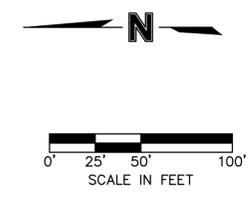
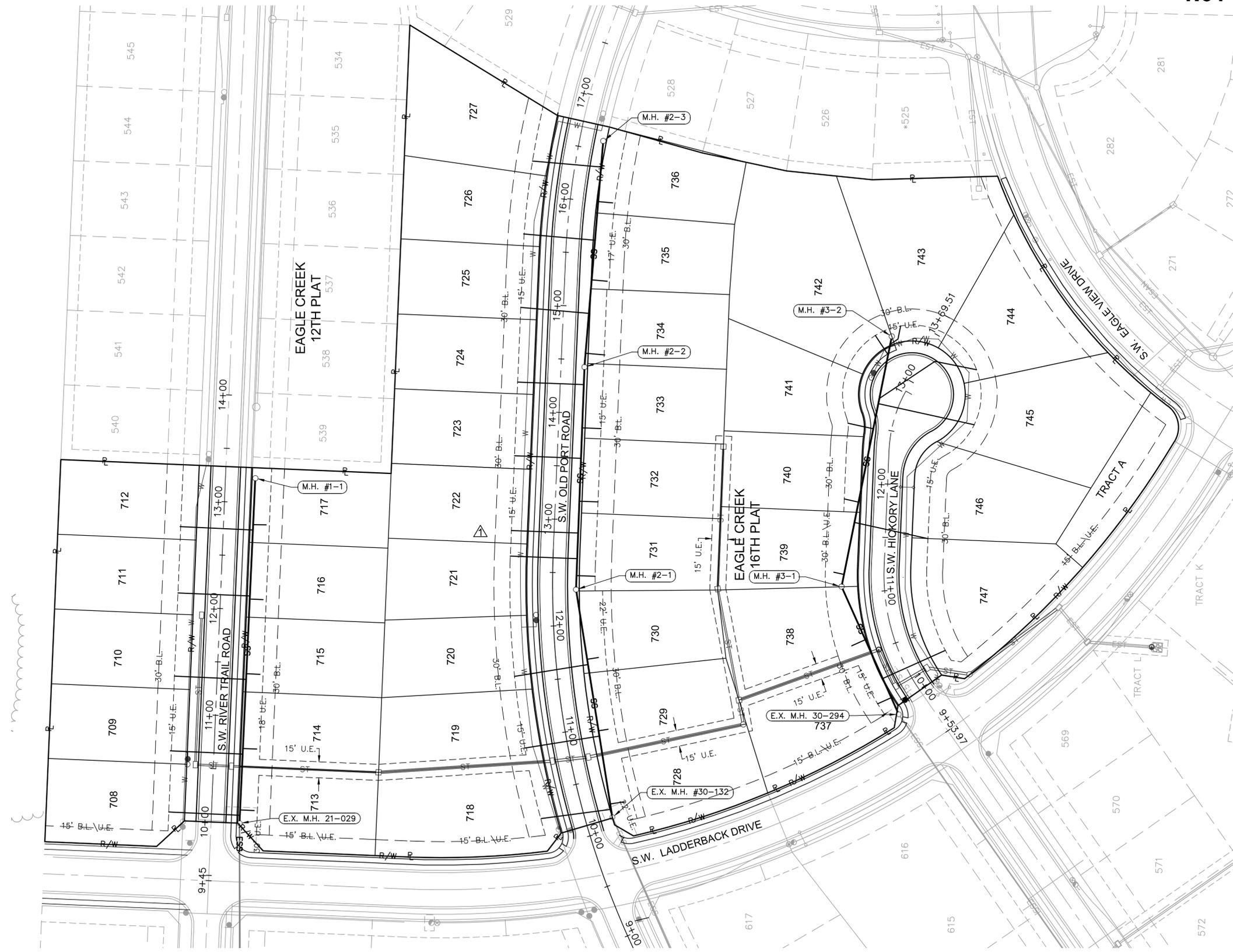


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 1301 BURLINGTON, SUITE 100
 NORTH KANSAS CITY, MO 64116
 TEL 816.587.4320
 FAX 816.587.1383
 www.molssonassociates.com

