

SANITARY SEWER PLANS
FOR
ORCHARD WOODS
IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

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SUMMARY OF QUANTITIES

PREPARED BY: JMO CHECKED BY: REV. DATE: 1-13-23

ITEM	QUANTITY	UNIT
1. 4" DIA. MANHOLE	12	EA.
2. 4" DIA. SHALLOW MANHOLE	1	EA.
3. 8" PVC (SDR-26)*	2,059	L.F.
4. 6" PVC (SDR-26)*	1,225	L.F.
5. 6" ON 8" PVC WYE	34	EA.
6. CONNECT TO EXISTING	1	EA.
7. 6" PVC-45° BEND	1	EA.

*UNCLASSIFIED TRENCH & TAMPED BACKFILL

OIL-GAS WELLS:

MISSOURI DEPARTMENT OF NATURAL RESOURCES, MISSOURI GEOLOGICAL SURVEY, GEOSTRAT WEBSITE INDICATES THERE ARE TWO WELLS DRILLED ON THIS PROPERTY. ID #095-00155 IS SHOWN AS A DRY HOLE, DATED 10/27/1938. ID# 0005120 IS SHOWN AS AN EXPLORATORY HOLE, DATED 10/28/1938. PHELPS ENGINEERING HAS MADE A FIELD INVESTIGATION AND FOUND NO VISIBLE EVIDENCE OF THESE WELLS ON THE PROPERTY, AS OF THIS DATE.

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, PANEL NO. 29095C04306, AND DATED JANUARY 20, 2017.

BENCHMARK:

"A" OUT S.W. CORNER CURB INLET EAST SIDE OF INTERSECTION OF NE SUWANNEE DRIVE & NE PIEDMONT DRIVE
ELEV.=965.22

UTILITY COMPANIES:

MISSOURI GAS ENERGY (816) 969-2218
LUCAS WALLS (LUCAS.WALLS@SUG.COM)
3025 SOUTHEAST CLOVER DRIVE
LEE'S SUMMIT, MO 64082

EVERGY (816) 347-4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) (816) 347-4316
1300 HAMBLEN ROAD
LEE'S SUMMIT, MO 64081

STORM SEWER (PUBLIC WORKS DEPARTMENT) (816) 969-1800
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) (816)-969-1900
1200 SE HAMBLEN ROAD,
LEE'S SUMMIT, MO 64081

AT&T (913) 383-4929
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) (913) 383-4849-FAX
9444 NALL AVENUE
OVERLAND PARK, KANSAS 66207



UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



"AS-BUILT"

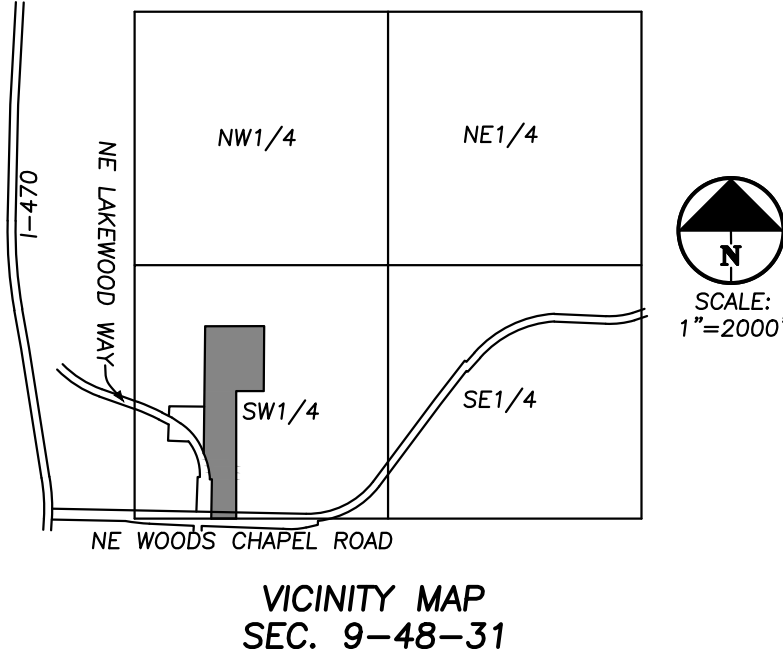
DATED: 11-13-23 BY: JTK

PREPARED & SUBMITTED BY:

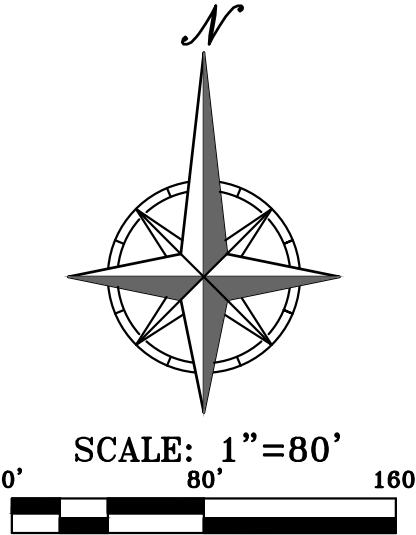
PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
OLATHE, KS 66061
913-393-1155 OFFICE
913-393-1166 FAX
CONTACT: JUDD CLAUSSEN, P.E.

OWNER:

ENTRES DEVELOPMENT, LLC
ATTN: DANIEL VILLANUEVA
424 NE BROCKTON DR
LEE'S SUMMIT MO, 64064
(310) 760-6205

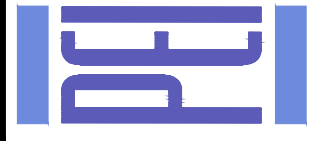


LEGEND	
— PL —	PROPERTY LINE
— LOT —	LOT LINE
— R/W —	RIGHT-OF-WAY
— 2' CURB & GUTTER —	2' CURB & GUTTER
ASPHALT PAVEMENT	ASPHALT PAVEMENT
CONCRETE PAVEMENT	CONCRETE PAVEMENT
CONCRETE SIDEWALK	CONCRETE SIDEWALK



