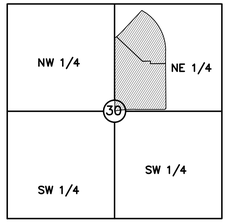
PRIVATE SITE DEVELOPMENT PLANS
FOR
THE VILLAGE AT DISCOVERY PARK ZONE 1

SECTION 30, TOWNSHIP 48N, RANGE 31W
IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



S25, T48N, R32W
S30, T48N, R31W
N.T.S.
VICINITY MAP

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER/DEVELOPER INTRINSIC DEVELOPMENT 3622 ENDEAVOR AVE. STE. 101 COLUMBIA, MO 65201 CONTACT: JOHN ODLE PHONE: 573.615.2252	UTILITY SERVICE NUMBERS NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800 NAME: LEE'S SUMMIT WATER UTILITIES PHONE: 816-969-1900 NAME: SPIRE PHONE: 314-342-0500 NAME: AT&T PHONE: 800-286-8313 NAME: EVERGY PHONE: 816-471-5275 NAME: SPECTRUM PHONE: 877-772-2253 NAME: GOOGLE FIBER PHONE: 877-454-6959
ENGINEER OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: DAVID EICKMAN PHONE: 816.854.9315 EMAIL: DEICKMAN@OLSSON.COM	
SURVEYOR OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH PHONE: 816.361.1177 EMAIL: JROUDEBUSH@OLSSON.COM	
STUDIO OLSSON 1814 MAIN ST KANSAS CITY, MO 64108 CONTACT: CODY PERATT PHONE: 913.827.6232 EMAIL: CPERATT@OLSSON.COM	

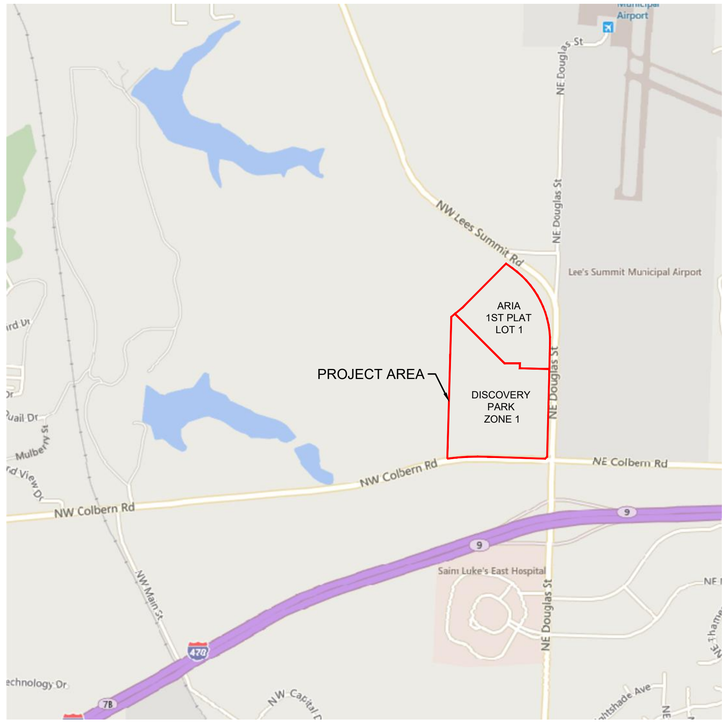
OIL/GAS WELLS:

NO OIL OR GAS WELLS ARE LOCATED WITHIN PROJECT LIMITS.
INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, GEOLOGICAL SURVEY GEOSCIENCES TECHNICAL RESOURCE ASSESSMENT TOOL (GEOSTRAT).

FLOOD CERTIFICATION:

THE ENTIRE SITE IS LOCATED WITHIN ZONE X, "AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM THE 1% ANNUAL CHANCE FLOOD" AS DEPICTED ON THE FEMA FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 29095C0409G, REVISION DATE JANUARY 20, 2017.

CALL BEFORE YOU DIG 1-800-DIG-RITE MISSOURI ONE CALL SYSTEM



PROPERTY DESCRIPTION

DISCOVERY PARK ZONE 1:
A TRACT OF LAND IN THE NORTHEAST QUARTER OF SECTION 30 TOWNSHIP 48 NORTH, RANGE 31 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER SECTION; THENCE SOUTH 01°37'50" WEST, ON THE WEST LINE OF SAID QUARTER SECTION, 853.75 FEET TO A POINT ON THE SOUTHEAST LOT LINE OF LOT 1, LEE'S SUMMIT ROAD PUMP STATION, A SUBDIVISION RECORDED IN BOOK I 51 AT PAGE 90 IN THE JACKSON COUNTY RECORDER OF DEEDS OFFICE, AND THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE NORTH 50°41'15" EAST, ON SAID SOUTHEAST LOT LINE, 59.22 FEET; THENCE LEAVING SAID LOT LINE, SOUTH 45°00'00" EAST, 889.18 FEET; THENCE NORTH 90°00'00" EAST, 195.68 FEET; THENCE SOUTH 01°27'27" WEST, 62.94 FEET; THENCE SOUTH 88°32'29" EAST, 375.74 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF NE DOUGLAS STREET AS ESTABLISHED BY DOCUMENT NUMBER 2015E0017982 IN THE JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, SOUTH 01°27'31" WEST, 1,114.58 FEET; THENCE SOUTH 46°40'17" WEST, 35.22 FEET TO THE INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY LINE OF NE COLBURN ROAD AS ESTABLISHED BY A SURVEY PROVIDED BY HAMILTON STERRETT AND DOOLEY, PROJECT NUMBER 99021; THENCE ON SAID NORTHERLY RIGHT-OF-WAY LINE NORTH 88°06'56" WEST, 730.85 FEET; THENCE WESTERLY ALONG A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF NORTH 87°33'04" WEST WITH A RADIUS OF 2,904.93 FEET, A CENTRAL ANGLE OF 10°06'02" AND AN ARC DISTANCE OF 512.10 FEET TO THE SOUTHWEST CORNER OF THE SAID NORTHEAST QUARTER; THENCE NORTH 01°37'22" EAST, ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 30, A DISTANCE OF 1,328.05 FEET TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE SAID NORTHEAST QUARTER; THENCE CONTINUING ON THE SAID WEST LINE, NORTH 01°37'50" EAST, 473.96 FEET TO THE POINT OF BEGINNING. CONTAINING 1,717,197 SQUARE FEET OR 39.42 ACRES, MORE OR LESS.

CIVIL SHEET LIST

NO.	TITLE
C100	TITLE SHEET
C101	GENERAL NOTES
C102	EXISTING CONDITIONS
C103	GENERAL LAYOUT
C200	ALIGNMENT DATA
C201	TYPICAL ROAD SECTIONS
C202	TYPICAL ROAD SECTIONS CONT.
C203	TYPICAL ROAD SECTIONS – PARKING
C204	ROAD PLAN & PROFILE (DISCOVERY AVE)
C205	ROAD PLAN & PROFILE (DISCOVERY AVE 2)
C206	ROAD PLAN & PROFILE (ALURA WAY ENTRY)
C207	ROAD PLAN & PROFILE (CROSSING BLVD)
C208	ROAD PLAN & PROFILE (CROSSING BLVD 2)
C209	ROAD PLAN & PROFILE (ALURA WAY 1)
C210	ROAD PLAN & PROFILE (ALURA WAY 2)
C211	ROAD PLAN & PROFILE (ALURA WAY 3)
C212	ROAD PLAN & PROFILE (ALURA WAY 4)
C213	ROAD PLAN & PROFILE (ALURA WAY 5)
C214	ROAD PLAN & PROFILE (ALURA WAY 6)
C215	ROAD PLAN & PROFILE (ALURA WAY 7)
C216	INTERSECTION DETAILS – KEYMAP
C217	INTERSECTION DETAILS
C218	INTERSECTION DETAILS
C219	INTERSECTION DETAILS
C220	INTERSECTION DETAILS
C221	INTERSECTION DETAILS
C222	INTERSECTION DETAILS
C223	INTERSECTION DETAILS
C224	INTERSECTION DETAILS
C225	INTERSECTION DETAILS
C226	ADA & SIDEWALK DETAILS
C227	SITE GRADING PLAN
C228	STRIPING & SIGNAGE PLAN
C229	STRIPING & SIGNAGE DEATILS
C230	PAVING & JOINT DETAILS
C400	OVERALL STORM SEWER PLAN
C401	STORMWATER MANAGEMENT PLAN – PROPOSED CONDITIONS
C402	STORMWATER MANAGEMENT PLAN – PROPOSED CONDITIONS
C403	STORMWATER MANAGEMENT PLAN – FUTURE CONDITIONS
C404	STORMWATER MANAGEMENT PLAN – FUTURE CONDITIONS
C405	STORM SEWER PLAN & PROFILE (LINES F & G)
C406	STORM SEWER PLAN & PROFILE (LINES H, I, J & K)
C407	STORM SEWER PLAN & PROFILE (LINES L & P)
C408	STORM SEWER PLAN & PROFILE (LINE M)
C409	STORM SEWER PLAN & PROFILE (LINES N, O & U)
C410	STORM SEWER PLAN & PROFILE (LINES V & W)
C411	STORMWATER CALCULATIONS – PROPOSED CONDITIONS
C412	STORMWATER CALCULATIONS – FUTURE CONDITIONS
C501	WATER GENERAL LAYOUT
C502	WATER PLAN & PROFILE (LINE 1)
C503	WATER PLAN & PROFILE (LINE 1 CONT'D)
C504	WATER PLAN & PROFILE (LINE 1 CONT'D)
C505	WATER PLAN & PROFILE (LINE 1 CONT'D)
C506	WATER PLAN & PROFILE (LINE 1 CONT'D)
C507	WATER PLAN & PROFILE (LINE 1 CONT'D)
C508	WATER PLAN & PROFILE (LINES 2 & 3)
C509	WATER PLAN & PROFILE (LINES 4, 5, & 6)
C510	DETAIL SHEET
C511	DETAIL SHEET (CONT'D)

HARDSCAPE SHEET LIST

NO.	TITLE
L100	OVERALL HARDSCAPE PLAN
L101	HARDSCAPE PLAN
L102	HARDSCAPE PLAN
L103	HARDSCAPE PLAN
L104	HARDSCAPE PLAN
L105	HARDSCAPE PLAN
L106	HARDSCAPE PLAN
L107	HARDSCAPE PLAN
L200	HARDSCAPE DETAILS
L201	HARDSCAPE DETAILS
L202	HARDSCAPE DETAILS

LANDSCAPE SHEET LIST

NO.	TITLE
L300	OVERALL LANDSCAPE PLAN
L301	LANDSCAPE REQUIREMENTS
L310	LANDSCAPE PLAN
L311	LANDSCAPE PLAN
L312	LANDSCAPE PLAN
L313	LANDSCAPE PLAN
L314	LANDSCAPE PLAN
L315	LANDSCAPE PLAN
L316	LANDSCAPE PLAN
L390	LANDSCAPE DETAILS

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

STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/13/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TITLE SHEET
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_TTL01_D2104643
date: 07.12.2023

SHEET
C100

DWG: F:\2021\04501-05000\021-04643-d\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_TTL01_D2104643.dwg
DATE: Jul 12, 2023 9:15am
XREFS: C_PTBLK_D2104643
USER: jnewland

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 IN THE GEOTECHNICAL REPORT DATED MARCH 7TH, 2023 INCLUDING ALL CURRENT ADDENDUMS INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF LEE'S SUMMIT, MO SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT.

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, MO.
   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, MO 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 SEPARATE PUBLIC STREET IMPROVEMENT 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 DRAWING 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.

EROSION CONTROL

1. CONTRACTOR SHALL CONSIDER ANY EROSION AND/OR SEDIMENT CONTROL SHOWN IN THIS PLAN SET, THE SWPPP, SEPARATE MASS GRADING AND SITE DISTURBANCE, OR ANY RELATED PLAN SET AS A MINIMUM REQUIREMENT. CONTRACTOR IS RESPONSIBLE FOR EVALUATING SITE CONDITIONS AND INSTALLING ANY ADDITIONAL CONTROLS AS NECESSARY.

2. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT. ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY.

3. AT ANY TIME DURING CONSTRUCTION THE CITY MAY REQUIRE ADDITIONAL EROSION/SILTATION CONTROL MEASURES TO BE INSTALLED. WHEN REQUIRED SUCH MEASURES SHALL BE INSTALLED WITHIN 48 HOURS OF HOURS OF NOTICE (VERBAL OR WRITTEN).

4. CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SCHEDULE. ALL COSTS ASSOCIATED WITH REPAIR OR RE-INSTALLATION, INCLUDING RELATED INCIDENTALS, WILL BE THE CONTRACTOR'S RESPONSIBILITY.

5. ALL DISTURBED AREAS SHALL BE LANDSCAPED, SEEDED OR SODDED, AS SHOWN ON THE LANDSCAPE PLAN.

6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION. AREAS DISTURBED BY DEVICE REMOVAL SHALL BE IMMEDIATELY STABILIZED. SEED BLENDS OR SOD SHALL MATCH WHAT WAS USED IN AREAS SURROUNDING DISTURBANCE.

7. PRIOR TO LEAVING THE SITE THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, GUTTERS, ETC. ARE CLEANED OUT AND WORKING PROPERLY.

GRADING

1. THE CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE TO FINISH GRADE, SURFACE OF PAVEMENT, TOP OF CURBS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT PAVEMENT DEPTH FROM ELEVATIONS SHOWN.

2. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.

3. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.

4. SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT, LIP OF CURB, OR FINISHED GRADE UNLESS OTHERWISE INDICATED. (SEE LEGEND)

SITE PLAN

1. ALL PAVEMENT DIMENSIONS ARE TO BACK OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED.

2. INSTALLED PAVEMENT SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT TO PROVIDE SMOOTH SURFACE TRANSITIONS. INSTALLED CURB & GUTTER SHALL MATCH EXISTING CURB & GUTTER IN SIZE AND TYPE OR CONTRACTOR SHALL INCLUDE A TRANSITION FROM NEW TO EXISTING OF NO LESS THAN 5' AS MEASURED ALONG BACK OF CURB.

3 ALL ASPHALT PAVING, IF PROPOSED, SHALL BE IN CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, ASPHALT PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MoDOT.

4. ALL PCC PAVING, IF PROPOSED, SHALL BE IN CONFORMANCE WITH LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, PCC PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MoDOT.

5. CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):
   A. CONTROL JOINTS SPACED AS SHOWN IN THESE PLANS OR AT INTERVALS NOT GREATER THAN 1.5x PANEL WIDTH OR 12 FEET (WHICHEVER IS SMALLER).
   B. CONTROL JOINTS SHALL BE TOOLED OR SAWCUT TO ¼ THE SLAB THICKNESS. LOCAL STANDARDS AND SPECIFICATIONS SHALL TAKE PRECEDENCE WHERE MORE STRICT THAN THOSE LISTED HERE.
   C. CONSTRUCTION JOINTS PLACED AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.
   D. ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 1/2" NON-EXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.
   E. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.

6. ACCESSIBLE PARKING
   A. STALLS SHALL BE SIGNED WITH CITY/ADA APPROVED SIGN AND CONSTRUCTED IN STRICT ACCORDANCE WITH CITY/ADA CODES AND ORDINANCES.
   B. ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 2.00 PERCENT IN ANY DIRECTION. ACCESSIBLE SIDEWALKS HAVE A MAXIMUM CROSS SLOPE OF 2 PERCENT AND A MAXIMUM LONGITUDINAL SLOPE OF 5 PERCENT.
   C. STALLS SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH SHARP EDGES AND ENDS.

7. PAVEMENT MARKINGS SHALL NOT BE APPLIED UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE ARCHITECT AND ENGINEER, THE INSTALLED PAVEMENT IS ALLOWED TO AGE AS RECOMMENDED BY THE MANUFACTURER (MINIMUM OF 24 HOURS), AND THE PAVEMENT SURFACE HAS BEEN SWEPT AND CLEANED.

8. PAVEMENT MARKINGS SHALL INCLUDE TRAFFIC LANES, PARKING BAYS, AREAS RESTRICTED TO HANDICAPPED PERSONS, CROSSWALKS, AND OTHER DETAIL PAVEMENT MARKINGS SHOWN IN THESE PLANS.

9. ALL PARKING LOT STRIPING SHALL BE SINGLE LINE 4" WIDE WHITE STRIPES UNLESS OTHERWISE INDICATED WITHIN THESE PLANS. ALL ROAD STRIPING SHALL BE AS INDICATED WITHIN THESE PLANS.

10. CURBS AT FIRE LANES AS DESIGNATIONS BY THE FIRE MARSHAL SHALL BE PAINTED OR OTHERWISE INDICATED PER CITY OF CITY CODES AND ORDINANCES.

11. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS (FHMS) AND CITY OF LEE'S SUMMIT CODES AND ORDINANCES. USE FLAT BLACK, WHITE, OR YELLOW AS DIRECTED WITHIN PLANS OR IN CONFORMANCE WITH THE FHMS. UNLESS OTHERWISE SPECIFIED USE LATEX, WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.

12. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN AND A MINIMUM WET FILM THICKNESS OF 15 MILS. USE PNEUMATIC SPRAY GUNS FOR HAND APPLICATION OF PAINT. ALL PAINTING EQUIPMENT AND OPERATIONS SHALL BE UNDER THE CONTROL OF EXPERIENCED TECHNICIANS THOROUGHLY FAMILIAR WITH EQUIPMENT AND MATERIALS AND MARKING LAYOUTS.

STORM SEWER

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF LEE'S SUMMIT, MO.

2. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

3. 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.

4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.

5. 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.

6. STRUCTURE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ 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.

7. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.

WATER MAIN

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.

2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF FITTING OR WALL OF VAULT.

3. COORDINATES ARE PROVIDED ALONG PIPE CENTERLINE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING INSTALLATIONS.

4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF WATER.

5. WATER PIPE 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.

6. ALL PRIVATE WATER LINES SHALL BE A MINIMUM OF 48 INCHES AND MAXIMUM OF 60 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN UNLESS OTHERWISE NOTED.

7. IF AN AS-BUILT OF A WATER LINE IS REQUIRED OR EXPECTED THE CONTRACTOR SHALL NOT BACKFILL THE TRENCH UNTIL AN AS-BUILT SURVEY IS CONDUCTED.

8. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR AND AS REQUIRED BY THE UTILITY OWNER.

9. ALL EXISTING FIRE HYDRANTS ON SITE OR IN THE RIGHT-OF-WAY BETWEEN PROPERTY AND ROADWAY SHALL BE REPAINTED PER LOCAL CODES AND ORDINANCES.

10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.

DRY UTILITY

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.

2. ALL ON-SITE WIRING AND CABLES SHALL BE PLACED UNDERGROUND AND WITHIN CONDUIT UNLESS OTHERWISE SPECIFIED IN THESE PLANS. IF NOT SPECIFIED, ALL CONDUIT SHALL BE IN CONFORMANCE WITH UTILITY OWNER STANDARDS AND SPECIFICATIONS.

3. TELEPHONE AND COMMUNICATION SERVICE ROUTING AND CONDUITS, IF SHOWN AT ALL, ARE SUGGESTED ALIGNMENTS ONLY. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AS REQUIRED BY MEP AND RELATED PLANS AS WELL AS SERVICE PROVIDER PRIOR TO PAVEMENT INSTALLATION.

4. ALL CONDUIT SHALL BE SCHEDULE 40 PVC PIPE AND SIZED PER MEP PLANS OR AS NOTED. CONDUIT SHALL BE SUFFICIENTLY FLEXIBLE TO ALLOW IT TO CONFORM TO MINOR CHANGES IN TRENCH DIRECTION OR ELEVATION. ALL OTHER BENDS SHALL BE MADE USING PRE-FORMED SWEEPS.

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Olsson - Civil Engineering
Missouri Certificate of Authority #001592
1301 Burlington Street, Suite 100
North Kansas City, MO 64116
TEL 816.361.1177 www.olsson.com

STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
PROFESSIONAL ENGINEER
7/3/23

DAVID EICKMAN, P.E.
MO# 2009015436

REV./ NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GENERAL NOTES
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

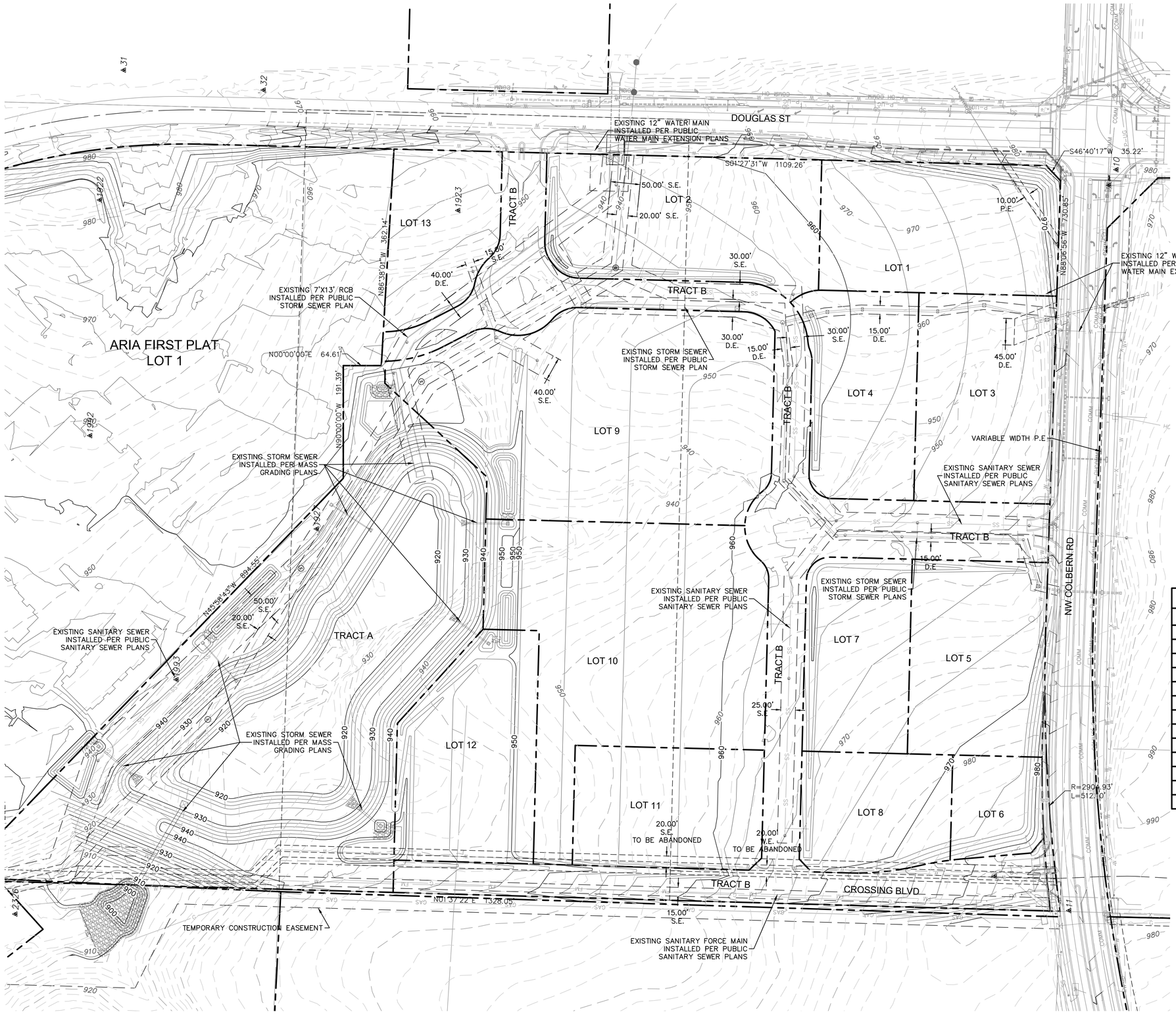
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
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SHEET
C101

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DATE: Jul 12, 2023 9:15am XREFS: C_PTBLK_D2104643



EXISTING CONDITIONS LEGEND

*THIS LEGEND APPLIES TO ALL SHEETS UNLESS EXPLICITLY SHOWN OTHERWISE ON EACH SHEET.

- PROPERTY BOUNDARIES
- EASEMENT/SETBACK LINE
- EXISTING STORM SEWER
- EXISTING PRESSURE PIPE
- EXISTING SANITARY SEWER
- EXISTING WATER PIPE
- EXISTING POWER SERVICE
- EXISTING OVERHEAD SERVICE
- EXISTING COMMUNICATION SERVICE
- EXISTING NATURAL GAS PIPE
- FINISHED GRADE MAJOR CONTOUR
- FINISHED GRADE MINOR CONTOUR
- EXISTING GRADE MAJOR CONTOUR
- EXISTING GRADE MINOR CONTOUR
- REMOVE EXISTING TREE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SPRINKLER BOX
- EXISTING SPRINKLER CONTROL VALVE
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING ELECTRIC BOX
- EXISTING ELECTRIC VAULT
- EXISTING ELECTRIC METER
- EXISTING ELECTRIC RISER
- EXISTING ELECTRIC MANHOLE

*SCALE MAY AFFECT THE SIZE OF SURVEY SYMBOLS IN PLAN, BUT SHAPE WILL BE RETAINED.

EASEMENT LEGEND

PE POWER EASEMENT
DE DRAINAGE EASEMENT
SE SANITARY SEWER EASEMENT
WE WATER EASEMENT

GRADING NOTE:

CONTOURS SHOWN ARE AS SHOWN IN MASS GRADING PLANS. PER THE LEGEND ABOVE "EXISTING GRADE" CONTOURS DEPICT THE SITE PRIOR TO MASS GRADING. "FINISHED GRADE" CONTOURS DEPICT THE FINAL DESIGN ELEVATIONS. AS PART OF MASS GRADING, AREAS WITH PAVEMENT OR OTHER INSTALLATIONS MAY BE LOWERED, AT CONTRACTOR'S DISCRETION, IN PREPARATION FOR CONSTRUCTION DETAILED IN THESE PLANS.

POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	FULL DESCRIPTION
10	1012183.1810	2823309.3060	982.032	CTL IB3CONCAP
11	1012263.3886	2822050.3556	984.472	CTL IB3CONCAP
31	1013870.3509	2823478.4777	981.044	CTL IB3CAP
32	1013632.5713	2823444.5928	972.448	CTL IB3CAP
1922	1013910.9320	2823257.7240	986.639	CTL 60D
1923	1013301.9140	2823240.0500	956.352	CTL 60D
1927	1013542.2660	2822698.8750	936.292	CTL 60D
1992	1013927.5320	2822857.4500	959.400	CTL 60D
1993	1013780.6490	2822442.8070	937.257	CTL 60D
2158	1014083.2650	2822314.4510	941.622	CTL 60D
2321	1014077.0070	2822196.9780	937.570	CTL 60D
2326	1014054.6210	2822044.3360	905.594	CTL 60D
8175	1012195.5307	2823282.8905	982.458	BMK

0' 40' 80' 160'
SCALE IN FEET

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

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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

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EXISTING CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
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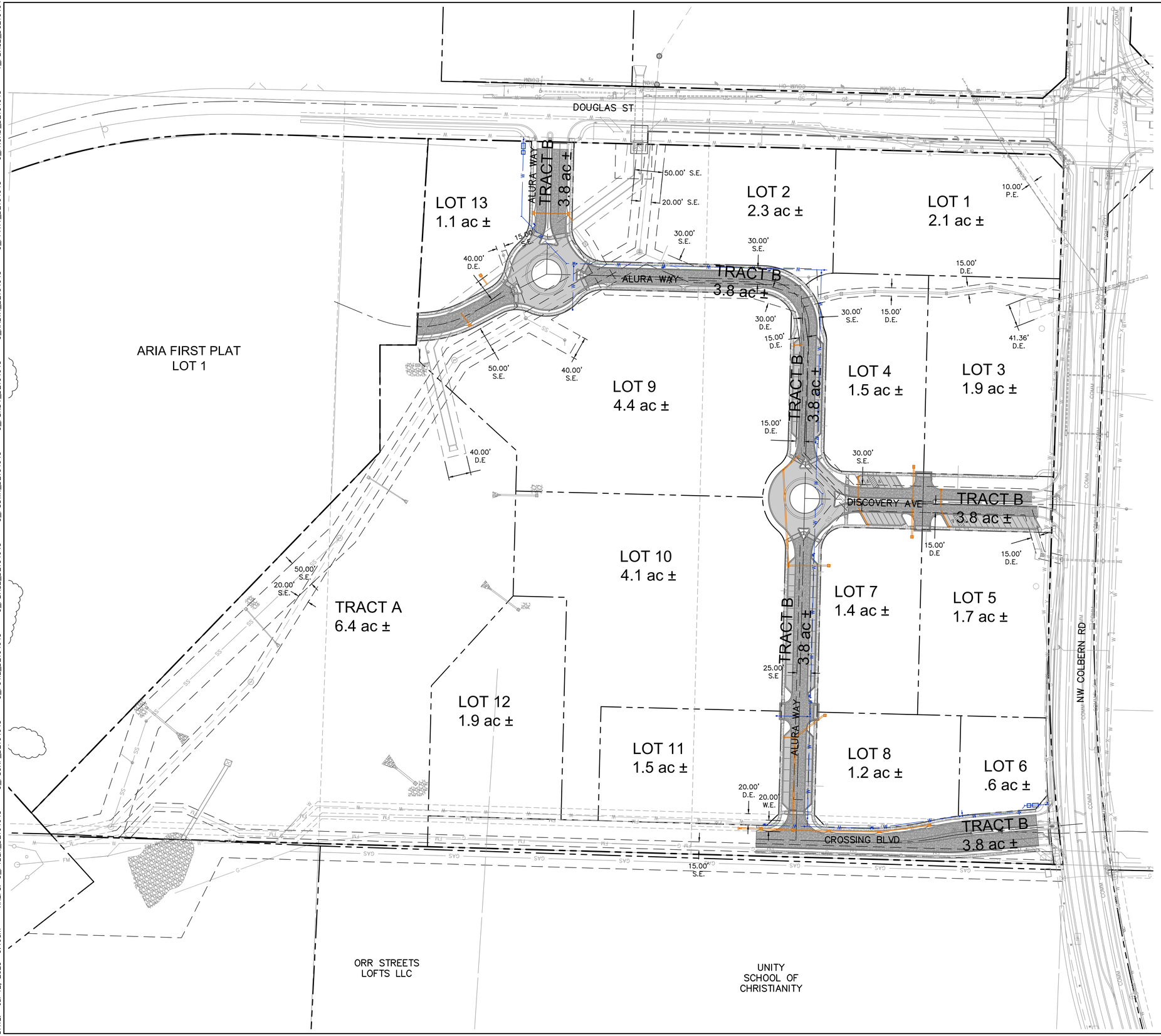
LEE'S SUMMIT, MISSOURI

2023

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SHEET
C102

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USER: jnewland
C_PSSWR_D2104643 C_PBNDY_D2104643 C_XALTA_B2104643 C_FROAD_D2104643 T_PBASE_D2104643



LEGEND

GENERAL LAYOUT LEGEND IS APPLICABLE TO ALL SHEETS IN THIS SET. ANY EXCEPTIONS WILL BE NOTED ON THE SAME SHEET THE EXCEPTIONS APPEAR. SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- PROPOSED PRIVATE WATER MAIN
- FIRE HYDRANTS ASSEMBLY
- PROPOSED PRIVATE STORM SEWER
- PROPOSED SIDEWALK
- PROPOSED ROAD
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS

EASEMENT/SETBACK LEGEND

P.E.	POWER EASEMENT
S.E	SANITARY EASEMENT
D.E	STORM EASEMENT
W.E.	WATER EASEMENT

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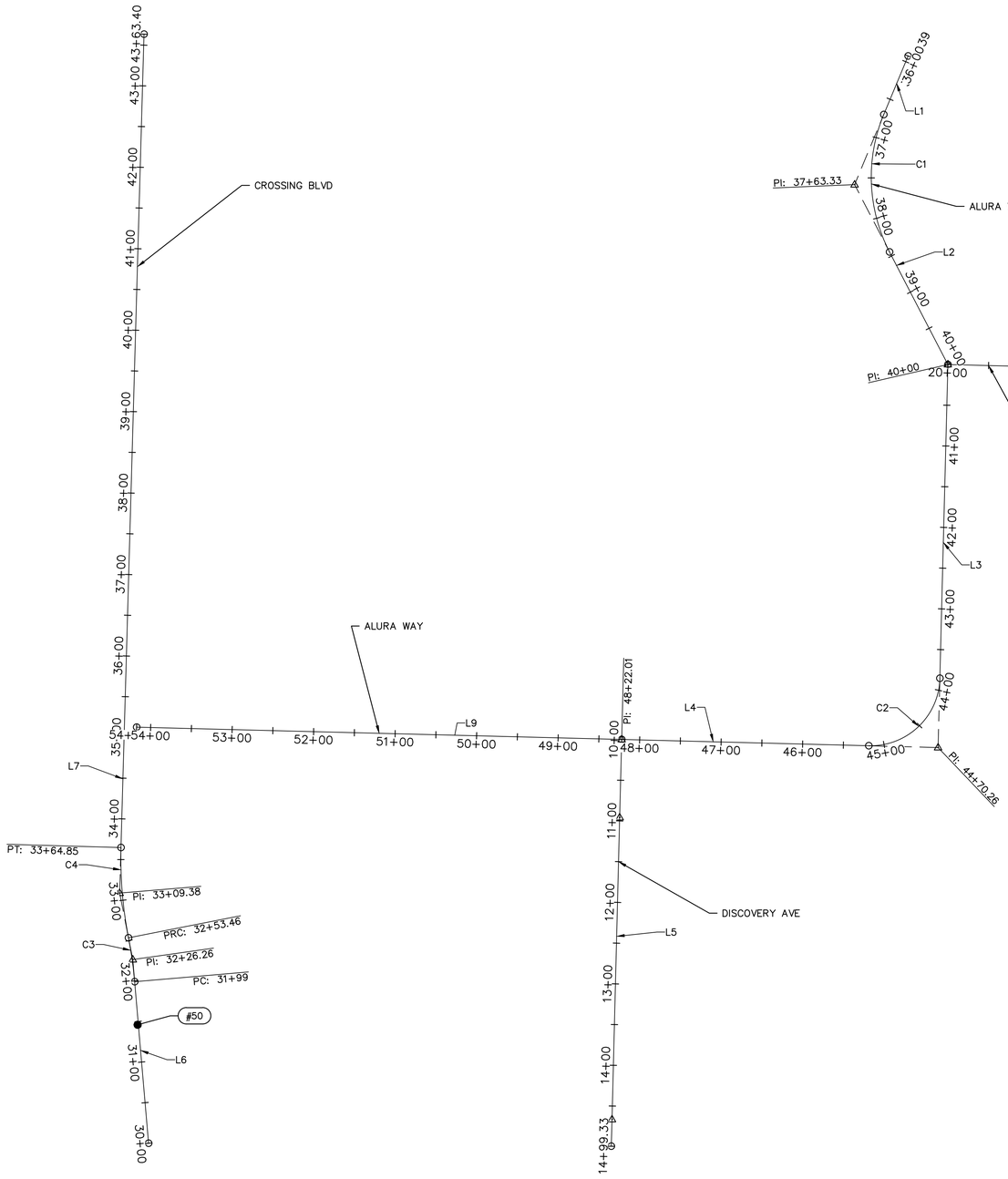
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C103

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Olsson Control Information:

Control Point #50
2" imbedded cap on the north side of NW Colbern Road. It is in the 1st field entrance west of NE Douglas Street.
Project Coordinates
N – 1012389.819
E – 2822108.784
Leveled Elev. = 990.810

ALURA WAY									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L1		35+92.39 36+70.16	1013578.7106 1013506.8998	2823053.8244 2823023.9780	77.77'	S22°34'09"W			
C1	PC= PI= PT=	36+70.16 37+63.33 38+44.55	1013506.8998 1013420.8626 1013338.1344	2823023.9780 2822988.2187 2823031.0809	174.39'	S2°24'36"E	49°57'29"	93.17'	200.00'
L2		38+44.55 40+00.00	1013338.1344 1013200.1060	2823031.0809 2823102.5947	155.45'	S27°23'21"E			
L3		40+00.00 43+85.24	1013200.1060 1012814.9905	2823102.5947 2823092.7886	385.24'	S1°27'31"W			
C2	PC= PI= PT=	43+85.24 44+70.26 45+18.78	1012814.9905 1012730.0015 1012732.1655	2823092.7886 2823090.6246 2823005.6356	133.54'	S46°27'31"W	90°00'00"	85.02'	85.02'
L4		45+18.78 48+22.01	1012732.1655 1012739.8841	2823005.6356 2822702.5032	303.23'	N88°32'29"W			
L9		48+22.01 54+17.17	1012739.8841 1012755.0335	2822702.5032 2822107.5372	595.16'	N88°32'29"W			

ALURA WAY ENTRY									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L8		20+00.00 22+71.06	1013200.1060 1013193.2063	2823102.5947 2823373.5665	271.06'	S88°32'29"E			

CROSSING BOULEVARD									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L6		30+00.00 31+99.00	1012244.3699 1012442.6423	2822122.1661 2822105.1649	199.00'	N4°54'03"W			
C3	PC= PI= PT=	31+99.00 32+26.26 32+53.46	1012442.6423 1012469.7991 1012496.5419	2822105.1649 2822102.8363 2822097.5695	54.46'	N8°01'16"W	6°14'26"	27.26'	500.00'
C4	PC= PI= PT=	32+53.46 33+09.38 33+64.85	1012496.5419 1012551.4138 1012607.3174	2822097.5695 2822086.7627 2822088.3465	111.39'	N4°45'34"W	12°45'51"	55.93'	500.00'
L7		33+64.85 43+63.40	1012607.3174 1013605.4658	2822088.3465 2822116.6238	998.55'	N1°37'22"E			

DISCOVERY AVENUE									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L5		10+95.69 14+66.40	1012644.2281 1012273.6363	2822700.0676 2822690.6313	370.71'	S1°27'31"W			

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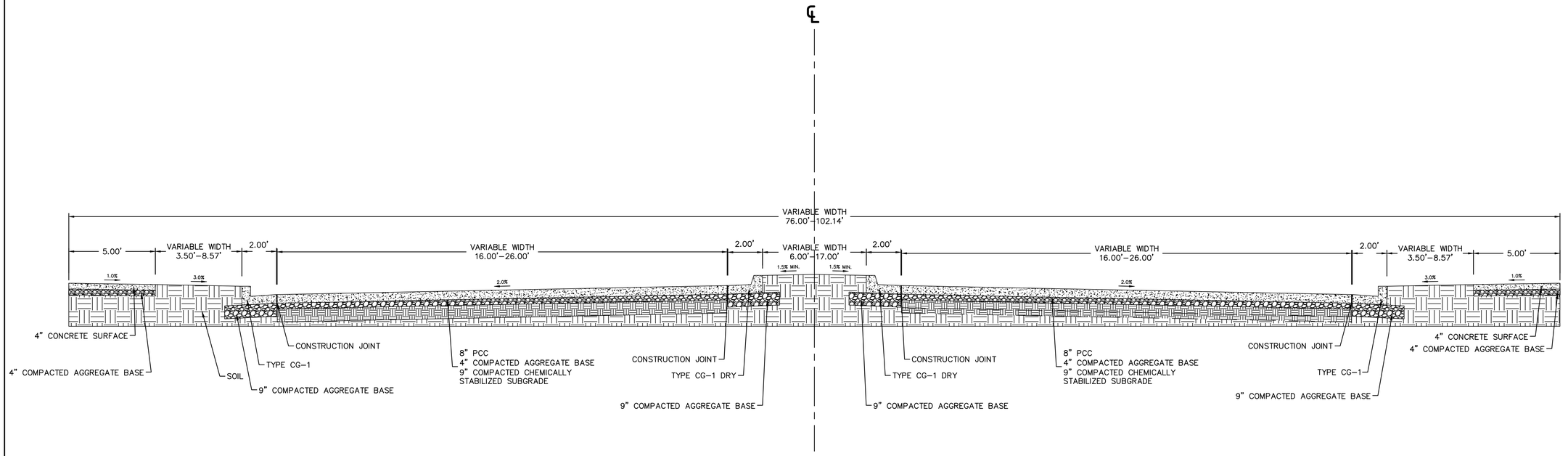
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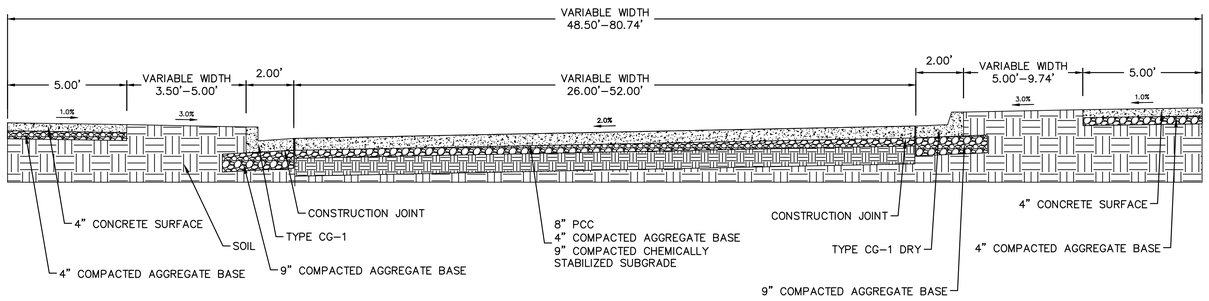
SHEET
C200

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DATE: Jul 12, 2023 9:16am XREFS: C_PTBLK_D2104643 C_XALTA_B2104643



TYPICAL DIVIDED ROAD SECTION

ALURA WAY STA: 20+75.78 TO 22+53.69



TYPICAL SECTION

ALURA WAY STA: 35+92.39 TO 39+24.04, 40+83.99 TO 45+33.32
CROSSING BLVD STA: 32+00.00 TO 43+63.40 (END OF FUTURE EXTENSION)

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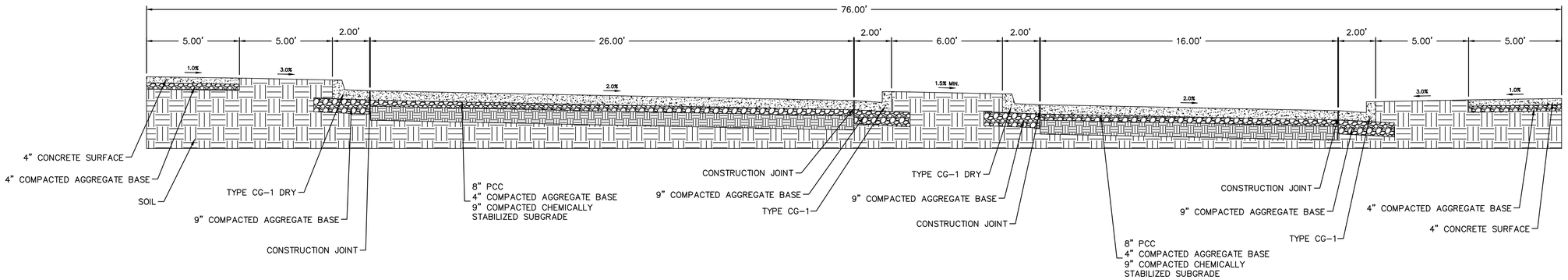
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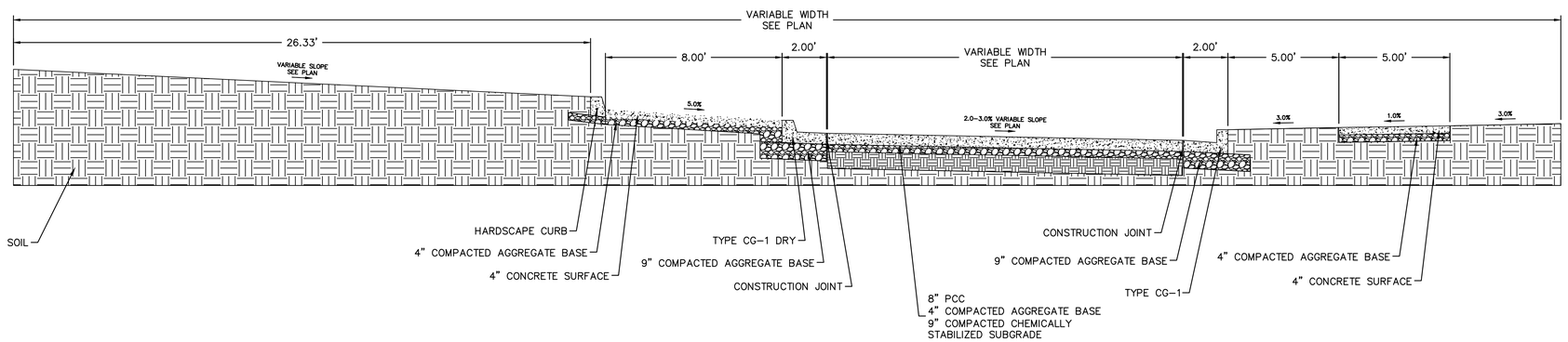
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CROSSING BLVD DIVIDED ROAD SECTION

CROSSING BLVD STA: 30+81.17 TO 32+01.00



ROUNDABOUT SECTION

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1301 Burlington Street
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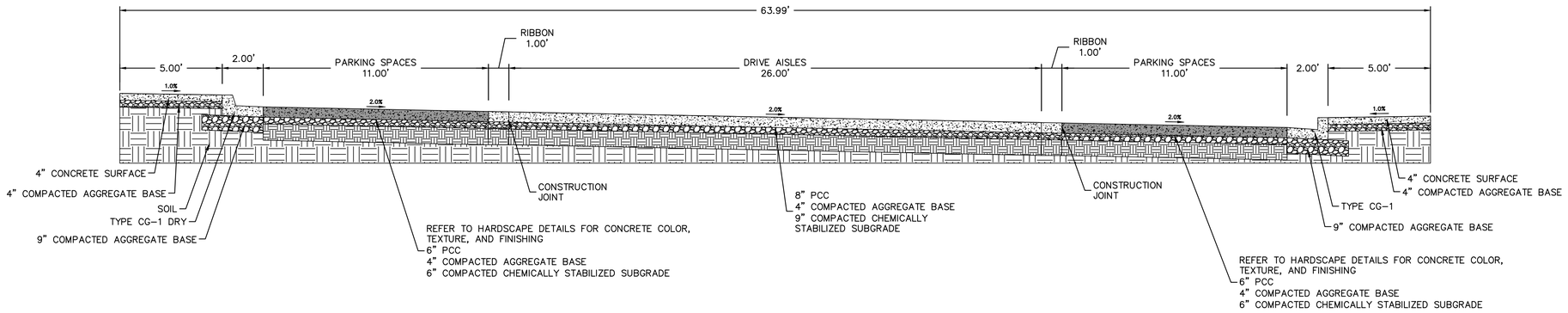
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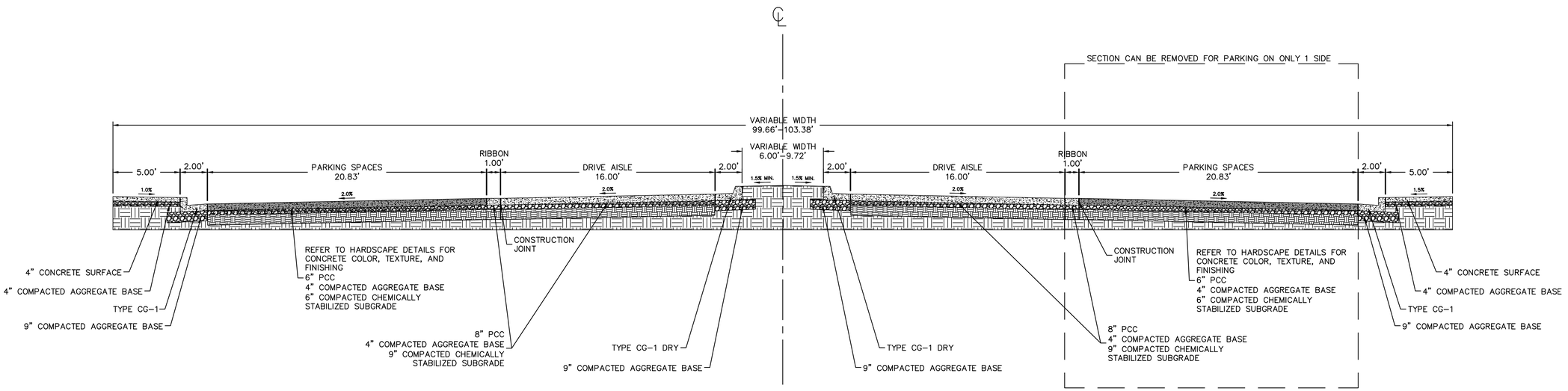
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TYPICAL SECTION WITH PARALLEL PARKING

DISCOVERY AVENUE STA: 49+24.48 TO 51+72.63, 52+32.63 TO 53+79.77



TYPICAL SECTION WITH DIAGONAL PARKING

1 SIDED:
DISCOVERY AVENUE STA: 12+44.50 TO 14+84.44

2 SIDED:
DISCOVERY AVENUE STA: 10+93.76 TO 11+79.60

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STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TYPICAL ROAD SECTIONS - PARKING
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

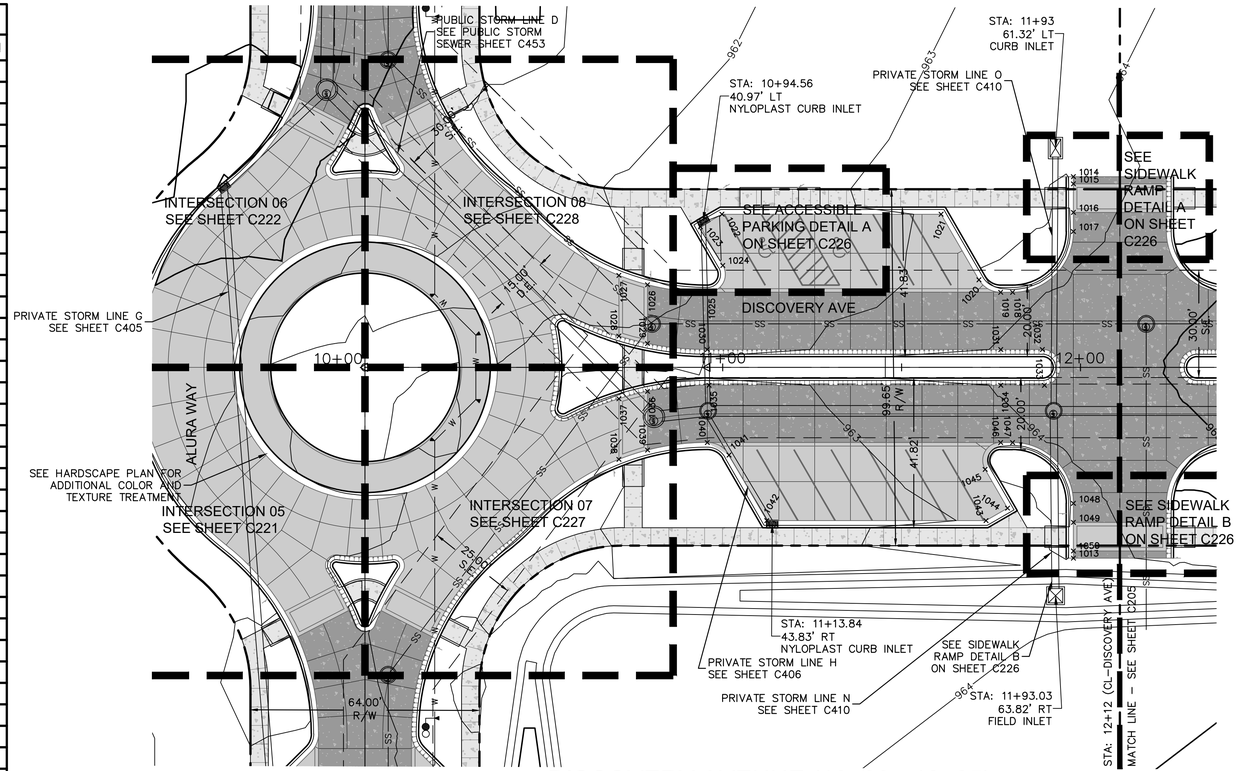
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_RSN01_D2104643
date: 07.12.2023

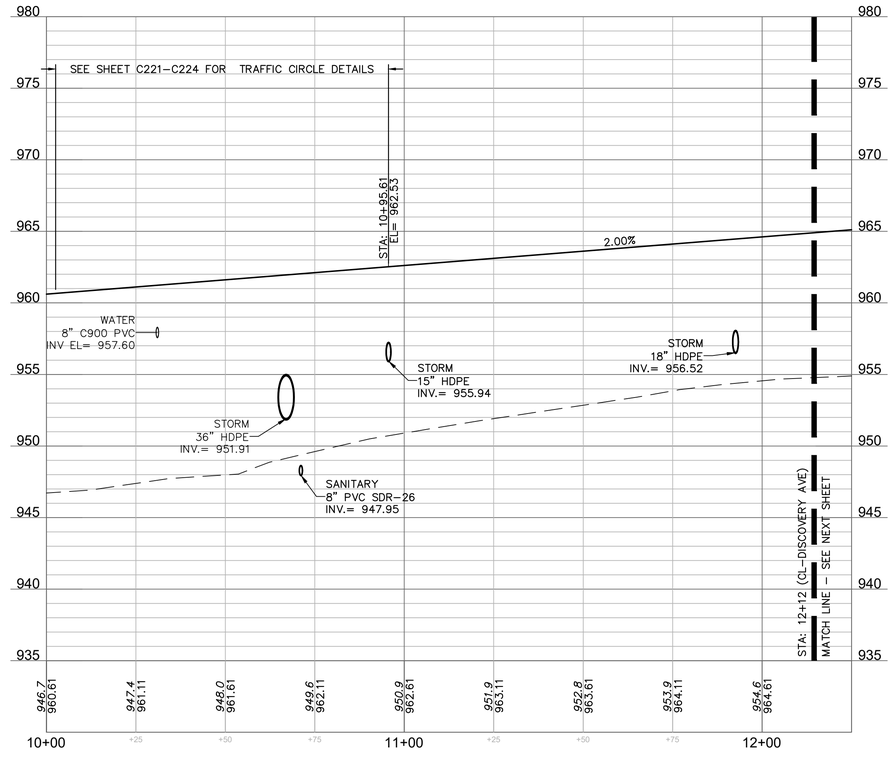
SHEET
C203

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DATE: Jul 12, 2023 9:16am
XREFS: C_PTBLK_D2104643
USER: jnewland

POINT TABLE			
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1013	1012543.3055	2822644.1600	963.658
1014	1012540.5910	2822750.7665	963.658
1015	1012540.6419	2822748.7671	963.678
1016	1012540.8455	2822740.7697	963.758
1017	1012540.9810	2822735.4510	963.812
1018	1012558.4082	2822718.8892	963.812
1019	1012561.7363	2822718.9739	963.745
1020	1012567.7074	2822722.6271	963.554
1021	1012577.8150	2822741.2109	963.230
1022	1012639.0358	2822742.7698	962.028
1023	1012645.1535	2822739.4423	961.890
1024	1012639.1739	2822728.4481	962.015
1025	1012643.6936	2822721.0608	962.105
1026	1012660.3214	2822723.5961	961.600
1027	1012668.2526	2822726.4016	961.484
1028	1012668.6842	2822709.4495	962.101
1029	1012660.7393	2822707.1849	962.181
1030	1012644.1008	2822705.0660	962.425
1031	1012562.0980	2822702.9780	0.000
1032	1012550.4848	2822702.6823	0.000
1033	1012550.1740	2822692.6711	0.000
1034	1012562.3525	2822692.9812	0.000
1035	1012643.8619	2822695.0566	0.000
1036	1012661.0801	2822693.7998	0.000
1037	1012669.1300	2822691.9424	0.000
1038	1012669.5616	2822674.9904	962.539
1039	1012661.4980	2822677.3885	962.456
1040	1012644.7626	2822679.0744	962.287
1041	1012638.7915	2822675.4212	962.213
1042	1012628.6839	2822656.8374	962.002
1043	1012567.4632	2822655.2786	963.166
1044	1012561.3454	2822658.6060	963.366
1045	1012567.3251	2822669.6002	963.616
1046	1012562.8055	2822676.9875	963.745
1047	1012559.4775	2822676.9028	963.812
1048	1012542.9155	2822659.4756	963.812
1049	1012543.0509	2822654.1568	963.758
1050	1012543.2546	2822646.1594	963.678



DISCOVERY AVENUE (10+00 - 12+25)
DESIGN SPEED 15 MPH



LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

N

0' 10' 20' 40'
SCALE IN FEET

0' 10' 20' 40'
SCALE IN FEET

10' 5' 2.5' 0'

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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (DISCOVERY AVE)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

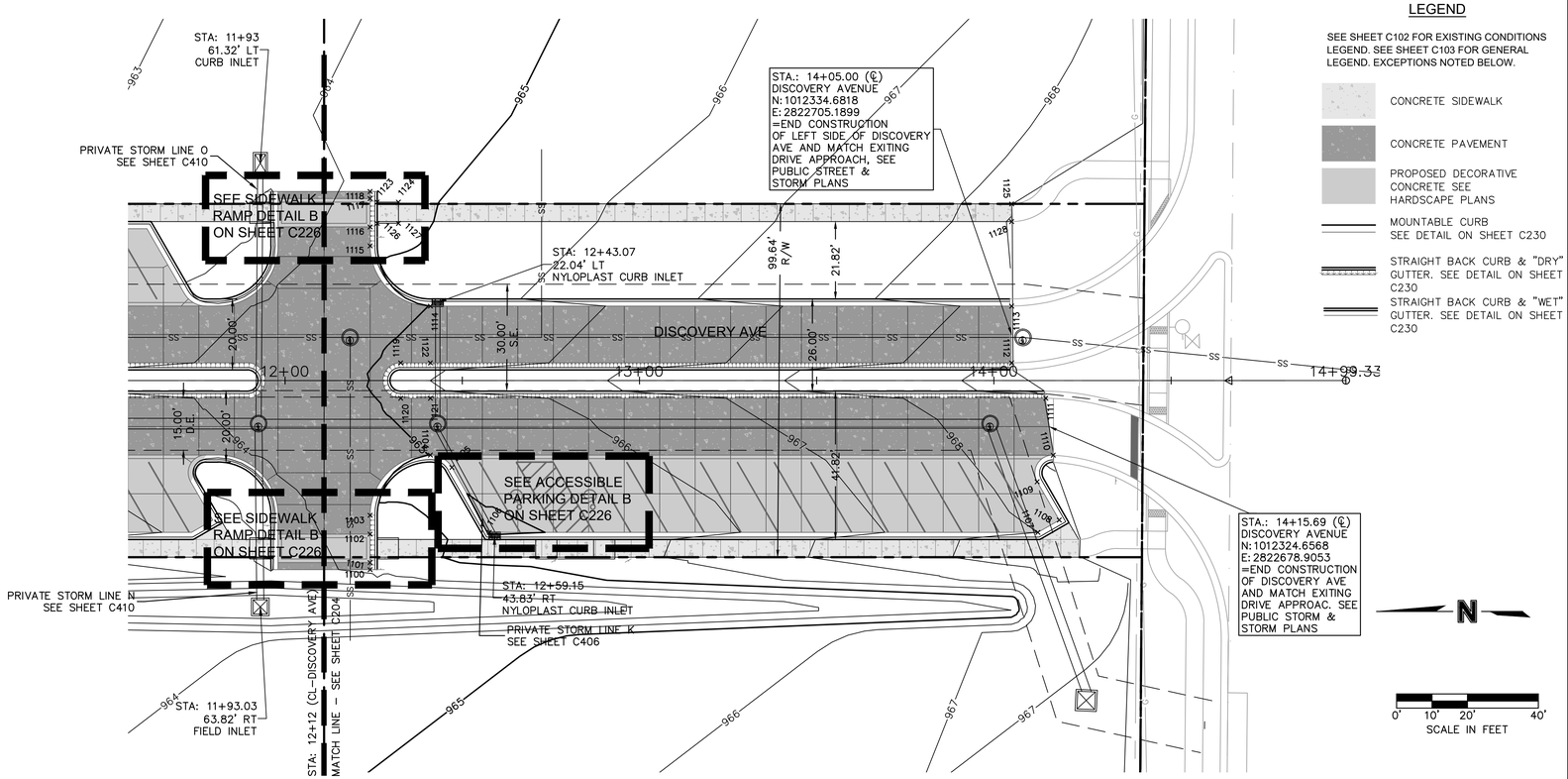
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP01_D2104643
date:	07.12.2023

