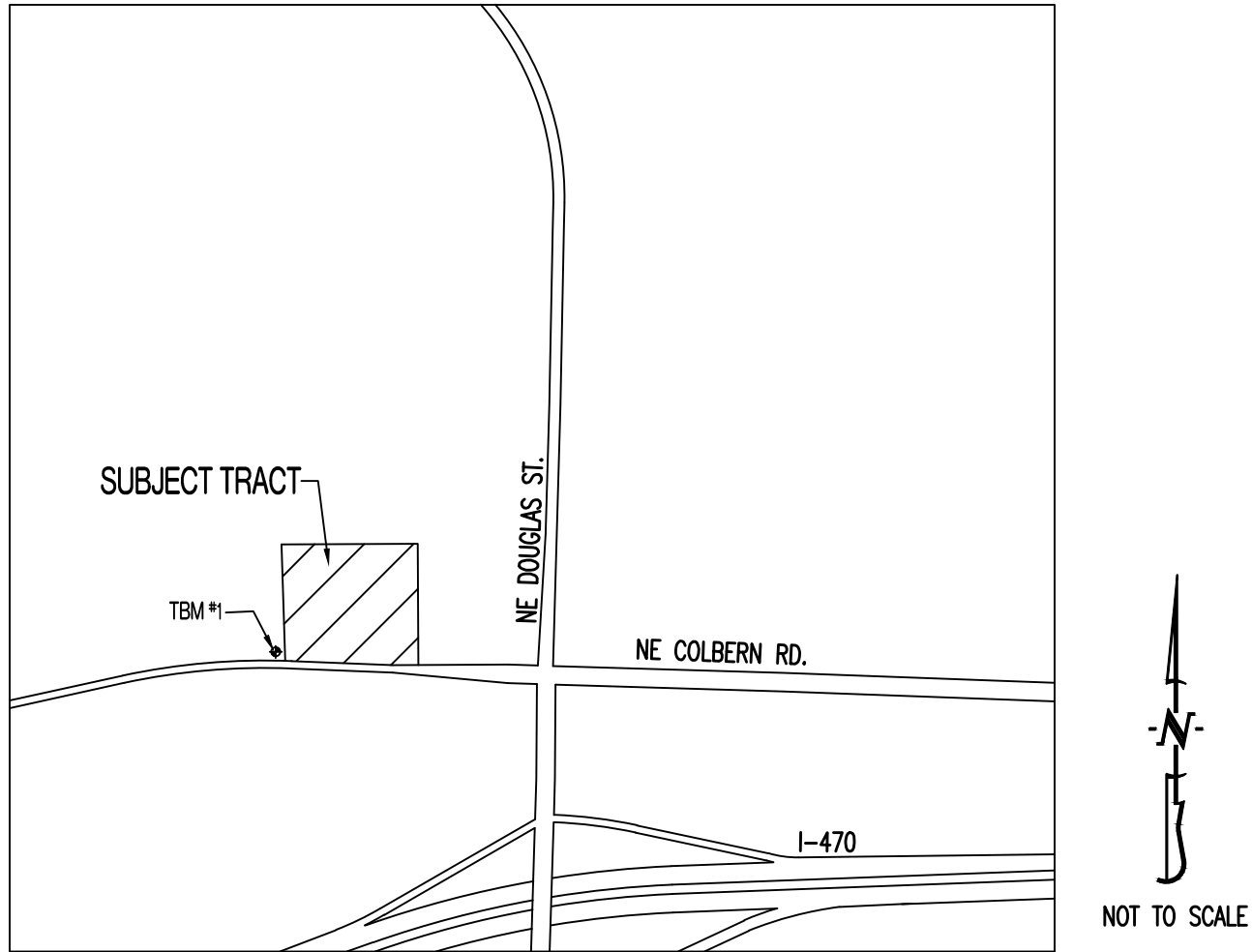


THE VILLAGE AT DISCOVERY LOTS 5-8

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 #2909SC0409G, DATED JANUARY 20, 2017.

LEGAL DESCRIPTION:

VILLAGE AT DISCOVERY PARK, LOTS 5, 6, 7, & 8. 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://cityoflis.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 4.83 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 MCDNR 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 = 4.61 AC.

MISSOURI DNR LAND DISTURBANCE PERMIT NUMBER MOR23630.

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 05/22/24	REVISION 1 07/23/24
CE 1.0	COVER SHEET	X	X
CE 1.1	CIVIL SPECIFICATIONS	X	
CE 2.1	EROSION CONTROL PLAN	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	X
CE 3.4	GRADING PLAN SHEET 4	X	X
CE 3.5	GRADING PLAN SHEET 5	X	X
CE 3.6	GRADING PLAN SHEET 6	X	
CE 4.1	UTILITY PLAN SHEET 1	X	X
CE 4.2	UTILITY PLAN SHEET 2	X	X
CE 5.1	SANITARY PLAN & PROFILE & SANITARY DETAILS	X	
CE 6.1	STORM PROFILE - LINES 1-6	X	X
CE 6.2	STORM PROFILE - LINES 7-9 & STORM DETAILS	X	X
CE 6.3	STORM DETAILS	X	X
CE 6.4	25-YR STORM CALCULATIONS	X	X
CE 6.5	100-YR STORM CALCULATIONS	X	X
CE 7.1	SITE PLAN SHEET 1	X	X
CE 7.2	SITE PLAN SHEET 2	X	X
CE 8.1	SITE DETAILS SHEET 1	X	
CE 8.2	SITE DETAILS SHEET 2	X	X
CE 8.3	LEE'S SUMMIT SITE DETAILS	X	
CE 8.4	LEE'S SUMMIT UTILITY DETAILS	X	
CE 9.1	LANDSCAPING PLAN	X	X

LEGEND OF SYMBOLS:

EXISTING CURB

=====

PROPOSED CURB

=====

RIP RAP

=====

EXISTING STRUCTURE

=====

EXISTING TREELINE

=====

PROPOSED TREELINE

=====

EDGE OF WATERWAY

-----W-----

EXISTING WATERLINE

-----W-----

PROPOSED WATERLINE

-----G-----

EXISTING GAS LINE

-----G-----

PROPOSED GAS LINE

-----T-----

EXISTING TELEPHONE

-----FO-----

EXISTING FIBER OPTIC

-----OE-----

EXISTING OVERHEAD ELECTRIC

-----UE-----

EXISTING UNDERGROUND ELECTRIC

-----UE-----

PROPOSED UNDERGROUND ELECTRIC

-----OETV-----

EXISTING OVERHEAD ELEC. & TV

-----OETV-----

EXISTING OVERHEAD ELEC., TV & TELE.

-----S-----

EXISTING SANITARY SEWER

-----S-----

PROPOSED SANITARY SEWER

-----S-----

EXISTING SANITARY SEWER LATERAL

-----S-----

PROPOSED SANITARY SEWER LATERAL

FF-XXXX

FINISHED FLOOR OF STRUCTURE

XXXX-XX TC

PROPOSED TOP OF CURB ELEVATION

XXXX-XX TP

PROPOSED TOP OF PAVEMENT ELEVATION

XXXX-XX FG

PROPOSED FINISHED GRADE ELEVATION

XXXX-XX TW

PROPOSED TOP OF WALL

XX

LOT NUMBER

X

STORM SEWER STRUCTURE LABEL

X

SANITARY SEWER STRUCTURE LABEL

HP.

HIGH POINT

LP.

LOW POINT

Ø

EXISTING SIGNS

Ø

EXISTING POWER POLE

Ø

EXISTING GAS VALVE

Ø

EXISTING WATER VALVE

Ø

EXISTING GAS METER

Ø

EXISTING WATER METER

Ø

EXISTING FIRE HYDRANT

Ø

MANHOLE

Ø

PROPOSED TRACER WIRE TEST STATION BOX

Ø

EXISTING AIR CONDITIONER

-----XXX-----

EXISTING MINOR CONTOUR

-----XXX-----

EXISTING MAJOR CONTOUR

-----XXX-----

PROPOSED MINOR CONTOUR

-----XXX-----

PROPOSED MAJOR CONTOUR

TTTTTTTT

100 YEAR FLOOD PLAIN

TTTTTTTT

FLOODWAY

ORDINARY HIGH WATER MARK

STREAM SIDE BUFFER

OUTER STREAM BUFFER

=====

PROPOSED CONCRETE PAVEMENT

=====

PROPOSED CONCRETE PAVEMENT IN PARKING GARAGE

=====

PROPOSED BUILDING FOOTPRINT

=====

PROPOSED HEAVY DUTY PAVEMENT

=====

EXISTING TELEPHONE PEDESTAL

=====

EXISTING ELECTRICAL TRANSFORMER

=====

EXISTING ELECTRIC METER

=====

EXISTING LIGHT POLE

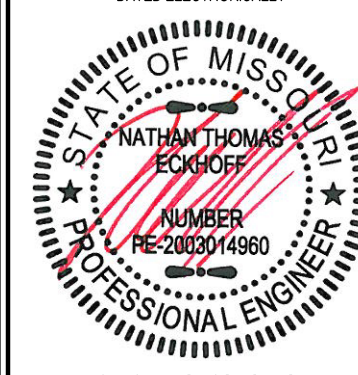
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EXISTING GUY WIRE

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS ECKHOFF
MO LICENSE 200304960



OWNER:

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

THE VILLAGE AT DISCOVERY LOTS 5-8 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

COVER SHEET

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 DIRECT 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 "DIPPED" 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 FINISHED 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 FINISHED 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 1/4 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.
- FLINT AND CHERT WILL BE LIMITED TO 1% MAXIMUM, BY WEIGHT OF THE COURSE AGGREGATE, IN ALL EXPOSED CONCRETE (CAST-IN-PLACE OR PRECAST). LIGHTWEIGHT WILL BE LIMITED TO 0.5%, BY WEIGHT OF THE FINE AGGREGATE IN ALL EXPOSED CONCRETE. SOME APPLICATIONS MAY BE REQUIRED TO BE LIGHTWEIGHT 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 DEPTH AND 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:

PANT FOR PARKING LOT STRIPING SHALL BE CHLORINATED RUBBER CONFORMING TO TT-P115F EPOXY PAVEMENT MARKING MATERIAL WITHOUT GLASS BEADS. PAINT TYPE MUST BE COMPATIBLE WITH THE SURFACES TO BE PAINTED

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, CURE, OR THICKEN IN THE CONTAINER. READYLY STIR WITH A PADDLE 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, 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.

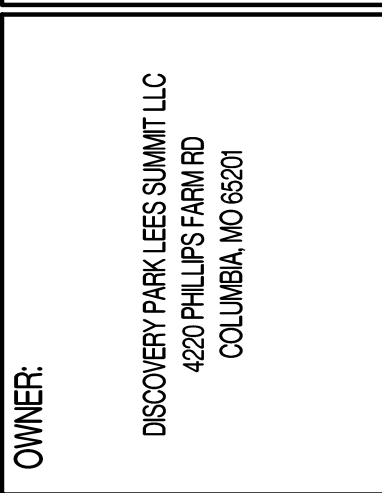
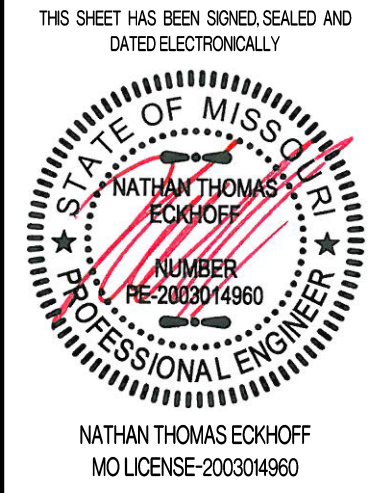
AREAS TO BE PAINTED SHALL RECEIVE ONE COAT OF PAINT NOT LESS THAN 25 MILS THICKNESS WET PER MDOOT 620.9 THROUGH 620.9.3.4.2. IN LOCATIONS REQUIRING MULTIPLE COATS, PRIOR COAT SHALL BE DRY TO MANUFACTURER'S RECOMMENDATIONS BEFORE APPLYING THE NEXT COAT.

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

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THE VILLAGE AT DISCOVERY
LOTS 5-8
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

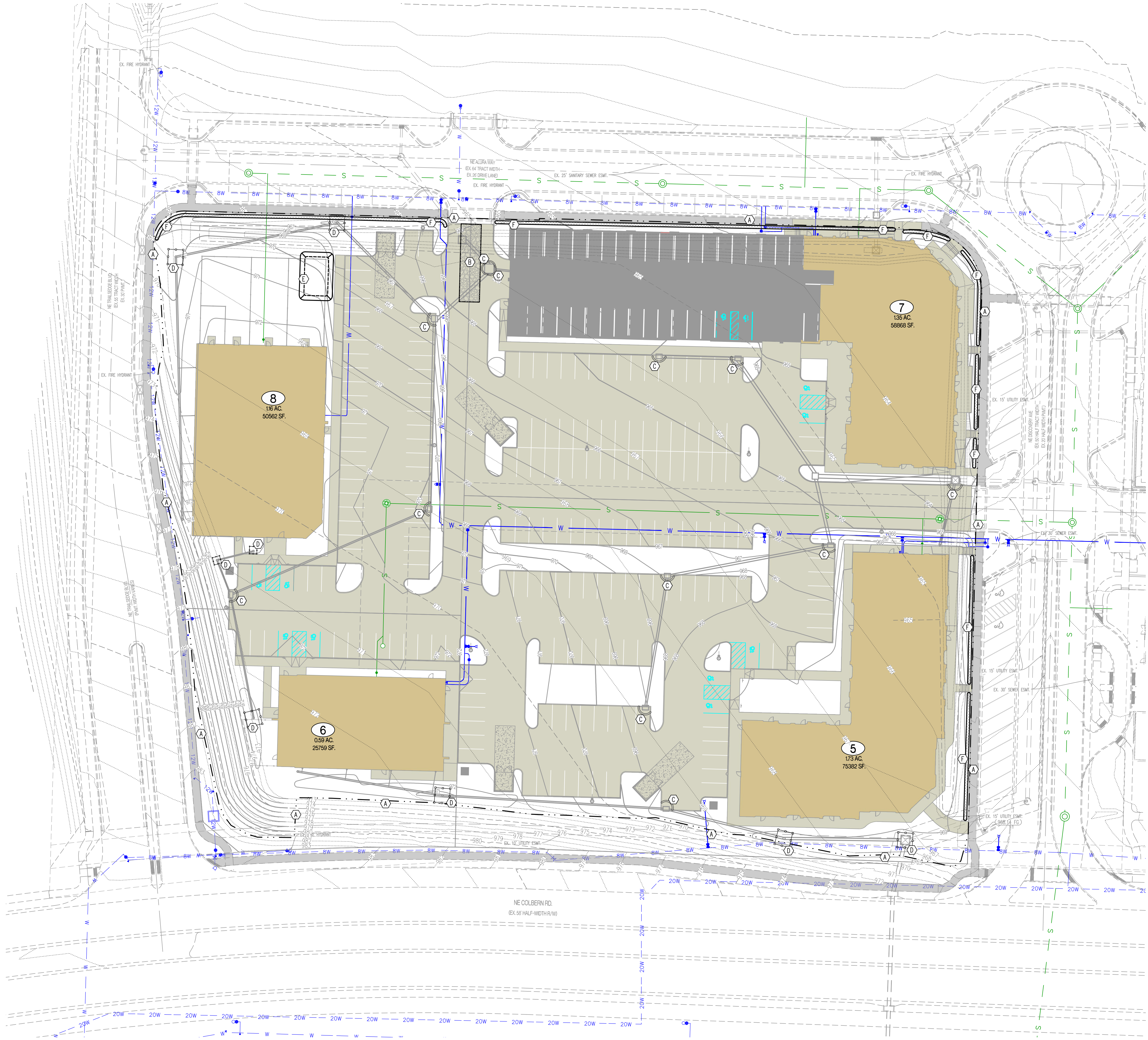
CIVIL SPECIFICATIONS

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 11

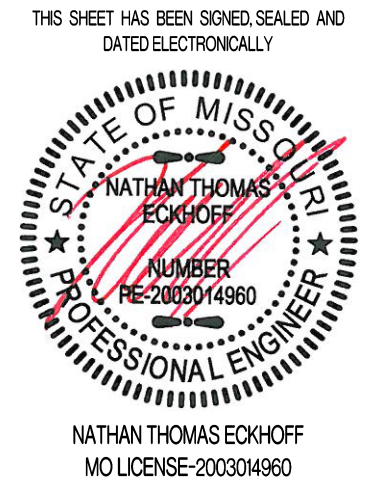


LEGEND OF LABELS:

- (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.

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COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

EROSION CONTROL PLAN

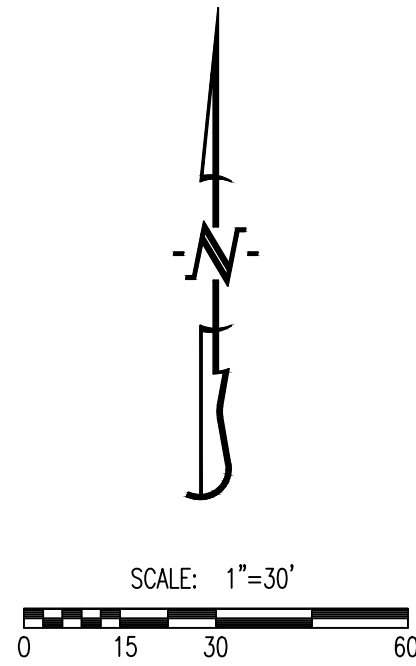
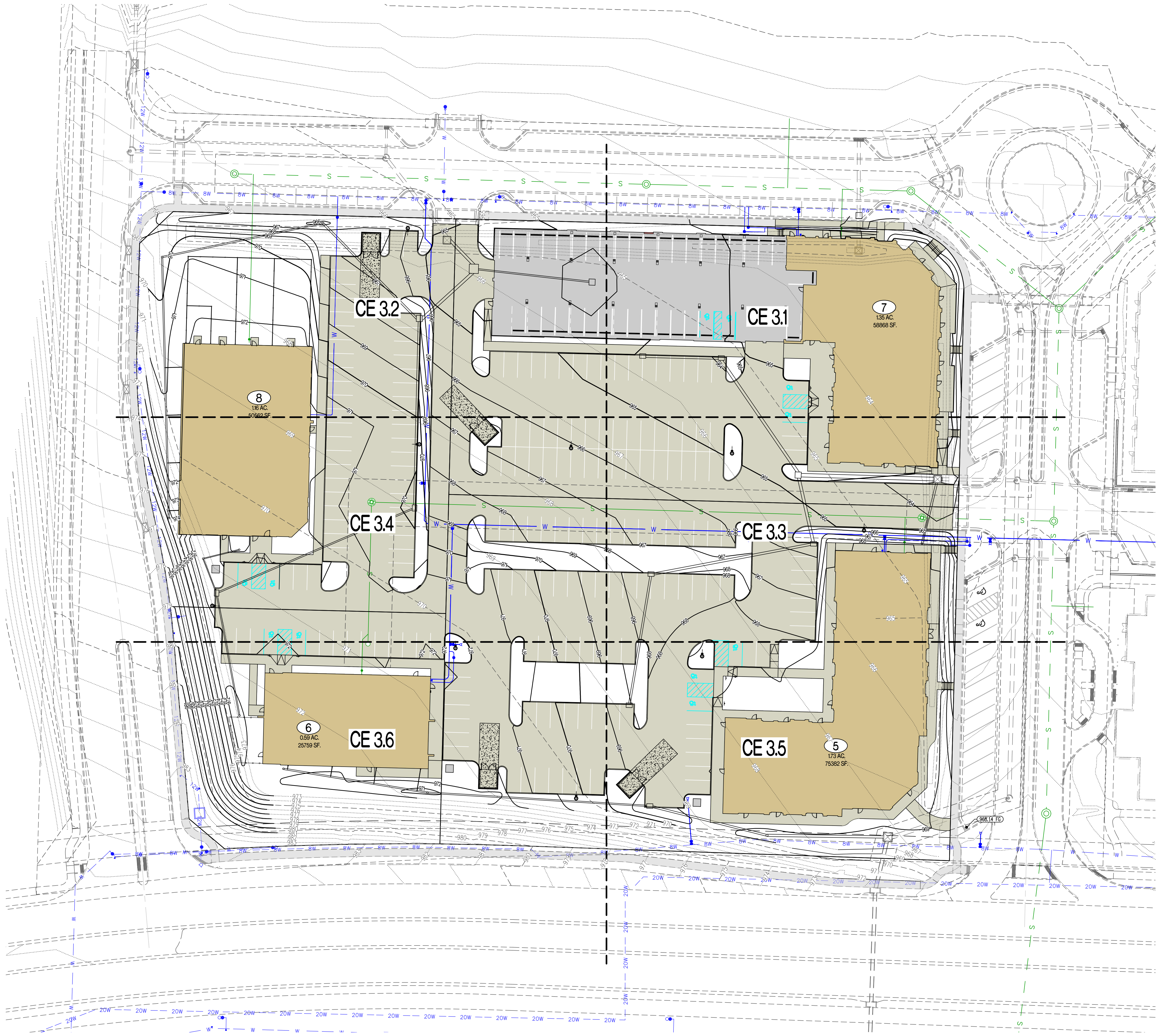
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DRAWN: NMD

PROJECT NO: 230286

SHEET:
CE 21

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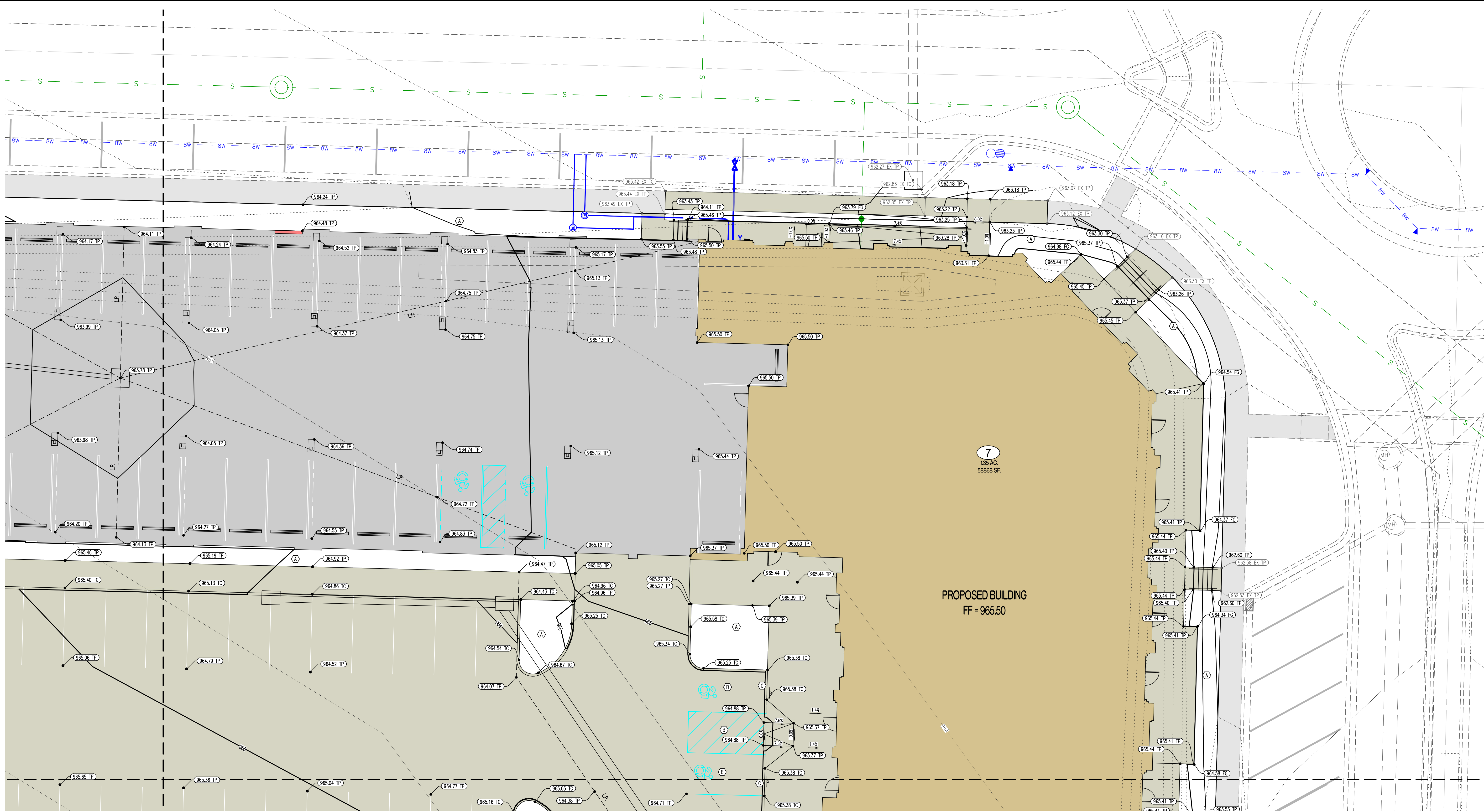


