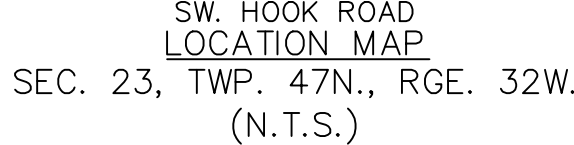


SECTION 23, TOWNSHIP 47 N, RANGE 32 W
IN LEE'S SUMMIT, JACKSON COUNTY, MO



PROJECT TEAM & UTILITY CONTACT LIST	
<u>OWNER / DEVELOPER</u> HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.455.2500	<u>UTILITY SERVICE NUMBERS</u> NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800 NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940 NAME: SPIRE (MGE) PHONE: 314-342-0500 NAME: AT&T PHONE: 800-286-8313 NAME: EVERGY PHONE: 816-471-5275
<u>ENGINEER</u> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JULIE E. SELLERS, P.E. PHONE: 816.361.1177 EMAIL: JSSELLERS@OLSSON.COM	NAME: SPECTRUM (TWC) PHONE: 877-772-2253 NAME: GOOGLE FIBER PHONE: 877-454-6959
<u>SURVEYOR</u> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, P.L.S. PHONE: 816.361.1177 EMAIL: JROUDEBOUSH@OLSSON.COM	



A TRACT OF LAND IN THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S. ROUBEUSH, P.L.S. 2002014092 AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02°45'34" EAST, ON THE EAST LINE OF SAID SOUTHEAST QUARTER, 2,635.08 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 87°45'24" WEST, ON THE NORTH LINE OF SAID SOUTHEAST QUARTER, 50.00 FEET TO THE SOUTHEAST CORNER OF LOT 3, EAGLE CREEK—FIRST PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 110409 IN BOOK 165 AT PAGE 01 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING THE NORTHWEST CORNER OF PROPOSED HOOK FARMS FIRST PLAT; THENCE CONTINUING NORTH 87°45'24" WEST ON SAID NORTH LINE, ALSO BEING THE PROPOSED NORTH LINE OF SAID PROPOSED HOOK FARMS FIRST PLAT, ALSO BEING THE SOUTH LINE OF SAID EAGLE CREEK—FIRST PLAT, 643.83 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE LEAVING SAID NORTH AND SOUTH LINES, SOUTH 02°59'10" WEST, ALONG THE PROPOSED WESTERLY LINE OF PROPOSED HOOK FARMS FIRST PLAT, 277.38 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 36.00 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE SOUTH 42°00'50" EAST, ALONG SAID PROPOSED WESTERLY LINE, 19.80 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 116.00 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 126.12 FEET; THENCE SOUTH 07°19'52" WEST, ALONG SAID PROPOSED WESTERLY LINE, 64.17 FEET; THENCE SOUTH 29°10'47" WEST, ALONG SAID PROPOSED WESTERLY LINE, 375.17 FEET; THENCE SOUTH 15°20'56" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE ALONG SAID PROPOSED WESTERLY LINE, EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 74°39'04" EAST WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 11°57'16" AND AN ARC DISTANCE OF 57.38 FEET; THENCE SOUTH 27°18'12" WEST, ALONG SAID PROPOSED WESTERLY LINE, 138.17 FEET; THENCE LEAVING SAID PROPOSED WESTERLY LINE, NORTH 67°11'53" WEST, 61.05 FEET; THENCE SOUTH 88°21'16" WEST, 1,139.83 FEET; THENCE NORTH 01°38'44" WEST, 128.09 FEET; THENCE NORTH 57°02'58" EAST, 49.90 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 32°57'02" WEST WITH A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 150°22'53" AND AN ARC DISTANCE OF 131.23 FEET; THENCE NORTH 27°25'51" EAST, 98.75 FEET; THENCE NORTH 88°21'16" EAST, 52.12 FEET; THENCE NORTH 29°10'47" EAST, 873.51 FEET TO A POINT ON SAID NORTH LINE OF SAID SOUTHEAST QUARTER, ALSO BEING THE SOUTH LINE OF EAGLE CREEK—SECOND PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 200100058889 IN BOOK 165 AT PAGE 09 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 87°45'24" EAST, ON SAID NORTH LINE AND SAID SOUTH LINE, 682.19 FEET TO THE SOUTHEAST CORNER OF SAID EAGLE CREEK—SECOND PLAT, ALSO BEING THE SOUTHWEST CORNER OF SAID EAGLE CREEK—FIRST PLAT; THENCE SOUTH 87°45'24" EAST ON SAID NORTH LINE, AND SAID SOUTH LINE OF EAGLE CREEK—FIRST PLAT, 273.64 FEET TO THE POINT OF BEGINNING. CONTAINING 1,157.274 SQUARE FEET OR 26.57 ACRES, MORE OR LESS.

JA-74
 ELEVATION: 1058.10
 N: 978461.2779
 E: 2809447.9650
 DESCRIPTION: KC METRO ALUMINUM GRS DISK SET IN CONCRETE. THE STATION IS STAMPED JA-74, 1988, AND PROJECTS ABOUT 1 INCH

SHEET LIST	
NUMBER	TITLE
C101	TITLE SHEET
C102	GENERAL NOTES
C103	GENERAL LAYOUT
C104	TYPICAL SECTIONS
C105	GRADING PLAN (FOR REFERENCE)
C106	GRADING PLAN (FOR REFERENCE)
C107	SWALE 1 PLAN & PROFILE
C108	SWALE 2 PLAN & PROFILE
C109	SWALE 2 PLAN & PROFILE
C110	ROADWAY PLAN & PROFILE (SW HOOK FARM CIRCLE)
C111	ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)
C112	ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)
C113	ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT)
C114	ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT)
C115	ROADWAY PLAN & PROFILE (SW TRACKER LANE)
C116	ROADWAY PLAN & PROFILE (SW TRACKER LANE)
C117	ROADWAY PLAN & PROFILE (SW TRACKER LANE)
C118	ROADWAY PLAN & PROFILE (SW FARMHOUSE ROAD)
C119	ROADWAY PLAN & PROFILE (SW FIRELY LANE)
C120	ROADWAY PLAN & PROFILE (SW FIRELY LANE)
C121	ROADWAY PLAN & PROFILE (SW BARLEY FIELD DRIVE)
C122	ROADWAY PLAN & PROFILE (SW BARLEY FIELD DRIVE)
C123	TRAFFIC CONTROL PLAN
C124	SW TRACKER LANE & SW HOOK FARM DRIVE
C125	SW FIRELY LANE & SW HOOK FARM DRIVE
C126	SW BARLEY FIELD DRIVE & SW HOOK FARM DRIVE
C127	SW FARMHOUSE ROAD & SW TRACKER LANE
C128	SW WHEATFIELD COURT & SW TRACKER LANE
C129	SW FIRELY LANE & SW WHEATFIELD COURT
C130	SW BARLEY FIELD DRIVE & SW WHEATFIELD COURT
C131	STORM SEWER PLAN & PROFILE (LINE 1)
C132	STORM SEWER PLAN & PROFILE (LINE 1)
C133	STORM SEWER PLAN & PROFILE (LINE 2)
C134	STORM SEWER PLAN & PROFILE (LINE 2)
C135	STORM SEWER PLAN & PROFILE (LINES 3 & 4)
C136	STORM SEWER PLAN & PROFILE (LINES 5 & 7)
C137	STORM SEWER PLAN & PROFILE (LINE 6)
C138	STORM SEWER PLAN & PROFILE (LINE 8)
C139	STORM SEWER PLAN & PROFILE (LINE 9)
C140	STORM SEWER PLAN & PROFILE (LINE 10)
C141	STORM SEWER PLAN & PROFILE (LINES 11 & 12)
C142	WATER QUALITY BASIN PLAN
C143	MASTER DRAINAGE PLAN
C144	DRAINAGE PLAN
C145	DRAINAGE TABLES
C146	DRAINAGE TABLES
C147	DETAIL SHEET
C148	DETAIL SHEET
C149	DETAIL SHEET

Julie E. Sellers
JULIE E. SELLERS, P.E.
CIVIL ENGINEER
MO # PE-2017000367

1/22/21
DATE



STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
1/22/21
PROFESSIONAL ENGINEER

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www.olsson.com

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DEVISIONS

2021

TITLE SHEET
STREET & STORM SEWER PLANS

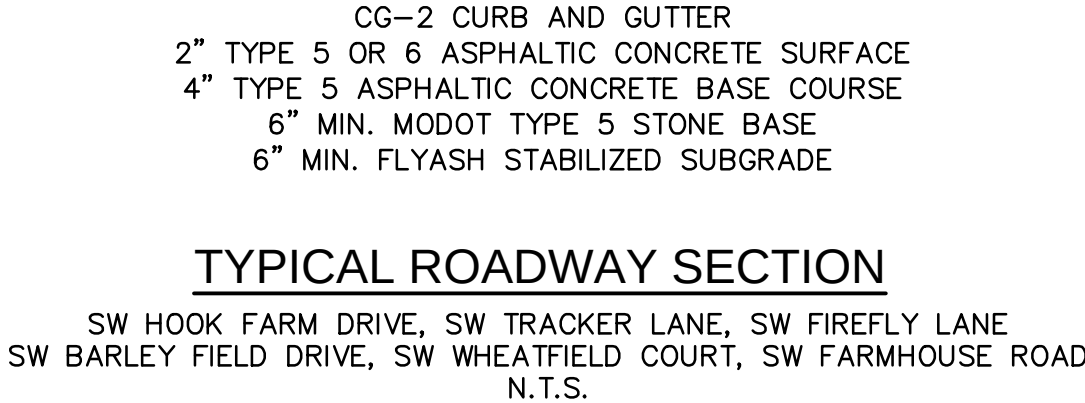
HOOK FARMS
SECOND PLAT

LEE'S SUMMIT. MO.

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

SHEET
C101

1-b\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_TYP01_B194061.dwg
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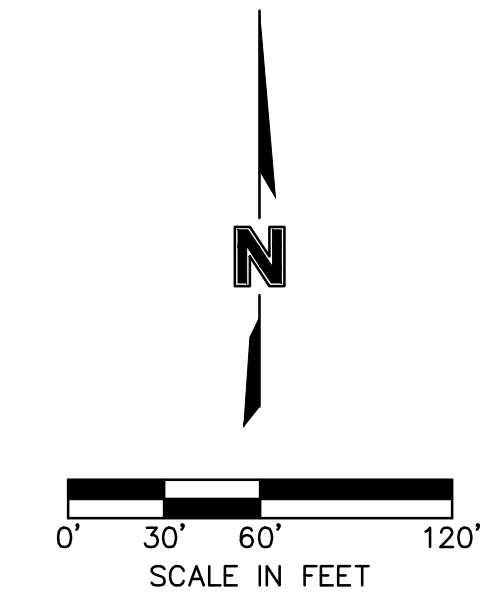
GENERAL NOTES:

1. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
2. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT HIS EXPENSE.
3. ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 8". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT.

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	26,150	25,668
SITE	118,681	76,119
FUTURE PHASE	0	54,547
TOTAL	144,831	156,334

EARTHWORK QUANTITIES NOTES:

1. EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
2. EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.



LEGEND	
- -100-	EXISTING INDEX CONTOURS
- -100-	EXISTING INTERMEDIATE CONTOURS
-100-	PROPOSED INDEX CONTOURS
-100-	PROPOSED INTERMEDIATE CONTOURS

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STATE OF MISSOURI

JULIE ELAINE SELLERS

NUMBER PE-2017000367

1/22/21

PROFESSIONAL ENGINEER

GRADING PLAN (FOR REFERENCE)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.

checked by: B.M.W.

designed by: B.M.W./A.A.

QA/QC by: J.E.S.

project no.: B19-4061

date: 01-08-2021

SHEET C105

BY

REVISIONS DESCRIPTION

DATE

REV. NO.

2021

REVISIONS

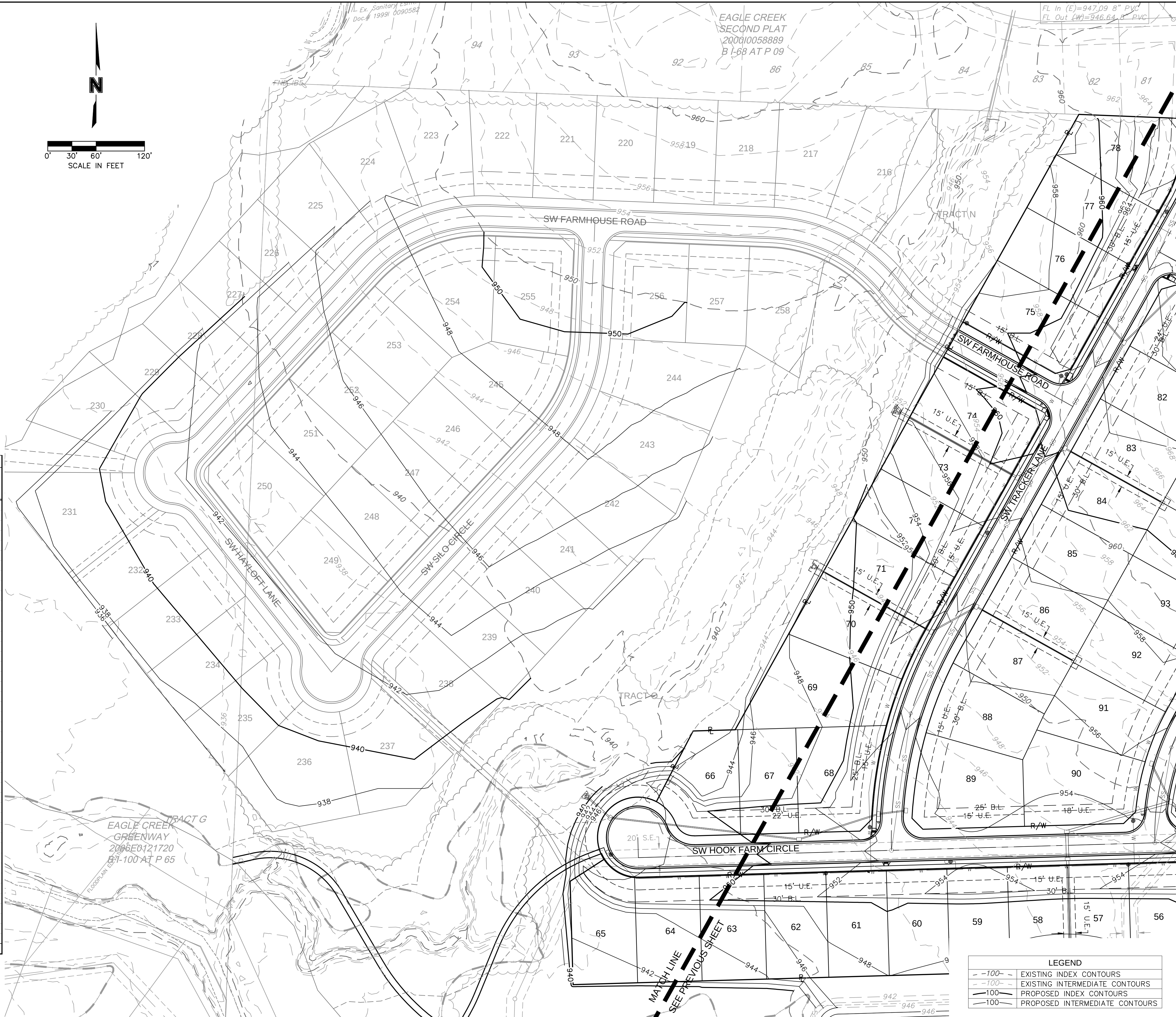
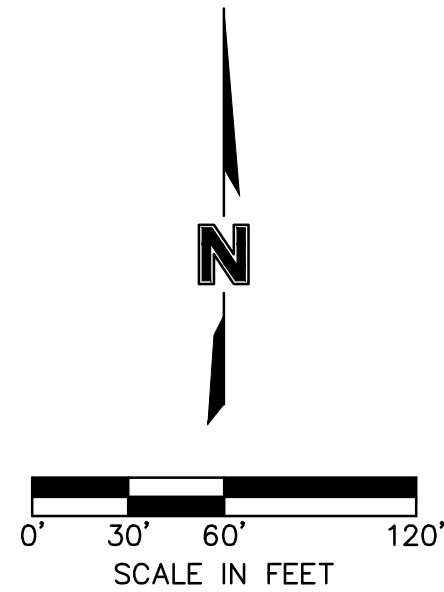
3. ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 8". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT.

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	26,150	25,668
SITE	118,681	76,119
FUTURE PHASE	0	54,547
TOTAL	144,831	156,334

2. EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.

LOT FILL INFORMATION			
LOT NUMBER	MAX DEPTH OF FILL (OVER 2' PLACED)	FILL PLACED ON EXISTING SLOPES > 5:1	PROPOSED SLOPES > 3:1
50	5.5'		
51	4.8'		
52	4.9'		
53	5.2'		
54	7.5'		
55	8.2'		
56	9.7'	X	
57	8.7'	X	
58	10.7'		
59	11.6'		
60	11.6'		
61	11.4'		
62	11.1'		
63	10.9'		
64	10.3'		
65	9.9'		
66	9.6'		
67	10.0'		
68	11.2'		
69	10.7'		
70	9.1'		
71	8.3'		
72	7.1'		
73	5.9'		
74	5.7'		
75	4.7'		
76	3.5'		
77	2.9'		
78	3.1'		
84	2.5'		
85	3.5'		
86	5.8'		
87	6.8'		
88	8.6'		
89	10.3'		
90	8.2'		
91	6.7'		
92	4.3'		
107	8.1'	X	
108	7.8'	X	
118	7.3'	X	
119	7.5'	X	
120	2.7'		
128	8.4'	X	
X Indicates condition applies to lot			

X Indicates condition applies to lot



GRADING PLAN (FOR REFERENCE)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT. MO.

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

SHEET
C106

STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
1/22/21
PROFESSIONAL ENGINEER

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DEVICIONS

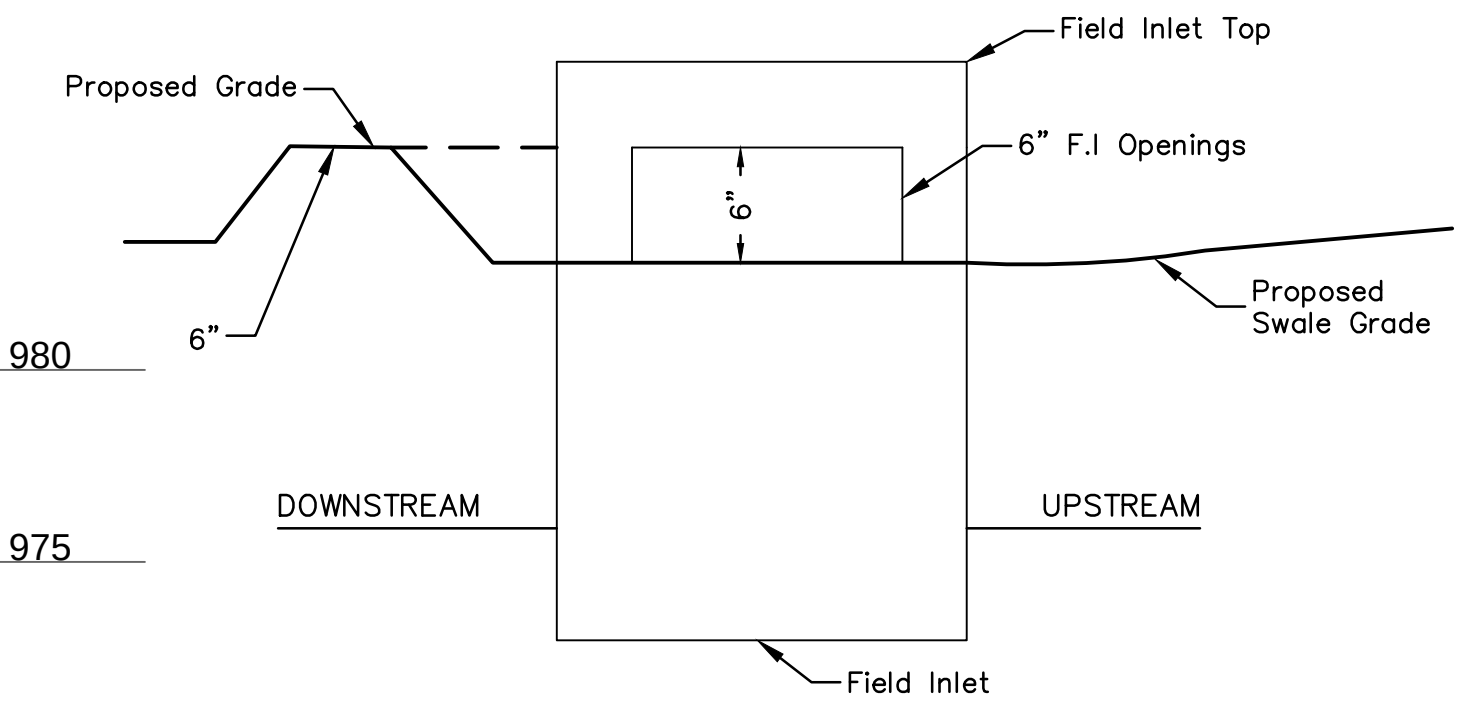
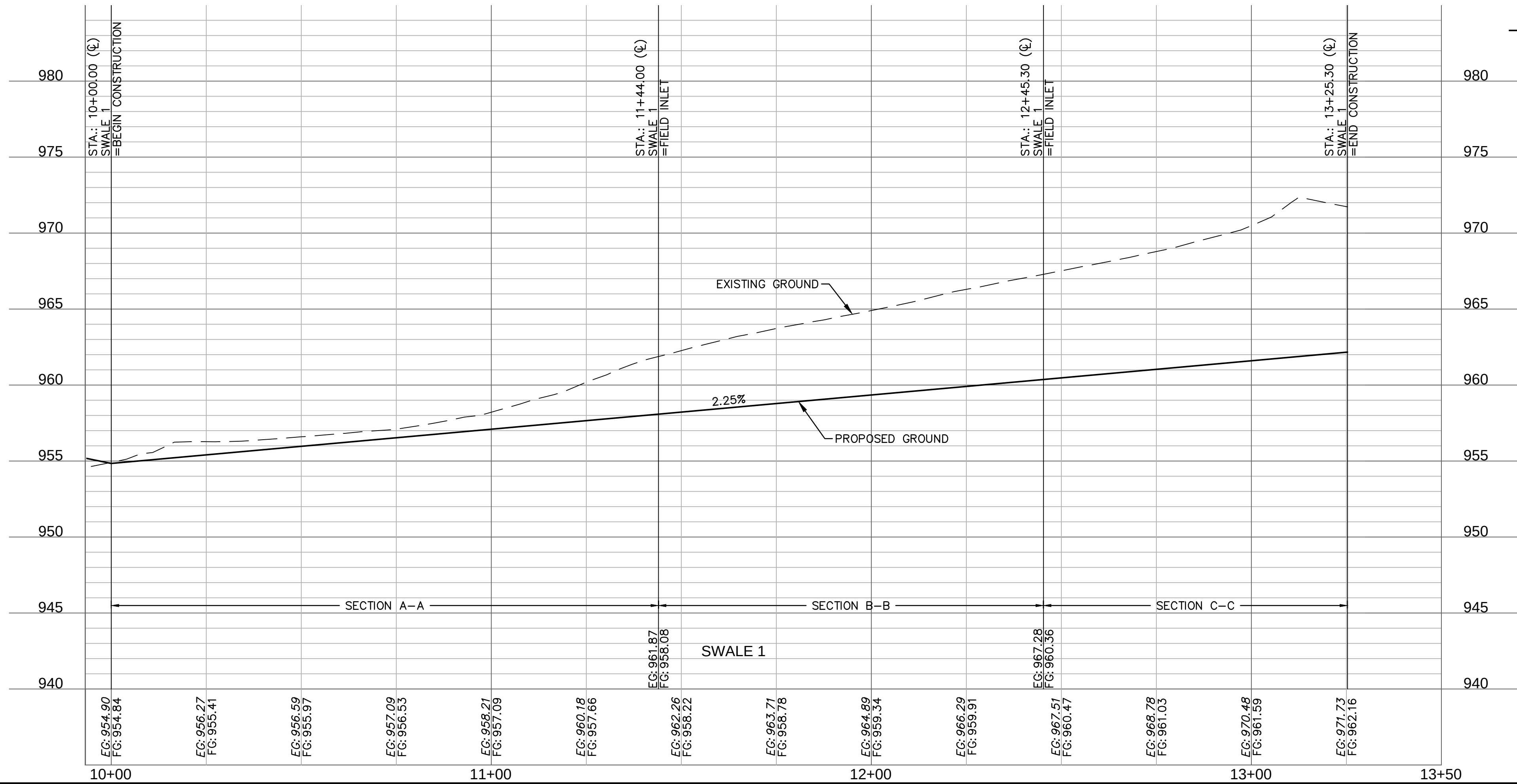
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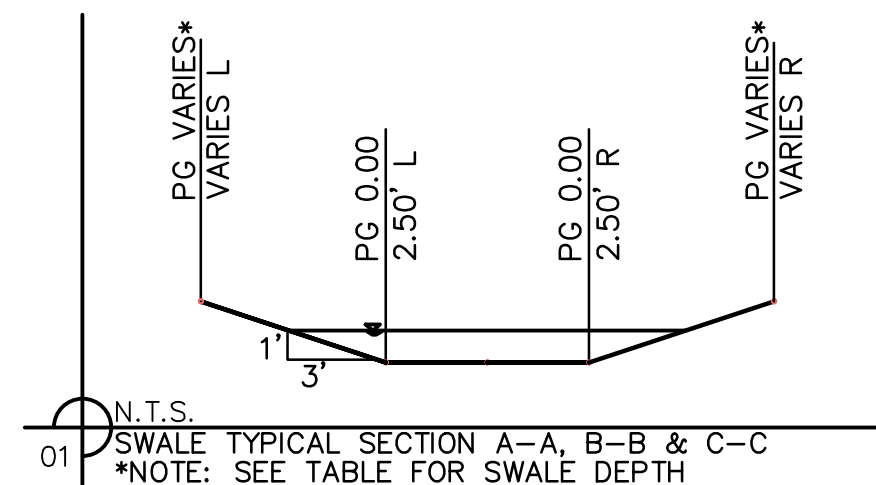
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NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE
FIELD INLETS ARE LOCATED WITHIN SWALES.

SUMP DETAIL
N.T.S.



SWALE GRADING NOTES:

1. CONTRACTOR SHALL CONSTRUCT SWALES WITH MINIMUM SLOPE, WIDTH AND DEPTH AS SHOWN IN THE SWALE DESIGN TABLES.
2. AS-BUILT SURVEY IS REQUIRED/APPROVED BY CITY FOR ALL SWALES AND PRIOR TO APPROVAL FOR ANY BUILDING FOUNDATION PERMIT. CONTRACTOR SHALL BE REQUIRED TO REGRADE SWALES AT CONTRACTOR'S EXPENSE IF ABOVE REQUIREMENTS ARE NOT MET.