STATE OF MISSOURI
 NICHOLAS D. HEISER
 NUMBER PE-2018-00555
 PROFESSIONAL ENGINEER
 06/01/2020

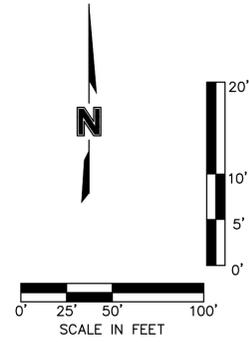
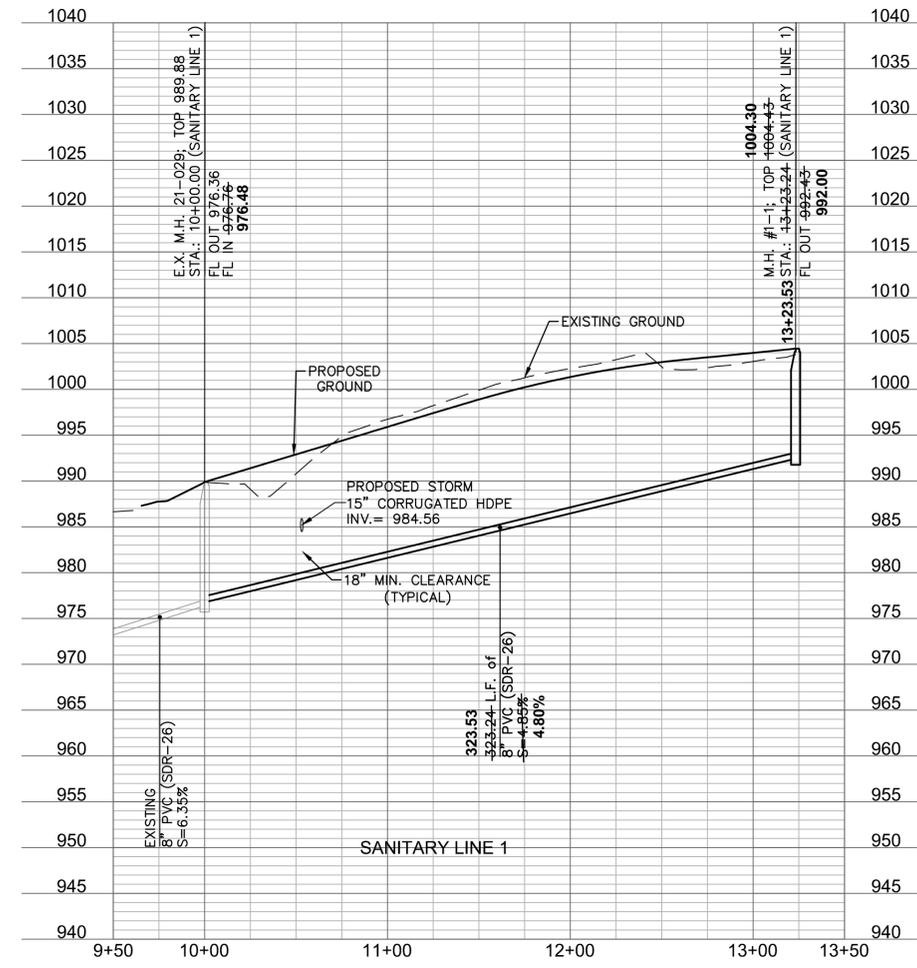
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1	06/22/2018	CITY COMMENTS - 06/17/2018	

GENERAL LAYOUT	DATE	REVISIONS
SANITARY SEWER PLANS	2018	
EAGLE CREEK SIXTEENTH PLAT		
LEE'S SUMMIT, MO		

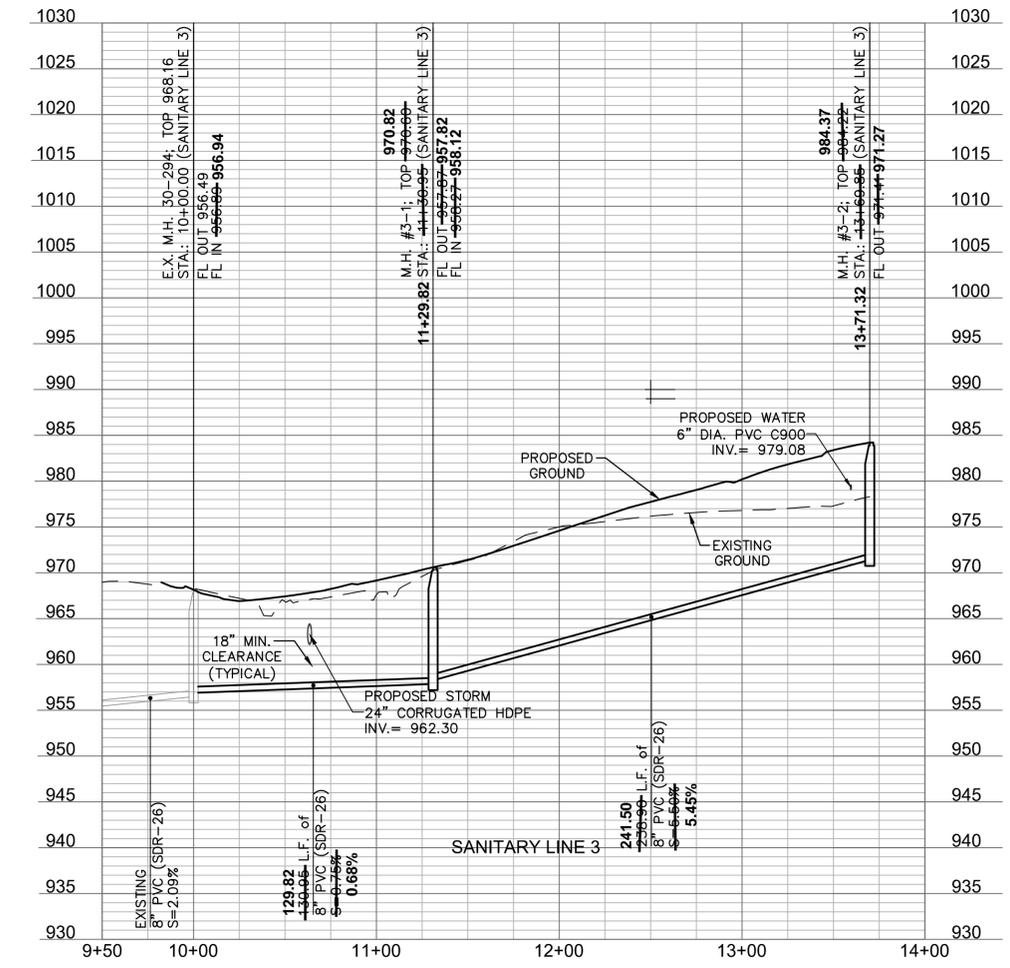
drawn by: B.P.K.
 checked by: N.D.H.
 designed by: B.P.K.
 QA/QC by: M.G.D.
 project no.: 018-0847
 date: 2018.04.20

