

OLDHAM VILLAGE
WATER LINE CONSTRUCTION PLAN
Section 7, Township 47 North, Range 31 West
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

WATER:

- 1 ~ THE CONTRACTOR SHALL COORDINATE WITH THE DEVELOPMENT ENGINEERING INSPECTOR PRIOR TO ANY CONNECTIONS TO THE PUBLIC WATER SUPPLY.
- 2 ~ FIRE HYDRANTS SHALL BE OPTIC YELLOW WATEROUS "PACER" MODEL NO. WB-67-250 WITH NON-RISING STEM OR CITY ENGINEER APPROVED EQUAL. HYDRANTS SHALL HAVE A 5 1/4" VALVE WITH A 4 1/2" PUMPER NOZZLE AND 2 - 2 1/2" HOSE NOZZLES (LEFT HAND OPENING).

3 ~ GATE VALVES SHALL BE MUELLER NO. 2360 Series HUB END "O" RING SEAL NON-RISING STEM. VALVES LARGER THAN 12" SHALL BE BUTTERFLY VALVES MANUFACTURED BY THE HENRY PRATT COMPANY OR CITY ENGINEER APPROVED EQUAL. LEFT HAND OPENING. MINIMUM 200# TESTING AWWA.

4 ~ ALL WATER MAINS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF 42 INCHES. STREET GRADING SHALL BE COMPLETED PRIOR TO BEGINNING CONSTRUCTION OF WATER MAINS.

5 ~ ALL BENDS, TEES AND FIRE HYDRANTS SHALL BE INSTALLED WITH SUITABLE CONCRETE THRUST BLOCKS POURED IN PLACE AGAINST UNDISTURBED EARTH AND PER CITY OF LEES SUMMIT AND APWA STANDARDS.

6 ~ THE MINIMUM SEPARATION BETWEEN THE PROPOSED WATER MAIN AND SANITARY OR STORM SEWERS IS AS FOLLOWS:
A ~ SANITARY SEWERS: HORIZONTAL = 10 FEET - VERTICAL = 18 INCHES
B ~ STORM SEWERS: HORIZONTAL = 10 FEET - VERTICAL = 18 INCHES
THESE SEPARATIONS SHALL PREVAIL OVER ANY DATA SHOWN IN THESE PLANS AND THE CONTRACTOR SHALL INSTALL BENDS OR OTHER FITTINGS AS NECESSARY TO ACHIEVE THE REQUIRED SEPARATIONS.

7 ~ ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813

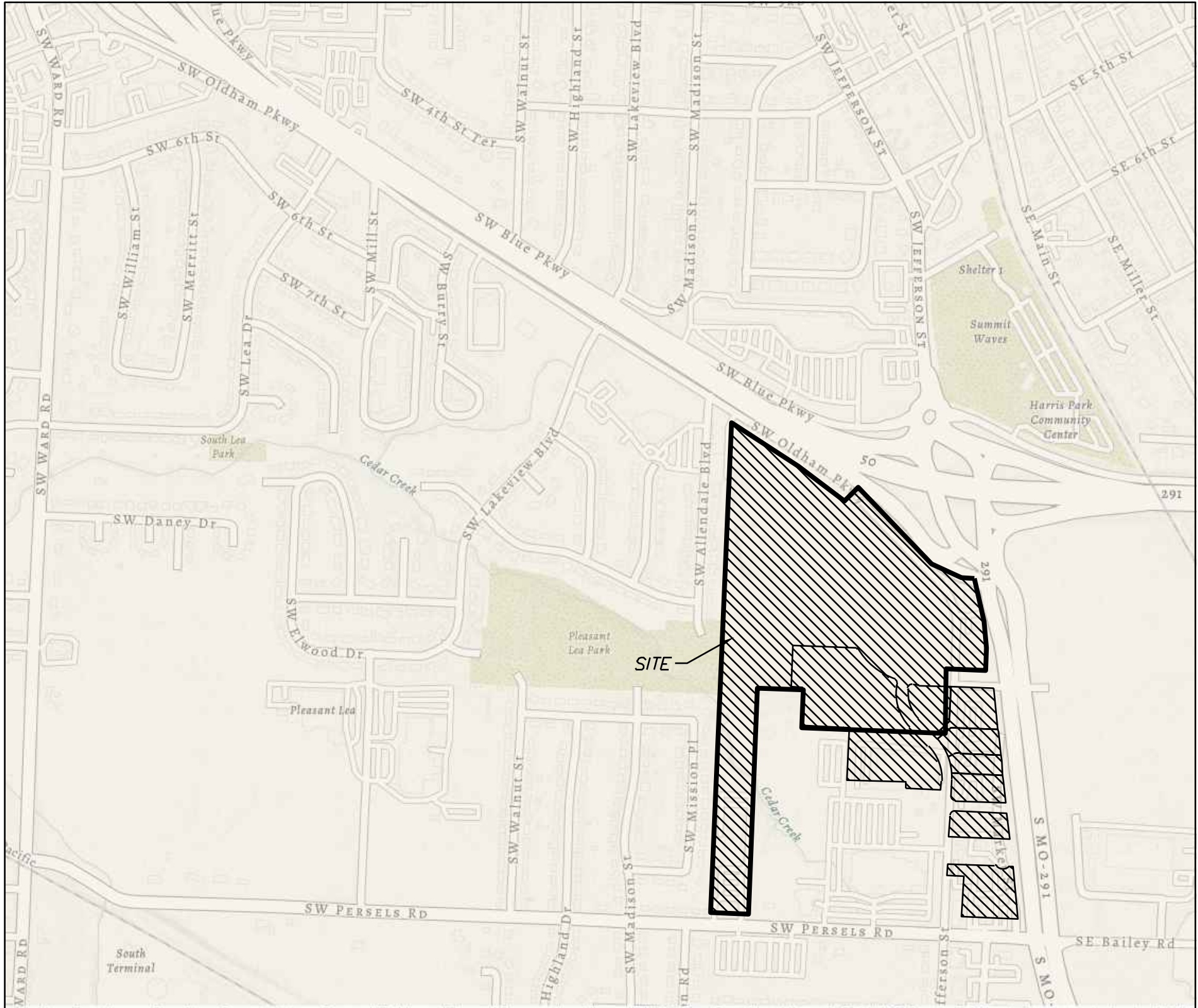
8 ~ THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

Tract Description

A tract of land being located in Sections 7 & 8, Township 47, Range 31, Lee's Summit, Jackson County Missouri, being more particularly described as follows:
Commencing at the East Quarter Corner of said Section 7; thence N87°41'40"W along the North line of said Section 7, a distance of 937.51 feet; thence S21°18'20"W, a distance of 43.88 feet to the Point of Beginning; thence N57°09'44"W, a distance of 458.00 feet; thence S22°26'55"W, a distance of 206.05 feet; thence S87°33'04"E, a distance of 215.90 feet; thence N22°25'22"E, a distance of 555.23 feet; thence S88°17'49"E, a distance of 260.52 feet; thence S2°33'08"W, a distance of 221.84 feet; thence S87°48'02"E, a distance of 280.68 feet; thence S2°32'26"W, a distance of 303.63 feet; thence S88°04'40"E, a distance of 339.94 feet; thence S22°35'7"W, a distance of 37.99 feet; thence S87°48'18"E, a distance of 263.03 feet; thence S2°32'23"W, a distance of 493.69 feet; thence S2°23'15"W, a distance of 224.32 feet; thence S49°43'38"E, a distance of 34.42 feet; thence S88°29'59"E, a distance of 67.84 feet; thence N2°23'16"E, a distance of 12.78 feet; thence S87°50'29"E, a distance of 327.07 feet; thence N67°07'54"W, a distance of 1338.91 feet; thence N87°50'52"W, a distance of 62.60 feet; thence N2°37'19"E, a distance of 158.07; thence along a curve to the left tangent to the preceding course and having a radius of 1375.94 feet, an arc distance of 490.71 feet; thence N87°25'57"W, a distance of 74.50 feet; thence along a curve to the right tangent to the preceding course and having a radius of 250.00 feet, an arc distance of 183.56 feet; thence N43°39'15"W, a distance of 495.95 feet; thence N44°17'15"W, a distance of 122.21 feet; thence S45°42'45"W, a distance of 46.13 feet; thence S69°02'59"W, a distance of 76.09 feet; thence N52°14'07"W, a distance of 298.65 feet to the Point of Beginning.

OIL - GAS WELLS
ACCORDING TO EDWARD ALTON MAY JR.'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

FLOOD INFORMATION:
The property is located in Zone "X" areas outside the 100 year flood plain per FEMA Map 29095C0419G, dated January 20, 2017



SITE LOCATION MAP

INDEX OF SHEETS:

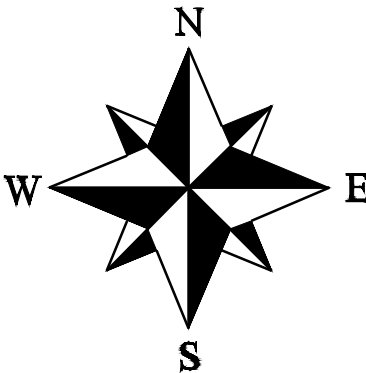
- C.500 ~ COVER SHEET
C.501 ~ WATER MAIN GENERAL LAYOUT
C.502 ~ WATER MAIN LINE PLAN & PROFILE
C.503 ~ WATER MAIN LINE PLAN & PROFILE
C.504 ~ WATER MAIN LINE PLAN & PROFILE
C.505 ~ WATER MAIN LINE PLAN & PROFILE
C.506 ~ DETAIL SHEET

Summary of Quantities:

UTILITY COMPANIES:

THE FOLLOWING LIST OF UTILITY COMPANIES IS PROVIDED FOR INFORMATION ONLY. WE DO NOT OFFER ANY GUARANTEE OR WARRANTY THAT THIS LIST IS COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION AND VERIFYING THE ACTUAL LOCATION OF EACH UTILITY LINE. THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.

EVERGY ~ 298-1196
MISSOURI GAS ENERGY ~ 756-5261
SOUTHWESTERN BELL TELEPHONE ~ 761-5011
COMCAST CABLE ~ 795-1100
WILLIAMS PIPELINE ~ 422-6300
CITY OF LEE'S SUMMIT PUBLIC WORKS ~ 969-1800
CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200
CITY OF LEE'S SUMMIT WATER UTILITIES ~ 969-1900
MISSOURI ONE CALL (DIG RITE) ~ 1-800-344-7483



ENGINEER'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE DESIGNED IN ACCORDANCE TO AASHTO STANDARDS.

