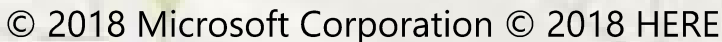


SECTION 2, TOWNSHIP 47 N, RANGE 32 W
IN LEE'S SUMMIT, JACKSON COUNTY, MO

ACCEPTED:

11/1/2020

DATE _____

OF JOHN KNOX RETIREMENT VILLAGE--10TH PLAT, A SUBDIVISION RECORDED AS INSTRUMENT NUMBER 1279890 IN BOOK 35 AT PAGE 61 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE, AND ALL OF FOREST LAKE AT JOHN KNOX VILLAGE -- 1ST PLAT A SUBDIVISION RECORDED AS INSTRUMENT NUMBER E0051292 IN BOOK 1066 AT PAGE 42 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE, BOTH SUBDIVISIONS OF LAND IN THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 47 NORTH, RANGE 32, WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, AND ALSO AN UNPLATTED TRACT OF LAND IN SAID NORTHEAST QUARTER AND SOUTHEAST QUARTER OF SAID SECTION 2, BEING BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02°53'56" EAST, ON THE EAST LINE OF SAID SOUTHEAST QUARTER, 1,328.34 FEET TO THE SOUTHEAST CORNER OF THE NORTH HALF OF SAID SOUTHEAST QUARTER ALSO BEING THE NORTHEAST CORNER OF STERLING HILLS 1ST PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER I188888 IN BOOK 153 AT PAGE 22 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTH 87°49'43" WEST, 580.01 FEET ON THE SOUTH LINE OF SAID NORTH HALF OF SAID SOUTHEAST QUARTER, ALSO BEING THE NORTH LINE OF SAID STERLING HILLS 1ST PLAT TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE CONTINUING NORTH 87°49'43" WEST ON SAID SOUTH LINE OF SAID NORTH HALF OF SAID SOUTHEAST QUARTER, ALSO BEING THE NORTH LINE OF SAID STERLING HILLS 1ST PLAT AND ALSO ON THE NORTH LINE OF STERLING HILLS 3RD PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER I1221580 IN BOOK 153 AT PAGE 98 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING A POINT TO THE EAST LINE OF STERLING HILLS 5TH PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 11273788 IN BOOK 154 AT PAGE 88 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE, 2,048.69 FEET TO THE SOUTHWEST CORNER OF SAID NORTH HALF OF SAID SOUTHEAST QUARTER; THENCE NORTH 03°05'41" EAST ON SAID EAST LINE OF STERLING HILLS 5TH PLAT, ALSO BEING THE WEST LINE OF SAID SOUTHEAST QUARTER, 389.26 FEET; THENCE NORTH 85°54'26" EAST, 236.75 FEET; THENCE NORTH 29°55'27" EAST, 306.11 FEET; THENCE NORTH 41°03' EAST, 68.06 FEET; THENCE SOUTH 05°51' EAST, 21.43 FEET; THENCE NORTH 22°12'44" EAST, 45.00 FEET; THENCE WESTERLY, AN ARC LENGTH OF 60.76 FEET TO THE LEFT, HAVING AN INITIAL TANGENT BEARING OF NORTH 70°59'53" WEST WITH A RADIUS OF 125.00 FEET, A CENTRAL ANGLE OF 15°28'14" AND AN ARC DISTANCE OF 30.75 FEET; THENCE NORTH 06°37'15" WEST, 50.00 FEET; THENCE EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 88°45'45" EAST WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 28°01'47" AND AN ARC DISTANCE OF 134.53 FEET; THENCE NORTH 21°24'31" EAST, 135.10 FEET; THENCE NORTH 61°49'26" EAST, 951.56 FEET; THENCE NORTH 70°58'24" EAST, 137.47 FEET; THENCE NORTH 85°52'23" EAST, 130.41 FEET; THENCE NORTH 19°50'07" EAST, 128.42 FEET; THENCE WESTERLY ALONG A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF NORTH 70°59'53" WEST WITH A RADIUS OF 375.00 FEET, A CENTRAL ANGLE OF 08°59'37" AND AN ARC DISTANCE OF 58.86 FEET; THENCE NORTH 10°50'30" EAST, 50.00 FEET; THENCE EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 79°09'30" EAST WITH A RADIUS OF 425.00 FEET, A CENTRAL ANGLE OF 09°42'06" AND AN ARC DISTANCE OF 71.96 FEET; THENCE NORTH 20°32'36" EAST, 229.10 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID NORTHEAST QUARTER; THENCE NORTH 87°37'42" WEST, ON SAID NORTH LINE OF SAID SOUTH HALF OF SAID NORTHEAST QUARTER, 574.95 FEET TO THE SOUTHEAST CORNER OF THE FORESTS OF BROOKRIDGE ESTATES THIRD PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER I198645 IN BOOK 153 AT PAGE 46 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTH 03°27'53" EAST, ON THE EAST LINE OF SAID THE FORESTS OF BROOKRIDGE ESTATES -- THIRD PLAT, 765.70 FEET TO THE SOUTHWEST CORNER OF LOT 1, A VILLAGE CARE CENTER PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1736897 IN BOOK 143 AT PAGE 122 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 87°23'49" EAST, ON THE SOUTH LINE OF SAID LOT 1, ALSO A PORTION BEING ON THE NORTH LINE OF SAID JOHN KNOX RETIREMENT VILLAGE--10TH PLAT AND SAID FOREST LAKE AT JOHN KNOX VILLAGE--1ST PLAT, 1,343.71 FEET TO THE NORTHEAST CORNER OF SAID FOREST LAKE AT JOHN KNOX VILLAGE 1ST PLAT, ALSO BEING A POINT ON THE EXISTING WEST RIGHT-OF-WAY LINE OF NW PRYOR ROAD, AS NOW ESTABLISHED; THENCE SOUTH 03°27'53" WEST, ON SAID EXISTING WEST RIGHT-OF-WAY LINE ALSO BEING THE EAST LINE OF FOREST LAKE AT JOHN KNOX VILLAGE--1ST PLAT FOR THE NORTH 243.74 FEET, 481.43 FEET; THENCE NORTH 86°32'07" WEST, 479.89 FEET; THENCE SOUTH 03°27'53" WEST, 70.20 FEET; THENCE NORTH 86°32'07" WEST, 200.00 FEET; THENCE SOUTH 03°27'53" WEST, 221.62 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID NORTHEAST QUARTER; THENCE SOUTH 87°37'42" EAST ON SAID NORTH LINE OF SAID SOUTH HALF OF SAID SOUTH HALF OF SAID NORTHEAST QUARTER, 200.04 FEET TO THE NORTHWEST CORNER OF LOT 1, JOHN KNOX RETIREMENT VILLAGE 9TH PLAT, A SUBDIVISION IN LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1274676 IN BOOK 35 AT PAGE 42 IN SAI JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 03°27'53" WEST, ON THE WEST LINE OF SAID JOHN KNOX RETIREMENT VILLAGE 9TH PLAT 400.00 FEET TO THE SOUTHWEST CORNER OF SAID JOHN KNOX RETIREMENT VILLAGE 9TH PLAT; THENCE SOUTH 04°27'07" WEST, 289.53 FEET; THENCE NORTH 85°32'53" WEST, 175.00 FEET; THENCE SOUTH 04°27'07" WEST, 425.00 FEET; THENCE SOUTH 85°32'53" EAST, 175.00 FEET; THENCE SOUTH 04°27'07" WEST, 289.53 FEET; THENCE SOUTH 02°53'56" WEST, 385.97 FEET TO THE POINT OF BEGINNING. CONTAINING 3,360,308 SQUARE FEET OR 77.14 ACRES, MORE OR LESS.

BMK #5 CHISELED SQUARE ON THE S.E. CORNER OF A CONCRETE PAD FOR A TRAFFIC SIGNAL BOX AT THE S.W. CORNER OF PRYOR ROAD AND O'BRIEN ROAD.

ELEVATION: 979.24

Record Drawing

ASBUILT
10-28-2020

[illegible]

COVER SHEET WATER MAIN EXTENSION	2019
WOODSIDE RIDGE FIRST PLAT	EE'S SUMMIT, MO

drawn by: D.A.H.C.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1146
date: 2019.03.12

SHEET
C301

Olsson

MO Certificate of Authority #001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEI 816 361 1177
www.clisson.com

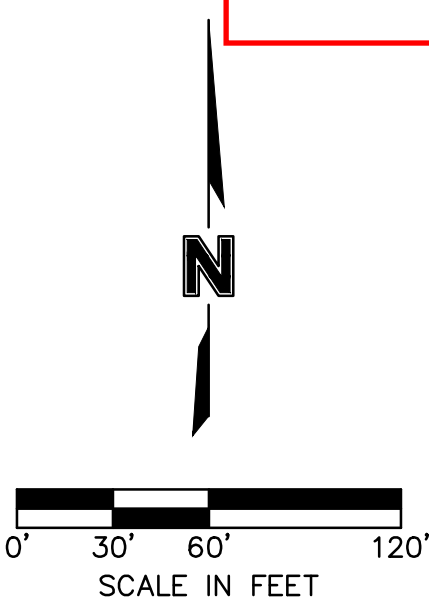
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DATE: Oct 28, 2020 10:53am USER: gmith



Key Map

ASBUILT
10-28-2020

Record Drawing



LEGEND

NEW

WATER MAINS ——— W ———

FIRE HYDRANTS ASSEMBLY ——— ● ———

STRAIGHT SET HYDRANT ASSEMBLY ——— ○ ———

STRADDLE BLOCK ——— + ———

VALVES ——— ● ———

OTHERS

PROPERTY LINE ——— PL ———

STOP SIGN ——— ● ———

END OF ROAD TREATMENT ——— ● ———

EXISTING

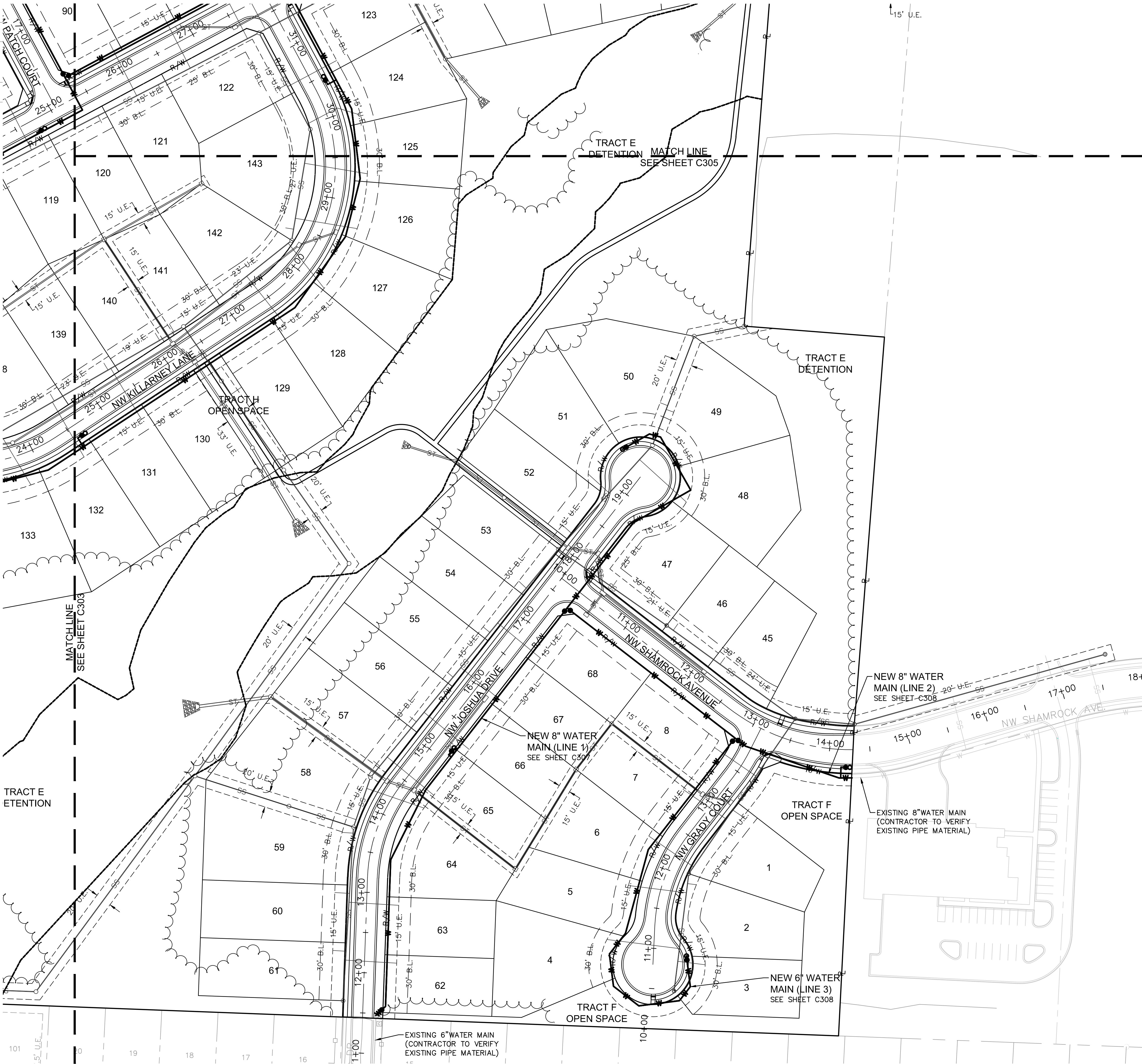
WATER MAINS - - - - - W - - - - -

FIRE HYDRANTS ASSEMBLY - - - - - ● - - - - -

STRAIGHT SET HYDRANT ASSEMBLY - - - - - ○ - - - - -

STRADDLE BLOCK - - - - - + - - - - -

VALVES - - - - - ● - - - - -



olsson

NO. 1001-1500, 018-1140-A, 40-Design, AutoCAD, Final Plans, Sheets, GNCV, 01_Water_36x24 - ASB, C_GEN02_1140A.dwg
DATE: Oct 28, 2020 10:53am
USER: gmith

STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER PE-2017000367
11/1/20

BY: _____
NO. REV. _____
DATE _____

REVISIONS DESCRIPTION

REVISIONS

2019

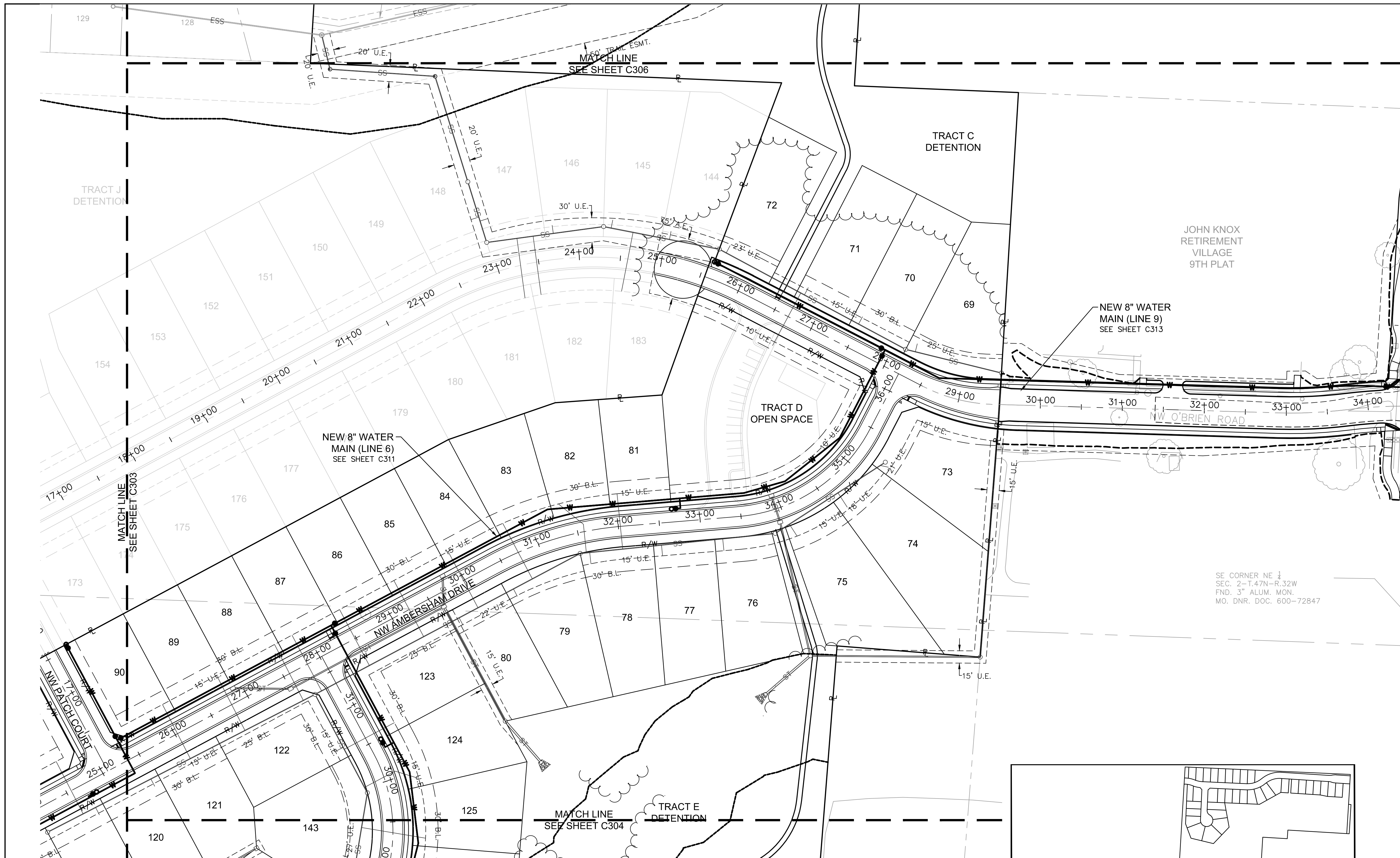
GENERAL LAYOUT
WATER MAIN EXTENSION

WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

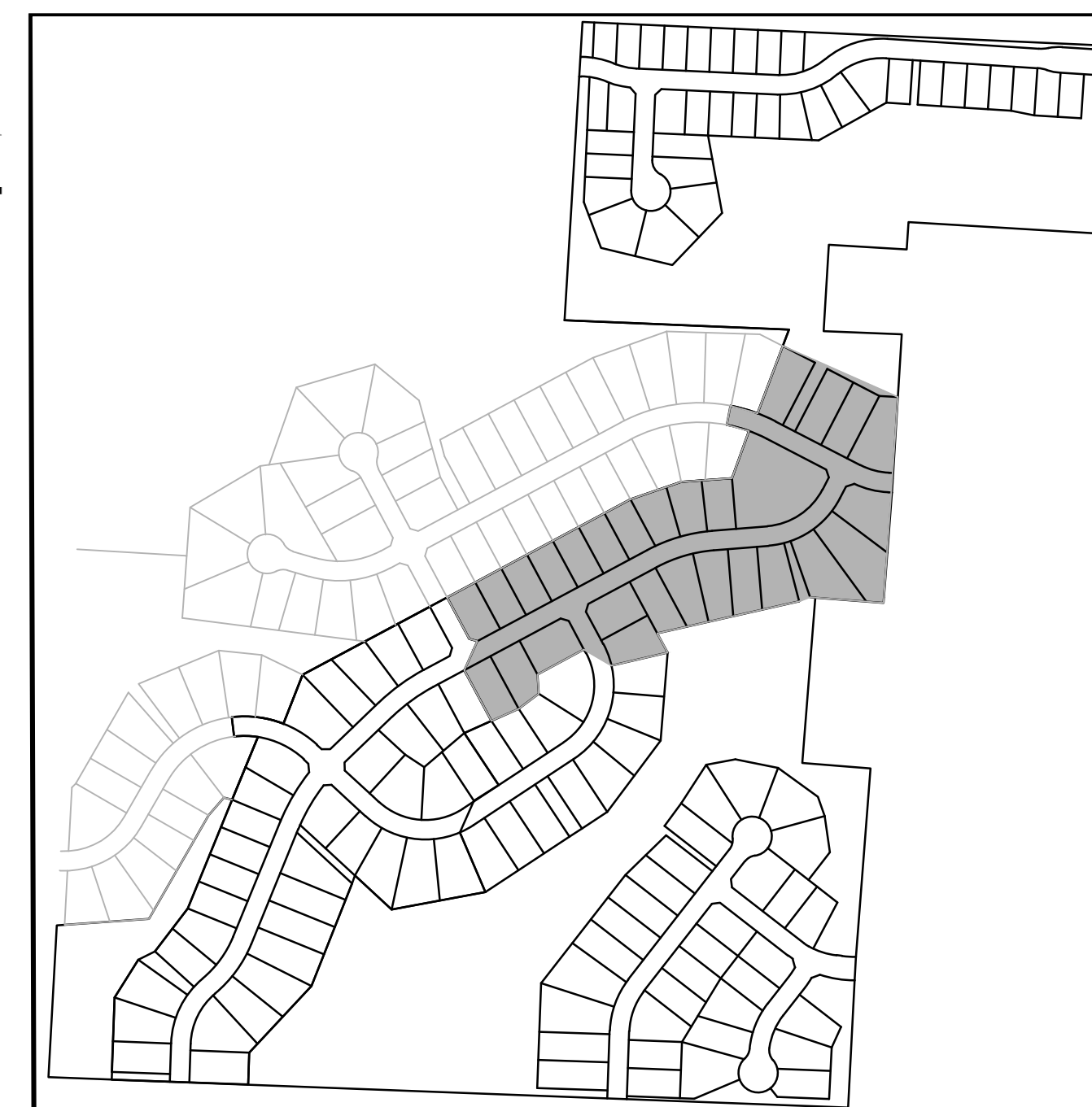
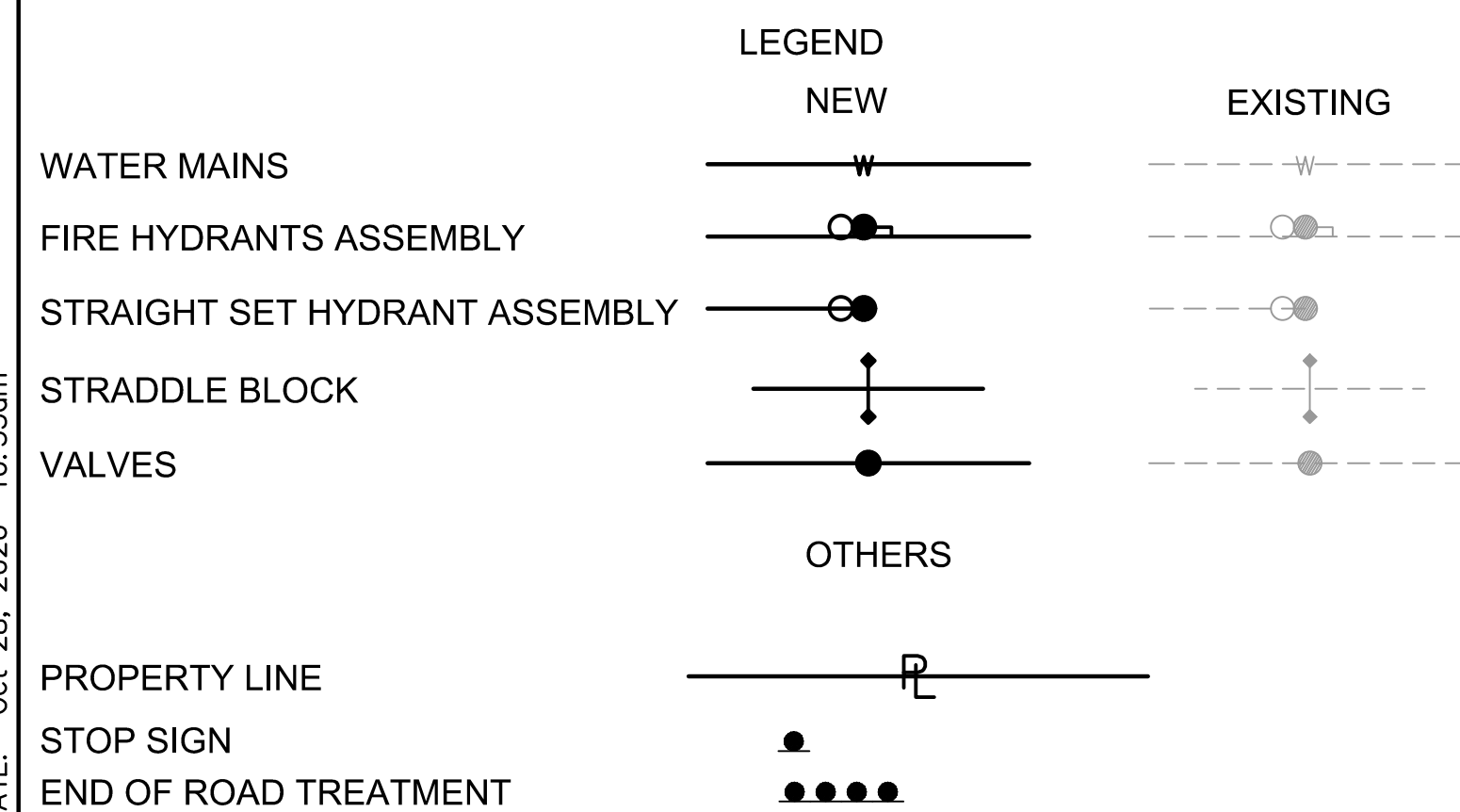
drawn by: _____ D.A.H.O.
checked by: _____ J.E.S.
designed by: _____ S.M.S.
QA/QC by: _____ M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
C305

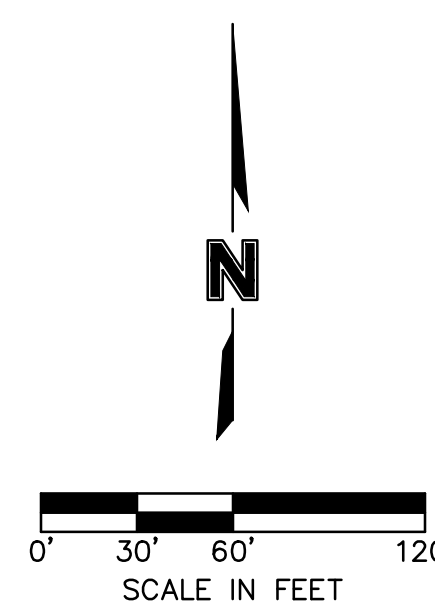


Record Drawing

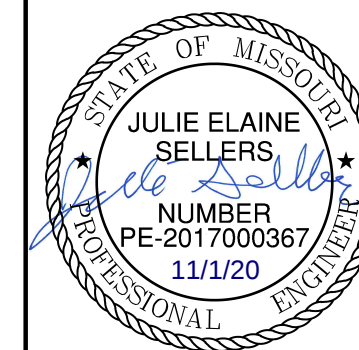
ASBUILT
10-28-2020



Key Map



drawn by: _____ D.A.H.Q. checked by: _____ J.E.S. QA/QC by: _____ S.M.S. project no.: _____ M.G.D. date: _____ A18-1140 2019.03.12	GENERAL LAYOUT WATER MAIN EXTENSION		NO. REV.	DATE	REVISIONS DESCRIPTION	BY
	WOODSIDE RIDGE FIRST PLAT					
LEE'S SUMMIT, MO	2019	REVISIONS				
SHEET C304						