LEGEND OF SYMBOLS:

- X---X--- EXISTING MINOR CONTOUR
- - -X- - - EXISTING MAJOR CONTOUR
- X---X--- PROPOSED MINOR CONTOUR
- - -X- - - PROPOSED MAJOR CONTOUR

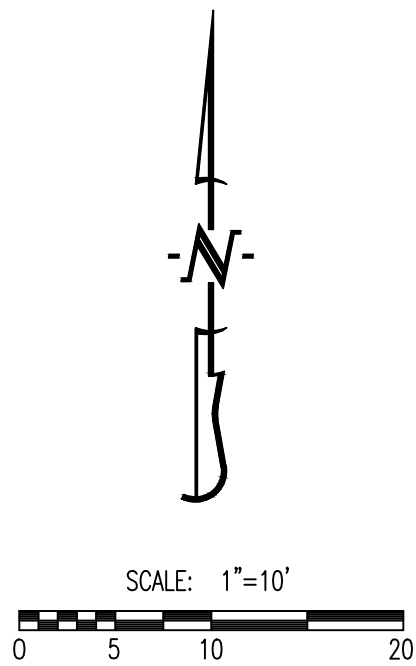
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NO.	DATE
ORIGINAL	05/22/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
NATHAN THOMAS ECKHOFF MO LICENSE 200304960	
PREPARED BY:	 ENGINEERS AND ARCHITECTS 1000 W. Kings Blvd. Columbia, Missouri 65203 (314) 487-0292 www.crockettengineering.com 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 LOTS 5-8 LEES SUMMIT, JACKSON COUNTY, MISSOURI	
DRAWING INCLUDES:	
OVERALL GRADING PLAN	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 3.0

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CE 32	CE 31
CE 34	CE 33
CE 36	CE 35

SHEET KEY



LEGEND OF SYMBOLS:

- XXXX ----- EXISTING MINOR CONTOUR
- - - - - XXXX - - - - - 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
- XXXX.XX TW PROPOSED FINISHED GRADE AT TOP OF WALL

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) 0'-6" CURB TRANSITION

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NATHAN THOMAS ECKHOFF
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THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING PLAN SHEET 1

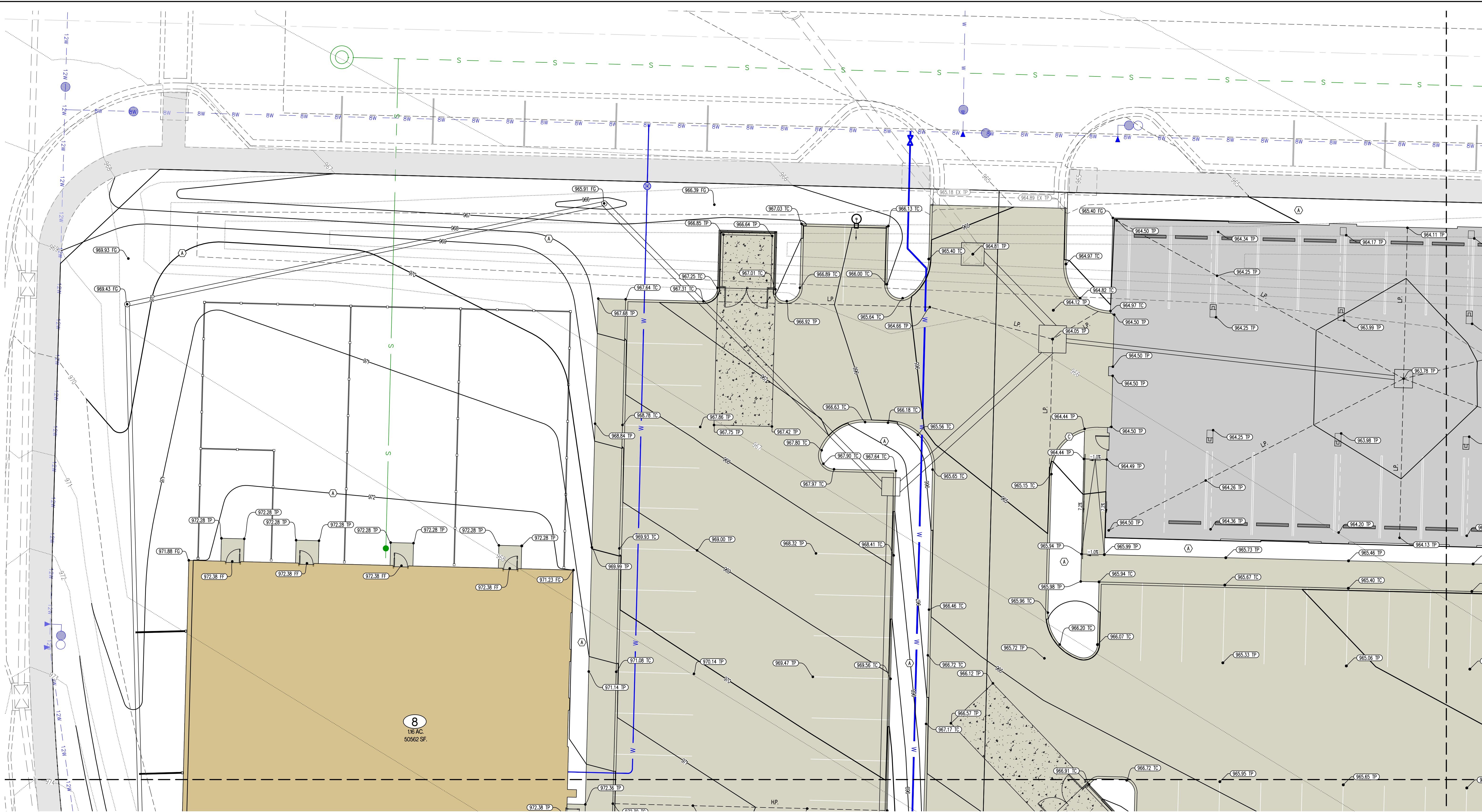
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CE 32	CE 31
CE 34	CE 33
CE 36	CE 35

SHEET KEY

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NATHAN THOMAS ECKHOFF
MISSOURI PROFESSIONAL ENGINEER
NUMBER: PE-200304960
MO LICENSE: 200304960

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THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING PLAN SHEET 2

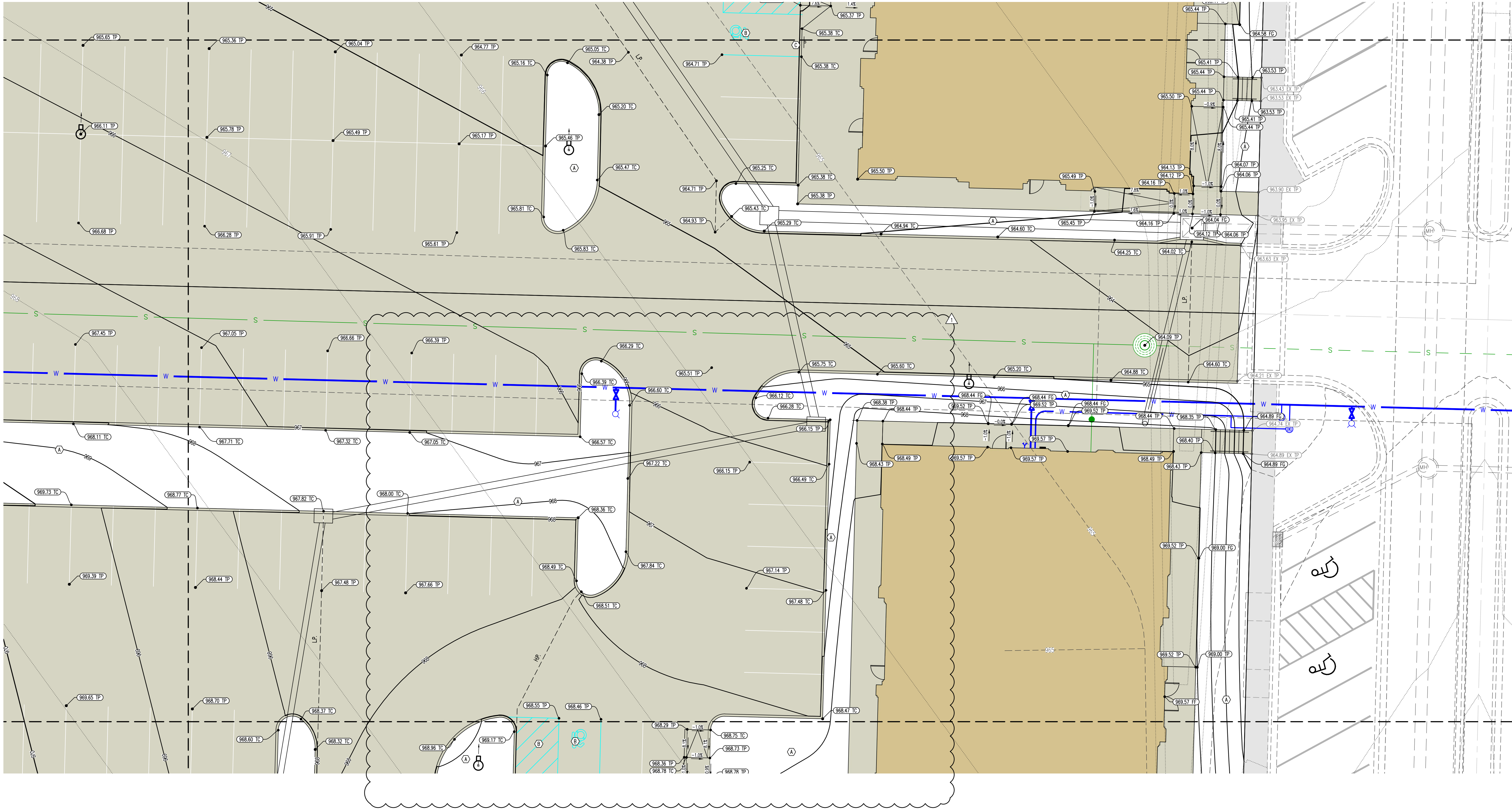
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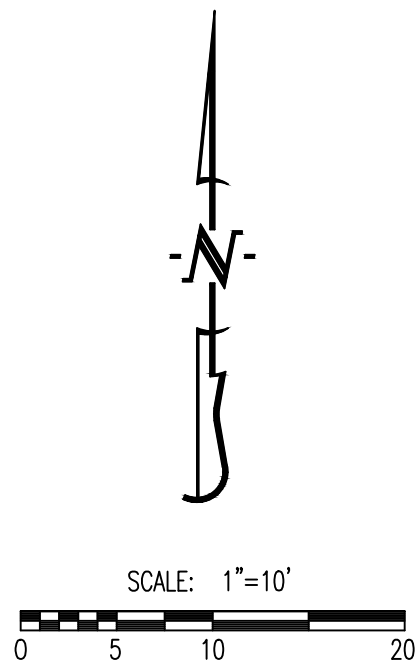
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CE 32	CE 31
CE 34	CE 33
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SHEET KEY



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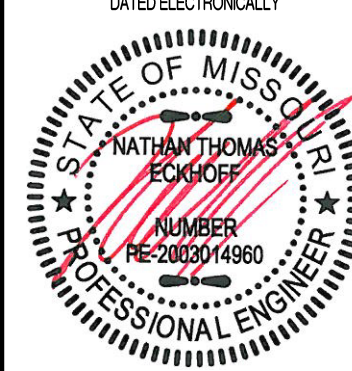
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- (C) 0"-6" CURB TRANSITION

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NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

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THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING PLAN SHEET 3

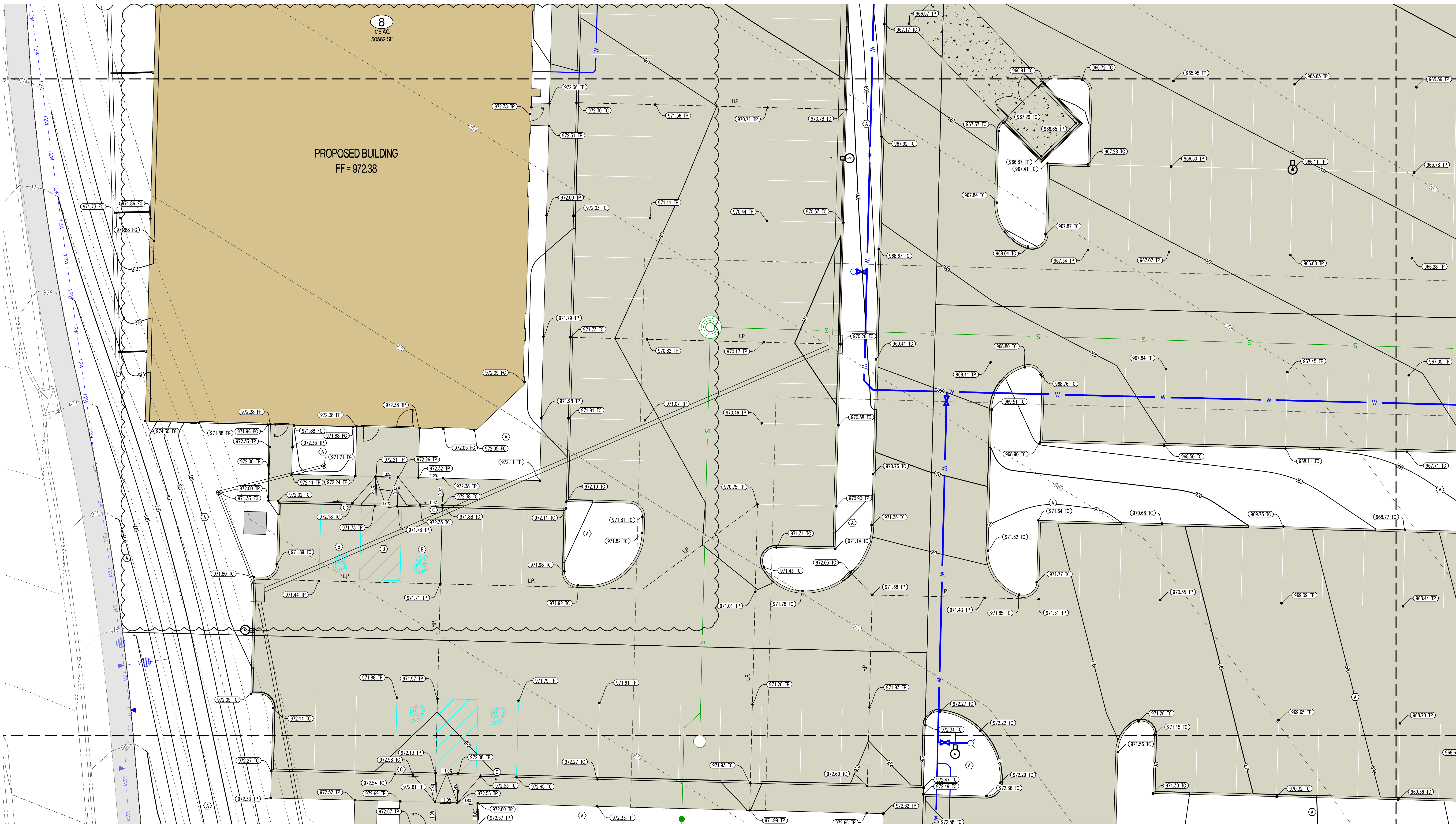
DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

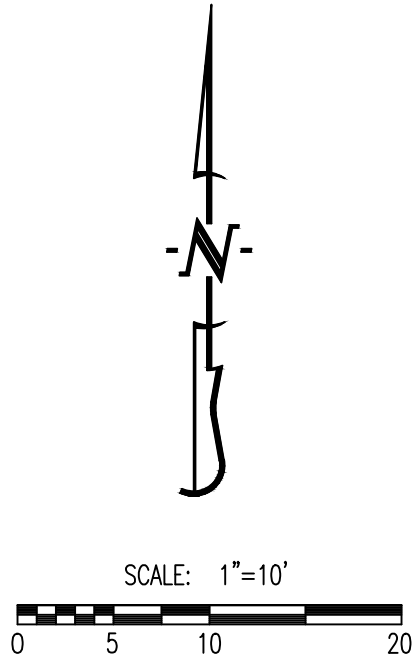
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CE 32	CE 31
CE 34	CE 33
CE 36	CE 35

SHEET KEY



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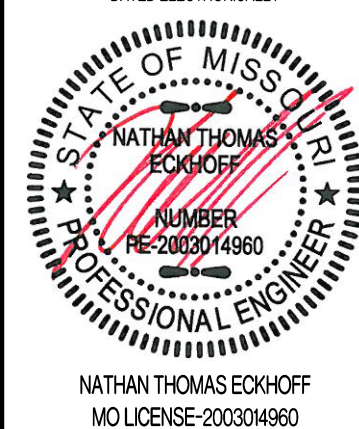
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THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING PLAN SHEET 4

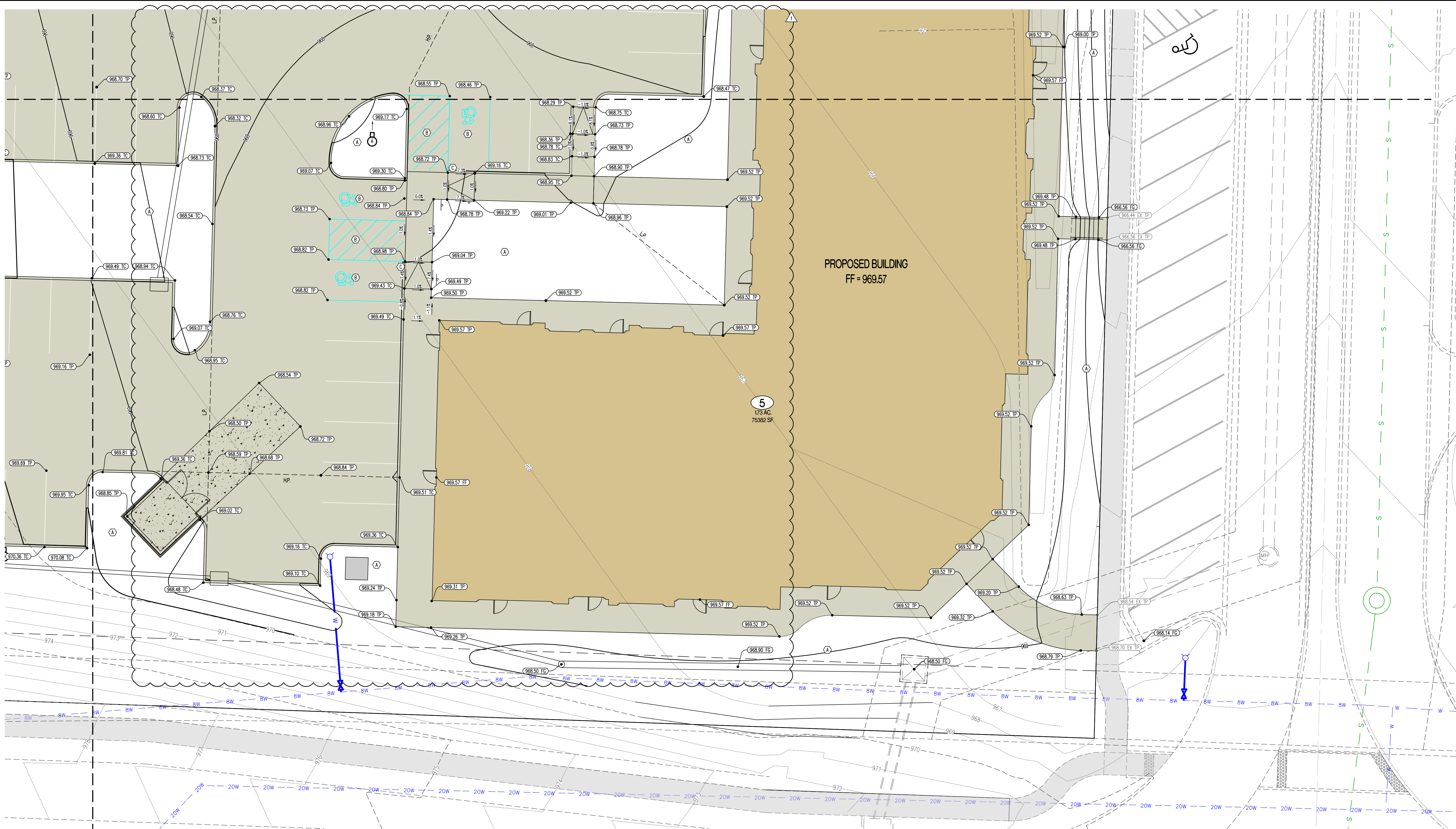
DESIGNED: NTE

DRAWN: NMD

PROJECT NO: 230286

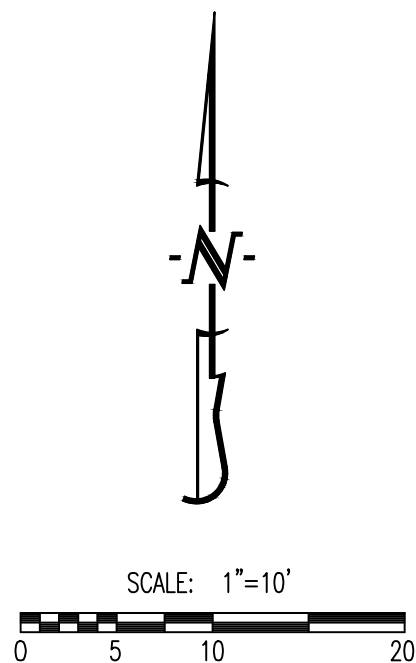
SHEET:
CE 34

Y:\2023\230286 - Discovery Park Lees Summit\Zone Lot 5-8\Civil\MOAD Files\Construction Plans\230286 Zone 1 Lot 5-8 Grading Base.dwg



CE 32	CE 31
CE 34	CE 33
CE 36	CE 35

SHEET KEY



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
- (XXX.XX TW) PROPOSED FINISHED GRADE AT TOP OF WALL

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) 0'-6" CURB TRANSITION

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF
MISSOURI LICENSE 200304960

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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

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING PLAN SHEET 5

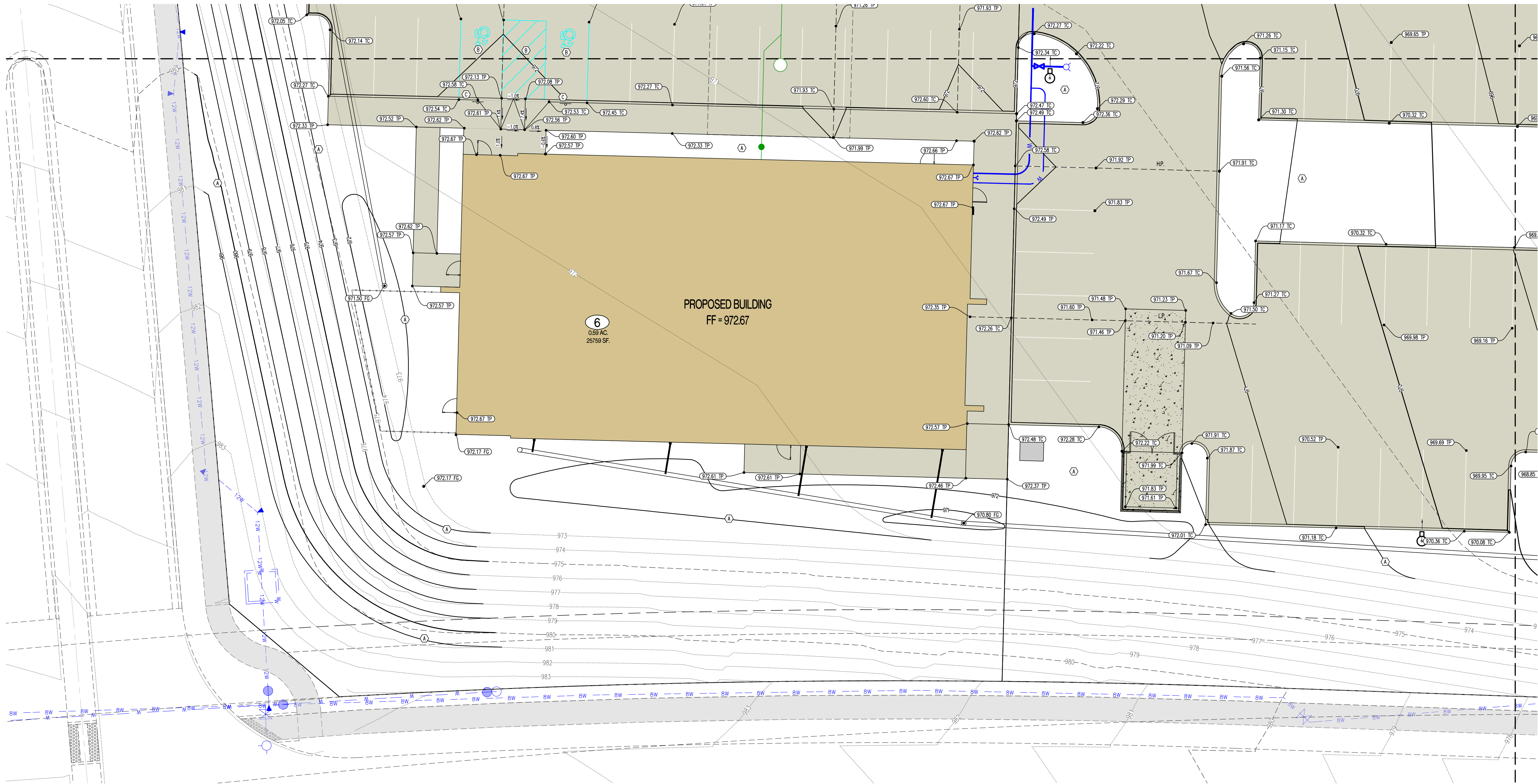
DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

