CO

TJB

G/E

U/E

- POLYVINYL CHLORIDE - PROPERTY LINE - PUBLIC EASEMENT

- SERVICE LINE - SIDEWALK TOP ELEVATION

UTILITY EASEMENT

ROW or R/W - RIGHT-OF-WAY

CURB & GUTTER

P/L PROPERTY LINES

—— STO—— STORM SEWER

TREELINE

REINFORCED CONCRETE PIPE

SANITARY SEWER EASEMENT

- WATER SURFACE ELEVATION

**ASPHALT PAVEMENT - EXISTING** 

ASPHALT PAVEMENT - PROPOSED

**CONCRETE PAVEMENT - EXISTING** 

ASPHALT PAVEMENT - EXISTING

CONCRETE SIDEWALK - EXISTING

**CONCRETE SIDEWALK - PROPOSED** 

**CURB & GUTTER - EXISTING** 

EXISTING LOT AND R/W LINES

EXISTING PLAT LINES

SANITARY SEWER MAIN

SANITARY SEWER MAIN - EXIST.

FOC<sub>X</sub> FIBER OPTIC CABLE - EXISTING

----- OHP<sub>x</sub> ---- OVERHEAD POWER LINE - EXIST

—— UGE, —— UNDERGROUND ELECTRIC - EX.

LIGHT - EXISTING

**EXISTING MANHOLE** 

**EXISTING AREA INLET** 

EXISTING CURB INLET EXISTING GRATE INLET **EXISTING JUNCTION BOX EXISTING STORM MANHOLE** 

WATERLINE - EXISTING

**EXISTING SANITARY MANHOLE** 

PROPOSED SANITARY MANHOLE

STORM SEWER - EXISTING

—— T<sub>X</sub>—— TELEPHONE LINE - EXIST.

GAS LINE - EXISTING

ELECTRIC LINE - EXISTING

CLEANOUT

---- CATV<sub>x</sub> ---- CABLE TV - EXISTING

WATERLINE EASEMENT

## **UTILITY CONTACTS:**

MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) Steve Holloway 600 NE Colbern Road Lee's Summit, MO 64086

MISSOURI GAS ENERGY (MGE) Brent Jones

3025 SE Clover Drive Lee's Summit, MO 64082 (816) 399-9633 brent.jones@spireenergy.com

(816) 607-2186

**EVERGY** Ron Dejarnette 1300 SE Hamblin Road Lee's Summit, MO 64081 Office: (816) 347-4316 Cell: (816) 810-5234 ron.dejarnette@evergy.com

CITY OF LEES SUMMIT PUBLIC WORKS 220 SE Green Street

Lee's Summit, MO 64063 (816) 969-1800

Mark Manion or Marty Loper 500 E. 8th Street, Room 370 Kansas City, MO 64106 (816) 275-2341 or (816) 275-1550

COMCAST CABLE 4700 Little Blue Parkway Independence, MO 64057 (816) 795-2257

CITY OF LEE'S SUMMIT WATER UTILITIES

Mark Schaufler 1200 SE Hamblen Road Lee's Summit, MO 64081 (816) 969-1900

	SUMMARY OF QUANTITIES		
	ITEM	QUANTITY	UNITS
1	8" PVC SDR 26	1,693	LF
3	6" PVC SDR 26	878	LF
4	8" x 6" WYE	25	EA
6	STANDARD 4' DIAMETER MANHOLE	13	EA
7	SEWER CONNECTION	2	EA
8	POST-CONST. BARREL ADJUSTMENT	6	EA
9	POST-CONST. RING (3"-12") ADJUSTMENT	6	EA
10	EXTRA DEPTH IN MANHOLE	142	VF
11	CLEARING & GRUBBING	1	LS
12	MANHOLE IN PAVED AREA	7	EA
13	MOBILIZATION	1	LS
14	EROSION CONTROL	1	LS
15	BONDS	1	LS

# SANITARY SEWER MAIN PLANS PERGOLA PARK, 5TH PLAT

IN THE CITY OF LEE'S SUMMIT JACKSON COUNTY, MISSOURI

#### **GENERAL NOTES:**

- ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
- ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
- LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
- NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.
- THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 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. 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
- PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL. AFTER APPROVAL OF THE SHOP DRAWINGS, A COPY OF THE APPROVED AND SIGNED SHOP DRAWINGS SHALL BE PROVIDED TO THE CITY INSPECTOR UPON REQUEST.
- THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER. UNLESS SHOWN OTHERWISE.
- CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
- ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
- ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK
- THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
- ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE
- 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** 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.
- 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).

