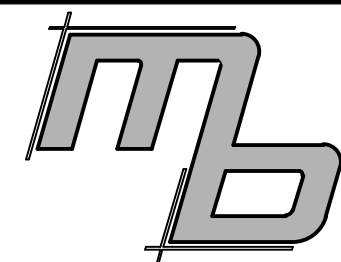


# COWBOY CARWASH

3601 SW HOLLYWOOD DRIVE  
LEE'S SUMMIT, MO 64082

## PUBLIC IMPROVEMENT PLANS



MB Engineering, Inc.  
1952 Homefield Estates  
O'Fallon, MO 63366  
(314) 368-3040



Michael A. Buescher, P.E., Civil Engineering  
Missouri P.E. E-2001018714  
MB Engineering, Inc., Missouri Authority No.  
E-2015041468

The Professional Engineer's seal affixed to this sheet indicates that the named Engineer has prepared or directed the preparation of the material shown only on this sheet. Other drawings and documents not exhibiting this seal shall not be considered prepared by or the responsibility of the undersigned.

### PROJECT REVISION:

NO.	DATE	DESCRIPTION
1	03-21-24	FOR REVIEW
2	05-06-24	CITY COMMENTS

3601 SW Hollywood Dr.  
Lee's Summit, MO 64082

DATE: 03-21-24  
DRAFTED BY: KB  
APPRVD. BY: MB

SHEET TITLE:  
COVER SHEET

SHEET NUMBER:  
C1-01

PROJECT NO: 22-752

### LEGEND:

- BENCH MARK
- ETP ELECTRIC TRANSFORMER PAD
- FH FIRE HYDRANT
- MS METAL SIGN
- PP POWER POLE
- SSMH SANITARY MANHOLE
- STMH STORM MANHOLE
- TEP TELEPHONE PEDESTAL
- WV WATER VALVE