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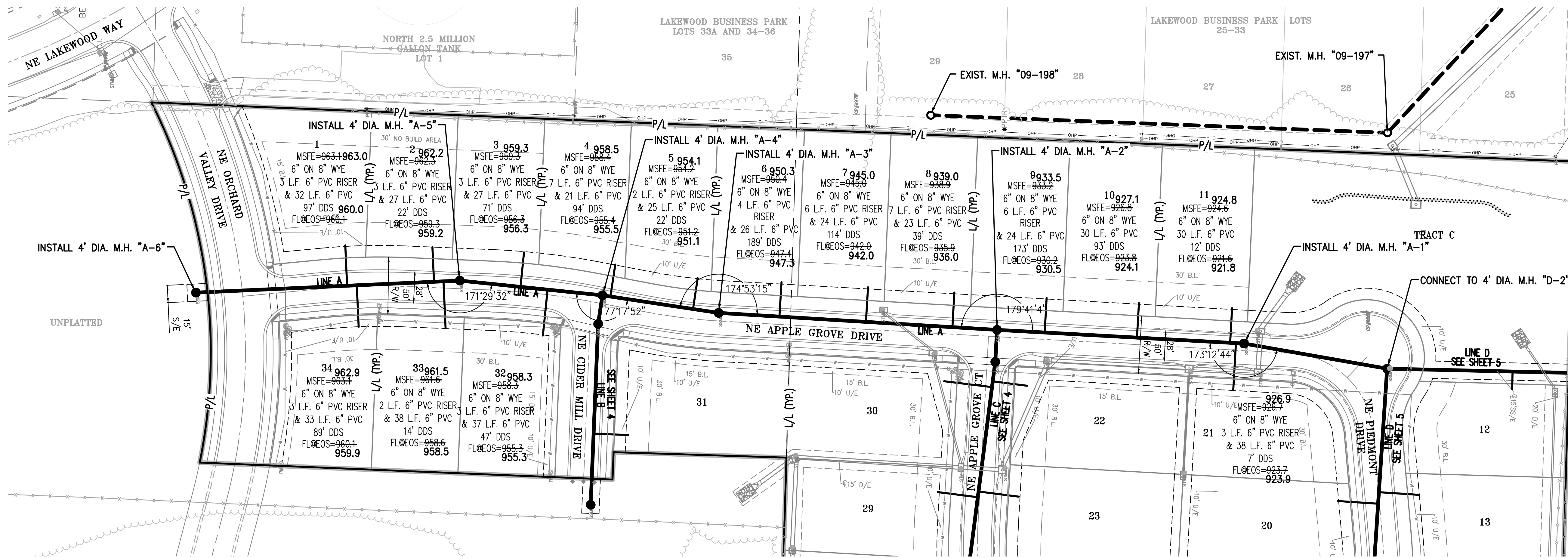
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ENGINEERING
IMPLEMENTATION



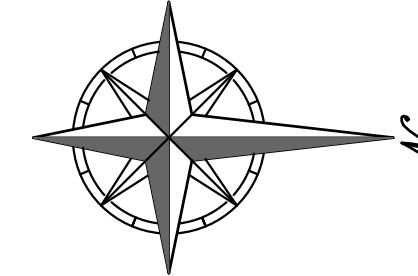
COVER SHEET
ORCHARD WOODS
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

PROJECT NO.	211142	No.	Date	By	App.
DATE	10-16-22	1	12-21-22	JMO	DEU
CHECKED	KAD	APPROVED	DEU	JMO	DEU
CORRODATE OF AUTHORIZATION	2	1-16-2023		JMO	DEU
LAND SURVEYING - LS-82	3	3-9-2023		JMO	DEU
ENGINEERING - E-361					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING-200700128					
ENGINEERING-200700028					

SHEET
1
OF 06



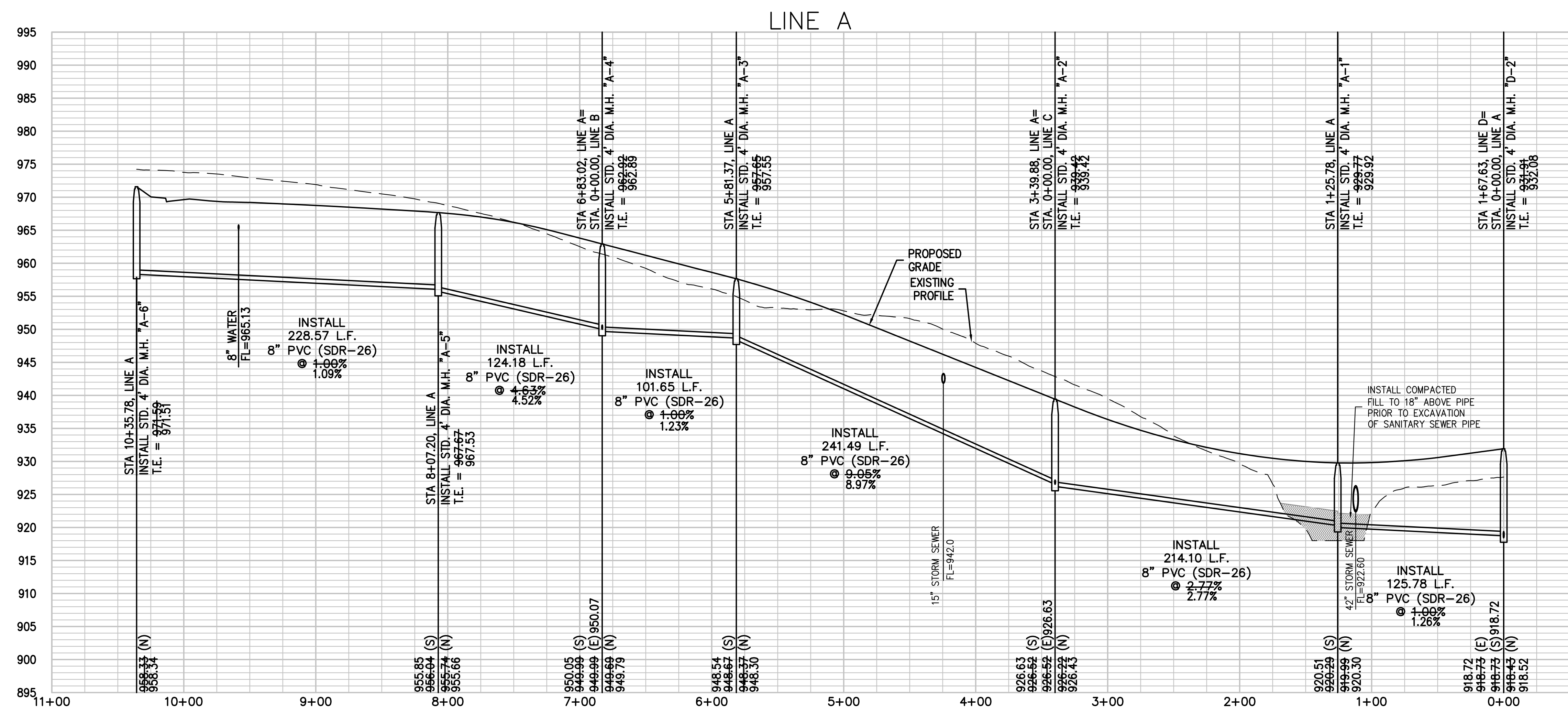
NOTES:
ALL SERVICE LINES TO BE 6" PVC
(SDR-26) & INSTALLED AT 1.00%
UNLESS OTHERWISE NOTED.