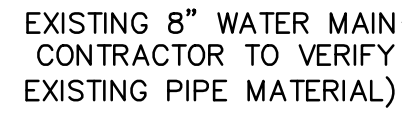


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NORTH KANSAS CITY MO 64116

TEL 816 361 1177

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END OF ROAD TREATMENT

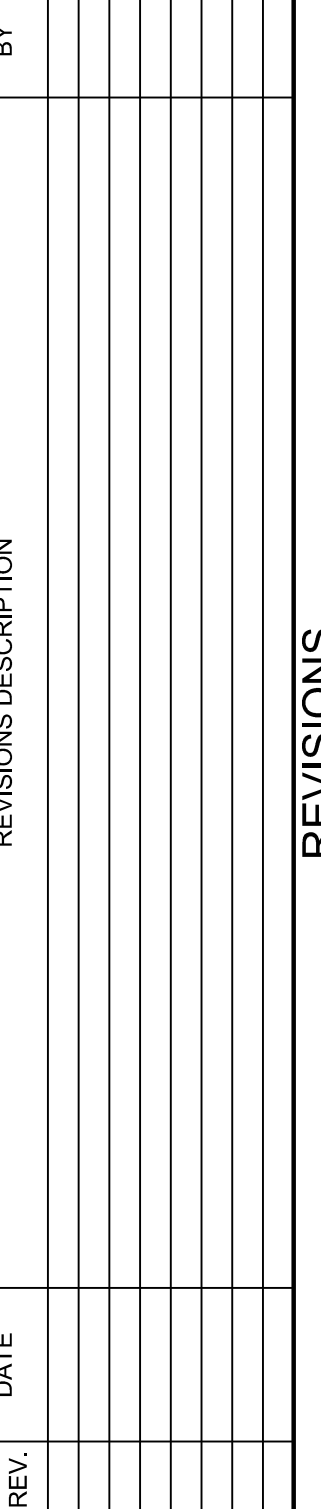


NEW 8" WATER
MAIN (LINE 10)
SEE SHEET C314

TRAIL ESMT

MATCH LINE
SEE SHEET C305

ASBUILT
10-28-2020

WOODSIDE RIDGE
FIRST PLAT

Drawn by: D.A.H.O
 Checked by: J.E.S
 Designed by: S.M.S
 A/QC by: M.G.D
 Project no.: A18-1140
 Date: 2019.03.12

SHEET
C306

ASBUILT
10-28-2020

Record Drawing

STA.: 10+00.00 (WATER LINE 1)
=STA.: 11+47.40 (E)
NW JOSHUA DRIVE, +6.37' RT
N: 1000951.3610
E: 2812218.6969
AFTER TESTING & CHLORINATION
REMOVED EXISTING BLOW-OFF AND
CONNECTED TO EXISTING 6" WATER
MAIN WITH 8"x6" REDUCER
INSTALLED 1-8" 45° BEND

EXISTING 6" WATER MAIN
(CONTRACTOR TO VERIFY
EXISTING PIPE MATERIAL)

STA.: 11+98.84 (WATER LINE 1)
=STA.: 13+45.05 (E)
NW JOSHUA DRIVE, -26.43' RT
N: 1001144.8473
E: 2812237.1889
INSTALLED 1-8" 22.50° BEND
WITH THRUST BLOCK

STA.: 10+16.45 (WATER LINE 1)
=STA.: 11+59.04 (E)
NW JOSHUA DRIVE, -28.00' RT
N: 1000962.5770
E: 2812230.7354
INSTALLED 1-8" 45° BEND
WITH THRUST BLOCK

STA.: 12+95.94 (WATER LINE 1)
=STA.: 14+56.65 (E)
NW JOSHUA DRIVE, -28.00' RT
N: 1001231.6609
E: 2812280.6882
INSTALLED 1-8" 11.25° BEND
WITH THRUST BLOCK

AS BUILT IS 0.88' E
AND 1.54' S OF PLAN.
13+58.26
15+18.97
25.37' RT
N: 1001282.48
E: 2812316.87
STA.: 13+58.94 (WATER LINE 1)
=STA.: 15+19.65 (E)
NW JOSHUA DRIVE, -23.73' RT
N: 1001284.0175
E: 2812315.9892
INSTALLED 1-5" FIRE HYDRANT
1-6" GATE VALVE
1-6" 90° BEND
1-8"x6" TEE
W/ THRUST BLOCK

STA.: 17+16.69 (WATER LINE 1)
=STA.: 18+77.40 (E)
NW JOSHUA DRIVE, -28.00' RT
N: 1001563.8324
E: 2812538.9404
INSTALLED 1-8" 22.50° BEND
WITH THRUST BLOCK

19+25.15
19+43.66
38.40' LT
N: 1001656.96
E: 2812527.32
ASBUILT IS 1.53' E
AND 1.73' N OF PLAN.

STA.: 19+27.33 (WATER LINE 1)
=STA.: 19+41.36 (E)
NW JOSHUA DRIVE, -38.64' LT
N: 1001655.2302
E: 2812525.5892
INSTALLED 1-5" FIRE HYDRANT
1-6" GATE VALVE

STA.: 18+89.00 (WATER LINE 1)
=STA.: 19+76.77 (E)
NW JOSHUA DRIVE, -23.97' LT
N: 1001674.1814
E: 2812558.9004
INSTALLED 1-8" 45° BEND
WITH THRUST BLOCK

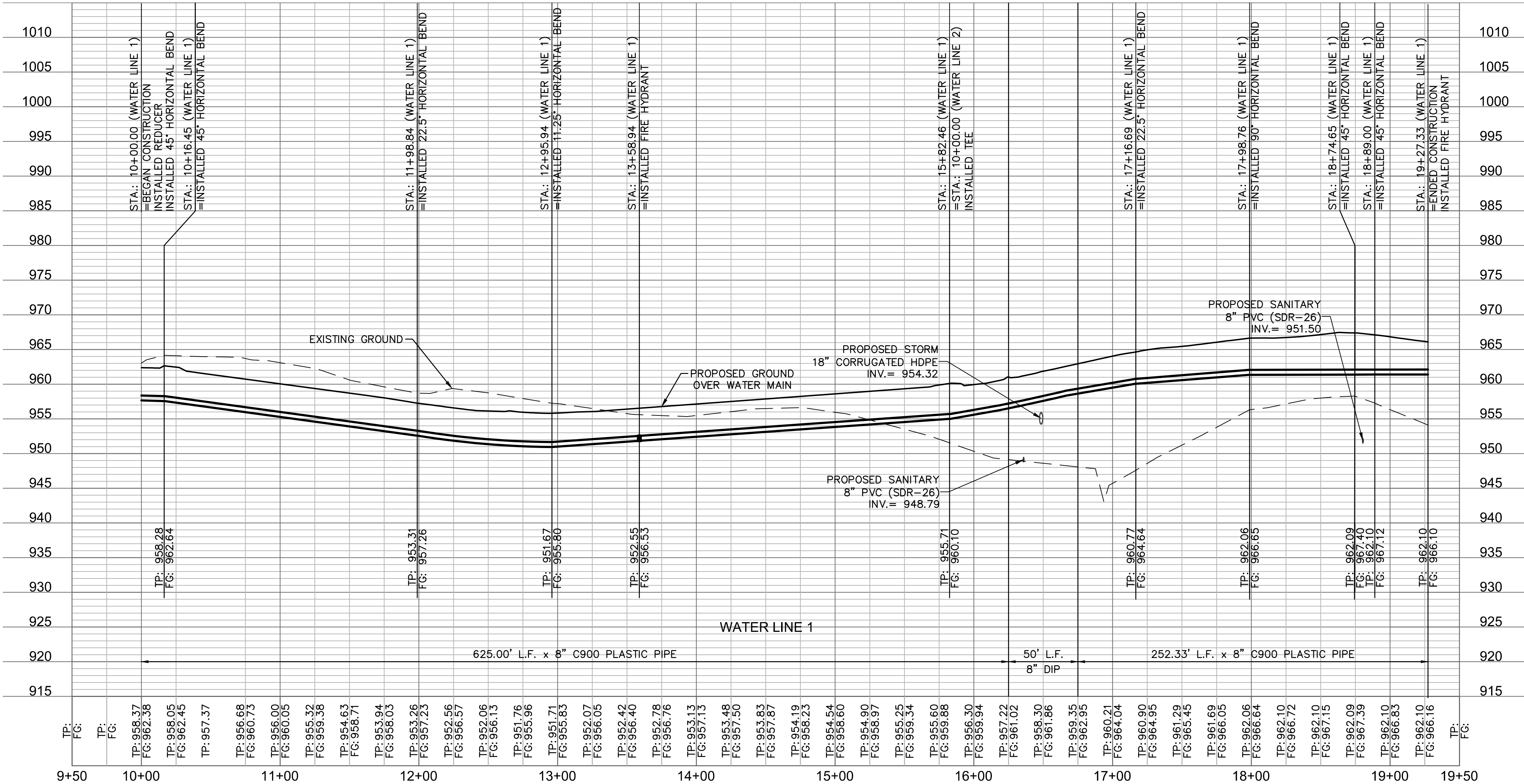
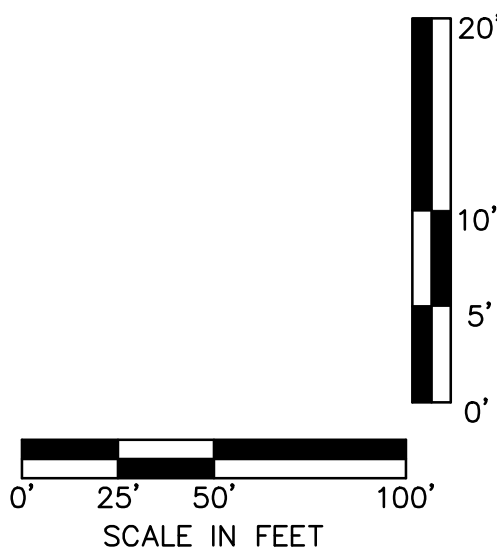
STA.: 18+74.65 (WATER LINE 1)
=STA.: 19+82.26 (E)
NW JOSHUA DRIVE, -10.71' LT
N: 1001670.3790
E: 2812572.7391
INSTALLED 1-8" 45° BEND
WITH THRUST BLOCK

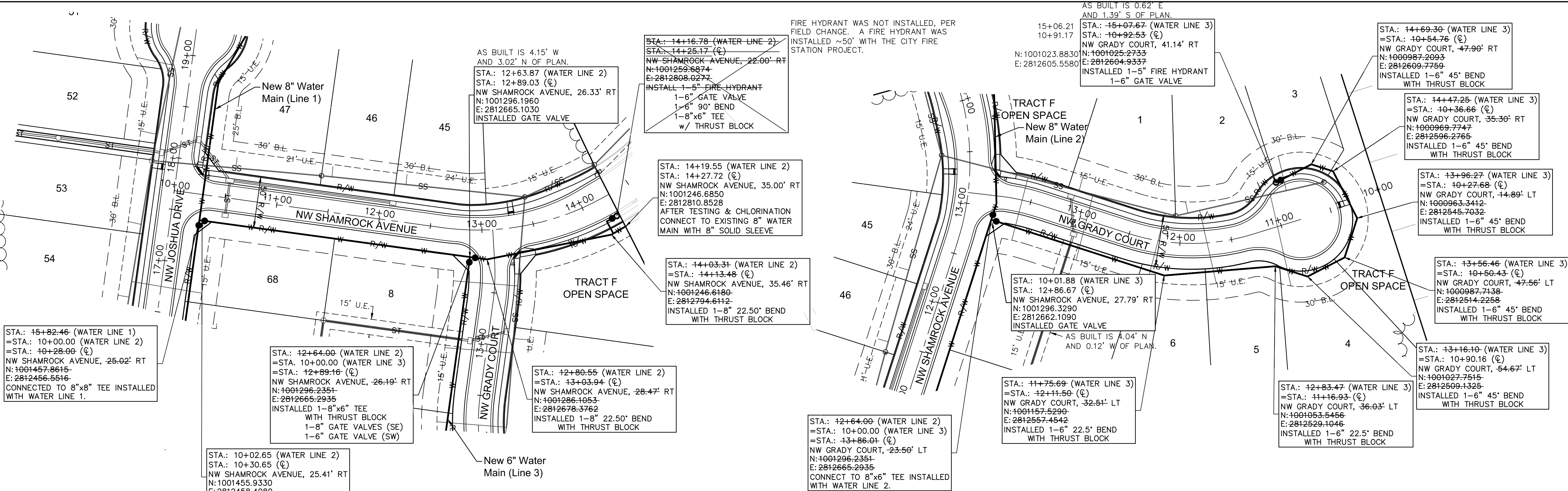
STA.: 17+98.76 (WATER LINE 1)
=STA.: 19+53.22 (E)
NW JOSHUA DRIVE, -59.40' RT
N: 1001604.4120
E: 2812610.2686
INSTALLED 1-8" 90° BEND
WITH THRUST BLOCK

STA.: 15+78.56 (WATER LINE 1)
=STA.: 17+39.27 (E)
NW JOSHUA DRIVE, 28.05' RT
N: 1001454.7540
E: 2812454.1940
INSTALLED GATE VALVE
AS BUILT IS 0.4' N
AND 0.71' E OF PLAN.