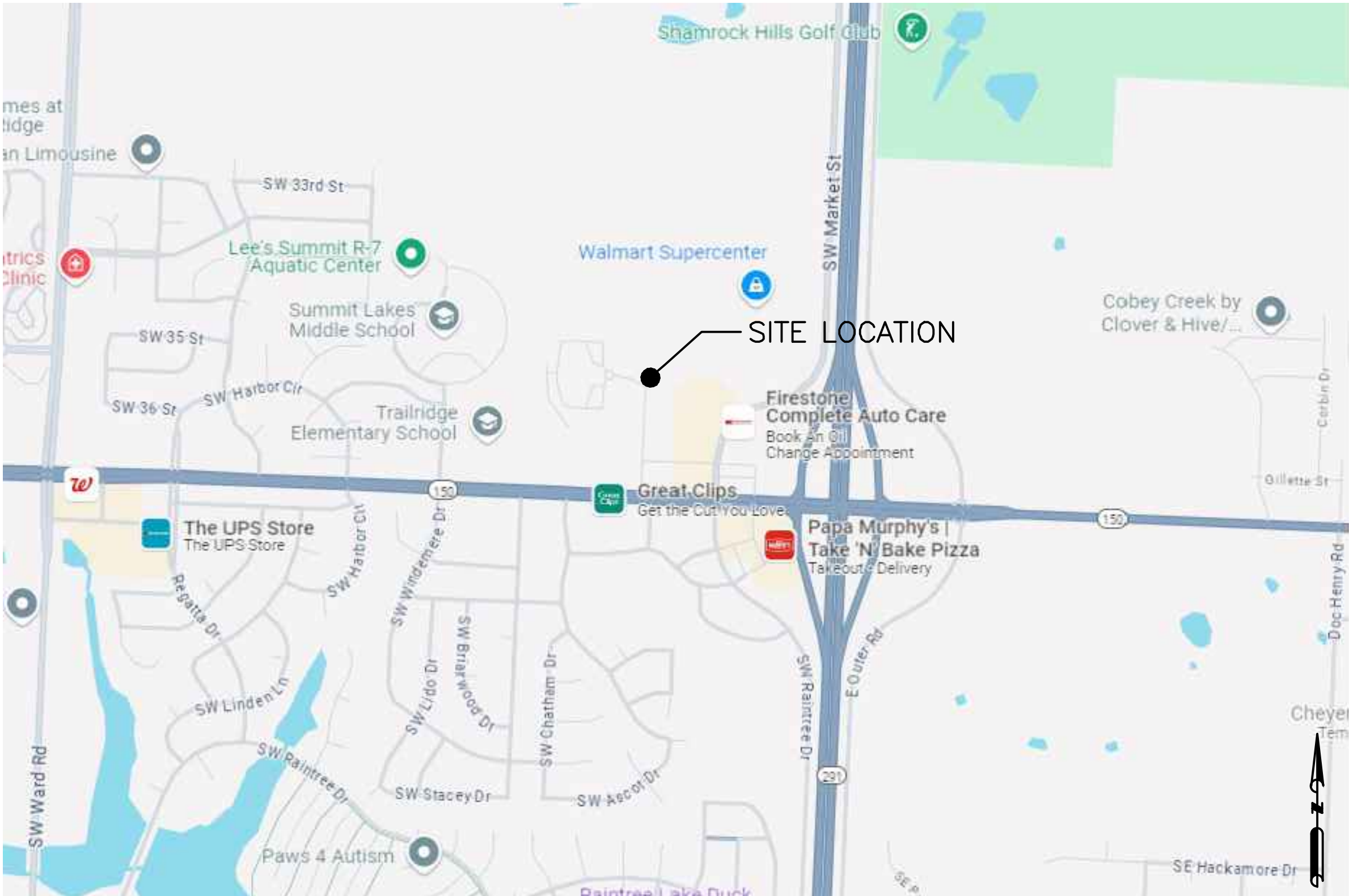
### BENCH MARK

BM#1 - ELEV=1028.13  
A SQUARE CUT IN THE CENTER FRONT FACE  
OF A CURB INLET LOCATED AT THE  
NORTHWEST CORNER OF THE INTERSECTION OF  
SUMMITCREST DRIVE AND HOLLYWOOD DRIVE

BM#2 - ELEV=1018.09  
A SQUARE CU IN THE CENTER FRONT FACE OF  
A CURB INLET LOCATED EAST OF THE EXISTING  
ENTRANCE OF 210 NW 150 HWY, BEING ALSO  
NORTHWEST OF THE NORTH ENTRANCE OF  
HAWKINS COMMERCIAL LOT 1, CURRENTLY  
ARBY'S

