

NAPA VALLEY - 5th PLAT

Street, Stormwater, Master Drainage Plan

LOTS 166-196

PART OF THE NW 1/4 SECTION 36. TOWNSHIP 47 N, RANGE 32 W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

CONSTRUCTION AND DESIGN NOTES:

STREET & STORM SEWERS:

1 - STREET PAVEMENT SHALL CONSIST OF TYPE CG-2 CURBS WITH PAVEMENT PER TABLE LS-2 OF THE LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL

RESIDENTIAL LOCAL STREET SEE BELOW FOR TYPICAL SECTION.

OPTION 1) 4" TYPE 5 ASPHALT BASE AND 2" TYPE 5 OR 6 ASPHALT SURFACE OVER A 6" MoDOT TYPE 5 BASE AND A SUBGRADE MIXTURE OF 6" FLY ASH STABILIZED SUBGRADE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.

OPTION 2) 4" TYPE 5 ASPHALT BASE AND 2" TYPE 5 OR 6 ASPHALT SURFACE OVER 10" MoDOT TYPE 5 BASE OVERTOP A BIAXIAL GEOGRID PER THE CITY'S APPROVED PRODUCT LIST.

2 - STORM SEWER PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) AS APPROVED BY CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.

3 - JUNCTION BOXES SHALL BE PER CITY OF LEE'S SUMMIT STANDARD DRAWING NO. STM-3. FIELD INLETS SHALL BE PER CITY OF LEE'S SUMMIT STANDARD DRAWING STM-2. TOEWALLS SHALL BE PER CITY OF LEE'S SUMMIT DRAWING NO. STM-5. JUNCTION BOXES SHALL BE PER CITY OF LEE'S SUMMIT STM-3. ROCK LINING AND RIP RAP SHALL BE PER CITY OF LEE'S SUMMIT.

GENERAL NOTES:

1 - ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.

2 - ALL REQUIRED EASEMENTS WITHIN THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR ON THE FINAL PLAT.

3 - ANY REQUIRED EASEMENT LOCATED OUTSIDE OF THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR BY SEPARATE INSTRUMENT PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.

4 - 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.

5 - THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH THE IMPROVEMENTS PROPOSED BY THESE PLANS AND SITE CONDITIONS.

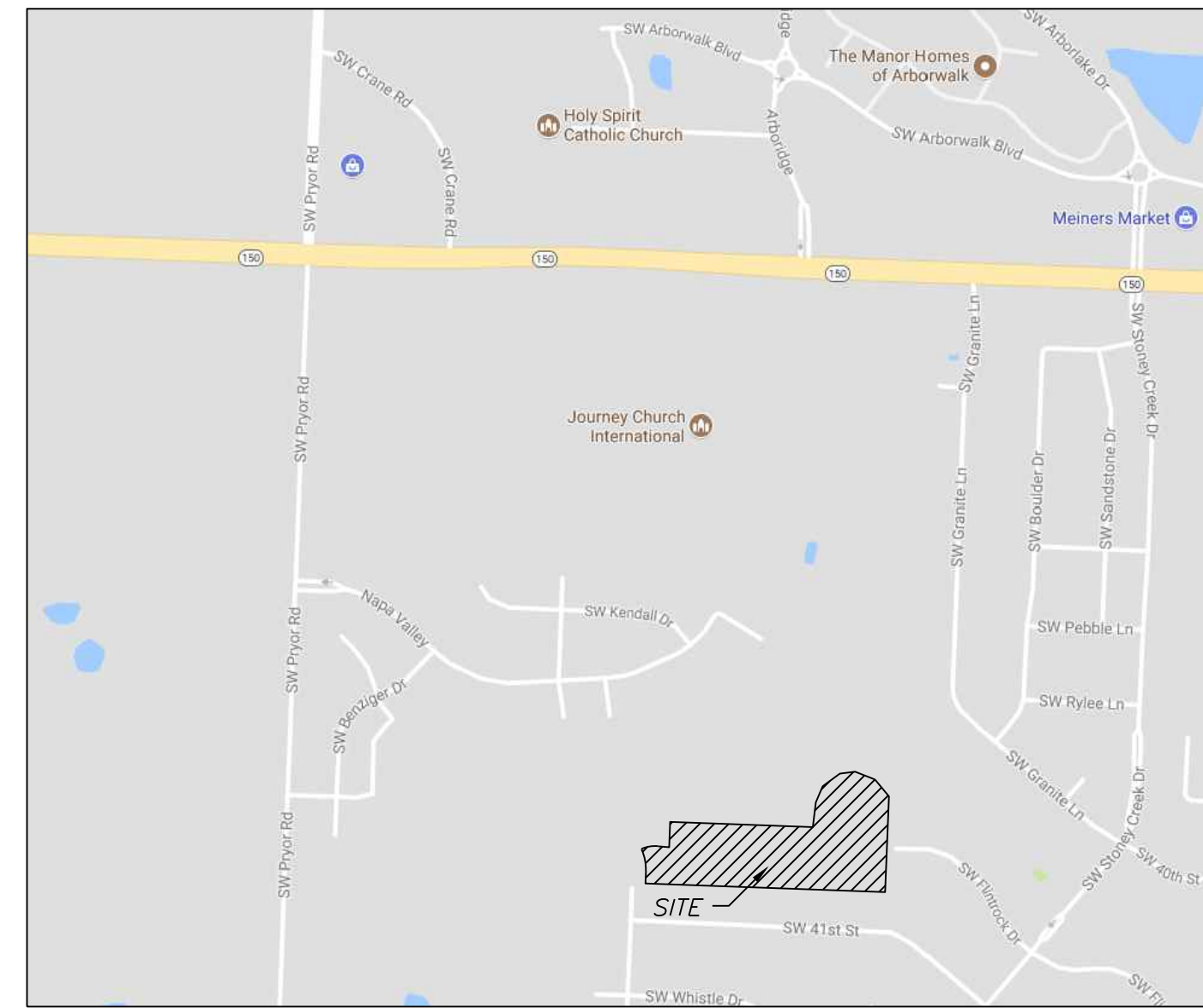
6 - THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND OBTAIN THE APPROPRIATE BLASTING PERMITS FOR A REQUIRED BLASTING. IF BLASTING IS ALLOWED, ALL BLASTING SHALL CONFORM TO STATE REGULATIONS AND LOCAL ORDINANCES.

OIL - GAS WELLS

ACCORDING TO EDWARD ALTON MAY JR'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

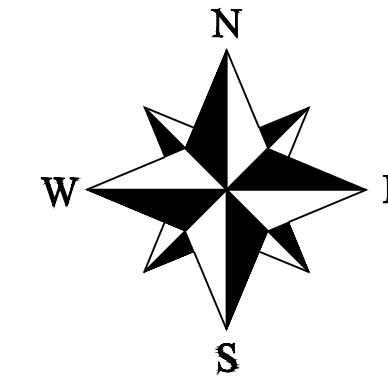
FLOOD INFORMATION:

THE SUBJECT PROPERTY SURVEYED LIES WITHIN A FLOOD ZONE DESIGNATED ZONE (X), AREAS LOCATED OUTSIDE THE 100 YEAR FLOOD PLAIN, PER F.E.M.A. MAP, COMMUNITY PANEL NO. 2906SC0412G EFFECTIVE DATE: JANUARY 20, 2017.



SITE LOCATION MAP

NOT TO SCALE



INDEX OF SHEETS:

- C.001 ~ STREET & STORM COVER SHEET
- C.100 ~ SITE PLAN
- C.101 ~ STREET SIGNAGE
- C.102 ~ STREET SIGNAGE STANDARD DETAILS
- C.200 ~ MASTER DRAINAGE PLAN SHEET 1 OF 3 GRADING PLAN - SWPPP
- C.201 ~ MASTER DRAINAGE PLAN SHEET 2 OF 3 SPOT ELEVATIONS
- C.202 ~ MASTER DRAINAGE PLAN SHEET 3 OF 3 DRAINAGE AREA MAP
- C.203 ~ STREET PLAN & PROFILE
- C.204 ~ STREET PLAN & PROFILE
- C.205 ~ SIDEWALK AND INTERSECTION PLAN
- C.300 ~ STORM SEWER GENERAL LAYOUT
- C.301 ~ STORM SEWER PLAN & PROFILE
- C.302 ~ STORM SEWER PLAN & PROFILE
- C.303 ~ STORM SEWER TABLES 10 AND 100 YEAR
- C.600 ~ CONSTRUCTION DETAILS

UTILITY COMPANIES:

THE FOLLOWING LIST OF UTILITY COMPANIES IS PROVIDED FOR INFORMATION ONLY. WE DO NOT OFFER ANY GUARANTEE OR WARRANTY THAT THIS LIST IS COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION AND VERIFYING THE ACTUAL LOCATION OF EACH UTILITY LINE. THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.

- EVERGY - 298-1196
- MISSOURI GAS ENERGY - 756-5261
- SOUTHWESTERN BELL TELEPHONE - 761-5011
- COMCAST CABLE - 795-1100
- WILLIAMS PIPELINE - 422-6300
- CITY OF LEE'S SUMMIT PUBLIC WORKS - 969-1800
- CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200
- CITY OF LEE'S SUMMIT WATER UTILITIES - 969-1900
- MISSOURI ONE CALL (DIG RITE) - 1-800-344-7483

LEGEND:

- B/L - BUILDING SET-BACK
- C/A - COMMON AREA
- D/E - DRAINAGE EASEMENT
- FND. - FOUND
- L/E - LANDSCAPE EASEMENT
- L.N.A. - LIMITS OF NO ACCESS
- R/W - RIGHT OF WAY
- SAN - SANITARY SEWER LINE
- S/W - SIDEWALK
- U/E - UTILITY EASEMENT
- W - WATER LINE
- ST - STORM SEWER LINE

Summary of Quantities:

ITEM AND DESCRIPTION	UNIT	ESTIMATED QUANTITY
ASPHALT PAVING	S.Y.	4,062.00
CURBING	FT	2,810.00
5' SIDEWALK	S.F.	6,895.00
MoDOT Type 5 Base	S.Y.	4,997.00
GEOGRID	UNIT	4,997.00
ADA SIDEWALK RAMP	UNIT	3
STREET SIGNAGE	UNIT	2
STORM		
15" HDPE END SECTION / TOE WALL	LS	2.00
24" HDPE END SECTION / TOE WALL	LS	1.00
24" HDPE	FT	323.02
18" HDPE	FT	161.68
15" HDPE	FT	626.39
4' x 4' STORM FIELD INLET	EA	3.00
5' x 4' STORM CURB INLET	EA	7.00

ENGINEER'S CERTIFICATION:

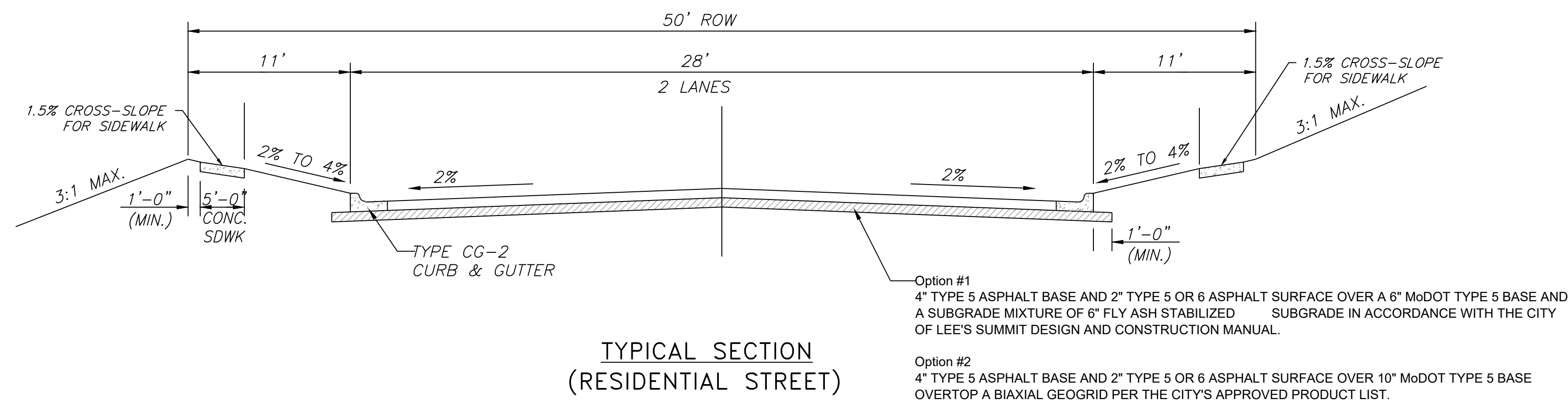
I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE DESIGNED IN ACCORDANCE TO AASHTO STANDARDS.

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 my firm.

"100-00 100.10", "4-00% 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.

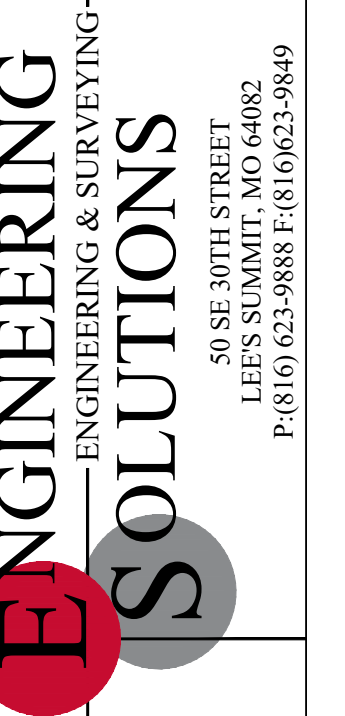
Date: 11/4/2022
Certified by: Matthew J. Schlicht
Title: Engineer
Firm: Engineering Solutions



TYPICAL SECTION
(RESIDENTIAL STREET)

Option #1
4" TYPE 5 ASPHALT BASE AND 2" TYPE 5 OR 6 ASPHALT SURFACE OVER A 6" MoDOT TYPE 5 BASE AND A SUBGRADE MIXTURE OF 6" FLY ASH STABILIZED SUBGRADE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.

Option #2
4" TYPE 5 ASPHALT BASE AND 2" TYPE 5 OR 6 ASPHALT SURFACE OVER 10" MoDOT TYPE 5 BASE OVERTOP A BIAXIAL GEOGRID PER THE CITY'S APPROVED PRODUCT LIST.

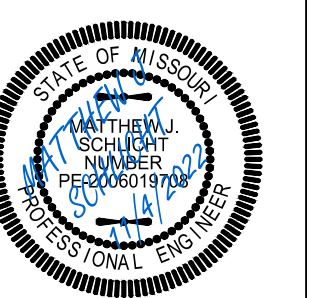


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

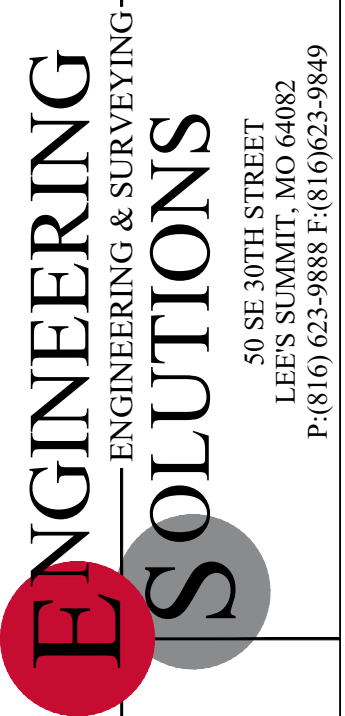
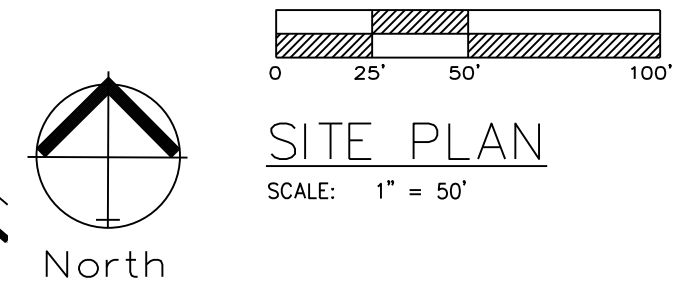
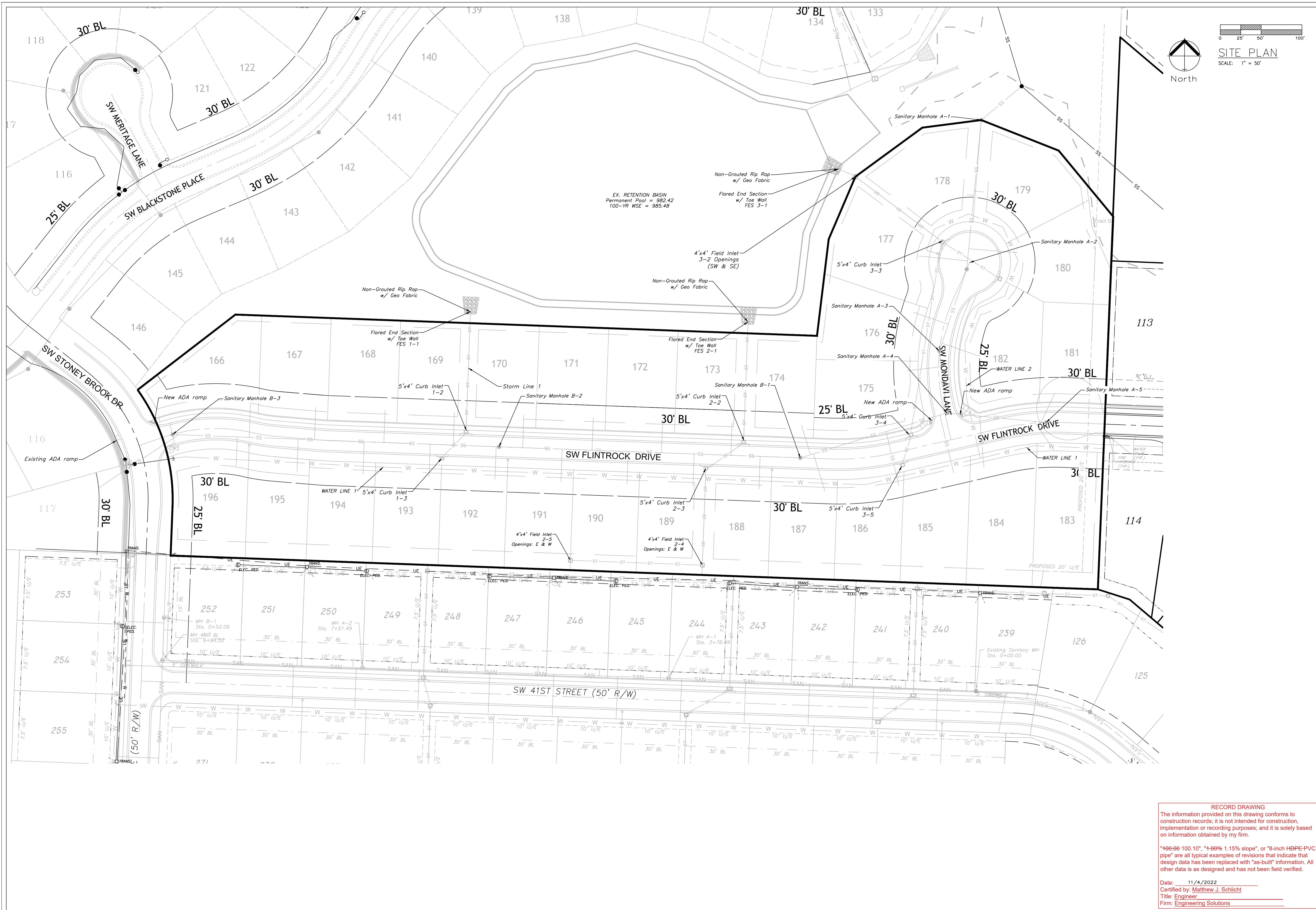
Project:
NAPA VALLEY LS100
Issue Date:
October 31, 2022