## UTILITIES:

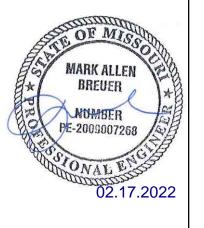
- 1. Existing utilities have been shown to the greatest extent possible based upon information provided to the Engineer. The contractor is responsible for contacting the respective utility companies and field locating utilities prior to construction and
- identifying any potential conflicts. All conflicts shall immediately be brought to the attention of the Engineer. The contractor shall be responsible for coordinating any required utility relocations. Utilities damaged through the
- negligence of the contractor shall be repaired at the contractor's expense. Contractor shall verify flow-lines and structure tops prior to construction, and shall notify Engineer of any discrepancies. Provide shop drawings for all precast and manufactured utility structures for review by the Engineer prior to construction of
- Utility Separation: Waterlines shall have a minimum of 10 feet horizontal and 2 feet vertical separation from all sanitary sewer lines, manholes, and sanitary sewer service laterals, as measured from edge to edge. If minimum separations can
- not be obtained, concrete encasement of the sanitary line shall be required 10 feet in each direction of the conflict. Payment for trenching, backfilling, pipe embedment, flowable fill, backfill materials, clean up, seeding, sodding and any
- other items necessary for the construction of the utility line shall be included in the contract price for the utility installation. The Contractor shall be responsible for contacting respective utility companies 48-hours in advance for the inspection of
- any proposed utility main extension or service line or service connection to any existing main. 7. Trench spoils shall be neatly placed onsite adjacent to the trench, and compacted to prevent saturation and excess
- sediment runoff. Unsuitable materials, excess rock and shale, asphalt, concrete, trees, brush etc. shall be properly
- disposed of offsite. Materials may be wasted onsite at the direction of the Owner or his appointed representative. All excavation is considered unclassified, unless noted otherwise. Unclassified excavation for utility trenching is
- subsidiary to the unit price provided for the pipe. Any quantity provided for rock excavation is estimated based on the best information provided to the Project Engineer. The Engineer has the authority to identify and define the physical characteristics to determine the classification. Unit price quantities for rock excavation will be paid at a trench width of the nominal pipe diameter of the installed main plus 18 inches. Contractor is required to dispose of excess rock from their trenches by disposing it in areas as specified by the Project Engineer.

She	et List Table
Sheet Number	Sheet Title
1	COVER
2	LAYOUT & GRADING PLAI
3	LINE A CONT.
4	LINE B
5	LINE C & D
6	SANITARY DETAILS





PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A



## OWNER/DEVELOPER:

NLV DEVELOPMENT COMPANY LLC **RUSSELL PEARSON** 3152 SW GRANDSTAND CIRCLE LEE'S SUMMIT, MO 64081 p 816-589-4415

RPEARSON@BOXDEVCO.COM

## MISSOURI GEOGRAPHIC REFERENCE SYSTEM **BENCH MARK:**

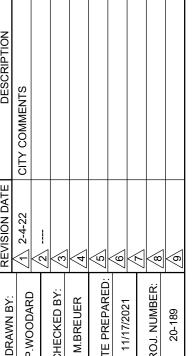
BM JA-148, IS A STAMPED KC METRO DISK SET IN CONCRETE LOCATED 2 MILES WEST OF THE INTERSECTION OF HIGHWAY 50 AND 3RD ST. IT IS 44 FT NORTH OF THE CENTER OF 3RD ST. AND 102.5 FT WEST OF THE CENTER OF THE EXIT FROM THE ADJACENT PARKING LOT.

ELEV. 935.18

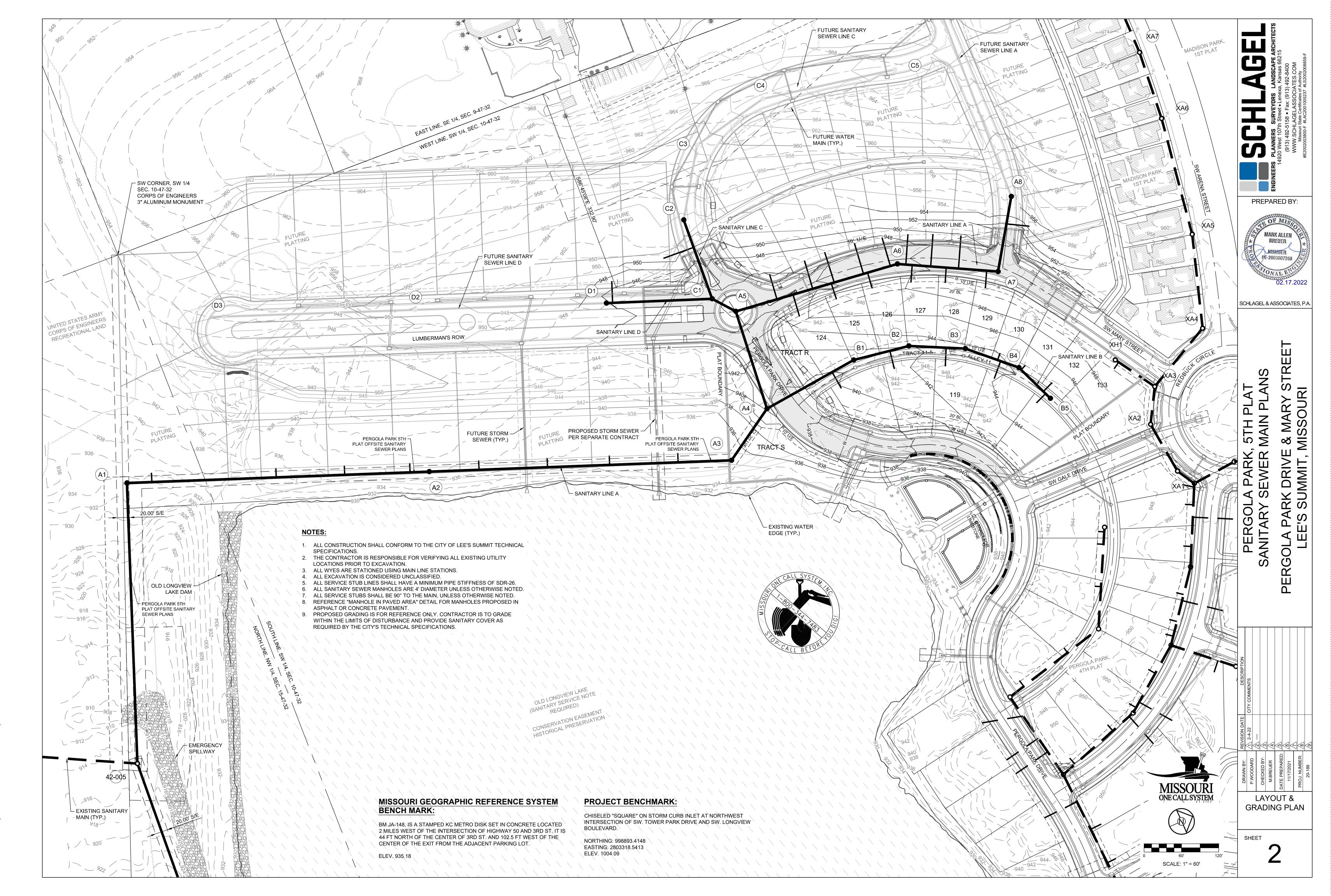
## PROJECT BENCHMARK:

CHISELED "SQUARE" ON STORM CURB INLET AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

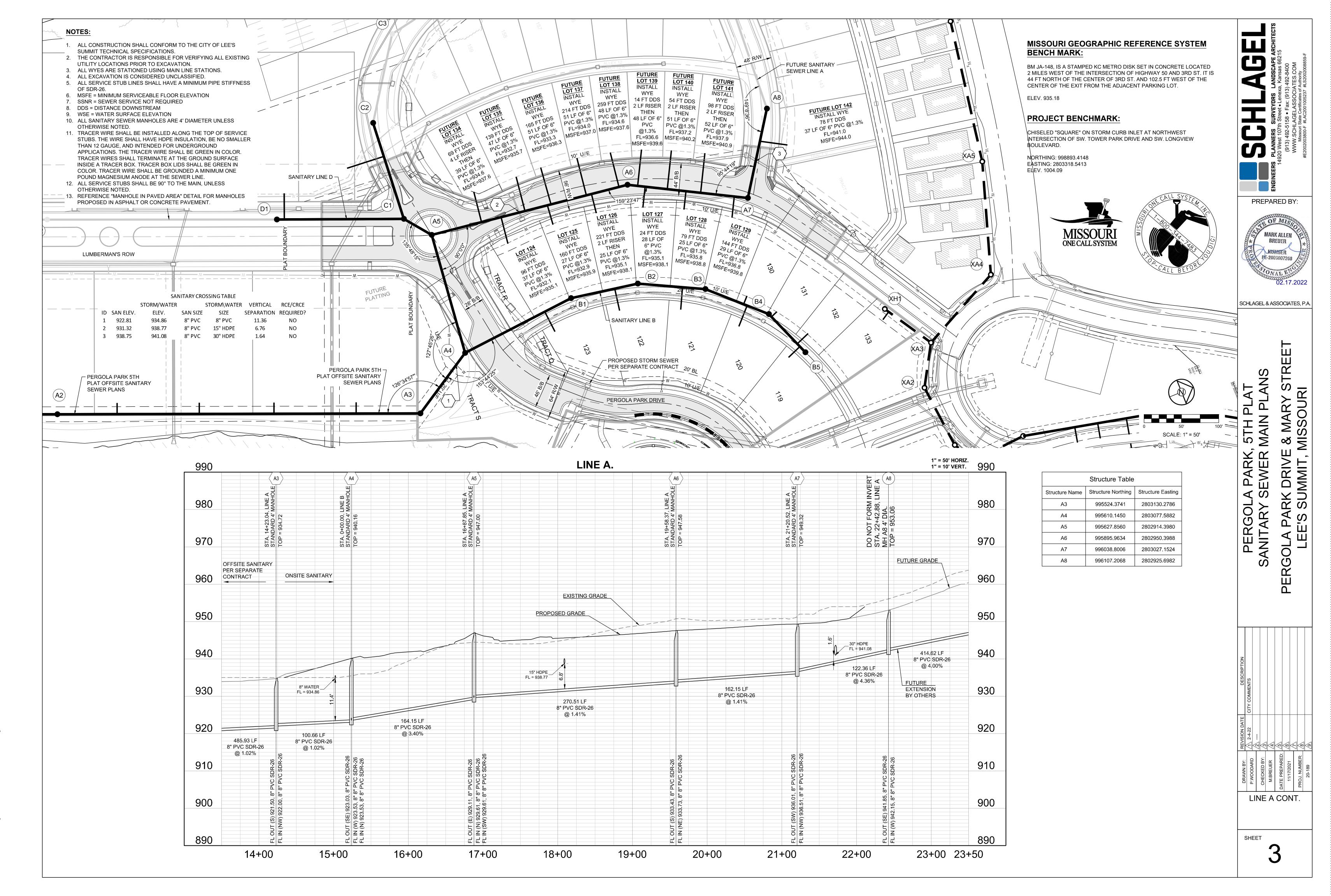
NORTHING: 998893.4148 EASTING: 2803318.5413 ELEV. 1004.09



