

LOCATION MAP  
Sec. 23, Twp. 47 N., Rge. 23 W.  
(N.T.S.)

PROJECT TEAM & UTILITY CONTACT LIST	
<b><u>OWNER / DEVELOPER</u></b> HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.459.4285 FAX: 000.000.0000	<b><u>UTILITY SERVICE NUMBERS</u></b> NAME: DEVELOPMENT SERVICES PHONE: 816-969-1200  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
<b><u>ENGINEER</u></b> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: NAME, P.E. PHONE: 816.299.4341	NAME: SPECTRUM (TWC) PHONE: 877-772-2253  NAME: GOOGLE FIBER PHONE: 877-454-6959
<b><u>SURVEYOR</u></b> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, PLS PHONE: 816.361.1177	

PROPERTY DESCRIPTION:

(AS PROVIDED BY CHICAGO TITLE INSURANCE COMPANY, NOVEMBER 1, 2018)

ALL THAT PART OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89 DEGREES 45 MINUTES 34 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER, 2613.19 FEET TO ITS INTERSECTION WITH THE WEST RIGHT-OF-WAY LINE OF PRYOR ROAD AS NOW ESTABLISHED; THENCE SOUTH 02 DEGREES 45 MINUTES 31 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 2520.50 FEET; THENCE SOUTH 47 DEGREES 23 MINUTES 30 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 135.21 FEET TO ITS INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF HOOK ROAD, AS NOW ESTABLISHED; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 2264.70 FEET; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 10.00 FEET; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 252.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHEAST QUARTER; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST ALONG SAID WEST LINE, 2615.22 FEET TO THE POINT OF BEGINNING.

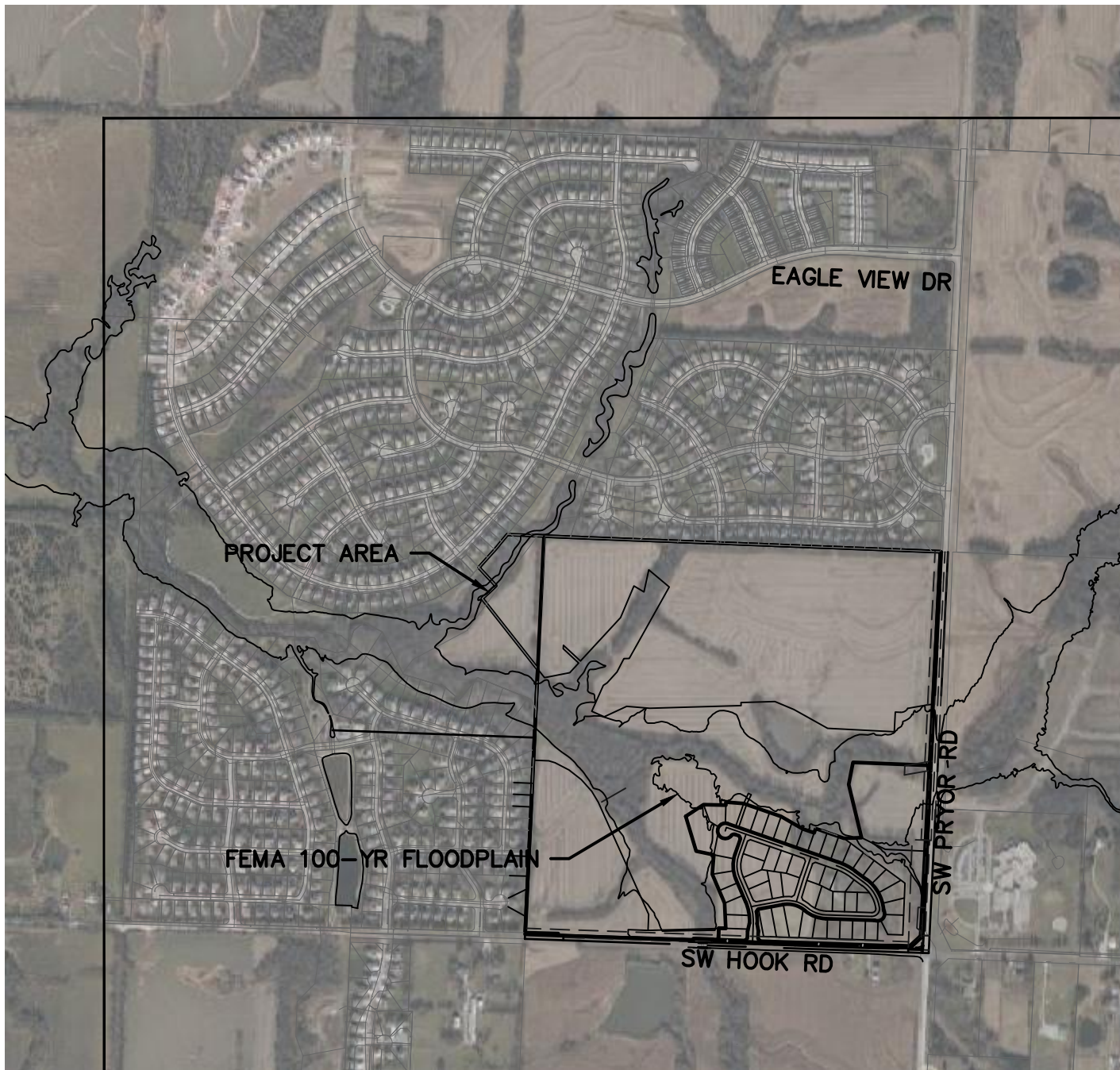
ALSO,

ALL THAT PART OF THE FOLLOWING DESCRIBED PROPERTY IN THE NORTHEAST ¼ OF THE SOUTHWEST ¼ OF SECTION 23, TOWNSHIP 47, RANGE 32, LYING NORTH OF EAGLE CREEK GREENWAY, A SUBDIVISION, ALL IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, TO-WIT:

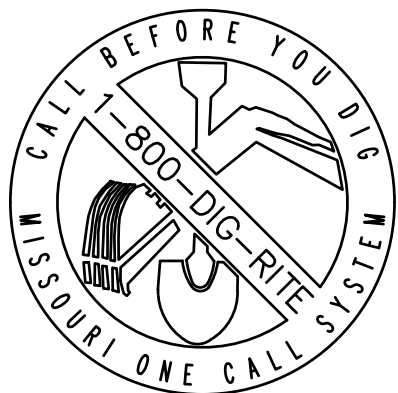
THE SOUTH ONE HALF OF THE NORTHEAST QUARTER AND THE SOUTH ONE-HALF OF THE NORTHWEST QUARTER AND ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI, BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER, THENCE NORTH 2 DEGREES 36 MINUTES 10 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER 1330.50 FEET TO THE NORTHWEST CORNER OF THE SOUTH ONE-HALF OF SAID NORTHWEST QUARTER, THENCE SOUTH 87 DEGREES 40 MINUTES 35 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF 2657.85 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF, THENCE SOUTH 87 DEGREES 41 MINUTES 31 SECONDS EAST ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF SAID NORTHEAST QUARTER 2654.44 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF; THENCE SOUTH 2 DEGREES 46 MINUTES 08 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER 1323.83 FEET TO THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 87 DEGREES 45 MINUTES 23 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER, 2653.42 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE SOUTH 2 DEGREES 43 MINUTES 24 SECONDS WEST, (DEED-SOUTH 2 DEGREES 41 MINUTES 49 SECONDS WEST), ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, 1138.42 FEET TO THE CENTERLINE OF MOUSE CREEK, AS NOW ESTABLISHED; THENCE NORTH 25 DEGREES 51 MINUTES 18 WEST (DEED-NORTH 25 DEGREES 52 MINUTES 53 WEST), ALONG SAID CENTERLINE, 73.83 FEET; THENCE NORTH 67 DEGREES 53 MINUTES 09 SECONDS WEST (DEED-NORTH 67 DEGREES 54 MINUTES 44 SECONDS WEST), ALONG SAID CENTERLINE, 379.20 FEET; THENCE SOUTH 39 DEGREES 00 MINUTES 27 SECONDS WEST (DEED-SOUTH 38 DEGREES 58 MINUTES 52 SECONDS WEST), ALONG SAID CENTERLINE, 187.72 FEET; THENCE NORTH 48 DEGREES 37 MINUTES 07 SECONDS WEST (DEED-NORTH 48 DEGREES 38 MINUTES 42 SECONDS WEST), ALONG SAID CENTERLINE, 131.31 FEET; THENCE NORTH 73 DEGREES 28 MINUTES 23 SECONDS WEST (DEED-NORTH 73 DEGREES 29 MINUTES 58 SECONDS WEST), ALONG SAID CENTERLINE, 279.90 FEET THENCE NORTH 26 DEGREES 34 MINUTES 47 SECONDS WEST (DEED-NORTH 26 DEGREES 36 MINUTES 22 SECONDS WEST), ALONG SAID CENTERLINE, 312.25 FEET; THENCE NORTH 62 DEGREES 29 MINUTES 46 SECONDS WEST (DEED-NORTH 62 DEGREES 31 MINUTES 21 SECONDS WEST), ALONG SAID CENTERLINE, 134.47 FEET; THENCE SOUTH 52 DEGREES 10 MINUTES 15 SECONDS WEST (DEED-SOUTH 52 DEGREES 08 MINUTES 40 SECONDS WEST), ALONG SAID CENTERLINE, 85.16 FEET; THENCE SOUTH 19 DEGREES 37 MINUTES 09 SECONDS WEST (DEED-SOUTH 19 DEGREES 35 MINUTES 34 SECONDS WEST), ALONG SAID CENTERLINE, 142.83 FEET; THENCE SOUTH 79 DEGREES 21 MINUTES 39 SECONDS WEST (DEED-SOUTH 79 DEGREES 20 MINUTES 04 SECONDS WEST), ALONG SAID CENTERLINE, 68.92 FEET; THENCE NORTH 73 DEGREES 27 MINUTES 48 SECONDS WEST (DEED-NORTH 73 DEGREES 29 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 114.02 FEET; THENCE NORTH 25 DEGREES 46 MINUTES 28 SECONDS WEST (DEED-NORTH 25 DEGREES 48 MINUTES 03 SECONDS WEST), ALONG SAID CENTERLINE, 73.12 FEET; THENCE NORTH 87 DEGREES 30 MINUTES 19 SECONDS WEST (DEED-NORTH 87 DEGREES 31 MINUTES 54 SECONDS WEST), ALONG SAID CENTERLINE, 473.33 FEET; THENCE NORTH 49 DEGREES 45 MINUTES 48 SECONDS WEST (DEED-NORTH 49 DEGREES 47 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 343.23 FEET; THENCE NORTH 56 DEGREES 22 MINUTES 25 SECONDS WEST (DEED-NORTH 56 DEGREES 24 MINUTES 00 SECONDS WEST), ALONG SAID CENTERLINE, 277.94 FEET; THENCE NORTH 65 DEGREES 42 MINUTES 49 SECONDS WEST (DEED-NORTH 65 DEGREES 44 MINUTES 24 SECONDS WEST), ALONG SAID CENTERLINE, 182.37 FEET; THENCE NORTH 22 DEGREES 55 MINUTES 55 SECONDS WEST (DEED-NORTH 22 DEGREES 57 MINUTES 30 SECONDS WEST), ALONG SAID CENTERLINE, 65.99 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 22 DEGREES 36 MINUTES 17 SECONDS EAST (DEED-NORTH 22 DEGREES 34 MINUTES 42 SECONDS EAST), ALONG SAID WEST LINE, 239.42 FEET TO THE POINT OF BEGINNING.

(SHOWN FOR CONVENIENCE IN REPORTING.)



Sheet List Table		
Page Number	Sheet Number	Sheet Title
27	C200	COVER SHEET
28	C201	GENERAL NOTES
29	C202	GENERAL LAYOUT
30	C203	SANITARY SEWER PLAN & PROFILE
31	C204	SANITARY SEWER PLAN & PROFILE
32	C205	SANITARY SEWER PLAN & PROFILE
33	C206	SANITARY SEWER TABLES
34	C207	SANITARY SEWER DETAILS



**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

09/15/2020

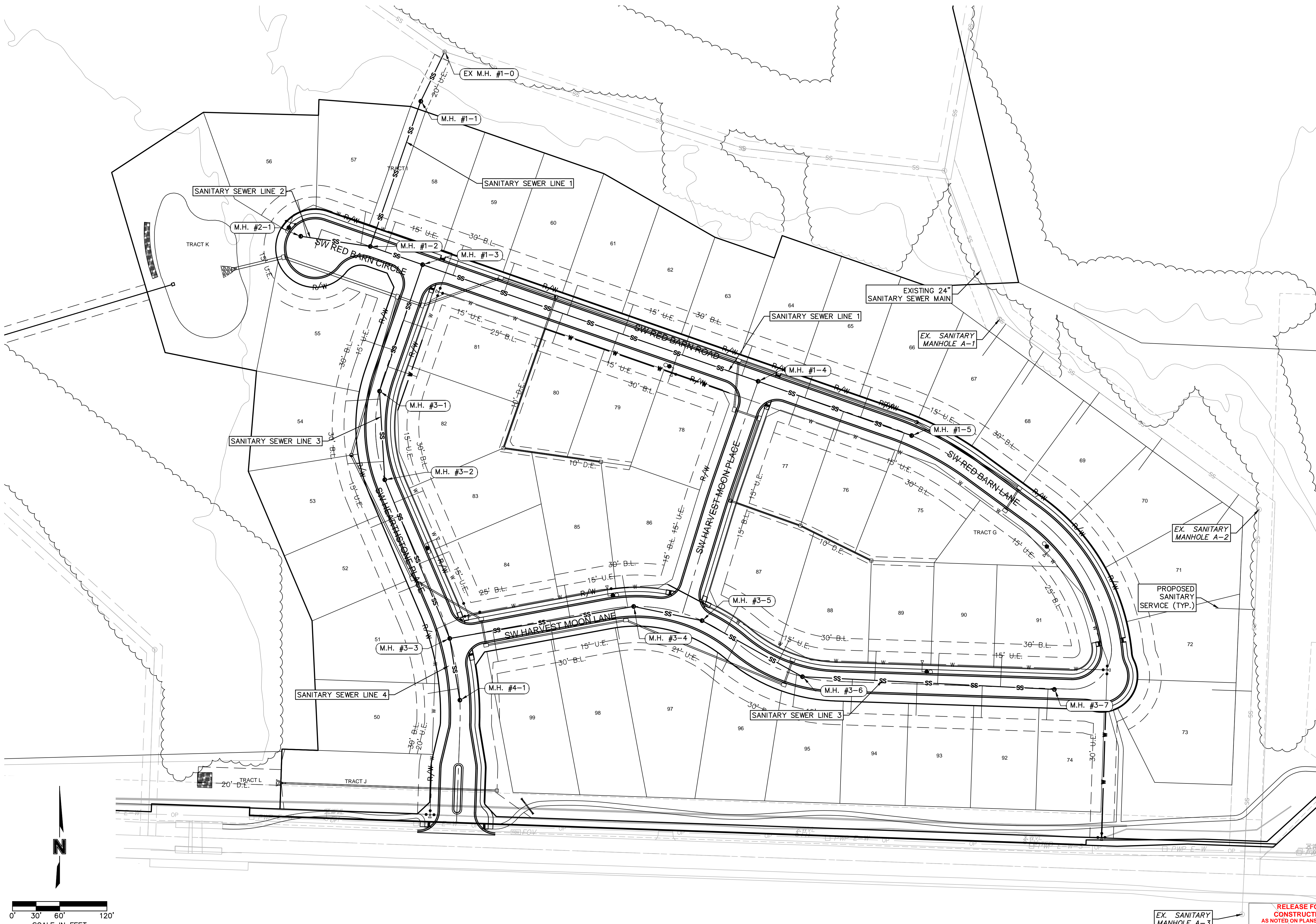
COVER SHEET SANITARY SEWER PLANS				REV. NO. 1 DATE 7/17/2020 REVISIONS DESCRIPTION CITY COMMENTS	BY
THE RETREAT AT HOOK FARMS CONSTRUCTION DOCUMENTS				2020	REVISIONS
drawn by: _____ checked by: _____ designed by: _____ QA/QC by: _____ project no.: 019-4059 drawing no.: C_TTL00_0194059 date: 4/20/2020				EM EM RB NH 019-4059 C_TTL00_0194059 4/20/2020	
SHEET		C200			