ENGINEERING
ENGINEERING & SURVEYING
SOLUTIONS
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

Project:
Oldham Village
Marketplace,
LSMO
Issue Date:
October 23, 2024

Water Main Cover Sheet
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlacht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

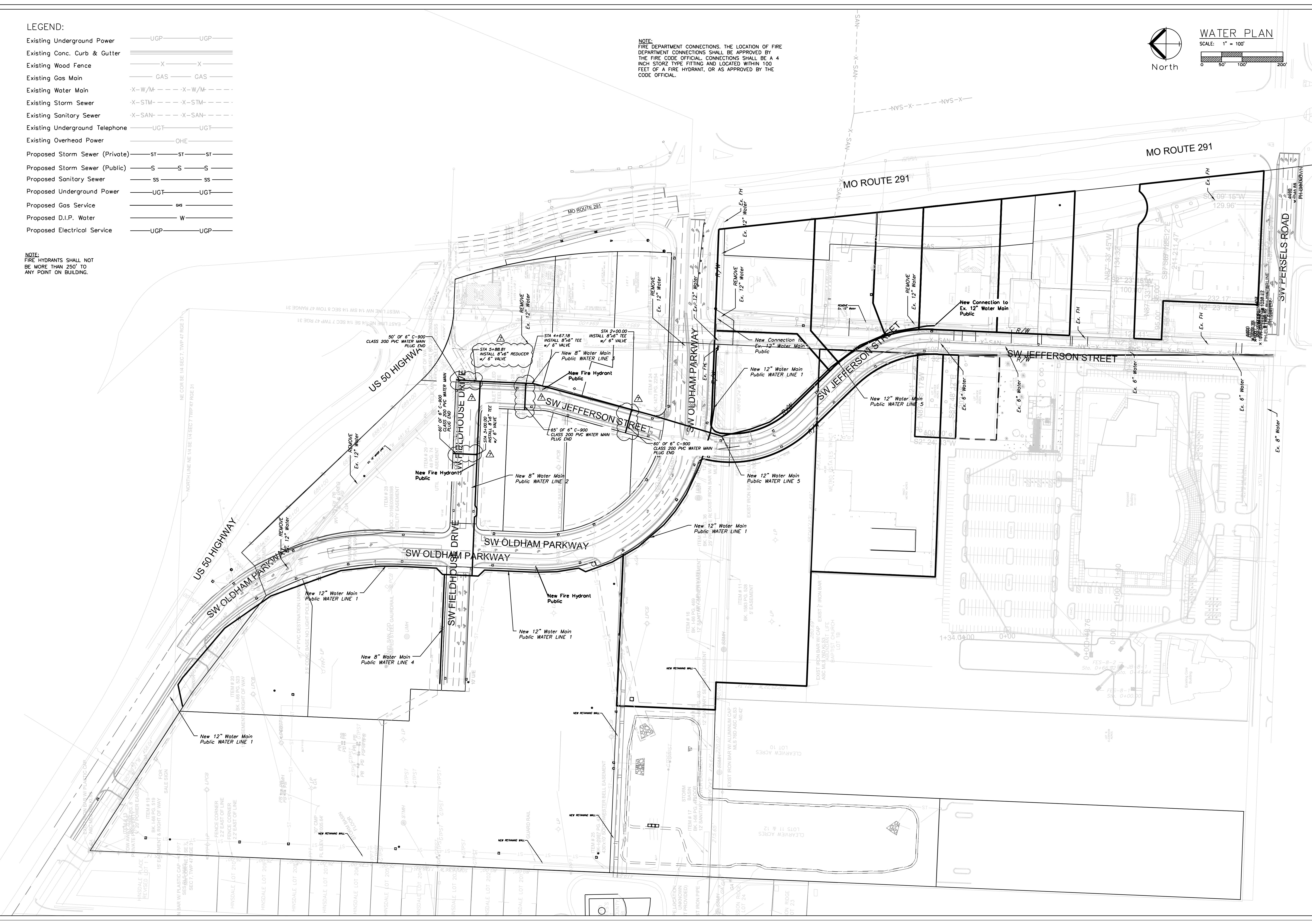
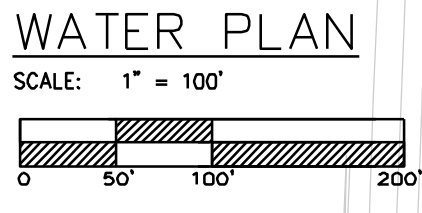
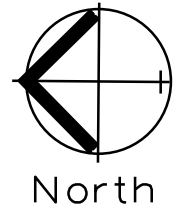
REVISIONS	
△	REV. 12/10/2024
△	REV. 1/2/2025
△	REV. 2/6/2025
	REV. 3/6/2025
△	REV. 3/24/2025
	REV. 4/15/2025
△	REV. 12/2/2025
△	REV. 12/10/2025

LEGEND:

Existing Underground Power	UGP	UGP
Existing Conc. Curb & Gutter	X	X
Existing Wood Fence		
Existing Gas Main	GAS	GAS
Existing Water Main	X-W/M	X-W/M
Existing Storm Sewer	X-STW	X-STW
Existing Sanitary Sewer	X-SAN	X-SAN
Existing Underground Telephone	UGT	UGT
Existing Overhead Power	OHE	
Proposed Storm Sewer (Private)	ST	ST
Proposed Storm Sewer (Public)	S	S
Proposed Sanitary Sewer	SS	SS
Proposed Underground Power	UGT	UGT
Proposed Gas Service	GAS	
Proposed D.I.P. Water	W	
Proposed Electrical Service	UGP	UGP

NOTE:
FIRE HYDRANTS SHALL NOT
BE MORE THAN 250' TO
ANY POINT ON BUILDING.

NOTE:
FIRE DEPARTMENT CONNECTIONS, THE LOCATION OF FIRE
DEPARTMENT CONNECTIONS SHALL BE APPROVED BY
THE FIRE CODE OFFICIAL. CONNECTIONS SHALL BE A 4
INCH STORZ TYPE FITTING AND LOCATED WITHIN 100
FEET OF A FIRE HYDRANT, OR AS APPROVED BY THE
CODE OFFICIAL.

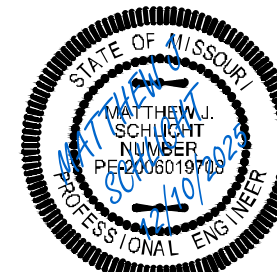


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6264
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

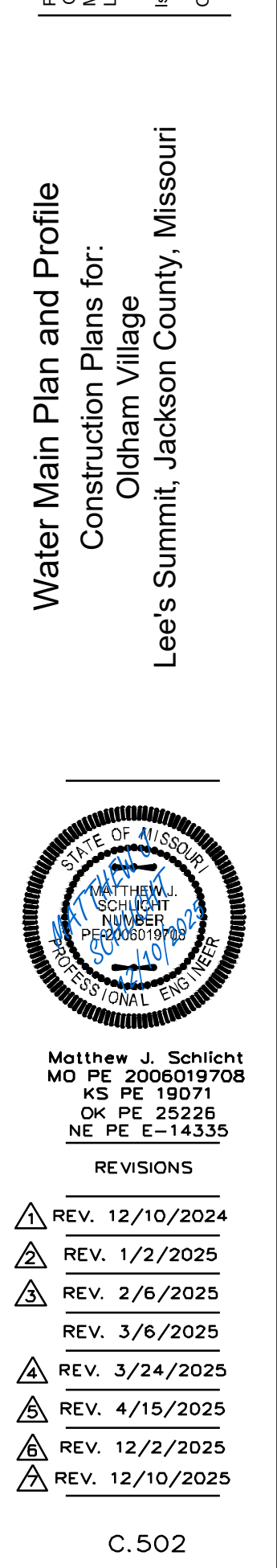
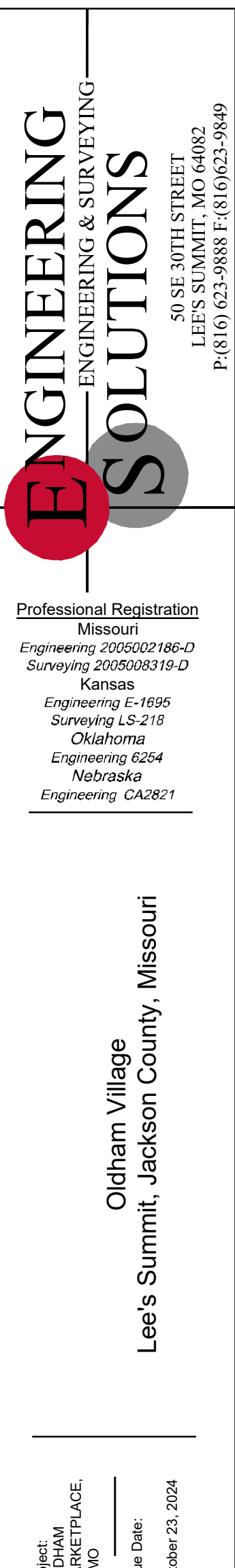
Project
MARKETPLACE,
LSMO
Issue Date:
October 23, 2024

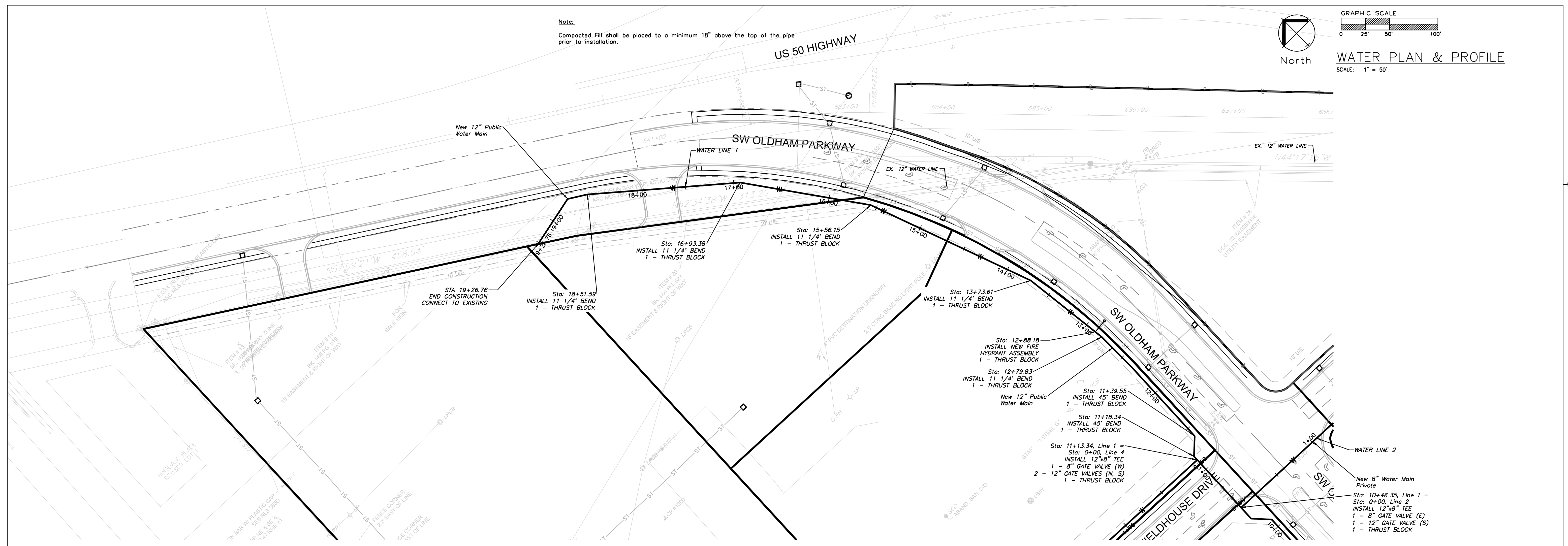
Water Utility Plan - North
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



