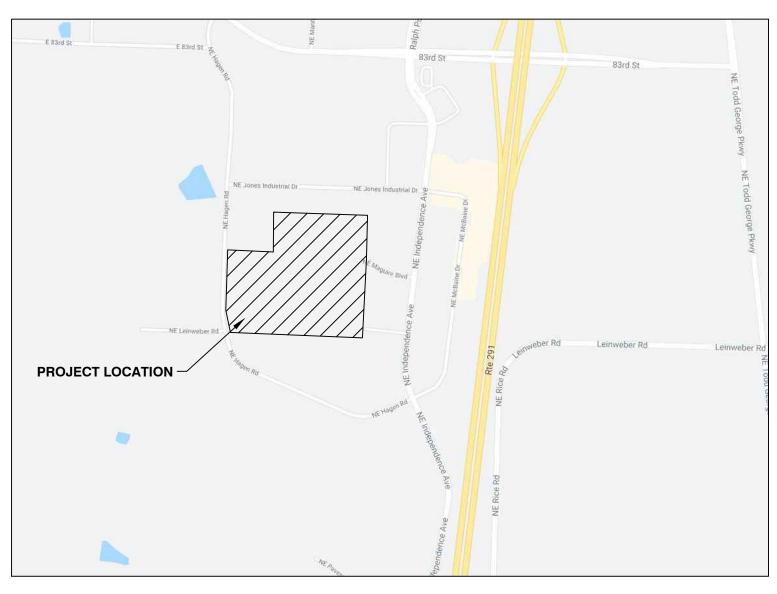
LAKEWOOD BUSINESS CENTER **ON I-470 - PLAT S**

WATER LINE CONSTRUCTION PLANS Part of Section 20, Township 48 N, Range 31 W LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

- A) SANITARY SEWERS: HORIZONTAL = 10 FEET, VERTICAL = 18 INCHES
- B) STORM SEWERS: HORIZONTAL = 5 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.
- 9. ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY



VICINITY MAP



UTILITY NOTE:

THE UTILITIES AS SHOWN IN THESE DRAWINGS WERE DEVELOPED FROM THE INFORMATION AVAILABLE. IT IS NOT IMPLIED NOR INTENDED TO BE THE COMPLETE INVENTORY OF UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE.

CALL BEFORE YOU DIG 1-800-DIG-RITE **UTILITY CONTACTS:**

EVERGY 816-471-5275 800-582-1234 COMCAST 816-795-1100 AT&T 816-325-5610 SPECTRUM 816-358-5360 CITY OF LEE'S SUMMIT PUBLIC WORKS 816-969-1800 CITY OF LEE'S SUMMIT PUBLIC WORKS INSPECTIONS 816-969-1800 CITY OF LEE'S SUMMIT WATER UTILITIES 816-969-1900

OVERALL LAYOUT PLAN PLAN & PROFILE

LEGAL DESCRIPTION

BENCHMARK:

BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE MISSOURI COORDINATE SYSTEM OF 1983, WEST ZONE AND TIED TO CONTROL MONUMENT "JA-42", DATE OF OBSERVATION 2003 (N: 312505.303 METERS, E: 859594.663 METERS) OF THE MISSOURI GEOGRAPHIC REFERENCE SYSTEM. AS DEVELOPED FROM GPS OBSERVATIONS, A GRID FACTOR OF 0.9999031 WAS USED.

ENGINEER'S CERTIFICATION:

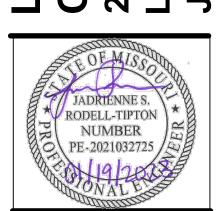
I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE IN ACCORDANCE TO AASHTO STANDARDS.

