

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

REVIEWED BY:

CITY OF LEE'S SUMMIT

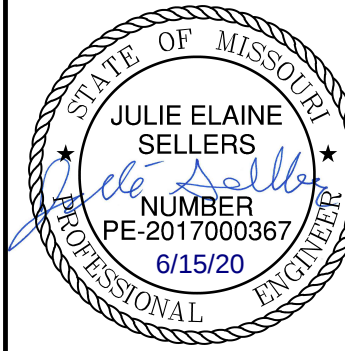
DATE _____

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.


JULIE E SELLERS, P.E.
CIVIL ENGINEER
MO# 2017000367

6/15/20

DATE _____



BY

REVISIONS DESCRIPTION

COVER SHEET
STREET & STORM SEWER PLANS

WOODSIDE RIDGE
SECOND PLAT

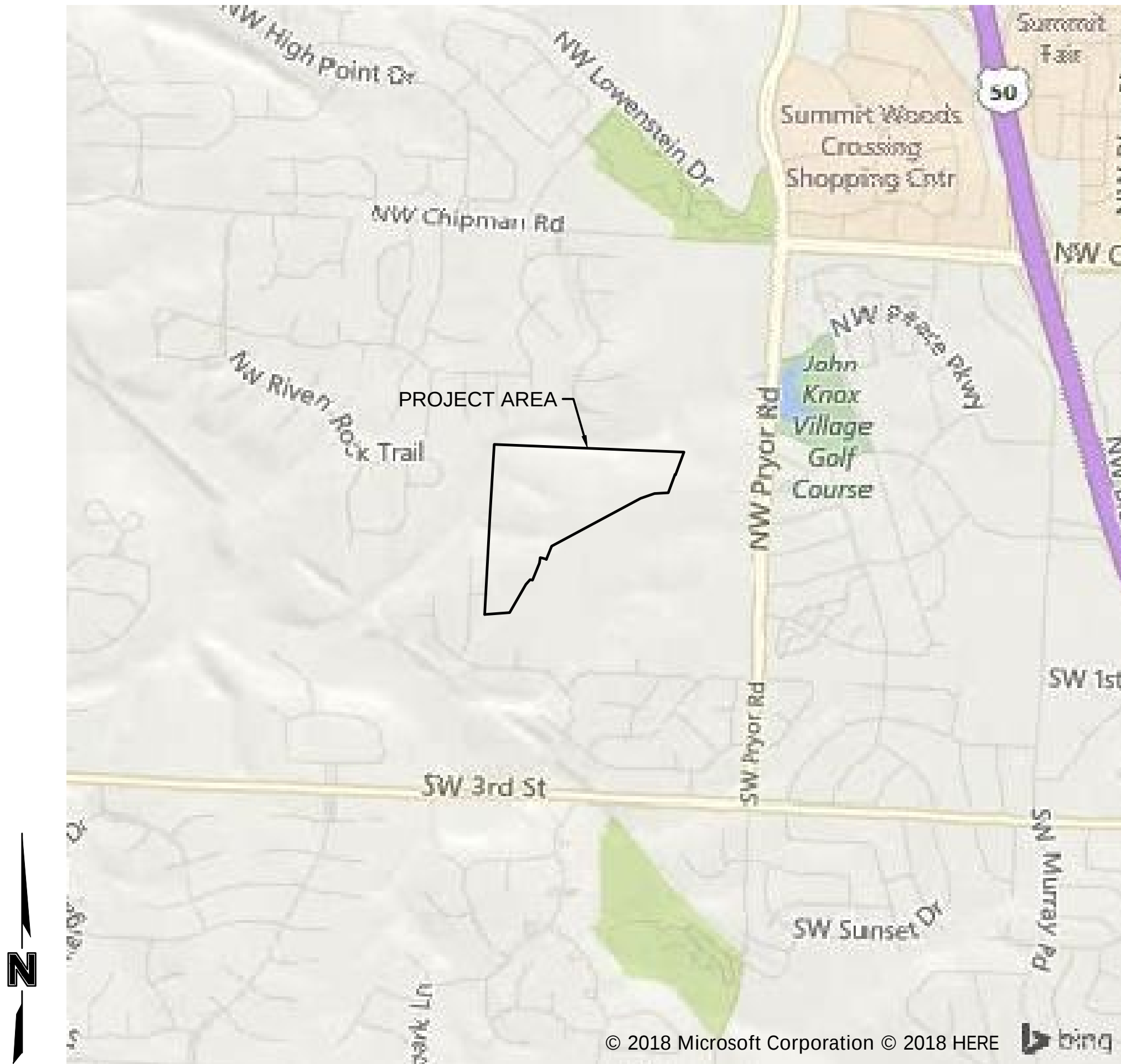
LEE'S SUMMIT, MO

drawn by: _____ C.S.
checked by: _____ S.M.
designed by: _____ C.S.
QA/QC by: _____ J.E.
project no.: _____ C18-114
date: _____ 2020.06.0

SHEET
C101

☒ NOT FOR CONSTRUCTION

☐ REVIEWED FOR CONSTRUCTION



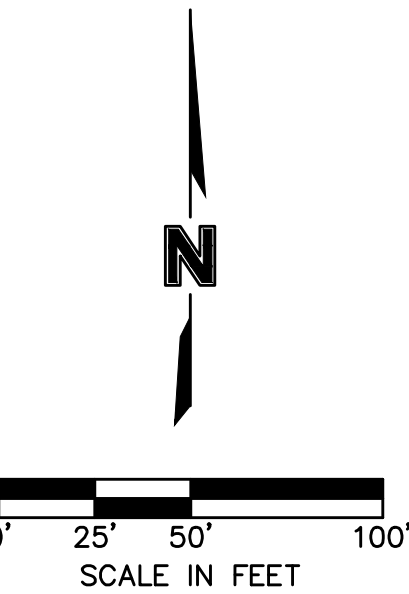
PROPERTY DESCRIPTION:

Part of Lot 3B, WEST VILLAGE COMMERCIAL DEVELOPMENT, LOTS 3A AND 3B, a subdivision recorded as Instrument Number 19E0018413 in Book 1182 at Page 62 in Jackson County Recorder of Deeds Office located in the Northeast and Southeast Quarter of Section 2, 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 Roudsbaugh, P.L.S. 2002014092 as follows: Commencing at the Southeast corner of said Southeast Quarter; thence North 87°47'03" West, on the South line of said Southeast Quarter, 2,633.21 feet to the Southwest corner of said Southeast Quarter; thence North 73°05'41" East, on the West line of said Southeast Quarter, 1,326.36 feet to the Southwest corner of said Lot 3B, also being the Southwest corner of the North half said Southeast Quarter, also being a point on the Easterly line of STERLING HILLS 5TH PLAT, a subdivision in said Lee's Summit recorded as Instrument Number 11273788 in Book 154 at Page 88 in said Jackson County Recorder of Deeds Office, also being the Southwest corner of proposed WOODSIDE RIDGE 1st Plat, Lots 1 thru 143 Inclusive, and Tracts A, B, C, D, E, F, G and H; thence North 03°05'41" East on said West line and said Easterly line, also being the West line of said Lot 3B, also being the Westerly line of proposed WOODSIDE RIDGE 1ST PLAT, LOTS 1 thru 143 Inclusive, and Tracts A, B, C, D, E, F, G and H, 389.26 feet to the Point of Beginning of the tract of land to be herein described; thence leaving said proposed Westerly line, continuing North 03°05'41" East on said West lines and said Easterly lines, 936.61 feet to the Northeast corner of said STERLING HILLS 5TH PLAT, also being a point on the Easterly line of WINTERSET WOODS — 3RD PLAT, a subdivision in said Lee's Summit recorded as Instrument Number 20030002463 in Book 174 at Page 14 in said Jackson County Recorder of Deeds Office, also being the Northwest corner of said Southeast Quarter; thence North 03°26'14" East, on the said West line of said Lot 3B, said Easterly line and West line of said Northeast Quarter, 665.72 feet to the Northwest corner of said Lot 3B, also being the Half of said Northeast Quarter, also being the Northwest corner of said Lot 3B, also being the Northeast corner of said WINTERSET WOODS — 3RD PLAT, also being a point on the Southerly line of BROOKRIDGE ESTATES — SECOND PLAT LOTS 39—84, a subdivision in said Lee's Summit recorded as Instrument Number 18028414 in Book 144 at Page 57 in said Jackson County Recorder of Deeds Office; thence South 87°37'42" East, along said Southerly line, also along the North line of said Lot 3B, also being the North line of said South Half said South Half of said Northeast Quarter, also being the South line of the FOREST of BROOKRIDGE ESTATES — THIRD PLAT, LOTS 117 — 133, a distance of 1,210.45 feet to the Southeast corner of said THE FOREST of BROOKRIDGE ESTATES — THIRD PLAT LOTS 117 — 133 and to a point on said proposed Westerly line; thence South 87°37'42" East on said North line of said South Half of said South Half, said North line of said Lot 3B, and said proposed Westerly line, 574.95 feet; thence leaving said North lines, South 20°32'36" West, along said proposed Westerly line, 229.10 feet; thence Westerly, along said proposed Westerly line, on a curve to the left, having an initial tangent bearing of North 69°27'24" West with a radius of 428.00 feet, a central angle of 00°42'29" and an arc distance of 5.25 feet; thence South 19°50'07" West, along said proposed Westerly line 178.42 feet; thence South 85°52'23" West, along said proposed Westerly line, 130.41 feet; thence South 70°59'24" West, along said proposed Westerly line, 137.47 feet; thence South 61°49'26" West, along said proposed Westerly line, 951.56 feet; thence South 21°24'31" West, along said proposed Westerly line, 135.10 feet; thence Westerly, along said proposed Westerly line, along a curve to the left having an initial tangent bearing of North 68°35'29" West with a radius of 570.00 feet, a central angle of 12°33'32" and an arc distance of 60.28 feet; thence South 08°50'59" West, along said proposed Westerly line, 50.00 feet; thence South 22°12'04" West, along said proposed Westerly line, 173.03 feet; thence North 75°51'31" West, along said proposed Westerly line, 21.43 feet; thence South 41°11'03" West, along said proposed Westerly line, 60.06 feet; thence South 29°55'27" West, along said proposed Westerly line, 306.11 feet; thence South 85°54'26" West, along said proposed Westerly line, 236.75 feet to the Point of Beginning. Containing 1,514,368 square feet or 34.77 acres, more or less.

BENCHMARK

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

ELEVATION: 979.24



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300 EAST WASHINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.861.1177
WWW.OLSSON.COM

STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
6/15/20
PROFESSIONAL ENGINEER

BY

REVISIONS DESCRIPTION

NO. REV. DATE

GENERAL LAYOUT
STREET & STORM SEWER PLANS

WOODSIDE RIDGE
SECOND PLAT

LEE'S SUMMIT, MO

2020

drawn by: C.S.M.
checked by: S.M.S.
designed by: C.S.M.
QA/QC by: J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C105

USER: sscylor

DWG: F:\2018\1001-1500\018-1140-C\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Street & Storm\C_GRD02_C181140.dwg
DATE: Jun 15, 2020 9:41pm



KEY MAP

GENERAL NOTES:

- 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.
- 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.
- 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.

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

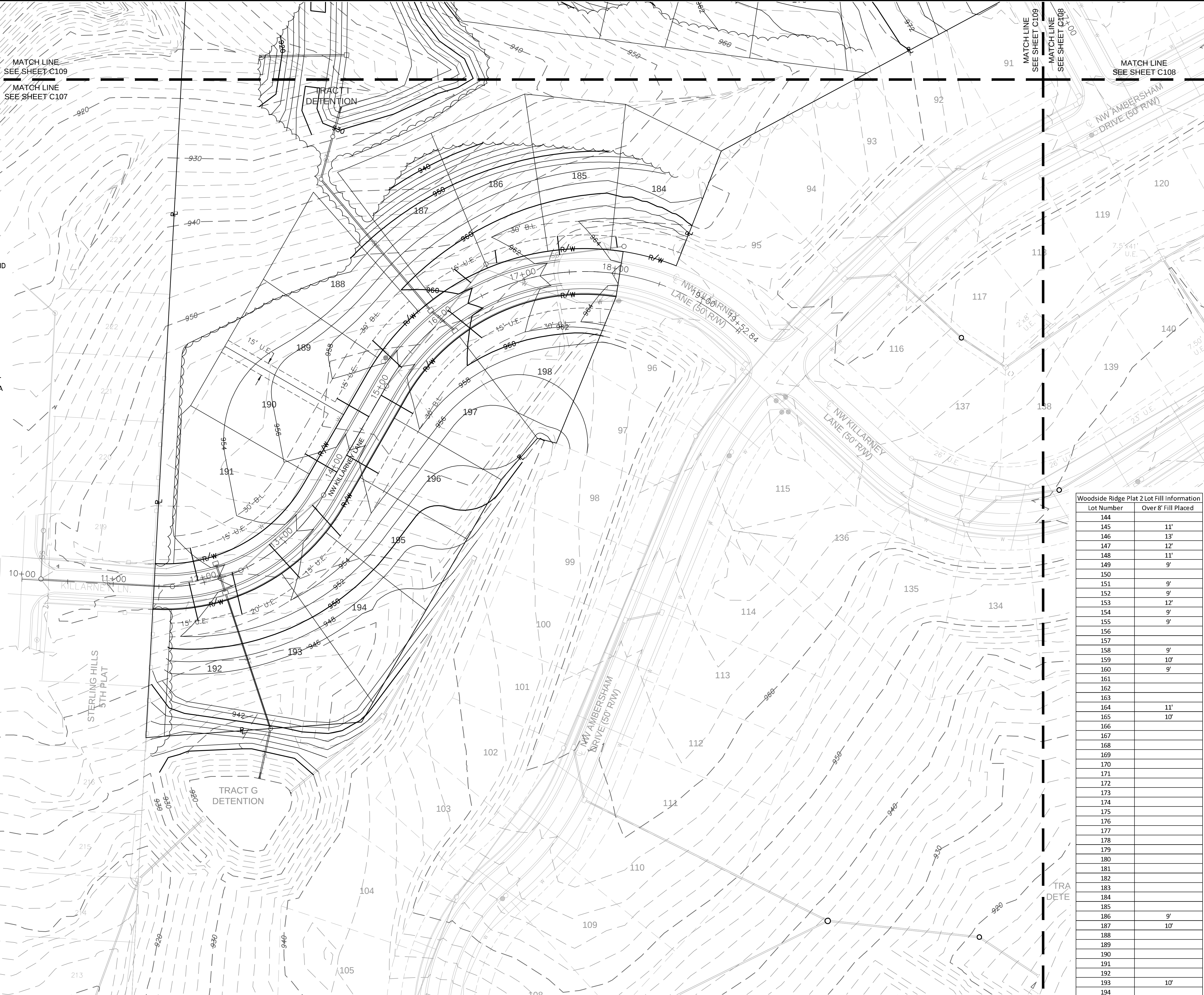
EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	8049	7968
SITE	52613	83489
TOTAL	60662	91457

EARTHWORK QUANTITIES NOTES:

- EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
- 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.
- THIRD PARTY TESTING REQUIRED FOR DETENTION BASIN IN TRACT E:
 - REMOVE TOPSOIL AND ORGANIC DIRT FROM THE AREA
 - PROOF ROLL TO CHECK THE SUBGRADE
 - REMOVE OR REPAIR ANY UNSTABLE AREA IN ACCORDANCE WITH THIRD-PARTY TESTER
- PLACE 9" LOOSE LIFTS OF 9" MATERIAL WITH LL=50 AND PI=25 OR GREATER. 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.



0 25' 50' 100'
SCALE IN FEET



Woodside Ridge Plat 2 Lot Fill Information	
Lot Number	Over 8' Fill Placed
144	
145	11'
146	13'
147	12'
148	11'
149	9'
150	
151	9'
152	9'
153	12'
154	9'
155	9'
156	
157	
158	9'
159	10'
160	9'
161	
162	
163	
164	11'
165	10'
166	
167	
168	
169	
170	
171	
172	
173	
174	
175	
176	
177	
178	
179	
180	
181	
182	
183	
184	
185	
186	9'
187	10'
188	
189	
190	
191	
192	
193	10'
194	
195	
196	
197	
198	

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300 E. BURNING ST. SUITE 100
NORTH KANSAS CITY, MO 64116
TEL. 816.861.1177
WWW.OLSSON.COM

STATE OF MISSOURI
JULIE ELAINE
SELLERS
Professional Engineer
NUMBER
PE-2017000367
6/15/20

BY
NO. REV.
DATE
REVISIONS DESCRIPTION

GRADING PLAN
STREET & STORM SEWER PLANS
WOODSIDE RIDGE
SECOND PLAT
LEE'S SUMMIT, MO
2020

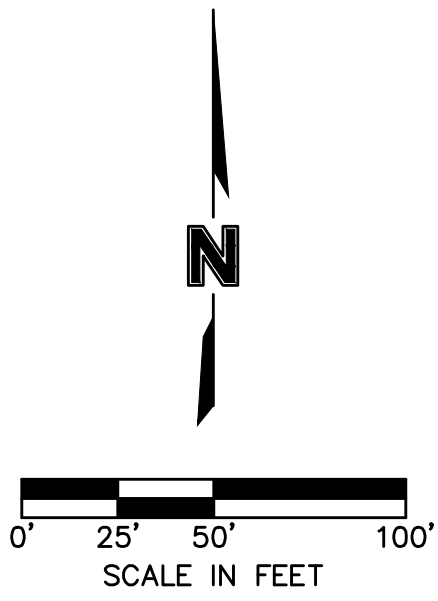
drawn by: C.S.M.
checked by: S.M.S.
designed by: C.S.M.
QA/QC by: J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C107



KEY MAP

Woodside Ridge Plat 2 Lot Fill Information	
Lot Number	Over 8' Fill Placed
144	
145	11'
146	13'
147	12'
148	11'
149	9'
150	
151	9'
152	9'
153	12'
154	9'
155	9'
156	
157	
158	9'
159	10'
160	9'
161	
162	
163	
164	11'
165	10'
166	
167	
168	
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171	
172	
173	
174	
175	
176	
177	
178	
179	
180	
181	
182	
183	
184	
185	
186	9'
187	10'
188	
189	
190	
191	
192	
193	10'
194	
195	
196	
197	
198	



BY

NO. REV.