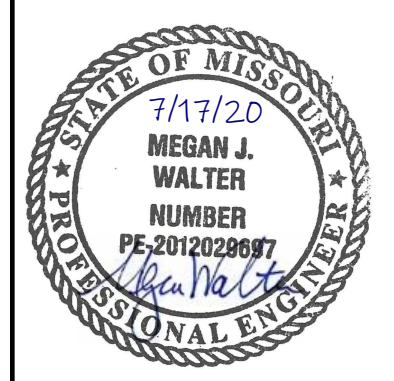
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USER: emorton



EX. SANITARY  
MANHOLE A-3

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09/15/2020**

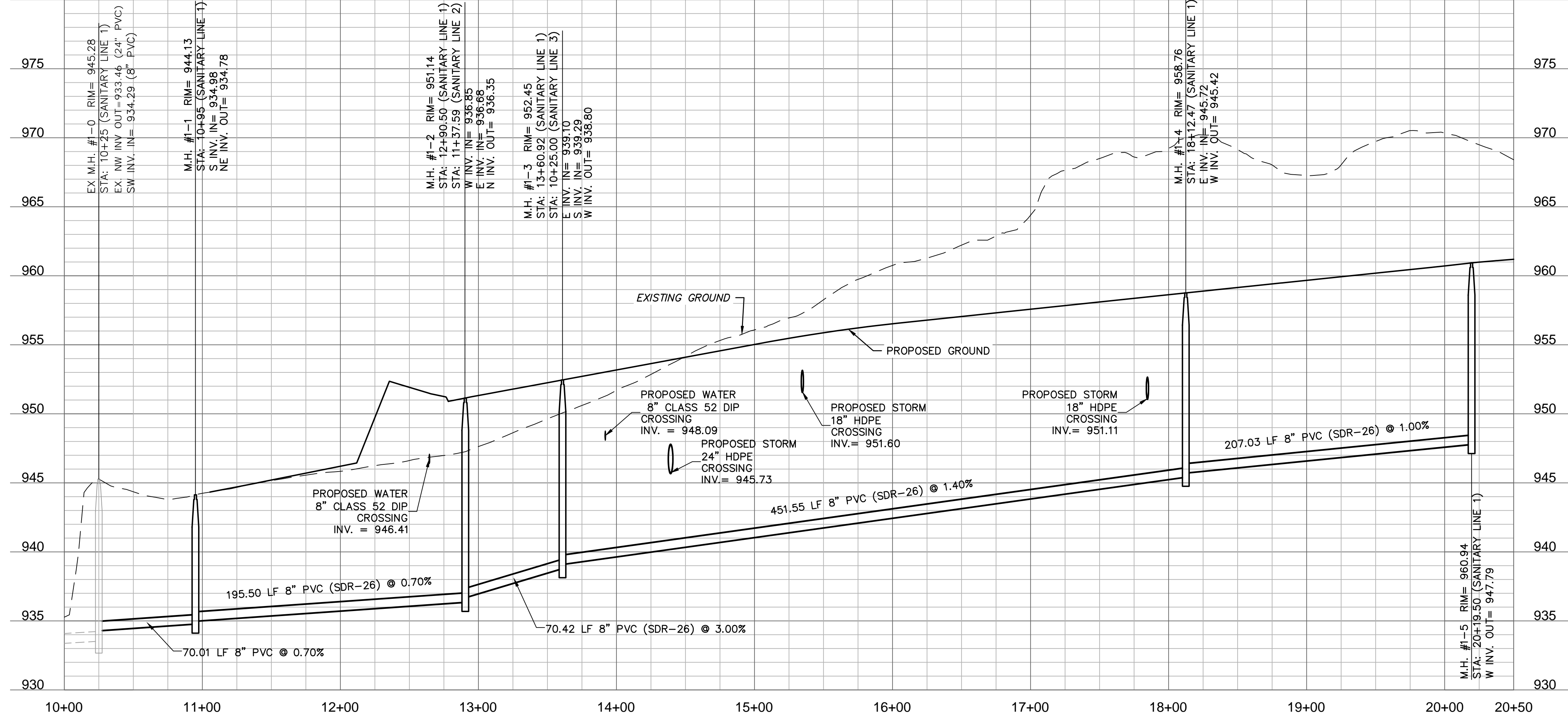
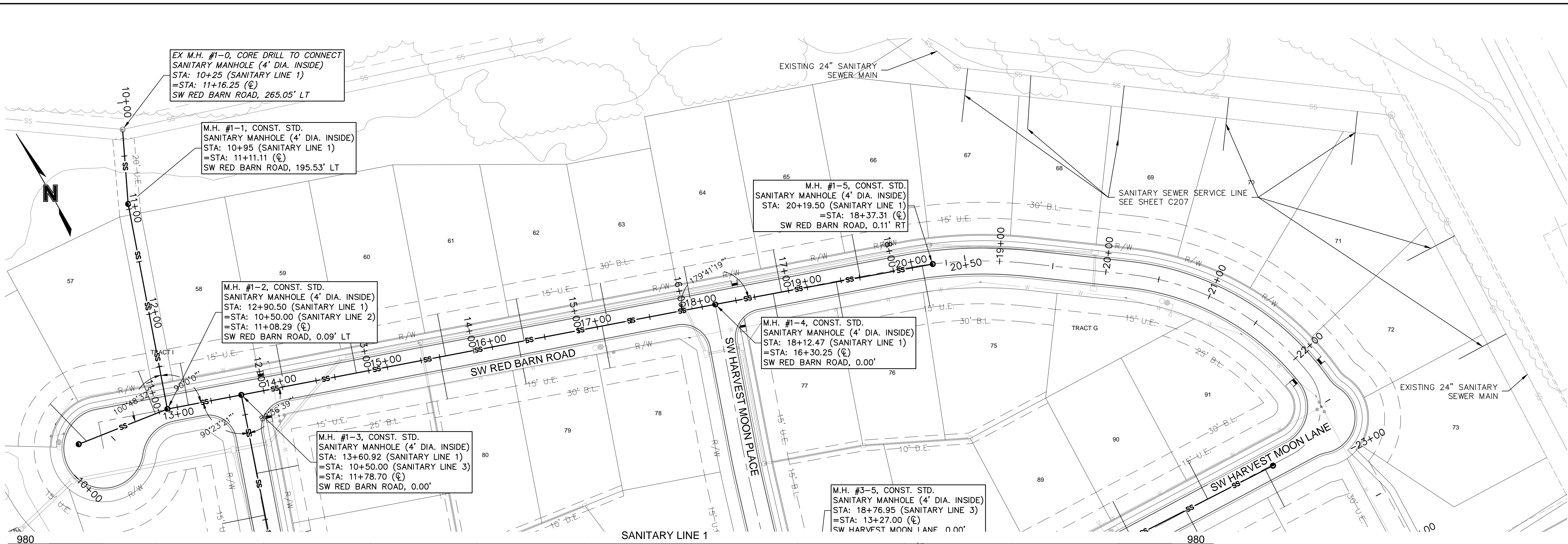
GENERAL LAYOUT  SANITARY SEWER PLANS  THE RETREAT AT HOOK FARMS  CONSTRUCTION DOCUMENTS	LEE'S SUMMIT, MO	2020
	<div> <div> drawn by: _____ EM  checked by: _____ EM  designed by: _____ RB  QA/QC by: _____ NH </div> <div> project no.: _____ 019-4059  drawing no.: C_SAN01_0194059  date: 4/20/2020 </div> </div>	
SHEET	C202	

