

PLAN FOR
PRIVATE SANITARY AND STORM SEWER IMPROVEMENTS
& PUBLIC WATER MAIN IMPROVEMENTS
SAINT LUKE'S EAST - FLEX FACILITY EXPANSION
CITY OF LEE'S SUMMIT, MISSOURI

INDEX OF SHEETS

SHEET NO.	C300	COVER SHEET
SHEET NO.	C301	SANITARY SEWER PLAN AND PROFILE
SHEET NO.	C302-C303	STORM SEWER PLAN AND PROFILES
SHEET NO.	C304	STANDARD SANITARY SEWER DETAILS
SHEET NO.	C305	STANDARD STORM SEWER DETAILS
SHEET NO.	C401	WATER LINE PLAN AND PROFILE
SHEET NO.	C402	STANDARD WATER LINE DETAILS

GENERAL NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF CITY OF LEE'S SUMMIT, MISSOURI.
- LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
- THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND ARE APPROXIMATE ONLY. THEY DO NOT CONSTITUTE ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 883, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE NAMES AND TELEPHONE NUMBERS OF UTILITY COMPANIES, EVEN IF ONLY REMOTELY INVOLVED WITH THIS PROJECT ARE AS FOLLOWS:

ELECTRIC	KANSAS CITY POWER & LIGHT CO.	888-474-5275
GAS	MISSOURI GAS ENERGY	816-756-5252
WATER	CITY OF LEE'S SUMMIT	816-969-1940
TELEPHONE AT&T		800-464-7928
SEWER	CITY OF LEE'S SUMMIT	816-969-1940
CABLE TV	TIME WARNER	816-358-8833
	COMCAST	816-833-3400

THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-(800)-DIG RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.

- PRIOR TO ORDERING PREFABRICATED STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
- THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
- CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
- ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. ALL EXISTING UTILITIES SHALL BE ADJUSTED AS REQUIRED.
- ALL EXCESS AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF AT A LOCATION OFF SITE PROVIDED BY THE CONTRACTOR.
- SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE FIRM, DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED; SHALL BE FREE FROM MUCK AND MUD; AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING SUCH OPERATION, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUBGRADE TO PROVIDE A FIRM BASE FOR WORKING AND FOR PLACING THE FLOOR SLAB.
- ALL EXCAVATION SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.

NOTE:

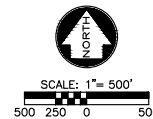
- BY USE OF THESE PLANS THE CONTRACTOR AGREES THAT HE/SHE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND OF THE PUBLIC.
- ALL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS SET FORTH BY THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND THE CITY OF LEE'S SUMMIT, MISSOURI, WHICHEVER IS MORE STRICT.
- THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTORS 48 HOURS PRIOR TO ANY LAND DISTURBANCE WORK AT (816)969-1200.

SPECIFICATIONS

ALL WORK PERFORMED AND MATERIALS FURNISHED WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF LEE'S SUMMIT, MISSOURI. THE CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF THE "AMERICAN PUBLIC WORKS ASSOCIATION, KANSAS CITY METROPOLITAN CHAPTER" AND ARE HEREBY MADE THE SPECIFICATIONS FOR THIS SET OF PLANS BY REFERENCE AS THOUGH FULLY SET FORTH HEREIN.



GENERAL LOCATION



FLOOD NOTE:

THIS PROPERTY LIES WITHIN FLOOD ZONE X, DEFINED AS AREAS OF DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PREPARED BY THE FEDERAL EMERGENCY AGENCY'S NATIONAL FLOOD INSURANCE PROGRAM FOR LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, MAP NUMBER 25095C04096 AND DATED JANUARY 30, 2017.

PROJECT BENCHMARKS

BENCHMARK 1 ELEV.: 982.17
SET 5 PUNCH HOLES IN THE TOP OF A SOUTHWEST FLANGE BOLT ON A FIRE HYDRANT IN THE SOUTHEAST QUADRANT OF SOUTH RING ROAD AND DRIVE ENTRANCE SOUTHWEST OF THE HELICOPTER PAD.

