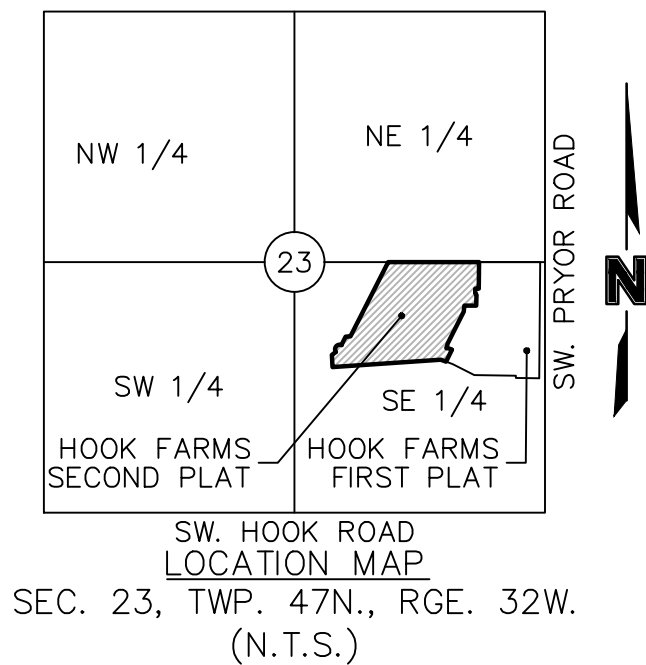


HOOK FARMS SECOND PLAT SANITARY SEWER PLANS

SECTION 23, TOWNSHIP 47 N, RANGE 32 W
IN LEE'S SUMMIT, JACKSON COUNTY, MO



PROJECT TEAM & UTILITY CONTACT LIST

OWNER / DEVELOPER
HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC.
8300 NE UNDERGROUND DRIVE
KANSAS CITY, MO 64161
CONTACT: AARON SCHMIDT
PHONE: 816.455.2500

ENGINEER
OLSSON
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
CONTACT: JULIE E. SELLERS, P.E.
PHONE: 816.361.1177
EMAIL: JSSELLERS@OLSSON.COM

SURVEYOR
OLSSON
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
CONTACT: JASON ROUDEBUSH, P.L.S.
PHONE: 816.361.1177
EMAIL: JROUDEBOUSH@OLSSON.COM

UTILITY SERVICE NUMBERS
NAME: LEE'S SUMMIT PUBLIC WORKS
PHONE: 816-969-1800

NAME: LEE'S SUMMIT WATER &
SERVICES DEPARTMENT
PHONE: 816-969-1940

NAME: SPIRE (MGE)
PHONE: 314-342-0500

NAME: AT&T
PHONE: 800-286-8313

NAME: EVERGY
PHONE: 816-471-5275

NAME: SPECTRUM (TWC)
PHONE: 877-772-2253

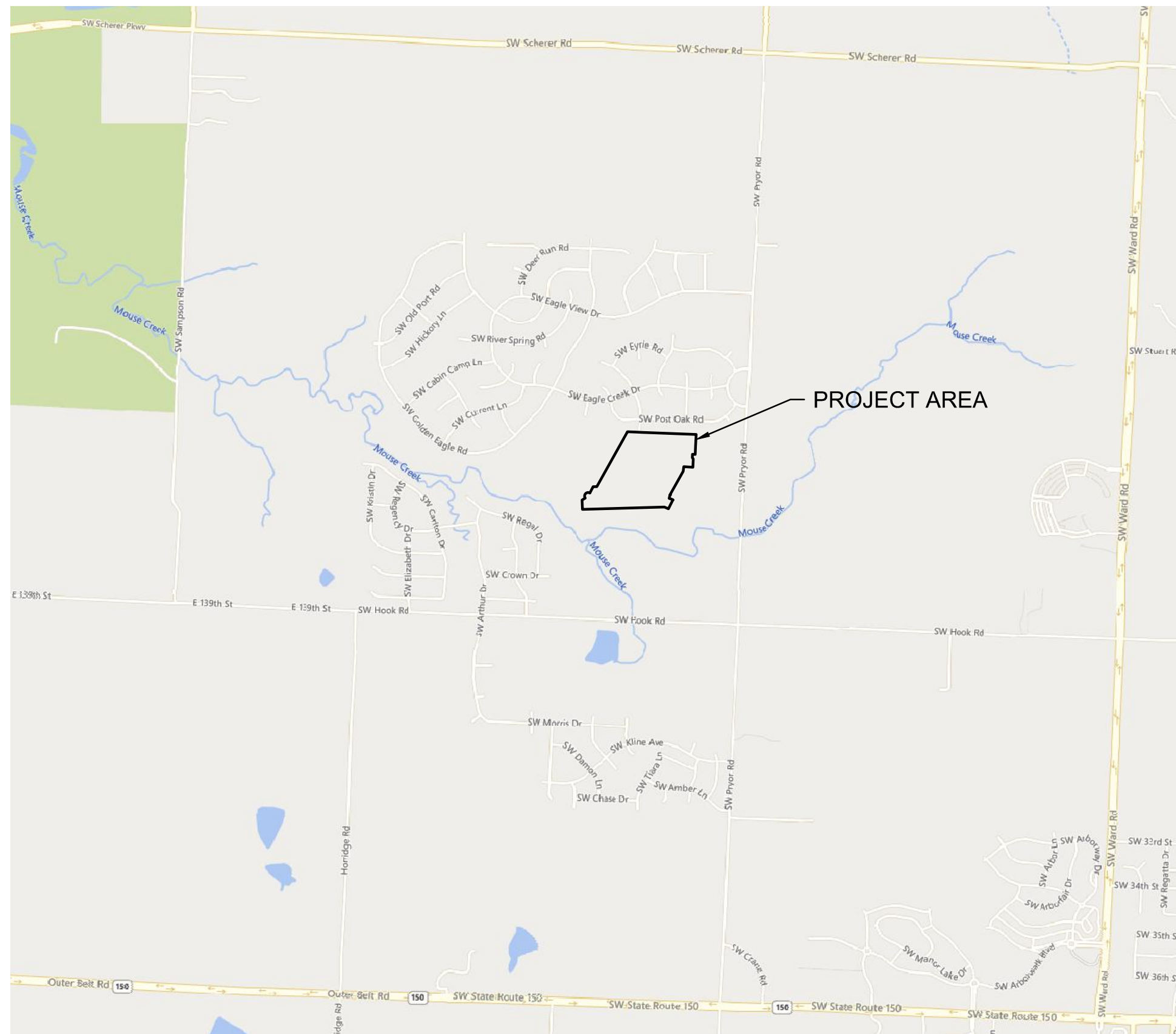
NAME: GOOGLE FIBER
PHONE: 877-454-6959



☐ NOT FOR CONSTRUCTION



 REVIEWED FOR CONSTRUCTION



PROPERTY DESCRIPTION

TRACT OF LAND IN THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S. ROUBEUSH, P.L.S. 0002014092 AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02°45'34" EAST, ON THE EAST LINE OF SAID SOUTHEAST QUARTER, 2,635.08 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 87°45'24" WEST, ON THE NORTH LINE OF SAID SOUTHEAST QUARTER, 50.00 FEET TO THE SOUTHEAST CORNER OF LOT 3, EAGLE CREEK—FIRST PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 110409 IN BOOK 165 AT PAGE 01 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING THE NORTHWEST CORNER OF PROPOSED HOOK FARMS FIRST PLAT; THENCE CONTINUING NORTH 87°45'24" WEST ON SAID NORTH LINE, ALSO BEING THE PROPOSED NORTH LINE OF SAID PROPOSED HOOK FARMS FIRST PLAT, ALSO BEING THE SOUTH LINE OF SAID EAGLE CREEK—FIRST PLAT, 343.83 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE LEAVING SAID NORTH AND SOUTH LINES, SOUTH 02°59'10" WEST, ALONG THE PROPOSED WESTERLY LINE OF PROPOSED HOOK FARMS FIRST PLAT, 277.38 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 36.00 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE SOUTH 42°00'50" EAST, ALONG SAID PROPOSED WESTERLY LINE, 19.80 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 116.00 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 126.12 FEET; THENCE SOUTH 07°19'52" WEST, ALONG SAID PROPOSED WESTERLY LINE, 64.17 FEET; THENCE SOUTH 29°10'47" WEST, ALONG SAID PROPOSED WESTERLY LINE, 375.17 FEET; THENCE SOUTH 15°20'56" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE ALONG SAID PROPOSED WESTERLY LINE, EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 74°39'04" EAST WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 11°57'16" AND AN ARC DISTANCE OF 57.38 FEET; THENCE SOUTH 27°18'12" WEST, ALONG SAID PROPOSED WESTERLY LINE, 138.17 FEET; THENCE LEAVING SAID PROPOSED WESTERLY LINE, NORTH 67°11'53" WEST, 61.05 FEET; THENCE SOUTH 88°21'16" WEST, 1,139.83 FEET; THENCE NORTH 01°38'44" WEST, 128.09 FEET; THENCE NORTH 57°02'58" EAST, 49.90 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 32°57'02" WEST WITH A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 150°22'53" AND AN ARC DISTANCE OF 131.23 FEET; THENCE NORTH 27°25'51" EAST, 98.75 FEET; THENCE NORTH 88°21'16" EAST, 52.12 FEET; THENCE NORTH 29°10'47" EAST, 873.51 FEET TO A POINT ON SAID NORTH LINE OF SAID SOUTHEAST QUARTER, ALSO BEING THE SOUTH LINE OF EAGLE CREEK—SECOND PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 200100058889 IN BOOK 165 AT PAGE 09 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 87°45'24" EAST, ON SAID NORTH LINE AND SAID SOUTH LINE, 682.19 FEET TO THE SOUTHEAST CORNER OF SAID EAGLE CREEK—SECOND PLAT, ALSO BEING THE SOUTHWEST CORNER OF SAID EAGLE CREEK—FIRST PLAT; THENCE SOUTH 87°45'24" EAST ON SAID NORTH LINE, AND SAID SOUTH LINE OF EAGLE CREEK—FIRST PLAT, 273.64 FEET TO THE POINT OF BEGINNING. CONTAINING 1,157.274 SQUARE FEET OR 26.57 ACRES, MORE OR LESS.

