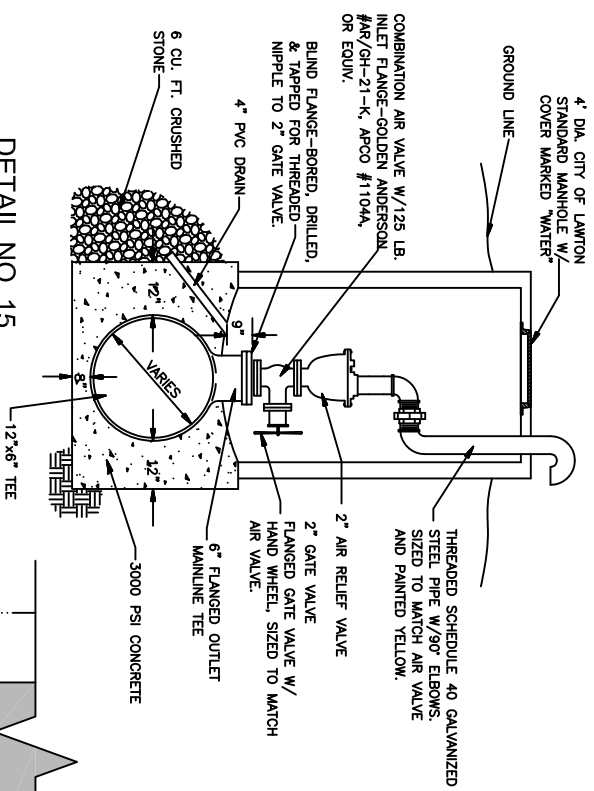
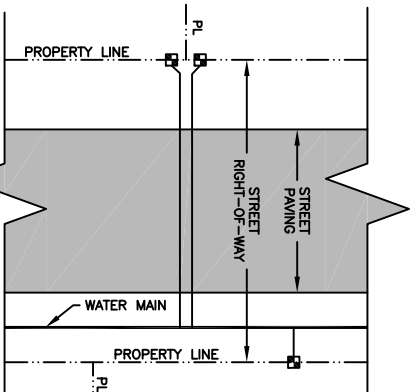


