

THE RIDGE AT WINTERSET SUMMIT
LOTS 1601-1605
WATER LINE CONSTRUCTION PLAN
Part of Section 2 & 3, Township 47 North, Range 32 West
Lee's Summit, Jackson County, Missouri

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 12" OR LARGER 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

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.

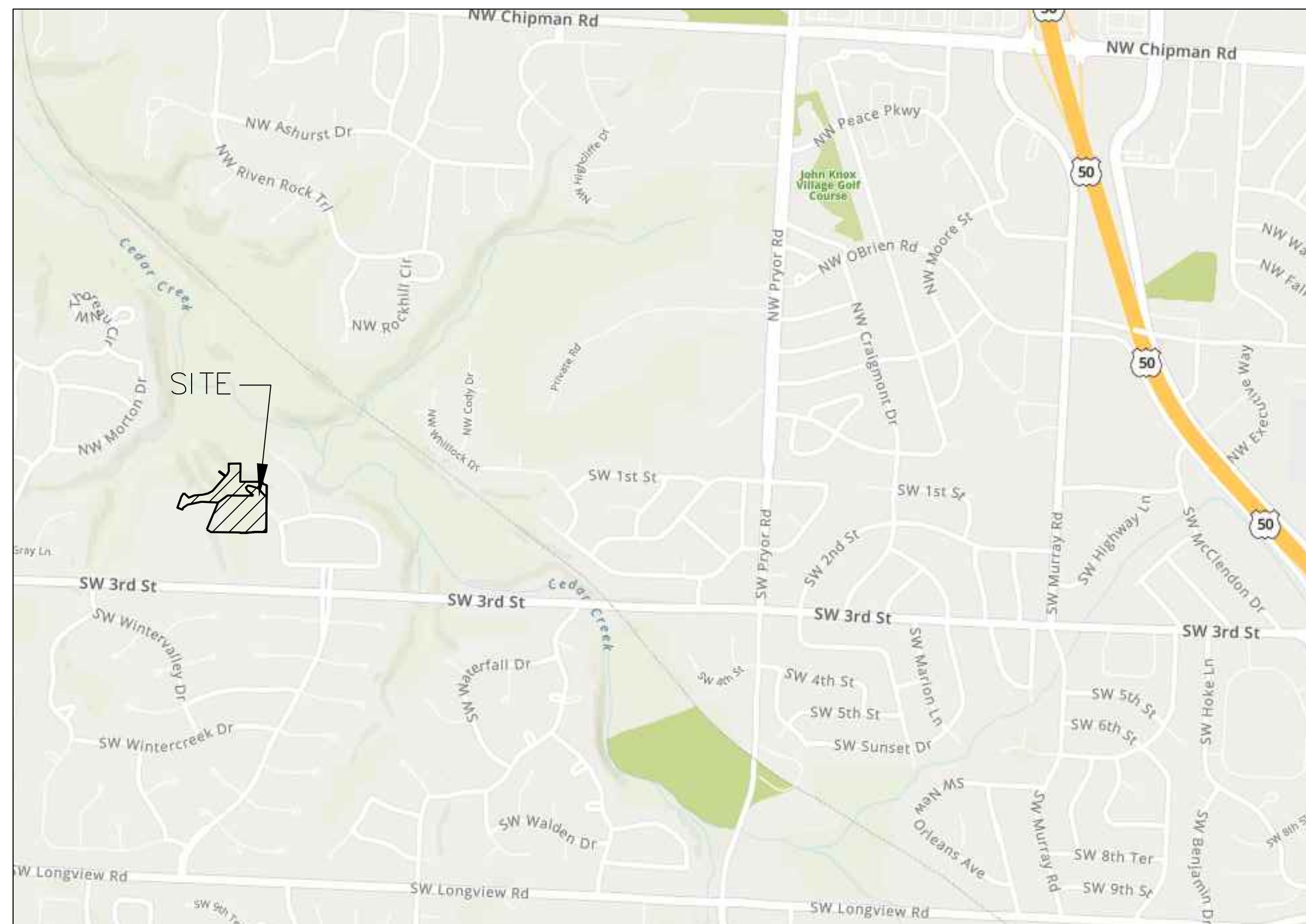
EVERGY - 298-1196
MISSOURI GAS ENERGY - 756-5261
SOUTHWESTERN BELL TELEPHONE - 761-5011
COMCAST CABLE - 795-1100
WILLIAMS PIPELINE - 422-6300
CITY OF LEE'S SUMMIT PUBLIC WORKS - 969-1800
CITY OF LEE'S SUMMIT PUBLIC WORKS INSPECTIONS - 969-1800
CITY OF LEE'S SUMMIT WATER UTILITIES - 969-1900
MISSOURI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

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 SUBJECT PROPERTY SURVEYED LIES WITHIN A FLOOD ZONE DESIGNATED ZONE (X), AREAS LOCATED OUTSIDE THE 100 YEAR FLOOD PLAIN, PER F.E.M.A. MAP, COMMUNITY PANEL NO. 29095C0416G EFFECTIVE DATE: JANUARY 20 2017.



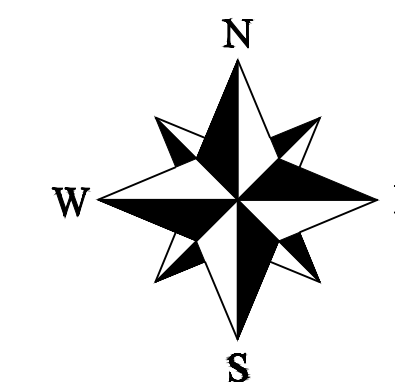
SITE LOCATION MAP

INDEX OF SHEETS:

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

Summary of Quantities:

ITEM AND DESCRIPTION	UNIT	ESTIMATE QUANTITY
WATER		
FIRE HYDRANT ASSEMBLY	UNIT	2.00
8" WATER LINE	UNIT	501.00
CONNECT TO EXISTING	UNIT	1.00
TEES AND BENDS	UNIT	8.00
THRUST BLOCK	UNIT	10.00



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.