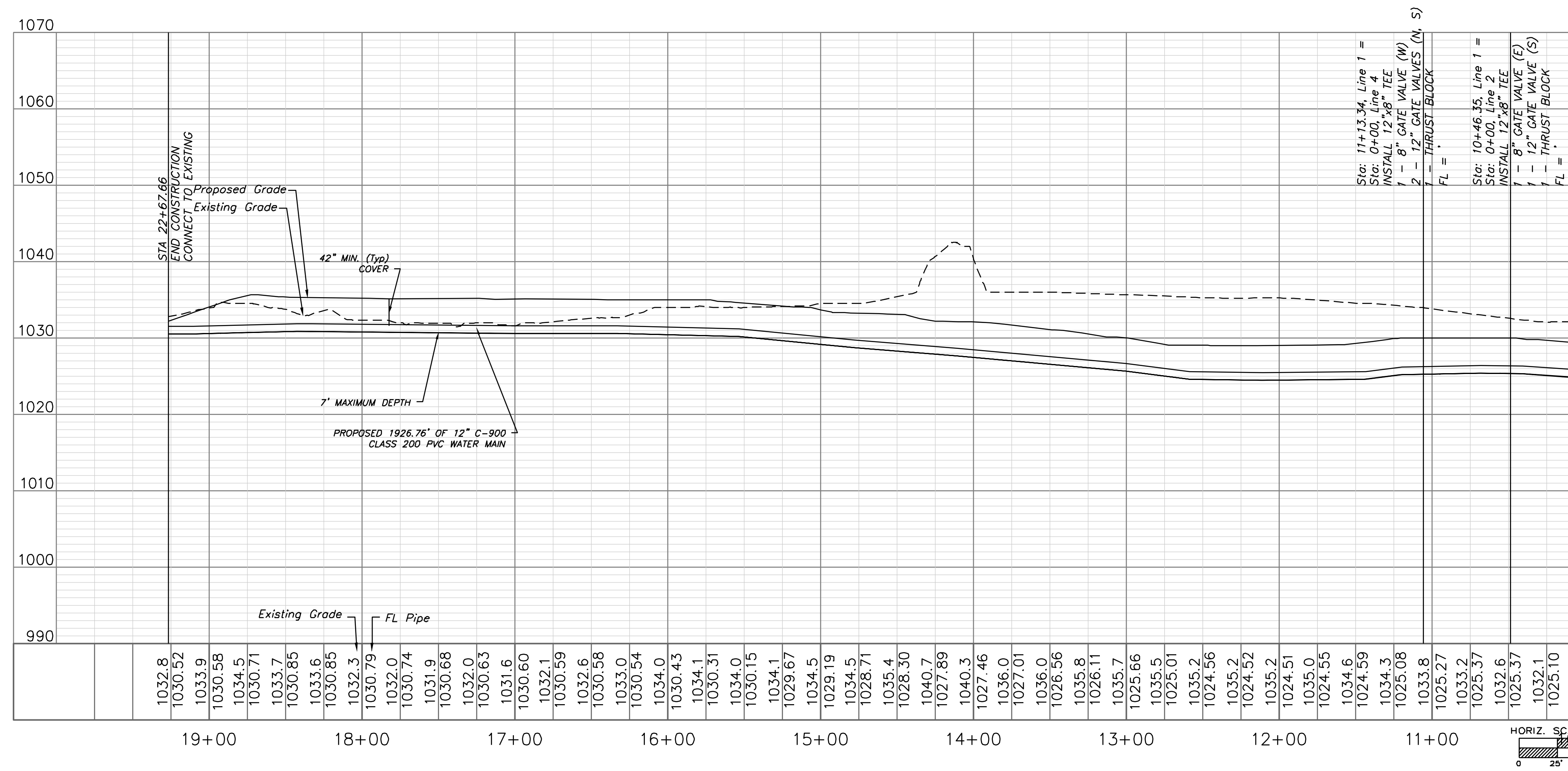
Matthew J. Schlicht
MO PE 000019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025
REV. 3/24/2025
REV. 4/15/2025
REV. 12/2/2025
REV. 12/10/2025





PUBLIC WATER LINE 1



ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

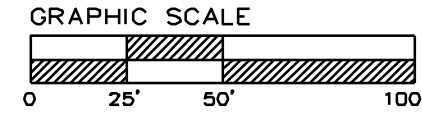
Project:
MARKETPLACE,
LSMO
Issue Date:
October 23, 2024

Water Main Plan and Profile
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri

STATE OF MISSOURI
MATTHEW J. SCHLICHT
Professional Engineer
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

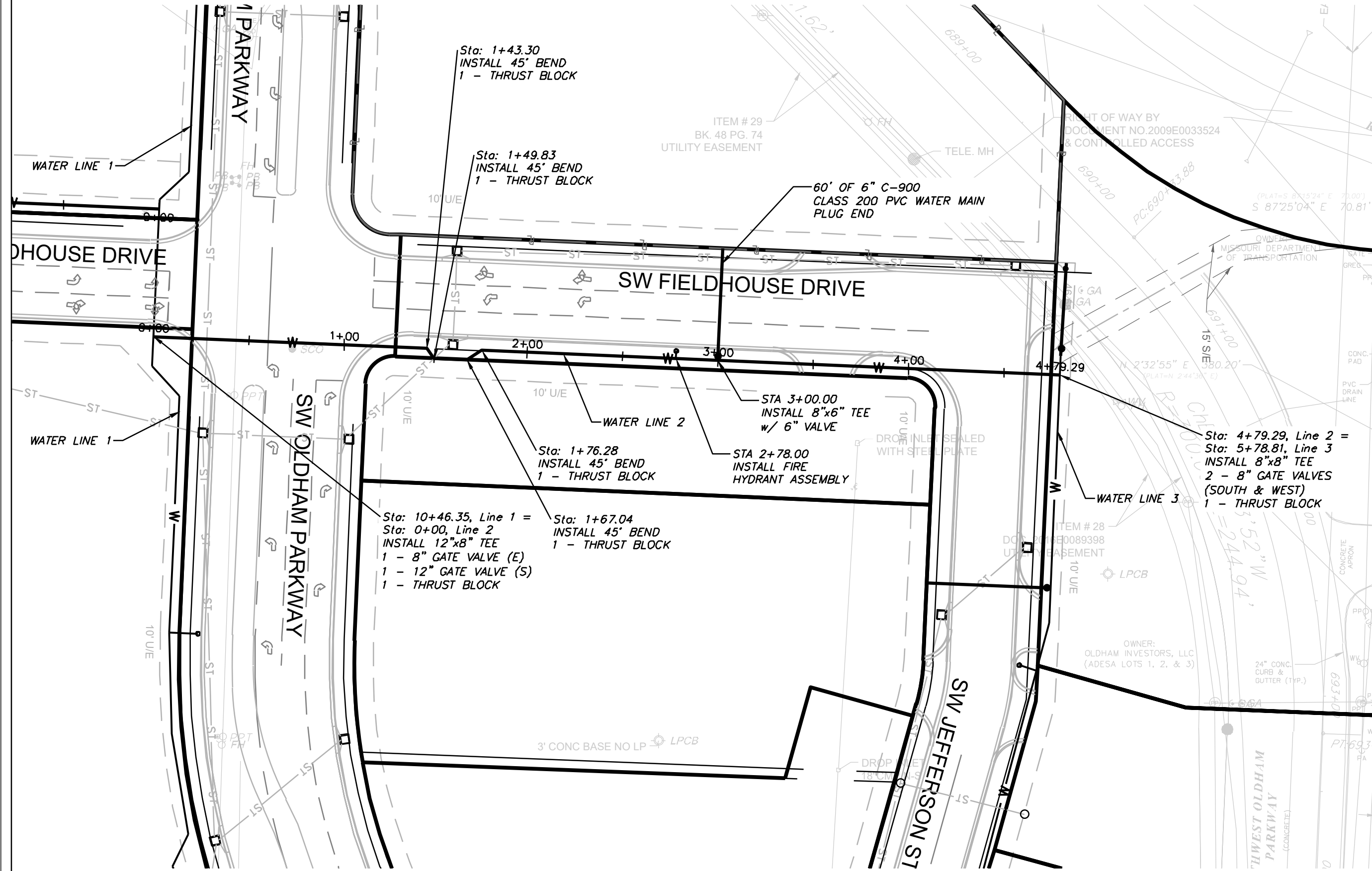
REVISIONS
REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025
REV. 3/24/2025
REV. 4/15/2025
REV. 12/2/2025
REV. 12/10/2025

C.503

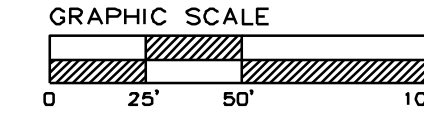
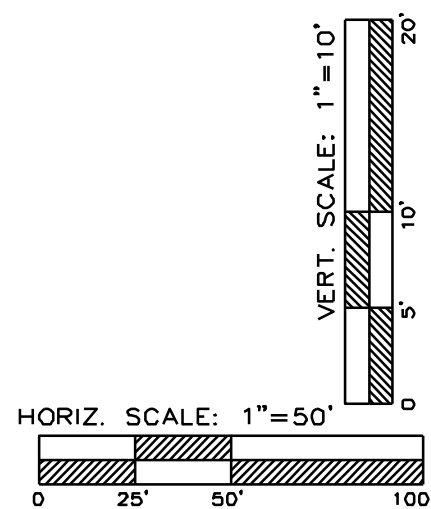
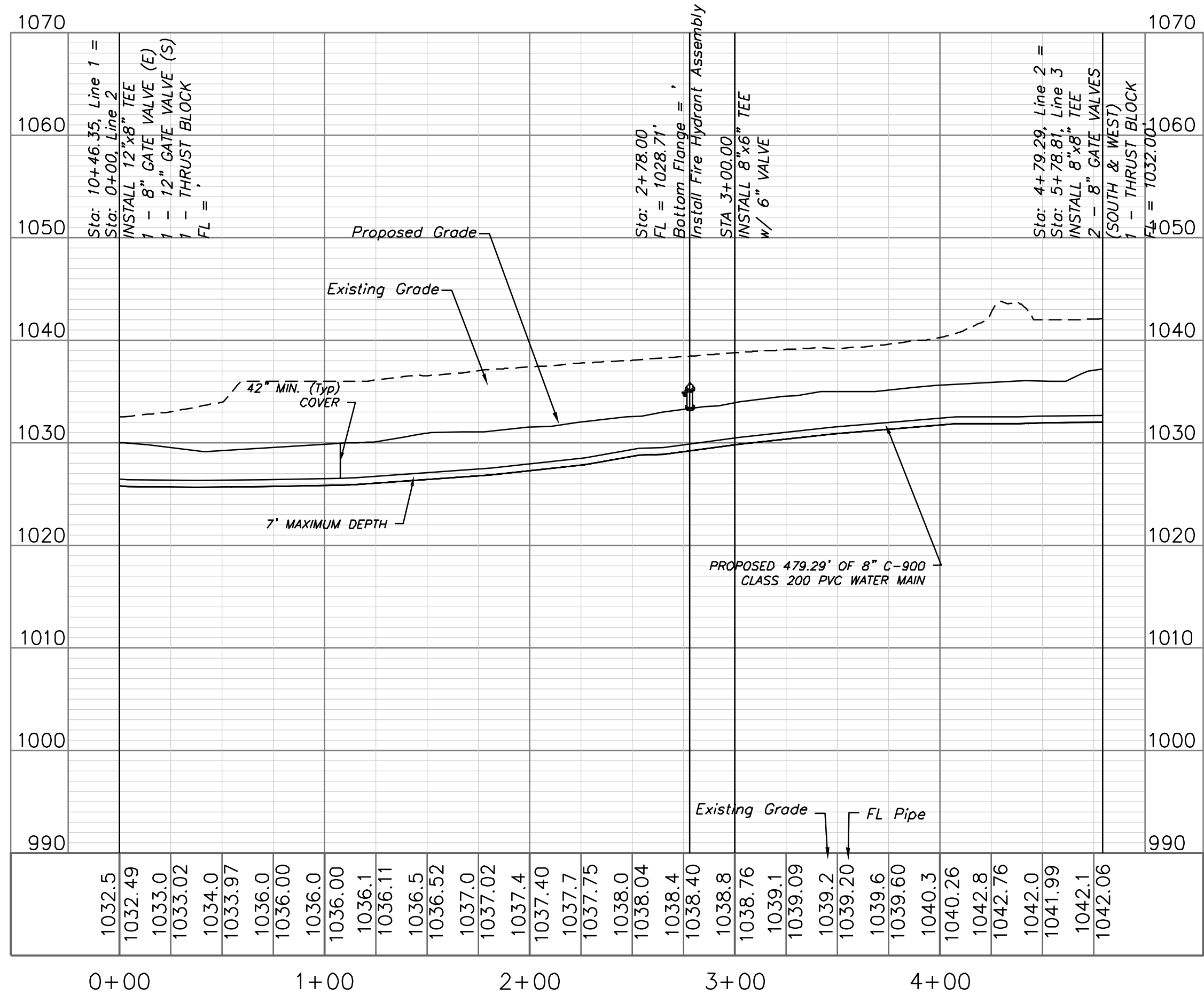