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**olsson**



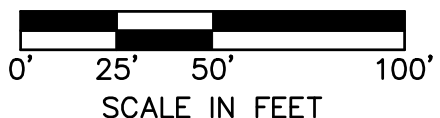
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NOTES:

- CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 36" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
- 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.
- REFER TO SHEET C206 FOR SANITARY DESIGN AND LATERAL INSTALLATION DETAILS.
- MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2'0" TO AVOID PIPE JOINT.
- SANITARY LATERALS ARE DESIGNED @2.00% SLOPE. IF RISER IS INDICATED, IT IS TO BE AT THE SANITARY MAIN UNLESS OTHERWISE NOTED.
- TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD LEE'S SUMMIT TRENCH CHECK DETAIL (SEE SHEET C207) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

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LEE'S SUMMIT, MISSOURI  
09/15/2020



1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
FAX 816.361.1888  
www.olson.com

7/17/20  
MEGAN J. WALTER  
NUMBER  
PE-201202887  
Professional Engineer

BY	REVISIONS DESCRIPTION	DATE	REV. NO.	CITY COMMENTS
		7/17/2020	1	

SANITARY SEWER PLAN & PROFILE  
SANITARY SEWER PLANS  
THE RETREAT AT HOOK FARMS  
CONSTRUCTION DOCUMENTS

2020  
LEE'S SUMMIT, MO

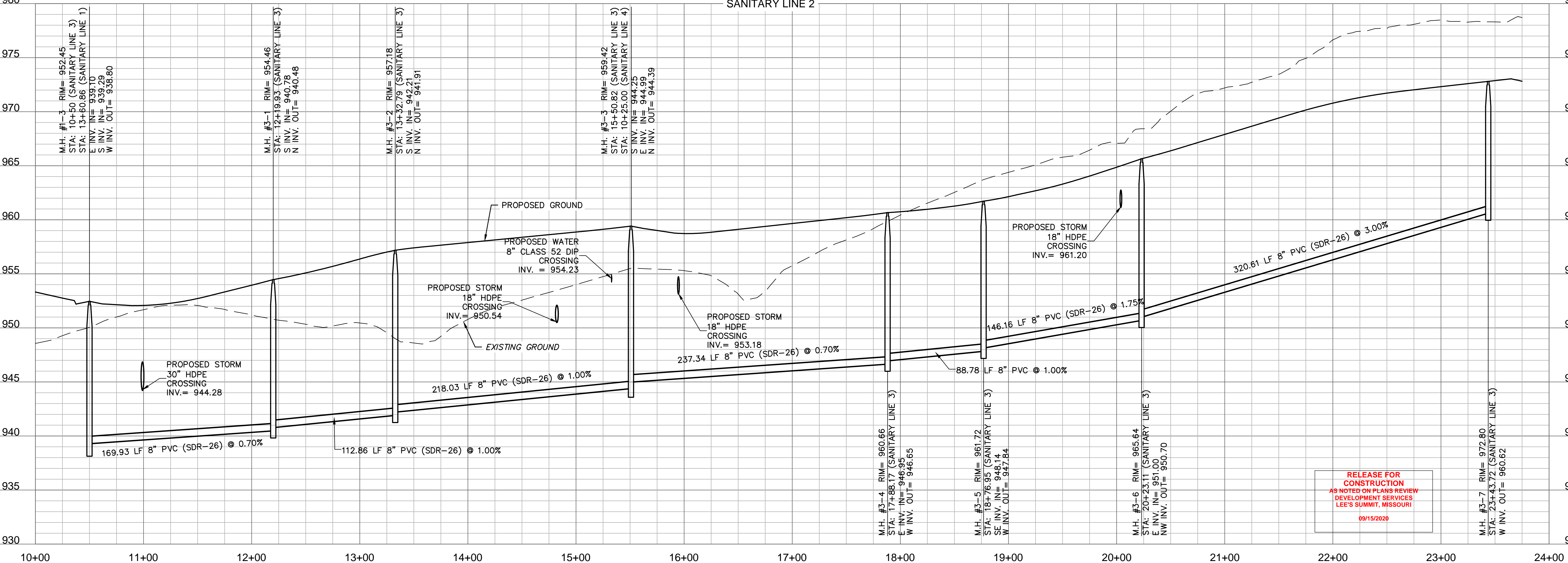
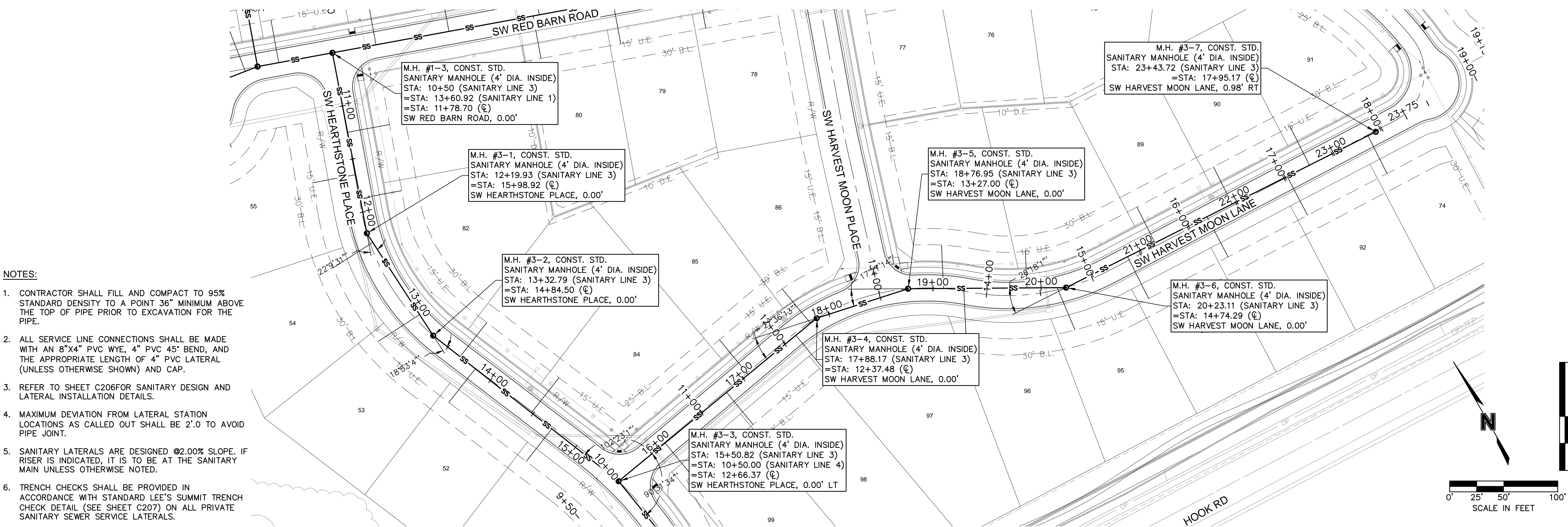
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checked by: EM  
designed by: RB  
QA/QC by: NH  
project no.: 019-4059  
drawing no.: C\_SAN02\_0194059  
date: 4/20/2020

SHEET C203









RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/15/2020

olsson

1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
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STATE OF MISSOURI  
7/17/20  
MEGAN J. WALTER  
NUMBER  
PE-2012022887  
Professional Engineer

BY  
DATE  
REV. NO.  
1  
7/17/2020  
CITY COMMENTS

REVISIONS  
2020

SANITARY SEWER PLAN & PROFILE  
SANITARY SEWER PLANS  
THE RETREAT AT HOOK FARMS  
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LEE'S SUMMIT, MO

drawn by: EM  
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drawing no.: C\_SAN02\_0194059  
date: 4/20/2020

