

WOODLAND OAKS
Lots 1 thru 42
WATER LINE CONSTRUCTION PLANS
Section 27, Township 48 North, Range 31 West
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

WATER MAIN NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF PUBLIC WATER SUPPLY DISTRICT NO. 13, JACKSON COUNTY, MISSOURI, AND ALL THE REQUIREMENTS OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND MISSOURI CLEAN WATER COMMISSION.
- WATER MAIN SHALL BE PVC C900 DR 18 PRESSURE CLASS 235 PSI MINIMUM OR DUCTILE IRON PIPE THICKNESS CLASS 52. CLASS 52 DUCTILE IRON PIPE SHALL BE COMPLETE WITH ALL ACCESSORIES CONFORMING TO ASA SPECIFICATIONS A 21.6 OR A 21.8. THE JOINT SHALL BE OF THE BOLTLESS GASKETED TYPE, "U.S. PIPE AND FOUNDRY TYTON OR AMERICAN CAST IRON PIPE CO. FASTITE", OR APPROVED EQUAL. DUCTILE IRON PIPE AND FITTINGS SHALL BE CEMENT MORTAR LINED CONFORMING TO ASA SPECIFICATIONS A 21.4, EXCEPT THAT THE LINING SHALL BE ONE HALF THAT SPECIFIED THEREIN. THE EXTERIOR OF DUCTILE IRON PIPE SHALL BE COATED WITH A LAYER OF ARC-SPRAYED ZINC PER ISO 8179, WITH A ZINC MASS APPLIED OF 200 GRAMS PER SQUARE METER OF PIPE SURFACE AREA. ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE TOP COAT INSIDE AND OUT WITH BITUMASTIC COATING. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT MEGALUG. ALL BENDS, TEES AND PLUGS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS POURED IN PLACE AGAINST UNDISTURBED EARTH AND PER PWSO#13 AND APWA STANDARDS. PRE-CAST BLOCKS SHALL NOT BE USED.
- ALL BURIED NUTS AND BOLTS SHALL BE HIGH STRENGTH, LOW ALLOW STEEL PER AWWA C111 WITH CERAMIC FILLED, BAKED ON FLOUROCARBON RESIN COATING (COR-BLUE OR FLUOROKOTE #1) OR STAINLESS STEEL.
- FIRE HYDRANTS SHALL BE WATEROUS PACER WB-87 OR MUELLER CENTERION A-423 OR APPROVED EQUAL. HYDRANTS SHALL HAVE 5-1/4" VALVE WITH 4-1/2" PUMPER NOZZLES (LEFT HAND OPENING).
- VALVES 8-INCHES AND SMALLER SHALL BE RESILIENT WEDGE GATE VALVES WITH NON-RISING STEM, MUELLER NO. A2361 OR APPROVED EQUAL. VALVES 12-INCHES AND LARGER SHALL BE BUTTERFLY VALVES CONFORMING WITH AWWA C504 MANUFACTURED BY THE HENRY PRATT COMPANY OR APPROVED EQUAL. LEFT HAND OPENING AND MINIMUM 200 PSI TEST PRESSURE. ALL VALVES AT TEES AND CROSSES SHALL BE RESTRAINED TO TEES/CROSSES. VALVE OPERATING NUTS SHALL HAVE EXTENSIONS TO PROVIDE MAX. DEPTH FROM VALVE STACK COVER TO OPERATING NUT OF 4 FEET; PROVIDE VALVE NUT EXTENSIONS AS REQUIRED. VALVE SHALL BE INSTALLED IN OUT OF PAVEMENT AREAS.
- WATER MAINS SHALL BE INSTALLED WITH A MINIMUM COVER OF 42-INCHES. STREET GRADING SHALL BE COMPLETE PRIOR TO WATER MAIN INSTALLATION.
- FOR MIN. CLEARANCE OF WATER LINE CROSSING AND ADJACENT TO SEWER AND STORM SEWER LINES, PROVIDE MIN. 10 FEET HORIZONTAL SEPARATION AND MINIMUM 18 INCHES VERTICAL SEPARATION.
- CONTACT PUBLIC WATER SUPPLY DISTRICT #13 AT 816-578-2249 AT LEAST 48 HOURS PRIOR TO FILLING, FLUSHING, TESTING OR CONNECTING TO WATER MAINS TO SCHEDULE INSPECTIONS.
- TRACER WIRE SHALL BE INSTALLED AND TAPED AT MAX. 10 FEET INTERVALS TO ALL WATER MAINS. TRACER WIRE SHALL EXTEND INTO EACH VALVE BOX COVER PER THE VALVE DETAIL.

