

EAST VILLAGE PHASE 1

WATER LINE CONSTRUCTION PLAN

Section 8, 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 LEE'S SUMMIT AND APWA STANDARDS.

6 ~ THE MINIMUM SEPARATION BETWEEN THE PROPOSED WATER MAIN AND SANITARY OR STORM SEWERS IS AS FOLLOWS:

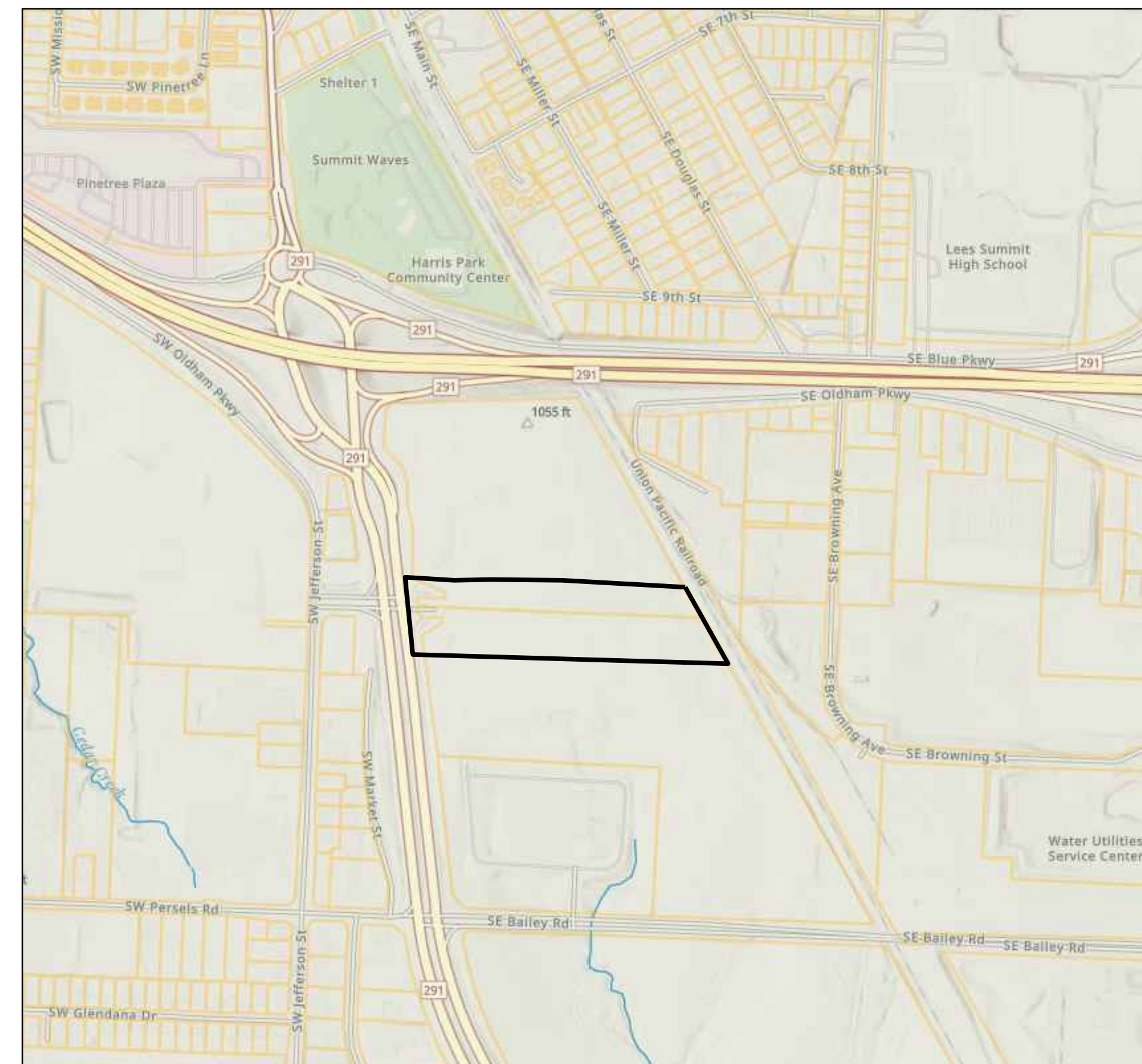
A ~ SANITARY SEWERS: HORIZONTAL = 10 FEET - VERTICAL = 18 INCHES
 B ~ STORM SEWERS: HORIZONTAL = 10 FEET - VERTICAL = 18 INCHES
 THESE SEPARATIONS SHALL PREVAIL OVER ANY DATA SHOWN IN THESE PLANS AND THE CONTRACTOR SHALL INSTALL BENDS OR OTHER FITTINGS AS NECESSARY TO ACHIEVE THE REQUIRED SEPARATIONS.

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 S2°18'20"W, a distance of 43.88 feet to the Point of Beginning; thence N5°09'44"W, a distance of 458.00 feet; thence S2°26'55"W, a distance of 206.05 feet; thence S87°33'04"E, a distance of 215.90 feet; thence N2°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 S2°23'57"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 62.84 feet; thence N2°23'16"E, a distance of 12.78 feet; thence S87°30'29"E, a distance of 327.07 feet; thence N6°07'14"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 feet; 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 461.13 feet; thence S89°02'59"W, a distance of 78.09 feet; thence N52°34'07"W, a distance of 298.65 feet to the Point of Beginning.