Cover Sheet
Street, Stormwater, Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
11/4/2022 As-Built



Professional Registration
 Missouri
 Engineering 2005002186-D
 Surveying 2005008319-D
 Kansas
 Engineering E-1685
 Surveying LS-218
 Oklahoma
 Engineering S254
 Nebraska
 Engineering CA2821

Project: Napa Valley 5th Plat
 Issue Date: October 31, 2022
 Lee's Summit, Jackson County, Missouri

SITE PLAN
 Street, Stormwater, Master Drainage Plans for:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri

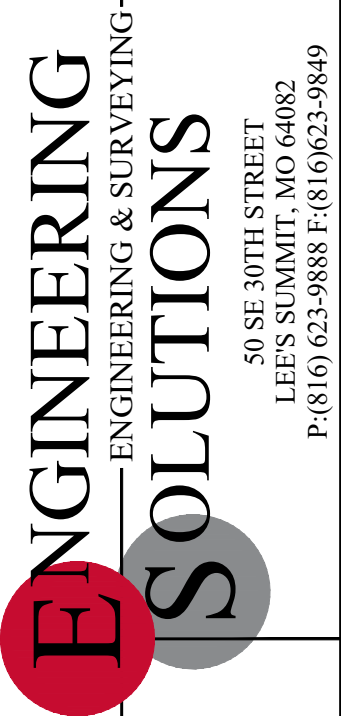
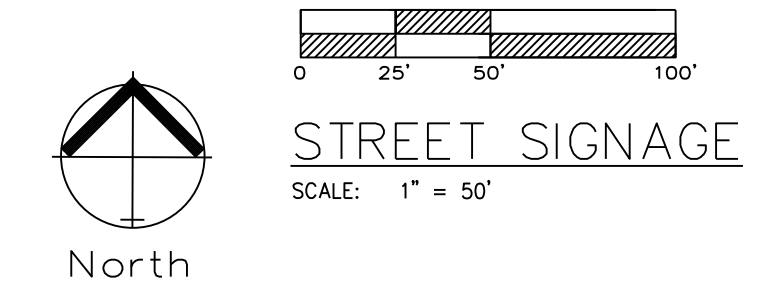


Matthew J. Schlicht
 MO PE 0000019708
 KS PE 19071
 OK PE 25226
 NE PE E-14335

REVISIONS

11/4/2022	As-Built

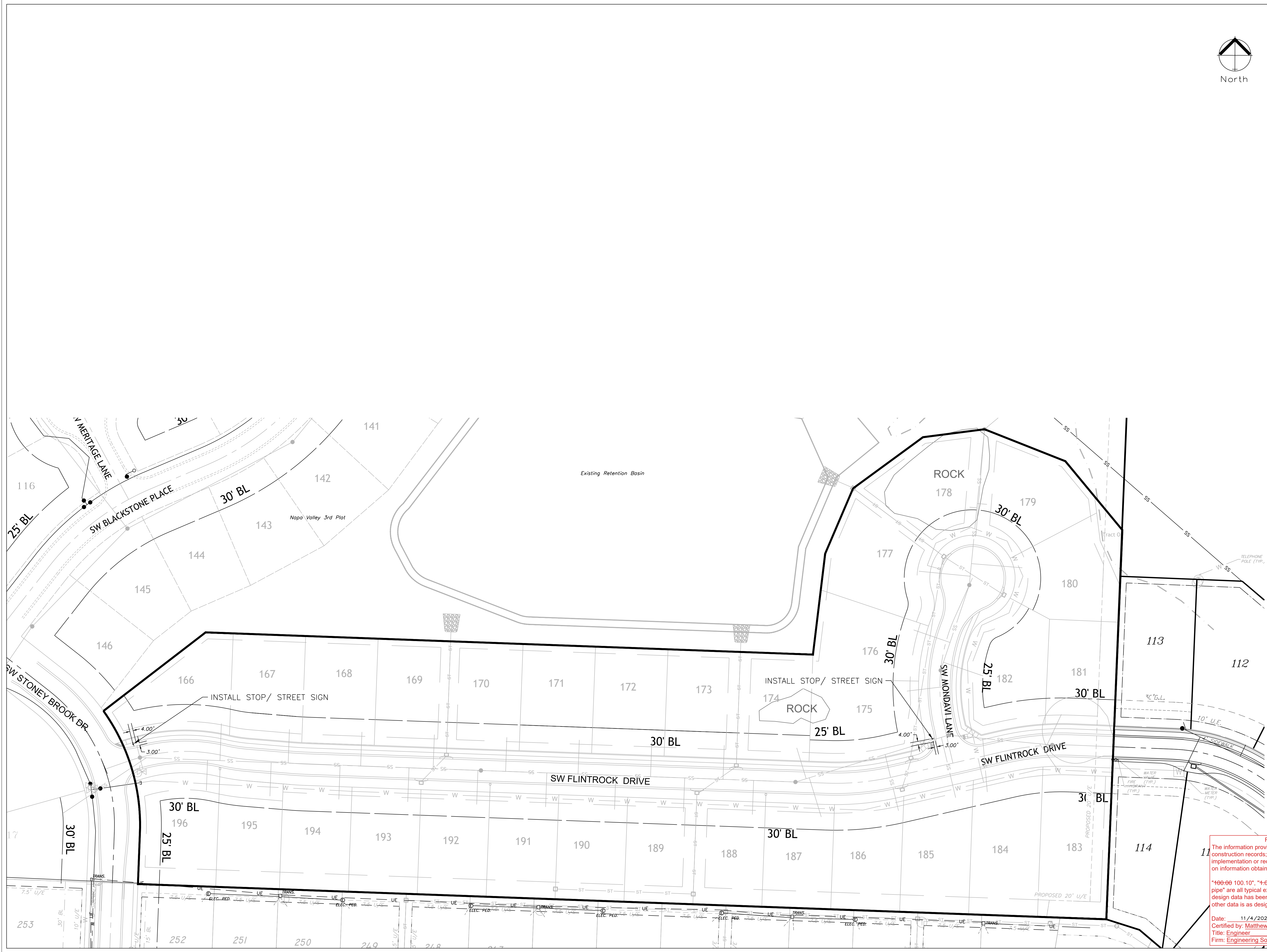
RECORD DRAWING
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 Engineering 2005002186-D
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Project: Napa Valley 5th Plat
 Issue Date: October 31, 2022

Street Signage
 Street, Stormwater, Master Drainage Plans for:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri



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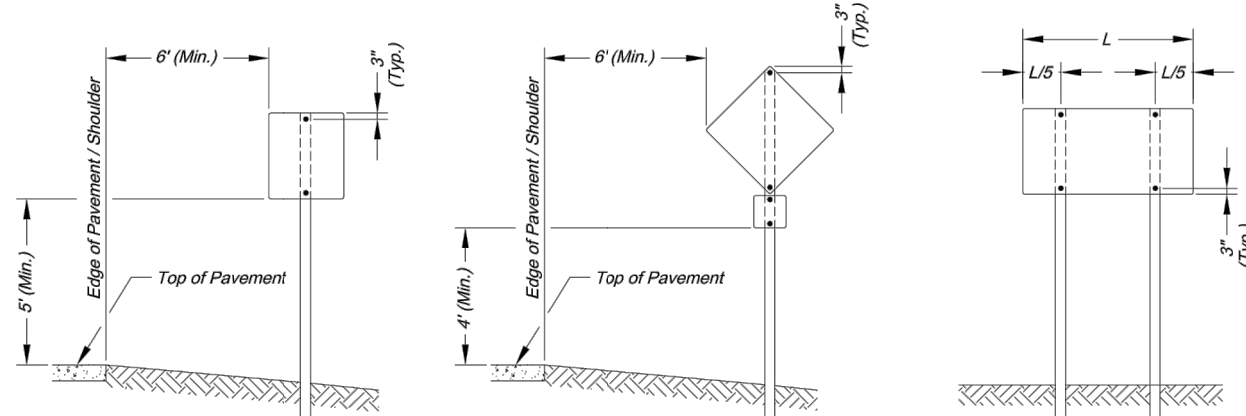
Project: NAPA VALLEY L5MO
 Issue Date: October 31, 2022

Street Signage
 Street, Stormwater, Master Drainage Plans for:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri

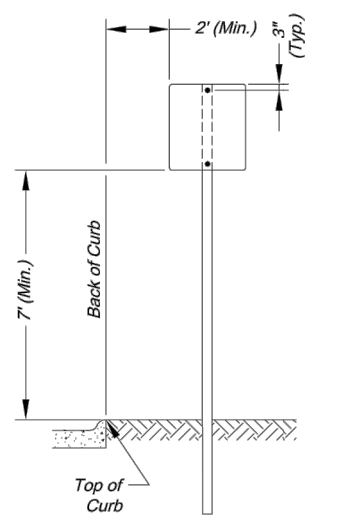


Matthew J. Schlicht
 MO PE 2006019708
 KS PE 19071
 OK PE 25226
 NE PE E-143325

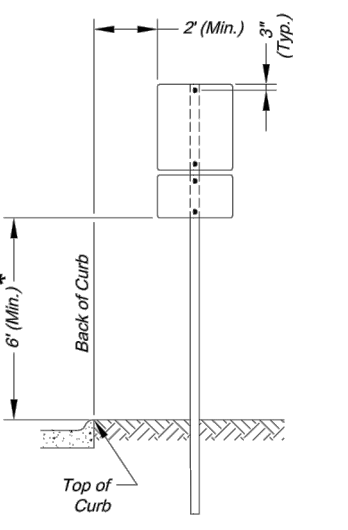
REVISIONS
11/4/2022 As-Built



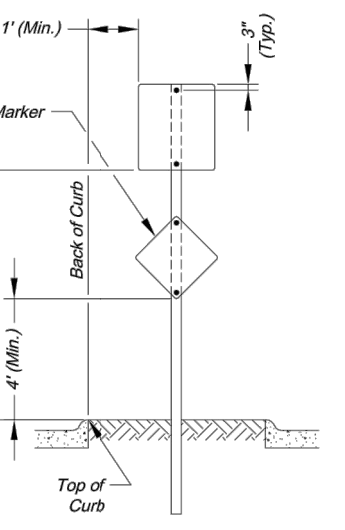
SIGN INSTALLATION FOR NON-CURBED STREET



SIGN INSTALLATION FOR CURBED STREET



SIGN INSTALLATION WITH AUXILIARY SIGN FOR CURBED STREET

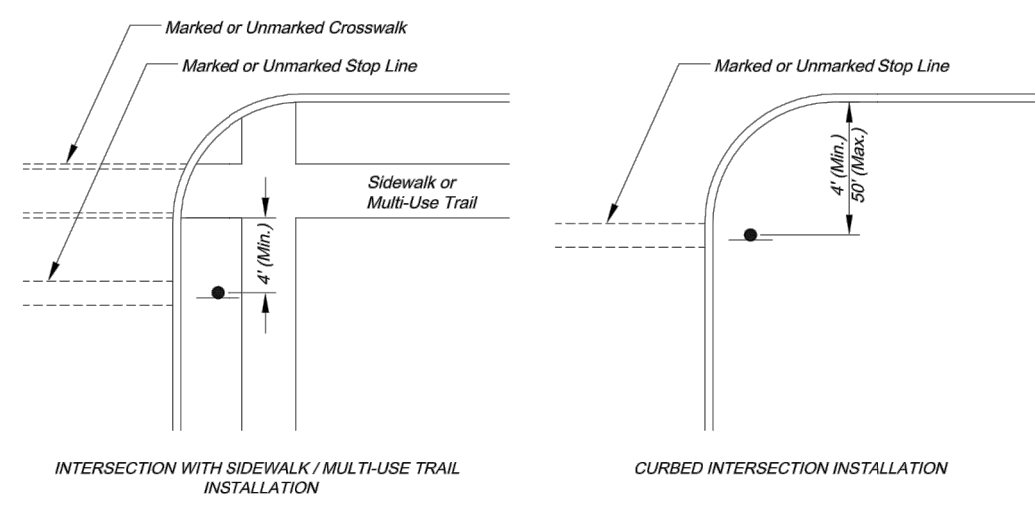


SIGN INSTALLATION FOR RAISED MEDIANS

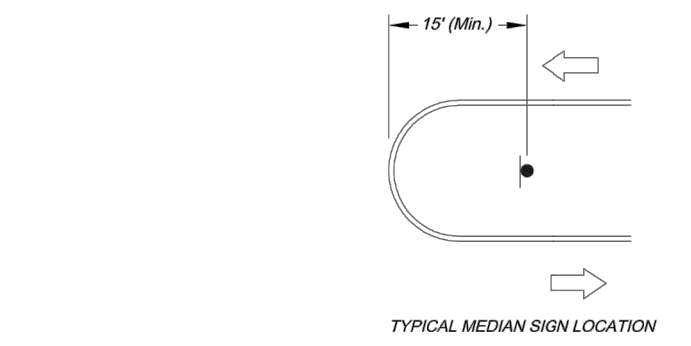
SIGN MOUNTING DETAILS

* The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 80 inches above the walkway.

NOTE:
1. Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.



CONTROL SIGN LOCATION

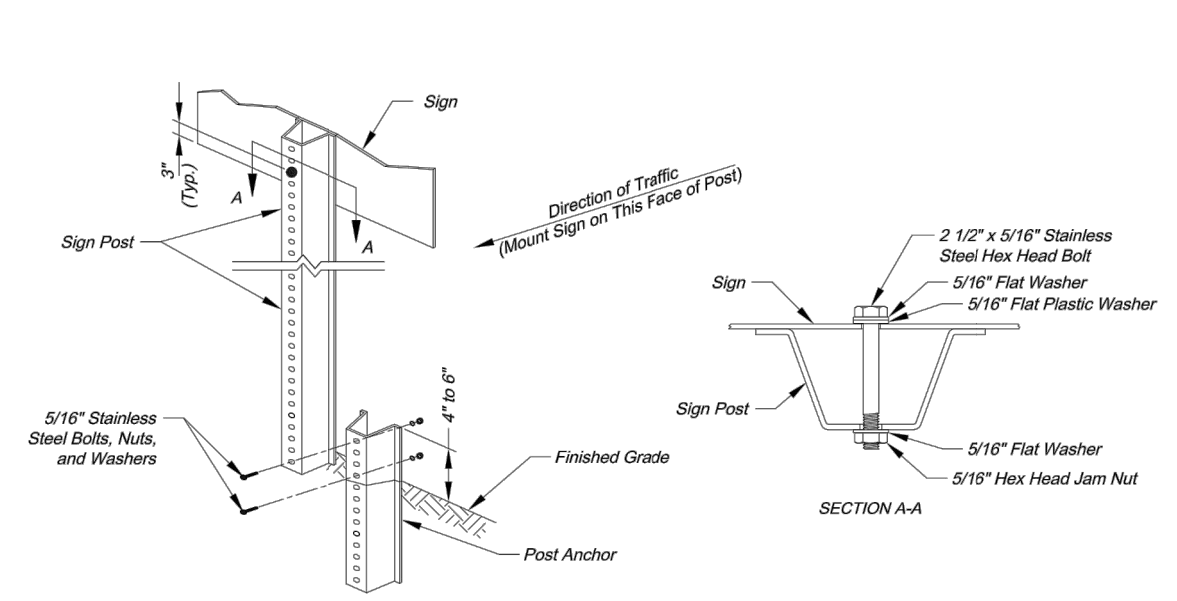


MEDIAN SIGN LOCATION

NOTES:
1. A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.
2. For existing concrete medians, a 4" hole shall be bored into the concrete.

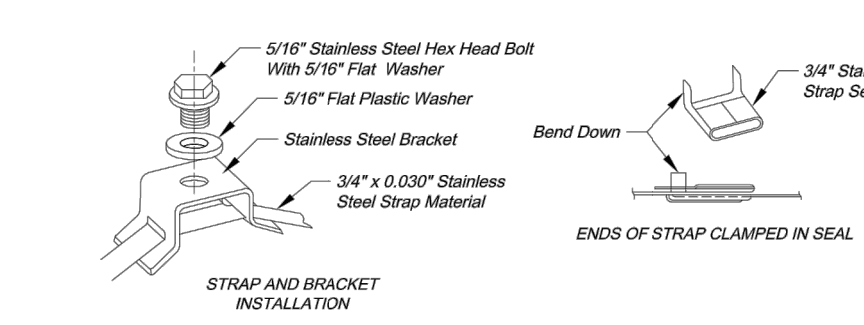
CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
2700 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64083
PHONE: (816) 382-1800 FAX: (816) 382-1809

Project: STANDARD DRAWING SN-1
Sheet Name: SIGN MOUNTING DETAILS
Drawn By: AS
Checked By: JW
Date: 08/25/2009
Project#:
1 of 3



U-STEEL POST DETAILS

U-STEEL POST NOTES:
1. Splice shall be positioned entirely between finished grade line and 18\"/>

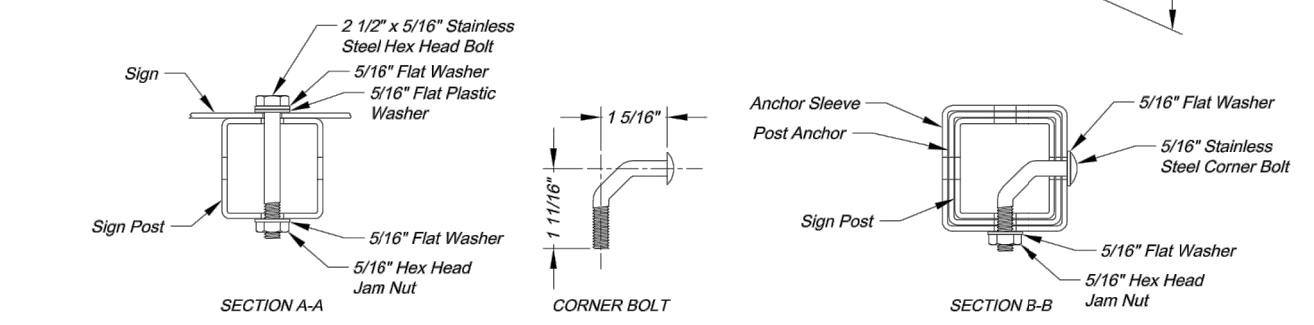


STRAP TYPE SIGN SUPPORT DETAILS

METAL POLE SIGN MOUNTING NOTES:
1. Signs on metal poles shall be attached with two brackets and stainless steel bolts.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
3. Holes in sign shall be located such that the sign is level.
4. All strap, bracket, and seal materials should be Type 301 stainless steel.