### LAND DESCRIPTION AS SURVEYED

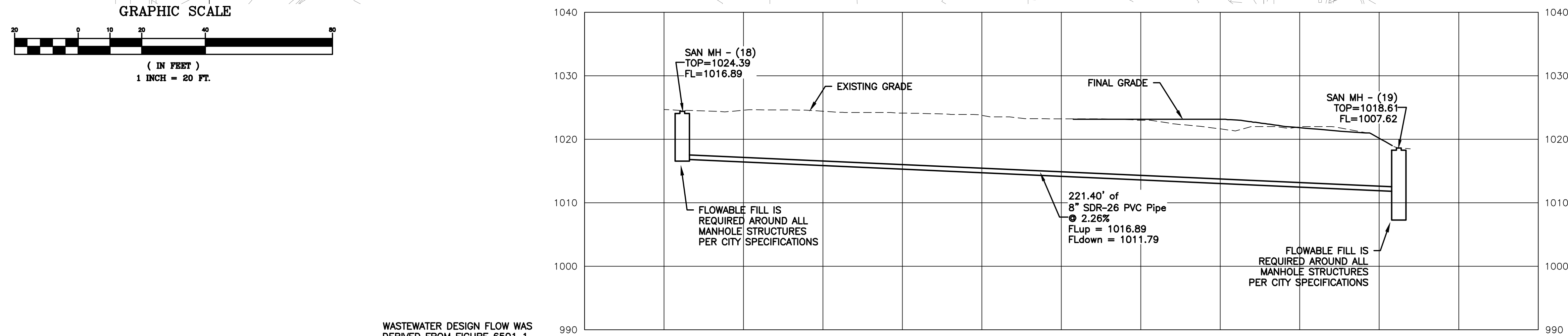
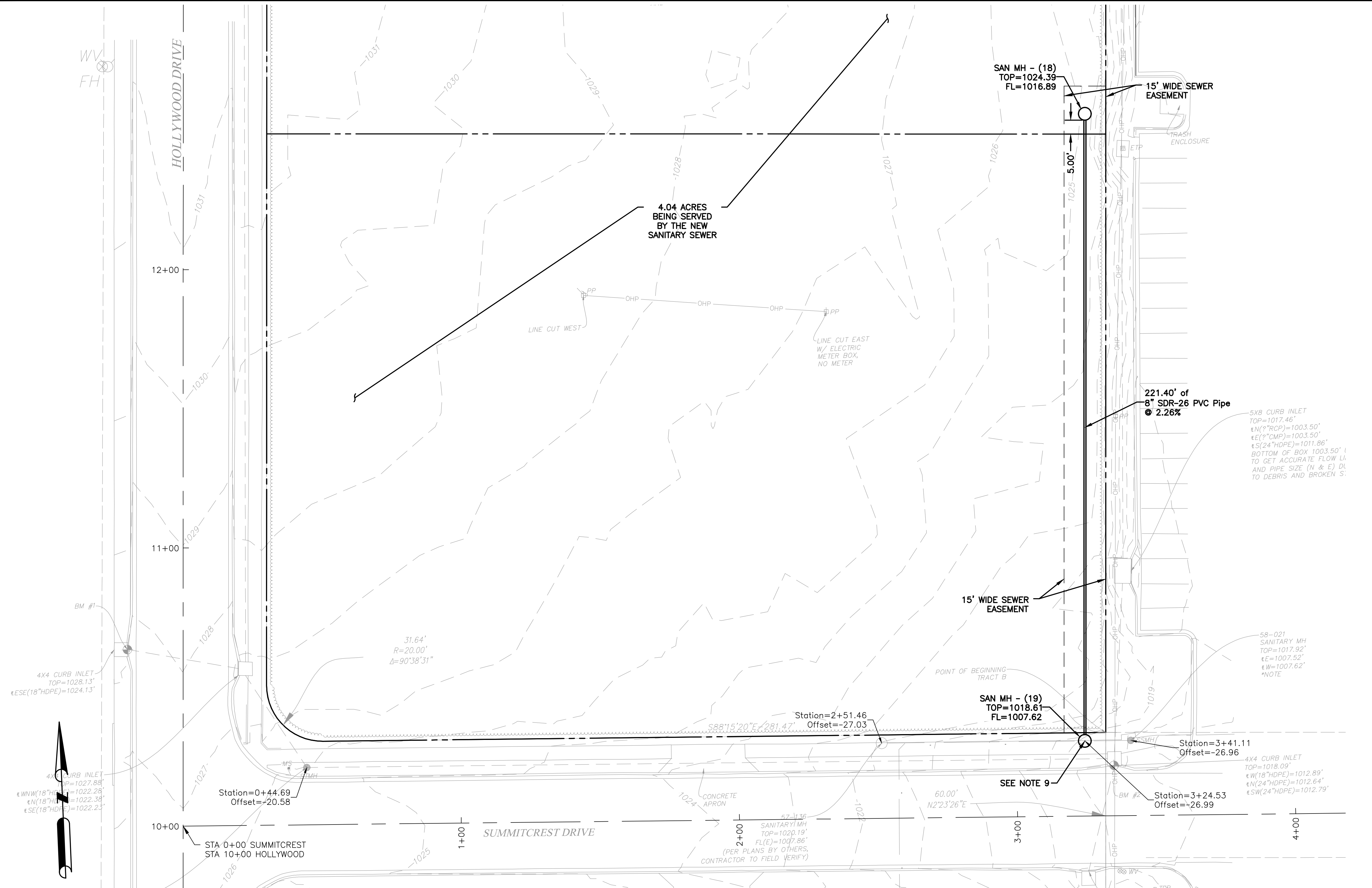
TRACT B:  
PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 47, RANGE 31, LEE'S SUMMIT,  
JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF HAWKINS' COMMERCIAL LOT 1, RECORDED AS DOCUMENT NO.  
200010062550, BEING ALSO THE INTERSECTION OF THE NORTH RIGHT OF WAY LINE OF MISSOURI 150 HIGHWAY AS SHOWN  
IN RIGHT OF WAY DEED DOCUMENT NO. 2014E0080868 AND THE EASTERLY LINE OF THE DOCUMENT RECORDED AS  
1988I0875030; THENCE NORTH 02°23'26" EAST, ALONG THE WEST LINE OF SAID HAWKINS' COMMERCIAL LOT 1, A DISTANCE  
OF 208.16 FEET, TO THE SOUTHEAST CORNER OF RIGHT OF WAY TAKEN OF SUMMITCREST DRIVE AS ESTABLISHED BY SAID  
RIGHT OF WAY DOCUMENT NO. 2014E0080868 AND PROLONGATION OF THE WEST LINE OF SAID HAWKINS' COMMERCIAL  
LOT 1; THENCE NORTH 02°23'26" EAST, A DISTANCE OF 60.00 FEET, TO THE INTERSECTION OF THE NORTH RIGHT OF WAY LINE  
OF SAID SUMMITCREST DRIVE AND THE EASTERLY LINE OF THE DOCUMENT RECORDED AS 1988I0875030 AND THE WEST LINE  
