LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SEC. 10, TWP. 47N, RNG. 32W

DATE: 3/15/2021

# **VICINITY MAP**

SECTION 10, TOWNSHIP 47, RANGE 32 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI NOT TO SCALE

### LEGAL DESCRIPTION:

MEADOWS FIRST PLAT, HIGHLAND MEADOWS SECOND PLAT, HIGHLANDS MEADOWS THIRD PLAT, HIGHLAND MEADOWS 4TH PLAT, SUBDIVISIONS IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

### OIL AND GAS WELL NOTES.

PROPOSED CONSTRUCTION ACTIVITIES, PER THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) PERMITTED OIL AND GAS DATABASE, DATED





# UTILITY CONTACTS:

SANITARY & WATER: CITY OF LEE'S SUMMIT JEFF THORN 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1900

<u>STREETS:</u> CITY OF LEE'S SUMMIT MICHAEL PARK 220 SE GREEN STREET LEE'S SUMMIT, MO 64063

PHONE (816) 969-1900

EVERGY: DOUG DAVIN 1300 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 PHONE (816) 347-4320

RONALD GIPFERT 500 E 8TH STREET

MISSOURI GAS ENERGY: RICHARD FROCK 3025 SW CLOVER DRIVE LEE'S SUMMIT, MO 64082 PHONE (816) 472-3489

### FEMA FLOOD INFORMATION:

THE SITE IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD, PER FEMA FIRM MAP 29095C0418G: EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS OF MAP AMENDMENT OR REVISIONS ARE BEING PROPOSED.

# BENCHMARK:

BM #1 N=999843.9665 E=2898946.9717 ELEV=935.04 DESCRIPTION = "JA-148" REFERENCE SYSTEM MONUMENT

# STORMWATER:

CITY OF LEE'S SUMMIT PUBLIC WORKS 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1800

# KANSAS CITY, MO 64106 PHONE (816) 275-1550

STATE PLANE COORDINATE SYSTEM, WEST ZONE, USING JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA-148 (2003 ADJUSTMENT) AND ARE MODIFIED FROM GRIS COORDINATÉS TO GROUND COORDINATES BY UTILIZING A GRID SCALE FACTOR OF 0.9999020 AT REFERENCE MONUMENT JA-148.

### PROJECT ELEVATIONS ARE BASED ON JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA-148 (2003 ADJUSTMENT).

"JA-148" - STANDARD KC METRO ALUMINUM GRS DISK SET IN CONCRETE FLUSH WITH THE GROUND AND STAMPED "JA-148, 2002" LOCATED ON THE NORTH SIDE OF 3RD STREET, 12.5 FEET NORTH OF A SIDEWALK AND 102.5 FEET WEST OF THE PARKING LOT EXIT OF CEDAR CREEK ELEMENTARY SCHOOL.

WATERSHED: LITTLE BLUE RIVER

COORDINATES ARE BASED ON THE MISSOURI

SURVEY CONTROL:

# GENERAL NOTES:

- CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS OF THE SITE AND HAVE ALL UTILITIES MARKED PRIOR TO COMMENCING CONSTRUCTION.
- 2. CONTRACTOR SHALL POTHOLE ALL CONNECTION POINTS TO EXISTING UTILITIES AND POTENTIAL UTILITY CONFLICT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. NOTIFY ENGINEER IMMEDIATELY IF CONFLICT OR DISCREPANCY EXISTS.
- 3. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED / REPLACED TO PRE-CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

# SHEET INDEX:

LOTS: 134-159 (26 TOTAL)

CVR -	COVER SHEET
C050 -	GENERAL NOTES
C101 -	TYPICAL SECTIONS
C102 -	GENERAL LA YOUT
<i>C103</i> –	12TH STREET PLAN & PROFILE
C104 -	12TH TERR. & LONGVIEW BLVD. PLAN & PROF.
<i>C105</i> –	STREET SIGNAGE PLAN
<i>C106</i> –	GRADING PLAN
C201 -	DRAINAGE AREA PLAN
<i>C202</i> –	DRAINAGE CALCULATIONS
<i>C203</i> –	STORM SEWER PLAN & PROFILE
<i>C204</i> –	STORM SEWER PLAN & PROFILE (2)
<i>C205</i> –	DETENTION BASIN PLAN & PROFILE
<i>C206</i> –	MINIMUM BUILDING OPENING PLAN
<i>C301</i> –	PRE-CLEARING EROSION CONTROL PLAN
<i>C302</i> –	INTERMEDIATE EROSION CONTROL PLAN
	FINAL STABILIZATION EROSION CONTROL PLAN
C401 —	ADA RAMP PLAN
	ADA RAMP CROSS SECTIONS
	ADA RAMPS #6 — #9
	INTERSECTION DETAILS
	INTERSECTION DETAILS (2)
	MATCH EXISTING PAVEMENT DETAILS
	SIGN POST & MOUNTING DETAILS
	STREET NAME SIGN DETAILS
	STORM SEWER DETAILS
	STORM SEWER DETAILS (2)
	STORM SEWER DETAILS (3)
	CURB & SIDEWALK DETAILS
C505 -	ADA RAMP DETAILS

### PROJECT SPECIFICATIONS:

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

1. MOST CURRENT VERSION OF THE DESIGN AND CONSTRUCTION MANUAL OF THE CITY OF LEE'S SUMMIT AS ADOPTED BY ORDINANCE 5813.

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE INCORPORATED HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

# PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING INC. KANSAS CITY, MISSOURI

MISSOURI P.E. NO. 2012009232

ZACH MYERS, P.E.

### CIVIL ENGINEER:

LEE'S SUMMIT, MO 64082

BRADLEY@SUMMITHOMESKC.COM

DEVELOPER:

SUMMIT HOMES KC

(816) 927-9711

120 SE 30TH STREET

BRAD KEMPF

ZACH MYERS ANDERSON ENGINEERING, INC. 941 W 141ST TERR KANSAS CITY, MO 64145 ZMYERS@ANDERSONENGINEERINGINC.COM (816) 380-4821

DISTURBED AREA: 15.3 AC

t indicate that design data has been replaced with "as-built" information. All other data is as designed and h ot been field verified. Date: 03/24/2022 Certified by: GRC Title: Project Engineer Firm: Anderson Engineering Inc

# Digitally signed by Kent Monter document

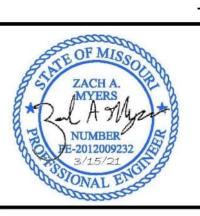
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RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 04/16/2021

DATE

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SHEET NUMBER <u>of 40</u>

Kent Monter approving this Date: 2021.04.16

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE ALL STATE AND CITY PERMITS. INCLUDING PERMITS REQUIRED BY OTHER GOVERNING BODIES. REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT.
- 2. PRIOR TO BEGINNING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND NOTIFYING ALL UTILITY COMPANIES AND SHALL FIELD VERIFY ALL UTILITIES THAT MAY BE ENCOUNTERED. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR COMPLETE. IN THE EVENT THAT EXISTING UTILITIES ARE CONTACTED, DISRUPTED, OR IN ANY WAY ALTERED, CONTACT THE RESPECTIVE UTILITY COMPANY IMMEDIATELY. IN CASE OF EMERGENCY, DIAL 911.
- 3. THE CONTRACTOR SHALL PROVIDE EROSION AND SILT PROTECTION AS REQUIRED DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR KEEPING EXISTING STREET AND ADJACENT LAND FEATURES AND PROPERTY FREE OF MUD AND SILT. SEE "EROSION CONTROL PLAN" FOR MINIMUM EROSION CONTROL MEASURES REQUIRED BY THESE PLANS. EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ONCE CONSTRUCTION BEGINS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES AND SHALL PROMPTLY REPAIR ANY AREA REQUIRING ATTENTION UNTIL SUBSTANTIAL COMPLETION.
- 4. WARRANTY/DISCLAIMER: THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO CERTIFY THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER OBSERVES AND CONTROLS THE PHYSICAL CONSTRUCTION AND THE CONTINUAL BASIS AT THE SITE.
- 5. ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL. THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.
- 6. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE (1) CHEMICALLY TREATED PORTABLE TOILET UNIT, "SATELLITE CORPORATION", OR EQUAL FOR EVERY 20 WORKMEN ON THE JOB SITE. IN NO CASE SHALL LESS THAN ONE (1) BE PROVIDED. THE UNITS(S) SHALL REMAIN ON THE SITE DURING ALL ACTIVE PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL ENFORCE THE USE OF THE PUBLIC VIEW TO THE GREATEST EXTENT PRACTICABLE.
- 7. ALL AREA TO BE FILLED AND SUBGRADES UNDER PAVEMENTS SHALL BE PROOF-ROLLED WITH A LOADED, RUBBER TIRED TRUCK PRIOR TO FILL PLACEMENT OR ROADWAY PAVING OPERATIONS BEGIN. SOFT OR UNSTABLE AREA SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
- 8. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A COPY OF AND BECOME FAMILIAR WITH THE GEOTECHNICAL REPORT BY ANDERSON ENGINEERING INC., UNLESS SPECIFICALLY NOTED ON THE PLANS. THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT ARE HEREBY INCORPORATED INTO THE PROJECT REQUIREMENTS AND SPECIFICATIONS.
- 9. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION LAYOUT AND STAKING FOR THIS PROJECT.
- 10. ALL PIPE LENGTHS ARE SHOWN FROM STRUCTURE CENTER TO STRUCTURE CENTER.
- 11. ALL STRUCTURE STATION AND OFFSET CALLOUTS ARE TO THE CENTER OF STRUCTURE.
- 12. ALL CURB STATIONS, OFFSETS AND ELEVATIONS ARE TO THE TOP BACK OF CURB UNLESS OTHERWISE NOTED.
- 13. ALL CONNECTIONS TO EXISTING DRAINAGE STRUCTURES SHALL BE <u>SUBSIDIARY</u> TO NEW DRAINAGE
- 14. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ACCESS TO ALL PROPERTIES IS AVAILABLE DURING CONSTRUCTION OF THE PROJECT.
- 15. ALL SAW CUTS SHOWN ON THE PLANS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF THE CONTRACT. THE DEPTH OF THE CUT SHALL BE FULL DEPTH.
- 16. EXISTING CONCRETE PAVEMENT AND EXISTING BITUMINOUS PAVEMENT THAT IS REMOVED WILL BECOME THE PROPERTY OF THE CONTRACTOR & DISPOSED OF AT HIS EXPENSE.
- 17. EXISTING DRAINAGE STRUCTURES THAT ARE REMOVED, INCLUDING END SECTIONS, SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- 18. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE ELEVATIONS.
- 19. CHANNELS SHALL BE CUT AT BOX CULVERTS (UNLESS OTHERWISE NOTED) TO FLOW LINE ELEVATIONS AND TO A WIDTH OF ONE FOOT OUTSIDE OF EACH OUTSIDE WALL AND WITH SLOPES OF 2 TO 1 PRIOR TO CONSTRUCTION OF THE CULVERT.
- 20. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE UTILITY OWNERS TO LOCATE AND FLAG ALL RELOCATED UNDERGROUND UTILITIES PRIOR TO EXCAVATION TO AVOID DAMAGING THE UTILITIES. THE LOCATIONS SHOWN ON THE PLANS ARE THE ORIGINAL SURVEYED LOCATION, PRIOR TO RELOCATION IN SOME CASES. THE INFORMATION SHOWN IN THESE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES PROVIDED FOR FIELD LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH THE PROPER UTILITY OWNERS DURING CONSTRUCTION OF THE PROPOSED STORM SEWER SYSTEM TO AVOID DAMAGES TO EXISTING FACILITIES. DAMAGE TO ANY FACILITIES WILL BE PAID FOR AT THE CONTRACTOR'S EXPENSE.
- 21. ALL TREES, SHRUBS, BUSHES, AND BRUSH WITHIN THE GRADING LIMITS SHALL BE REMOVED BY THE CONTRACTOR UNLESS SPECIFICALLY INDICATED TO BE SAVED ON THE PLANS.
- 22. ALL SIGNS REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CITY, UNLESS NOT DESIRED BY CITY. IF NOT DESIRED BY CITY, CONTRACTOR SHALL REMOVE AND DISPOSE OF SIGNS AT HIS EXPENSE.
- 23. DRAINAGE STRUCTURES WHICH ARE TO REMAIN, WHETHER EXTENDED OR NOT, SHALL BE CLEANED OUT BY THE CONTRACTOR, AS DIRECTED BY THE CITY.
- 24. CONTRACTOR SHALL ACCOMPANY A DESIGNATED CITY REPRESENTATIVE DURING A PHOTOGRAPHY & VIDEO TOUR BEFORE ANY CONSTRUCTION BEGINS TO RECORD EXISTING CONDITIONS.
- 25. THE CONTRACTOR SHALL THOROUGHLY REVIEW AND BECOME FAMILIAR WITH THE PROJECT PLANS, SPECIFICATIONS AND ANY SPECIAL CONDITIONS OF THE CONTRACT DOCUMENTS PRIOR TO BEGINNING CONSTRUCTION OF THIS PROJECT.

- 26. DRIVEWAYS, SIDEWALKS, PARKING LOTS, YARD LIGHTS, FENCES, SPRINKLER SYSTEMS, UTILITY SERVICE LINE CONNECTIONS, LANDSCAPING, SEPTIC SYSTEMS, AND OTHER AREAS OUTSIDE THE CONSTRUCTION EASEMENTS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING BEFORE DAMAGE OCCURRED.
- 27. ALL WORK SHALL BE CONFINED WITHIN THE EASEMENTS AND/OR GRADING LIMITS AS DIRECTED BY THE ENGINEER. ALL TEMPORARY CONSTRUCTION EASEMENTS SHALL BE STAKED BY THE CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION. ALL GRADING LIMITS SHOWN ARE APPROXIMATE AND MAY BE EXTENDED OR REDUCED AT THE DIRECTION OF THE ENGINEER.
- 28. THE CONTRACTOR SHALL PROVIDE ADEQUATE SEDIMENT AND EROSION CONTROL TO PREVENT SEDIMENT AND/OR DEBRIS FROM ENTERING STREETS OPEN TO TRAFFIC THE COMPLETED STORM SEWER SYSTEM. OR YARDS OF ADJACENT RESIDENCES AND BUSINESSES.
- 29. ALL TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST M.U.T.C.D. THE TRAFFIC CONTROL PLANS SHOWN ARE MINIMUM REQUIREMENTS ONLY AND DO NOT ATTEMPT TO ADDRESS IN DEPTH THE VARIETY OF SITUATIONS THAT MAY OCCUR ONCE CONSTRUCTION BEGINS. THE REQUIREMENTS SHOWN IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR SELECTING & IMPLEMENTING THE PROPER DEVICES AND PROCEDURES THAT WILL ASSURE THE SAFETY OF MOTORISTS, PEDESTRIANS, & WORKERS AT ALL
- 30. LABOR, TOOLS, MATERIALS, AND EQUIPMENT REQUIRED FOR TEMPORARY CONNECTIONS TO MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION SHALL BE <u>SUBSIDIARY</u> TO OTHER PAY ITEMS.
- 31. REMOVAL OF EXISTING STRUCTURES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE ITEMS NOTED IN THE PLANS AND IN THE SUMMARY OF QUANTITIES. WORK SHALL BE PAID FOR UNDER BID ITEM "REMOVAL OF EXISTING STRUCTURES". CONTRACTOR WILL DISPOSE OF EXISTING STRUCTURES AT HIS EXPENSE.
- 32. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPORTING AND PROTECTING ALL EXPOSED UTILITIES IN OPEN TRENCHES. WORK SHALL BE <u>SUBSIDIARY</u> TO OTHER PAY ITEMS.
- 33. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING STORM SEWER PIPES AND ADJUST THE PROPOSED FLOWLINE ELEVATIONS, PIPE LENGTHS, AND STRUCTURES AS EACH SECTION OF THE EXISTING DRAINAGE STRUCTURE IS REMOVED AND
- 34. EXCESS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR DISPOSAL.
- 35. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY AT ALL TIMES.
- 36. CONTRACTOR RESPONSIBLE FOR CONSTRUCTION OF ALL ADA-ACCESSIBLE RAMPS, AS WELL AS ANY SIDEWALK ADJACENT TO TRACTS OR UNPLATTED LAND, AT THE TIME OF INFRASTRUCTURE IMPROVEMENTS.
- 37. CONTRACTOR TO CONSTRUCT STORMWATER MANAGEMENT FACILITIES, SPECIFICALLY THOSE FEATURES RELATED TO DETENTION, PRIOR TO ANY LAND DISTURBANCE OF THE SITE AND PRIOR TO THE CONSTRUCTION OF ANY OTHER SITE DEVELOPMENT WORK AS NOT TO EFFECT DOWNSTREAM NEIGHBORS WITH UNDETAINED STORMWATER DISCHARGE.
- 38. AN AS-GRADED AND AS-BUILT DRAWING SHALL BE SUBMITTED TO AND REVIEWED BY THE CITY FIR THE DETENTION BASIN. THIS SHALL BE REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF SUBSTANTIAL COMPLETION. ALL PRECAUTIONS SHOULD BE TAKEN TO ENSURE DETENTION POND AND OUTLET STRUCTURE ARE CONSTRUCTED ACCORDING TO THE APPROVED PLANS; VOLUMES AND ELEVATIONS ARE CRITICAL FOR AS-BUILT APPROVAL. THE CITY SHALL BE PROVIDED WITH AN AS-BUILT SURVEY OF THE DETENTION, OUTLET STRUCTURE INCLUDING ALL WEIR ELEVATIONS AND STORM SYSTEM INCLUDING ALL THE INVERTS, STAMPED BY A MISSOURI LICENSED ENGINEER.



REVISIONS			DR	DRAWING INFO.	
DESCRIPTION	ΒY	DATE	DRAWN BY:	29	i
ED PER CITY COMMENTS	GC	1/15/21	GC 1/15/21 CHECK BY:	ZM	
ED PER CITY COMMENTS	CC	2/26/21	GC 2/26/21 LICENSE NO.	PE-2012009232	i
			DATE:	12/2/2020	i
			ISSUED FOR:	FOR REVIEW	I
JILT DRAWINGS	GC	3/24/22	GC 3/24/22 JOB NUMBER:	20KC10057	i
RIGHT ANDERSON ENGINEERING, INC. 2020	2020		MO COA NO.	000062	-

SHEET NUMBER

**RELEASE FOR** CONSTRUCTION

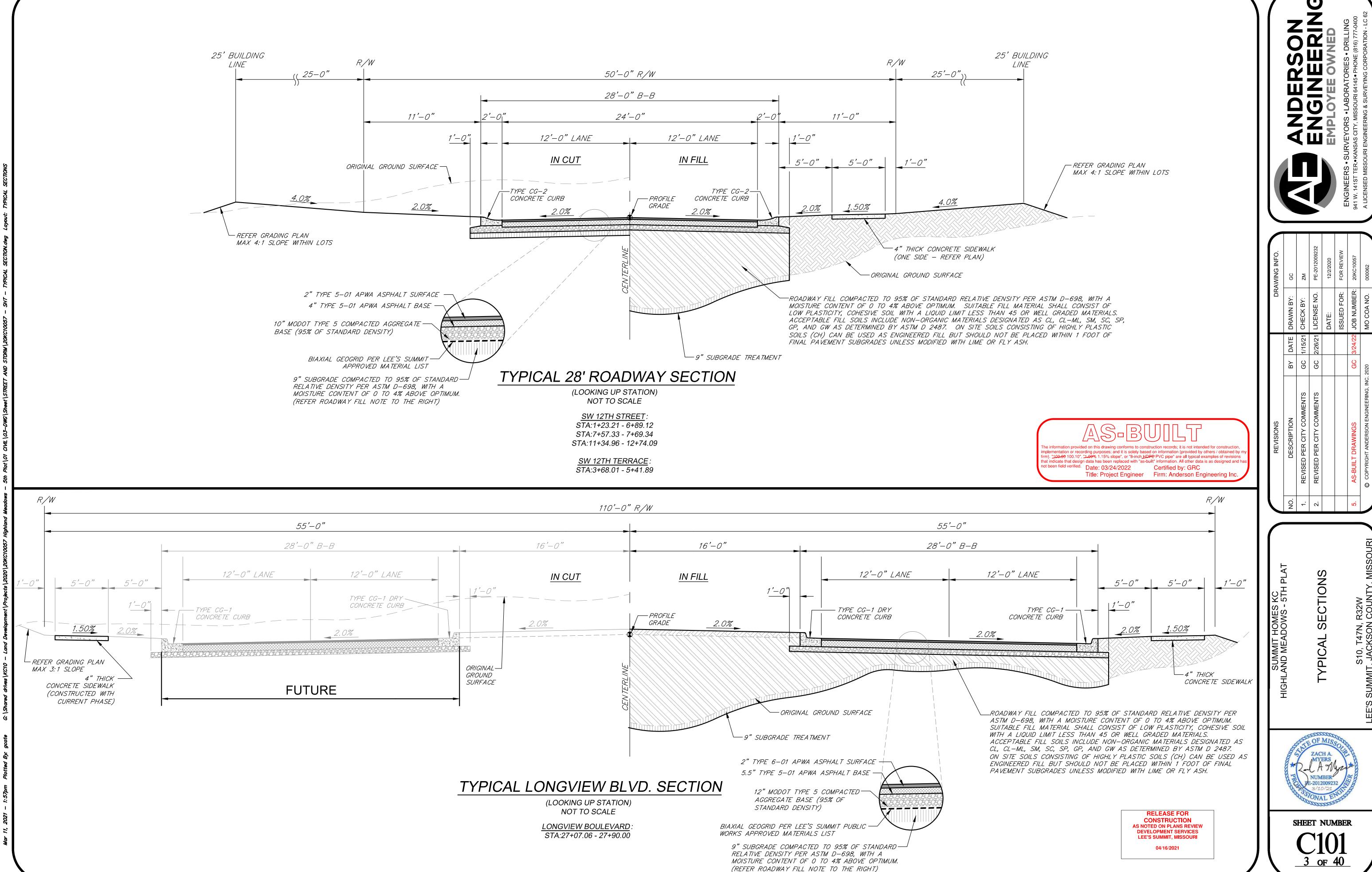
DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

04/16/2021

n}, "1<del>00.00</del> 100.10", "1<del>.00%</del> 1.15% slope", or "8-inch HD<del>PE</del> PVC pipe" are all typical examples of revision indicate that design data has been replaced with "as-built" information. All other data is as designed and

Title: Project Engineer Firm: Anderson Engineering Inc

AS NOTED ON PLANS REVIEW ot been field verified. Date: 03/24/2022 Certified by: GRC

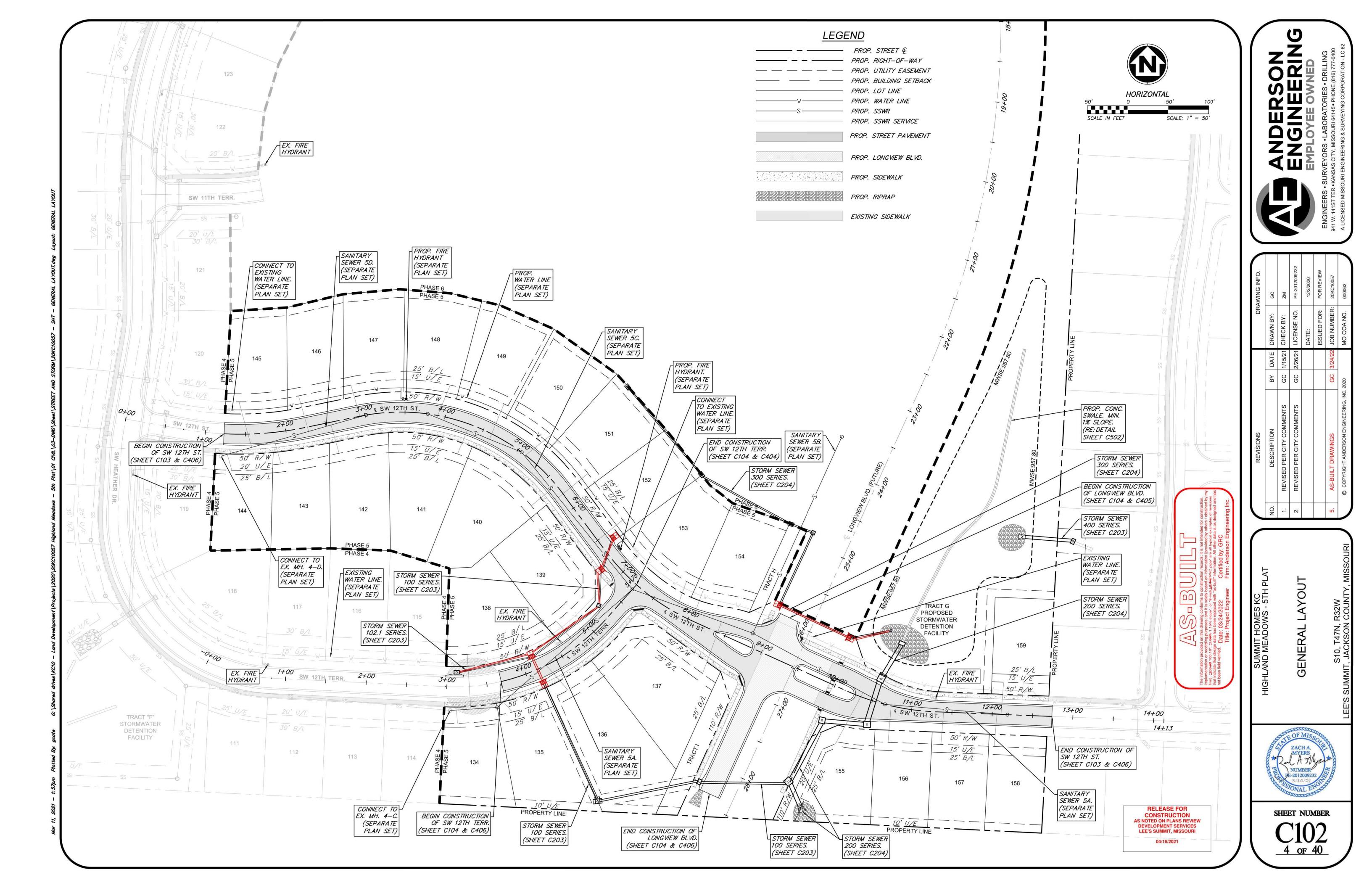


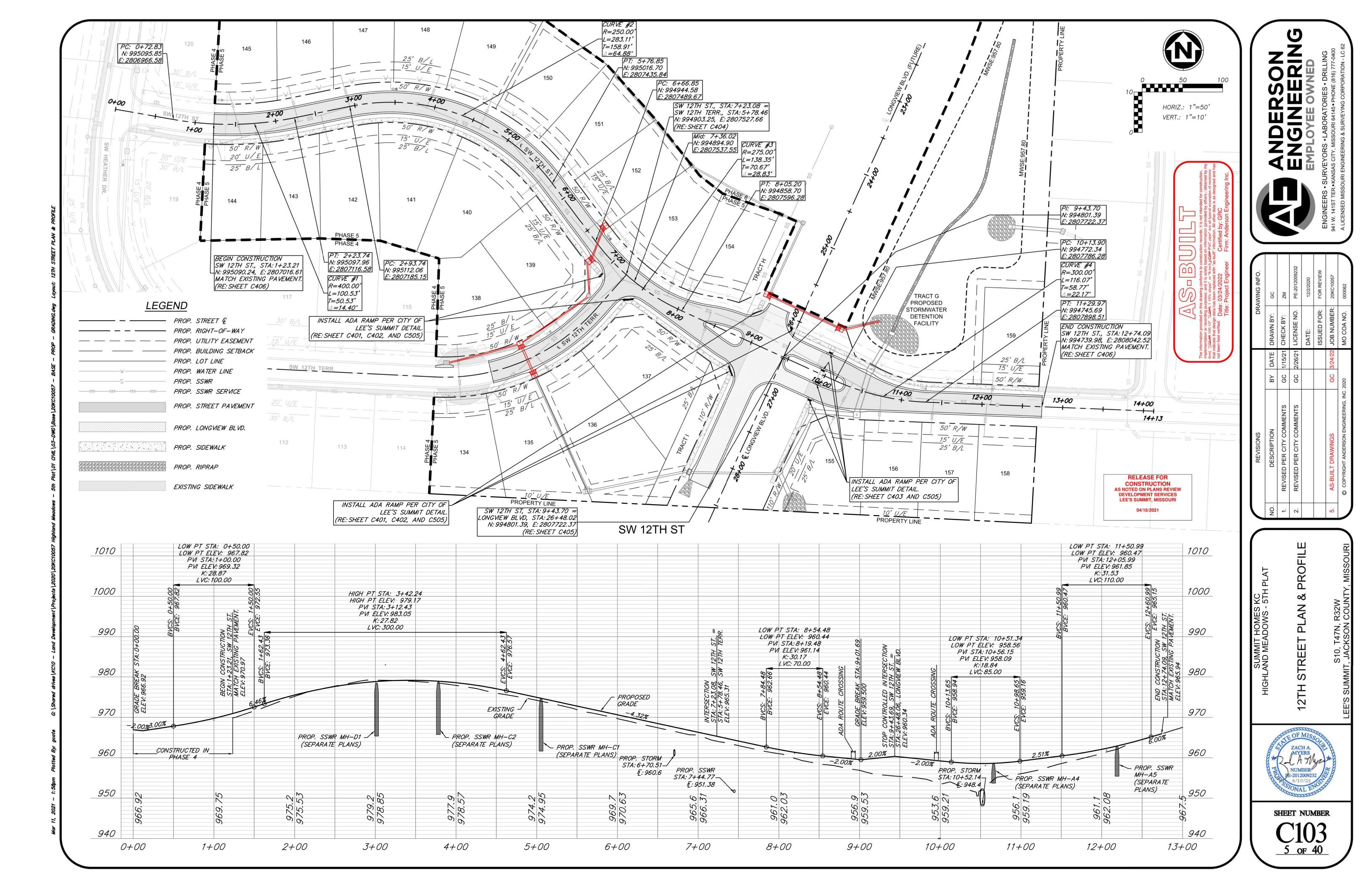


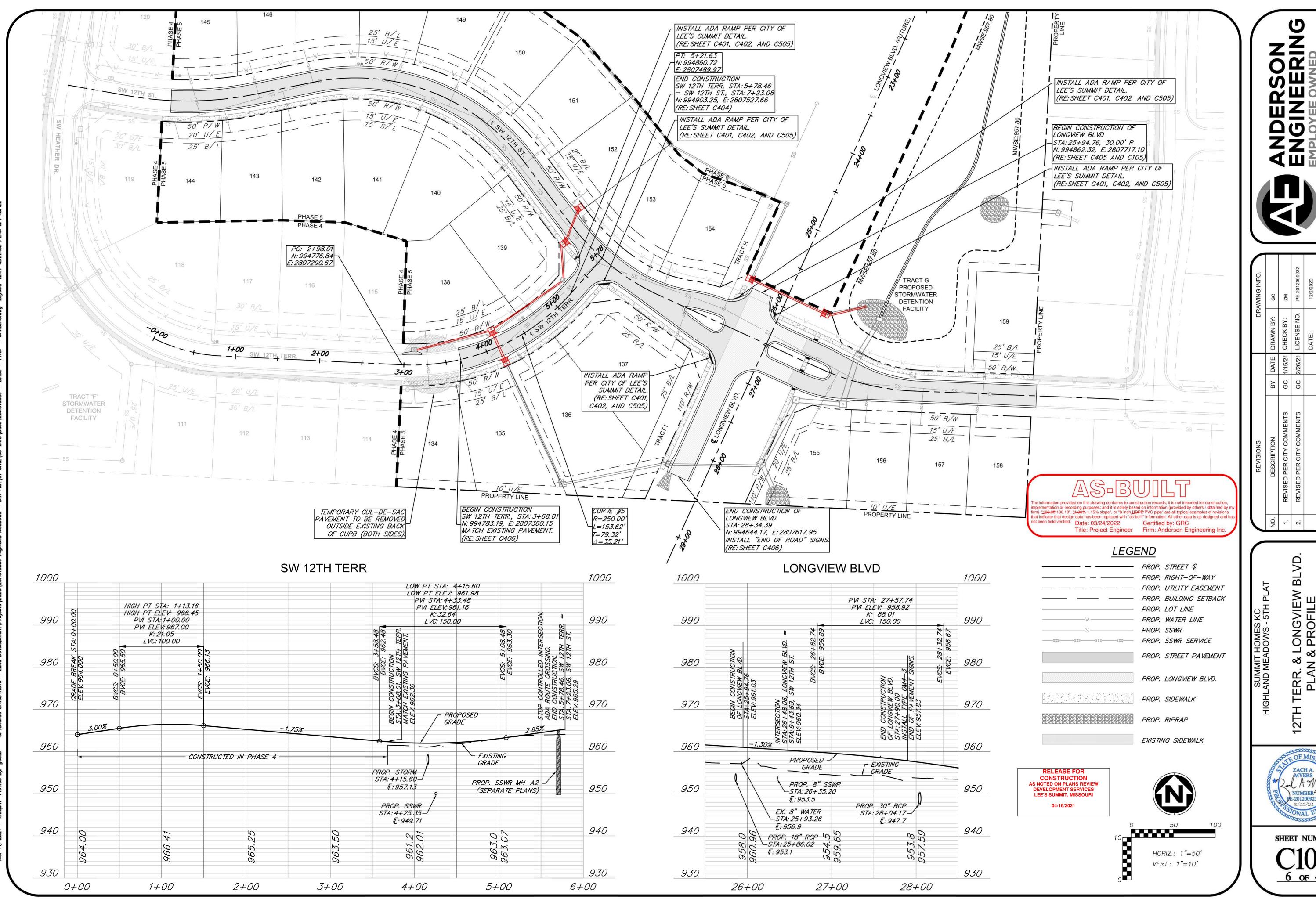
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FOR REVIEW	ISSUED FOR:				
12/2/2020	DATE:				
PE-201200923	GC 2/26/21 LICENSE NO.	2/26/21	GC	REVISED PER CITY COMMENTS	2.
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SHEET NUMBER 3 of 40



