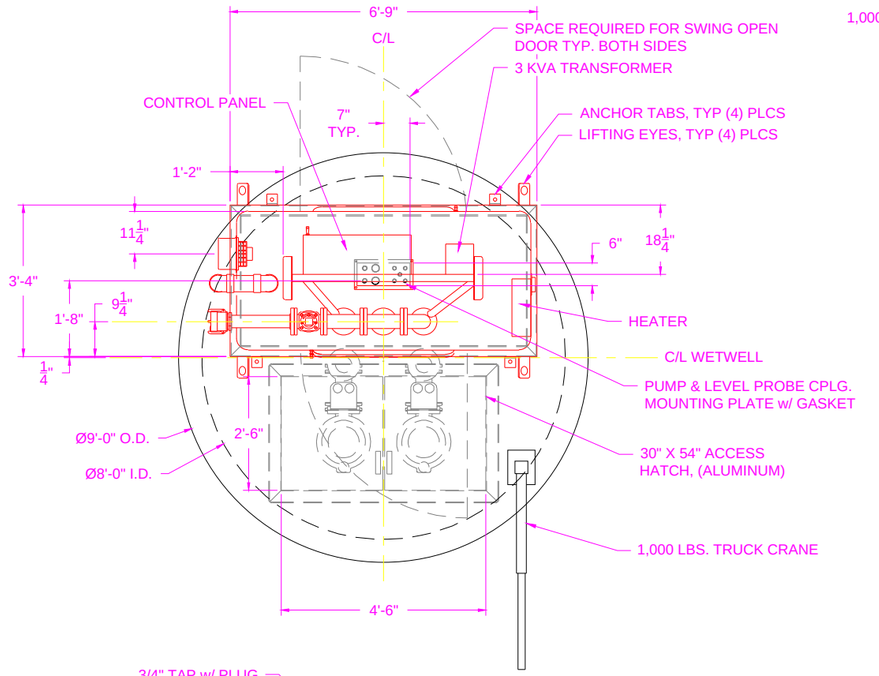
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

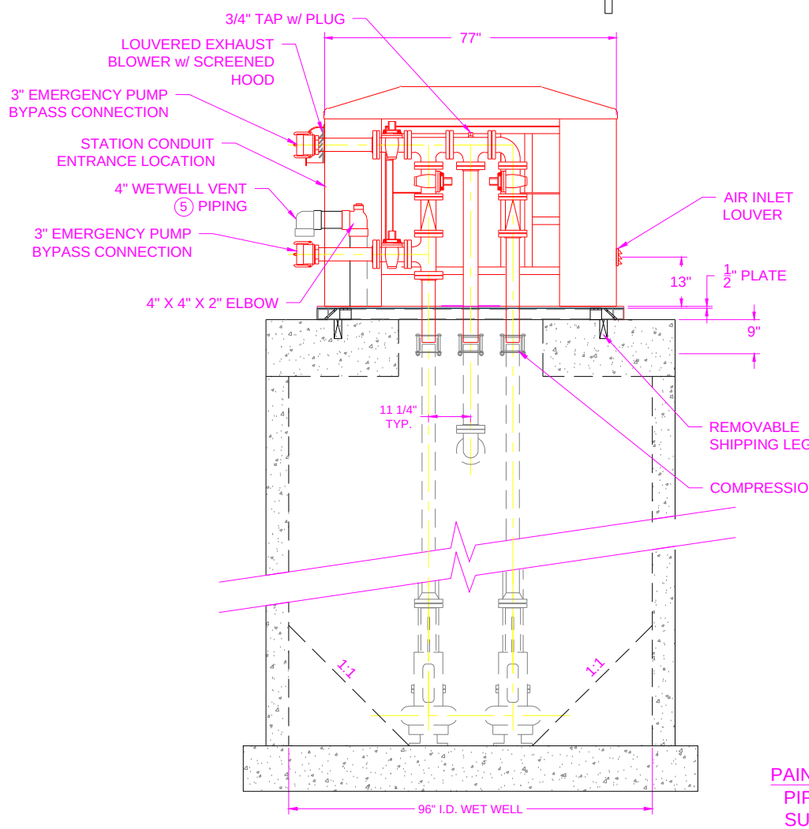
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

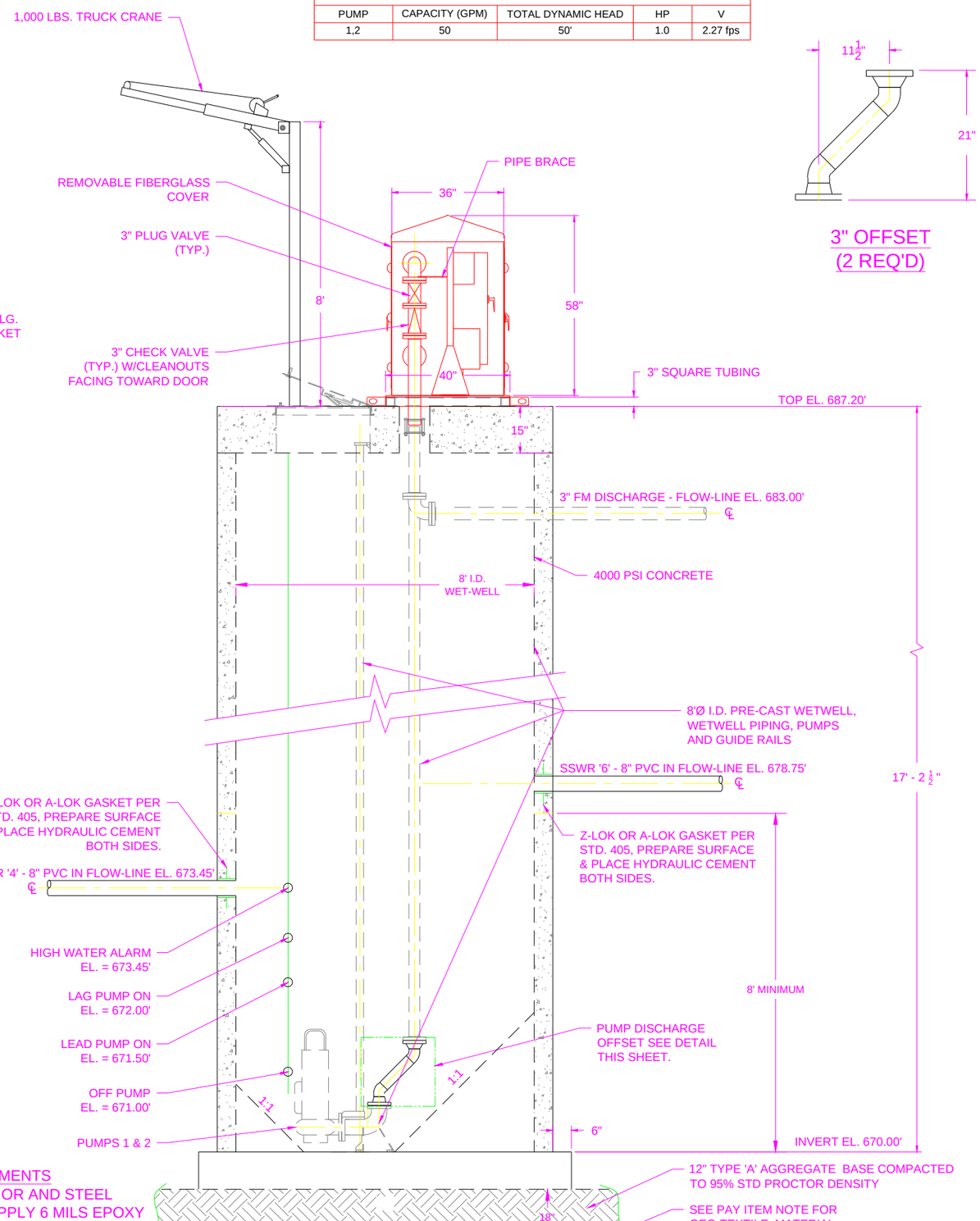
LIFT STATION '3'
SITE PLAN

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	54 OF 80
DRAWING:	S09

PHASE 3 - LIFT STATION PUMP CAPACITY				
PUMP	CAPACITY (GPM)	TOTAL DYNAMIC HEAD	HP	V
1,2	50	50'	1.0	2.27 fps







3" OFFSET
(2 REQ'D)

PAINT REQUIREMENTS
PIPING EXTERIOR AND STEEL SURFACES APPLY 6 MILS EPOXY ENAMEL

1/9/2026 9:54:36 AM

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11407
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OKLAHOMA

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REVISION	BY	DATE

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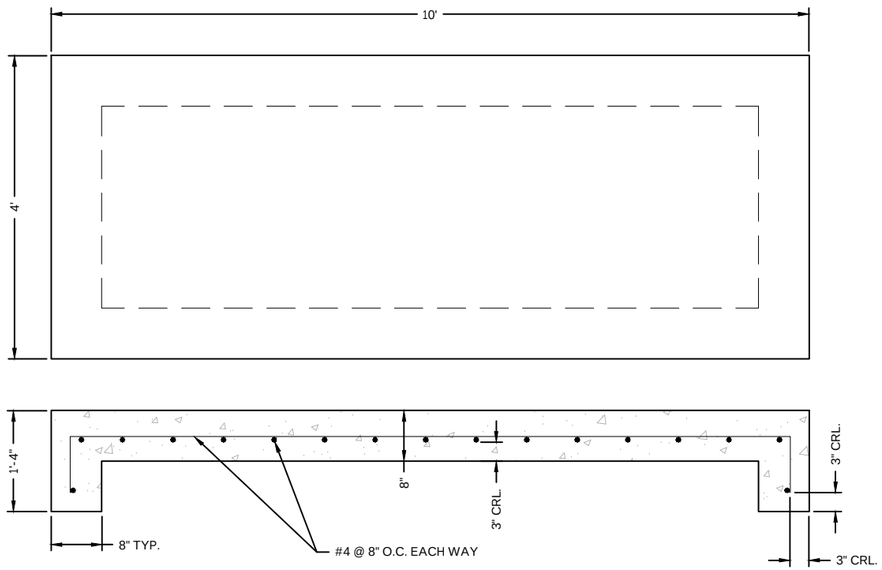
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

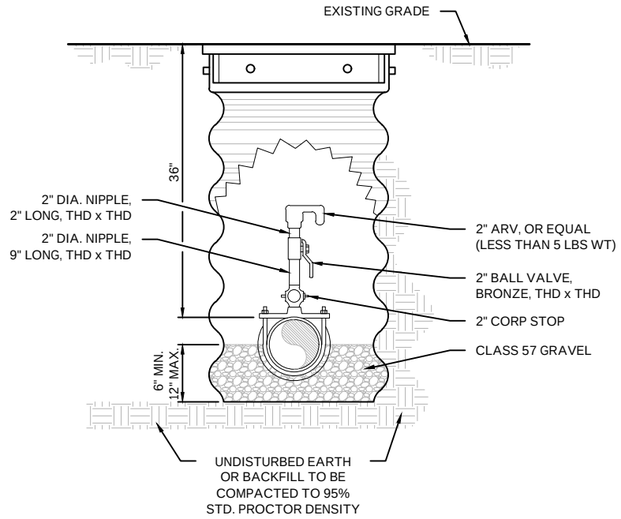
PHASE 3 (ALT. 2)
LIFT STATION
DETAIL

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	55 OF 80
DRAWING:	S10



1 TYPICAL CONCRETE GENERATOR PAD
SCALE: NTS

TYPICAL CONCRETE GENERATOR PAD
1. ENSURE PAD EXTENDS 3" BEYOND TANK AROUND PERIMETER.
2. ATTACH TANK TO PAD WITH 1" HILTI EXPANSION ANCHORS.
3. INSTALL PAD TO CUSTOM FIT GENERATOR SYSTEM CHOSEN.
4. ODOT CLASS 'A' CONCRETE.
5. CHAMFER EXPOSED EDGES.



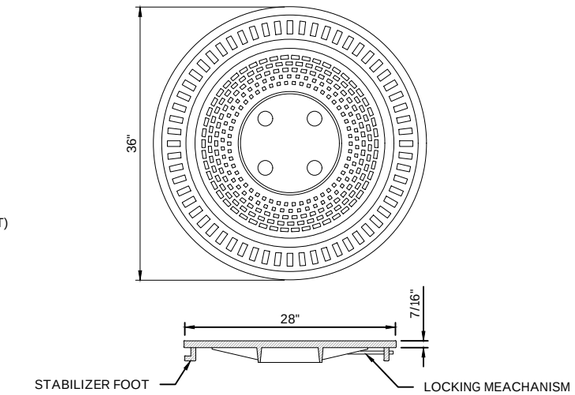
ELEVATION VIEW

NOTE:
1. ARV'S SHOWN NOT TO EXCEED 5 LBS IN WEIGHT FITTING COMPATIBLE WITH THE TYPE OF PIPE FURNISHED.
2. LOCATE IN GREEN AREAS ONLY.

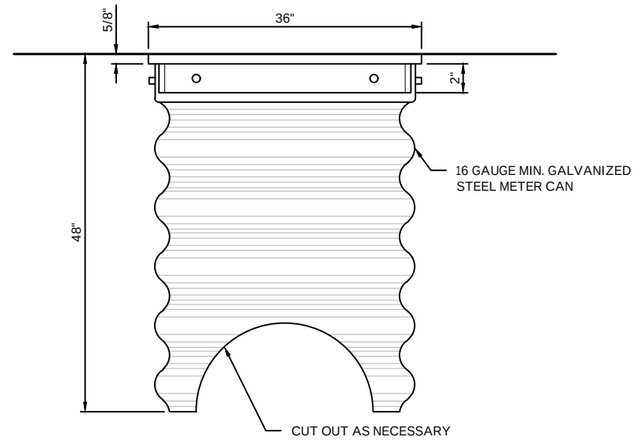
TO BE FURNISHED AND INSTALL BY CONTRACTOR

1 - 2" COMBO ARV OR EQUAL (5 LBS OR LESS)
1 - 36" x 48" METER CAN w/ RIM AND LID.
1 - 2" CORP STOP
1 - 2" x _____SADDLE
1 - 2" NIPPLE, 9" LONG, THD x THD
1 - 2" BALL VALVE, BRONZE
1 - 2" NIPPLE, 2" LONG, THD x THD

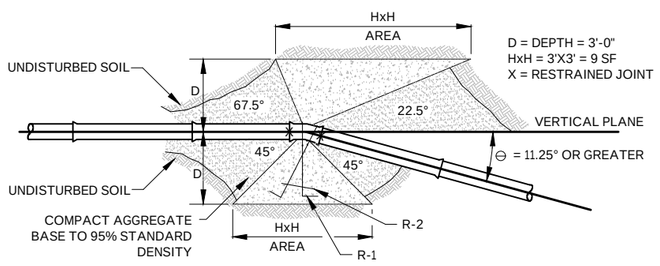
2 TYPICAL ARV ASSEMBLY
SCALE: NTS



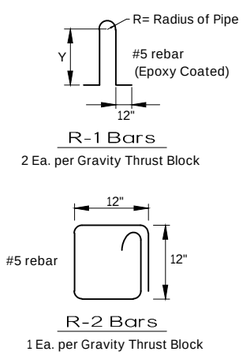
ARV RING AND LID



ARV CAN



2 THRUST BLOCK FOR VERTICAL & HORIZONTAL BENDS
SCALE: NTS



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REVISION	BY	DATE

PROFESSIONAL ENGINEER
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11407
01/09/2026
OKLAHOMA

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

SANITARY
SEWER
DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
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DRAWING:	S11

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ELECTRICAL LEGEND:

- E — UNDERGROUND ELECTRIC SERVICE
- CONDUIT UP
- CONDUIT DOWN
- 120/240 VOLT SINGLE PHASE PANELBOARD
- T — TRANSFORMER
- 277/480V, THREE PHASE PANELBOARD
- GF WP — DUPLEX RECEPTACLE. GF REFERS TO GROUND FAULT INTERRUPTER, WP REFERS TO WEATHER PROOF WHILE IN USE.