WATER PLAN & PROFILE

SCALE: 1" = 50'

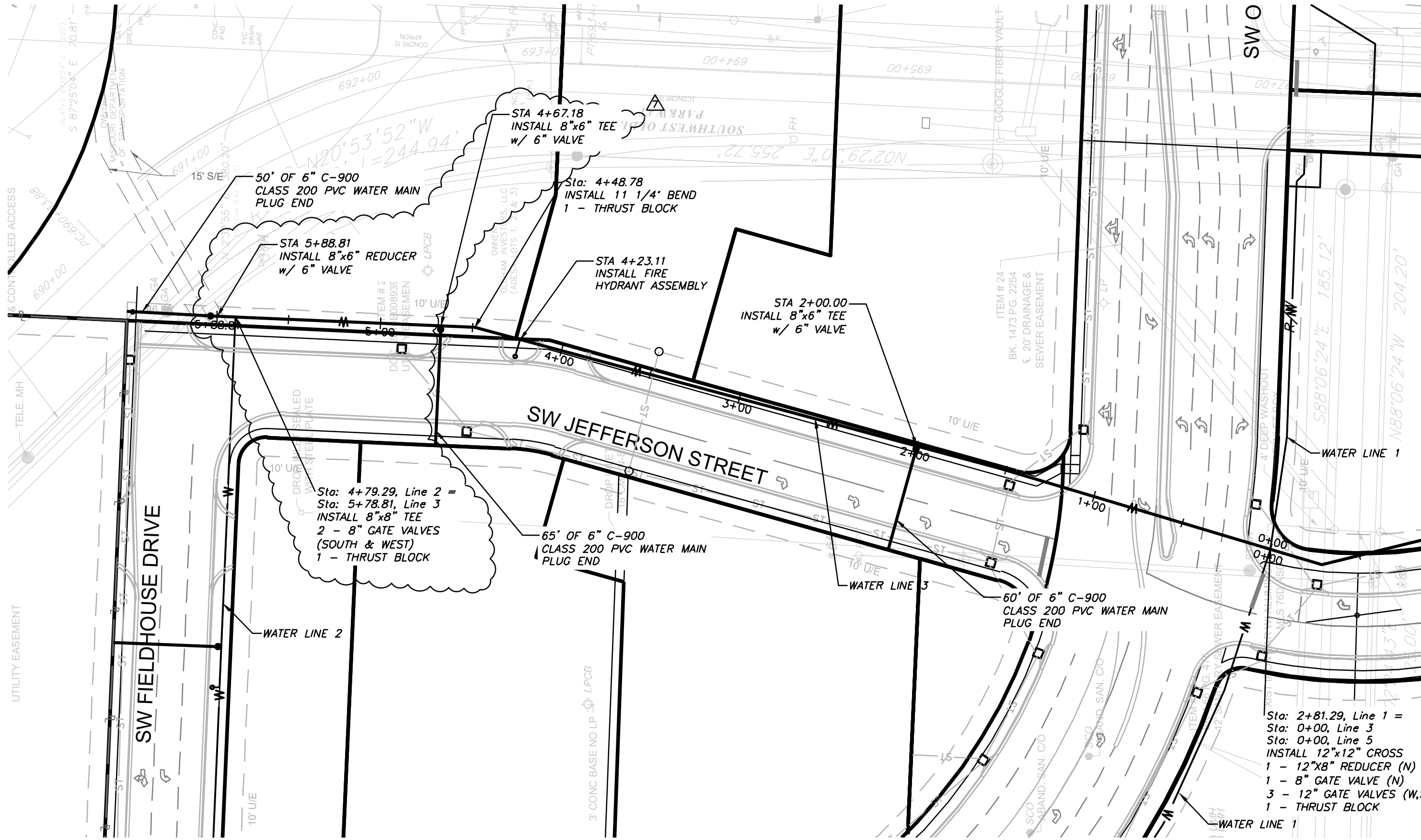


PUBLIC WATER LINE 2

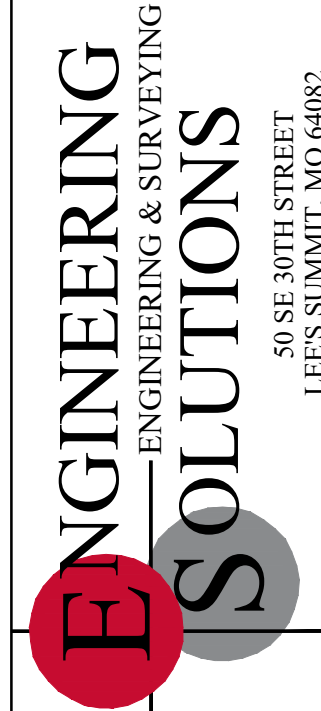
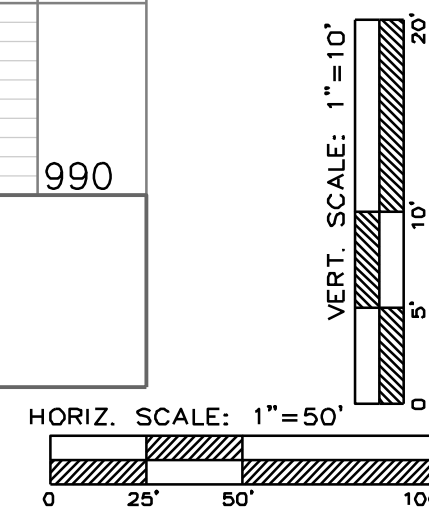
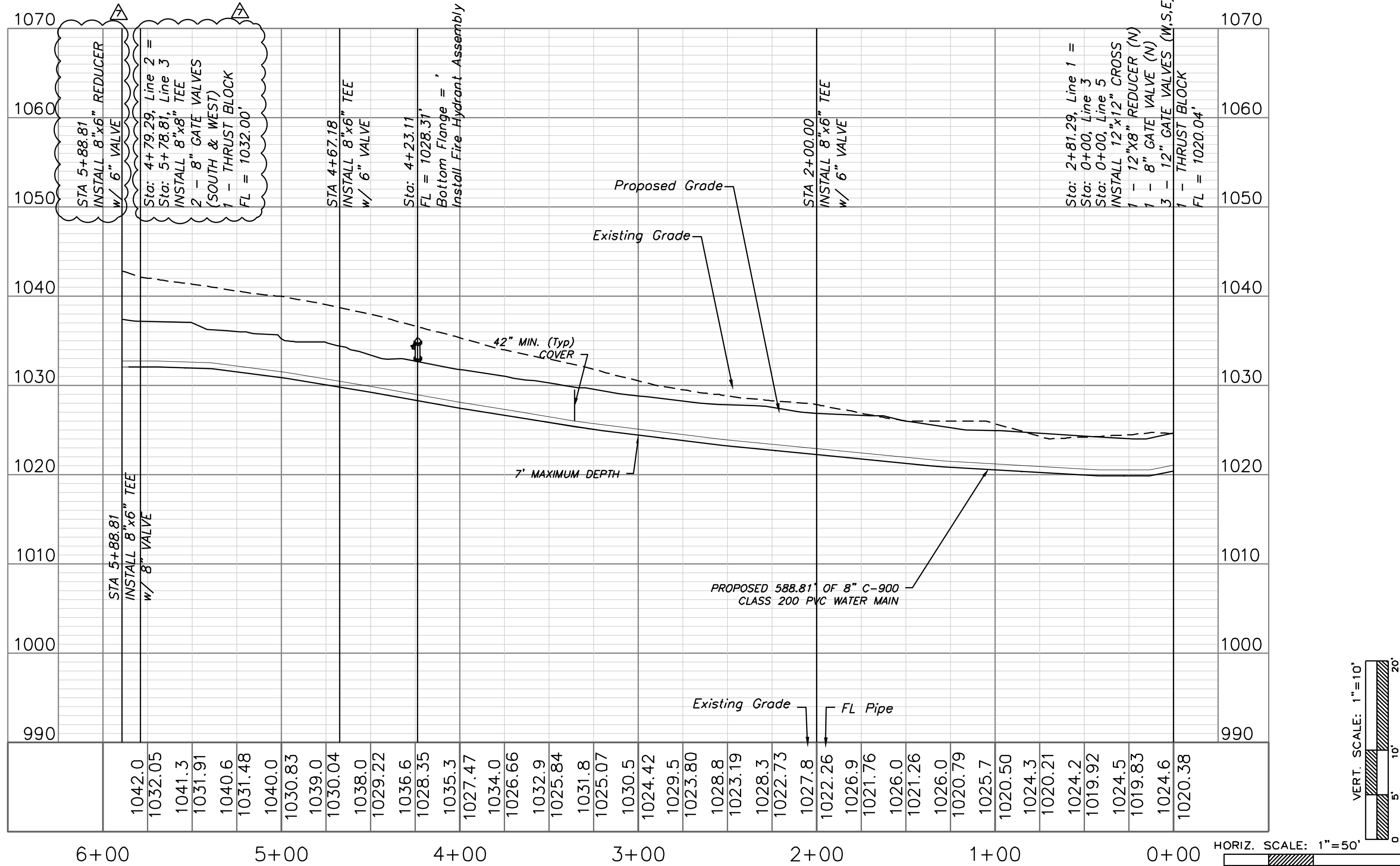


WATER PLAN & PROFILE

SCALE: 1" = 50'



PUBLIC WATER LINE 3

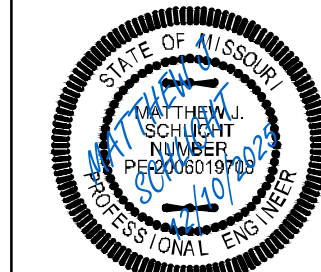


Professional Registration
Missouri
Engineering 200502186-D
Surveying 200500319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