OF SUMMITCREST PLAZA LOT 1 RECORDED AS DOCUMENT NO. 2001I0010320, BEING ALSO THE TRUE POINT OF BEGINNING  
OF TRACT B; THENCE ALONG THE WEST LINE OF SAID SUMMITCREST PLAZA, NORTH 2°23'26" EAST, A DISTANCE OF 583.70  
FEET, TO THE POINT OF INTERSECTION OF KENBRIDGE CROSSING AS ESTABLISHED IN SAID RIGHT OF WAY DEED IN  
DOCUMENT NUMBER 2014E0080868 AND THE EASTERLY LINE OF THE SAID DOCUMENT NO. 1988I0875030, BEING ALSO SAID  
WEST LINE OF SUMMITCREST PLAZA; THENCE ALONG SAID RIGHT OF WAY THE FOLLOWING FIVE (5) COURSES: NORTH  
87°54'56" WEST, A DISTANCE OF 281.79; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 20.00 FEET, AN ARC  
LENGTH OF 31.31 FEET, AND A DELTA OF 89°41'48"; THENCE SOUTH 2°23'24" WEST, A DISTANCE OF 545.37 FEET; THENCE  
ALONG A CURVE TO THE LEFT, WITH A RADIUS OF 20.00 FEET, AN ARC LENGTH OF 31.64 FEET, AND A DELTA OF 90°38'31";  
THENCE SOUTH 88°15'20" EAST, A DISTANCE OF 281.47 FEET, TO THE POINT OF BEGINNING. ALSO KNOWN AS TRACT B, AS  
SHOWN ON THE CERTIFICATE OF SURVEY RECORDED 7/27/2021 AS DOCUMENT NO. 2021E0081920 IN SURVEY BOOK 51 AT  
PAGE 95, AND CORRECTED BY THE AFFIDAVIT RECORDED 1/10/2022 AS DOCUMENT NO. 2022E0002897.