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 ~ DETAIL SHEET

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

LEGEND:

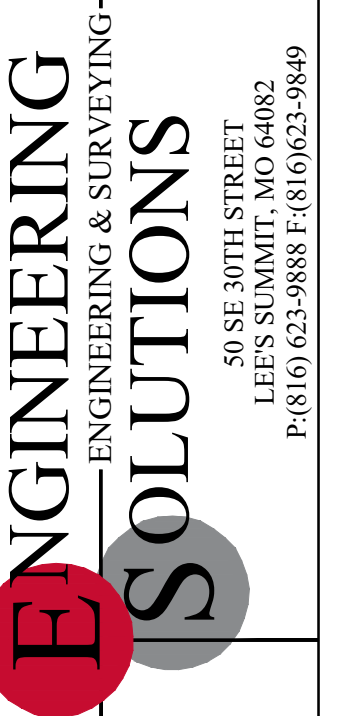
- B/L - BUILDING SET-BACK
- C/A - COMMON AREA
- D/E - DRAINAGE EASEMENT
- FND. - FOUND
- L/E - LANDSCAPE EASEMENT
- L.N.A. - LIMITS OF NO ACCESS
- R/W - RIGHT OF WAY
- SAN - SANITARY SEWER LINE
- S/W - SIDEWALK
- U/E - UTILITY EASEMENT
- W - WATER LINE
- ST - STORM SEWER LINE

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.

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

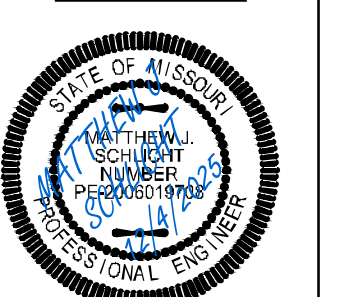


Professional Registration
 Missouri
 Engineering 200502186-D
 Surveying 2005008318-D
 Kansas
 Engineering E-1695
 Surveying LS-218
 Oklahoma
 Engineering 6254
 Nebraska
 Engineering CA2821

Project: East Village Phase 1
 Location: Lee's Summit, Jackson County, Missouri

Project: Water Main Cover Sheet
 Location: East Village Phase 1
 Location: Lee's Summit, Jackson County, Missouri

Project: Water Main Cover Sheet
 Location: East Village Phase 1
 Location: Lee's Summit, Jackson County, Missouri



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

REVISIONS

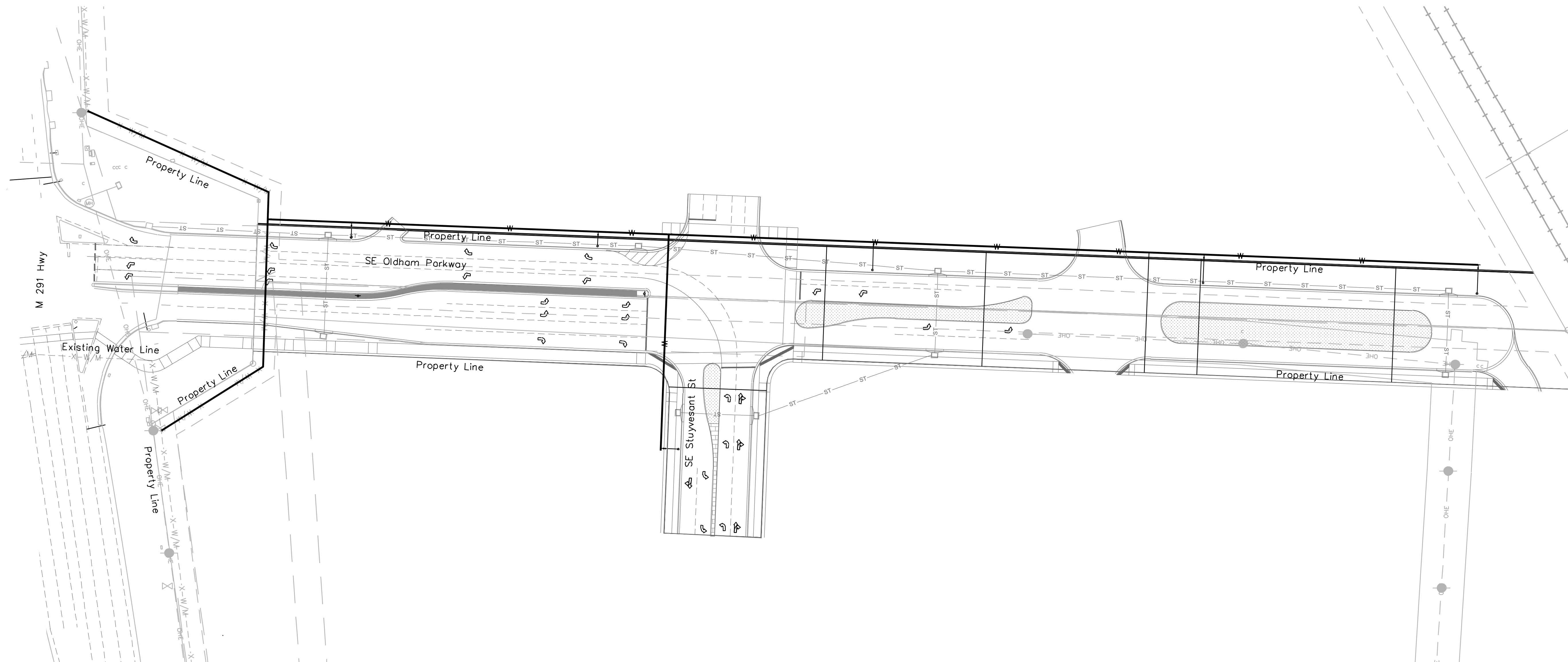
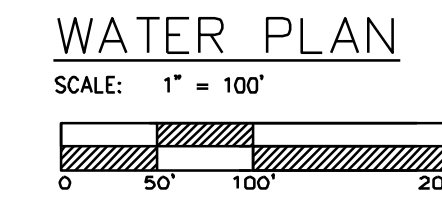
REV. 12/23/2025

LEGEND:

Existing Underground Power	—UGP—UGP—
Existing Conc. Curb & Gutter	=====
Existing Wood Fence	—X—X—
Existing Gas Main	—GAS—GAS—
Existing Water Main	-X-W/M- -X-W/M-
Existing Storm Sewer	-X-STM- -X-STM-
Existing Sanitary Sewer	-X-SAN- -X-SAN-
Existing Underground Telephone	—UGT—UGT—
Existing Overhead Power	—OHE—
Proposed Storm Sewer (Private)	—ST—ST—ST—
Proposed Storm Sewer (Public)	—S—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—

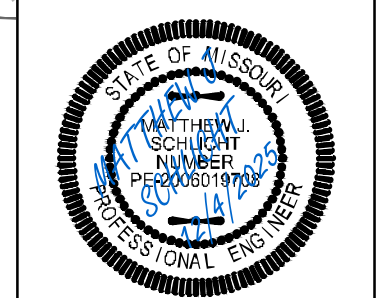
NOTE:
FIRE HYDRANTS SHALL NOT
BE MORE THAN 250' TO
ANY POINT ON BUILDING.

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.



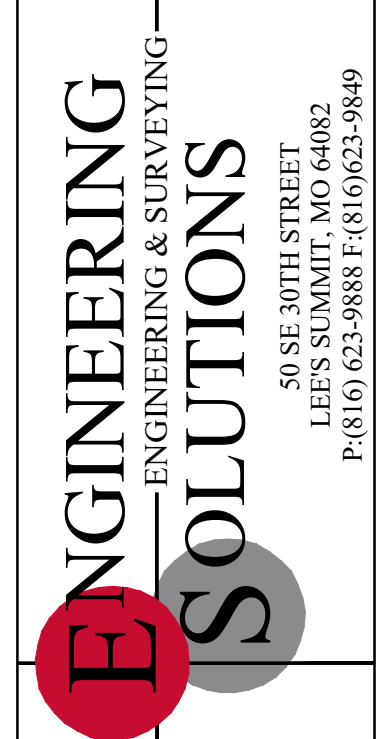
Project: GUPM EAST
Issue Date: December 4, 2025

Water Utility Plan
Construction Plans for:
East Village Phase 1
Lee's Summit, Jackson County, Missouri



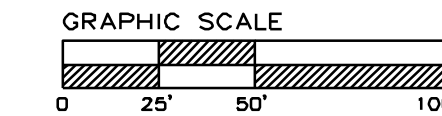
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
△ REV. 12/23/2025



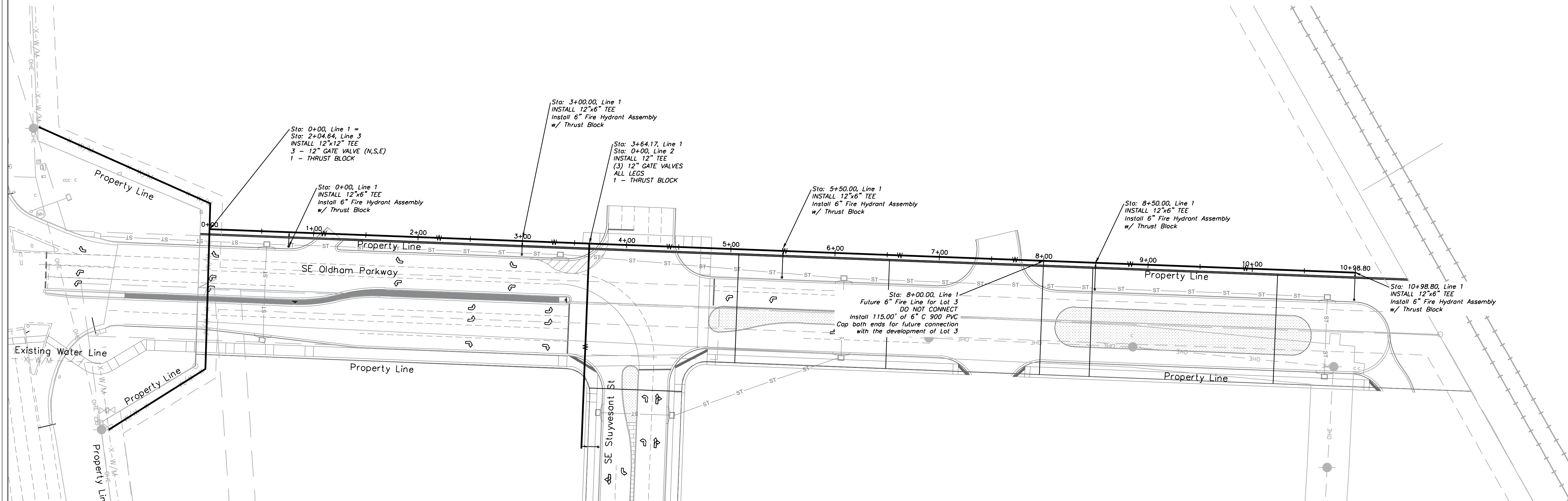
Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