SHEET
C204

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C_XALTA_B2104643 C_PUTIL_D2104643 C_PPATT_D2104643
C_PBNDY_D2104643

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
1100	1012517.3139	2822643.4982	964.178
1101	1012517.2630	2822645.4976	964.198
1102	1012517.0594	2822653.4950	964.278
1103	1012516.9239	2822658.8138	964.332
1104	1012499.4967	2822675.3755	965.012
1105	1012493.5256	2822671.7224	965.085
1106	1012483.4180	2822653.1385	964.873
1107	1012328.6968	2822649.1989	968.003
1108	1012322.5791	2822652.5263	968.143
1109	1012328.5378	2822663.4822	968.392
1110	1012323.8177	2822670.8604	968.591
1111	1012325.4959	2822686.9502	968.805
1112	1012334.8854	2822697.1925	968.612
1113	1012334.4781	2822713.1873	968.292
1114	1012498.4274	2822717.3619	965.012
1115	1012514.9894	2822734.7891	964.332
1116	1012514.8540	2822740.1079	964.278
1117	1012514.6503	2822748.1053	964.198
1118	1012514.5994	2822750.1047	964.178
1119	1012507.2167	2822701.5805	965.164
1120	1012507.4713	2822691.5838	965.164
1121	1012499.0894	2822691.3703	965.332
1122	1012498.8349	2822701.3671	965.332
1123	1012512.6764	2822747.0547	964.788
1124	1012506.6784	2822746.9020	964.708
1125	1012333.7445	2822741.9985	968.285
1126	1012512.8292	2822741.0567	964.848
1127	1012506.8311	2822740.9040	964.748
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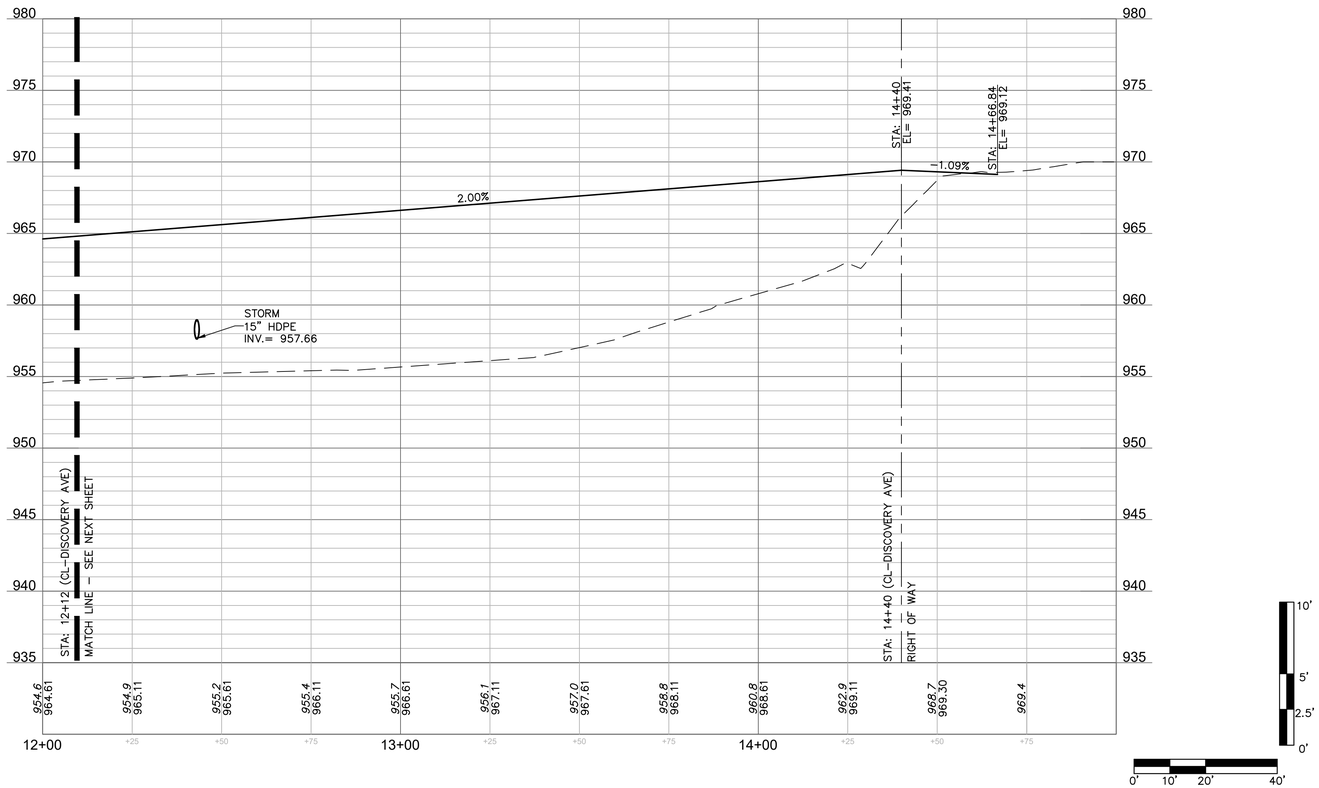


LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

DISCOVERY AVENUE (12+00 - 15+00)
DESIGN SPEED 15 MPH



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DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

ROAD PLAN & PROFILE (DISCOVERY AVE 2)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

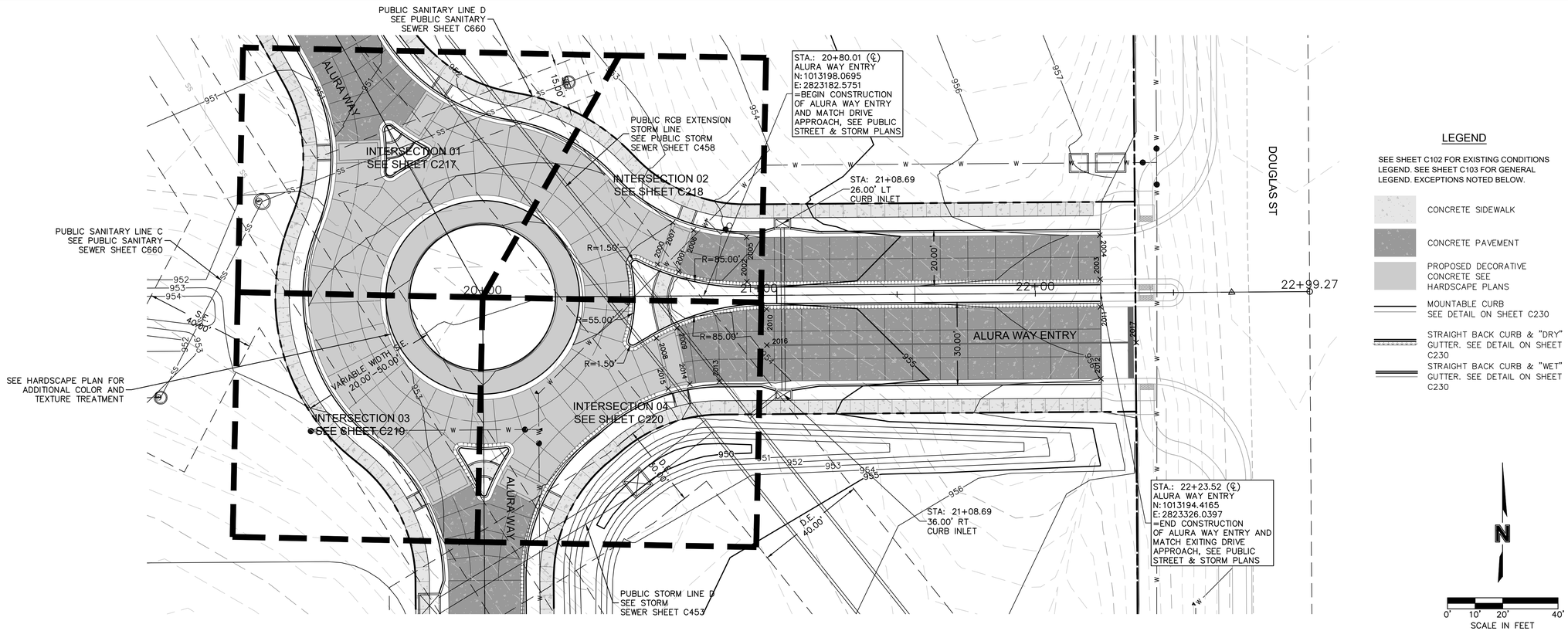
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP01_D2104643
date:	07.12.2023

SHEET
C205

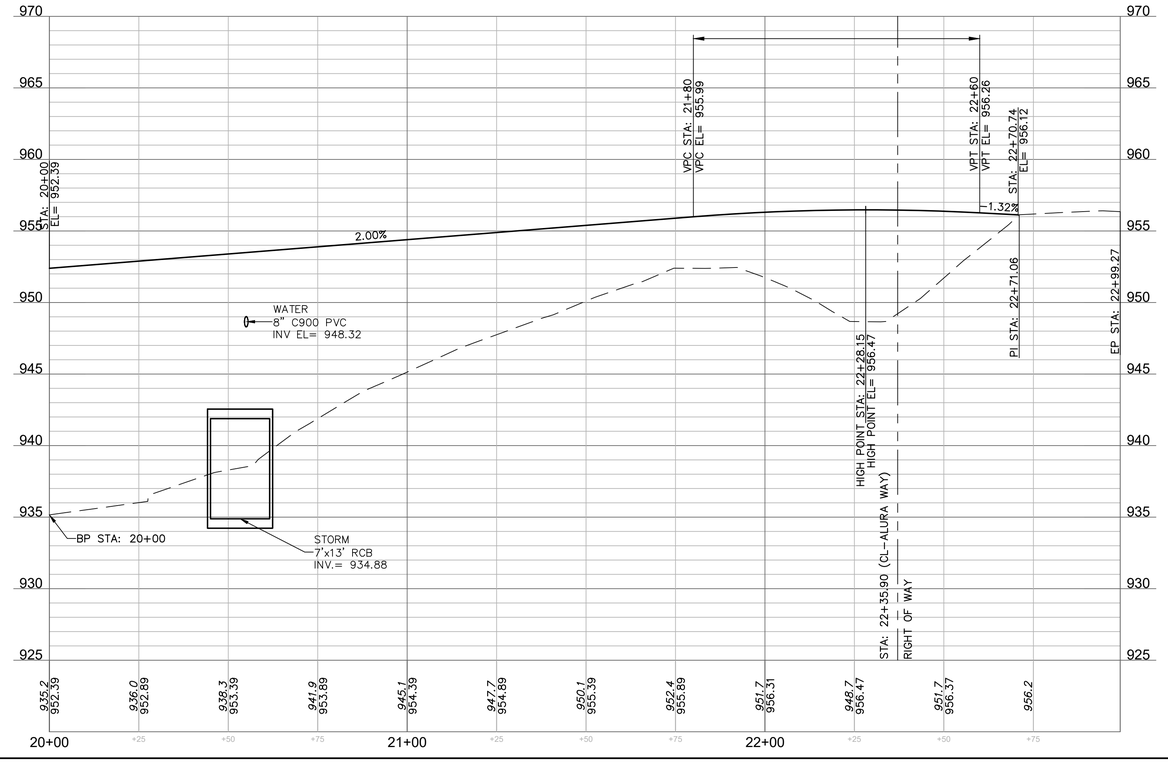
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POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
2000	1013209.9997	2823166.3254	0.000
2001	1013207.0618	2823173.7665	0.000
2002	1013202.6687	2823198.3779	0.000
2003	1013199.4149	2823326.1670	0.000
2004	1013215.4097	2823326.5743	0.000
2005	1013218.6635	2823198.7852	0.000
2006	1013221.9654	2823179.6506	0.000
2007	1013224.9032	2823172.2096	0.000
2008	1013183.2798	2823165.0006	0.000
2009	1013186.6828	2823172.4840	0.000
2010	1013192.4925	2823205.1713	0.000
2011	1013189.4181	2823325.9124	0.000
2012	1013163.4265	2823325.2506	0.000
2013	1013166.9418	2823187.1946	0.000
2014	1013166.3561	2823176.4880	0.000
2015	1013164.8100	2823168.6388	0.000
2016	1013179.4967	2823204.8404	0.000
2017	1013176.0948	2823338.4427	0.000

ALURA WAY ENTRY (20+00 - 22+99.27)

DESIGN SPEED 15 MPH



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STATE OF MISSOURI
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NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY ENTRY)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP01_D2104643
date:	07.12.2023

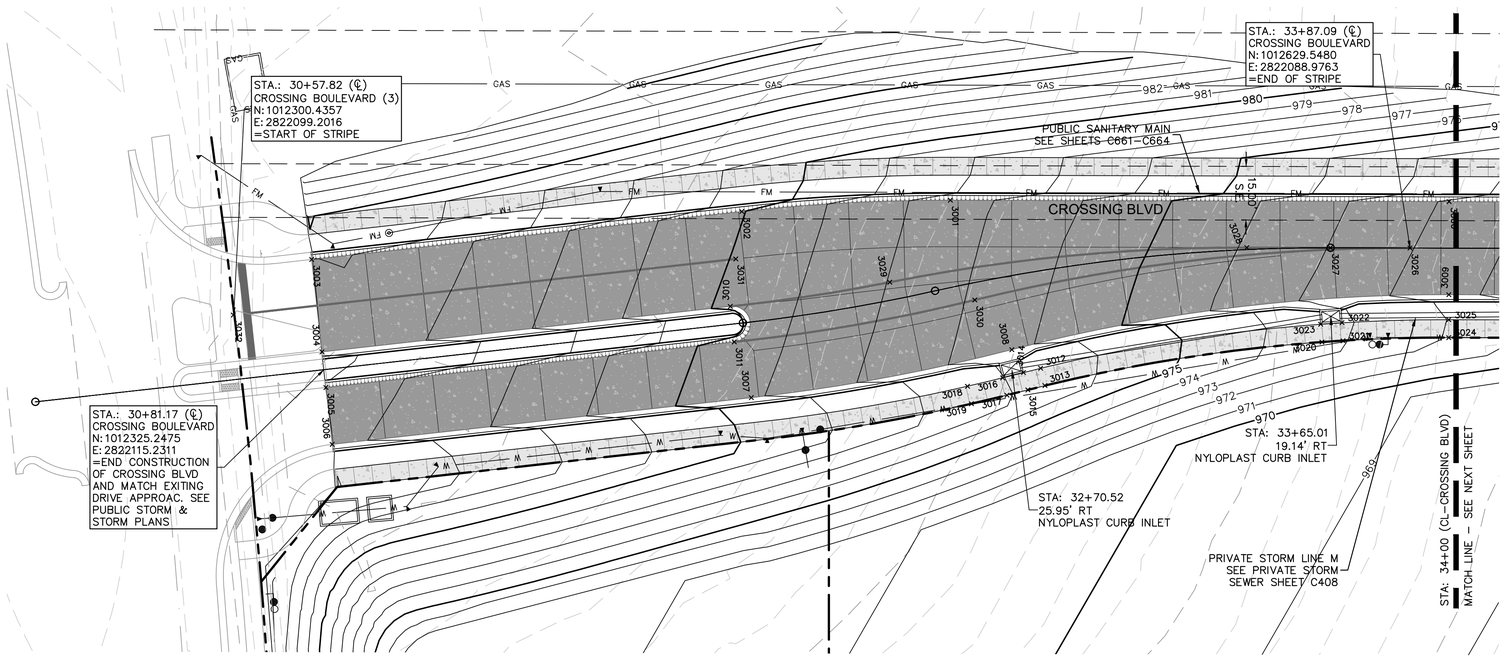
SHEET
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USER: jnewland
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DATE: Jul 12, 2023 9:18am
XREFS: C_PTBLK_D2104643 C_PSURF_D2104643 C_PBASE_D2104643 T_PBASE_D2104643

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
3000	1012640.8018	2822076.2899	0.000
3001	1012501.4534	2822072.3422	0.000
3002	1012443.0988	2822074.0120	0.000
3003	1012322.5990	2822084.3445	0.000
3004	1012324.8203	2822110.2494	0.000
3005	1012325.6746	2822120.2129	0.000
3006	1012327.0416	2822136.1544	0.000
3007	1012444.4364	2822126.0881	0.000
3008	1012517.5742	2822114.5359	0.000
3009	1012640.0656	2822102.2794	0.000
3010	1012439.2261	2822100.4395	0.000
3011	1012440.0804	2822110.4029	0.000
3012	1012525.5018	2822119.9296	0.000
3013	1012526.5640	2822124.8154	0.000
3014	1012520.6570	2822121.0093	0.000
3015	1012521.7703	2822125.8839	0.000
3016	1012514.8069	2822122.3436	0.000
3017	1012515.8948	2822127.2238	0.000
3018	1012504.9229	2822124.4479	0.000
3019	1012505.9172	2822129.3480	0.000
3020	1012604.2625	2822114.6085	0.000
3021	1012610.1956	2822114.4036	0.000
3022	1012610.0217	2822109.3691	0.000
3023	1012604.0264	2822109.6046	0.000
3024	1012639.7257	2822114.2746	0.000
3025	1012639.8673	2822109.2766	0.000

STRIPING

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
3026	1012629.5480	2822088.9763	0.000
3027	1012607.3174	2822088.3465	0.000
3028	1012583.9635	2822087.6849	0.000
3029	1012483.9455	2822094.8102	0.000
3030	1012507.5868	2822100.3834	0.000
3031	1012441.1045	2822087.2307	0.000
3032	1012300.3362	2822099.3011	0.000



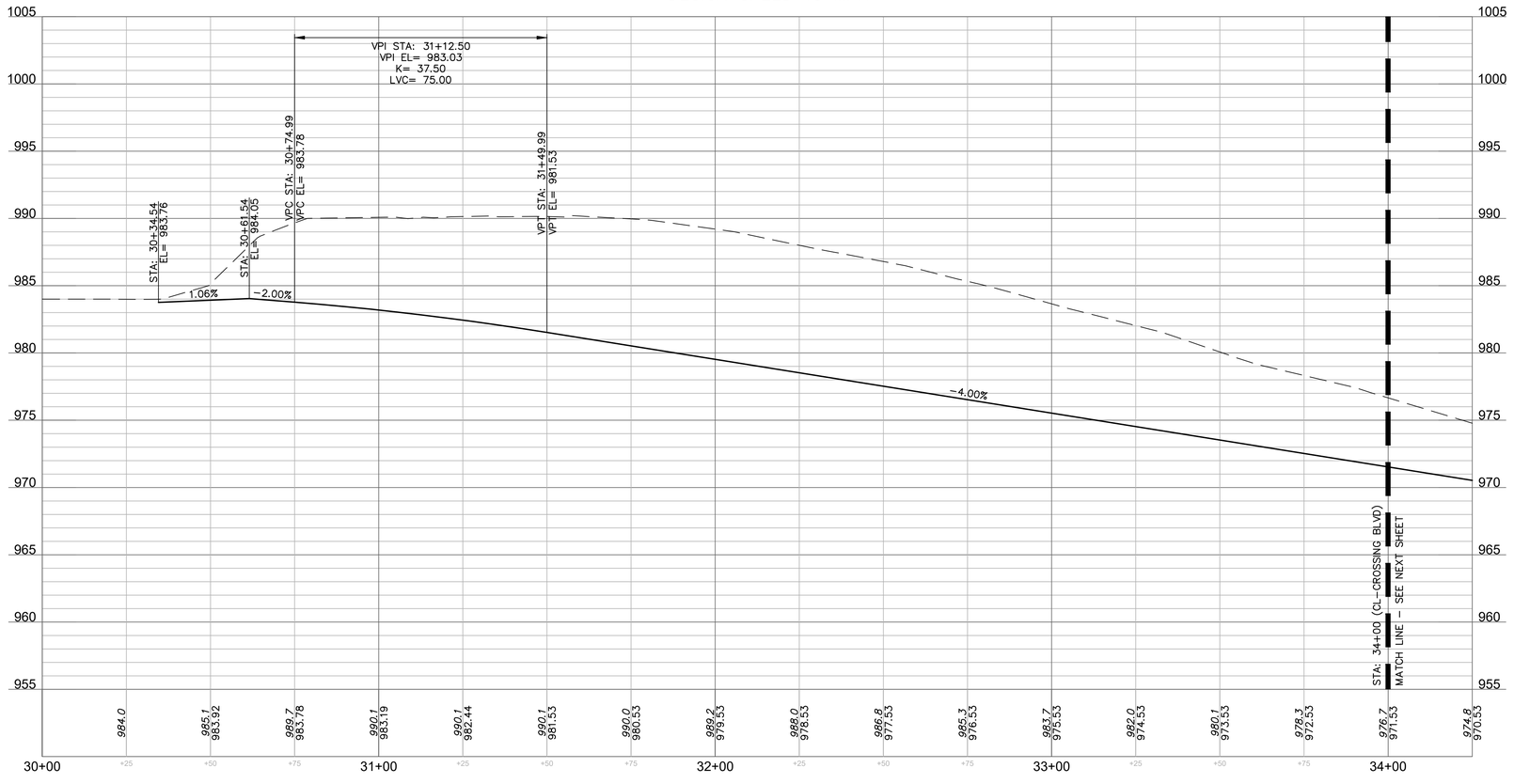
LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

CROSSING BOULEVARD (30+00 - 34+25)

DESIGN SPEED 15 MPH



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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (CROSSING BLVD)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

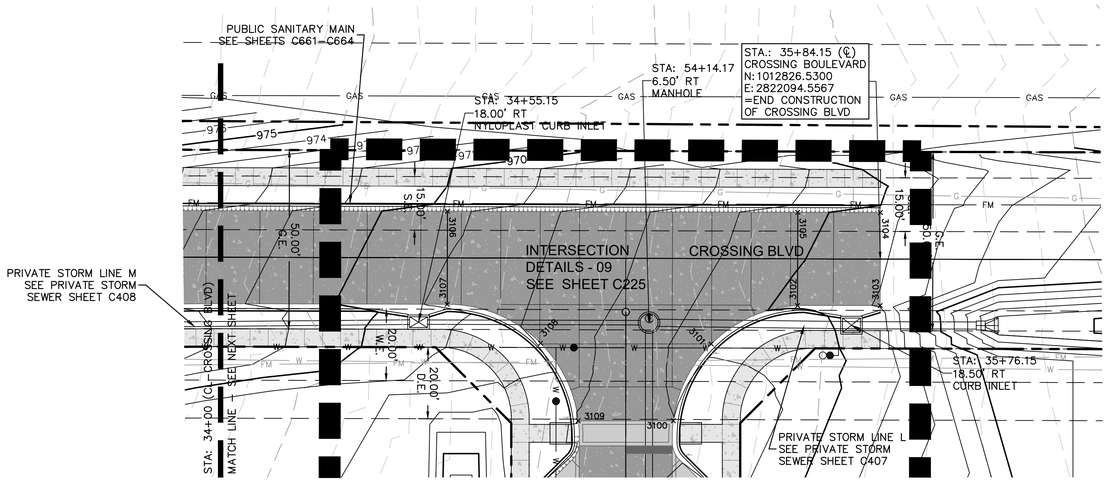
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP01_D2104643
date:	07.12.2023

SHEET
C207

DWG: F:\2021\04501-05000\021-04643-d\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_RPP01_D2104643.dwg USER: jnewland
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POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
3100	1012767.5599	2822138.2711	0.000
3101	1012778.6727	2822117.0851	0.000
3102	1012803.0749	2822106.9568	0.000
3103	1012826.1618	2822107.5515	0.000
3104	1012826.8981	2822081.5619	0.000
3105	1012803.8129	2822080.9079	0.000
3106	1012705.9465	2822078.1354	0.000
3107	1012705.2102	2822104.1250	0.000
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LEGEND

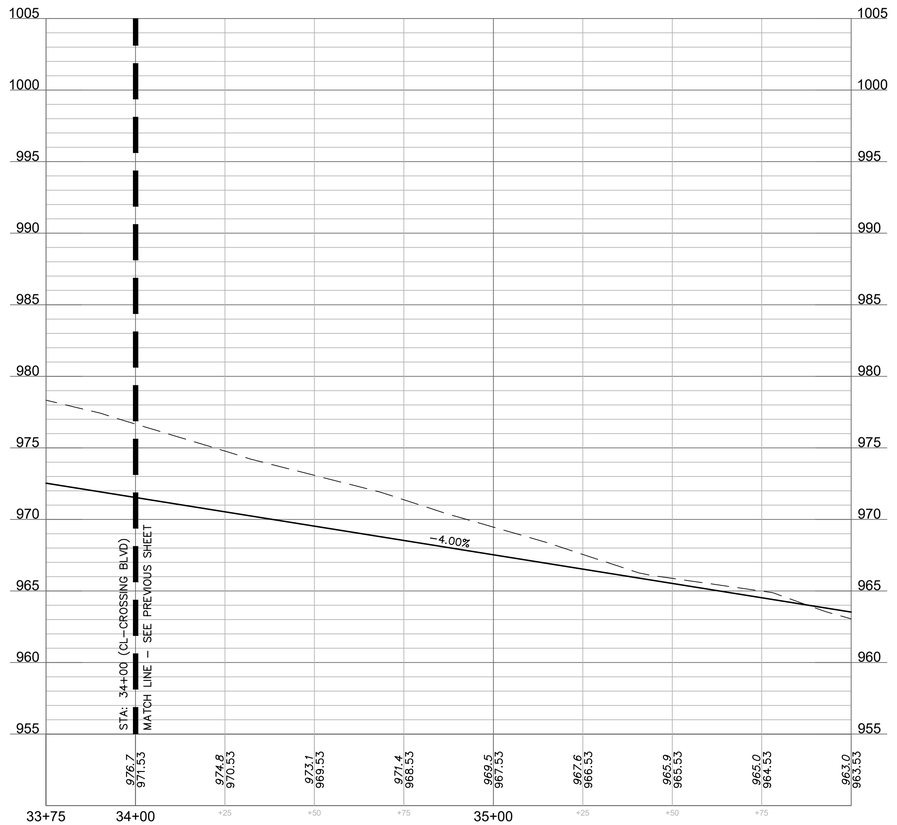
SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
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- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

N

0' 10' 20' 40'
SCALE IN FEET

CROSSING BOULEVARD (33+75 - 36+00)
DESIGN SPEED 15 MPH



10' 5' 2.5' 0'
0' 10' 20' 40'
SCALE IN FEET

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7/3/23
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DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (CROSSING BLVD 2)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

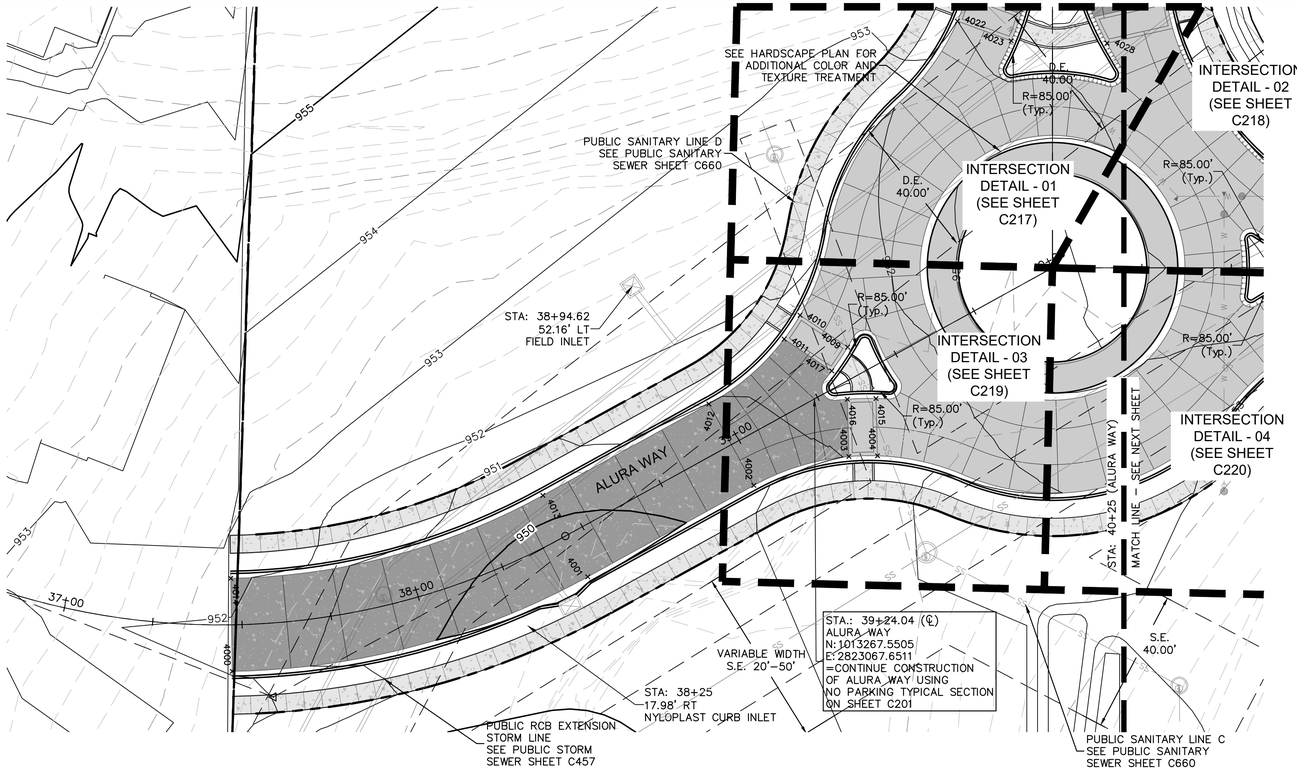
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_RPP01_D2104643
date: 07.12.2023

SHEET
C208

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USER: jnewland C_PBNDY_D2104643 C_XALTA_B2104643 C_PUTIL_D2104643 C_PPATT_D2104643

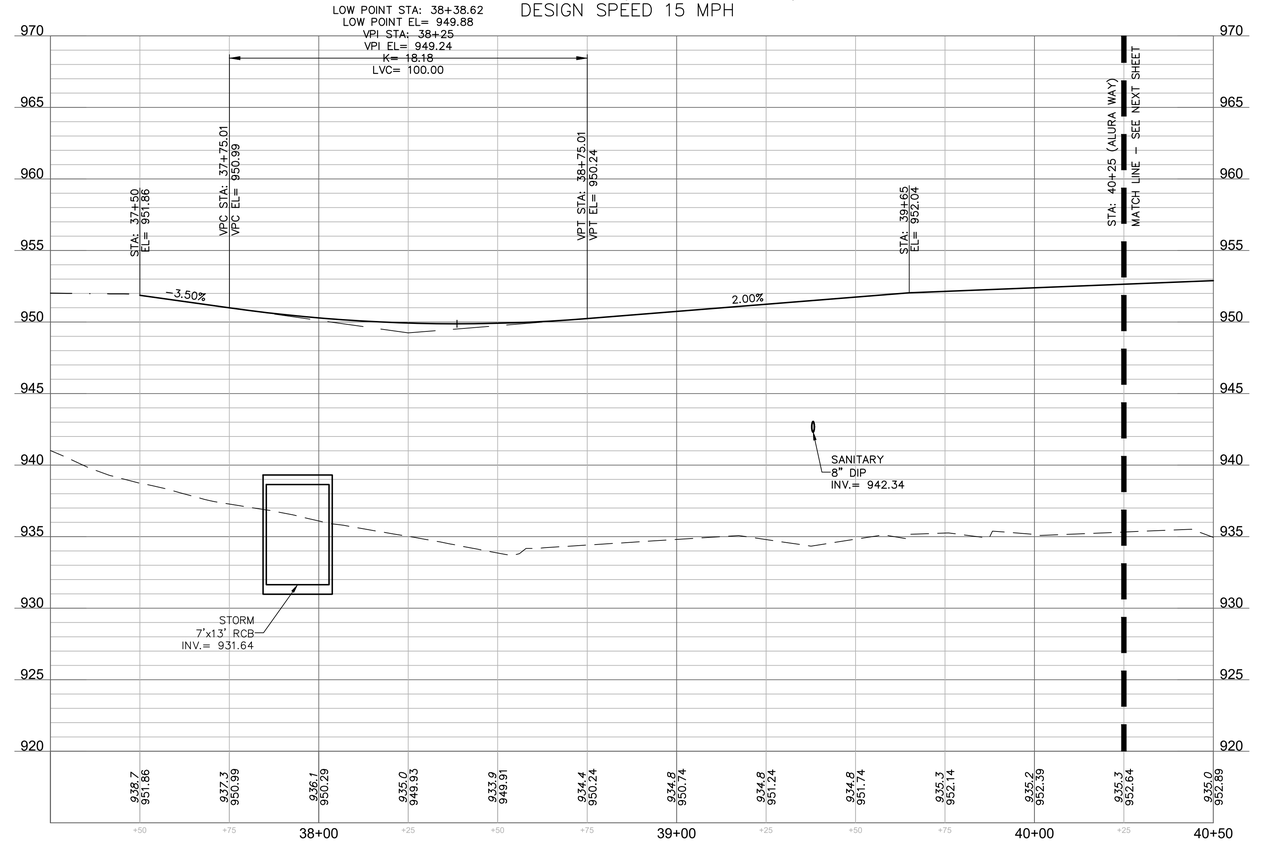
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4001	1013332.1540	2823019.5382	949.626
4002	1013285.1086	2823043.9128	950.431
4003	1013258.3363	2823051.3008	951.033
4004	1013250.3363	2823051.3068	951.134
4009	1013257.8916	2823081.8893	951.486
4010	1013270.9744	2823091.1402	951.353
4011	1013275.5932	2823084.6083	951.273
4012	1013297.0694	2823066.9983	950.951
4013	1013344.1148	2823042.6237	950.146
4014	1013431.8958	2823021.6698	952.204
4015	1013250.3483	2823067.3298	951.398
4016	1013258.3483	2823067.3239	951.237
4017	1013262.5104	2823075.3573	951.285
4022	1013224.9032	2823172.2096	953.000
4023	1013209.9997	2823166.3254	953.344
4028	1013183.2798	2823165.0006	953.327



ALURA WAY (37+25 - 40+50)

DESIGN SPEED 15 MPH

LOW POINT STA: 38+38.62
LOW POINT EL= 949.88
VPI STA: 38+25
VPI EL= 949.24
K= 18.18
LVC= 100.00



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STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV./ NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY 1)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

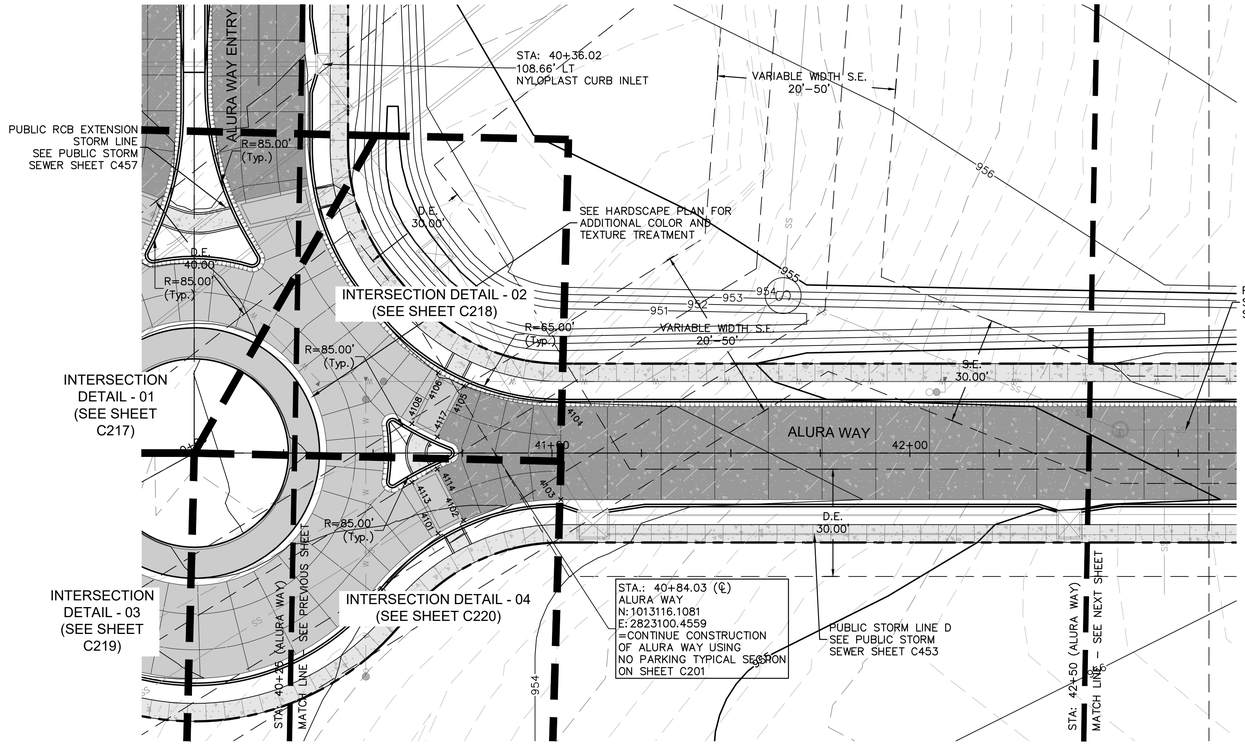
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_RPP03_D2104643
date: 07.12.2023

SHEET
C209

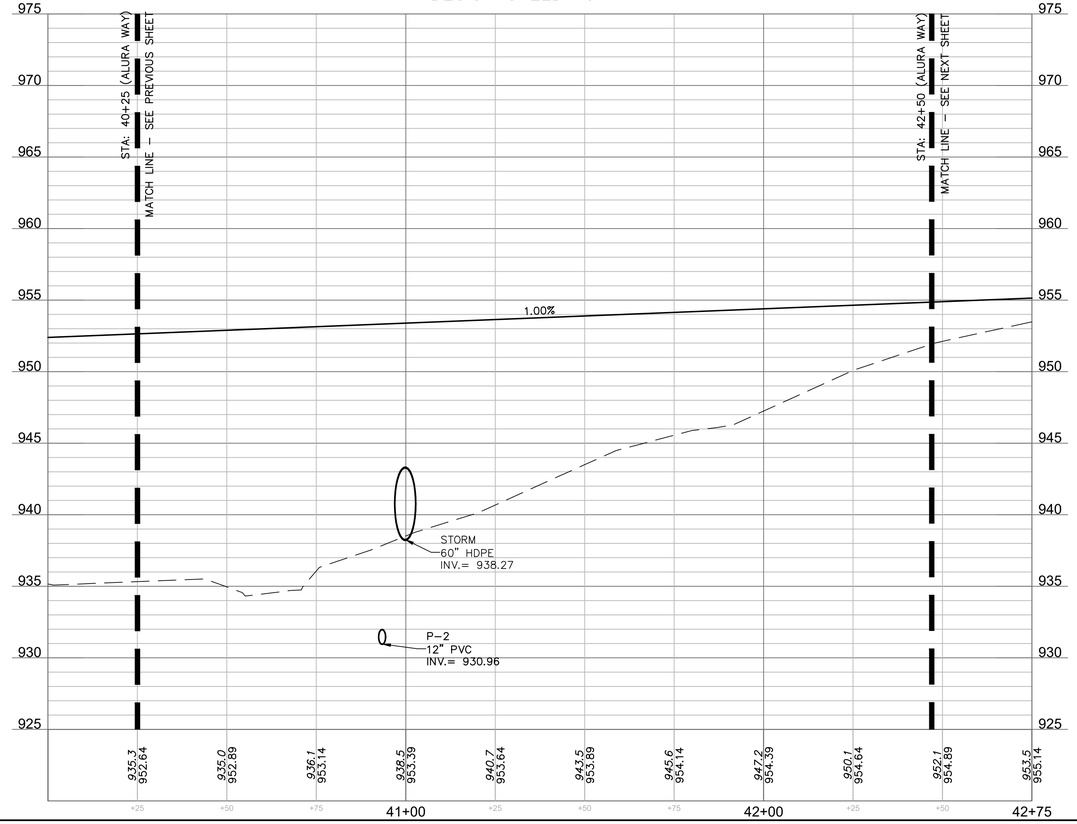
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C_PBNDY_D2104643 C_PSURF_D2104643 C_PPATT_D2104643 C_XALTA_B2104643
USER: jnewland

POINT TABLE			
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4101	1013132.5054	2823078.4349	952.796
4102	1013125.3082	2823081.9278	952.876
4103	1013098.0006	2823086.9906	953.156
4104	1013097.3388	2823112.9822	953.676
4105	1013124.3533	2823119.4281	953.955
4106	1013131.3634	2823123.2828	954.008
4108	1013139.0838	2823109.2423	953.576
4113	1013139.5012	2823092.8501	953.290
4114	1013132.3040	2823096.3430	953.355
4117	1013132.0737	2823105.3877	953.507



ALURA WAY (40+00 - 42+75)

DESIGN SPEED 15 MPH



LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

N

0' 10' 20' 40'
SCALE IN FEET

0' 10' 20' 40'
SCALE IN FEET

10'
5'
2.5'
0'

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STATE OF MISSOURI
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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY 2)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

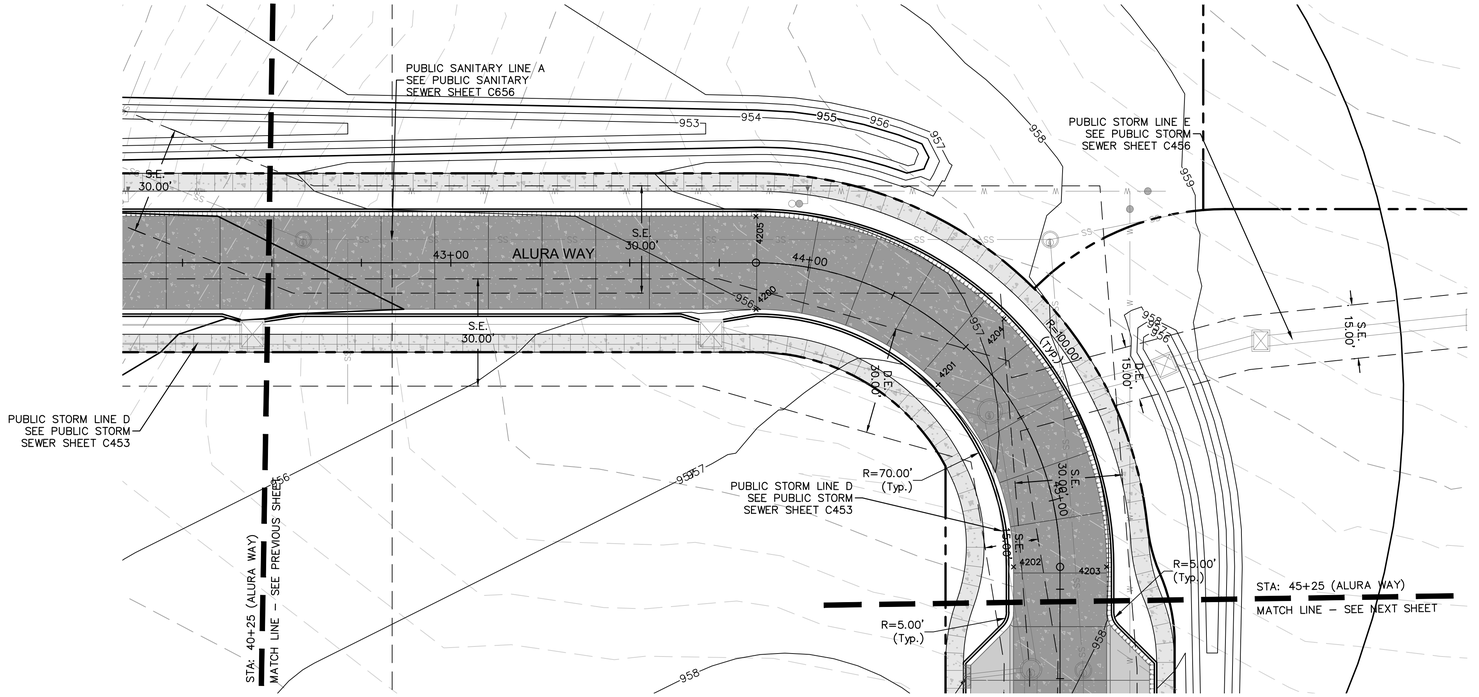
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP03_D2104643
date:	07.12.2023

SHEET
C210

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USER: jnewland
C_PBNDY_D2104643

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
4200	1012815.3049	2823079.7924	955.984
4201	1012764.9465	2823057.4150	956.654
4202	1012745.1609	2823005.9831	957.319
4203	1012719.1693	2823005.3212	957.839
4204	1012746.0997	2823075.3259	957.193
4205	1012814.6431	2823105.7840	956.504



LEGEND

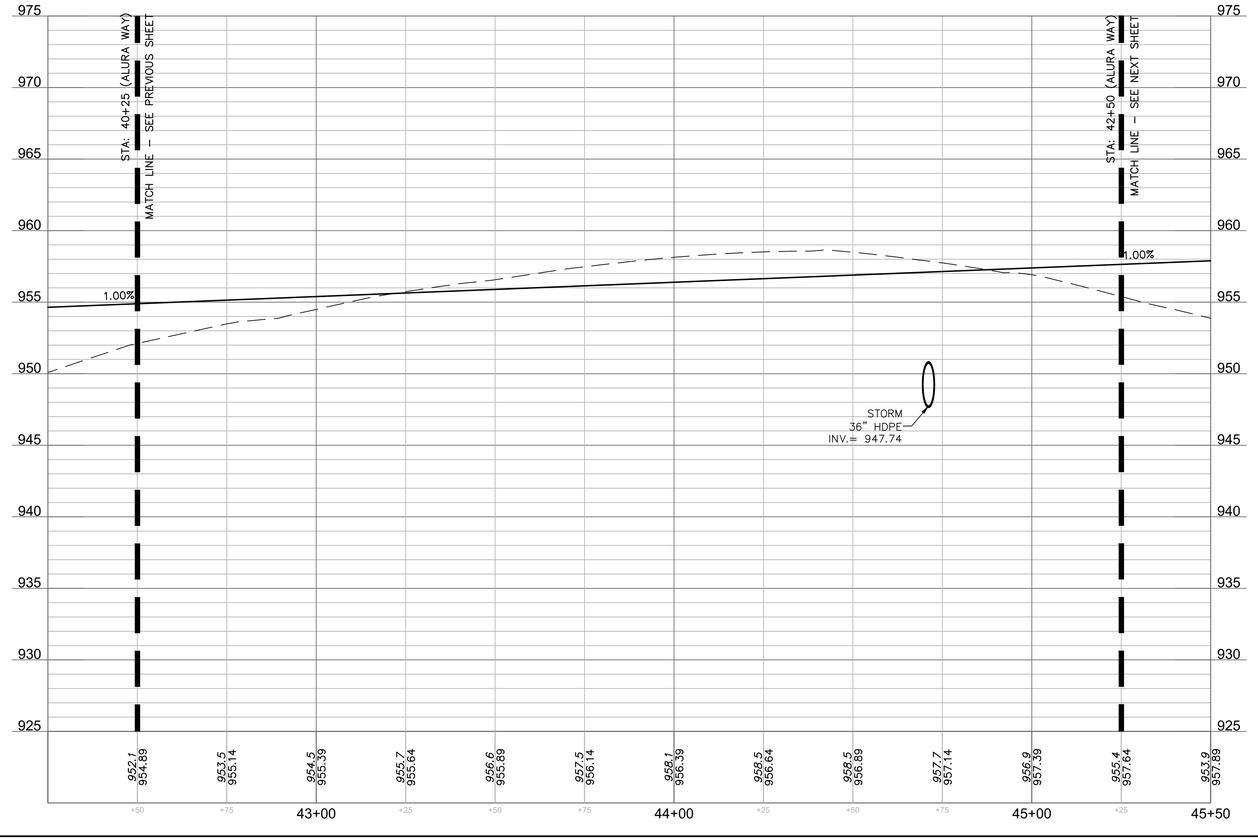
SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

N

0' 10' 20' 40'
SCALE IN FEET

ALURA WAY (42+25 - 45+50)
DESIGN SPEED 15 MPH



0' 10' 20' 40'
SCALE IN FEET

10' 5' 2.5' 0'

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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY 3)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

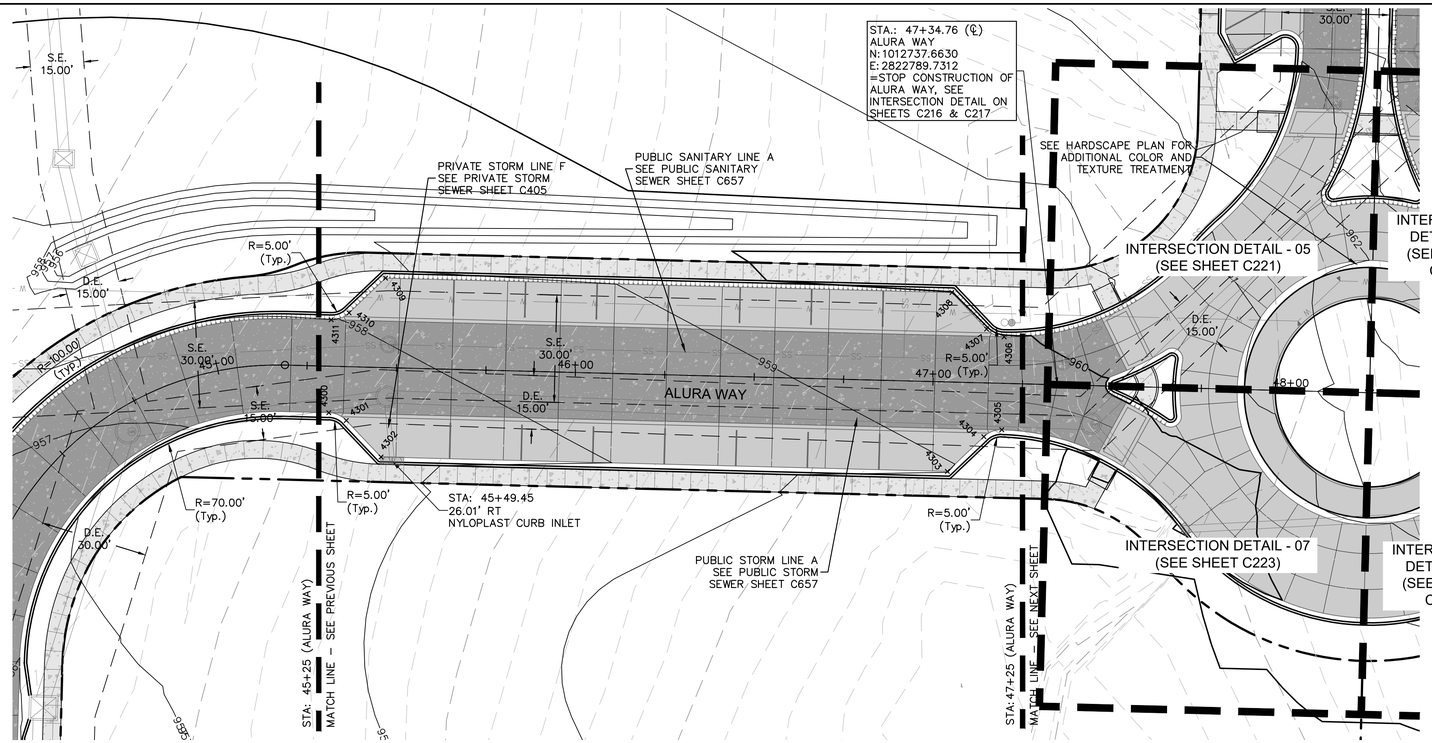
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_RPP03_D2104643
date: 07.12.2023

SHEET
C211

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USER: jnewland C_PBNDY_D2104643

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
4300	1012745.4825	2822993.3516	957.445
4301	1012747.6581	2822988.4557	957.454
4302	1012757.8579	2822978.7624	957.354
4303	1012761.8884	2822820.4706	958.938
4304	1012752.1952	2822810.2708	959.236
4305	1012750.2716	2822805.2704	959.327
4306	1012724.2800	2822804.6086	959.847
4307	1012722.1044	2822809.5046	959.838
4308	1012711.9046	2822819.1978	959.938
4309	1012707.8741	2822977.4897	958.354
4310	1012717.5674	2822987.6895	958.056
4311	1012719.4910	2822992.6898	957.965



LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

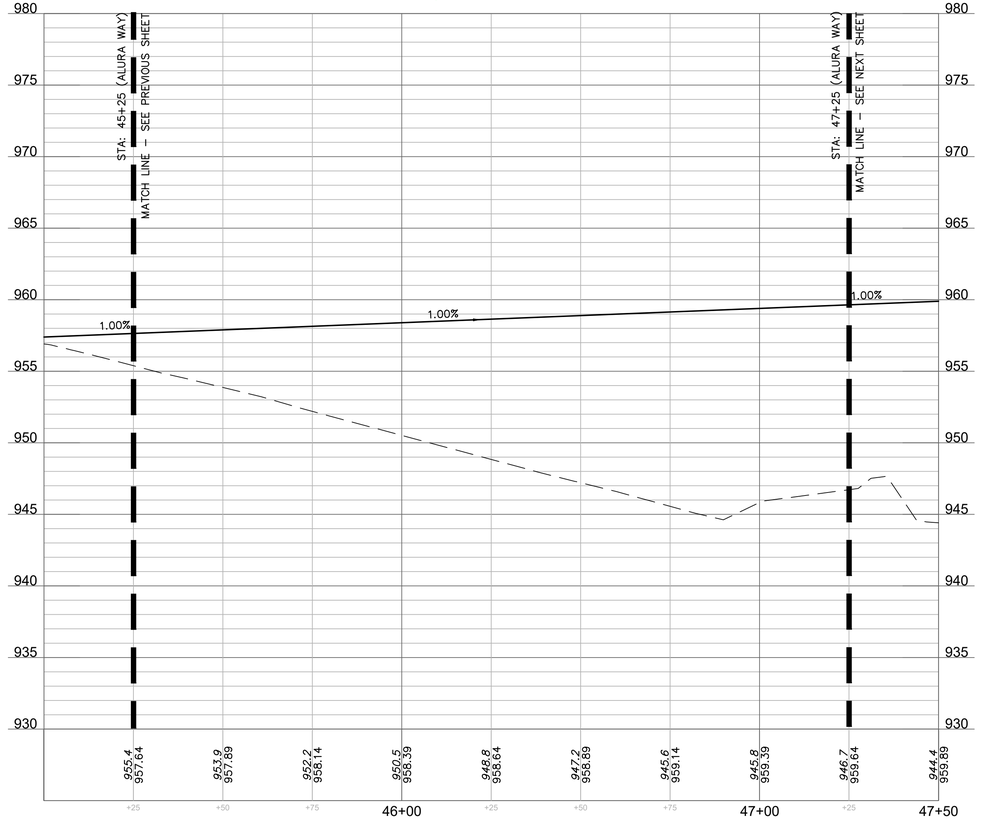
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

N

0' 10' 20' 40'
SCALE IN FEET

ALURA WAY (45+00 - 47+50)

DESIGN SPEED 15 MPH



10' 5' 2.5' 0'

0' 10' 20' 40'
SCALE IN FEET

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DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY 4)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

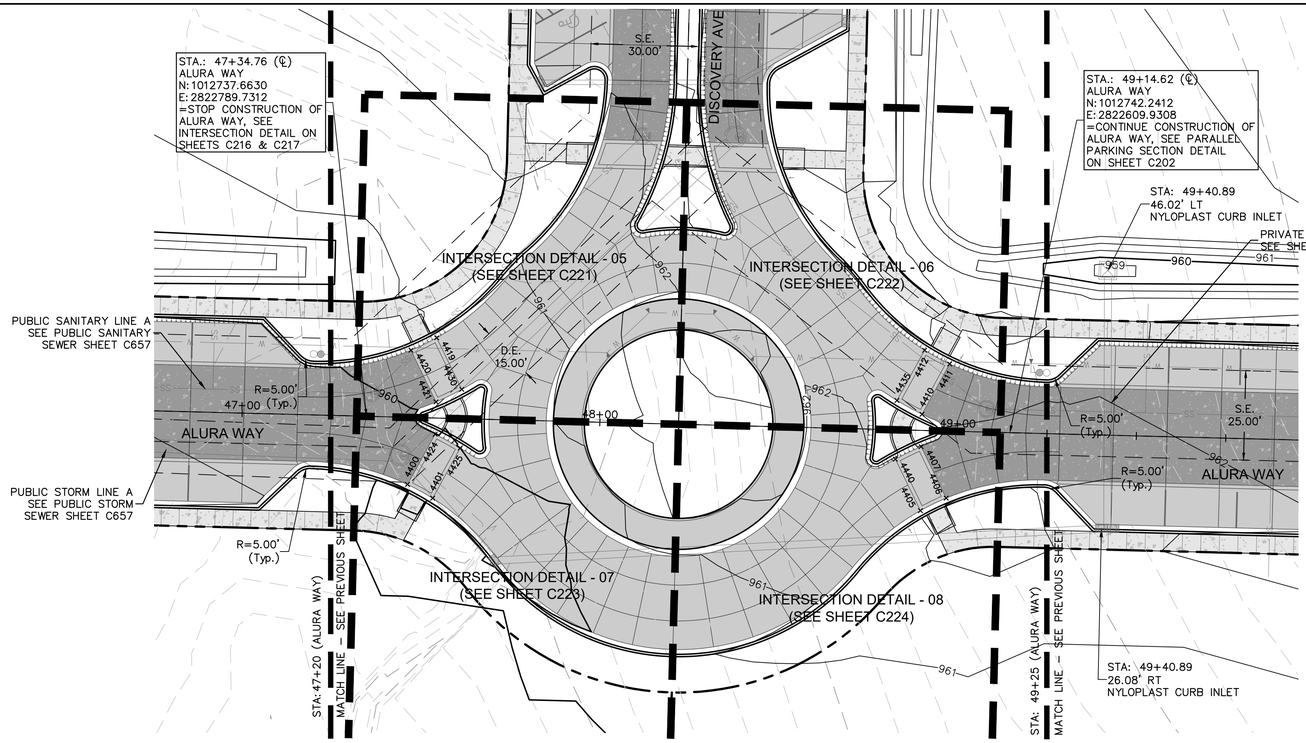
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP03_D2104643
date:	07.12.2023

