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UTILITY COMPANIES AND GOVERNING AGENCIES:

CITY OF LEE'S SUMMIT, PUBLIC WORKS:

ENGINEERING
 220 SE GREEN
 LEE'S SUMMIT, MO 64063
 816.969.1800

CITY OF LEE'S SUMMIT, CITY HALL:

220 SE GREEN
 LEE'S SUMMIT, MO 64063
 816.969.1000

CITY OF LEE'S SUMMIT, FIRE CHIEF:

207 SE DOUGLAS
 LEE'S SUMMIT, MO 64063
 816.969.7407

CITY OF LEE'S SUMMIT, POLICE CHIEF:

10 NE TUDOR
 LEE'S SUMMIT, MO 64086
 816.969.1700

WATER UTILITIES:

1200 SE HAMBLEN ROAD
 LEE'S SUMMIT, MO 64081
 816.969.1900

BUILDING INSPECTIONS

220 SE GREEN
 LEE'S SUMMIT, MO 64063
 816.969.1200

POWER COMPANY:

EVERGY
 8700 EAST FRONT STREET
 KANSAS CITY, MO 64120
 816.471.5275

GAS COMPANY:

SPIRE GAS
 3025 S.E CLOVER ST
 LEES SUMMIT, MO 64082
 816.756.5252

TELEPHONE:

AT&T
 DARRIN SHEPARD
 816.275.3825
 ds616h@att.com

CABLE/FIBER:

SPECTRUM
 877.772.2253

GOOGLE FIBER

877.454.6959

PUBLIC SANITARY SEWER MAIN EXTENSION PLANS FOR
LEE'S SUMMIT MIDDLE SCHOOL #4
 SOUTH SIDE SE BAILEY ROAD AND COUNTRY LANE
 NE 1/4 OF SECTION 16, TOWNSHIP 47 NORTH, RANGE 31 WEST
 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	GENERAL LAYOUT PLAN
4	SANITARY SEWER PLAN & PROFILE
5	SANITARY SEWER PLAN & PROFILE
6	EROSION CONTROL PLAN
7	STANDARD DETAILS

DEVELOPMENT TEAM CONTACT INFORMATION	
OWNER/DEVELOPER	
KYLE GORRELL DIRECTOR, LEE'S SUMMIT SCHOOL DISTRICT	502 SE TRANSPORT DRIVE LEE'S SUMMIT, MO 64081 816.986-2420
CIVIL ENGINEER	
TERRY PARSONS OLSSON	7301 W. 133RD STREET SUITE 200 OVERLAND PARK, KS 66213 PH: 913.381.1170 FAX: 913.381.1174 tparsons@olsson.com

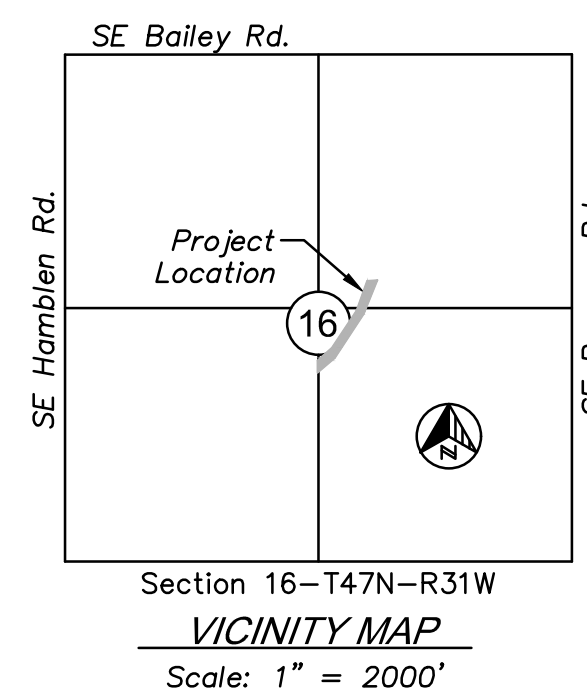
Summary of Quantities		
Description	Qty	Unit
Mobilization	1	LS
Erosion Control	1	LS
Standard 4" Manhole (8ft)	8	Ea
Extra Depth Manhole	28	LF
15" PVC (SDR-26)		
COVER 6' TO 10'	822	LF
COVER 10' TO 15'	843	LF
8" PVC (SDR-26) COVER 6' TO 10'	73	LF
8" DIP (CLASS 50 COVER 6' TO 10')	176	LF
Connection to Existing Manhole	1	Ea
Restoration	1	LS

UTILITY AND GOVERNING AGENCY CONTACT INFORMATION	
CITY OF LEE'S SUMMIT, MISSOURI	220 SE GREEN LEE'S SUMMIT, MO 64063
CITY HALL	816.969.1000
BUILDING INSPECTIONS	816.969.1200
SPECIAL INSPECTIONS	816.969.1200
BUILDING PERMITS	816.969.1200
LAND DEVELOPMENT DIVISION/INSPECTIONS	816.969.1200
TRAFFIC OPERATIONS	816.969.1800
LEE'S SUMMIT WATER UTILITIES	1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081
LEE'S SUMMIT WATER & SERVICES	816.969.1940
LEE'S SUMMIT PUBLIC WORKS	816.969.1800
SPIRE (MGE)	314.342.0500
KANSAS CITY POWER & LIGHT	8700 EAST FRONT STREET KANSAS CITY, MO 64120 816.471.5275
TELEPHONE SERVICE	
AT&T	816.221.1781
CABLE TELEVISION SERVICE	
SPECTRUM	877.772.2253
GOOGLE FIBER	877.454.6959

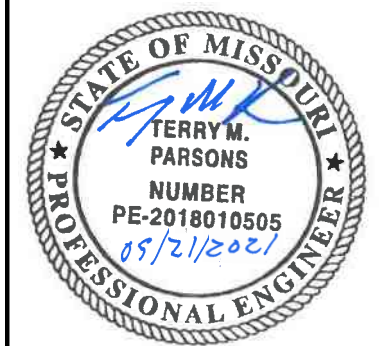
LEGAL DESCRIPTION:

All that part of Northeast Quarter of Section 16, Township 47 North, Range 31 West, in the City of Lee's Summit, Jackson County, Missouri, as described by Timothy Blair Wiswell, Missouri Professional Licensed Surveyor, PLS-2009000067, and being more particularly described as follows:

COMMENCING at the Northwest corner of the Northeast Quarter, of said Section 16-T47N-R31W; thence South 02 degrees 20 minutes 19 seconds West, along the West line of said Northeast Quarter, a distance of 20.00 feet, to a point on the South Right-of-Way line of Bailey Road as now established, said point also being the Northeast corner of Lot 164 of Newberry Second Plat, Lots 1-65, 163 and 164, a subdivision in the City of Lee's Summit, Jackson County, Missouri; thence South 88 degrees 07 minutes 48 seconds East, on the South Right-of-Way line of said Bailey Road, a distance of 1,350.00 feet, to a point; thence South 35 degrees 20 minutes 58 seconds West, departing the South Right-of-Way line of said Bailey Road, a distance of 517.08 feet, to a point; thence South 07 degrees 56 minutes 53 seconds West, a distance of 320.18 feet, to a point; thence South 12 degrees 12 minutes 42 seconds West, a distance of 1,168.07 feet, to a point; thence South 27 degrees 41 minutes 50 seconds West, a distance of 480.35 feet, to a point on a line that is 300.00 feet North of and parallel to the South line of said Northeast Quarter; thence North 88 degrees 04 minutes 43 seconds West, on said parallel line, a distance of 630.96 feet, to a point on the West line of said Northeast Quarter, said point also being on the East line of Newberry Fourth Plat, a subdivision in the City of Lee's Summit, Jackson County, Missouri; thence North 02 degrees 20 minutes 19 seconds East, on the West line of said Northeast Quarter, and on the East line of said Newberry Fourth Plat, and on the East line of Newberry Third Plat, a subdivision in the City of Lee's Summit, Jackson County, Missouri, and on the East line of said Newberry Second Plat, Lots 1-65, 163 and 164, a distance of 2,330.63 feet, to the POINT OF BEGINNING, containing 2,250,248 square feet or 51.6586 acres, more or less.