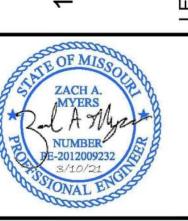




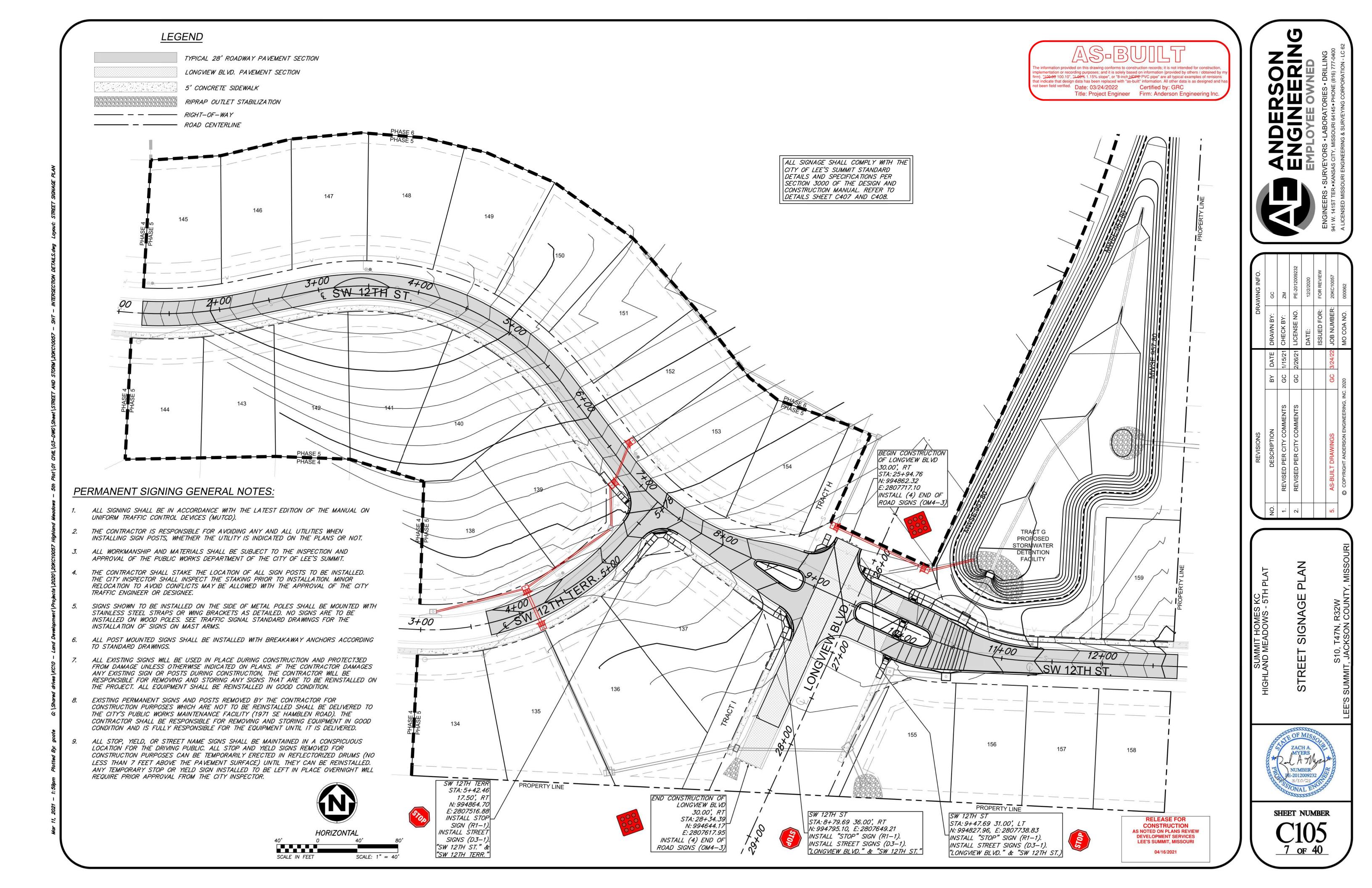


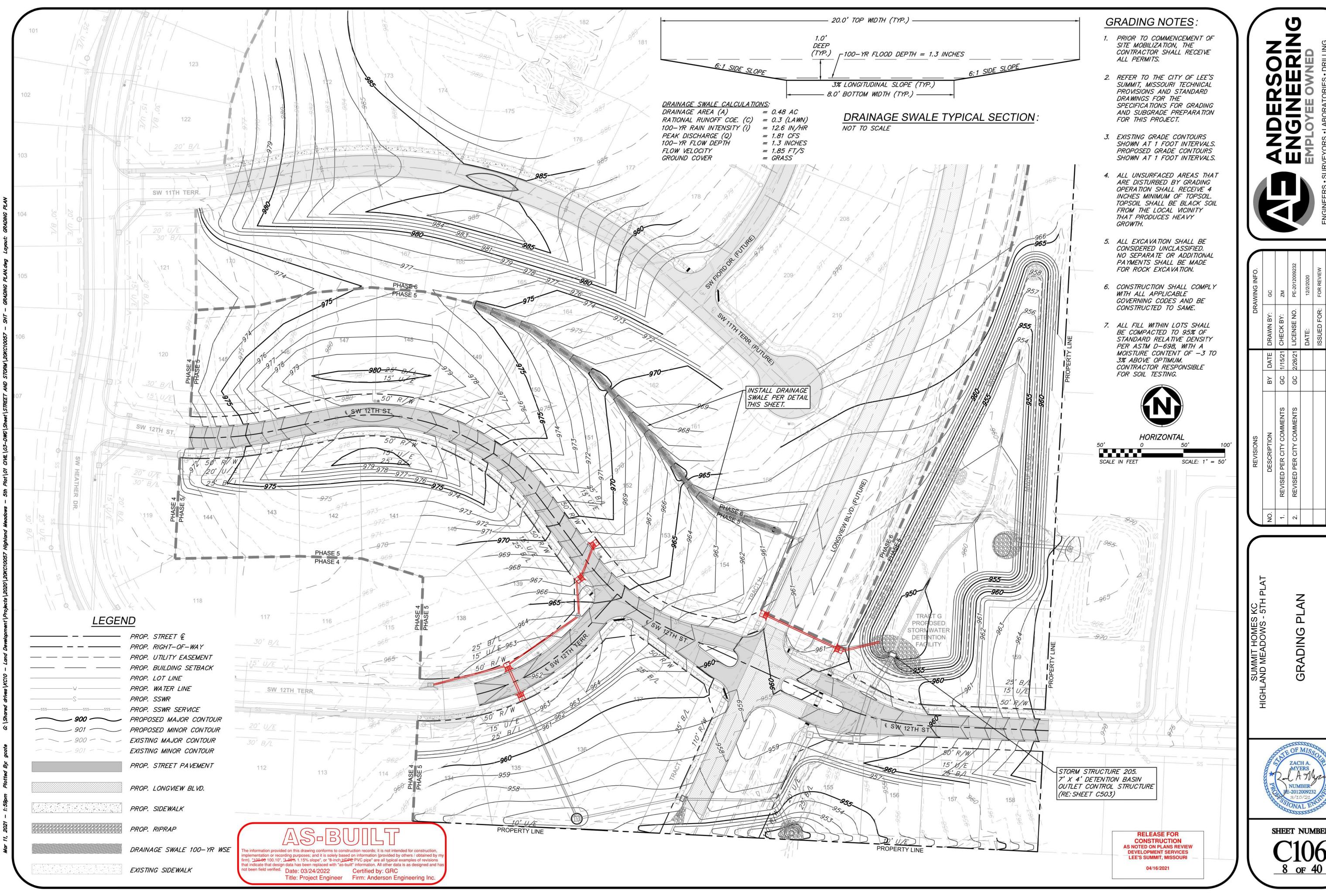
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				DATE:	12/2
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5.	AS-BUILT DRAWINGS	GC	3/24/22	GC 3/24/22 JOB NUMBER:	20KC
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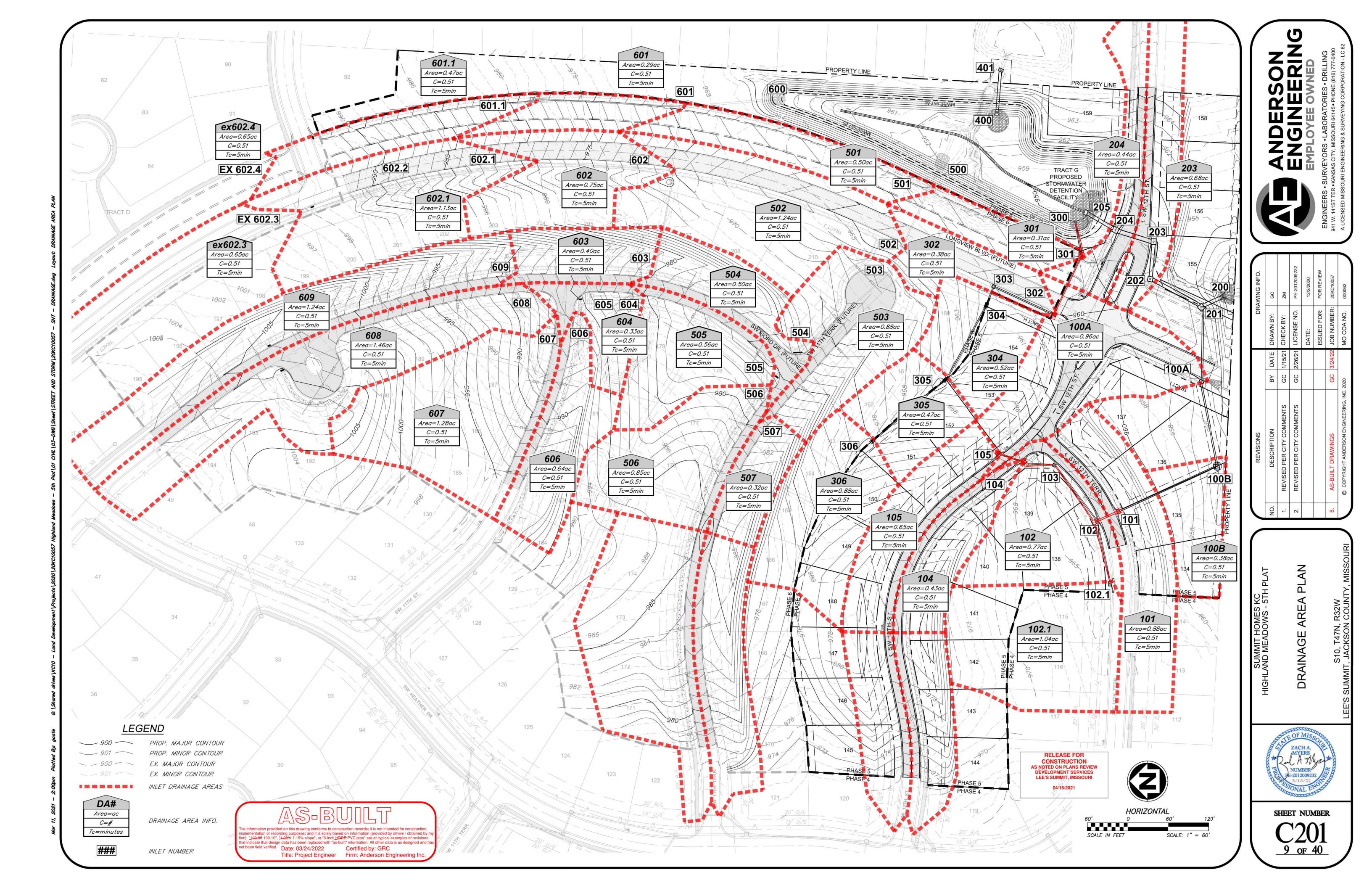
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SHEET NUMBER



10-1	EAR	LIVER ALIL 100																														
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Line No.	Inlet ID	Downstream Line No.	DrainageA rea	Runoff Coefficient	Local CxA	System CxA	Тс	Local Intensity	System Intensity	Incremental Flow	Total Runoff	Line No.	Line	U/S Ground Elev.	U/S Invert	D/S Invert	Length	Slope	Size	n	Capacity Full	Total Runoff	Velocity	Velocity Out	HGLUp	HGLDn	Line ID	Local Q	QBypass	Gutter Slope	Gutter Spread	Gutter Width
		2	(ac)	(C)			(min)	(in/hr)	(in/hr)	(cfs)	(cfs)			(ft)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft/s)	(ft)	(ft)		(cfs)	(cfs)	(%)	(ft)	(ft)
1	401	Outfall	0.00	0.00	0	0	0.0	0.00	0.00	0.00	0.00	LINE 401	401	967.53	958.48	953.12	59.49	9.01	36	0.013	210.92	0.00	9.01	9.01	960.54	954.59	LINE 401		****			nn
2	EX. DET.	1	0.00	0.00	0	0	0.0	0.00	0.00	54.51	0.00	LINE 402 (EX)	402	969.00	963.77	963.22	22.98	2.39	36	0.012	111.78	0.00	12.36	15.71	966.16	964.70	LINE 402 (EX)				2000	
3	201	Outfall	0.00	0.00	0	0	7.7	0.00	7.06	0.00	22.43	LINE 201	201	958.00	949.90	946.81	31.01	0.29	54	0.013	141.26	22.43	9.71	9.71	950.10	949.94	LINE 201					
4	100A	3	0.96	0.51	0.49	0.49	7.2	8.34	7.26	4.09	18.92	LINE 100A	100A	956.45	944.95	947.05	110.34	1.90	30	0.013	39.04	18.92	4.03	3.86	950.29	950.10	LINE 100A	1.64	5.41	0.020	11.76	2.00
5	100B	4	0.38	0.51	0.19	0.19	6.7	8.34	7.45	1.62	15.77	LINE 100B	100B	954.94		944.90	128.30	4.28	24	0.012	29.97	15.77	5.94	5.31	951.98	950.42	LINE 100B	1.62		Sag		
6	101	5	0.88	0.51	0.45	0.45	6.2	8.34	7.72	3.75	14.85	LINE 101	101	962.28	954.33	950.84	162.07	2.15	24	0.013	31.98	14.85	8.19	9.99	955.68	952.01	LINE 101	3.75		Sag		
7	102	6	0.77	0.51	0.39	0.39	6.0	8.34	7.80	3.28	11.50	LINE 102	102	962.06	954.84	954.43	45.00	0.91	24	0.013	22.62	11.50	5.83	5.92	956.06	955.68	LINE 102	7.60		Sag		
8	103	7	0.00	0.00	0	0	5.5	0.00	8.05	0.00	4.44	LINE 103	103	963.85	956.30	956.06	103.55	0.81	15	0.012	6.99	4.44	5.50	6.03	957.48	956.31	LINE 103	****	****	****		
9	104	8	0.43	0.51	0.22	0.22	5.3	8.34	8.17	1.83	4.50	LINE 104	104	967.37	958.87	956.45	39.95	6.06	15	0.012	15.65	4.50	5.97	6.94	959.94	957.48	LINE 104	0.65	1.18	0.050	5.34	2.00
10	105	9	0.65	0.51	0.33	0.33	5.0	8.34	8.34	2.77	2.77	LINE 105	105	968.39	961.84	959.62	52.10	4.26	15	0.013	14.44	2.77	6.61	9.06	962.33	959.95	LINE 105	0.81	1.95	0.050	6.50	2.00
11	102.1	7	1.04	0.51	0.53	0.53	5.0	8.34	8.34	4.43	4.43	LINE 102.1	102.1	963.51	958.71	956.06	94.95	2.79	15	0.012	12.58	4.43	7.16	9.35	959.52	956.10	LINE 102.1	1.28	3.14	0.020	9.73	2.00
12	202	3	0.00	0.00	0	0	5.3	0.00	8.17	0.00	4.66	LINE 202	202	958.94	947.49	947.05	86.54	0.51	54	0.013	138.62	4.66	8.95	8.85	950.48	950.10	LINE 202					/
13	203	12	0.68	0.51	0.35	0.35	5.2	8.34	8.25	2.89	4.71	LINE 203	203	958.66		947.69	55.83	0.39	54	0.013	139.27	4.71	9.28	9.50	950.96	950.56	LINE 203	2.89		Sag		
14	204	13	0.44	0.51	0.22	0.22	5.0	8.34	8.34	1.87	1.87	LINE 204	204	958.62	948.51	948.16	57.23	0.59	43 x 68	0.012	149.61	1.87	6.01	6.01	954.24	954.12	LINE 204	2.65		Sag		
15	205	14	0.00	0.00	0	0	0.0	0.00	0.00	94.04	0.00	LINE 205	205	958.25	948.70	948.66	51.16	0.08	54	0.013	140.16	0.00	5.91	5.91	954.64	954.52	LINE 205		••••			/
16	302	Outfall	0.31	0.51	0.16	0.16	7.6	8.34	7.09	1.32	9.25	LINE 301	301	960.76	952.16	950.29	40.96	4.57	18	0.013	21.01	9.25	6.23	6.23	953.60	951.76	LINE 301	0.54	0.78	0.050	4.50	2.00
17	303	16	0.38	0.51	0.19	0.19	7.0	8.34	7.34	1.62	8.42	LINE 302	302	960.68	953.38	952.51	105.01	0.83	24	0.013	22.62	8.42	5.34	5.54	954.60	953.60	LINE 302	0.61	1.01	0.050	5.01	2.00
18	304	17	0.00	0.00	0	0	6.6	0.00	7.52	0.00	7.17	LINE 303	303	962.12	955.51	953.93	98.87	1.60	18	0.012	13.92	7.17	6.72	7.93	956.59	954.83	LINE 303					
19	305	18	0.52	0.51	0.27	0.27	6.5	8.34	7.57	2.21	7.22	LINE 304	304	960.11	956.11	956.08	28.60	0.10	18	0.012	11.46	7.22	6.19	6.85	957.38	956.91	LINE 304	2.21		Sag	****	****
20	306	19	0.47	0.51	0.24	0.24	5.8	8.34	7.91	2.00	5.45	LINE 305	305	964.68	959.23	956.21	126.66	2.38	18	0.012	16.08	5.45	5.14	5.35	959.97	957.38	LINE 305	2.00		Sag	****	·····
21	307	20	0.88	0.51	0.45	0.45	5.0	8.34	8.34	3.75	3.75	LINE 306	306	969.76	964.81	958.73	141.99	4.28	15	0.012	13.99	3.75	6.42	8.20	965.93	959.97	LINE 306	3.75		Sag		

100-	'EAR								-								_								-	7			_			5.h
				ŀ	HYDROLOG	3Y												HYDRA	ULICS									GUT	TER/INLET	DESIGN		
Line No.	Inlet ID	Downstream Line No.	DrainageA rea	Runoff Coefficient	Local CxA	System CxA	Tc	Local Intensity	System Intensity	Incremental Flow	Total Runoff	Line No.	Line	U/S Ground Elev.	U/S Invert	D/S Invert	Length	Slope	Size	n	Capacity Full	Total Runoff	Velocity	Velocity Out	HGLUp	HGLDn	Line ID	Local Q	QBypass	Gutter Slope	Gutter Spread	Gutter Width
			(ac)	(C)			(min)	(in/hr)	(in/hr)	(cfs)	(cfs)		_	(ft)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft/s)	(ft)	(ft)		(cfs)	(cfs)	(%)	(ft)	(ft)
1	401	Outfall	0.00	0.00	0	0	0.0	0.00	0.00	0.00	0.00	LINE 401	401	967.53	958.48	953.12	59.49	9.01	36	0.013	210.92	0.00	15.99	15.99	961.08	955.13	LINE 401	••••	****	****	****	
2	EX. DET.	1	0.00	0.00	0	0	0.0	0.00	0.00	112.38	0.00	LINE 402 (EX)	402	969.00	963.77	963.22	22.98	2.39	36	0.012	111.78	0.00	17.01	18.02	966.70	965.69	LINE 402 (EX)			****	****	
3	201	Outfall	0.00	0.00	0	0	6.8	0.00	11.18	0.00	35.51	LINE 201	201	958.00	949.90	946.81	31.01	0.29	54	0.013	141.26	35.51	14.65	14.86	951.56	950.97	LINE 201		****			
4	100A	3	0.96	0.51	0.49	0.49	6.4	12.60	11.41	6.17	29.74	LINE 100A	100A	956.45	944.95	947.05	110.34	1.90	30	0.013	39.04	29.74	6.06	6.06	955.15	954.57	LINE 100A	2.07	8.95	0.020	14.05	2.00
5	100B	4	0.38	0.51	0.19	0.19	6.1	12.60	11.63	2.44	24.61	LINE 100B	100B	954.94	950.39	944.90	128.30	4.28	24	0.012	29.97	24.61	7.83	7.83	956.73	955.43	LINE 100B	2.44	••••	Sag		
6	101	5	0.88	0.51	0.45	0.45	5.8	12.60	11.93	5.65	22.94	LINE 101	101	962.28	954.33	950.84	162.07	2.15	24	0.013	31.98	22.94	7.30	7.30	959.80	958.13	LINE 101	5.65		Sag		
7	102	6	0.77	0.51	0.39	0.39	5.7	12.60	12.02	4.95	17.71	LINE 102	102	962.06	954.84	954.43	45.00	0.91	24	0.013	22.62	17.71	5.64	5.64	960.43	960.21	LINE 102	11.99		Sag		
8	103	7	0.00	0.00	0	0	5.3	0.00	12.29	0.00	6.77	LINE 103	103	963.85	956.30	956.06	103.55	0.81	15	0.012	6.99	6.77	5.52	5.52	962.13	961.15	LINE 103		****			
9	104	8	0.43	0.51	0.22	0.22	5.2	12.60	12.41	2.76	6.84	LINE 104	104	967.37	958.87	956.45	39.95	6.06	15	0.012	15.65	6.84	5.57	5.57	962.93	962.50	LINE 104	0.81	1.95	0.050	6.50	2.00
10	105	9	0.65	0.51	0.33	0.33	5.0	12.60	12.60	4.18	4.18	LINE 105	105	968.39	961.84	959.62	52.10	4.26	15	0.013	14.44	4.18	3.40	3.40	963.34	963.17	LINE 105	1.00	3.17	0.050	7.82	2.00
11	102.1	7	1.04	0.51	0.53	0.53	5.0	12.60	12.60	6.68	6.68	LINE 102.1	102.1	963.51	958.71	956.06	94.95	2.79	15	0.012	12.58	6.68	5.45	5.45	962.02	961.15	LINE 102.1	1.59	5.09	0.020	11.51	2.00
12	202	3	0.00	0.00	0	0	5.2	0.00	12.46	0.00	7.12	LINE 202	202	958.94	947.49	947.05	86.54	0.51	54	0.013	138.62	7.12	12.65	12.65	955.47	954.57	LINE 202		1000 C	***		
13	203	12	0.68	0.51	0.35	0.35	5.1	12.60	12.53	4.37	7.15	LINE 203	203	958.66	947.91	947.69	55.83	0.39	54	0.013	139.27	7.15	12.65	12.65	958.37	957.79	LINE 203	4.37	****	Sag	****	3****
14	204	13	0.44	0.51	0.22	0.22	5.0	12.60	12.60	2.83	2.83	LINE 204	204	958.62	948.51	948.16	57.23	0.59	43 x 68	0.012	149.61	2.83	12.34	12.34	965.04	964.54	<b>LINE 204</b>	4.14	****	Sag	****	
15	205	14	0.00	0.00	0	0	0.0	0.00	0.00	194.00	0.00	LINE 205	205	958.25	948.70	948.66	51.16	0.08	54	0.013	140.16	0.00	12.20	12.20	966.74	966.23	LINE 205		The same			
16	302	Outfall	0.31	0.51	0.16	0.16	6.7	12.60	11.21	1.99	14.64	LINE 301	301	960.76	952.16	950.29	40.96	4.57	18	0.013	21.01	14.64	8.54	8.54	953.82	951.98	LINE 301	0.68	1.31	0.050	5.56	2.00
17	303	16	0.38	0.51	0.19	0.19	6.3	12.60	11.50	2.44	13.19	LINE 302	302	960.68	953.38	952.51	105.01	0.83	24	0.013	22.62	13.19	6.40	6.72	954.88	953.82	LINE 302	0.76	1.68	0.050	6.13	2.00
18	304	17	0.00	0.00	0	0	6.0	0.00	11.70	0.00	11.16	LINE 303	303	962.12	955.51	953.93	98.87	1.60	18	0.012	13.92	11.16	7.86	8.75	956.83	955.09	LINE 303					
19	305	18	0.52	0.51	0.27	0.27	6.0	12.60	11.76	3.34	11.22	LINE 304	304	960.11	956.11	956.08	28.60	0.10	18	0.012	11.46	11.22	7.19	7.39	957.62	957.25	LINE 304	3.34		Sag		
20	306	19	0.47	0.51	0.24	0.24	5.5	12.60	12.14	3.02	8.36	LINE 305	305	964.68	959.23	956.21	126.66	2.38	18	0.012	16.08	8.36	6.03	6.14	960.19	957.62	LINE 305	3.02		Sag		

5.65 LINE 306

5.65

306

969.76 964.81 958.73 141.99 4.28 15 0.012 13.99 5.65 6.66 7.74 966.11 960.19 LINE 306 5.65

0.45 0.45 5.0 12.60 12.60

21

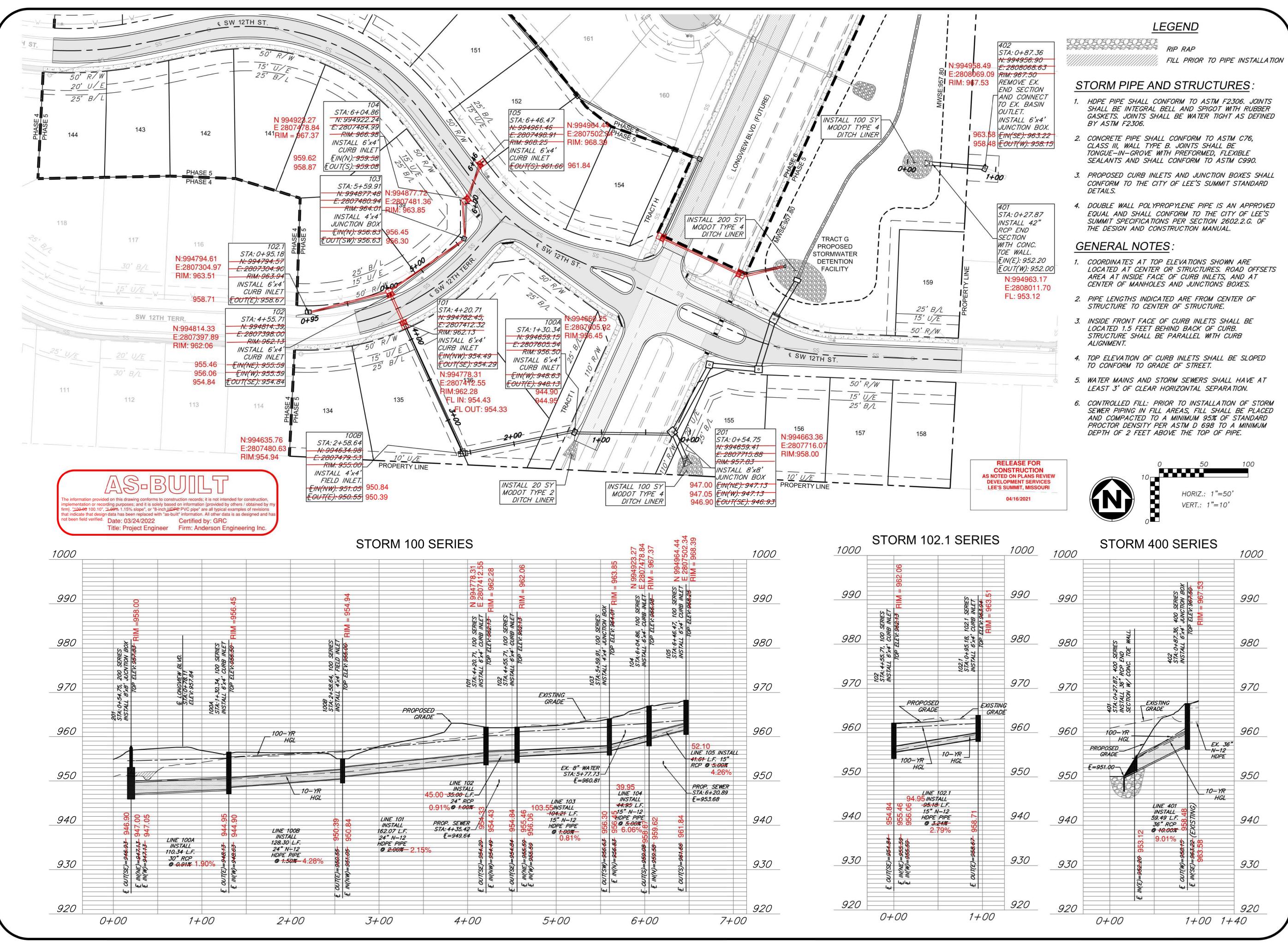
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI 04/16/2021

Sag ....