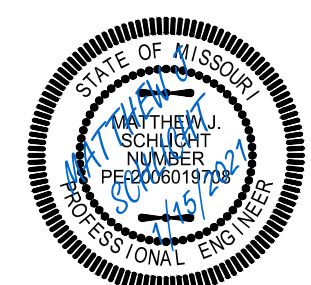
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Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project: Winterset Cedar Creek

Issue Date: December 3, 2020

Water Main Cover Sheet
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

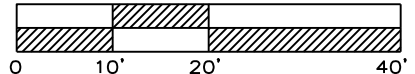
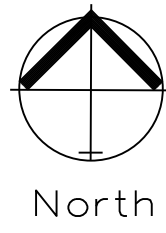
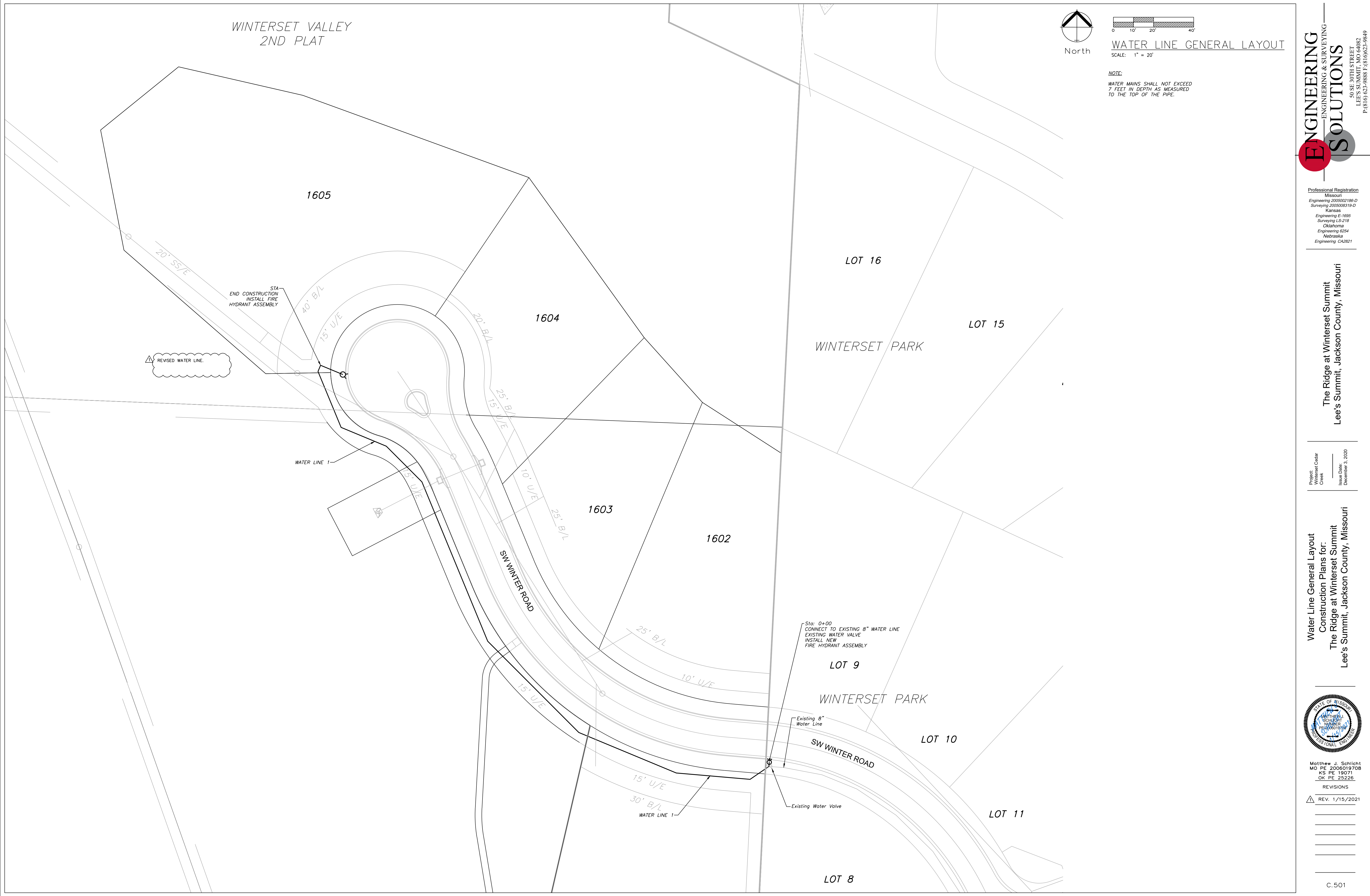


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071

REVISIONS

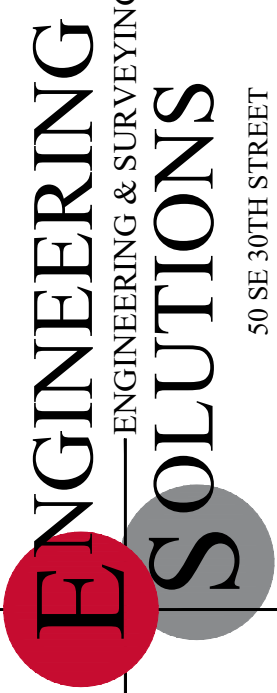
1 REV. 1/15/2021

C.500



WATER LINE GENERAL LAYOUT
SCALE: 1" = 20'

NOTE:
WATER MAINS SHALL NOT EXCEED
7 FEET IN DEPTH AS MEASURED
TO THE TOP OF THE PIPE.