ABBREVIATIONS LIST:

A	AMPERE(S)
CKT	CIRCUIT
C	CONDUIT
GND	GROUND
OG&E	OKLAHOMA GAS & ELECTRIC
P	POLE
PH	PHASE
PVC	POLYVINYL CHLORIDE
V	VOLT(S)
XFMR	TRANSFORMER

SCHEMATIC LEGEND:

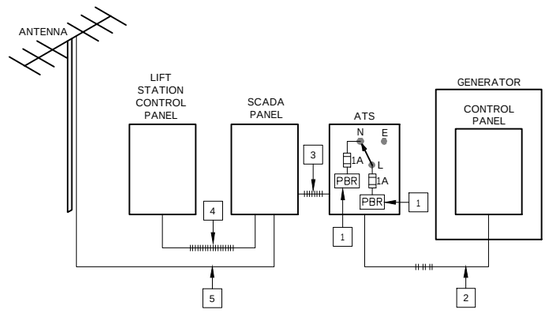
- MOLDED CASE CIRCUIT BREAKER
- CONTACTOR NORMALLY OPEN
- TRANSFORMER
- CTB — CABLE TO BUS TRANSITION
- GROUND
- CONNECTION POINT
- BUS
- PANELBOARD WITH MAIN BREAKER
- MAIN LUGS ONLY PANEL BOARD
- (1) KEYNOTE REFERENCE

PNL: MPZ
SERVICE: 480V, 1PH, 2W IN – 120/240V, 1PH, 3 WIRE OUT
ISC RATING: 18K A.I.C.
NO SERIES RATINGS ACCEPTED
PNL TYPE: SQUARE D MINI POWER ZONE, MPZB7S40F
BUS: 40A
CAB: SURFACE, NEMA 3R
MAIN: 20/2 PRI/40/2 SEC.
FEED: –

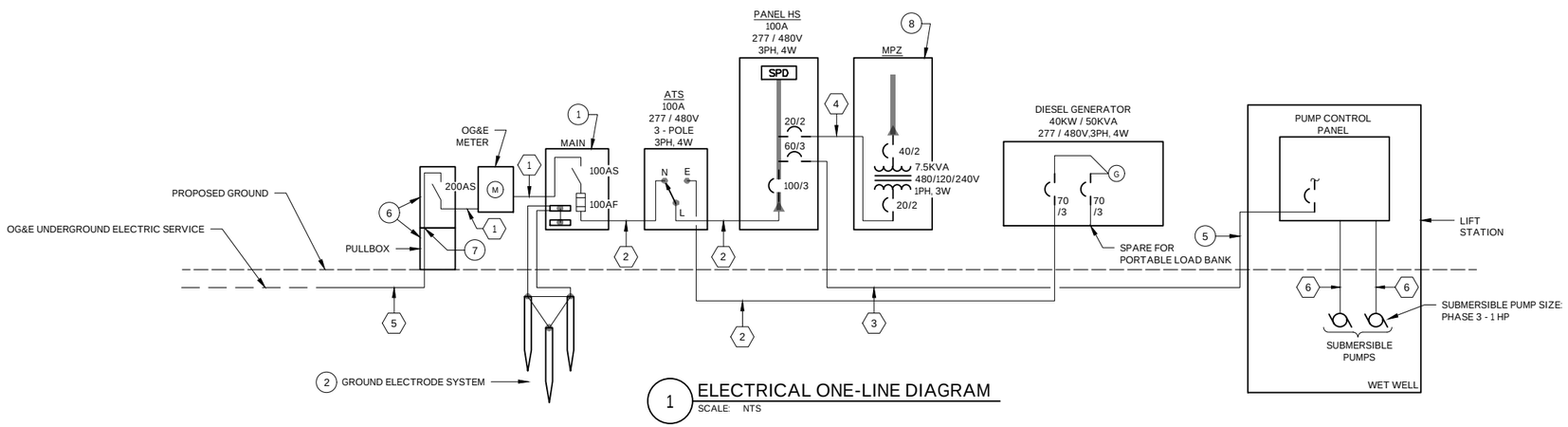
SERVING	WIRE SIZE	AMPS	POLES	CIRC. NO.	PHASE LOADING AMPS A	PHASE LOADING AMPS B	CIRC. NO.	POLES	AMPS	WIRE SIZE	SERVING
REC.	12	20	1	1	1.5	6.3	2	2	20	12	GEN WATER JACKET HEATER
SCADA	12	20	1	3	–	6.3	4				
SPARE		20	1	5	1.5		6	1	20	12	GEN BATT CHARGER
SPARE		20	1	7		3	8	1	20	12	GEN. HEATERS
SPARE		20	1	9			10	1	20		SPARE

PNL: HS
SERVICE: 277/480V, 3PH, 4W
ISC RATING: 18K A.I.C.
NO SERIES RATINGS ACCEPTED
PNL TYPE: SQUARE D NF WITH 120KA SPD
BUS: 100A COPPER WITH GROUND BUS
CAB: SURFACE, NEMA 3R
MAIN: 100A BREAKER
FEED: BOTTOM

SERVING	WIRE SIZE	AMPS	POLES	CIRC. NO.	PHASE LOADING AMPS A	PHASE LOADING AMPS B	PHASE LOADING AMPS C	CIRC. NO.	POLES	AMPS	WIRE SIZE	SERVING
SPARE		100	3	1				2	2	20	(4)	MPZ
				3				4				
				5				6	3	60	(3)	PUMP CONTROL PANEL
SPARE		30	3	7				8				
				9				10				
				11				12	3	50		SPARE
SPARE		40	3	13				14				
				15				16				
				17				18	1			SPACE



2 SCADA / CONTROLS DIAGRAM
SCALE: NTS



1 ELECTRICAL ONE-LINE DIAGRAM
SCALE: NTS

FEEDER SCHEDULE:

1. BUILD (4)- #2 IN 1-1/2" RMC
2. BUILD (4)- #2, (1)-#6 G IN 1-1/2" RMC
3. BUILD (3)- #6, (1)-#6 G IN 1" RMC
4. BUILD (2)- #10, (1)-#8 G IN 1" RMC
5. BUILD EMPTY 4" SCH 40 PVC WITH TOP OF CONDUIT AT LEAST 30" BELOW FINAL GRADE FOR SERVICE CABLES. CABLE WILL BE FURNISHED AND INSTALLED BY OG&E.
6. INSTALL FLEXIBLE CABLE SUPPLIED WITH SUBMERSIBLE PUMP.

SCADA/CONTROLS DIAGRAM NOTES:

1. FURNISH AND INSTALL DIVERSIFIES ELECTRONICS PHASE BAND RELAY, MODEL PBD-480-ALE. SET FOR 432-LOW TO 528-HIGH VOLTS, 30 SECONDS DELAY. FURNISH AND INSTALL FINGER-SAFE DEADFRONT FUSE BLOCKS WITH 1A FUSES TO FEED RELAYS.
2. BUILD 1-1/2" RMC FOR LOW VOLTAGE CONTROLS, BUILD CONDUCTORS PER GENERATOR MANUFACTURER REQUIREMENTS. AT A MINIMUM, BUILD (6)-#14 FOR GENERATOR START, GENERATOR COMMON ALARM, AND TWO SPARES.
3. BUILD 1-1/2" RMC FOR SCADA LOW VOLTAGE CONTROLS.
4. BUILD 1-1/2" RMC FOR LIFT STATION SCADA CONNECTION. AT A MINIMUM, BUILD (16)-#14 FOR SCADA POINTS AND TWO SPARE CONDUCTORS.
5. BUILD 1-1/2" RMC AND FURNISH AND INSTALL CONDUCTORS AS RECOMMENCED BY SCADA SYSTEM MANUFACTURER.

GENERAL ELECTRICAL NOTES:

1. CARRY CODE SIZE GROUND WIRE IN ALL FEEDER AND BRANCH CONDUITS AND ATTACH TO ALL DEVICES, FIXTURES AND EQUIPMENT.
2. RACEWAYS CONTAINING #10 OR SMALLER PHASE CONDUCTORS: DO NOT INSTALL MORE THAN THREE PHASE CONDUCTORS AND THREE NEUTRALS MAXIMUM IN A RACEWAY UNLESS SO INDICATED ON PLAN.
3. NO SHARED NEUTRALS ON BRANCH CIRCUITS.
4. FURNISH AND INSTALL MARKED BRADY TYPE PULLSTRINGS IN ALL EMPTY CONDUITS.
5. ALL CONDUIT SHALL BE RMC UNLESS SPECIFICALLY NOTED OTHERWISE.
6. NO CONDUIT SHALL BE LESS THAN 3/4" TRADE SIZE.
7. ALL UNDERGROUND BENDS AND ELBOWS SHALL BE LONG SWEEP.
8. ALL UNDERGROUND CONDUITS SHALL HAVE 30" COVER TO GRADE OR TOP OF PAVING.

KEYNOTES:

1. FURNISH AND INSTALL 100A, 3-POLE, 277/480V, FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE WITH FACTORY INSULATED NEUTRAL BUS AND BUSSMAN LPS-100A FUSES. BOND NEUTRAL TO GROUND IN THIS ENCLOSURE.
2. FURNISH AND INSTALL (3)-3/4" x 10' GROUND RODS 10' APART WITH ACCESSIBLE PLASTIC COVERS. BUILD #2 SOLID CU AS INDICATED. USE EXOTHERMIC WELDS AT GROUND RODS.
3. DO NOT BOND GENERATOR TO GROUND. GENERATOR IS NOT A SEPARATELY DERIVED SYSTEM. NEUTRAL-GROUND BOND SHALL OCCUR AT MAIN ONLY.
4. INSTALL AND CONNECT PUMP CORDS PER MANUFACTURER RECOMMENDATIONS.
5. ENTER ENCLOSURE AT LOCATION RECOMMENDED BY EQUIPMENT MANUFACTURER. USE CAST CONDULET ELL.
6. FURNISH AND INSTALL 200A NON-FUSED SWITCH IN NEMA 3R ENCLOSURE. FURNISH AND INSTALL 8" D x 24" H x 24" W GASKETED, GALVANIZED AND PAINTED NEMA 3R PULL BOX BELOW DISCONNECT SWITCH TO ACCEPT SPECIFIED 4" UNDERGROUND CONDUIT.
7. BUILD RMC NIPPLE SIZED LARGEST THAT ENCLOSURES ALLOW.
8. BOND MPZ SECONDARY NEUTRAL TO SWITCHRACK STRUCTURE WITH #6 COPPER. USE 2-HOLE IRREVERSIBLE COMPRESSION LUG ON SWITCHRACK.

SCADA NOTES:

CONTRACTOR TO PROVIDE SCADA SYSTEM PER SPECIFICATION. THIS INCLUDES ANTENNA, CONTROL PANEL, MOTOR STARTERS, CONTROLS, WIRE AND CONDUIT. SCADA SYSTEM IS TO BE EXACTLY AS SPECIFIED OR THAT OF AN APPROVED EQUAL. PROVIDE FOR REVIEW, SHOP DRAWINGS OF PROPOSED SYSTEM WITH DETAILED INFORMATION ON EQUIPMENT AND CONTROLS. MAKE ANY ADJUSTMENTS NEEDED FOR VARIATIONS IN MOTOR SIZES BETWEEN THE 3 PROJECT PHASES. CONTROL SYSTEM TO BE BASED ON eWON SCADA AND WILL UTILIZE A CELLULAR ANTENNA. MOTOR STARTERS TO BE ACROSS-THE-LINE. PUMPS TO ALTERNATE LEAD AND LAG. THE OWNER USES CONTROL SYSTEMS SOLUTIONS TO INSTALL AND MAINTAIN THEIR SCADA SYSTEM. VEGA IS THE PREFERRED LEVEL CONTROL SYSTEM VENDOR FOR THE OWNER.

THE FOLLOWING SCADA POINTS ARE TO BE MONITORED:

GENERATOR
1. COMMON GENERATOR ALARM

UTILITY POWER
2. UTILITY POWER FAILURE

AUTOMATIC TRANSFER SWITCH (ATS)
3. UTILITY AND GENERATOR POWER FAILURE

LIFT STATION
4. HIGH WET WELL LEVEL
5. LOW WET WELL LEVEL
6. PUMP #1 SEAL FAILURE
7. PUMP #2 SEAL FAILURE
8. PUMP #1 HIGH TEMPERATURE
9. PUMP #2 HIGH TEMPERATURE
10. PUMP #1 RUN TIME (ANALOG HOURS)
11. PUMP #2 RUN TIME (ANALOG HOURS)

DRAWINGS INDICATE ESTIMATED CONDUCTOR, CONDUIT, AND CONNECTION REQUIREMENTS FOR BIDDING PURPOSES. CONTRACTOR SHALL FURNISH AND INSTALL CONDUCTORS AND CONDUIT AS NECESSARY FOR SCADA SYSTEM. COORDINATE WITH EQUIPMENT SHOP DRAWING.

LICENSED PROFESSIONAL ENGINEER
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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

ELECTRICAL DIAGRAM

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	57 OF 80
DRAWING:	E01

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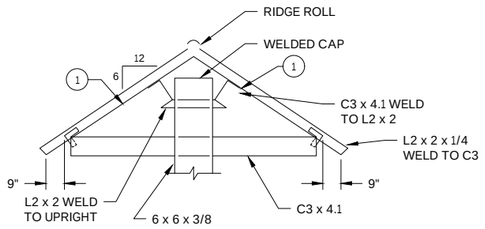

2 SECTION B-B
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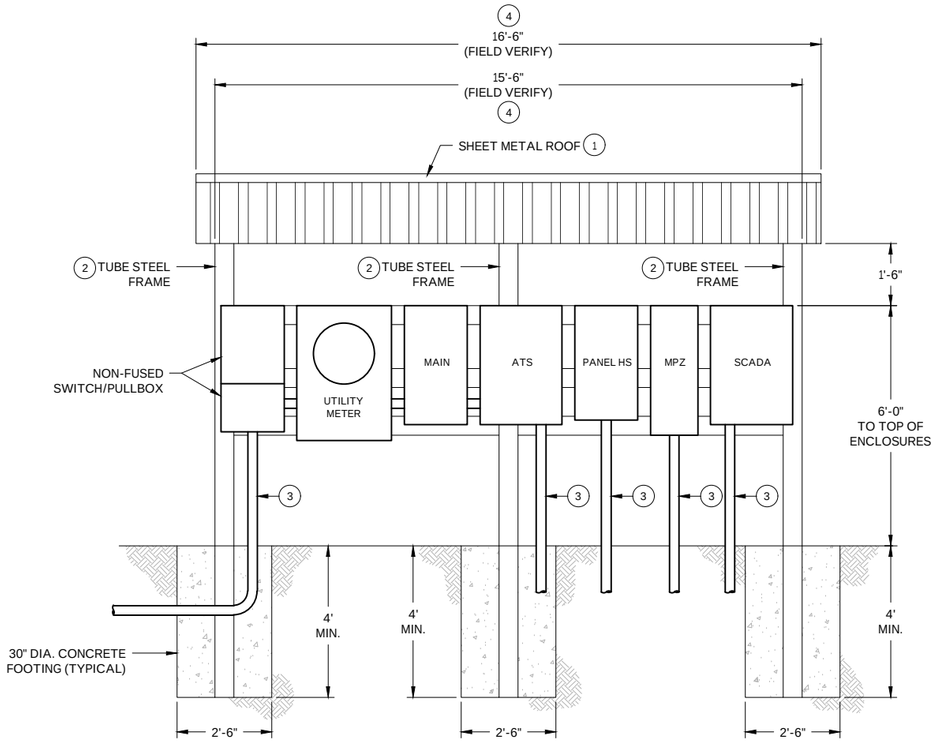

2 SECTION A-A
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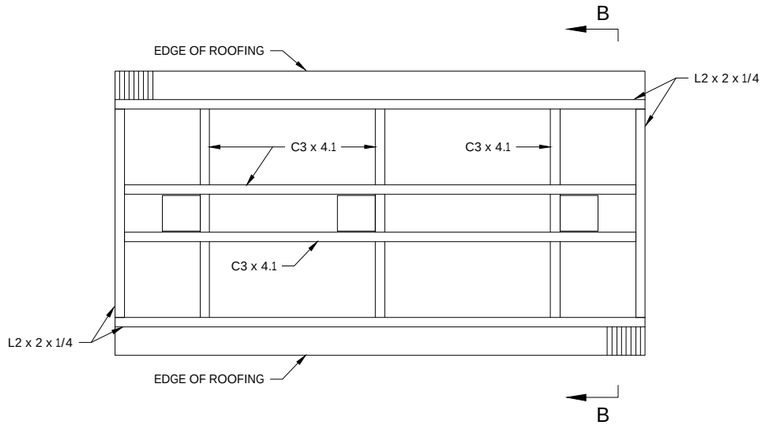
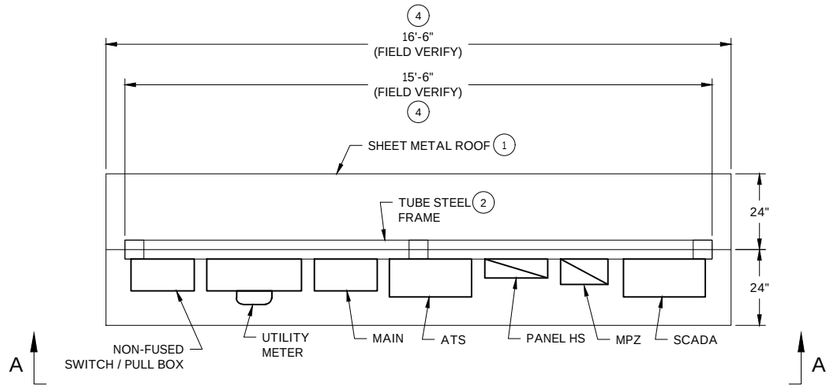
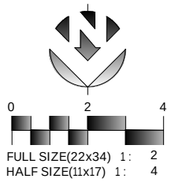


3 PLAN VIEW OF CANOPY
SCALE: NTS



1 SWITCHRACK PLAN
SCALE: 1:2



KEY NOTES:

1. BUILD DARK GREEN 22 GAUGE CORRUGATED SHEET METAL ROOF WITH STEEL SUPPORT STRUCTURE.
2. PAINT ALL STEEL SUPPORT STRUCTURE WITH DARK GREEN PAINT TO MATCH ROOF. PAINT SHALL BE RUST INHIBITIVE WITH PRIMER COAT. TUBE STEEL UPRIGHTS AND CROSS MEMBERS SHALL BE 6 x 6 x 3/8" SQUARE STRUCTURAL TUBING.
3. REFER TO ONE-LINE AND SITE PLAN FOR CONDUIT INFORMATION. ALL CONDUIT SHALL BE RMC EXCEPT OG&E SERVICE CONDUIT.
4. VERIFY DIMENSIONS OF ALL EQUIPMENT PRIOR TO SWITCHRACK FABRICATION AND ADJUST DIMENSIONS TO FIT EQUIPMENT SUBMITTALS.