BENCHMARK 2 ELEV.: 983.85
SET 5 PUNCH HOLES IN THE TOP OF A SOUTHWEST FLANGE BOLT ON A FIRE HYDRANT IN THE SOUTHEAST QUADRANT OF SOUTH RING ROAD AND PARK LOT E TO S02+ DUE SOUTH OF THE SOUTHWEST CORNER OF MEDICAL OFFICE BUILDING.

LEGAL DESCRIPTION:

ALL OF LOT 1, SAINT LUKES HOSPITAL OF LEE'S SUMMIT LOTS 1 & 2, A SUBDIVISION OF LAND IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

PREPARED & SUBMITTED BY:

McCLURE
1700 SWIFT STREET, SUITE 100
NORTH KANSAS CITY, MISSOURI 64116

ENGINEER



DATE

ACCEPTED BY:

DATE

DESIGN ENGINEER

MATT EBLEN
1700 SWIFT AVE, SUITE 100
NORTH KANSAS CITY, MO
913-307-2588
MEBLEN@MECREULTS.COM

SUMMARY OF QUANTITIES

ITEM DESCRIPTION	UNITS	QUANTITY
8" PVC PIPE (SDR-26)	L.F.	436
4'-0" I.D. SANITARY MANHOLE	EACH	3
15" R.C.P. (CLASS III)	L.F.	93
18" R.C.P. (CLASS III)	L.F.	108
30" R.C.P. (CLASS III)	L.F.	498
4"x4" CURB INLET	EACH	1
5"x4" CURB INLET	EACH	2
6"x5" CURB INLET	EACH	1
8"x5" CURB INLET	EACH	2
4"x4" AREA INLET	EACH	2
11"x5" CURB INLET CONVERTED TO JUNCTION BOX	EACH	1
STREET REPAIR & CURB REPLACEMENT	L.F.	48
CONCRETE TIE EXISTING STRUCTURE	EACH	3
8" PVC C900 PIPE	L.F.	340
CONNECTIONS TO EXISTING	EACH	2
8"x6" TEE	EACH	2
8"x6" TEE AND FIRE HYDRANT	EACH	3
6" GATE VALVE	EACH	5
8" GATE VALVE	EACH	2
45" HORIZONTAL BEND	EACH	5
11 1/2" HORIZONTAL BEND	EACH	0
22 1/2" HORIZONTAL BEND	EACH	1
8" SOLID SLEEVE	EACH	2



1700 Swift Street, Suite 100
North Kansas City, Missouri 64116
816-756-0444

NOTICE:
McClure Engineering Company warrants only and all responsibility and liability for problems which arise from failure to follow these Plans, Specifications, and the engineering talent they convey, or for problems which arise from failure to obtain and/or follow the engineering guidance with respect to any errors, omissions, inconsistencies, ambiguities, or conflicts which are alleged.

COPYRIGHT:
Copyright and property rights in these documents are expressly reserved by McClure Engineering Company. No reproduction, change, or copies in any manner shall be made without obtaining prior written consent from McClure Engineering Company.

SAINT LUKE'S FLEX FACILITY EXPANSION PRIVATE
SANITARY SEWER, PRIVATE STORM SEWER &
PUBLIC WATER MAIN IMPROVEMENTS
LEE'S SUMMIT, MISSOURI

COVER SHEET

ISSUE DATE	11-18-2019
REVISIONS	
PER CITY COMMENTS	01-31-2020
PER CITY COMMENTS	02-06-2020
PER OWNER	02-18-2020

ENGINEER
MVE
DRAWN BY
KLJ
DESIGNED BY
KLJ
CHECKED BY
MVE

INCLUDE PROJECT NO.
190891-000
SHEET NO.

C300

NOTE:
McClure Engineering Company retains all rights and reserves the right to modify the drawings without notice from failure to follow these Plans. Specifications, and the engineering notes are hereby incorporated by reference into these Plans. In the event of any conflict between the drawings and the specifications, the specifications shall govern. In the event of any conflict between the drawings and the specifications, the specifications shall govern. In the event of any conflict between the drawings and the specifications, the specifications shall govern.