DATE

REVISIONS DESCRIPTION

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2020

GRADING PLAN
STREET & STORM SEWER PLANS

WOODSIDE RIDGE
SECOND PLAT

LEE'S SUMMIT, MO

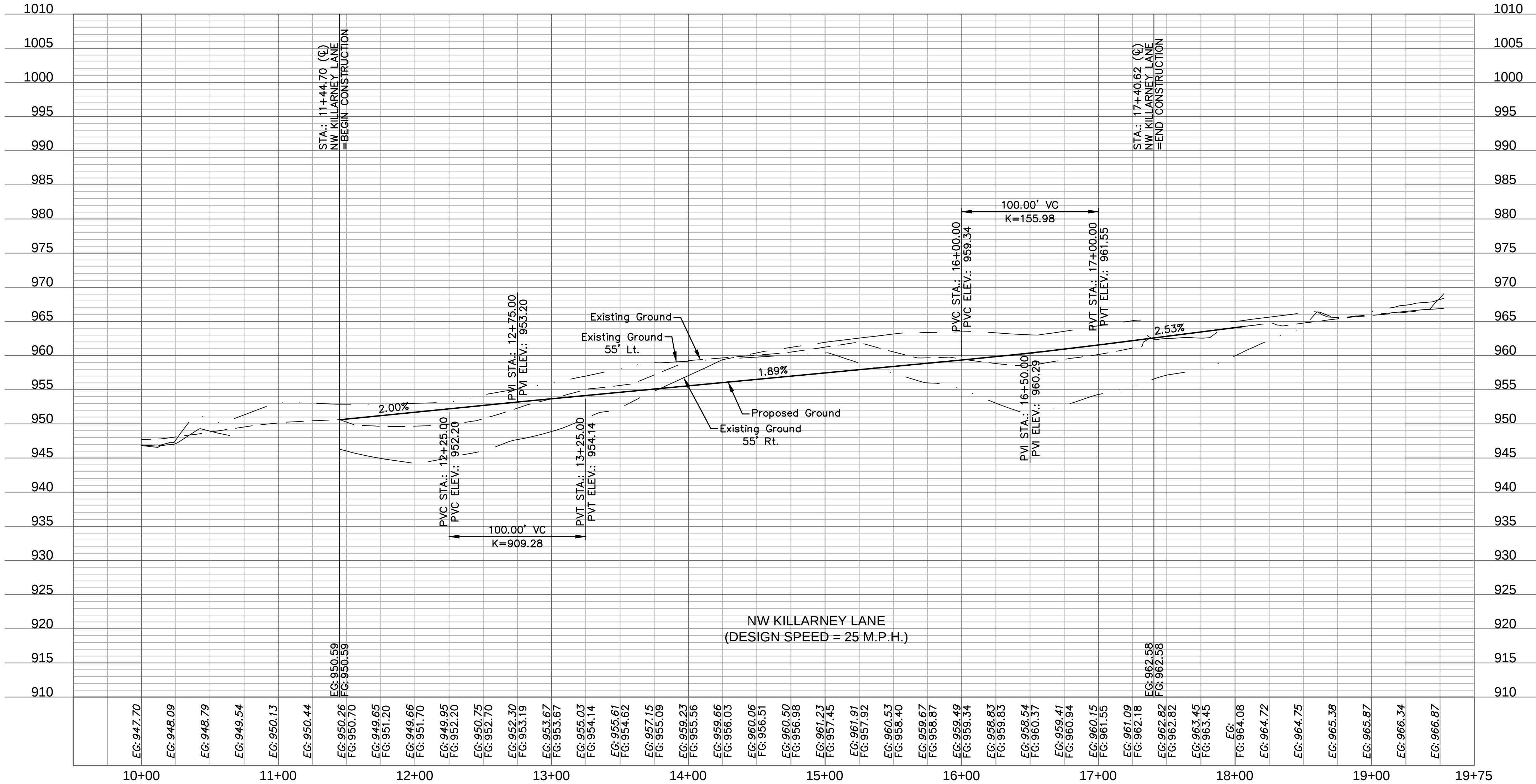
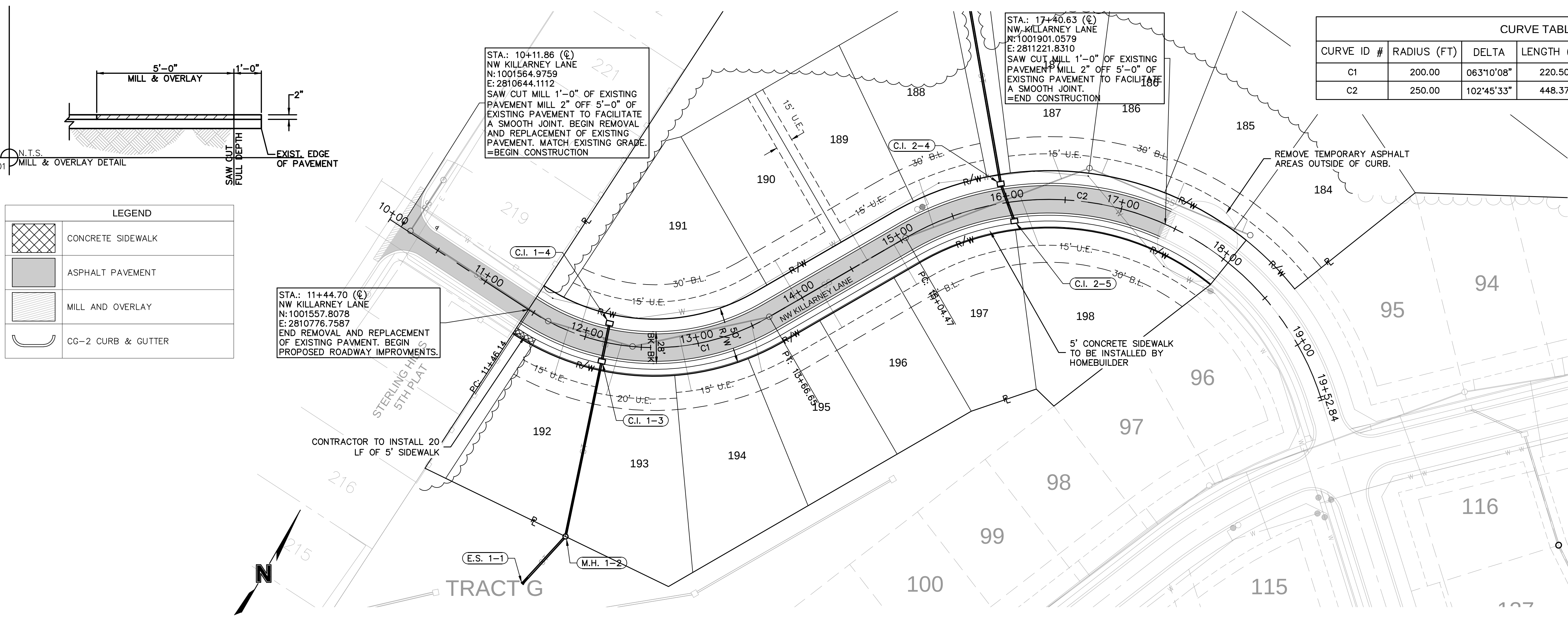
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project no.: C18-1140
date: 2020.06.15

SHEET
C109

STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
6/15/20
PROFESSIONAL ENGINEER

olsson

NO. 00000000 of Architects and Engineers
303 E. BROADWAY, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL. 816.861.1177
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CURVE TABLE					
CURVE ID #	RADIUS (FT)	DELTA	LENGTH (FT)	TANGENT (FT)	P.I. STA. (BK.)
C1	200.00	063°10'08"	220.50	122.97	12+43.68
C2	250.00	102°45'33"	448.37	312.94	16+39.90

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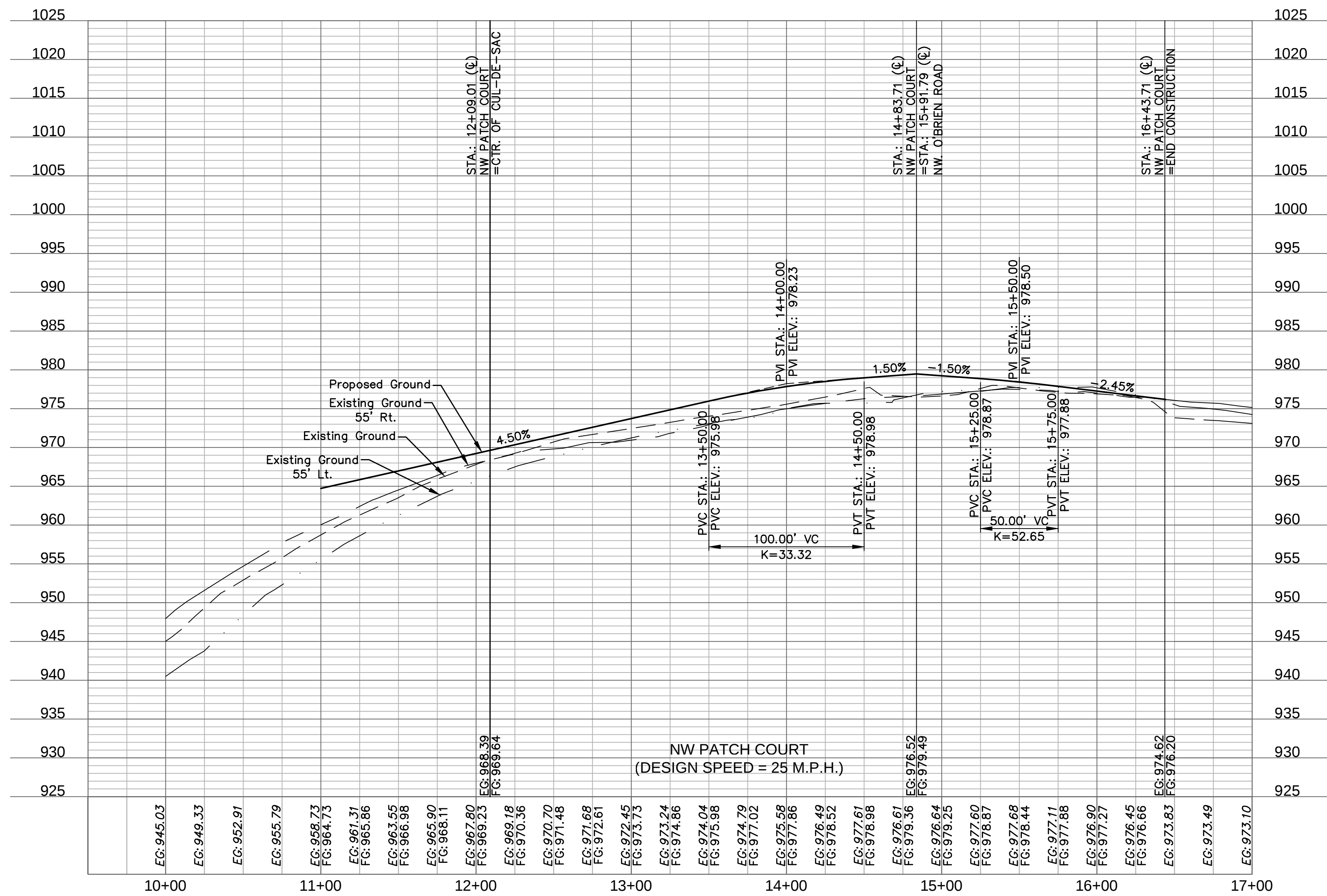
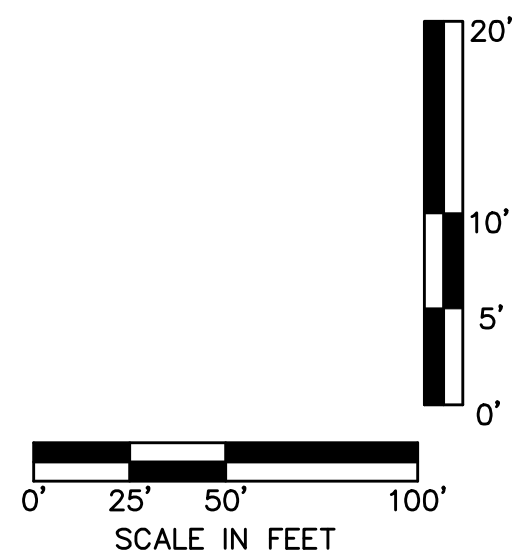
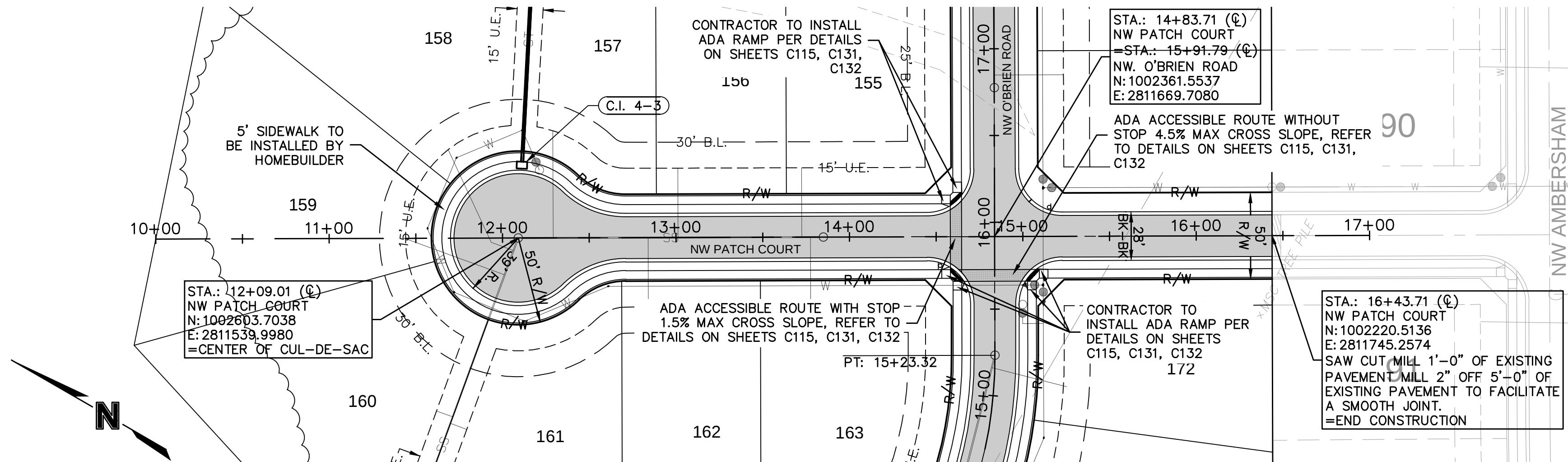
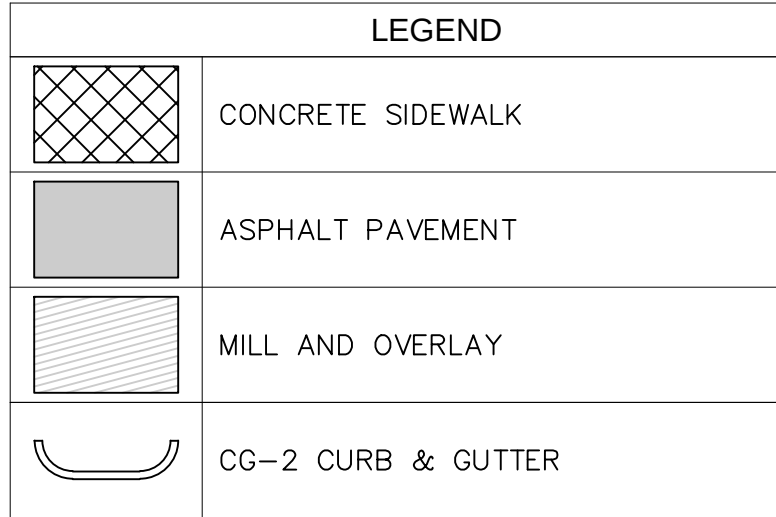
STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
6/15/20
PROFESSIONAL ENGINEER

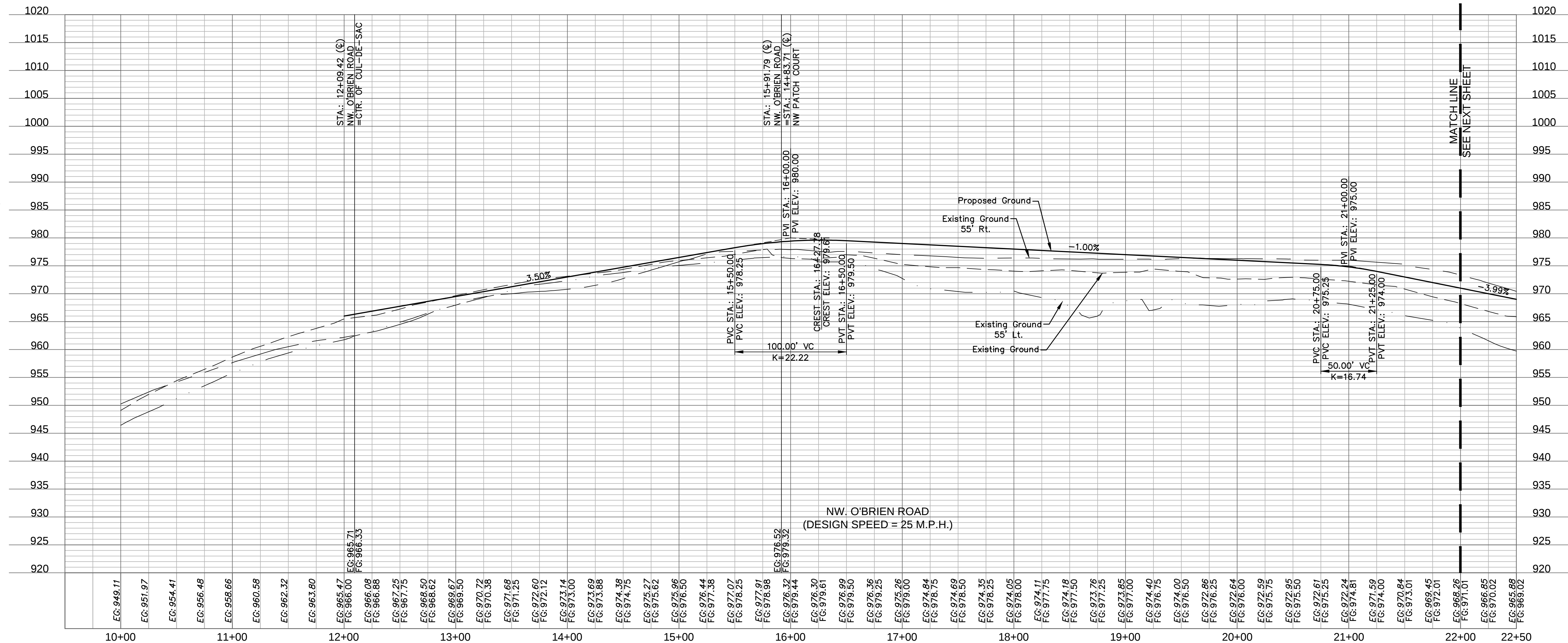
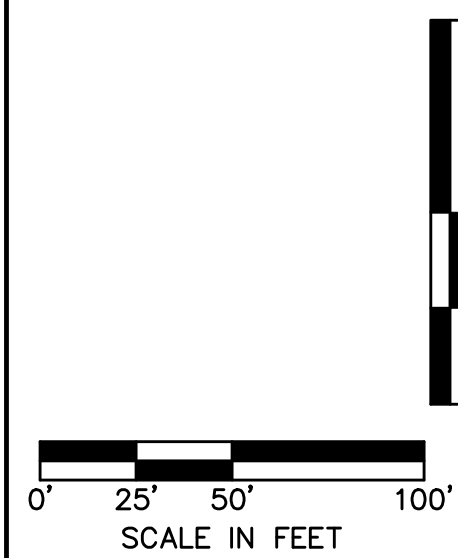
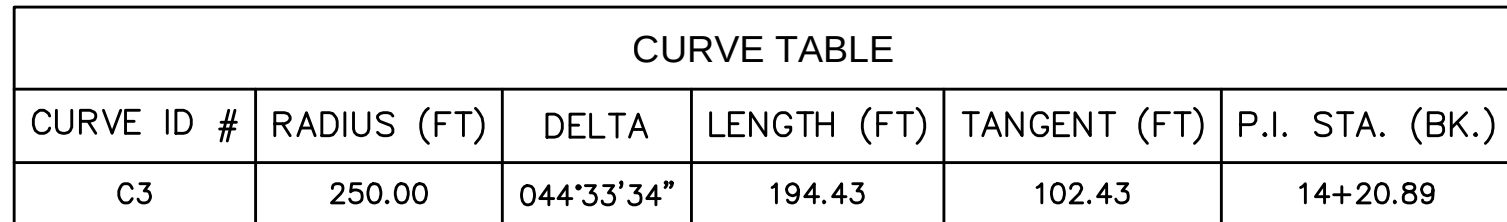
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DATE
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REVISIONS

