# CIVIL CONSTRUCTION DOCUMENTS FOR VALLE SOL UNIT 2 SUBDIVISION

San Antonio, Texas

PLAT NO. 22-11800251

LENNAR HOMES OF TEXAS LAND &

100 NE LOOP 410, SUITE 1155 **SAN ANTONIO, TX 78216** 

11903 JONES MALTSBERGER ROAD, SUITE 102 SAN ANTONIO, TEXAS 78216

**UP ENGINEERING + SURVEYING ENGINEER**: 11903 JONES MALTSBERGER ROAD, SUITE 102 SAN ANTONIO, TEXAS 78216

17215 JONES MALTSBERGER ROAD, SUITE 101 SAN ANTONIO, TEXAS 78247

CONTACT: NATASHA F. UHLRICH, P.E.

**CONTACT: AMIT BAKANE, P.E.** 

IH-35 AND FISCHER ROAD, VON ORMY, TEXAS 78073

FLOODPLAIN INFORMATION: FIRM #48029, PANELS 0560 F & 0570 F, 09/29/2010.

WATERSHED: THIS SITE IS LOCATED IN THE LOWER MEDINA RIVER WATERSHED.

**BENCHMARKS**: BM 1: MAG NAIL NORTHING:13657422.9900 EASTING:2087943.0750

ELEVATION: 585.37

**BM 2: MAG NAIL** NORTHING:13660323.4300 EASTING:2090886.6510

CONTRACTOR SHALL VERIFY BENCHMARKS AND CONTACT SURVEYOR WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION

LEGAL DESCRIPTION:

33.62 ACRES OF LAND IN THE VALLE SOL UNIT 2 SUBDIVISION, RECORDED IN **VOLUME, PAGES, DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS.** 

SURVEY BASIS:

BEARINGS SHOWN HEREON ARE BASED ON ACTUAL GPS OBSERVATIONS, TEXAS STATE PLANE COORDINATES, SOUTH CENTRAL ZONE, GRID.

PERMITTED - SEPTEMBER 2023 REVISED DATE - JANUARY 17, 2024

C	ONSTRUCTION SHEET SET LIST
SHEET NUMBER	SHEET TITLE
GENERAL SHI	EETS
C001	COVER SHEET
C002	APPROVED MDP
C003	APPROVED TREE PRESERVATION PLAN SHEET 1
C004	APPROVED TREE PRESERVATION PLAN SHEET 2
C005	APPROVED TREE PRESERVATION PLAN SHEET 3
C006	APPROVED TREE PRESERVATION PLAN SHEET 4
C007	VALLE SOL UNIT 2 CURRENT PLAT SHEET 1
C008	VALLE SOL UNIT 2 CURRENT PLAT SHEET 2
C009	VALLE SOL UNIT 2 CURRENT PLAT SHEET 3
C010	VALLE SOL UNIT 2 CURRENT PLAT SHEET 4
C011	VALLE SOL UNIT 2 CURRENT PLAT SHEET 5
C012	GENERAL NOTES
C013	EXISTING CONDITIONS OVERALL PROPERTY
C014	EXISTING CONDITIONS - UNIT 2 AREA
C015	EROSION AND SEDIMENTATION CONTROL PLAN
C016	EROSION & SEDIMENTATION CONTROL DETAILS
C017	TEMP SEDIMENTATION POND
STREET SHEE	TS
CR100	OVERALL STREETS
CR200	REMEMBER WAY PLAN & PROFILE
CR201	SLIDING WAY PLAN & PROFILE
CR202	CONSIDER TRAIL PLAN & PROFILE
CR203	SKIPPING WAY PLAN & PROFILE
CR204	PULLING RUN PLAN & PROFILE
CR205	KNEELING PATH PLAN & PROFILE
CR206	PRESSING PASS PLAN & PROFILE
CR207	LISTENING PASS PLAN & PROFILE
CR208	CUL-DE-SAC & KNUCKLE DETAILS

CR300	SIGNAGE & STRIPING PLANS
CR301	STREET DETAILS
CR302	STREET DETAILS
OVERALL GR	ADING
CG100	OVERALL GRADING
CG101	GRADING PLAN 1
CG102	GRADING PLAN 2
DRAINAGE SI	HEETS
CG200	EXISTING UNIT 2 DRAINAGE AREA MAP
CG300	PROPOSED FULL DEVELOPMENT DRAINAGE AREA MAP
CG302	DRAINAGE CALCULATIONS
CG400	PROPOSED UNIT 2 DRAINAGE AREA MAP
CG401	STORM DRAIN LINE A
CG402	STORM DRAIN LINE A
CG403	STORM DRAIN LIN A
CG404	STORM DRAIN LINE A1
CG405	SHEET REMOVED
CG406	STORM DRAIN LINE A3
CG407	STORM DRAIN LINE B
CG408	SHEET REMOVED
CG409	SHEET REMOVED
CG410	SHEET REMOVED
CG411	SHEET REMOVED
CG412	SHEET REMOVED
CG413	SHEET REMOVED
CG414	SHEET REMOVED
CG415	STORM DRAIN LINE D
CG416	STORM DRAIN LINE D
CG417	STORM DRAIN LINE D1
CG418	I-35 BYPASS CHANNEL
CG419	I-35 BYPASS CHANNEL

SIGNAGE & STRIPING PLANS

CG420	I-35 BYPASS CHANNEL
CG500	UNIT 2 - SOUTHERLY DETENTION POND
WASTEWATER	SHEETS
CU000	SAWS SANITARY SEWER COVER SHEET
CU100	OVERALL UTILITY LAYOUT
CU200	WASTEWATER LINE A
CU201	WASTEWATER LINE B
CU202	WASTEWATER LINE B
CU203	WASTEWATER LINE C
CU204	WASTEWATER LINE D
CU205	EXISTING WASTEWATER LINE A - REMEMBER WA
CU206	WASTEWATER LINE E
WATER SHEET	S
CU400	SAWS WATER COVER SHEET
CU401	WATER SYSTEM (1)
CU402	WATER SYSTEM (2)
DETAILS	
C600	CONSTRUCTION DETAILS 1
C601	CONSTRUCTION DETAILS 2
C602	CONSTRUCTION DETAILS 3
C603	CONSTRUCTION DETAILS 4

#### UTILITY PROVIDERS:

**CPS ENERGY** 145 NAVARRO SAN ANTONIO, TX 78205

(210) 353-2376

1900 BLUE CREST LANE SAN ANTONIO, TX 78247

(210) 244-0500

SAN ANTONIO, TX 78205

SAN ANTONIO WATER SYSTEM 2800 U.S HWY 281 NORTH SAN ANTONIO, TX 78212 (210) 233-2010

#### LAND USE SUMMARY:

ZONING: PROPOSED SITE USE:

SINGLE FAMILY RESIDENTIAL **33.6 ACRES** 

#### NOTES:

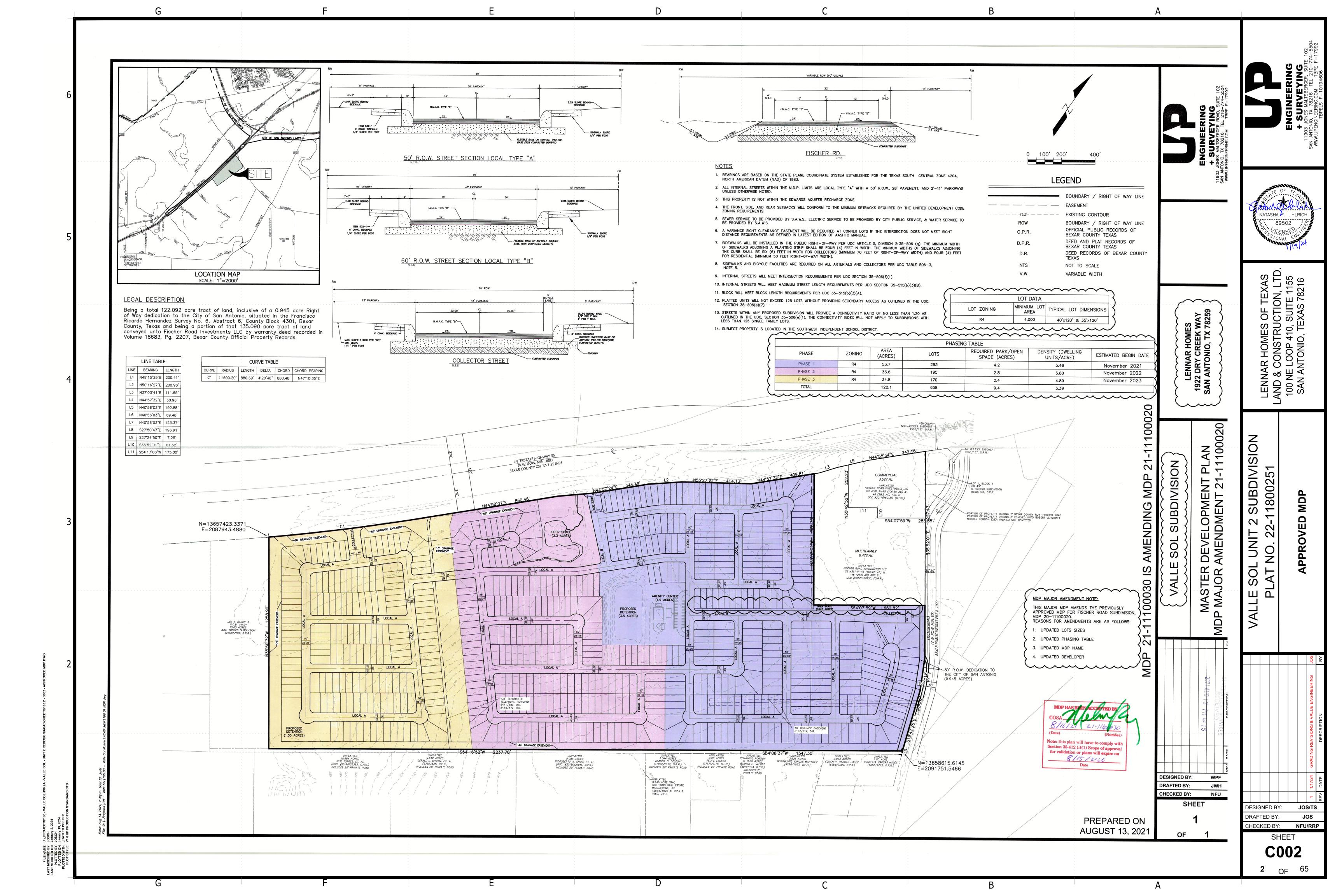
- RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/ HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
- BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS AND SPECIFICATIONS AND
- AND MAY NOT MATCH LOCATIONS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT THE "ONE CALL" SYSTEM @ 811, OR THE OWNER OF EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF UTILITY CROSSING PRIOR TO BEGINNING CONSTRUCTION
- CONTRACTOR SHALL RESTORE ALL SIGNS AND PAVEMENT MARKINGS TO EXISTING CONDITIONS FOLLOWING THE COMPLETION OF EACH PHASE OF CONSTRUCTION. CONTRACTORS SHALL REFER TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) FOR SIGN AND MARKING DIMENSIONS AND COLORS.

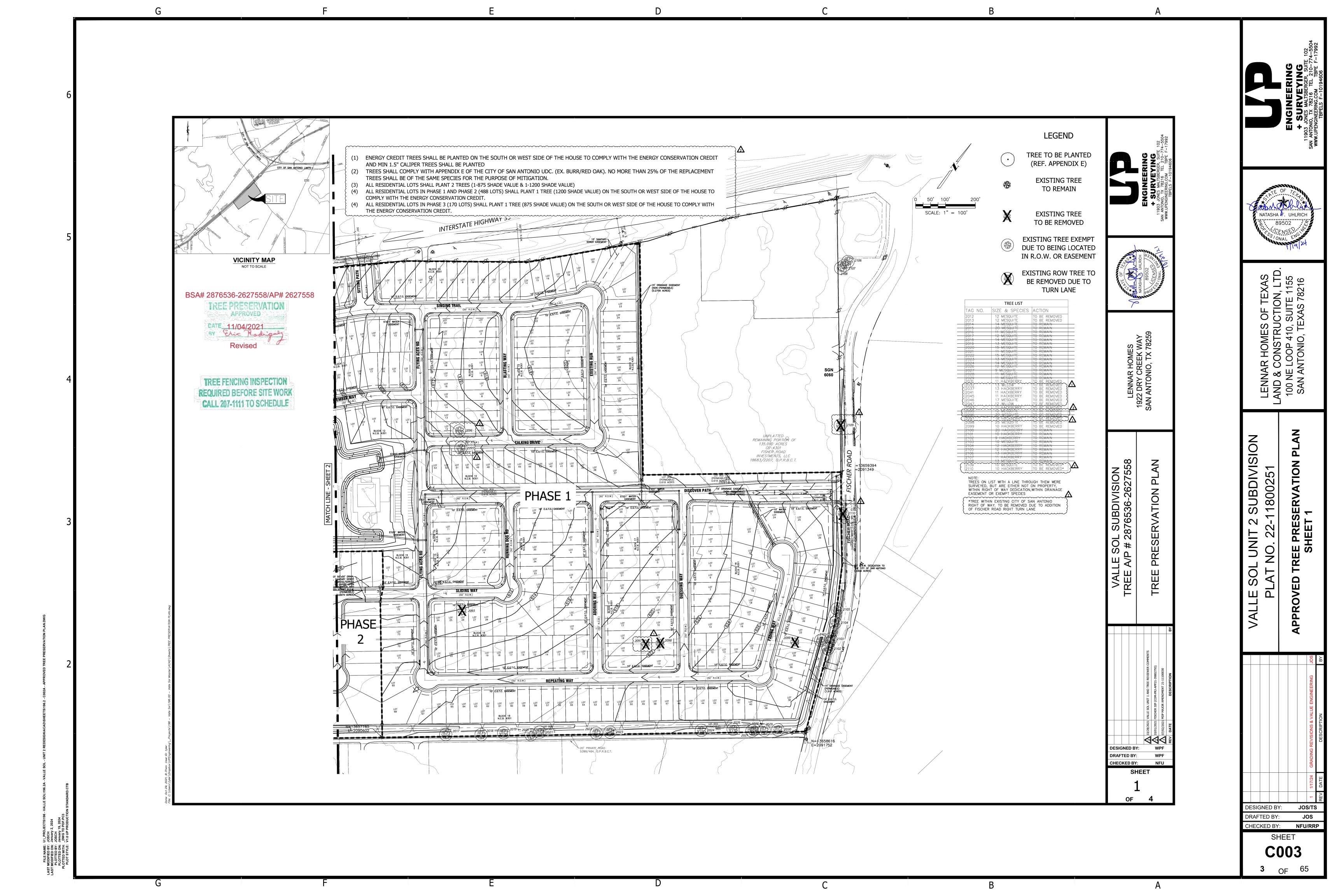
SION · 2 SUBDIVI 2-11800251 VALLE SOL UNIT 2 PLAT NO. 22

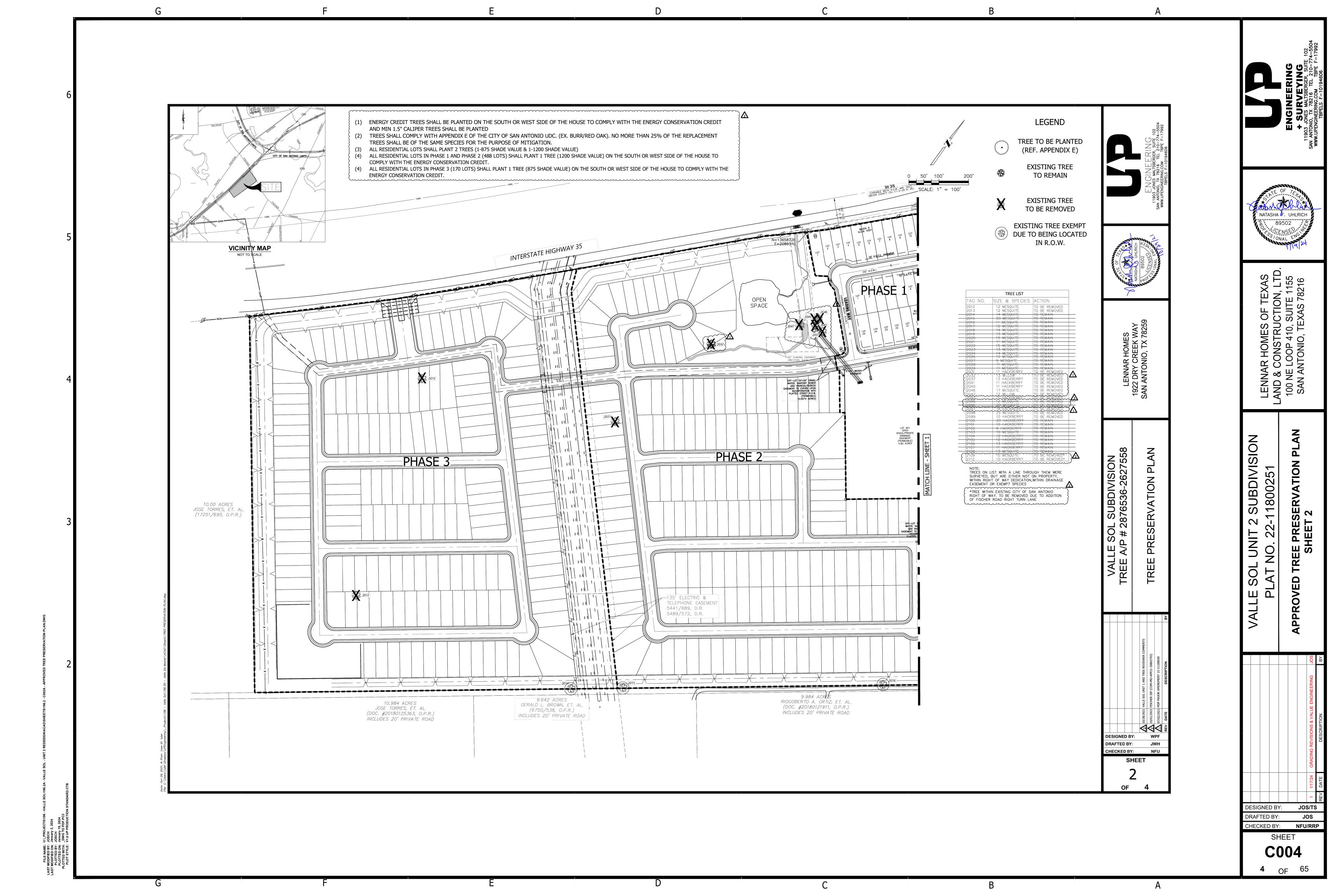
NFU/RRF

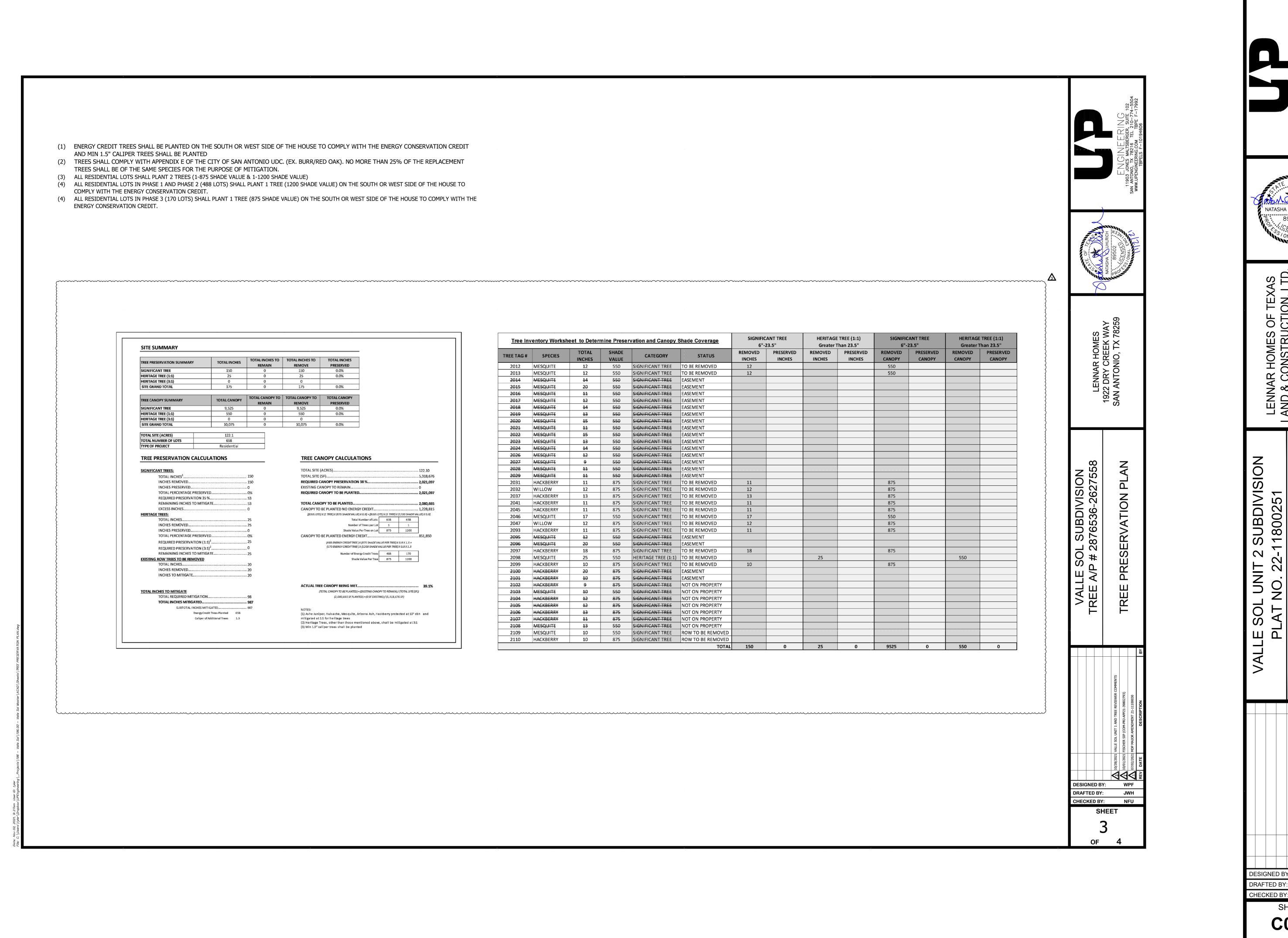
SHEET

C001









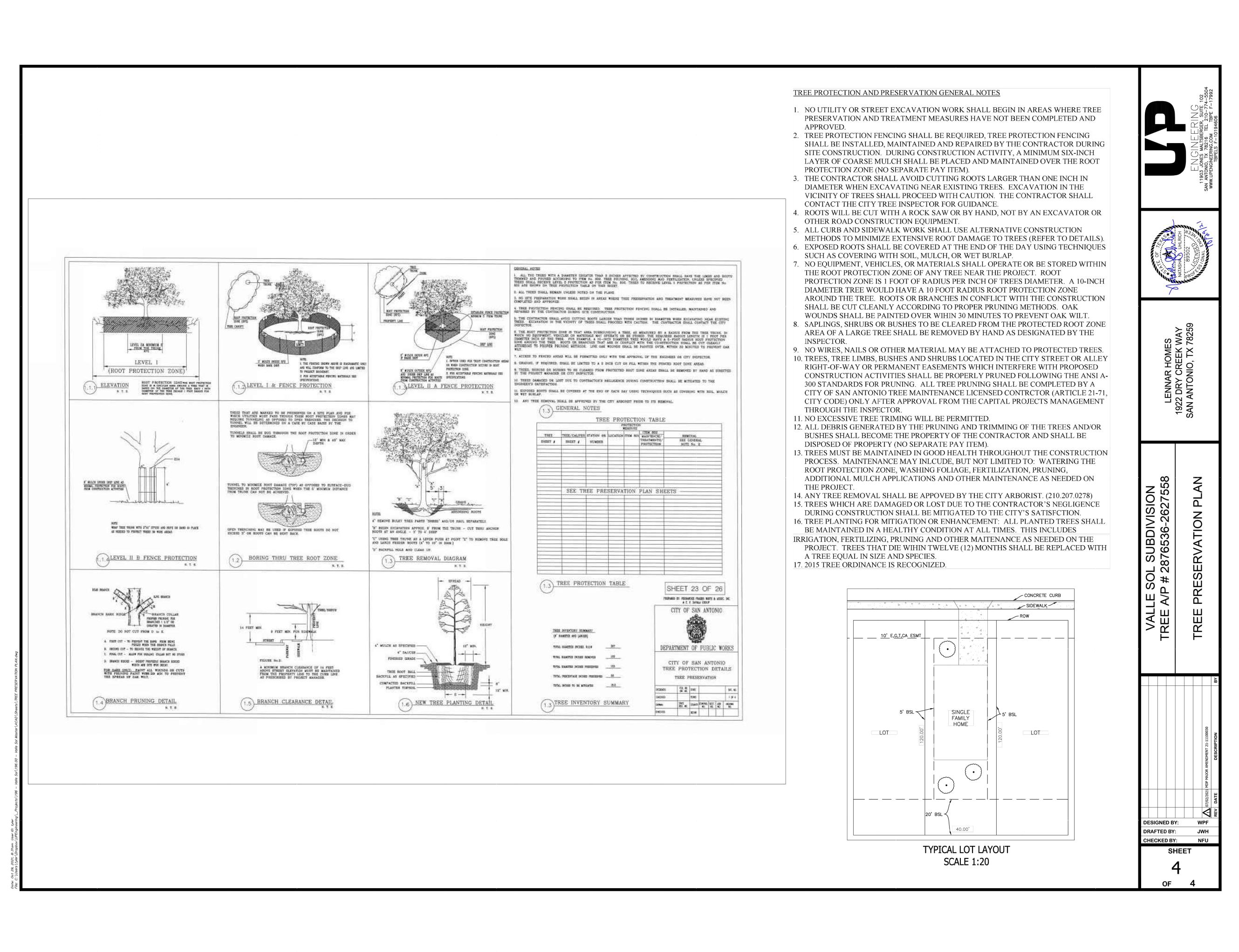


Z E PRESERVATION HEET 3 **APPROVI** 

**DESIGNED BY:** DRAFTED BY:

JOS CHECKED BY: NFU/RRP SHEET

JOS/TS



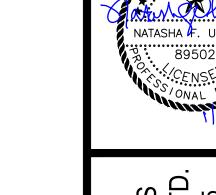
INGINEERING

SURVEYING

JONES MALTSBERGER, SUITE 10

NIO, TX 78216 TEL 210-774ENGINEERING.COM TBPE F-17

WWW.UPENGINEERING.COM TBPE
TBPELS F-10194606
TBPELS F-10194606



R HOMES OF TEXAS CONSTRUCTION, LTD

LENNAR HOMES (
LAND & CONSTRUC
100 NE LOOP 410, S
SAN ANTONIO, TE)

SUBDIVISION
11800251
LAND
SERVATION PLAN
SAI

AT NO. 22-11800251

D TREE PRESERVATION PI
SHEET 4

APPROVED TREE PR

DESIGNED BY:

DESCRIPTION

SOC.

SOC.

SOC.

SOC.

DESIGNEERING

SOC.

