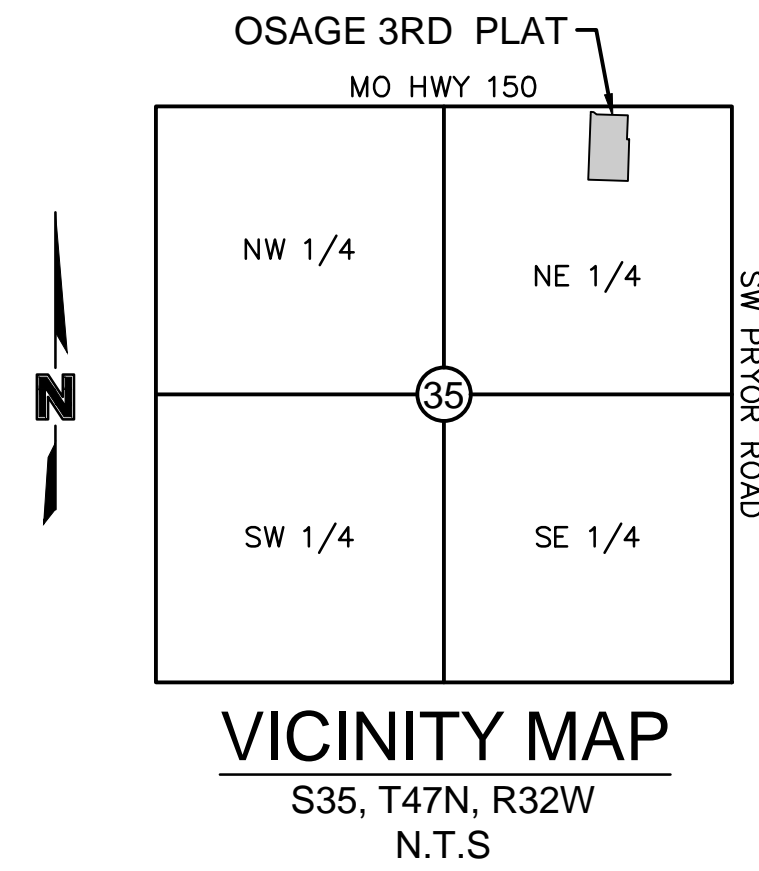
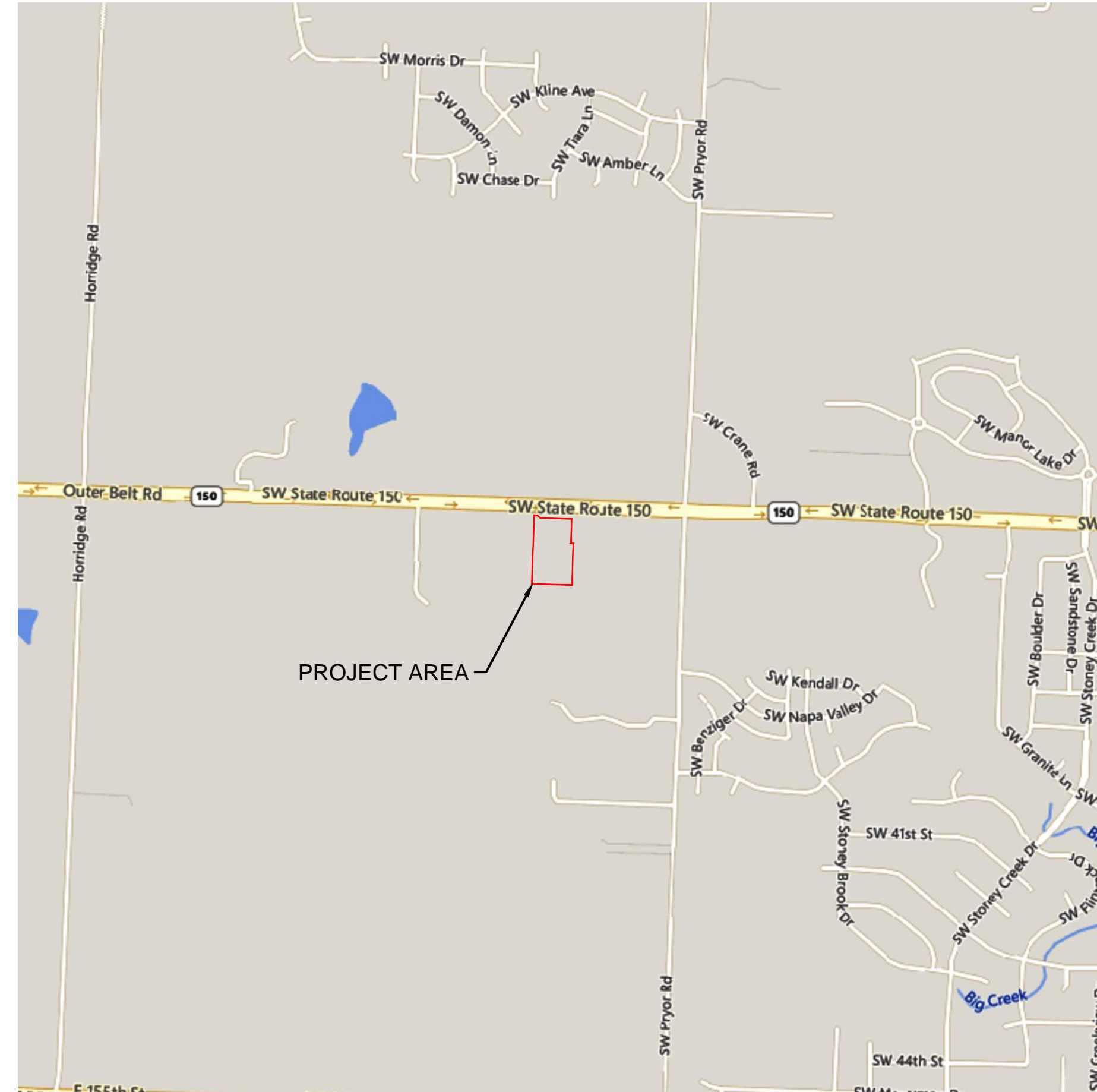


# OSAGE THIRD PLAT STREET & STORM SEWER PLANS

NE 1/4 SECTION 35, TOWNSHIP 47 N, RANGE 32 W.  
IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



PROJECT TEAM & UTILITY CONTACT LIST	
<b>OWNER / DEVELOPER</b> CLAYTON PROPERTIES GROUP, INC. D.B.A. SUMMIT HOMES 120 SE 30TH STREET CONTACT: VINCENT WALKER LEE'S SUMMIT, MO 64082 PHONE: 816.246.8700 EMAIL: VINCENT@SUMMITHOMESKC.COM	<b>UTILITY SERVICE NUMBERS</b> NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800  NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940  NAME: SPIRE (MGE) PHONE: 314-342-0500  NAME: AT&T PHONE: 800-286-8313  NAME: EVERGY PHONE: 816-471-5275  NAME: SPECTRUM (TWC) PHONE: 877-772-2253  NAME: GOOGLE FIBER PHONE: 877-454-6959
<b>ENGINEER</b> OLSOON 1301 BURLINGTON ST. SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JULIE E. SELLERS, P.E. PHONE: 816.361.1177 EMAIL: JSSELLERS@OLSSON.COM	
<b>SURVEYOR</b> OLSOON 1301 BURLINGTON ST. SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH PHONE: 816.361.1177 EMAIL: JROUDEBUSH@OLSSON.COM	



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### PROPERTY DESCRIPTION:

ALL OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI EXCEPT THAT PART IN MISSOURI STATE HIGHWAY NO. 150 RIGHT-OF-WAY

ALSO

A TRACT OF LAND IN THE WEST HALF OF THE SOUTHWEST QUARTER AND EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S. ROUDEBUSH, P.L.S. 2002014092, AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER; THENCE NORTH 88°07'14" WEST, ON THE NORTH LINE OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER, 1,319.40 FEET TO THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER; THENCE SOUTH 02°10'22" WEST, ON THE WEST LINE OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER, 659.27 FEET TO THE NORTHWEST CORNER OF SAID SOUTHWEST QUARTER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER ALSO BEING A POINT ON THE WESTERLY LINE OF PROPOSED OSAGE 2ND PLAT; THENCE SOUTH 88°08'29" EAST ON THE NORTH LINE OF SAID SOUTHWEST QUARTER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER, AND ALONG SAID WESTERLY LINE, 326.96 FEET TO THE NORTHEAST CORNER OF SAID WEST HALF OF SAID SOUTHWEST QUARTER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER, ALSO BEING THE SOUTHWEST CORNER OF SAID EAST HALF OF SAID NORTHWEST QUARTER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER; THENCE NORTH 02°09'46" EAST ON THE WEST LINE OF SAID EAST HALF OF SAID NORTHWEST QUARTER OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER, AND ALONG SAID WESTERLY LINE, 346.14 FEET; THENCE LEAVING SAID EAST LINE AND SAID WESTERLY LINE, SOUTH 88°11'07" EAST, ALONG THE NORTH LINE OF PROPOSED TRACT I OF SAID PROPOSED OSAGE 2ND PLAT, 21.17 FEET; THENCE SOUTH 01°48'53" WEST ALONG THE EASTERLY LINE OF SAID PROPOSED TRACT I, A DISTANCE OF 366.13 FEET; THENCE NORTH 88°11'07" WEST, ALONG SAID EASTERLY LINE AND ITS WESTERLY EXTENSION 353.36 FEET TO A POINT ON SAID WEST LINE OF SAID NORTHEAST QUARTER OF SAID NORTHEAST QUARTER; THENCE NORTH 02°10'22" EAST ON SAID WEST LINE, 20.25 FEET TO THE POINT OF BEGINNING. CONTAINING 14,798 SQUARE FEET OR 0.34 ACRES, MORE OR LESS.

### BENCHMARK

BENCHMARK NO. 1  
CHISELED PLUS ON THE EAST FLANGED BOLT OF THE FIRE HYDRANT ON THE WEST SIDE OF SW PRYOR ROAD ON ADJOINING PROPERTY SOUTH OF THE SOUTHWEST CORNER OF SUBJECT PROPERTY.  
ELEVATION = 1014.830

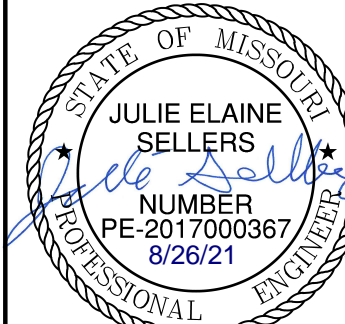
BENCHMARK NO. 2  
RAILROAD SPIKE IN THE NORTH FACE OF POWER POLE LOCATED ON THE SOUTH SIDE MISSOURI STATE HIGHWAY 150 AT THE WEST SIDE OF THE DRIVEWAY TO 2025 MISSOURI STATE HIGHWAY 150, LEE'S SUMMIT, MO.  
ELEVATION = 1031.313

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

JULIE E. SELLERS, P.E.  
CIVIL ENGINEER  
MO# PE-2019000237

8/26/21  
DATE

RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/13/2021



REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/11/2021	REVISED PER CITY COMMENTS

TITLE SHEET  
STREET & STORM SEWER PLANS  
OSAGE 3RD PLAT  
LEE'S SUMMIT, MO

drawn by: MJD  
checked by: JES  
designed by: MJD  
QA/QC by: JES  
project no.: D19-2339  
drawing no.: C\_TTL01\_D192339  
date: 8/24/2021

SHEET  
C101

olsson  
Olsson - Civil Engineering  
Missouri Certification of Authority #001932  
1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
www.olsson.com

DWG: F:\2019\2001-2500\019-2339-a\40-design\AutoCAD\final plans\Sheets\CONV\Street & Storm Plans\C\_TTL01\_D192339.dwg  
DATE: Aug 17, 2021 1:49pm  
USER: oabdgaliyev  
XREFS: C\_TTL01\_D192339



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. 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 MODOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MODOT.
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. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
4. 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.
5. 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 IN 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. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

STORM SEWER GENERAL NOTES:

- 1. STORM STRUCTURES SHALL BE PER CURRENT CITY DETAILS. IF CITY DOES NOT HAVE PUBLISHED DETAILS STRUCTURES SHALL BE PER CURRENT APWA SPECIFICATIONS.
2. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF LEE'S SUMMIT, MISSOURI.
3. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. ALL STRUCTURE DIMENSIONS ARE TO INSIDE FACE OF STRUCTURE.
5. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE BOX DURING INSTALLATION.
6. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.
7. STORM SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
8. STRUCTURE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO 1/2 THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE STRUCTURE.
9. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.
10. MAINTAIN MINIMUM DEPTH OF COVER PER APWA 5606.06

ESTIMATE OF QUANTITIES table with columns: ITEM NO., DESCRIPTION, UNIT, QUANTITY, AS-BUILT. Rows include STREET (EXCAVATION, EMBANKMENT, SUBGRADE STABILIZATION, 6" ASPHALT PAVEMENT, CONCRETE CURB & GUTTER, 5' CONCRETE SIDEWALK, MILL & OVERLAY, ADA RAMP, STOP SIGNS, STREET NAME SIGNS, END OF ROAD TREATMENT) and STORM (STD. CURB INLET, STD. STORM MANHOLE, STD. FIELD INLET, BASIN OUTLET STRUCTURE, WATER QUALITY OUTLET STRUCTURE, 15" HDPE, 18" HDPE, 24" HDPE, 6" PVC, 24" HDPE END SECTION, CONNECTION TO EXISTING STRUCTURE, RIPRAP, TURF REINFORCEMENT MATTING).

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.

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 09/13/2021

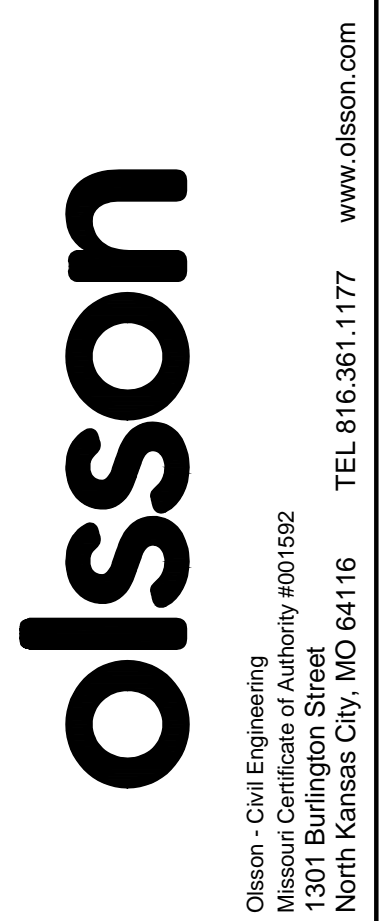
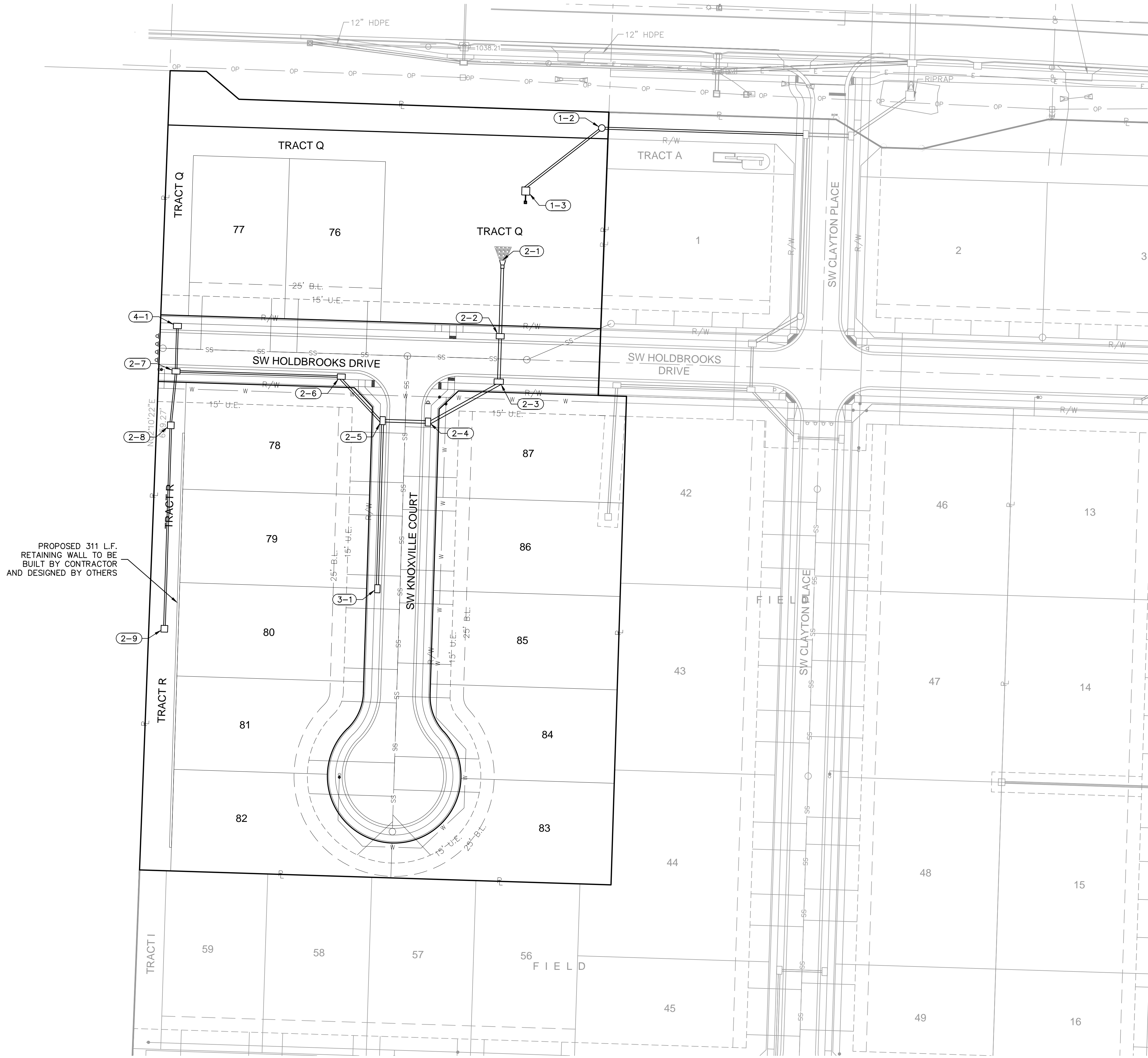


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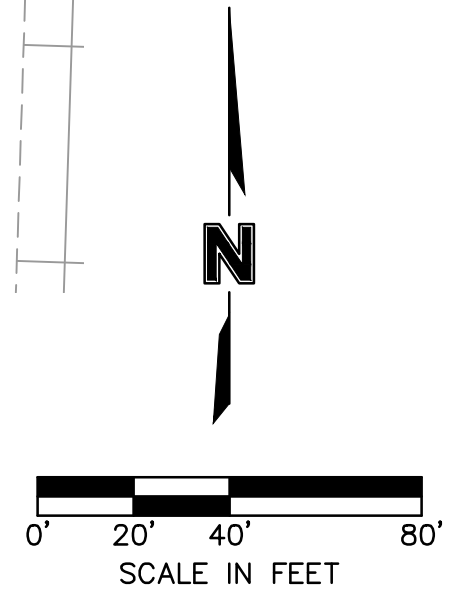
GENERAL NOTES STREET & STORM SEWER PLANS OSAGE 3RD PLAT LEE'S SUMMIT, MO 2021

drawn by: MJD checked by: JES designed by: MJD QA/QC by: JES project no.: D19-2339 drawing no.: C\_TTL01\_D192339 date: 8/24/2021

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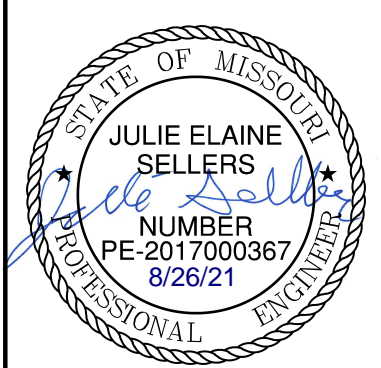


PROPOSED 311 L.F.  
 RETAINING WALL TO BE  
 BUILT BY CONTRACTOR  
 AND DESIGNED BY OTHERS



**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

**olsson**  
 Olsson - Civil Engineering  
 Missouri Certification of Authority #001932  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.ollson.com



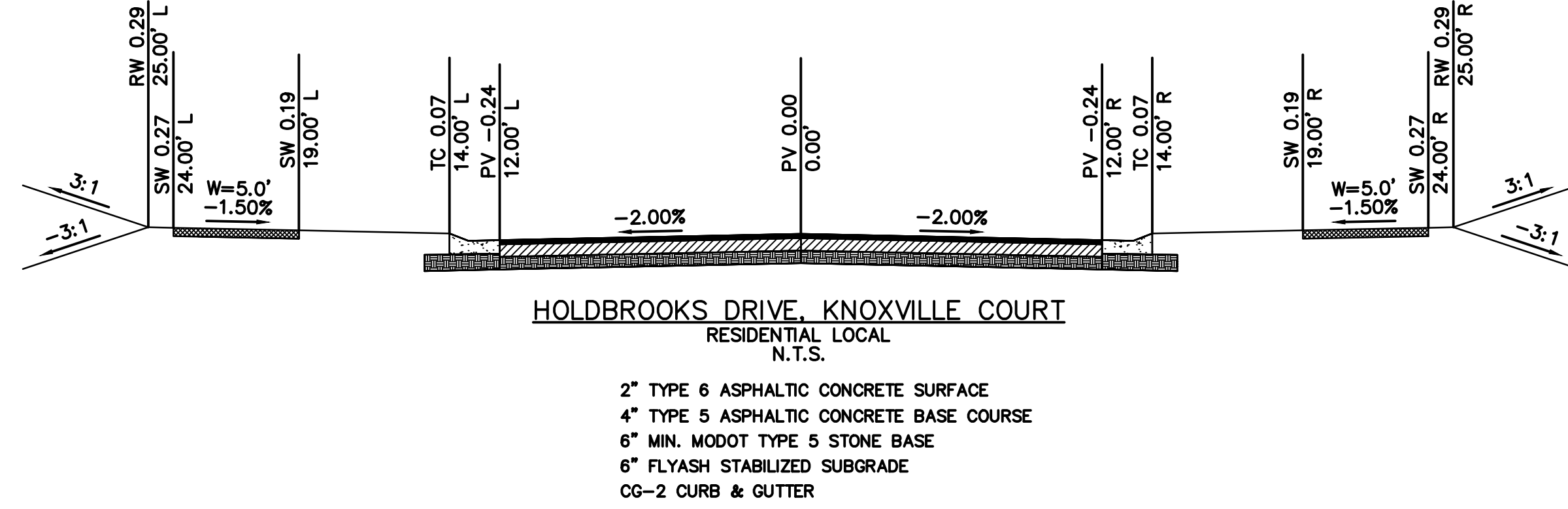
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

GENERAL LAYOUT  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_GEN01\_D192339  
 date: 8/24/2021

SHEET  
 C103

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RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

TYPICAL SECTIONS STREET & STORM SEWER PLANS OSAGE 3RD PLAT	2021
LEE'S SUMMIT, MO	

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_TYP01\_D192339  
 date: 8/24/2021

SHEET  
C104

olsson

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 1301 Burlington Street  
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DWG: F:\2019\2019-2339-4\10-design\AutoCAD\final\plans\Sheet\CNCV\Street & Storm Plans\C\_GRD01\_D192339.dwg  
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**GENERAL NOTES:**

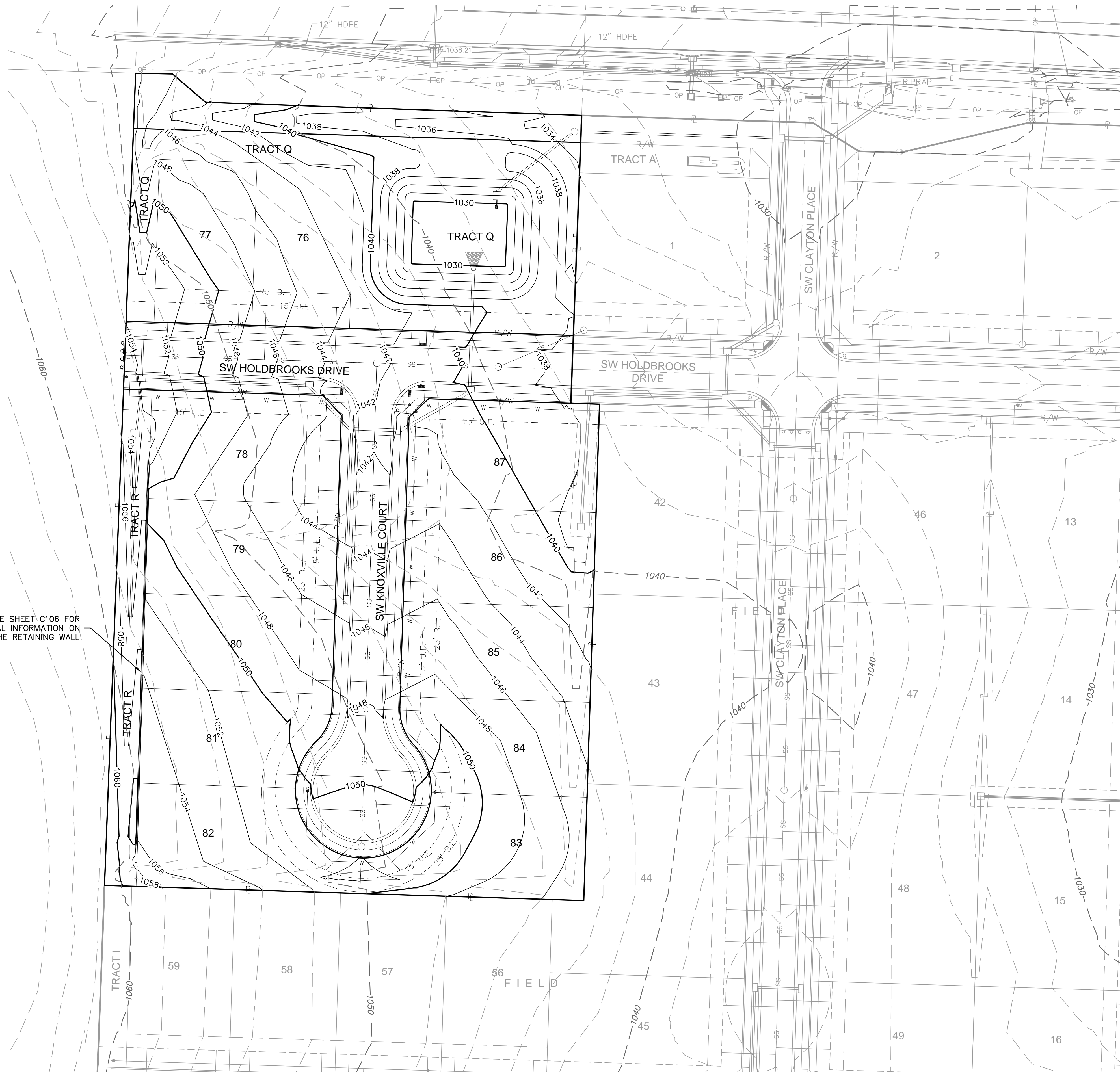
- CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
- AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH 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.

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	1901	147
SITE	9104	3610
TOTAL	11005	3757

**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.

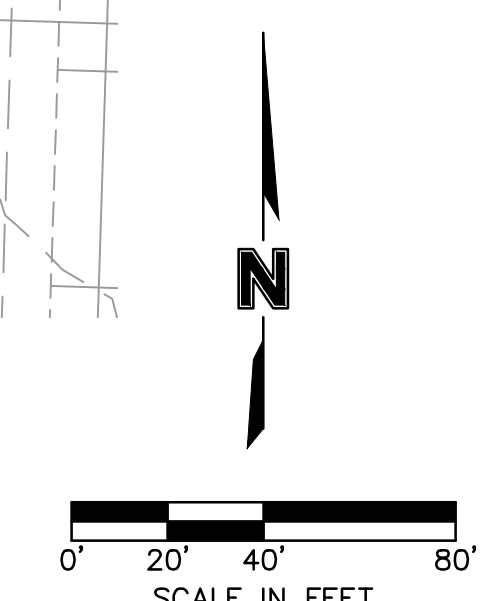
REFERENCE SHEET C106 FOR ADDITIONAL INFORMATION ON THE RETAINING WALL



LOT FILL INFORMATION			
LOT NUMBER	MAX DEPTH OF FILL (OVER 2' PLACED)	FILL PLACED ON EXISTING SLOPES > 5:1	PROPOSED SLOPES > 3:1
76			
77			
78			
79			
80			
81			
82			
83	3.4	X	
84	3.4	X	
85		X	
86	3.4	X	
87			

X Indicates condition applies to lot

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



RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

Lee's Summit, MO  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olsson.com

olsson

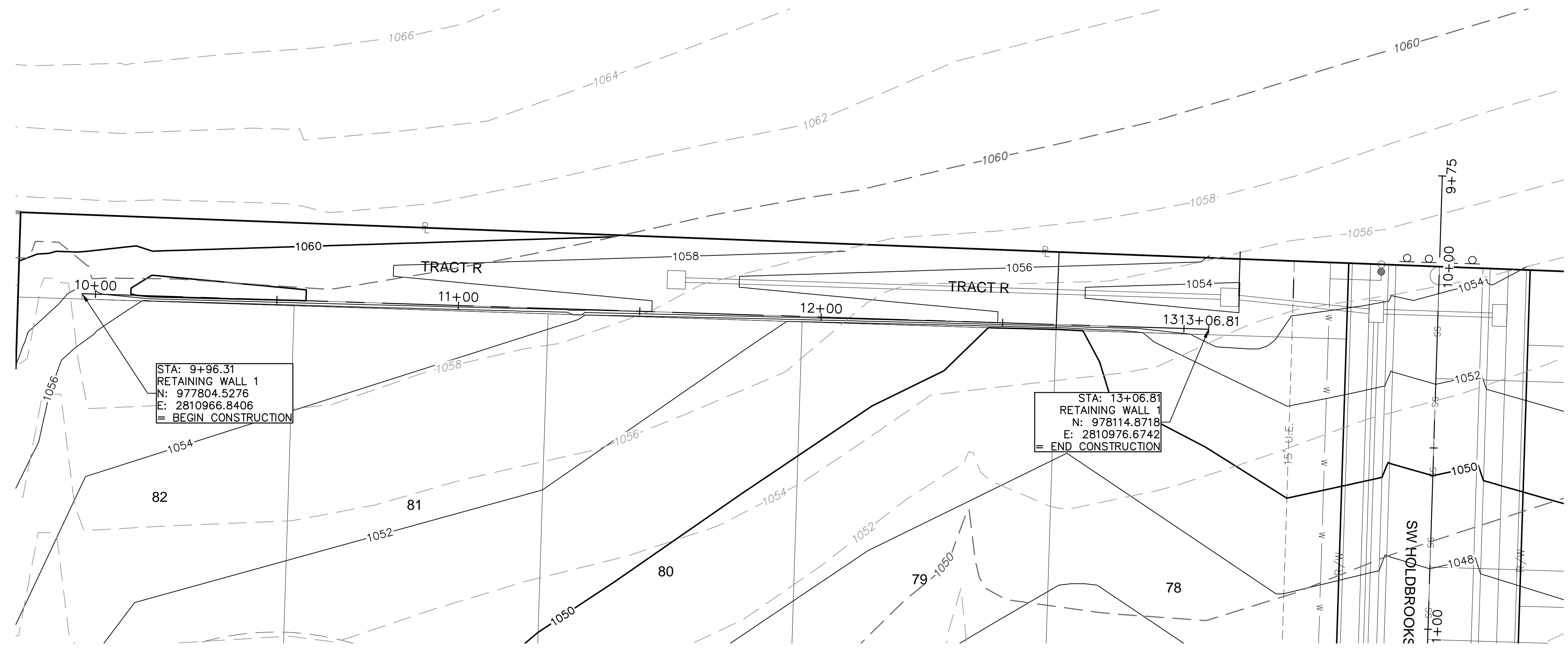
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

REVISIONS	
	2021

GRADING PLAN (FOR REFERENCE ONLY)  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO

drawn by: MJD checked by: JES designed by: MJD QA/QC by: JES project no.: D19-2339 drawing no.: C_GRD01_D192339 date: 8/24/2021	<b>SHEET</b> <b>C105</b>
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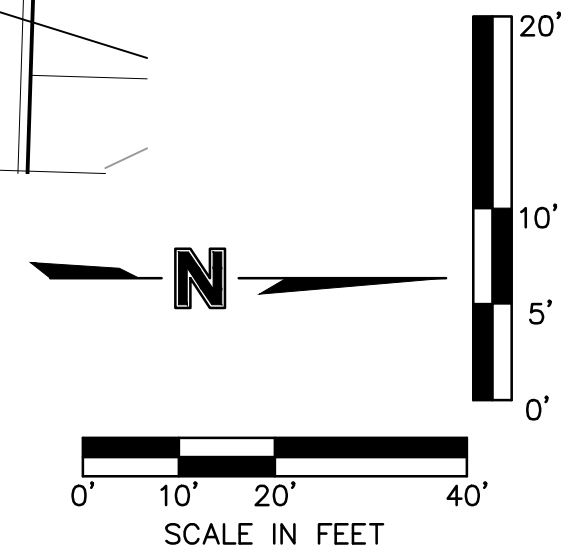
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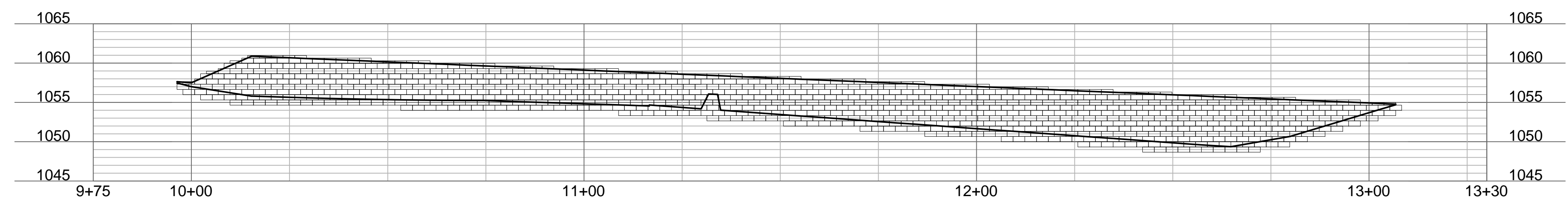
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STA: 13+06.81  
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 E: 2810976.6742  
 = END CONSTRUCTION

NOTE:  
 RETAINING WALL TO BE STRUCTURALLY DESIGNED BY OTHERS.  
 PLAN AND PROFILE VIEW ARE SHOWN FOR REFERENCE ONLY.  
 REFER TO RETAINING WALL PLANS FOR MORE DETAILS.



RETAINING WALL 1 (9+75 - 13+30)



RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

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 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olson.com

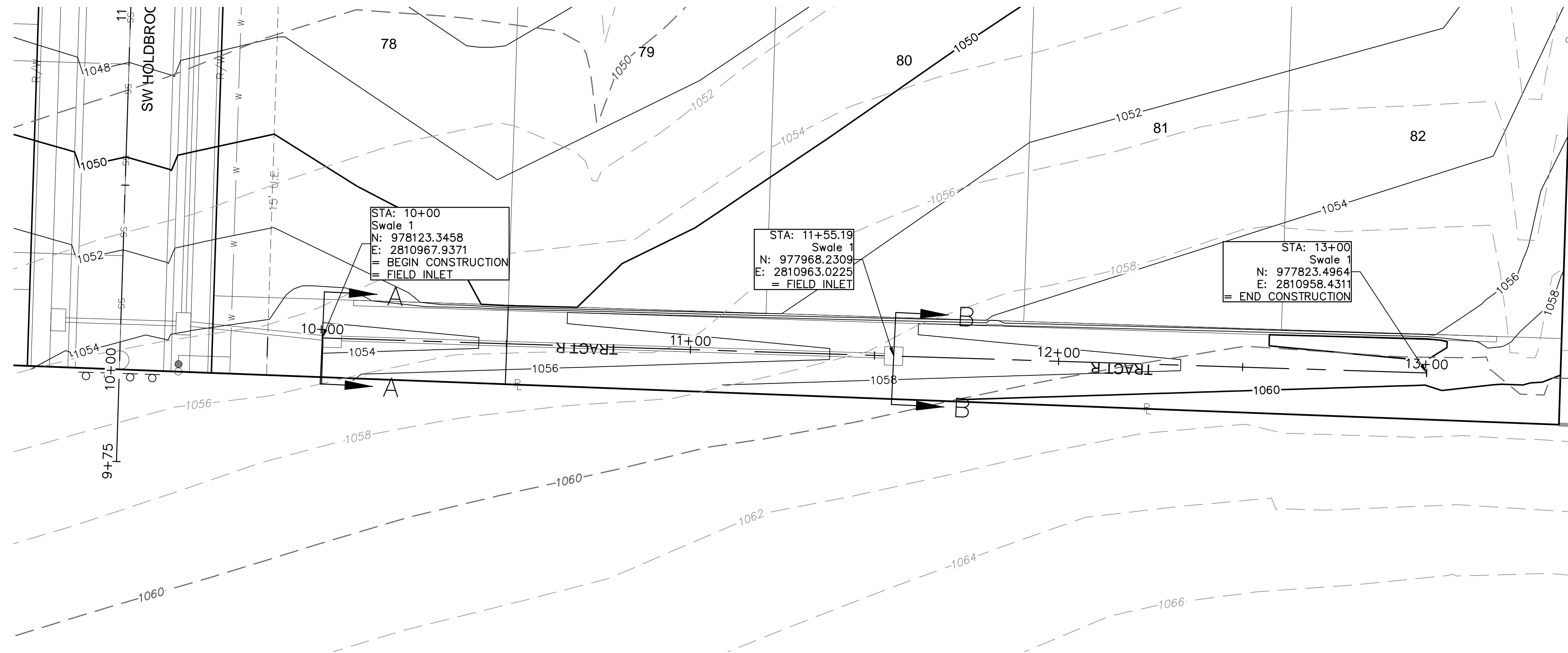
STATE OF MISSOURI  
 JULIE ELAINE  
 SELLERS  
 Lee Sellers  
 NUMBER  
 PE 2017000367  
 8/28/21  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

RETAINING WALL PLAN & PROFILE  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

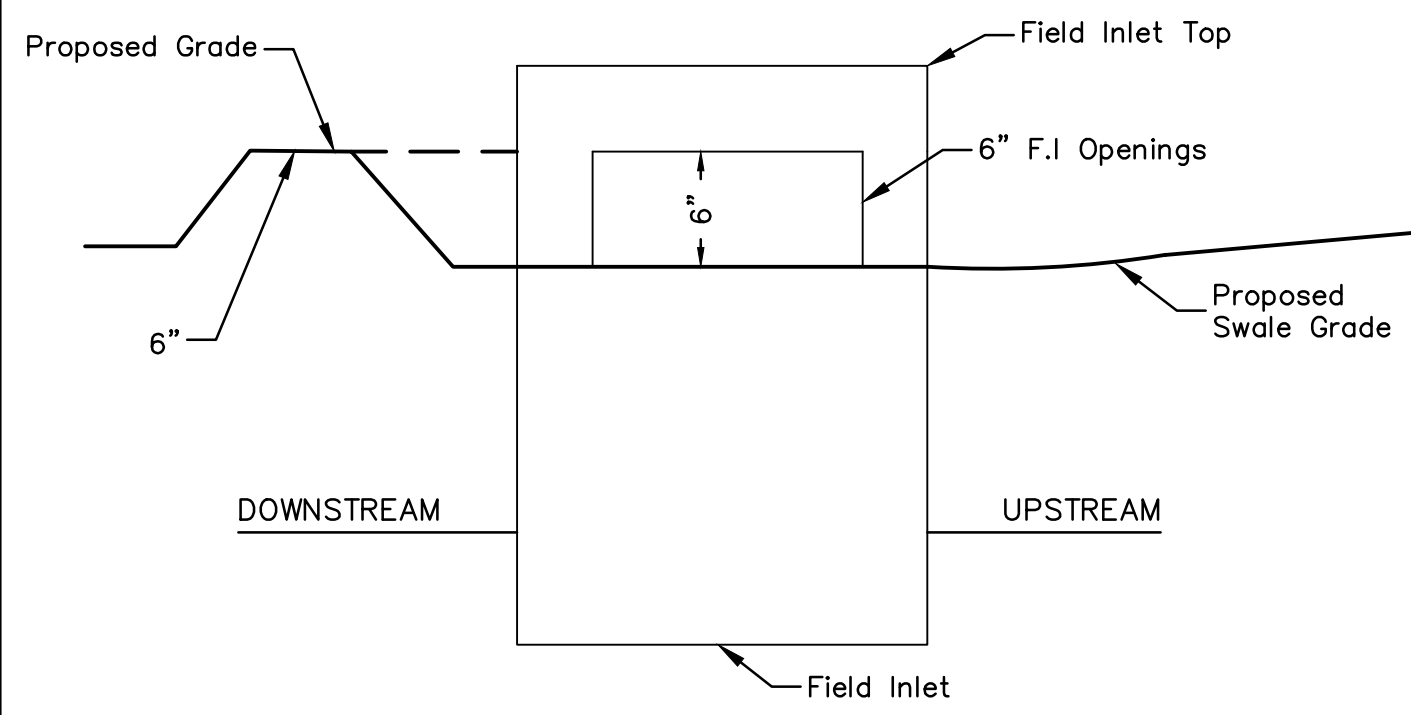
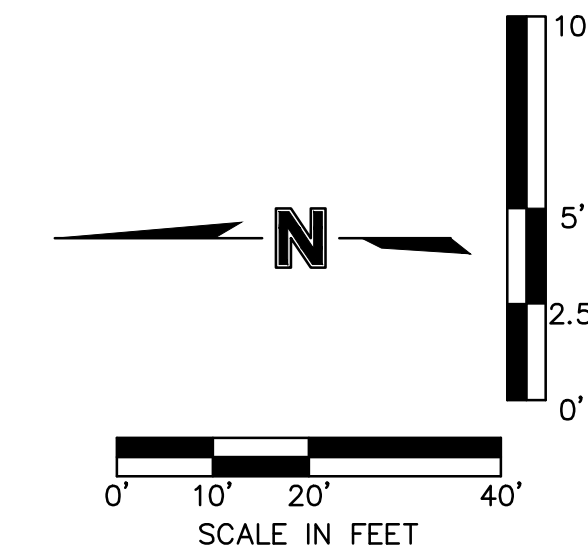
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 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_RWL01\_D192339  
 date: 8/24/2021

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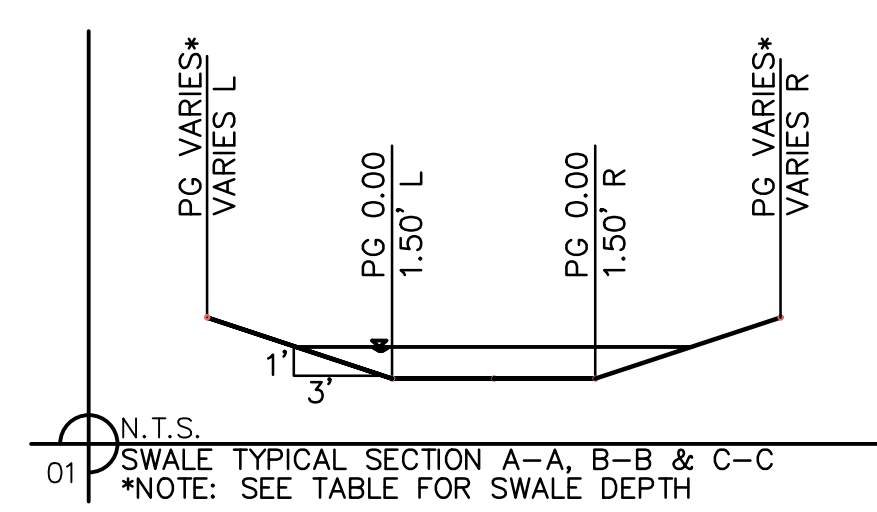
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	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft <sup>2</sup> )	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft <sup>2</sup> )
A-A	0.03	2.10%	1.39	3:1	3:1	3.00	5.03	0.39	1.63	3.09	5.47	5.34	0.54	0.39
B-B	0.03	2.10%	1.39	3:1	3:1	3.00	5.03	0.39	1.63	3.09	5.47	5.34	0.54	0.39

Section	Drainage Area (ac.)	C	Tc (min)	i (in/hr)	K	Peak Flow (cfs)
A-A	1.3	0.3	5	10.32	1.25	5.03
B-B	1.3	0.3	5	10.32	1.25	5.03



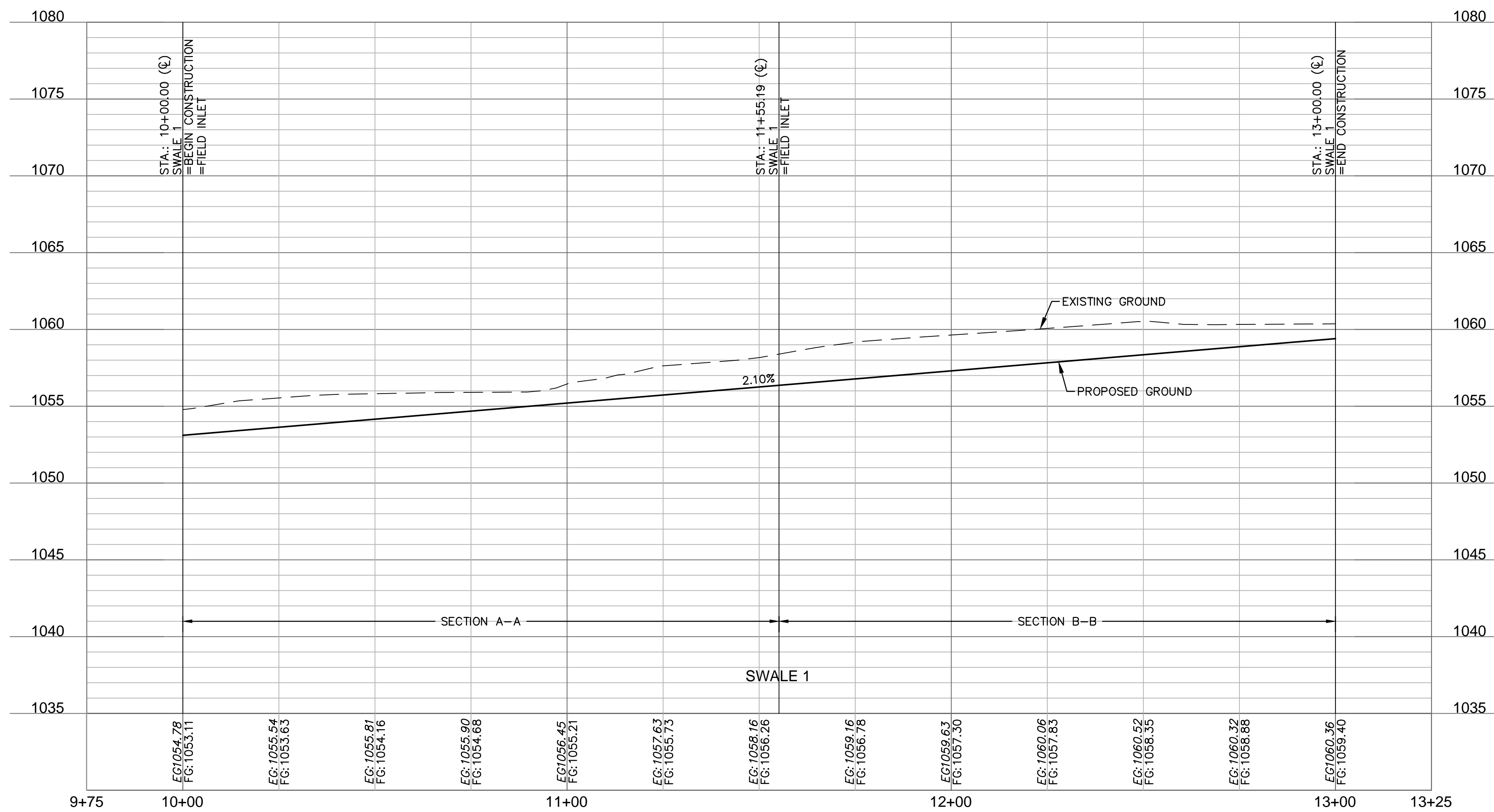
NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE FIELD INLETS ARE LOCATED WITHIN SWALES.

SUMP DETAIL  
N.T.S.

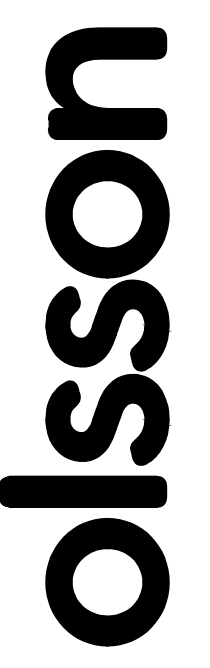


**SWALE GRADING NOTES:**

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



**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021



Olsson - Civil Engineering  
 Missouri Certification of Authority #001592  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olsson.com

STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
*Julie Sellers*  
 NUMBER PE 2017000367  
 8/26/21  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

SWALE 1 PLAN & PROFILE  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT

2021

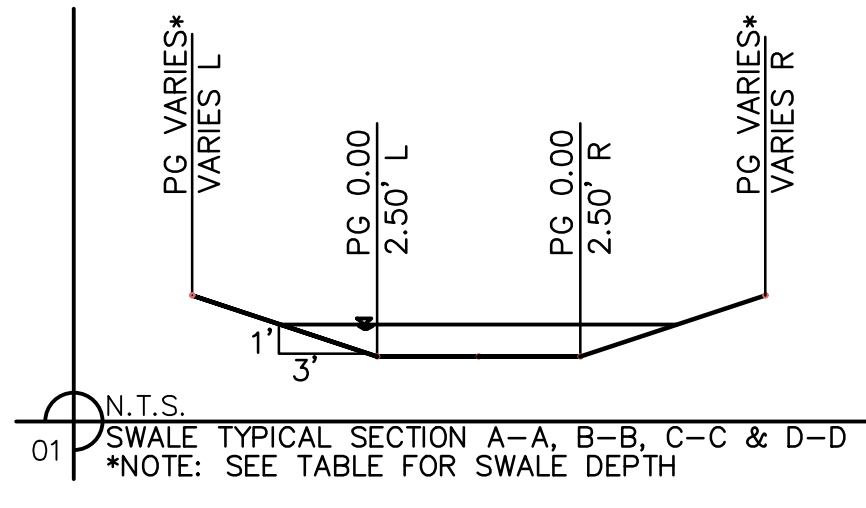
LEE'S SUMMIT, MO

2021

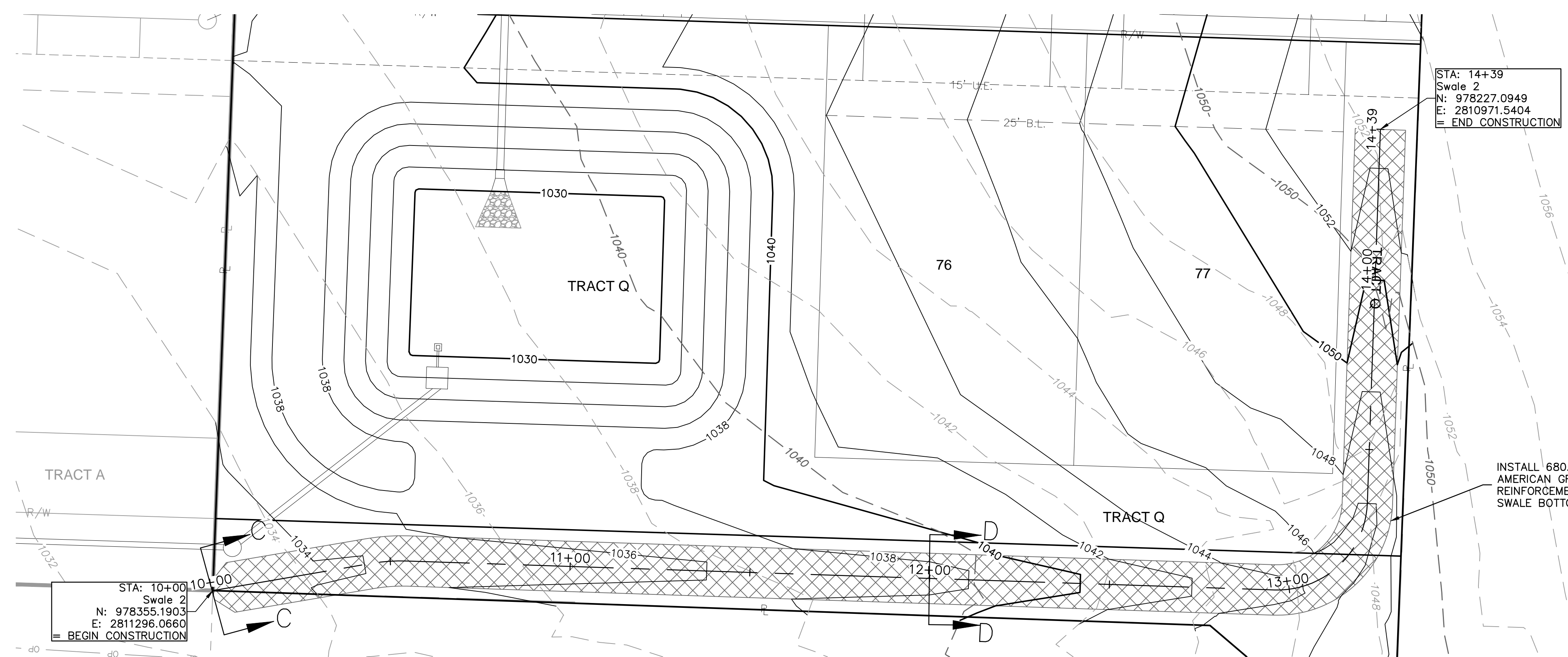
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 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C-SWL01\_D192339  
 date: 8/24/2021

SHEET  
 C107

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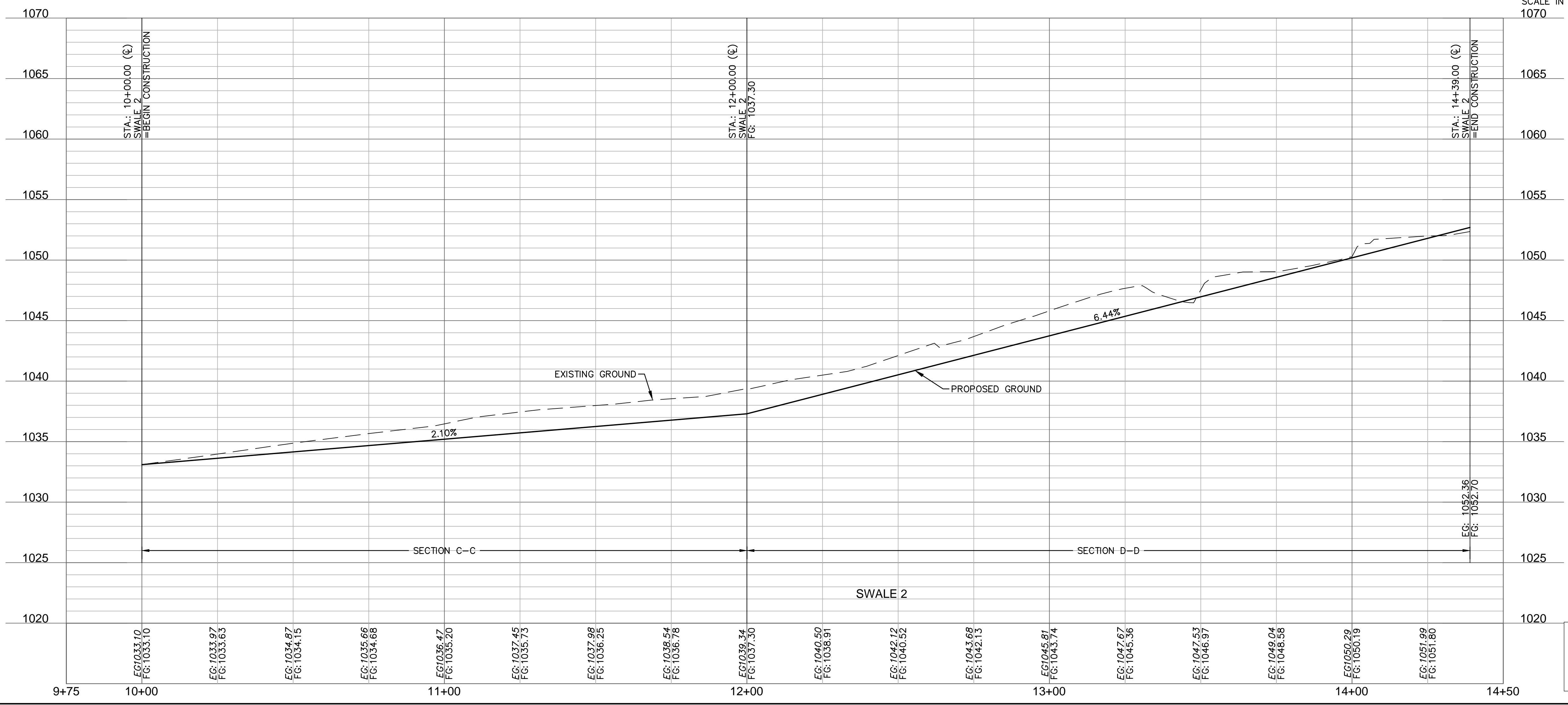
- SWALE GRADING NOTES:**
- CONTRACTOR SHALL CONSTRUCT SWALES WITH MINIMUM SLOPE, WIDTH AND DEPTH AS SHOWN IN THE SWALE DESIGN TABLES.
  - AS-BUILT SURVEY IS REQUIRED/APPROVED BY CITY FOR ALL SWALES AND PRIOR TO APPROVAL FOR ANY BUILDING FOUNDATION PERMIT. CONTRACTOR SHALL BE REQUIRED TO REGRADE SWALES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



NAG VMAX SC250 TURF REINFORCEMENT MAT

SECTION	Section Data				Flow Data										
	Manning's Coefficient	Channel Slope (%)	Swale Depth (ft)	Swale Slope (H:V)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft <sup>2</sup> )	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft <sup>2</sup> )
C-C	0.03	2.10%	1.37	3:1	3:1	3:1	5.00	7.22	0.37	2.26	3.19	7.34	7.22	0.53	0.40
D-D	0.03	6.44%	1.24	3:1	3:1	3:1	5.00	5.93	0.24	1.37	4.32	6.52	6.44	0.53	0.85

Section	Drainage Area (ac.)	C	Tc (min)	i (in/hr)	K	Peak Flow (cfs)
C-C	1.4	0.4	5	10.32	1.25	7.22
D-D	1.15	0.4	5	10.32	1.25	5.93



**RELEASE FOR CONSTRUCTION**  
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 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 08/13/2021

Olsson - Civil Engineering  
 Missouri Certification of Authority #001932  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.ollson.com

JULIE ELAINE SELLERS  
 SELLERS  
 NUMBER PE-2017000367  
 8/26/21

BY \_\_\_\_\_

REVISIONS DESCRIPTION

REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/11/2021	REVISED PER CITY COMMENTS

2021

SWALE 2 PLAN & PROFILE  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT

LEE'S SUMMIT, MO

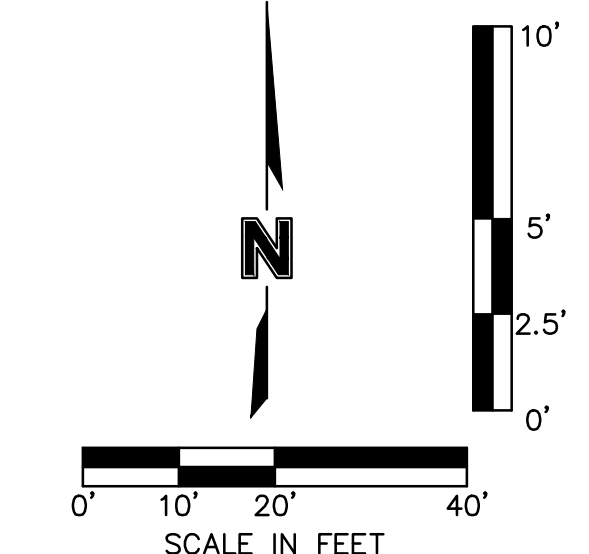
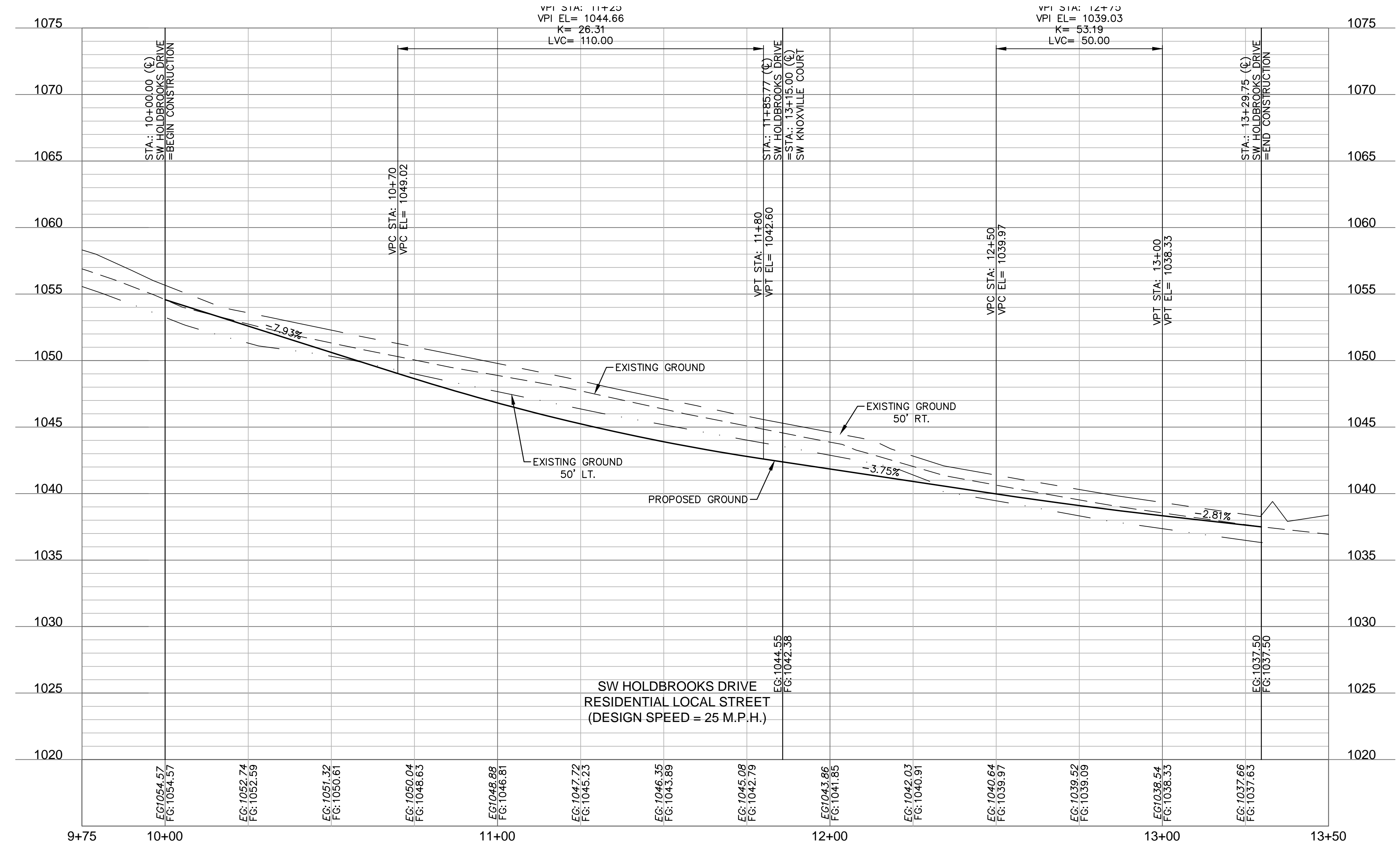
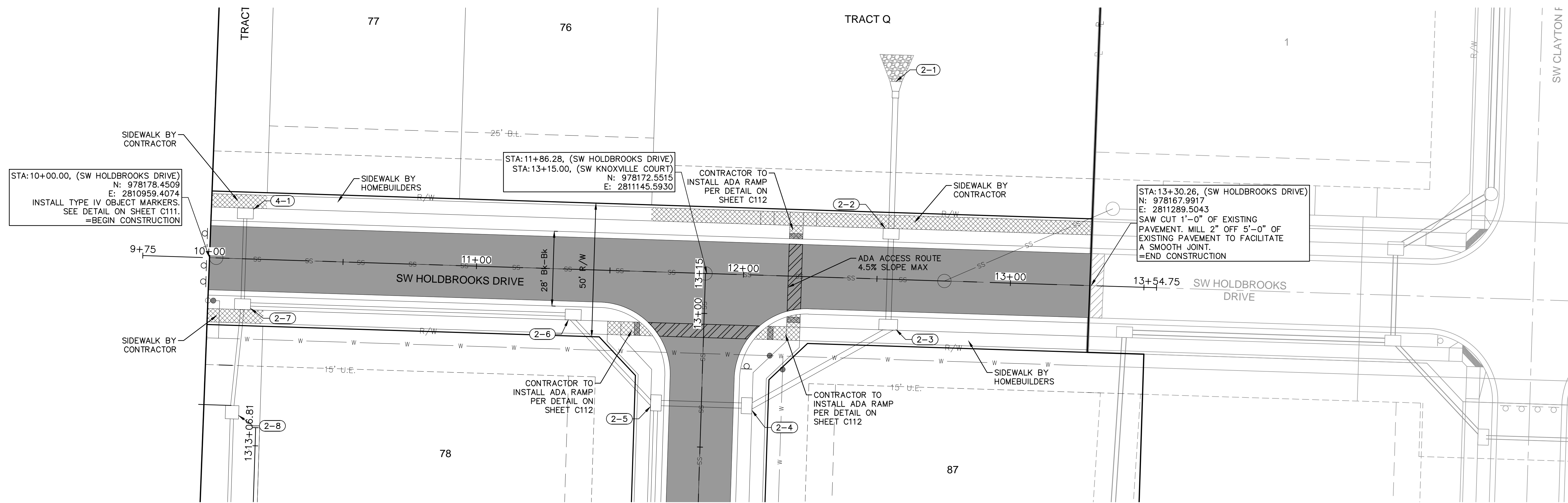
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 designed by: MJD  
 QA/QC by: JES

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 date: 8/24/2021

SHEET  
C108



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	ADA ACCESS ROUTE
	MILL & OVERLAY
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER

**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

Olsson - Civil Engineering  
 Missouri Certification of Authority #061692  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olsosn.com

JULIE ELAINE SELLERS  
 Missouri Professional Engineer  
 NUMBER PE 2017000367  
 9/26/21

REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/11/2021	REVISED PER CITY COMMENTS

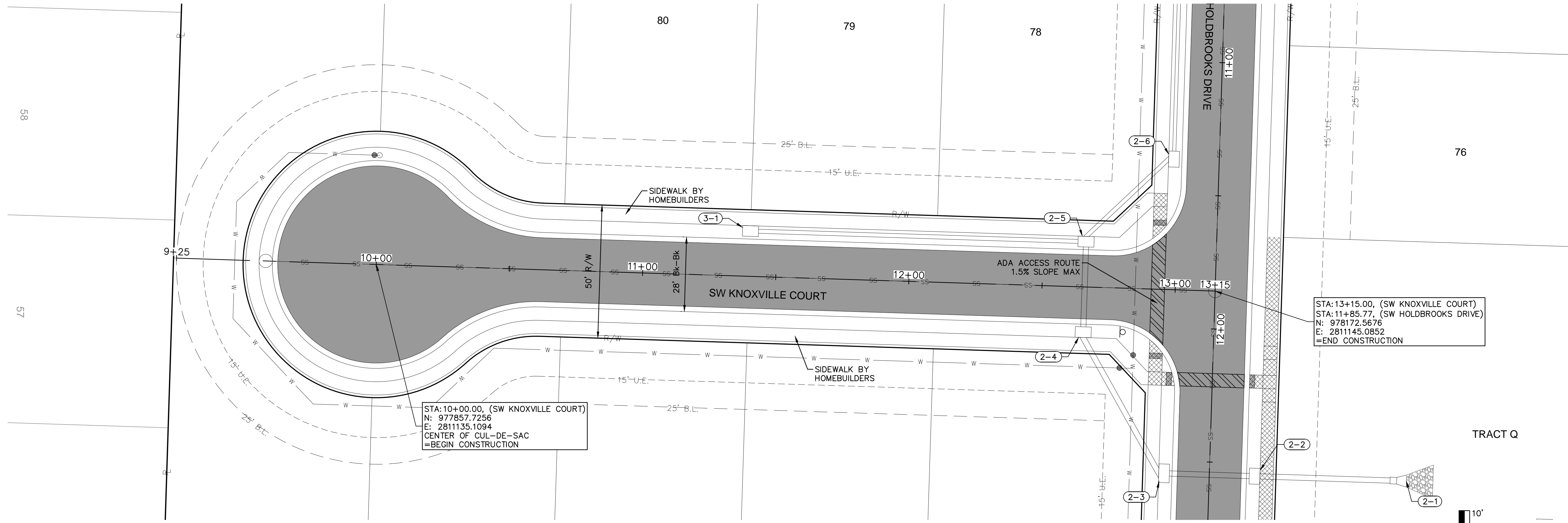
ROADWAY PLAN & PROFILE (SW HOLDBROOKS DRIVE)  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO

2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_RPP01\_D192339  
 date: 8/24/2021

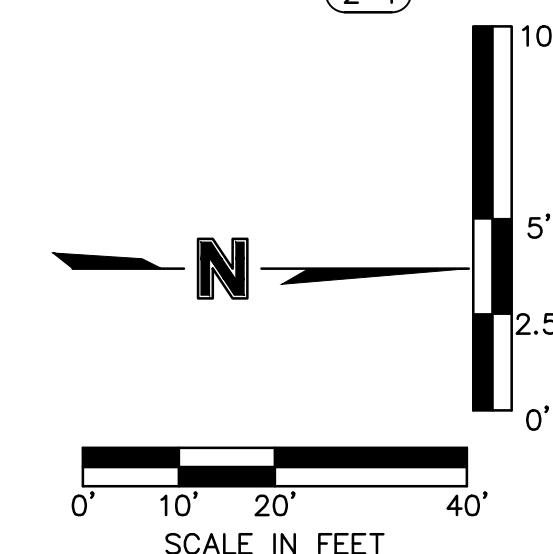
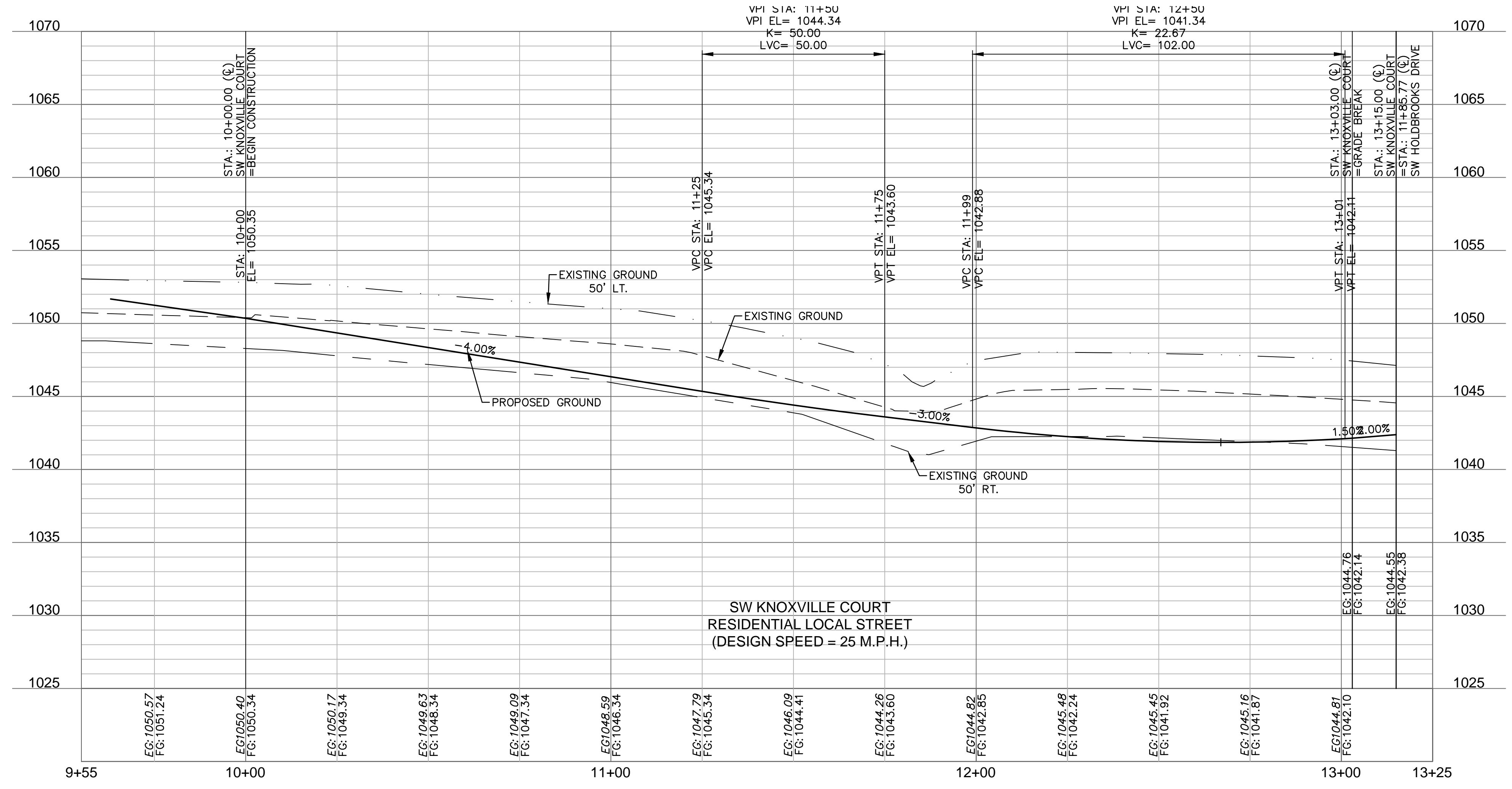
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 USER: eabdi@chevy C:\PUTL\_D192339



STA: 10+00.00, (SW KNOXVILLE COURT)  
 N: 977857.7256  
 E: 2811135.1094  
 CENTER OF CUL-DE-SAC  
 =BEGIN CONSTRUCTION

STA: 13+15.00, (SW KNOXVILLE COURT)  
 STA: 11+85.77, (SW HOLDBROOKS DRIVE)  
 N: 978172.5676  
 E: 2811145.0852  
 =END CONSTRUCTION



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

RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

Olsson - Civil Engineering  
 Missouri Certification of Authority #001892  
 1307 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olsosn.com

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

ROADWAY PLAN & PROFILE (SW KNOXVILLE COURT)  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT

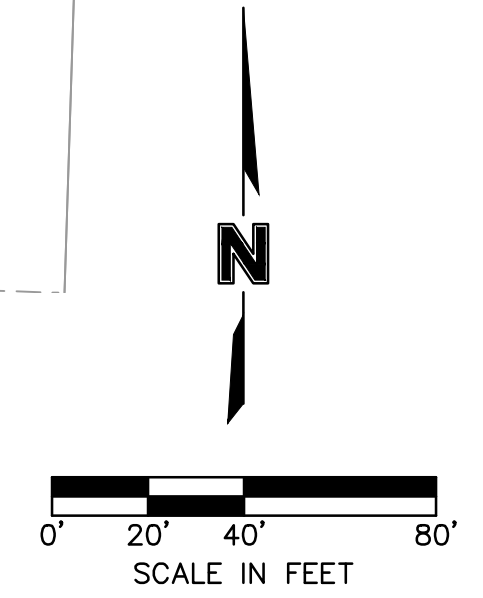
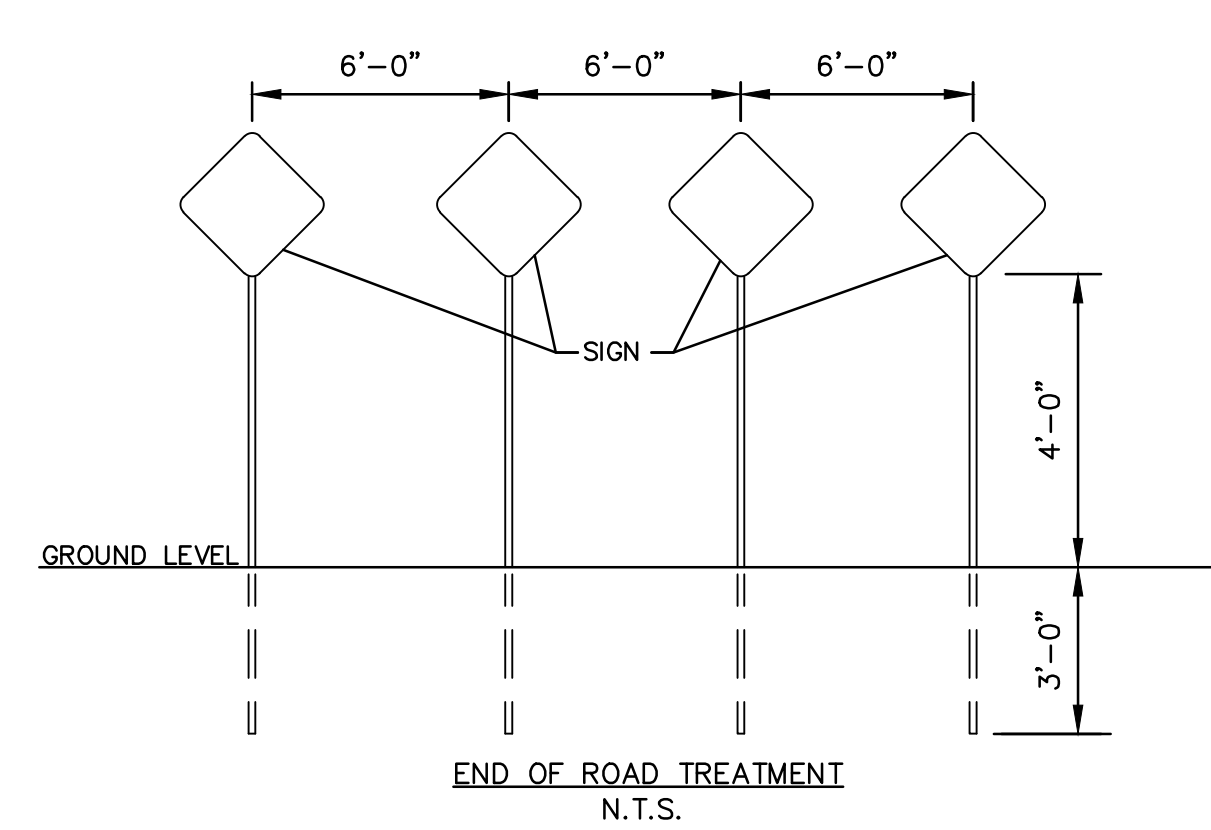
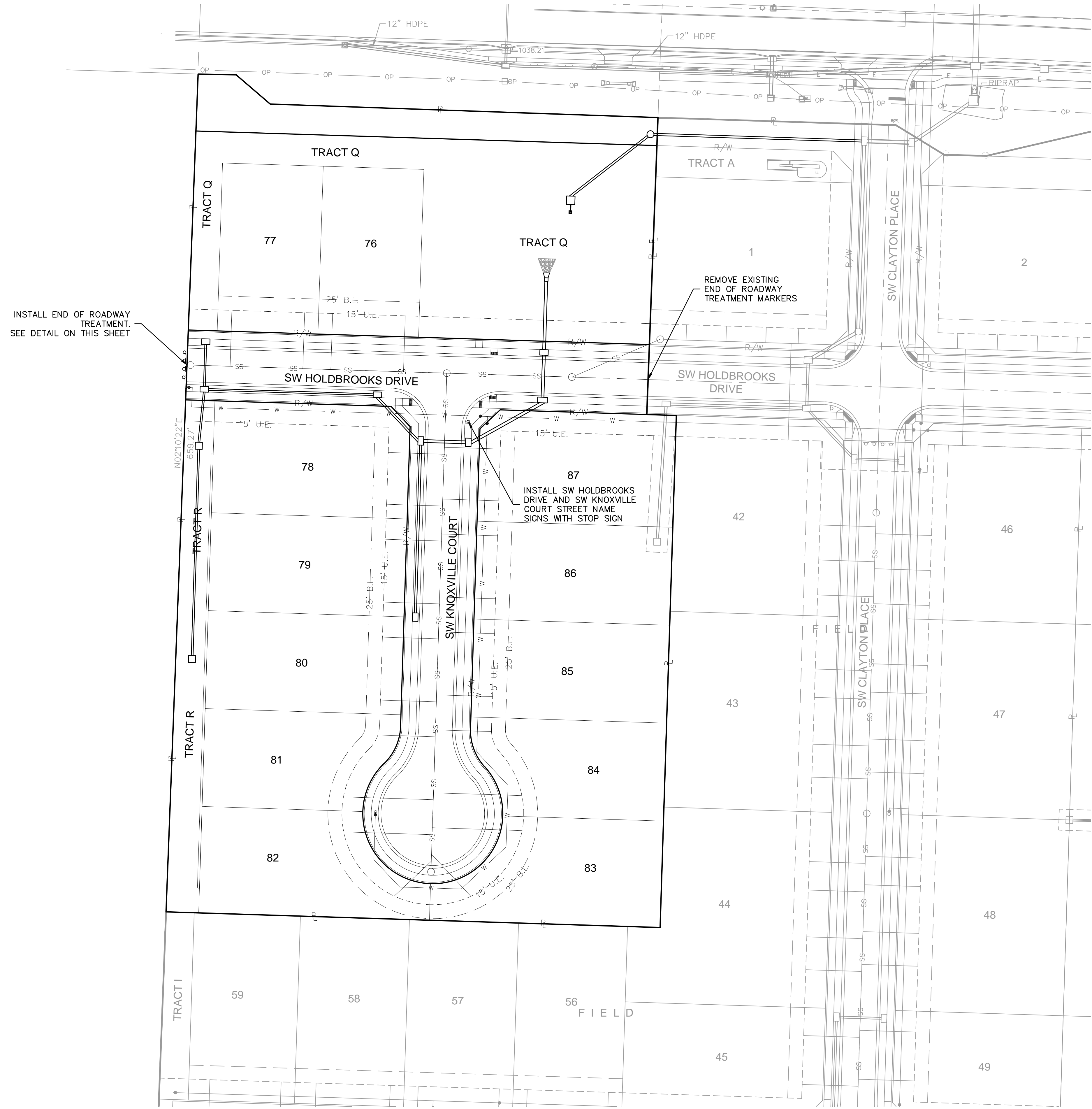
2021

LEE'S SUMMIT, MO

drawn by: _____ MJD
checked by: _____ JES
designed by: _____ MJD
QA/QC by: _____ JES
project no.: D19-2339
drawing no.: C_RPP01_D192339
date: 8/24/2021

**SHEET**  
 C110

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RELEASE FOR CONSTRUCTION  
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 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 SELLERS  
 NUMBER PE 2017000367  
 8/26/21  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	




TRAFFIC CONTROL PLAN  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

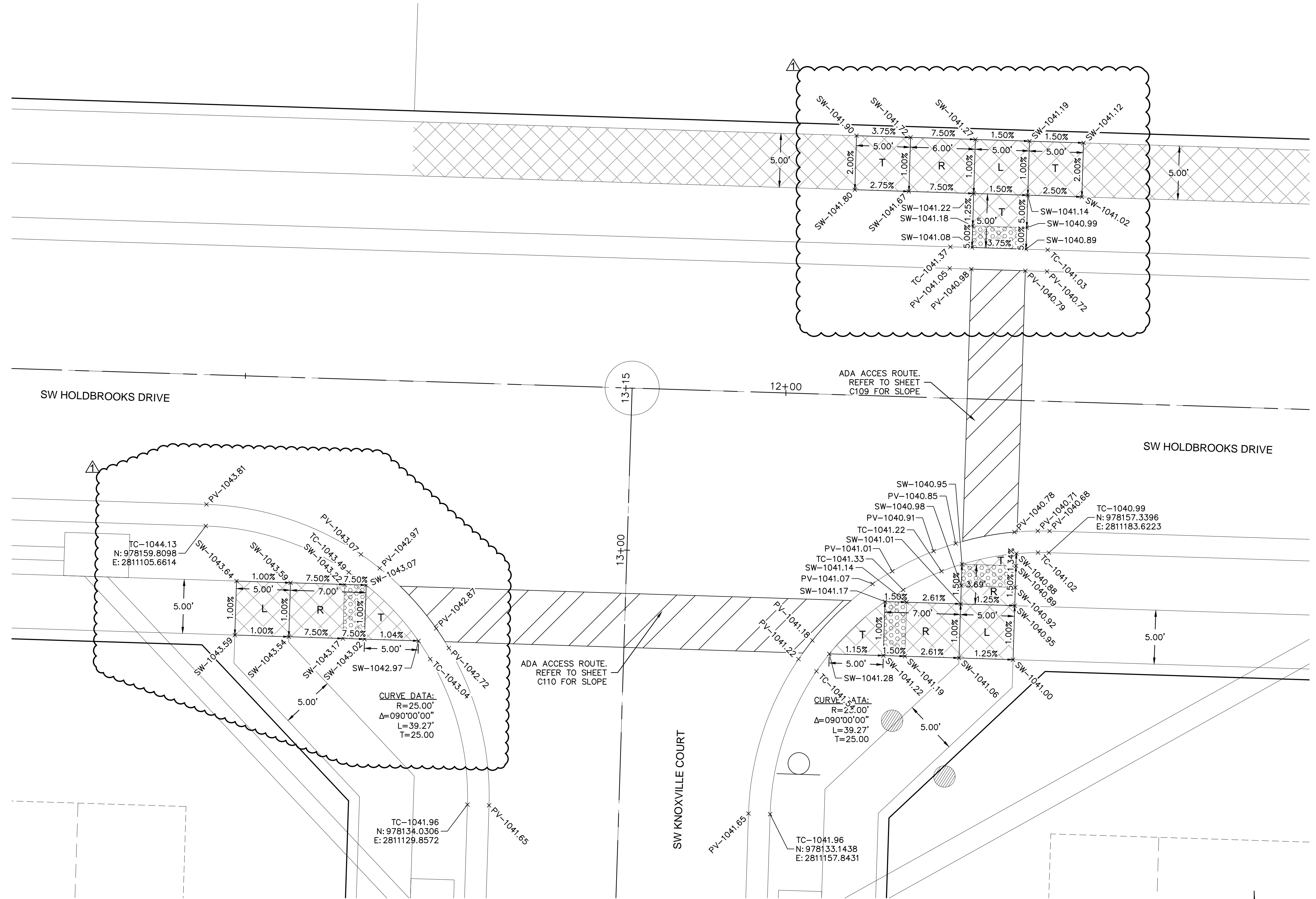
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SHEET C111

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

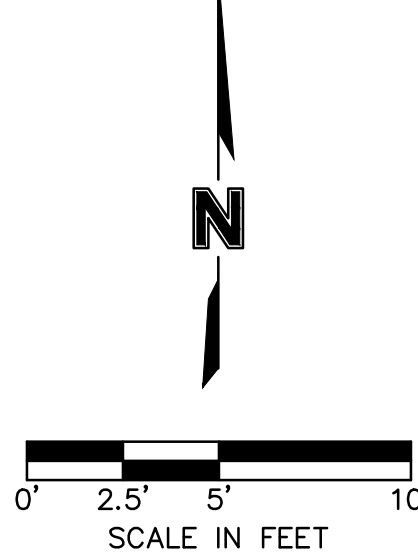
LEGEND	
TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CONCRETE SIDEWALK (CONSTRUCTED BY CONTRACTOR)



CURVE DATA:  
 R=25.00'  
 Δ=090°00'00"  
 L=39.27'  
 T=25.00'

CURVE DATA:  
 R=22.00'  
 Δ=090°00'00"  
 L=39.27'  
 T=25.00'

RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

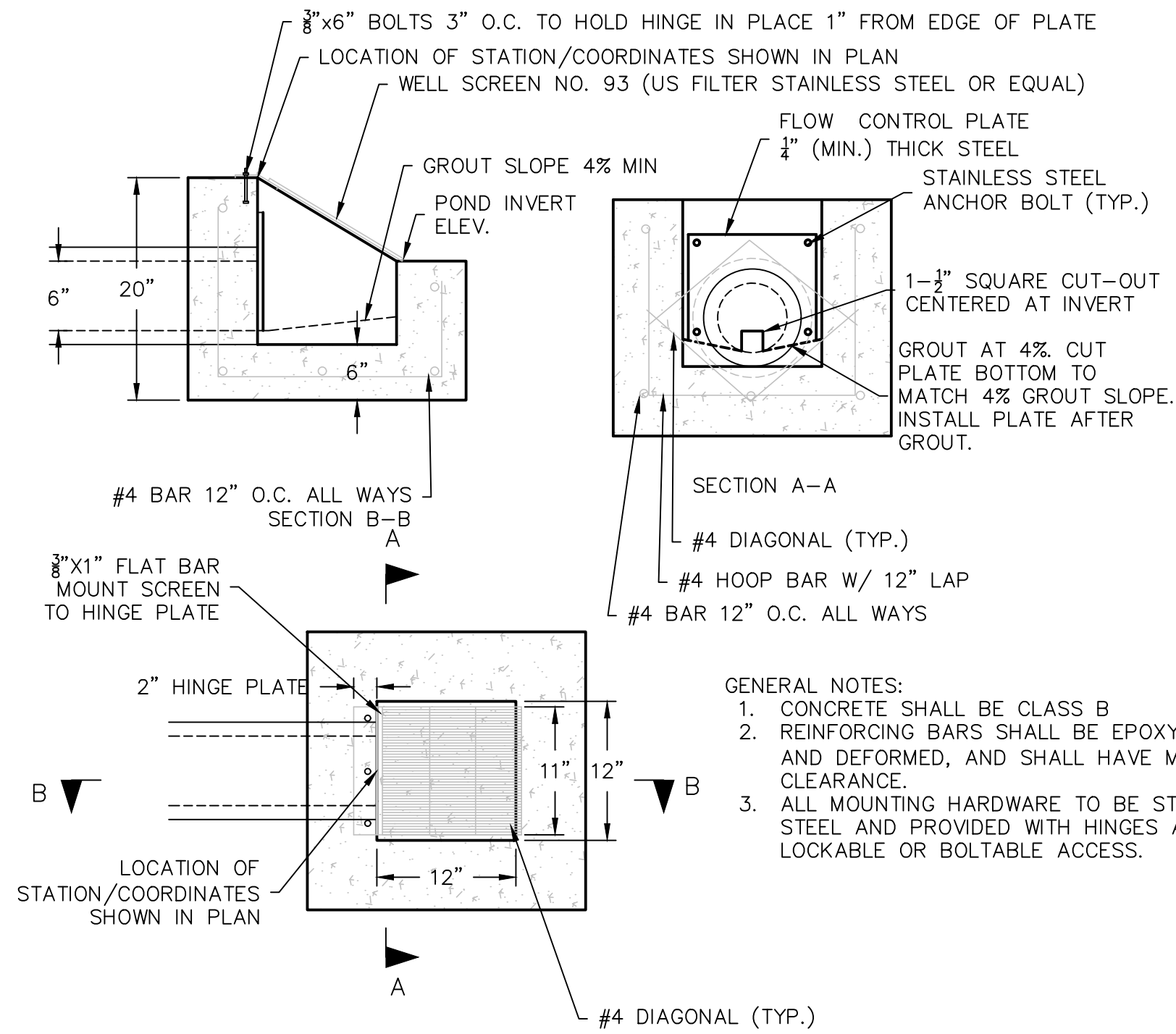
SW HOLDBROOKS DRIVE & SW KNOXVILLE COURT INTERSECTION  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_INT01\_D192339  
 date: 8/24/2021

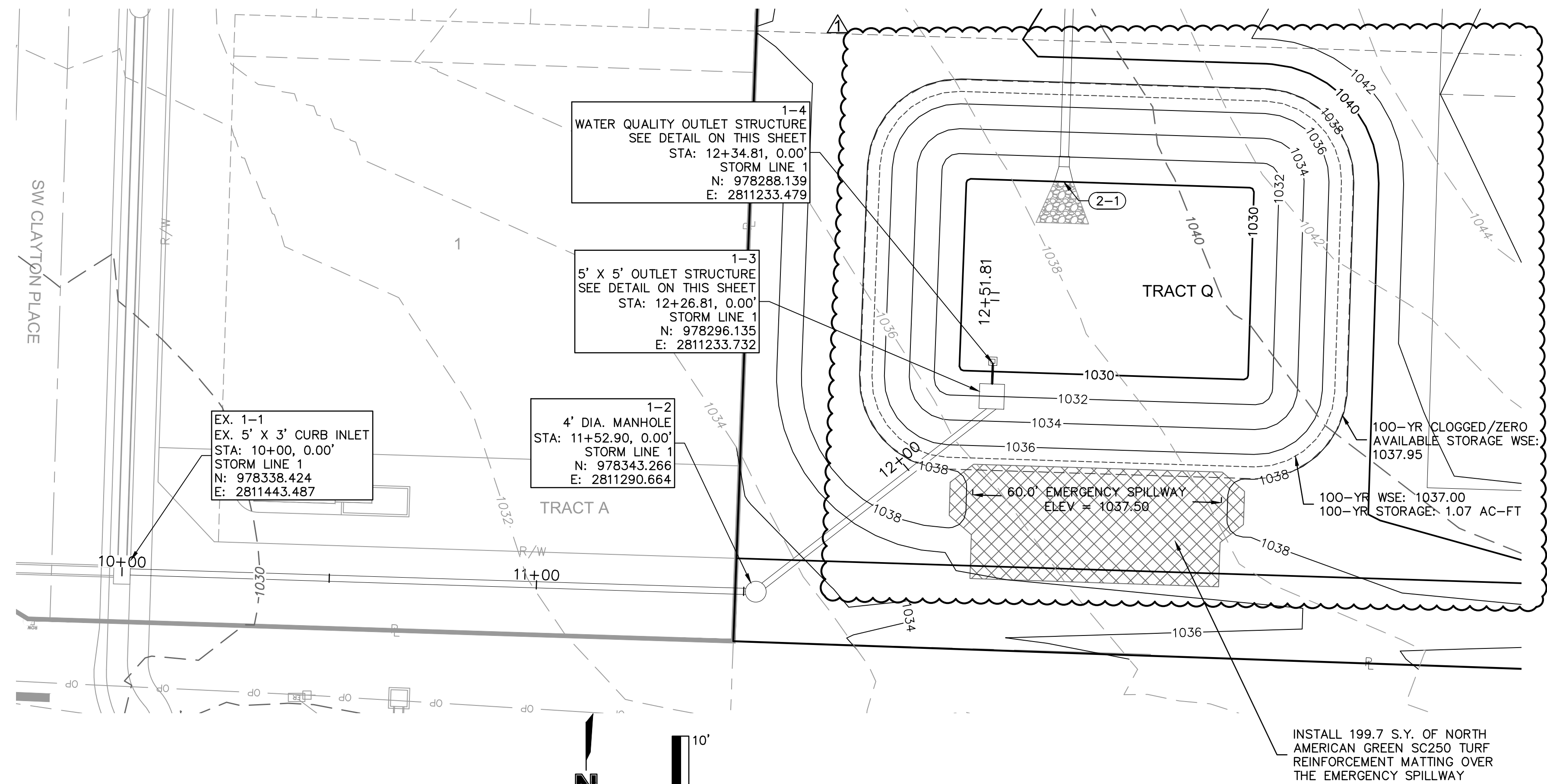
SHEET C112

**olsson**  
 Olsson - Civil Engineering  
 Missouri Certification of Authority #001692  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olson.com

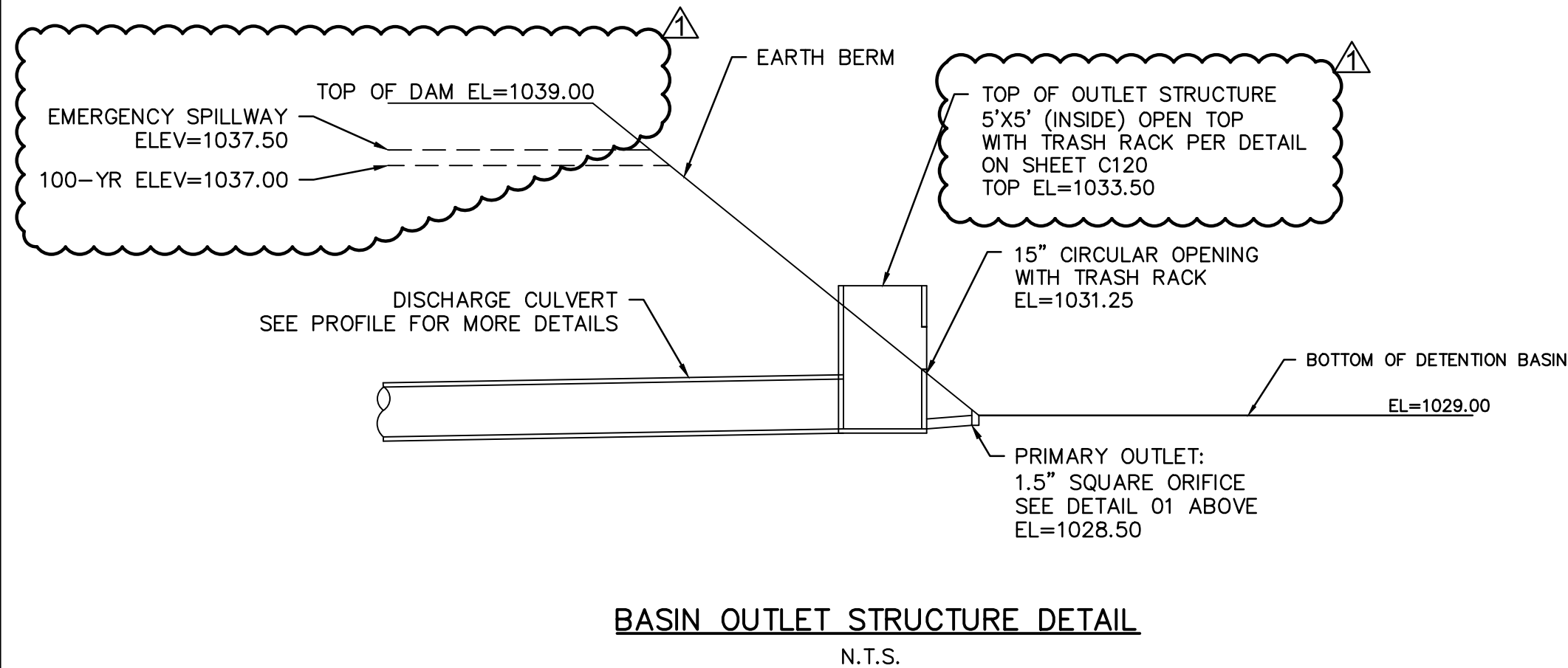
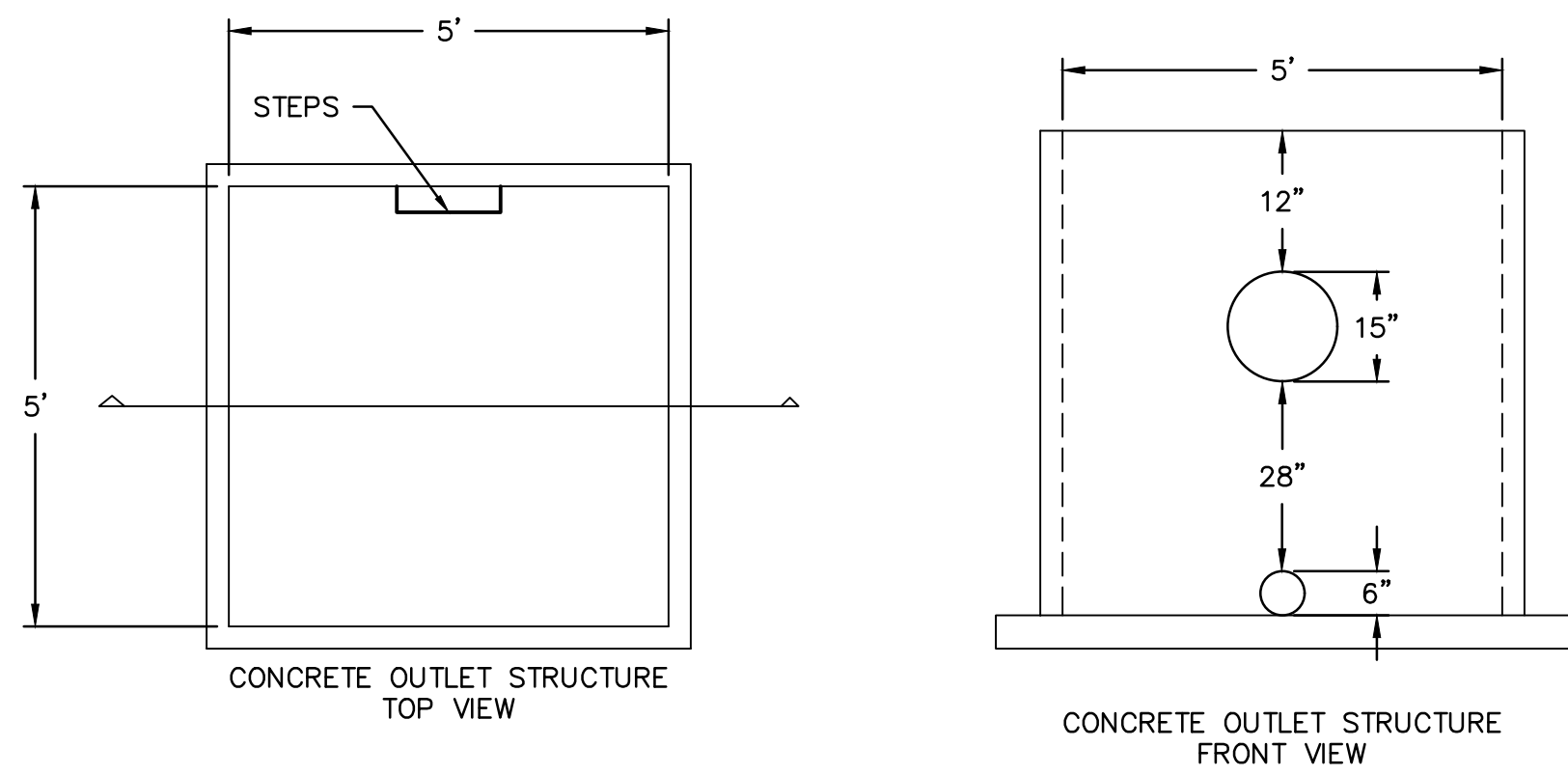
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 C:\PSTRM\_D192339



- GENERAL NOTES:**
1. CONCRETE SHALL BE CLASS B
  2. REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED, AND SHALL HAVE MINIMUM 2" CLEARANCE.
  3. ALL MOUNTING HARDWARE TO BE STAINLESS STEEL AND PROVIDED WITH HINGES AND LOCKABLE OR BOLTABLE ACCESS.

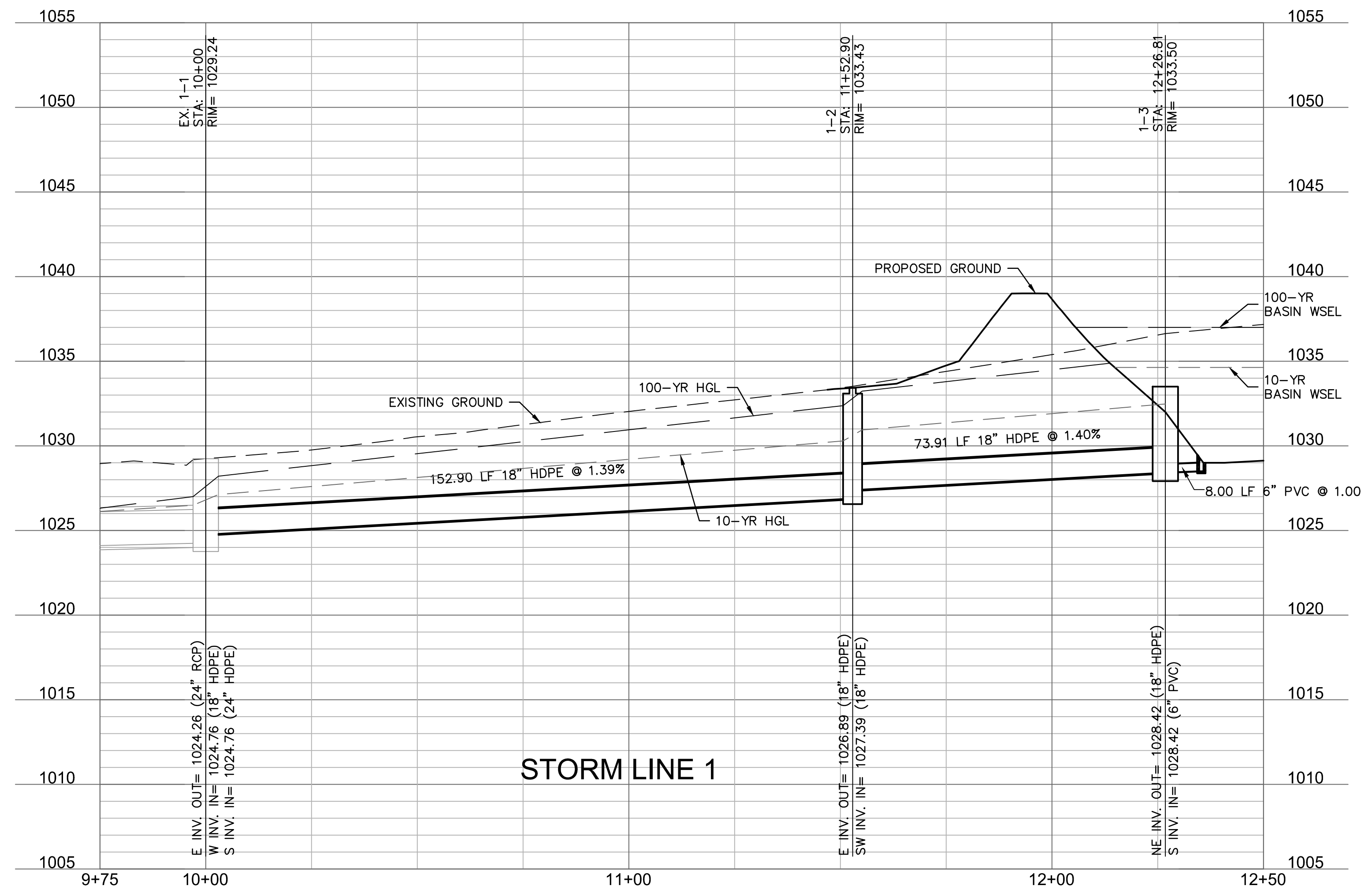


BASIN DETAILS	
EMERGENCY SPILLWAY TYPE	RECTANGULAR BROAD CRESTED WEIR
EMERGENCY SPILLWAY LENGTH	60 FT
EMERGENCY SPILLWAY ELEVATION	1037.50
EMERGENCY SPILLWAY DEPTH	1.50 FT
TOP OF DAM ELEVATION	1039.00
100-YR FLOW (AT 0.47' FLOW DEPTH)	50.60 CFS
100 YEAR PROPOSED STORAGE	1.07 ACRE-FEET
100 YEAR 100% CLOGGED/ZERO STORAGE AVAILABLE STORAGE WATER SURFACE ELEVATION	1037.95
100 YEAR WATER SURFACE ELEVATION	1037.00

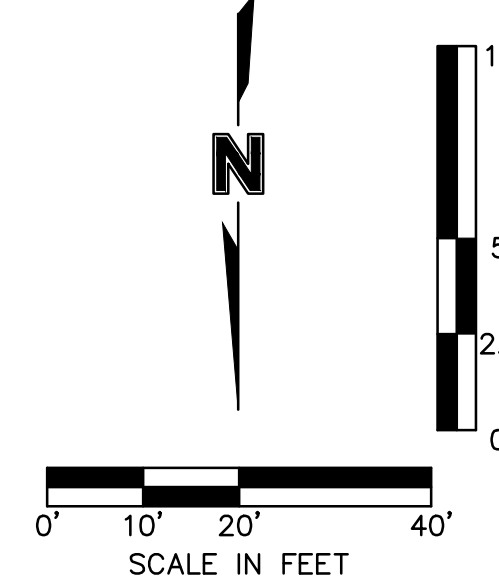


**BASIN OUTLET STRUCTURE DETAIL**  
N.T.S.

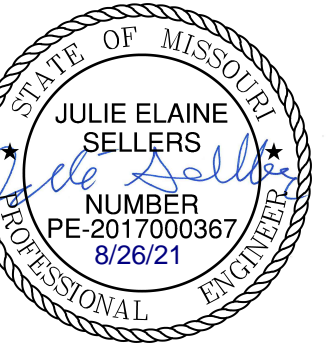
**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021



**STORM LINE 1**



NAG VMAX SC250 TURF REINFORCEMENT MAT

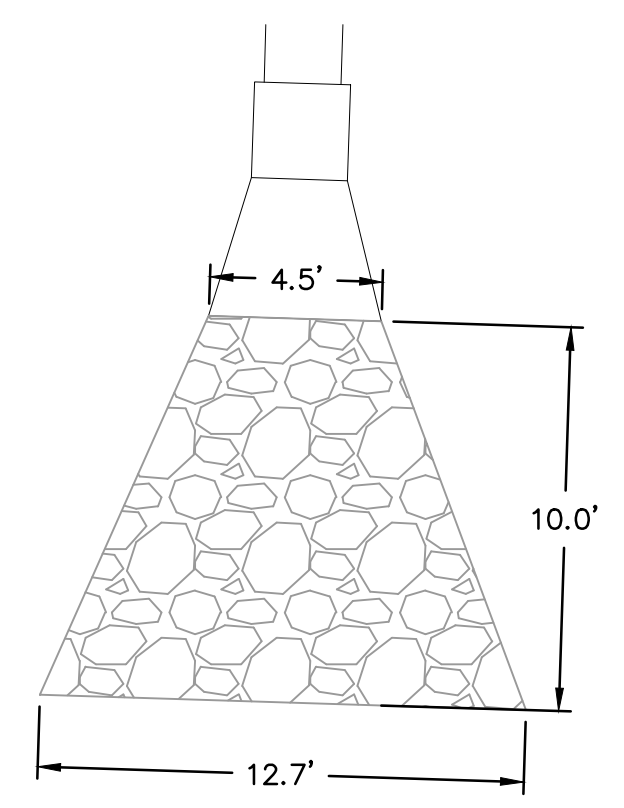
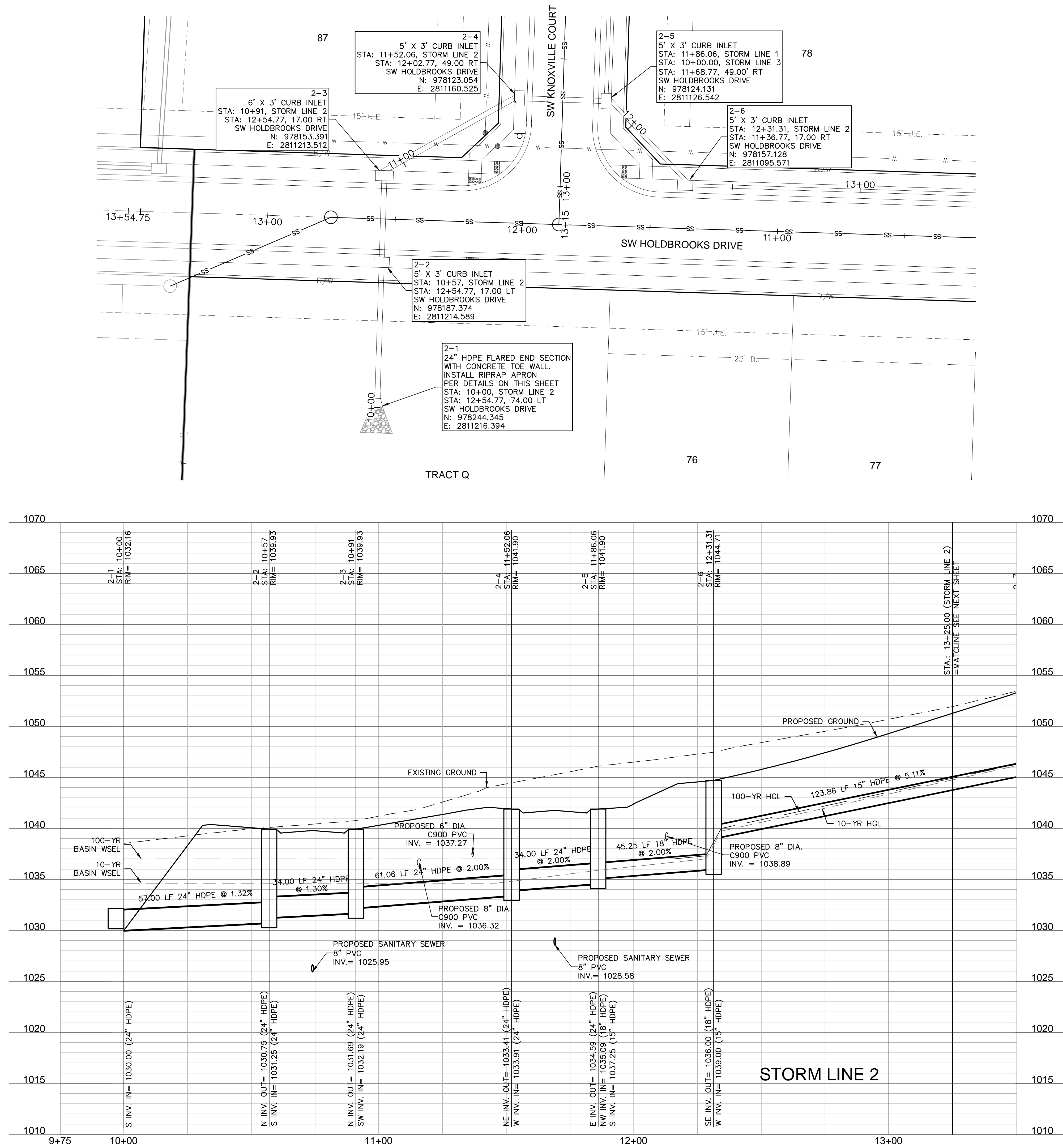


REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/11/2021	REVISED PER CITY COMMENTS

DETENTION BASIN PLAN  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_DBP01\_D192339  
 date: 8/24/2021

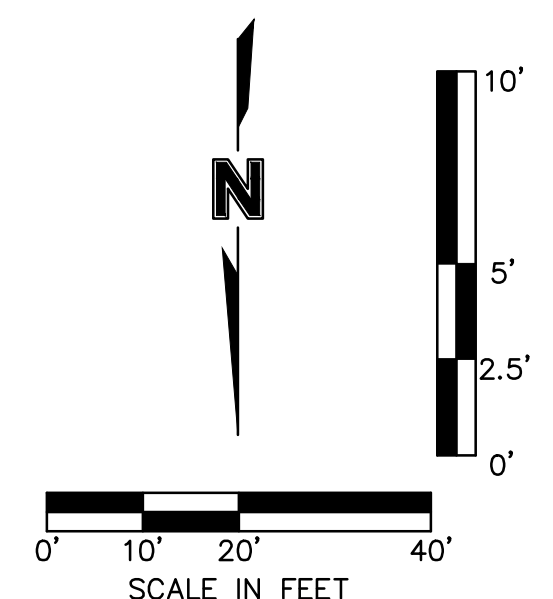
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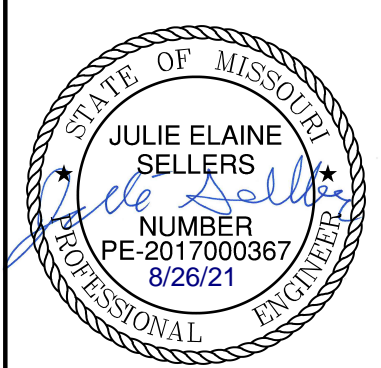
Riprap Calculations

End Section	Q <sub>100</sub> (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 2-1	28.19	2	3	10	10	2.00	10.4

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



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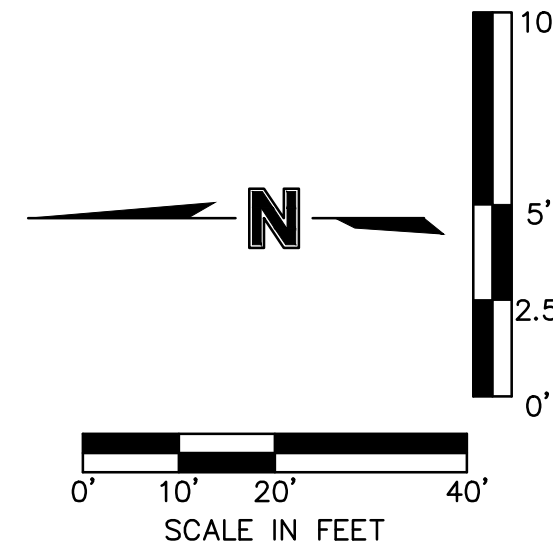
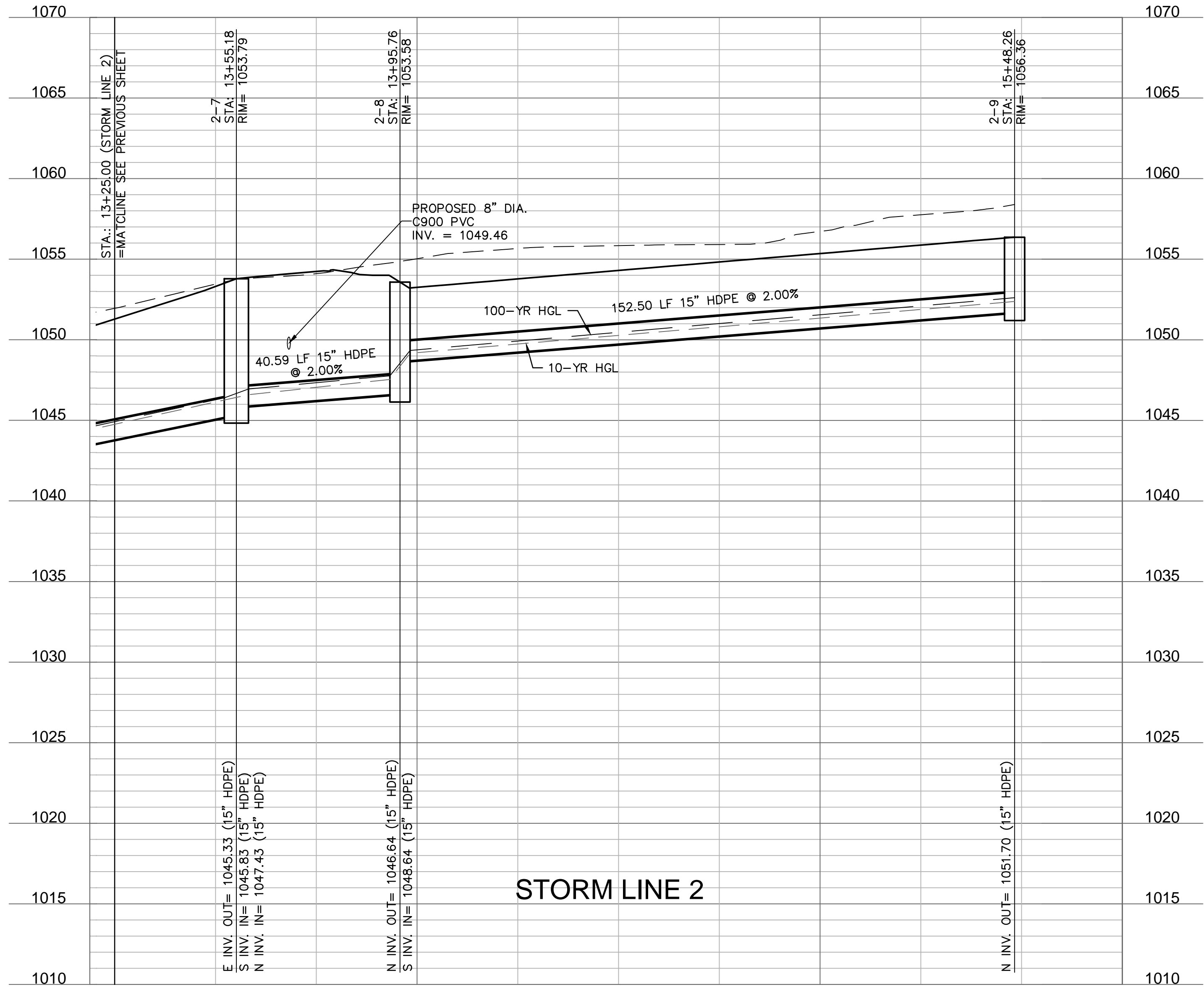
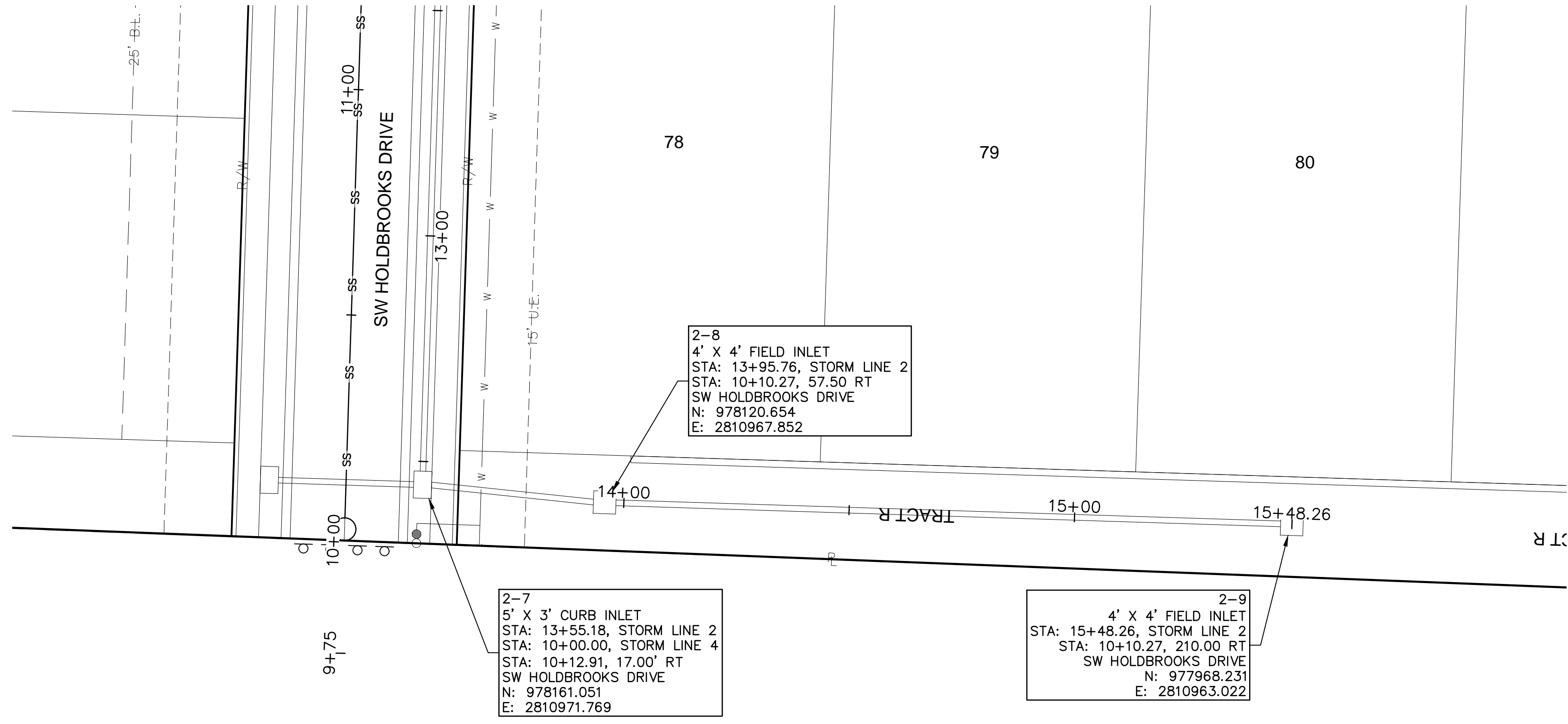
STORM SEWER PLAN & PROFILE (LINE 2)  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

drawn by: MID  
 checked by: JES  
 designed by: MID  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_STM01\_D192339  
 date: 8/24/2021

SHEET C114

DWG: F:\2019\2001-2500\019-2339-a\10-design\AutoCAD\final\plans\Sheets\CNC\Street & Storm Plans\C\_STM01\_D192339.dwg  
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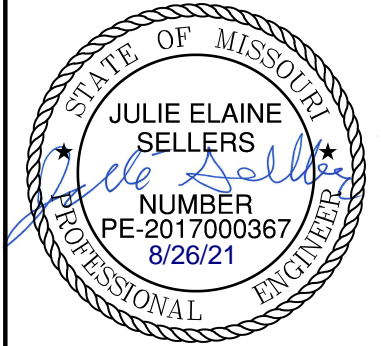
RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

STORM SEWER PLAN & PROFILE (LINE 2 CONT.)  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

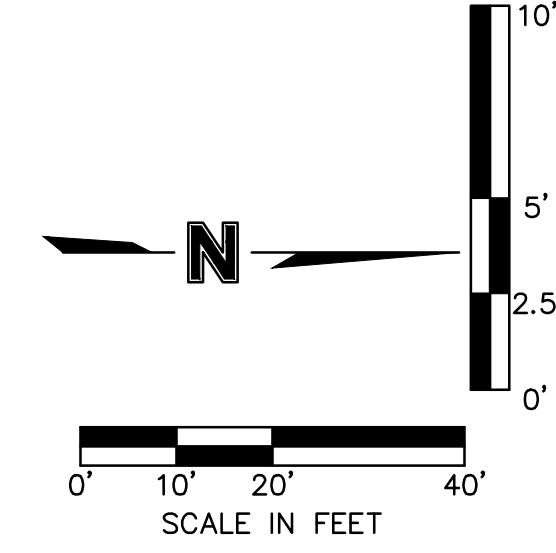
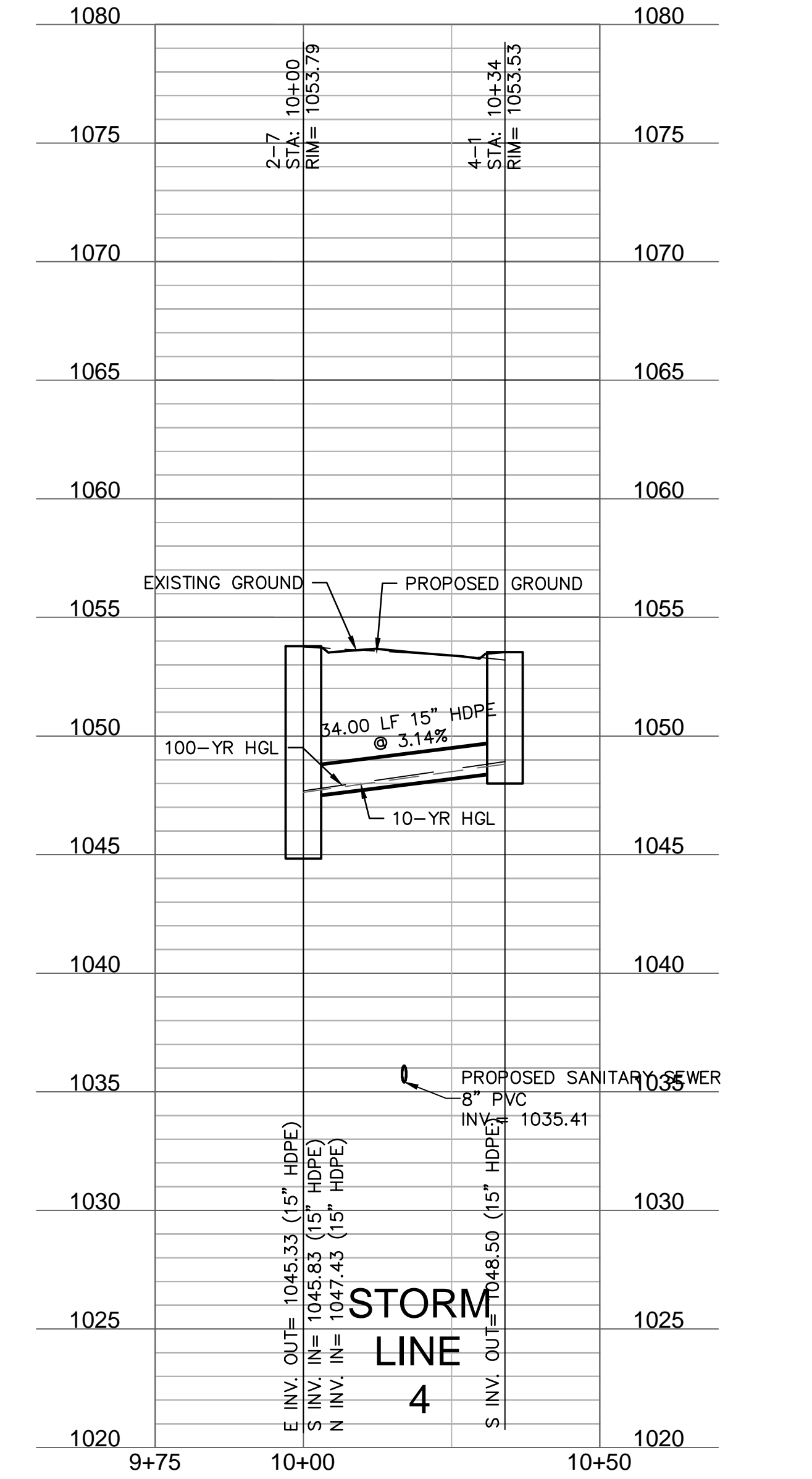
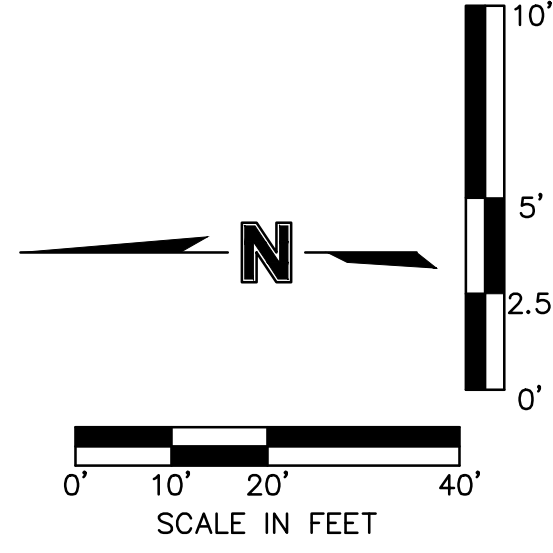
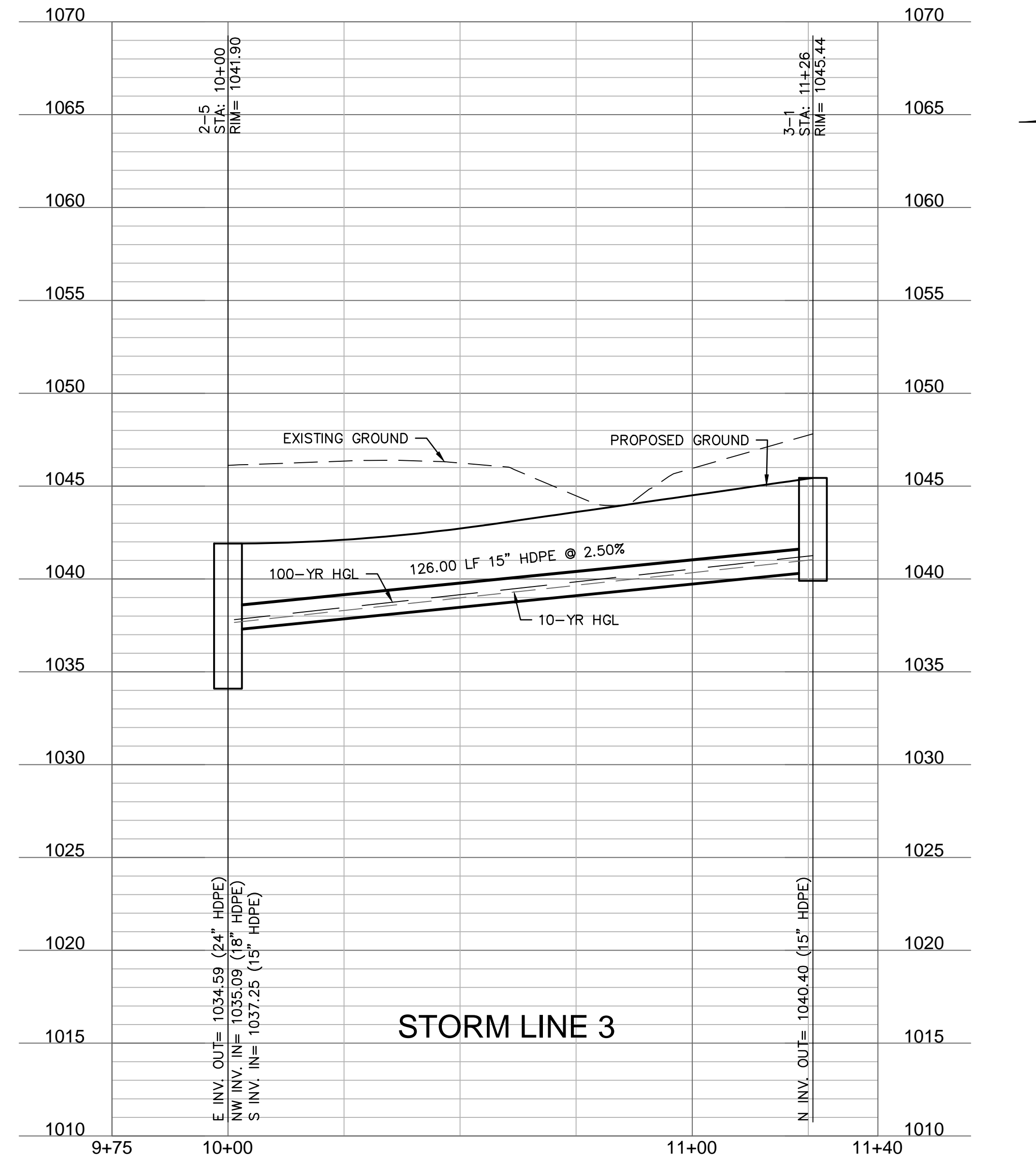
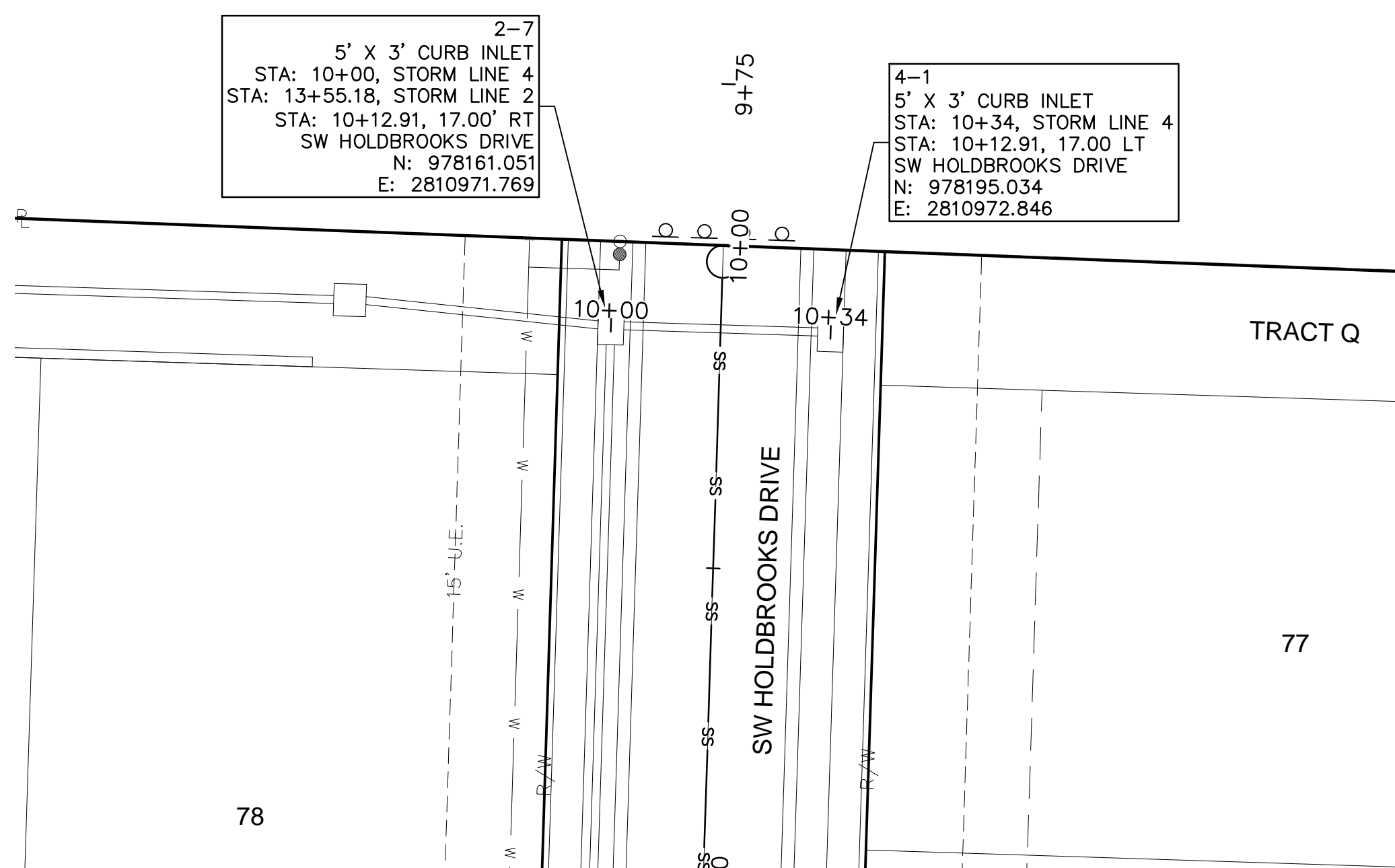
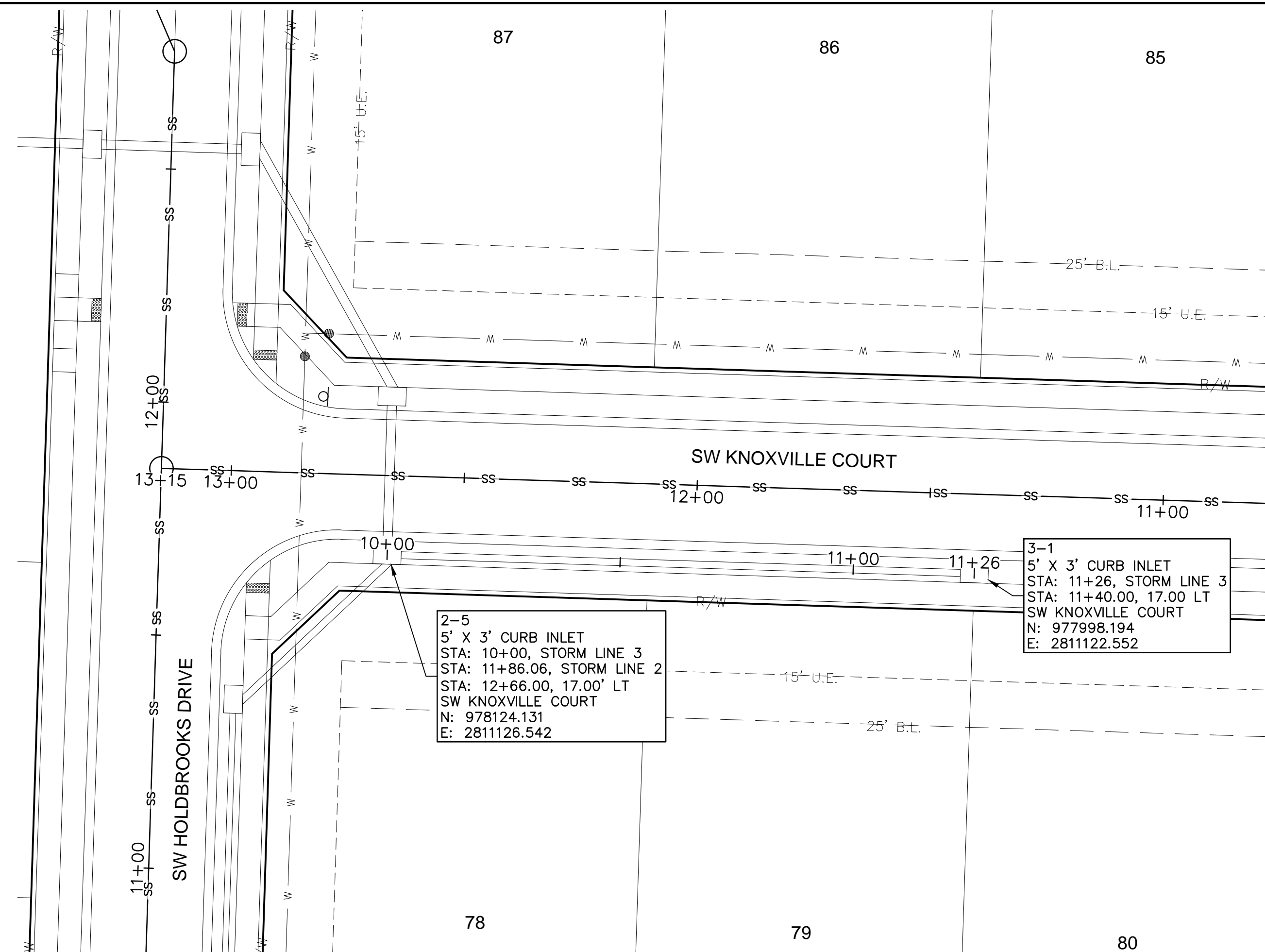
drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_STM01\_D192339  
 date: 8/24/2021

SHEET C115



**olsson**  
 Olsson - Civil Engineering  
 Missouri Certification of Authority #001592  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 www.olson.com

DWG: F:\2019\2021-2500\019-2339-a\10-design\AutoCAD\final\_plans\AutoCAD\Street & Storm Plans\C\_STM01\_D192339.dwg  
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 USER: ebdjellivey C\_PUTL\_D192339 C\_PUTL\_D192339 C\_PSTRM\_D192339



RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 08/13/2021

OSAGE 3RD PLAT

STORM SEWER PLAN & PROFILE (LINE 4 & 5)

STREET & STORM SEWER PLANS

LEE'S SUMMIT, MO

2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/11/2021	REVISED PER CITY COMMENTS

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 North Kansas City, MO 64116  
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 www.olsosn.com

JULIE ELAINE  
 SELLERS  
*Julie Sellers*  
 PE 2017000367  
 8/26/21  
 MISSOURI PROFESSIONAL ENGINEER

SHEET  
C116



DWG: F:\2019\2001-2500\019-2339-d140-design\AutoCAD\final\plans\AutoCAD\Street & Storm Plans\C\_DRN01\_D192339.dwg  
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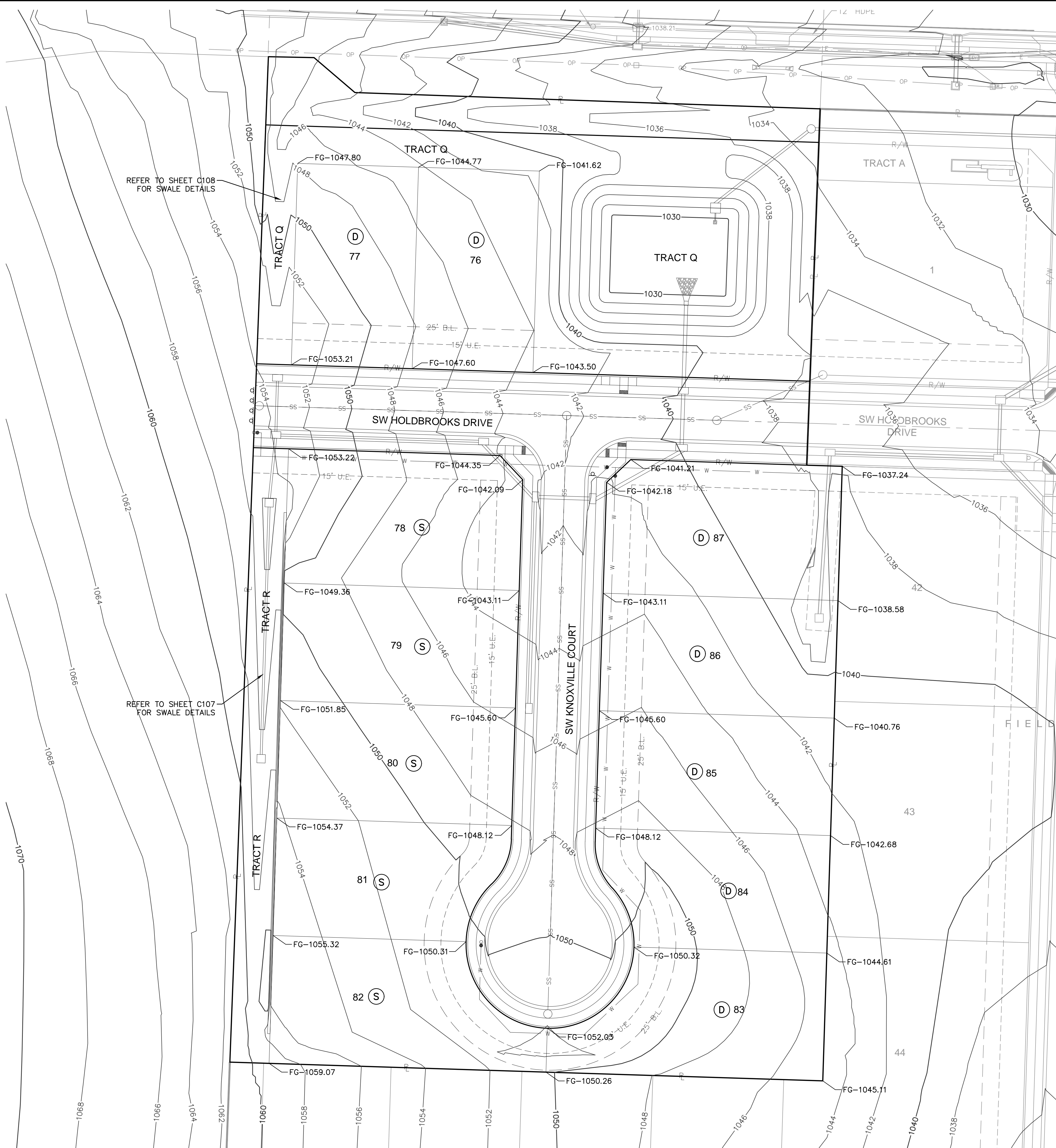
NOTES:  
 MBOE - MINIMUM BUILDING OPENING ELEVATION  
 FG - FINISHED GRADE

LEGEND	
	FINISHED INDEX CONTOURS
	FINISHED INTERMEDIATE CONTOURS

**BASEMENT TYPES**

- STANDARD
- DAYLIGHT

- NOTES:
- INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.
  - PLAT IS LOCATION IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANCE SHEET FLOW FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"
  - PLAT IS LOCATED OUTSIDE OF ANY REQUIRED BUFFER ZONES FOR NATURAL STREAMS.
  - MBOE ELEVATIONS HAVE BEEN PROVIDED AT EACH LOT CORNER. INTERPOLATION WILL BE ALLOWED BETWEEN THE RIGHT AND LEFT SIDE MBOE'S SHOWN ON THE MASTER DRAINAGE PLAN, DEPENDING ON THE LOCATION OF THE LOWEST OPENING ON THE PROPOSED STRUCTURE.
  - REFER TO SHEET C107-C108 FOR SWALE GRADING DETAILS.
  - DRAINAGE PATHS TO BE CONSTRUCTED BETWEEN LOTS LABELED AS STANDARD AND/OR UPHILL LOTS.
  - NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.



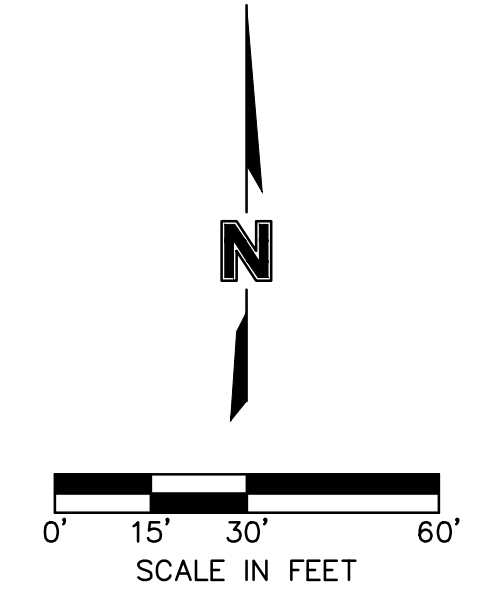
REFER TO SHEET C108 FOR SWALE DETAILS

REFER TO SHEET C107 FOR SWALE DETAILS

Hook Farms Second Plat Minimum Building Opening Elevations		
Lot	MBOE Required*	As-Built Grading Plan Required
76	X	X
77	X	X
78		
79		
80		
81		
82		
83		
84		
85		
86	X	X
87	X	X

Notes:  
 X - Indicates the condition applies to the lot.  
 \* - MBOE's will be determined once the as-built survey has been completed. This table will be replaced with a new table showing the determined MBOE for these lots.

RELEASE FOR CONSTRUCTION  
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 LEE'S SUMMIT, MISSOURI  
 09/13/2021



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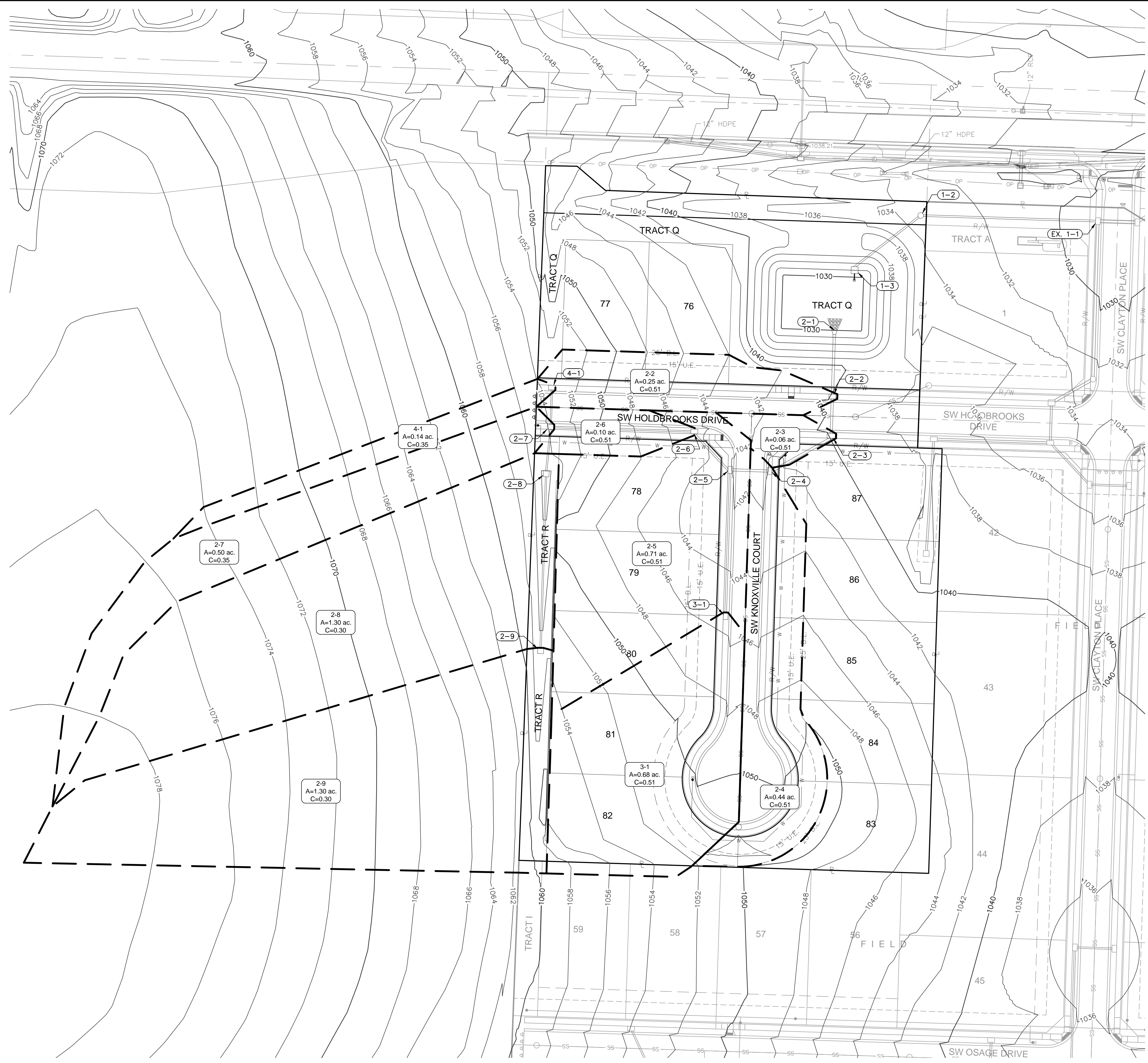
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

MASTER DRAINAGE PLAN  
 STREET & STORM SEWER PLANS  
 OSAGE 3RD PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_DRN01\_D192339  
 date: 8/24/2021

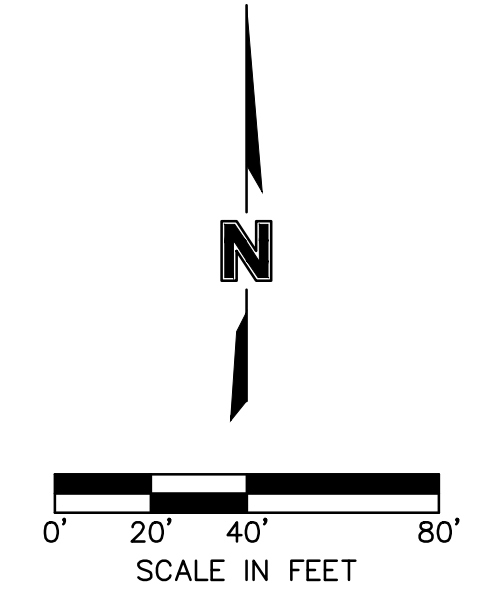
SHEET  
 C117

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 USER: cshelton@olsson.com



LEGEND	
— 100	FINISHED INDEX CONTOURS
- - - 100	FINISHED INTERMEDIATE CONTOURS
—	RIDGE LINE
A	DRAINAGE AREA
C	RUNOFF COEFFICIENT
(C.I. 0-0)	STORM STRUCTURE NUMBER

RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/13/2021



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

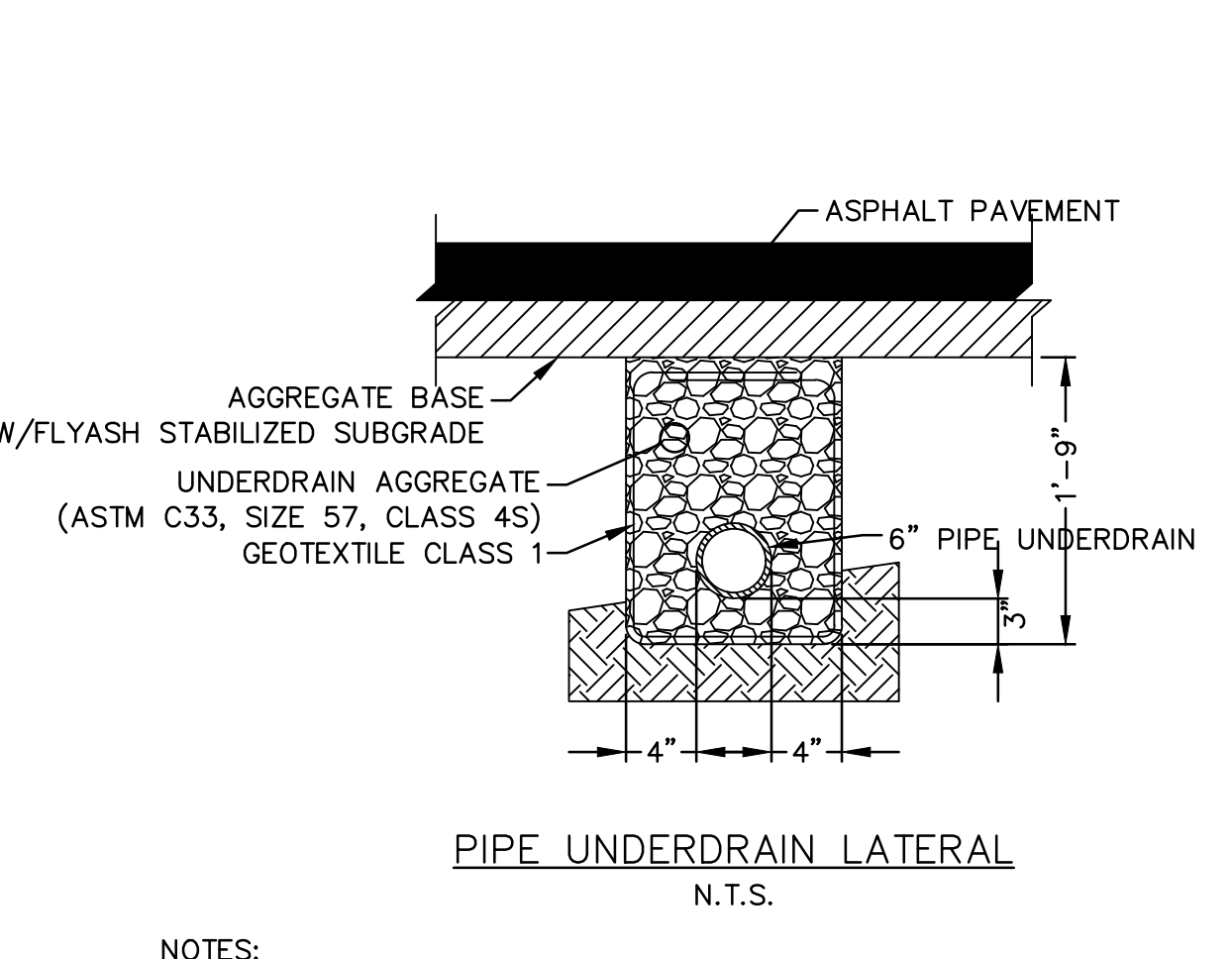
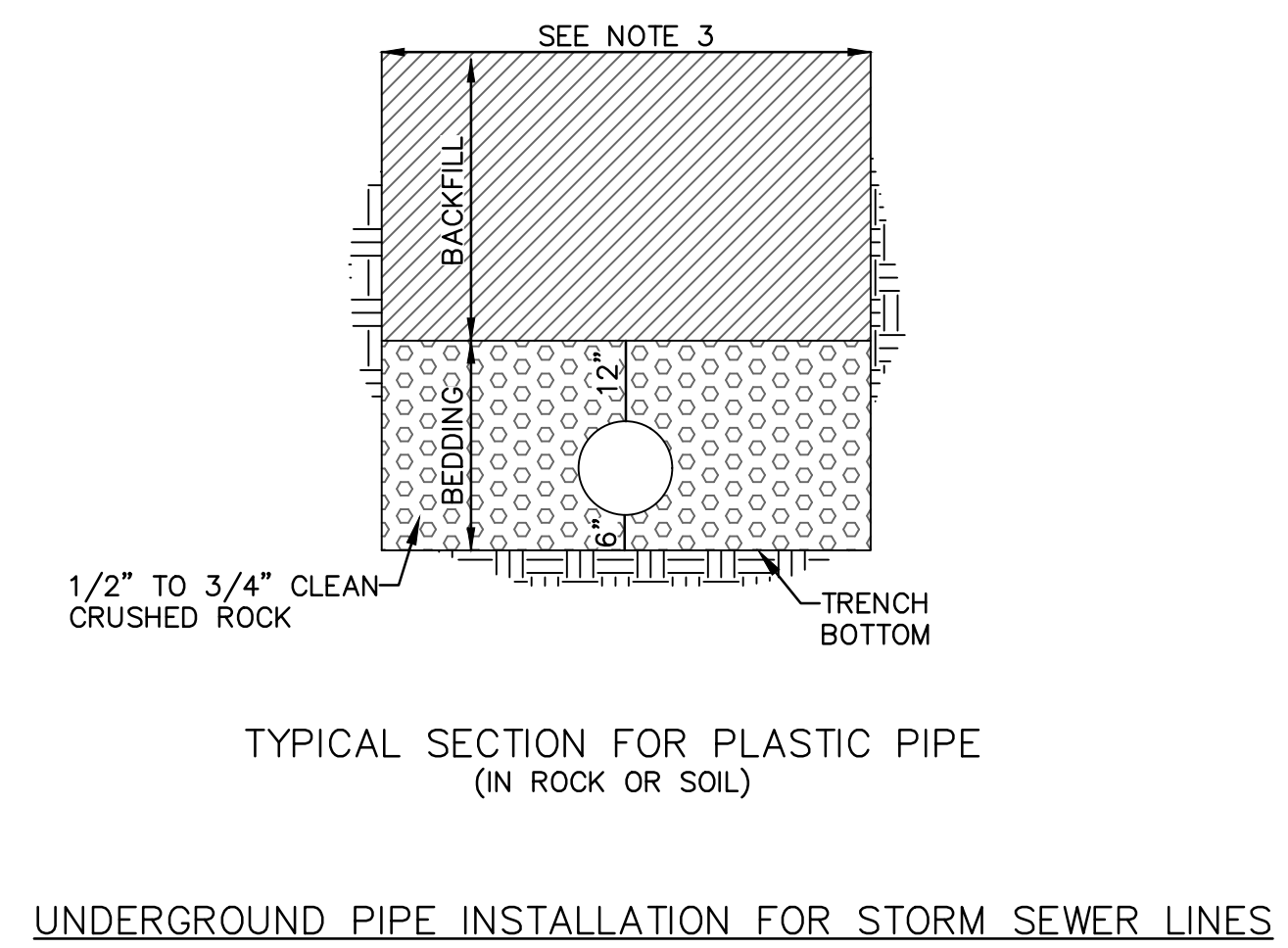
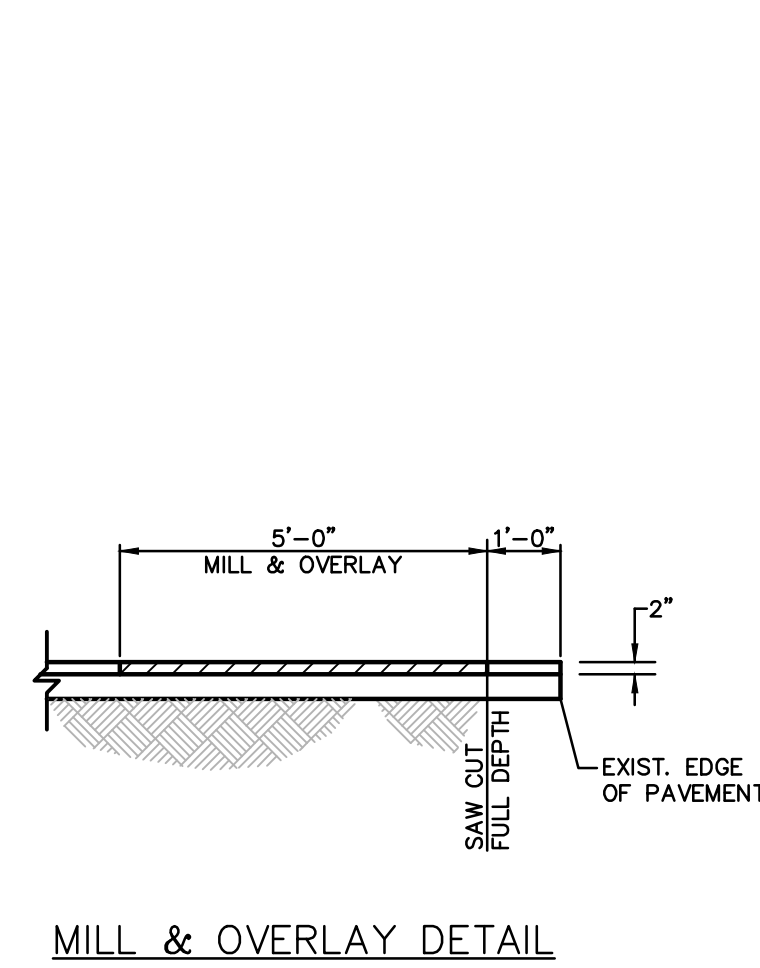
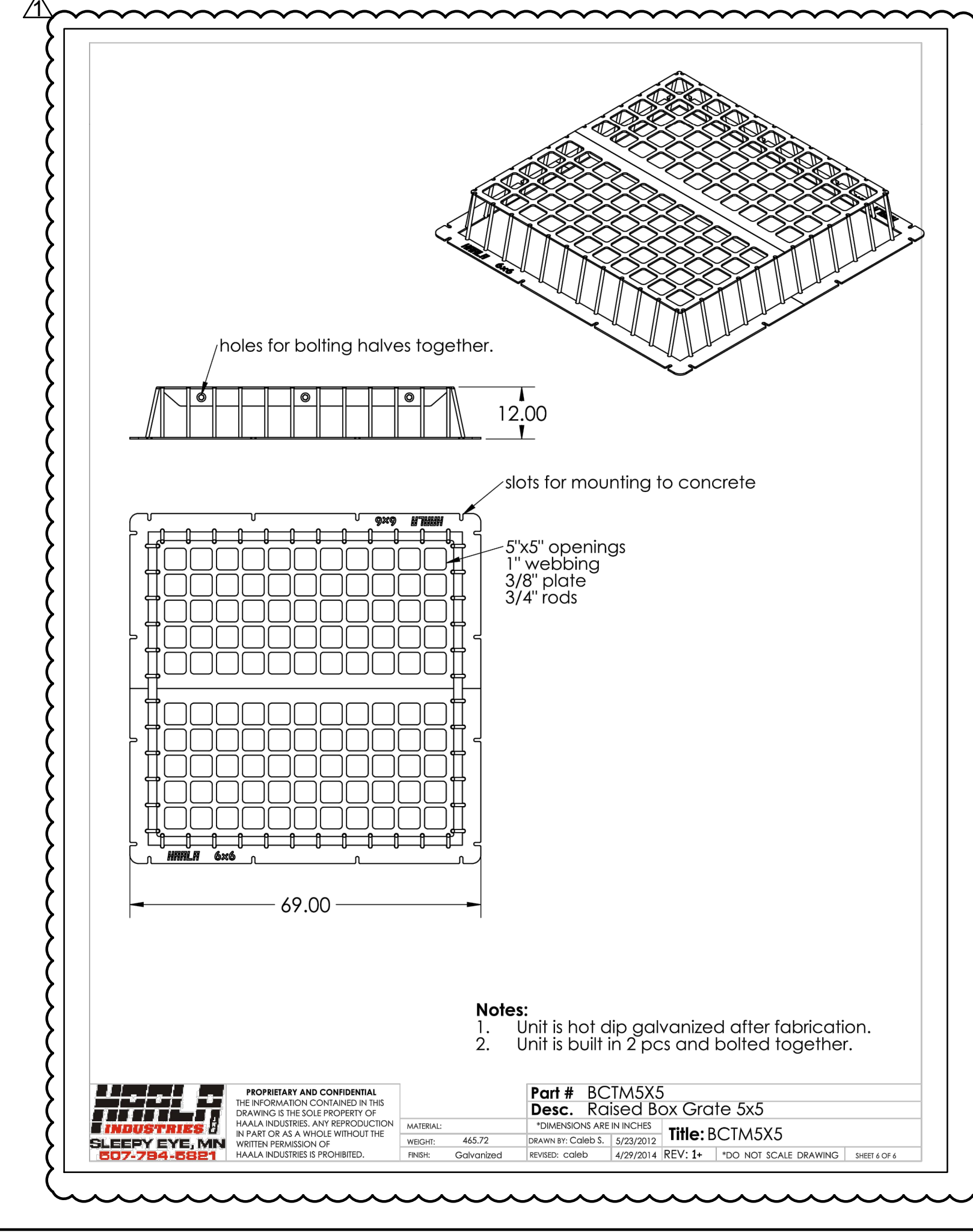
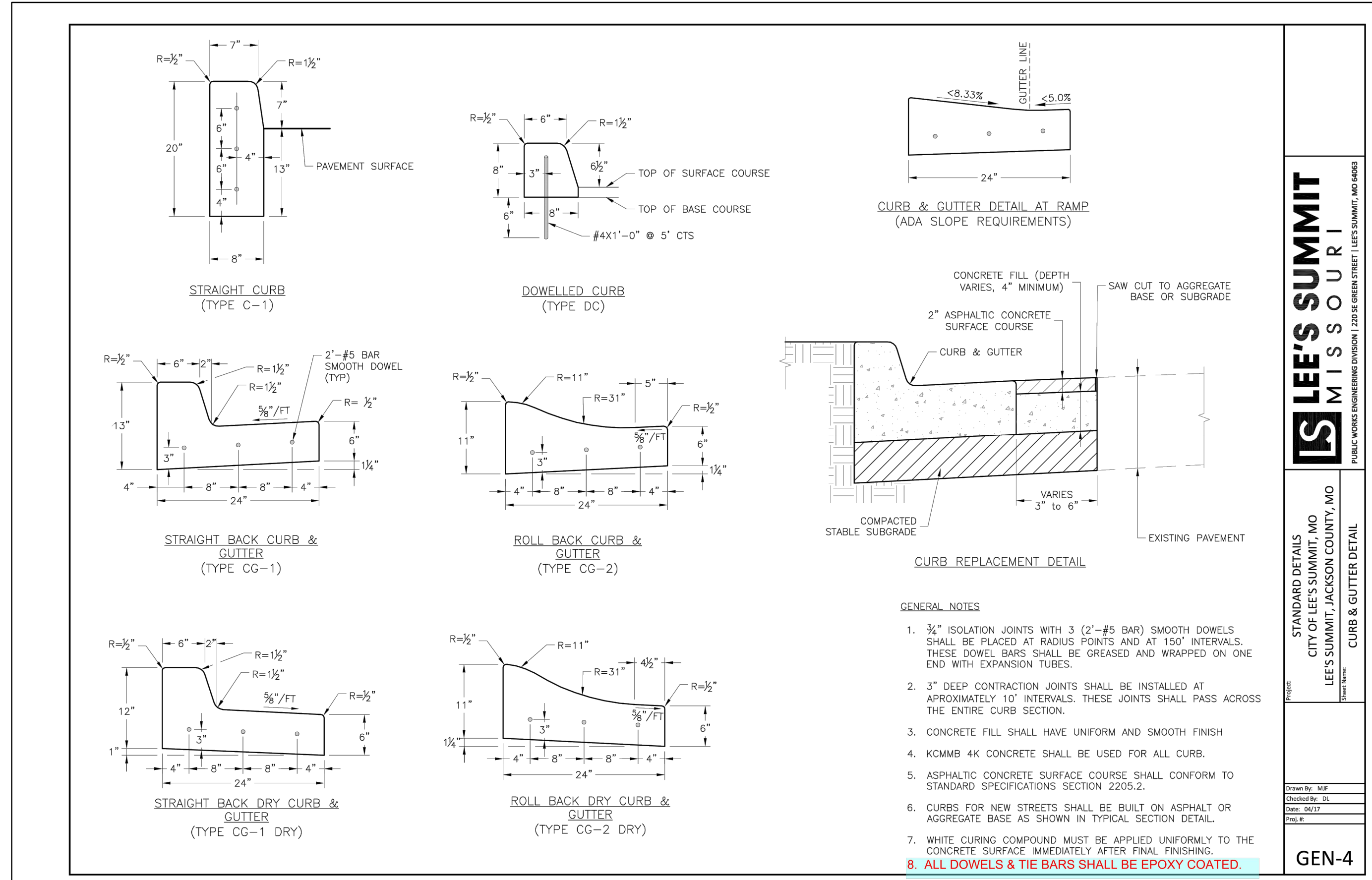
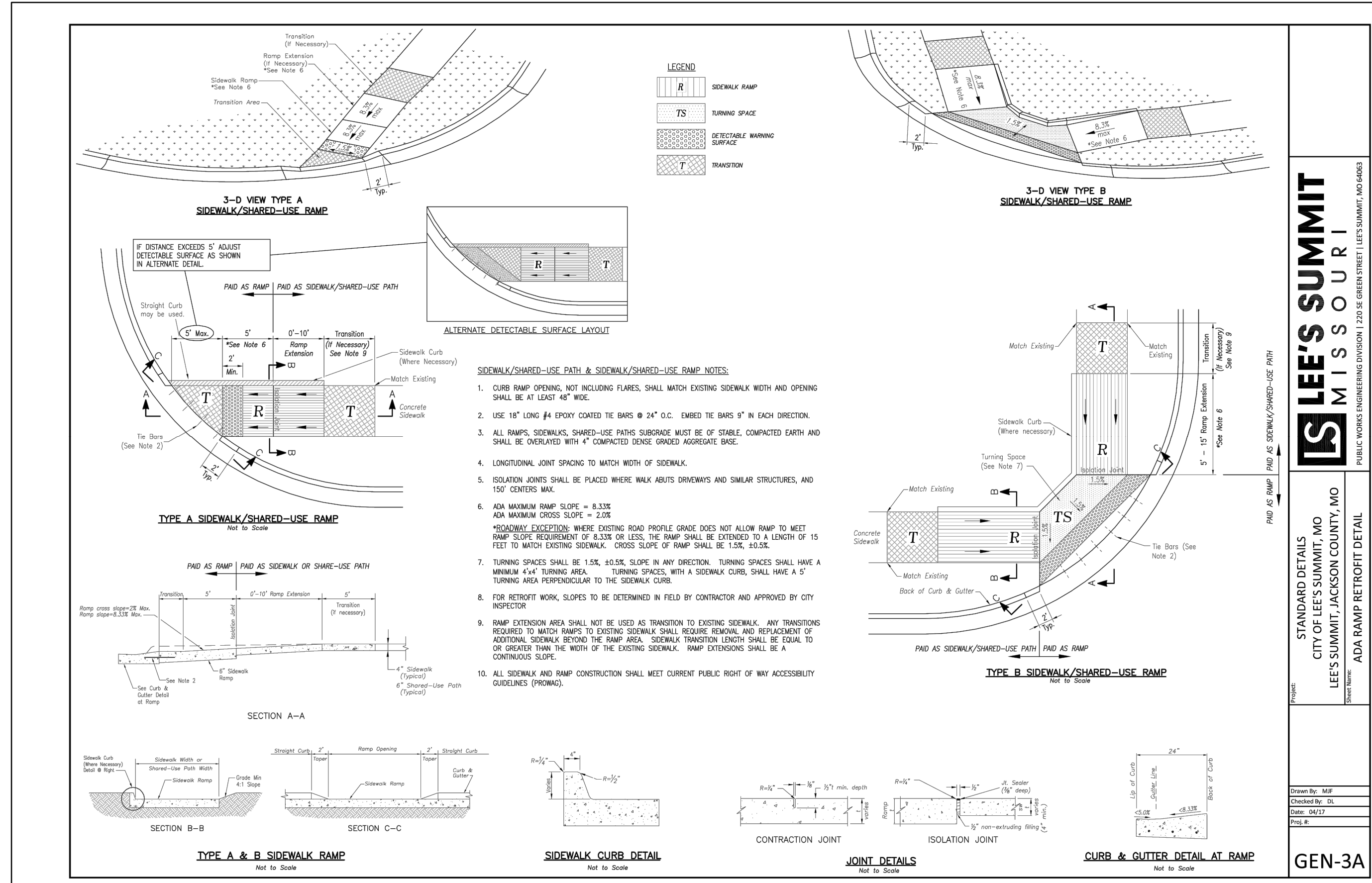
**DRAINAGE PLAN**  
**STREET & STORM SEWER PLANS**  
**OSAGE 3RD PLAT**

LEE'S SUMMIT, MO 2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_DRN02\_D192339  
 date: 8/24/2021

**SHEET**  
**C118**





**NOTES:**

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

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

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI  
 09/13/2021

**olsson**  
 Olsson - Civil Engineering  
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 North Kansas City, MO 64116  
 TEL 816.361.1177  
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**STATE OF MISSOURI**  
**JULIE ELAINE SELLERS**  
 Missouri Professional Engineer  
 NUMBER PE-2017000367  
 8/26/21

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/11/2021	REVISED PER CITY COMMENTS	

**REVISIONS**

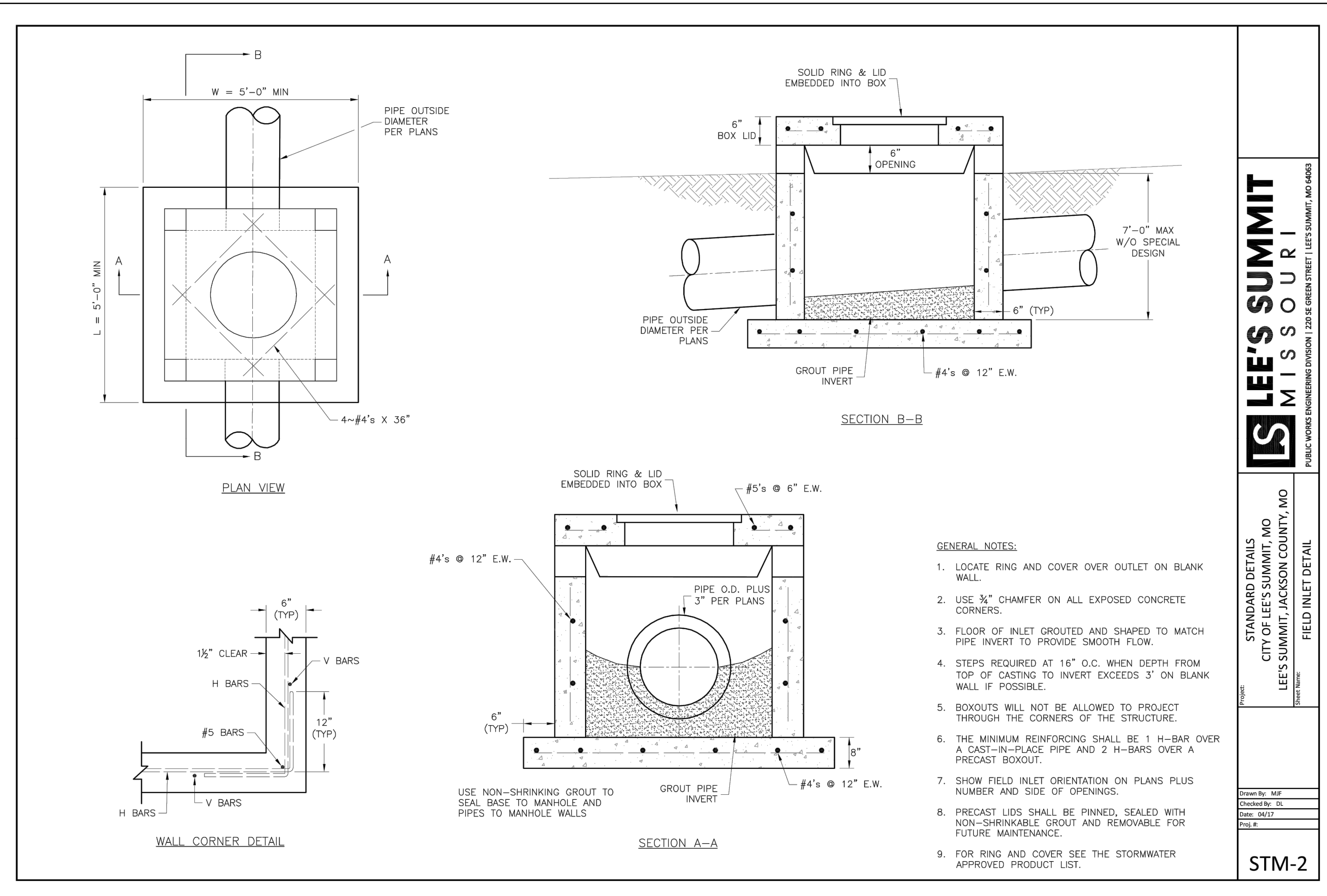
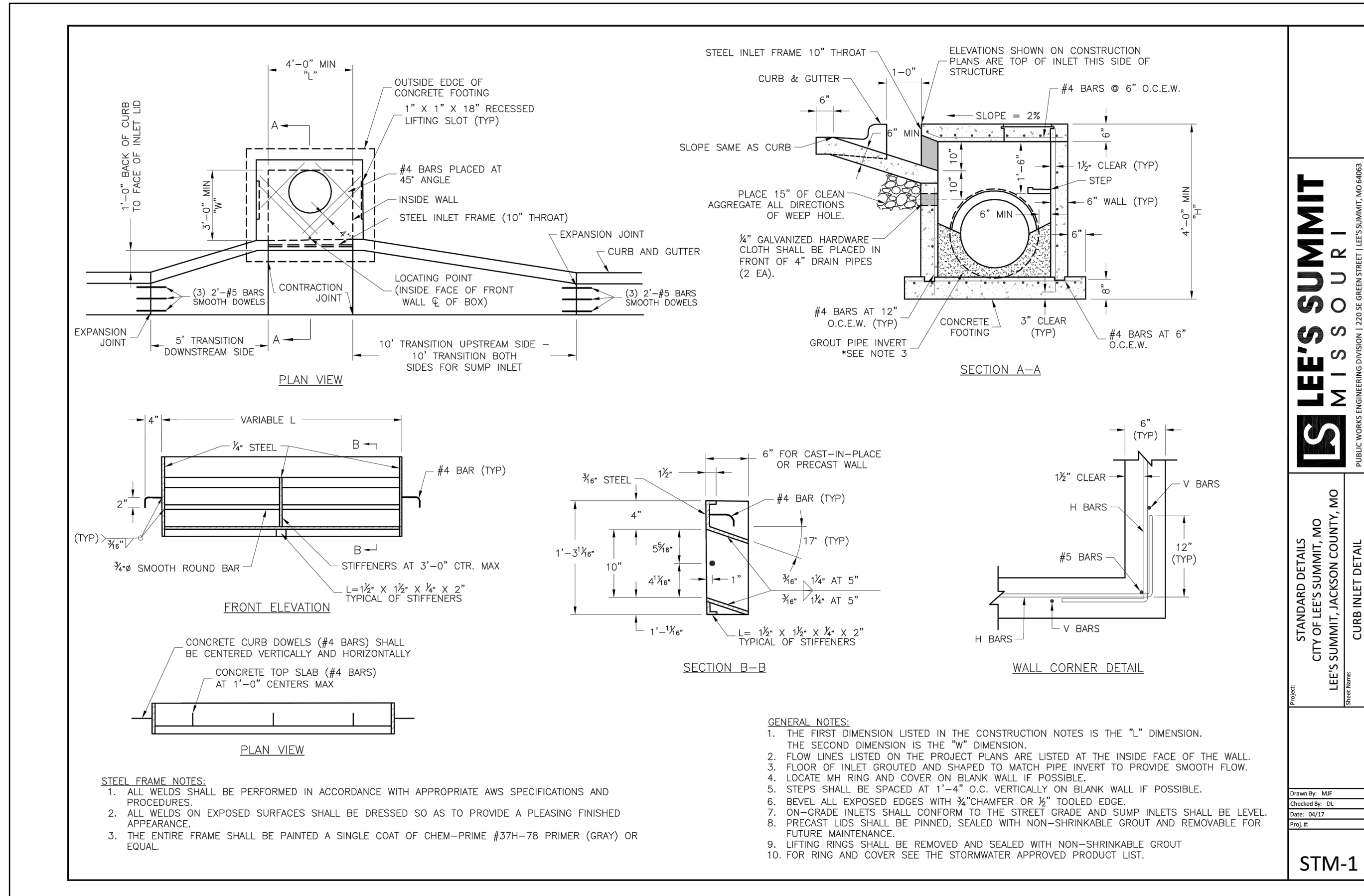
**DETAIL SHEET**  
**STREET & STORM SEWER PLANS**  
**OSAGE 3RD PLAT**

**LEE'S SUMMIT, MO**

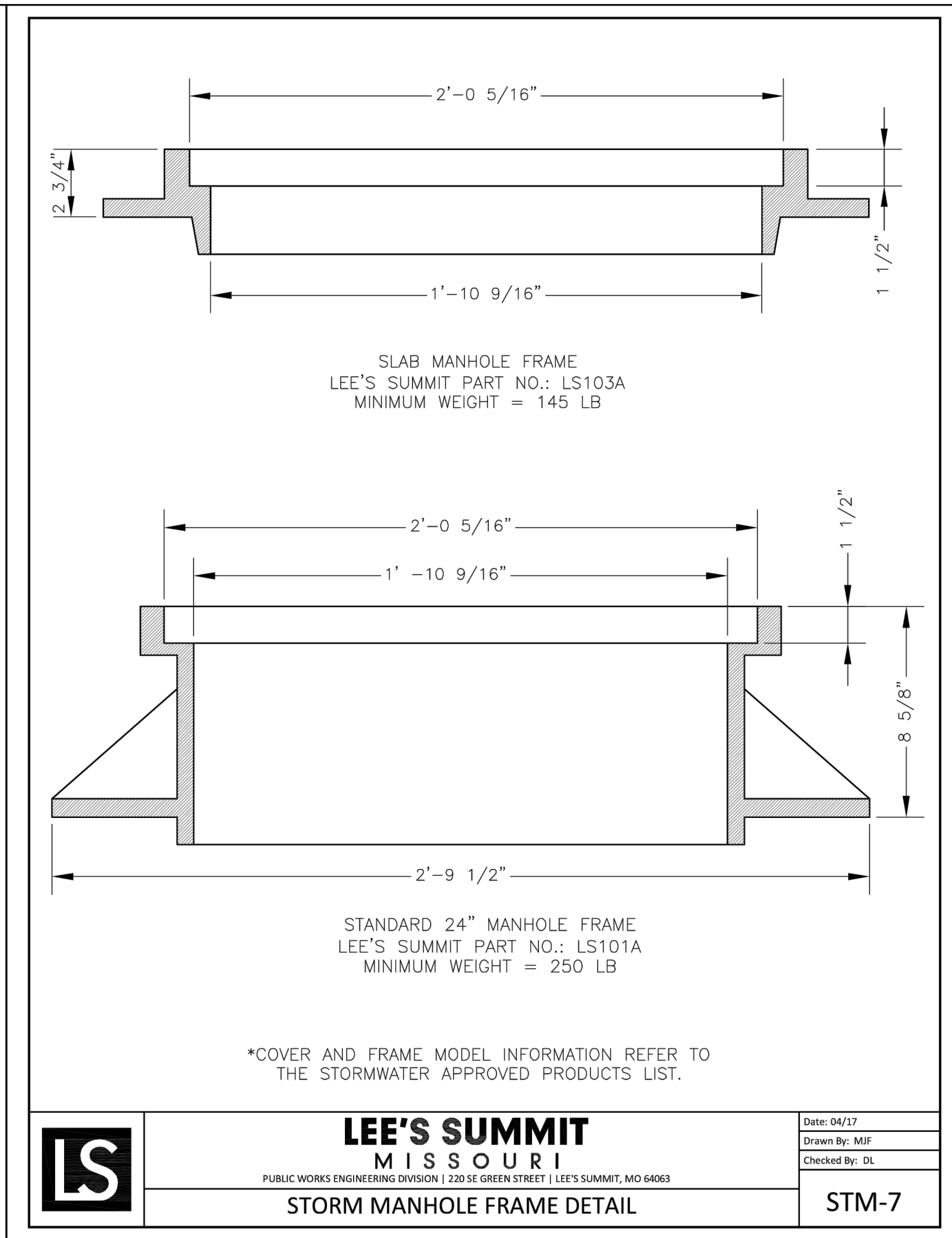
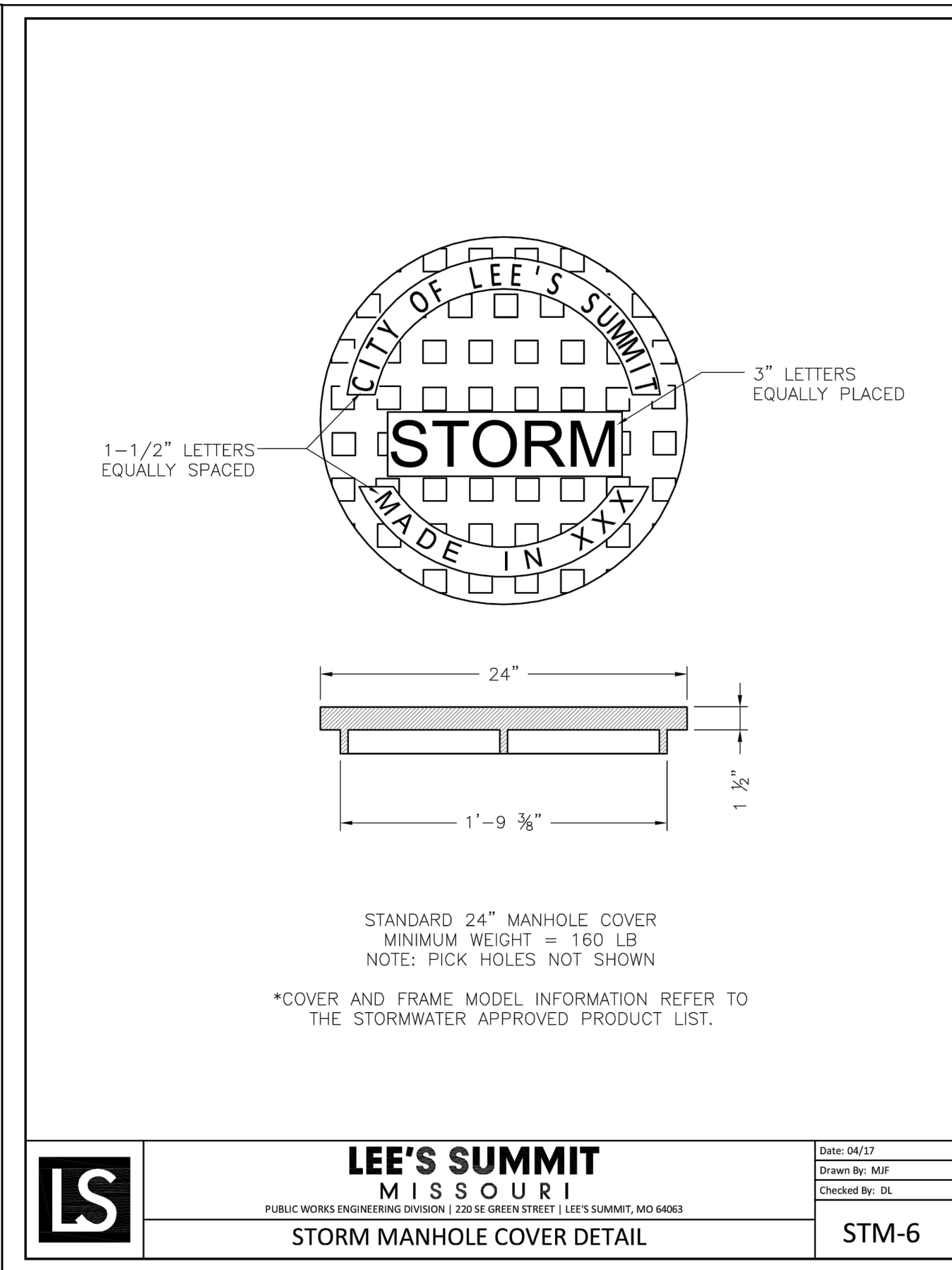
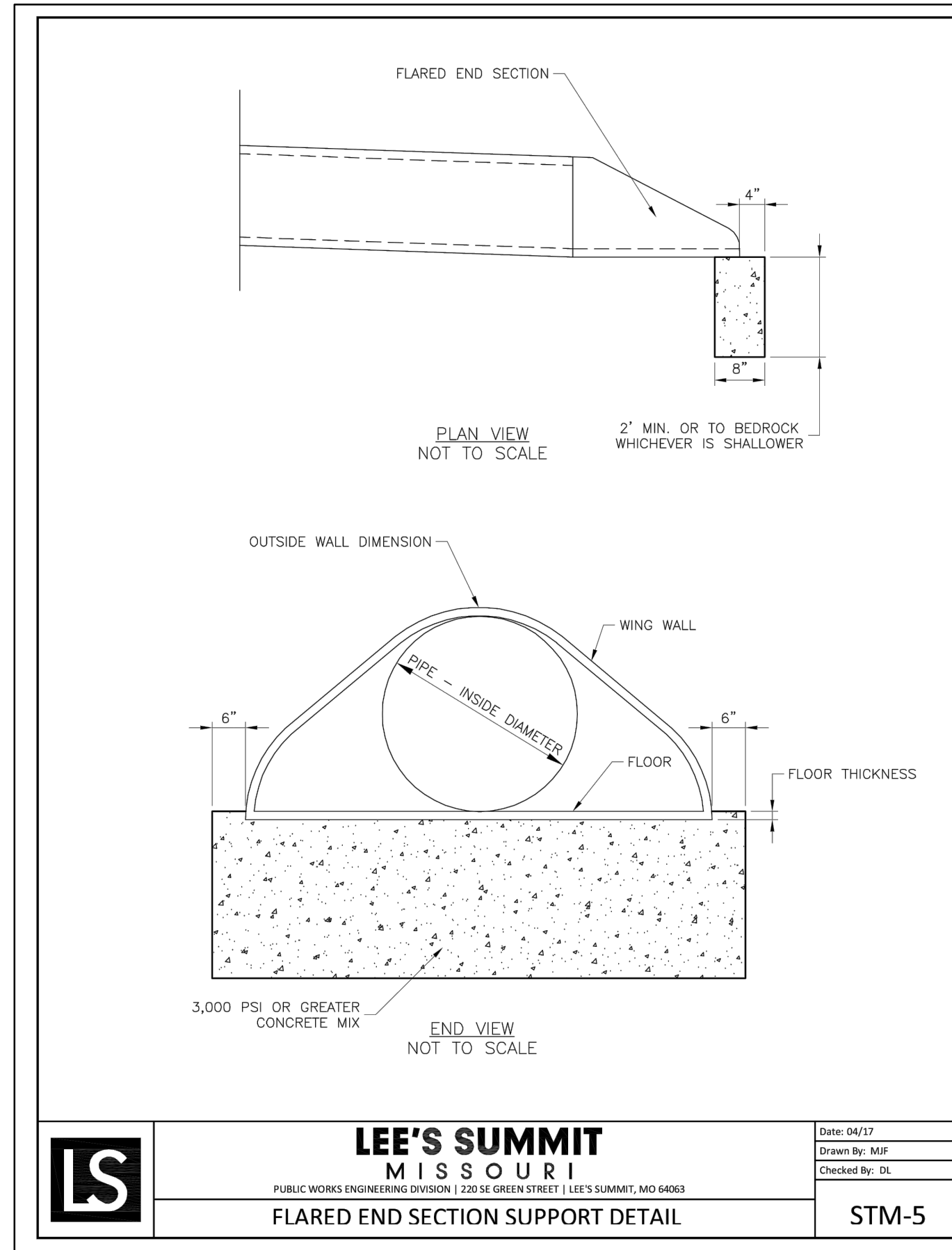
2021

drawn by: MJD  
 checked by: JES  
 designed by: MJD  
 QA/QC by: JES  
 project no.: D19-2339  
 drawing no.: C\_DTL01\_D192339  
 date: 8/24/2021

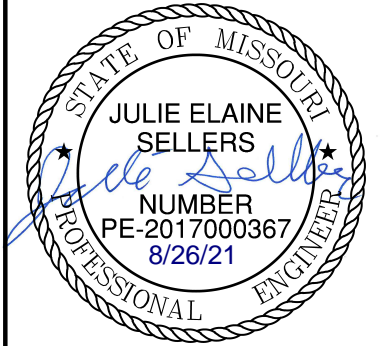
**SHEET C120**



- GENERAL NOTES:**
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
  2. USE 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
  3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
  4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
  5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
  6. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
  7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
  8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
  9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.



RELEASE FOR CONSTRUCTION  
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DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/13/2021



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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**SIGN MOUNTING DETAILS**

\* The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 60 inches above the walkway.

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

**CONTROL SIGN LOCATION**

**MEDIAN SIGN LOCATION**

**PERMANENT SIGNING GENERAL NOTES:**

- All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- The Contractor is responsible for providing any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
- All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
- The Contractor shall submit the location of all sign posts to be installed. The City Inspector shall inspect the signing prior to installation. Minor relocation to meet conditions may be allowed with the approval of the City Traffic Engineer or Designer.
- Signs shall be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Sign Standard Drawings for the installation of signs on wood poles.
- All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
- All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the place during construction and protected from damage unless otherwise indicated in the plans.
- Existing pavement signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1817 SE Number Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
- All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in retroreflective drums (see Plan T) that allow the pavement surface until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.

**CITY OF LEE'S SUMMIT  
PUBLIC WORKS DEPARTMENT  
200 DE GREY STREET  
LEE'S SUMMIT, MISSOURI 64083  
PHONE: (816) 989-1800 FAX: (816) 989-1809**

**SIGN MOUNTING DETAILS  
STANDARD DRAWING SN-1**

Drawn By: AS  
Checked By: JH  
Date: 08/25/2009  
Project:  
1 of 3

**U-STEEL POST DETAILS**

**U-STEEL POST NOTES:**

- Sign shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
- U-Steel post shall be 3.0, galvanized according to ASTM A122.
- U-Steel post can be used for installation of signs with an area of less than 2 square feet.
- All posts shall be embedded a minimum of 5 feet.

**STRAP TYPE SIGN SUPPORT DETAILS**

**METAL POLE SIGN MOUNTING NOTES:**

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

**SQUARE STEEL POST INSTALLATION SEQUENCE:**

- Sign post anchor drives partially into the ground using a drive cap with a sledge or power equipment.
- Anchor sleeve placed over anchor and drive into the ground together with the sign post anchor.
- Steel cap post into the post anchor and both in place.

**SQUARE STEEL POST NOTES:**

- Square steel sign posts and breakaway anchor shall consist of the following materials:  
Sign Post - 14 Ga. 2" x 2" Square Steel Post  
Post Anchor - 12 Ga. 2 1/2" x 2 1/2" x 36" Square Steel Post  
Anchor Sleeve - 12 Ga. 2 1/2" x 2 1/2" x 18" Square Steel Post  
and anchor sleeve must meet a certified minimum yield strength of 60,000 psi.
- In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.
- The maximum area for one sign post is 8.0 square feet. A sign or combination of signs with an area greater than 8.0 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.

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PUBLIC WORKS DEPARTMENT  
200 DE GREY STREET  
LEE'S SUMMIT, MISSOURI 64083  
PHONE: (816) 989-1800 FAX: (816) 989-1809**

**SIGN POST DETAILS  
STANDARD DRAWING SN-2**

Drawn By: AS  
Checked By: JH  
Date: 08/25/2009  
Project:  
2 of 3

**STANDARD ABBREVIATION LISTS**

Named Streets	Abbreviation	Numbered Streets	Abbreviation
Avenue	AVE	First	ST
Boulevard	BLVD	Second	ND
Circle	CR	Third	RD
Creek	CR	Fourth to Tenth	TH
Club	CT		
Crossing	XGSS		
Drive	DR		
Highway	HWAY		
Lane	LV		
Parkway	PKWAY		
Place	PL		
Road	RD		
Street	ST		
Turnpike	TBR		
Trial	TRL		
Way	WAY		

**STREET NAME SIGN QUANTITIES**

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

**STREET NAME SIGN BLANK DETAILS**

**PROJECT SIGN DETAILS**

**STREET NAME SIGN FACE DETAILS**

**PRIVATE STREET TAG DETAIL**

**WING BRACKET MOUNTING DETAILS**

**PERMANENT SIGNING GENERAL NOTES:**

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

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**STREET NAME SIGN DETAILS  
STANDARD DRAWING SN-3**

Drawn By: AS  
Checked By: JH  
Date: 08/25/2009  
Project:  
3 of 3

**STORM MANHOLE NOTES**

- ALL MANHOLES ARE TO BE PRECAST CONCRETE AND OF ECCENTRIC CONE TYPE UNLESS OTHERWISE SPECIFIED.
- MANHOLE TOP ADJUSTMENTS SHALL BE ACCOMPLISHED BY THE USE OF CONCRETE ADJUSTMENT RINGS.
- TOP OF MANHOLE CASTING SHALL BE SET FLUSH AND ON SAME SLOPE AS FINISHED SURFACE OR AS DIRECTED BY THE ENGINEER.
- REINFORCEMENT IN ALL SECTIONS SHALL EQUAL OR EXCEED A.S.T.M. C-478 SPECIFICATIONS.
- THE ENGINEER SHALL DESIGNATE MODIFICATIONS FOR MANHOLES WITH SPECIAL DESIGNS.
- THE INSIDE DIAMETER OF THE MANHOLE SHALL BE 4'-0" FOR PIPE DIAMETERS FROM 12" THRU 24", 5'-0" FOR PIPE DIAMETERS FROM 27" THRU 36", AND 6'-0" FOR PIPE DIAMETERS 42" THRU 48". CLEARANCE TOLERANCE OF PIPE OPENINGS: THE MAXIMUM ALLOWABLE PIPE OPENING ON A HORIZONTAL AXIS SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 12". THE MAXIMUM ALLOWABLE PIPE OPENING ON VERTICAL AXIS SHALL BE THE OUTSIDE DIAMETER PLUS 8". THE MAXIMUM CLEARANCE BETWEEN THE OUTSIDE SURFACE OF AN INSTALLED PIPE AND THE CONCRETE OF THE MANHOLE SHALL BE 2".
- INSTALLATION OF PIPE OPENINGS: ALL REQUIRED PIPE OPENINGS SHALL BE PLANT CAST IN MANHOLE UNITS. FIELD ALTERATIONS OF OPENINGS WILL BE PERMITTED PROVIDED WALLS ARE SCORED WITH A MASONRY SAW TO A DEPTH SUFFICIENT TO SEVER REINFORCING STEEL. A CHIPPING HAMMER MAY THEN BE USED TO REMOVE THE CONCRETE. MINIMUM DISTANCE BETWEEN ANY TWO ADJACENT PIPES SHALL BE 2".
- NO DIRECT PAYMENT FOR SHAPING FLOOR OR CONNECTING PIPES AS SHOWN ON PLANS. RING AND COVER TO BE NEENAH R-1736, CLAY & BAILEY #2008, DEETER # 1316, OR APPROVED EQUAL. (CASTING MAY VARY BY MUNICIPALITY, REFER TO PLANS & CONTRACT DOCUMENTS.)

**STANDARD PRECAST STORM SEWER MANHOLE**  
NOT TO SCALE

**PERMANENT SIGNING GENERAL NOTES:**

- All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- The Contractor is responsible for providing any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
- All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
- The Contractor shall submit the location of all sign posts to be installed. The City Inspector shall inspect the signing prior to installation. Minor relocation to meet conditions may be allowed with the approval of the City Traffic Engineer or Designer.
- Signs shall be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Sign Standard Drawings for the installation of signs on wood poles.
- All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
- All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the place during construction and protected from damage unless otherwise indicated in the plans.
- Existing pavement signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1817 SE Number Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
- All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in retroreflective drums (see Plan T) that allow the pavement surface until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.

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**STANDARD PRECAST STORM SEWER MANHOLE  
NOT TO SCALE**

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**STATE OF MISSOURI**  
**JULIE ELAINE SELLERS**  
Professional Engineer  
NUMBER PE-2017000367  
5/26/21

**REVISIONS**

REV. NO.	DATE	REVISIONS DESCRIPTION
1	08/11/2021	REVISED PER CITY COMMENTS

**DETAIL SHEET  
STREET & STORM SEWER PLANS  
OSAGE 3RD PLAT**

**2021**

drawn by: MJD  
checked by: JES  
designed by: MJD  
QA/QC by: JES  
project no.: D19-2339  
drawing no.: C\_DTL01\_D192339  
date: 6/24/2021

**SHEET  
C122**

**RELEASE FOR CONSTRUCTION**  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/13/2021