SCALE: 1"=50'
0' 50' 100'

SCALE: 1"=50' HORIZ.
1"=10' VERT.

LINE "A"



"AS-BUILT"

DATED: 11-13-23 BY: JTK



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1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1165
www.phelpsenr.com

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IMPLEMENTATION



SANITARY SEWER PLAN & PROFILE
ORCHARD WOODS
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

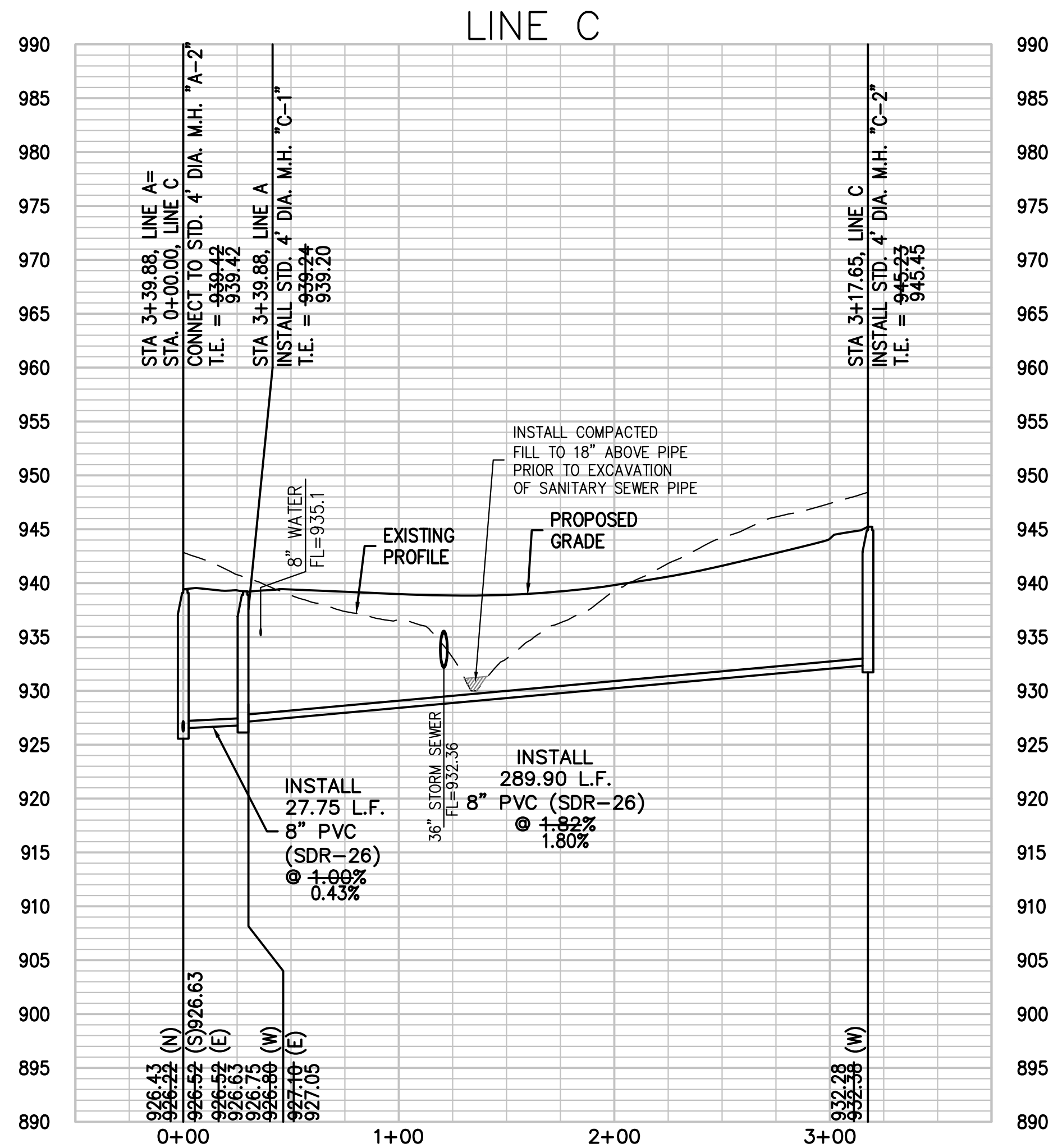
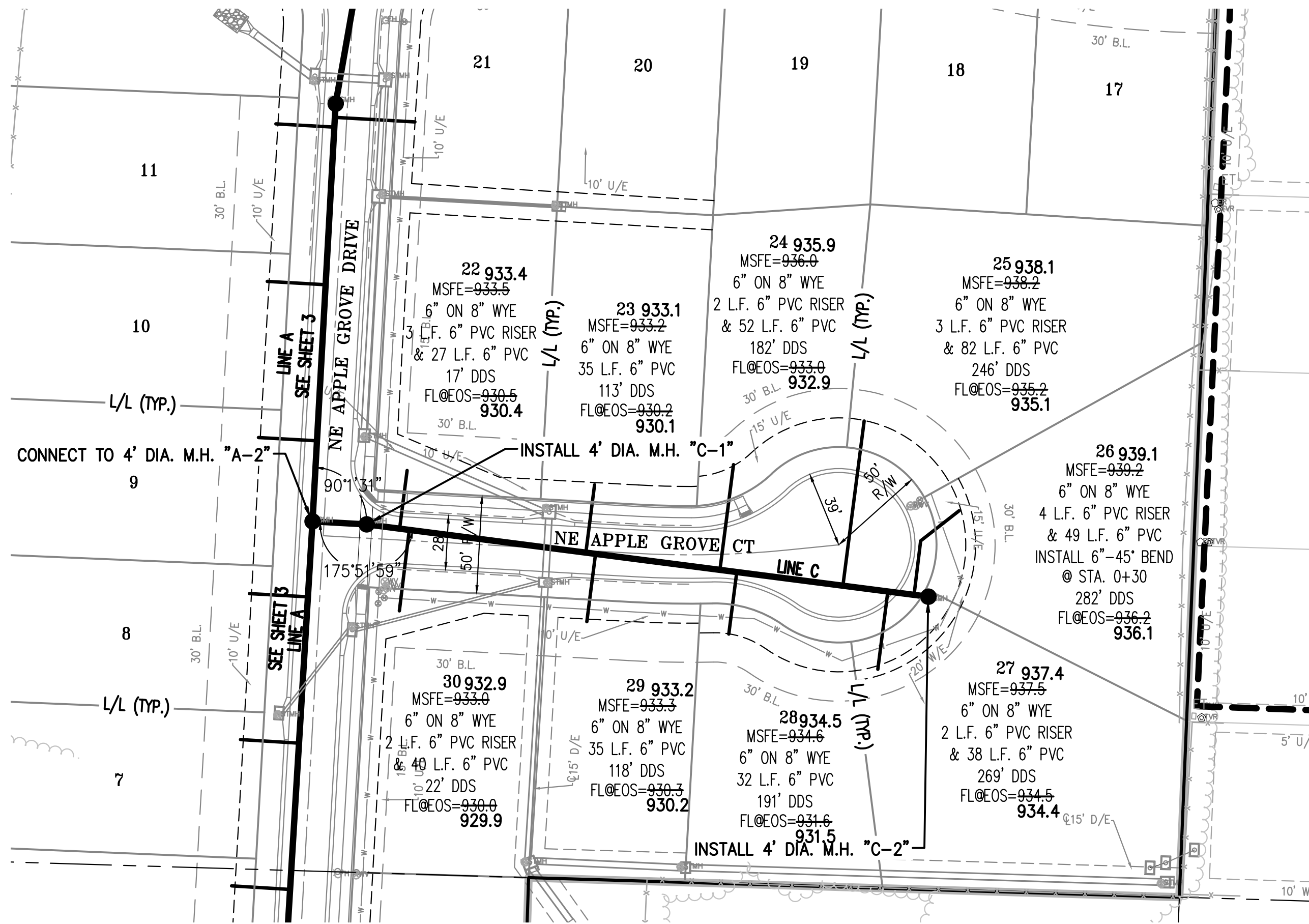
