LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SEC. 10, TWP. 47N, RNG. 32W

DATE: 11/11/2020

# **VICINITY MAP**

SECTION 10, TOWNSHIP 47, RANGE 32 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI NOT TO SCALE

# LEGAL DESCRIPTION:

THE EAST HALF OF THE SOUTHEAST QUARTER OF PLAT, HIGHLANDS MEADOWS THIRD PLAT, HIGHLAND MEADOWS 4TH PLAT, SUBDIVISIONS IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.





# UTILITY CONTACTS:

SANITARY & WATER: CITY OF LEE'S SUMMIT JEFF THORN 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1900

STREETS: CITY OF LEE'S SUMMIT MICHAEL PARK 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 275-1550

PHONE (816) 969-1900 KCP&L: DOUG DAVIN 1300 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 PHONE (816) 347-4320

RONALD GIPFERT 500 E 8TH STREET

MISSOURI GAS ENERGY: RICHARD FROCK 3025 SW CLOVER DRIVE LEE'S SUMMIT, MO 64082 PHONE (816) 472-3489

### FEMA FLOOD INFORMATION:

THE SITE IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD, PER FEMA FIRM MAP 29095C0418G: EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS OF MAP AMENDMENT OR REVISIONS ARE BEING PROPOSED.

# **BENCHMARK:**

BM #1 N=999843.9665 E=2898946.9717 ELEV=935.04 DESCRIPTION = "JA-148" REFERENCE SYSTEM MONUMENT



# STORMWATER:

### CITY OF LEE'S SUMMIT GENE WILLIAMS 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1900

# KANSAS CITY, MO 64106

# SURVEY CONTROL.

WATERSHED: LITTLE BLUE RIVER

COORDINATES ARE BASED ON THE MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE, USING JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA-148 (2003 ADJUSTMENT) AND ARE MODIFIED FROM GRIS COORDINATÉS TO GROUND COORDINATES BY UTILIZING A GRID SCALE FACTOR OF 0.9999020 AT REFERENCE MONUMENT JA-148.

PROJECT ELEVATIONS ARE BASED ON JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA-148 (2003 ADJUSTMENT).

"JA-148" - STANDARD KC METRO ALUMINUM GRS DISK SET IN CONCRETE FLUSH WITH THE GROUND AND STAMPED "JA-148, 2002" LOCATED ON THE NORTH SIDE OF 3RD STREET, 12.5 FEET NORTH OF A SIDEWALK AND 102.5 FEET WEST OF THE PARKING LOT EXIT OF CEDAR CREEK ELEMENTARY SCHOOL.

# GENERAL NOTES:

- 1. CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS OF THE SITE AND HAVE ALL UTILITIES MARKED PRIOR TO COMMENCING CONSTRUCTION.
- 2. CONTRACTOR SHALL POTHOLE ALL CONNECTION POINTS TO EXISTING UTILITIES AND POTENTIAL UTILITY CONFLICT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. NOTIFY ENGINEER IMMEDIATELY IF CONFLICT OR DISCREPANCY EXISTS.
- 3. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED/ REPLACED TO PRE-CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.

# SHEET INDEX:

LOTS: 134-159 (26 TOTAL)

CVR — COVER SHEET

C103 — SANITARY SEWER C AND D PLAN & PROFILE C401 — SANITARY SEWER DETAILS

### PROJECT SPECIFICATIONS.

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

- CONSTRUCTION MANUAL OF THE CITY OF LEE'S
- WORKS ASSOCIATION (APWA) KANSAS CITY METROPOLITAN CHAPTER "STANDARD SPECIFICATIONS AND DESIGN CRITERIA"

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE INCORPORATED HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

1. MOST CURRENT VERSION OF THE DESIGN AND

2. MOST CURRENT EDITION OF AMERICAN PUBLIC

DISTURBED AREA: 14.9 AC

VINCENT WALKER SUMMIT HOMES KC 120 SE 30TH STREET LEE'S SUMMIT, MO 64082 VINCENT@SUMMITHOMESKC.COM (816) 246-6700

# CIVIL ENGINEER:

DEVELOPER:

ZACH MYERS ANDERSON ENGINEERING, INC. 941 W 141ST TERR KANSAS CITY, MO 64145 ZMYERS@ANDERSONENGINEERINGINC.COM (816) 380-4821

# PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING INC. KANSAS CITY, MISSOURI

ZACH MYERS, P.E.

