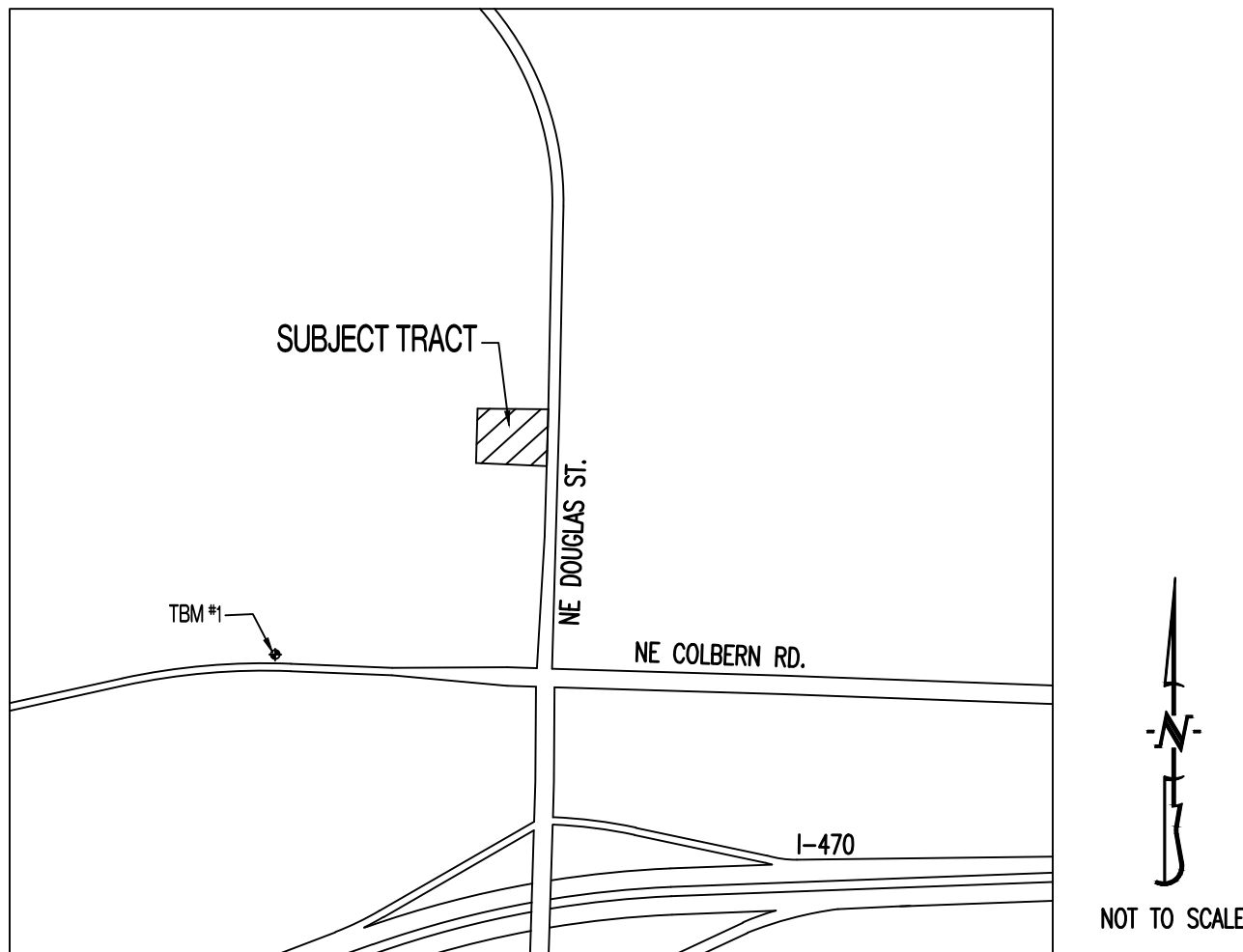


# THE VILLAGE AT DISCOVERY PARK

## LOT 13

### LOCATION MAP



### PROJECT BENCHMARK:

TBM #1 – CONTROL POINT #50 SET BY OLSSON. 1/2" IMBEDDED CAP ON NORTH SIDE OF NW COLBERN RD. LOCATED AT 1ST FIELD ENTRANCE.  
NORTHING = 1012389.819  
EASTING = 2822108.784  
ELEVATION = 990.810  
REFER TO "PRIVATE SITE DEVELOPMENT PLANS FOR THE VILLAGE AT DISCOVERY PARK ZONE 1" PLANS BY OLSSON DATED 10/18/2023 FOR MORE INFORMATION.

### FLOOD PLAIN STATEMENT:

THIS LOT IS LOCATED IN ZONE X UNSHADED – AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOOD AS SHOWN ON THE FEMA F.I.R.M. PANEL #290950C0409G, DATED JANUARY 20, 2017.

### LEGAL DESCRIPTION:

VILLAGE AT DISCOVERY PARK, LOT 3. A SUBDIVISION IN JACKSON COUNTY, LEE'S SUMMIT, MISSOURI.

### UTILITY COMPANIES:

#### LOCATES:

MISSOURI ONE CALL INC.  
1022 B NORTHEAST DRIVE  
JEFFERSON CITY, MO 65109  
1-800-344-7483



#### TELEPHONE:

AT&T  
800-286-8313

#### NATURAL GAS:

SPIRE  
314-342-0500

#### CABLE TELEVISION:

SPECTRUM  
877-772-2253

#### ELECTRIC:

EVERGY  
816-524-3223

#### WATER/SANITARY SEWER:

CITY OF LEE'S SUMMIT  
WATER UTILITIES DEPARTMENT  
1200 S HAMLEN RD  
LEE'S SUMMIT, MO 64081  
816-969-1900

#### FIBER:

GOOGLE FIBER  
877-454-6959

### GENERAL NOTES:

ALL STREET, STORM DRAIN, AND SANITARY SEWER CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT "DESIGN AND CONSTRUCTION MANUAL" (CURRENT EDITION).

ANY CITY DETAILS SHOWN ON THIS SET OF PLANS ARE FOR REFERENCE ONLY. CONTRACTOR TO HAVE A COPY OF THE CITY'S LATEST EDITION OF SPECIFICATIONS AND STANDARDS FOR ALL STREET, STORM, AND SANITARY CONSTRUCTION ON SITE AT ALL TIMES DURING CONSTRUCTION. REFER TO <https://cityofls.net/development-services/design/design-criteria/design-construction-manual-infrastructure>

CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF TRAFFIC CONTROL DEVICES NECESSARY TO COMPLETE THEIR PORTION OF WORK. THE DEVICES AND METHODS EMPLOYED WILL COMPLY WITH THE CURRENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL CONCRETE MATERIALS SHALL CONFORM TO KCMMB STANDARDS AND SPECIFICATIONS.

THIS PLAT CONTAINS APPROXIMATELY 1.14 ACRES.

THIS TRACT IS ZONED PMIX.

THE STORM SEWER NETWORK DESIGN FOR THIS PROJECT IS BASED ON OPEN CHANNEL FLOW; THEREFORE THE HYDRAULIC GRADE LINE IS AT OR LESS THAN THE CROWN OF THE PIPE.

EXISTING UTILITIES SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE LOCATES (HORIZONTAL AND VERTICAL) PRIOR TO ANY EXCAVATION.

ALL EXCAVATION TO BE IN ACCORDANCE WITH SECTIONS 319.010-319.050, REVISED STATUTES OF THE STATE OF MISSOURI. SUCH COMPLIANCE SHALL NOT, HOWEVER, EXCUSE ANY PERSON MAKING ANY EXCAVATION FROM DOING SO IN A CAREFUL AND PRUDENT MANNER, NOR SHALL IT EXCUSE SUCH PERSON FROM LIABILITY FOR ANY DAMAGE OR INJURY TO UNDERGROUND UTILITIES RESULTING FROM THE EXCAVATION.

A GEOTECHNICAL EVALUATION OF THE SUBSURFACE SOIL, GROUNDWATER CONDITIONS, AND A SLOPE STABILITY ANALYSIS HAS NOT BEEN PERFORMED BY THIS ENGINEER. THE OWNER SHALL SATISFY THEMSELVES OF ALL GEOTECHNICAL CONDITIONS PRIOR TO ANY CONSTRUCTION.

ALL LAND DISTURBANCE ACTIVITIES SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT CODE OF ORDINANCES. REFER TO STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR NARRATIVE REPORT AND BMP DESCRIPTIONS AND DETAILS.

ALL SLOPES ARE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

IT IS THE INTENT OF THESE PLANS TO COMPLY WITH THE REQUIREMENTS OF THE MOENR CLEAN WATER COMMISSION.

ALL DISTURBED AREAS WITHIN THE "LIMITS OF DISTURBANCE" SHALL BE FINE GRADED, SEEDED, AND MULCHED.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES AND REMOVING THEM ONCE THE SITE IS STABILIZED.

ALL HDPE PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. REFER TO DETAIL FOR PIPE BEDDING REQUIREMENTS.

IN ORDER TO TERMINATE A STATE OPERATING PERMIT THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) REQUIRES THAT THE PERMITTEE SUBMIT A COMPLETED FORM H (INCLUDED WITH THE APPROVAL PERMIT) TO THE MDNR. A PERMIT IS ELIGIBLE FOR TERMINATION WHEN EITHER PERENNIAL VEGETATION, PAVEMENT, BUILDINGS, OR STRUCTURES USING PERMANENT MATERIALS COVER ALL AREAS THAT HAVE BEEN DISTURBED. VEGETATIVE COVER SHALL BE AT LEAST 70% OF FULLY ESTABLISHED PLANT DENSITY OVER 100% OF THE DISTURBED AREA. A COPY OF FORM H SHOULD BE SUBMITTED TO THE CITY AT WHICH TIME THE CITY WILL REMOVE THE PROJECT FROM ITS INSPECTION SCHEDULE.

LAND DISTURBANCE SITES SHOULD BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 48 HOURS AFTER ANY STORM EVENT EQUAL TO OR GREATER THAN A 2-YEAR, 24-HOUR STORM HAS CEASED DURING A NORMAL WORK DAY OR WITHIN 72 HOURS IF THE RAIN EVENT CEASES DURING A NON-WORK DAY SUCH AS A WEEKEND OR HOLIDAY. ANY DEFICIENCIES SHALL BE NOTED IN A WEEKLY REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE REPORT. CONTRACTORS ARE REQUIRED TO SUBMIT TO CITY INSPECTION STAFF COPIES OF THEIR INSPECTION REPORTS REQUIRED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON A MONTHLY BASIS IF REQUESTED.

NO OIL AND GAS WELLS EXIST ON THIS TRACT ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES OIL AND GAS PERMIT DATABASE.

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

TOTAL DISTURBED AREA ON SITE = 1.22 AC.

MISSOURI DNR LAND DISTURBANCE PERMIT NUMBER MORA23630.

### DEVELOPER :

DISCOVERY PARK LEE'S SUMMIT, LLC.  
4220 PHILLIPS FARM RD.  
COLUMBIA, MO 65201  
573-615-2252

### SHEET LIST TABLE

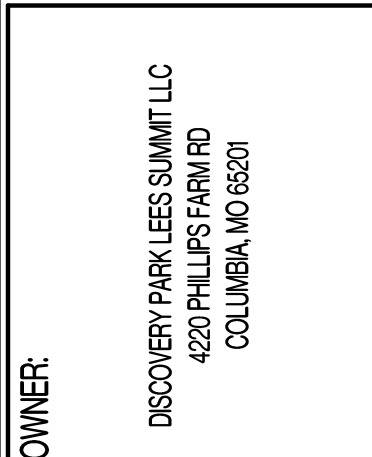
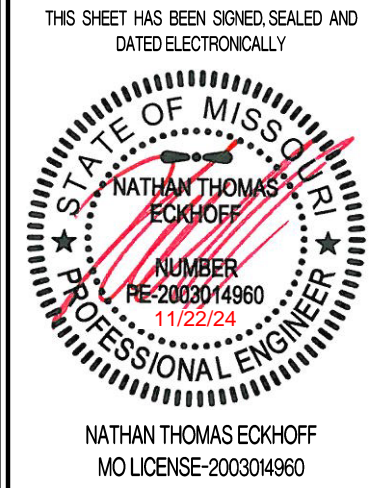
SHEET NUMBER	SHEET TITLE	ORIGINAL 11/22/24
CE 1.0	COVER SHEET	X
CE 1.1	PROJECT SPECIFICATIONS	X
CE 2.1	EROSION CONTROL PLAN	X
CE 2.2	EROSION CONTROL DETAILS	X
CE 3.0	OVERALL GRADING PLAN	X
CE 3.1	GRADING PLAN SHEET 1	X
CE 3.2	GRADING PLAN SHEET 2	X
CE 3.3	GRADING PLAN SHEET 3	X
CE 4.1	UTILITY PLAN	X
CE 5.1	STORM PROFILE & DETAILS	X
CE 5.2	25-YEAR STORM CALCULATIONS	X
CE 5.3	100-YEAR STORM CALCULATIONS	X
CE 6.1	SITE PLAN	X
CE 7.1	DETAILS SHEET 1	X
CE 7.2	DETAILS SHEET 2	X
CE 7.3	LEE'S SUMMIT DETAILS 1	X
CE 7.4	LEE'S SUMMIT DETAILS 2	X
CE 8.1	LANDSCAPING PLAN	X

### LEGEND OF SYMBOLS:

---	EXISTING CURB	FF=XXXX	FINISHED FLOOR OF STRUCTURE
----	PROPOSED CURB	XXXX.XX TC	PROPOSED TOP OF CURB ELEVATION
XXXXXX	RIP RAP	XXXX.XX TP	PROPOSED TOP OF PAVEMENT ELEVATION
XXXXXX	EXISTING STRUCTURE	XXXX.XX FG	PROPOSED FINISHED GRADE ELEVATION
XXXXXX	EXISTING TREELINE	XXXX.XX TW	PROPOSED TOP OF WALL
----	PROPOSED TREELINE	XX	LOT NUMBER
----	EDGE OF WATERWAY	X	STORM SEWER STRUCTURE LABEL
---	EXISTING WATERLINE	X	SANITARY SEWER STRUCTURE LABEL
---	PROPOSED WATERLINE	H.P.	HIGH POINT
---	EXISTING GAS LINE	L.P.	LOW POINT
---	PROPOSED GAS LINE	---	EXISTING SIGNS
---	EXISTING TELEPHONE	✂	EXISTING POWER POLE
---	EXISTING FIBER OPTIC	✂	EXISTING GAS VALVE
---	EXISTING OVERHEAD ELECTRIC	✂	EXISTING WATER VALVE
---	EXISTING UNDERGROUND ELECTRIC	✂	EXISTING GAS METER
---	PROPOSED UNDERGROUND ELECTRIC	✂	EXISTING WATER METER
---	EXISTING OVERHEAD ELEC. & TV	✂	EXISTING FIRE HYDRANT
---	EXISTING OVERHEAD ELEC., TV & TELE.	✂	MANHOLE
---	EXISTING SANITARY SEWER	✂	EXISTING SANITARY SEWER LATERAL
---	PROPOSED SANITARY SEWER	✂	PROPOSED SANITARY SEWER LATERAL
---	EXISTING MINOR CONTOUR	✂	PROPOSED TRACER WIRE TEST STATION BOX
---	EXISTING MAJOR CONTOUR	✂	EXISTING AIR CONDITIONER
---	PROPOSED MINOR CONTOUR	✂	EXISTING TELEPHONE PEDESTAL
---	PROPOSED MAJOR CONTOUR	✂	EXISTING ELECTRICAL TRANSFORMER
---	100 YEAR FLOOD PLAIN	✂	EXISTING ELECTRIC METER
---	FLOODWAY	✂	EXISTING LIGHT POLE
---	ORDINARY HIGH WATER MARK	✂	EXISTING GUY WIRE
---	STREAM SIDE BUFFER	✂	
---	OUTER STREAM BUFFER	✂	
---	PROPOSED CONCRETE PAVEMENT	---	PROPOSED BUILDING FOOTPRINT
---	PROPOSED CONCRETE PAVEMENT IN PARKING GARAGE	---	PROPOSED HEAVY DUTY PAVEMENT
---	PIPE EMBEDMENT UNDER PAVEMENT	---	

### REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

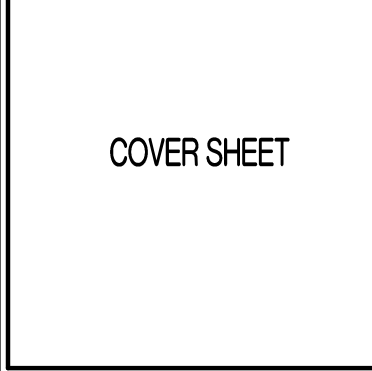


# THE VILLAGE AT DISCOVERY

## LOT 13

### LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

### DRAWING INCLUDES:



DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO:	230286
SHEET:	CE 10



SITE CLEARING & DEMOLITION :

IT IS THE INTENT THAT THE DEMOLITION BE COMPLETE AND ADEQUATE FOR THE INTENDED PURPOSE. THIS WORK SHALL INCLUDE THE REMOVAL OF ALL ITEMS, WHETHER IN VIEW OR HIDDEN UNDERNEATH THE SURFACE OF THE GROUND, REGARDLESS OF WHETHER SHOWN ON THE DRAWINGS OR ENCOUNTERED DURING CONSTRUCTION.

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING MATERIALS, METHODS OF WORK, AND DISPOSAL OF EXCESS WASTE MATERIALS.

ERECT BARRIERS TO PROTECT PERSONNEL, STRUCTURES AND UTILITIES REMAINING INTACT.

PROTECT ALL EXISTING OBJECTS INTENDED TO REMAIN. IN CASE OF DAMAGE, MAKE REPAIRS OR REPLACEMENTS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

MINIMIZE INTERFERENCE WITH ROADS, STREETS, DRIVEWAYS, SIDEWALKS, AND ADJACENT FACILITIES.

DO NOT CLOSE OR OBSTRUCT STREETS, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.

IF CLOSURE IS PERMITTED, PROVIDE SIGNAGE INDICATING CLOSURE AND SIGNAGE TO DIRECTED TRAFFIC TO ALTERNATE ROUTE.

MOISTEN SURFACES AS REQUIRED TO PREVENT DUST FROM BEING A NUISANCE TO THE PUBLIC, NEIGHBORS, AND CONCURRENT PERFORMANCE OF OTHER WORK ON THE SITE.

PROVIDE THE OWNER'S REPRESENTATIVE A MINIMUM OF TWO BUSINESS DAYS' NOTICE PRIOR TO COMMENCING WORK OF THIS SECTION.

THE CONTRACTOR SHALL LOCATE EXISTING UTILITY LINES AND SERVICES TRaversING THE SITE AND DETERMINE THE REQUIREMENTS FOR THEIR PROTECTION. THE CONTRACTOR SHALL PRESERVE ACTIVE UTILITIES ON THE SITE THAT ARE DESIGNATED TO REMAIN.

BEFORE STARTING SITE OPERATIONS, THE CONTRACTOR SHALL DISCONNECT OR ARRANGE FOR THE DISCONNECTION OF ALL UTILITY SERVICES DESIGNATED TO BE REMOVED. THE CONTRACTOR SHALL PERFORM ALL SUCH WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY OR AGENCY INVOLVED.

IN REMOVING PAVEMENT, CURB AND GUTTER, SIDEWALKS, ETC., WHERE A PORTION IS LEFT IN PLACE, REMOVAL SHALL BE TO AN EXISTING JOINT OR TO A JOINT SAWN TO A MINIMUM DEPTH OF 2" WITH A TRUE SAW LINE AND A VERTICAL FACE. REMOVE SUFFICIENT PAVEMENT TO PROVIDE FOR PROPER GRADE AND CONNECTIONS IN THE NEW WORK REGARDLESS OF ANY LIMITS INDICATED ON THE DRAWINGS.

EXISTING CASTINGS AND CULVERTS, IF SALVAGEABLE AND REMOVED INTACT, REMAIN THE PROPERTY OF THE CONTRACTOR.

ALL SEWERS AND DRAINAGE PIPES, WHICH HAVE BEEN OR ARE TO BE ABANDONED, SHALL BE PERMANENTLY SEALED AT THE ENDS WITH BULKHEADS CONSTRUCTED OF CONCRETE, HAVING A MINIMUM THICKNESS OF 8".

ABANDON STORM OR SANITARY SEWER STRUCTURES BY BREAKING THE CONCRETE BOTTOM OF THE STRUCTURE INTO PIECES NO LARGER THAN 12" IN ANY DIRECTION AND REMOVING THE TOP OF THE STRUCTURE TO 3" BELOW FINISHED GRADE. PLUG ALL PIPES WITH CONCRETE AND FILL STRUCTURE WITH 1" CLEAN GRAVEL.

ALL DEBRIS SHALL BE DISPOSED OF OFF-SITE.

DO NOT STORE OR BURN MATERIALS ON-SITE UNLESS PERMITTED BY THE GOVERNING JURISDICTION.

ALL ASPHALT OR CONCRETE MATERIALS SHALL BE DISPOSED OF OFF-SITE.

MATERIAL ACQUIRED THROUGH DEMOLITION, OTHER THAN THOSE REQUIRED TO COMPLETE THE CONSTRUCTION PROJECT AND DESIGNATED FOR RETURN TO OWNER, WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE. THE MATERIAL WILL BE DISPOSED OF IN A LEGAL MANNER.

THE CONTRACTOR'S OPERATIONS SHALL BE RESTRICTED TO THOSE AREAS INSIDE THE CONSTRUCTION LIMITS INDICATED ON THE DRAWINGS. IF LIMITS ARE NOT INDICATED, RESTRICT WORK TO THE OWNER'S PROPERTY, EASEMENT, OR PUBLIC RIGHTS-OF-WAY.

COMPLETE WORK WITHIN PUBLIC RIGHTS-OF-WAY UNDER THE PERMISSION OF THE GOVERNING AGENCY.

IF ITEMS OUTSIDE THE LIMITS OF DISTURBANCE GET DAMAGED, OWNER COMPLETES THE REQUIRED REPAIRS AND CHARGES THE CONTRACTOR.

THE CONTRACTOR IS RESPONSIBLE FOR THE ADJUSTMENT OF ALL MANHOLES, CASTINGS, WATER VALVES IRRIGATION BOXES, CLEAN OUTS AND ETC. WITHIN THE GRADING LIMITS TO MATCH THE FINISHED SURFACE. ADJUSTMENTS SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO CONSTRUCTION UNLESS NOTED AS A BID ITEM. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO UTILITY STRUCTURES AND APPURTENANCES THAT OCCURS DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

EARTHMOVING:

CONTRACTOR TO SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

TEST REPORTS: SUBMIT FOR APPROVAL TEST REPORTS, LIST OF MATERIALS AND GRADATIONS PROPOSED FOR USE. OBTAIN SAMPLES OF ANY PROPOSED FILL MATERIAL AND CONTRACTOR TO PROVIDE STANDARD PROCTOR TEST REPORTS TO ENGINEER.

COMPACTION REQUIREMENTS ARE AS FOLLOWS:

- UNDER STEPS, PAVEMENTS, AND WALKWAYS, 95 PERCENT STANDARD PROCTOR MINIMUM DENSITY, ASTM D 698.
- UNDER LAWNS OR UNPAVED AREAS, 85 PERCENT, ASTM D 698.

GRADING TOLERANCES OUTSIDE BUILDING LINES ARE AS FOLLOWS:

- LAWNS, UNPAVED AREAS, AND WALKS, PLUS OR MINUS 1 INCH.
- PAVEMENTS, PLUS OR MINUS 1/2 INCH.
- ALL ADA ROUTES AND PARKING ARE TO MEET ADA REQUIREMENTS AT ALL TIMES.

ALL ACTIVITIES WILL BE CONTAINED WITHIN CONSTRUCTION BOUNDARIES INDICATED ON SITE PLAN. SPECIFIED EXCAVATION REQUIREMENTS, PRECAUTIONS, AND PROTECTIVE SYSTEMS WILL BE OBSERVED AT ALL TIMES.

MOVEMENT OF TRUCKS AND EQUIPMENT ON OWNER'S PROPERTY WILL BE IN ACCORDANCE WITH OWNER'S INSTRUCTIONS.

TOPSOIL WILL BE STRIPPED FROM THE CONSTRUCTION SITE AND WILL BE DISPOSED OF LEGALLY OFF SITE.

TRENCHES WILL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE COMPLETED AND THE UTILITY SYSTEMS, AS INSTALLED, CONFORM TO REQUIREMENTS SPECIFIED BY THE CONTRACT DOCUMENTS.

EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO SUBGRADE REGARDLESS OF MATERIALS ENCOUNTERED. REPAIR EXCAVATIONS BEYOND ELEVATIONS AND DIMENSIONS INDICATED AS FOLLOWS:

- AT STRUCTURE: CONCRETE OR COMPACTED STRUCTURAL FILL.
  - ELSEWHERE: BACKFILL AND COMPACT AS DIRECTED.
- MAINTAIN STABILITY OF EXCAVATIONS; CONTRACTOR TO BE RESPONSIBLE FOR DESIGN AND COORDINATION OF SHORING AND BRACING AS REQUIRED. PREVENT SURFACE AND SUBSURFACE WATER FROM ACCUMULATING IN EXCAVATIONS. STOCKPILE SATISFACTORY MATERIALS FOR REUSE, ALLOW FOR PROPER DRAINAGE AND DO NOT STOCKPILE MATERIALS WITHIN DRIP LINE OF TREES TO REMAIN.

COMPACT MATERIALS AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 698 BY AERATION OR WETTING TO THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY:

- STRUCTURE, PAVEMENT, WALKWAYS: SUBGRADE AND EACH FILL LAYER TO 95% (-2%+4%) OF STANDARD PROCTOR MAXIMUM DRY DENSITY TO SUITABLE DEPTH. COMPACTION TESTING SHALL BE PERFORMED IMMEDIATELY PRIOR TO THE PLACEMENT OF REINFORCING STEEL AND NEW PAVING MATERIALS. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING TESTING WITH OWNERS DESIGNATED TESTING AGENCY.
- UNPAVED AREAS: TOP 6" OF SUBGRADE AND EACH FILL LAYER TO 90% MAXIMUM DRY DENSITY.
- A PROOF-ROLL SHALL BE REQUIRED OF THE SUBGRADE PRIOR TO PLACEMENT OF THE BASE COURSE. PROOF ROLLING SHALL CONSIST OF PASSING A LOADED, 20-TON, TANDEM DUMP TRUCK OVER THE PREPARED SUBGRADE SOIL WITH A MAXIMUM ALLOWABLE DISPLACEMENT OF 1". ANY AREAS THAT DISPLACE MORE THAN 1" SHALL BE COMPACTED UNTIL THIS CRITERION IS MET, OR THOSE AREAS MAY BE EXCAVATED AND BACKFILLED WITH COMPACTED TYPE 1 AGGREGATE USED FOR BASE MATERIAL. ALL PROOF ROLLING SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
- CUT AREAS UNDER PROPOSED ASPHALT OR CONCRETE PAVEMENTS SHALL BE CUT AND COMPACTED. AFTER GRADING TO SUBGRADE ELEVATION, SCARIFY THE TOP SIX INCHES OF THE SUB-BASE AND COMPACT AS OUTLINED ABOVE.

PLACE ACCEPTABLE MATERIALS IN LAYERS NOT MORE THAN 8" LOOSE DEPTH FOR MATERIALS COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 4" LOOSE DEPTH FOR MATERIALS COMPACTED BY HAND EQUIPMENT TO SUBGRADES INDICATED AS FOLLOWS:

- STRUCTURAL FILL: USE UNDER FOUNDATIONS, SLABS ON GRADE IN LAYERS AS INDICATED.
- DRAINAGE FILL: USE UNDER DESIGNATED BUILDING SLABS, AT FOUNDATION DRAINAGE AND ELSEWHERE AS INDICATED.
- LANDSCAPE AREA FILL:
  - ALL SUB-GRADE AREAS SHALL BE "RIPPED" TO A MINIMUM 6" DEEP AND A MAXIMUM OF 12" APART IN OPPOSITE DIRECTIONS WITH MINIMAL TIRE TRAFFIC TO FOLLOW.
  - CONTRACTOR TO LEAVE AREAS 6" OR 18" (PLANTER AREAS) BELOW FINISH GRADE, OWNER TO PLACE TOPSOIL AND ALL PLANTINGS.
- ANY FILL SOIL WITHIN 36" OF FINISHED GRADE IN LAWN AND PLANTER AREAS SHALL BE CHESIVE SOILS IN SOIL CLASSIFICATIONS GROUPS ML, CL, CH OR A COMBINATION THEREOF, FREE OF ROCK OR GRAVEL LARGER THAN 1" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIAL, VEGETATION AND OTHER DELETERIOUS MATER.
- SUB-BASE MATERIAL: USE UNDER PAVEMENT, WALKS, STEPS, PIPING AND CONDUIT.

GRADE TO WITHIN 1/2" ABOVE OR BELOW REQUIRED SUBGRADE AND WITHIN A TOLERANCE OF 1/2" IN 10'.

PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. RECOMPACT AND REGRADE SETTLED, DISTURBED AND DAMAGED AREAS AS NECESSARY TO RESTORE QUALITY, APPEARANCE, AND CONDITION OF WORK.

CONTROL EROSION TO PREVENT RUNOFF INTO SEWERS OR DAMAGE TO SLOPED OR SURFACED AREAS.

CONTROL DUST TO PREVENT HAZARDS TO ADJACENT PROPERTIES AND VEHICLES. IMMEDIATELY REPAIR OR REMEDY DAMAGE CAUSED BY DUST INCLUDING AIR FILTERS IN EQUIPMENT AND VEHICLES. CLEAN SOILED SURFACES.

DISPOSAL OF EXCAVATION WASTE AND UNSUITABLE MATERIALS SHALL BE THE RESPONSIBILITY OF THE SITE WORK CONTRACTOR. NO SPECIFIC OR PRE-APPROVED LOCATION IS BEING PROVIDED BY THE OWNER.

CONCRETE :

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 305 SPECIFICATIONS FOR HOT WATER CONCRETE, AND ACI 306 SPECIFICATIONS FOR COLD WEATHER CONCRETE, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

- CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY MINIMUM COMPRESSIVE STRENGTH:
  - FOUNDATIONS - 3,000 PSI
  - CAST-IN-PLACE WALLS - 3,500 PSI
  - FLOOR SLAB - 4,000 PSI
  - EXTERIOR SLABS, WALLS AND CURBS - 4,000 PSI
- ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL.
- CHLORIDE- BASED ADMIXTURES ARE PROHIBITED IN ALL CONCRETE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60.
- ALL CONTINUOUS REINFORCING STEEL THAT MEETS AT A CORNER SHALL BE TIED TOGETHER WITH A CORNER BAR THAT HAS SUFFICIENT LAP DISTANCE IN EACH DIRECTION.
- CONTINUOUS REINFORCING BARS LAP LENGTH SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- CONCRETE SLUMP SHALL BE A MAXIMUM OF 4 +/- 1" (ASTM C- 143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON THE APPROVED MIXED. THIS SHALL BE NOTED IN THE SPECIAL INSPECTOR'S RECORDS.
- CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 6% (+/-) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF FRESHLY FINISHED FLOORS TO EXCEED 3%.
- SUBMIT CONCRETE MIX PROPORTIONS PRIOR TO START OF WORK. DO NOT BEGIN CONCRETE PRODUCTION UNTIL MIXES HAVE BEEN REVIEWED AND ARE ACCEPTABLE TO THE ENGINEER.
- READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94.
- CONCRETE WORK EXECUTION
  - CONSTRUCT FORMS TO CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION AND POSITION; AND TO SUPPORT VERTICAL AND LATERAL LOADS.
  - POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE, UNLESS NOTED OTHERWISE, ON THE DRAWINGS:
    - CAST AGAINST AND EXPOSED TO EARTH.....3 INCHES
    - EXPOSED TO EARTH OR WEATHER.....2 INCHES
    - NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH.....1 1/2 INCHES
  - PROVIDE CONTROL JOINTS IN SLABS-ON-GRADE AT NOT GREATER THAN 15 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL JOINTS MINIMUM 1/4 OF SLAB DEPTH, AS SOON AFTER SLAB FINISHING WITHOUT DISLODGING AGGREGATE.
  - STEEL TROWEL FINISH ALL INTERIOR CONCRETE SLABS, BROOM FINISH ALL EXTERIOR CONCRETE SLABS.
  - CURE ALL CONCRETE IN COMPLIANCE WITH ACI 301, USING A LIQUID TYPE MEMBRANE, NON-RESIDUAL, CURING COMPOUND COMPLYING WITH ASTM C309. ASSURE COMPATIBILITY WITH FINISH FLOOR COVERING.
- FLEET AND CHERY WILL BE LIMITED TO 1% MAXIMUM, BY WEIGHT OF THE COURSE AGGREGATE, IN ALL EXPOSED CONCRETE. (CAST-IN-PLACE OR PRECAST), LIGNITE WILL BE LIMITED TO 0.5%, BY WEIGHT OF THE FINE AGGREGATE IN ALL EXPOSED CONCRETE. SOME APPLICATIONS MAY BE REQUIRED TO BE LIGNITE FREE.