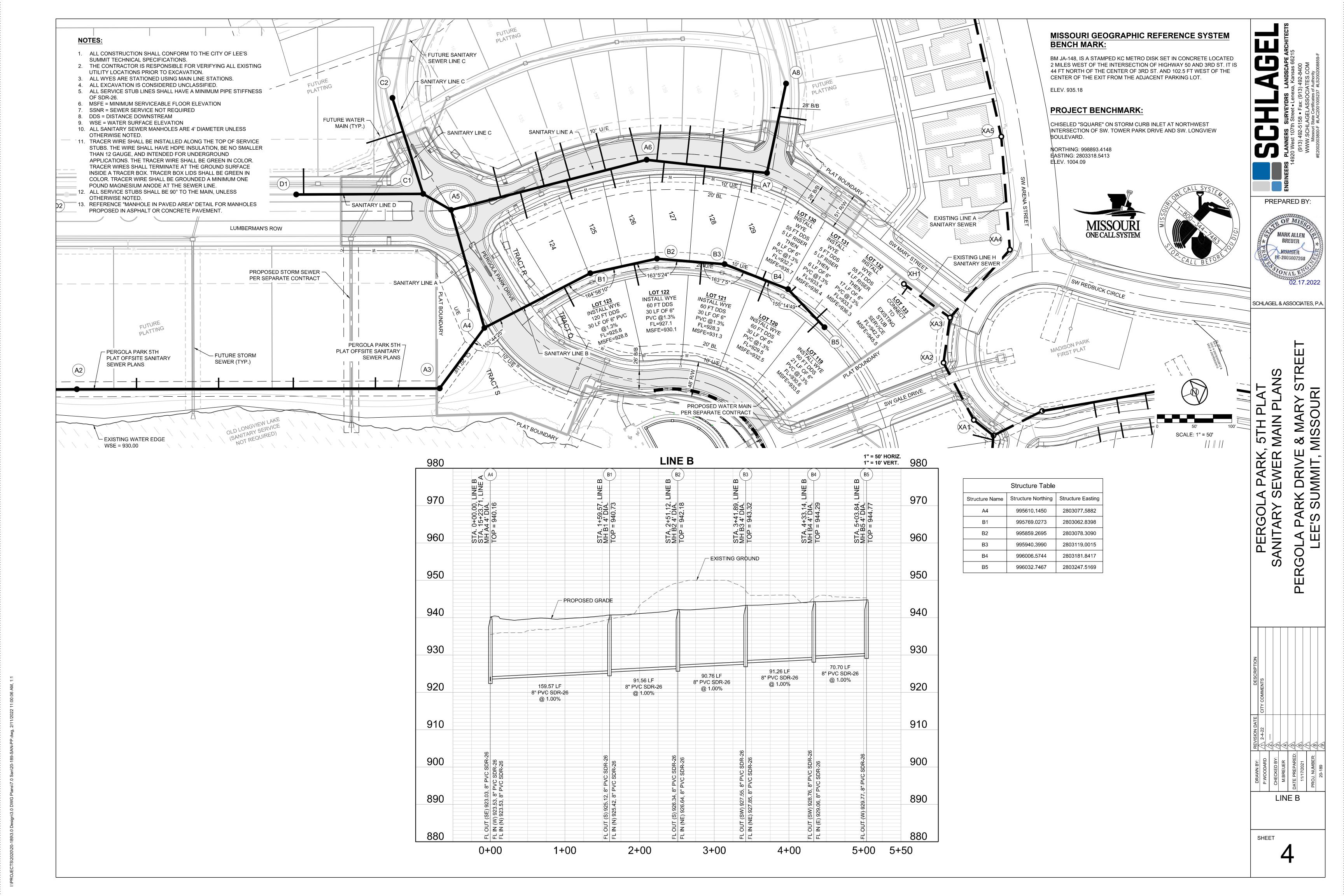
COVER



|PROJECTS\2020\20-189\3.0 Design\3.0 DWG Plans\7.0 San\20-189-SAN-GRAD.dwg, 2/11/2022 10:58



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## MISSOURI GEOGRAPHIC REFERENCE SYSTEM **BENCH MARK:**

BM JA-148, IS A STAMPED KC METRO DISK SET IN CONCRETE LOCATED 2 MILES WEST OF THE INTERSECTION OF HIGHWAY 50 AND 3RD ST. IT IS 44 FT NORTH OF THE CENTER OF 3RD ST. AND 102.5 FT WEST OF THE CENTER OF THE EXIT FROM THE ADJACENT PARKING LOT.

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### PROJECT BENCHMARK:

CHISELED "SQUARE" ON STORM CURB INLET AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148 EASTING: 2803318.5413 ELEV. 1004.09

#### SANITARY CROSSING TABLE

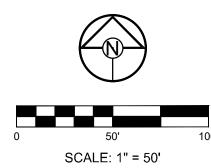
		STORM/WATER		STORM\WATER	VERTICAL	RCE/CRCE
ID	SAN ELEV.	ELEV.	SAN SIZE	SIZE	SEPARATION	REQUIRED?
4	933.25	935.5	8" PVC	36" HDPE	1.50	NO
5	935.27	946.1	8" PVC	8" PVC	10.17	NO
6	931.2	934.04	8" PVC	36" HDPE	2.08	NO

## NOTES:

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S
- SUMMIT TECHNICAL SPECIFICATIONS. 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING
- UTILITY LOCATIONS PRIOR TO EXCAVATION.
- 3. ALL WYES ARE STATIONED USING MAIN LINE STATIONS.
- 4. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED. 5. ALL SERVICE STUB LINES SHALL HAVE A MINIMUM PIPE STIFFNESS
- 6. MSFE = MINIMUM SERVICEABLE FLOOR ELEVATION
- 7. SSNR = SEWER SERVICE NOT REQUIRED
- 8. DDS = DISTANCE DOWNSTREAM
- 9. WSE = WATER SURFACE ELEVATION
- 10. ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS OTHERWISE NOTED.
- 11. TRACER WIRE SHALL BE INSTALLED ALONG THE TOP OF SERVICE STUBS. THE WIRE SHALL HAVE HDPE INSULATION, BE NO SMALLER THAN 12 GAUGE, AND INTENDED FOR UNDERGROUND APPLICATIONS. THE TRACER WIRE SHALL BE GREEN IN COLOR. TRACER WIRES SHALL TERMINATE AT THE GROUND SURFACE INSIDE A TRACER BOX. TRACER BOX LIDS SHALL BE GREEN IN COLOR. TRACER WIRE SHALL BE GROUNDED A MINIMUM ONE
- 12. ALL SERVICE STUBS SHALL BE 90° TO THE MAIN, UNLESS OTHERWISE NOTED.