MISSOURI P.E. NO. 2012009232

APPROVED BY:

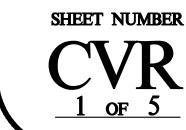
CITY OF LEE'S SUMMIT, MISSOURI

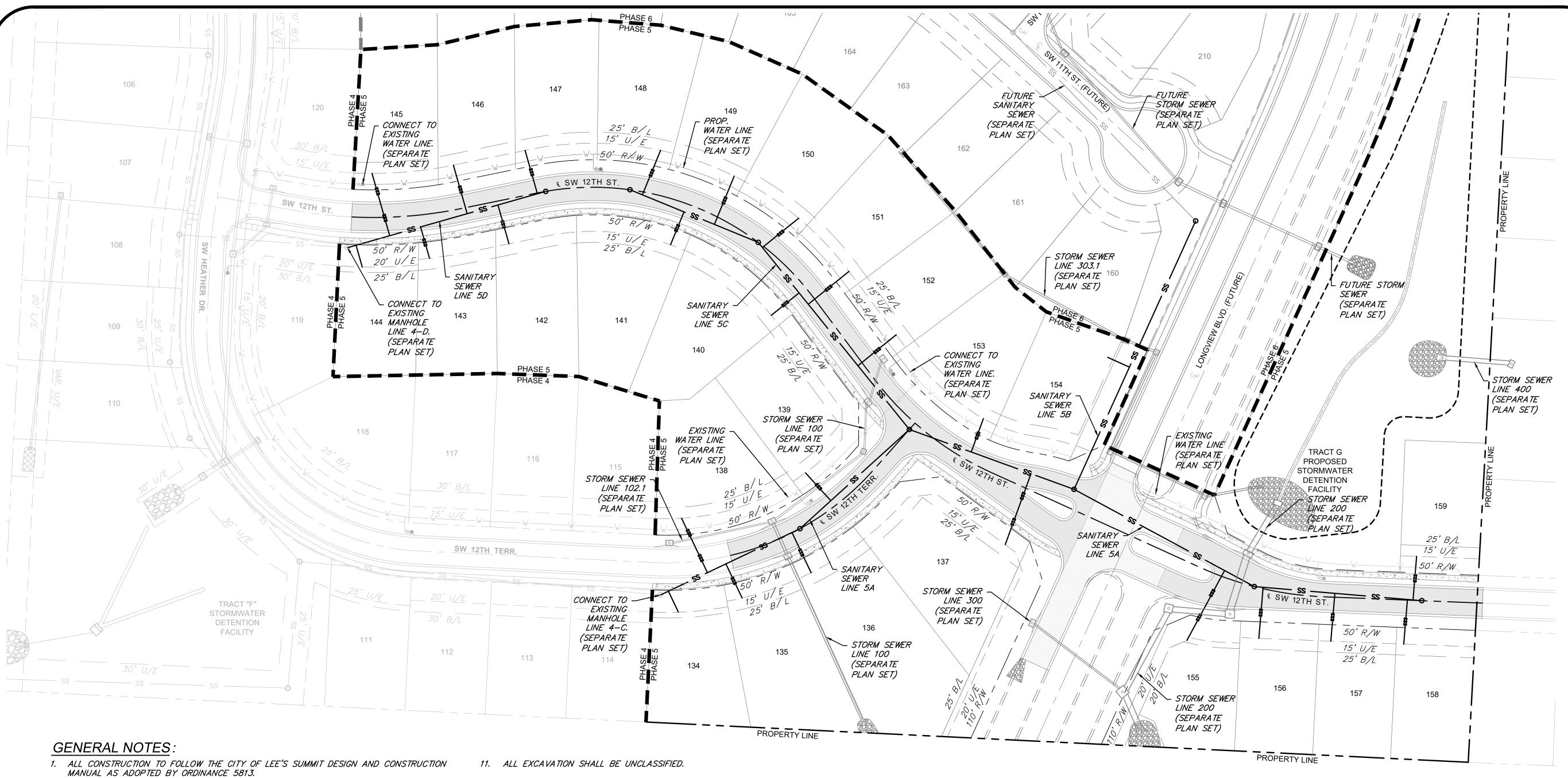
AUTHORIZING POSITION

DATE

DATE

SH





APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.

2. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND

- 3. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS.
- 4. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THIS PROJECT.
- 5. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 6. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DON SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 72 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-(800)-DIG RITE OR 811. 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.
- 7. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
- 8. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
- 9. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDNANCES.
- 10. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.

- 12. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
- 13. 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.
- 14. 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 MUCH 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 HE FLOOR SLAB.
- 15. THE CONTRACTOR SHALL CONTACT PUBLIC WORKS INSPECTIONS AT 816-969-1800 TO OBTAIN A PUBLIC WORKS CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE.
- 16. THE CONTRACTOR SHALL CONTACT THE CITY'S EROSION CONTROL SPECIALIST AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE.
- 17. THE CONTRACTOR SHALL CONTACT THE RIGHT-OF-WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT-OF-WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT.
- 18. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD - LATEST EDITION).
- 19. ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF A FLOWABLE BACKFILL, INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH TO 12 INCHES ABOVE PIPE, FOR A MINIMUM LENGTH OF 12 INCHES, TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.