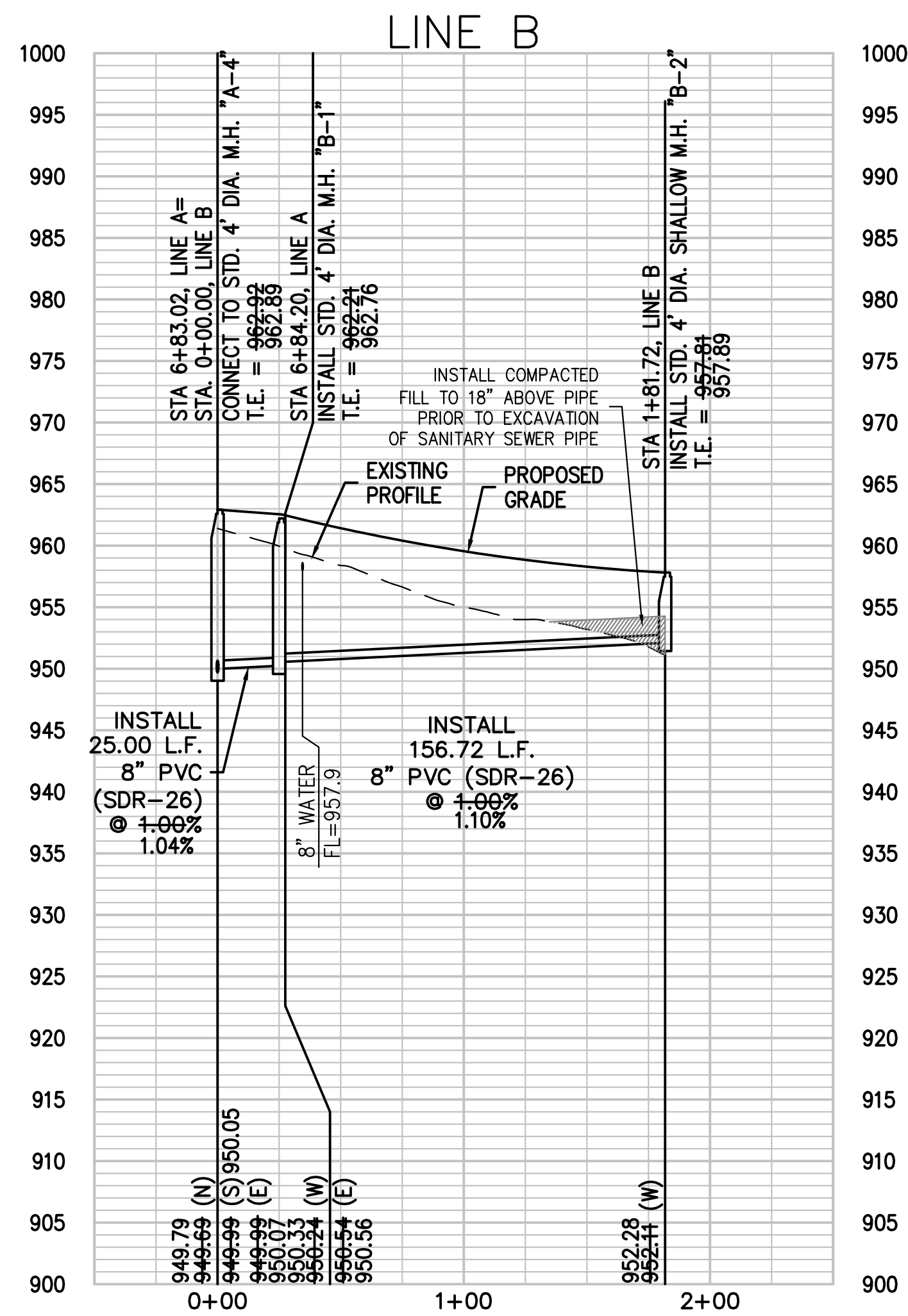
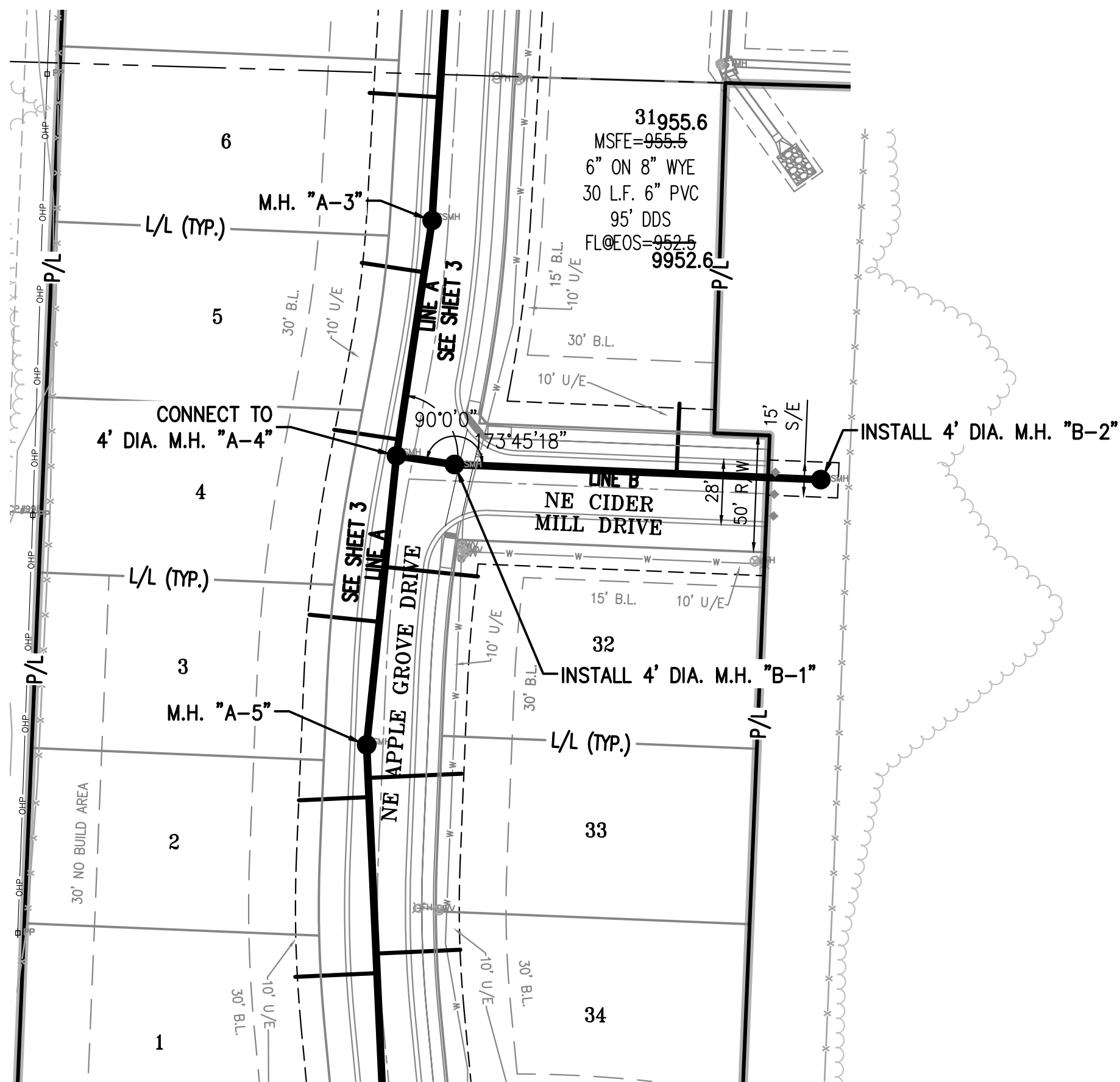
Revisions:		By	App.
PROJECT NO.	211142	No.	Date
DATE	10-16-22	DRAWN	JMO
CHECKED	KAD	APPROVED	DEU
DATE	10-16-22	REVISED	PER CITY COMMENTS
DATE	11-16-2023	REVISED	PER CITY COMMENTS
DATE	3-9-2023	REVISED	REMOVED BEDDING DETAIL
CORPORATE OF AUTHORIZATION			
LAND SURVEYING - LS-82			
ENGINEERING - E-361			
STATE OF MISSOURI			
LAND SURVEYING - 20070128			
ENGINEERING - 20070028			