STA.: 15+82.46 (WATER LINE 1)
=STA.: 10+00.00 (WATER LINE 2)
=STA.: 17+43.17 (E)
NW JOSHUA DRIVE, -28.00' RT
N: 1001457.8815
E: 2812456.5516
INSTALLED 1-8"x8" TEE
WITH THRUST BLOCK
2-8" GATE VALVES (E,S)

- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
 3. CONTRACTOR SHALL NOT INSTALL GATE VALVES WITHIN ADA RAMPS.
 4. MAXIMUM DEPTH OF THE WATER MAIN SHALL NOT EXCEED 7' FROM FINISH GRADE.

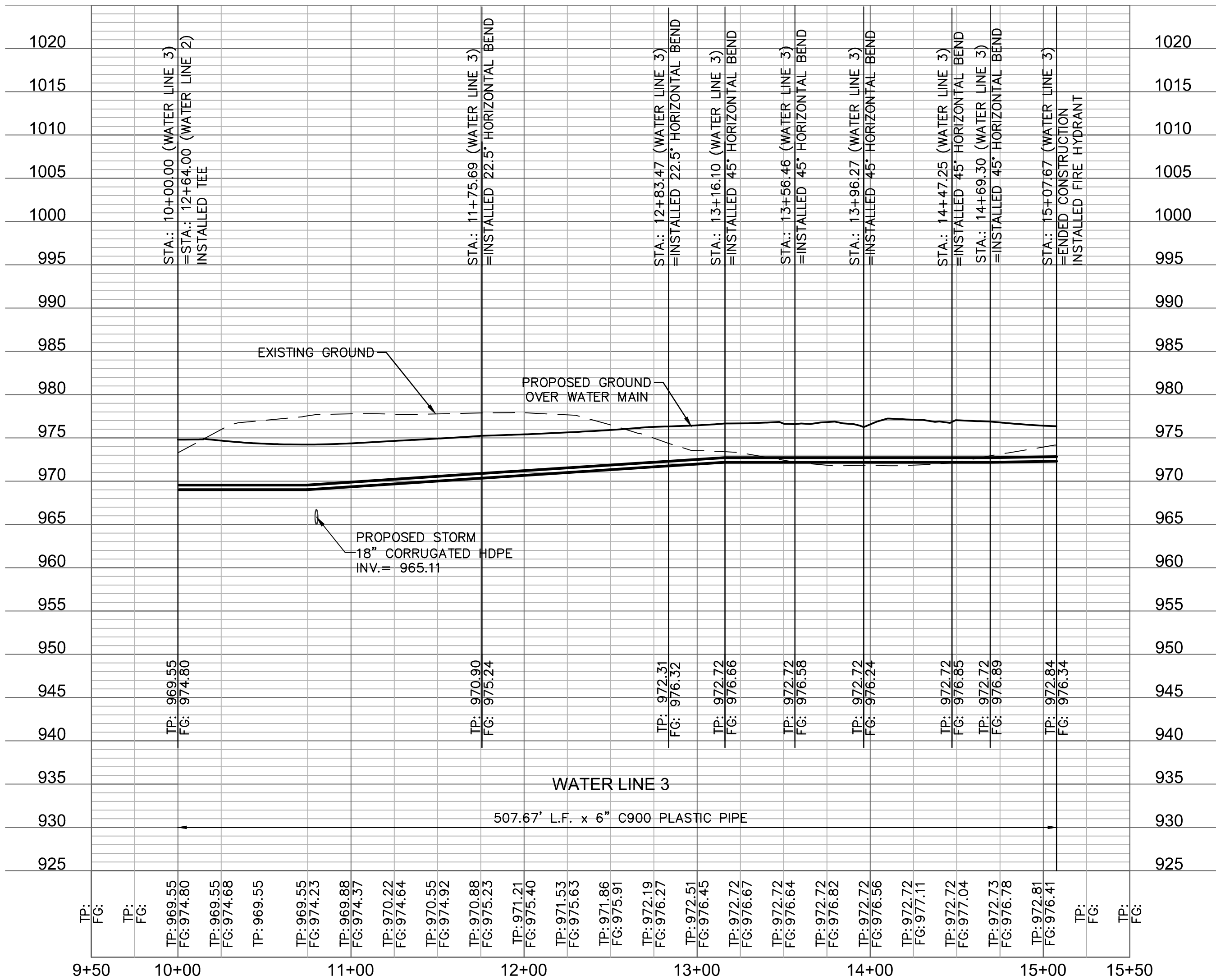
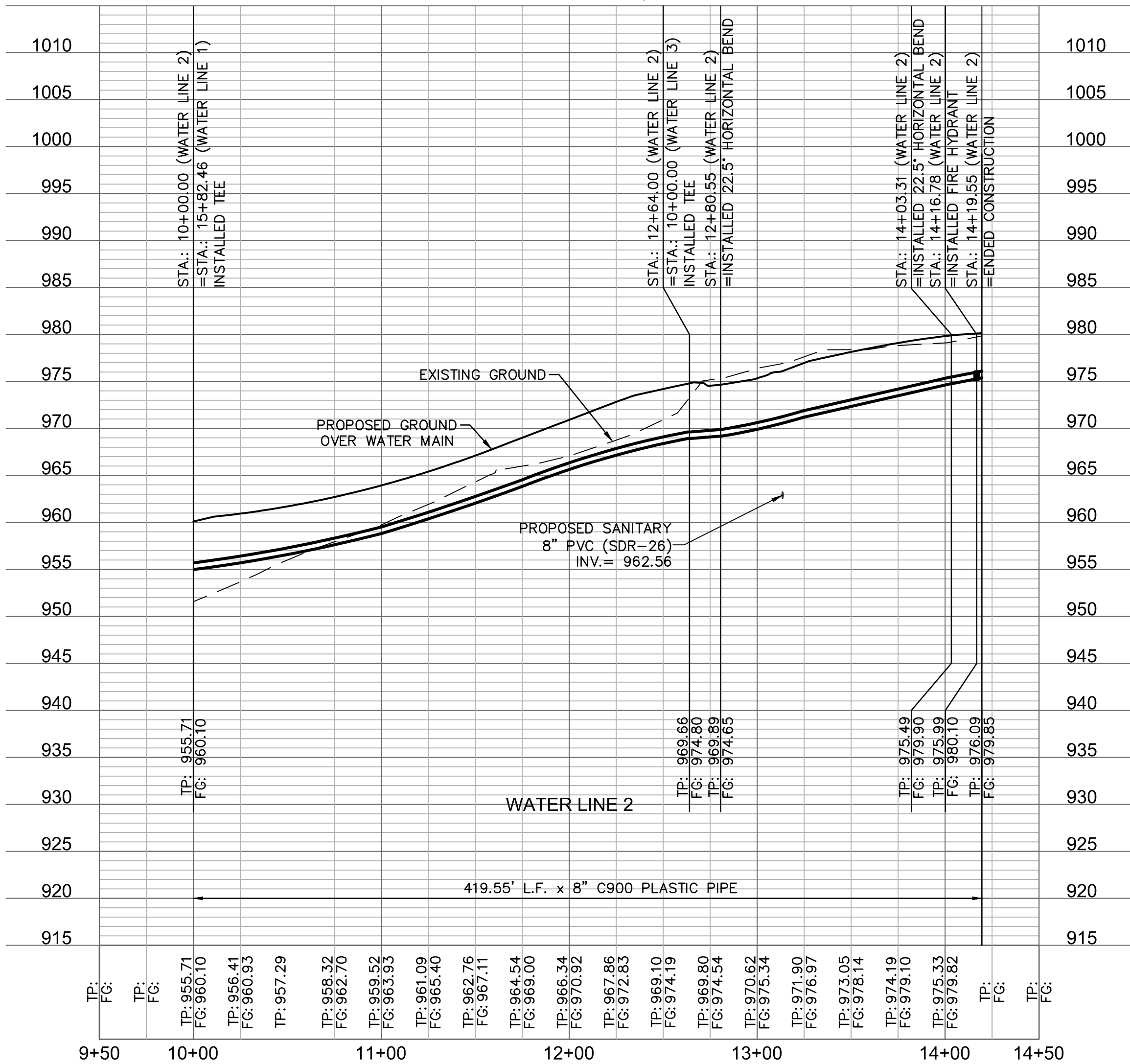




ASBUILT
10-28-2020

Record Drawing

- NOTES:
- CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 - CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
 - CONTRACTOR SHALL NOT INSTALL GATE VALVES WITHIN ADA RAMPS.
 - MAXIMUM DEPTH OF THE WATER MAIN SHALL NOT EXCEED 7' FROM FINISH GRADE.



olsson

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NORTH KANSAS CITY, MO 64116
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STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER
PE-2017000367
11/1/20

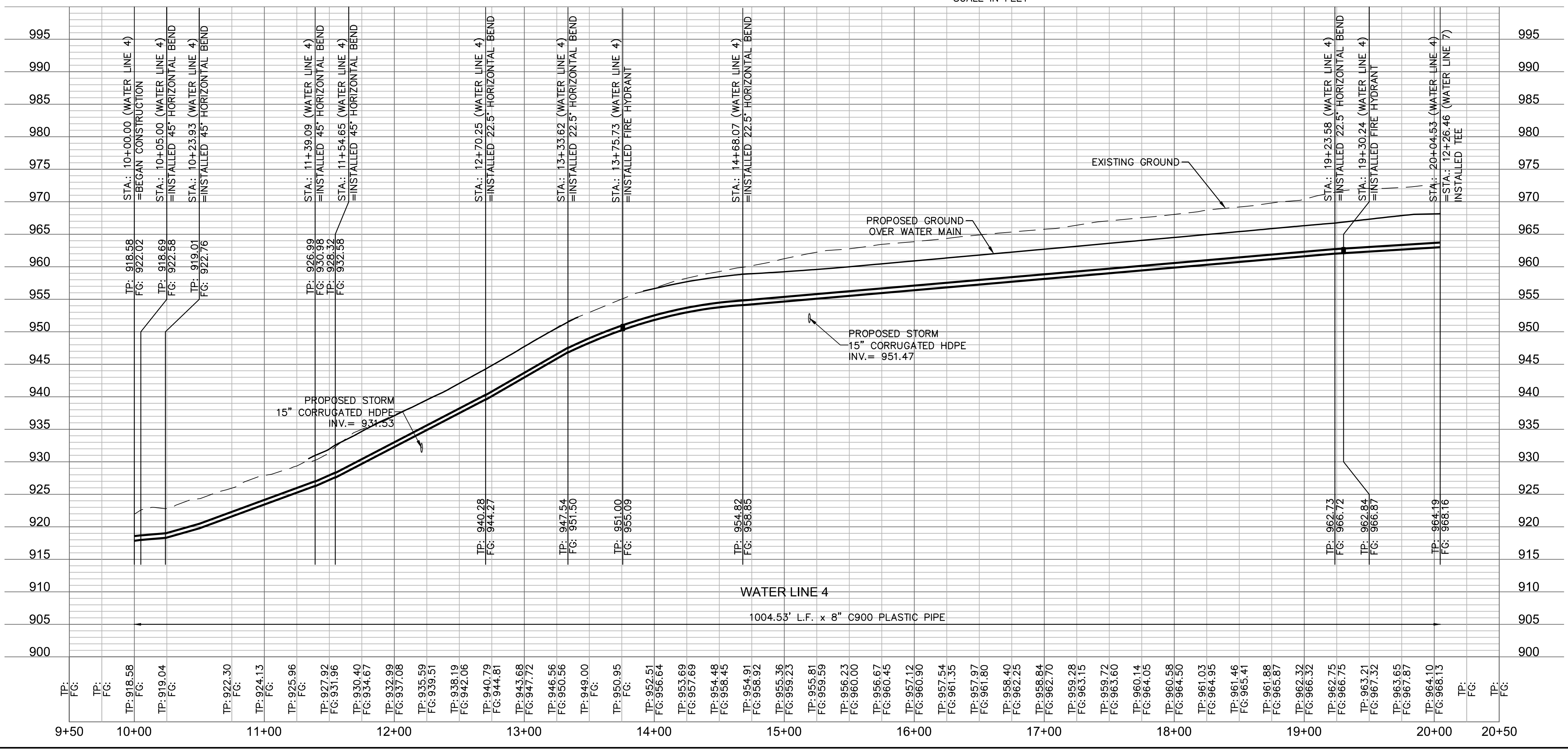
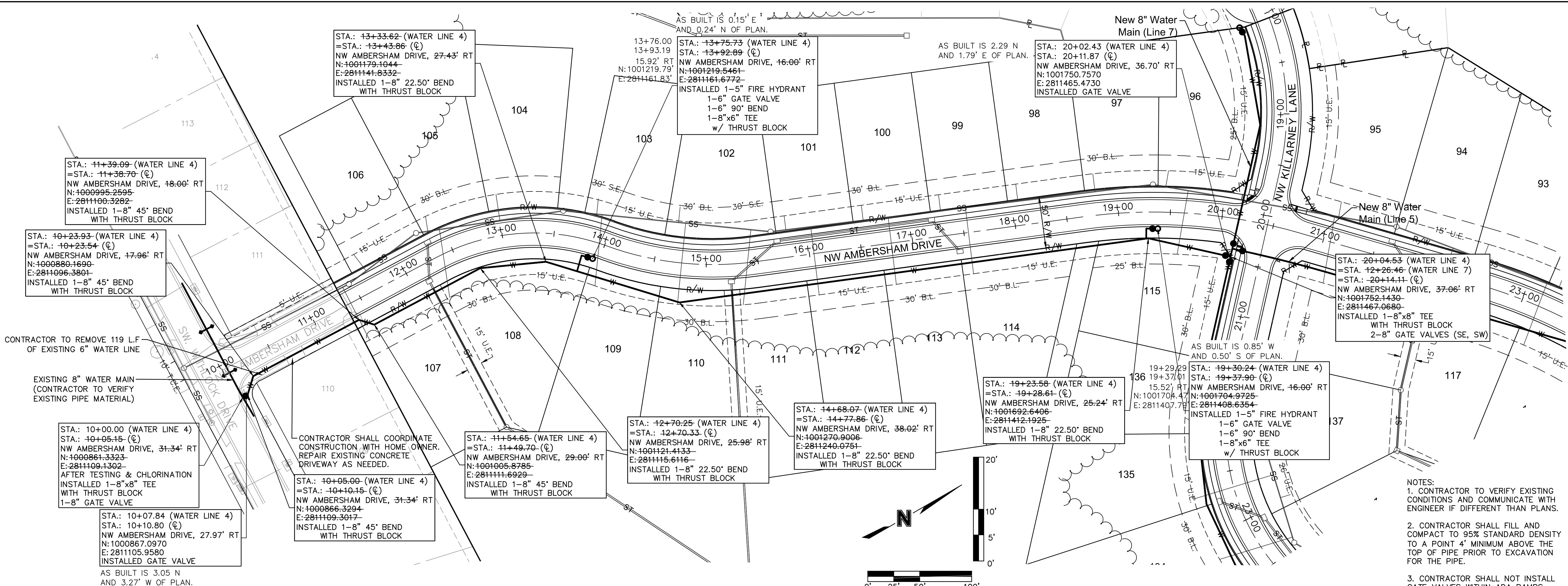
BY: [Signature]
REVISIONS DESCRIPTION
NO. REV. DATE
1 10/21/2019 REVISED PER CITY COMMENTS
2 10/27/2020 ASBUILT SUBMITTAL