POUND MAGNESIUM ANODE AT THE SEWER LINE.

13. REFERENCE "MANHOLE IN PAVED AREA" DETAIL FOR MANHOLES PROPOSED IN ASPHALT OR CONCRETE PAVEMENT.



	Structure Table	
Structure Name	Structure Northing	Structure Easting
C1	995601.3816	2802880.5143
D1	995443.4277	2802817.6607

44' B/B	TURE SANITARY WER LINE C  SANITARY LINE C  SANITARY LINE C	P.)  PROPOSED  PER SEPARA  ANITARY LINE A  TR	D WATER MAIN	23 // // // // // // // // // // // // //
	EXTURE LOT 18  52 LF 08 FT DDS  FL=935.6  MSFE=938.6  TALL WYE  SER THEN  35.4  938.4	C1 SANITARY LINE D	$\frac{U/E}{A4} = \frac{A4}{A7} = \frac{A4}{A3}$ $A3$	TRACT S  ABOMNOARY  AB
E. SW 1/4, SEC. 10-47-32  PARTITUD  BEAUTIFIE  BEAUTIFI		PROPOSED ST PER SEPARATI  PERGOLA F PLAT OFFSITE S SEWE	PARK 5TH SANITARY ER PLANS	- EXISTING WATER EDGE WSE = 930.00  LD LONGVIEW LAKE LD LONGVIEW SERVICE SANITARY SERVICE SANITARY SERVICE NOT REQUIRED)
LINE C	1" = 50' HORIZ. 1" = 10' VERT. 990	990	LINE D	1" = 50' HORIZ. 1" = 10' VERT. 990

			990		1 = 10 VER	1. <u>990</u>
			980	DO NOT FORM INVERT STA. 1+77.91, LINE C MH C2 4' DIA. TOP = 951.44	STA. 0+43.00, LINE C STA. 0+00.00, LINE D MH C14' DIA. TOP = 945.16 STA. 0+00.00, LINE C STA. 16+87.85, LINE A MH A5 4' DIA. TOP = 947.00	980
	Structure Table	1	970	STA NO	MON TOP	970
Structure Name	Structure Northing	Structure Easting				
A5 C1	995627.8560 995601.3816	2802914.3980 2802880.5143				
C2	995611.2522	2802745.9704	960	FUTURE GROUND		960
			950		EXISTING GROUND PROPOSED GRADE	950
			940	8" WATE FL = 946	30" HDPE FL=935.50	940
			930	8"	134.91 LF PVC SDR-26 @ 4.25% 43.00 LF	930
ONE CALL SYSTE	EM. A.C.		920		8" PVC SDR-26 @ 1.00%	920
	5) 0) Rt.		910	C SDR-26	SDR-26 SDR-26 VC SDR-26 C SDR-26 C SDR-26	910
CALL BEFO			900	IN (NW) 936.58, 8" PVC 8	FL IN (S) 930.54, 8" PVC SDR-26 FL IN (W) 930.54, 8" PVC SDR-26 FL OUT (NE) 930.04, 8" PVC SDR-26 FL IN (N) 929.61, 8" PVC SDR-26 FL IN (SW) 929.61, 8" PVC SDR-26 FL OUT (E) 929.11, 8" PVC SDR-26	900
MISSOU ONE CALL SYS	RI		890	) <u>N</u> O		890

1+00

0+00

2+00

2+80

980	S L N E D E D E D E D E D E D E D E D E D E	O, CINE NED O, CINE O,	980
970	DO NOT FORM INVERSITY 1+70.00, LINE D MH D1 4' DIA. TOP = 945.76	STA. 0+00.00, STA. 0+43.00, MH C1 4' DIA. TOP = 945.16	970
960	_ FUTURE GROUND		960
950	EXISTING GR	DUND PROPOSED GRADE	950
940			940
930		36" HDPE FL = 934.04	930
920	8"	170.00 LF PVC SDR-26 @ 1.00%	920
FUTURE EXTENS BY OTHE	ERS	-58	
910	FL IN (S) 932.54, 8" PVC SDR-26 FL OUT (N) 932.24, 8" PVC SDR-26	FL IN (S) 930.54, 8" PVC SDR-26 FL IN (W) 930.54, 8" PVC SDR-26 FL OUT (NE) 930.04, 8" PVC SDR-26	910
000	32.24, 8"	.54, 8" 930.04	900
900	N (S) 932.	N (S) 930 N (W) 930 OUT (NE)	