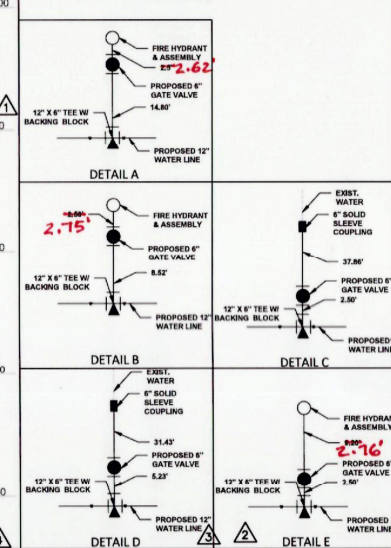
SAINT LUKES FLEX FACILITY EXPANSION PRIVATE
SANTARY SEWER, PRIVATE STORM SEWER &
PUBLIC WATER MAIN IMPROVEMENTS
LEE'S SUMMIT, MISSOURI
WATER LINE PLAN & PROFILE

LEGEND

C&G	CURB & GUTTER
ESMT	EASEMENT
MS	METAL SIGN
FO	FIBER OPTIC
RCP	REINFORCED CONCRETE PIPE
SN	SANITARY SEWER
WM	WATER METER
DWS	DOMESTIC WATER SERVICE
UTILE	UNDERGROUND TELEPHONE
T-UTEL	UNDERGROUND TELEPHONE
UPWDR	UNDERGROUND POWER
IRW	IRRIGATION
IR-COND	CONDUIT
LCB	LIGHT POLE CONCRETE BASE
ETP	ELECTRIC TRANSFORMER
FPW	FIRE PROTECTION WATER
UP	UNDERGROUND POWER
T	TRANSFORMER
	PROPOSED BUILDING
	HELIPAD
	TREE TO BE REMOVED