WATER MAIN PLAN & PROFILE
WATER MAIN EXTENSION
WOODSIDE RIDGE
FIRST PLAT
LEE'S SUMMIT, MO

2019

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
C308



ASBUILT
10-28-2020

Record Drawing

- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
 3. CONTRACTOR SHALL NOT INSTALL GATE VALVES WITHIN ADA RAMPS.
 4. MAXIMUM DEPTH OF THE WATER MAIN SHALL NOT EXCEED 7' FROM FINISH GRADE.

olsson

NO. 00000000 of Architects at 000000
300 E. BURLINGTON SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.351.1177
WWW.OLSSON.COM

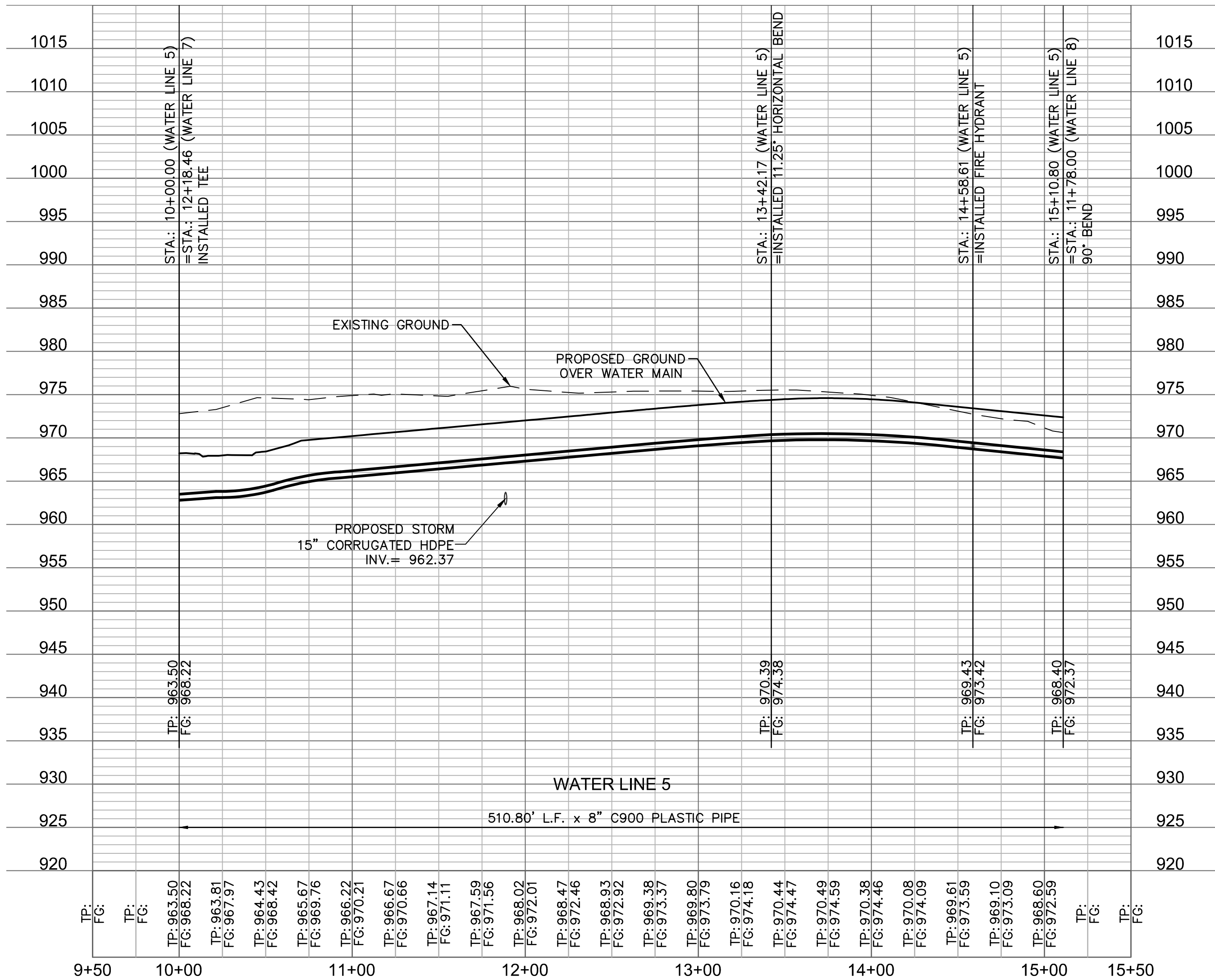
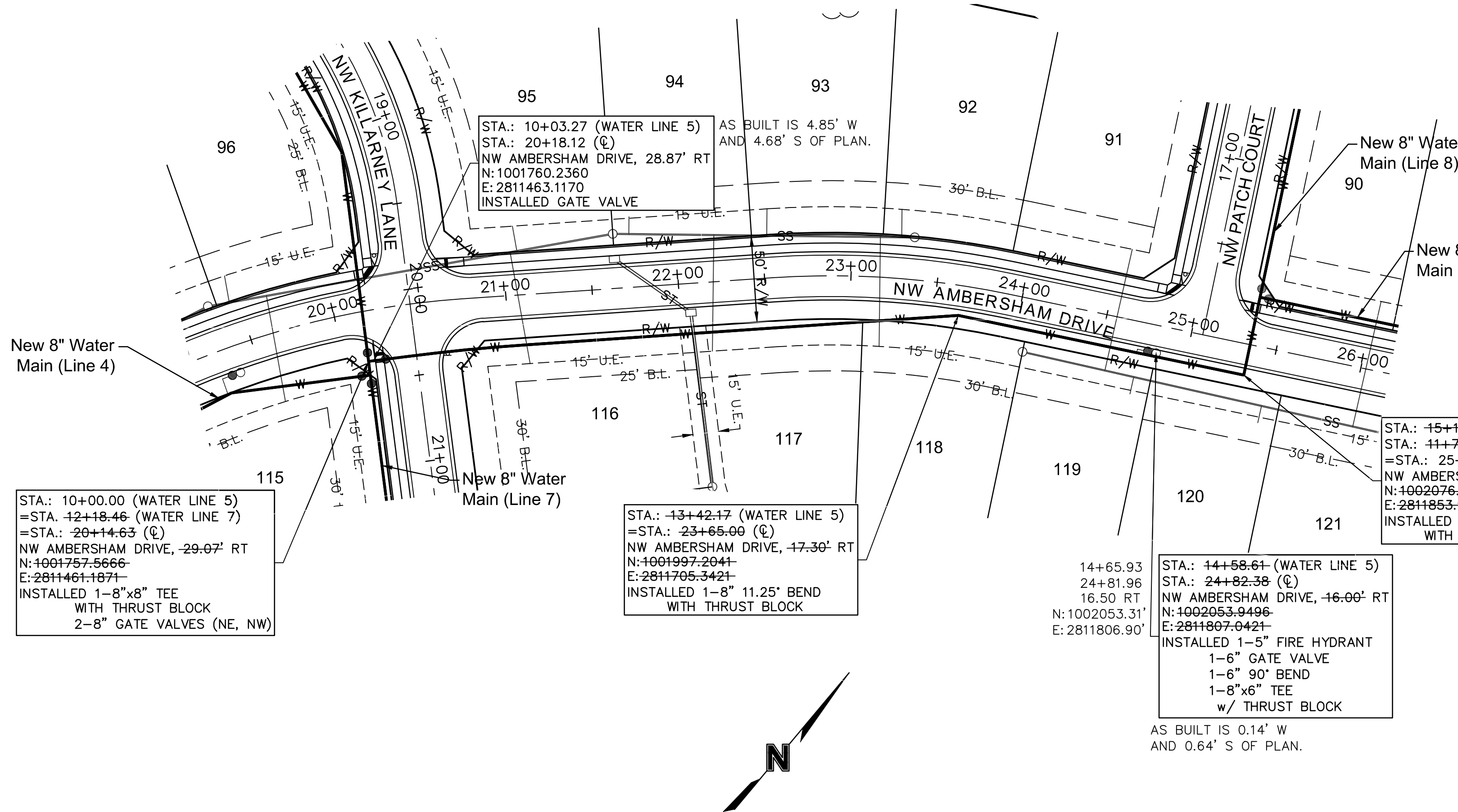
STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER PE-2017000367
11/1/20

BY: _____
REVISIONS DESCRIPTION
DATE
NO. REV. _____
ASBUILT SUBMITTAL
10/27/2020

WATER MAIN PLAN & PROFILE
WATER MAIN EXTENSION
WOODSIDE RIDGE
FIRST PLAT
LEE'S SUMMIT, MO
2019

drawn by: _____ D.A.H.O.
checked by: _____ J.E.S.
designed by: _____ S.M.S.
QA/QC by: _____ M.G.D.
project no.: _____ A18-1140-A
date: _____ 2019.03.12