BENCHMARK

JA-74
ELEVATION: 1058.10
N: 978461.2779
E: 2809447.9650

DESCRIPTION: KC METRO ALUMINUM GRS DISK SET IN CONCRETE. THE STATION IS STAMPED JA-74, 1988, AND PROJECTS ABOUT 1 INCH

SHEET LIST

NUMBER	TITLE
C201	TITLE SHEET
C202	GENERAL NOTES
C203	GENERAL LAYOUT
C204	SANITARY SEWER PLAN & PROFILE (LINE 1)
C205	SANITARY SEWER PLAN & PROFILE (LINE 1)
C206	SANITARY SEWER PLAN & PROFILE (LINE 1)
C207	SANITARY SEWER PLAN & PROFILE (LINE 2)
C208	SANITARY SEWER PLAN & PROFILE (LINE 2)
C209	SANITARY SEWER PLAN & PROFILE (LINE 3)
C210	SANITARY SEWER PLAN & PROFILE (LINE 4)
C211	DESIGN TABLES
C212	DETAIL SHEET
C213	DETAIL SHEET

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

JULIE E. SELLERS, P.E.
CIVIL ENGINEER
MO # PE-2017000367

4/21/21

DATE

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

SHEET
C201

[illegible]

TITLE SHEET SANITARY SEWER PLANS

LEE'S SUMMIT, MO

STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
4/21/21
PROFESSIONAL ENGINEER

olson

Olsson - Civil Engineering
Missouri Certificate of Authority #001592
1301 Burlington Street
North Kansas City, MO 64116

USER: bworthley

DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNC\VA\Sanitary Plans\VC_TTL01_B194061.dwg

DATE: Apr 16, 2021 1:32pm

C_PBDY_B194061

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

REFERENCES

1. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY;
 - A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF LEE'S SUMMIT, MISSOURI.
 - B. ALL CONSTRUCTION IN MODOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MODOT.
 - C. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - D. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES.
 - E. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI
4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

EXISTING CONDITIONS

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.
3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.
2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.
3. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
4. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
5. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

SHOP DRAWINGS

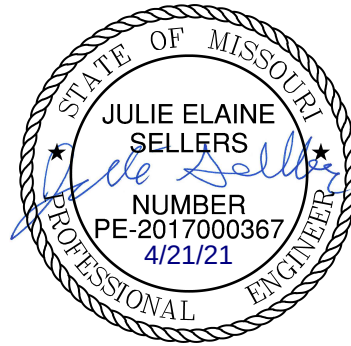
1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
 - A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
 - B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
 - C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
 - D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
 - E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.
2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:
 - A. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
 - B. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

SANITARY SEWER GENERAL NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF LEE'S SUMMIT, MISSOURI.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. ALL STRUCTURE DIMENSIONS ARE TO INSIDE FACE OF STRUCTURE.
5. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.
6. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
7. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
8. MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE MANHOLE.
9. PIPE PENETRATIONS SHALL USE GASKETS TO ENSURE WATERTIGHT SEALS.
10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
11. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE. CONTRACTOR SHALL FURNISH ALL TESTING EQUIPMENT. TESTING SHALL INCLUDE
 - A. MANDREL TEST OF ALL GRAVITY SEWERS. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
 - B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS.
 - C. VACUUM TEST OF ALL MANHOLES.
12. REFER TO SHEET C210 FOR SANITARY DESIGN & SEWER LATERAL INFORMATION.
13. ALL SERVICE LINE CONNECTIONS SHALL BE MADE WITH AN 8"x4" PVC WYE, 4"PVC 45° BEND, AND THE APPROPRIATE LENGTH OF 4" PVC LATERAL (UNLESS OTHERWISE SHOWN) AND CAP. SEE DETAIL SHEET C212.
14. MSFE-- INDICATES LOWEST FLOOR SERVICEABLE BY PROPOSED SANITARY SEWER.
15. MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.
16. SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE. IF RISER IS INDICATED, IT IS TO BE AT THE SANITARY MAIN, UNLESS OTHERWISE NOTED.
17. REFER TO CURRENT CITY SPECIFICATIONS FOR MINIMUM PIPE SLOPES.
18. CONTRACTOR MAY BE REQUIRED TO RECONSTRUCT PIPE AND STRUCTURE IF MINIMUM INVERT DROP OR PIPE SLOPE REQUIREMENTS ARE NOT MET.
19. SANITARY STRUCTURES SHALL BE PER CURRENT CITY DETAILS. IF CITY DOES NOT HAVE PUBLISHED DETAILS STRUCTURES SHALL BE PER CURRENT APWA SPECIFICATIONS.
20. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
STREET				
1	8" SANITARY PVC (SDR-26)	L.F.	2618.31	
2	MANHOLES, STD. 4' DIA.	EA.	10	
3	RAISE EXISTING MANHOLE	V.F.	21.18	
4	CONNECTION TO EXISTING MANHOLE	EA.	3	
5	TRACER WIRE	L.F.	2348.88	
6	TRACER WIRE BOX	EA.	58	
7	SERVICE WYE	EA.	58	
8	4" LATERAL PIPE	L.F.	2348.88	

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.



REV. NO.		DATE		REVISIONS DESCRIPTION	
1	03-23-2021			REVISED PER CITY COMMENTS	
2	04-16-2021			REVISED PER CITY COMMENTS	

GENERAL NOTES SANITARY SEWER PLANS		2021	
HOOK FARMS SECOND PLAT		LEE'S SUMMIT, MO	

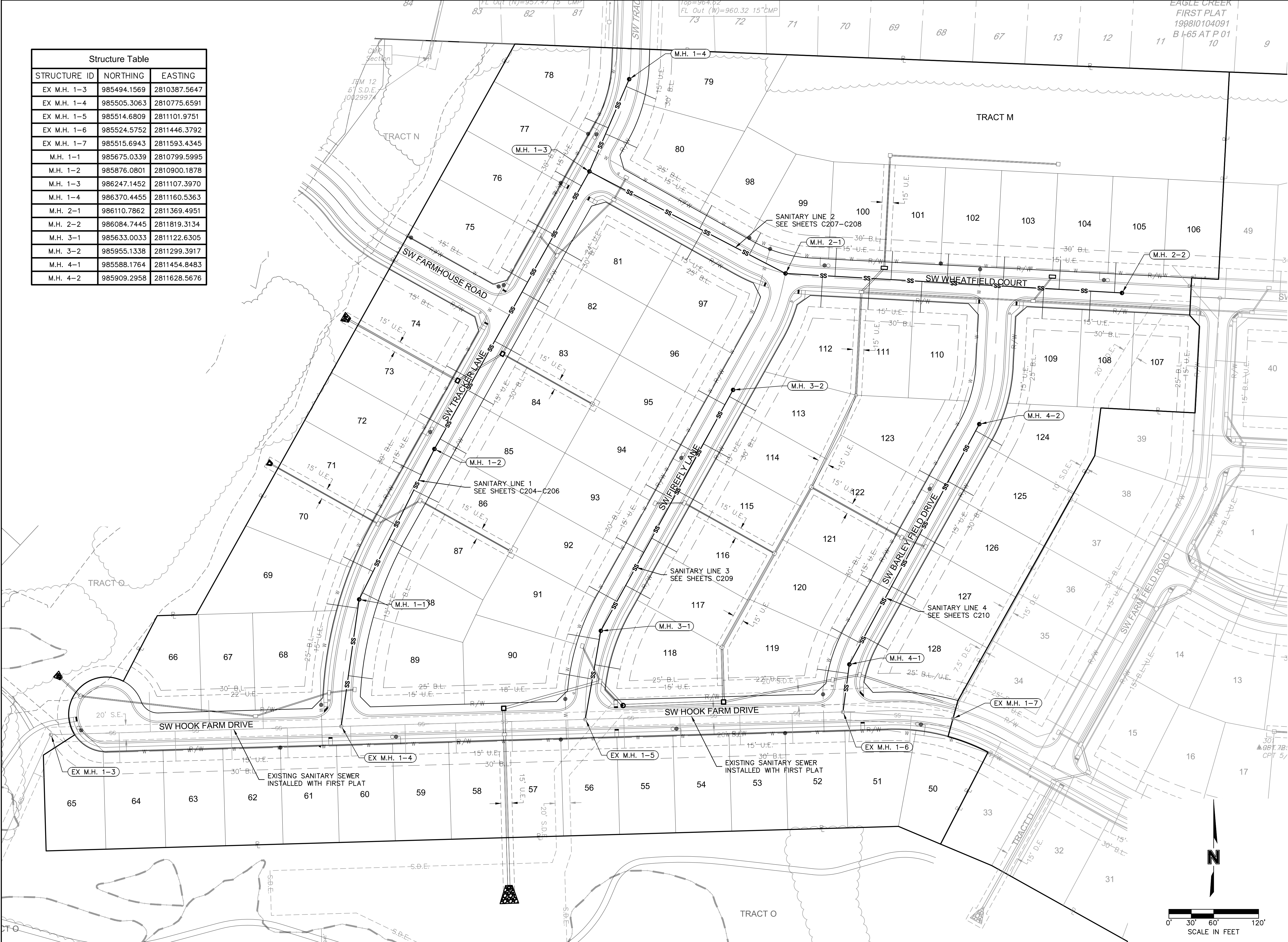
drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

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1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
FAX 816.361.1888
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REVISIONS

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USER: bworthley

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EX M.H. 1-5	985514.6809	2811101.9751
EX M.H. 1-6	985524.5752	2811446.3792
EX M.H. 1-7	985515.6943	2811593.4345
M.H. 1-1	985675.0339	2810799.5995
M.H. 1-2	985876.0801	2810900.1878
M.H. 1-3	986247.1452	2811107.3970
M.H. 1-4	986370.4455	2811160.5363
M.H. 2-1	986110.7862	2811369.4951
M.H. 2-2	986084.7445	2811819.3134
M.H. 3-1	985633.0033	2811122.6305
M.H. 3-2	985955.1338	2811299.3917
M.H. 4-1	985588.1764	2811454.8483
M.H. 4-2	985909.2958	2811628.5676



GENERAL LAYOUT
SANITARY SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	

drawn by: B.M.W./A.A.

checked by: B.M.W.

designed by: B.M.W./A.A.