	REVISIONS			DR/	DRAWING IN
NO.	DESCRIPTION	ВУ	DATE	BY DATE DRAWN BY:	29
1.	REVISED PER CITY COMMENTS	29	1/15/21	GC 1/15/21 CHECK BY:	ZM
2.	REVISED PER CITY COMMENTS	29	2/26/21	GC 2/26/21 LICENSE NO.	PE-2012
3.	REVISED PER CITY COMMENTS	29	GC 3/10/21 DATE:	DATE:	12/2/20
				ISSUED FOR:	FOR RE
5.	AS-BUILT DRAWINGS	25	3/24/22	GC 3/24/22 JOB NUMBER:	20KC10
	© COPYRIGHT ANDERSON ENGINEERING, INC. 2020	2020		MO COA NO.	000062

DRAINAGE CALCULATIONS

SHEET NUMBER



NO. DESCRIPTION

1. REVISED PER CITY COMMENTS

2. REVISED PER CITY COMMENTS

3. REVISED PER CITY COMMENTS

4. REVISED PER CITY COMMENTS

6C 2/26/21 LICENS

3. REVISED PER CITY COMMENTS

6C 3/16/21 DATE:

4. REVISED PER CITY COMMENTS

6C 3/16/21 DATE:

5. AS-BUILT DRAWINGS

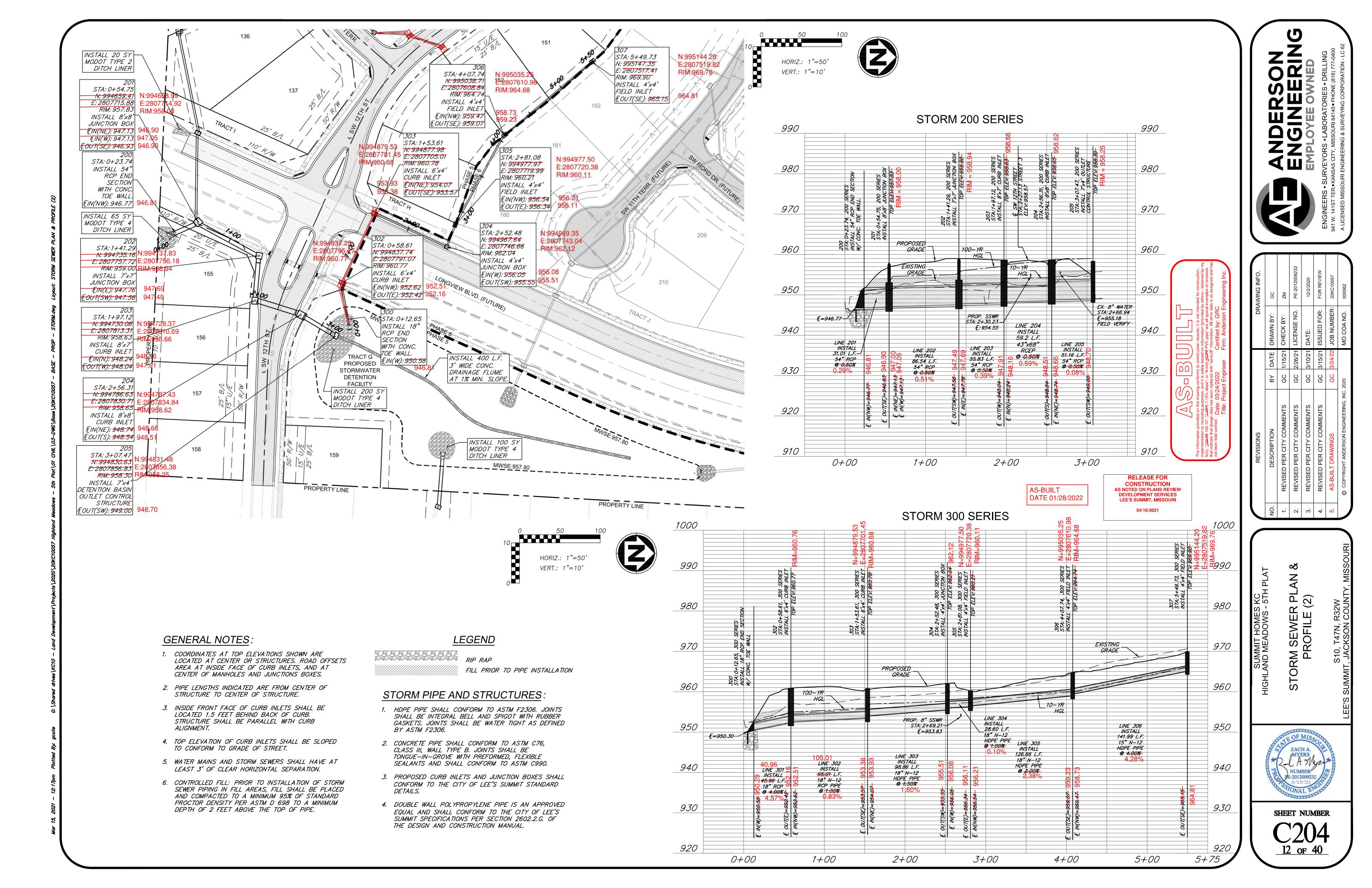
6C 3/24/22 JOB NU

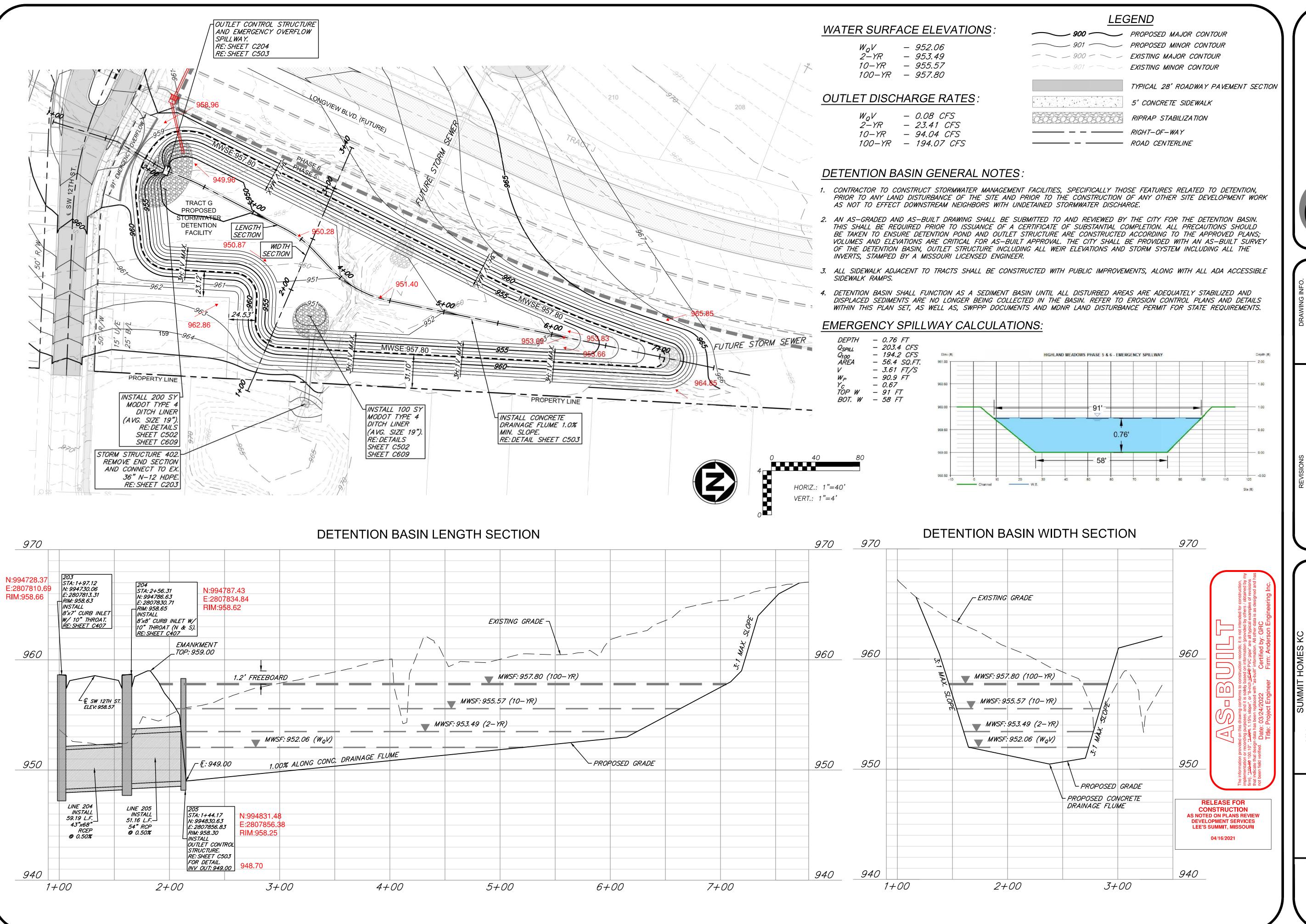
**\_** \_

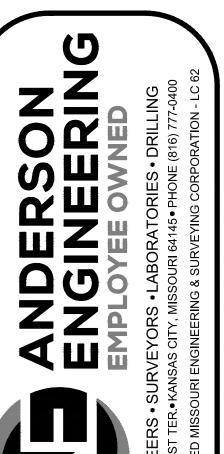
STORM SEWER PLAN & PROFILE



C203

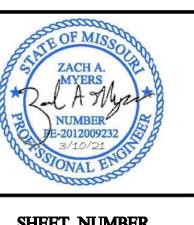






DRAWING INFO.	3Y: GC	3Y: ZM	NO. PE-2012009232	12/2/2020	OR: FOR REVIEW	1BER: 20KC10057	NO. 000062
	DRAWN BY:	CHECK BY:	GC 2/26/21 LICENSE NO.	GC 3/10/21 DATE:	ISSUED FOR:	GC 3/24/22 JOB NUMBER:	MO COA NO.
	DATE	GC 1/15/21	2/26/21	3/10/21		3/24/22	
	ВУ	ЭĐ	ЭĐ	ЭĐ		GC	2020
REVISIONS	DESCRIPTION	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS		AS-BUILT DRAWINGS	© COPYRIGHT ANDERSON ENGINEERING, INC. 2020
	NO.	1.	2.	2.		2.	

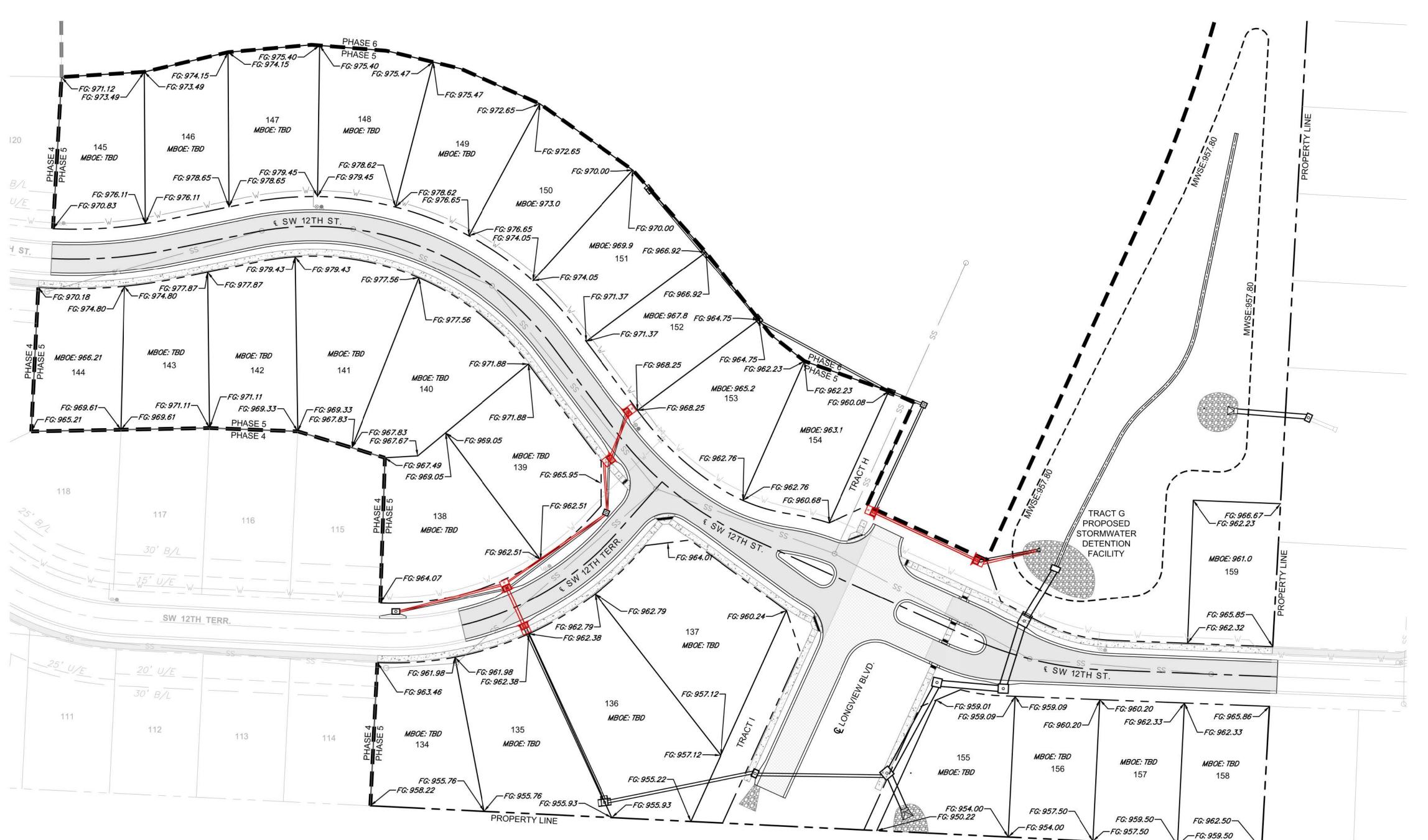
DETENTION BASIN PLAN & PROFILE



SHEET NUMBER

C205

13 OF 40



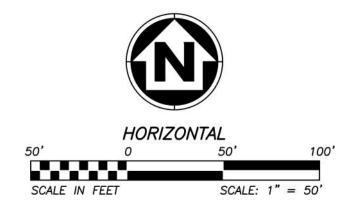
**LEGEND** 

FG FINISH GRADE

MINIMUM BUILDING OPENING ELEVATION

# GENERAL NOTES:

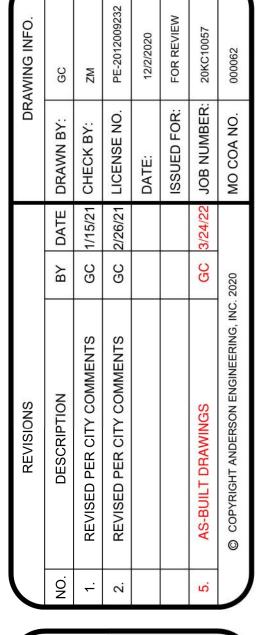
- 1. ALL LOTS SHALL BE ALLOWED TO HAVE WALKOUT BASEMENTS OR DAYLIGHT BASEMENTS AS DETERMINED BY HOME BUILDER AND/OR ENGINEER AT THE TIME OF PLOT PLAN AND BUILDING PERMIT APPLICATION SUBMITTAL. ALL PLOT PLANS SHALL MEET THE CITY OF LEE'S SUMMIT REQUIREMENTS AND BE SUBMITTED FOR CITY APPROVAL PRIOR TO CONSTRUCTION OF
- 2. MINIMUM BUILDING OPENING ELEVATIONS ON THIS PLAN HAVE BEEN DETERMINED BASED ON MAX. WATER SURFACE ELEVATION OF 1% DESIGN STORM PLUS (+) TWO (2) FEET, PER CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL SPECIFICATIONS.
- 3. FINISH GRADES ARE BASED ON MASS GRADING DESIGN FOR INSTALLATION OF PUBLIC IMPROVEMENTS. REAR LOT ELEVATIONS MAY VARY SLIGHTLY AFTER CONSTRUCTION OF HOMES, DEPENDING ON TYPE OF BASEMENT CONSTRUCTED AND OTHER UNFORESEEN FACTORS. HOMEBUILDER SHALL FOLLOW DRAINAGE PATTERNS DEPICTED IN THESE PLANS AND ENSURE PLOT PLAN MAINTAINS DRAINAGE PATTERNS SHOWN.



CONSTRUCTION AS NOTED ON PLANS REVIEW

**DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI

04/16/2021

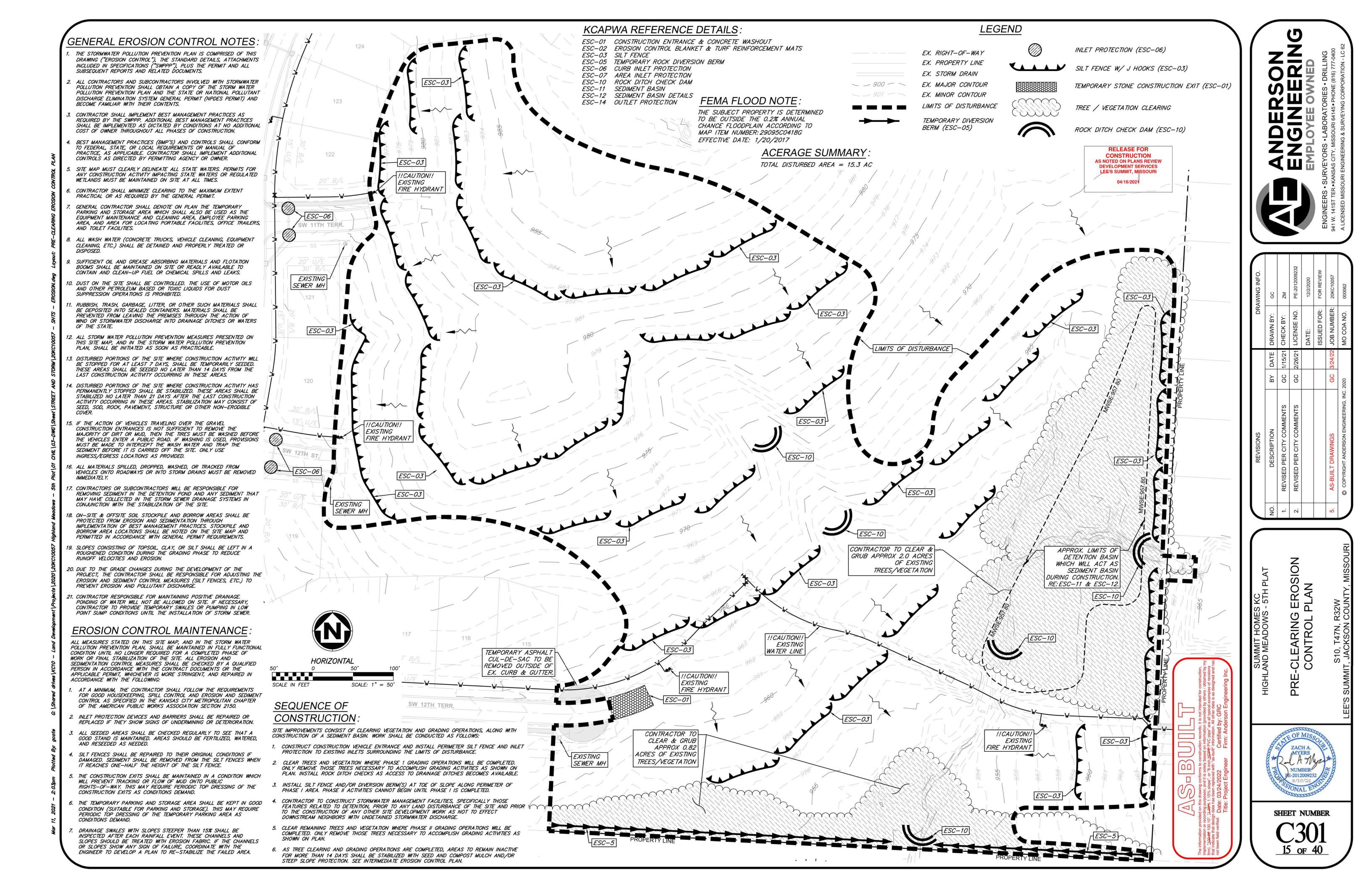


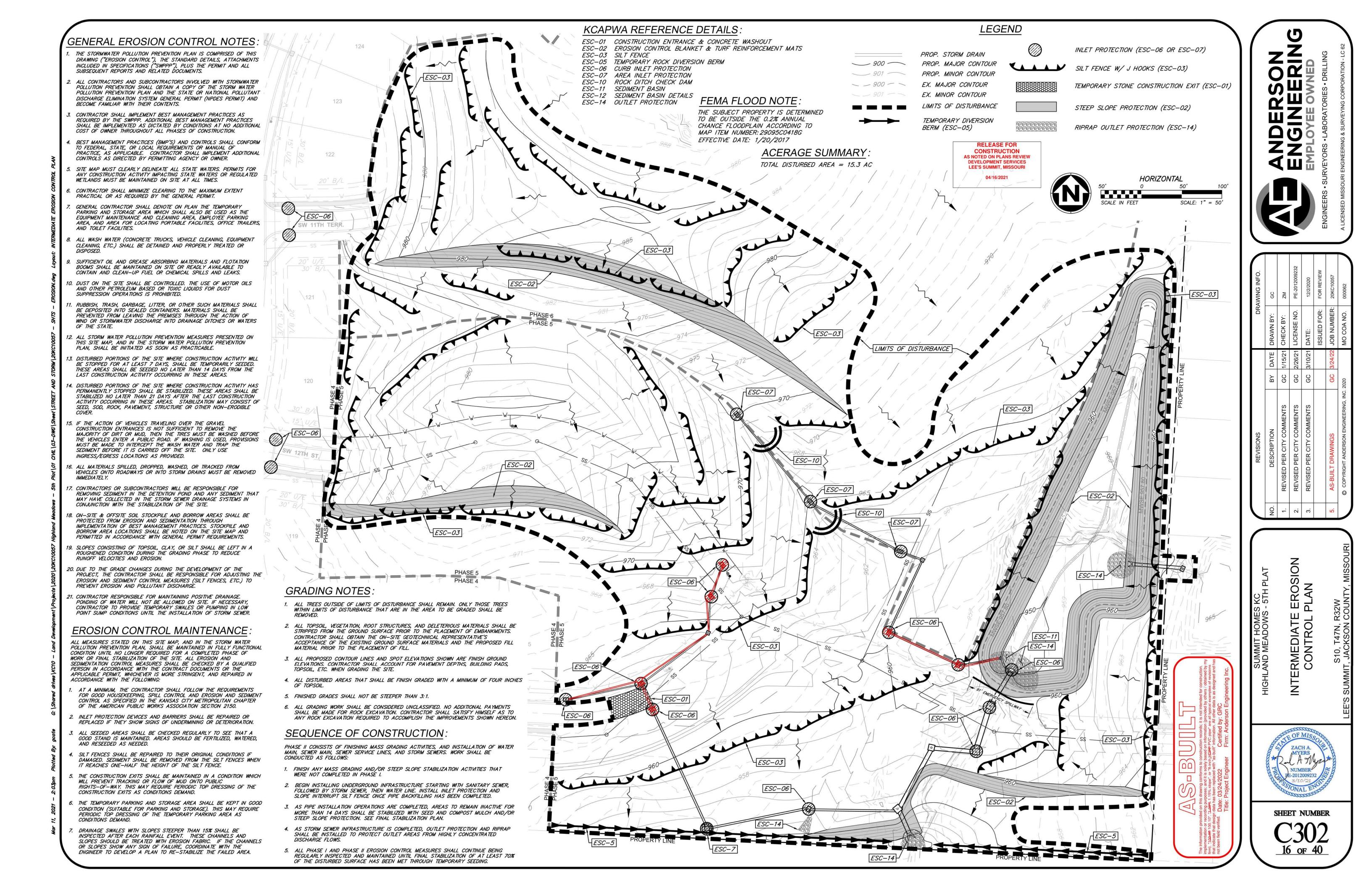
MINIMUM BUILDIN OPENING PLAN

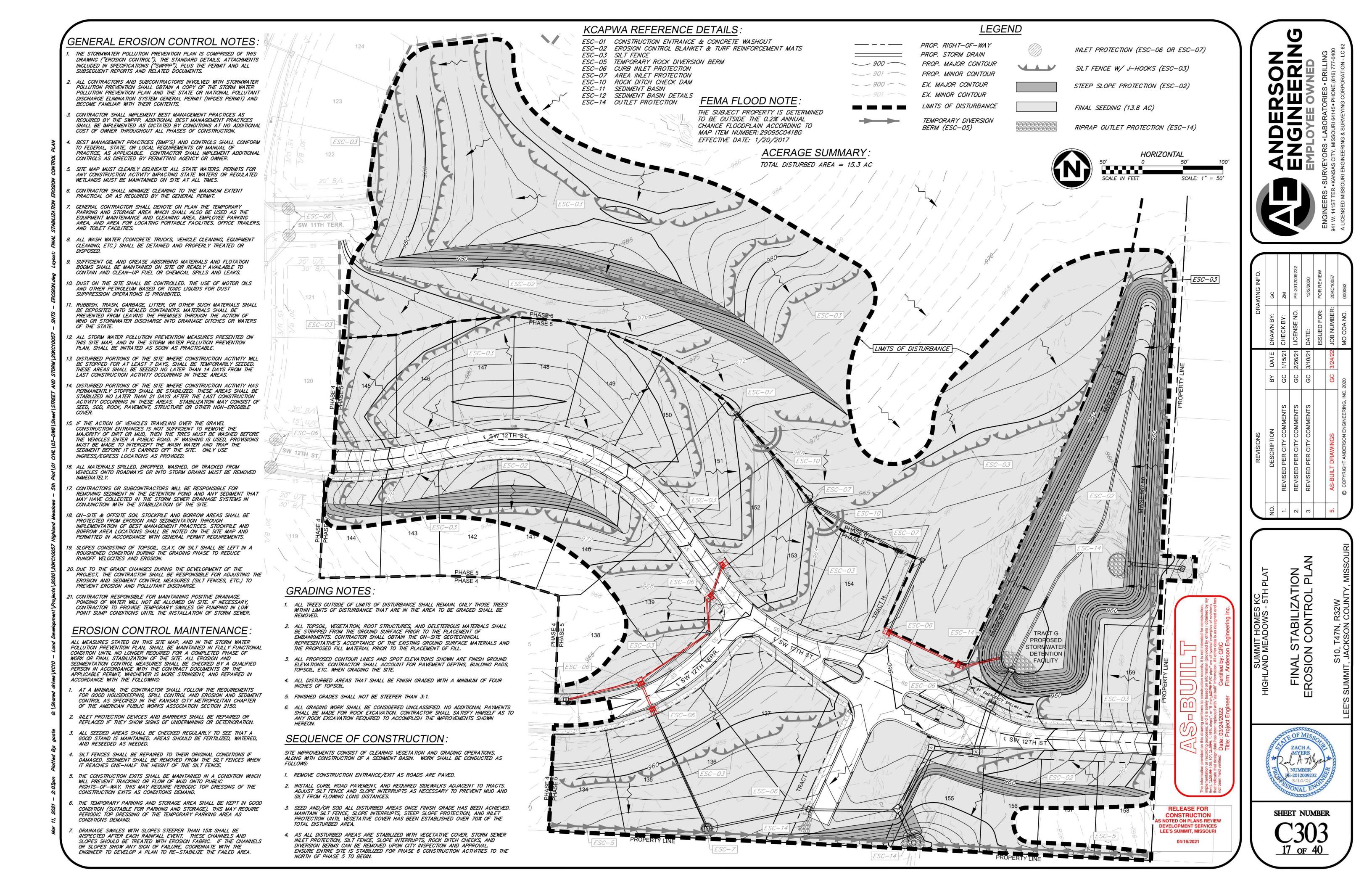
SHEET NUMBER 14 of 40

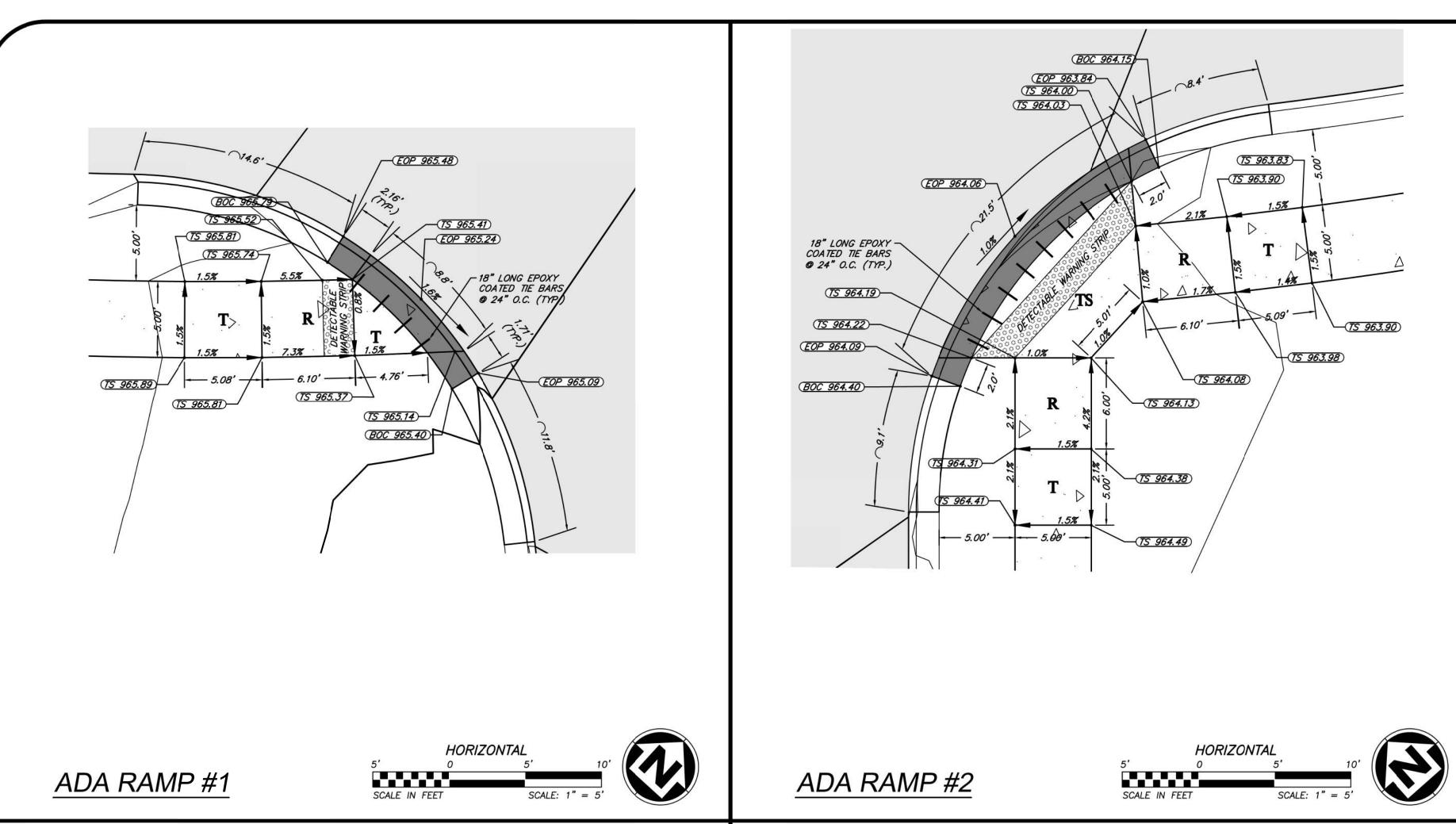
The information provided on this drawing conforms to construction records; it is not intended for construction, plementation or recording purposes; and it is solely based on information (provided by others / obtained by n firm). "100.00 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions hat indicate that design data has been replaced with "as-built" information. All other data is as designed and ha not been field verified. Date: 03/24/2022 Certified by: GRC Title: Project Engineer Firm: Anderson Engineering Inc

