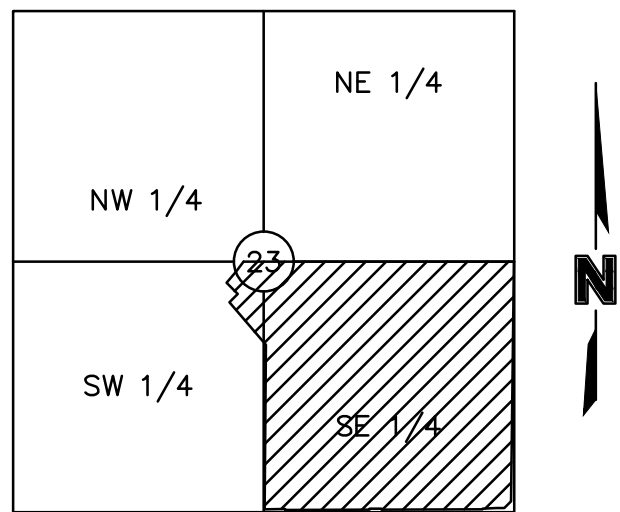
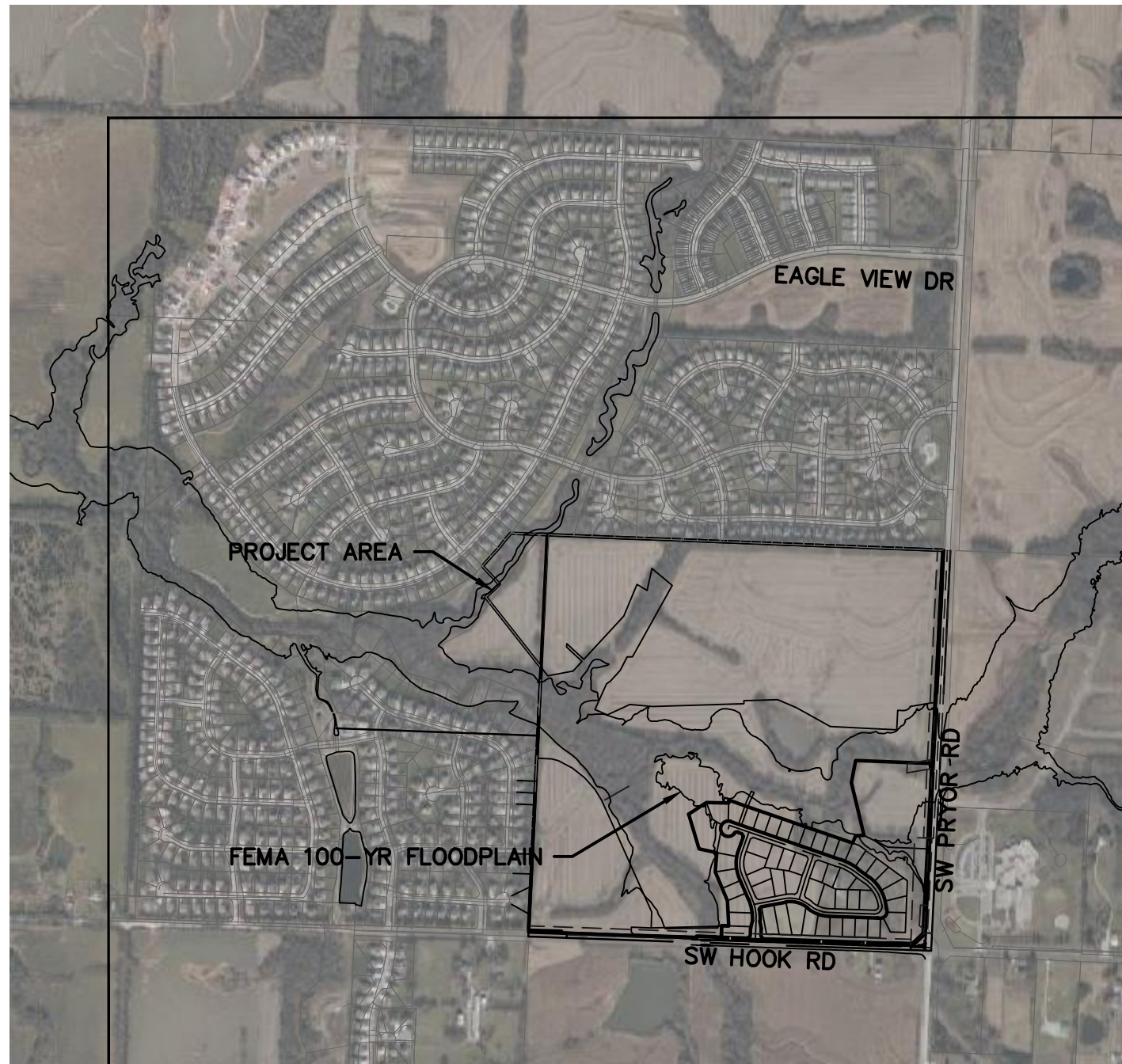




LOCATION MAP
Sec. 23, Twp. 47 N., Rge. 23 W.
(N.T.S.)

PROJECT TEAM & UTILITY CONTACT LIST	
<u>OWNER / DEVELOPER</u> HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.459.4285	<u>UTILITY SERVICE NUMBERS</u> NAME: DEVELOPMENT SERVICES PHONE: 816-969-1200 NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940 NAME: SPIRE (MGE) PHONE: 314-342-0500
<u>ENGINEER</u> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: MEGAN WALTER, P.E. PHONE: 970.635.3737	NAME: AT&T PHONE: 800-286-8313 NAME: EVERGY PHONE: 816-471-5275
<u>SURVEYOR</u> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, PLS PHONE: 816.361.1177	NAME: SPECTRUM (TWC) PHONE: 877-772-2253 NAME: GOOGLE FIBER PHONE: 877-454-6959



PROPERTY DESCRIPTION:

(AS PROVIDED BY CHICAGO TITLE INSURANCE COMPANY, NOVEMBER 1, 2018)

ALL THAT PART OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89 DEGREES 45 MINUTES 34 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER, 2613.19 FEET TO ITS INTERSECTION WITH THE WEST RIGHT-OF-WAY LINE OF PRYOR ROAD AS NOW ESTABLISHED; THENCE SOUTH 02 DEGREES 45 MINUTES 31 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 2520.50 FEET; THENCE SOUTH 47 DEGREES 23 MINUTES 30 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 135.21 FEET TO ITS INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF HOOK ROAD, AS NOW ESTABLISHED; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 2264.70 FEET; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 10.00 FEET; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 252.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHEAST QUARTER; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST ALONG SAID WEST LINE, 2615.22 FEET TO THE POINT OF BEGINNING.

ALSO,

THAT THAT PART OF THE FOLLOWING DESCRIBED PROPERTY IN THE NORTHEAST $\frac{1}{4}$ OF THE SOUTHWEST $\frac{1}{4}$ OF SECTION 23, TOWNSHIP 47, RANGE 32, LYING NORTH OF EAGLE CREEK GREENWAY, A SUBDIVISION, ALL IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, TO-WIT:

THE SOUTH ONE HALF OF THE NORTHEAST QUARTER AND THE SOUTH ONE-HALF OF THE NORTHWEST QUARTER AND ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI, BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER, THENCE NORTH 2 DEGREES 36 MINUTES 10 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER 1330.50 FEET TO THE NORTHWEST CORNER OF THE SOUTH ONE-HALF OF SAID NORTHWEST QUARTER, THENCE SOUTH 87 DEGREES 40 MINUTES 35 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF 2657.85 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF, THENCE SOUTH 87 DEGREES 41 MINUTES 31 SECONDS EAST ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF SAID NORTHEAST QUARTER 2654.44 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF; THENCE SOUTH 2 DEGREES 46 MINUTES 08 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER 1323.83 FEET TO THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 87 DEGREES 45 MINUTES 23 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER, 2653.42 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE SOUTH 2 DEGREES 43 MINUTES 24 SECONDS WEST, (DEED--SOUTH 2 DEGREES 41 MINUTES 49 SECONDS WEST), ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, 1138.42 FEET TO THE CENTERLINE OF MOUSE CREEK, AS NOW ESTABLISHED; THENCE NORTH 25 DEGREES 51 MINUTES 18 WEST (DEED--NORTH 25 DEGREES 52 MINUTES 53 WEST), ALONG SAID CENTERLINE, 73.83 FEET; THENCE NORTH 67 DEGREES 53 MINUTES 09 SECONDS WEST (DEED--NORTH 67 DEGREES 54 MINUTES 44 SECONDS WEST), ALONG SAID CENTERLINE, 379.20 FEET; THENCE SOUTH 39 DEGREES 00 MINUTES 27 SECONDS WEST (DEED--SOUTH 38 DEGREES 58 MINUTES 52 SECONDS WEST), ALONG SAID CENTERLINE, 187.72 FEET; THENCE NORTH 48 DEGREES 37 MINUTES 07 SECONDS WEST (DEED--NORTH 48 DEGREES 38 MINUTES 42 SECONDS WEST), ALONG SAID CENTERLINE, 131.31 FEET; THENCE NORTH 73 DEGREES 28 MINUTES 23 SECONDS WEST (DEED--NORTH 73 DEGREES 29 MINUTES 58 SECONDS WEST), ALONG SAID CENTERLINE, 279.90 FEET THENCE NORTH 26 DEGREES 34 MINUTES 47 SECONDS WEST (DEED--NORTH 26 DEGREES 36 MINUTES 22 SECONDS WEST), ALONG SAID CENTERLINE, 312.25 FEET; THENCE NORTH 62 DEGREES 29 MINUTES 46 SECONDS WEST (DEED--NORTH 62 DEGREES 31 MINUTES 21 SECONDS WEST), ALONG SAID CENTERLINE, 134.47 FEET; THENCE SOUTH 52 DEGREES 10 MINUTES 15 SECONDS WEST (DEED--SOUTH 52 DEGREES 08 MINUTES 40 SECONDS WEST), ALONG SAID CENTERLINE, 85.16 FEET; THENCE SOUTH 19 DEGREES 37 MINUTES 09 SECONDS WEST (DEED--SOUTH 19 DEGREES 35 MINUTES 34 SECONDS WEST), ALONG SAID CENTERLINE, 142.83 FEET; THENCE SOUTH 79 DEGREES 21 MINUTES 39 SECONDS WEST (DEED--SOUTH 79 DEGREES 20 MINUTES 04 SECONDS WEST), ALONG SAID CENTERLINE, 68.92 FEET; THENCE NORTH 73 DEGREES 27 MINUTES 48 SECONDS WEST (DEED--NORTH 73 DEGREES 29 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 114.02 FEET; THENCE NORTH 25 DEGREES 46 MINUTES 28 SECONDS WEST (DEED--NORTH 25 DEGREES 48 MINUTES 03 SECONDS WEST), ALONG SAID CENTERLINE, 73.12 FEET; THENCE NORTH 87 DEGREES 30 MINUTES 19 SECONDS WEST (DEED--NORTH 87 DEGREES 31 MINUTES 54 SECONDS WEST), ALONG SAID CENTERLINE, 473.33 FEET; THENCE NORTH 49 DEGREES 45 MINUTES 48 SECONDS WEST (DEED-- NORTH 49 DEGREES 47 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 343.23 FEET; THENCE NORTH 56 DEGREES 22 MINUTES 25 SECONDS WEST (DEED--NORTH 56 DEGREES 24 MINUTES 00 SECONDS WEST), ALONG SAID CENTERLINE, 277.94 FEET; THENCE NORTH 65 DEGREES 42 MINUTES 49 SECONDS WEST (DEED--NORTH 65 DEGREES 44 MINUTES 24 SECONDS WEST), ALONG SAID CENTERLINE, 182.37 FEET; THENCE NORTH 22 DEGREES 55 MINUTES 55 SECONDS WEST (DEED--NORTH 22 DEGREES 57 MINUTES 30 SECONDS WEST), ALONG SAID CENTERLINE, 65.99 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 22 DEGREES 36 MINUTES 17 SECONDS EAST (DEED--NORTH 22 DEGREES 34 MINUTES 42 SECONDS EAST), ALONG SAID WEST LINE, 239.42 FEET TO THE POINT OF BEGINNING.

(SHOWN FOR CONVENIENCE IN REPORTING.)

THE RETREAT AT HOOK FARMS STREET AND STORM SEWER PLANS

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

Page Number	Sheet Number	Sheet Title
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2	C101	GENERAL NOTES
3	C102	GENERAL LAYOUT
4	C103	GRADING PLAN
4A	C103A	SWALE PLAN & PROFILE (SWALE 1)
5	C104	SW RED BARN ROAD PLAN & PROFILE
6	C105	SW HEARTHSTONE PLACE, SW HARVEST MOON LANE PLAN & PROFILE
7	C106	SW HARVEST MOON LANE PLAN & PROFILE
8	C107	TRAFFIC CONTROL PLAN
9	C108	INTERSECTION DETAILS
10	C109	INTERSECTION DETAILS
11	C110	INTERSECTION DETAILS
12	C111	TRAIL GRADING PLAN
13	C112	STORM PLAN & PROFILES
14	C113	STORM PLAN & PROFILES
15	C114	STORM PLAN & PROFILES
16	C115	STORM PLAN & PROFILES
17	C116	DETENTION BASIN PLAN
18	C117	DRAINAGE PLAN
19	C118	DRAINAGE TABLES
20	C119	MASTER DRAINAGE PLAN
21	C120	SIGNAGE DETAILS
22	C121	SIGNAGE DETAILS
23	C122	STORM DETAILS
24	C123	STORM DETAILS
25	C124	STREET DETAILS
26	C125	STREET DETAILS

LEGEND

	SURVEY CONTROL POINT		TRAFFIC SIGNAL BOX		SPRINKLER HEAD
	SURVEY BENCHMARK		TRAFFIC SIGNAL MANHOLE		SPRINKLER CONTROL VALVE
	SURVEY TEMPORARY BENCHMARK		TRAFFIC SIGNAL POLE W/ ARM		WATER METER PIT
	GAS METER		TRAFFIC SIGNAL POLE		FIRE HYDRANT
	GAS RISER		TRAFFIC SIGNAL CONTROL BOX		WATER METER
	GAS MANHOLE		TRAFFIC SIGNAL PEDESTAL		WATER VALVE
	GAS REGULATOR		ELECTRIC MANHOLE		FLAG POLE
	TELEVISION PEDESTAL		ELECTRIC METER		SIGN
	FIBER BOX		ELECTRIC RISER		BOLLARD
	FIBER PEDESTAL		ELECTRIC BOX		WOOD POST
	CABLE BOX		ELECTRIC CABINET		STEEL POST
	CABLE VAULT		ELECTRIC JUNCTION BOX		COLUMN
	TELEPHONE PEDESTAL		YARD LIGHT		BORE HOLE
	STORM MANHOLE		LIGHT POLE		STUMP
	STORM GRATE		POWER POLE		BUSH
	SANITARY MANHOLE		POWER POLE W/ LIGHT		EVERGREEN TREE
			GUY WIRE		DECIDUOUS TREE

	SECTION LINE		EXISTING TELEPHONE LINE
	PROPERTY LINE		EXISTING SANITARY LINE
	CENTER LINE		EXISTING STORM LINE
	PROPOSED ROW LINE		EXISTING GAS LINE
	EXISTING ROW LINE		EXISTING WATER LINE
	UTILITY EASEMENT		EXISTING CHAIN LINK FENCE
	EXISTING CONTOUR		EXISTING OVERHEAD ELECTRIC
	EXISTING CONTOUR		EXISTING PIPE LINE
	PROPOSED MINOR CONTOUR		GRADING LIMITS
	PROPOSED MAJOR CONTOUR		TEMP CONSTRUCTION EASEMENT
	EXISTING TREELINE		PROPOSED CHAIN LINK FENCE
			PROPOSED WOOD PRIVACY FENCE

- ☐ NOT FOR CONSTRUCTION
- ☒ REVIEWED FOR CONSTRUCTION



COVER SHEET							
STREET AND STORM SEWER PLANS							
THE RETREAT AT HOOK FARMS							
CONSTRUCTION DOCUMENTS							
LEE'S SUMMIT, MO						2020	
drawn by: _____ EM checked by: _____ EM designed by: _____ RB QA/QC by: _____ NH project no.: 019-4059 drawing no.: C_TTL00_0194059 date: 4/20/2020							
SHEET		C100					
1		OF 54					

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

REFERENCES

1. ARCHITECTURAL AND STRUCTURAL ELEMENTS SHOWN IN THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTORS AND SURVEYORS SHALL REFERENCE THEIR RESPECTIVE PLANS FOR DESIGN INFORMATION.
2. THE CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AS PROVIDED BY THE GEOTECHNICAL ENGINEER INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT OR WHEN NO GEOTECHNICAL REPORT IS GIVEN.
3. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY:
 - A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF LEE'S SUMMIT, MISSOURI.
 - B. ALL CONSTRUCTION IN MISSOURI DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MISSOURI DEPARTMENT OF TRANSPORTATION.
 - C. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - D. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES..
 - E. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

EXISTING CONDITIONS

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.
3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.
2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.
3. IN ADDITION TO THE CONDITIONS OF THE GEOTECHNICAL REPORT AND AS A MINIMUM THE CONTRACTOR SHALL PERFORM THE GRADING AS FOLLOWS:
 - A. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE EXCESS STRIPPINGS AND EXCESS EXCAVATION WITHIN 30 DAYS OF COMPLETION OF GRADING OPERATIONS.
 - B. AREAS TO RECEIVE FILL AND AREAS CUT TO SUBGRADE LEVEL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE SUBGRADE SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
 - C. FILL SHALL BE PLACED IN MAXIMUM OF 8 INCH LIFTS.
 - D. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF 6 INCHES OVER ALL AREAS DISTURBED BY THE WORK. LARGE STONES, STICKS AND LUMPS SHALL BE REMOVED OR BROKEN UP, AND THE TOPSOIL SHALL BE LEVELED AND RAKED. ALL DISTURBED AREAS SHALL BE LANDSCAPED PER LANDSCAPE PLANS OR SHALL BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED.
 - E. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS AS REQUIRED.
4. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
5. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
6. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

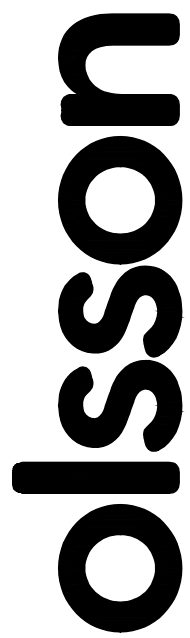
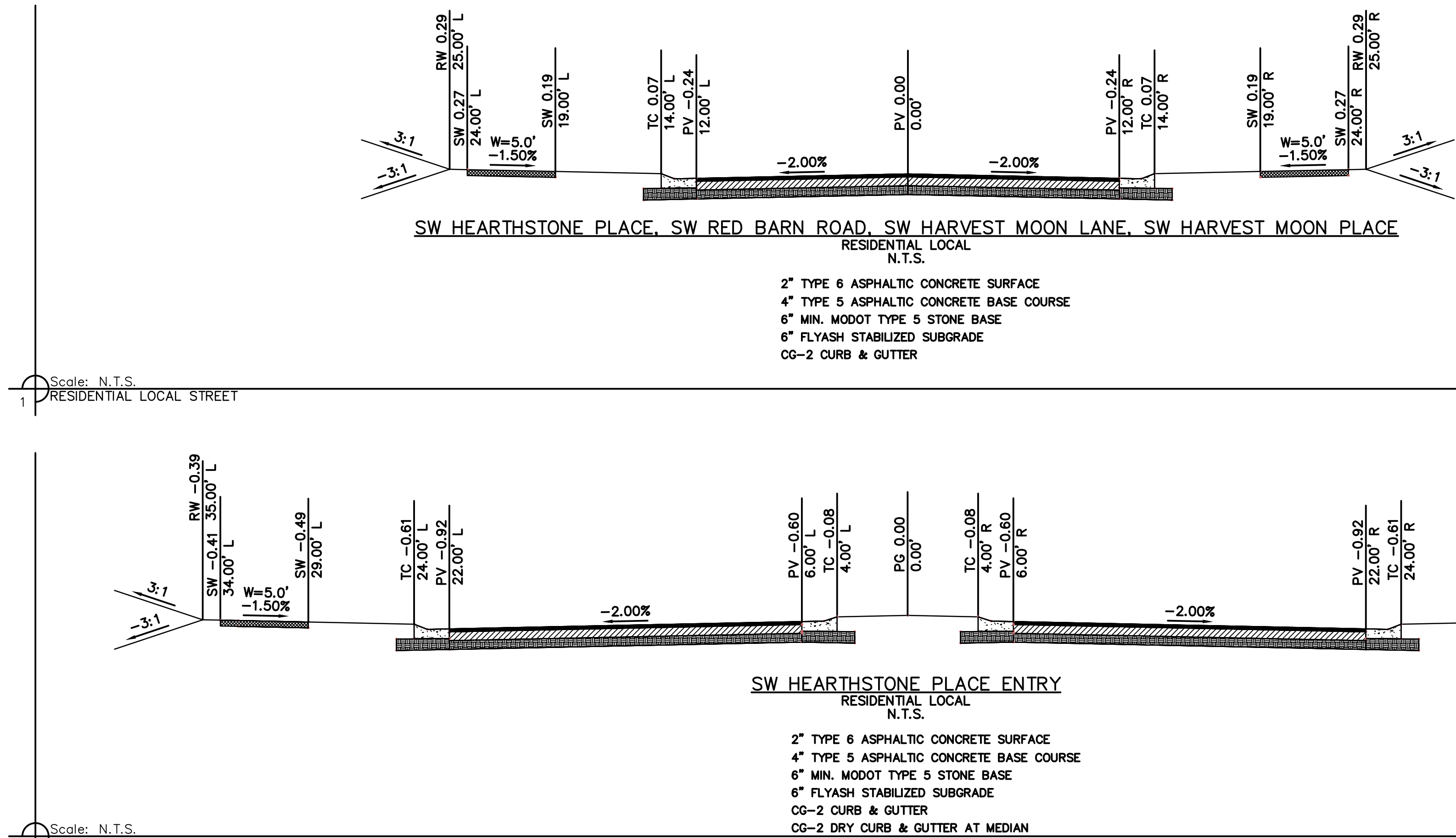
SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
 - A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
 - B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
 - C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
 - D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
 - E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.
2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED, TO THE FOLLOWING:
 - A. ALL STORM SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
 - B. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
 - C. ALL SITE FENCING AND RAILING INCLUDING ANY GATES.
 - D. ALL LANDSCAPE AND RETAINING WALLS.
 - E. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
STREET				
1	EXCAVATION	C.Y.	19470	
2	EMBANKMENT	C.Y.	8709	
3	SUBGRADE STABILIZATION (6" FLYASH TREATMENT)	S.Y.	9150	
4	6" ASPHALT PAVEMENT	S.Y.	9150	
5	CONCRETE CURB & GUTTER (CG-2)	L.F.	6340	
6	5' CONCRETE SIDEWALK	L.F.	380	
7	ADA RAMP	EA.	12	
8	STREET NAME SIGNS WITH STOP SIGNS	EA.	5	
9	STREET NAME SIGNS	EA.	1	
STORM				
10	STD. CURB INLET (5'x3' INSIDE)	EA.	15	
11	STD. FIELD INLET (3'x3' INSIDE)	EA.	5	
12	STD. MANHOLE (4' DIA. INSIDE)	EA.	3	
13	STD. MANHOLE (5' DIA. INSIDE)	EA.	1	
14	WATER QUALITY BASIN OUTLET STRUCTURE	EA.	1	
15	6" PVC	L.F.	315	
16	15" HDPE	L.F.	18	
17	18" HDPE	L.F.	2002	
18	24" HDPE	L.F.	810	
19	30" HDPE	L.F.	34	
20	36" HDPE	L.F.	221	
21	6" FLARED END SECTION	EA.	1	
22	15" FLARED END SECTION	EA.	2	
23	18" FLARED END SECTION	EA.	1	
24	30" FLARED END SECTION	EA.	1	
25	RIPRAP	S.Y.	62	

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.