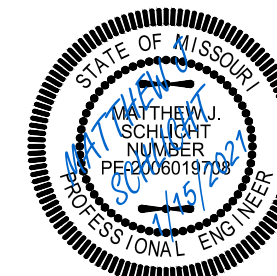


Professional Registration
Missouri
Engineering 2005002188-D
Surveying 2005005189-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

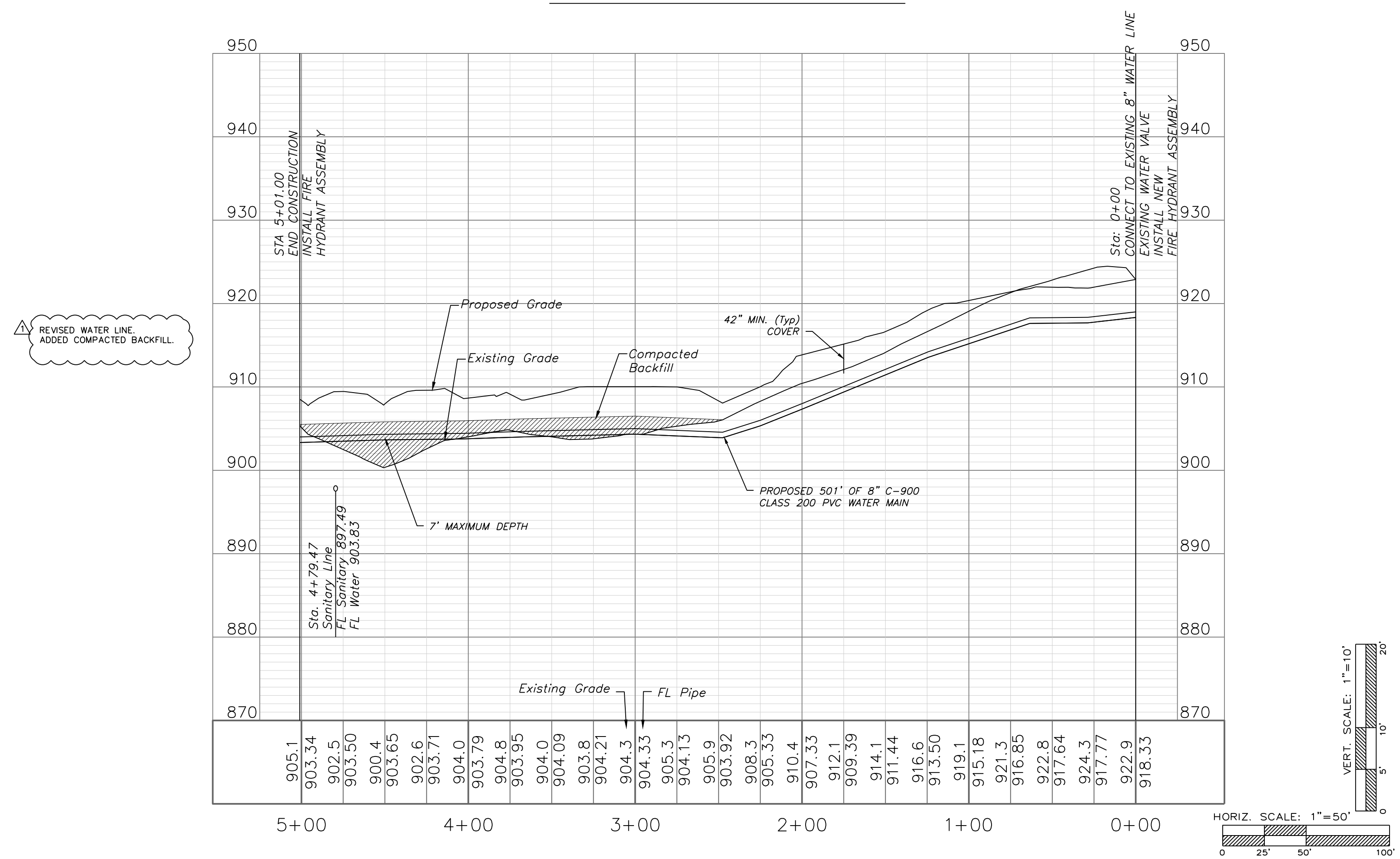
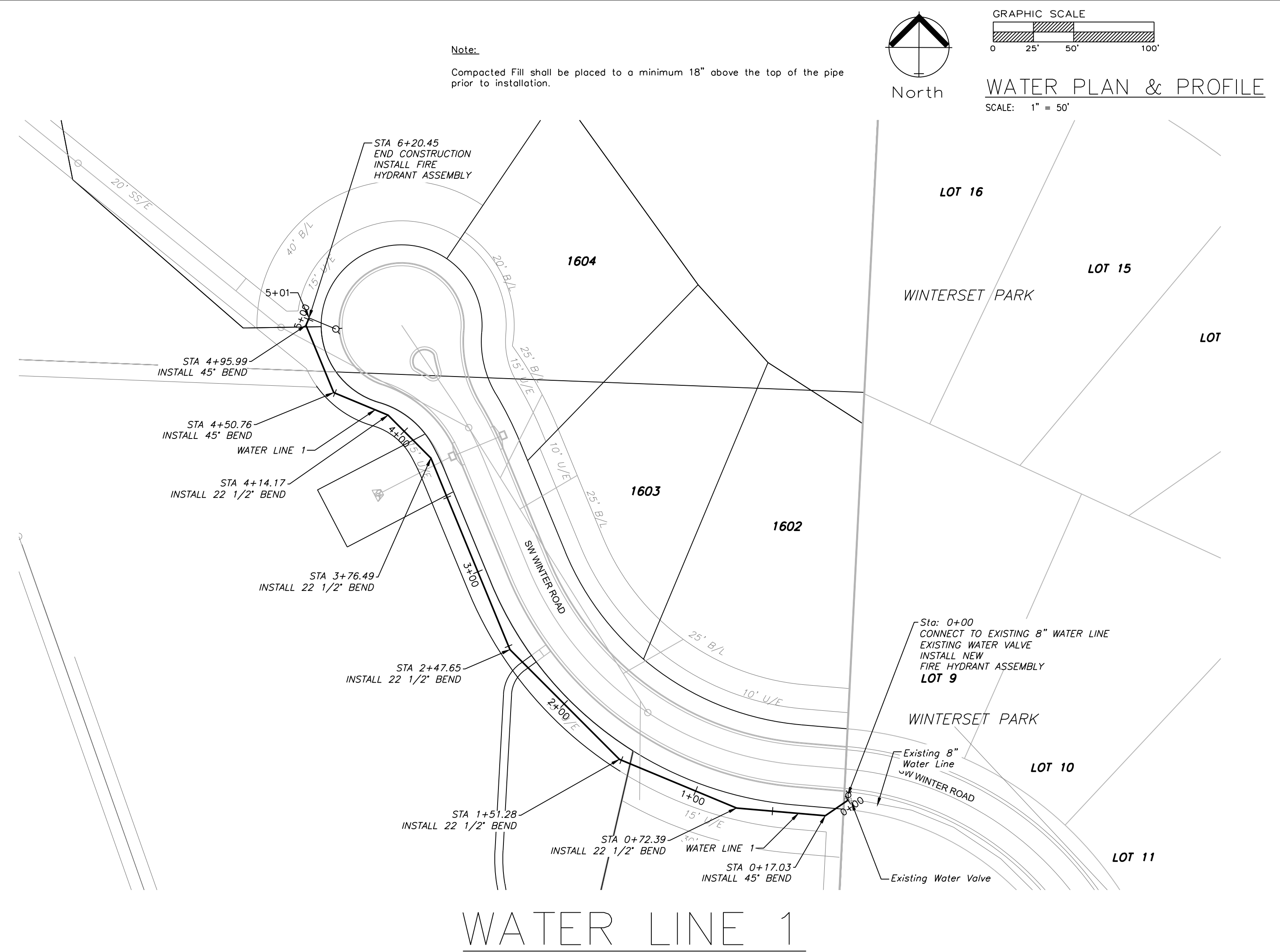
Project:
Creek:
Issue Date:
December 3, 2020