East Village Phase 1
Lee's Summit, Jackson County, Missouri

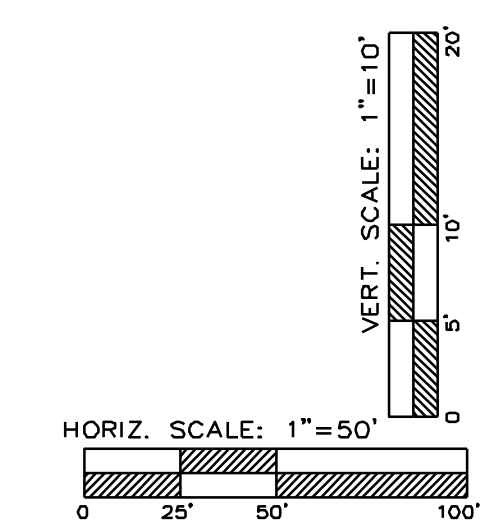
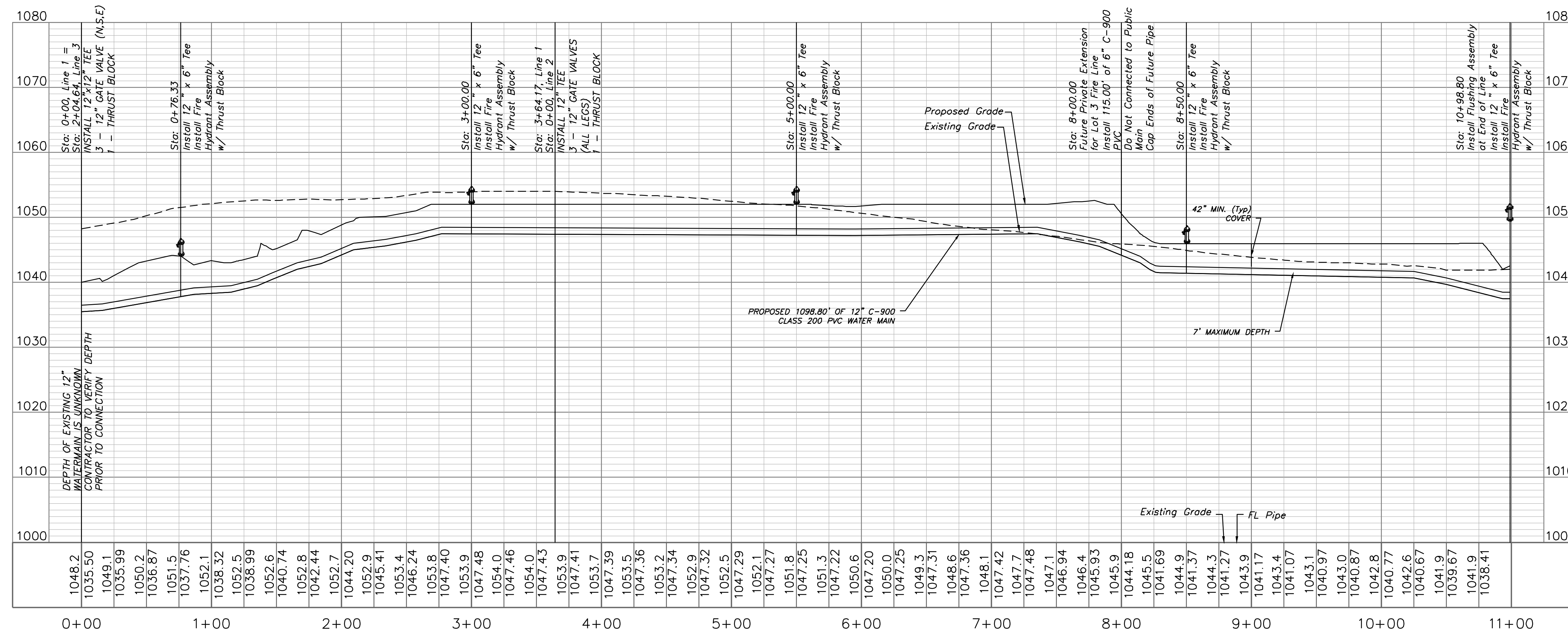


WATER PLAN & PROFILE

SCALE: 1" = 50'



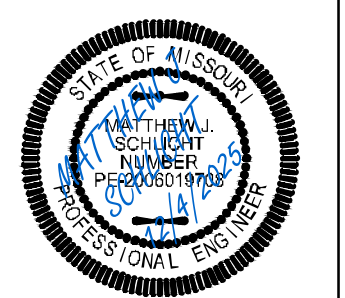
PUBLIC WATER LINE 1



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

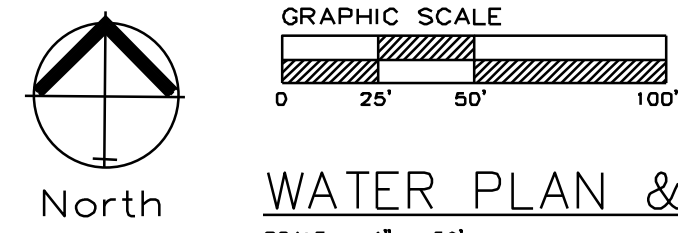
Project: GUPM EAST
 Issue Date: December 4, 2025
 East Village Phase 1
 Lee's Summit, Jackson County, Missouri

Water Main Plan and Profile
 Construction Plans for:
 East Village Phase 1
 Lee's Summit, Jackson County, Missouri