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	REV. NO.	DATE	REVISIONS DESCRIPTION	BY
2021				
REVISIONS				

SWALE 1 PLAN & PROFILE STREET & STORM SEWER PLANS

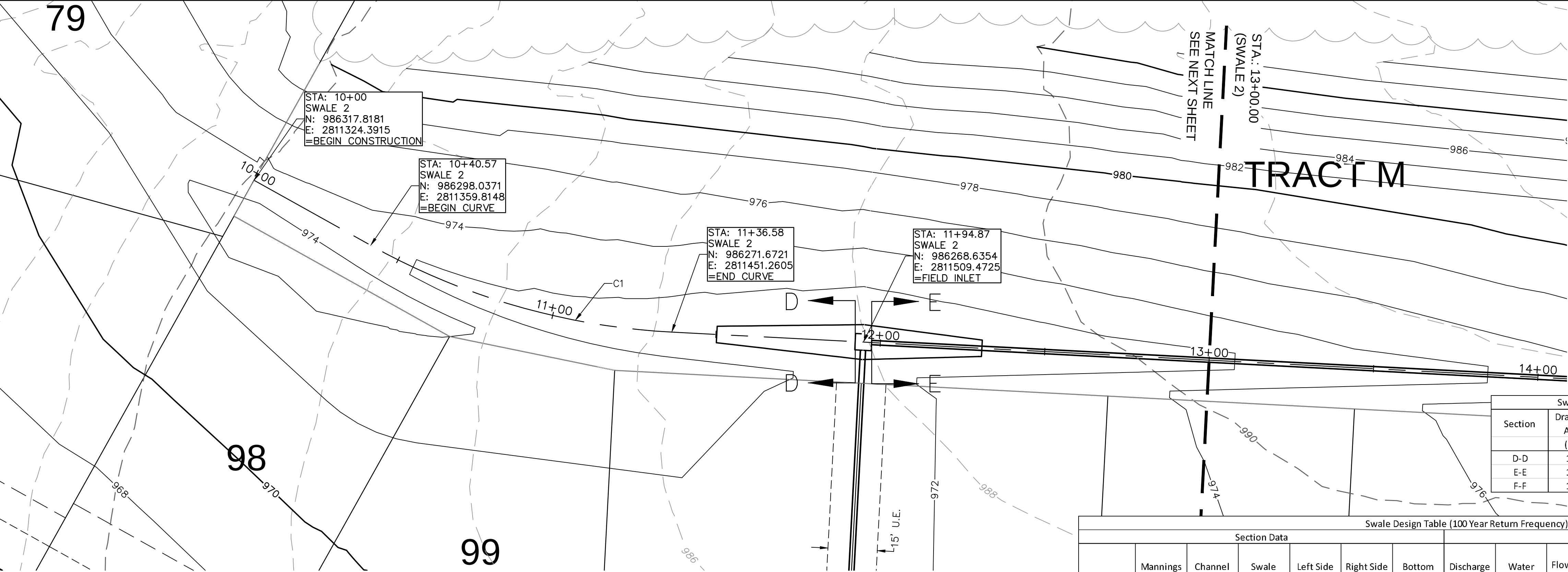
HOOK FARMS
SECOND PLAT

LEE'S SUMMIT. MO.

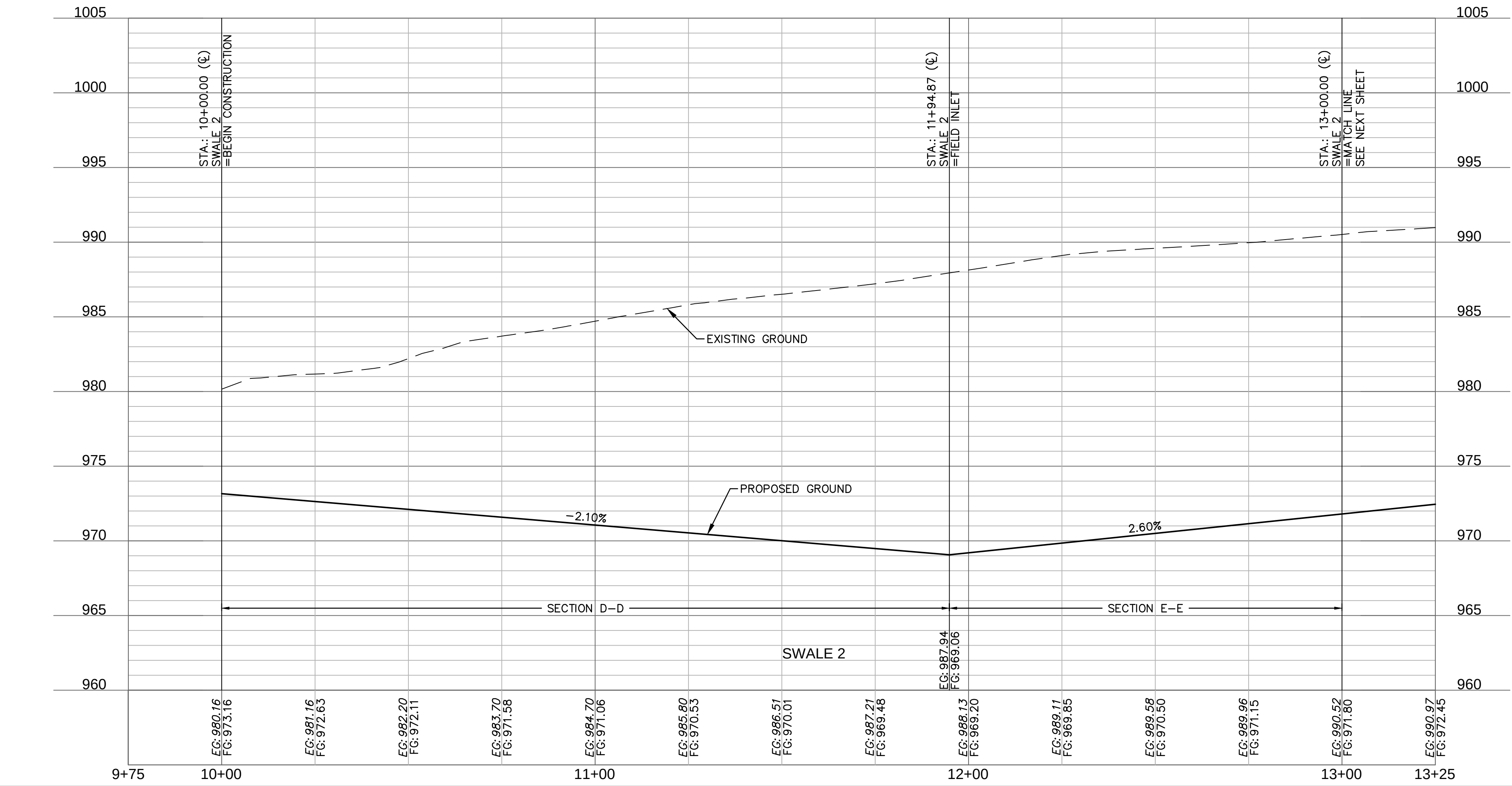
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checked by: B.M.W.
designed by: B.M.W./J.A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

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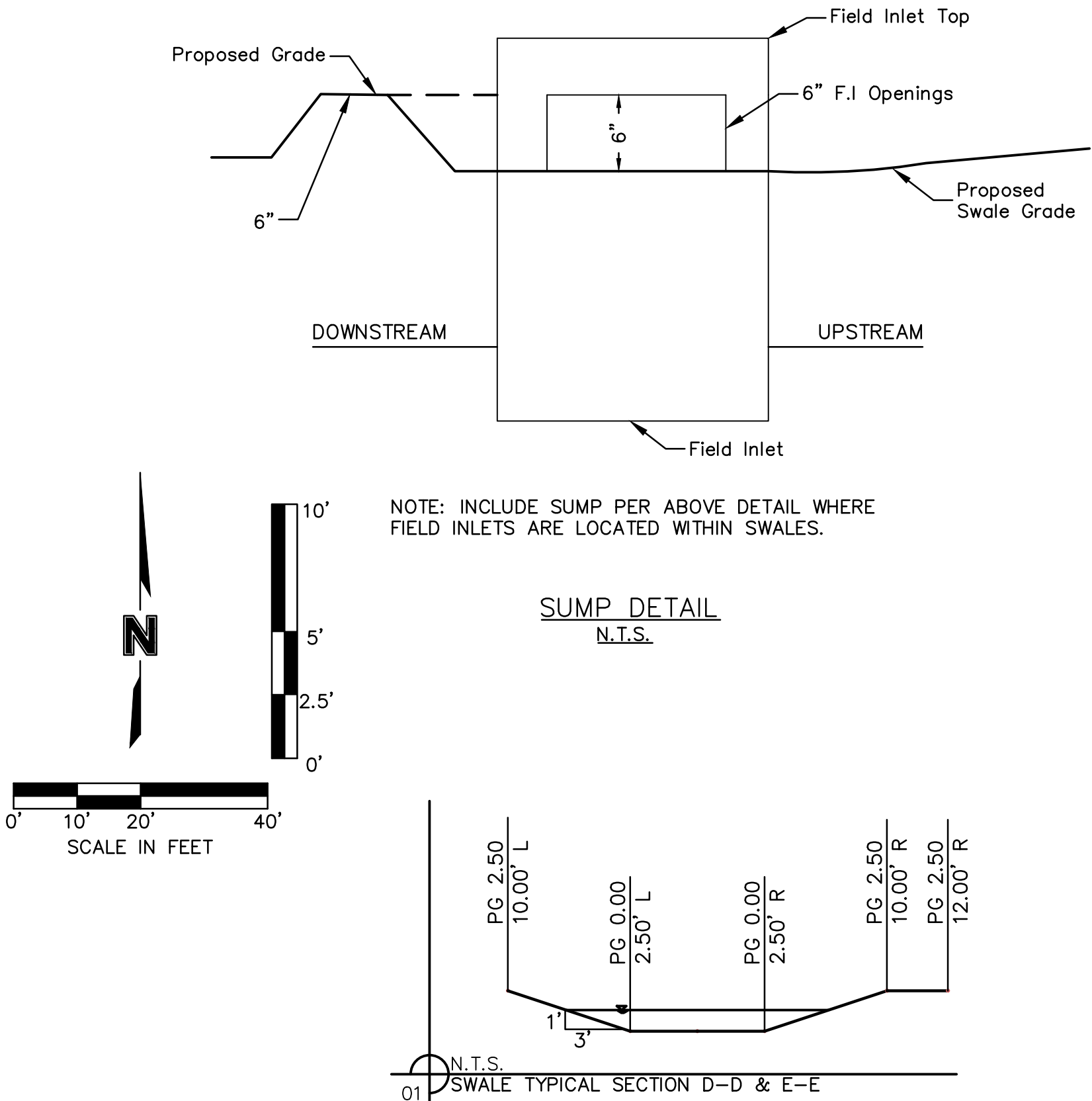


ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C1	10+40.57 11+36.58	N: 986298.04 E: 2811359.81	N: 986271.67 E: 2811451.26	210.00	96.00	026°11'37"	S73°55'01"E	95.17



Swale Design Table (100 Year Return Frequency)															
Section Data							Flow Data								
SECTION	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft²)	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft²)	
D-D	0.03	2.10%	2.50	3:1	3:1	5.00	5.37	0.31	1.84	2.92	6.96	6.86	0.44	0.35	
E-E	0.03	2.60%	2.50	3:1	3:1	5.00	6.88	0.34	2.05	3.36	7.15	7.04	0.52	0.46	
F-F	0.03	2.60%	2.50	3:1	3:1	5.00	6.78	0.34	2.05	3.31	7.15	7.04	0.52	0.46	

Swale Drainage Area Table (100 year Return Frequency)						
Section	Drainage Area (ac.)	C	Tc (min)	i (in/hr)	K	Peak Flow (cfs)
D-D	1.02	0.51	5	8.27	1.25	5.37
E-E	1.30	0.51	5	4.60	2.25	6.88
F-F	1.29	0.51	5	3.18	3.25	6.78



SWALE GRADING NOTES:

1. CONTRACTOR SHALL CONSTRUCT SWALES WITH MINIMUM SLOPE, WIDTH AND DEPTH AS SHOWN IN THE SWALE DESIGN TABLES.

2. AS-BUILT SURVEY IS REQUIRED/APPROVED BY CITY FOR ALL SWALES AND PRIOR TO APPROVAL FOR ANY BUILDING FOUNDATION PERMIT. CONTRACTOR SHALL BE REQUIRED TO REGRADE SWALES AT CONTRACTOR'S EXPENSE IF ABOVE REQUIREMENTS ARE NOT MET.

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
1/22/21
PROFESSIONAL ENGINEER

BY

REVISIONS DESCRIPTION

DATE

REV. NO.

2021

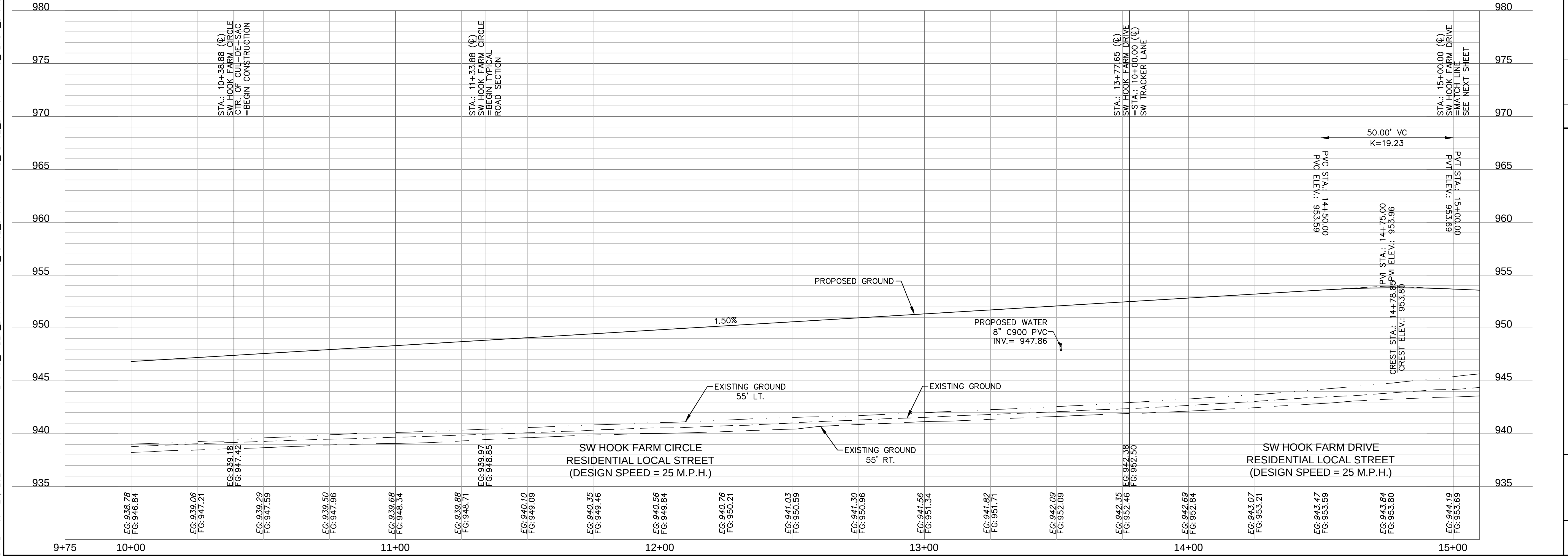
SWALE 2 PLAN & PROFILE
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAN

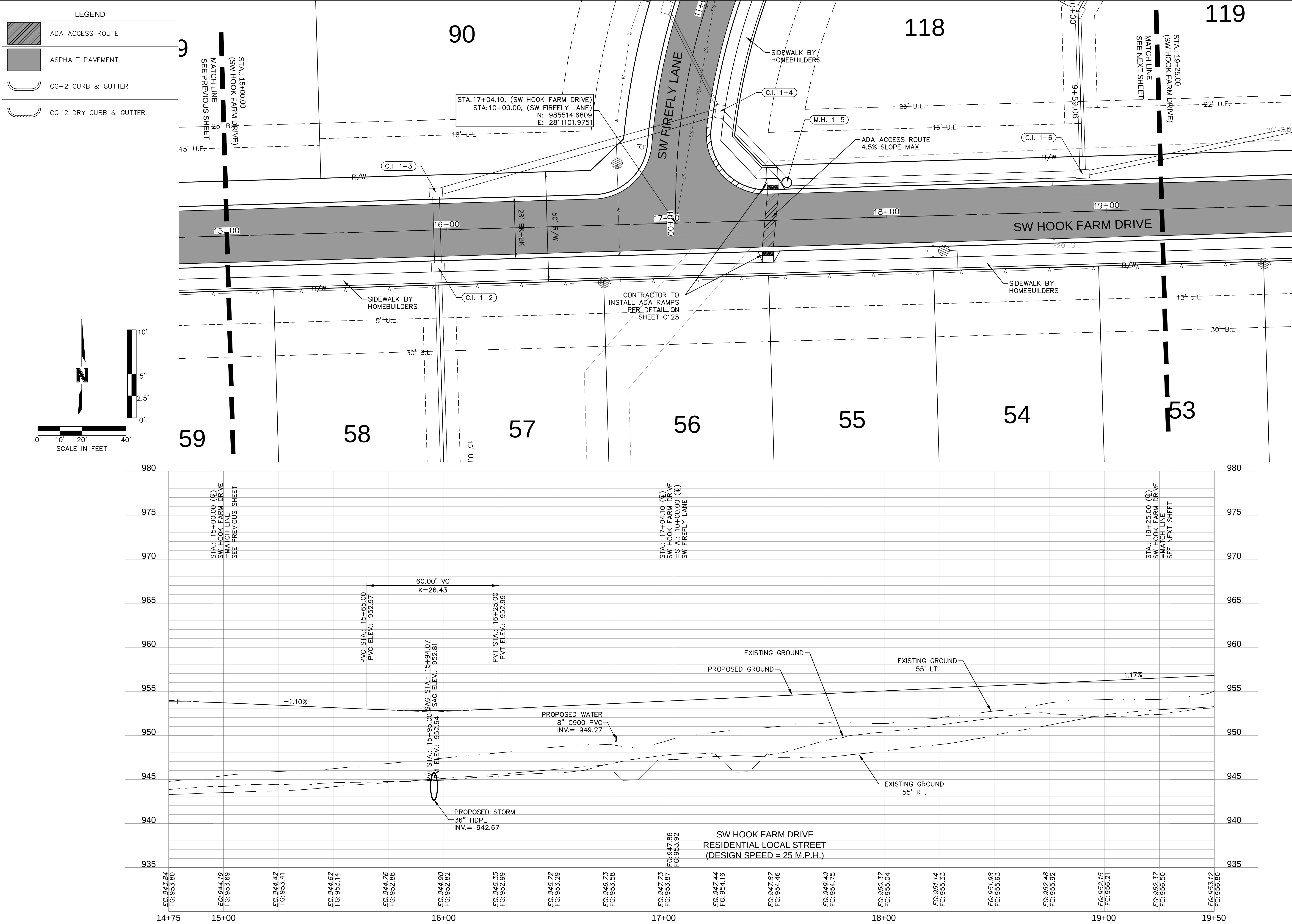
LEE'S SUMMIT, MO

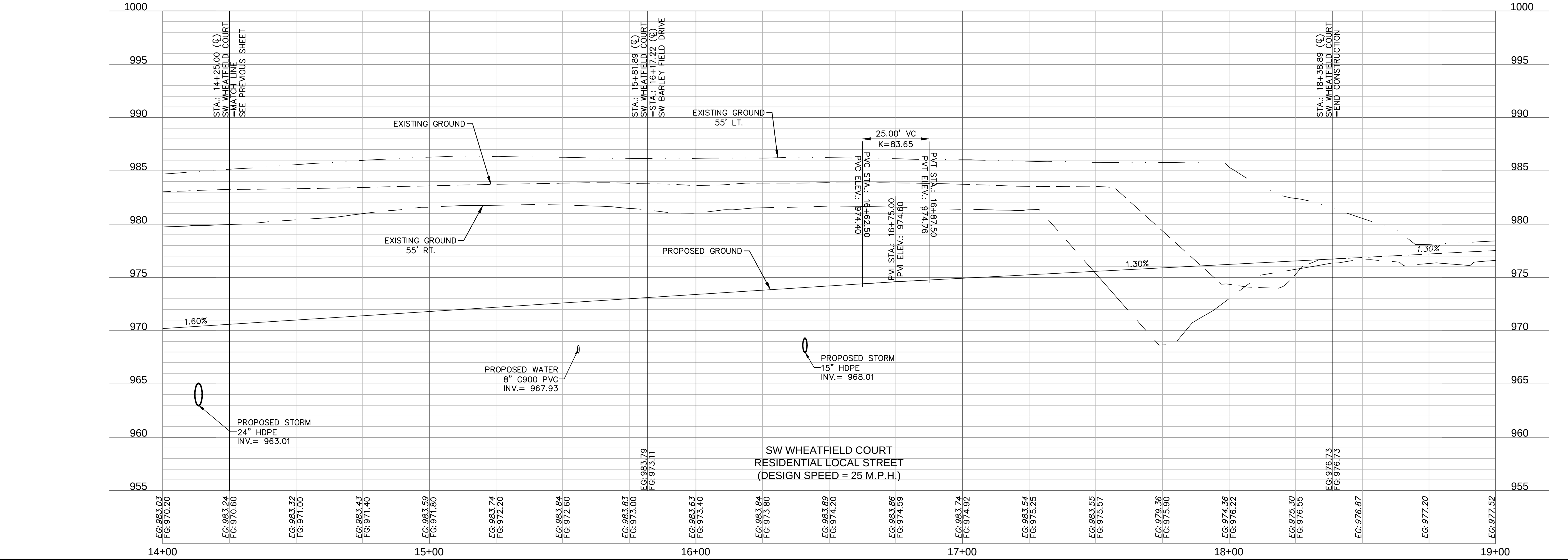
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designed by: B.M.W./J.A.A.
QA/QC by: J.E.S.
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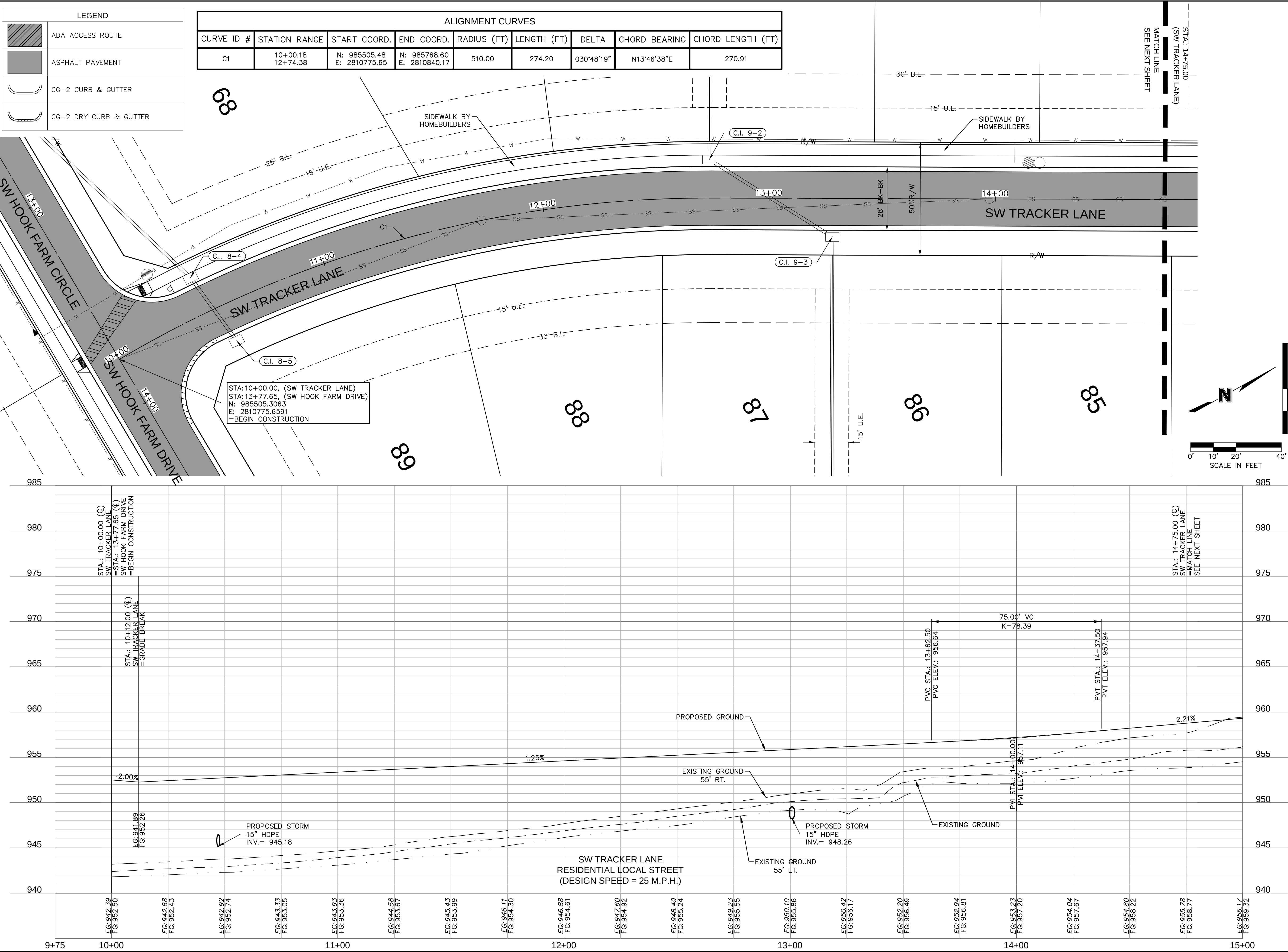
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USER: cabbidgleyv C_PUTL_B194061





drawn by: _____ B.M.W./J.A. checked by: _____ B.M.W. designed by: _____ B.M.W./J.A. QA/QC by: _____ J.E.S. project no.: _____ B19-4061 date: _____ 01-08-2021		ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT) STREET & STORM SEWER PLANS		REV. NO.	DATE	REVISIONS DESIGNED BY
		HOOK FARMS SECOND PLAT				
LEE'S SUMMIT, MO		2021				
SHEET C114						

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USER: cdbdgalivay



ROADWAY PLAN & PROFILE (SW TRACKER LANE)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.
project no.: B19-4061
date: 01-08-2021

2021

REV. NO.