Water Line General Layout
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



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KS PE 19071
OK PE 25226

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REV. 1/15/2021



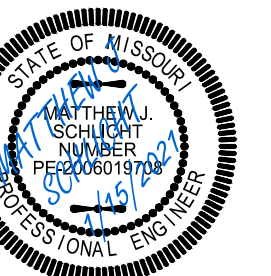
ENGINEERING SOLUTIONS
—ENGINEERING & SURVEYING—
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P:(816) 623-9888 F:(816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Issue Date:
December 3, 2020

Water: Main Plan and Profile, Line 2



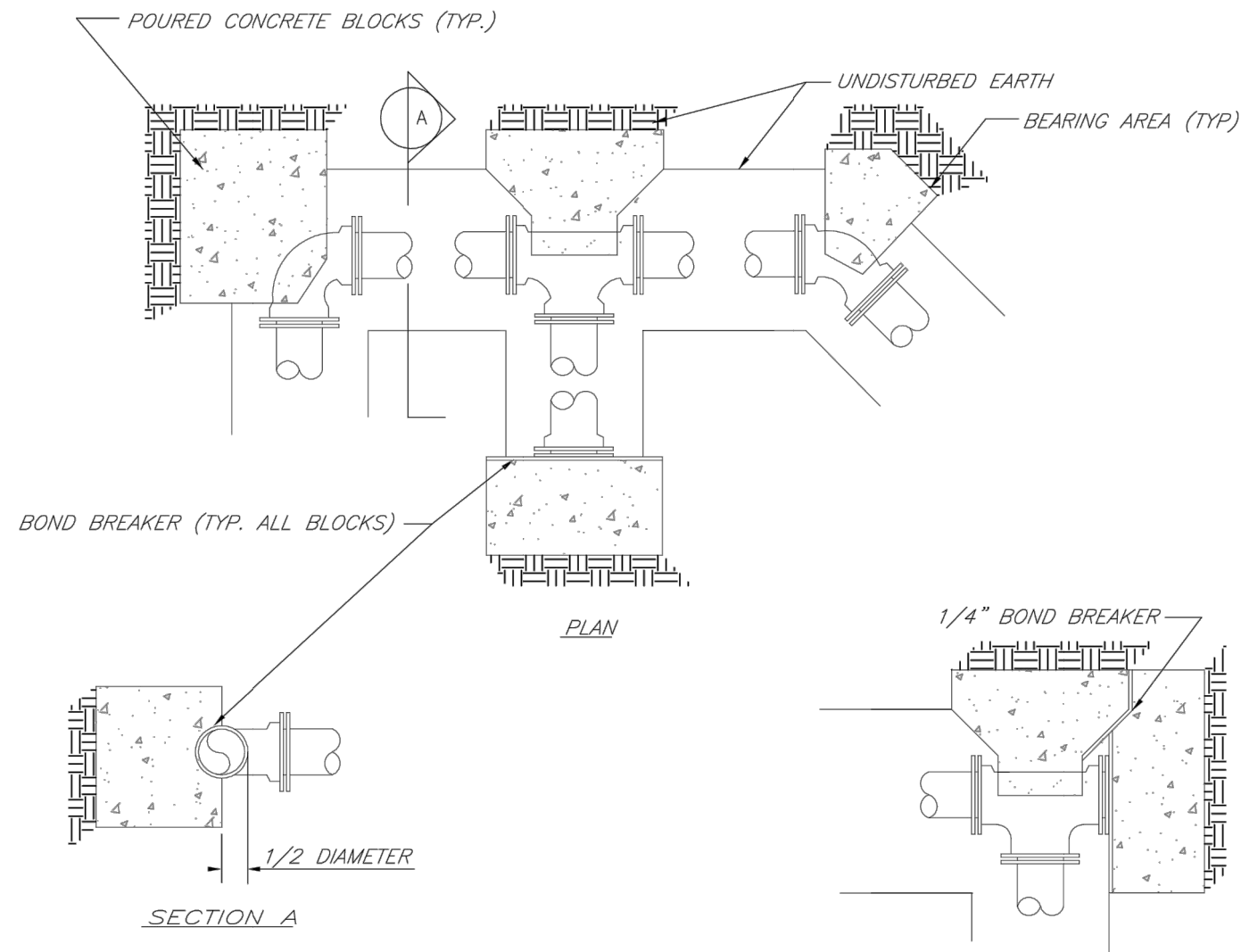
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OK PE 25226