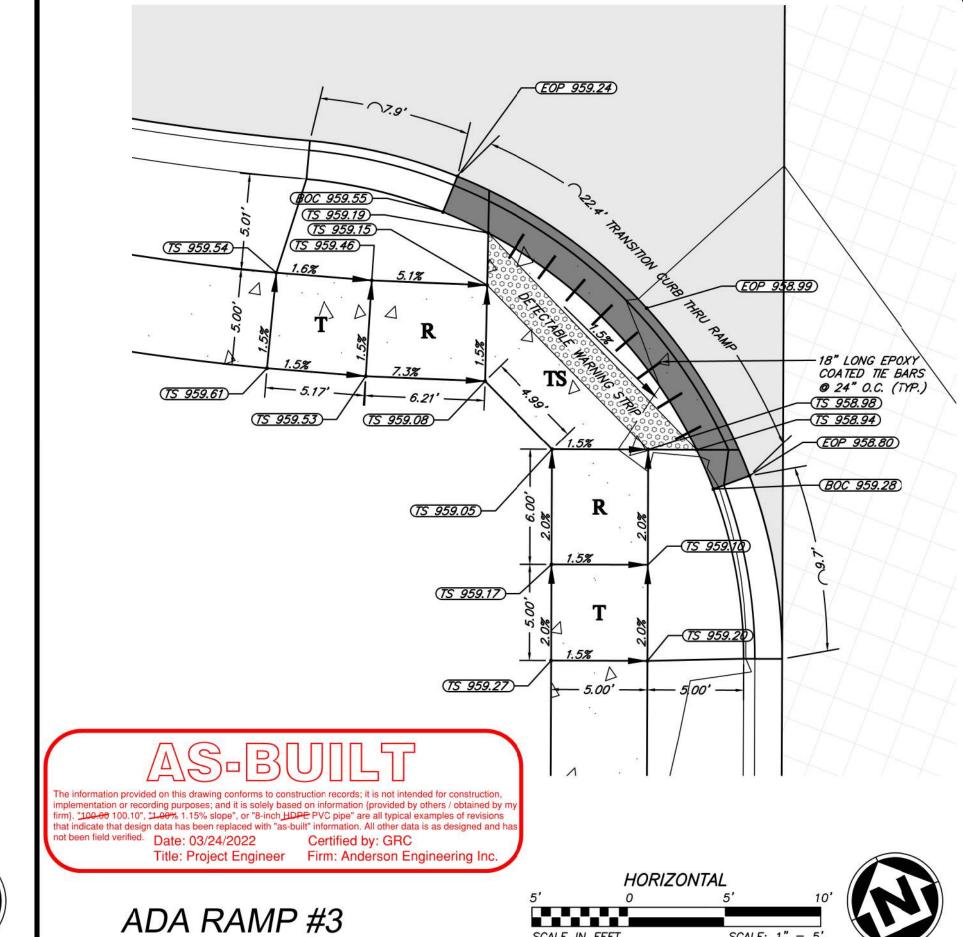
PROPERTY LINE

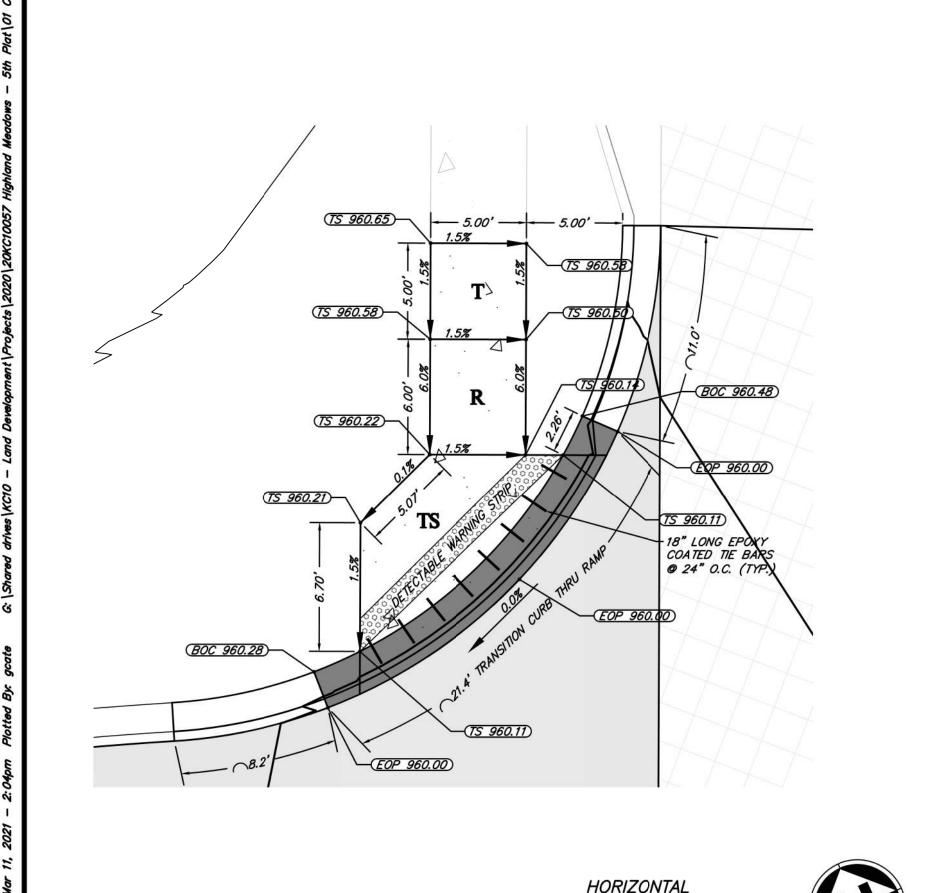




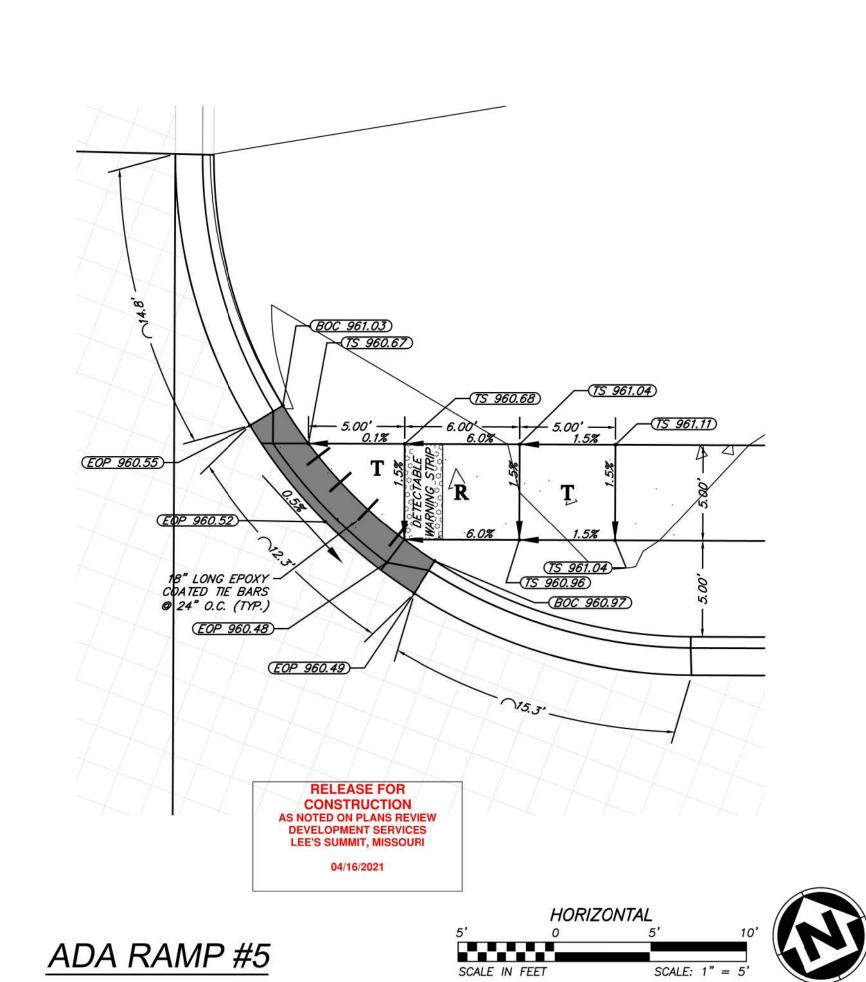


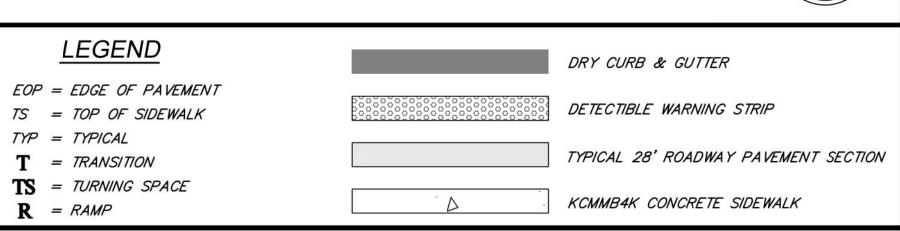






ADA RAMP #4





# **GENERAL NOTES:**

- USE 18" LONG #4 EPOXY COATED TIE BARS © 24" O.C. EMBED THE BARS 9" IN EACH DIRECTION.
   ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED
- EARTH AND SHALL BE OVERLAYED WITH 4"
  COMPACTED DENSE GRADED AGGREGATE BASE.
  LONGITUDINAL JOINT SPACING TO MATCH WIDTH
  OF SIDEWALK.
  ISOLATION COUNTS SHALL BE PLACED WHERE
- OF SIDEWALK.
  ISOLATION JOINTS SHALL BE PLACED WHERE
  WALK ABUTS DRIVEWAYS AND SIMILAR
  STRUCTURES, AND 150' CENTERS MAX.

  SPACES, WITH
  SPACING TO MATCH WIDTH
  SPACES, WITH
  SPACES, WITH
- ADA MAXIMUM RAMP SLOPE = 8.33%, ADA
  MAXIMUM CROSS SLOPE = 2.0%.

  \*ROADWAY EXCEPTION: WHERE EXISTING ROAD
  PROFILE GRADE DOES NOT ALLOW RAMP TO MEET
  RAMP SLOPE REQUIREMENT OF 8.33% OR LESS,
  THE RAMP SHALL BE EXTENDED TO A LENGTH OF
  15 FEET TO MATCH EXISTING SIDEWALK. CROSS
  SLOPE OF RAMP SHALL BE 1.5% ±0.5%,
  TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE
  IN ANY DIRECTION. TURNING SPACES SHALL HAVE
  A MINIMUM 4'x4' TURNING AREA. TURNING
  SPACES, WITH A SIDEWALK CURB, SHALL HAVE A
  - 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.

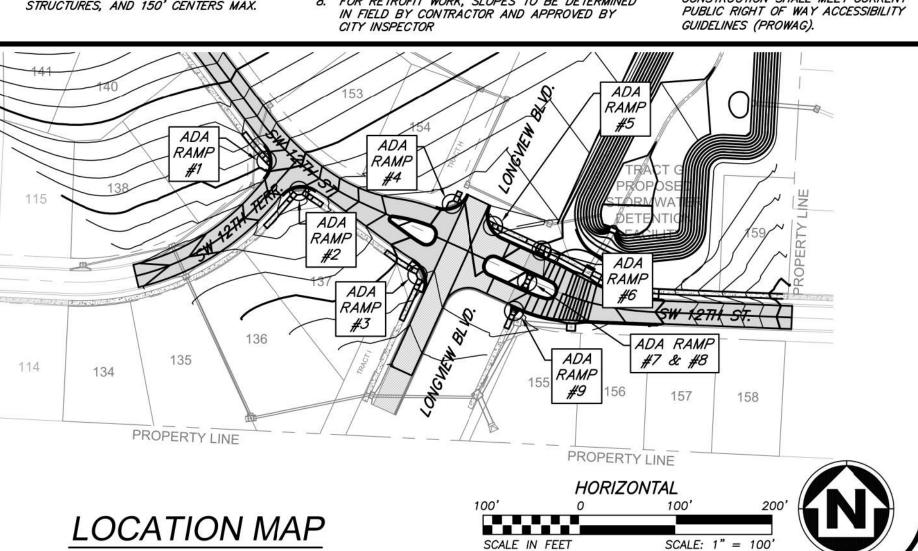
    8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
- 9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRASITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A
- CONTINUOUS SLOPE.

  10. ALL SIDEWALK AND RAMP

  CONSTRUCTION SHALL MEET CURRENT

  PUBLIC RIGHT OF WAY ACCESSIBILITY

  GUIDELINES (PROWAG).





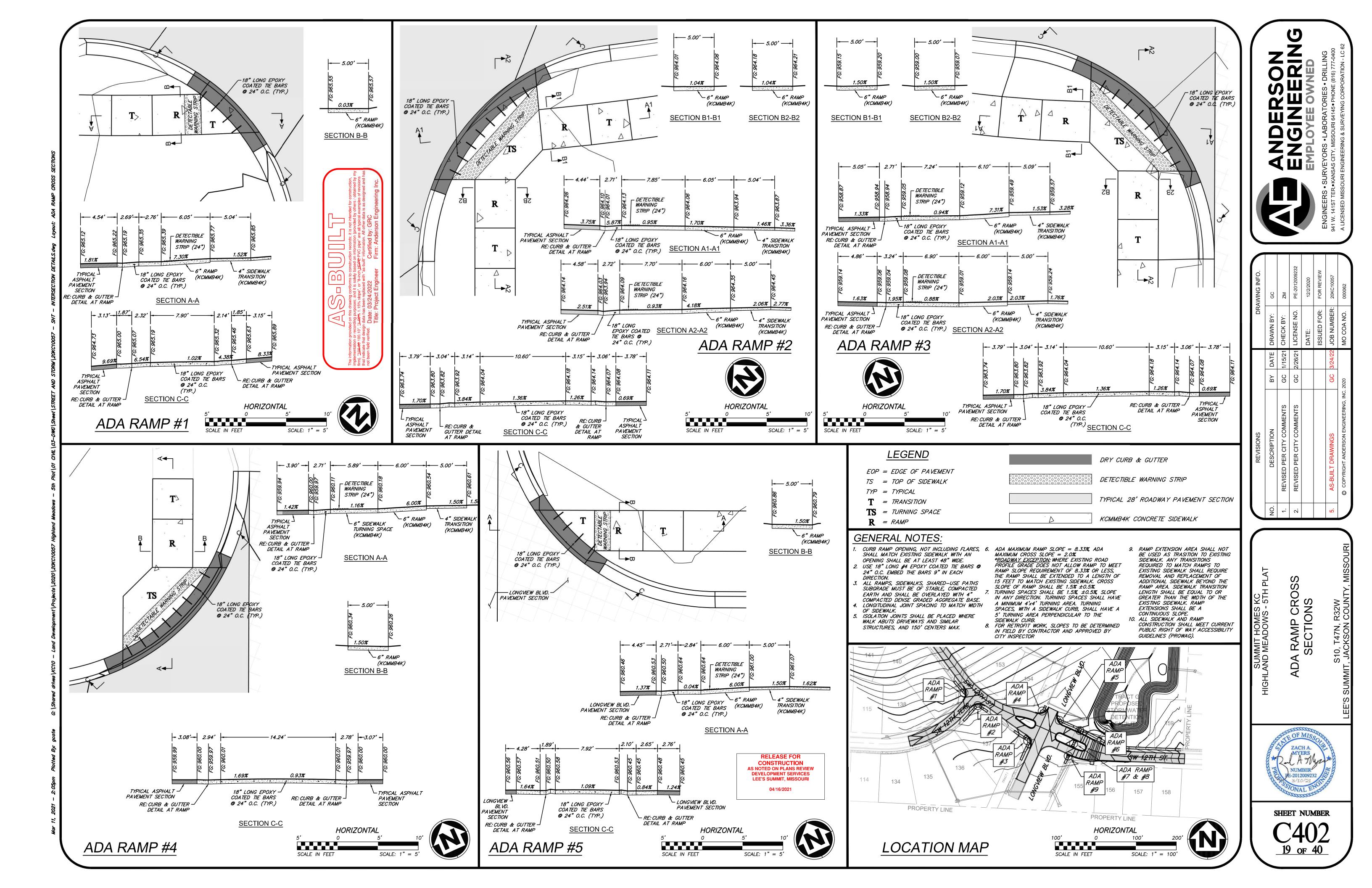
DESCRIPTION				
	ВУ	DATE	BY DATE DRAWN BY:	
REVISED PER CITY COMMENTS	99	1/15/21	GC 1/15/21 CHECK BY:	30 9
REVISED PER CITY COMMENTS	90	2/26/21	GC 2/26/21 LICENSE NO.	
			DATE:	
			ISSUED FOR:	- 8
AS-BUILT DRAWINGS	GC	3/24/22	JOB NUMBER:	
© COPYRIGHT ANDERSON ENGINEERING, INC. 2020	3, INC. 2020		MO COA NO.	
WINGS DERSON ENGINEERIN	GC 3, INC. 2020		3/24/22	GC 3/24/22 JOB NUMBER: MO COA NO.

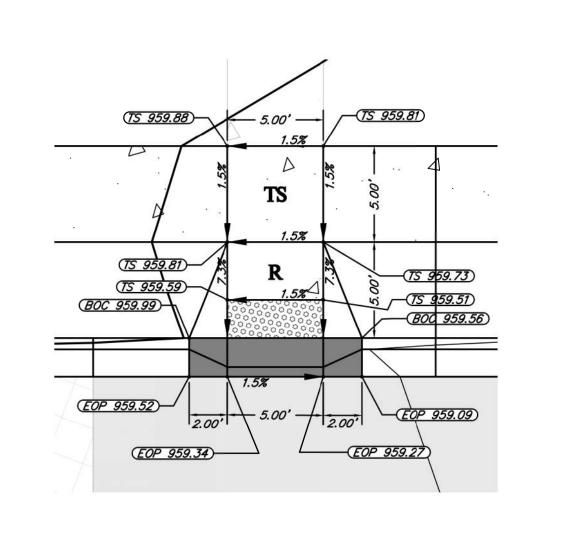
ADA RAMP PLAN

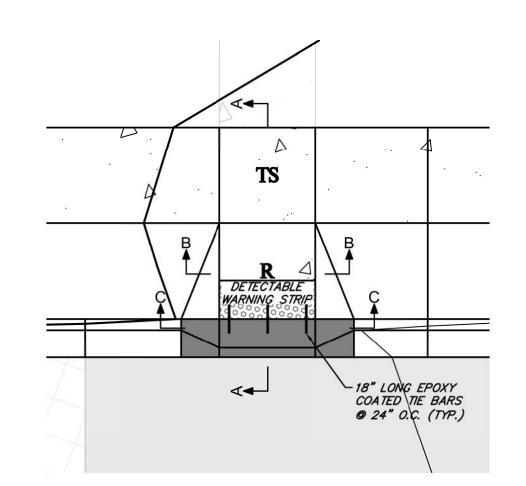


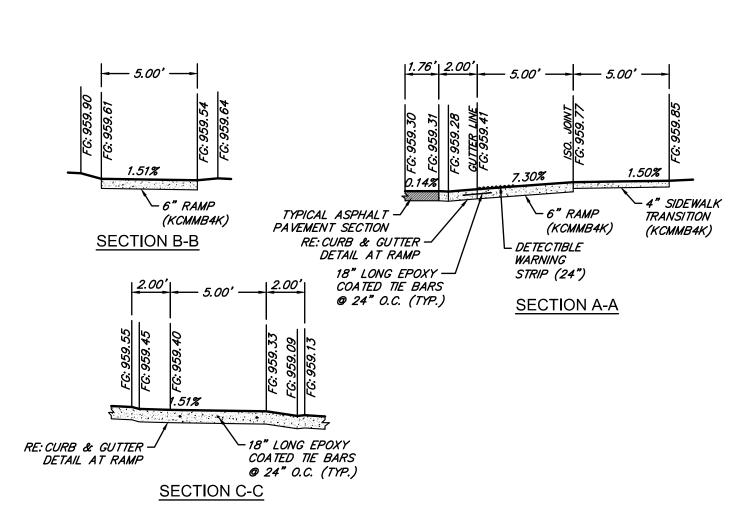
C401

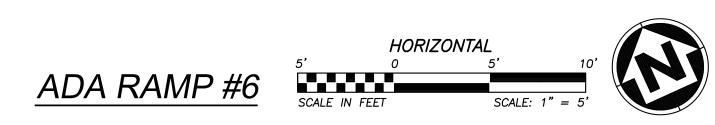
18 of 40

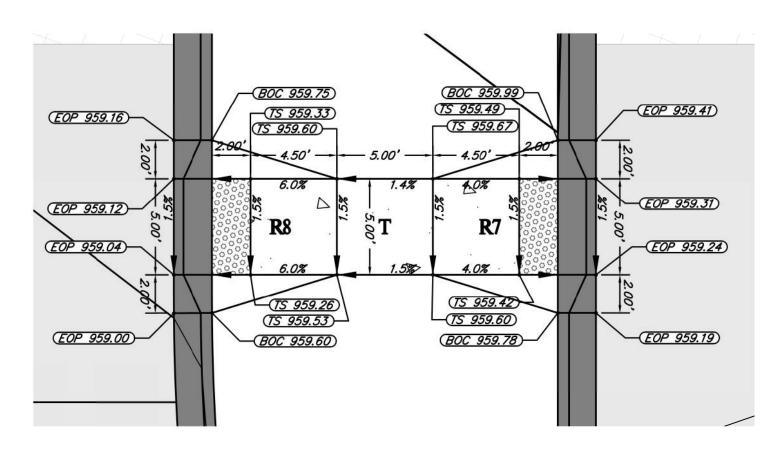


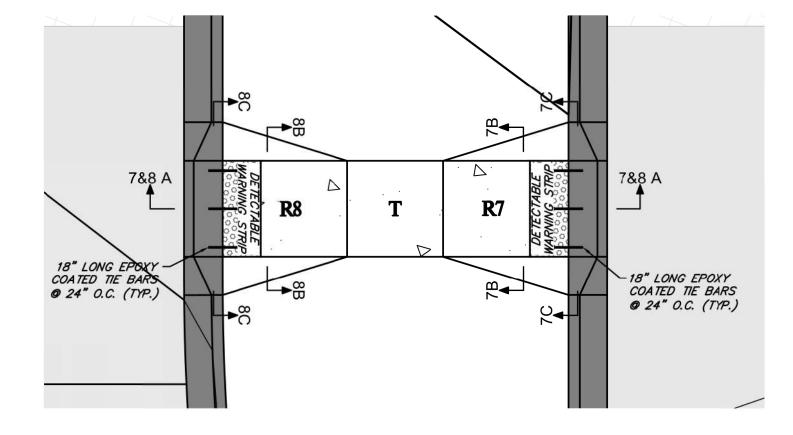


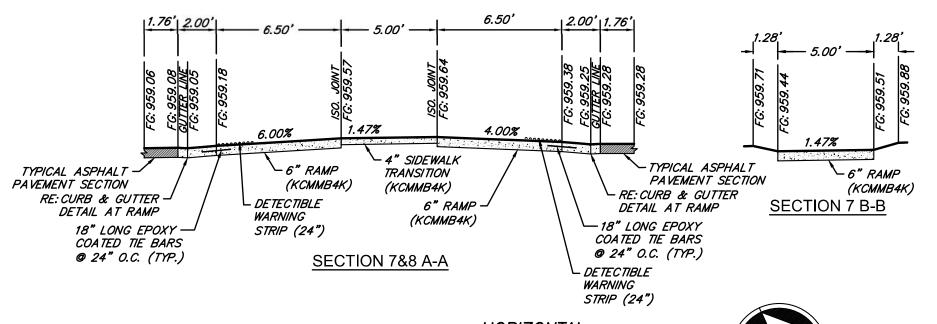


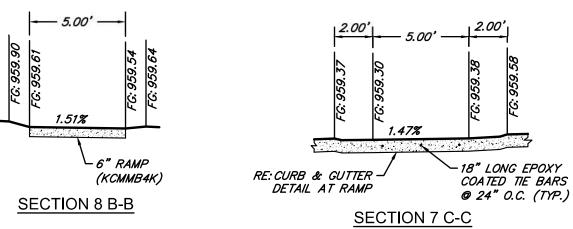


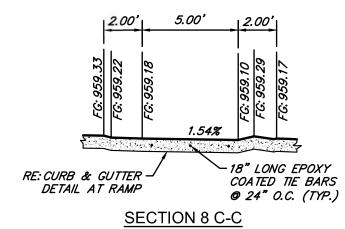




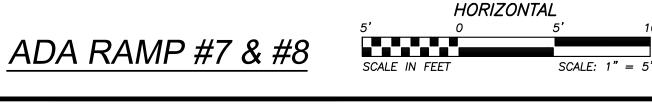








been field verified. Date: 03/24/2022 Certified by: GRC Title: Project Engineer Firm: Anderson Engineering Inc



2.00' FOP 958.62

—(*BOC 959.09*)

—(*TS 958.93*)

—(<u>TS 959.23</u>)

ADA RAMP #9

(BOC 959.34)—

(*TS 958.85*)-

(<u>TS 959.15</u>)—



- 18" LONG EPOXY COATED TIE BARS ② 24" O.C. (TYP.)