SHEET
C212

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USER: jnewland

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
4400	1012756.7175	2822778.2559	959.607
4401	1012760.5722	2822771.2458	959.687
4405	1012764.0438	2822634.9026	961.527
4406	1012760.5510	2822627.7054	961.607
4407	1012746.1358	2822634.7013	961.923
4410	1012737.0911	2822634.4710	962.063
4411	1012723.0506	2822626.7506	962.369
4412	1012719.1960	2822633.7607	962.450
4419	1012715.7243	2822770.1038	960.502
4420	1012719.2172	2822777.3010	960.406
4421	1012733.6324	2822770.3052	960.066
4424	1012742.6771	2822770.5355	959.942
4425	1012746.5317	2822763.5254	960.006
4430	1012730.1395	2822763.1080	960.148
4435	1012733.2364	2822641.4811	962.125
4440	1012749.6287	2822641.8985	961.861



LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

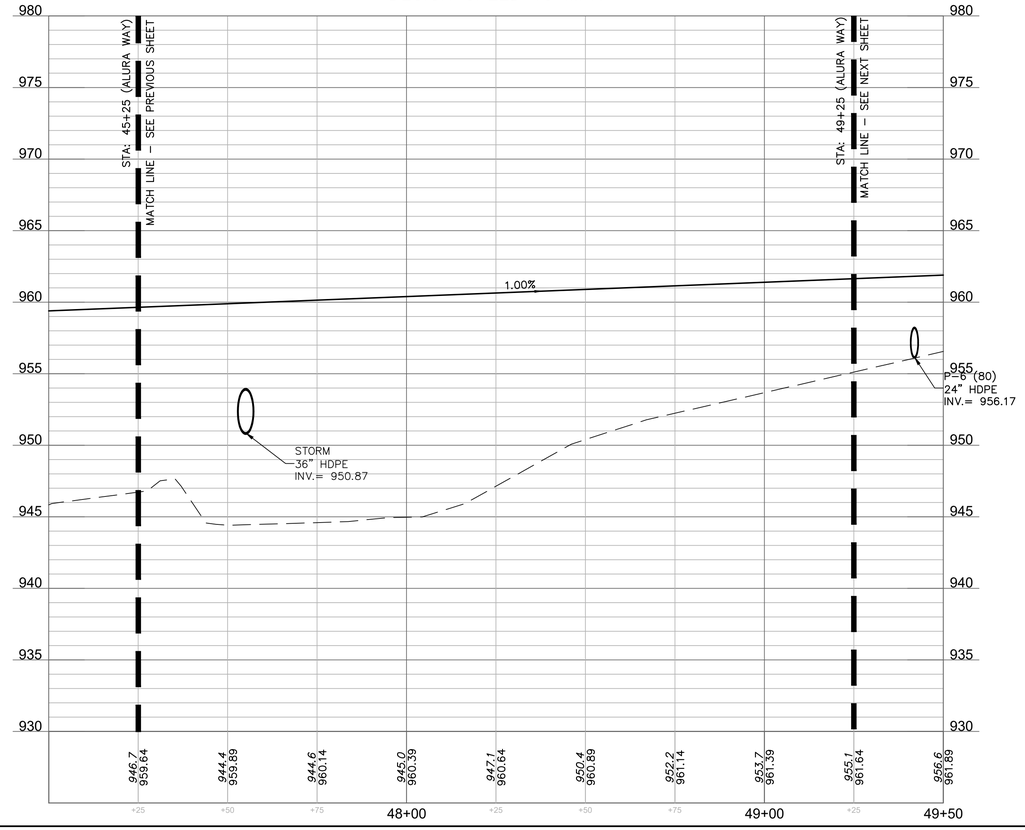
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

N

0' 10' 20' 40'
SCALE IN FEET

ALURA WAY (47+00 - 49+50)

DESIGN SPEED 15 MPH



10' 5' 2.5' 0'

0' 10' 20' 40'
SCALE IN FEET

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DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY 5)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

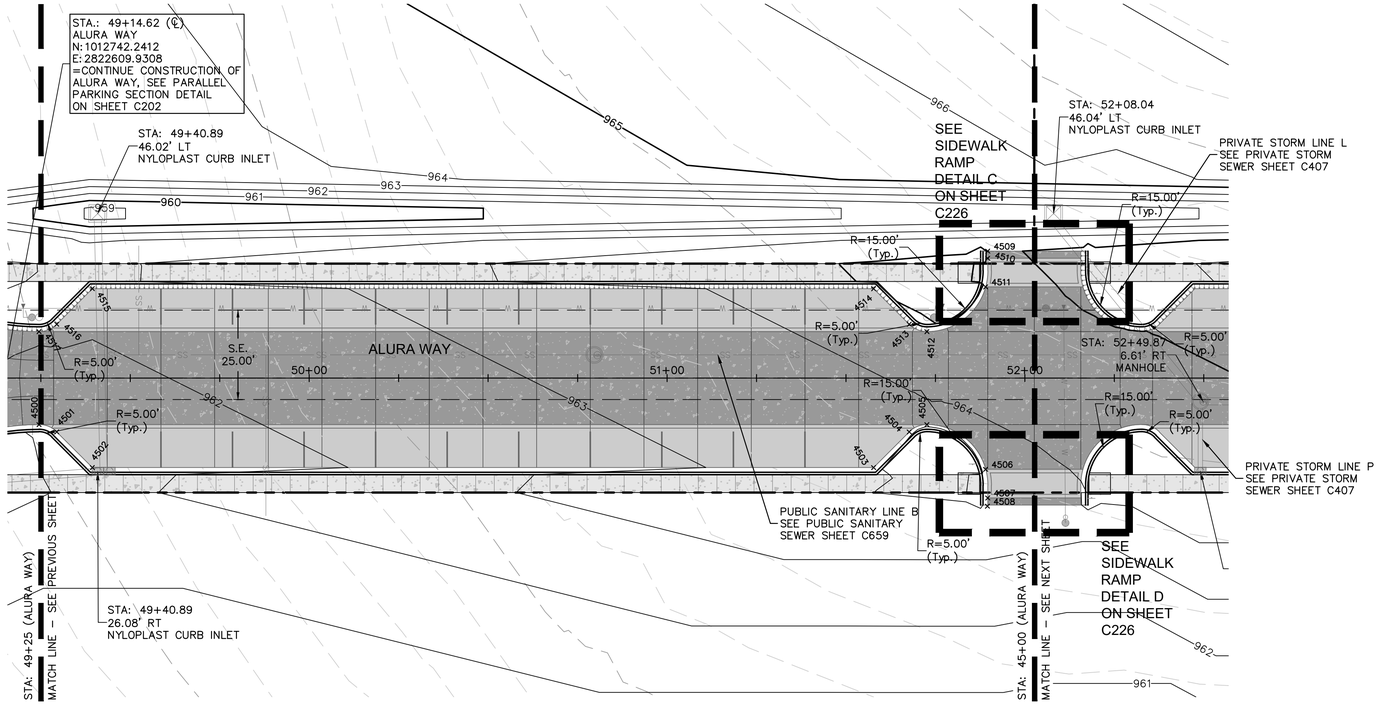
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_RPP03_D2104643
date: 07.12.2023

SHEET
C213

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USER: jnewland C_PBNDY_D2104643

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
4500	1012755.4882	2822600.3978	961.481
4501	1012757.6638	2822595.5019	961.426
4502	1012767.8635	2822585.8086	961.285
4503	1012773.4213	2822367.5362	963.469
4504	1012763.7281	2822357.3364	963.767
4505	1012761.8045	2822352.3361	963.858
4506	1012774.7177	2822336.2660	963.765
4507	1012782.7305	2822335.8634	963.692
4508	1012785.0355	2822336.0152	963.672
4509	1012713.7529	2822334.1071	964.903
4510	1012715.7523	2822334.1580	964.883
4511	1012723.7342	2822334.9678	964.793
4512	1012735.8129	2822351.6743	964.378
4513	1012733.6373	2822356.5702	964.369
4514	1012723.4375	2822366.2635	964.469
4515	1012717.8797	2822584.5359	962.285
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4517	1012729.4966	2822599.7360	962.090



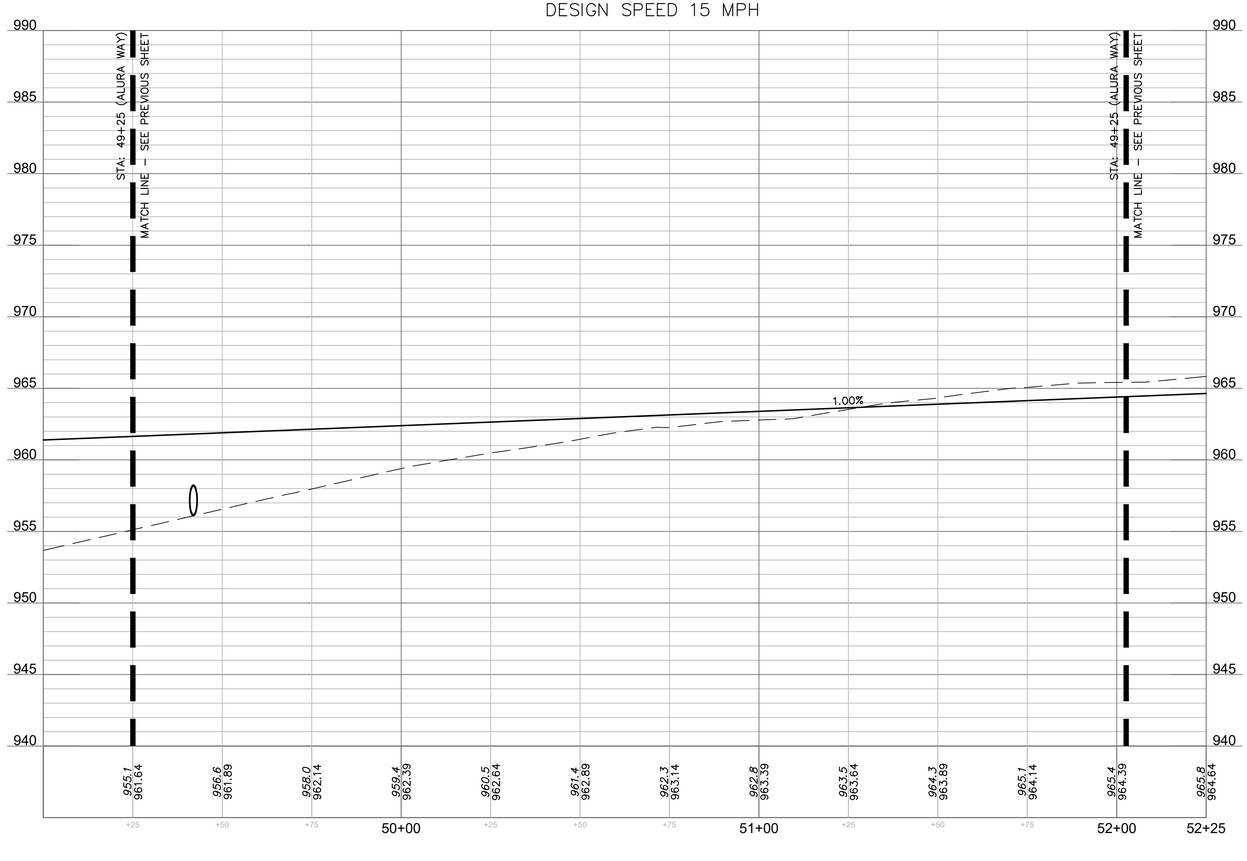
LEGEND

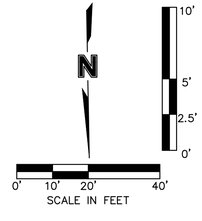
SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

ALURA WAY (49+00 - 52+25)

DESIGN SPEED 15 MPH





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NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROAD PLAN & PROFILE (ALURA WAY 6)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

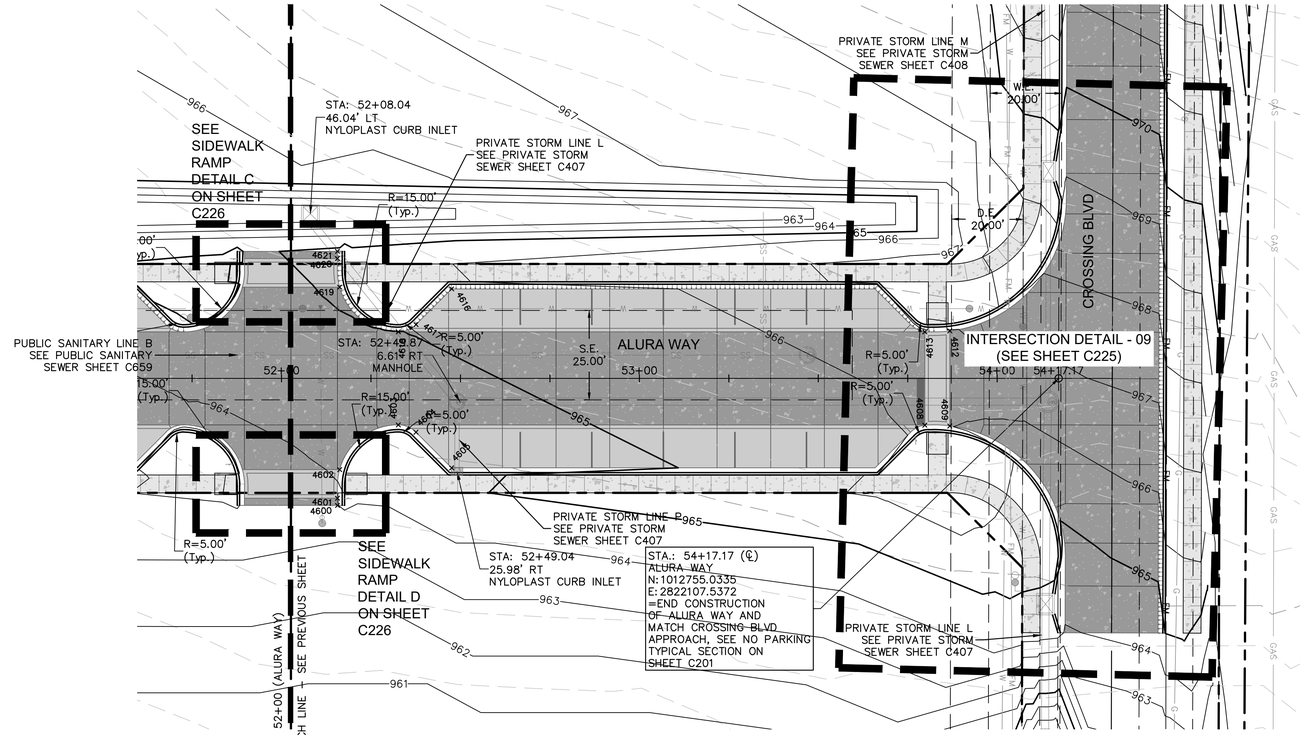
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_RPP03_D2104643
date: 07.12.2023

SHEET
C214

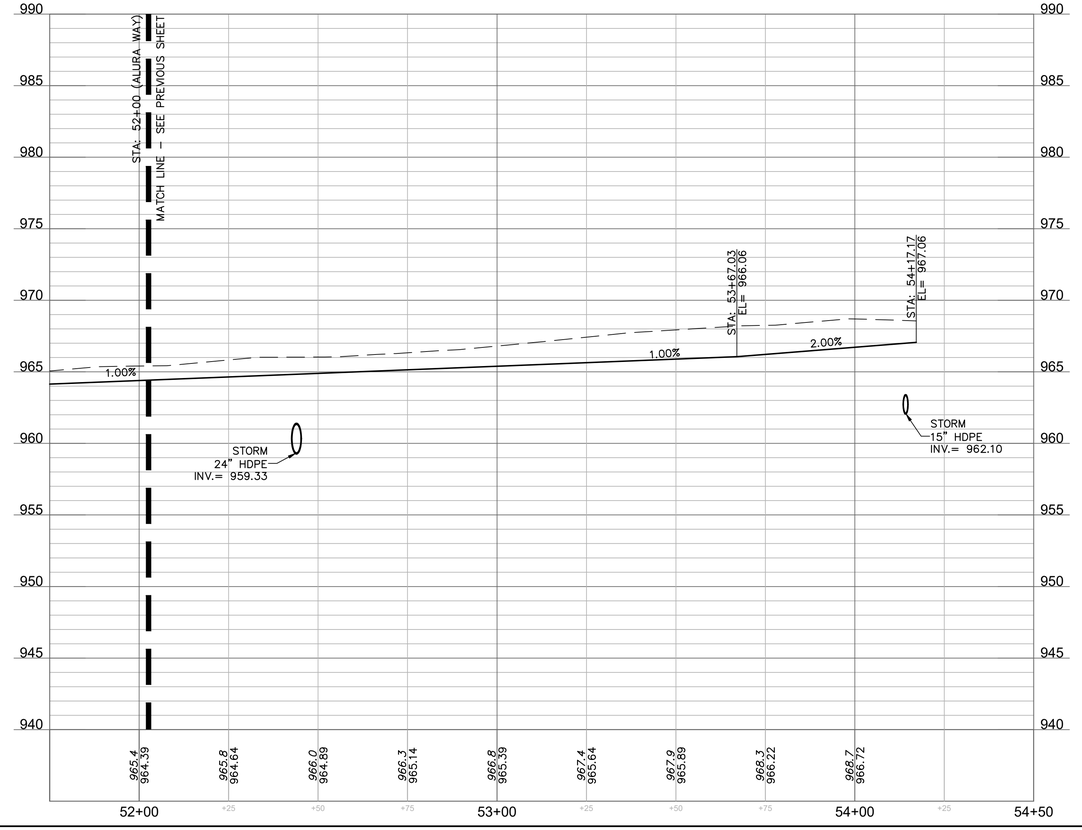
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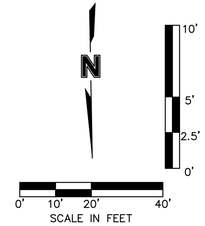
POINT TABLE			
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4602	1012775.4104	2822309.0620	964.042
4603	1012763.3317	2822292.3555	964.458
4604	1012765.5073	2822287.4596	964.466
4605	1012775.7071	2822277.7663	964.367
4608	1012767.1489	2822145.2629	966.087
4609	1012767.5599	2822138.2711	966.025
4612	1012740.9950	2822137.5947	966.927
4613	1012741.0856	2822144.5993	966.829
4616	1012725.7233	2822276.4936	965.367
4617	1012735.4166	2822286.6934	965.068
4618	1012737.3402	2822291.6937	964.978
4619	1012724.4269	2822307.7638	965.071
4620	1012716.4141	2822308.1664	965.218
4621	1012714.4147	2822308.1155	965.258



ALURA WAY (51+75 - 54+50)

DESIGN SPEED 15 MPH





LEGEND

SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND. SEE SHEET C103 FOR GENERAL LEGEND. EXCEPTIONS NOTED BELOW.

- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PROPOSED DECORATIVE CONCRETE SEE HARDSCAPE PLANS
- MOUNTABLE CURB SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "DRY" GUTTER. SEE DETAIL ON SHEET C230
- STRAIGHT BACK CURB & "WET" GUTTER. SEE DETAIL ON SHEET C230

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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

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ROAD PLAN & PROFILE (ALURA WAY 7)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

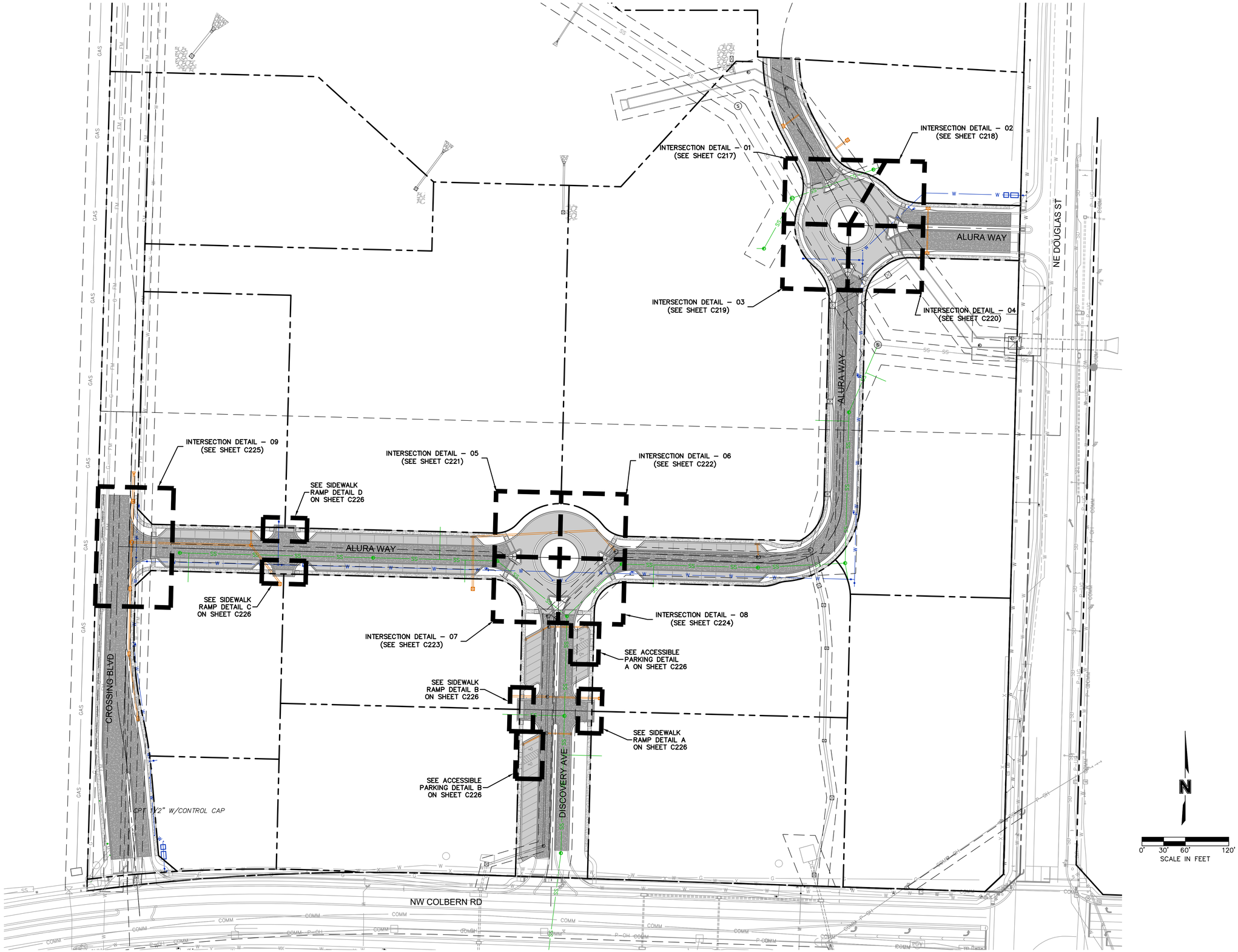
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_RPP03_D2104643
date:	07.12.2023

SHEET
C215

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C_PBNDY_D2104643



INTERSECTION DETAILS - KEY MAP

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INTERSECTION DETAILS - KEYMAP
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

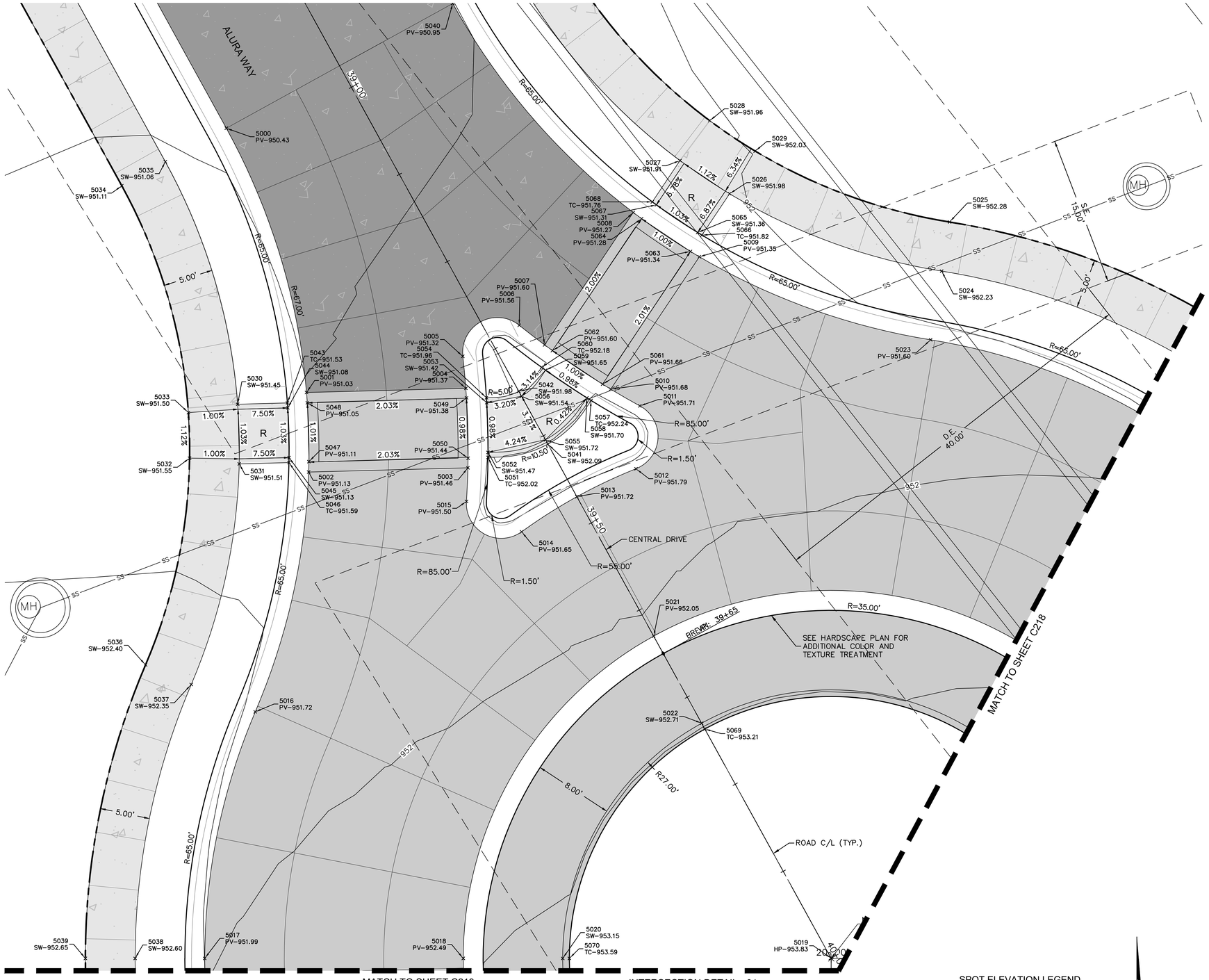
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approved by:	DE
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project no.:	D21-04643
drawing no.:	C_GEO01_D2104643
date:	07.12.2023

SHEET
C216

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USER: jnewland

POINT TABLE			
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5000	1013285.1086	2823043.9128	950.43
5001	1013258.3363	2823051.3008	951.03
5002	1013250.3363	2823051.3068	951.13
5003	1013250.3483	2823067.3298	951.46
5004	1013258.3483	2823067.3239	951.37
5005	1013261.5719	2823067.1030	951.32
5006	1013264.5501	2823072.8512	951.56
5007	1013262.5104	2823075.3573	951.60
5008	1013275.5932	2823084.6083	951.27
5009	1013270.9744	2823091.1402	951.35
5010	1013257.8916	2823081.8893	951.68
5011	1013256.1326	2823084.7785	951.71
5012	1013249.8234	2823084.2322	951.79
5013	1013247.1648	2823078.2131	951.72
5014	1013243.7809	2823072.5697	951.65
5015	1013246.9735	2823067.1005	951.50
5016	1013226.3627	2823045.3270	951.72
5017	1013201.7096	2823039.6151	951.99
5018	1013201.0478	2823065.6067	952.49
5019	1013200.1060	2823102.5947	953.83
5020	1013200.7933	2823075.6034	953.15
5021	1013232.9584	2823085.5736	952.05
5022	1013224.0794	2823090.1739	952.71
5023	1013262.0328	2823114.1737	951.60
5024	1013268.9135	2823115.4602	952.23
5025	1013273.8284	2823116.3792	952.28
5026	1013277.2309	2823094.3395	951.98
5027	1013280.6950	2823089.4406	951.91
5028	1013284.6281	2823092.5278	951.96
5029	1013281.4526	2823097.0186	952.03
5030	1013257.3311	2823044.3460	951.45
5031	1013251.3311	2823044.3505	951.51
5032	1013252.0358	2823039.3773	951.55
5033	1013256.6191	2823039.3738	951.50
5034	1013279.5882	2823033.2580	951.11
5035	1013281.8884	2823037.6975	951.06
5036	1013231.3640	2823034.4189	952.40
5037	1013229.2801	2823038.9640	952.35
5038	1013201.8878	2823032.6174	952.60
5039	1013202.0151	2823027.6190	952.65
5040	1013297.0694	2823066.9983	950.95
5041	1013252.5277	2823075.4345	952.09
5042	1013257.9110	2823072.6454	951.98
5043	1013257.3349	2823049.3518	951.53
5044	1013256.8349	2823049.3734	951.08
5045	1013251.8349	2823049.3771	951.13
5046	1013251.3349	2823049.3563	951.59
5047	1013251.3805	2823051.3603	951.11
5048	1013257.2922	2823051.3559	951.05
5049	1013257.3849	2823067.3655	951.38
5050	1013251.3117	2823067.3700	951.44
5051	1013251.3498	2823069.3726	952.02
5052	1013251.8498	2823069.3884	951.47
5053	1013256.8498	2823069.3847	951.42
5054	1013257.3498	2823069.3681	951.96
5055	1013252.9717	2823075.2045	951.72
5056	1013257.4112	2823072.9043	951.54
5057	1013256.8005	2823079.8930	952.24
5058	1013257.0760	2823079.4754	951.70
5059	1013259.9627	2823075.3929	951.65
5060	1013260.2646	2823074.9940	952.18
5061	1013258.4145	2823081.0791	951.66
5062	1013261.9208	2823076.1203	951.60
5063	1013271.5329	2823090.2564	951.34
5064	1013274.9461	2823085.4295	951.28
5065	1013273.4151	2823091.0290	951.36
5066	1013273.1437	2823091.4494	951.82
5067	1013276.3019	2823086.9465	951.31
5068	1013276.6078	2823086.5505	951.76
5069	1013223.4874	2823090.4805	953.21
5070	1013200.7763	2823076.2699	953.59



SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

SCALE IN FEET: 0' 2.5' 5' 10'

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

INTERSECTION DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

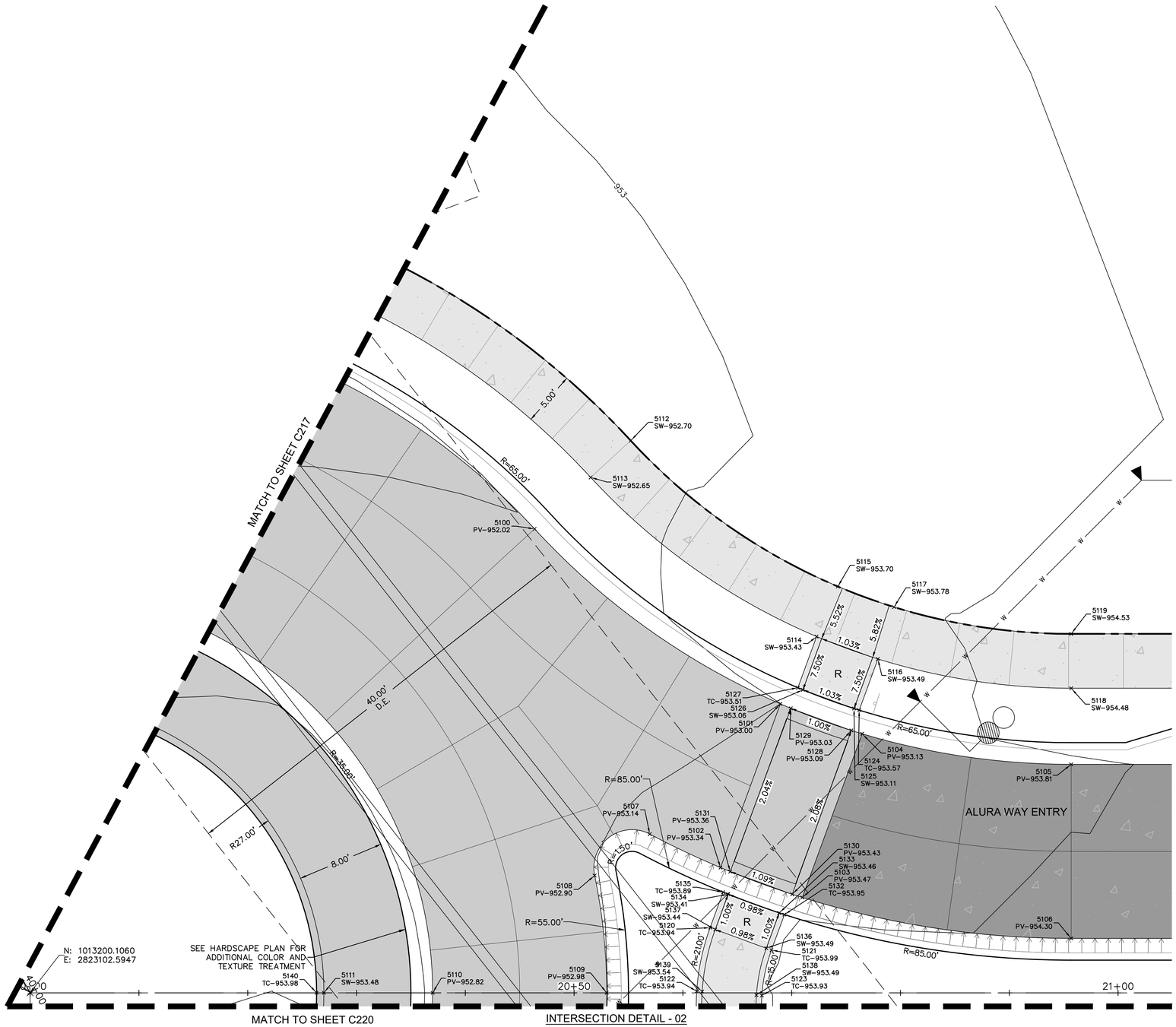
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GE002_D2104643
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SHEET
C217

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USER: jnewland

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5100	1013241.5580	2823150.0366	952.02
5101	1013224.9032	2823172.2096	953.00
5102	1013209.9997	2823166.3254	953.34
5103	1013207.0618	2823173.7665	953.47
5104	1013221.9654	2823179.6506	953.13
5105	1013218.6635	2823198.7852	953.81
5106	1013202.6687	2823198.3779	954.30
5107	1013213.2450	2823159.8988	953.14
5108	1013209.5673	2823154.7434	952.90
5109	1013198.7569	2823155.5775	952.98
5110	1013199.1642	2823139.5827	952.82
5111	1013199.4187	2823129.5859	953.48
5112	1013249.4536	2823159.0731	952.70
5113	1013246.1637	2823155.3079	952.65
5114	1013231.0055	2823175.6940	953.43
5115	1013235.5585	2823177.7604	953.70
5116	1013228.8021	2823181.2748	953.49
5117	1013233.5388	2823182.8761	953.78
5118	1013225.6613	2823198.9634	954.48
5119	1013230.6596	2823199.0907	954.53
5120	1013204.5010	2823165.2296	953.94
5121	1013202.2976	2823170.8103	953.99
5122	1013198.6927	2823163.8487	953.94
5123	1013198.1488	2823169.8240	953.93
5124	1013224.1461	2823179.4365	953.57
5125	1013224.3100	2823178.9637	953.11
5126	1013226.1462	2823174.3130	953.06
5127	1013226.3495	2823173.8557	953.51
5128	1013222.2983	2823178.6595	953.09
5129	1013224.4693	2823173.1608	953.03
5130	1013207.3776	2823172.8553	953.43
5131	1013209.6078	2823167.2065	953.36
5132	1013205.5283	2823172.0859	953.95
5133	1013205.6969	2823171.6149	953.46
5134	1013207.5331	2823166.9642	953.41
5135	1013207.7317	2823166.5051	953.89
5136	1013202.4812	2823170.3453	953.49
5137	1013204.3173	2823165.6946	953.44
5138	1013198.1941	2823169.3261	953.49
5139	1013198.6473	2823164.3467	953.54
5140	1013199.4357	2823128.9195	953.98



INTERSECTION DETAIL - 02

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
SCALE IN FEET

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7/3/23
PROFESSIONAL ENGINEER

DAVID EICKMAN, P.E.
MO# 2009015436

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INTERSECTION DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

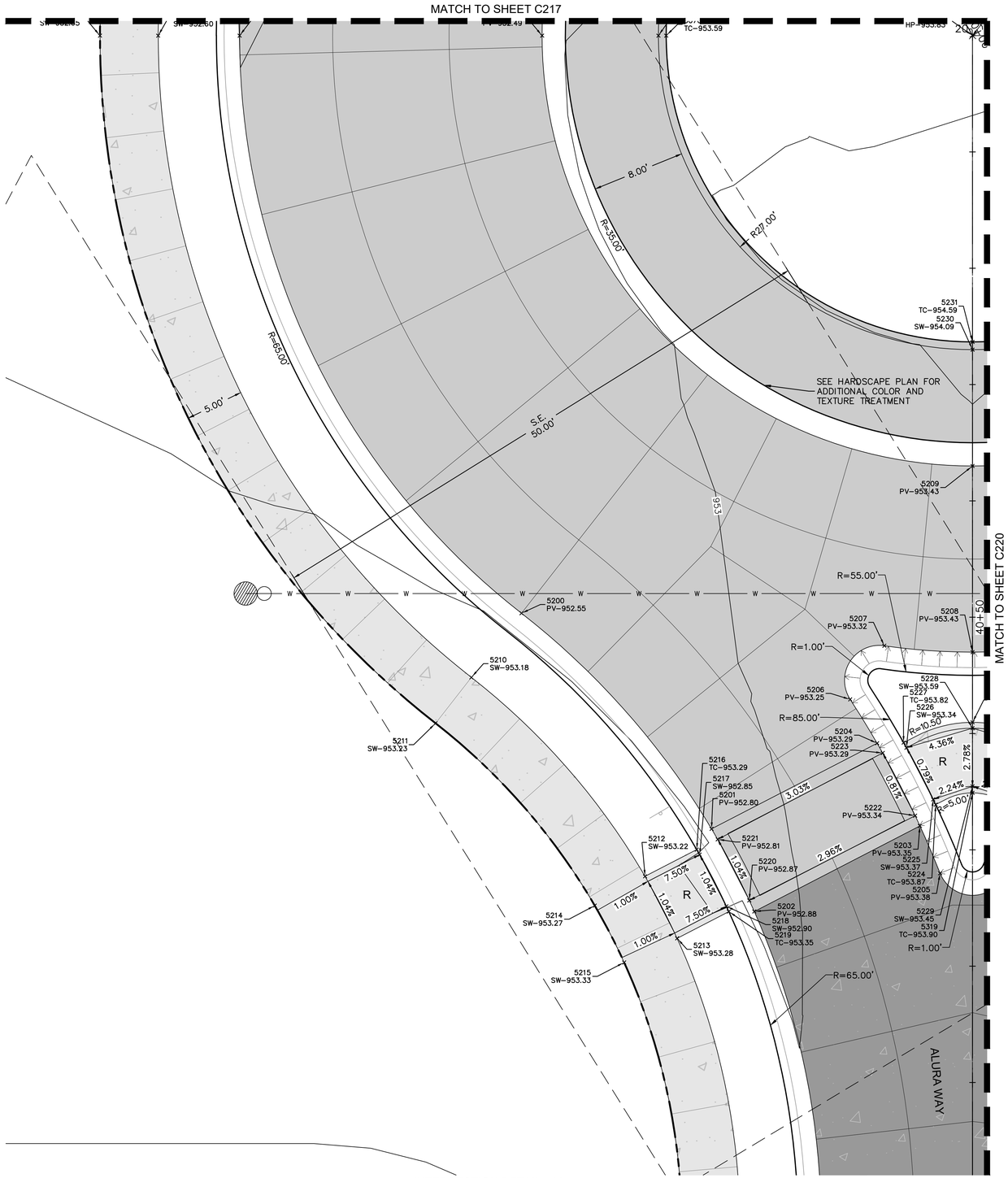
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
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QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GE002_D2104643
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SHEET
C218

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USER: jnewland

POINT TABLE			
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5200	1013151.4506	2823062.5740	952.55
5201	1013132.5054	2823078.4349	952.80
5202	1013125.3082	2823081.9278	952.88
5203	1013132.3040	2823096.3430	953.35
5204	1013139.5012	2823092.8501	953.29
5205	1013128.1894	2823097.9719	953.38
5206	1013143.3268	2823090.6256	953.25
5207	1013147.8607	2823093.6823	953.32
5208	1013147.1232	2823101.2456	953.43
5209	1013163.1180	2823101.6529	953.43
5210	1013146.0445	2823058.1273	953.18
5211	1013142.1829	2823054.9510	953.23
5212	1013128.5689	2823072.6140	953.22
5213	1013123.1710	2823075.2337	953.28
5214	1013126.1636	2823068.2305	953.27
5215	1013121.2155	2823070.6319	953.33
5216	1013130.7544	2823077.1174	953.29
5217	1013130.3139	2823077.3548	952.85
5218	1013125.8156	2823079.5379	952.90
5219	1013125.3565	2823079.7371	953.35
5220	1013126.2712	2823081.5208	952.87
5221	1013131.5897	2823078.9396	952.81
5222	1013133.1886	2823095.9591	953.34
5223	1013138.6523	2823093.3075	953.29
5224	1013134.0959	2823097.7448	953.87
5225	1013134.5528	2823097.5411	953.37
5226	1013139.0510	2823095.3580	953.34
5227	1013139.4938	2823095.1251	953.82
5228	1013140.5853	2823101.0791	953.59
5229	1013135.5870	2823100.9519	953.45
5230	1013173.1147	2823101.9074	954.09
5231	1013173.7812	2823101.9244	954.59



INTERSECTION DETAIL - 03

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
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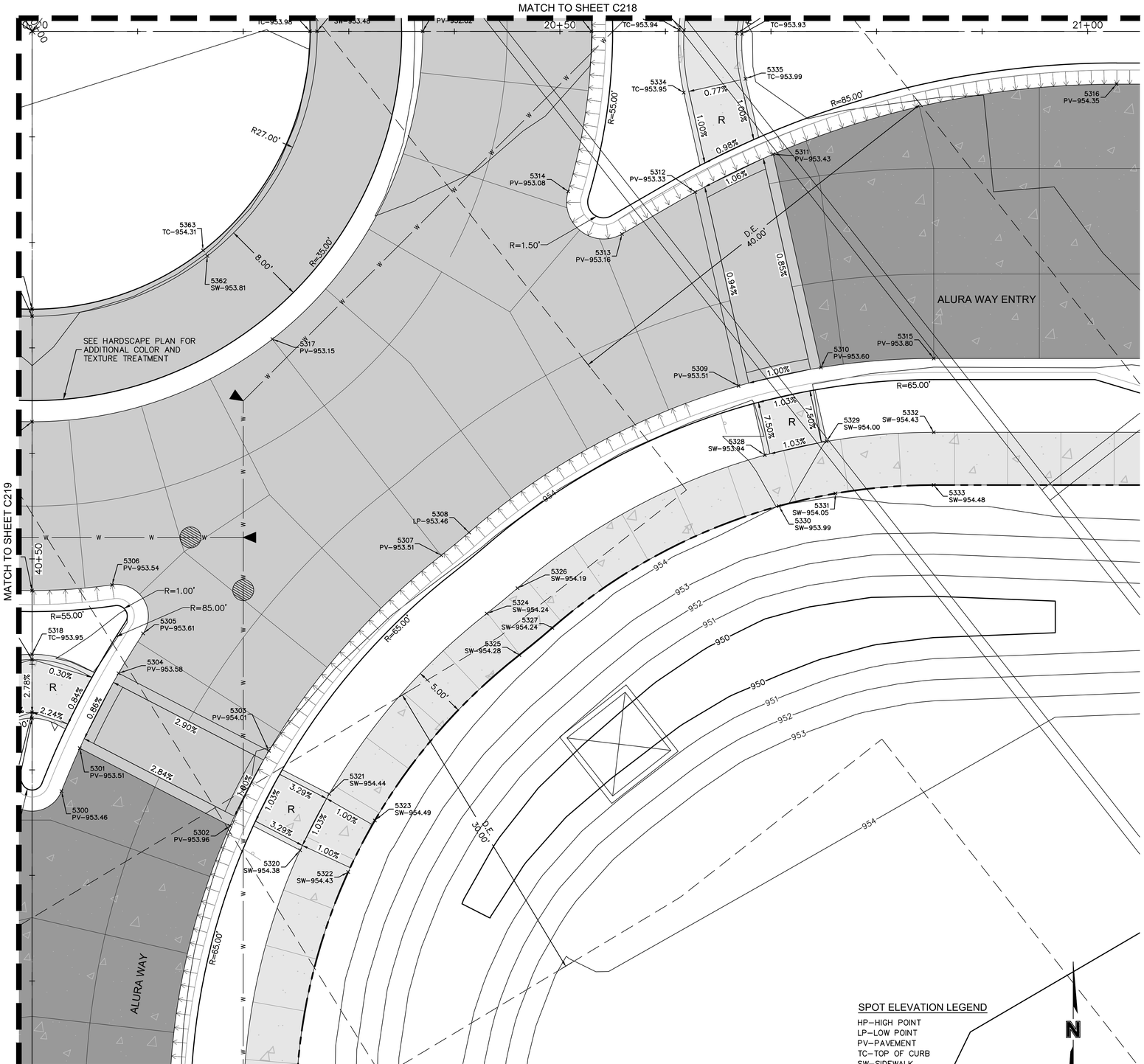
2023

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approved by:	DE
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project no.:	D21-04643
drawing no.:	C_GE002_D2104643
date:	07.12.2023

SHEET
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USER: jnewland

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5300	1013128.0473	2823103.5515	953.46
5301	1013132.0737	2823105.3877	953.51
5302	1013124.3533	2823119.4281	953.96
5303	1013131.3634	2823123.2828	954.01
5304	1013139.0838	2823109.2423	953.58
5305	1013142.7912	2823111.6587	953.61
5306	1013147.4748	2823108.8366	953.54
5307	1013149.4769	2823140.0873	953.51
5308	1013151.5754	2823142.7666	953.46
5309	1013164.8100	2823168.6388	953.51
5310	1013166.3561	2823176.4880	953.60
5311	1013186.6828	2823172.4840	953.43
5312	1013183.2798	2823165.0006	953.33
5313	1013179.4791	2823157.9714	953.16
5314	1013183.6411	2823152.9723	953.08
5315	1013166.9418	2823187.1946	953.80
5316	1013192.4925	2823205.1713	954.35
5317	1013170.3715	2823124.6142	953.15
5318	1013141.0852	2823101.0919	953.95
5319	1013135.0242	2823100.9375	953.90
5320	1013121.8782	2823126.0049	954.38
5321	1013127.1358	2823128.8958	954.44
5322	1013119.6911	2823130.5012	954.43
5323	1013124.5106	2823133.1512	954.49
5324	1013143.8515	2823144.2532	954.24
5325	1013139.8333	2823147.2288	954.28
5326	1013146.1831	2823147.2301	954.19
5327	1013142.3315	2823150.4184	954.24
5328	1013158.1789	2823170.9642	953.94
5329	1013159.3385	2823176.8511	954.00
5330	1013153.3276	2823172.1746	953.99
5331	1013154.3905	2823177.5709	954.05
5332	1013159.9441	2823187.0164	954.43
5333	1013154.9457	2823186.8891	954.48
5334	1013192.7305	2823164.1582	953.95
5335	1013193.8901	2823170.0451	953.99
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5338	1013163.2077	2823170.4832	953.57
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5340	1013166.2076	2823175.4530	953.58
5341	1013165.0650	2823169.6527	953.53
5342	1013186.3095	2823171.5582	953.41
5343	1013183.7501	2823165.9263	953.35
5344	1013188.3013	2823171.1460	953.84
5345	1013188.1086	2823170.6743	953.43
5346	1013186.0114	2823165.9914	953.38
5347	1013185.7843	2823165.5265	953.78
5348	1013193.7935	2823169.5545	953.49
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5350	1013129.5477	2823124.5095	954.61
5351	1013129.1198	2823124.2500	954.60
5352	1013124.7385	2823121.8408	954.55
5353	1013124.2901	2823121.6185	954.54
5354	1013130.4747	2823122.7321	954.03
5355	1013125.2944	2823119.8837	953.97
5356	1013132.9376	2823105.8161	953.51
5357	1013138.2593	2823108.7423	953.56
5358	1013139.1922	2823106.9699	953.99
5359	1013138.7618	2823106.7148	953.58
5360	1013134.3805	2823104.3056	953.53
5361	1013133.9346	2823104.0789	953.94
5362	1013178.4017	2823118.6547	953.81
5363	1013178.9376	2823118.2581	954.31



INTERSECTION DETAIL - 04

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
SCALE IN FEET

DWG: F:\2021\04501-05000\021-04643-01\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_GE002_D2104643.dwg
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STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

INTERSECTION DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

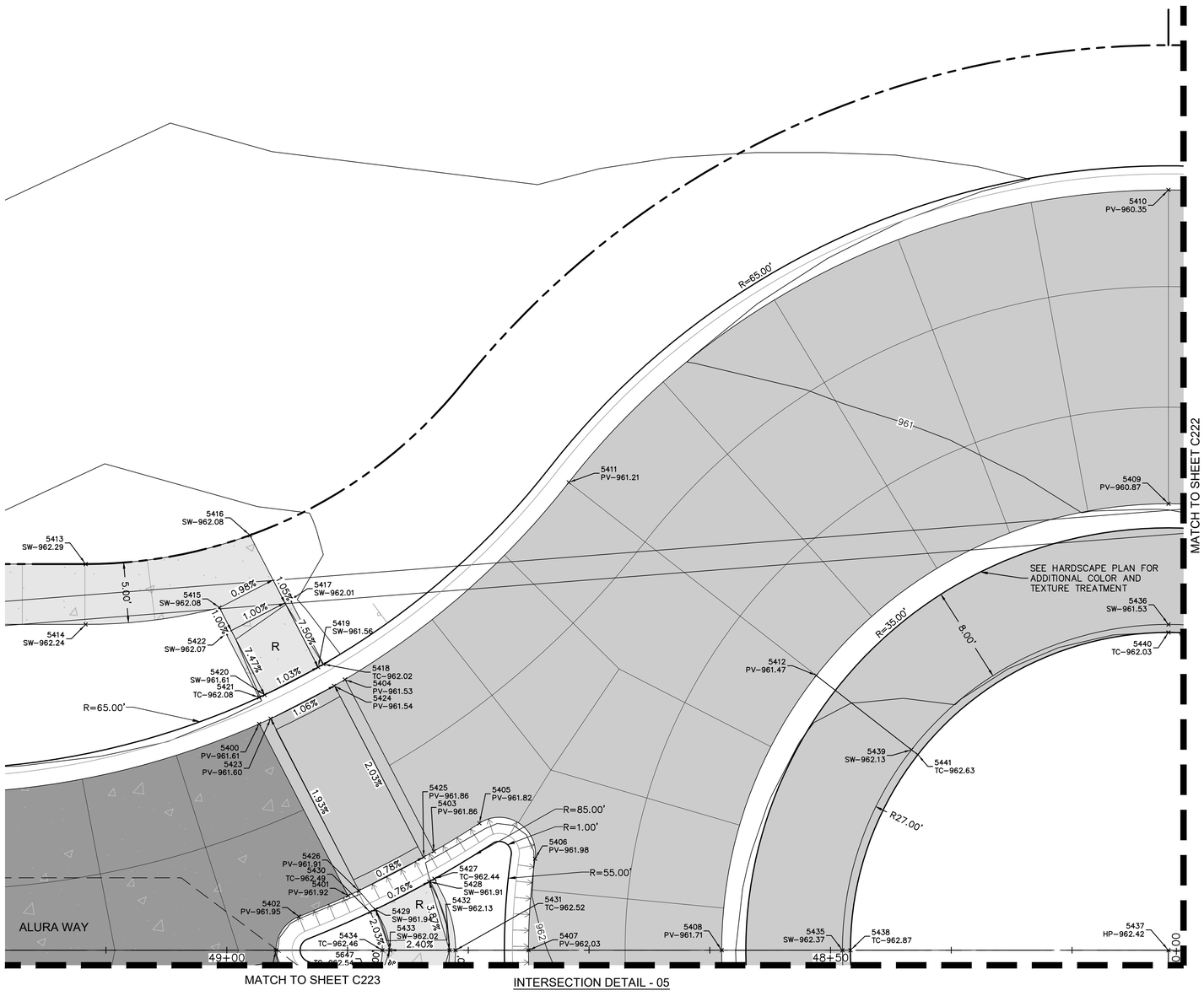
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GE002_D2104643
date:	07.12.2023

SHEET
C217

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5400	1012760.5510	2822627.7054	961.61
5401	1012746.1358	2822634.7013	961.92
5402	1012744.5069	2822630.5866	961.95
5403	1012749.6287	2822641.8985	961.86
5404	1012764.0438	2822634.9026	961.53
5405	1012751.8532	2822645.7240	961.82
5406	1012748.7965	2822650.2579	961.98
5407	1012741.2332	2822649.5204	962.03
5408	1012740.8259	2822665.5152	961.71
5409	1012776.8721	2822703.4450	960.87
5410	1012802.8637	2822704.1069	960.35
5411	1012779.9048	2822653.8479	961.21
5412	1012763.3883	2822673.9279	961.47
5413	1012774.1563	2822613.6752	962.29
5414	1012769.1579	2822613.5479	962.24
5415	1012770.2610	2822624.6603	962.08
5416	1012776.1946	2822627.3384	962.08
5417	1012770.7402	2822630.5413	962.01
5418	1012765.3613	2822633.1517	962.02
5419	1012765.1240	2822632.7111	961.56
5420	1012762.9409	2822628.2128	961.61
5421	1012762.7417	2822627.7538	962.08
5422	1012768.1205	2822625.1434	962.07
5423	1012760.9580	2822628.6684	961.60
5424	1012763.5391	2822633.9870	961.54
5425	1012749.1713	2822641.0496	961.86
5426	1012746.5197	2822635.5858	961.91
5427	1012747.3536	2822641.8910	962.44
5428	1012747.1208	2822641.4483	961.91
5429	1012744.9377	2822636.9500	961.94
5430	1012744.7340	2822636.4931	962.49
5431	1012741.3869	2822643.4824	962.52
5432	1012741.3996	2822642.9826	962.13
5433	1012741.5252	2822638.0504	962.02
5434	1012741.5412	2822637.4215	962.46
5435	1012740.5714	2822675.5120	962.37
5436	1012766.8753	2822703.1905	961.53
5437	1012739.8841	2822702.5032	962.42
5438	1012740.5544	2822676.1784	962.87
5439	1012757.0358	2822681.6509	962.13
5440	1012766.2089	2822703.1735	962.03
5441	1012756.6137	2822682.1658	962.63



MATCH TO SHEET C223

INTERSECTION DETAIL - 05

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
SCALE IN FEET

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PROFESSIONAL ENGINEER

DAVID EICKMAN, P.E.
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REVISIONS			
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

INTERSECTION DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

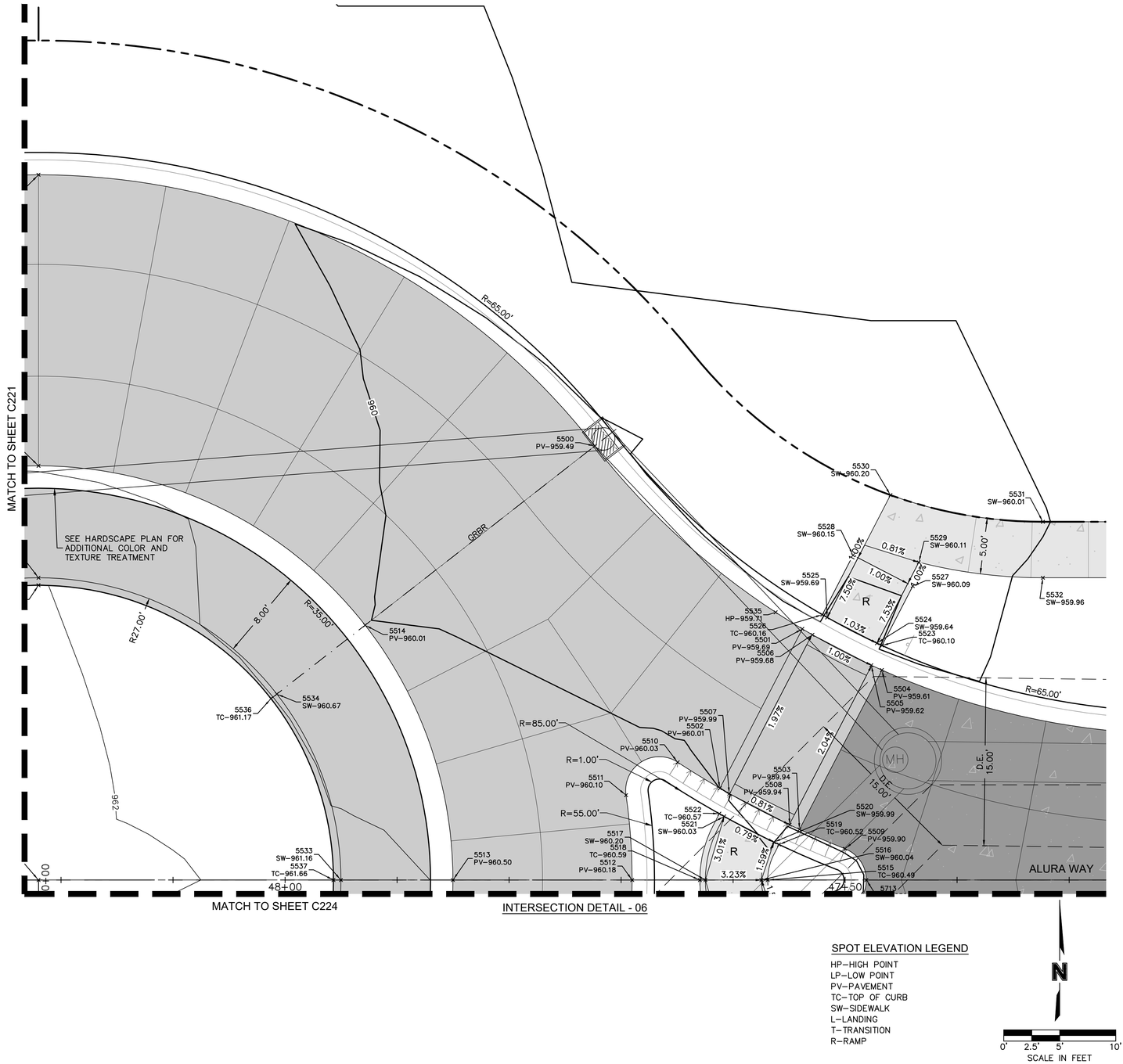
2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GE003_D2104643
date:	07.12.2023