PERMANENT SIGNING GENERAL NOTES:
1. All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
2. The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
3. All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
4. The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation.
Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designer.
5. Signs shown to be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Sign Standard Drawings for the installation of signs on metal arms.
6. All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
7. All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the Contractor's expense. The Contractor shall be responsible for removing and storing any signs that are to be reinstated on the project. All equipment shall be reinstated in good condition.
8. Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstated shall be delivered to the City's Public Works Maintenance Facility (1911 SE Hamilton Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
9. All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in reflectorized drums no less than 7 feet above the pavement surface until they can be reinstated. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.

SQUARE STEEL POST INSTALLATION SEQUENCE:
1. Sign post anchor drives partially into the ground using a drive cap with a sledge or power equipment.
2. Anchor sleeve aligned over anchor and driven into the ground together with the sign post anchor.
3. Insert sign post into the post anchor and bolt in place.



SQUARE STEEL POST DETAILS

SQUARE STEEL POST NOTES:
1. Square steel sign posts and break-away anchor shall consist of the following materials:
Sign Post - 14 Ga. 2" x 2" Square Steel Post
Post Anchor - 12 Ga. 2 1/2" x 2 1/2" x 30" Square Steel Post
Anchor Sleeve - 12 Ga. 2 1/2" x 2 1/2" x 18" Square Steel Post
2. 14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.
3. In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.
4. The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
2700 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64083
PHONE: (816) 382-1800 FAX: (816) 382-1809

Project: STANDARD DRAWING SN-2
Sheet Name: SIGN POST DETAILS
Drawn By: AS
Checked By: JW
Date: 08/25/2009
Project#:
2 of 3

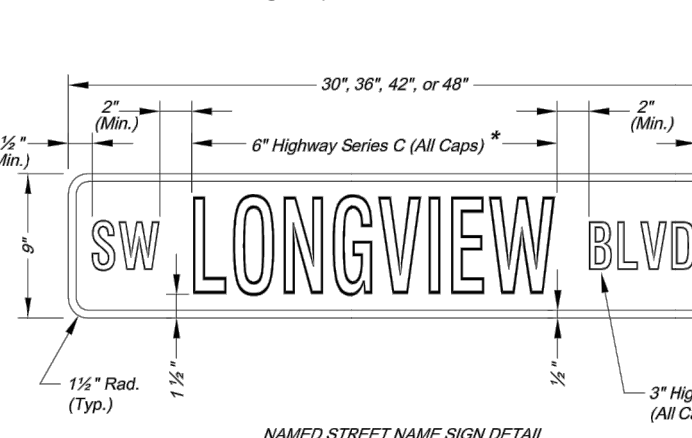
STANDARD ABBREVIATION LISTS

Named Streets	AVE	Numbered Streets	ST
Boulevard	BLVD	First	ND
Circle	CR	Second	RD
Creek	CR	Third	RD
Court	CT	Fourth to Tenth	TH
Crossing	XING		
Drive	DR		
Highway	HQVY		
Lane	LN		
Pathway	PKWY		
Place	PL		
Road	RD		
Street	ST		
Terrace	TER		
Trail	TRL		
Way	WAY		

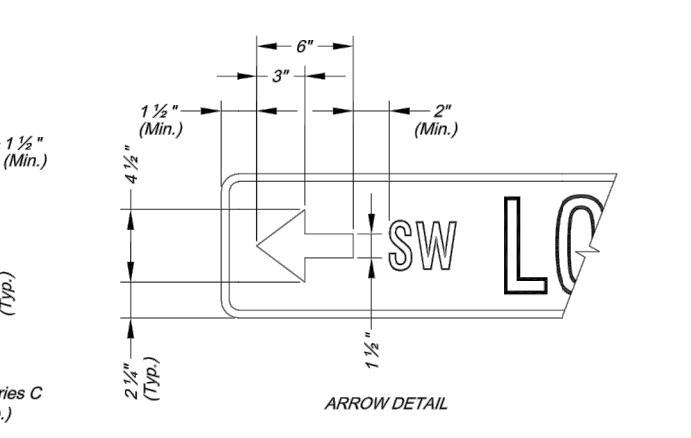
STREET NAME SIGN QUANTITIES

Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (SP-1)	9" x 9"	Sq. Ft.	1	1
D3-1 (SP-2)	9" x 9"			
D3-1 (SP-3)	9" x 9"			
D3-1 (SP-4)	9" x 9"			
D3-1 (SP-5)	9" x 9"			
D3-1 (SP-6)	9" x 9"			

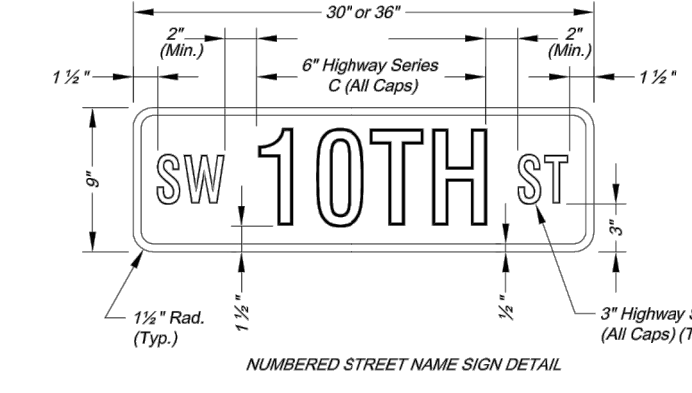
STREET NAME SIGN BLANK DETAILS



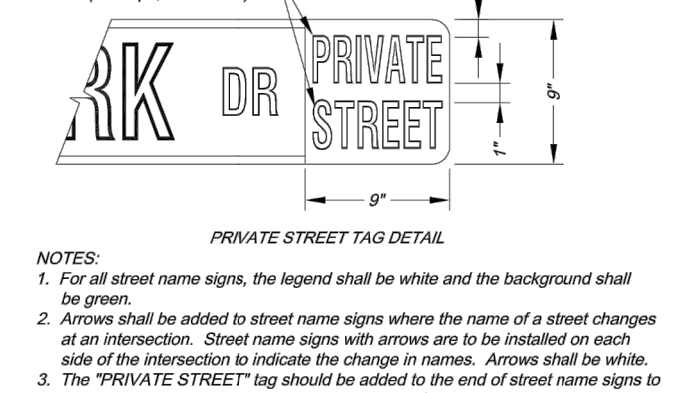
PROJECT SIGN DETAILS



NUMBERED STREET NAME SIGN DETAILS

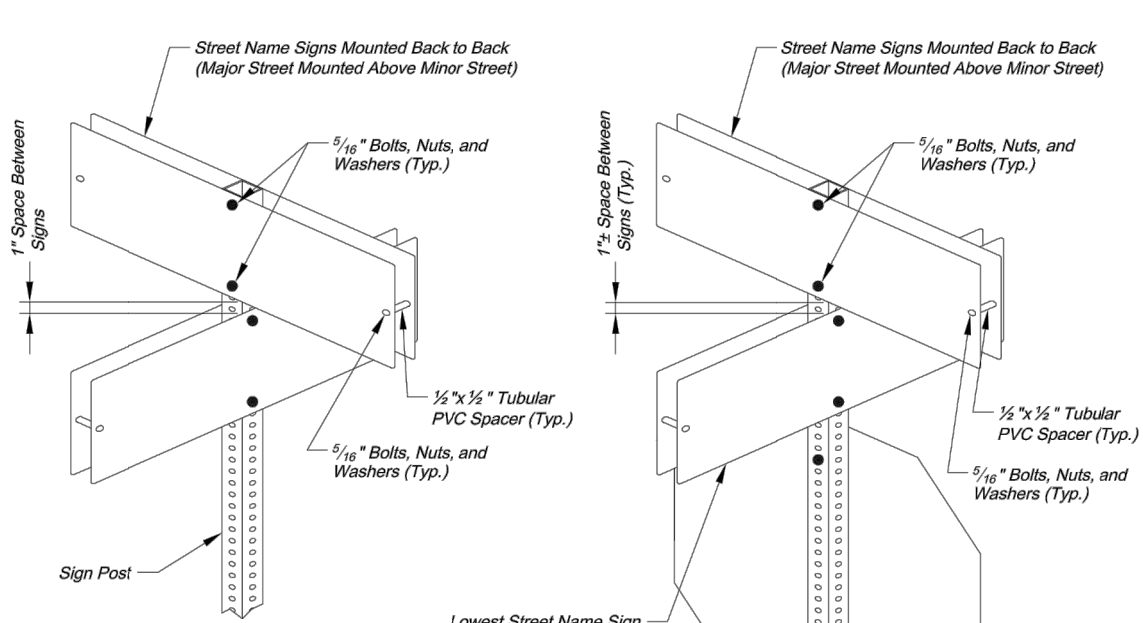


PRIVATE STREET TAG DETAILS

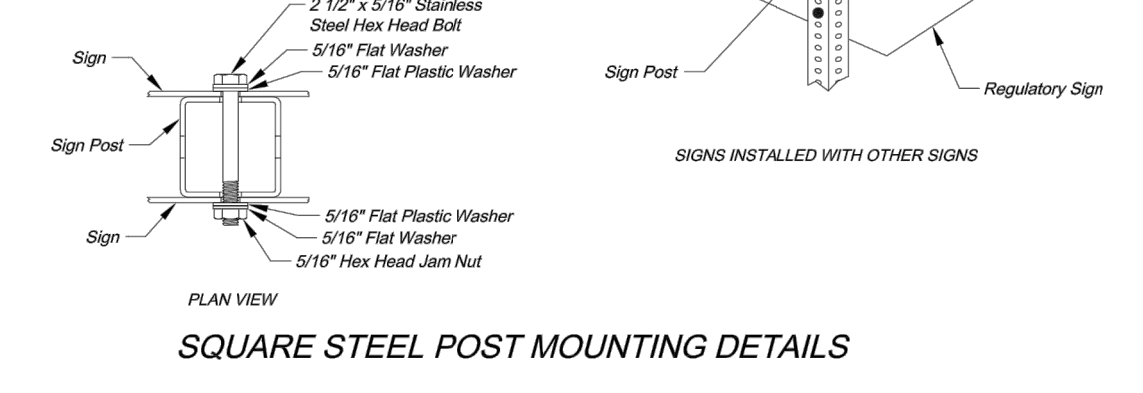


NOTES:
1. For all street name signs, the legend shall be white and the background shall be green.
2. Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in name. Arrows shall be white.
3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

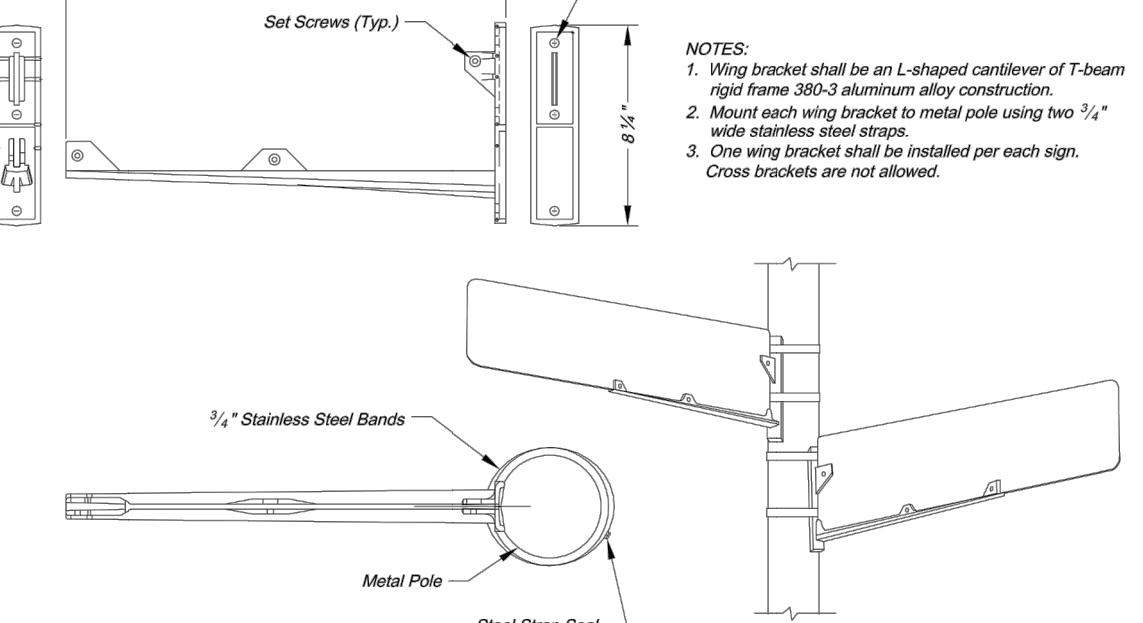
STREET NAME SIGN FACE DETAILS



SQUARE STEEL POST MOUNTING DETAILS



WING BRACKET MOUNTING DETAILS



CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
2700 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64083
PHONE: (816) 382-1800 FAX: (816) 382-1809

Project: STANDARD DRAWING SN-3
Sheet Name: STREET NAME SIGN DETAILS
Drawn By: AS
Checked By: JW
Date: 08/25/2009
Project#:
3 of 3

ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 10TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering S254
Nebraska
Engineering CA2821

Project: Napa Valley 5th Plat
Stormwater Master Drainage Plans for
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

Project: NAPA VALLEY L5MO
Issue Date: October 31, 2022

Street Signage Standard Details
Street, Stormwater Master Drainage Plans for
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 000601908
KS PE 19071
OK PE 25226
NE PE E-14335

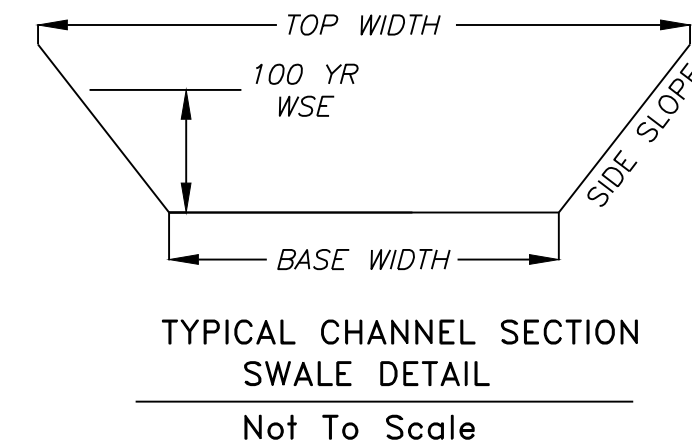
REVISIONS
11/4/2022 As-Built

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Date: 11/4/2022
Certified by: Matthew J. Schlicht
Title: Engineer
Firm: Engineering Solutions

Notes

1. Contractor is responsible for verifying all existing utility locations prior to excavation.
2. There are no known natural or artificial water storage detention areas, or wetlands in the area designated for construction.
3. No part of the project lies within the 100 year flood plain.
4. All erosion and sediment control measures need to be implemented prior to construction.
5. Additional erosion control may be required by the City Engineer, Design Engineer or Owner at any time problematic areas are noted in the field or existing measures are found to be ineffective.
6. Soil Stabilization of disturbed areas shall be completed within 14 days of construction inactivity.
7. Contractor responsible for all density testing of roadway subgrade and granular base.

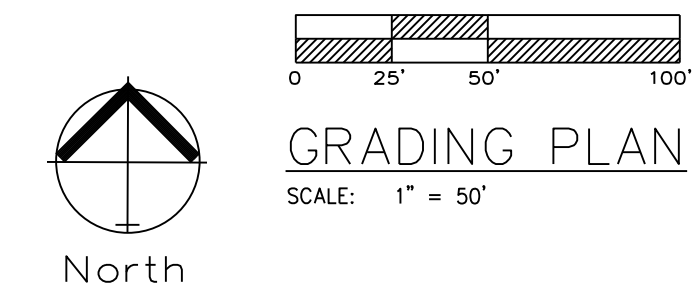
NOTE: Swale sections extend the entire length between upstream and downstream structures with the exception of a transition at each structure. The minimum swale depth shall be 6" over the 100-year water surface elevation.



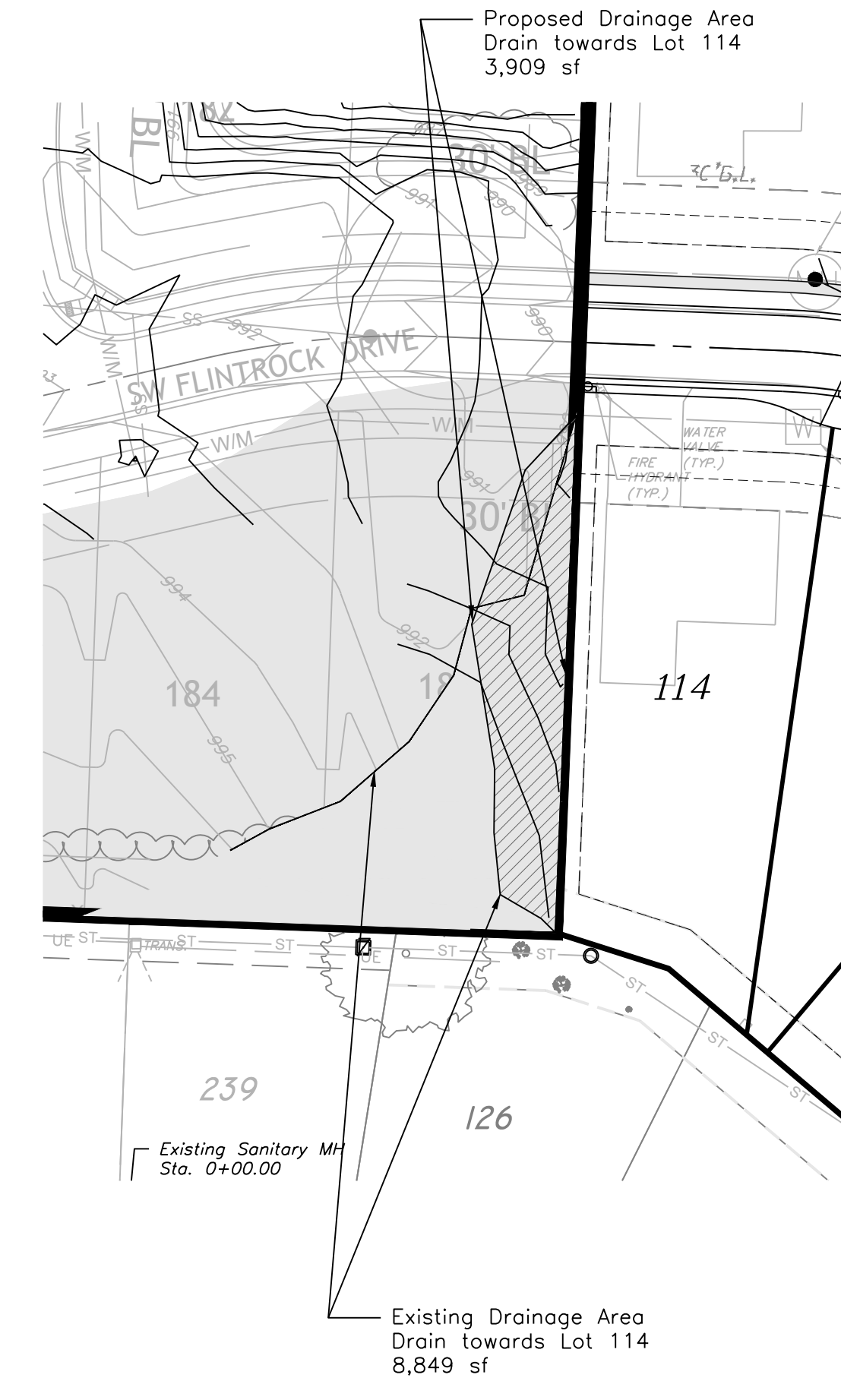
100 YEAR OVERFLOW SWALE SECTIONS									
Section	100 Yr. Runoff (c.f.s.)	Bed Slope (%)	Base Width (ft)	Side Slope (1:V)	100 Yr WSE (ft)	Sectional Area (f.p.s.)	Velocity 100Yr (f.p.s.)	Hydraulic Radius (ft)	Shear Stress (p.s.f.)
1-1	0.82	2.00	5	6	0.11	0.62	1.32	0.10	0.12
2-2	1.30	2.00	5	6	0.14	0.82	1.59	0.12	0.15

Note: See Table 8.10 of the APWA / MARC BMP Manual for design Summary for Native Vegetation Swales.