DETAIL NO. 11  
CUL-DE-SAC LAYOUT  
WATER SERVICE  
INSTALLATION

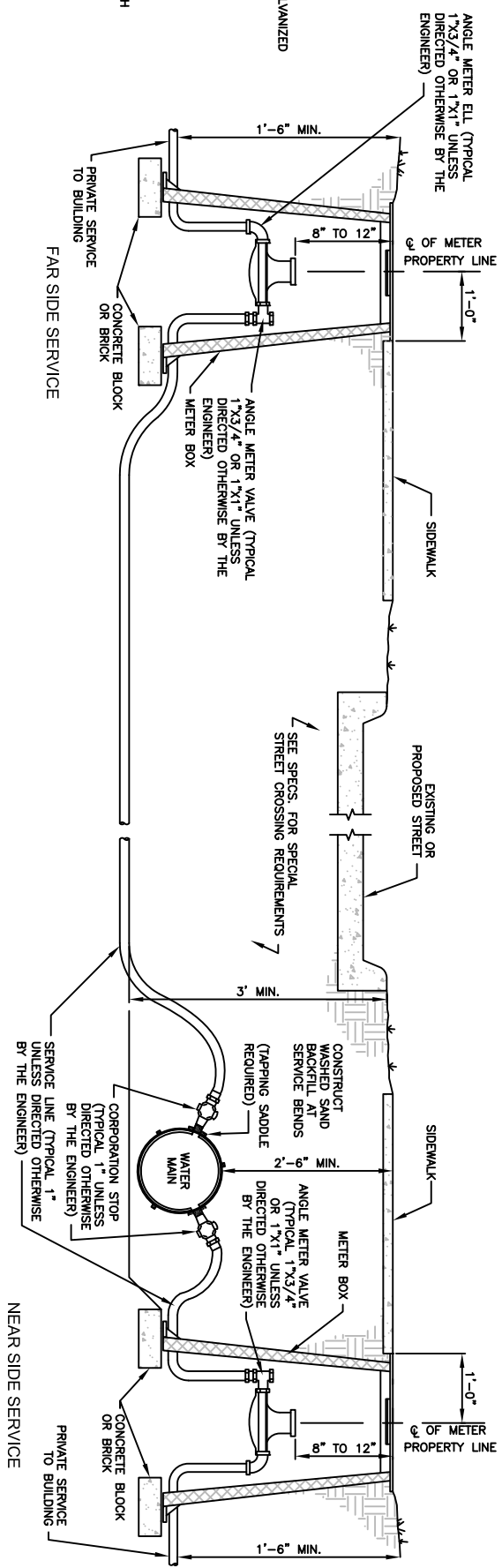
DETAIL NO. 15  
AIR RELIEF VALVE



DETAIL NO. 10  
TYPICAL LAYOUT  
WATER SERVICE  
INSTALLATION



DETAIL NO. 12  
TYPICAL INSTALLATION  
SINGLE FAMILY RESIDENTIAL WATER SERVICE  
(SIZES FROM 1\"/>



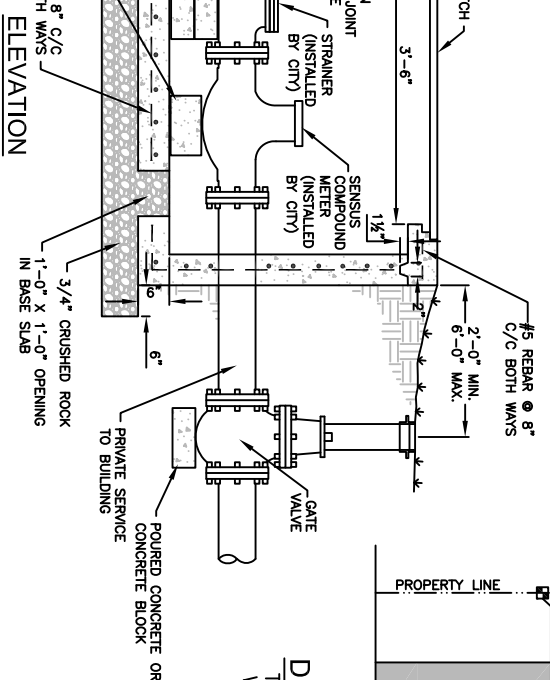
WATER SERVICE INSTALLATION NOTES

1. 1" SERVICE TAPS SHALL BE MADE BY DIRECT TAP OR WITH A TAPPING SADDLE FOR DUCTILE IRON PIPE. THREADED CONNECTIONS SHALL BE MADE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND UTILIZE TETON TAP. SERVICE TAPS 1" AND SMALLER SHALL BE MADE BY THE CITY ENGINEER. SERVICE TAPS 1.5" AND LARGER SHALL BE MADE BY THE ENGINEER. SERVICE TAPS 1" AND SMALLER SHALL BE MADE BY THE CITY ENGINEER. SERVICE TAPS 1.5" AND LARGER SHALL BE MADE BY THE ENGINEER. SERVICE TAPS 1" AND SMALLER SHALL BE MADE BY THE CITY ENGINEER. SERVICE TAPS 1.5" AND LARGER SHALL BE MADE BY THE ENGINEER.
2. SERVICE TAPS TO WATER MAIN SHALL BE LOCATED BACK OF CURB WHEN POSSIBLE. ALL TAPS SHALL BE MADE WHILE THE MAIN IS UNDER NORMAL OPERATING PRESSURE. POLYETHYLENE WRAPE ON WATER MAIN SHALL BE REPAIRED AFTER TAP IS MADE.
3. ALL SERVICES SHALL BE 1" UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
4. METER BOX/VAULT SHALL NOT BE INSTALLED IN EXISTING OR PROPOSED SIDEWALKS, DRIVEWAYS, PAVEMENTS OR ANY TRAFFIC AREAS, UNLESS APPROVED OTHERWISE BY THE ENGINEER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SERVICE ITEMS EXCEPT FOR THE METER WHICH SHALL BE INSTALLED BY THE FIELD SERVICE BRANCH OF THE CITY'S FINANCE DEPARTMENT. METER BOX SHALL HAVE LOCKING CAST IRON VIEWING PORT. USE BROOKS MODEL 1419 OR APPROVED EQUAL FOR 1" SERVICE. MODEL 1750 OR APPROVED EQUAL FOR 1.5" SERVICE. SERVICES NOT FROM THE LOCATIONS OF THE METER BOX WITH TRAFFIC LANE COVER AS APPROVED BY THE ENGINEER FOR TRAFFIC LOCATIONS.