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.

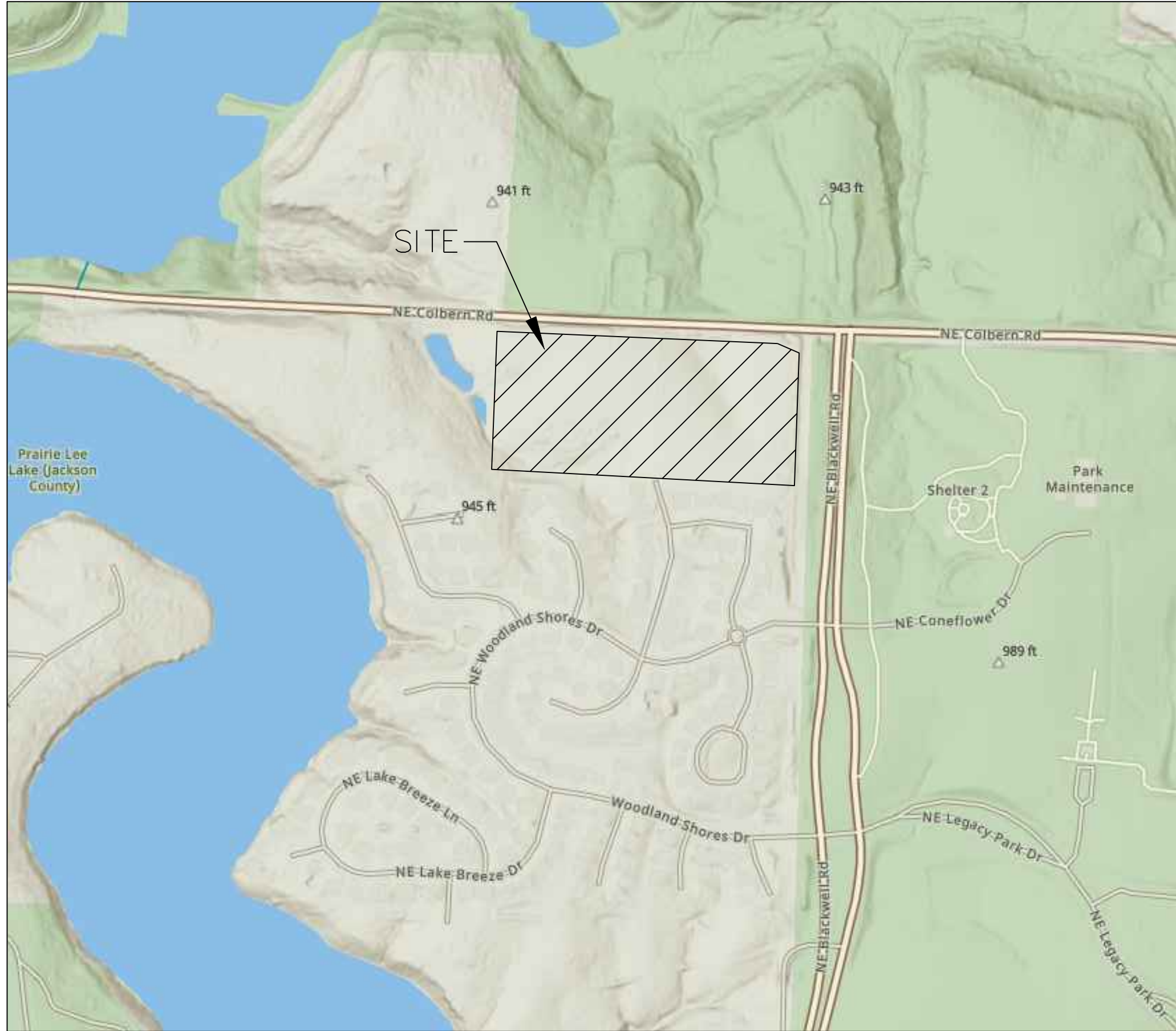
EVERGY ~ 298-1196
MISSOURI GAS ENERGY ~ 756-5261
SOUTHWESTERN BELL TELEPHONE ~ 761-5011
COMCAST CABLE ~ 795-1100
WILLIAMS PIPELINE ~ 422-6300
PWSO#13 OF JACKSON COUNTY ~ 816-578-2249
MISSOURI ONE CALL (DIG RITE) ~ 1-800-344-7483

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.