NOTE: Swale should be lined with "Straw with Net" turf reinforcement (Curlex Blanket or Eqv.). Per Table 5607-1 in APWA Manual

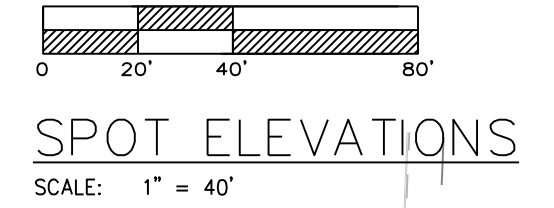


Estimated Cut / Fill Quantities	
Site Area	9.65 Acres
Cut Volume (Unadjusted)	17,287 c.y.
Fill Volume (Unadjusted)	20,068 c.y.
Street & Sidewalk Cut Volume	1,680 c.y.
Net Fill	1,101 c.y. (Unadjusted)

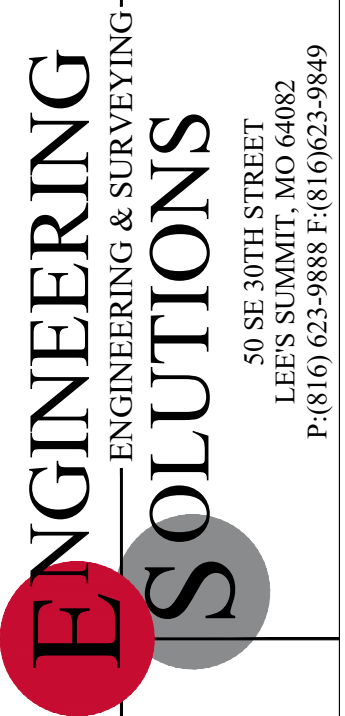


RECORD DRAWING
 The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by my firm.
 *106-00 100.10" "4-09% 1.15% slope", or "8-inch HDPE-PVC pipe" are all typical 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: 11/4/2022
 Certified by: Matthew J. Schlicht
 Title: Engineer
 Firm: Engineering Solutions

Lot Number	Basement Type	MBOE
166	Walkout	N/A
167	Walkout	N/A
168	Walkout	N/A
169	Walkout	N/A
170	Walkout	N/A
171	Walkout	N/A
172	Walkout	N/A
173	Walkout	N/A
174	Walkout	N/A
175	Full	N/A
176	Full	N/A
177	Full	N/A
178	Daylight	N/A
179	Walkout	N/A
180	Walkout	N/A
181	Walkout	N/A
182	Daylight	N/A
183	Full	N/A
184	Full	N/A
185	Full	N/A
186	Full	N/A
187	Daylight	N/A
188	Daylight	N/A
189	Walkout	N/A
190	Walkout	N/A
191	Walkout	N/A
192	Walkout	N/A
193	Walkout	N/A
194	Daylight	N/A
195	Full	N/A
196	Full	N/A



SPOT ELEVATIONS
SCALE: 1" = 40'

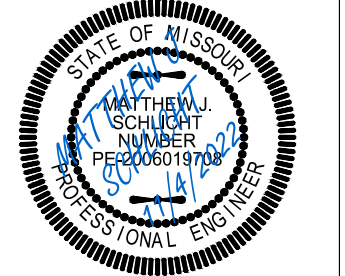


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Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Project: NAPA VALLEY L5MO
Issue Date: October 31, 2022
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

Project: NAPA VALLEY L5MO
Issue Date: October 31, 2022

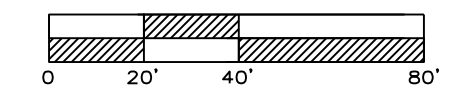
Master Drainage Plan 2 of 3:
Spot Elevations
Street, Stormwater Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
11/4/2022 As-Built

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Firm: Engineering Solutions



DRAINAGE AREA MAP
SCALE: 1" = 40'



APWA STORM DRAINAGE "TC" COMPUTATIONS FOR : NAPA VALLEY 5TH PLAT

AREA ID	TOTAL ACRES	WTRSHD LENGTH	UP ELEV	DN ELEV	SURFACE CODE	SURFACE TYPES				SLOPE %	SURFACE CODE	TC COMPUTATION				AREA ID						
						A	B	D	G			Cal	Used	Cal	Cal		Total					
						SURFACE CODES				TC COMPUTATION												
						"C" Values				TC COMPUTATION												
						OVERWRITE LENGTH - DN ELEV OR SLOPE IF NECESSARY				TC COMPUTATION												
						OVERLAND FLOW - 100' MAX				TC COMPUTATION												
						SURFACE CODE				TC COMPUTATION												
						OR CHANNEL FLOW - FIRST REACH				TC COMPUTATION												
						SURFACE CODE				TC COMPUTATION												
1	0.54	359.00	1015.00	1010.50	S	0.51	59.0	1015.0	1013.70	2.2	P	300.0	1013.7	1010.5	1.07	2.1	6.3	6.3	2.4	0.0	8.7	1
2	0.57	384.00	1016.00	1010.20	S	0.51	49.0	1016.0	1015.00	2.0	P	335.0	1015.0	1010.2	1.43	2.4	5.9	5.9	2.3	0.0	8.2	2
3	0.32	333.00	1010.50	1005.00	S	0.51	26.0	1010.5	1009.80	2.7	P	307.0	1009.8	1005.0	1.56	2.5	3.9	5.0	2.0	0.0	7.0	3
4	0.35	369.00	1012.20	1003.00	S	0.51	47.0	1012.2	1011.00	2.6	P	322.0	1011.0	1003.0	2.48	3.2	5.3	5.3	1.7	0.0	7.0	4
5	0.32	258.00	1007.20	994.50	S	0.51	41.0	1007.2	1004.00	7.8	P	217.0	1004.0	994.5	4.38	4.3	3.4	5.0	0.9	0.0	5.9	5
6	0.24	221.00	1005.00	994.00	S	0.51	36.0	1005.0	1003.00	5.6	P	185.0	1003.0	994.0	4.86	4.5	3.6	5.0	0.7	0.0	5.7	6
7	0.78	236.00	995.00	991.00	S	0.51	49.0	995.0	992.50	5.1	P	187.0	992.5	991.0	0.80	1.8	4.3	5.0	1.7	0.0	6.7	7
8	2.26	508.00	1016.00	999.00	S	0.51	100.0	1016.0	1014.00	2.0	U	408.0	1014.0	999.0	3.68	3.1	8.4	8.4	2.2	0.0	10.6	8
9	0.46	133.00	1008.50	999.00	S	0.51	100.0	1008.5	1000.00	8.5	U	33.0	1000.0	999.0	3.03	2.8	5.2	5.2	0.2	0.0	5.4	9

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Firm: Engineering Solutions

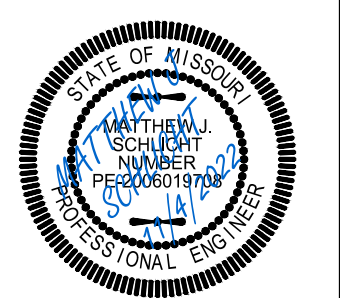
ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
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Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Project: NAPA VALLEY 5TH PLAT
Issue Date: October 31, 2022

Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

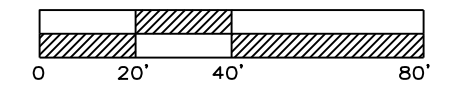
Master Drainage Map 3 of 3:
Drainage Area Map
Street, Stormwater, Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri



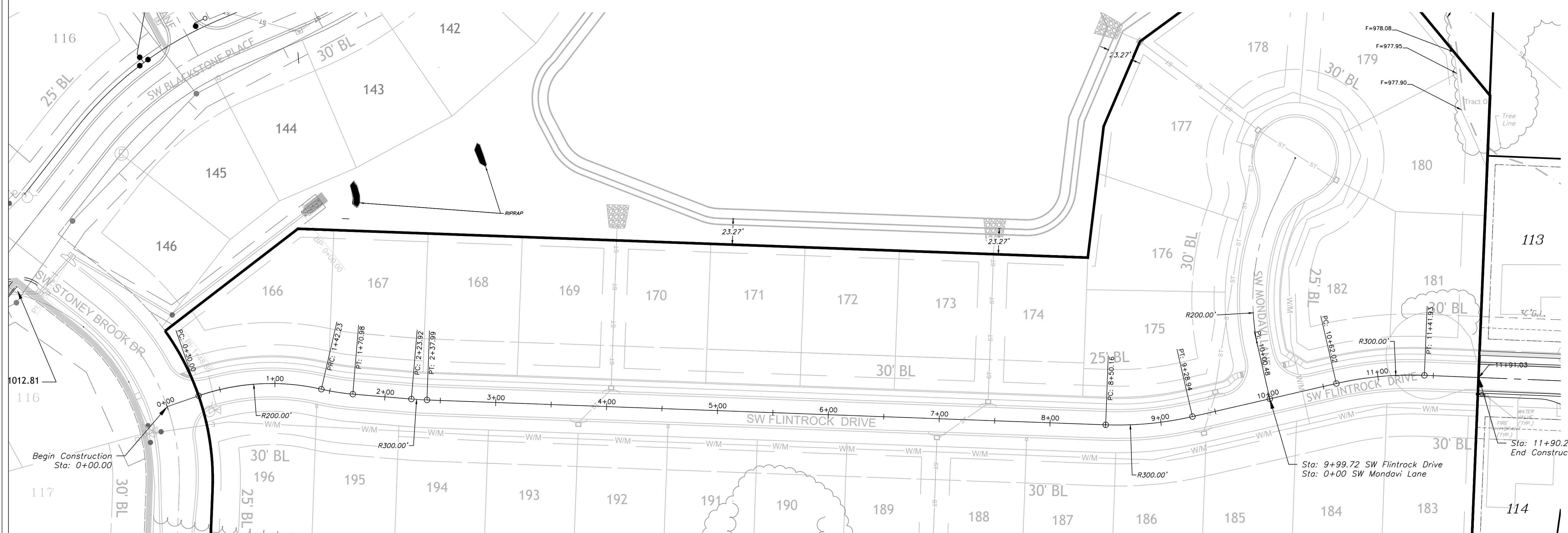
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
11/4/2022 As-Built

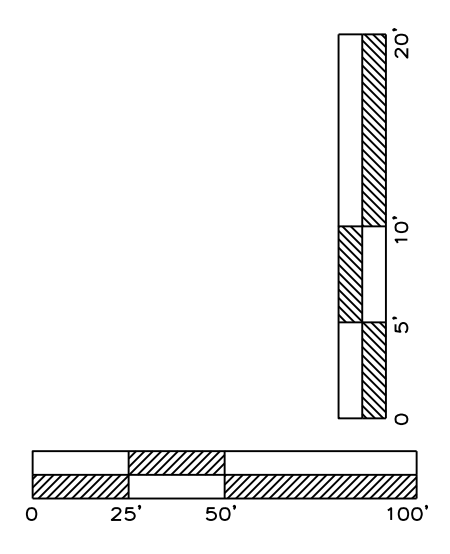
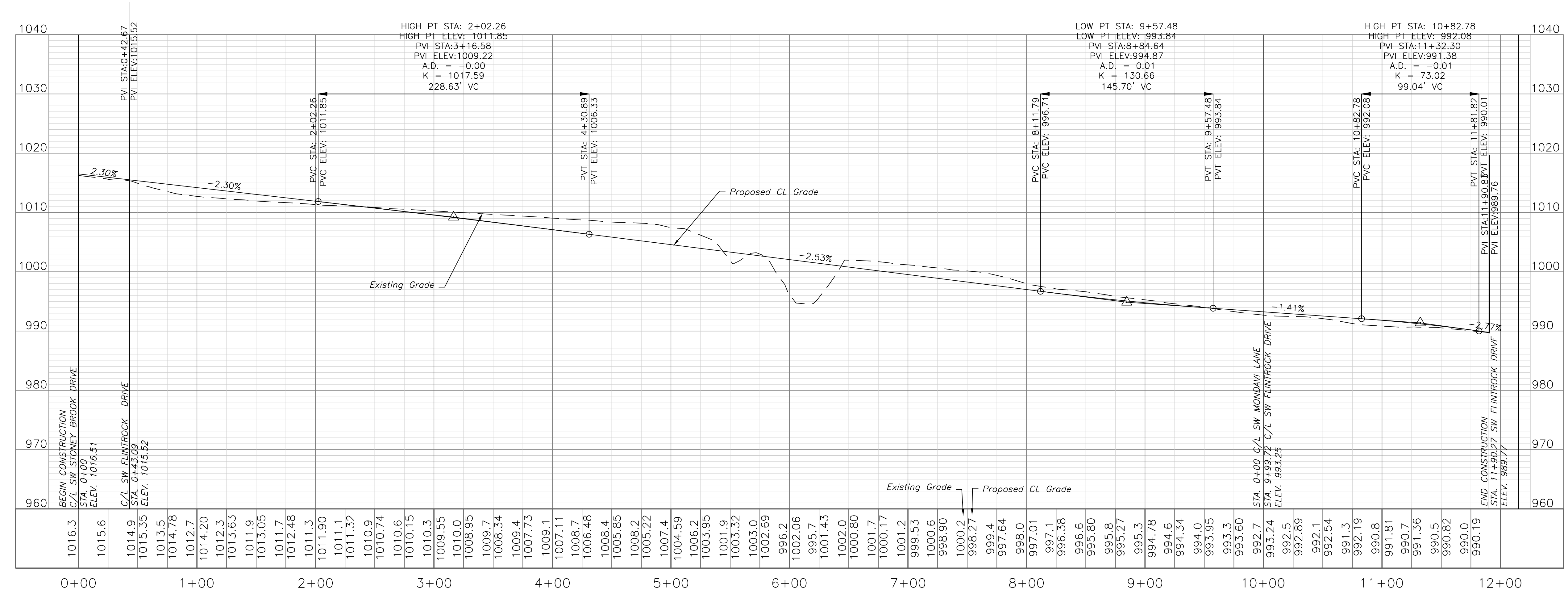
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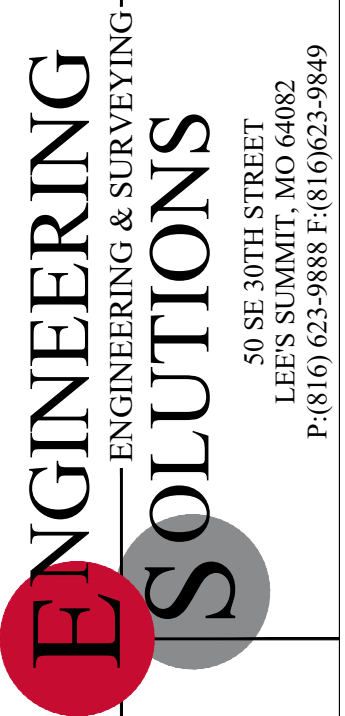
STREET PLAN & PROFILE
SCALE: 1" = 50'



SW FLINTROCK DRIVE



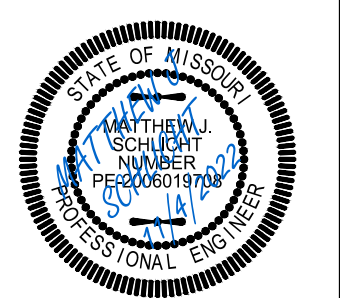
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Surveying 2005008319-D
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Surveying LS-218
Oklahoma
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Project: NAPA VALLEY L/SMO
Issue Date: October 31, 2022
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

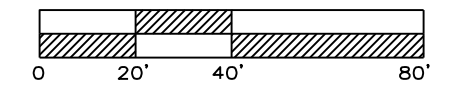
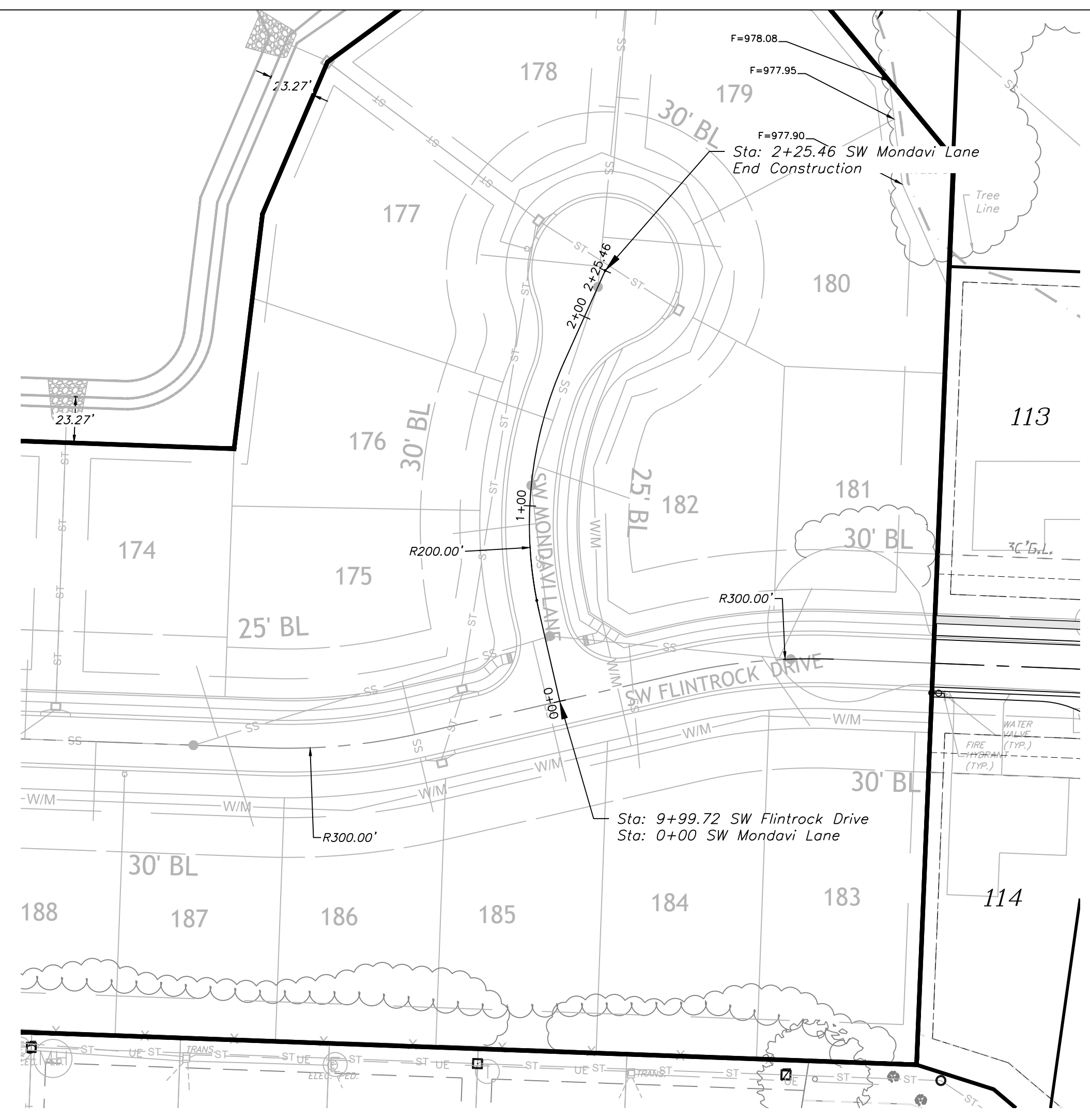
STREET PLAN & PROFILE
Street, Stormwater, Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri



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MO PE 0000019708
KS PE 19071
NE PE 25226
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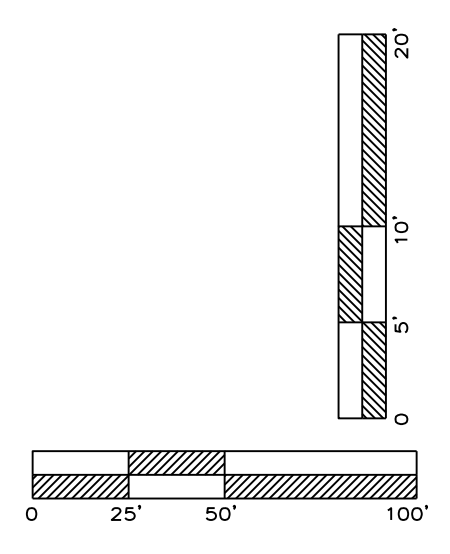
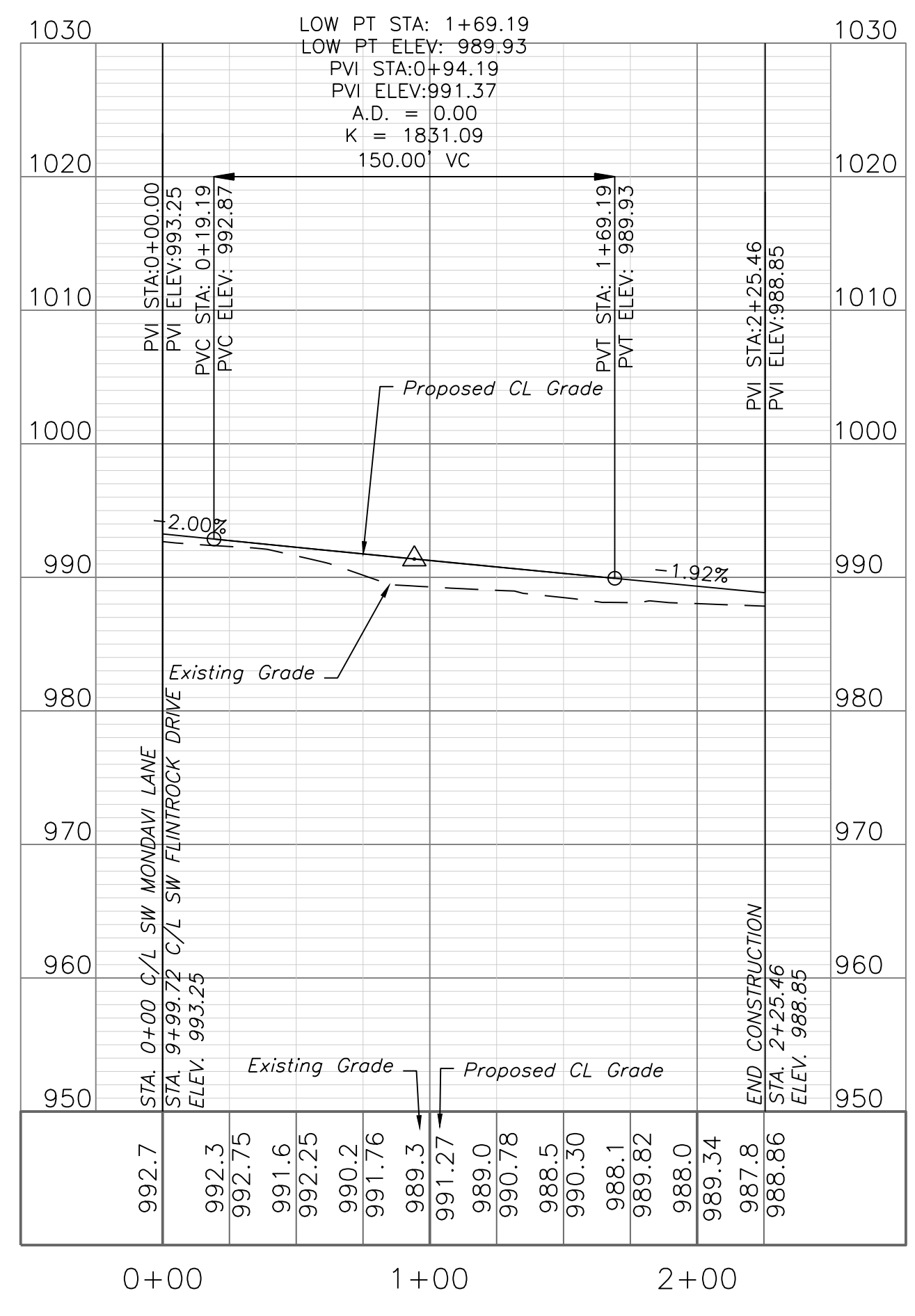
REVISIONS

11/4/2022	As-Built
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STREET PLAN & PROFILE
SCALE: 1" = 50'

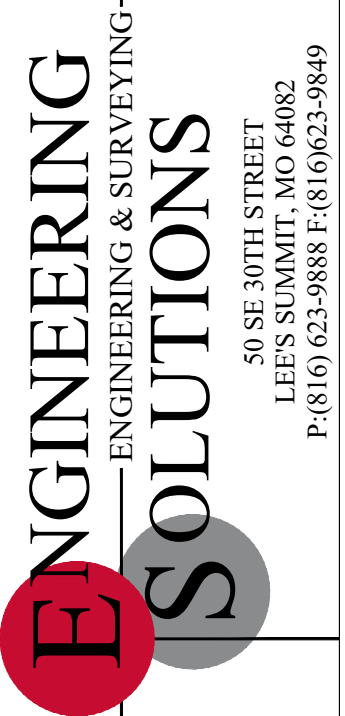
SW MONDAVI LANE



RECORD DRAWING
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Firm: Engineering Solutions

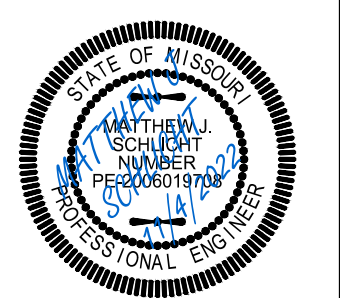


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Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Project: NAPA VALLEY,LSMO
Issue Date: October 31, 2022

Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

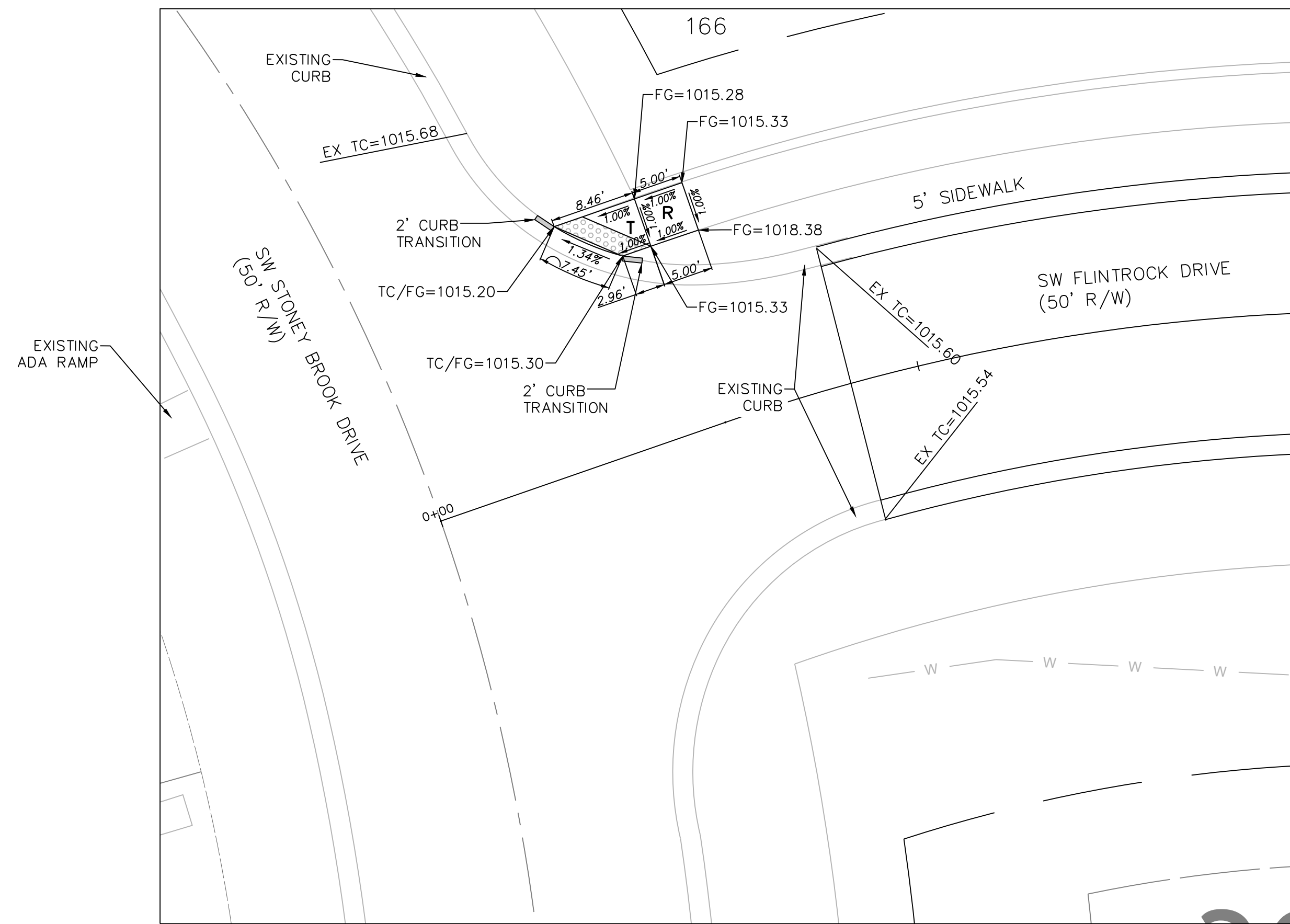
STREET PLAN & PROFILE
Street, Stormwater, Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri



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MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

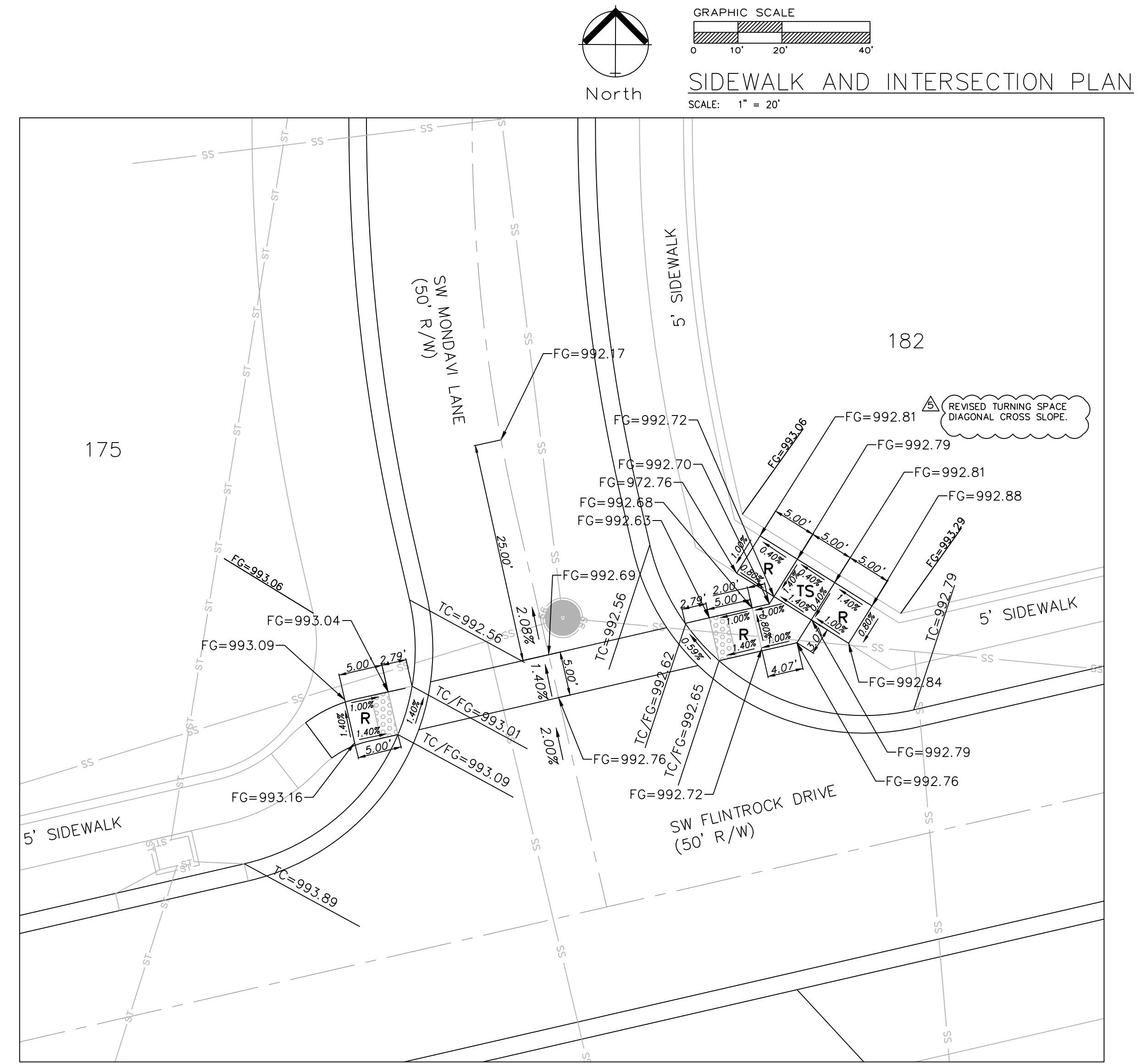
REVISIONS

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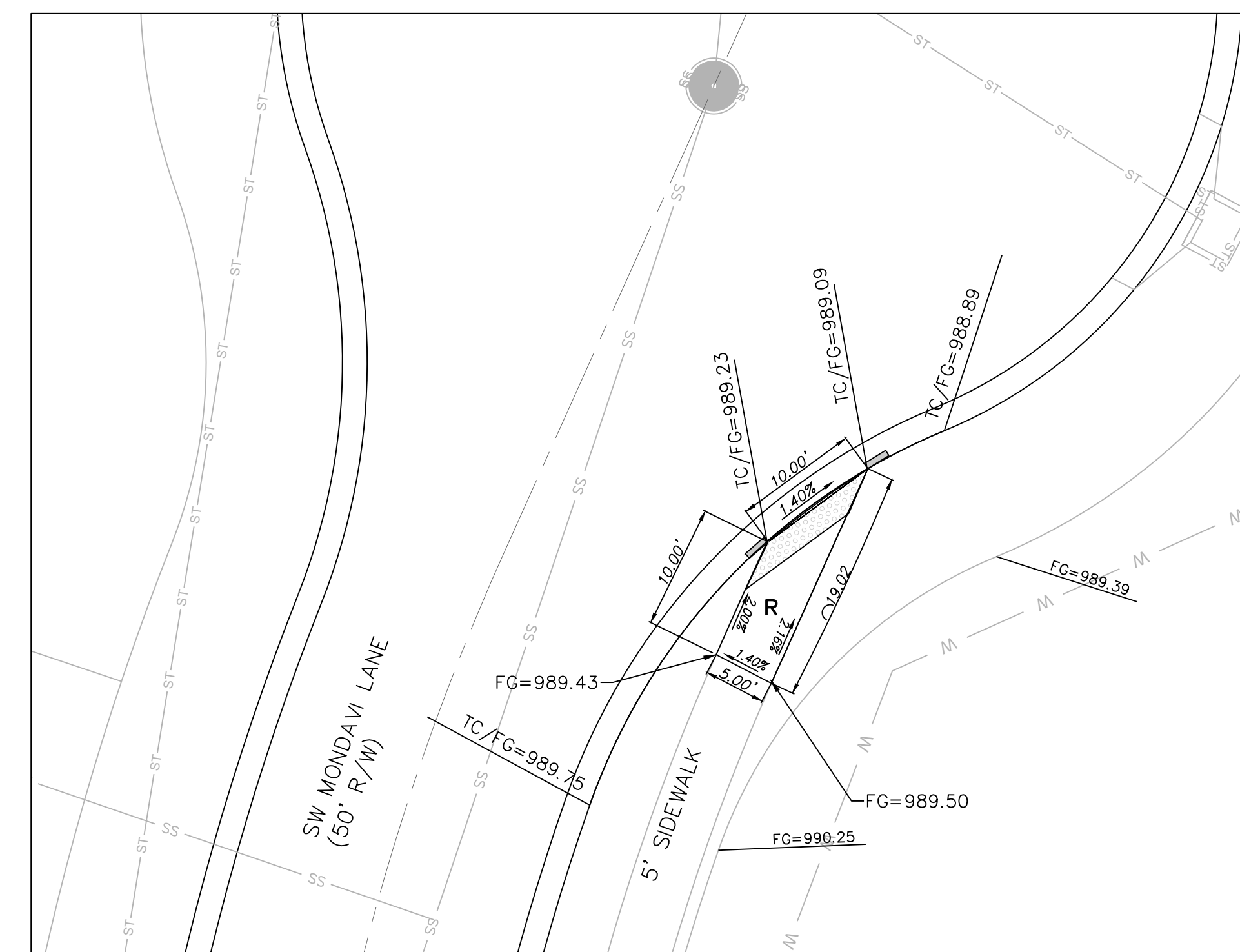


DETAIL 1

- Legend:**
- EX TC = Existing Top of Curb
 - EX FG = Existing Finished Grade
 - FG = Finished Grade
 - TC = Top of Curb
 - TC/FG = Top of Curb/Finished Grade
 - Detectable Warning



DETAIL 2

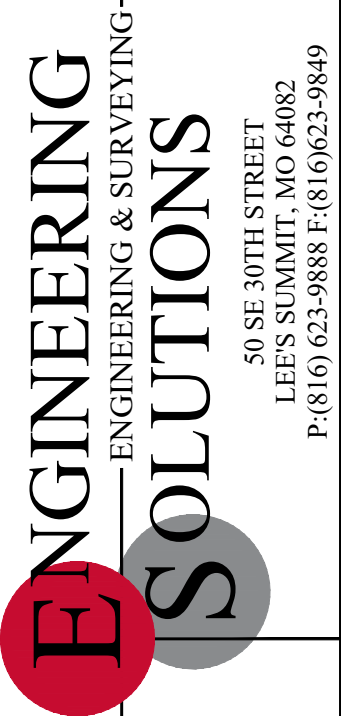


DETAIL 3

RECORD DRAWING
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*106-06 100.10", "4-06% 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.