DATE

REVISIONS DESCRIPTION

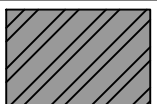
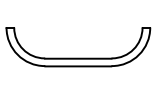
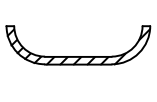
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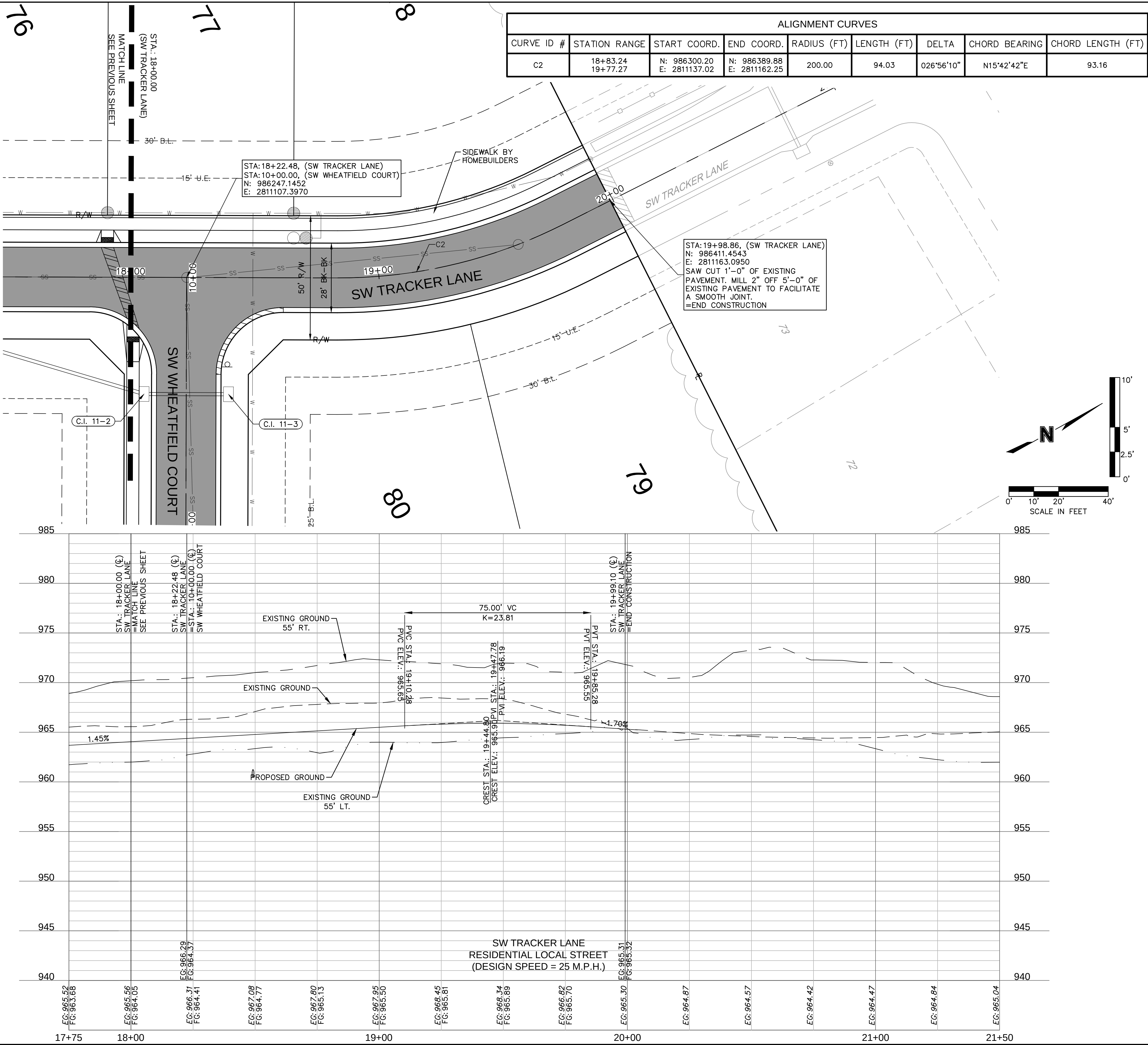
REVISIONS

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1301 Burlington Street
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TEL 816.361.1177
FAX 816.361.1888
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
1/22/21
PROFESSIONAL ENGINEER

LEGEND	
	ADA ACCESS ROUTE
	MILL & OVERLAY
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



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1/22/21

ROADWAY PLAN & PROFILE (SW TRACKER LANE)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

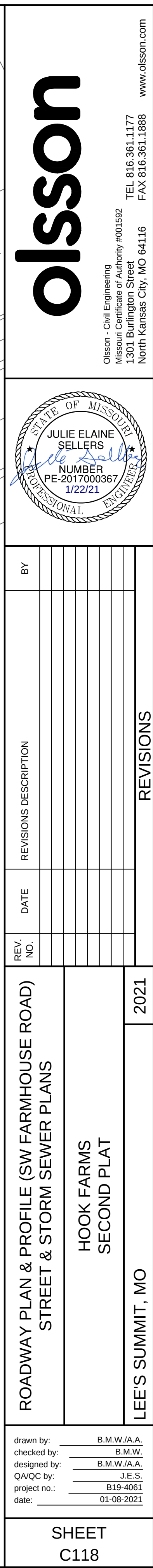
LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.
checked by: B.M.W./
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

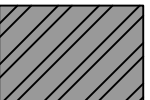
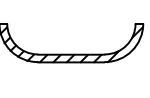
REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

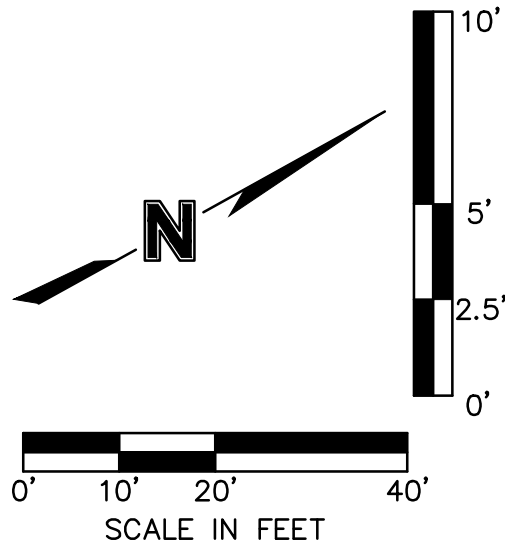
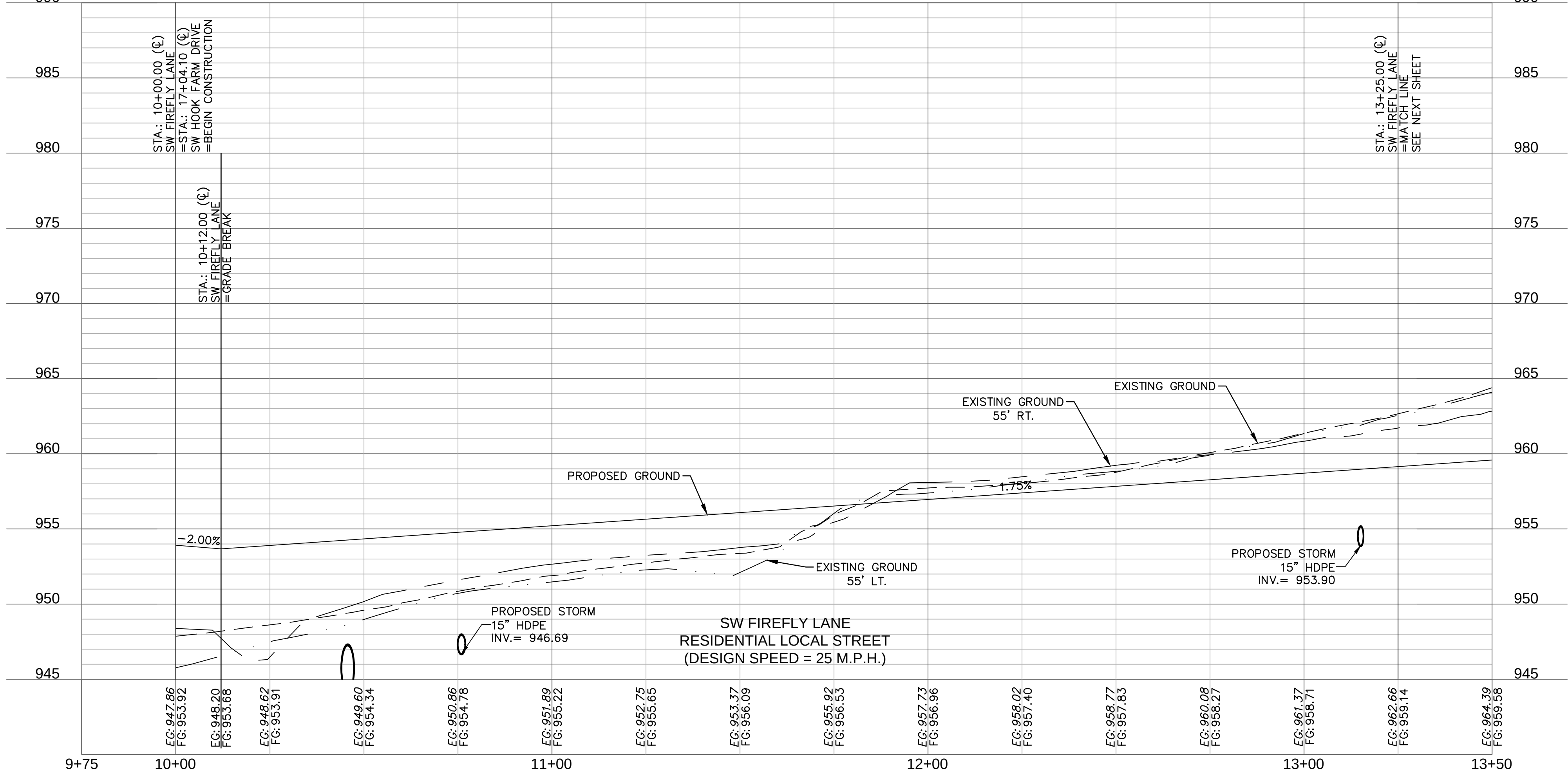
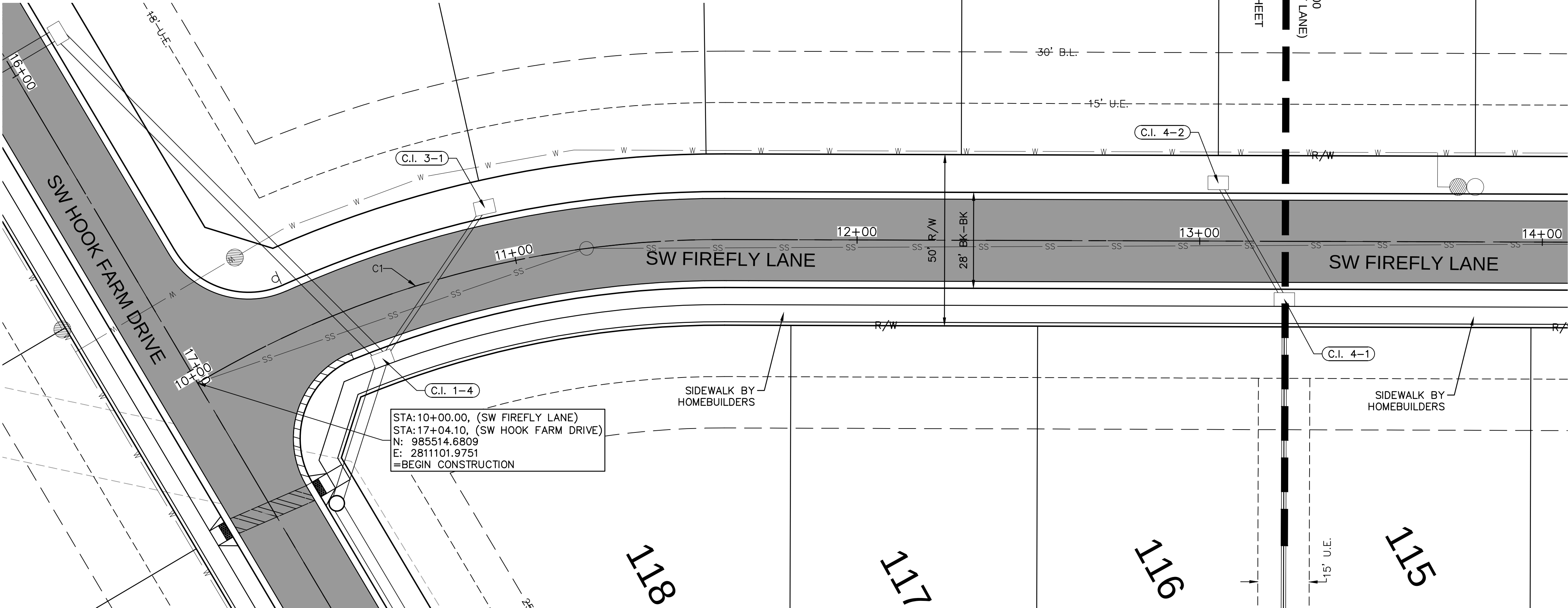
SHEET
C117



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LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD. N: 985553.66 E: 2811103.39	END COORD. N: 985669.56 E: 2811139.92	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C1	10+39.03 11+61.40			300.00	122.37	023°22'17"	N17°29'39"E	121.53



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STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
1/22/21
PROFESSIONAL ENGINEER

BY	
REVISIONS DESCRIPTION	
DATE	
REV. NO.	

ROADWAY PLAN & PROFILE (SW FIREFLY LANE)
STREET & STORM SEWER PLANS

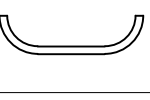
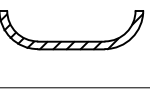
HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

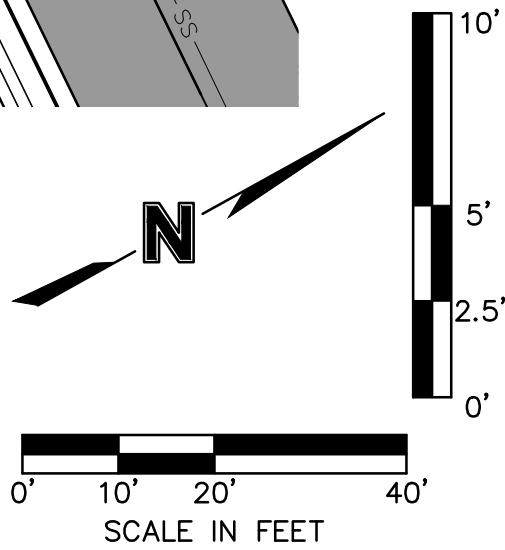
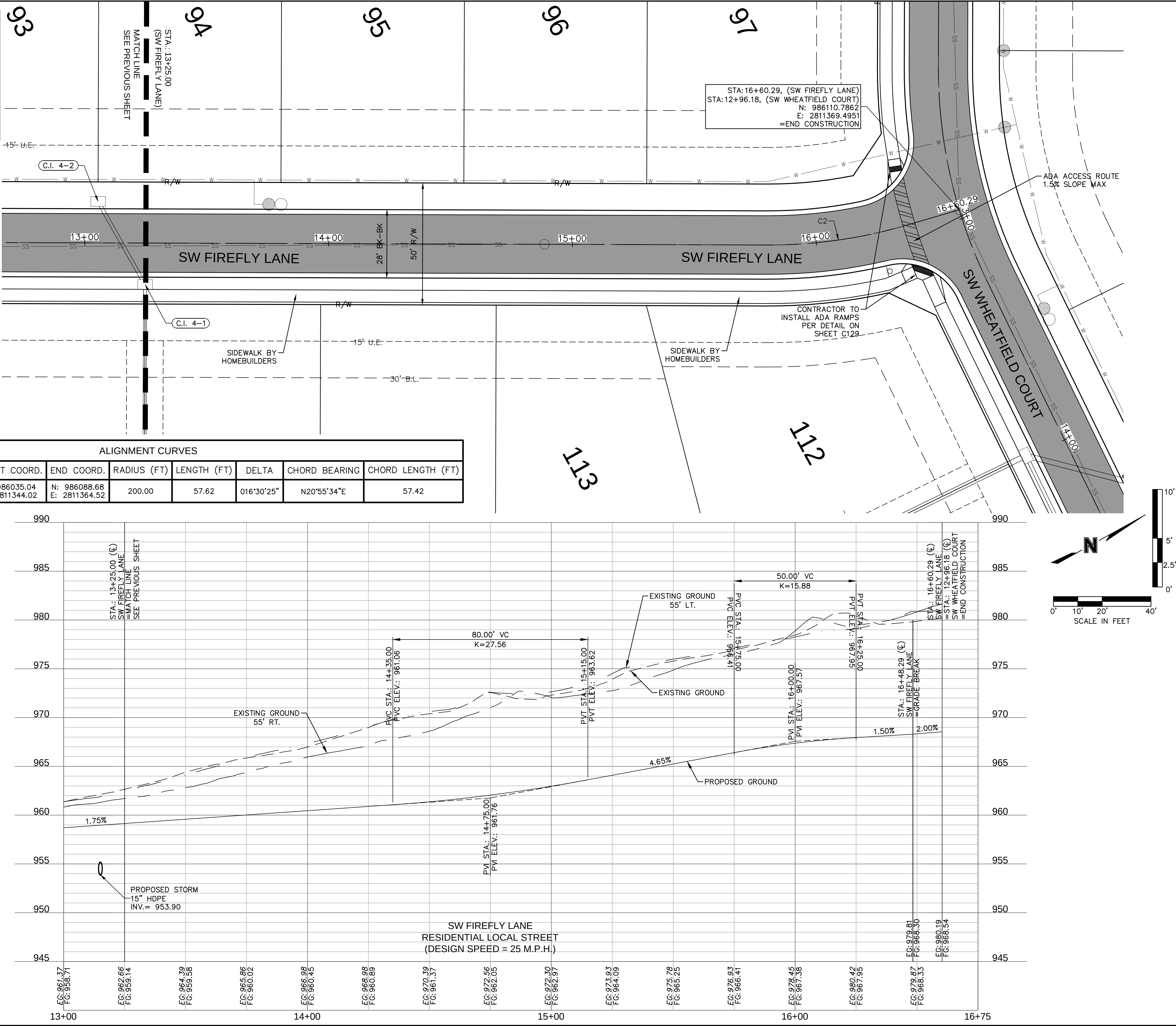
drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

SHEET
C119

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USER: aabidgalyev

LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C2	15+80.01 16+37.63	N: 986035.04 E: 2811344.02	N: 986088.68 E: 2811364.52	200.00	57.62	016°30'25"	N20°55'34"E	57.42



ROADWAY PLAN & PROFILE (SW FIREFLY LANE)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

drawn by: B.M.W./A.A.

checked by: B.M.W.

designed by: B.M.W./A.A.

QA/QC by: J.E.S.

project no.: B19-4061

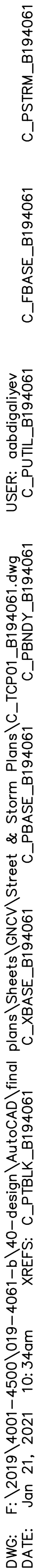
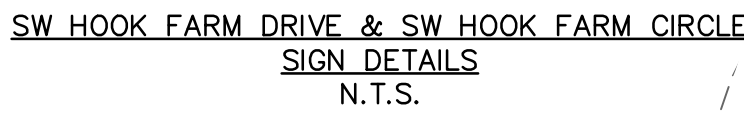
date: 01-08-2021

SHEET
C120

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STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
1/22/21
PROFESSIONAL ENGINEER



TRACT M

HOOK FARMS
1ST PLAT

SHEET
C123

LEE'S SUMMIT, MO

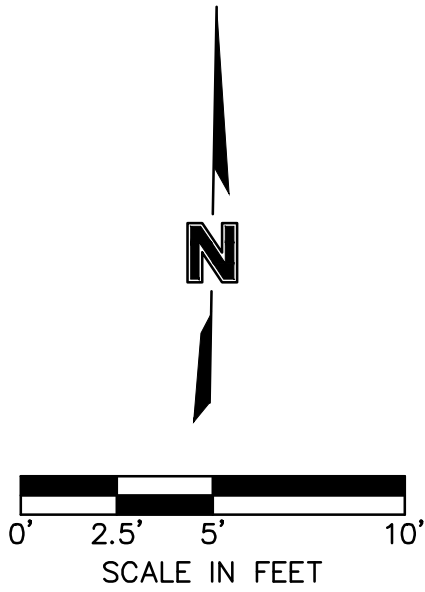
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USER: aabdgaliyev	C_PUTIL_B194061	C_FBASE_B194061	C_PSTRM_B194061	C_PSURF_B194061	C_PPATT_B194061
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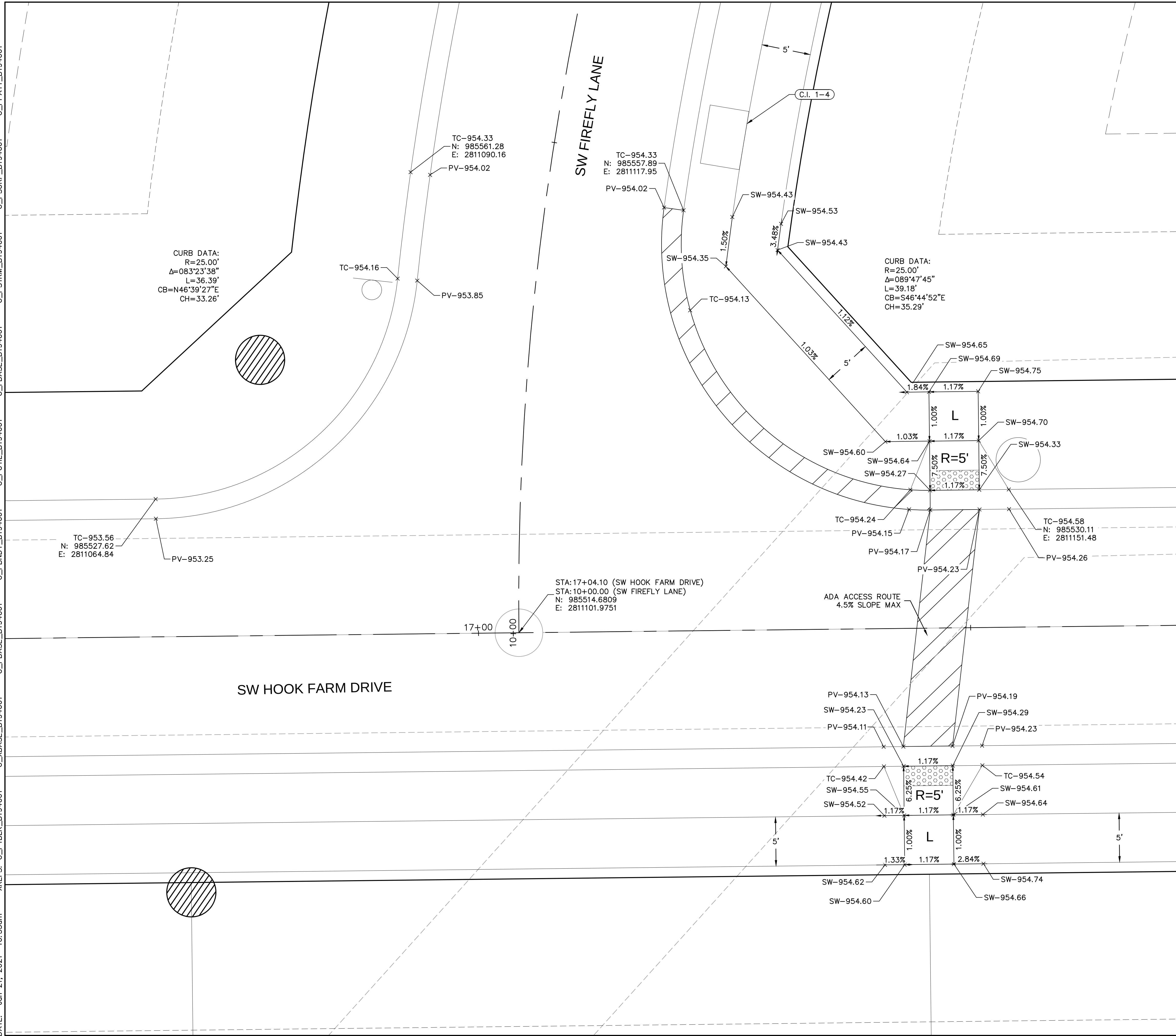


- | LEGEND | |
|---|------------------------|
| TC-- | TOP OF CURB |
| PV-- | TOP OF PAVEMENT |
| SW-- | SIDEWALK |
| L | LANDING AREA |
| R | RAMP AREA |
| T | TRANSITION AREA |
|  | ADA ACCESS ROUTE |
|  | CG-2 CURB & GUTTER |
|  | CG-2 DRY CURB & GUTTER |

LEGEND	
TC--	TOP OF CURB
PV--	TOP OF PAVEMENT
SW--	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

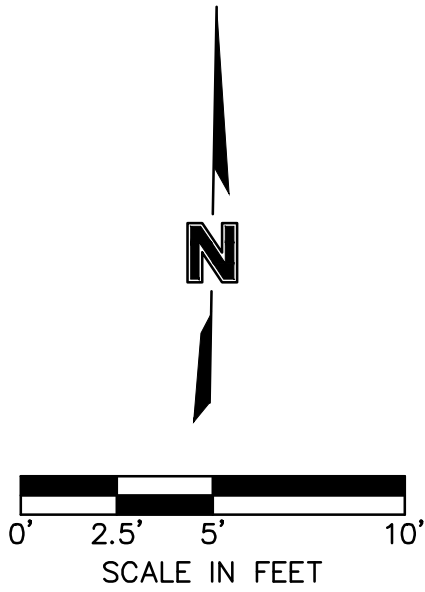
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USER: abbdigaliyev
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C_PSURF_B194061
C_PPATT_B194061



- INTERSECTION AND ADA DETAIL NOTES:
1. ALL ADA CURB RAMPS SHALL BE BUILT PER CURRENT MUNICIPALITY ADOPTED ADA STANDARDS.
2. CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10 MAX SLOPES.
3. LANDING SHALL BE PROVIDED WHERE INDICATED ON PLAN SHEET OR BY PROWAG STANDARDS. LANDING SHALL BE 4'x4' MINIMUM.
4. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
5. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
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9. CURVE DATA IS FOR BACK OF CURB.

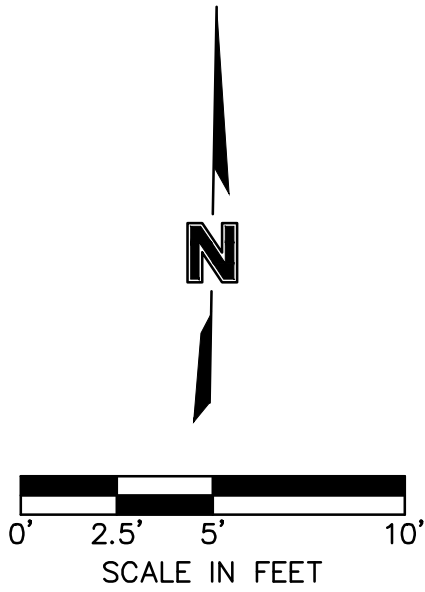
LEGEND	
TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

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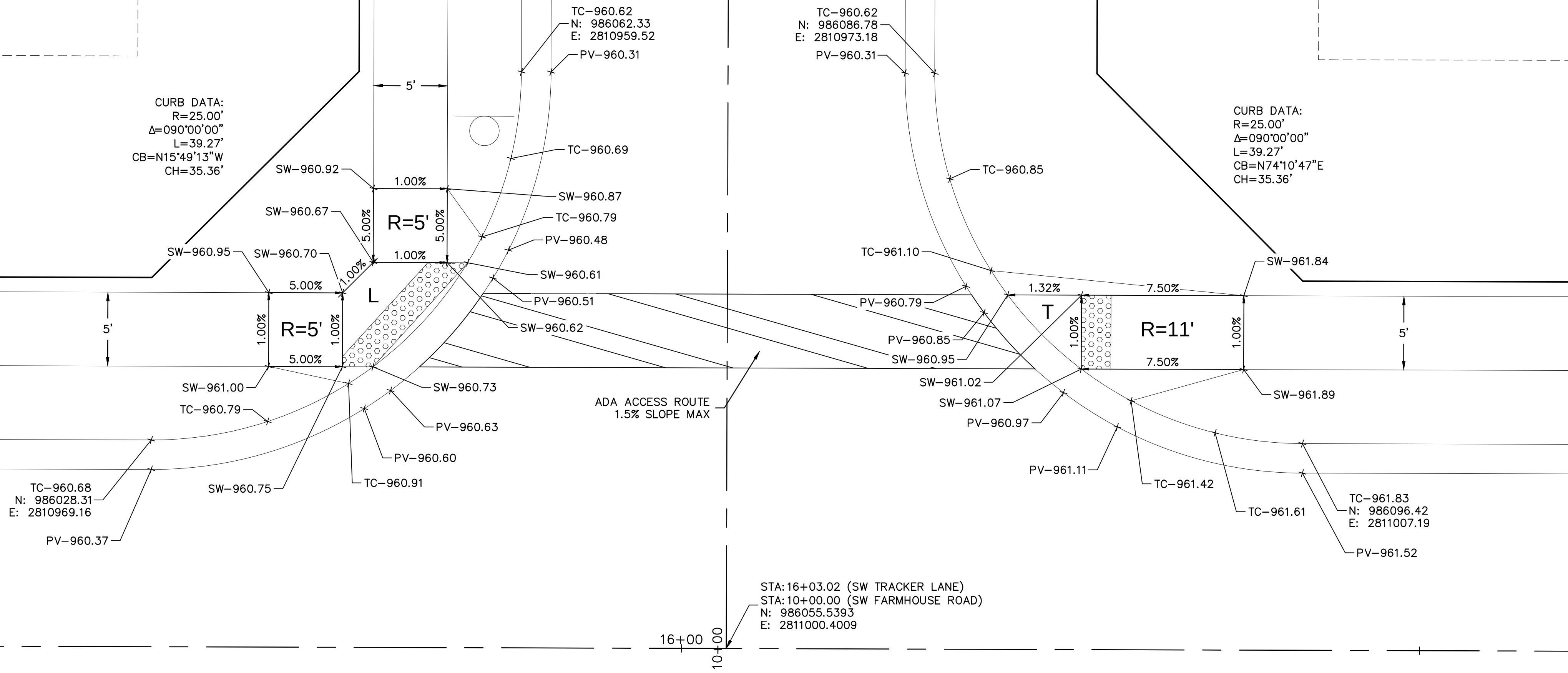
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LEGEND	
TC--	TOP OF CURB
PV--	TOP OF PAVEMENT
SW--	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

[illegible]

USER:	cabdgaliev			
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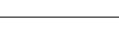


SW FARMHOUSE ROAD

SW TRACKER LANE

STA:16+03.02 (SW TRACKER LANE)
STA:10+00.00 (SW FARMHOUSE ROAD)
N: 986055.5393
E: 2811000.4009

- INTERSECTION AND ADA DETAIL NOTES:
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T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



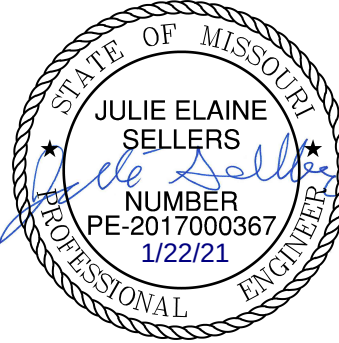
SW FARMHOUSE ROAD & SW TRACKER LANE STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