SIGNATUI	RE D	ATE
CITY OF L	EE'S SUM	MIT, MISSOUR
APPROVED	DATE:	

CITY ENGINEER



GRAIN VALLEY, MO 64029 (816) 229-8115



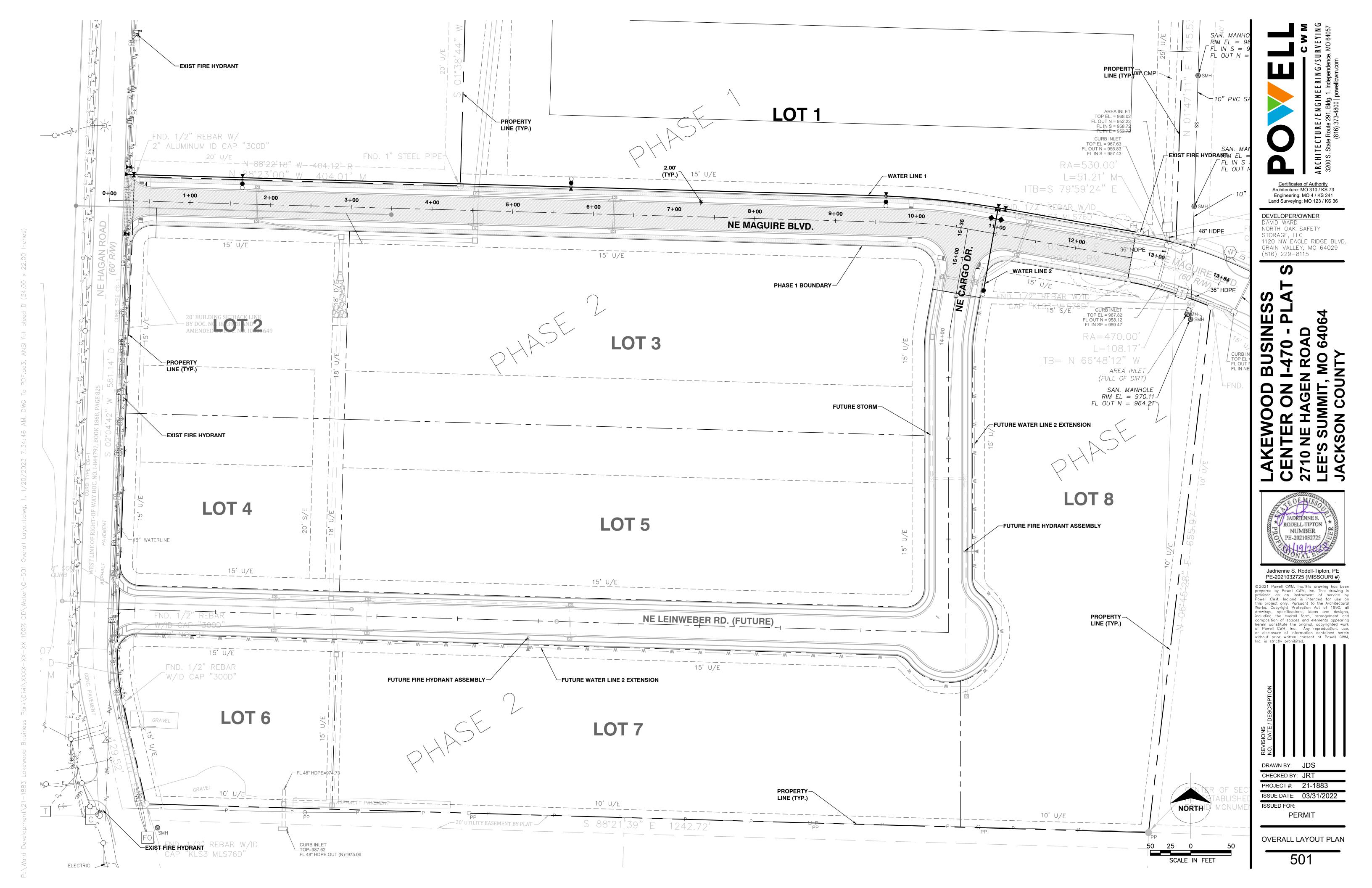
Jadrienne S. Rodell-Tipton, PE PE-2021032725 (MISSOURI #) epared by Powell CWM, Inc. This drawing is ovided as an instrument of service by owell CWM, Inc.and is intended for use or is project only. Pursuant to the Architectura orks. Copyright Protection Act of 1990, al