Section 16-T47N-R31W
VICINITY MAP
 Scale: 1" = 2000'



REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/21/21	AS1033

COVER SHEET
 SANITARY SEWER PLANS
 LEE'S SUMMIT MIDDLE SCHOOL #4
 SE BAILEY ROAD AND SE COUNTRY LANE
 LEE'S SUMMIT, MISSOURI
 2021

drawn by: RLK
 checked by: BS
 approved by: TP
 QA/QC by: MP
 project no.: 020-0103
 drawing no.: C_COV01_0200103
 date: 12.05.20

olsson
 7301 West 133rd Street, Suite 200
 Overland Park, KS 66213-4750
 TEL 913.381.1170 www.olsson.com

GENERAL NOTES:

- 1. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-SAFE", 1(800)344-7233 OR 811 AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!
2. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
...
36. ANY CONTRACTOR BIDDING ANY PORTION OF THIS WORK SHALL HAVE IN HIS OR HER POSSESSION A COMPLETE SET OF CONSTRUCTION DOCUMENTS AND BE FAMILIAR WITH ALL SCOPES OF WORK AND TRADES TO UNDERSTAND THEIR INTERACTIONS.

EROSION CONTROL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT. ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED.
...
16. SEED ALL DISTURBED AREA PER CITY STANDARDS AND SPECIFICATIONS.

CONTROL INFORMATION:

BASIS OF COORDINATES SHOWN HEREON ARE BASED ON MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE, AND SCALED TO GROUND COORDINATES UTILIZING A COMBINED ADJUSTMENT FACTOR OF 0.9998966, HOLDING JACKSON COUNTY GPS CONTROL POINT JA-45 AS A BASE POINT. DISTANCES SHOWN HEREON ARE GROUND DISTANCES IN US SURVEY FEET.

MO DNR JA-45: KC METRO ALUMINUM GR5 DISK SET IN CONCRETE ±3" BELOW PAVEMENT ON SHOULDER OF SE RANSON RD. STAMPED "JA-45". N: 994990.346 E: 2834265.611 ELEV.: 1046.26'

OLSSON #100: SET 1/2" REBAR WITH OLSSON CONTROL CAP. SET IN THE GRASS ON THE NORTH SIDE OF SE BAILEY RD. N: 993598.83 E: 2831586.70 ELEVATION: 1032.16'

TIES: 1. SW 66.88' TO THE NE CORNER OF THE CONCRETE SIDEWALK ON THE SOUTH SIDE OF SE BAILEY RD. 2. SSW 82.19' TO THE CENTER OF A POWER POLE ON THE SOUTH SIDE OF SE BAILEY RD. 3. EAST 254.38' TO THE NW CORNER OF A CONCRETE CURB INLET ON THE NORTH SIDE OF SE BAILEY RD. 4. EAST ±298' TO THE CENTERLINE OF COUNTRY LN. ON THE NORTH SIDE OF SE BAILEY RD.

OLSSON #101: SET 1/2" REBAR WITH OLSSON CONTROL CAP. SET IN THE GRASS ON THE NORTH SIDE OF SE BAILEY RD. N: 993561.11 E: 2832755.84 ELEVATION: 1014.26'

TIES: 1. EAST 80.94' TO THE NW CORNER OF A CONCRETE CURB INLET ON THE NORTH SIDE OF SE BAILEY RD. 2. SE 91.53' TO THE SW CORNER OF A CONCRETE CURB INLET ON THE SOUTH SIDE OF SE BAILEY RD. 3. NE 94.82' TO THE SW CORNER OF A CONCRETE OVERFLOW STRUCTURE ON THE SOUTH SIDE OF A POND ON THE NORTH SIDE OF SE BAILEY RD. 4. WEST ±871' TO THE CENTERLINE OF COUNTRY LN. ON THE NORTH SIDE OF SE BAILEY RD.

OLSSON #102: SET 1/2" REBAR WITH OLSSON CONTROL CAP. SET IN THE GRASS ±58' EAST OF THE EAST END OF SE 15TH ST. N: 992084.37 E: 2831530.63 ELEVATION: 1012.56'

TIES: 1. NW 67.97' TO THE CENTER OF A WATER VALVE ON THE NORTH SIDE OF SE 15TH ST. 2. WEST 59.33' TO THE CENTER OF A SANITARY MANHOLE ON THE SOUTH SIDE OF SE 15TH ST. 3. WSW 57.28' TO THE SE CORNER OF THE EAST END OF THE CONCRETE SIDEWALK ON THE SOUTH SIDE OF SE 15TH ST. 4. NORTH ±15' TO THE EASTERLY PROLONGATION OF THE CENTERLINE OF SE 15TH ST.

OLSSON #103: SET 1/2" REBAR WITH OLSSON CONTROL CAP. SET IN THE GRASS ±62' EAST OF THE EAST END OF SE CAPE DR. N: 991553.72 E: 2831514.48 ELEVATION: 1000.43'

TIES: 1. NW 76.12' TO THE CENTER OF A TELEPHONE PEDESTAL ON THE NORTH SIDE OF SE CAPE DR. 2. SW 67.00' TO THE CENTER OF A WATER VALVE ON THE SOUTH SIDE OF SE CAPE DR. 3. SW 70.06' TO THE SE CORNER OF THE EAST END OF THE CONCRETE SIDEWALK ON THE SOUTH SIDE OF SE CAPE DR. 4. NORTH ±4' TO THE EASTERLY PROLONGATION OF THE CENTERLINE OF SE CAPE DR.

BASIS OF ELEVATIONS SHOWN HEREON ARE BASED UPON NAVD '88 UTILIZING MDDOT'S CONTINUOUSLY MONITORED GNSS SYSTEM AND HOLDING THE ELEVATION OF JA-45 ELEVATION 1046.26'

OLSSON BENCHMARK #1: SET CHISELED SQUARE CUT ON CENTER FRONT FACE OF A CURB INLET ON NORTH SIDE OF SE BAILEY RD. ±42' WEST OF COUNTRY LN. ELEVATION: 1028.43'

OLSSON BENCHMARK #2: SET CHISELED SQUARE CUT ON SE CORNER OF OVERFLOW STRUCTURE ON SOUTH SIDE OF POND ON NORTH SIDE OF SE BAILEY RD. ±962' EAST OF COUNTRY LN. ELEVATION: 1017.13'

OLSSON BENCHMARK #3: SET CHISELED "+" CUT ON SSE FLANGE BOLT OF FIRE HYDRANT IN THE NW QUADRANT OF THE INTERSECTION OF SE 15TH ST. AND SE DALTON DR. ELEVATION: 1016.27'

OLSSON BENCHMARK #4: SET CHISELED SQUARE CUT ON EDGE OF SIDEWALK AT THE WEST CENTER OF A CURB INLET IN THE NW QUADRANT OF THE INTERSECTION OF SE CAPE DR. AND SE DALTON DR. ELEVATION: 999.24'



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, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