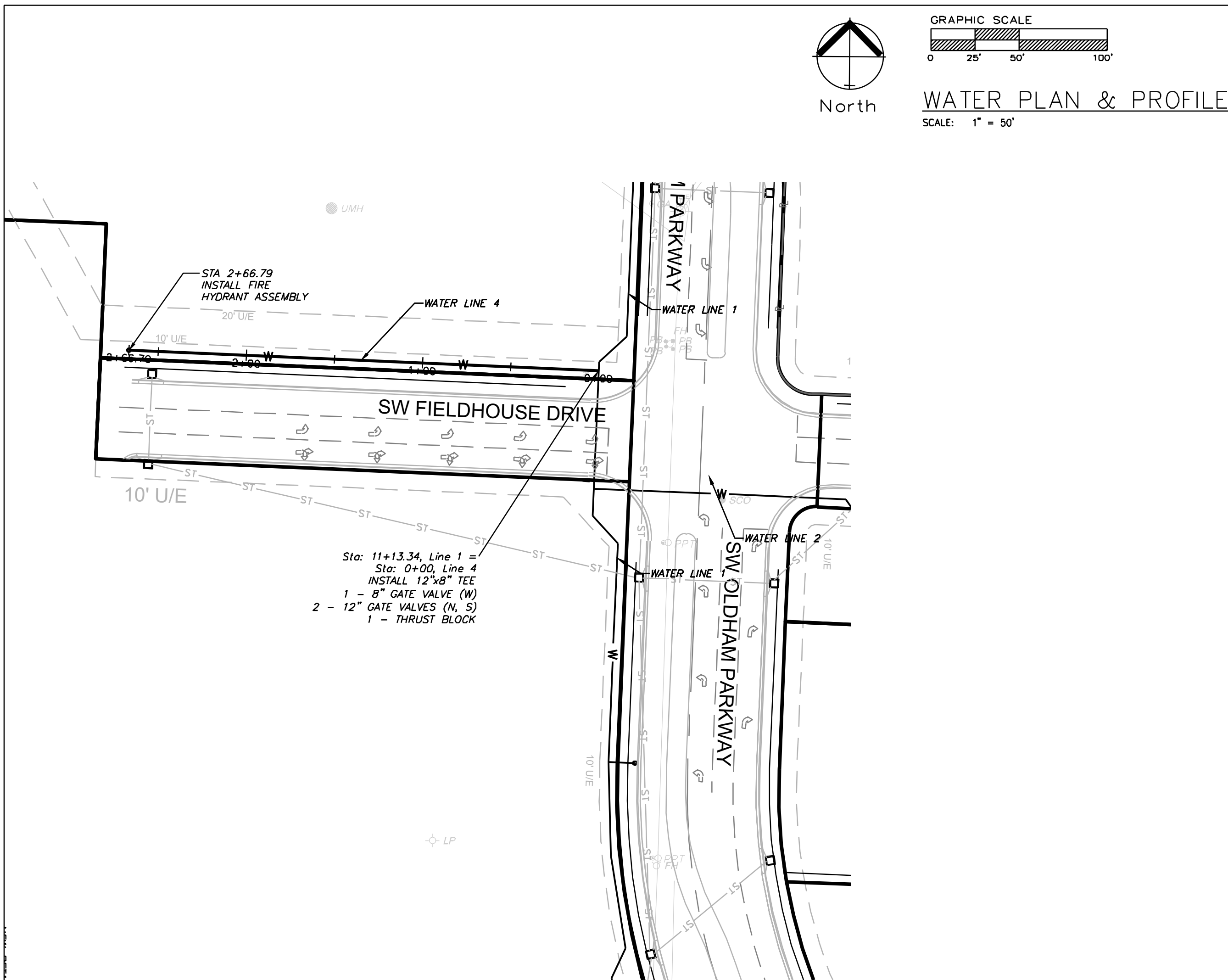
Project:
MARKETPLACE,
LSMO
Issue Date:
October 23, 2024

Water Main Plan and Profile
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri

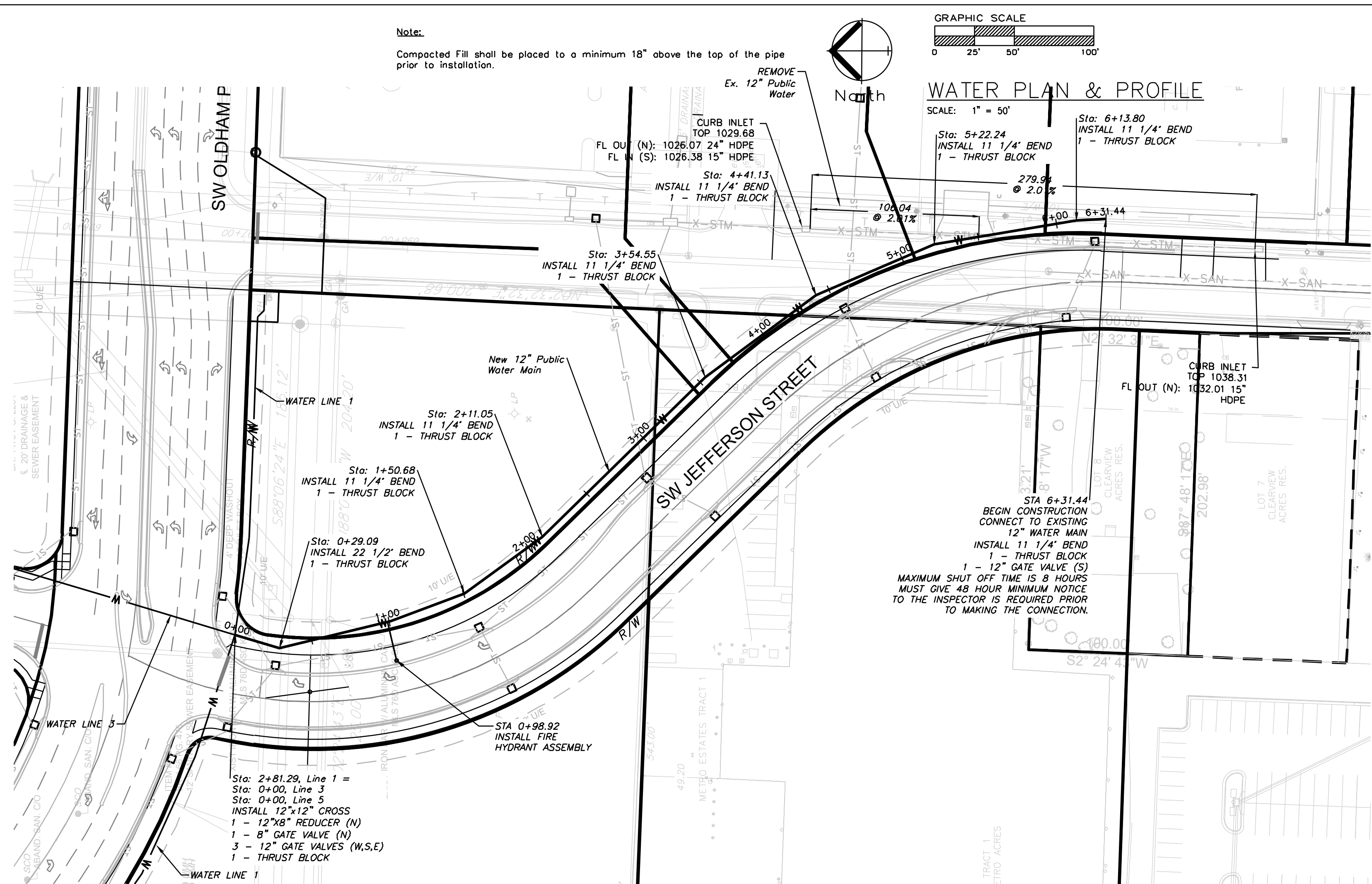
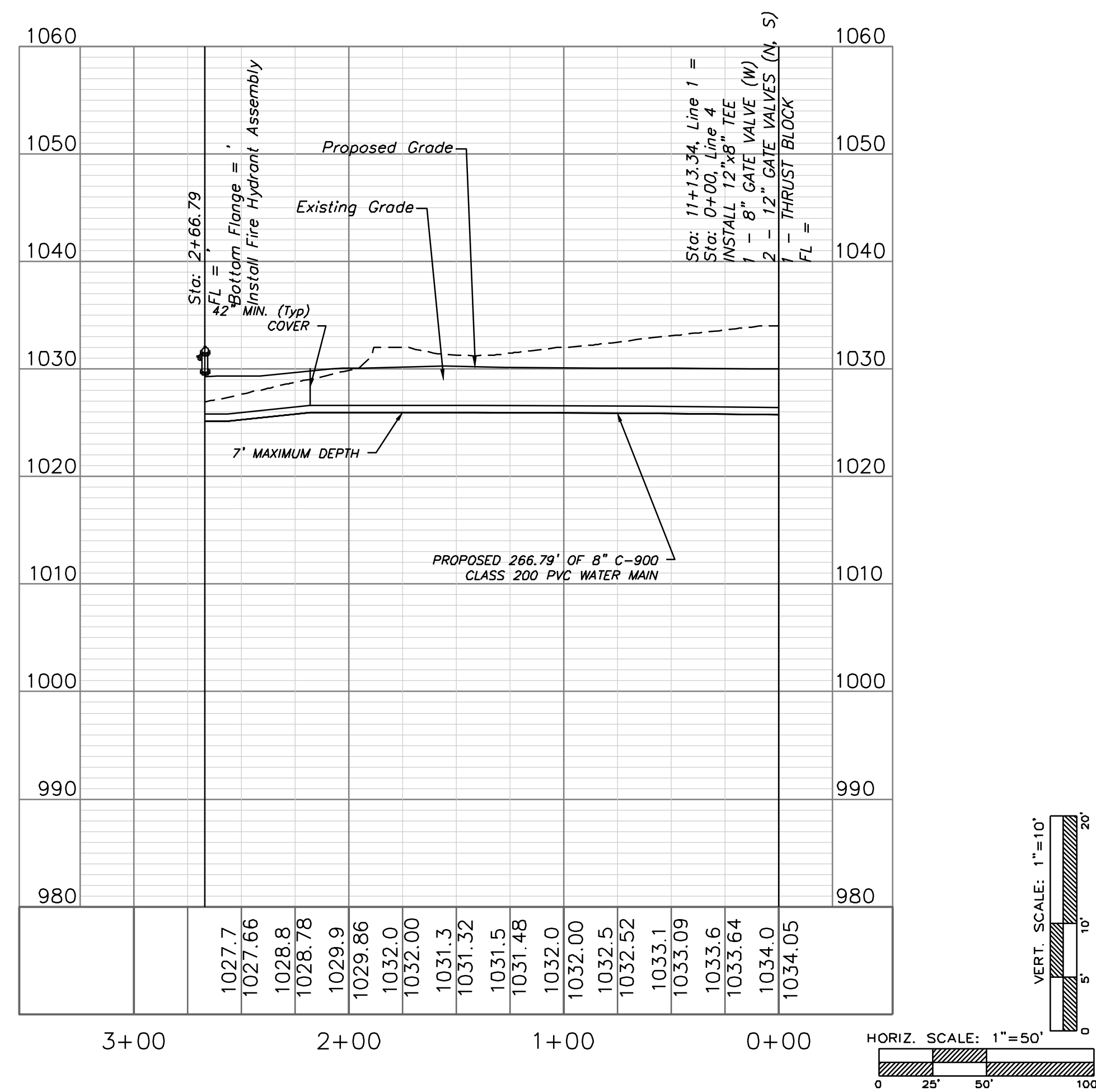