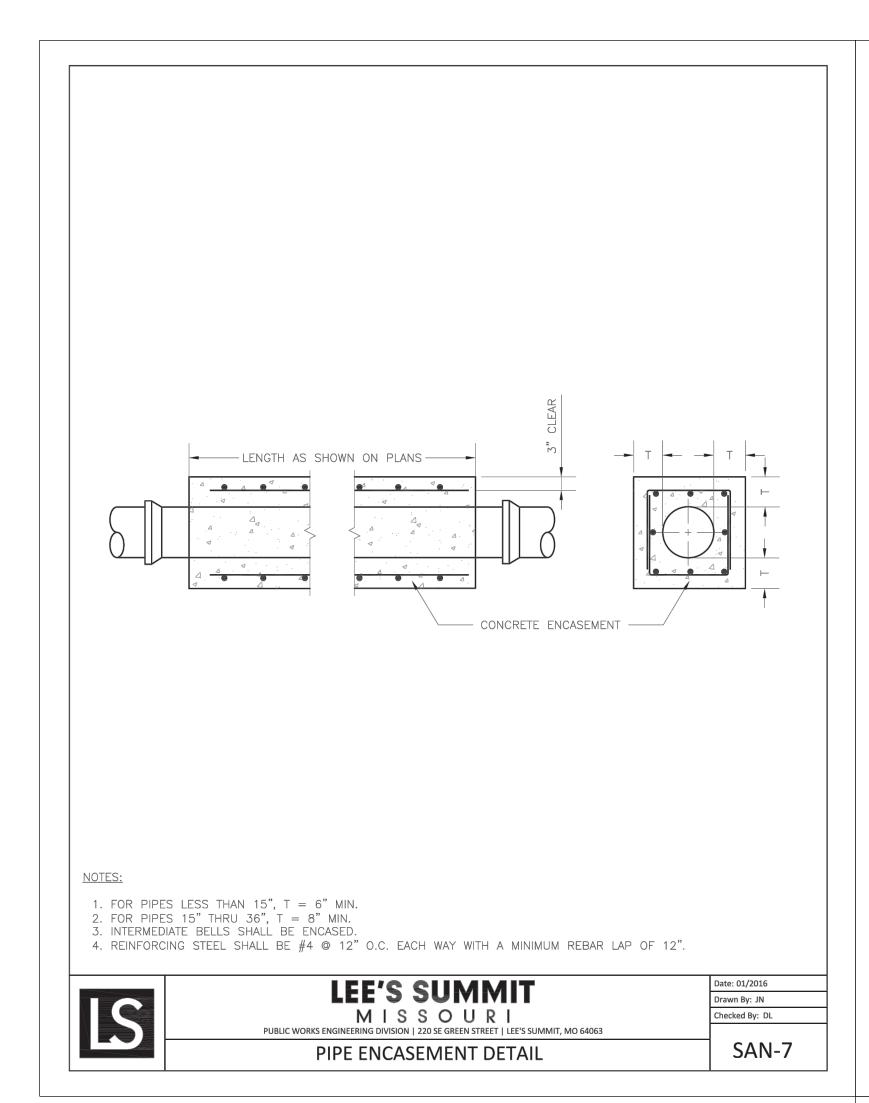
PREPARED BY: MARK ALLEN BREUER MOMBER 9E-2009007268

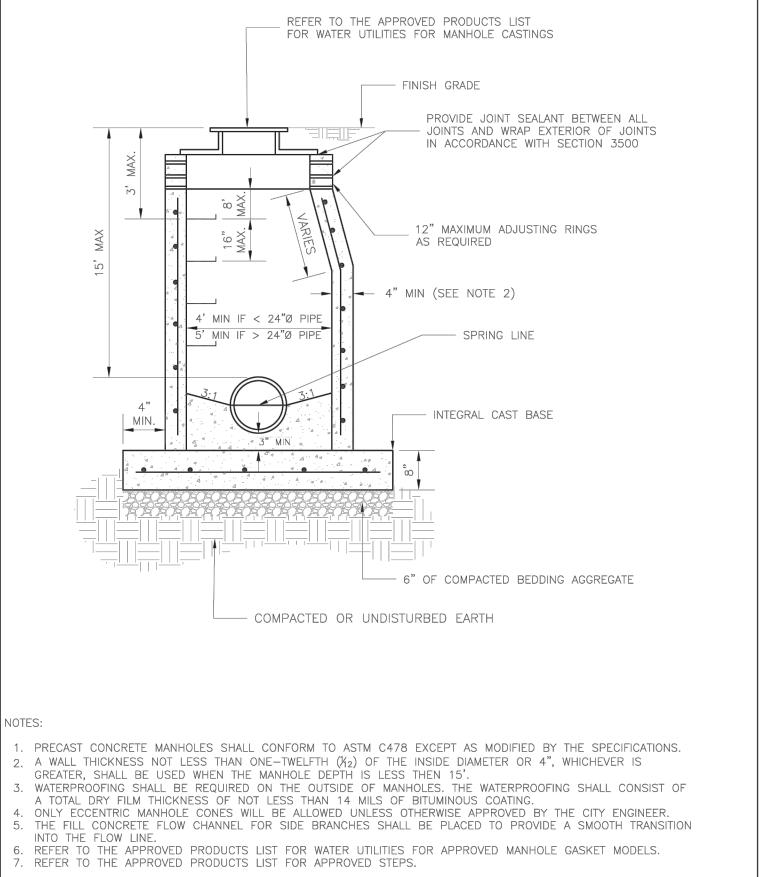
SCHLAGEL & ASSOCIATES, P.A.