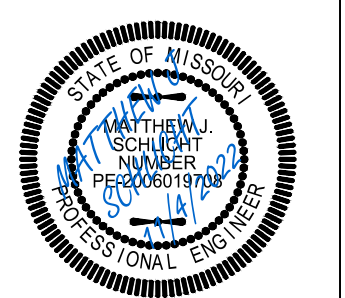
Date: 11/4/2022
 Certified by: Matthew J. Schlicht
 Title: Engineer
 Firm: Engineering Solutions



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 Missouri
 Engineering 2005002186-D
 Surveying 2005008319-D
 Kansas
 Engineering E-1685
 Surveying LS-218
 Oklahoma
 Engineering S254
 Nebraska
 Engineering CA2821

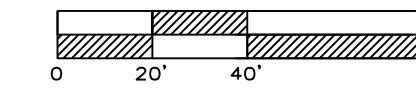
Project:
 NAPA VALLEY LLSMO
 Issue Date:
 October 31, 2022

Sidewalk and Intersection Plan
 Street, Stormwater Master Drainage Plans for:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri

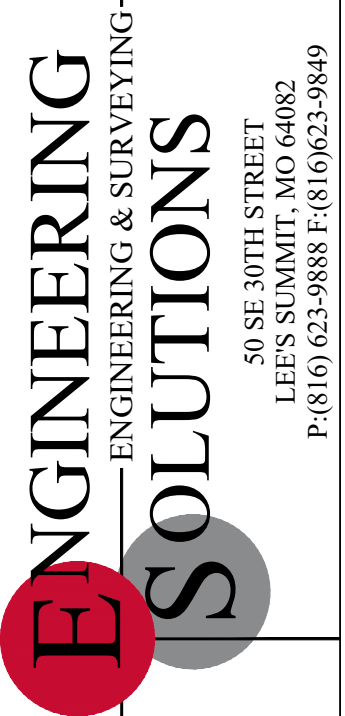


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STORM SEWER GENERAL LAYOUT
SCALE: 1" = 40'



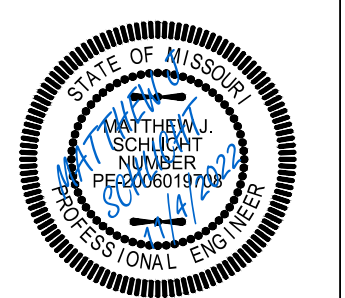
Professional Registration
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Surveying 2005008319-D
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Engineering E-1685
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Oklahoma
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Project: NAPA VALLEY, LSMO
Issue Date: October 31, 2022

Storm Sewer General Layout
Street, Stormwater Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

Project: NAPA VALLEY, LSMO
Issue Date: October 31, 2022

Storm Sewer General Layout
Street, Stormwater Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 000019708
KS PE 19071
OK PE 25226
NE PE E-14335

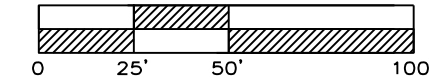
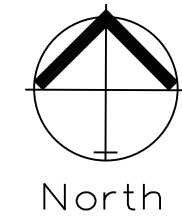
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11/4/2022	As-Built

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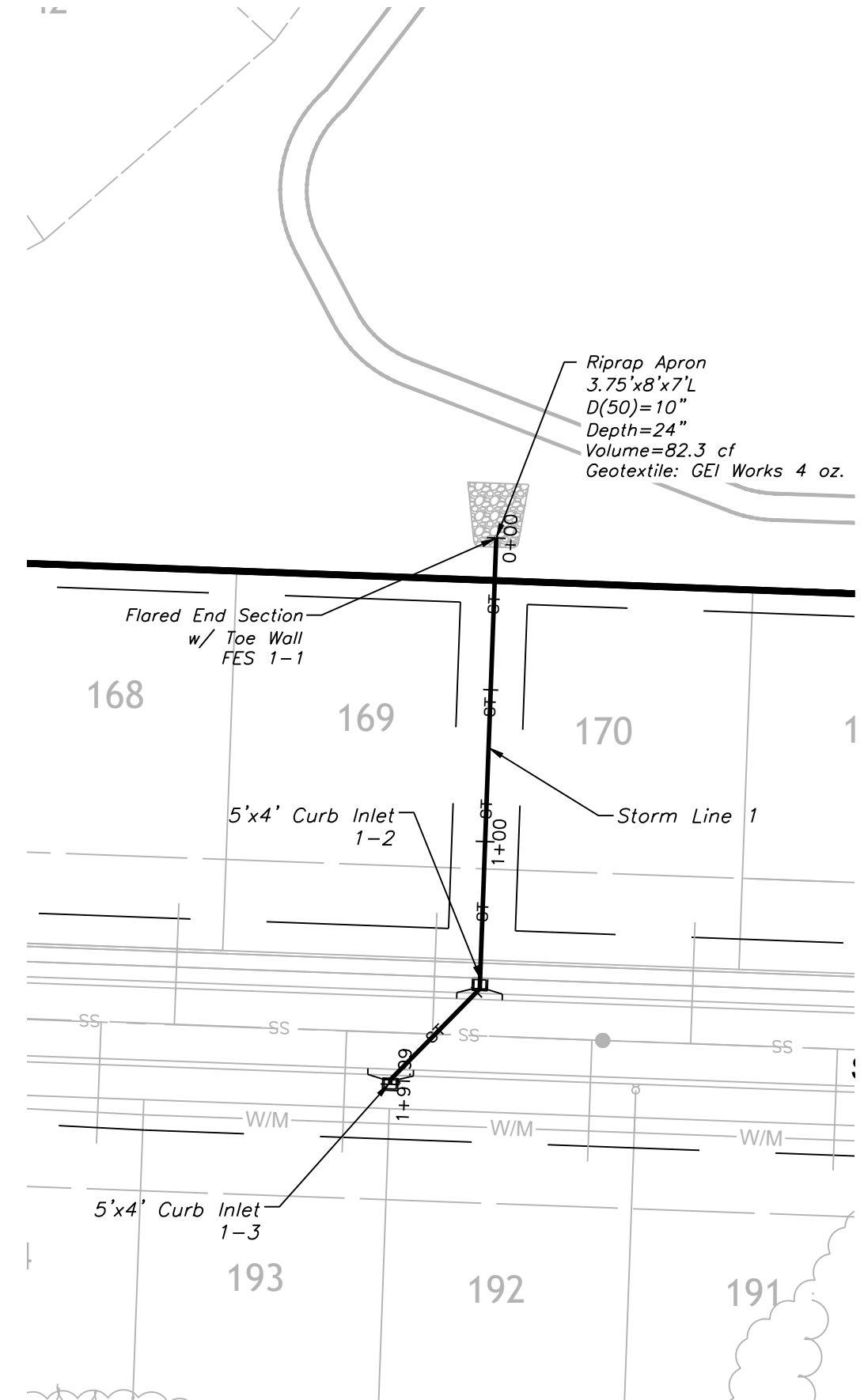
*100-00 100'10", "4-00% 1.15% slope", or "8-inch HDPE-PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

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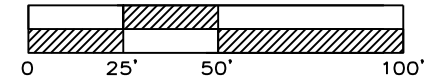
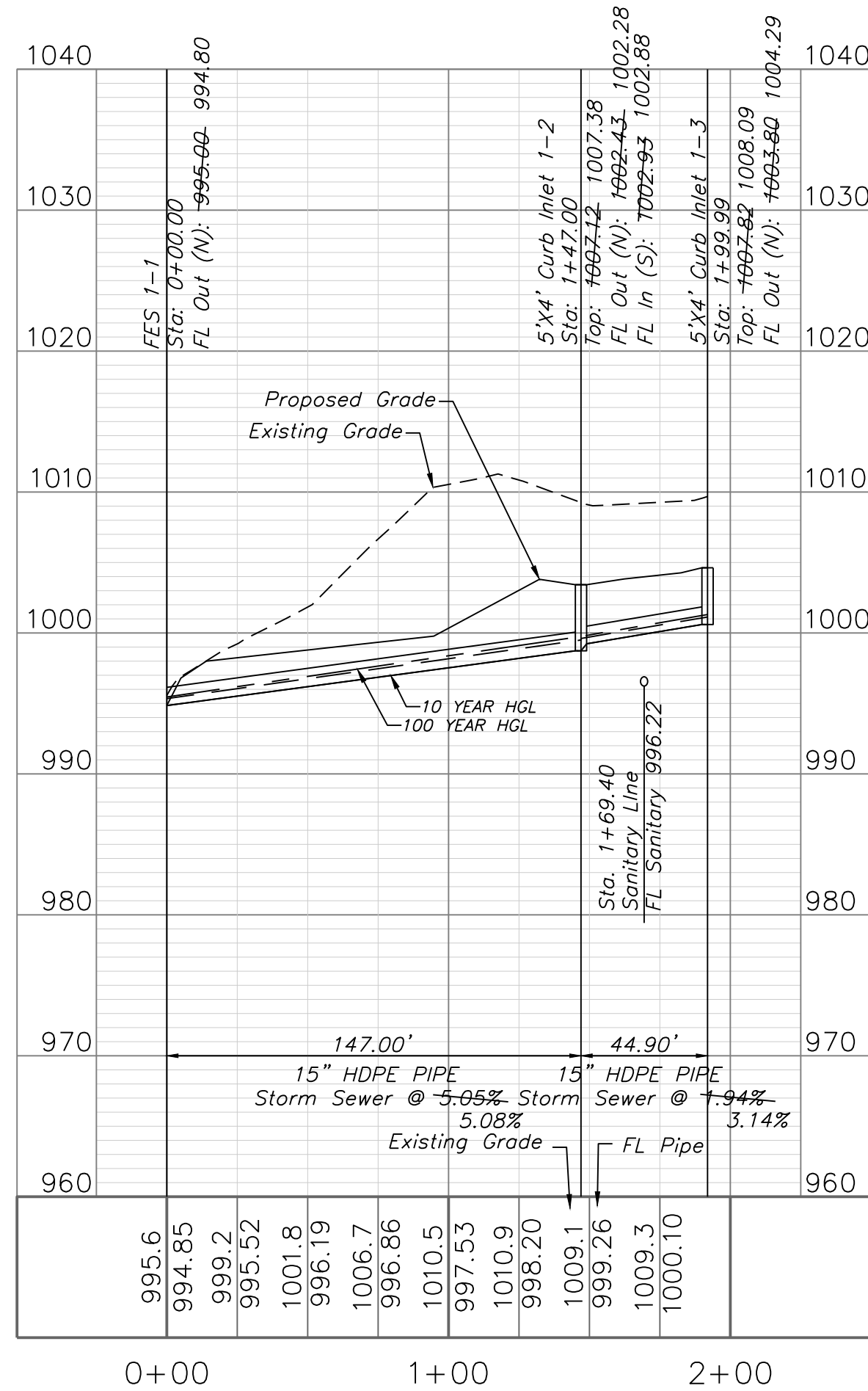


STORM SEWER PLAN & PROFILE

SCALE: 1" = 50'

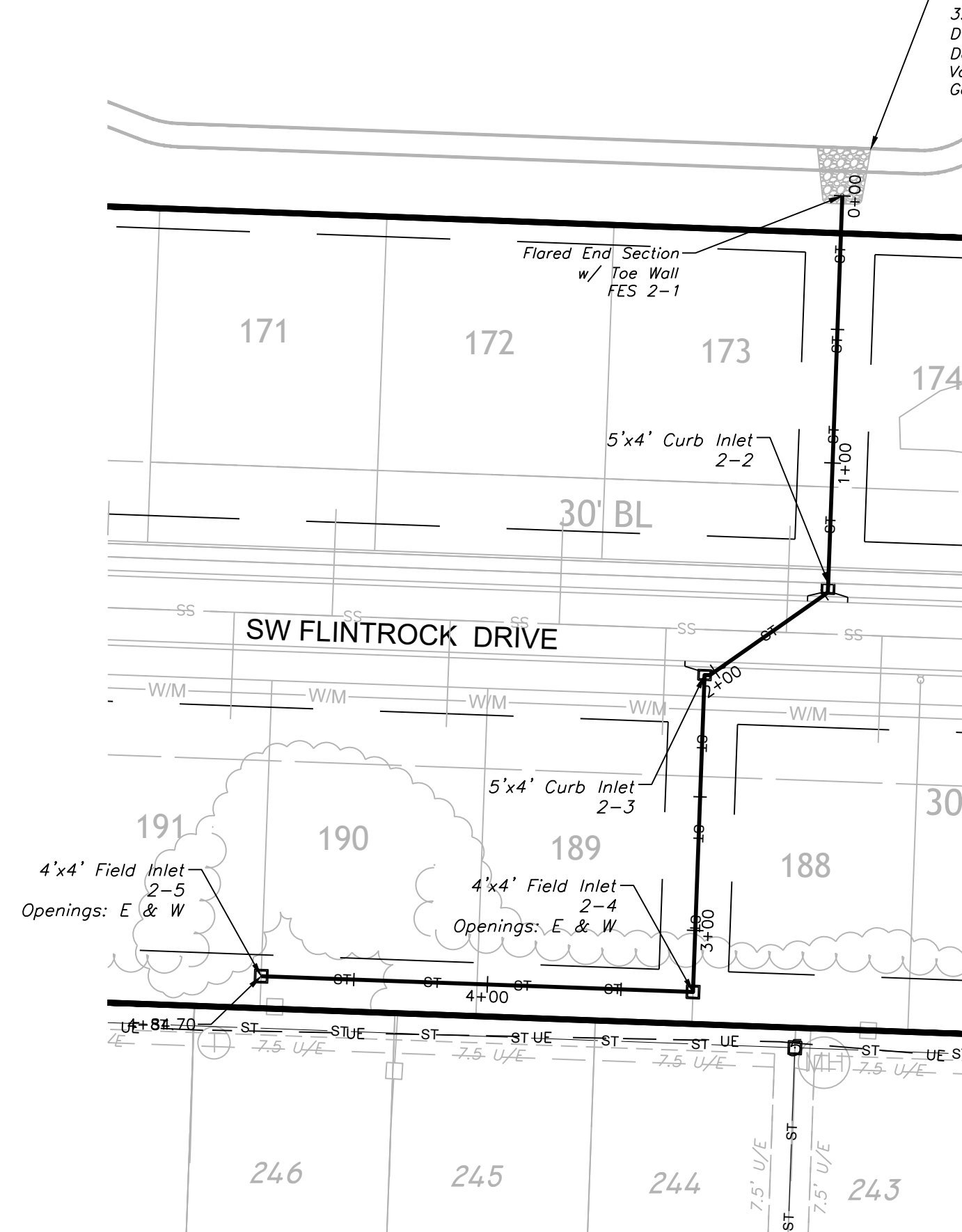


STORM LINE 1

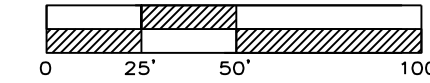
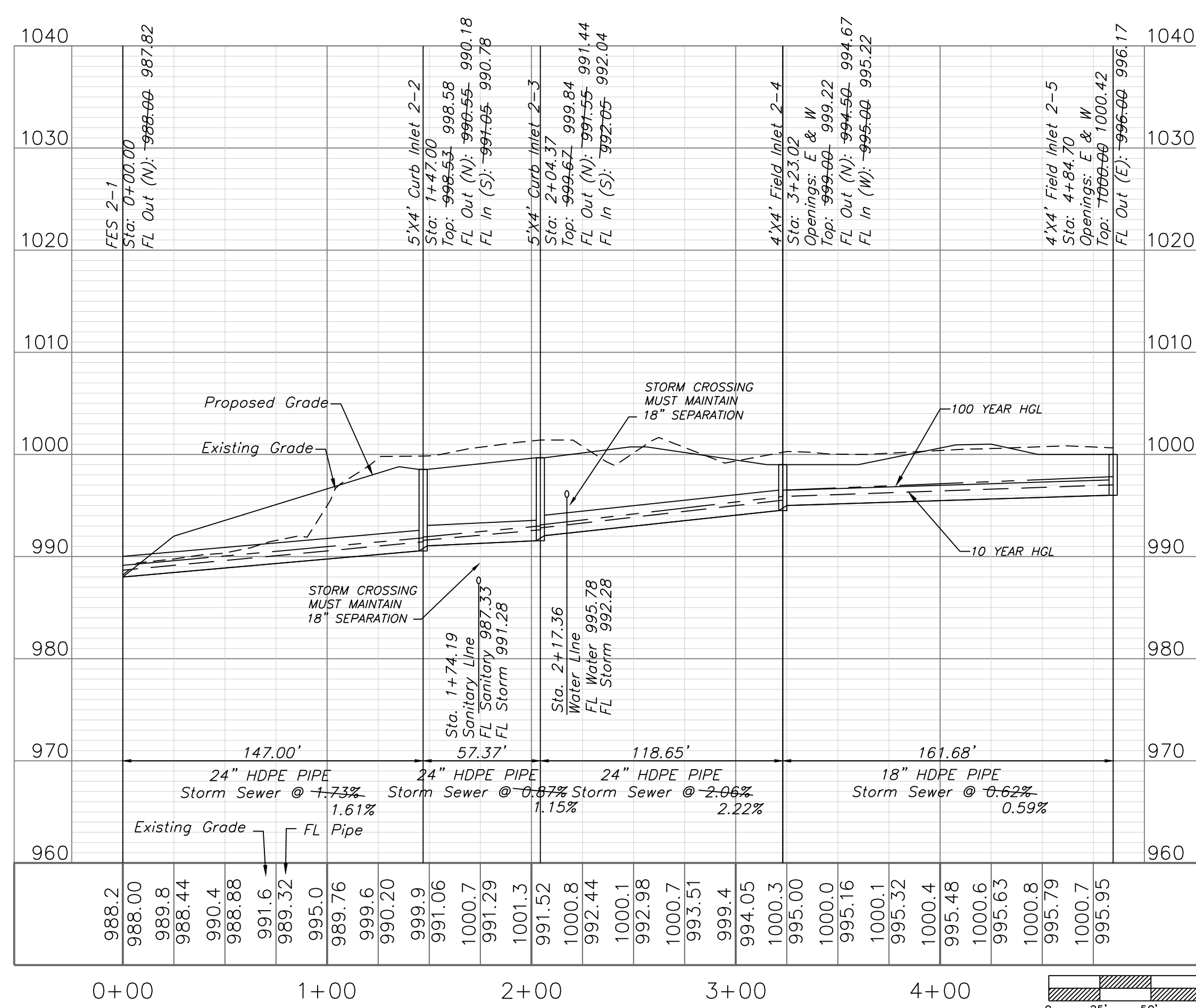