QA/QC by: J.E.S.

project no.: B19-4061

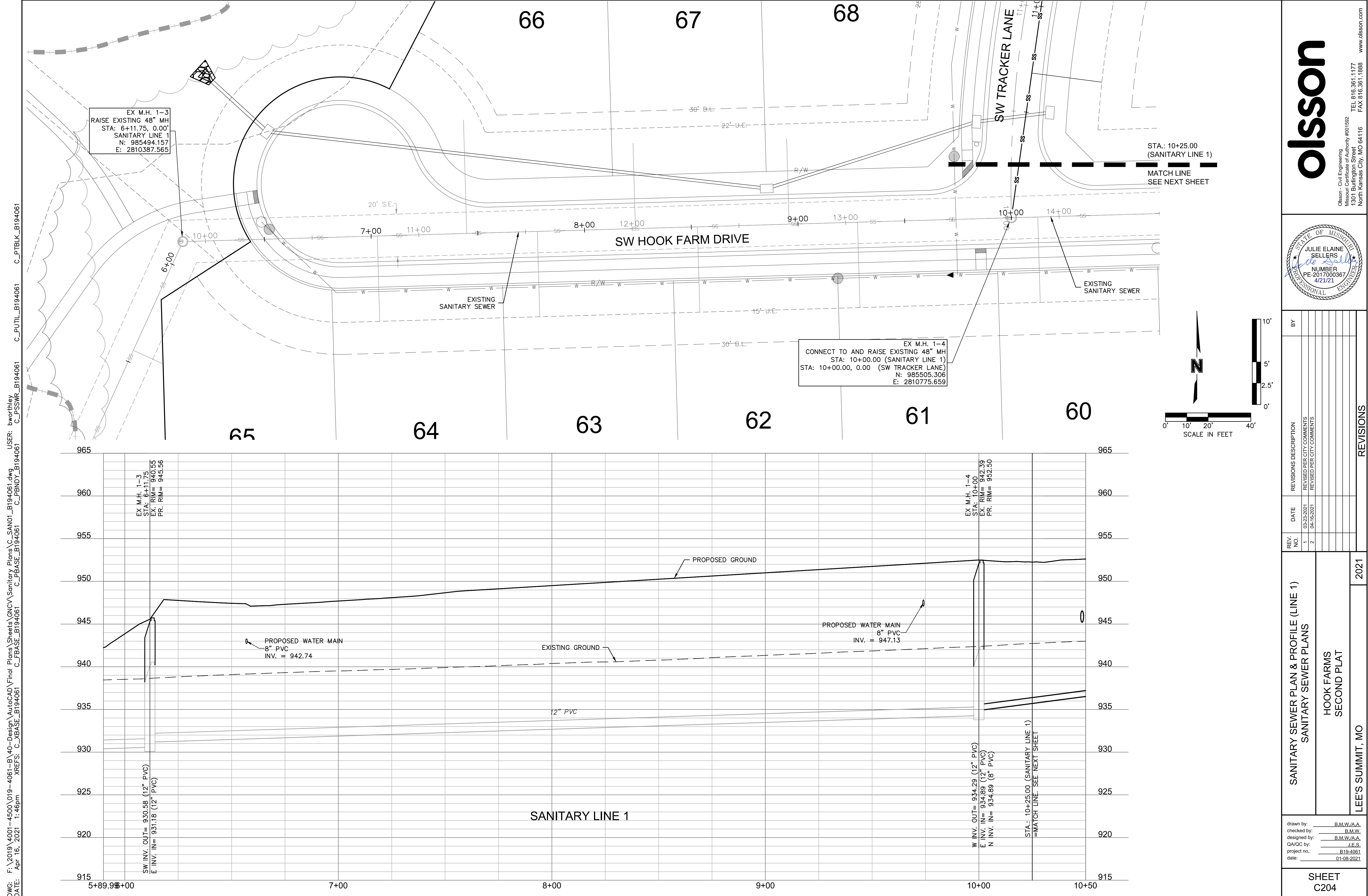
date: 01-08-2021

SHEET
C203

olsson

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TEL 816.361.1177
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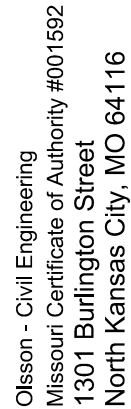
STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
4/21/21
PROFESSIONAL ENGINEER



61-B\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Sanitary Plans\C_SAN01_B194061.dwg
XREFS: C_XBASE_B194061 C_FBASE_B194061 C_PBASE_B194061 C_PBNDY_E



Olsson - Civil Engineering
Missouri Certificate of Authority #001592
1301 Burlington Street
North Kansas City, MO 64116



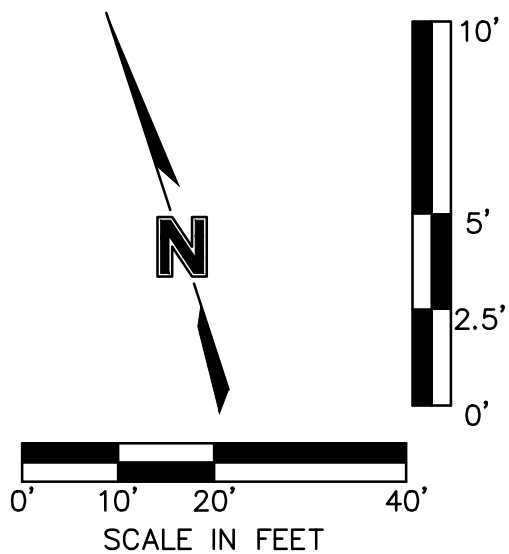
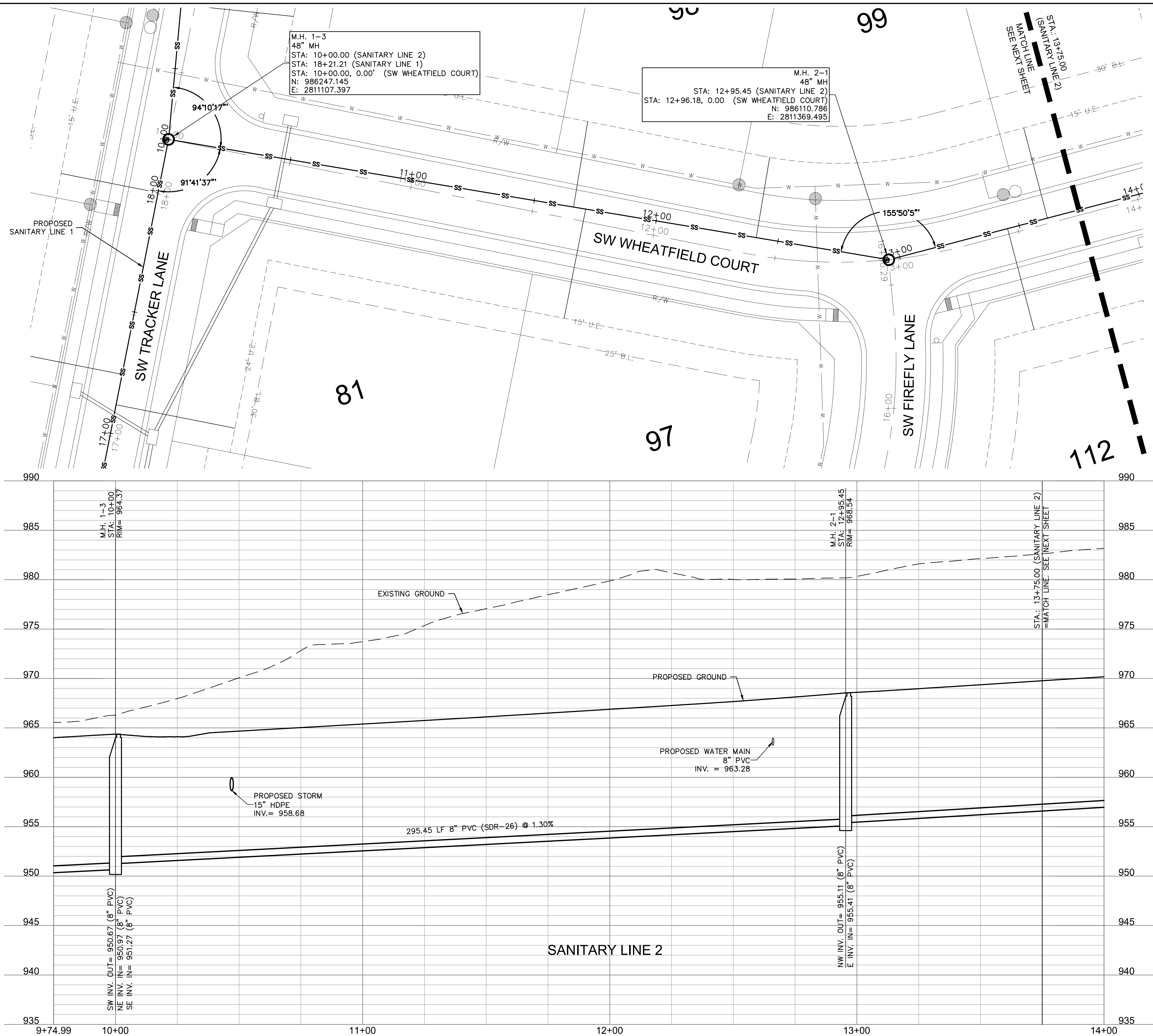
REVISIONS