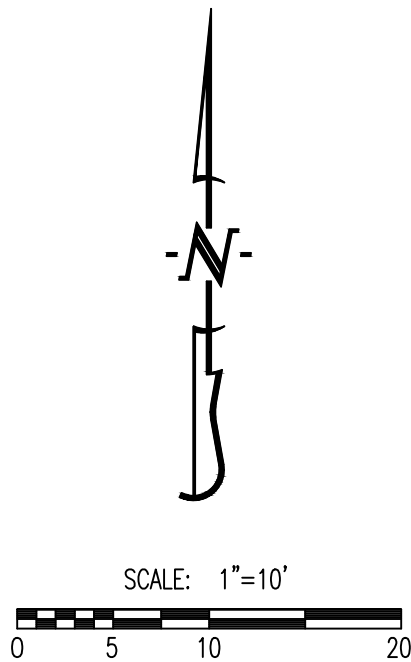
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Y:\2023\230286 - Discovery Park Lees Summit\Zone Lot 5-8\Civil\MOAD Files\Construction Plans\230286 Zone 1 Lot 5-8 Grading Base.dwg



CE 32	CE 31
CE 34	CE 33
CE 36	CE 35

SHEET KEY



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 FP) PROPOSED FINISHED FLOOR AT DOOR
- (XXX.XX TW) PROPOSED FINISHED GRADE AT TOP OF WALL

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) 0"-6" CURB TRANSITION

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024

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4220 PHILLIPS FARM RD
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THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

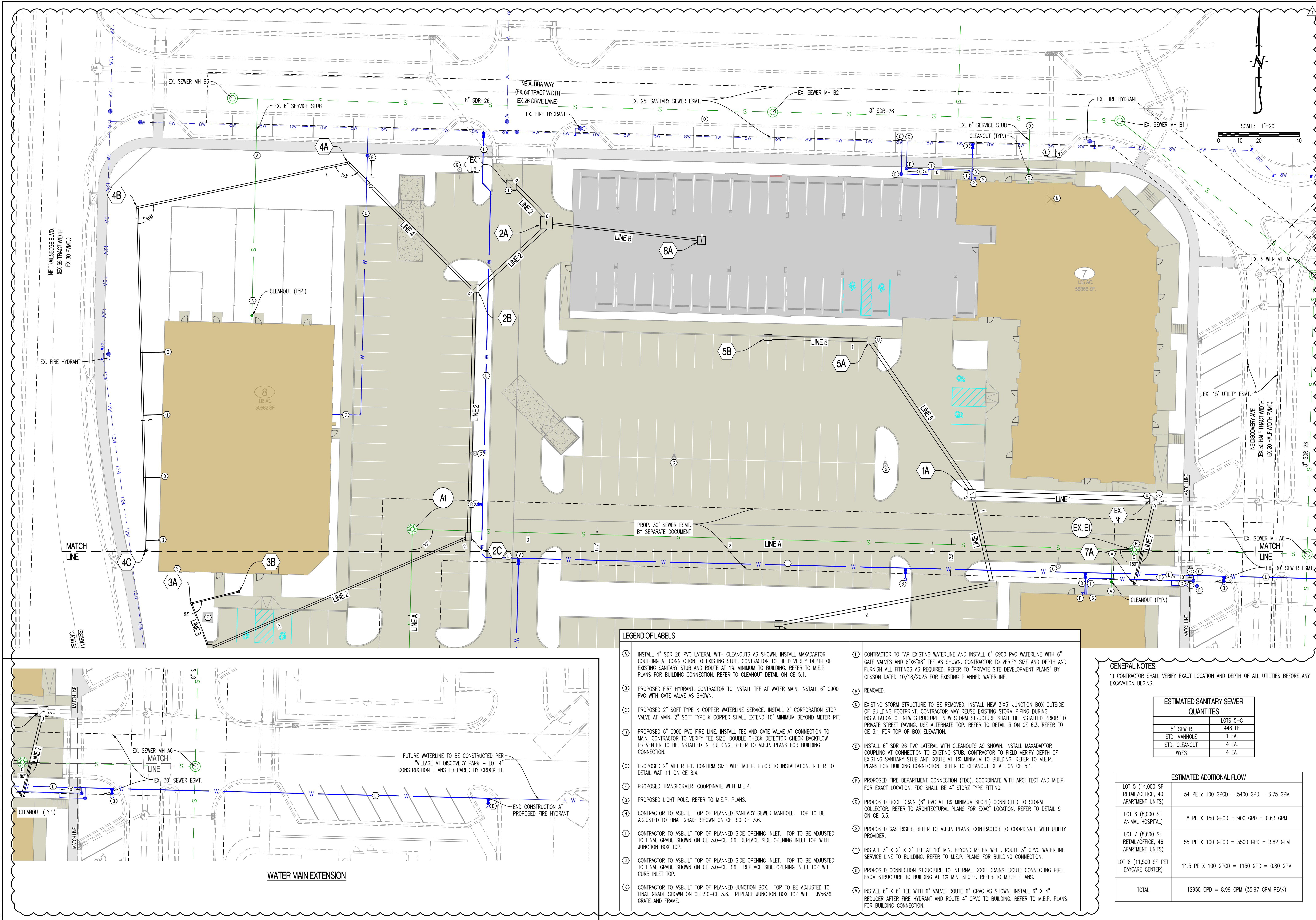
GRADING PLAN SHEET 6

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 36



LEGEND OF LABELS

- (A) INSTALL 4" SDR 26 PVC LATERAL WITH CLEANOUTS AS SHOWN. INSTALL MAXADAPTOR COUPLING AT CONNECTION TO EXISTING STUB. CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING SANITARY STUB AND ROUTE AT 1% MINIMUM TO BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION. REFER TO CLEANOUT DETAIL ON CE 5.1.
- (B) PROPOSED FIRE HYDRANT. CONTRACTOR TO INSTALL TEE AT WATER MAIN. INSTALL 6" C900 PVC WITH GATE VALVE AS SHOWN.
- (C) PROPOSED 2" SOFT TYPE K COPPER WATERLINE SERVICE. INSTALL 2" CORPORATION STOP VALVE AT MAIN. 2" SOFT TYPE K COPPER SHALL EXTEND 10' MINIMUM BEYOND METER PIT.
- (D) PROPOSED 6" C900 PVC FIRE LINE. INSTALL TEE AND GATE VALVE AT CONNECTION TO MAIN. CONTRACTOR TO VERIFY TEE SIZE. DOUBLE CHECK DETECTOR CHECK BACKFLOW PREVENTER TO BE INSTALLED IN BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION.
- (E) PROPOSED 2" METER PIT. CONFIRM SIZE WITH M.E.P. PRIOR TO INSTALLATION. REFER TO DETAIL WAT-11 ON CE 8.4.
- (F) PROPOSED TRANSFORMER. COORDINATE WITH M.E.P.
- (G) PROPOSED LIGHT POLE. REFER TO M.E.P. PLANS.
- (H) CONTRACTOR TO ASBUILT TOP OF PLANNED SANITARY SEWER MANHOLE. TOP TO BE ADJUSTED TO FINAL GRADE SHOWN ON CE 3.0-CE 3.6.
- (I) CONTRACTOR TO ASBUILT TOP OF PLANNED SIDE OPENING INLET. TOP TO BE ADJUSTED TO FINAL GRADE SHOWN ON CE 3.0-CE 3.6. REPLACE SIDE OPENING INLET TOP WITH JUNCTION BOX TOP.
- (J) CONTRACTOR TO ASBUILT TOP OF PLANNED SIDE OPENING INLET. TOP TO BE ADJUSTED TO FINAL GRADE SHOWN ON CE 3.0-CE 3.6. REPLACE SIDE OPENING INLET TOP WITH CURB INLET TOP.
- (K) CONTRACTOR TO ASBUILT TOP OF PLANNED JUNCTION BOX. TOP TO BE ADJUSTED TO FINAL GRADE SHOWN ON CE 3.0-CE 3.6. REPLACE JUNCTION BOX TOP WITH EJWS636 GRATE AND FRAME.
- (L) CONTRACTOR TO TAP EXISTING WATERLINE AND INSTALL 6" C900 PVC WATERLINE WITH 6" GATE VALVES AND 8"x6"x8" TEE AS SHOWN. CONTRACTOR TO VERIFY SIZE AND DEPTH AND FURNISH ALL FITTINGS AS REQUIRED. REFER TO "PRIVATE SITE DEVELOPMENT PLANS" BY OLSSON DATED 10/18/2023 FOR EXISTING PLANNED WATERLINE.
- (M) REMOVED.
- (N) EXISTING STORM STRUCTURE TO BE REMOVED. INSTALL NEW 3'x3' JUNCTION BOX OUTSIDE OF BUILDING FOOTPRINT. CONTRACTOR MAY REUSE EXISTING STORM PIPING DURING INSTALLATION OF NEW STRUCTURE. NEW STORM STRUCTURE SHALL BE INSTALLED PRIOR TO PRIVATE STREET PAVING. USE ALTERNATE TOP. REFER TO DETAIL 3 ON CE 6.3. REFER TO CE 3.1 FOR TOP OF BOX ELEVATION.
- (O) INSTALL 6" SDR 26 PVC LATERAL WITH CLEANOUTS AS SHOWN. INSTALL MAXADAPTOR COUPLING AT CONNECTION TO EXISTING STUB. CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING SANITARY STUB AND ROUTE AT 1% MINIMUM TO BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION. REFER TO CLEANOUT DETAIL ON CE 5.1.
- (P) PROPOSED FIRE DEPARTMENT CONNECTION (FDC). COORDINATE WITH ARCHITECT AND M.E.P. FOR EXACT LOCATION. FDC SHALL BE 4" STORZ TYPE FITTING.
- (Q) PROPOSED ROOF DRAIN (6" PVC AT 1% MINIMUM SLOPE) CONNECTED TO STORM COLLECTOR. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION. REFER TO DETAIL 9 ON CE 6.3.
- (S) PROPOSED GAS RISER. REFER TO M.E.P. PLANS. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
- (T) INSTALL 3" x 2" x 2" TEE AT 10' MIN. BEYOND METER WELL. ROUTE 3" CPVC WATERLINE SERVICE LINE TO BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION.
- (U) PROPOSED CONNECTION STRUCTURE TO INTERNAL ROOF DRAINS. ROUTE CONNECTING PIPE FROM STRUCTURE TO BUILDING AT 1% MIN. SLOPE. REFER TO M.E.P. PLANS.
- (V) INSTALL 6" x 6" TEE WITH 6" VALVE. ROUTE 6" CPVC AS SHOWN. INSTALL 6" x 4" REDUCER AFTER FIRE HYDRANT AND ROUTE 4" CPVC TO BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION.

GENERAL NOTES:

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

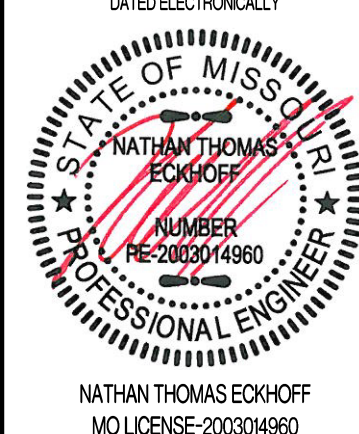
ESTIMATED SANITARY SEWER QUANTITIES	
	LOTS 5-8
8" SEWER	448 LF
STD. MANHOLE	1 EA.
STD. CLEANOUT	4 EA.
WYES	4 EA.

ESTIMATED ADDITIONAL FLOW	
LOT 5 (14,000 SF RETAIL/OFFICE, 40 APARTMENT UNITS)	54 PE x 100 GPCD = 5400 GPD = 3.75 GPM
LOT 6 (8,000 SF ANIMAL HOSPITAL)	8 PE x 150 GPCD = 900 GPD = 0.63 GPM
LOT 7 (8,600 SF RETAIL/OFFICE, 46 APARTMENT UNITS)	55 PE x 100 GPCD = 5500 GPD = 3.82 GPM
LOT 8 (11,500 SF PET DAYCARE CENTER)	11.5 PE x 100 GPCD = 1150 GPD = 0.80 GPM
TOTAL	12950 GPD = 8.99 GPM (35.97 GPM PEAK)

REVISIONS:

NO.	DATE
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REV. 1	07/23/2024

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

THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

UTILITY PLAN SHEET 1

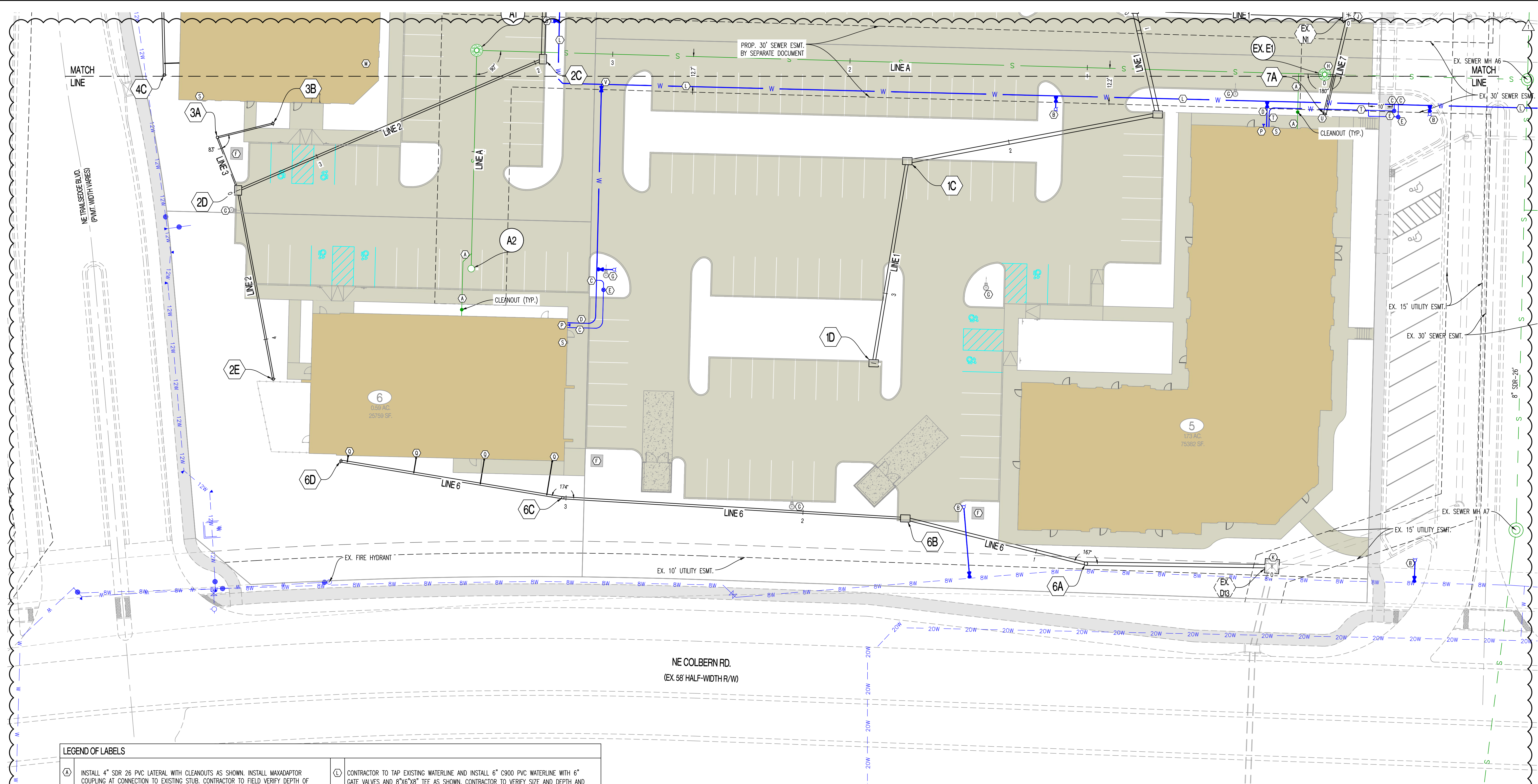
DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

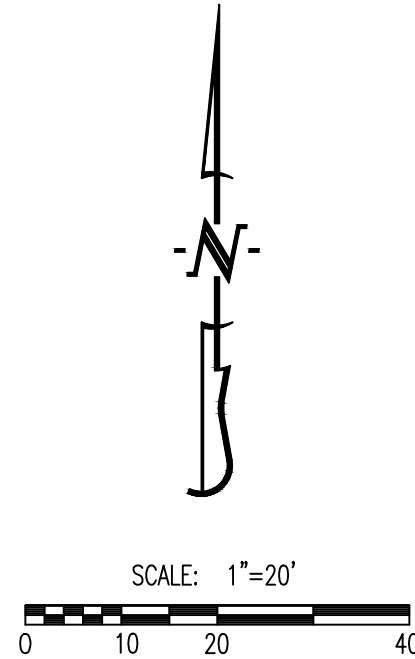
SHEET:
CE 41

Y:\2023\230286 - Discovery Park Lees Summit\Zone Lot 5-8\Civil\MOAD Files\Construction Plans\230286 Zone 1 Lot 5-8 Site Base.dwg



LEGEND OF LABELS

- (A) INSTALL 4" SDR 26 PVC LATERAL WITH CLEANOUTS AS SHOWN. INSTALL MAXADAPTOR COUPLING AT CONNECTION TO EXISTING STUB. CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING SANITARY STUB AND ROUTE AT 1% MINIMUM TO BUILDING. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION. REFER TO CLEANOUT DETAIL ON CE 5.1.
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- (S) PROPOSED GAS RISER. REFER TO M.E.P. PLANS. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
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GENERAL NOTES:

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

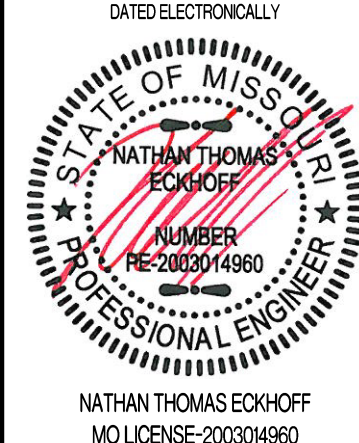
ESTIMATED SANITARY SEWER QUANTITIES	
8" SEWER	PLAT x
STD. MANHOLE	448 LF
STD. CLEANOUT	1 EA.
WYES	4 EA.

ESTIMATED ADDITIONAL FLOW	
LOT 5 (14,000 SF RETAIL/OFFICE, 40 APARTMENT UNITS)	54 PE x 100 GPCD = 5400 GPD = 3.75 GPM
LOT 6 (8,000 SF ANIMAL HOSPITAL)	8 PE x 150 GPCD = 900 GPD = 0.63 GPM
LOT 7 (8,600 SF RETAIL/OFFICE, 46 APARTMENT UNITS)	55 PE x 100 GPCD = 5500 GPD = 3.82 GPM
LOT 8 (11,500 SF PET DAYCARE CENTER)	11.5 PE x 100 GPCD = 1150 GPD = 0.80 GPM
TOTAL	12950 GPD = 8.99 GPM (35.97 GPM PEAK)

REVISIONS:

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4020 PHILLIPS FARM RD
COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

UTILITY PLAN SHEET 2

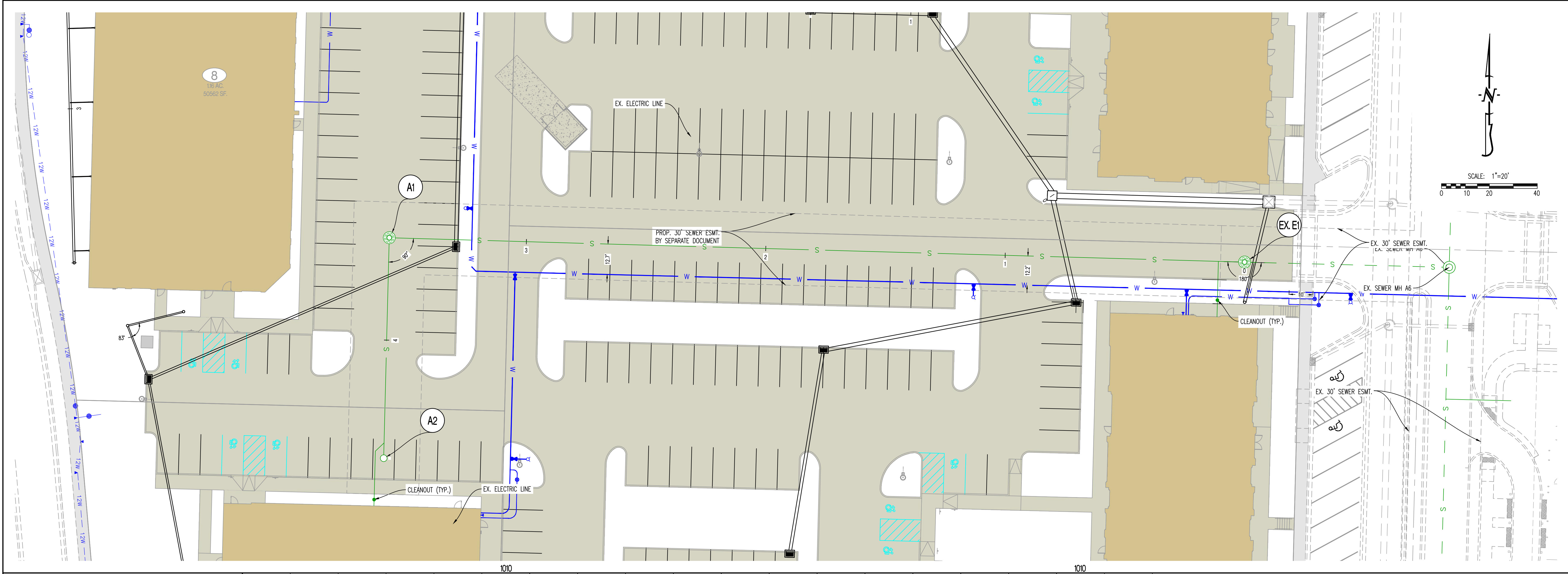
DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

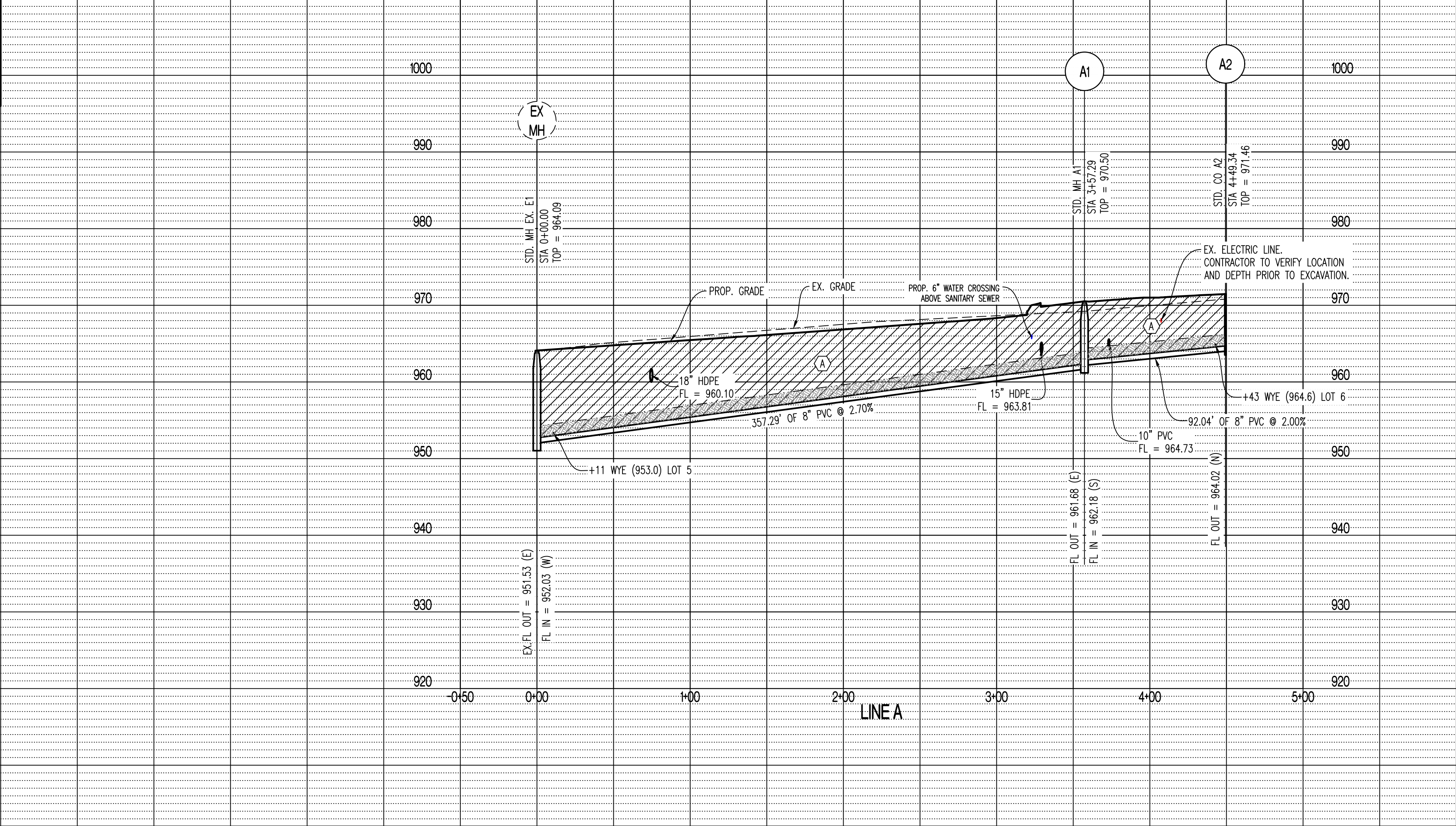
SHEET:
CE 42

Y:\2023\230286 - Discovery Park Lees Summit\Zone Lot 5-8\Civil\CAD Files\Construction Plans\230286 Zone 1 Lot 5-8 Storm Base.dwg



SCALE:
HORIZ 1" = 50'
VERT 1" = 10'

LEGEND OF LABELS:
Ⓐ REFER TO PIPE EMBEDMENT DETAIL 5 ON CE 6.3.