CONCRETE PAVING JOINT SEALANTS:

DELIVER MATERIALS TO PROJECT SITE IN ORIGINAL UNOPENED CONTAINERS OR BUNDLES WITH LABELS INDICATING MANUFACTURER, PRODUCT NAME AND DESIGNATION, COLOR, EXPIRATION DATE, POT LIFE, CURING TIME, AND MIXING INSTRUCTIONS FOR MULTICOMPONENT MATERIALS.

STORE AND HANDLE MATERIALS TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS TO PREVENT THEIR DETERIORATION OR DAMAGE DUE TO MOISTURE, HIGH OR LOW TEMPERATURES, CONTAMINANTS, OR OTHER CAUSES.

DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS UNDER THE FOLLOWING CONDITIONS:

- WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 DEG F.
- WHEN JOINT SUBSTRATES ARE WET OR COVERED WITH FROST.
- WHERE JOINT WIDTHS ARE LESS THAN THOSE ALLOWED BY JOINT-SEALANT MANUFACTURER FOR APPLICATIONS INDICATED.
- WHERE CONTAMINANTS CAPABLE OF INTERFERING WITH ADHESION HAVE NOT YET BEEN REMOVED FROM JOINT SUBSTRATES.

PROVIDE JOINT SEALANTS, BACKING MATERIALS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY JOINT-SEALANT MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.

COLD-APPLIED JOINT SEALANTS ARE TO BE TYPE NS SILICONE SEALANT FOR CONCRETE; SINGLE-COMPONENT, LOW-MODULUS, NEUTRAL-CURING, NONSAG SILICONE SEALANT COMPLYING WITH ASTM D 5893 FOR TYPE NS. PRODUCTS ALLOWED ARE: CRAFCO INC.; ROADSAVER SILICONE ; DOW CORNING CORPORATION; 888; PECORA NS 301, OR APPROVED EQUAL.

CONTRACTOR TO PROVIDE JOINT-SEALANT BACKER MATERIALS THAT ARE NONSTAINING; ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS; AND ARE APPROVED FOR APPLICATIONS INDICATED BY JOINT-SEALANT MANUFACTURER BASED ON FIELD EXPERIENCE AND LABORATORY TESTING. ROUND BACKER RODS FOR COLD-APPLIED SEALANTS: ASTM D 5249, TYPE 3, OF DIAMETER AND DENSITY REQUIRED TO CONTROL SEALANT DEPTHAND PREVENT BOTTOM-SIDE ADHESION OF SEALANT.

PRIOR TO JOINT INSTALLATION, CONTRACTOR IS TO EXAMINE JOINTS INDICATED TO RECEIVE JOINT SEALANTS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR JOINT CONFIGURATION, INSTALLATION TOLERANCES, AND OTHER CONDITIONS AFFECTING JOINT- SEALANT PERFORMANCE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS.

COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PRODUCTS AND APPLICATIONS INDICATED, UNLESS MORE STRINGENT REQUIREMENTS APPLY.

COMPLY WITH RECOMMENDATIONS IN ASTM C 1193 FOR USE OF JOINT SEALANTS AS APPLICABLE TO MATERIALS, APPLICATIONS, AND CONDITIONS INDICATED.

INSTALL BACKER MATERIALS OF TYPE INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY. DO NOT LEAVE GAPS BETWEEN ENDS OF BACKER MATERIALS. DO NOT STRETCH, TWIST, PUNCTURE, OR TEAR BACKER MATERIALS. REMOVE ABSORBENT BACKER MATERIALS THAT HAVE BECOME WET BEFORE SEALANT APPLICATION AND REPLACE THEM WITH DRY MATERIALS.

INSTALL SEALANTS USING PROVEN TECHNIQUES THAT COMPLY WITH THE FOLLOWING AND AT THE SAME TIME BACKING ARE INSTALLED:

- PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES.
- COMPLETELY FILL RECESSES PROVIDED FOR EACH JOINT CONFIGURATION.
- PRODUCE UNIFORM, CROSS-SECTIONAL SHAPES AND DEPTHS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.

IMMEDIATELY AFTER SEALANT APPLICATION AND BEFORE SKINNING OR CURING BEGINS, TOOL SEALANTS ACCORDING TO REQUIREMENTS SPECIFIED BELOW TO FORM SMOOTH, UNIFORM BEADS OF CONFIGURATION INDICATED; TO ELIMINATE AIR POCKETS; AND TO ENSURE CONTACT AND ADHESION OF SEALANT WITH SIDES OF JOINT. REMOVE EXCESS SEALANTS FROM SURFACES ADJACENT TO JOINT.USE TOOLING AGENTS THAT ARE APPROVED IN WRITING BY JOINT-SEALANT MANUFACTURER AND THAT DO NOT DISCOLOR SEALANTS OR ADJACENT SURFACES.

PROVIDE JOINT CONFIGURATION TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS, UNLESS OTHERWISE INDICATED.

PROVIDE RECESSED JOINT CONFIGURATION FOR SILICONE SEALANTS OF RECESS DEPTH AND AT LOCATIONS INDICATED.

CLEAN OFF EXCESS SEALANTS OR SEALANT SMEARS ADJACENT TO JOINTS AS THE WORK PROGRESSES BY METHODS AND WITH CLEANING MATERIALS APPROVED BY MANUFACTURERS OF JOINT SEALANTS AND OF PRODUCTS IN WHICH JOINTS OCCUR.

PROTECT JOINT SEALANTS DURING AND AFTER CURING PERIOD FROM CONTACT WITH CONTAMINATING SUBSTANCES AND FROM DAMAGE RESULTING FROM CONSTRUCTION OPERATIONS OR OTHER CAUSES SO SEALANTS ARE WITHOUT DETERIORATION OR DAMAGE AT TIME OF SUBSTANTIAL COMPLETION. IF, DESPITE SUCH PROTECTION, DAMAGE OR DETERIORATION OCCURS, CUT OUT AND REMOVE DAMAGED OR DETERIORATED JOINT SEALANTS IMMEDIATELY AND REPLACE WITH JOINT SEALANT SO INSTALLATIONS WITH REPAIRED AREAS ARE INDISTINGUISHABLE FROM THE ORIGINAL WORK.

PAVEMENT MARKING :

UNLESS NOTED OTHERWISE ON THE PLANS, PAINT SHALL BE WATERBORNE OR SOLVENT BORNE, COLORS AS SHOWN OR SPECIFIED HEREIN. WATERBORNE PAINT: PAINTS SHALL CONFORM TO FS IT-P-1952. SOLVENT BORNE PAINT: PAINT SHALL CONFORM TO FS A-A-2886 OR AASHTO M248. PAINT SHALL BE NON-BLEEDING, QUICK-DRYING AND ALKYO PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC BEARING SURFACE AND BE MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION FOR COLORS WHITE, YELLOW, BLUE, AND RED. RETROREFLECTIVE PAINT SHALL BE TYPE I GLASS BEADS PER SECTION 620 OF THE CURRENT MDDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

PAINT SHALL BE APPLIED PER THE FOLLOWING COLOR CODE: WHITE FOR STANDARD PARKING SPACE LINES AND SIDEWALK CROSSINGS. BLUE FOR ACCESSIBLE PARKING STALL AND SYMBOLS AND ASSOCIATED CROSS-HATCHED AREAS

MATERIALS SHALL INCLUDE STANDARD COMMERCIAL GRADE MASKING MATERIALS, SCRAPERS, CLEANING SOLVENTS, AND OTHER MATERIALS REQUIRED FOR THE WORK. USE MATERIALS SPECIFIED BY MANUFACTURER'S DIRECTION LABEL ON CONTAINER.

DELIVER MATERIALS TO THE SITE IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN AND LABELS INTACT. PROTECT ALL PAINT FROM FREEZING. DO NOT ALLOW PAINT TO SETTLE, CAKE, OR THICKEN IN THE CONTAINER. READY STIR WITH A PADDOLE TO A SMOOTH CONSISTENCY. PAINT SHALL ARRIVE ON THE JOB COLOR-MIXED EXCEPT FOR TINTING OF UNDERCOATS AND POSSIBLE THINNING.

PRIOR TO BEGINNING CLEANING OR PAINTING OPERATIONS, CONTRACTOR SHALL PROTECT ALL ITEMS OR SURFACES NOT INCLUDED IN AREA TO BE PAINTED. PROTECT VEHICLES, EQUIPMENT, STRUCTURES, OR OTHER ITEMS FROM PAINT SPATTERS, OVER SPRAY, OR DAMAGE.

CONTRACTOR SHALL PROVIDE BARRICADES AND ANY SIGNAGE NEEDED TO PROTECT ALL PAINTED AREAS FROM PEDESTRIAN AND VEHICULAR TRAFFIC UNTIL ACHIEVING SUFFICIENT DRYING TIME.

PERFORM PAINTING AS SOON AS FEASIBLE AND PRACTICAL AFTER THE FINISHING OF THE PAVEMENT OR AS DIRECTED BY THE OWNERS REPRESENTATIVE. ADEQUATE LIGHTING SHALL BE AVAILABLE AT THE TIME OF PAINTING. EXAMINE ALL SURFACES TO RECEIVE PAINT TO MAKE SURE THERE ARE NO DEFECTS IN THE SURFACE TO BE STRIPED. DO NOT PAINT OVER RUST, SCALE, GREASE, OIL, FUEL, DUST, WET PAVEMENT, OR OTHER CONDITIONS DETRIMENTAL TO PAINT ADHESION. REMOVE GREASE, OIL, OR FUEL ON ANY SURFACE BEFORE PAINTING. CORRECT ALL SURFACE DEFECTS BEFORE PAINTING. CONTRACTOR SHALL EXAMINE AREAS TO BE PAINTED. NOTIFY THE OWNERS REPRESENTATIVE IN WRITING OF CONDITIONS THAT MIGHT DELAY TIMELY COMPLETION OF THE WORK.

PAINTING SHALL NOT BE PERFORMED WHEN THE AMBIENT TEMPERATURE IS LESS THAN 55 DEGREES FAHRENHEIT AND NOT EXCEEDING 95 DEGREES FAHRENHEIT, OR WHILE THE SURFACE IS DAMP. THE SURFACE MUST BE FIVE DEGREES OR MORE ABOVE THE DEW POINT TEMPERATURE DURING PAINTING OPERATIONS AND WHILE PAINT IS DRYING.

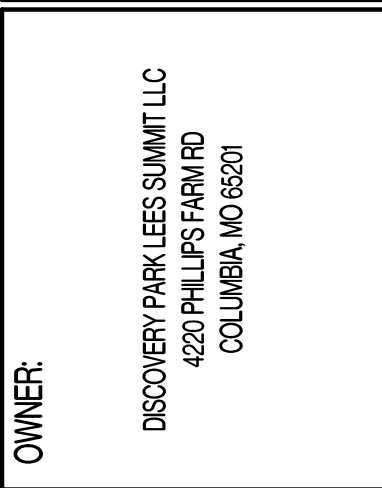
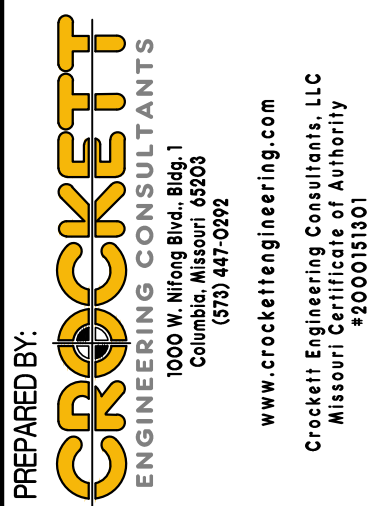
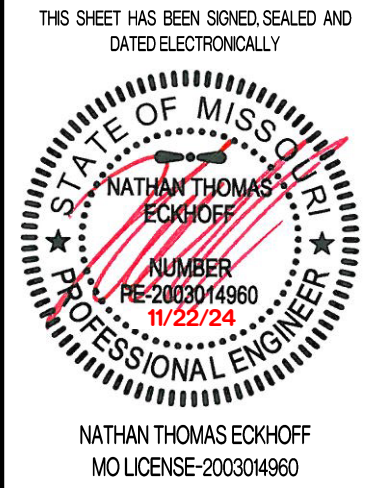
AREAS TO BE PAINTED SHALL RECEIVE ONE COAT OF PAINT NOT LESS THAN 25 MILS THICKNESS WET PER MDDOT 620.9 THROUGH 620.9.3.4.2. IN LOCATIONS REQUIRING MULTIPLE COATS, PRIOR COAT SHALL BE DRY TO MANUFACTURER'S RECOMMENDATIONS BEFORE APPLYING THE NEXT COAT.

FINISHED WORK SHALL BE UNIFORM, OF APPROVED COLOR, FREE OF RUNS, DRIPS, DEFECTIVE BRUSHING, SPRAYING, AND CLOGGING. PARKING LINES AND SYMBOLS SHALL BE NEAT AND WELL DEFINED. ONLY SKILLED APPLICATORS SHALL APPLY PAINT. OWNERS REPRESENTATIVE SHALL APPROVE APPLICATION TECHNIQUES.

REMOVE PAINT SPATTER FROM ADJACENT AREAS OR AREAS NOT DESIGNATED TO RECEIVE PAINT. CONTRACTOR SHALL REPAIR OR TOUCH UP ANY SURFACES IF EXPOSED TO VEHICULAR AND PEDESTRIAN TRAFFIC, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE OWNER. WHEN COLOR, DIRT, STAINS, EXISTING PAINT, ETC., SHOW THROUGH THE FINAL COAT, REPAINT THE SURFACE UNTIL THE FILM IS UNIFORM IN FINISH, COVERAGE, COLOR, AND APPEARANCE.

REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024



DRAWING INCLUDES:

PROJECT SPECIFICATIONS

DESIGNED: NTE

DRAWN: NMD

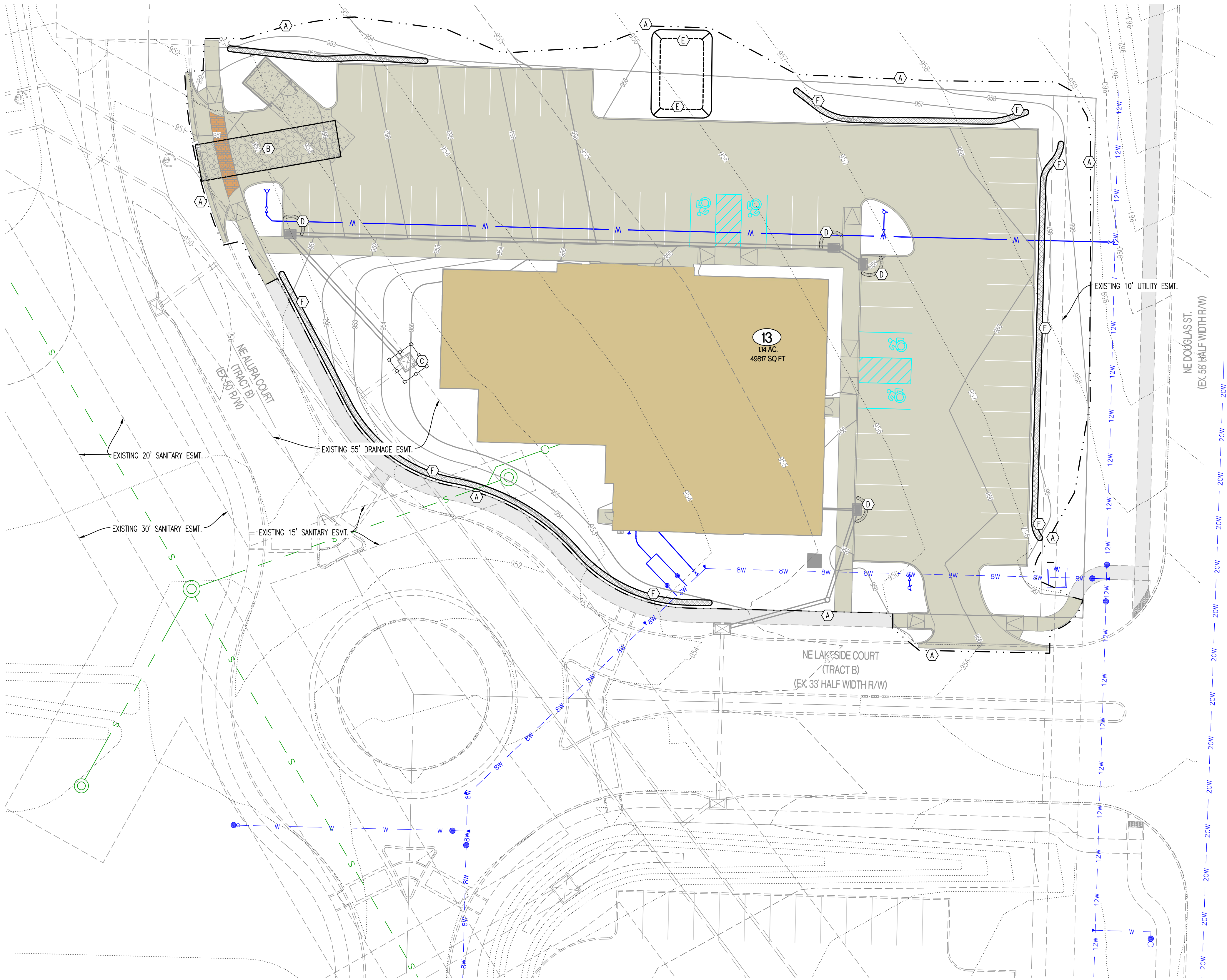
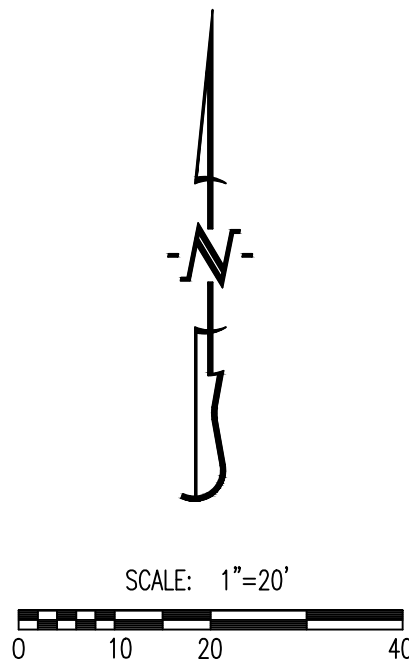
PROJECT NO.: 230286

SHEET:  
CE 11



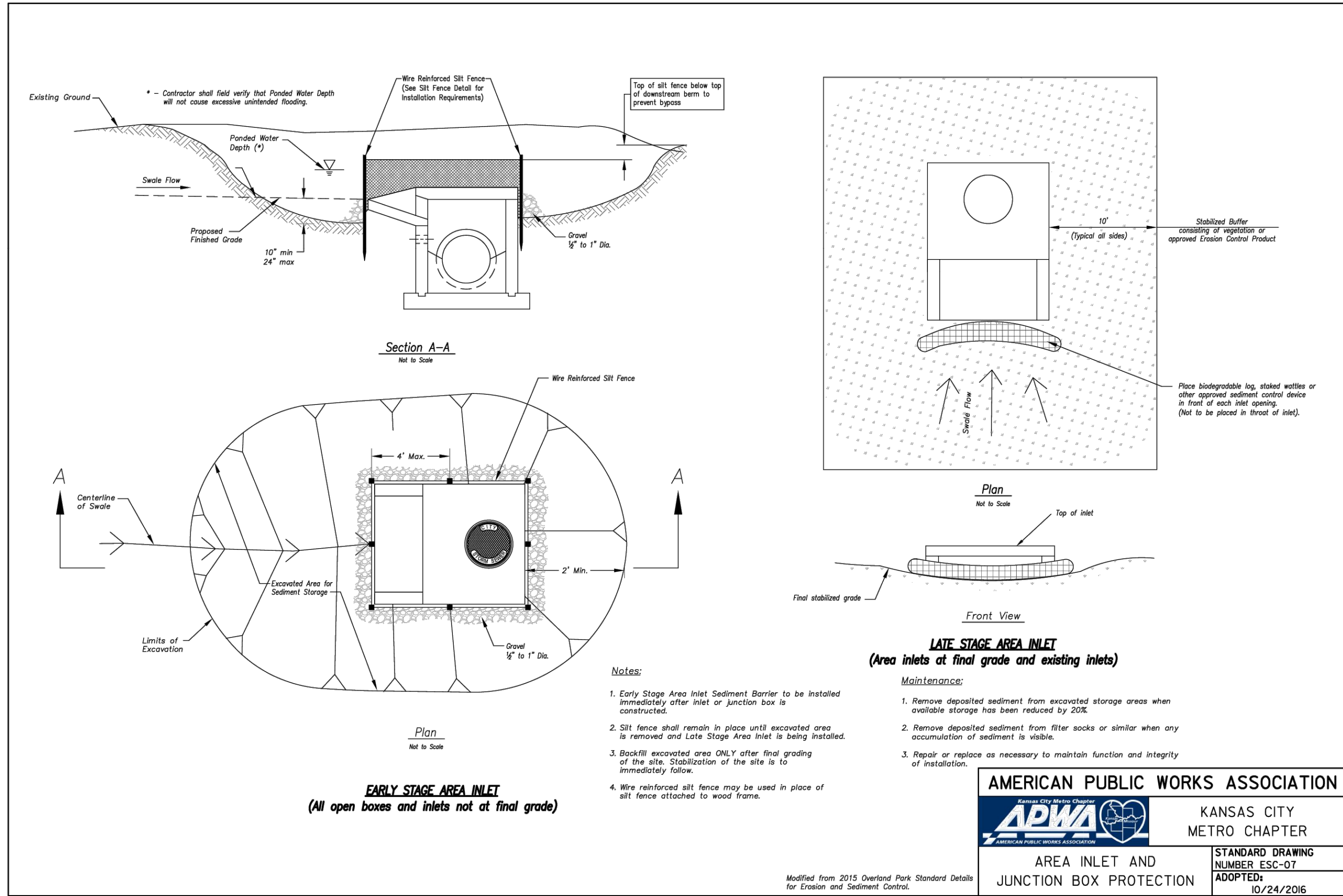
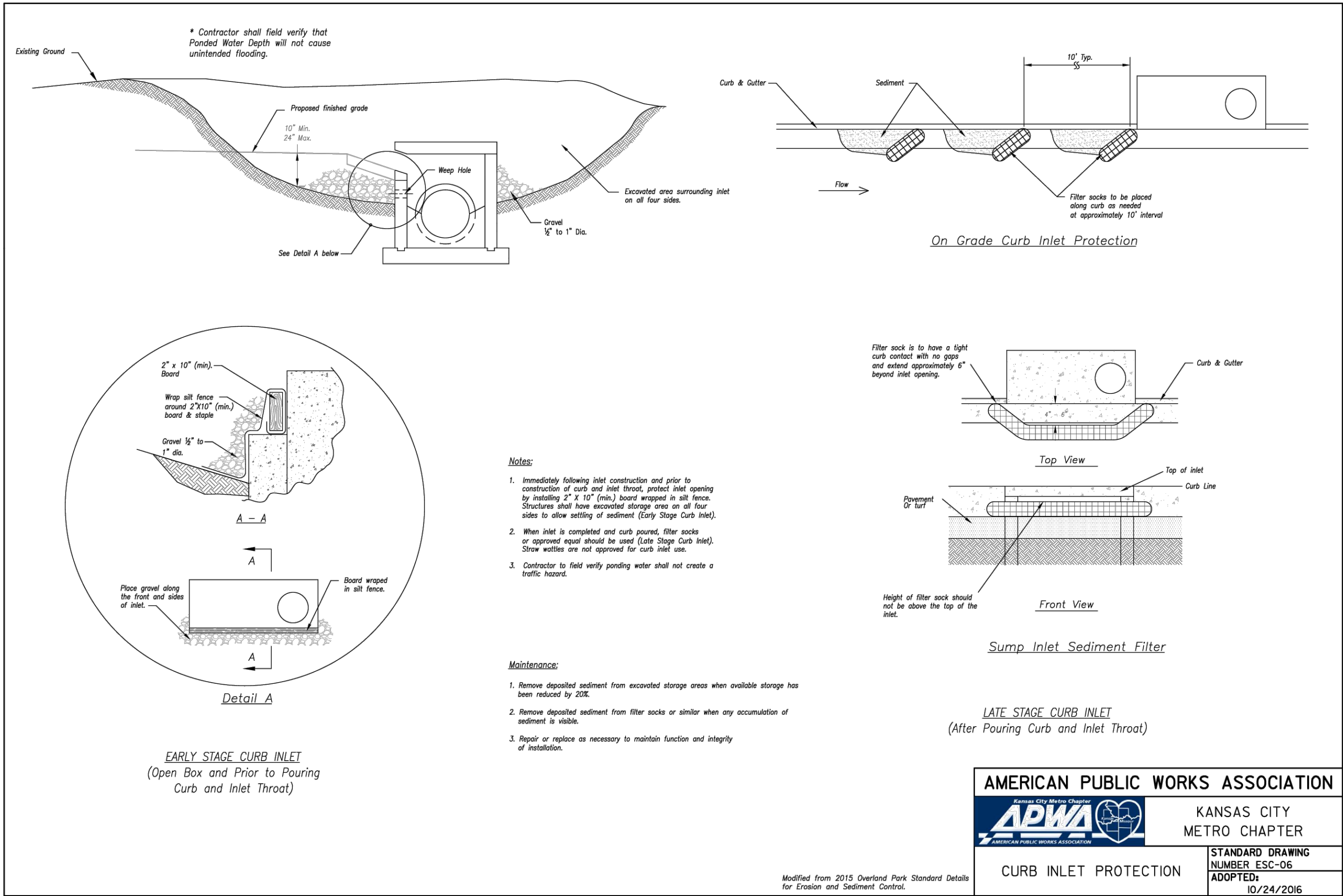
LEGEND OF LABELS:

- (A) LIMITS OF DISTURBANCE.
- (B) INSTALL CRUSHED STONE CONSTRUCTION ENTRANCE. ALL CONSTRUCTION TRAFFIC SHALL LEAVE THE SITE VIA THIS EXIT. REFER TO ESC-01 ON CE 2.2.
- (C) INSTALL INLET PROTECTION AROUND THROAT OF INLET. REFER TO ESC-07 ON CE 2.2.
- (D) INSTALL 2" X 10" BOARD WRAPPED IN SILT FENCE AT THROAT OF INLET. REPLACE BOARD WITH GUTTERBUDDY (OR APPROVED EQUAL) AT THROAT OF INLET AFTER PAVING OPERATIONS ARE COMPLETE. REFER TO ESC-06 ON CE 2.2.
- (E) 20' X 30' X 3' MIN CONCRETE WASHOUT FACILITY. THE WASHOUT FACILITY IS TO BE LINED WITH A PLASTIC LINING MATERIAL (10 MIL POLYETHYLENE SHEETING MIN.) FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COULD COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL. A SIGN SHALL BE INSTALLED ADJACENT TO FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. REFER TO ESC-01 ON CE 2.2 FOR CITY REQUIREMENTS.
- (F) INSTALL STRAW WATTLE AS SHOWN. REFER TO ESC-04 ON CE 2.2.



REVISIONS:	
NO.	DATE
ORIGINAL	11/22/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
NATHAN THOMAS ECKHOFF MO LICENSE 200304960	
PREPARED BY:	
OWNER:	DISCOVERY PARK LEES SUMMIT LLC 4220 PHILLIPS FARM RD COLUMBIA, MO 65201
<b>THE VILLAGE AT DISCOVERY</b> <b>LOT 13</b> <b>LEES SUMMIT, JACKSON COUNTY, MISSOURI</b>	
DRAWING INCLUDES:	
EROSION CONTROL PLAN	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 2.1





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

**Maintenance for Construction Entrance:**

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

**CONSTRUCTION ENTRANCE**

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

**CONCRETE WASHOUT**

**AMERICAN PUBLIC WORKS ASSOCIATION**  
Kansas City Metro Chapter  
**APWA**  
KANSAS CITY METRO CHAPTER  
STANDARD DRAWING NUMBER ESC-01  
ADOPTED: 10/24/2016

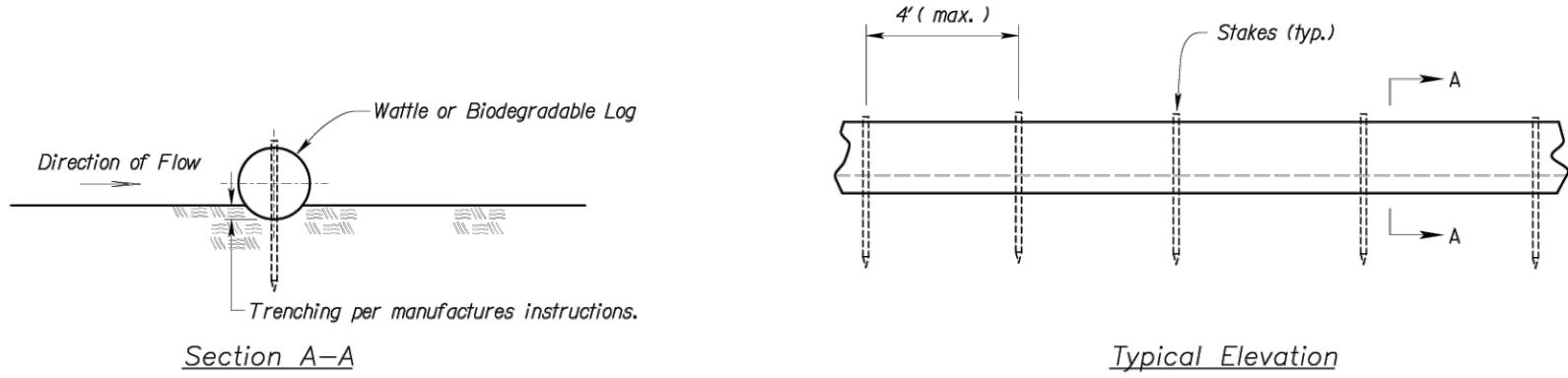
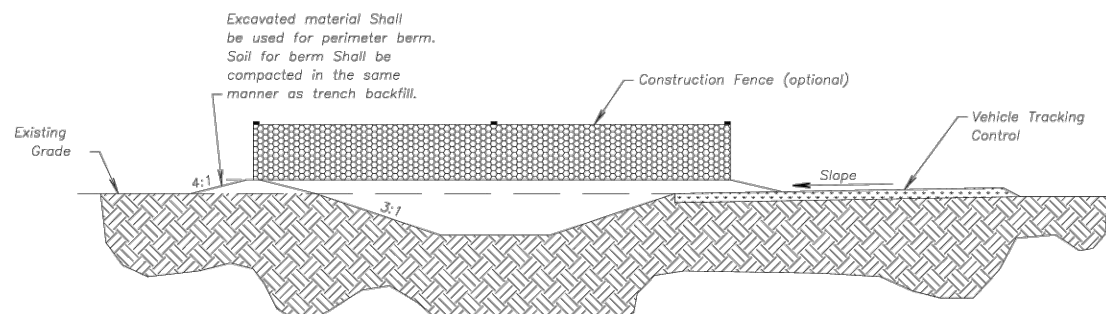
**Notes for Concrete Washout:**

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

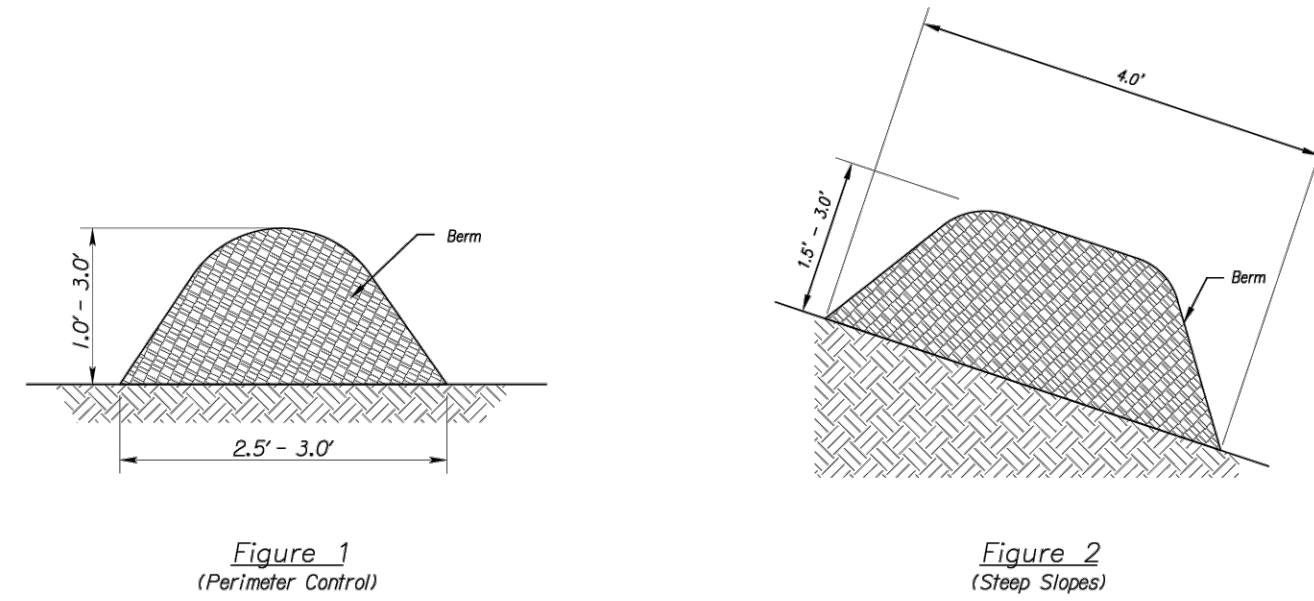
**Maintenance for Concrete Washout:**

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

Excavated material shall be used for perimeter berm. Soil for berm shall be compacted in the same manner as trench backfill.