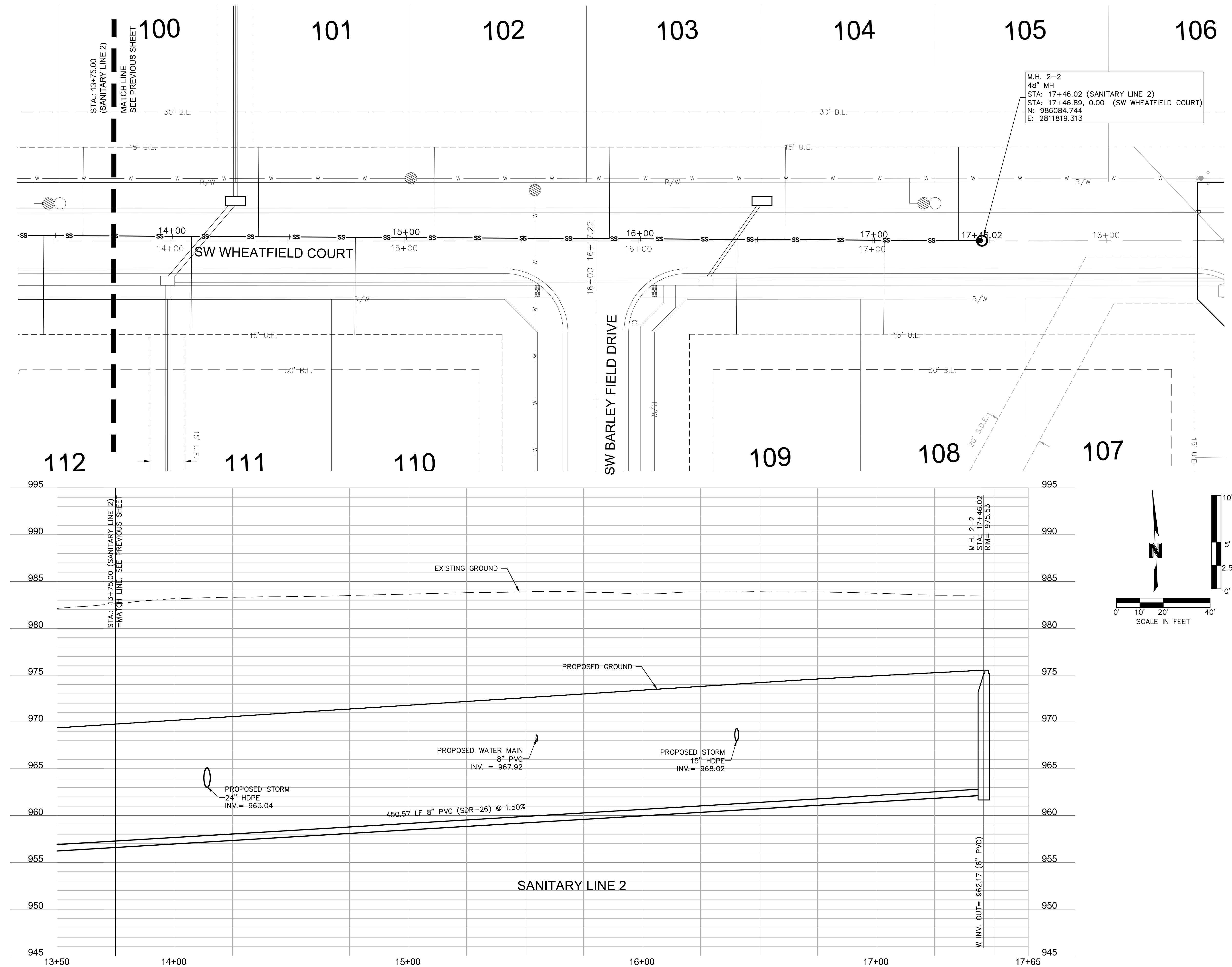
HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

B.M.W./A.A.
B.M.W.
B.M.W./A.A.
J.E.S.
B19-4061
01-08-2021

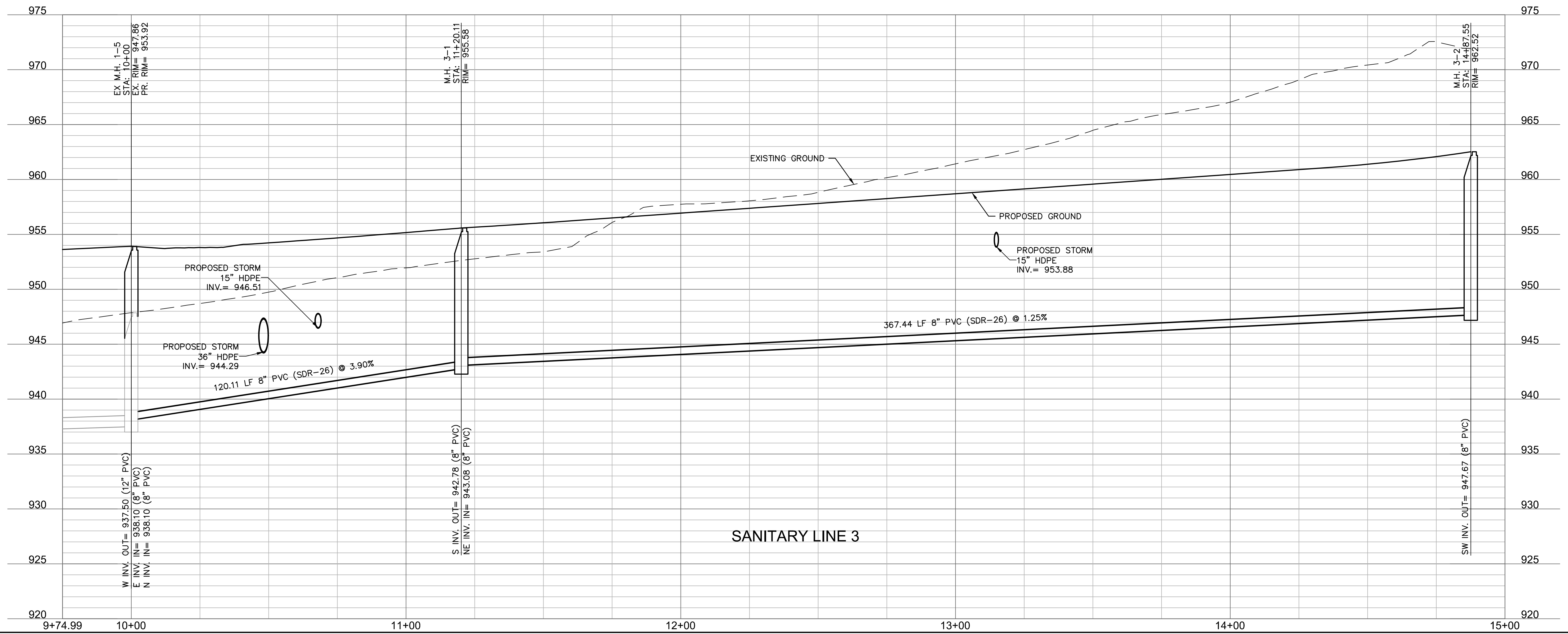
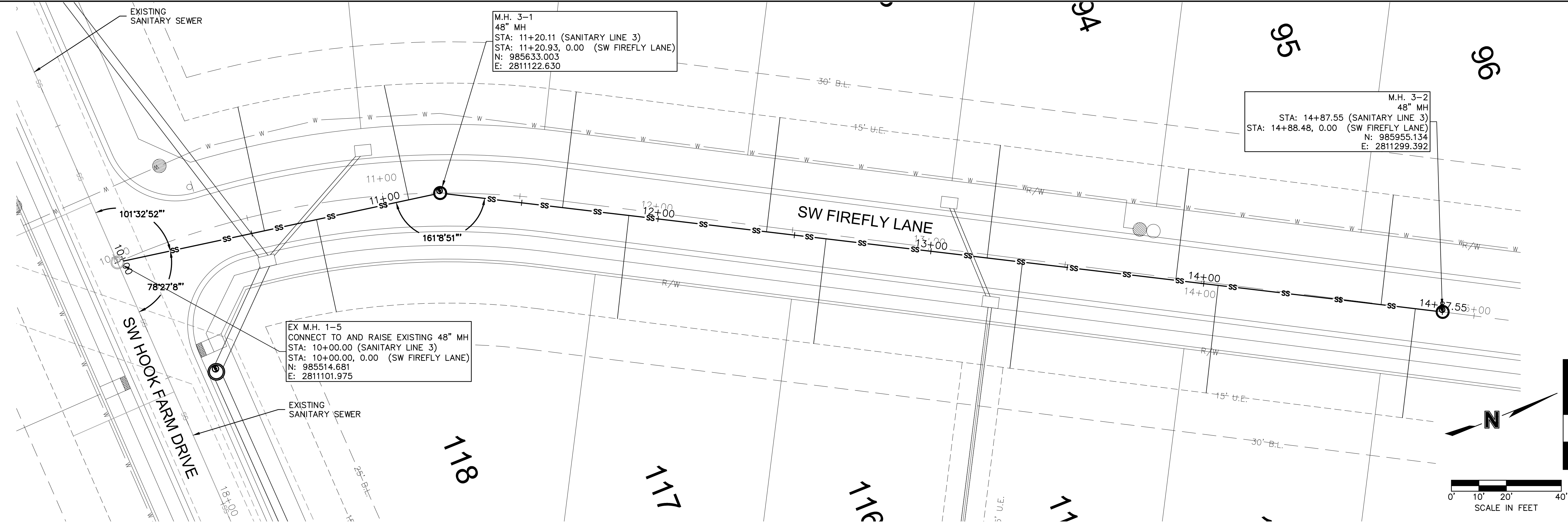
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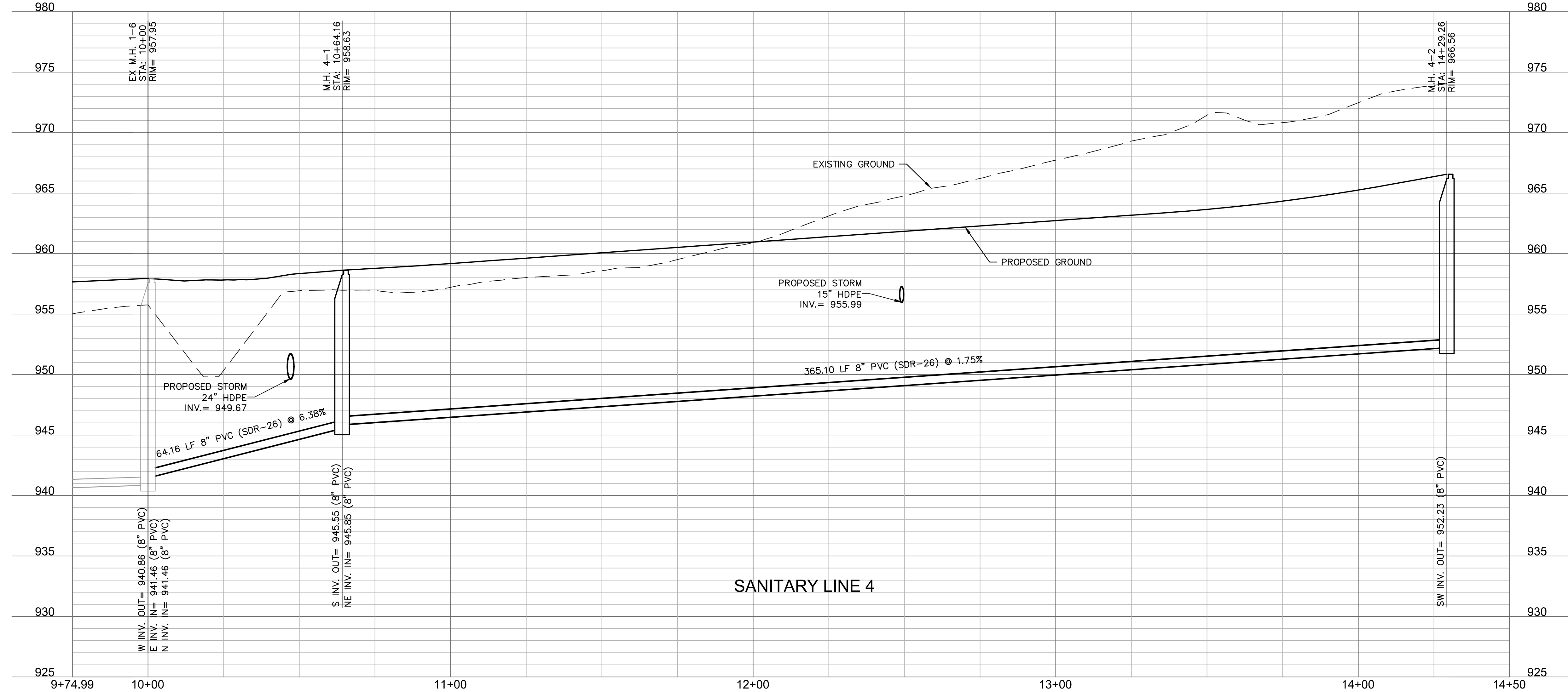
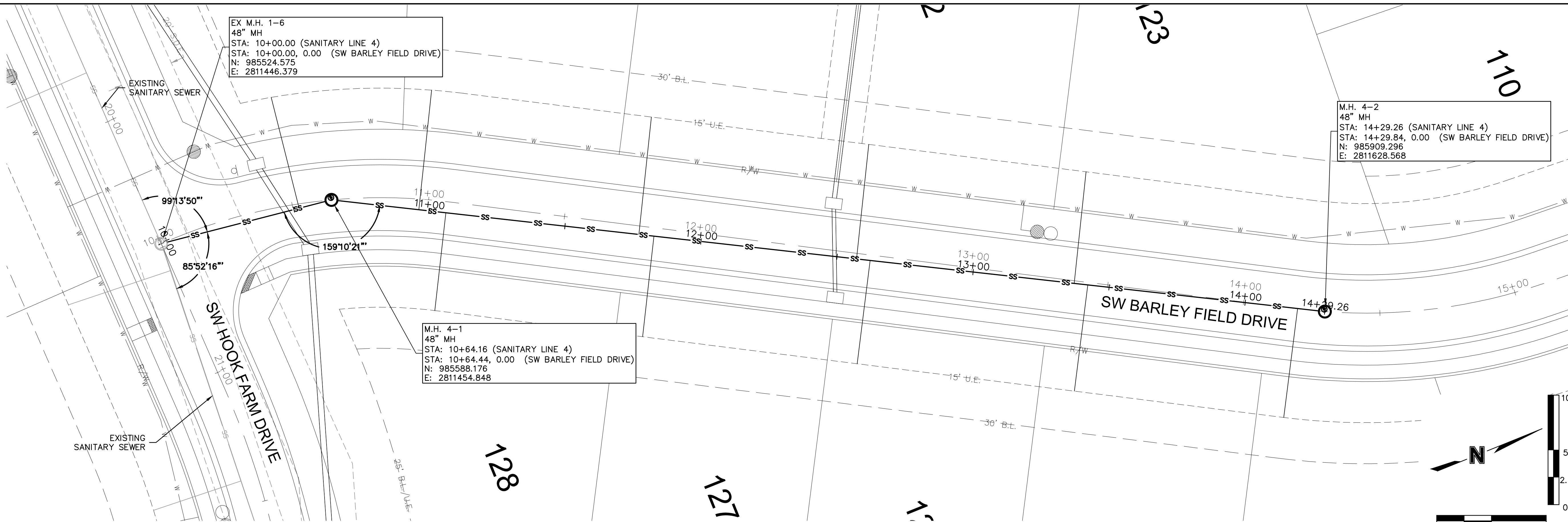
olsson Olsson - Civil Engineering Missouri Certificate of Authority #001592 1301 Burlington Street North Kansas City, MO 64116 TEL 816.361.1177 FAX 816.361.1888 www.olsson.com					
REV. NO.	DATE	REVISIONS DESCRIPTION	BY		
1	03-23-2021	REVISED PER CITY COMMENTS			
2	04-16-2021	REVISED PER CITY COMMENTS			
SANITARY SEWER PLAN & PROFILE (LINE 2) SANITARY SEWER PLANS			REVISIONS		
HOOK FARMS SECOND PLAT			2021		
			LEE'S SUMMIT, MO		
drawn by: _____ B.M.W./A.A. checked by: _____ B.M.W./A.A. designed by: _____ B.M.W./A.A. QA/QC by: _____ J.E.S. project no.: _____ B19-4061 date: _____ 01-08-2021					
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DATE: Apr 16, 2021 1:39pm USER: C_PSSMR bworthley C_PSSMR