6. SERVICES THAT ARE 3" THRU 6" SHALL BE INSTALLED ACCORDING TO DETAIL NO. 13. REFER TO TABLE 3 FOR METER VAULT DIMENSIONS. METER VAULTS FOR METER SIZES GREATER THAN 6" SHALL BE AS APPROVED BY THE CITY ENGINEER. ALL FITTINGS INSIDE METER VAULT SHALL BE 1" UNLESS OTHERWISE NOTED. ALL FITTINGS SHALL BE 1" UNLESS OTHERWISE NOTED. CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE INSTALLATION EXCEPT FOR METER AND STRAINER. METER AND STRAINER SHALL BE INSTALLED BY THE CITY'S WATER DISTRIBUTION DIVISION.
7. THE TOP OF METER VAULT OR BOTTOM ARE NOT POURED MONOPROPIALLY WITH THE CONCRETE JOINT SEALER (ASTM DESIGNATION D 1850-67). ACCESS HATCH FOR METER VAULT SHALL BE 3'-6" X 3'-6" IN SIZE. BILCO TYPE "X" OR APPROVED EQUAL SHALL BE USED FOR NON-TRAFFIC LOCATIONS AND BILCO TYPE "Y, H20" OR APPROVED EQUAL SHALL BE USED FOR TRAFFIC LOCATIONS. HATCH SHALL BE CENTERED OVER THE METER.
8. TOP OF METER VAULT FOR 3" AND LARGER SERVICE SHALL BE 4" ABOVE FINISHED GRADE AT NON-TRAFFIC LOCATIONS AND ADJACENT GROUND GRADED TO DRAIN.
9. IF SITE CONDITIONS REQUIRE ABOVE GRADE CHECK VALVE INSTALLATION, A STRUCTURAL GRADE METAL BUILDING W/SLAB PIPE INSTALLATION/HEAVY BOLLARDS FOR BUILDING PROTECTION AND 4" DRAIN W/BACK WATER VALVE & BOX DRAINING TO DRAINAGE CHANNEL/PIPE OR SANITARY SEWER MAIN SHALL BE PROVIDED (SEE 2003 IPC SECT. 715).
10. PRIVATE WATER LINES REQUIRING FIRE PROTECTION ONLY SHALL HAVE REDUCED PRESSURE BACKFLOW PREVENTERS (FLANGED) WITH METEER BRAYS WHICH MEET ASSE 1047, UL AND CSA CERTIFIED. PRIVATE POTABLE WATER LINES INCLUDING THOSE PROVIDING FIRE PROTECTION SHALL HAVE REDUCED PRESSURE BACKFLOW PREVENTERS (FLANGED) WHICH MEET ASSE 1013, ANMA C533/WHIT GATE VALVES), UL AND CSA CERTIFIED.
11. ALL WATER METERS SERVING CUSTOMERS OUTSIDE THE CITY LIMITS SHALL HAVE A BACKFLOW PREVENTER/VAULT. (SEE NOTE #10)
12. ALL METER VAULTS AND BACKFLOW PREVENTER VAULTS SHALL BE CONSTRUCTED ON THE PROPERTY LINE.