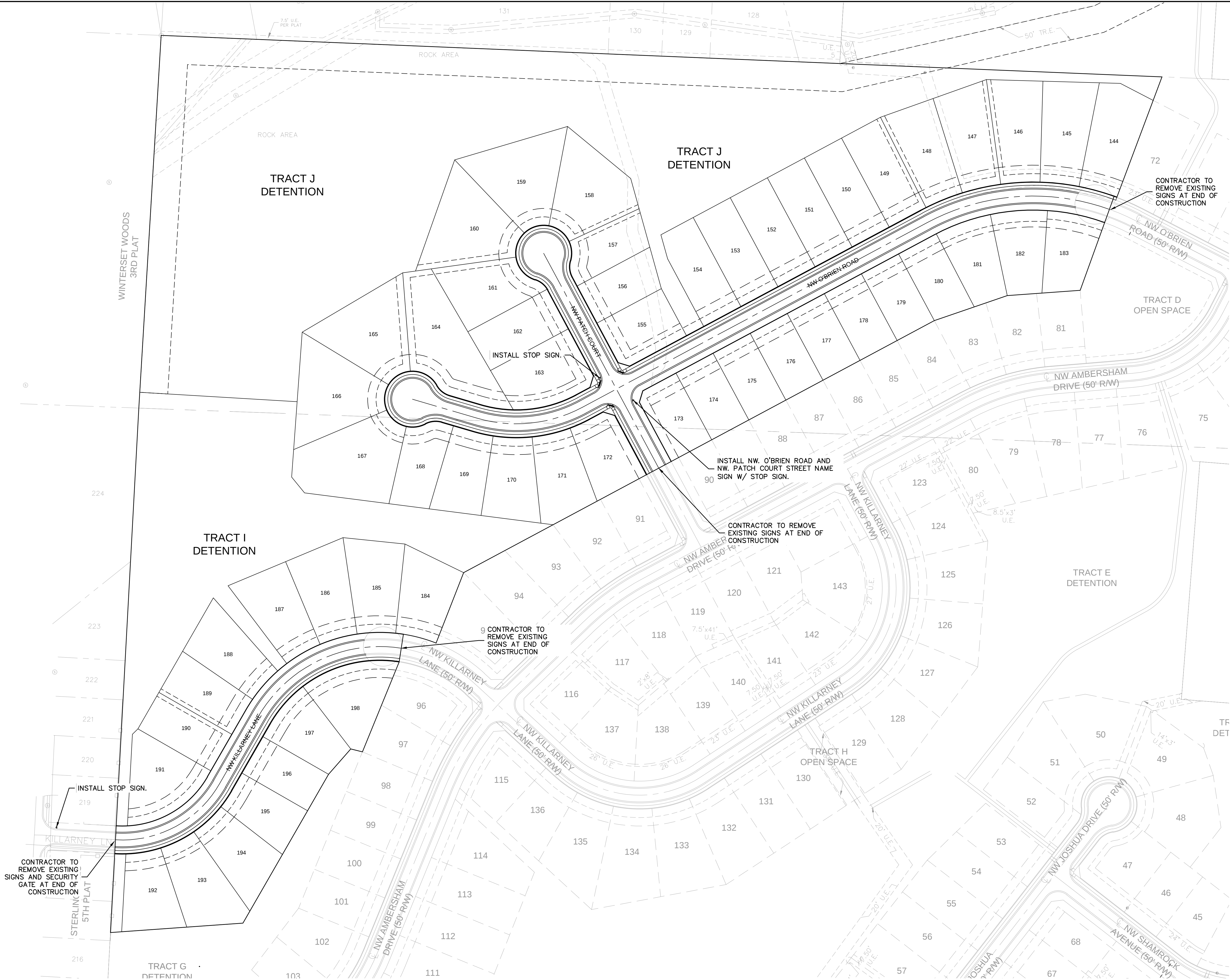
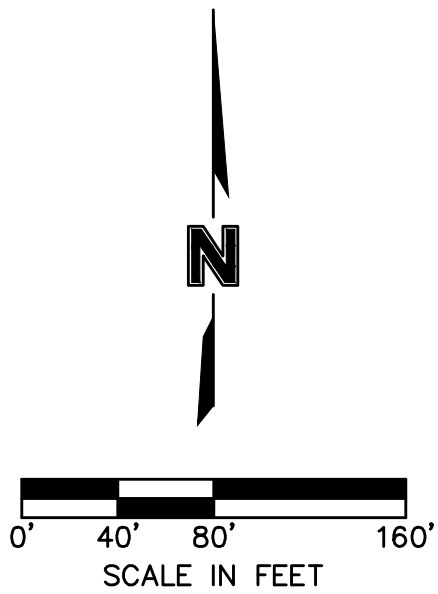
ROADWAY PLAN & PROFILE
STREET & STORM SEWER PLANS
WOODSIDE RIDGE
SECOND PLAT
LEE'S SUMMIT, MO
2020

drawn by: _____ C.S.M.
checked by: _____ S.M.S.
designed by: _____ C.S.M.
QA/QC by: _____ J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C110







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NO. 0016 of Authority of PE 001692
303 E. BIRCH STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL. 816.861.1177
WWW.OLSSON.COM

STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
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6/15/20
PROFESSIONAL ENGINEER

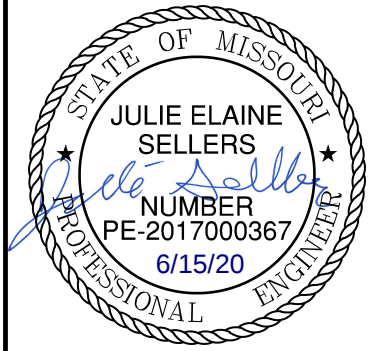
BY
REVISIONS DESCRIPTION
DATE
NO. REV.

TRAFFIC CONTROL PLAN
STREET & STORM SEWER PLANS
WOODSIDE RIDGE
SECOND PLAT
LEE'S SUMMIT, MO

2020

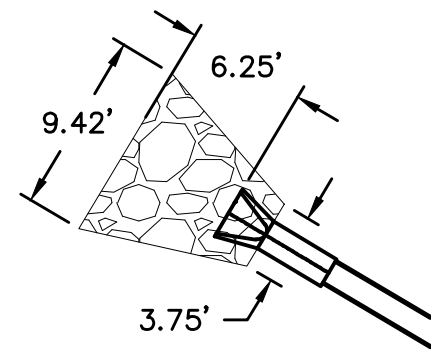
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project no.: C18-1140
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SHEET
C114

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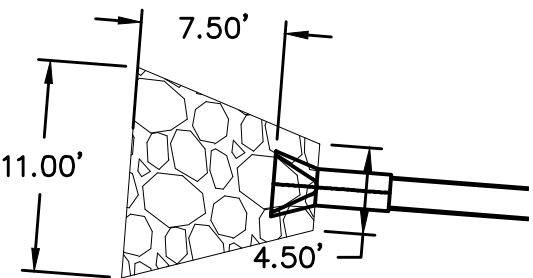
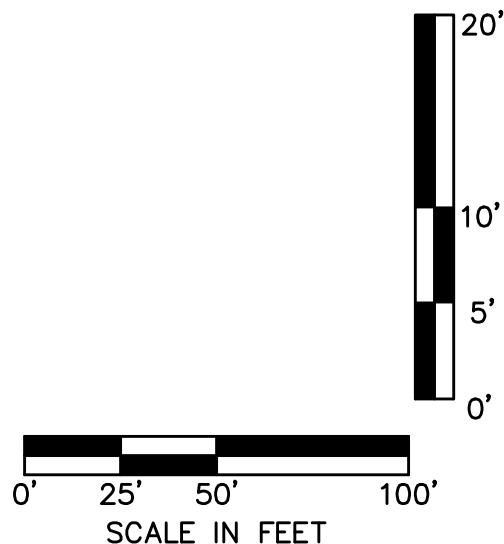
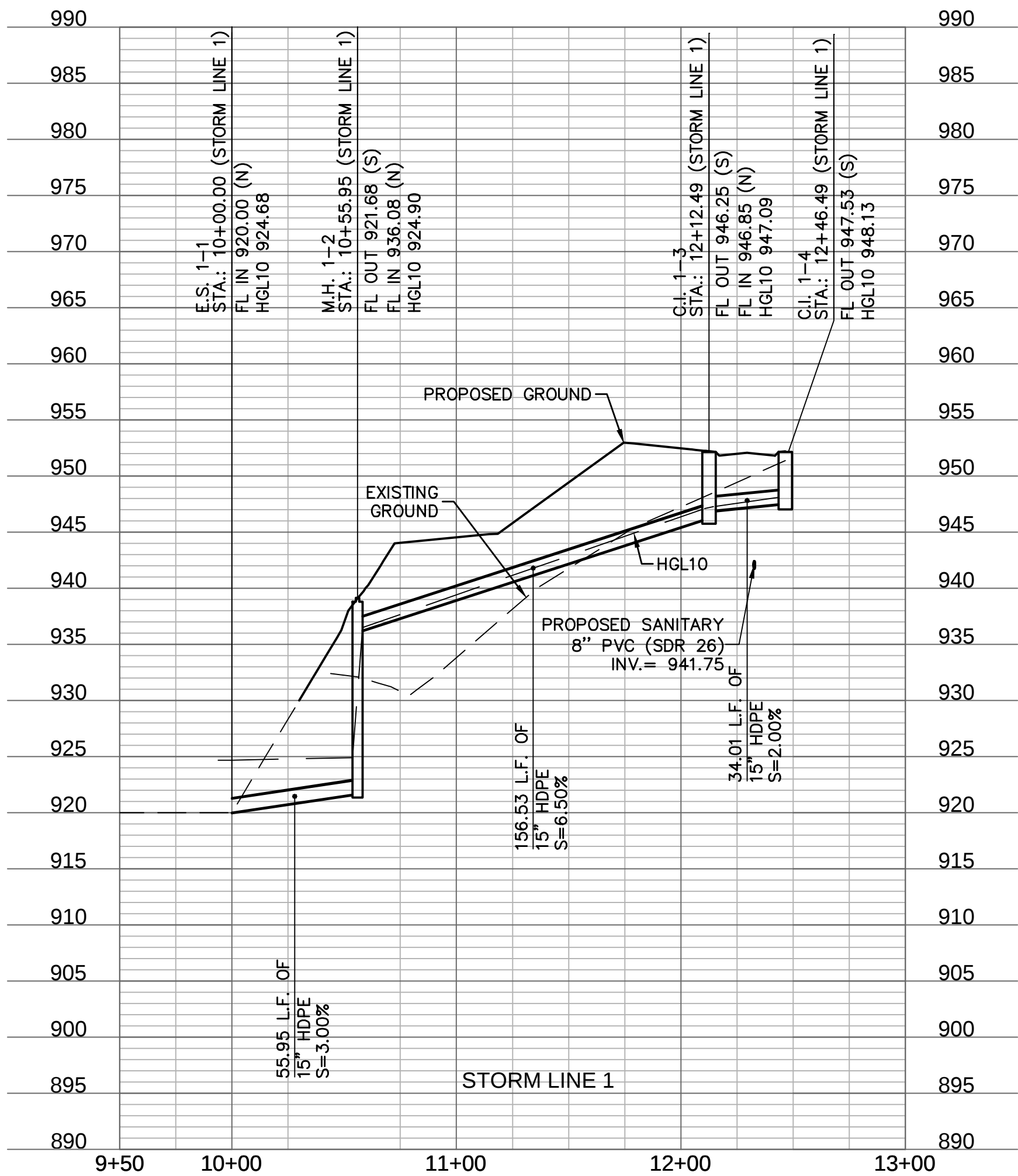
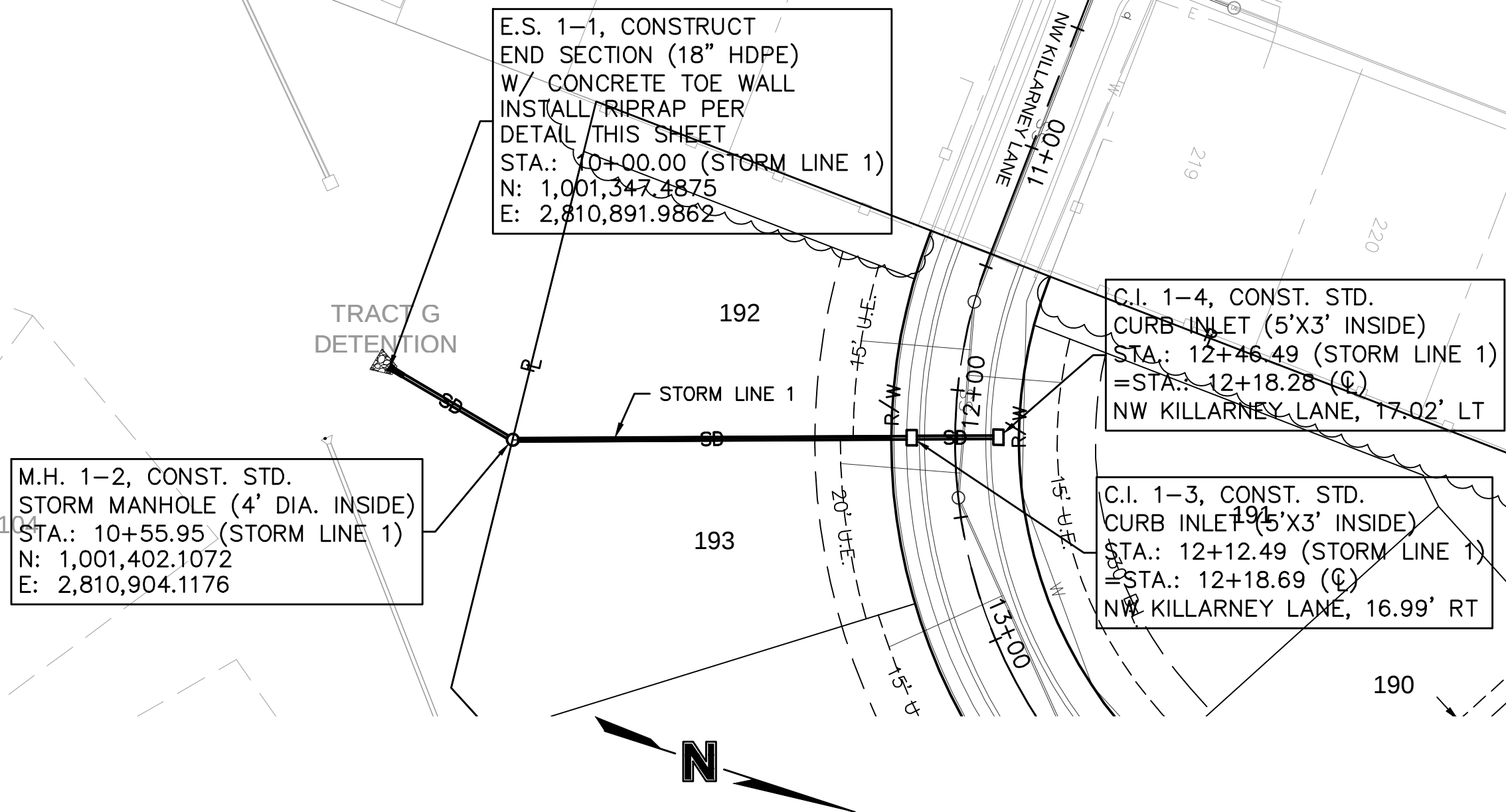
TRACT G
DETENTION



E.S. 1-1
SCALE 1-10'

Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)
E.S. 1-1	7.34	1.25	3	10	6.25	2.00

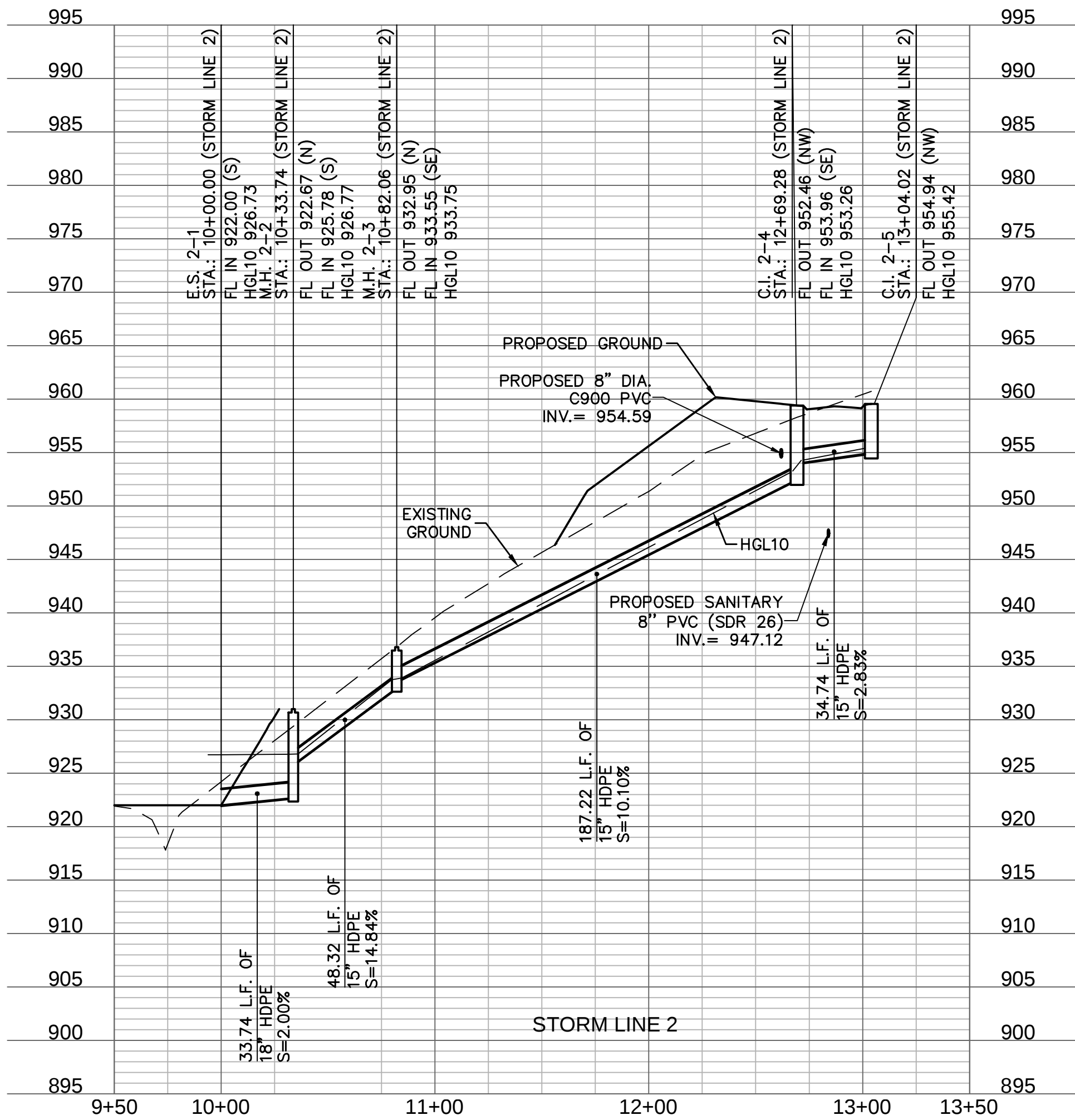
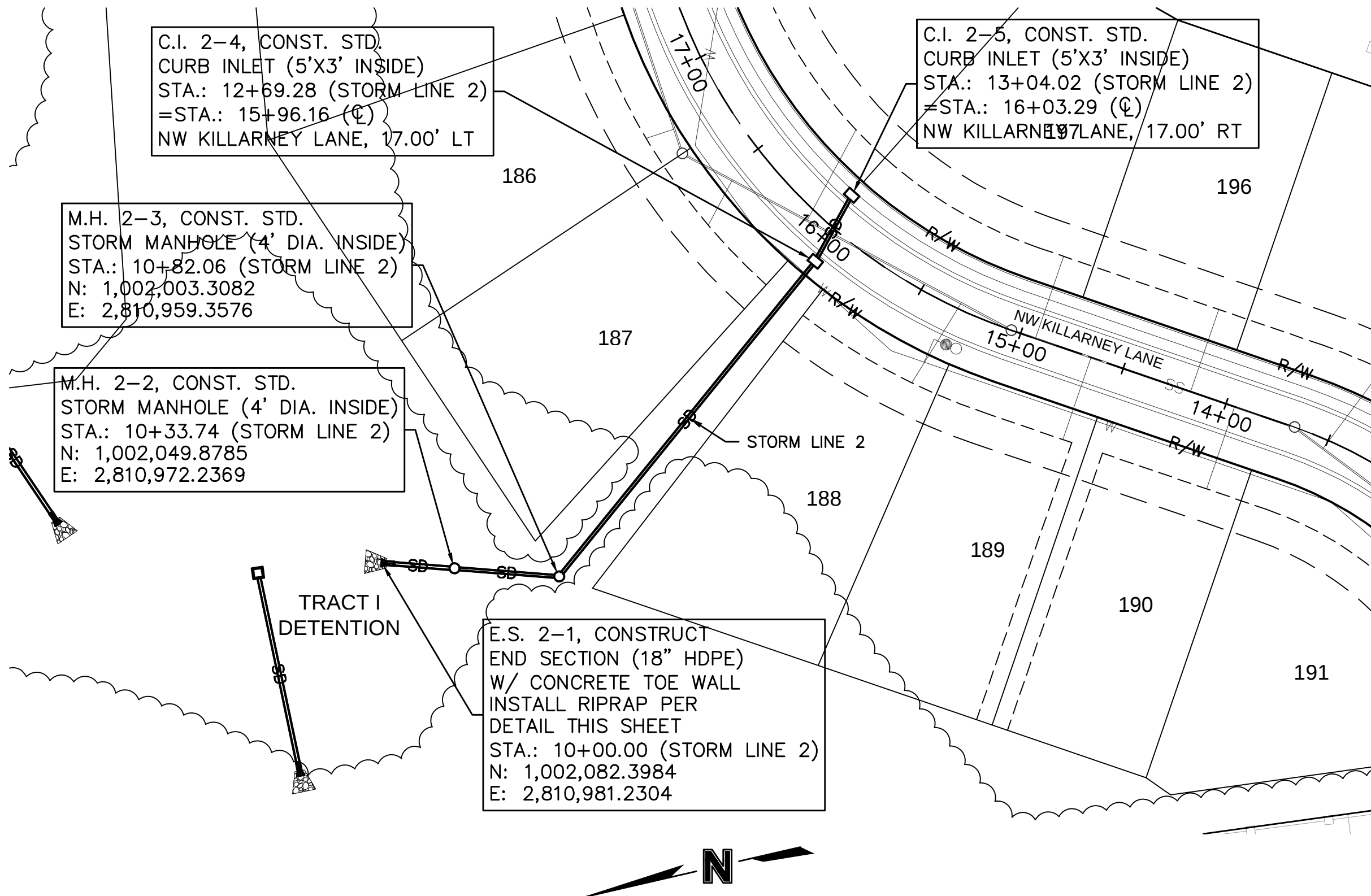
*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18



E.S. 2-1
SCALE 1-10'

Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)
E.S. 2-1	9.35	1.5	3	10	7.5	2.00

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



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NORTH KANSAS CITY, MO 64116
TEL. 816.861.1177
WWW.OLSSON.COM

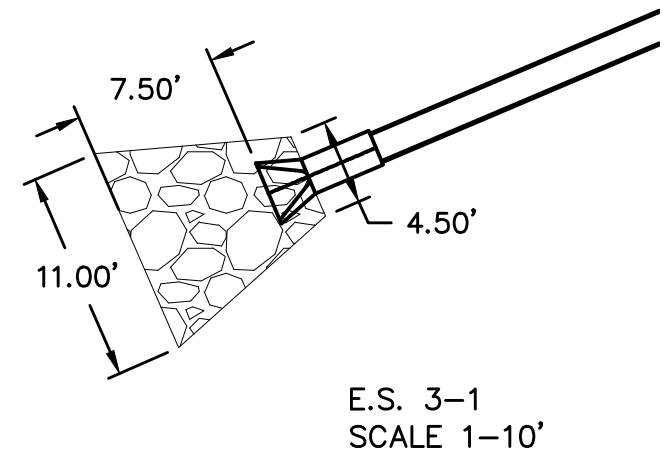
STATE OF MISSOURI
JULIE ELAINE
SELLERS
Professional Engineer
NUMBER
PE-2017000367
6/15/20

BY
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STORM SEWER PLAN & PROFILE
STREET & STORM SEWER PLANS
WOODSIDE RIDGE
SECOND PLAT
LEE'S SUMMIT, MO
2020

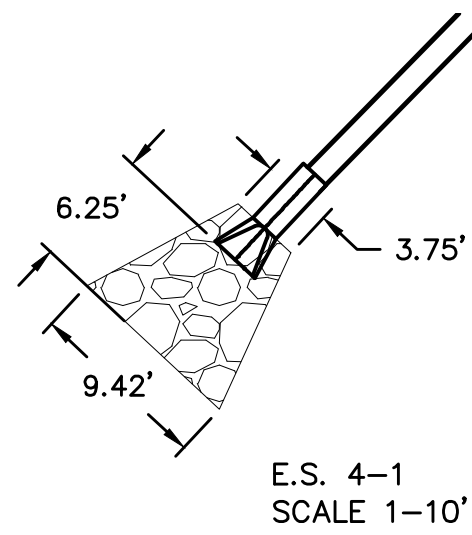
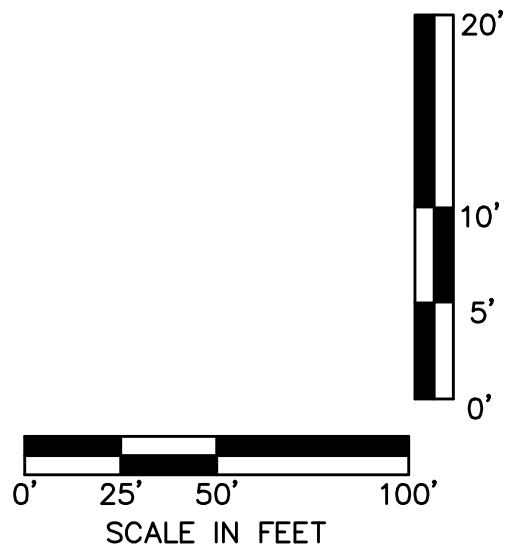
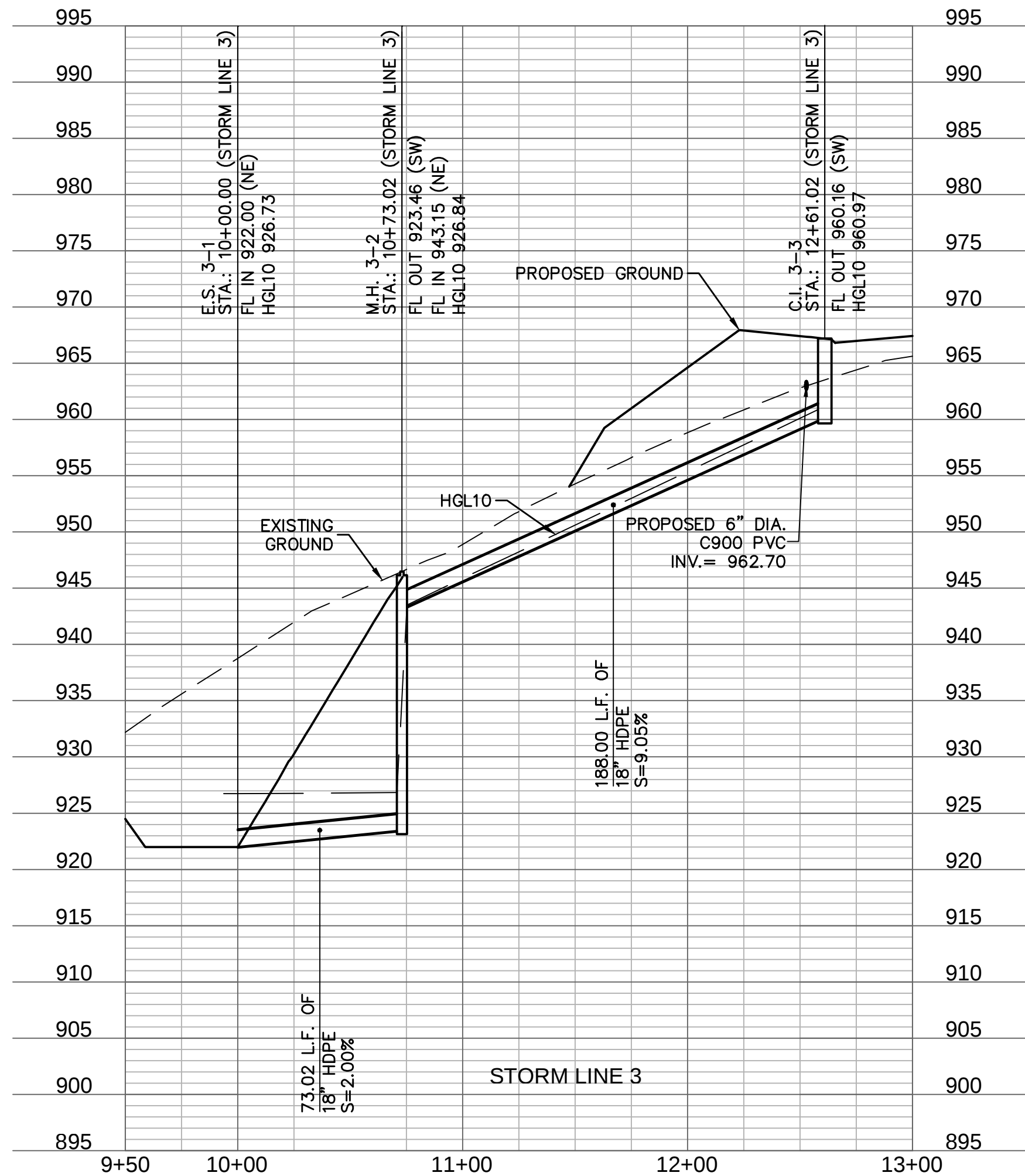
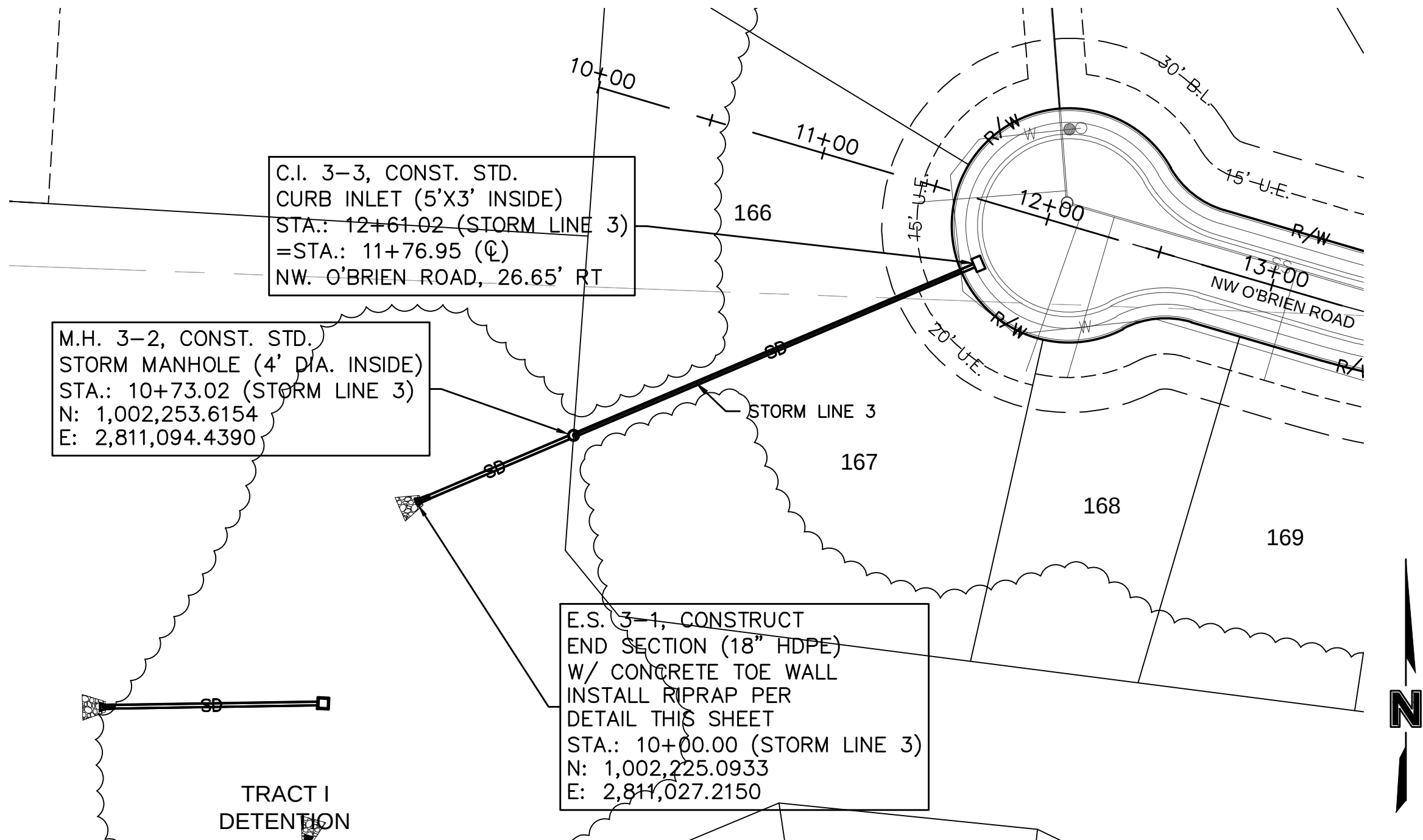
drawn by: C.S.M.
checked by: S.M.S.
designed by: C.S.M.
QA/QC by: J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C117



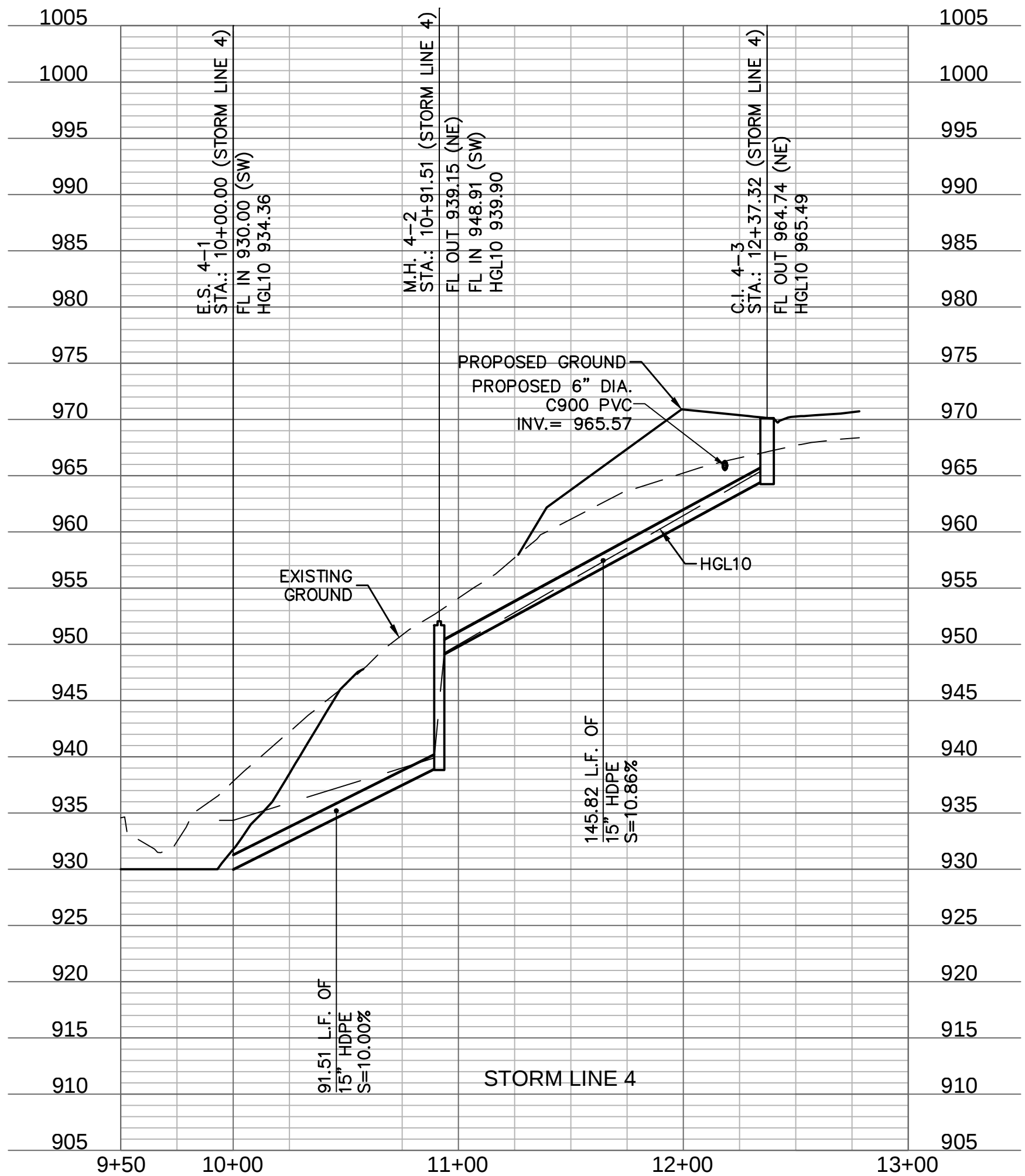
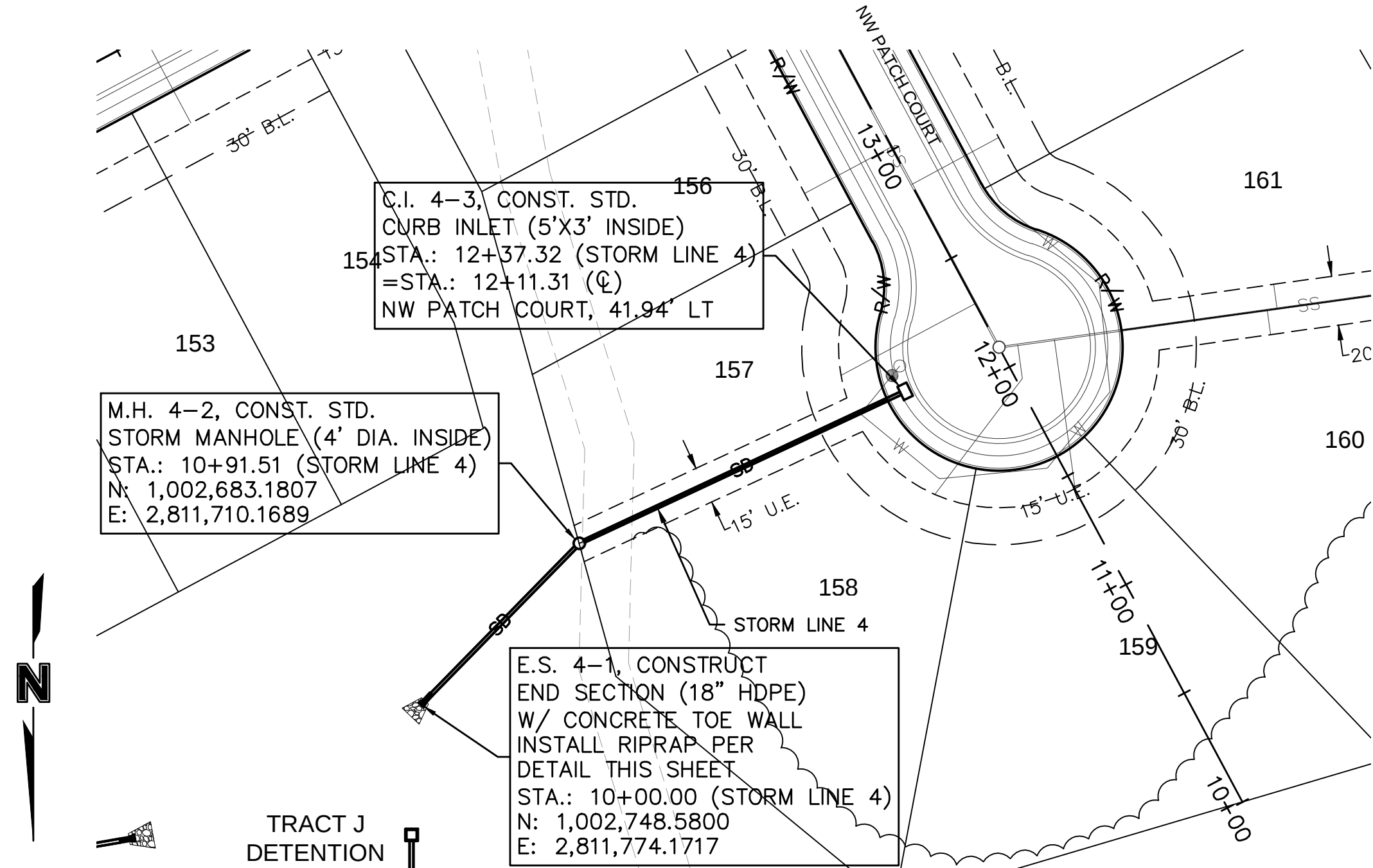
Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)
E.S. 3-1	7.83	1.5	3	10	7.5	2.00

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



Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)
E.S. 4-1	6.05	1.25	3	10	6.25	2.00

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



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NO. 1001 of Authority of 001892
303 E. BURGESS ST., SUITE 100
NORTH KANSAS CITY, MO 64116
TEL. 816.861.1177
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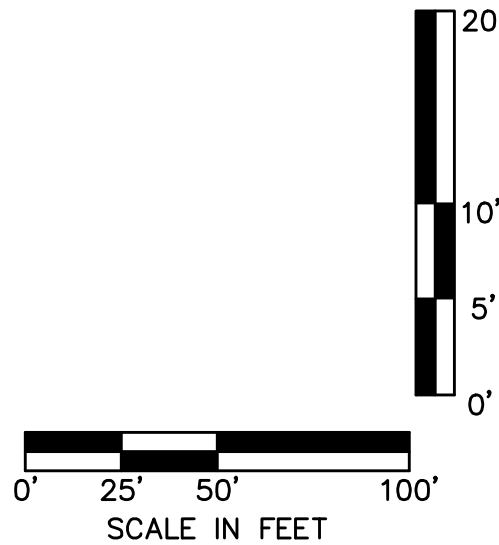
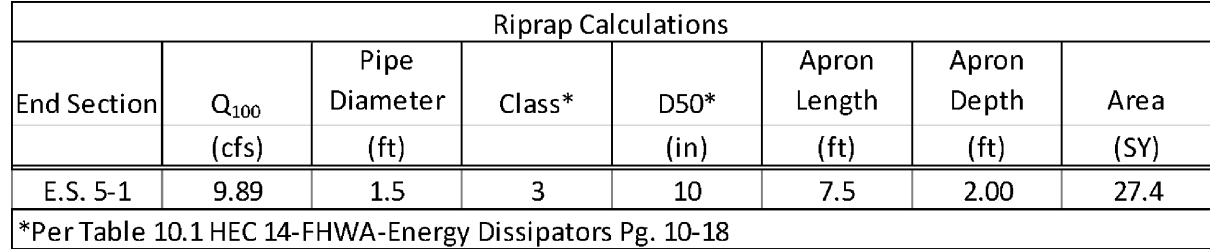
STATE OF MISSOURI
JULIE ELAINE
SELLERS
Professional Engineer
NUMBER
PE-2017000367
6/15/20