LOCATION MAP  
NTS

SHEET INDEX	
C1-01	COVER SHEET
C2-01	PUBLIC IMPROVEMENT PLAN SEWER EXTENSION
C3-01	TYPICAL DETAILS





WASTEWATER DESIGN FLOW WAS DERIVED FROM FIGURE 6501-1

TRIBUTARY AREA = 4.04 ACRES  
DESIGN FLOW RATE = 0.30 CFS/ACRE

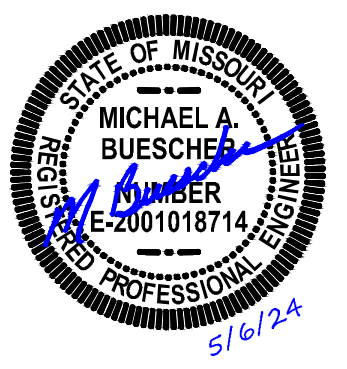
4.04 \* 0.30 = 0.12 CFS

### SANITARY SEWER PROFILE

SCALE: 1" = 20' HORZ - 1" = 10' VERT

Line No.	Line Size	Flow Rate	Invert	HGL	Depth	Area	Vel	Vel	EGL	Line	Line	Invert	HGL	Depth	Area	Vel	Vel	EGL	Sf	Sf	Energy	J-Loss	Minor	Line	Capacity	Gmd/Rim
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft/s)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft/s)	(ft)	(%)	(%)	(ft)	Coeff	(ft)	ID	(cfs)	(ft)
1	8	0.12	1007.62	1008.19	0.57	0.32	0.38	0.00	1008.19	0.61	16.500	1007.52	1008.19	0.67	0.35	0.34	0.00	1008.19	0.008	0.008	0.001	1.00	0.00	MH19 - 58-021	1.02	1021.84
2	8	0.12	1016.89	1017.05	0.16**	0.06	1.90	0.06	1017.10	2.30	221.400	1011.79	1011.90	0.11	0.04	3.13	0.06	1011.96	0.000	0.000	0.000	1.00 z	0.06	MH18 - MH19	1.99	1024.39

- NOTES:
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THAT THERE MAY BE OTHER, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION BEFORE EXCAVATION OR TRENCHING TO AVOID DAMAGE THERETO.
  - ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
  - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS NOT TO DAMAGE ANY EXISTING SITE FEATURES TO REMAIN. IF ANY DAMAGE OCCURS, THE CONTRACTOR SHALL CONTACT THE OWNERS REPRESENTATIVE IMMEDIATELY. THE CONTRACTOR SHALL REPAIR ALL DAMAGED ITEMS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST.
  - CONTRACTOR SHALL CALL 1-800-DIG-RITE OR MO1CALL.COM 3 DAYS BEFORE ANY EXCAVATION WORK.
  - ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.
  - NO OIL OR GAS WELLS ARE ON SITE PER MISSOURI DEPARTMENT OF NATURAL RESOURCES G.I.S. OIL AND GAS WELL INTERACTIVE MAP
  - 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
  - CONTRACTOR SHALL CALL 1-800-DIG-RITE OR MO1CALL.COM 3 DAYS BEFORE ANY EXCAVATION WORK.
  - THE CONTRACTOR SHALL CUT THE EXISTING SEWER MAIN, SET A PRECAST BASE ONTO A 6-INCH THICK (MINIMUM) CRUSHED ROCK BEDDING LAYER, AND INSERT A SEWER PIPE THROUGH THE MANHOLE TO CONNECT THE EXISTING ENDS OF THE SEWER MAIN. BOTH ENDS SHALL BE CONNECTED TO THE EXISTING SEWER WITH A RIGID COUPLING. THE INVERTS WILL BE POURED BEFORE THE TOP HALF OF THE SEWER PIPE IS CUT AWAY. ALTERNATIVELY, PRECAST INVERTS MAY BE USED FOR THIS APPLICATION. A PUMPED BYPASS OPERATION MAY BE USED FOR THIS APPLICATION FROM THE EXISTING UPSTREAM MANHOLE TO THE EXISTING DOWNSTREAM MANHOLE.