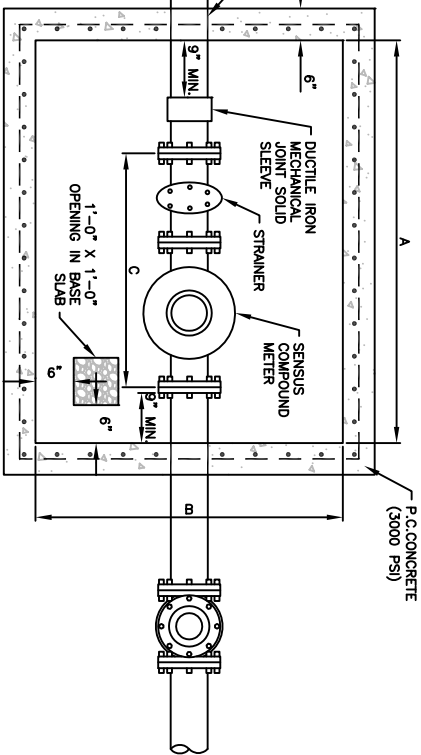
TABLE 3  
MINIMUM VAULT DIMENSIONS

METER SIZE	A	B	C	D
3"	4'-10"	4'-6"	2'-0"	4'-1"
4"	5'-3"	4'-6"	2'-5"	4'-2"
6"	5'-7"	4'-6"	2'-9"	4'-4"

ELEVATION

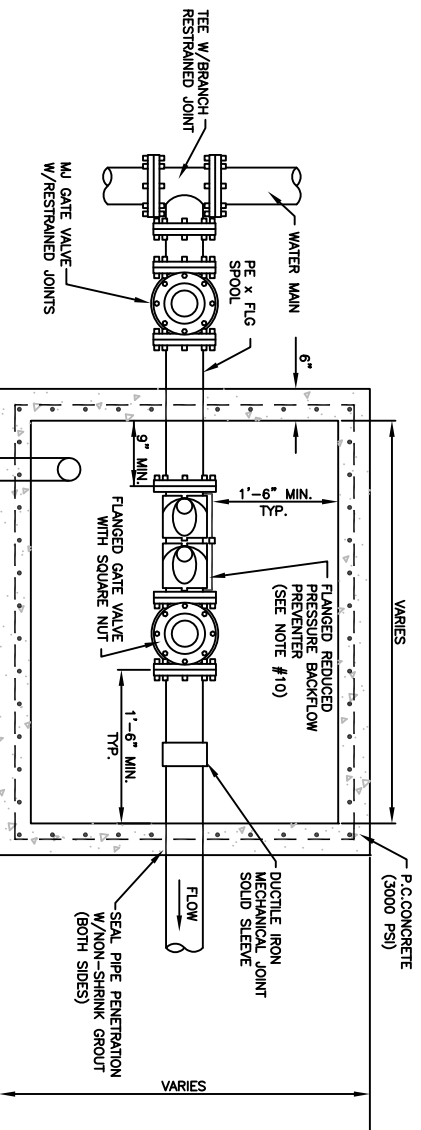


PLAN



DETAIL NO. 13  
TYPICAL INSTALLATION  
MULTI-FAMILY / COMMERCIAL WATER SERVICE  
(3" THRU 6")

PLAN



DETAIL NO. 14  
TYPICAL INSTALLATION  
STANDARD BACKFLOW PREVENTER

STANDARD DETAILS  
WATER SYSTEM - 2  
CITY OF LAWTON  
ENGINEERING DIVISION

PROJECT NO.:	DATE:
FILE NAME: 23 Water System 2.dwg	MAY 2009
DESIGNER:	CITY ENGINEER UPDATE
CHECKER:	CITY ENGINEER UPDATE
DATE:	NOVEMBER 2010
DATE:	JUNE 2019
DATE:	AUGUST 2023
DESIGNED BY: VANSENEHANT	DRAWN BY: MARRERO
DATE: 11/17/2024	DATE: 08/20/2024
SHEET	OF