# ENGINEERING CONTROL

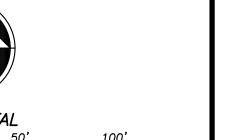
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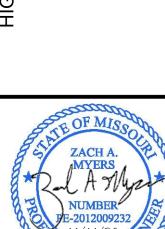
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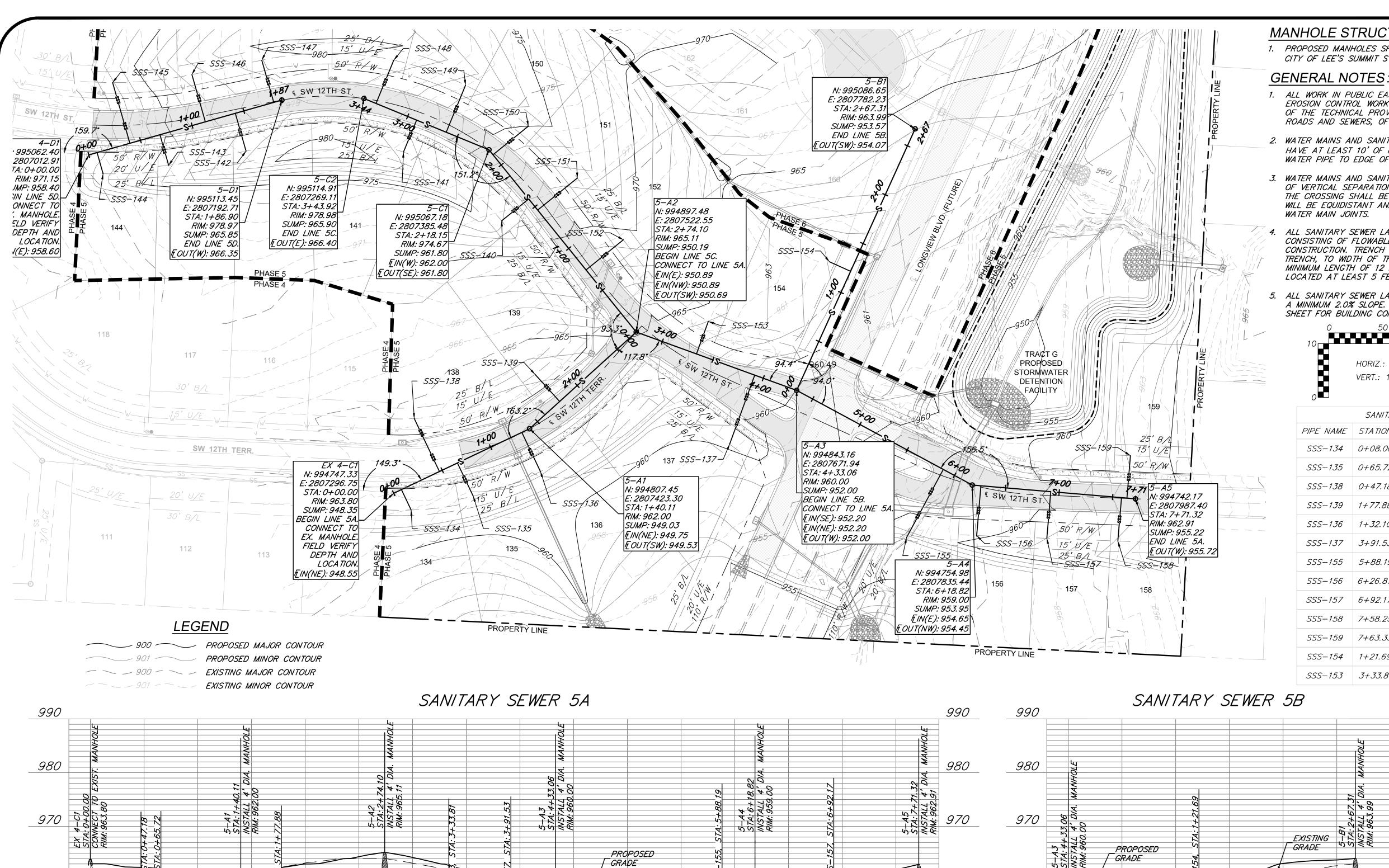
PROJECT BENCHMARK(S) AND/OR CONTROL POINT(S)