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

SWITCHRACK DETAILS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	58 OF 80
DRAWING:	E02

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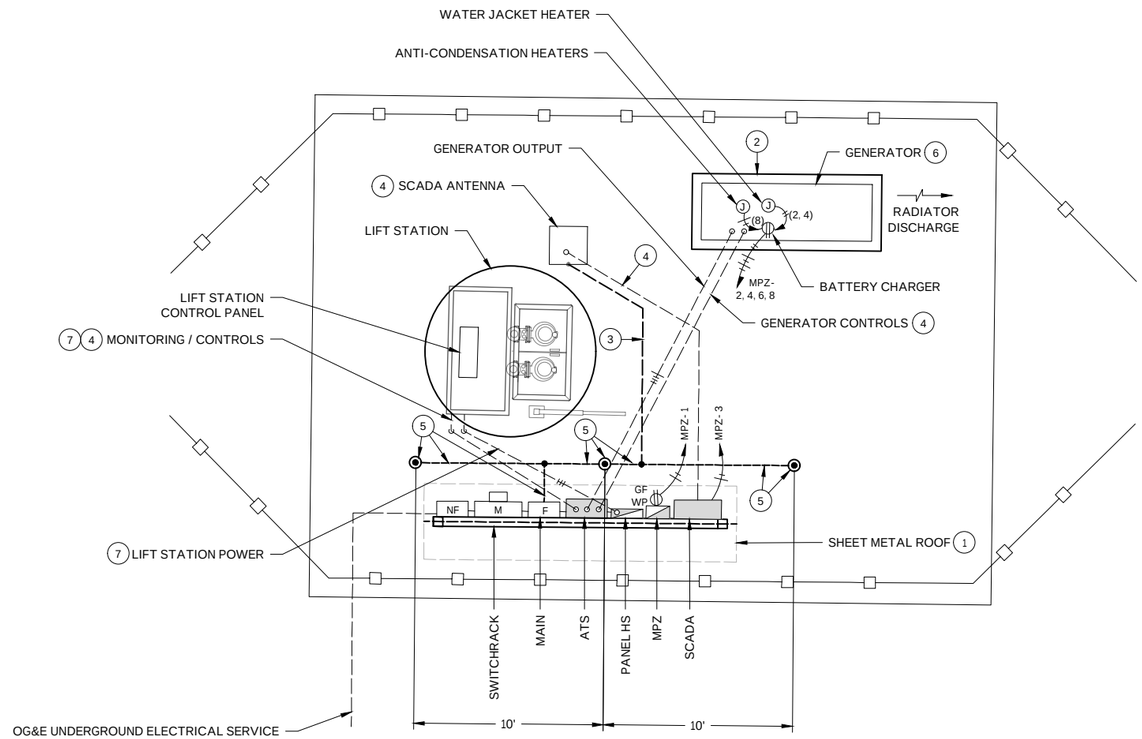

1 PHASE 3
LIFT STATION - ELECTRICAL PLAN
SCALE: 1 : 4

0 4 8
FULL SIZE(22x34) 1 : 4
HALF SIZE(11x17) 1 : 8

SHEET KEY NOTES:

1. BUILD METAL SWITCHRACK / CANOPY.
2. FIELD COORDINATE CONCRETE PAD DIMENSIONS WITH GENERATOR SHOP DRAWINGS.
3. BUILD #2 SOLID BARE COPPER FROM GROUNDING ELECTRODE SYSTEM TO ANTENNA. USE EXOTHERMIC WELD UNDERGROUND AND TWO-HOLE IRREVERSIBLE COMPRESSION LUG AT ANTENNA.
4. REFER TO SCADA / CONTROLS DIAGRAM FOR CONDUIT / CONDUCTOR REQUIREMENTS.
5. GROUNDING ELECTRODE SYSTEM. REFER TO ELECTRICAL ONE-LINE DIAGRAM.
6. COORDINATE CONDUIT STUB-UP LOCATIONS WITH EQUIPMENT SHOP DRAWING. USE LIQUID-TITE FLEX ABOVE GRADE FROM CONDUIT STUB-UPS TO GENERATOR ENCLOSURES. NO OPEN CABLING INSIDE GENERATOR ENCLOSURE WILL BE ACCEPTED.
7. COORDINATE CONDUIT CONNECTIONS WITH EQUIPMENT SHOP DRAWINGS.

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3
LIFT STATION
ELECTRICAL
PLAN

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	59 OF 80
DRAWING:	E03

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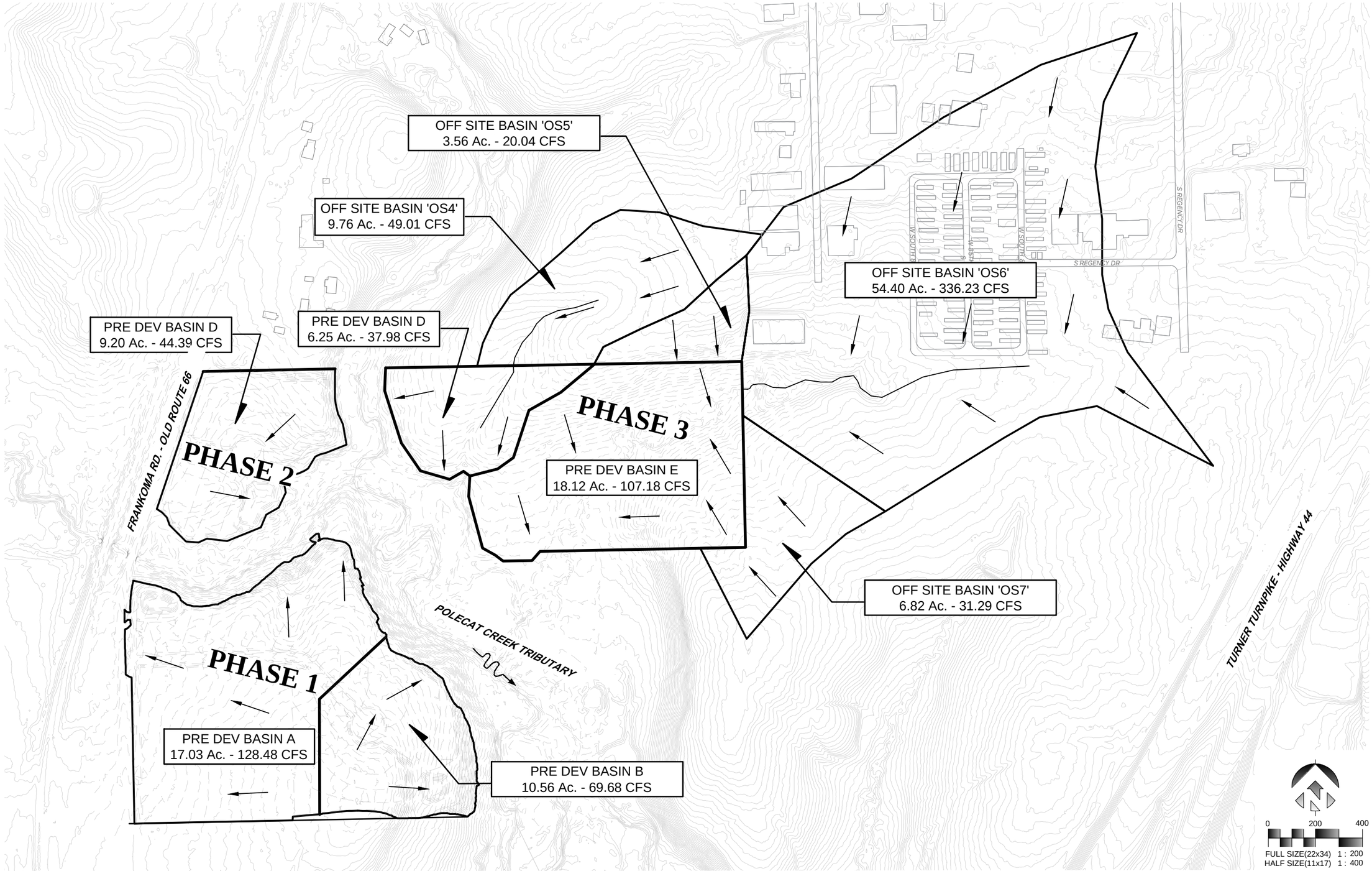

1 PHASE 1, 2 & 3 - PRE DEVELOPMENT DRAINAGE OVERVIEW

1/9/2026 9:55:19 AM

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 1, 2 & 3
PRE DEVELOPMENT
DRAINAGE
OVERVIEW

PROJECT #	24.11
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DESIGNED	DAK, JRU, MAW (KEG)
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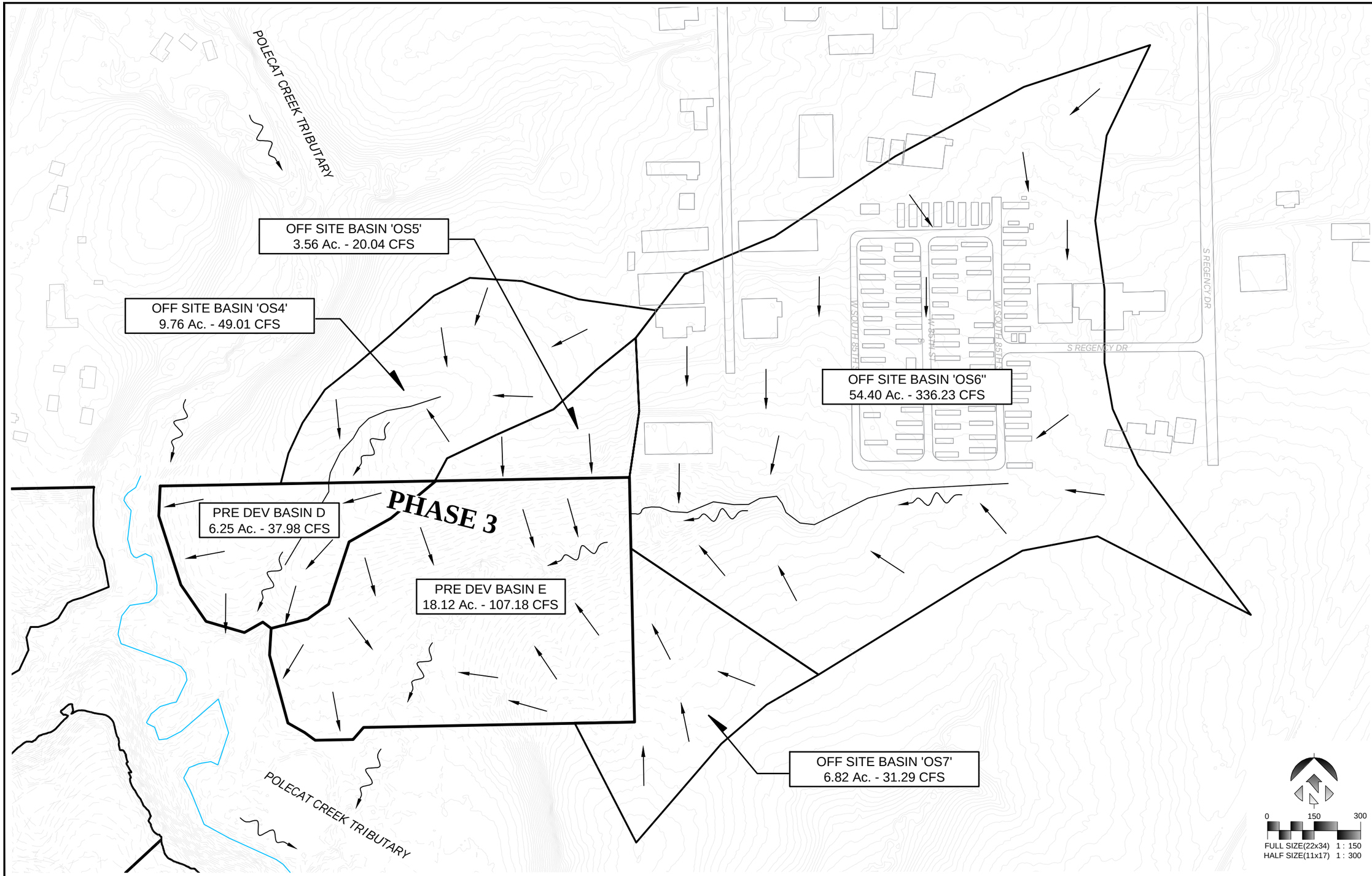
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	60 OF 80
DRAWING:	H01



1 PHASE 3 - PRE DEVELOPMENT DRAINAGE BAINS

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PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
PRE DEV DRAINAGE
OVERVIEW AND
OFFSITE

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	61 OF 80
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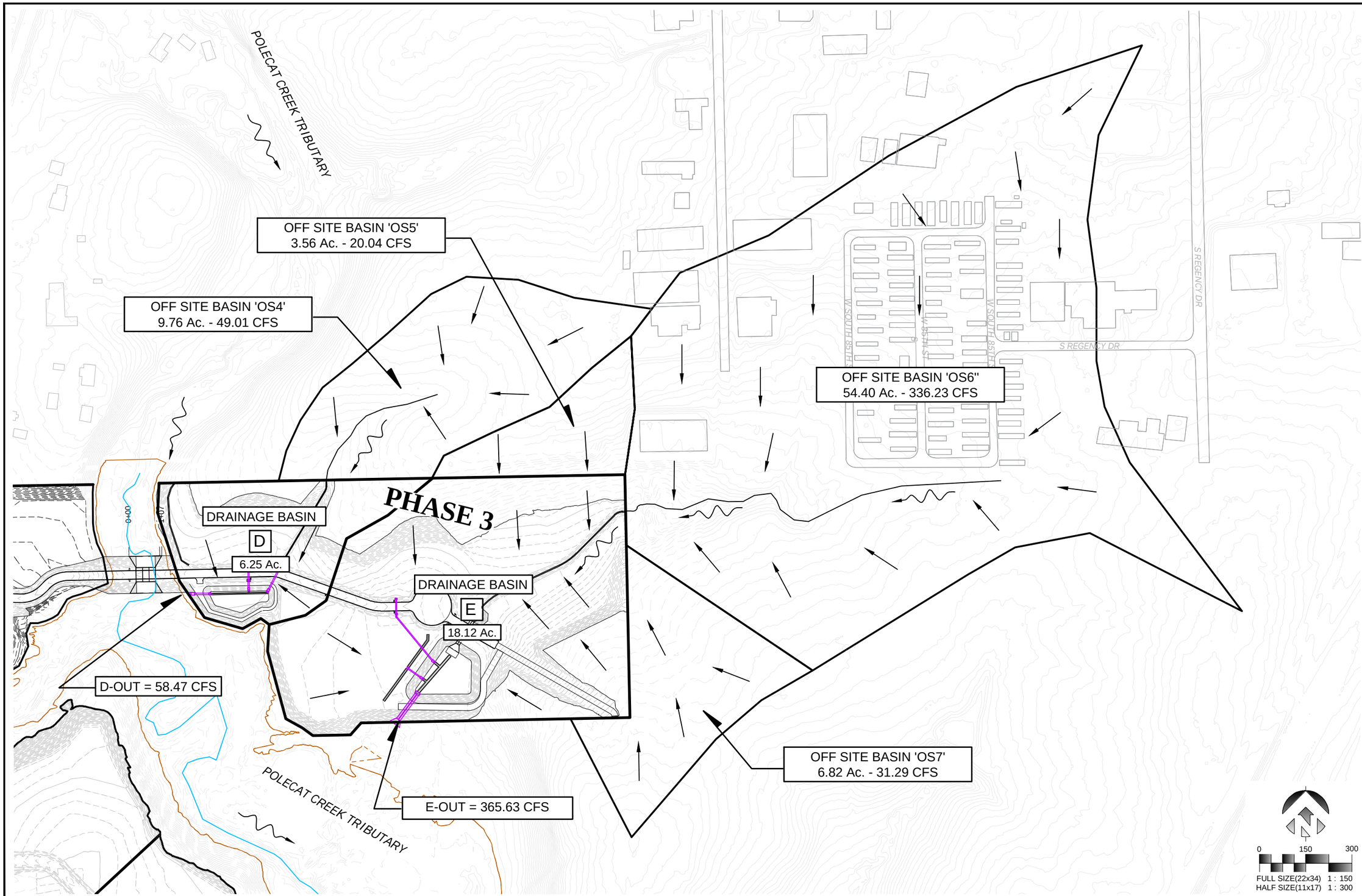