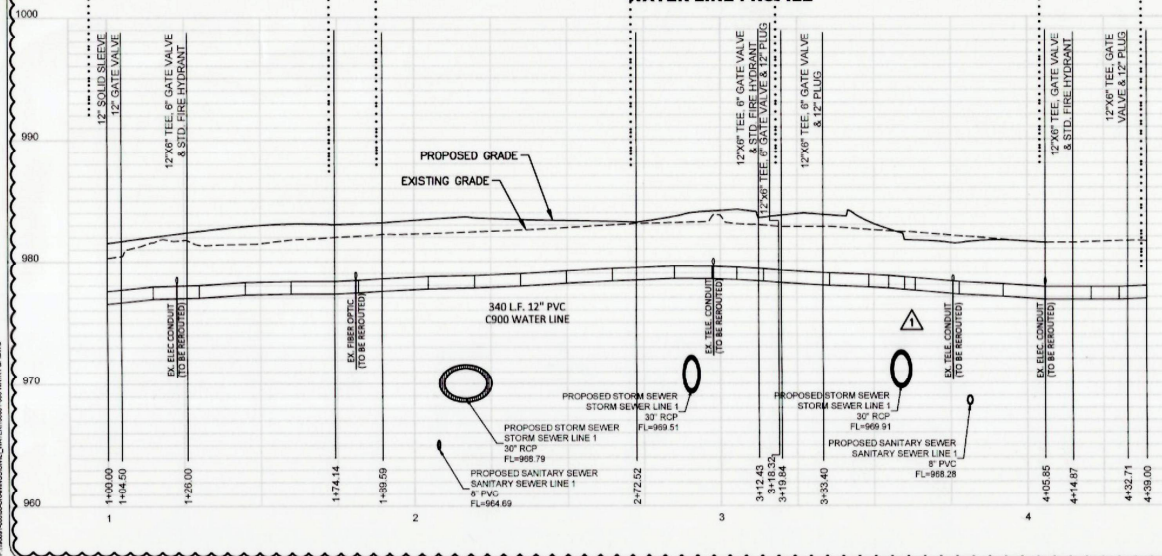
- GENERAL NOTE:**
1. ALL PIPE SIZES ARE IN INCHES UNLESS INDICATED OTHERWISE.
 2. SUBCONTRACTOR SHALL CONTACT THE CONTRACTOR AND ALL ASSOCIATED UTILITY COMPANIES AND AGENCIES TO IDENTIFY THE LOCATION OF UTILITIES PRIOR TO COMMENCEMENT OF WORK.
 3. SUBCONTRACTOR SHALL COORDINATE ALL REQUIRED UTILITY SHUTDOWNS FOR UTILITY CONNECTIONS WITH THE CONTRACTOR.
 4. CONNECTION TO EXISTING WATER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE CITY'S WATER DEPARTMENT.
 5. SUBCONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING ALL WATER CONNECTION FEES AND OBTAINING ALL PERMITS REQUIRED FOR THE WATER MAIN CONSTRUCTION AND CONNECTIONS.
 6. THE MINIMUM DEPTH FOR COVER FOR WATER PIPING SHALL BE 42 INCHES MIN. UNLESS INDICATED OTHERWISE.
 7. ANY CHANGES TO PROPOSED UTILITY DESIGN SHALL BE APPROVED BY THE ENGINEER AND THE CONTRACTOR.
 8. THRUST BLOCS OR JOINT RESTRAINTS ARE REQUIRED AT ALL TEES, BENDS, OR ELBOWS OF PRESSURIZED PIPING IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS.
 9. FIRE HYDRANTS SHALL BE INSTALLED A MINIMUM OF 3 FEET AND A MAXIMUM OF 6 FEET FROM EDGE OF PAVEMENT OR FACE OF CURB AND A MINIMUM OF 1 FOOT FROM EDGE OF SIDEWALK UNLESS INDICATED OTHERWISE. A RADIUS OF 3 FEET AROUND HYDRANT SHALL BE KEPT CLEAR FOR FIRE DEPARTMENT ACCESS. AREA BETWEEN CURB AND HYDRANTS SHALL BE KEPT CLEAR OF OBSTRUCTION.
 10. SUBCONTRACTOR SHALL COORDINATE THE INSTALLATION, TESTING, AND INSPECTION OF ALL DOMESTIC WATER AND FIRE WATER SYSTEMS WITH CITY'S WATER DEPARTMENT. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS ON WATER MAIN TESTING AND INSPECTIONS.
 11. NEW 8" PVC WATER PIPE SHALL BE C900 AWWA POLYVINYL CHLORIDE PRESSURE PIPE.
 12. IN AREAS WHERE 18" OF COVER DOES NOT EXIST BETWEEN THE TOP OF PIPE AND EXISTING OR PROPOSED GRADE, COMPACTED FILL SHOULD BE PLACED TO A MINIMUM OF 18" ABOVE THE TOP OF PIPE PRIOR TO INSTALLATION.

NOTE:
ALL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS SET FORTH BY THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND THE CITY OF LEE'S SUMMIT, MISSOURI, WHICHEVER IS MORE STRICT.



12" WATER MAIN WAS INSTALLED PER PLAN ACCORDING TO CONTRACTOR (NO AS-BUILT SHOTS WERE TAKEN ON MAIN)

WATER LINE PROFILE



AS-BUILT
JUNE 2021

AS-BUILT PREPARED USING CONTRACTOR PROVIDED NOTES AND FIELD SURVEY

RODRIGUEZ MECHANICAL CONTRACTORS, INC. AS-BUILT BY:

PHOENIX ENGINEERING & SURVEYING, LLC

3855 S. NORTHERN BLVD.
INDEPENDENCE, MO 64052
(816) 743-9000

PROFESSIONAL'S SEAL:
STATE OF MISSOURI
No. 2685
DOUGLAS A. TOBIN
CIVIL ENGINEER

INFORMATION PROVIDED ON THIS DRAWING DEPICTS AS-CONSTRUCTED CONDITIONS OF WORK PERFORMED BY RODRIGUEZ MECHANICAL CONTRACTORS, INC. FOR PHOENIX ENGINEERING AND SURVEYING, LLC IN ANY WAY EXPRESS OR IMPLIED WARRANTY FOR THE DESIGN OR THE ENGINEERING OF THE AS-CONSTRUCTED IMPROVEMENTS SHOWN HEREON.