drawn by: _____ B.M.W./A.A. checked by: _____ B.M.W./A.A. designed by: _____ B.M.W./A.A. QA/QC by: _____ J.E.S. project no.: _____ B19-4061 date: _____ 01-08-2021		SANITARY SEWER PLAN & PROFILE (LINE 3) SANITARY SEWER PLANS		REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		HOOK FARMS SECOND PLAT		1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021			REVISED PER CITY COMMENTS			
LEE'S SUMMIT, MO		2021	REVISIONS				
SHEET C209							

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drawn by: _____ checked by: _____ designed by: _____ QA/QC by: _____ project no.: _____ date: _____ B.M.W./A.A. B.M.W./A.A. J.E.S. B19-4061 01-08-2021		SANITARY SEWER PLAN & PROFILE (LINE 4) SANITARY SEWER PLANS HOOK FARMS SECOND PLAT LEE'S SUMMIT, MO 2021		REV. NO. 1 2 DATE 03-23-2021 04-16-2021 REVIEWS DESCRIPTION REVISED PER CITY COMMENTS REVISED PER CITY COMMENTS BY	
		REVISIONS			
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		REVISIONS			

Sanitary Sewer Laterals						
Lot Number	Lateral Station	Lateral Length	Riser	Flowline at Main	Flowline at End of Lateral	Minimum Servicable Floor Elevation
		(ft)	(ft)	(ft)	(ft)	(ft)
69	11+59.73	42.25	1.0	940.6	943.4	946.21
70	12+13.15	44.87	0.0	941.6	943.5	946.29
71	12+84.03	45.15	0.0	942.9	944.8	947.63
72	13+57.15	41.82	0.0	944.3	946.1	948.94
73	14+28.26	40.00	0.0	945.7	947.5	950.34
74	15+01.29	40.00	0.0	946.6	948.4	951.25
75	16+51.76	40.00	1.0	948.5	951.3	954.11
76	17+24.26	40.00	1.0	949.4	952.2	955.02
77	17+99.26	40.00	1.0	950.4	953.2	955.95
78	18+84.74	33.68	1.0	951.6	954.3	957.10
79	19+45.09	43.37	0.0	952.3	954.2	956.98
80	18+75.33	45.79	1.0	951.5	954.4	957.24
81	17+11.74	49.00	1.0	949.3	952.2	955.04
82	16+36.74	40.00	1.0	948.3	951.1	953.92
83	15+61.72	40.00	1.0	947.4	950.2	952.98
84	14+86.74	40.00	0.0	946.5	948.3	951.07
85	14+11.74	40.00	0.0	945.5	947.3	950.13
86	13+34.97	37.26	0.0	943.9	945.6	948.43
87	12+60.18	34.02	0.0	942.5	944.2	946.96
88	11+81.41	38.94	1.0	941.0	943.8	946.56
89	10+68.93	33.05	3.0	937.1	941.7	944.55
90	10+54.72	46.03	1.0	940.2	943.1	945.94
91	11+08.46	42.61	0.0	942.9	944.8	947.59
92	11+64.99	42.39	0.0	943.6	945.5	948.29
93	12+39.73	41.84	1.0	944.6	947.4	950.20
94	13+20.61	41.28	1.0	945.6	948.4	951.20
95	13+89.73	40.73	1.0	946.5	949.3	952.05
96	14+64.74	40.17	2.0	947.4	951.2	953.96
97	11+69.84	45.06	0.0	953.5	955.4	958.16
98	11+66.11	35.11	1.0	953.4	956.1	958.89
99	12+41.08	32.92	1.0	954.4	957.0	959.82
100	13+61.79	37.82	1.0	956.4	959.1	961.92
101	14+36.79	38.25	1.0	957.5	960.3	963.05
102	15+11.79	38.69	1.0	958.6	961.4	964.19
103	15+86.79	39.13	1.0	959.8	962.5	965.32
104	16+61.79	39.57	1.0	960.9	963.7	966.45
105	17+36.02	40.00	1.0	962.0	964.8	967.58
108	17+04.26	40.19	1.0	961.5	964.3	967.10
109	16+41.35	40.55	1.0	960.6	963.4	966.17
110	14+76.26	41.51	1.0	958.1	960.9	963.74
111	14+08.26	41.91	1.0	957.1	959.9	962.70
112	13+45.14	42.28	0.0	956.1	958.0	960.78
113	14+77.55	39.93	3.0	947.6	952.3	955.09
114	14+05.52	39.39	1.0	946.7	949.4	952.22
115	13+33.55	38.86	1.0	945.8	948.5	951.31
116	12+61.55	38.32	1.0	944.9	947.6	950.40
117	11+89.53	37.79	0.0	944.0	945.7	948.51
118	10+74.13	34.31	2.0	941.0	944.6	947.44
119	10+52.17	41.75	1.0	944.8	947.6	950.40
120	10+96.06	43.94	0.0	946.4	948.3	951.09
121	11+76.95	43.13	0.0	947.8	949.7	952.49
122	12+56.94	42.06	0.0	949.2	951.1	953.86
123	13+36.93	40.99	1.0	950.6	953.4	956.22
124	14+18.72	40.12	2.0	952.1	955.8	958.62
125	13+41.67	39.08	1.0	950.7	953.5	956.27
126	12+61.72	38.01	0.0	949.3	951.1	953.87
127	11+82.70	36.95	0.0	947.9	949.7	952.46
128	11+06.22	35.93	0.0	946.6	948.3	951.10