ALL NOTES REFERENCED ON THIS PLAN SHEET MAY HAVE APPLICATIONS TO EVERY FACET OF THE CONSTRUCTION PLANS. THE NOTE HEADINGS OR TITLES ARE TO BE USED AS A GENERAL GUIDE TO APPLICABLE SITUATIONS.



1301 Burlington Street
North Kansas City, MO 64116
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GENERAL NOTES
STREET AND STORM SEWER PLANS

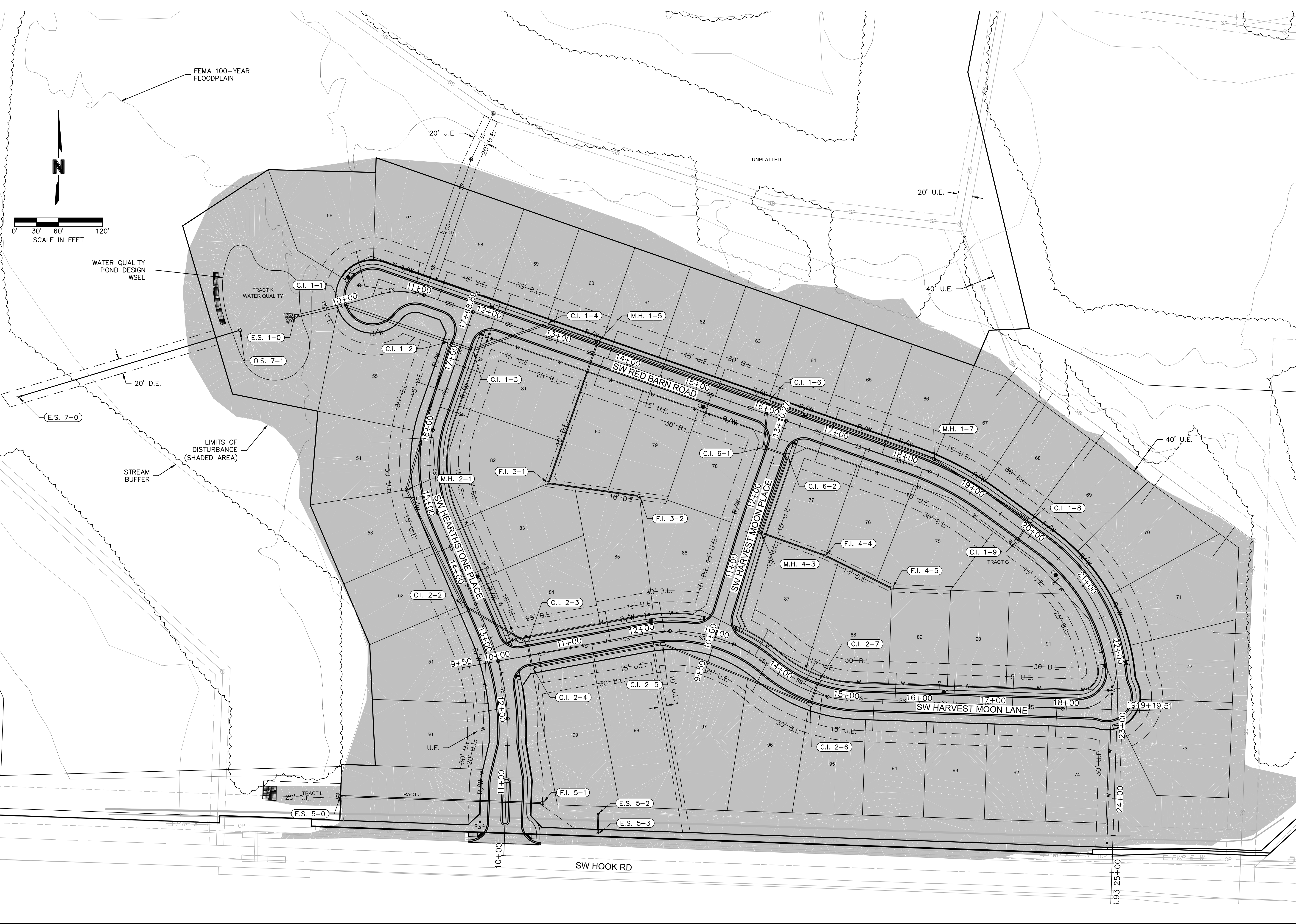
THE RETREAT AT HOOK FARMS CONSTRUCTION DOCUMENTS

LEE'S SUMMIT. MO.

drawn by: _____ EM
checked by: _____ EM
designed by: _____ RB
QA/QC by: _____ NH
project no.: _____ 019-4059
drawing n6_GEN&TABL_0194059
date: _____ 4/20/2020

SHEET C101
2 OF 54

DWG: F:\2019\4001-4500\019-4059\40-Design\AutoCAD\Final Plans\Sheets\GEN02\C_GEN02_0194059.dwg USER: rneiser
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GENERAL LAYOUT
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	05-24-2020	CITY COMMENTS	
2	02-01-2021	ADDED HOOK ROAD SWALE	
3	04-06-2021	SWALE AND ADA RAMP REVISIONS	

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_GEN02_0194059
date: 4/20/2020

SHEET C102
3 OF 54

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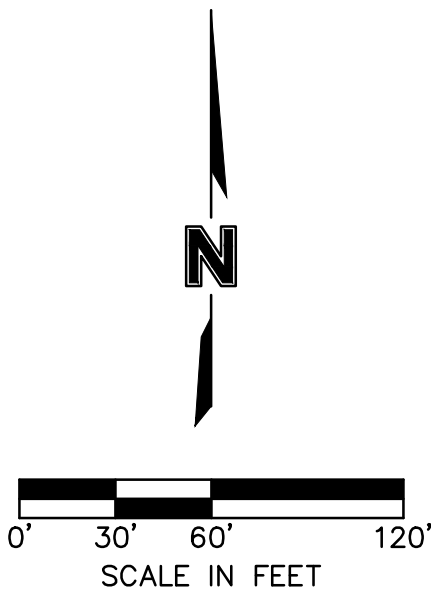
4/6/21
MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

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LOT FILL TABLE	
LOT #	FILL > 8'
50	
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The Retreat at Hook Farms Minimum Building Opening Elevations				
Lot	Rear Left MBOE	Rear Right MBOE	Front Left MBOE	Front Right MBOE
50	952.35	952.59	957.53	959.70
51	952.59	953.56	959.70	959.44
52	953.56	952.02	959.44	958.54
53	952.02	949.49	958.54	957.29
54	949.49	948.52	957.29	955.52
55	955.02	948.52	952.91	957.29
56	943.32	944.18	949.94	950.48
57	944.18	944.81	950.48	951.88
58	945.02	946.14	952.26	953.74
59	946.14	947.55	953.74	955.22
60	947.55	948.68	955.22	956.65
61	948.68	950.51	956.65	957.66
62	950.51	950.16	957.66	958.50
63	950.16	951.26	958.50	959.35
64	951.26	951.36	959.35	960.19
65	951.36	953.20	960.19	961.03
66	953.20	954.94	961.03	961.85
67	954.94	955.28	961.85	962.61
68	955.28	956.50	962.61	963.44
69	956.50	957.30	963.44	965.17
70	957.30	958.12	965.17	968.09
71	958.12	961.28	968.09	971.12
72	961.28	966.20	971.12	974.07
73	966.20	968.87	974.07	975.99
74	968.87	972.41	975.99	975.71
75	965.28	963.82	963.12	961.66
76	963.82	962.95	961.66	960.79
77	962.95	962.25	960.79	960.09
78	962.25	960.60	960.09	958.44
79	960.60	959.76	958.44	957.60
80	959.76	958.72	957.60	956.56
81	958.72	956.47	956.56	954.31
82	956.47	960.54	954.31	958.38
83	960.54	961.37	958.38	959.21
84	961.37	960.07	959.21	959.49
85	961.31	961.86	960.57	961.36
86	972.83	977.49	961.36	961.51
87	969.41	972.83	961.63	965.25
88	966.47	969.41	965.25	969.05
89	966.47	969.41	969.05	971.40
90	966.47	969.41	971.40	972.84
91	966.47	969.41	972.84	972.36
92	966.47	969.41	974.45	972.54
93	966.47	969.41	972.54	970.65
94	966.47	969.41	970.65	968.16
95	966.47	969.41	968.16	966.00
96	966.47	969.41	966.00	963.42
97	966.47	969.41	963.42	961.19
98	966.47	969.41	961.19	960.38
99	966.47	969.41	960.38	959.63

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



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	19470	8709
SITE	64236	41874
TOTAL	83706	50583

NOTES:

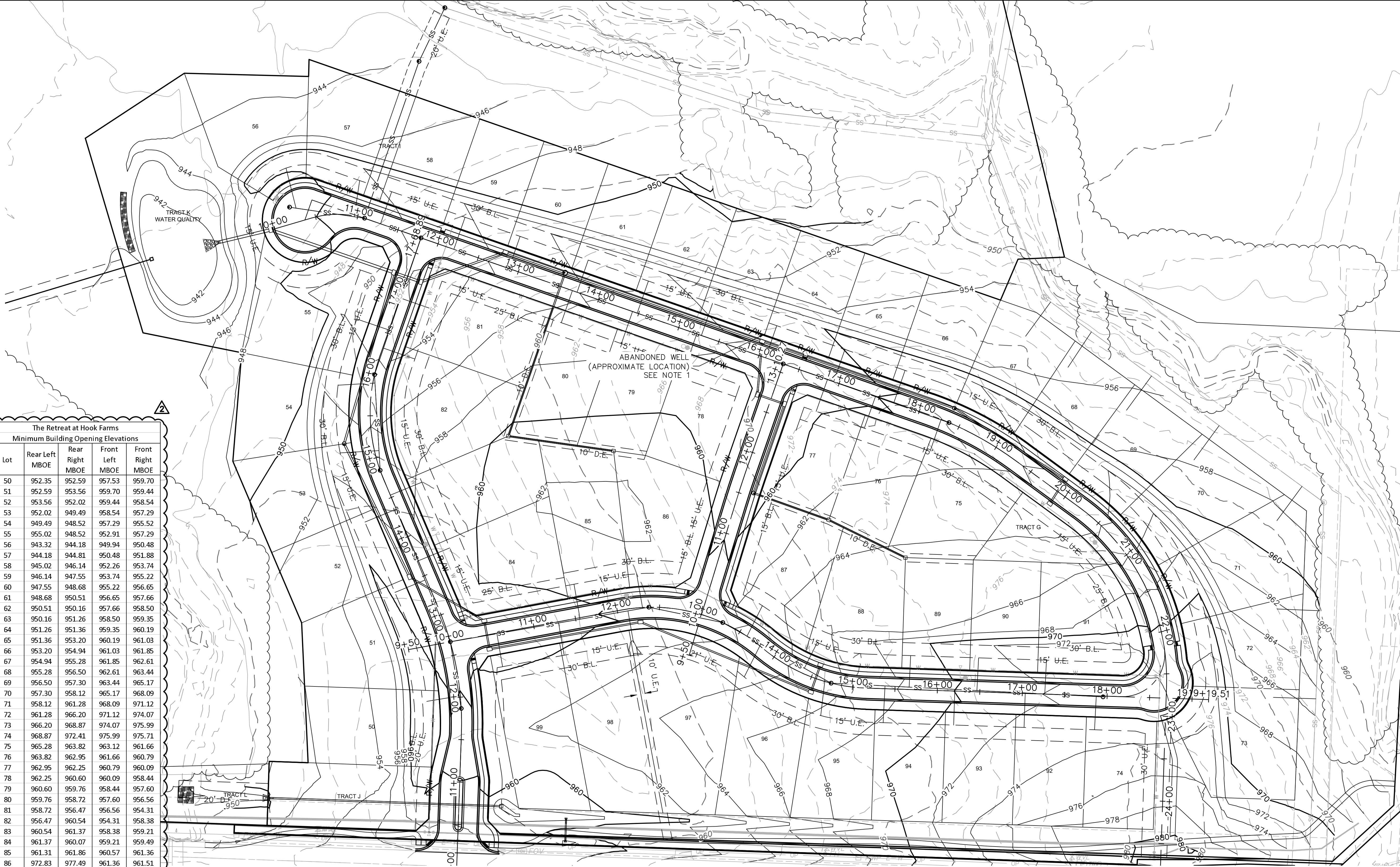
- ONE OIL OR GAS WELL IS LOCATED ON THE PROPERTY (DRY HOLE, ABANDONED AS OF 5/11/1928).
COORDINATES: 38.87019N, -94.41911W
INFORMATION VERIFIED VIA MISSOURI DNR:
<https://dnr.mo.gov/geology/geoserv/oilandgas.htm>
(UPDATED AUGUST 2018)

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 WATER QUALITY BASIN:

- REMOVE TOPSOIL AND ORGANIC MATERIAL 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.



GRADING PLAN

STREET AND STORM SEWER PLANS

THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

REV. NO.	DATE	REVISIONS DESCRIPTION
1	06-24-2020	CITY COMMENTS
2	02-01-2021	ADDED HOOK ROAD SWALE
3	04-06-2021	SWALE AND ADA RAMP REVISIONS

BY

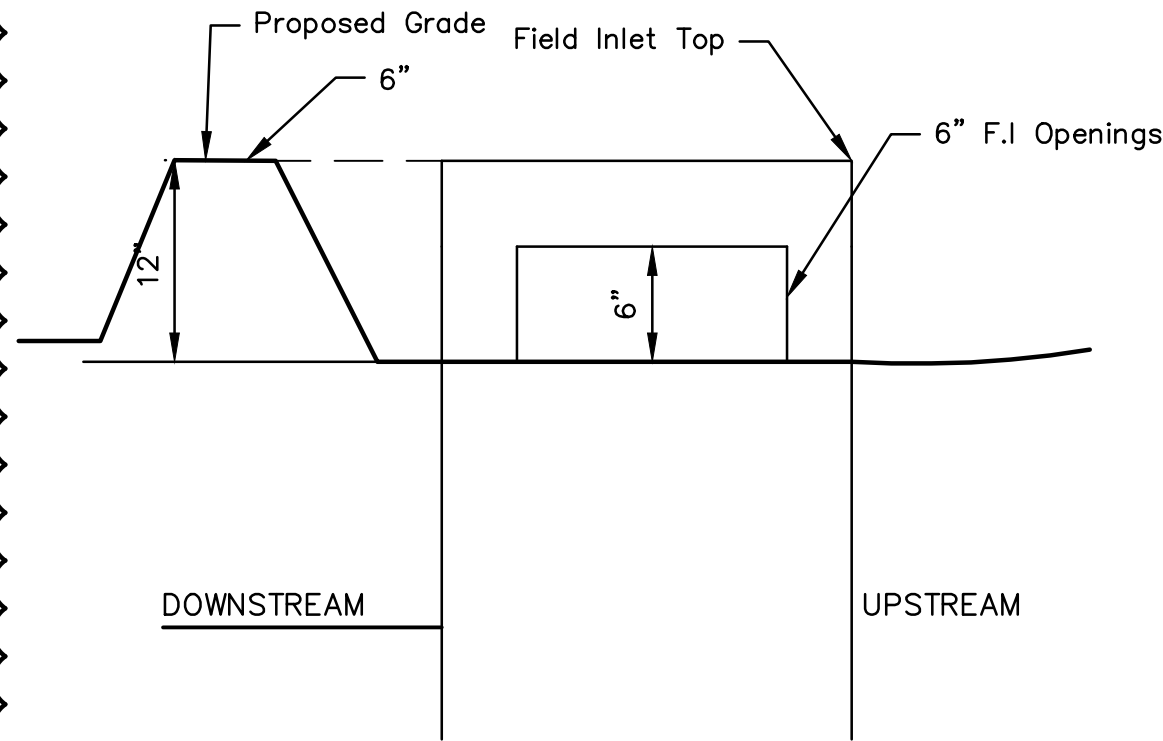


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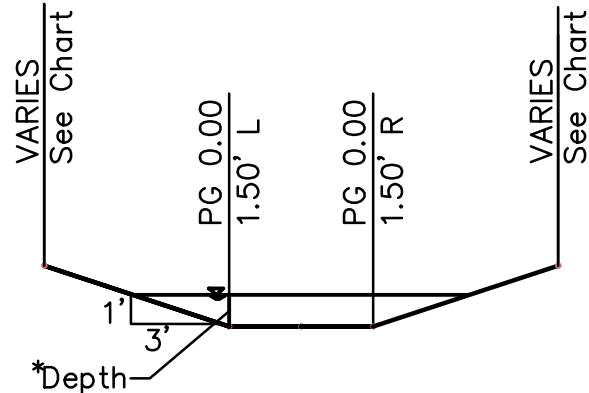
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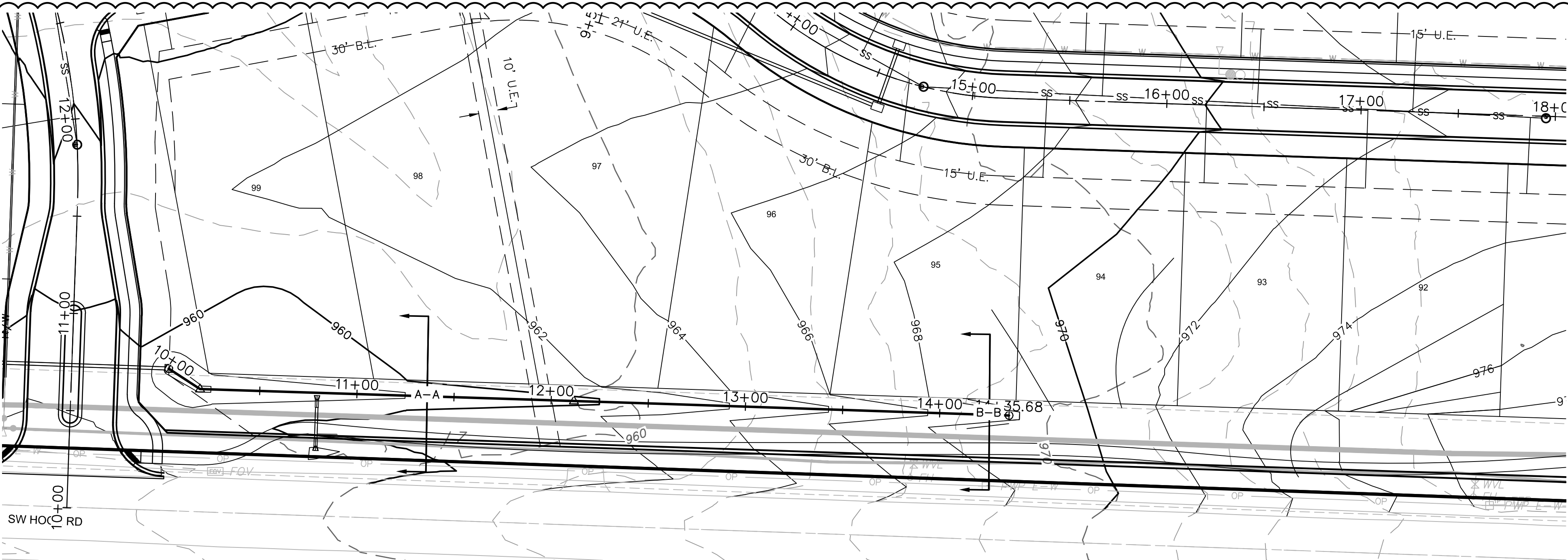


F.I. SUMP DETAIL
NOT TO SCALE

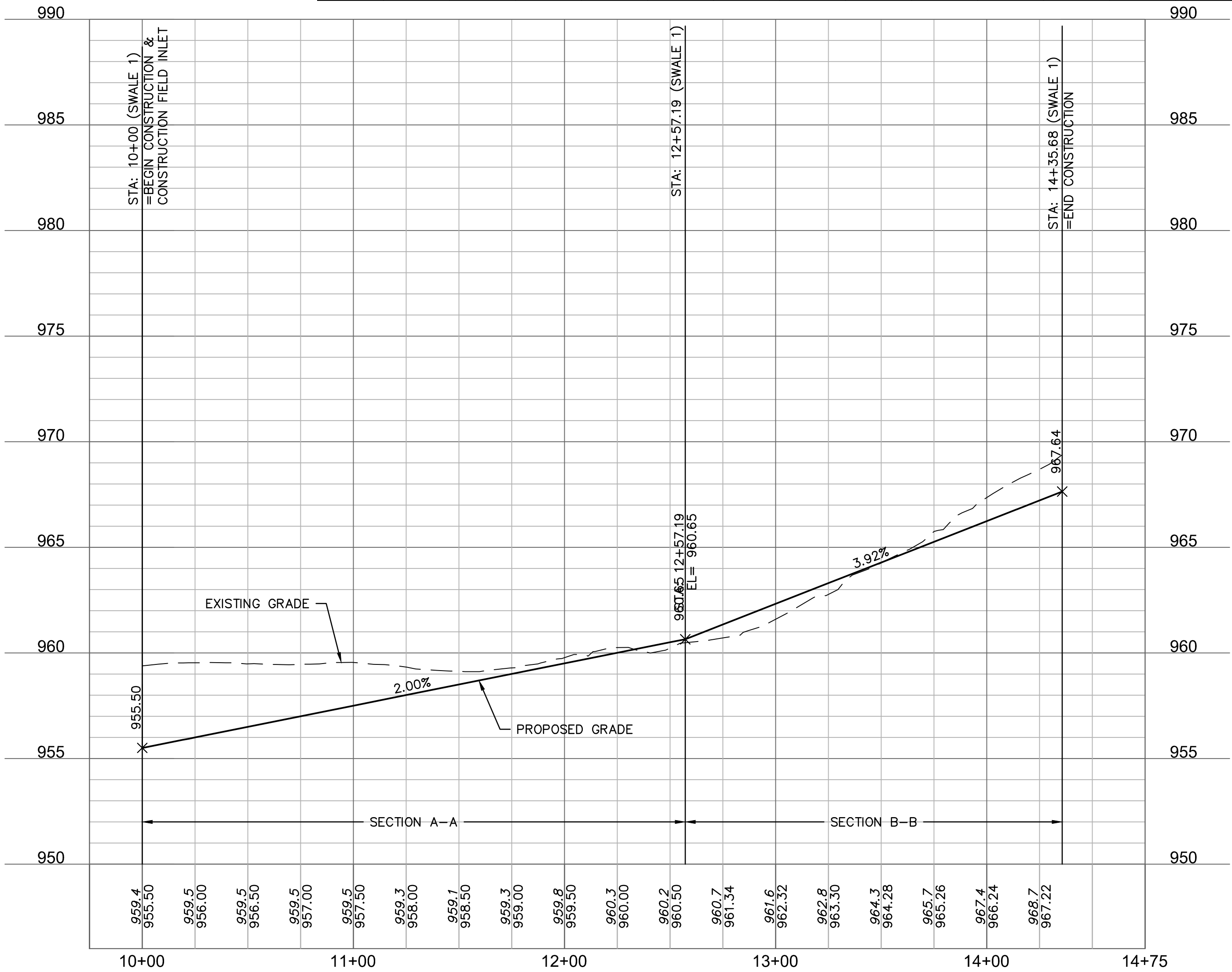
NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE
FIELD INLETS ARE LOCATED WITHIN SWALES.

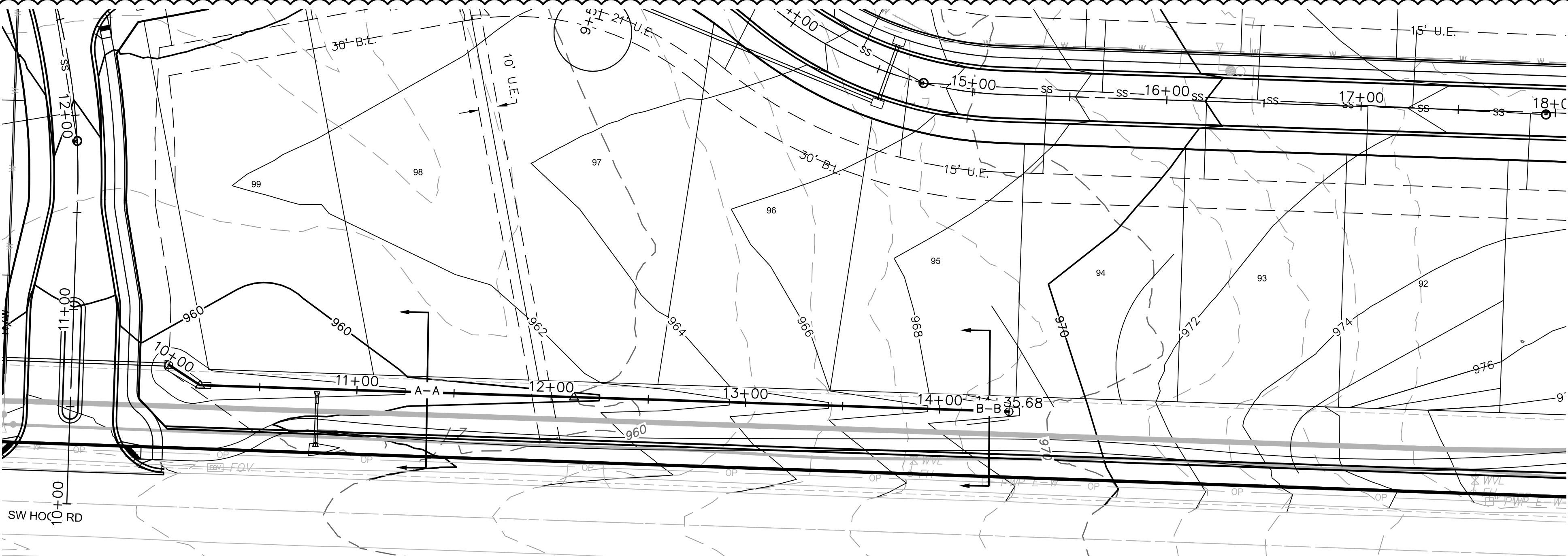
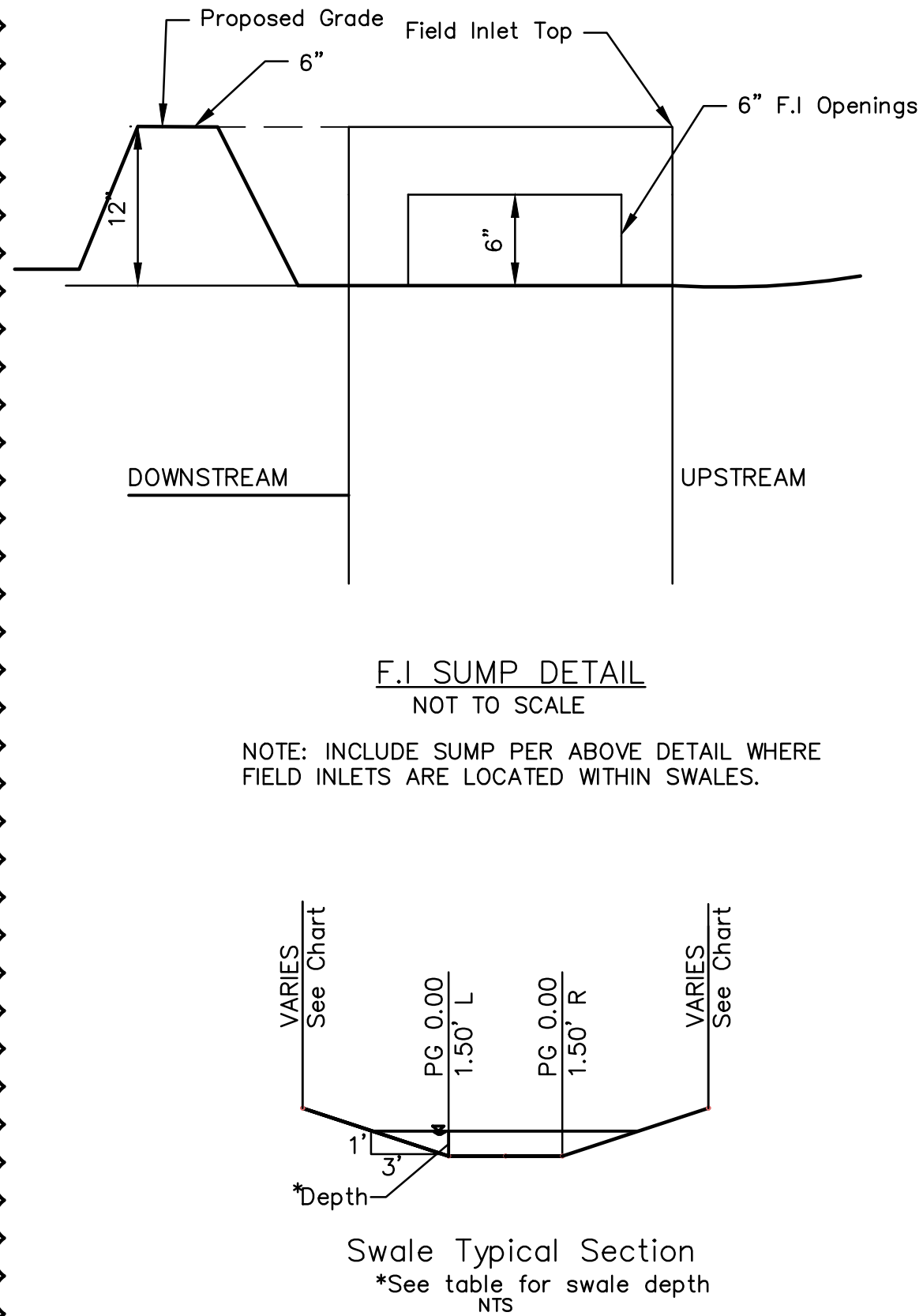


Swale Typical Section
*See table for swale depth
NTS

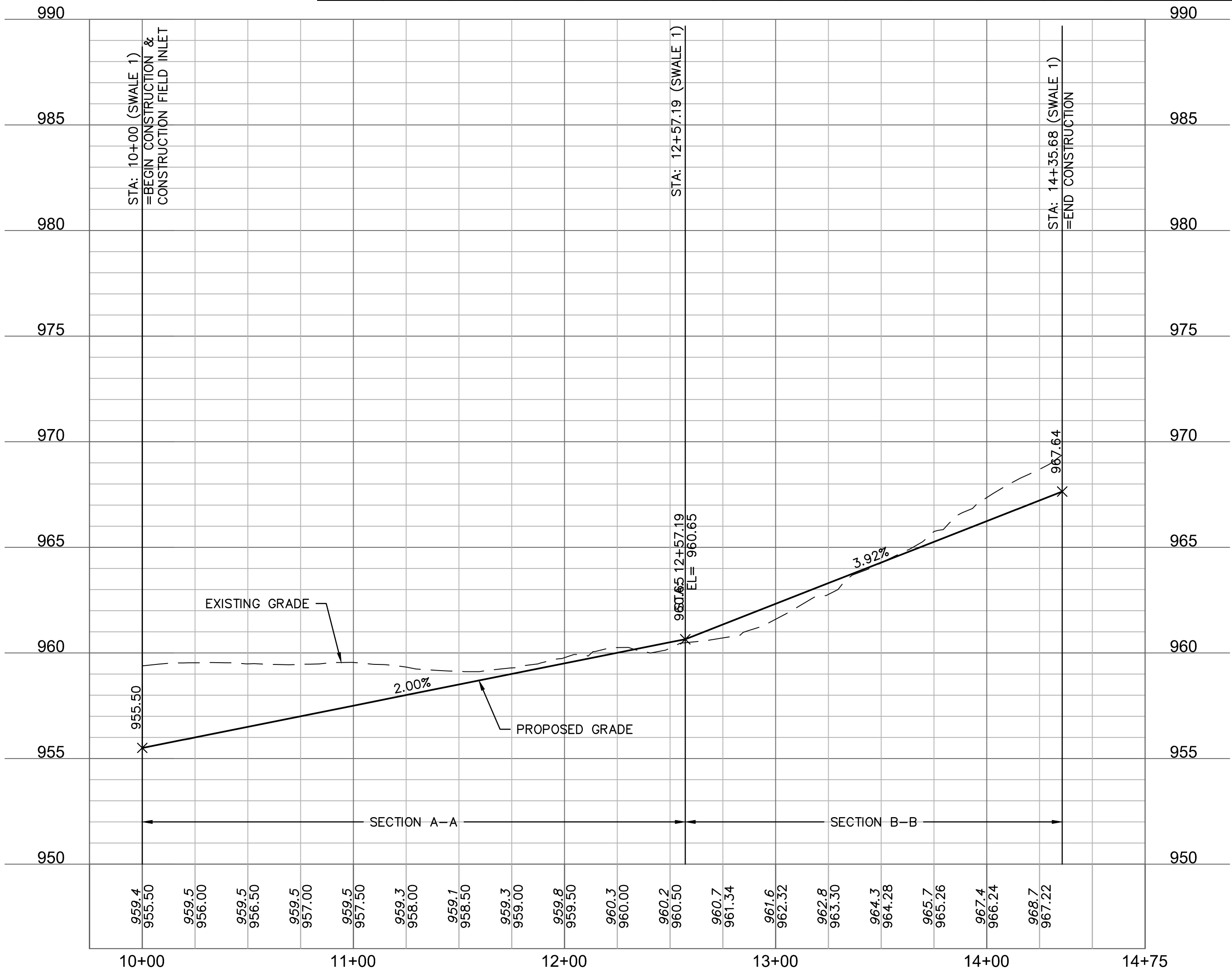


Swale Design Table (100 Year Return Frequency)														
Section Data								Flow Data						
SECTION	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft²)	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft²)
A-A	0.03	2.00%	1.50	3:1	3:1	3.00	8.36	0.51	2.34	3.58	6.32	6.16	0.71	0.46
B-B	0.03	3.92%	1.50	3:1	3:1	3.00	4.28	0.30	1.18	3.63	4.95	4.86	0.50	0.58





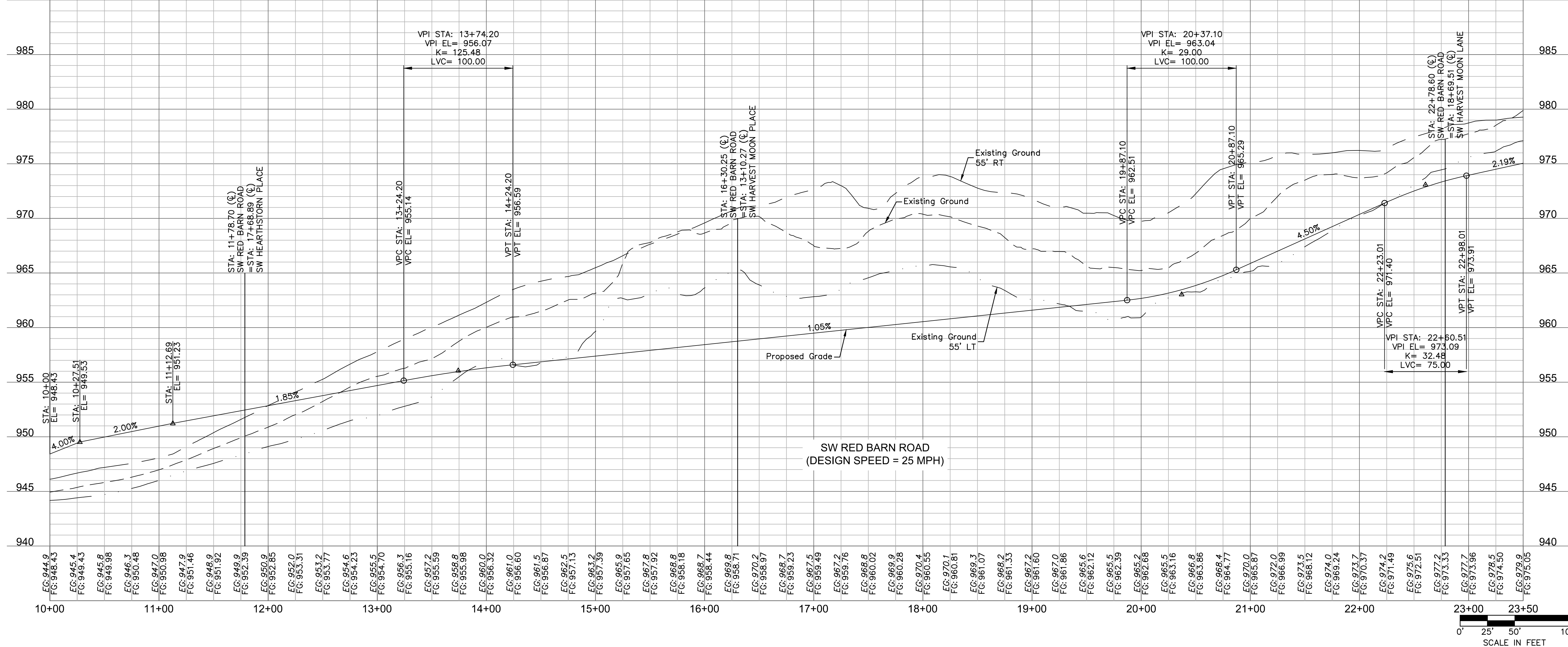
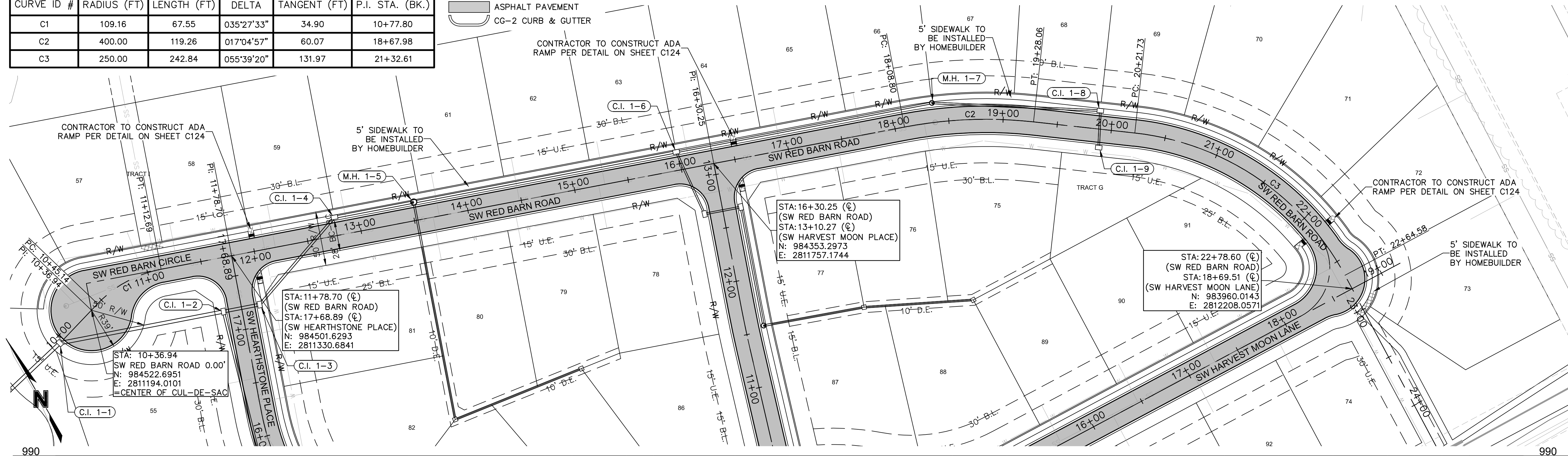
Swale Design Table (100 Year Return Frequency)														
Section Data								Flow Data						
SECTION	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft ²)	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft ³)
A-A	0.03	2.00%	1.50	3:1	3:1	3.00	8.36	0.51	2.34	3.58	6.32	6.16	0.71	0.46
B-B	0.03	3.92%	1.50	3:1	3:1	3.00	4.28	0.30	1.18	3.63	4.95	4.86	0.50	0.58



CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C1	109.16	67.55	035°27'33"	34.90	10+77.80
C2	400.00	119.26	017°04'57"	60.07	18+67.98
C3	250.00	242.84	055°39'20"	131.97	21+32.61

LEGEND

 CONCRETE SIDEWALK
 ASPHALT PAVEMENT
 CG-2 CURB & GUTTER



USER: nhbeiser
 C_PWBTR_0194059
 C_PENDY_0194059
 C_PITBLK_0194059_34x22
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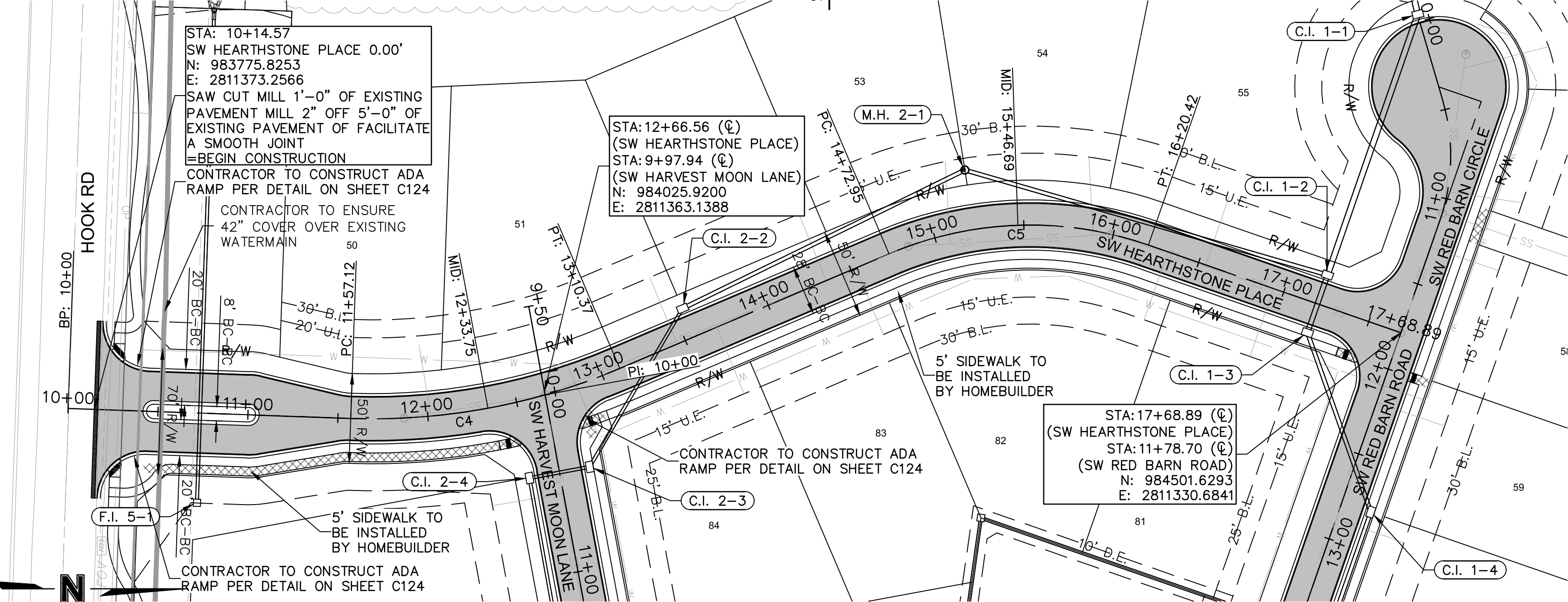
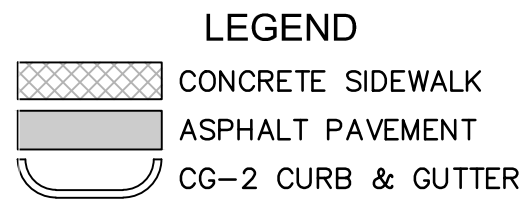
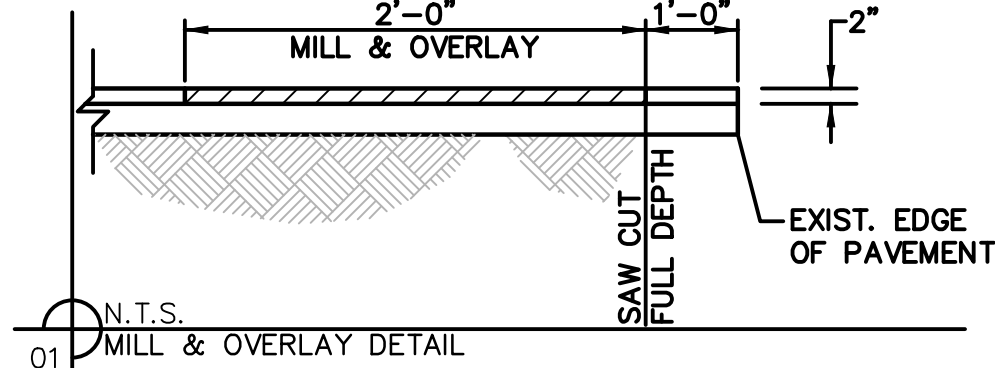
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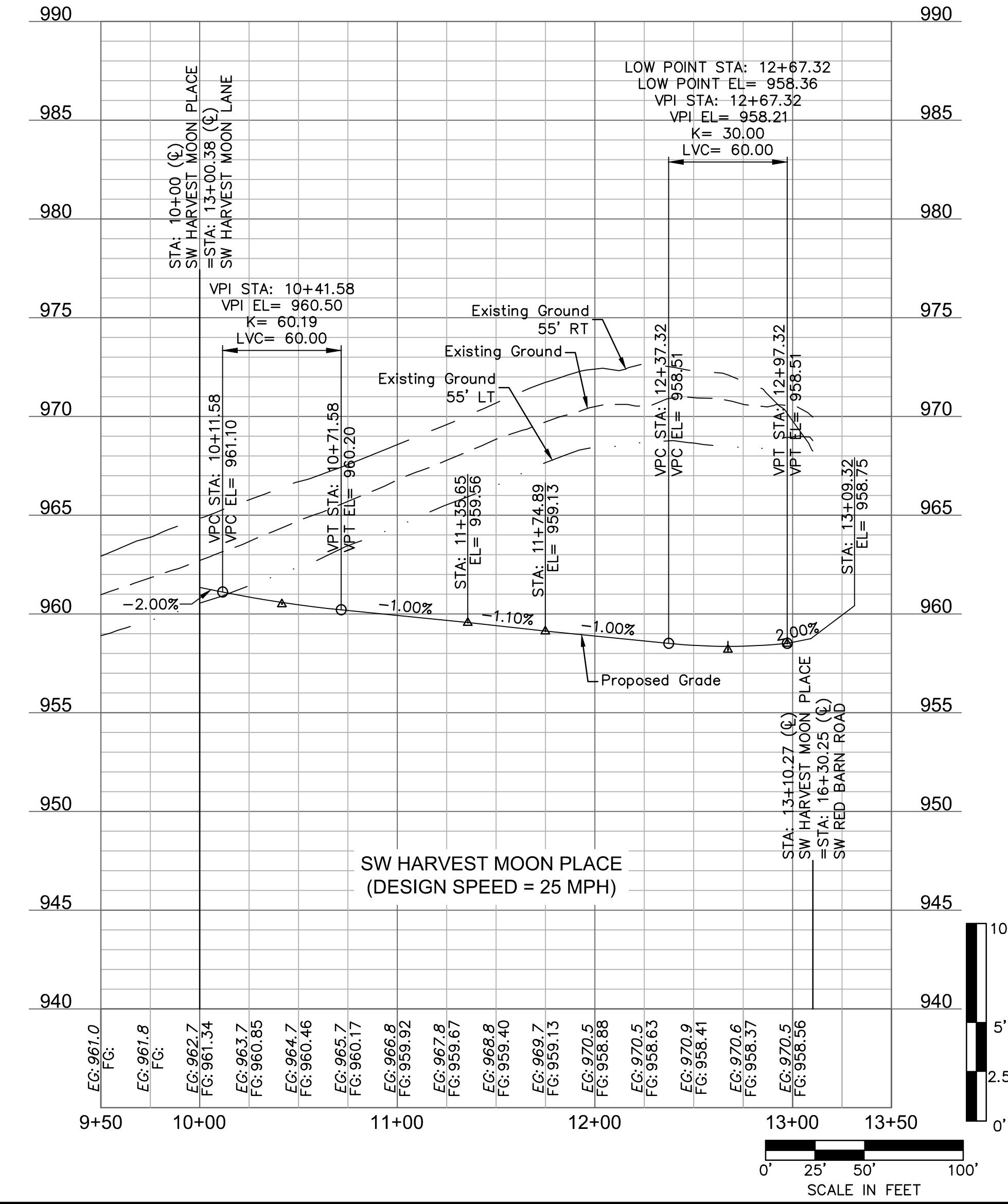
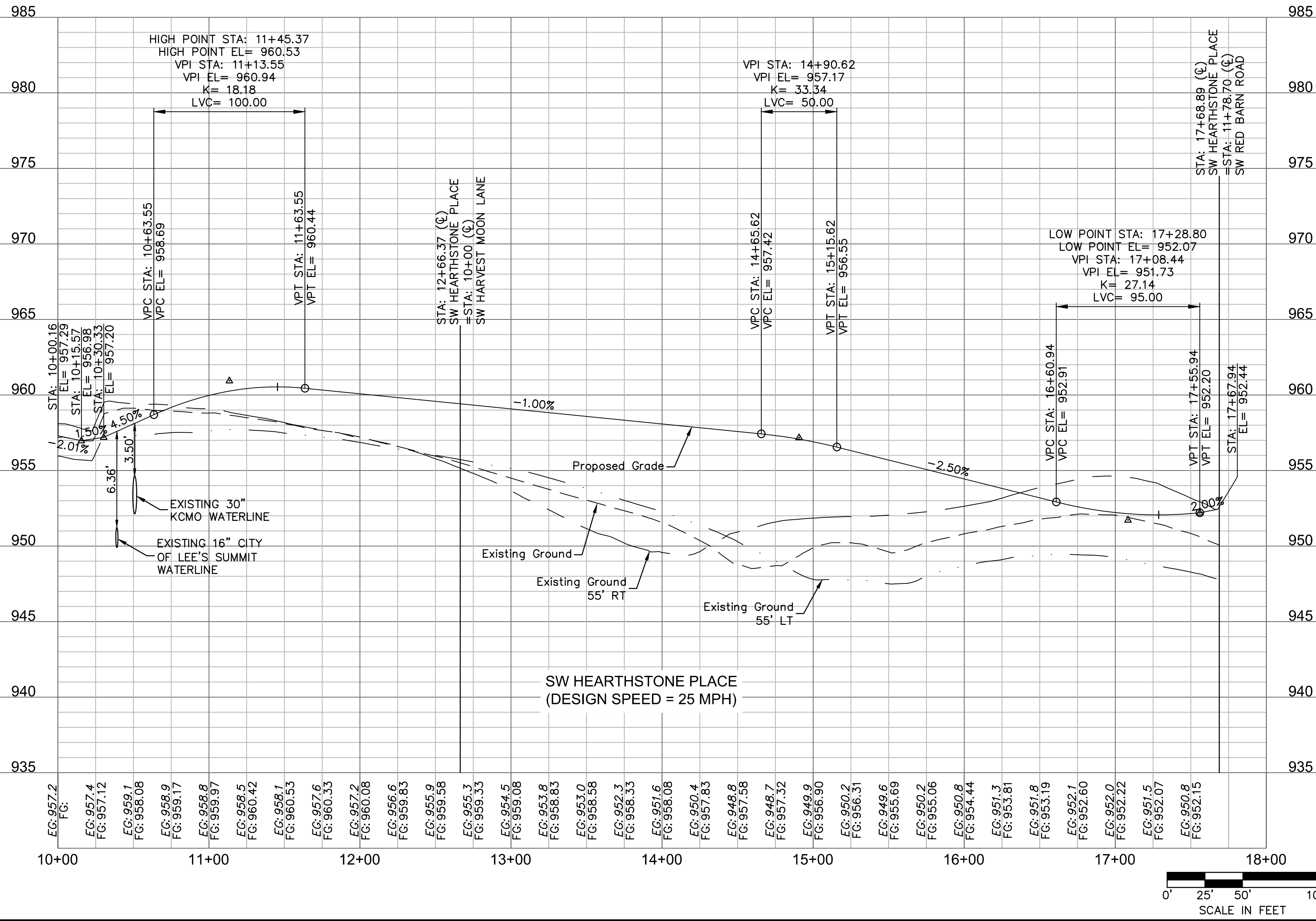
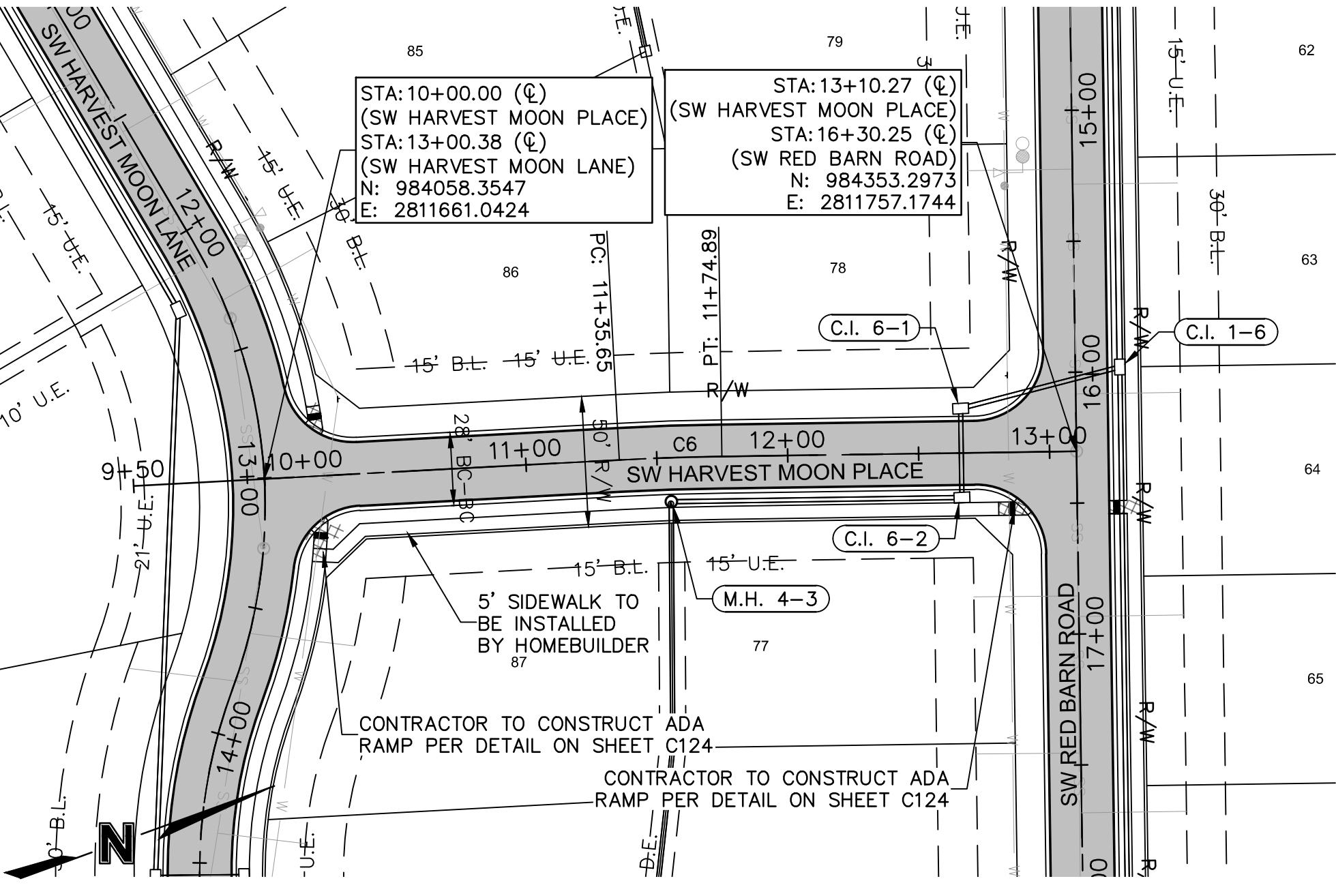
SW RED BARN ROAD PLAN & PROFILE STREET AND STORM SEWER PLANS	2020
THE RETREAT AT HOOK FARMS CONSTRUCTION DOCUMENTS	LEE'S SUMMIT, MO

SHEET C104
5 OF 54

CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C4	349.99	153.25	025°05'16"	77.87	12+32.50
C5	200.00	147.47	042°14'45"	77.27	15+43.15



CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C6	1000.00	39.23	002°14'52"	19.62	11+55.27



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STATE OF MISSOURI
4/6/21
MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

BY

REVISIONS

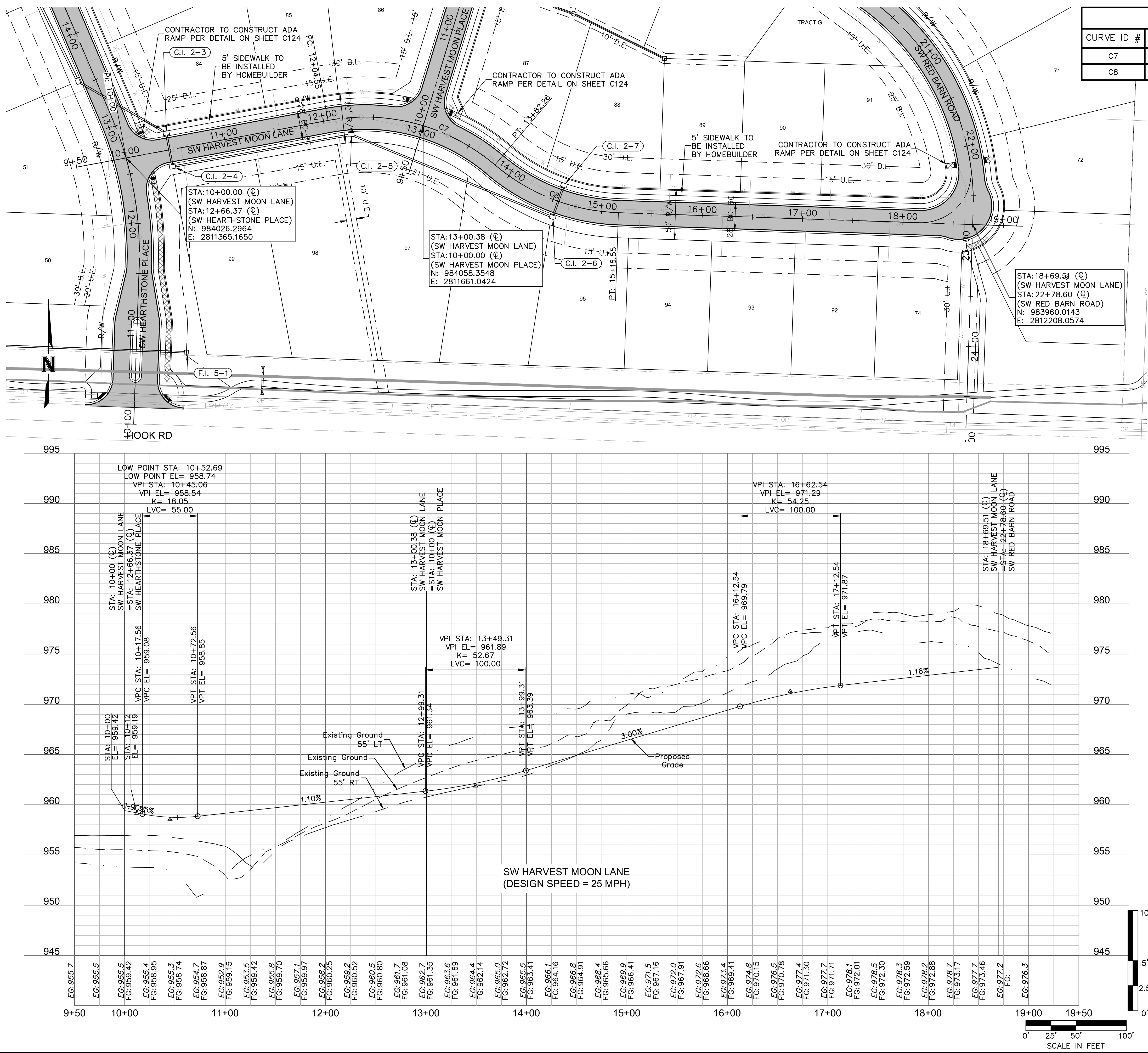
2020

SW HEARTHSTONE PLACE, SW HARVEST MOON LANE PLAN & PROFILE
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_RRP02_0194059
date: 4/20/2020

SHEET C105

6 OF 54



CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C7	200.00	177.71	050°54'36"	95.20	12+87.06
C8	200.00	134.29	038°28'13"	69.78	14+46.76

LEGEND

	CONCRETE SIDEWALK
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER



SW HARVEST MOON LANE PLAN & PROFILE STREET AND STORM SEWER PLANS

drawn by: _____ EM
checked by: _____ EM
designed by: _____ RB
QA/QC by: _____ NH
project no.: _____ 019-4059
drawing no.: _____ C_RRP02_0194059
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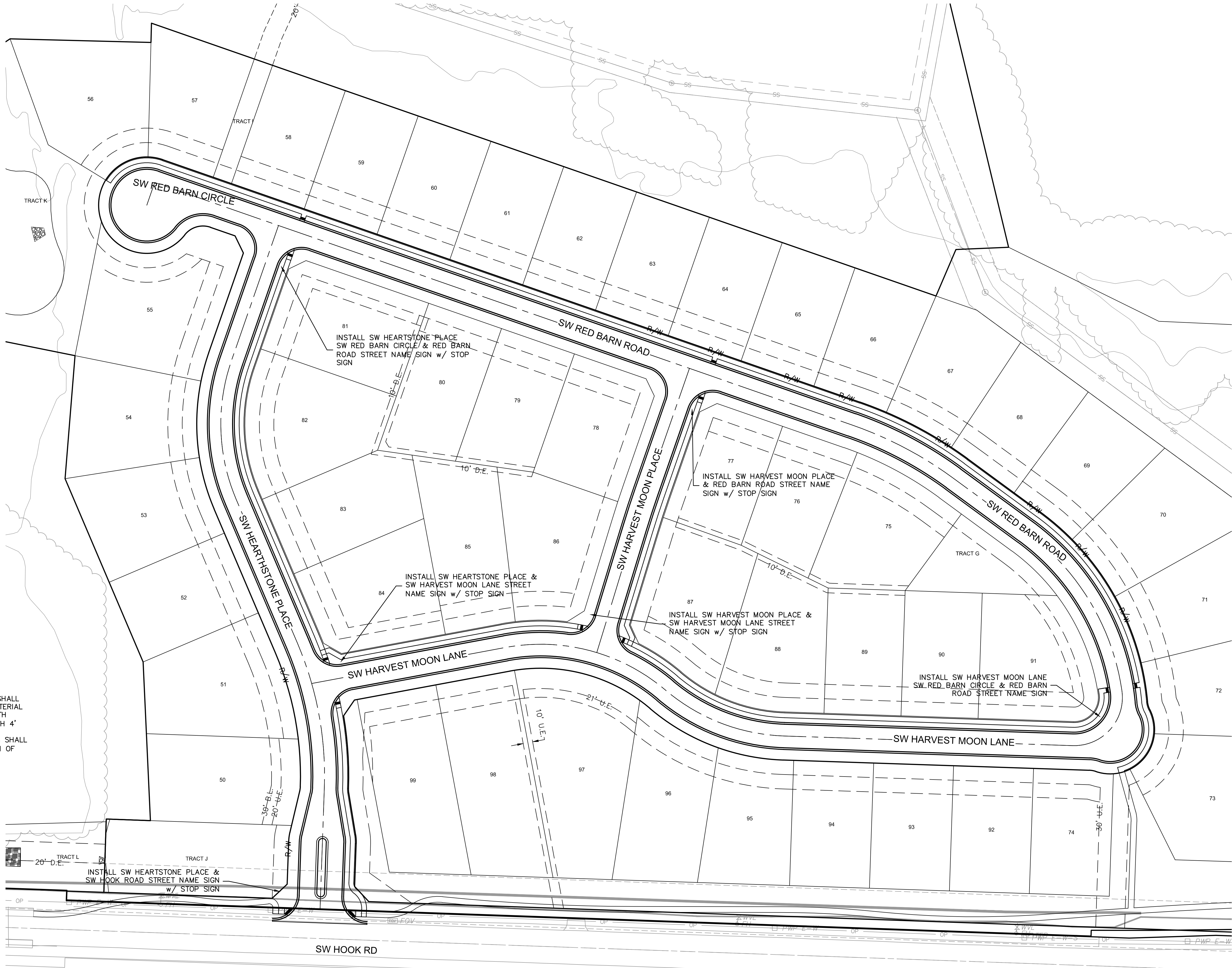
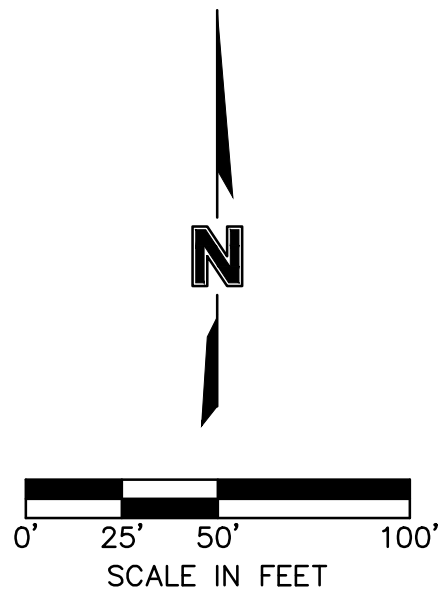
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7 OF 54

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NOTE:
THE CROSSWALK AND STOP LINES SHALL
BE PERFORMED THERMOPLASTIC MATERIAL
AND LOCATED IN CONFORMANCE WITH
STANDARD DETAILS AND MUTCD WITH 4'
OF SEPERATION AND CONSISTENT
PARALLEL WIDTH. CROSSWALK LINES SHALL
BE 10' APART MATCHING THE WIDTH OF
THE SHARED-USE PATH.



TRAFFIC CONTROL PLAN
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

REVISIONS

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2	02-01-2021	ADDED HOOK ROAD SWALE	
3	04-06-2021	SWALE AND ADA RAMP REVISIONS	

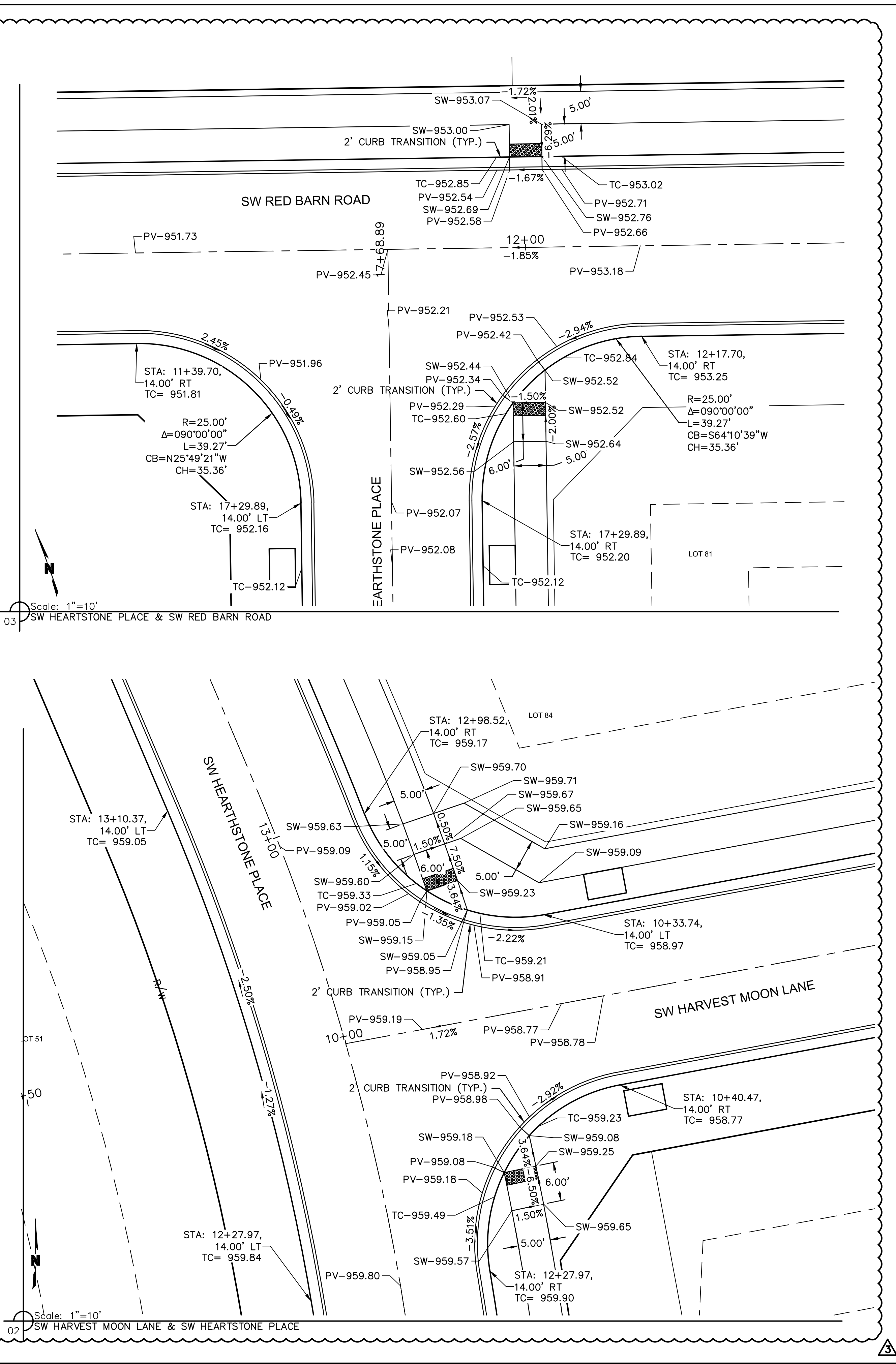
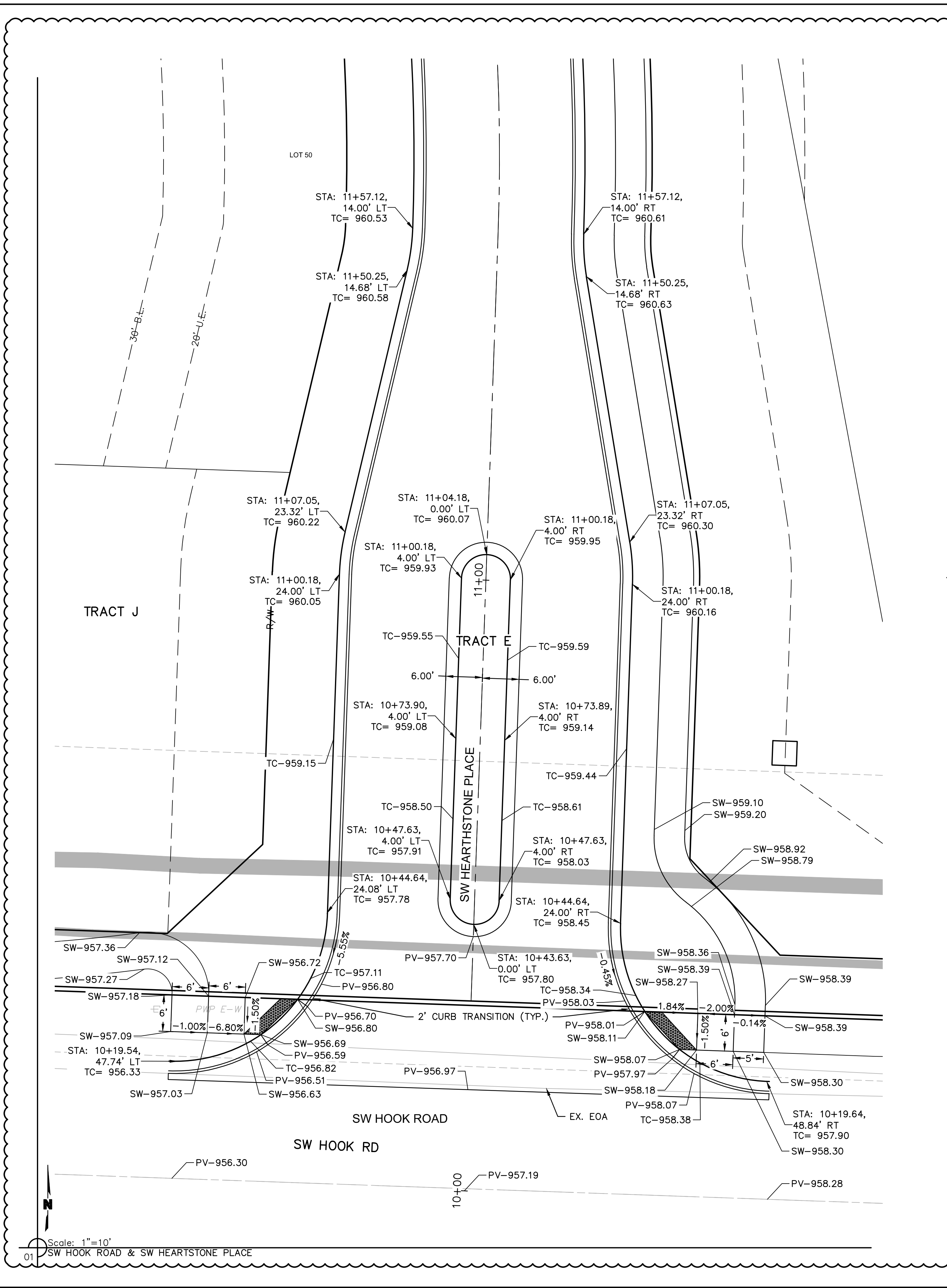


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drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_TRF01_0194059
date: 4/20/2020

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USER: nheiser



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STATE OF MISSOURI
4/6/21
MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

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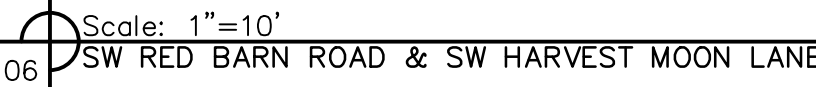
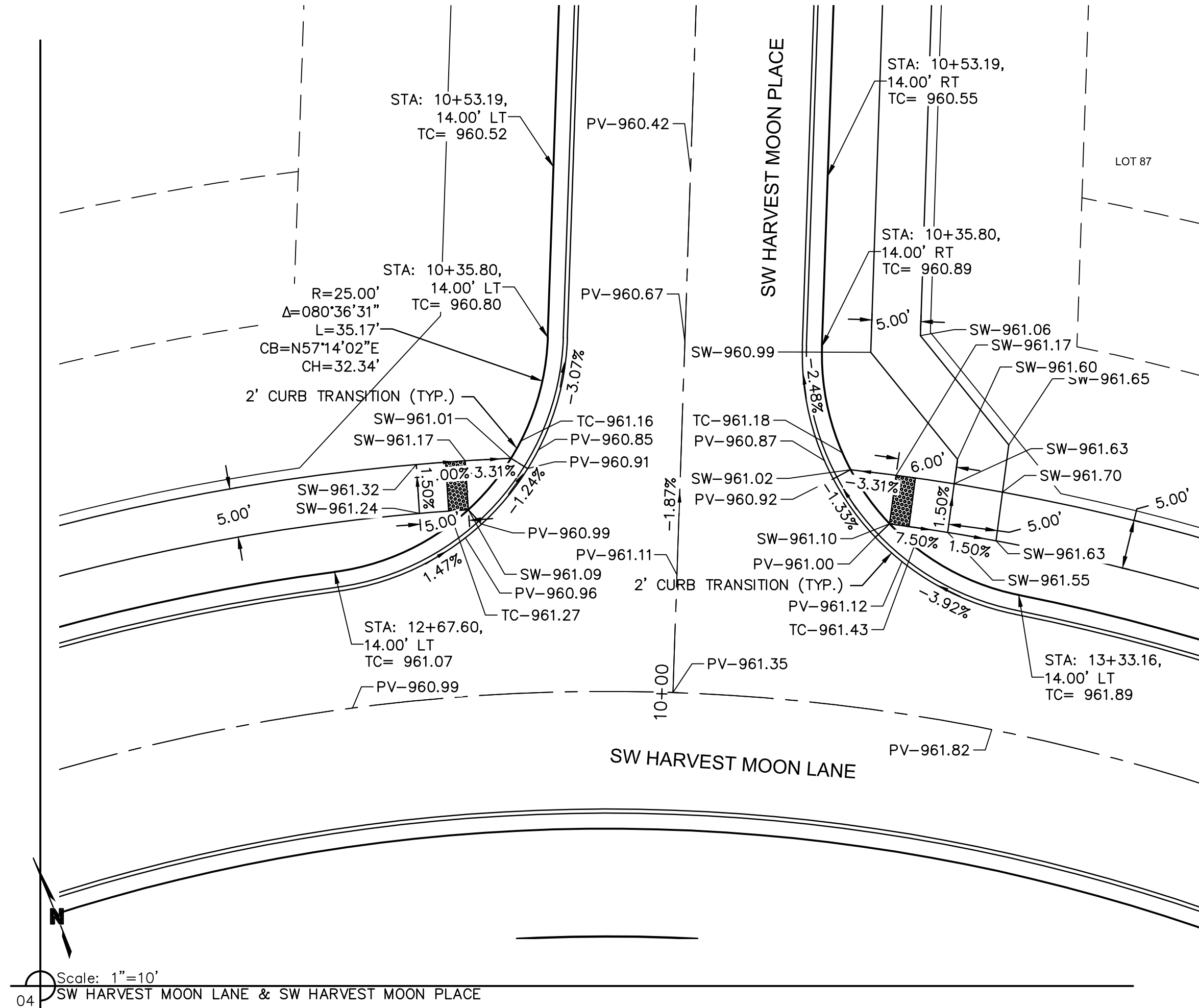
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STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

2020
LEE'S SUMMIT, MO

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_SPT01_0194059
date: 4/20/2020

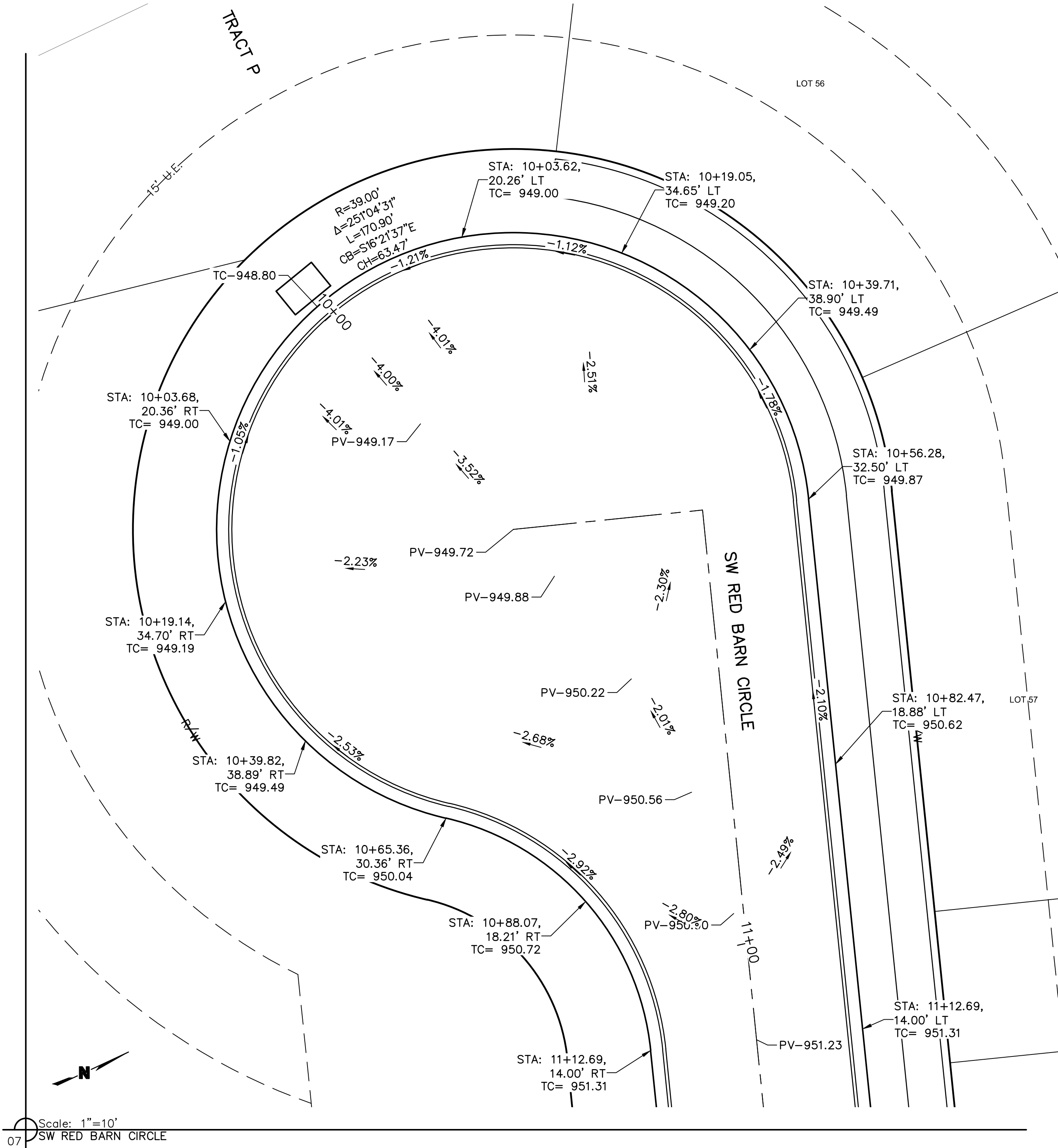
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9 OF 54

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USER: nheiser



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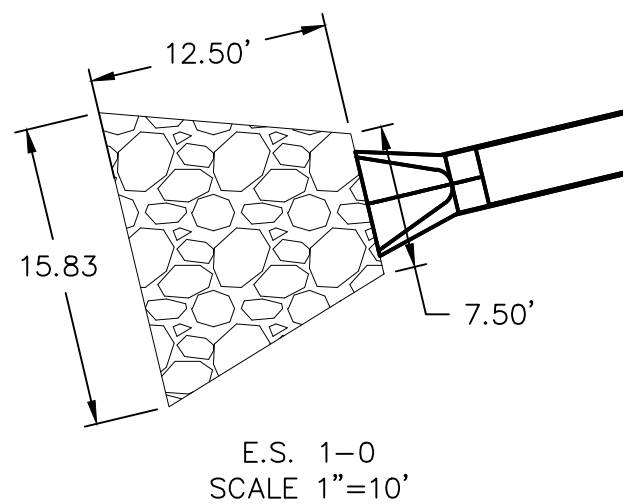
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 WALTER
 NUMBER
 PE-2012028687
Megan Walter

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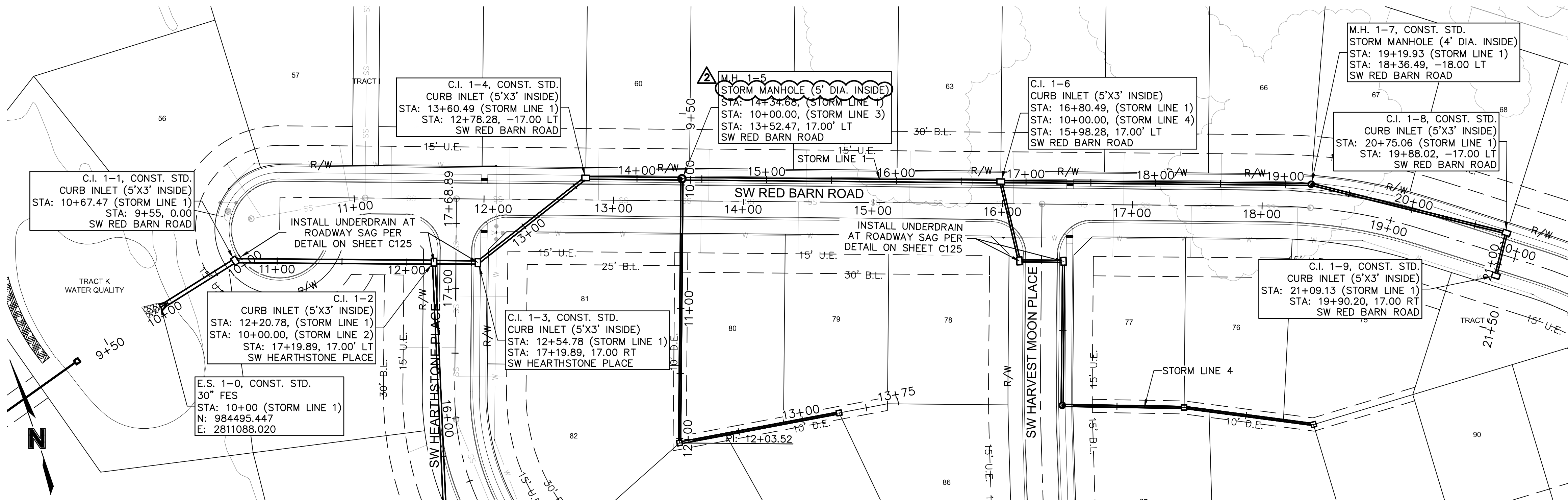
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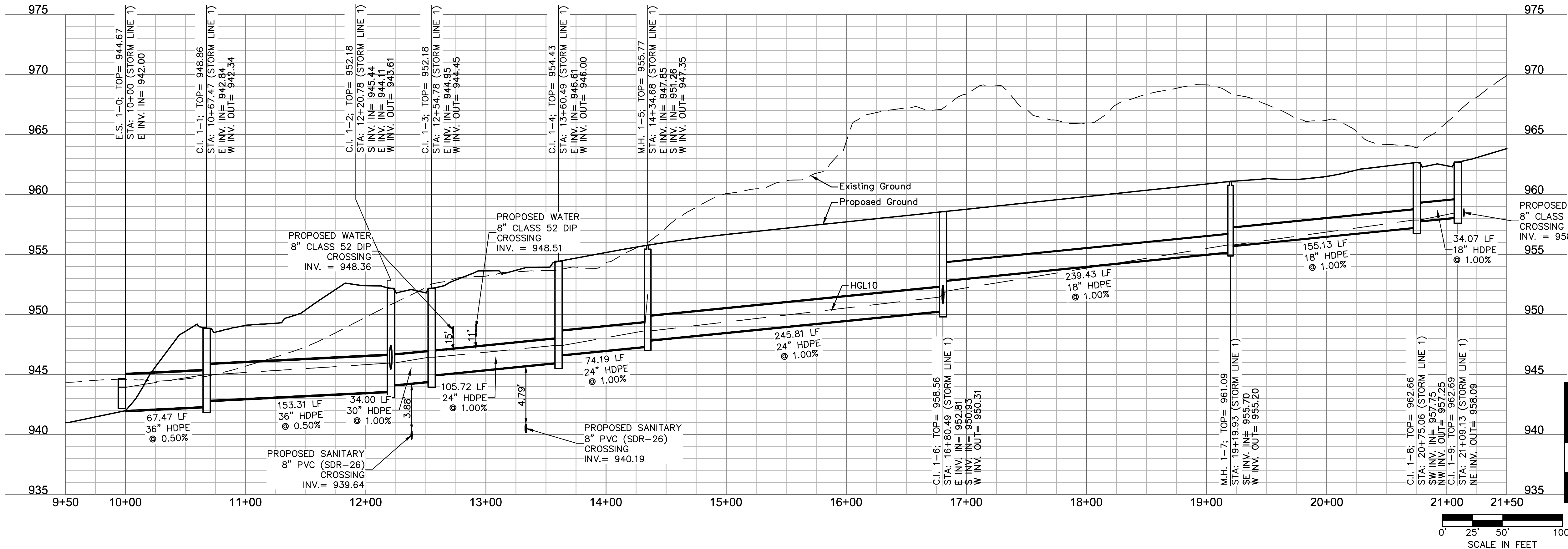
Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)
E.S. 1-0	37.93	2.5	3	10	12.5	2.00
E.S. 5-0	9.09	1.5	2	6	6	1.65
E.S. 7-0	0.61	0.5	1	5	2	1.46

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



- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

STORM LINE 1 (9+50 - 21+50)



STORM PLAN & PROFILES
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_STM02_0194059
date: 4/20/2020

LEE'S SUMMIT, MO
2020

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	05-24-2020	CITY COMMENTS	
2	02-01-2021	ADDED HOOK ROAD SWALE	
3	04-06-2021	SWALE AND ADA RAMP REVISIONS	

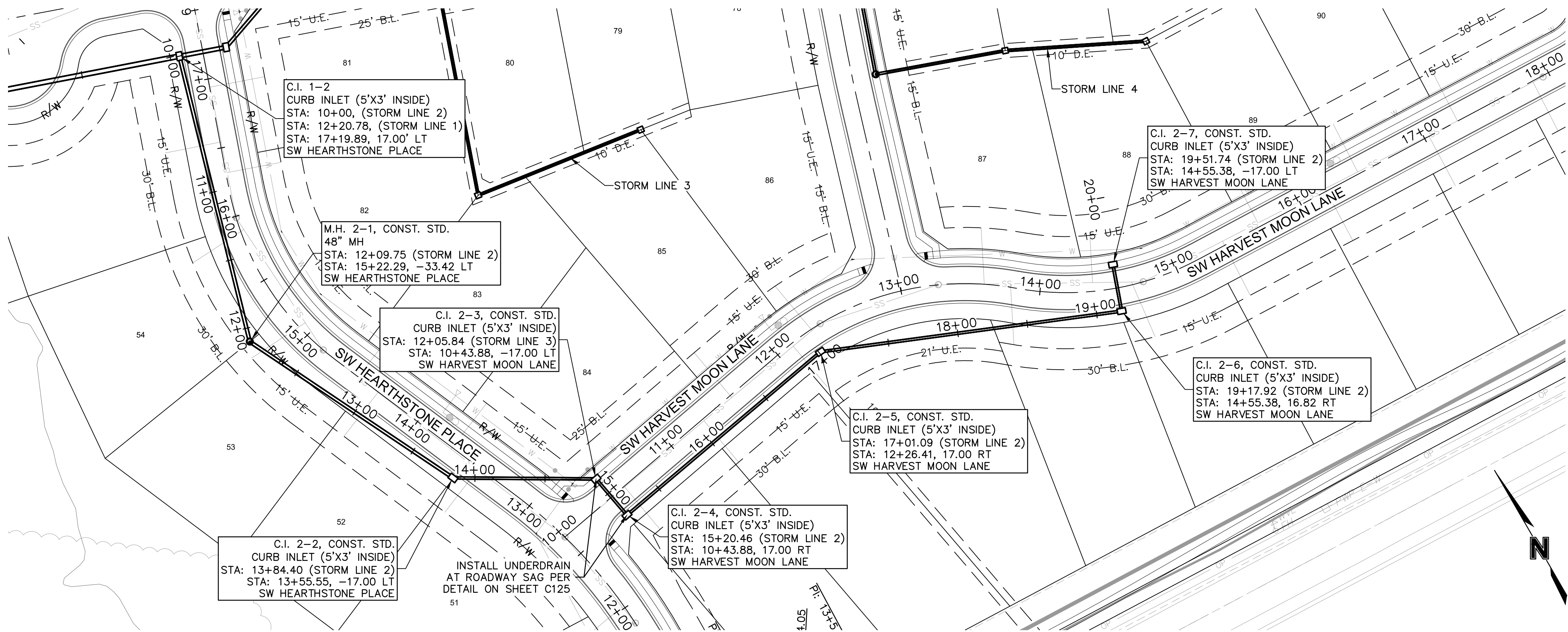
REVISIONS



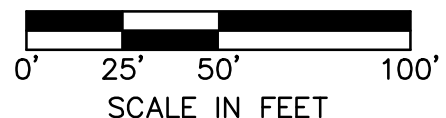
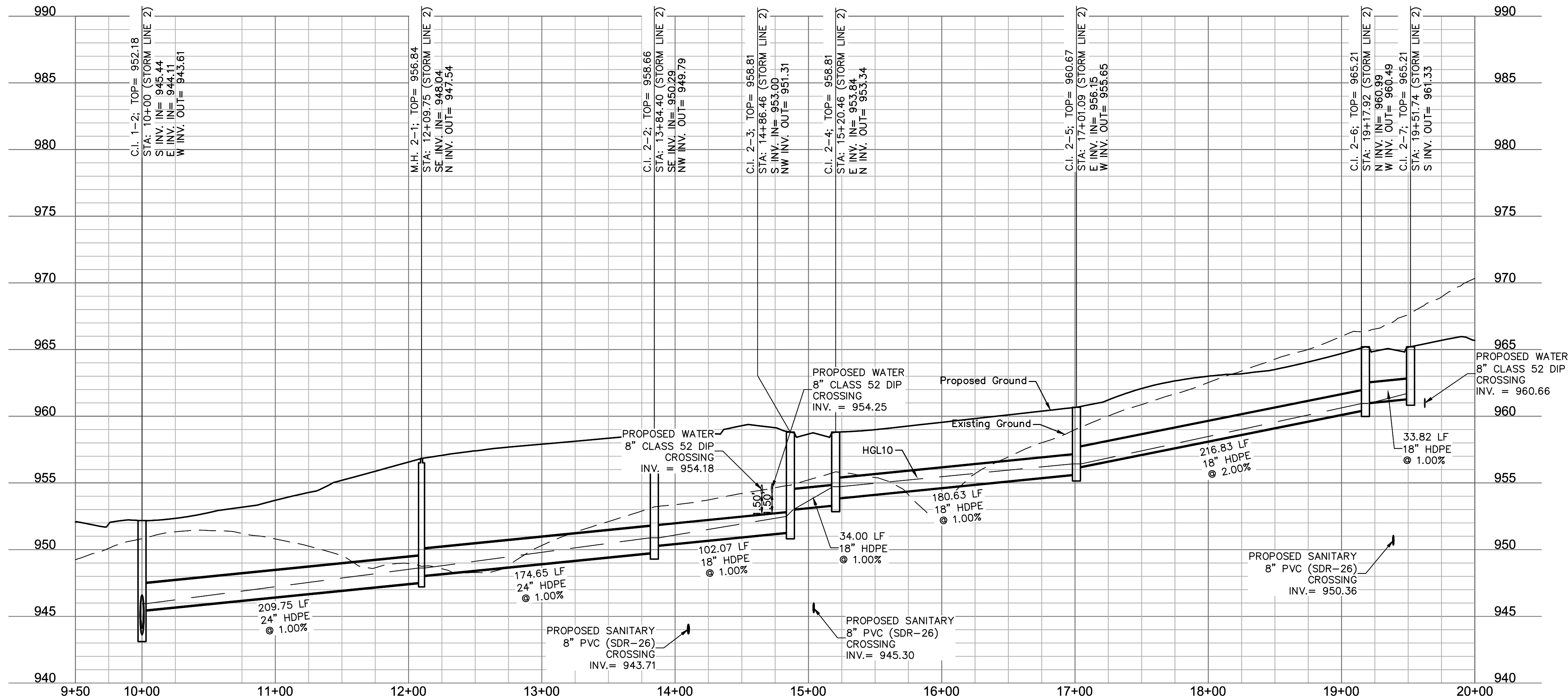
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FAX 816.361.1888
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NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



STORM LINE 2 (9+50 - 20+00)



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STATE OF MISSOURI
4/6/21
MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

BY

REV. NO. DATE REVISIONS DESCRIPTION

1 05-24-2020 CITY COMMENTS

2 02-01-2021 ADDED HOOK ROAD SWALE

3 04-06-2021 SWALE AND ADA RAMP REVISIONS

STORM PLAN & PROFILES
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

2020

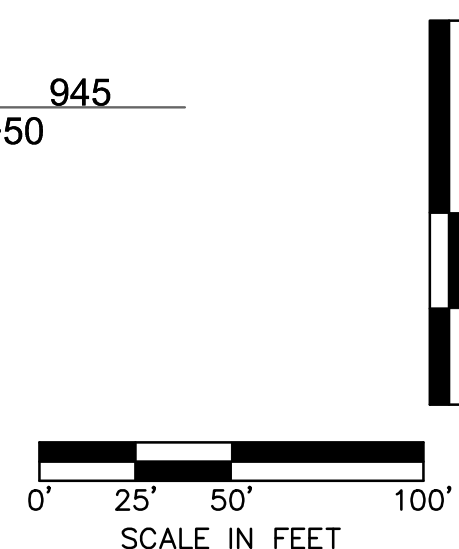
LEE'S SUMMIT, MO

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_STM02_0194059
date: 4/20/2020

SHEET C113
14 OF 54

WG: F:\2019\4001
DATE: Apr 06, 2021

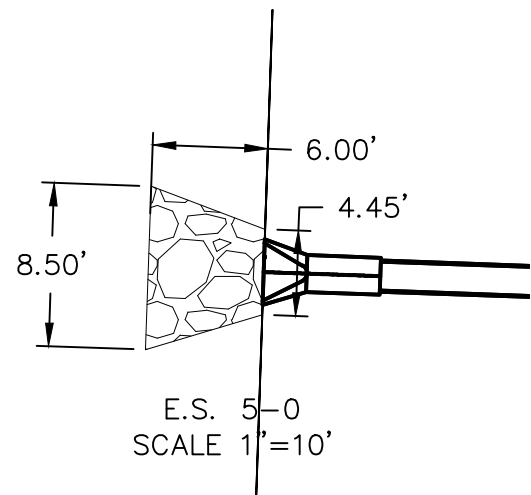
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



SHEET C114
15 OF 54

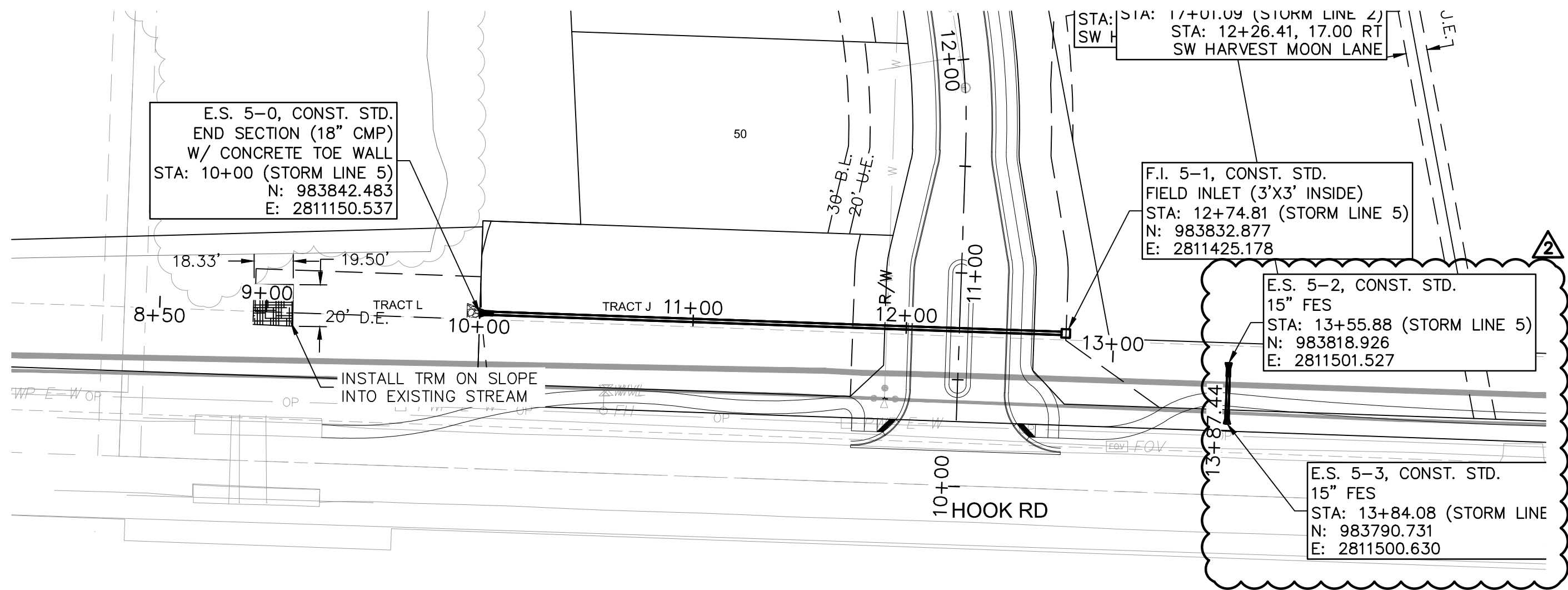
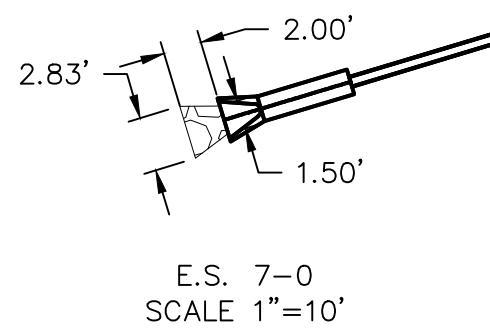
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USER: rheiser

- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

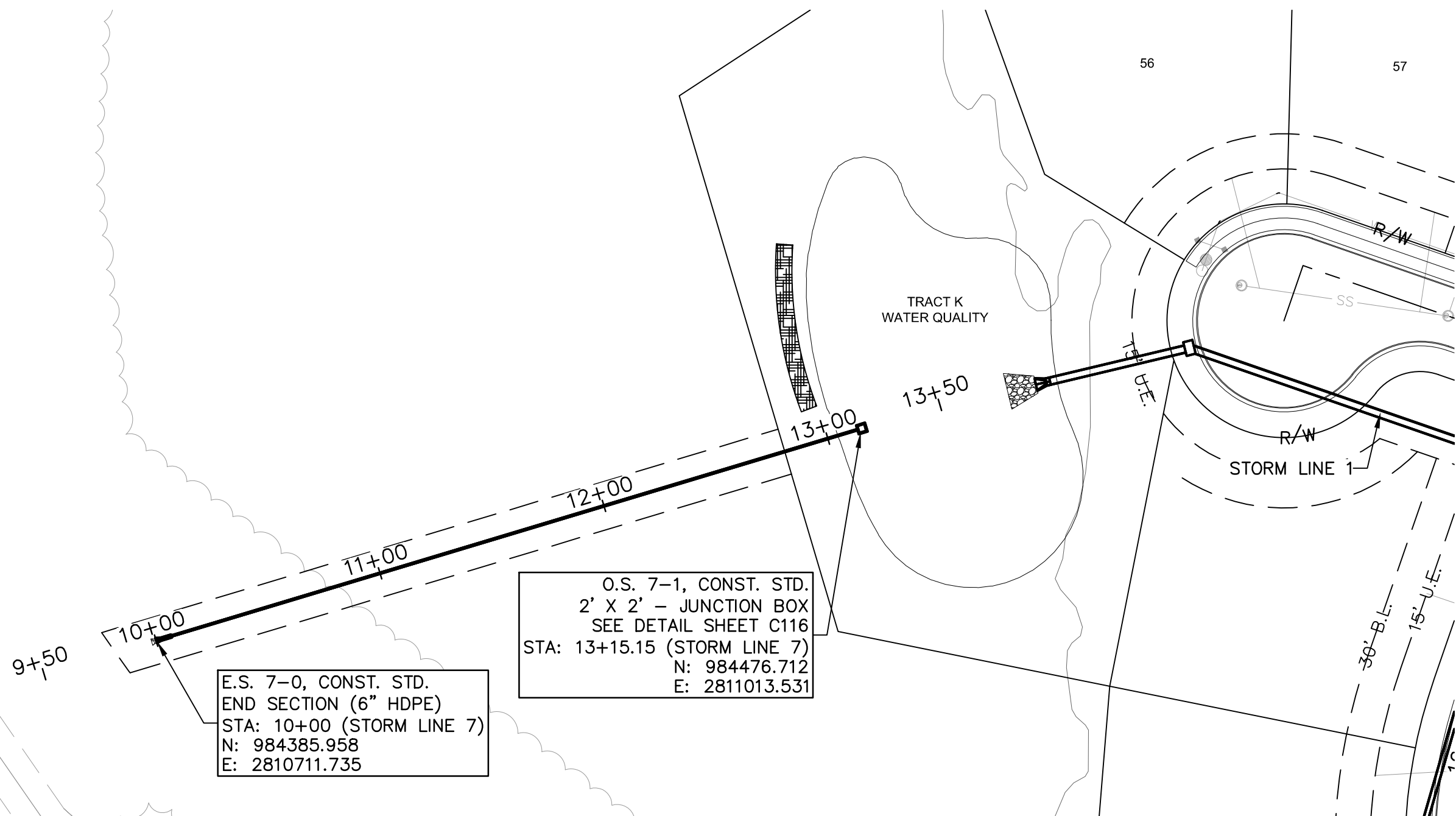
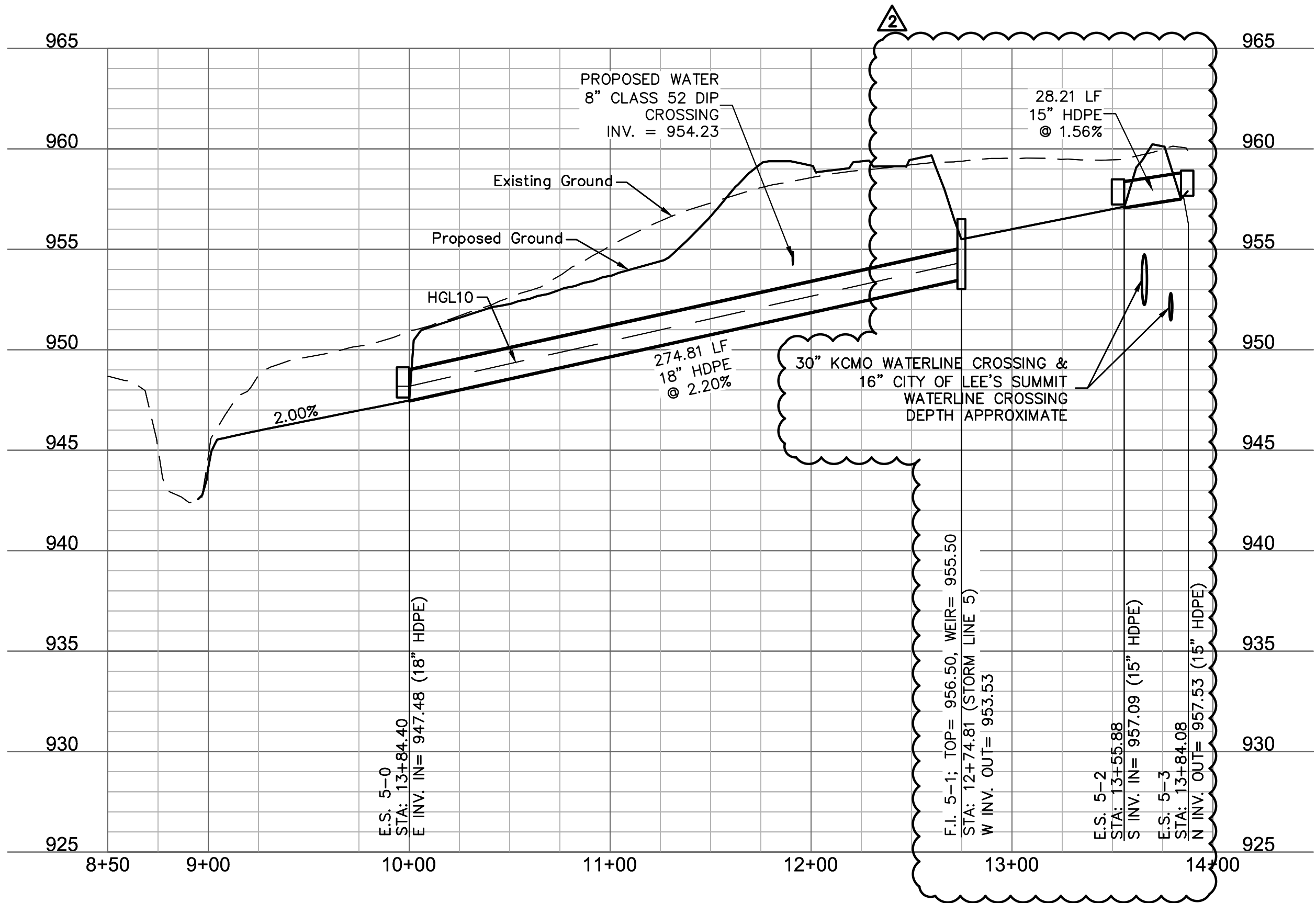


Riprap Calculations						
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft) (SV)
E.S. 1-0	37.93	2.5	3	10	12.5	2.00
E.S. 5-0	9.09	1.5	2	6	6	1.65
E.S. 7-0	0.61	0.5	1	5	2	1.46

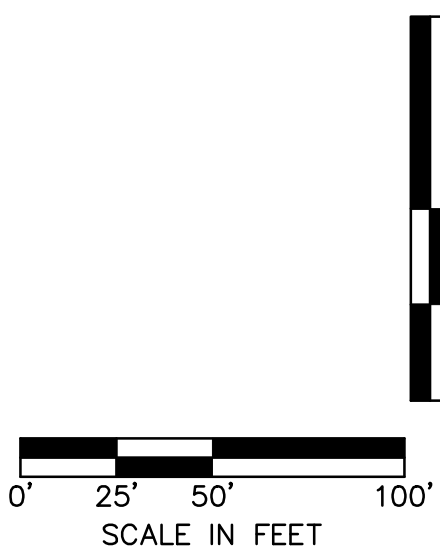
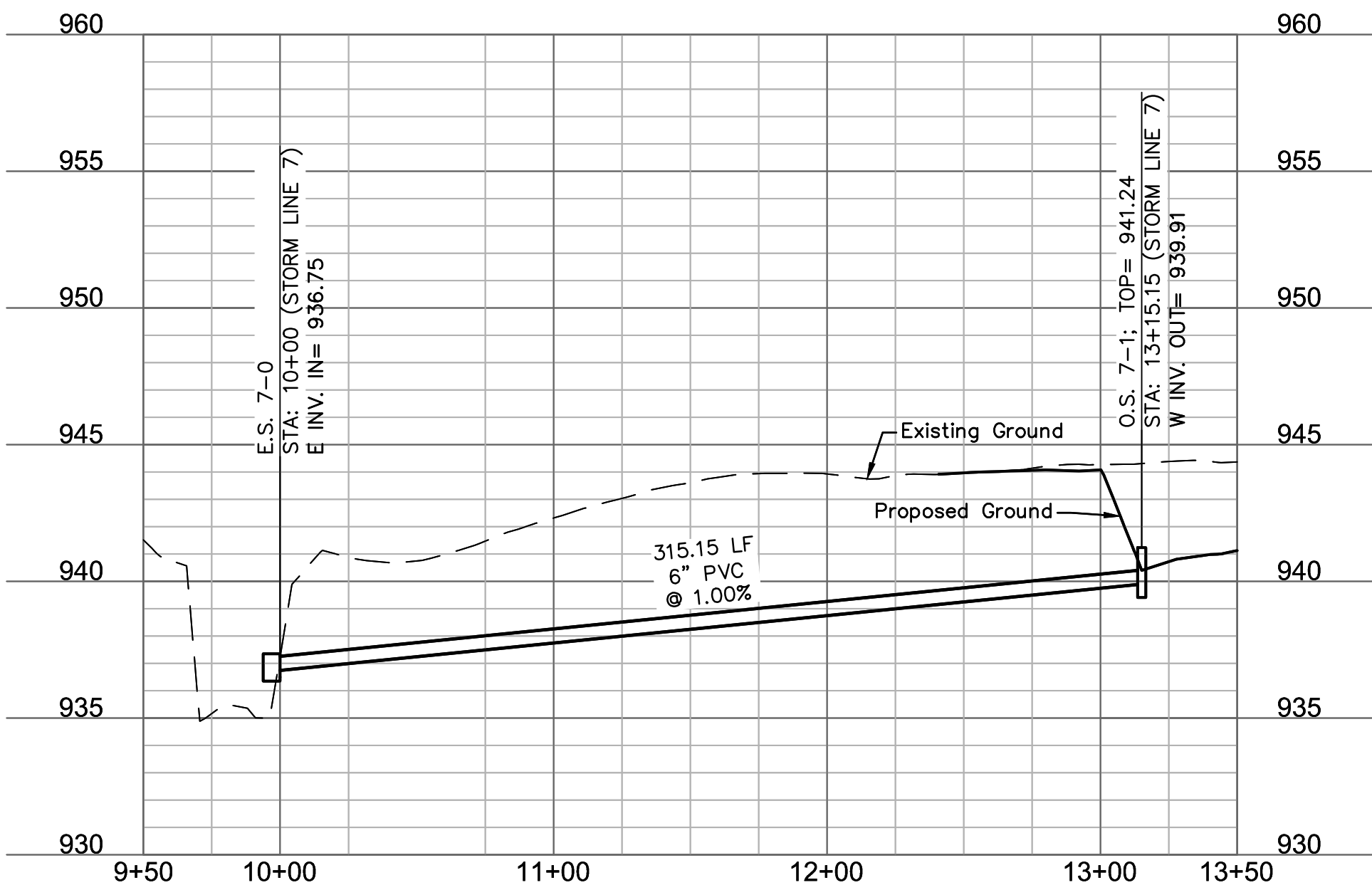
*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18



STORM LINE 5 (8+50 - 14+00)



STORM LINE 7 (9+50 - 13+50)



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STATE OF MISSOURI
4/6/21
MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

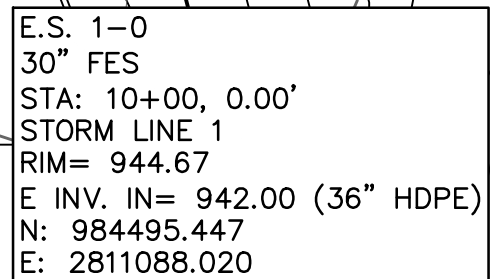
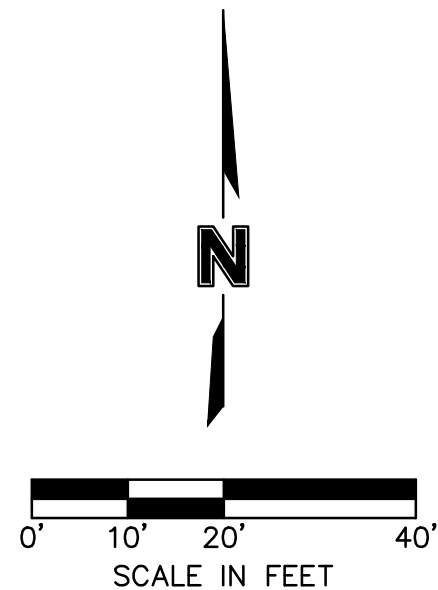
BY
REVISIONS
2020

STORM PLAN & PROFILES
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS
LEE'S SUMMIT, MO

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_STM02_0194059
date: 4/20/2020

SHEET C115
16 OF 54

VG: F:\2019\4001
DATE: Apr 06, 2021



C_PBASN_0194059

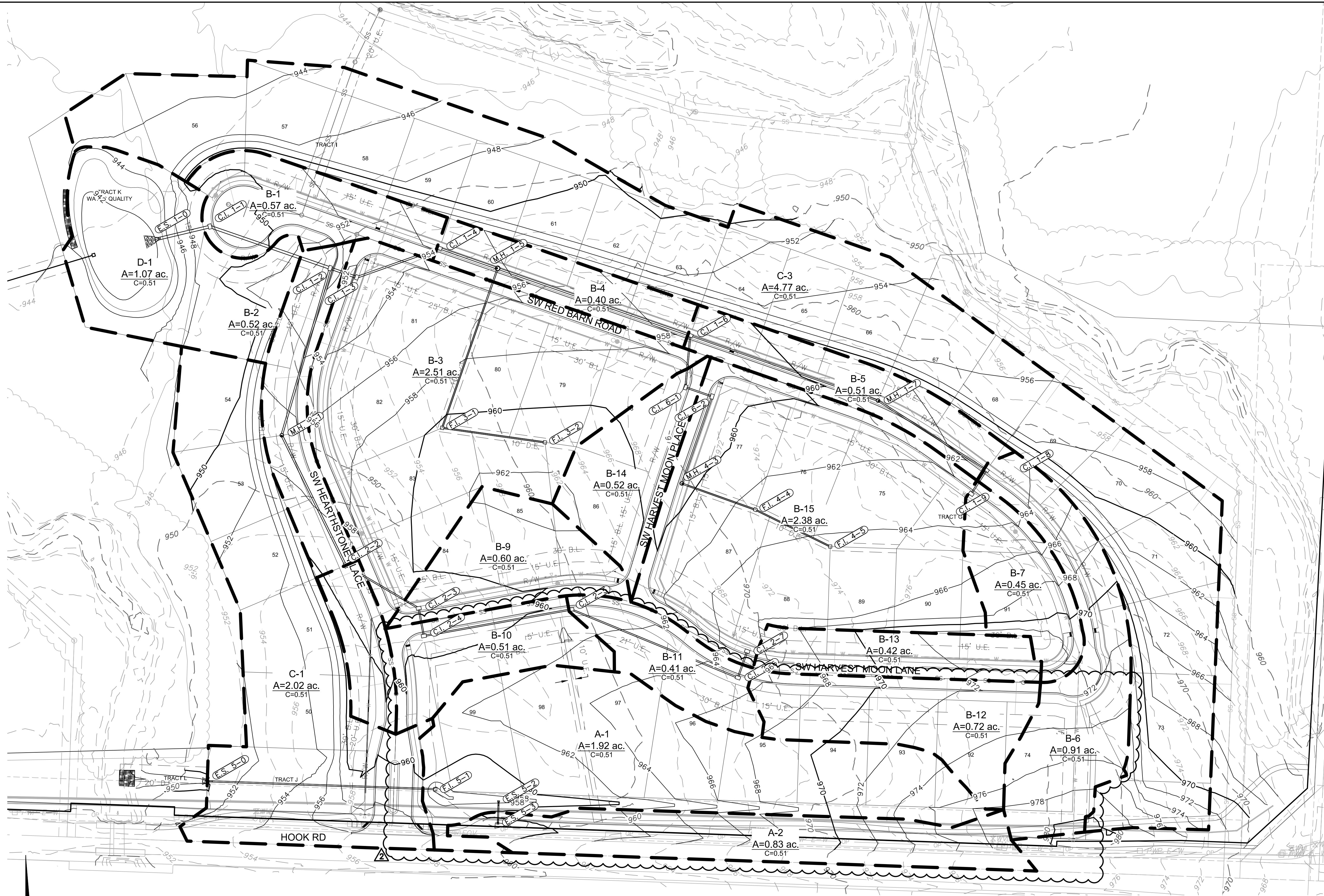


NOTES:
1. INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.

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.

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



DRAINAGE PLAN
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

DRAINAGE PLAN STREET AND STORM SEWER PLANS THE RETREAT AT HOOK FARMS CONSTRUCTION DOCUMENTS	2020
LEE'S SUMMIT, MO	

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Drainage Area Design Table						
10 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-1	0.57	0.51	8.01	6.53	1.00	1.90
C.I. 1-2	0.52	0.51	7.61	6.63	1.00	1.76
C.I. 1-3	2.50	0.51	19.85	4.60	1.00	5.86
C.I. 1-4	0.40	0.51	7.06	6.77	1.00	1.38
C.I. 1-6	0.51	0.51	7.74	6.59	1.00	1.71
C.I. 1-8	0.91	0.51	7.94	6.54	1.00	3.04
C.I. 1-9	0.45	0.51	13.89	5.35	1.00	1.23
C.I. 2-2	0.25	0.51	5.89	7.09	1.00	0.90
C.I. 2-3	0.60	0.51	10.88	5.90	1.00	1.80
C.I. 2-4	0.51	0.51	13.50	5.42	1.00	1.41
C.I. 2-5	0.41	0.51	12.15	5.65	1.00	1.18
C.I. 2-6	0.72	0.51	19.54	4.63	1.00	1.70
C.I. 2-7	0.42	0.51	7.14	6.75	1.00	1.45
C.I. 4-1	0.52	0.51	11.84	5.71	1.00	1.51
C.I. 4-2	2.38	0.51	18.47	4.74	1.00	5.75

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	Downstream Bypass Inlet	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth	
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)		(%)	(ft)	(ft)	(ft)	
C.I. 1-1	SAG	1.90	1.30	3.20	0.80	19.40	15.52	3.20	0.00		100.00%	0.21	7.03	...	
C.I. 1-2	SAG	1.76	0.09	1.84	0.80	19.40	15.52	1.84	0.00		100.00%	0.21	5.78	...	
C.I. 1-3	SAG	5.86	0.00	5.86	0.80	19.40	15.52	5.86	0.00		100.00%	0.32	8.91	...	
C.I. 1-4	GRADE	1.38	0.88	2.26	1.00	1.84	1.84	1.84	0.42	C.I. 1-1	81.51%	0.16	8.15	...	
C.I. 1-6	GRADE	1.71	0.58	2.29	1.00	1.99	1.99	1.99	0.30	C.I. 1-4	86.69%	0.18	9.02	...	
C.I. 1-8	GRADE	3.04	0.00	3.04	1.00	2.46	2.46	2.46	0.58	C.I. 1-6	80.99%	0.20	9.77	...	
C.I. 1-9	GRADE	1.23	0.00	1.23	1.00	1.13	1.13	1.13	0.09	C.I. 4-2	92.33%	0.14	6.96	...	
C.I. 2-2	GRADE	0.90	0.00	0.90	1.00	0.82	0.82	0.82	0.09	C.I. 1-2	90.43%	0.11	5.41	...	
C.I. 2-3	SAG	1.80	0.00	1.80	0.80	19.40	15.52	1.80	0.00		100.00%	0.19	6.62	...	
C.I. 2-4	SAG	1.41	0.49	1.90	0.80	19.40	15.52	1.90	0.00		100.00%	0.19	6.75	...	
C.I. 2-5	GRADE	1.18	0.33	1.51	1.00	1.35	1.35	1.35	0.16	C.I. 2-4	89.30%	0.15	7.30	...	
C.I. 2-6	GRADE	1.70	0.00	1.70	1.00	1.37	1.37	1.37	0.33	C.I. 2-5	80.77%	0.13	6.71	...	
C.I. 2-7	GRADE	1.45	0.00	1.45	1.00	1.21	1.21	1.21	0.24	C.I. 4-2	83.46%	0.13	6.31	...	
C.I. 4-1	SAG	1.51	0.00	1.51	0.80	19.40	15.52	1.51	0.00		100.00%	0.15	7.42	...	
C.I. 4-2	SAG	5.75	0.33	6.08	0.80	19.40	15.52	6.08	0.00		100.00%	0.25	12.49	...	
F.I. 5-1	SAG	6.57	0.00	6.57	0.50	18.19	9.09	6.57	0.00		100.00%	...	...	0.82	
Notes:															
1. Inlet capacity at sag location has been reduced by a clogging 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.															

From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Pipe Diameter	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow	Peak Flow	Max Flow Velocity	Travel Time	Design Flow Capacity	Max Flow / Design Flow Ratio	Max Flow Depth / Total Depth Ratio	Max Flow Depth
		(ft)	(ft)	(ft)	(%)	(inches)					(cfs)	(cfs)	(ft/sec)	(min)	(cfs)			(ft)
C.I. 1-9	C.I. 1-8	34.07	958.09	957.75	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	1.27	3.78	0.15	11.38	0.11	0.25	0.36
C.I. 1-8	M.H. 1-7	155.13	957.25	955.70	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	4.31	5.60	0.46	11.38	0.38	0.45	0.67
M.H. 1-7	C.I. 1-6	239.43	955.20	952.81	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	4.27	5.71	0.70	11.38	0.38	0.44	0.66
C.I. 1-6	M.H. 1-5	245.81	950.31	947.85	1.0000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	13.54	7.40	0.55	24.51	0.55	0.56	1.13
M.H. 1-5	C.I. 1-4	74.19	947.35	946.61	1.0000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	13.54	6.80	0.18	24.51	0.55	0.61	1.21
C.I. 1-4	C.I. 1-3	105.72	946.00	944.95	1.0000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	15.00	6.61	0.27	24.48	0.61	0.74	1.48
C.I. 1-3	C.I. 1-2	34.00	944.45	944.11	1.0000	30.00	0.0120	0.5000	0.5000	0.0000	0.00	20.86	6.47	0.09	44.44	0.47	0.74	1.84
C.I. 1-2	C.I. 1-1	153.31	943.61	942.84	0.5000	36.00	0.0120	0.5000	0.5000	0.0000	0.00	31.14	5.90	0.43	51.21	0.61	0.71	2.12
C.I. 1-1	E.S. 1-0	67.47	942.34	942.00	0.5000	36.00	0.0120	0.5000	0.5000	0.0000	0.00	36.51	6.57	0.17	51.15	0.71	0.73	2.20
C.I. 2-7	C.I. 2-6	33.82	961.33	960.99	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	1.50	3.94	0.14	11.38	0.13	0.27	0.40
C.I. 2-6	C.I. 2-5	216.83	960.49	956.15	2.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	3.15	6.81	0.53	16.09	0.20	0.31	0.46
C.I. 2-5	C.I. 2-4	180.63	955.65	953.84	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	4.33	5.65	0.53	11.38	0.38	0.45	0.67
C.I. 2-4	C.I. 2-3	34.00	953.34	953.00	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	5.74	5.40	0.10	11.38	0.50	0.58	0.87
C.I. 2-3	C.I. 2-2	102.07	951.31	950.29	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	7.54	6.14	0.28	11.38	0.66	0.66	0.98
C.I. 2-2	M.H. 2-1	174.65	949.79	948.04	1.0000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	8.46	6.53	0.45	24.51	0.35	0.43	0.86
M.H. 2-1	C.I. 1-2	209.75	947.54	945.44	1.0000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	8.47	6.60	0.53	24.51	0.35	0.43	0.85
F.I. 3-2	F.I. 3-1	125.13	957.08	955.83	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		11.38	0.00	0.00	0.00
F.I. 3-1	M.H. 1-5	203.52	955.33	951.26	2.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		16.09	0.00	0.00	0.00
F.I. 4-5	F.I. 4-4	100.60	959.44	957.43	2.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		16.09	0.00	0.00	0.00
F.I. 4-4	M.H. 4-3	94.00	957.23	955.35	2.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		16.09	0.00	0.00	0.00
M.H. 4-3	C.I. 4-2	111.00	954.85	953.74	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		11.38	0.00	0.18	0.26
C.I. 4-2	C.I. 4-1	34.00	953.24	952.90	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	6.10	5.48	0.10	11.38	0.54	0.60	0.90
C.I. 4-1	C.I. 1-6	62.81	951.56	950.93	1.0000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	7.74	5.99	0.17	11.38	0.68	0.69	1.02
E.S. 5-3	E.S. 5-2	18.19	958.07	957.89	1.0000	12.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		3.86	0.00	0.00	0.00
F.I. 5-1	E.S. 5-0	274.81	953.53	947.48	2.2000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	6.84	8.68	0.53	16.88	0.41	0.46	0.67
O.S. 7-1	E.S. 7-0	315.15	939.91	936.75	1.0000	6.00	0.0120	0.5000	0.5000	0.0000	0.00	0.00	0.00		0.61	0.00	0.00	0.00

*C.I. 1-1 IS SIZED FOR 10-YR

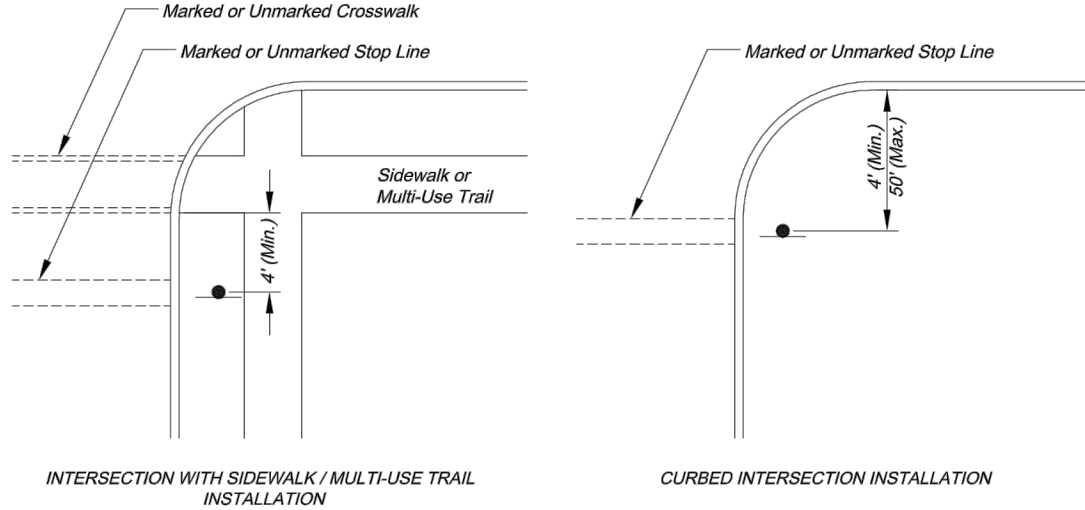
Drainage Area Design Table						
100 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-1	0.57	0.51	8.01	9.20	1.25	3.34
C.I. 1-2	0.52	0.51	7.61	9.34	1.25	3.10
C.I. 1-3	2.50	0.51	19.85	6.64	1.25	10.58
C.I. 1-4	0.40	0.51	7.06	9.53	1.25	2.43
C.I. 1-6	0.51	0.51	7.74	9.29	1.25	3.02
C.I. 1-8	0.91	0.51	7.94	9.23	1.25	5.35
C.I. 1-9	0.45	0.51	13.89	7.60	1.25	2.18
C.I. 2-2	0.25	0.51	5.89	9.96	1.25	1.59
C.I. 2-3	0.60	0.51	10.88	8.34	1.25	3.19
C.I. 2-4	0.51	0.51	13.50	7.69	1.25	2.50
C.I. 2-5	0.41	0.51	12.15	8.01	1.25	2.09
C.I. 2-6	0.72	0.51	19.54	6.68	1.25	3.07
C.I. 2-7	0.42	0.51	7.14	9.50	1.25	2.54
C.I. 4-1	0.52	0.51	11.84	8.09	1.25	2.68
C.I. 4-2	2.38	0.51	18.47	6.83	1.25	10.36

Inlet Design Table														
100 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	Downstream Bypass Inlet	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)		(%)	(ft)	(ft)	(ft)
C.I. 1-1	SAG	3.34	4.83	8.17	0.80	19.40	15.52	8.17	0.00		100.00%	0.30	9.99	...
C.I. 1-2	SAG	3.10	0.27	3.36	0.80	19.40	15.52	3.36	0.00		100.00%	0.26	7.23	...
C.I. 1-3	SAG	10.58	0.00	10.58	0.80	19.40	15.52	10.58	0.00		100.00%	0.40	11.12	...
C.I. 1-4	GRADE	2.43	2.85	5.28	1.00	3.31	3.31	3.31	1.98	C.I. 1-1	62.59%	0.22	11.20	...
C.I. 1-6	GRADE	3.02	1.65	4.68	1.00	3.48	3.48	3.48	1.20	C.I. 1-4	74.39%	0.24	11.78	...
C.I. 1-8	GRADE	5.35	0.00	5.35	1.00	3.70	3.70	3.70	1.65	C.I. 1-6	69.10%	0.24	12.09	...
C.I. 1-9	GRADE	2.18	0.00	2.18	1.00	1.88	1.88	1.88	0.30	C.I. 4-2	86.11%	0.17	8.63	...
C.I. 2-2	GRADE	1.59	0.00	1.59	1.00	1.32	1.32	1.32	0.27	C.I. 1-2	83.22%	0.13	6.68	...
C.I. 2-3	SAG	3.19	0.00	3.19	0.80	19.40	15.52	3.19	0.00		100.00%	0.24	8.20	...
C.I. 2-4	SAG	2.50	1.62	4.12	0.80	19.40	15.52	4.12	0.00		100.00%	0.26	9.03	...
C.I. 2-5	GRADE	2.09	0.97	3.07	1.00	2.42	2.42	2.42	0.65	C.I. 2-4	78.84%	0.19	9.53	...
C.I. 2-6	GRADE	3.07	0.00	3.07	1.00	2.09	2.09	2.09	0.97	C.I. 2-5	68.21%	0.17	8.37	...
C.I. 2-7	GRADE	2.54	0.00	2.54	1.00	1.85	1.85	1.85	0.70	C.I. 4-2	72.66%	0.16	7.80	...
C.I. 4-1	SAG	2.68	0.00	2.68	0.80	19.40	15.52	2.68	0.00		100.00%	0.18	9.19	...
C.I. 4-2	SAG	10.36	1.00	11.36	0.80	19.40	15.52	11.36	0.00		100.00%	0.32	15.79	...
F.I. 5-1	SAG	11.56	0.00	11.56	0.50	18.19	9.09	9.09	2.47		78.64%	...	...	1.50

Notes:

1. Inlet capacity at sag location has been reduced by a clogging 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.



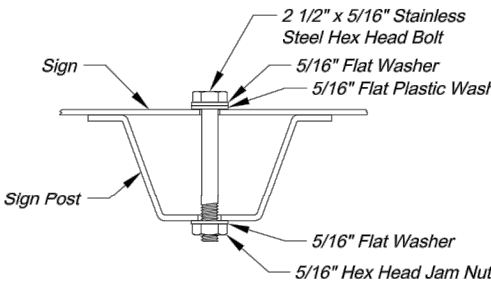
MEDIAN SIGN LOCATION

NOTE:

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

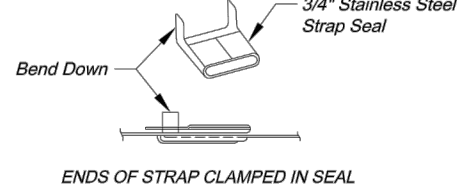
NOTES:

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



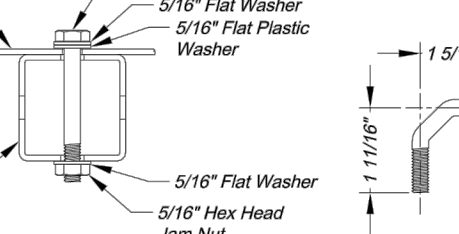
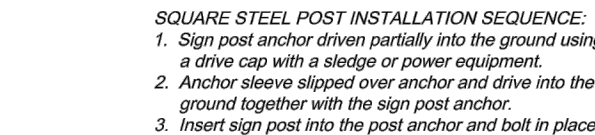
U-STEEL POST NOTES:

1. Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
2. U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.
3. U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.
4. All posts shall be embedded a minimum of 3 feet.



METAL POLE SIGN MOUNTING NOTES:

1. Signs on metal poles shall be attached with two brackets and stainless steel bands.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
3. Holes in sign shall be located such that the sign is level.
4. All strap, bracket, and seal materials should be Type 201 stainless steel.



SQUARE STEEL POST NOTES:

1. Square steel sign posts and break-away anchor shall consist of the following materials:

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



MEDIAN SIGN LOCATION

NOTES:

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

SIGN MOUNTING DETAILS

STANDARD DRAWING SN-1

Project:

1 OF 3

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

1 OF 3



SIGN POST DETAILS

STUDY 1

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

2

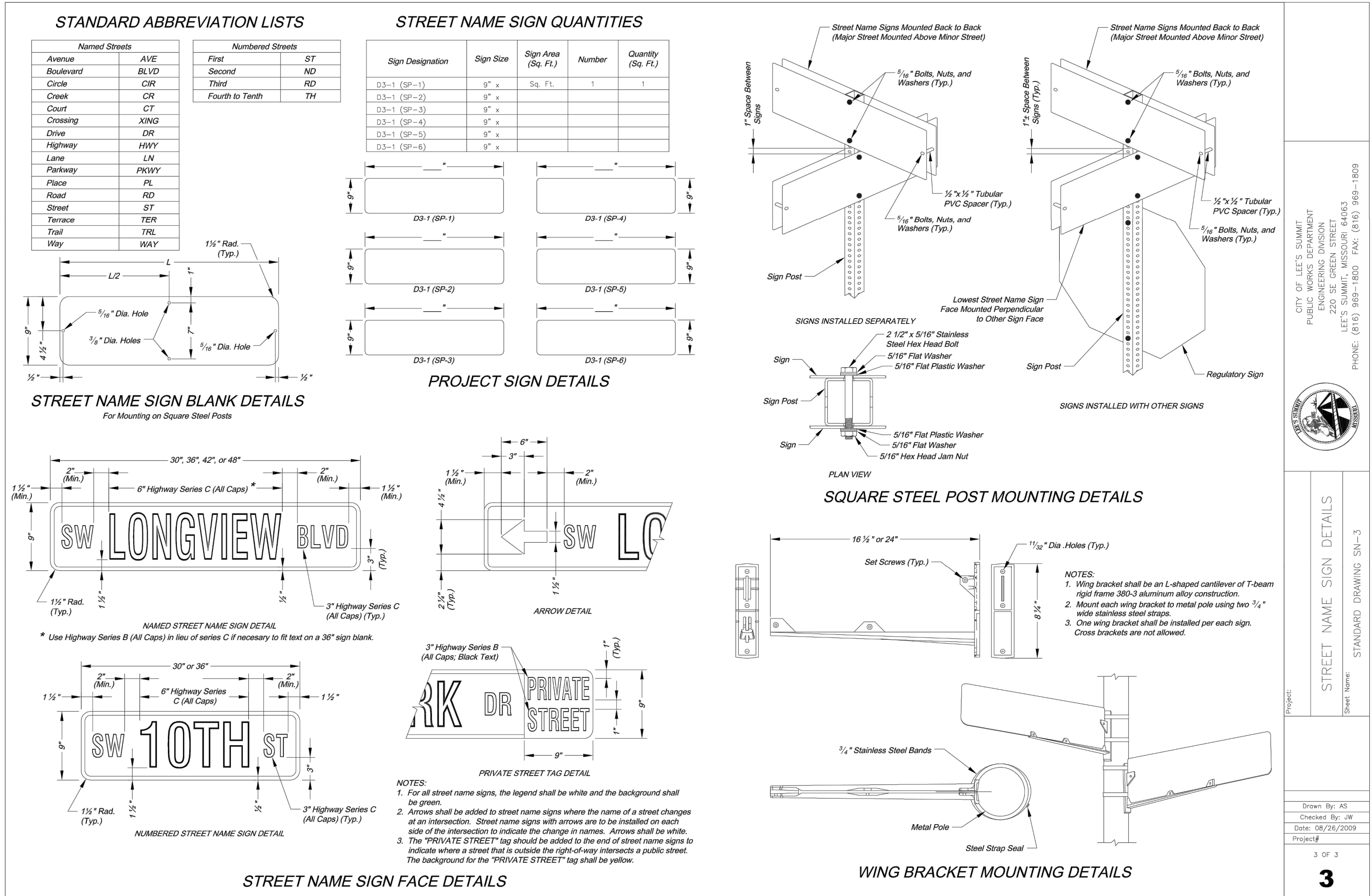
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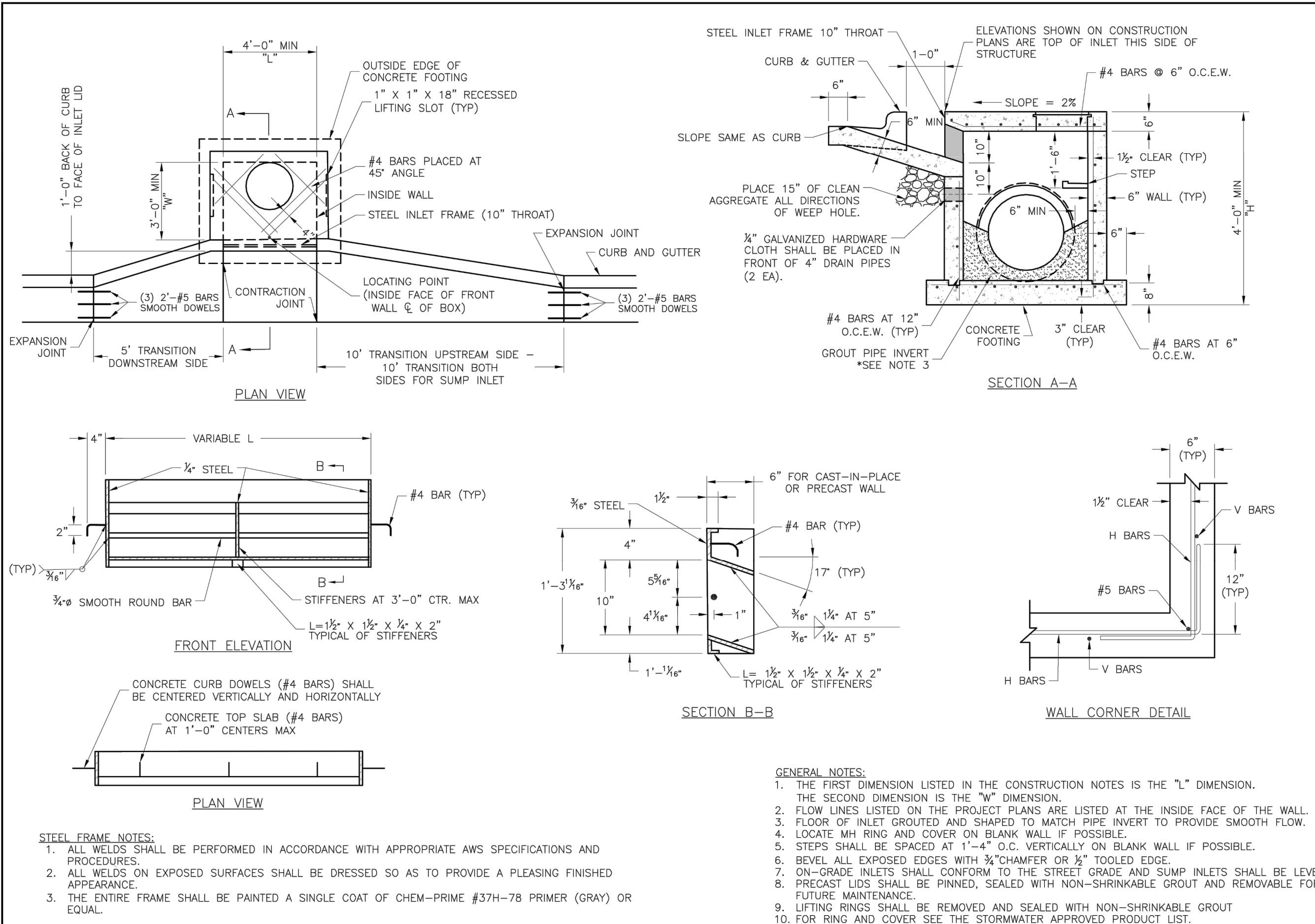
REVISIONS

LEE'S SUMMIT, MO

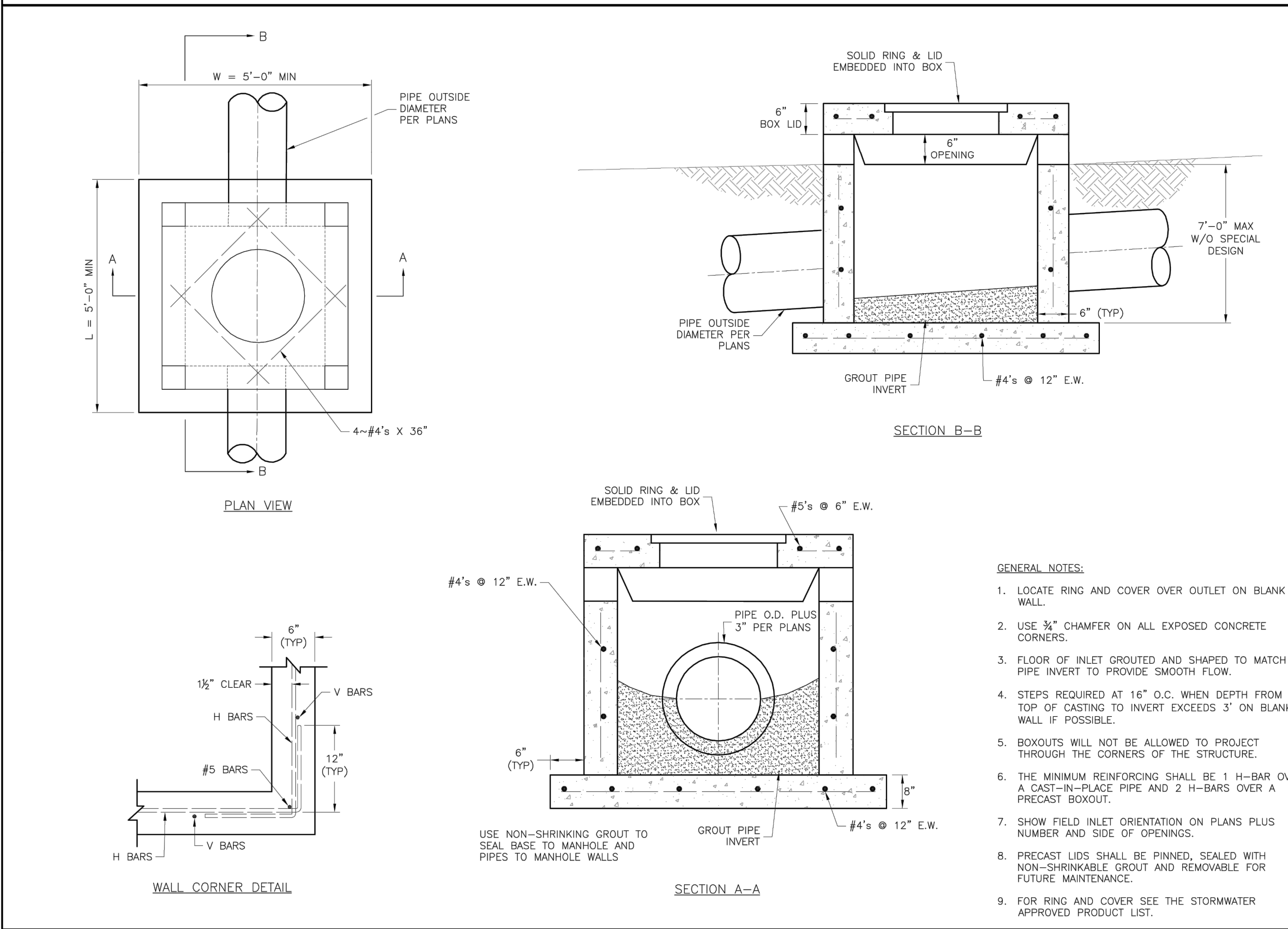
drawn by: _____ EM
checked by: _____ EM
designed by: _____ RB
QA/QC by: _____ NH
project no.: _____ 019-4059
drawing no.: _____ C_DTL00_0194059
date: _____ 4/20/2020

SHEET C120
21 OF 54

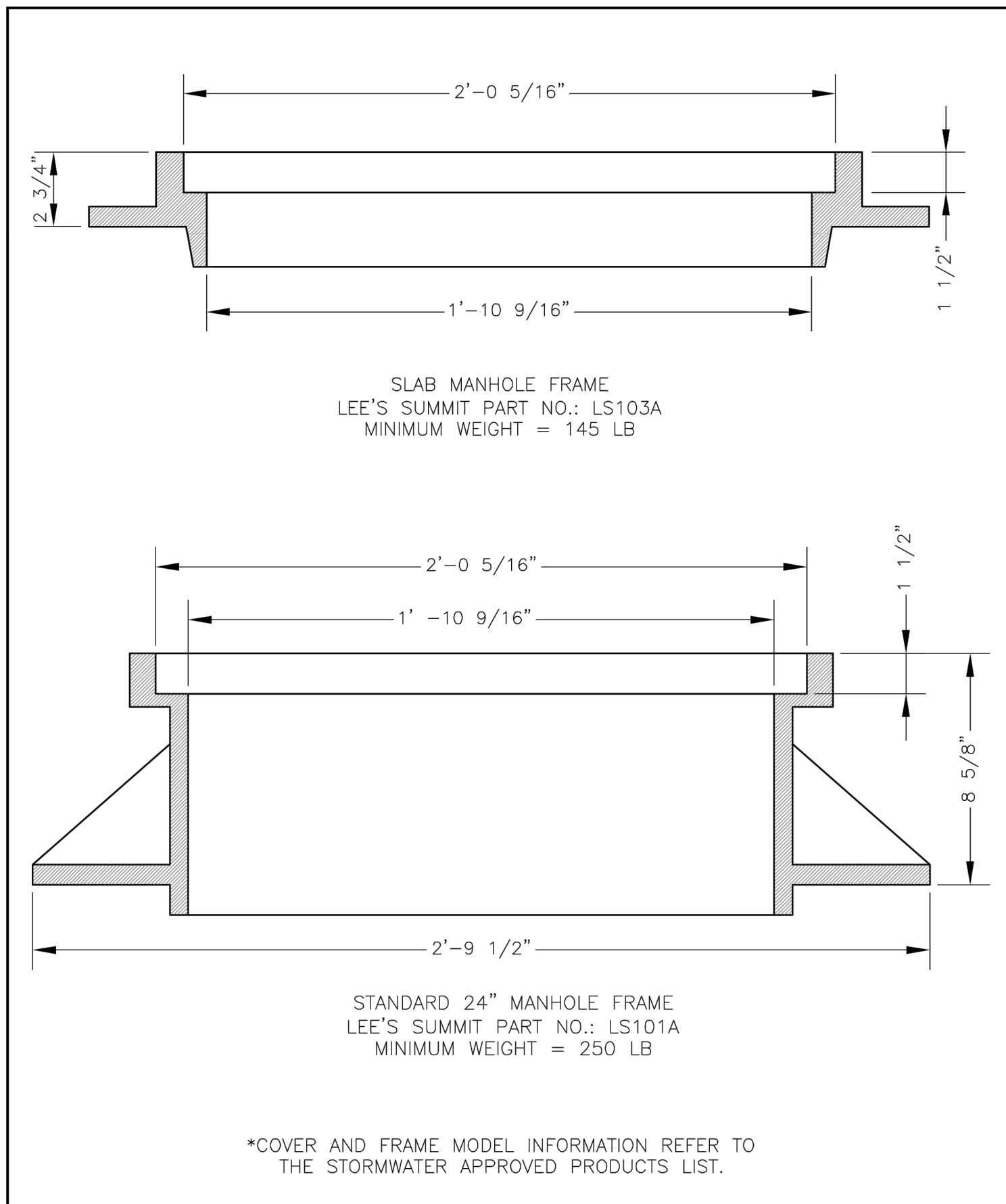


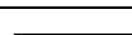


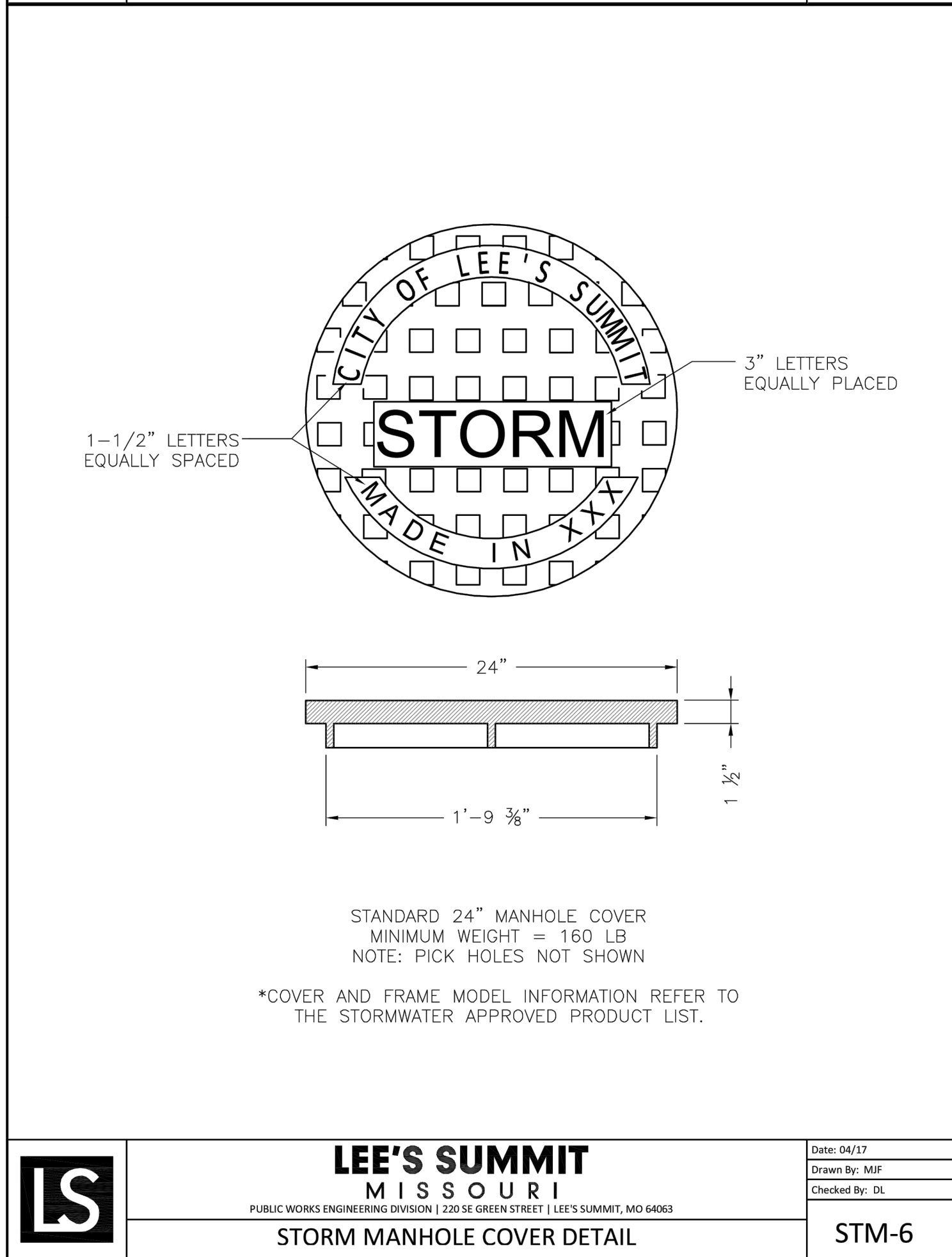
STANDARD DETAILS		PROJECT CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO	SHEET NAME CURB INLET DETAIL	PROJECT #
Drawn By: MJP	Checked By: DL			
Date: 06/21				
Title: 1				
PUBLIC WORKS ENGINEERING DIVISION 220 S. GREEN STREET LEE'S SUMMIT, MO 66663		LS LEE'S SUMMIT MISSOURI		



STANDARD DETAILS		LS LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 1200 S. GREEN STREET / LEE'S SUMMIT, MO 64083
CITY OF LEE'S SUMMIT, MO		
LEE'S SUMMIT, JACKSON COUNTY, MO		
Sheet Name:		
FIELD INLET DETAIL		
STM-2		
Drawn By: Mof		
Checked By: DL		
Date: 04/17		
Proj. #:		



	LEE'S SUMMIT MISSOURI	Date: 04/17
	PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Drawn By: MJF
	STORM MANHOLE FRAME DETAIL	Checked By: DL
		STM-7



LEE'S SUMMIT MISSOURI	PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 04/17 Drawn By: MJF Checked By: DL
STORM MANHOLE COVER DETAIL		STM-6

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STATE OF MISSOURI
4/6/21
MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

BY

REV. NO. DATE REVISIONS DESCRIPTION

1 06-24-2020 CITY COMMENTS

2 02-01-2021 ADDED HOOK ROAD SWALE

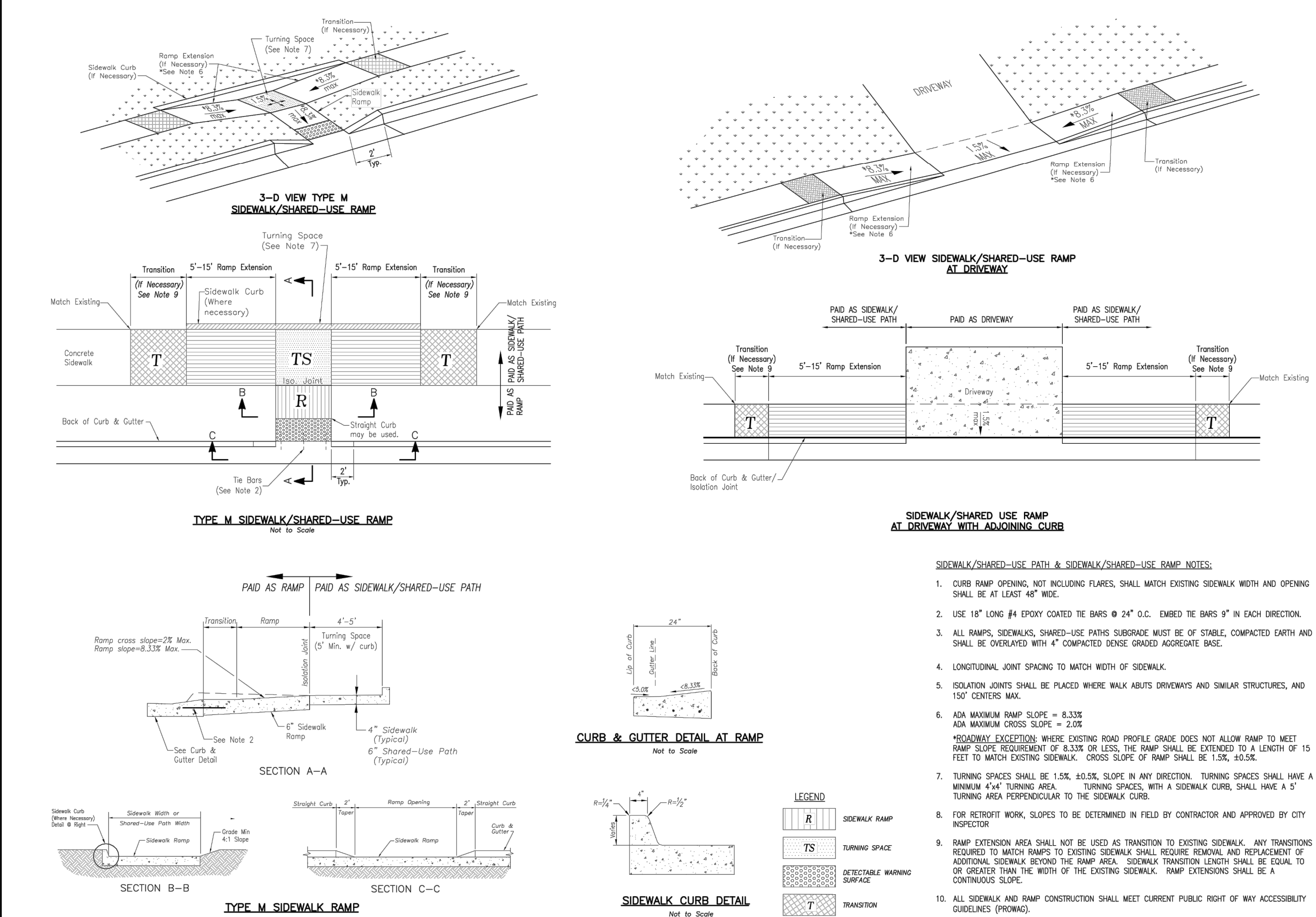
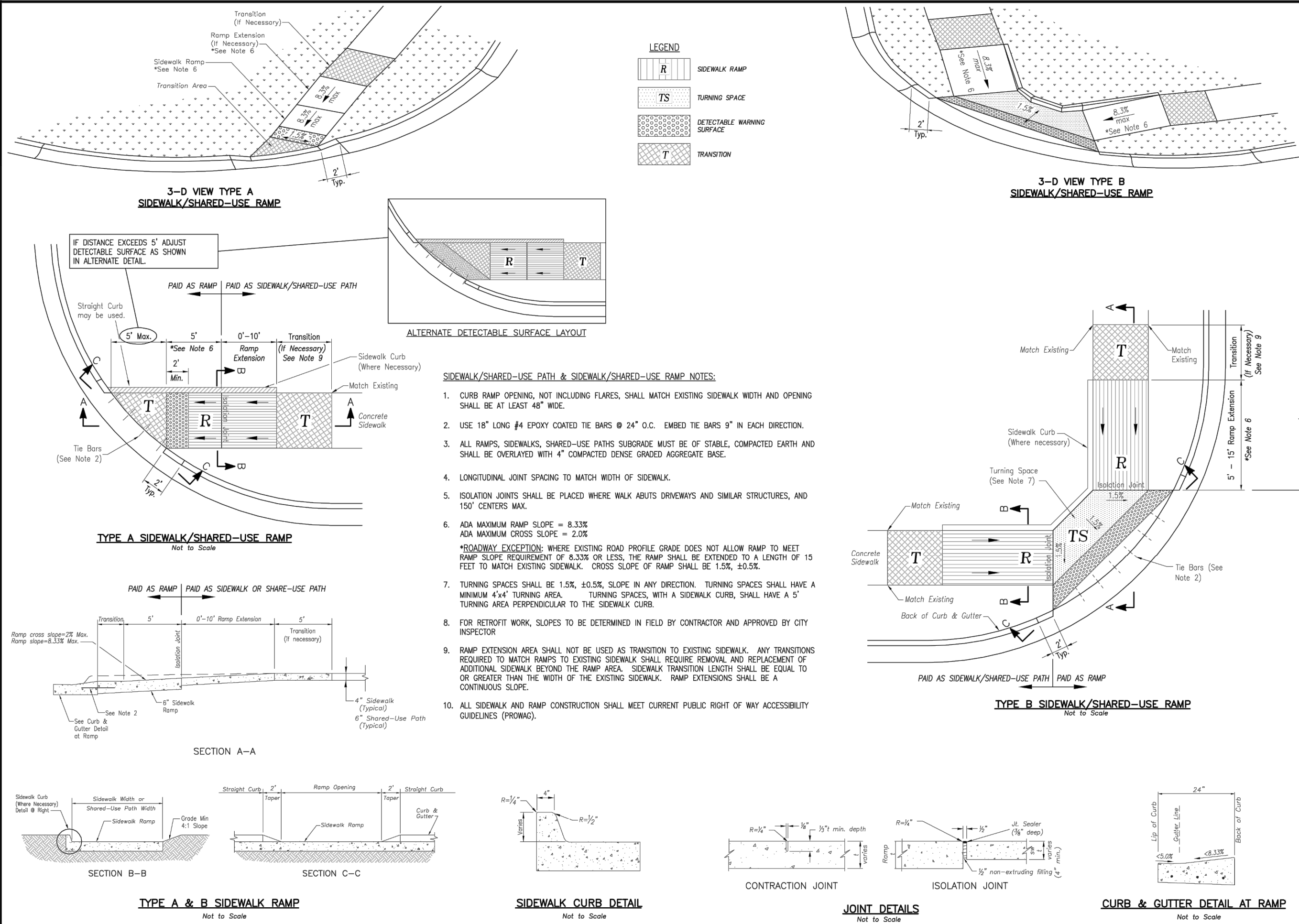
3 04-06-2021 SWALE AND ADA RAMP REVISIONS

2020

STORM DETAILS
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS
LEE'S SUMMIT, MO

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_DTL00_0194059
date: 4/20/2020

SHEET C122
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STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

GEN-3A

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

GEN-3B

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64603

REV. NO.	DATE	REVISIONS DESCRIPTION
1	06-24-2020	CITY COMMENTS
2	02-01-2021	ADDED HOOK ROAD SWALE
3	04-06-2021	SWALE AND ADA RAMP REVISIONS

STREET DETAILS
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

REVISIONS

BY

4/6/21
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