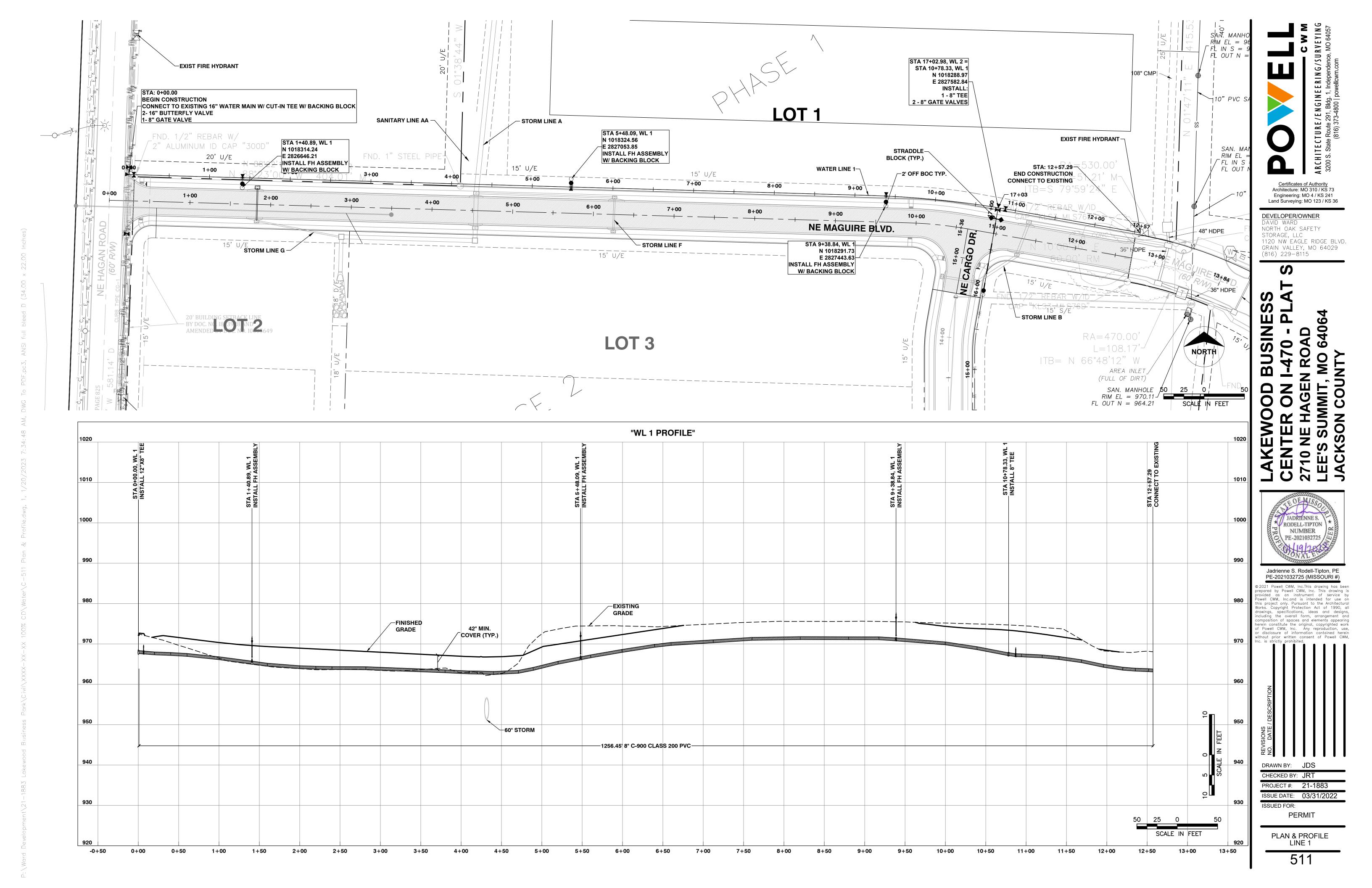
awings, specifications, ideas and designs, cluding the overall form, arrangement and