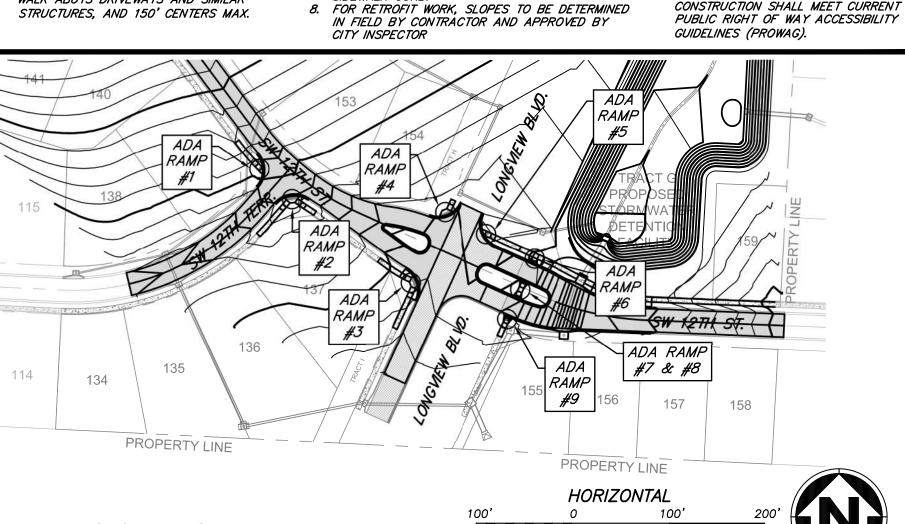
DETECTABLE

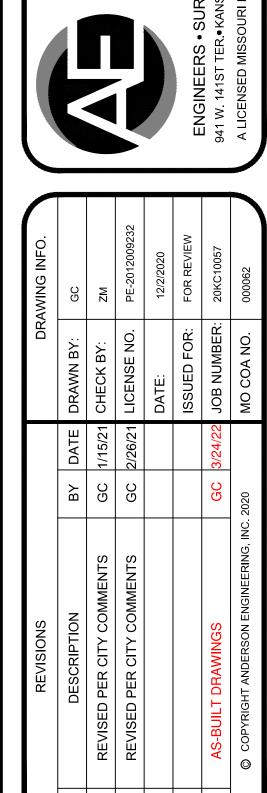
<u>LEGEND</u>		DRY CURB & GUTTER
EOP = EDGE OF PAVEMENT TS = TOP OF SIDEWALK		DETECTIBLE WARNING STRIP
$TYP = TYPICAL$ $\mathbf{T} = TRANSITION$		TYPICAL 28' ROADWAY PAVEMENT SECTION
TS = TURNING SPACE  P = RAMP	D	KCMMB4K CONCRETE SIDEWALK

# **GENERAL NOTES:**

- SHALL MATCH EXISTING SIDEWALK WITH AN OPENING SHALL BE AT LEAST 48" WIDE. . USE 18" LONG #4 EPOXY COATED TIE BARS @
- 24" O.C. EMBED THE BARS 9" IN EACH DIRECTION. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED
- EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR
- CURB RAMP OPENING, NOT INCLUDING FLARES, 6. ADA MAXIMUM RAMP SLOPE = 8.33%, ADA MAXIMUM CROSS SLOPE = 2.0%. \*ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5% ±0.5%. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE
  - A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
- 9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRASITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A
- CONTINUOUS SLOPE. 10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT

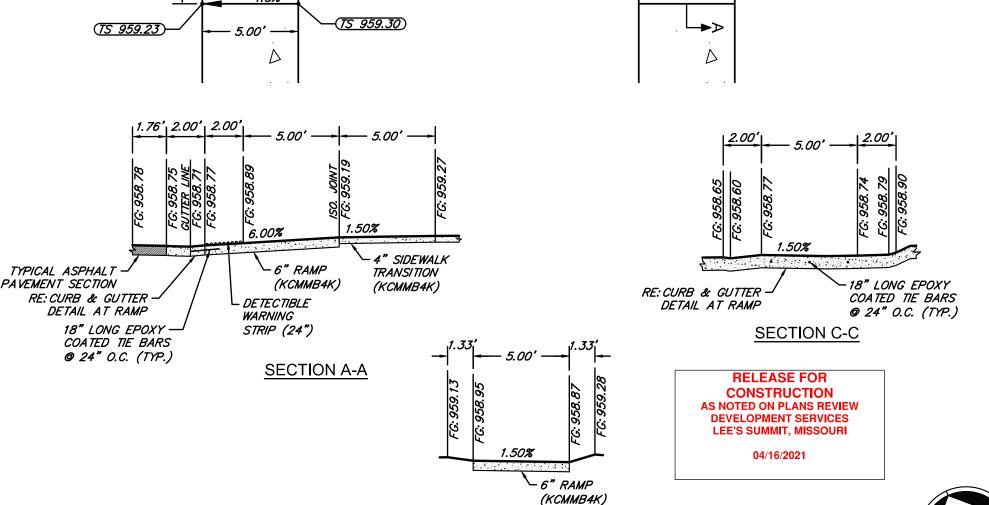
SCALE: 1" = 100"





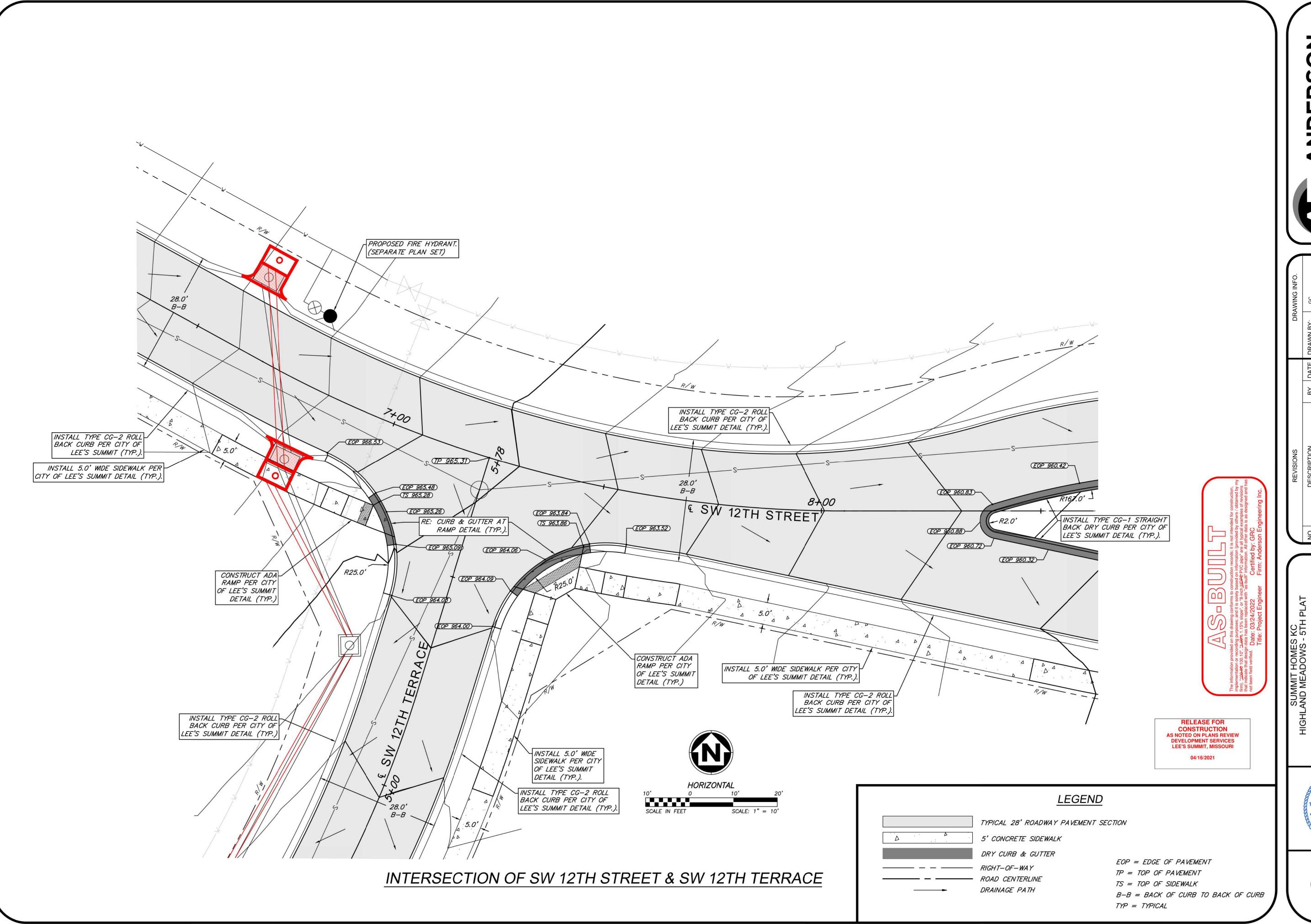
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SHEET NUMBER 20 of 40



SECTION B-B

**LOCATION MAP** 



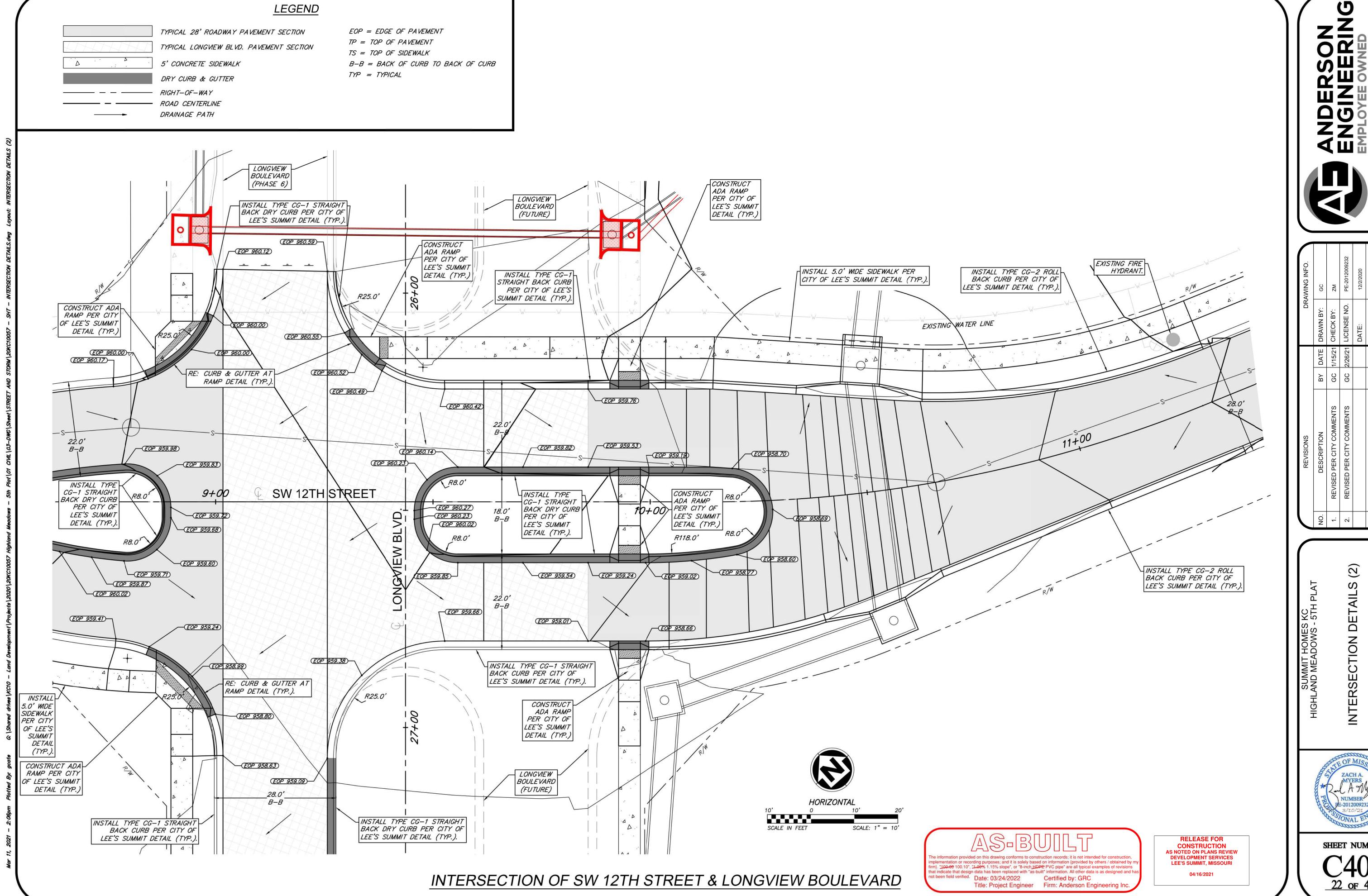


DATE DRAWN BY:	GC
GC 1/15/21 CHECK BY:	ZM
GC 2/26/21 LICENSE NO.	PE-2012009232
DATE:	12/2/2020
ISSUED FOR:	FOR REVIEW
GC 3/24/22 JOB NUMBER:	20KC10057
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INTERSECTION DETAILS



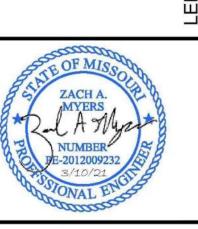
C404
21 of 40



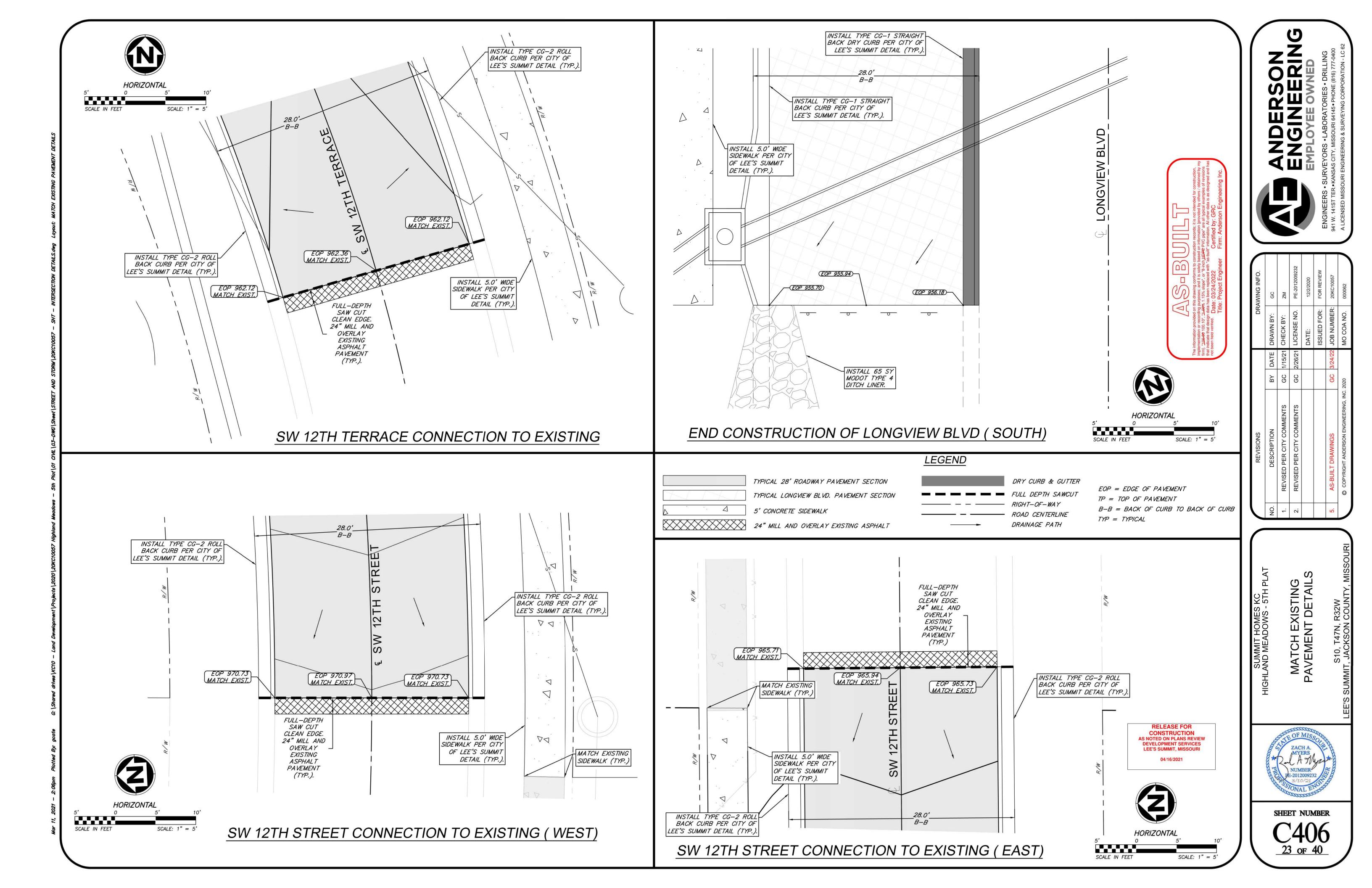


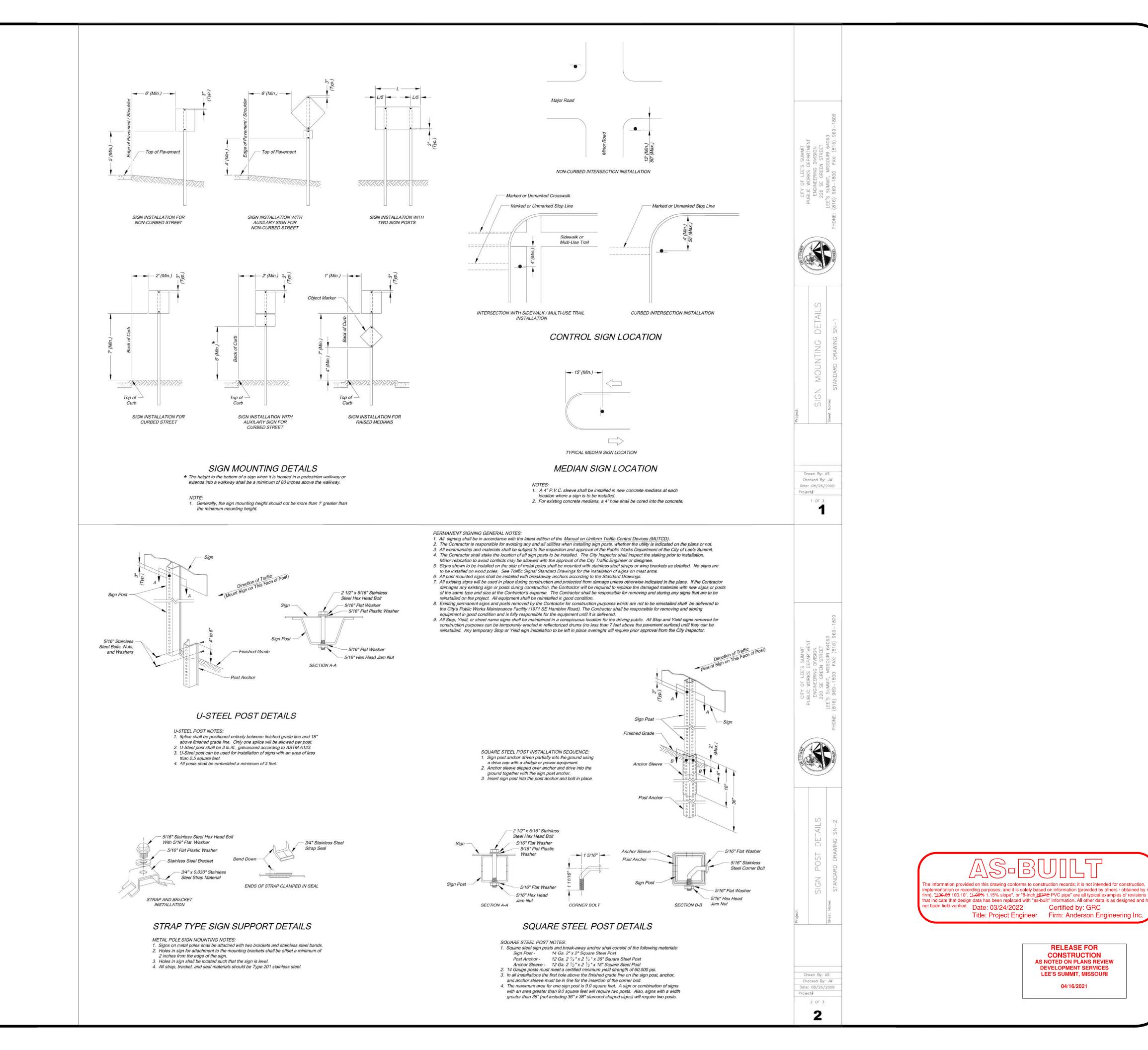
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GC	ZM	PE-2012009232	12/2/2020	FOR REVIEW	20KC10057	290000
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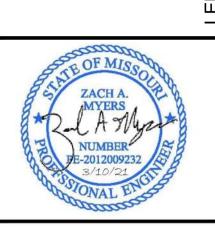
SHEET NUMBER 22 of 40





MOUNTING

SIGN



nentation or recording purposes; and it is solely based on information {provided by others / obtained by r

Title: Project Engineer Firm: Anderson Engineering Inc

**RELEASE FOR** 

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

04/16/2021

SHEET NUMBER



# STANDARD ABBREVIATION LISTS

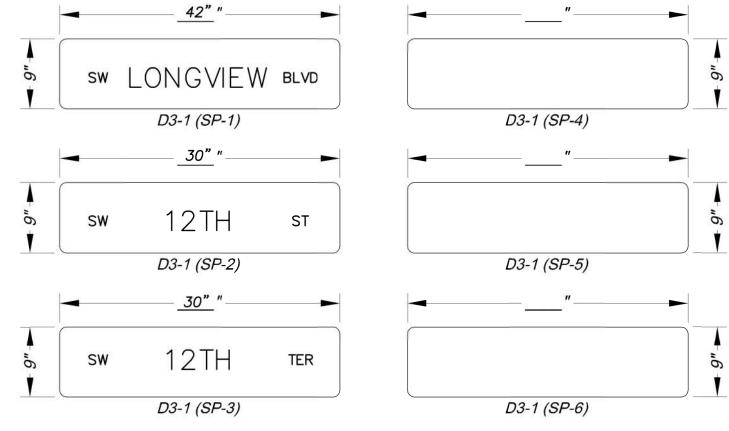
ST ND

RD TH

Named S	Streets	Numbered Streets	3
Avenue	AVE	First	
Boulevard	BLVD	Second	
Circle	CIR	Third	
Creek	CR	Fourth to Tenth	
Court	CT	,	
Crossing	XING		
Drive	DR		
Highway	HWY		
Lane	LN		
Parkway	PKWY		
Place	PL		
Road	RD		
Street	ST		
Terrace	TER		
Trail	TRL		
Way	WAY	1½" Rad. —	
ĵ.		(Typ.)	
<u> </u>	L/2 -		
3/8" D	ia. Holes —	<sup>5</sup> / <sub>16</sub> " Dia. Hole	

# STREET NAME SIGN QUANTITIES

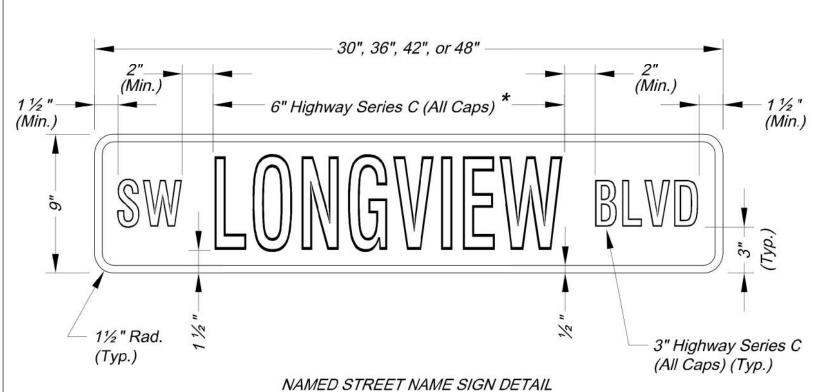
Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (SP-1)	9" x <b>42"</b>	2.625	2	5.25
D3-1 (SP-2)	9" x <b>30"</b>	1.875	3	5.625
D3-1 (SP-3)	9" × <b>30"</b>	1.875	1	1.875
D3-1 (SP-4)	9" x			
D3-1 (SP-5)	9" x			
D3-1 (SP-6)	9" x			



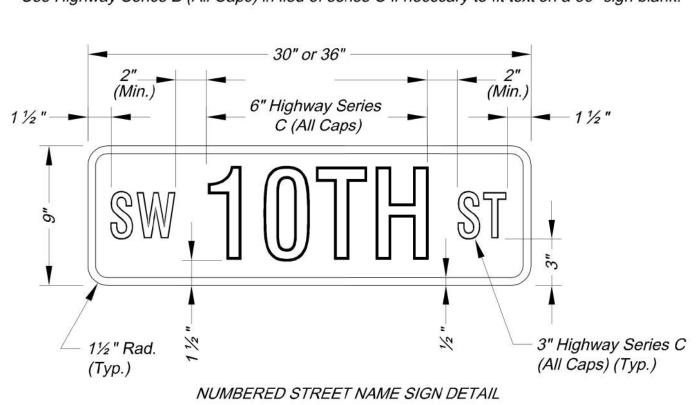
# PROJECT SIGN DETAILS

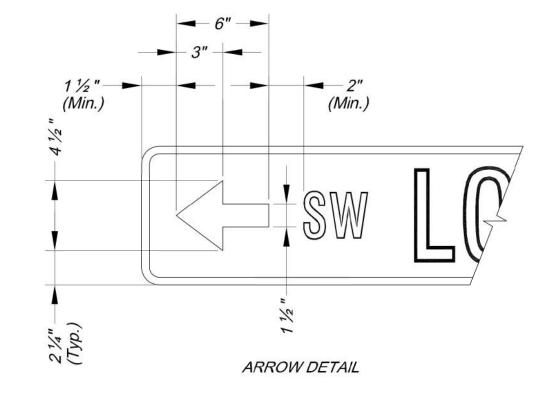
# STREET NAME SIGN BLANK DETAILS

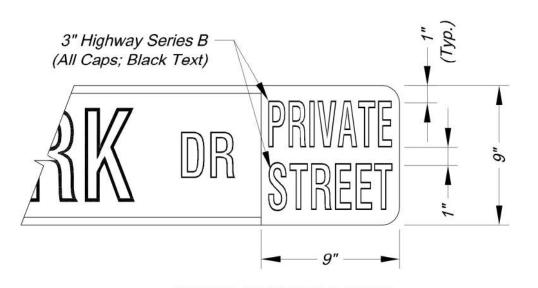
For Mounting on Square Steel Posts



\* Use Highway Series B (All Caps) in lieu of series C if necesary to fit text on a 36" sign blank.







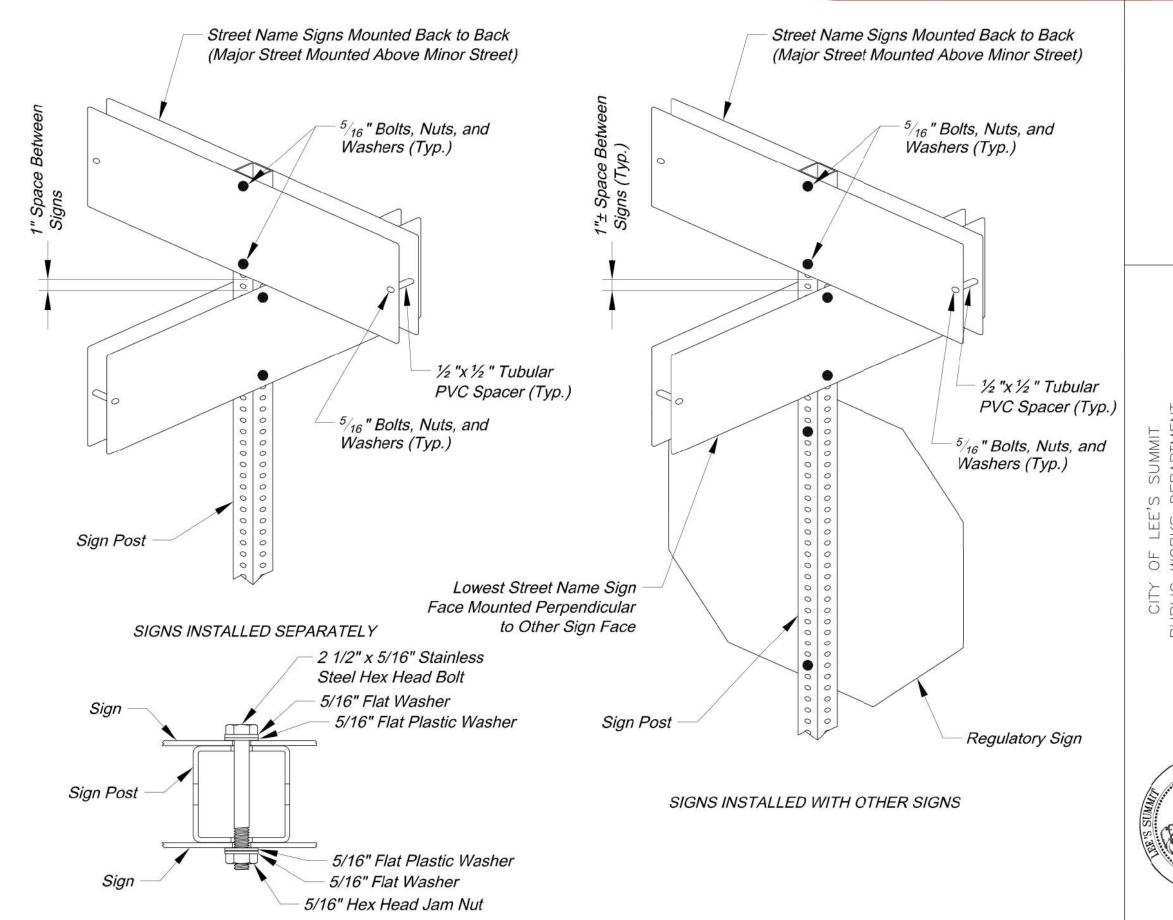
PRIVATE STREET TAG DETAIL NOTES:

- 1. For all street name signs, the legend shall be white and the background shall be green.
- 2. Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in names. Arrows shall be white.
- side of the intersection to indicate the change in names. Arrows shall be white.

  3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street.

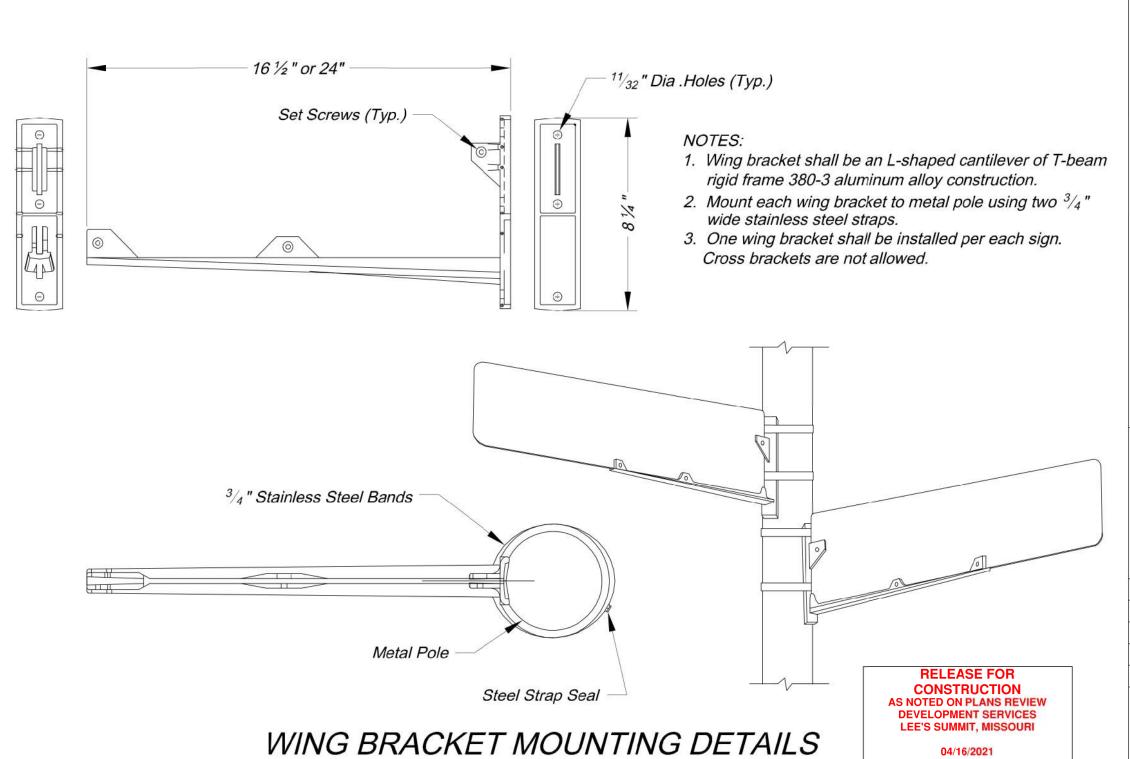
  The background for the "PRIVATE STREET" tag shall be yellow.