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REV. 1/15/2021

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	26.7	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	REST. JT.	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	

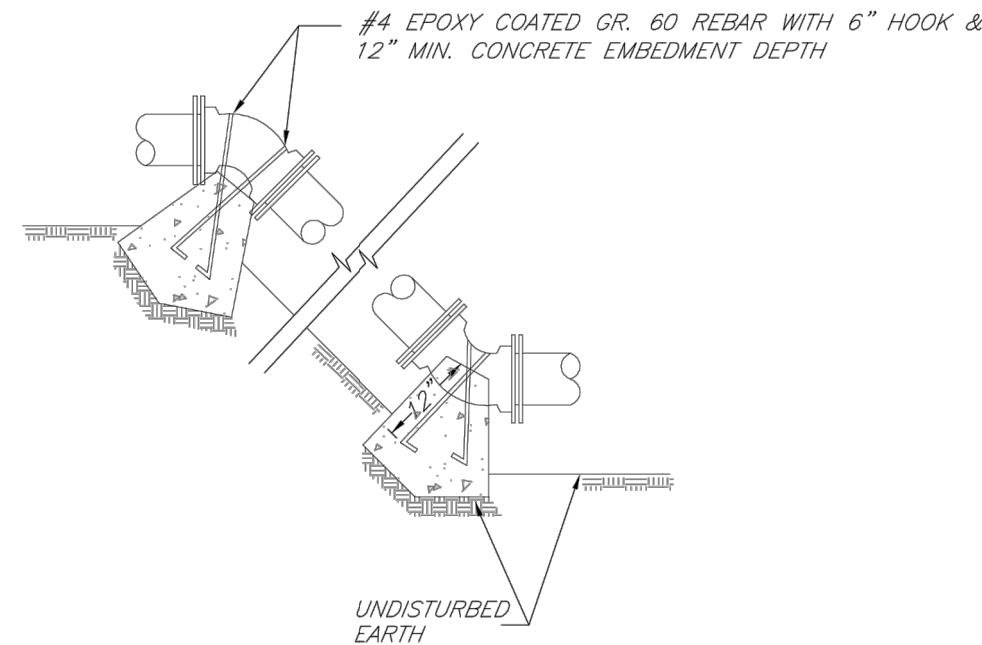
- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
 4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