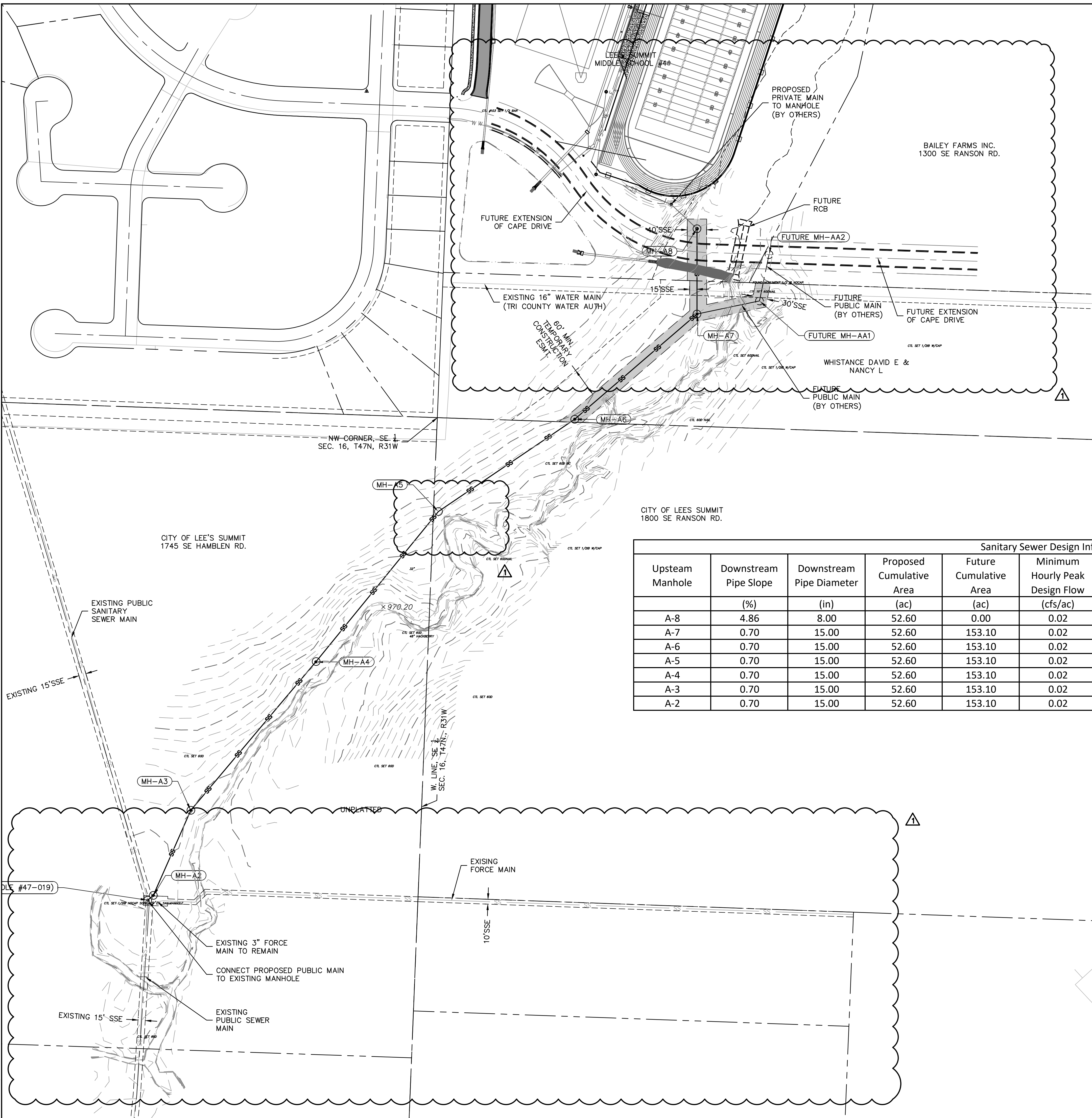


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GENERAL NOTES SANITARY SEWER PLANS LEE'S SUMMIT MIDDLE SCHOOL #4 SE BAILEY ROAD AND SE COUNTRY LANE LEE'S SUMMIT, MISSOURI 2021 SHEET 2 of 7

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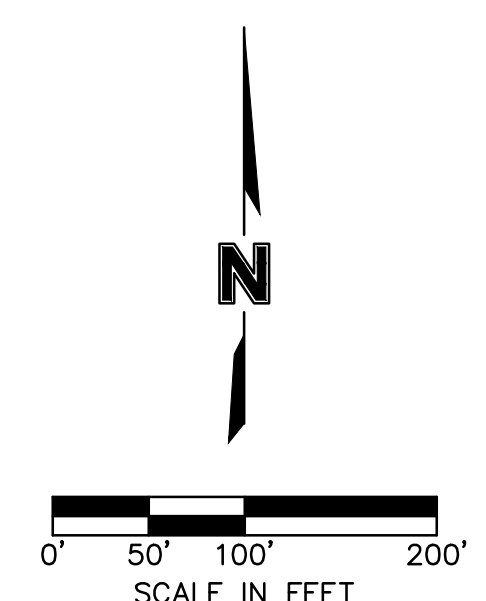
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Sanitary Sewer Design Information

Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Future Cumulative Area	Minimum Hourly Peak Design Flow	Proposed Cumulative Peak Flow	Future Cumulative Peak Flow	Downstream Pipe Manning's N	Downstream Pipe Capacity	Downstream Pipe Full Flow Velocity
	(%)	(in)	(ac)	(ac)	(cfs/ac)	(cfs)	(cfs)		(cfs)	(fps)
A-8	4.86	8.00	52.60	0.00	0.02	1.05	0.00	0.013	2.70	7.65
A-7	0.70	15.00	52.60	153.10	0.02	1.05	3.06	0.013	5.00	4.08
A-6	0.70	15.00	52.60	153.10	0.02	1.05	3.06	0.013	5.00	4.08
A-5	0.70	15.00	52.60	153.10	0.02	1.05	3.06	0.013	5.00	4.08
A-4	0.70	15.00	52.60	153.10	0.02	1.05	3.06	0.013	5.00	4.08
A-3	0.70	15.00	52.60	153.10	0.02	1.05	3.06	0.013	5.00	4.08
A-2	0.70	15.00	52.60	153.10	0.02	1.05	3.06	0.013	5.00	4.08

NOTE:
EASEMENTS ARE NOT REQUIRED ON CITY PROPERTY PER CITY STATUTES.



7301 West 133rd Street, Suite 200
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GENERAL LAYOUT PLAN
SANITARY SEWER PLANS