SHEET
C221

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USER: jnewland
C_PPATT_D2104643

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5500	1012777.3767	2822753.1323	959.49
5501	1012760.5722	2822771.2458	959.69
5502	1012746.5317	2822763.5254	960.01
5503	1012742.6771	2822770.5355	959.94
5504	1012756.7175	2822778.2559	959.61
5505	1012757.1731	2822777.3148	959.62
5506	1012760.0215	2822772.1346	959.68
5507	1012746.0317	2822764.3499	959.99
5508	1012743.1055	2822769.6716	959.94
5509	1012740.8409	2822774.5619	959.90
5510	1012748.9481	2822759.8180	960.03
5511	1012746.1260	2822755.1344	960.10
5512	1012738.5350	2822755.4861	960.18
5513	1012738.9423	2822739.4912	960.50
5514	1012761.9036	2822732.2378	960.01
5515	1012738.2269	2822767.5850	960.49
5516	1012738.2413	2822767.0222	960.04
5517	1012738.3685	2822762.0239	960.20
5518	1012738.3813	2822761.5240	960.59
5519	1012741.3683	2822768.6746	960.52
5520	1012741.5950	2822768.2287	959.99
5521	1012744.0042	2822763.8474	960.03
5522	1012744.2593	2822763.4170	960.57
5523	1012758.9079	2822778.3191	960.10
5524	1012759.1302	2822777.8708	959.64
5525	1012761.5394	2822773.4894	959.69
5526	1012761.7989	2822773.0615	960.16
5527	1012764.1469	2822781.1999	960.09
5528	1012767.0379	2822775.9423	960.15
5529	1012766.2600	2822781.7912	960.11
5530	1012772.3222	2822779.4186	960.20
5531	1012769.5912	2822792.9603	960.01
5532	1012764.5928	2822792.8331	959.96
5533	1012739.1968	2822729.4945	961.16
5534	1012755.9524	2822724.2014	960.67
5535	1012762.1147	2822768.9087	959.71
5536	1012755.5556	2822723.6656	961.17
5537	1012739.2138	2822728.8280	961.66



SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
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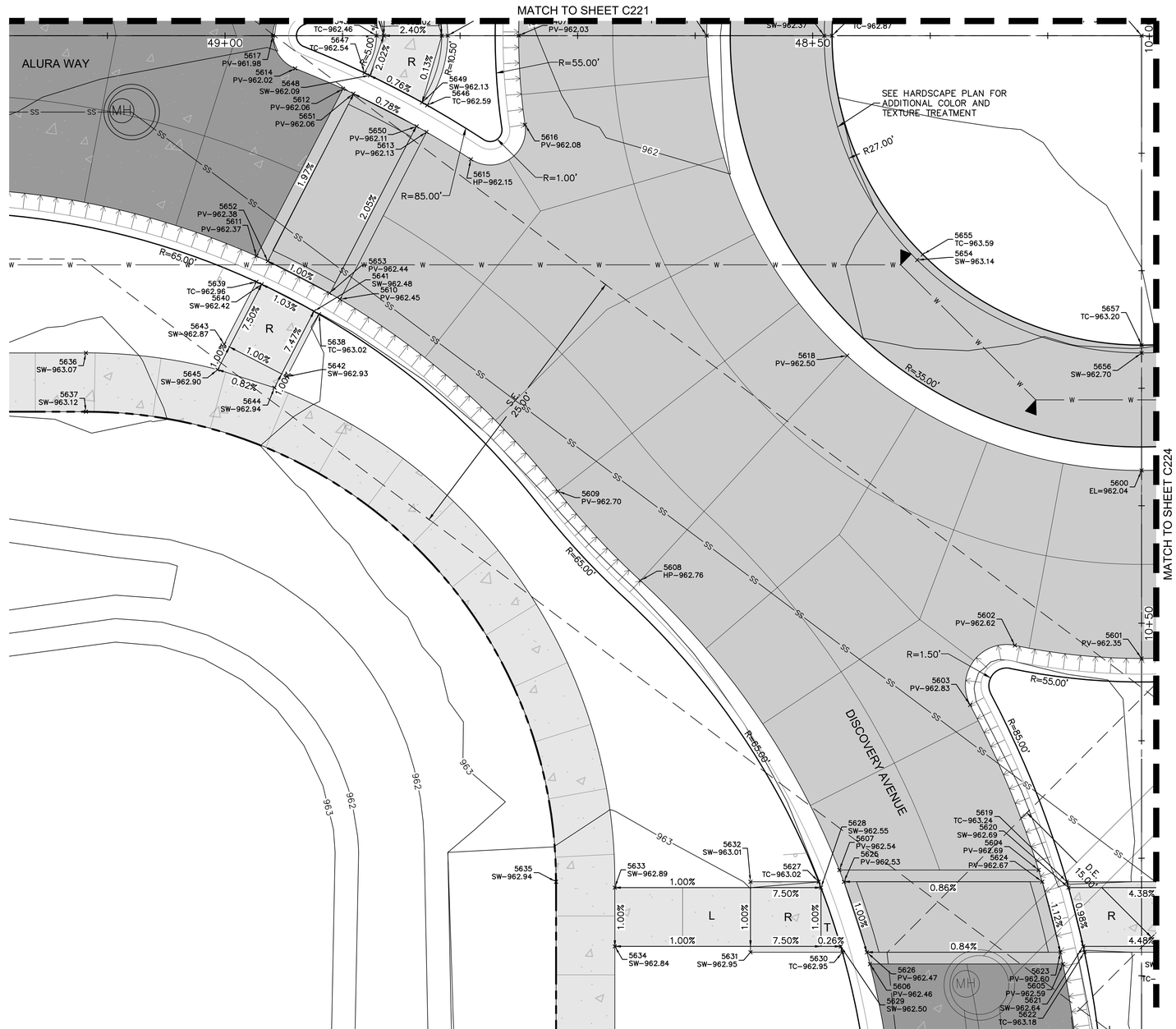
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_GEO03_D2104643
date: 07.12.2023

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C222

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USER: jnewland

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5600	1012702.8961	2822701.5614	962.04
5601	1012686.9013	2822701.1541	962.35
5602	1012688.2845	2822690.4002	962.62
5603	1012683.3229	2822686.4649	962.83
5604	1012669.1300	2822691.9424	962.69
5605	1012661.0801	2822693.7998	962.59
5606	1012661.4980	2822677.3885	962.46
5607	1012669.5616	2822674.9904	962.54
5608	1012694.6133	2822658.6905	962.76
5609	1012702.3914	2822651.8742	962.70
5610	1012719.1960	2822633.7607	962.45
5611	1012723.0506	2822626.7506	962.37
5612	1012737.0911	2822634.4710	962.06
5613	1012733.2364	2822641.4811	962.13
5614	1012738.9273	2822630.4446	962.02
5615	1012730.8201	2822645.1885	962.15
5616	1012733.6422	2822649.8721	962.08
5617	1012741.7654	2822628.6171	961.98
5618	1012713.2965	2822676.7720	962.50
5619	1012668.0695	2822694.3055	963.24
5620	1012667.5660	2822694.4361	962.69
5621	1012662.5357	2822695.5636	962.64
5622	1012662.0331	2822695.6588	963.18
5623	1012662.0852	2822693.6136	962.60
5624	1012668.1226	2822692.2215	962.67
5625	1012668.5521	2822675.3519	962.53
5626	1012662.5044	2822677.1487	962.47
5627	1012668.6066	2822673.2098	963.02
5628	1012668.1019	2822673.3903	962.55
5629	1012663.0607	2822674.9426	962.50
5630	1012662.5572	2822675.0734	962.95
5631	1012662.7564	2822667.2522	962.95
5632	1012668.7544	2822667.4050	963.01
5633	1012668.5485	2822655.8490	962.89
5634	1012663.5501	2822655.7245	962.84
5635	1012669.1756	2822650.8661	962.94
5636	1012715.1792	2822612.0246	963.07
5637	1012710.1808	2822611.8973	963.12
5638	1012717.9693	2822631.9450	963.02
5639	1012720.8603	2822626.6874	962.96
5640	1012720.6379	2822627.1357	962.42
5641	1012718.2288	2822631.5170	962.48
5642	1012712.7303	2822629.0642	962.93
5643	1012715.6213	2822623.8066	962.87
5644	1012711.8138	2822627.9896	962.94
5645	1012713.4750	2822623.1970	962.90
5646	1012735.5089	2822641.5894	962.59
5647	1012738.3999	2822636.3318	962.54
5648	1012738.1731	2822636.7778	962.09
5649	1012735.7640	2822641.1591	962.13
5650	1012733.7365	2822640.6566	962.11
5651	1012736.6627	2822635.3349	962.06
5652	1012722.5951	2822627.6916	962.38
5653	1012719.7466	2822632.8719	962.44
5654	1012721.2844	2822682.9316	963.14
5655	1012721.7436	2822683.4148	963.59
5656	1012712.8928	2822701.8160	962.70
5657	1012713.5593	2822701.8329	963.20



INTERSECTION DETAIL - 07

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
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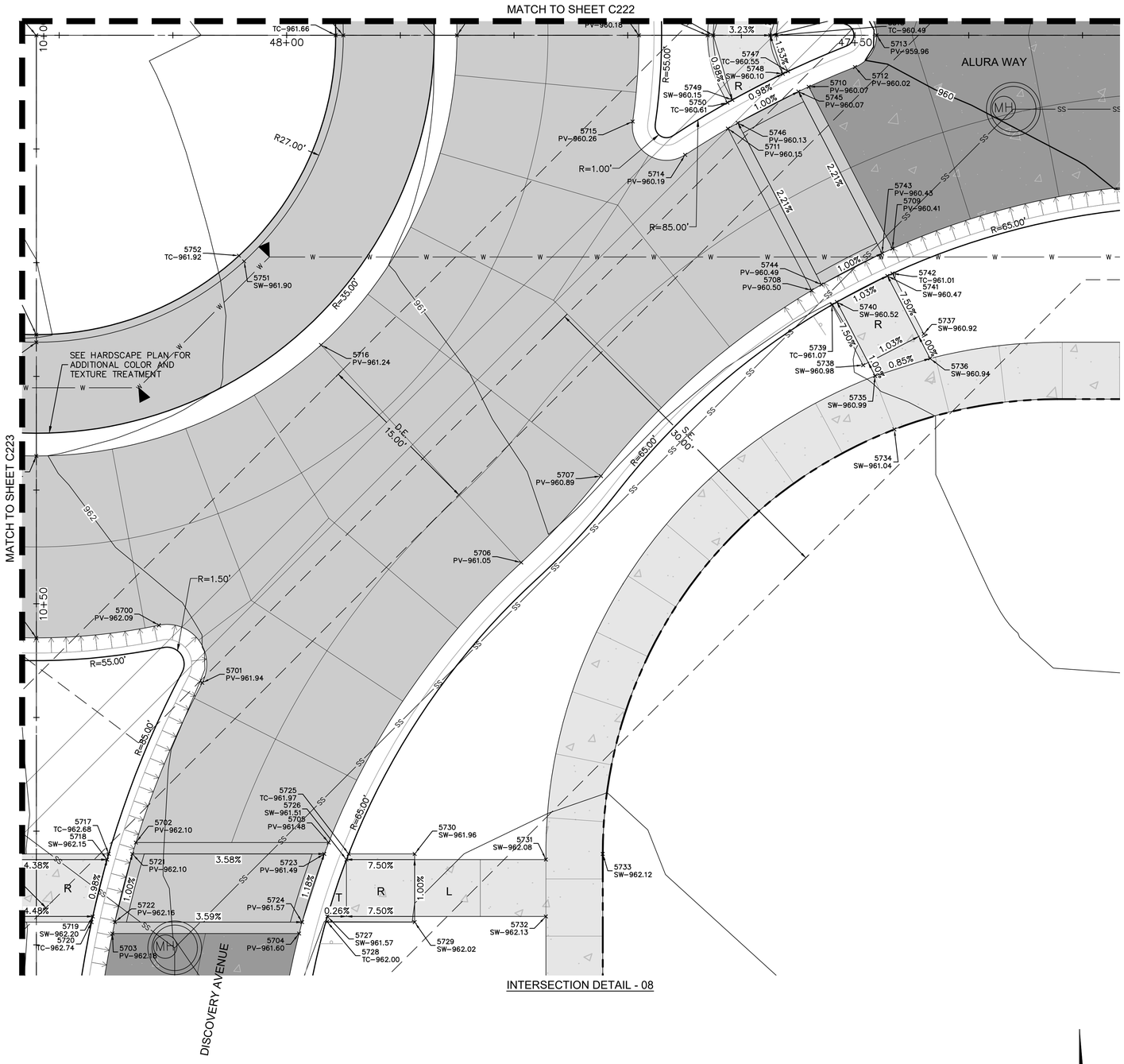
2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_GE003_D2104643
date: 07.12.2023

SHEET
C223

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POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5700	1012687.7354	2822711.9645	962.09
5701	1012682.5799	2822715.6422	961.94
5702	1012668.6842	2822709.4495	962.10
5703	1012660.7393	2822707.1849	962.18
5704	1012660.3214	2822723.5961	961.60
5705	1012668.2526	2822726.4016	961.48
5706	1012692.4422	2822743.9552	961.05
5707	1012699.8634	2822751.1586	960.89
5708	1012715.7243	2822770.1038	960.50
5709	1012719.2172	2822777.3010	960.41
5710	1012733.6324	2822770.3052	960.07
5711	1012730.1395	2822763.1080	960.15
5712	1012735.2613	2822774.4198	960.02
5713	1012738.0028	2822776.3893	959.96
5714	1012727.9150	2822759.2824	960.19
5715	1012730.9717	2822754.7485	960.26
5716	1012712.0214	2822726.8480	961.24
5717	1012667.7453	2822707.0356	962.68
5718	1012667.2492	2822706.8795	962.15
5719	1012662.2827	2822705.4974	962.20
5720	1012661.7856	2822705.3767	962.74
5721	1012667.6923	2822709.1195	962.10
5722	1012661.7336	2822707.4220	962.16
5723	1012667.2627	2822725.9891	961.49
5724	1012661.3143	2822723.8869	961.57
5725	1012667.2082	2822728.1312	961.97
5726	1012666.7133	2822727.9253	961.51
5727	1012661.7577	2822726.1184	961.57
5728	1012661.2918	2822726.0848	962.00
5729	1012661.0623	2822733.7833	962.02
5730	1012667.0604	2822733.9361	961.96
5731	1012666.2666	2822745.4665	962.08
5732	1012661.2683	2822745.3365	962.13
5733	1012666.6393	2822750.4749	962.12
5734	1012703.3112	2822777.0659	961.04
5735	1012708.0580	2822775.4917	960.99
5736	1012709.4732	2822780.3626	960.94
5737	1012711.6477	2822779.8631	960.92
5738	1012709.0280	2822774.4652	960.98
5739	1012714.4068	2822771.8548	961.07
5740	1012714.6442	2822772.2954	960.52
5741	1012716.8273	2822776.7936	960.47
5742	1012717.0265	2822777.2527	961.01
5743	1012718.8277	2822776.3786	960.43
5744	1012716.2080	2822770.9807	960.49
5745	1012733.2337	2822769.3871	960.07
5746	1012730.6141	2822763.9892	960.13
5747	1012735.0342	2822768.5133	960.55
5748	1012734.8305	2822768.0565	960.10
5749	1012732.6474	2822763.5582	960.15
5750	1012732.4145	2822763.1154	960.61
5751	1012719.5518	2822720.2684	961.90
5752	1012720.0539	2822719.8297	961.92



INTERSECTION DETAIL - 08

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
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LEE'S SUMMIT, MISSOURI

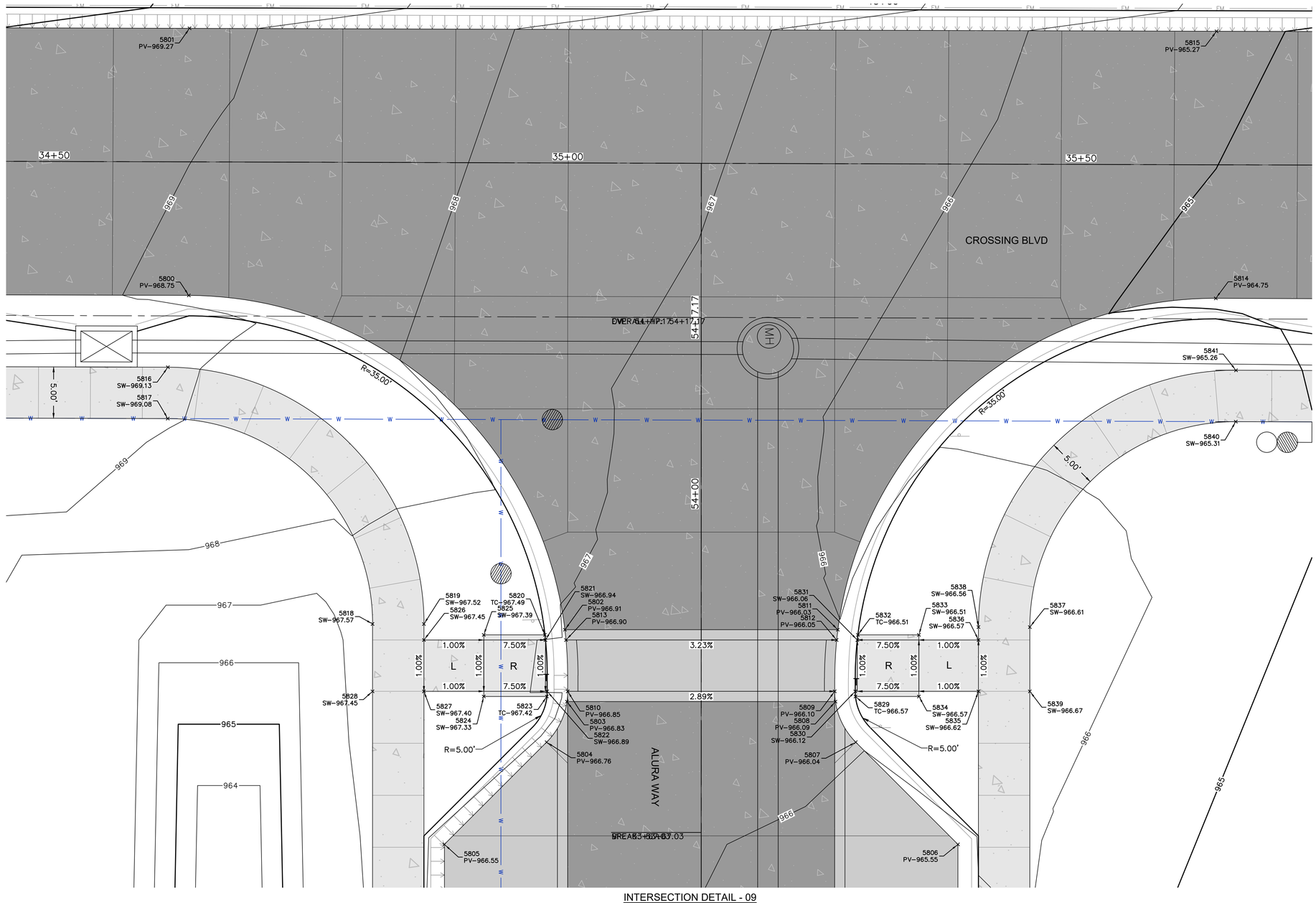
2023

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SHEET
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USER: jnewland

POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
5800	1012705.2102	2822104.1250	968.75
5801	1012705.9465	2822078.1354	969.27
5802	1012740.9950	2822137.5947	966.91
5803	1012741.0138	2822144.5974	966.83
5804	1012738.9354	2822148.4955	966.76
5805	1012728.7356	2822158.1888	966.55
5806	1012778.7194	2822159.4615	965.55
5807	1012769.0262	2822149.2617	966.04
5808	1012767.1489	2822145.2629	966.09
5809	1012767.1026	2822144.2614	966.10
5810	1012741.1110	2822143.5996	966.85
5811	1012767.5599	2822138.2711	966.03
5812	1012767.4191	2822139.2678	966.05
5813	1012741.0770	2822138.5971	966.90
5814	1012805.1705	2822106.9568	964.75
5815	1012805.9068	2822080.9672	965.27
5816	1012702.9984	2822111.0651	969.13
5817	1012702.8568	2822116.0631	969.08
5818	1012722.2840	2822136.5642	967.57
5819	1012727.2824	2822136.6914	967.52
5820	1012739.0279	2822138.0448	967.49
5821	1012739.0684	2822138.5460	966.94
5822	1012739.1117	2822143.5487	966.89
5823	1012739.0739	2822144.0479	967.42
5824	1012732.9303	2822143.8914	967.33
5825	1012733.0830	2822137.8934	967.39
5826	1012727.2428	2822138.2448	967.45
5827	1012727.1156	2822143.2432	967.40
5828	1012722.1172	2822143.1160	967.45
5829	1012769.1143	2822144.8128	966.57
5830	1012769.1019	2822144.3123	966.12
5831	1012769.4294	2822139.3190	966.06
5832	1012769.4994	2822138.8206	966.51
5833	1012775.4402	2822138.9719	966.51
5834	1012775.2874	2822144.9700	966.57
5835	1012781.0981	2822144.6178	966.62
5836	1012781.2253	2822139.6194	966.57
5837	1012786.2557	2822138.4911	966.61
5838	1012781.2573	2822138.3639	966.56
5839	1012786.0964	2822144.7450	966.67
5840	1012806.8156	2822119.0082	965.31
5841	1012806.9572	2822114.0102	965.26



INTERSECTION DETAIL - 09

SPOT ELEVATION LEGEND

HP–HIGH POINT
LP–LOW POINT
PV–PAVEMENT
TC–TOP OF CURB
SW–SIDEWALK
L–LANDING
T–TRANSITION
R–RAMP

N

0' 2.5' 5' 10'
SCALE IN FEET

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TEL 816.361.1177
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STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

INTERSECTION DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/ITW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GE004_D2104643
date:	07.12.2023

SHEET
C225

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USER: jnewland C_PPATT_D2104643 C_PTBLK_D2104643 C_FROAD_D2104643 C_PBNDY_D2104643

ACCESSIBLE PARKING DETAIL A
SCALE: 1" = 5'

SIDEWALK RAMP DETAIL A
SCALE: 1" = 5'

SIDEWALK RAMP DETAIL C
SCALE: 1" = 5'

ACCESSIBLE PARKING DETAIL B
SCALE: 1" = 5'

SIDEWALK RAMP DETAIL B
SCALE: 1" = 5'

SIDEWALK RAMP DETAIL D
SCALE: 1" = 5'

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DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ADA & SIDEWALK DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_SPT01_D2104643
date: 07.12.2023

SHEET
C226

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XREFS: C_PTBLK_D2104643 C_PBASE_D2104643 C_PPATT_D2104643 C_PUTIL_D2104643
USER: jnewland C_PBNDY_D2104643

TRACT A

EXTENDED WET DETENTION CONSTRUCTED PER SEPARATE MASS GRADING PLANS

SEDIMENT TRAP 6B TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA HAS BEEN DEVELOPED. SEE MASS GRADING PLANS.

SEDIMENT TRAP 3B TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA HAS BEEN DEVELOPED. SEE MASS GRADING PLANS.

SEDIMENT TRAP 5B TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA HAS BEEN DEVELOPED. SEE MASS GRADING PLANS.

SEDIMENT TRAP 4B TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA HAS BEEN DEVELOPED. SEE MASS GRADING PLANS.

LOT 12

SEE MASS GRADING PLAN

LOT 13

LOT 10

LOT 9

LOT 11

ALURA WAY

TRACT B

DOUGLAS ST

DIVERSION SWALE TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA IS DEVELOPED. SEE MASS GRADING PLANS

LOT 2

LOT 8

LOT 7

LOT 4

CROSSING BLVD

DISCOVERY AVE

LOT 5

LOT 3

LOT 1

LOT 6

NW COLBERN RD

DIVERSION SWALE TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA IS DEVELOPED. SEE MASS GRADING PLANS

DIVERSION SWALE TO REMAIN IN PLACE AND MAINTAINED UNTIL TREATED AREA IS DEVELOPED. SEE MASS GRADING PLANS

N

0' 30' 60' 120'
SCALE IN FEET

DWG: F:\2021\04501-05000\021-04643-d\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_GRD01_D2104643.dwg
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MO# 2009015436

REVISIONS

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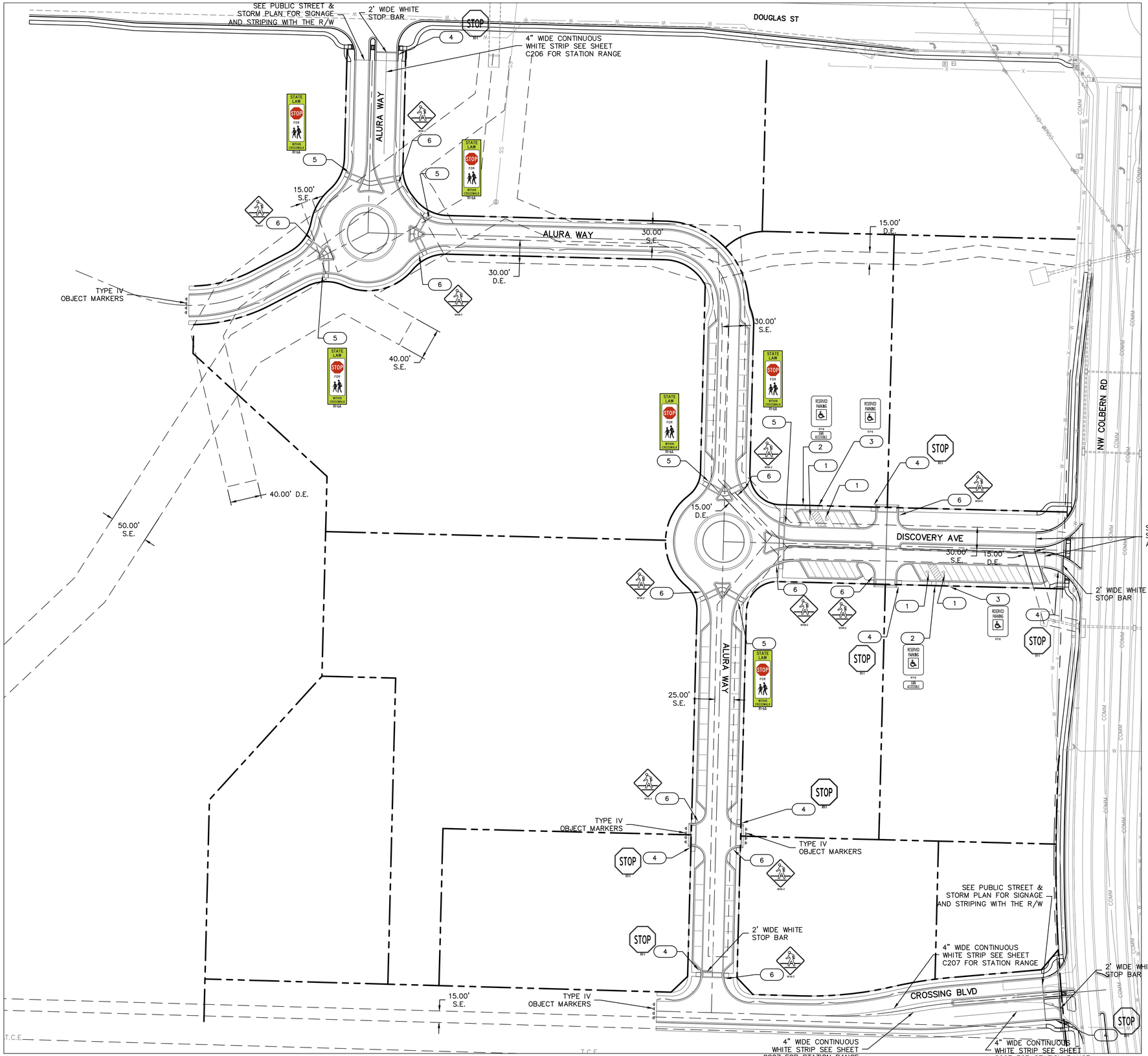
SITE GRADING PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
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approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GRD01_D2104643
date:	07.12.2023

SHEET
C227



KEYNOTES

1. PAINTED ADA SYMBOL. SEE DETAIL ON SHEET C229
2. ADA PARKING SIGN WITH VAN–ACCESSIBLE SIGN
3. ADA PARKING SIGN R7–8
4. STOP SIGN R1–1
5. PEDESTRIAN CROSSING WITH STOP SIGN R1–6A
6. PEDESTRIAN CROSSING SIGN W11A–2

GENERAL NOTES:

1. DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. ADDITIONAL SIGNAGE MAY BE REQUIRED CONTRACTOR SHALL COORDINATE FINAL SIGNAGE REQUIREMENTS WITH LANDSCAPE & HARDSCAPE PLANE, AS WELL AS WITH OWNER.

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DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STRIPING & SIGNAGE PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

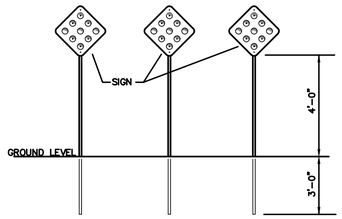
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checked by:	AR/JN
approved by:	DE
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drawing no.:	C_SGN01_D2104643
date:	07.12.2023

SHEET
C228

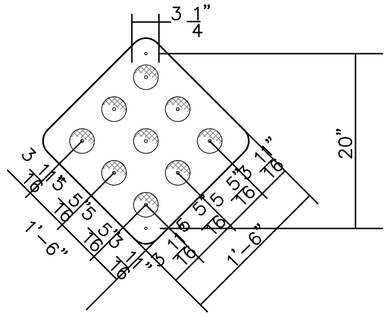
N

0' 2.5' 5' 10'
SCALE IN FEET

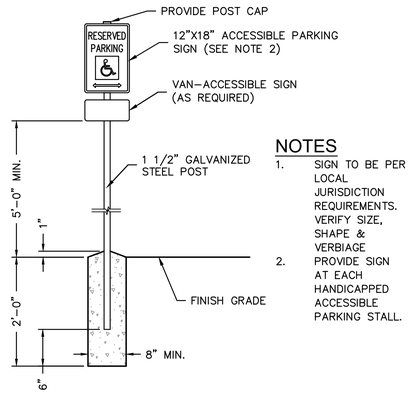
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USER: jnewland C_PBNDY_D2104643 C_XALTA_B2104643



TYPE IV OBJECT MARKERS
N.T.S.

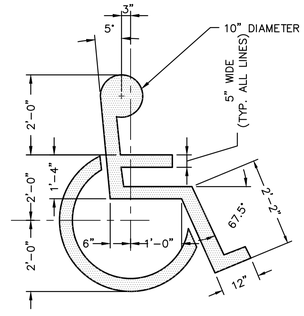


NOTES:
THICKNESS OF FLAT SHEET FOR TYPE IV OBJECT MARKERS SHALL BE 0.063" RED REFLECTORS ON RED BACKGROUND. THREE REQUIRED AT 12' SPACING.



NOTES
1. SIGN TO BE PER LOCAL JURISDICTION REQUIREMENTS. VERIFY SIZE, SHAPE & VERBIAGE
2. PROVIDE SIGN AT EACH HANDICAPPED ACCESSIBLE PARKING STALL.

ACCESSIBLE PARKING SPACE SIGNAGE
NOT TO SCALE



PROVIDE PAINTED SYMBOL AT EACH DESIGNATED ACCESSIBLE PARKING STALL. CENTER SYMBOL IN EACH STALL.

ACCESSIBLE PARKING SYMBOL
NOT TO SCALE

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DAVID L. EICKMAN
NUMBER PE-2009015436
7/13/23
PROFESSIONAL ENGINEER

DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STRIPING & SIGNAGE DEATILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

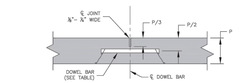
LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.:C_DTL_SGN_01_D2104643
date: 07.12.2023

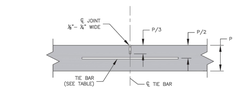
SHEET
C229

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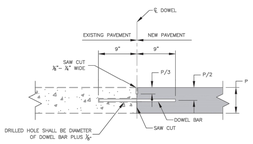


NOTE:
TRANSVERSE CONTRACTION JOINTS FOR CONCRETE PAVEMENT OR BASE WIDENING SHALL MATCH EXISTING JOINTS.

1 TRANSVERSE CONTRACTION JOINT

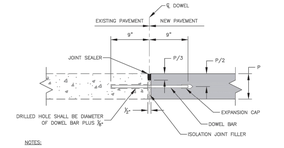


2 LONG. CONTRACTION/CONSTRUCTION JOINT



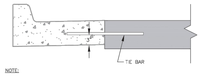
NOTES:
- DOWEL BARS SHALL BE SMOOTH REINFORCING BARS.
- DOWEL BARS SHALL BE BONDED INTO THE EXISTING PAVEMENT.
- BONDING FOR DOWEL BARS SHALL BE EPOXY OR POLYESTER BONDING AGENTS.
- THE PORTION OF THE DOWEL OUTSIDE THE HOLE SHALL BE COATED WITH AN APPROVED LUBRICANT.

3 TRANSVERSE CONSTRUCTION JOINT



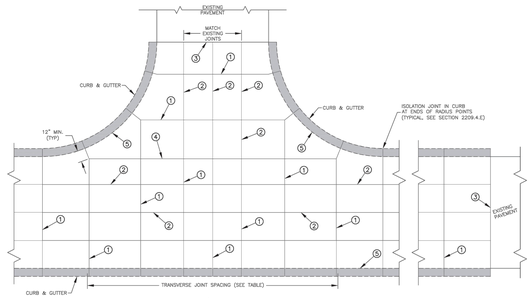
NOTES:
- DOWEL BARS SHALL BE SMOOTH REINFORCING BARS.
- DOWEL BARS SHALL BE BONDED INTO THE EXISTING PAVEMENT.
- BONDING FOR DOWEL BARS SHALL BE EPOXY OR POLYESTER BONDING AGENTS.
- THE PORTION OF THE DOWEL OUTSIDE THE HOLE SHALL BE COATED WITH AN APPROVED LUBRICANT.

4 TRANSVERSE ISOLATION JOINT



NOTE:
JOINT NOT NEEDED IF CURB & GUTTER IS MONOLITHICALLY POURED.

5 LONG. CONSTRUCTION JOINT (CURB & GUTTER)



JOINT SPACING/INTERSECTION DETAIL

PCCP THICKNESS (P)	DOWEL SIZE	TIE BAR SIZE	DOWEL SPACING	TIE BAR SPACING	MAX. TRANS. SPACING	MAX. LONG. SPACING
6"	N/A	#5 x 30"	N/A	30" CTRS.	12'	12'
7"	1" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	14'	14'
8"	1 ¼" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	15'	14'
≥8"	1 ½" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	15'	15'

TABLE

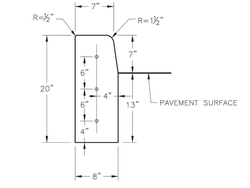
GENERAL NOTES:
- THE FINAL POSITION OF ALL DOWELS AND TIE BARS SHALL BE PERPENDICULAR TO THE PLANE OF THE JOINT AND PARALLEL TO THE SURFACE OF THE PAVEMENT AND PARALLEL TO EACH OTHER.
- DOWEL BARS SHALL BE PLACED AT MID-DEPTH.
- DOWEL BARS SHALL BE PLACED AT 6 INCHES FROM LONGITUDINAL JOINTS.
- TIE BARS SHALL BE PLACED AT 12 INCHES FROM TRANSVERSE JOINTS.
- PANEL LENGTH TO WIDTH RATIO SHALL NOT EXCEED 1.5 TO 1.
- DOWEL BASKET SHIPPING WIRE SHALL NOT BE CUT.
- CONTRACTOR SHALL SUBMIT CONTRACTOR SPECIFIC JOINTING PLAN AT LEAST TWO WEEKS BEFORE PAVING OPERATIONS.
- IN ACCORDANCE WITH 2208.4.D, ALL JOINTS SHALL BE SEALED, INCLUDING CURB & GUTTER.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

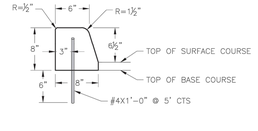
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: TYPICAL PAVEMENT JOINT DETAILS

Drawn By: MJF
Checked By: GMB
Date: 05/2021
Proj. #:

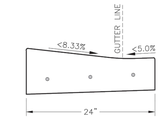
GEN-9



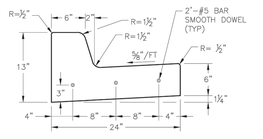
STRAIGHT CURB
(TYPE C-1)



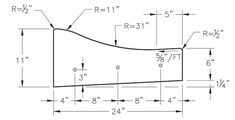
DOWELLED CURB
(TYPE DC)



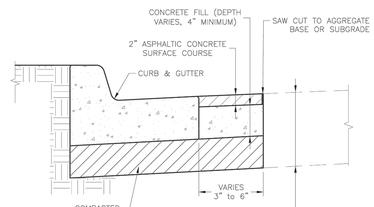
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



ROLL BACK CURB & GUTTER
(TYPE CG-2)

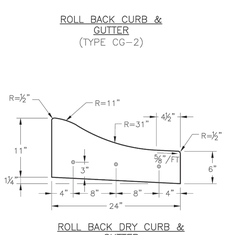


CURB REPLACEMENT DETAIL

GENERAL NOTES

1. ¾" ISOLATION JOINTS WITH 3 (2"-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.

STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-1 DRY)



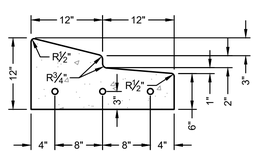
ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: TK
Date: 05/2021
Proj. #:

GEN-4



MOUNTABLE CURB DETAIL
NOT TO SCALE

CURB & GUTTER NOTES

1. ¾" ISOLATION JOINTS AT ALL POINTS OF TANGENCY AND AT 150' MAX INTERVALS. JOINTS SHALL BE FIXED WITH SMOOTH DOWELS, ⅝" DIA. X 2' LENGTH, CENTERED ON JOINT, GREASED, AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. FIX DOWEL BARS WITH BAR SUPPORTS.
4. DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESSRAMP.

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STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVING & JOINT DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.:C_DTL_SGN_01_D2104643
date: 07.12.2023

SHEET
C230

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DWG: F:\2021\04501-05000\021-04643-d\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_GEN02_D2104643.dwg
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C_PBNDY_D2104643 C_PSTRM_D2104643 C_FROAD_D2104643 T_PBASE_D2104643 C_XALTA_B2104643

STORM SEWER INSTALLED PER MASS GRADING & SITE DISTURBANCE SET OF PLANS

STORM SEWER INSTALLED PER MASS GRADING & SITE DISTURBANCE SET OF PLANS

ALURA WAY

PUBLIC RCB INSTALLED PER SEPARATE PLANS

STM W1

STORM LINE W SEE SHEET C410

STM V1

STORM LINE V SEE SHEET C410

STM U2

ALURA WAY ENTRY

STORM LINE U SEE SHEET C409

STM U1

PUBLIC STORM INSTALLED PER SEPARATE PLANS

ALURA WAY

STM L1

STORM LINE L SEE SHEET C407

STM L2

STORM LINE P SEE SHEET C407

STM P1

STORM LINE G SEE SHEET C405

STM G2

STM G1

PUBLIC STORM INSTALLED PER SEPARATE PLANS

STORM LINE F SEE SHEET C405

STM F1

STM L3

STM L4

ALURA WAY

ALURA WAY

STORM LINE L SEE SHEET C407

STM L5

STM M1

STM G3

STORM LINE H SEE SHEET C406

STORM LINE I SEE SHEET C406

STM I1

STORM LINE M SEE SHEET C408

STM H1

STM M2

PUBLIC STORM INSTALLED PER SEPARATE PLANS

STORM LINE N SEE SHEET C409

STORM LINE O SEE SHEET C409

STM N1

STM O1

CROSSING BLVD

STM M3

STORM LINE J SEE SHEET C406

STM K1

STM J1

STORM LINE K SEE SHEET C406

DISCOVERY AVE

PUBLIC STORM INSTALLED PER SEPARATE PLANS

EXPT 1'X2' W/CONTROL CAP

R=2,924.93'
L=519.42'
D=10°10'29"

653.04'
S87°54'47"E

120.87'
S44°43'55"E

LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- EXISTING WATER MAIN
- PROPOSED PRIVATE STORM SEWER
- PROPOSED PRIVATE SANITARY SEWER
- PROPOSED PRIVATE WATER MAIN
- FINISHED MAJOR CONTOUR (10' INTERVAL)
- FINISHED MINOR CONTOUR (2' INTERVAL)

N

0' 30' 60' 120'
SCALE IN FEET

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Missouri Certificate of Authority #001592
1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
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7/13/23
PROFESSIONAL ENGINEER

DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

OVERALL STORM SEWER PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_GEN02_D2104643
date:	07.12.2023

SHEET
C400



LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- EXISTING WATER MAIN
- PROPOSED PRIVATE STORM SEWER
- PROPOSED PRIVATE SANITARY SEWER
- PROPOSED PRIVATE WATER MAIN
- FINISHED MAJOR CONTOUR (10' INTERVAL)
- FINISHED MINOR CONTOUR (2' INTERVAL)

NOTE:
IN THE INTEREST OF BETTER CLARITY, THIS STORMWATER MANAGEMENT PLAN COVERS BOTH PRIVATE AND PUBLIC STORM SEWER NETWORKS PROPOSED WITH THE DEVELOPMENT OF DISCOVERY PARK ZONE 1. FOR DETAILS ON PUBLIC STORM SEWER REFER TO SEPARATE PUBLIC STORM SEWER PLANS.

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7/3/23
PROFESSIONAL ENGINEER

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MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORMWATER MANAGEMENT PLAN - PROPOSED CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
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drawing no.:	STM_OVR_01_D2104643
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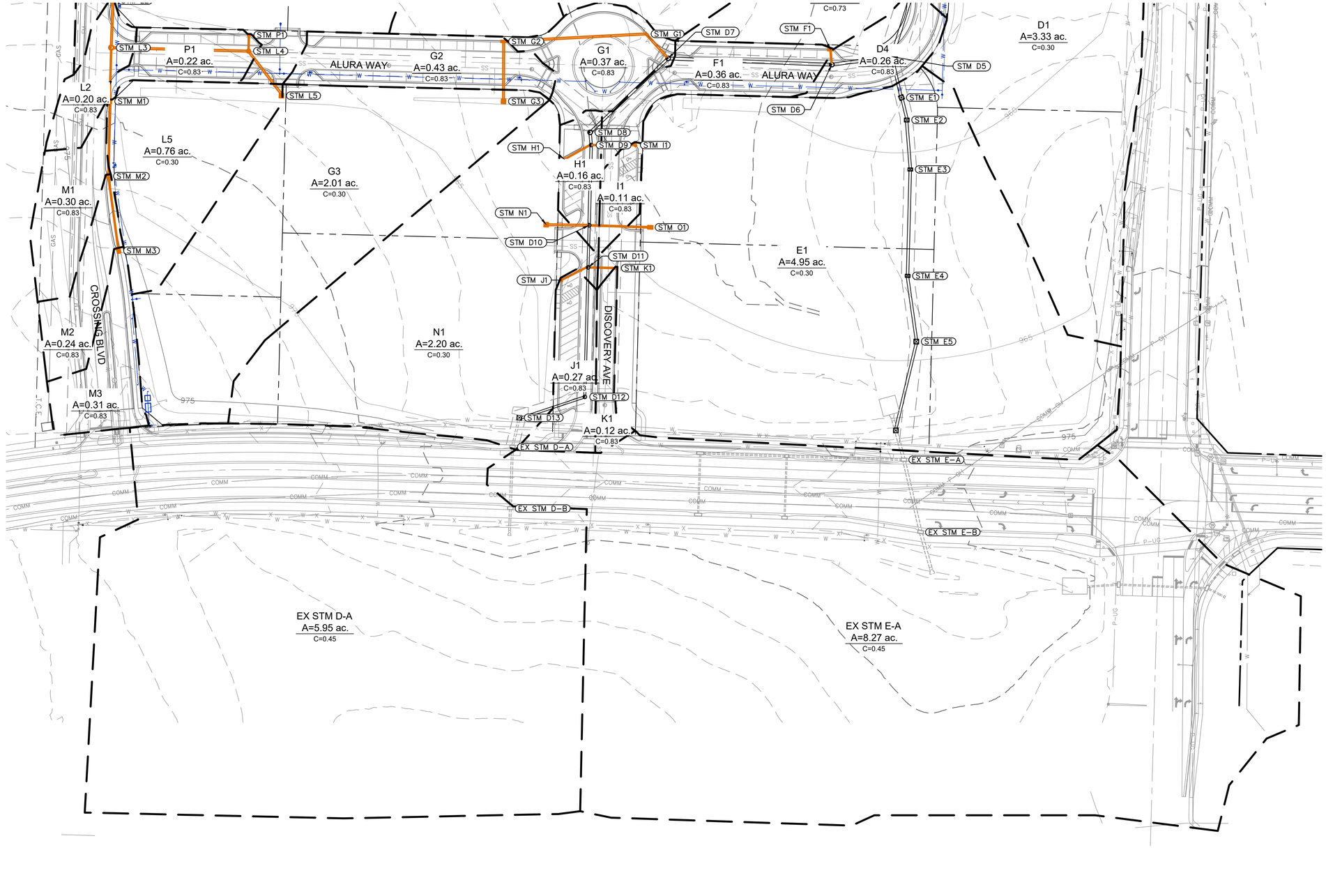
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LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- EXISTING WATER MAIN
- PROPOSED PRIVATE STORM SEWER
- PROPOSED PRIVATE SANITARY SEWER
- PROPOSED PRIVATE WATER MAIN
- FINISHED MAJOR CONTOUR (10' INTERVAL)
- FINISHED MINOR CONTOUR (2' INTERVAL)

NOTE:
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STORMWATER MANAGEMENT PLAN - PROPOSED CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

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SHEET
C402

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C_PSTRM_D2104643 C_FROAD_D2104643 T_PBASE_D02104643



LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- EXISTING WATER MAIN
- PROPOSED PRIVATE STORM SEWER
- PROPOSED PRIVATE SANITARY SEWER
- PROPOSED PRIVATE WATER MAIN
- PROPOSED PUBLIC WATER MAIN (PER SEPARATE PLAN SET)
- PROPOSED WATER MAIN (PER NW COLBERN RD PLANS)
- 1000 FINISHED MAJOR CONTOUR (10' INTERVAL)
- 998 FINISHED MINOR CONTOUR (2' INTERVAL)

NOTE:
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THIS SHEET IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY TO DEMONSTRATE HOW THE STORM SYSTEM INTERACTS WITH FUTURE SITE DEVELOPMENT. SAID FUTURE DEVELOPMENT IS NOT YET DESIGN OR PERMITTED, SO THE VALUES ARE AN APPROXIMATION ONLY.

0' 30' 60' 120'
SCALE IN FEET

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Missouri Certificate of Authority #001592
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North Kansas City, MO 64116
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STORMWATER MANAGEMENT PLAN - FUTURE CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST
LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
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project no.: D21-04643
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SHEET
C403

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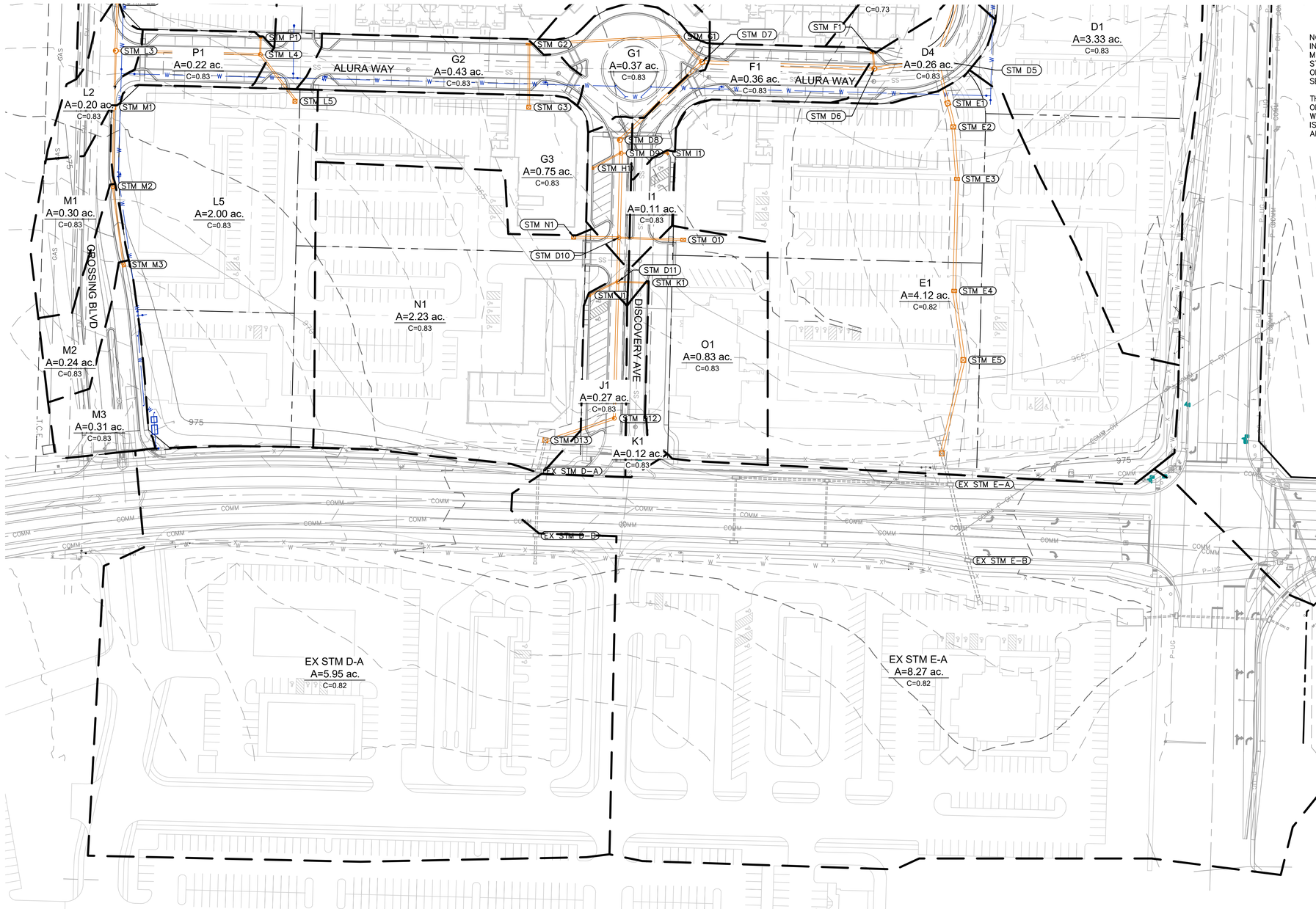
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C_FROAD_D2104643 C_PSTRM_FUTURE_D2104643 C_FBASE_D2104643 T_PBASE_D2104643

LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- EXISTING WATER MAIN
- PROPOSED PRIVATE STORM SEWER
- PROPOSED PRIVATE SANITARY SEWER
- PROPOSED PRIVATE WATER MAIN
- PROPOSED PUBLIC WATER MAIN (PER SEPARATE PLAN SET)
- PROPOSED WATER MAIN (PER NW COLBERN RD PLANS)
- FINISHED MAJOR CONTOUR (10' INTERVAL)
- FINISHED MINOR CONTOUR (2' INTERVAL)

NOTE:
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0' 30' 60' 120'
SCALE IN FEET

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North Kansas City, MO 64116
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STATE OF MISSOURI
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NUMBER PE-2009015436
7/3/23
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DAVID EICKMAN, P.E.
MO# 2009015436

REVISIONS

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STORMWATER MANAGEMENT PLAN - FUTURE CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

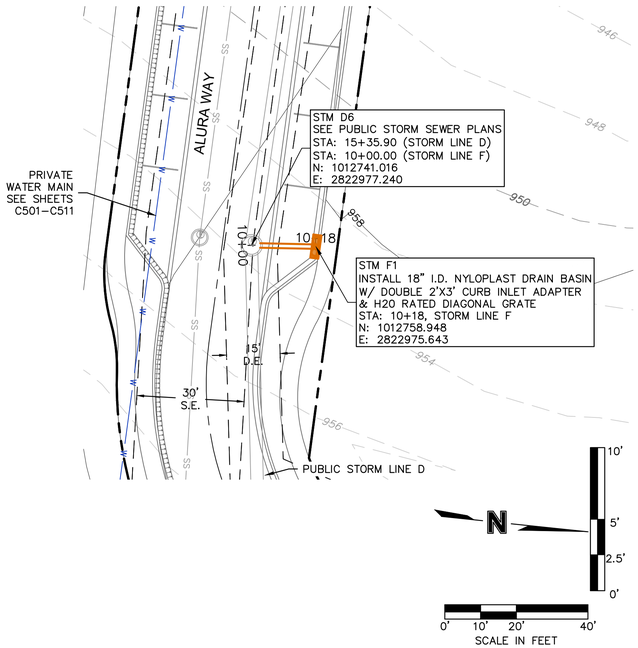
THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

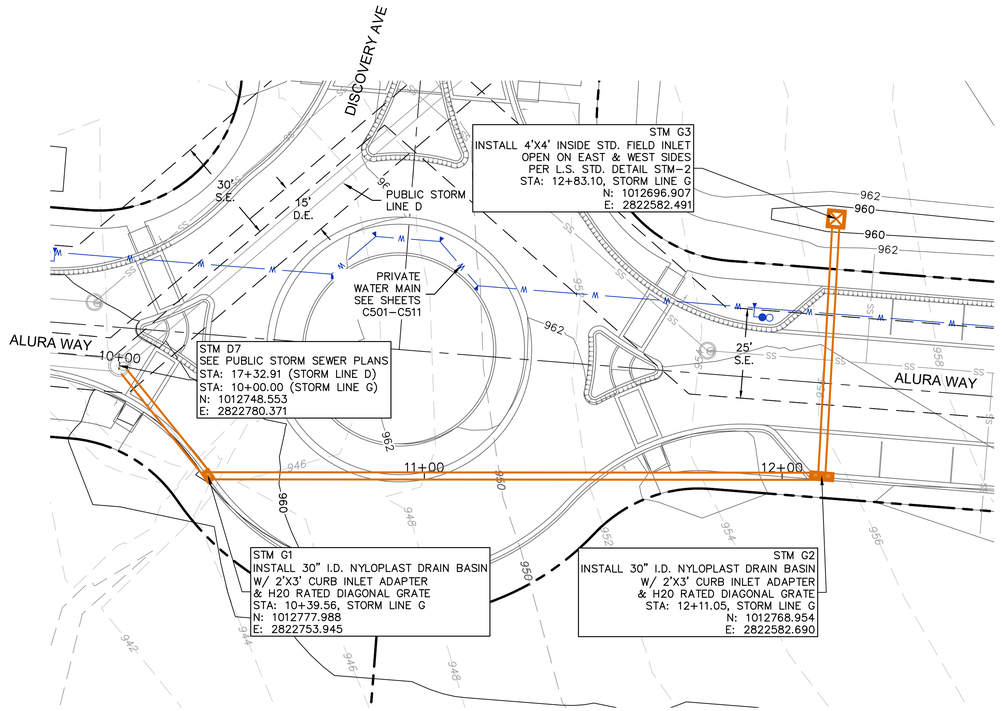
LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: STM_OVR_02_D2104643
date: 07.12.2023

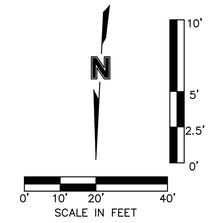
SHEET
C404



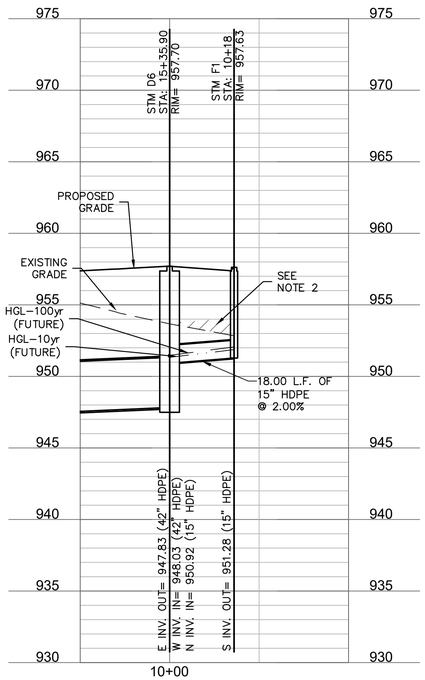


NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.