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

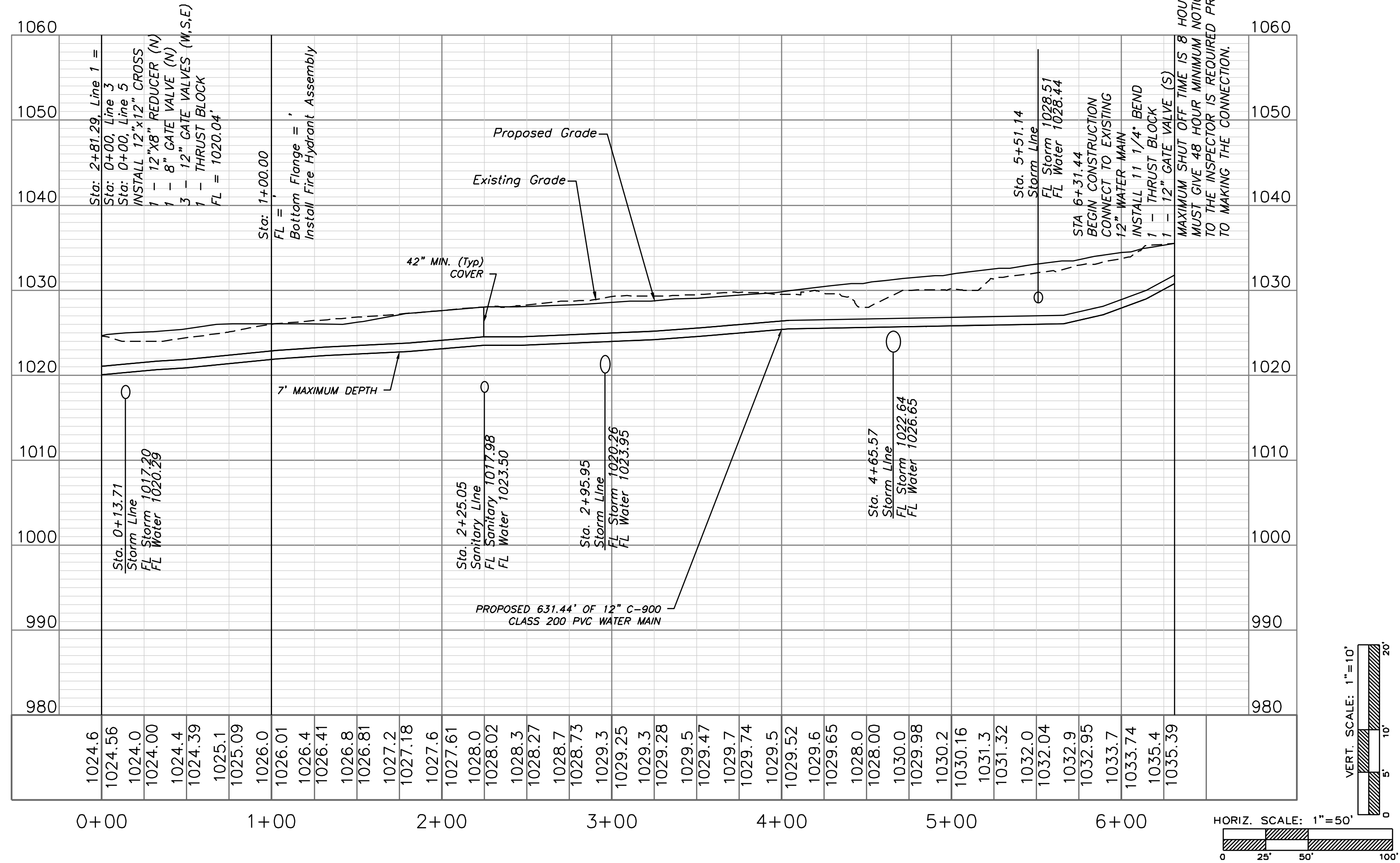
REVISIONS	
REV. 12/10/2024	
REV. 1/2/2025	
REV. 2/6/2025	
REV. 3/6/2025	
REV. 3/24/2025	
REV. 4/15/2025	
REV. 12/2/2025	
REV. 12/10/2025	



PUBLIC WATER LINE 4

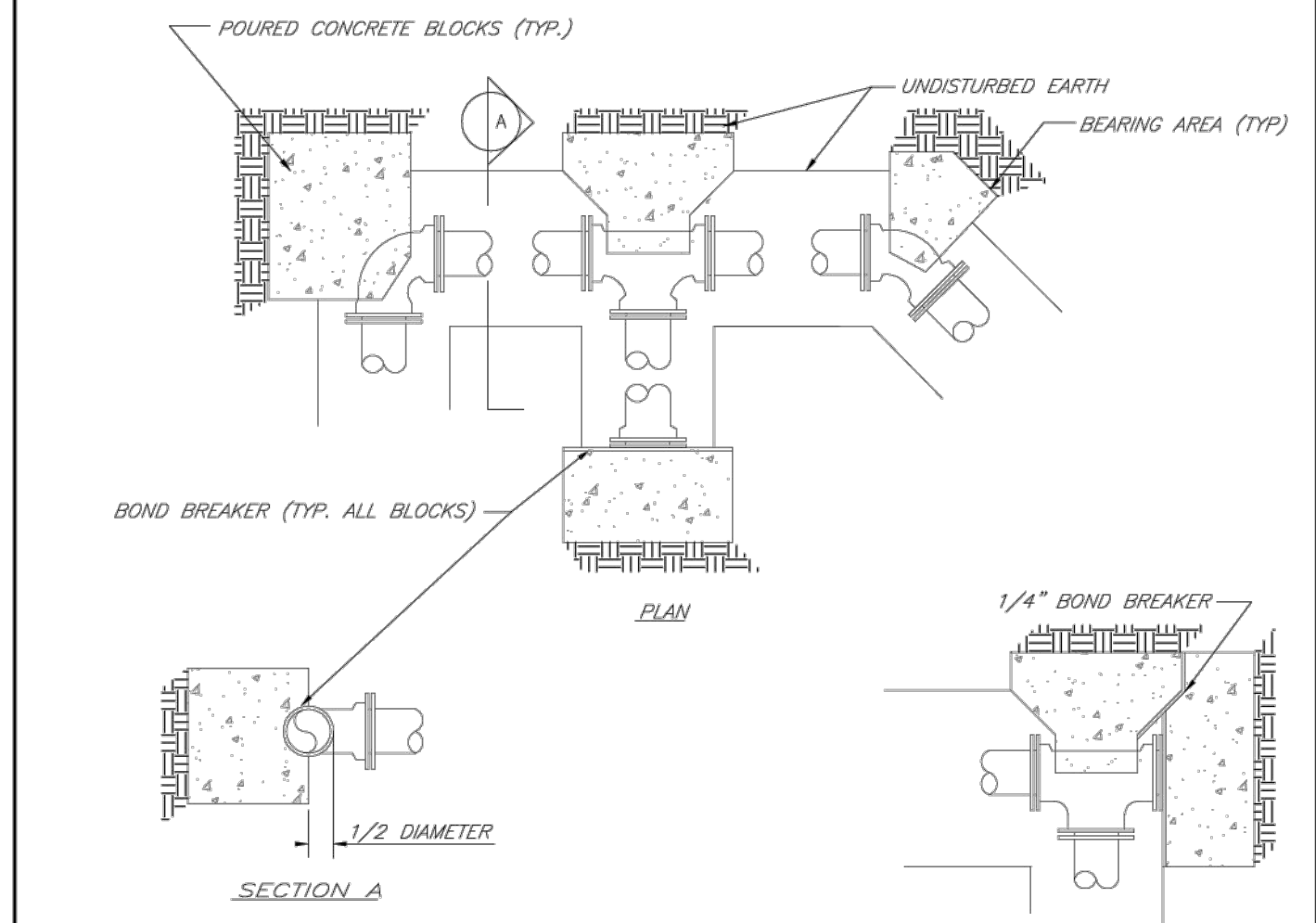


PUBLIC WATER LINE 5



REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)									
NOM. DIA. (INCHES)	TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND				
6	4.7	6.7	4.0	4.0	4.0				
8	8.4	11.8	6.4	4.0	4.0				
10	13.1	18.5	10.0	5.1	4.0				
12	18.8	26.2	14.4	7.4	5.0				
14	25.7	36.1	19.6	10.0	6.6				
16	33.5	47.4	25.6	13.1	8.6				
18	42.4	59.7	32.5	16.5	10.7				
20	52.1	73.4	40.1	20.4	13.1				
24	78.4	108.4	59.4	29.4	18.6				

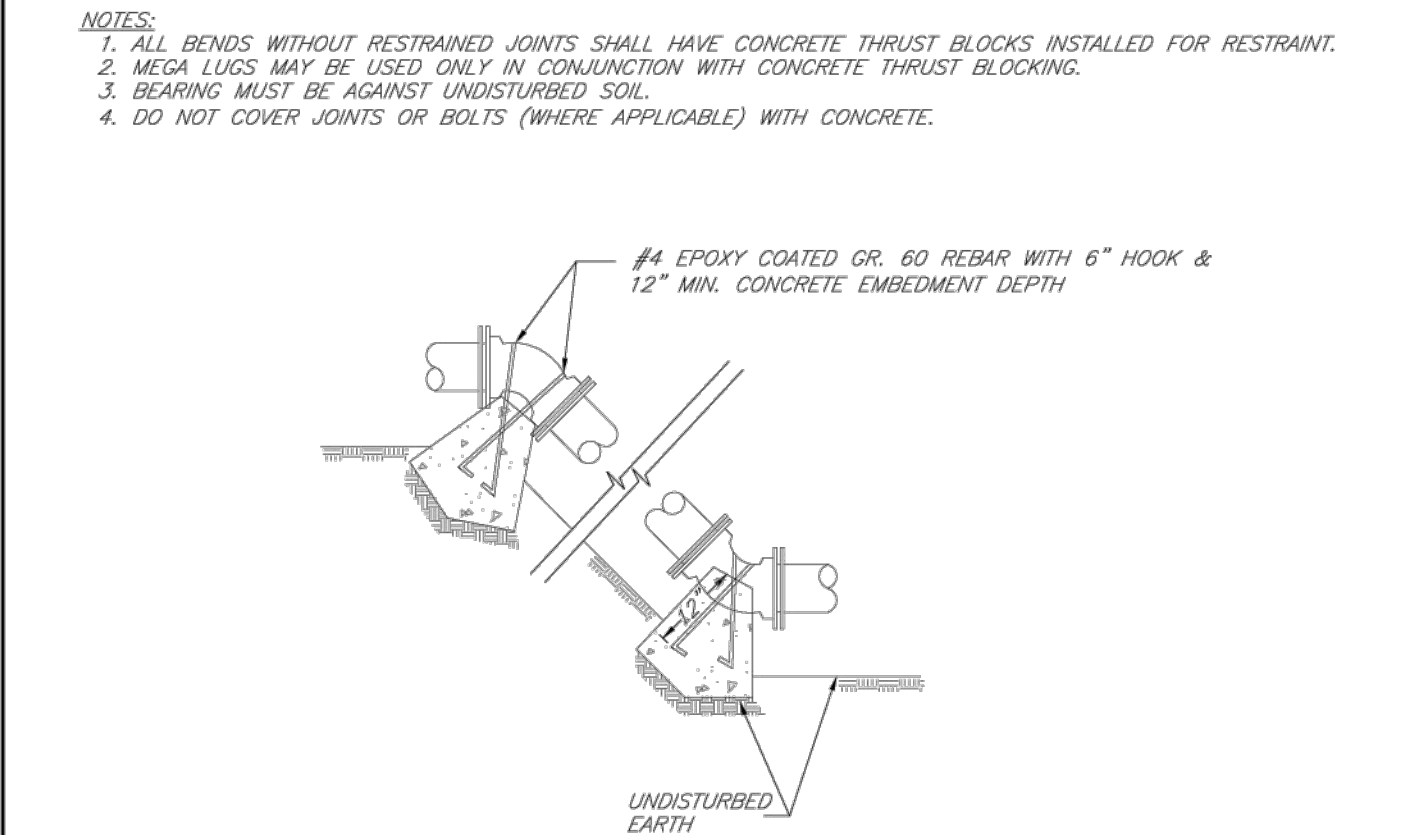
NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