STREET NAME SIGN FACE DETAILS



# SQUARE STEEL POST MOUNTING DETAILS

PLAN VIEW



ENGINEERIN
EMPLOYEE OWNED
SURVEYORS - LABORATORIES - DRILLING
- KANSAS CITY, MISSOURI 64145 - PHONE (816) 777-0400

EMPLO
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941 W. 141ST TER.• KANSAS CITY, MISSOU
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2.	REVISED PER CITY COMMENTS	GC	2/26/21	GC 2/26/21 LICENSE NO.	PE-2012009232
				DATE:	12/2/2020
				ISSUED FOR:	FOR REVIEW
5.	AS-BUILT DRAWINGS	CC	3/24/22	GC 3/24/22 JOB NUMBER: 20KC10057	20KC10057
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REET NAME SIGN DETAIL

TAILS

SIGN

NAME

Drawn By: AS

Checked By: JW

Date: 08/26/2009

3 OF 3

Project#

ZACH A.

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NUMBER

FE-2012009232

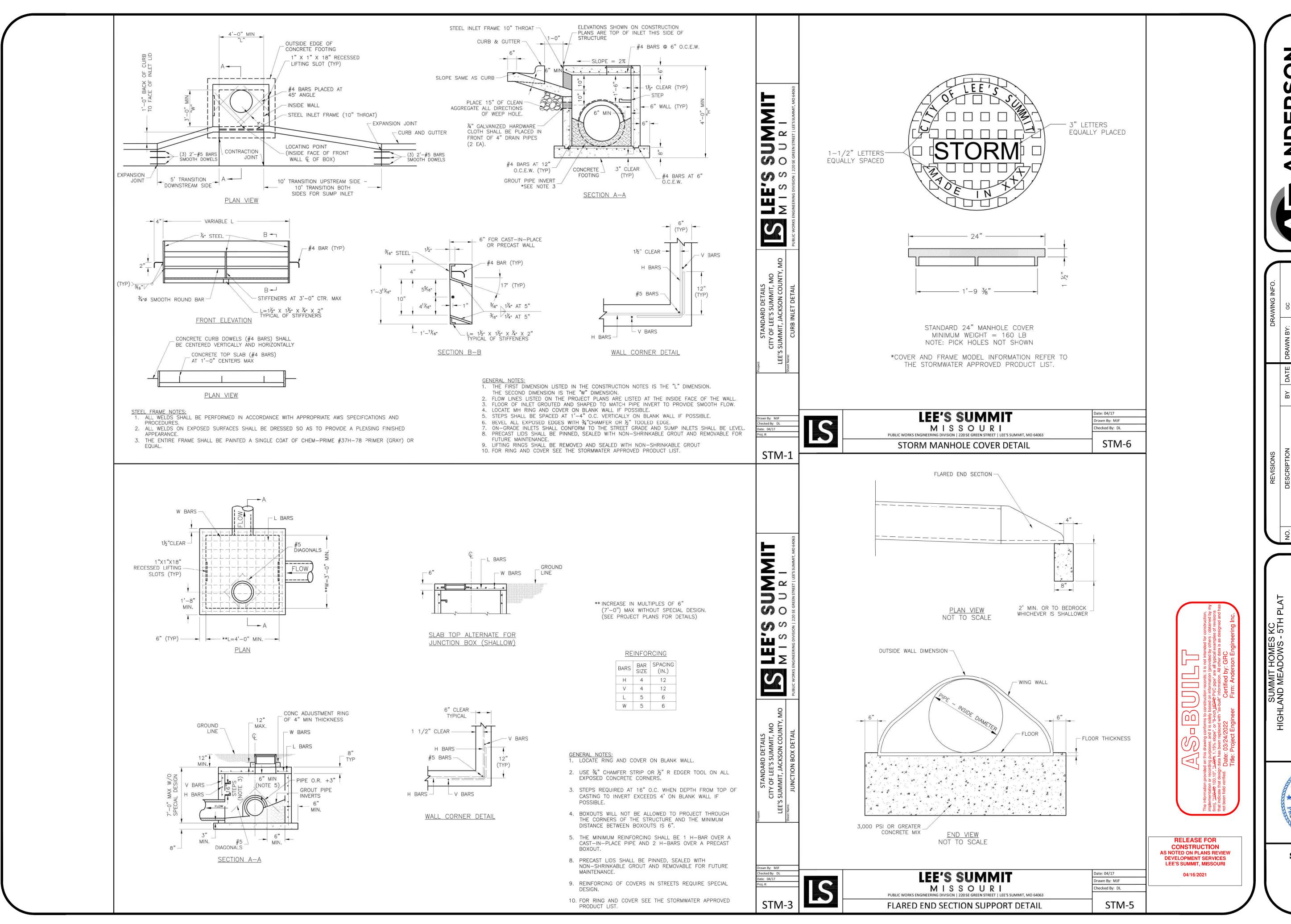
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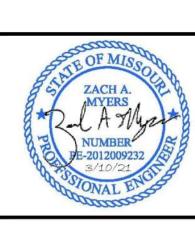
25 OF 40



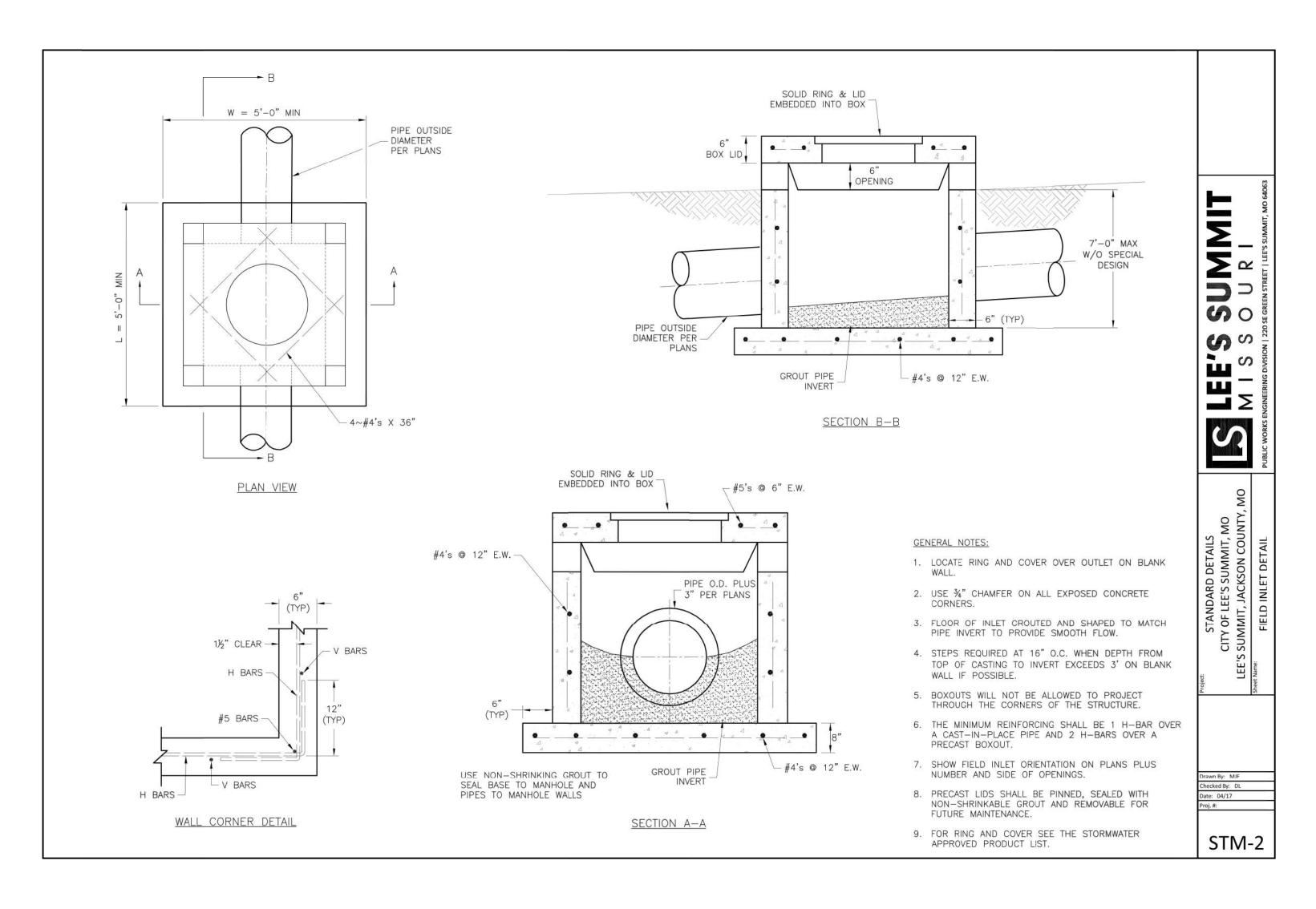


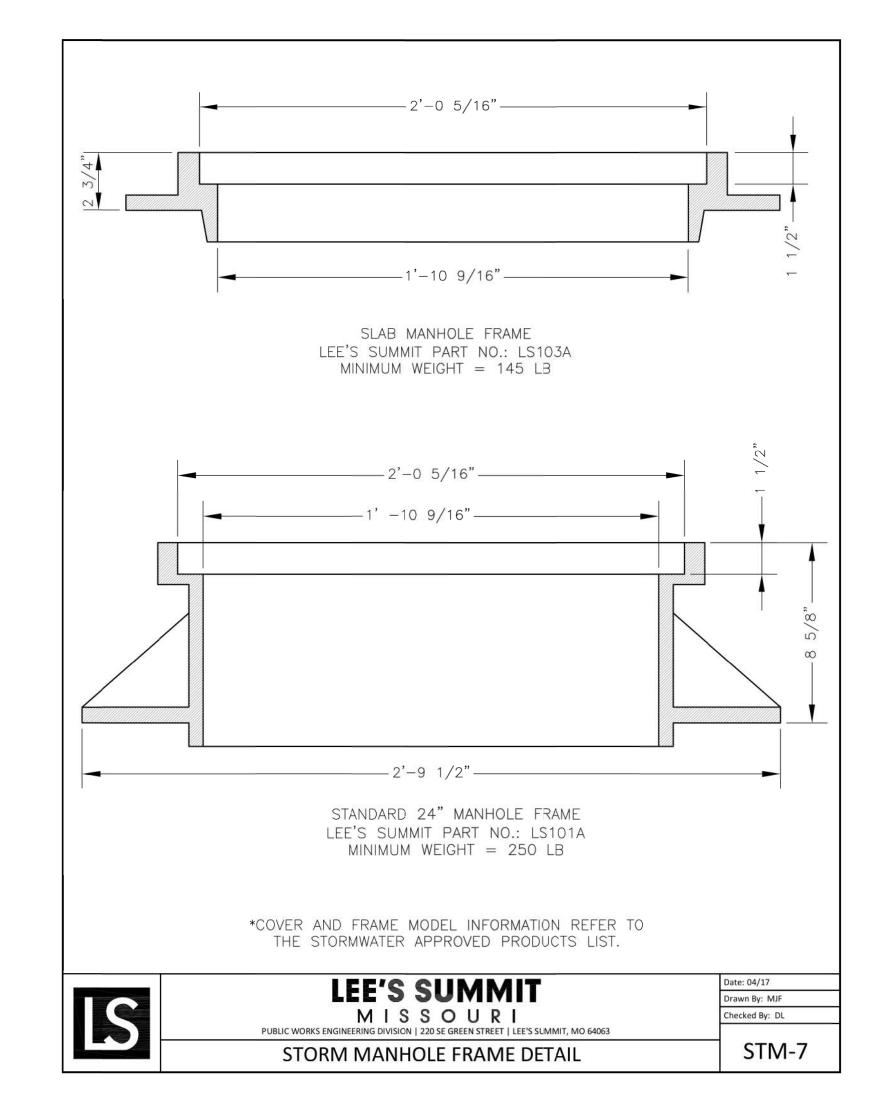
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1	REVISED PER CITY COMMENTS	ЭĐ	1/15/21	GC 1/15/21 CHECK BY:	ZM
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5.	AS-BUILT DRAWINGS	GC	3/24/22	GC 3/24/22 JOB NUMBER:	20KC1
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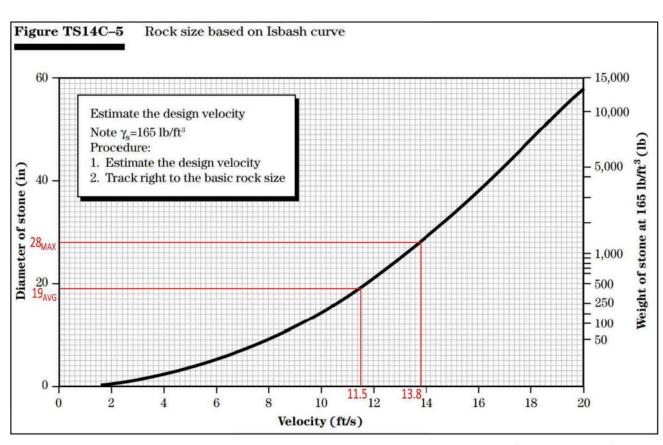
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SHEET NUMBER <u>26 of 40</u>







MAXIMUM 10-YR OUTLET VELOCITY PER DRAINAGE CALCULATIONS (SHEET C202) ≈ 9.71 FT/S.

PER TABLE ABOVE, 9.71 FT/S x 1.2 SAFETY FACTOR = 11.5 FT/S ≈ 19" AVERAGE STONE SIZE.

19" STONE ≈ MoDOT TYPE 4 DITCH LINER SPECIFICATION

"TYPE 4 ROCK DITCH LINER SHALL CONSIST OF MATERIAL WITH A PREDOMINAT ROCK SIZE OF 19 INCHES, A MAXIMUM ROCK SIZE OF 28 INCHES AND A GRADATION SUCH THAT NO MORE THAN 15% WILL BE LESS THAN 6 INCHES" PER SECTION 609.60.2.4 OF THE 2018 MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NOT TO SCALE

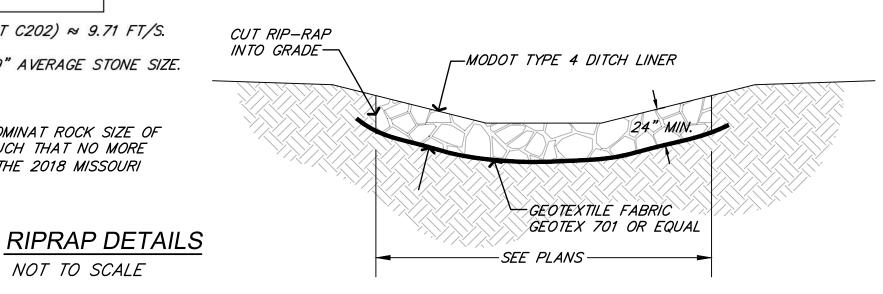
ROCK TO BE USED FOR RIP-RAP SHALL CONSIST OF INDIVIDUAL ROCK FRAGMENTS THAT ARE DENSE, SOUND, AND RESISTANT TO ABRASION. THE ROCK SHALL BE FREE OF CRACKS, SEAMS, AND OTHER DEFECTS THAT WOULD TEND TO INCREASE THE DESTRUCTION OF THE INDIVIDUAL ROCK FRAGMENTS DUE TO WATER AND FRONT ACTION. REFER APWA SECTION

2. RIP-RAP SHALL HAVE A MINIMUM THICKNESS OF 24" AT ALL LOCATIONS SHOWN ON THE PLANS. RIP-RAP SHALL BE PLACED ON GEOTEXTILE FABRIC AS SHOWN IN THE DETAIL.

3. 24" THICK RIP-RAP SHALL BE WELL-GRADED (D50 = 19") AND CONFORM TO THE TABLE BELOW:

> PERCENT LIGHTER WEIGHT, LBS. 700 100 *525 85–95 30–50 175* 0-15

4. A SAMPLE OF ALL ROCK TO BE PLACED SHALL BE SET ASIDE AT A QUARRY CHOSEN BY THE CONTRACTOR AND VISUALLY INSPECTED BY THE CONTRACTOR FOR QUALITY TO ENSURE ROCK MEETS ALL REQUIREMENTS PRIOR TO DELIVERY.



1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS

<u>INITIAL BACKFILL</u> -UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS 1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS -UNDER OPEN AREAS

1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS FINAL BACKFILL

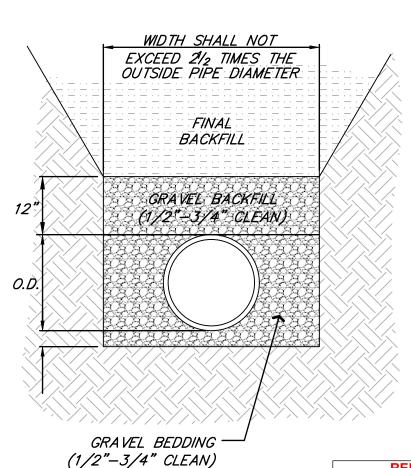
-UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 95% OF STANDARD DENSITY PER ASTM D-698 -UNDER OPEN AREAS

ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 90% OF STANDARD DENSITY PER ASTM D-698

BEDDING DEP	TH BELOW PI	PE
PIPE DIAMETER	IN SOIL	IN ROCK
24" AND LESS	4"	6"
27" THRU 60"	4"	9"

PIPE BEDDING DETAIL NOT TO SCALE

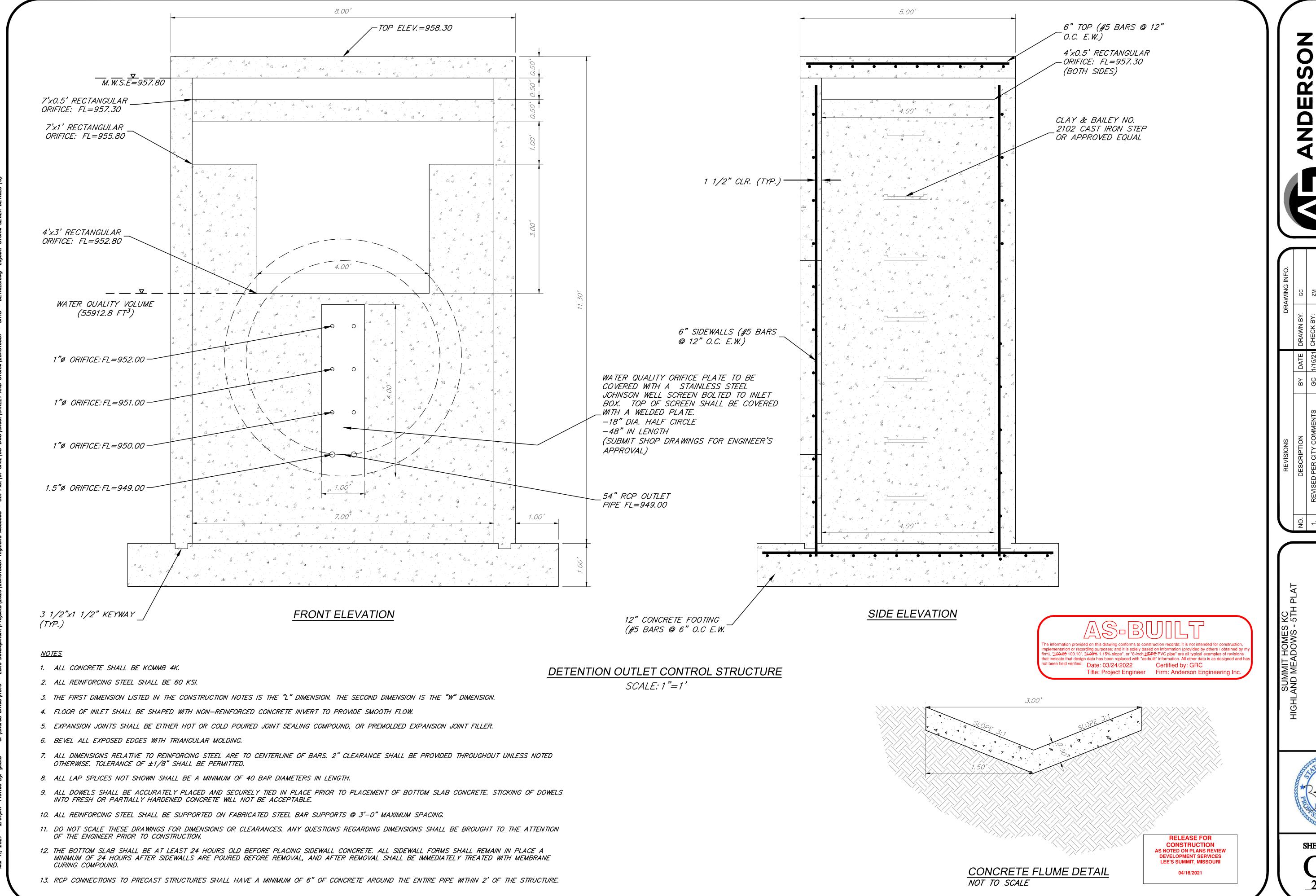
irm). <u>"100-96</u> 100.10", <u>"1-00%</u> 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions hat indicate that design data has been replaced with "as-built" information. All other data is as designed and ha been field verified. Date: 03/24/2022 Certified by: GRC Title: Project Engineer Firm: Anderson Engineering Inc.



**RELEASE FOR** CONSTRUCTION **AS NOTED ON PLANS REVIEW** DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 04/16/2021



SHEET NUMBER



ANDERSON
ENGINEERING
EMPLOYEE OWNED
JEERS - SURVEYORS - LABORATORIES - DRILLING

16W ENGINEERS - SUR

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DESCRIPTION	BY	DATE	BY DATE DRAWN BY:	29
EVISED PER CITY COMMENTS	CC	1/15/21	GC 1/15/21 CHECK BY:	ZM
EVISED PER CITY COMMENTS	CC	2/26/21	GC 2/26/21 LICENSE NO.	PE-2012009232
			DATE:	12/2/2020
			ISSUED FOR:	FOR REVIEW
AS-BUILT DRAWINGS	GC	3/24/22	GC 3/24/22 JOB NUMBER:	20KC10057
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STORM SEWER DETAILS (

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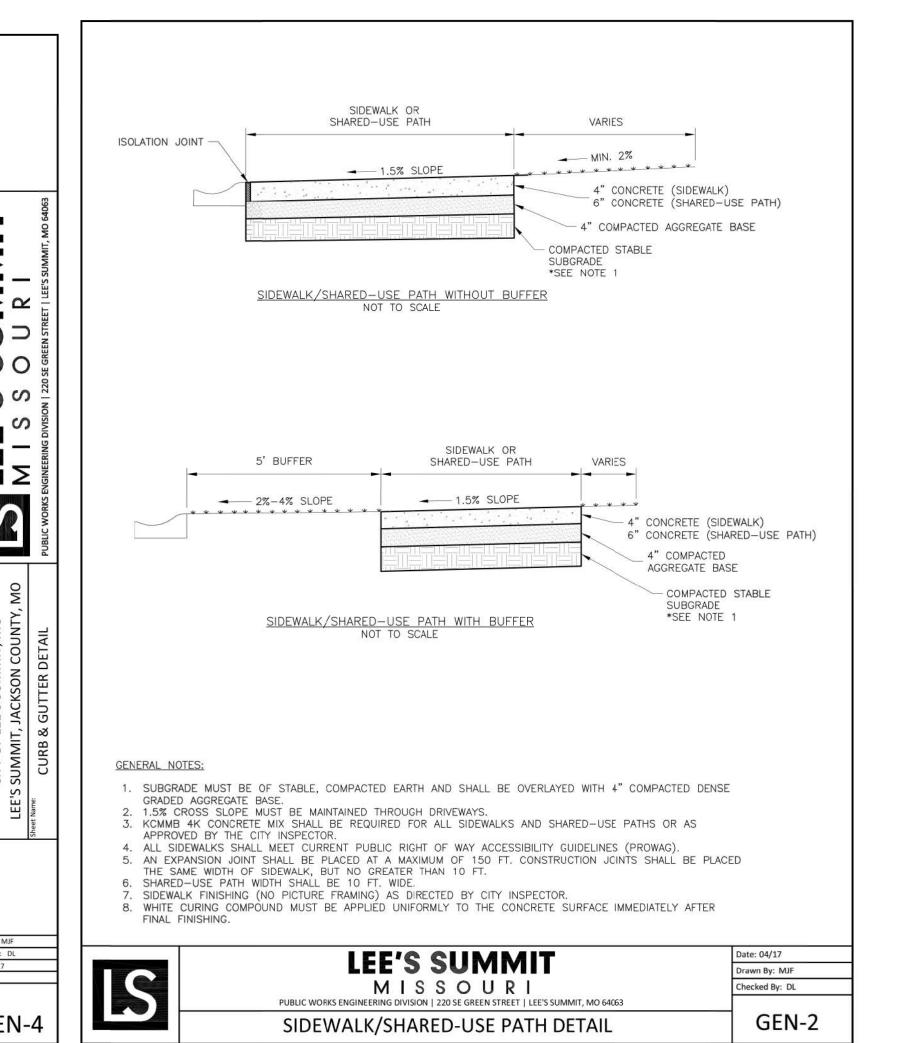
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3/10/21

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28 of 40

CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.





the information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information (provided by others / obtained by mirm). "100.00" 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and had not been field verified.

Date: 03/24/2022

Certified by: GRC

Title: Project Engineer

Firm: Anderson Engineering Inc.

