#### LEGEND: LOCATION ACCESS EASEMENT BACK OF CURB BACK TO BACK BENCHMARK - BUILDING LINE - CLEANOUT - TELEPHONE JUNCTION BOX - CURB AND GUTTER DRAINAGE EASEMENT - ELECTRICAL EASEMENT **SECTION 9-47-32** - ELEVATION SECTION 10-47-32 NE1/4 SECTION 15-47-32 FLOW LINE LOCATION MAP GAS LINE EASEMENT - HIGH-DENSITY POLYETHYLENE SCALE 1" = 2000' LANDSCAPE EASEMENT MINIMUM SERVICEABLE FLOOR **ELEVATION**

CO

G/E

U/E

 POLYVINYL CHLORIDE PROPERTY LINE PUBLIC EASEMENT

 SERVICE LINE SIDEWALK

TOP ELEVATION

CURB & GUTTER

TREELINE

P/L PROPERTY LINES

—— STO—— STORM SEWER

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

——Tx—— TELEPHONE LINE - EXIST.

ELECTRIC LINE - EXISTING

CLEANOUT

UTILITY EASEMENT

ROW or R/W - RIGHT-OF-WAY

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

STORM SEWER - EXISTING

SANITARY SEWER MAIN

SANITARY SEWER MAIN - EXIST.

FIBER OPTIC CABLE - EXISTING

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

----- UGE<sub>x</sub> ----- UNDERGROUND ELECTRIC - EX.

GAS LINE - EXISTING

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

WATERLINE EASEMENT

#### **UTILITY CONTACTS:**

MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) Steve Holloway

600 NE Colbern Road Lee's Summit, MO 64086 (816) 607-2186

MISSOURI GAS ENERGY (MGE)

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

**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

CITY OF LEE'S SUMMIT WATER UTILITIES

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

Independence, MO 64057

(816) 795-2257

	SUMMARY OF QUANTITIES		
	ITEM	QUANTITY	UNITS
1	8" PVC SDR 26	972	LF
2	8" ZINC-COATED (CLASS 50) PROTECTO 401 D.I.P	452	LF
3	6" PVC SDR 26	143	LF
4	8" x 6" WYE	8	EA
5	REINFORCED CONCRETE ENCASEMENT	72	LF
6	STANDARD 4' DIAMETER MANHOLE	3	EA
7	SEWER CONNECTION	1	EA
8	POST-CONST. BARREL ADJUSTMENT	4	EA
9	POST-CONST. RING (3"-12") ADJUSTMENT	4	EA
10	EXTRA DEPTH IN MANHOLE	42	VF
11	CLEARING & GRUBBING	1	LS
12	MOBILIZATION	1	LS
13	EROSION CONTROL	1	LS
14	BONDS	1	LS

# OFFSITE SANITARY SEWER MAIN PLANS PERGOLA PARK, 5TH PLAT

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

S	Sheet List Table
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL LAYOUT AND GRADIN
3	LINE A
4	LINE A CONT.
5	DETAIL SHEET

#### **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. 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.

## RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlagel and Associates.

"100.00 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 5/17/2023 Certified by: BAL Title: Design Engineer Firm: Schlagel and 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