CHECKED BY: JRT

PROJECT #: 21-1883 ISSUE DATE: 03/31/2022

COVER SHEET





15+50

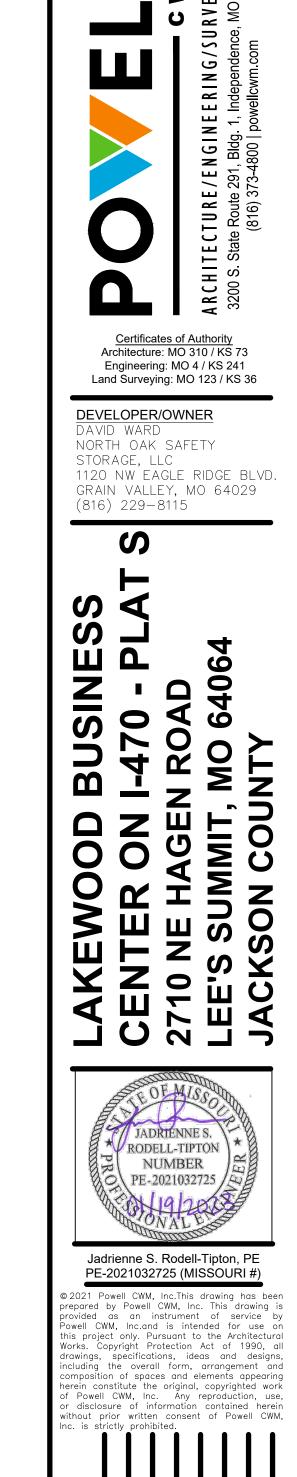
16+00

16+50

17+00

17+50

SCALE IN FEET



JADRIENNE S. RODELL-TIPTON V PE-2021032725, Jadrienne S. Rodell-Tipton, PE PE-2021032725 (MISSOURI #)