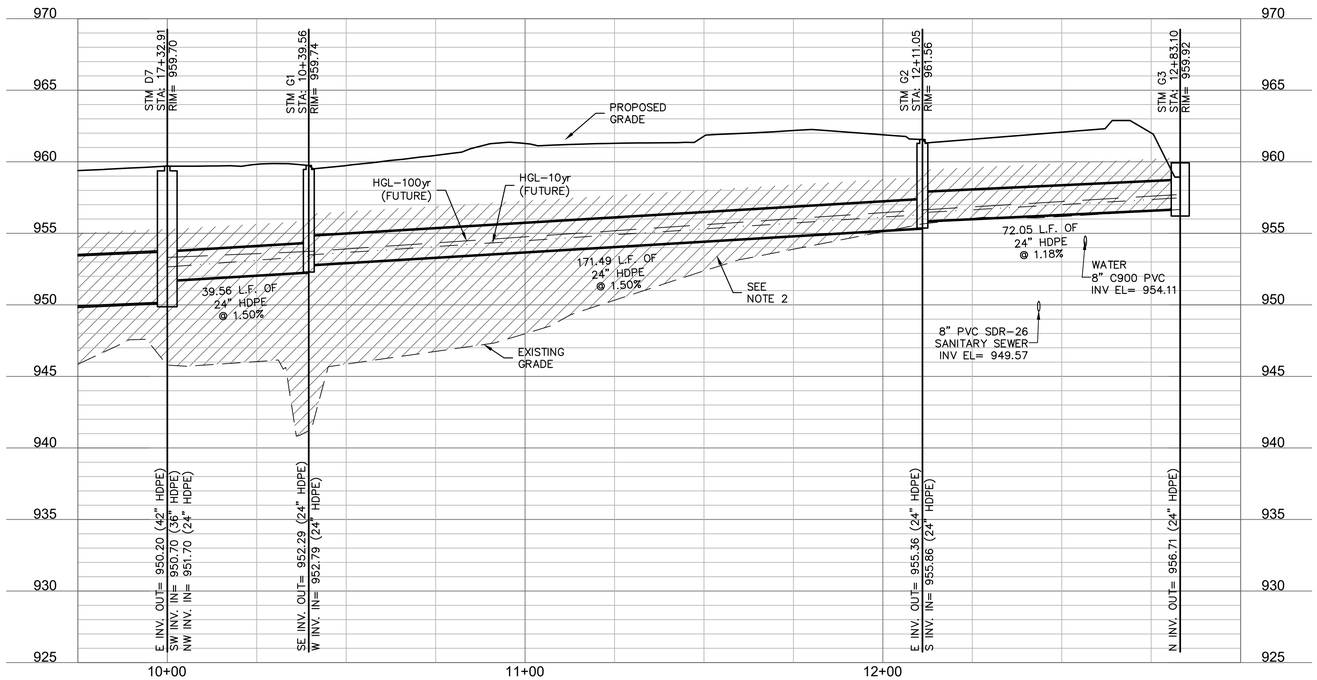
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



STORM LINE F (9+75 - 10+50)



STORM LINE G (9+75 - 13+00)



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1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
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STATE OF MISSOURI
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PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

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REVISIONS

STORM SEWER PLAN & PROFILE (LINES F & G)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

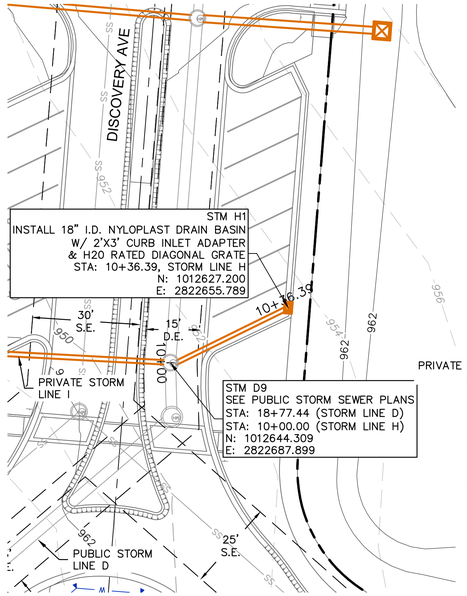
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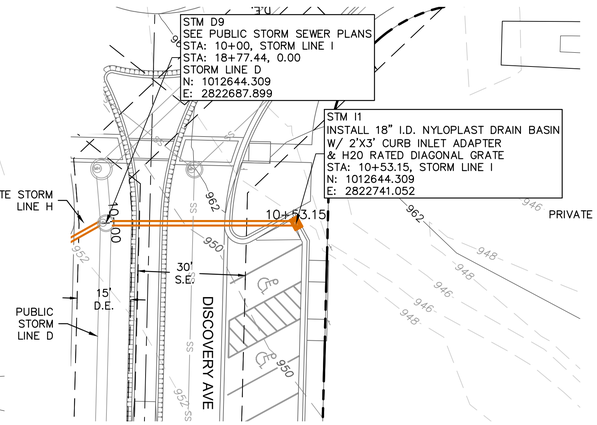
2023

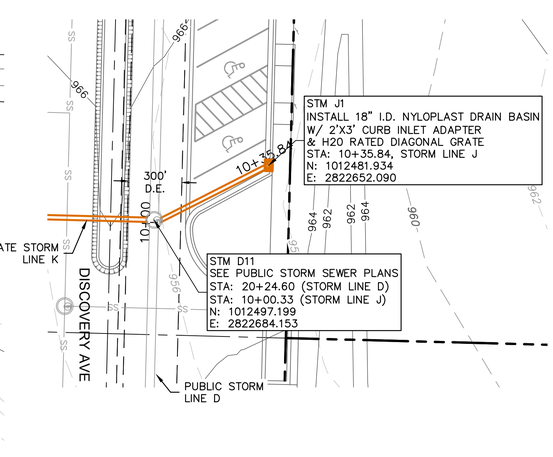
drawn by: BM/GS/OS/TW
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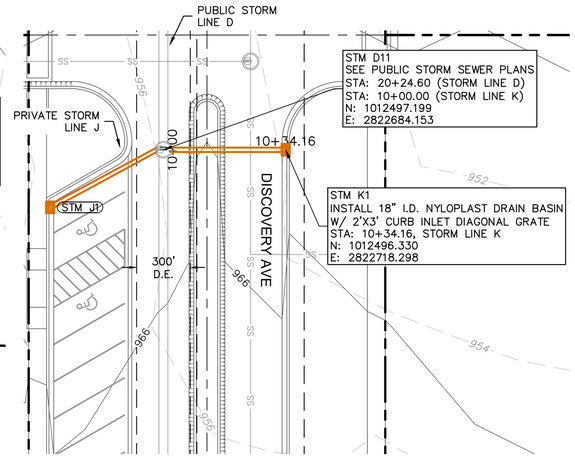
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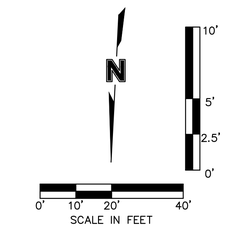
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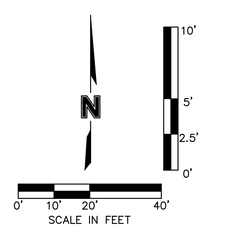


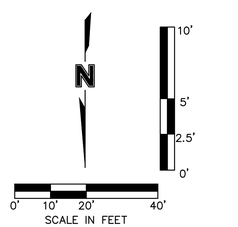


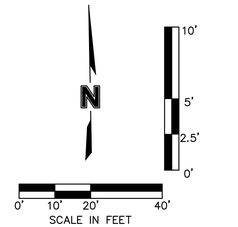








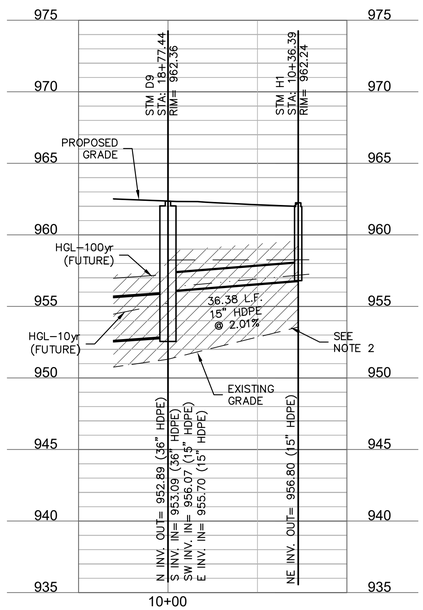




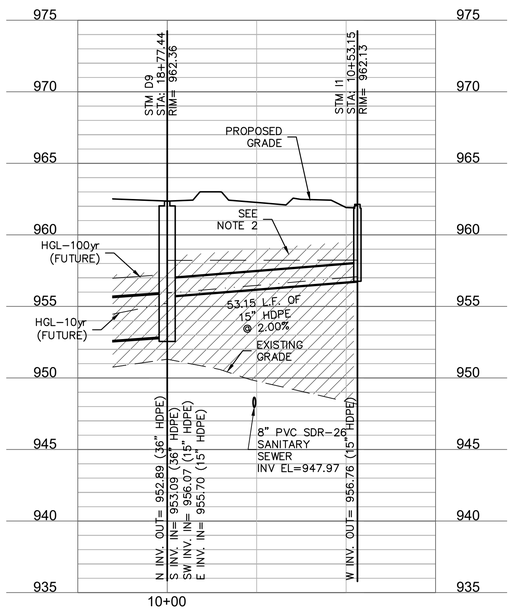
NOTES:
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2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

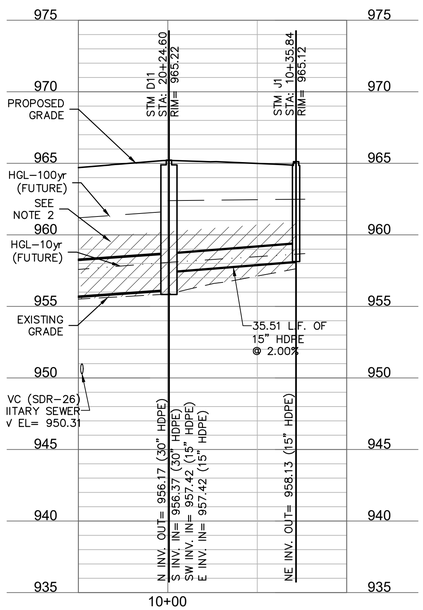
STORM LINE H (9+75 - 10+50)



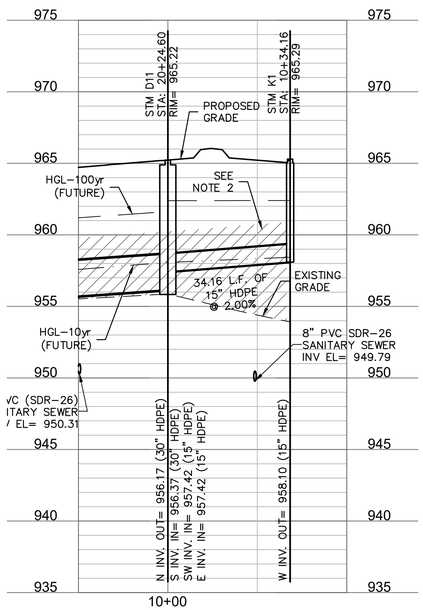
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STORM LINE J (9+75 - 10+50)



STORM LINE K (9+75 - 10+50)



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REVISIONS

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STORM SEWER PLAN & PROFILE (LINES H, I, J & K)
PRIVATE SITE DEVELOPMENT PLANS

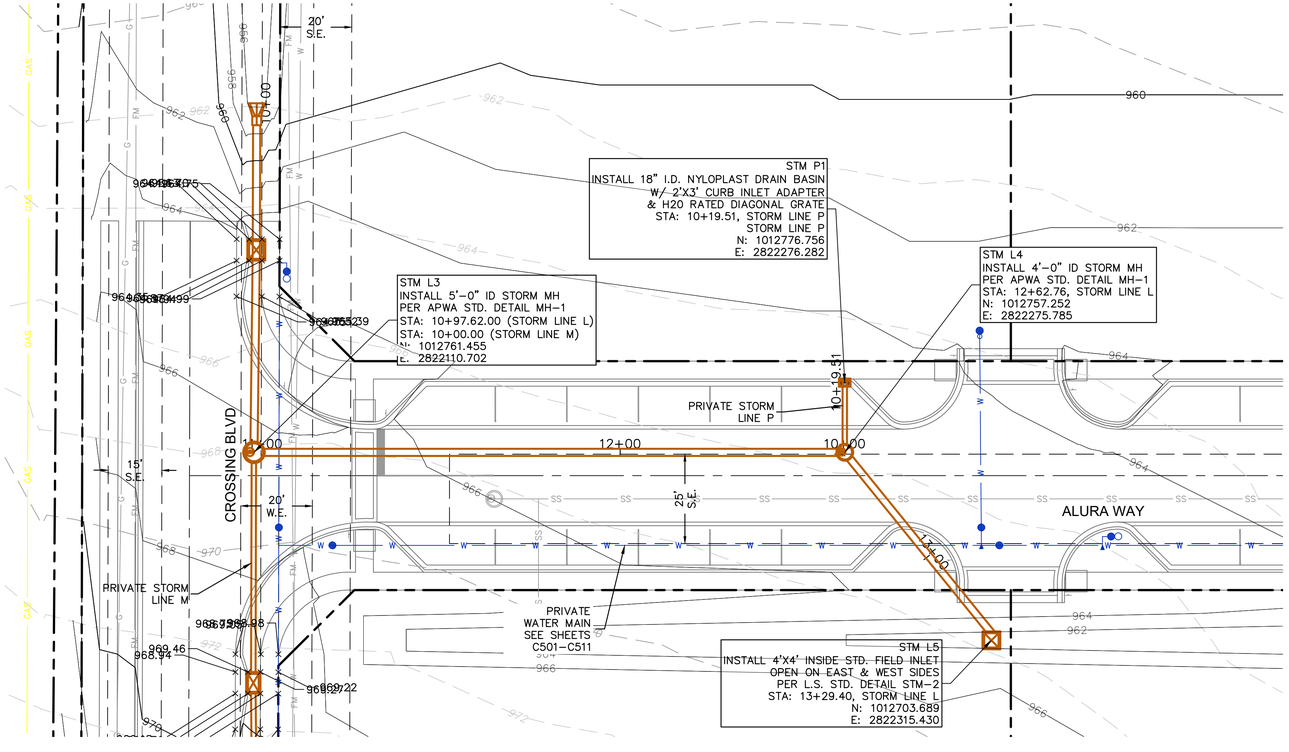
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2023

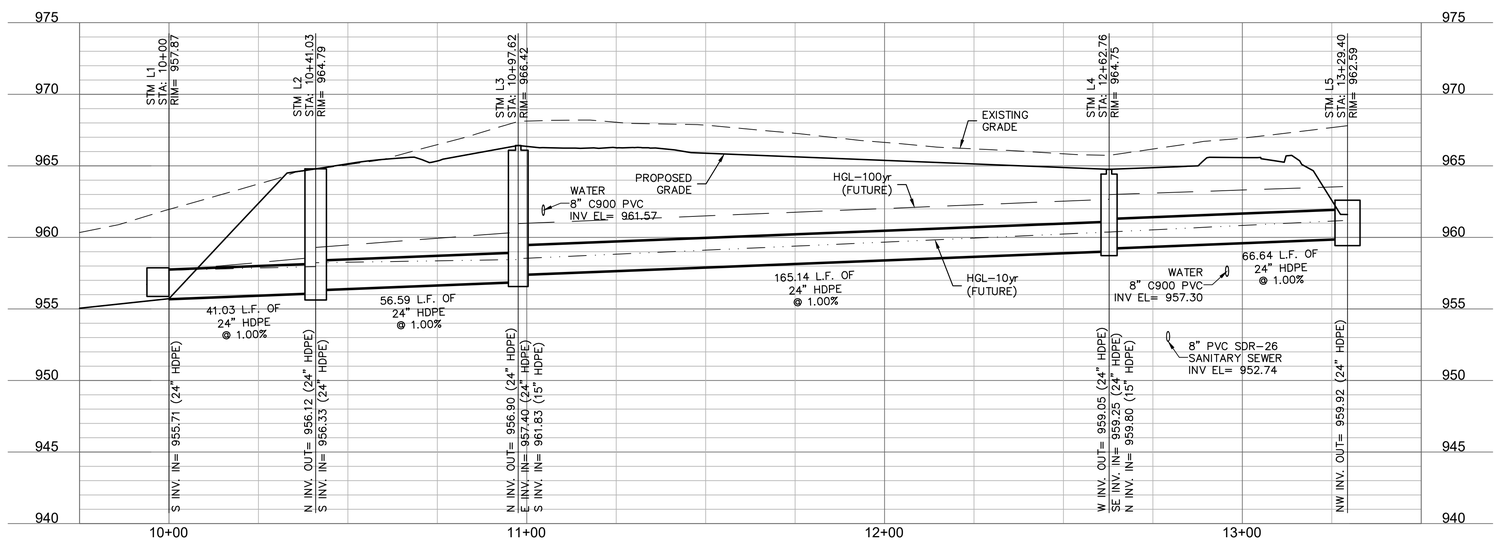
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project no.: D21-04643
drawing no.: STM_PRV_01_D2104643
date: 07.12.2023

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STORM LINE L (9+75 - 13+50)



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STORM SEWER PLAN & PROFILE (LINES L & P)
PRIVATE SITE DEVELOPMENT PLANS

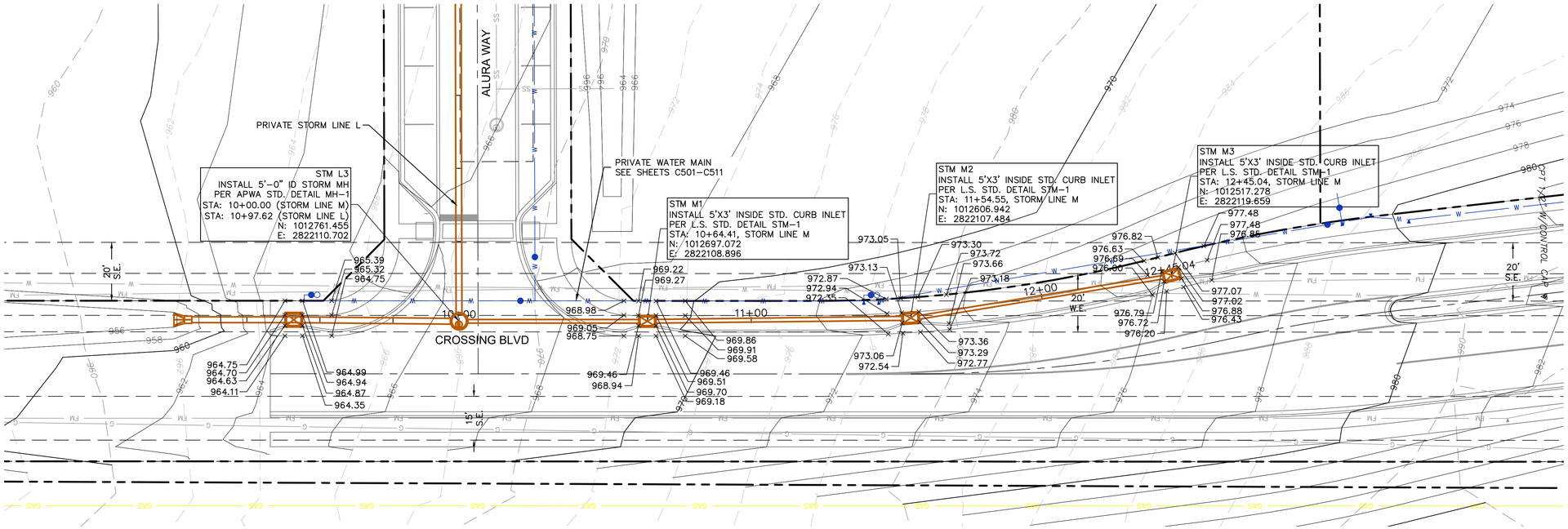
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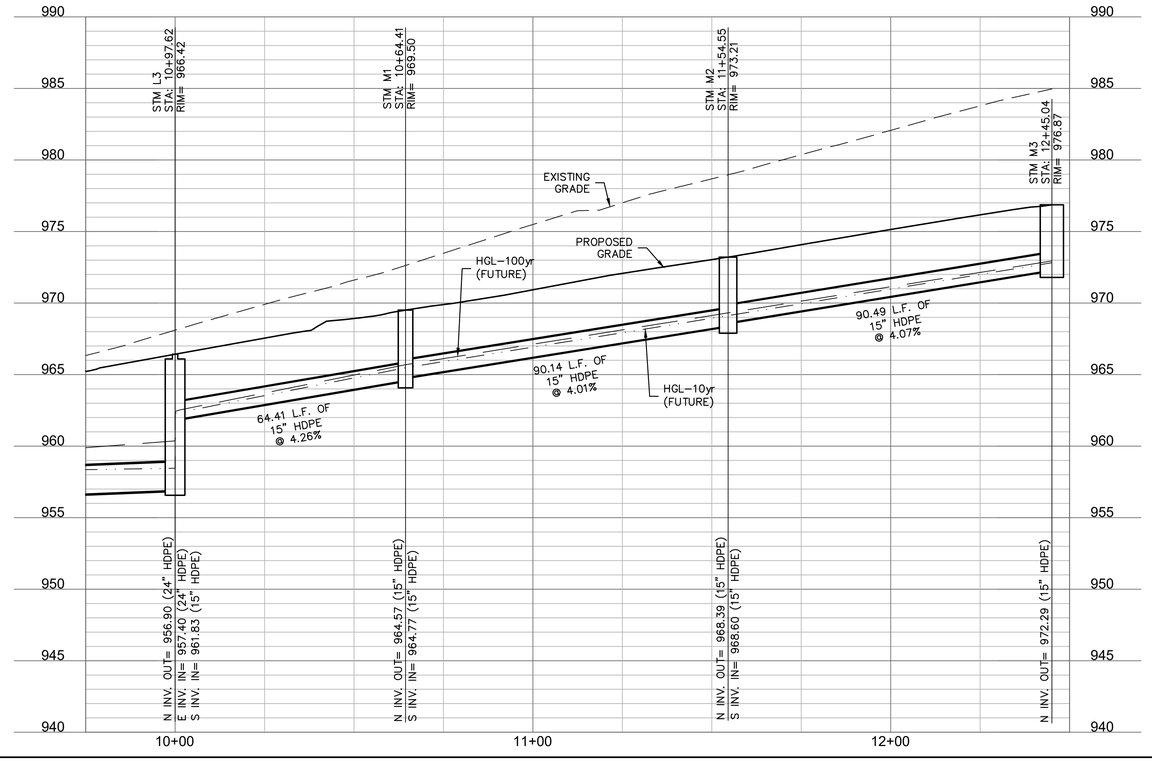
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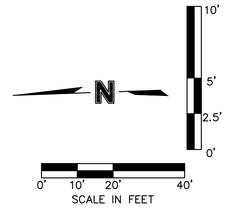
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STORM LINE M (9+75 - 12+50)





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STORM SEWER PLAN & PROFILE (LINE M)
PRIVATE SITE DEVELOPMENT PLANS

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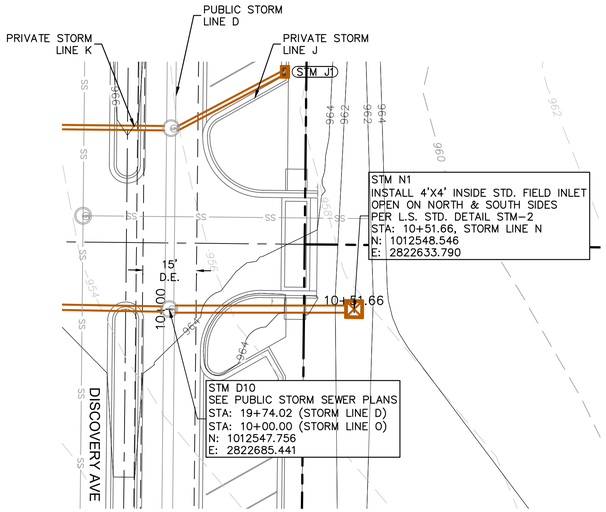
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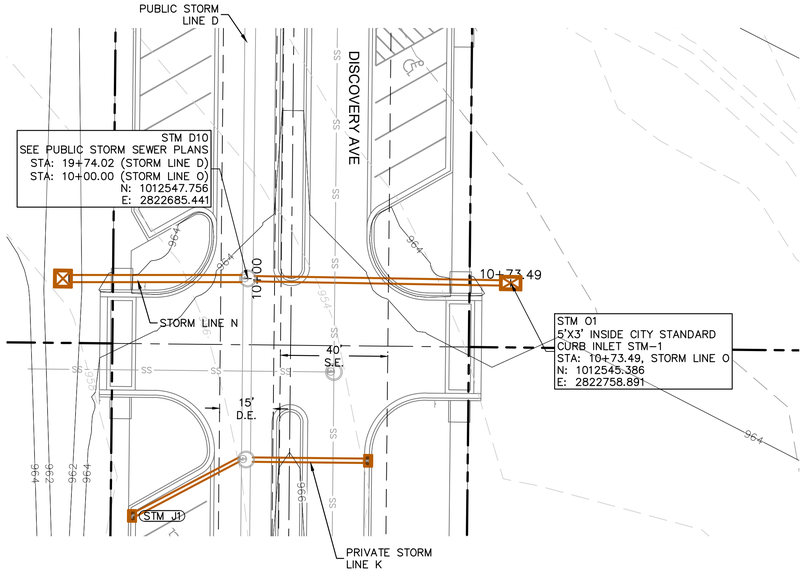
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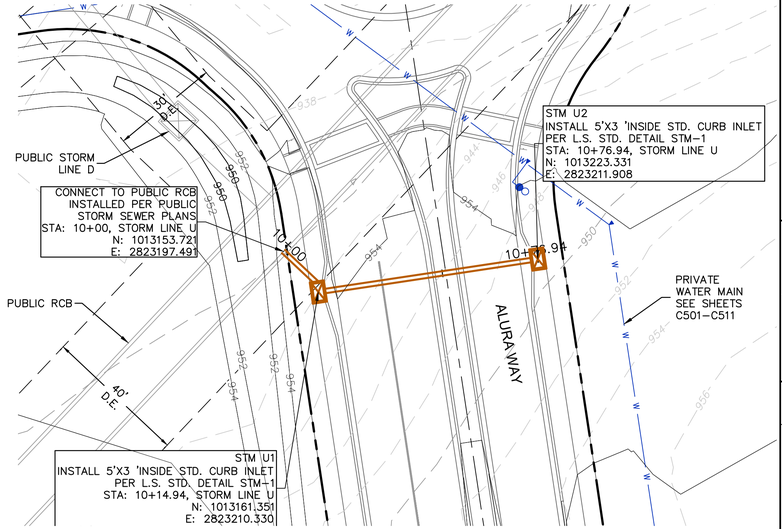
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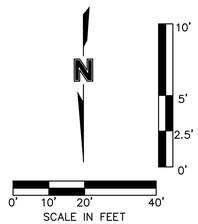
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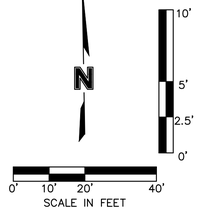
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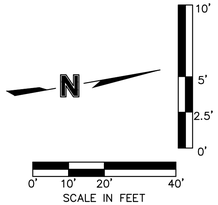








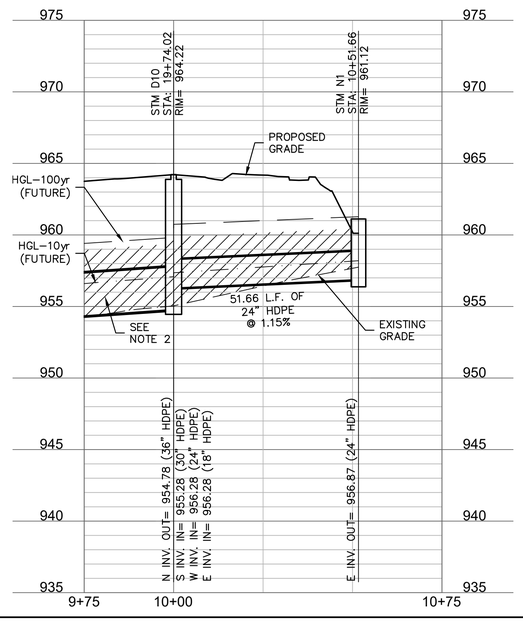




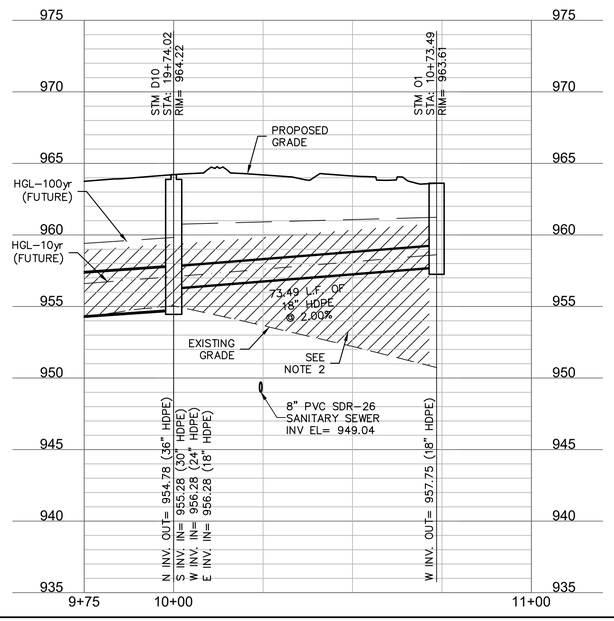
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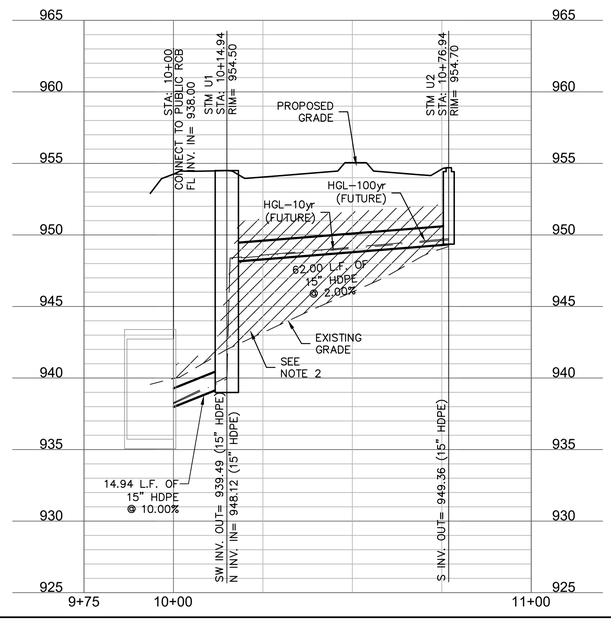
STORM LINE N (9+75 - 10+75)



STORM LINE O (9+75 - 11+00)



STORM LINE U (9+75 - 11+00)



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North Kansas City, MO 64116
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DAVID EICKMAN, P.E.
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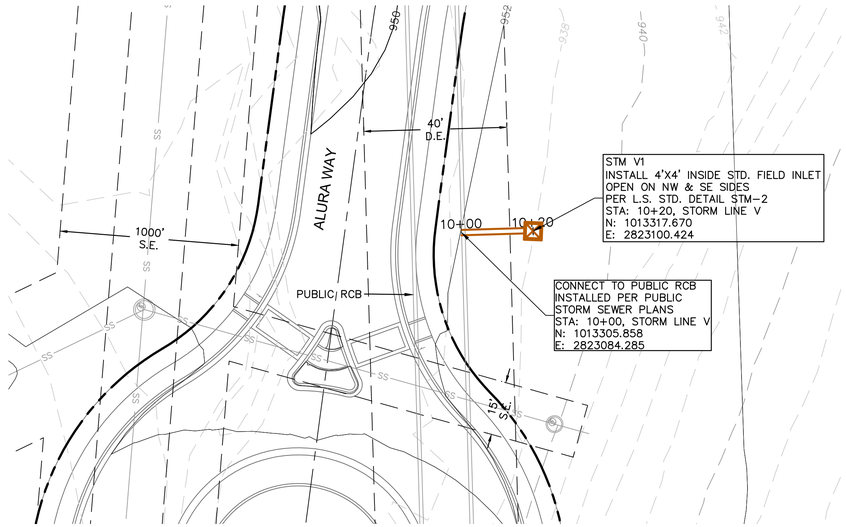
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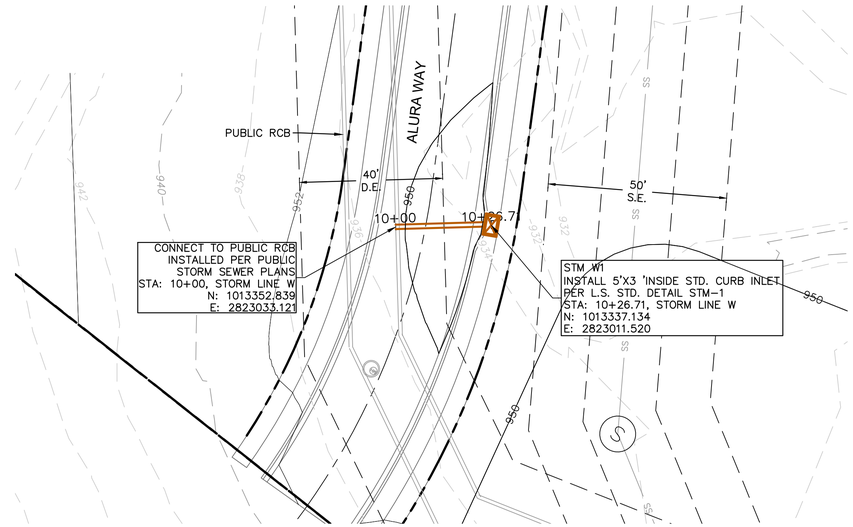
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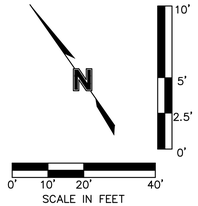
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drawing no.:	STM_PRV_02_D2104643
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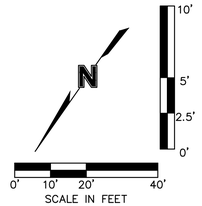
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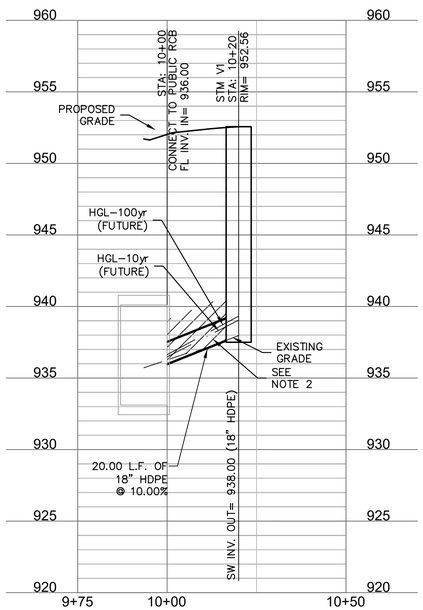




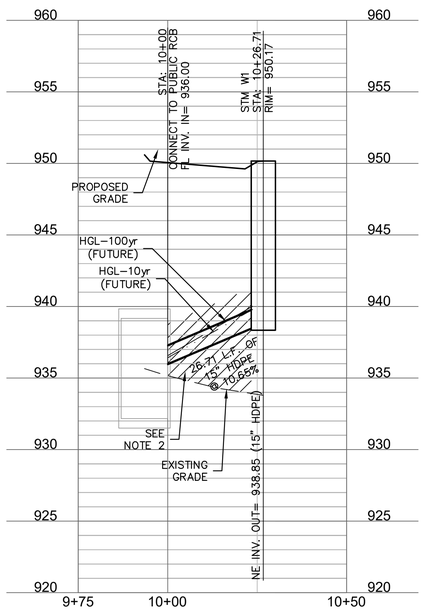
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STORM LINE V (9+75 - 10+50)



STORM LINE W (9+75 - 10+50)



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THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

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C_PPATT_D2104643

Drainage Area Design Table

10 Year Return Frequency

Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
A2	5.84	0.45	5.00	7.35	1.00	19.32
B2	1.78	0.30	5.00	7.35	1.00	3.93
C2	3.25	0.30	5.00	7.35	1.00	7.17
D1	3.33	0.30	10.47	5.98	1.00	5.97
D2	0.43	0.66	5.00	7.35	1.00	2.09
D3	0.73	0.66	5.00	7.35	1.00	3.54
D4	0.26	0.83	5.00	7.35	1.00	1.59
E1	4.95	0.30	10.67	5.94	1.00	8.82
F1	0.36	0.83	5.00	7.35	1.00	2.20
G1	0.37	0.83	5.00	7.35	1.00	2.26
G2	0.43	0.83	5.00	7.35	1.00	2.62
G3	2.01	0.30	5.00	7.35	1.00	4.43
H1	0.16	0.83	5.00	7.35	1.00	0.98
I1	0.11	0.83	5.00	7.35	1.00	0.67
J1	0.27	0.83	5.00	7.35	1.00	1.65
K1	0.12	0.83	5.00	7.35	1.00	0.73
L2	0.20	0.83	5.00	7.35	1.00	1.22
L5	0.76	0.30	5.00	7.35	1.00	1.68
M1	0.30	0.83	5.00	7.35	1.00	1.83
M2	0.24	0.83	5.00	7.35	1.00	1.46
M3	0.31	0.83	5.00	7.35	1.00	1.89
N1	2.20	0.30	5.00	7.35	1.00	4.85
P1	0.22	0.83	5.00	7.35	1.00	1.34
U1	0.12	0.83	5.00	7.35	1.00	0.73
U2	0.09	0.83	5.00	7.35	1.00	0.55
V1	1.20	0.30	5.00	7.35	1.00	2.65
W1	0.87	0.83	5.00	7.35	1.00	5.31

Inlet Design Table

10 Year Return Frequency

Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
A2	19.54	0.00	100.00%	...	...	0.44
B2	3.93	0.00	100.00%	...	...	0.18
C2	7.17	0.00	100.00%	...	...	0.26
D1	5.97	0.00	100.00%	...	...	0.26
D2	2.28	0.05	97.66%	0.19	8.71	...
D3	3.31	0.25	93.07%	0.22	10.21	...
D4	1.57	0.01	99.14%	0.16	7.54	...
E1	8.82	0.00	100.00%	...	...	0.41
F1	2.20	0.00	100.00%	...	...	...
G1	2.26	0.00	100.00%	...	...	...
G2	2.62	0.00	100.00%	...	...	...
G3	4.43	0.00	100.00%	...	...	0.30
H1	0.98	0.00	100.00%	...	...	...
I1	0.67	0.00	100.00%	...	...	...
J1	1.65	0.00	100.00%	...	...	...
K1	0.73	0.00	99.99%	0.11	4.96	...
L2	1.33	0.07	94.89%	0.12	5.55	...
L5	1.68	0.00	100.00%	...	...	0.16
M1	1.76	0.18	90.83%	0.14	6.27	...
M2	1.52	0.11	93.16%	0.13	5.88	...
M3	1.73	0.17	91.21%	0.13	6.21	...
N1	0.00	0.00	0.00%	...	...	0.32
P1	1.34	0.00	100.00%	...	...	...
U1	0.73	0.00	99.99%	0.11	4.96	...
U2	0.55	0.00	99.70%	0.10	4.45	...
V1	2.65	0.00	100.00%	...	...	0.22
W1(L)	...	...	...	0.25	11.38	...
W1(R)	...	...	...	0.11	5.27	...
W1	5.37	0.00	100.00%	...	...	...

Notes:
1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical Both theoretical capacity and reduced capacity are shown.
2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage

Storm Sewer Design Calculation Table

10 Year Return Frequency

Upstream Structure	Downstream Structure	Length (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/s)	Capacity (cfs)	Flow Depth (ft)	Upstream Struct. HGL (ft)	Upstream Top Elev. (ft)
STM A2	STM A1	50.22	931.43	930.00	2.85	36	0.013	28.68	10.04	112.54	1.73	933.16	939.00
STM B2	STM B1	66.27	932.65	930.00	4.00	24	0.013	3.93	6.42	45.23	0.69	933.34	946.00
STM C2	STM C1	70.49	932.82	930.00	4.00	24	0.013	7.17	7.68	45.24	0.95	933.77	946.00
STM D1	PUBL RCB	33.40	936.80	936.25	1.65	60	0.013	80.46	11.01	334.26	2.54	939.34	950.67
STM D2	STM D1	87.42	938.61	937.30	1.50	60	0.013	74.49	8.87	318.85	2.44	941.05	953.83
STM D3	STM D2	133.06	941.17	939.11	1.55	60	0.013	72.21	9.01	324.09	2.40*	943.57	955.16
STM D4	STM D3	128.22	943.89	941.27	2.04	60	0.013	68.90	7.73	372.32	2.34	946.23	956.44
STM D5	STM D4	80.81	946.53	944.89	2.03	48	0.013	67.33	11.42	204.84	2.48	949.01	956.95
STM D6	STM D5	72.98	947.83	947.03	1.10	42	0.013	36.41	6.72	105.33	1.87	949.70 j	957.70
STM D7	STM D6	197.01	950.20	948.03	1.10	42	0.013	34.21	7.18	105.52	1.81	952.01	959.70
STM D8	STM D7	129.31	952.12	950.70	1.10	36	0.013	24.90	7.43	69.95	1.61	953.73	962.59
STM D9	STM D8	15.22	952.89	952.62	1.75	36	0.013	24.90	8.46	88.22	1.61	954.49	962.46
STM D10	STM D9	96.59	954.78	953.09	1.75	36	0.013	23.25	6.73	88.23	1.55	956.33	964.22
STM D11	STM D10	50.57	956.17	955.28	1.75	30	0.013	18.39	7.80	54.25	1.45	957.62	965.22
STM D12	STM D11	155.87	959.10	956.37	1.75	30	0.013	16.01	6.23	54.25	1.35	960.45	968.36
STM D13	STM D12	81.40	961.84	959.60	2.75	30	0.013	16.01	8.42	68.01	1.35	963.19	968.75
EX STM D-A	STM D13	38.59	963.91	962.34	4.07	30	0.013	16.01	8.41	82.72	1.35	965.26	971.55
STM E1	STM D5	50.53	949.05	947.53	3.01	36	0.013	30.92	7.93	115.67	1.80	950.85	956.17
STM E2	STM E1	27.73	950.08	949.25	2.99	36	0.013	30.92	7.52	115.39	1.80	951.88	959.31
STM E3	STM E2	59.68	951.47	950.28	1.99	36	0.013	30.92	7.52	94.17	1.80	953.27	960.41
STM E4	STM E3	128.00	954.23	951.67	2.00	36	0.013	30.92	7.52	94.32	1.80	956.03	962.96
STM E5	STM E4	79.72	956.02	954.43	1.99	36	0.013	30.92	7.52	94.19	1.80	957.82	964.55
EX STM E-A	STM E5	143.57	960.13	956.22	2.72	36	0.013	30.92	7.52	110.06	1.80	961.93	972.11
STM F1	STM D6	18.00	951.28	950.92	2.00	15	0.013	2.20	4.98	9.13	0.59	951.87	957.60
STM G1	STM D7	39.56	952.29	951.70	1.49	24	0.013	9.31	6.63	27.62	1.09	953.38	959.71
STM G2	STM G1	171.49	955.36	952.79	1.50	24	0.013	7.05	6.10	27.69	0.94	956.30	961.53
STM G3	STM G2	72.05	956.71	955.86	1.18	24	0.013	4.43	5.06	24.57	0.74	957.45	959.92
STM H1	STM D9	20.35	956.86	956.45	2.01	15	0.013	0.98	3.01	9.17	0.39	957.25	962.22
STM I1	STM D9	53.15	956.76	955.70	1.99	15	0.013	0.67	3.52	9.12	0.32	957.08	962.11
STM J1	STM D11	22.74	958.18	957.73	1.98	15	0.013	1.65	3.50	9.08	0.51	958.69	965.14
STM K1	STM D11	34.16	958.10	957.42	1.99	15	0.013	0.73	3.61	9.11	0.33	958.43	965.27
STM L2	STM L1	41.03	956.12	955.71	1.00	24	0.013	9.36	6.08	22.61	1.09	957.21	964.76
STM L3	STM L2	56.59	956.90	956.33	1.00	24	0.013	8.03	5.56	22.62	1.01	957.91	966.39
STM L4	STM L3	165.14	959.05	957.40	1.00	24	0.013	3.02	4.27	22.62	0.61	959.66	964.75
STM L5	STM L4	66.64	959.92	959.25	1.01	24	0.013	1.68	3.43	22.68	0.45	960.37	962.59
STM M1	STM L3	64.41	964.57	961.83	4.25	15	0.013	5.01	7.67	13.32	0.91	965.48	969.35
STM M2	STM M1	90.14	968.39	964.77	4.02	15	0.013	3.25	4.47	12.94	0.73	969.12	973.16
STM M3	STM M2	90.49	972.29	968.60	4.08	15	0.013	1.73	3.59	13.04	0.52	972.81	976.84
STM N1	STM D10	51.657	956.87	956.28	1.14	24	0.013	4.85	5.16	24.17	0.77	957.64	961.12
STM O1	STM D10	73.489	957.75	956.28	2	18	0.013	0.01	0.71	14.85	0.04	957.79	963.92
STM P1	STM L4	19.51	960.09	959.8	1.49	15	0.013	1.34	4.04	7.87	0.46	960.55	964.6
STM U1	PUBL RCB	14.935	939.49	938	9.98	15	0.013	1.28	6.25	20.4	0.45	939.94	954.22
STM U2	STM U1	62	949.36	948.12	2	15	0.013	0.55	3.33	9.13	0.29	949.65	954.67
STM V1	PUBL RCB	20	938	936	10	18	0.013	2.65	7.46	33.21	0.62	938.62	953.21
STM W1	PUBL RCB	23.713	938.85	936	12.02	15	0.013	5.37	10.13	22.39	0.94	939.79	951.03
PUBL RCB BEND 1	Outfall	188.958	931	928.4	1.38	84 x 156	0.013	486.99	14.33	2111.18	3.52	934.52	939.87
PUBL RCB BEND 2	PUBL RCB BEND 1	54.413	931.75	931	1.38	84 x 156	0.013	486.99	10.65	2113.02	3.52	935.27	940.25
PUBL RCB BEND 3	PUBL RCB BEND 2	423.772	937.58	931.75	1.38	84 x 156	0.013	486.99	10.65	2111.61	3.52	941.1	946.71
RCB CONNECTION	PUBL RCB BEND 3	60.78	938.42	937.58	1.38	84 x 156	0.013	486.99	10.65	2115.82	3.52	941.94	946.84

Drainage Area Design Table

100 Year Return Frequency

Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
A2	5.84	0.45	5.00	10.32	1.25	33.91
B2	1.78	0.30	5.00	10.32	1.25	6.89
C2	3.25	0.30	5.00	10.32	1.25	12.58
D1	3.33	0.30	10.47	8.46	1.25	10.56
D2	0.43	0.66	5.00	10.32	1.25	3.66
D3	0.73	0.66	5.00	10.32	1.25	6.22
D4	0.26	0.83	5.00	10.32	1.25	2.68
E1	4.95	0.30	10.67	8.40	1.25	15.60
F1	0.36	0.83	5.00	10.32	1.25	3.72
G1	0.37	0.83	5.00	10.32	1.25	3.82
G2	0.43	0.83	5.00	10.32	1.25	4.44
G3	2.01	0.30	5.00	10.32	1.25	7.78
H1	0.16	0.83	5.00	10.32	1.25	1.65
I1	0.11	0.83	5.00	10.32	1.25	1.14
J1	0.27	0.83	5.00	10.32	1.25	2.79
K1	0.12	0.83	5.00	10.32	1.25	1.24
L2	0.20	0.83	5.00	10.32	1.25	2.06
L5	0.76	0.30	5.00	10.32	1.25	2.94
M1	0.30	0.83	5.00	10.32	1.25	3.10
M2	0.24	0.83	5.00	10.32	1.25	2.48
M3	0.31	0.83	5.00	10.32	1.25	3.20
N1	2.20	0.30	5.00	10.32	1.25	8.52
P1	0.22	0.83	5.00	10.32	1.25	2.27
U1	0.12	0.83	5.00	10.32	1.25	1.24
U2	0.09	0.83	5.00	10.32	1.25	0.93
V1	1.20	0.30	5.00	10.32	1.25	4.65
W1	0.87	0.83	5.00	10.32	1.25	8.98

Inlet Design Table

100 Year Return Frequency

Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
A2	35.22	0.00	100.00%	...	...	0.53
B2	6.89	0.00	100.00%	...	...	0.26
C2	12.58	0.00	100.00%	...	...	0.38
D1	10.56	0.00	100.00%	...	...	0.37
D2	4.27	0.39	91.57%	0.24	11.29	...
D3	5.33	1.00	84.25%	0.27	12.67	...
D4	2.57	0.11	95.93%	0.20	9.18	...
E1	15.68	0.00	100.00%	...	...	0.42
F1	3.72	0.00	100.00%	...	...	...
G1	3.82	0.00	100.00%	...	...	...
G2	4.44	0.00	100.00%	...	...	...
G3	7.78	0.00	100.00%	...	...	0.44
H1	1.65	0.00	100.00%	...	...	...
I1	1.14	0.00	100.00%	...	...	...
J1	2.79	0.00	100.00%	...	...	...
K1	1.21	0.03	97.86%	0.13	6.03	...
L2	2.38	0.44	84.48%	0.16	7.22	...
L5	2.94	0.00	100.00%	...	...	0.23
M1	2.86	0.76	79.11%	0.17	7.92	...
M2	2.53	0.52	82.85%	0.16	7.44	...
M3	2.62	0.58	81.88%	0.16	7.56	...
N1	0.00	0.00	0.00%	...	...	0.47
P1	2.27	0.00	100.00%	...	...	...
U1	1.22	0.02	98.53%	0.13	6.03	...
U2	0.93	0.00	99.65%	0.12	5.42	...
V1	4.65	0.00	100.00%	...	...	0.31
W1(L)	...	...	...	0.30	14.06	...
W1(R)	...	...	...	0.14	6.42	...
W1	9.39	0.00	100.00%	...	...	...

Notes:
1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical Both theoretical capacity and reduced capacity are shown.
2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage

Storm Sewer Design Calculation Table

100 Year Return Frequency

Upstream Structure	Downstream Structure	Length (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/s)	Capacity (cfs)	Flow Depth (ft)	Upstream Struct. HGL (ft)	Upstream Top Elev. (ft)
STM A2	STM A1	50.22	931.43	930.00	2.85	36	0.013	49.51	11.98	112.54	2.29	933.72	939.00
STM B2	STM B1	66.27	932.65	930.00	4.00	24	0.013	6.89	7.57	45.23	0.93	933.58	946.00
STM C2	STM C1	70.49	932.82	930.00	4.00	24	0.013	12.58	9.14	45.24	1.27	934.09	946.00
STM D1	PUBL RCB	33.40	936.80	936.25	1.65	60	0.013	140.80	13.10	334.26	3.40	940.20	950.67
STM D2	STM D1	87.42	938.61	937.30	1.50	60	0.013	130.24	10.32	318.85	3.26	941.87	953.83
STM D3	STM D2	133.06	941.17	939.11	1.55	60	0.013	125.97	10.39	324.09	3.21	944.38	955.16
STM D4	STM D3	128.22	943.89	941.27	2.04	60	0.013	120.64	9.36	372.32	3.14	947.03	956.44
STM D5	STM D4	80.81	946.53	944.89	2.03	48	0.013	118.07	13.80	204.84	3.27	949.81	956.95
STM D6	STM D5	72.98	947.83	947.03	1.10	42	0.013	63.38	8.19	105.33	2.49	950.32	957.70
STM D7	STM D6	197.01	950.20	948.03	1.10	42	0.013	59.66	8.68	105.52	2.42	952.62	959.70
STM D8	STM D7	129.31	952.12	950.70	1.10	36	0.013	43.62	8.60	69.95	2.15	954.27	962.59
STM D9	STM D8	15.22	952.89	952.62	1.75	36	0.013	43.62	9.49	88.22	2.15	955.04	962.46
STM D10	STM D9	96.59	954.78	953.09	1.75	36	0.013	40.83	8.11	88.23	2.08	956.86	964.22
STM D11	STM D10	50.57	956.17	955.28	1.75	30	0.013	32.30	8.91	54.25	1.93	958.10	965.22
STM D12	STM D11	155.87	959.10	956.37	1.75	30	0.013	28.30	7.62	54.25	1.81	960.91	968.36
STM D13	STM D12	81.40	961.84	959.60	2.75	30	0.013	28.30	9.15	68.01	1.81	963.65	968.75
EX STM D-A	STM D13	38.59	963.91	962.34	4.07	30	0.013	28.30	9.14	82.72	1.81	965.72	971.55
STM E1	STM D5	50.53	949.05	947.53	3.01	36	0.013	54.69	9.27	115.67	2.40	951.45	956.17
STM E2	STM E1	27.73	950.08	949.25	2.99	36	0.013	54.69	9.44	115.39	2.40	952.48	959.31
STM E3	STM E2	59.68	951.47	950.28	1.99	36	0.013	54.69	9.44	94.17	2.40	953.87	960.41
STM E4	STM E3	128.00	954.23	951.67	2.00	36	0.013	54.69	9.44	94.32	2.40	956.63	962.96
STM E5	STM E4	79.72	956.02	954.43	1.99	36	0.013	54.69	9.44	94.19	2.40	958.42	964.55
EX STM E-A	STM E5	143.57	960.13	956.22	2.72	36	0.013	54.69	9.44	110.06	2.40	962.53	972.11
STM F1	STM D6	18.00	951.28	950.92	2.00	15	0.013	3.72	5.84	9.13	0.78	952.06	957.60
STM G1	STM D7	39.56	952.29	951.70	1.49	24	0.013	16.04	7.86	27.62	1.44	953.73	959.71
STM G2	STM G1	171.49	955.36	952.79	1.50	24	0.013	12.22	7.14	27.69	1.26	956.62	961.53
STM G3	STM G2	72.05	956.71	955.86	1.18	24	0.013	7.78	5.97	24.57	0.99	957.70	959.92
STM H1	STM D9	20.35	956.86	956.45	2.01	15	0.013	1.65	3.51	9.17	0.51	957.37	962.22
STM I1	STM D9	53.15	956.76	955.70	1.99	15	0.013	1.14	4.11	9.12	0.42	957.18	962.11
STM J1	STM D11	22.74	958.18	957.73	1.98	15	0.013	2.79	4.16	9.08	0.67	958.85	965.14
STM K1	STM D11	34.16	958.10	957.42	1.99	15	0.013	1.21	2.49	9.11	0.43	958.53	965.27
STM L2	STM L1	41.03	956.12	955.71	1.00	24	0.013	15.60	7.14	22.61	1.42	957.54	964.76
STM L3	STM L2	56.59	956.90	956.33	1.00	24	0.013	13.22	6.37	22.62	1.31	958.21	966.39
STM L4	STM L3	165.14	959.05	957.40	1.00	24	0.013	5.21	4.39	22.62	0.80	959.85	964.75
STM L5	STM L4	66.64	959.92	959.25	1.01	24	0.013	2.94	3.70	22.68	0.60	960.52	962.59
STM M1	STM L3	64.41	964.57	961.83	4.25	15	0.013	8.01	9.14	13.32	1.11	965.68	969.35
STM M2	STM M1	90.14	968.39	964.77	4.02	15	0.013	5.15	5.34	12.94	0.92	969.31	973.16
STM M3	STM M2	90.49	972.29	968.60	4.08	15	0.013	2.62	3.86	13.04	0.65	972.94	976.84
STM N1	STM D10	51.657	956.87	956.28	1.14	24	0.013	8.52	6.09	24.17	1.04	957.91	961.12
STM O1	STM D10	73.489	957.75	956.28	2	18	0.013	0.01	0.45	14.85	0.04	957.79	963.92
STM P1	STM L4	19.51	960.09	959.8	1.49	15	0.013	2.27	4.72	7.87	0.6	960.69	964.6
STM U1	PUBL RCB	14.935	939.49	938	9.98	15	0.013	2.15	7.3	20.4	0.58	940.07	954.22
STM U2	STM U1	62	949.36	948.12	2	15	0.013	0.93	3.87	9.13	0.38	949.74	954.67
STM V1	PUBL RCB	20	938	936	10	18	0.013	4.65	8.93	33.21	0.83	938.83	953.21
STM W1	PUBL RCB	23.713	938.85	936	12.02	15	0.013	9.39	12.66	22.39	1.17	940.02	951.03
PUBL RCB BEND 1	Outfall	188.958	931	928.4	1.38	84 x 156	0.013	760.31	16.63	2111.18	4.73	935.73	939.87
PUBL RCB BEND 2	PUBL RCB BEND 1	54.413	931.75	931	1.38	84 x 156	0.013	760.31	12.36	2113.02	4.73	936.48	940.25
PUBL RCB BEND 3	PUBL RCB BEND 2	423.772	937.58	931.75	1.38	84 x 156	0.013	760.31	12.36	2111.61	4.73	942.31	946.71
RCB CONNECTION	PUBL RCB BEND 3	60.78	938.42	937.58	1.38	84 x 156	0.013	760.31	12.36	2115.82	4.73	943.15	946.84

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1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
www.olsson.com

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DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STORMWATER CALCULATIONS - PROPOSED CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_STM05_D2104643
date:	07.12.2023

SHEET
C411

DWG: F:\2021\04501-05000\021-04643-d\40-design\AutoCAD\final plans\Sheets\GNCV\Street & Storm Plans\C_STM05_D2104643.dwg
DATE: Jul 12, 2023 9:33am
XREFS: C_PTBLK_D2104643
USER: jnewland

Drainage Area Design Table						
10 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
A2	3.37	0.83	5.00	7.35	1.00	20.57
B2	3.79	0.83	5.00	7.35	1.00	23.13
C2	2.08	0.83	5.00	7.35	1.00	12.69
D2	2.04	0.83	5.00	7.35	1.00	12.45
D3	0.42	0.83	5.00	7.35	1.00	2.56
D4	0.26	0.83	5.00	7.35	1.00	1.59
F1	0.36	0.83	5.00	7.35	1.00	2.20
G1	0.37	0.83	5.00	7.35	1.00	2.26
G2	0.43	0.83	5.00	7.35	1.00	2.62
H1	0.16	0.83	5.00	7.35	1.00	0.98
I1	0.11	0.83	5.00	7.35	1.00	0.67
J1	0.27	0.83	5.00	7.35	1.00	1.65
K1	0.12	0.83	5.00	7.35	1.00	0.73
L2	0.20	0.83	5.00	7.35	1.00	1.22
M1	0.30	0.83	5.00	7.35	1.00	1.83
M2	0.24	0.83	5.00	7.35	1.00	1.46
M3	0.31	0.83	5.00	7.35	1.00	1.89
N1	2.23	0.83	5.00	7.35	1.00	13.61
O1	0.83	0.83	5.00	7.35	1.00	5.07
P1	0.22	0.83	5.00	7.35	1.00	1.34
U1	0.12	0.83	5.00	7.35	1.00	0.73
U2	0.09	0.83	5.00	7.35	1.00	0.55
V1	1.20	0.83	5.00	7.35	1.00	7.32
W1	0.87	0.83	5.00	7.35	1.00	5.31

Inlet Design Table						
10 Year Return Frequency						
Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
A2	18.67	2.11	89.83%	...	...	0.46
B2	14.93	8.20	64.57%	...	...	0.36
C2	12.69	0.00	100.00%	...	...	0.39
D2	9.19	3.35	73.26%	0.35	16.37	...
D3	2.48	0.10	96.27%	0.20	9.04	...
D4	1.57	0.01	99.14%	0.16	7.54	...
F1	2.20	0.00	100.00%	...	...	...
G1	2.26	0.00	100.00%	...	...	...
G2	2.62	0.00	100.00%	...	...	...
H1	0.98	0.00	100.00%	...	...	...
I1	0.67	0.00	100.00%	...	...	...
J1	1.65	0.00	100.00%	...	...	...
K1	0.73	0.00	99.99%	0.11	4.96	...
L2	1.33	0.07	94.89%	0.12	5.55	...
M1	1.76	0.18	90.83%	0.14	6.27	...
M2	1.52	0.11	93.16%	0.13	5.88	...
M3	1.73	0.17	91.21%	0.13	6.21	...
N1	13.61	0.00	100.00%	...	...	...
O1	5.07	0.00	100.00%	...	...	...
P1	1.34	0.00	100.00%	...	...	...
U1	0.73	0.00	99.99%	0.11	4.96	...
U2	0.55	0.00	99.70%	0.10	4.45	...
V1	7.32	0.00	100.00%	...	...	0.43
W1(L)	...	...	...	0.30	13.87	...
W1(R)	...	...	...	0.11	5.27	...
W1	8.67	0.00	100.00%	...	...	...

Notes:
1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical Both theoretical capacity and reduced capacity are shown.
2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage

Storm Sewer Design Calculation Table													
10 Year Return Frequency													
Upstream Structure	Downstream Structure	Length	Upstream Invert	Downstream Invert	Slope	Diameter	Manning's n	Total Flow	Velocity	Capacity	Flow Depth	Upstream Struct. HGL	Upstream Top Elev.
		(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(ft/s)	(cfs)	(ft)	(ft)	(ft)
STM A2	STM A1	50.22	931.43	930.00	2.85	36	0.013	40.46	11.20	112.54	2.07	933.50	939.00
STM B2	STM B1	66.27	932.65	930.00	4.00	24	0.013	23.13	11.28	45.23	1.71	934.36	946.00
STM C2	STM C1	70.49	932.82	930.00	4.00	24	0.013	12.69	9.16	45.24	1.28	934.10	946.00
STM D1	PUBL RCB	33.40	936.80	936.25	1.65	60	0.013	156.75	13.57	334.26	3.59	940.39	950.67
STM D2	STM D1	87.42	938.61	937.30	1.50	60	0.013	140.23	10.46	318.85	3.39	942.00	953.83
STM D3	STM D2	133.06	941.17	939.11	1.55	60	0.013	127.78	10.20	324.09	3.23	944.40	955.16
STM D4	STM D3	128.22	943.89	941.27	2.04	60	0.013	125.30	9.57	372.32	3.20	947.09	956.44
STM D5	STM D4	80.81	946.53	944.89	2.03	48	0.013	123.73	14.05	204.83	3.34	949.87	956.95
STM D6	STM D5	72.98	947.83	947.03	1.10	42	0.013	63.39	8.11	105.33	2.49	950.32	957.70
STM D7	STM D6	197.01	950.20	948.03	1.10	42	0.013	61.19	8.84	105.52	2.45	952.65	959.70
STM D8	STM D7	129.31	952.12	950.70	1.10	36	0.013	51.88	9.72	69.95	2.34	954.46	962.59
STM D9	STM D8	15.22	952.89	952.62	1.75	36	0.013	51.88	10.08	88.22	2.34	955.23	962.46
STM D10	STM D9	96.59	954.78	953.09	1.75	36	0.013	50.23	8.97	88.23	2.30	957.08	964.22
STM D11	STM D10	50.57	956.17	955.28	1.75	30	0.013	31.55	8.07	54.25	1.91	958.08	965.22
STM D12	STM D11	155.87	959.10	956.37	1.75	30	0.013	29.17	7.85	54.25	1.84	960.94	968.36
STM D13	STM D12	81.40	961.84	959.60	2.75	30	0.013	29.17	9.22	68.01	1.84	963.68	968.75
EX STM D-A	STM D13	38.59	963.91	962.34	4.07	30	0.013	29.17	9.22	82.72	1.84	965.75	971.55
STM E1	STM D5	50.53	949.05	947.53	3.01	36	0.013	60.34	9.88	115.67	2.51	951.56	956.17
STM E2	STM E1	27.73	950.08	949.25	2.99	36	0.013	60.34	9.96	115.39	2.51	952.59	959.31
STM E3	STM E2	59.68	951.47	950.28	1.99	36	0.013	60.34	9.96	94.17	2.51	953.98	960.41
STM E4	STM E3	128.00	954.23	951.67	2.00	36	0.013	60.34	9.96	94.32	2.51	956.74	962.96
STM E5	STM E4	79.72	956.02	954.43	1.99	36	0.013	60.34	9.96	94.19	2.51	958.53	964.55
EX STM E-A	STM E5	143.57	960.13	956.22	2.72	36	0.013	60.34	9.96	110.06	2.51	962.64	972.11
STM F1	STM D6	18.00	951.28	950.92	2.00	15	0.013	2.20	4.98	9.13	0.59	951.87	957.60
STM G1	STM D7	39.56	952.29	951.70	1.49	24	0.013	9.31	5.83	27.62	1.09	953.38	959.71
STM G2	STM G1	171.49	955.36	952.79	1.50	24	0.013	7.05	6.10	27.69	0.94	956.30	961.53
STM G3	STM G2	72.05	956.71	955.86	1.18	24	0.013	4.43	5.06	24.57	0.74	957.45	959.92
STM H1	STM D9	20.35	956.86	956.45	2.01	15	0.013	0.98	3.01	9.17	0.39	957.25	962.22
STM I1	STM D9	53.15	956.76	955.70	1.99	15	0.013	0.67	3.52	9.12	0.32	957.08	962.11
STM J1	STM D11	22.74	958.18	957.73	1.98	15	0.013	1.65	3.50	9.08	0.51	958.69	965.14
STM K1	STM D11	34.16	958.10	957.42	1.99	15	0.013	0.73	1.94	9.11	0.33	958.43	965.27
STM L2	STM L1	41.03	956.12	955.71	1.00	24	0.013	19.89	7.74	22.61	1.60	957.72	964.76
STM L3	STM L2	56.59	956.90	956.33	1.00	24	0.013	18.56	7.55	22.62	1.55	958.45	966.39
STM L4	STM L3	165.14	959.05	957.40	1.00	24	0.013	13.55	6.83	22.62	1.32	960.37	964.75
STM L5	STM L4	66.64	959.92	959.25	1.01	24	0.013	12.21	6.30	22.68	1.25	961.17	962.59
STM M1	STM L3	64.41	964.57	961.83	4.25	15	0.013	5.01	7.67	13.32	0.91	965.48	969.35
STM M2	STM M1	90.14	968.39	964.77	4.02	15	0.013	3.25	4.47	12.94	0.73	969.12	973.16
STM M3	STM M2	90.49	972.29	968.60	4.08	15	0.013	1.73	3.59	13.04	0.52	972.81	976.84
STM N1	STM D10	51.657	956.87	956.28	1.14	24	0.013	13.61	7.03	24.17	1.33	958.2	961.12
STM O1	STM D10	73.489	957.75	956.28	2	18	0.013	5.07	5.02	14.85	0.87	958.62	963.92
STM P1	STM L4	19.51	960.09	959.8	1.49	15	0.013	1.34	2.87	7.87	0.46	960.55	964.6
STM U1	PUBL RCB	14.935	939.49	938	9.98	15	0.013	1.28	6.25	20.4	0.45	939.94	954.22
STM U2	STM U1	62	949.36	948.12	2	15	0.013	0.55	3.33	9.13	0.29	949.65	954.67
STM V1	PUBL RCB	20	938	936	10	18	0.013	7.32	10.29	33.21	1.05	939.05	953.21
STM W1	PUBL RCB	23.713	938.85	936	12.02	15	0.013	5.37	10.13	22.39	0.94	939.79	951.03
PUBL RCB BEND 1	Outfall	188.958	931	928.4	1.38	84 x 156	0.013	567.95	15.11	2111.18	3.9	934.9	939.87
PUBL RCB BEND 2	PUBL RCB BEND 1	54.413	931.75	931	1.38	84 x 156	0.013	567.95	11.22	2113.02	3.9	935.65	940.25
PUBL RCB BEND 3	PUBL RCB BEND 2	423.772	937.58	931.75	1.38	84 x 156	0.013	567.95	11.21	2111.6	3.9	941.48	946.71
RCB CONNECTION	PUBL RCB BEND 3	60.78	938.42	937.58	1.38	84 x 156	0.013	567.95	11.22	2115.82	3.90	942.32	946.84

Drainage Area Design Table						
100 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
A2	3.37	0.83	5.00	10.32	1.25	34.79
B2	3.79	0.83	5.00	10.32	1.25	39.12
C2	2.08	0.83	5.00	10.32	1.25	21.47
D2	2.04	0.83	5.00	10.32	1.25	21.06
D3	0.42	0.83	5.00	10.32	1.25	4.34
D4	0.26	0.83	5.00	10.32	1.25	2.68
F1	0.36	0.83	5.00	10.32	1.25	3.72
G1	0.37	0.83	5.00	10.32	1.25	3.82
G2	0.43	0.83	5.00	10.32	1.25	4.44
H1	0.16	0.83	5.00	10.32	1.25	1.65
I1	0.11	0.83	5.00	10.32	1.25	1.14
J1	0.27	0.83	5.00	10.32	1.25	2.79
K1	0.12	0.83	5.00	10.32	1.25	1.24
L2	0.20	0.83	5.00	10.32	1.25	2.06
M1	0.30	0.83	5.00	10.32	1.25	3.10
M2	0.24	0.83	5.00	10.32	1.25	2.48
M3	0.31	0.83	5.00	10.32	1.25	3.20
N1	2.23	0.83	5.00	10.32	1.25	23.02
O1	0.83	0.83	5.00	10.32	1.25	8.57
P1	0.22	0.83	5.00	10.32	1.25	2.27
U1	0.12	0.83	5.00	10.32	1.25	1.24
U2	0.09	0.83	5.00	10.32	1.25	0.93
V1	1.20	0.83	5.00	10.32	1.25	12.39
W1	0.87	0.83	5.00	10.32	1.25	8.98

Inlet Design Table						
100 Year Return Frequency						
Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
A2	18.67	17.43	51.71%	...	...	0.50
B2	14.93	24.19	38.17%	...	...	0.50
C2	14.93	6.54	69.55%	...	...	0.31
D2	12.48	9.01	58.07%	0.43	20.04	...
D3	4.01	0.44	90.17%	0.24	11.10	...
D4	2.57	0.11	95.93%	0.20	9.18	...
F1	3.72	0.00	100.00%	...	...	...
G1	3.82	0.00	100.00%	...	...	...
G2	4.44	0.00	100.00%	...	...	...
H1	1.65	0.00	100.00%	...	...	...
I1	1.14	0.00	100.00%	...	...	...
J1	2.79	0.00	100.00%	...	...	...
K1	1.21	0.03	97.86%	0.13	6.03	...
L2	2.38	0.44	84.48%	0.16	7.22	...
M1	2.86	0.76	79.11%	0.17	7.92	...
M2	2.53	0.52	82.85%	0.16	7.44	...
M3	2.62	0.58	81.88%	0.16	7.56	...
N1	15.52	7.50	67.43%	...	...	...
O1	8.57	0.00	100.00%	...	...	...
P1	2.27	0.00	100.00%	...	...	...
U1	1.22	0.02	98.53%	0.13	6.03	...
U2	0.93	0.00	99.65%	0.12	5.42	...
V1	12.39	0.00	100.00%	...	...	0.41
W1(L)	...	...	...	0.40	18.34	...
W1(R)	...	...	...	0.14	6.42	...
W1	15.52	2.49	86.15%	...	...	...

Notes:
1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical Both theoretical capacity and reduced capacity are shown.
2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage

Storm Sewer Design Calculation Table													
100 Year Return Frequency													
Upstream Structure	Downstream Structure	Length	Upstream Invert	Downstream Invert	Slope	Diameter	Manning's n	Total Flow	Velocity	Capacity	Flow Depth	Upstream Struct. HGL	Upstream Top Elev.
		(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(ft/s)	(cfs)	(ft)	(ft)	(ft)
STM A2	STM A1	50.22	931.43	930.00	2.85	36	0.013	68.10	13.52	112.54	2.63	934.06	939.00
STM B2	STM B1	66.27	932.65	930.00	4.00	24	0.013	39.12	12.50	45.23	1.95	934.60	946.00
STM C2	STM C1	70.49	932.82	930.00	4.00	24	0.013	21.47	10.96	45.24	1.66	934.48	946.00
STM D1	PUBL RCB	33.40	936.80	936.25	1.65	60	0.013	268.37	16.64	334.26	4.53	941.33	950.67
STM D2	STM D1	87.42	938.61	937.30	1.50	60	0.013	240.21	13.70	318.85	4.36	942.97	953.83
STM D3	STM D2	133.06	941.17	939.11	1.55	60	0.013	219.15	12.97	324.09	4.20	945.37	955.16
STM D4	STM D3	128.22	943.89	941.27	2.04	60	0.013	215.14	12.40	372.32	4.17	948.06	956.44
STM D5	STM D4	80.81	946.53	944.89	2.03	48	0.013	212.57	17.79	204.84	3.88	950.41	956.95
STM D6	STM D5	72.98	947.83	947.03	1.10	42	0.013	108.46	11.64	105.33	3.15	950.98	957.70
STM D7	STM D6	197.01	950.20	948.03	1.10	42	0.013	104.74	11.83	105.52	3.12	953.32	959.70
STM D8	STM D7	129.31	952.12	950.70	1.10	36	0.013	88.70	12.55	69.95	3.00	955.99	962.59
STM D9	STM D8	15.22	952.89	952.62	1.75	36	0.013	88.70	12.55	88.22	3.00	957.24	962.46
STM D10	STM D9	96.59	954.78	953.09	1.75	36	0.013	85.91	12.15	88.23	3.00	959.82	964.22
STM D11	STM D10	50.57	956.17	955.28	1.75	30	0.013	54.32	11.07	54.25	2.50	961.63	965.22
STM D12	STM D11	155.87	959.10	956.37	1.75	30	0.013	50.32	10.25	54.25	2.50	964.74	968.36
STM D13	STM D12	81.40	961.84	959.60	2.75	30	0.013	50.32	10.25	68.01	2.50	966.62	968.75
EX STM D-A	STM D13	38.59	963.91	962.34	4.07	30	0.013	50.32	10.25	82.72	2.50	967.85	971.55
STM E1	STM D5	50.53	949.05	947.53	3.01	36	0.013	104.11	14.89	115.67	2.91	951.96	956.17
STM E2	STM E1	27.73	950.08	949.25	2.99	36	0.013	104.11	15.18	115.39	2.91	952.99	959.31
STM E3	STM E2	59.68	951.47	950.28	1.99	36	0.013	104.11	14.73	94.17	3.00	954.74	960.41
STM E4	STM E3	128.00	954.23	951.67	2.00	36	0.013	104.11	14.73	94.32	3.00	958.87	962.96
STM E5	STM E4	79.72	956.02	954.43	1.99	36	0.013	104.11	14.73	94.19	3.00	961.83	964.55
EX STM E-A	STM E5	143.57	960.13	956.22	2.72	36	0.013	104.11	14.73	110.06	3.00	966.34	972.11
STM F1	STM D6	18.00	951.28	950.92	2.00	15	0.013	3.72	5.84	9.13	0.78	952.06	957.60
STM G1	STM D7	39.56	952.29	951.70	1.49	24	0.013	16.04	6.25	27.62	1.44	953.73	959.71
STM G2	STM G1	171.49	955.36	952.79	1.50	24	0.013	12.22	7.14	27.69	1.26	956.62	961.53
STM G3	STM G2	72.05	956.71	955.86	1.18	24	0.013	7.78	5.97	24.57	0.99	957.70	959.92
STM H1	STM D9	20.35	956.86	956.45	2.01	15	0.013	1.65	1.34	9.17	1.25	958.25	962.22
STM I1	STM D9	53.15	956.76	955.70	1.99	15	0.013	1.14	0.93	9.12	1.25	958.23	962.11
STM J1	STM D11	22.74	958.18	957.73	1.98	15	0.013	2.79	2.27	9.08	1.25	962.49	965.14
STM K1	STM D11	34.16	958.10	957.42	1.99	15	0.013	1.21	0.99	9.11	1.25	962.40	965.27
STM L2	STM L1	41.03	956.12	955.71	1.00	24	0.013	33.31	10.70	22.61	2.00	958.51	964.76
STM L3	STM L2	56.59	956.90	956.33	1.00	24	0.013	30.93	9.85	22.62	2.00	960.09	966.39
STM L4	STM L3	165.14	959.05	957.40	1.00	24	0.013	22.92	7.30	22.62	2.00	962.39	964.75
STM L5	STM L4	66.64	959.92	959.25	1.01	24	0.013	20.65	6.57	22.68	2.00	963.28	962.59
STM M1	STM L3	64.41	964.57	961.83	4.25	15	0.013	8.01	9.14	13.32	1.11	965.68	969.35
STM M2	STM M1	90.14	968.39	964.77	4.02	15	0.013	5.15	5.34	12.94	0.92	969.31	973.16
STM M3	STM M2	90.49	972.29	968.60	4.08	15	0.013	2.62	3.86	13.04	0.65	972.94	976.84
STM N1	STM D10	51.657	956.87	956.28	1.14	24	0.013	23.02	7.33	24.17	2.00	961.28	961.12
STM O1	STM D10	73.489	957.75	956.28	2	18	0.013	8.57	4.85	14.85	1.50	961.23	963.92
STM P1	STM L4	19.51	960.09	959.8	1.49	15	0.013	2.27	1.85	7.87	1.25	962.75	964.60
STM U1	PUBL RCB	14.935	939.49	938	9.98	15	0.013	2.15	7.30	20.40	0.58	940.07	954.22
STM U2	STM U1	62	949.36	948.12	2	15	0.013	0.93	3.87	9.13	0.38	949.74	954.67
STM V1	PUBL RCB	20	938	936	10	18	0.013	12.39	12.45	33.21	1.33	939.33	953.21
STM W1	PUBL RCB	23.713	938.85	936	12.02	15	0.013	9.39	12.66	22.39	1.17	940.02	951.03
PUBL RCB BEND 1	Outfall	188.958	931	928.4	1.38	84 x 156	0.013	895.62	17.5	2111.18	5.28	936.28	939.87
PUBL RCB BEND 2	PUBL RCB BEND 1	54.413	931.75	931	1.38	84 x 156	0.013	895.62	13.06	2113.02	5.28	937.03	940.25
PUBL RCB BEND 3	PUBL RCB BEND 2	423.772	937.58	931.75	1.38	84 x 156	0.013	895.62	13.05	2111.61	5.28	942.86	946.71
RCB CONNECTION	PUBL RCB BEND 3	60.78	938.42	937.58	1.38	84 x 156	0.013	895.62	13.06	2115.82	5.28	943.70	946.84

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

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DAVID L. EICKMAN
NUMBER PE-2009015436
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PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORMWATER CALCULATIONS - FUTURE CONDITIONS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_STM05_D2104643
date:	07.12.2023

SHEET
C412

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USER: jnewland
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TRACT A
LOT 12
LOT 13
LOT 10
LOT 9
LOT 11
TRACT B
LOT 2
LOT 7
LOT 4
LOT 8
LOT 1
LOT 5
LOT 3
LOT 6
NW DOUGLAS STREET
NW COLBERN ROAD

EXISTING PUBLIC WATER MAIN INSTALLED PER SEPARATE PUBLIC WATER MAIN EXTENSION PLANS
PROPOSED FIRE HYDRANT
WATER LINE 1 SHEET C502
PROPOSED STORM SEWER (SEE SHEETS C405-C410)
WATER LINE 2 SHEET C508
WATER LINE 1 SHEET C503
WATER LINE 5 SHEET C509
WATER LINE 4 SHEET C509
WATER LINE 1 SHEET C505
WATER LINE 1 SHEET C504
WATER LINE 3 SHEET C508
WATER LINE 1 SHEET C506
WATER LINE 6 SHEET C509
WATER LINE 1 SHEET C507
EXISTING PUBLIC WATER MAIN INSTALLED PER SEPARATE COLBERN RD IMPROVEMENT PLANS
EXISTING PUBLIC WATER MAIN INSTALLED PER SEPARATE PUBLIC WATER MAIN EXTENSION PLANS

239.01' FH TO FH
191.56' FH TO FH
308.65' FH TO FH
234.94' FH TO FH
218.14' FH TO FH
324.77' FH TO FH
258.51' FH TO FH
189.88' FH TO FH

LEGEND

- PROPERTY BOUNDARIES
- LOT LINE
- EASEMENT LINE
- PROPOSED PRIVATE WATER MAIN
- FIRE HYDRANTS ASSEMBLY
- STRADDLE BLOCK
- GATE VALVE

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE STANDARDS AND SPECIFICATIONS FOR WATER MAIN EXTENSIONS OF THE LEE'S SUMMIT, MISSOURI WATER SERVICES DEPARTMENT. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.

2. AREAS WITH LESS THAN 4 FEET OF DEPTH FROM EXISTING GRADE TO PROPOSED TOP OF PIPE SHALL BE FILLED TO AN ELEVATION OF 4 FEET ABOVE THE PROPOSED TOP OF PIPE, COMPACTED 95% OF STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698 PRIOR TO TRENCHING FOR PIPE INSTALLATION.

0' 30' 60' 120'
SCALE IN FEET

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

STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

WATER GENERAL LAYOUT
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
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drawing no.:	C_GEN01_D2104643
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SHEET
C501

STA.: 10+00.00 (PRIVATE WATER MAIN LINE 1)
N: 1013240.9965
E: 2823347.9208
CONNECT TO EXISTING 12"X8" TEE
INSTALLED PER PUBLIC
WATER MAIN EXTENSION PLANS AND
INSTALL 1-8" GATE VALVE
CONTRACTOR TO VERIFY LOCATION
AND SIZE OF EXISTING PIPE

STA.: 10+28.11 (PRIVATE WATER MAIN LINE 1)
N: 1013241.7119
E: 2823319.8248
INSTALL 8" DOUBLE CHECK
BACKFLOW PREVENTER VAULT

EXISTING PUBLIC
STORM SEWER
INSTALLED PER
SEPARATE PLANS

PRIVATE STORM SEWER
SEE SHEETS
C400-C412

40'
D.E.

NE DOUGLAS STREET

ALURA WAY

EXISTING 12" PUBLIC
WATER MAIN
INSTALLED PER
PUBLIC WATER MAIN
EXTENSION PLANS

STA.: 10+16.60 (PRIVATE WATER MAIN LINE 1)
N: 1013241.4192
E: 2823331.3227
INSTALL 8" WATER METER VAULT

STA.: 12+71.17 (PRIVATE WATER MAIN LINE 1)
STA.: 10+00.00 (PRIVATE WATER MAIN LINE 2)
PRIVATE WATER MAIN LINE 2, 0.00'
N: 1013151.6492
E: 2823121.3673
INSTALL 8" X 8" TEE
W/ THRUST BLOCK
INSTALL (2) 8" GATE VALVES (S,W)

50'
S.E.

PRIVATE WATER
MAIN LINE 1
STA.: 14+00
SEE NEXT SHEET

EXISTING PUBLIC
STORM SEWER
INSTALLED PER
SEPARATE PLANS

STA.: 11+42.05 (PRIVATE WATER MAIN LINE 1)
N: 1013244.6123
E: 2823205.9129
INSTALL 8" 45° HORIZONTAL BEND
W/ THRUST BLOCK

STA.: 11+70.84 (PRIVATE WATER MAIN LINE 1)
N: 1013224.7828
E: 2823185.0471
INSTALL 1-5" HYDRANT PER CITY OF
LEE'S SUMMIT'S SPECS STA.: 11+66.44, 6.46 LT
1-6" GATE VALVE
1-6" 90° BEND
1-8"x6" TEE
w/ BACKING BLOCK

PRIVATE WATER
MAIN LINE 2

STA.: 12+58.23 (PRIVATE WATER MAIN LINE 1)
N: 1013164.5782
E: 2823121.6965
INSTALL 8" 45° HORIZONTAL BEND
W/ THRUST BLOCK

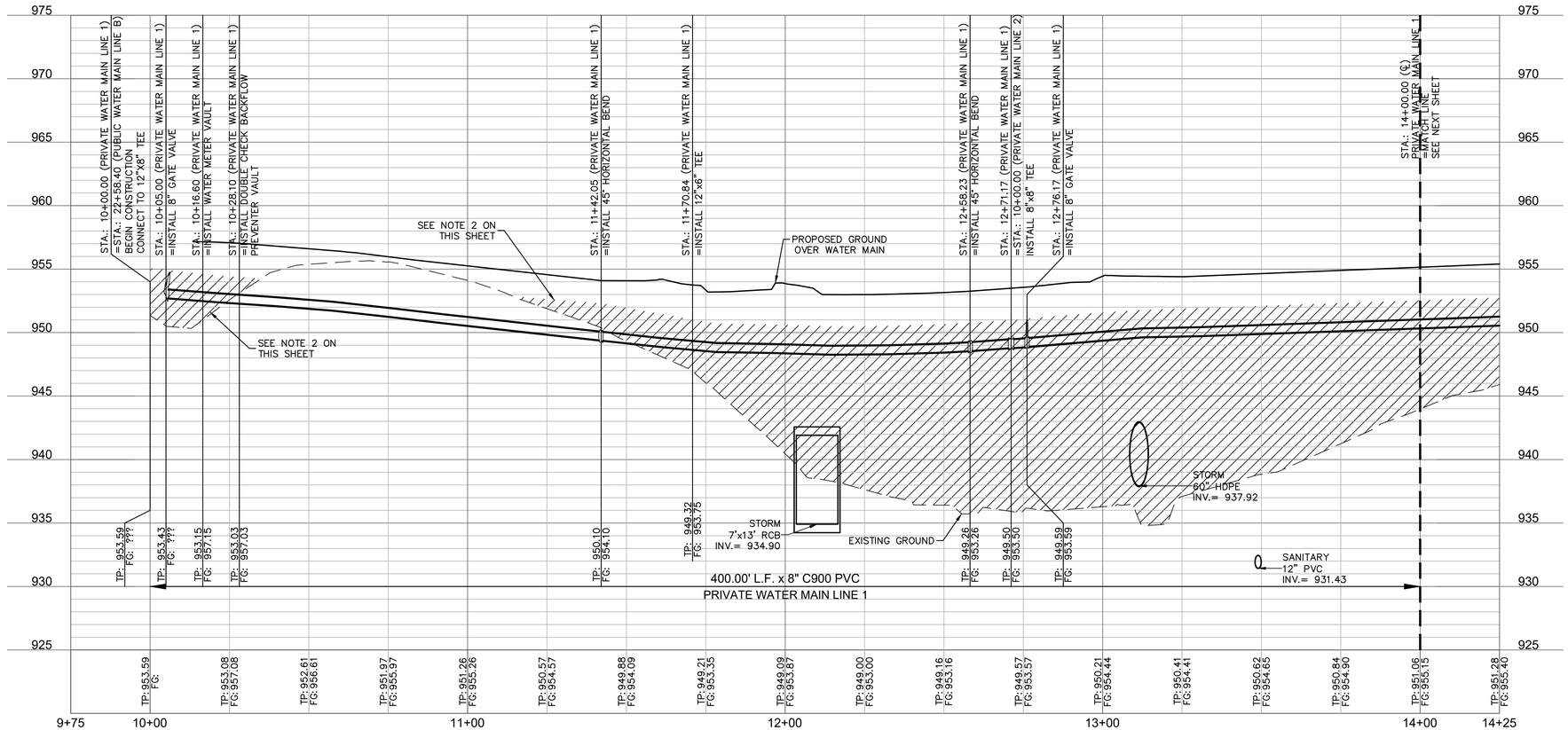
N

0' 10' 20' 40'
SCALE IN FEET

10'
5'
2.5'
0'

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 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



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MO# 2009015436

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REVISIONS

WATER PLAN & PROFILE (LINE 1)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

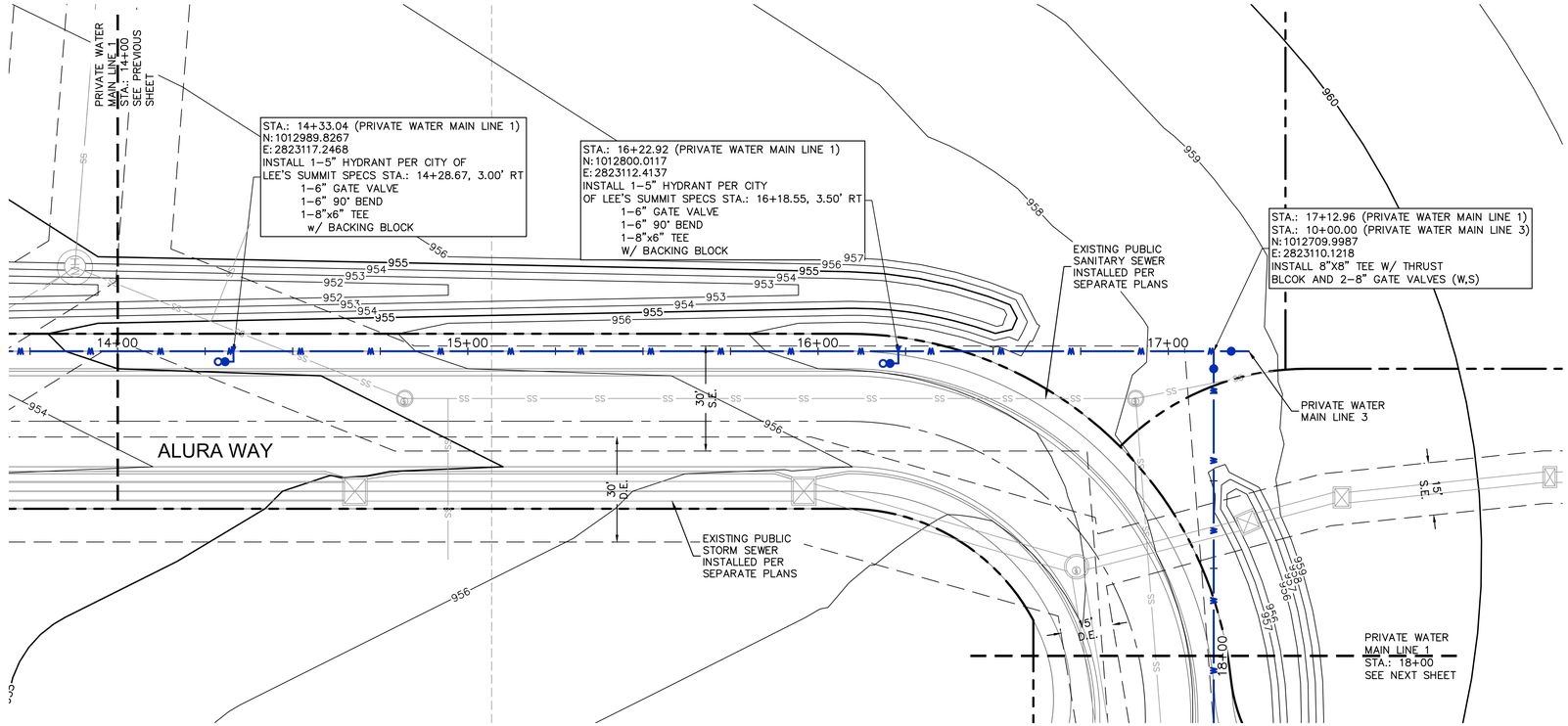
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_WAT01_D2104643
date:	07.12.2023

SHEET
C502

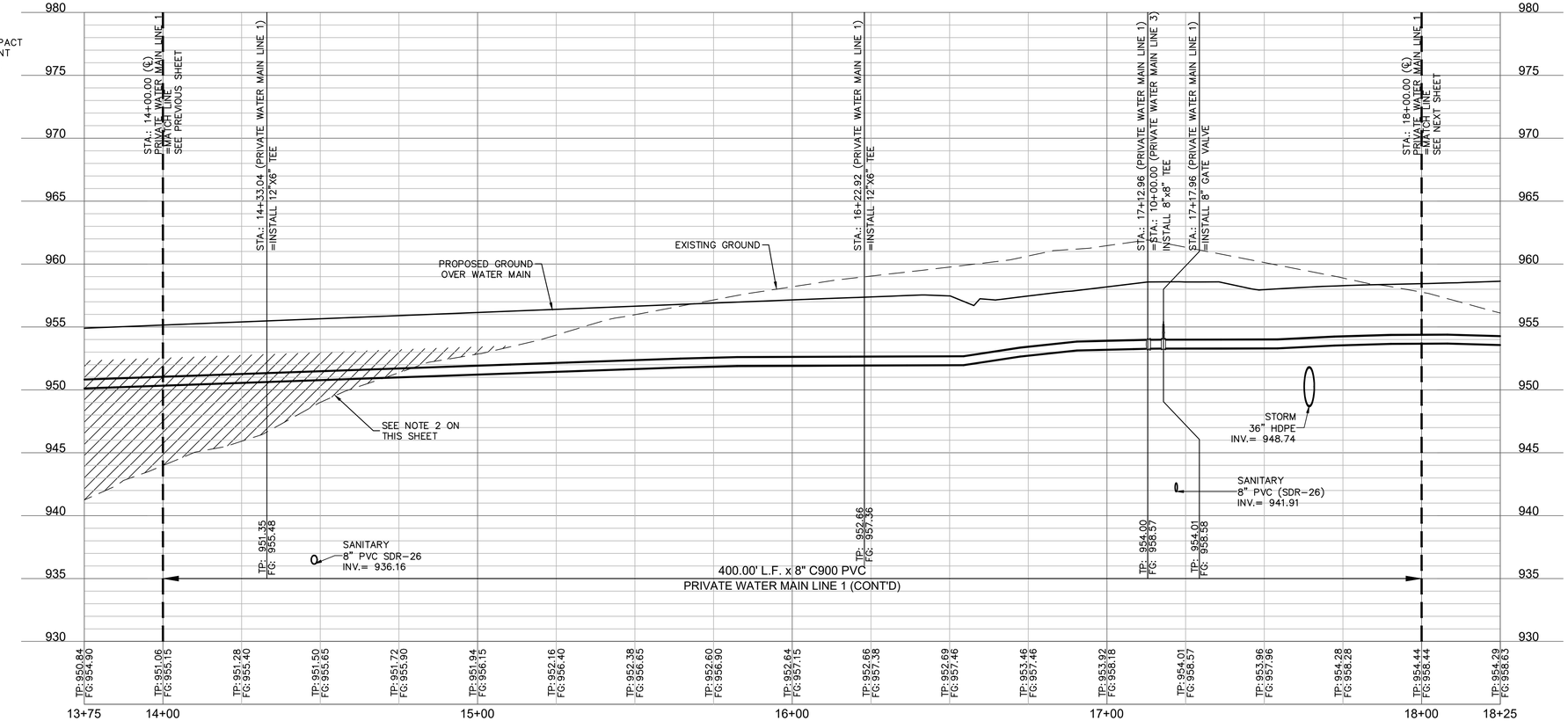
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USER: jnewland



PRIVATE WATER MAIN LINE 1 (13+75 - 18+25)

NOTES:
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WATER PLAN & PROFILE (LINE 1 CONT'D)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

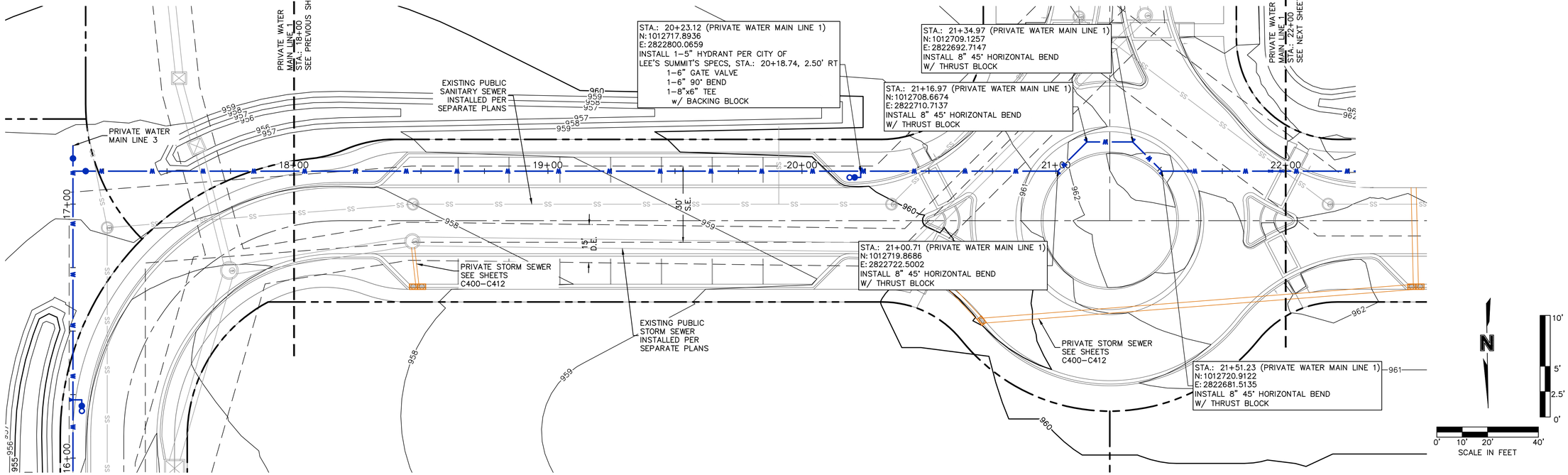
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drawing no.:	C_WAT01_D2104643
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SHEET
C503

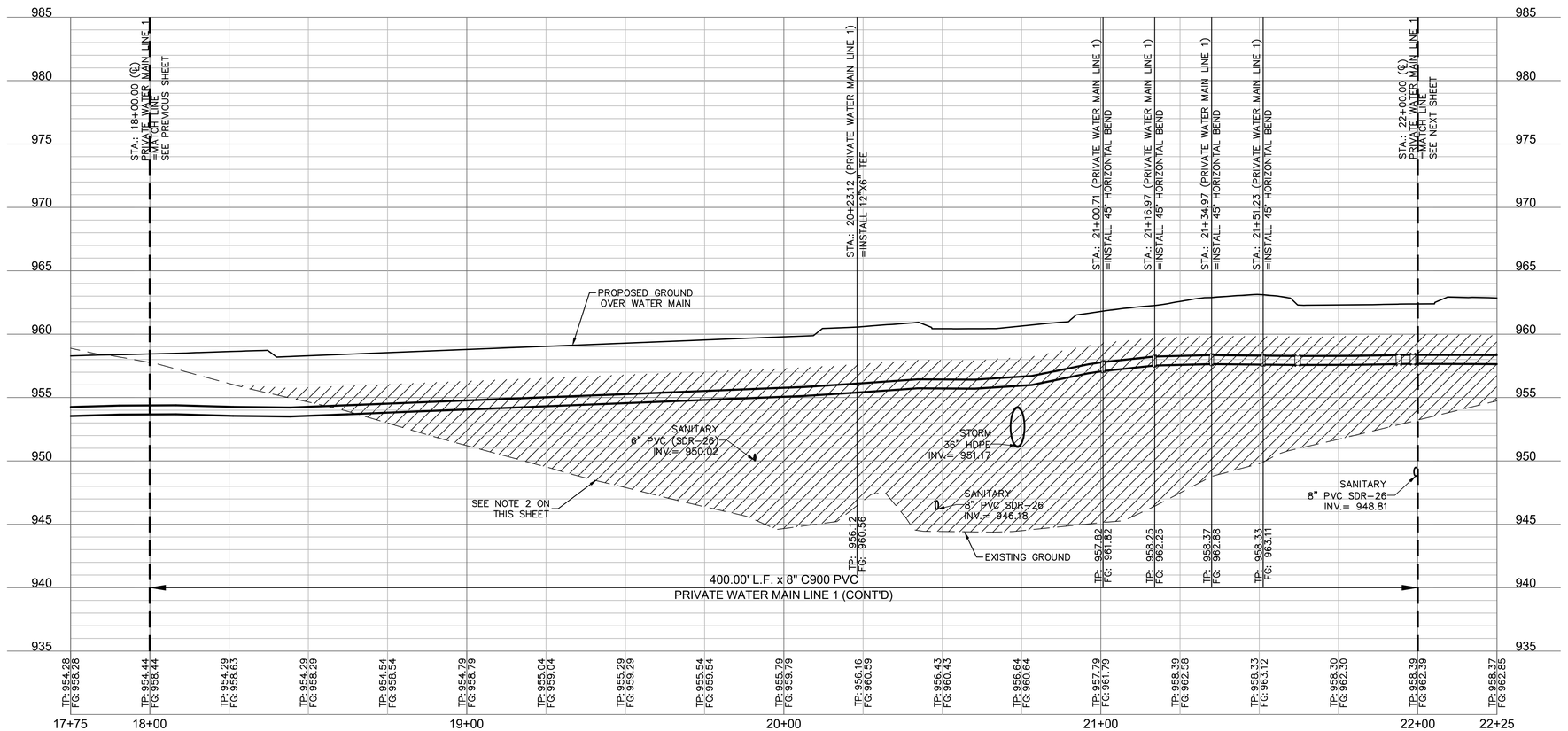
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PRIVATE WATER MAIN LINE 1 (17+75 - 22+25)

NOTES:
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WATER PLAN & PROFILE (LINE 1 CONT'D)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

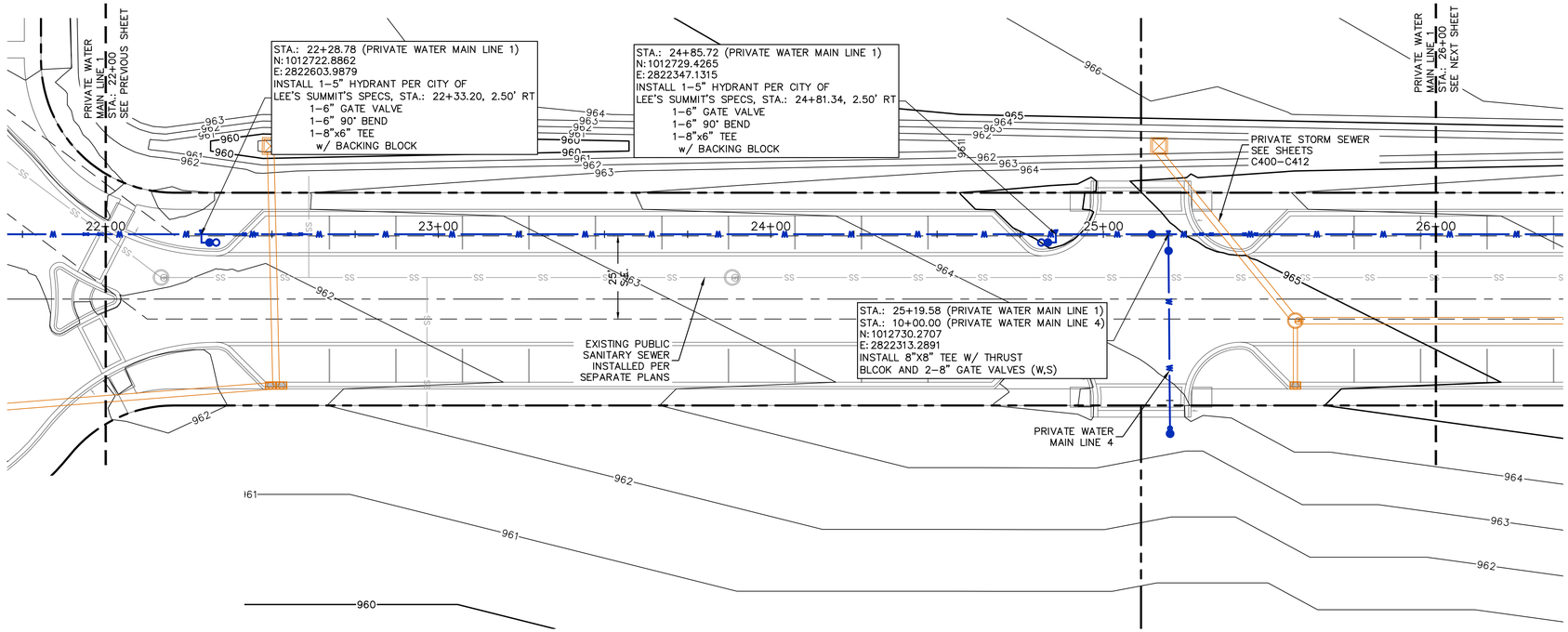
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SHEET
C504

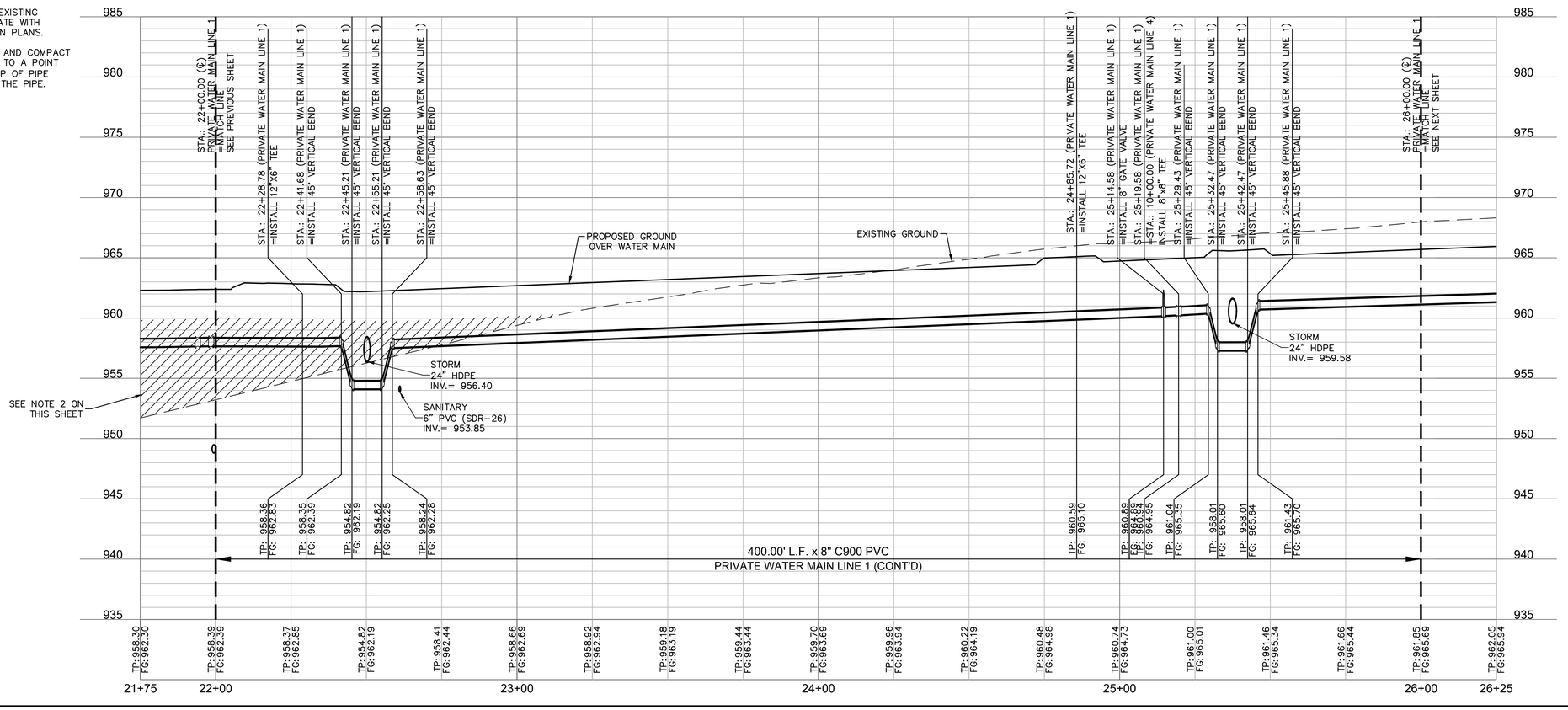
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C_PWATR_D2104643 C_FROAD_D2104643 C_FUTIL_D2104643 T_PBASE_D2104643



PRIVATE WATER MAIN LINE 1 (21+75 - 26+25)

NOTES:
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Missouri Certificate of Authority #001592
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PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

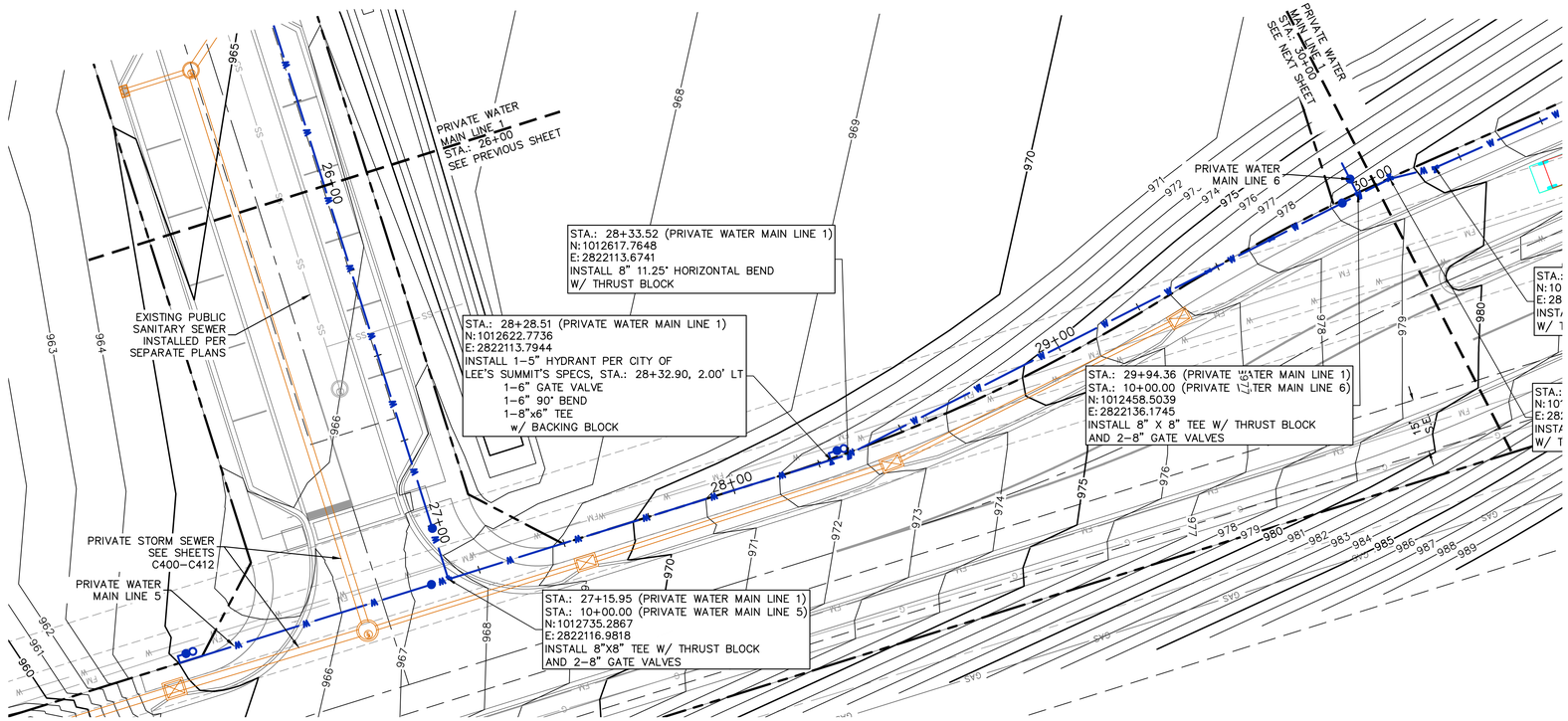
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SHEET
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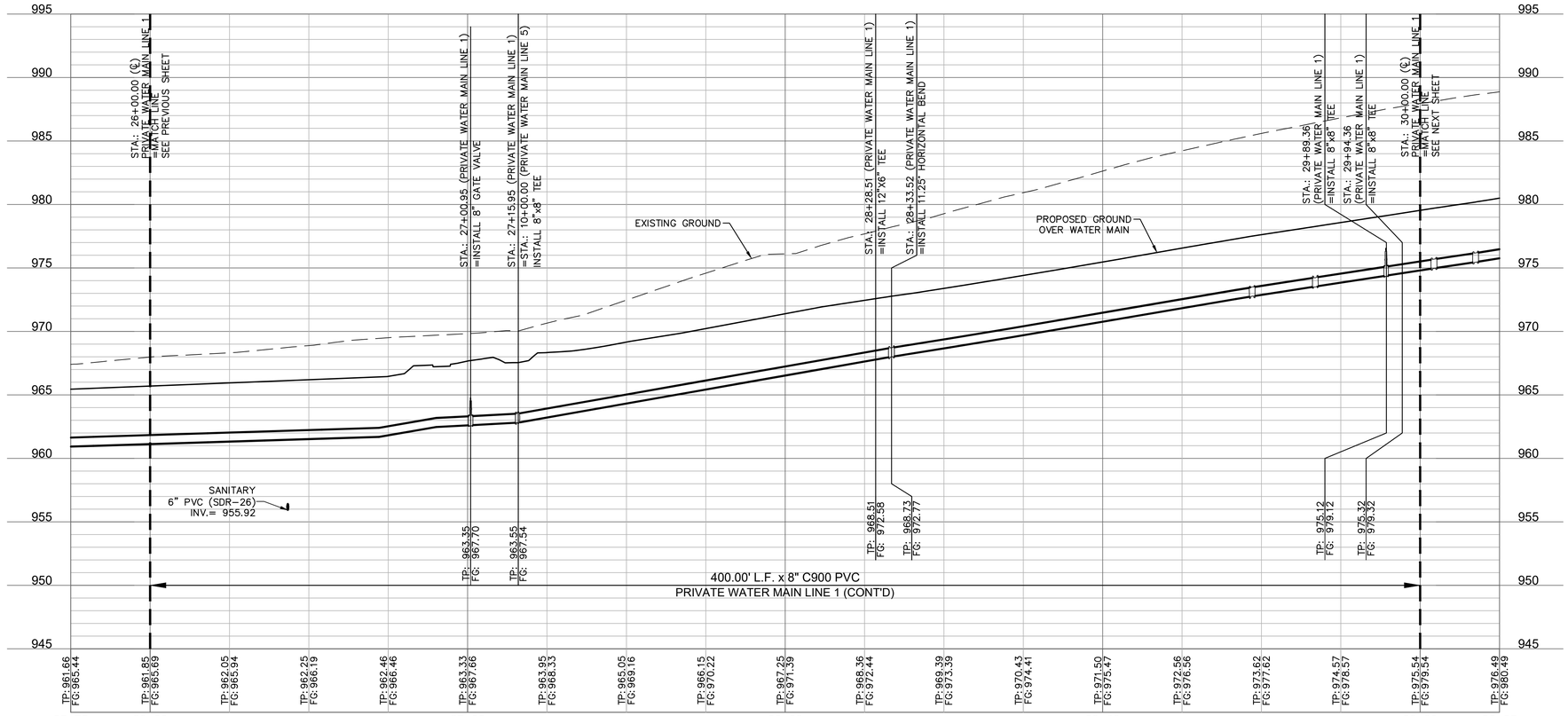
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USER: jnewland



PRIVATE WATER MAIN LINE 1 (25+75 - 30+25)

NOTES:
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WATER PLAN & PROFILE (LINE 1 CONT'D)
PRIVATE SITE DEVELOPMENT PLANS

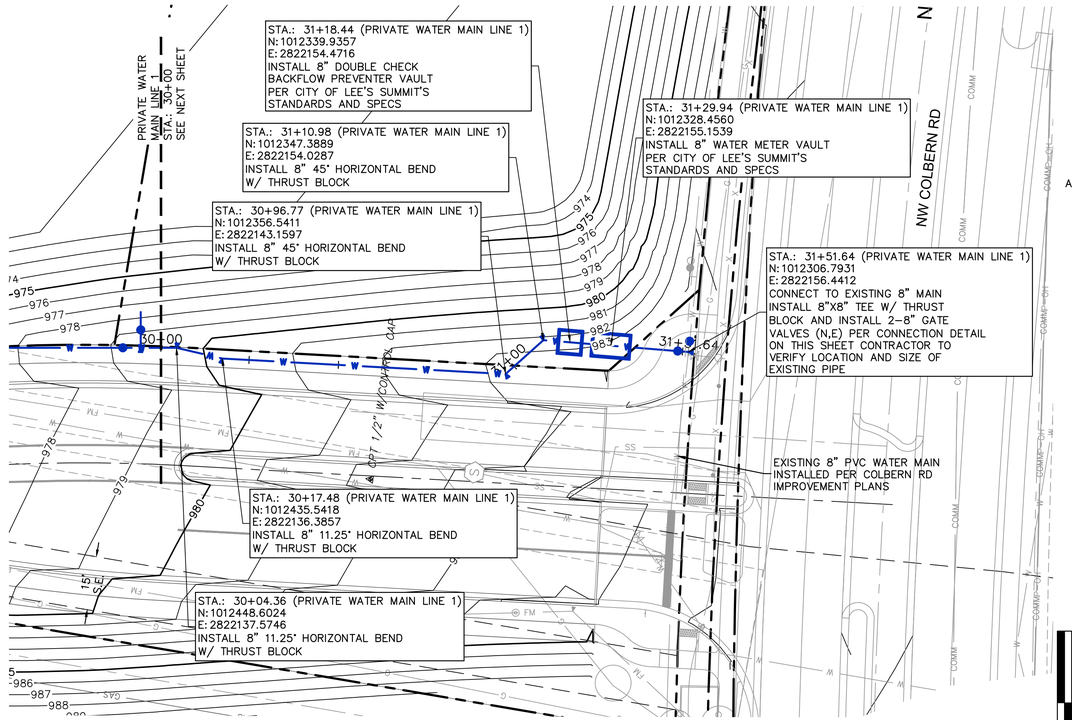
THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST
LEE'S SUMMIT, MISSOURI

2023

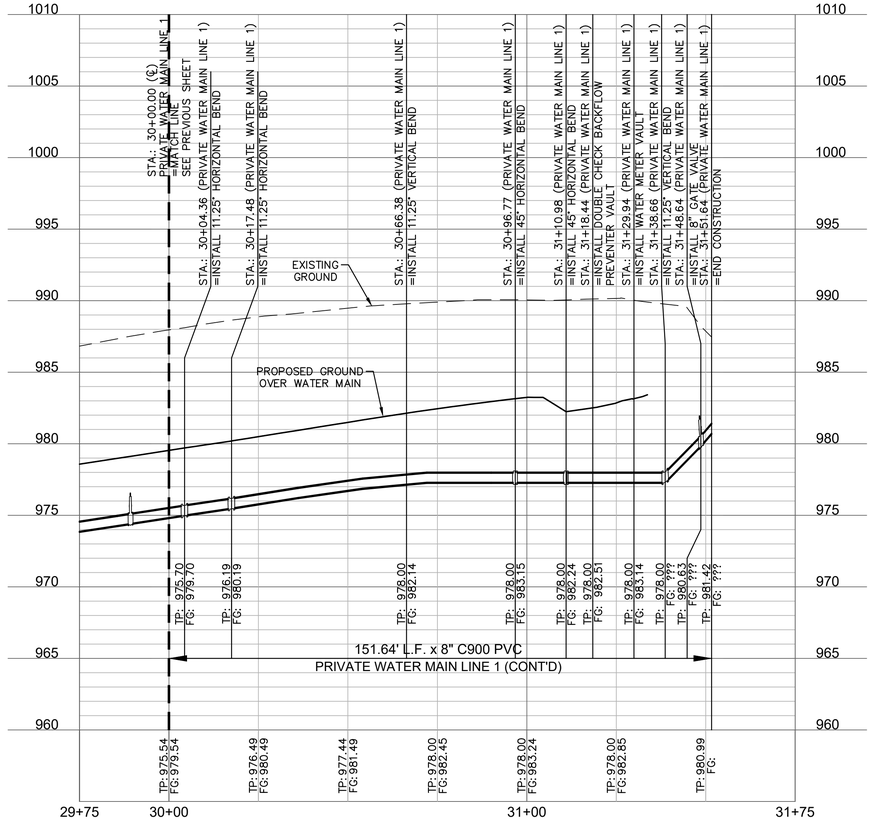
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drawing no.: C_WAT01_D2104643
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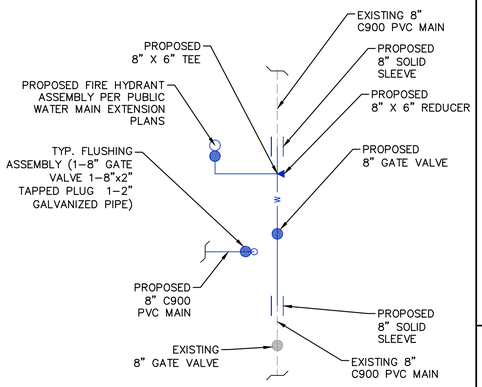
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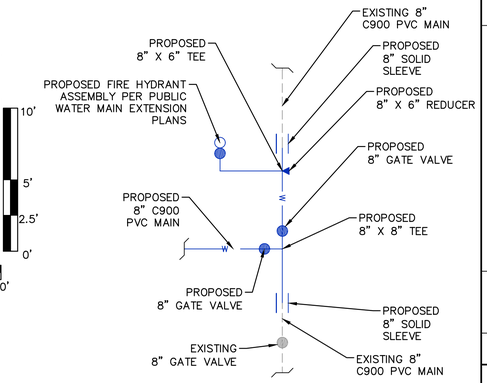


PRIVATE WATER MAIN LINE 1 (29+75 - 31+75)





Temporary Connection Detail
Restrain Throughout



Permanent Connection Detail
Restrain Throughout

NOTES:
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WATER PLAN & PROFILE (LINE 1 CONT'D)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
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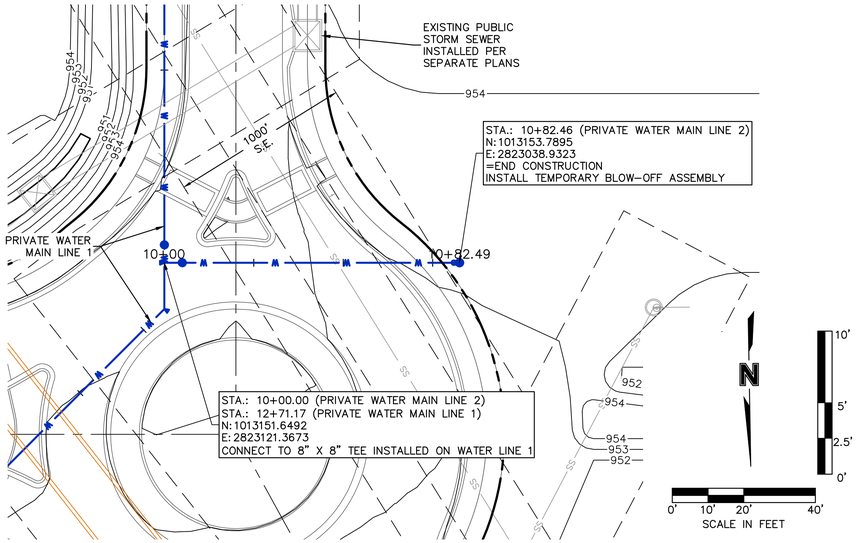
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USER: jnewland
C_XALTA_B2104643 C_PWATR_D2104643 C_FROAD_D2104643 C_FUTIL_D2104643 T_PBASE_D02104643

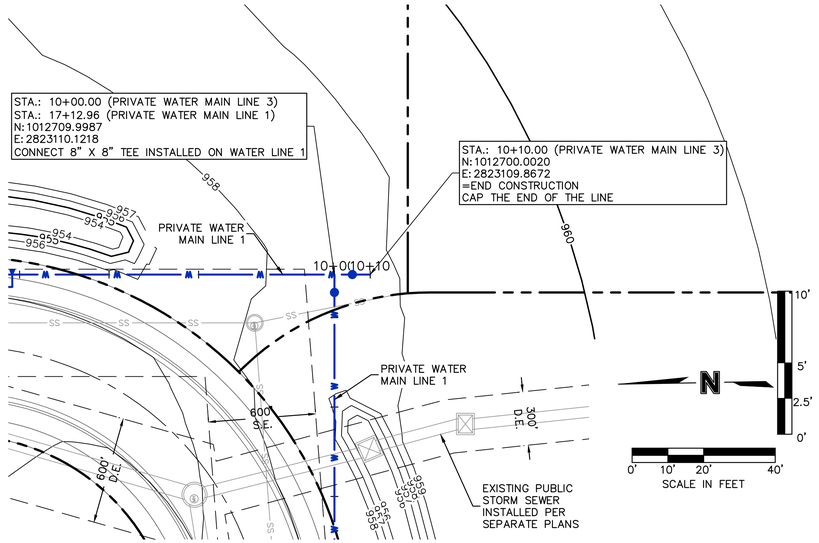
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C_XALTA_B2104643 C_PBASE_D2104643 C_PBNDY_D2104643

NOTES:
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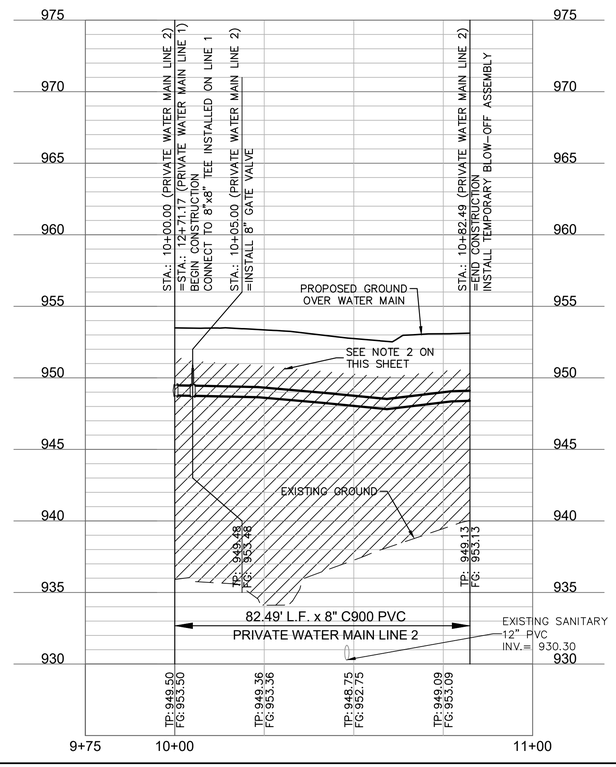
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



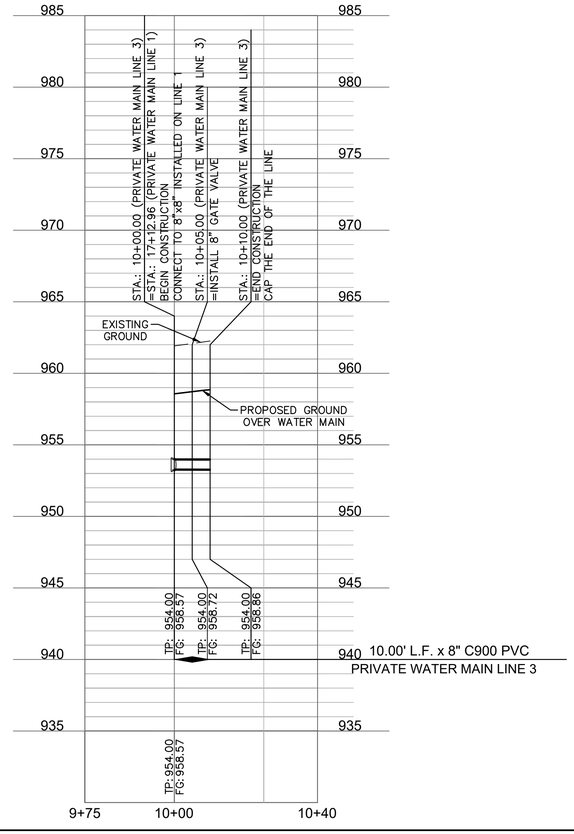
PRIVATE WATER MAIN LINE 3 (9+75 - 10+40)



PRIVATE WATER MAIN LINE 2 (9+75 - 11+00)



PRIVATE WATER MAIN LINE 3 (9+75 - 10+40)



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STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

WATER PLAN & PROFILE (LINES 2 & 3)
PRIVATE SITE DEVELOPMENT PLANS

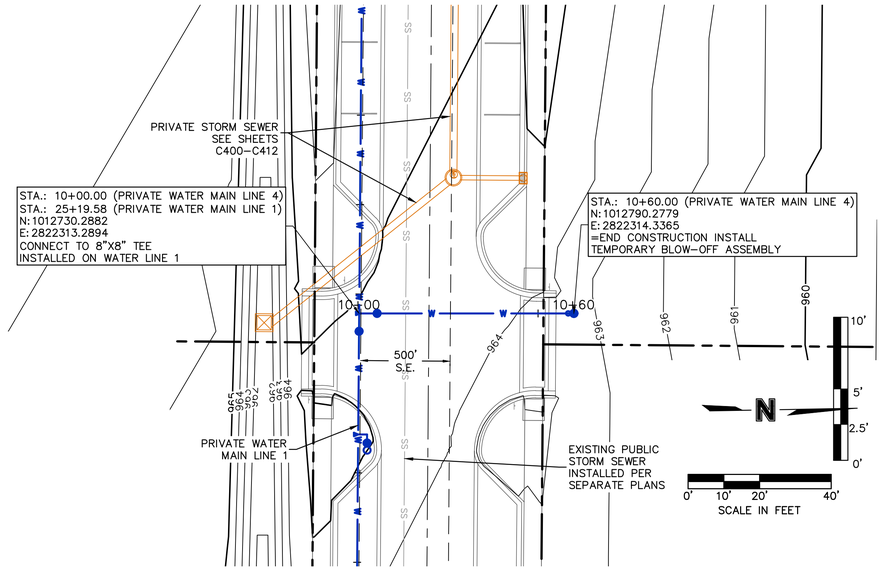
THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

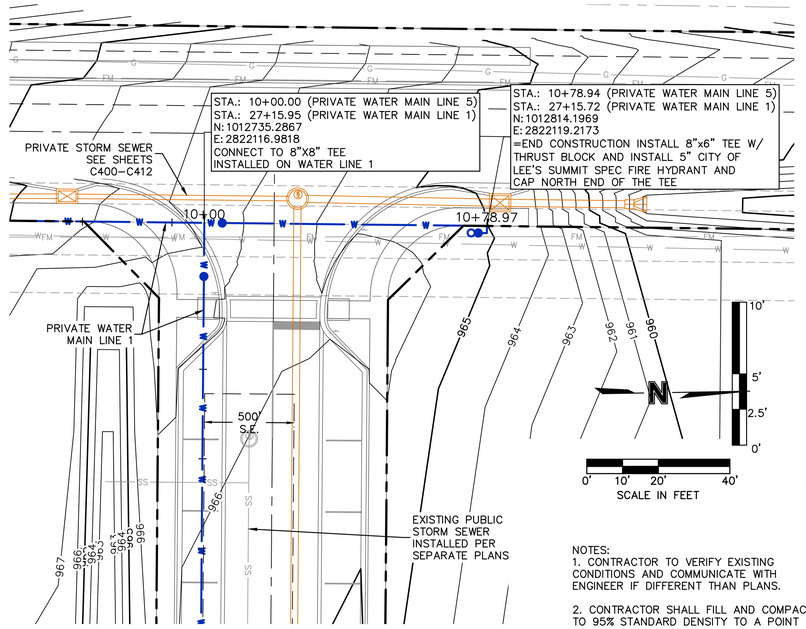
LEE'S SUMMIT, MISSOURI

2023

drawn by:	BM/GS/OS/TW
checked by:	AR/JN
approved by:	DE
QA/QC by:	JS/NH
project no.:	D21-04643
drawing no.:	C_WAT02_D2104643
date:	07.12.2023

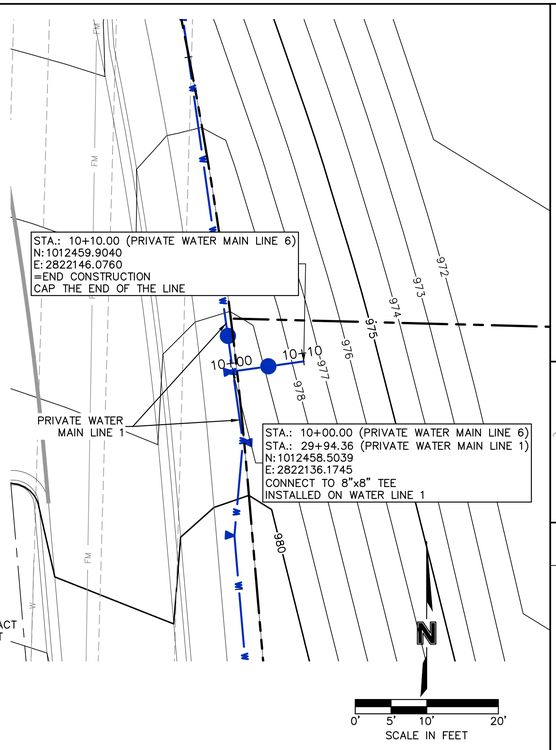
SHEET
C508



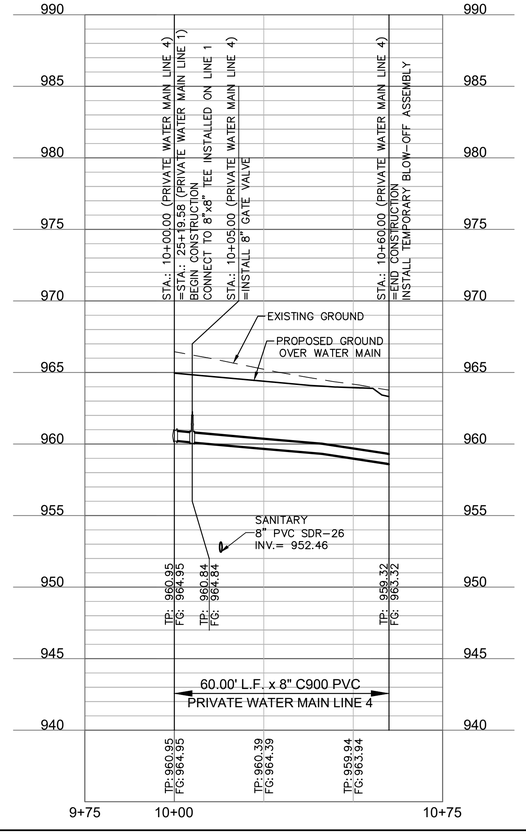


NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.

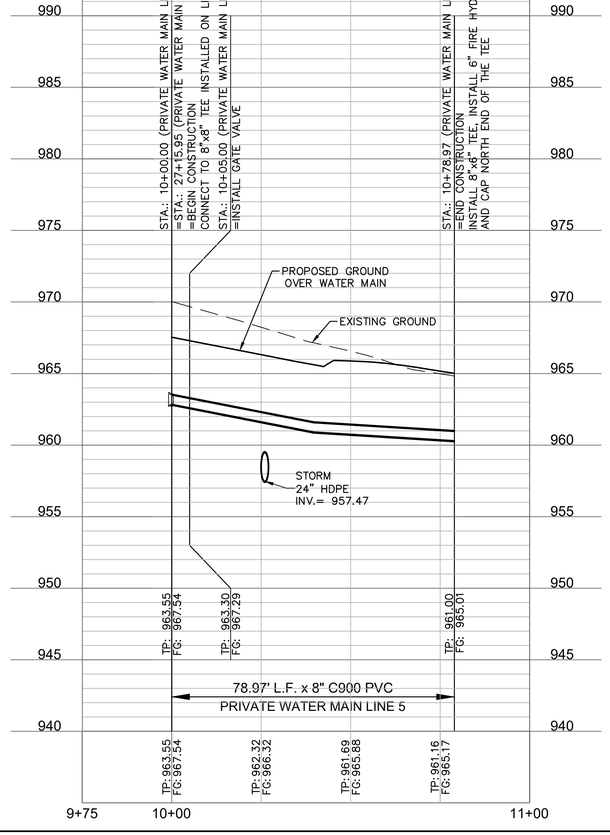
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



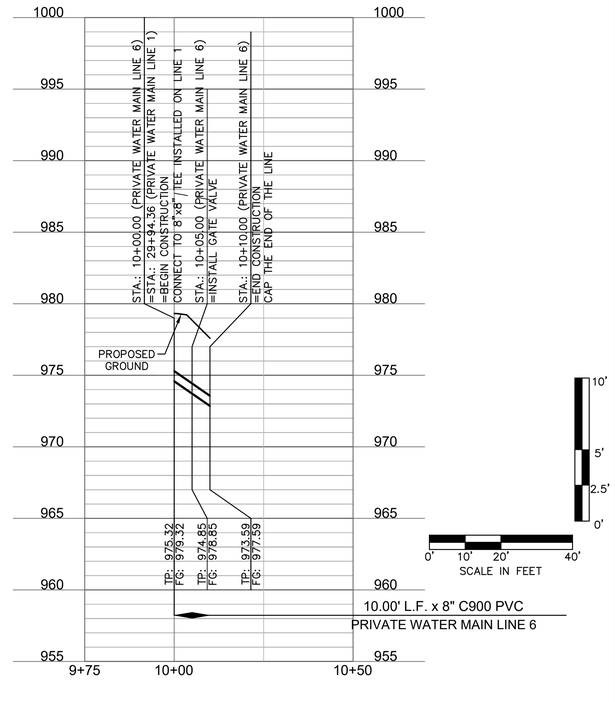
PRIVATE WATER MAIN LINE 4 (9+75 - 10+75



PRIVATE WATER MAIN LINE 5 (9+75 - 11+00)



PRIVATE WATER MAIN LINE 6 (9+75 - 10+50)



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Olsson - Civil Engineering
Missouri Certificate of Authority #001592
1301 Burlington Street, Suite 100
North Kansas City, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
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7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

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WATER PLAN & PROFILE (LINES 4, 5, & 6)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_WAT02_D2104643
date: 07.12.2023

SHEET
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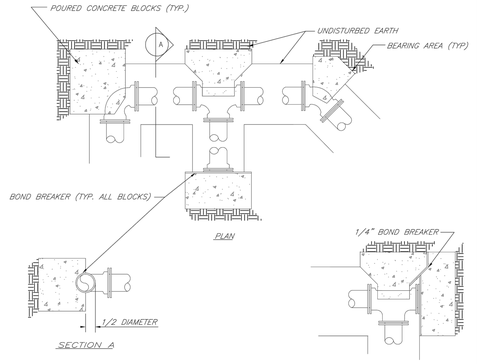
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C_PWATR_D2104643 C_FROAD_D2104643 C_FUTIL_D2104643 T_PBASE_D0210464

REQUIRED CONCRETE BEARING AREA (SQUARE FEET – SF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8

NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.

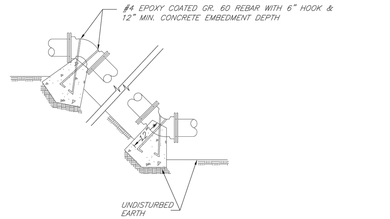


	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063 HORIZONTAL THRUST BLOCKS	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT-1 Rev: 1/14 Rev:

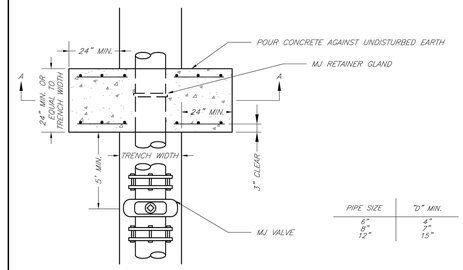
REQUIRED CONCRETE VOLUME (CUBIC FEET – CF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	68.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	39.6
14	REST. JT.	REST. JT.	210.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4

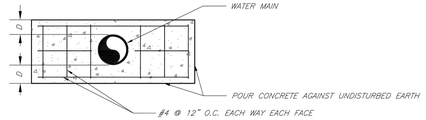
NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063 VERTICAL THRUST BLOCKS	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT-2 Rev: 1/14 Rev:

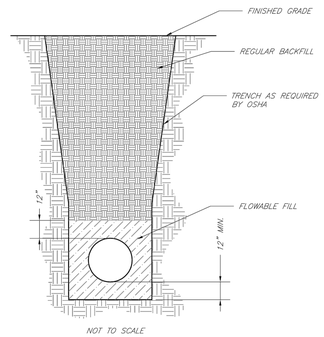


PIPE SIZE	"D" MIN.
6"	4"
8"	7"
12"	15"



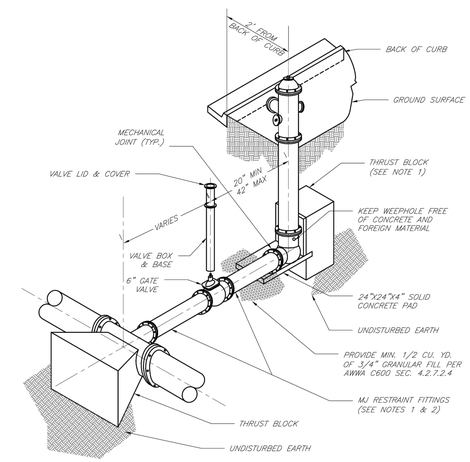
NOTE:
THIS DETAIL NOT TO BE USED FOR PIPE GREATER THAN 12"

	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063 STRADDLE BLOCK	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT-3 Rev: 1/14 Rev:



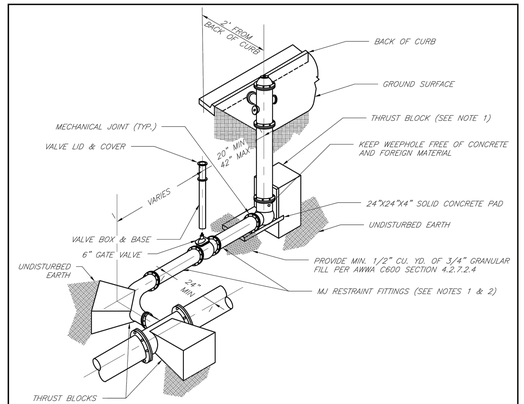
NOTES:
1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 6" IN ANY DIMENSION.
3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.
4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12'.

	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063 TRENCH CHECK	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT-6 Rev: 1/14 Rev:



NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063 HYDRANT INSTALLATION – STRAIGHT SET	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT-7 Rev: 1/14 Rev:



NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063 HYDRANT WITH 90 DEGREE BEND	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT-8 Rev: 1/14 Rev:

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Missouri Certificate of Authority #001592
1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
DAVID L. EICKMAN
NUMBER PE-2009015436
7/3/23
PROFESSIONAL ENGINEER
DAVID EICKMAN, P.E.
MO# 2009015436

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DETAIL SHEET
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

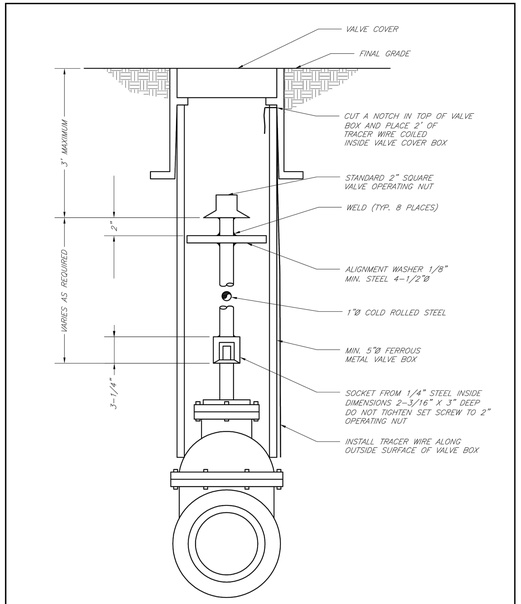
LEE'S SUMMIT, MISSOURI

2023

drawn by: BM/GS/OS/TW
checked by: AR/JN
approved by: DE
QA/QC by: JS/NH
project no.: D21-04643
drawing no.: C_DTL01_D2104643
date: 07.12.2023

SHEET
C510

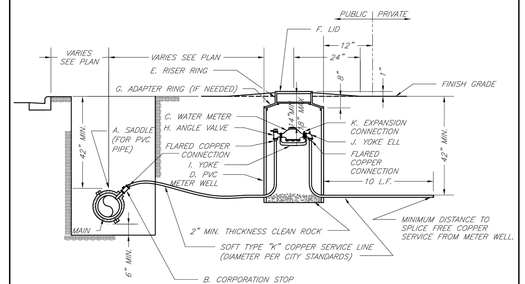
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DATE: Jul 12, 2023 9:38am XREFS: C_PTBLK_D2104643



LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

VALVE STEM EXTENSION AND VALVE BOX

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-9
Rev: 1/14
Rev:



TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

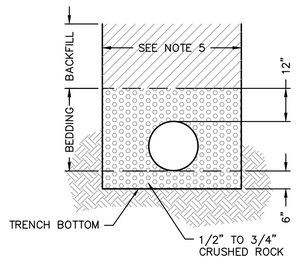
NOTES:

1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A–K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9. LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SERVICE CONNECTION/METER WELL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-11
Rev: 1/14
Rev:



TYPICAL TRENCH SECTION

NOTES:

1. BELL HOLES SHALL BE DUG SO THAT NO PART OF THE BELL SHALL BE IN CONTACT WITH THE TRENCH BOTTOM.
2. BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 12 INCHES ABOVE THE TOP OF THE PIPE AS SHOWN ABOVE.
3. BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
4. TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
5. MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.

UNDERGROUND PIPE INSTALLATION FOR WATER PIPING

NOT TO SCALE

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
1301 Burlington Street
North Kansas City, MO 64116
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PROFESSIONAL ENGINEER

DAVID EICKMAN, P.E.
MO# 2009015436

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DETAIL SHEET (CONT'D)
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

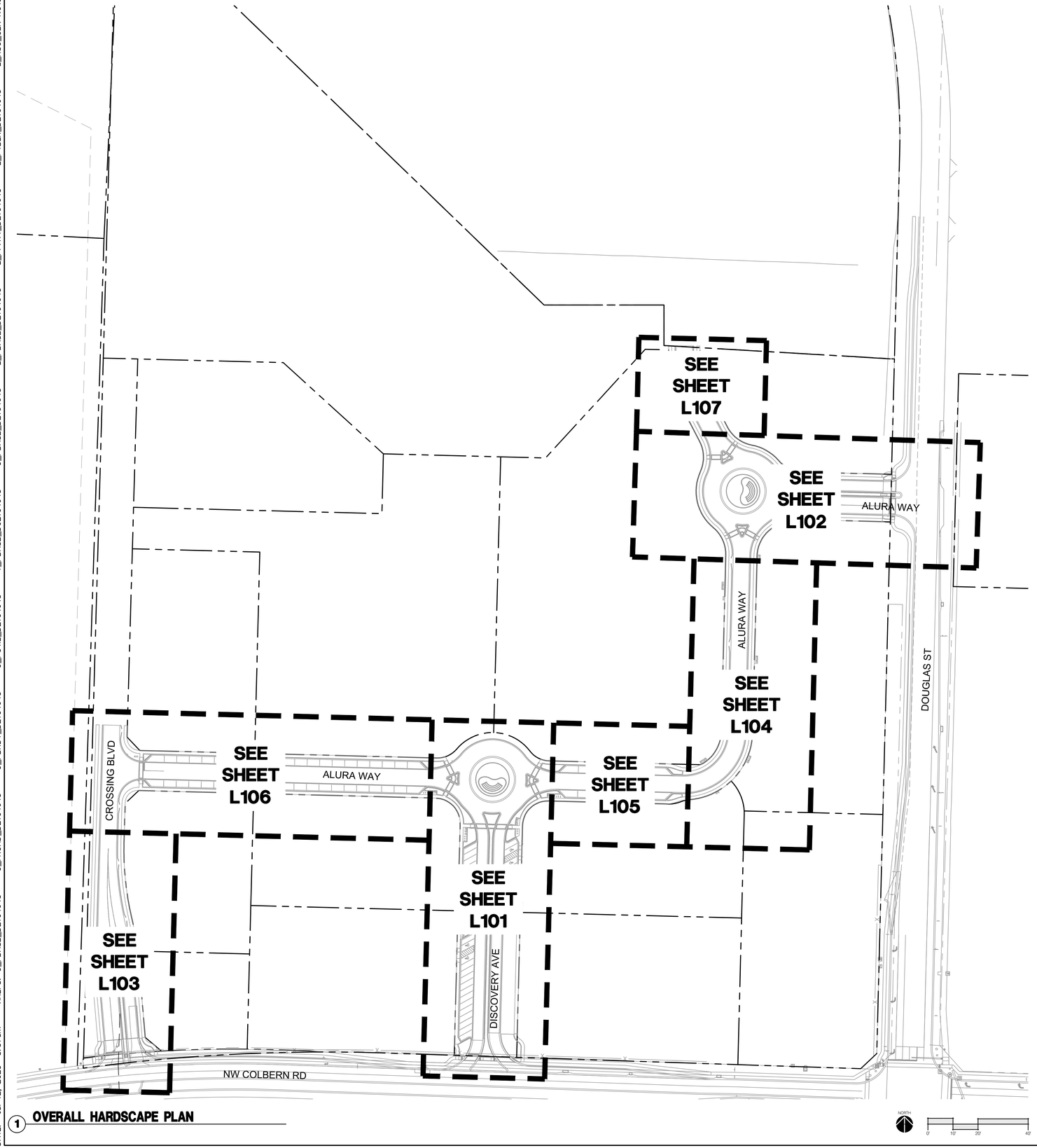
LEE'S SUMMIT, MISSOURI

2023

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drawing no.: C_DTL01_D2104643
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SHEET
C511

DWG: F:\2021\04501-05000\021-04643-d\40-design\AutoCAD\final plans\Sheets\GNCV\Private Water Main Plans\C_DTL01_D2104643.dwg
DATE: Jul 12, 2023 9:38am USER: jnewland
XREFS: C_PTBLK_D2104643



1 **OVERALL HARDSCAPE PLAN**

HARDSCAPE GENERAL LEGEND:

1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, MISSOURI IN CURRENT USAGE. ALL STANDARDS NOT COVERED BY THE CITY SHALL BE APWA STANDARDS IN CURRENT USAGE UNLESS OTHERWISE NOTED.
2. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE UTILITY INFORMATION IS NOT MEANT TO BE ALL INCLUSIVE. THE CONTRACTOR SHALL NOTIFY MISSOURI ONE CALL (811) BEFORE THE START OF ANY EXCAVATION WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION TO PROVIDE NON-INTERRUPTION OF SERVICE, TO ENSURE PROPER CLEARANCES, AND TO AVOID DAMAGE THERETO.
3. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO COMMENCING WORK, SATISFY HIMSELF AS TO, AND ACCEPT THE SITE CONDITIONS TO BE ENCOUNTERED.
5. WHERE THE NEW IMPROVEMENTS ABUT EXISTING IMPROVEMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATCHING THE ELEVATION OF THE EXISTING IMPROVEMENTS UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL PROVIDE A SECURE SITE TO PROTECT VEHICLES AND PEDESTRIANS FROM ACCIDENTAL FALLS AND HARM FROM THE CONSTRUCTION PROCESS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DE-WATERING CONSTRUCTION AREAS IN ORDER TO PERMIT CONTINUATION OF THE WORK. ANY WATER ACCUMULATION SHALL BE REMOVED BY PUMPING.
8. CONTRACTOR IS RESPONSIBLE FOR ALL QUANTITIES OR MATERIALS AS SHOWN IN THESE PLANS. CONTRACTOR SHALL ACCOMMODATE ALL SLOPE AND GRADE CONDITIONS IN THEIR CALCULATION OF MATERIAL QUANTITIES FOR ALL WORK SHOWN ON THESE PLANS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR PEDESTRIAN AND VEHICULAR TRAFFIC CONTROL DURING CONSTRUCTION OPERATIONS. OWNER SHALL APPROVE MEASURES USED TO ALLOW TENANTS AND SHOPPERS PROPER ACCESS DURING CONSTRUCTION.
10. CONTRACTOR SHALL TAKE CARE TO CREATE SMOOTH UNIFORM FINISH GRADES IN ALL AREAS.
11. SLOPES SHALL BE MADE WITH A 4 TO 1 MAXIMUM GRADE FOR MAINTENANCE PURPOSES, UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL MATCH GRADES AT EXISTING IMPROVEMENTS.
13. ALL SPOT ELEVATIONS SHOWN ARE TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
14. CONTRACTOR SHALL ADJUST ALL VALVE BOXES, MANHOLE RING COVERS, AND OTHER UTILITY APPURTENANCES TO MATCH FINISH GRADE ELEVATIONS.
15. TURF & SHRUB BED AREAS SHALL BE GRADED AS NECESSARY TO ALLOW A 2% SLOPE TO INLET LOCATIONS AND SWALES.
16. ALL WORK CONSTRUCTED UNDER THESE PLANS SHALL MEET SLOPE REQUIREMENTS PER THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, THE 2012 TAS STANDARDS FOR ACCESSIBLE DESIGN, AND INTERNATIONAL BUILDING CODE IN CURRENT USAGE. MAXIMUM 5% RUNNING SLOPE AND MAXIMUM 2% CROSS SLOPE FOR SIDEWALKS.
17. ALL WORK CONSTRUCTED UNDER THESE PLANS SHALL HAVE A MINIMUM OF A 1% SLOPE. LANDSCAPE BEDS AND TURF AREAS SHALL HAVE A MINIMUM OF A 2% SLOPE.
18. CHANGES IN LEVEL SHALL NOT BE GREATER THAN 1/4" AND A MAXIMUM OF 1/2" ARE ALLOWED WITH A BEVELED SLOPE NOT STEEPER THAN 1:2.

olsson studio
OLSSON - LANDSCAPE ARCHITECTURE
MISSOURI CERTIFICATE OF AUTHORITY #2005000285
1814 Main St.
Kansas City, MO 64108 TEL 816.842.8844 olsson-studio.com

STATE OF MISSOURI
CODY C. PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT
07.12.23

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

OVERALL HARDSCAPE PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

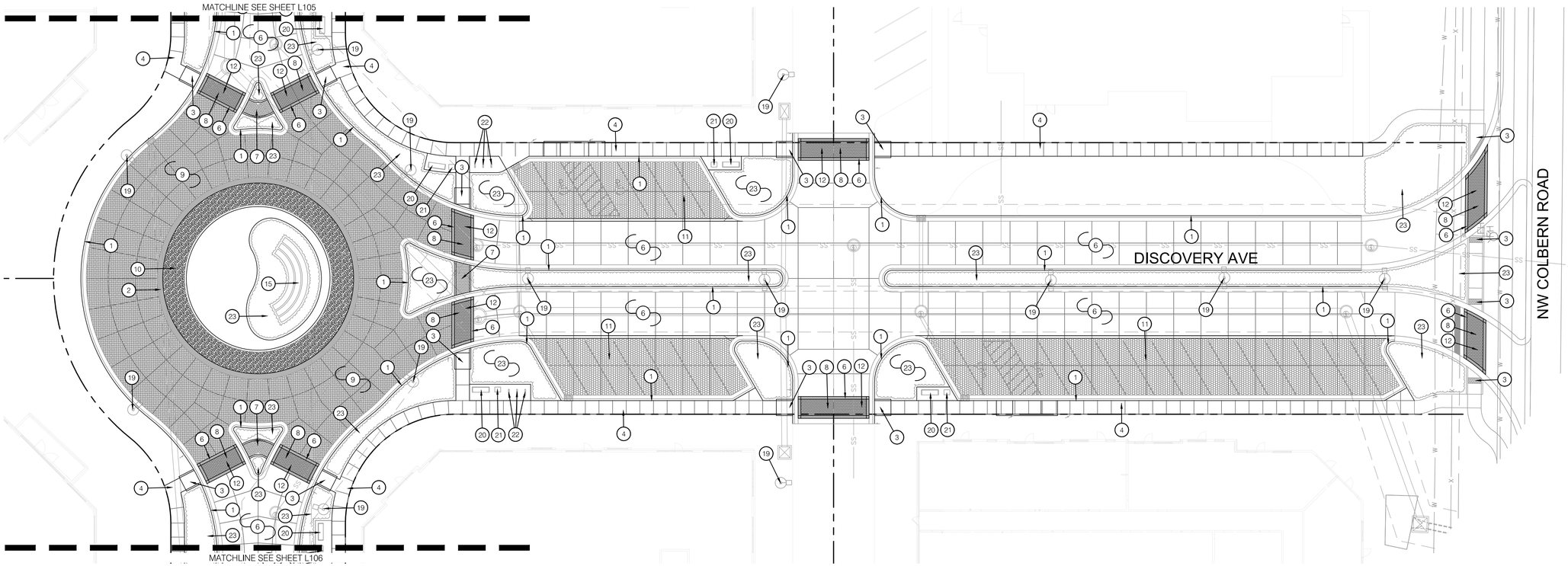
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2023

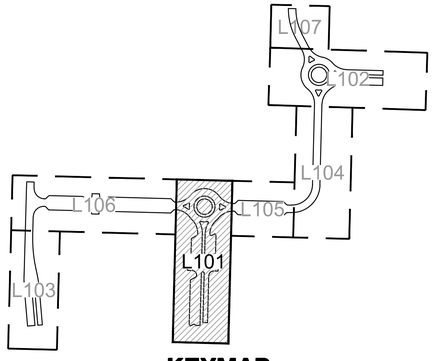
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1 HARDSCAPE PLAN



KEYMAP

HARDSCAPE LEGEND:

- LIMITS OF CONSTRUCTION
- RIGHT OF WAY / PROPERTY LINE
- SHEET MATCHLINE
- HEAVY DUTY INTEGRAL COLOR CONCRETE
- STAMPED CONCRETE
- HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #1
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HARDSCAPE PLAN NOTES:

1. CONCRETE CURB; REF: CIVIL PLANS
2. INTEGRAL COLOR CONCRETE MOUNTABLE CURB; REF: CIVIL PLANS
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11. CONSTRUCT HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #4; REF: 2/L200
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1814 Main St.
Kansas City, MO 64108 TEL 816.842.8844 olsson-studio.com

STATE OF MISSOURI
CODY PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT
07.12.23

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REVISIONS

HARDSCAPE PLAN
PRIVATE SITE DEVELOPMENT PLANS

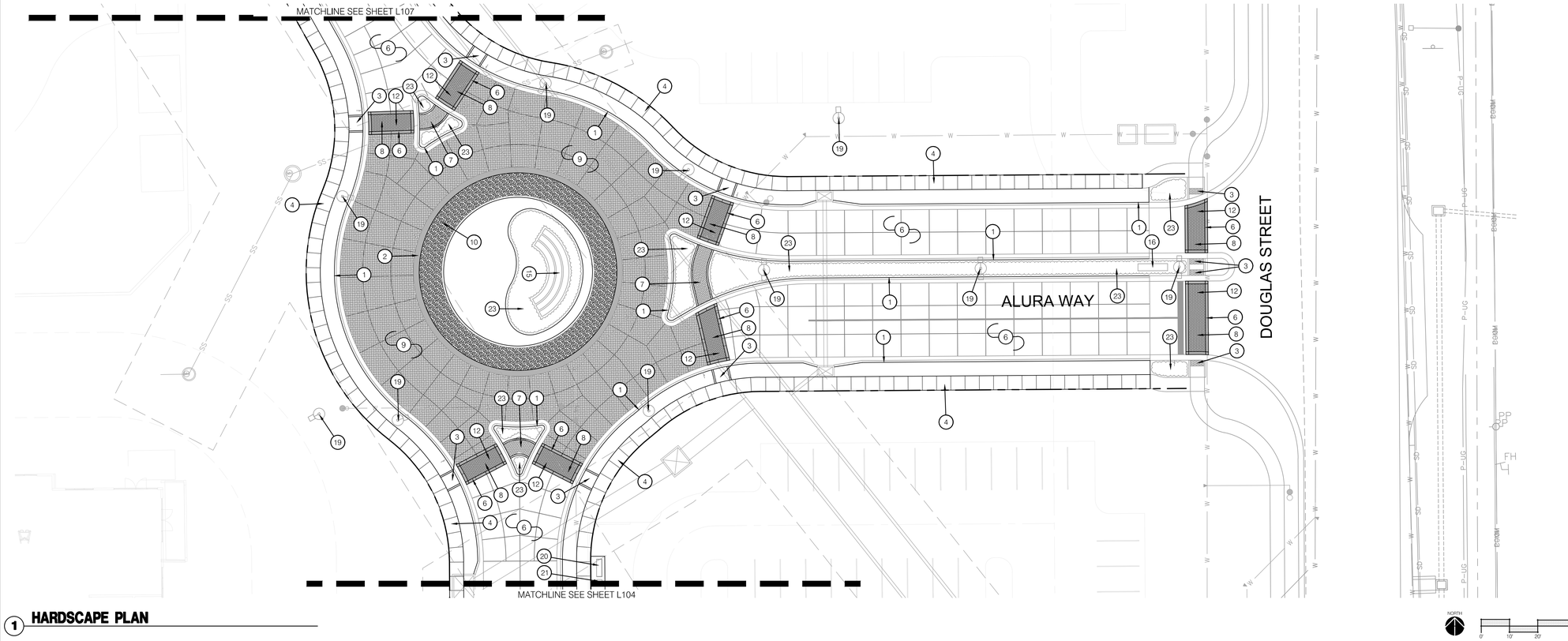
THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST
LEE'S SUMMIT, MISSOURI

2023

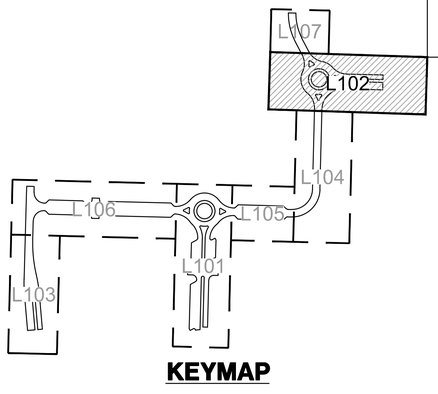
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1 **HARDSCAPE PLAN**



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NORTH
0' 10' 20' 40'

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Kansas City, MO 64108 TEL 816.842.8844 olsson-studio.com

STATE OF MISSOURI
CODY PERRY
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LA-2013033111
LANDSCAPE ARCHITECT
07.12.23

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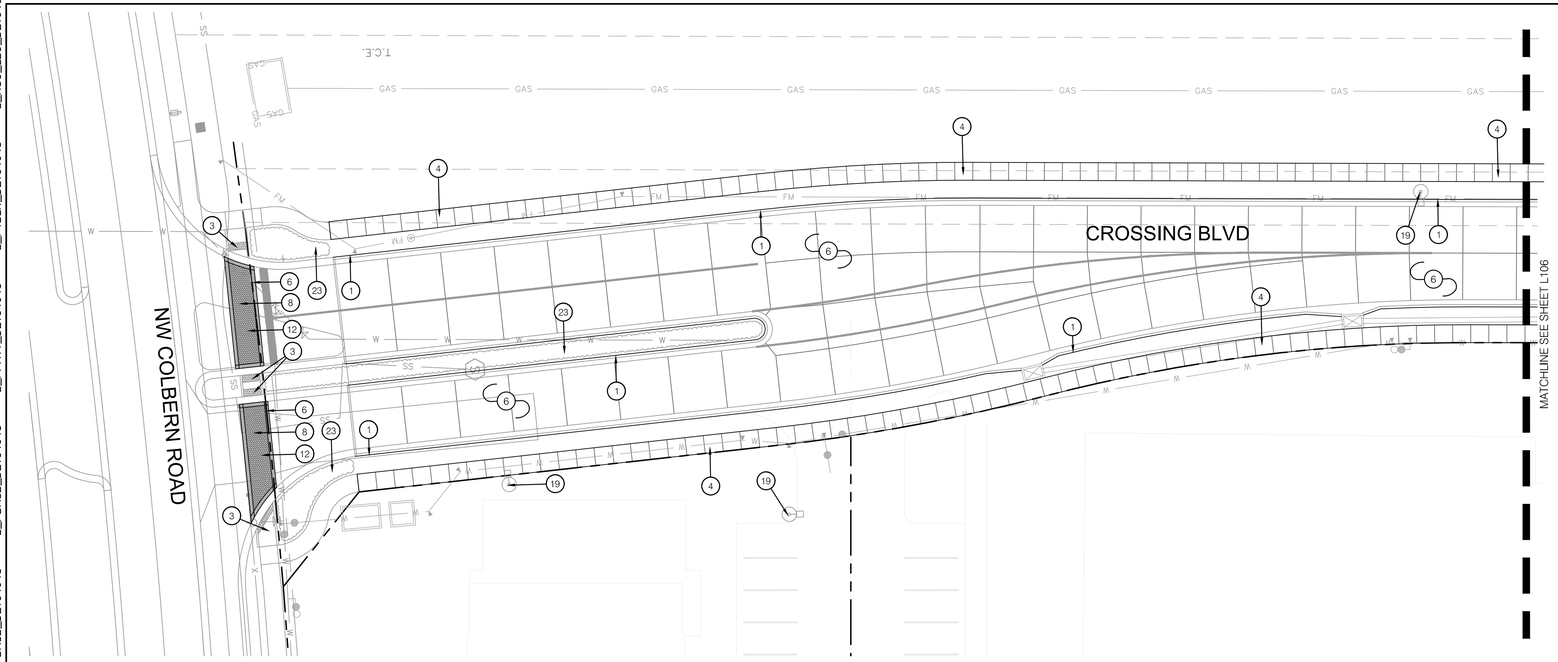
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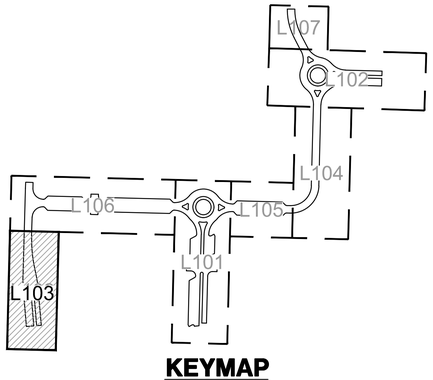
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1 HARDSCAPE PLAN



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STATE OF MISSOURI
CODY PERRY
NUMBER LA-2013033117
LANDSCAPE ARCHITECT
07.12.23

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PRIVATE SITE DEVELOPMENT PLANS

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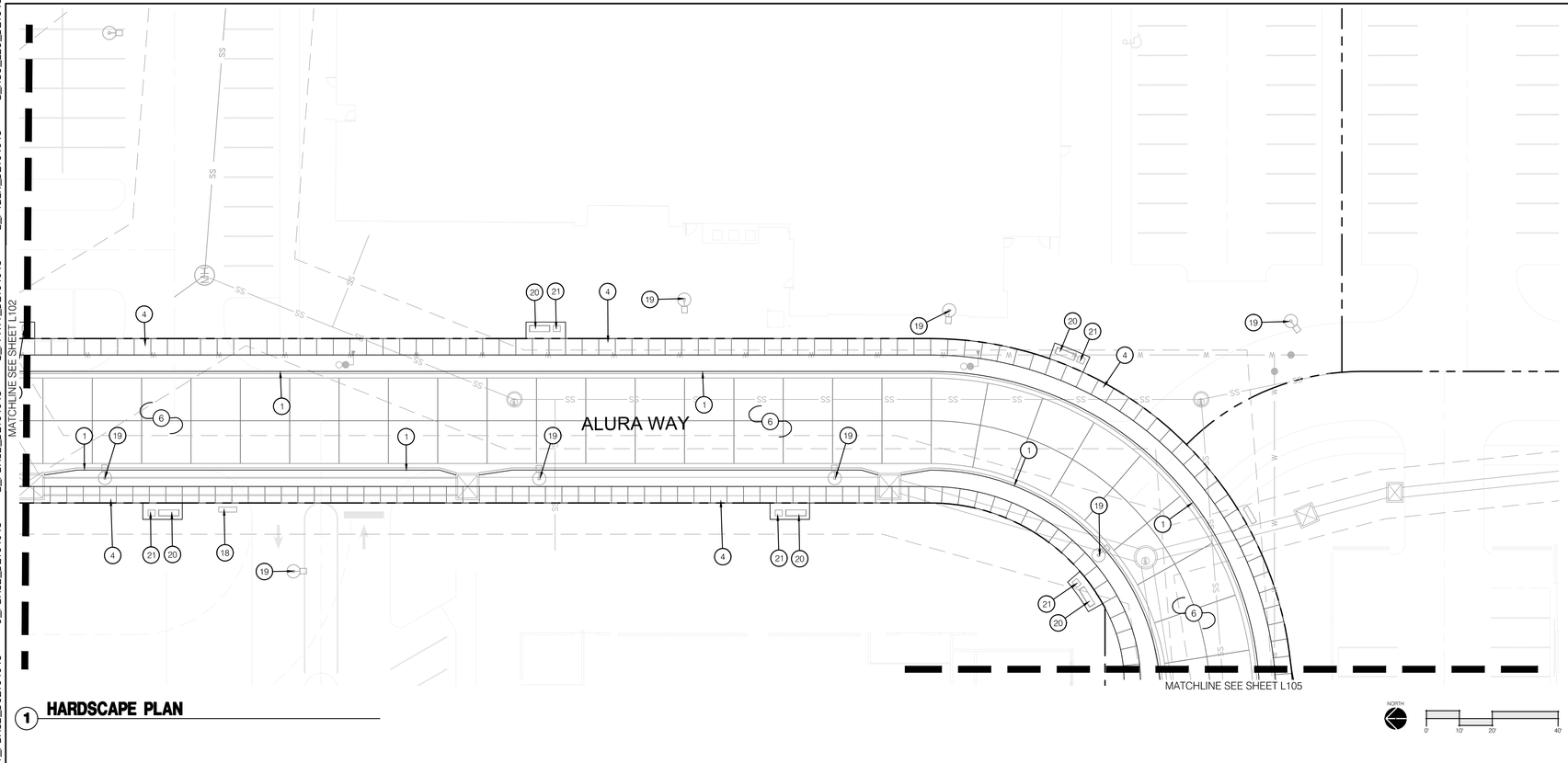
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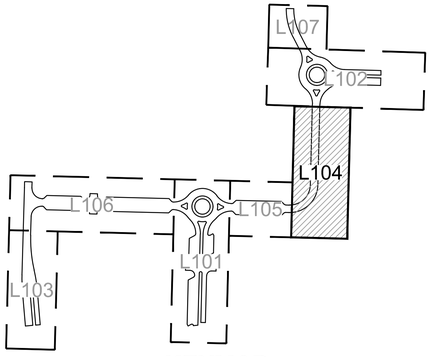
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1 HARDSCAPE PLAN



KEYMAP

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- LIMITS OF CONSTRUCTION
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STATE OF MISSOURI
CODY PERRY
NUMBER
LA-2013033111
LANDSCAPE ARCHITECT
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REVISIONS

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HARDSCAPE PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
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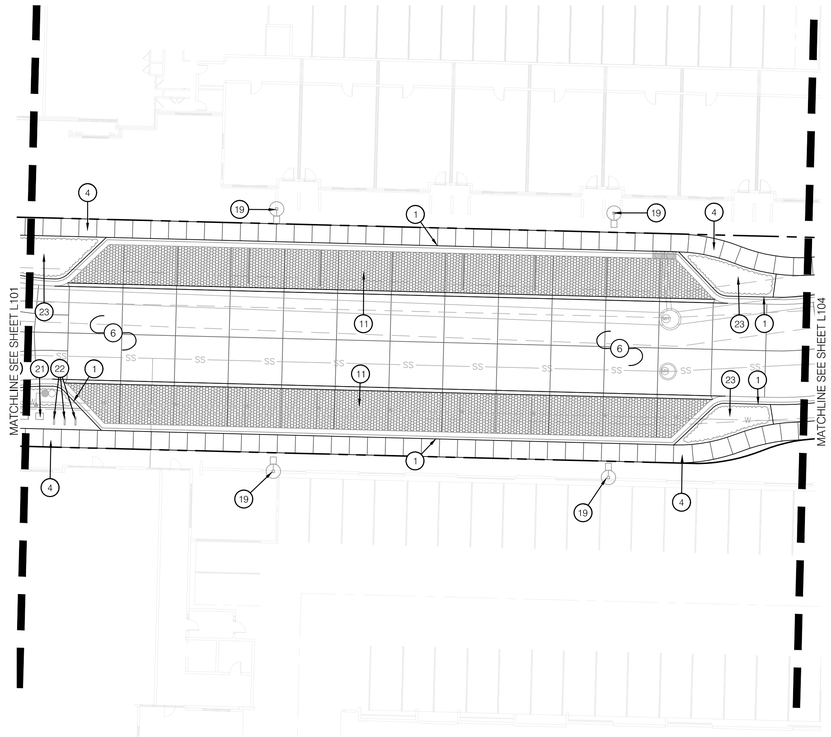
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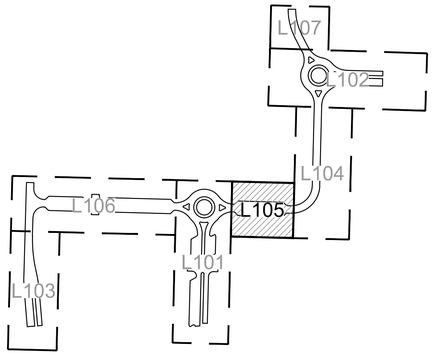
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NORTH
0' 10' 20' 40'

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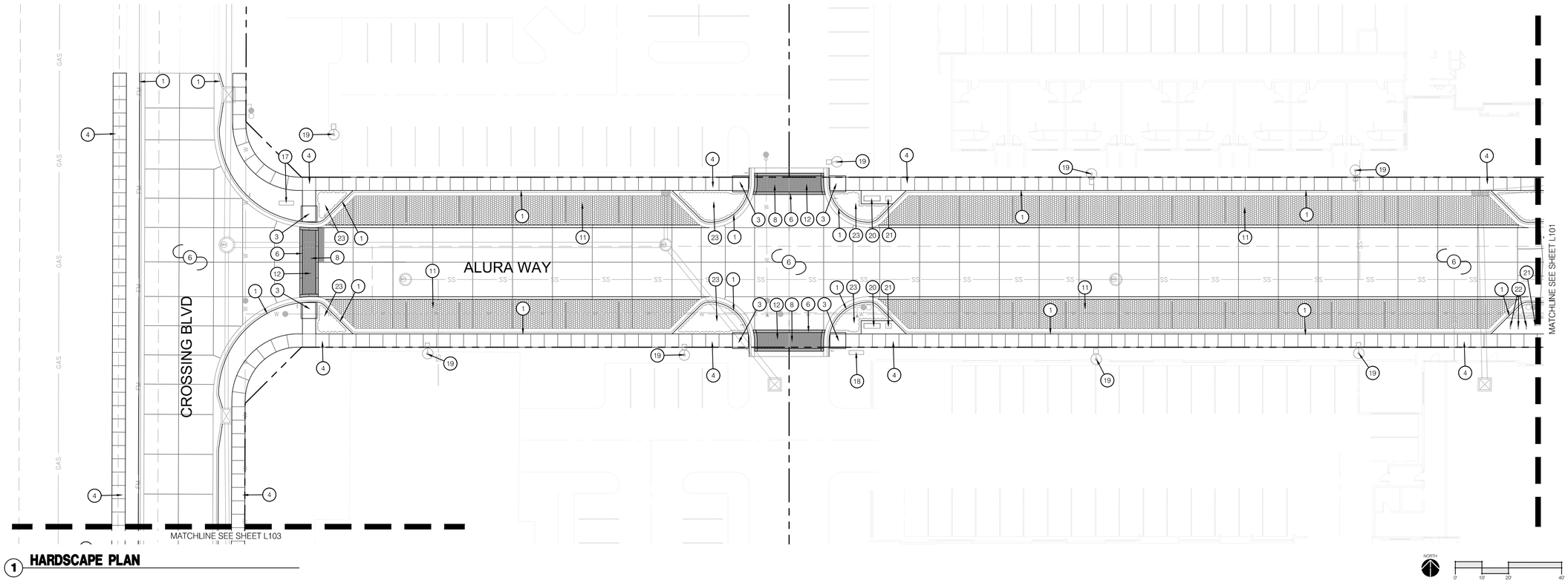
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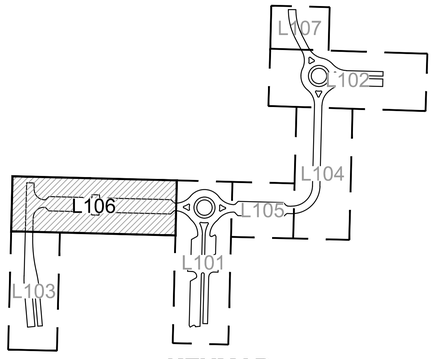
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- HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #2
- HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #3
- HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #4

HARDSCAPE PLAN NOTES:

1. CONCRETE CURB; REF: CIVIL PLANS
2. INTEGRAL COLOR CONCRETE MOUNTABLE CURB; REF: CIVIL PLANS
3. CONCRETE RAMP; REF: CIVIL PLANS
4. CONSTRUCT GRAY CONCRETE; REF: CIVIL PLANS
5. CONSTRUCT HEAVY DUTY GRAY CONCRETE; REF: CIVIL PLANS
6. CONSTRUCT HEAVY DUTY INTEGRAL COLOR CONCRETE; REF: 2/L200
7. CONSTRUCT STAMPED CONCRETE; REF: 1/L200
8. CONSTRUCT HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #1; REF: 2/L200
9. CONSTRUCT HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #2; REF: 2/L200
10. CONSTRUCT HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #3; REF: 2/L200
11. CONSTRUCT HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #4; REF: 2/L200
12. CONSTRUCT CROSSWALK; REF: 4/L200
13. INSTALL EXPANSION JOINT; REF: 3/L200
14. INSTALL CONTROL JOINT; REF: 3/L200
15. INSTALL ROUNDABOUT MONUMENT; REF: 1/L202
16. INSTALL PRIMARY MONUMENT; REF: 2/L202
17. INSTALL SECONDARY MONUMENT; REF: 2/L202
18. INSTALL TERTIARY MONUMENT; REF: 2/L202
19. LIGHT FIXTURE; REF: LIGHTING PLANS
20. INSTALL BENCH; REF: 2/L201
21. INSTALL TRASH RECEPTACLE; REF: 3/L201
22. INSTALL BIKE RACK; REF: 4/L201
23. PLANTING BED. CONTRACTOR SHALL LEAVE PLANTING BEDS CLEAN OF GRAVEL AND DEBRIS; REF: LANDSCAPE PLANS

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CODY PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT
12.12.23

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PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

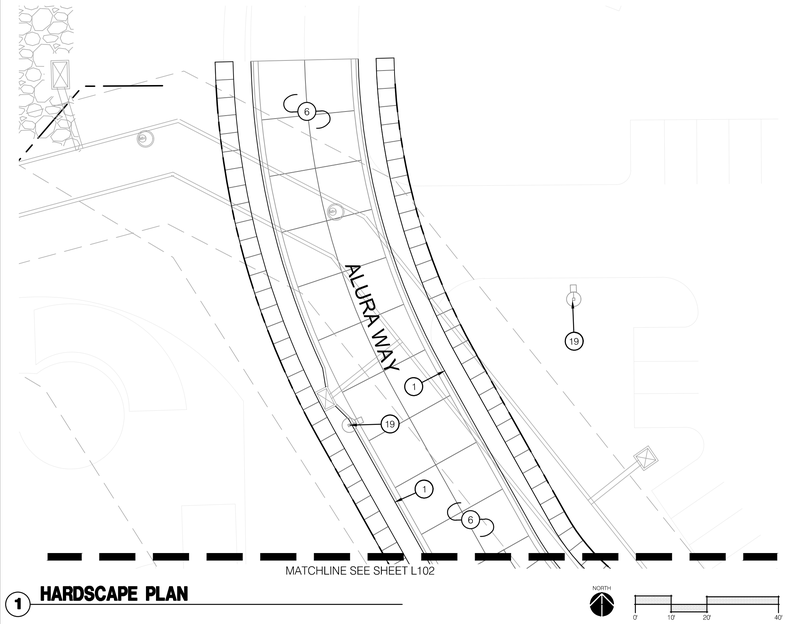
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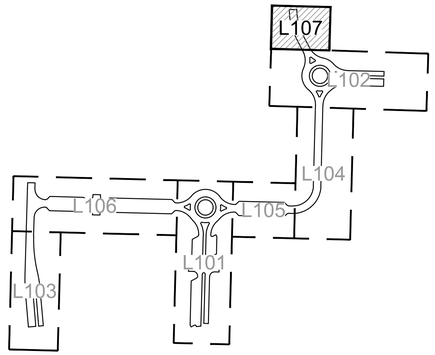
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1 HARDSCAPE PLAN



KEYMAP

HARDSCAPE LEGEND:

- LIMITS OF CONSTRUCTION
- RIGHT OF WAY / PROPERTY LINE
- SHEET MATCHLINE
- HEAVY DUTY INTEGRAL COLOR CONCRETE
- STAMPED CONCRETE
- HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #1
- HEAVY DUTY INTEGRAL COLOR STAMPED CONCRETE #2
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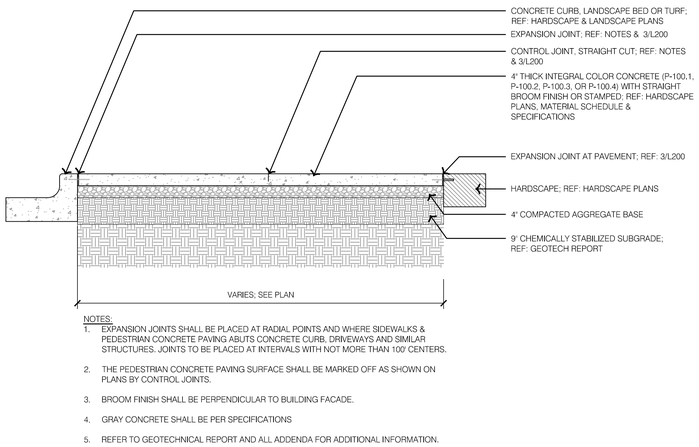
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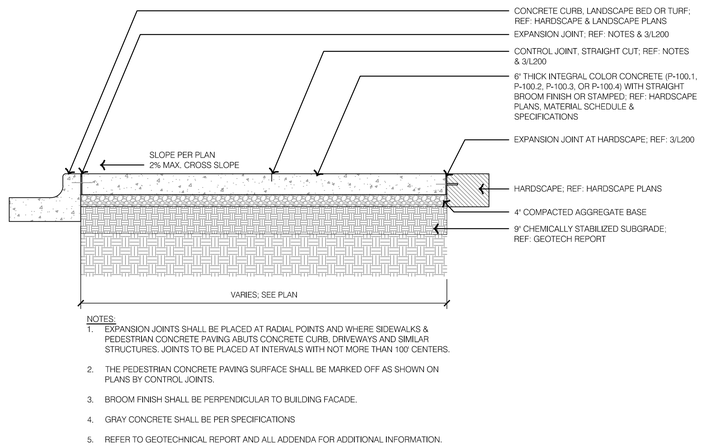
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NOTES:

1. EXPANSION JOINTS SHALL BE PLACED AT RADIAL POINTS AND WHERE SIDEWALKS & PEDESTRIAN CONCRETE PAVING ABUTS CONCRETE CURB, DRIVEWAYS AND SIMILAR STRUCTURES. JOINTS TO BE PLACED AT INTERVALS WITH NOT MORE THAN 100' CENTERS.
2. THE PEDESTRIAN CONCRETE PAVING SURFACE SHALL BE MARKED OFF AS SHOWN ON PLANS BY CONTROL JOINTS.
3. BROOM FINISH SHALL BE PERPENDICULAR TO BUILDING FACADE.
4. GRAY CONCRETE SHALL BE PER SPECIFICATIONS
5. REFER TO GEOTECHNICAL REPORT AND ALL ADDENDA FOR ADDITIONAL INFORMATION.

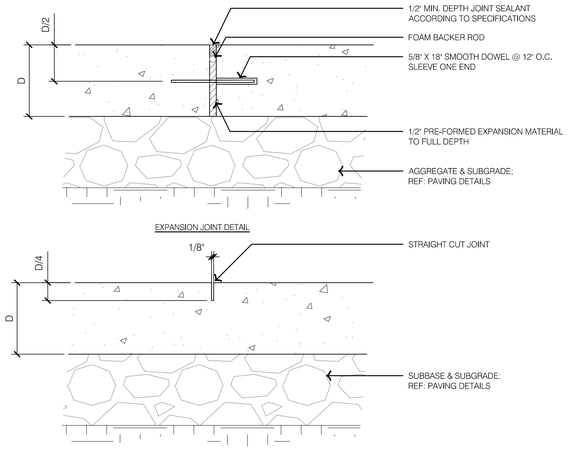
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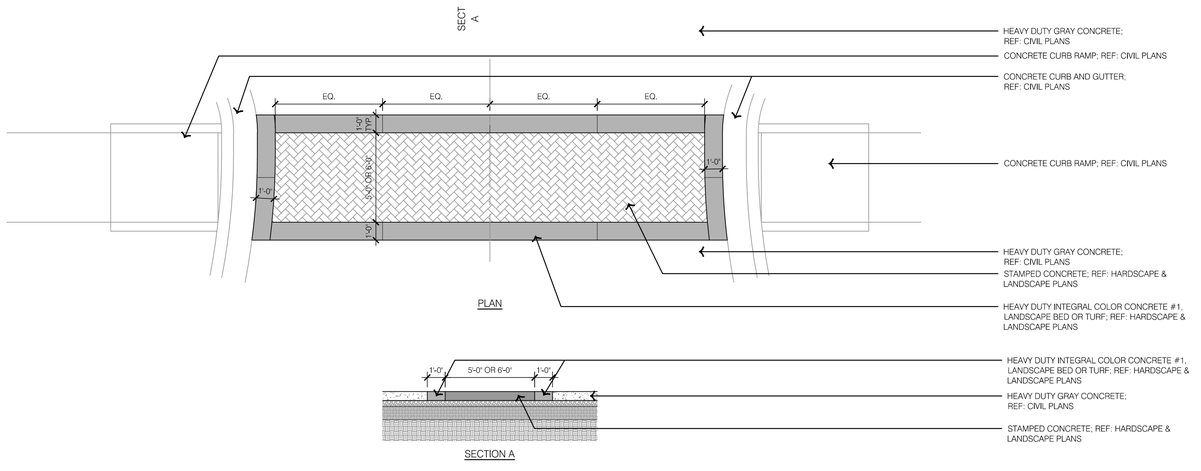
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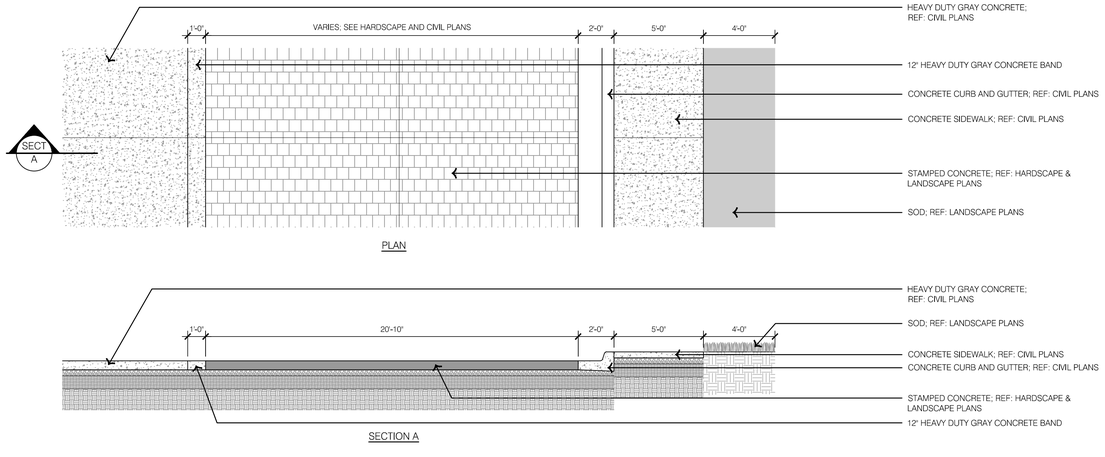
2 TYPICAL HEAVY DUTY STAMPED OR INTEGRAL COLOR CONCRETE



3 TYPICAL CONCRETE JOINTS



4 TYPICAL CROSSWALK LAYOUT



5 TYPICAL PARKING AREA PAVEMENT DETAIL

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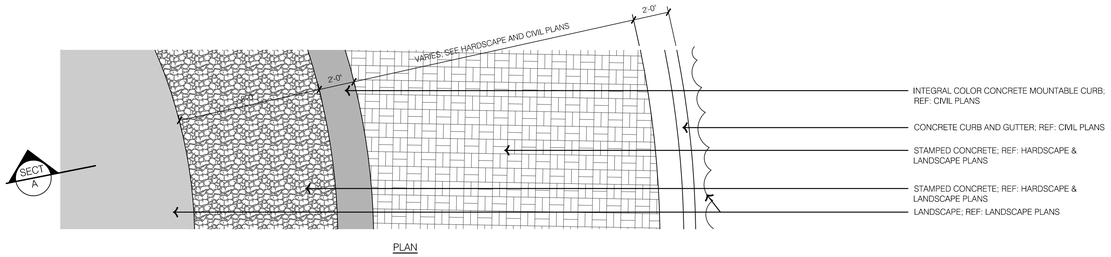
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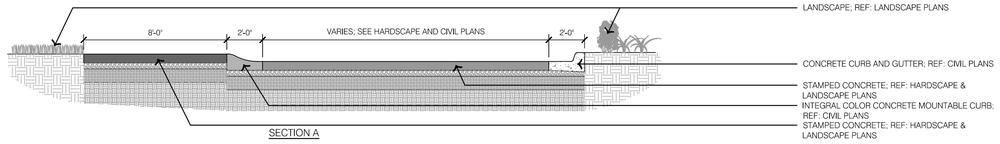
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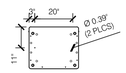


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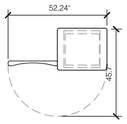


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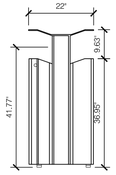
1 TYPICAL ROUNDABOUT PAVEMENT DETAIL



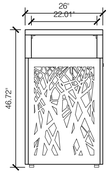
SURFACE MOUNT



DOOR SWING



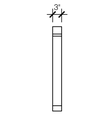
SIDE ELEVATION



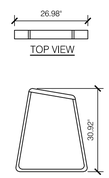
FRONT ELEVATION

NOTES:
1. FURNISH & INSTALL TRASH RECEPTACLE, APPROXIMATE LOCATION. FINAL LOCATION TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.

3 TYPICAL TRASH RECEPTACLE



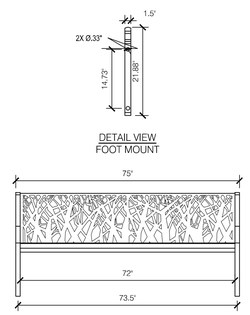
FRONT ELEVATION



SIDE ELEVATION

NOTES:
1. FURNISH & INSTALL BIKE RACK, APPROXIMATE LOCATION. FINAL LOCATION TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.

4 TYPICAL BIKE RACK



NOTES:
1. FURNISH & INSTALL BENCH, APPROXIMATE LOCATION. FINAL LOCATION TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.

2 TYPICAL BENCH

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THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

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1 **ROUNDABOUT MONUMENT**



2 **PRIMARY, SECONDARY, & TERTIARY MONUMENTS**

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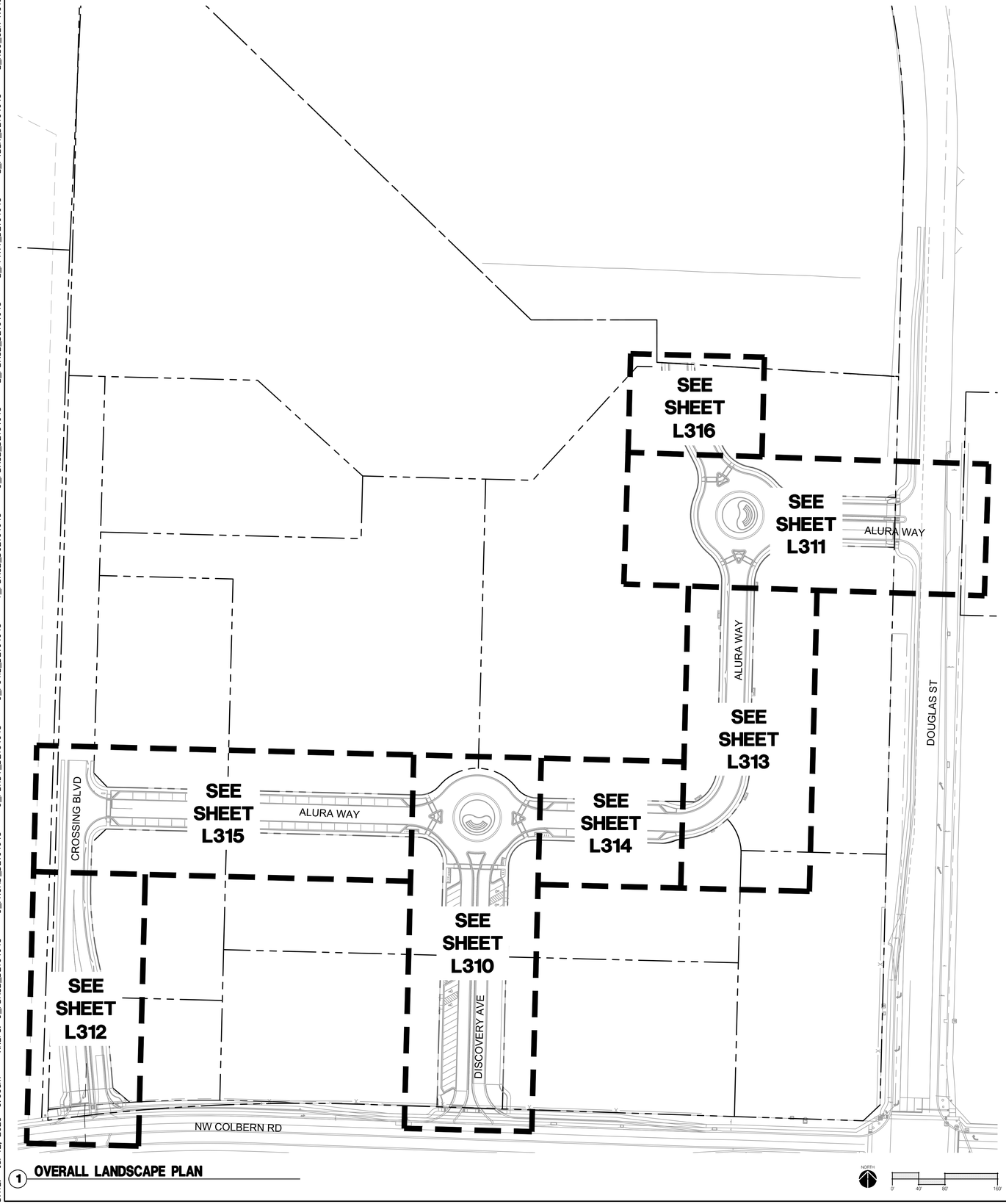
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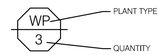
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1 **OVERALL LANDSCAPE PLAN**

LANDSCAPE GENERAL NOTES:

1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, MISSOURI IN CURRENT USAGE. ALL STANDARDS NOT COVERED BY THE CITY SHALL BE APWA STANDARDS IN CURRENT USAGE UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES, DRAIN LINES AND IRRIGATION PIPING PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, DRAIN LINES AND IRRIGATION PIPING.
3. CONTRACTOR SHALL VERIFY AND COORDINATE ALL FINAL GRADES WITH LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
4. DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE AND SHALL BE REMOVED AT FREQUENT INTERVALS. AT COMPLETION OF WORK IN EACH AREA, THE CONTRACTOR SHALL GATHER AND REMOVE ALL DEBRIS, EQUIPMENT, AND EXCESS MATERIAL FROM THAT AREA. AT FINAL COMPLETION OF ALL WORK HE SHALL REMOVE ALL SUCH ITEMS FROM THE PREMISES.
5. LOCATION AND PLACEMENT OF ALL PLANT MATERIAL SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
6. THE LANDSCAPE PLANTING PLAN GRAPHICALLY ILLUSTRATES OVERALL PLANT MASSINGS. EACH PLANT SPECIES SHALL BE PLACED IN THE FIELD TO UTILIZE THE GREATEST COVERAGE OF THE GROUND PLANE. THE FOLLOWING APPLIES FOR INDIVIDUAL PLANTINGS:
   -ALL EVERGREEN SHRUBS AND CREEPING GROUNDCOVERS SHALL BE MINIMUM OF 2' FROM ANY PAVING EDGE.
   -ALL PLANTS OF THE SAME SPECIES SHALL BE EQUALLY SPACED AND SITED FOR THE BEST AESTHETIC VIEWING.
   -ALL TREES, EVERGREEN OR DECIDUOUS, SHALL BE A MINIMUM OF 4' FROM ANY PAVING EDGE.
7. ANY SUBSTITUTION OF SPECIFIED PLANT MATERIAL WILL NOT BE ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
8. MULCH ALL PLANTING AREAS TO A DEPTH OF 3" DEPTH ACCORDING TO PLANS AND SPECIFICATIONS. SAMPLES SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
9. ALL PLANT MATERIAL WILL BE HEALTHY, VIGOROUS AND FREE OF DISEASE AND INSECTS PER AAN STANDARDS. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY INFERIOR OR OTHERWISE UNSUITABLE PLANT MATERIAL PROPOSED FOR USE ON THE PROJECT.
10. ALL PLANTING BEDS NOT FULLY CONTAINED BY CONCRETE CURBS OR WALKS SHALL BE EDGED ACCORDING TO PLANS AND SPECIFICATIONS.
11. PLANTS AND LANDSCAPE MATERIALS SHALL BE INSTALLED AS DETAILED ON PLANS.
12. PLANT BACKFILL FOR TREES AND SHRUBS SHALL BE PER SPECIFICATIONS.
13. ALL PLANTING BEDS SHALL BE TREATED WITH DACTHAL PRE-EMERGENT HERBICIDE AT MANUFACTURER RECOMMENDED RATES AND SHALL BE COVERED WITH SPECIFIED MULCH APPLICATION. APPLY LIGHTER APPLICATION OF DACTHAL HERBICIDE TO TOP OF MULCH LAYER.
14. ALL AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT DESIGNATED AS PLANTING BEDS OR PAVEMENT AREAS SHALL BE SEEDED WITH A TURF TYPE TALL FESCUE PER SPECIFICATIONS.
15. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER OWNER'S FINAL ACCEPTANCE OF FINISHED JOB. ALL DEAD AND DAMAGED PLANT MATERIAL SHALL BE REPLACED BY LANDSCAPE CONTRACTOR AT THEIR EXPENSE. LANDSCAPE CONTRACTOR SHALL MAINTAIN PLANT MATERIAL UNTIL FINAL ACCEPTANCE.
16. ALL LANDSCAPE BEDS SHALL BE MOUNDED AS SHOWN ON PLANS AND DETAILS.
17. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL PLANT QUANTITIES REQUIRED TO COMPLETE THE PROJECT AS SHOWN ON THE PLANS, AND BASE THEIR BID ACCORDINGLY.
18. PLANT KEY DESCRIPTION.



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LEE'S SUMMIT, MISSOURI

2023

drawn by: EW/LB
checked by: CP
approved by: CP
QA/QC by: CC/BM
project no.: D21-04643
drawing no.: L_OVR01_D2104643.DWG
date: 07.12.2023

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LANDSCAPING AND SCREENING REQUIREMENTS - LEE'S SUMMIT DISCOVERY PARK STREETSCAPE			
		REQUIRED PLANTS	SHOWN PLANTS
LEE'S SUMMIT, MISSOURI			
CODE OF ORDINANCES: DIVISION III - LANDSCAPING, BUFFERS AND TREE PROTECTION			
SITE ZONED: CP-2, PROPOSED: PMIX			
TOTAL PROPERTY: 5.38 ACRES (234,291.39 SQ FT)			
STREET FRONTAGE TREES:			
SEC. 8.790	ONE TREE PER 30 FEET OF STREET FRONTAGE, PUBLIC OR PRIVATE		
	TREES MAY BE CLUSTERED OR ARRANGED WITHIN THE SETBACK. A MIN. 20' LANDSCAPE STRIP SHALL BE PROVIDED ALONG THE FULL LENGTH OF THE STREET FRONTAGE, EXCEPT WHERE THE BUILDING SETBACK IS LESS THEN 20'.		
	ALURA WAY		
	TOTAL STREET FRONTAGE = 4,126 LF		
	(4,126 / 30 = 137.53)	138 TREES	140 TREES
	DISCOVERY AVENUE		
	TOTAL STREET FRONTAGE = 964 LF		
	(964 / 30 = 32.13)	32 TREES	32 TREES
	CROSSING BOULEVARD		
	TOTAL STREET FRONTAGE = 1,168 LF		
	(1,168 / 30 = 38.93)	39 TREES	39 TREES
	LANDSCAPE TOTALS	**209 TREES**	**211 TREES**
STREET FRONTAGE SHRUBS:			
SEC. 8.790	ONE SHRUB PER 20 FEET OF STREET FRONTAGE		
	A MINIMUM 20 FEET WIDE LANDSCAPE STRIP SHALL BE PROVIDED ALONG THE FULL LENGTH OF ANY STREET FRONTAGE, EXCEPT WHERE THE BUILDING SETBACK IS LESS THAN 20 FEET.		
	ALURA WAY		
	TOTAL STREET FRONTAGE = 4,126 LF		
	(4,126 / 20 = 206.3)	206 SHRUBS	3,164 SHRUBS
	DISCOVERY AVENUE		
	TOTAL STREET FRONTAGE = 964 LF		
	(964/ 20 = 48.2)	48 SHRUBS	2,440 SHRUBS
	CROSSING BOULEVARD		
	TOTAL STREET FRONTAGE = 1,168 LF		
	1,168/ 20 = 58.4)	58 SHRUBS	564 SHRUBS
	LANDSCAPE TOTALS	**312 SHRUBS**	**6,168 SHRUBS**

MASTER PLANT SCHEDULE

DECIDUOUS TREES	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
AM	ACER MIYABEI 'MORTON'	STATE STREET ™ MIYABE MAPLE	3" CAL	B&B	
AF	ACER RUBRUM 'FRANKSRED'	RED SUNSET® MAPLE	3" CAL	B&B	
AB	ACER SACCHARUM 'BAILSTA'	FALL FIESTA® SUGAR MAPLE	3" CAL	B&B	
AC	ACER SACCHARUM 'CADDO'	CADDO SUGAR MAPLE	3" CAL	B&B	
AT	ACER TRUNCATUM X PLATANOIDES 'KEITHSFORM'	NORWEGIAN SUNSET® MAPLE	3" CAL	B&B	
AA	ACER X FREEMANII 'JEFFERSRED'	AUTUMN BLAZE® FREEMAN MAPLE	3" CAL	B&B	
CF	CARPINUS BETULUS 'FASTIGIATA'	PYRAMIDAL EUROPEAN HORNBEAN	3" CAL	B&B	
CC	CELTIS OCCIDENTALIS 'CHICAGOLAND'	CHICAGOLAND HACKBERRY	3" CAL	B&B	
CC2	CERCIS CANADENSIS	EASTERN REDBUD	3" CAL	B&B	
GA	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	3" CAL	B&B	
GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	3" CAL	B&B	
GI	GLEDITSIA TRIACANTHOS INERMIS 'IMPCOLE'	IMPERIAL® HONEY LOCUST	3" CAL	B&B	
GD	GYMNOCLADUS DIOICA 'ESPRESSO'	KENTUCKY COFFEETREE	3" CAL	B&B	
LT2	LIRIODENDRON TULIPIFERA	TULIP POPLAR	3" CAL	B&B	
LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	3" CAL	B&B	
PB	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANE TREE	3" CAL	B&B	
QA	QUERCUS ALBA	WHITE OAK	3" CAL	B&B	
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL	B&B	
QM	QUERCUS MACROCARPA	BURR OAK	3" CAL	B&B	
QM2	QUERCUS MUEHLENBERGII	CHINKAPIN OAK	3" CAL	B&B	
QR	QUERCUS RUBRA	RED OAK	3" CAL	B&B	
QS2	QUERCUS SHUMARDII	SHUMARD OAK	3" CAL	B&B	
QS	QUERCUS STELLATA	POST OAK	3" CAL	B&B	
TM	TAXODIUM DISTICHUM 'MICKELSON'	SHAWNEE BRAVE ™ BALD CYPRESS	3" CAL	B&B	
TA	TILIA AMERICANA	AMERICAN LINDEN	3" CAL	B&B	
TS	TILIA TOMENTOSA	SILVER LINDEN	3" CAL	B&B	
UA	ULMUS AMERICANA	AMERICAN ELM	3" CAL	B&B	
UN	ULMUS AMERICANA 'NEW HARMONY'	NEW HARMONY AMERICAN ELM	3" CAL	B&B	
UC	ULMUS X 'FRONTIER'	FRONTIER ELM	3" CAL	B&B	
ZV	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN JAPANESE ZELKOVA	3" CAL	B&B	

EVERGREEN TREES	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
PD	PICEA GLAUCA 'DENSATA'	BLACK HILLS WHITE SPRUCE	8` HT.	B&B	
PF	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID'	VANDERWOLF'S PYRAMID LIMBER PINE	8` HT.	B&B	
PS	PINUS STROBUS	WHITE PINE	8` HT.	B&B	

ORNAMENTAL TREES	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
AB2	ACER BUERGERIANUM	TRIDENT MAPLE	3" CAL	B&B	
AG	ACER GRISEUM	PAPERBARK MAPLE	3" CAL	B&B	
AC2	AMELANCHIER CANADENSIS	CANADIAN SERVICEBERRY	3" CAL	B&B	
CO	CERCIS CANADENSIS TEXENSIS 'OKLAHOMA'	OKLAHOMA TEXAS REDBUD	3" CAL	B&B	
MX	MAGNOLIA X 'JANE'	JANE MAGNOLIA	3" CAL	B&B	
MP	MALUS X 'PRAIRIFIRE'	PRAIRIFIRE CRABAPPLE	3" CAL	B&B	
MC	MALUS X 'SARGENTII'	SARGENT CRABAPPLE	3" CAL	B&B	
MS	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	3" CAL	B&B	
SI	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	3" CAL	B&B	

DECIDUOUS SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING
CF2	CORNUS SERICEA 'FARROW'	ARCTIC FIRE® RED TWIG DOGWOOD	1 GAL		48" o.c.
EC	EUONYMUS ALATUS 'COMPACTUS'	COMPACT BURNING BUSH	1 GAL		48" o.c.
FK	FORSYTHIA X INTERMEDIA 'KOLGOLD'	MAGICAL® GOLD FORSYTHIA	1 GAL		48" o.c.
HL	HYDRANGEA PANICULATA 'LIMELIGHT'	LIMELIGHT PANICLE HYDRANGEA	1 GAL		48" o.c.
IR	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	1 GAL		48" o.c.
IV	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	1 GAL		48" o.c.
NB	NANDINA DOMESTICA 'AKA'	BLUSH PINK ™ HEAVENLY BAMBOO	1 GAL		48" o.c.
PD2	PHYSOCARPUS OPULIFOLIUS 'DONNA MAY'	LITTLE DEVIL™ DWARF NINEBARK	1 GAL		48" o.c.
RE	RHODODENDRON X 'P.J.M.'	PJM RHODODENDRON	1 GAL		48" o.c.
RG	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	1 GAL		48" o.c.
SE	SAMBUCUS NIGRA 'EVA'	BLACK LACE® ELDERBERRY	1 GAL		48" o.c.
VM	VIBURNUM CARLESII 'SMVCB'	SPICE BABY™ KOREANSPICE VIBURNUM	1 GAL		48" o.c.
VS	VIBURNUM DENTATUM 'SMVDE'	SPARKLER® ARROWWOOD VIBURNUM	1 GAL		48" o.c.

EVERGREEN SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING
BG	BUXUS X 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	1 GAL		48" o.c.
JF	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	1 GAL		48" o.c.
JW	JUNIPERUS HORIZONTALIS 'WILTONII'	BLUE RUG JUNIPER	1 GAL		48" o.c.
TE	TAXUS X MEDIA 'EVERLOW'	EVERLOW ANGLO-JAPANESE YEW	1 GAL		48" o.c.

ORNAMENTAL GRASSES	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING
CK	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	1 GAL		
LB	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL		
MM	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT EULALIA GRASS	1 GAL		
PH	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL		
SS	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	STANDING OVATION LITTLE BLUESTEM	1 GAL		

PERENNIALS	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING
BS	BOLTONIA ASTEROIDES 'SNOWBANK'	SNOWBANK FALSE ASTER	1 GAL		
CM	COREOPSIS X 'MOONBEAM'	MOONBEAM TICKSEED	1 GAL		
DW	DIANTHUS GRATIANOPOLITANUS 'FIREWITCH'	FIREWITCH CHEDDAR PINK	1 GAL		
EK	ECHINACEA PURPUREA 'KIM'S KNEE HIGH'	KIM'S KNEE HIGH CONEFLOWER	1 GAL		
ES	ECHINACEA X 'SUNSET'	SUNSET CONEFLOWER	1 GAL		
GW	GAURA LINDHEIMERI 'WHIRLING BUTTERFLIES'	WHIRLING BUTTERFLIES GAURA	1 GAL		
HP	HEUCHERA MICRANTHA 'PALACE PURPLE'	PALACE PURPLE CREVICE ALUMROOT	1 GAL		
LM	LAVANDULA ANGUSTIFOLIA 'MUNSTEAD'	MUNSTEAD ENGLISH LAVENDER	1 GAL		
PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	1 GAL		
RG3	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'	GOLDSTURM CONEFLOWER	1 GAL		
SM	SALVIA X SYLVESTRIS 'MAY NIGHT'	MAY NIGHT SAGE	PLUG		
SA	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	1 GAL		

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STATE OF MISSOURI
CODY PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT

REVISIONS			
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LANDSCAPE REQUIREMENTS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
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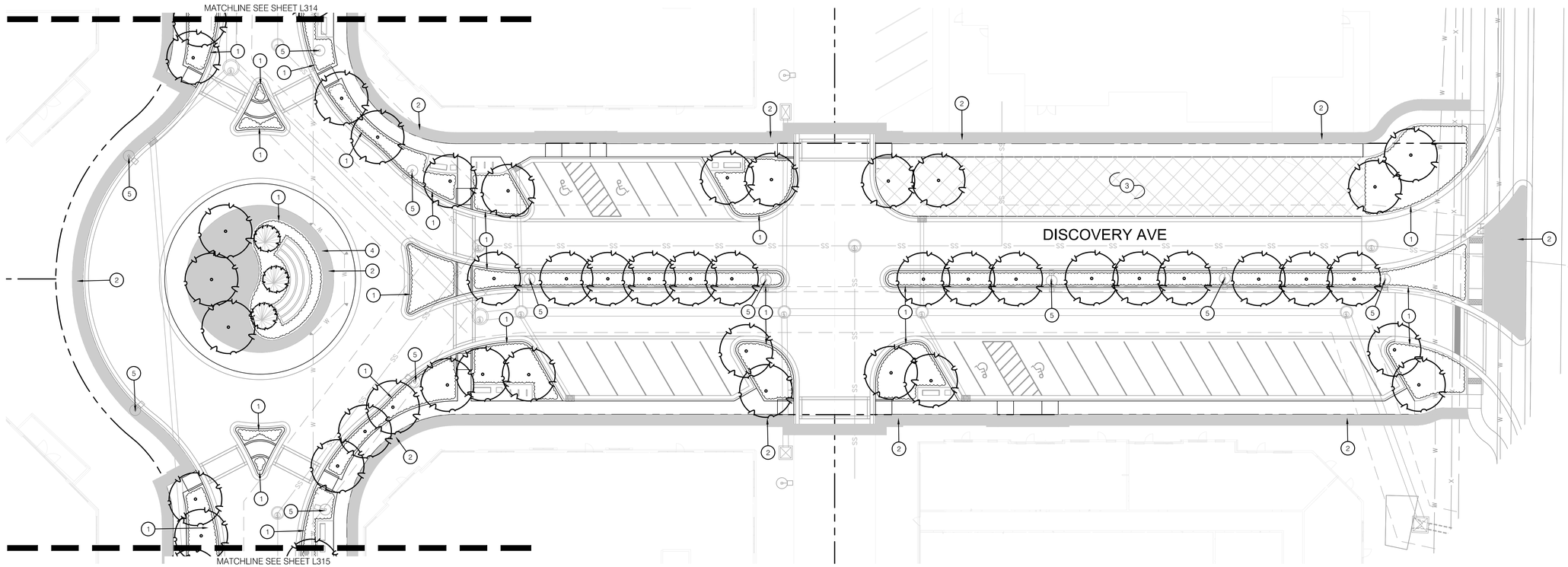
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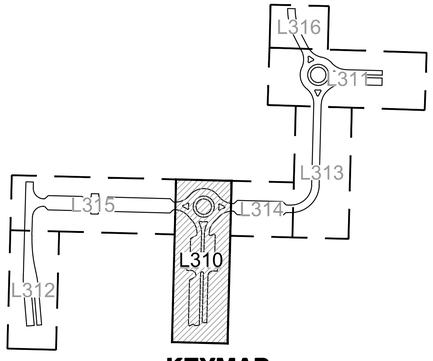
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1 LANDSCAPE PLAN



KEYMAP

LANDSCAPE LEGEND:

- LIMITS OF CONSTRUCTION
- RIGHT OF WAY / PROPERTY LINE
- SHEET MATCHLINE
- OVERSTORY TREE
- ORNAMENTAL TREE
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5. LIGHTING FIXTURE; REF: LIGHTING PLANS

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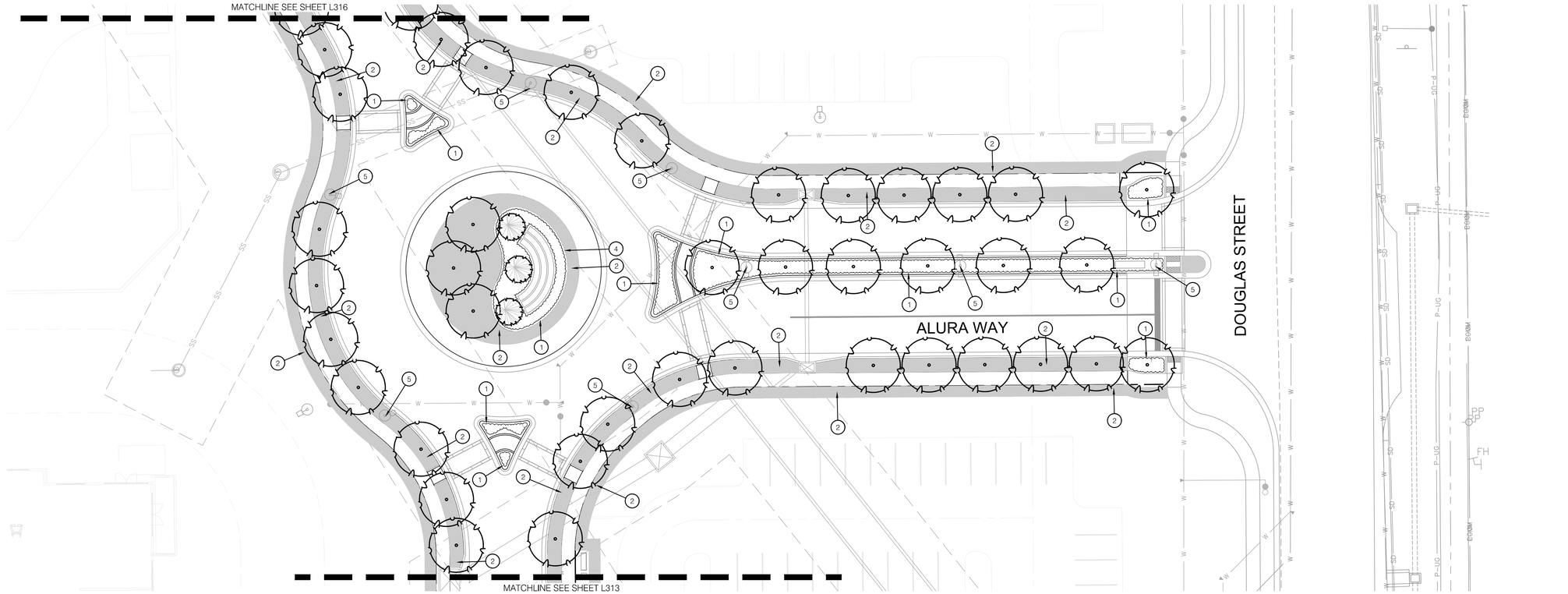
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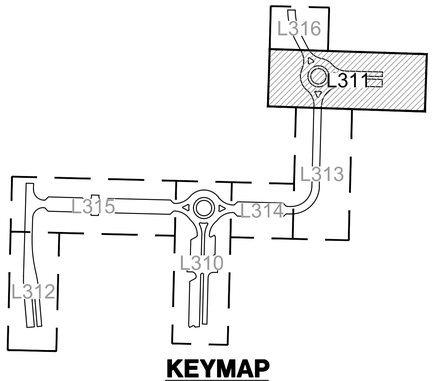
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1 LANDSCAPE PLAN



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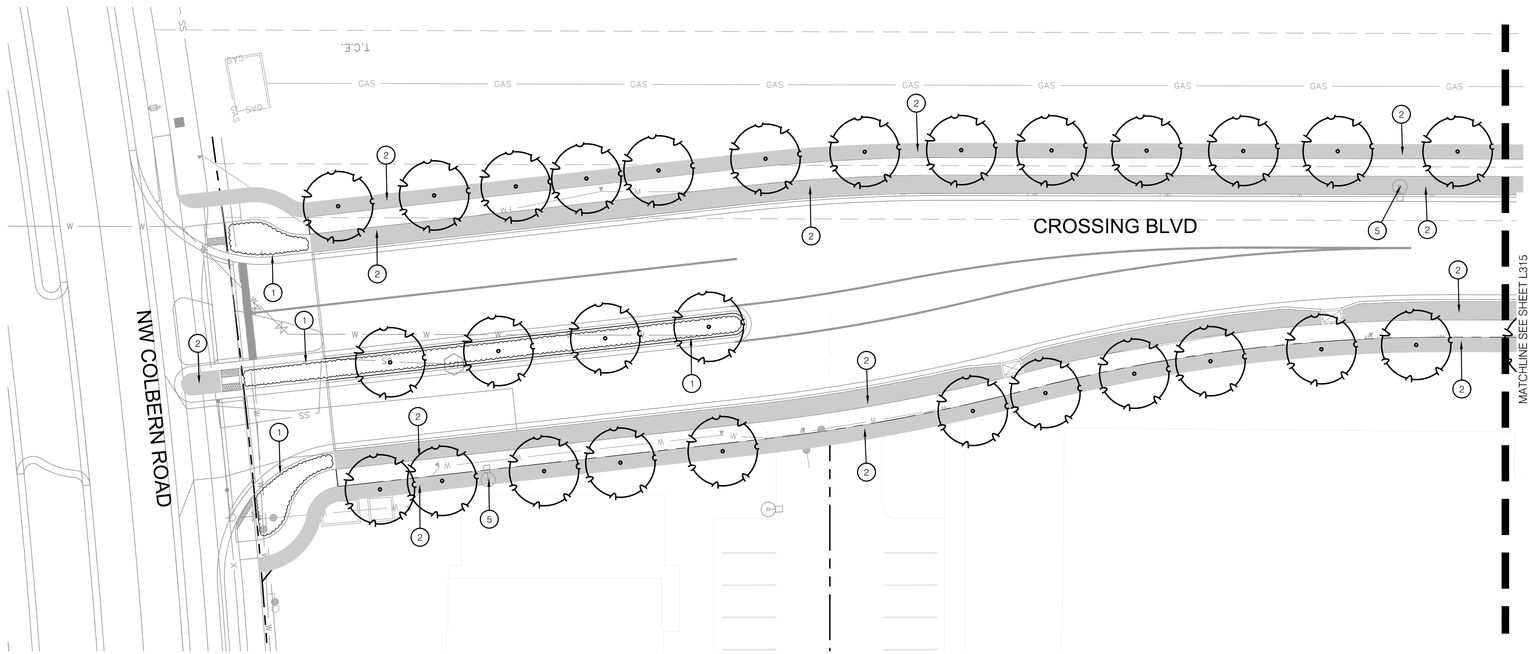
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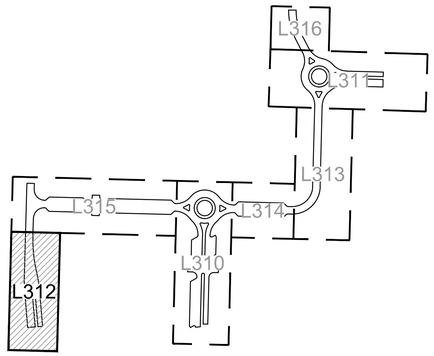
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1 LANDSCAPE PLAN



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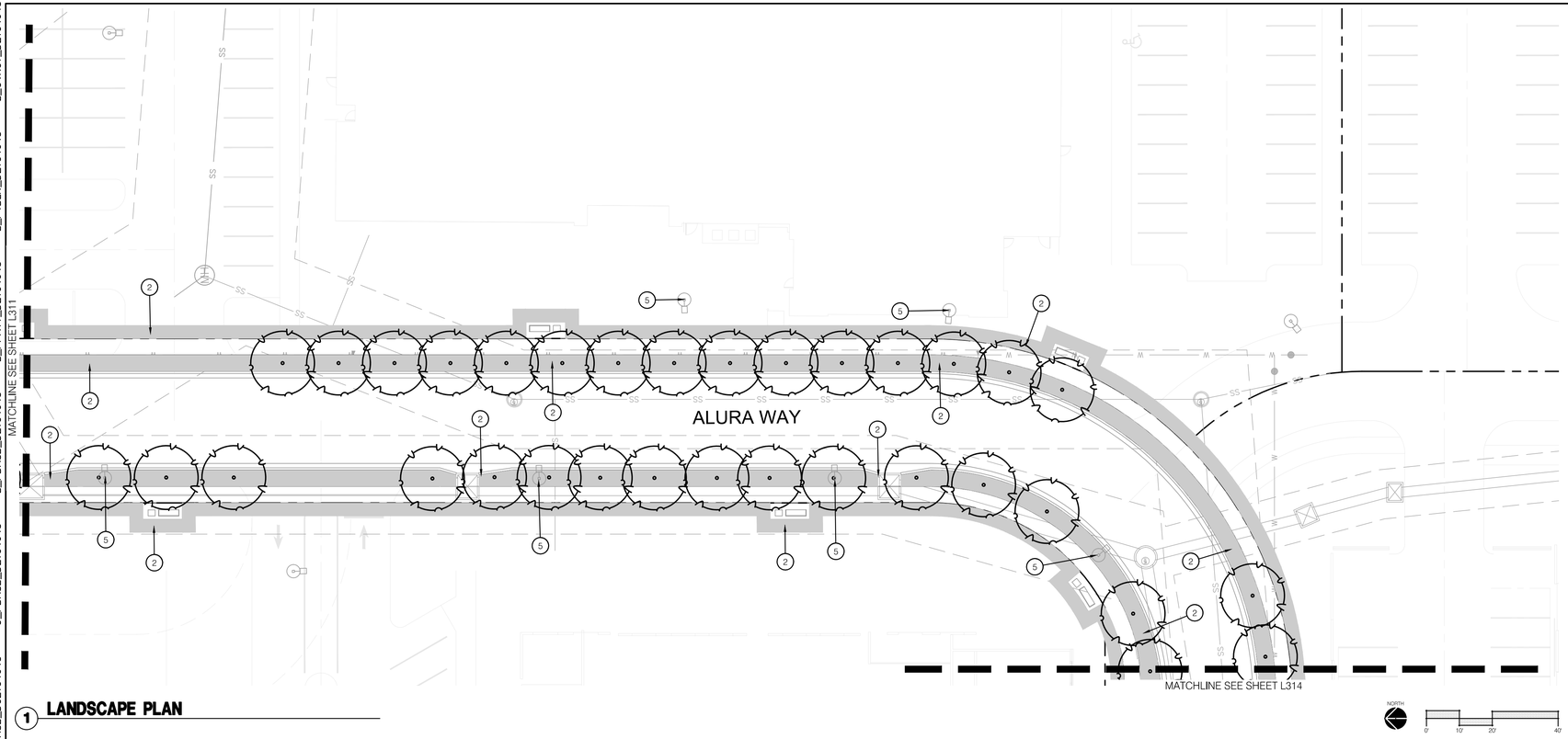
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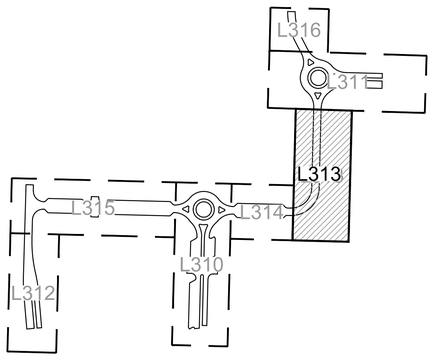
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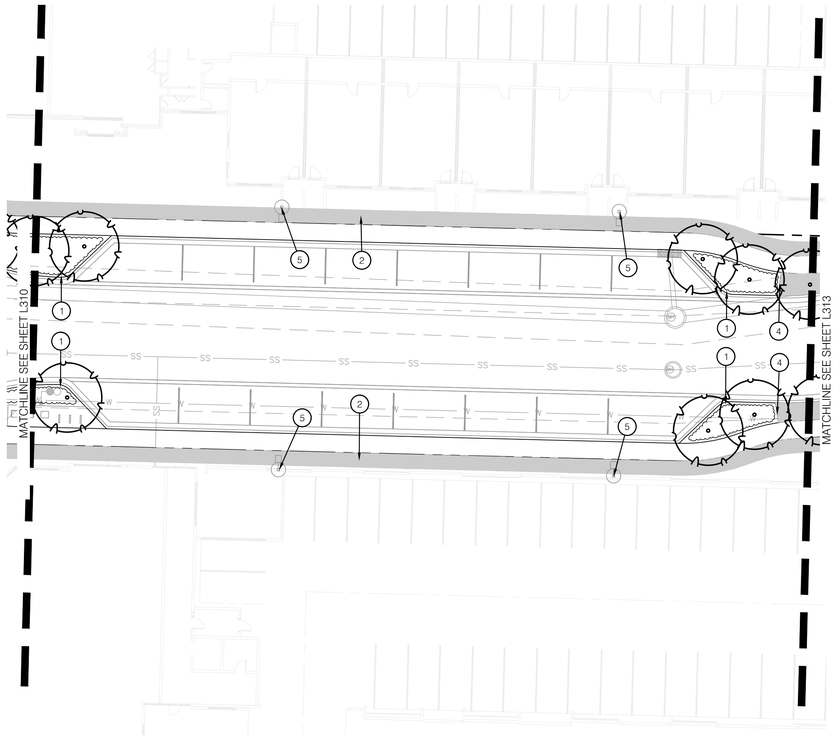
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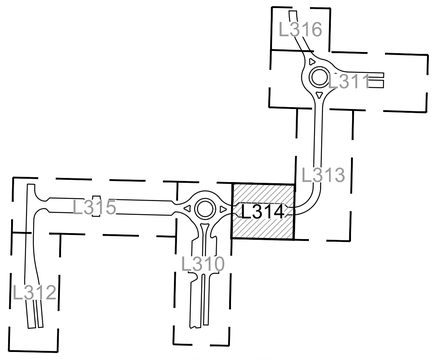
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USER: ewilson



1 **LANDSCAPE PLAN**

NORTH
0' 10' 20' 40'



KEYMAP

LANDSCAPE LEGEND:

- LIMITS OF CONSTRUCTION
- RIGHT OF WAY / PROPERTY LINE
- SHEET MATCHLINE
- OVERSTORY TREE
- ORNAMENTAL TREE
- PERENNIALS & GRASSES
- TURF TYPE FESCUE SOD
- TURF TYPE FESCUE SEED MIX

LANDSCAPE PLAN NOTES:

1. PLANTING BED WITH HARDWOOD MULCH; REF: LANDSCAPE GENERAL NOTES AND LANDSCAPE DETAILS
2. AREA TO BE SODDED WITH TURF TYPE FESCUE SOD; REF: LANDSCAPE GENERAL NOTES
3. AREA TO BE SEEDED WITH TURF TYPE FESCUE SEED; REF: LANDSCAPE GENERAL NOTES
4. STEEL BED EDGE; REF: 6/L390
5. LIGHTING FIXTURE; REF: LIGHTING PLANS

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MISSOURI CERTIFICATE OF AUTHORITY #2005000285
1814 Main St.
Kansas City, MO 64108 TEL 816.842.8844 olsson-studio.com

STATE OF MISSOURI
CODY PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT
12.12.23

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

LANDSCAPE PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

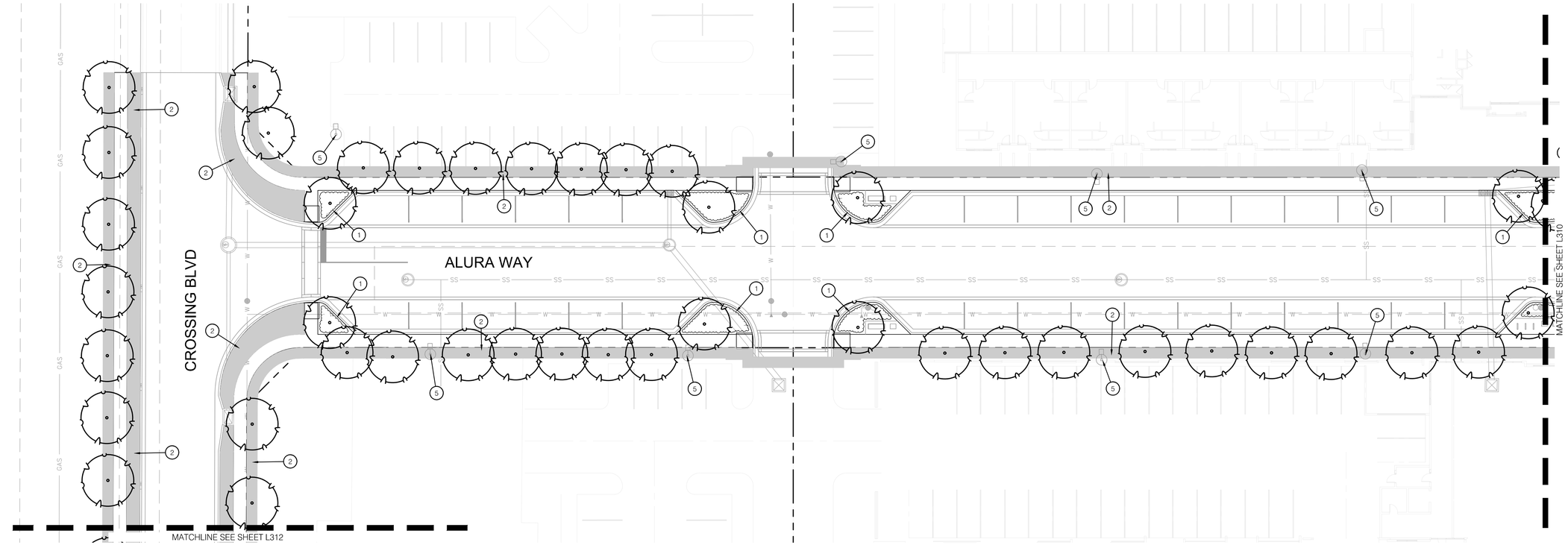
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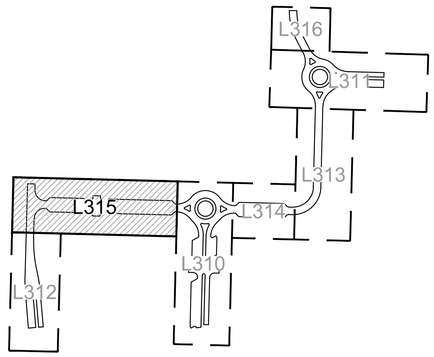
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SHEET
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1 LANDSCAPE PLAN



KEYMAP

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3. AREA TO BE SEEDED WITH TURF TYPE FESCUE SEED; REF: LANDSCAPE GENERAL NOTES
4. STEEL BED EDGE; REF: 6/L390
5. LIGHTING FIXTURE; REF: LIGHTING PLANS

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STATE OF MISSOURI
CODY PERRY
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LANDSCAPE ARCHITECT
12.12.23

REVISIONS

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LANDSCAPE PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

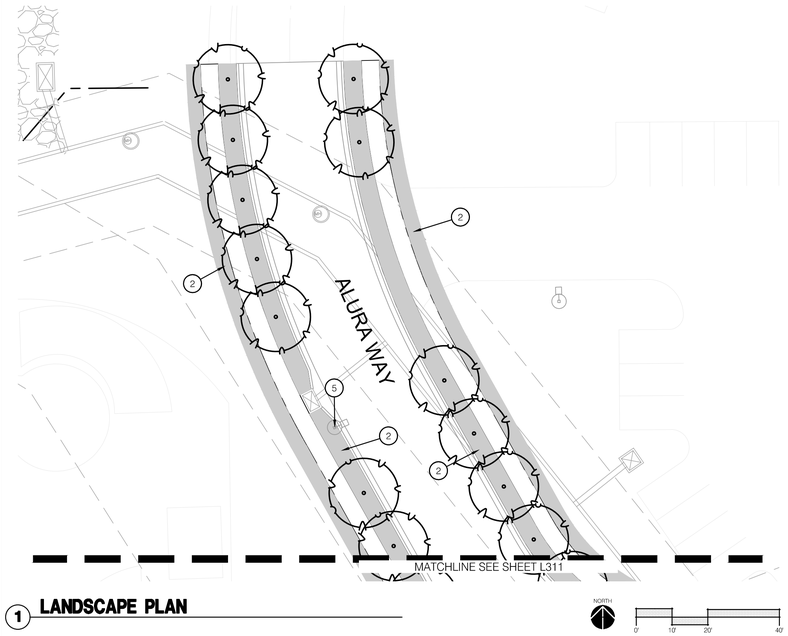
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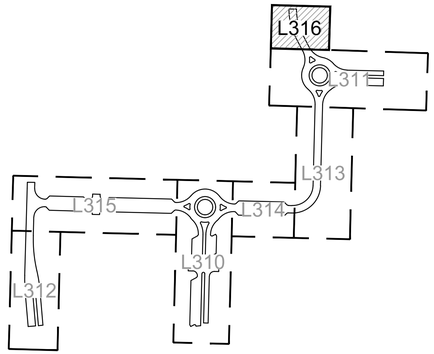
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1 **LANDSCAPE PLAN**



KEYMAP

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4. STEEL BED EDGE; REF: 6/L390
5. LIGHTING FIXTURE; REF: LIGHTING PLANS

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STATE OF MISSOURI
CODY PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT
07.12.23

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REVISIONS

LANDSCAPE PLAN
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

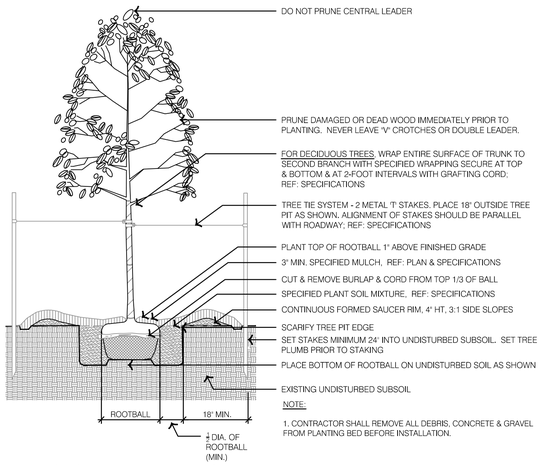
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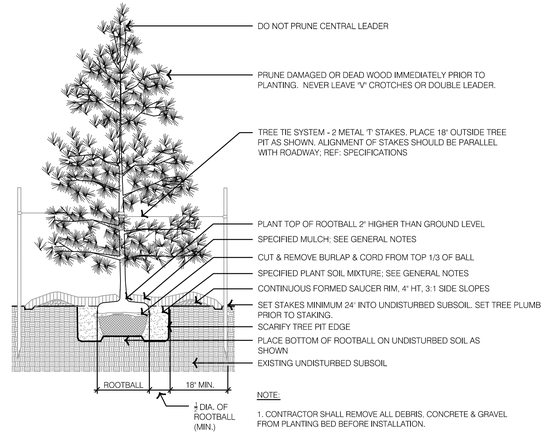
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date: 07.12.2023

SHEET
L316

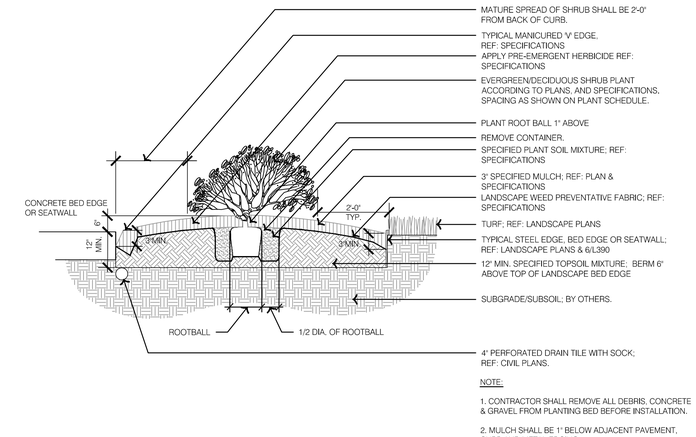
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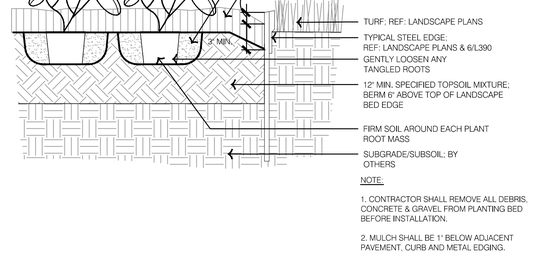
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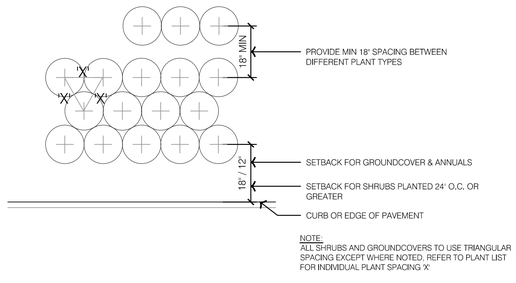
2 TYPICAL EVERGREEN TREE PLANTING



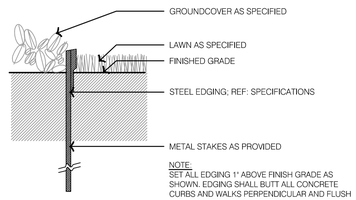
3 TYPICAL SHRUB PLANTING



4 TYPICAL GROUNDCOVER & PERENNIAL PLANTING



5 TYPICAL PLANT SPACING



6 STEEL BED EDGE

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CODY PERRY
NUMBER LA-2013033111
LANDSCAPE ARCHITECT
07.12.2023

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LANDSCAPE DETAILS
PRIVATE SITE DEVELOPMENT PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: EW/LB
checked by: CP
approved by: CP
QA/QC by: CC/BM
project no.: D21-04643
drawing no.: L390_DTL01_D2104643.DWG
date: 07.12.2023

SHEET
L390

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