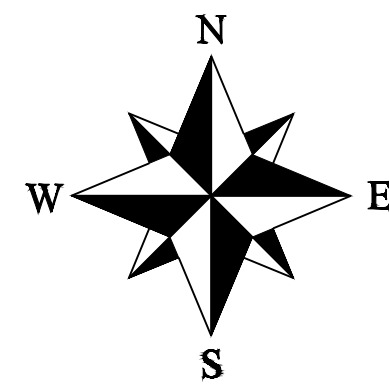
SITE LOCATION MAP

INDEX OF SHEETS:

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

Summary of Quantities:

ITEM AND DESCRIPTION	UNIT	ESTIMATED QUANTITY
WATER		
FIRE HYDRANT ASSEMBLY	UNIT	7.00
8" C-900 CLASS 235 PVC WATER LINE	LF	530.65
12" C-900 CLASS 235 PVC	LF	1,842.20
12" RESTRAINED JOINT DIP CLASS 52	LF	362.31
20" DIAMETER STEEL CASING	LF	190.00
8" GATE VALVE/ VALVE BOX & COVER	UNIT	3.00
12" BUTTERFLY VALVE/ VALVE BOX & COVER	UNIT	7.00
CONNECT TO EXISTING	UNIT	4.00



- 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.

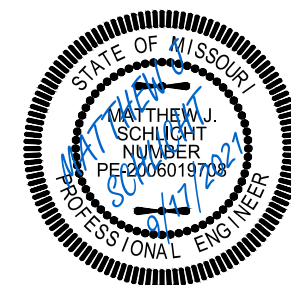
Water Main Cover Sheet

Construction Plans for:

WOODLAND OAKS

Lots 1 thru 42

Lee's Summit, Jackson County, Missouri



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

REVISIONS

REV. 6-22-21

REV. 9-17-21



Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

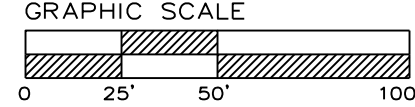
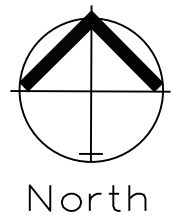
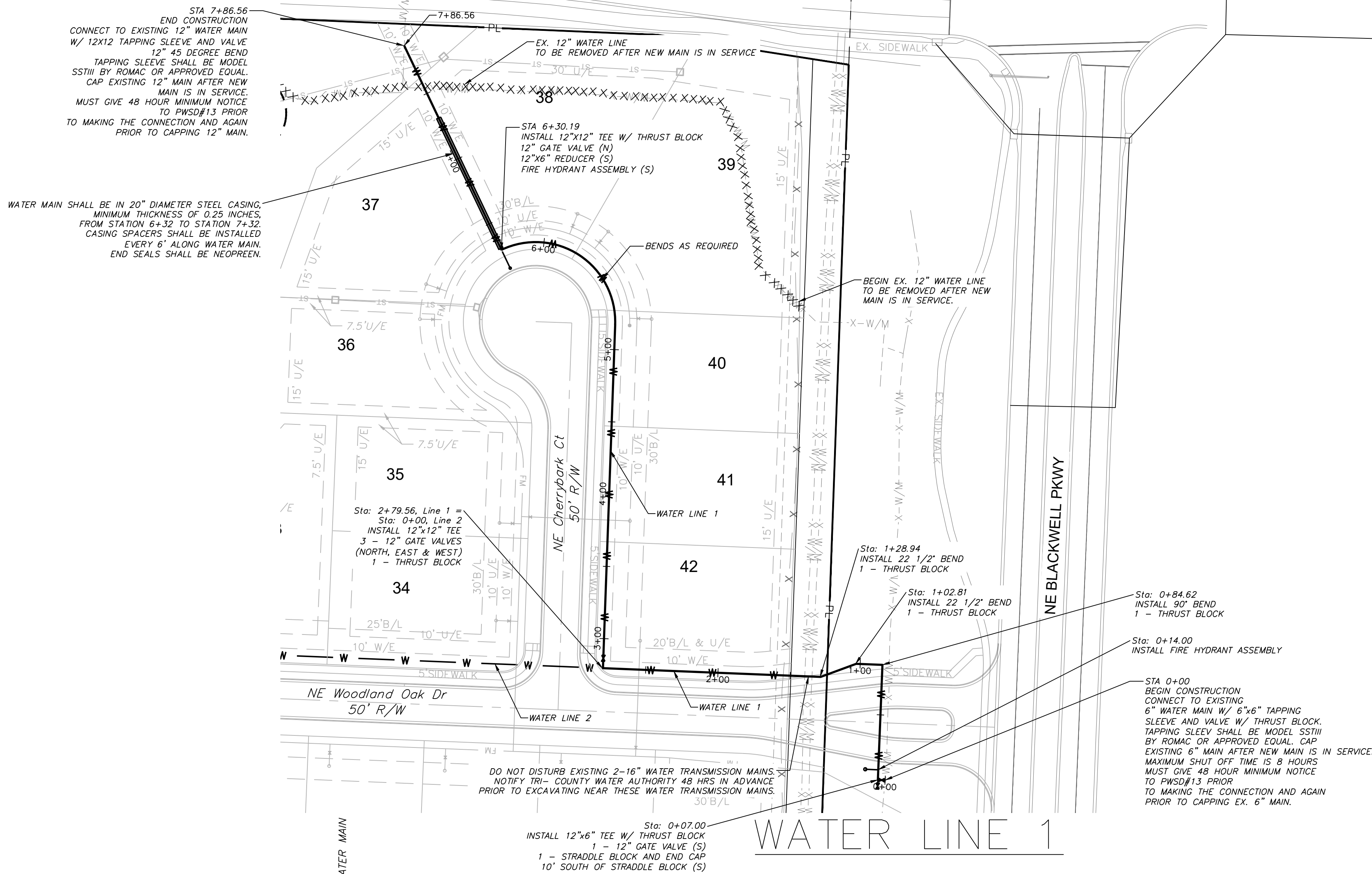
Part of the Southeast 1/4