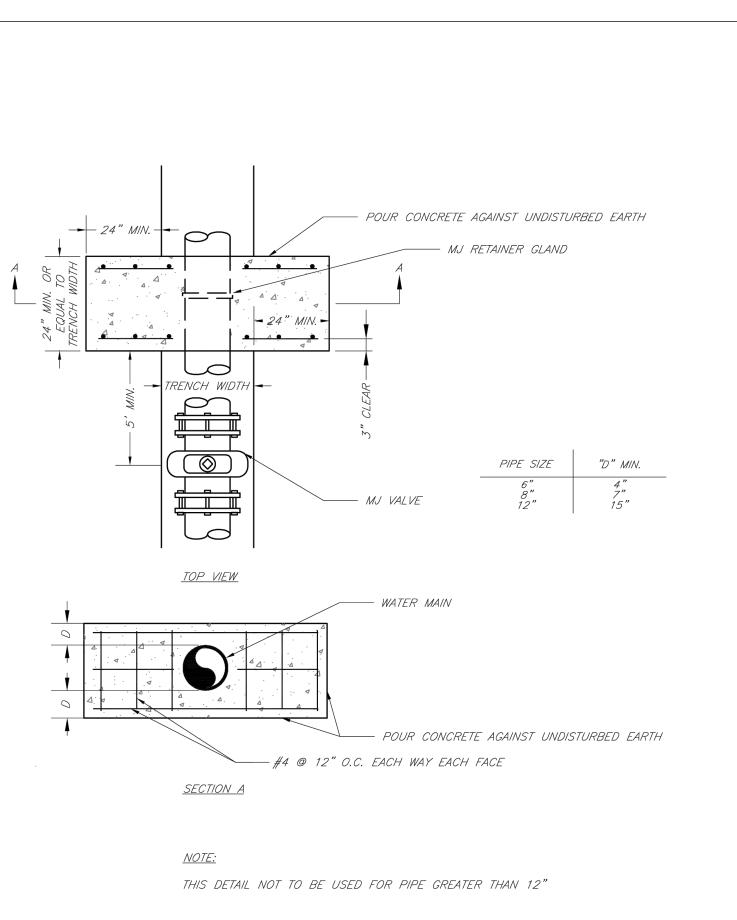
DRAWN BY: JDS

CHECKED BY: JRT

PROJECT #: 21-1883 ISSUE DATE: 03/31/2022

ISSUED FOR: PERMIT

> PLAN & PROFILE LINE 2





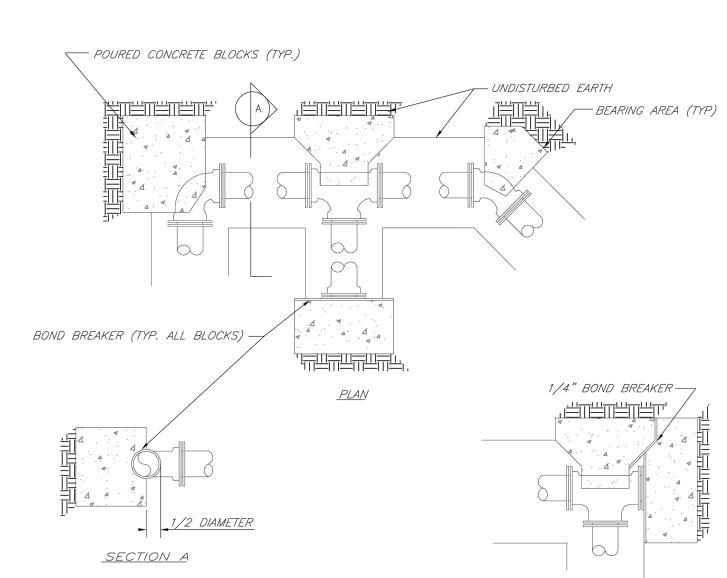
REQL	JIRED CONCRET	E BEARING A	REA (SQUARE	FEET - S	F)
NOM. DIA.	180	90	45	22.5	11.25
(INCHES)	TEE, PLUG	BEND	BEND	BEND	BEND
6	4. 7	6.7	4.0	4.0	4.0
8	8. 4	11.8	6.4	4.0	4.0
10	13. 1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	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:

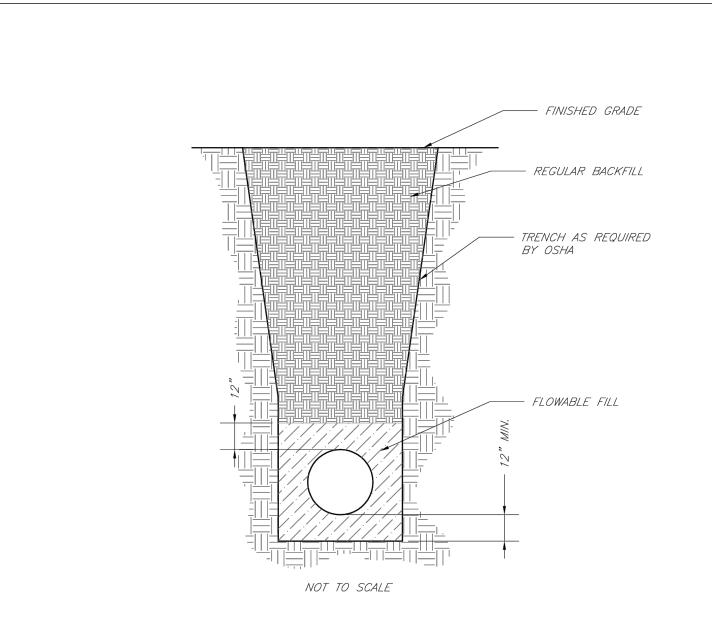
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.