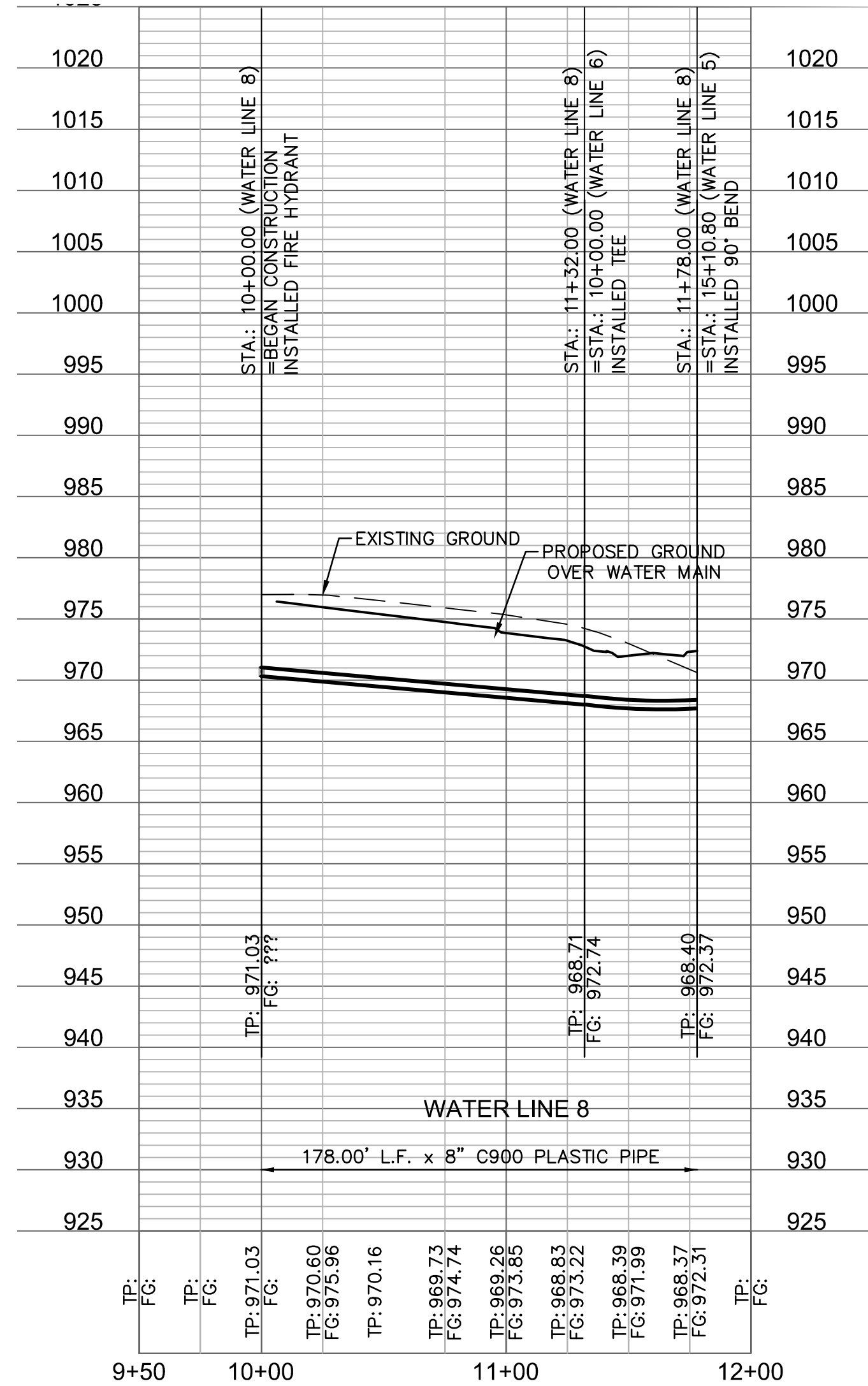
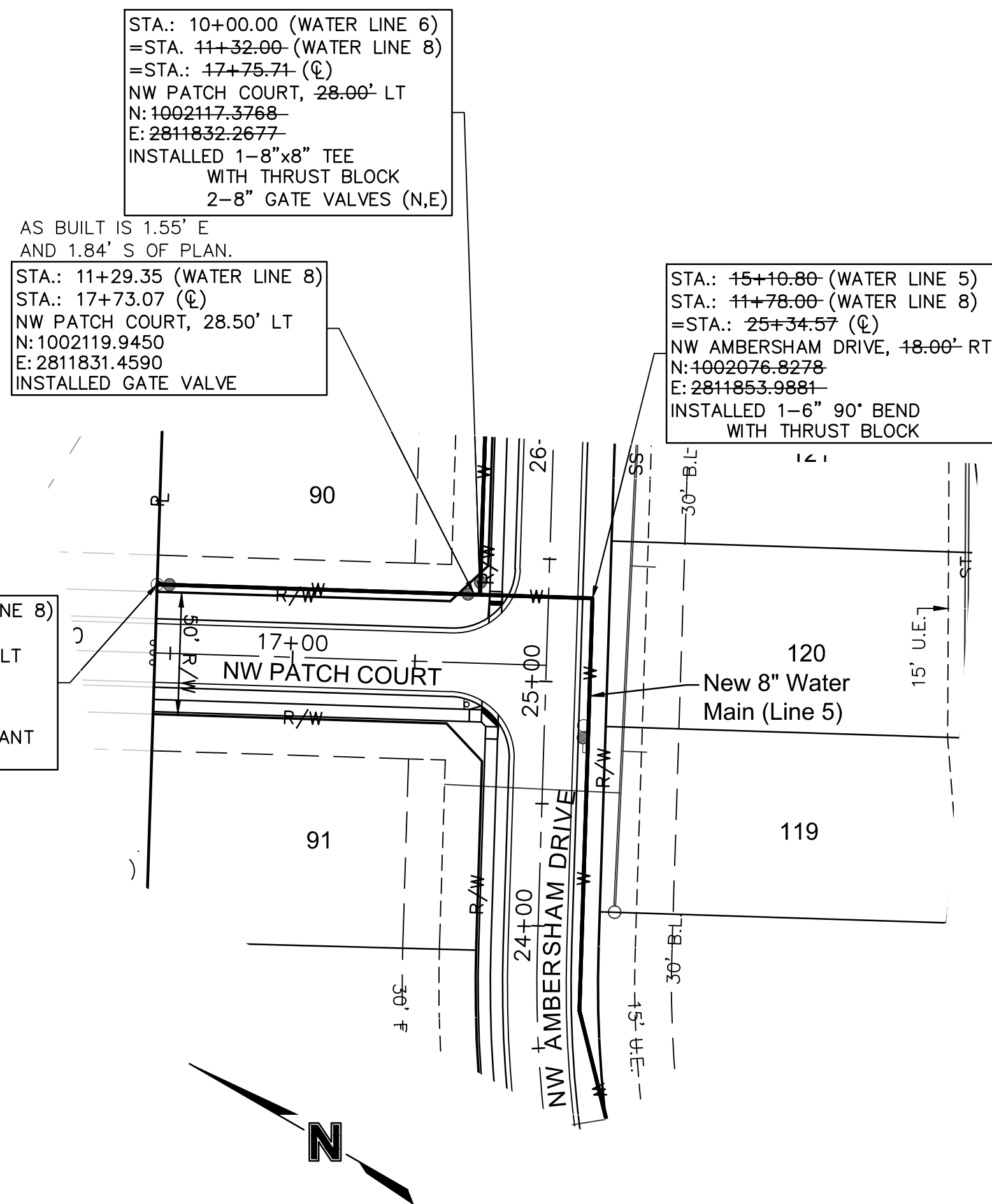
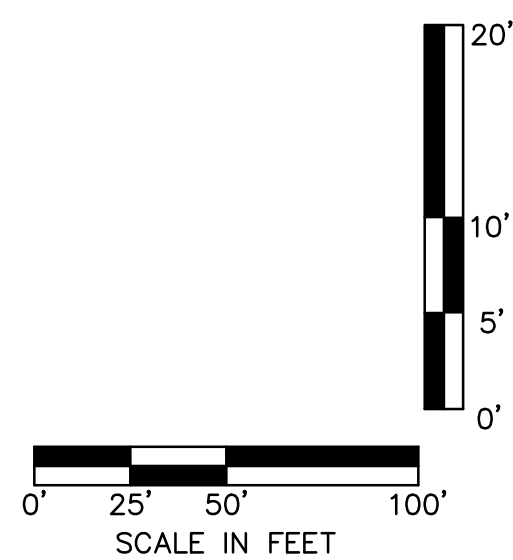
SHEET
C309



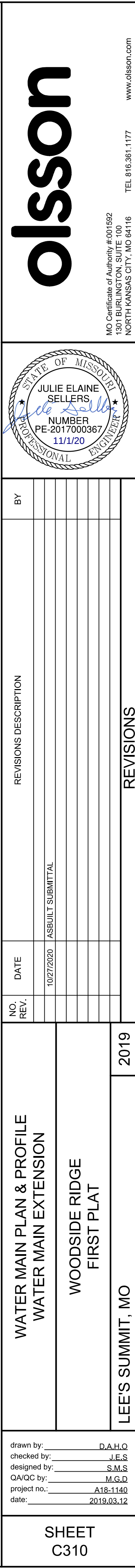
- NOTES:
- CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 - CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
 - CONTRACTOR SHALL NOT INSTALL GATE VALVES WITHIN ADA RAMPS.
 - MAXIMUM DEPTH OF THE WATER MAIN SHALL NOT EXCEED 7' FROM FINISH GRADE.

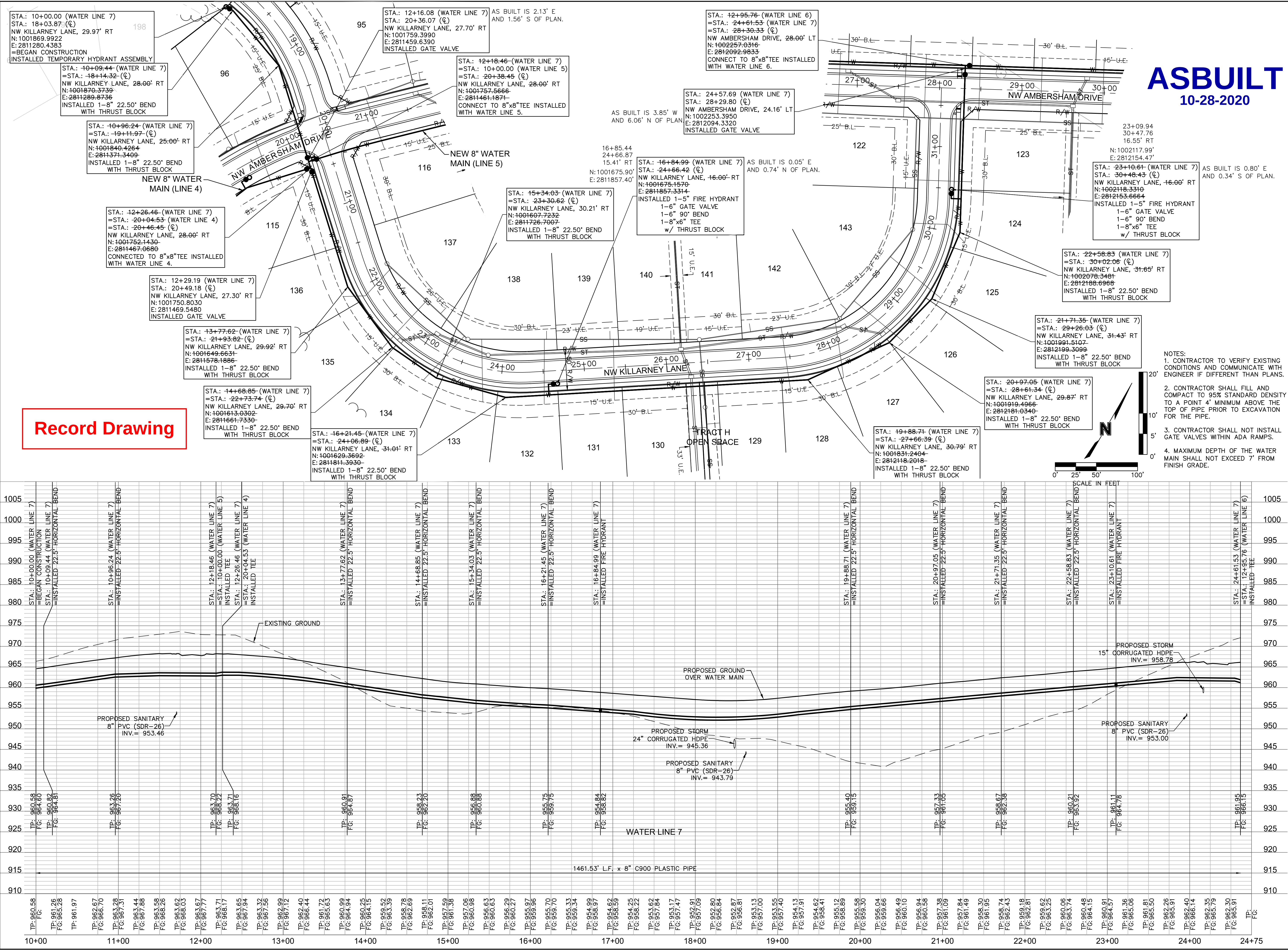
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10-28-2020