Section 27, Township 48 North, Range 31 West

Lee's Summit, Jackson County, Missouri

Project:
WOODLAND OAKS
LSMO

Issue Date:
March 23, 2021

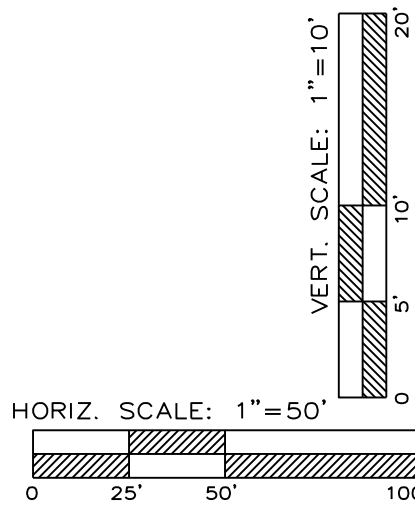
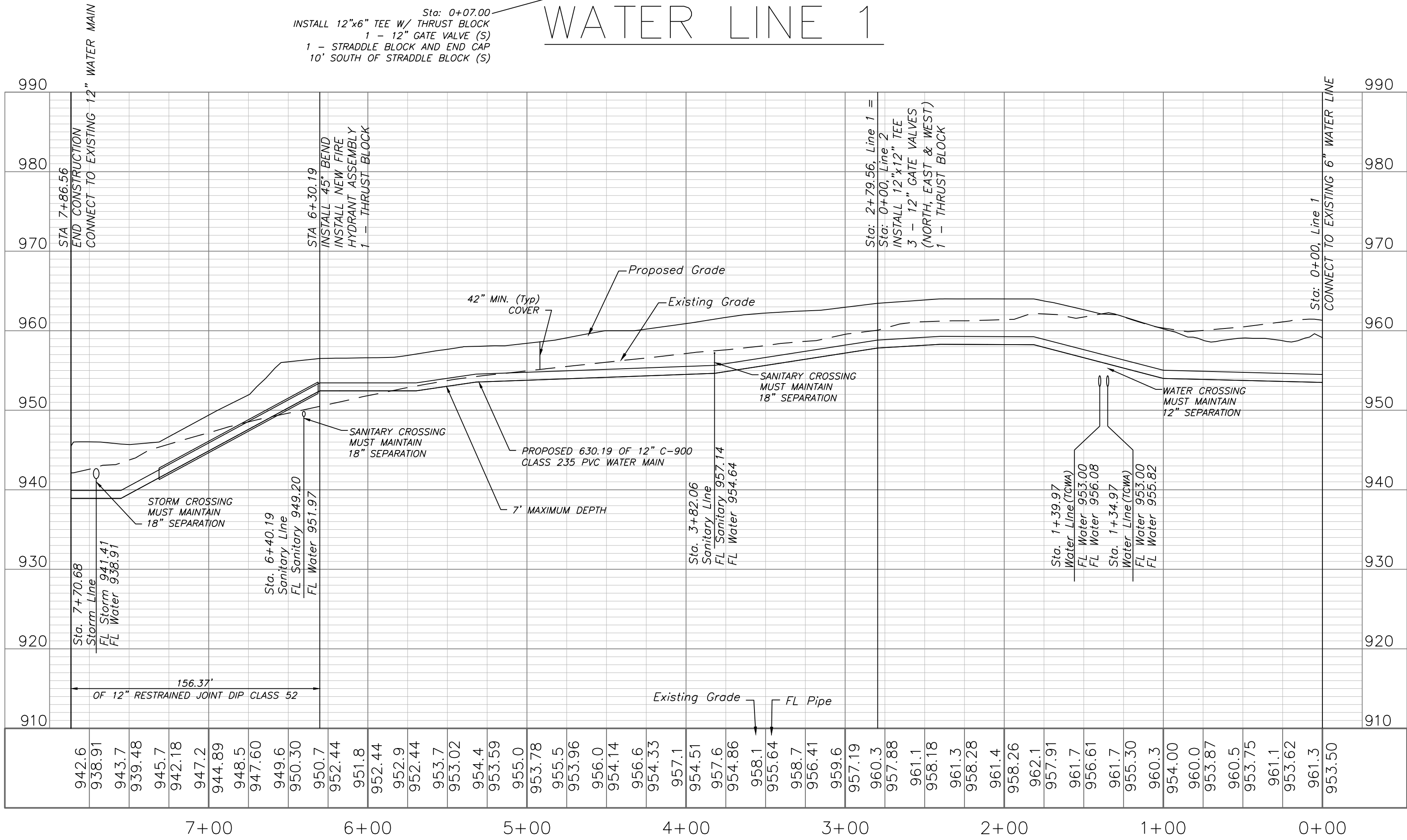