SHEET C203

DWG: F:\2018\0501-1000\018-0847\40-Design\AutoCAD\Final Plans\Sheets\GNCV\01_Sanitary_34x22\C_SAN01_80847.dwg
 DATE: Jun 19, 2018 5:14pm
 USER: bkoleci



AS BUILT
DATE: 05/29/2020



E.X. M.H. 21-029, CONNECT TO EXISTING SANITARY MANHOLE (4' DIA. INSIDE) PER LEE'S SUMMIT STANDARD
 STA.: 10+00.00 (SANITARY LINE 1)
 =STA.: 9+99.89 (℄)
 S.W. RIVER TRAIL ROAD, 26.68' RT

M.H. #1-1, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
 STA.: 13+23.24 (SANITARY LINE 1)
 =STA.: 13+23.13 (℄)
 S.W. RIVER TRAIL ROAD, 27.92' RT
ASBUILT IS 0.26' E AND 1.30' S OF PLAN
 STA.: 13+23.53
 STA.: 13+23.45 CL
 29.20 RT

E.X. M.H. 30-294, CONNECT TO EXISTING SANITARY MANHOLE (4' DIA. INSIDE) PER LEE'S SUMMIT STANDARD
 STA.: 10+00.00 (SANITARY LINE 3)
 =STA.: 9+92.89 (℄)
 S.W. HICKORY LANE, 29.00' LT

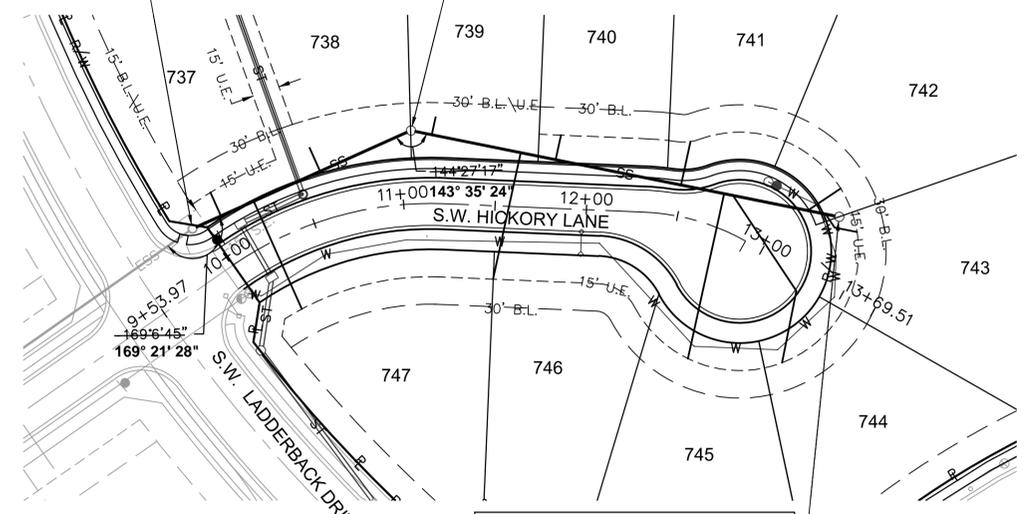
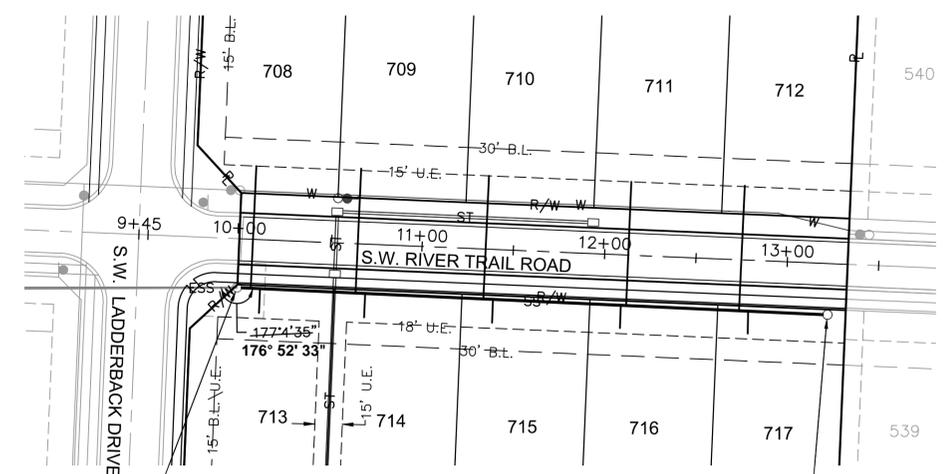
ASBUILT IS 0.01' W AND 2.41' N OF PLAN
 STA.: 11+29.82
 STA.: 11+05.87 CL
 42.41' LT

M.H. #3-1, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
 STA.: 11+30.95 (SANITARY LINE 3)
 =STA.: 11+05.79 (℄)
 S.W. HICKORY LANE, 40.00' LT

ASBUILT IS 2.11' E AND 0.19' S OF PLAN
 STA.: 13+71.32
 STA.: 13+29.95 CL
 37.34' LT

M.H. #3-2, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
 STA.: 13+69.85 (SANITARY LINE 3)
 =STA.: 13+28.02 (℄)
 S.W. HICKORY LANE, 36.47' LT

NOTES:
 ALL SERVICE LINE CONNECTIONS SHALL BE MADE WITH AN 8"x4" PVC WYE, 4" PVC 45° BEND, OR AN 8"x4" TEE, AND THE APPROPRIATE LENGTH OF 4" PVC LATERAL (UNLESS OTHERWISE SHOWN) AND CAP.
 REFER TO SHEET C206 FOR SANITARY DESIGN AND LATERAL INSTALLATION TABLES.
 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 (SHEET C207) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.