LEE'S SUMMIT MIDDLE SCHOOL #4
SE BAILEY ROAD AND SE COUNTRY LANE

2021

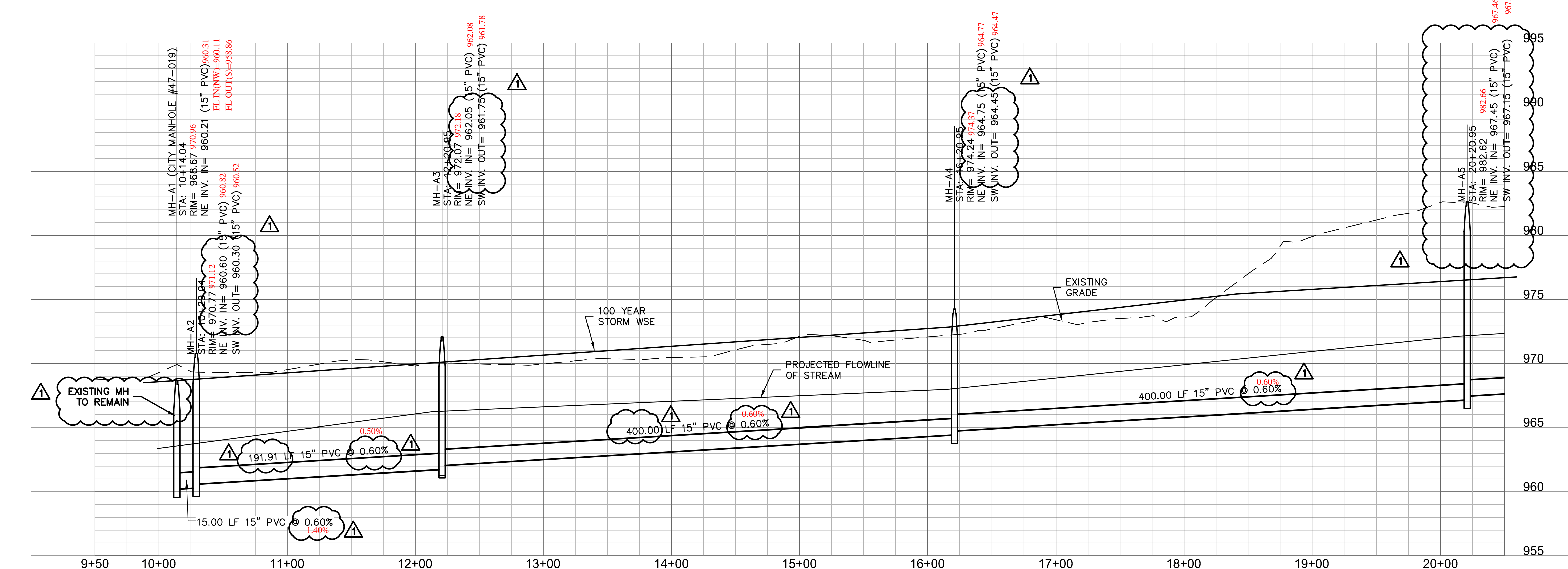
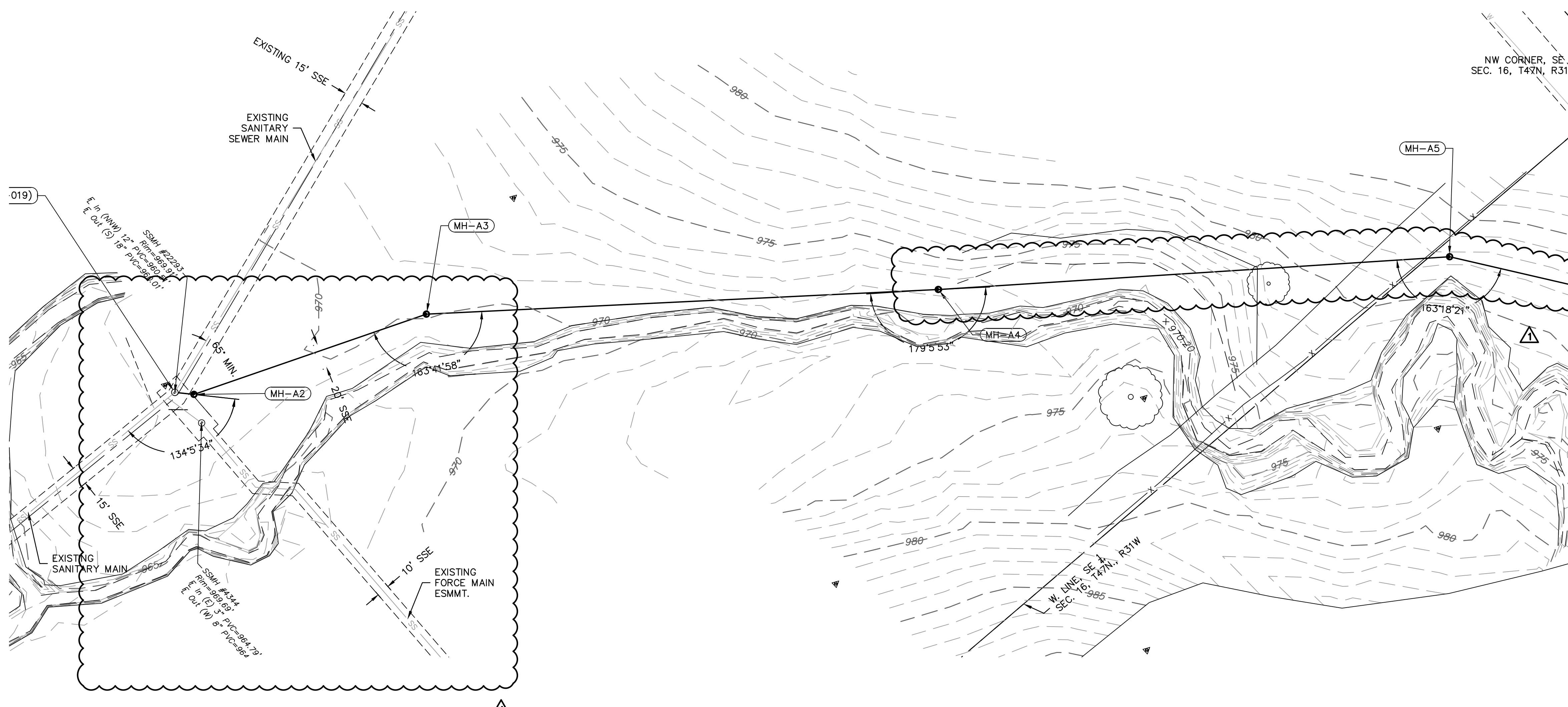
drawn by: RLK
checked by: BS
approved by: TP
QA/QC by: MP
project no.: 020-0103
drawing no.: C_COV01_0200103
date: 12.05.20

REVISIONS

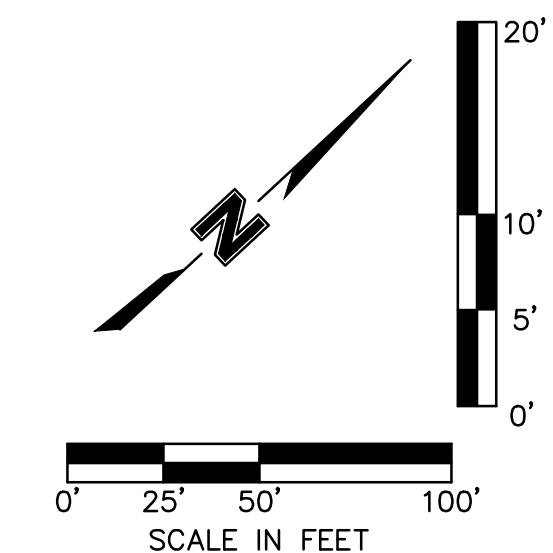
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STRUCTURES	
ID	DESCRIPTION
MH-A1 (CITY MANHOLE #47-019)	CONNECT TO EXISTING SANITARY MANHOLE 10+14.04, 0.00' SANITARY LINE A RIM= 968.67 INV IN = 960.21 (15" PVC) N: 989926.176; E: 2830832.008
MH-A2	INSTALL STD. 4' DIA. MH 10+29.04, 0.00' SANITARY LINE A RIM= 970.77 INV IN = 960.60 (15" PVC) INV OUT = 960.30 (15" PVC) N: 989935.982; E: 2830843.359
MH-A3	INSTALL STD. 4' DIA. MH 12+20.95, 0.00' SANITARY LINE A RIM= 972.67 INV IN = 962.05 (15" PVC) INV OUT = 961.75 (15" PVC) N: 990111.595; E: 2830920.741
MH-A4	INSTALL STD. 4' DIA. MH 16+20.95, 0.12' RT SANITARY LINE A RIM= 974.24 INV IN = 964.75 (15" PVC) INV OUT = 964.45 (15" PVC) N: 990417.571; E: 2831178.382
MH-A5	INSTALL STD. 4' DIA. MH 20+20.95, 0.00' SANITARY LINE A RIM= 982.62 INV IN = 967.45 (15" PVC) INV OUT = 967.15 (15" PVC) N: 990727.643; E: 2831431.081