WATER PLAN & PROFILE

SCALE: 1" = 50'

Note:

Compacted Fill shall be placed to a minimum 18" above the top of the pipe
prior to installation.



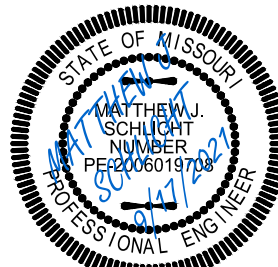
Water Main Plan and Profile, Line 2

Construction Plans for:

WOODLAND OAKS

Lots 1 thru 42

Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
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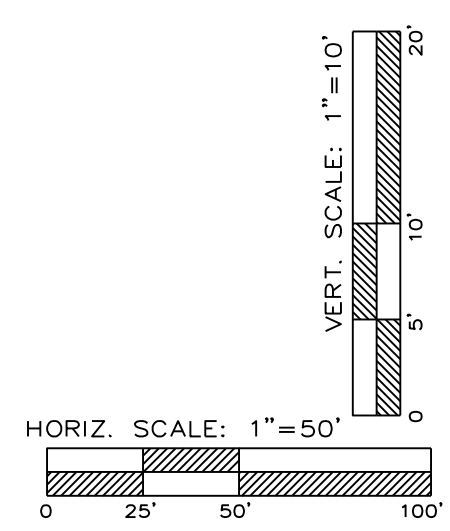
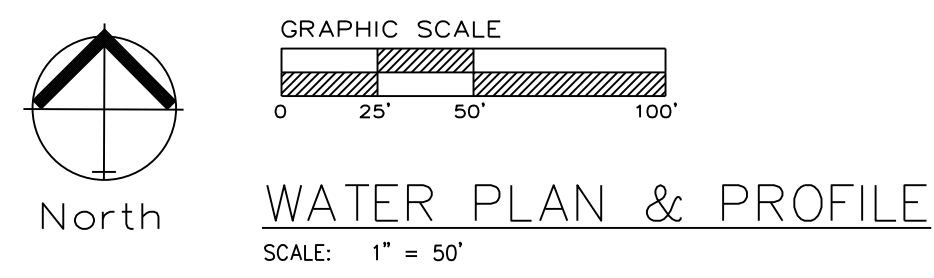
C.502