MARK ALLEN BREUER MOMBER PE-2009007268 05.17.2023

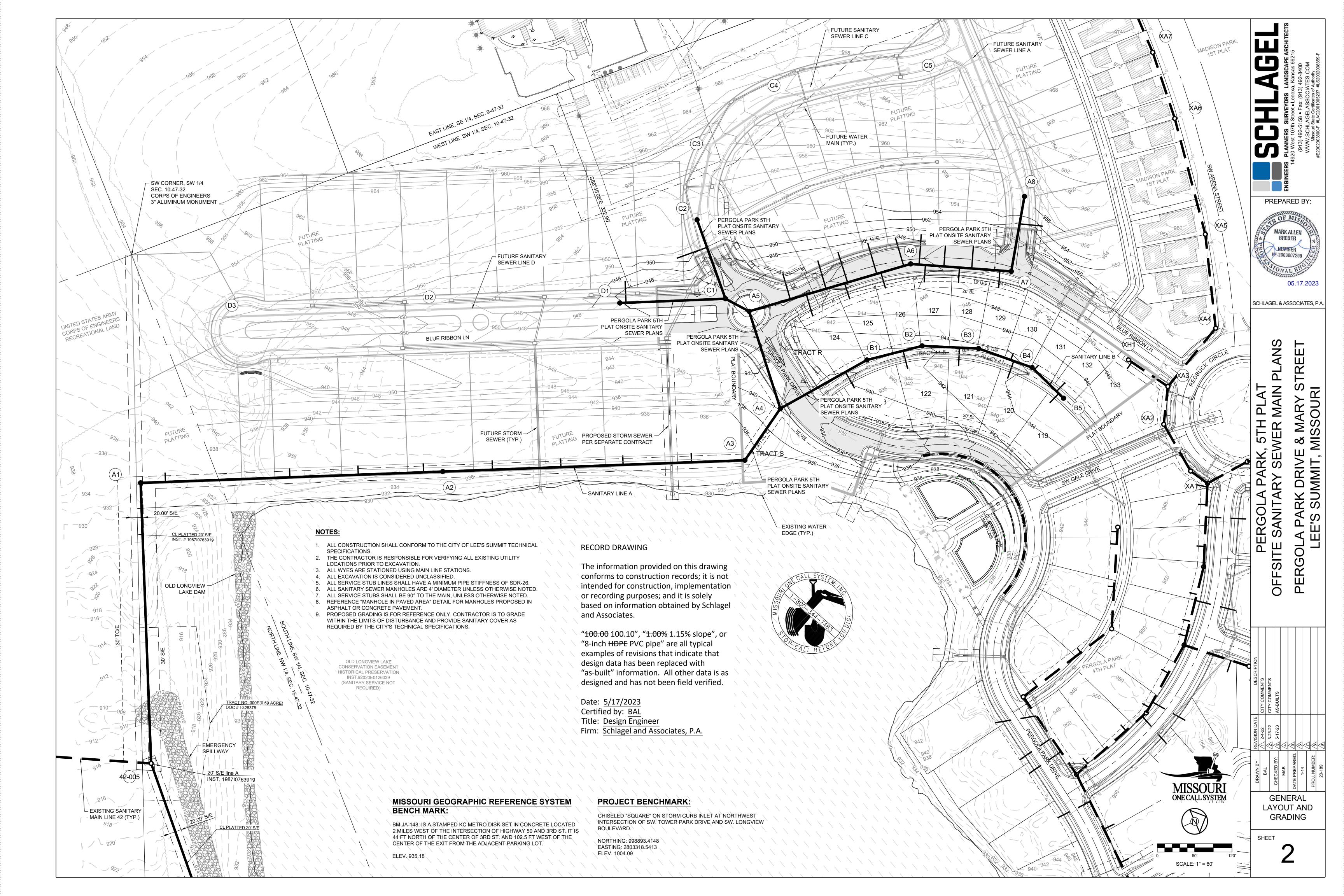
SCHLAGEL & ASSOCIATES, P.A

S

OF

**COVER SHEET** 

SHEET



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

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ELEV. 935.18

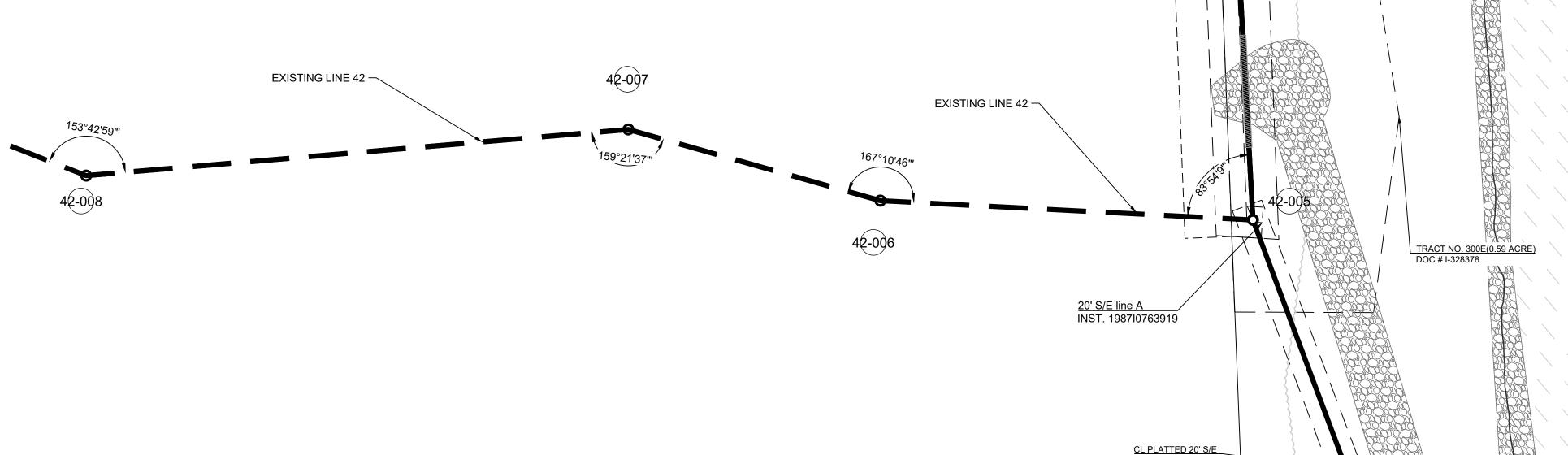
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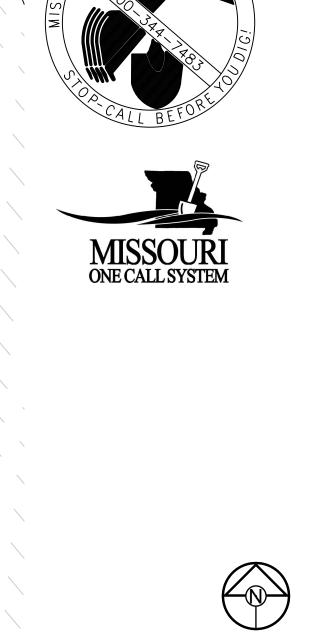
#### NOTES:

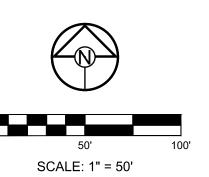
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- SUMMIT TECHNICAL SPECIFICATIONS. 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL
- EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
- 3. ALL WYES ARE STATIONED USING MAIN LINE STATIONS. 4. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
- 5. ALL SERVICE STUB LINES SHALL HAVE A MINIMUM PIPE STIFFNESS OF SDR-26.
- 6. MSFE = MINIMUM SERVICEABLE FLOOR ELEVATION
- 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 POUND MAGNESIUM ANODE AT THE SEWER LINE.
- 12. ALL SERVICE STUBS SHALL BE 90° TO THE MAIN, UNLESS OTHERWISE NOTED.