S

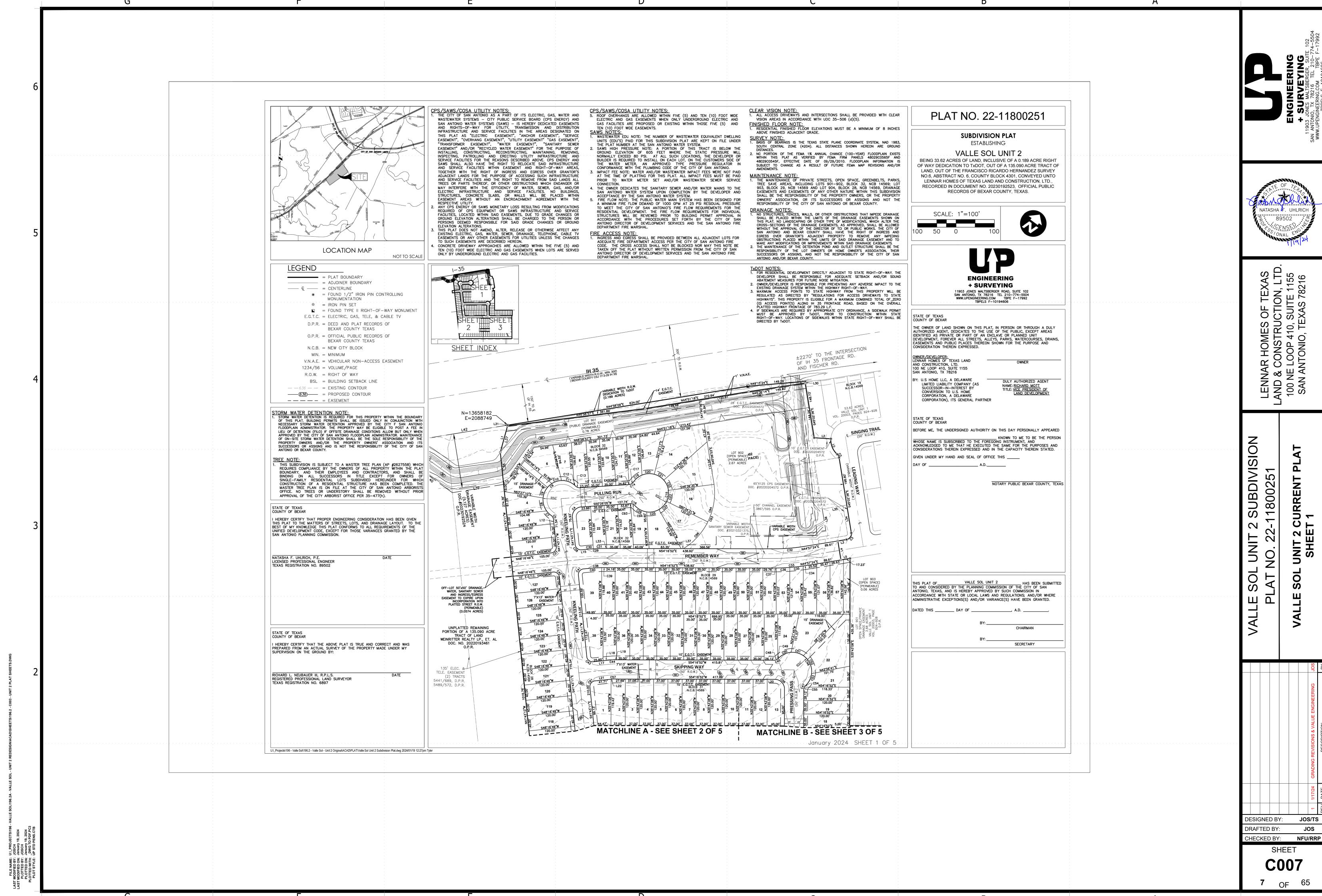
SHEET

C006

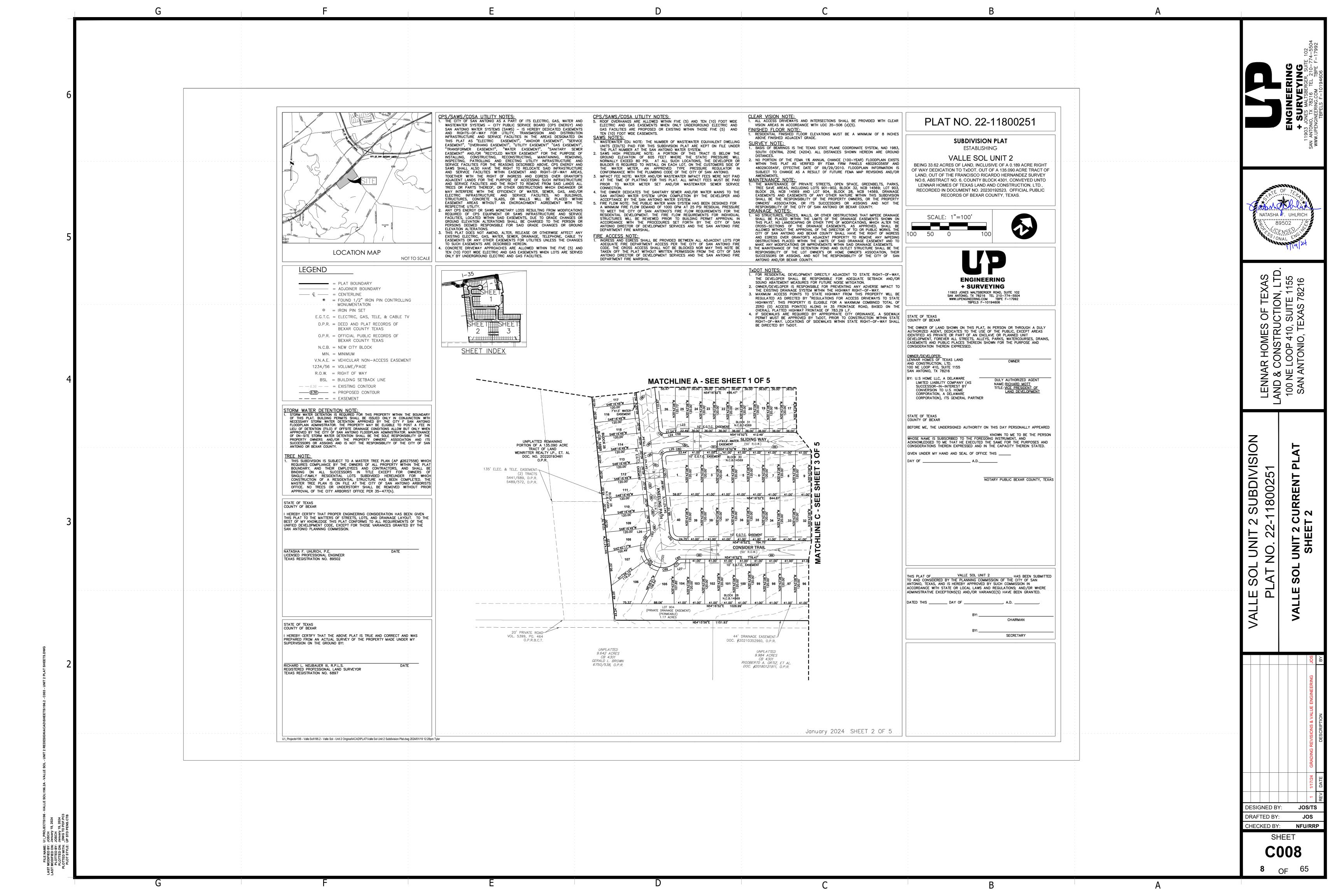
1

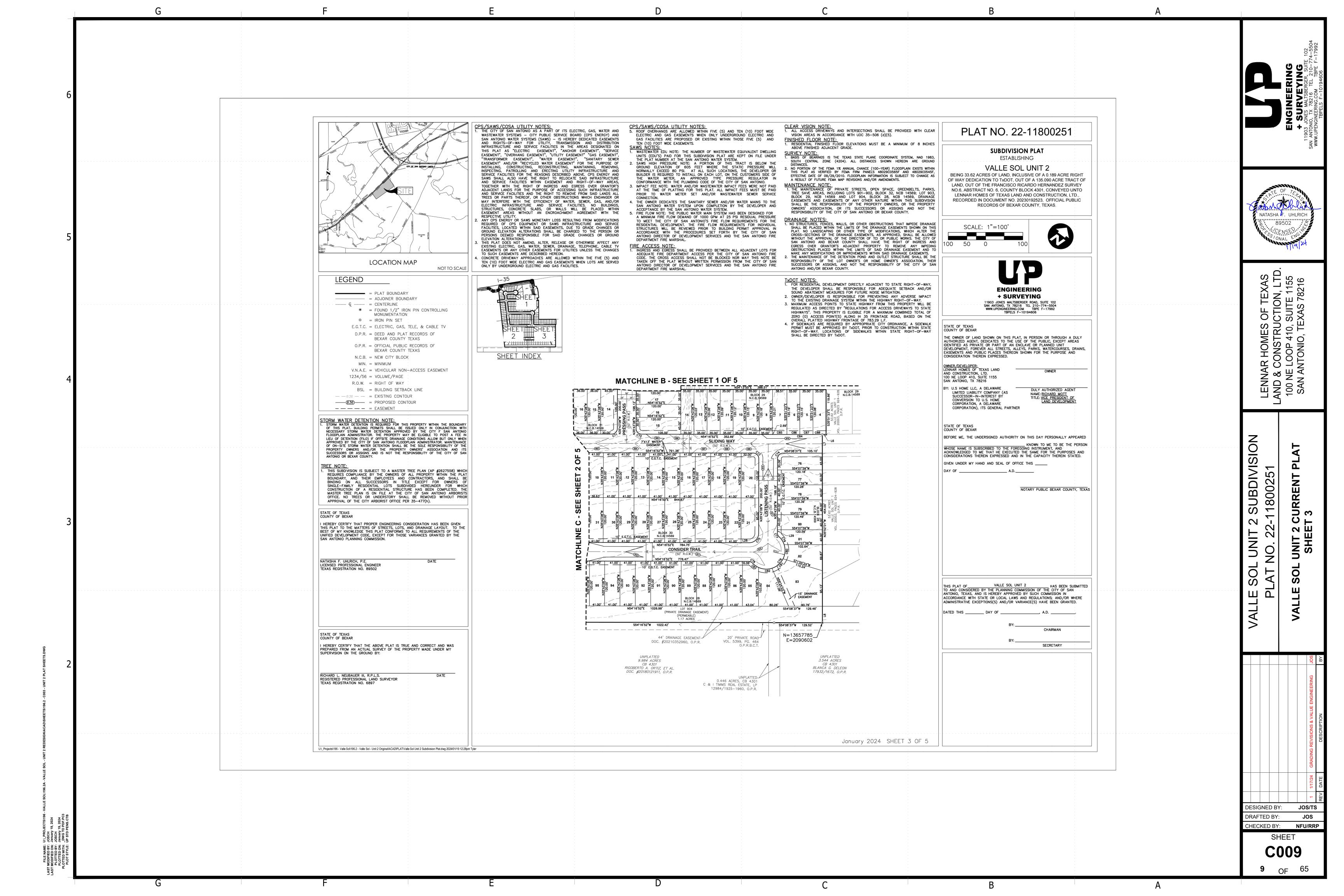
R

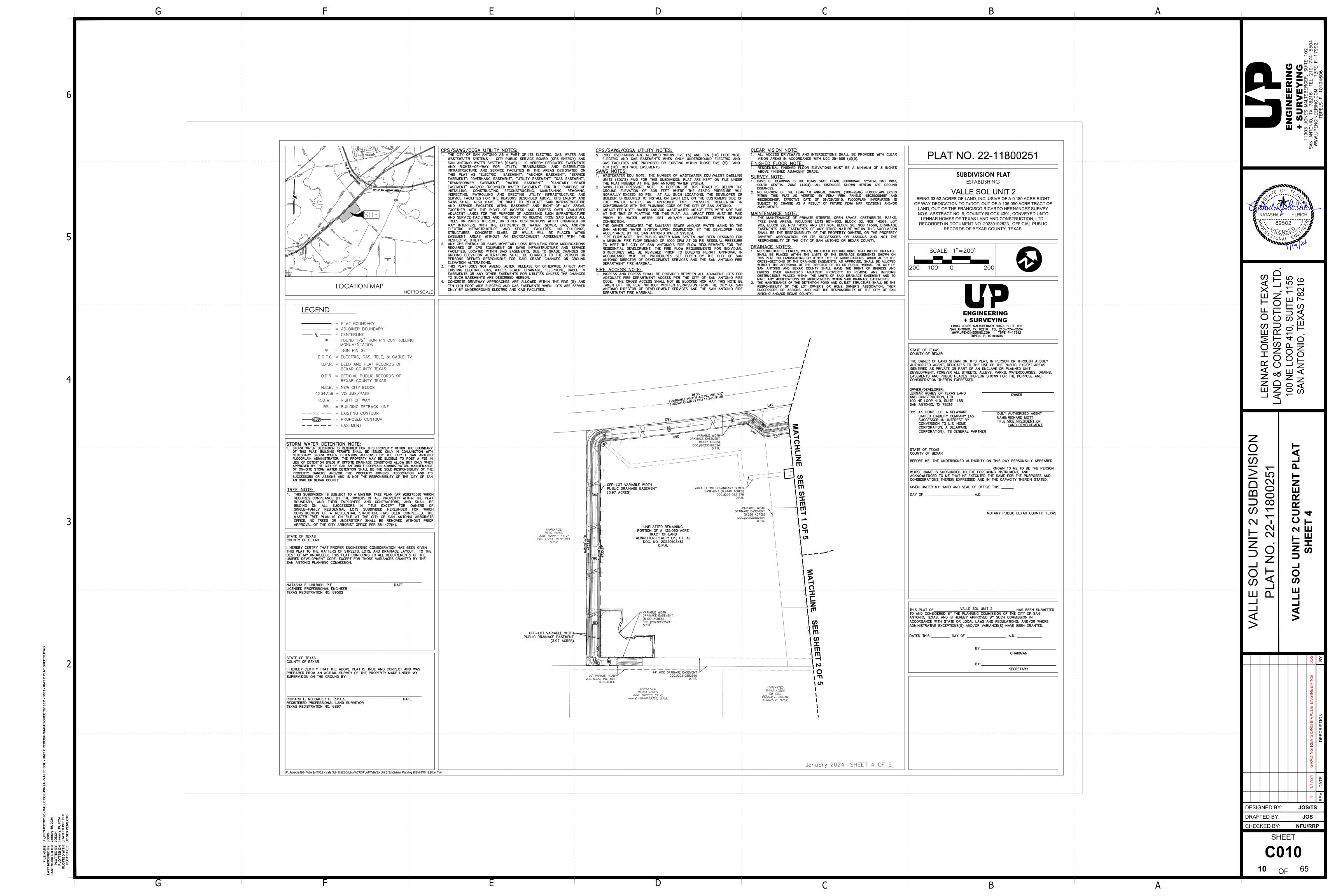
Α

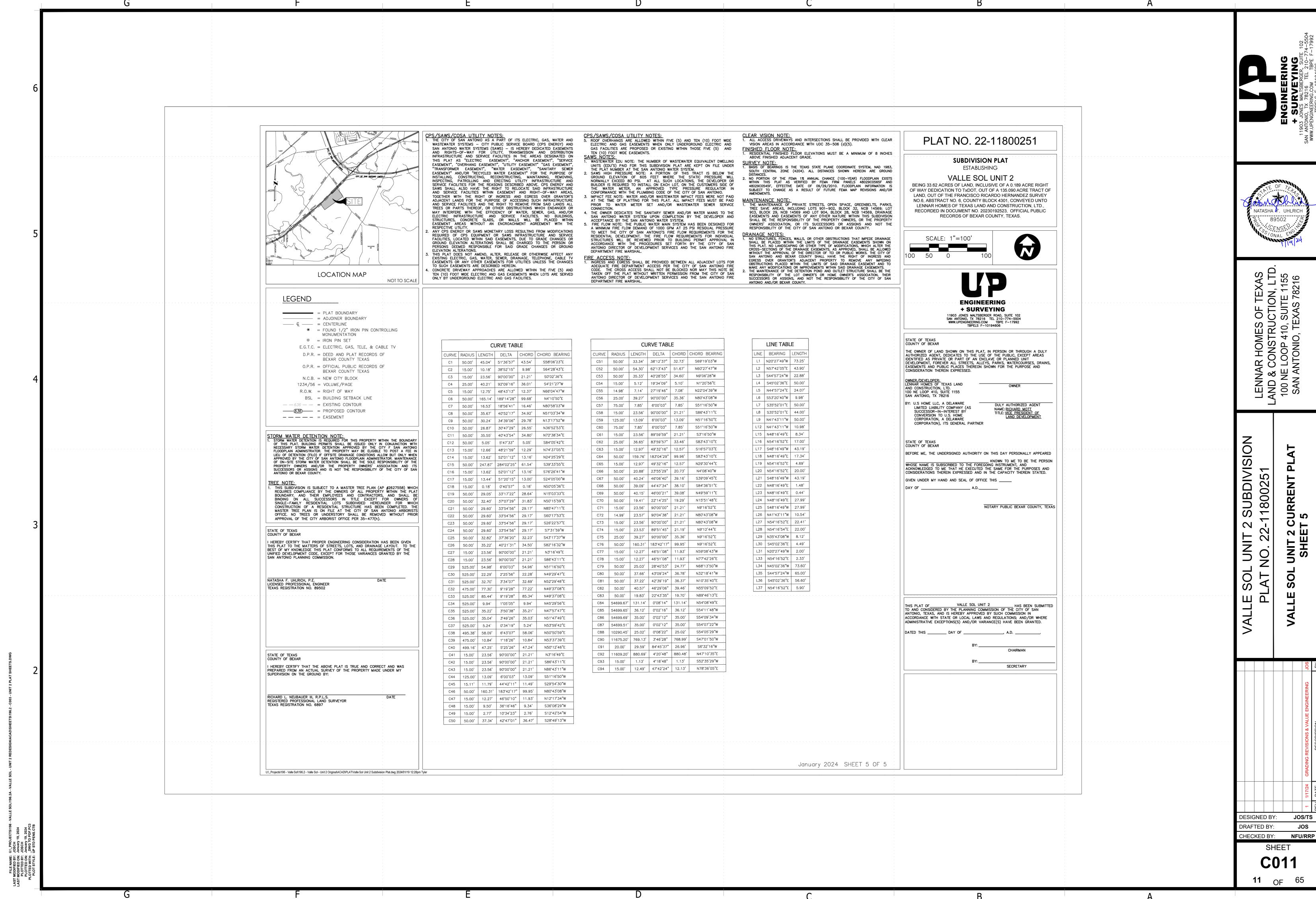






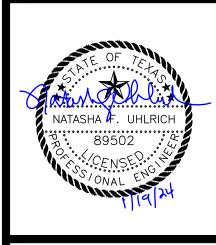






- 1. WHERE A SEWER MAIN CROSSES OVER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN 9 FEET, ALL PORTIONS OF THE SEWER MAIN WITHIN NINE FEET OF THE WATER LINE SHALL BE CONSTRUCTED USING 150 PSI PRESSURE RATED DUCTILE IRON, CAST IRON OR PVC PIPE AND JOINED WITH EQUALLY PRESSURE RATED PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE AT LEAST EIGHTEEN (18) FEET IN LENGTH MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION
- 2. WHERE A SEMI-RIGID OR RIGID SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET BUT GREATER THAN TWO FEET, THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF THE SEWER WITHIN NINE FEET OF THE WATER MAIN.
- 3. WHERE A SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN TWO FEET, THE SEWER MAIN SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI WITHIN NINE FEET OF THE WATER MAIN, SHALL HAVE A SEGMENT OF SEWER PIPE CENTERED ON THE WATER MAIN, SHALL BE PLACED NO CLOSER THAN SIX INCHES BETWEEN OUTER DIAMETERS, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE OF A LENGTH GREATER THAN EIGHTEEN (18) FEET MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE
- 4. WHERE A SEWER MAIN PARALLELS A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET, THE SEWER MAIN SHALL BE BELOW THE WATER MAIN. SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI FOR BOTH PIPE AND JOINTS FOR A DISTANCE OF NINE FEET BEYOND THE POINT OF CONFLICT, SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE BETWEEN OUTER DIAMETERS OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF
- 5. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED ANY CLOSER THAN NINE FEET TO WATER MAINS.

- 1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF SAN ANTONIO STANDARDS AND SPECIFICATIONS.
- 2. ALL FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD
- 3. CURB RAMPS ARE TO BE CONSTRUCTED ON ALL PERMANENT CURB RETURNS AT THE INTERSECTION OF ALL STREETS OR AS
- 4. ALL CONSTRUCTION BARRICADING TO BE IN ACCORDANCE WITH CURRENT "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- 5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG TEST" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN PER THE APPROPRIATE REMEDIAL ACTION AGREED UPON BY THE ENGINEER.
- 6. DISPOSAL OF ALL DEMOLISHED MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE OFF-SITE IN ACCORDANCE
- 7. WHERE A STATE OR LOCAL MUNICIPAL STANDARD DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL,
- 8. ALL ITEMS NOT SPECIFICALLY CALLED OUT TO BE REMOVED SHALL REMAIN. ANY ITEM TO REMAIN WHICH IS REMOVED SHALL BE
- 9. CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY DEMOLITION PERMITS FOR THE PROJECT AND COORDINATION
- 10. CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER REGARDING QUESTIONS ON THE DEMOLITION PLAN.
- 11. DEMOLITION CONTRACTOR SHALL CLEARLY MARK ALL EXISTING UTILITY SERVICES WHERE THEY CROSS PROPERTY LINES. THIS INFORMATION WILL BE USED BY UTILITY COMPANIES AND CONTRACTORS TO TIE INTO FOR THE PROPOSED UTILITY SERVICES.
- 12. CONTRACTOR SHALL VERIFY WHICH TREES ARE TO BE SAVED & PROTECTED PRIOR TO COMMENCING CONSTRUCTION, DURABLE FENCE PROTECTION BARRIERS SHALL BE INSTALLED AROUND ALL TREES TO BE SAVED WITH FENCE PLACEMENT A MINIMUM OF 10
- 13. CONTRACTOR SHALL NOT DISTURB AREAS AROUND EXISTING TREES TO BE SAVED. (IF APPLICABLE)
- 14. CONTRACTOR SHALL COMPENSATE OWNER FOR DAMAGE OF TREES THAT WERE TO REMAIN. (IF APPLICABLE)