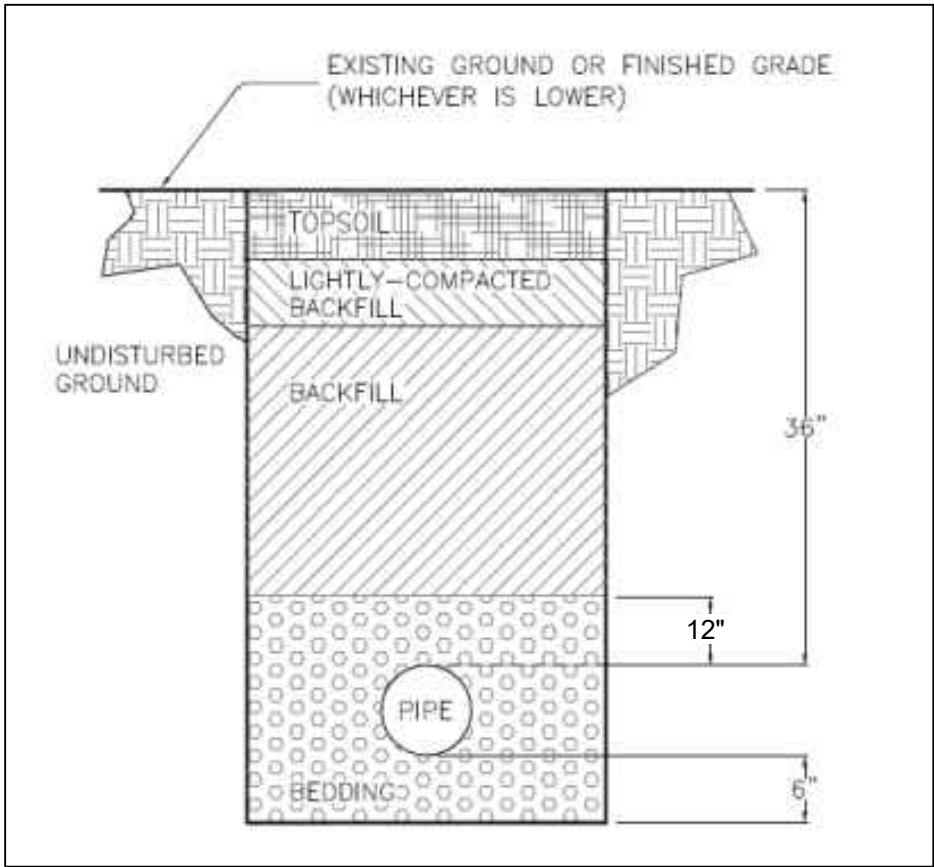
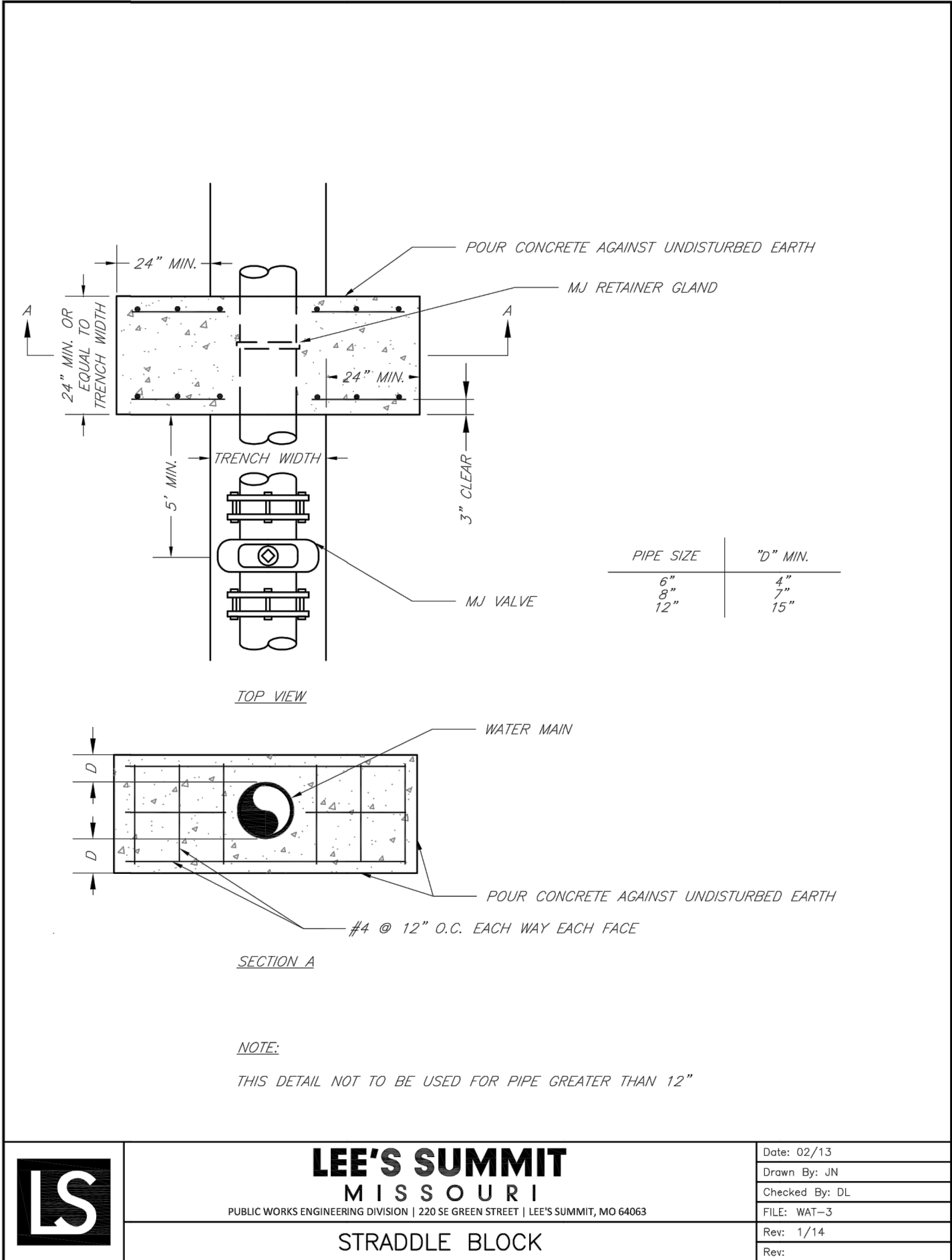
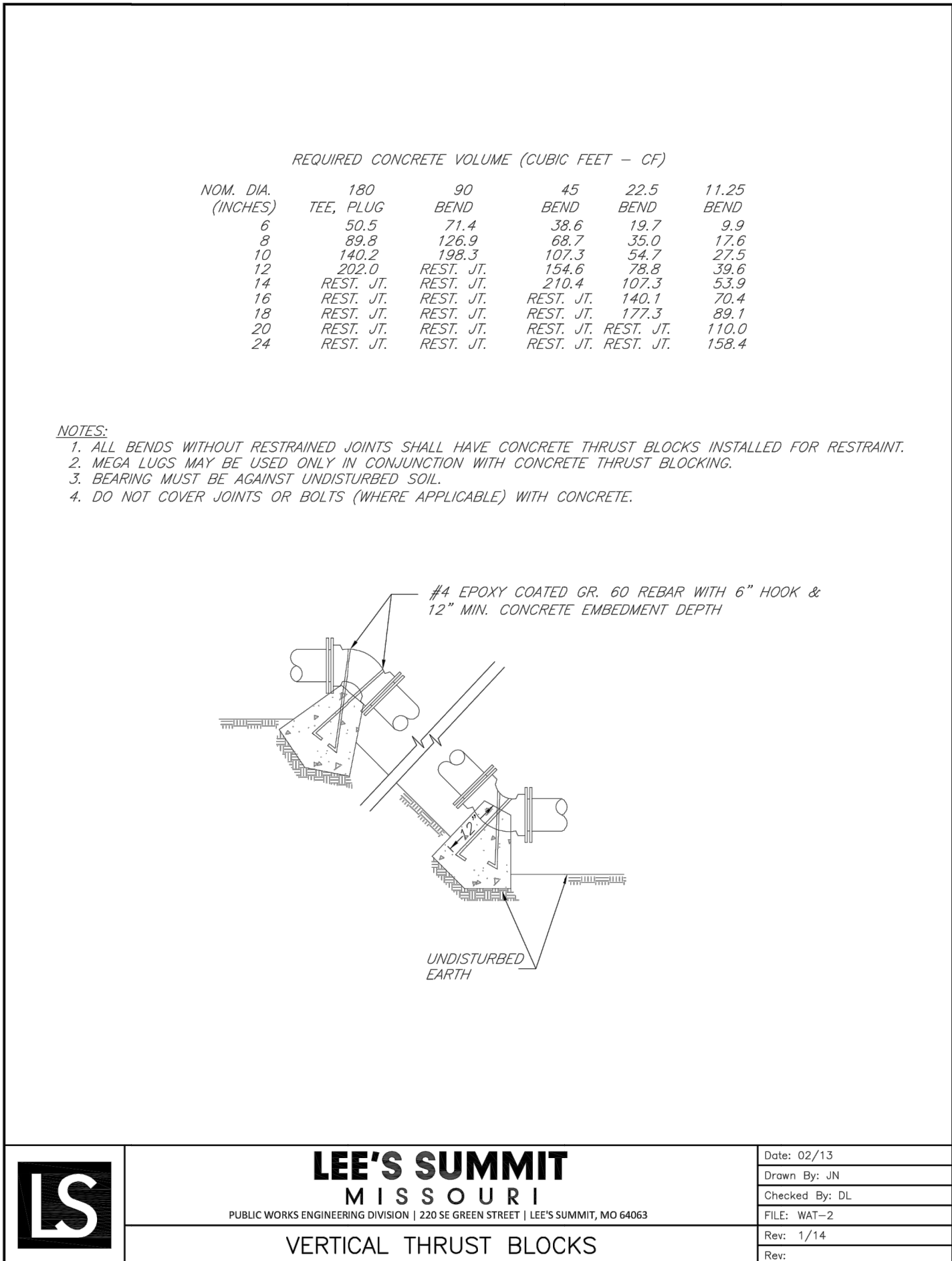