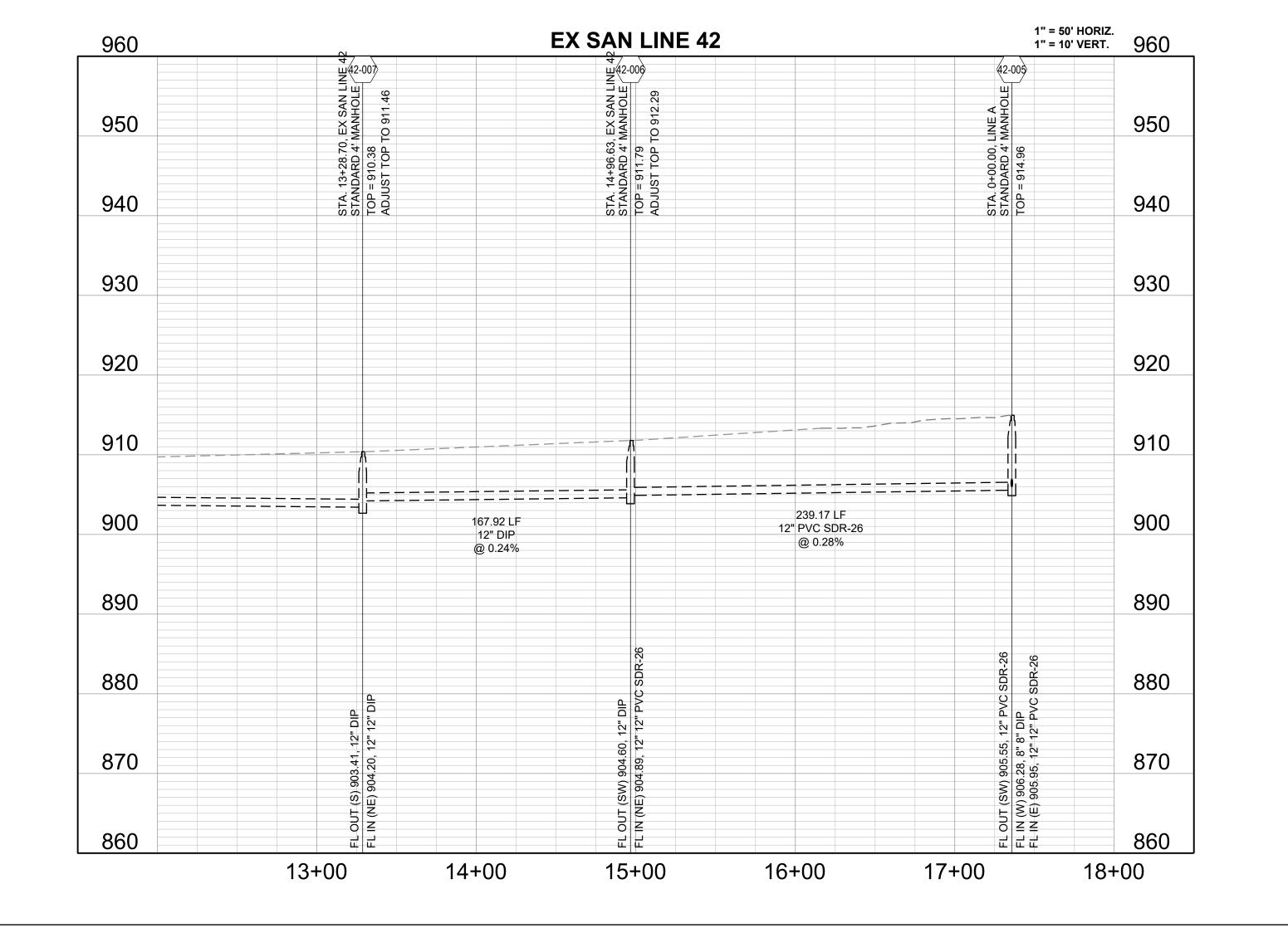
CL PLATTED 20' S/E INST. # 1987I0763919

SANITARY LINE A





	Structure Table	
Structure Name	Structure Northing	Structure Easting
42-005	994454.4063	2803187.2619
42-006	994243.1403	2803075.1570
42-007	994115.9707	2802965.4933



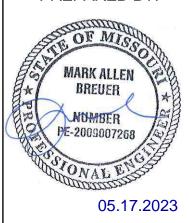
## RECORD DRAWING

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Date: 5/17/2023 Certified by: BAL Title: Design Engineer Firm: Schlagel and Associates, P.A.





SCHLAGEL & ASSOCIATES, P.A.