SHEET C205



Sanitary Sewer Laterals							
Lot Number	Lateral Station	Upstream Manhole	Lateral Length	Riser	Flowline at Main	Flowline at End of Lateral	Minimum Serviceable Floor Elevation
			(ft)	(ft)	(ft)	(ft)	(ft)
50	11+14.62	MH 4-1	38.74	1.0	945.2	947.9	950.72
51	14+72.29	MH 3-3	38.36	1.0	943.6	946.4	949.16
52	13+82.30	MH 3-3	39.63	1.0	942.7	945.5	948.29
53	13+09.56	MH 3-2	45.82	1.0	941.7	944.6	947.38
54	12+29.93	MH 3-2	43.57	2.0	940.9	944.7	947.52
55	11+64.73	MH 3-1	40.44	0.0	940.1	941.9	944.71
56	11+31.45	MH 2-1	48.61	0.0	937.7	939.6	942.44
57	10+62.14	MH 2-1	43.04	1.0	937.0	939.8	942.61
58	13+10.50	MH 1-3	40.00	2.0	937.3	941.0	943.85
59	14+01.92	MH 1-4	40.00	1.0	939.7	942.5	945.25
60	14+70.50	MH 1-4	40.00	1.0	940.6	943.4	946.21
61	15+55.50	MH 1-4	40.00	1.0	941.8	944.6	947.40
62	16+30.50	MH 1-4	40.00	1.0	942.9	945.7	948.45
63	17+10.50	MH 1-4	40.00	1.0	944.0	946.8	949.57
64	17+90.50	MH 1-4	40.00	1.0	945.1	947.9	950.69
65	18+75.50	MH 1-5	40.35	0.0	946.4	948.2	950.96
66	19+50.50	MH 1-5	40.76	0.0	947.1	948.9	951.72
67	2+10.96	MH A-2	50.00	6.0	942.6	950.5	953.26
68	2+70.47	MH A-2	50.00	6.0	943.2	951.1	953.85
69	3+58.30	MH A-2	50.00	6.0	944.1	951.9	954.73
70	4+56.96	MH A-2	50.00	8.0	945.0	954.9	957.68
71	5+77.95	MH A-2	50.00	10.6	946.2	958.0	960.85
72	7+30.73	MH A-3	50.00	10.0	948.7	960.5	963.26
73	8+34.44	MH A-3	50.00	11.0	950.3	963.0	965.84
74	23+35.72	MH 3-7	50.00	2.0	960.4	964.3	967.14
75	20+09.52	MH 1-5	39.03	1.0	947.7	950.5	953.25
76	19+27.69	MH 1-5	39.37	0.0	946.9	948.7	951.46
77	18+67.69	MH 1-5	39.70	0.0	946.3	948.1	950.87
78	17+04.69	MH 1-4	40.00	1.0	943.9	946.7	949.49
79	16+24.69	MH 1-4	40.00	2.0	942.8	946.6	949.35
80	15+49.69	MH 1-4	40.00	2.0	941.7	945.5	948.30
81	11+24.82	MH 3-1	39.56	0.0	940.8	941.6	944.41
82	11+87.00	MH 3-1	39.07	2.0	941.3	944.0	946.80
83	13+64.30	MH 3-3	40.12	2.0	943.5	946.3	949.10
84	14+48.30	MH 3-3	41.31	2.0	944.4	947.2	949.96
85	17+06.49	MH 3-4	41.77	1.0	947.1	948.9	951.70
86	17+80.73	MH 3-4	41.23	1.0	947.6	949.4	952.21
87	19+09.80	MH 3-6	40.22	1.0	949.7	951.5	954.31
88	19+87.03	MH 3-6	33.75	3.0	951.1	954.7	957.49
89	21+15.12	MH 3-7	37.12	3.0	954.8	958.4	961.25
90	21+95.11	MH 3-7	38.47	2.0	957.2	959.9	962.69
91	22+75.10	MH 3-7	39.82	1.0	959.6	961.3	964.14
92	22+52.02	MH 3-7	40.57	1.0	958.9	960.7	963.46
93	21+69.01	MH 3-7	41.98	2.0	956.4	959.2	961.98
94	20+86.75	MH 3-7	43.38	2.0	953.9	956.7	959.54
95	20+14.86	MH 3-6	42.49	3.0	951.6	955.4	958.15
96	19+28.45	MH 3-6	43.56	2.0	950.0	952.9	955.68
97	17+62.78	MH 3-4	37.75	2.0	947.5	950.2	953.00
98	16+79.77	MH 3-4	38.53	1.0	946.9	948.7	951.45
99	16+06.06	MH 3-4	39.37	1.0	946.4	948.2	950.95

FOR SERVICES TO LOTS 67-74:  
CONTRACTOR TO VERIFY ELEVATION OF EXISTING SANITARY SEWER MAIN AND  
CONSTRUCT 6" SANITARY SERVICE @ 2.00% THAT EXTENDS 30 FEET INTO LOT PER  
DETAIL SAN-1 ON SHEET C207. REFERENCE TABLE ABOVE FOR APPROXIMATE  
INVERT ELEVATIONS AND RISER LENGTHS.

Sanitary Sewer Design Information										
Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Future Cumulative Area	Minimum Hourly Peak Design Flow	Proposed Cumulative Peak Flows	Future Cumulative Peak Flows	Downstream Pipe Mannings N	Downstream Pipe Capacity	Downstream Pipe Full Flow Velocity
	(%)	(in)	(Ac.)	(Ac.)	(cfs/ac)	(cfs)	(cfs)		(cfs)	(fps)
EX MH 1-0	2.00%	8	12.33	0.00	0.02	0.234	0.234	0.014	1.59	4.55
MH 1-1	0.70%	8	12.33	0.00	0.02	0.234	0.234	0.014	0.94	2.69
MH 1-2	0.70%	8	12.33	0.00	0.02	0.234	0.234	0.014	0.94	2.69
MH 1-3	3.00%	8	11.25	0.00	0.02	0.214	0.214	0.014	1.94	5.57
MH 1-4	1.40%	8	1.77	0.00	0.02	0.034	0.034	0.014	1.33	3.80
MH 1-5	1.00%	8	0.00	0.00	0.02	0.000	0.000	0.014	1.12	3.21
MH 2-1	1.00%	8	0.00	0.00	0.02	0.000	0.000	0.014	1.12	3.21
MH 3-1	0.70%	8	4.90	0.00	0.02	0.093	0.093	0.014	0.94	2.69
MH 3-2	1.00%	8	4.19	0.00	0.02	0.080	0.080	0.014	1.12	3.21
MH 3-3	1.00%	8	2.64	0.00	0.02	0.050	0.050	0.014	1.12	3.21
MH 3-4	0.70%	8	0.00	0.00	0.02	0.000	0.000	0.014	0.94	2.69
MH 3-5	1.00%	8	2.37	0.00	0.02	0.045	0.045	0.014	1.12	3.21
MH 3-6	1.75%	8	0.00	0.00	0.02	0.000	0.000	0.014	1.48	4.25
MH 4-1	0.70%	8	0.00	0.00	0.02	0.000	0.000	0.014	0.94	2.69
MH A-1	0.52%	24	2.43	0.00	0.02	0.046	0.046	0.014	15.15	4.82
MH A-2	1.00%	24	2.43	0.00	0.02	0.046	0.046	0.014	21.01	6.69
MH A-3	1.54%	24	0.73	0.00	0.02	0.014	0.014	0.014	26.07	8.30
*Sanitary lines in <i>Italics</i> are existing										