1 PHASE 3 - POST DEVELOPMENT DRAINAGE BAINS

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 2 (ALT. 2)
POST DEVELOPMENT
DRAINAGE OVERVIEW
AND OFFSITE

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	*JANUARY 9, 2026*
SHEET:	62 *OF* 80
DRAWING:	H03

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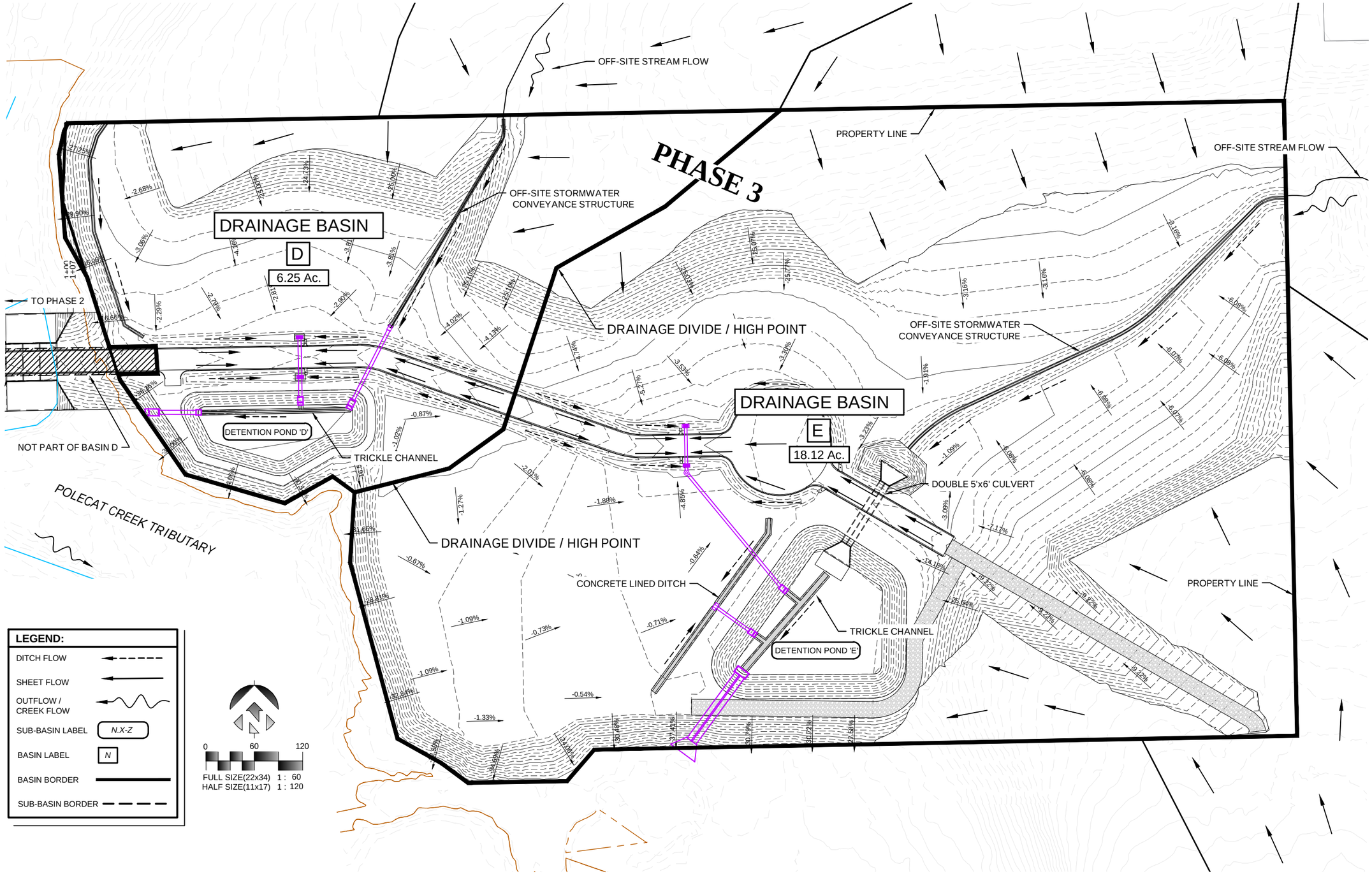

1 PHASE 3 - POST DEVELOPMENT DRAINAGE BASINS OVERVIEW

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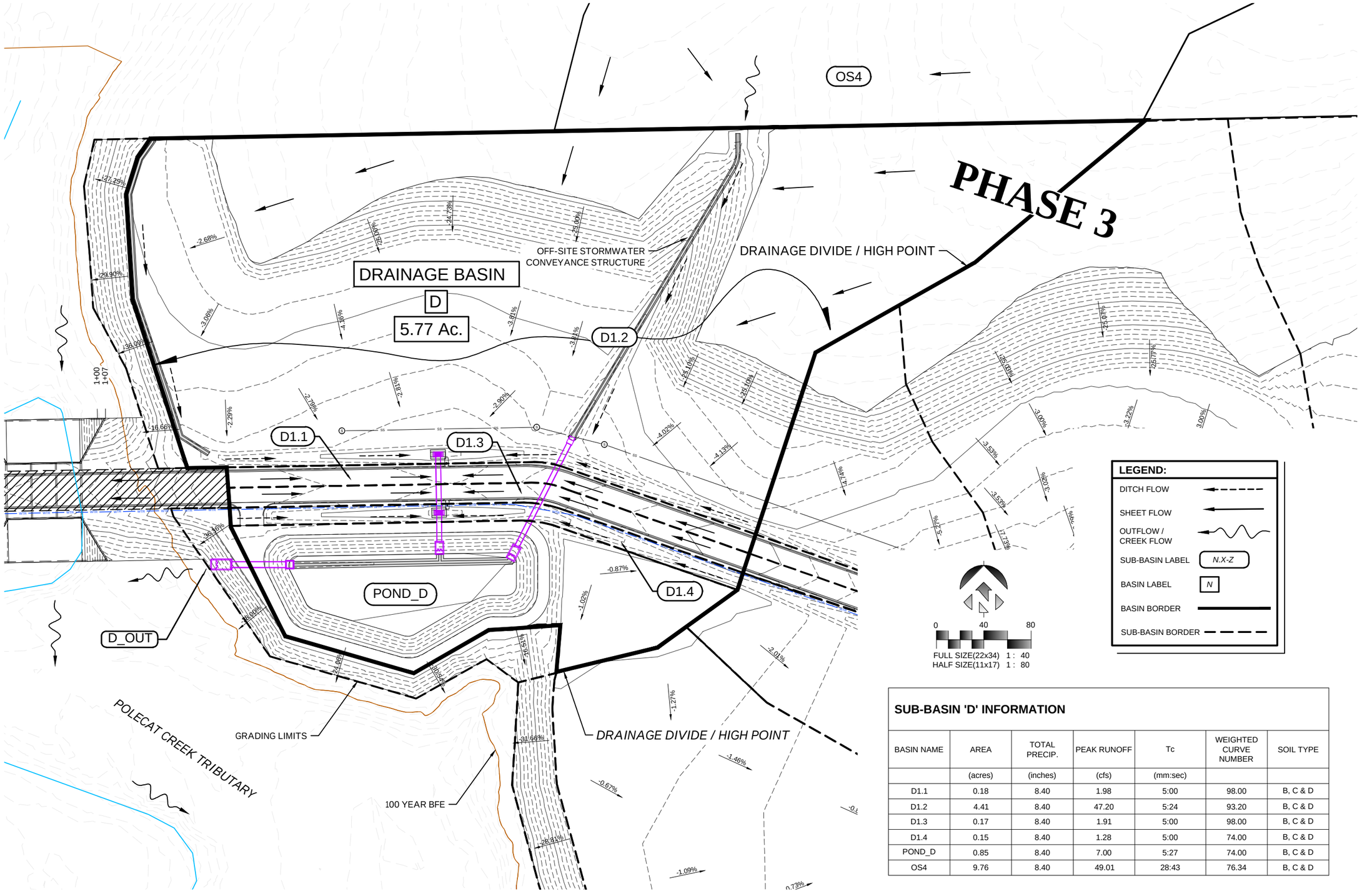
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
POST DEVELOPMENT
DRAINAGE OVERVIEW
ON-SITE

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	63 OF 80
DRAWING:	H04



LEGEND:

- DITCH FLOW
- SHEET FLOW
- OUTFLOW / CREEK FLOW
- SUB-BASIN LABEL — N.X-Z
- BASIN LABEL — N
- BASIN BORDER
- SUB-BASIN BORDER

SUB-BASIN 'D' INFORMATION

BASIN NAME	AREA	TOTAL PRECIP.	PEAK RUNOFF	Tc	WEIGHTED CURVE NUMBER	SOIL TYPE
	(acres)	(inches)	(cfs)	(mm:sec)		
D1.1	0.18	8.40	1.98	5:00	98.00	B, C & D
D1.2	4.41	8.40	47.20	5:24	93.20	B, C & D
D1.3	0.17	8.40	1.91	5:00	98.00	B, C & D
D1.4	0.15	8.40	1.28	5:00	74.00	B, C & D
POND_D	0.85	8.40	7.00	5:27	74.00	B, C & D
OS4	9.76	8.40	49.01	28:43	76.34	B, C & D

1 PHASE 3 - DRAINAGE BASIN D SUB BASINS

1/9/2026 9:55:41 AM

LICENSED PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

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REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

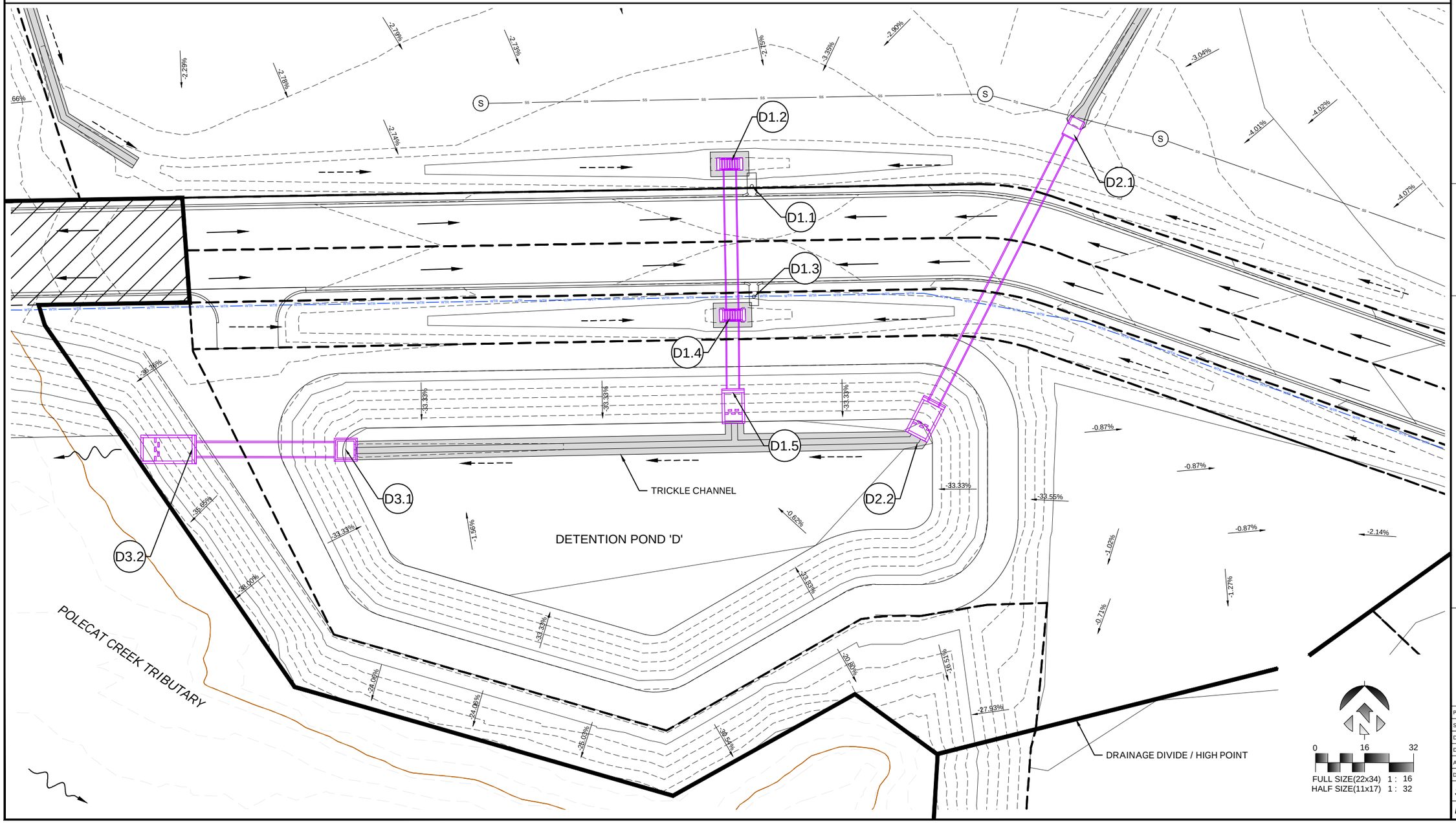
PHASE 3 (ALT. 2)
DRAINAGE
BASIN 'D'
SUB-BASINS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	64 OF 80
DRAWING:	H05

STRUCTURE AND BASIN INFO

DITCH AND PIPE ANALYSIS

STRUCTURE NAME	DESCRIPTION	INLET SOURCE	RIM / INLET ELEVATION	OUTLET INVERT ELEVATION	Q100 THRU INLET	SLOPE	ROUGHNESS	DEPTH	LENGTH	RECEIVING DITCH / PIPE NAME	RECEIVING STRUCTURE TYPE	ADDITIONAL INFLOW SOURCES	ACCUMULATIVE Q100 THRU PIPE / DITCH	FLOW VELOCITY THROUGH PIPE / DITCH	SLOPE	LENGTH	PIPE SIZE / DITCH BOTTOM WIDTH	DITCH SIDES	OVERALL DITCH DEPTH	ROUGHNESS MANNINGS NO.	MAX / TOTAL DEPTH FLOW RATIO	FLOWS TO / PAST
			Ft.	Ft.	CFS	(%)	Mannings No.	Ft.	Ft.				CFS	FPS	(%)	LF	in.		Ft.			
D1.1	FLUME	D1.1	685.08	683.59	1.98	16.28	0.013	-	9.17	-	-	-	-	-	-	-	-	-	-	-	-	D1.2
D1.2	DROP INLET	D1.2	683.49	680.72	47.96	-	0.013	2.77	-	D1.2	RCP	-	47.96	7.90	0.52	46.31	29x45	-	-	0.013	0.74	D1.4
D1.3	FLUME	D1.3	685.08	683.59	1.91	16.28	0.013	-	9.17	-	-	-	-	-	-	-	-	-	-	-	-	D1.4
D1.4	DROP INLET	D1.4	683.49	680.48	1.28	-	0.013	3.01	-	D1.4	RCP	D1.2	51.04	8.89	0.68	29.50	29x45	-	-	0.013	0.7	D1.5 / POND_D
D2.1	DROP INLET	OS4	686.11	680.00	48.81	-	0.013	6.11	-	D2.1	RCP	-	48.84	7.90	0.49	102.11	42	-	-	0.013	0.61	D2.2 / POND_D
D3.1	WEIR	POND_D	685.00	678.70	58.31	-	0.013	6.30	-	D3.1	RCP	-	58.31	7.23	0.37	59.48	42	-	-	0.013	0.78	D3.2 / D_OUT



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REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
DRAINAGE AREA
'D' MAP

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO:	--
DATE:	*JANUARY 9, 2026*
SHEET:	65 *OF* 80
DRAWING:	H06

1/9/2026 9:55:45 AM

SUB-BASIN 'E' INFORMATION

BASIN NAME	AREA	TOTAL PRECIP.	PEAK RUNOFF	Tc	WEIGHTED CURVE NUMBER	SOIL TYPE
	(acres)	(inches)	(cfs)	(days hh:mm:ss)		
E1.1	0.07	8.40	0.78	0 00:05:00	98.00	B, C & D
E1.1-D	2.24	8.40	24.23	0 00:05:00	93.20	B, C & D
E1.2	0.26	8.40	2.90	0 00:05:00	98.00	B, C & D
E1.3	0.65	8.40	6.99	0 00:05:00	93.20	B, C & D
E1.4	0.07	8.40	0.85	0 00:05:00	98.00	B, C & D
E1.4-D	0.06	8.40	0.53	0 00:05:00	74.00	B, C & D
E1.5	0.27	8.40	3.04	0 00:05:00	98.00	B, C & D
E1.6	0.93	8.40	8.88	0 00:09:37	93.20	B, C & D
E2.1	7.61	8.40	82.30	0 00:05:00	93.20	B, C & D
E3.1	2.21	8.40	20.62	0 00:10:37	93.20	B, C & D
POND_E	2.48	8.40	26.30	0 00:05:48	93.20	B, C & D
OS5	3.56	8.40	20.04	0 00:23:22	76.34	B, C & D
OS6	54.40	8.40	336.23	0 00:19:16	76.34	B, C & D
OS7	6.82	8.40	31.29	0 00:33:00	75.94	B, C & D

LEGEND:

- DITCH FLOW
- SHEET FLOW
- OUTFLOW / CREEK FLOW
- SUB-BASIN LABEL (N.X-Z)
- BASIN LABEL (N)
- BASIN BORDER
- SUB-BASIN BORDER

0 60 120

FULL SIZE(22x34) 1 : 60
HALF SIZE(11x17) 1 : 120

PHASE 3

DRAINAGE DIVIDE / HIGH POINT

OFF-SITE STORMWATER CONVEYANCE STRUCTURE

DRAINAGE BASIN D
16.5 Ac.