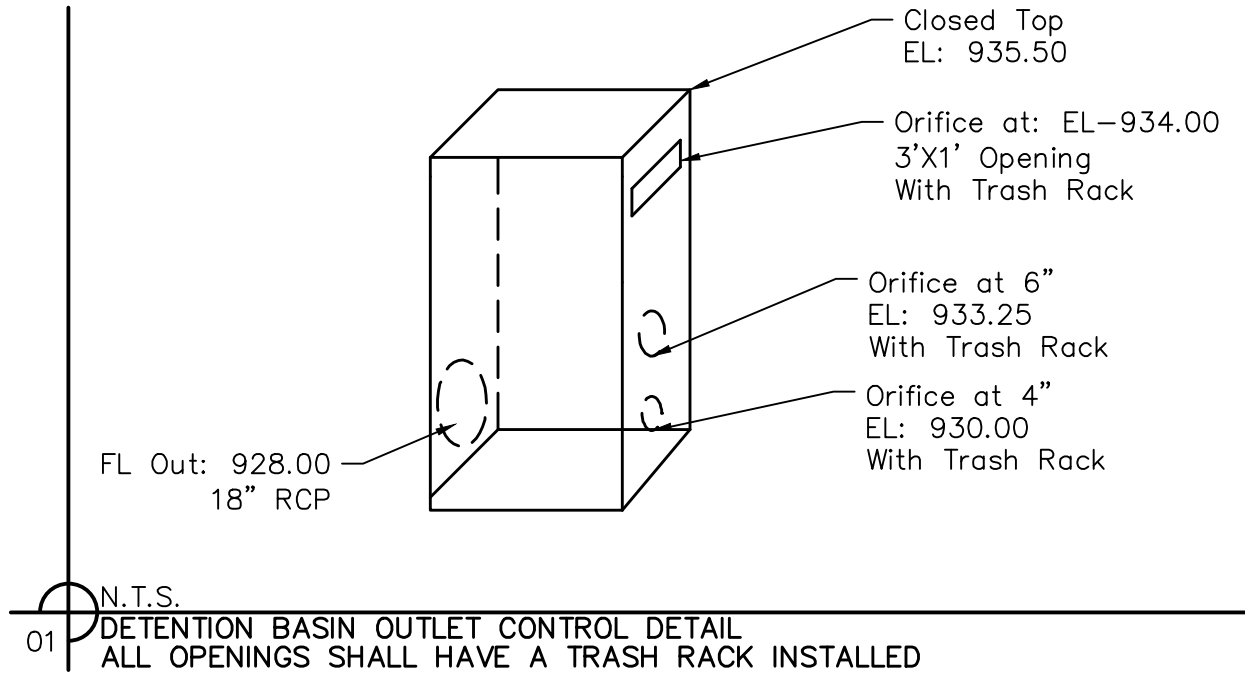
BY
REVISIONS DESCRIPTION
NO. REV. DATE
2020

STORM SEWER PLAN & PROFILE
STREET & STORM SEWER PLANS
WOODSIDE RIDGE
SECOND PLAT
LEE'S SUMMIT, MO

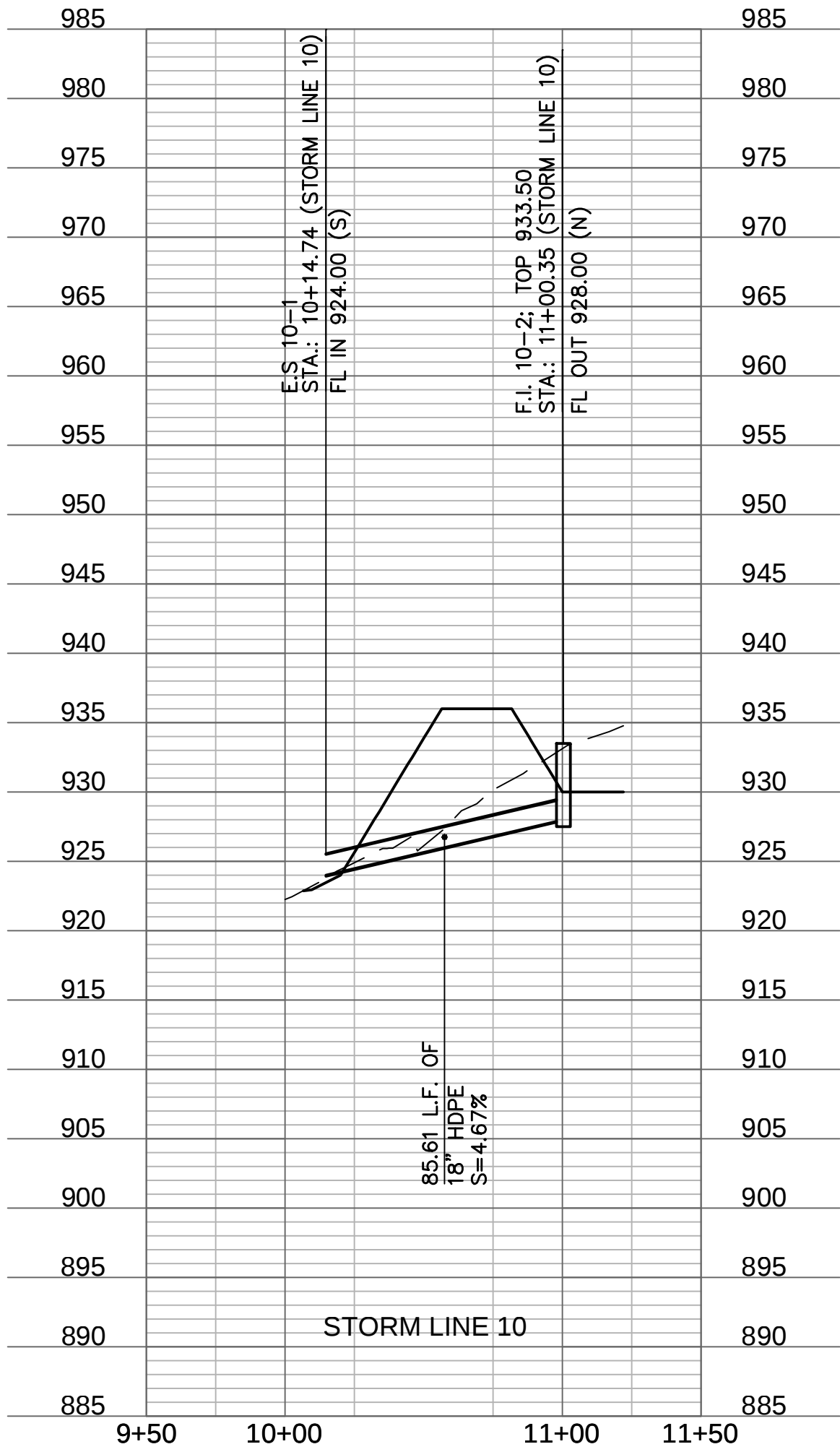
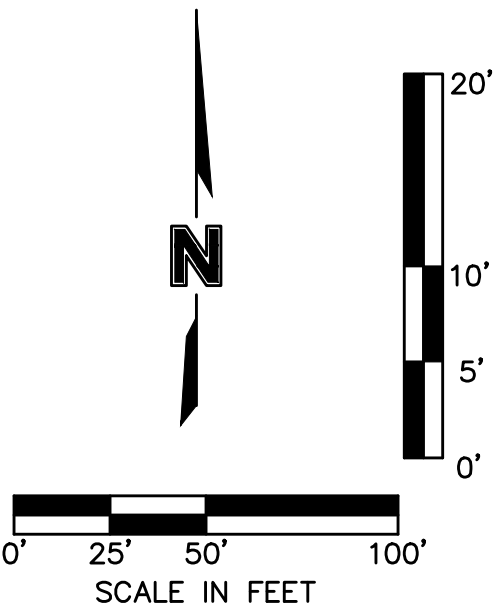
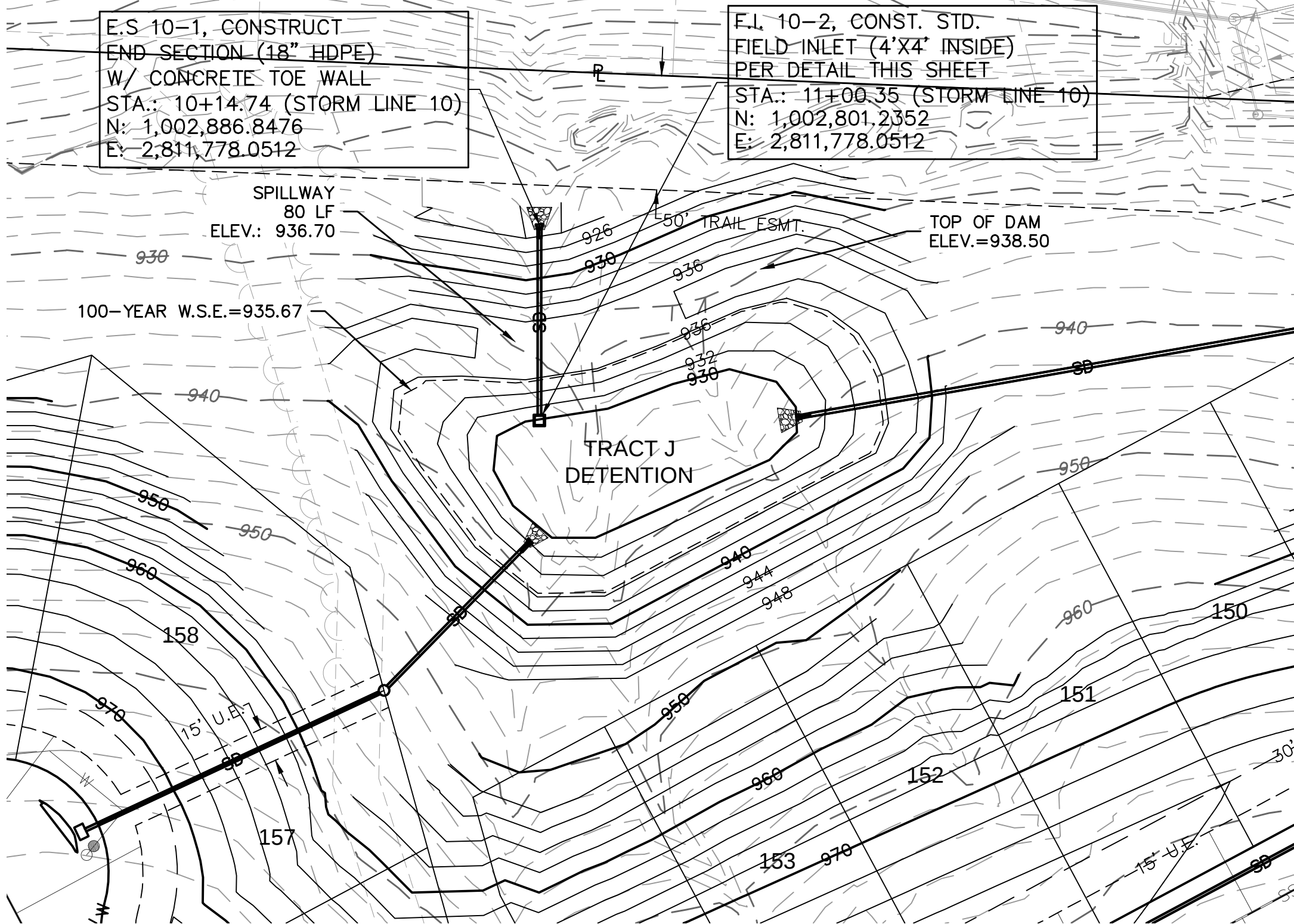
drawn by: C.S.M.
checked by: S.M.S.
designed by: C.S.M.
QA/QC by: J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C118

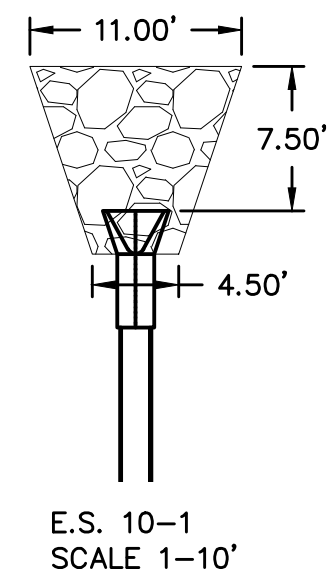




EARTHWORK QUANTITIES	
CUT (C.Y.)	FILL (C.Y.)
4,012	2,535
10yr. W.S.E.	100yr. W.S.E.
934.36	935.67



- NOTES:
1. CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION AND IS RESPONSIBLE FOR ANY DEWATERING NECESSARY FOR CONSTRUCTION. DEWATERING SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
 2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE STRUCTURE DIMENSIONS, INVERTS, AND STRUCTURAL REINFORCEMENT DETAILS ON THE PRINCIPAL SPILLWAY.



Riprap Calculations							
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 10-1	18.41	1.5	3	10	7.5	2.00	27.4

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

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NOTES: 1. CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION AND IS RESPONSIBLE FOR ANY DEWATERING NECESSARY FOR CONSTRUCTION. DEWATERING SHALL BE SUBSIDIARY TO OTHER BID ITEMS. 2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE STRUCTURE DIMENSIONS, INVERTS, AND STRUCTURAL REINFORCEMENT DETAILS ON THE PRINCIPAL SPILLWAY.

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STATE OF MISSOURI
JULIE ELAINE
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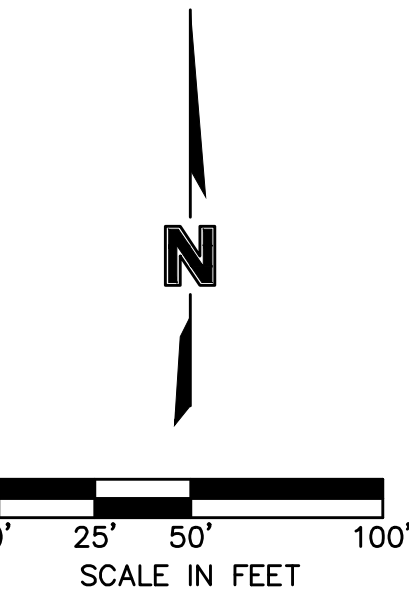
BY
REVISIONS DESCRIPTION
DATE
NO. REV.
DETENTION BASIN PLAN
STREET & STORM SEWER PLANS
WOODSIDE RIDGE
SECOND PLAT
LEE'S SUMMIT, MO
2020

drawn by: C.S.M.
checked by: S.M.S.
designed by: C.S.M.
QA/QC by: J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C122

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REVISIONS

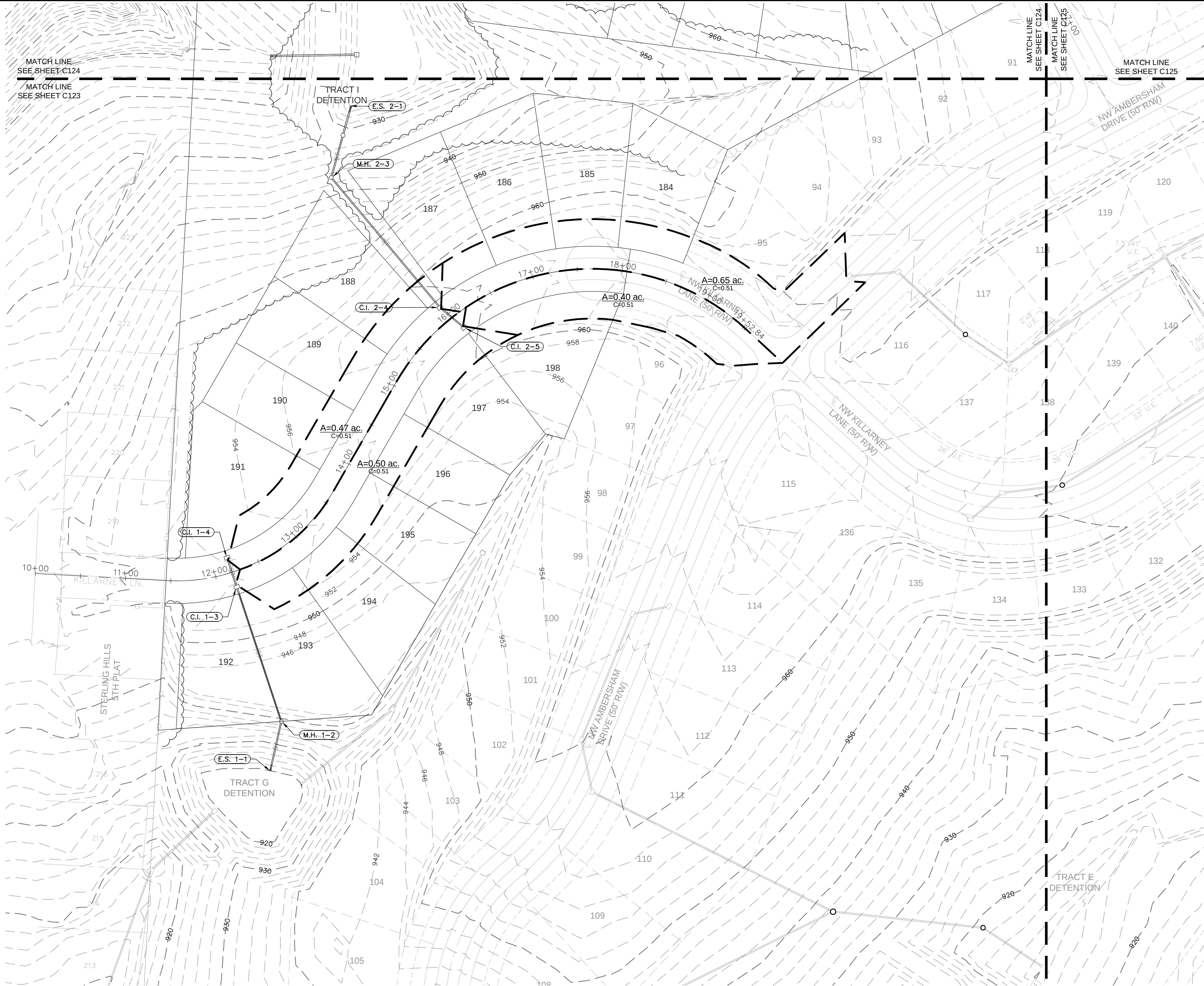


LEGEND	
	100 FINISHED INDEX CONTOURS
	100 FINISHED INTERMEDIATE CONTOURS
	RIDGE LINE
	A DRAINAGE AREA
	C RUNOFF COEFFICIENT
	STORM STRUCTURE NUMBER

- NOTES:
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2. PLAT IS LOCATED IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANCE SHEET FLOW FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"
3. BUFFER ZONE FOR NATURAL STREAMS IS LOCATED WITHIN PLAT.
4. MLO ELEVATIONS HAVE BEEN PROVIDED AT EACH LOT CORNER. INTERPOLATION WILL BE ALLOWED BETWEEN CORNER MBOES SHOWN ON THE MASTER DRAINAGE PLAN, DEPENDING ON THE LOCATION OF THE LOWEST OPENING ON THE PROPOSED STRUCTURE.
5. NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.