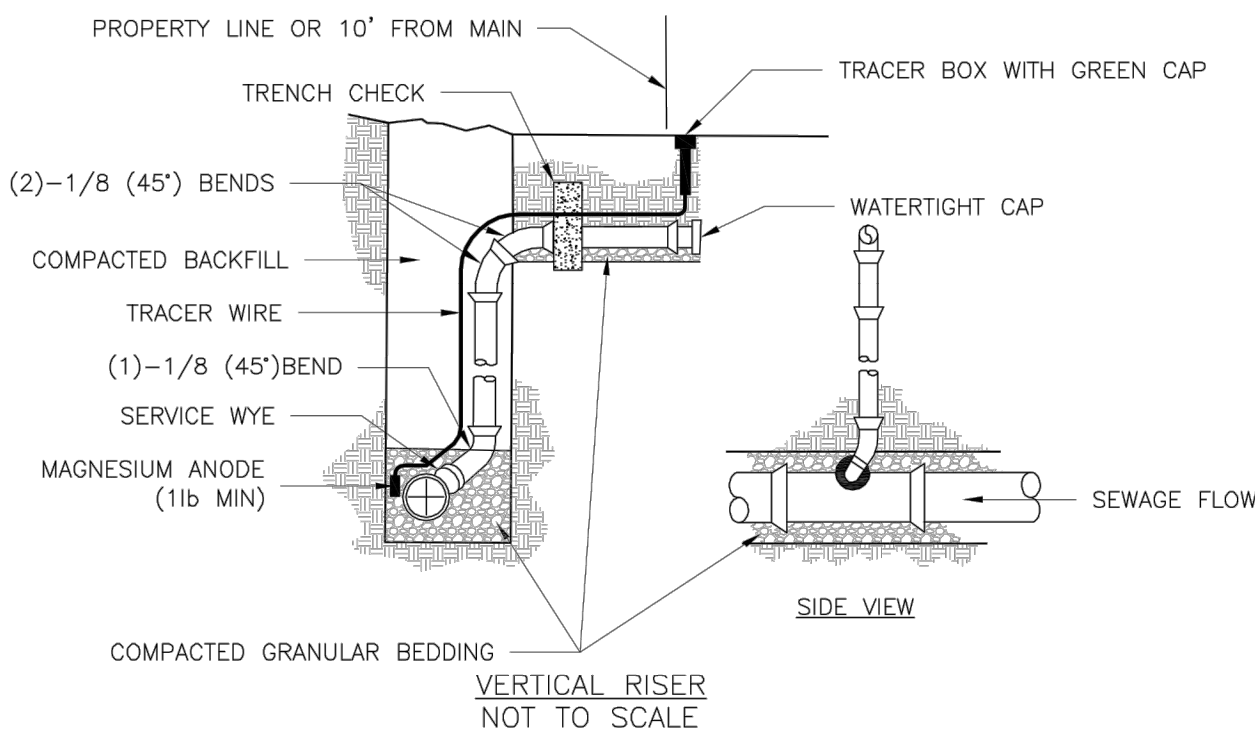
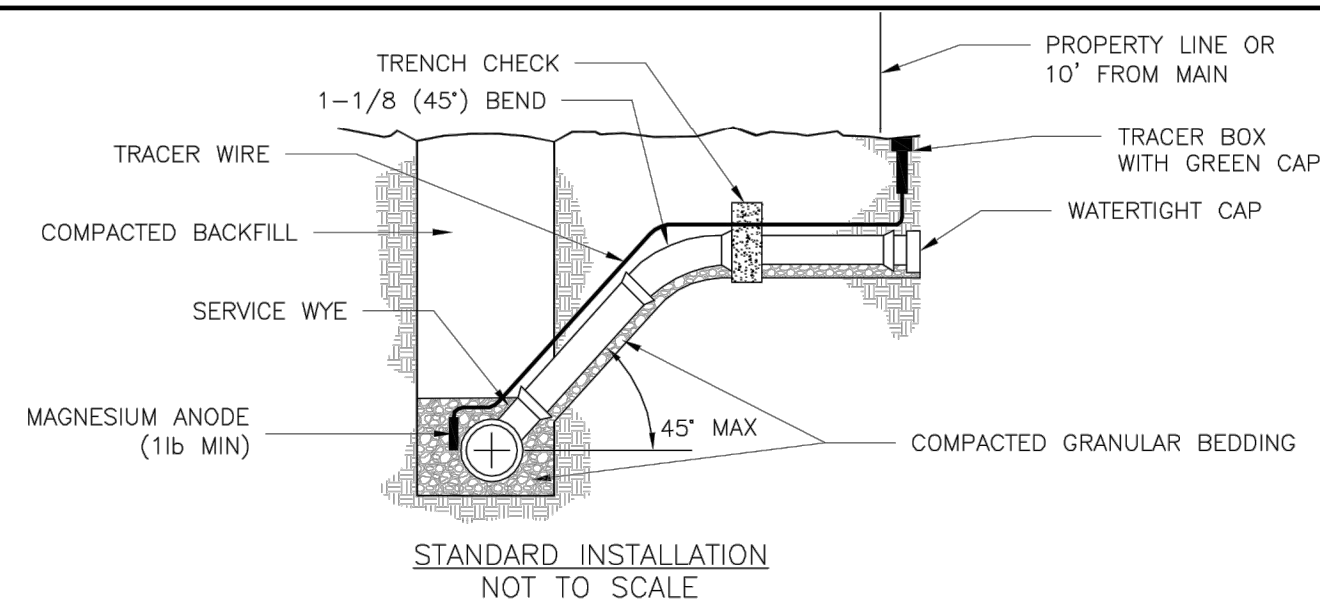
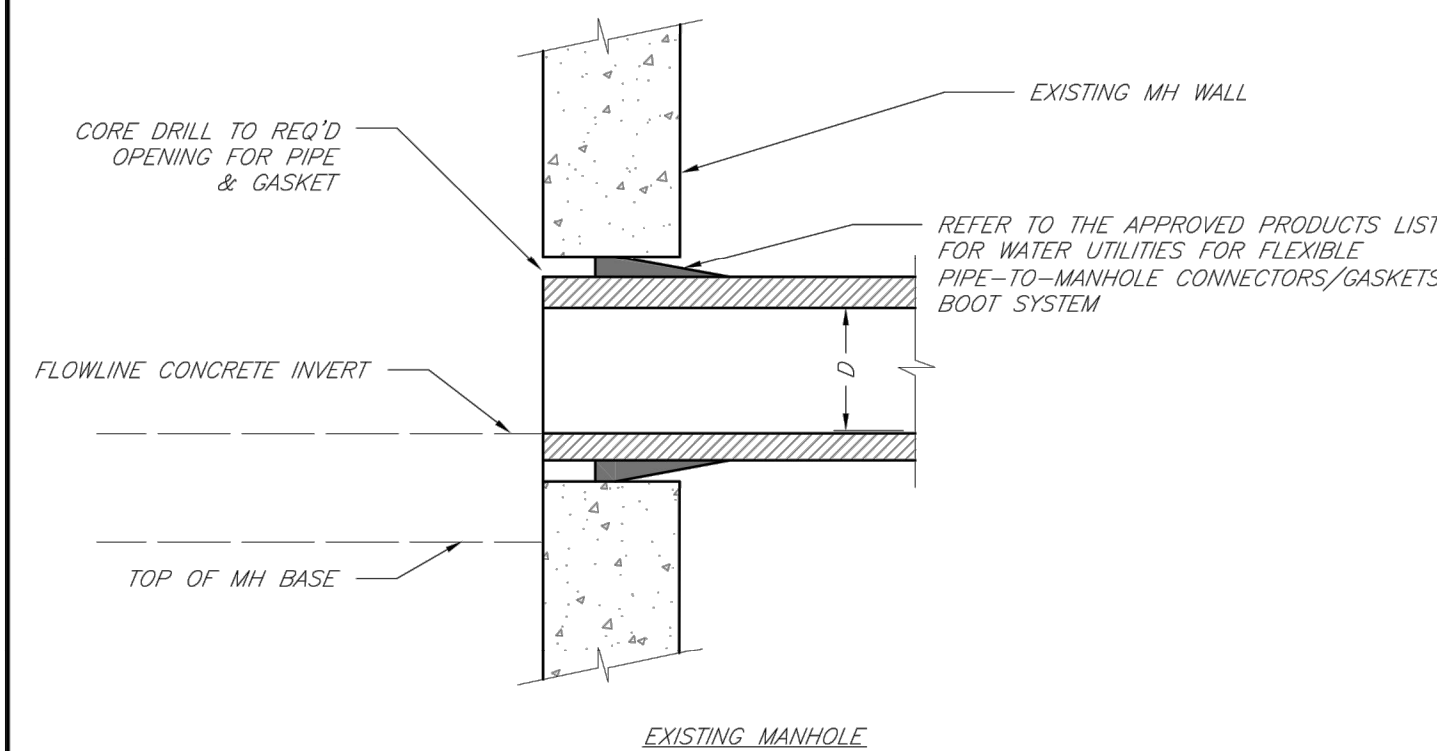