Michael A. Buescher, P.E. Civil Engineering  
Missouri P.E. E-2001018714  
MB Engineering, Inc. Missouri Authority No. E-2015041404  
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Lee's Summit, MO 64082

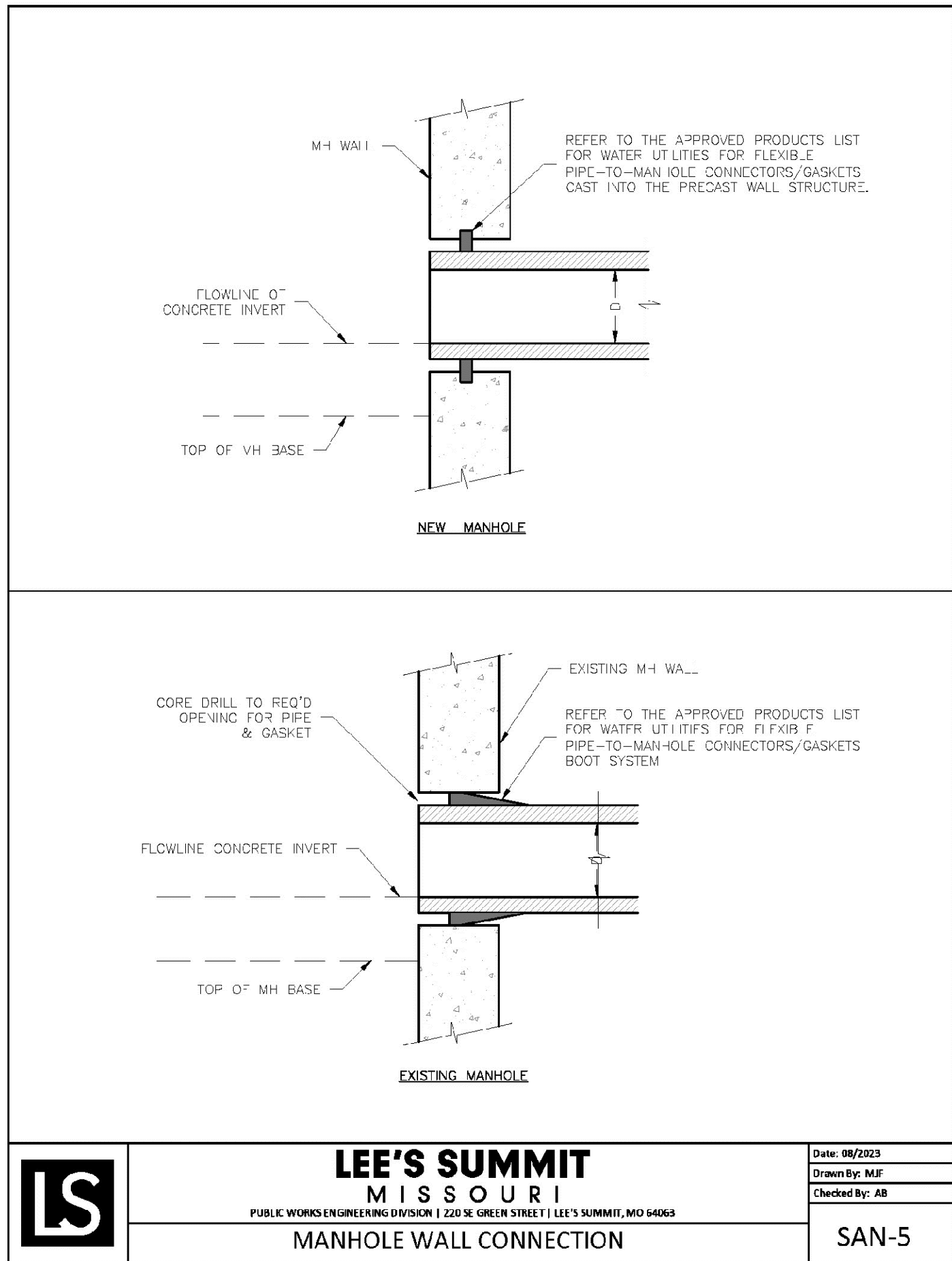
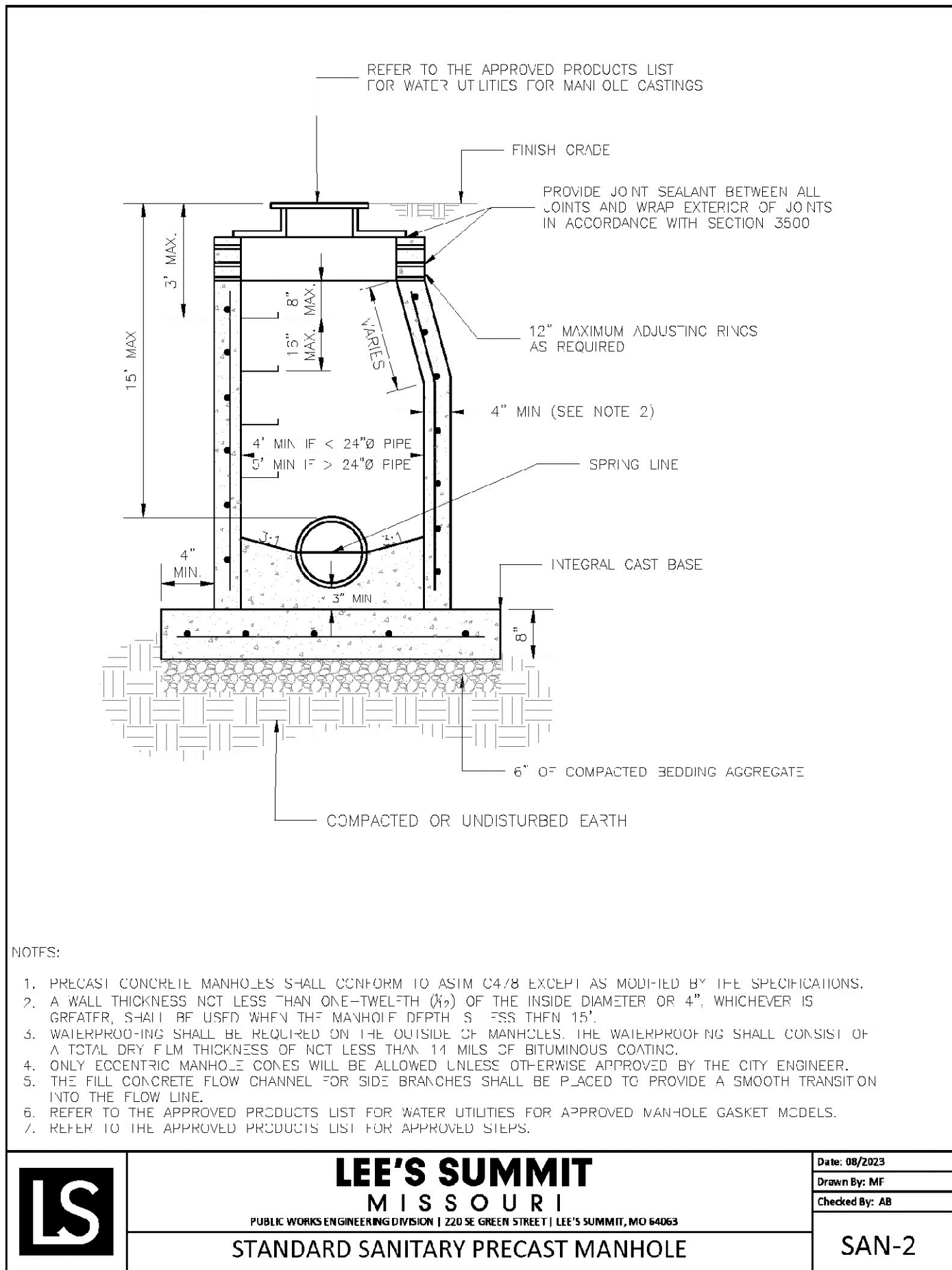
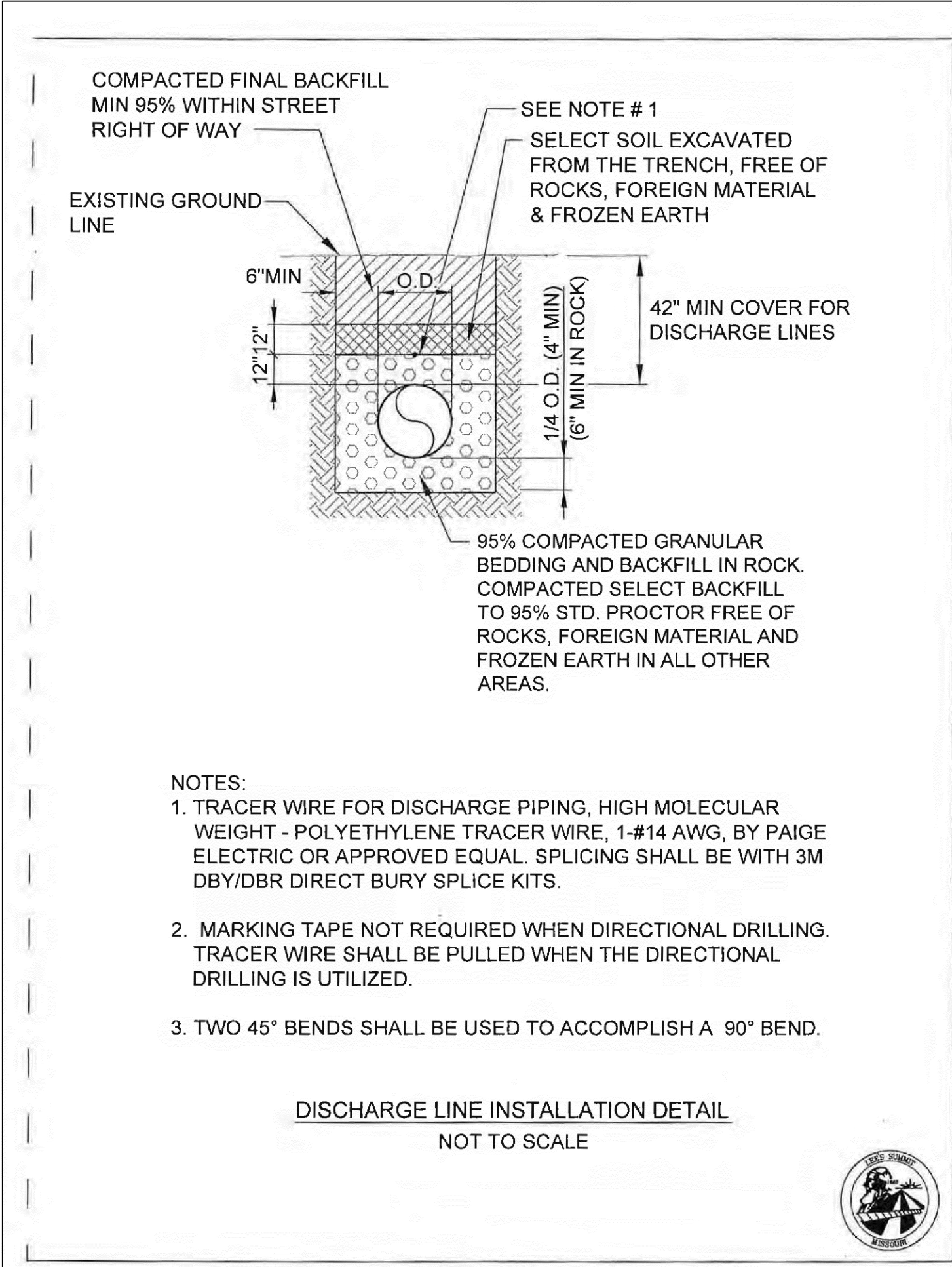
DATE: 03-21-24  
DRAFTED BY: KB  
APPRVD. BY: MB

SHEET TITLE:  
PUBLIC IMPROVEMENT PLAN  
SEWER EXTENSION

SHEET NUMBER:  
**C2-01**

PROJECT NO: 22-752





PROJECT REVISION:		
NO.	DATE	DESCRIPTION
1	03-21-24	FOR REVIEW
2	05-06-24	CITY COMMENTS