, 5TH WER OFFSITE

**EXISTING LINE 42** 

SHEET

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

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ELEV. 935.18

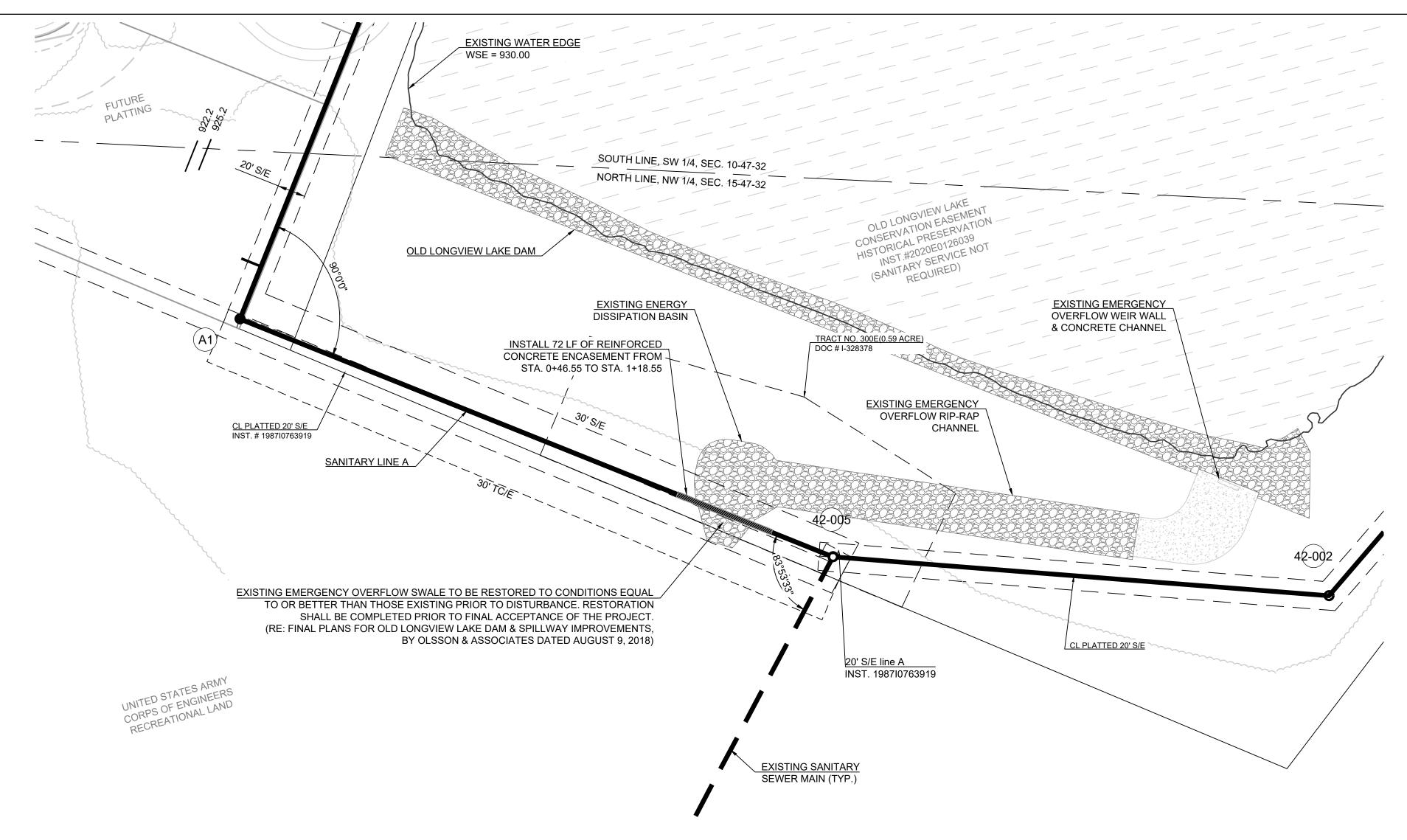
#### PROJECT BENCHMARK:

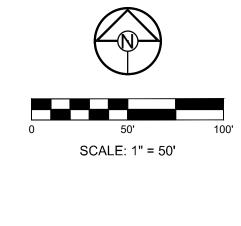
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NORTHING: 998893.4148 EASTING: 2803318.5413 ELEV. 1004.09

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	Structure Table	
Structure Name	Structure Northing	Structure Easting
A1	994622.3587	2802768.5044
42-005	994454.4063	2803187.2619

#### RECORD DRAWING

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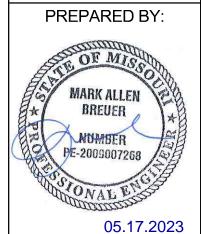
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Date: 5/17/2023 Certified by: BAL Title: Design Engineer

Firm: Schlagel and Associates, P.A.

970	LINE A	1" = 50' HORIZ. 1" = 10' VERT. 970
960	P. 18, CINE A CO. 19,	960
950	SWALE NOTE:  SWALE NOTE:  EXISTING EMERGENCY OVERFLOW SWALE TO BE RESTORATION SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. (RE: FINAL PLANS FOR OLD LONGVIEW LAKE DAM & SPILLWAY IMPROVEMENTS,	950
940	BY OLSSON & ASSOCIATES, DATED AUGUST 9, 2018)	940
930	PROPOSED GRADE	930
920	IMPERVIOUS DITCH CHECK  EMERGENCY OVERFLOW SWALE (RE: SWALE NOTE)  IMPERVIOUS DITCH CHECK	920
910		910
900	DIP (CLASS 50) W/ RESTRAINED JOINTS  PROTECTO 401 OR POLYBOND PLUS  LINING AND POLYETHYLENE  ENCASEMENT	EX. /C SDR-26 0.28%
890	ENCASEMENT  97  INSTALL 72 LF OF REINFORCED	890
880	INSTALL 72 LF OF REINFORCED CONT (E) 946.39, 8" PVC SDR.26  OUT (E) 946.39, 8" DIP CONCRETE ENCASEMENT FROM STA. 0+46.55 TO STA. 1+18.55  INSTALL 72 LF OF REINFORCED STA. 1+18.55  OUT (SW) 996.36, 12" PVC SDR.26  OUT (SW) 905.55, 12" PVC SDR.26	880
		870