**WATTLES AND BIODEGRADABLE LOG**



**MULCH OR COMPOST FILTER BERMS**

**Notes for Wattles and Biodegradable Log Selection:**

1. The Slope barriers shall be placed along contour lines, with a short section turned updrift at each end of the barrier. The minimum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
2. Install wattles and biodegradable logs per manufacturer's instructions.
3. Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24".

**Notes for Mulch and Compost Filter Beam:**

1. The sediment control berm shall be placed uncompacted in a window at locations shown on the plans or as directed by the engineer.
2. Parallel to the base of the slope, or around the perimeter of other affected areas, construct a 1 to 3 foot high by 2.5 to 3 foot wide berm (see Figure 1). For maximum water treatment ability or for steep slopes, construct a 1.5 to 3 foot high trapezoidal berm that is a minimum of 4 feet wide at the base (see Figure 2). In extreme conditions, or where specified by the engineer, a second berm shall be constructed at the top of the slope. Engineer will specify berm requirements.
3. If berm is to be left as permanent or part of the natural landscape, the compost berm may be seeded during application for permanent vegetation.
4. Do not use compost or wood mulch berms in any runoff channels or concentrated flow areas.
5. Wood mulch shall consist of tree and shrub debris resulting from clearing and grubbing and shall be ground by the mechanical means such as a chipper, hammermill, tub grinder or other approved method. Mulch shall vary with a maximum width of 2" and a maximum length of 10".

**Maintenance for Mulch and Compost Filter Beam:**

1. Berm shall be reshaped and material added as necessary to maintain function and dimensions.
2. Breaches in the berm shall be repaired promptly.

**AMERICAN PUBLIC WORKS ASSOCIATION**  
Kansas City Metro Chapter  
**APWA**  
KANSAS CITY METRO CHAPTER  
STANDARD DRAWING NUMBER ESC-04  
ADOPTED: 10/24/2016

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

REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF  
PROFESSIONAL ENGINEER  
NUMBER: PE-2003014960  
11/22/24  
MISSOURI  
NATHAN THOMAS ECKHOFF  
MO LICENSE: 2003014960

PREPARED BY: **CROCKETT**  
ENGINEERS & PLANNERS  
1000 W. Wilson Blvd., Ste. 100  
Columbia, Missouri 65203  
(314) 487-0292  
www.crockettingeering.com  
Crockett Engineering Consultants, LLC  
Missouri Certificate of Authority  
#000000050

OWNER: **DISCOVERY PARK LEES SUMMIT LLC**  
4020 PHILLIPS FARM RD  
COLUMBIA, MO 65201

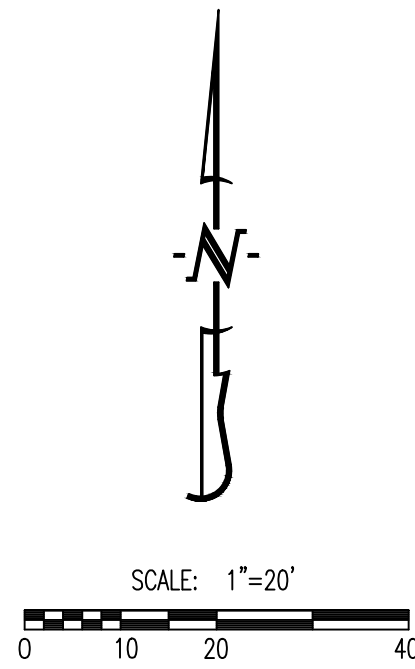
**THE VILLAGE AT DISCOVERY**  
**LOT 13**  
**LEES SUMMIT, JACKSON COUNTY, MISSOURI**

DRAWING INCLUDES:

EROSION CONTROL DETAILS

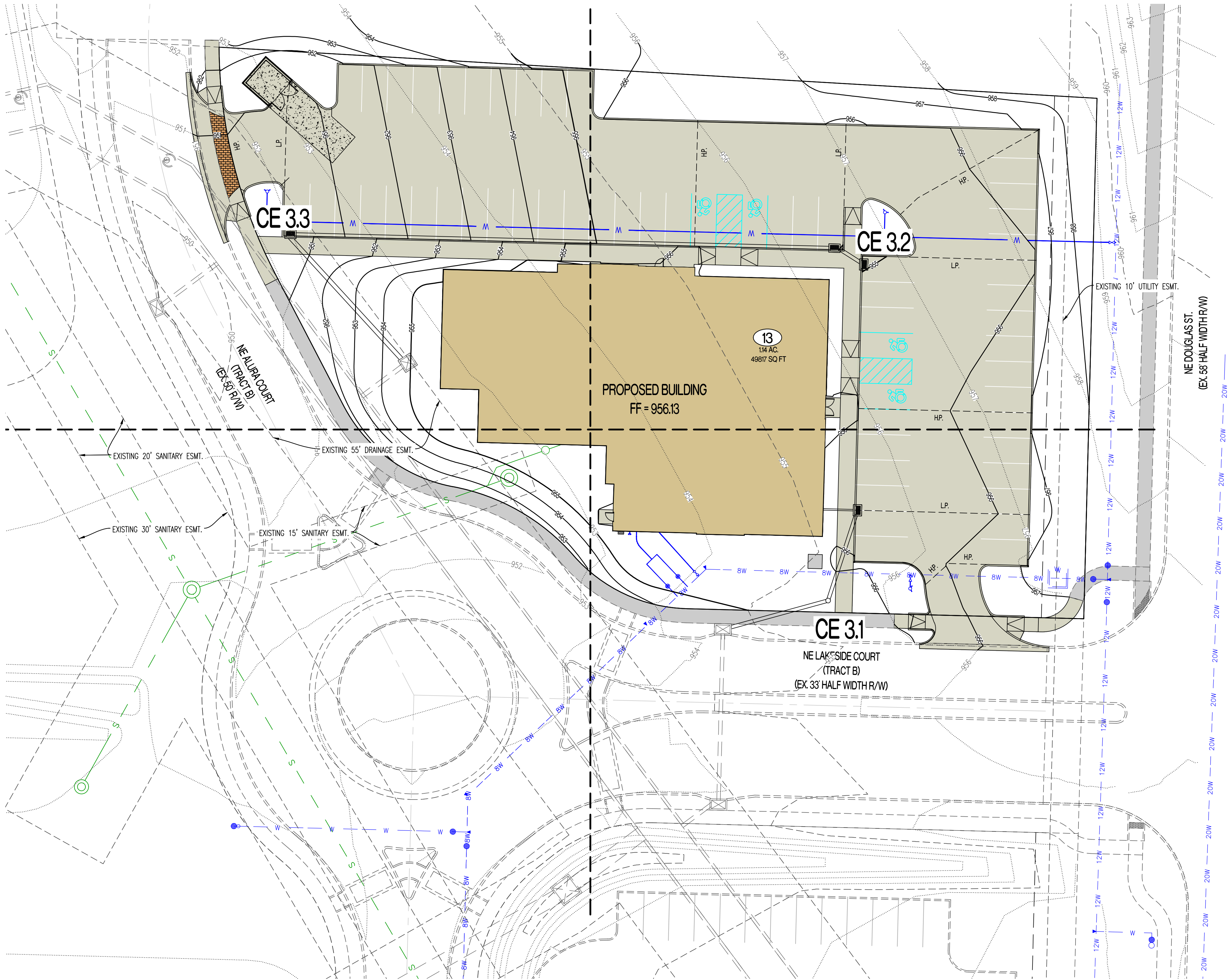
DESIGNED: NTE  
DRAWN: NMD  
PROJECT NO.: 230286  
SHEET: CE 22





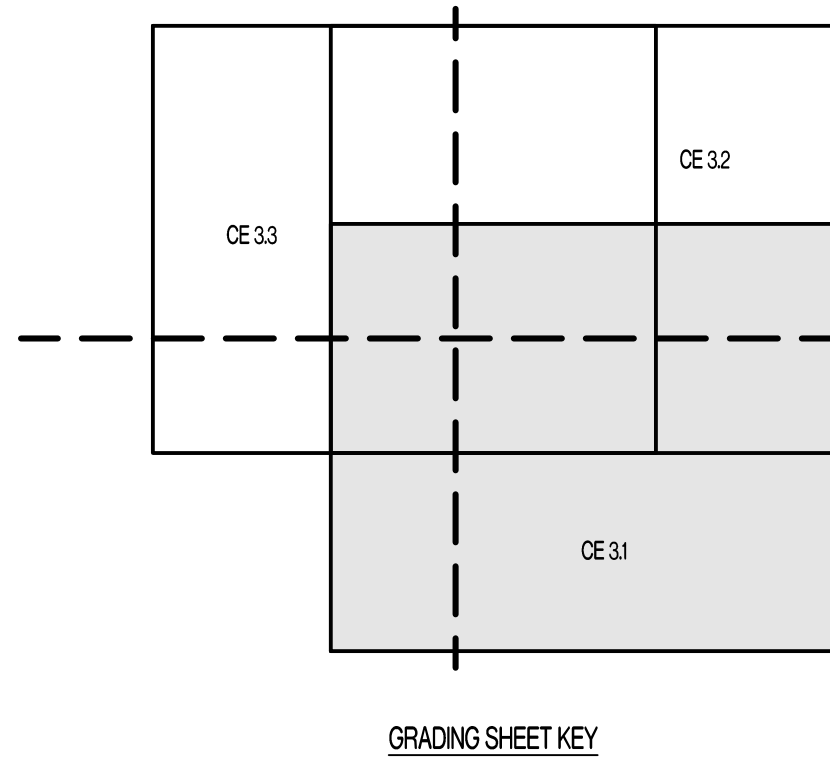
LEGEND OF SYMBOLS:

- x---x---x--- EXISTING MINOR CONTOUR
- - -x- - -x- - -x- EXISTING MAJOR CONTOUR
- x---x---x--- PROPOSED MINOR CONTOUR
- x---x---x--- PROPOSED MAJOR CONTOUR
- FF=XXXX FINISHED FLOOR OF STRUCTURE



REVISIONS:	
NO.	DATE
ORIGINAL	11/22/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
NATHAN THOMAS ECKHOFF MO LICENSE 200304960	
PREPARED BY:	 ENGINEERS & ARCHITECTS 1000 W. Kings Blvd., Ste. 100 Columbia, Missouri 65203 (314) 487-0292 www.crocketting.com
OWNER:	DISCOVERY PARK LEES SUMMIT, LLC 4220 PHILLIPS FARM RD COLUMBIA, MO 65201
<b>THE VILLAGE AT DISCOVERY</b> <b>LOT 13</b> <b>LEES SUMMIT, JACKSON COUNTY, MISSOURI</b>	
DRAWING INCLUDES:	
OVERALL GRADING PLAN	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 3.0





LEGEND OF SYMBOLS:

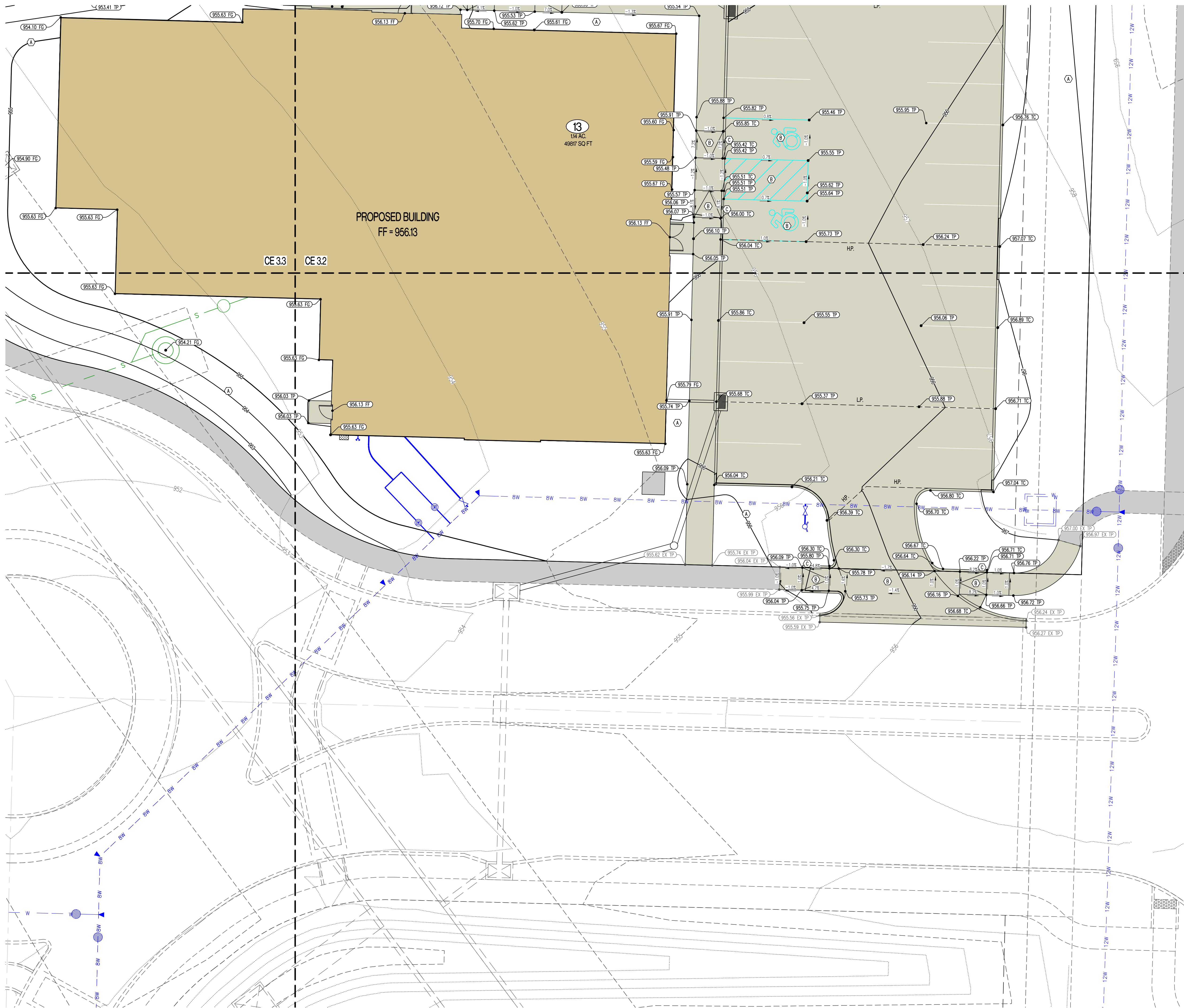
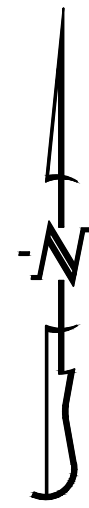
- XXX----- EXISTING MINOR CONTOUR  
- - - - -XXX- - - - - EXISTING MAJOR CONTOUR  
-----xxx----- PROPOSED MINOR CONTOUR  
-----xxx----- PROPOSED MAJOR CONTOUR  
FF=XXXX FINISHED FLOOR OF STRUCTURE  
XXXX.XX TC PROPOSED TOP OF CURB ELEVATION  
TC = (TP+6") UNLESS NOTED OTHERWISE  
XXXX.XX TP PROPOSED TOP OF PAVEMENT ELEVATION  
XXXX.XX FG PROPOSED FINISHED GRADE ELEVATION  
XXXX.XX FF PROPOSED FINISHED FLOOR AT DOOR

LEGEND OF LABELS

- (A) FINE GRADE AS SHOWN BY PROPOSED CONTOURS. PLACE MINIMUM OF 6" TOP SOIL. SEED AND MULCH ALL DISTURBED AREAS.  
(B) GRADE ACCESSIBLE PARKING STALLS AND ROUTES AS SHOWN. SLOPE OF THE PAVEMENT AT ALL ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 1:50 IN ALL DIRECTIONS. ALL ACCESSIBLE ELEMENTS SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.  
(C) TRANSITION FROM 6" CURB TO 0" CURB

SCALE: 1"=20'

0 10 20 40



REVISIONS:	
NO.	DATE
ORIGINAL	11/22/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
NATHAN THOMAS ECKHOFF MO LICENSE 200304960	
PREPARED BY:	
ENGINEERS & ARCHITECTS 1000 W. Kings Blvd., Suite 100 Columbia, Missouri 65203 (314) 487-0592 www.crockettengineering.com Crockett Engineering Consultants, LLC Missouri Certificate of Authority #000000001	
OWNER:	DISCOVERY PARK LEES SUMMIT LLC 4220 PHILLIPS FARM RD COLUMBIA, MO 65201
<b>THE VILLAGE AT DISCOVERY</b> <b>LOT 13</b> <b>LEES SUMMIT, JACKSON COUNTY, MISSOURI</b>	
DRAWING INCLUDES:	
GRADING PLAN SHEET 1	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 31



SCALE: 1"=20'

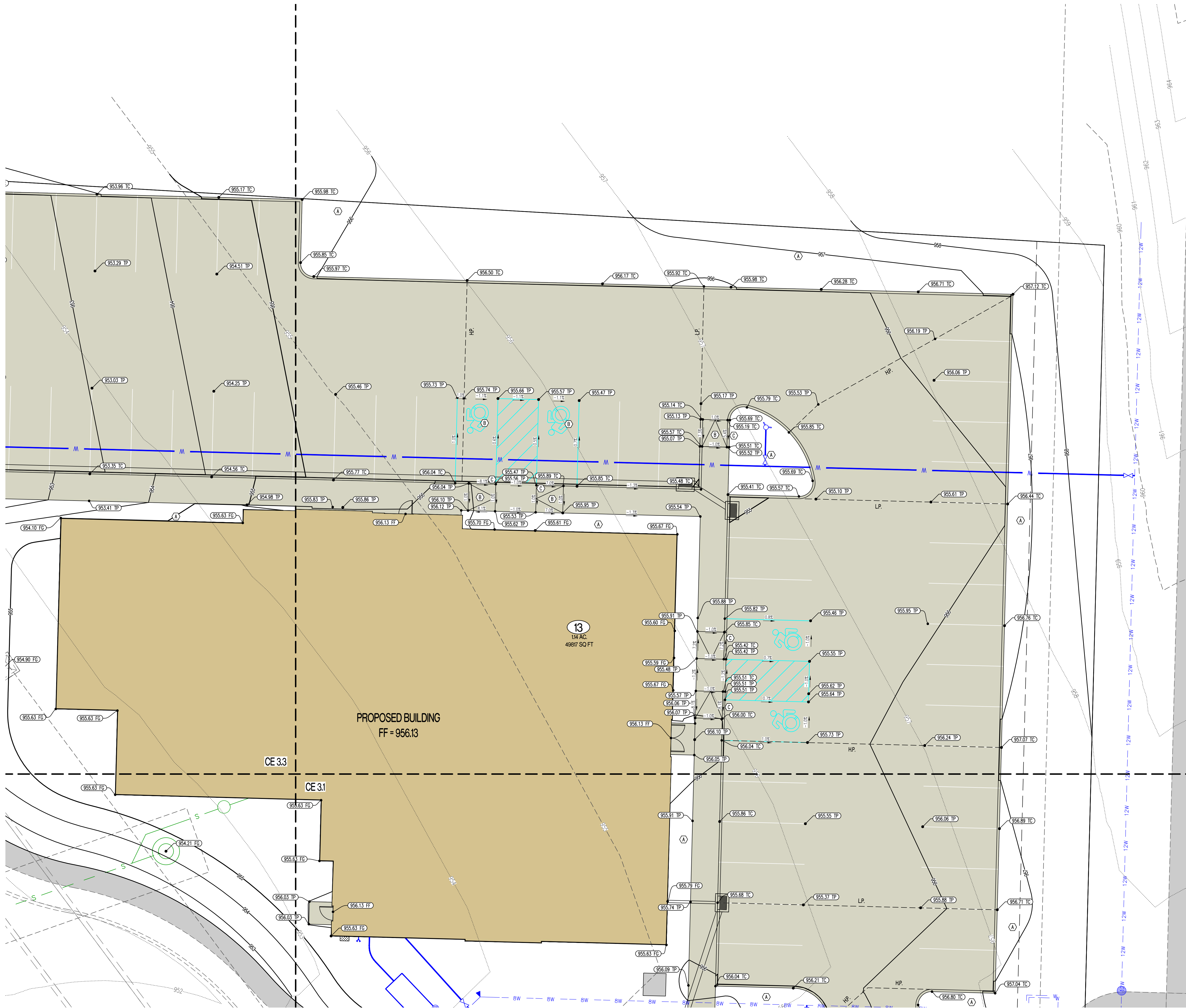
LEGEND OF LABELS

- (A) FINE GRADE AS SHOWN BY PROPOSED CONTOURS. PLACE MINIMUM OF 6" TOP SOIL. SEED AND MULCH ALL DISTURBED AREAS.
- (B) GRADE ACCESSIBLE PARKING STALLS AND ROUTES AS SHOWN. SLOPE OF THE PAVEMENT AT ALL ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 1:50 IN ALL DIRECTIONS. ALL ACCESSIBLE ELEMENTS SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
- (C) TRANSITION FROM 6" CURB TO 0" CURB

LEGEND OF SYMBOLS:

- XXX----- EXISTING MINOR CONTOUR
- - - - -XXX- - - - - EXISTING MAJOR CONTOUR
- XXX----- PROPOSED MINOR CONTOUR
- XXX----- PROPOSED MAJOR CONTOUR
- FF=XXXX FINISHED FLOOR OF STRUCTURE
- (XXX.XX TC) PROPOSED TOP OF CURB ELEVATION  
TC = (TP+6") UNLESS NOTED OTHERWISE
- (XXX.XX TP) PROPOSED TOP OF PAVEMENT ELEVATION
- (XXX.XX FG) PROPOSED FINISHED GRADE ELEVATION
- (XXX.XX FF) PROPOSED FINISHED FLOOR AT DOOR

GRADING SHEET KEY



REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS ECKHOFF  
MO LICENSE 200304960

PREPARED BY:  
**CROCKETT**  
ENGINEERS & ARCHITECTS  
1000 W. Kings Blvd., Ste. 100  
Columbia, Missouri 65203  
(314) 487-0292  
www.crockettengineering.com  
Crockett Engineering Consultants, LLC  
Missouri Certificate of Authority  
#000000001

OWNER:  
DISCOVERY PARK LEES SUMMIT LLC  
4220 PHILLIPS FARM RD  
COLUMBIA, MO 65201

# THE VILLAGE AT DISCOVERY

## LOT 13

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING PLAN SHEET 2

DESIGNED: NTE

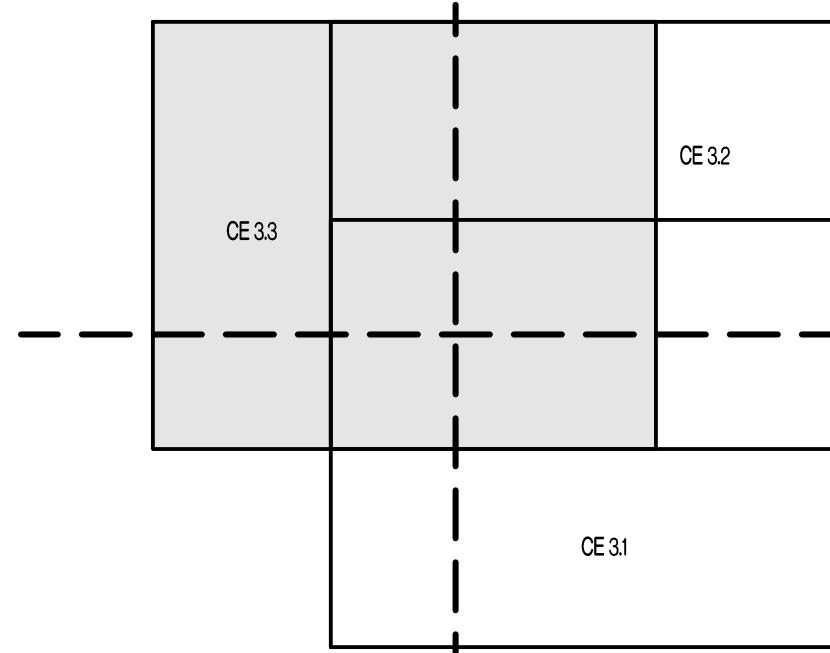
DRAWN: NMD

PROJECT NO.: 230286

SHEET:  
CE 32



Y:\2023\230286 - Discovery Park Lees Summit\Zone 1 Lot 13\Civil\MOAD Files\Construction Plans\230286 Village at Discovery Zone 1 Lot 13 Grading Base.dwg



GRADING SHEET KEY

- LEGEND OF LABELS**
- (A) FINE GRADE AS SHOWN BY PROPOSED CONTOURS. PLACE MINIMUM OF 6" TOP SOIL. SEED AND MULCH ALL DISTURBED AREAS.
- (B) GRADE ACCESSIBLE PARKING STALLS AND ROUTES AS SHOWN. SLOPE OF THE PAVEMENT AT ALL ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 1:50 IN ALL DIRECTIONS. ALL ACCESSIBLE ELEMENTS SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
- (C) TRANSITION FROM 6" CURB TO 0" CURB

**LEGEND OF SYMBOLS:**

- XXX----- EXISTING MINOR CONTOUR  
- - - - -XXX- - - - - EXISTING MAJOR CONTOUR  
-----XXX----- PROPOSED MINOR CONTOUR  
- - - - -XXX- - - - - PROPOSED MAJOR CONTOUR  
FF=XXXX FINISHED FLOOR OF STRUCTURE  
(XXX.XX TC) PROPOSED TOP OF CURB ELEVATION  
TC = (TP+6") UNLESS NOTED OTHERWISE  
(XXX.XX TP) PROPOSED TOP OF PAVEMENT ELEVATION  
(XXX.XX FG) PROPOSED FINISHED GRADE ELEVATION  
(XXX.XX FF) PROPOSED FINISHED FLOOR AT DOOR

SCALE: 1"=20'



REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS ECKHOFF  
MO LICENSE: 200304960

PREPARED BY:



ENGINEERS & ARCHITECTS  
1000 W. Illinois Blvd., Suite 100  
Columbia, Missouri 65203  
(314) 487-0292  
www.crocketting.com  
Missouri Certificate of Authority #000000001

OWNER:

DISCOVERY PARK LEES SUMMIT LLC  
4220 PHILLIPS FARM RD  
COLUMBIA, MO 65201

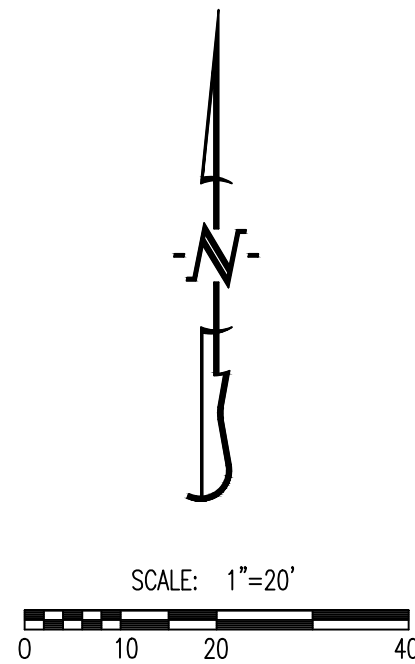
**THE VILLAGE AT DISCOVERY**  
**LOT 13**  
**LEES SUMMIT, JACKSON COUNTY, MISSOURI**

DRAWING INCLUDES:

GRADING PLAN SHEET 3

DESIGNED: NTE  
DRAWN: NMD  
PROJECT NO.: 230286  
SHEET: CE 33





GENERAL NOTES:

1) CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTH OF ALL UTILITIES BEFORE ANY EXCAVATION BEGINS.

2) ALL ITEMS ASSOCIATED WITH DOMESTIC WATERLINE CONSTRUCTION (INTERNAL OF VAULT/METER PIT) ARE SHOWN FOR CITY REVIEW ONLY. CONTRACTOR SHALL VERIFY ALL SIZES AND MATERIALS WITH M.E.P. BEFORE INSTALLATION.

LEGEND OF LABELS

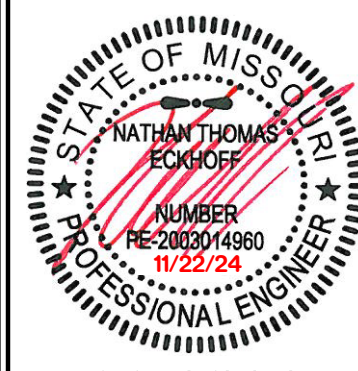
- (A) INSTALL 6" SDR 26 PVC LATERAL WITH CLEANOUTS AS SHOWN. INSTALL WYE AND CONNECT TO EXISTING SANITARY SEWER AS SHOWN. CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING SANITARY SEWER AND ROUTE AT 1% MINIMUM TO BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION. REFER TO DETAIL 4 ON CE 5.1.
- (B) PROPOSED 3" CPVC WATERLINE SERVICE. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION. CONFIRM SIZE AND MATERIAL WITH M.E.P. PLANS.
- (C) PROPOSED 6" CPVC FIRE LINE. INSTALL 6" X 6" TEE AND 6" GATE VALVE AT CONNECTION TO PROPOSED WATERLINE. DOUBLE CHECK DETECTOR CHECK TO BE INSTALLED IN BUILDING. REFER TO M.E.P. PLANS. CONFIRM SIZE AND MATERIAL WITH SPRINKLER DESIGNER.
- (D) PROPOSED 2" TYPE K SOFT COPPER SERVICE LINE. CONNECT TO PROPOSED 6" WATERLINE WITH 2" CORPORATION STOP VALVE. USE 2" X 2" X 3" PIPE FITTING TO CONNECT SERVICE LINES A MINIMUM OF 10' BEYOND METER.
- (E) INSTALL 2" WATER METER AS SHOWN. CONTRACTOR TO VERIFY WITH M.E.P. PRIOR TO INSTALLATION. REFER TO CITY DETAIL WAT-11 ON CE 7.4.
- (F) PROPOSED TRANSFORMER. COORDINATE WITH M.E.P. AND UTILITY PROVIDER.
- (G) PROPOSED LIGHT POLE. REFER TO M.E.P. PLANS.

- (H) CONTRACTOR TO ASBUILT TOP OF SIDE OPENING INLET. TOP TO BE ADJUSTED TO FINAL GRADE SHOWN ON CE 3.0-CE 3.3.
- (I) CONTRACTOR TO TAP EXISTING 12" WATERLINE AND INSTALL 6" CPVC PIPE WITH 12" X 6" TEE AND GATE VALVES AS SHOWN. CONTRACTOR TO VERIFY SIZE AND DEPTH OF EXISTING PIPE. INSTALL ALL BENDS, TEES, VALVES, AND THRUST BLOCKING AS REQUIRED BY CITY OF LEE'S SUMMIT STANDARDS. REFER TO CITY OF LEE'S SUMMIT DETAILS ON CE 7.4.
- (J) PROPOSED 4" STORZ FIRE DEPARTMENT CONNECTION (FDC). COORDINATE WITH ARCHITECT AND M.E.P.
- (K) PROPOSED 6" PVC INTERNAL STORM DRAINAGE SYSTEM CONNECTION. COORDINATE EXACT LOCATION WITH M.E.P. ROUTE 6" PVC TO DRAINAGE STRUCTURES AS SHOWN. REFER TO CE 5.1 FOR INVERTS.
- (L) PROPOSED FIRE HYDRANT ASSEMBLY. REFER TO DETAILS WAT-7 AND WAT-8 ON CE 7.4.
- (M) PROPOSED GAS RISER. REFER TO M.E.P. PLANS.
- (N) CONTRACTOR TO ASBUILT TOP OF SANITARY SEWER MANHOLE. TOP TO BE ADJUSTED TO FINAL GRADE SHOWN ON CE 3.0-CE 3.3.

REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS ECKHOFF  
MO LICENSE 200304960

PREPARED BY:  
**CROCKETT**  
ENGINEERS & ARCHITECTS  
1000 W. Kings Blvd., Ste. 100  
Columbia, Missouri 65203  
(314) 487-0292  
www.crockettengineering.com  
Crockett Engineering Consultants, LLC  
Missouri Certificate of Authority  
#000000001

OWNER:  
DISCOVERY PARK LEES SUMMIT LLC  
4020 PHILLIPS FARM RD  
COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY  
LOT 13  
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

UTILITY PLAN

DESIGNED: NTE

DRAWN: NMD

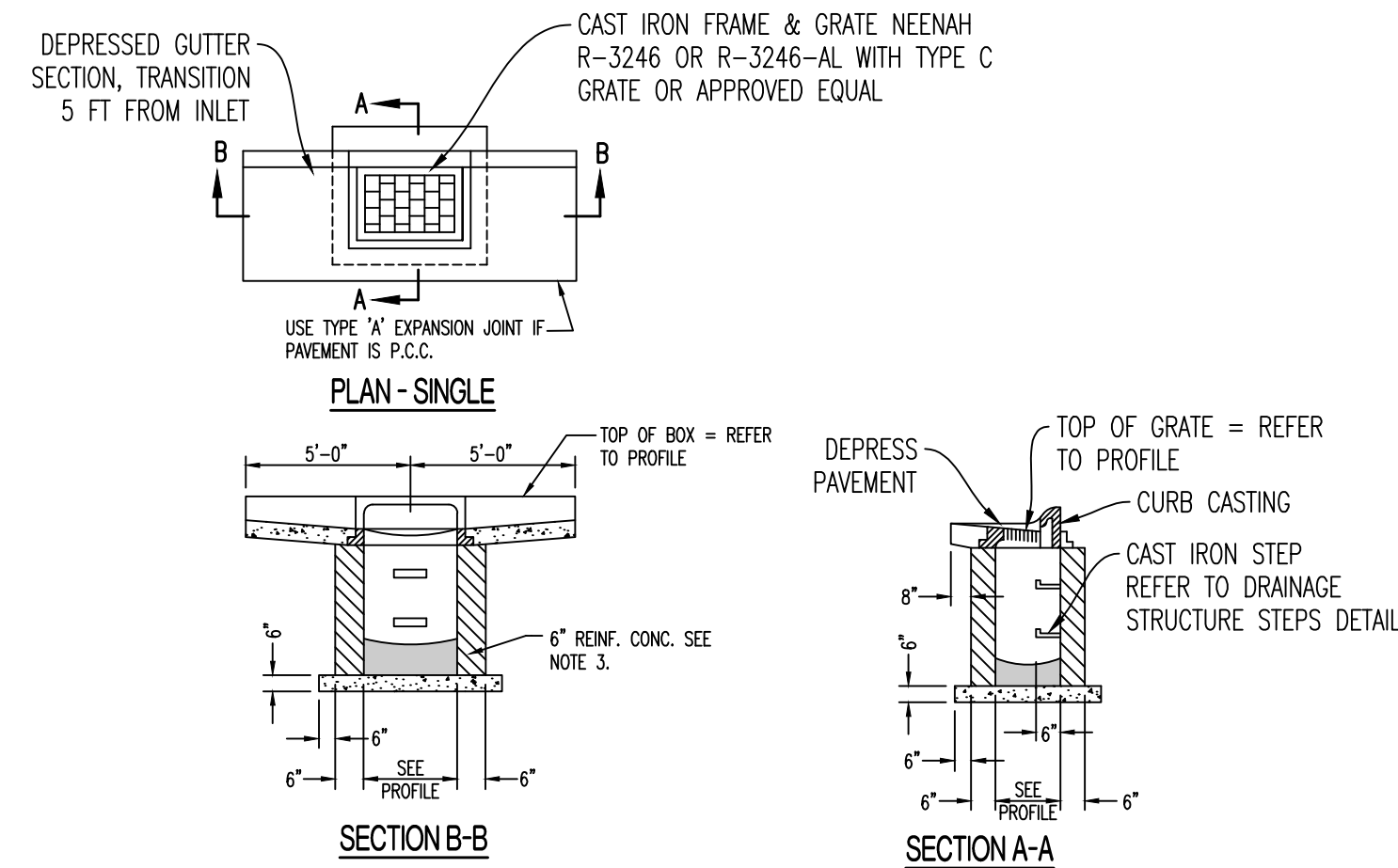
PROJECT NO.: 230286

SHEET:  
CE 4.1

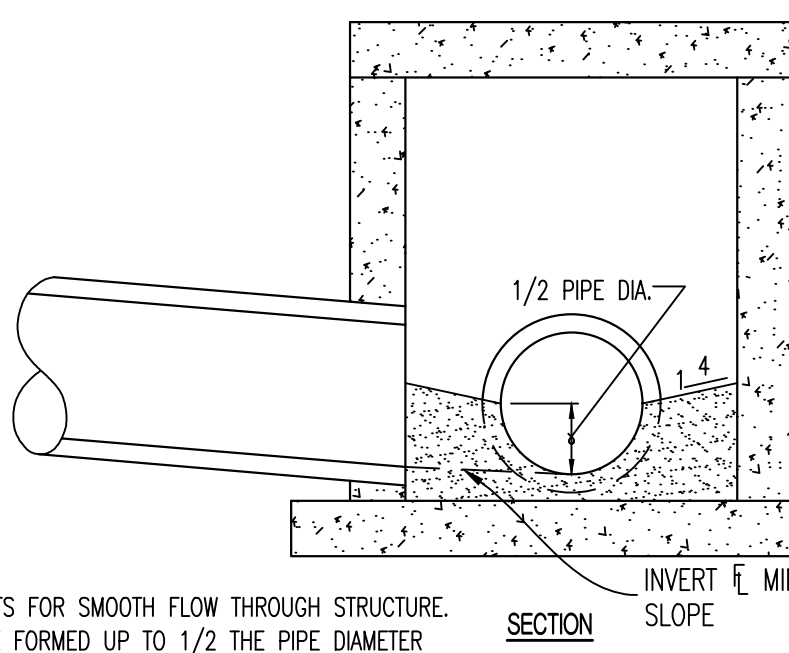
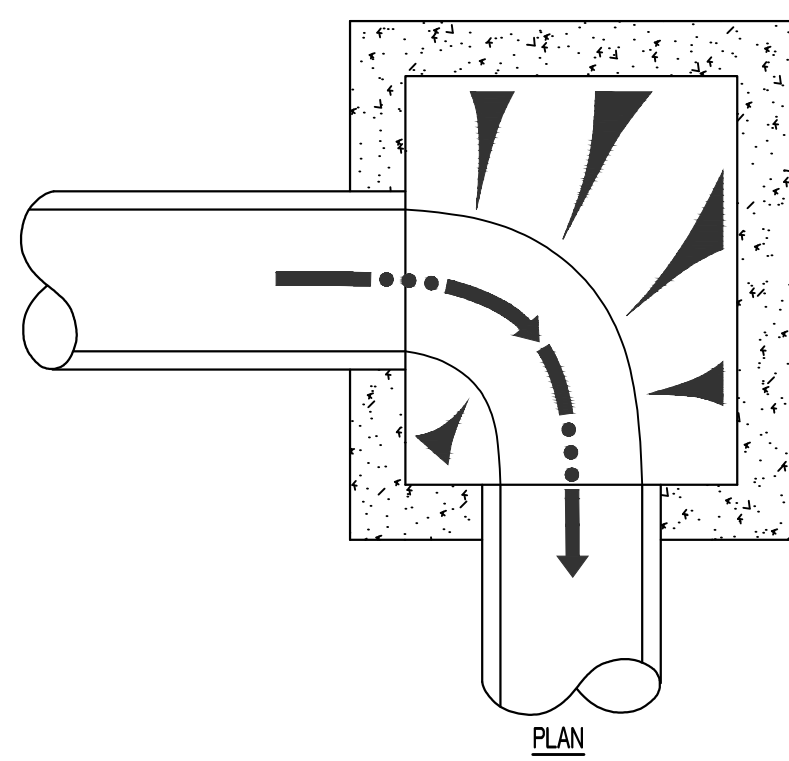
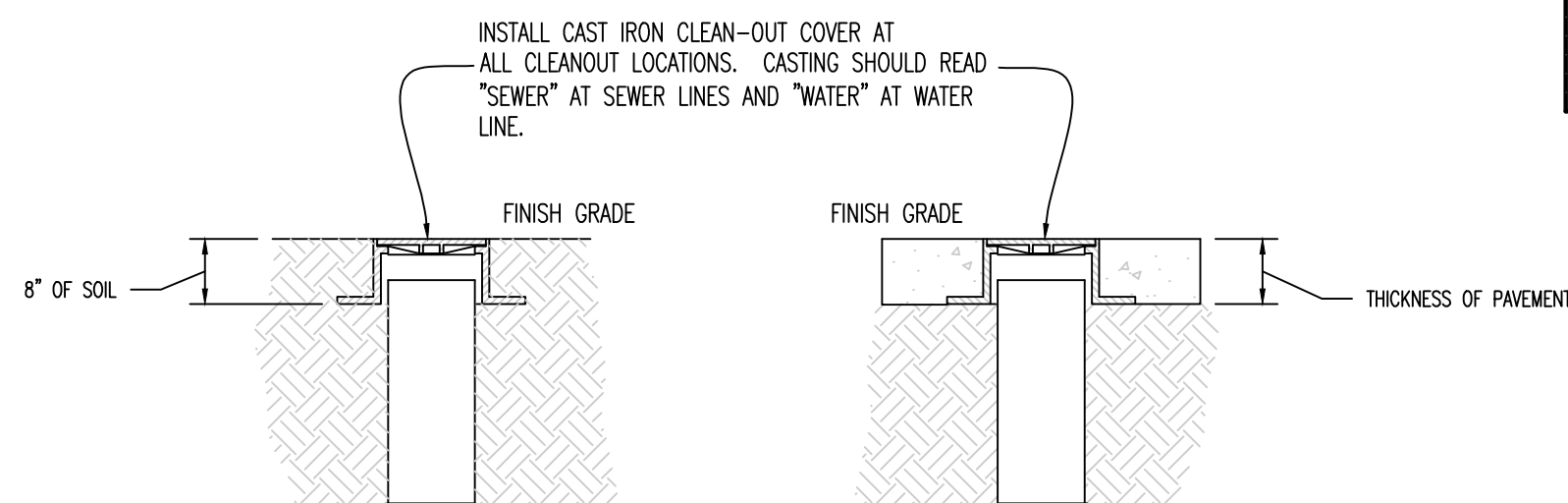
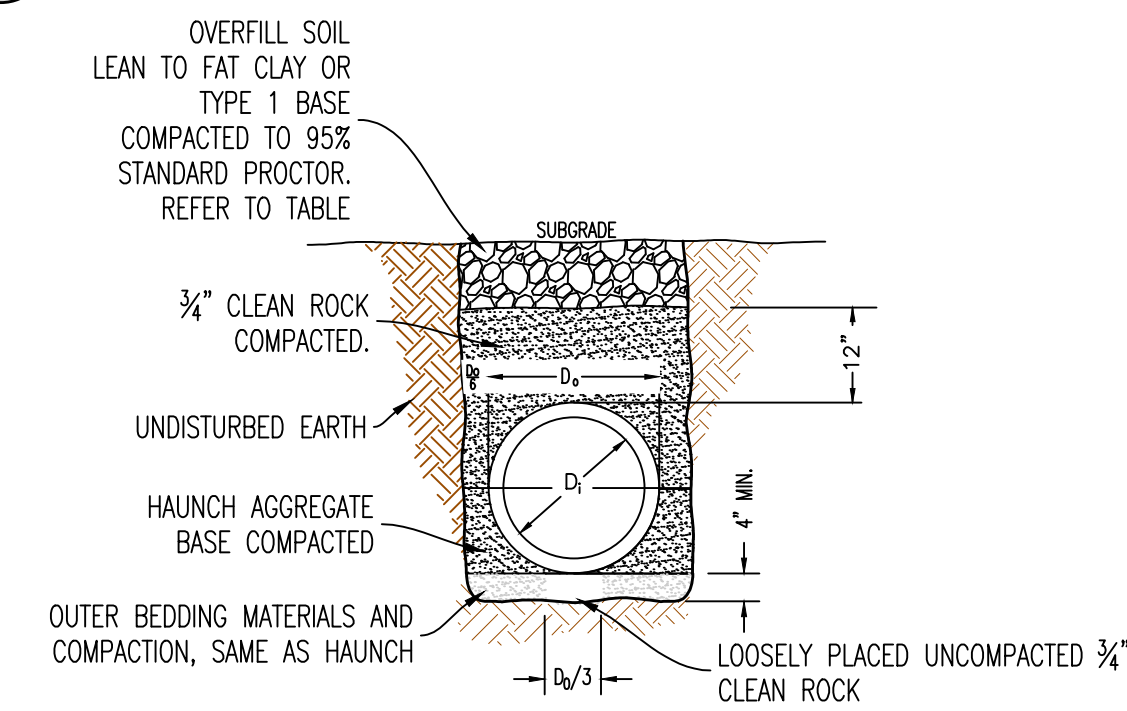
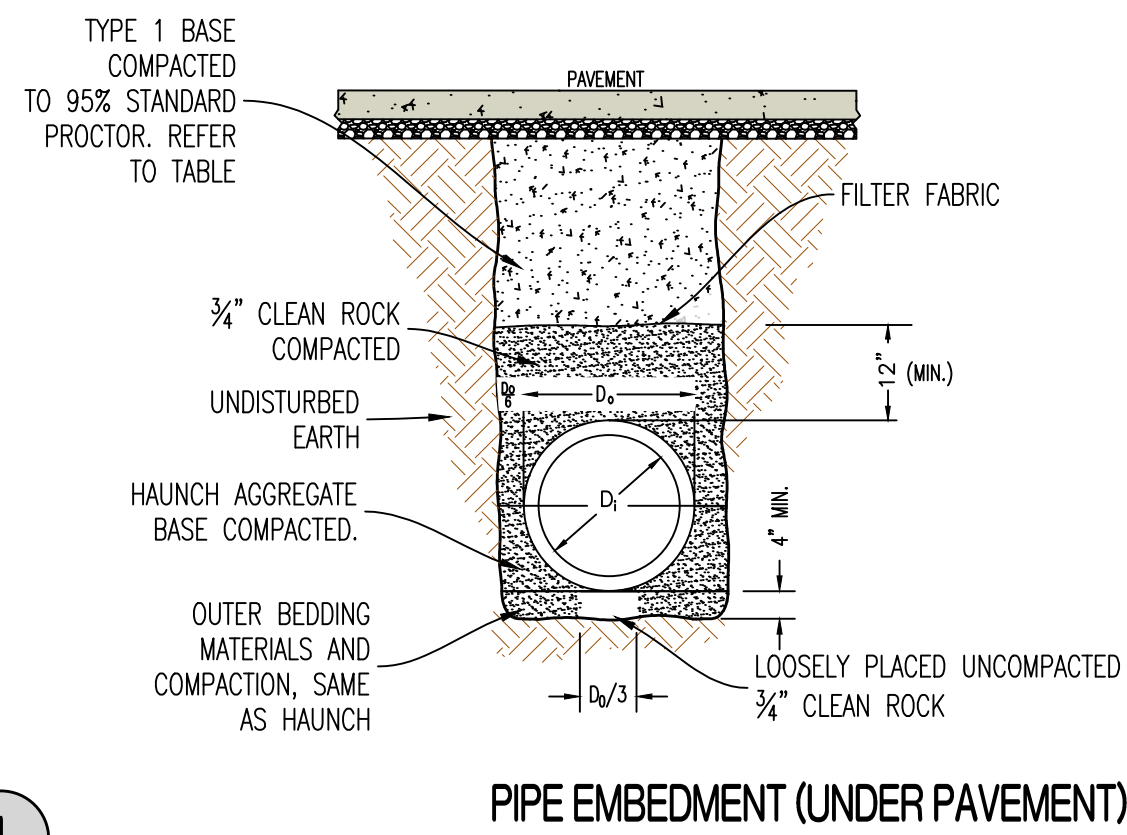


## STRUCTURAL FILL COMPACTION REQUIREMENTS

SOIL FILL THORNESS	<ul style="list-style-type: none"><li>9-INCHES OR LESS WHEN USING HEAVY SELF-PROPELLED COMPACTION EQUIPMENT</li><li>6-INCHES OR LESS WHEN USING HAND GUIDED OR LIGHT SELF-PROPELLED EQUIPMENT</li></ul>
COMPACTION MOISTURE CONTENT REQUIREMENTS	<ul style="list-style-type: none"><li>LEAN TO FAT CLAY AND FAT CLAY<ul style="list-style-type: none"><li>2% BELOW STANDARD PROCTOR OPTIMUM MOISTURE CONTENT (OMC) TO 4% ABOVE THE STANDARD PROCTOR OPTIMUM MOISTURE CONTENT</li></ul></li><li>LEAN CLAY AND SILT<ul style="list-style-type: none"><li>2% BELOW TO 3% ABOVE STANDARD PROCTOR OMC</li></ul></li><li>GRANULAR<ul style="list-style-type: none"><li>WORKABLE MOISTURE CONTENT AND SHALL NOT PUMP WHEN PROOF-ROLLED</li></ul></li></ul>
COMPACTION REQUIREMENTS	<p>95% OF STANDARD PROCTOR DRY DENSITY (ASTM D-698)</p> <ol style="list-style-type: none"><li>WE RECOMMEND ENGINEERED FILL BE TESTED FOR MOISTURE, CONTENT AND COMPACTION DURING PLACEMENT. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THE SPECIFIED MOISTURE OR COMPACTION LIMITS HAVE NOT BEEN MET, THE AREA REPRESENTED BY THE TEST SHOULD BE REWORKED AND RETESTED AS REQUIRED UNTIL THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED.</li><li>AS STATED WITHIN ASTM D698, THIS PROCEDURE IS INTENDED FOR SOILS WITH 30% OR LESS MATERIAL LARGER THAN 3/4". ACCORDINGLY, WE RECOMMEND FULL TIME PROOF-ROLL OBSERVATION BE PERFORMED INSTEAD OF MOISTURE DENSITY TESTING FOR MATERIALS CONTAINING MORE THAN 30% AGGREGATE RETAINED ON THE 3/4" SIEVE.</li></ol>
<ol style="list-style-type: none"><li>IF LIMESTONE SCREENINGS ARE USED AS NEW STRUCTURAL FILL, THE CONTRACTOR SHOULD BE AWARE THIS MATERIAL IS EXTREMELY SUSCEPTIBLE TO DEGRADATION UPON WETTING WHICH CAN RESULT IN DEEP-SEATED PUMPING AND RUTTING.</li><li>LIMESTONE SCREENINGS THAT PUMP AND RUT ARE NOT ACCEPTABLE FOR USE AS NEW STRUCTURAL FILL OR FOR LOW VOLUME CHANGE MATERIAL AND WILL NEED TO BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.</li></ol>	



SINGLE TYPE "A" INLET

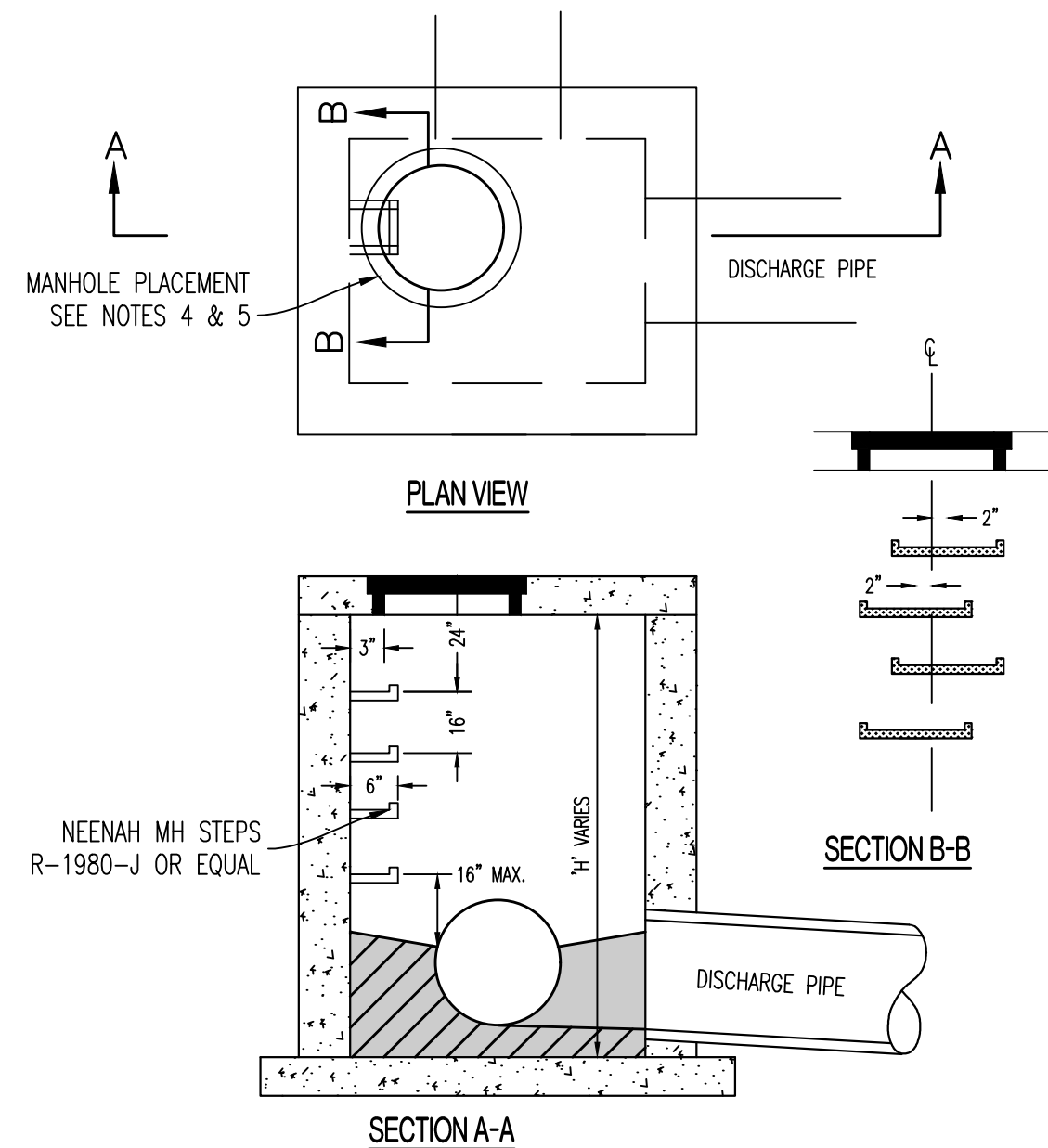
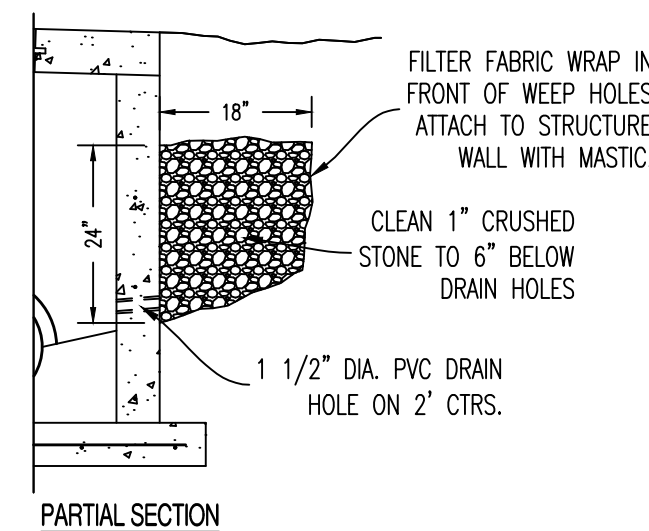
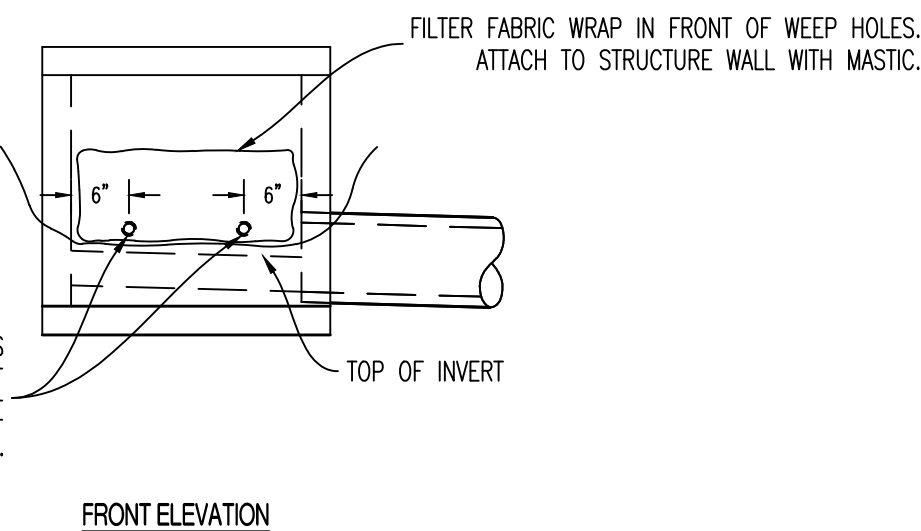


- NOTES:
- FORM ALL INVERTS FOR SMOOTH FLOW THROUGH STRUCTURE.
  - INVERT SHALL BE FORMED UP TO 1/2 THE PIPE DIAMETER
  - INVERT SHALL BE CLASS E CONCRETE.

DRAINAGE STRUCTURE INVERT

### NOTES:

- PLACE WEEP HOLES ON UPSTREAM FACE OF ALL STRUCTURES AND ALSO ON ROADWAY FACE OF CURB INLET STRUCTURES.
- WEEP HOLE FILTER FABRIC SHALL CONSIST OF A NON-WOVEN, POLYPROPYLENE TYPE FABRIC SUCH AS: AMOCO 4553 NON-WOVEN GEOTEXTILE FABRIC OR APPROVED EQUAL.



### NOTES:

- STEPS NOT REQUIRED WHERE H IS LESS THAN 4'.
- CAST IRON STEPS SHALL BE AMERICAN ML-10-NCR OR EQUAL
- STEPS SHALL BE PLACED ON VACANT WALL WHEN POSSIBLE
- MANHOLE RING SHALL BE OFFSET TOWARD WALL WITH STEPS
- MANHOLE RING SHALL BE CENTERED ON CENTERLINE OF STEPS
- STAGGER STEPS 2" EACH WAY FROM CENTERLINE OF MANHOLE RING.
- TOP STEP 24" BELOW TOP OF LID
- STEP SPACING TO BE 16", BOTTOM STEP TO BE NO HIGHER THAN 16" FROM INVERT.

SCALE:  
HORIZ T = 50'  
VERT T = 10'

### LEGEND OF LABELS:

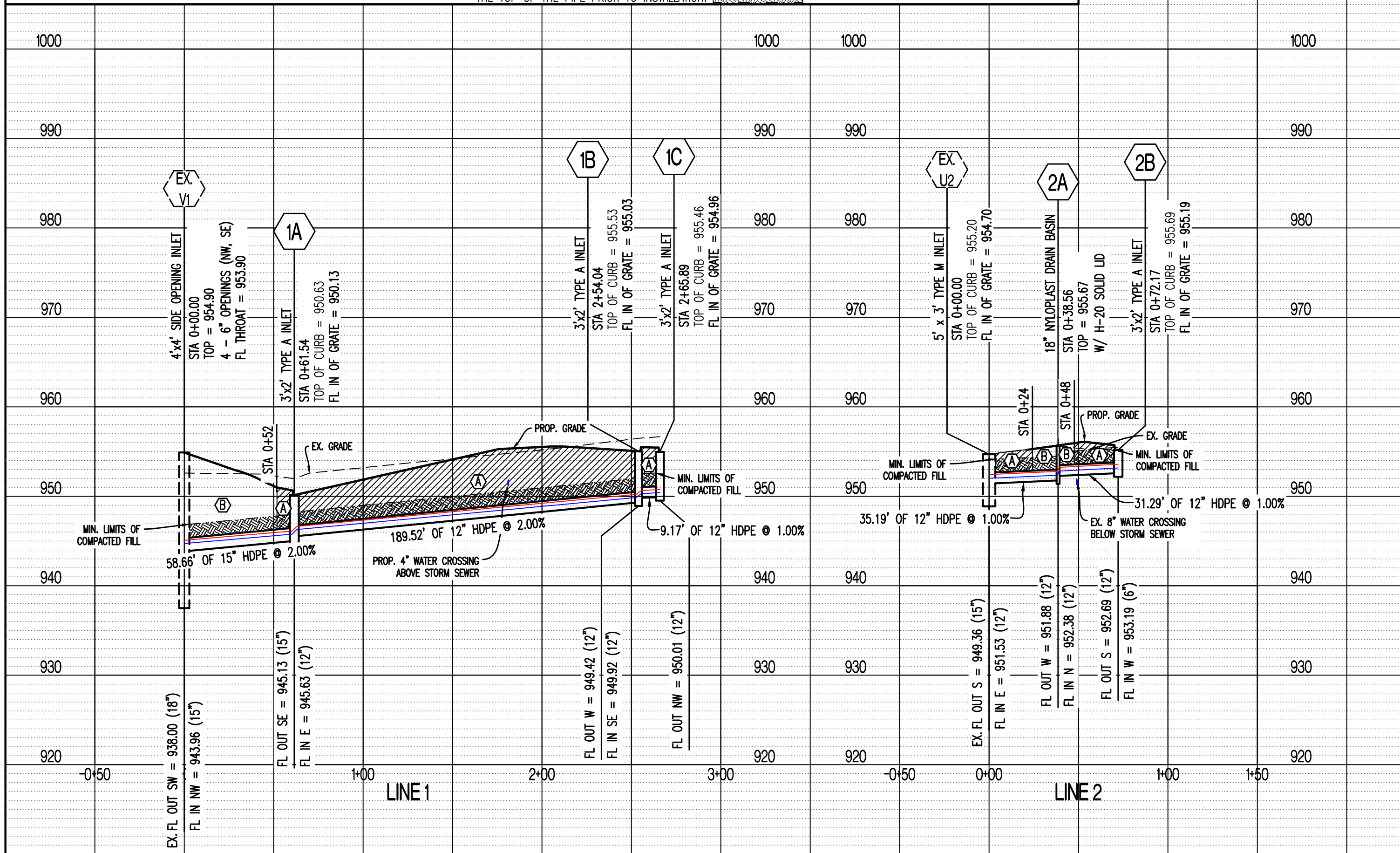
- (A) REFER TO PIPE EMBEDMENT DETAIL (UNDER PAVEMENT). SEE DETAIL 1 ON CE 5.1.
- (B) REFER TO PIPE EMBEDMENT DETAIL (NOT UNDER PAVEMENT). SEE DETAIL 2 ON CE 5.1.

### GENERAL NOTES:

- ALL PORTIONS OF THIS STORM SEWER SHALL BE PRIVATE.
- LENGTHS AND SLOPES OF PIPE ARE MEASURED FROM EDGE OF STRUCTURE TO EDGE OF STRUCTURE.
- COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.