HORIZ. SCALE: 1" = 20'

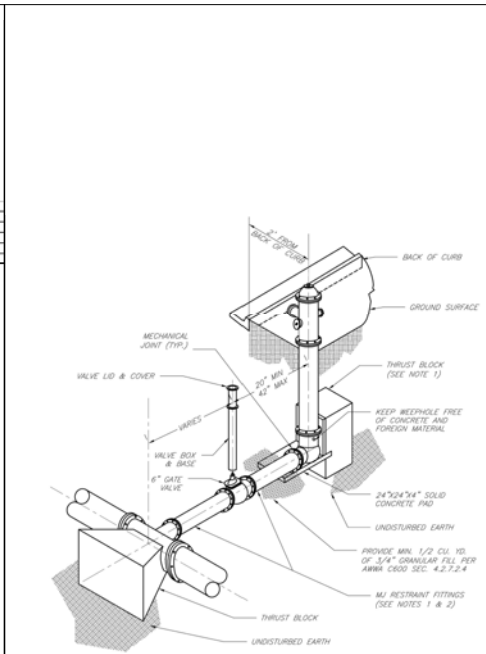
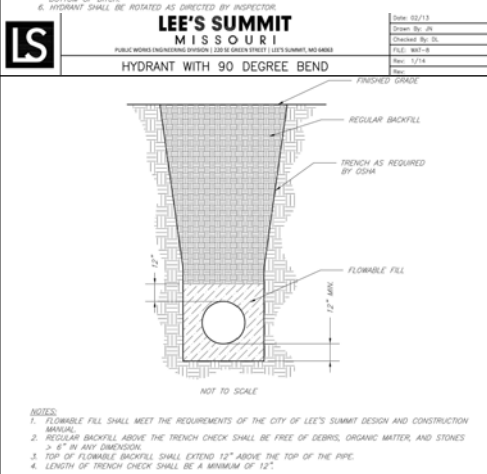
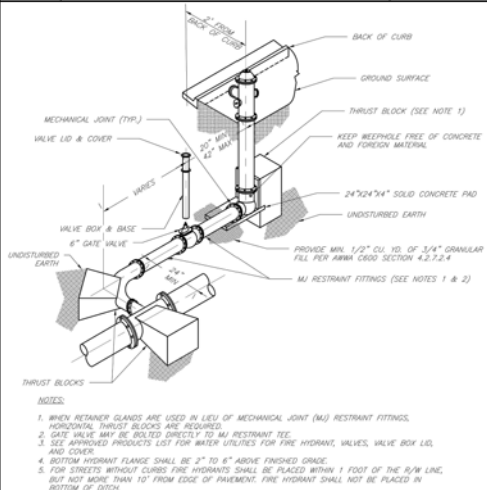
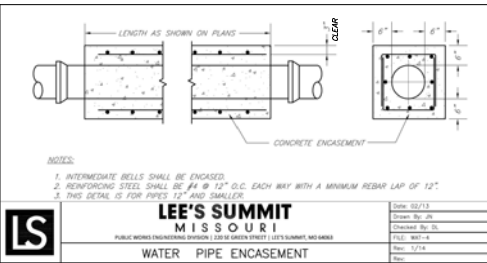
VERT. SCALE: 1" = 2.5'

REVISIONS

NO.	DATE	DESCRIPTION
1	11-18-2019	PER CITY COMMENTS
2	02-06-2020	PER OWNER
3	02-18-2020	RFI
4	04-14-2020	ENGINEER

DESIGNED BY: MVE
DRAWN BY: KU
CHECKED BY: MVE

McCLURE PROJECT NO: 190891-000
SHEET NO: **C401**



REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

NOM. DIA. (INCHES)	TEE, PLUS	BEND	BEND	BEND	BEND
6	50.5	71.4	58.6	19.7	8.9
8	89.8	126.9	89.7	35.0	17.8
10	140.9	208.3	152.3	54.9	27.5
12	202.9	302.9	214.4	78.8	39.2
14	282.9	412.4	292.4	107.3	53.9
16	382.9	542.9	382.9	140.1	70.4
18	502.9	692.9	502.9	177.3	89.1
20	642.9	862.9	642.9	222.3	110.0
24	942.9	1262.9	942.9	322.3	158.4