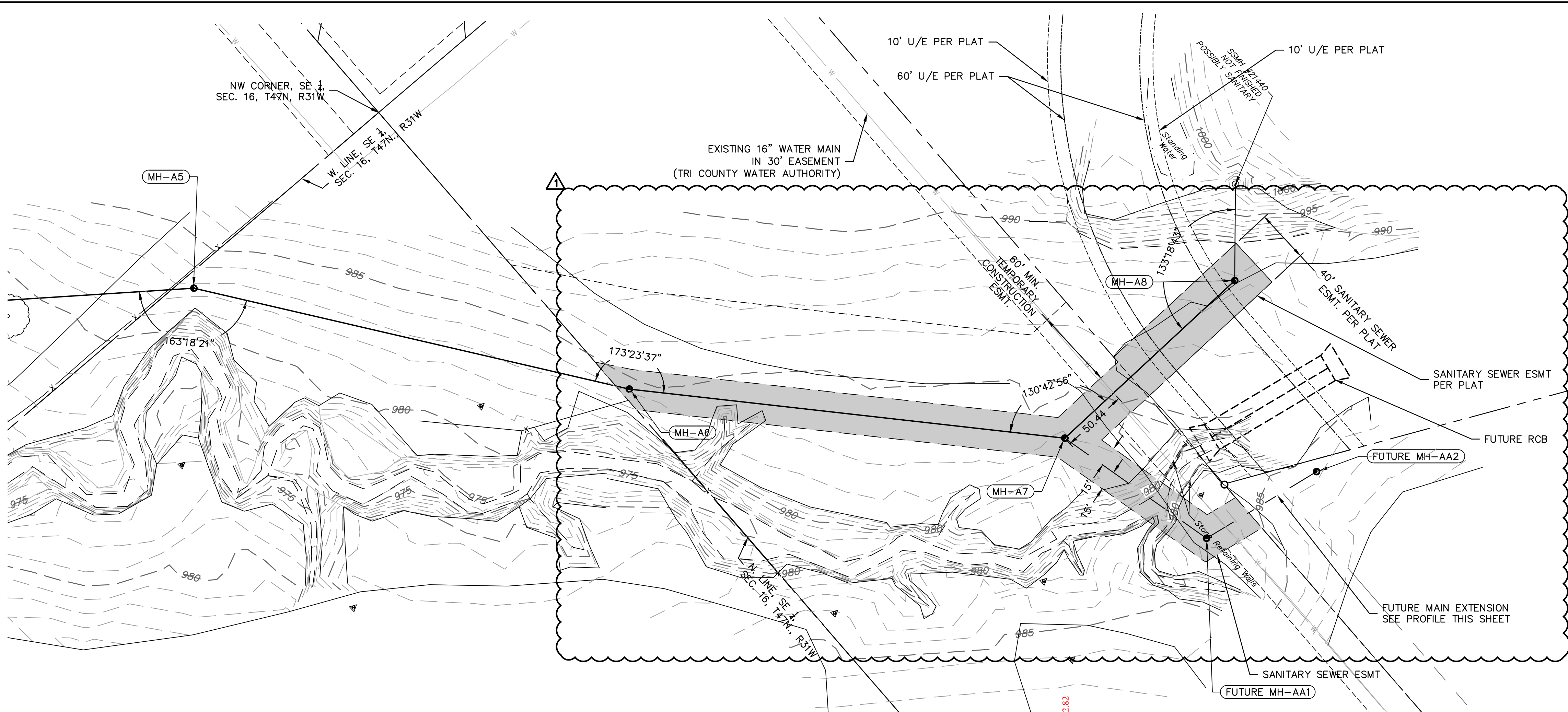
SANITARY SEWER PLAN & PROFILE
 SANITARY SEWER PLANS
 LEE'S SUMMIT MIDDLE SCHOOL #4
 SE BAILEY ROAD AND SE COUNTRY LANE
 LEE'S SUMMIT, MISSOURI
 2021