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/16/2021

NO. DESCRIPTION BY DATE

1. REVISED PER CITY COMMENTS GC 1/15/2

2. REVISED PER CITY COMMENTS GC 2/26/2

5. AS-BUILT DRAWINGS GC 3/24/2

RB & SIDEWALK DETAIL
S10, T47N, R32W
MMIT, JACKSON COUNTY, MISS

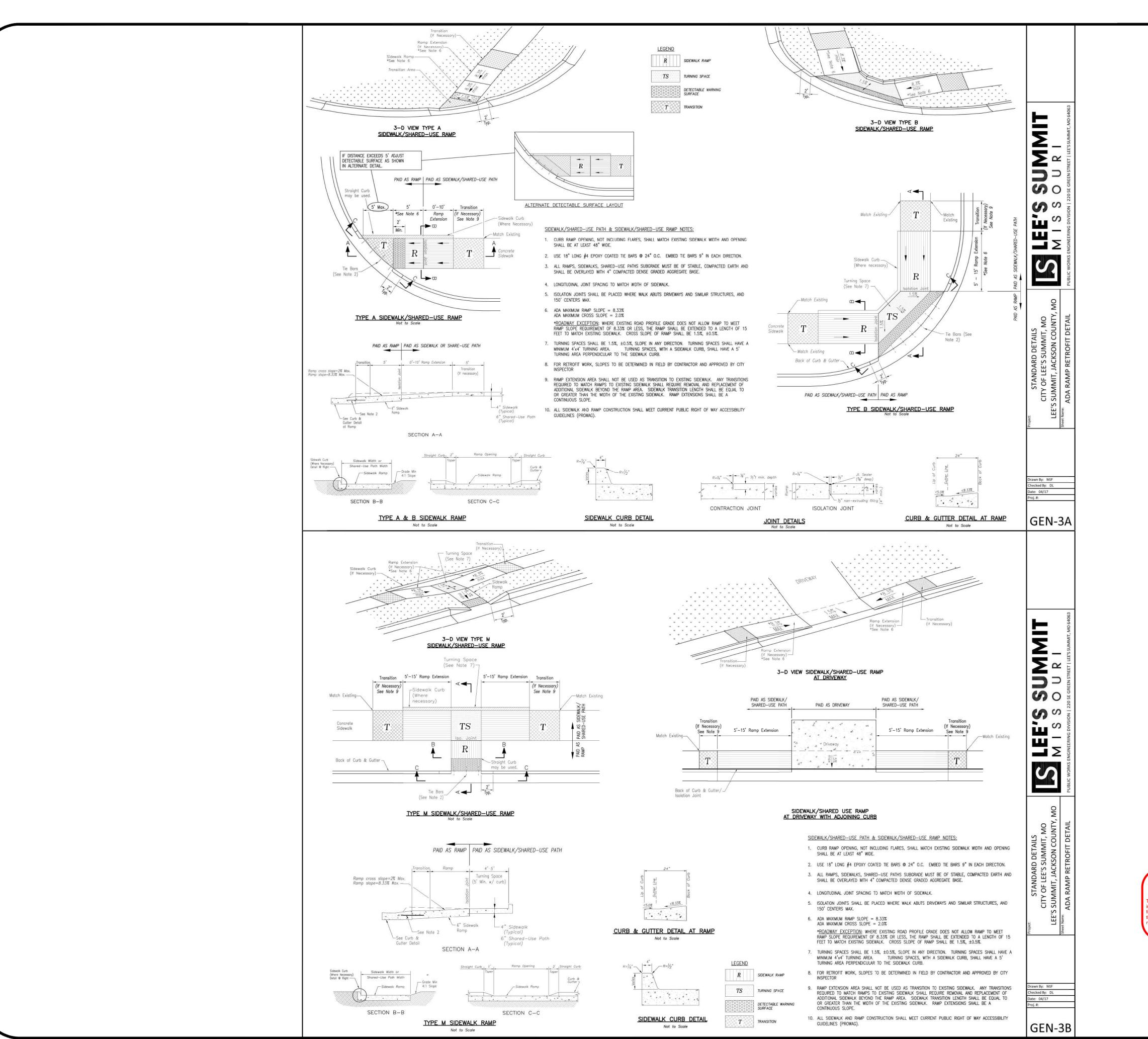
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NUMBER

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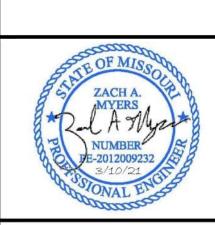
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29 of 40





S10,



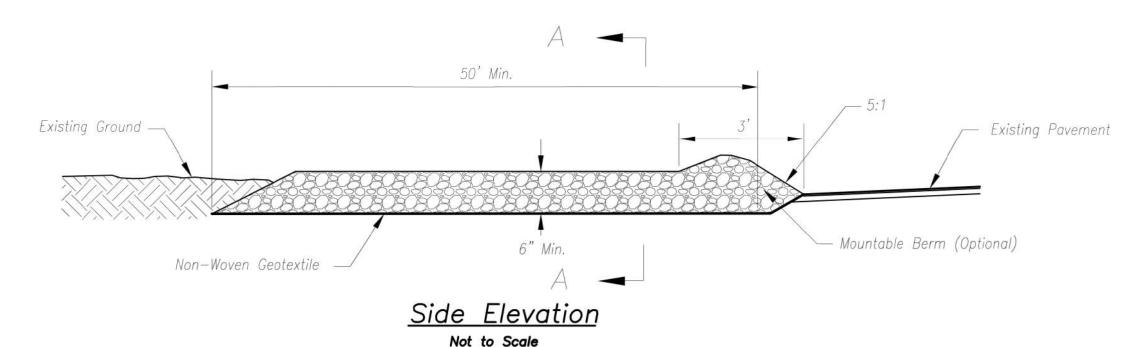
SHEET NUMBER 30 of 40

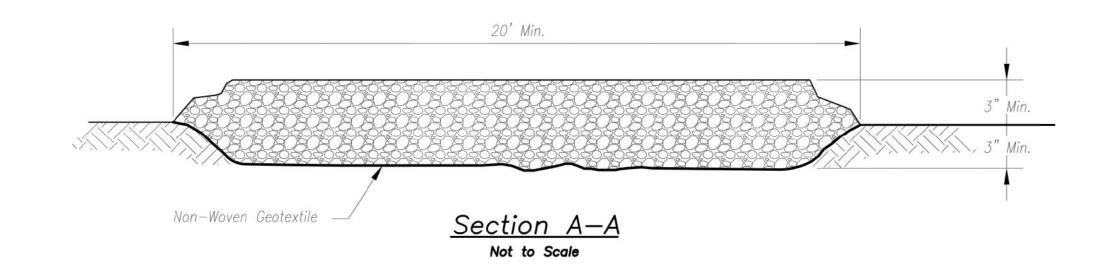
lementation or recording purposes; and it is solely based on information (provided by others / obtained by I m}. "100.00 100.10", "1.90% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions at indicate that design data has been replaced with "as-built" information. All other data is as designed and h not been field verified. Date: 03/24/2022 Certified by: GRC

Title: Project Engineer Firm: Anderson Engineering Inc

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 04/16/2021

# <u>Plan View</u>





# Notes for Construction Entrance:

- Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
- Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
- 3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
- Install pipe under the entrance if needed to maintain drainage ditches along public roads.
- Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
- Divert all surface runoff and drainage from the entrance to a sediment control device.
- 7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

# Maintenance for Construction Entrance:

 Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

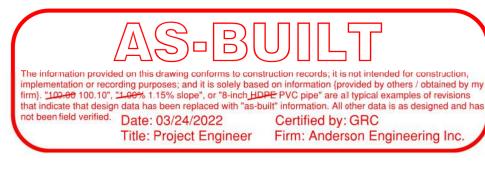
# CONSTRUCTION ENTRANCE

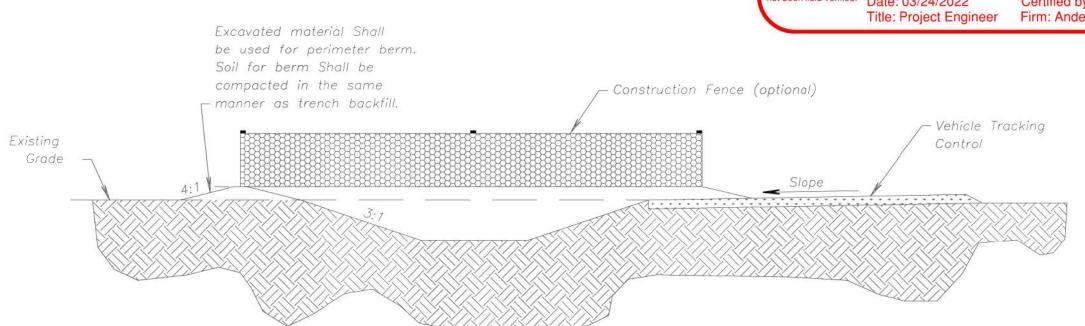
### Notes for Concrete Washout:

- 1. Concrete washout areas shall be installed prior to any concrete placement on site.
- 2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
- 3. Vehicle tracking control is required at the access point to all concrete washout areas.
- 4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
- 5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

### Maintenance for Concrete Washout:

- Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
- 2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
- Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
- Concrete washout areas shall remain in place until all concrete for the project is placed.
- 5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

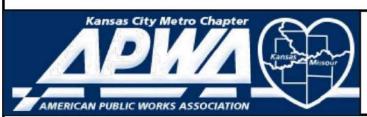




# CONCRETE WASHOUT

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/16/2021

# AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING
NUMBER ESC-OI
ADOPTED:
10/24/2016

ANDERSON ENGINEERII EMPLOYEE OWNED

ENGINEERS • SURVEYORS 941 W. 141ST TER. • KANSAS CITY, N

	REVISIONS			DR	DRAWING INFO.
NO.	DESCRIPTION	ВУ	DATE	BY DATE DRAWN BY:	29
1.	REVISED PER CITY COMMENTS	GC	1/15/21	GC 1/15/21 CHECK BY:	ZM
2.	REVISED PER CITY COMMENTS	GC	2/26/21	GC 2/26/21 LICENSE NO.	PE-201200923
				DATE:	12/2/2020
				ISSUED FOR:	FOR REVIEW
5.	AS-BUILT DRAWINGS	CC	3/24/22	GC 3/24/22 JOB NUMBER:	20KC10057
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CONSTRUCTION NTRANCE DETAILS

ZACH A.

MYERS

NUMBER

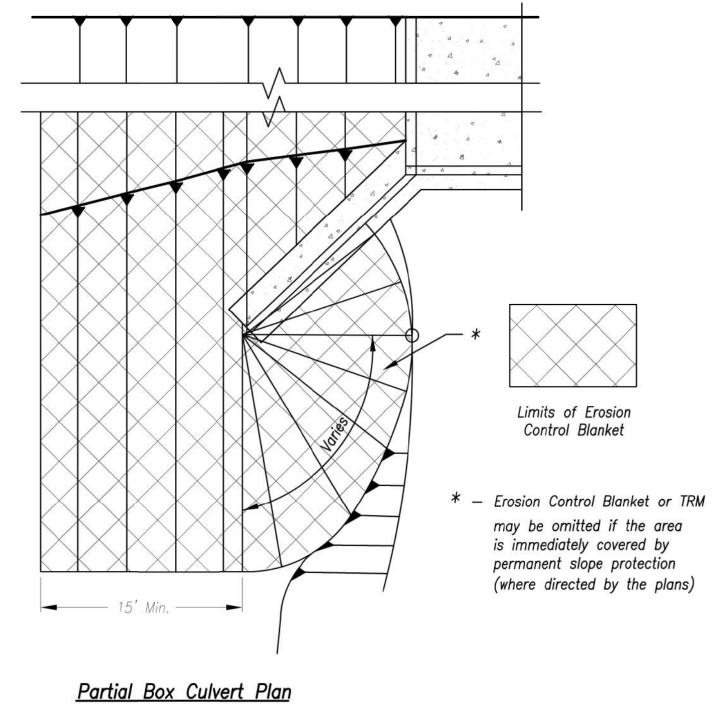
DE-2012009232

3/10/21

C601
31 of 40

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.



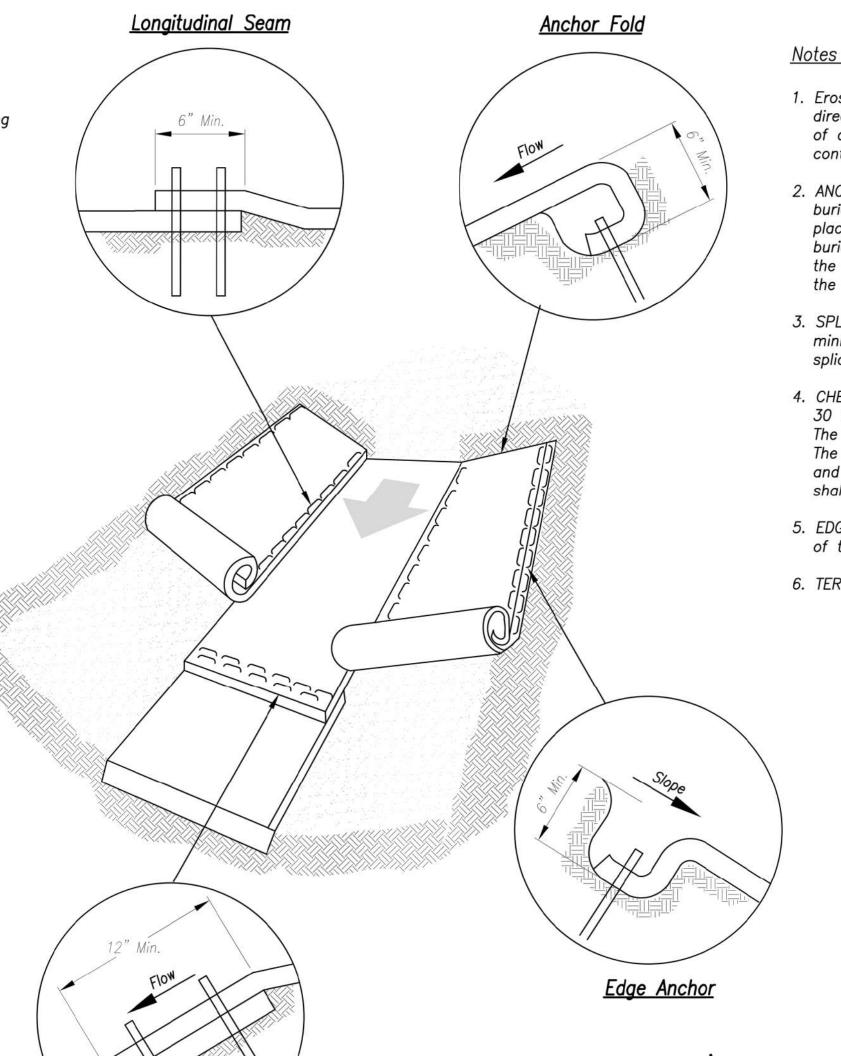


Not to Scale

Installation Around Culvert Slope

# Notes for Installation on Slopes:

- 1. Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.
- 2. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
- 3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice
- 4. TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.



Notes for Installation in Channels:

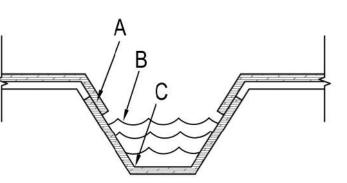
- 1. Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.
- 2. ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.
- 3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.
- 4. CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.
- 5. EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.
- 6. TERMINUS: The bottom edge of the mat shall be anchored.



plementation or recording purposes; and it is solely based on information (provided by others / obtained by m). "100-00 100.10", "1-00% 1.15% slope", or "8-inch\_HDPE PVC pipe" are all typical examples of revisions at indicate that design data has been replaced with "as-built" information. All other data is as designed and ot been field verified.

Date: 03/24/2022
Title: Project Engineer

Certified by: GRC
Firm: Anderson Engineering Inc.



Trapezoidal Channel

# Critical Points:

A – Overlaps and seams;

B - Projected water line;

C — Channel bottom / side slope vertices;

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V Channel

Installation in Channels

Splice Seam

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KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS ADOPTED:

STANDARD DRAWING NUMBER ESC-02

10/24/2016

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12/:	DATE:					
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CC	DRAWN BY:	DATE	ЬĄ	DESCRIPTION	NO.	
DRAWIN	DR			REVISIONS		

STEEP SLOPE OTECTION DETAI

SHEET NUMBER 32 of 40

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

4' min length post at 4' max spacing

Geotextile fabric 3' wide

Staples, plastic zip ties or other material approved by the field engineer, (50 lb tensile strength) located in top 8"

Tire compaction zone

Direction of Flow

Post embedment (See Note 6.)

Machine slice 6" - 12" depth

(\*) POSTS

- MIN, LENGTH 4'

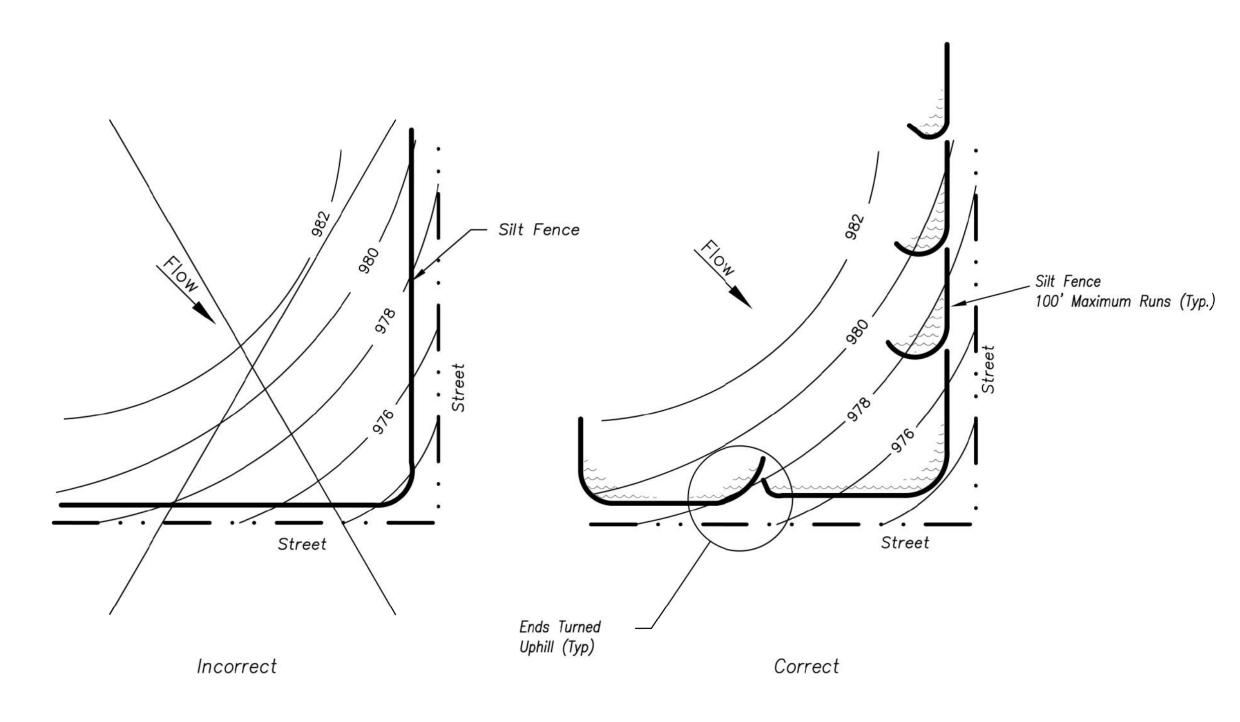
- HARDWOOD 1 3/6" x 1 3/6"

- NO.2 SOUTHERN PINE 2 %" x 2 %"

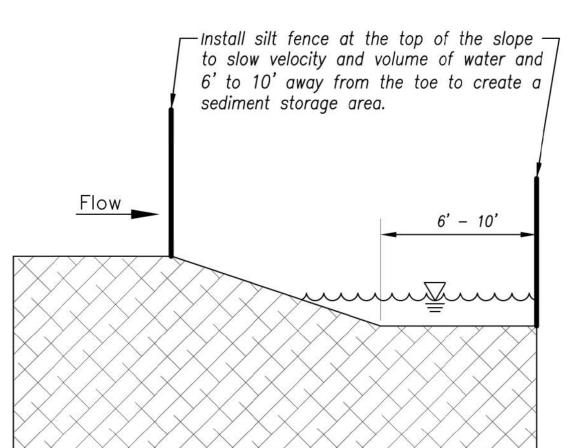
- STEEL 1.33 LB/FT

SILT FENCE DETAILS

Not to Scale



(\*\*) — Geotextile Fabric shall meet the requirements of AASHTO M288



<u>Figure A</u>

SILT FENCE LAYOUT

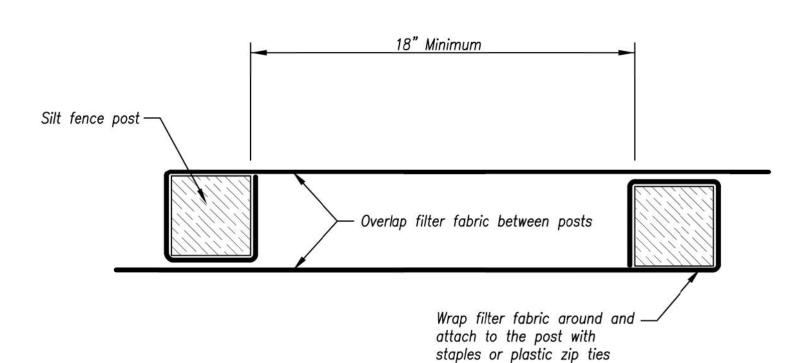
Not to Scale

### Notes:

- In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
- Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
- Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
- 4. Attach fabric to upstream side of post.
- 5. Install posts a minimum of 2' into the ground.
- Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

### Maintenance:

- 1. Remove and dispose of sediment deposits when the deposit approaches 1/3 the height of silt fence.
- 2. Repair as necessary to maintain function and structure.



JOINING FENCE SECTIONS

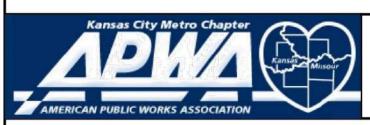
Not to Scale

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Title: Project Engineer Firm: Anderson Engineering Inc.

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KANSAS CITY METRO CHAPTER

SILT FENCE

STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016 ENGINEERS • SURVEYORS • LABORATOR 941 W. 141ST TER.• KANSAS CITY, MISSOURI 64145• PI

DESCRIPTION	ВУ	DATE	BY DATE DRAWN BY:	29
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ED PER CITY COMMENTS	ЭĐ	2/26/21	GC 2/26/21 LICENSE NO.	PE-2012009232
			DATE:	12/2/2020
			ISSUED FOR:	FOR REVIEW
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RIGHT ANDERSON ENGINEERING, INC. 2020	2020		MO COA NO.	000062

ILT FENCE DETAILS

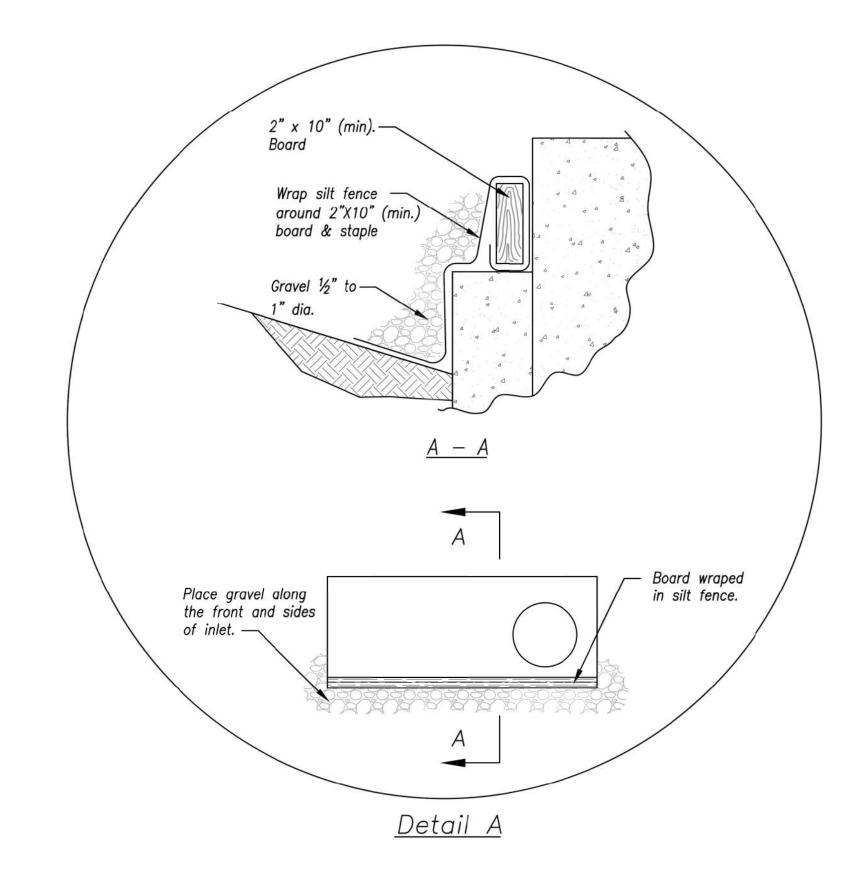
NO. 1.



C603

33 of 40

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.



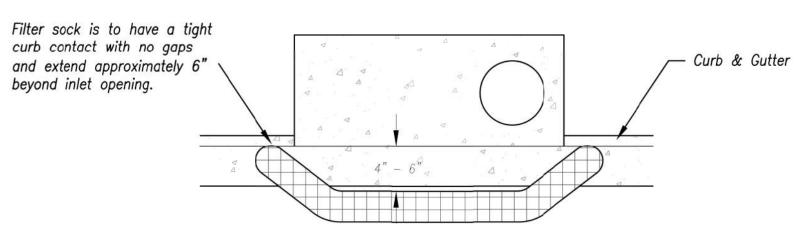
EARLY STAGE CURB INLET (Open Box and Prior to Pouring Curb and Inlet Throat)

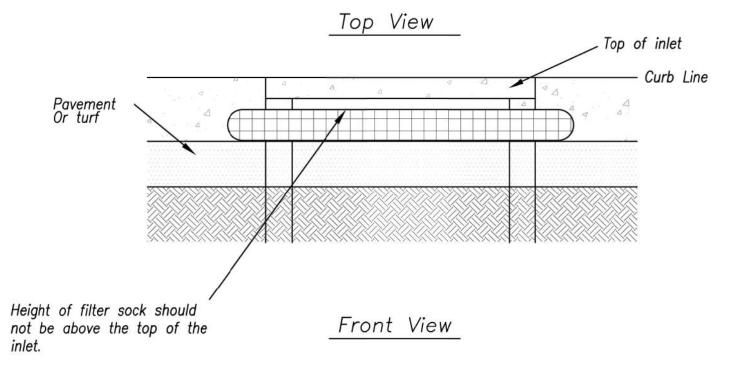
### <u>Notes:</u>

- Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
- 2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
- Contractor to field verify ponding water shall not create a traffic hazard.

# Maintenance:

- 1. Remove deposited sediment from excavated storage areas when available storage has
- Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
- Repair or replace as necessary to maintain function and integrity of installation.

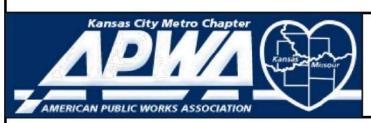




Sump Inlet Sediment Filter

LATE STAGE CURB INLET (After Pouring Curb and Inlet Throat) RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

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KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION

STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016

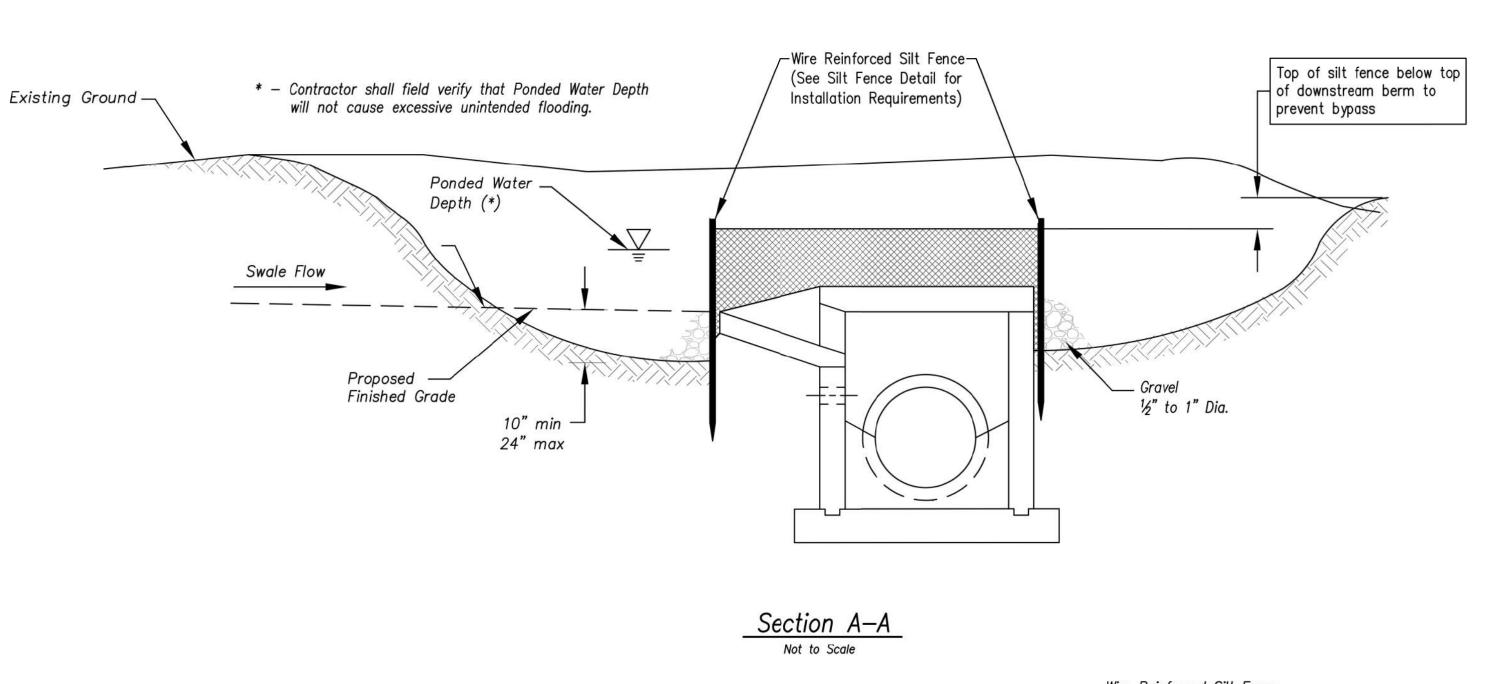
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			DATE:	12/2/2020
			ISSUED FOR:	FOR REVIEW
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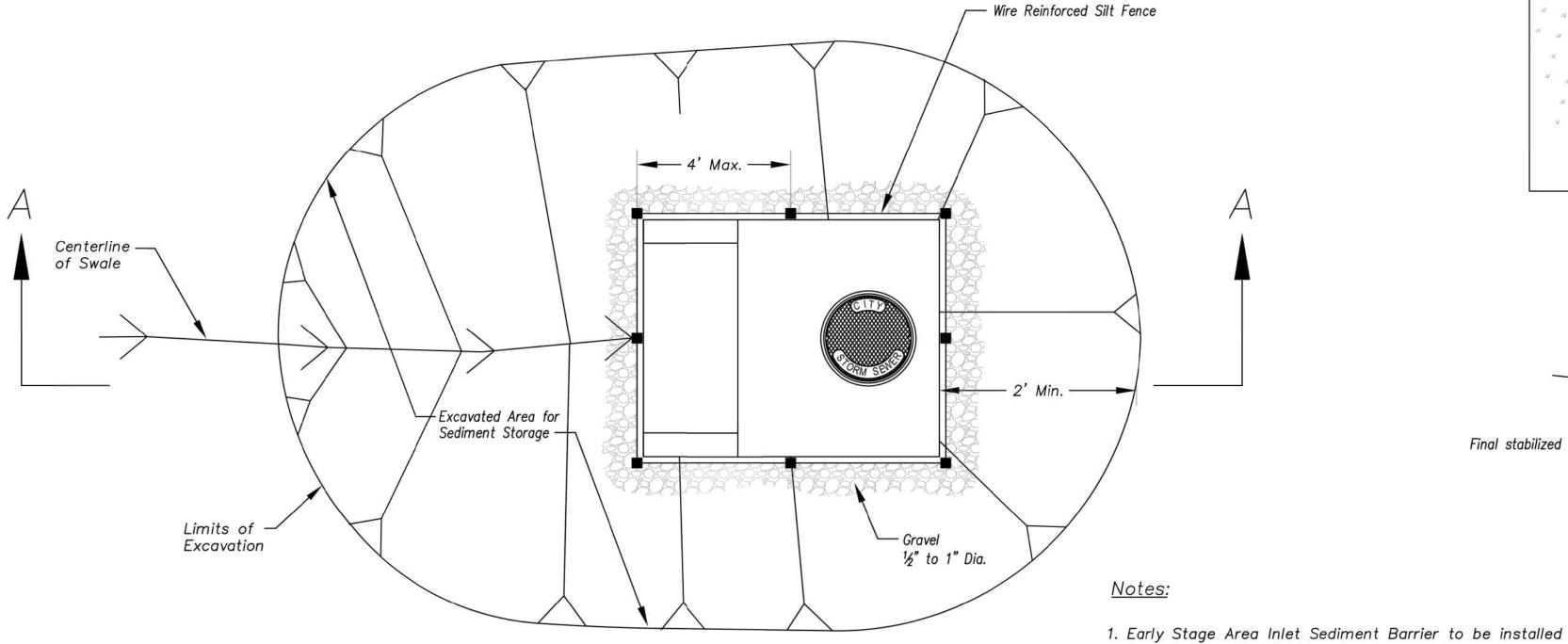
CURB INLET PROTECTION DET

N - 2

SHEET NUMBER C604 34 of 40

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

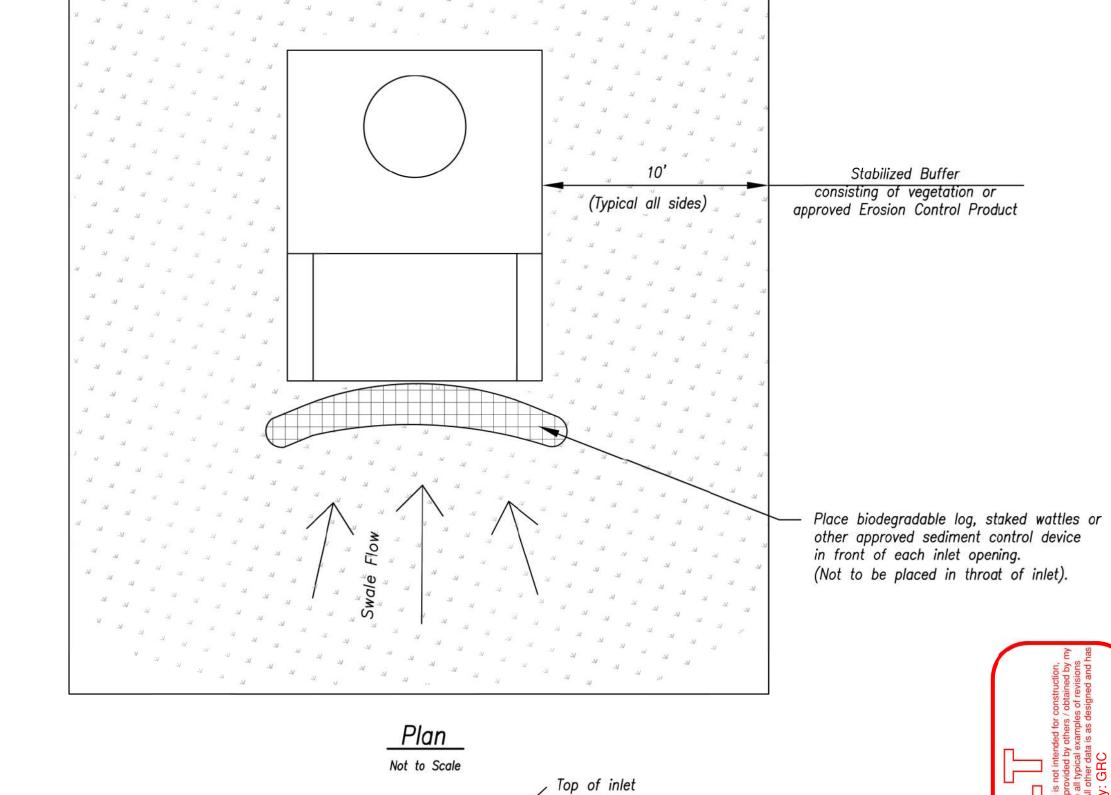




EARLY STAGE AREA INLET (All open boxes and inlets not at final grade)

Plan

Not to Scale



# LATE STAGE AREA INLET (Area inlets at final grade and existing inlets)

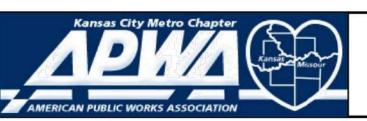
Front View

# Maintenance:

- 1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
- 2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
- 3. Repair or replace as necessary to maintain function and integrity of installation.