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.



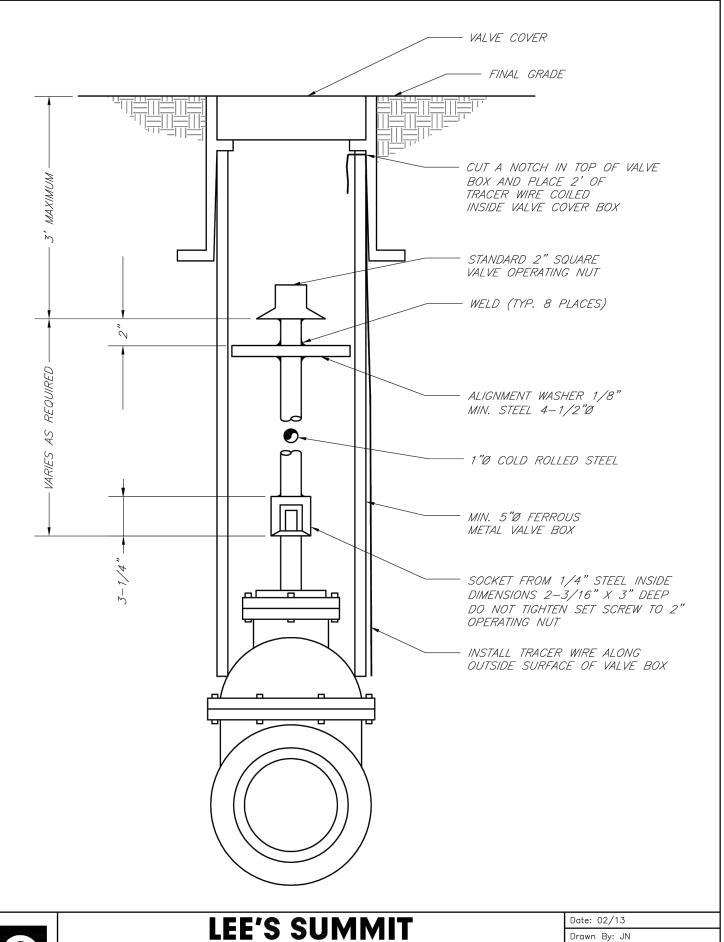




1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION

- 2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES
- > 6" IN ANY DIMENSION. 3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.
- 4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12".