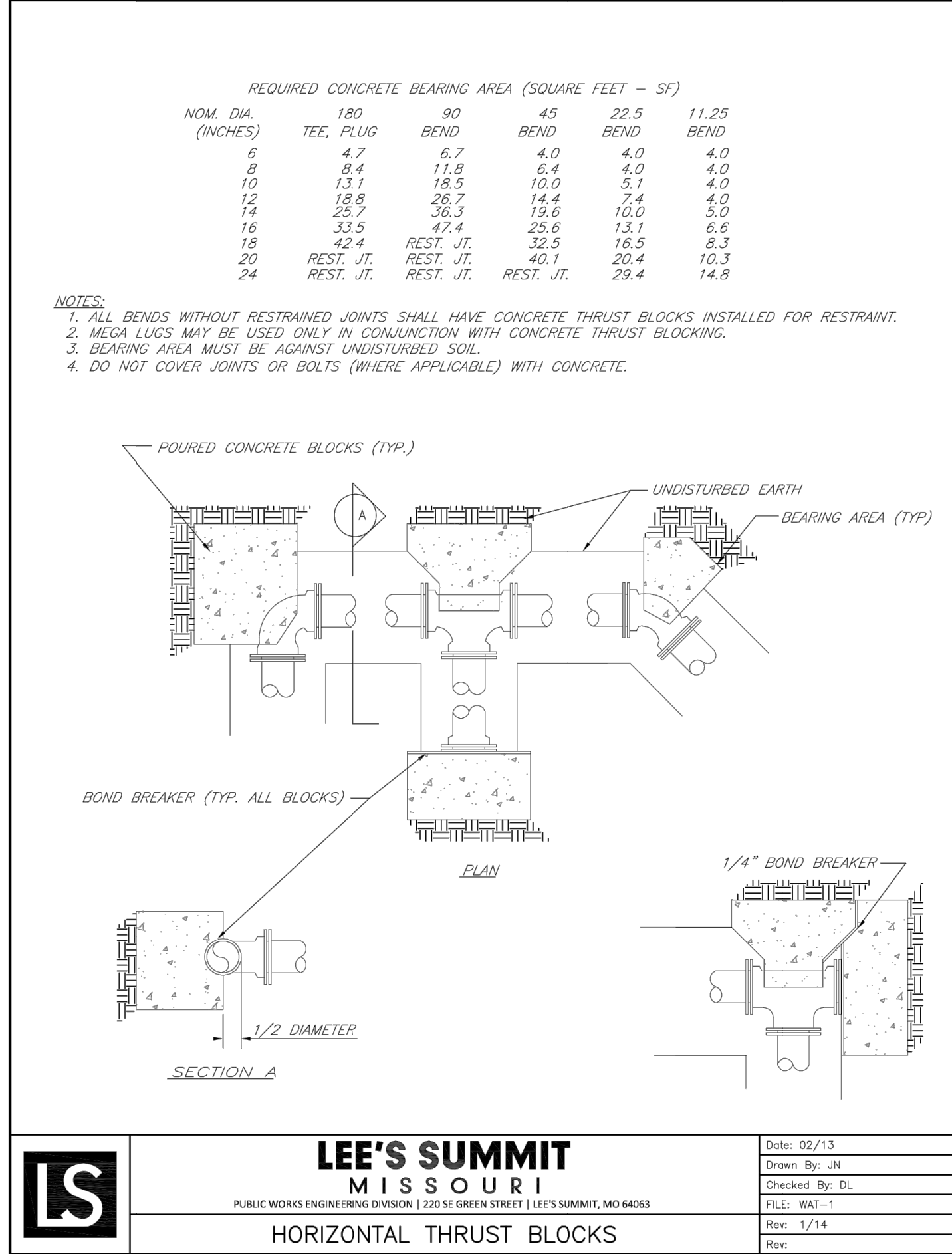
ENGINEERING
SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
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Surveying 2005008319-D
Kansas
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TRENCH AND BACKFILL DETAIL
N.T.S.