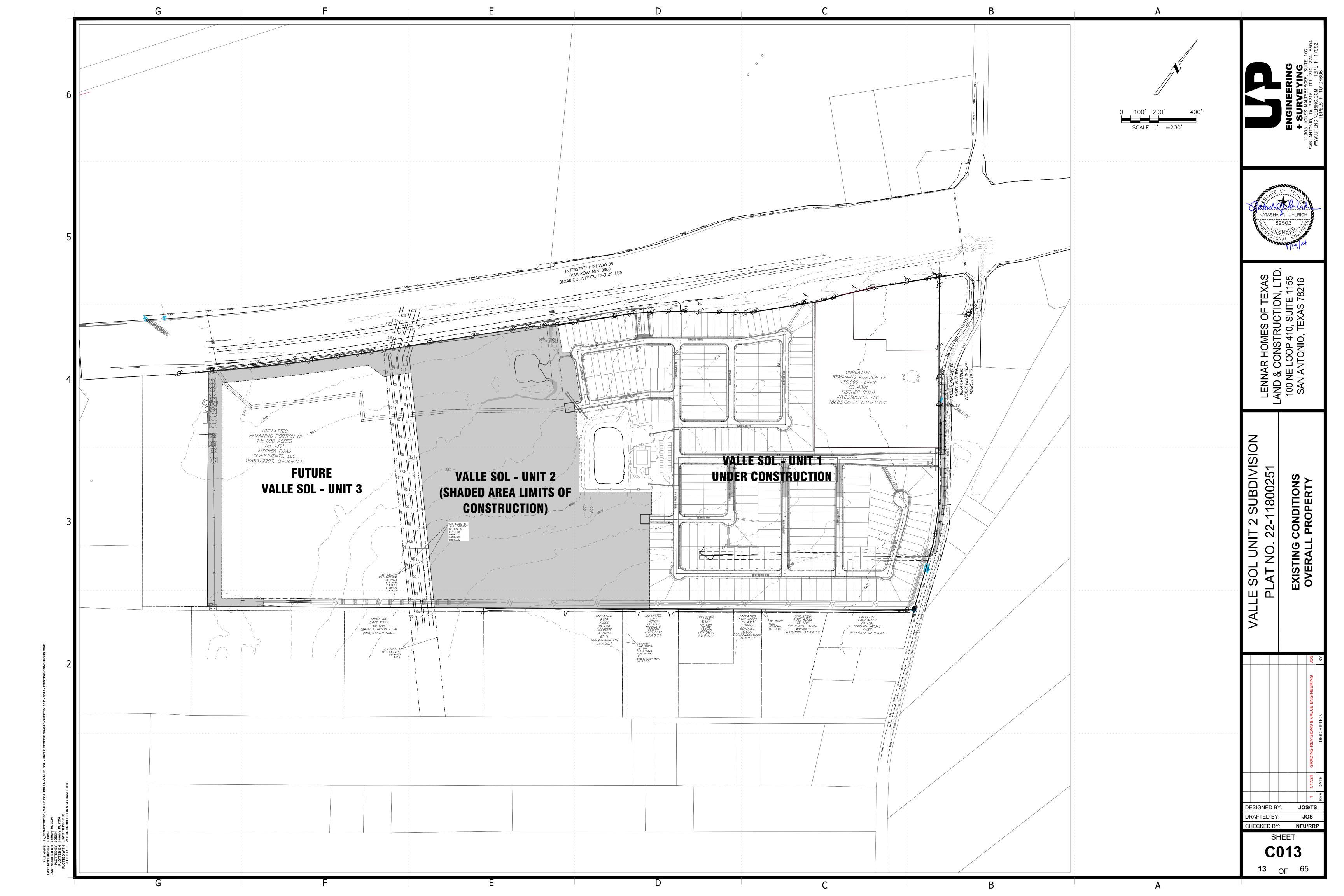


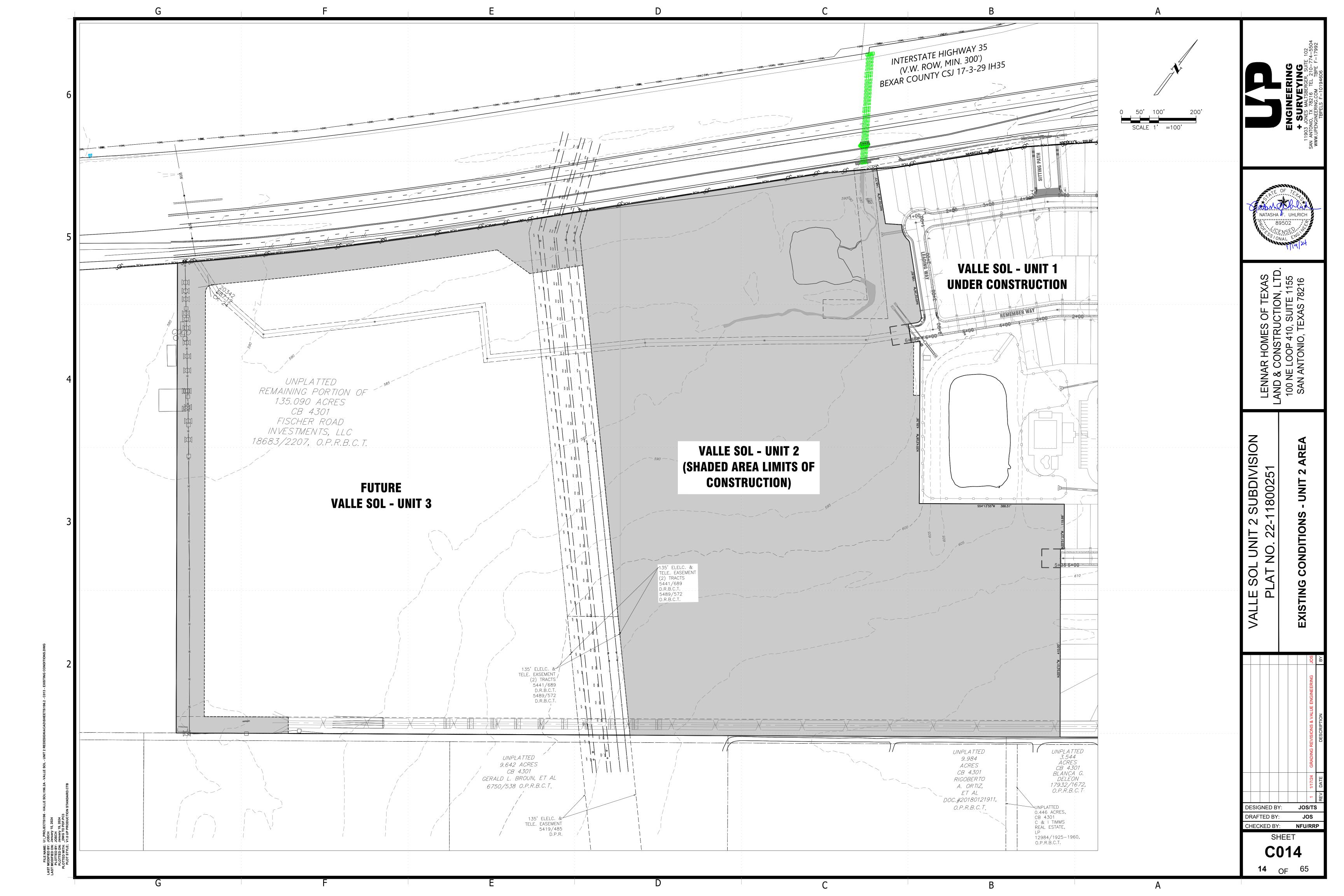
 $\circ$ ÓΕ ∞ర Z O O E

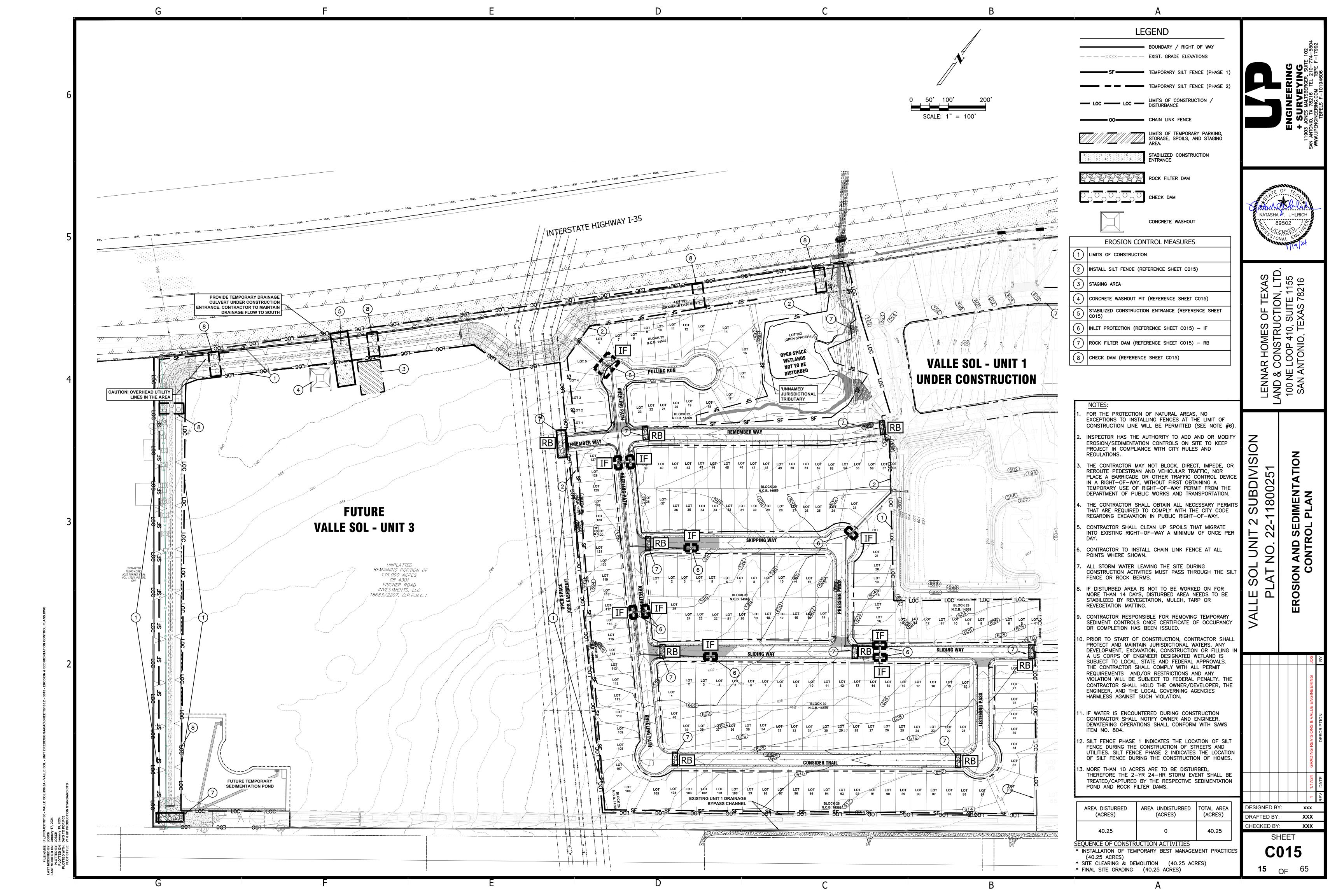
UBDIV

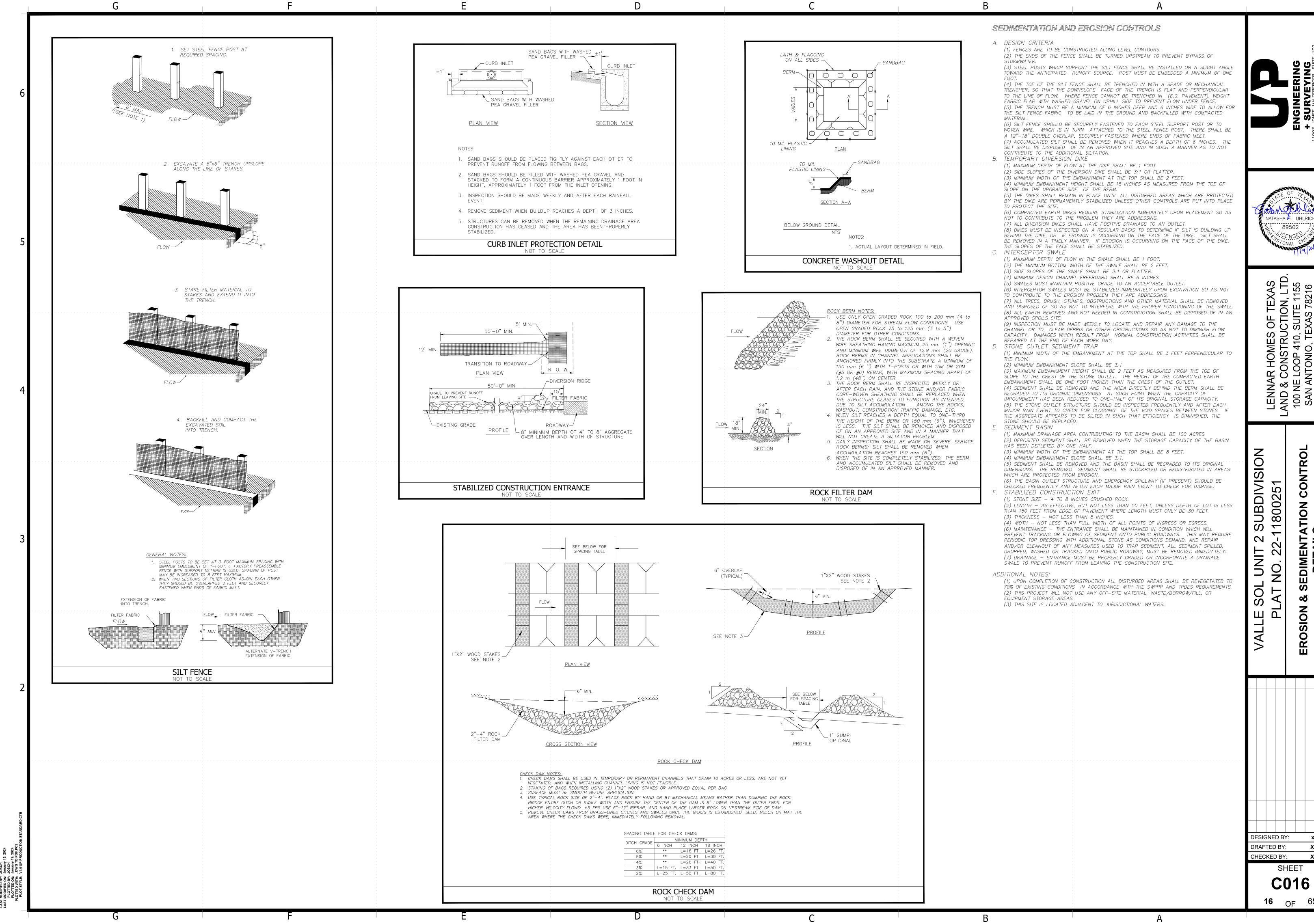
DESIGNED BY: JOS/TS

DRAFTED BY CHECKED BY: NFU/RRF SHEET







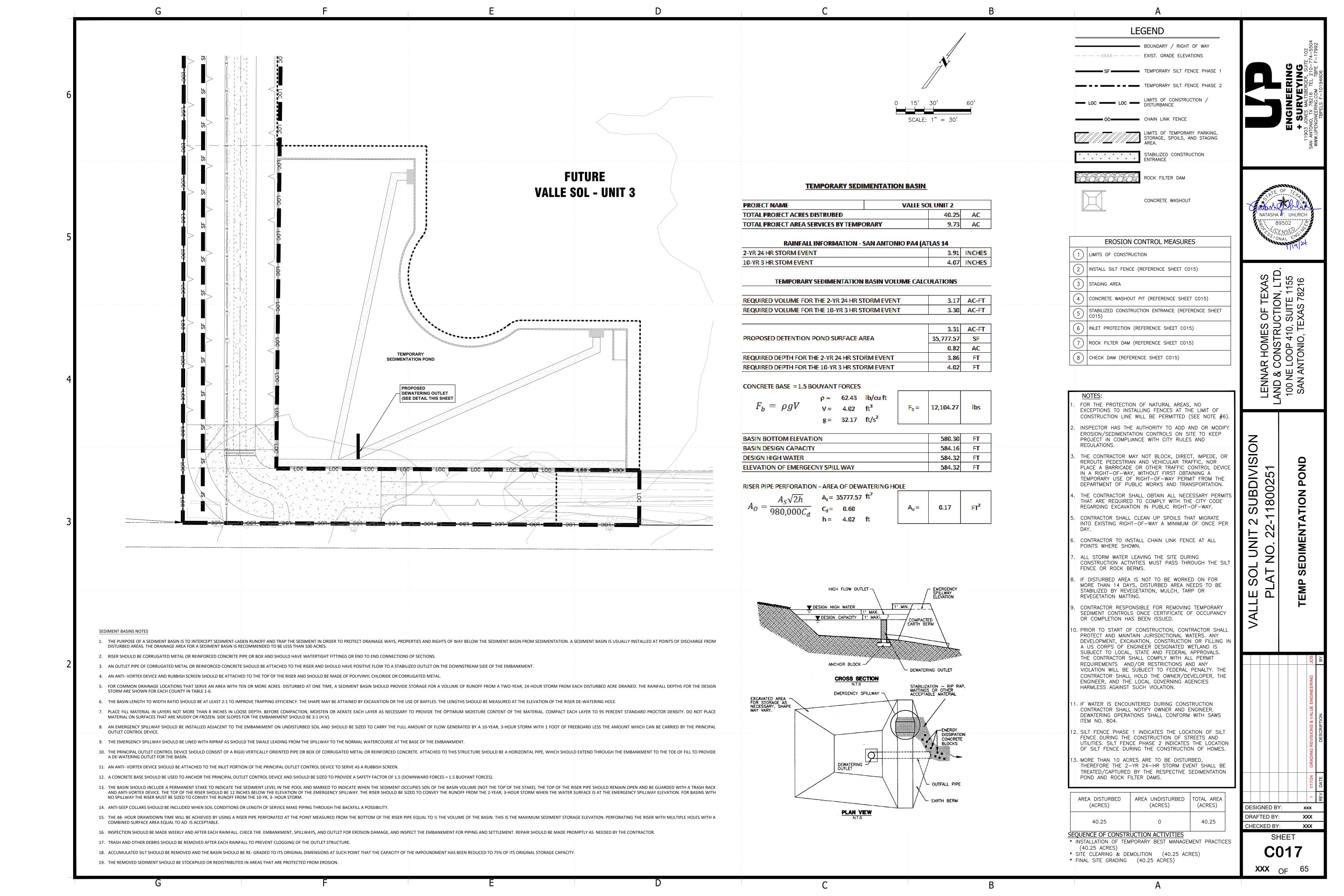


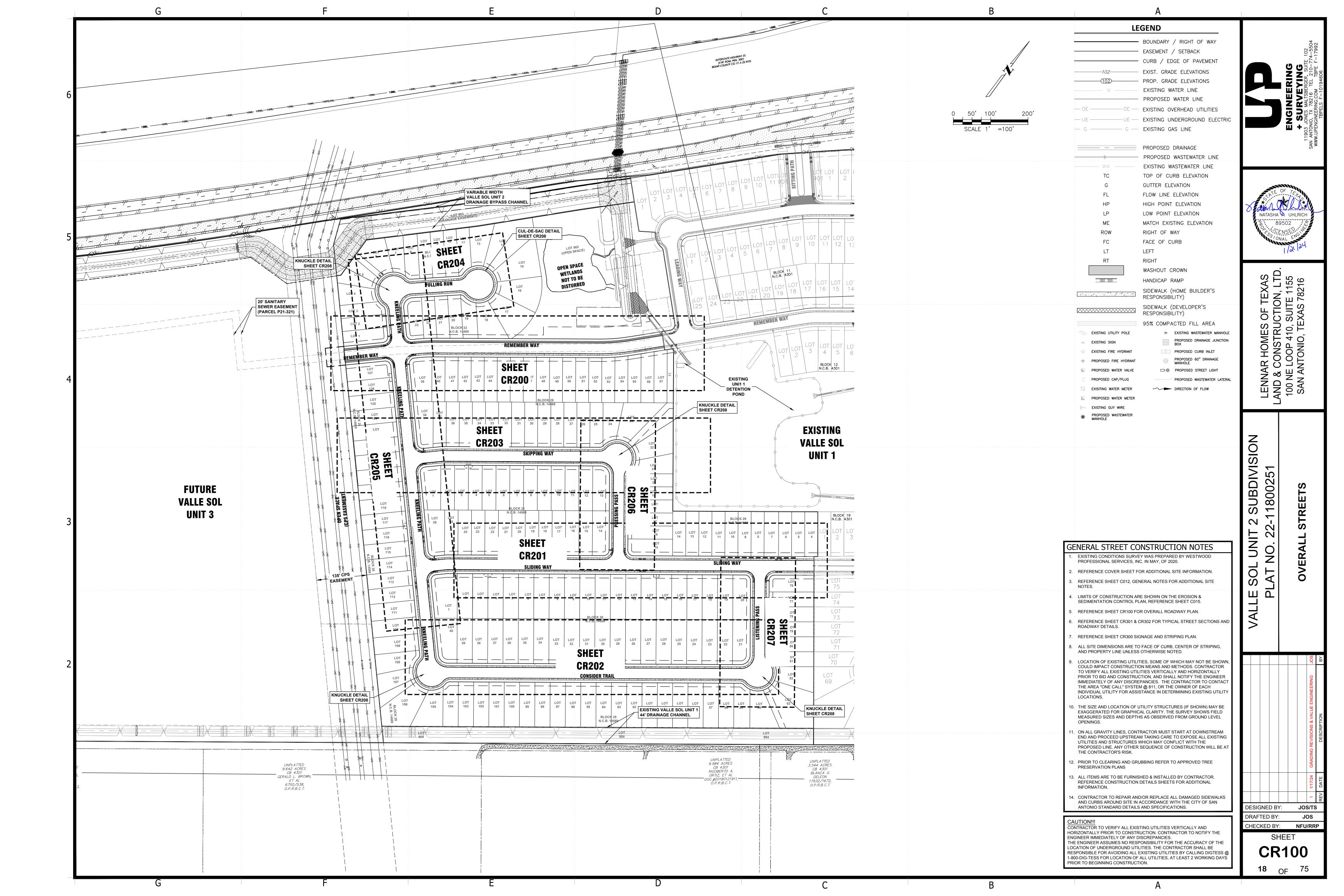


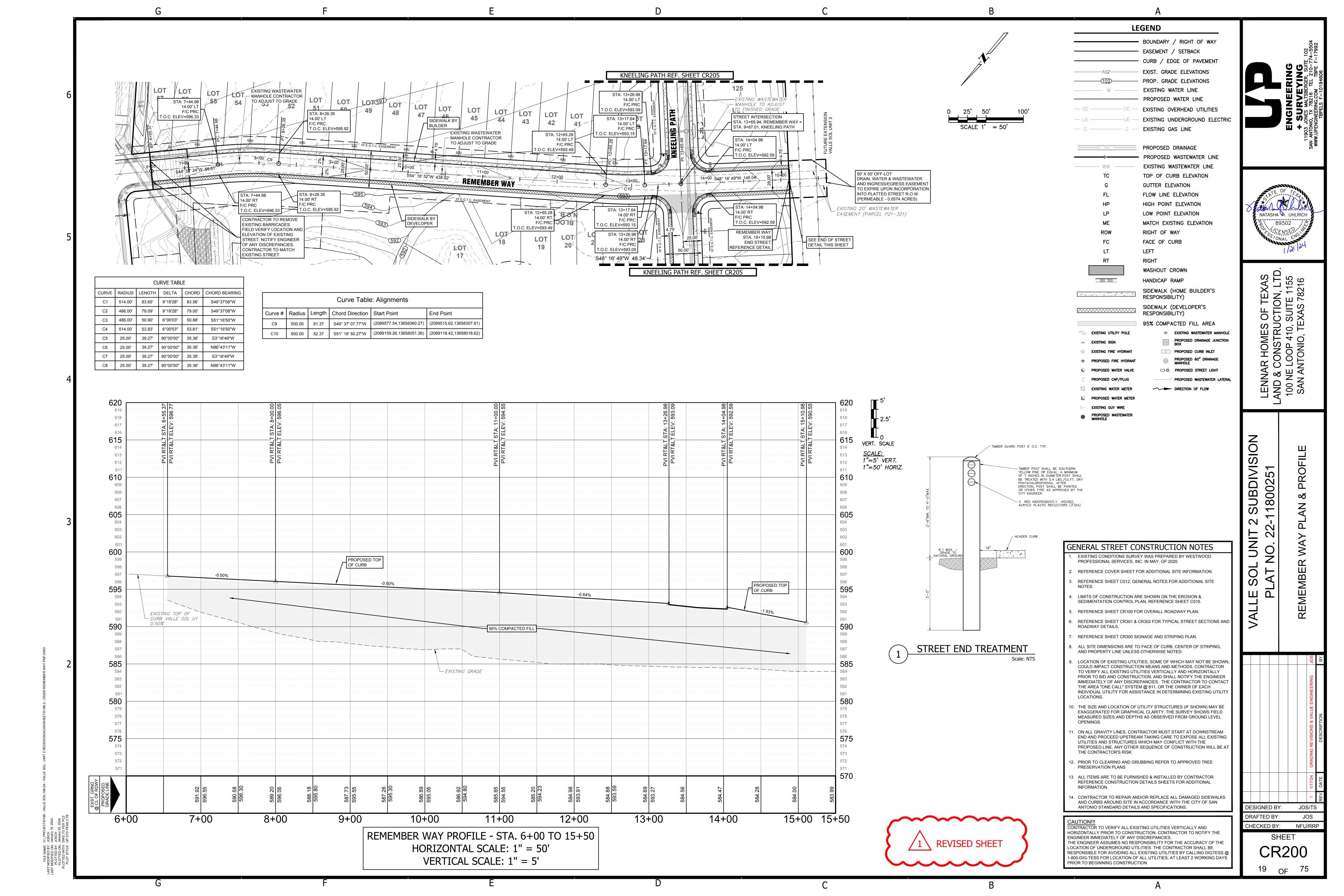
RO TION ENTA-EDIMI DET S

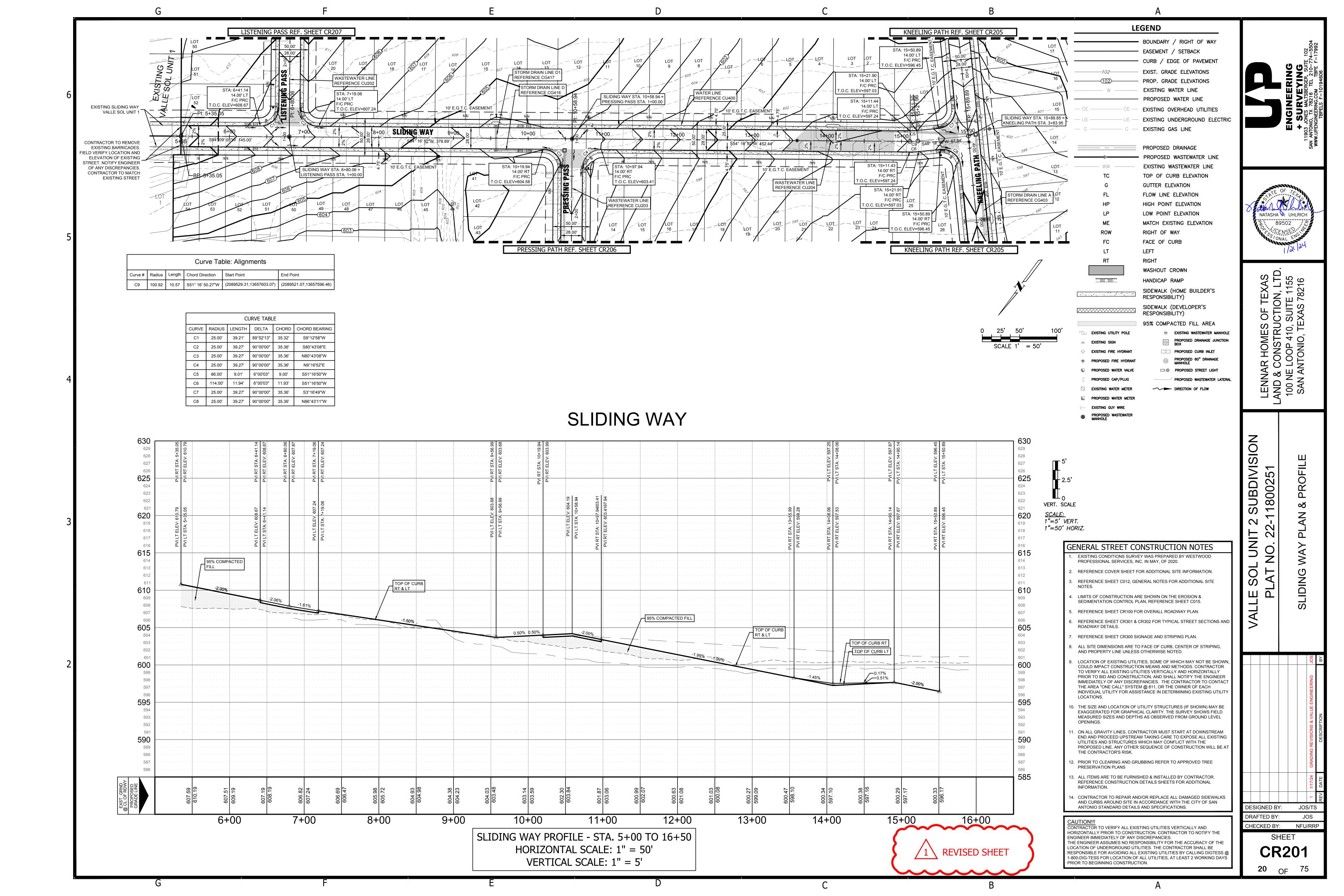
SION 0

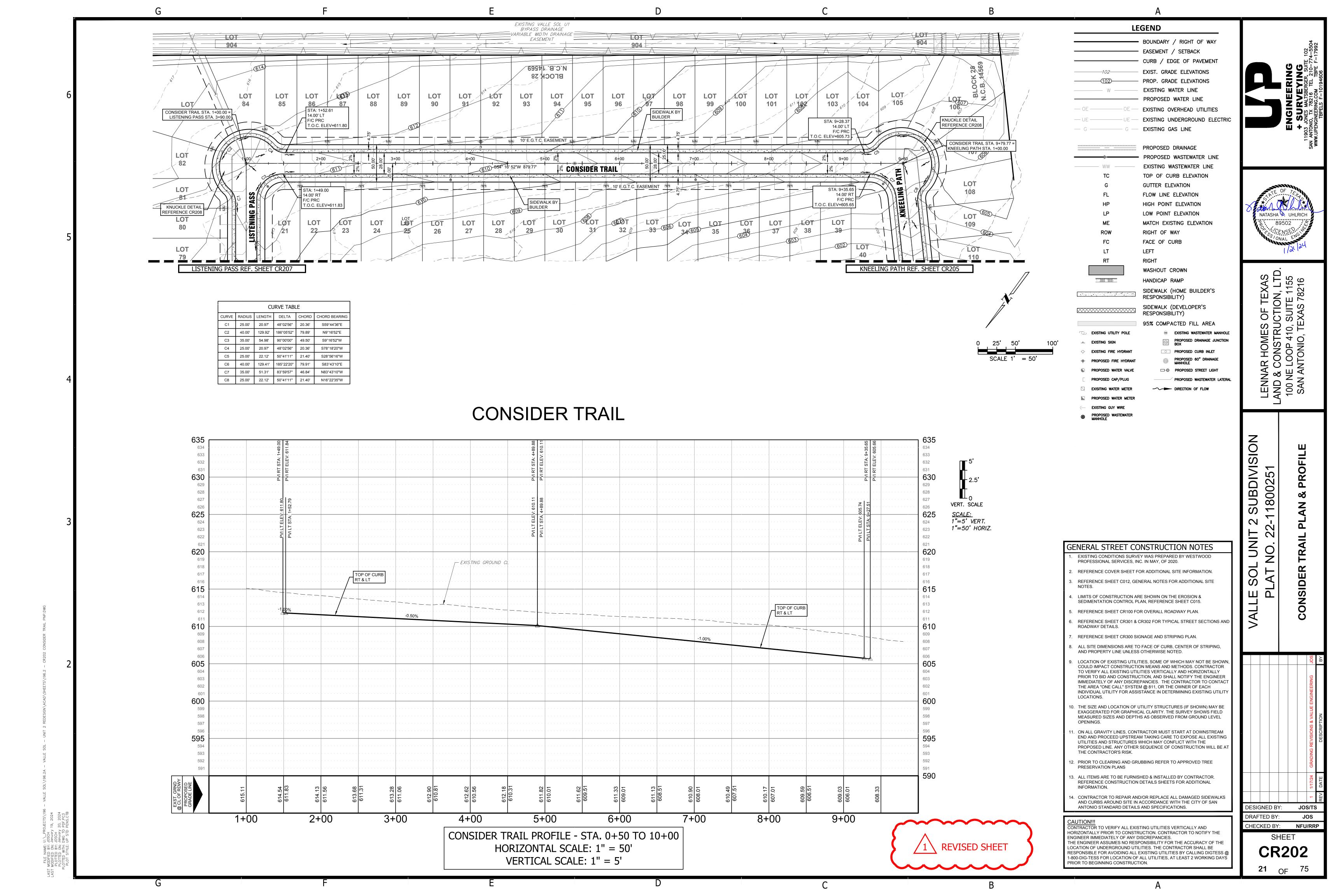
XXX SHEET

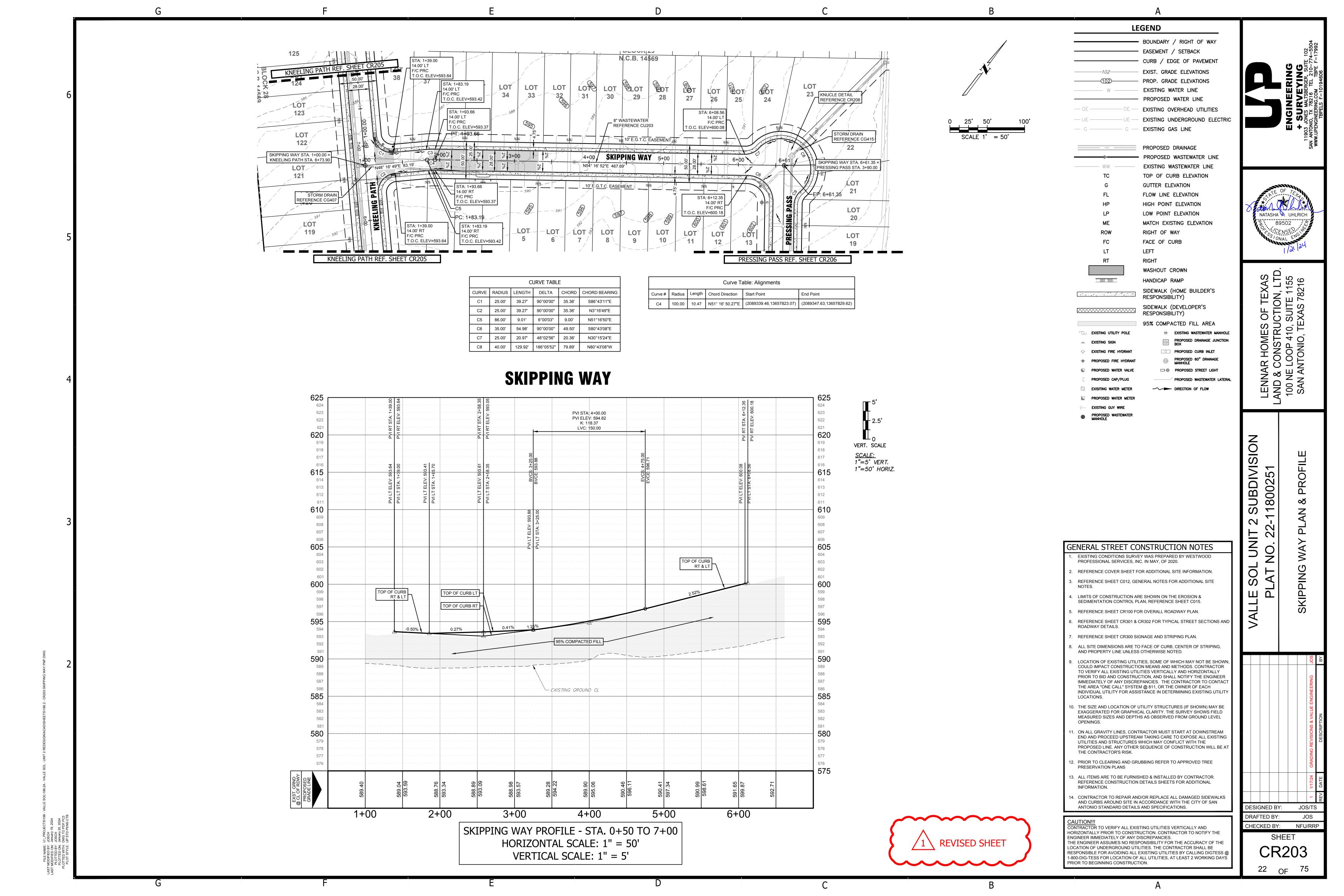


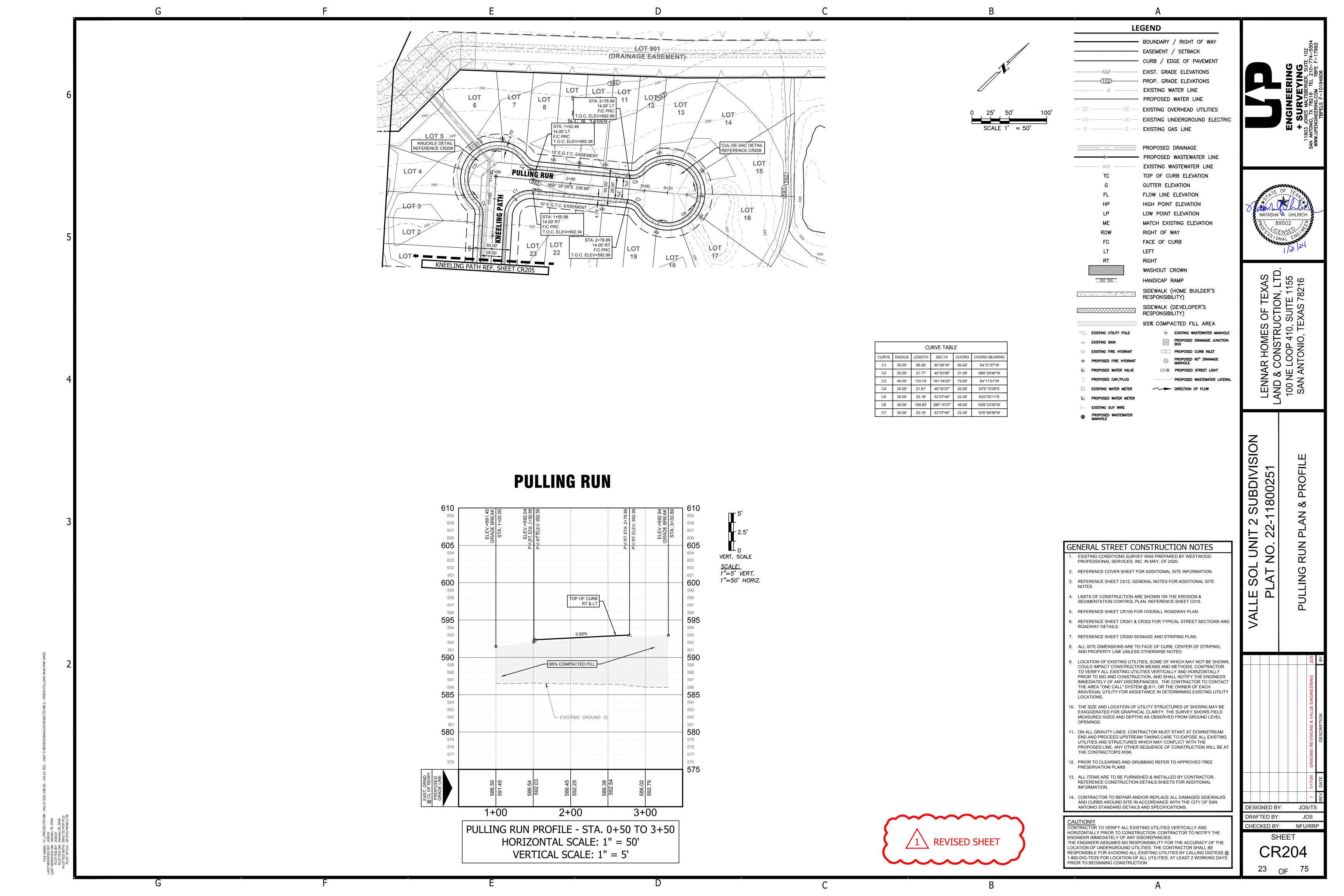


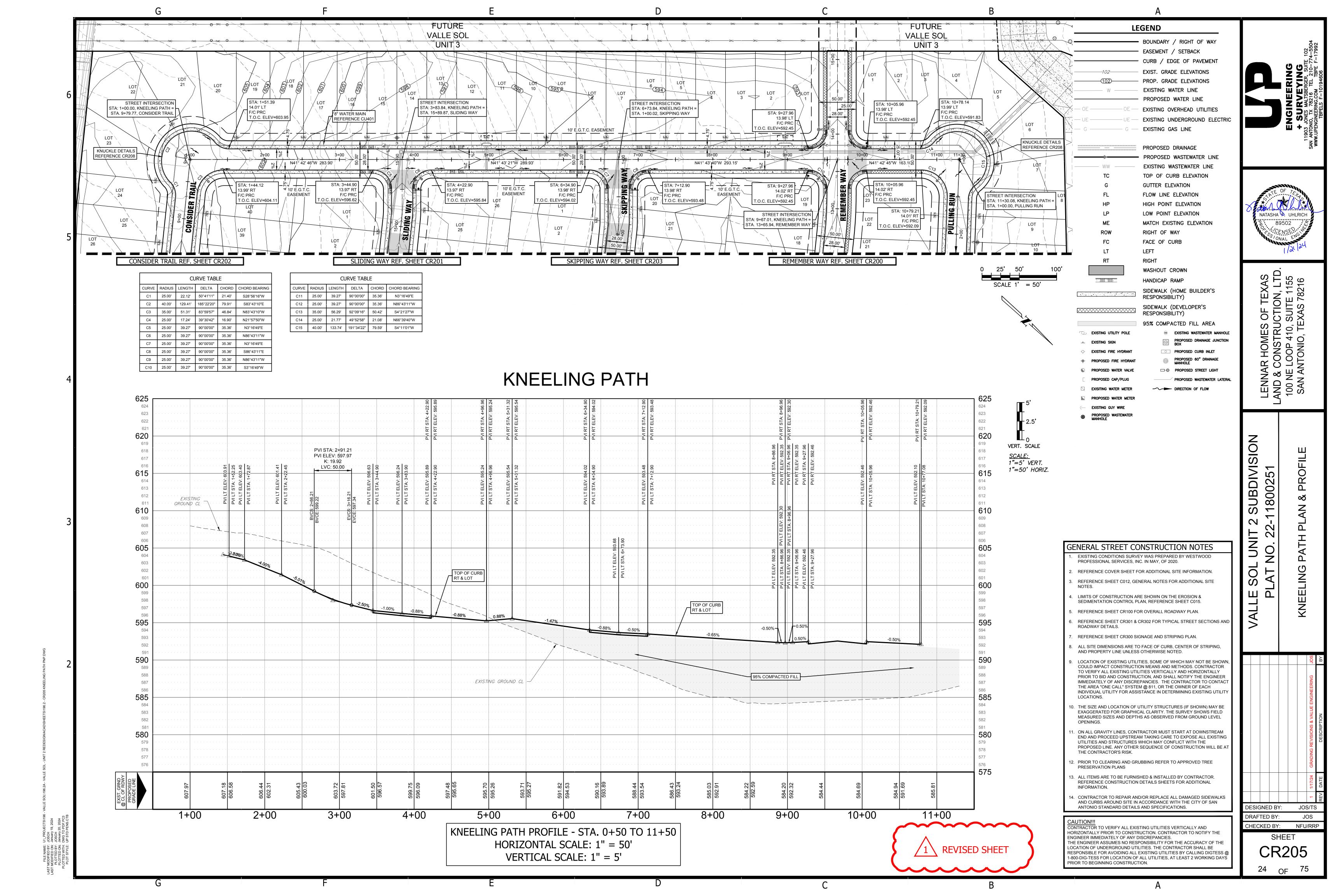


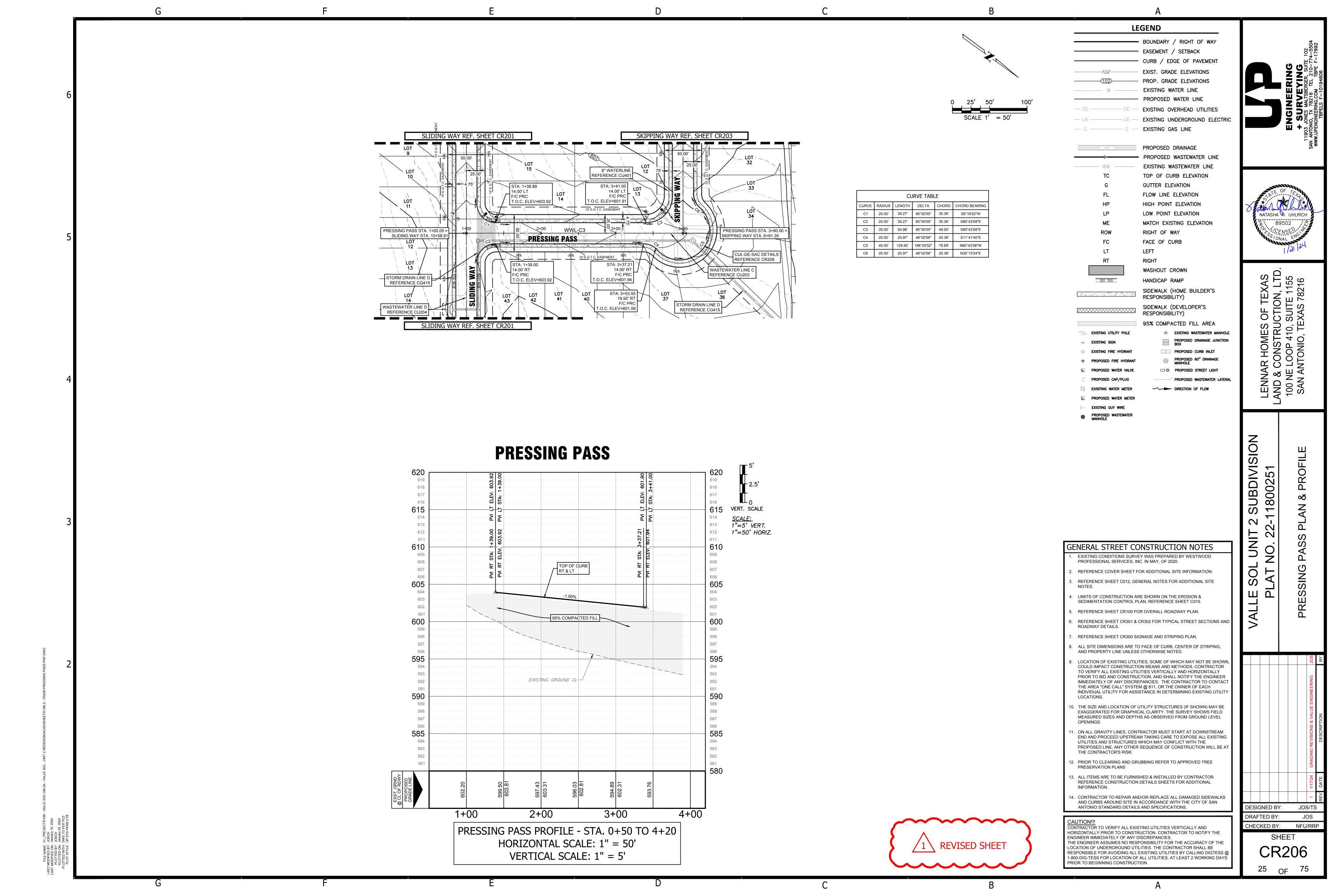


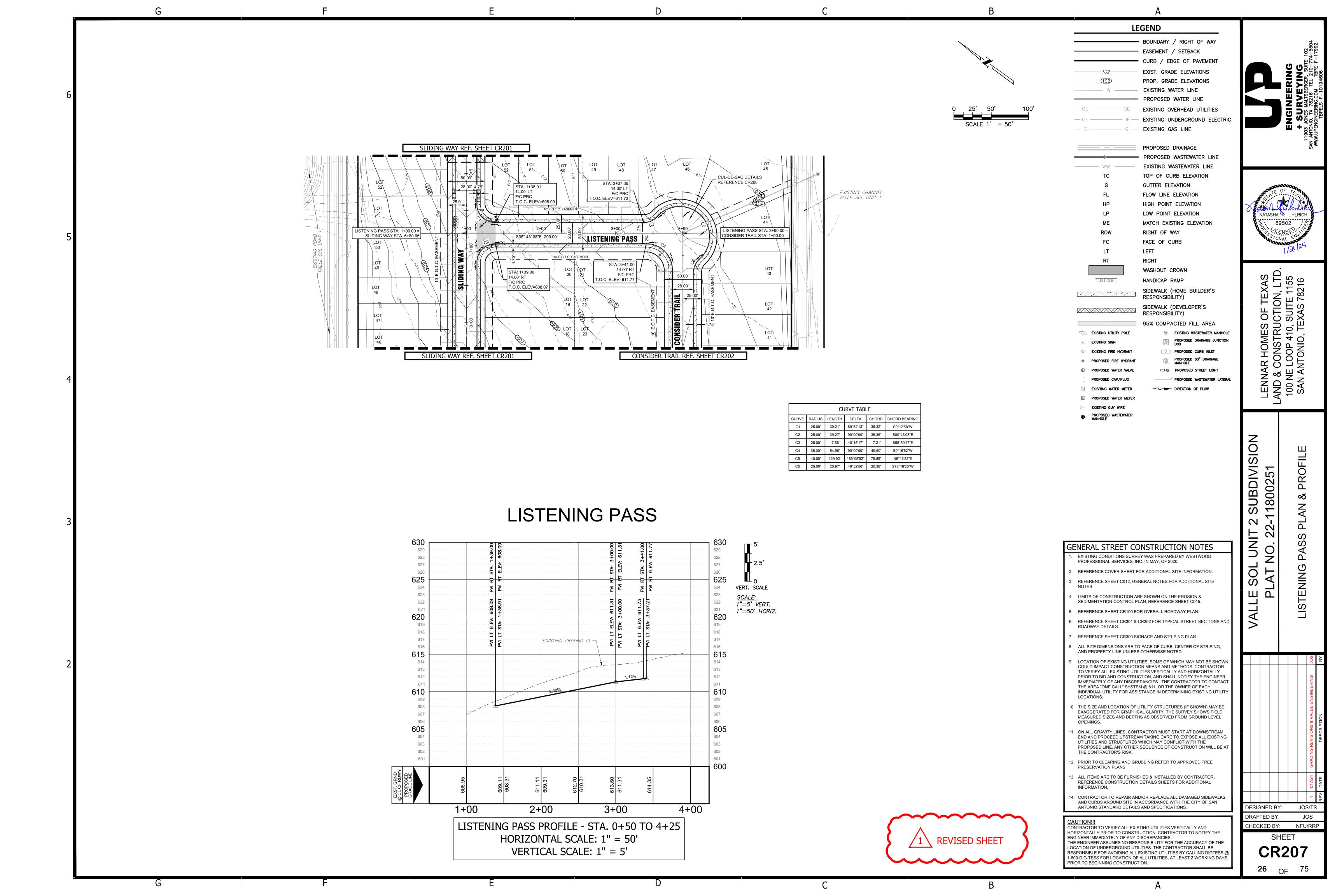


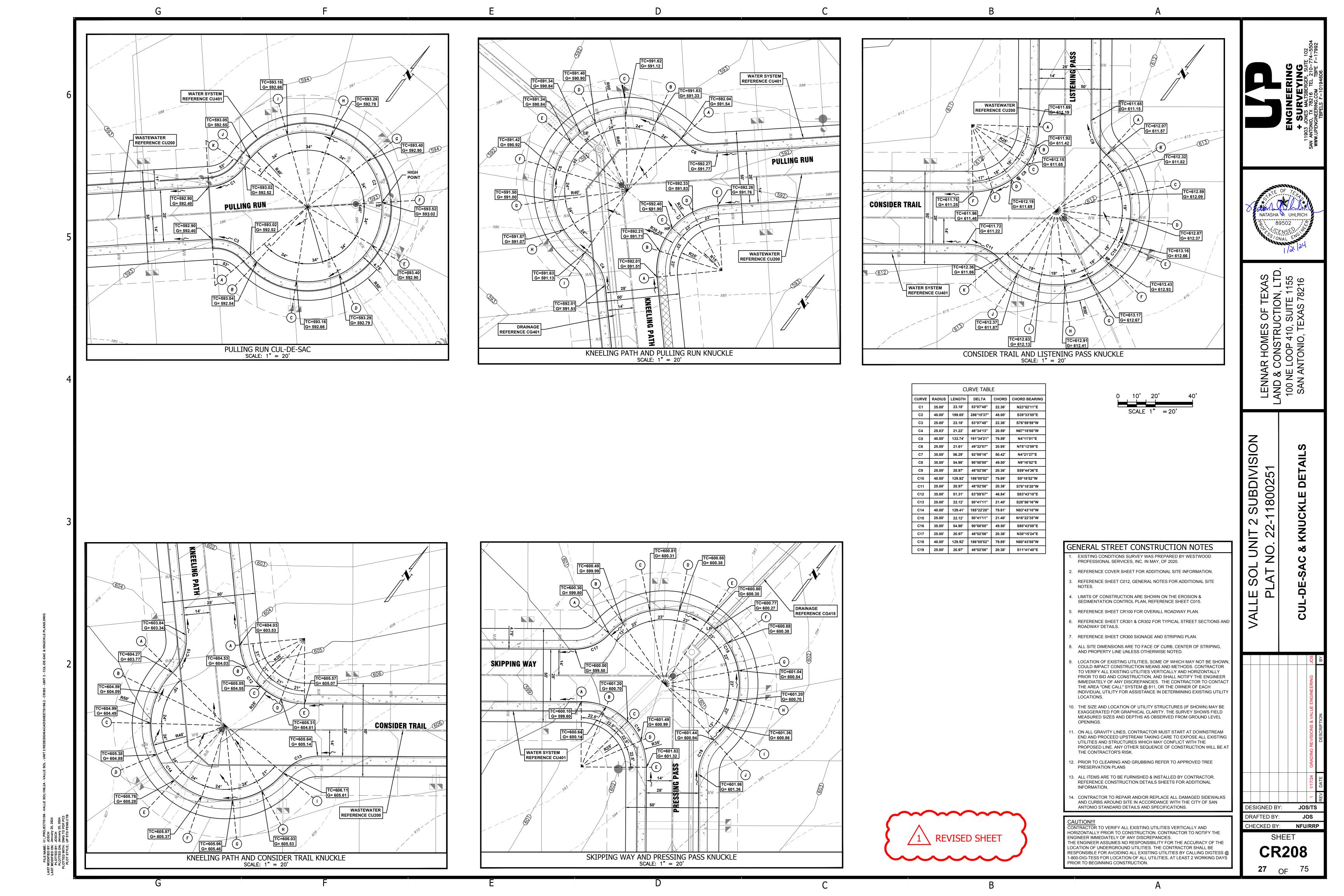


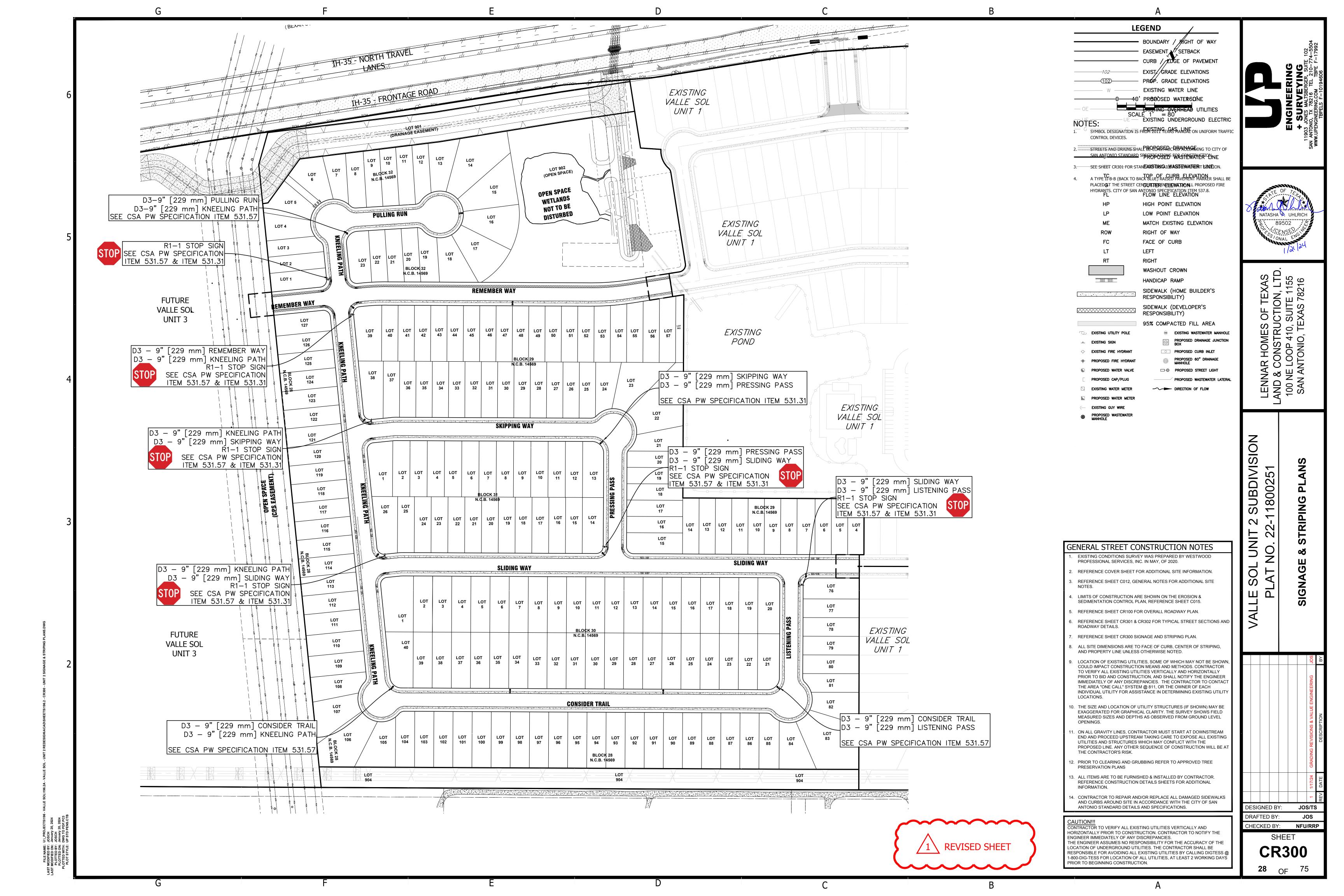


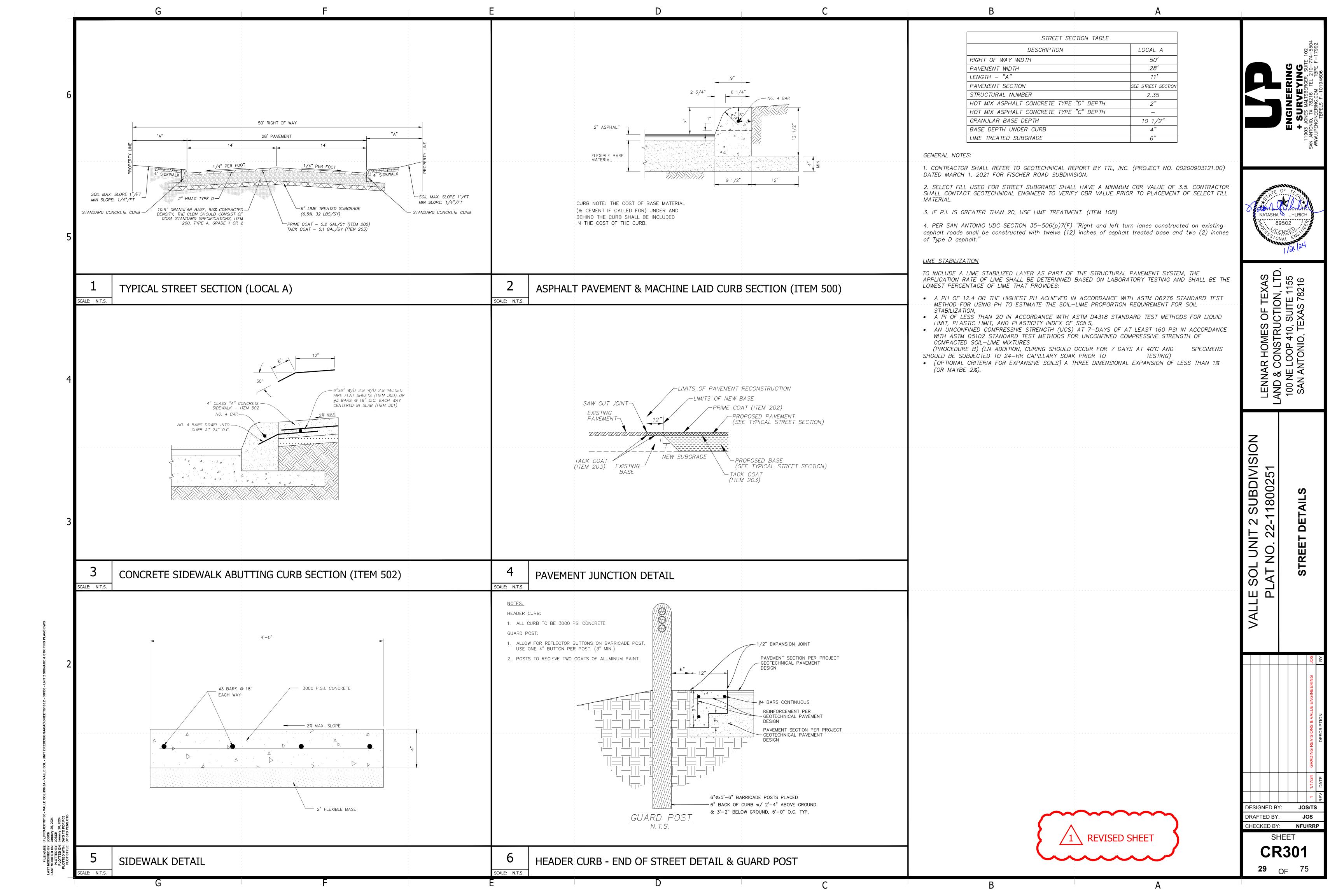


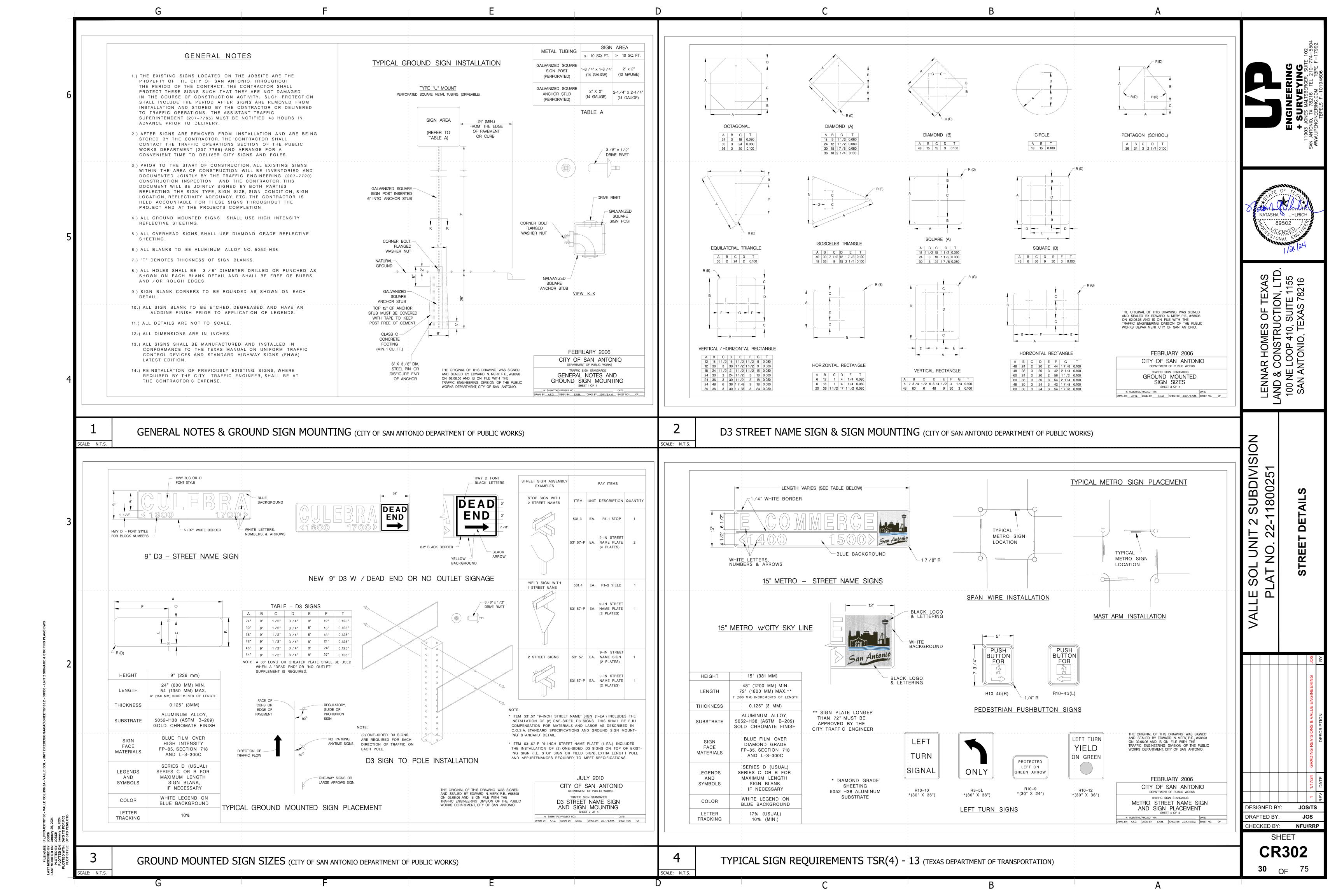


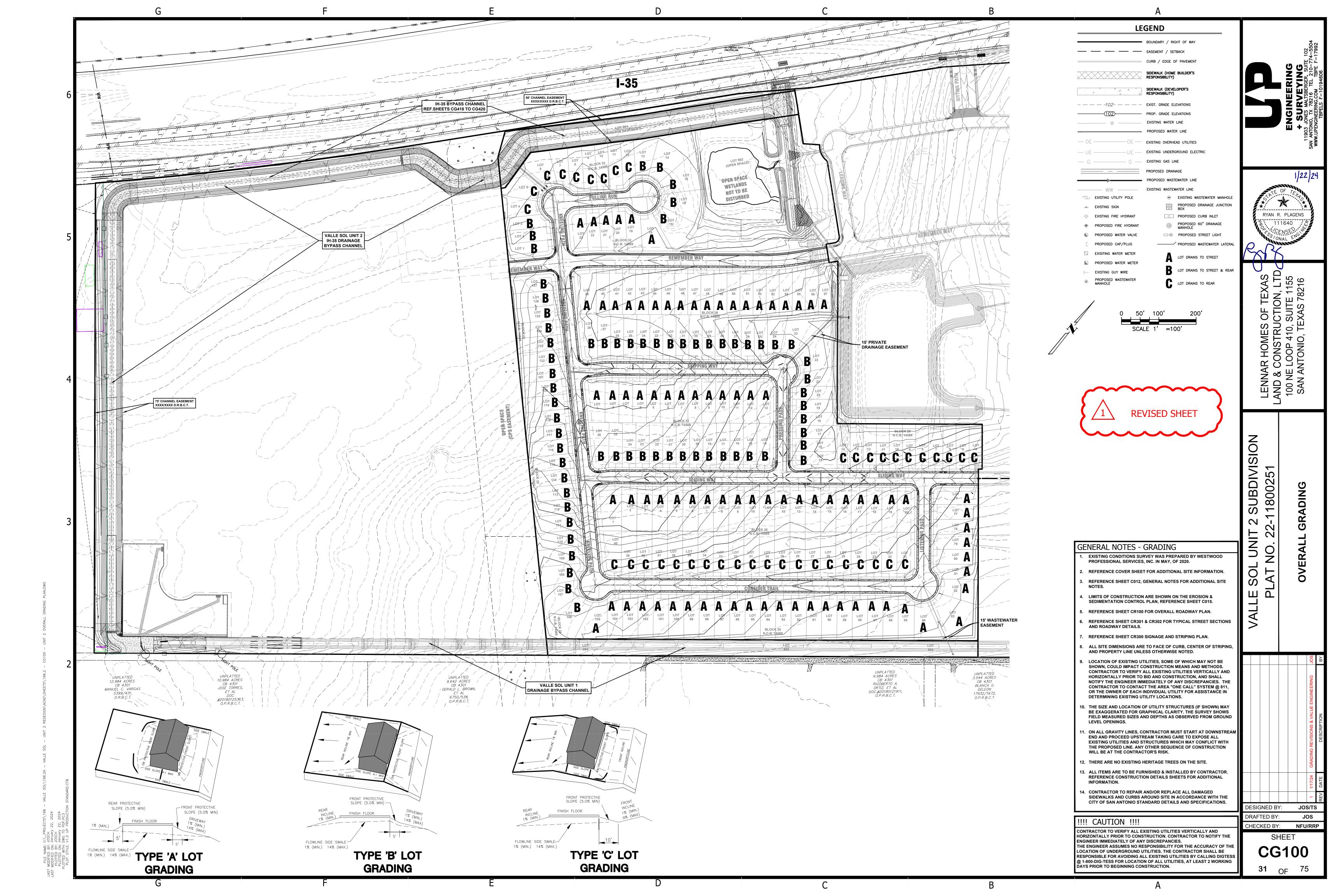


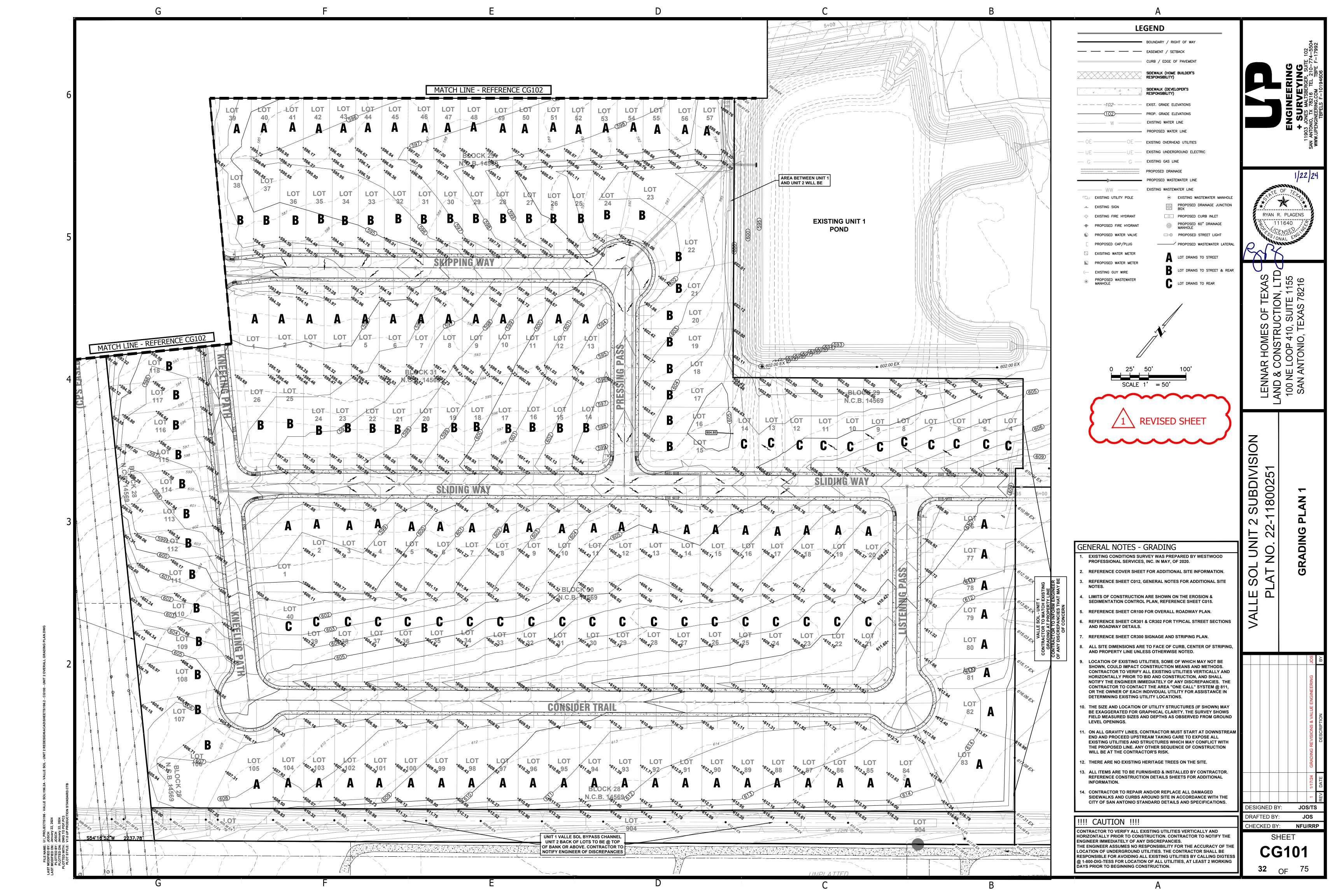


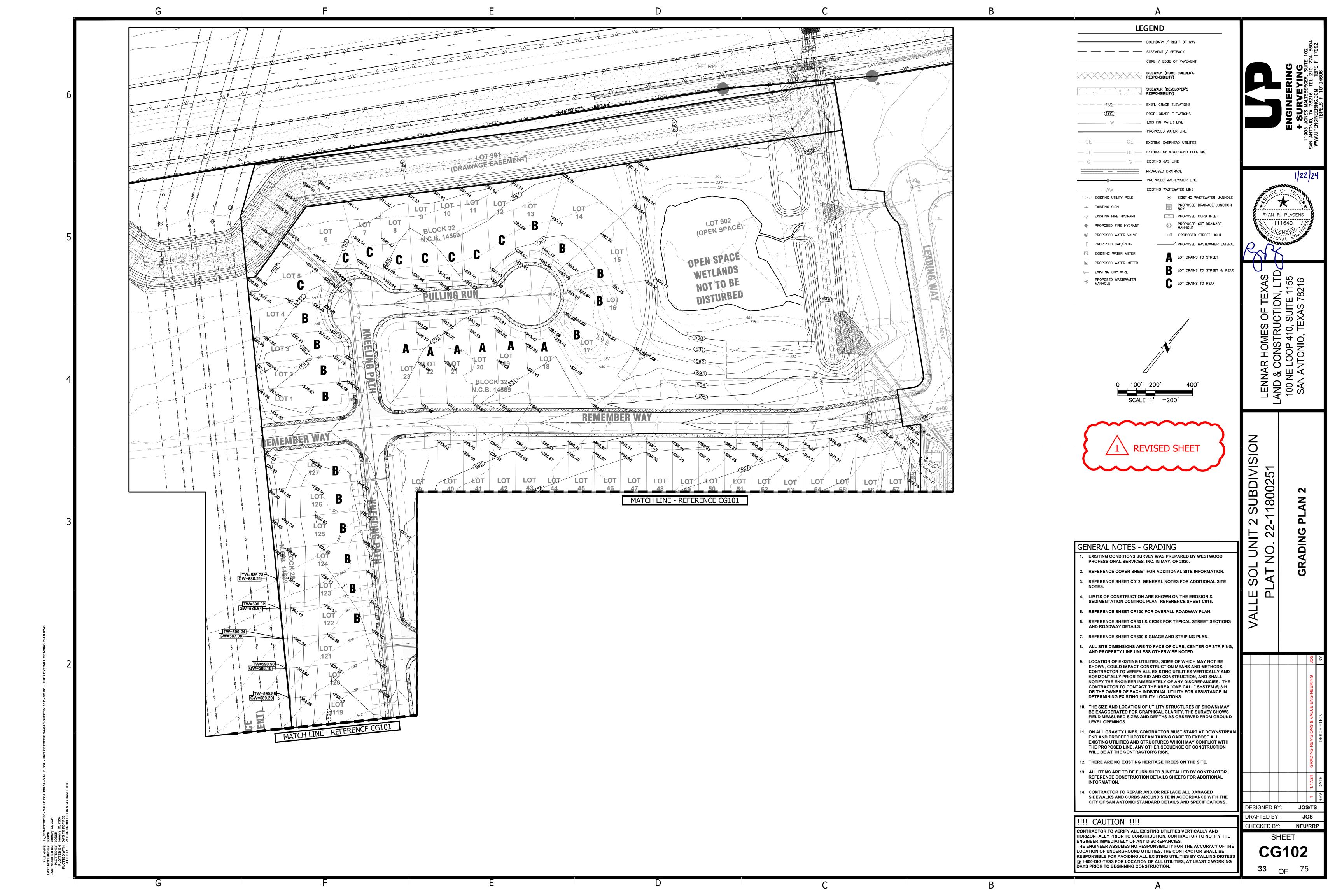


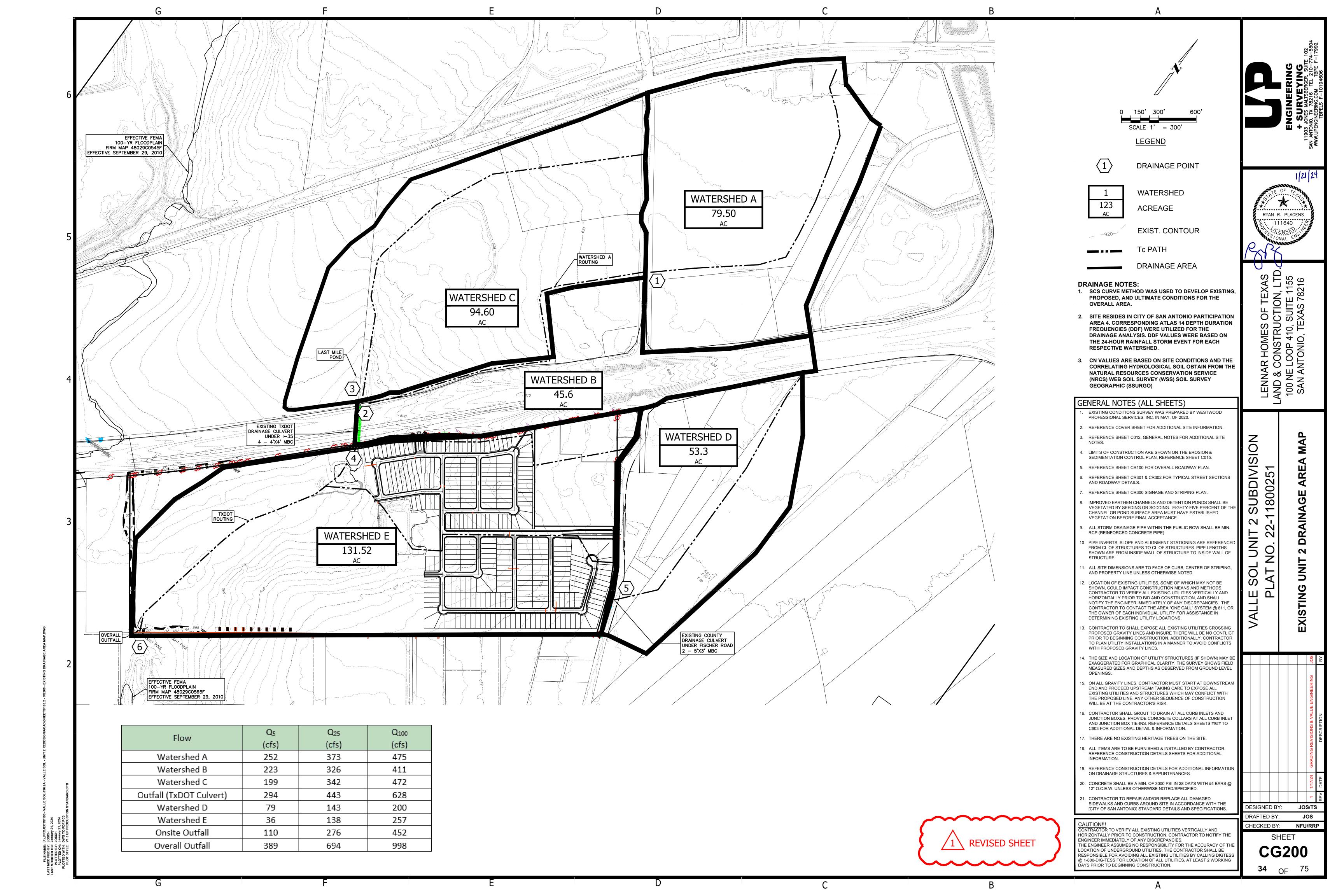


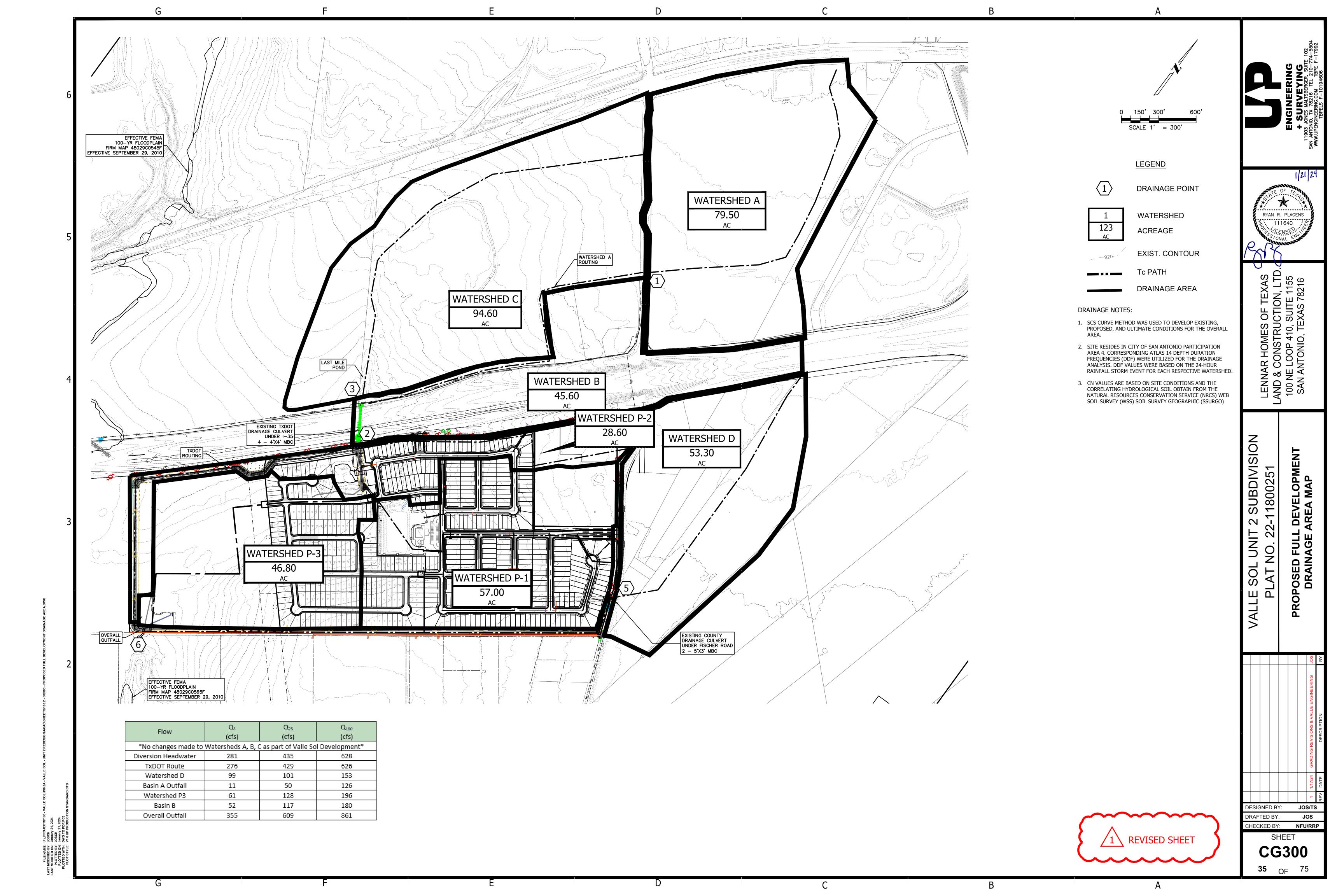