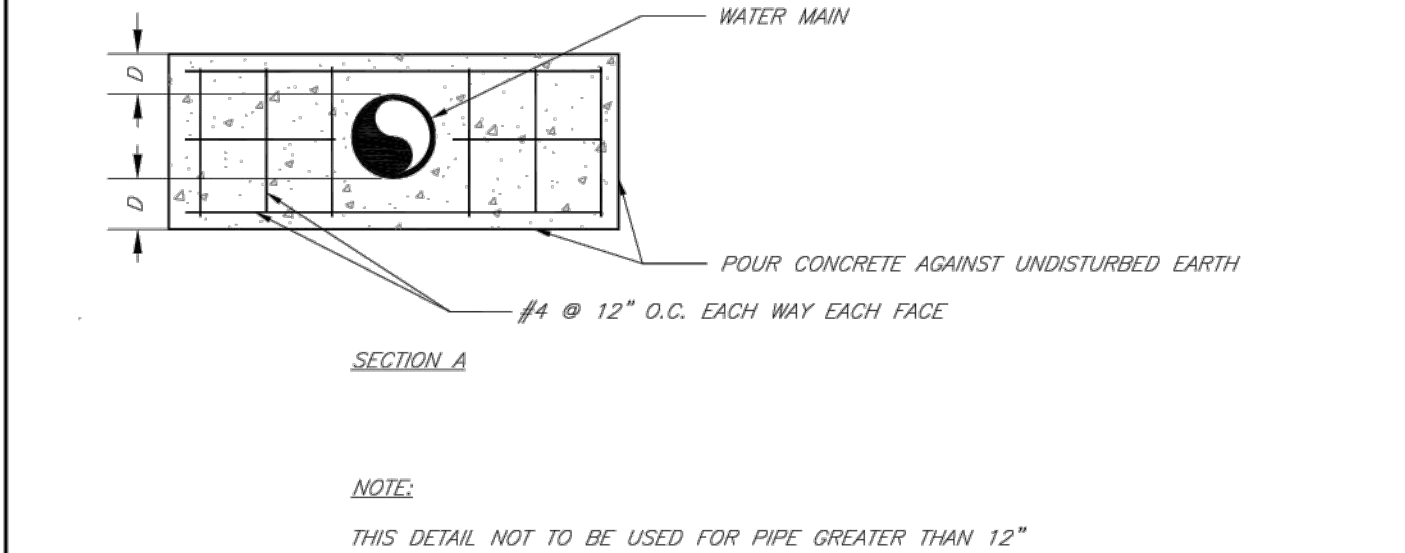
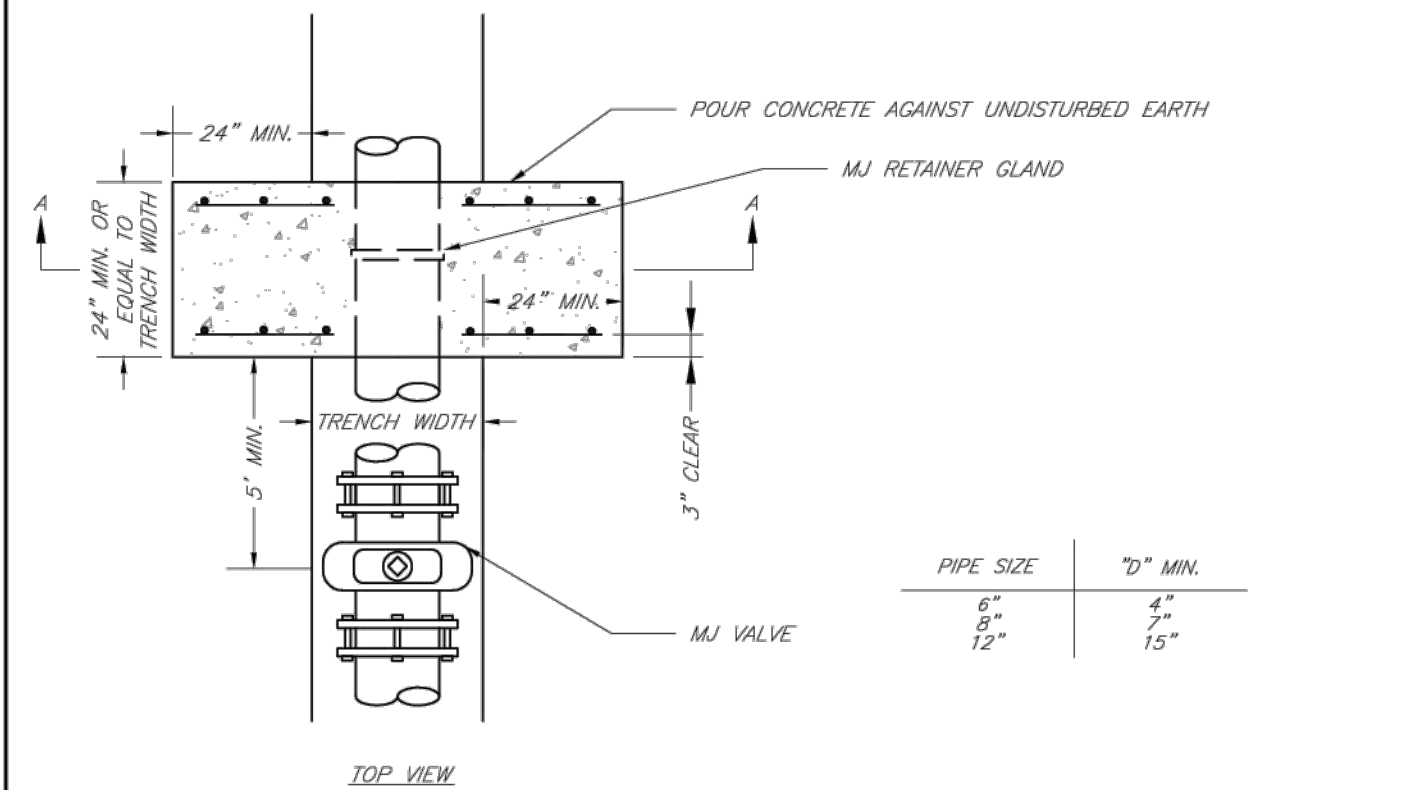
LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	HORIZONTAL THRUST BLOCKS	Date: 02/13
			Drawn By: JN
			Checked By: DL
			FILE: WAT-1
			Rev: 1/14

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)									
NOM. DIA. (INCHES)	TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND				
6	50.5	71.4	38.6	19.7	9.9				
8	89.9	126.9	68.7	35.0	17.6				
10	140.2	198.3	101.5	54.7	27.5				
12	202.0	287.1	154.6	78.8	38.6				
14	278.1	396.4	210.4	107.3	53.9				
16	368.4	524.4	281.1	140.1	70.4				
18	474.1	672.1	358.1	177.3	89.1				
20	596.1	840.1	440.1	210.0	110.0				
24	896.1	1260.1	660.1	330.0	165.0				

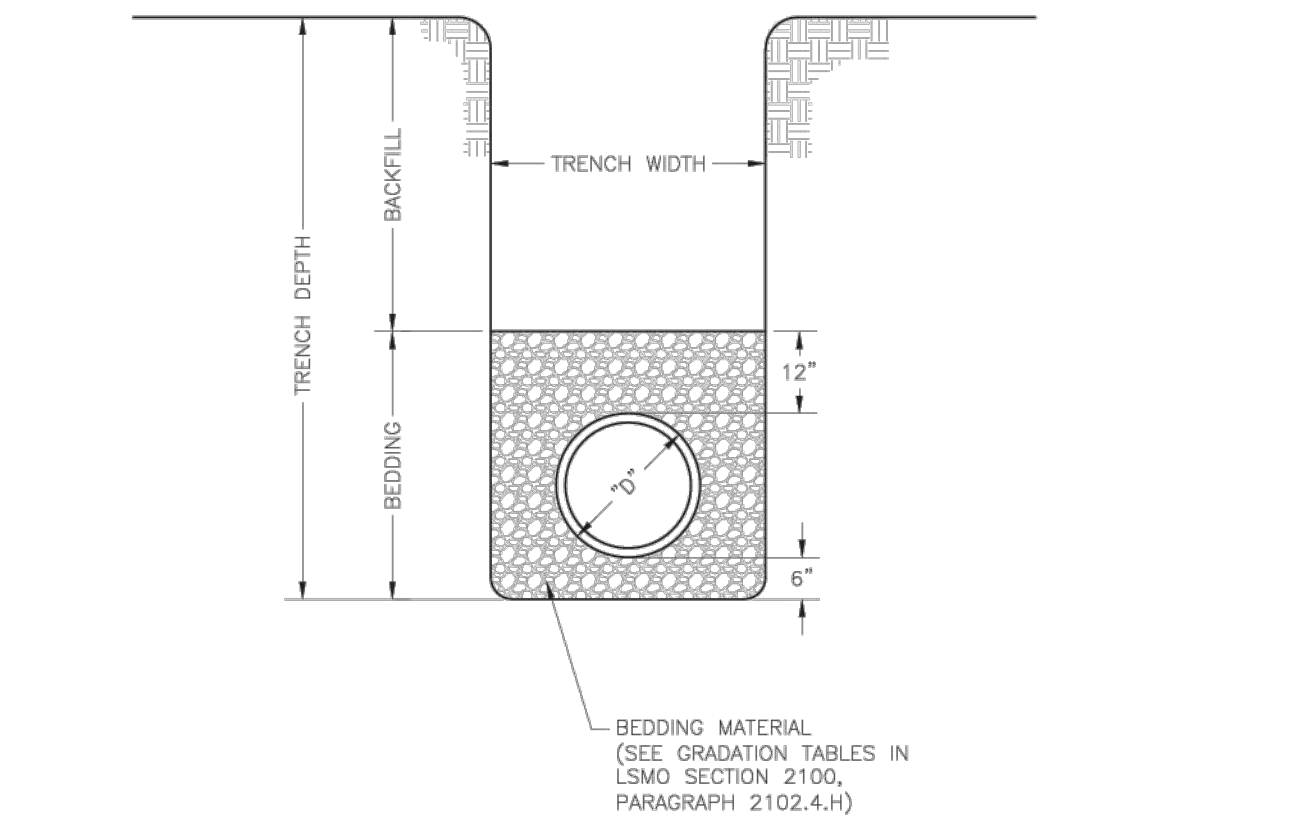
NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	VERTICAL THRUST BLOCKS	Date: 02/13
			Drawn By: JN
			Checked By: DL
			FILE: WAT-2
			Rev: 1/14