SHEET
C127

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

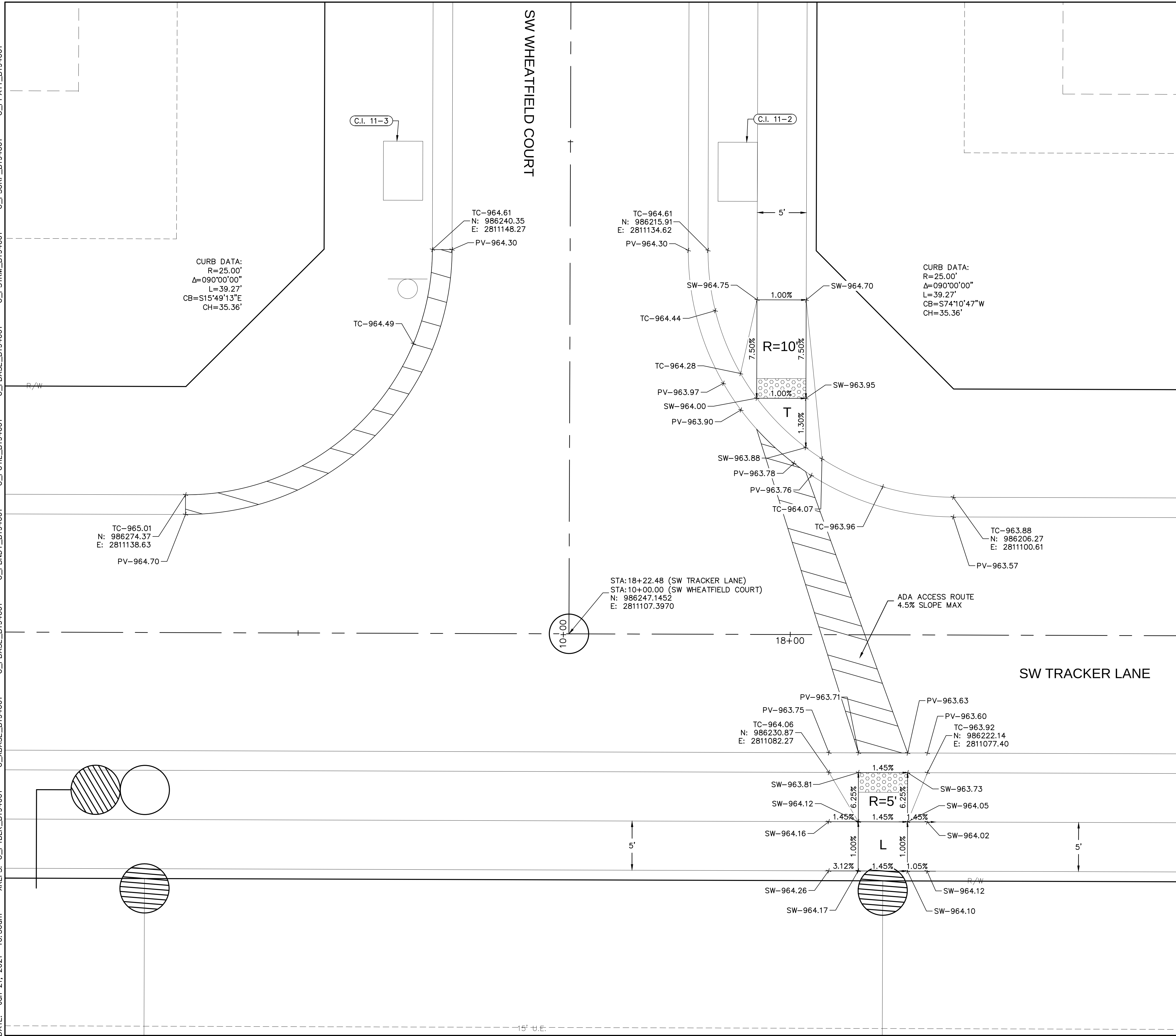


			REVISIONS	

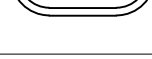
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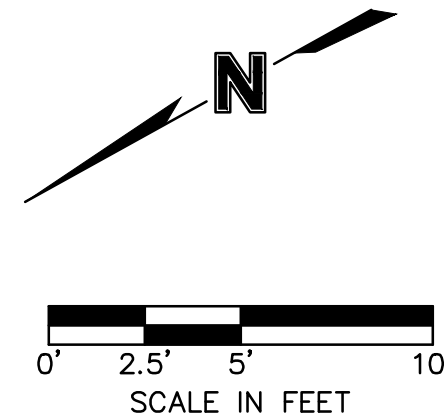
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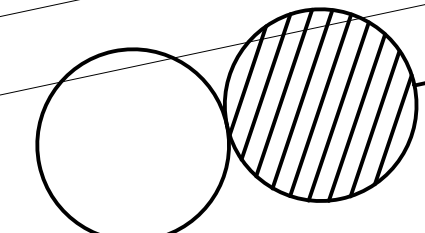
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LEGEND	
TC--	TOP OF CURB
PV--	TOP OF PAVEMENT
SW--	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



SW WHEATFIELD COURT & SW TRACKER LANE STREET & STORM SEWER PLANS		REV.	DATE	REVISED DESCRIPTION	BY
HOOK FARMS SECOND PLAT					
LEE'S SUMMIT, MO					
2021		REVISIONS			
drawn by: _____ B.M.W./A.A.					
checked by: _____ B.M.W.					
designed by: _____ B.M.W./A.A.					
QA/QC by: _____ J.E.S.					
project no.: _____ B19-4061					
date: _____ 01-08-2021					
SHEET C128					

C_PPATT_B194061



CURB DATA:
R=25.00'
 $\Delta=077^{\circ}12'56''$
L=33.69'
CB=S54°22'43"W
CH=31.20'

SW WHEATFIELD COURT

SW FIREFLY LANE

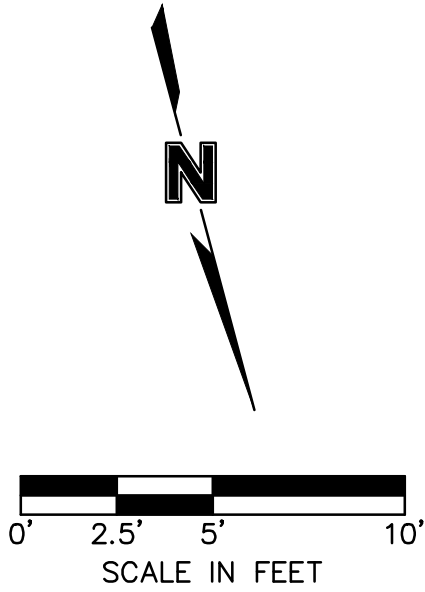
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N: 986076.86
E: 2811346.86

CURB DATA:
R=25.00'
 $\Delta=085^{\circ}38'08''$
L=37.37'
CB=N25°23'45"W
CH=33.98'

TC-968.08
N: 986107.56
E: 2811332.29
PV-967.76

- INTERSECTION AND ADA DETAIL NOTES:
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8. ADA RAMP CONSTRUCTION WILL BE INSPECTED THOROUGHLY BY THE CITY INSPECTOR. CONTRACTOR SHALL BE REQUIRED TO RECONSTRUCT RAMPS, CURBS AND/OR PAVEMENT AT CONTRACTOR'S EXPENSE IF ADA RAMPS AND LANDINGS CANNOT MEET THE ADA REQUIREMENTS, PER APPROVED PLAN OR APPROVED ALTERNATIVE.
9. CURVE DATA IS FOR BACK OF CURB.

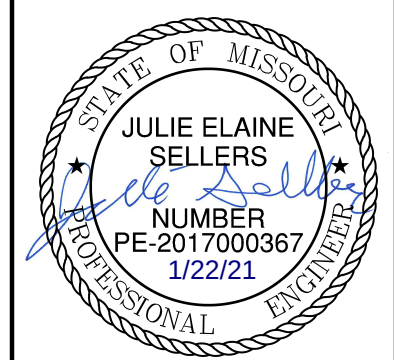
LEGEND	
TC--	TOP OF CURB
PV--	TOP OF PAVEMENT
SW--	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

SHEET
C129



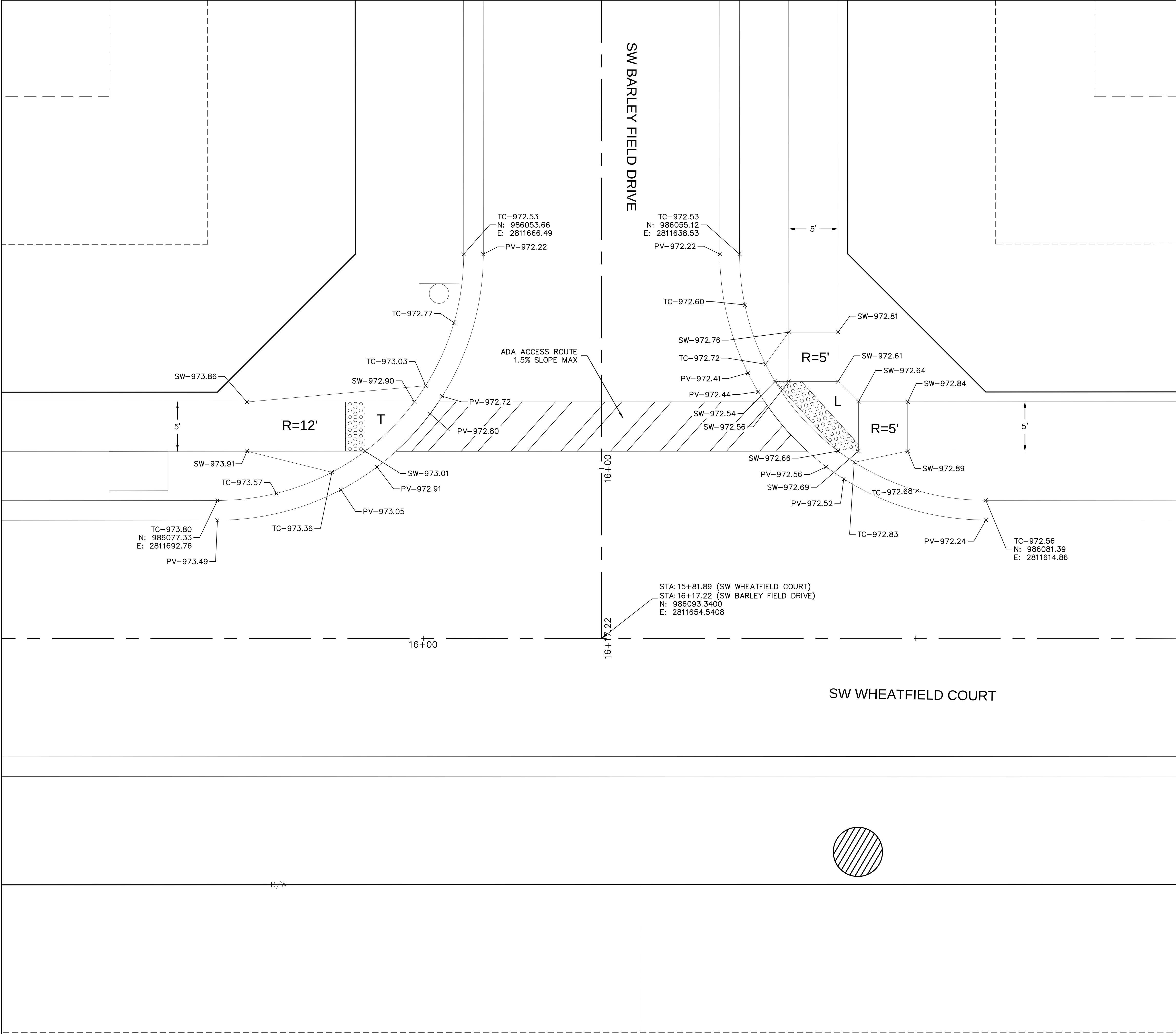
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USER: aabdigaljev



- INTERSECTION AND ADA DETAIL NOTES:
1. ALL ADA CURB RAMP SHALL BE BUILT PER CURRENT MUNICIPALITY ADOPTED ADA STANDARDS.
 2. CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10 MAX SLOPES.
 3. LANDING SHALL BE PROVIDED WHERE INDICATED ON PLAN SHEET OR BY PROWAG STANDARDS. LANDING SHALL BE 4'X4' MINIMUM.
 4. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
 5. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
 6. CROSS SLOPE FOR RAMPS AND SIDEWALK SHALL NOT EXCEED 2%.
 7. AFTER CURBS HAVE BEEN CONSTRUCTED, AND BEFORE ASPHALT OR CONCRETE PAVEMENT IS POURED, CURBS SHOULD BE MEASURED WITH A LEVEL TO ENSURE CURB ALONG ADA RAMPS AND LANDINGS WILL MEET ADA REQUIREMENTS.
 8. ADA RAMP CONSTRUCTION WILL BE INSPECTED THOROUGHLY BY THE CITY INSPECTOR. CONTRACTOR SHALL BE REQUIRED TO RECONSTRUCT RAMPS, CURBS AND/OR PAVEMENT AT CONTRACTOR'S EXPENSE IF ADA RAMPS AND LANDINGS CANNOT MEET THE ADA REQUIREMENTS, PER APPROVED PLAN OR APPROVED ALTERNATIVE.
 9. CURVE DATA IS FOR BACK OF CURB.

LEGEND	
TC--	TOP OF CURB
PV--	TOP OF PAVEMENT
SW--	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

SW BARLEY FIELD DRIVE & SW WHEATFIELD COURT
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

2021

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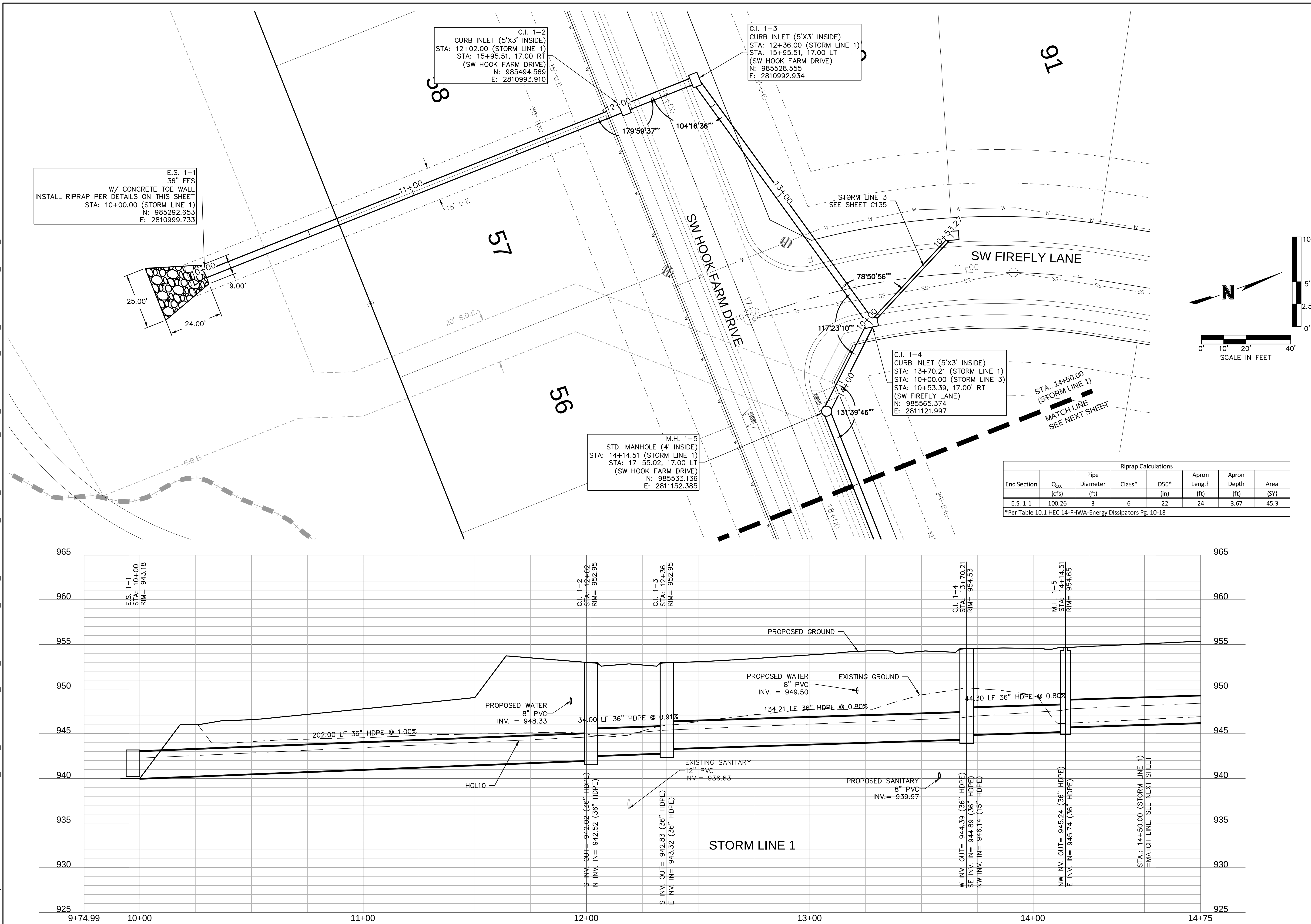
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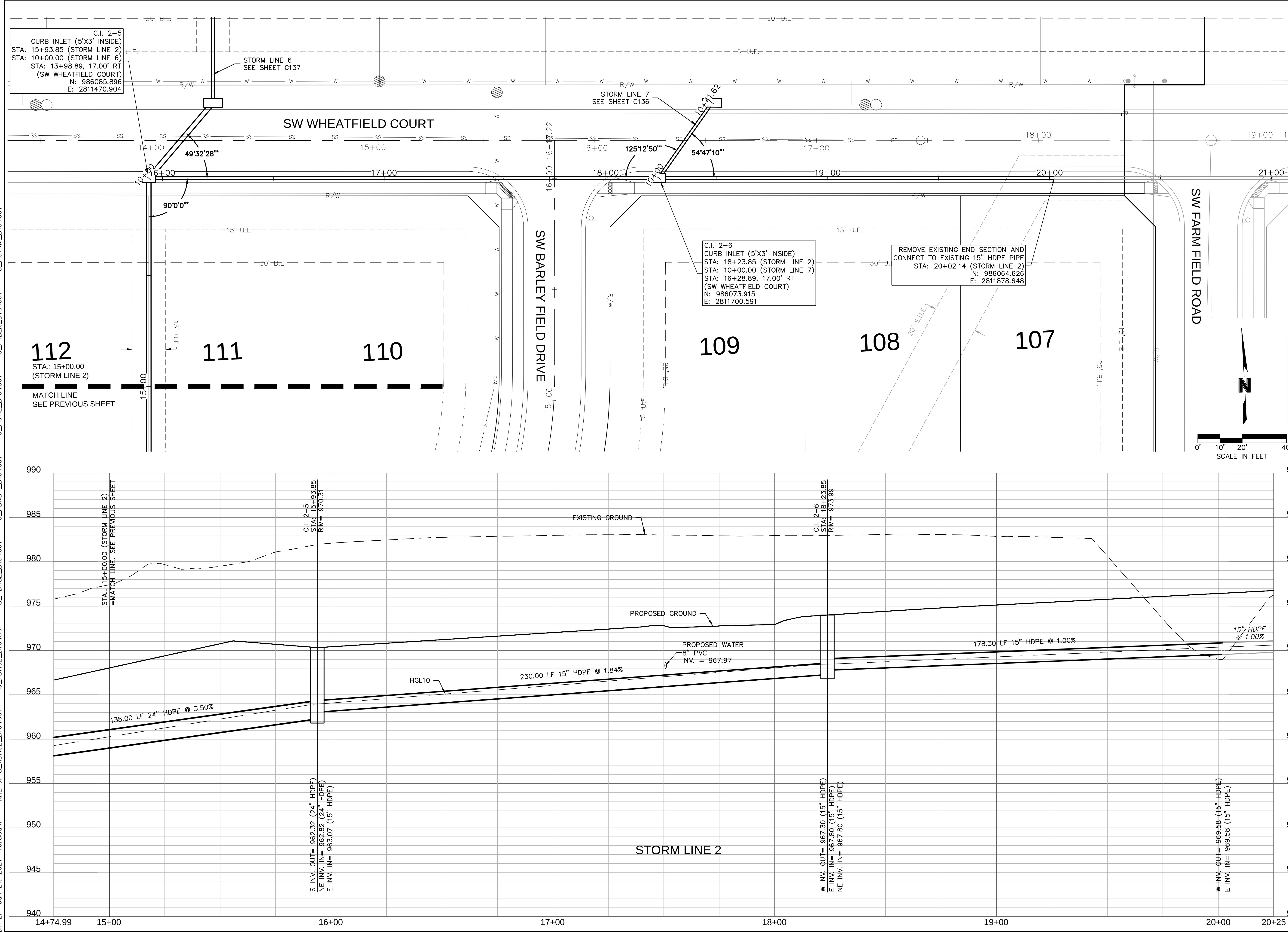
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checked by: B.M.W.
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QA/QC by: J.E.S.
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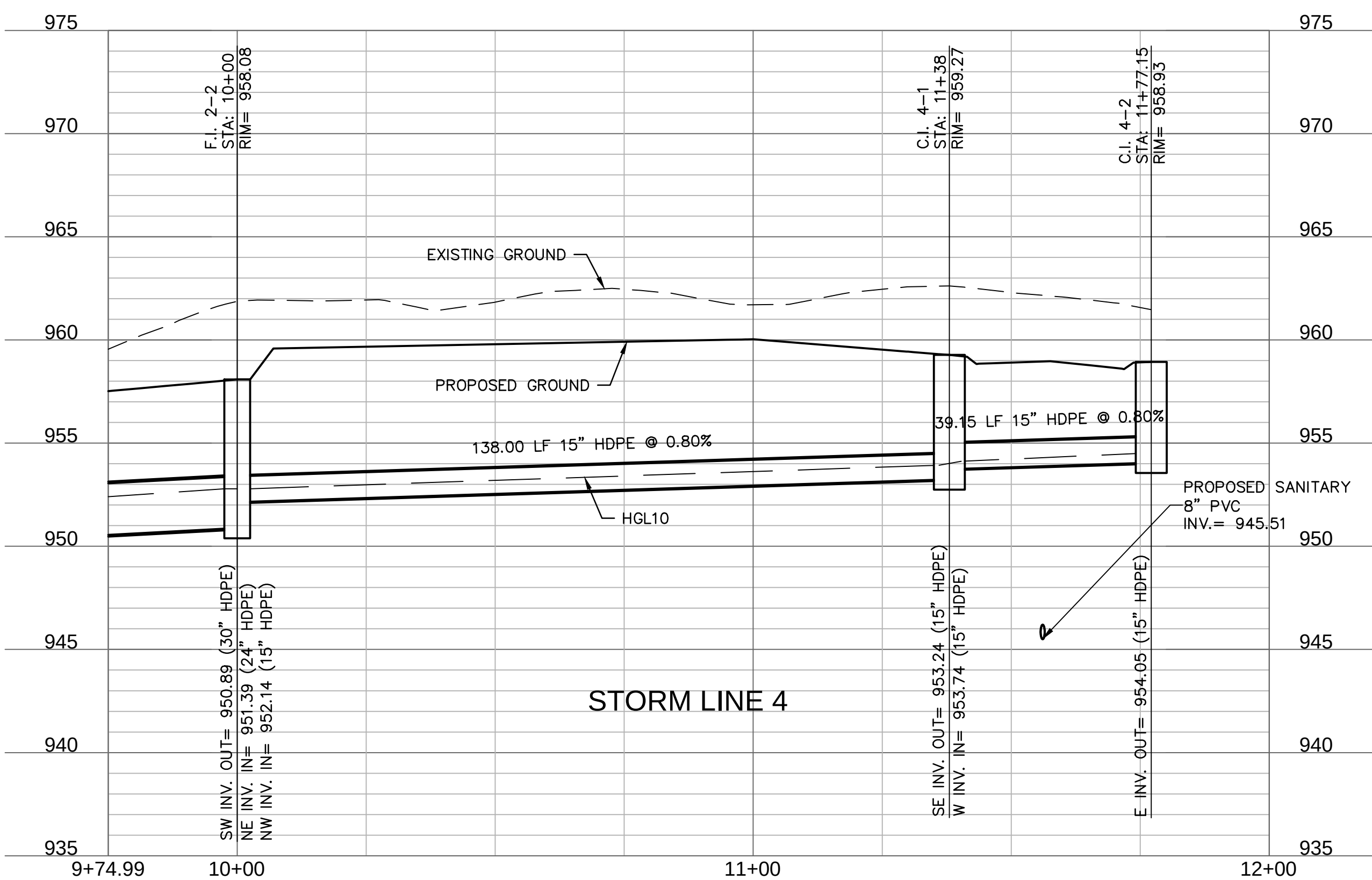
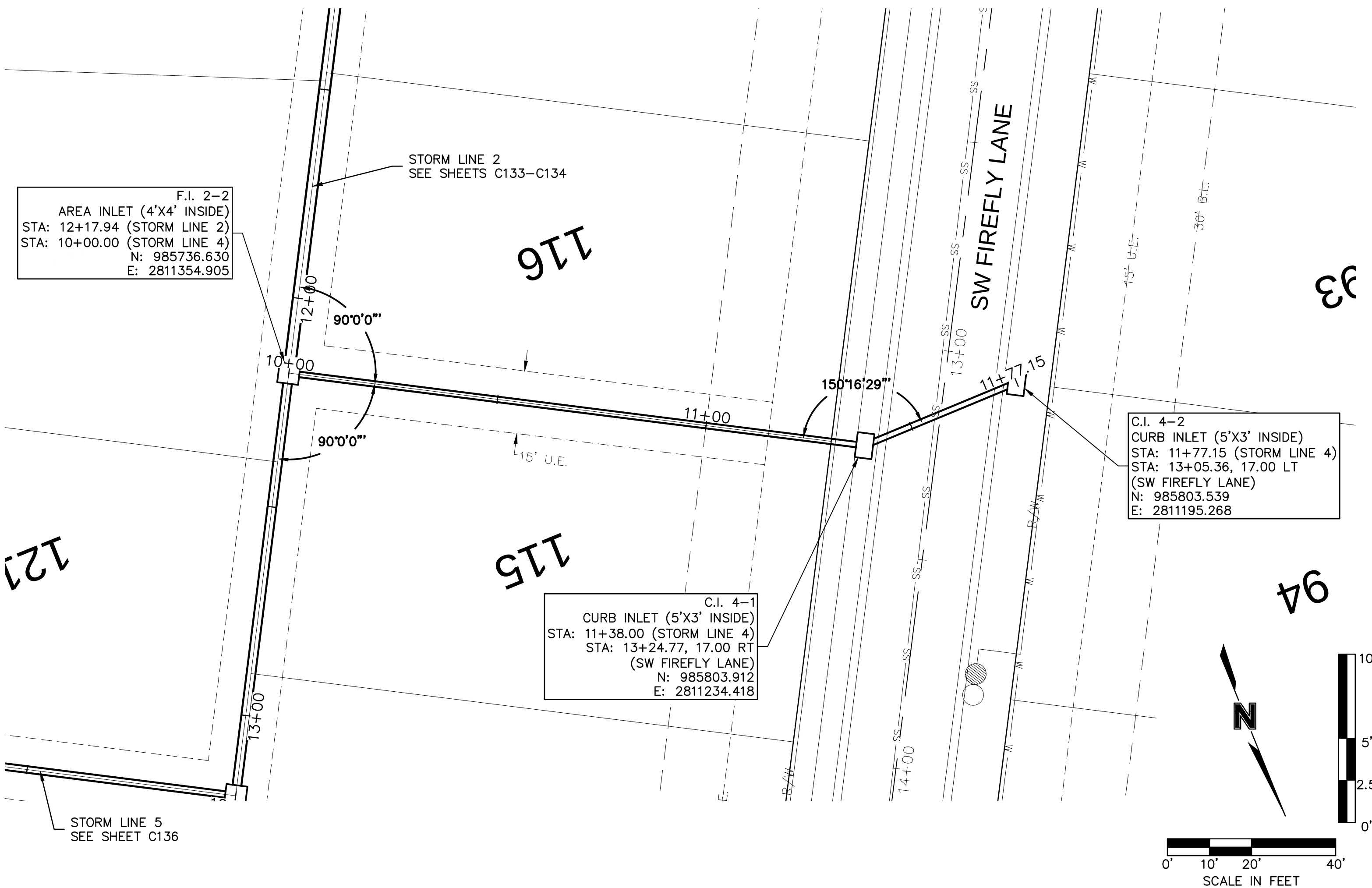
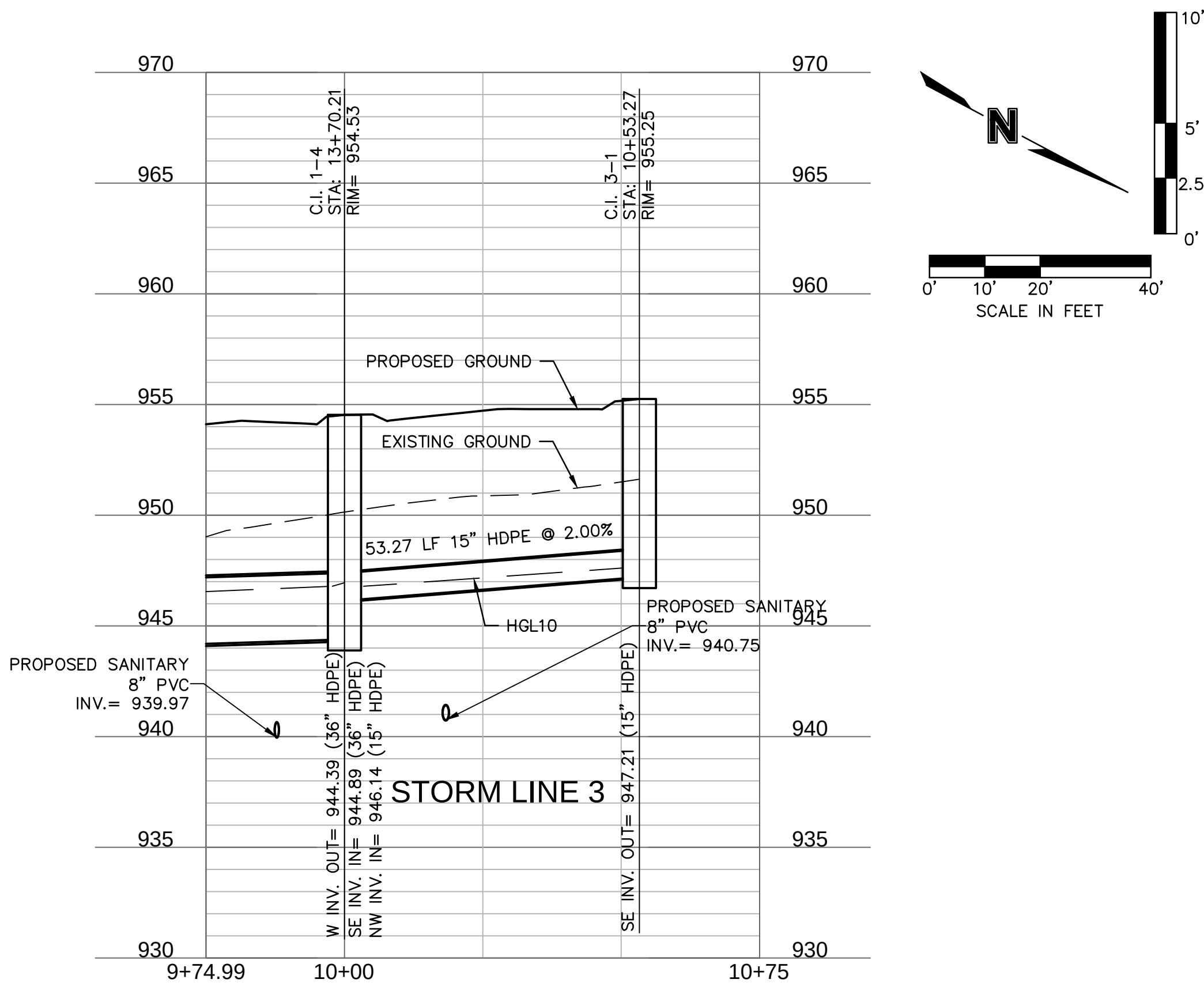
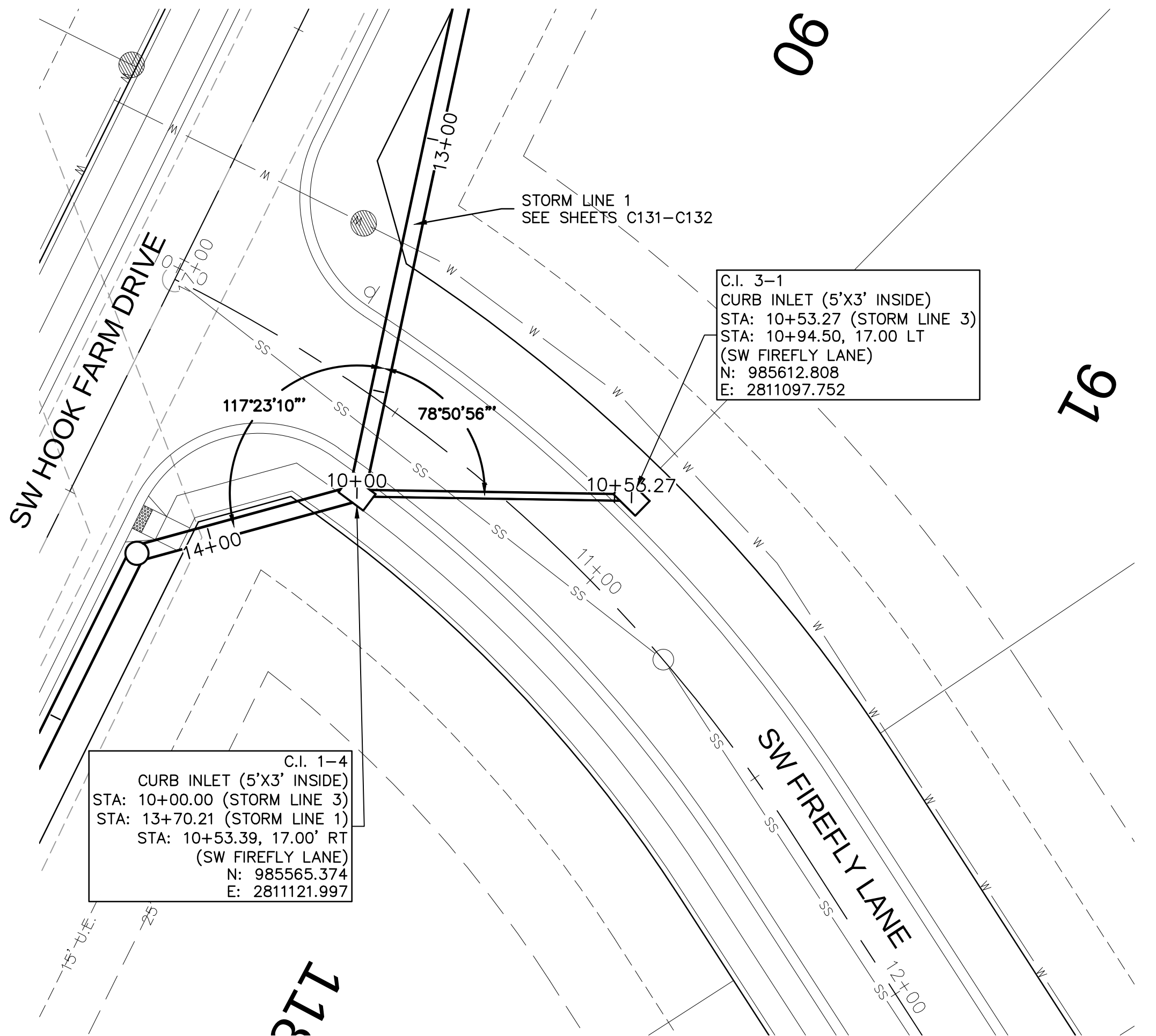
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STORM SEWER PLAN & PROFILE (LINE 1) STREET & STORM SEWER PLANS					
HOOK FARMS SECOND PLAT					
LEE'S SUMMIT, MO					
2021					
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SHEET C131					