AS BUILT
DATE: 05/29/2020

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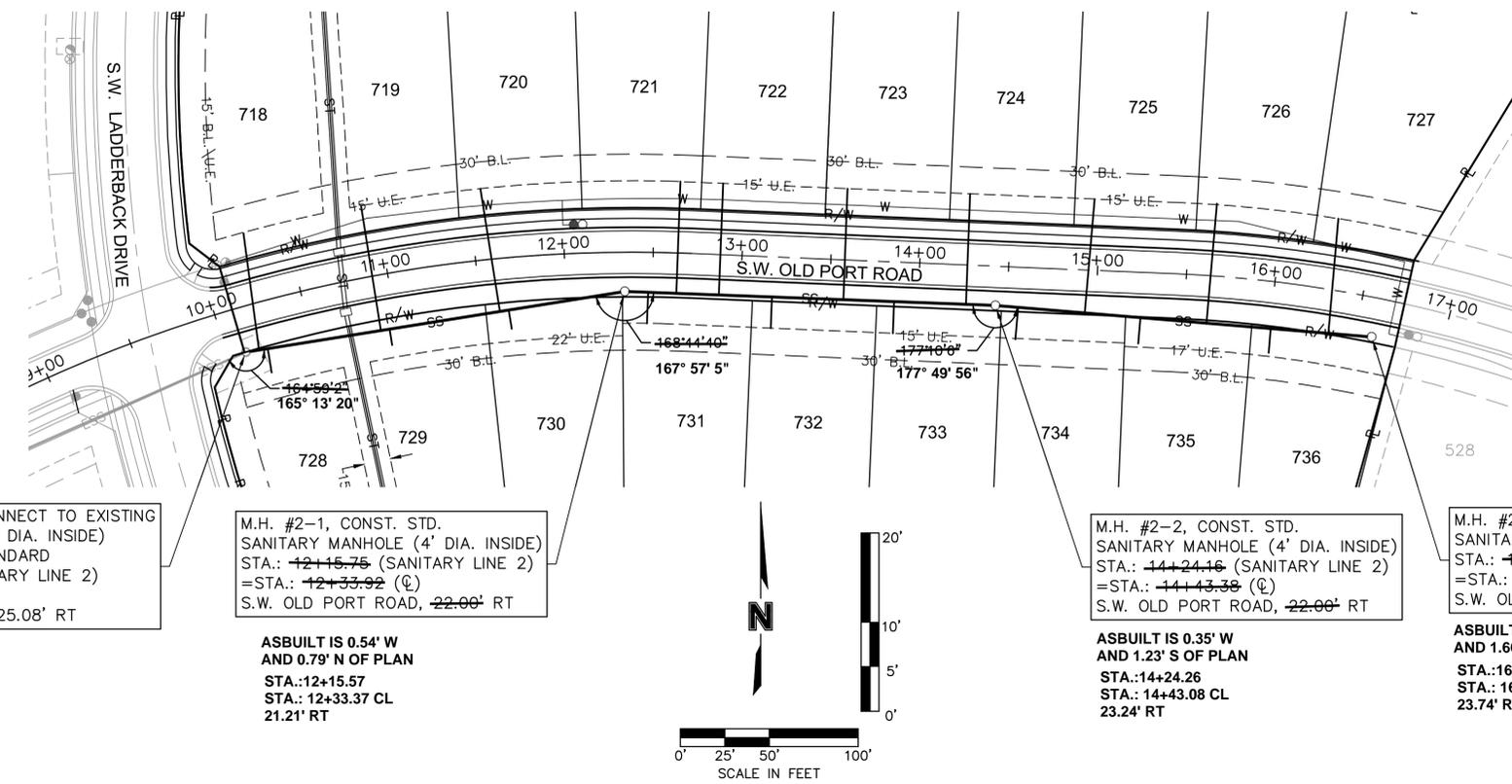
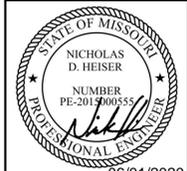
STATE OF MISSOURI
 NICHOLAS D. HEISER
 NUMBER PE-2018-00555
 PROFESSIONAL ENGINEER
 06/01/2020

NO.	REV.	DATE	REVISIONS DESCRIPTION
1		06/22/2018	CITY COMMENTS - 06/17/2018

SANITARY SEWER PLAN & PROFILE
 SANITARY SEWER PLANS
 EAGLE CREEK
 SIXTEENTH PLAT
 LEE'S SUMMIT, MO
 2018

drawn by: B.P.K.
 checked by: N.D.H.
 designed by: B.P.K.
 QA/QC by: M.G.D.
 project no.: 018-0847
 date: 2018.04.20