KEY MAP



				BY	
		JULIE ELAINE SELLERS NUMBER PE-2017000367 6/15/20			
DRAINAGE PLAN STREET & STORM SEWER PLANS		REVISIONS DESCRIPTION		NO. REV.	
WOODSIDE RIDGE SECOND PLAT				DATE	
LEE'S SUMMIT, MO				2020	
SHEET C123		drawn by: _____ C.S.M. checked by: _____ S.M.S. designed by: _____ C.S.M. QA/QC by: _____ J.E.S. project no.: C18-1140 date: 2020.06.15			

USER: ssaylor

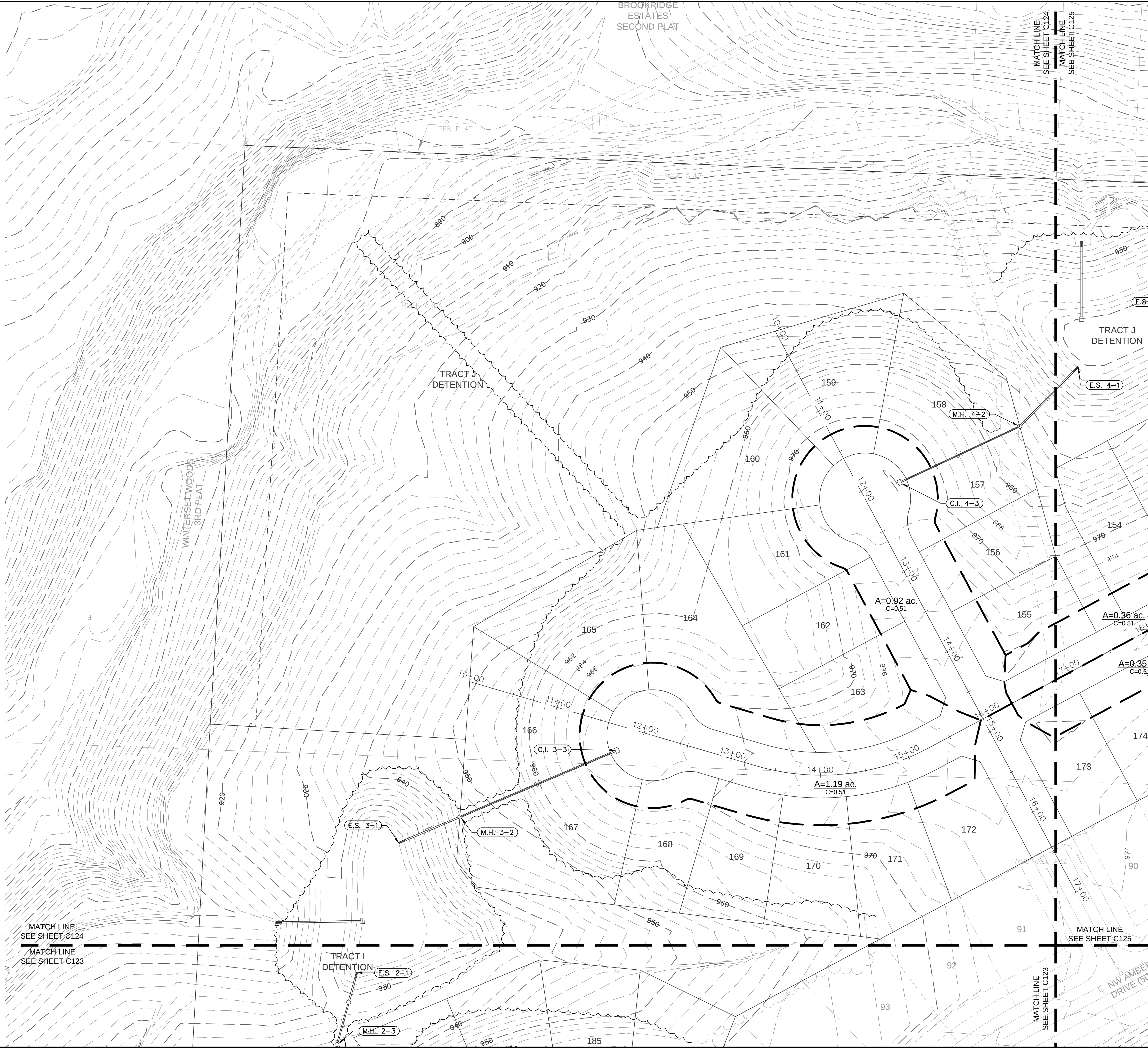
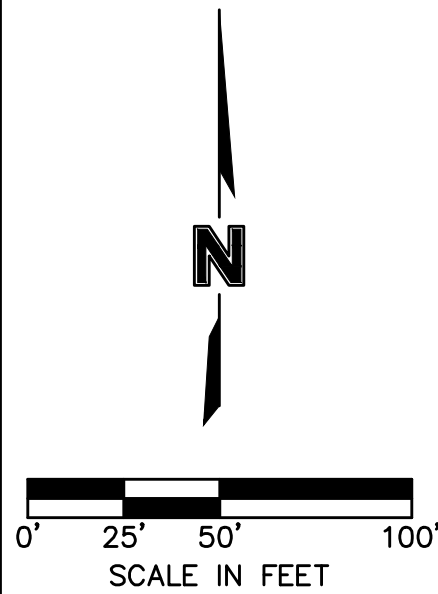
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DATE: Jun 15, 2020 9:49pm



KEY MAP

LEGEND	
	FINISHED INDEX CONTOURS
	FINISHED INTERMEDIATE CONTOURS
	RIDGE LINE
	A DRAINAGE AREA
	C RUNOFF COEFFICIENT
	STORM STRUCTURE NUMBER

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BY

NO. REV.

DATE

REVISIONS DESCRIPTION

STATE OF MISSOURI

JULIE ELAINE SELLERS

NUMBER PE-2017000367

6/15/20

PROFESSIONAL ENGINEER

DRAINAGE PLAN

STREET & STORM SEWER PLANS

WOODSIDE RIDGE

SECOND PLAT

LEE'S SUMMIT, MO

2020

SHEET C124

drawn by: C.S.M.

checked by: S.M.S.

designed by: C.S.M.

QA/QC by: J.E.S.

project no.: C18-1140

date: 2020.06.15

olsson

NO. 00115 of Architects #001892
300 E. BROADWAY, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL. 816.861.1177
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LEGEND	
	FINISHED INDEX CONTOURS
	FINISHED INTERMEDIATE CONTOURS
	RIDGE LINE
	DRAINAGE AREA
	RUNOFF COEFFICIENT
	STORM STRUCTURE NUMBER

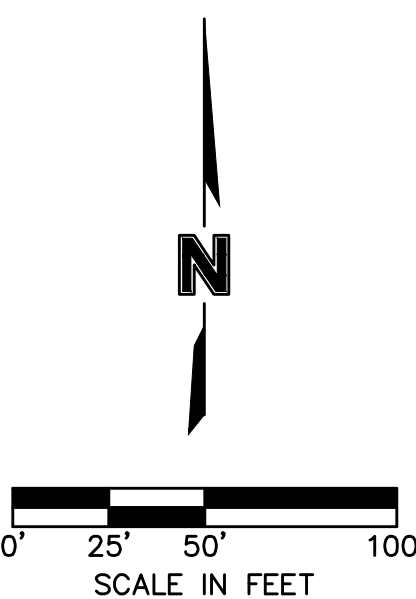
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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER
PE-2017000367
6/15/20
PROFESSIONAL ENGINEER

[illegible]

DRAWING PLAN STREET & STORM SEWER PLANS	drawn by: _____ C.S.	WOODSIDE RIDGE SECOND PLAT	SHEET C125
	checked by: _____ S.M.		
	designed by: _____ C.S.		
	QA/QC by: _____ J.E.		
	project no.: _____ C18-114		
	date: _____ 2020.06.11		

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

TEF 816 361 1177
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Storm Sewer Design Calculation Table												
10 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)
M.H. 5-2	Outfall	253.96	933.89	930.00	1.53	18	0.012	5.48	3.60	14.08	1.50	934.95
C.I. 5-3	M.H. 5-2	188.19	964.02	934.29	15.80	15	0.012	5.48	6.22	27.80	0.77	964.97
C.I. 6-1	C.I. 5-3	299.05	971.17	964.62	2.19	15	0.012	2.66	5.58	10.35	0.43	971.82
C.I. 6-2	C.I. 6-1	34.93	972.17	971.37	2.29	15	0.012	1.31	3.27	10.59	0.45	972.62 j
C.I. 5-4	C.I. 5-3	34.40	965.30	964.62	1.98	15	0.012	1.41	4.20	9.84	0.35	965.77
M.H. 7-2	Outfall	42.64	925.43	925.00	1.01	24	0.012	10.22	6.48	24.61	0.90	926.57
M.H. 7-3	M.H. 7-2	178.96	955.95	925.75	16.88	24	0.012	10.22	6.94	100.66	0.82	957.09
C.I. 7-4	M.H. 7-3	68.71	957.92	956.55	1.99	24	0.012	10.22	7.54	34.60	0.75	959.06
C.I. 7-5	C.I. 7-4	34.00	959.20	958.52	2.00	18	0.012	6.12	6.82	16.09	0.64	960.15
M.H. 2-2	Outfall	33.74	922.67	922.00	1.99	18	0.012	3.94	2.23	16.03	1.50	926.77
M.H. 2-3	M.H. 2-2	48.32	932.95	925.78	14.84	15	0.012	3.94	4.20	26.95	1.02	933.75 j
C.I. 2-4	M.H. 2-3	187.22	952.46	933.55	10.10	15	0.012	3.94	9.20	22.23	0.36	953.26
C.I. 2-5	C.I. 2-4	34.74	954.94	953.96	2.82	15	0.012	1.50	4.99	11.75	0.30	955.42
M.H. 4-2	Outfall	91.51	939.15	930.00	10.00	15	0.012	3.45	3.65	22.12	1.25	939.90 j
C.I. 4-3	M.H. 4-2	145.82	964.74	948.91	10.86	15	0.012	3.45	8.99	23.05	0.33	965.49
M.H. 1-2	Outfall	55.95	921.68	920.00	3.00	15	0.012	4.34	3.54	12.12	1.25	924.90
C.I. 1-3	M.H. 1-2	156.54	946.25	936.08	6.50	15	0.012	4.34	8.45	17.83	0.42	947.09
C.I. 1-4	C.I. 1-3	34.01	947.53	946.85	2.00	15	0.012	2.27	5.21	9.89	0.41	948.13
M.H. 3-2	Outfall	73.02	923.46	922.00	2.00	18	0.012	4.46	2.52	16.09	1.50	926.84
C.I. 3-3	M.H. 3-2	188.00	960.16	943.15	9.05	18	0.012	4.46	8.98	34.22	0.37	960.97

Inlet Design Table														
10 Year Return Frequency														
Inlet ID	Inlet Location	Peak Flow	Upstream Bypass	Total Flow	Clogging Factor	Inlet Capacity	Sag Inlet Capacity (Note 1)	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth	
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)	
C.I. 5-3	GRADE	1.31	0.10	1.41	1.00	1.12	1.12	1.12	0.29	79.64%	0.12	5.85	...	
C.I. 5-4	GRADE	1.31	0.09	1.41	1.00	1.12	1.12	1.12	0.29	79.72%	0.12	5.85	...	
C.I. 6-1	GRADE	1.35	0.00	1.35	1.00	1.25	1.25	1.25	0.10	92.60%	0.15	7.46	...	
C.I. 6-2	GRADE	1.31	0.00	1.31	1.00	1.22	1.22	1.22	0.09	92.83%	0.15	7.38	...	
C.I. 7-4(L)	SAG	0.75	0.39	1.14	0.80	19.40	15.52	1.14	0.00	100.00%	0.14	6.76	...	
C.I. 7-4(R)	SAG	2.25	0.00	2.25	0.80	19.40	15.52	2.25	0.00	100.00%	0.14	6.97	...	
C.I. 7-4(B)	SAG	0.71	0.00	0.71	0.80	19.40	15.52	0.71	0.00	100.00%	...	...	...	
C.I. 7-4	SAG	3.71	0.39	4.10	0.80	19.40	15.52	4.10	0.00	100.00%	...	...	...	
C.I. 7-5(L)	SAG	2.25	0.38	2.63	0.80	19.40	15.52	2.63	0.00	100.00%	0.15	7.39	...	
C.I. 7-5(R)	SAG	1.61	0.00	1.61	0.80	19.40	15.52	1.61	0.00	100.00%	0.15	7.71	...	
C.I. 7-5(B)	SAG	1.88	0.00	1.88	0.80	19.40	15.52	1.88	0.00	100.00%	...	...	...	
C.I. 7-5	SAG	5.74	0.38	6.12	0.80	19.40	15.52	6.12	0.00	100.00%	...	...	...	
C.I. 4-3(L)	SAG	2.29	0.00	2.29	0.80	19.40	15.52	2.29	0.00	100.00%	0.14	7.13	...	
C.I. 4-3(R)	SAG	0.53	0.00	0.53	0.80	19.40	15.52	0.53	0.00	100.00%	0.10	5.03	...	
C.I. 4-3(B)	SAG	0.64	0.00	0.64	0.80	19.40	15.52	0.64	0.00	100.00%	...	...	...	
C.I. 4-3	SAG	3.45	0.00	3.45	0.80	19.40	15.52	3.45	0.00	100.00%	...	...	...	
C.I. 3-3(L)	SAG	1.99	0.00	1.99	0.80	19.40	15.52	1.99	0.00	100.00%	0.17	8.59	...	
C.I. 3-3(R)	SAG	1.80	0.00	1.80	0.80	19.40	15.52	1.80	0.00	100.00%	0.16	7.77	...	
C.I. 3-3(B)	SAG	0.68	0.00	0.68	0.80	19.40	15.52	0.68	0.00	100.00%	...	...	...	
C.I. 3-3	SAG	4.46	0.00	4.46	0.80	19.40	15.52	4.46	0.00	100.00%	...	...	...	
C.I. 2-4	GRADE	2.44	0.00	2.44	1.00	1.93	1.93	1.93	0.51	79.16%	0.17	8.26	...	
C.I. 2-5	GRADE	1.50	0.00	1.50	1.00	1.30	1.30	1.30	0.20	86.81%	0.14	6.88	...	
C.I. 1-3	GRADE	1.88	0.20	2.07	1.00	1.69	1.69	1.69	0.39	81.41%	0.15	7.69	...	
C.I. 1-4	GRADE	1.76	0.51	2.27	1.00	1.81	1.81	1.81	0.46	79.80%	0.16	7.96	...	
Notes:														
1. Inlet capacity at sag location has been reduced by a dogging factor of 0.80, reducing theoretical capacity to 80% capacity, as required per APWA Section 5600.														
Both theoretical capacity and reduced capacity are shown.														
2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage of flow captured after the capacity has been reduced to 80% of theoretical capacity.														

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. 5-3	0.35	0.51	5.00	7.35	1.00	1.31
C.I. 5-4	0.35	0.51	5.00	7.35	1.00	1.31
C.I. 6-1	0.36	0.51	5.00	7.35	1.00	1.35
C.I. 6-2	0.35	0.51	5.00	7.35	1.00	1.31
C.I. 7-4(L)	0.20	0.51	5.00	7.35	1.00	0.75
C.I. 7-4(R)	0.60	0.51	5.00	7.35	1.00	2.25
C.I. 7-4(B)	0.19	0.51	5.00	7.35	1.00	0.71
C.I. 7-4	0.99	0.51	5.00	7.35	1.00	3.71
C.I. 7-5(L)	0.60	0.51	5.00	7.35	1.00	2.25
C.I. 7-5(R)	0.43	0.51	5.00	7.35	1.00	1.61
C.I. 7-5(B)	0.50	0.51	5.00	7.35	1.00	1.88
C.I. 7-5	1.53	0.51	5.00	7.35	1.00	5.74
C.I. 4-3(L)	0.61	0.51	5.00	7.35	1.00	2.29
C.I. 4-3(R)	0.14	0.51	5.00	7.35	1.00	0.53
C.I. 4-3(B)	0.17	0.51	5.00	7.35	1.00	0.64
C.I. 4-3	0.92	0.51	5.00	7.35	1.00	3.45
C.I. 3-3(L)	0.53	0.51	5.00	7.35	1.00	1.99
C.I. 3-3(R)	0.48	0.51	5.00	7.35	1.00	1.80
C.I. 3-3(B)	0.18	0.51	5.00	7.35	1.00	0.68
C.I. 3-3	1.19	0.51	5.00	7.35	1.00	4.46
C.I. 2-4	0.65	0.51	5.00	7.35	1.00	2.44
C.I. 2-5	0.40	0.51	5.00	7.35	1.00	1.50
C.I. 1-3	0.50	0.51	5.00	7.35	1.00	1.88
C.I. 1-4	0.47	0.51	5.00	7.35	1.00	1.76





KEY MAP

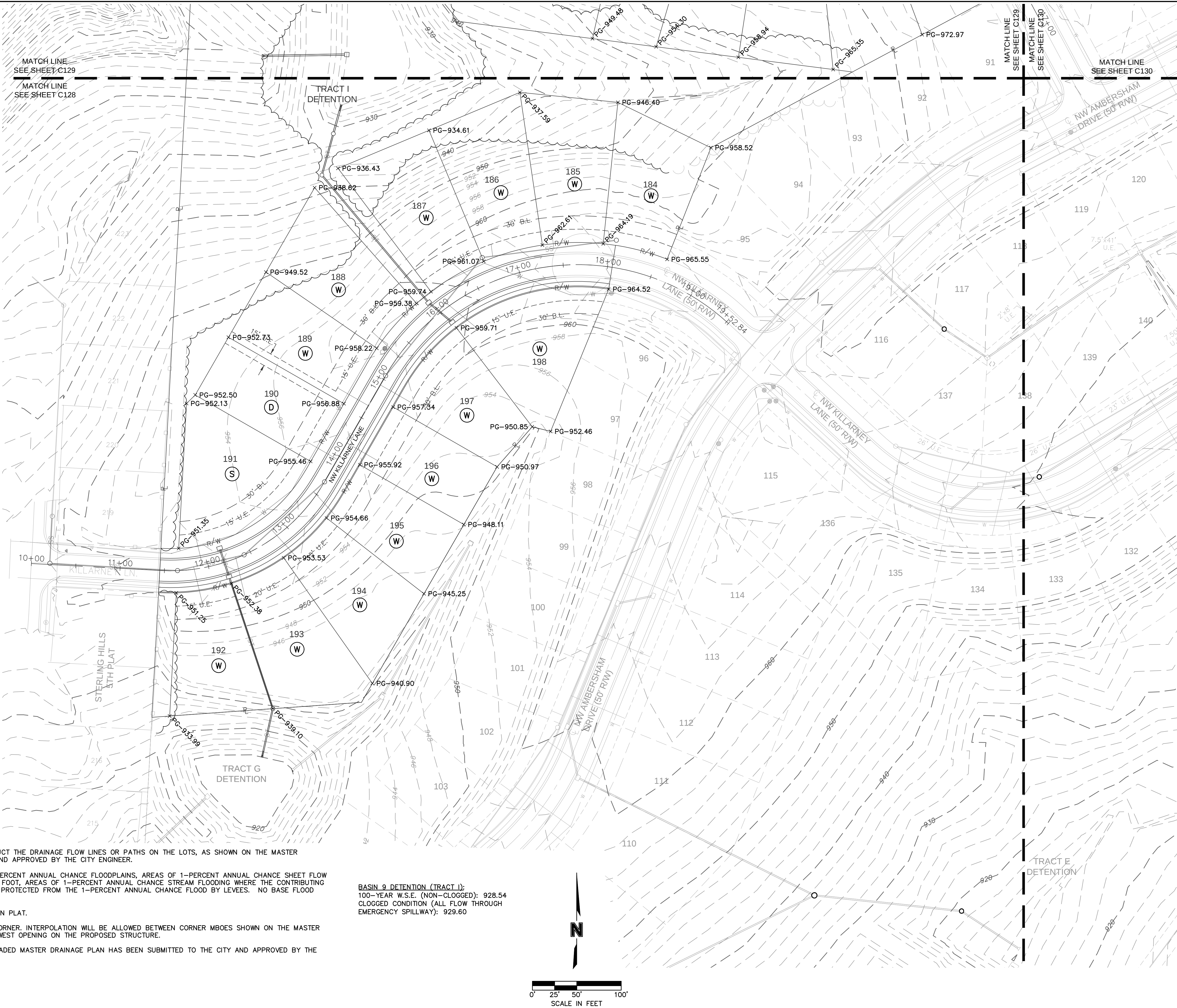
Woodside Ridge Second Plat					
Minimum Low Opening Elevations					
Lot	Rear Left MLO	Rear Right MLO	Front Left MLO	Front Right MLO	As Built Plot Plan Required
144	940.10	945.66	965.31	966.10	N
145	933.24	940.10	964.68	965.31	N
146	928.29	933.24	965.74	964.68	N
147	933.18	928.29	968.29	965.74	N
148	939.46	933.18	970.92	968.29	N
149	945.79	939.46	973.86	970.92	N
150	951.84	945.79	976.29	973.86	N
151	951.38	951.84	977.05	976.29	Y
152	947.93	951.38	977.80	977.05	Y
153	949.37	947.93	978.55	977.80	Y
154	952.61	949.37	979.30	978.55	Y
155	969.65	979.35	977.69	980.14	N
156	957.40	969.65	974.34	977.69	N
157	950.17	957.40	971.11	974.34	Y
158	937.67	950.17	971.56	971.11	Y
159	946.44	937.67	972.01	971.56	N
160	951.59	946.44	972.45	972.01	N
161	957.15	955.18	973.50	972.45	N
162	967.15	957.15	977.04	973.50	N
163	973.63	967.15	979.36	977.04	N
164	948.53	955.18	968.89	973.93	N
165	945.07	948.53	967.94	968.89	N
166	947.09	945.07	968.19	967.94	Y
167	950.08	947.09	968.68	968.19	Y
168	954.90	950.08	970.38	968.68	Y
169	959.54	954.90	972.82	970.38	Y
170	965.95	959.54	975.03	972.82	Y
171	973.41	965.95	977.24	975.03	N
172	977.02	973.41	979.44	977.24	N
173	974.60	977.02	980.13	980.02	N
174	973.09	974.60	979.38	980.13	N
175	971.62	973.09	978.63	979.38	N
176	970.02	971.62	977.86	978.63	N
177	968.93	970.02	977.13	977.86	N
178	968.60	968.93	976.38	977.13	N
179	968.79	968.60	974.18	976.38	N
180	972.83	977.49	971.12	974.18	N
181	969.41	972.83	966.76	971.12	N
182	966.47	969.41	964.73	966.76	N
183	969.68	971.53	966.04	964.73	N
184	962.58	969.68	965.01	966.71	Y
185	968.19	962.58	963.43	965.01	Y
186	934.00	938.19	961.89	963.43	Y
187	936.92	934.00	960.56	961.89	Y
188	939.22	936.92	959.04	960.20	N
189	950.12	939.22	957.70	959.04	N
190	953.33	950.12	956.28	957.70	N
191	954.38	953.33	952.17	956.28	N
192	937.39	934.54	953.20	952.07	Y
193	941.50	937.39	954.35	952.07	Y
194	945.85	941.50	955.48	954.35	Y
195	948.71	945.85	956.74	955.48	Y
196	951.57	948.71	958.16	956.74	Y
197	965.82	970.06	960.53	958.16	Y
198	961.69	965.82	965.34	960.53	Y

MLO elevations have been provided per lot lines, facing the lot from the street. Interpolation will be allowed between the right and left side MLO's provided, depending on the location of the lowest opening on the proposed structure.