GENERAL NOTES:
1) ALL PORTIONS OF THIS SANITARY SEWER SHALL BE PUBLIC.
2) LENGTHS AND SLOPES OF PIPE ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3) COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.

CLEANOUT DETAIL
INSTALL CAST IRON CLEAN-OUT COVER AT ALL CLEANOUT LOCATIONS. CASTING SHOULD READ "SEWER" AT SEWER LINES AND "WATER" AT WATER LINE.
8" OF SOIL
FINISH GRADE

REVISIONS:
NO. DATE
ORIGINAL 05/22/2024

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NATHAN THOMAS ECKHOFF
PROFESSIONAL ENGINEER
MO LICENSE 200304960

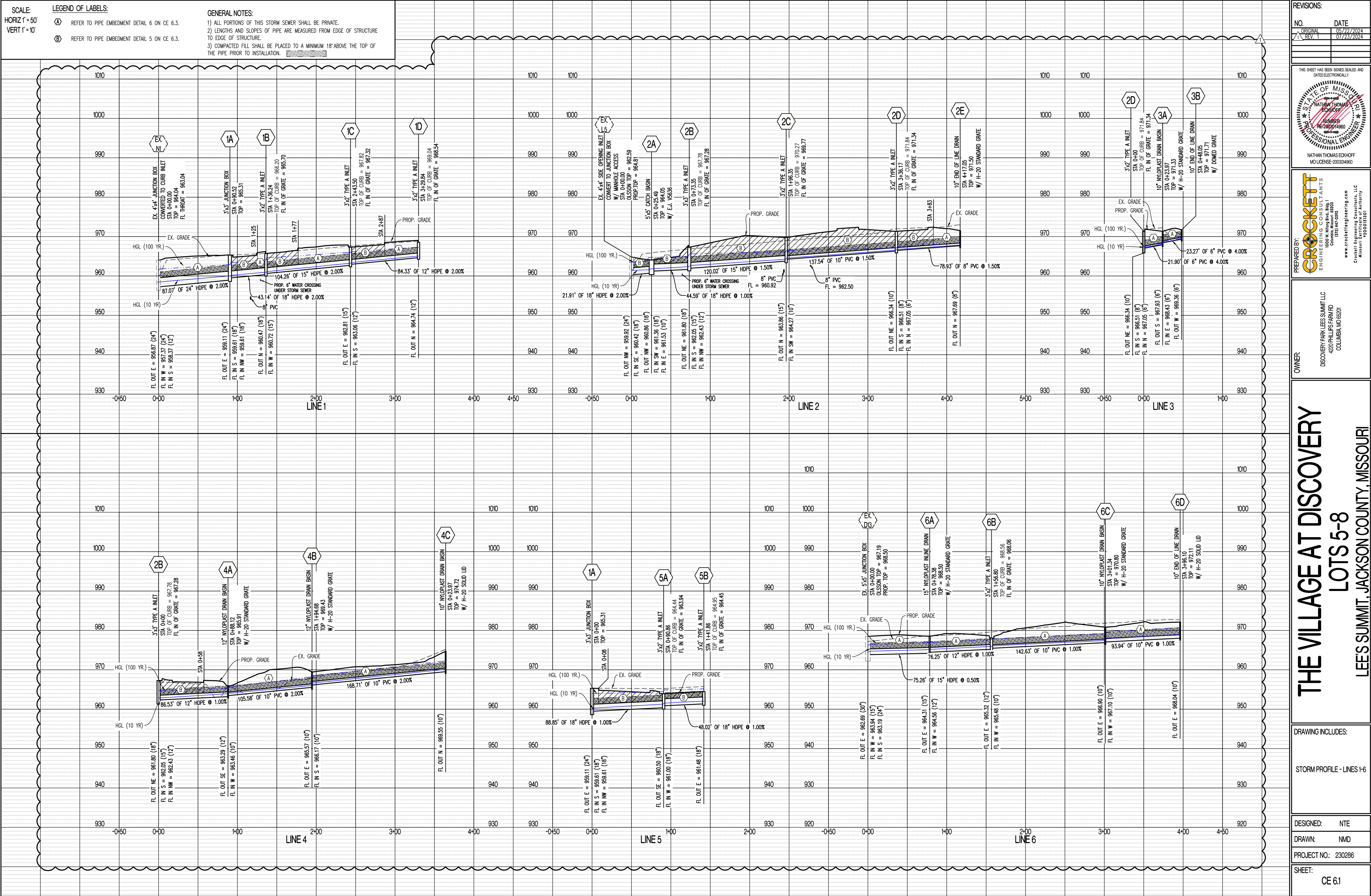
PREPARED BY:
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THE VILLAGE AT DISCOVERY
LOTS 5-8
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:
SANITARY PLAN & PROFILE & SANITARY DETAILS

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



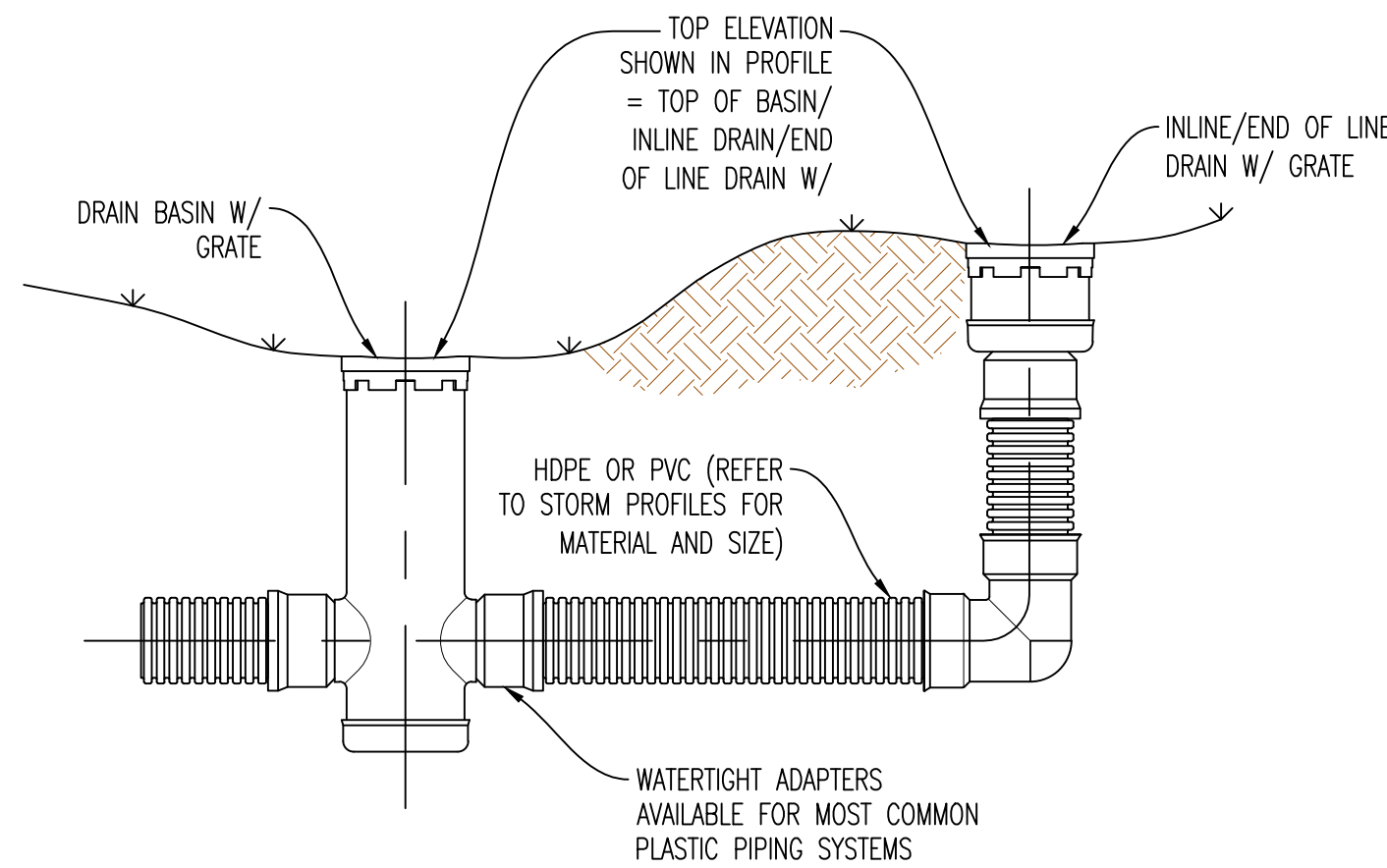
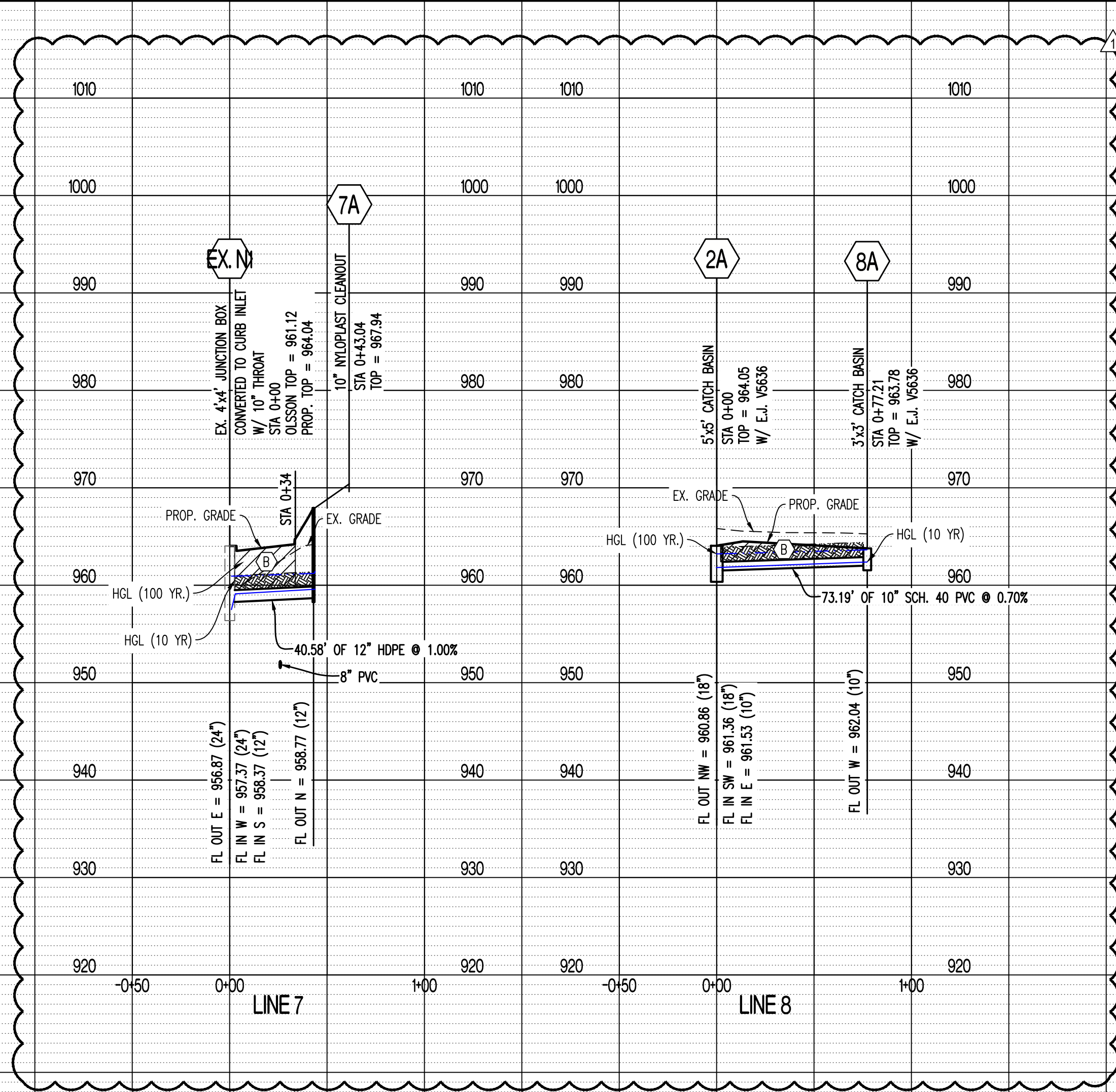
SCALE:
HORIZ 1"=50'
VERT 1"=10'

LEGEND OF LABELS:

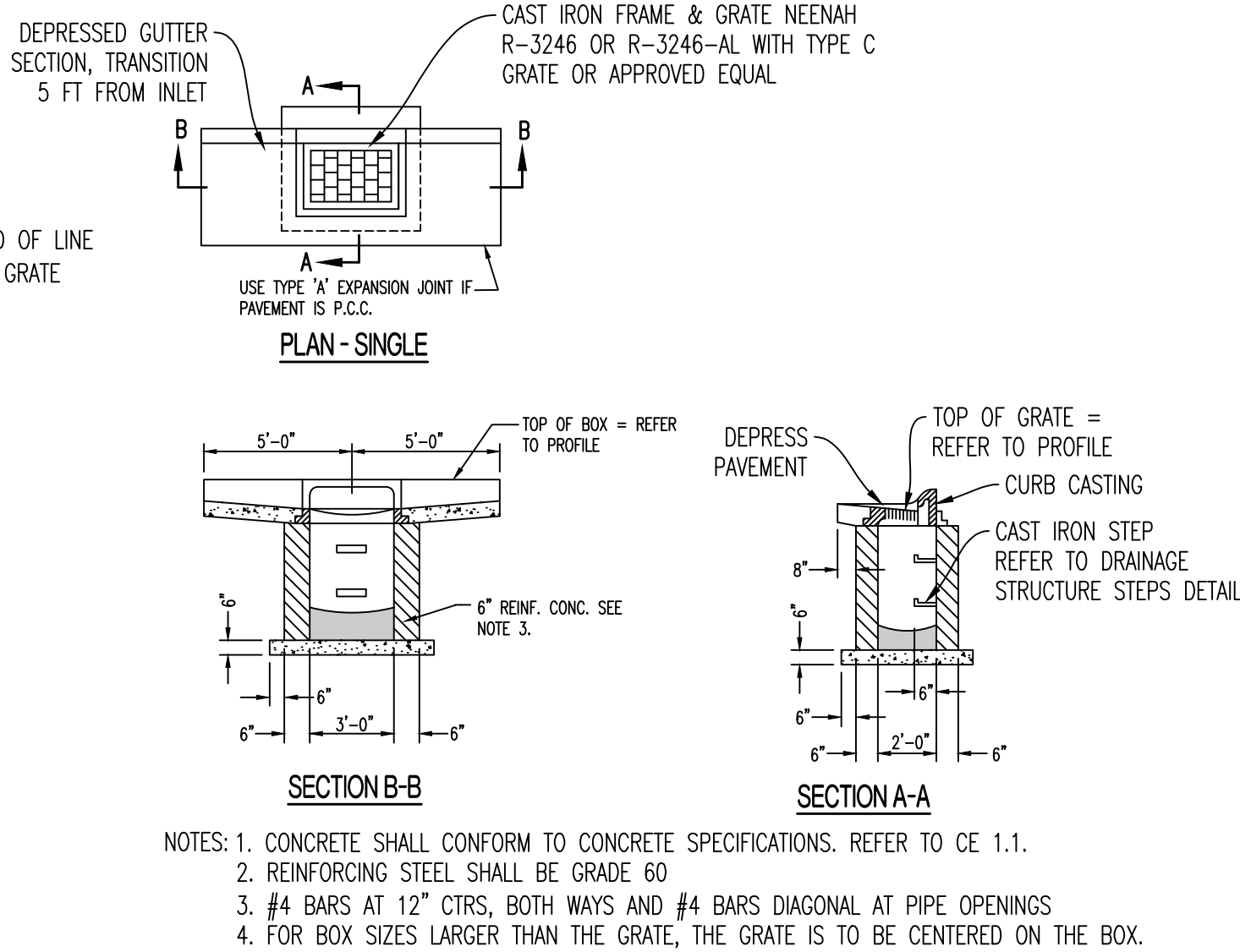
- Ⓐ REFER TO PIPE EMBEDMENT DETAIL 6 ON CE 6.3.
Ⓑ REFER TO PIPE EMBEDMENT DETAIL 5 ON CE 6.3.

GENERAL NOTES:

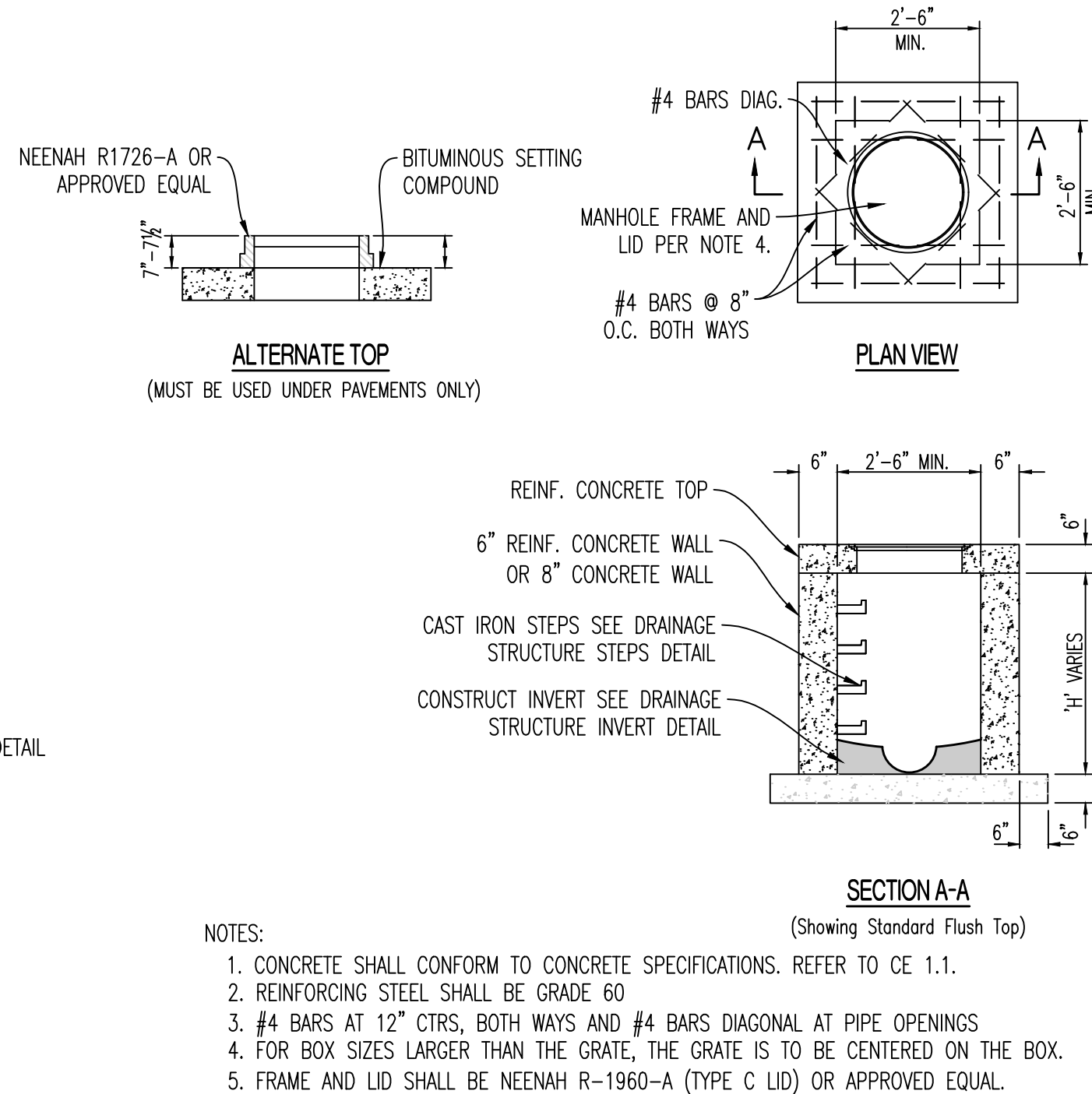
- 1) ALL PORTIONS OF THIS STORM SEWER SHALL BE PRIVATE.
- 2) LENGTHS AND SLOPES OF PIPE ARE MEASURED FROM EDGE OF STRUCTURE TO EDGE OF STRUCTURE.
- 3) COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.