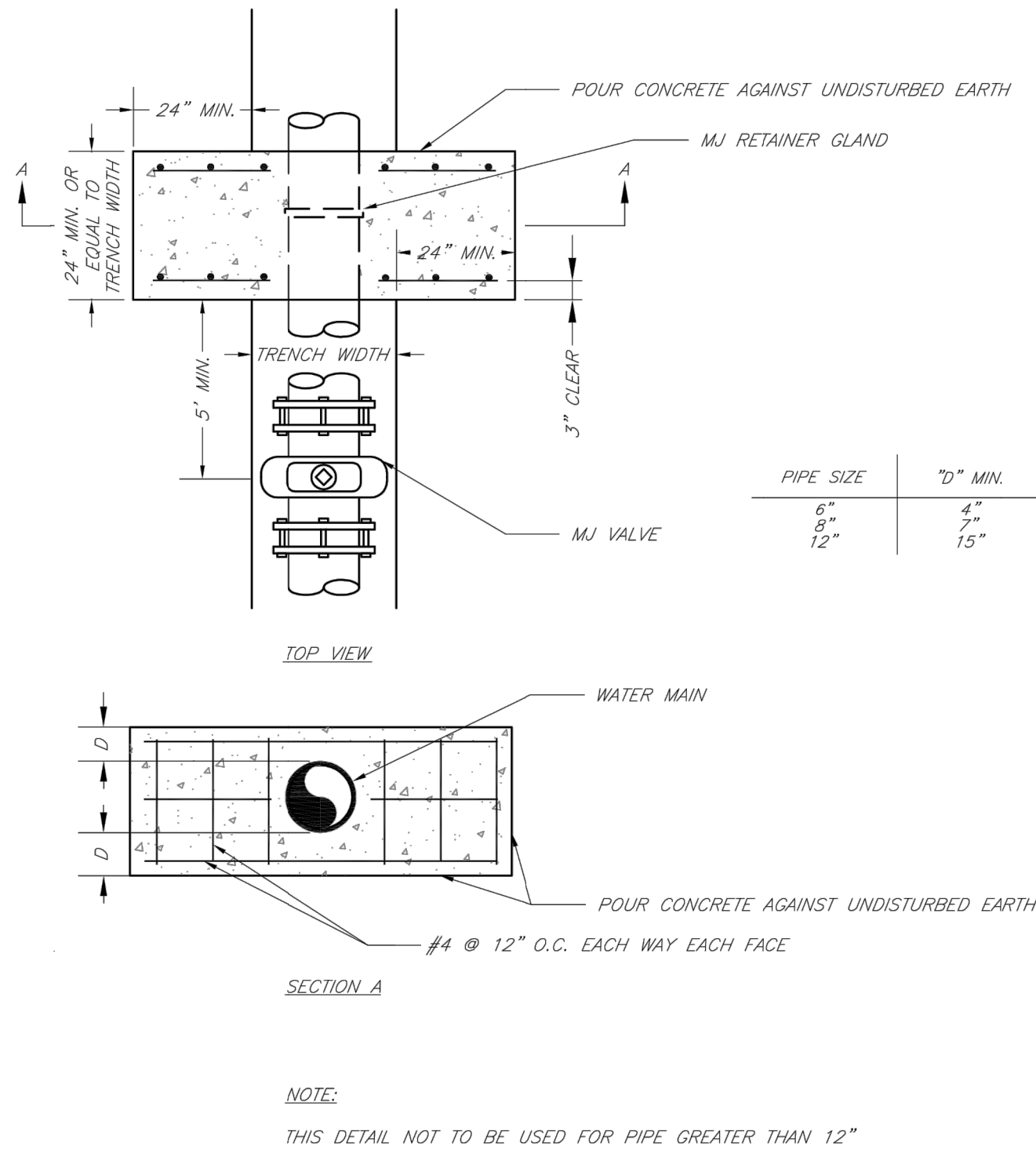
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		Drawn By: JN
		Checked By: DL
		FILE: WAT-1
		Rev: 1/14
	HORIZONTAL THRUST BLOCKS	
Rev:		

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	89.8	126.9	68.7	35.0	17.6	
10	140.2	198.1	107.3	54.7	27.5	
12	202.0	REST. JT.	154.6	78.8	39.6	
14	REST. JT.	REST. JT.	210.4	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	