*Basement sewer service may not be available. A pump associated piping located on the interior of the building may need to be provided to lift

Sanitary Sewer Design Information											
Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Existing Cumulative Area	Peak Base Flow	Peak Infiltration Flow	Peak Inflow	Total Peak Flow	Downstream Pipe Mannings N	Downstream Pipe Capacity	Downstream Pipe Full Flow Velocity
	(%)	(in)	(Ac.)	(Ac.)	(gpd)	(gpd)	(cfs)	(cfs)		(cfs)	(fps)
EX M.H. 1-4	0.80%	12	21.54	20.54	63120	21040	1.001	1.131	0.013	3.19	4.06
EX M.H. 1-5	0.80%	12	8.92	18.43	41025	13675	0.697	0.782	0.013	3.19	4.06
EX M.H. 1-6	0.80%	12	3.93	16.92	31275	10425	0.552	0.616	0.013	3.19	4.06
M.H. 1-1	3.28%	8	10.81	0.00	16215	5405	0.309	0.342	0.013	2.19	6.27
M.H. 1-2	1.88%	8	8.73	0.00	13095	4365	0.255	0.282	0.013	1.66	4.75
M.H. 1-3	1.25%	8	5.50	0.00	8250	2750	0.167	0.184	0.013	1.35	3.87
M.H. 1-4	1.10%	8	0.00	0.00	0	0	0.000	0.000	0.013	1.27	3.63
M.H. 2-1	1.30%	8	3.30	0.00	4950	1650	0.104	0.114	0.013	1.38	3.95
M.H. 2-2	1.50%	8	0.00	0.00	0	0	0.000	0.000	0.013	1.48	4.24
M.H. 3-1	3.90%	8	2.91	0.00	4365	1455	0.093	0.102	0.013	2.39	6.84
M.H. 3-2	1.25%	8	0.00	0.00	0	0	0.000	0.000	0.013	1.35	3.87
M.H. 4-1	6.38%	8	2.85	0.00	4275	1425	0.091	0.100	0.013	3.05	8.74
M.H. 4-2	1.75%	8	0.00	0.00	0	0	0.000	0.000	0.013	1.60	4.58

NOTE: NO FUTURE FLOWS ARE ANTICIPATED

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
4/21/21
PROFESSIONAL ENGINEER