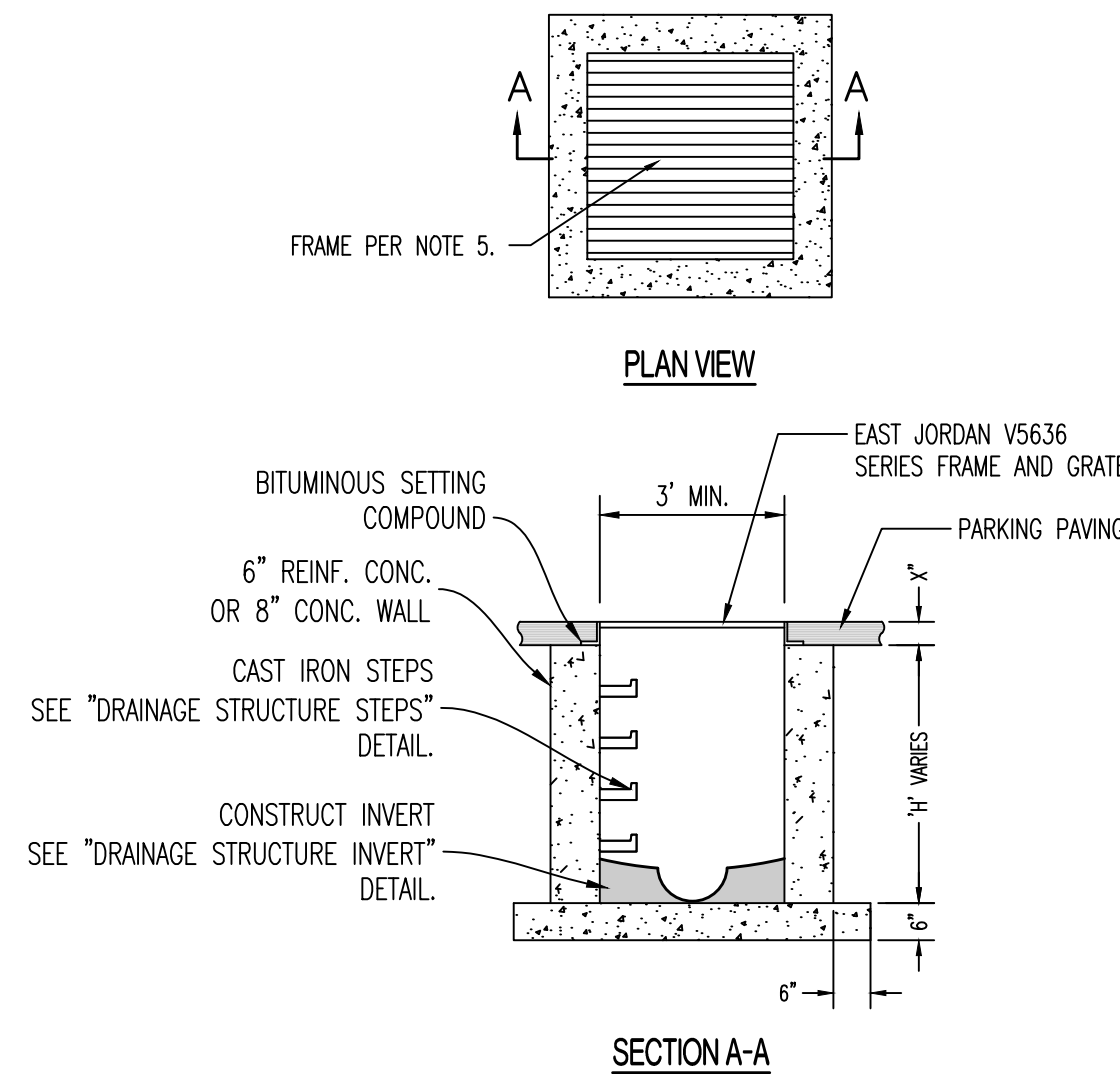
1 TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN AND INLINE DRAIN



2 SINGLE TYPE "A" INLET



3 JUNCTION BOX

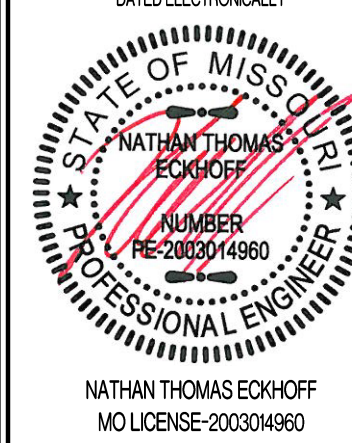


4 CATCH BASIN IN PAVEMENT

REVISIONS:

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THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

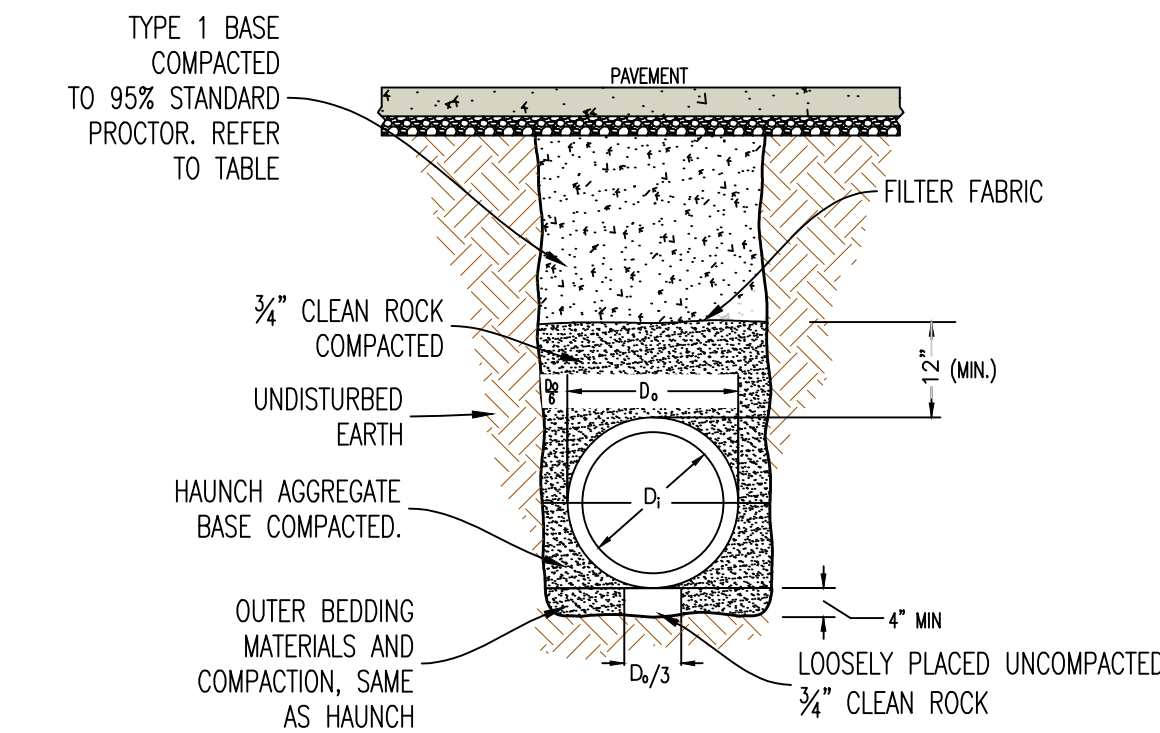
STORM PROFILE - LINES 7-8 & STORM DETAILS

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

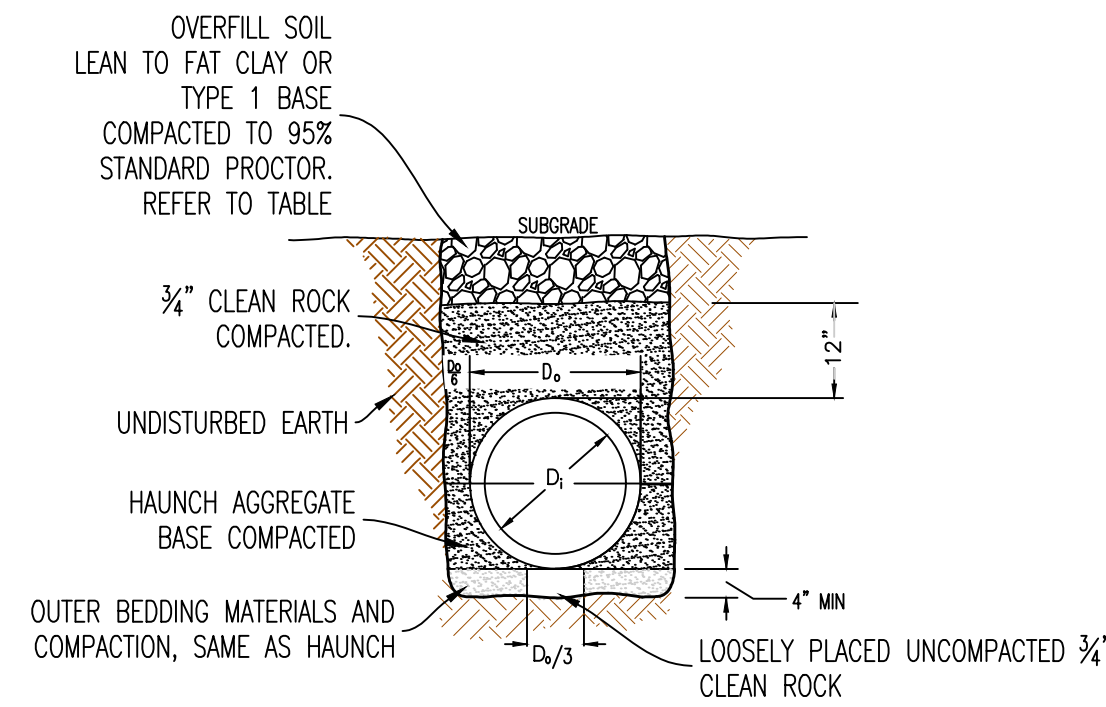
SHEET:
CE 62



5

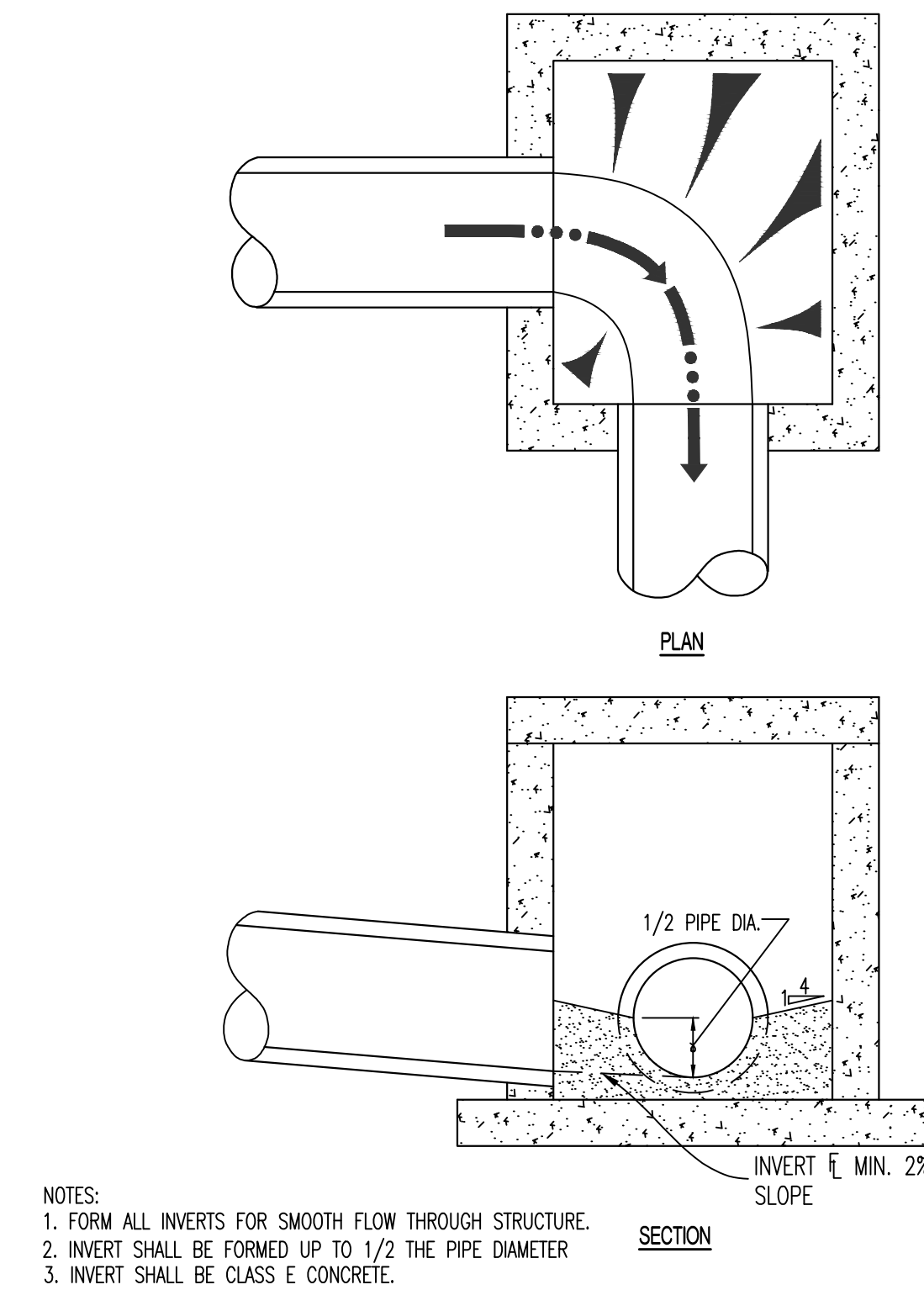
PIPE EMBEDMENT (UNDER PAVEMENT)

STRUCTURAL FILL COMPACTION REQUIREMENTS	
SOIL FILL THICKNESS	<ul style="list-style-type: none">9-INCHES OR LESS WHEN USING HEAVY SELF-PROPELLED COMPACTION EQUIPMENT6-INCHES OR LESS WHEN USING HAND GUIDED OR LIGHT SELF-PROPELLED EQUIPMENT
COMPACTION/MOISTURE CONTENT REQUIREMENTS	<ul style="list-style-type: none">LEAN TO FAT CLAY AND FAT CLAY<ul style="list-style-type: none">2% BELOW STANDARD PROCTOR OPTIMUM MOISTURE CONTENT (OMC) TO 4% ABOVE THE STANDARD PROCTOR OPTIMUM MOISTURE CONTENTLEAN CLAY AND SILT<ul style="list-style-type: none">2% BELOW TO 3% ABOVE STANDARD PROCTOR OMCGRANULAR<ul style="list-style-type: none">WORKABLE MOISTURE CONTENT AND SHALL NOT PUMP WHEN PROOF-ROLLED
COMPACTION REQUIREMENTS	<p>95% OF STANDARD PROCTOR DRY DENSITY (ASTM D-698)</p> <ol style="list-style-type: none">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.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. <p>1. 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.</p> <p>2. 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.</p>



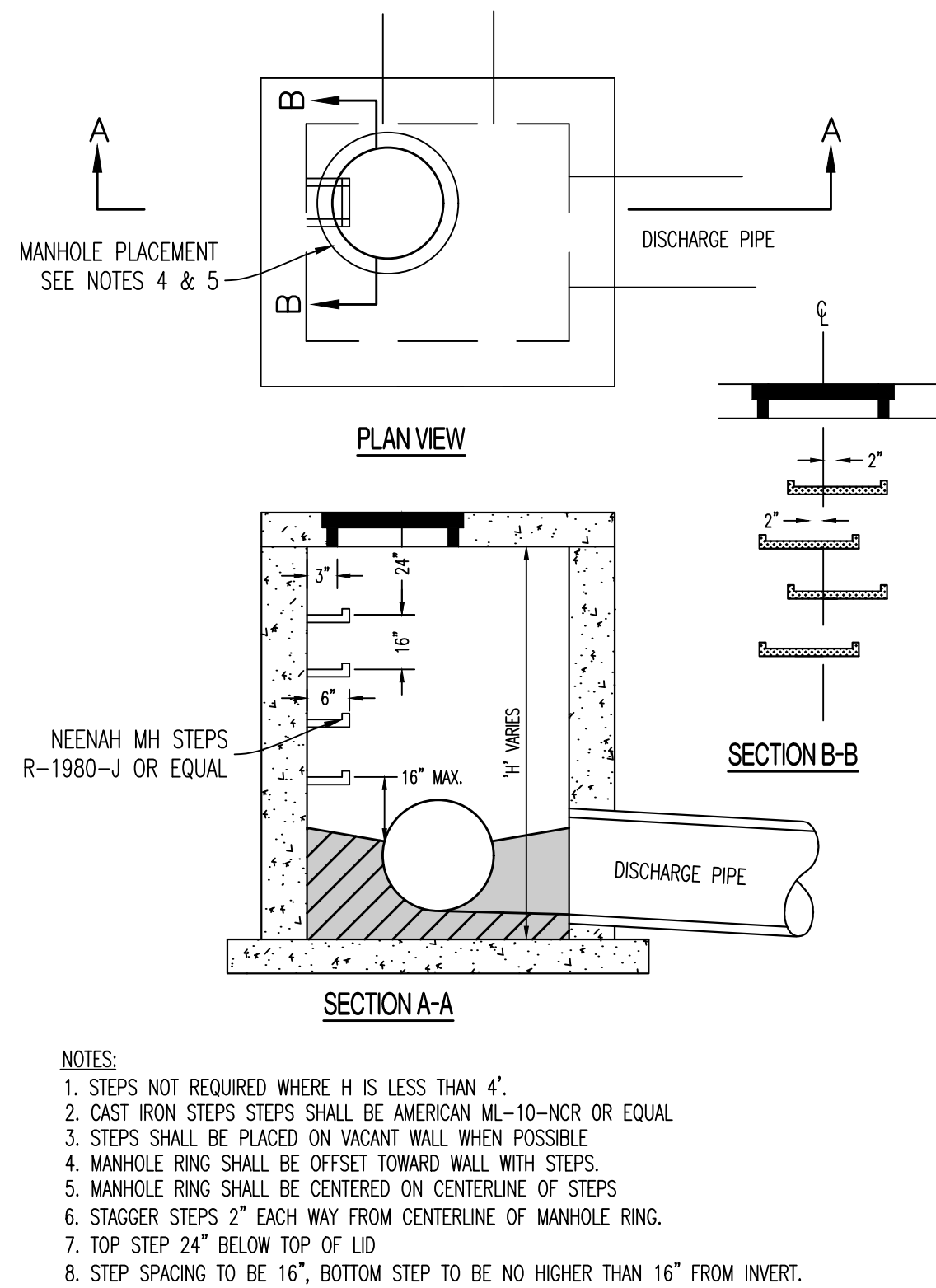
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PIPE EMBEDMENT (NOT UNDER PAVEMENT)



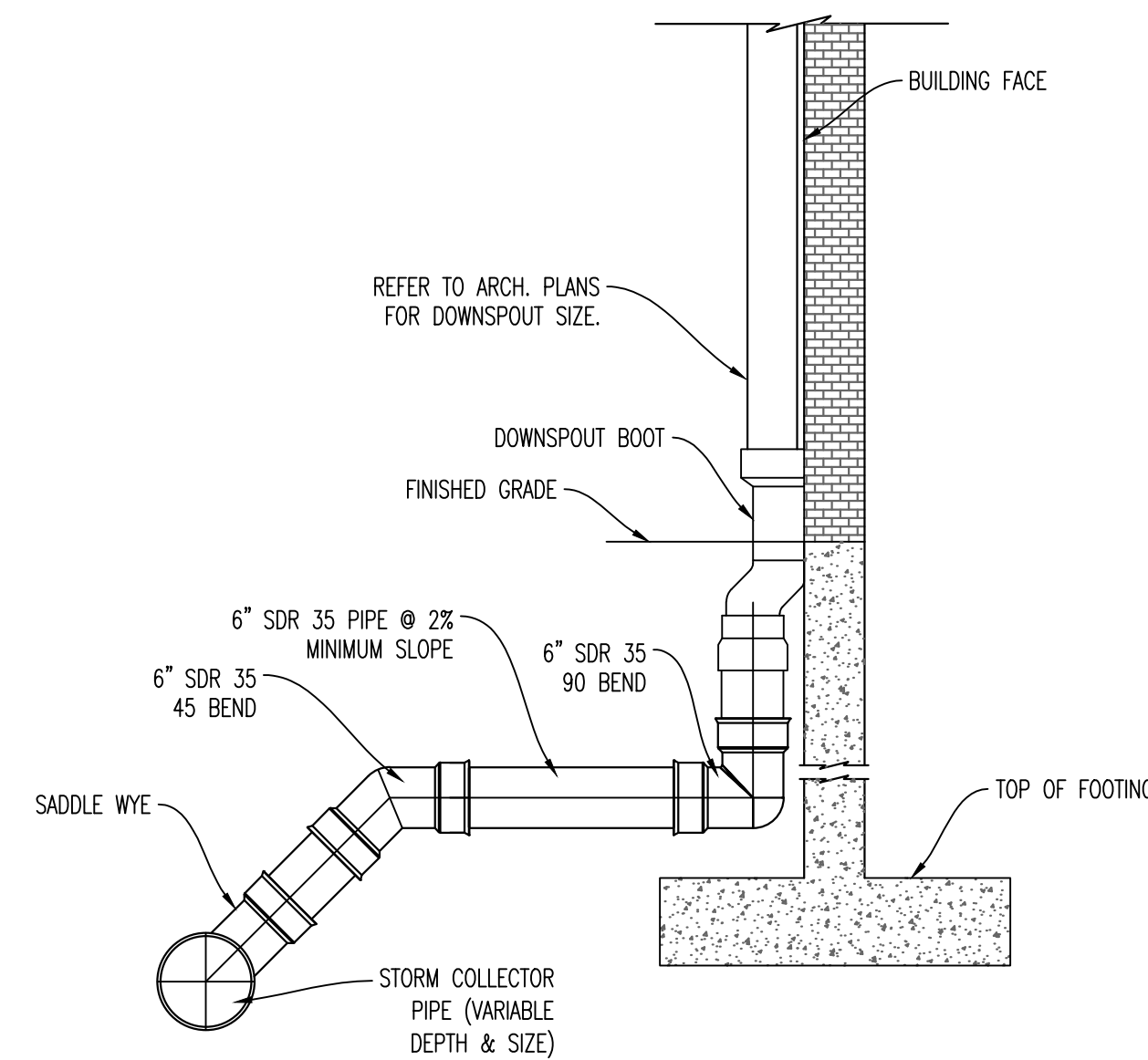
7

DRAINAGE STRUCTURE INVERT



8

DRAINAGE STRUCTURE STEPS



9

ROOF DRAIN DETAIL

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF
PROFESSIONAL ENGINEER
NUMBER
PE-20030/4960
NATHAN THOMAS ECKHOFF
MO LICENSE 200304960

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

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

THE VILLAGE AT DISCOVERY
LOTS 5-8
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

STORM DETAILS

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 6.3



STORM DRAIN PIPE SIZE													
DESCRIPTION		STORM DRAIN HYDRAULICS										NOTES	
AREA NO.	UPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION	CA			SWE FALL INTERSECT.	FLUSH	STORM DRAIN SLOPE	STORM DRAIN DIAMETER	STORM DRAIN MATERIAL	CAPACITY FLOWING FULL	VELOCITY FLOWING FULL	
			CA		SWE FALL								
			ARID	CLIM.									
		min	max	max	in/ft	cts	in/ft	in	ft	cu/ft	cts	ft/s	
LINE 1													
1	ID	-5	0.12	0.12	7.35	0.89	0.020	12	HDPE	5.46	6.95		
2	IC	-5	0.41	0.53	7.35	3.87	0.020	15	HDPE	9.89	8.06		
3	IB	-5	0.03	0.56	7.35	4.11	0.020	18	HDPE	16.09	9.11		
LINE 5	1A	-5	0.67	1.23	7.35	9.05	0.020	24	HDPE	34.64	11.03		
LINE 2													
5	2E	-5	0.03	0.73	7.35	0.24	0.015	8	PVC	1.75	5.01		
6 + LINE 3	2D	-5	0.23	0.26	7.35	1.94	0.015	12	HDPE	4.72	6.02		
7	2C	-5	0.25	0.51	7.35	3.78	0.015	15	HDPE	8.57	6.98		
8 + LINE 4	2B	-5	0.35	0.89	7.35	6.56	0.010	18	HDPE	11.37	6.44		
9 + LINE 8	2A	-5	0.35	1.24	7.35	9.11	0.020	18	HDPE	16.09	9.11		
LINE 3													
10	3B	-5		0.00	7.35	0.02	0.040	6	PVC	1.33	6.75		
11	3A	-5	0.01	0.01	7.35	0.09	0.040	6	PVC	1.33	6.75		
LINE 4													
ROOF (LOT 8)	4C	-5	0.24	0.24	7.35	1.75	0.010	10	PVC	2.59	4.75		
12	4B	-5	0.04	0.27	7.35	2.01	0.020	10	PVC	3.66	6.71		
13	4A	-5	0.05	0.32	7.35	2.36	0.010	12	HDPE	3.86	4.91		
LINE 5													
14	5A	-5	0.67	0.67	7.35	4.94	0.010	18	HDPE	11.37	6.44		
LINE 6													
ROOF (LOT 6)	6D	-5	0.15	0.15	7.35	1.09	0.010	10	PVC	2.59	4.75		
15	6C	-5	0.06	0.21	7.35	1.53	0.010	10	PVC	2.59	4.75		
16	6B	-5	0.11	0.32	7.35	2.37	0.010	12	HDPE	3.86	4.91		
17	6A	-5	0.02	0.34	7.35	2.50	0.005	15	HDPE	4.95	4.03		
LINE 7													
ROOF (LOT 5)	7A	-5		0.32	7.35	2.33	0.010	12	HDPE	3.86	4.91		
LINE 8													
19	8A	-5		0.16	7.35	1.18	0.007	10	PVC	2.17	3.97		

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

THE VILLAGE AT DISCOVERY
LOTS 5-8
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

5-YR STORM CALCULATIONS

DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286

SHEET:

CE 6.4



PROJECT: The Village at Discovery Lots 5-8

CALCULATED BY: MWB

CHECKED BY: NTE

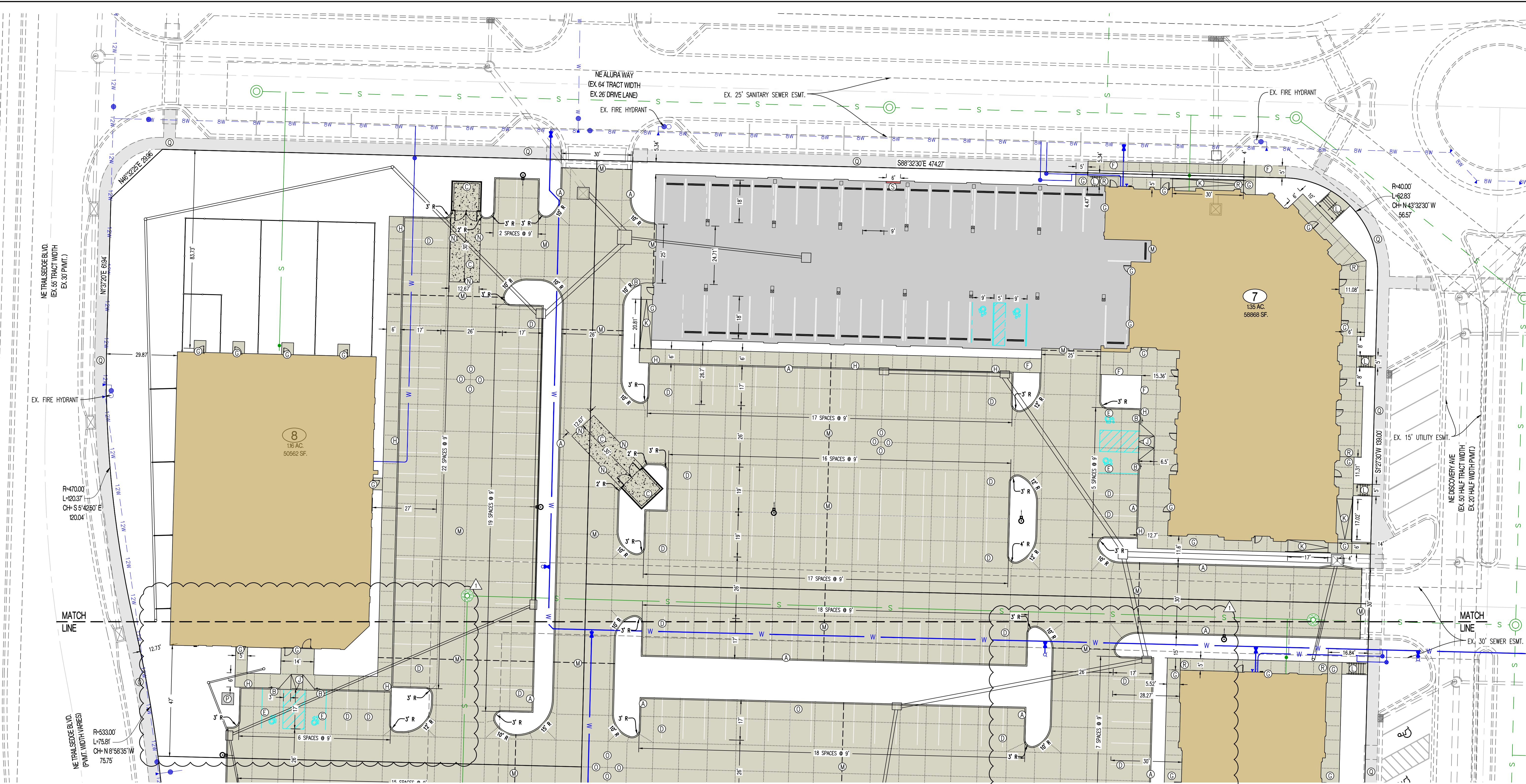
DATE: 7/19/24

PROJECT NO: 230286

STORM DRAIN PIPE SIZE

DESCRIPTION		STORM DRAIN HYDRAULICS										NOTES	
ASB# NO.	UPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION	CA			RAINFALL INTENSITY	RUNOFF	STORM DRAIN SLOPE	STORM DRAIN DIAMETER	SLOW DRAIN MATERIAL RCP OR PIP OR HDPE	CAPACITY FLOWING FULL	VELOCITY FLOWING FULL	
			ACRED	ADRAWL	CA								
min	acres	acres	in/hr	cfs	ft/ft	in	cfs	fpm					
LINE 1													
1	1D	<5	0.15	0.15	10.32	1.53	0.020	12	HDPE	5.46	6.95		
2	1C	<5	0.50	0.64	10.32	6.64	0.020	15	HDPE	9.89	8.06		
3	1B	<5	0.04	0.68	10.32	7.07	0.020	18	HDPE	16.09	9.11		
LINE 5	1A	<5	0.82	1.51	10.32	15.55	0.020	24	HDPE	34.64	11.03		
LINE 2													
5	2E	<5		0.04	10.32	0.43	0.015	8	PVC	1.75	5.01		
6 + LINE 3	2D	<5	0.30	0.34	10.32	3.53	0.015	12	HDPE	4.72	6.02		
7	2C	<5	0.31	0.65	10.32	6.70	0.015	15	HDPE	8.57	6.98		
8 + LINE 4	2B	<5	0.41	1.06	10.32	10.95	0.010	18	HDPE	11.37	6.44		
9 + LINE 8	2A	<5	0.43	1.49	10.32	15.36	0.020	18	HDPE	16.09	9.11		
LINE 3													
10	3B	<5		0.00	10.32	0.04	0.040	6	PVC	1.33	6.75		
11	3A	<5	0.03	0.03	10.32	0.35	0.040	6	PVC	1.33	6.75		
LINE 4													
ROOF (LOT 8)	4C	<5	0.24	0.24	10.32	2.45	0.010	10	PVC	2.59	4.75		
12	4B	<5	0.05	0.28	10.32	2.92	0.020	10	PVC	3.66	6.71		
13	4A	<5	0.06	0.34	10.32	3.54	0.010	12	HDPE	3.86	4.91		
LINE 5													
14	5A	<5	0.82	0.82	10.32	8.48	0.010	18	HDPE	11.37	6.44		
LINE 6													
ROOF (LOT 6)	6D	<5	0.15	0.15	10.32	1.53	0.010	10	PVC	2.59	4.75		
15	6C	<5	0.08	0.22	10.32	2.31	0.010	10	PVC	2.59	4.75		
16	6B	<5	0.14	0.36	10.32	3.74	0.010	12	HDPE	3.86	4.91		
17	6A	<5	0.02	0.38	10.32	3.97	0.005	15	HDPE	4.95	4.03		
LINE 7													
ROOF (LOT 5)	7A	<5		0.32	10.32	3.27	0.010	12	HDPE	3.86	4.91		
LINE 8													
19	8A	<5		0.20	10.32	2.06	0.007	10	PVC	2.17	3.97		

THE VILLAGE AT DISCOVERY
LOTS 5-8
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



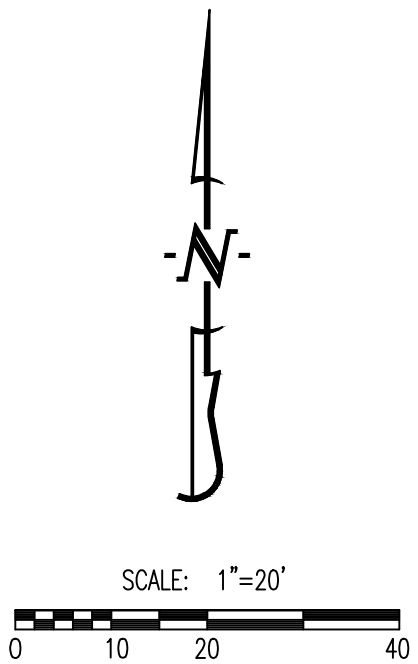
LEGEND OF LABELS

- (A) CONSTRUCT LIGHT DUTY CONCRETE W/ INTEGRAL CURB AS SHOWN. REFER TO DETAIL 1 & 2 ON CE 7.1.
- (B) TRANSITION FROM 6" CURB TO 0" CURB. REFER TO CE 3.0-CE 3.6.
- (C) DUMPSTER PAD AREA W/ INTEGRAL CURB AS SHOWN. REFER DETAIL 7 ON CE 8.1. REFER TO ARCHITECTURAL PLANS FOR PROPOSED DUMPSTER ENCLOSURE DETAILS.
- (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.
- (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 8.2.
- (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 8.1.
- (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 8.1.
- (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 8.1.
- (I) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP AT BACK OF CURB. REFER TO DETAIL 8 ON CE 8.1.

- (J) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP WITH FLARE AT BACK OF CURB. REFER TO DETAIL 9 ON CE 8.1.
- (K) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP WITH HANDRAIL. REFER TO DETAIL 11 ON CE 8.2.
- (L) INSTALL PCC STAIRS WITH HANDRAIL IN SIDEWALK. REFER TO DETAIL 12 ON CE 8.2 REFER TO CE 3.0-CE 3.6 FOR ELEVATIONS.
- (M) INSTALL TYPE A OR TYPE A ALTERNATE EXPANSION JOINT IN PAVING. REFER TO DETAIL 6 ON CE 8.1.
- (N) INSTALL TYPE B CONSTRUCTION JOINT WHERE PROPOSED CONCRETE PAVING ABUTS EXISTING CONCRETE PAVING. REFER TO DETAIL 6 ON CE 8.1.
- (O) INSTALL TYPE C SAW JOINT IN PAVEMENT, MAXIMUM 12'X12' SQUARES (TYPICAL). REFER TO DETAIL 6 ON CE 8.1.
- (P) PROPOSED TRANSFORMER PAD. COORDINATE WITH M.E.P. FOR EXACT SIZE AND LOCATION.
- (Q) 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.
- (R) CONSTRUCT THICKENED EDGE SIDEWALK WITH EXPOSED FACE ADJACENT TO BUILDING AS SHOWN. REFER TO DETAIL 13 ON CE 8.1.
- (S) CONSTRUCT BLOCK OUT (6" WIDE X 9" TALL MIN.) IN PARKING GARAGE. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. REFER TO CE 3.1 FOR ELEVATIONS.

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.
- 3) REFER TO ARCHITECTURAL PLANS FOR PARKING GARAGE LAYOUT. PARKING GARAGE PAVEMENT SHALL MATCH CROSS SECTION OF EXTERIOR PARKING LOTS.



CALCULATIONS: LOT 7

LAND AREA:	
TOTAL LAND AREA:	1.35 AC
BUILDING DETAILS:	
1ST FLOOR:	9,845 SQ.FT.
2ND FLOOR:	24,285 SQ.FT.
3RD FLOOR:	24,285 SQ.FT.
TOTAL S.F. (3-STORIES)	58,415 SQ.FT.
LOT COVERAGES:	
NET LAND AREA:	50,868 SQ.FT. 100%
TOTAL IMPERVIOUS SURFACE AREA:	47,873 SQ.FT. 81%
TOTAL OPEN SPACE:	10,995 SQ.FT. 19%
FLOOR AREA RATIO:	99%

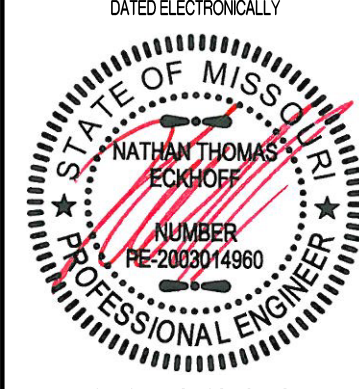
CALCULATIONS: LOT 8

LAND AREA:	
TOTAL LAND AREA:	1.16 AC
BUILDING DETAILS:	
1ST FLOOR:	10,356 SQ.FT.
TOTAL S.F. (1-STORY)	10,356 SQ.FT.
LOT COVERAGES:	
NET LAND AREA:	50,562 SQ.FT. 100%
TOTAL IMPERVIOUS SURFACE AREA:	31,540 SQ.FT. 62%
TOTAL OPEN SPACE:	19,022 SQ.FT. 38%
FLOOR AREA RATIO:	20%

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS ECKHOFF
MO LICENSE 200304960

PREPARED BY:
CROCKETT
ENGINEERS & ARCHITECTS
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Columbia, Missouri 65203
(314) 447-0591
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
LOTS 5-8
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

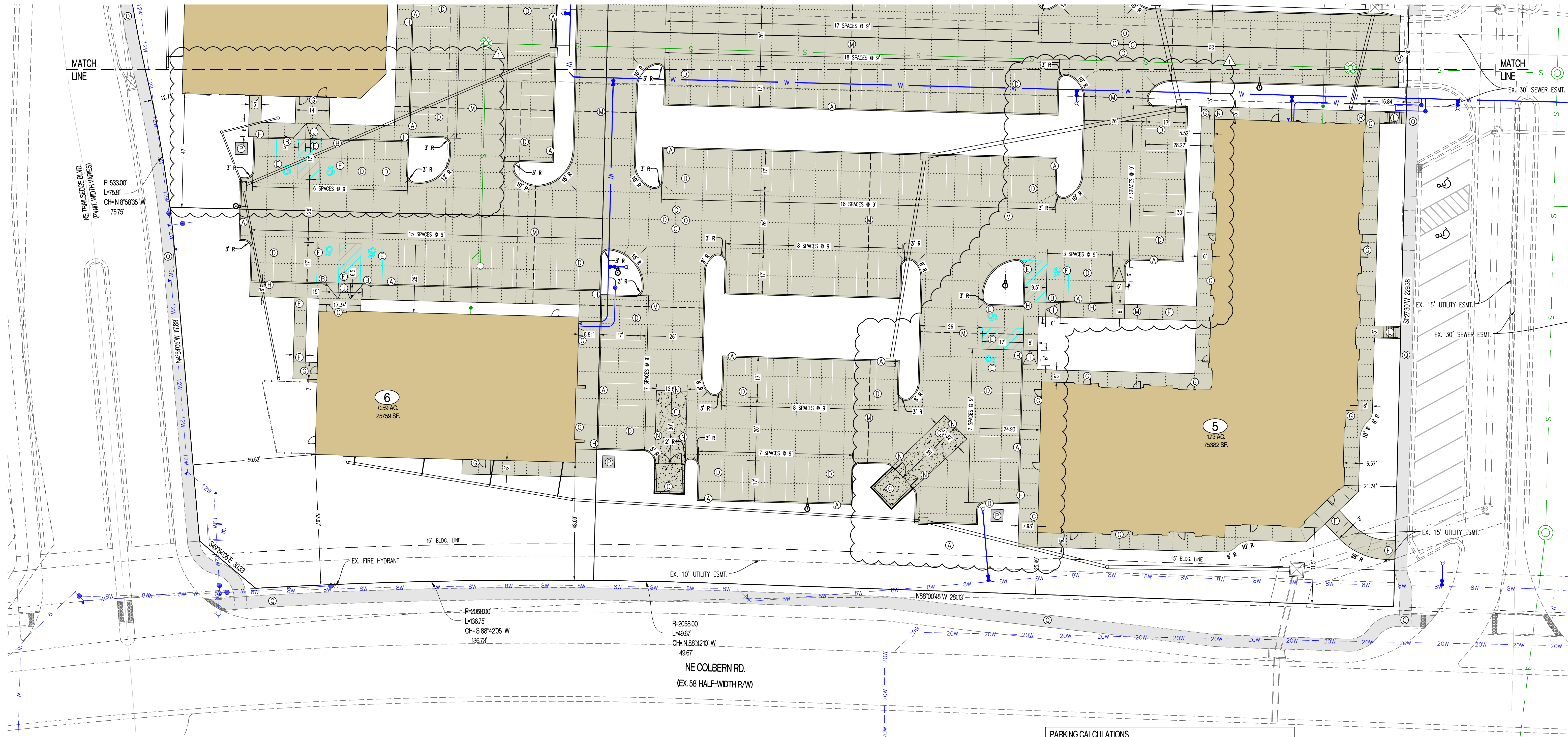
SITE PLAN SHEET 1

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 7.1



LEGEND OF LABELS	
(A) CONSTRUCT LIGHT DUTY CONCRETE W/ INTEGRAL CURB AS SHOWN. REFER TO DETAIL 1 & 2 ON CE 7.1.	(J) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP WITH FLARE AT BACK OF CURB. REFER TO DETAIL 9 ON CE 8.1.
(B) TRANSITION FROM 6" CURB TO 0" CURB. REFER TO CE 3.0-CE 3.6.	(K) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP WITH HANDRAIL. REFER TO DETAIL 11 ON CE 8.2.
(C) DUMPSTER PAD AREA W/ INTEGRAL CURB AS SHOWN. REFER DETAIL 7 ON CE 8.1. REFER TO ARCHITECTURAL PLANS FOR PROPOSED DUMPSTER ENCLOSURE DETAILS.	(L) INSTALL PCC STAIRS WITH HANDRAIL IN SIDEWALK. REFER TO DETAIL 12 ON CE 8.2 REFER TO CE 3.0-CE 3.6 FOR ELEVATIONS.
(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.	(M) INSTALL TYPE A OR TYPE A ALTERNATE EXPANSION JOINT IN PAVING. REFER TO DETAIL 6 ON CE 8.1.
(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 8.2.	(N) INSTALL TYPE B CONSTRUCTION JOINT WHERE PROPOSED CONCRETE PAVING ABUTS EXISTING CONCRETE PAVING. REFER TO DETAIL 6 ON CE 8.1.
(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 8.1.	(O) INSTALL TYPE C SAW JOINT IN PAVEMENT, MAXIMUM 12"x12" SQUARES (TYPICAL). REFER TO DETAIL 6 ON CE 8.1.
(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 8.1.	(P) PROPOSED TRANSFORMER PAD. COORDINATE WITH M.E.P. FOR EXACT SIZE AND LOCATION.
(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 8.1.	(Q) 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.
(I) CONSTRUCT ADA ACCESSIBLE SIDEWALK RAMP AT BACK OF CURB. REFER TO DETAIL 8 ON CE 8.1.	(R) CONSTRUCT THICKENED EDGE SIDEWALK WITH EXPOSED FACE ADJACENT TO BUILDING AS SHOWN. REFER TO DETAIL 13 ON CE 8.1.
	(S) CONSTRUCT BLOCK OUT (6' WIDE X 9" TALL MIN.) IN PARKING GARAGE. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. REFER TO CE 3.1 FOR ELEVATIONS.

- GENERAL NOTES:**
- ALL ACCESSIBLE PARKING SHALL COMPLY WITH THE REQUIREMENTS OF THE FEDERAL AMERICANS WITH DISABILITIES ACT.
 - 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.
 - REFER TO ARCHITECTURAL PLANS FOR PARKING GARAGE LAYOUT. PARKING GARAGE PAVEMENT SHALL MATCH CROSS SECTION OF EXTERIOR PARKING LOTS.
 - PARKING CALCULATIONS ARE BASED ON APPROVED PRELIMINARY DEVELOPMENT PLANS. REFER TO "DISCOVERY PARK REZONING & PRELIMINARY DEVELOPMENT PLAN - ZONES 1 & 2" PREPARED BY OLSSON.
- SCALE: 1"=20'
- 0 10 20 40

PARKING CALCULATIONS	
PARKING SUMMARY (LOT 5):	
SPACES REQUIRED:	
COMMERCIAL:	
OFFICES	
- 4 PER 1,000 SQ. FT. (NOT MEDICAL, DENTAL, OR VETERINARY) (9,000 SQ. FT.)	36 SPACES
- 5 PER 1,000 SQ. FT. (MEDICAL OR DENTAL) (4,580 SQ. FT.)	23 SPACES
RESIDENTIAL (36 UNITS):	
- 1.17 PER UNIT PLUS 0.15 PER UNIT FOR VISITORS	48 SPACES
PARKING SUMMARY (LOT 6):	
SPACES REQUIRED:	
COMMERCIAL:	
ANIMAL SERVICES	
- 2.5 PER 1,000 SQ. FT. (6,441 SQ. FT.)	16 SPACES
PARKING SUMMARY (LOT 7):	
SPACES REQUIRED:	
COMMERCIAL (9,845 SQ. FT.):	
OFFICES	
- 4 PER 1,000 SQ. FT. (NOT MEDICAL, DENTAL, OR VETERINARY) (6,000 SQ. FT.)	24 SPACES
- 5 PER 1,000 SQ. FT. (MEDICAL OR DENTAL) (3,845 SQ. FT.)	19 SPACES
RESIDENTIAL (46 UNITS):	
- 1.17 PER UNIT PLUS 0.15 PER UNIT FOR VISITORS	61 SPACES
PARKING SUMMARY (LOT 8):	
SPACES REQUIRED:	
COMMERCIAL:	
ANIMAL SERVICES	
- 2.5 PER 1,000 SQ. FT. (10,356 SQ. FT.)	26 SPACES
STANDARD SPACES REQUIRED:	253 SPACES
HANDICAP SPACES REQUIRED:	7 SPACES
SPACES PROVIDED:	
STANDARD SPACES PROVIDED:	241 SPACES
HANDICAP SPACES PROVIDED:	13 SPACES
EXISTING ADJACENT SPACES (TRACT B) PROVIDED:	39 SPACES
TOTAL SPACES PROVIDED:	280 SPACES

CALCULATIONS: LOT 5	
LAND AREA:	
TOTAL LAND AREA:	1.73 AC
BUILDING DETAILS:	
1ST FLOOR:	13,580 SQ.FT.
2ND FLOOR:	13,330 SQ.FT.
3RD FLOOR:	13,330 SQ.FT.
TOTAL S.F. (3-STORIES)	40,240 SQ.FT.
LOT COVERAGES:	
NET LAND AREA:	75,382 SQ.FT. 76%
TOTAL IMPERVIOUS SURFACE AREA:	57,124 SQ.FT. 24%
TOTAL OPEN SPACE:	18,258 SQ.FT. 19%
FLOOR AREA RATIO:	53%

CALCULATIONS: LOT 6	
LAND AREA:	
TOTAL LAND AREA:	0.59 AC
BUILDING DETAILS:	
1ST FLOOR:	6,442 SQ.FT.
TOTAL S.F. (1-STORY)	6,442 SQ.FT.
LOT COVERAGES:	
NET LAND AREA:	25,759 SQ.FT. 100%
TOTAL IMPERVIOUS SURFACE AREA:	12,931 SQ.FT. 50%
TOTAL OPEN SPACE:	12,828 SQ.FT. 50%
FLOOR AREA RATIO:	25%

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

REGISTERED PROFESSIONAL ENGINEER

NUMBER

PE-200304960

NATHAN THOMAS ECKHOFF

MISSOURI LICENSE 200304960

PREPARED BY:

CROCKETT

ENGINEERS & ARCHITECTS

1000 W. Illinois Blvd., Suite 100

Columbia, Missouri 65203

(314) 487-0592

www.crockettingeering.com

Crockett Engineering Consultants, LLC

Missouri Certificate of Authority

2000030101

OWNER:

DISCOVERY PARK LEES SUMMIT LLC

4220 PHILLIPS FARM RD

COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

SITE PLAN SHEET 2

DESIGNED:

NTE

DRAWN:

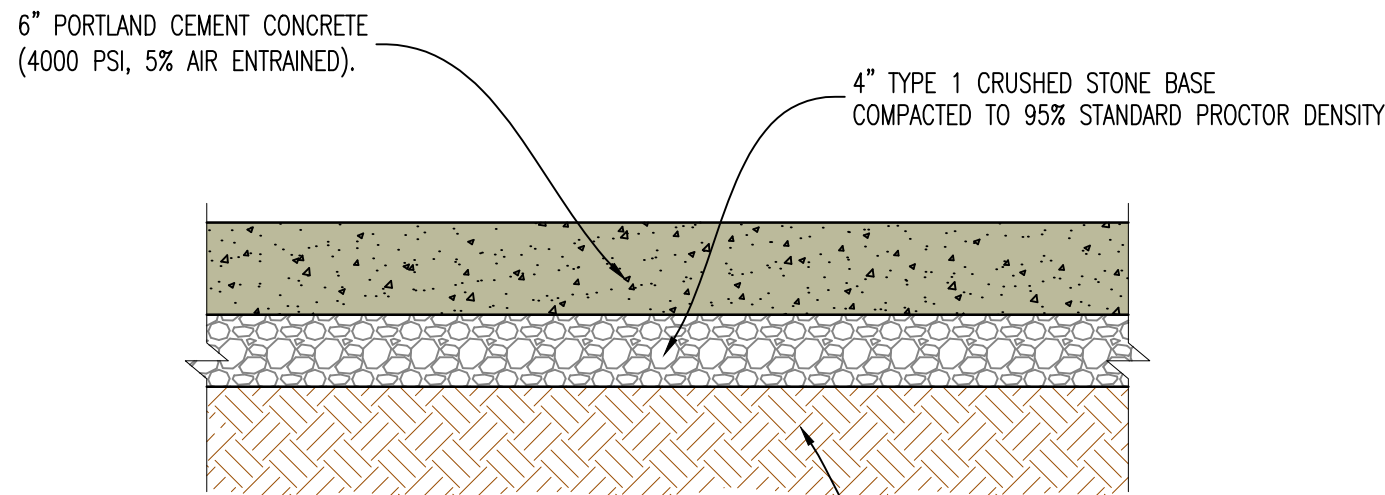
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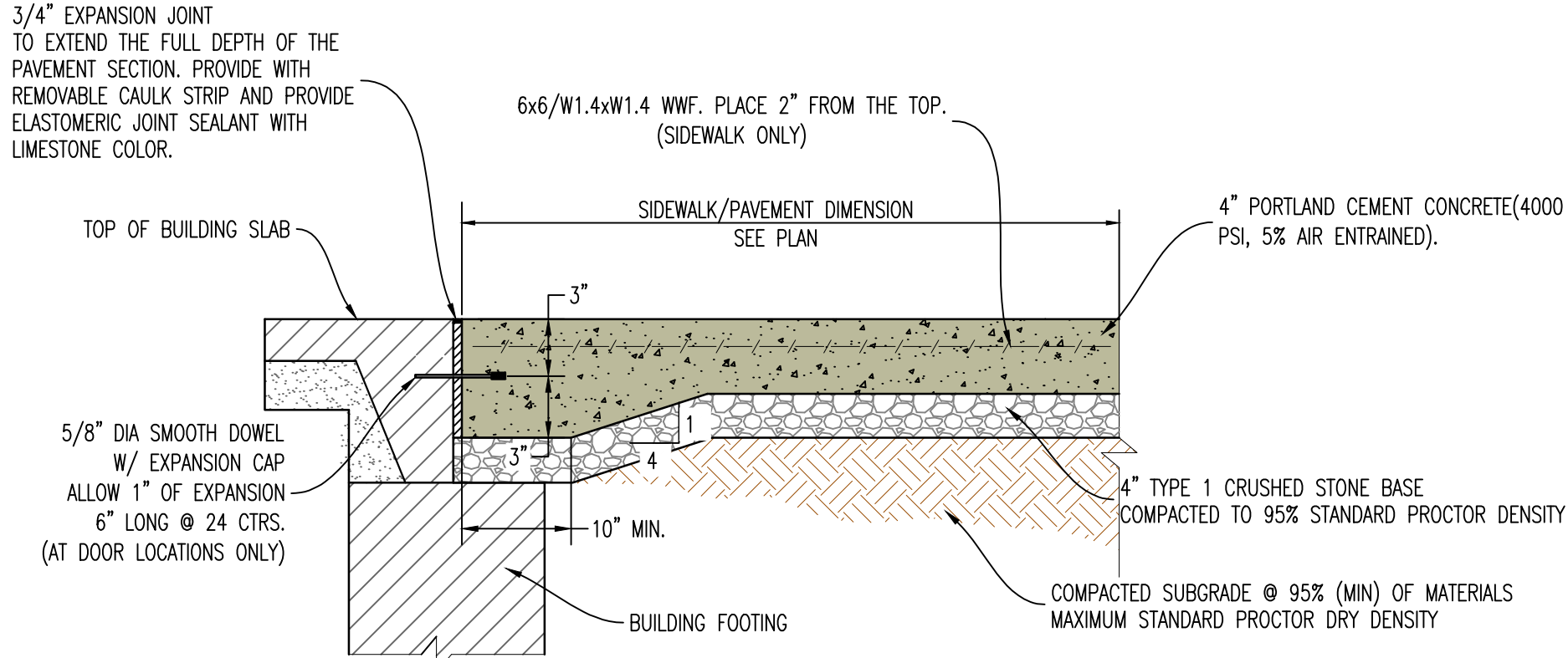
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SHEET:

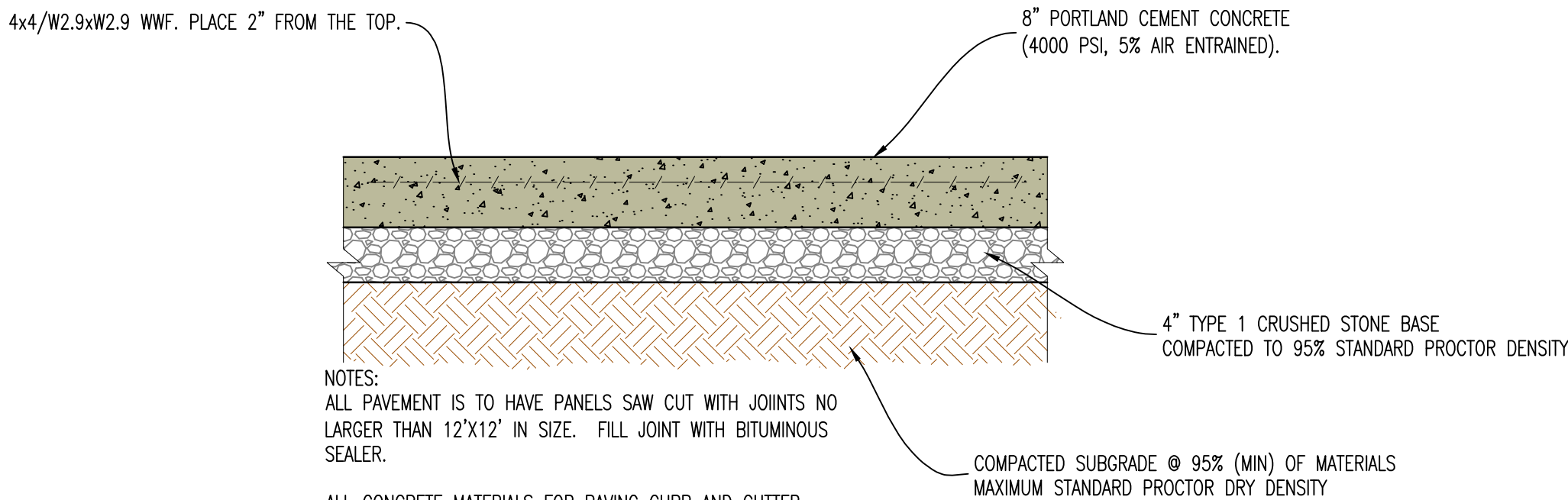
CE 7.2



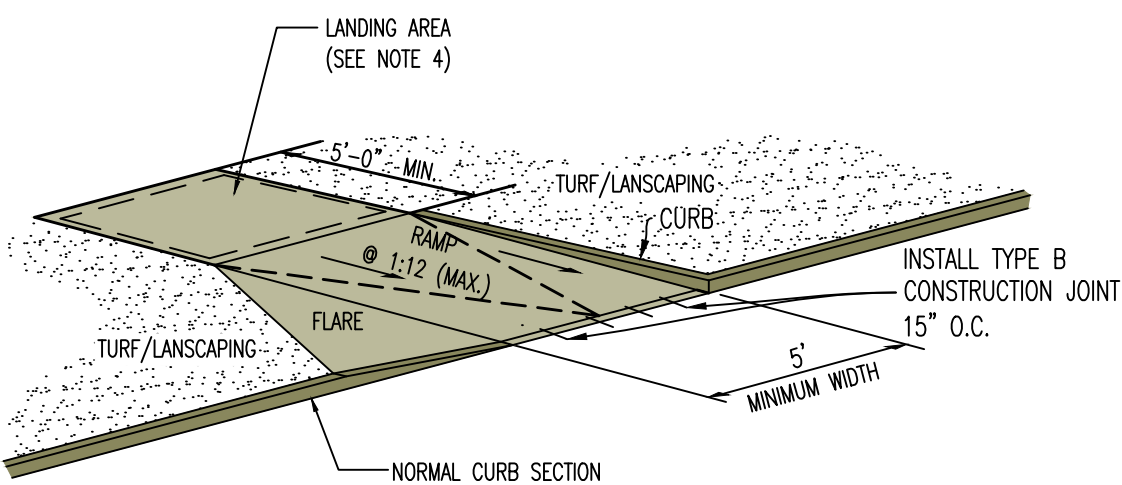
1 LIGHT DUTY CONCRETE PAVEMENT CROSS-SECTION



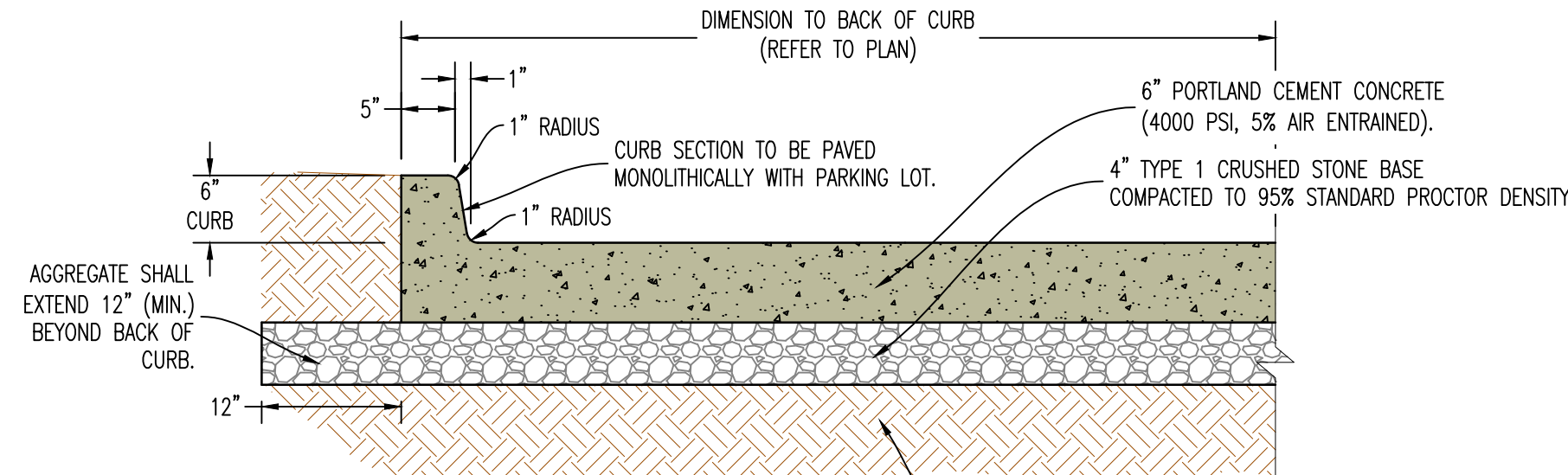
4 SIDEWALK/PAVEMENT ABUTTING BUILDING



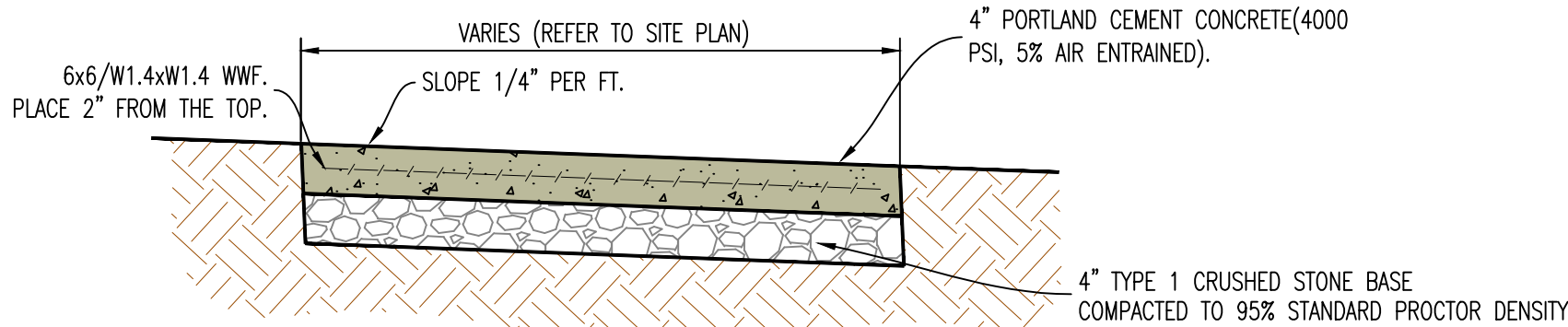
7 HEAVY DUTY CONCRETE PAVEMENT CROSS-SECTION (REINFORCED)



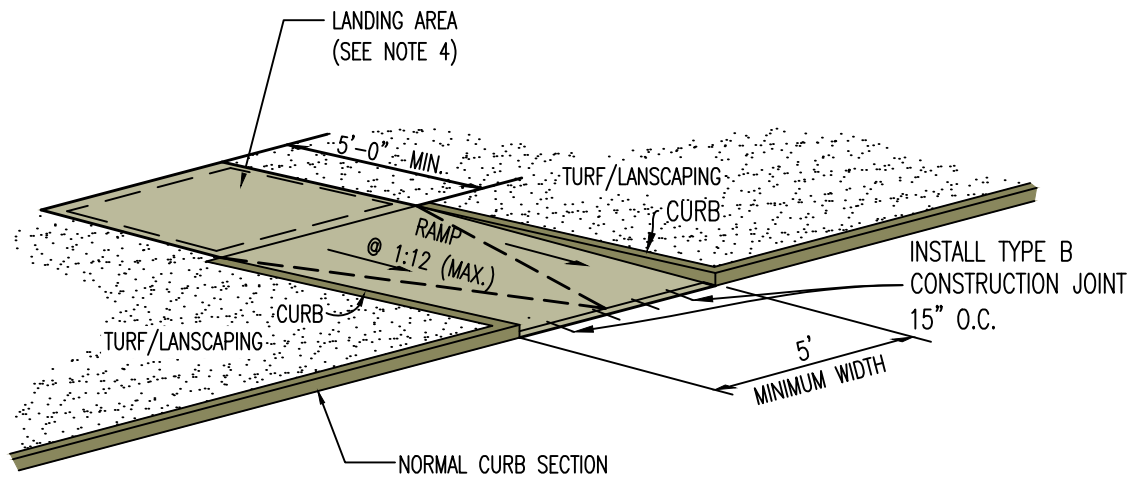
9 SIDEWALK RAMP WITH CURB AND FLARE



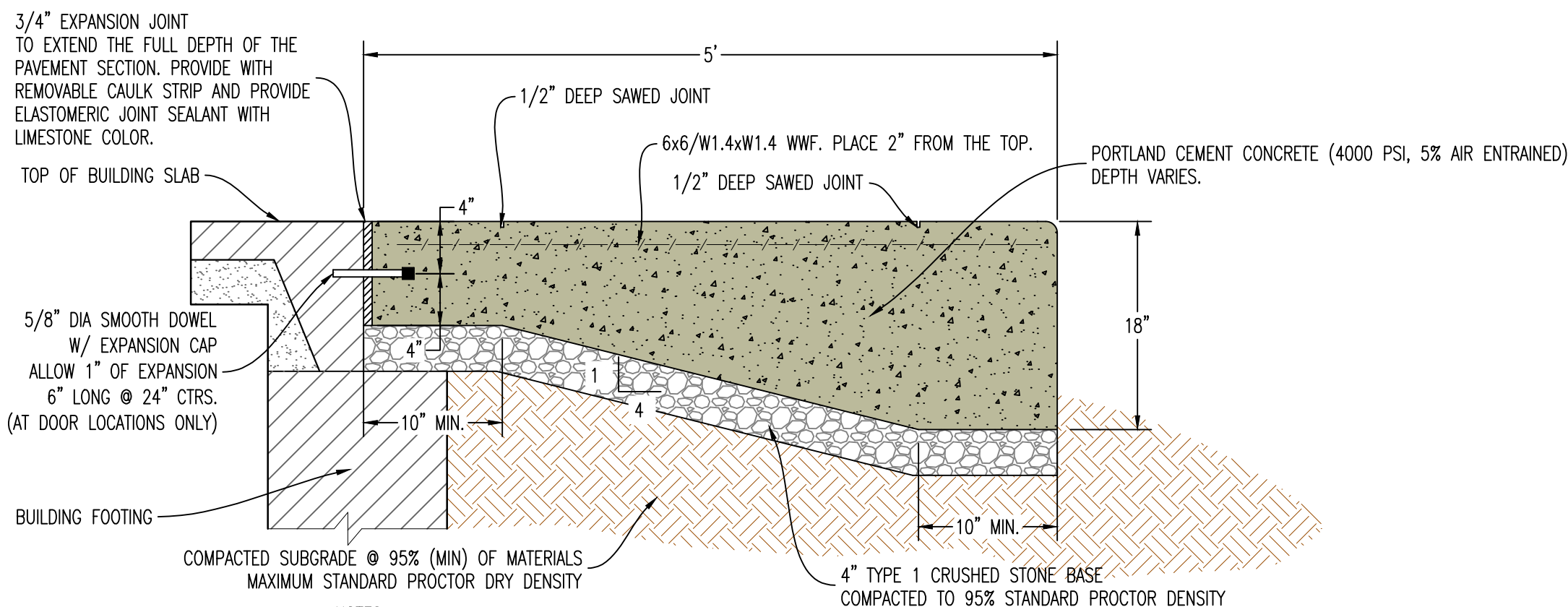
2 6 inch CONCRETE BARRIER CURB CROSS-SECTION



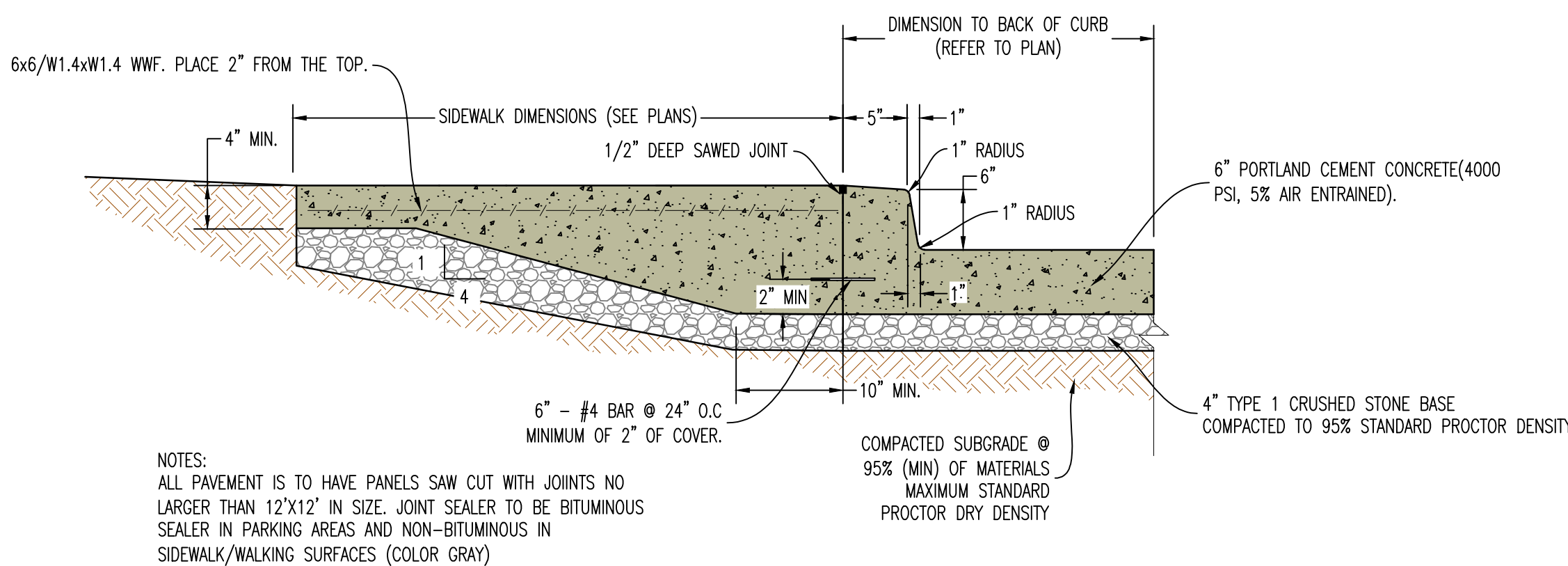
5 TYPICAL CONCRETE SIDEWALK



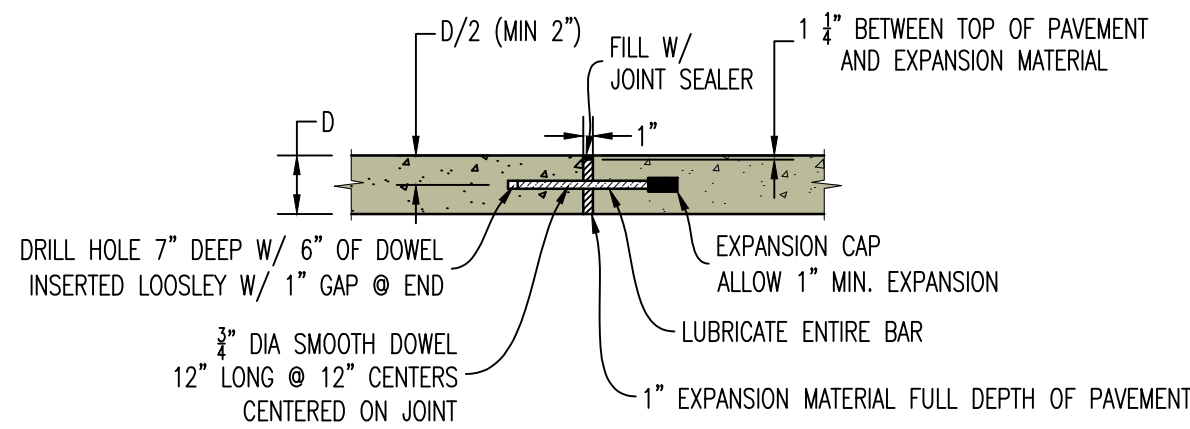
8 SIDEWALK RAMP WITH CURB



13 THICKENED EDGE SIDEWALK/PAVEMENT WITH EXPOSED FACE ABUTTING BUILDING



3 THICKENED EDGE SIDEWALK WITH INTEGRAL CURB & GUTTER



6 CONCRETE PAVEMENT JOINT DETAILS

REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

PROFESSIONAL ENGINEER

NUMBER PE-20030/4960

MO LICENSE 200304960

PREPARED BY: CROCKETT ENGINEERS & ARCHITECTS

1000 W. Illinois Blvd. Ste. 1000

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
LOTS 5-8
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