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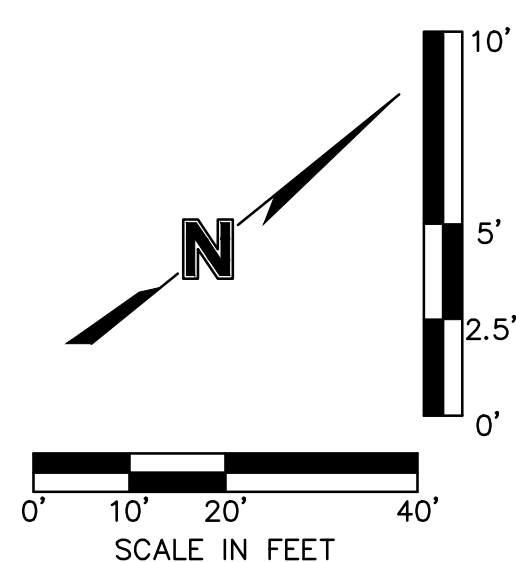
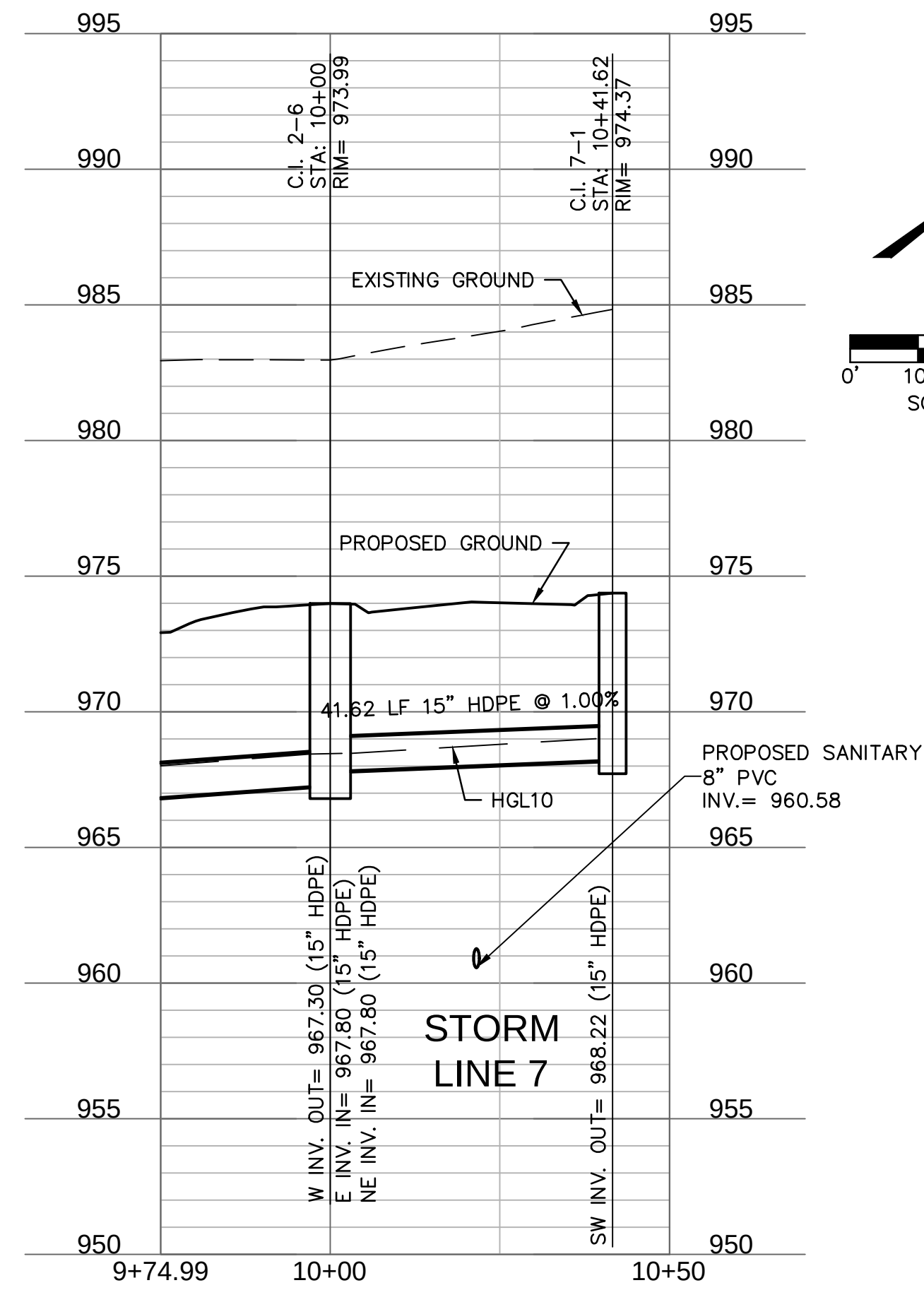
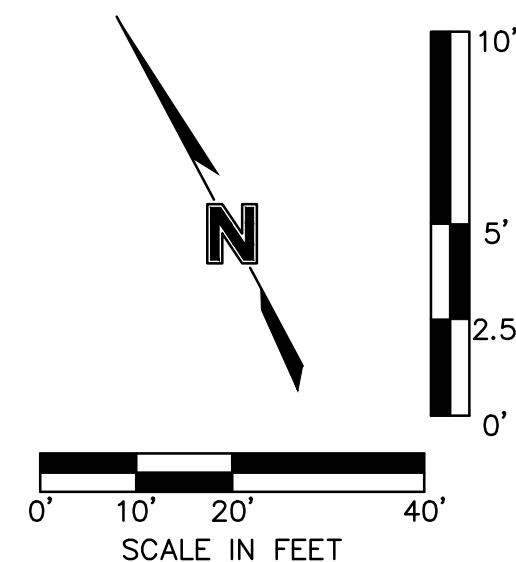
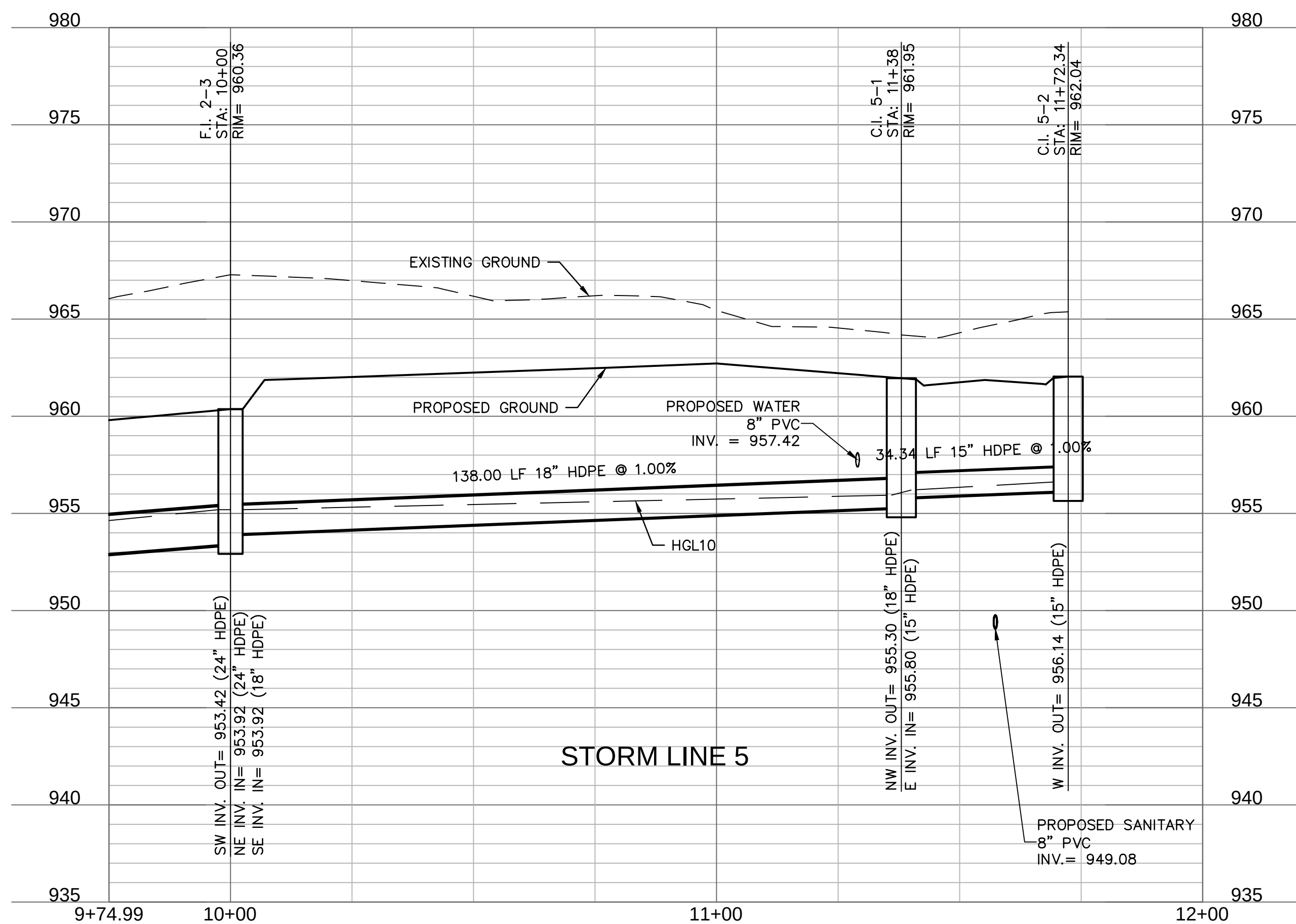
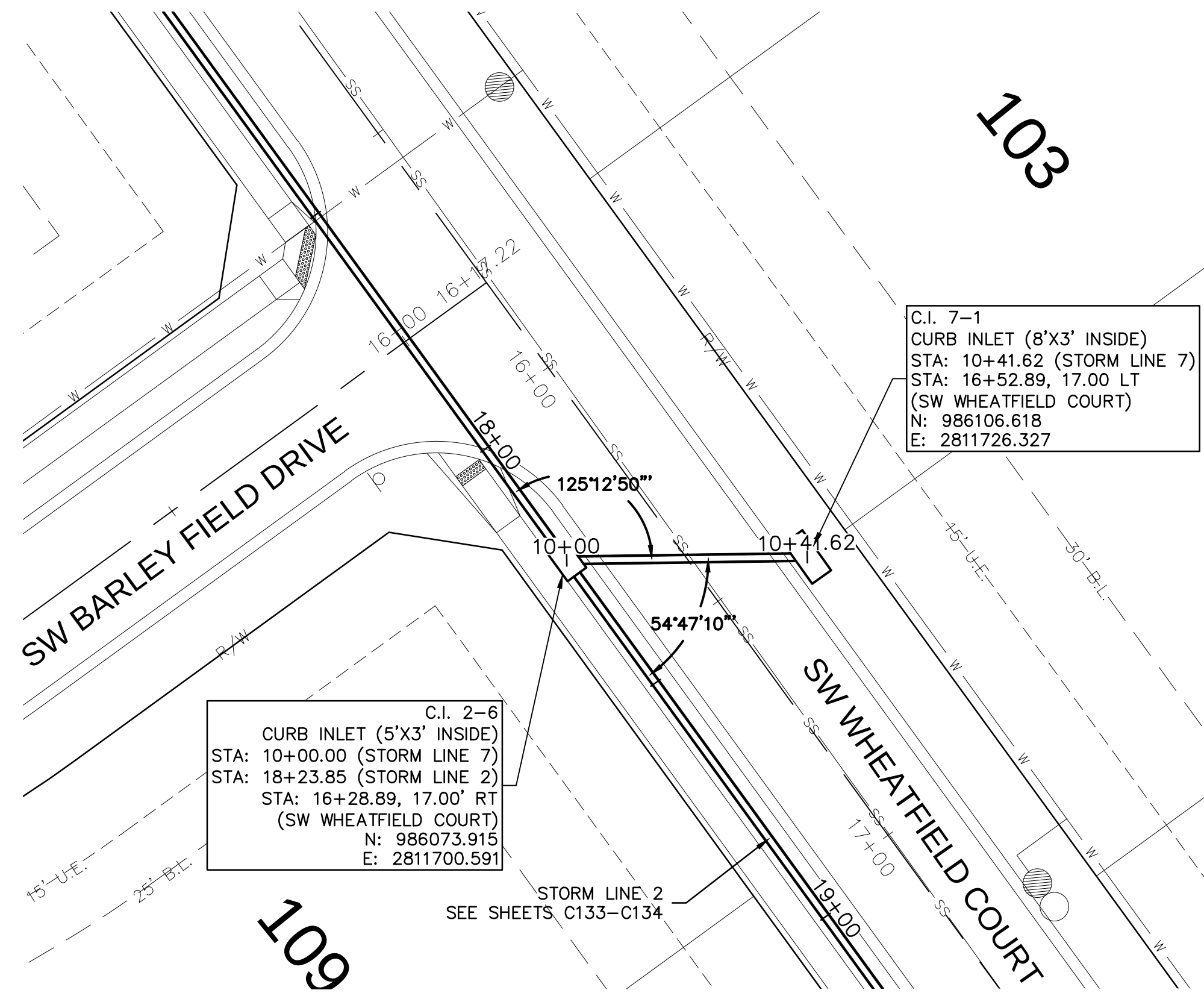
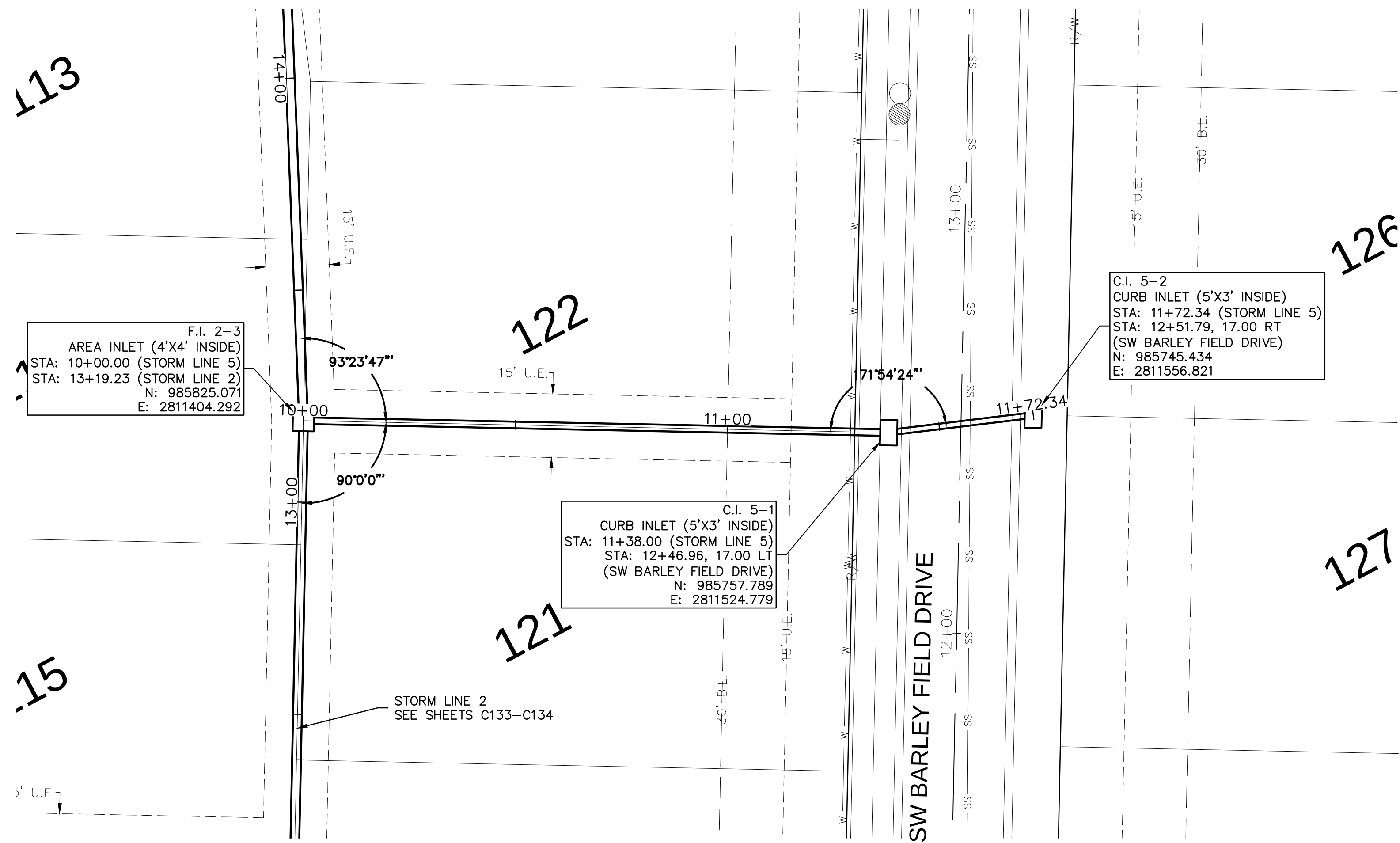
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STORM SEWER PLAN & PROFILE (LINES 3 & 4)
STREET & STORM SEWER PLANS
HOOK FARMS
SECOND PLAT
LEE'S SUMMIT, MO
2021

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checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

SHEET
C135

C_PSTRM_B194061



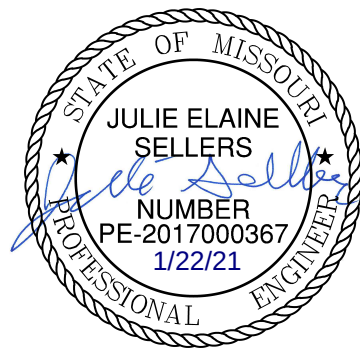
STORM SEWER PLAN & PROFILE (LINES 5 & 7)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO	2021
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designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

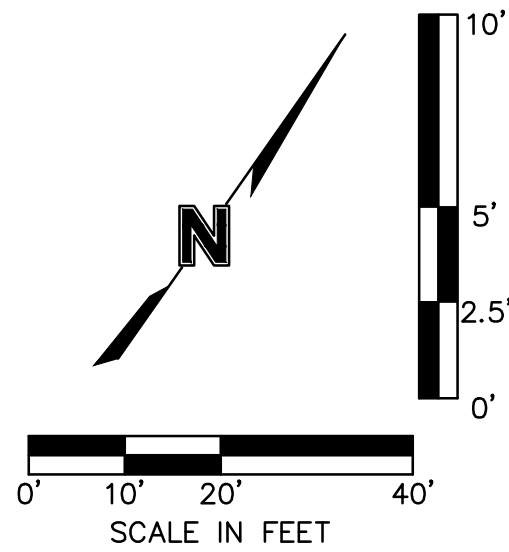
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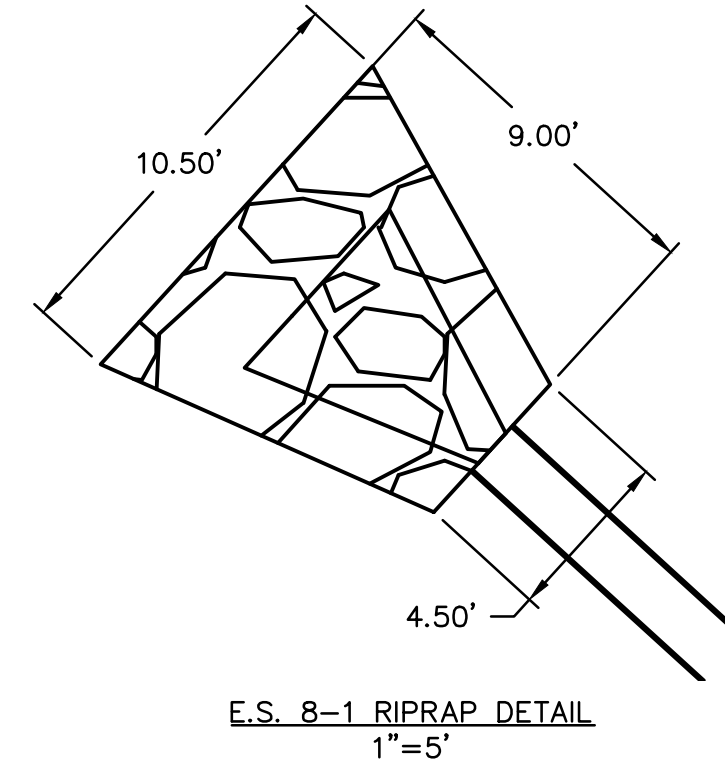
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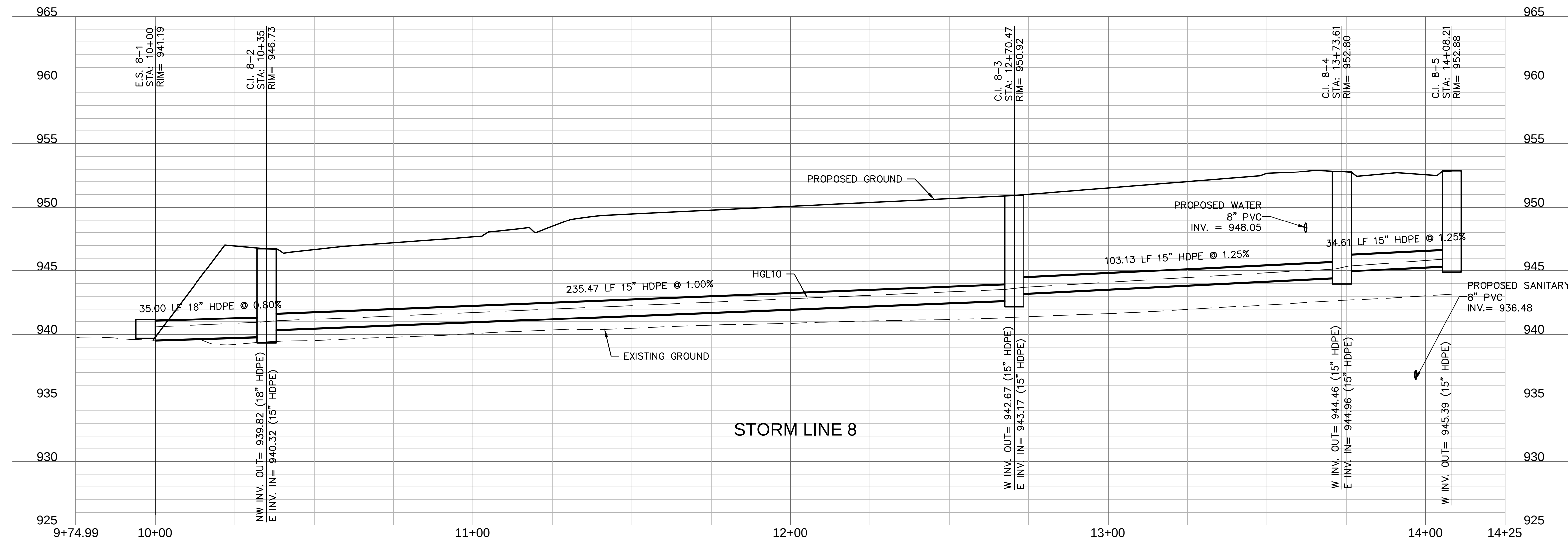