SHEET C204



E.X. M.H. #30-132, CONNECT TO EXISTING SANITARY MANHOLE (4' DIA. INSIDE) PER LEE'S SUMMIT STANDARD
STA.: 10+00.00 (SANITARY LINE 2)
=STA.: 10+10.93 (C)
S.W. OLD PORT ROAD, 25.08' RT

M.H. #2-1, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: 12+15.75 (SANITARY LINE 2)
=STA.: 12+33.92 (C)
S.W. OLD PORT ROAD, 22.00' RT

M.H. #2-2, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: 14+24.16 (SANITARY LINE 2)
=STA.: 14+43.38 (C)
S.W. OLD PORT ROAD, 22.00' RT

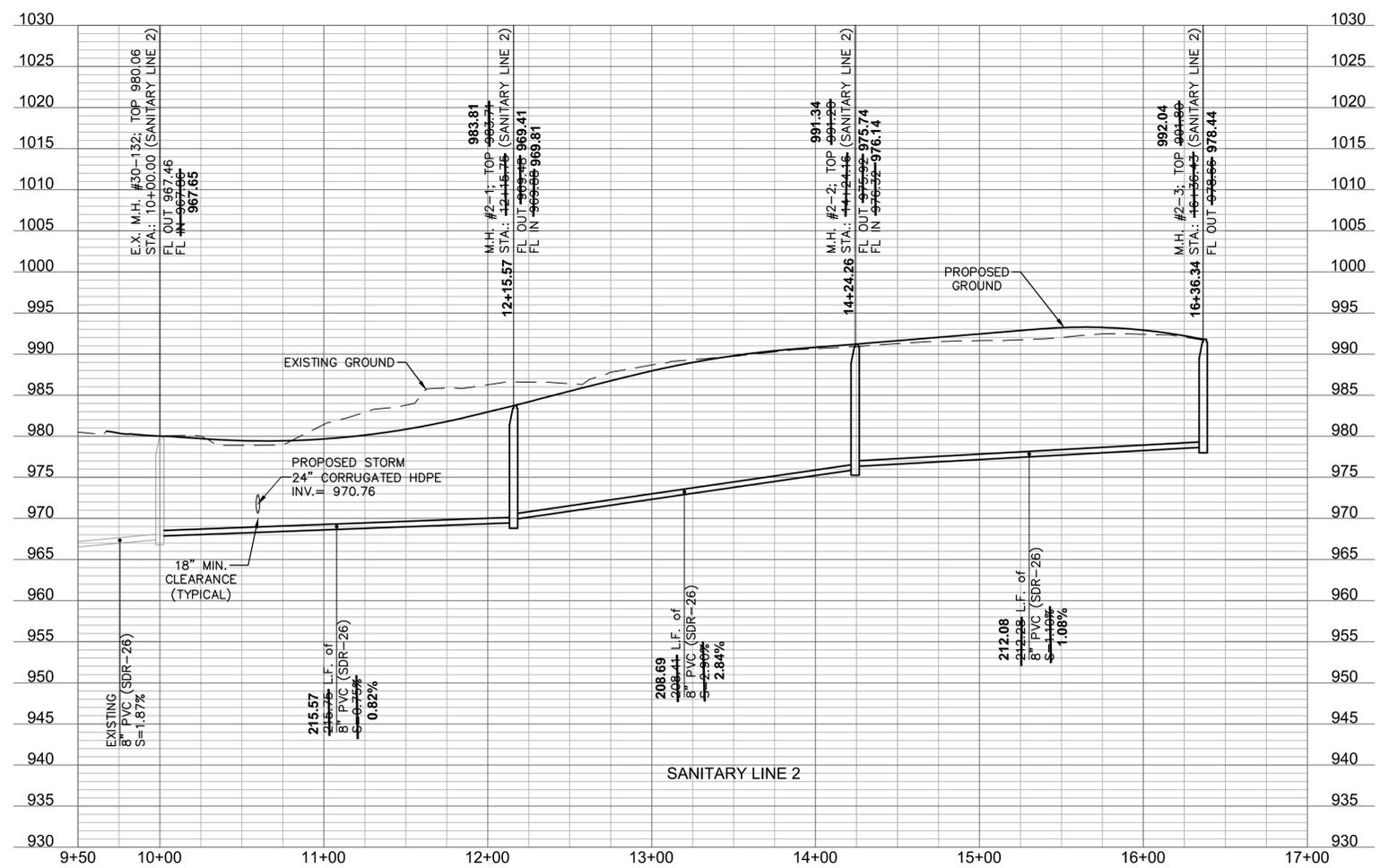
M.H. #2-3, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: 16+36.43 (SANITARY LINE 2)
=STA.: 16+59.38 (C)
S.W. OLD PORT ROAD, 22.00' RT