OS5

OS6

OS7

E1.1-D

E1.3

E1.2

E1.5

E1.6

E1.4-D

E1.1

E1.4

E2.1

E3.1

POND_E

DETENTION POND 'E'

DRAINAGE DIVIDE / HIGH POINT

POLECAT CREEK TRIBUTARY

100 YEAR BFE

E_OUT

1 Line 1
1/8" = 1'-0"
1/8" = 1'-0"

1/9/2026 9:55:49 AM

PROFESSIONAL ENGINEER
JAMES R. UMDENSTOCK
11407
01/09/2026
OKLAHOMA

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

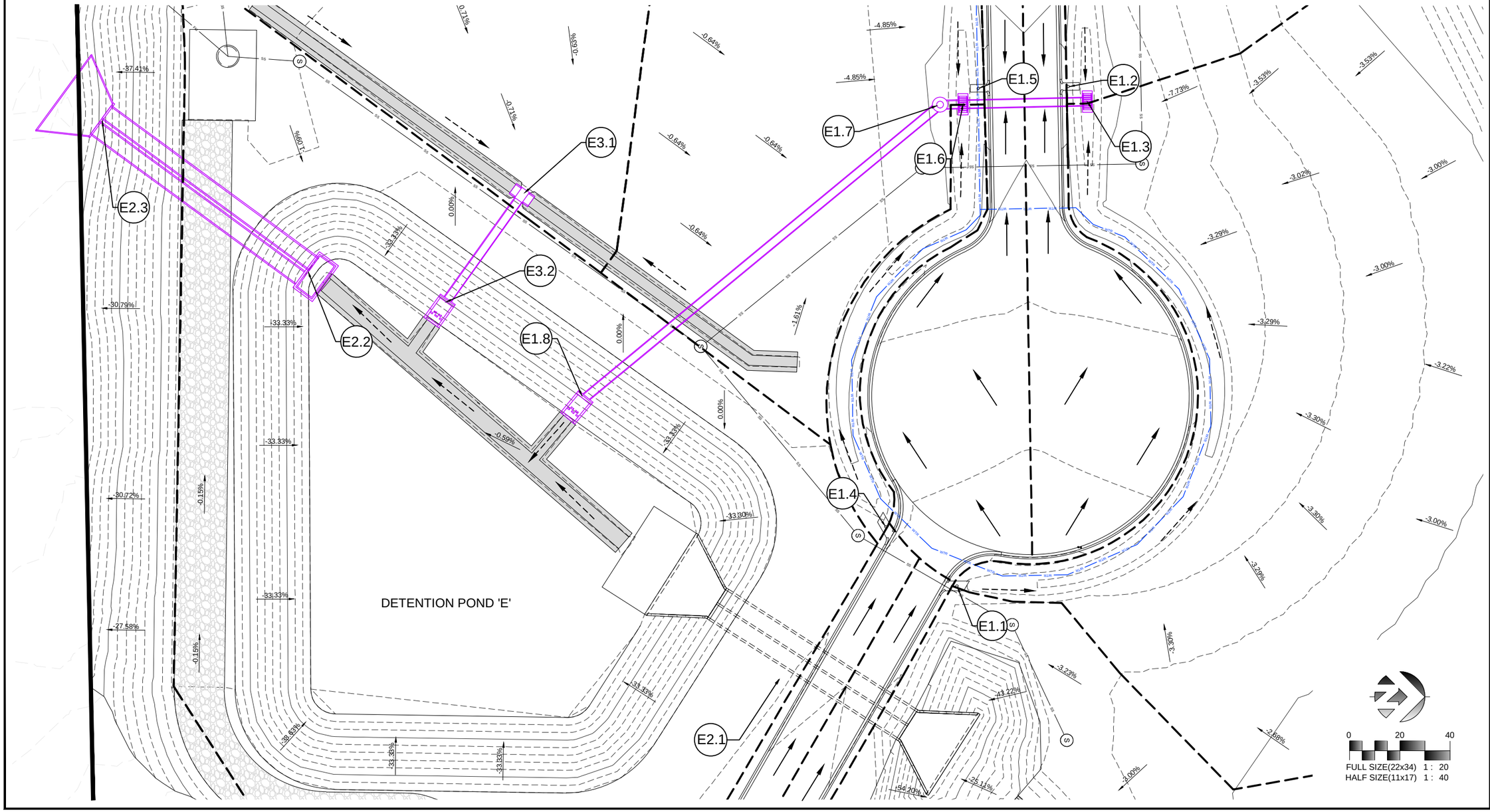
PHASE 3 (ALT. 2)
DRAINAGE BASIN
'E' SUB-BASINS

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	66 OF 80
DRAWING:	H07

STRUCTURE AND BASIN INFO

DITCH AND PIPE ANALYSIS

STRUCTURE NAME	DESCRIPTION	INLET SOURCE	RIM / INLET ELEVATION	OUTLET INVERT ELEVATION	Q100 THRU INLET	SLOPE	ROUGHNESS	DEPTH	LENGTH	RECEIVING DITCH / PIPE NAME	RECEIVING STRUCTURE TYPE	ADDITIONAL INFLOW SOURCES	ACCUMULATIVE Q100 THRU PIPE / DITCH	FLOW VELOCITY THROUGH PIPE / DITCH	SLOPE	LENGTH	PIPE SIZE / DITCH BOTTOM WIDTH	DITCH SIDES	OVERALL DITCH DEPTH	ROUGHNESS MANNINGS NO.	MAX / TOTAL DEPTH FLOW RATIO	FLOWS TO / PAST
			Ft.	Ft.	CFS	(%)	Mannings No.	Ft.	Ft.				CFS	FPS	(%)	LF	in.		Ft.			
E1.1	FLUME	E1.1	687.00	686.00	0.78	5.88	0.013	-	17.00	E1.1	GRASS DITCH	E1.1-D	24.46	3.88	1.26	271.00	36	3:1	2.167	0.033	0.48	E1.3
E1.2	FLUME	E1.2	684.22	682.63	2.90	17.43	0.013	-	9.17	-	-	-	-	-	-	-	-	-	-	-	-	E1.3
E1.3	DROP INLET	E1.3, E1.2, E1.1	682.62	678.27	34.17	-	0.013	4.35	-	E1.3	RCP	-	34.17	7.13	0.47	46.40	36	-	-	0.013	0.64	E1.6
E1.4	FLUME	E1.4	686.94	686.00	0.85	10.4	0.013	-	15	E1.4	GRASS DITCH	E1.4-D	1.35	1.90	1.90	179.00	36	3:1	2.167	0.033	0.09	E1.6
E1.5	FLUME	E1.5	684.22	682.63	3.04	17.43	0.013	-	9.17	-	-	-	-	-	-	-	-	-	-	-	-	E1.6
E1.6	DROP INLET	E1.6	682.60	678.05	12.21	-	0.013	4.55	-	E1.6	RCP	E1.3	46.38	7.68	0.51	5.87	36	-	-	0.013	0.80	E1.7
E1.7	MANHOLE	-	684.73	678.00	-	-	0.013	6.73	-	E1.7	RCP	-	46.18	7.92	0.54	184.97	36	-	-	0.013	0.77	E1.8 / POND_E
E2.1	CULVERT	E2.1, OS5, OS6	677.34	677.07	393.56	0.30	0.014	-	90.00	-	-	-	-	8.30	-	-	2x (60"x72")	-	-	-	0.79	POND_E
E3.1	DROP INLET	E3.1	685.28	677.35	20.25	0.65	0.013	-	-	E3.1	RCP	-	20.25	7.07	0.65	52.33	36	-	-	0.013	0.43	E3.2 / POND_E
E4.1	WEIR	POND_E, POND_E	686.00	675.00	364.07	-	0.013	11.00	-	E4.1	RCP	-	364.07	10.92	0.49	102.13	2x 66"	-	-	0.013	0.66	E4.2 / E_OUT



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JAMES R. UMDENSTOCK 11407 01/09/2026 OKLAHOMA PROFESSIONAL ENGINEER LICENSED

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REVISION	BY	DATE

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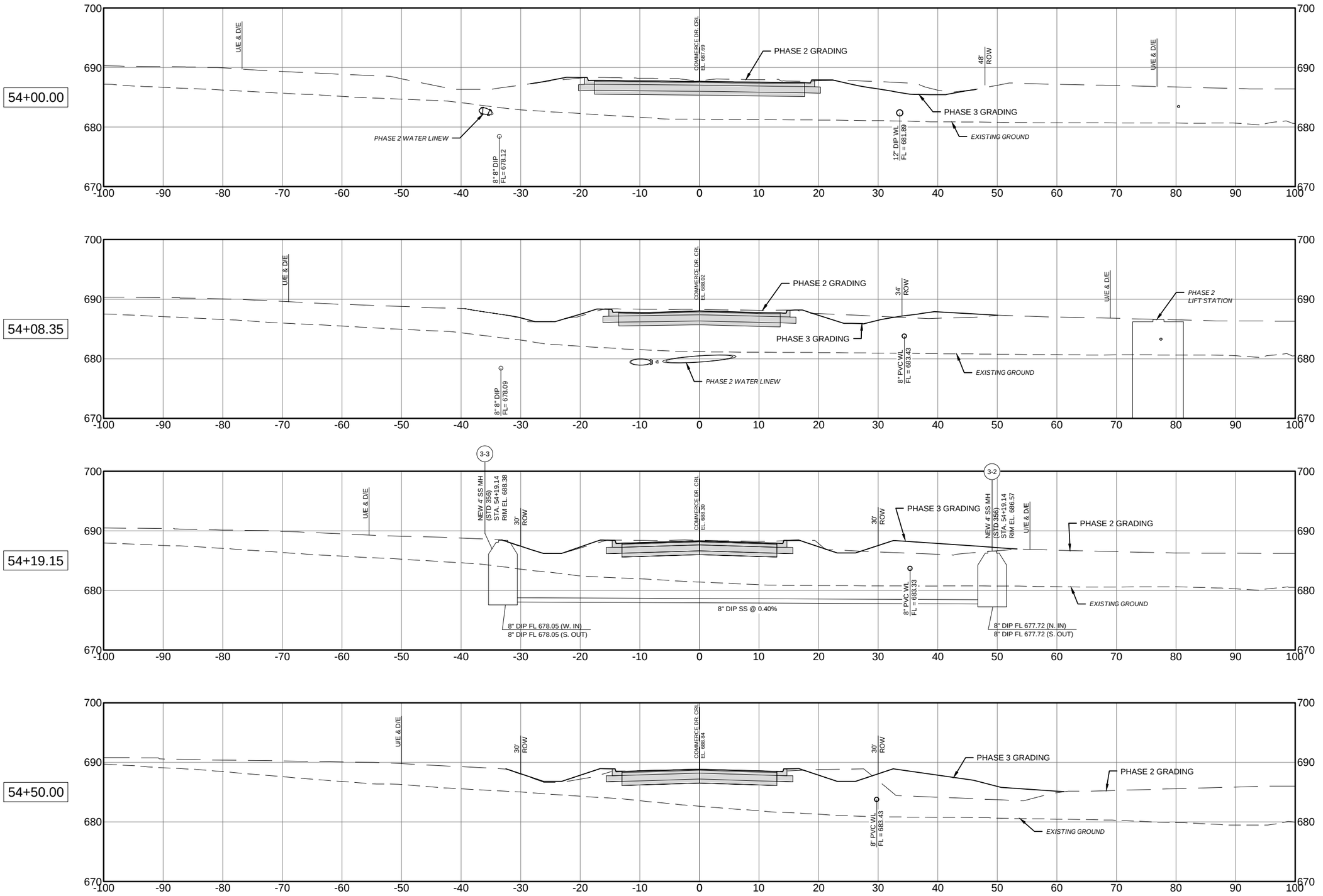
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
DRAINAGE AREA
'E' MAP

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	67 OF 80
DRAWING:	H08



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LICENCE PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

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REVISION	BY	DATE

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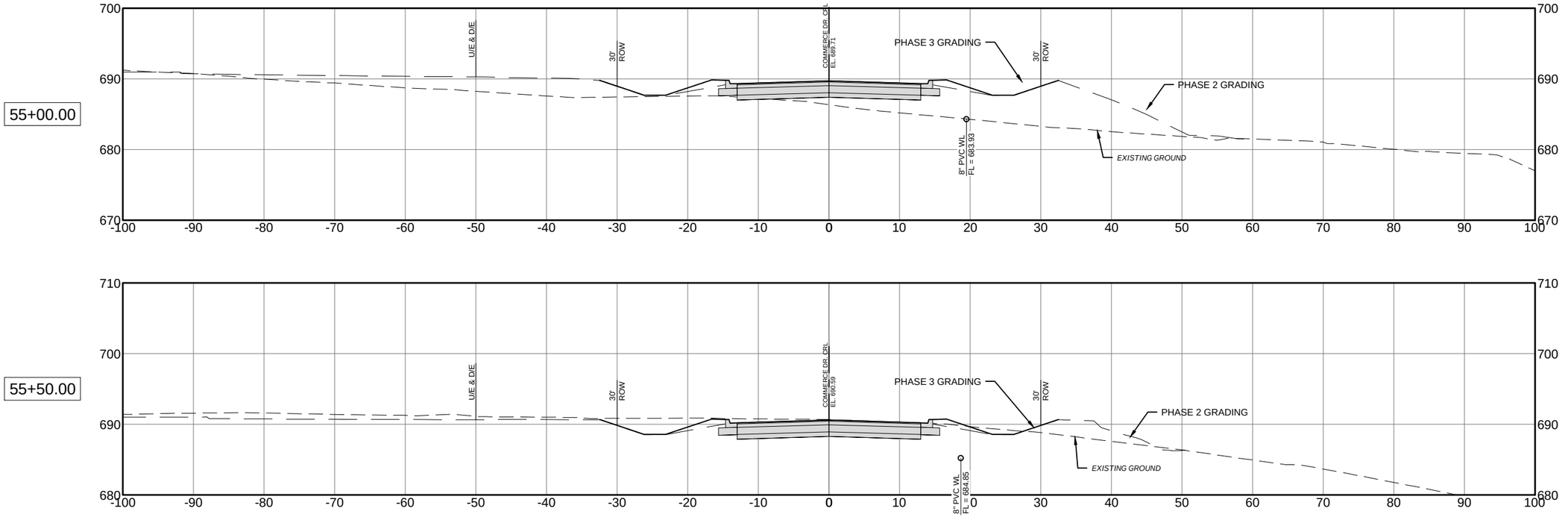
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 54+00 TO
STA 54+50

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	68 OF 80
DRAWING:	X01



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DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

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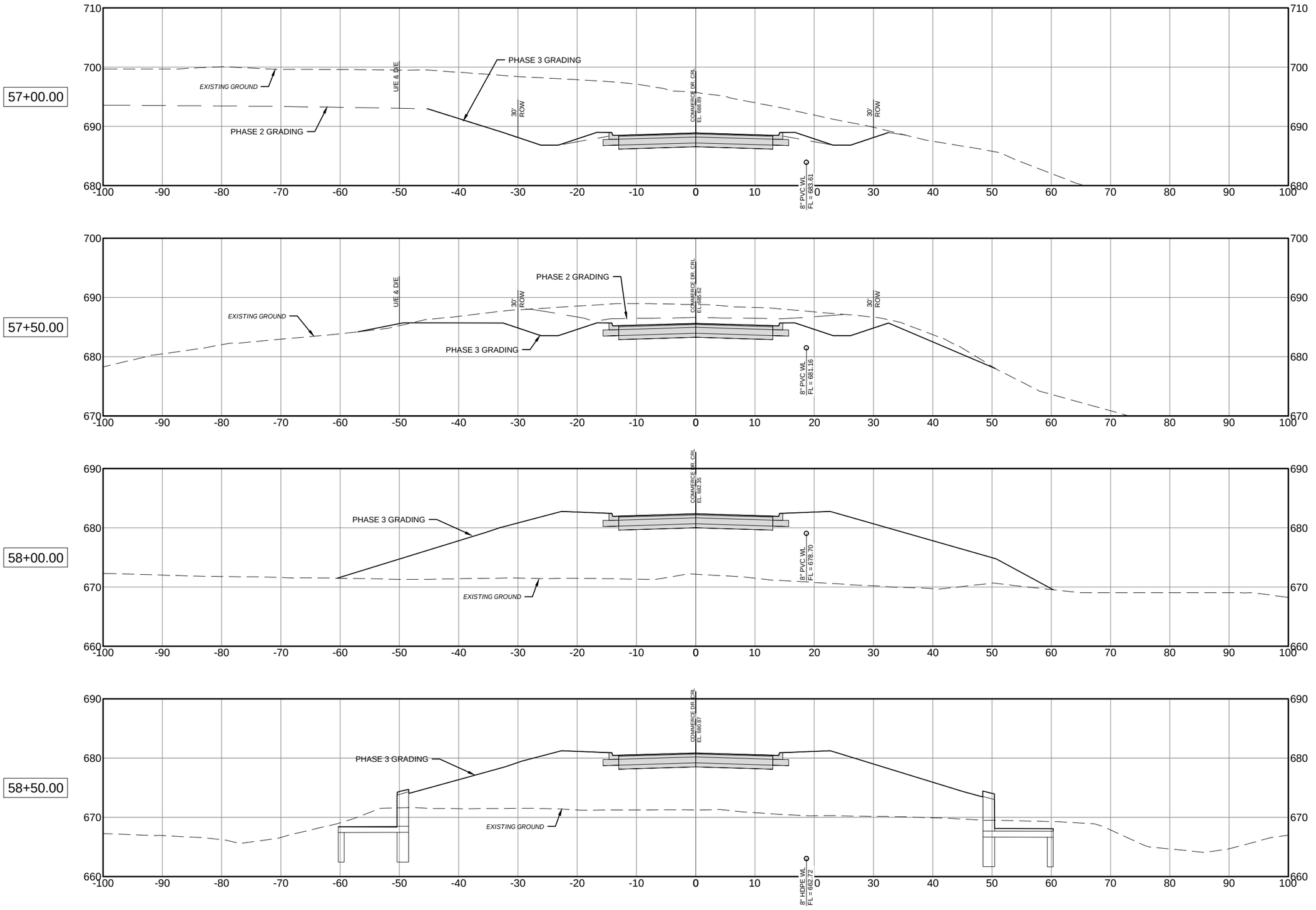
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 55+00 TO
STA 56+50