- NOTES:
- INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.
 - PLAT IS LOCATED IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANCE SHEET FLOW FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"
 - BUFFER ZONE FOR NATURAL STREAMS IS LOCATED WITHIN PLAT.
 - MLO ELEVATIONS HAVE BEEN PROVIDED AT EACH LOT CORNER. INTERPOLATION WILL BE ALLOWED BETWEEN CORNER MBOES SHOWN ON THE MASTER DRAINAGE PLAN, DEPENDING ON THE LOCATION OF THE LOWEST OPENING ON THE PROPOSED STRUCTURE.
 - NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.

RMLO - REAR MINIMUM LOW OPENING
FMLO - FRONT MINIMUM LOW OPENING

LOT TYPES:
S - STANDARD
D - DAYLIGHT
W - WALKOUT



Basin 9 Detention (Tract I):
100-YEAR W.S.E. (NON-CLOGGED): 928.54
CLOGGED CONDITION (ALL FLOW THROUGH EMERGENCY SPILLWAY): 929.60

olsson

NOTES: City of Aurora #101892
300 E. Main Street, Suite 100
North Kansas City, MO 64116
TEL: 816.861.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE
SELLERS
Professional Engineer
NUMBER
PE-2017000367
6/15/20

BY

REVISIONS DESCRIPTION

DATE

NO. REV.

MASTER DRAINAGE PLAN
STREET & STORM SEWER PLANS

WOODSIDE RIDGE
SECOND PLAT

LEE'S SUMMIT, MO

drawn by: C.S.M.
checked by: S.M.S.
designed by: C.S.M.
QA/QC by: J.E.S.
project no.: C18-1140
date: 2020.06.15

SHEET
C128

2020



1. INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.

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3. BUFFER ZONE FOR NATURAL STREAMS IS LOCATED WITHIN PLAT.

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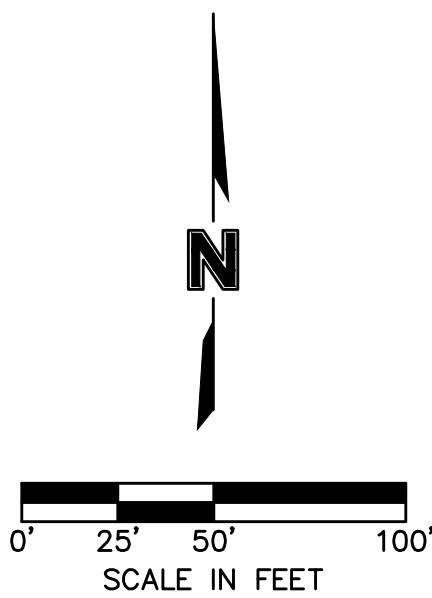
5. NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.

RMLO – REAR MINIMUM LOW OPENING
FMLO – FRONT MINIMUM LOW OPENING

S - STANDARD
D - DAYLIGHT
W - WALKOUT

BASIN C1 DETENTION (TRACT I):
100-YEAR W.S.E. (NON-CLOGGED): 928.54
CLOGGED CONDITION (ALL FLOW THROUGH
EMERGENCY SPILLWAY): 929.60

BASIN C1 DETENTION (TRACT J):
100-YEAR W.S.E. (NON-CLOGGED): 935.67
CLOGGED CONDITION (ALL FLOW THROUGH
EMERGENCY SPILLWAY): 936.70

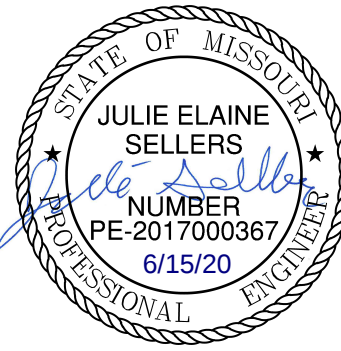


Woodside Ridge Second Plot						
Minimum Low Opening Elevations						
Lot	Rear Left MLO	Rear Right MLO	Front Left MLO	Front Right MLO	As Built Plot Plan	Required
144	940.10	945.66	965.31	966.10	N	
145	933.24	940.10	964.68	965.31	N	
146	928.29	933.24	965.74	964.68	N	
147	933.18	928.29	968.29	965.74	N	
148	939.46	933.18	970.92	968.29	N	
149	945.79	939.46	973.86	970.92	N	
150	951.84	945.79	976.29	973.86	N	
151	951.38	951.84	977.05	976.29	Y	
152	947.93	951.38	977.80	977.05	Y	
153	949.37	947.93	978.55	977.80	Y	
154	952.61	949.37	979.30	978.55	Y	
155	960.65	979.35	977.69	980.14	N	
156	957.40	960.65	974.34	977.69	N	
157	950.17	957.40	971.11	974.34	Y	
158	937.67	950.17	971.56	971.11	Y	
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160	951.59	946.44	972.45	972.01	N	
161	957.15	955.18	973.50	972.45	N	
162	967.15	957.15	977.04	973.50	N	
163	973.63	967.15	979.36	977.04	N	
164	948.53	955.18	968.89	973.93	N	
165	945.07	948.53	967.94	968.89	N	
166	947.09	945.07	968.19	967.94	Y	
167	950.08	947.09	968.68	968.19	Y	
168	954.90	950.08	970.38	968.68	Y	
169	959.54	954.90	972.82	970.38	Y	
170	965.95	959.54	975.03	972.82	Y	
171	973.41	965.95	977.24	975.03	N	
172	977.02	973.41	979.44	977.24	N	
173	974.60	977.02	980.13	980.02	N	
174	973.09	974.60	979.38	980.13	N	
175	971.62	973.09	978.63	979.38	N	
176	970.02	971.62	977.86	978.63	N	
177	968.93	970.02	977.13	977.86	N	
178	968.60	968.93	976.38	977.13	N	
179	968.79	968.60	974.18	976.38	N	
180	972.83	978.79	971.12	974.18	N	
181	969.41	972.83	966.76	971.12	N	
182	966.47	969.41	964.73	966.76	N	
183	969.68	971.53	966.04	964.73	N	
184	962.58	969.68	965.01	966.71	Y	
185	968.19	962.58	963.43	965.01	Y	
186	934.00	938.19	961.89	963.43	Y	
187	936.92	934.00	960.56	961.89	Y	
188	939.22	936.92	959.04	960.20	N	
189	950.12	939.22	957.70	959.04	N	
190	953.33	950.12	956.28	957.70	N	
191	954.38	953.33	952.17	956.28	N	
192	937.39	934.54	953.20	952.07	Y	
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194	945.85	941.50	955.48	954.35	Y	
195	948.71	945.85	956.74	955.48	Y	
196	951.57	948.71	958.16	956.74	Y	
197	965.82	950.06	960.53	958.16	Y	
198	961.69	965.82	965.34	960.53	Y	

MLO elevations have been provided per lot lines, facing the lot from the street. Interpolation will be allowed between the right and left side MLO's provided, depending on the location of the lowest opening on the proposed structure.



olson

 γ

REVISIONS DESCRIPTION

DATE _____

MASTER DRAINAGE PLAN STREET & STORM SEWER PLANS

OODSIDE RIDGE
SECOND PLAT

LEE'S SUMMIT, MO

2020

drawn by: _____ C.S.M.
checked by: _____ S.M.S.
designed by: _____ C.S.M.
QA/QC by: _____ J.E.S.
project no.: _____ C18-1146
date: _____ 2020.06.15

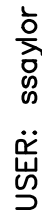
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C129

USER: ssaylor

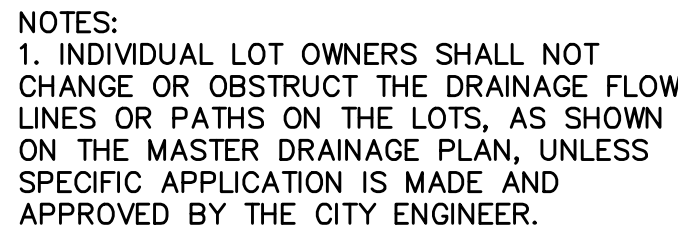
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MLO elevations have been provided per lot lines, facing the lot from the street. Interpolation will be allowed between the right and left side MLO's provided, depending on the location of the lowest opening on the proposed structure.



DWG: F:\2018\1001-1500\018-1140-C\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Street & Storm\C_MDR02_C181140.dwg



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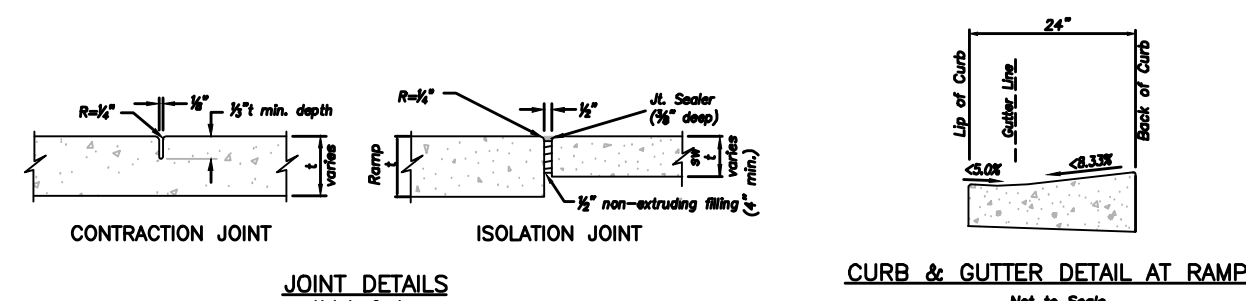
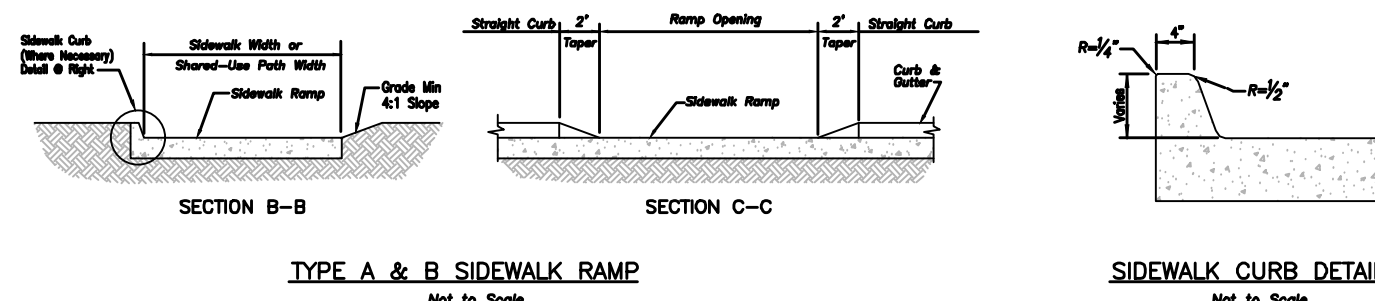
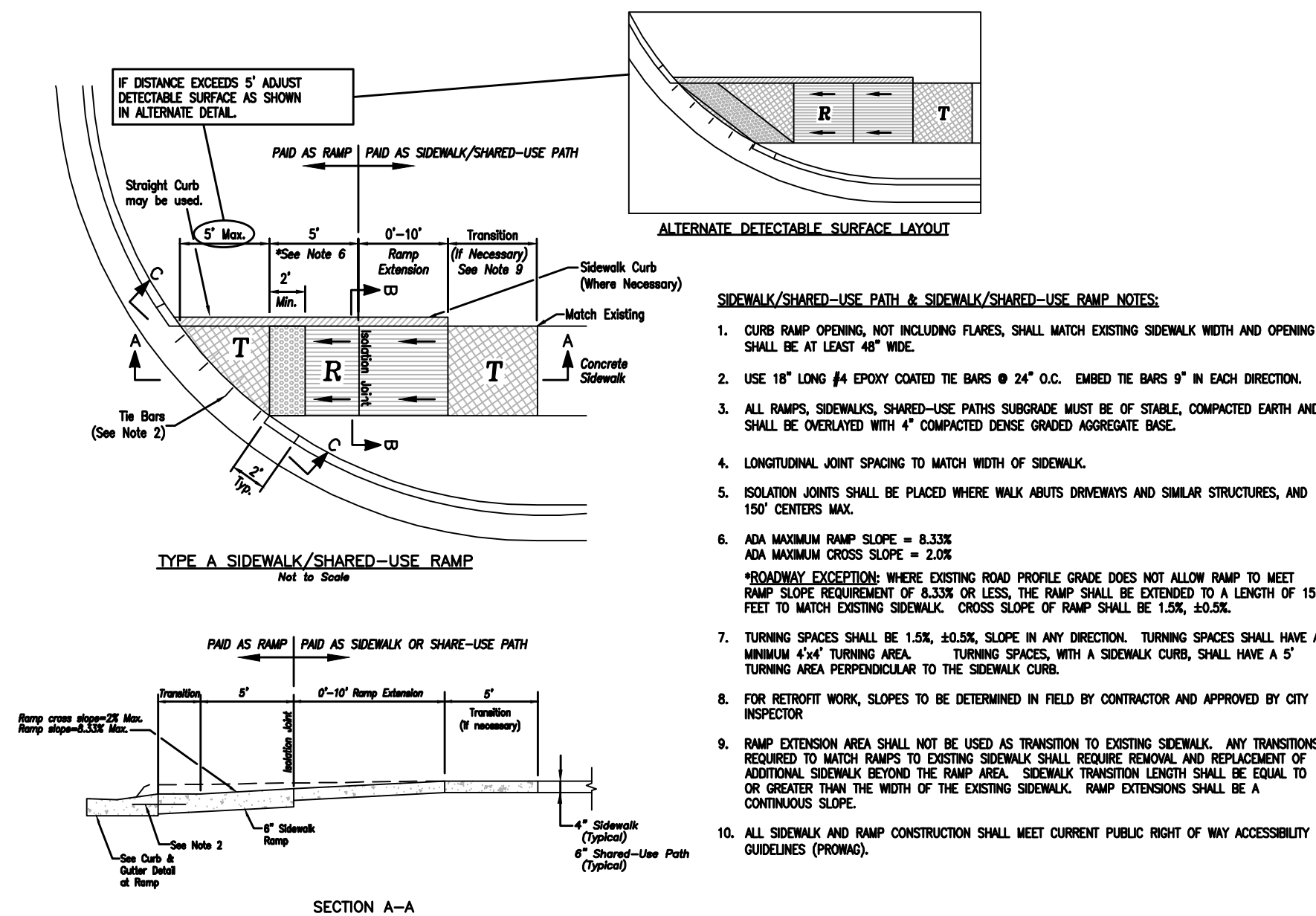
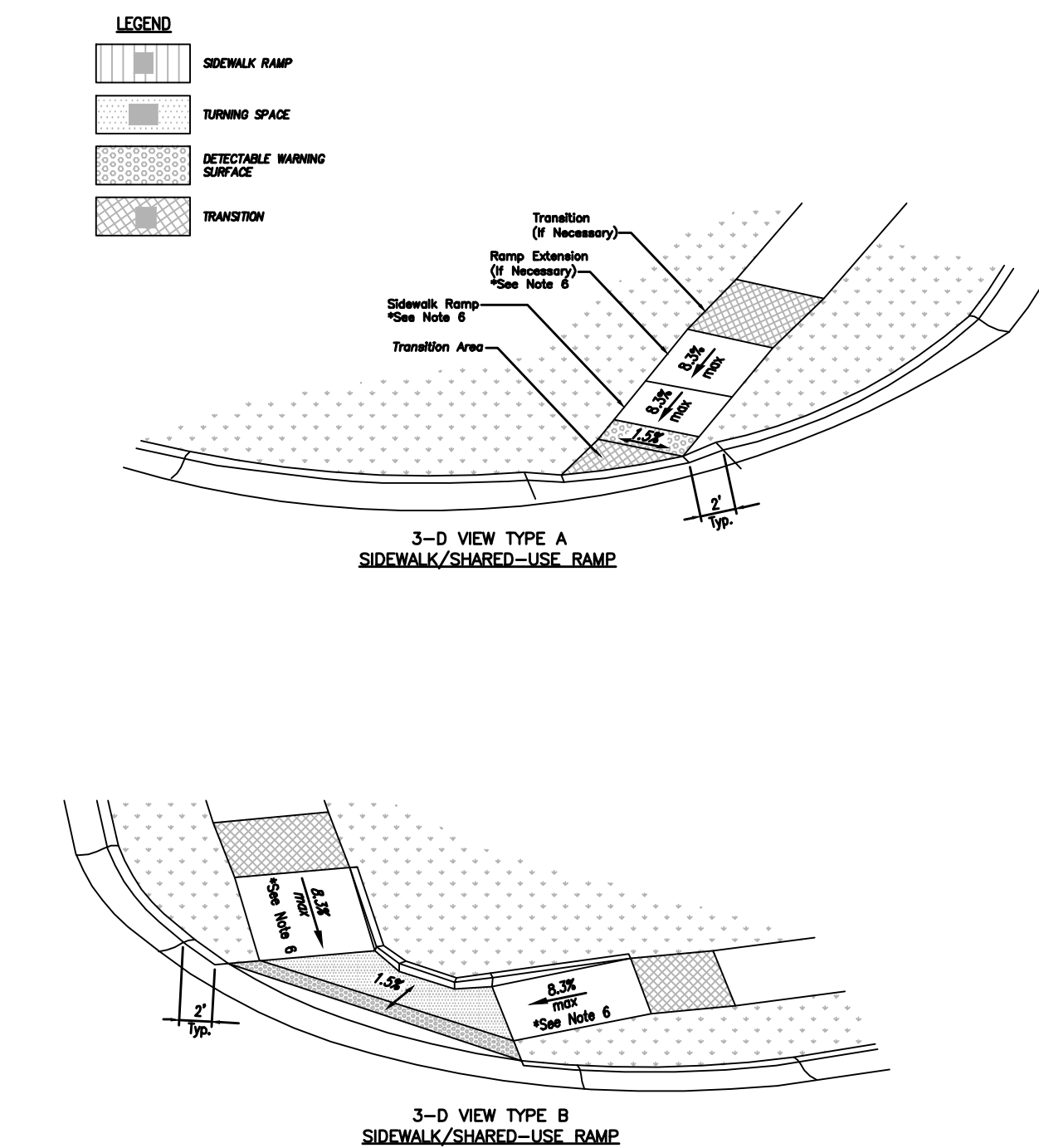
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LOT TYPES:
S - STANDARD
D - DAYLIGHT
W - WALKOUT