drawn by: RLK
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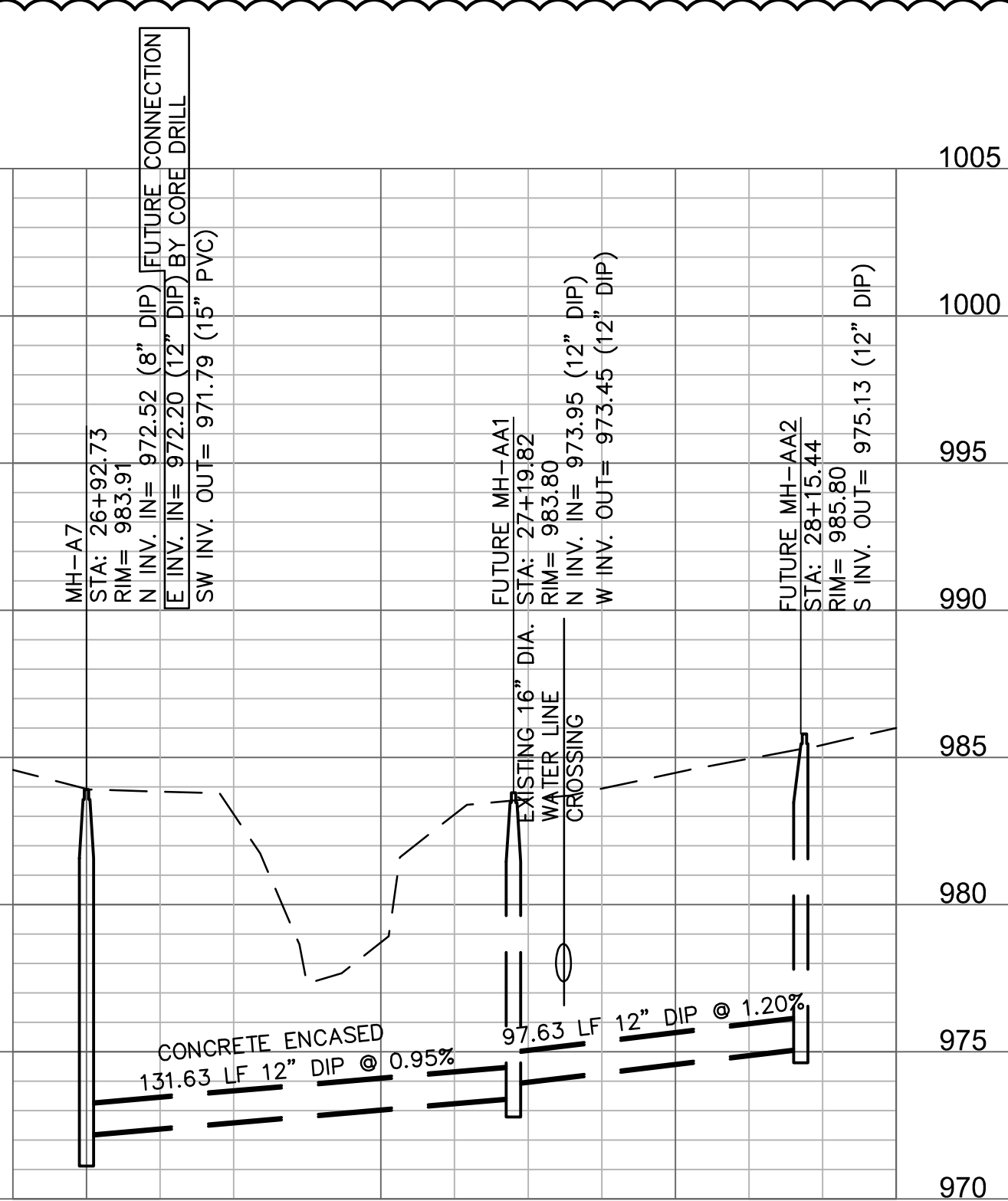
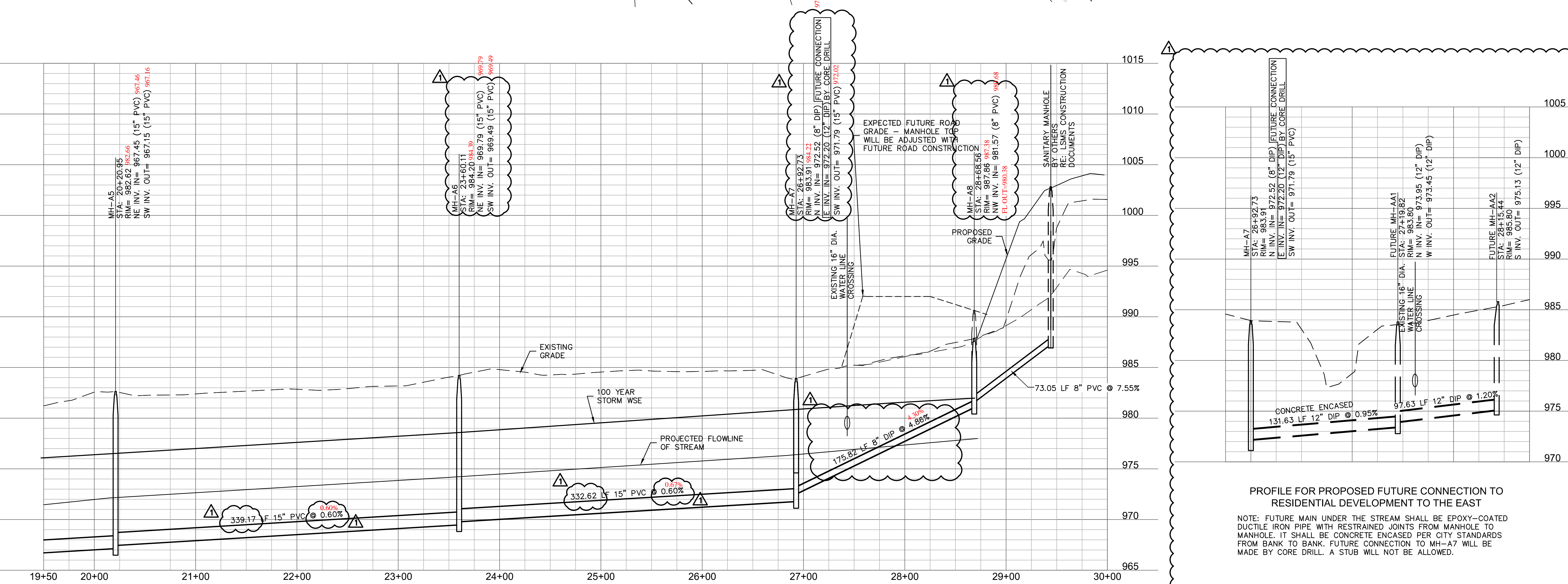
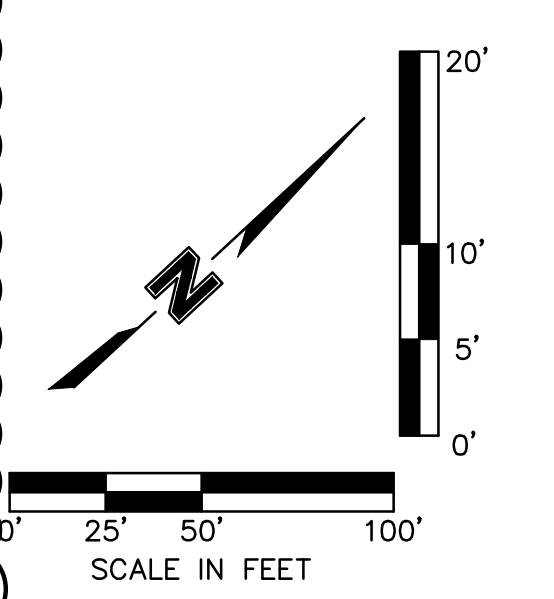
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STRUCTURES	
ID	DESCRIPTION
MH-A5	INSTALL STD. 4' DIA. MH 20+20.95, 0.00' SANITARY LINE A INV IN = 967.45 (15" PVC) RIM = 982.62 INV OUT = 967.15 (15" PVC) N: 990727.643; E: 2831431.081
MH-A6	INSTALL STD. 4' DIA. MH 23+60.11, 0.00' SANITARY LINE A INV IN = 969.79 (15" PVC) RIM = 984.39 INV OUT = 969.49 (15" PVC) N: 990917.839; E: 2831741.902
MH-A7	INSTALL STD. 4' DIA. MH 26+92.73, 0.00' SANITARY LINE A RIM = 983.91 INV IN = 972.52 (8" DIP) INV IN = 972.20 (12" DIP) INV OUT = 971.79 (15" PVC) N: 994374.909; E: 2831984.013
MH-A8	INSTALL STD. 4' DIA. MH 28+68.56, 0.00' SANITARY LINE A RIM = 987.86 INV IN = 981.57 (8" PVC) INV OUT = 981.07 (8" DIP)



PROFILE FOR PROPOSED FUTURE CONNECTION TO RESIDENTIAL DEVELOPMENT TO THE EAST

NOTE: FUTURE MAIN UNDER THE STREAM SHALL BE EPOXY-COATED DUCTILE IRON PIPE WITH RESTRAINED JOINTS FROM MANHOLE TO MANHOLE. IT SHALL BE CONCRETE ENCASED PER CITY STANDARDS FROM BANK TO BANK. FUTURE CONNECTION TO MH-A7 WILL BE MADE BY CORE DRILL. A STUB WILL NOT BE ALLOWED.

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 7301 West 133rd Street, Suite 200
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STATE OF MISSOURI
 TERRY M. PARSONS
 PROFESSIONAL ENGINEER
 NUMBER PE-2018010505
 EXPIRES 05/31/2026