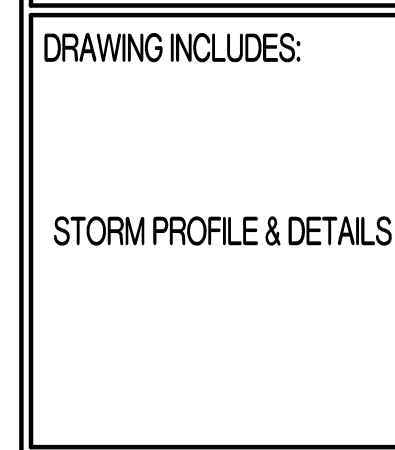
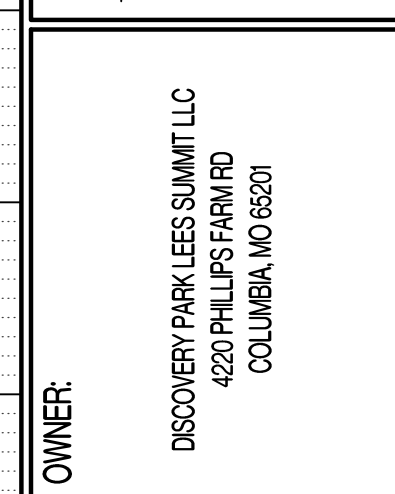
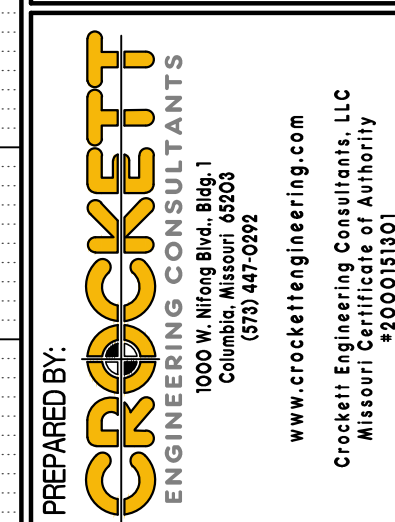
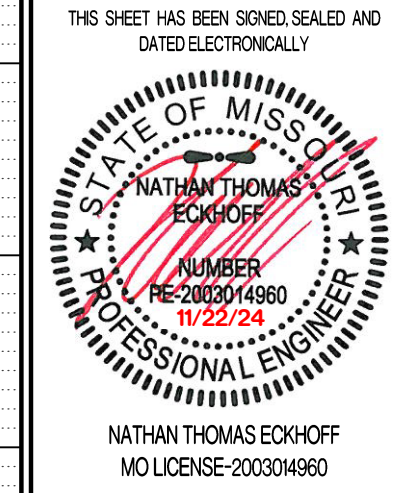
25-YEAR STORM HYDRAULIC GRADE LINE

100-YEAR STORM HYDRAULIC GRADE LINE



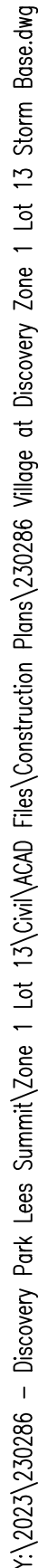
### REVISIONS:


NO.	DATE
ORIGINAL	11/22/2024



DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 5.1







PROJECT:    The Village at Discovery Park - Lot 4

CALCULATED BY:    NMD

CHECKED BY:    NTE

DATE:    8/20/24

PROJECT NO:    230286

STORM DRAIN PIPE SIZE

DESCRIPTION		STORM DRAIN HYDRAULICS										NOTES		
AREA NO.	UPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION		CA		RAINFALL INTENSITY	RUNOFF	STORM DRAIN SLOPE	STORM DRAIN DIAMETER	STORM DRAIN MATERIAL	CAPACITY (FEET PER SECOND FILL)	VELOCITY (FEET PER SECOND FILL)		
		min	secs	secs	min	in/hr	cfs	ft/ft	in	RCP, CMP, PVC OR HDPE	cfs	fps		
		LINE 1												
1	1C	5		0.20	8.53	167	0.010	12	HDPE	3.86	4.91			
2	1B	5	0.20	0.40	8.53	3.42	0.020	12	HDPE	5.46	6.95			
3	1A	5	0.33	0.73	8.53	6.23	0.020	15	HDPE	9.89	8.06			
LINE 2														
5+4	2A	5		0.35	8.53	3.01	0.010	12	HDPE	3.86	4.91			

REVISIONS:	
NO.	DATE
ORIGINAL	11/27/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS  
ENGINEER  
NUMBER  
200304960  
11/22/24

NATHAN THOMAS ECKHOFF  
MO LICENSE-200304960

PREPARED BY: **CROCKETT**  
ENGINEERING CONSULTANTS  
1500 W. Illinois Blvd, Bldg 1  
Columbia, MO 65203  
(573) 447-0292  
www.crockettengineering.com  
Crockett Engineering Consultants, LLC  
Missouri Certified Equal Opportunity Employer  
#2000133101

OWNER:  
DISCOVERY PARK, LEE'S SUMMIT, LLC  
4201 PHILLIPS PARKWAY  
COLUMBIA, MO 65201

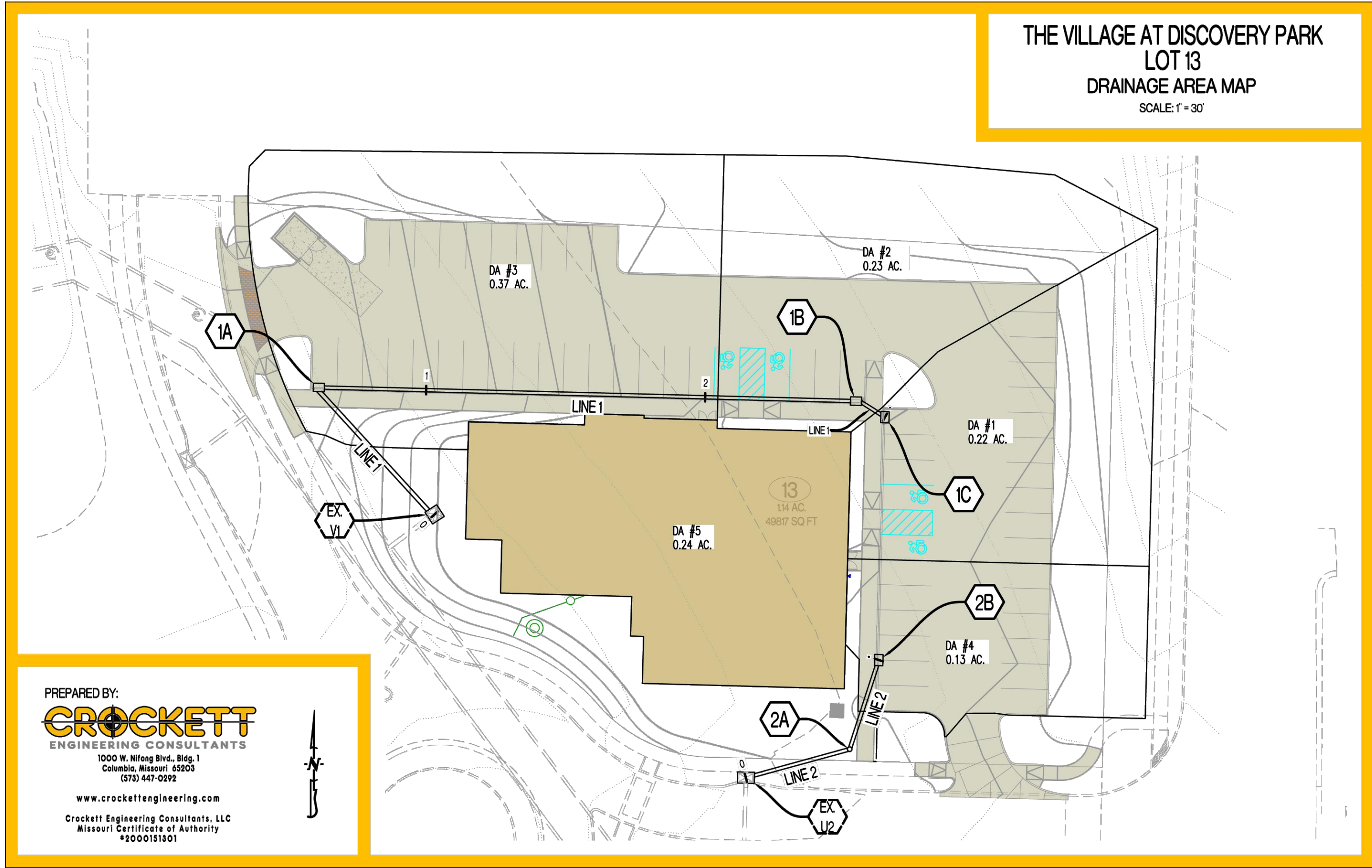
**THE VILLAGE AT DISCOVERY**  
**LOT 13**  
**LEE'S SUMMIT, JACKSON COUNTY, MISSOURI**

DRAWING INCLUDES:

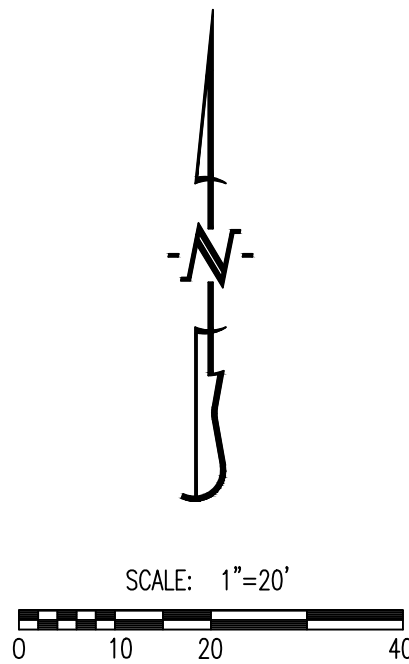
25-YEAR STORM  
CALCULATIONS

DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO:	2023286
SHEET:	CE 52









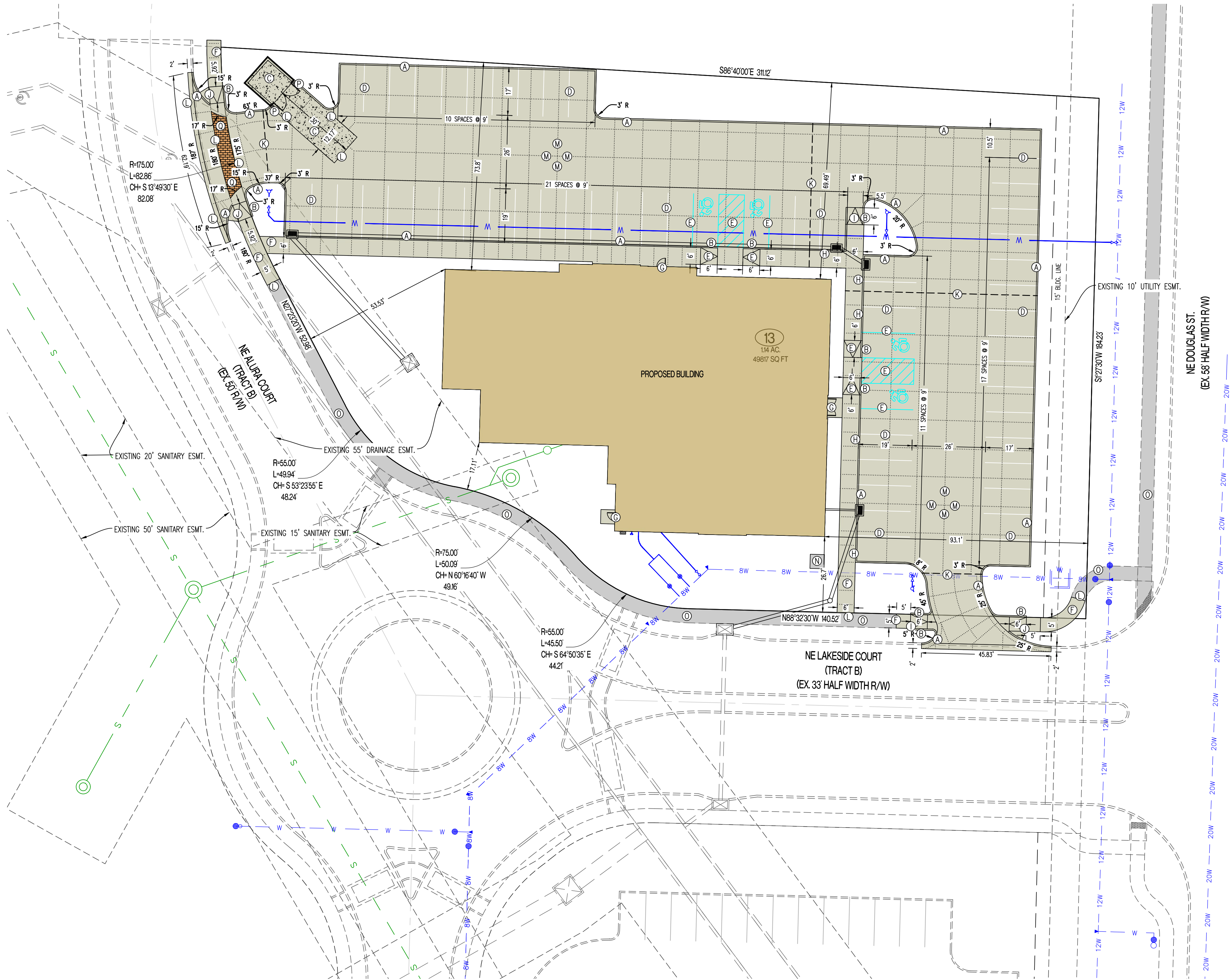
GENERAL NOTES:

- 1) ALL ACCESSIBLE PARKING SHALL COMPLY WITH THE REQUIREMENTS OF THE FEDERAL AMERICANS WITH DISABILITIES ACT.
- 2) THE PAVEMENT JOINTS SHOWN ARE A GRAPHICAL REPRESENTATION OF A POSSIBLE JOINT CONTRACTOR TO PROVIDE SHOP DRAWINGS WITH JOINT LAYOUT FOR APPROVAL BY ENGINEER PRIOR TO POURING OF PAVEMENT.

PARKING CALCULATIONS

PARKING SUMMARY (LOT 13):	
SPACES REQUIRED:	
INSTITUTIONAL AND OTHER :	
SUBDIVISION SWIMMING POOL/CLUBHOUSE (485 UNITS)	
- 1 PER 16 LOTS (UNITS)	31 SPACES
- MINIMUM OF 6	
RESERVED OFFICE SPACES (3 OFFICES):	
- 1 PER OFFICE	3 SPACES
GENERAL OFFICE (6,000 SQ. FT.)	
- 4 PER 1,000 SQ. FT.	24 SPACES
STANDARD SPACES REQUIRED:	
HANDICAP SPACES REQUIRED:	58 SPACES
SPACES PROVIDED:	4 SPACES
STANDARD SPACES PROVIDED:	
HANDICAP SPACES PROVIDED:	59 SPACES
	4 SPACES

CALCULATIONS: LOT 13		
LAND AREA:		
TOTAL LAND AREA:		1.14 AC
BUILDING DETAILS:		
1ST FLOOR:	10,581 SQ.FT.	
2ND FLOOR:	10,581 SQ.FT.	
TOTAL S.F. (2-STORIES)	21,162 SQ.FT.	
LOT COVERAGES:		
	ACTUAL	
NET LAND AREA:	49,817 SQ.FT.	100%
TOTAL IMPERVIOUS SURFACE AREA:	33,978 SQ.FT.	68%
TOTAL OPEN SPACE:	15,839 SQ.FT.	32%
FLOOR AREA RATIO:		42%



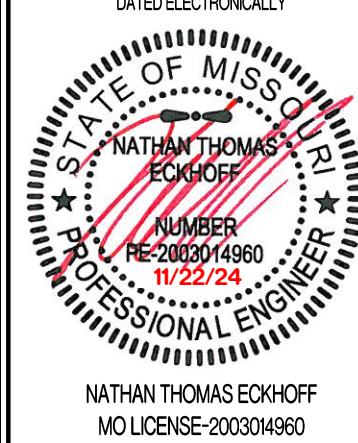
LEGEND OF LABELS

- |   |   |
|---|---|
| (A) CONSTRUCT LIGHT DUTY CONCRETE W/ INTEGRAL CURB AS SHOWN. REFER TO DETAIL 1 & 2 ON CE 7.1.   | (I) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP AT BACK OF CURB. REFER TO DETAIL 8 ON CE 7.1.  |
| (B) TRANSITION FROM 6" CURB TO 0" CURB. REFER TO CE 3.0-CE 3.3.   | (J) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP WITH FLARE AT BACK OF CURB. REFER TO DETAIL 9 ON CE 7.1.   |
| (C) DUMPSTER PAD AREA W/ INTEGRAL CURB AS SHOWN. REFER DETAIL 7 ON CE 7.1. REFER TO ARCHITECTURAL PLANS FOR PROPOSED DUMPSTER ENCLOSURE DETAILS.  | (K) INSTALL TYPE A OR TYPE A ALTERNATE EXPANSION JOINT IN PAVING. REFER TO DETAIL 6 ON CE 7.1.  |
| (D) PAINT 4" PARKING STALL STRIPES AS SHOWN, COLOR WHITE (TYPICAL) ALL STALLS EXCEPT ADA ACCESSIBLE STALLS. REFER TO PLAN FOR WIDTH AND DEPTH OF STALLS.  | (L) INSTALL TYPE B CONSTRUCTION JOINT WHERE PROPOSED CONCRETE PAVING ABUTS EXISTING CONCRETE PAVING. REFER TO DETAIL 6 ON CE 7.1.                                       |
| (E) CONSTRUCT ADA ACCESSIBLE PARKING AREA WITH SIGNAGE AND ADA RAMPS. PAINT 4" STRIPE AND ACCESSIBLE SYMBOL, COLOR BLUE. PAINT HATCH AREA AS SHOWN, COLOR BLUE. SLOPE OF THE PAVEMENT AT ALL ACCESSIBLE STALLS SHALL NOT EXCEED 1:50. REFER TO DETAIL 10 ON CE 7.2. | (M) INSTALL TYPE C SAW JOINT IN PAVEMENT, MAXIMUM 12"x12" SQUARES (TYPICAL). REFER TO DETAIL 6 ON CE 7.1.   |
| (F) CONSTRUCT 4" THICK, PCC WALK PER PLAN DIMENSIONS AS SHOWN (MAXIMUM LONGITUDINAL SLOPE 1:20. MAXIMUM CROSS SLOPE AT 1:50). REFER DETAIL 5 ON CE 7.1.   | (N) PROPOSED TRANSFORMER PAD. COORDINATE WITH M.E.P. FOR EXACT SIZE AND LOCATION.   |
| (G) CONSTRUCT THICKENED EDGE SIDEWALK/PAVEMENT ABUTTING BUILDING PER PLAN DIMENSIONS AS SHOWN (MAXIMUM LONGITUDINAL SLOPE 1:20. MAXIMUM CROSS SLOPE AT 1:50). REFER TO DETAIL 4 ON CE 7.1.  | (O) 5' STREET-SIDE SIDEWALK TO BE CONSTRUCTED. REFER TO OLSSON PLANS TITLED "PRIVATE SITE DEVELOPMENT PLANS FOR THE VILLAGE AT DISCOVERY PARK ZONE 1" DATED 10/18/2023. |
| (H) CONSTRUCT THICKENED EDGE SIDEWALK WALK AT BACK OF CURB PER PLAN DIMENSIONS AS SHOWN (MAXIMUM LONGITUDINAL SLOPE 1:20. MAXIMUM CROSS SLOPE AT 1:50). REFER TO DETAIL 3 ON CE 7.1.  | (P) INSTALL PIPE BOLLARD AS SHOWN. REFER TO DETAIL 11 ON CE 7.2.  |
|   | (Q) CROSSWALK CONCRETE PAVEMENT TO BE INTEGRALLY COLORED AND STAMPED, COLOR AND PATTERN TO BE CHOSEN BY OWNER. PAVEMENT SHALL BE REINFORCED PER DETAIL 7 ON CE 7.1.     |

REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



PREPARED BY:  
**CROCKETT**  
ENGINEERS & ARCHITECTS  
1000 W. Illinois Blvd., Suite 100  
Columbia, Missouri 65203  
(314) 447-0592  
www.crockettingeering.com  
Missouri Certificate of Authority  
#000000001

OWNER:  
DISCOVERY PARK LEES SUMMIT LLC  
4220 PHILLIPS FARM RD  
COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY  
LOT 13  
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

SITE PLAN

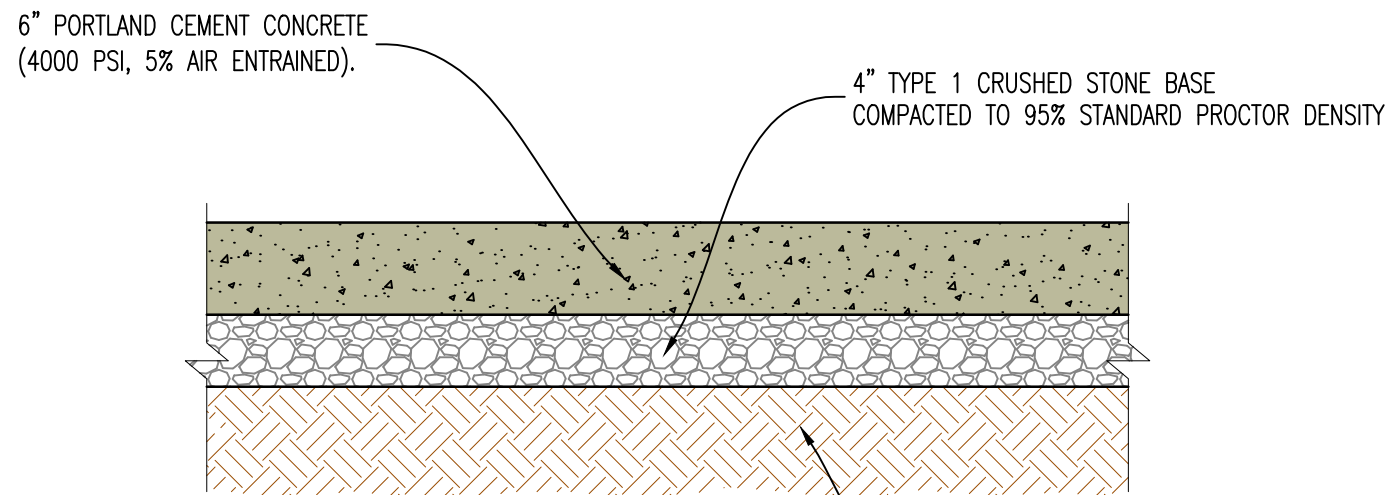
DESIGNED: NTE

DRAWN: NMD

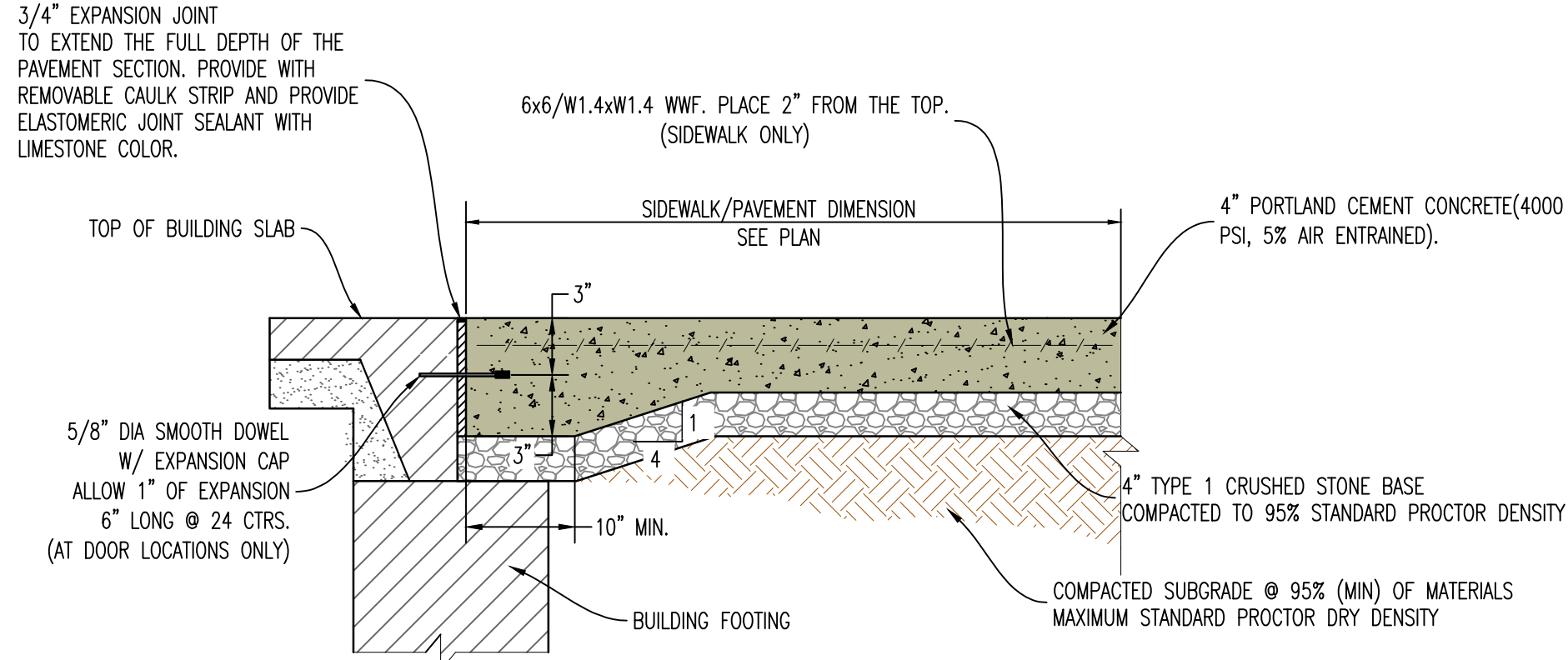
PROJECT NO.: 230286

SHEET:  
CE 6.1

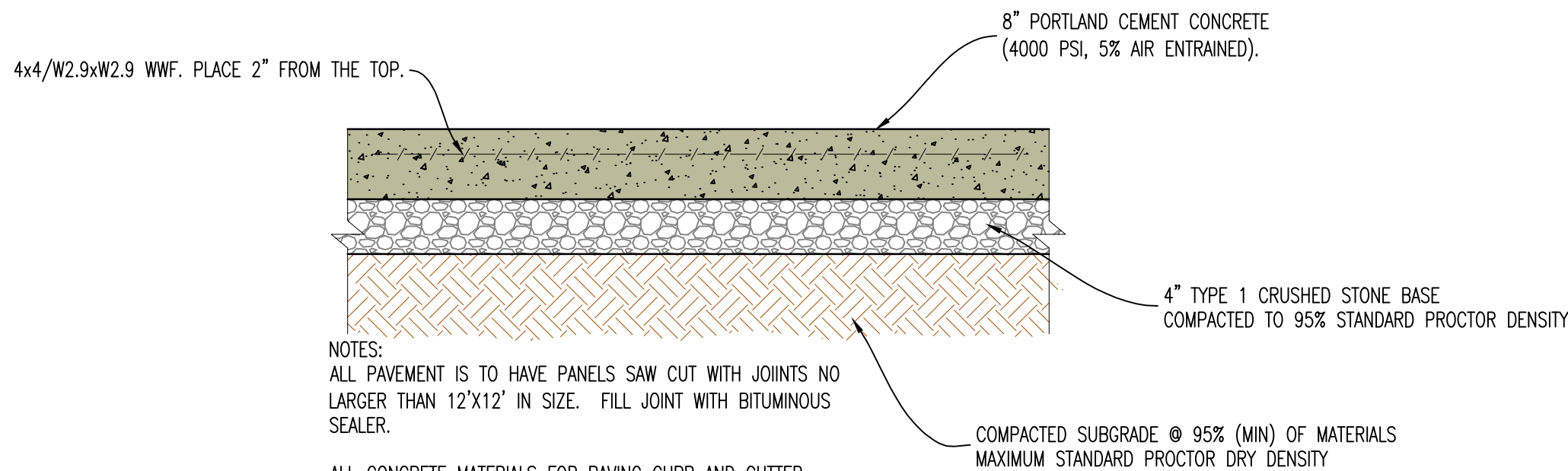




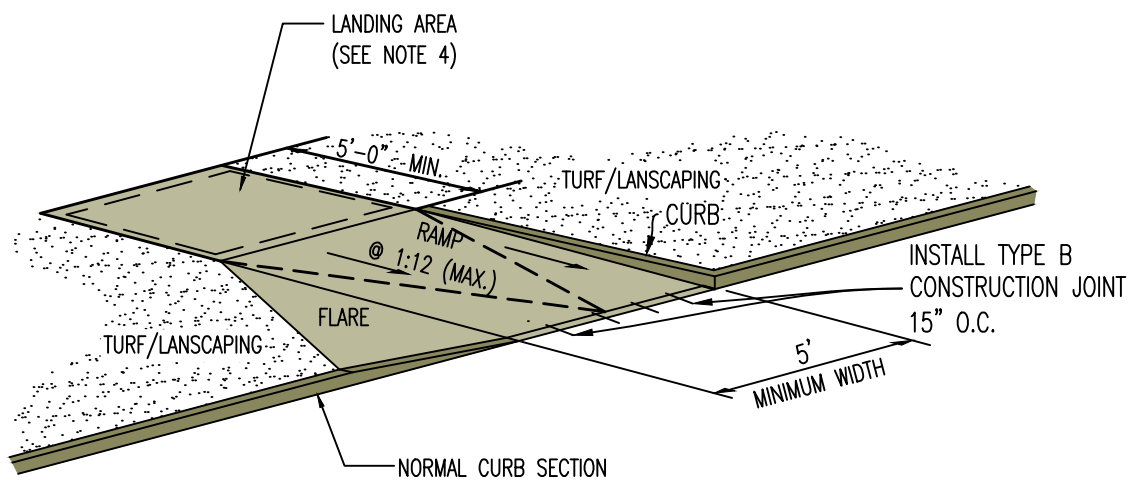
1 LIGHT DUTY CONCRETE PAVEMENT CROSS-SECTION



4 SIDEWALK/PAVEMENT ABUTTING BUILDING



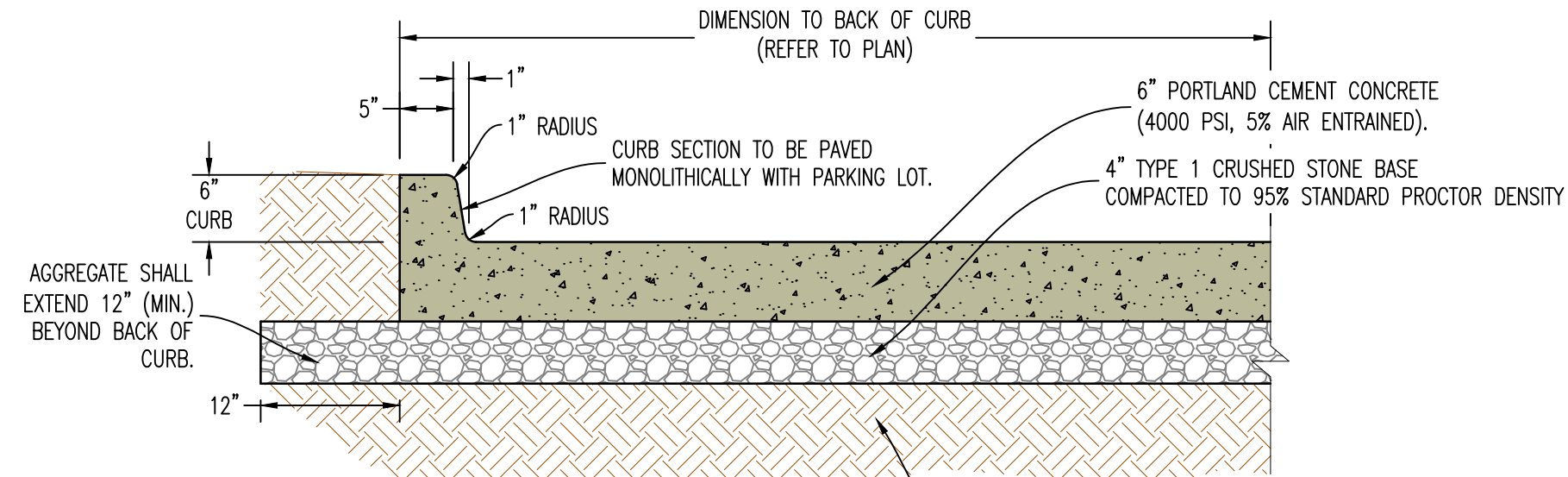
7 HEAVY DUTY CONCRETE PAVEMENT CROSS-SECTION (REINFORCED)



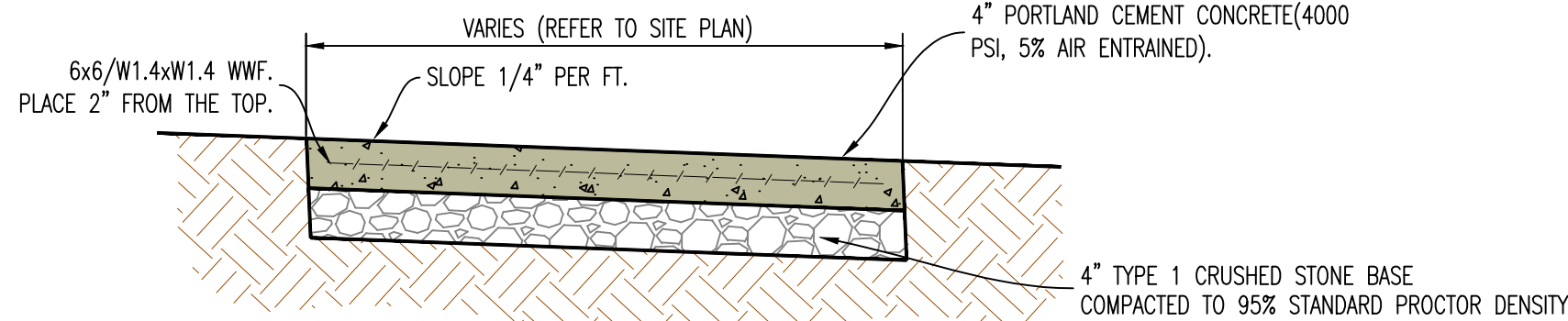
NOTES

- RAMP SHALL BE 6" THICK (MIN.) PCC CONCRETE WITH 6X6/W1.4XW1.4 WWF. PLACE 2" FROM THE TOP.
- CURB RAMP SHALL NOT HAVE A RISE GREATER THAN 0.5'.
- RAMP LENGTH IS DEPENDENT ON 1:12 MAX. SLOPE. USE FLATTER WHEN POSSIBLE. REFER TO GRADING PLAN.
- MAIN LANDING AREA AT TOP OF RAMP SHALL BE 4'-0" MIN WIDTH, CROSS SLOPE OF LANDING SHALL NOT EXCEED 2.0% IN ANY DIRECTION.
- FLARE SLOPE NOT TO EXCEED 1:10.
- ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS SHALL CONFORM TO THE KCMMB SPECIFICATIONS.

9 SIDEWALK RAMP WITH CURB AND FLARE



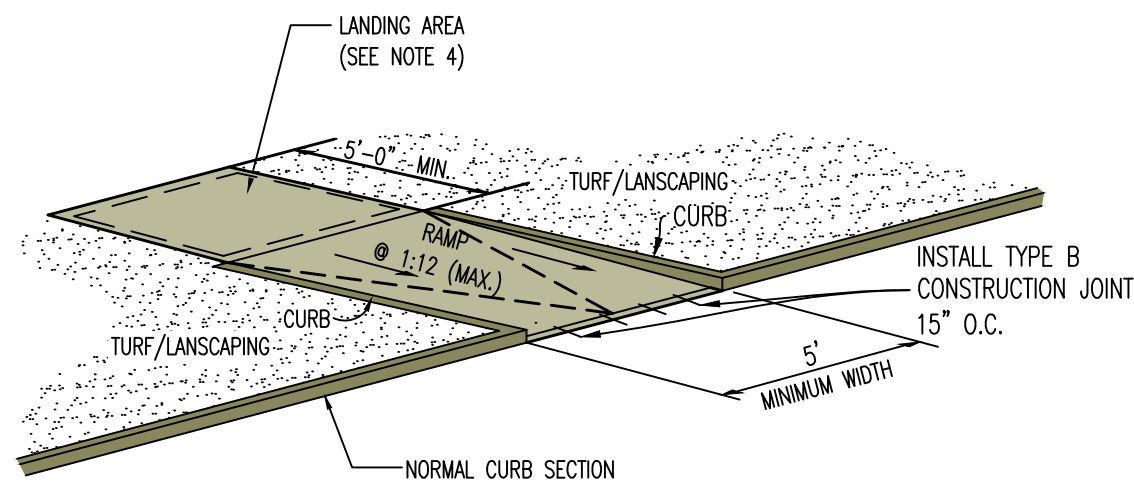
6 6" CONCRETE BARRIER CURB CROSS-SECTION



NOTE:

- INSTALL 1/2" EXPANSION JOINTS AT INTERSECTIONS, RAMPS, STRUCTURES, AND DRIVEWAY APPROACHES. MAX. EXPANSION JOINT SPACING = 150'
- INSTALL TRANSVERSE SAW JOINTS AT SPACING = SIDEWALK WIDTH. JOINT SEALER TO BE NON-BITUMINOUS (COLOR GRAY)
- ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS SHALL CONFORM TO THE KCMMB SPECIFICATIONS.

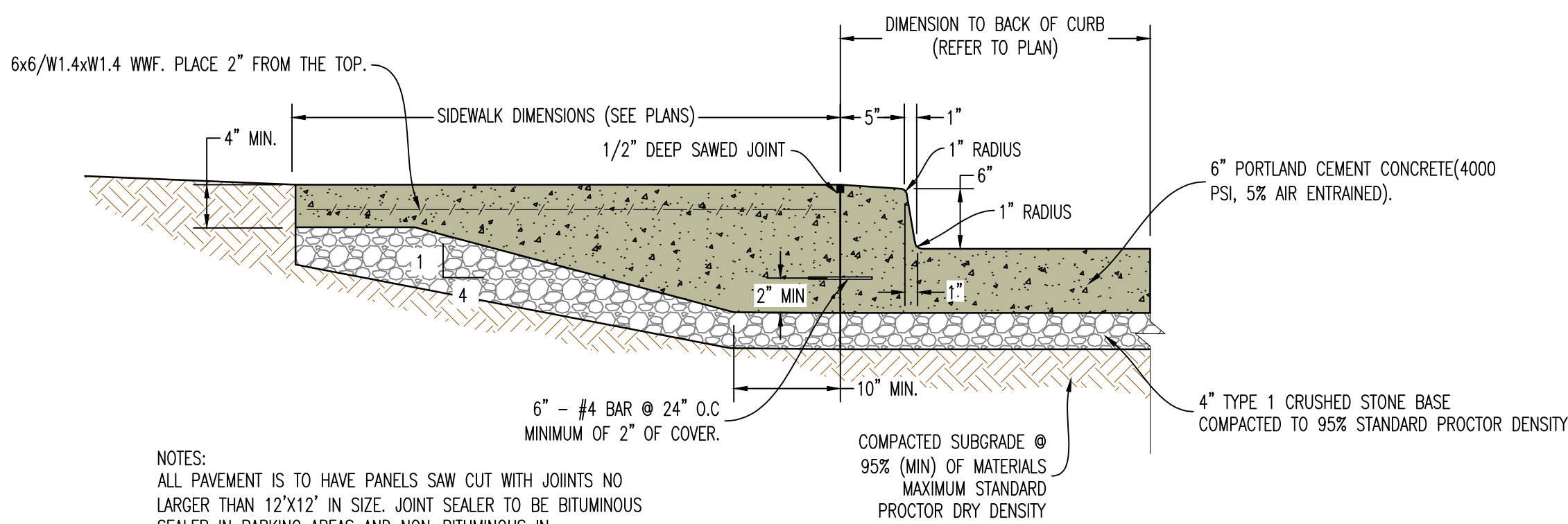
5 TYPICAL CONCRETE SIDEWALK



NOTES

- RAMP SHALL BE 6" THICK (MIN.) PCC CONCRETE WITH 6X6/W1.4XW1.4 WWF. PLACE 2" FROM THE TOP.
- CURB RAMP SHALL NOT HAVE A RISE GREATER THAN 0.5'.
- RAMP LENGTH IS DEPENDENT ON 1:12 MAX. SLOPE. USE FLATTER WHEN POSSIBLE. REFER TO GRADING PLAN.
- MAIN LANDING AREA AT TOP OF RAMP SHALL BE 4'-0" MIN WIDTH, CROSS SLOPE OF LANDING SHALL NOT EXCEED 2.0% IN ANY DIRECTION.
- ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS SHALL CONFORM TO THE KCMMB SPECIFICATIONS.

8 SIDEWALK RAMP WITH CURB

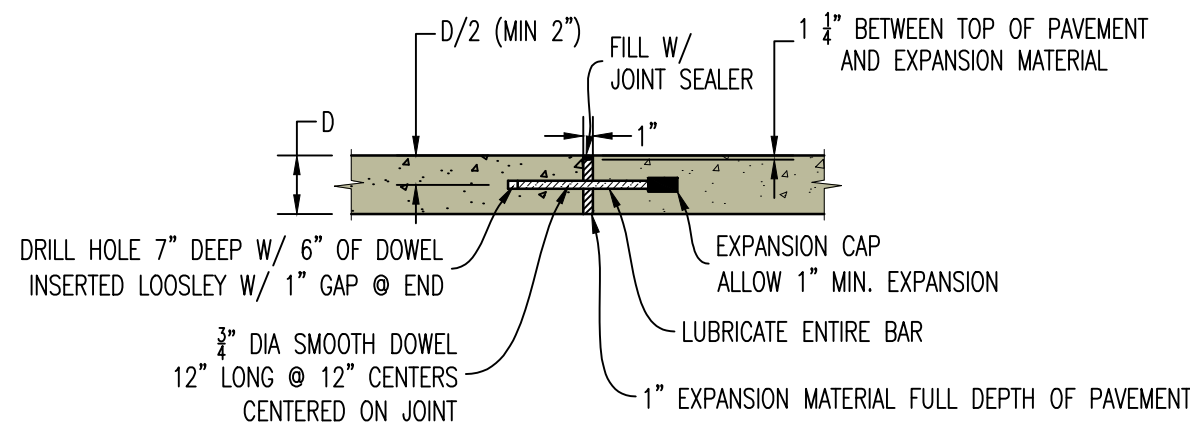


NOTE:

ALL PAVEMENT IS TO HAVE PANELS SAW CUT WITH JOINTS NO LARGER THAN 12'X12' IN SIZE. JOINT SEALER TO BE BITUMINOUS SEALER IN PARKING AREAS AND NON-BITUMINOUS IN SIDEWALK/WALKING SURFACES (COLOR GRAY)

ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS SHALL CONFORM TO THE KCMMB SPECIFICATIONS.

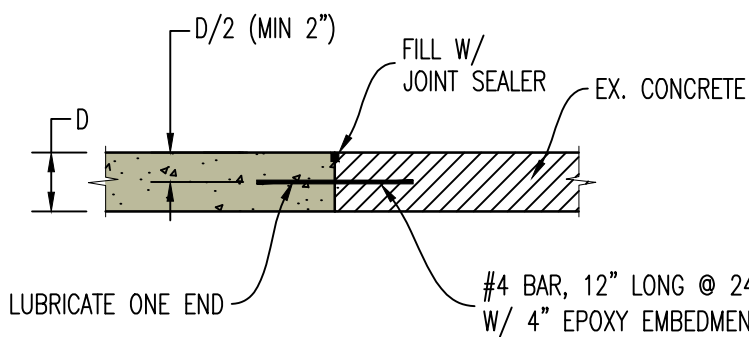
3 THICKENED EDGE SIDEWALK WITH INTEGRAL CURB & GUTTER



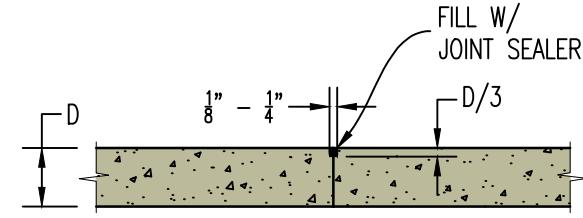
NOTE:

- ALL BARS TO BE INSTALLED PERPENDICULAR TO EDGE AND IN SAME PLANE TO PREVENT LOCKING OF JOINT.
- EDGE OF PAVEMENT TO BE SAWED/FORMED TO A CLEAN EDGE FOR INSTALLATION OF EXPANSION JOINT.

TYPE A - EXPANSION JOINT

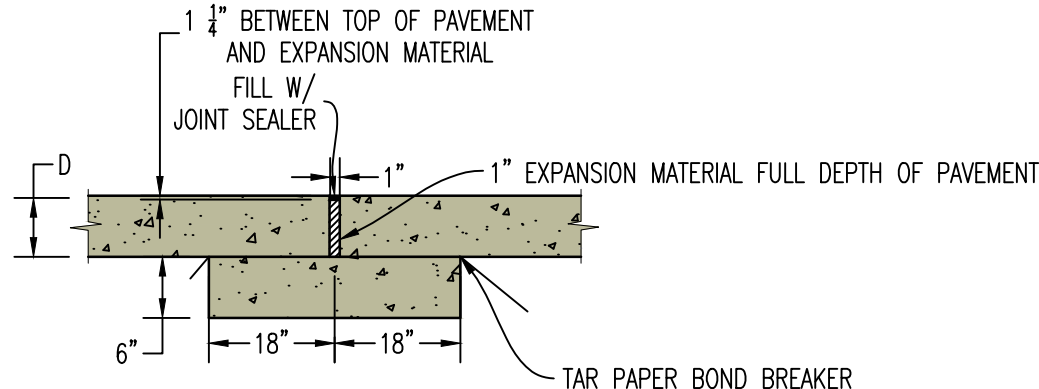


TYPE B - CONSTRUCTION JOINT



NOTE: MAXIMUM DISTANCE BETWEEN SAW JOINTS TO BE 12'

TYPE C - CONTROL JOINT 'SAWED'



TYPE A ALTERNATE CONCRETE SILL

NOTE:

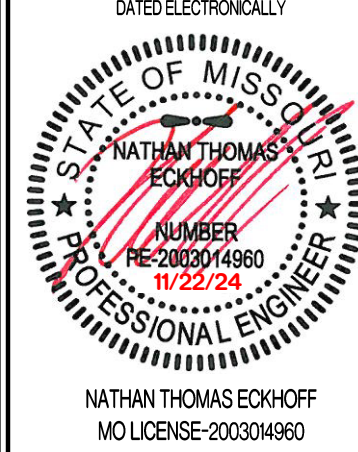
JOINT SEALER TO BE BITUMINOUS SEALER IN PARKING AREAS AND NON-BITUMINOUS IN SIDEWALK/WALKING SURFACES (COLOR GRAY)

6 CONCRETE PAVEMENT JOINT DETAILS

REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY



OWNER:  
DISCOVERY PARK LEES SUMMIT LLC  
4020 PHILLIPS FARM RD  
COLUMBIA MO 65201

THE VILLAGE AT DISCOVERY  
LOT 13  
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

DETAILS SHEET 1

DESIGNED: NTE

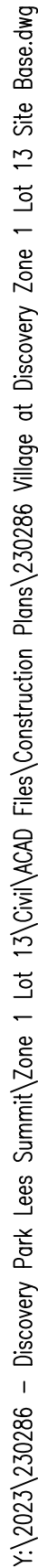
DRAWN: NMD

PROJECT NO.: 230286

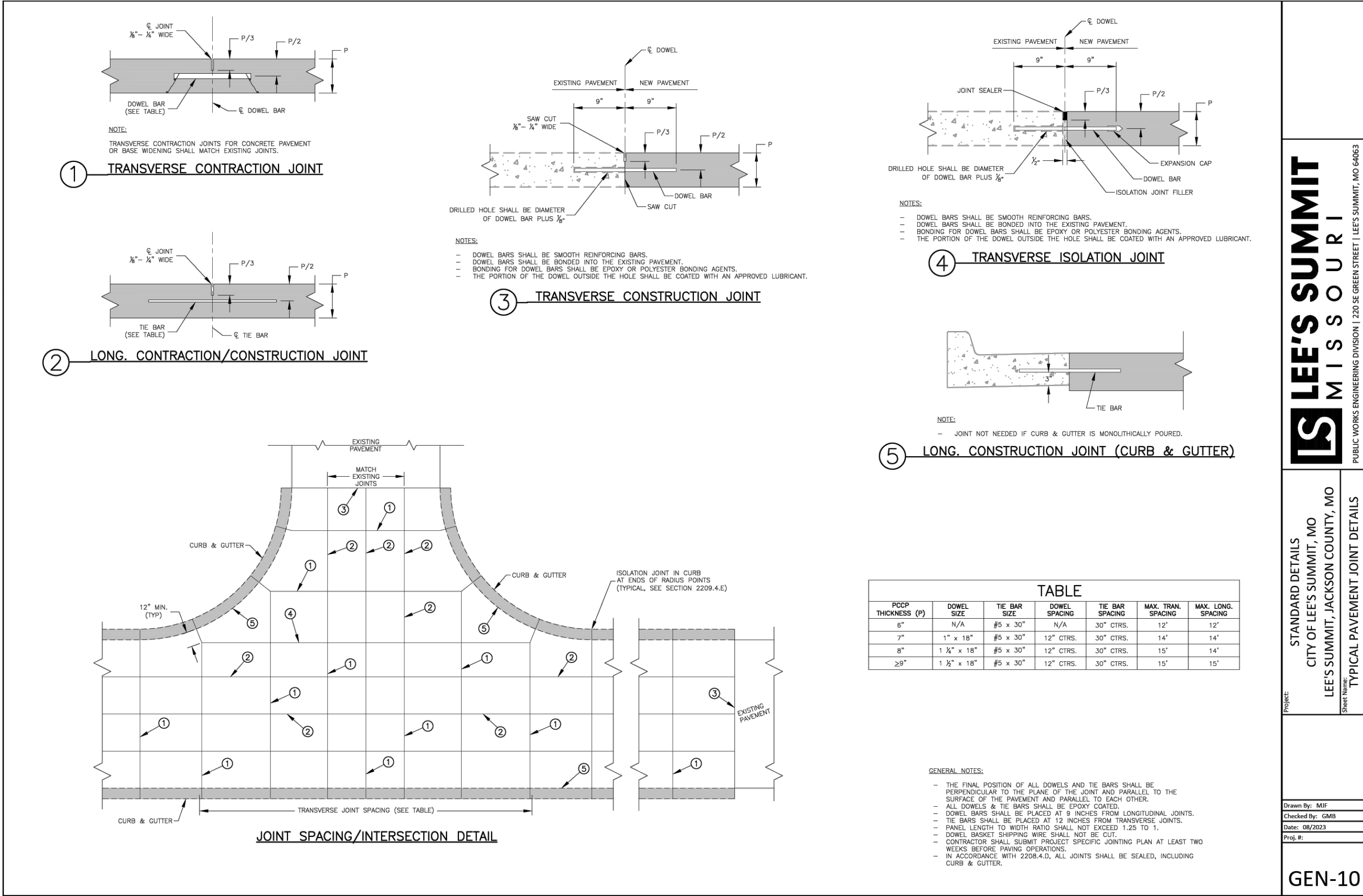
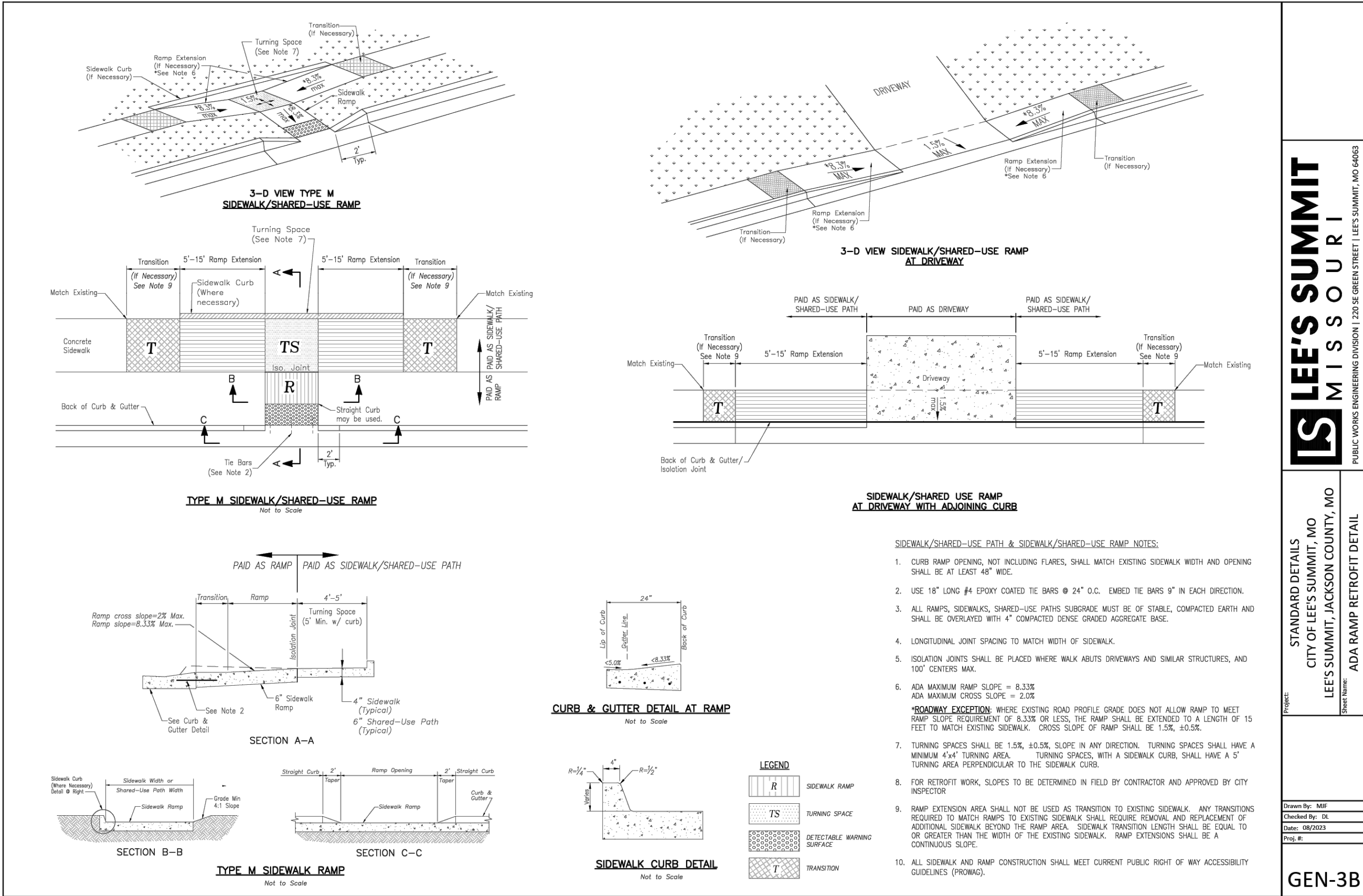
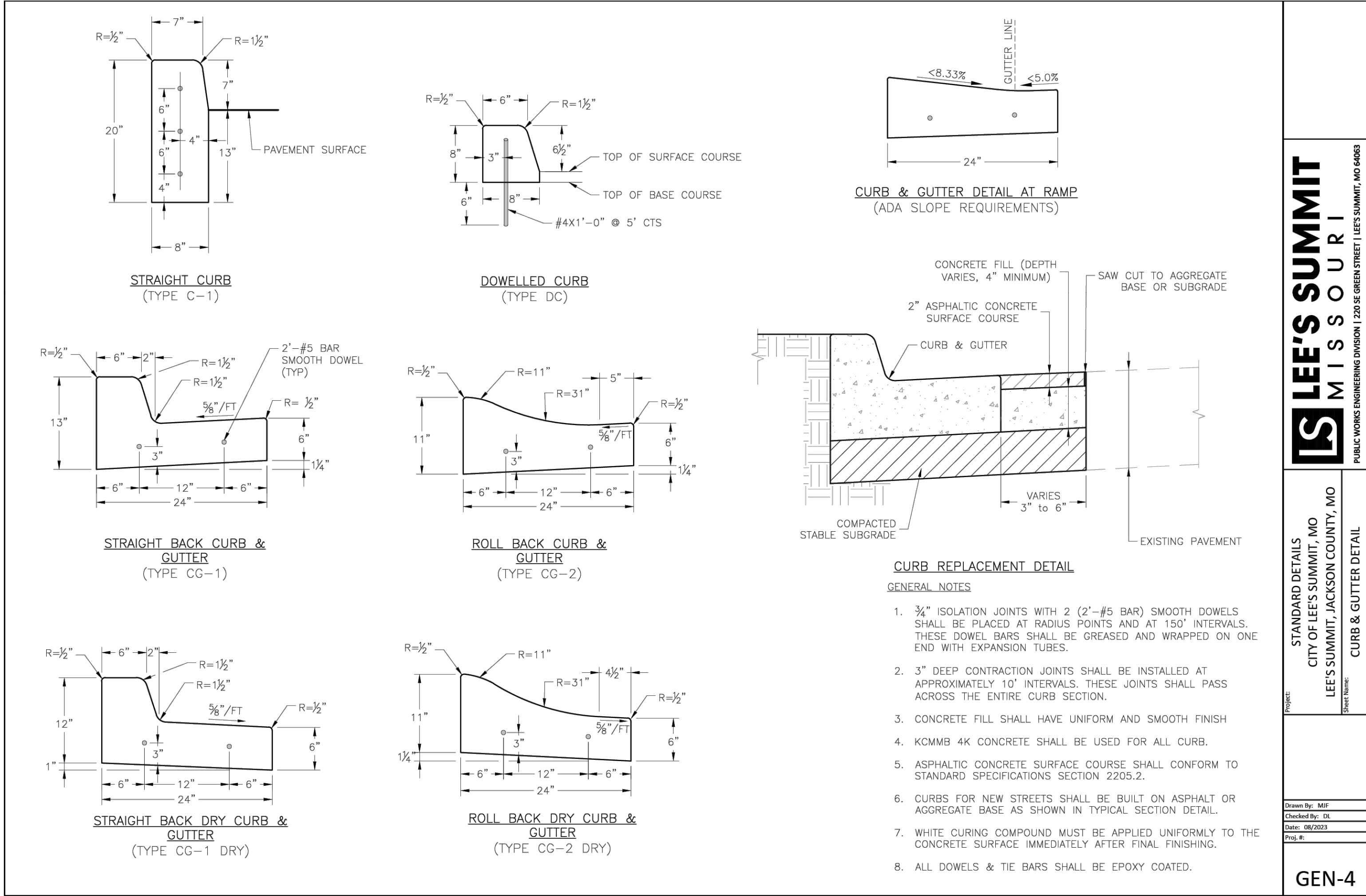
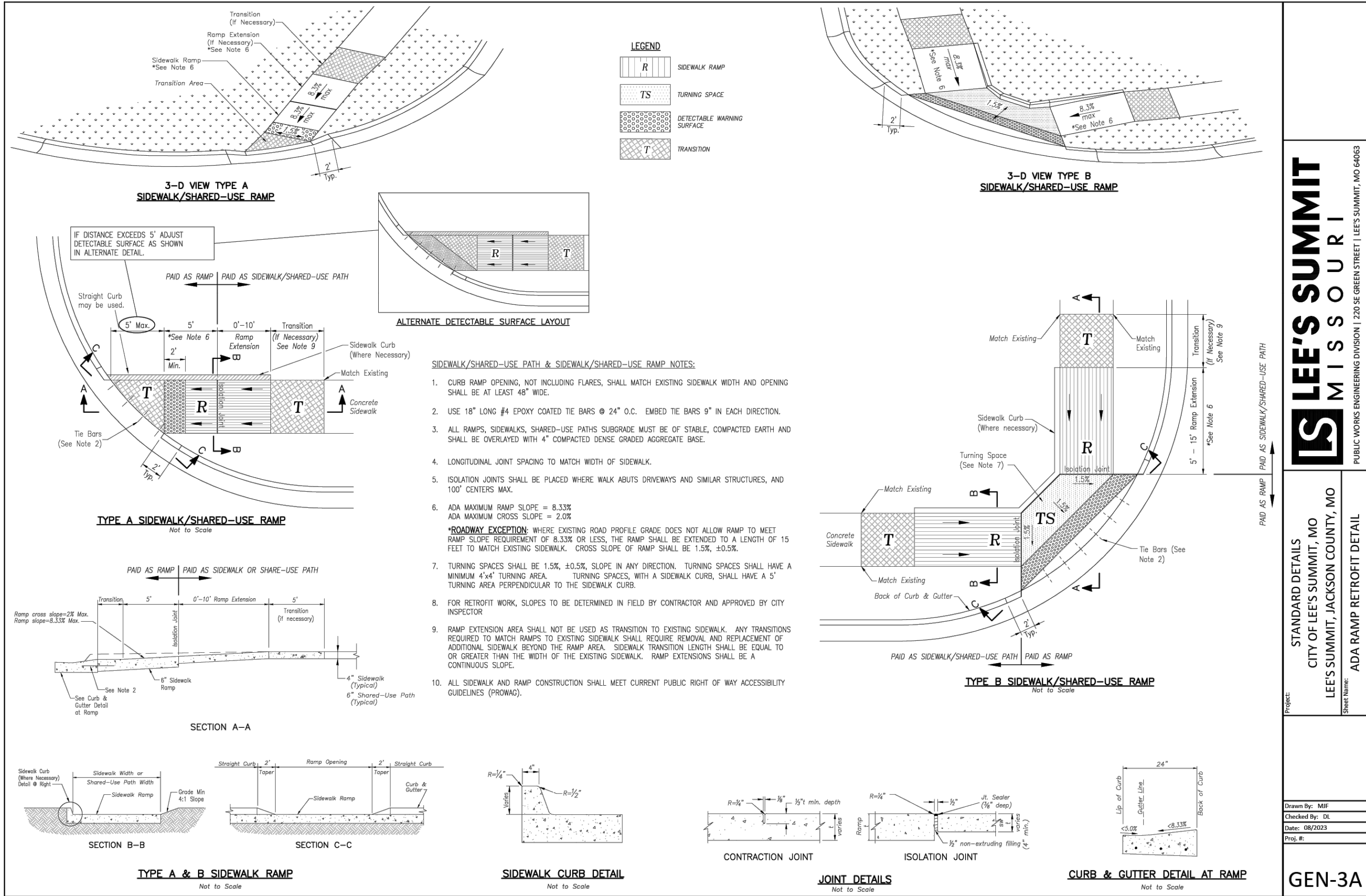
SHEET:

CE 7.1









REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.  
  
NATHAN THOMAS ECKHOFF  
MO LICENSE 200304960

PREPARED BY:   
ENGINEERS & ARCHITECTS  
1000 W. Illinois Blvd., Suite 100  
Columbia, Missouri 65203  
(314) 487-0292  
www.crockettingeering.com  
Crockett Engineering Consultants, LLC  
Missouri Certificate of Authority  
#000000001

OWNER:  
DISCOVERY PARK LEE'S SUMMIT LLC  
4220 PHILLIPS FARM RD  
COLUMBIA, MO 65201

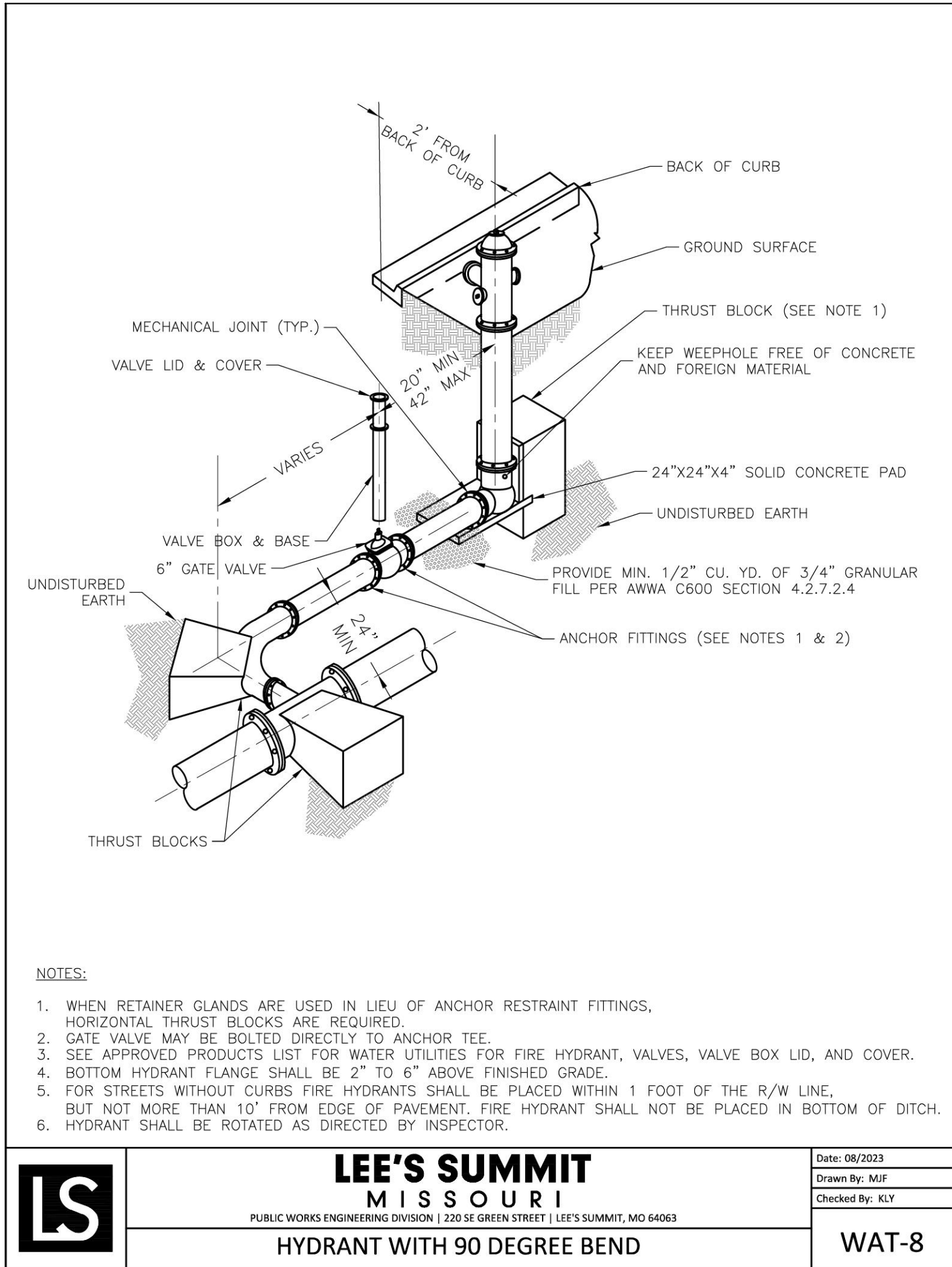
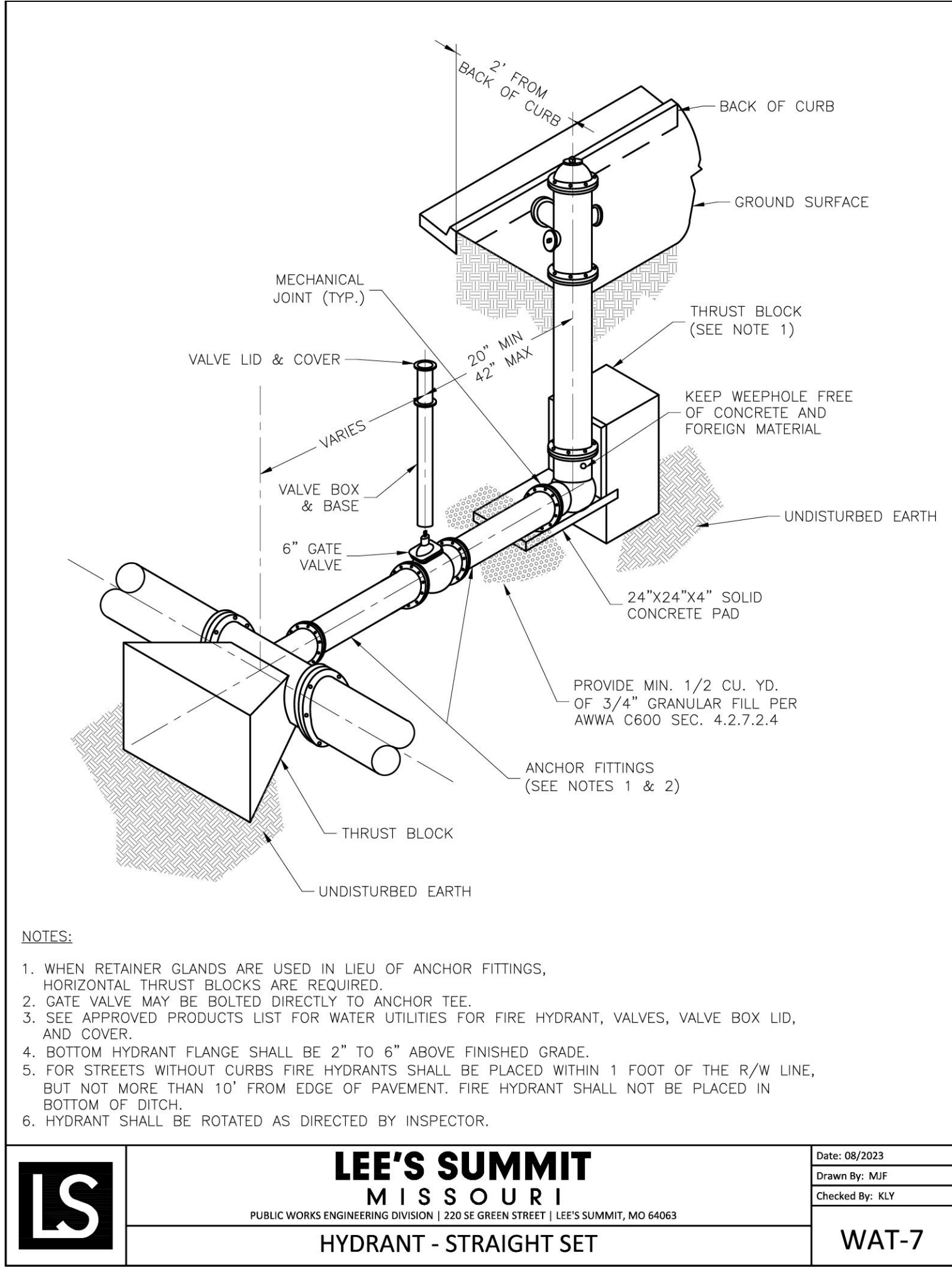
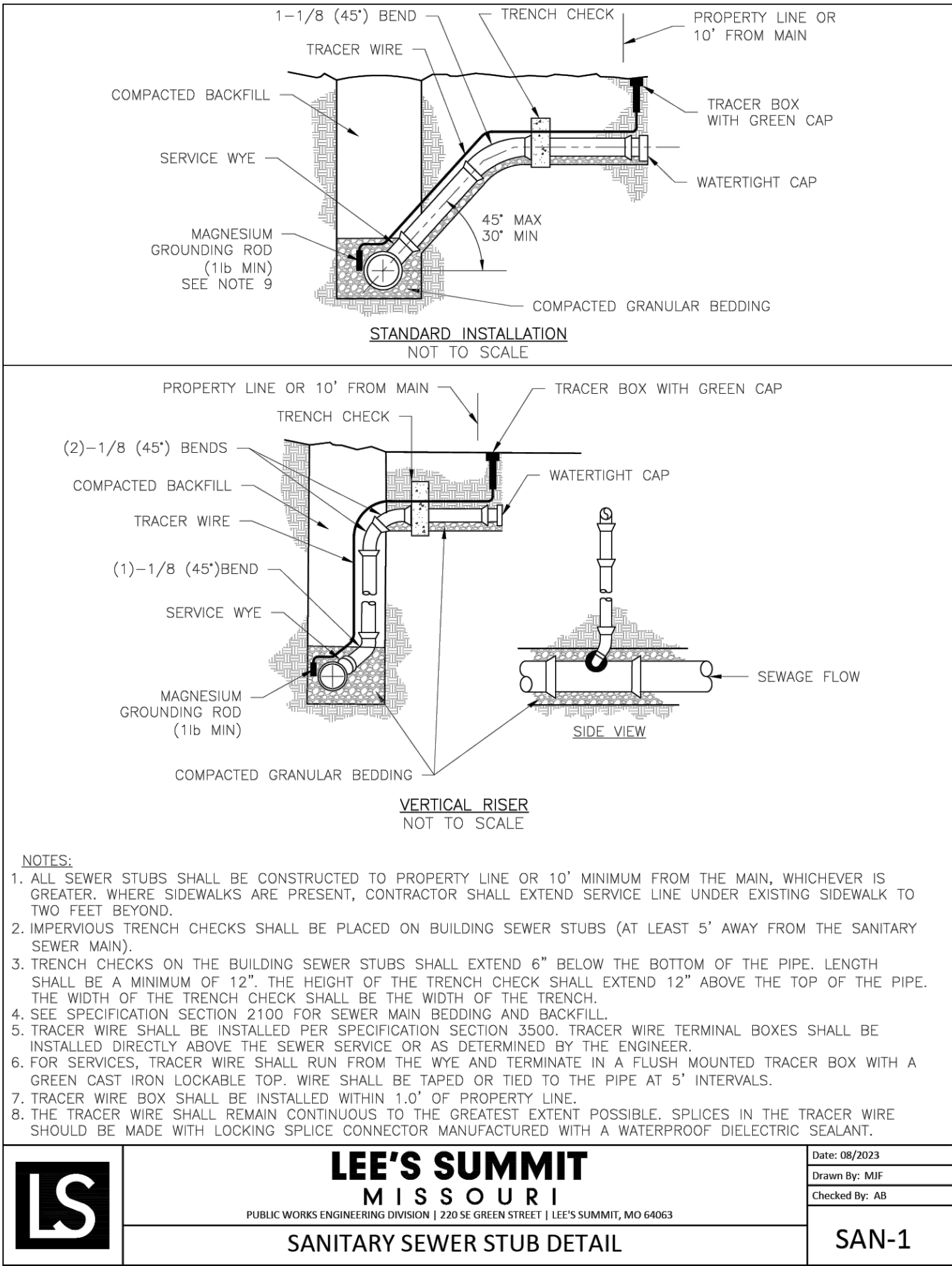
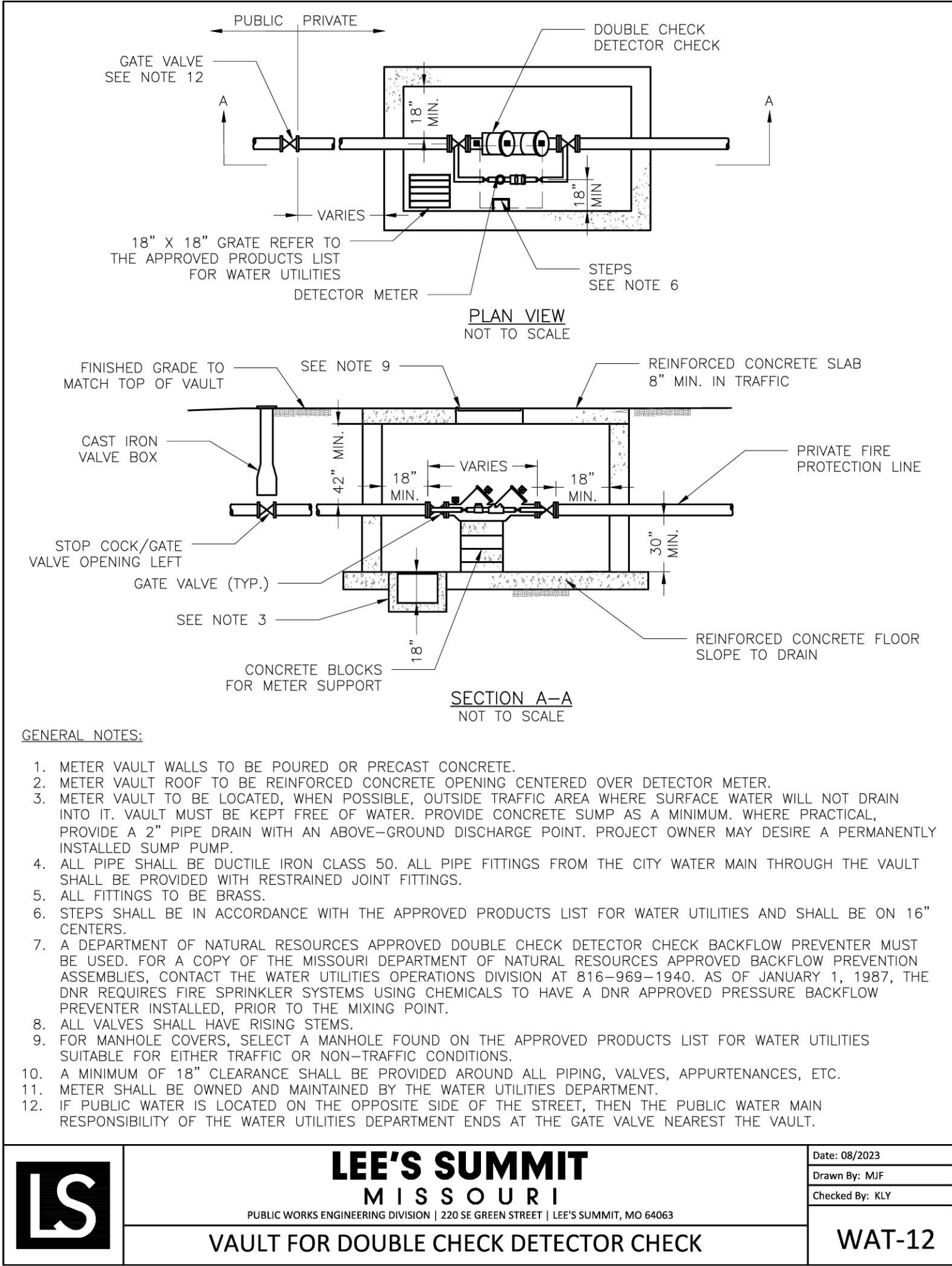
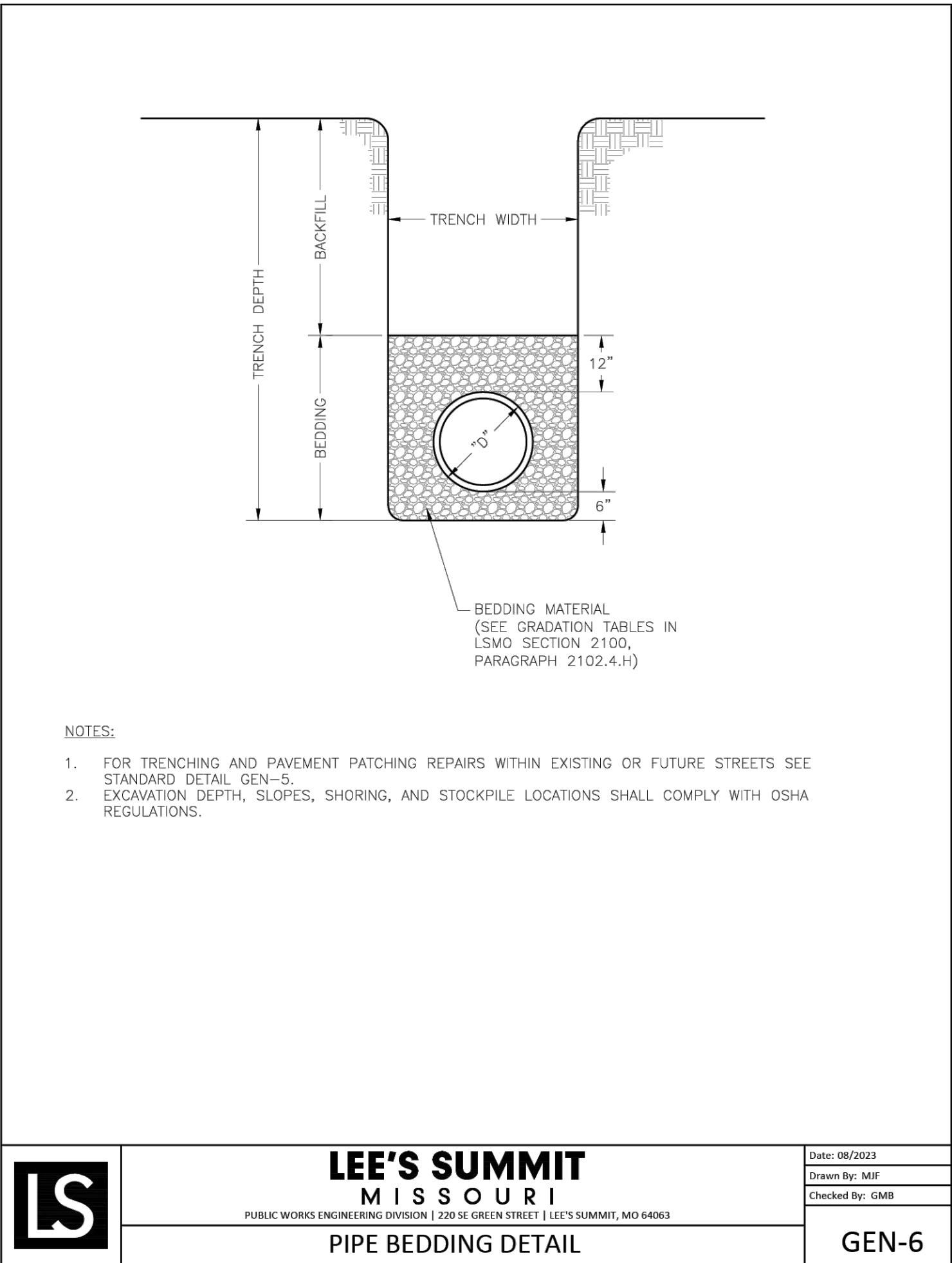
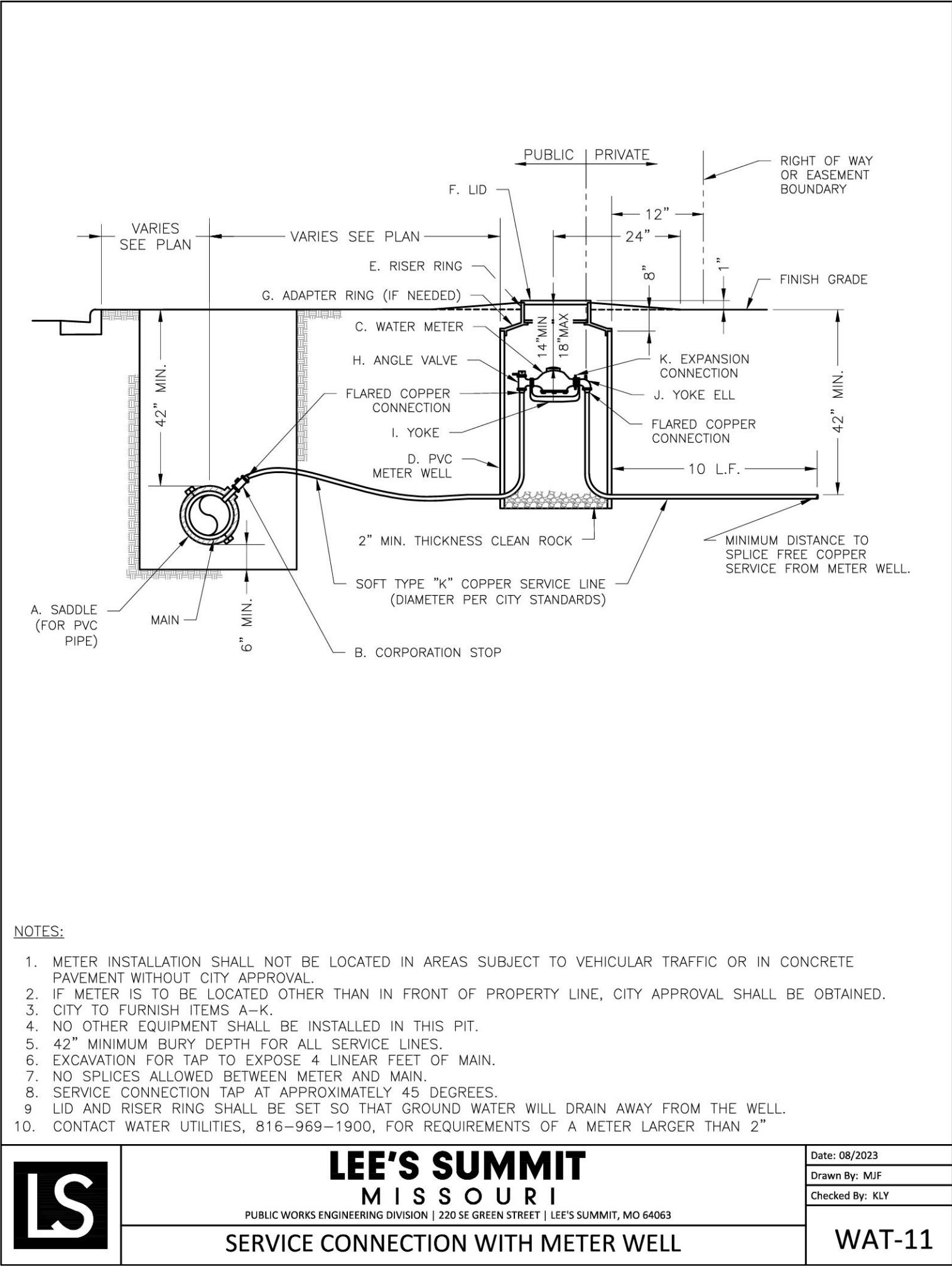
STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
TYPICAL PAVEMENT JOINT DETAILS  
Sheet Name: TYPICAL PAVEMENT JOINT DETAILS  
Drawn By: MMF  
Checked By: GMS  
Date: 08/2023  
Proj. #: GEN-10

DESIGNED: NTE  
DRAWN: NMD  
PROJECT NO.: 230286  
SHEET: CE 7.3

THE VILLAGE AT DISCOVERY  
LOT 13  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:  
LEE'S SUMMIT DETAILS 1





REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

PROFESSIONAL ENGINEER

NUMBER PE-2003014960

EXPIRATION DATE 11/22/24

NATHAN THOMAS ECKHOFF  
MO LICENSE 2003014960

PREPARED BY: CROCKETT ENGINEERS & ARCHITECTS

1000 W. Illinois Blvd., Suite 100  
Columbia, Missouri 65203  
(314) 487-0292  
www.crockettingeering.com  
Missouri Certificate of Authority #00000001

OWNER:

DISCOVERY PARK LEES SUMMIT LLC  
4220 PHILLIPS FARM RD  
COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOT 13

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

LEE'S SUMMIT DETAILS 2

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET: CE 7.4

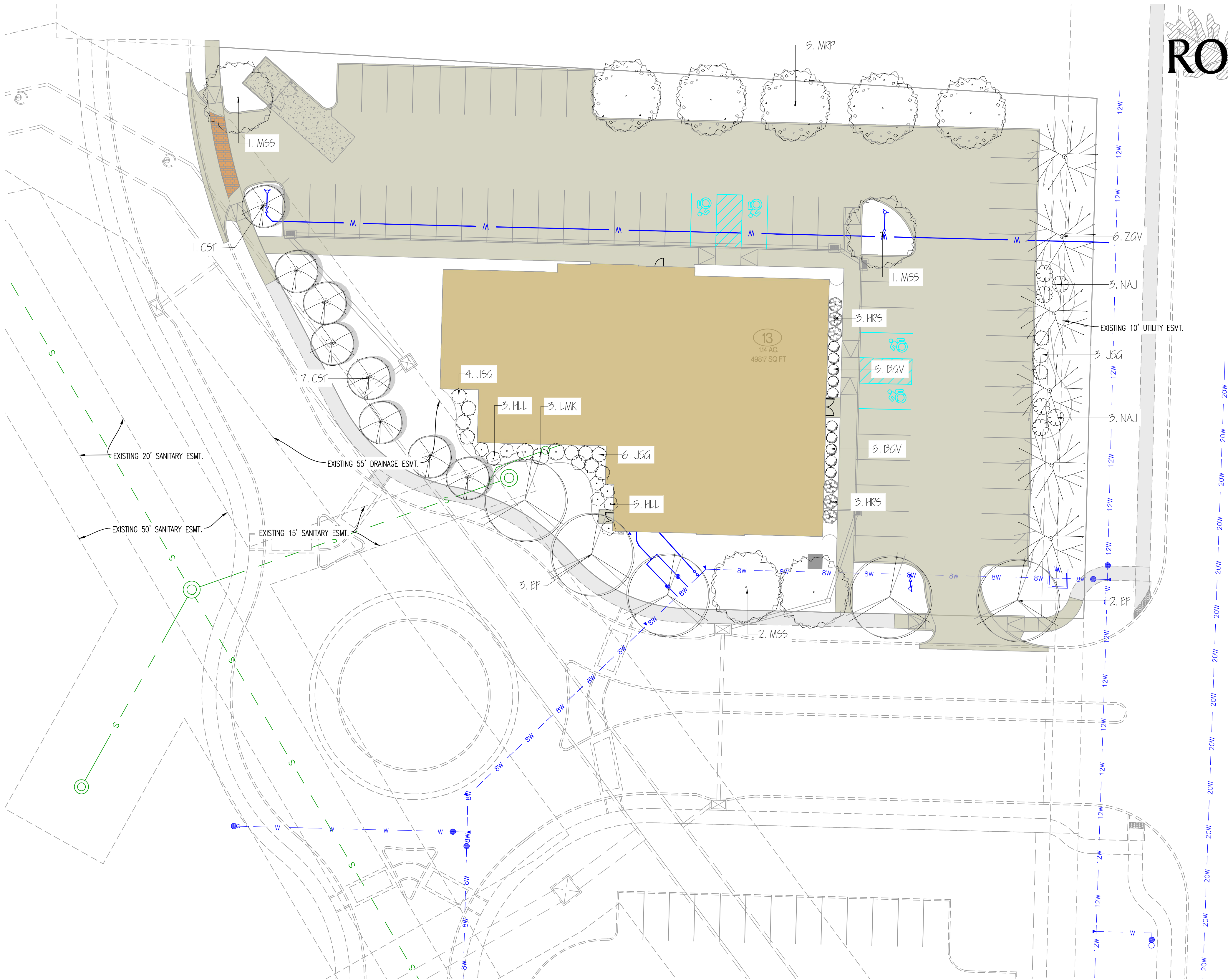
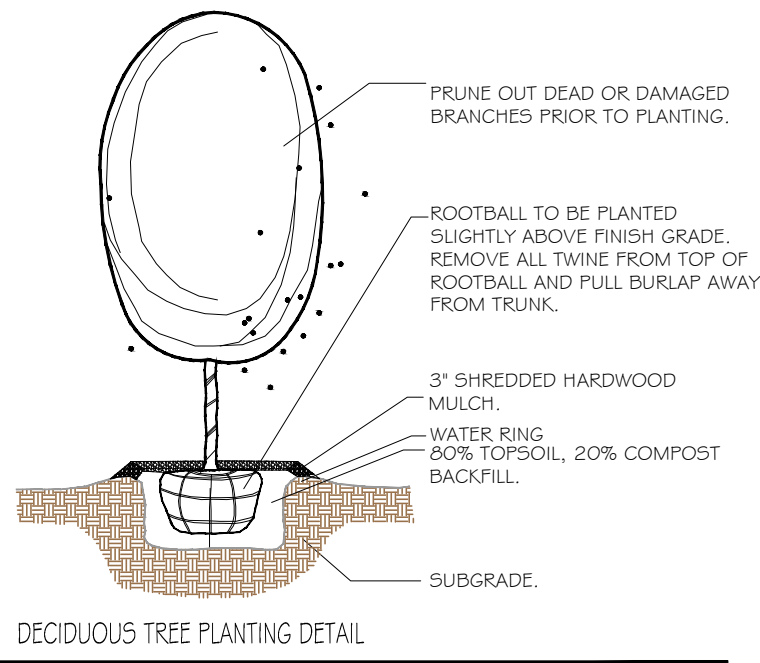
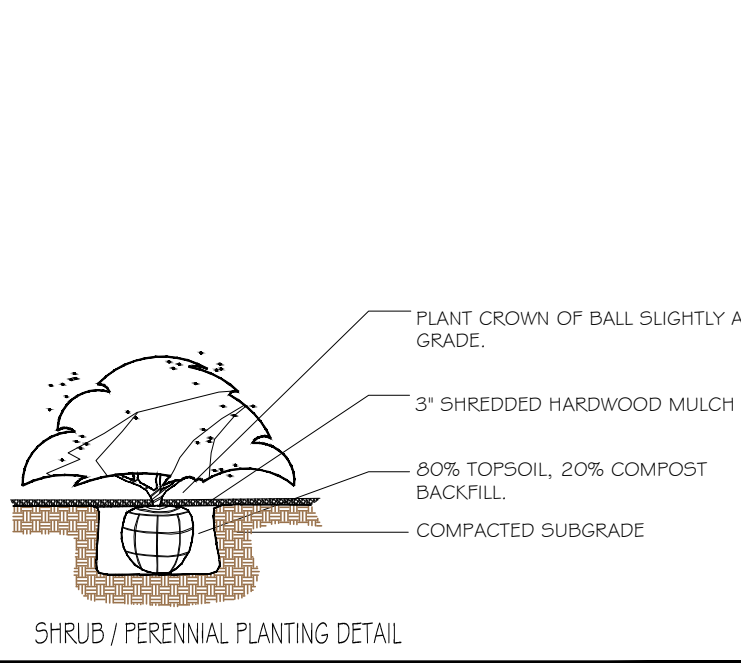


Y:\2023\230286 - Discovery Park Lees Summit\Zone 1 Lot 13\Civil\MOAD Files\Construction Plans\230286 Village at Discovery Zone 1 Lot 13 Landscape Base.dwg

LANDSCAPE COMPLIANCE: LOT 4					
LEE'S SUMMIT, MISSOURI					
CODE OF ORDINANCES: DIVISION III - LANDSCAPING, BUFFERS, AND TREE PROTECTION					
SITE ZONED: PMIX, PROPOSED: PMIX					
STREET FRONTAGE TREES					
1 TREE PER 30 FEET OF STREET FRONTAGE					
DOUGLAS AVE - 184 LF STREET FRONTAGE					
ALURA WAY - 421 LF STREET FRONTAGE					
OPEN YARD TREES					
1 TREE PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT					
TOTAL LOT AREA = 39,216 SF					
STREET FRONTAGE SHRUBS					
1 SHRUB PER 20 FEET OF STREET FRONTAGE					
DOUGLAS AVE - 184 LF STREET FRONTAGE					
ALURA WAY - 421 LF STREET FRONTAGE					
OPEN YARD SHRUBS					
2 SHRUBS PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT					
TOTAL LOT AREA = 39,216 SF					

PLANTING SCHEDULE:					
QUANTITY	SYMBOL	PLANT NAME	PLANT TYPE	SIZE	
5	EF	ELM 'FRONTIER'	MEDIUM / LARGE TREE	3"	
6	ZGV	ZELKOVA 'GREEN VASE'	MEDIUM / LARGE TREE	3"	
4	MSS	MYABY MAPLE 'STATE STREET'	MEDIUM / LARGE TREE	3"	
5	MRP	MAPLE 'RED POINTE'	MEDIUM / LARGE TREE	3"	
8	CST	CRABAPPLE 'SUGARTIME'	ORNAMENTAL TREE	2.5"	
6	NAJ	NINEBARK 'AMBER JUBILEE'	DECIDUOUS SHRUB	#5	
8	HLL	HYDRANGEA 'LITTLE LIME'	DECIDUOUS SHRUB	#5	
6	HRS	HYDRANGEA 'RUBY SLIPPERS'	DECIDUOUS SHRUB	#5	
3	LMK	LILAC 'MISS KIM'	DECIDUOUS SHRUB	#5	
10	BGV	BOXWOOD 'GREEN VELVET'	EVERGREEN SHRUB	#5	
13	JSG	JUNIPER 'SEA GREEN'	EVERGREEN SHRUB	#5	

- THE PLANT LIST IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL PLANT COUNTS AND IF A DISCREPANCY EXISTS THE PLAN SHALL GOVERN.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE OF ALL UNDERGROUND UTILITIES, PIPES, AND STRUCTURES. THE LANDSCAPE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION.
- LANDSCAPE CONTRACTOR TO RECEIVE SITE GRADED TO +/-0.10 FOOT OF FINISHED GRADE.
- PLANTING BACK FILL MIX IS TO CONSIST OF 80% NATIVE TOPSOIL, AND 20% ORGANIC MATTER.
- SHRUB BEDS, BERMS, AND TREE WELLS ARE TO BE MULCHED WITH 3-4" DYED HARDWOOD MULCH.
- ALL BED AND LAWN AREAS SHALL BE IRRIGATED.
- ALL LAWN AREAS TO BE SODDED WITH TALL FESCUE SOD.
- LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF TWELVE MONTHS.
- ALL PLANTING BEDS AND TREE RINGS TO BE SEPERATED FROM TURF AREAS BY 'V' TRENCHING.
- ALL PLANT MATERIAL MUST MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- PLANT LOCATIONS MAY BE ADJUSTED ONSITE TO AVOID UTILITIES, SITE FEATURES, ETC.
- ONLY ORNAMENTAL TREES AND SHRUBS MAY BE PLANTED IN ANY EASEMENTS.



ROST  
INC

REVISIONS:

NO.	DATE
ORIGINAL	11/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

STATE OF MISSOURI  
NATHAN THOMAS ECKHOFF  
NUMBER PE-2003014960  
11/22/24  
PROFESSIONAL ENGINEER  
NATHAN THOMAS ECKHOFF  
MO LICENSE 2003014960

PREPARED BY:  
**CROCKETT**  
ENGINEERS & ARCHITECTS  
1000 W. Illinois Blvd., Suite 100  
Columbia, Missouri 65203  
(314) 487-0592  
www.crockettingeering.com  
Missouri Certificate of Authority #000000001

OWNER:  
DISCOVERY PARK LEE'S SUMMIT LLC  
4420 PHILLIPS FARM RD  
COLUMBIA, MO 65201

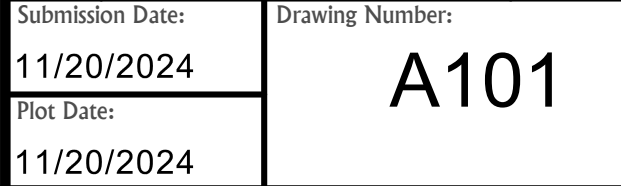
THE VILLAGE AT DISCOVERY  
LOT 13  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

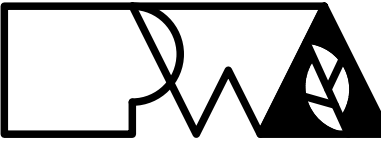
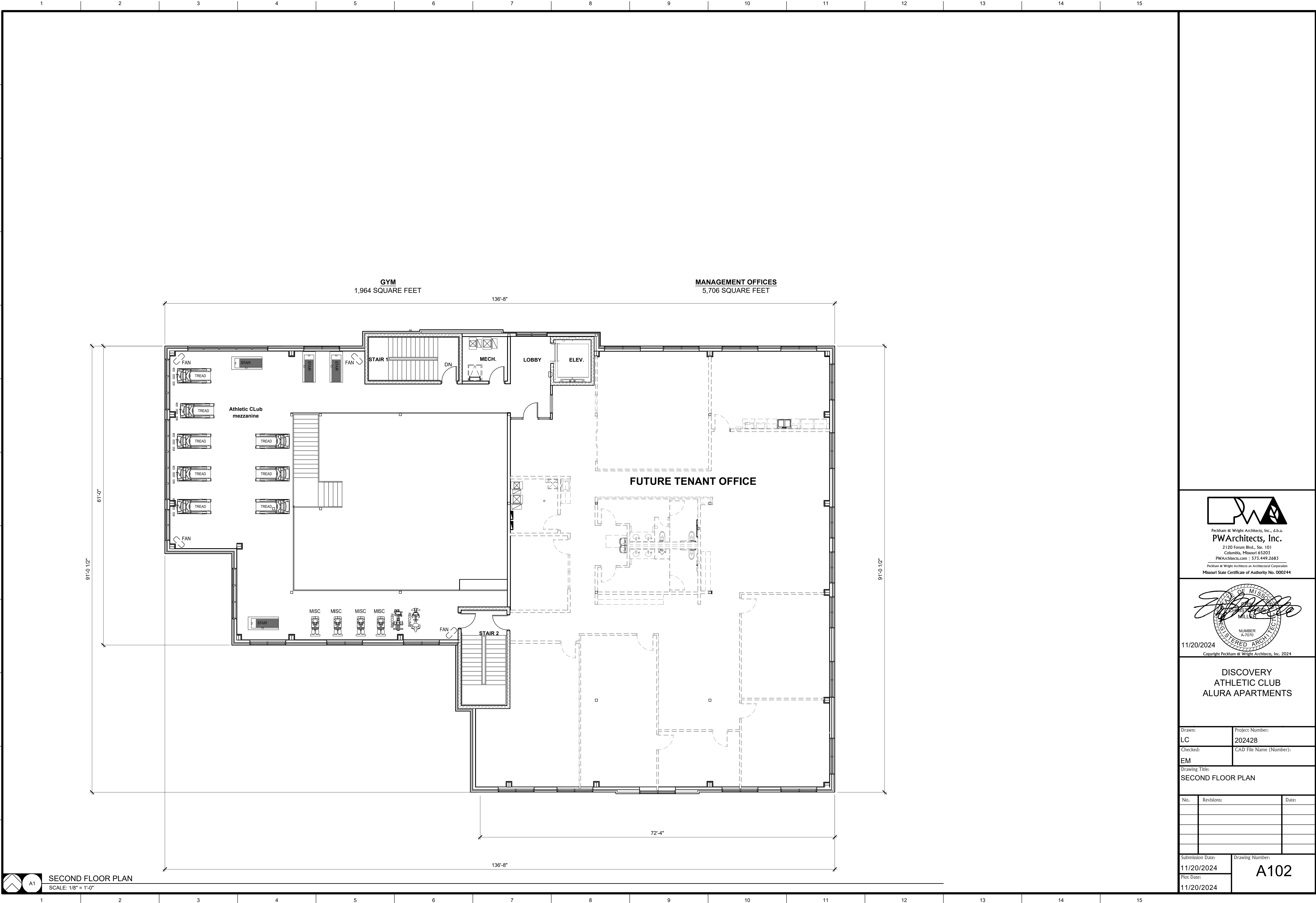
LANDSCAPING PLAN

DESIGNED: NTE  
DRAWN: NMD  
PROJECT NO.: 230286  
SHEET: CE 8.1

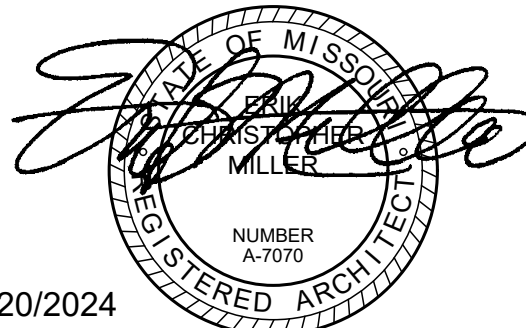








Peckham & Wright Architects, Inc., d.b.a.  
**PWArchitects, Inc.**  
2120 Forum Blvd., Ste. 101  
Columbia, Missouri 65203  
PWArchitects.com | 573.449.2683  
Peckham & Wright Architects an Architectural Corporation  
Missouri State Certificate of Authority No. 000244



11/20/2024  
Copyright Peckham & Wright Architects, Inc. 2024

**DISCOVERY  
ATHLETIC CLUB  
ALURA APARTMENTS**

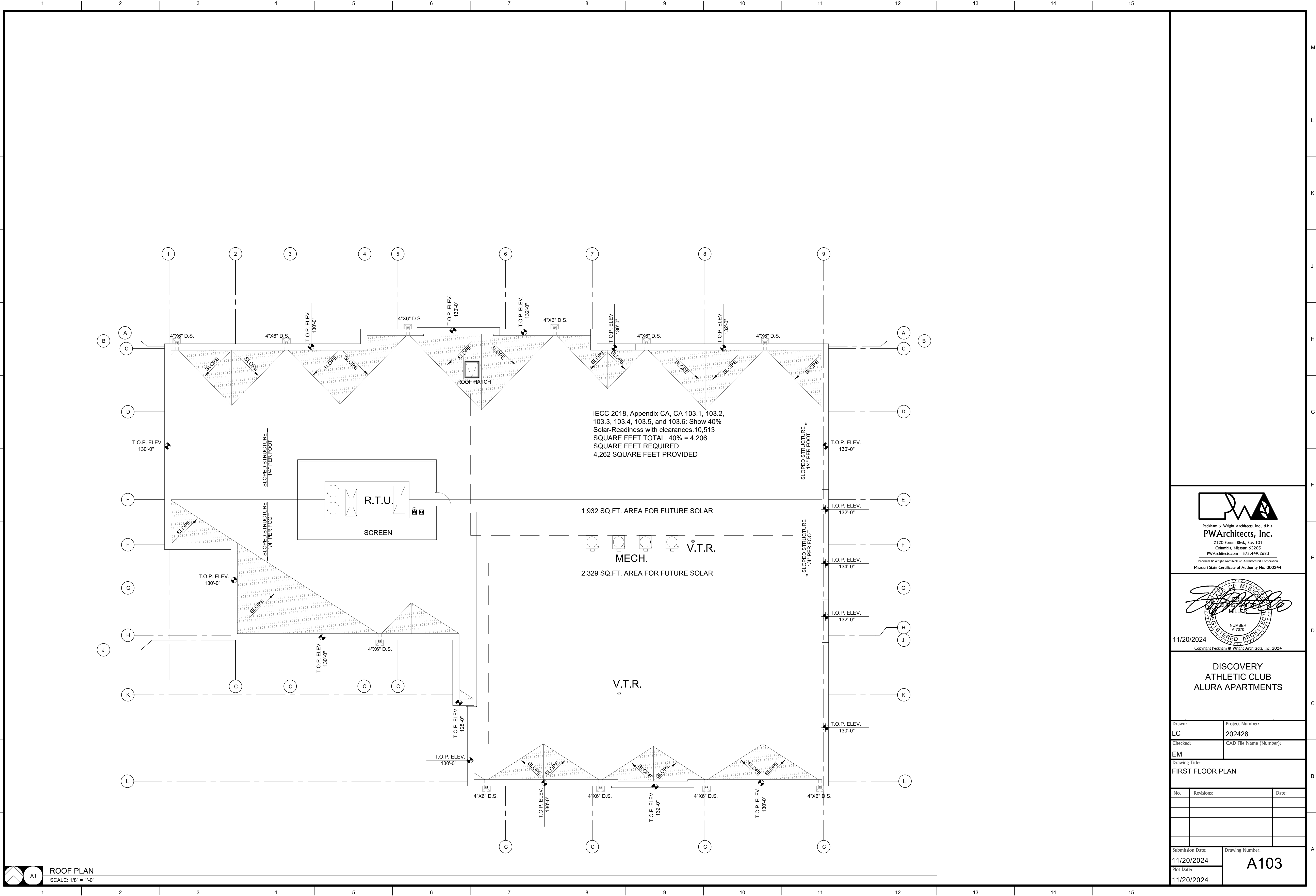
Drawn:	Project Number:
LC	202428
Checked:	CAD File Name (Number):
EM	

Drawing Title:  
**SECOND FLOOR PLAN**

No.	Revisions:	Date:

Submission Date:	Drawing Number:
11/20/2024	<b>A102</b>
Plot Date:	
11/20/2024	

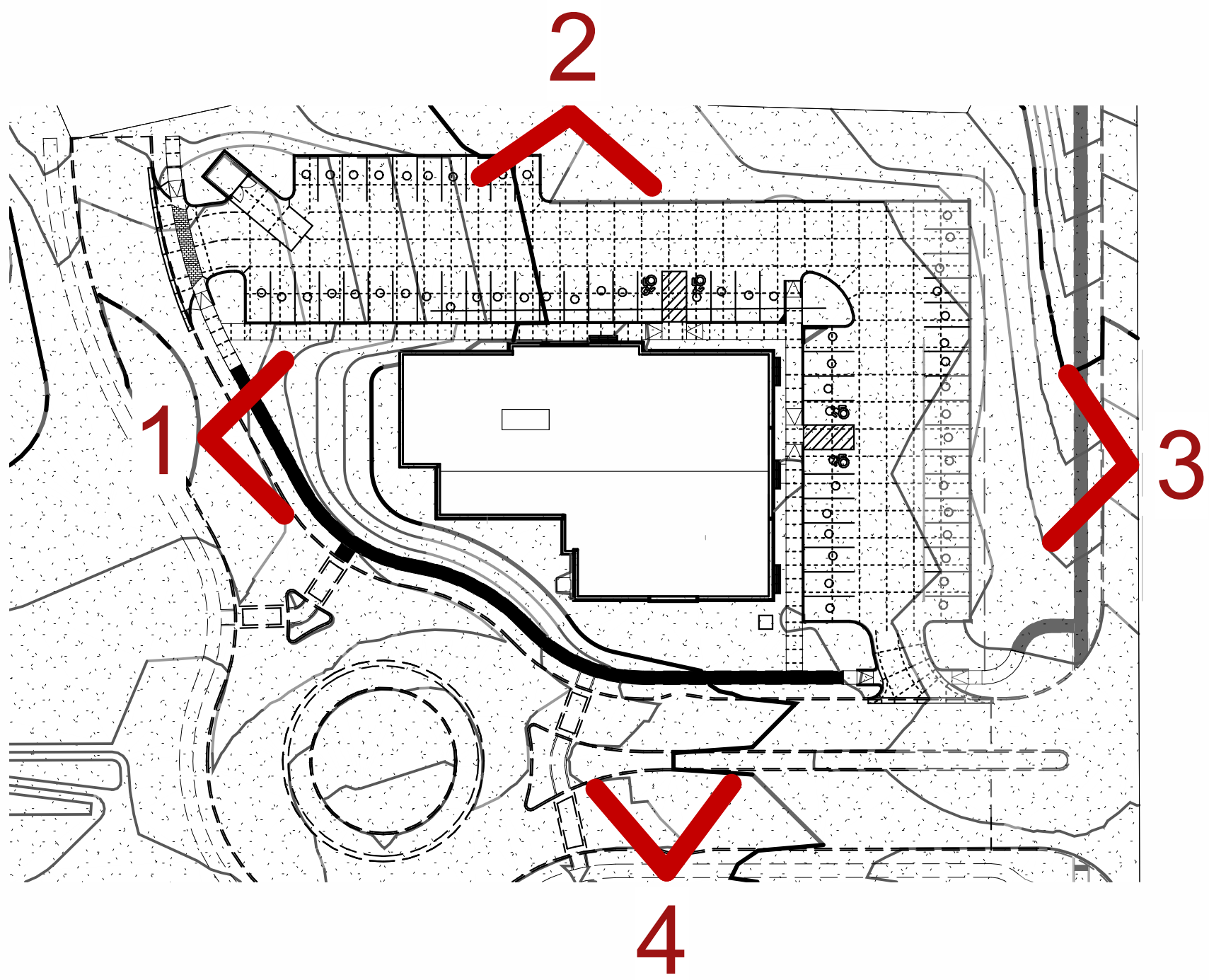












H1 IMAGE KEY  
Not to Scale



G7 PERSPECTIVE 1  
Not to Scale



A7 PERSPECTIVE 2  
Not to Scale

  
Peckham & Wright Architects, Inc., d.b.a.  
**PWArchitects, Inc.**  
2120 Forum Blvd., Ste. 101  
Columbia, Missouri 65203  
PWArchitects.com | 573.449.2683  
Peckham & Wright Architects an Architectural Corporation  
Missouri State Certificate of Authority No. 000244

Copyright Peckham & Wright Architects, Inc. 2024

DISCOVERY  
ATHLETIC CLUB  
ALURA APARTMENTS

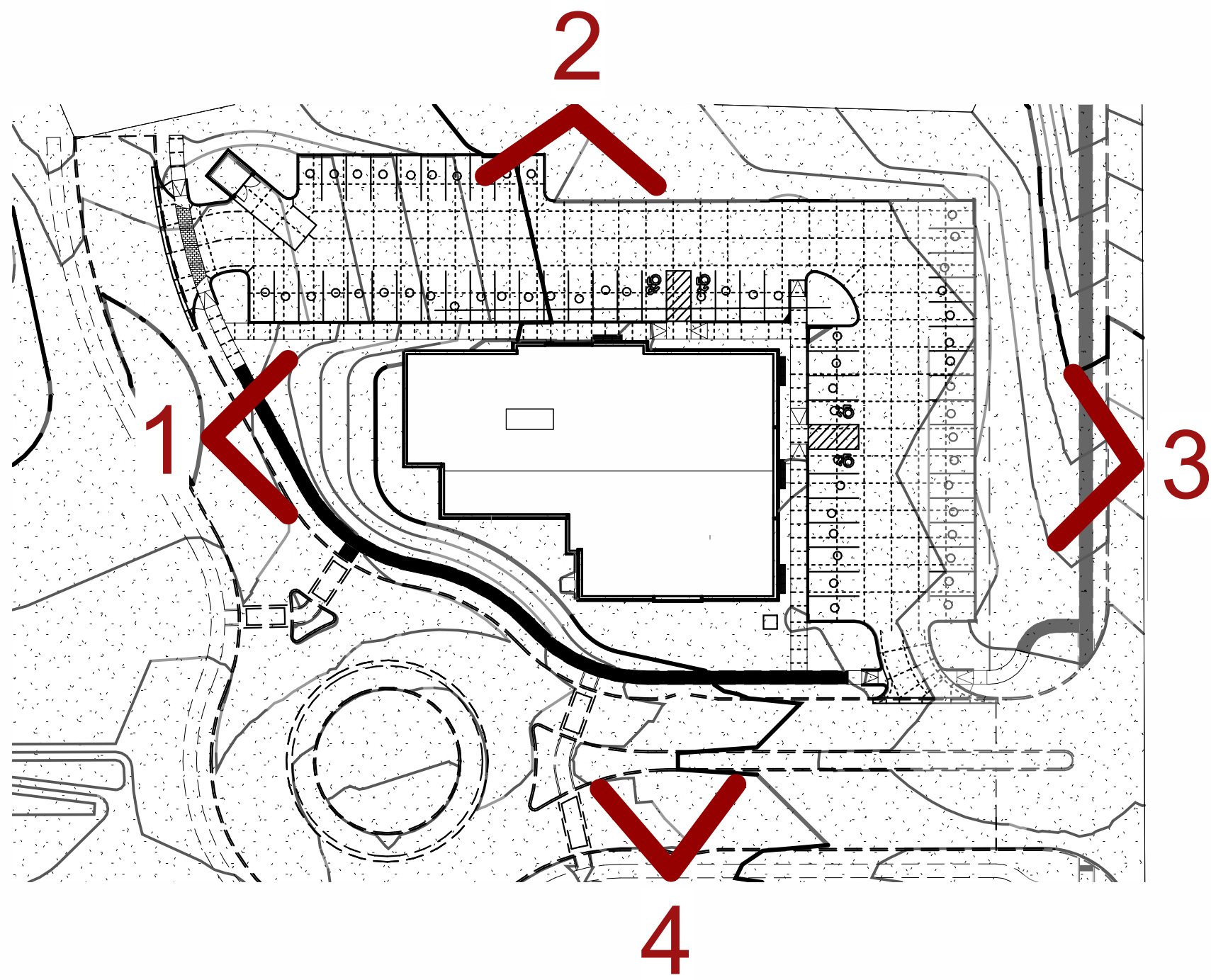
Drawn:	Project Number:
DS	202428
Checked:	CAD File Name (Number):
EM	ALURA CLUBHOUSE

Drawing Title:  
PERSPECTIVES

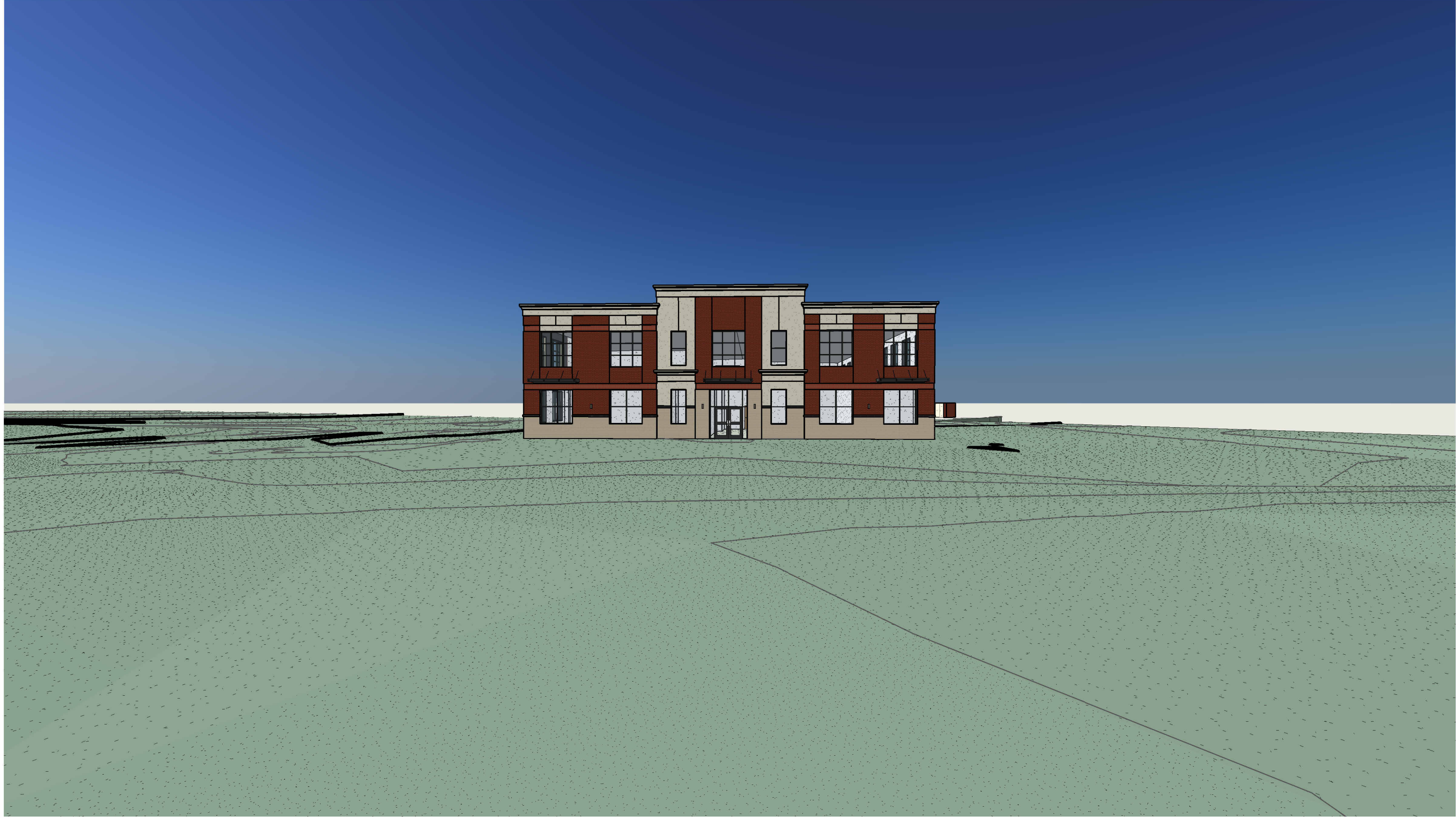
No.	Revisions:	Date:

Submission Date:	Drawing Number:
06/27/2024	A701
Plot Date:	
06/27/2024	





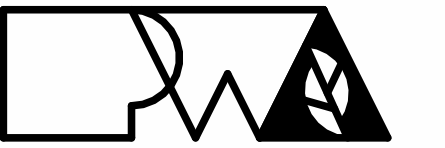
H1 IMAGE KEY  
Not to Scale



G7 PERSPECTIVE 3  
Not to Scale



A7 PERSPECTIVE 4



Peckham & Wright Architects, Inc., d.b.a.  
**PWArchitects, Inc.**  
2120 Forum Blvd., Ste. 101  
Columbia, Missouri 65203  
PWArchitects.com | 573.449.2683  
Peckham & Wright Architects an Architectural Corporation  
Missouri State Certificate of Authority No. 000244

Copyright Peckham & Wright Architects, Inc. 2024

**DISCOVERY  
ATHLETIC CLUB  
ALURA CLUBHOUSE**

Drawn: DS	Project Number: 202428
Checked: EM	CAD File Name (Number): ALURA CLUBHOUSE

Drawing Title:  
**PERSPECTIVES**

No.	Revisions:	Date:

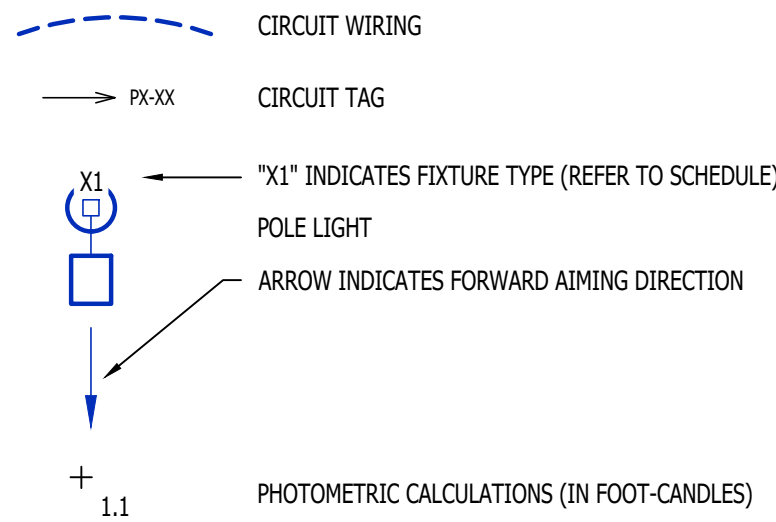
Submission Date: 06/27/2024	Drawing Number: <b>A702</b>
Plot Date: 06/27/2024	



SITE LIGHTING CALCULATION SUMMARY							
AREA / LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
SITE	ILLUMINANCE	FC	2.04	4.6	0.7	2.9	6.6
SPILL LIGHT	ILLUMINANCE	FC	0.12	1.6	0	N/A	N/A
NOTES:							
1. PHOTOMETRIC CALCULATIONS DO NOT INCLUDE EXISTING LIGHTING							

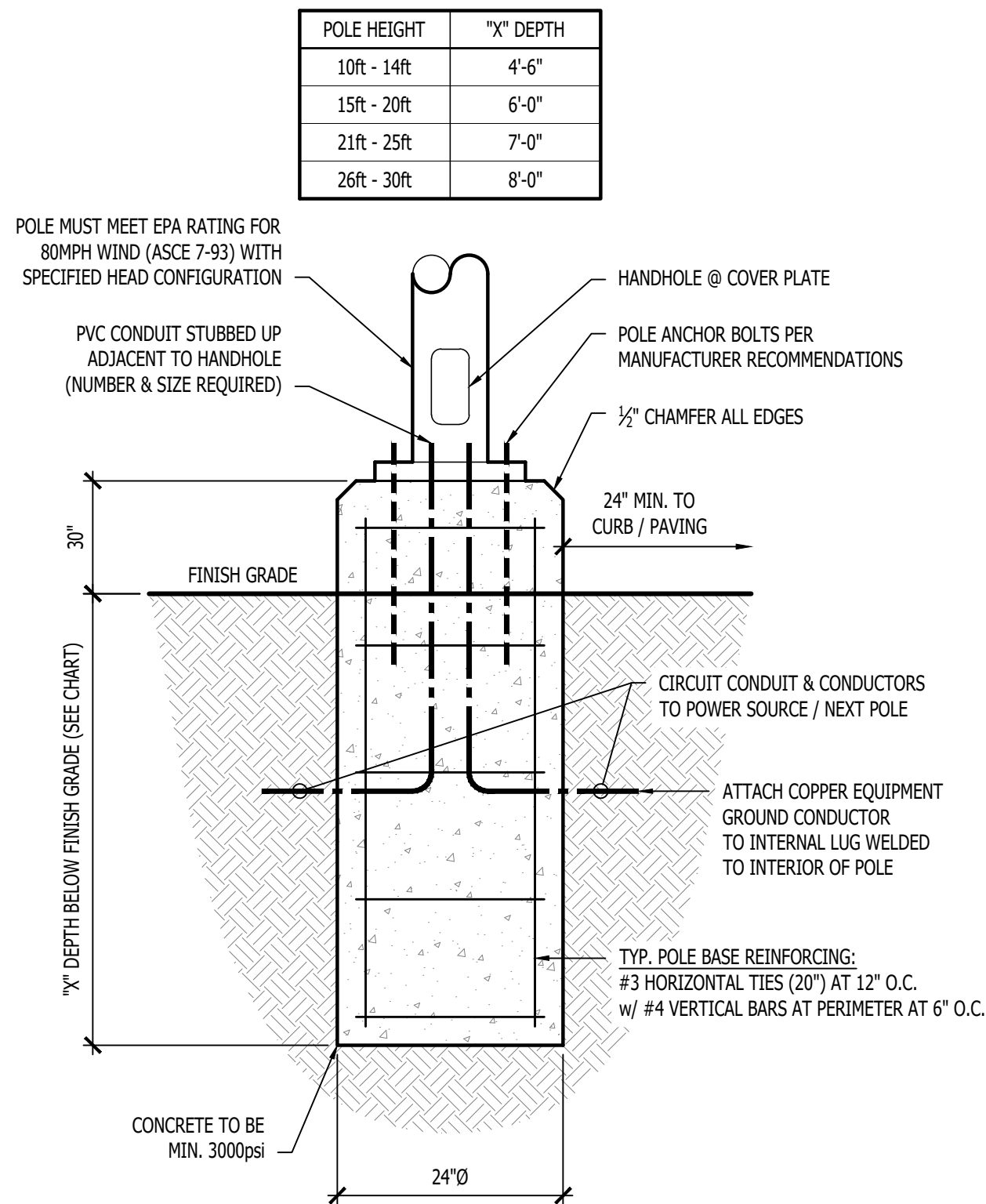
SITE LIGHTING FIXTURE SCHEDULE										
TAG	MANUFACTURER (OR EQUAL)	MODEL NUMBER (OR EQUAL)	DESCRIPTION	MOUNTING	LUMEN OUTPUT	CCT (°K)	CRI	VOLTS	WATTS	NOTES
PL1	MCGRAW-EDISON	PRV-XL-PA3A-740-U-T4W-HSS	LED POLE LIGHT	20' #SSS POLE ON 30" BASE	17,617	4000	70	208	172	WITH #MS/DIM-L40W MOTION SENSING DIMMING
NOTES:										
1. VERIFY LIGHT FIXTURE FINISHES WITH OWNER / ARCHITECT PRIOR TO ORDERING.										

SITE LIGHTING PLAN SYMBOL LEGEND

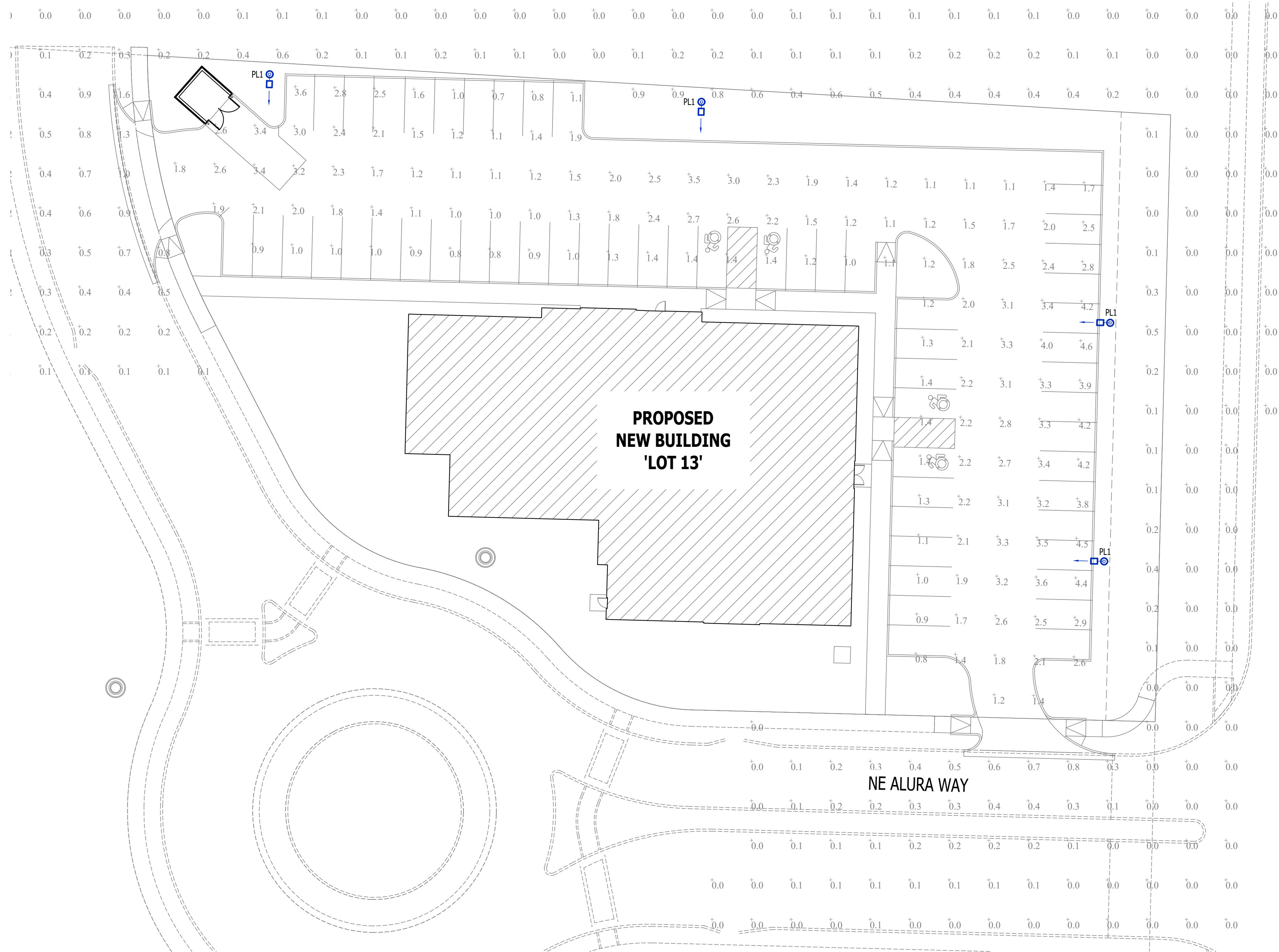


SITE LIGHTING PLAN GENERAL NOTES:

- SITE PHOTOMETRIC VALUES SHOWN HAVE BEEN CALCULATED PER SPECIFIED LIGHT FIXTURES AT INDICATED MOUNTING HEIGHTS. ANY CHANGES OR ALTERATIONS TO LIGHTING LAYOUT SHOWN WILL REQUIRE RECALCULATING SITE PHOTOMETRICS AND WILL THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR / EQUIPMENT SUPPLIER.
- PHOTOMETRIC CALCULATIONS SHOWN DO NOT INCLUDE EXISTING LIGHT FIXTURE(S), ONLY NEW POLE LIGHT FIXTURE(S) SHOWN.
- BUILDING-MOUNTED EXTERIOR LIGHTING IS NOT YET DESIGNED FOR PROPOSED BUILDING. ALL BUILDING-MOUNTED LIGHTING WILL BE INTENDED AS ACCENT LIGHTING AND NOT INTENDED TO PROVIDE GENERAL AREA LIGHTING. ALL BUILDING-MOUNTED LIGHTING SHALL COMPLY WITH CITY OF LEE'S SUMMIT UDO SECTIONS 8.220, 8.260, & 8.270.

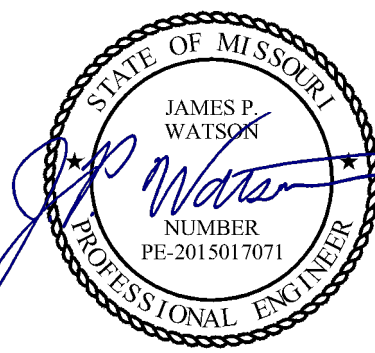


TYPICAL LIGHT POLE DETAIL



SITE LIGHTING PLAN

SCALE: 1" = 20 ft



James Watson, P.E. November 7, 2024  
PE-2015017071  
MO Certificate of Authority # 2018029680



**J-SQUARED**  
ENGINEERING

2400 Bluff Creek Drive, Suite 101  
Columbia, Missouri 65201  
573.234.4492  
www.j-squaredeng.com

J2 PROJECT No: J212211

J2 DESIGN: ACW

ISSUE TITLE DATE

FDP SUBMITTAL 11 - 07 - 2024


MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR:

**Village at Discovery Park Lot 13**  
**SITE LIGHTING**

250 NE Alura Way  
Lee's Summit, Jackson County, MO 64064

AHJ APPROVAL STAMP

SHEET TITLE

**SITE LIGHTING**  
**PLAN**

SHEET NUMBER

**SL1**