ASBUILT IS 0.54' W AND 0.79' N OF PLAN
STA.: 12+15.57
STA.: 12+33.37 CL
21.21' RT

ASBUILT IS 0.35' W AND 1.23' S OF PLAN
STA.: 14+24.26
STA.: 14+43.08 CL
23.24' RT

ASBUILT IS 0.58' W AND 1.66' S OF PLAN
STA.: 16+36.34
STA.: 16+59.14 CL
23.74' RT

NOTES:
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SANITARY SEWER PLAN & PROFILE		2018
SANITARY SEWER PLANS		
EAGLE CREEK SIXTEENTH PLAT		2018
LEE'S SUMMIT, MO		

drawn by: B.P.K.
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

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Sanitary Sewer Laterals						
Lot Number	Lateral Station	Lateral Length (ft)	Riser (ft)	Flowline at Main (ft)	Flowline at End of Lateral (ft)	Minimum Servicable Floor Elevation (ft)
708	10+07.50	66.72	0.0	977.1	979.5	982.25
709	10+64.82	66.95	1.0	979.9	983.2	986.02
710	11+34.84	67.24	2.0	983.3	987.6	990.40
711	12+12.99	67.55	1.0	987.1	990.4	993.21
712	12+74.83	68.31	0.0	990.1	992.4	995.25
713	10+12.55	13.27	1.0	977.4	979.6	982.41
714	10+70.09	13.03	2.0	980.2	983.4	986.17
715	11+40.12	12.74	3.0	983.5	987.7	990.54
716	12+10.12	12.46	3.0	986.9	991.1	993.93
717	12+79.83	12.18	1.0	990.3	992.5	995.35
718	10+07.50	66.12	0.0	967.9	970.2	973.04
719	10+76.88	70.89	0.0	968.4	970.9	973.65
720	11+44.66	69.79	0.0	968.9	971.3	974.14
721	12+47.70	62.71	0.0	970.8	973.1	975.85
722	12+68.69	63.15	2.0	971.4	975.6	978.44
723	13+38.70	62.36	3.0	973.4	978.6	981.43
724	14+07.70	62.07	2.0	975.4	979.6	982.45
725	14+74.58	64.35	2.0	976.9	981.1	983.92
726	15+43.30	67.73	2.0	977.6	981.9	984.75
727	16+12.02	65.35	0.0	978.4	980.7	983.50
728	10+12.50	13.55	0.0	968.0	969.2	972.02
729	10+81.88	10.00	0.0	968.5	969.7	972.47
730	11+49.66	10.67	0.0	969.0	970.2	973.00
731	12+28.85	17.42	3.0	970.3	974.5	977.35
732	12+98.51	17.48	4.0	972.3	977.5	980.35
733	13+67.21	17.76	4.0	974.3	979.5	982.35
734	14+37.09	18.03	3.0	976.5	980.8	983.56
735	15+06.04	14.30	3.0	977.2	981.4	984.25
736	15+79.55	13.07	2.0	978.0	981.3	984.05
737	10+17.08	14.03	0.0	957.0	958.3	961.10
738	10+76.56	14.02	0.0	957.5	958.7	961.54
739	11+42.61	10.00	2.0	958.9	962.1	964.87
740	12+11.68	13.68	3.0	962.7	966.9	969.73
741	12+81.64	24.20	2.0	966.6	970.0	972.80
742	13+52.35	21.68	0.0	970.4	971.9	974.68
743	13+62.35	21.32	1.0	971.0	973.6	976.42
744	13+10.69	102.48	2.0	968.2	972.9	975.74
745	13+05.69	92.11	1.0	967.9	971.7	974.51
746	11+92.25	70.64	3.0	961.6	967.0	969.80
747	10+36.76	64.37	0.0	957.2	959.5	962.25

Sanitary Sewer Design Information											
Upstream Manhole	Downstream Pipe Slope (%)	Downstream Pipe Diameter (in)	Proposed Cumulative Area (Ac.)	Future Cumulative Area (Ac.)	Peak Base Flow (gpd)	Peak Infiltration Flow (gpd)	Peak Inflow (cfs)	Total Peak Flow (cfs)	Downstream Pipe Mannings N	Downstream Pipe Capacity (cfs)	Downstream Pipe Full Flow Velocity (fps)
EX MH 1-0	6.35%	8	1.66	0.00	2490.00	830.000	0.055	0.060	0.013	3.04	8.72
MH 1-1	4.85%	8	2.55	0.00	3825.00	1275.000	0.082	0.090	0.013	2.66	7.62
EX MH 2-0	1.87%	8	6.81	0.00	10215.00	3405.000	0.203	0.224	0.013	1.65	4.73
MH 2-1	0.75%	8	5.07	0.00	7605.00	2535.000	0.155	0.171	0.013	1.05	3.00
MH 2-2	2.90%	8	3.33	0.00	4995.00	1665.000	0.105	0.115	0.013	2.06	5.90
MH 2-3	1.10%	8	2.09	0.00	3135.00	1045.000	0.068	0.074	0.013	1.27	3.63
EX MH 3-0	2.09%	8	6.54	0.00	9810.00	3270.000	0.196	0.216	0.013	1.75	5.00
MH 3-1	0.75%	8	3.68	0.00	5520.00	1840.000	0.115	0.127	0.013	1.05	3.00
MH 3-2	5.50%	8	2.08	0.00	3120.00	1040.000	0.068	0.074	0.013	2.83	8.12

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NOTES:

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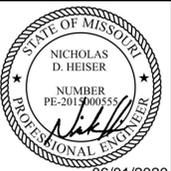
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 TEL 816.587.4320
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06/01/2020