BY: RLK
 REVISIONS DESCRIPTION
 1 08.21.21 AS1033

SANITARY SEWER PLAN & PROFILE
 SANITARY SEWER PLANS

LEE'S SUMMIT MIDDLE SCHOOL #4
 SE BAILEY ROAD AND SE COUNTRY LANE

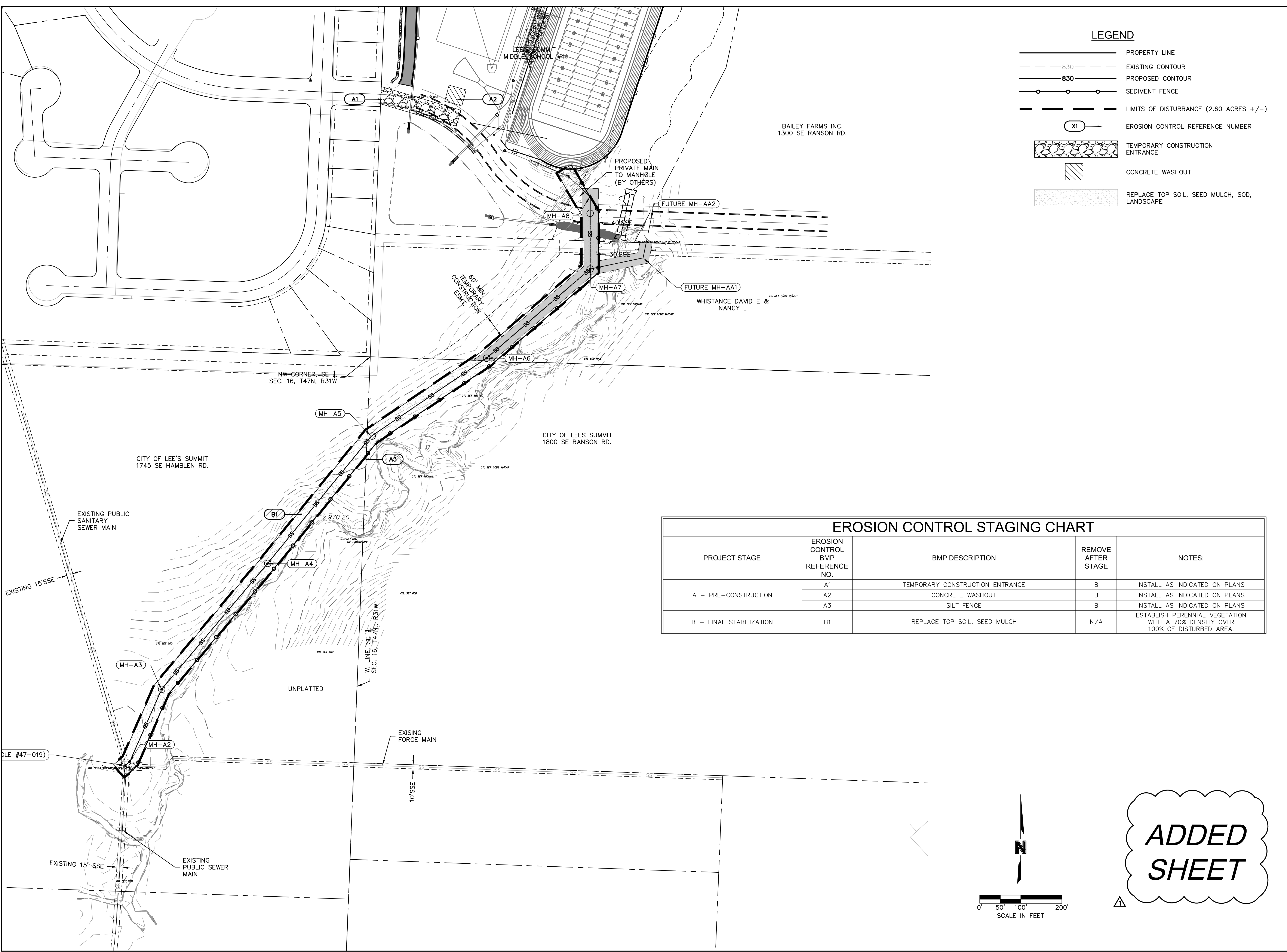
2021

LEE'S SUMMIT, MISSOURI

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SHEET 5 of 7

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LEGEND

- PROPERTY LINE
- 830 EXISTING CONTOUR
- 830 PROPOSED CONTOUR
- SEDIMENT FENCE
- LIMITS OF DISTURBANCE (2.60 ACRES +/-)
- EROSION CONTROL REFERENCE NUMBER
- TEMPORARY CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- REPLACE TOP SOIL, SEED MULCH, SOD, LANDSCAPE

EROSION CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A - PRE-CONSTRUCTION	A1	TEMPORARY CONSTRUCTION ENTRANCE	B	INSTALL AS INDICATED ON PLANS
	A2	CONCRETE WASHOUT	B	INSTALL AS INDICATED ON PLANS
	A3	SILT FENCE	B	INSTALL AS INDICATED ON PLANS
B - FINAL STABILIZATION	B1	REPLACE TOP SOIL, SEED MULCH	N/A	ESTABLISH PERENNIAL VEGETATION WITH A 70% DENSITY OVER 100% OF DISTURBED AREA.