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	*JANUARY 9, 2026*
SHEET:	69 *OF* 80
DRAWING:	X02



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DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

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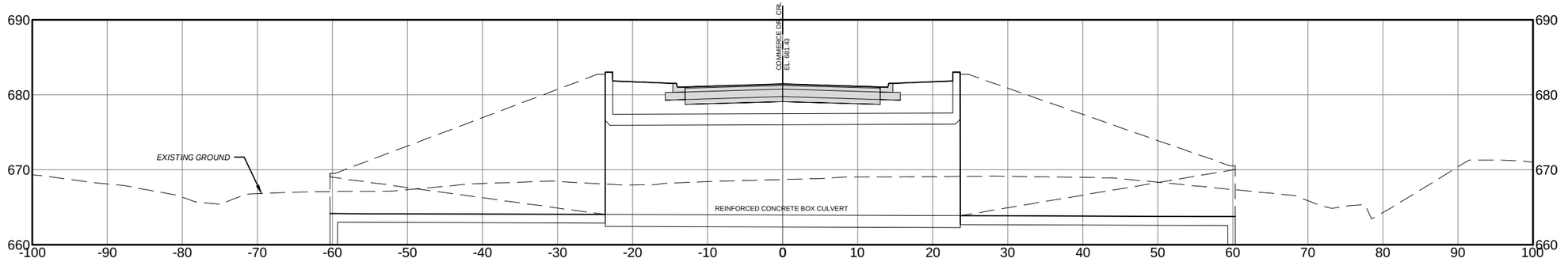
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 57+00 TO
STA 58+50

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	70 OF 80
DRAWING:	X03

59+00.00



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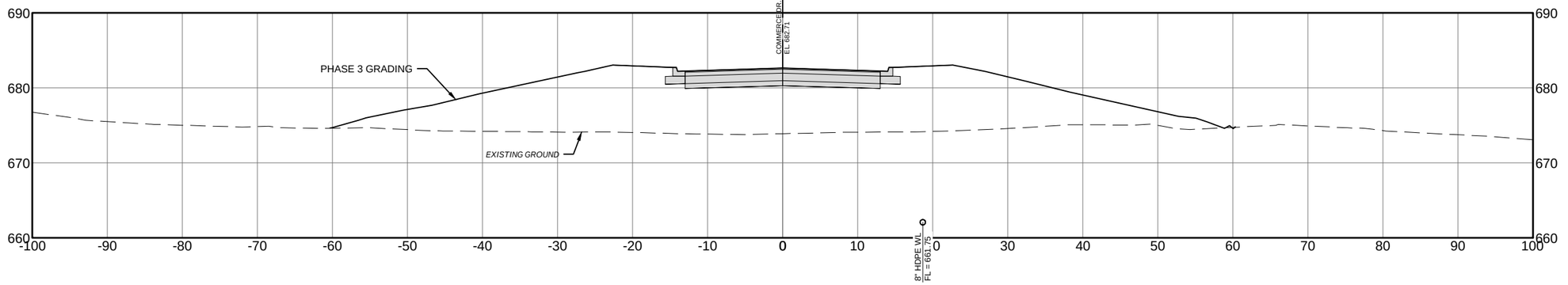

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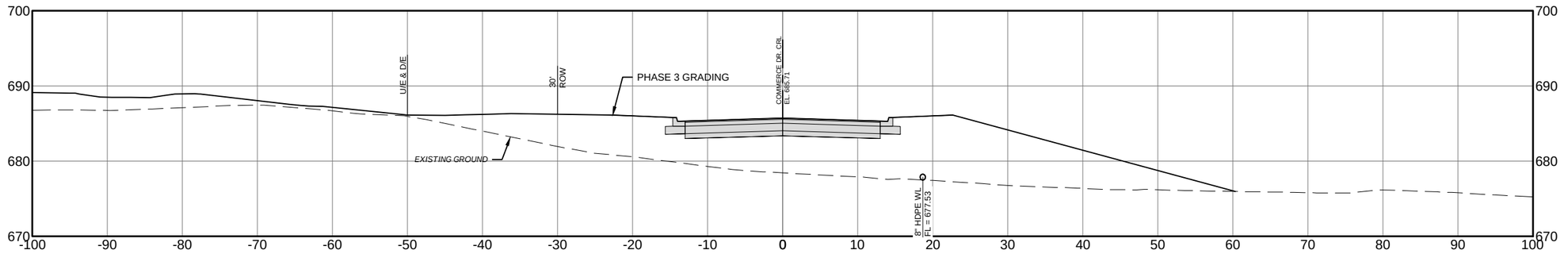

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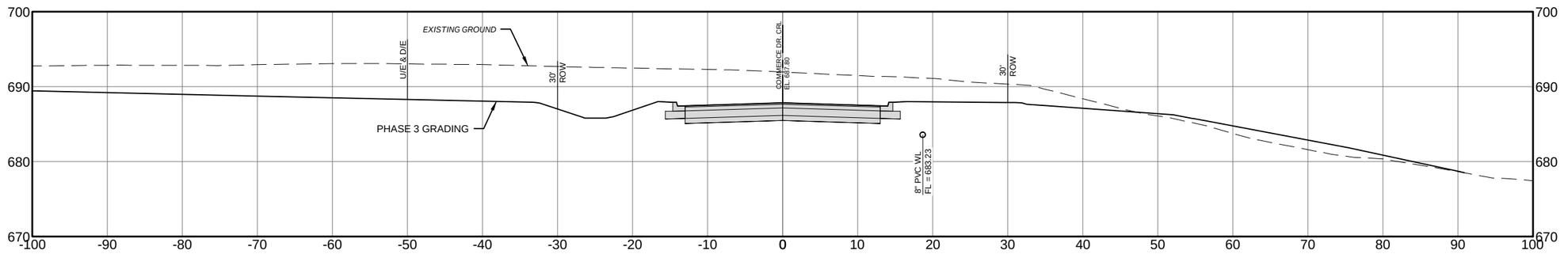

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17348
01/09/2026
PROFESSIONAL ENGINEER
OKLAHOMA

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REVISION	BY	DATE

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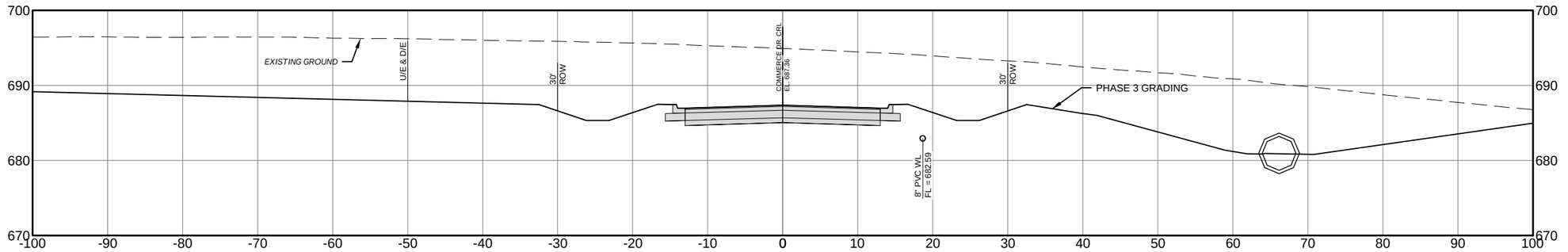
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 59+00 TO
STA 60+50

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRJ, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	71 OF 80
DRAWING:	X04

61+00.00



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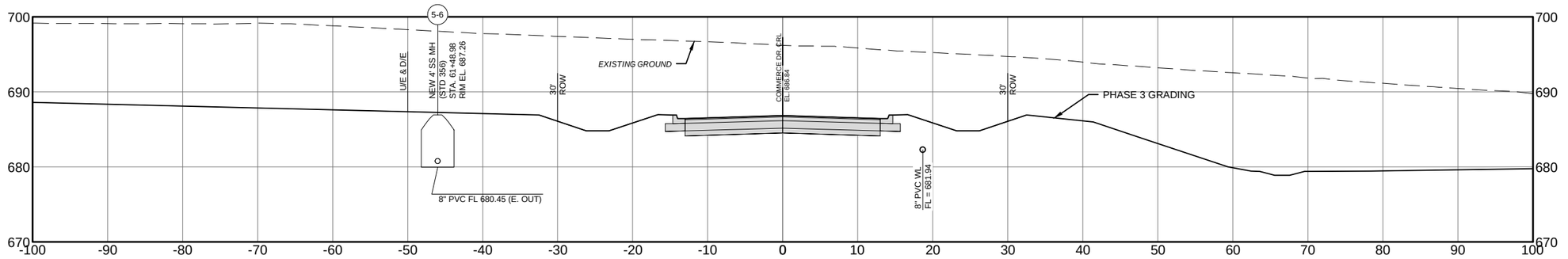

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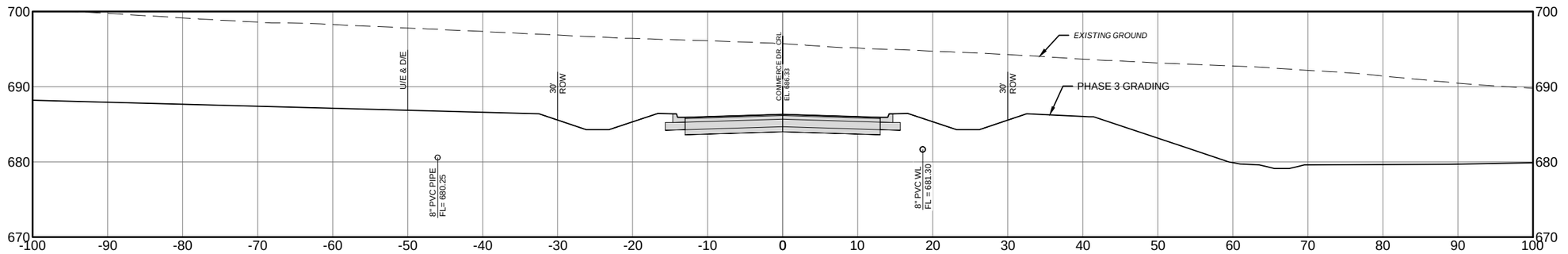

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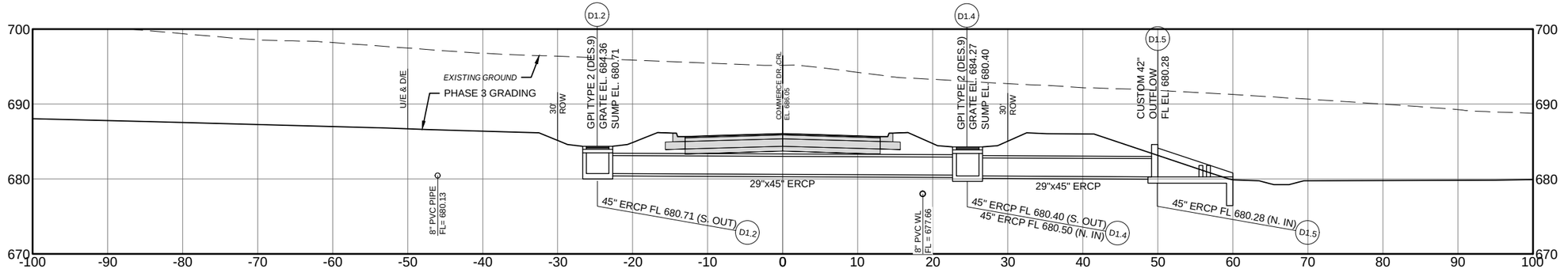

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LICENSED PROFESSIONAL ENGINEER
DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

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REVISION	BY	DATE

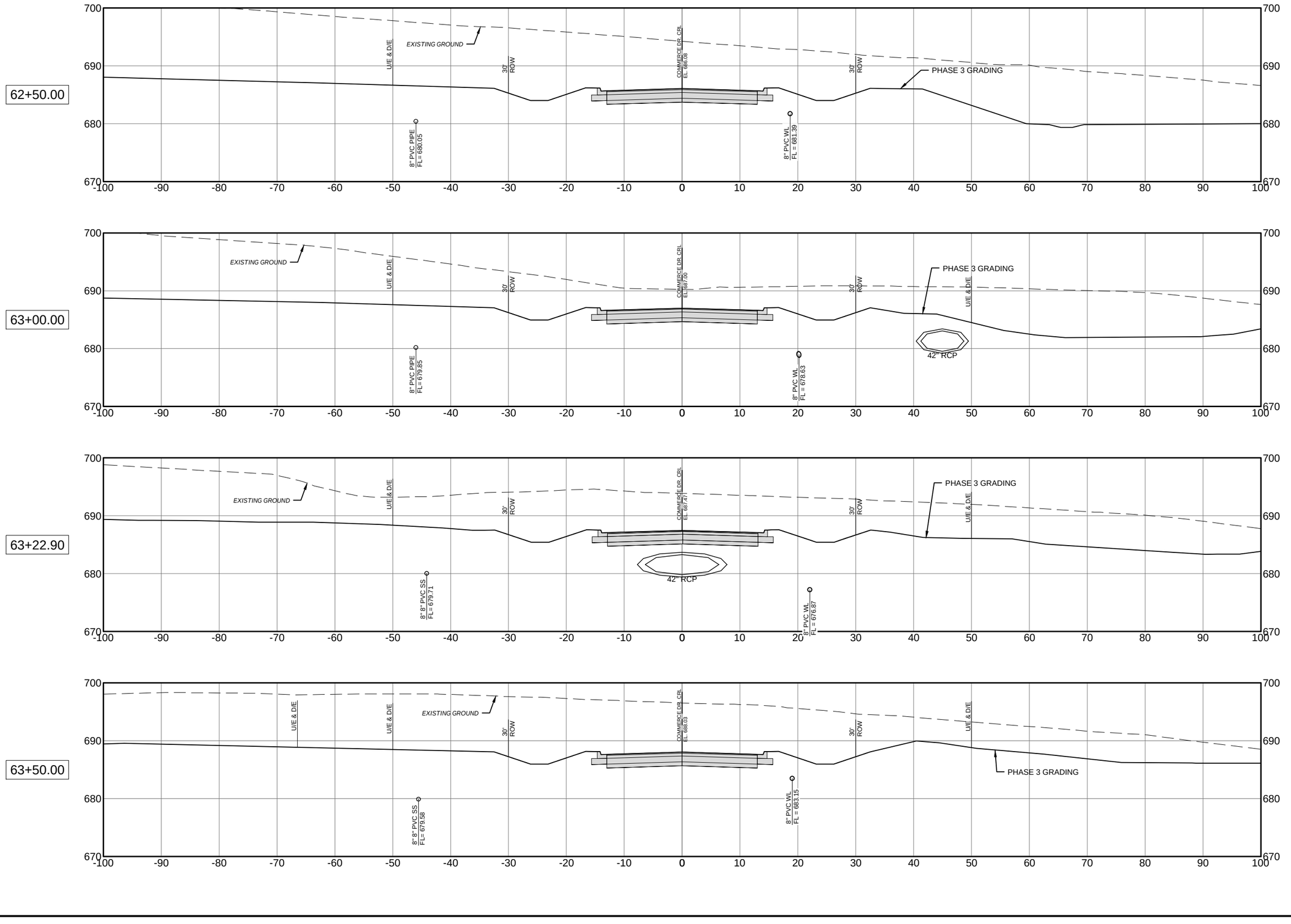
OKIE811 Know what's below. Call before you dig.

ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 61+00 TO
STA 62+29.80

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	72 OF 80
DRAWING:	X05



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DANIEL A. KEITHLINE
17348
01/09/2026
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REVISION	BY	DATE

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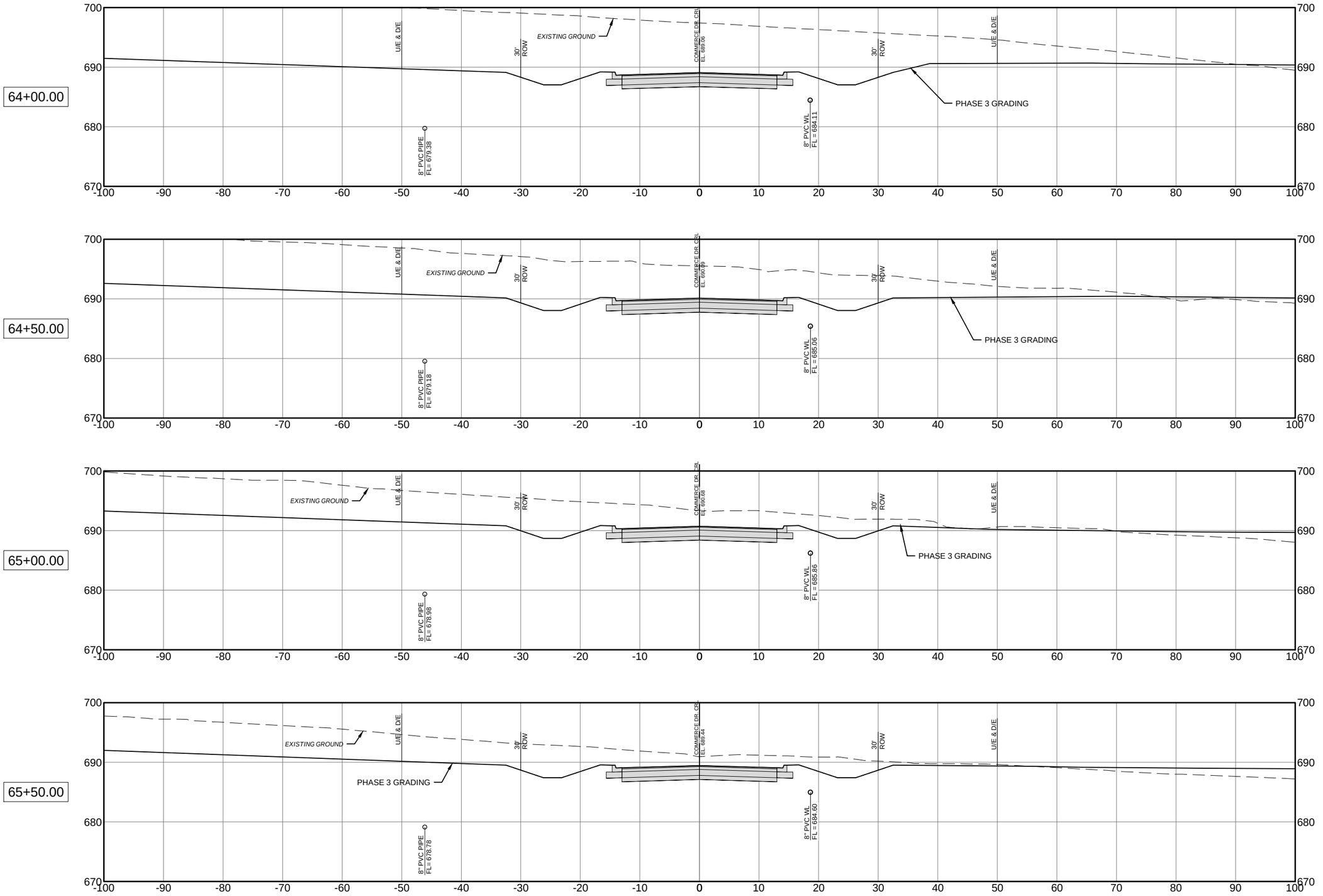
ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 62+50 TO
STS 63+50

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	73 OF 80
DRAWING:	X06



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DANIEL A. KEITHLINE
17348
01/09/2026
OKLAHOMA

Plans and Estimates Prepared by:
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REVISION	BY	DATE

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ROUTE 66 INDUSTRIAL PARK
PHASE 3 - ALTERNATE 2

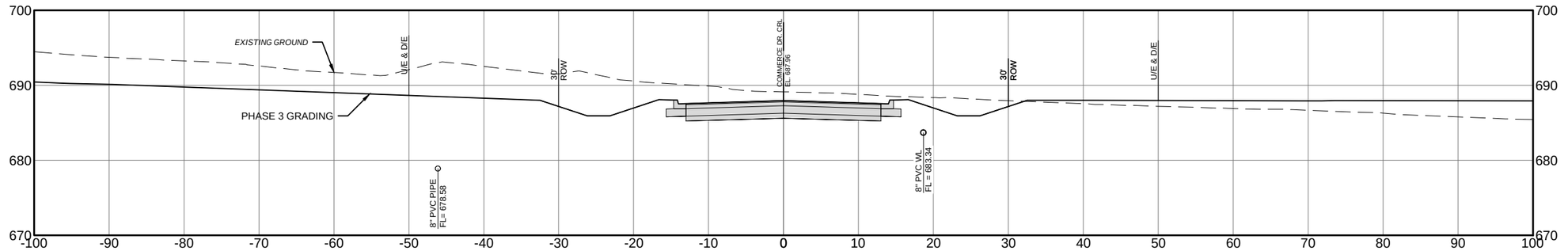
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 64+00 TO
STA 65+50

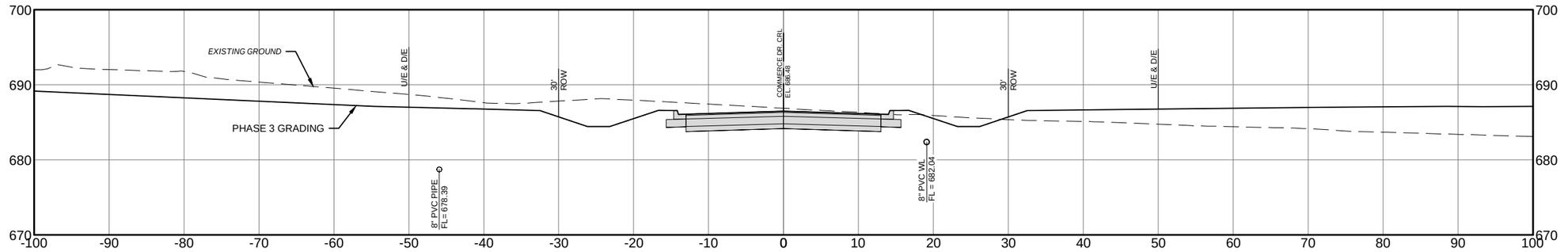
PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	74 OF 80
DRAWING:	X07

1/9/2026 9:56:04 AM

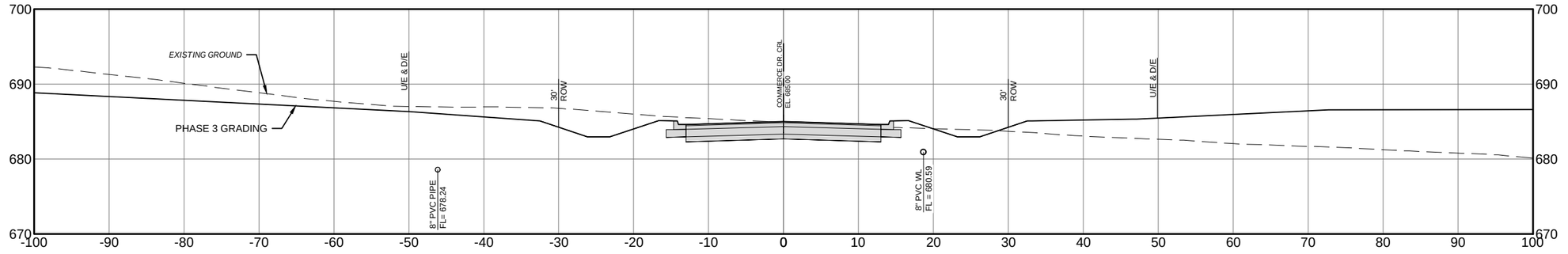
66+00.00



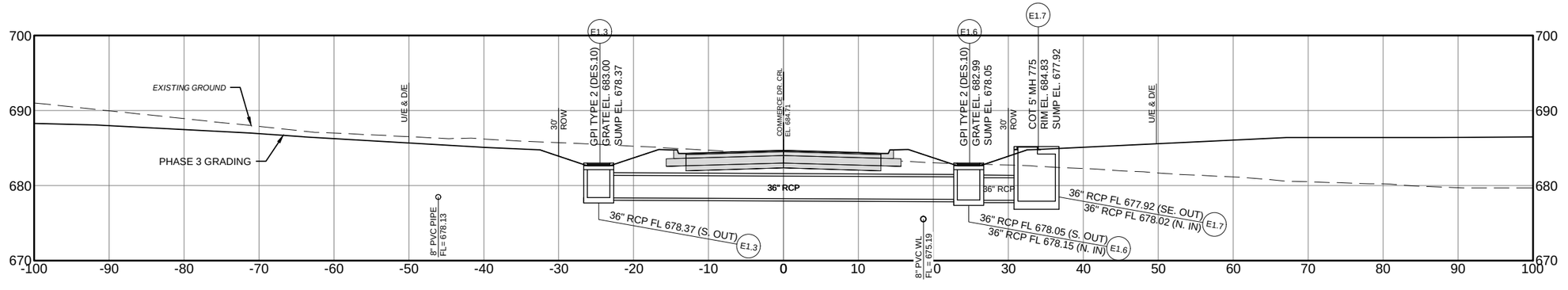
66+50.00



67+00.00



67+27.93



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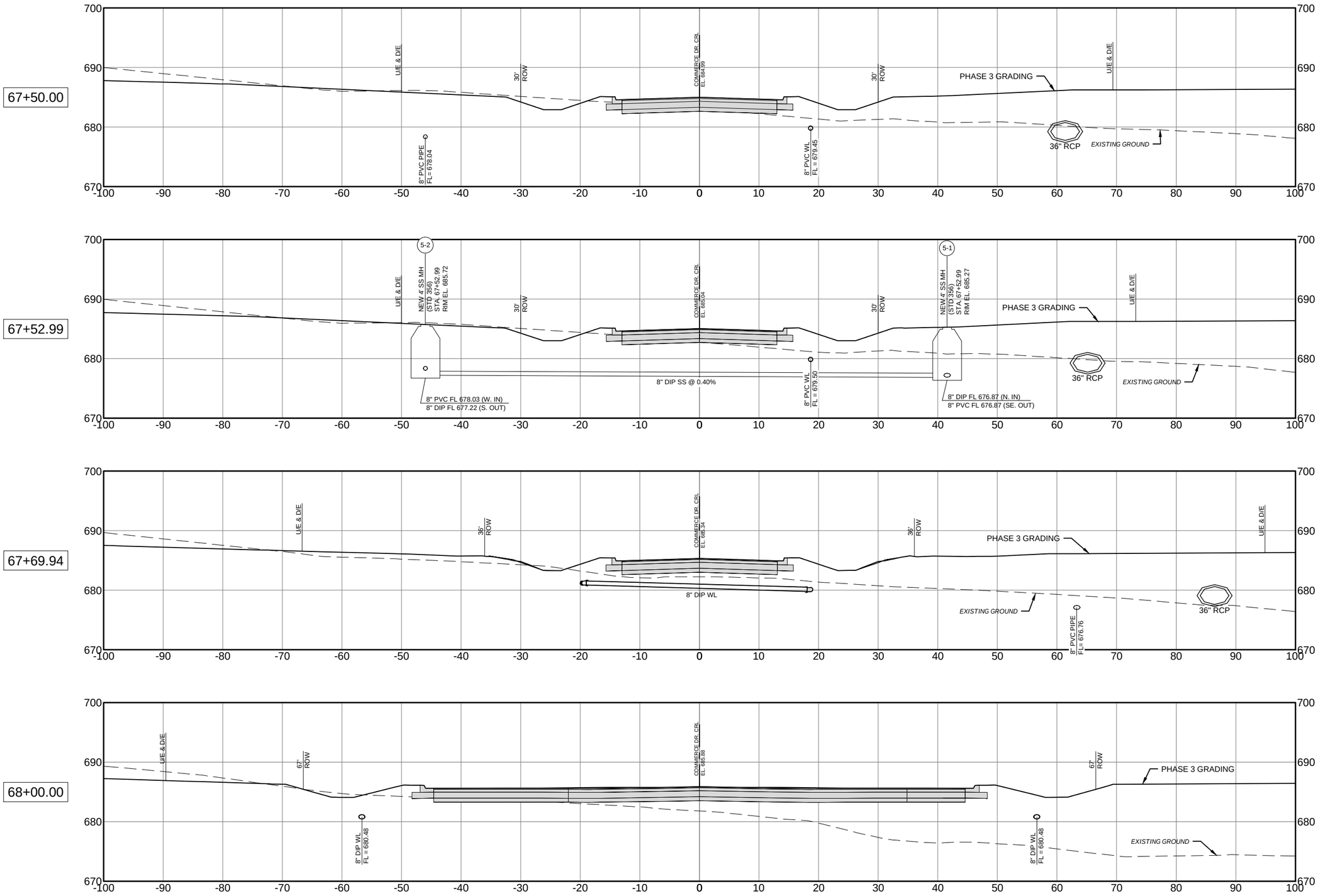
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 66+00 TO
STA 67+27.93

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	75 OF 80
DRAWING:	X08



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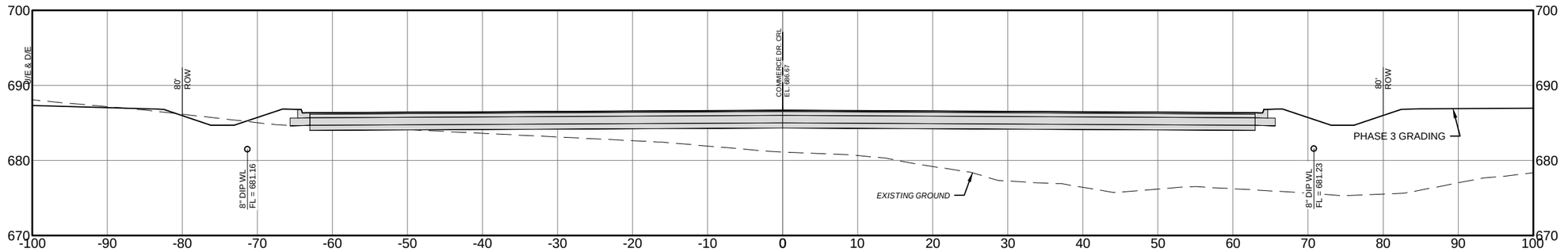
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

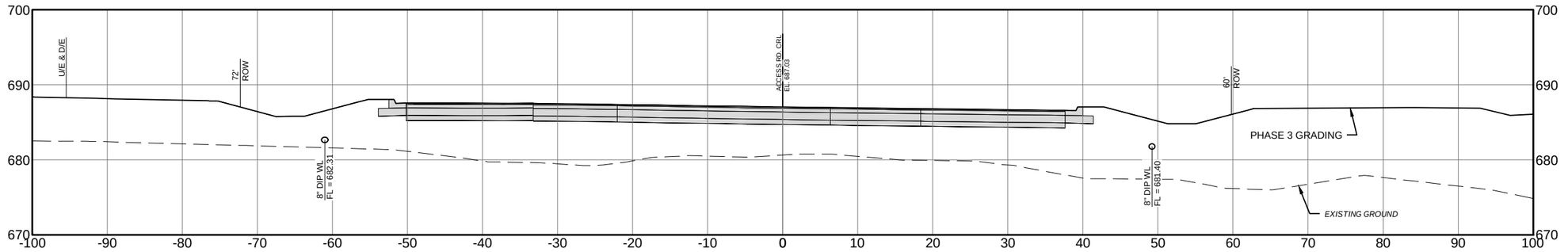
PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 67+50 TO
STA 68+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	76 OF 80
DRAWING:	X09