DESIGN TABLES
SANITARY SEWER PLANS

HOOK FARMS
SECOND PLAT

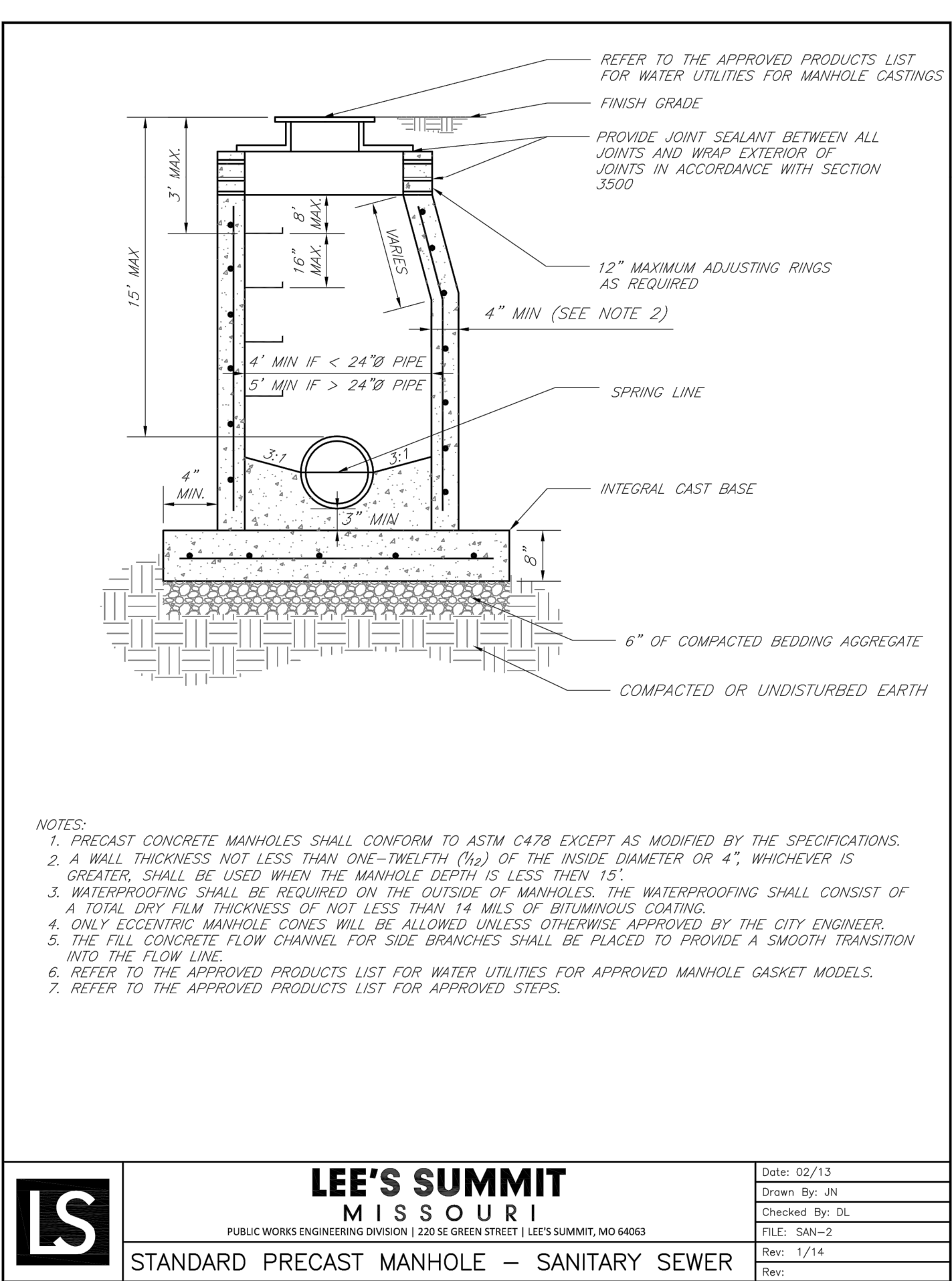
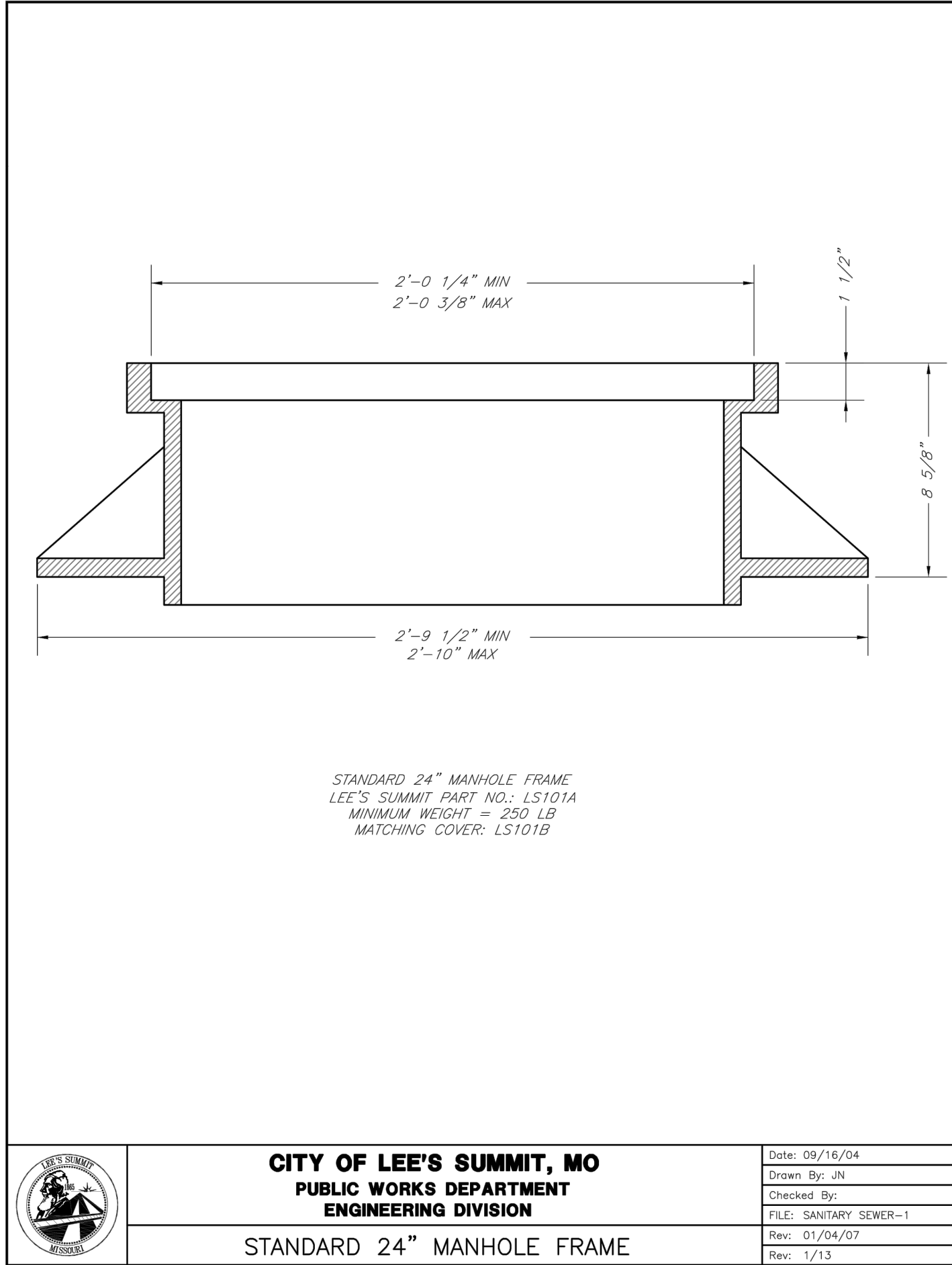
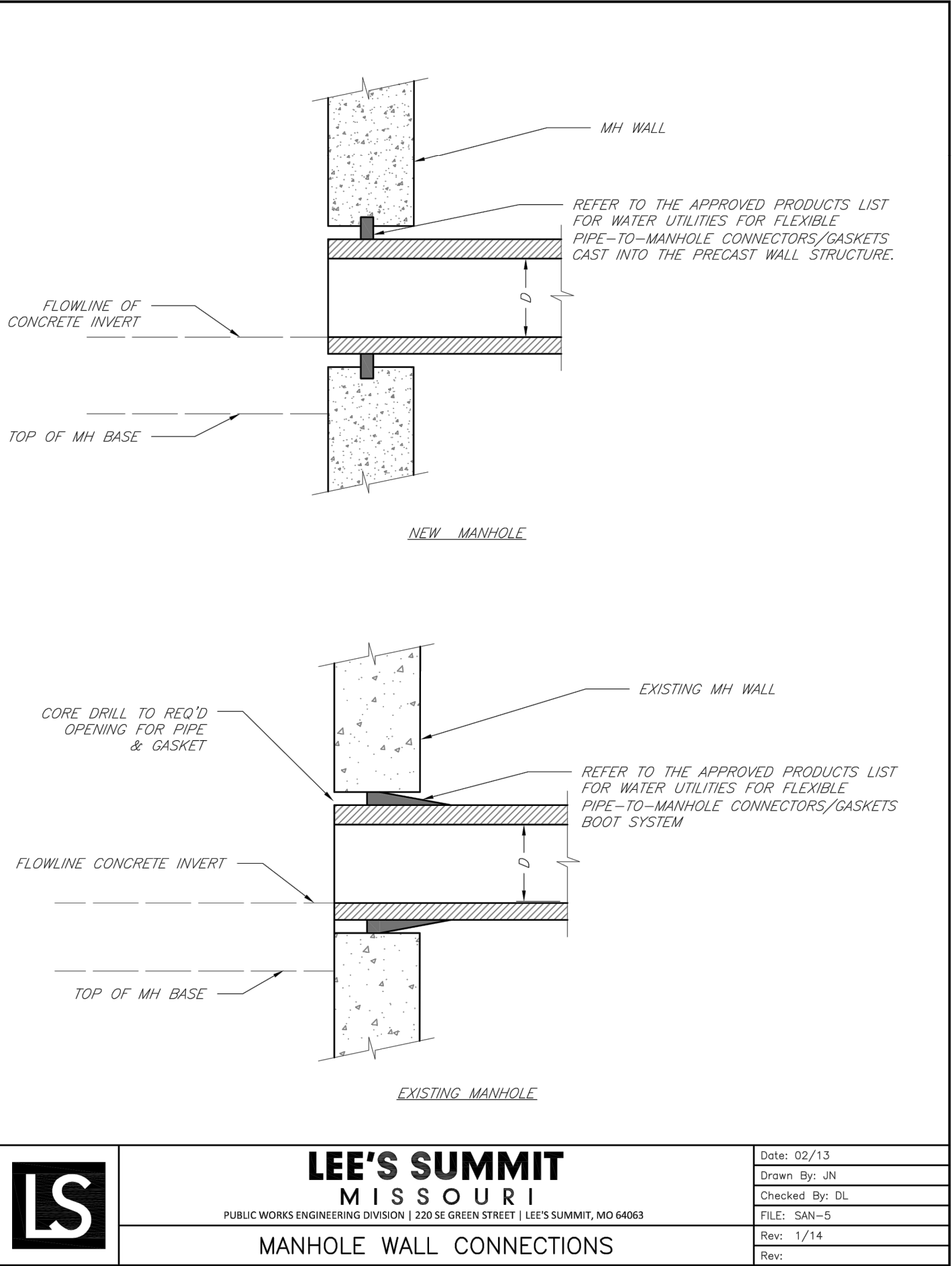
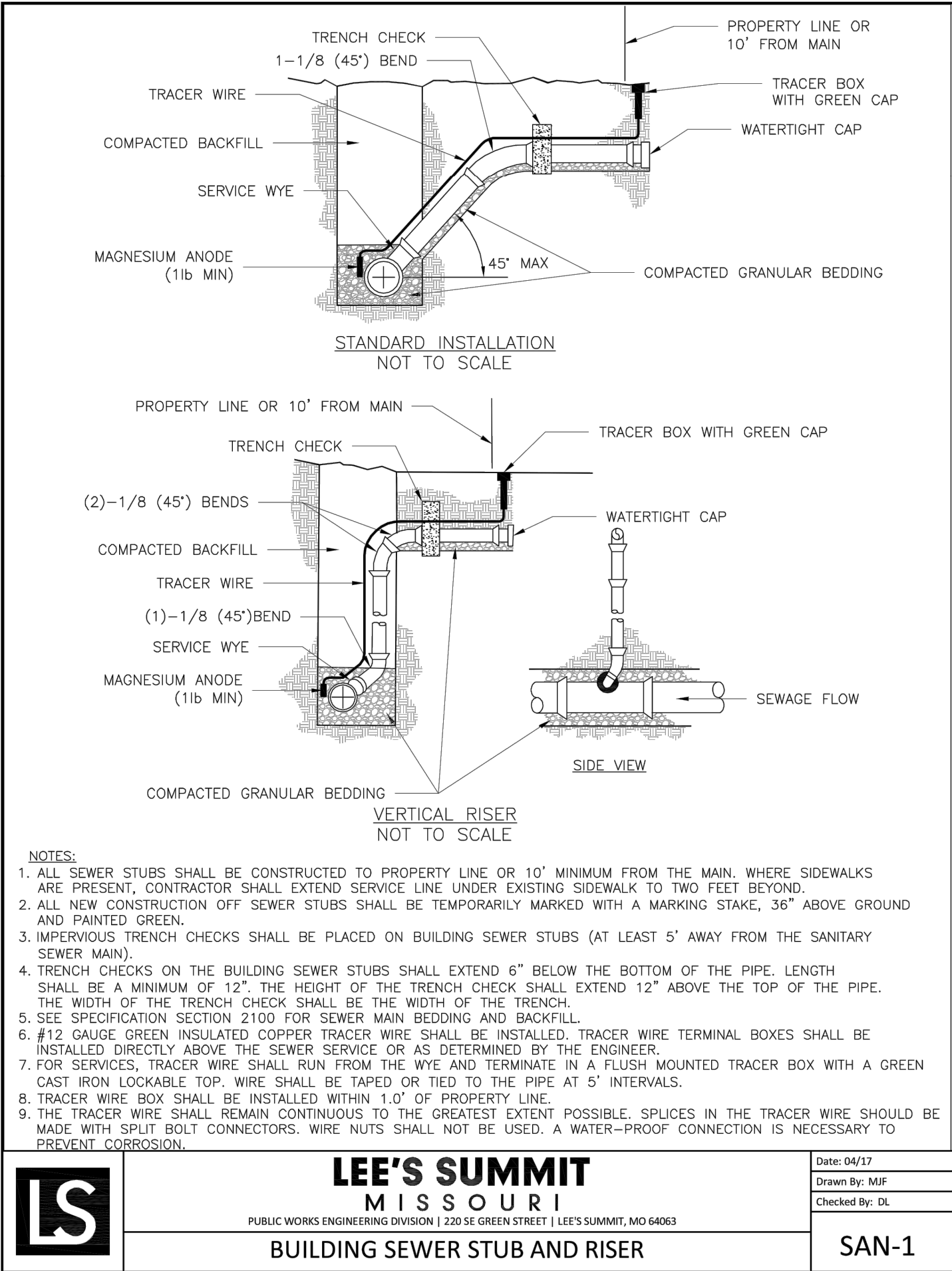
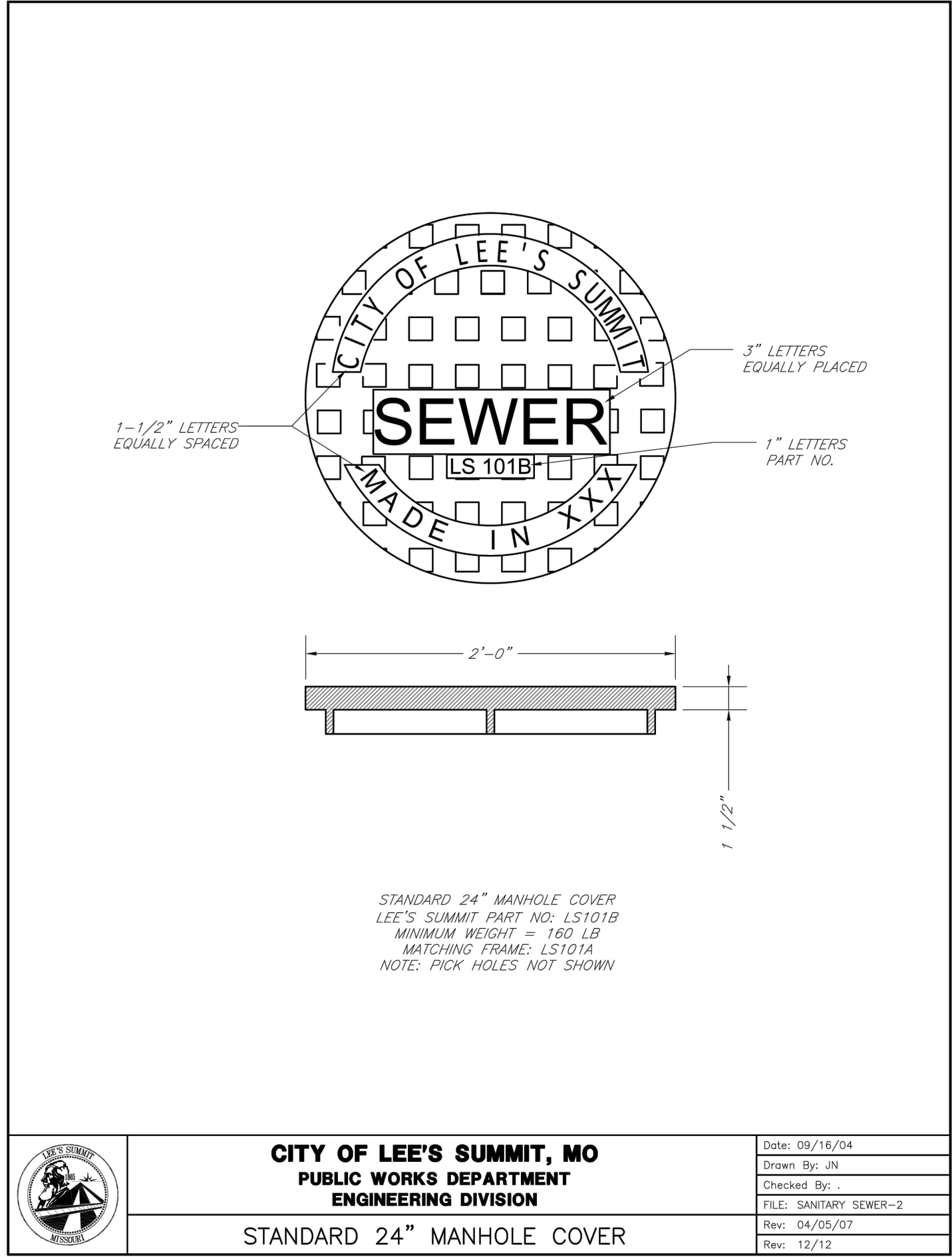
LEE'S SUMMIT, MO