SHEET

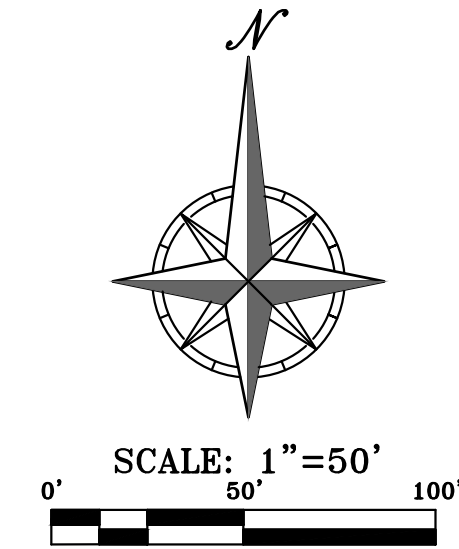
3

OF 06

\\PHILIPS-SERVER\Projects\211142\Drawings\SANITARY\PLAN & PROFILE.dwg Layout-B-C Dec 13, 2023 - 4:11pm Kyle Deters



NOTES:
ALL SERVICE LINES TO BE 6" PVC (SDR-26) &
INSTALLED AT 1.00% UNLESS OTHERWISE NOTED.



SCALE: 1"=50' HORIZ.
1"=10' VERT.

LINES "B" & "C"

"AS-BUILT"

DATED: 11-13-23 BY: JTK

STATE OF MISSOURI
ENGINEER
NUMBER
PE-2011010998
01/05/2024

PHILIPS ENGINEERING, INC.
1270 N. Winchester
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Fax: (913) 393-1165
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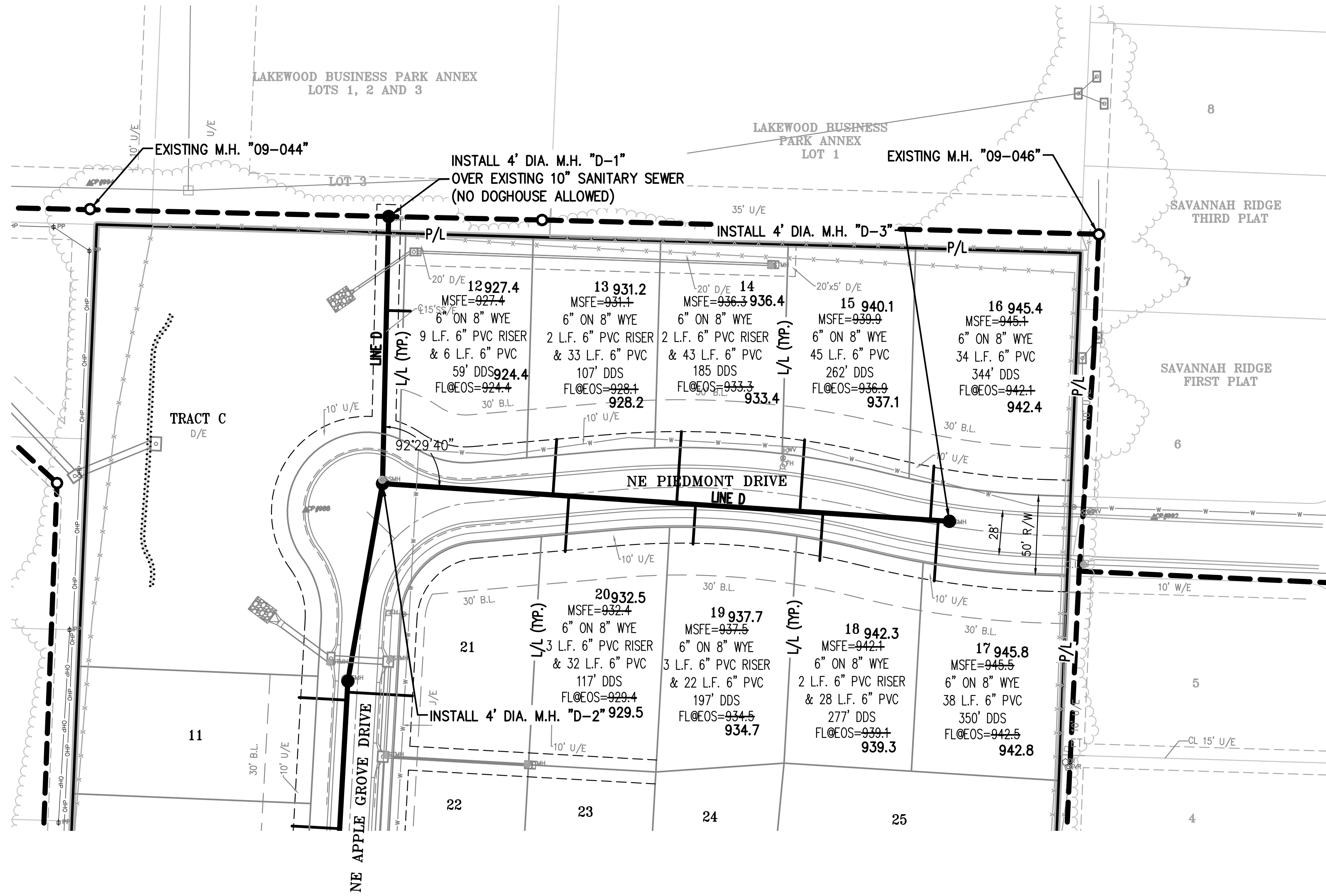
SANITARY SEWER PLAN & PROFILE
ORCHARD WOODS
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Revisions:

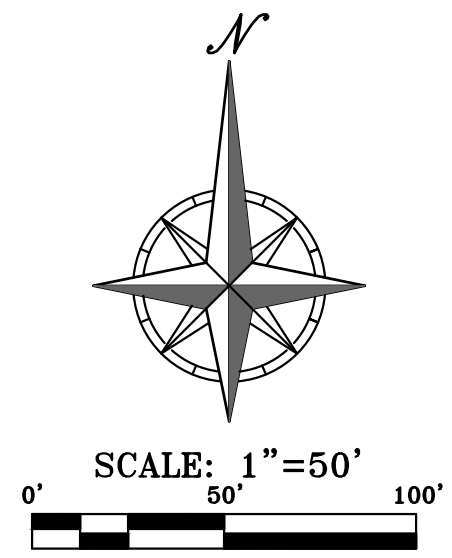
No.	Date	By	App.
1	12-21-22	JMO	DEU
2	1-18-2023	JMO	DEU
3	3-9-2023	JMO	DEU

PROJECT NO.	211142
DATE	10-16-22
CHECKED	KAD
DATE OF AUTHORIZATION	12-21-22
DESIGNED BY	JMO
ENGINEERING	E-381
DATE OF AUTHORIZATION	12-21-22
DESIGNED BY	JMO
ENGINEERING	E-381

SHEET
4
OF 06

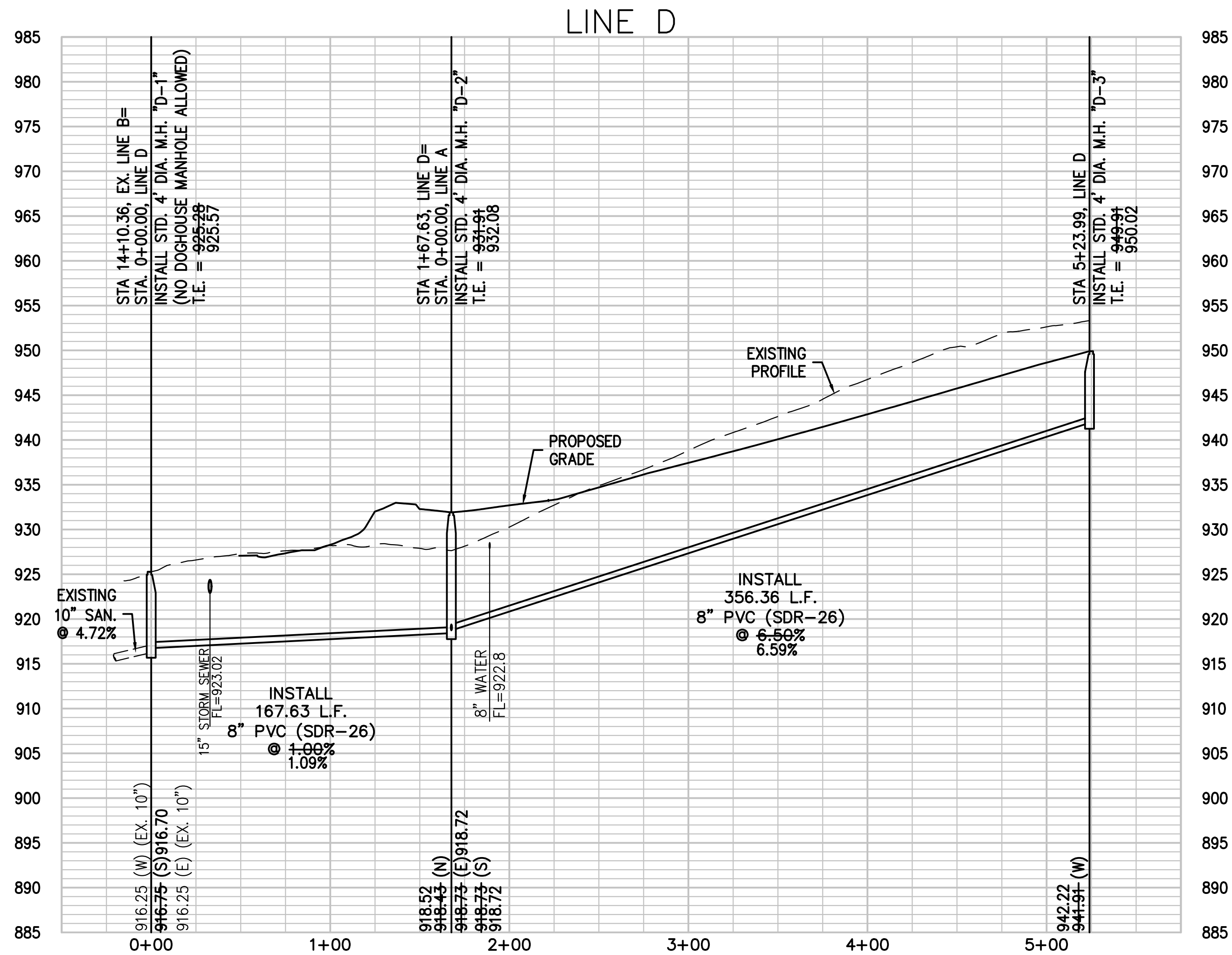


NOTES:
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INSTALLED AT 1.00% UNLESS OTHERWISE NOTED.