STORM SEWER PLAN & PROFILE (LINE 6) STREET & STORM SEWER PLANS	HOOK FARMS SECOND PLAT		2021
	LEE'S SUMMIT, MO		
drawn by: <u>B.M.W./A.A.</u> checked by: <u>B.M.W.</u> designed by: <u>B.M.W./A.A.</u> QA/QC by: <u>J.E.S.</u> project no.: <u>B19-4061</u> date: <u>01-08-2021</u>			
SHEET C137			

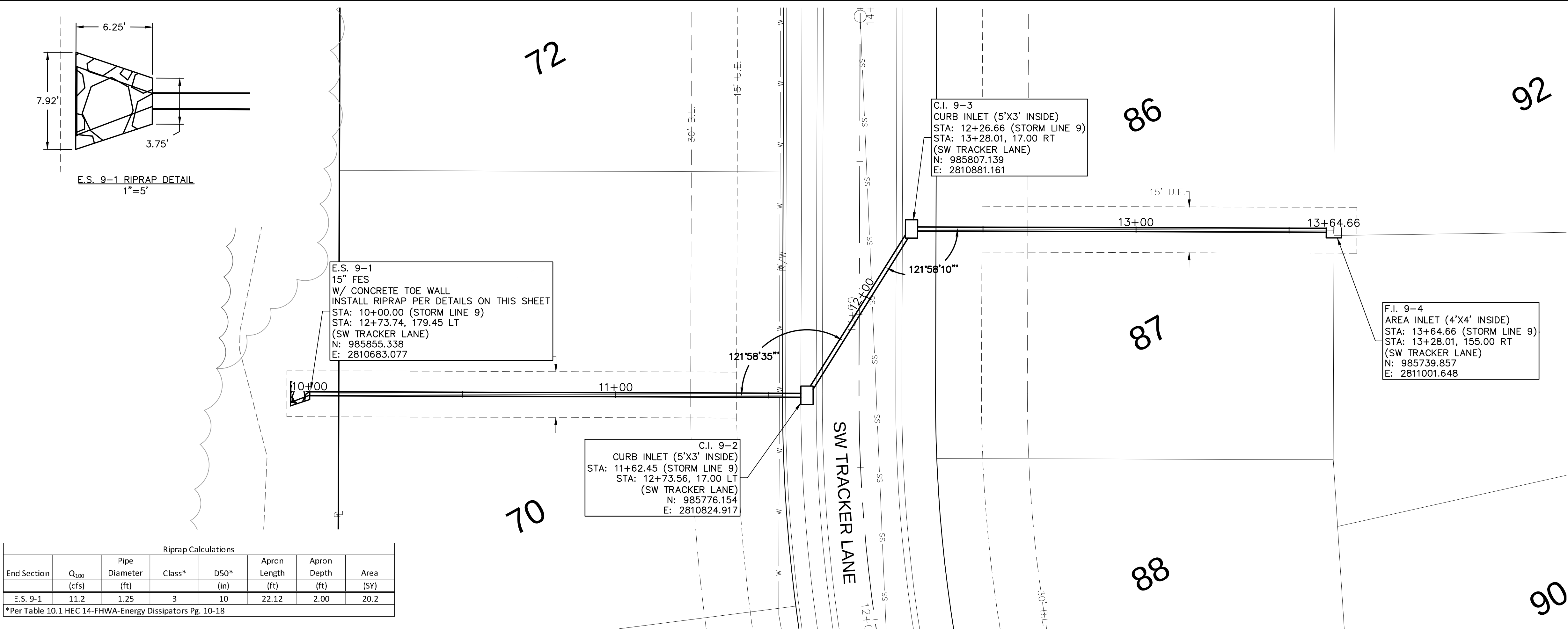


Riprap Calculations							
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 8-1	17.4	1.5	4	14	9	2.57	7.5

*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18

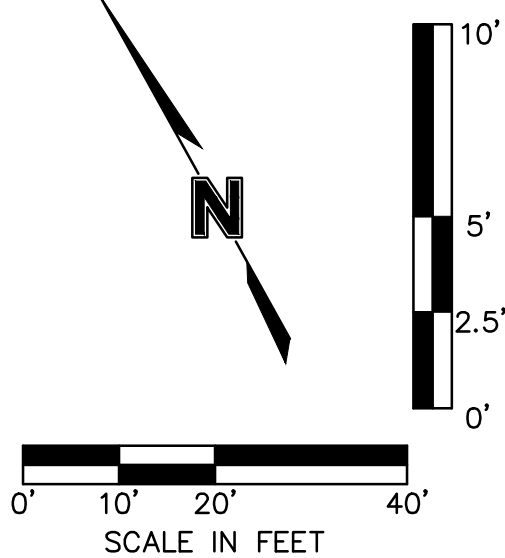
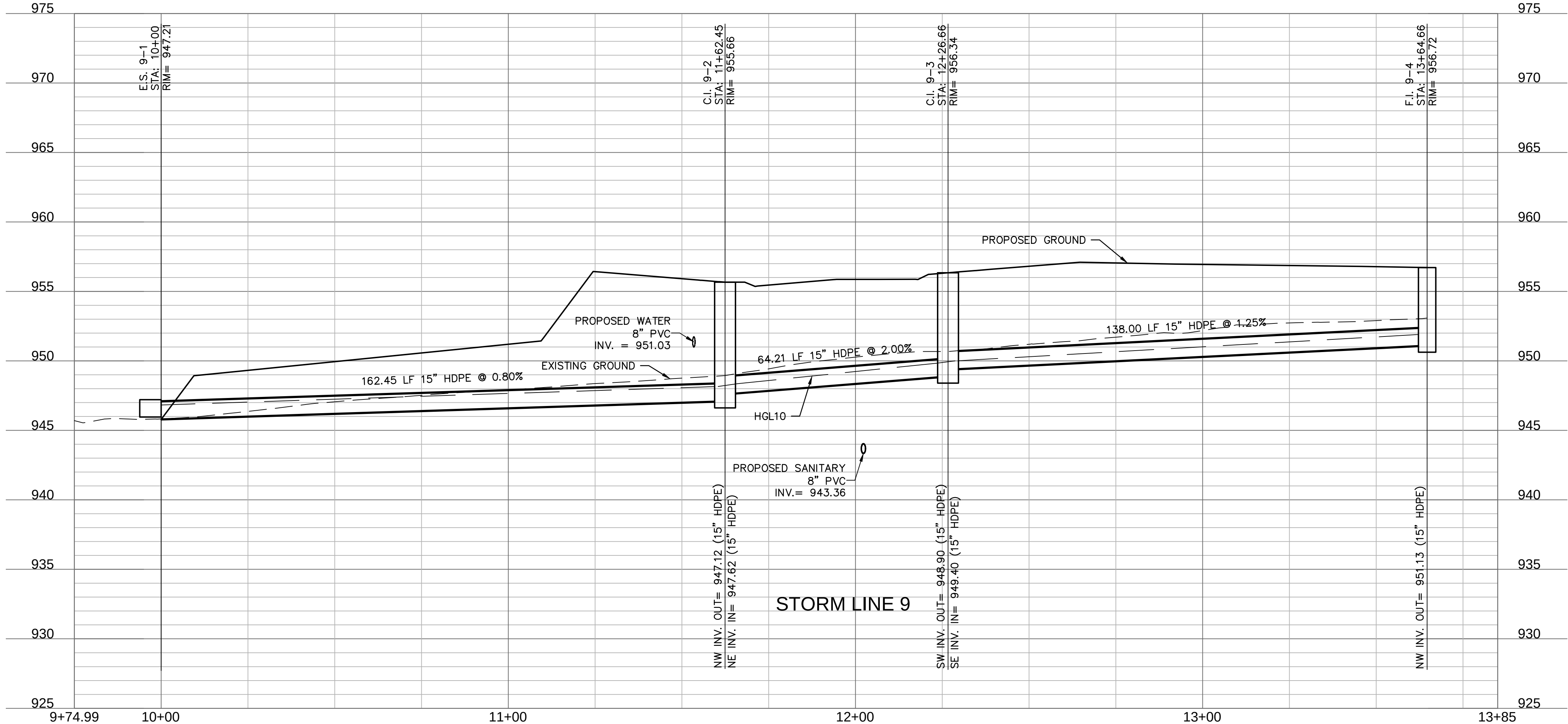


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USER: abdalgayev



Riprap Calculations							
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SV)
E.S. 9-1	11.2	1.25	3	10	22.12	2.00	20.2

* Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18



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STORM SEWER PLAN & PROFILE (LINE 9)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

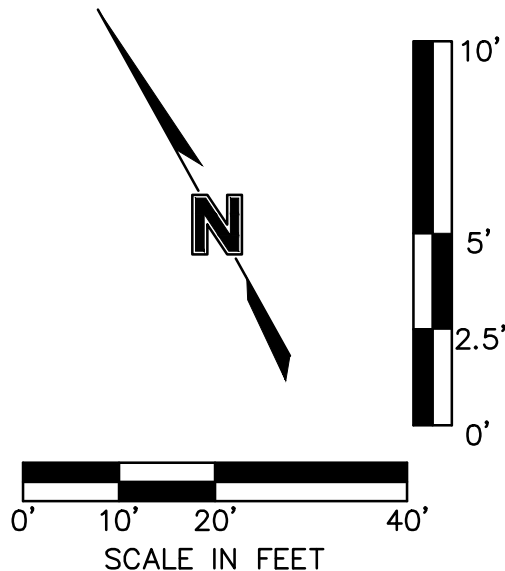
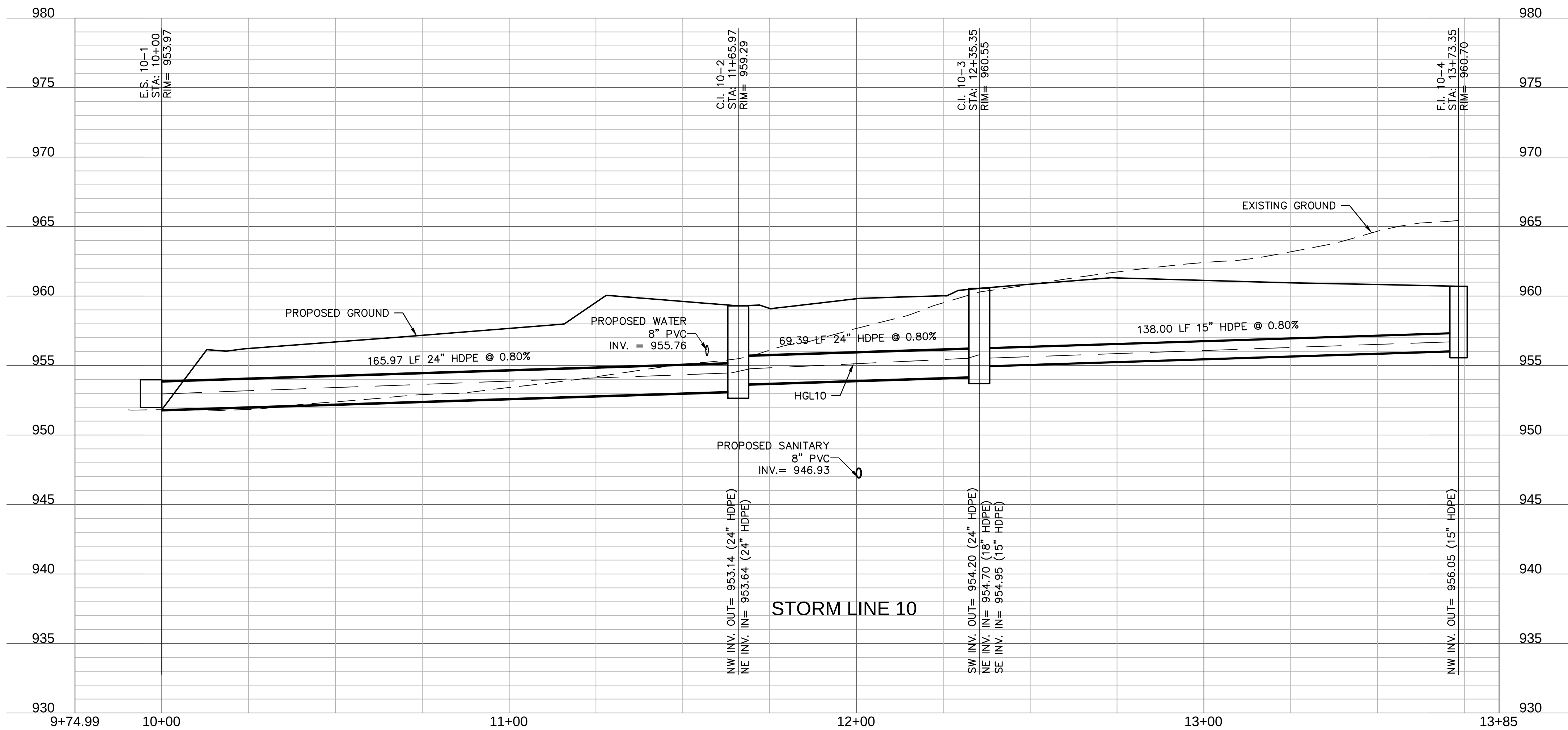
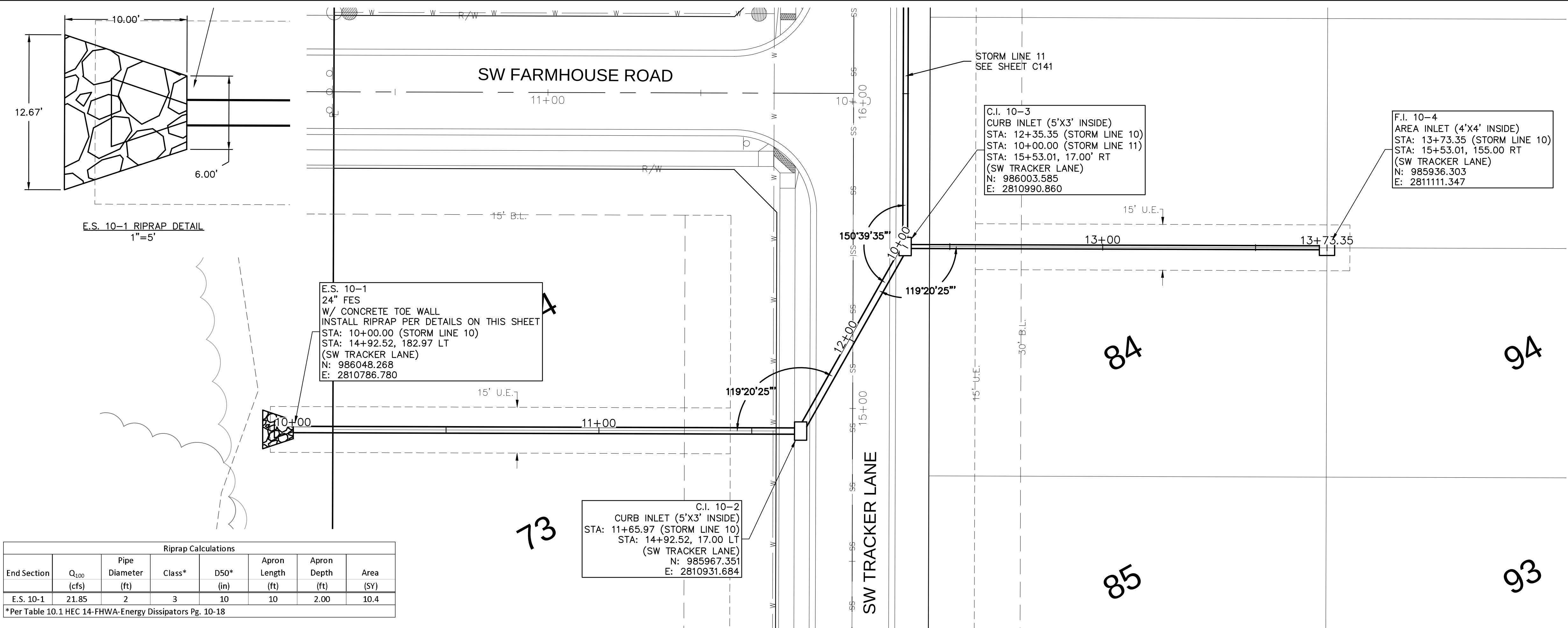
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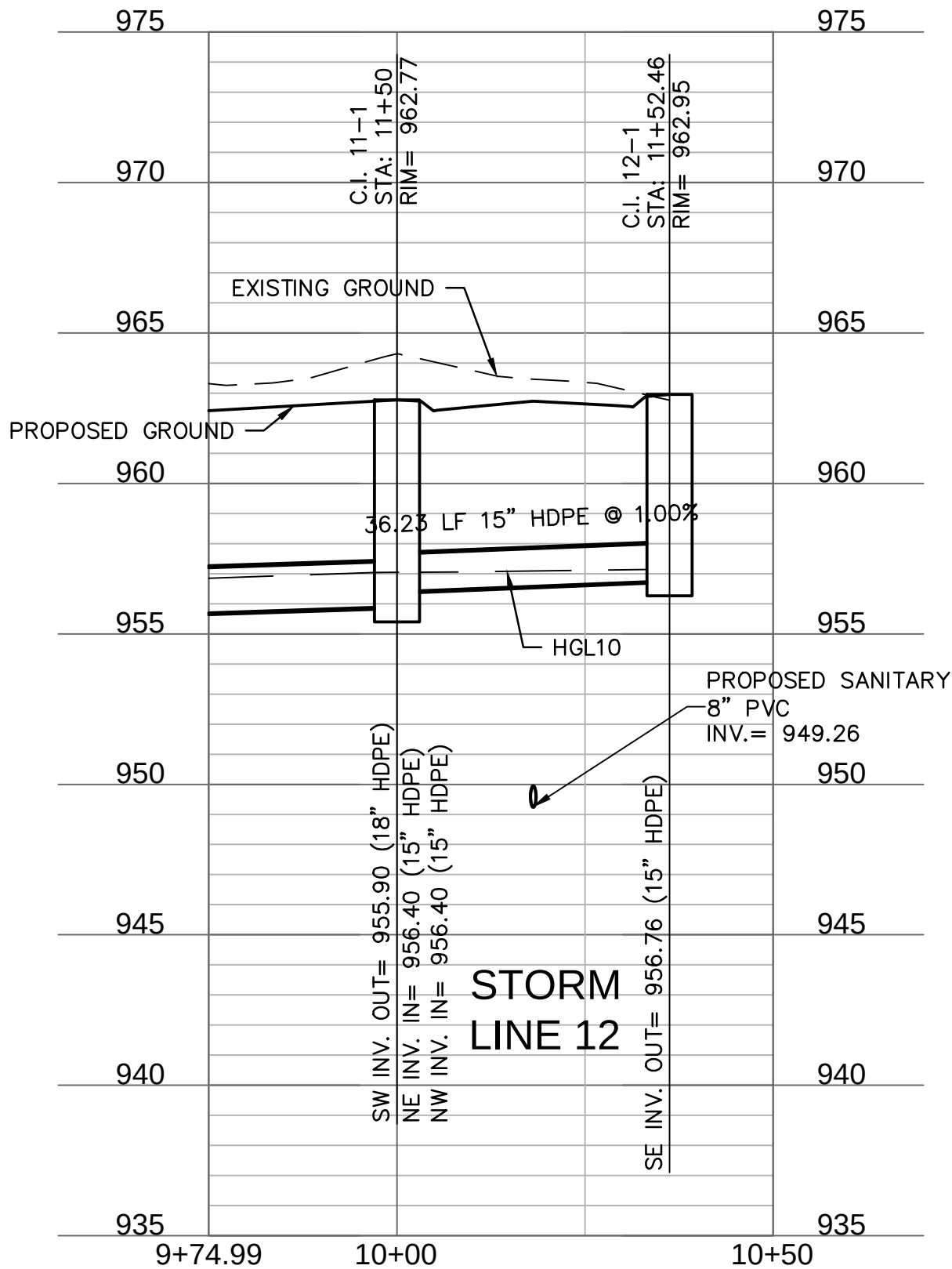
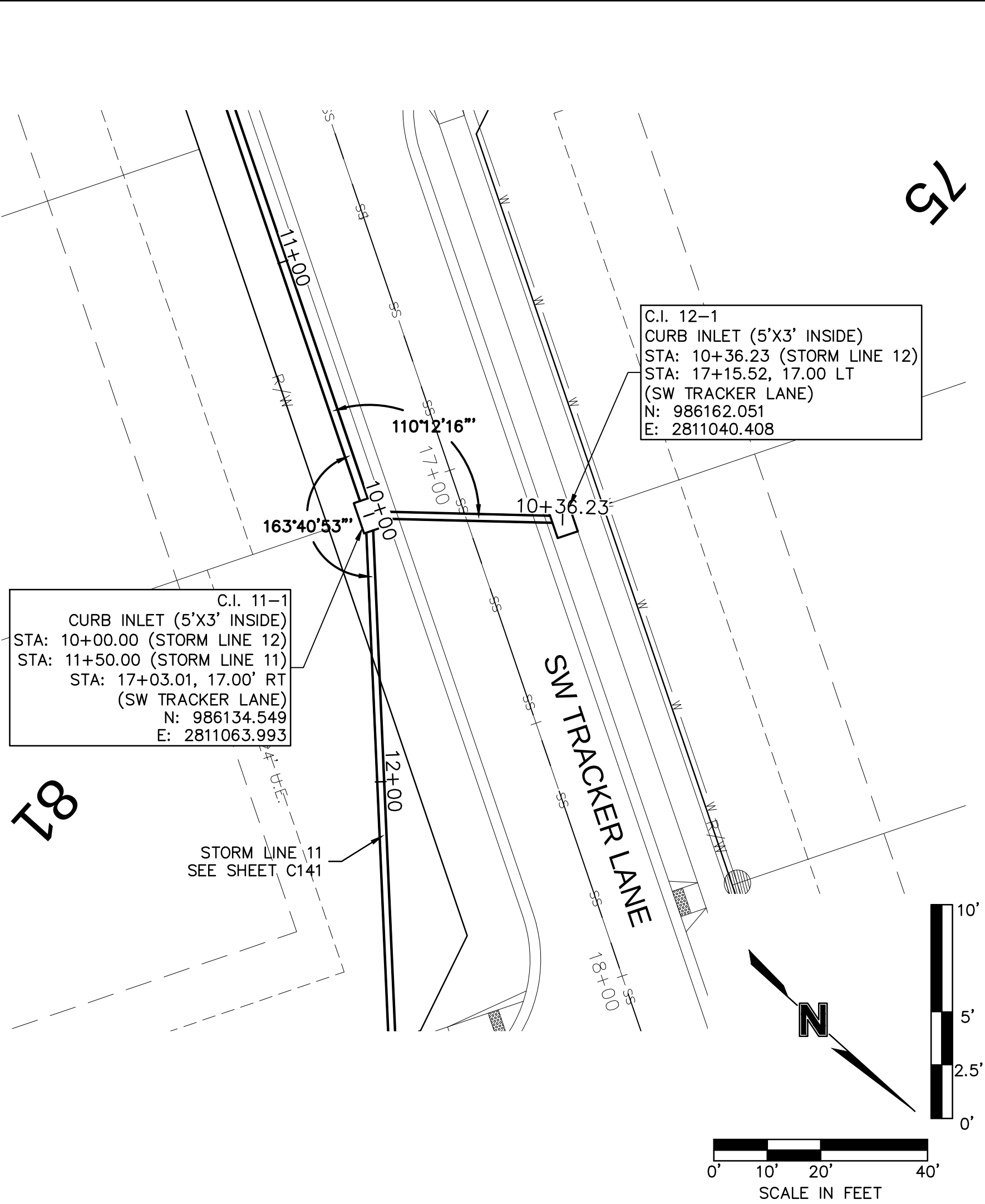
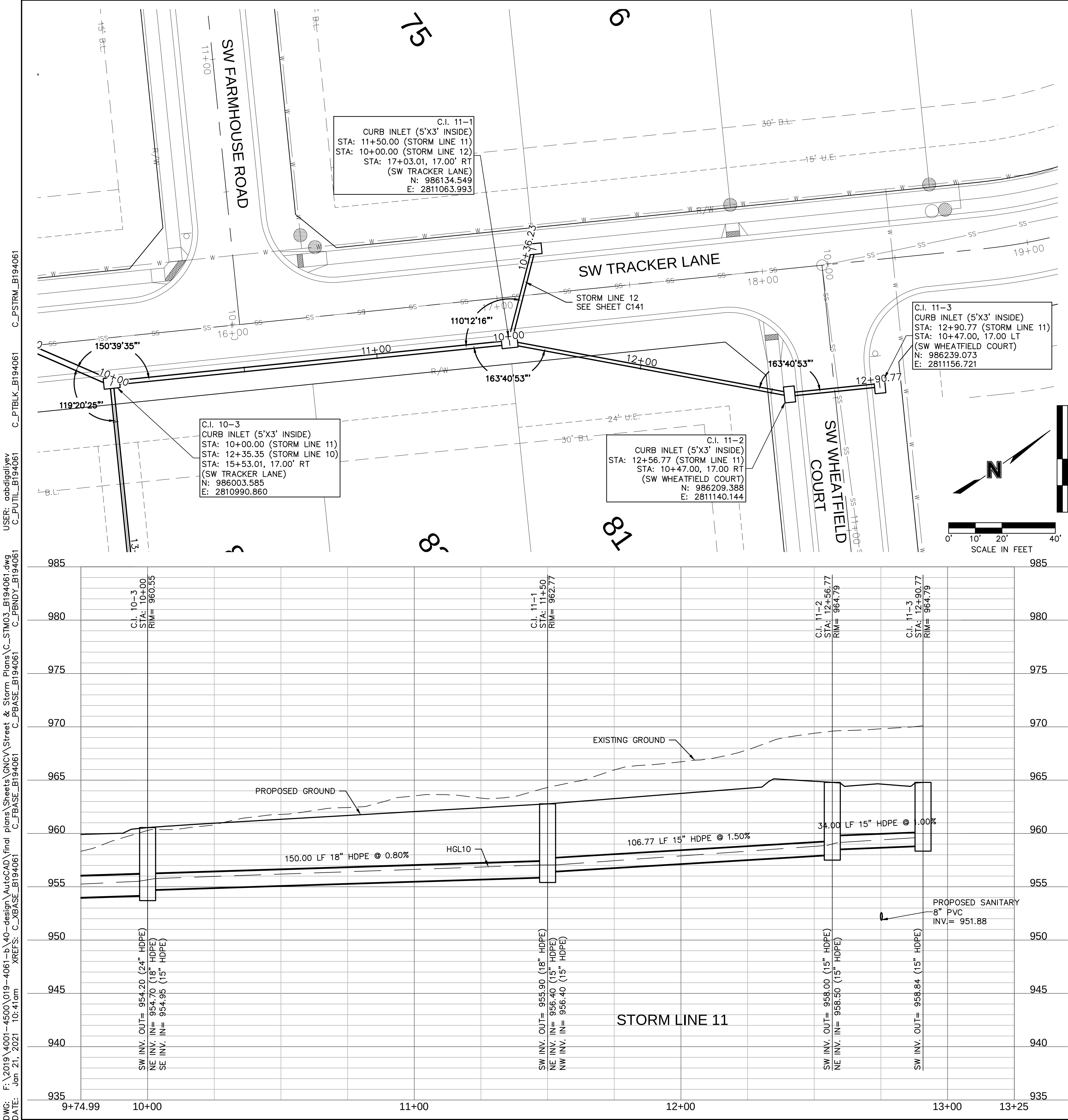
STORM SEWER PLAN & PROFILE (LINE 10)
STREET & STORM SEWER PLANS

HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

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QA/QC by: J.E.S.
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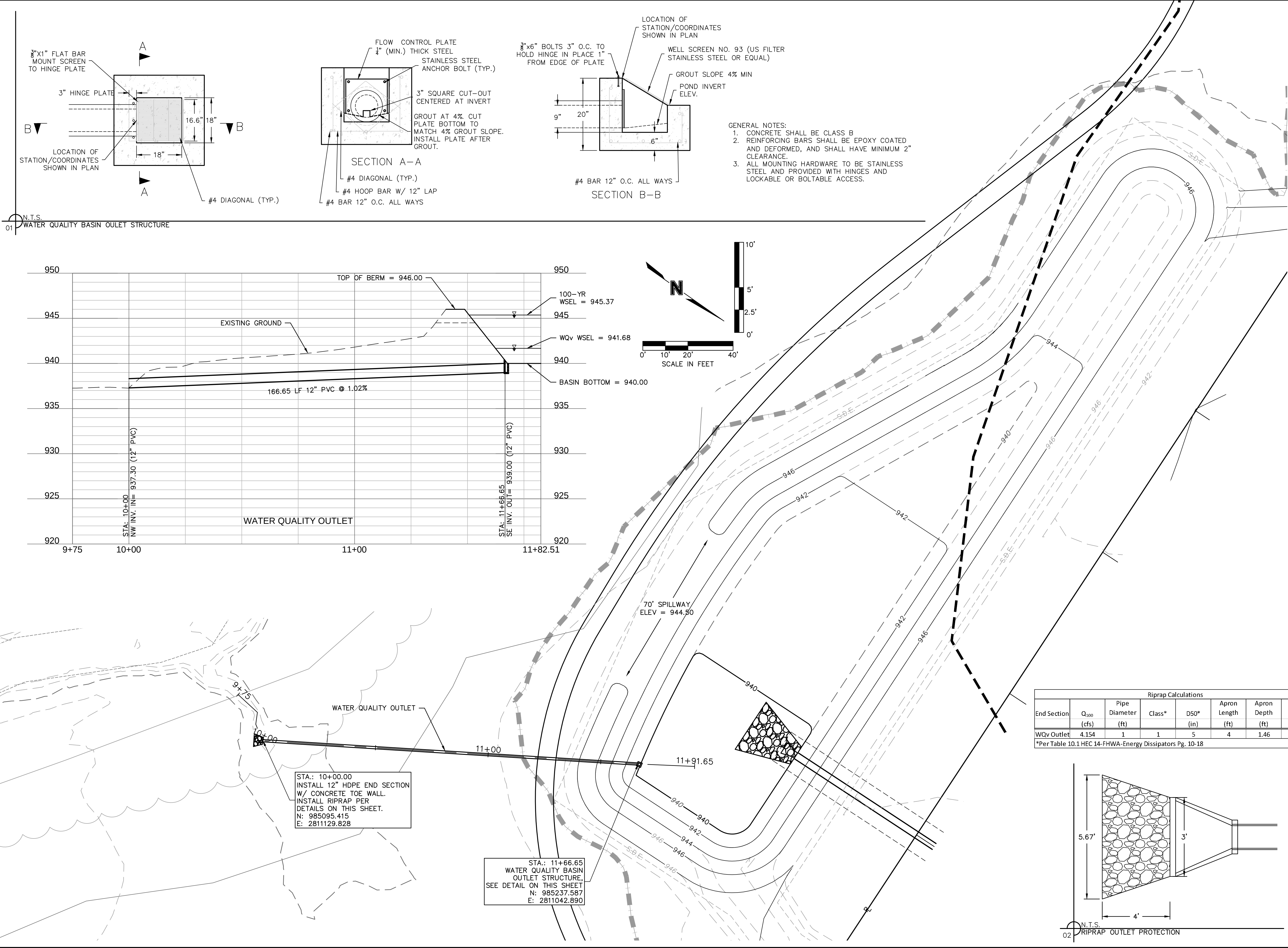
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STORM SEWER PLAN & PROFILE (LINES 11 & 12)
STREET & STORM SEWER PLANS
HOOK FARMS
SECOND PLAT
LEE'S SUMMIT, MO
2021

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QA/QC by: J.E.S.
project no.: B19-4061
date: 01-08-2021

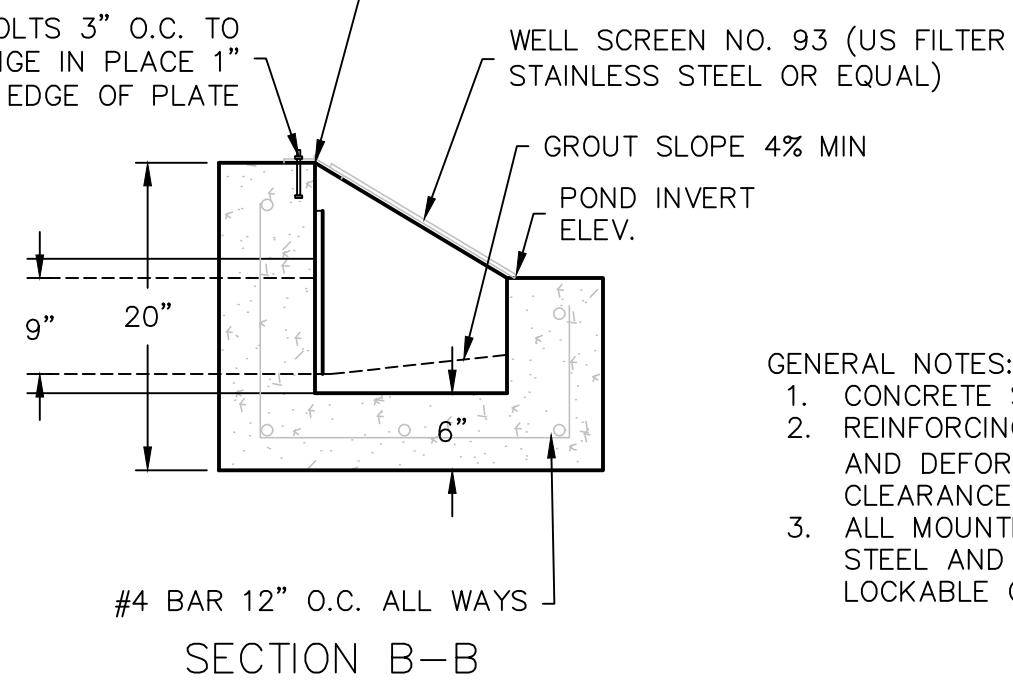
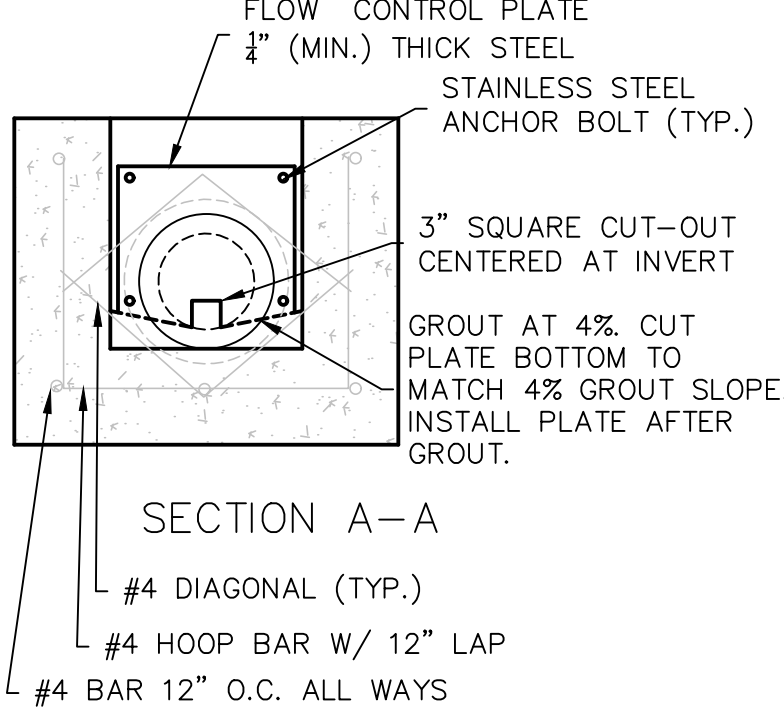
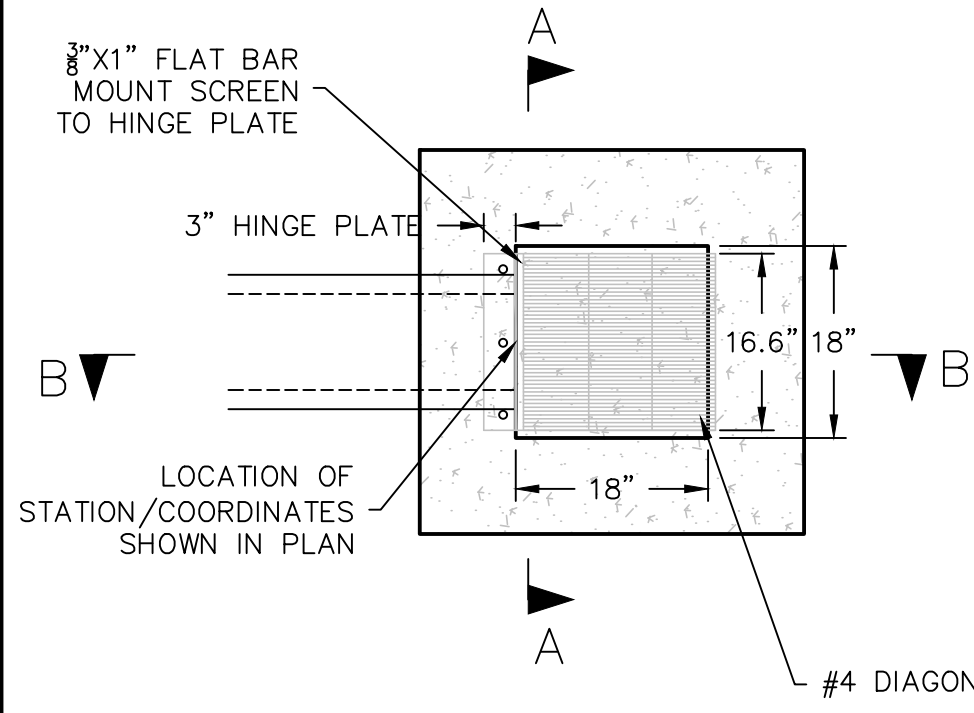
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USER: abbdgiliev



01 WATER QUALITY BASIN OULET STRUCTURE

02 RIPRAP OULET PROTECTION



Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)
WQv Outlet	4.154	1	1	5	4	1.46

*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18

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REVISED DESCRIPTION

WATER QUALITY BASIN PLAN
STREET & STORM SEWER PLANS

HOOK FARM
SECOND PLAT

LEE'S SUMMIT, MO

2021

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Inlet Design Table						
10 Year Return Frequency						
Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 1-2(L)	3.36	0.00	100.00%	0.20	10.20	...
C.I. 1-2(R)	0.23	0.00	100.00%	0.07	3.74	...
C.I. 1-2	4.19	0.00	100.00%	...	...	...
C.I. 1-3(L)	0.34	0.00	100.00%	0.09	4.36	...
C.I. 1-3(R)	2.74	0.00	100.00%	0.19	9.44	...
C.I. 1-3	7.20	0.00	100.00%	...	...	...
C.I. 1-4	1.43	0.24	85.63%	0.14	7.21	...
C.I. 1-6	1.94	0.32	85.85%	0.18	8.79	...
C.I. 1-7	1.08	0.13	89.48%	0.13	6.36	...
C.I. 1-8	1.05	0.12	89.77%	0.13	6.28	...
F.I. 1-1	3.04	0.00	100.00%	...	...	0.15
F.I. 1-2	2.59	0.00	100.00%	...	...	0.13
F.I. 1-3	2.48	0.00	100.00%	...	...	0.13
C.I. 1-5	0.64	0.03	95.13%	0.11	5.27	...
C.I. 1-6	0.97	0.08	91.95%	0.12	6.22	...
C.I. 1-1	1.08	0.11	90.54%	0.13	6.47	...
C.I. 4-1	1.66	0.32	83.66%	0.16	7.76	...
C.I. 4-2	1.28	0.18	87.85%	0.14	6.92	...
C.I. 5-1	1.34	0.20	87.27%	0.14	7.05	...
C.I. 5-2	1.54	0.27	85.02%	0.15	7.50	...
C.I. 6-1	3.22	0.90	78.18%	0.21	10.38	...
F.I. 6-2	3.41	0.00	100.00%	...	...	0.16
F.I. 6-3	4.16	0.00	100.00%	...	...	0.18
C.I. 7-1	3.80	1.42	72.80%	0.23	11.35	...
C.I. 8-2(L)	2.06	0.00	100.00%	0.15	7.65	...
C.I. 8-2(R)	0.99	0.00	100.00%	0.13	6.25	...
C.I. 8-2	3.99	0.00	100.00%	...	...	...
C.I. 8-3	1.51	0.17	89.96%	0.16	7.96	...
C.I. 8-4	1.10	0.14	88.79%	0.13	6.37	...
C.I. 8-5	1.86	0.38	83.08%	0.17	8.31	...
C.I. 9-2	0.98	0.08	92.39%	0.13	6.34	...
C.I. 9-3	1.59	0.25	86.30%	0.16	7.76	...
F.I. 9-4	3.68	0.00	100.00%	...	...	0.17
C.I. 10-2	0.33	0.01	97.51%	0.08	3.88	...
C.I. 10-3	1.85	0.41	81.75%	0.16	8.20	...
F.I. 10-4	2.63	0.00	100.00%	...	...	0.14
C.I. 11-1	3.20	1.41	69.52%	0.22	11.03	...
C.I. 11-2	0.91	0.07	92.93%	0.12	6.12	...
C.I. 11-3	3.67	2.18	62.75%	0.24	11.98	...
C.I. 12-1	0.94	0.07	92.82%	0.12	6.25	...

Drainage Area Design Table						
10 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-2(L)	0.87	0.51	5.00	7.35	1.00	3.26
C.I. 1-2(R)	0.06	0.51	5.00	7.35	1.00	0.23
C.I. 1-2(B)	0.16	0.51	5.00	7.35	1.00	0.60
C.I. 1-2	1.09	0.51	5.00	7.35	1.00	4.09
C.I. 1-3(L)	0.09	0.51	5.00	7.35	1.00	0.34
C.I. 1-3(R)	0.55	0.51	5.00	7.35	1.00	2.06
C.I. 1-3(B)	1.10	0.51	5.00	7.35	1.00	4.13
C.I. 1-3	1.74	0.51	5.00	7.35	1.00	6.53
C.I. 1-4	0.36	0.51	5.00	7.35	1.00	1.35
C.I. 1-6	0.50	0.51	5.00	7.35	1.00	1.88
C.I. 1-7	0.27	0.51	5.00	7.35	1.00	1.01
C.I. 1-8	0.24	0.51	5.00	7.35	1.00	0.90
F.I. 1-1	0.81	0.51	5.00	7.35	1.00	3.04
F.I. 1-2	0.69	0.51	5.00	7.35	1.00	2.59
F.I. 1-3	0.66	0.51	5.00	7.35	1.00	2.48
C.I. 1-5	0.18	0.51	5.00	7.35	1.00	0.68
C.I. 1-6	0.28	0.51	5.00	7.35	1.00	1.05
C.I. 1-1	0.27	0.51	5.00	7.35	1.00	1.01
C.I. 4-1	0.52	0.51	5.00	7.35	1.00	1.95
C.I. 4-2	0.39	0.51	5.00	7.35	1.00	1.46
C.I. 5-1	0.40	0.51	5.00	7.35	1.00	1.50
C.I. 5-2	0.46	0.51	5.00	7.35	1.00	1.73
C.I. 6-1	0.72	0.51	5.00	7.35	1.00	2.70
F.I. 6-2	0.91	0.51	5.00	7.35	1.00	3.41
F.I. 6-3	1.11	0.51	5.00	7.35	1.00	4.16
C.I. 7-1	1.02	0.51	5.00	7.35	1.00	3.83
C.I. 8-2(L)	0.55	0.51	5.00	7.35	1.00	2.06
C.I. 8-2(R)	0.22	0.51	5.00	7.35	1.00	0.83
C.I. 8-2(B)	0.25	0.51	5.00	7.35	1.00	0.94
C.I. 8-2	1.02	0.51	5.00	7.35	1.00	3.83
C.I. 8-3	0.31	0.51	5.00	7.35	1.00	1.16
C.I. 8-4	0.31	0.51	5.00	7.35	1.00	1.16
C.I. 8-5	0.53	0.51	5.00	7.35	1.00	1.99
C.I. 9-2	0.28	0.51	5.00	7.35	1.00	1.05
C.I. 9-3	0.38	0.51	5.00	7.35	1.00	1.43
F.I. 9-4	0.98	0.51	5.00	7.35	1.00	3.68
C.I. 10-2	0.09	0.51	5.00	7.35	1.00	0.34
C.I. 10-3	0.23	0.51	5.00	7.35	1.00	0.86
F.I. 10-4	0.70	0.51	5.00	7.35	1.00	2.63
C.I. 11-1	0.63	0.51	5.00	7.35	1.00	2.36
C.I. 11-2	0.26	0.51	5.00	7.35	1.00	0.98
C.I. 11-3	1.32	0.51	5.00	7.35	1.00	4.95
C.I. 12-1	0.27	0.51	5.00	7.35	1.00	1.01

Storm Sewer Design Calculation Table														
10 Year Return Frequency														
Upstream Structure	Downstream Structure	Length (ft)	Invert (ft)	Invert (ft)	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/s)	Capacity (cfs)	Flow Depth (ft)	Upstream Struct. HGL (ft)	Upstream Top Elev. (ft)	
C.I. 1-2	E.S. 1-1	202.00	942.02	940.00	1.00	36	0.012	65.27	10.82	72.25	2.23	944.61	952.95	
C.I. 1-3	C.I. 1-2	34.00	942.83	942.52	0.91	36	0.012	61.08	10.33	68.99	2.19	945.35	952.95	
C.I. 1-4	C.I. 1-3	134.21	944.39	943.32	0.80	36	0.012	53.88	9.58	64.51	2.10	946.77	954.53	
M.H. 1-5	C.I. 1-4	44.30	945.24	944.89	0.79	36	0.012	51.37	9.41	64.22	2.03	947.57	954.65	
C.I. 1-6	M.H. 1-5	134.49	946.82	945.74	0.80	36	0.012	51.37	9.44	64.75	2.02	949.15	956.22	
C.I. 1-7	C.I. 1-6	148.88	949.01	947.82	0.80	24	0.012	16.30	7.01	21.91	1.33	950.46	958.22	
C.I. 1-8	C.I. 1-7	36.74	949.80	949.51	0.79	24	0.012	15.22	6.97	21.77	1.23	951.21	958.58	
NULL ON LINE 1	C.I. 1-8	104.17	951.34	950.30	1.00	24	0.012	14.17	7.17	24.48	1.09	952.69	953.52	
F.I. 1-1	C.I. 1-6	73.94	948.43	947.32	1.50	30	0.012	34.08	8.46	54.44	1.85	950.41	954.84	
F.I. 1-2	F.I. 1-1	144.00	950.89	948.93	1.36	30	0.012	30.54	8.99	51.83	1.46	952.77	958.08	
F.I. 1-3	F.I. 1-2	101.30	953.42	951.39	2.00	24	0.012	25.01	9.67	34.69	1.38	955.18	960.36	
M.H. 2-4	F.I. 1-3	136.61	956.99	953.92	2.25	24	0.012	19.65	8.37	36.73	1.26	958.58	965.63	
C.I. 1-5	M.H. 2-4	138.00	962.32	957.49	3.50	24	0.012	19.65	9.27	45.84	1.09	963.91	970.31	
C.I. 1-6	C.I. 1-5	230.00	967.30	963.07	1.84	15	0.012	8.72	8.09	9.49	0.94	968.44	973.99	
NULL ON LINE 2	C.I. 1-6	178.30	969.58	967.80	1.00	15	0.012	3.95	5.30	6.99	0.67	970.38	970.95	
C.I. 1-1	C.I. 1-4	53.27	947.21	946.14	2.01	15	0.012	1.08	2.42	9.91	0.63	947.62	955.25	
C.I. 1-1	F.I. 1-2	138.00	953.24	952.14	0.80	15	0.012	2.94	4.48	6.25	0.63	953.93	959.27	
C.I. 1-2	C.I. 1-1	39.15	954.05	953.74	0.79	15	0.012	1.28	3.62	6.22	0.38	954.50	958.93	
C.I. 1-1	F.I. 1-3	138.00	955.30	953.92	1.00	18	0.012	2.88	2.89	11.38	1.26	955.94	961.95	
C.I. 1-2	C.I. 1-1	34.34	956.14	955.80	0.99	15	0.012	1.54	4.00	6.96	0.40	956.63	962.04	
C.I. 1-1	C.I. 1-5	44.69	963.21	962.82	0.87	24	0.012	10.29	5.69	22.89	1.09	964.36	970.78	
F.I. 1-2	C.I. 1-1	150.50	964.91	963.71	0.80	18	0.012	7.57	5.97	10.16	0.96	965.97	969.06	
F.I. 1-3	F.I. 1-2	225.00	970.47	965.41	2.25	15	0.012	4.16	6.45	10.49	0.55	971.29	974.91	
C.I. 1-1	C.I. 1-6	41.62	968.22	967.80	1.01	15	0.012	3.80	5.25	7.03	0.66	969.01	974.37	
C.I. 1-2	E.S. 8-1	35.00	939.82	939.54	0.80	18	0.012	8.46	6.19	10.18	1.04	940.95	946.73	
C.I. 1-3	C.I. 8-2	235.47	942.67	940.32	1.00	15	0.012	4.47	5.51	6.99	0.73	943.53	950.92	
C.I. 1-4	C.I. 8-3	103.13	944.46	943.17	1.25	15	0.012	2.96	5.09	7.82	0.53	945.15	952.80	
C.I. 1-5	C.I. 8-4	34.61	945.39	944.96	1.24	15	0.012	1.86	4.43	7.80	0.42	945.93	952.88	
C.I. 1-2	E.S. 9-1	162.45	947.12	945.82	0.80	15	0.012	5.73	5.70	6.26	0.94	948.09	955.66	
C.I. 1-3	C.I. 9-2	64.21	948.90	947.62	1.99	15	0.012	4.75	6.55	9.88	0.61	949.78	956.35	
F.I. 1-4	C.I. 9-3	138.00	951.13	949.40	1.25	15	0.012	3.68	5.44	7.83	0.60	951.90	956.72	
C.I. 10-2	E.S. 10-1	165.97	953.14	951.81	0.80	24	0.012	13.10	6.67	21.93	1.11	954.44	959.29	
C.I. 10-3	C.I. 10-2	69.39	954.20	953.64	0.81	24	0.012	12.77	6.63	22.01	1.09	955.48	960.55	
F.I. 10-4	C.I. 10-3	138.00	956.05	954.95	0.80	15	0.012	2.63	4.48	6.25	0.57	956.70	960.70	
C.I. 11-1	C.I. 10-3	150.00	955.90	954.70	0.80	18	0.012	8.72	6.26	10.18	1.07	957.04	962.77	
C.I. 11-2	C.I. 11-1	106.77	958.00	956.40	1.50	15	0.012	4.58	6.07	8.56	0.65	958.87	964.79	
C.I. 11-3	C.I. 11-2	34.00	958.84	958.50	1.00	15	0.012	3.67	5.19	7.00	0.64	959.61	964.79	
C.I. 12-1	C.I. 11-1	36.23	956.76	956.40	0.99	15	0.012	0.94	2.23	6.97	0.64	957.14	962.95	

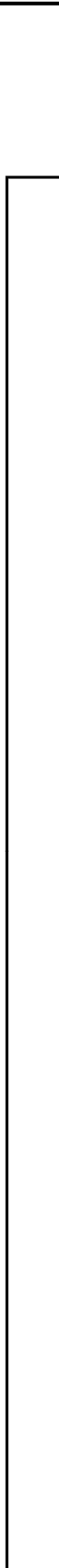
Inlet Design Table						
100 Year Return Frequency						
Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 1-2(L)	6.19	0.00	100.00%	0.26	12.82	...
C.I. 1-2(R)	0.39	0.00	100.00%	0.09	4.62	...
C.I. 1-2	7.63	0.00	100.00%	...	...	...
C.I. 1-3(L)	0.59	0.00	100.00%	0.11	5.38	...
C.I. 1-3(R)	6.36	0.00	100.00%	0.26	12.96	...
C.I. 1-3	14.19	0.00	100.00%	...	...	...
C.I. 1-4	2.44	0.89	73.20%	0.19	9.34	...
C.I. 1-6	3.55	1.43	71.29%	0.24	11.81	...
C.I. 1-7	1.90	0.48	79.74%	0.16	8.20	...
C.I. 1-8	1.92	0.50	79.31%	0.17	8.25	...
F.I. 2-1	5.33	0.00	100.00%	...	...	0.22
F.I. 2-2	4.54	0.00	100.00%	...	...	0.19
F.I. 2-3	4.34	0.00	100.00%	...	...	0.19
C.I. 2-5	1.08	0.11	90.84%	0.13	6.50	...
C.I. 2-6	1.58	0.26	85.66%	0.15	7.68	...
C.I. 3-1	1.89	0.42	81.80%	0.17	8.30	...
C.I. 4-1	2.57	0.96	72.69%	0.19	9.63	...
C.I. 4-2	2.03	0.53	79.27%	0.17	8.55	...
C.I. 5-1	2.14	0.60	78.02%	0.18	8.76	...
C.I. 5-2	2.44	0.85	74.25%	0.19	9.38	...
C.I. 6-1	5.35	4.17	56.23%	0.28	14.21	...
F.I. 6-2	5.99	0.00	100.00%	...	...	0.23
F.I. 6-3	7.30	0.00	100.00%	...	...	0.27
C.I. 7-1	5.55	4.78	53.73%	0.29	14.65	...
C.I. 8-2(L)	3.62	0.00	100.00%	0.19	9.45	...
C.I. 8-2(R)	2.87	0.00	100.00%	0.19	9.30	...
C.I. 8-2	8.13	0.00	100.00%	...	...	...
C.I. 8-3	3.64	1.42	71.92%	0.24	12.02	...
C.I. 8-4	1.83	0.46	79.78%	0.16	8.02	...
C.I. 8-5	3.80	2.55	59.83%	0.25	12.28	...
C.I. 9-2	1.62	0.26	86.25%	0.16	7.85	...
C.I. 9-3	4.00	2.86	58.28%	0.25	12.72	...
F.I. 9-4	6.45	0.00	100.00%	...	...	0.25
C.I. 10-2	0.56	0.03	94.87%	0.10	4.79	...
C.I. 10-3	4.19	4.36	49.04%	0.27	13.48	...
F.I. 10-4	4.61	0.00	100.00%	...	...	0.20
C.I. 11-1	5.09	7.77	39.56%	0.32	16.10	...
C.I. 11-2	1.55	0.23	87.07%	0.15	7.71	...
F.I. 9-4	6.45	0.00	100.00%	...	...	0.25
C.I. 10-2	0.56	0.03	94.87%	0.10	4.79	...
C.I. 10-3	4.19	4.36	49.04%	0.27	13.48	...
F.I. 10-4	4.61	0.00	100.00%	...	...	0.20
C.I. 11-1	5.09	7.04	41.98%	0.32	15.85	...
C.I. 11-2	1.49	0.22	87.24%	0.15	7.56	...
C.I. 11-3	5.08	7.77	39.56%	0.32	16.10	...
C.I. 12-1	1.55	0.23	87.07%	0.15	7.71	...