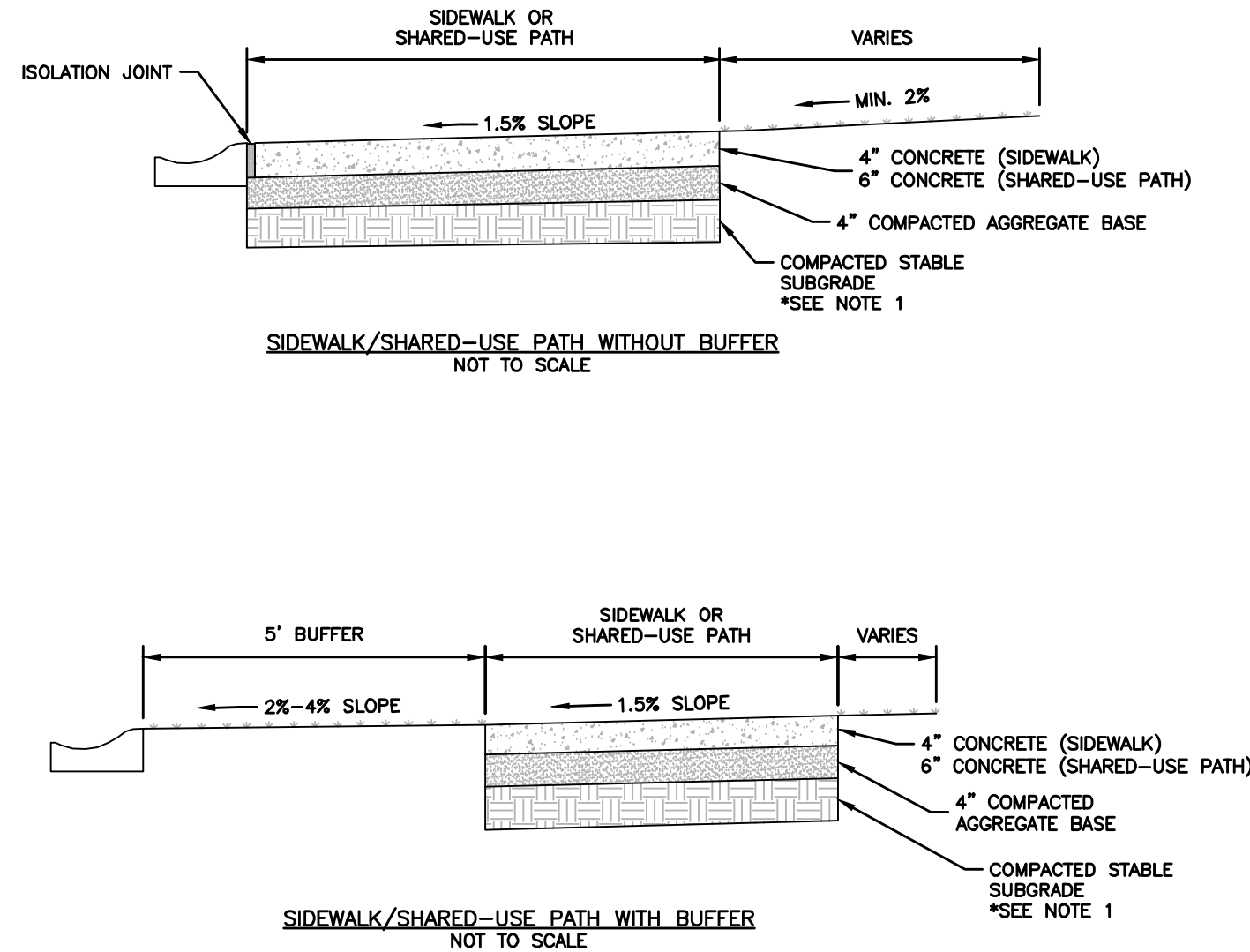
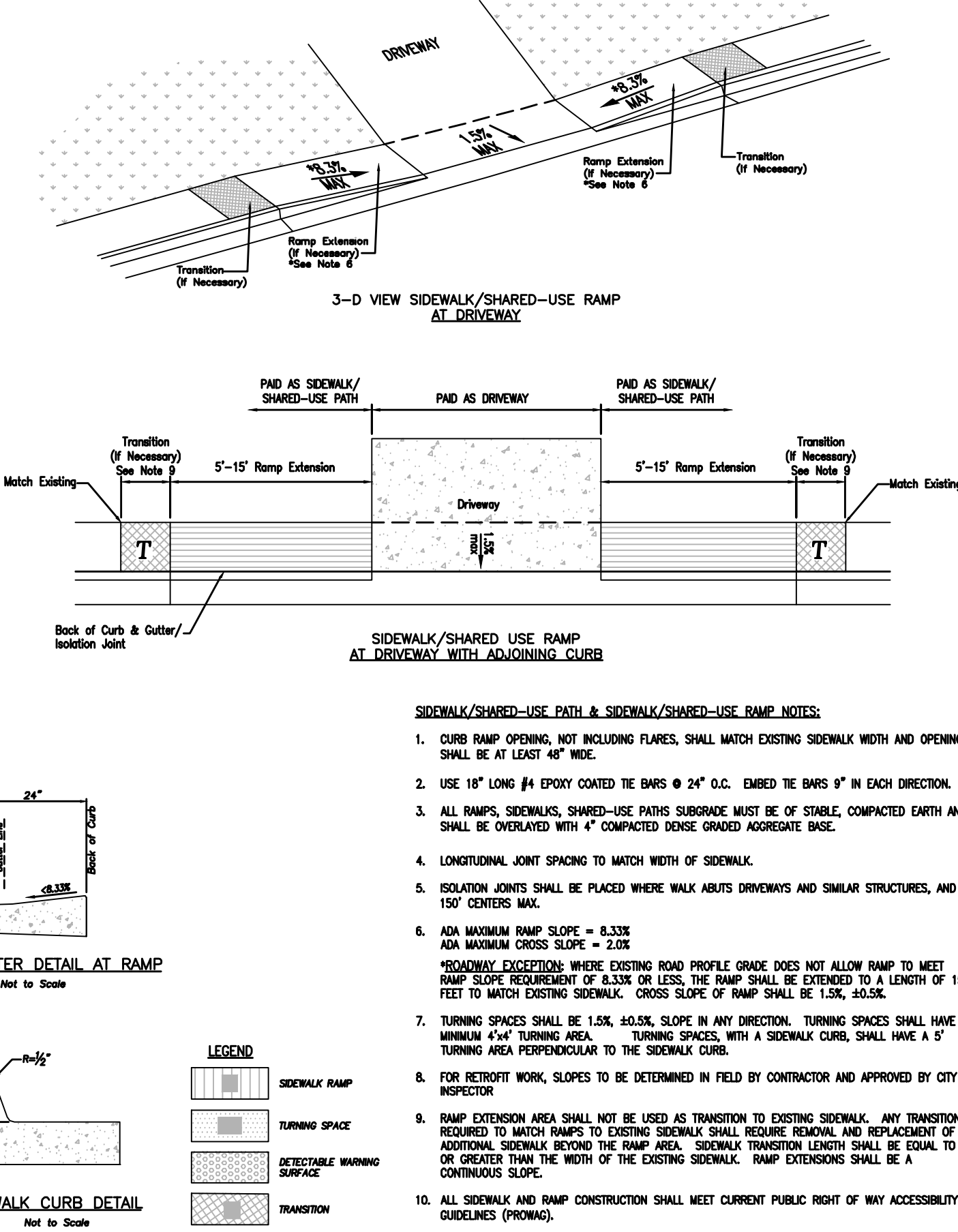
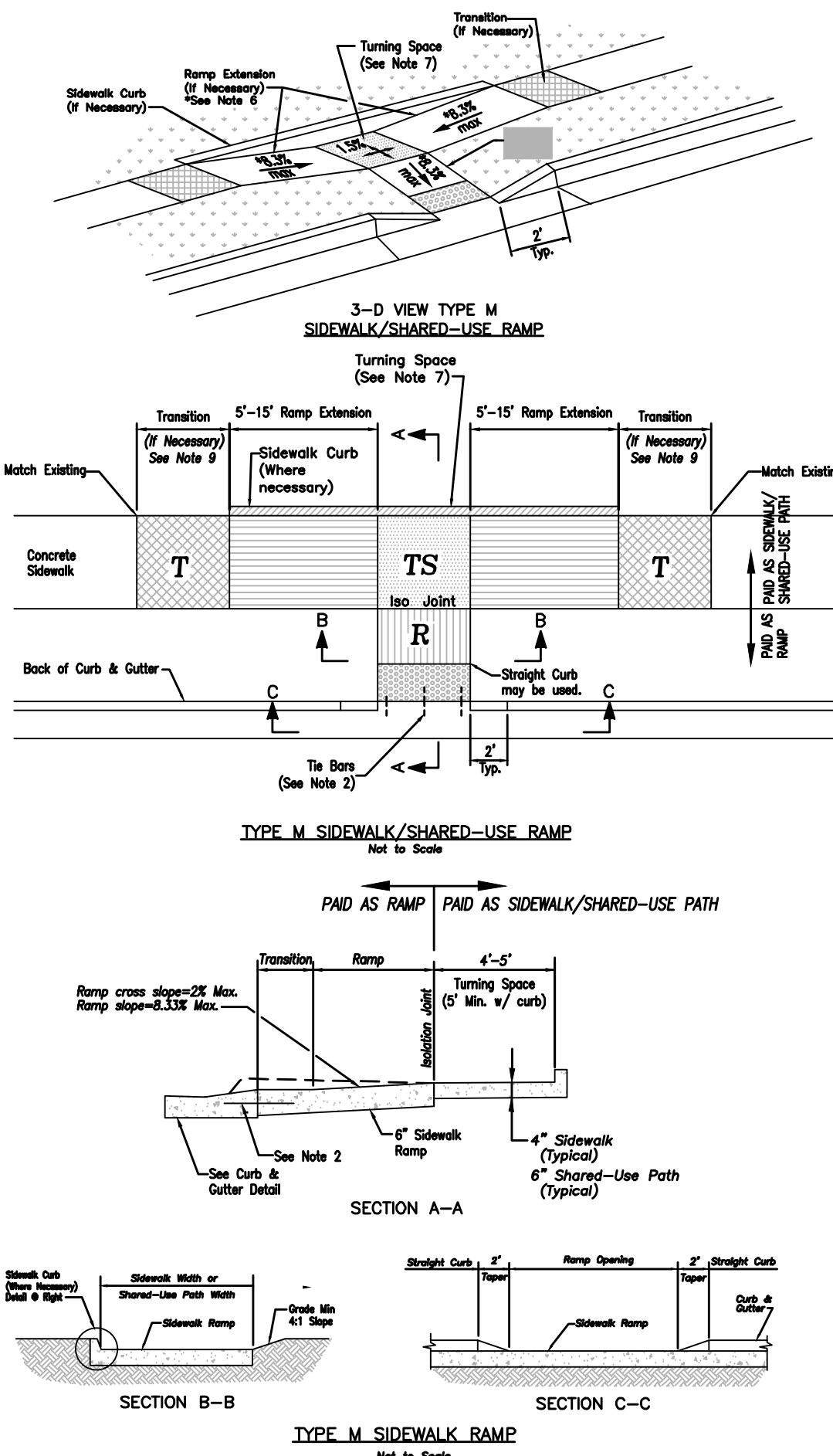
BASIN 10 DETENTION (TRACT J):
100-YEAR W.S.E. (NON-CLOGGED): 935.67
CLOGGED CONDITION (ALL FLOW THROUGH
EMERGENCY SPILLWAY): 936.70

01 N.T.S.
ADA RAMP RETROFIT DETAIL (A)



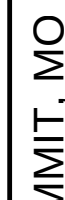
REFER TO SHEETS C110 AND C111
FOR RAMP SLOPE AND DIMENSION.
DETAILS ARE GUIDELINES AS TO HOW
RAMPS SHALL BE CONSTRUCTED.

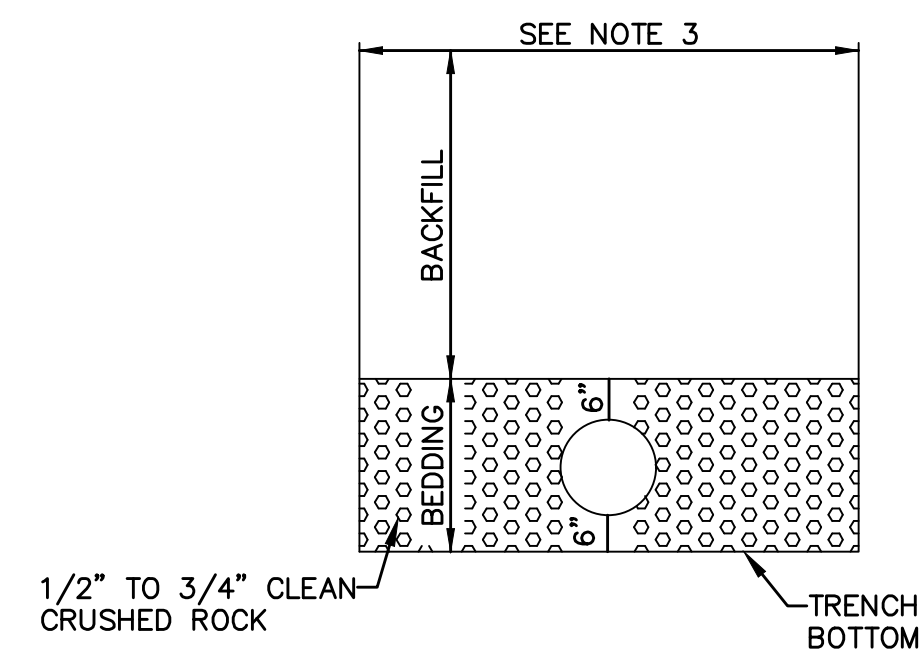
02 N.T.S.
ADA RAMP RETROFIT DETAIL (B)



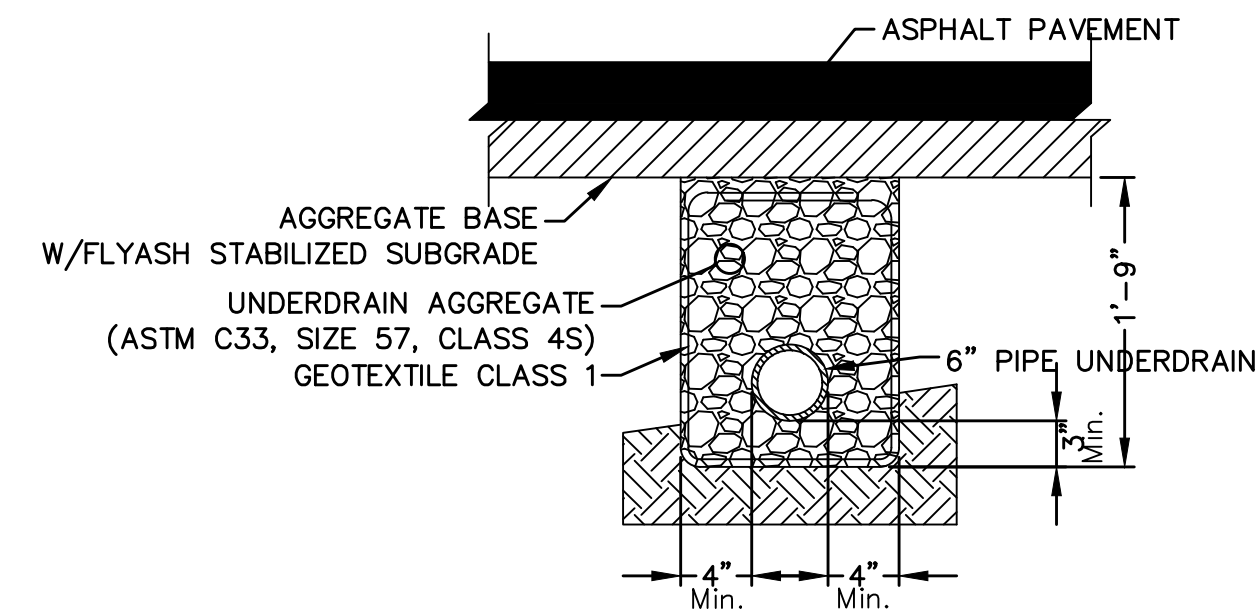
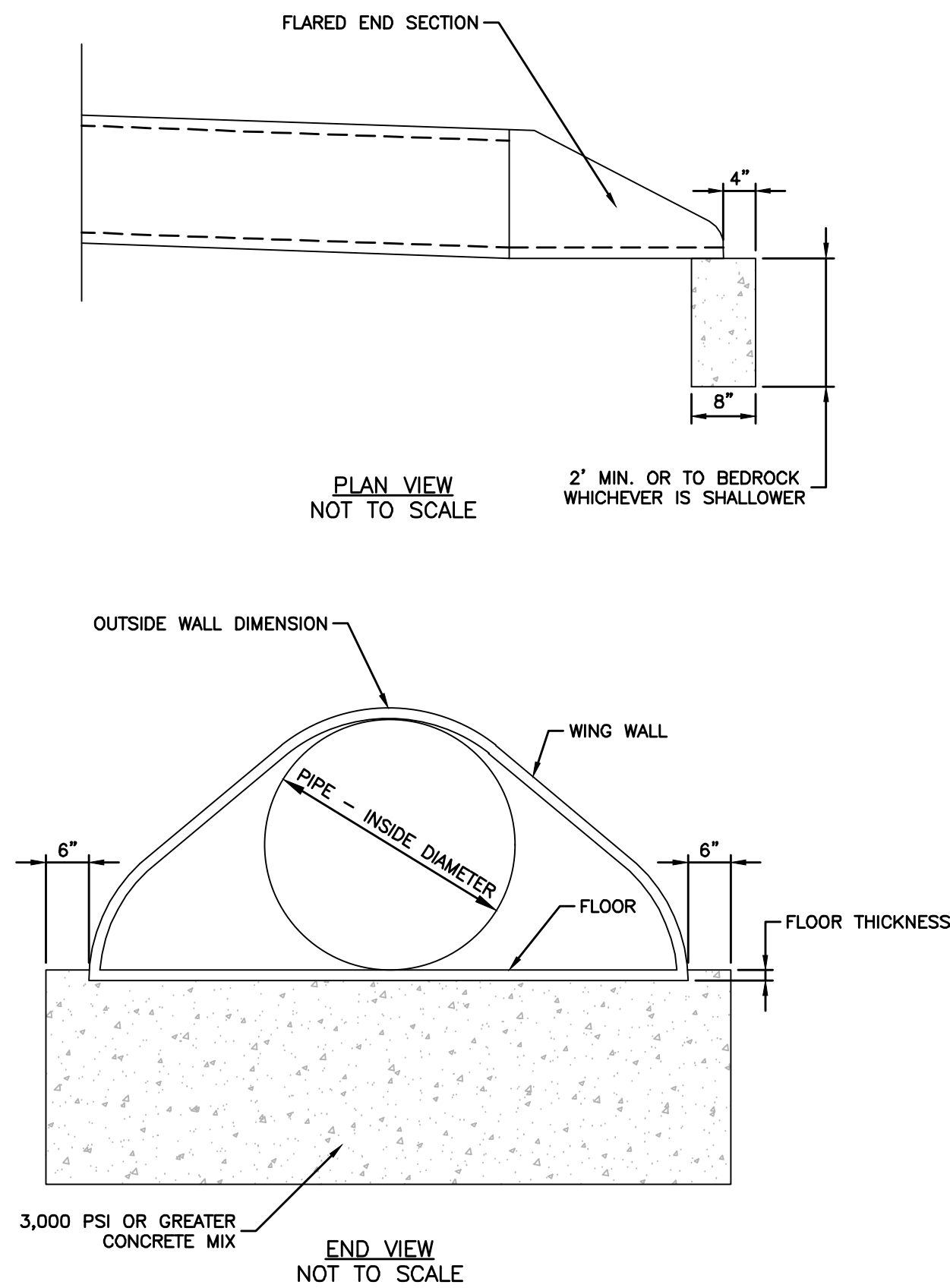
- GENERAL NOTES:
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
 3. KCMME 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
 4. ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
 5. AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
 6. SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
 7. SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
 8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

03 N.T.S.
SIDEWALK/SHARED-USE PATH DETAIL





1. BACKFILL SHALL BE JOY EXCAVATED MATERIAL FREE FROM DEBRIS AND STONES COMPACTED TO 90% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 FOR BACKFILL UNDER PAVEMENT (EXISTING OR PROPOSED).
2. TRENCH BANKS MAY BE CUT BACK ON SLOPES IN ACCORDANCE WITH CURRENT OSHA REGULATIONS, BUT ONLY IN AREAS WHERE THE INCREASED TRENCH WIDTH WILL NOT INTERFERE WITH SURFACE FEATURES. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
3. MINIMUM AND MAXIMUM WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.



- NOTES:**
1. Where Pipe Underdrains are used, all Underdrain Outlet Pipes shall be solid wall with watertight joints. All Outlets Pipes shall be tied into the nearest storm sewer inlets at roadway sag locations as indicated in the street profile.
 2. Underdrain Pipes shall be installed at a minimum slope of 1%.
 3. Underdrain Pipes shall be installed with the perforations placed down.
 4. Blanket Underdrain Aggregate, Pipe Underdrain Aggregate, Pipe Underdrain, Edge Underdrain and Outlet Pipe shall conform to City of Lee's Summit Specifications.
 5. Overlap geotextile at top of trench a minimum of 12".

drawn by: _____ C.S.M. checked by: _____ S.M.S. QA/QC by: _____ J.E.S. project no.: _____ C18-11492 date: _____ 2020.06.15		STORM DETAIL SHEET STREET & STORM SEWER PLANS		NO. REV.		DATE		REVISIONS DESCRIPTION		BY	
		WOODSIDE RIDGE SECOND PLAT									
LEE'S SUMMIT, MO				2020				REVISIONS			
SHEET C134											
olsson NO Certificate of Authority #001892 1301 EURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 TEL. 816.381.1177 www.olsson.com JULIE ELAINE SELLERS NUMBER PE-2017000367 6/15/20											