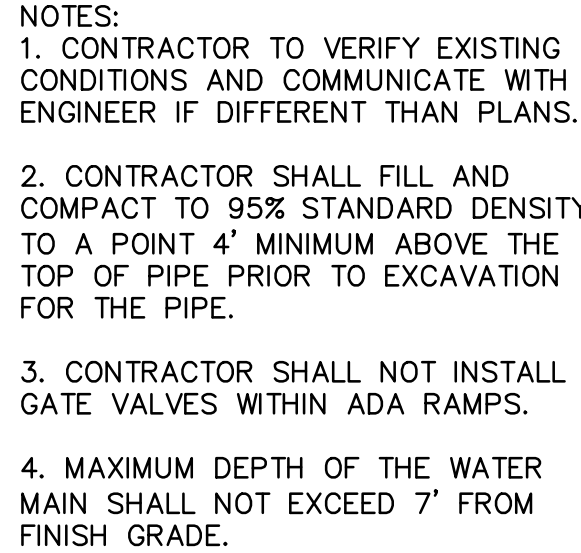
Record Drawing



WATER MAIN PLAN & PROFILE		WOODSIDE RIDGE FIRST PLAT		LEE'S SUMMIT, MO	
REVISIONS		REVISIONS		REVISIONS	
NO.	REV.	DATE	DESCRIPTION	BY	
1		10/27/2020	ASBUILT SUBMITTAL		
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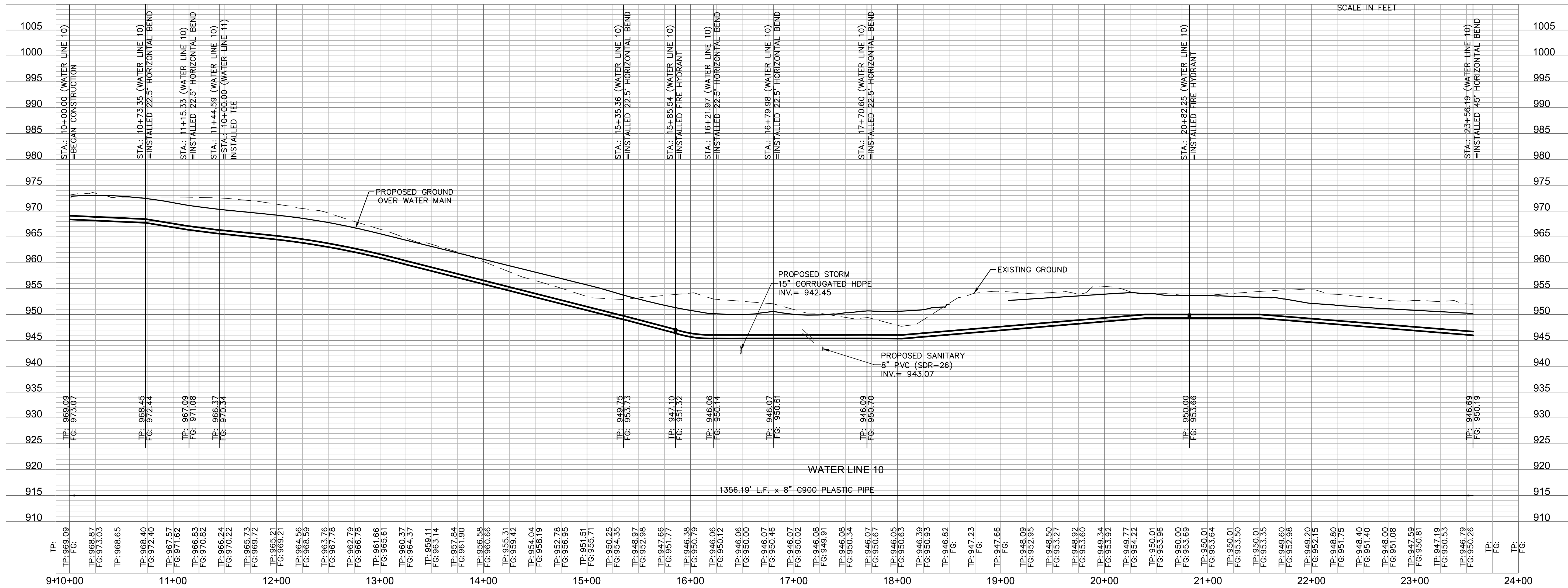
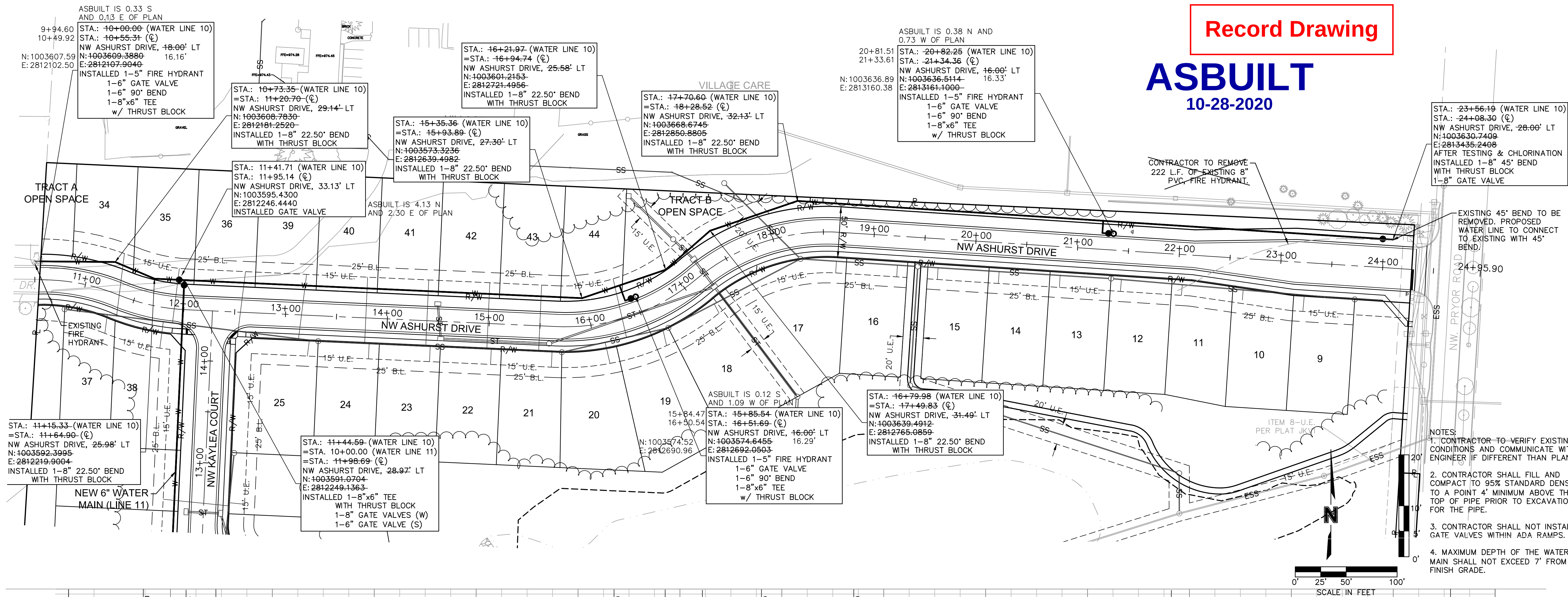




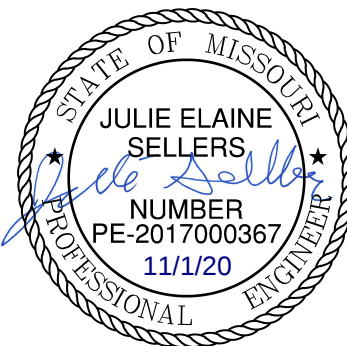


Record Drawing

ASBUILT
10-28-2020



olson

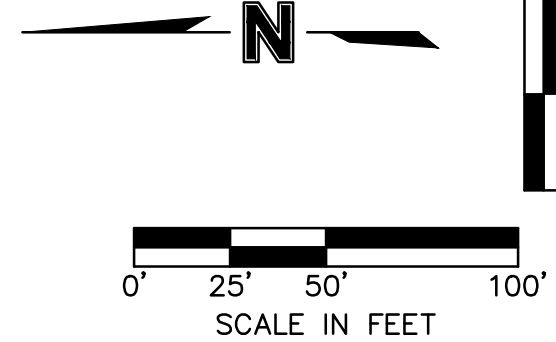
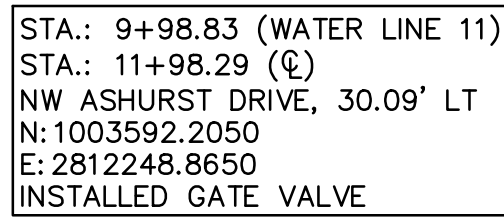
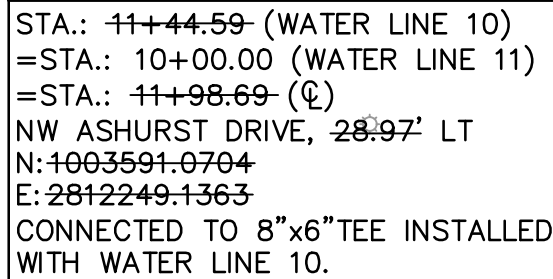
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WATER MAIN PLAN & PROFILE
WATER MAIN EXTENSION

drawn by: D.A.H.C.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
C314

DWG: F:\2018\1001-1500\018-1140-A\40-Design\AutoCAD\Final Plans\Sheets\GNCV\01_Water_36x24 - ASB\C_WAT08_1140A.dwg
DATE: Oct 28, 2020 9:09am
USER: gsmith



NOTES:

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
3. CONTRACTOR SHALL NOT INSTALL GATE VALVES WITHIN ADA RAMPS.
4. MAXIMUM DEPTH OF THE WATER MAIN SHALL NOT EXCEED 7" FROM FINISH GRADE.

WATER MAIN PLAN & PROFILE
WATER MAIN EXTENSION

W
LEE'S SUMMIT, MO

SHEET
C314

drawn by: D.A.H.O
checked by: J.E.S
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QA/QC by: M.G.D
project no.: A18-1140
date: 2019.03.12

2019

NO.	DATE
REV.	

ASBUILT SUBMITTAL

REVISIONS DESCRIPTION

BY

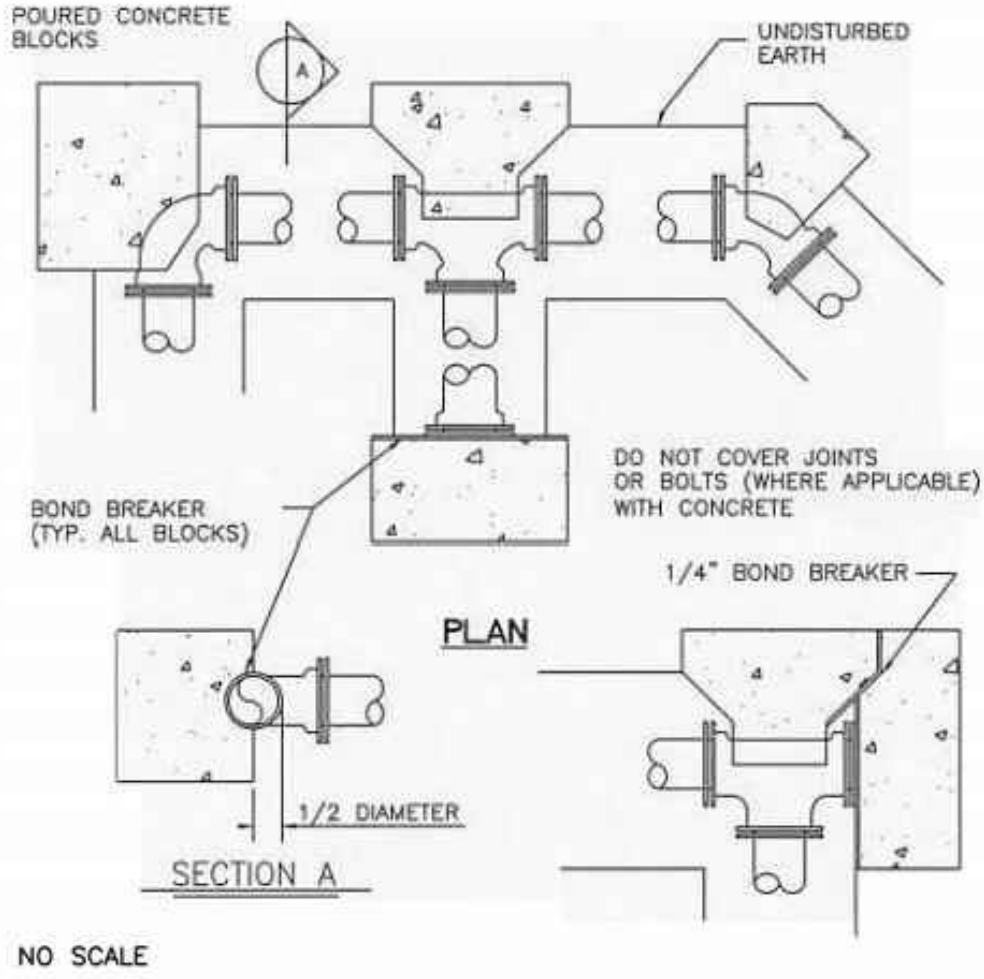
STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
11/1/20
PROFESSIONAL ENGINEER

olson

MO Certificate of Authority #001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816 361 1177
www.djesson.com

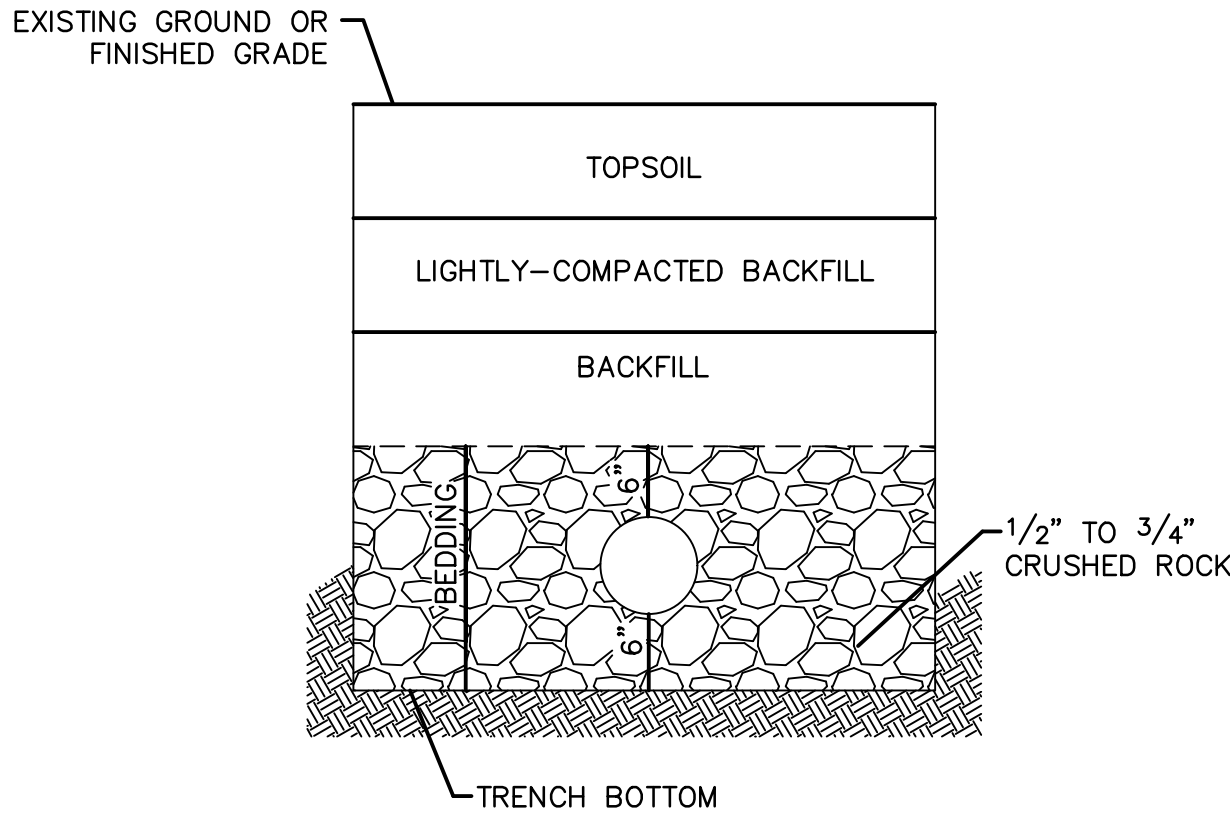
HORIZONTAL CONCRETE THRUST BLOCKING						
	Working Pressure	150		psi		
	Surge Allowance	100		psi		
	Design Pressure	250		psi		
	Soil Bearing Capacity	1500		psf		
	Safety Factor	1.0				
	Min. Bearing Area	4.0		sf		
	Max. Bearing Area	50.0		sf		
Concrete Bearing Area (sf)						
Nom. Dia. (inches)	180	90	45	22.5	11.25	
	Tee, Plug	Bend	Bend	Bend	Bend	
6	4.7	6.7	4.0	4.0	4.0	
8	8.4	11.8	6.4	4.0	4.0	
10	13.1	18.5	10.0	5.1	4.0	
12	18.8	26.7	14.4	7.4	4.0	
14	25.5	36.3	19.6	10.0	5.0	
16	33.5	47.4	25.6	13.1	6.6	
18	42.4	Rest. Jt.	32.5	16.5	8.3	
20	Rest. Jt.	Rest. Jt.	40.1	20.4	10.3	
24	Rest. Jt.	Rest. Jt.	Rest. Jt.	29.4	14.8	

ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.