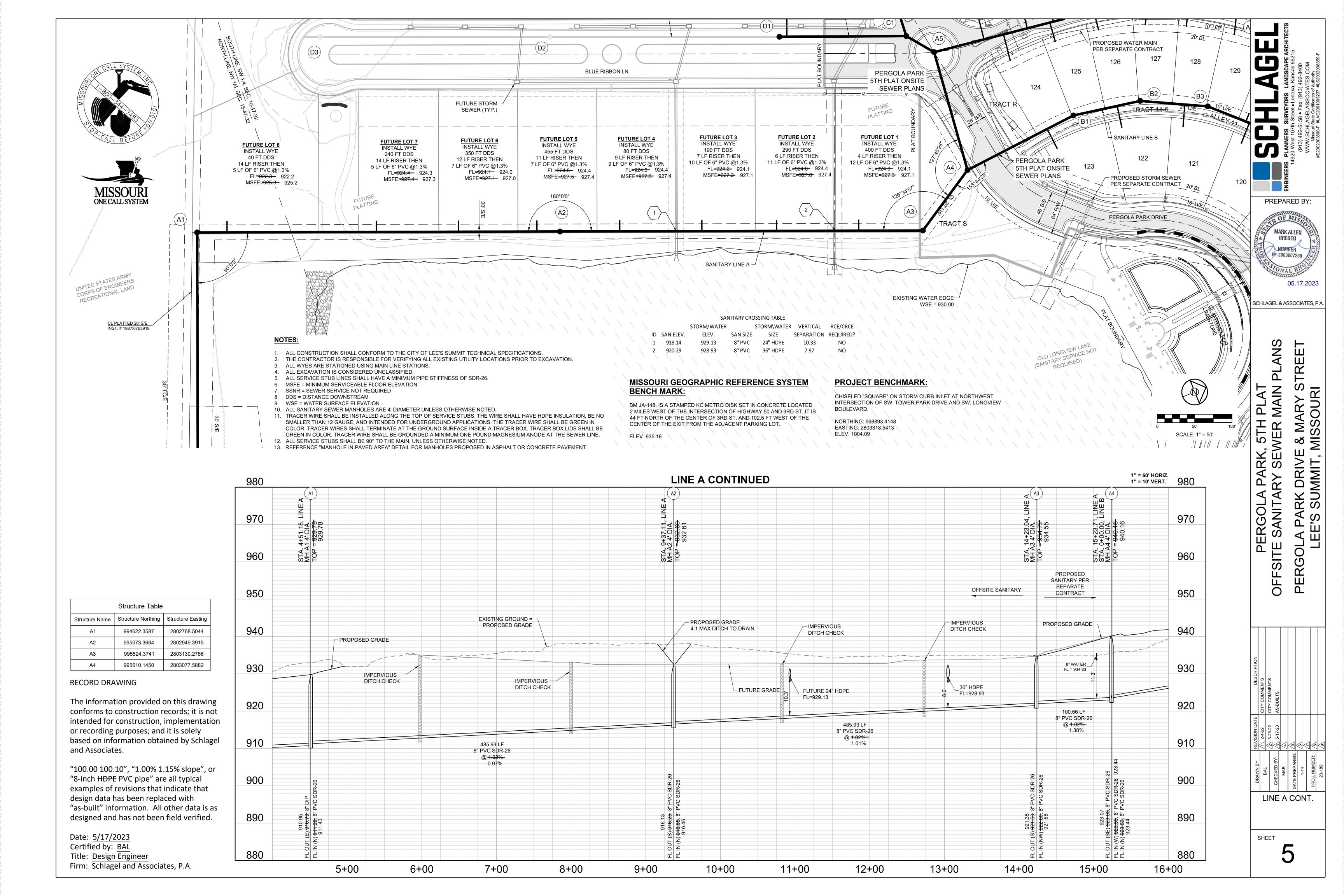


SCHLAGEL & ASSOCIATES, P.A.

, 5TH WER I OFFSITE

ΒΔΙ	7√1 2-4-22	CITY COMMENTS
זעם	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	OFINE NAME OF VEIN
	77-67-6 \77	
ECKED BY:	3 5-17-23	AS-BUILTS
MAB	4	
PREPARED	\ <u>\$</u>	
	\ <u>\</u>	
1-14		
J. NUMBER:	\ <u>\</u>	
20-189		

LINE A



# LENGTH AS SHOWN ON PLANS CONCRETE ENCASEMENT NOTES: 1. FOR PIPES LESS THAN 15", T = 6" MIN. 2. FOR PIPES 15" THRU 36", T = 8" MIN. 3. INTERMEDIATE BELLS SHALL BE ENCASED. 4. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12". **LEE'S SUMMIT** Drawn By: JN MISSOURI Checked By: DL

RECORD DRAWING

and Associates.