SCALE: 1"=50' HORIZ.
1"=10' VERT.

LINE "D"



"AS-BUILT"

DATED: 11-13-23 BY: JTK



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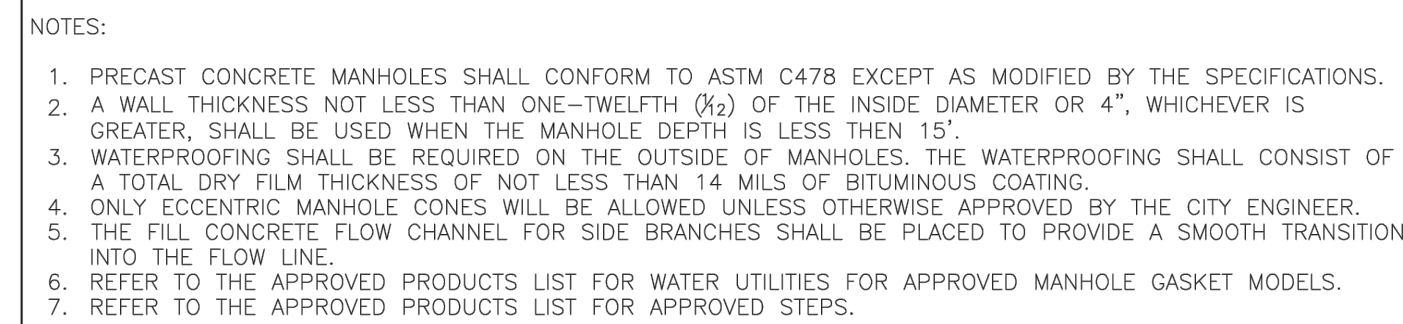
SANIATRY SEWER PLAN & PROFILE
ORCHARD WOODS
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

PROJECT NO.	211142	No.	Date	Revisions:	By	App.
DATE: 10-16-22	DRAWN: JMO	1	12-21-22	REVISED PER CITY COMMENTS	JMO	DEU
CHECKED: KAD	APPROVED: DEU	2	1-18-2023	REVISED PER CITY COMMENTS	JMO	DEU
CORRODATE OF AUTHORIZATION		3	3-9-2023	REVISED BEDDING DETAIL	JMO	DEU
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING-200701028						
ENGINEERING-200700208						

SHEET

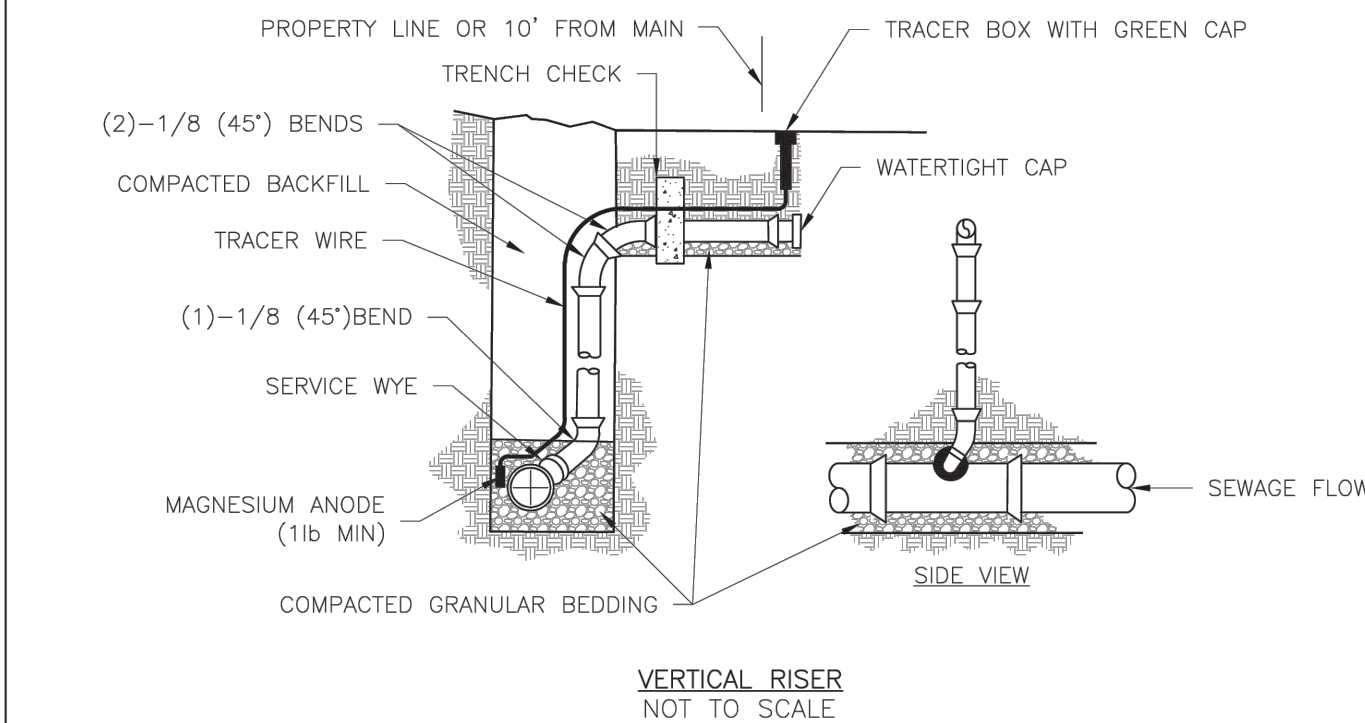
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OF 06