BM #1 N=999843.9665 E=2898946.9717 ELEV=935.04 DESC="JA-148" REFERENCE SYSTEM MONUMENT





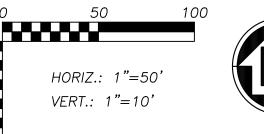
SHEET NUMBER



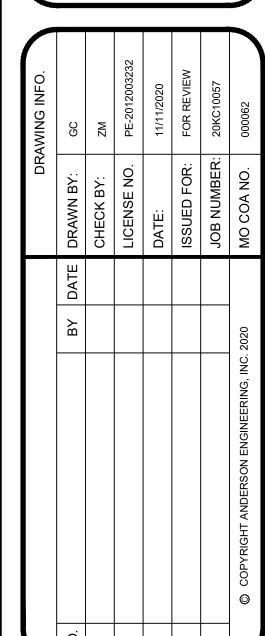
# MANHOLE STRUCTURE NOTE:

1. PROPOSED MANHOLES SHALL CONFORM TO THE CITY OF LEE'S SUMMIT STANDARD DETAIL.

- 1. ALL WORK IN PUBLIC EASEMENTS AND RIGHT-OF-WAY AND ALL EROSION CONTROL WORK MUST COMPLY WITH THE LATEST EDITION OF THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR ROADS AND SEWERS, OF WARRENSBURG, MISSOURI.
- 2. WATER MAINS AND SANITARY SEWER MAINS/STRUCTURES SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION FROM EDGE OF WATER PIPE TO EDGE OF SEWER PIPE OR SEWER STRUCTURE.
- 3. WATER MAINS AND SANITARY SEWERS SHALL HAVE AT LEAST 18" OF VERTICAL SEPARATION FROM EDGE OF PIPE TO EDGE OF PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FORM THE
- 4. ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH TO 12 INCHES ABOVE PIPE, FOR . MINIMUM LENGTH OF 12 INCHES, TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY SEWER MAIN.
- ALL SANITARY SEWER LATERALS SHALL BE 4" PVC AND MAINTAIN A MINIMUM 2.0% SLOPE. REFER TO SANITARY SEWER DETAILS SHEET FOR BUILDING CONNECTION AND RISER DETAILS.