Date: 5/17/2023

Certified by: BAL

Title: Design Engineer

The information provided on this drawing

conforms to construction records; it is not

intended for construction, implementation

based on information obtained by Schlagel

"100.00 100.10", "1.00% 1.15% slope", or

"as-built" information. All other data is as

designed and has not been field verified.

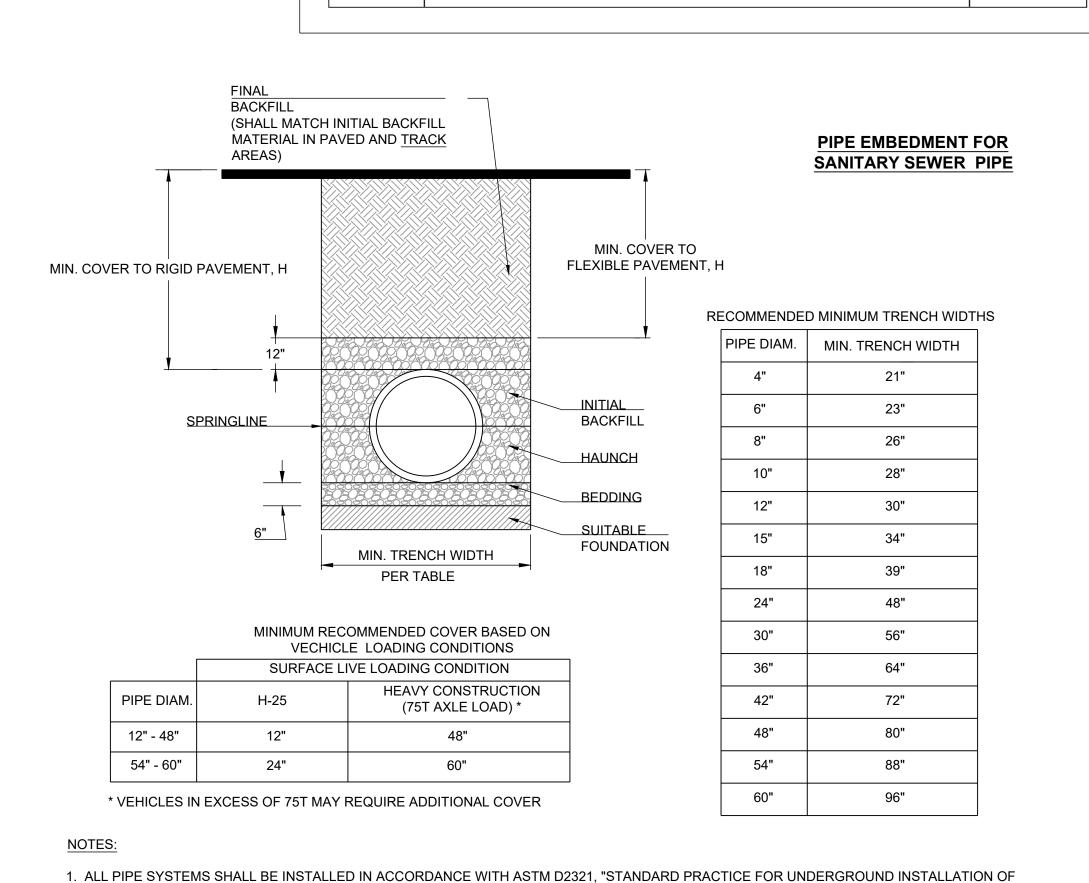
"8-inch HDPE PVC pipe" are all typical

design data has been replaced with

Firm: Schlagel and Associates, P.A.

examples of revisions that indicate that

or recording purposes; and it is solely



THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION

THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

ASTM D2321, LATEST EDITION.

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

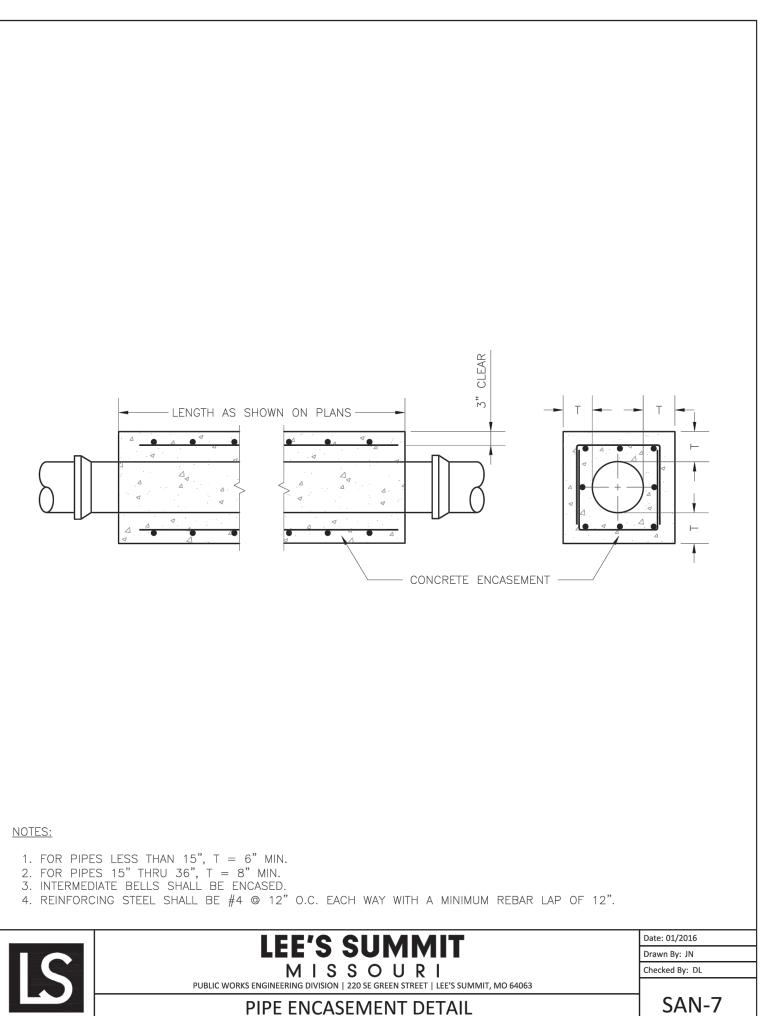
TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 6" (100mm).