Drainage Area Design Table						
100 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-2(L)	0.87	0.51	5.00	10.32	1.25	5.73
C.I. 1-2(R)	0.06	0.51	5.00	10.32	1.25	0.39
C.I. 1-2(B)	0.16	0.51	5.00	10.32	1.25	1.05
C.I. 1-2	1.09	0.51	5.00	10.32	1.25	7.17
C.I. 1-3(L)	0.09	0.51	5.00	10.32	1.25	0.59
C.I. 1-3(R)	0.55	0.51	5.00	10.32	1.25	3.62
C.I. 1-3(B)	1.10	0.51	5.00	10.32	1.25	7.24
C.I. 1-3	1.74	0.51	5.00	10.32	1.25	11.45
C.I. 1-4	0.36	0.51	5.00	10.32	1.25	2.37
C.I. 1-6	0.50	0.51	5.00	10.32	1.25	3.29
C.I. 1-7	0.27	0.51	5.00	10.32	1.25	1.78
C.I. 1-8	0.24	0.51	5.00	10.32	1.25	1.58
F.I. 2-1	0.81	0.51	5.00	10.32	1.25	5.33
F.I. 2-2	0.69	0.51	5.00	10.32	1.25	4.54
F.I. 2-3	0.66	0.51	5.00	10.32	1.25	4.34
C.I. 2-5	0.18	0.51	5.00	10.32	1.25	1.18
C.I. 2-6	0.28	0.51	5.00	10.32	1.25	1.84
C.I. 3-1	0.27	0.51	5.00	10.32	1.25	1.78
C.I. 4-1	0.52	0.51	5.00	10.32	1.25	3.42
C.I. 4-2	0.39	0.51	5.00	10.32	1.25	2.57
C.I. 5-1	0.40	0.51	5.00	10.32	1.25	2.63
C.I. 5-2	0.46	0.51	5.00	10.32	1.25	3.03
C.I. 6-1	0.72	0.51	5.00	10.32	1.25	4.74
F.I. 6-2	0.91	0.51	5.00	10.32	1.25	5.99
F.I. 6-3	1.11	0.51	5.00	10.32	1.25	7.30
C.I. 7-1	1.02	0.51	5.00	10.32	1.25	6.71
C.I. 8-2(L)	0.55	0.51	5.00	10.32	1.25	3.62
C.I. 8-2(R)	0.22	0.51	5.00	10.32	1.25	1.45
C.I. 8-2(B)	0.25	0.51	5.00	10.32	1.25	1.65
C.I. 8-2	1.02	0.51	5.00	10.32	1.25	6.71
C.I. 8-3	0.31	0.51	5.00	10.32	1.25	2.04
C.I. 8-4	0.31	0.51	5.00	10.32	1.25	2.04
C.I. 8-5	0.53	0.51	5.00	10.32	1.25	3.49
C.I. 9-2	0.28	0.51	5.00	10.32	1.25	1.84
C.I. 9-3	0.38	0.51	5.00	10.32	1.25	2.50
F.I. 9-4	0.98	0.51	5.00	10.32	1.25	6.45
C.I. 10-2	0.09	0.51	5.00	10.32	1.25	0.59
C.I. 10-3	0.23	0.51	5.00	10.32	1.25	1.51
F.I. 10-4	0.70	0.51	5.00	10.32	1.25	4.61
C.I. 11-1	0.63	0.51	5.00	10.32	1.25	4.15
C.I. 11-2	0.26	0.51	5.00	10.32	1.25	1.71
C.I. 11-3	1.32	0.51	5.00	10.32	1.25	8.69
C.I. 12-1	0.27	0.51	5.00	10.32	1.25	1.78

Storm Sewer Design Calculation Table														
100 Year Return Frequency														
Upstream Structure	Downstream Structure	Length (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/s)	Capacity (cfs)	Flow Depth (ft)	Upstream Struct. HGL (ft)	Upstream Top Elev. (ft)	
C.I. 1-2	E.S. 1-1	202.00	942.02	940.00	1.00	36	0.012	100.26	14.26	72.25	2.90	946.61	952.95	
C.I. 1-3	C.I. 1-2	34.00	942.83	942.52	0.91	36	0.012	92.63	13.11	68.99	3.00	948.11	952.95	
C.I. 1-4	C.I. 1-3	134.21	944.39	943.32	0.80	36	0.012	78.44	11.10	64.51	3.00	950.76	954.53	
M.H. 1-5	C.I. 1-4	44.30	945.24	944.89	0.79	36	0.012	74.11	10.49	64.22	3.00	951.99	954.65	
C.I. 1-6	M.H. 1-5	134.49	946.82	945.74	0.80	36	0.012	74.11	10.49	64.75	3.00	954.09	956.22	
C.I. 1-7	C.I. 1-6	148.88	949.01	947.82	0.80	24	0.012	17.99	5.73	21.91	2.00	955.58	958.22	
C.I. 1-8	C.I. 1-7	36.74	949.80	949.51	0.79	24	0.012	16.09	5.12	21.77	2.00	955.89	958.58	
NULL ON LINE 1	C.I. 1-8	104.17	951.34	950.30	1.00	24	0.012	14.17	4.51	24.48	2.00	956.36	953.52	
F.I. 2-1	C.I. 1-6	73.94	948.43	947.32	1.50	30	0.012	54.19	11.04	54.44	2.50	956.33	954.84	
F.I. 2-2	F.I. 2-1	144.00	950.89	948.93	1.36	30	0.012	48.00	9.78	51.83	2.50	958.21	958.08	
F.I. 2-3	F.I. 2-2	101.30	953.42	951.39	2.00	24	0.012	38.86	12.37	34.69	2.00	961.35	960.36	
M.H. 2-4	F.I. 2-3	136.61	956.99	953.92	2.25	24	0.012	29.94	9.53	36.73	2.00	964.35	965.63	
C.I. 2-5	M.H. 2-4	138.00	962.32	957.49	3.50	24	0.012	29.94	9.53	45.84	2.00	966.83	970.31	
C.I. 2-6	C.I. 2-5	230.00	967.30	963.07	1.84	15	0.012	11.08	9.03	9.49	1.25	973.17	973.99	
NULL ON LINE 2	C.I. 2-6	178.30	969.58	967.80	1.00	15	0.012	3.95	3.22	6.99	1.25	974.24	970.95	
C.I. 3-1	C.I. 1-4	53.27	947.21	946.14	2.01	15	0.012	1.89	1.54	9.91	1.25	951.57	955.25	
C.I. 4-1	F.I. 2-2	138.00	953.24	952.14	0.80	15	0.012	4.60	3.75	6.25	1.25	959.40	959.27	
C.I. 4-2	C.I. 4-1	39.15	954.05	953.74	0.79	15	0.012	2.03	1.65	6.22	1.25	959.50	958.93	
C.I. 5-1	F.I. 2-3	138.00	955.30	953.92	1.00	18	0.012	4.58	2.59	11.38	1.50	962.53	961.95	
C.I. 5-2	C.I. 5-1	34.34	956.14	955.80	0.99	15	0.012	2.44	1.99	6.96	1.25	962.60	962.04	
C.I. 6-1	C.I. 2-5	44.69	963.21	962.82	0.87	24	0.012	17.78	5.66	22.89	2.00	967.63	970.78	
F.I. 6-2	C.I. 6-1	150.50	964.91	963.71	0.80	18	0.012	13.29	7.52	10.16	1.50	971.03	969.06	
F.I. 6-3	F.I. 6-2	225.00	970.47	965.41	2.25	15	0.012	7.30	5.95	10.49	1.25	972.39	974.91	
C.I. 7-1	C.I. 2-6	41.62	968.22	967.80	1.01	15	0.012	5.55	4.52	7.03	1.25	973.94	974.37	
C.I. 8-2	E.S. 8-1	35.00	939.82	939.54	0.80	18	0.012	17.40	9.91	10.18	1.44	941.79	946.73	
C.I. 8-3	C.I. 8-2	235.47	942.67	940.32	1.00	15	0.012	9.27	7.55	6.99	1.25	946.53	950.92	
C.I. 8-4	C.I. 8-3	103.13	944.46	943.17	1.25	15	0.012	5.63	4.59	7.82	1.25	947.46	952.80	
C.I. 8-5	C.I. 8-4	34.61	945.39	944.96	1.24	15	0.012	3.80	3.10	7.80	1.25	947.66	952.88	
C.I. 9-2	E.S. 9-1	162.45	947.12	945.82	0.80	15	0.012	11.20	9.13	6.26	1.25	952.40	955.66	
C.I. 9-3	C.I. 9-2	64.21	948.90	947.62	1.99	15	0.012	9.58	7.81	9.88	1.25	954.12	956.35	
F.I. 9-4	C.I. 9-3	138.00	951.13	949.40	1.25	15	0.012	6.45	5.26	7.83	1.25	956.73	956.72	
C.I. 10-2	E.S. 10-1	165.97	953.14	951.81	0.80	24	0.012	21.85	7.88	21.93	1.63	954.81	959.29	
C.I. 10-3	C.I. 10-2	69.39	954.20	953.64	0.81	24	0.012	21.29	7.83	22.01	1.58	955.85	960.55	
F.I. 10-4	C.I. 10-3	138.00	956.05	954.95	0.80	15	0.012	4.61	4.90	6.25	0.92	956.92	960.70	
C.I. 11-1	C.I. 10-3	150.00	955.90	954.70	0.80	18	0.012	13.21	7.48	10.18	1.50	958.22	962.77	
C.I. 11-2	C.I. 11-1	106.77	958.00	956.40	1.50	15	0.012	6.57	5.35	8.56	1.25	959.51	964.79	
C.I. 11-3	C.I. 11-2	34.00	958.84	958.50	1.00	15	0.012	5.08	4.80	7.00	1.15	959.75	964.79	
C.I. 12-1	C.I. 11-1	36.23	956.76	956.40	0.99	15	0.012	1.55	1.26	6.97	1.25	958.59	962.95	

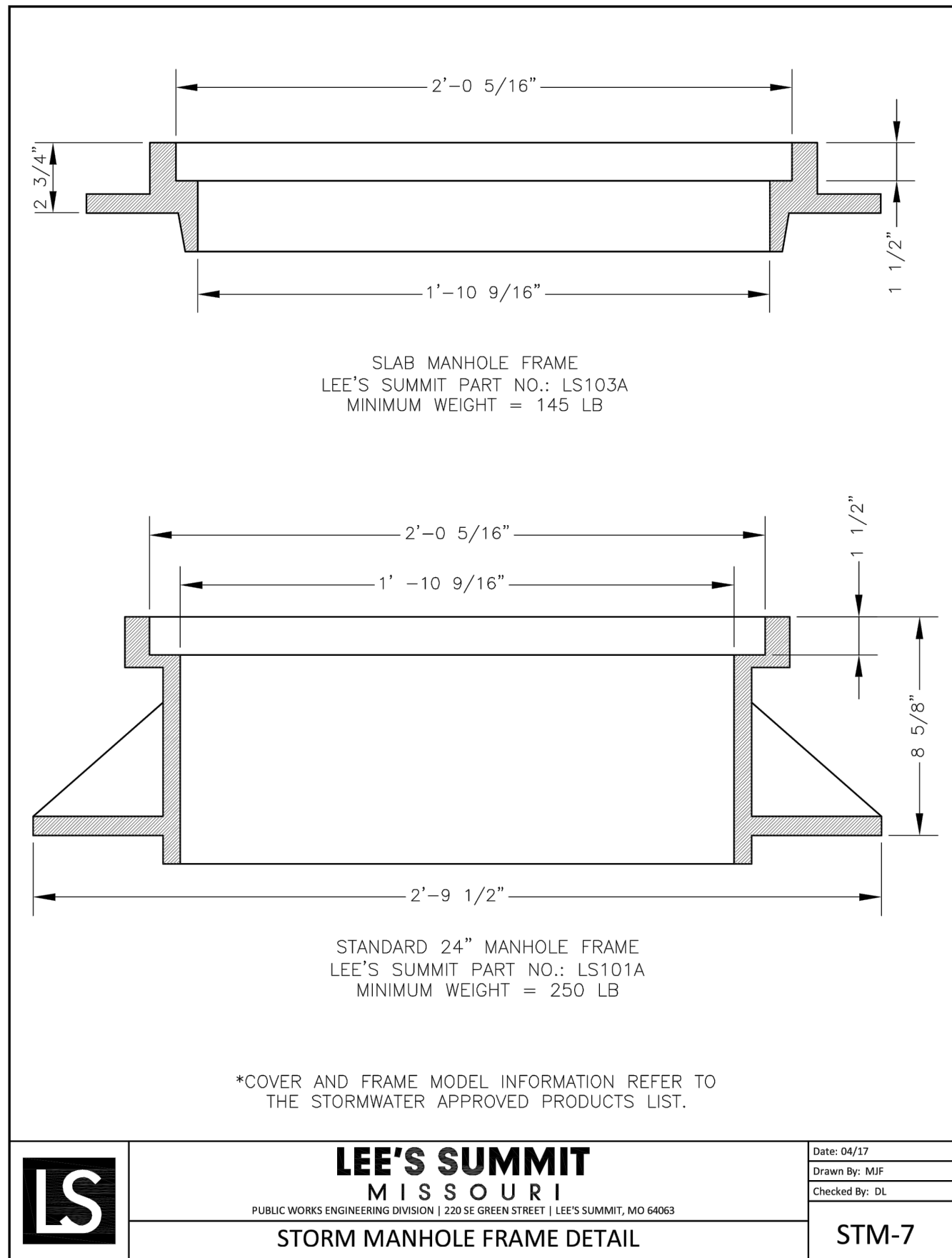
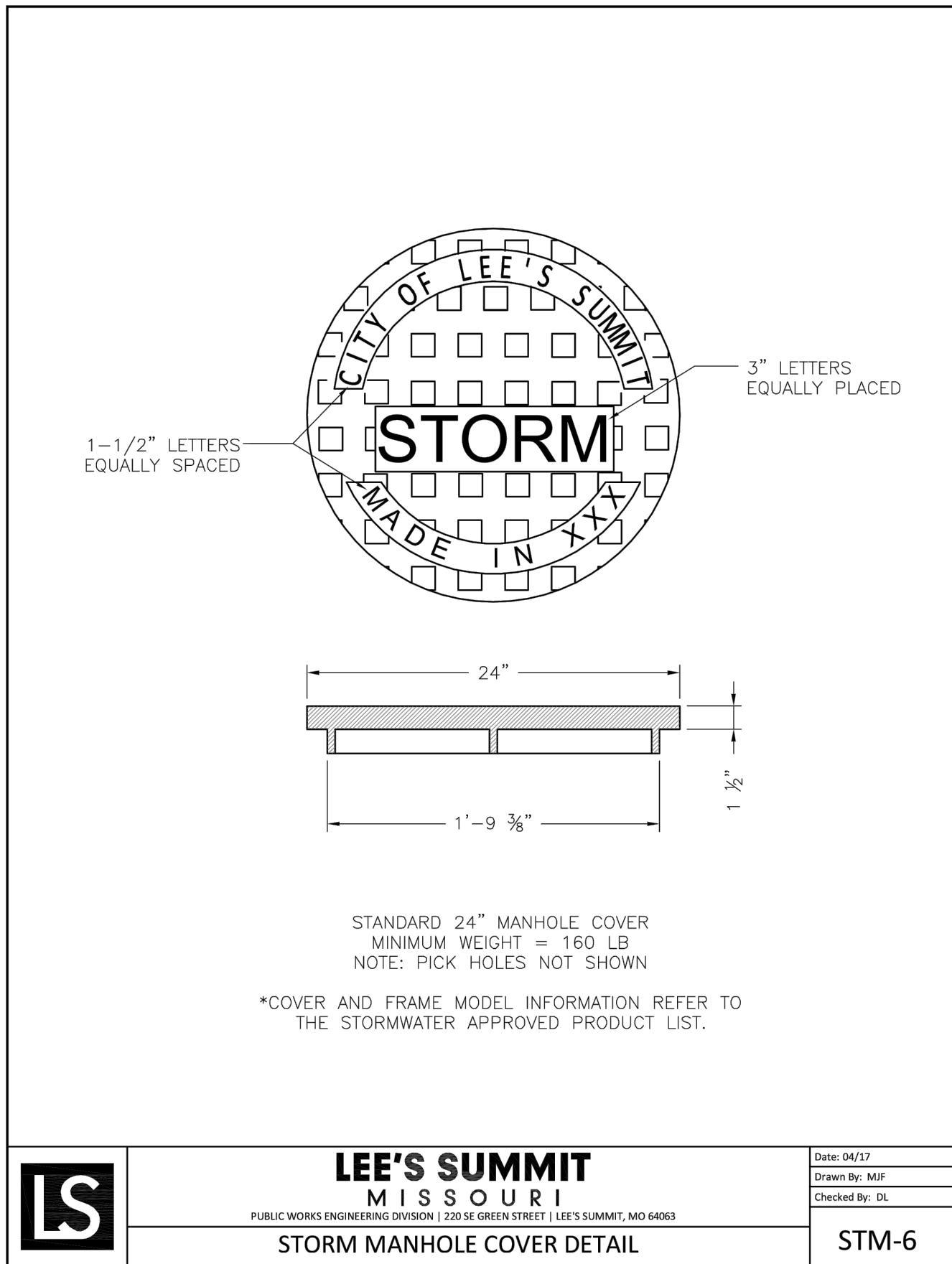
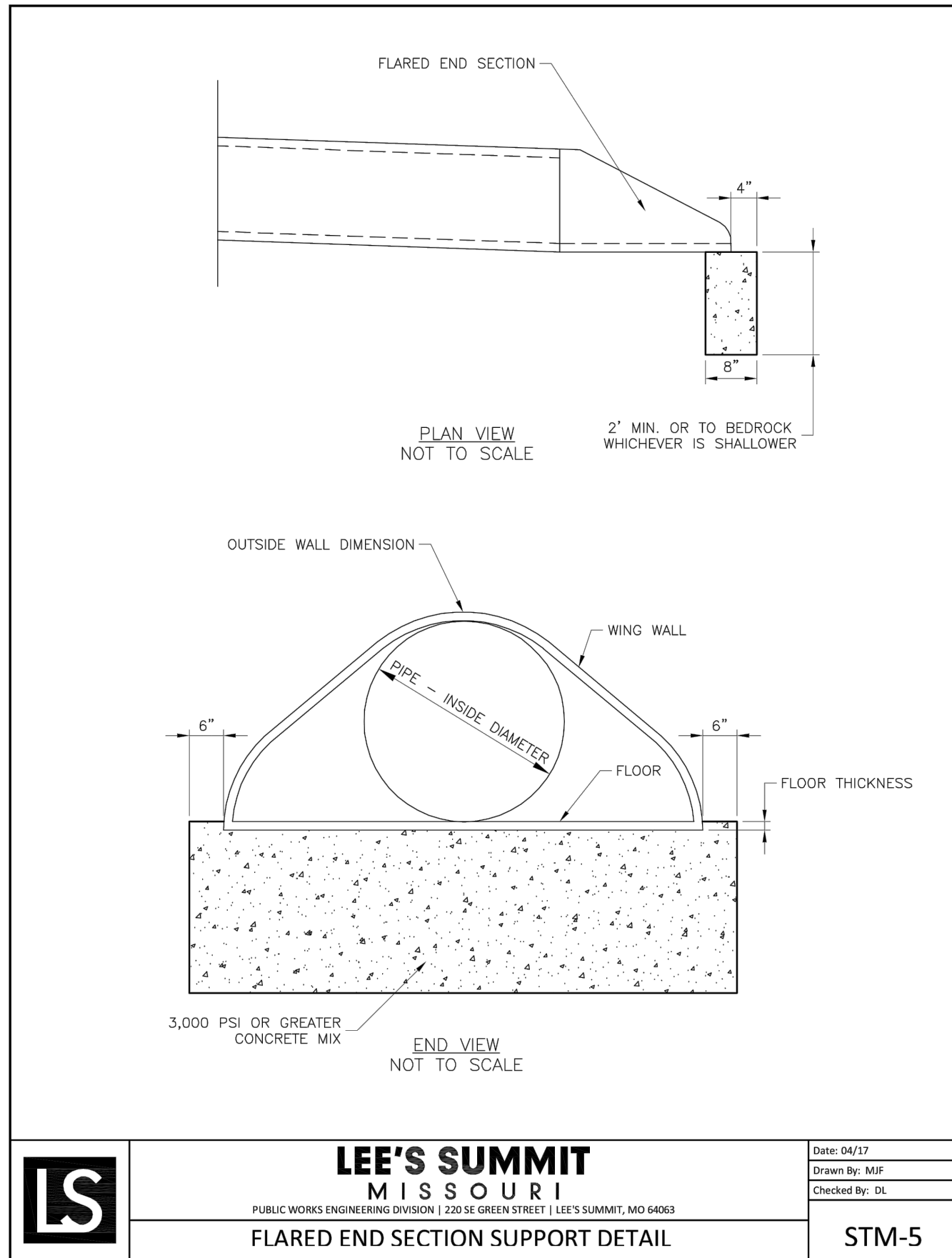
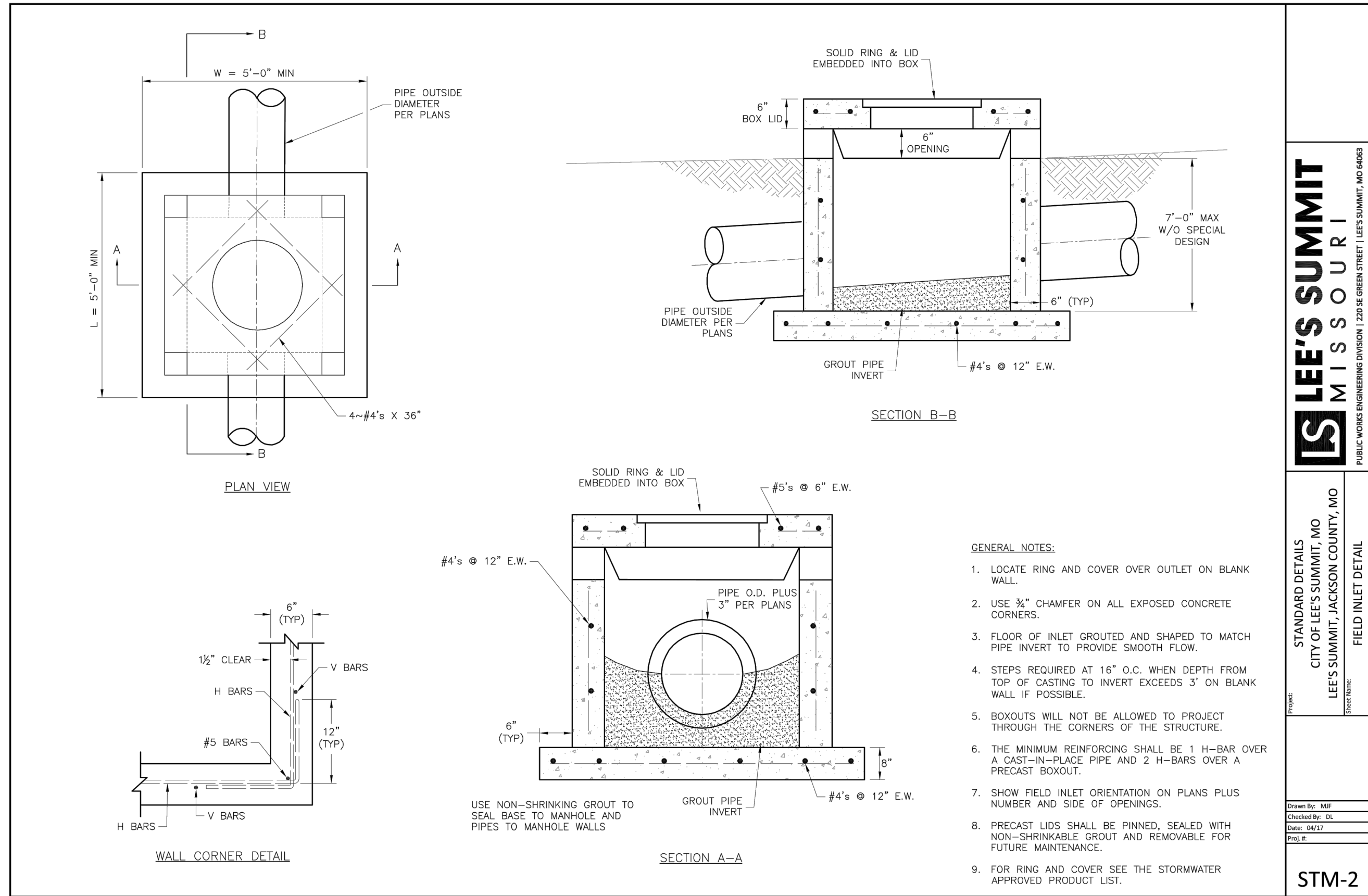
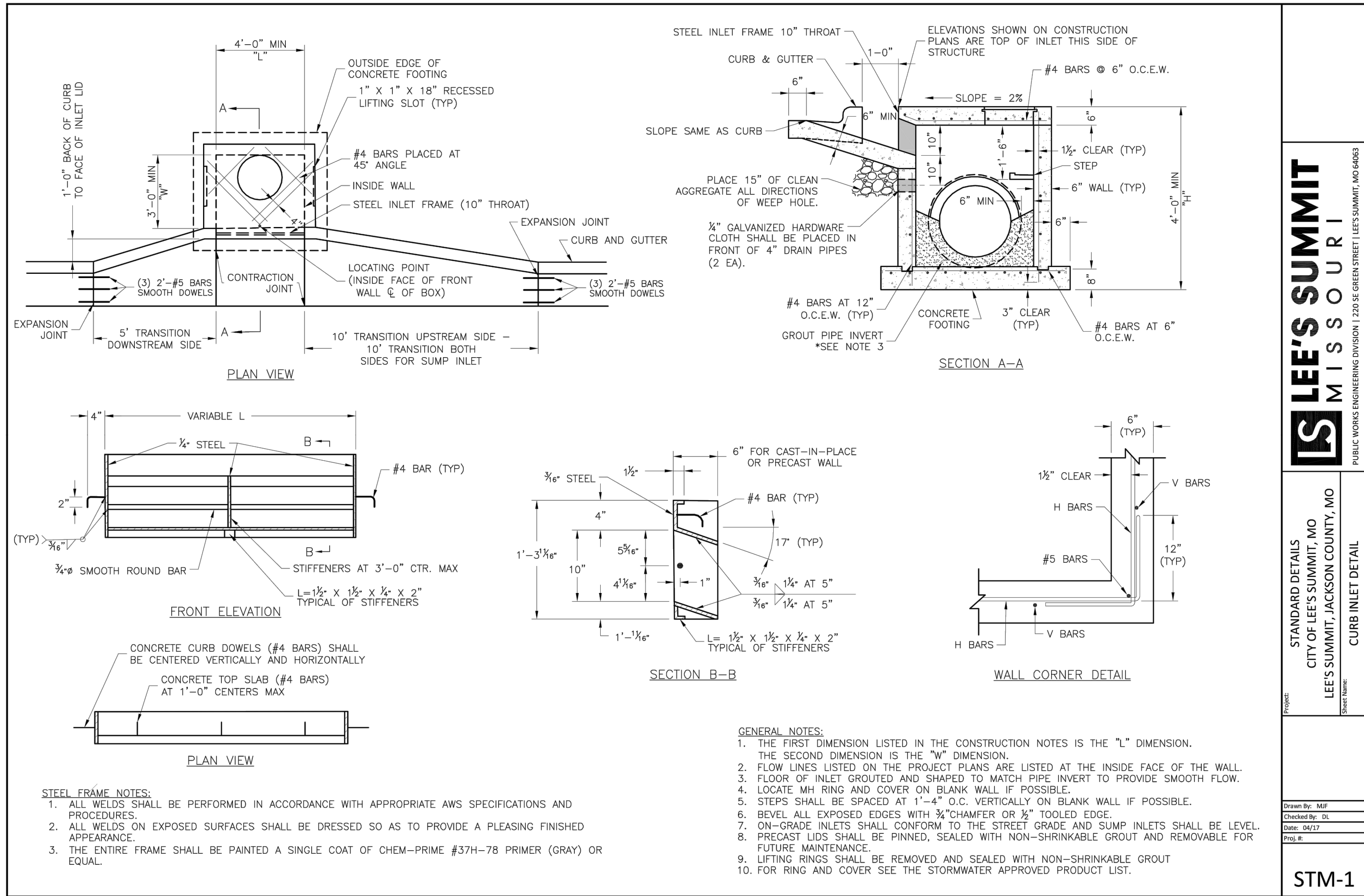


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