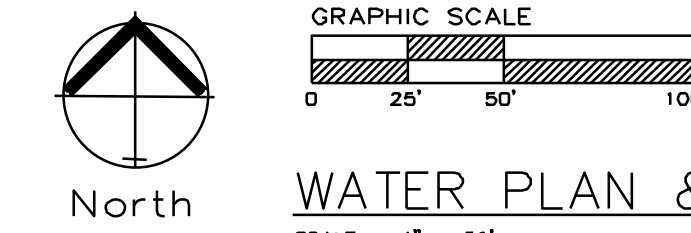
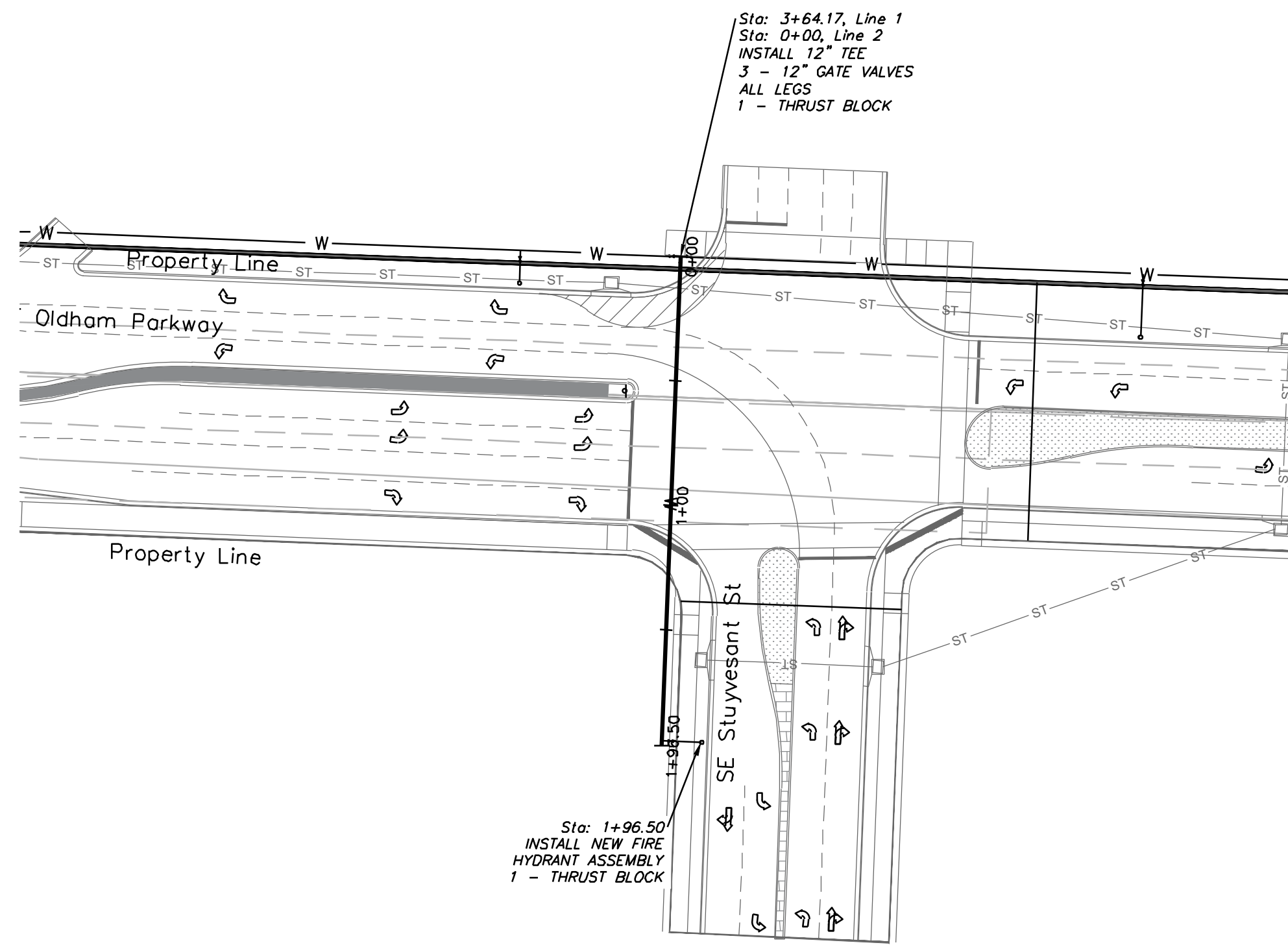
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REVISIONS
 REV. 12/23/2025