THRUST BLOCK DETAILS

N.T.S.



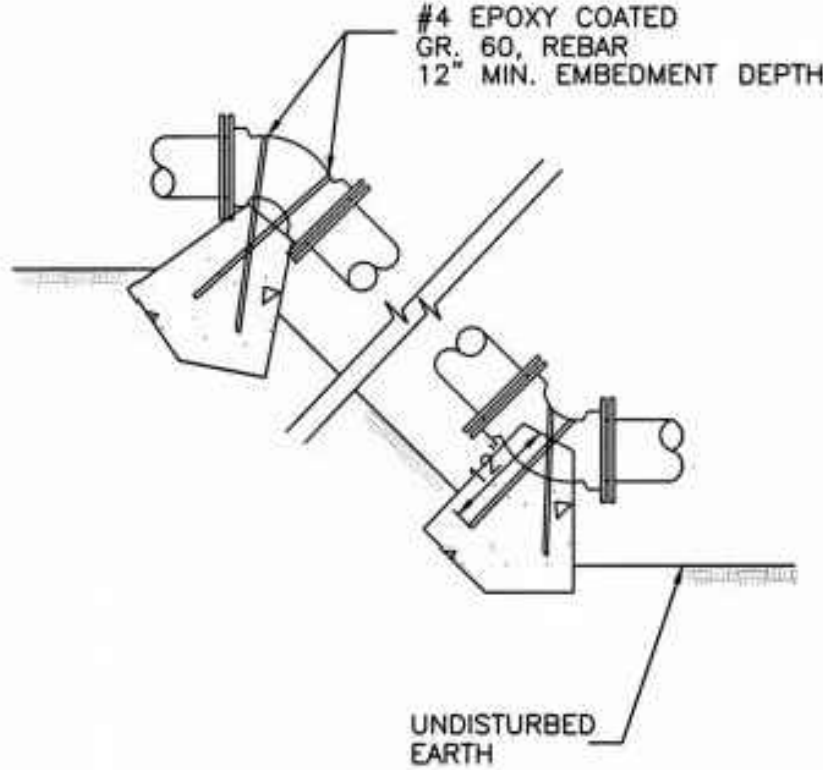
UNDERGROUND PIPE INSTALLATION FOR WATER LINES
N.T.S.

NOTES:

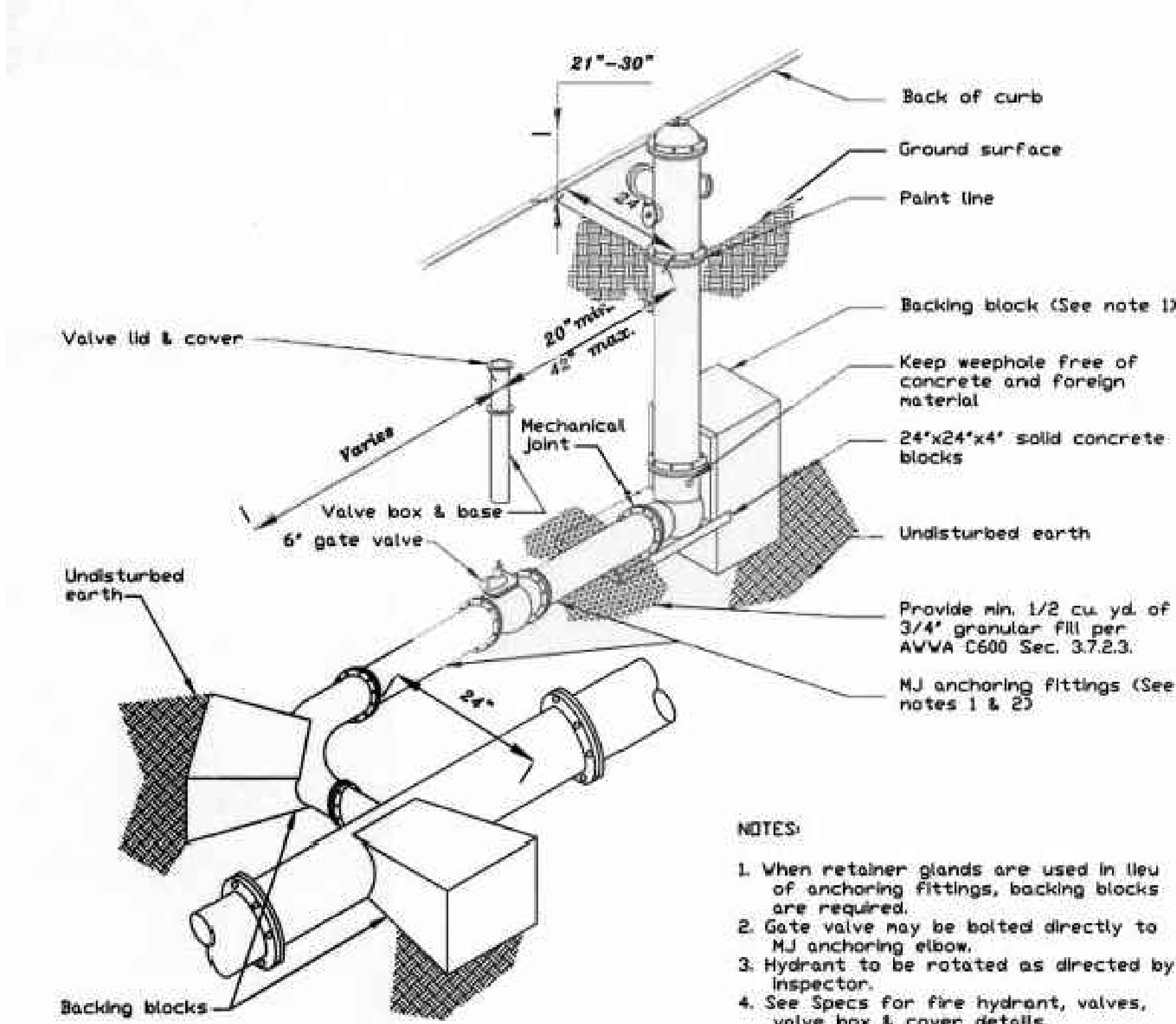
1. A MINIMUM OF 42 INCHES OF COVER SHALL BE OVER THE TOP OF THE PIPE. THIS MINIMUM OF COVER SHALL BE FROM THE TOP OF PIPE TO THE FINISHED GRADE. A MAXIMUM COVER OF 7' SHALL BE ALLOWED.
2. BEDDING AGGREGATE SHALL BE PLACES FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 6 INCHES ABOVE THE TOP OF THE PIPE.
3. TRENCH BACKFILL IN PAVED AREAS WITHIN STREET OR ALLEY RIGHT OF WAYS
 - a. NARROW TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES 24 INCHES OR LESS IN WIDTH AND SHALL BE TYPE A FLOWABLE FILL.
 - b. STANDARD TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES BETWEEN 24" TO 48 INCHES WIDE SHALL BE EITHER TYPE A FLOWABLE FILL OR DENSE, WELL GRADED AGGREGATE BASE MATERIAL. AGGREGATE BASE MATERIAL SHALL MEET THE REQUIREMENTS FOR KDOT AB-3; MODOT TYPES 1 OR 5; OR APWA 2202.2.
 - c. WIDE TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES BETWEEN GREATER THAN 48 INCHES WIDE SHALL BE SUITABLE MATERIAL AS SPECIFIED FOR EARTH EMBANKMENT IN APWA STANDARD SPECIFICATIONS, SECTION 2102.2.C.
4. SUITABLE BACKFILL MATERIAL OUTSIDE OF PAVED AREAS WITHIN RIGHT OF WAY, AND ALL AREAS OUTSIDE RIGHT OF WAY, MAY BE SUITABLE MATERIAL AS SPECIFIED FOR EARTH EMBANKMENT IN APWA STANDARD SPECIFICATIONS, SECTION 2102.2.C. SUITABLE BACKFILL MATERIAL MAY ALSO BE OTHER TRENCH BACKFILL MATERIAL (FLOWABLE FILL OR AGGREGATE BASE) DEPENDING ON SITE CONDITIONS, TRENCH WIDTHS OR AT THE DIRECTION OF THE CITY'S ON SITE INSPECTOR.

VERTICAL (UPWARD) CONCRETE THRUST BLOCKING			
Working Pressure	150	psi	
Surge Allowance	100	psi	
Design Pressure	250	psi	
Conc. Unit Weight	140	pcf	
Safety Factor	1.0		
Min. Block Size	4.0	cf	
Max. Block Size	216.0	cf	

ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.



NO SCALE



NOTES:

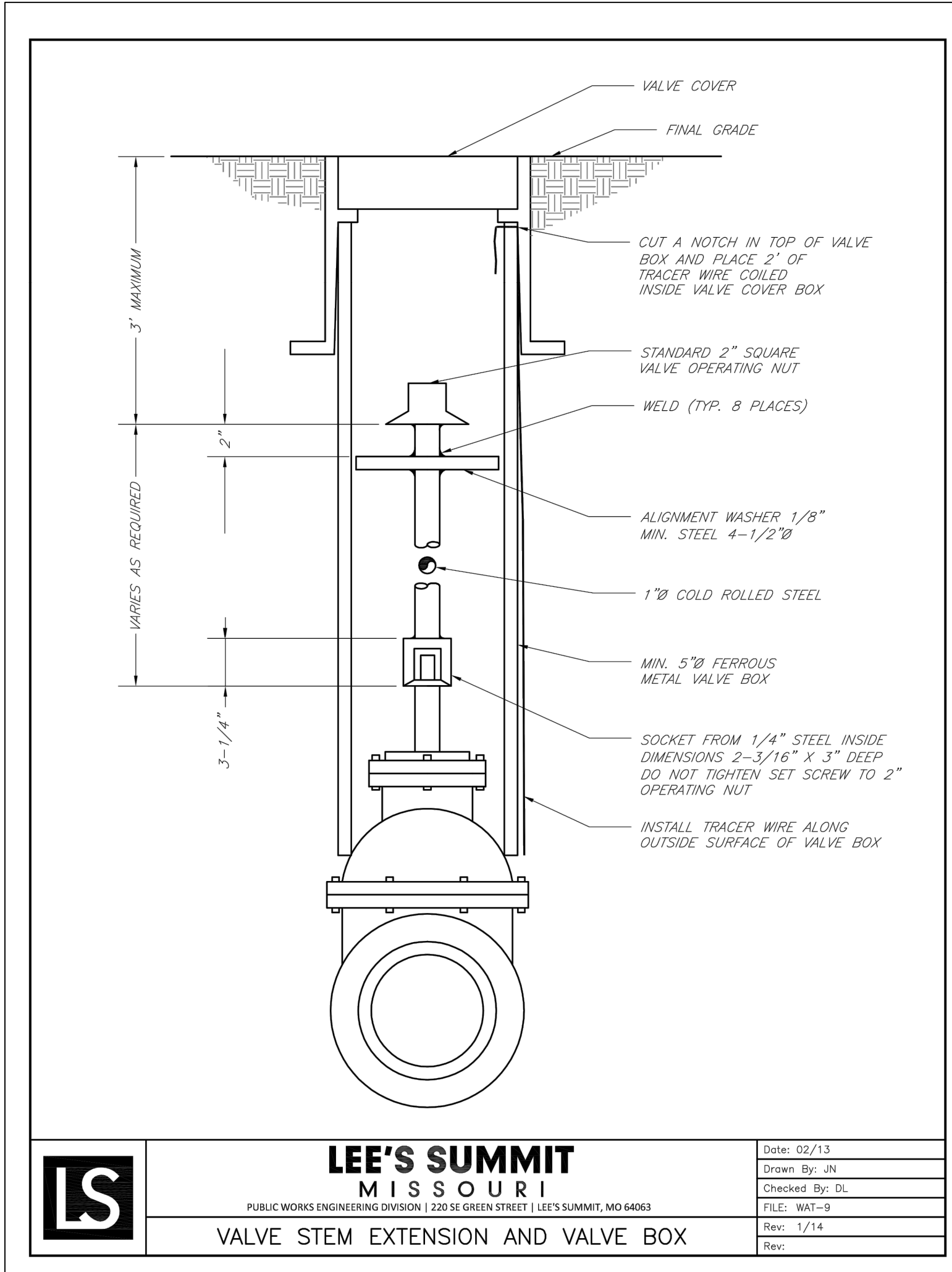
1. When retainer glands are used in lieu of anchoring fittings, backing blocks are required.
2. Gate valve may be bolted directly to MJ anchoring elbow.
3. Hydrant to be rotated as directed by Inspector.
4. See Specs for fire hydrant, valves, valve box & cover details.

FIRE HYDRANT DETAIL

N.T.S.

Record Drawing

ASBUILT
10-28-2020



LEE'S SUMMIT
MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
VALVE STEM EXTENSION AND VALVE BOX

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-9
Rev: 1/14
Rev:

DETAIL SHEET
WATER MAIN EXTENSION

WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

drawn by: D.A.H.Q.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
316

BY

REVISIONS DESCRIPTION

DATE

NO. REV.

REVISIONS

2019

olsson



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TEL 816.381.1177
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