2021

drawn by: B.M.W./A.A.
checked by: B.M.W./
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

REVISIONS

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STATE OF MISSOURI
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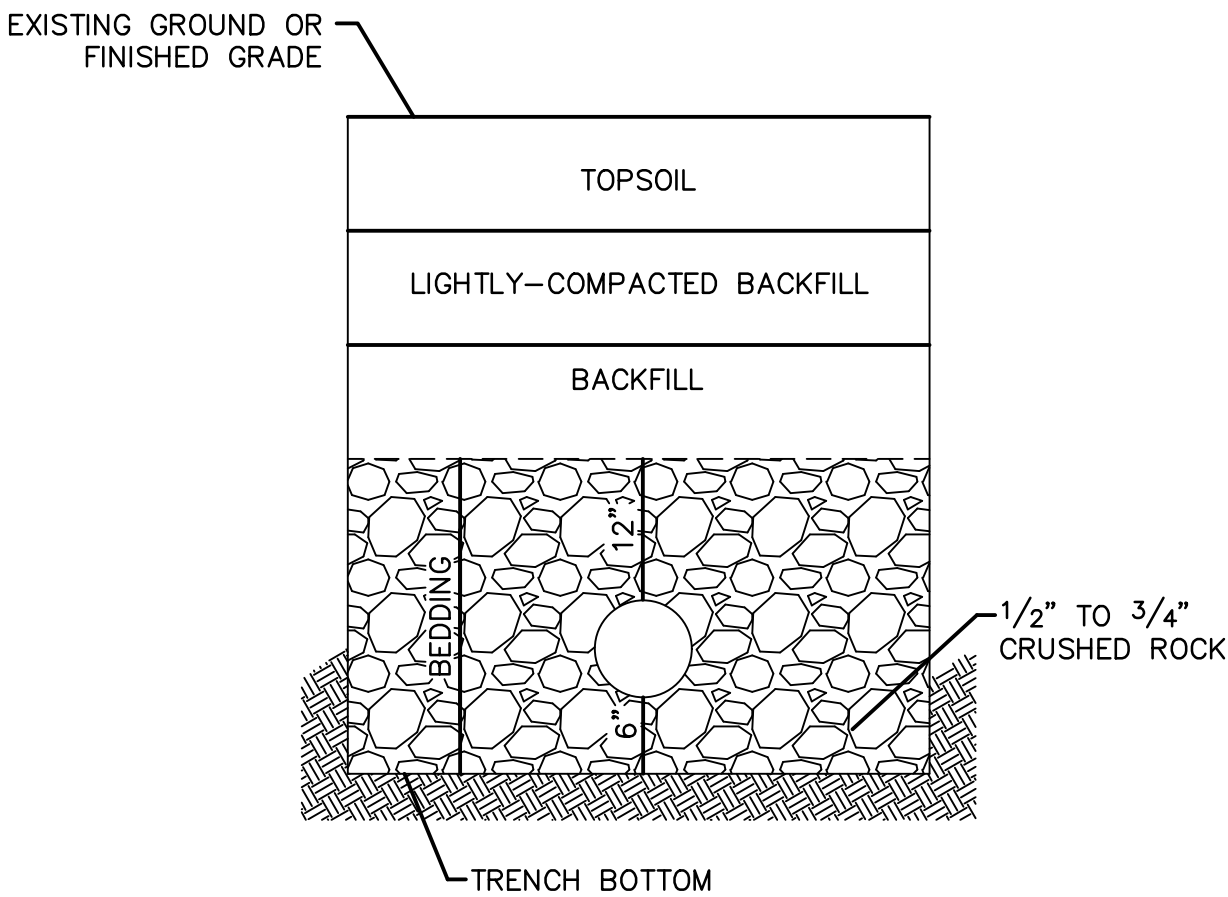
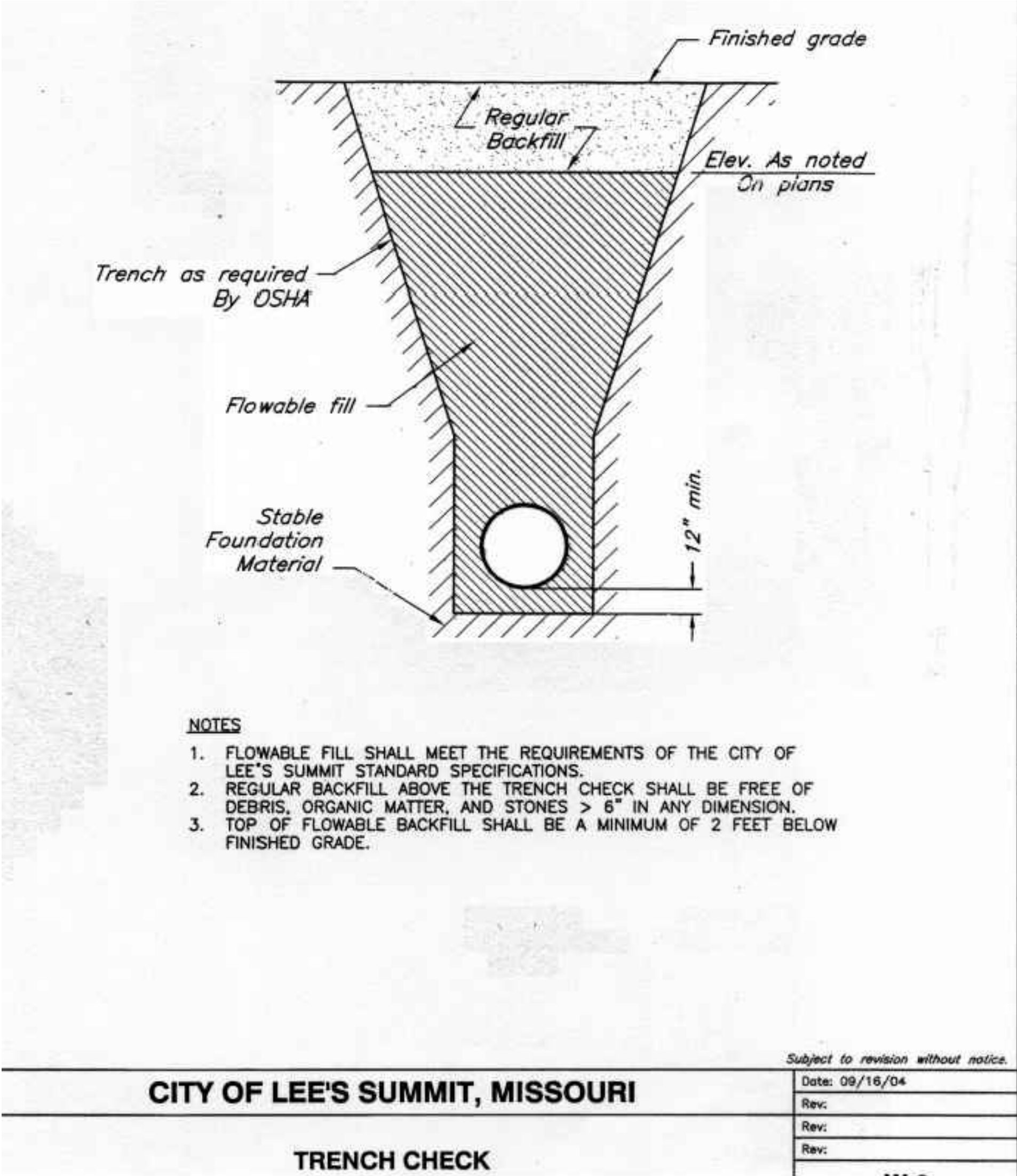
BY
REV. NO. DATE REVISIONS DESCRIPTION
1 03-23-2021 REVISED PER CITY COMMENTS
2 04-16-2021 REVISED PER CITY COMMENTS
2021
2021

DETAIL SHEET
SANITARY SEWER PLANS
HOOK FARMS
SECOND PLAT
LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.
checked by: B.M.W./
designed by: B.M.W./A.A.
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project no.: B19-4061
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DATE: Apr 16, 2021 1:39pm
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USER: bworthley



UNDERGROUND PIPE INSTALLATION FOR SANITARY SEWER

- NOTES:**
1. A MINIMUM OF 36 INCHES OF COVER SHALL BE OVER THE TOP OF THE PIPE. THIS MINIMUM OF COVER SHALL BE FROM THE TOP OF PIPE TO THE FINISHED GRADE.
 2. BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 12 INCHES ABOVE THE TOP OF THE PIPE.
 3. BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
 4. TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
 5. MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.

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DETAIL SHEET SANITARY SEWER PLANS	HOOK FARMS SECOND PLAT	LEE'S SUMMIT, MO	2021	REVISIONS			
				BY	REVISIONS DESCRIPTION	DATE	REV. NO.
					REVISED PER CITY COMMENTS	03-23-2021	1
	REVISED PER CITY COMMENTS	04-16-2021	2				

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
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SHEET
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