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,

4. <u>BEDDING:</u> SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION

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

\_6\_MINIMUM COVER: MINIMUM COVER\_H\_IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND





COMPACTED OR UNDISTURBED EARTH

REFER TO THE APPROVED PRODUCTS LIST

FOR WATER UTILITIES FOR MANHOLE CASTINGS

---- FINISH GRADE

PROVIDE JOINT SEALANT BETWEEN ALL - JOINTS AND WRAP EXTERIOR OF JOINTS IN ACCORDANCE WITH SECTION 3500

12" MAXIMUM ADJUSTING RINGS

SPRING LINE

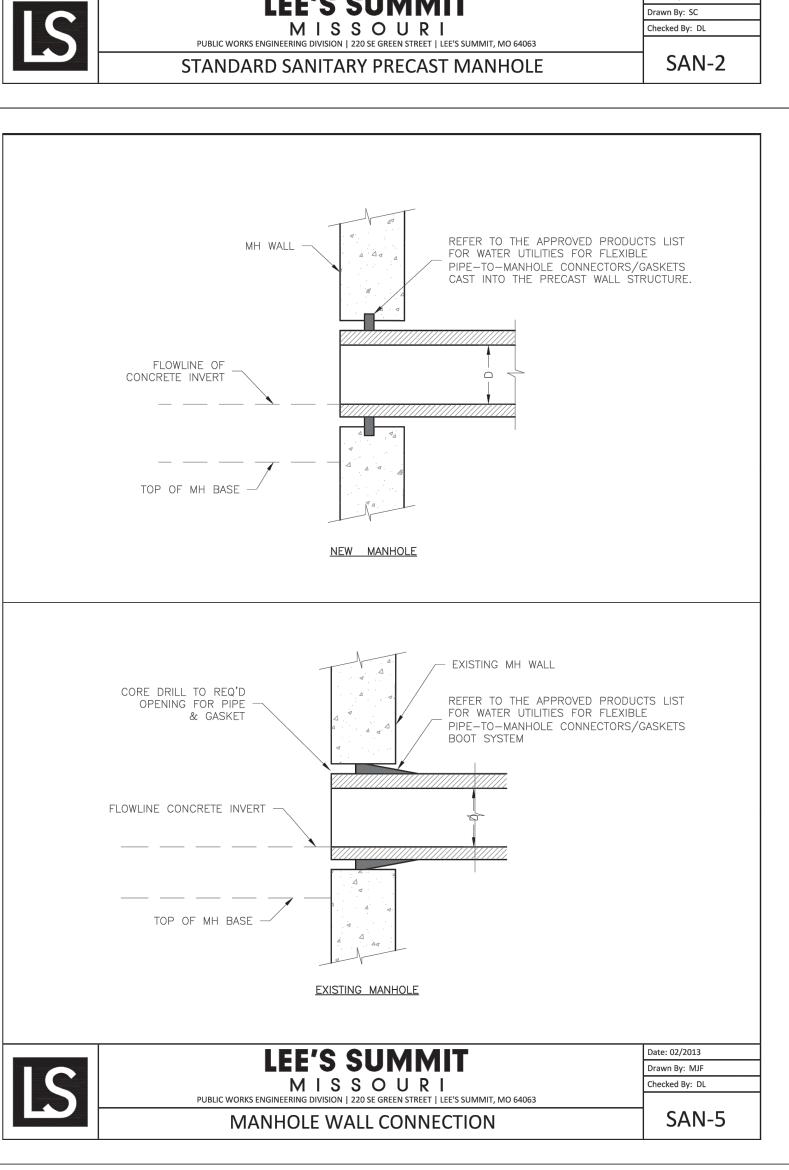
- INTEGRAL CAST BASE

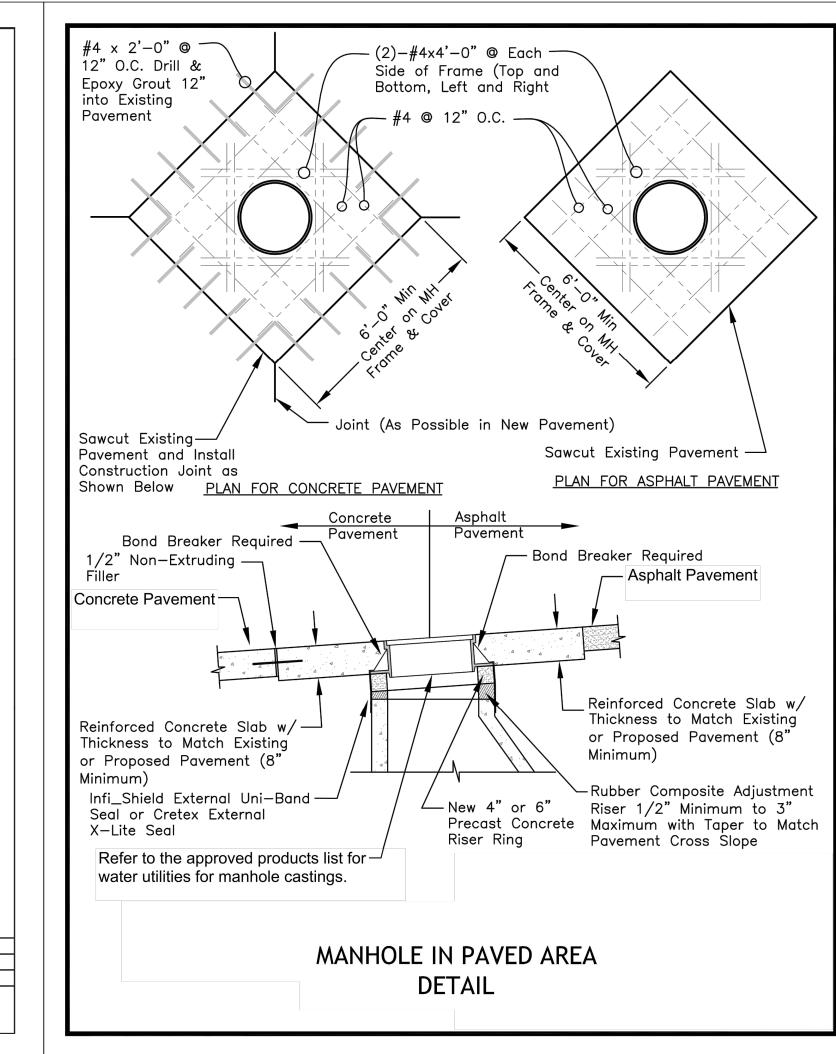
----- 6" OF COMPACTED BEDDING AGGREGATE

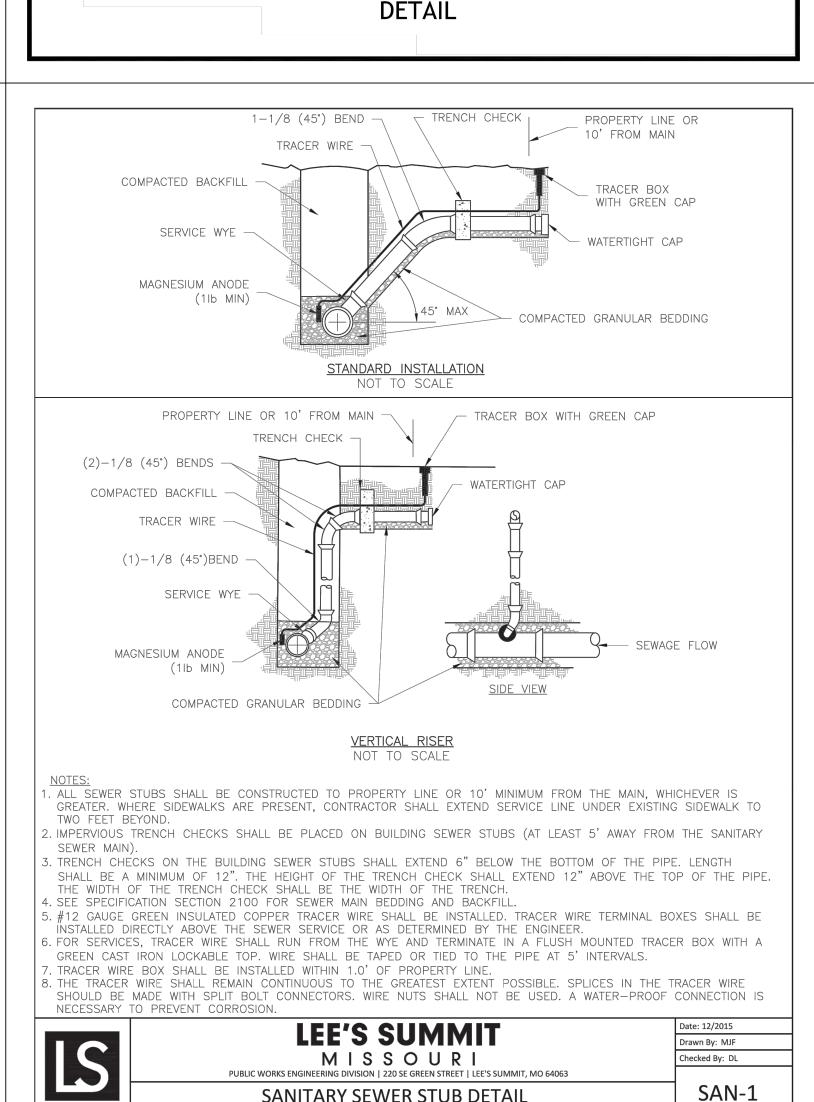
AS REQUIRED

4" MIN (SEE NOTE 2)

4' MIN IF < 24"Ø PIPE 5' MIN IF > 24"Ø PIPE







SANITARY SEWER STUB DETAIL



C

SHEET