STORM SEWER PLAN & PROFILE

SCALE: 1" = 50'

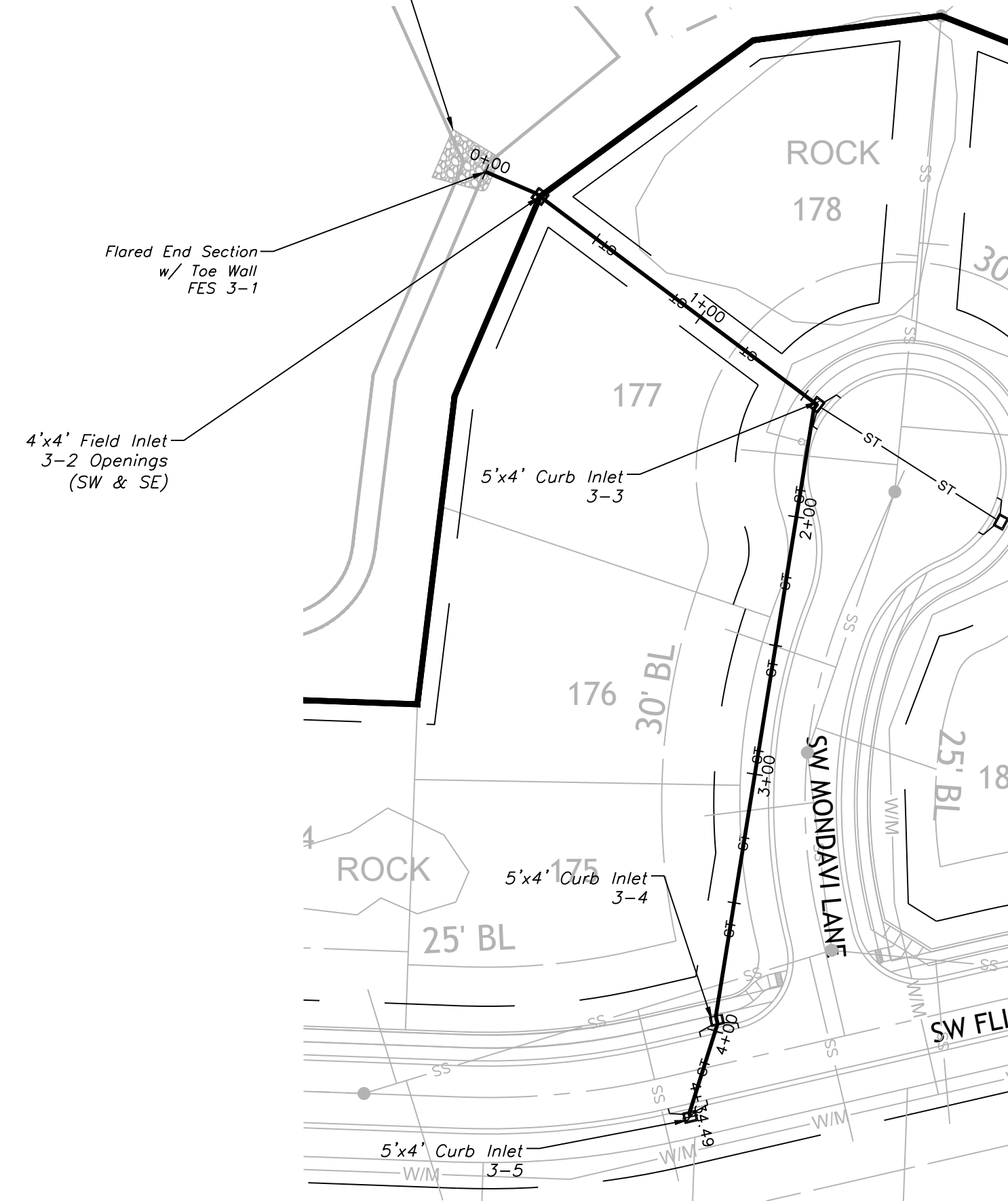


STORM LINE 2

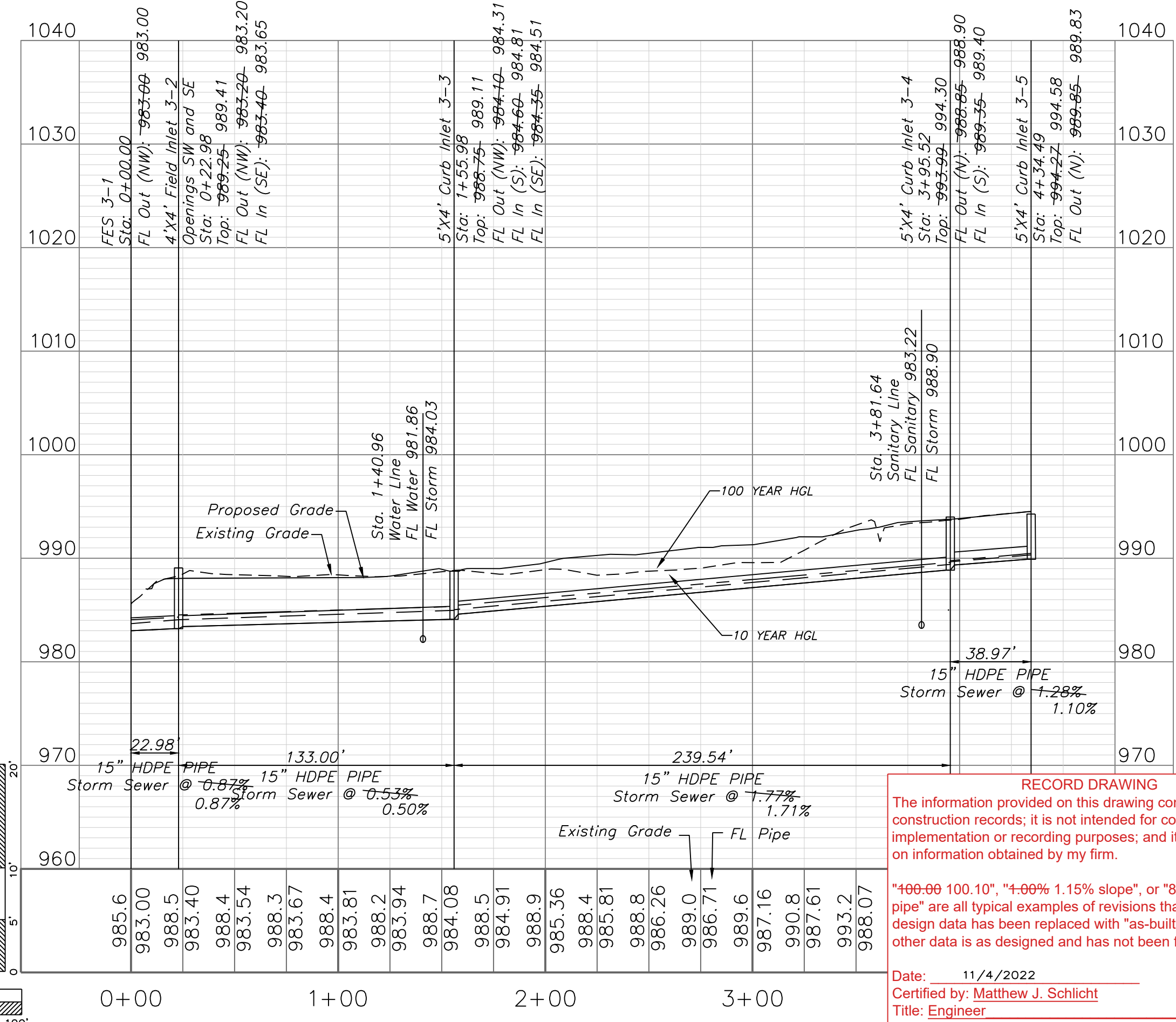


STORM SEWER PLAN & PROFILE

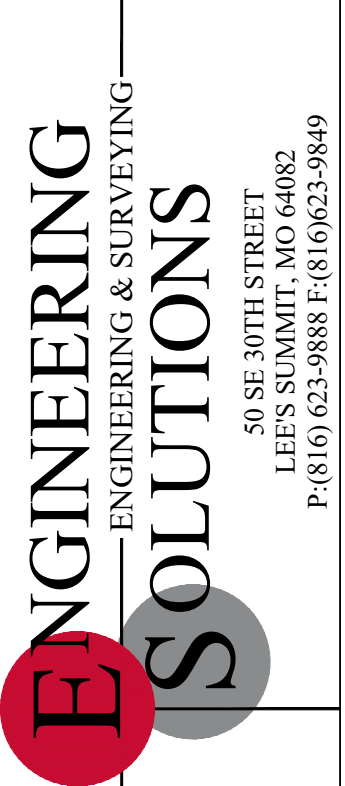
SCALE: 1" = 50'



STORM LINE 3



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Firm: Engineering Solutions



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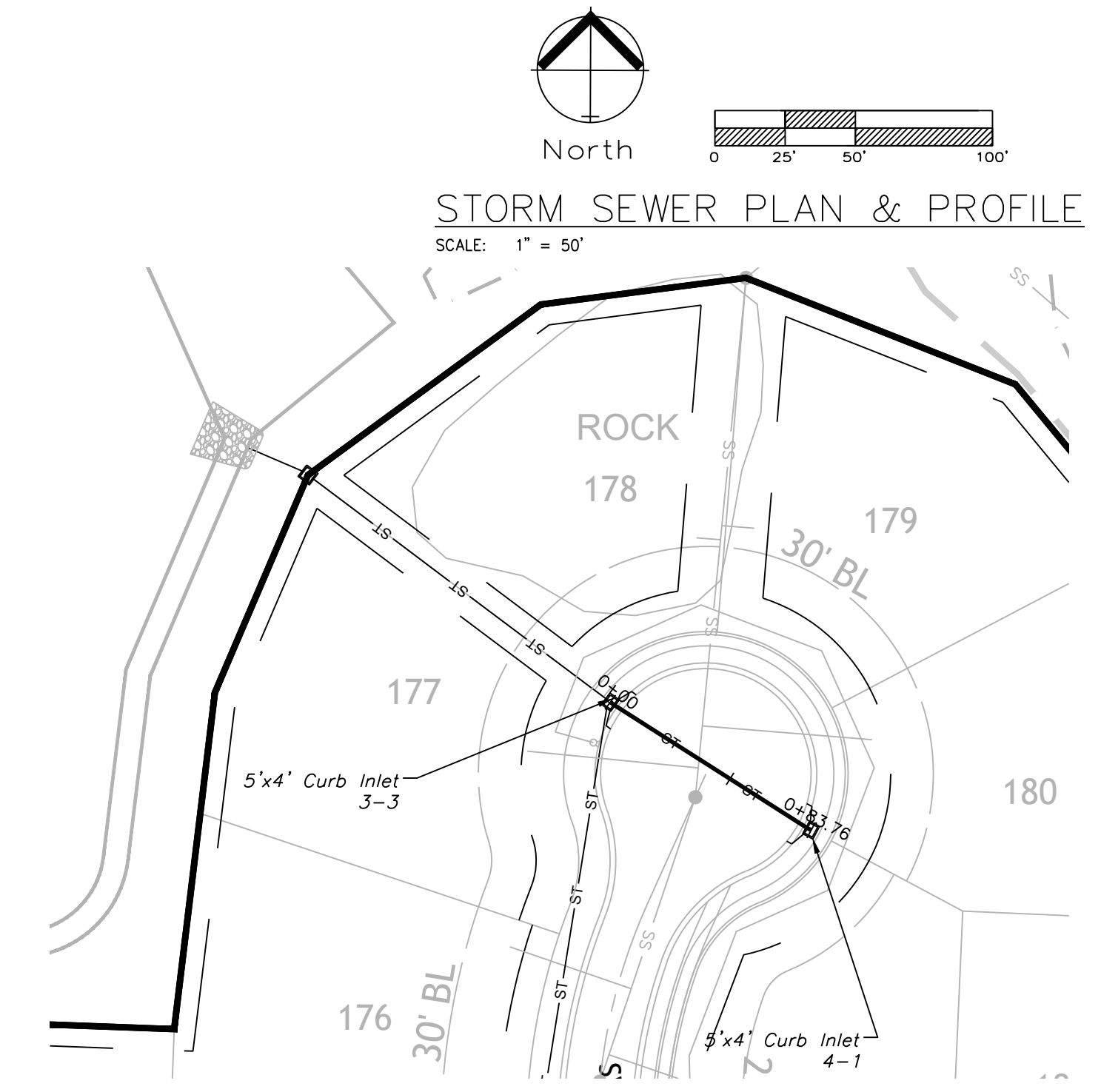
Project: NAPA VALLEY LISMO
Issue Date: October 31, 2022
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

Storm Sewer Plan and Profile
Street, Stormwater, Master Drainage Plans for:
Napa Valley 5th Plat
Lee's Summit, Jackson County, Missouri

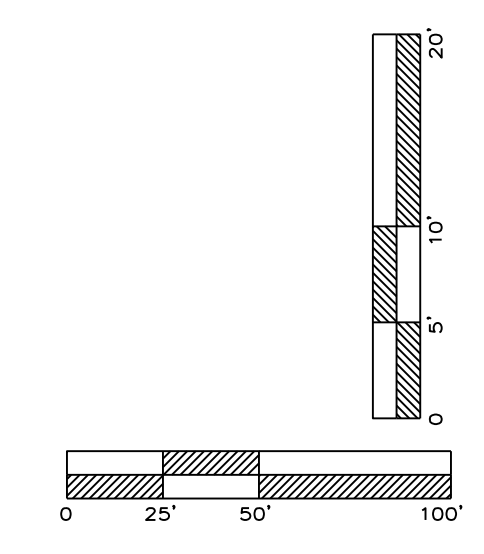
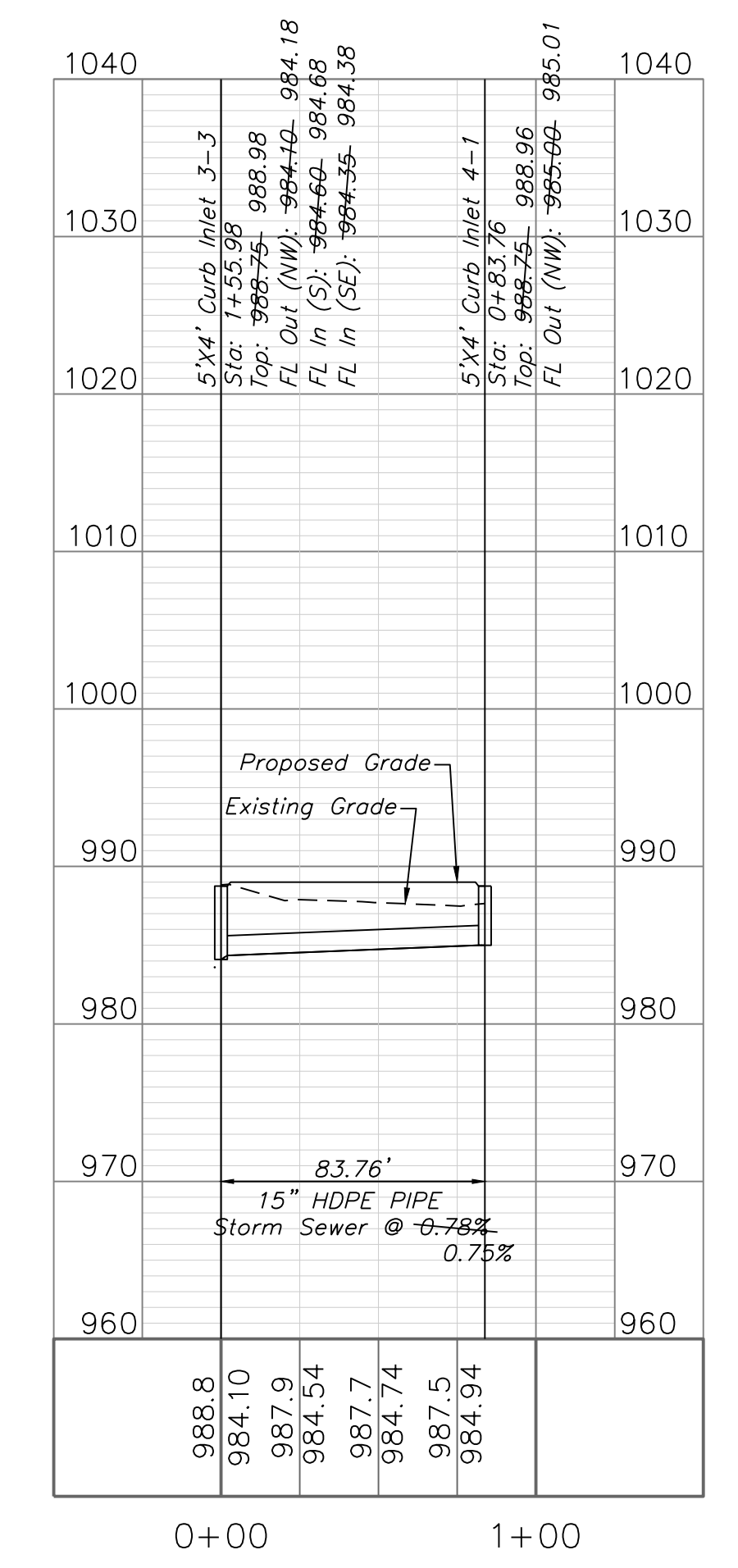


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KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
11/4/2022 As-Built



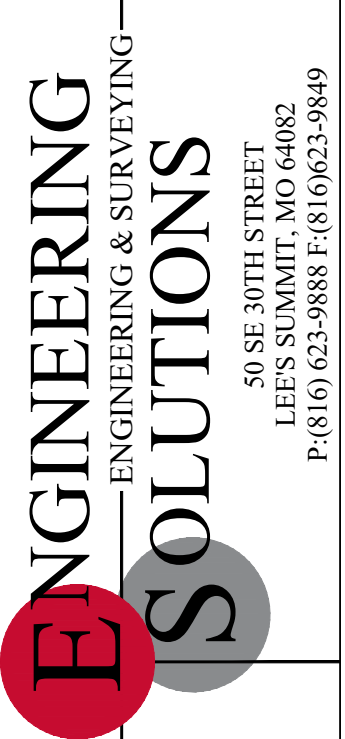
STORM LINE 4



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 my firm.