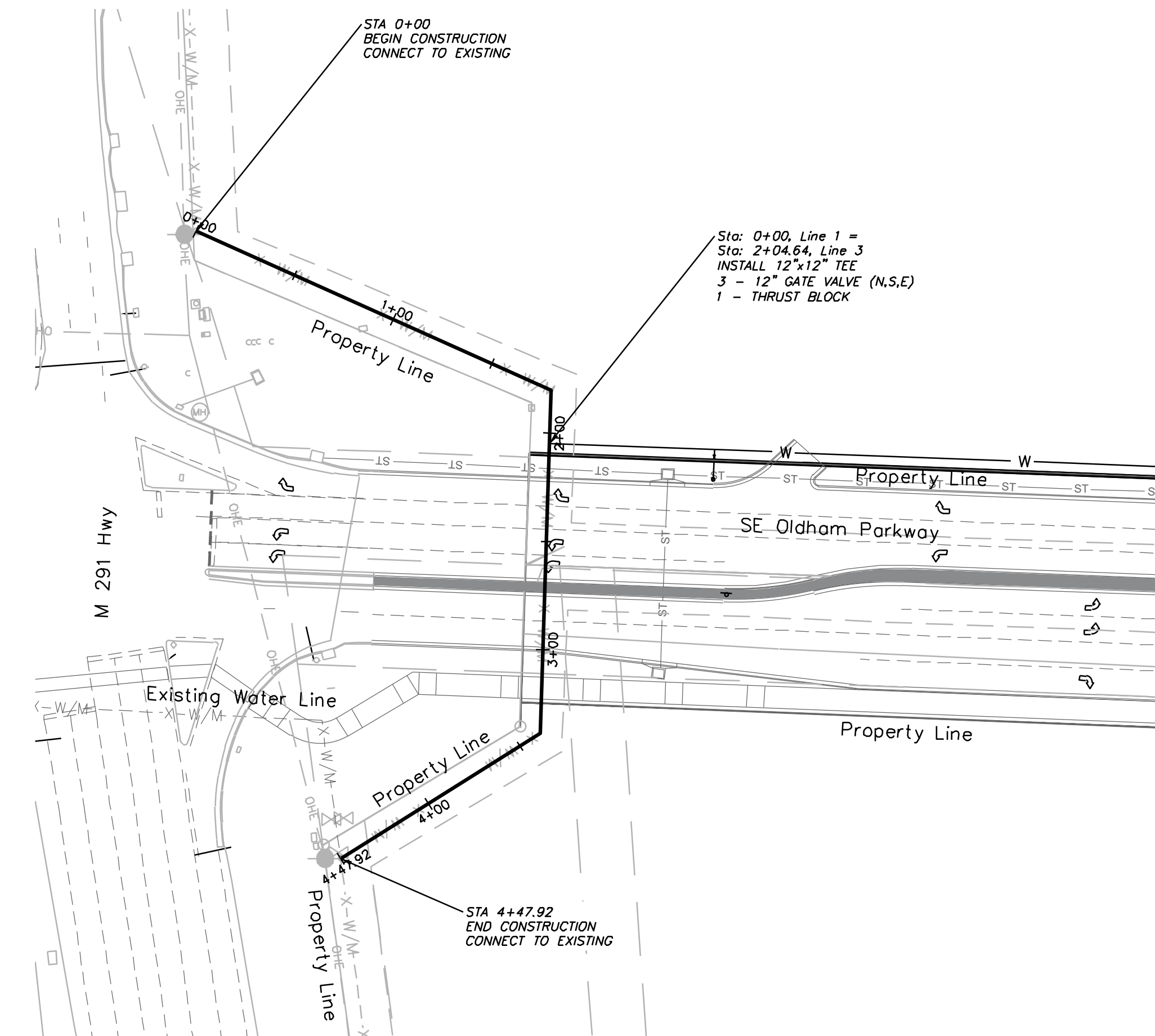
WATER PLAN & PROFILE

SCALE: 1" = 50'

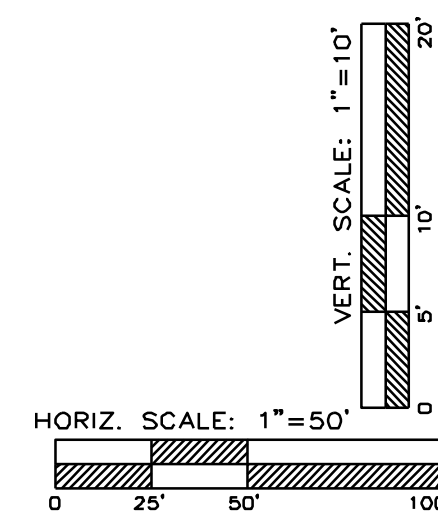
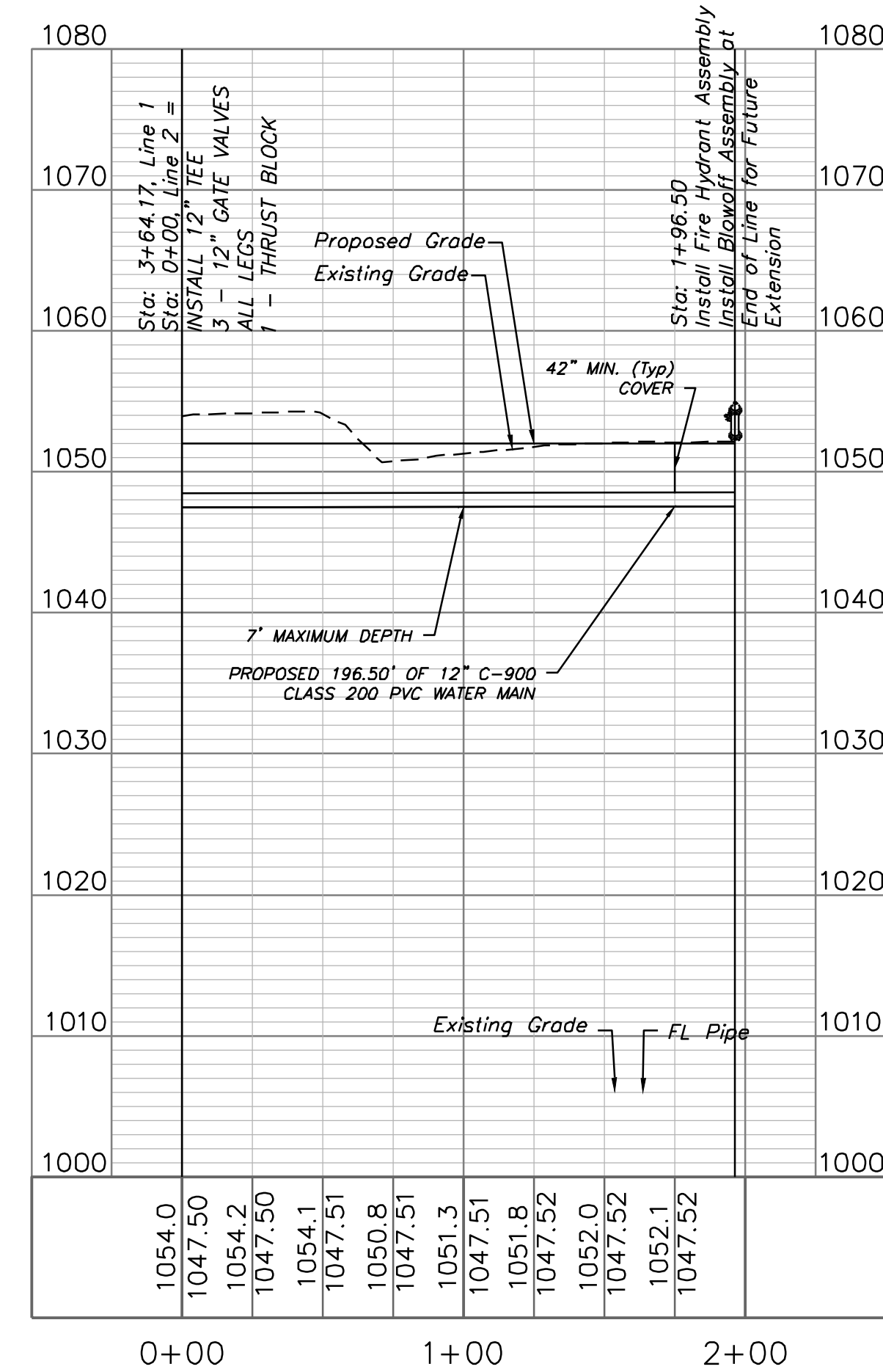