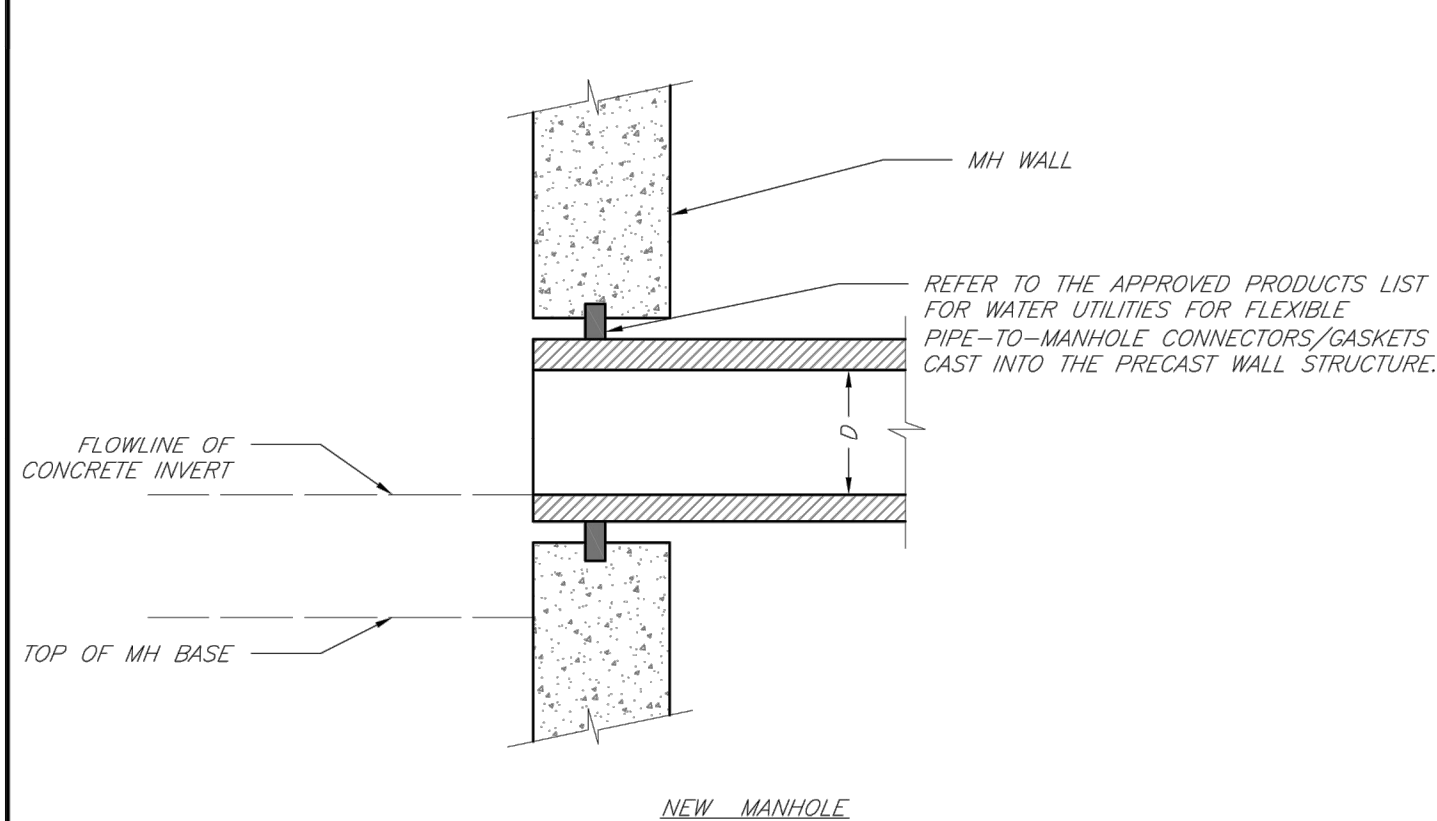
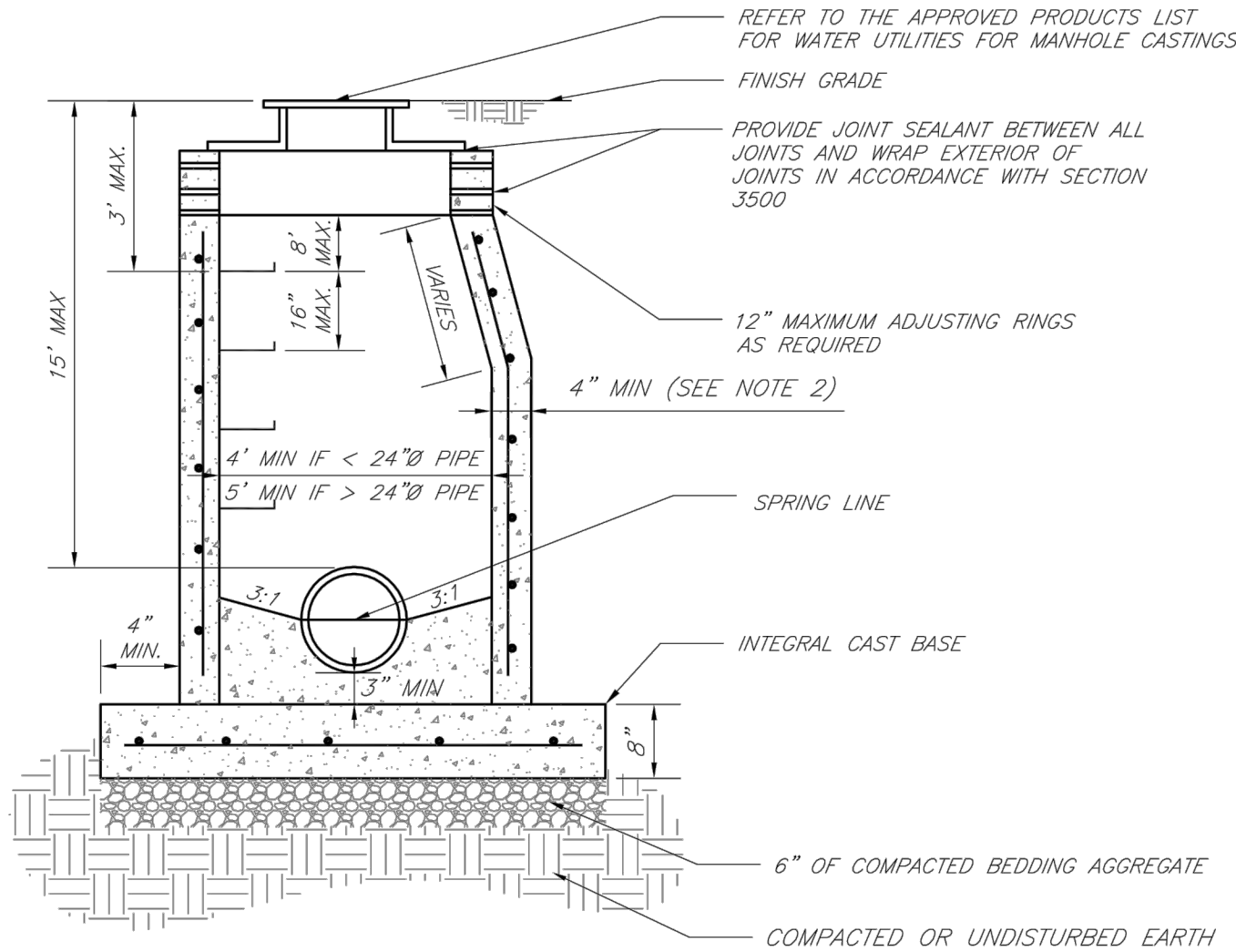
\*Sanitary lines in Italics are existing