68+44.46



80+00.00



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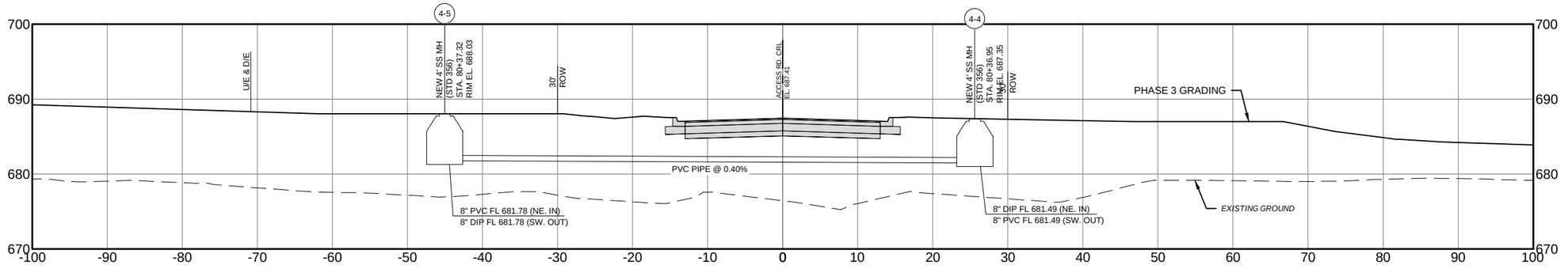
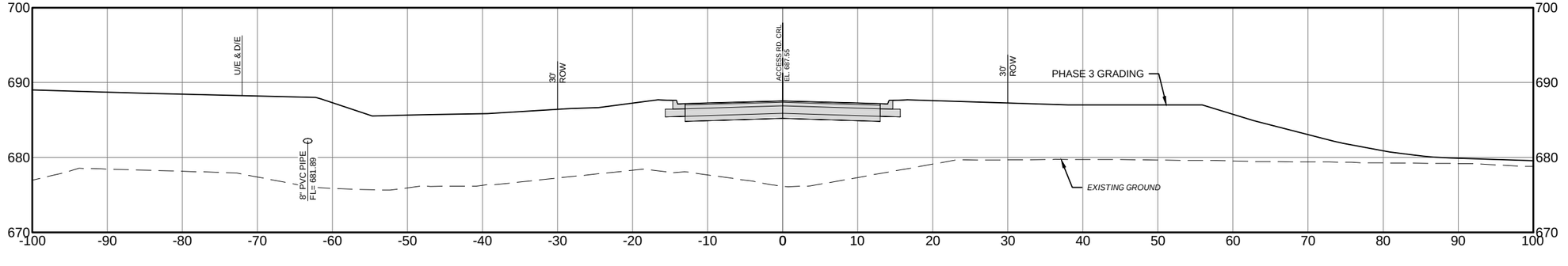


80+50.00



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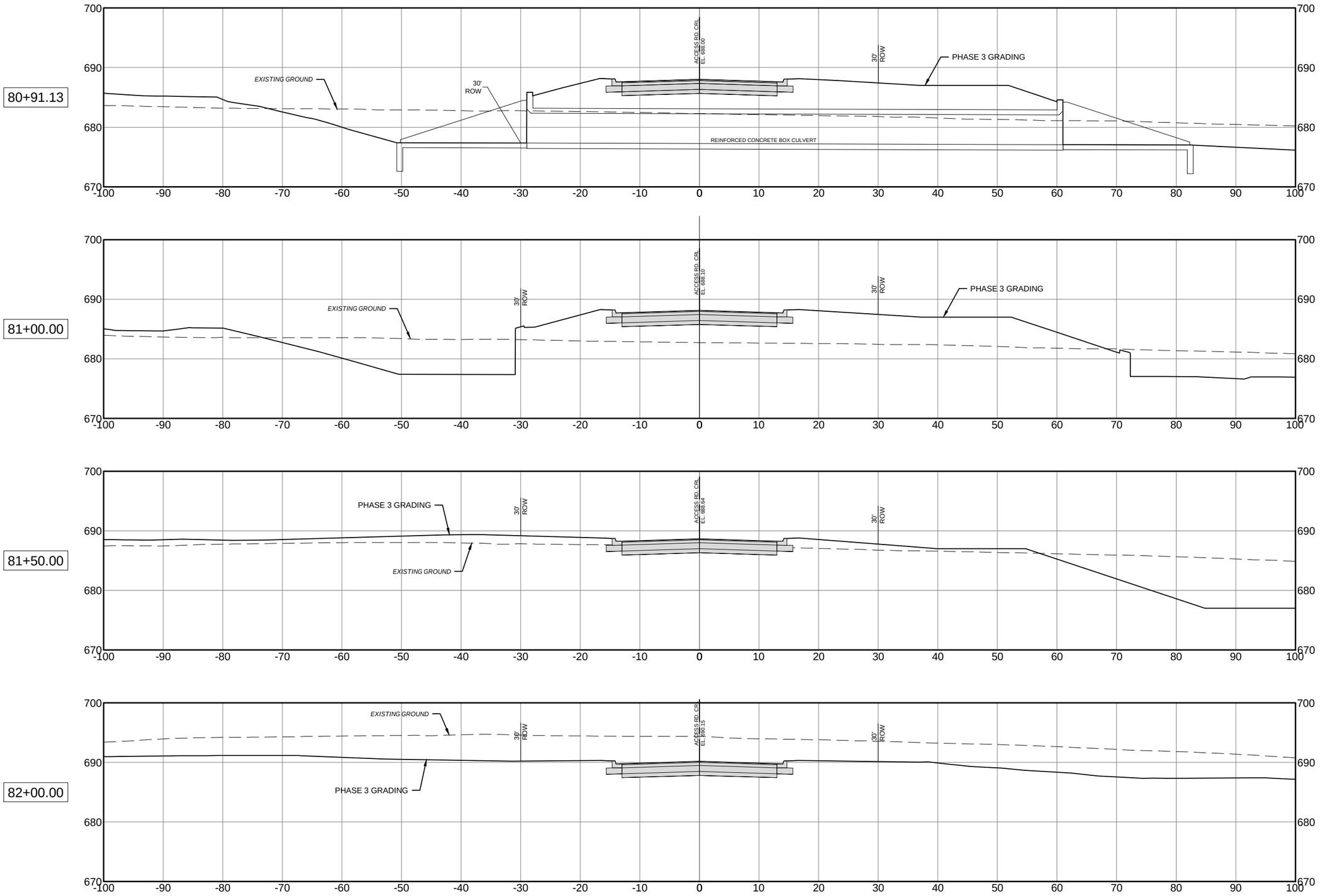
SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 68+44.46 TO
STA 80+50

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	77 OF 80
DRAWING:	X10



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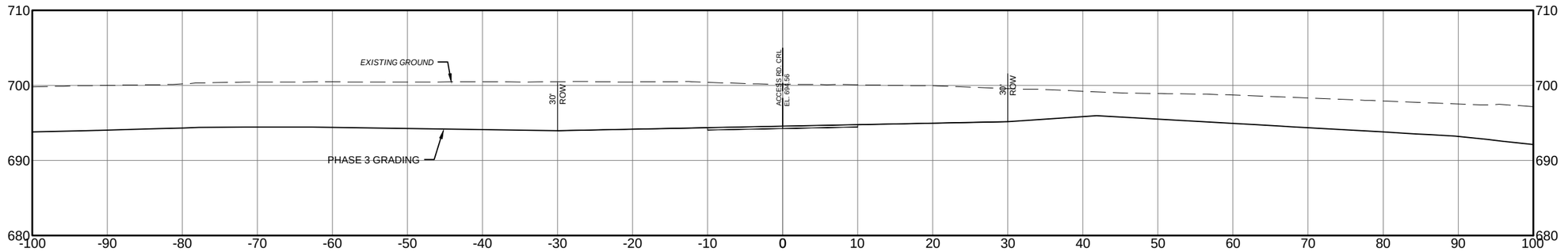
PHASE 3 - ALTERNATE 2

SAPULPA DEVELOPMENT AUTHORITY
SAPULPA, OKLAHOMA

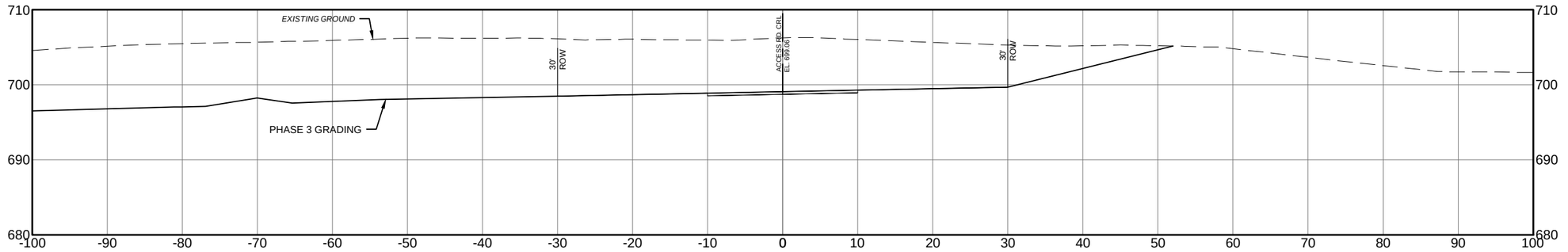
PHASE 3 (ALT. 2) CROSS SECTIONS STA 80+91.13 TO STA 82+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	78 OF 80
DRAWING:	X11

82+50.00



83+00.00



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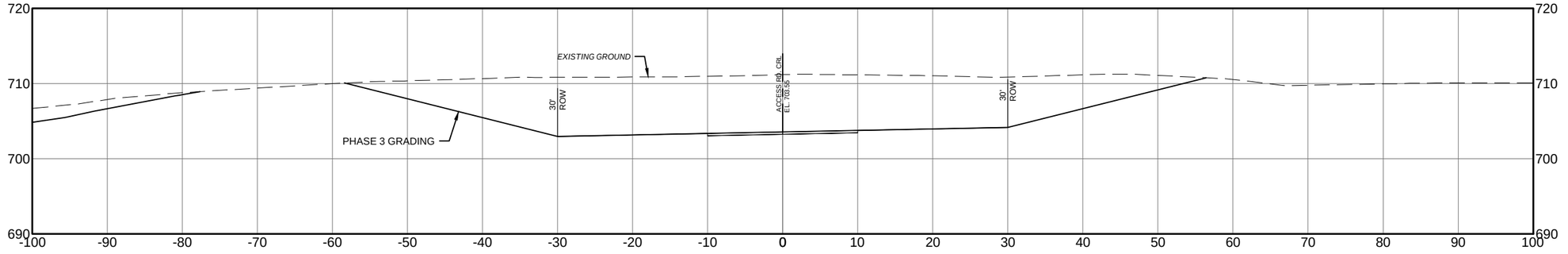
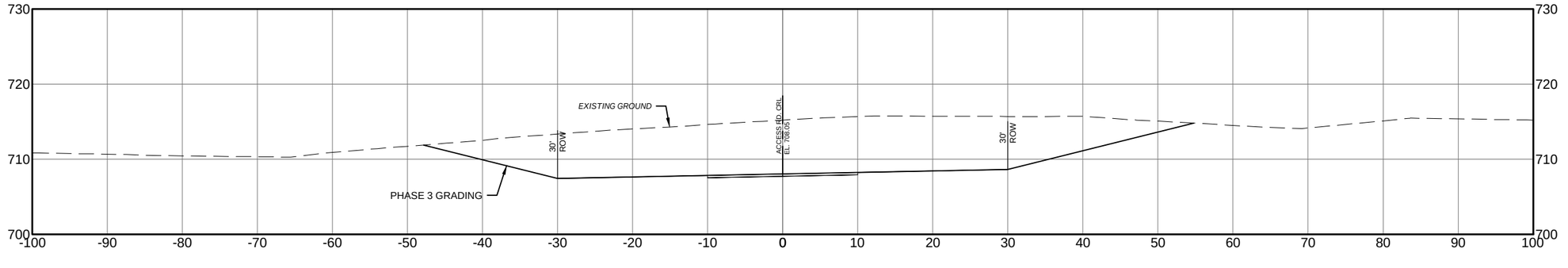


84+00.00



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PHASE 3 (ALT. 2)
CROSS SECTIONS
STA 82+50 TO
STA 84+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	79 OF 80
DRAWING:	X12

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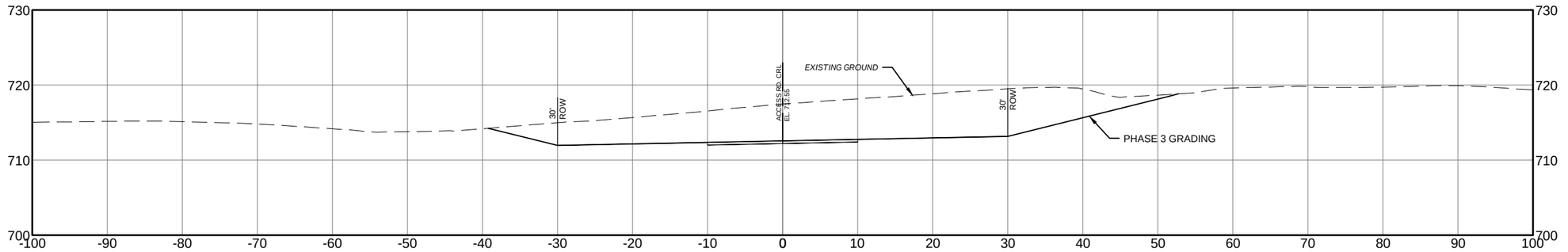
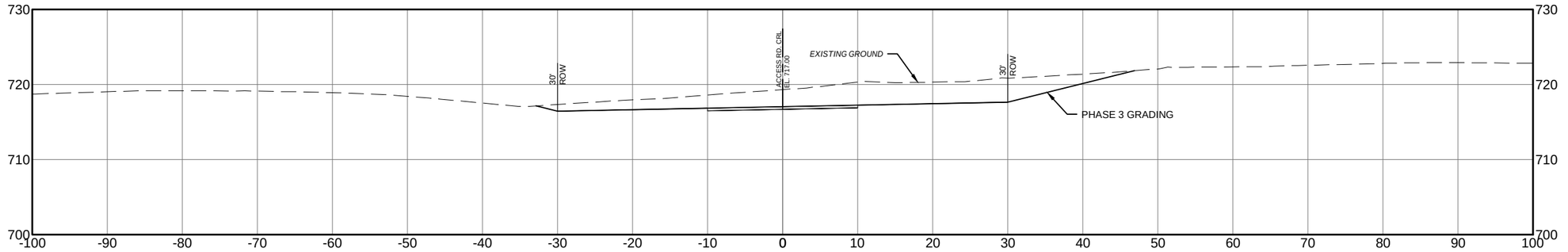
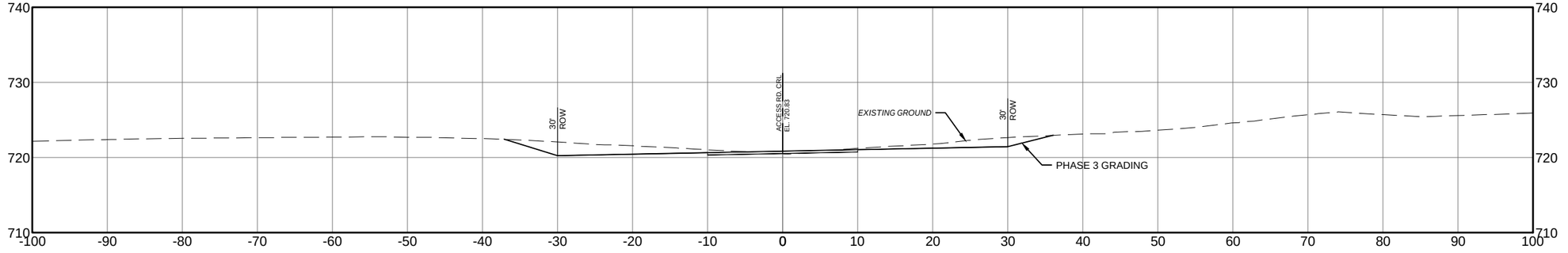
84+50.00



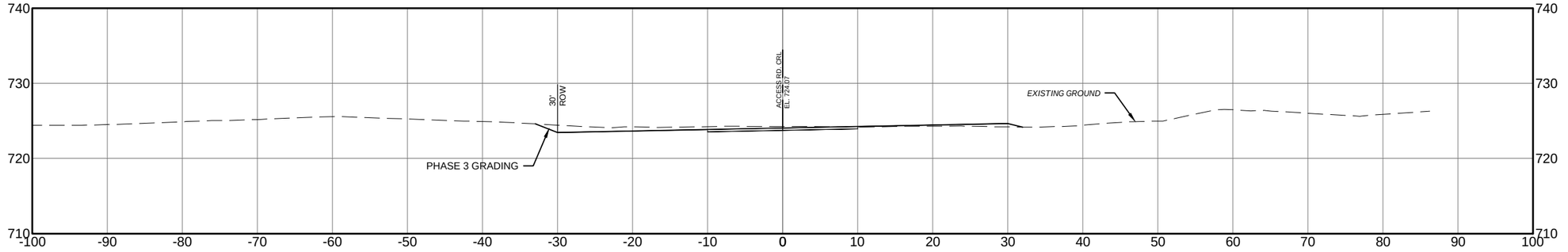
85+00.00



85+50.00



86+00.00



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PHASE 3 (ALT. 2)
CROSS SECTIONS
STA. 84+50 TO
STA. 86+00

PROJECT #	24.11
SURVEY	AJN (FLS) 12/2024
DESIGNED	DAK, JRU, MAW (KEG)
DRAWN	ZLM, AK, MAW (KEG)
ATLAS PAGE NO.	--
DATE:	JANUARY 9, 2026
SHEET:	80 OF 80
DRAWING:	X13