WATER PLAN & PROFILE

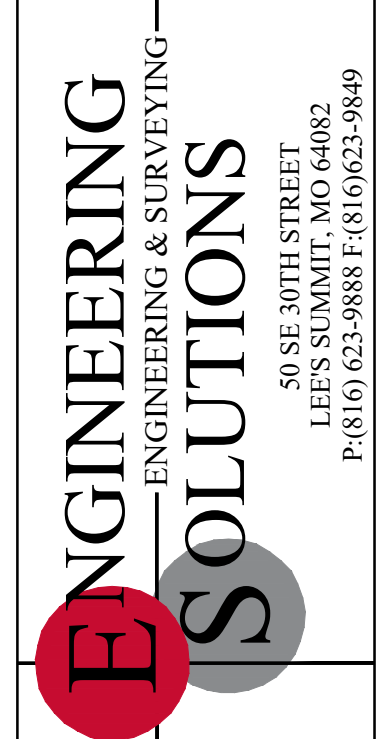
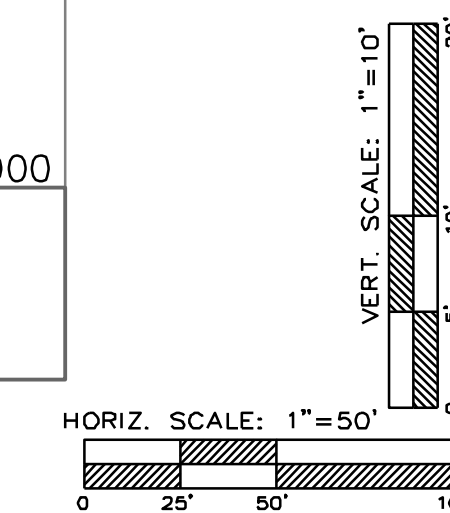
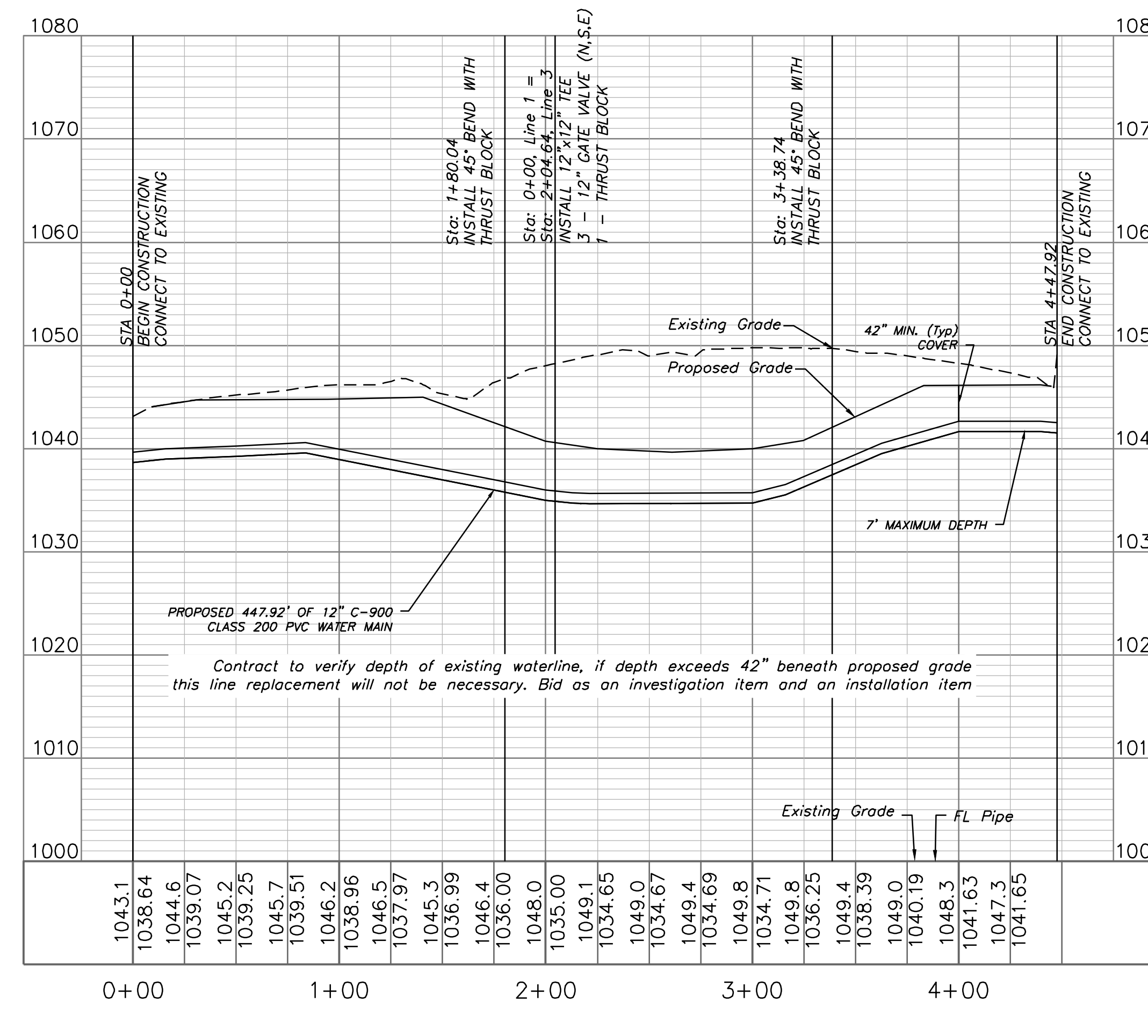
SCALE: 1" = 50'



PUBLIC WATER LINE 2



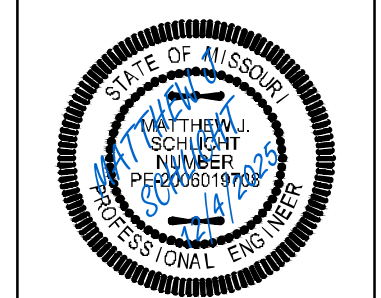
PUBLIC WATER LINE 3



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

Project: GUPM EAST
 Issue Date: December 4, 2025
 East Village Phase 1
 Lee's Summit, Jackson County, Missouri

Water Main Plan and Profile
 Construction Plans for:
 East Village Phase 1
 Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
 MO PE 2006019708
 KS PE 19071
 OK PE 25228
 NE PE E-14335

REVISIONS
 REV. 12/23/2025

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)

NOM. DIA. (INCHES)	180 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	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	58.7	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8

POURED CONCRETE BLOCKS (TYP.)
UNDISTURBED EARTH
BEARING AREA (TYP.)
BOND BREAKER (TYP. ALL BLOCKS)
1/4" BOND BREAKER
1/2 DIAMETER
SECTION A

NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MECA 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.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HORIZONTAL THRUST BLOCK

Date: 06/2023
Drawn By: MJF
Checked By: KLY
WAT-1

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	68.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	39.6
14	REST. JT.	REST. JT.	219.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4

#4 EPOXY COATED GR. 60 REBAR WITH 6" HOOK & MIN. CONCRETE EMBEDMENT DEPTH
UNDISTURBED EARTH
12"
SECTION A

NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MECA 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.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
VERTICAL THRUST BLOCK

Date: 06/2023
Drawn By: MJF
Checked By: KLY
WAT-2

POUR CONCRETE AGAINST UNDISTURBED EARTH
MJ RETAINER GLAND
24" MIN. TRENCH WIDTH
24" MIN.
3" CLEAR
TRENCH WIDTH
5" MIN.
MJ VALVE
PIPE SIZE "D" MIN.
6" 4"
8" 7"
12" 15"
TOP VIEW
SECTION A-A
WATER MAIN
POUR CONCRETE AGAINST UNDISTURBED EARTH
#4 @ 12" O.C. EACH WAY EACH FACE

NOTE:
THIS DETAIL NOT TO BE USED FOR PIPE GREATER THAN 12"

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STRADDLE BLOCK

Date: 06/2023
Drawn By: MJF
Checked By: KLY
WAT-3

TRENCH DEPTH
BACKFILL
TRENCH WIDTH
12"
6"
BEDDING MATERIAL
(SEE GRADATION TABLES IN LSMD SECTION 2100, PARAGRAPH 2102.4.1)

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.

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: MJF
Checked By: GMB
GEN-6

2" FROM BACK OF CURB
BACK OF CURB
GROUND SURFACE
MECHANICAL JOINT (TYP.)
THRUST BLOCK (SEE NOTE 1)
KEEP WEEPHOLE FREE OF CONCRETE AND FOREIGN MATERIAL
UNDISTURBED EARTH
24"x24"x4" SOLID CONCRETE PAD
PROVIDE MIN. 1/2 CU. YD. OF 3/4" GRANULAR FILL PER AWWA C600 SEC. 4.2.7.2.4
ANCHOR FITTINGS (SEE NOTES 1 & 2)
THRUST BLOCK
UNDISTURBED EARTH

NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF ANCHOR FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO ANCHOR 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.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HYDRANT - STRAIGHT SET

Date: 06/2023
Drawn By: MJF
Checked By: KLY
WAT-7

2" FROM BACK OF CURB
BACK OF CURB
GROUND SURFACE
MECHANICAL JOINT (TYP.)
THRUST BLOCK (SEE NOTE 1)
KEEP WEEPHOLE FREE OF CONCRETE AND FOREIGN MATERIAL
UNDISTURBED EARTH
24"x24"x4" SOLID CONCRETE PAD
PROVIDE MIN. 1/2 CU. YD. OF 3/4" GRANULAR FILL PER AWWA C600 SECTION 4.2.7.2.4
ANCHOR FITTINGS (SEE NOTES 1 & 2)
THRUST BLOCKS
UNDISTURBED EARTH

NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF ANCHOR RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO ANCHOR TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
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6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HYDRANT WITH 90 DEGREE BEND

Date: 06/2023
Drawn By: MJF
Checked By: KLY
WAT-8

VALVE COVER
FINAL GRADE
3" MAXIMUM
CUT A NOTCH IN TOP OF VALVE BOX AND PLACE 2" OF TRACER WIRE COILED INSIDE VALVE COVER BOX
STANDARD 2" SQUARE VALVE OPERATING NUT
WELD (TYP. 8 PLACES)
ALIGNMENT WASHER 1/8" MIN. STEEL 4-1/2"
1" COLD ROLLED STEEL
MIN. 5/8" FERROUS METAL VALVE BOX
SOCKET FROM 1/4" STEEL INSIDE DIMENSIONS 2-3/16" X 3" DEEP DO NOT TIGHTEN SET SCREW TO 2" OPERATING NUT
INSTALL TRACER WIRE ALONG OUTSIDE SURFACE OF VALVE BOX

VARIES AS REQUIRED
3-1/4"

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
VALVE STEM EXTENSION AND VALVE BOX

Date: 06/2023
Drawn By: MJF
Checked By: KLY
WAT-9