### STREET CAPACITY CALCULATIONS

STREET NAME	STA START	STA END	DRAINAGE AREA	STREET CLASSIFICATION	ROW WIDTH (ft)	PAVEMENT WIDTH (FT)	MIN SLOPE (%)	MAX SLOPE (%)	VELOCITY (FPS)	TOC CAPACITY (CFS)	Q5 (cfs)	Q25 (cfs)	ROW CAPACITY (CFS)
LISTENING PASS	1+00	3+90	2B	LOCAL A	50	28	1.00%	2.00%	2.94	59.39	9.10	12.48	61.54
CONSIDER TRAIL	1+49	9+35	2C	LOCAL A	50	28	0.50%	1.00%	2.64	41.99	13.74	18.82	43.52
SLIDING WAY	5+35	10+00	2B	LOCAL A	50	28	0.50%	2.02%	3.20	41.99	9.10	12.48	43.52
SLIDING WAY	10+00	15+90	2D	LOCAL A	50	28	0.50%	2.00%	3.19	41.99	12.66	17.33	43.52
PRESSING PASS	1+00	3+90	2E	LOCAL A	50	28	1.50%	2.00%	2.94	72.73	4.55	6.37	75.37
SKIPPING WAY	1+00	6+61	2G	LOCAL A	50	28	0.50%	2.52%	3.24	41.99	9.48	12.99	43.52
PULLING RUN	1+00	3+11	20	LOCAL A	50	28	0.50%	0.50%	1.53	41.99	2.80	3.85	43.52
KNEELING PATH	1+00	5+00	2C	LOCAL A	50	28	0.50%	5.01%	4.57	41.99	13.74	18.82	43.52
KNEELING PATH	5+00	9+50	21	LOCAL A	50	28	0.50%	1.47%	2.13	41.99	4.01	5.54	43.52
KNEELING PATH	9+50	11+30	20	LOCAL A	50	28	0.50%	0.50%	1.94	41.99	2.80	3.85	43.52
REMEMBER WAY	6+55	13+65	2H+1P	LOCAL A	50	28	0.50%	0.64%	2.20	41.99	12.08	16.56	61.54
REMEMBER WAY	13+65	17+50	2H+1P	LOCAL A	50	28	0.64%	1.93%	3.47	41.99	12.08	16.56	43.52