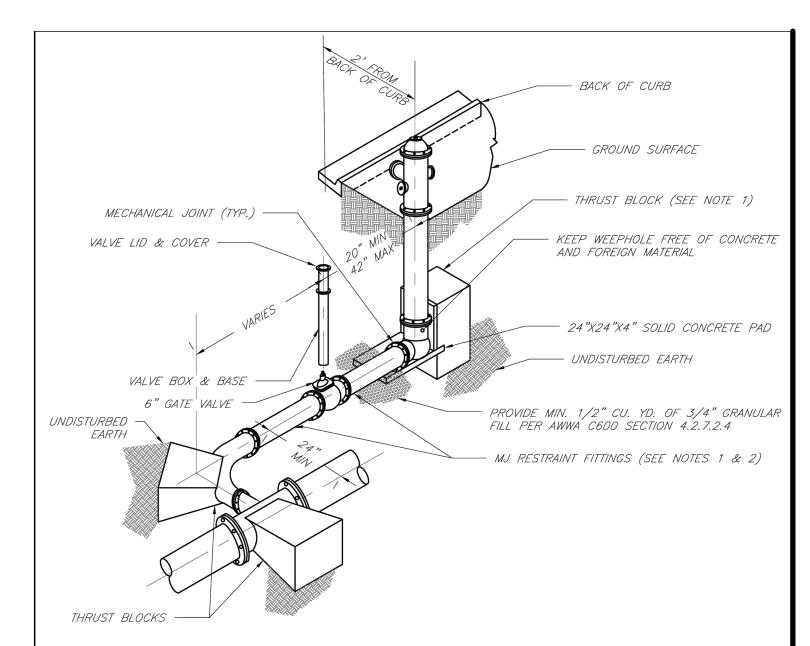


MISSOURI

VALVE STEM EXTENSION AND VALVE BOX

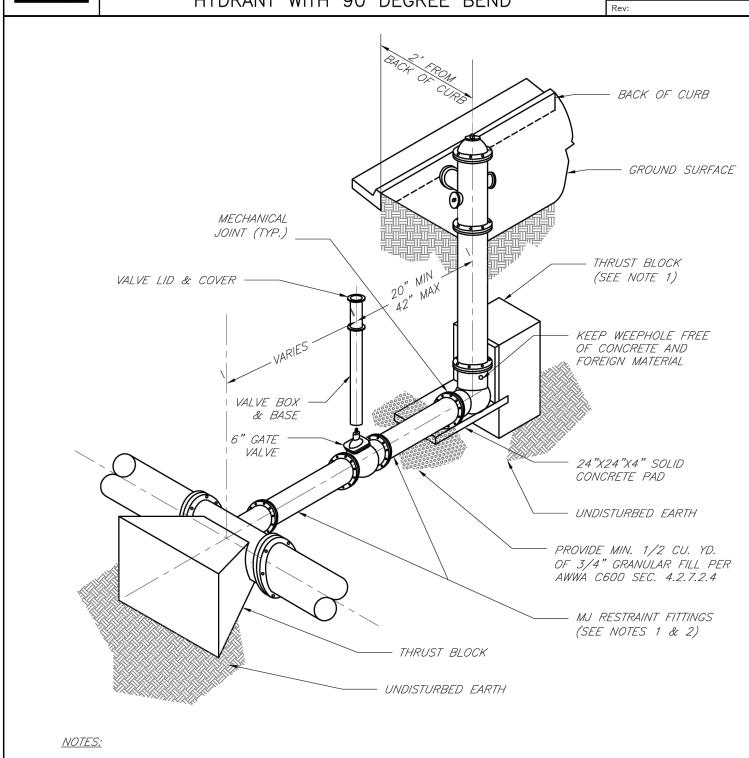
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

necked By: DL



- 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,
- 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
- 6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.





- 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,
- 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.





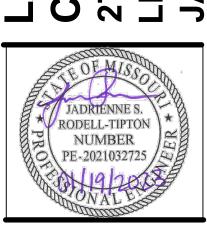
Architecture: MO 310 / KS 73 Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

DEVELOPER/OWNER

DAVID WARD NORTH OAK SAFETY STORAGE, LLC

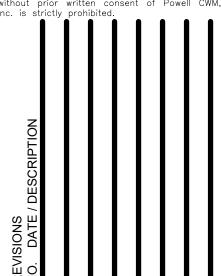
1120 NW EAGLE RIDGE BLVD. GRAIN VALLEY, MO 64029 (816) 229-8115

0



Jadrienne S. Rodell-Tipton, PE

PE-2021032725 (MISSOURI #) epared by Powell CWM, Inc. This drawing is ovided as an instrument of service by owell CWM, Inc.and is intended for use on s project only. Pursuant to the Architectural orks. Copyright Protection Act of 1990, all awings, specifications, ideas and designs, cluding the overall form, arrangement and position of spaces and elements appearing ein constitute the original, copyrighted work Powell CWM, Inc. Any reproduction, use, disclosure of information contained herein



DRAWN BY:

CHECKED BY: JRT PROJECT #: 21-1883

ISSUE DATE: 03/31/2022 ISSUED FOR:

DETAILS

PERMIT