NO. REV.	DATE	REVISIONS DESCRIPTION
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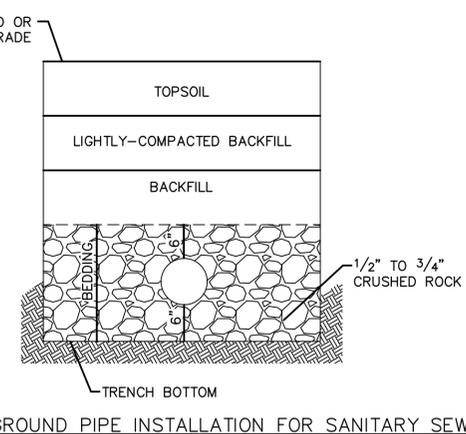
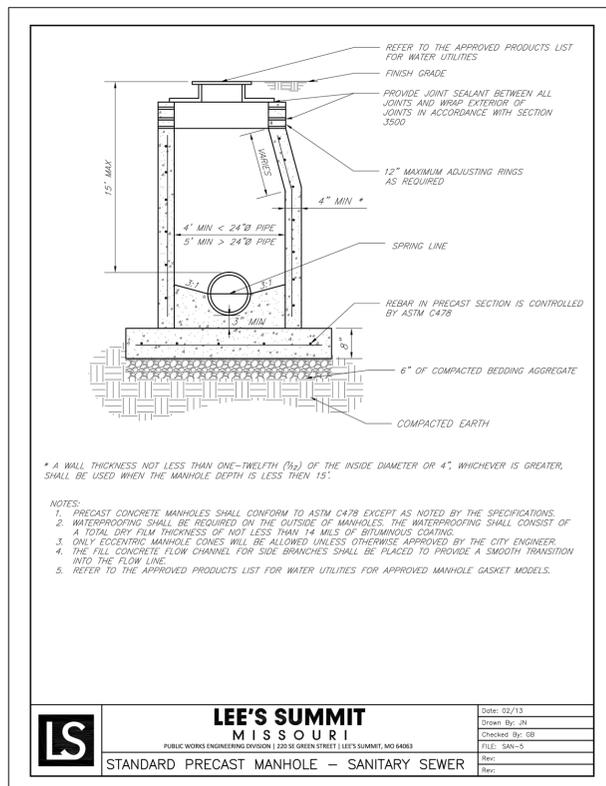
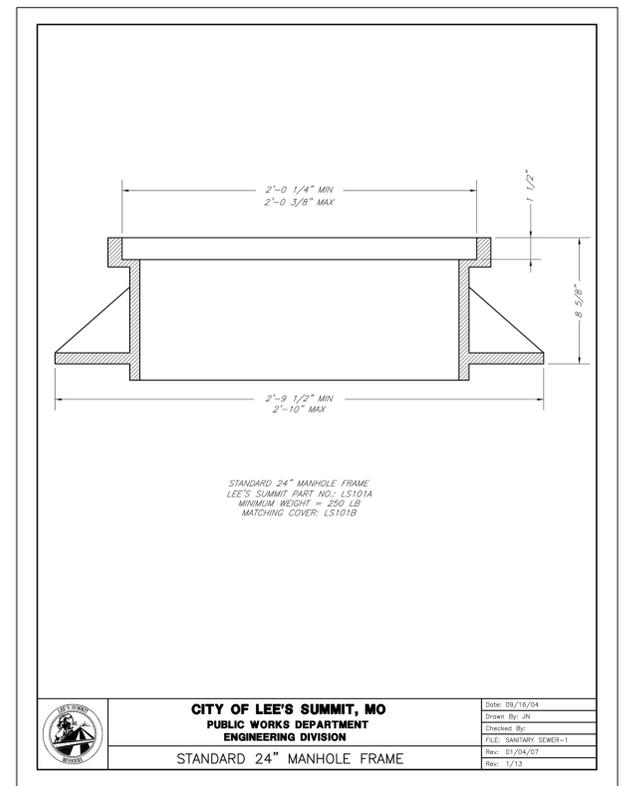
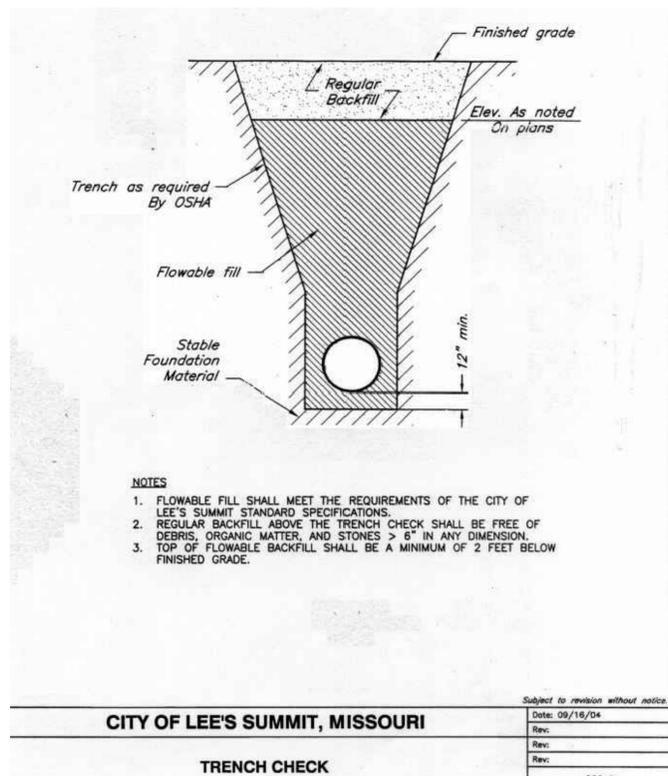
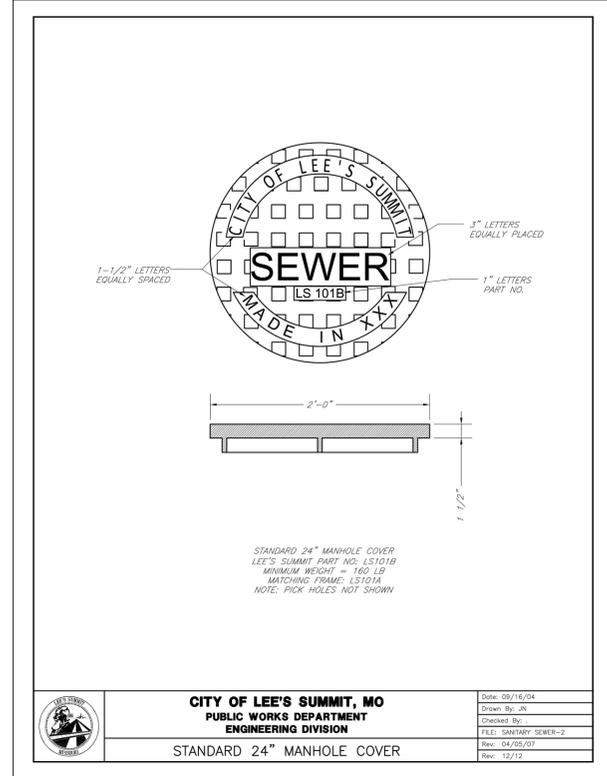
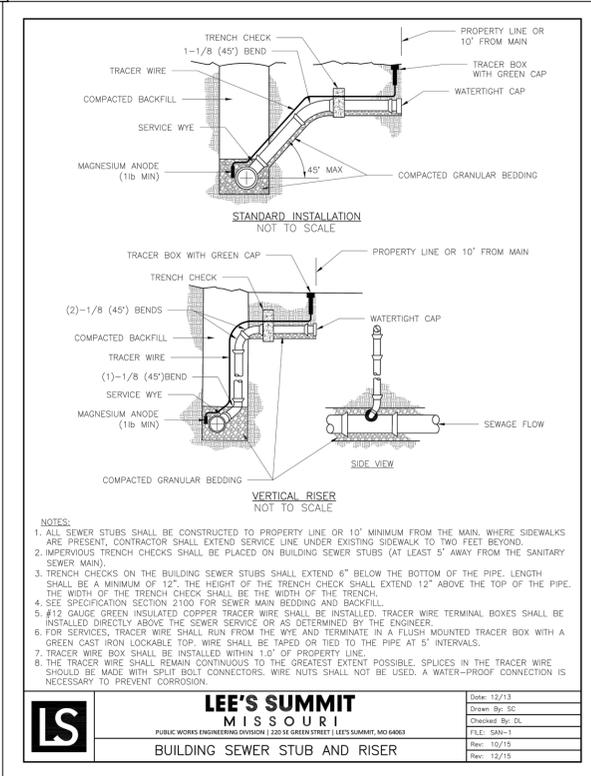
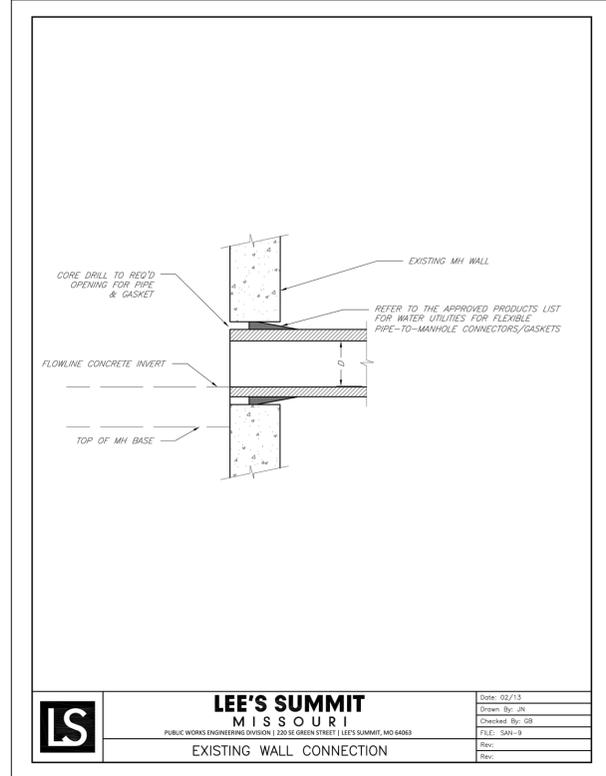
SANITARY SEWER TABLES SANITARY SEWER PLANS	EAGLE CREEK SIXTEENTH PLAT	2018
		LEES SUMMIT, MO

drawn by: _____ B.P.K.
 checked by: _____ N.D.H.
 designed by: _____ B.P.K.
 QA/QC by: _____ M.G.D.
 project no.: 018-0847
 date: 2018.04.20

SHEET
C206

NO.	REV.	DATE	REVISIONS DESCRIPTION
1		06/22/2018	CITY COMMENTS - 06/17/2018

BY	
DATE	06/01/2020
NO.	1
REV.	
DATE	06/22/2018
NO.	1
REV.	
DATE	06/22/2018
NO.	1
REV.	
DATE	06/22/2018



- NOTES:**
- 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.
 - 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.
 - TRENCH BACKFILL IN PAVED AREAS WITHIN STREET OR ALLEY RIGHT OF WAYS
 - NARROW TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES 24 INCHES OR LESS IN WIDTH AND SHALL BE TYPE A FLOWABLE FILL.
 - 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; MODOC TYPES 1 OR 5; OR APWA 2202.2.
 - 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.
 - 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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