## STORM INLET CAPACITY CALCULATIONS

INLET LOCATION	INLET NAME	INLET TYPE	DRAINAGE AREA	Q25 Calc (CFS)	Hw	REQUIRED LENGTH (FT)	PROVIDED LENGTH (FT)	Allowable Q (CFS)
STORN DRAIN D								
SLIDING WAY	SDL-D1 INLET 1 & 2	IN SAG	2B	12.48	0.79	5.76	10.00	21.68
PRESSING PASS	SDL-D CURB INELT 1	IN SAG	2E	6.37	0.79	2.94	5.00	10.84
STORM DRAIN A								
SLIDING WAY	SDL-A2-INLET 1 & 2	IN SAG	2D	17.33	0.79	8.00	10.00	21.68
KNEELING PATH	SDL-A3-INLET 1 & 2	IN SAG	2C	18.82	0.79	8.68	10.00	21.68
KNEELING PATH	SDL-A1-INLET 1 & 2	IN SAG	21	5.54	0.79	2.56	10.00	21.68
KNEELING PATH	SDL-A-INLET 1	IN SAG	20	3.92	0.79	1.81	10.00	21.68
STORM DRAIN B								
SKIPPING WAY	SDL-B INLET 1	IN SAG	2G	12.99	0.79	5.99	10.00	21.68
Weir $Eqn = Q =$	$C_w L H_w^{3/2}$							
C <sub>w</sub> = weir coefficient								
H <sub>w</sub> = Depth of Flow above	the elevation of crest in feet							
L = Effective length of cre	st in feet							

#### CHANNEL CAPACITY CALCULATIONS

CHANNEL CAPACITY - VALE SO	L								
CHANNEL NAME	n	SLOPE (%)	TOP WIDTH (FT)	BTM WIDTH (FT)	CHANNEL DEPTH (FT)	NORMAL DEPTH (FT)	CHANNEL VELOCITY (FPS)	100 YR STORM EVENT	CHANNEL CAPACITY (CFS)
TXDOT BYPASS CHANNEL	0.015	0.30%	43	10	3	2.4	9.12	625	970
TXDOT BYPASS CHANNEL	0.035	0.29%	65	25	5	3.8	5.37	625	1046
TXDOT BYPASS CHANNEL	0.035	0.29%	75	35	5	3.4	5.51	625	1240

<b>CHANNEL BENDS AND TU</b>	RNS					
CHANNEL NAME	CHANNEL TYPE	CHANNEL BTM WIDTH (FT)	AVG APPROACH VELOCITY (FPS)	WIDTH OF FLOW AT WATER SURFACE (FT)	RADIUS OF TURN/BEND (FT)	ADDITIONAL FREEBOARD NEEDED (FT)
TXDOT BYPASS CHANNEL	EARTHEN CHANNEL	35	3.56	60.00	75.00	0.249

CHANNEL CROSS SECTION	STA	N	S (%)	TW (FT)	BW (FT)	100 YR STORM EVENT (CFS)	D (FT)	CD (FT)	FULL FLOW CAPACITY (CFS)	V (FPS)
A-A	1+94.87 TO 12+78.96	0.035	0.27%	55.00	25.00	625.00	3.90	5.00	2388.00	4.44
B-B	12+78.79 TO 13+96.61	0.015	0.27%	55.00	25.00	625.00	2.40	5.00	2387.67	11.94
C-C	13+96.61 TO 21+11.86	0.035	0.27%	55.00	25.00	625.00	3.90	5.00	1023.00	4.44
D-D	21+11.86 TO 21+85.09	0.015	0.27%	55.00	25.00	625.00	2.40	5.00	2388.00	11.94
E-E	21+85.09 TO 31+45.06	0.035	0.27%	60.80	35.00	625.00	3.30	4.30	1009.00	1.22
F-F	31+45.06 TO 32+53.77	0.015	0.27%	60.80	35.00	625.00	2.00	3.00	2356.00	7.47
G-G	32+53.77 TO 35+34.12	0.035	0.50%	44.00	23.00	240.86	1.90	3.00	554.75	5.28

# **DETAILED RUNOFF CALCULATIONS**

Runoff	low Rates											
		Dunings						PH	IASE 2	PROPOS	ED COND	ITIONS
Ref Point	Drainage Areas	Drainag e Area (ac)	Tc (min)	l <sub>5</sub> (in/hr)	I <sub>10</sub> (in/hr)	l <sub>25</sub> (in/hr)	I <sub>100</sub> (in/hr)	С	Q <sub>5</sub> (cfs)	Q <sub>10</sub> (cfs)	Q <sub>25</sub> (cfs)	Q <sub>100</sub> (cfs)
	1P	0.92	21.6	4.34	5.02	5.97	7.41	0.72	2.9	3.3	4.0	4.9
1	2A	1.07	16.2	5.03	5.83	6.94	8.65	0.72	3.9	4.5	5.3	6.7
2	2B	3.08	24.2	4.10	4.73	5.63	6.98	0.72	9.1	10.5	12.5	15.5
3	2C	5.29	31.2	3.61	4.16	4.94	6.12	0.72	13.7	15.8	18.8	23.3
4	2D	4.37	25.2	4.02	4.63	5.51	6.83	0.72	12.7	14.6	17.3	21.5
5	2E	0.87	6.4	7.26	8.50	10.17	12.72	0.72	4.5	5.3	6.4	8.0
6	2F	1.11	20.0	4.51	5.22	6.21	7.71	0.72	3.6	4.2	5.0	6.2
7	2G	3.14	23.2	4.19	4.84	5.75	7.14	0.72	9.5	10.9	13.0	16.1
8	2H	3.88	29.8	3.69	4.25	5.06	6.27	0.72	10.3	11.9	14.1	17.5
8	2H+1P	4.80	33.1	3.50	4.02	4.79	5.94	0.72	12.1	13.9	16.6	20.5
9	21	1.07	15.2	5.20	6.04	7.19	8.97	0.72	4.0	4.7	5.5	6.9
10	2J	2.39	20.7	4.43	5.13	6.10	7.58	0.72	7.6	8.8	10.5	13.0
11	2K	2.89	17.3	4.87	5.63	6.70	8.34	0.60	8.4	9.8	11.6	14.5
12	2L	0.82	21.0	4.40	5.09	6.05	7.52	0.56	2.0	2.3	2.8	3.5
13	2M	2.35	25.1	4.03	4.64	5.52	6.85	0.56	5.3	6.1	7.3	9.0
14	2N	3.44	22.7	4.24	4.89	5.81	7.22	0.56	8.2	9.4	11.2	13.9
15	20	1.14	21.1	4.39	5.08	6.04	7.50	0.56	2.8	3.2	3.9	4.8

Calculations - SIIE		POINT	PROPOSED	PROPOSER	DDODOCTD.	PROP						
		AREAS	SITE	2.10.000.000.0000.000		SI						
		CALLOUT		2B	2C	2D	2E	2F	2G			2
Time of Concentration	Variable	Units	27.	25	20	20	20	2.1	20	2.11	211-21	
	L	ft	112	141	126	150	150	100	150	126	125	1
	n		0.410	0.410	0.410	0.410	0.011	0.410	0.410	0.410	0.410	0
	S	ft/ft	0.036	0.020	0.020	0.030	0.005	0.013	0.020	0.008	0.008	0.
Time of Concentration  Overland (1st Area)  neet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Total Time of Concentration  Falculations - SITE  Time of Concentration  Overland (1st Area)	T <sub>c</sub>	min	16.22	20.00	20.00	20.00	5.00	20.00	20.00	20.00	20.00	20
length, developed 150ft	Tc	hr	0.27	0.33	0.33	0.33	0.08	0.33	0.33	0.33	0.33	.0
	L	ft				90						
	S	ft/ft				0.030						
neet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Total Time of Concentration  Calculations - SITE  Time of Concentration  Overland (1st Area) neet Flow which is usually 300 ft in	Tt	min				0.54						
braided creek	T <sub>t</sub>	hr				0.01						
	L	ft		584	1295	563	125		393	998	1341	8
Overland (1st Area) Sheet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Total Time of Concentration  Calculations - SITE  Time of Concentration  Overland (1st Area) Sheet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Channel (stream/creekPipe, River) standard 6fps	S	ft/ft		0.013	0.009	0.010	0.005		0.010	0.007	0.007	0.
	T <sub>t</sub>	min		4.17	11.20	4.62	1.45		3.17	9.77	13.15	5
dutter, illiet, roadway	T <sub>t</sub>	hr		0.07	0.19	0.08	0.02		0.05	0.16	0.22	0
T-1-17:	Tc	min	16.2	24.2	31.2	25.2	6.4	20.0	23.2	29.8	33.1	2
lotal Time of Concentration	Tc	hr	0.27	0.40	0.52	0.42	0.11	0.33	0.39	0.410 0.410 0.008 0.008 20.00 20.00 0.33 0.33 998 1341 0.007 0.007 9.77 13.15 0.16 0.22	0	
Calculations - SITE												
		POINT	PROPOSED		PRO							
		AREAS	SITE	SITE	S							
Time of Concentration	Variable	CALLOUT Units	2J	2K	2L	2M	2N	20				
Time of Concentration	Variable	ft	60	120	120	115	120	120				
Overland	n	- 10	0.410	0.410	0.410	0.410	0.410	0.410				
	5	ft/ft	0.017	0.050	0.025	0.003	0.020	0.020				
	Tc	min	13.35	14.98	19.77	20.00	20.00	20.00				
length, developed 150ft	Tc	hr	0.22	0.25	0.33	0.33	0.33	0.33				
	L	ft		227	164		261					
Concentrated	5	ft/ft		0.010	0.020		0.020					
	Tt	min		2.35	1.20		1.91					
braided creek	Tt	hr		0.04	0.02		0.03					
	L	ft	348			466		196				
Overland (Ist Area) Sheet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Total Time of Concentration  Calculations - SITE  Time of Concentration Overland (Ist Area) Sheet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Channel (stream/creekPipe, River)	S	ft/ft	0.023			0.004		0.020				
	T,	min	1.89			5,83		1.14				
Gutter, Inlet, roadway	T,	hr	0.03			0.10		0.02				
	1.	ft					288					
Channel	V	ft/sec					6					
Time of Concentration  Overland (1st Area) Sheet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Channel (stream/creelPipe, River) standard 6fps	T <sub>t</sub>	min					0.80					
standard 6fns	T <sub>t</sub>	hr					0.01					
Overland (1st Area) Sheet Flow which is usually 300 ft in length, developed 150ft  Concentrated (Unpaved) braided creek  Concentrated (Paved) Gutter, Inlet, roadway  Channel (stream/creek/Pipe, River) standard 6fps			1	1	ı		0.02					<del></del>
· ·	Tc	min	15.2	17.3	21.0	25.8	22.7	21.1	0.0	0.0	0.0	



SION

CALCULATIONS VALLE SOL UNIT 2 SUBDIVI PLAT NO. 22-11800251

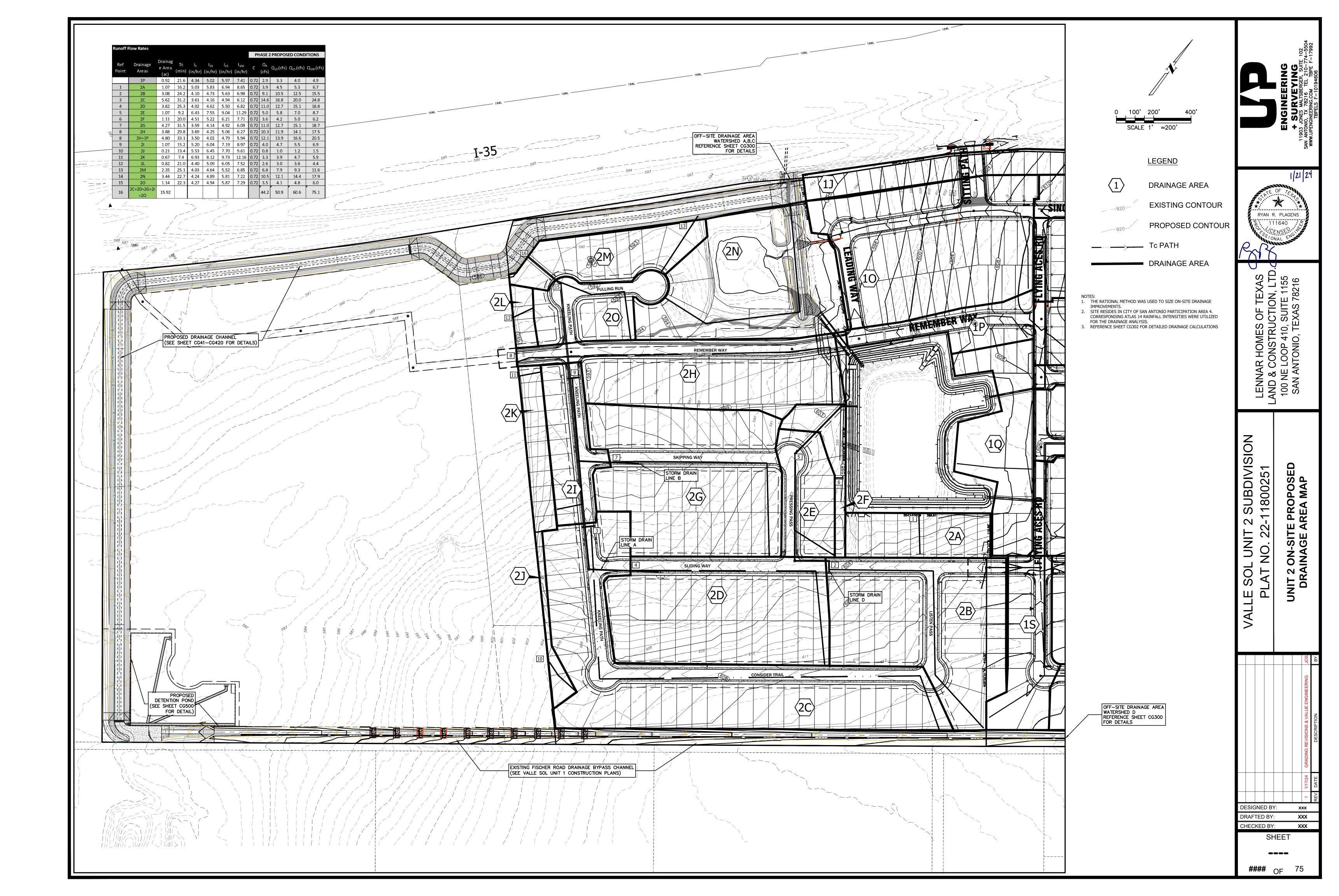
DRAFTED BY:

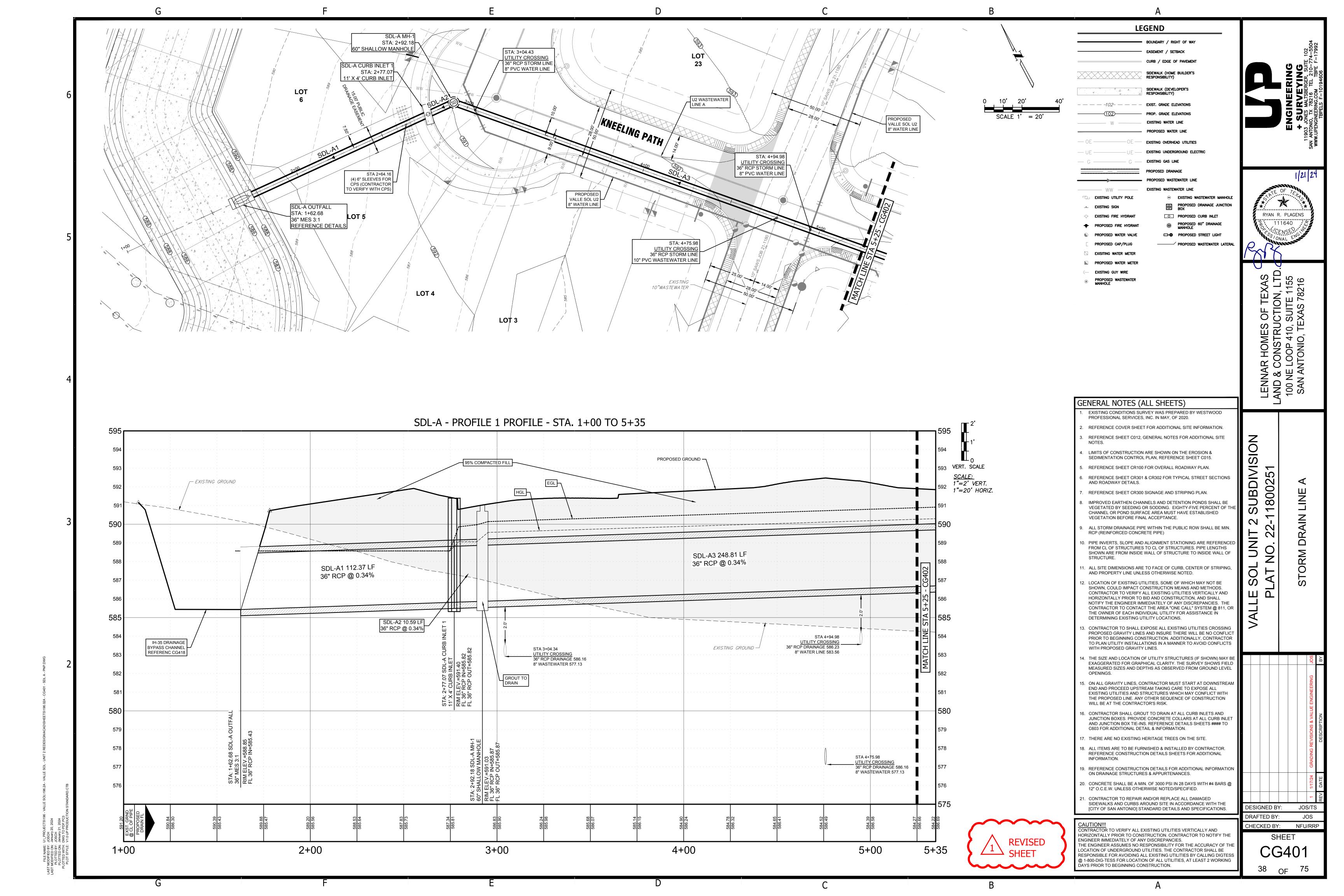
CHECKED BY: NFU/RRP

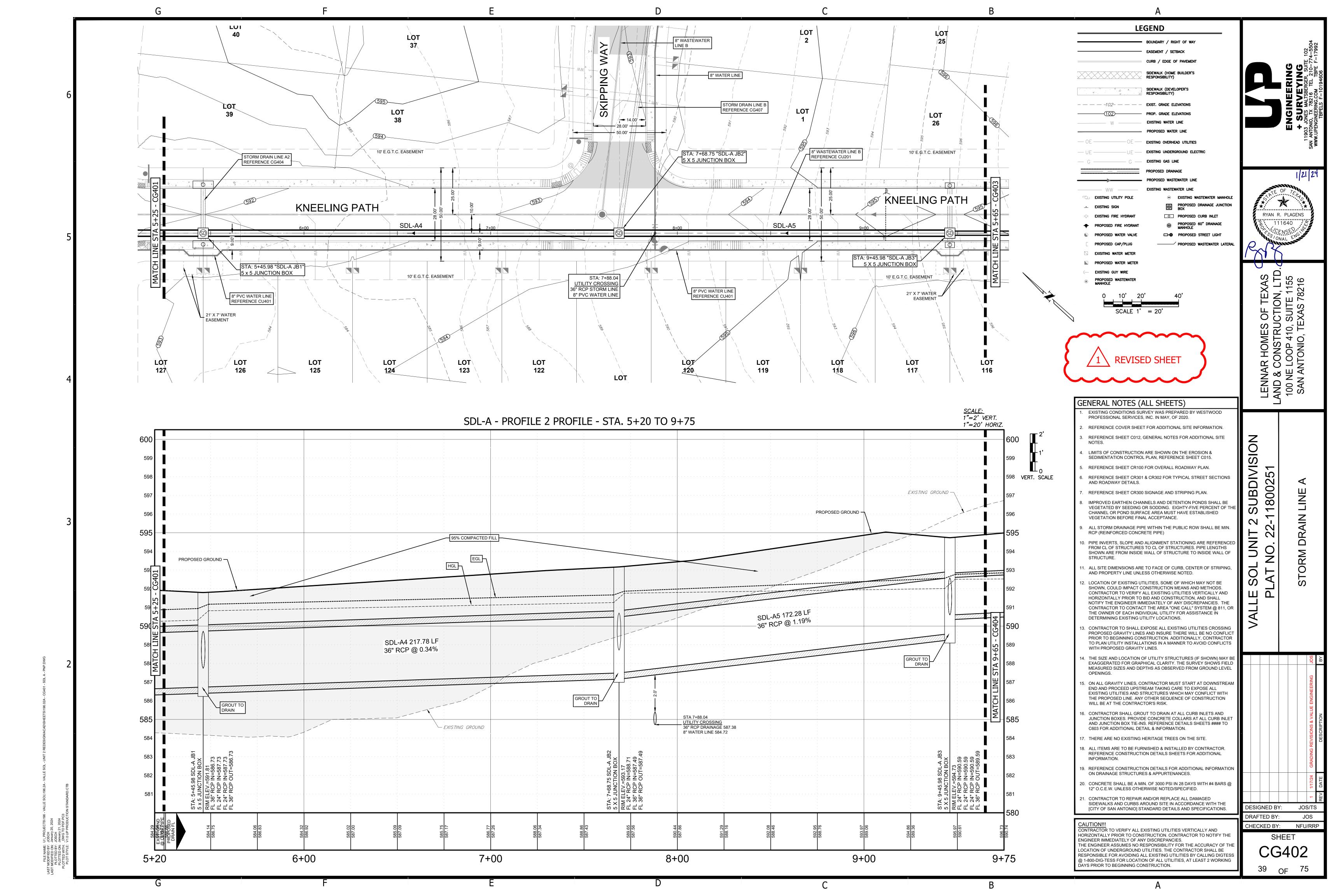
SHEET

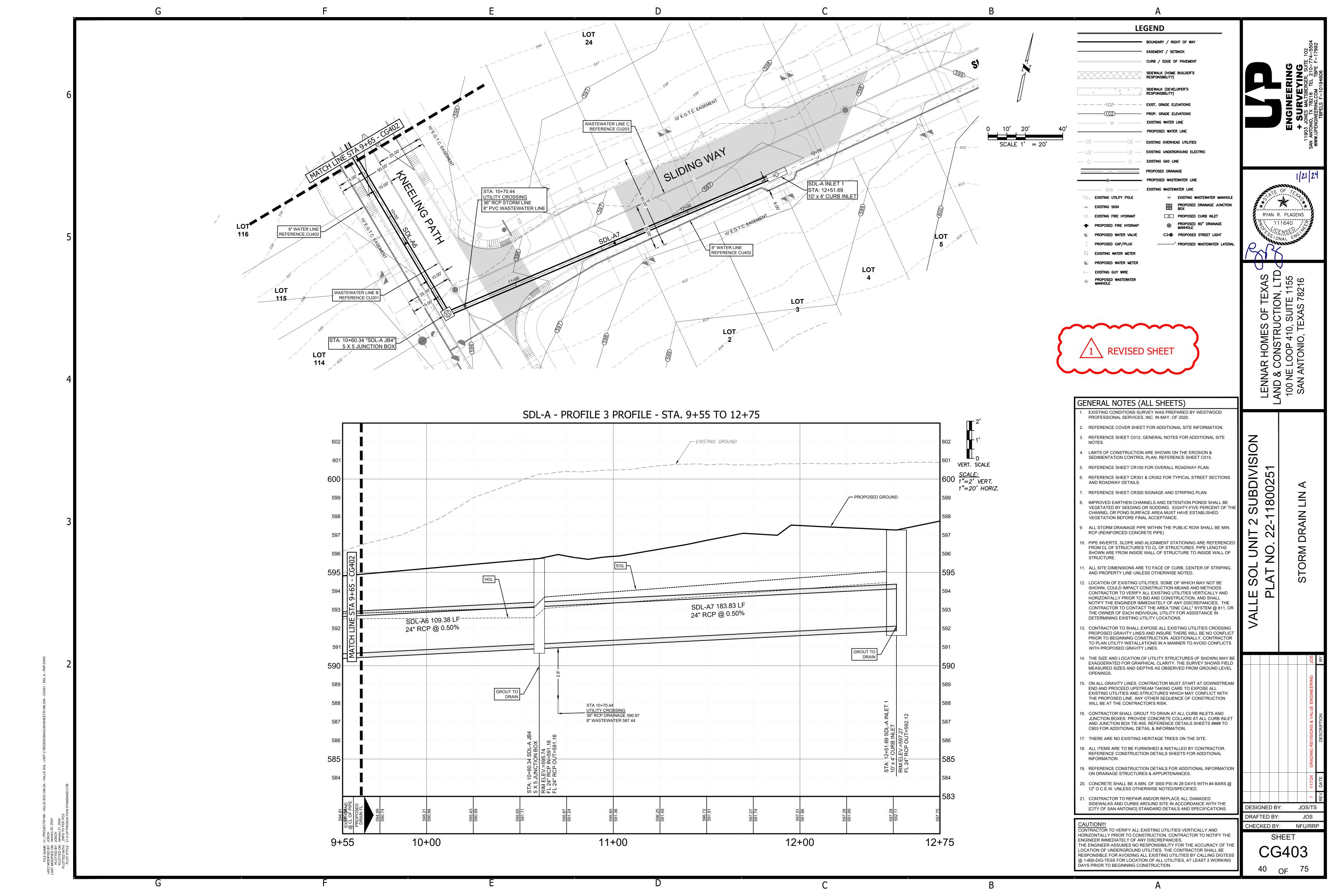
CG302

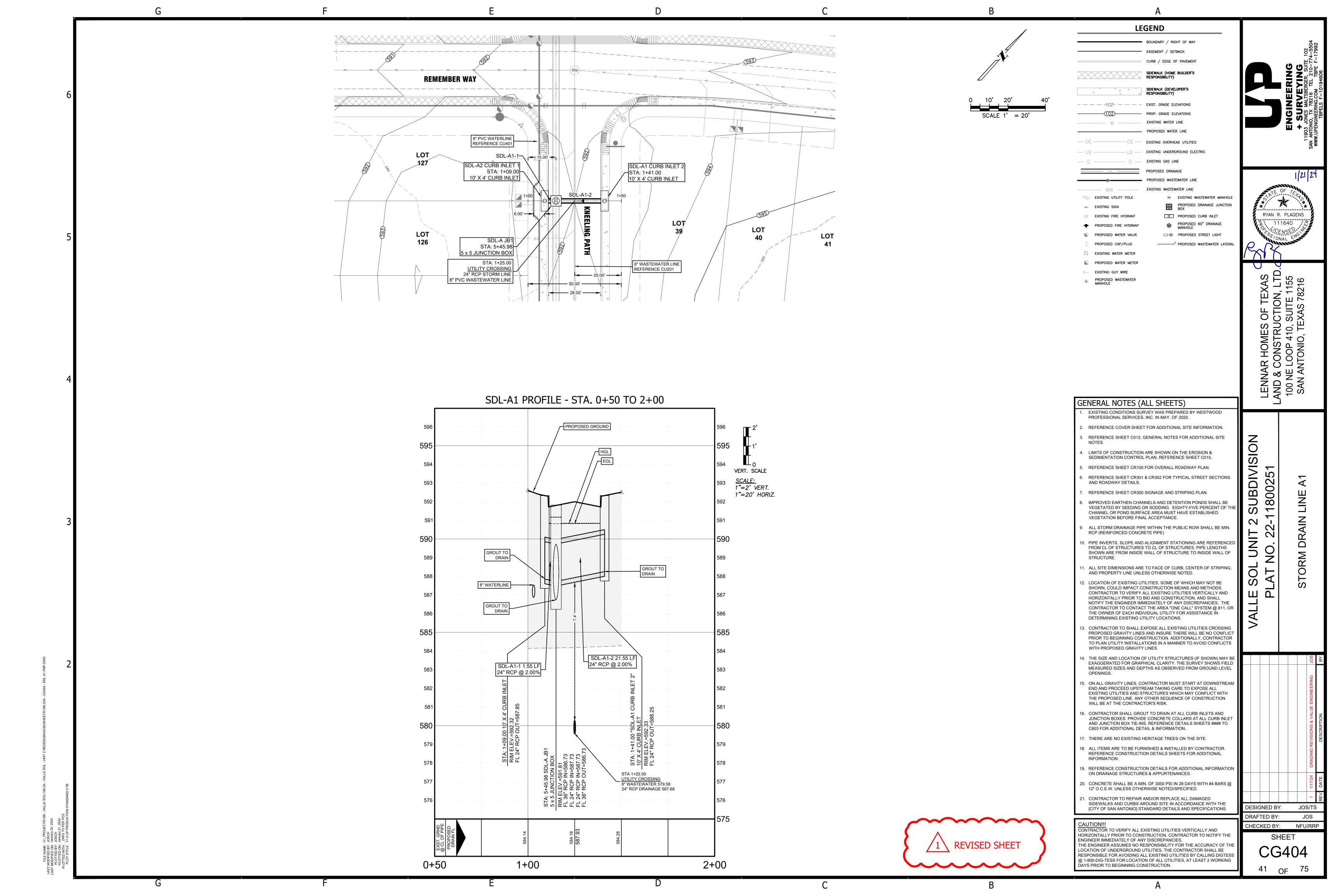
**36** OF 75

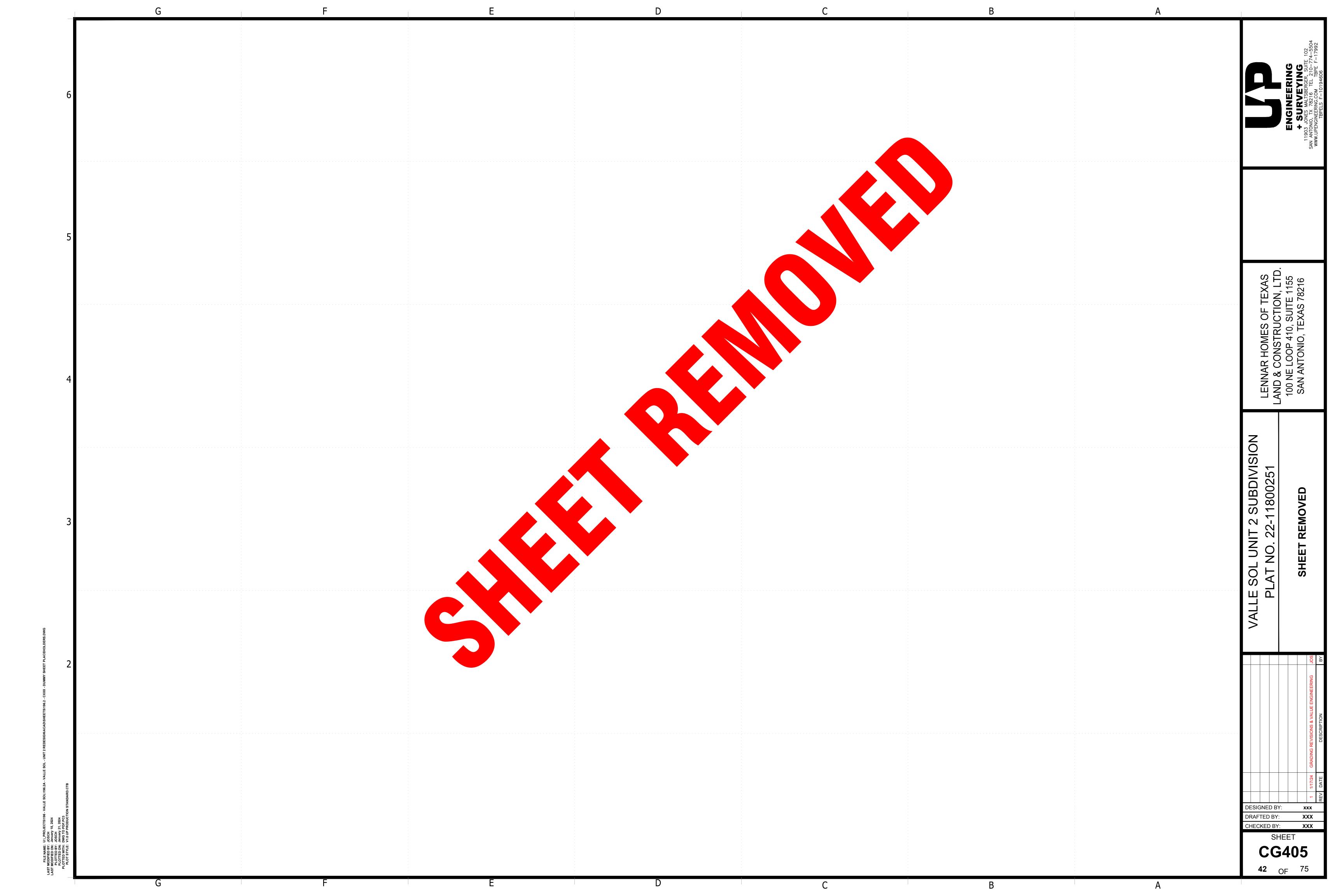


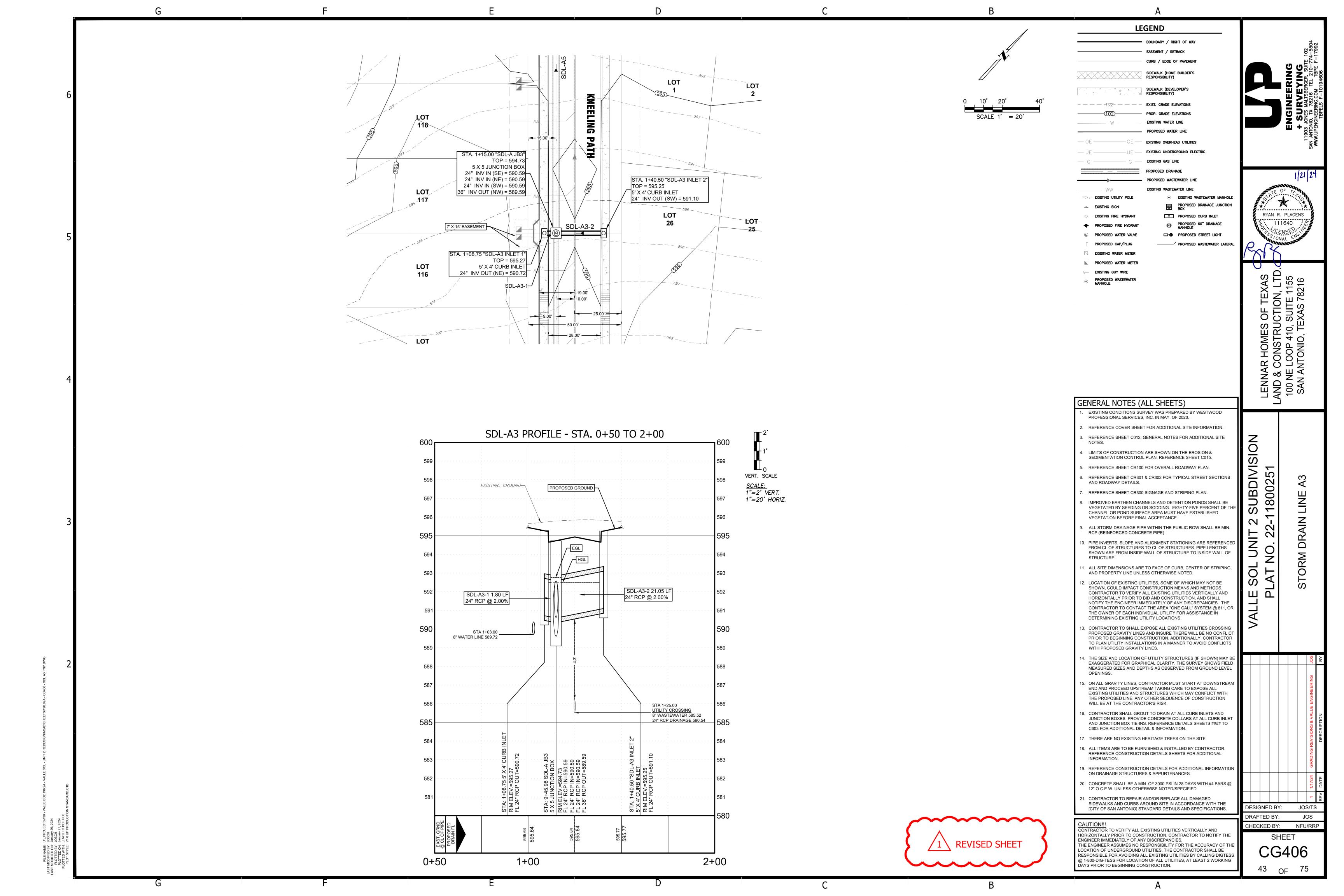


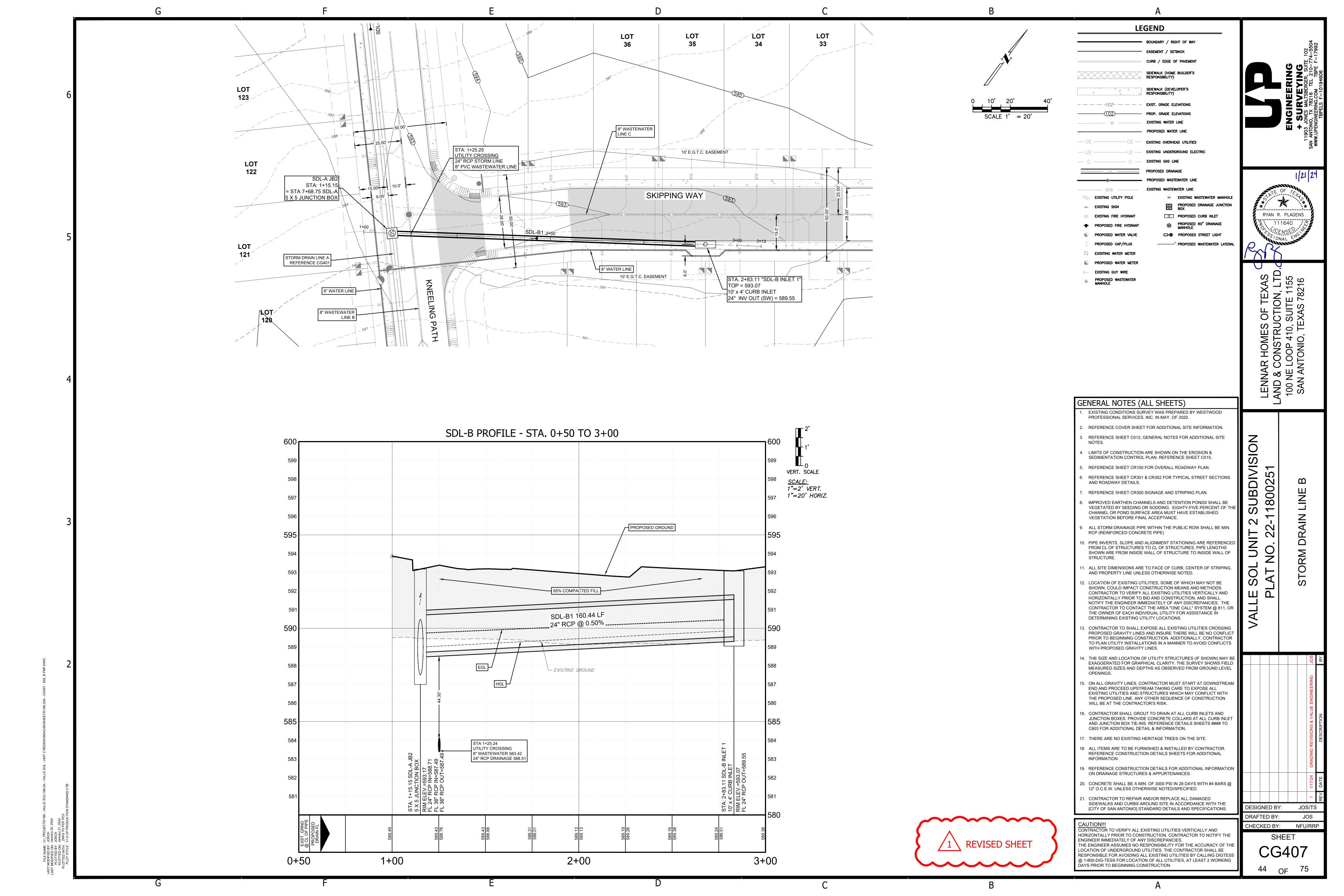


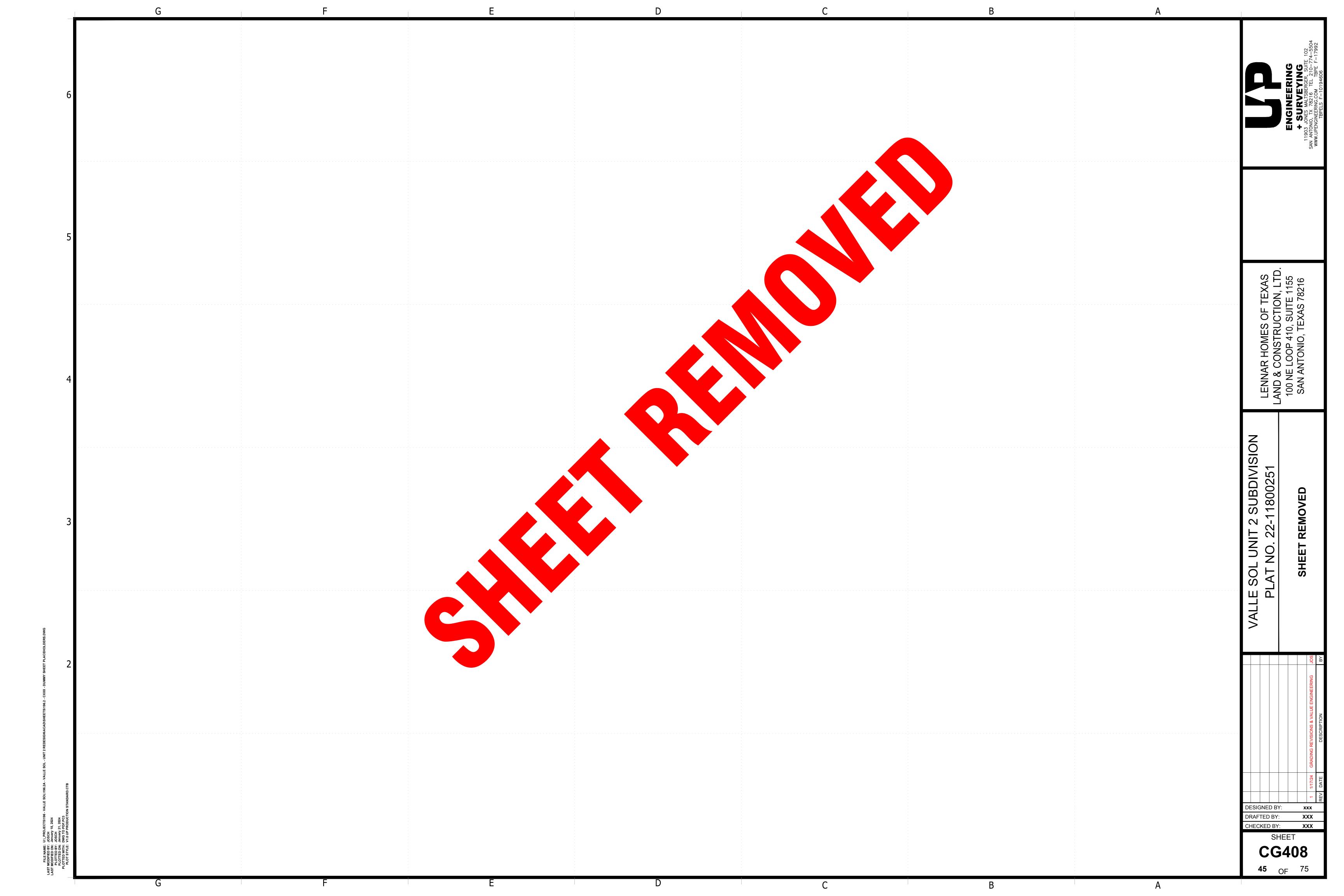


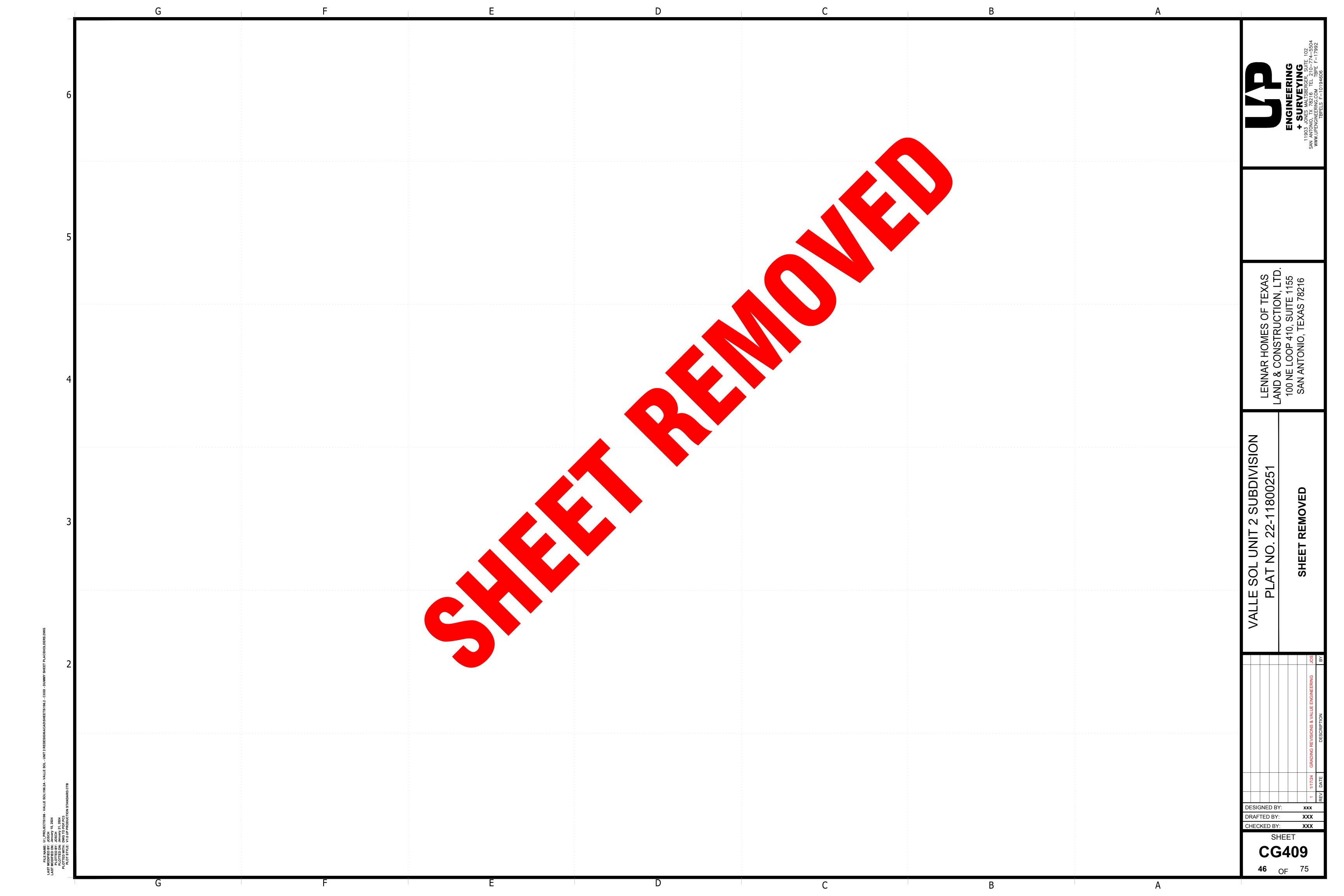


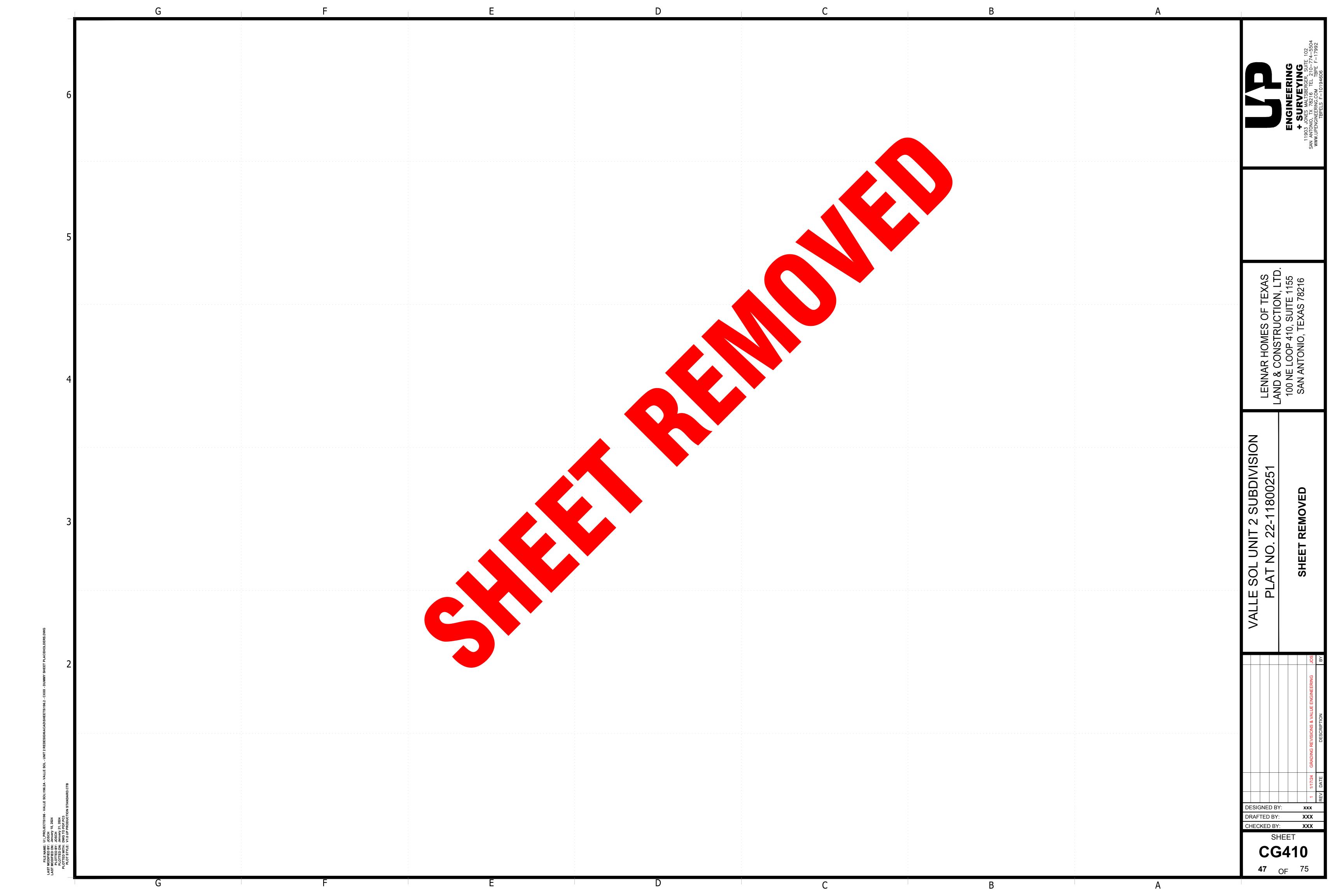


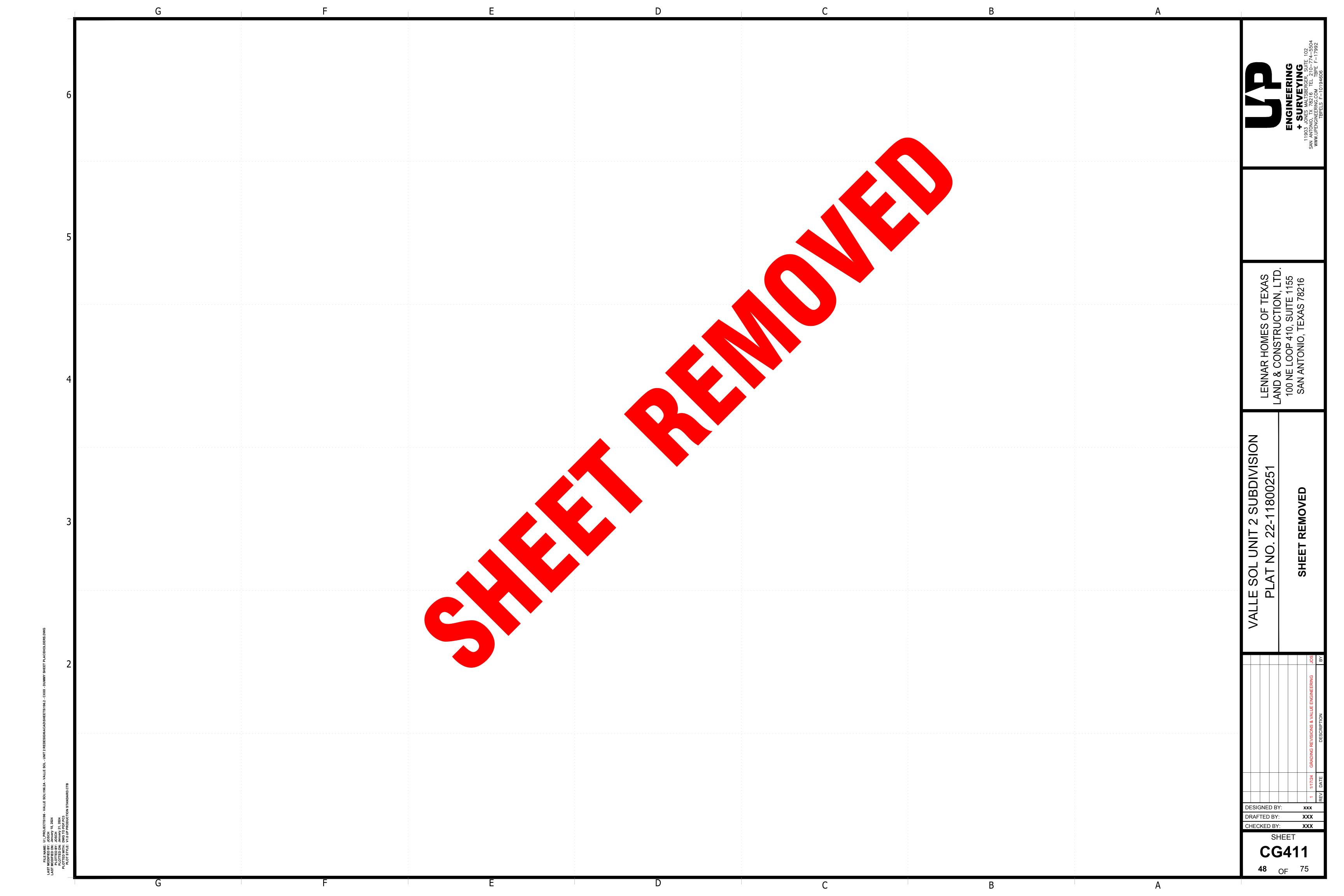


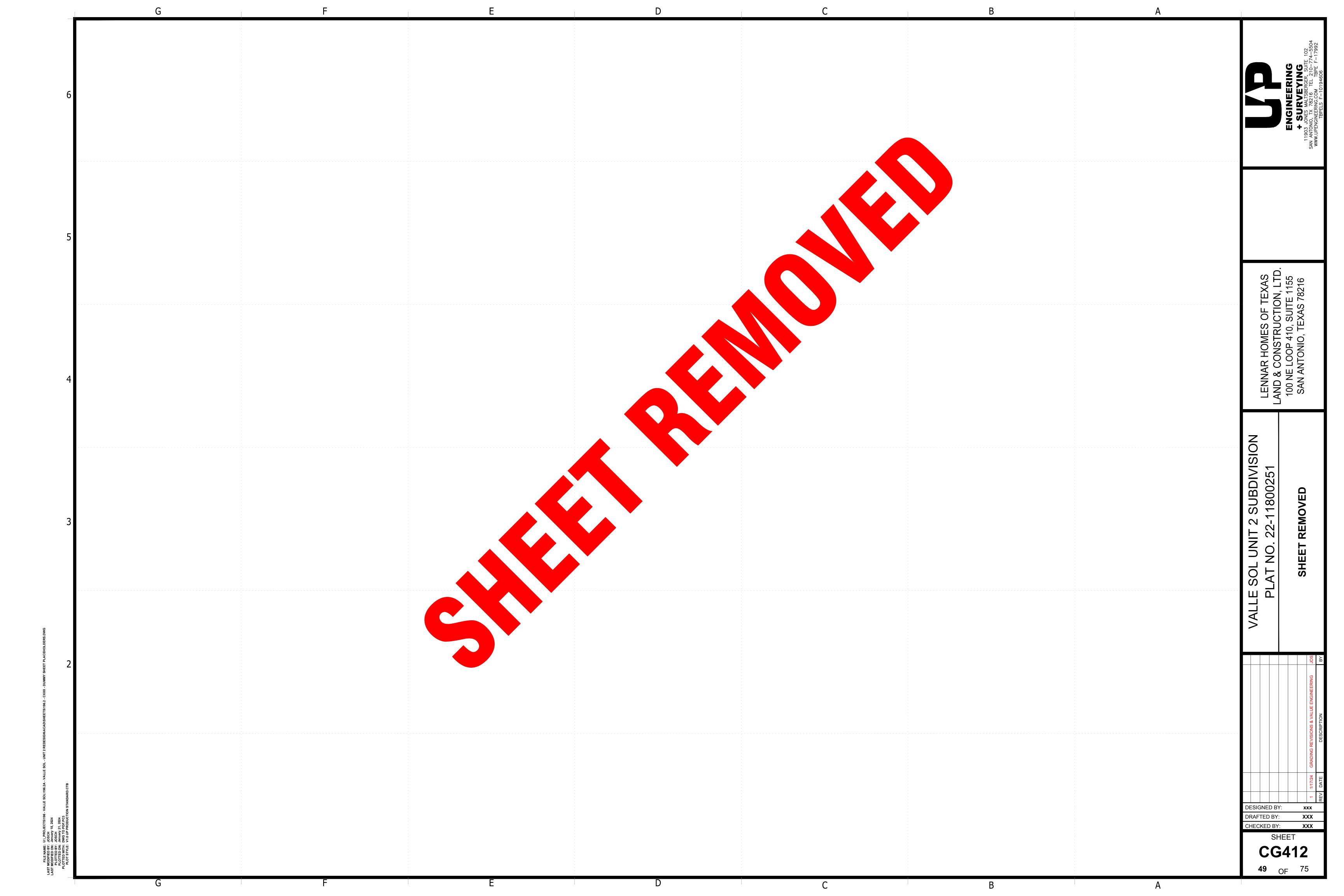


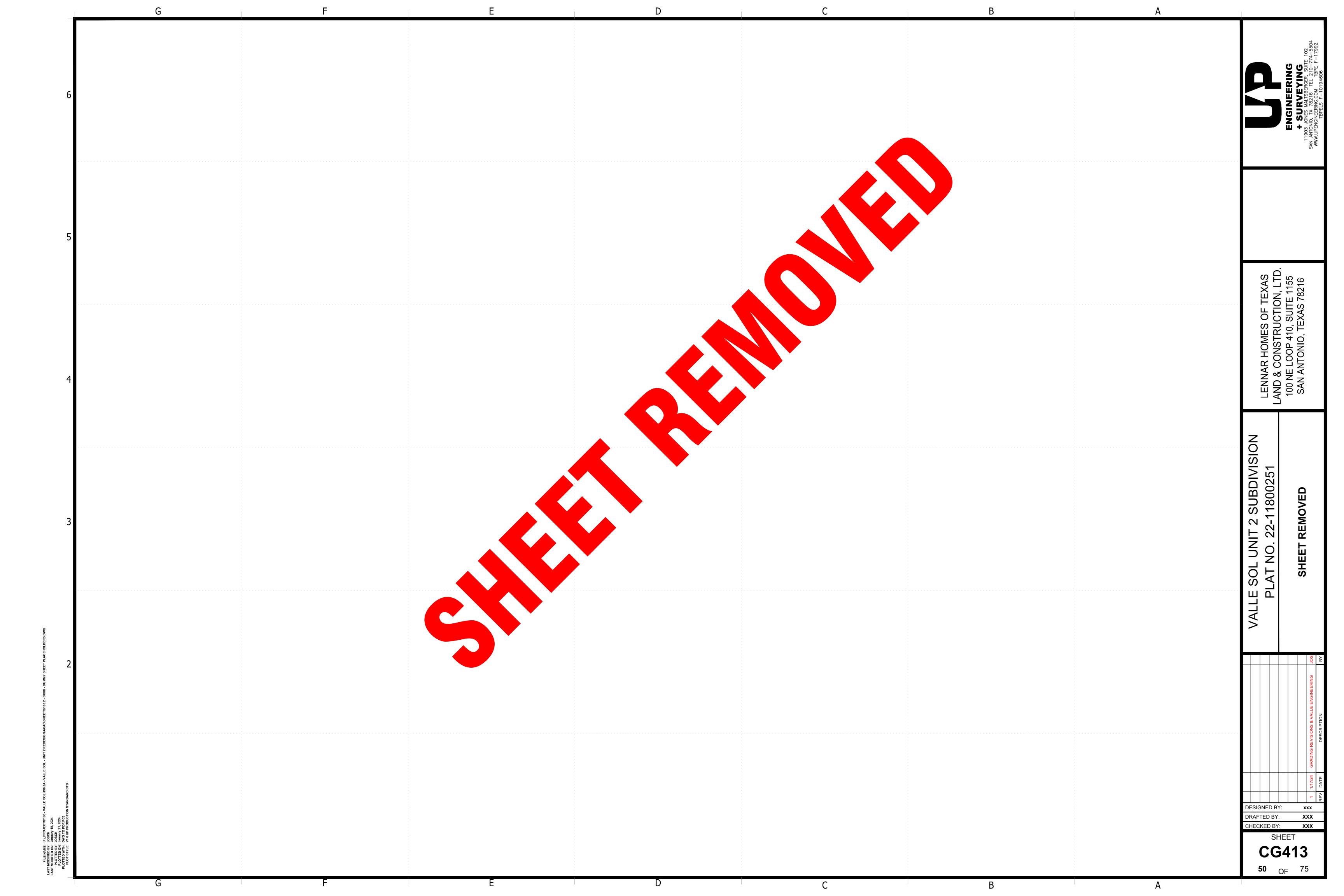


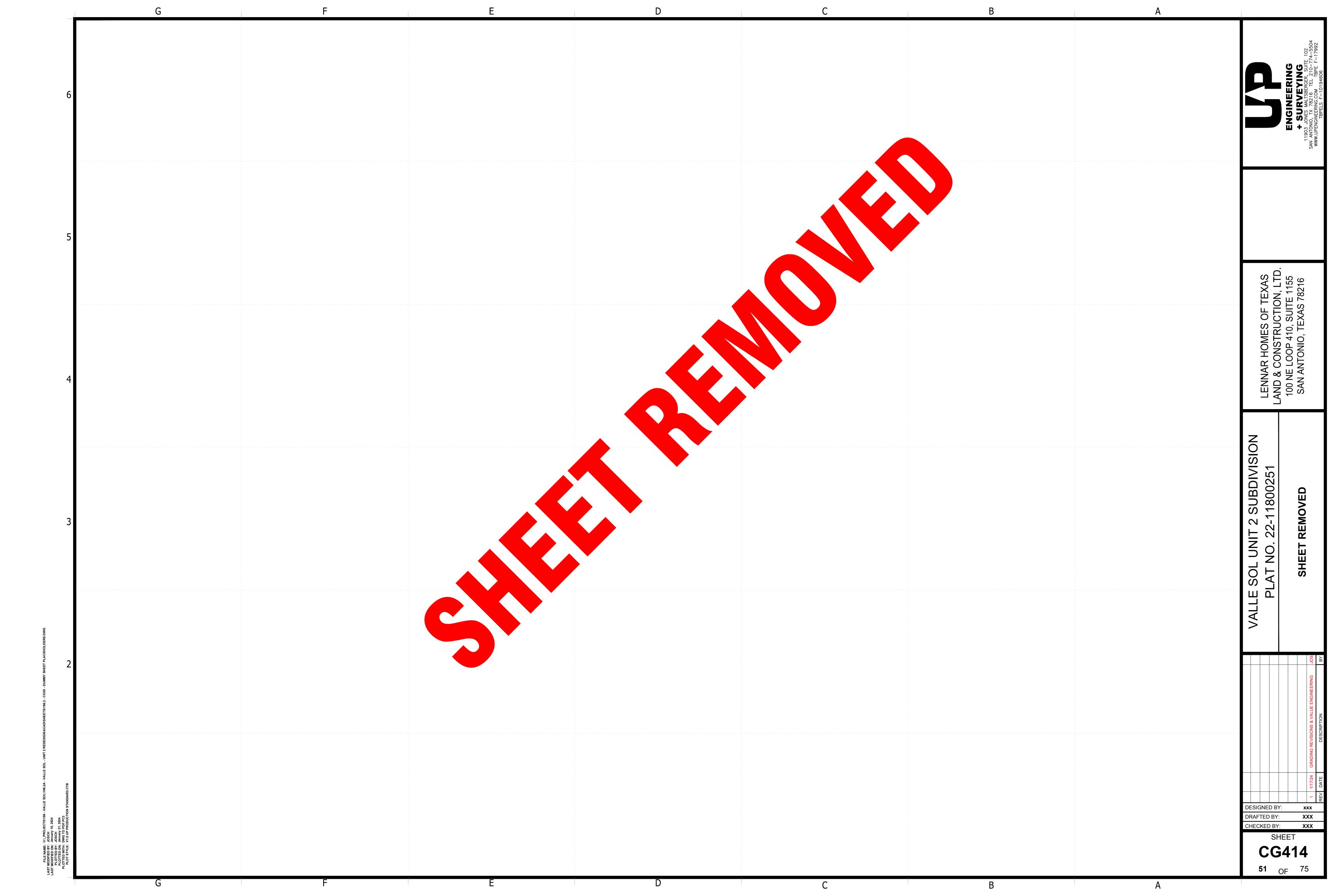


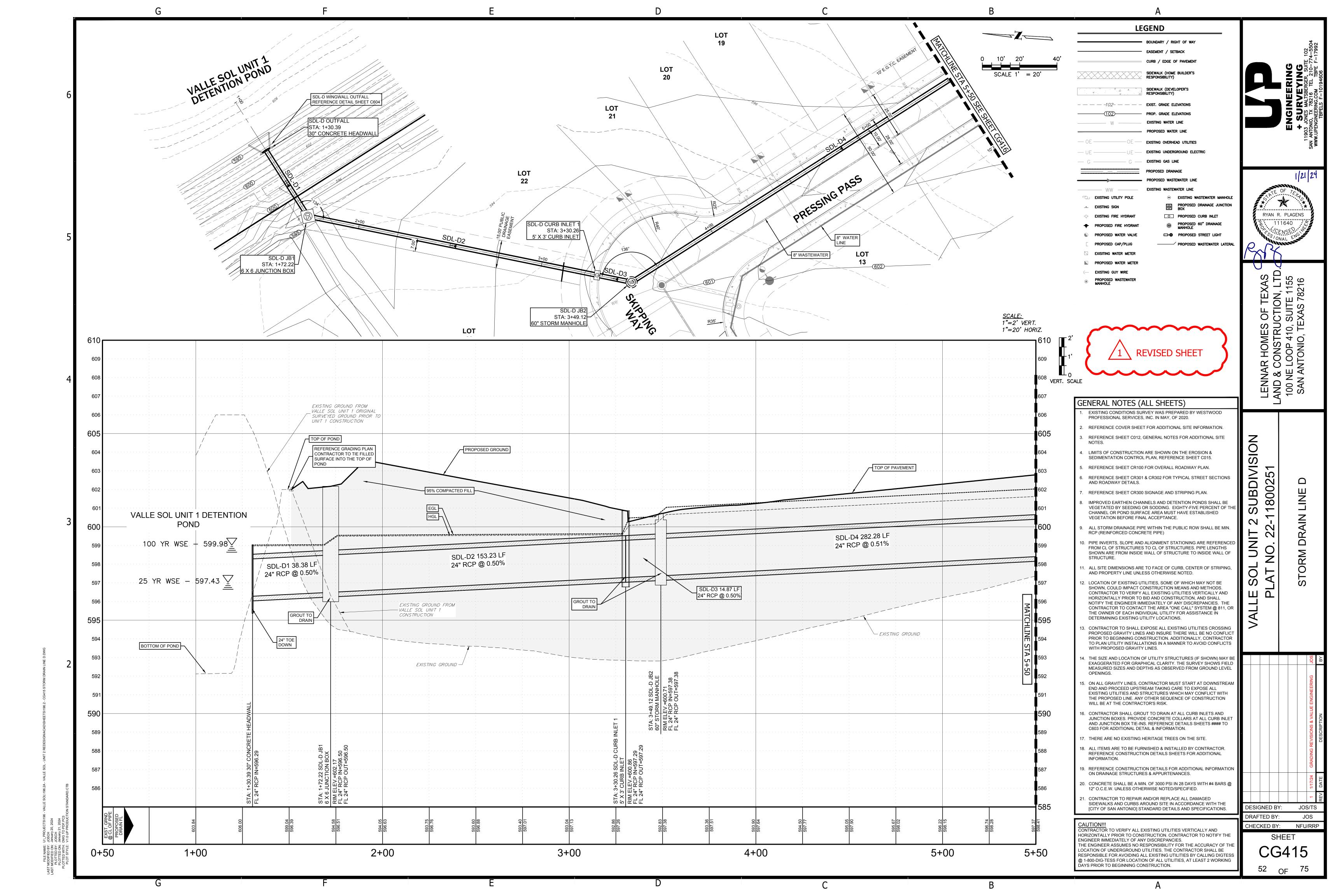


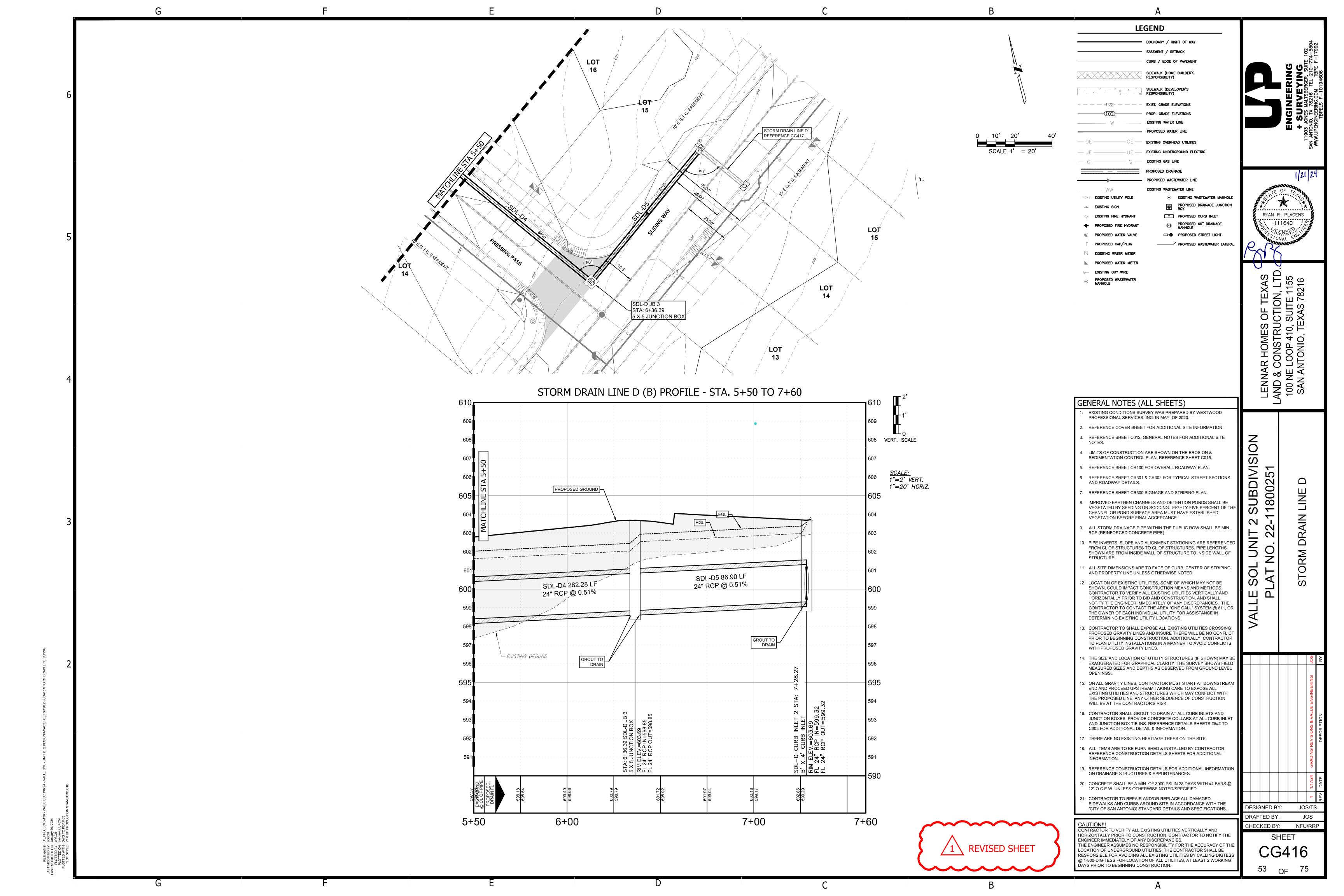


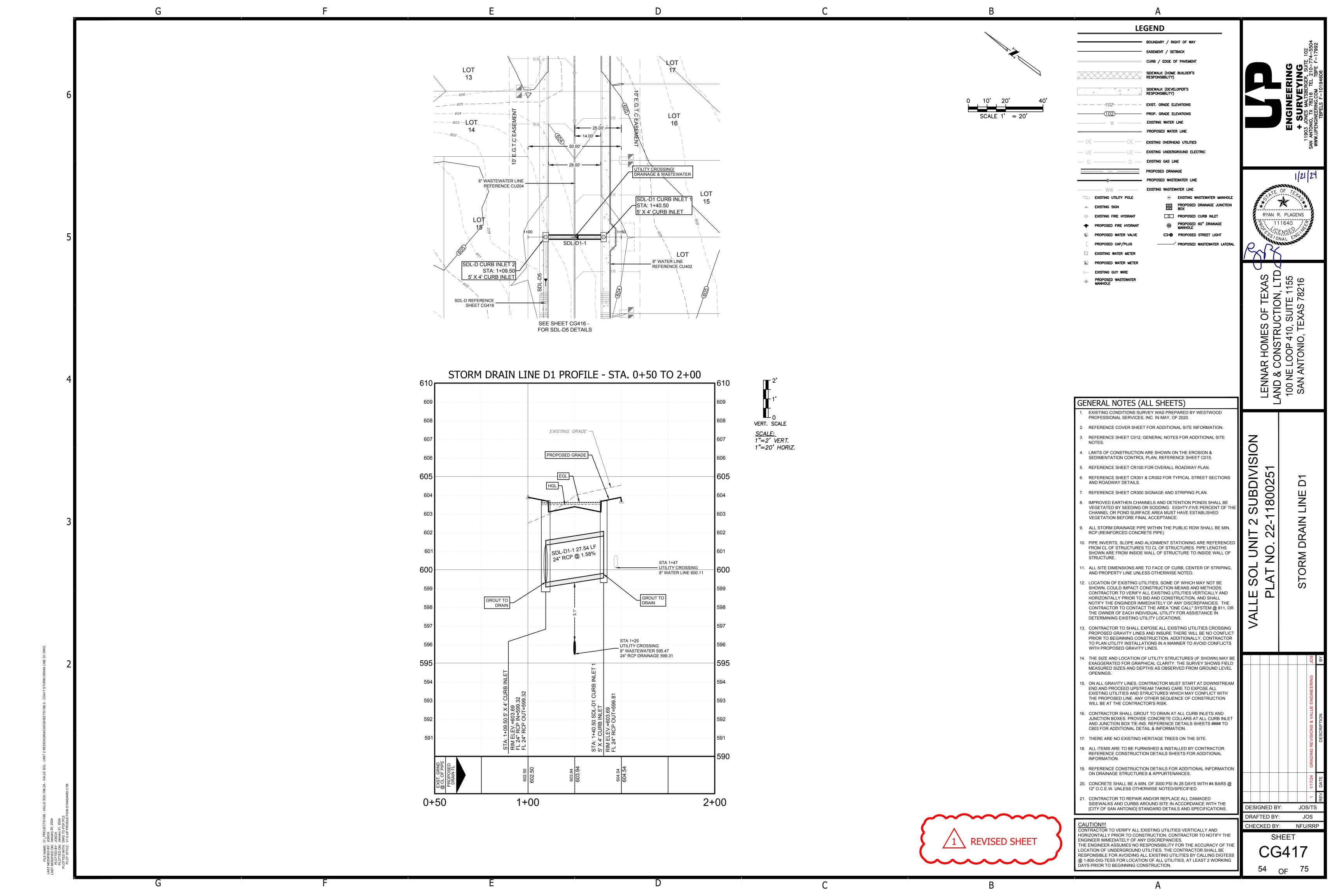


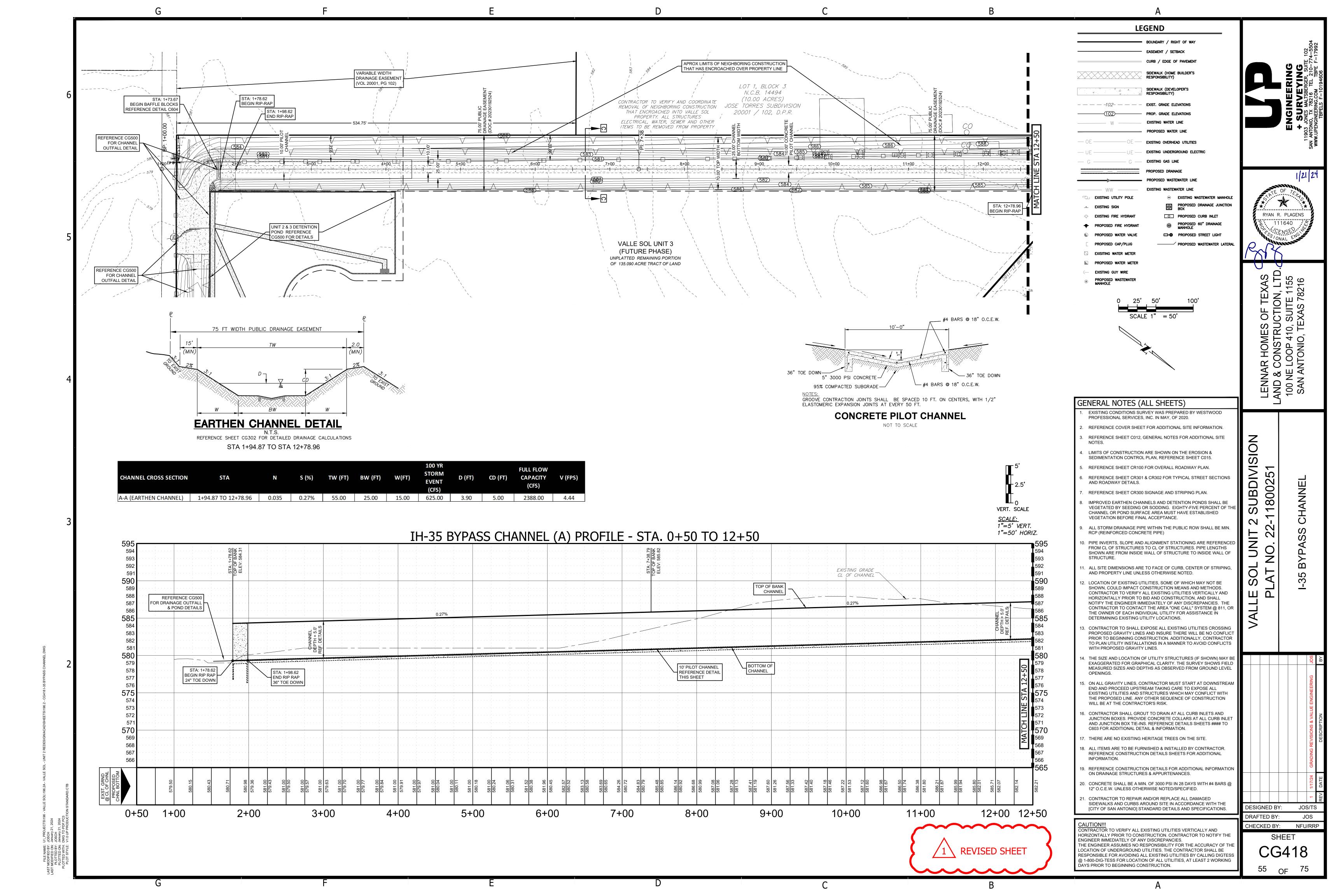


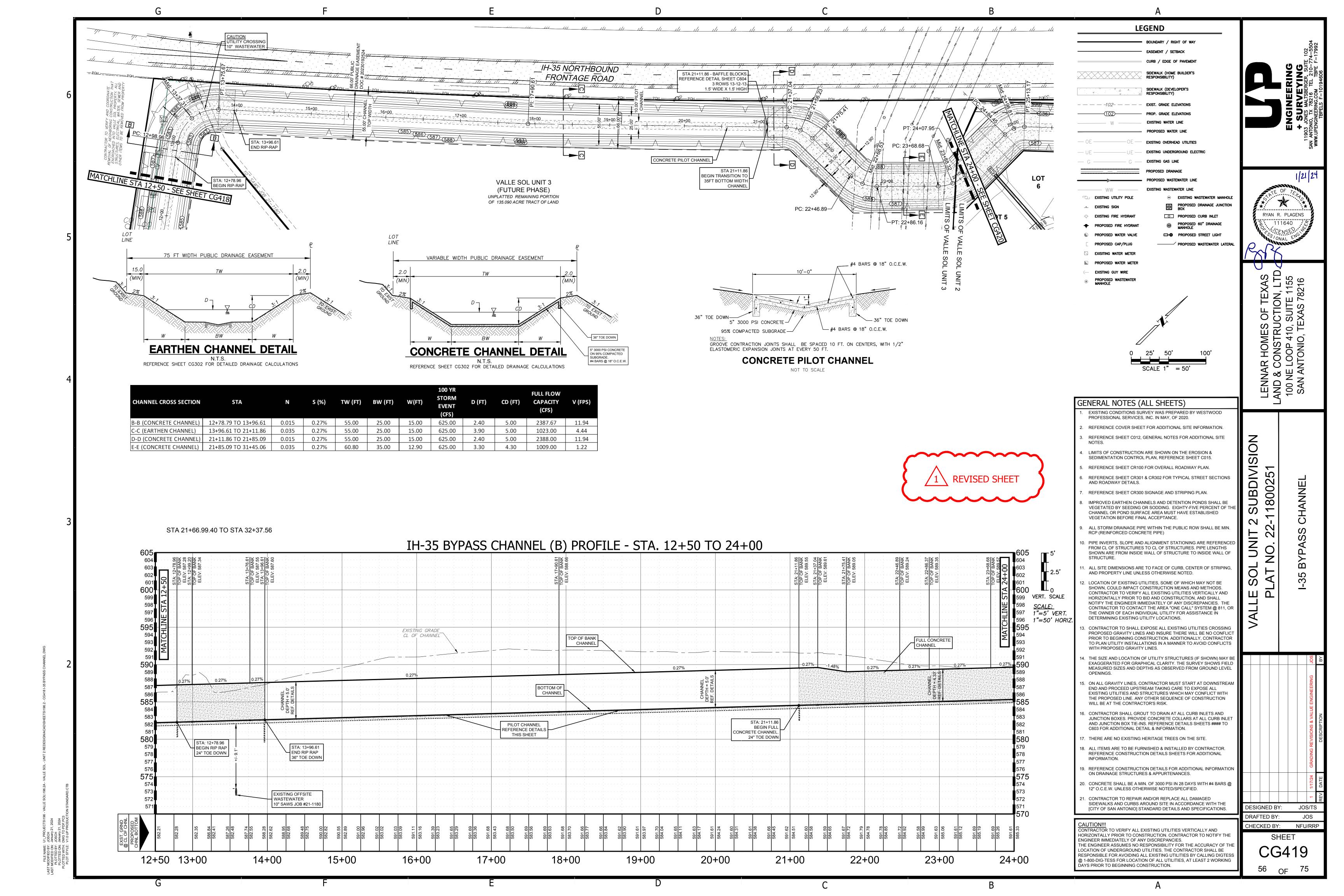


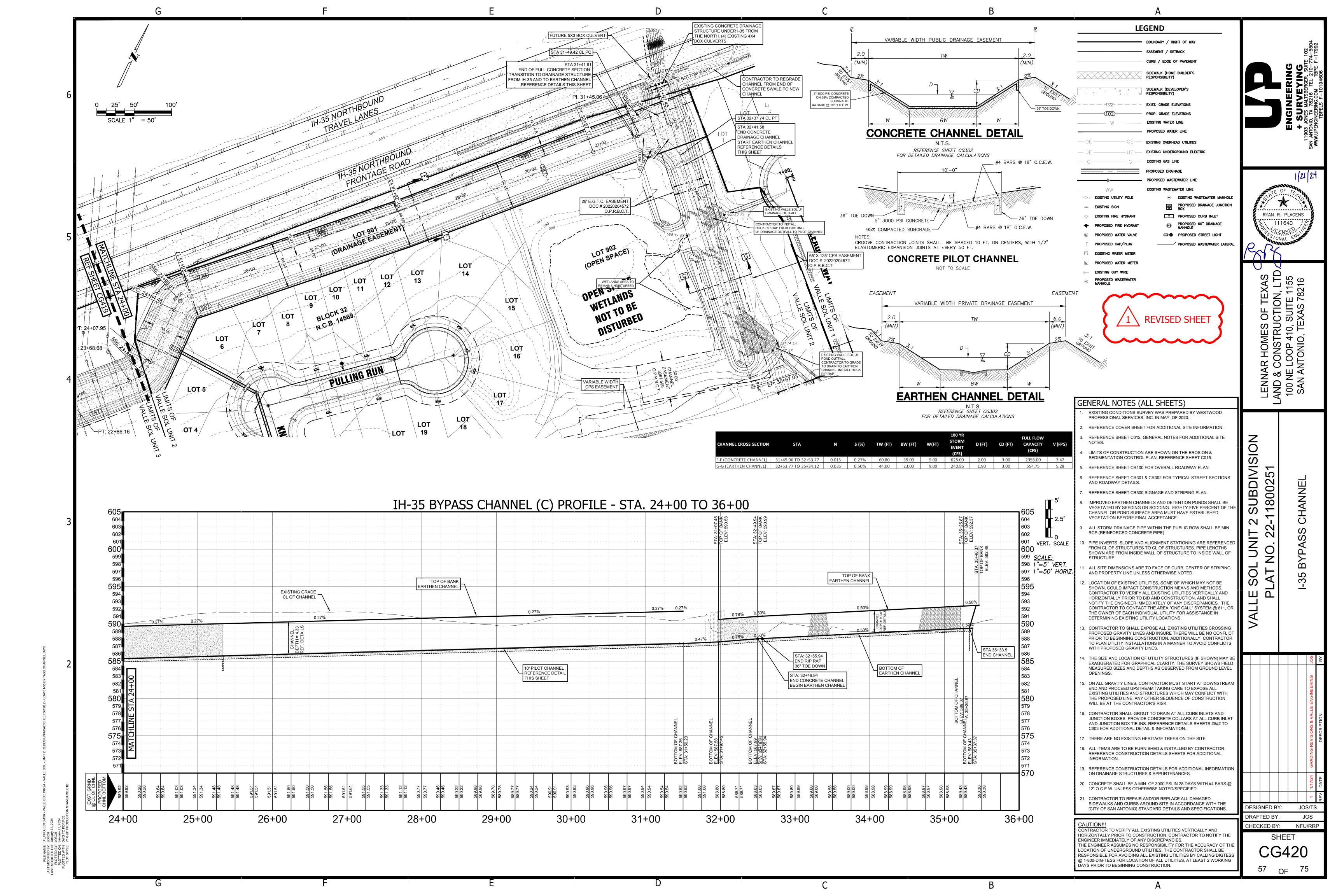


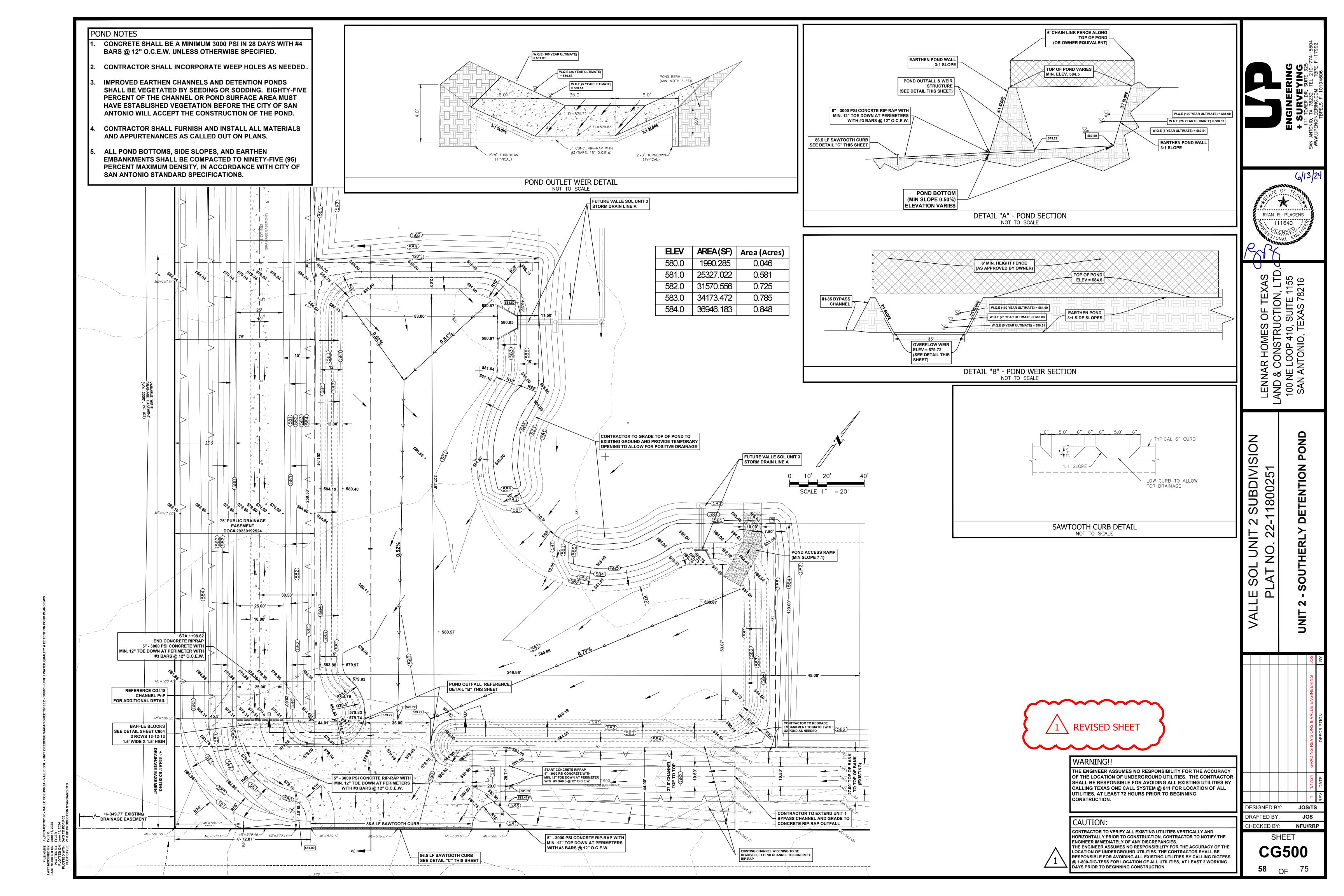








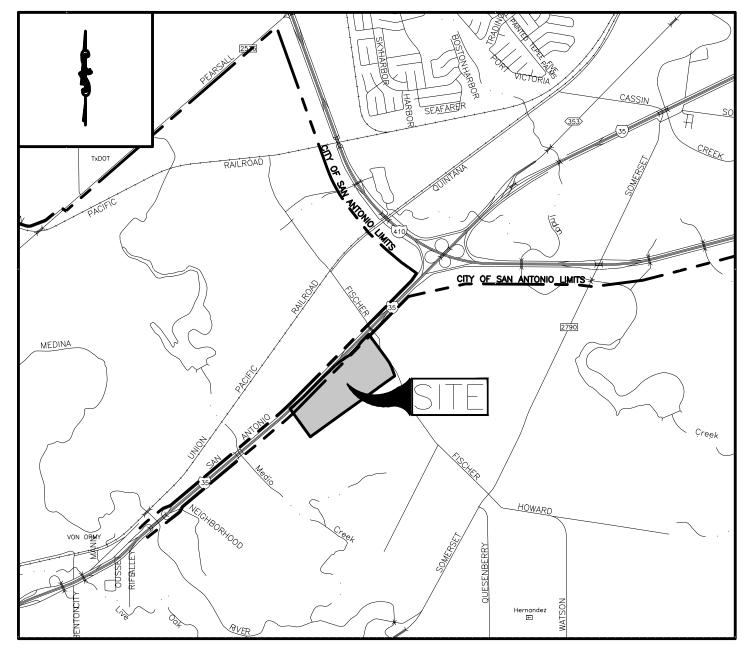




## WASTEWATER CONSTRUCTION DOCUMENTS FOR VALLE SOL UNIT 2 SUBDIVISION

San Antonio, Texas

PLAT NO. 22-11800251



**VICINITY MAP** 

PERMITTED - SEPTEMBER 15, 2023 REVISED DATE - JANUARY 17, 2024

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 704-SAWS (210-704-7297). PROVIDE THE ADDRESS OF THE SPILL AND AN **ESTIMATED VOLUME OR FLOW.** 

B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO. C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF

D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.

E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS. F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE

CLEANING AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS. SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA.

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

- 2. THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED, IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION ITEM NO. 865, "BYPASS PUMPING SMALL DIAMETER SANITARY SEWER MAINS" AND STANDARD SPECIFICATION ITEM NO. 864, "BYPASS PUMPING LARGE DIAMETER SANITARY SEWER MAINS" AS APPLICABLE. PAYMENT FOR SUCH WORK WILL BE MADE UNDER THE APPROPRIATE BID ITEM ASSOCIATED WITH SANITARY SEWER BYPASS PUMPING IN ACCORDANCE WITH SAWS STANDARD SPECIFICATIONS 865 AND 864.
- 3. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-3500 AND/OR SAWS PRODUCTION GROUPS AT LEAST TWO WEEKS OR MORE IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
- 4. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS. (NSPI)
- WHERE EXISTING MANHOLES ARE TO BE REPLACED BY THE CONTRACTOR, THE EXISTING MANHOLES SHALL BE REMOVED. (NSPI)
- 6. SMART MANHOLE COVERS: THE CONTRACTOR SHALL NOTIFY SAWS EOC AT 210-233-SAWS (210-233-7297) AND EITHER AMERICA ESPINOZA AT 210-233-2934 OR JOSE A. MARTINEZ AT 210-233-3071 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE, IN ORDER TO HAVE SAWS REMOVE THE SMART COVER. ANY DAMAGE DONE TO THE SMART COVER WILL BE CHARGED TO THE CONTRACTOR
- 7. FLOW METERS IN MANHOLES: THE CONTRACTOR SHALL NOTIFY BOBBY JOHNSON AT 210-233-3493 OR ABEL BORUNDA AT 210-233-3704 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE, IN ORDER TO HAVE SAWS REMOVE THE FLOW METER IN THE MANHOLE. ANY DAMAGE DONE TO

THE FLOW METER WILL BE CHARGED TO THE CONTRACTOR THROUGH A CHANGE ORDER.

SAWS - WASTEWATER CONSTRUCTION SHEET LIST		