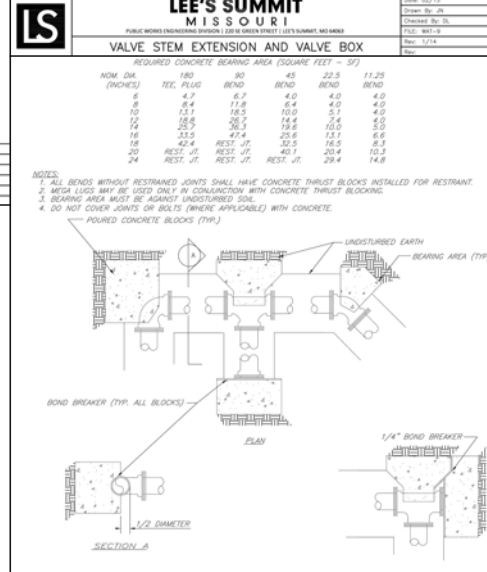
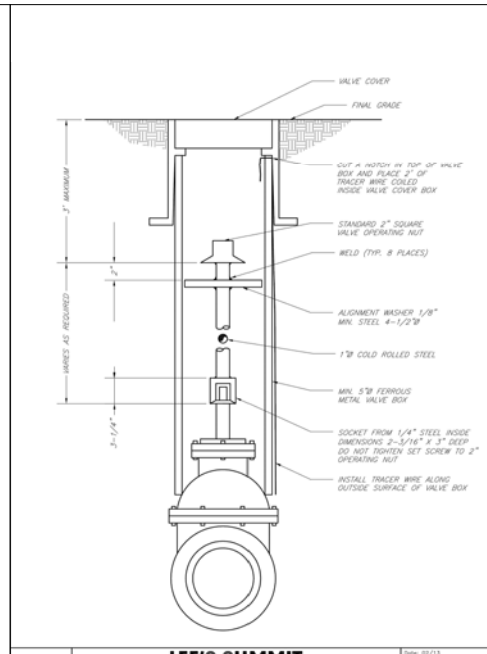
NOTES:

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

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 1201 N. GREEN STREET | LEE'S SUMMIT, MO 64116

VERTICAL THRUST BLOCKS

Drawn: 02/13
Drawn By: JN
Checked By: SL
FILE: MW-7
Rev: 1/14
Rev:



McCLURE™
making lives better.

1700 Swift Street, Suite 100
North Kansas City, Missouri 64116
816-756-0444

NOTICE:
McClure Engineering Company warrants only and all responsibility and liability for problems which arise from failure to follow these Plans, Specifications, and the engineering talent they convey, or for problems which arise from failure to obtain and/or follow the engineers guidance with respect to any errors, omissions, inconsistencies, ambiguities, or conflicts which are stated.

COPYRIGHT:
Copyright and property rights in these documents are hereby reserved by McClure Engineering Company. No reproduction, changes, or copies in any manner shall be made without obtaining prior written consent from McClure Engineering Company.

SAINT LUKE'S FLEX FACILITY EXPANSION PRIVATE SANITARY SEWER, PRIVATE STORM SEWER & PUBLIC WATER MAIN IMPROVEMENTS LEE'S SUMMIT, MISSOURI

STANDARD WATER LINE DETAILS

STATE OF MISSOURI
MATTHEW VALGREN
ENGINEER
NO. 190891-000
EXPIRATION DATE 02/18/2020

ISSUE DATE

REVISIONS

ENGINEER
MVE
DRAWN BY
KLJ

DESIGNED BY
KLJ
CHECKED BY
MVE

INCURE PROJECT NO.
190891-000
SHEET NO.
C402