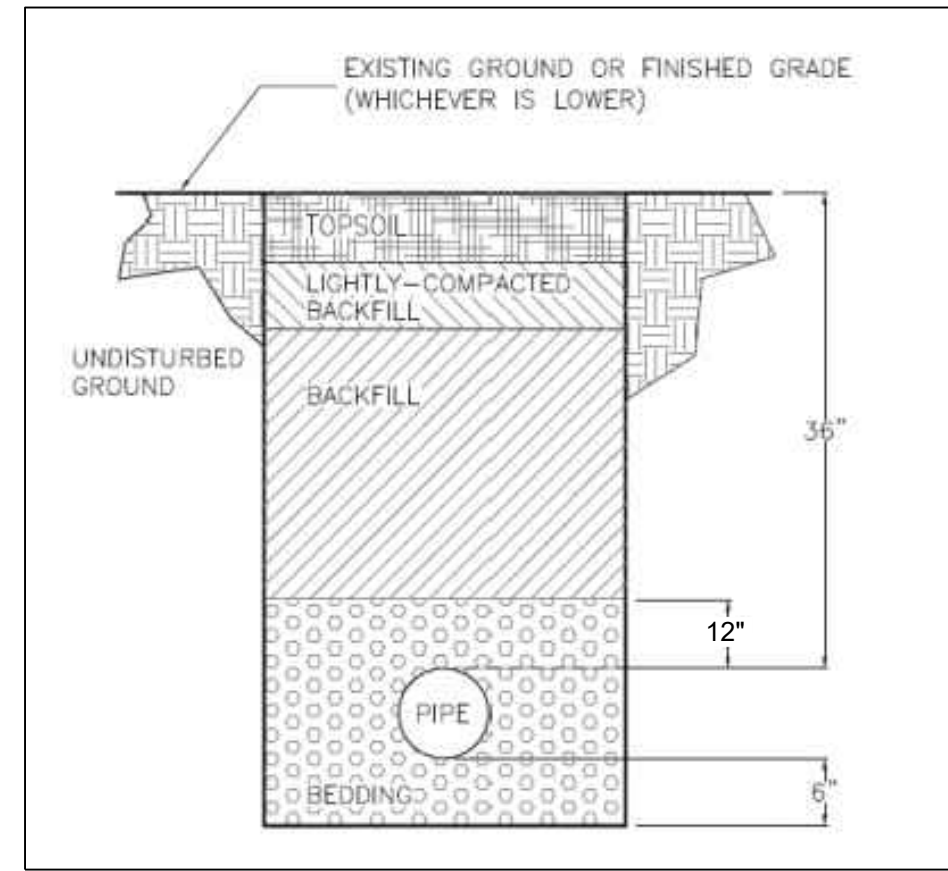
- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
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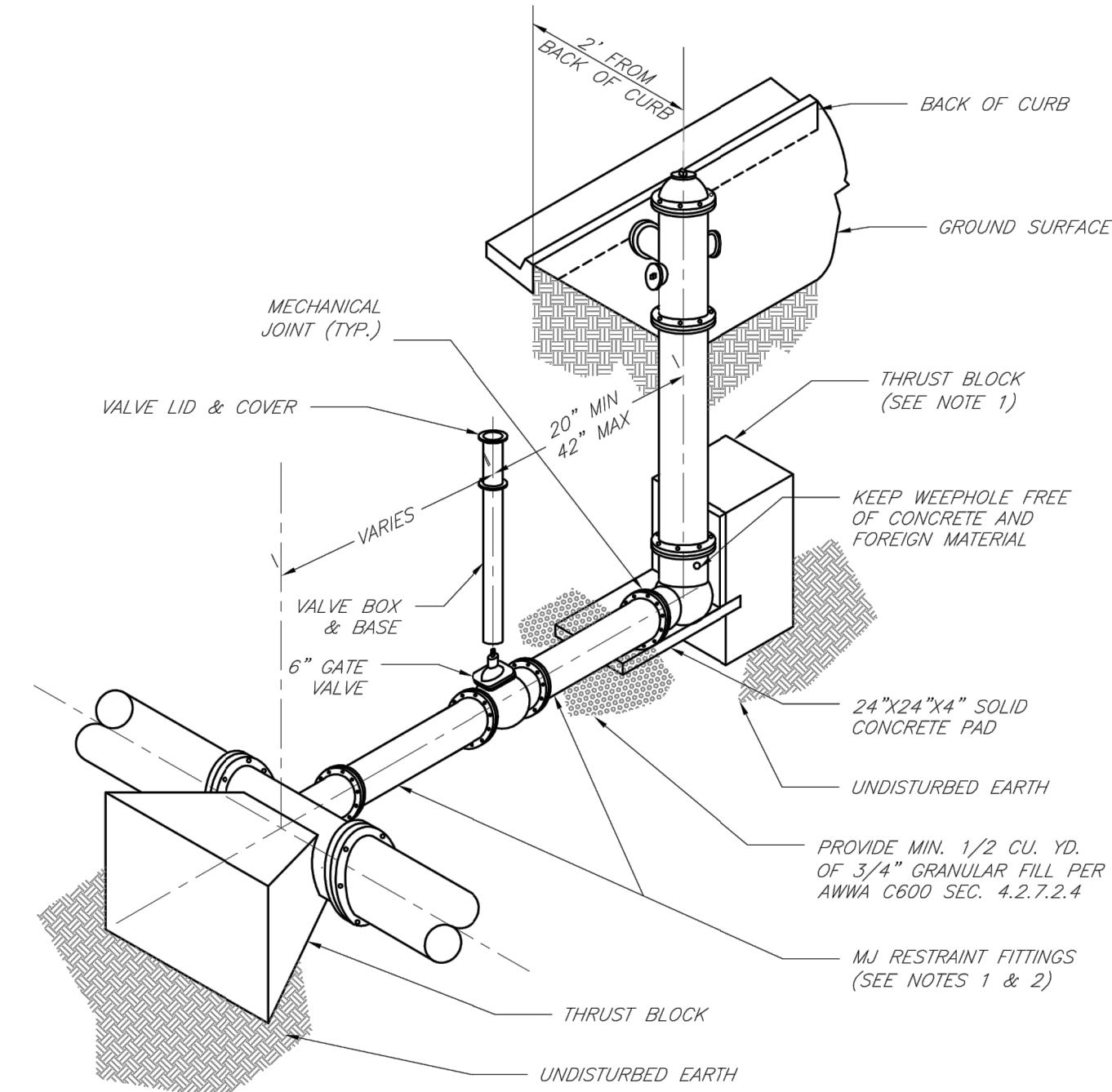
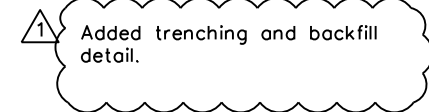
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	MISSOURI	Drawn By: JN
	PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Checked By: DL
		FILE: WAT-2
		Rev: 1/14
		Rev:
VERTICAL THRUST BLOCKS		



	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
		Rev:

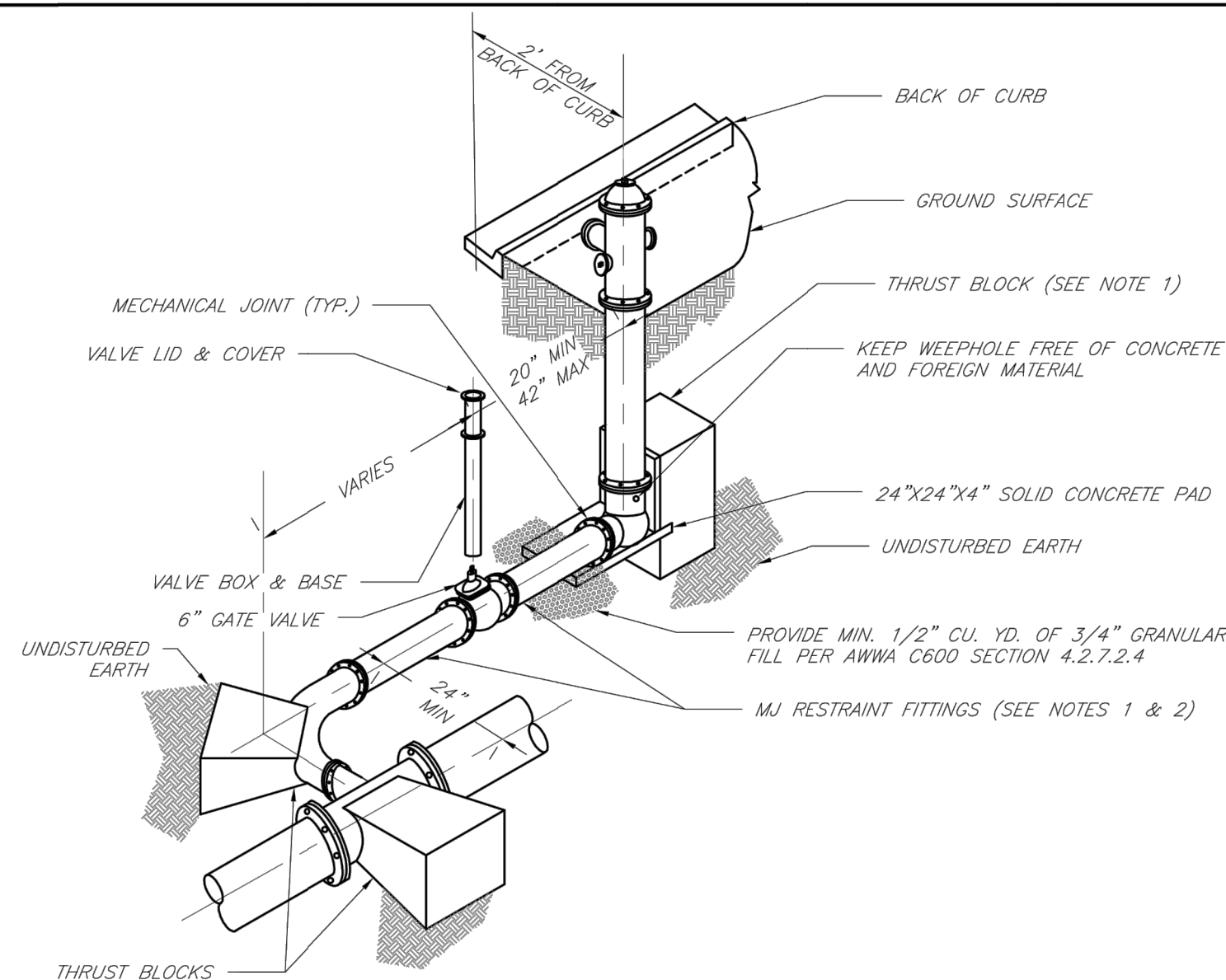


TRENCH AND BACKFILL DETAIL
N.T.S.



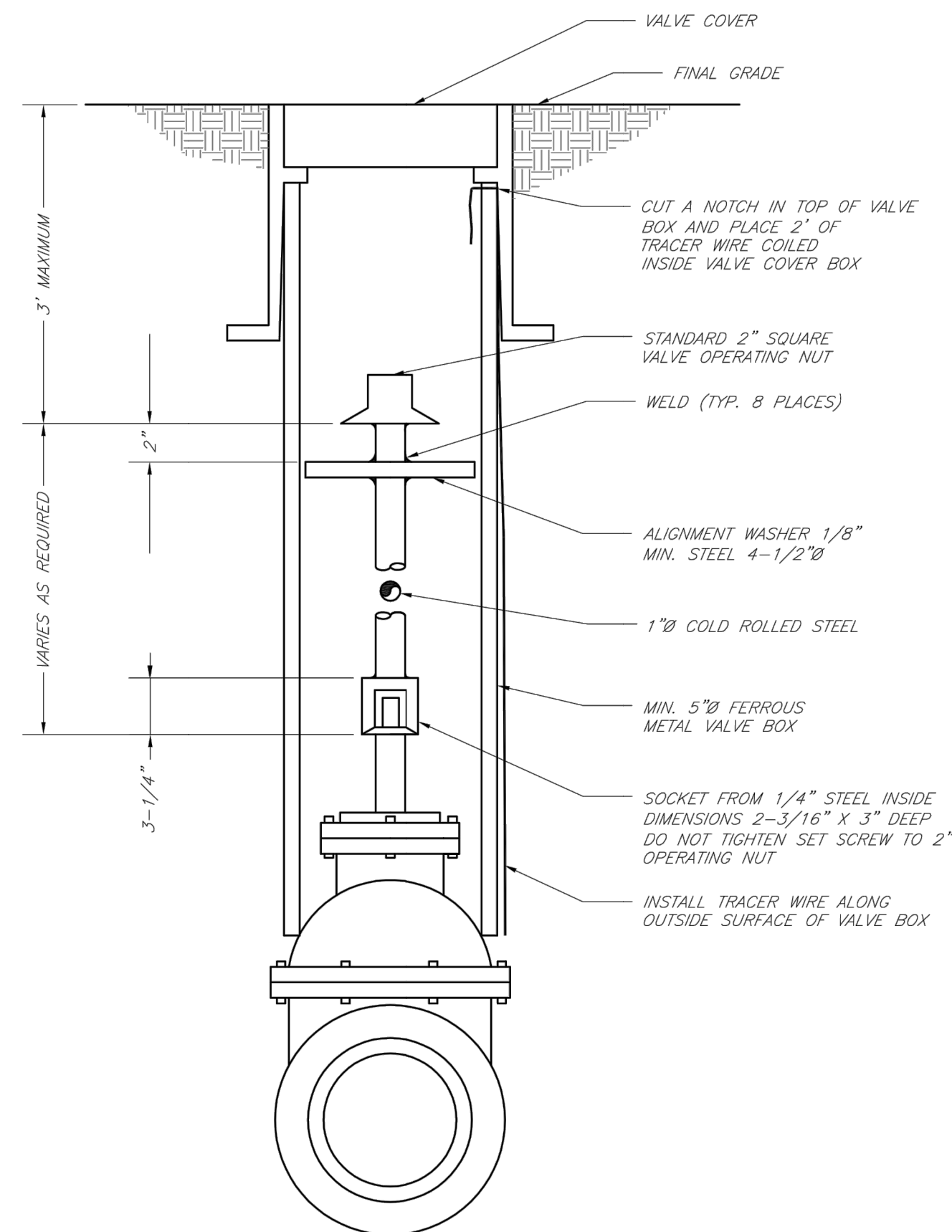
- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
 4. BOTTOM 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.

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



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



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