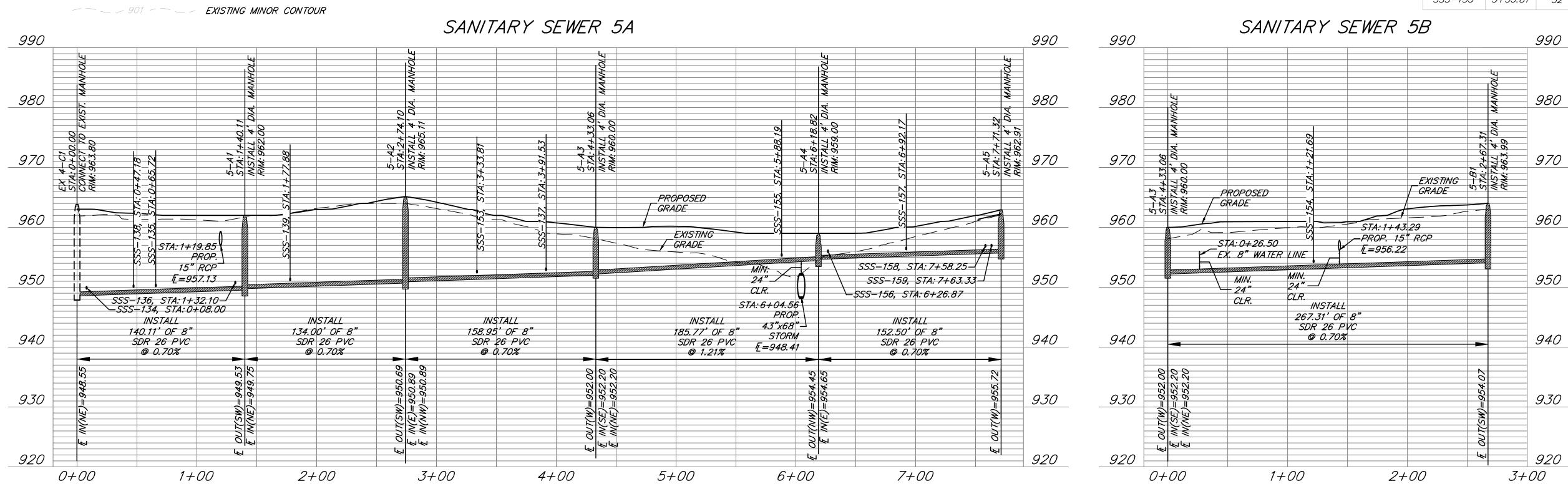


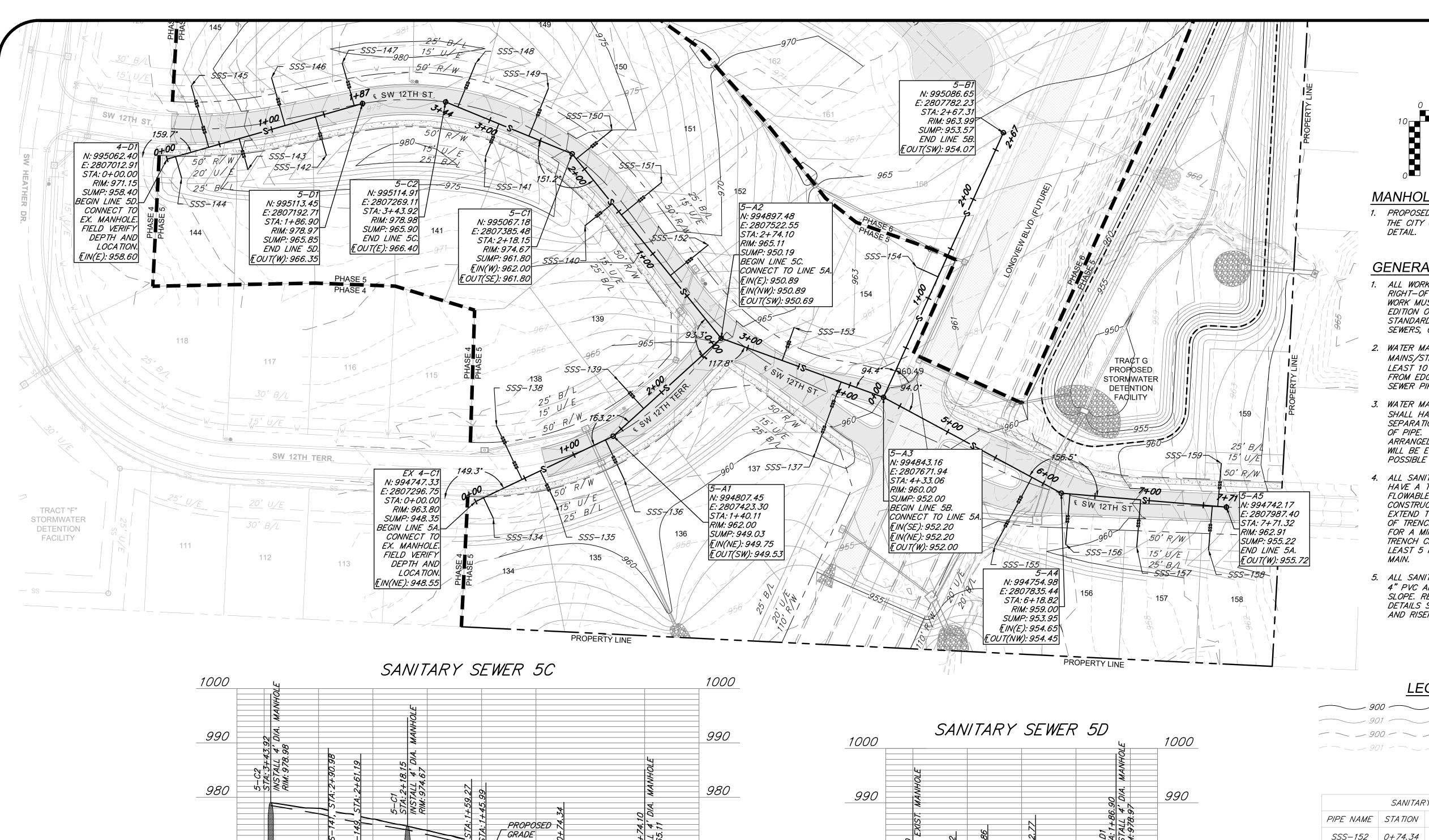
	0						
SANITARY SEWER SERVICE							
	PIPE NAME	STATION	LENGTH	SLOPE	MSFE		
	SSS-134	0+08.00	21'	2.00%	950.16+(3.5')		
	SSS-135	0+65.72	34'	2.00%	950.83+(3.5')		
	SSS-138	0+47.18	<i>55'</i>	2.00%	951.11+(3.5')		
	SSS-139	1+77.88	34'	2.00%	951.83+(3.5')		
	SSS-136	1+32.10	40'	2.00%	951.42+(3.5')		
	SSS-137	3+91.53	68'	2.00%	954.22+(3.5')		
	SSS-155	5+88.19	72'	2.00%	956.66+(3.5')		
	SSS-156	6+26.87	46'	2.00%	956.77+(3.5')		
	SSS-157	6+92.17	44'	2.00%	957.18+(3.5')		
	SSS-158	7+58.25	41'	2.00%	957.57+(3.5')		
	SSS-159	7+63.33	40'	2.00%	957.59+(3.5')		
	SSS-154	1+21.69	22'	2.00%	954.62+(3.5')		
	SSS-153	3+33.81	32'	2.00%	953.09+(3.5')		



ZACH A.