SCALE IN FEET

ADDED
SHEET

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EROSION CONTROL PLAN
SANITARY SEWER PLANS

LEE'S SUMMIT MIDDLE SCHOOL #4
SE BAILLY ROAD AND SE COUNTRY LANE

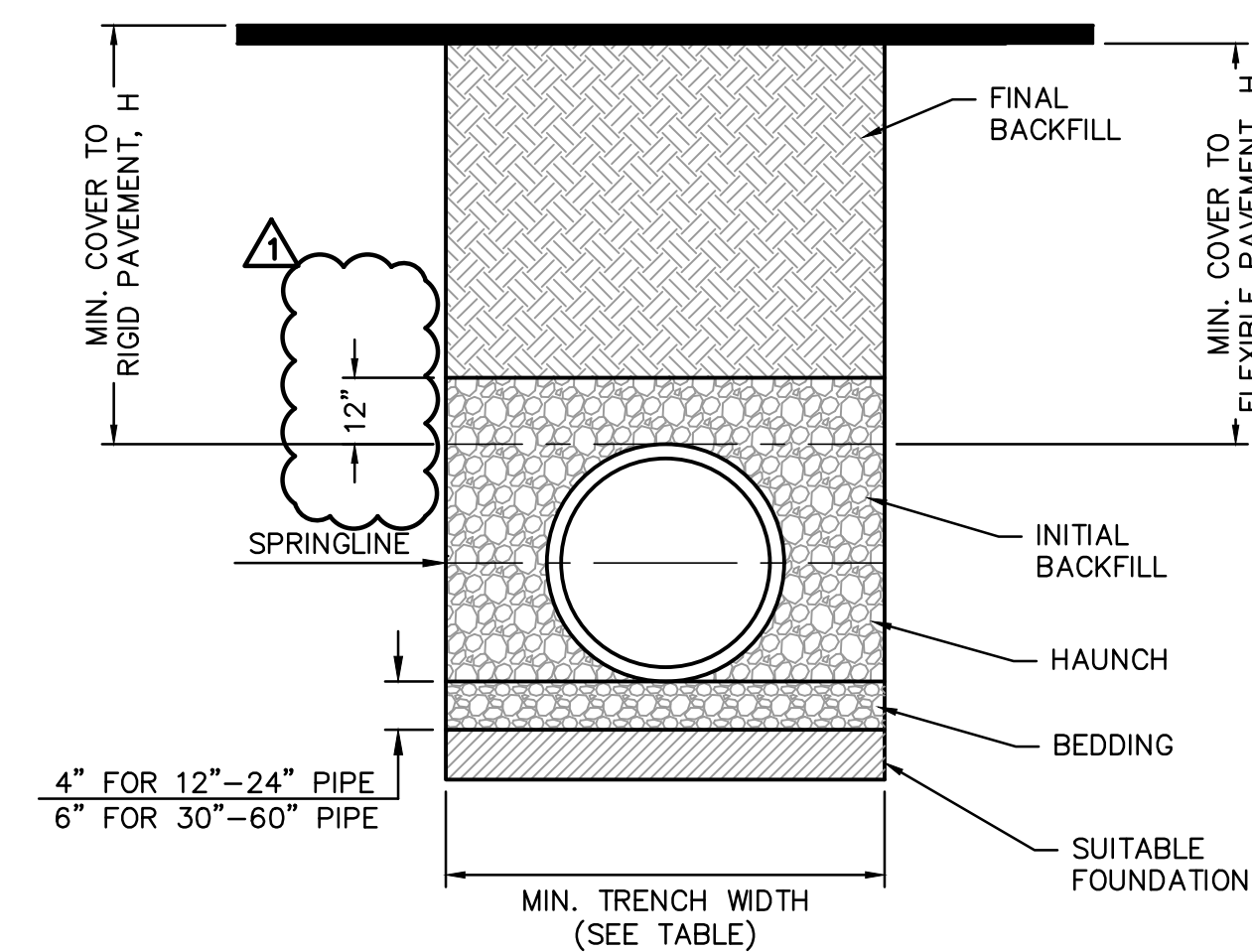
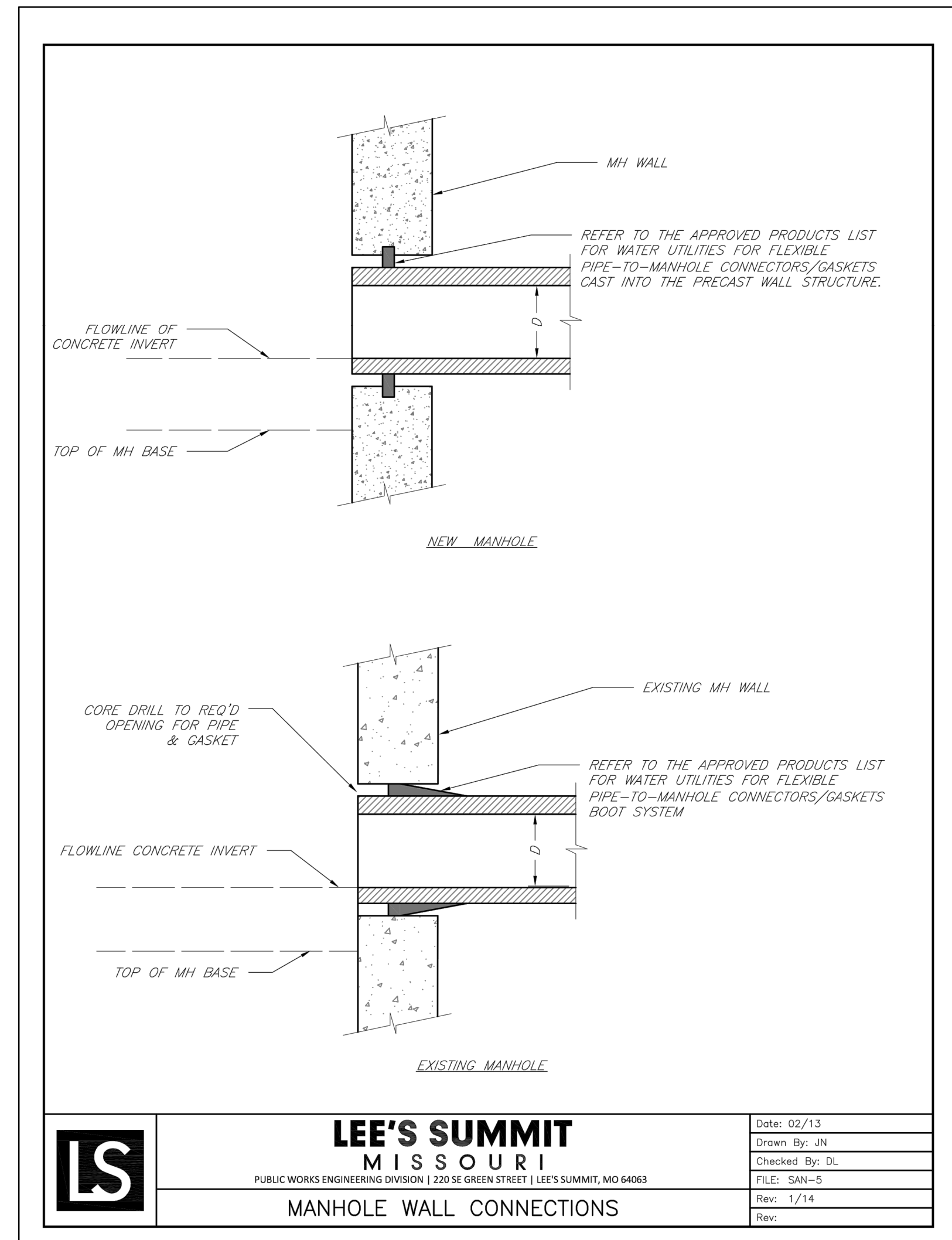
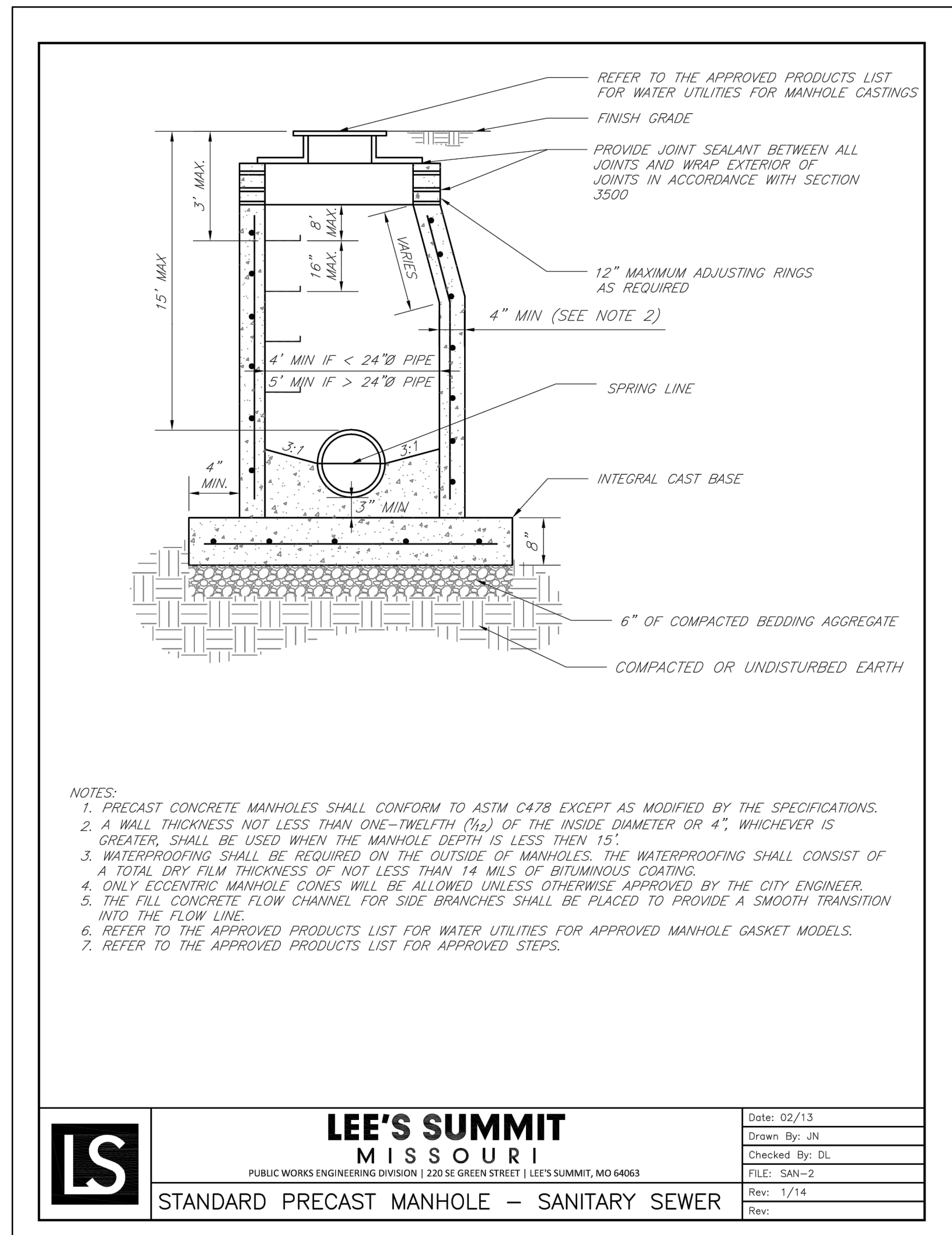
LEE'S SUMMIT, MISSOURI

2021

drawn by: _____ RLK
 checked by: _____ BS
 approved by: _____ TP
 QA/QC by: _____ MP
 project no.: 020-0103
 drawing no.: C_ER001_0200103
 date: 12.05.20

SHEET
6 of 7

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 DATE: Sep 22, 2021 5:55am
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NOTES:

- 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 ADDITION
- MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
- 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.
- 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).
- 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.
- MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80**
UP TO 24"	24"
30"-36"	36"
42"-60"	48"

** COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE
 *** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

olsson



REV. NO.	DATE	REVISIONS DESCRIPTION
1	08.21.21	AS1033

STANDARD DETAILS
SANITARY SEWER PLANS

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SE BAILLEY ROAD AND SE COUNTRY LANE

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