SHEET NUMBER	SHEET TITLE	
WASTEWATER SHEETS		
CU000	SAWS SANITARY SEWER COVER SHEET	
CU100	OVERALL UTILITY LAYOUT	
CU200	WASTEWATER LINE A	
CU201	WASTEWATER LINE B	
CU202	WASTEWATER LINE B	
CU203	WASTEWATER LINE C	
CU204	WASTEWATER LINE D	
CU205	EXISTING WASTEWATER LINE A - REMEMBER WAY	
CU206	WASTEWATER LINE E	



UPPER MEDINA RIVER WATERSHED - DOS RIOS W.R.C.

Developer: LENNAR HOMES OF TEXAS LAND	& CONSTRUCTION, LTD.
Address: 100 NE LOOP 410, SUITE 1155	
City: SAN ANTONIO State: TEXAS	Zip: <u>78216</u>
Phone:	_ Fax:
SAWS Block Map: 122-536 Total EDUs:	195 Total Acreage: 33.62
Total Linear Footage of Pipe: 4,734 L.F. 8 6,494 L.F. 6	
Number of Lots: 4 N.S.F. SAV	WS Job No.: <u>22-1656</u>



UBDIV

DESIGNED BY:

NFU/RRP

CHECKED BY:

13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"

2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF

BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK

TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTOR AND/OR THE DEVELOPER.

THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS

COMPLETED BY THE CONTRACTOR WITHOUT AND APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT

HTTP//WWW.SAWS.ORG/BUSINESS\_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.

4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210)

233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR

5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD

1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY

STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WETHER SHOWN ON PLANS OR NOT. PLEASE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS,

8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL

BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.

9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE

10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST

11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED

12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION

REQUIREMENTS ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS PREFORMED BY A THIRD PARTY.

COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE

SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A

MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING

HOLIDAYS. REQUESTS SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG. WEEKEND WORK: CONTRACTORS ARE

REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG. ANY AND ALL SAWS UTILITY

WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER

DRIVEWAYS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE

6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AND DRAINAGE

TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST

SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST

ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE

210-207-0724 OR (210) 207-6026

210-206-8480

210-207-3951

1-800-545-6005 OR 811

E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).

3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE,

FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:

SAWS UTILITY LOCATES: HTTP//WWW.SAWS.ORG/SERVICE/LOCATES

COSA DRAINAGE

COSA TRAFFIC SIGNAL OPERATIONS

TEXAS STATE WIDE ONE CALL LOCATOR

AS A RESULT OF THE PROJECT'S CONSTRUCTION.

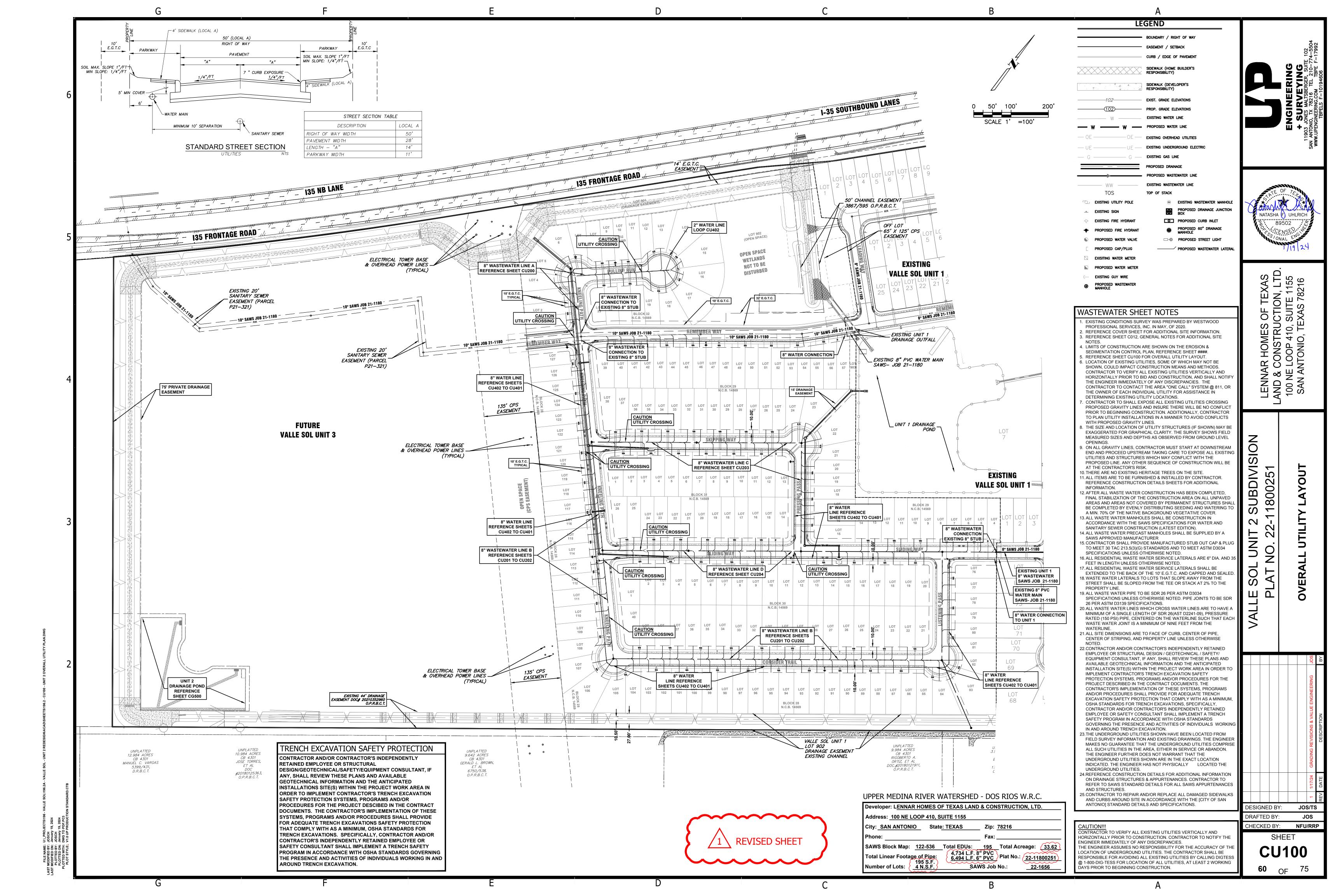
ORDINANCES WHEN EXCAVATING NEAR TREES.