Date: 12/2015
Drawn By: SC
Checked By: DL

SAN-2



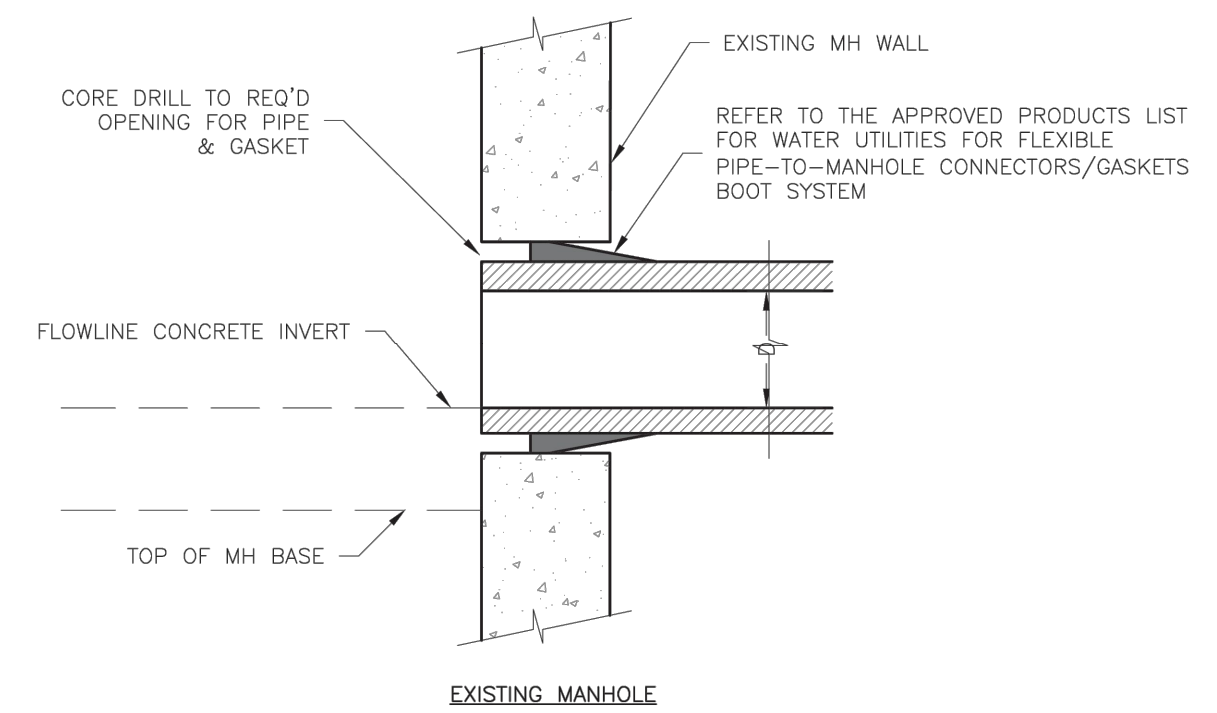
NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER DETECTOR.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. TRACER WIRE SHALL BE INSTALLED CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHALL BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.



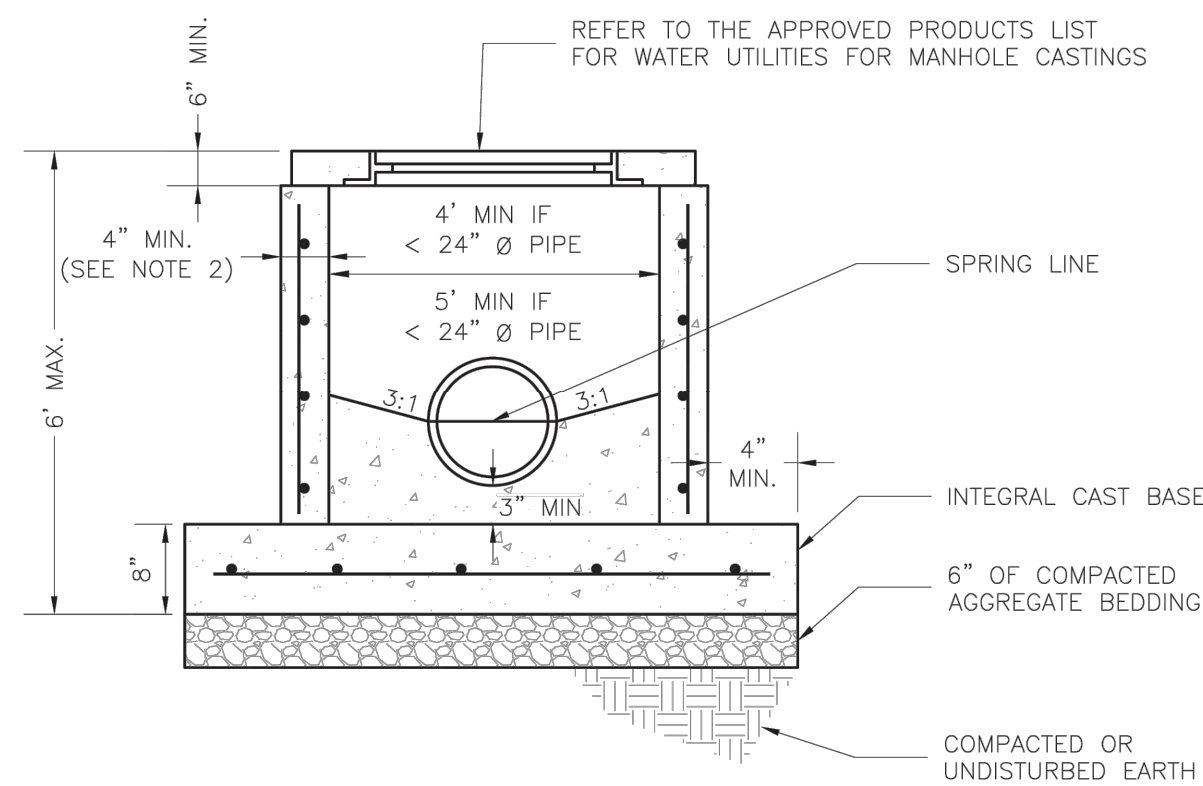
Date: 12/2015
Drawn By: MJF
Checked By: DL

SAN-1



Date: 02/2013
Drawn By: MU
Checked By: E

SAM



NOTES:

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 GREATER SHALL BE USED.
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. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE MAIN LINE.
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 FEET.



Date: 12/2015
Drawn By: MJF
Checked By: DL

SAN-3

“AS-BUILT”

DATED: 11-13-23 BY: JTK

PROJECT NO.	21142	No.	Drb	Residents	By
CERTIFICATE OF AUTHORIZATION	1	12-31-23		REVISED PER CITY COMMENTS	JMO DEL
REMOVAL OF K&O AUTHORIZATION	2	1-18-2023		REVISED PER CITY COMMENTS	JMO DEL
CERTIFICATE OF AUTHORIZATION	3	3-9-2023		REMOVED BEDDING DETAIL	JMO DEL
LAND SURVEYING - LS-82					
ENGINEERING - E-391					
CERTIFICATE OF AUTHORIZATION					
REMOVAL OF K&O AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-391					

SHEET

6

OF 06

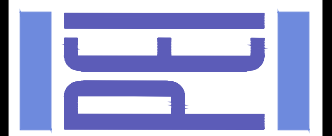
PHELPS ENGINEERING, INC.
4370 N. Winchester

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Olathe, Kansas 66061
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(913) 393-1155
Fax (913) 393-1166
w.phelpsenlineing.com

www.phelpsenineering.com

PLANNING ENGINEERING IMPLEMENTATION



STANDARD DETAILS
ORCHARD WOODS
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI