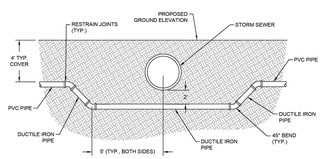
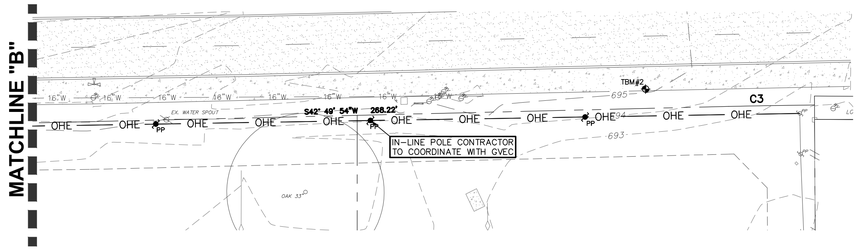


NOTES:

1. MAINTAIN 24 INCH (MIN.) SEPARATION FROM STORM SEWER LINE.
2. 45° BENDS MUST BE THRUST BLOCKED AND RESTRAINED AT BOTTOM BENDS. SEE STANDARD DETAIL.

GREEN VALLEY SPECIAL UTILITY DISTRICT STANDARD DETAILS	STORM SEWER CROSSING	
REVISED: JANUARY 2024	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	DETAIL NO. W-17



Line Table		
Line #	Length	Direction
L1	3.62'	S44° 33' 06"W
L2	4.95'	S45° 32' 43"E

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD	CHORD BEARING
C1	27.78'	18.31'	086°55'28"	25.19'	S05°47'39"E
C2	77.49'	3049.00'	001°27'22"	77.49'	N43°33'19"E
C3	35.99'	2951.00'	000°41'56"	35.99'	S43°10'52"W

SCALE: 1"=30'

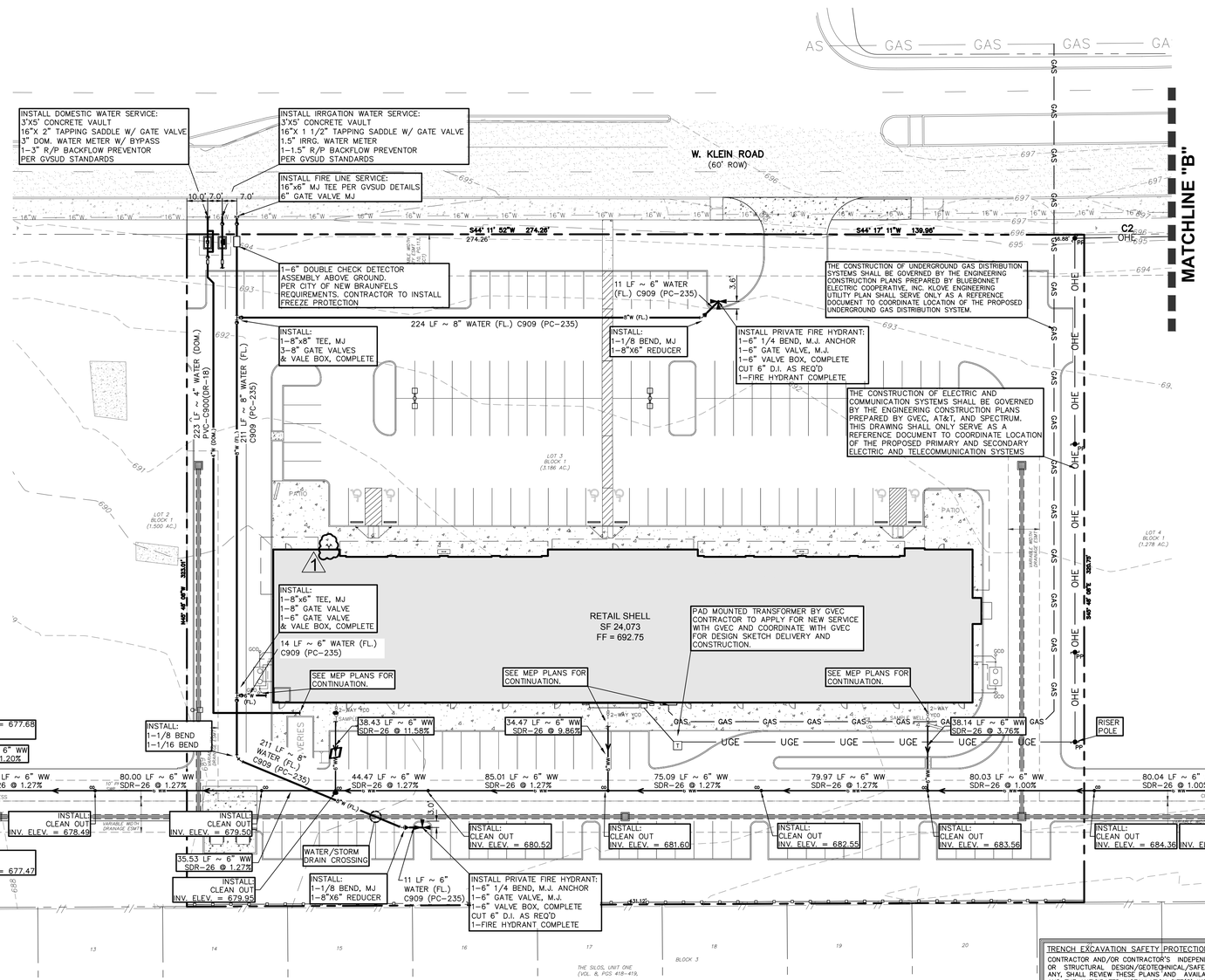
30 15 0 30

NOTES:

1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO STREETS.
2. NO VALVES, HYDRANTS, CLEANOUTS ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
3. THE UTILITY TRENCH COMPACTION NOTE FROM THE STANDARD CITY CONSTRUCTION PLAN NOTES.

UTILITY NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS, AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT. THIS ESPECIALLY INCLUDES STREET CUT PERMITS OR GREEN VALLEY SPECIAL UTILITY DISTRICT PERMITS.
2. ALL ITEMS NOT SPECIFICALLY CALLED FOR ON THE PLANS, OR IN THE CONSTRUCTION NOTES BUT NECESSARY TO REASONABLY CONSTRUCT THE FACILITY OR IMPROVEMENT, SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO SEPARATE PAY ITEMS WILL BE MADE FOR THESE ITEMS.
3. THE CONTRACTOR SHALL EXCAVATE AROUND EXISTING UTILITIES WHICH INTERSECT THE PROPOSED ALIGNMENT OF THE SERVICES AND NOTIFY THE OWNERS REPRESENTATIVE OF POTENTIAL CONFLICTS, PRIOR TO ANY CONSTRUCTION IN THE AREA.
4. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
5. DEPTH OF BURY FOR ALL PRIVATE PIPE SHALL BE A MINIMUM OF 30", UNLESS OTHERWISE NOTED.
6. NO WATER JETTING IS ALLOWED ON THIS PROJECT.
7. REFER TO PROJECT COVER SHEET/NOTES FOR ADDITIONAL SPECIFICATIONS.
8. CONTRACTOR IS REQUIRED TO BEGIN ANY WASTE WATER AND/OR STORM DRAIN CONSTRUCTION DOWNSTREAM AND BUILD "UPSTREAM". INVERTS OF ALL TIE-INS ARE REQUIRED TO BE VERIFIED PRIOR TO CONSTRUCTION. IF DISCREPANCY IS FOUND, KLOVE ENGINEERING, LLC. SHALL BE CONTACTED IMMEDIATELY.
9. ALL MATERIALS AND CONSTRUCTION PROCEDURES IN THE R.O.W. SHALL COMPLY WITH THE CITY OF NEW BRAUNFELS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION) AND GREEN VALLEY SPECIAL UTILITY DISTRCIT (GVSUD) STANDARD SPECIFICATIONS (LATEST EDITION). ALL MATERIAL AND CONSTRUCTION PROCEDURES RELATED TO WATER AND SEWER SHALL CONFORM TO THE CITY OF NEW BRAUNFELS STANDARD SPECIFICATIONS FOR WATER WORKS CONSTRUCTION (LATEST EDITION).
10. PER FEDERAL REGULATIONS TITLE 49, PART 192.181, GAS COMPANY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND MAINTAIN ADEQUATE CLEARANCE WITHIN THE PROJECT LIMITS OF CONSTRUCTION.
11. CONTRACTOR SHALL CALL TEXAS ONE CALL SYSTEM @ (800) 245-4545 PRIOR TO CONSTRUCTION NEAR AREAS OF EXCAVATION.
12. 48 HOURS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY THE ALL UTILITY COMPANIES SO THEY CAN LOCATE AND TAG THEIR OWN UNDERGROUND UTILITIES (SEE CONTACTS THIS SHEET).
13. CONTRACTOR TO PROVIDE CLEAN-OUTS FOR ALL 6" OR LESS SEWER LATERALS SPACING AND LOCATIONS PER 2018 IPC. ALL CLEANOUTS IN PAVEMENT OR SIDEWALK TO BE FLUSH WITH FINISHED GRADE. ALL CLEANOUTS IN LANDSCAPE TO BE 6" ABOVE FINISHED GRADE.



LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY (R.O.W.) LINE/ SUBDIVISION BOUNDARY
		ADJACENT PROPERTY
(XXX)		RECORD INFORMATION
		BENCHMARK
LP		LIGHT POLE
PP		POWER POLE
		DOWN GUY
T		TRANSFORMER (SIZE VARIES)
		FIRE HYDRANT
		WATER VALVE
		WATER METER
	WM	WATER METER VAULT
WTRMH		WATER MANHOLE
		TELEPHONE RISER
		CABLE TV RISER
		ELECTRIC BOX
		ELECTRIC METER
		GAS VALVE
		GAS METER
TCB	TCB	TRAFFIC CONTROL BOX
TSP	TSP	TRAFFIC SIGNAL POST
GMKR		UNDERGROUND GAS LINE MARKER
		GREASE TRAP (SIZE VARIES)
SD		STORMDRAIN LINE
W	XX"W	WATER LINE
FIRE	XX"FL	FIRE LINE
WW	XX"WW	WASTEWATER LINE
GAS	GAS	GAS LINE
OHE	OHE	OVERHEAD ELECTRIC (PRIMARY)
UGE	UGE	UNDERGROUND ELECTRIC (PRIMARY)
UGS	UGS	UNDERGROUND ELECTRIC (SECONDARY)
UGT	UGT	UNDERGROUND TELEPHONE
UGC	UGC	UNDERGROUND CABLE
EMH	EMH	ELECTRIC MANHOLE (SIZE VARIES)
WWMH	WWMH	WASTEWATER MANHOLE (SIZE VARIES)
SDMH	SDMH	STORMDRAIN MANHOLE (SIZE VARIES)
TMH	TMH	TELEPHONE MANHOLE (SIZE VARIES)
		FIRE DEPARTMENT CONNECTION
CO	CO	WASTEWATER CLEANOUT
		CURB
		HEADER CURB
		SAWTOOTH CURB
		RETAINING WALL
// //		CHAINLINK FENCE
		CONCRETE SIDEWALKS
678	678	CONTOUR
		DIRECTION OF FLOW
	×785.00TC	SPOT ELEVATION/TOP OF CURB
×785.50	×785.00	SPOT ELEVATION
		SWALE
		CONCRETE PAVEMENT
		ASPHALT PAVEMENT

BENCHMARKS

TBM #1: MAGSPIKE IN EXISTING CONCRETE RIP-RAP LOCATED NEAR FAR SOUTH PROPERTY CORNER OF OVERALL BOUNDARY ALONG PAHMEYER ROAD (N= 13,784,823.85, E= 2,250,952.50) ELEVATION = 685.54'

TBM #2: MAGNAIL IN CONCRETE ON EXISTING SIDEWALK LOCATE NEAR FAR NORTH PROPERTY CORNER OF OVERALL BOUNDARY ALONG W. KLEIN ROAD (N= 13,785,715.22, E= 2,251,362.25) ELEVATION = 695.18'

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 AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEM'S PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION. 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.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

Know what's below. Call before you dig.

Date: Jun 17, 2025, 3:59pm
File: K:\PROJECTS\199-KLEIN Rd Retail\Drawings\C4.0 Utility Plan.dwg

KLOVE ENGINEERING
Site Development Engineering Services
Firm No. 11042
www.kloveengineering.com (210) 485-5683

STATE OF TEXAS
KEVIN WILLIAM LOVE
93563
LICENSED PROFESSIONAL ENGINEER
06/13/25

DATE	
REVISIONS:	

OWNER:
DRAGO DEVELOPMENT, LLC
16227 SAN PEDRO
SAN ANTONIO, TEXAS 78232

KLEIN ROAD RETAIL SHELL

KLEIN ROAD & PAHMEYER ROAD
NEW BRAUNFELS, TX 78130
UTILITY PLAN

DESIGNED BY:	AB
DRAWN BY:	JR
SCALE:	1"=20'
DATE:	06-13-25
SHEET NO.	C4.0