PERGOLA PAR SANITARY SEWE

LINE C & D

SHEET





**LEE'S SUMMIT** 

STANDARD SANITARY PRECAST MANHOLE

MISSOURI

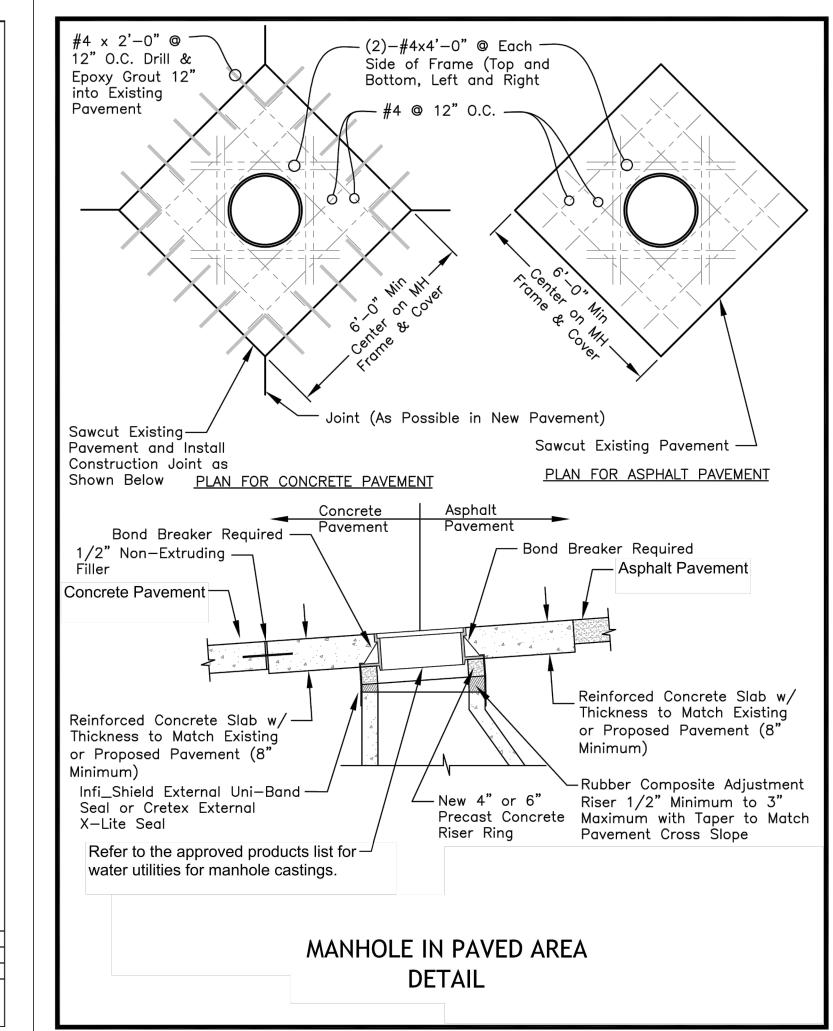
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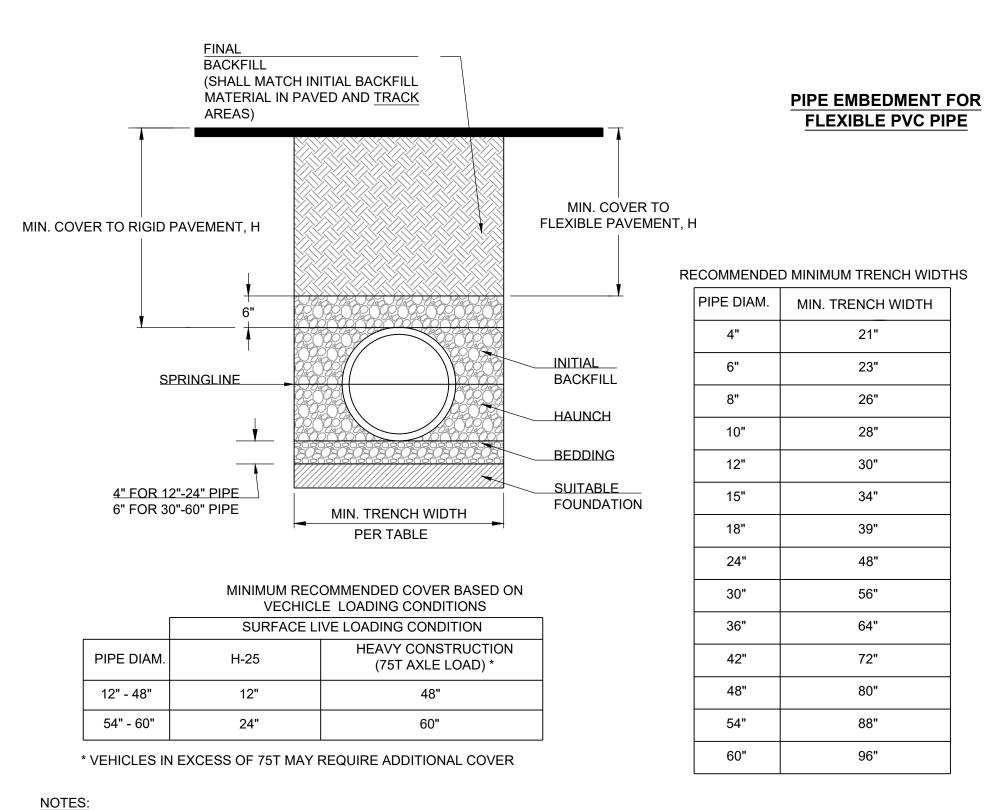
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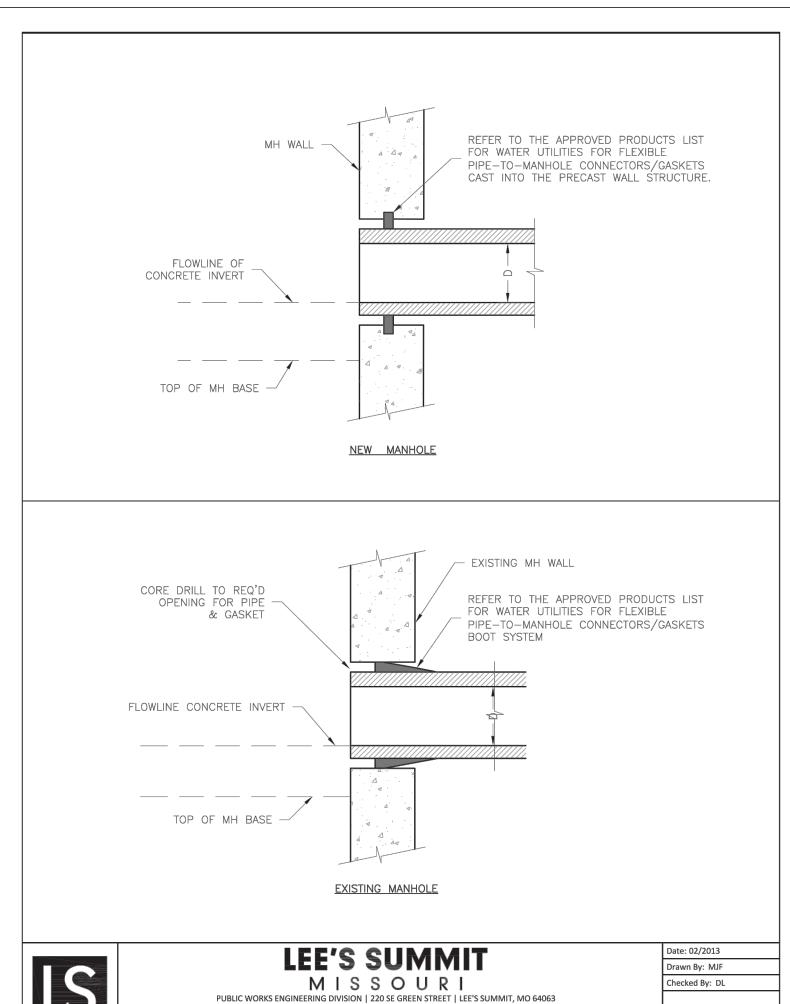
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SAN-2