SHEET NUMBER 3 of 5





970

960

950

940

930

920

0+00 -0+50

EXISTING GRADE

INSTALL 218.15' OF 8"

SDR 26 PVC @ 5.00%

1+00

980

970

960

950

940

930

0+00

+ EXISTING GRADE

SSS-147, STA: 1+79.01

-SS\$-144, STA:0+08.00

SSS-142, STA: 1+41.80

INSTALL 186.90' OF 8" SDR 26 PVC @ 4.15%

1+00

PROPOSED\_ GRADE

980

970

960

950

940

930

2+00

970

960

950

940

930

920

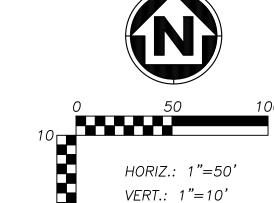
*3+75* 

INSTALL

125.77' OF 8" SDR 26 PVC @ 3.50%

*3+00* 

2+00



# MANHOLE STRUCTURE NOTE:

1. PROPOSED MANHOLES SHALL CONFORM TO THE CITY OF LEE'S SUMMIT STANDARD

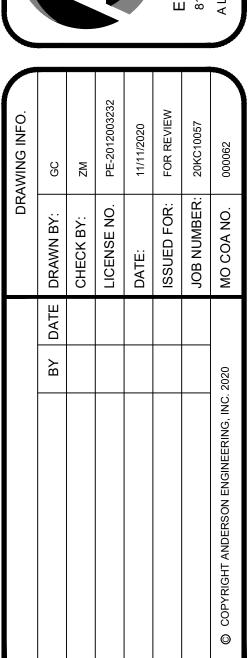
# GENERAL NOTES

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- 4. ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH TO 12 INCHES ABOVE PIPE, FOR A MINIMUM LENGTH OF 12 INCHES, TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY SEWER
- 5. ALL SANITARY SEWER LATERALS SHALL BE 4" PVC AND MAINTAIN A MINIMUM 2.0% SLOPE. REFER TO SANITARY SEWER DETAILS SHEET FOR BUILDING CONNECTION AND RISER DETAILS.

# LEGEND

- 900 PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR EXISTING MAJOR CONTOUR EXISTING MINOR CONTOUR

SANITARY SEWER SERVICE					
PIPE NAME	STATION	LENGTH	SLOPE	MSFE	
SSS-152	0+74.34	45'	2.00%	957.30+(3.5	
SSS-151	1+45.99	47'	2.00%	960.94+(3.5	
SSS-140	1+59.27	32'	2.00%	961.31+(3.5)	
SSS-150	2+12.20	42'	2.00%	964.16+(3.5)	
SSS-149	2+61.19	47'	2.00%	966.26+(3.5	
SSS-141	2+90.98	32'	2.00%	967.00+(3.5	
SSS-148	3+31.82	44'	2.00%	968.67+(3.5	
SSS-147	1+79.01	41'	2.00%	968.64+(3.5	
SSS-146	1+12.77	46'	2.00%	965.99+(3.5	
SSS-142	1+41.80	42'	2.00%	967.11+(3.5)	
SSS-144	0+08.00	20'	2.00%	961.14+(3.5)	
SSS-145	0+39.72	59'	2.00%	963.22+(3.5	
SSS-143	0+68.86	30'	2.00%	963.85+(3.5	



SHEET NUMBER 4 of 5

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS. 2. A WALL THICKNESS NOT LESS THAN ONE—TWELFTH ( $^{\prime}h_2$ ) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS

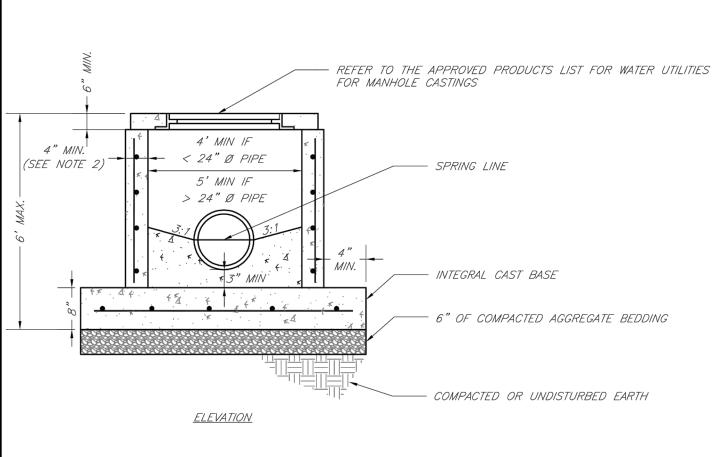
GREATER. SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'. 3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION

6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

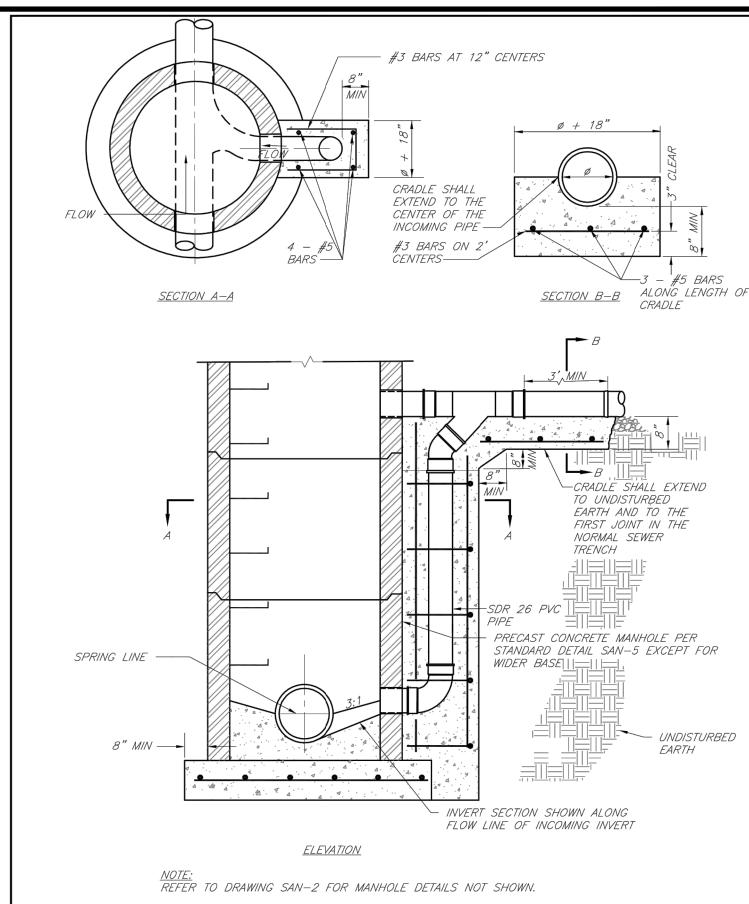
STANDARD PRECAST MANHOLE - SANITARY SEWER



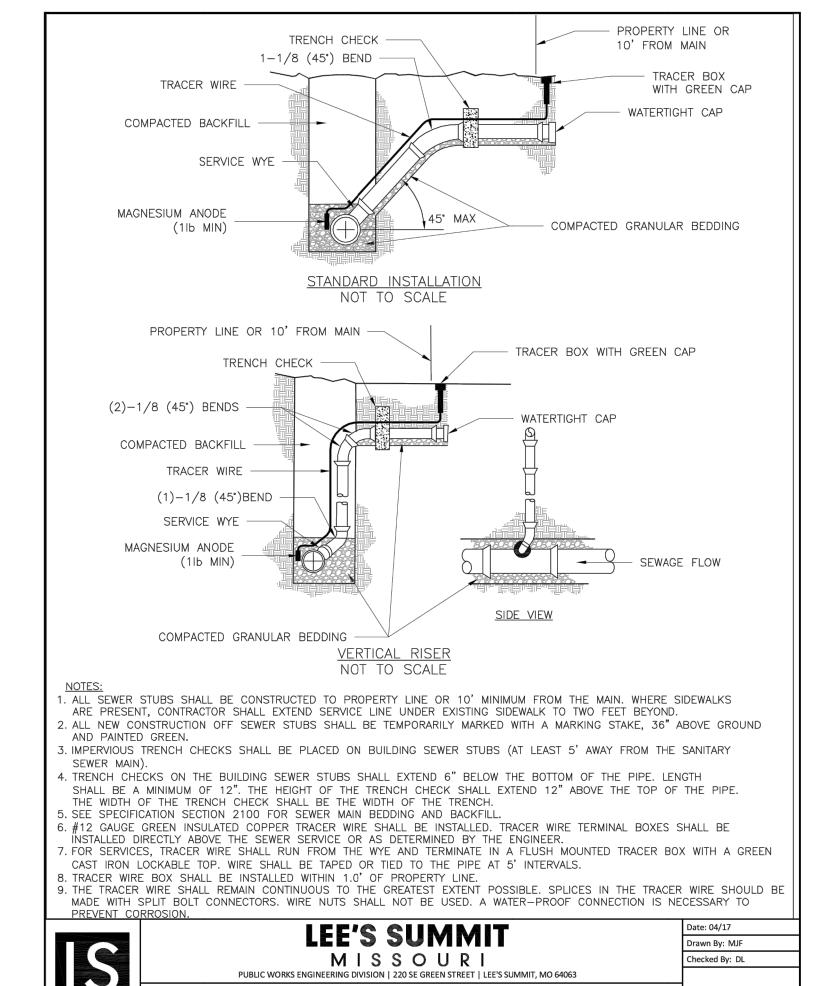


- 1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS. 2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS
- 3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THEN 14 MILS OF BITUMINOUS COATING.
  4. THE FILE CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION
- 5. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR MANHOLE GASKET MODELS. 6. PROVIDE STEPS AS SHOWN ON THE APPROVED PRODUCTS LIST FOR MANHOLE DEPTHS GREATER THAN 4'.