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KANSAS CITY METRO CHAPTER

AREA INLET AND JUNCTION BOX PROTECTION

STANDARD DRAWING NUMBER ESC-07 ADOPTED: 10/24/2016

SHEET NUMBER <u>35</u> of 40

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

Final stabilized grade

immediately after inlet or junction box is

Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to

Wire reinforced silt fence may be used in place of silt fence attached to wood frame.

Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.

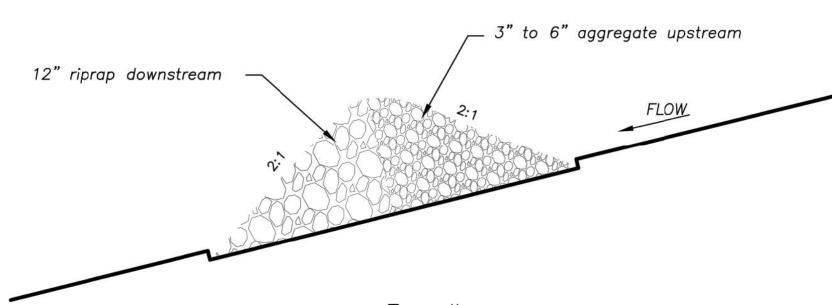
constructed.

immediately follow.

Š - 2

AREA INLET
PROTECTION DET

Type | (2 Acres or less of Drainage Area)



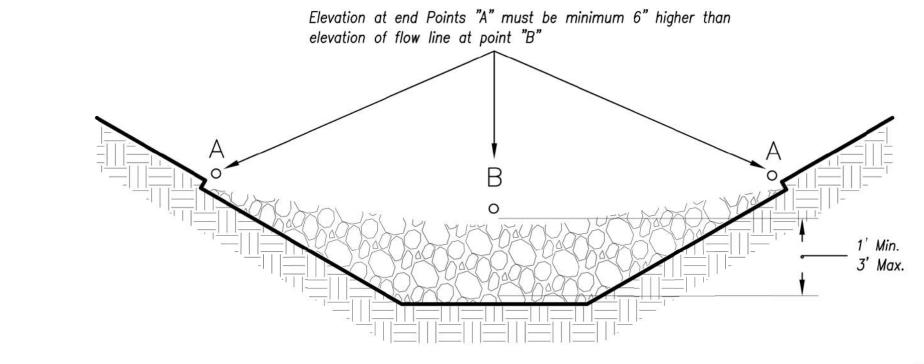
Type II

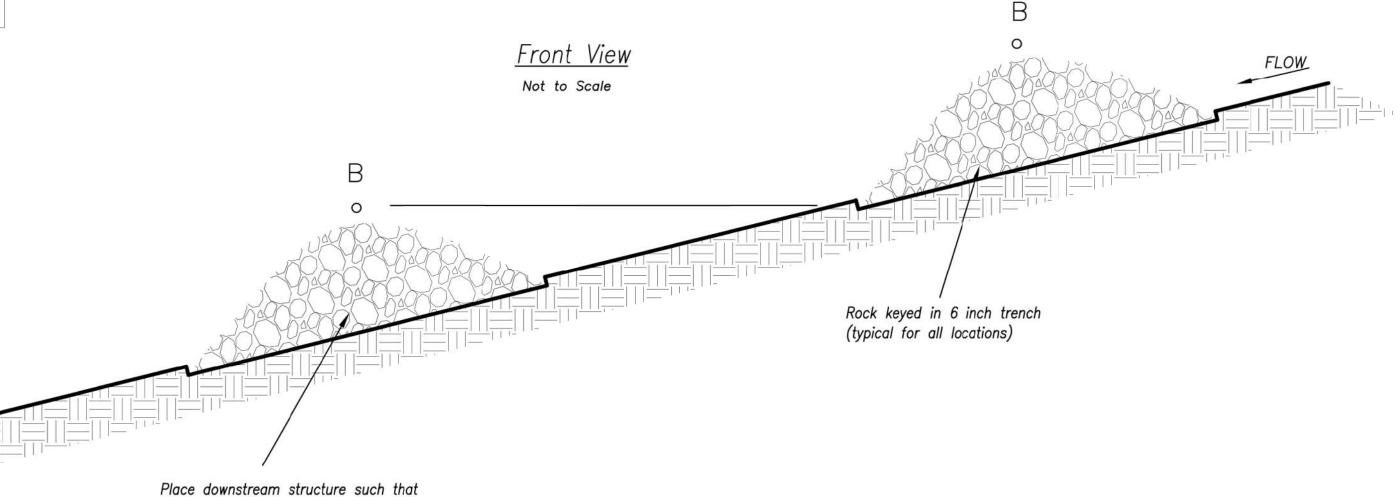
(2-10 Acres of Drainage Area)

Not to Scale

ROCK DITCH CHECK

<u>Temporary Roc</u> <u>Space</u>	
Ditch Centerline Slope ( % )	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
Note: Use this spa Rock Ditch (	





Spacing Between Check Dams (all types)

Not to Scale

### <u>Notes:</u>

- Rock check dams shall be used only for drainage areas less that 10 acres unless approved by the City Engineer.
- Use rock checks only in situations where the ditch slope exceeds 6%.

### <u>Maintenance:</u>

- 1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of the ditch check.
- Replace and reshape as necessary to maintain function and integrity of installation.

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information (provided by others / obtained by my firm). "100.00 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 03/24/2022 Certified by: GRC
Title: Project Engineer Firm: Anderson Engineering Inc.

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KANSAS CITY METRO CHAPTER

ROCK DITCH CHECKS

STANDARD DRAWING NUMBER ESC-IO ADOPTED: 10/24/2016

H CHECKS ADOPTI

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			ISSUED FOR:	FOR REVIEW
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ROCK DITCH CHECKS



SHEET NUMBER

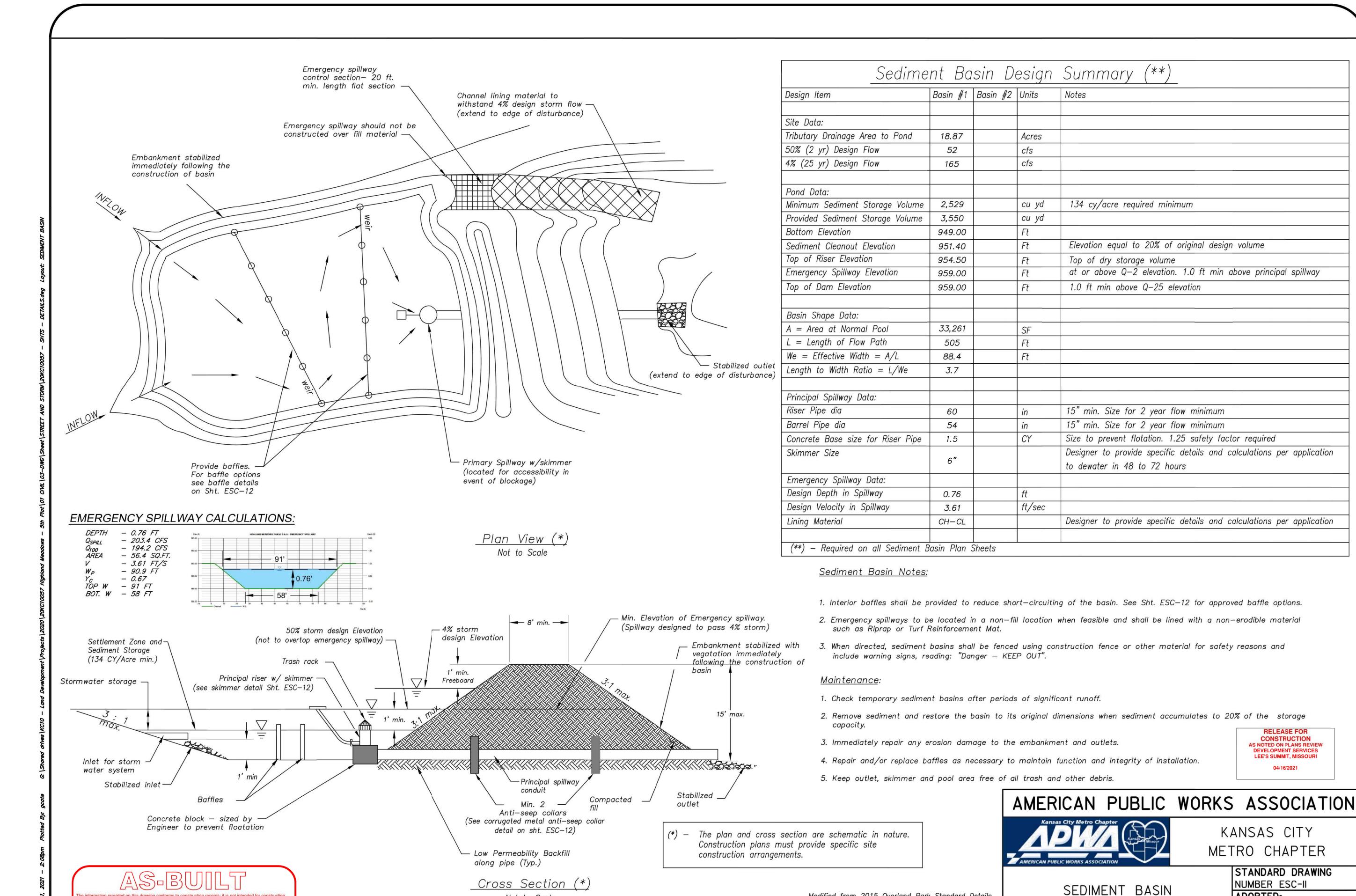
C606

36 OF 40

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

Point "B" is approximately level with the toe elevation of the upstream

structure



Not to Scale

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. "100.00 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions

been field verified. Date: 03/24/2022

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SEDIMENT

CONSTRUCTION

AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

KANSAS CITY

METRO CHAPTER

NUMBER ESC-II

ADOPTED:

Modified from 2015 Overland Park Standard Details

for Erosion and Sediment Control.

STANDARD DRAWING

10/24/2016



SHEET NUMBER C607 37 of 40

Weld both sides.

Corrugated metal sheet

welded to center of band

To increase flow path construct 1' deep weirs at alternating ends of each baffle.

Weir width should be adjusted for expected flow (min. 4').

Stable impervious rock dam

3\*-6\* clean aggregate

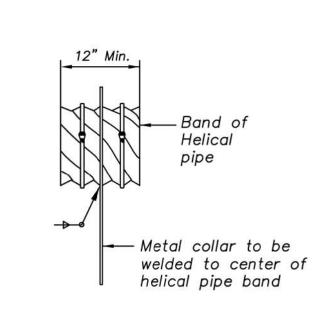
Option A - Rock with Weir

# PRINCIPAL SPILLWAY DETAIL

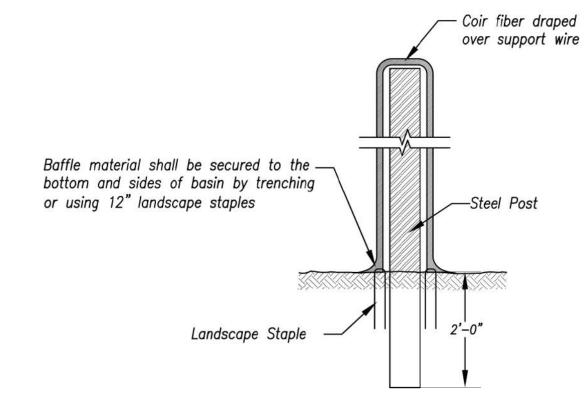
to pipe.

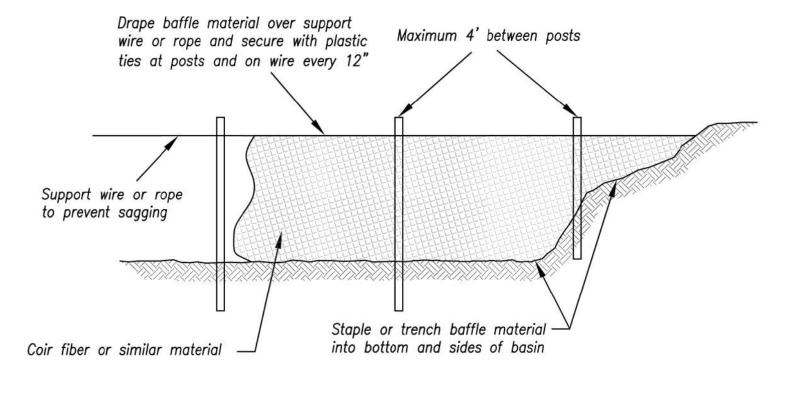
# SKIMMER DETAIL (Typ.) \*

\* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



PARTIAL ELEVATION





# Slotted Holes at 8" C.C. B Weld 1 1/8" x 1 1/8" angles to collar or bend 90° angle 1 1/8" wide as shown

fit corrugations of helical band and

welded with continuous weld

Ballast

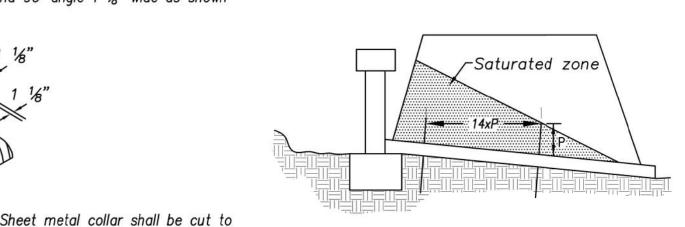
used

Collar to be same gauge as

the pipe with which it is

-1/3" x 2" slotted holes

for 3/8" diameter bolts



SECTION B-B

Size and spacing of slotted openings shall be the same as shown for CM collar.

Use rods and lugs to clamp bands securely

ISOMETRIC VIEW

Rod and Lug

Install collar with

corrugations vertical

Continuous —

ANTI-SEEPAGE COLLAR LOCATIONS

<u>CORRUGATED METAL</u> ANTI-SEEPAGE COLLAR DETAIL

Not to Scale

### Anti-Seepage Collar Notes:

- Connections between the anti-seepage collar and the barrel must be watertight.
- 2. P = projection distance. Sized as required to achieve at least a 10% increase in seepage length.
- 3. 14xP = Max. spacing between collars.
- 4. Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
- 5. All materials to be in accordance with construction material specifications.
- When specified on the plans, coating of collars shall be in accordance with construction material specifications.
- Unassembled collars shall be marked by painting or tagging to identify matching pairs.

- The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of installation.
- 9. Each collar shall be furnished with two (2) ½" diameter rods with standard tank lugs for connecting the collars to the pipe.
- 10. For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
- 11. Two other types of anti-seep collars are:
  - a. Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
  - b. Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

# <u> Option B — Coir Fiber Material</u>

# BAFFLE DETAILS

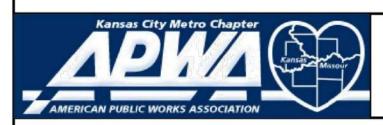
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# AS-BUILT

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KANSAS CITY METRO CHAPTER

SEDIMENT BASIN - DETAILS

STANDARD DRAWING NUMBER ESC-I2 ADOPTED: 10/24/2016 ANDERSON ENGINEERIN EMPLOYEE OWNED

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PE-2012009232	12/2/2020	FOR REVIEW	20KC10057	000062
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EDIMENT BASIN DETAILS

S10, T47N, F. JACKSON

ZACH A.
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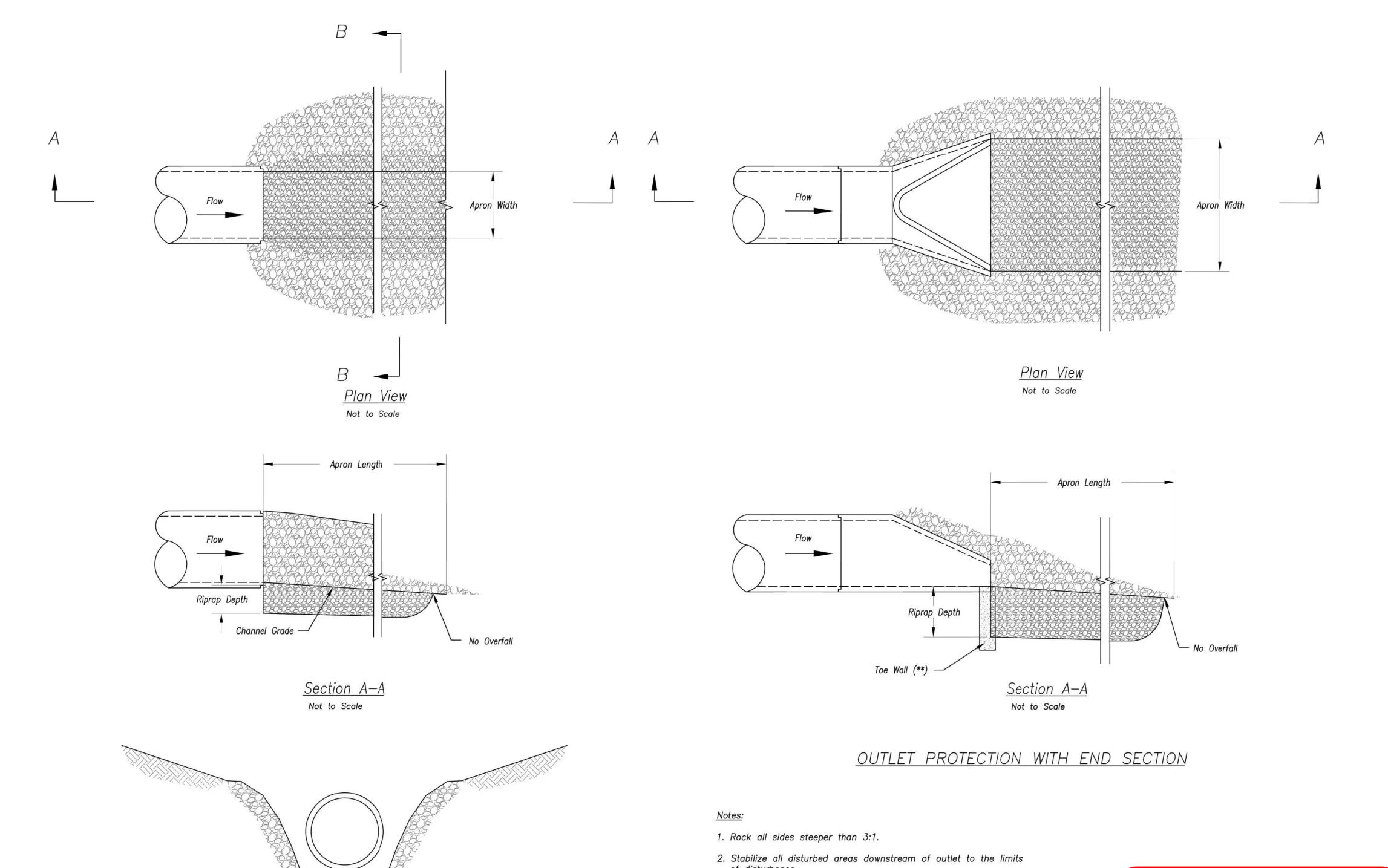
NUMBER

PE-2012009232

3/10/21

STONAL ENGINEER

C608
38 of 40



Apron Width

Section B-B

Not to Scale

OUTLET PROTECTION W/O END SECTION

- of disturbance.
- Alternative outlet protection and slope stabilization measures may be used with approval by the Engineer.
- 4. Install riprap apron so that it is no higher than flowline of pipe.
- Reference APWA Specification 2650 for rock type, size, and placement.

The information provided on this drawing conforms to construction records; t is not intended for construction, implementation or recording purposes; and it is solely based on information (provided by others / obtained by my firm), "100.60 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 03/24/2022

Certified by: GRC

Title: Project Engineer

Firm: Anderson Engineering Inc.

CONSTRUCTION
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KANSAS CITY METRO CHAPTER

ADOPTED:

	STANL
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UTECTION	40007

STANDARD DRAWING BER ESC-14 10/24/2016

OUTLET PROTECTION

NO - 2

DET

**PROTECTION** 

SHEET NUMBER <u>39</u> of 40

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

# TYPICAL PLAN VIEW OF DIVERSION BERM AND SLOPE DRAIN

# Notes for Diversion Berm:

- 1. Slope drains are optional, but may be required by the engineer if the berm is at the top of a steep slope.
- 2. Diversion berms must be installed as a first step in the land-disturbing activity and must be functional prior to upslope land disturbance.
- 3. The berm should be adequately compacted to prevent failure.
- 4. Temporary or permanent seeding and mulch shall be applied to the berm immediately following its construction.
- 5. Place the berm so to minimize damages by construction operations and traffic.
- 6. The berm must discharge to a temporary sediment trap or stabilized area.
- 7. All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of diversion.
- 8. The diversion shall be excavated or shaped to line, grade and cross—section as required to meet the criteria specified herein, free of irregularities which will impede flow.
- 9. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill shall be composed of soil which is free from excessive organic debris, rocks or other objectionable materials.

# <u>Maintenance:</u>

- 1. Berm shall be reshaped, compacted, and stabilized as necessary to maintain its function.
- 2. Breaches in the berm shall be repaired immediately.

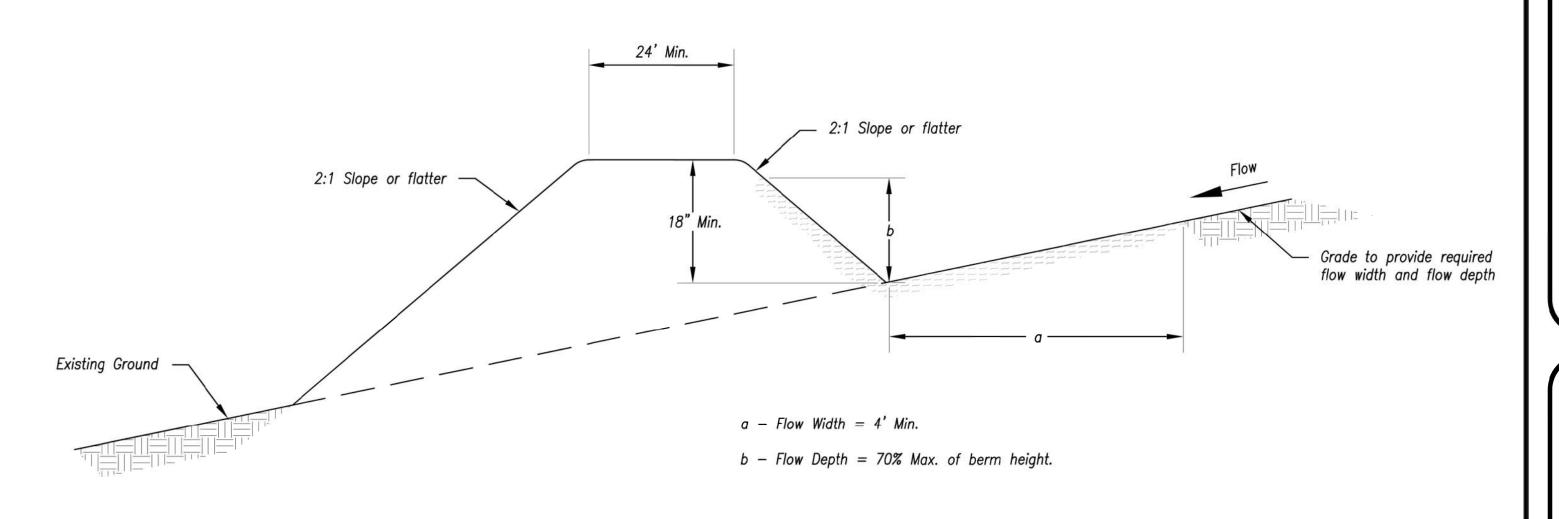
# Notes for Slope Drain:

- 1. Slope Drain and Diversion Berm may be used on either project foreslopes or project backslopes.
- 2. Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.
- 3. Pipe shall be secured in place as approved by Engineer.

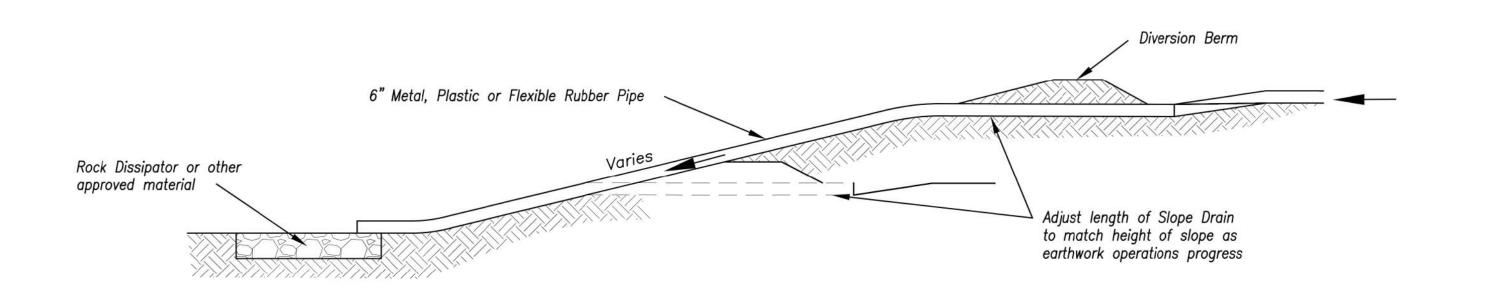
### <u>Maintenance:</u>

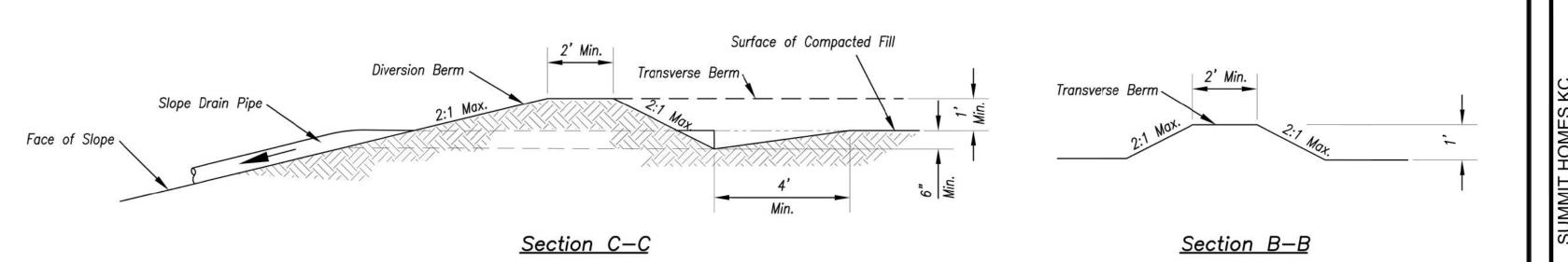
- 1. Accumulation of any visible sediment at the inlet and outlet shall be removed promptly.
- 2. Outlet conditions shall be repaired if scour is observed. Leaking or damaged section of pipe shall be repaired
- 3. Barriers directing water to the inlet shall be monitored for continuity and effectiveness.

# TYPICAL PROFILE OF DIVERSION BEAM Not to Scale



# TYPICAL PROFILE OF DIVERSION BERM





# TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN





for Erosion and Sediment Control.

SLOPE DRAINS Modified from 2015 Overland Park Standard Details

# AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

DIVERSION BERMS AND

STANDARD DRAWING NUMBER ESC-05 ADOPTED: 10/24/2016

REVISIONS			DR	DRAWING INFO.
DESCRIPTION	ВУ	DATE	DATE DRAWN BY:	29
D PER CITY COMMENTS	OS.	1/15/21	GC 1/15/21 CHECK BY:	MZ
D PER CITY COMMENTS	29	2/26/21	GC 2/26/21 LICENSE NO.	PE-2012009232
			DATE:	12/2/2020
			ISSUED FOR:	FOR REVIEW
T DRAWINGS	GC	3/24/22	GC 3/24/22 JOB NUMBER:	20KC10057
GHT ANDERSON ENGINEERING, INC. 2020	2020		MO COA NO.	000062

四 DIVERSION



SHEET NUMBER C61040 of 40