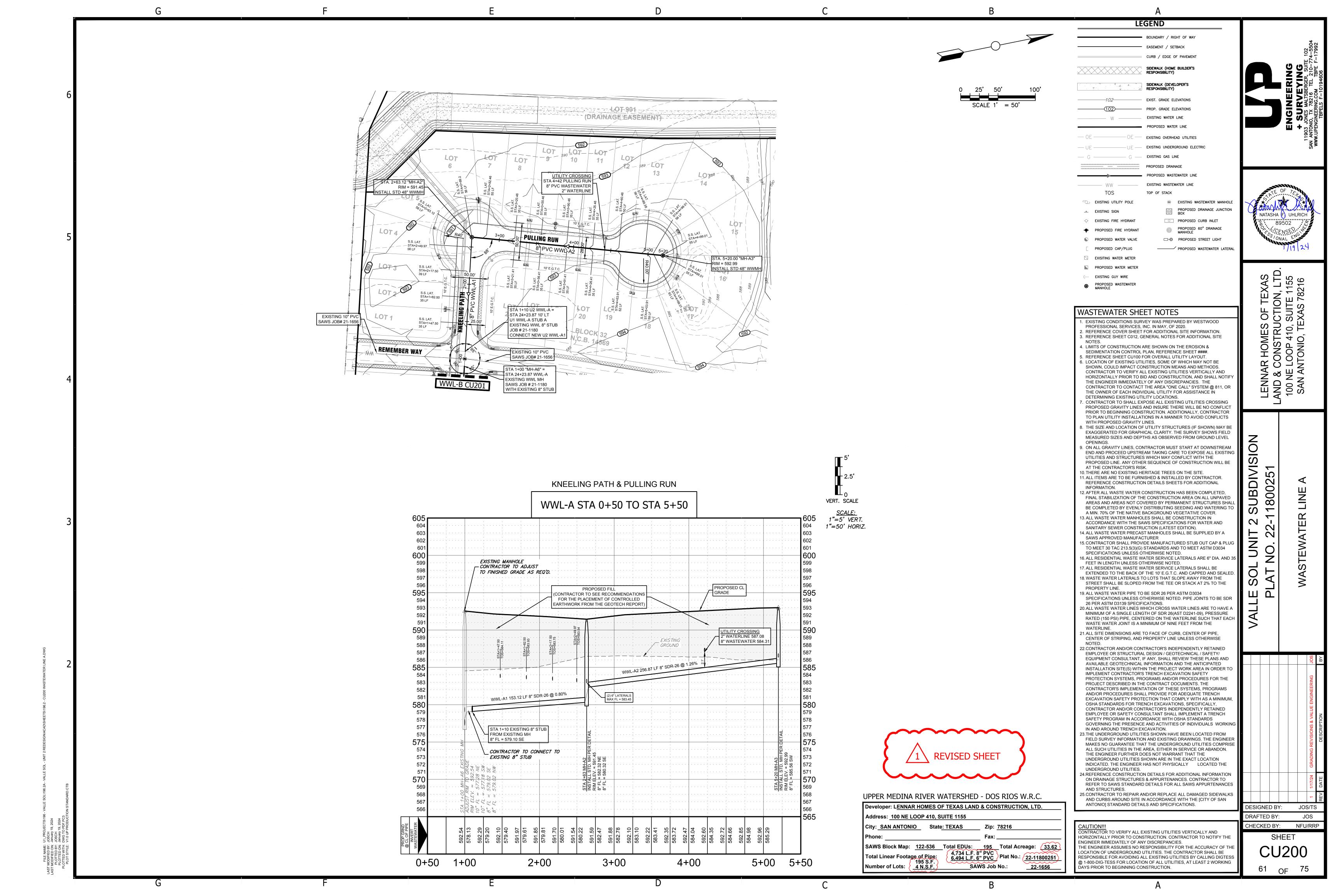
OBTAINING AN APPROVED FLOOD PLAIN PERMIT.

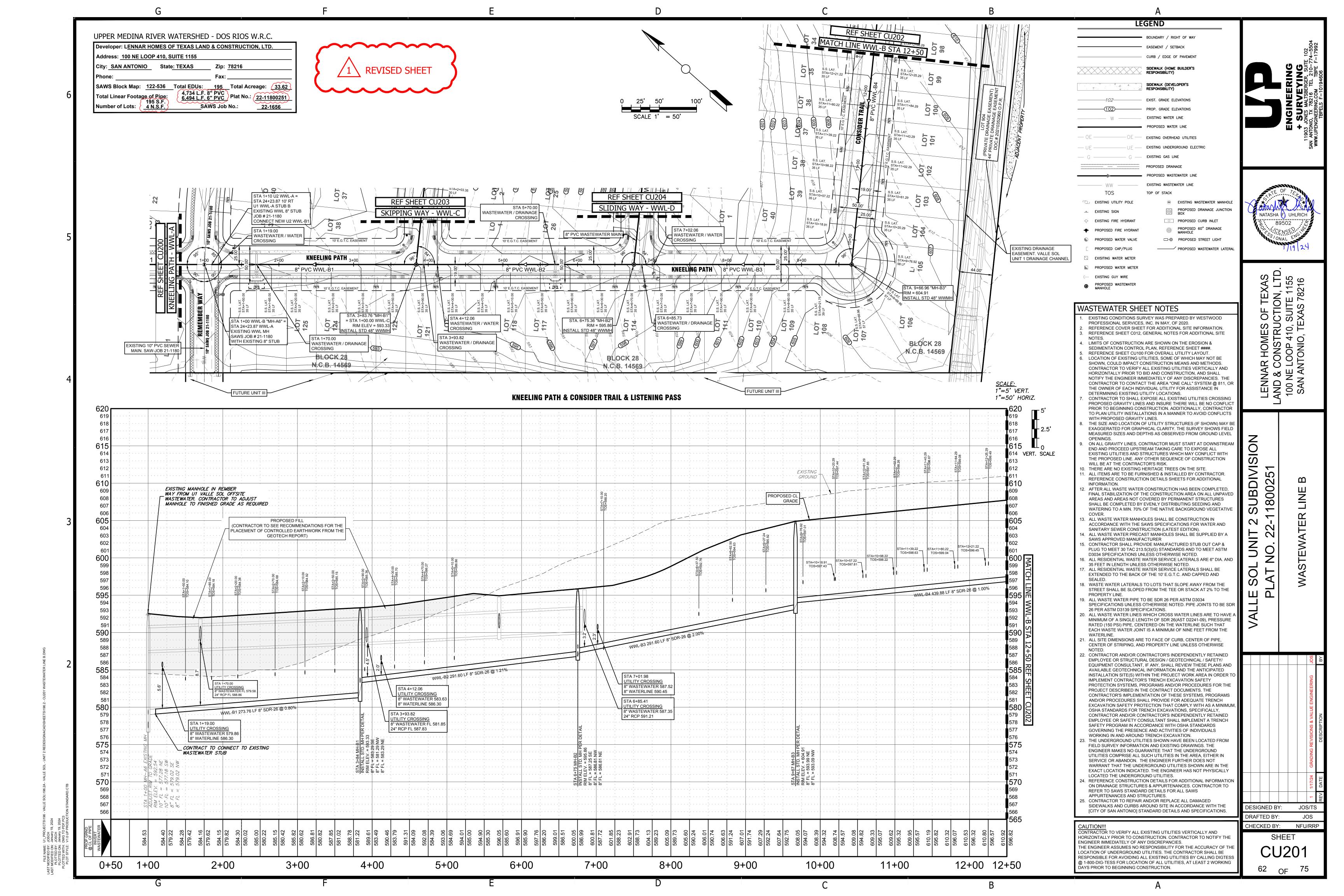
COSA TRAFFIC SIGNAL DAMAGES

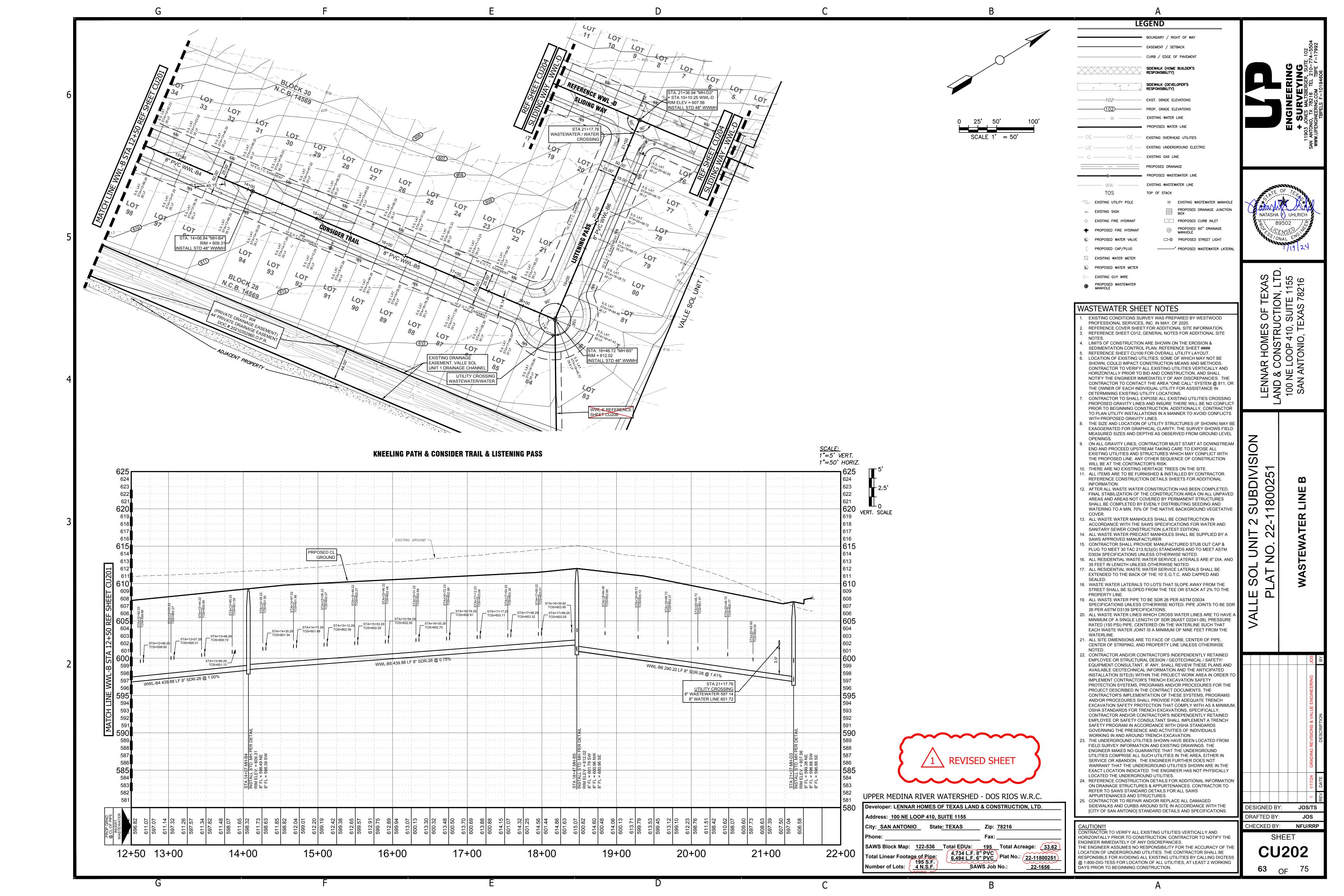
PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.

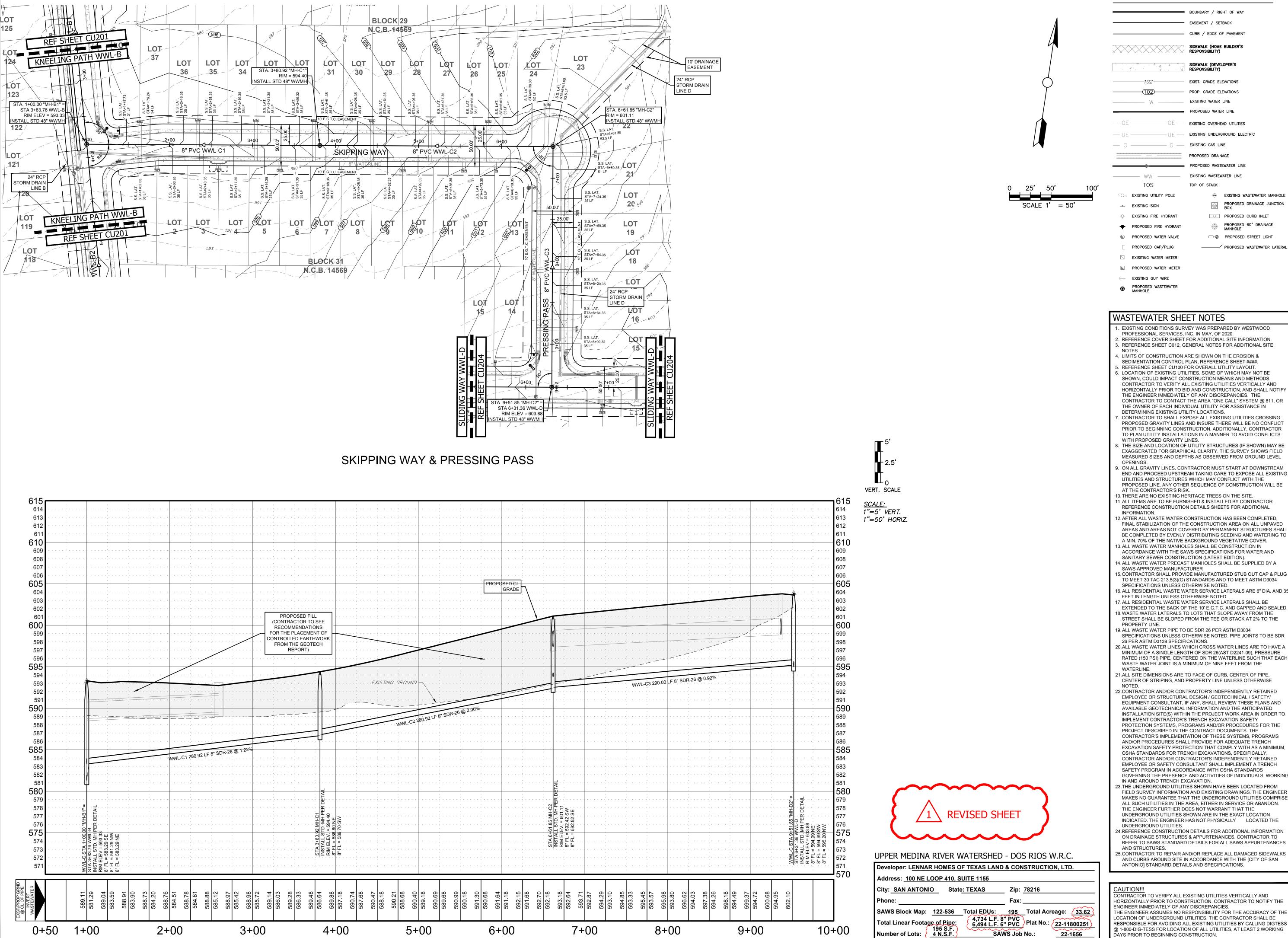
THROUGH A CHANGE ORDER.











LEGEND EXISTING WASTEWATER MANHOLE NATASHA (F.) UHLRICH PROPOSED CURB INLET 89502 PROPOSED 60" DRAINAGE MANHOLE □→◎ PROPOSED STREET LIGHT PROPOSED WASTEWATER LATERAL LENNAR HAND & CO

. REFERENCE COVER SHEET FOR ADDITIONAL SITE INFORMATION. 3. REFERENCE SHEET C012, GENERAL NOTES FOR ADDITIONAL SITE

LOCATION OF EXISTING UTILITIES, SOME OF WHICH MAY NOT BE SHOWN, COULD IMPACT CONSTRUCTION MEANS AND METHODS. CONTRACTOR TO VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO BID AND CONSTRUCTION, AND SHALL NOTIFY

THE OWNER OF EACH INDIVIDUAL UTILITY FOR ASSISTANCE IN CONTRACTOR TO SHALL EXPOSE ALL EXISTING UTILITIES CROSSING PROPOSED GRAVITY LINES AND INSURE THERE WILL BE NO CONFLICT

PRIOR TO BEGINNING CONSTRUCTION. ADDITIONALLY, CONTRACTOR TO PLAN UTILITY INSTALLATIONS IN A MANNER TO AVOID CONFLICTS . THE SIZE AND LOCATION OF UTILITY STRUCTURES (IF SHOWN) MAY BE

MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL ON ALL GRAVITY LINES, CONTRACTOR MUST START AT DOWNSTREAM END AND PROCEED UPSTREAM TAKING CARE TO EXPOSE ALL EXISTING

UTILITIES AND STRUCTURES WHICH MAY CONFLICT WITH THE PROPOSED LINE. ANY OTHER SEQUENCE OF CONSTRUCTION WILL BE

1. ALL ITEMS ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL

12. AFTER ALL WASTE WATER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL

A MIN. 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER. ACCORDANCE WITH THE SAWS SPECIFICATIONS FOR WATER AND

14. ALL WASTE WATER PRECAST MANHOLES SHALL BE SUPPLIED BY A

15. CONTRACTOR SHALL PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034

7. ALL RESIDENTIAL WASTE WATER SERVICE LATERALS SHALL BE

EXTENDED TO THE BACK OF THE 10' E.G.T.C. AND CAPPED AND SEALED. 18. WASTE WATER LATERALS TO LOTS THAT SLOPE AWAY FROM THE STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE

SPECIFICATIONS UNLESS OTHERWISE NOTED. PIPE JOINTS TO BE SDR 20.ALL WASTE WATER LINES WHICH CROSS WATER LINES ARE TO HAVE A MINIMUM OF A SINGLE LENGTH OF SDR 26(AST D2241-09), PRESSURE

22.CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN / GEOTECHNICAL / SAFETY/ EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO

CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING

3.THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDON.

4.REFERENCE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION ON DRAINAGE STRUCTURES & APPURTENANCES. CONTRACTOR TO REFER TO SAWS STANDARD DETAILS FOR ALL SAWS APPURTENANCES

25.CONTRACTOR TO REPAIR AND/OR REPLACE ALL DAMAGED SIDEWALKS AND CURBS AROUND SITE IN ACCORDANCE WITH THE [CITY OF SAN

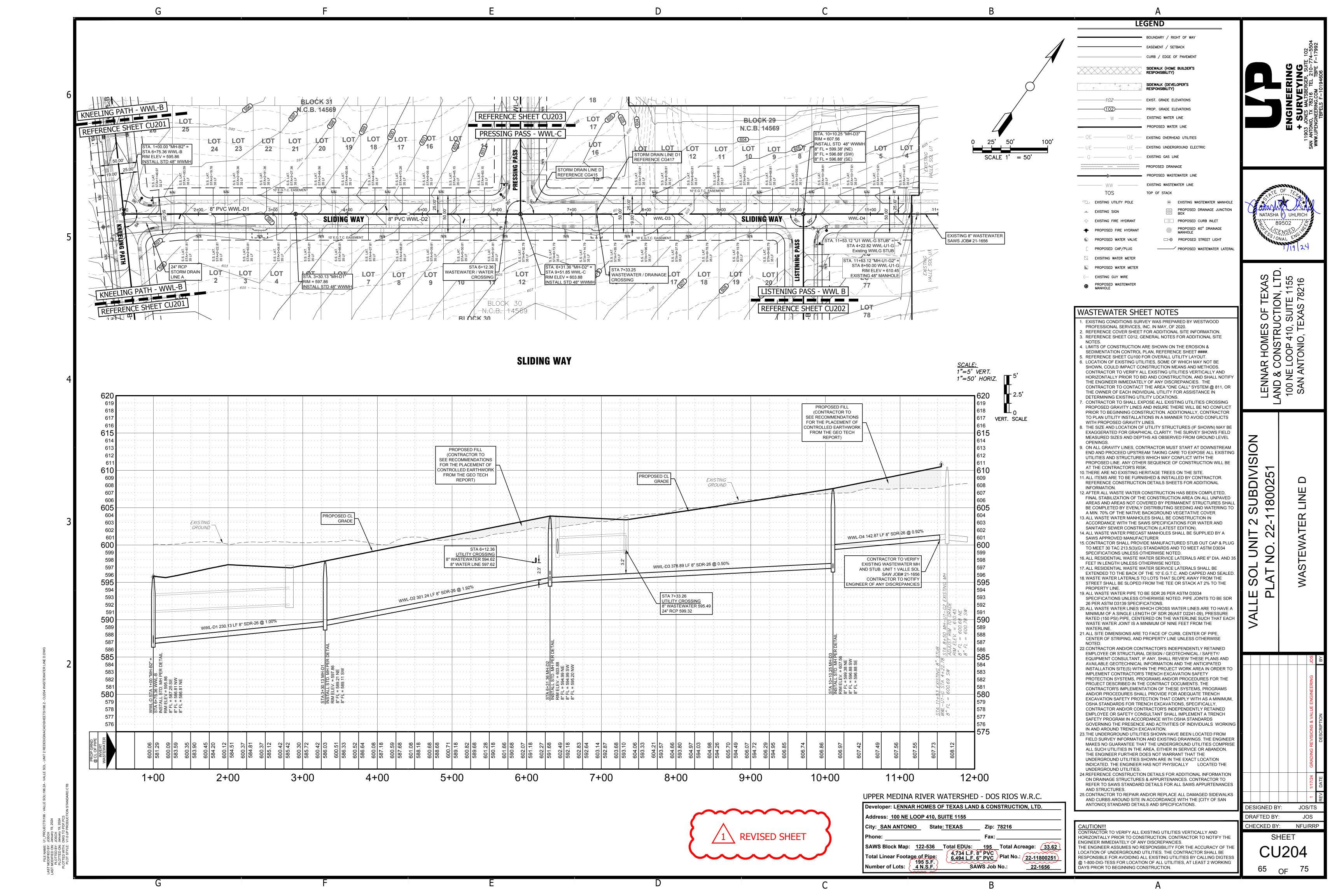
HORIZONTALLY PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY THE THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL EXISTING UTILITIES BY CALLING DIGTESS @ 1-800-DIG-TESS FOR LOCATION OF ALL UTILITIES, AT LEAST 2 WORKING

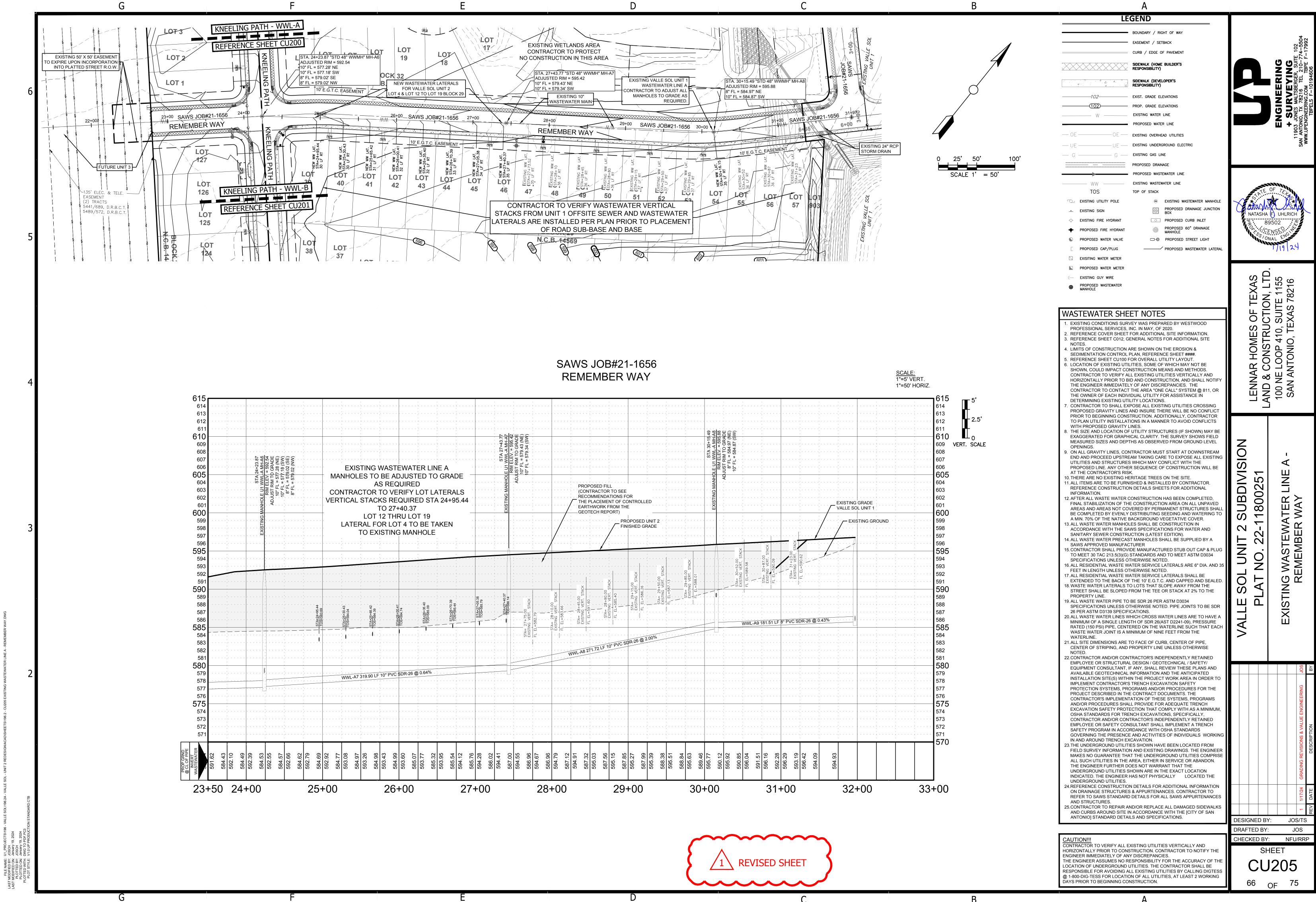
DESIGNED BY: JOS/TS DRAFTED BY JOS HECKED BY: NFU/RRF

UBDIVI

S ←

64 <sub>OF</sub> 75



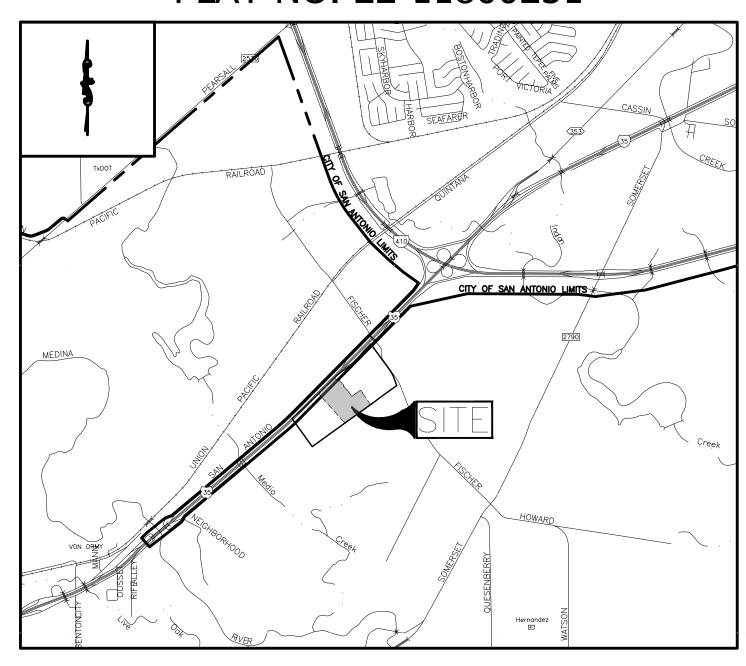




## WATER CONSTRUCTION DOCUMENTS FOR VALLE SOL UNIT 2 SUBDIVISION

San Antonio, Texas

PLAT NO. 22-11800251



CONSTRUCTION SHEET LIST

SHEET NUMBER

CU400 SAWS WATER COVER SHEET

CU401 WATER SYSTEM (1)

CU402 WATER SYSTEM (2)

VICINITY MAP

NOT TO SCALE

PERMITTED DATE: October 4, 2023

REVISED DATE: January 17, 2024

TEXAS STATEWIDE ONE CALL LOCATOR 1-800-545-6005 OR 811

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING, AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGES DONE BY THE PROJECT'S CONSTRUCTION.

**COSA DRAINAGE 210-206-8433** 

COSA TRAFFIC SIGNAL OPERATIONS 210-207-7720

8. CONTRACTOR SHALL NOT MAKE USE OF DUMPSTERS OR WASTE BINS THAT ARE INTENDED TO SERVE RESIDENTS AND/OR BUSINESSES.

9. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION AND BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT.

10. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.

11. ALL WORK WITHIN THE 100-YEAR FLOODPLAIN SHALL BE DONE IN ACCORDANCE WITH FLOODPLAIN DEVELOPMENT PERMIT.

12. ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BY THE SAN ANTONIO WATER SYSTEM.

13. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS.

WEEKEND WORK: CONTRACTORS ARE REQUIRED TO SUBMIT REQUEST TO THE SAWS

INSPECTION CONSTRUCTION DEPARTMENT BY 12:00PM ON THE WEDNESDAY PRIOR TO THE WEEKEND BEING REQUESTED. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION AT NO COST TO SAWS.

14. PRE-CON SITE VIDEO: BEFORE THE START OF ANY CONSTRUCTION. THE SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO SAWS INSPECTIONS. A PRE-SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF THE EXISTING CONDITIONS (NSPI).

15. POWER POLE BRACING: CONTRACTORS SHOULD BE ADVISED THAT THERE ARE EXISTING OVERHEAD UTILITY POLES ALONG THE PROJECT CORRIDOR.

CONTRACTORS SHOULD FURTHER BE ADVISED THAT IF THE DISTANCE FROM THE OUTSIDE FACE OF A UTILITY TRENCH TO THE FACE OF A UTILITY POLE IS LESS THAN 5 FEET, SAID UTILITY POLE IS SUBJECT TO BRACING, BASED ON A DETERMINATION MADE BY UTILITY POLE OWNER. IT IS ADVISABLE FOR THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS AND VISIT THE CONSTRUCTION SITE TO DETERMINE POTENTIAL IMPACTS.

16. CONSTRUCTION SEQUENCING: IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SCHEDULE SEQUENCING FOR REMOVAL AND INSTALLATION OF EXISTING AND PROPOSED SAWS UTILITIES IN CONJUNCTION WITH GENERAL PROJECT CONSTRUCTION. SEQUENCE OF CONSTRUCTION ACTIVITIES SHALL BE CONSIDERED IN ORDER TO MINIMIZE THE EXTENT AND DURATION OF DISTURBANCES.

17. CONTRACTOR SHALL COMPLY WITH APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE OVERSEEN BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA INFORMATION AND RELATED MATERIALS MAY BE OBTAINED AT HTTPS://www.osha.gov/ or at the osha san antonio office located at fountainhead tower, suite 605 8200 W. Interstate 10 San antonio, TX 78230 Which is also reachable by Phone at (210) 472-5040.

18. TRENCH EXCAVATION SAFETY PROTECTION: CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREAS IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

WATER SECTION

1. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH SAWS CONSTRUCTION INSPECTION DIVISION AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATION CENTER (210) 233-2014.

2. ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS-CONTAINING MATERIAL (ACM), MAY BE LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE".

3. VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)

4. SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS, PLUGS, CAPS, TEES, CROSSES, VALVES AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD-839 SERIES AND ITEM NO. 839, IN THE SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.

5. ALL VALVES SHALL READ "OPEN RIGHT"

6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 605 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS

BELOW 605 FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF \*PRV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. \*NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE (PRV).

7. PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR FEET. (ITEM #847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.

B. BACKFLOW PREVENTION DEVICES:

8.1. ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACKFLOW [REVENTION DEVICES.

8.2. ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY SAWS PRIOR TO INSTALLATION.

9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND SAWS HAS RELEASED THE MAIN FOR TIE-IN AND USE.



## SAWS PRESSURE ZONE 790

Developer: LENNAR HOMES C	F TEXAS LAND & CO	NSTRUCTION, LTD.
Address: 100 NE LOOP 410, S	SUITE 1155	
City: SAN ANTONIO State	e: TEXAS Zip	78216
Phone:	Fax	:
SAWS Block Map: 122-536	_Total EDUs: <u>195</u>	Total Acreage: <u>33.62</u>
Total Linear Footage of Pipe: 195 S.F.	5,643 L.F. 8" PVC 297 L.F. 2" CU	Plat No.: <u>22-11800251</u>
Number of Lots: 4 N.S.F.	SAWS Jo	b No.: 22-1163

ENGINEERING + SURVEYING 33 JONES MALTSBERGER, SUITE 102



ENNAR HOMES OF TEXAS ND & CONSTRUCTION, LTC 00 NE LOOP 410, SUITE 1155 SAN ANTONIO, TEXAS 78216

). 22-11800251

SION

PLAT NO. 22-118002

DESIGNED BY: JOS

CHECKED BY: DATE

SHEET

CHAPTION

BY

BY

SHEET

CHAPTION

BY

SHEET

CHAPTION

BY

CHECKED BY: DATE

CHECKED BY: DESCRIPTION

FILE NAME: U:\\_PROJECTS\196 AST MODIFIED BY: TYLER AST MODIFIED ON: January 18, 2024 PLOTTED BY: TYLER PLOTTED ON: January 18, 2024 DI OTTED WITH: DWG TO DRE PCS

.

**SAWS CONSTRUCTION NOTES** 

CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND

COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE

A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN

CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE

(TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30

C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR

E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL"

2. THE CONTRACTOR SHALL OBTAIN SAWS STANDARD DETAILS FROM SAWS

3. THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SAWS

CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 (DURING REGULAR SAWS

WORKING HOURS) AND PROVIDE NOTIFICATION PROCEDURES THE CONTRACTOR

(2) WEEKS PRIOR TO EXCAVATION. OUTSIDE OF REGULAR SAWS WORKING HOURS

4. IF NECESSARY, CONTRACTOR WILL COORDINATE USE OF SAWS PREMISES AT

NO ADDITIONAL COST TO SAWS. SUCH EFFORTS INCLUDE, BUT ARE NOT LIMITED TO,

**OBTAINING SECURITY IDENTIFICATION BADGES REQUIRED FOR ACCESS TO SAWS** 

LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS

CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE

UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM

6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND

UTILITIES AND DRAINAGE STRUCTURES PRIOR TO CONSTRUCTION WHETHER SHOWN

WEBSITE BELOW. CONTRACTOR SHALL COORDINATE PHYSICAL LOCATES FOR SAWS

ON PLANS OR NOT. AS-BUILTS FOR SAWS INFRASTRUCTURE CAN BE OBTAINED AT

INFRASTRUCTURE THROUGH THE SAWS INSPECTOR. PLEASE ALLOW UP TO 7

REQUEST AS-BUILTS: HTTPS://WWW.SAWS.ORG/SERVICE/LOCATES-SERVICE/

BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS

INFRASTRUCTURE. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR

AND DEPTHS MUST BE FIELD VERIF IED BY THE CONTRACTOR PRIOR TO

SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS

WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS TWO

WEBSITE, HTTPS://APPS.SAWS.ORG/BUSINESS\_CENTER/SPECS/CONSTSPECS/

B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF

D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR

WATER AND SANITARY SEWER CONSTRUCTION."

UNLESS OTHERWISE NOTED WITHIN DESIGN PLANS.

THE SAWS EOC SHOULD BE CONTACTED AT 210-704-7297.

**DURING CONSTRUCTION AT NO COST TO SAWS.** 

**VERIFICATION PURPOSES:** 

SAN ANTONIO WATER SYSTEM:

FOLLOWING AS APPLICABLE:

PART 1 CHAPTER 290.

HIGHWAYS,

FACILITIES.

CONSTRUCTION."

ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS

)

1