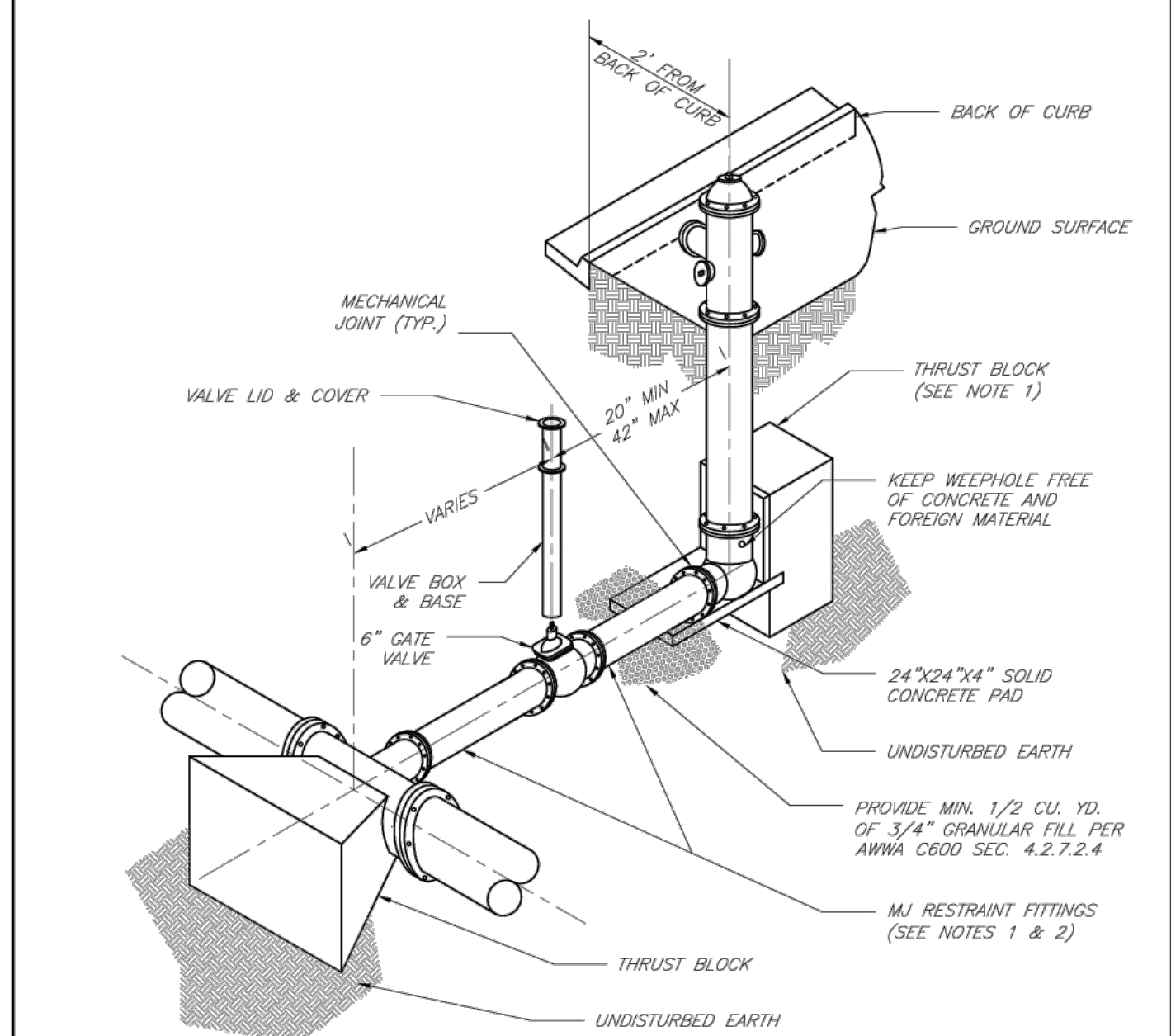


LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	STRADDLE BLOCK	Date: 02/13
			Drawn By: JN
			Checked By: DL
			FILE: WAT-3
			Rev: 1/14



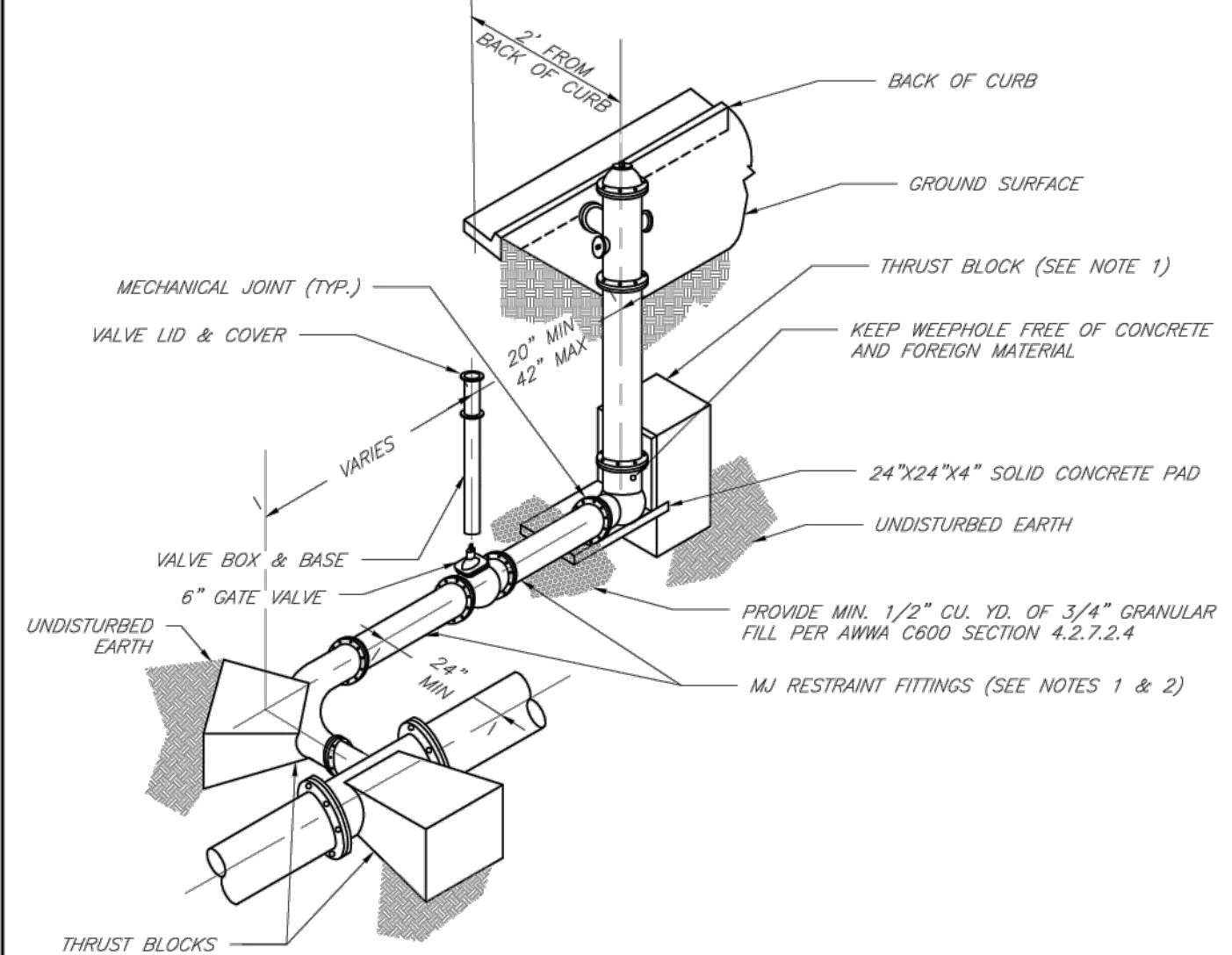
- NOTES:
1. FOR TRENCHING AND PAVEMENT PATCHING REPAIRS WITHIN EXISTING OR FUTURE STREETS SEE STANDARD DETAIL GEN-5.
2. EXCAVATION DEPTH, SLOPES, SHORING, AND STOCKPILE LOCATIONS SHALL COMPLY WITH OSHA REGULATIONS.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	PIPE BEDDING DETAIL	Date: 06/2023
			Drawn By: MAP
			Checked By: GMB
			FILE: GEN-6
			Rev: 1/14



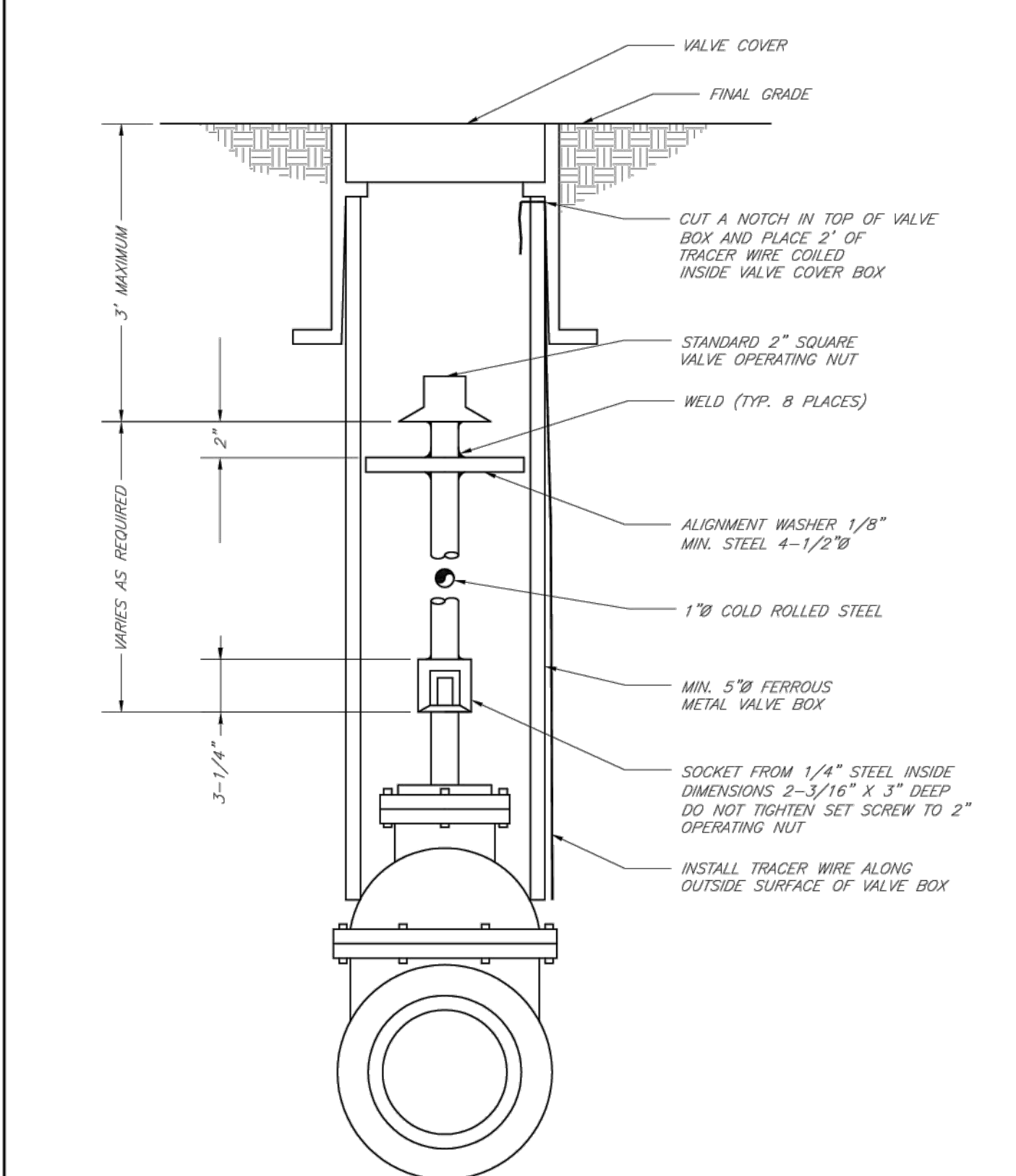
- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	HYDRANT INSTALLATION - STRAIGHT SET	Date: 02/13
			Drawn By: JN
			Checked By: DL
			FILE: WAT-7
			Rev: 1/14



- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	HYDRANT WITH 90 DEGREE BEND	Date: 02/13
			Drawn By: JN
			Checked By: DL
			FILE: WAT-8
			Rev: 1/14



LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	VALVE STEM EXTENSION AND VALVE BOX	Date: 02/13
			Drawn By: JN
			Checked By: DL
			FILE: WAT-9
			Rev: 1/14

ENGINEERING

ENGINEERING & SURVEYING

SOLUTIONS

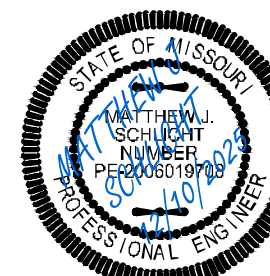
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

Project: WAT-1
Mark: LSMD
Issue Date: October 23, 2024

Water Main Detail
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlacht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

- REVISIONS
- REV. 12/10/2024
 - REV. 1/2/2025
 - REV. 2/6/2025
 - REV. 3/6/2025
 - REV. 3/24/2025
 - REV. 4/15/2025
 - REV. 12/2/2025
 - REV. 12/10/2025