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LEE'S SUMMIT, MISSOURI**

**09/15/2020**






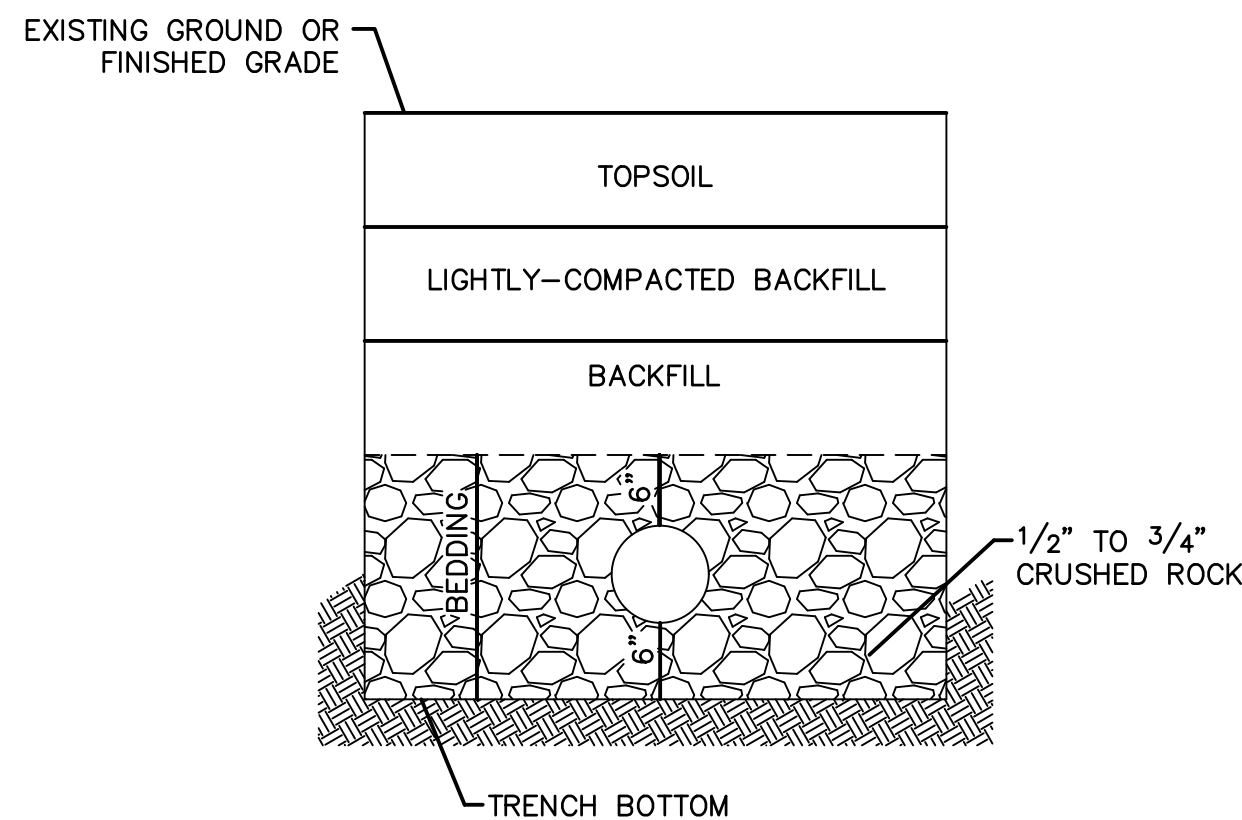


- NOTES:**
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHERE SIDEWALKS ARE PRESENT. CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
  2. ALL NEW CONSTRUCTION OFF SEWER STUBS SHALL BE TEMPORARILY MARKED WITH A MARKING STAKE, 36" ABOVE GROUND AND PAINTED GREEN.
  3. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY TRENCH) AND MAIN.
  4. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
  5. ALL SECTION 2109 FOR SEWER MAIN BEDDING AND BACKFILL SHALL BE USED.
  6. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
  7. TRACER WIRE SHALL BE RUN FROM THE MAIN TO THE W/AD AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
  8. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
  9. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPIRAL BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

	<p align="center"><b>LEE'S SUMMIT</b> <b>MISSOURI</b></p> <p align="center">PUBLIC WORKS ENGINEERING DIVISION   1220 SE GREEN STREET   LEE'S SUMMIT, MO 64063</p>	<p>Date: 02/13</p> <p>Drawn By: JN</p> <p>Checked By: DL</p> <p>FILE: SAN-2</p>
	<p><b>STANDARD PRECAST MANHOLE – SANITARY SEWER</b></p>	<p>Rev: 1/14</p> <p>Rev:</p>

	<p align="center"><b>LEE'S SUMMIT</b> <b>MISSOURI</b></p> <p align="center">PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063</p>	<p>Date: 02/13</p> <p>Drawn By: JN</p> <p>Checked By: DL</p> <p>File: SAN-5</p>
	<p><b>MANHOLE WALL CONNECTIONS</b></p>	<p>Rev: 1/14</p> <p>Rev:</p>

	<p><b>LEE'S SUMMIT</b> <b>MISSOURI</b></p> <p>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063</p>	<p>Date: 04/17</p> <p>Drawn By: MJF</p> <p>Checked By: DL</p>
	<p><b>BUILDING SEWER STUB AND RISER</b></p>	<p><b>SAN-1</b></p>
	<p>PREVENT CORROSION.</p>	



## 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 SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 6 INCHES ABOVE THE TOP OF THE PIPE.
  3. TRENCH BACKFILL IN PAVED AREAS WITHIN STREET OR ALLEY RIGHT OF WAYS
    - a. NARROW TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES 24 INCHES OR LESS IN WIDTH AND SHALL BE TYPE A FLOWABLE FILL
    - b. STANDARD TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES BETWEEN 24 TO 48 INCHES WIDE SHALL BE EITHER TYPE A FLOWABLE FILL OR DENSE, WELL GRADED AGGREGATE BASE MATERIAL. AGGREGATE BASE MATERIAL SHALL MEET THE REQUIREMENTS FOR KDOT AB-3; MODOT TYPES 1 OR 5; OR APWA 2202.2.
    - c. WIDE TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES GREATER THAN 48 INCHES WIDE SHALL BE SUITABLE MATERIAL AS SPECIFIED FOR EARTH EMBANKMENT IN APWA STANDARD SPECIFICATIONS, SECTION 2102.2.C.
  4. SUITABLE BACKFILL MATERIAL OUTSIDE OF PAVED AREAS WITHIN RIGHT OF WAY, AND ALL AREAS OUTSIDE RIGHT OF WAY, MAY BE SUITABLE MATERIAL AS SPECIFIED FOR EARTH EMBANKMENT IN APWA STANDARD SPECIFICATIONS, SECTION 2102.2.C. SUITABLE BACKFILL MATERIAL MAY ALSO BE OTHER TRENCH BACKFILL MATERIAL (FLOWABLE FILL OR AGGREGATE BASE) DEPENDING ON SITE CONDITIONS, TRENCH WIDTHS OR AT THE DIRECTION OF THE CITY'S ON SITE INSPECTOR.

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SANITARY SEWER DETAILS  
SANITARY SEWER PLANS

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THE RETREAT AT HOOK FARMS  
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

## DEVIATIONS

[illegible]

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