"100-00 100.10", "4-00% 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: 11/4/2022
 Certified by: Matthew J. Schlicht
 Title: Engineer
 Firm: Engineering Solutions

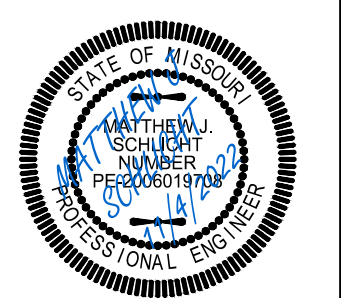


Professional Registration
 Missouri
 Engineering 2005002186-D
 Surveying 2005008319-D
 Kansas
 Engineering E-1685
 Surveying LS-218
 Oklahoma
 Engineering 5254
 Nebraska
 Engineering CA2821

Project:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri

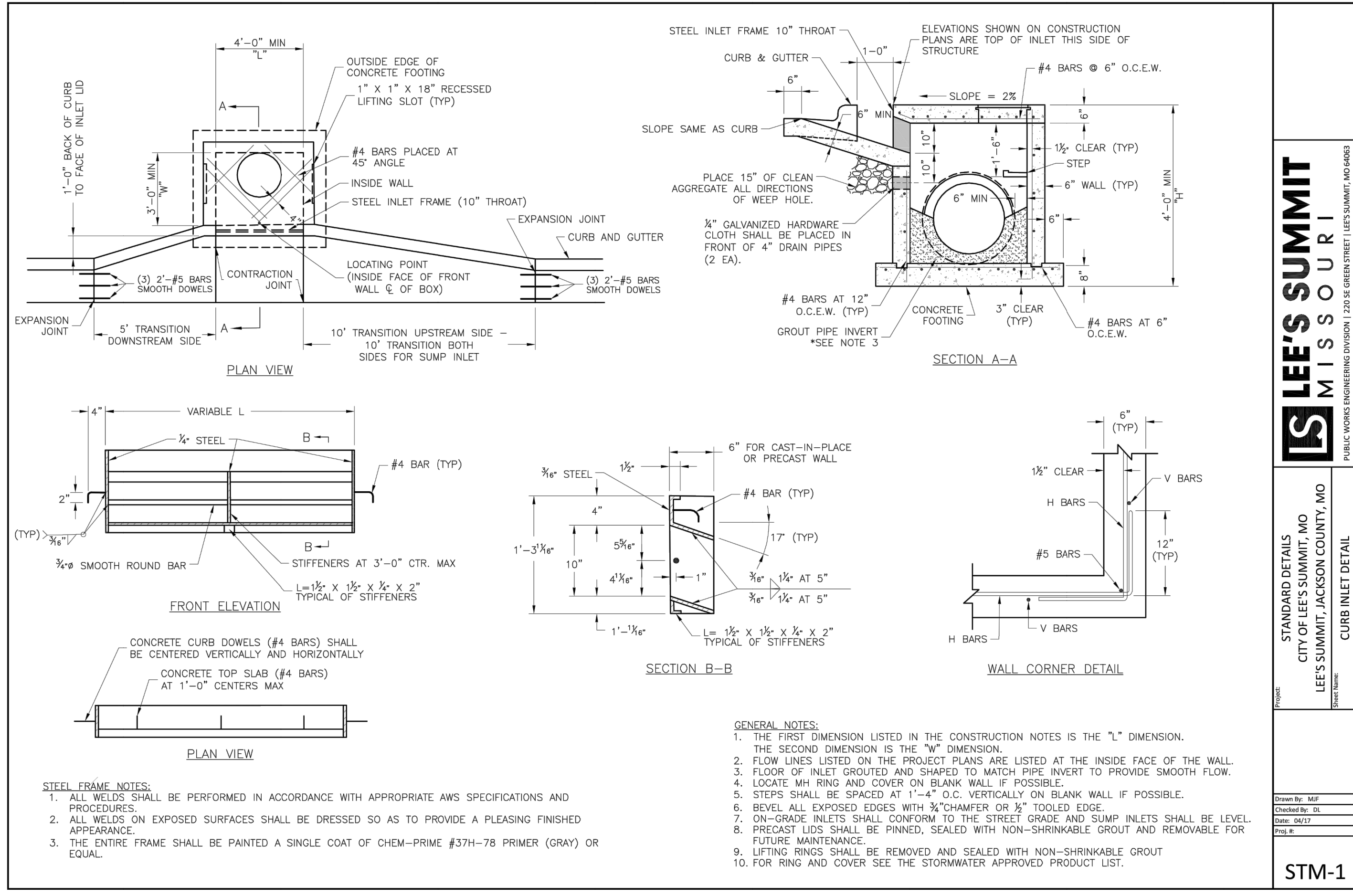
Issue Date:
 October 31, 2022

Storm Sewer Plan and Profile
 Street, Stormwater, Master Drainage Plans for:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
 MO PE 2006019708
 KS PE 19071
 OK PE 25226
 NE PE E-14335

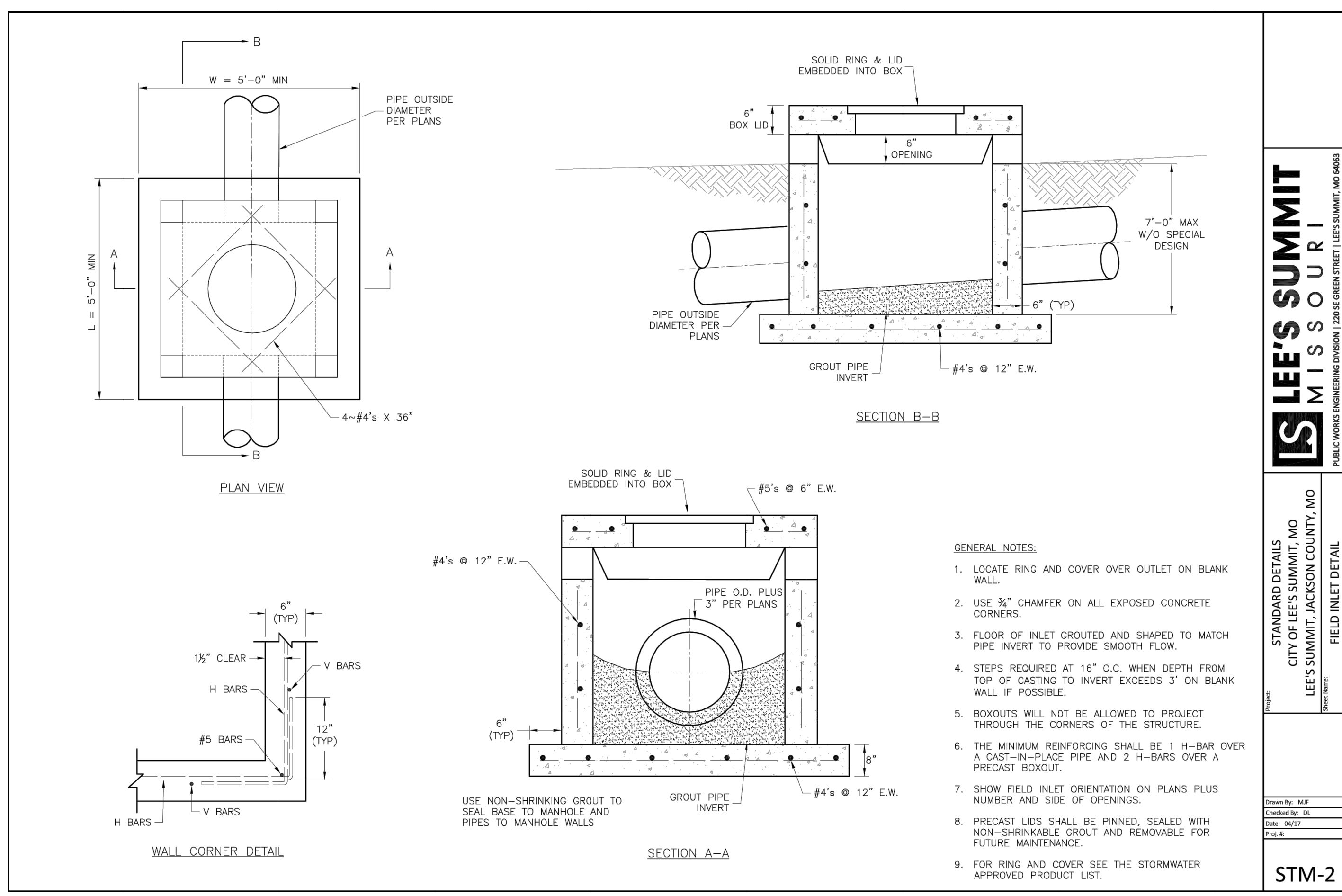
REVISIONS
11/4/2022 As-Built



LEE'S SUMMIT MISSOURI
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO

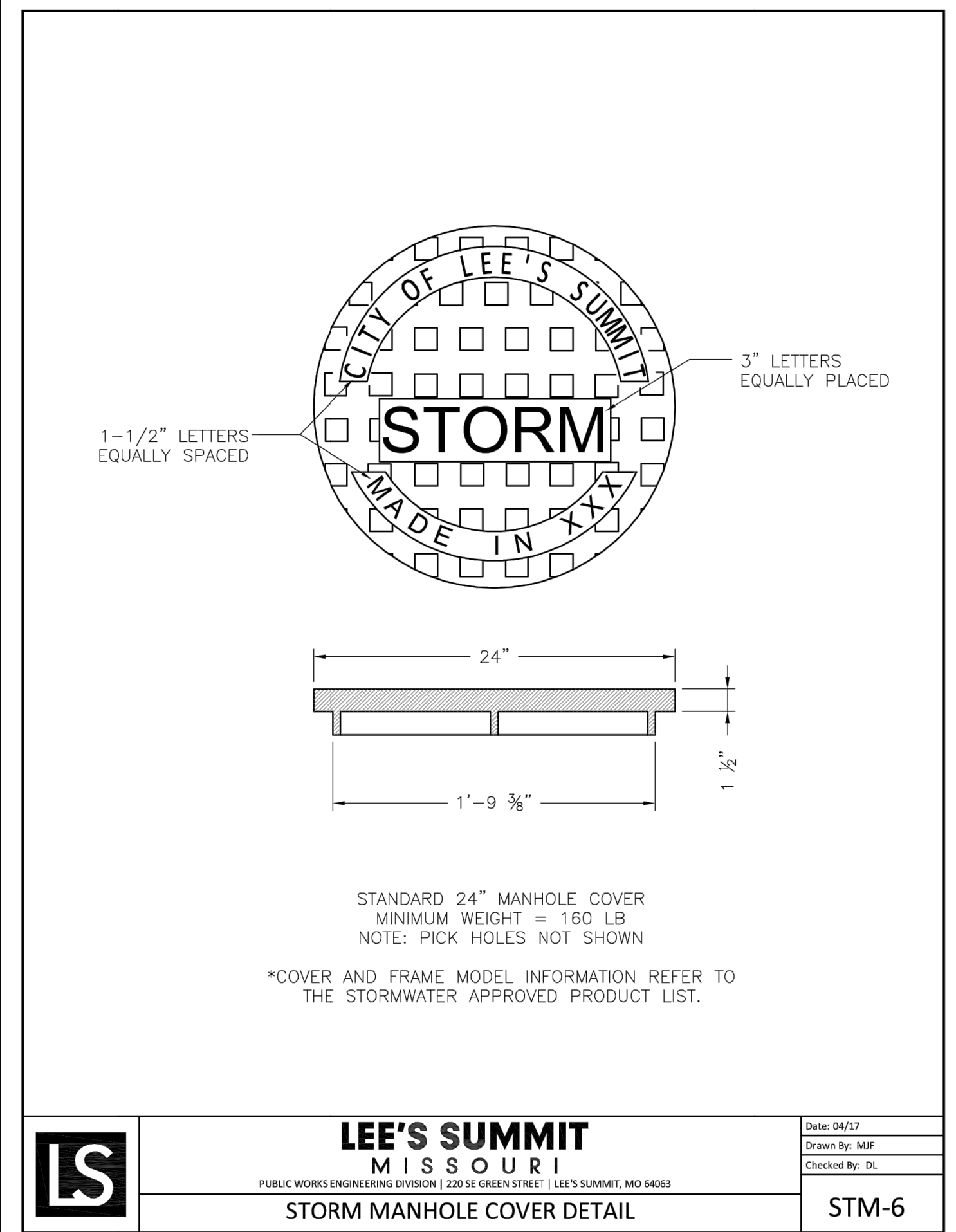
STM-1



LEE'S SUMMIT MISSOURI
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

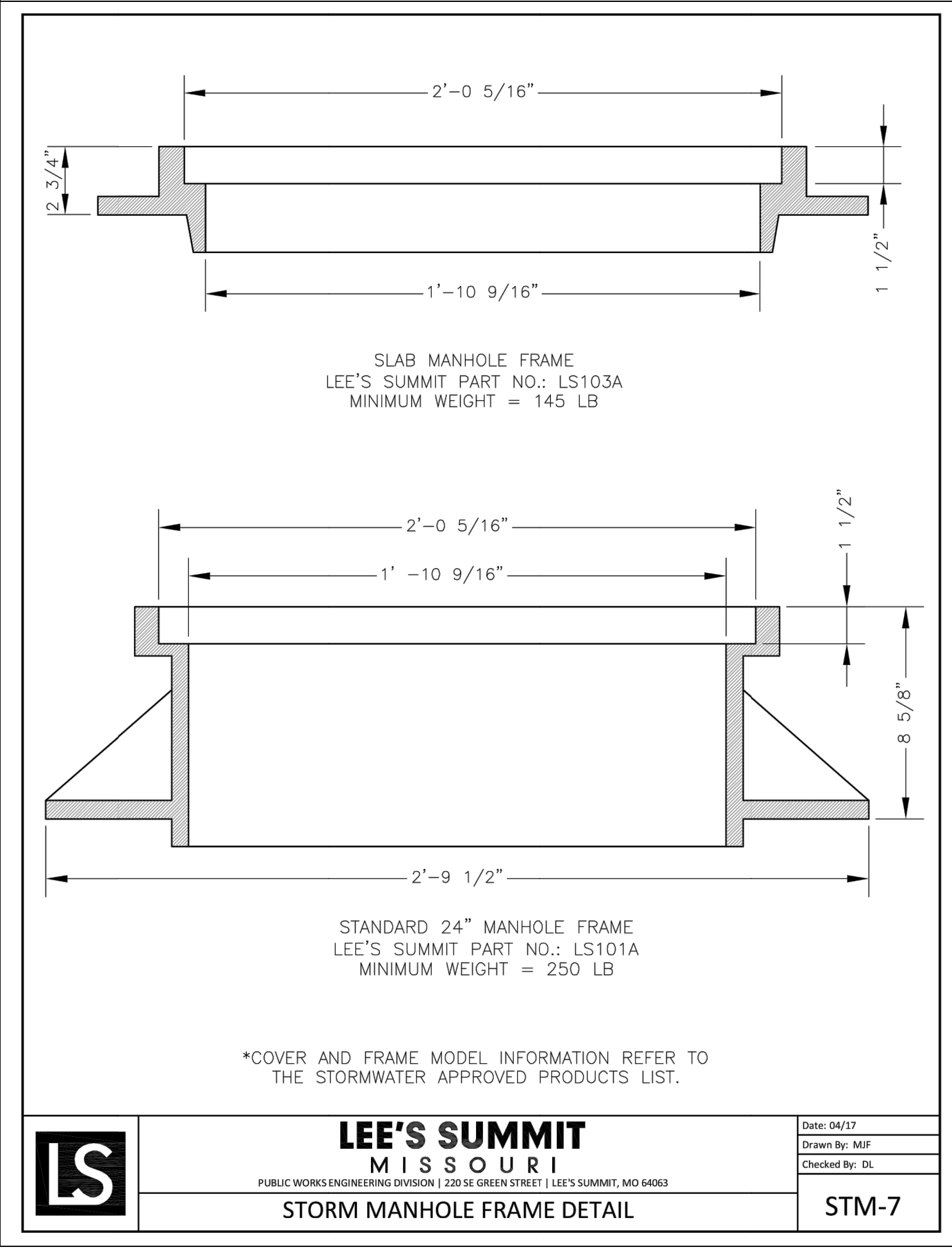
STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO

STM-2



LEE'S SUMMIT MISSOURI
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Date: 04/17
 Drawn By: MJF
 Checked By: DL
 STM-6



LEE'S SUMMIT MISSOURI
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

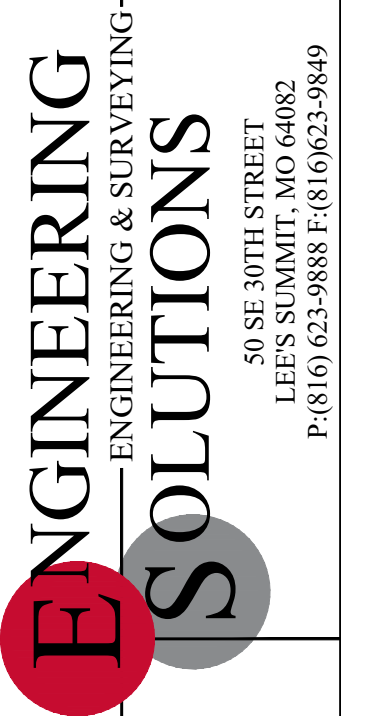
Date: 04/17
 Drawn By: MJF
 Checked By: DL
 STM-7

GENERAL NOTE:
 1 ~ ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.

RECORD DRAWING
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*100-00 100.10' "4-00% 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: 11/4/2022
 Certified by: Matthew J. Schlicht
 Title: Engineer
 Firm: Engineering Solutions



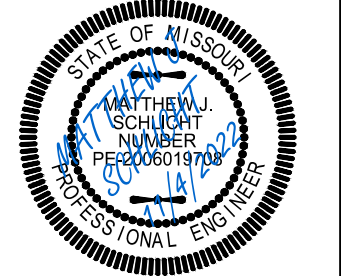
Professional Registration
 Missouri
 Engineering 2005002186-D
 Surveying 2005008319-D
 Kansas
 Engineering E-1685
 Surveying LS-218
 Oklahoma
 Engineering S254
 Nebraska
 Engineering CA2821

Project: Napa Valley 5th Plat
 Issue Date: October 31, 2022

Construction Details
 Street, Stormwater, Master Drainage Plans for:
 Napa Valley 5th Plat
 Lee's Summit, Jackson County, Missouri

Project: NAPA VALLEY LS100
 Issue Date: October 31, 2022

Project: NAPA VALLEY LS100
 Issue Date: October 31, 2022



Matthew J. Schlicht
 MO PE 200601708
 KS PE 19071
 OK PE 25226
 NE PE E-14335

REVISIONS
 11/4/2022 As-Built

C.600