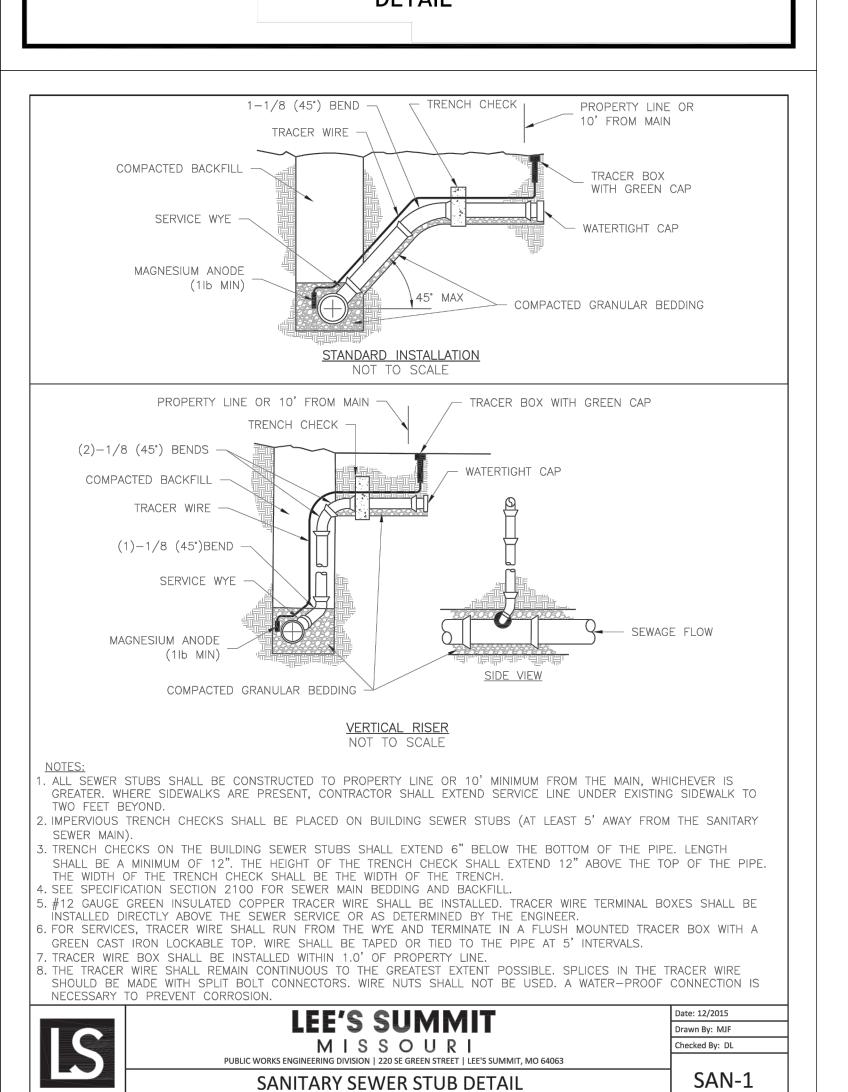
SAN-5







MANHOLE WALL CONNECTION

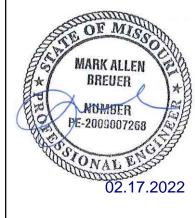




1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION

- 2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
- 3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- 4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
- 5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.





SCHLAGEL & ASSOCIATES, P.A.

A RK, ER PAI EWI

SANITARY DETAILS

SHEET