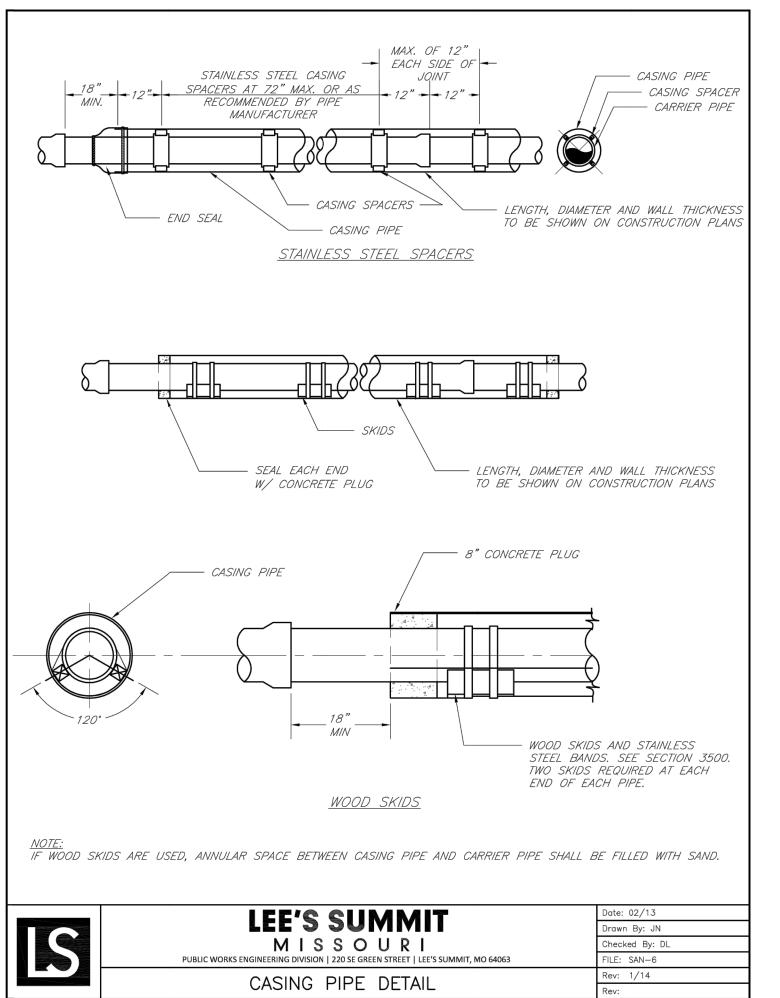


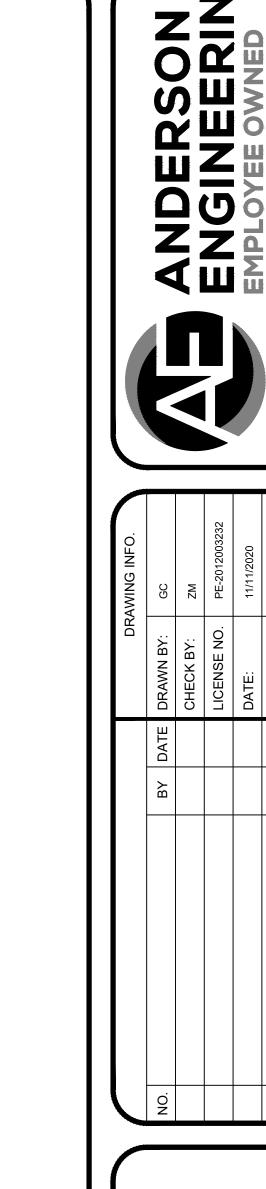


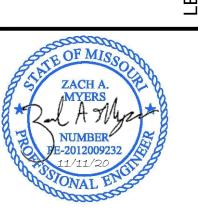
	LEE'S SUMMIT	Date: 02/13
	FEE 9 90 IALIALL	Drawn By: JN
	MISSOURI	Checked By: DL
	PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063	FILE: SAN-4
	DROP SANITARY SEWER MANHOLE	Rev: 1/14
	DIVOR SAINTAINT SEWER MAINTOLE	Rev:



**BUILDING SEWER STUB AND RISER** 







SHEET NUMBER