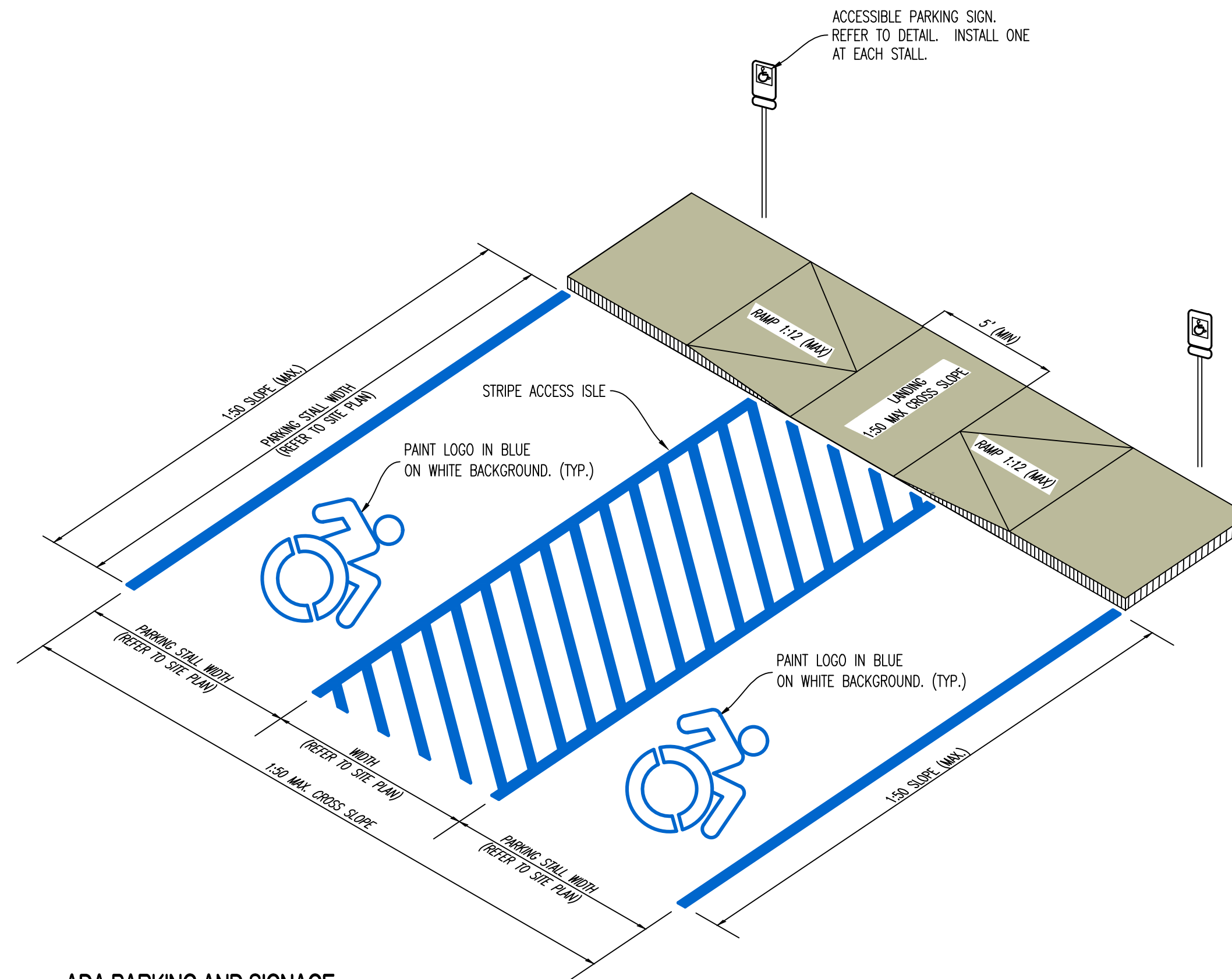
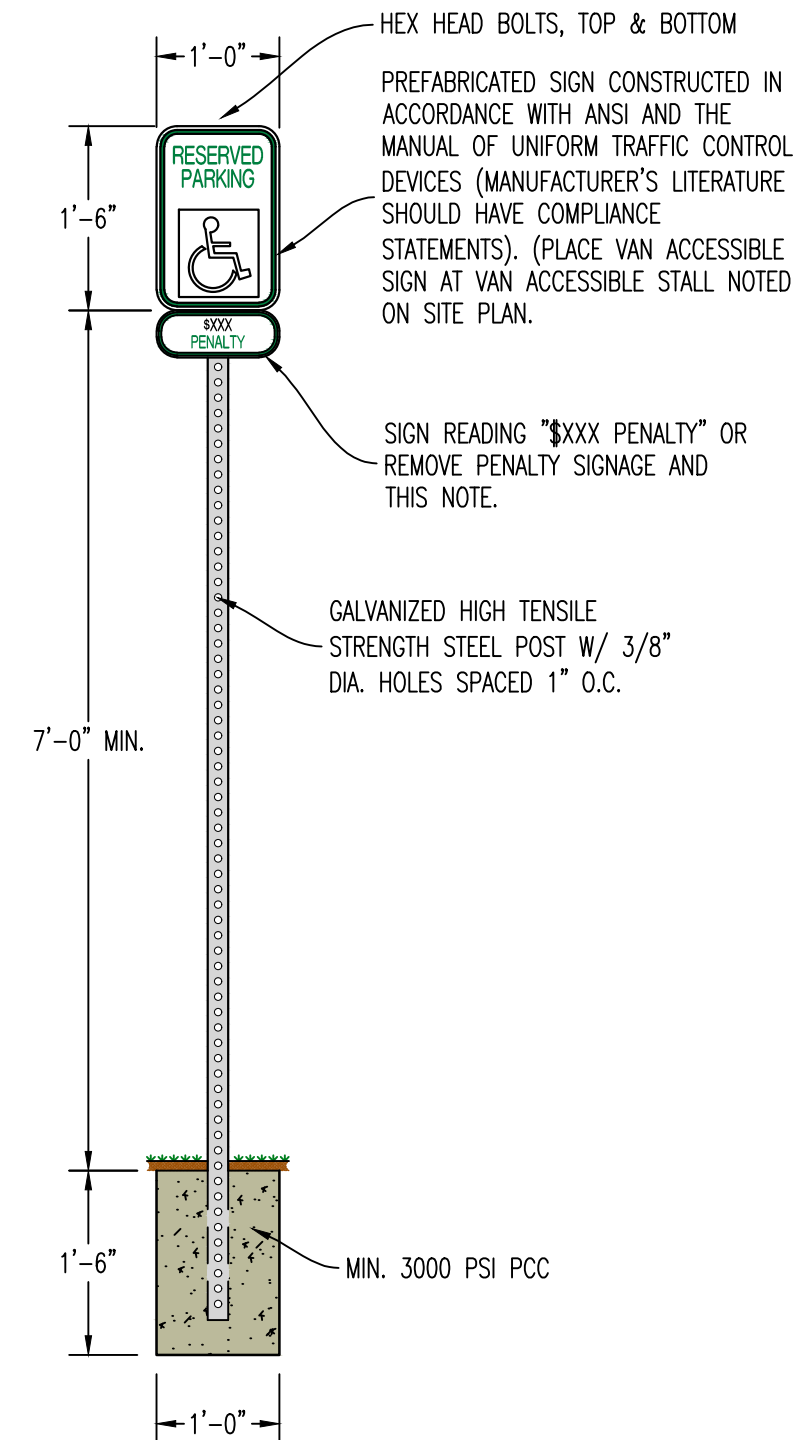
SITE DETAILS SHEET 1

DESIGNED: NTE

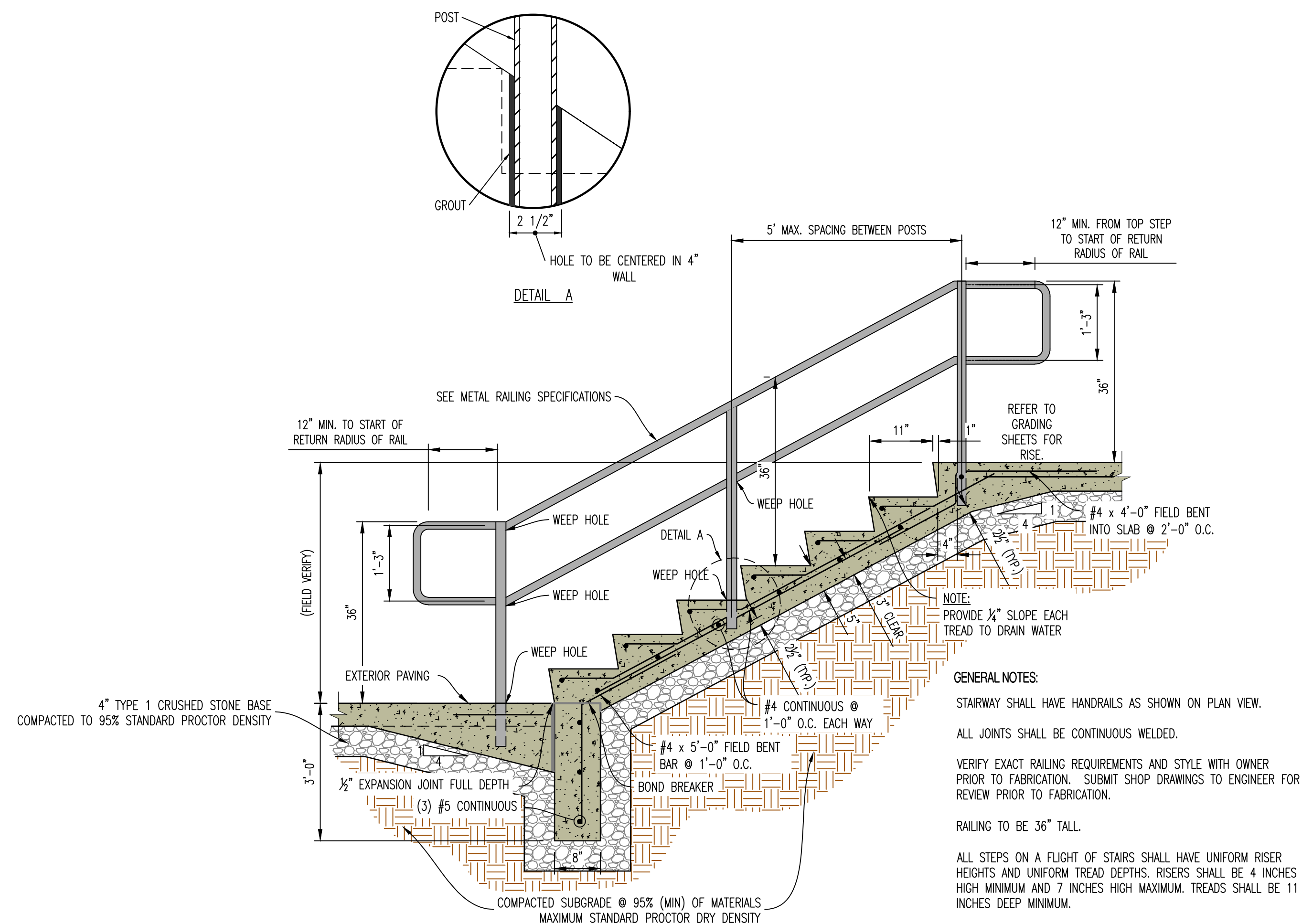
DRAWN: NMD

PROJECT NO.: 230286

SHEET: CE 8.1



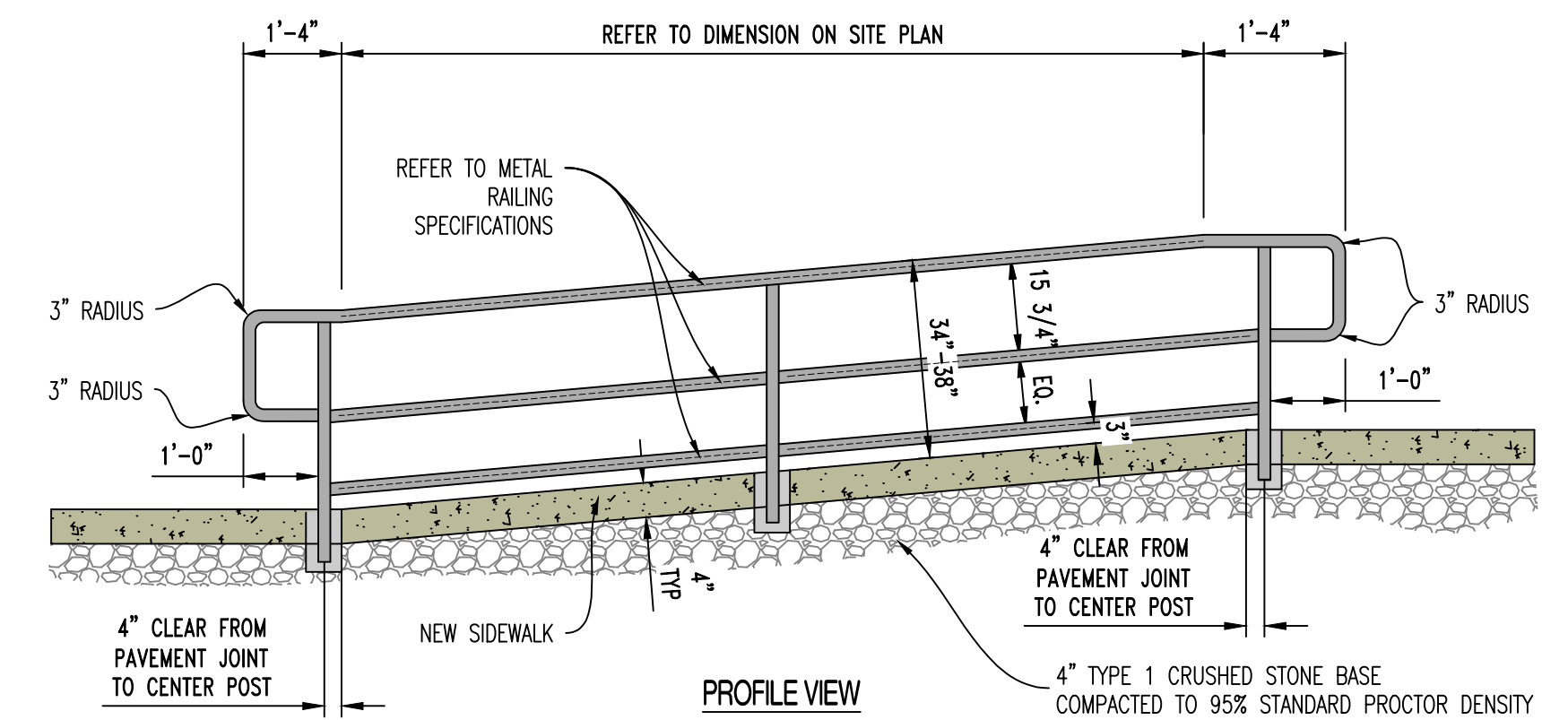
ADA PARKING AND SIGNAGE



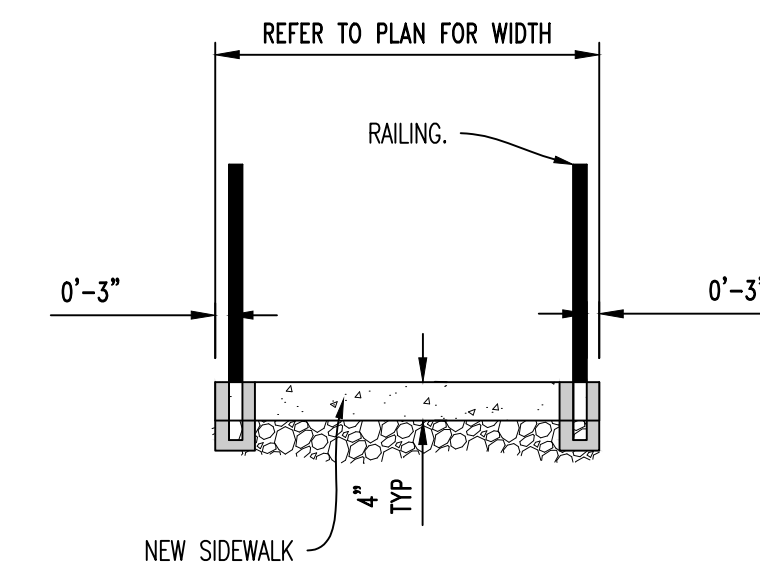
STAIRS WITH HANDRAIL DETAIL

METAL RAILING SPECIFICATIONS

1. PROVIDE SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO FABRICATION OR INSTALLATION.
2. RAILINGS AND POSTS SHALL BE 1-1/2" DIAMETER ROUND STEEL PIPING IN COMPLIANCE WITH ASTM A53, TYPE F OR TYPE S, GRADE A SCHEDULE 40 PIPING.
3. RAILINGS SHALL BE 34"-38" TALL FROM FINISH PAVEMENT GRADE (OR STAIR NOSING) TO THE TOP OF THE TOP RAIL.
4. MAIN RAILS AND POSTS SHALL RESIST 50 POUNDS PER LINEAL FOOT LATERALLY AT THE TOP RAIL, AND 200 POUNDS OF CONCENTRATED LOAD LATERALLY.
5. INTERMEDIATE RAILS SHALL RESIST A CONCENTRATED LOAD OF 50 POUNDS LATERALLY.
6. CUT, DRILL, AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS AND EASE EDGES TO A MINIMUM RADIUS OF $\frac{3}{16}$ ", UNLESS OTHERWISE INDICATED. REMOVE SHARP OR ROUGH AREAS ON EXPOSED SURFACES.
7. COPE COMPONENTS AT CONNECTIONS TO PROVIDE CLOSE FIT, OR USE FITTINGS DESIGNED FOR THIS PURPOSE. WELD ALL AROUND AT CONNECTIONS, INCLUDING FITTINGS.
8. PROVIDE CHANGES IN RAILING DIRECTION BY USING PREFABRICATED ELBOW AND RADIUS FITTINGS.
9. PROVIDE WEEP HOLES AT THE BASE OF ALL POSTS AND ANYWHERE WATER OR CONDENSATION MAY ACCUMULATE INSIDE RAILING SECTIONS
10. PROVIDE SHOP PRIMER FORMULATED FOR GALVANIZED STEEL. PROVIDE HOT-DIP GALVANIZED FINISH IN COMPLIANCE WITH ASTM A123. FOR ALL COMPONENTS. POWDER COATED BLACK WITH HIGH GLOSS ENAMEL PAINT. VERIFY FINAL COLOR WITH OWNER PRIOR TO PAINTING.
11. CLEAN FIELD WELDS AND REPAIR GALVANIZING TO COMPLY WITH ASTM A780.
12. POSTS SHALL BE SET PLUMB WITH A TOLERANCE OF $\frac{1}{16}$ " IN 3 FEET. ALIGN RAILS SO VARIATIONS FROM LEVEL FOR HORIZONTAL MEMBERS AND VARIATIONS FROM PARALLEL WITH RAKE OF STEPS AND RAMPS FOR SLOPING MEMBERS DO NOT EXCEED $\frac{1}{4}$ " INCH IN 12 FEET.
13. PROVIDE 4" SLEEVES OR CORE DRILL CONCRETE, MINIMUM 4" RAIL EMBEDMENT BELOW PAVEMENT SECTIONS SHOWN TO RECEIVE POSTS. GROUT AROUND AROUND POSTS WITH NON-SHRINK GROUT. MIN 2" OF GROUT BELOW BOTTOM OF POST. SLOPE TOP OF GROUT OF DRAIN.
14. CAULK JOINT BETWEEN GROUT AND METAL POST WITH APPROVE JOINT SEALANT. COORDINATE COLOR WITH OWNER.



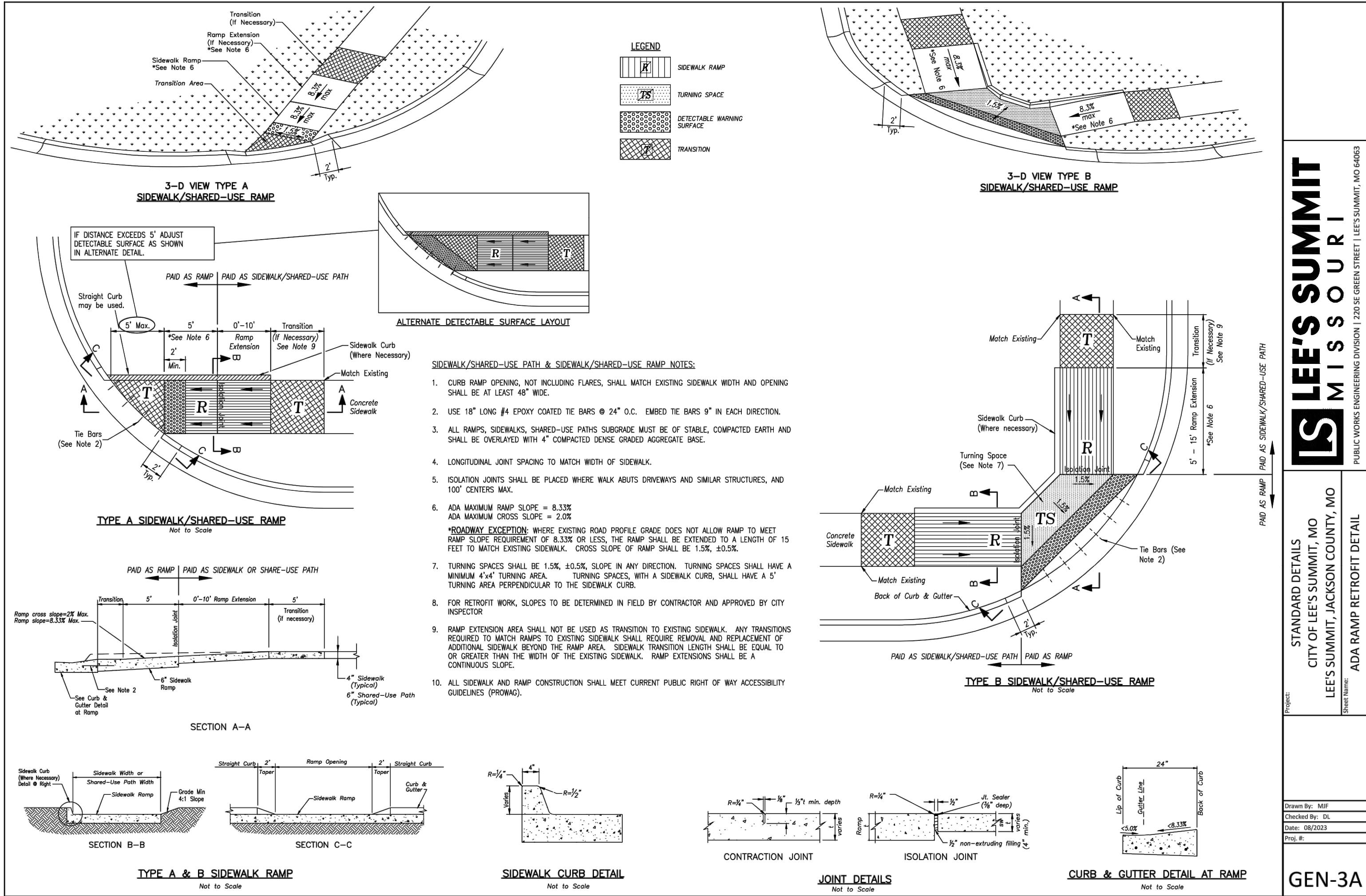
PROFILE VIEW



CROSS SECTION

ADA RAMP HANDRAIL DETAIL

REVISIONS:	
NO.	DATE
ORIGINAL	05/22/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
	
NATHAN THOMAS ECKHOFF MO LICENSE 2000014960	
<div><div>CREATED BY: CROCKETT ENGINEERS & CONSULTANTS 1000 N. Kings Dale Blvd. Columbia, Missouri 65203 (573) 447-0292 www.crockettengineering.com</div><div>Crockett Engineering Consultants, LLC Missouri Professional Engineer #200019301</div></div>	
OWNER: DISCOVERY PARK, LEES SUMMIT, LLC 4220 PHILLIPS FARM RD COLUMBIA, MO 65201	
<div><div>THE VILLAGE AT DISCOVERY</div><div>LOTS 5-8</div><div>LEE'S SUMMIT, JACKSON COUNTY, MISSOURI</div></div>	
DRAWING INCLUDES:	
SITE DETAILS SHEET 2	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 8.2



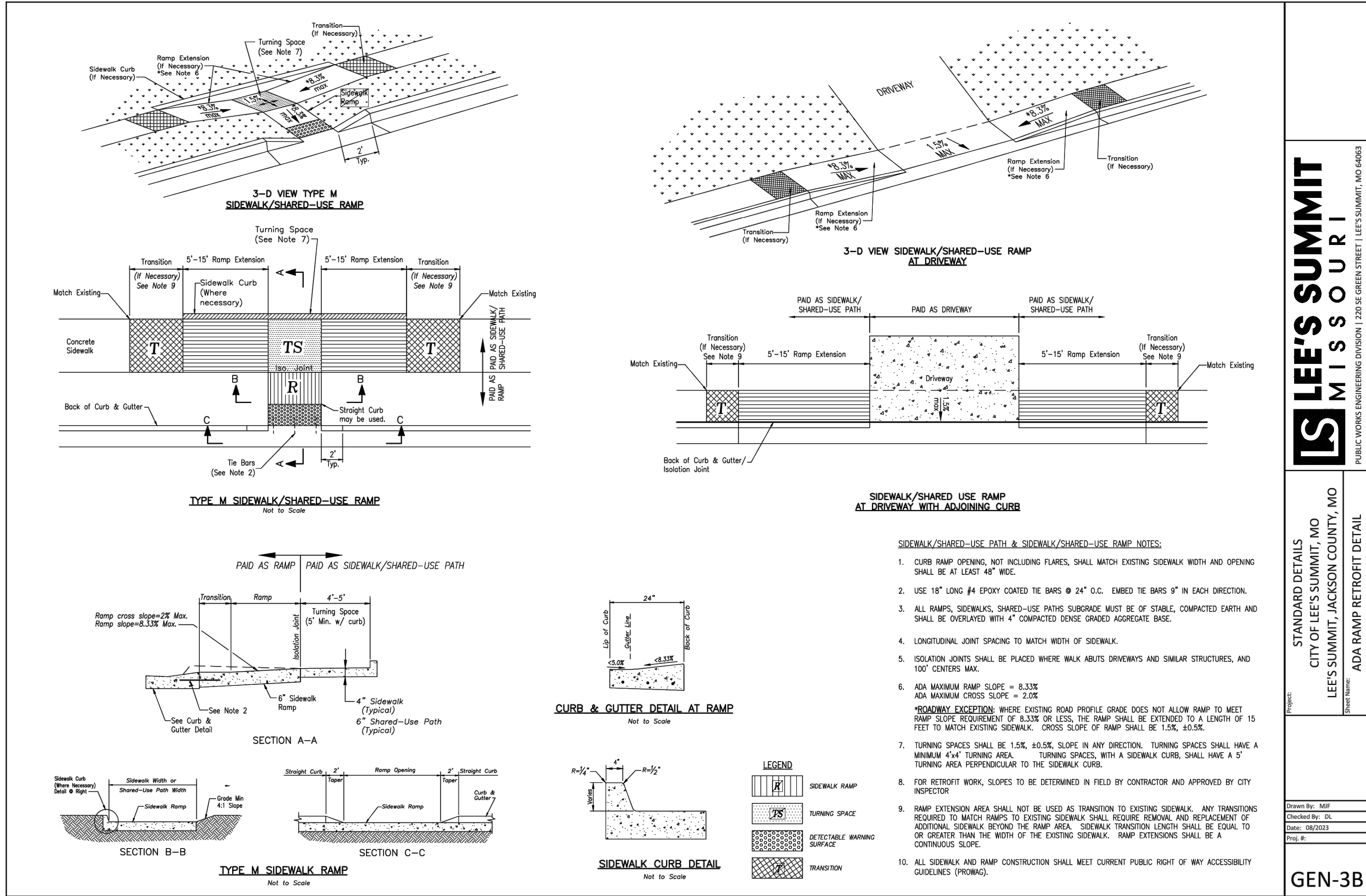
IS LEE'S SUMMIT MISSOURI

PUBLIC WORKS ENGINEERING DIVISION 1220 S GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

ADA RAMP RETROFIT DETAIL

Drawn By: MAF
Checked By: DL
Date: 08/2023
Proj. #: GEN-3A



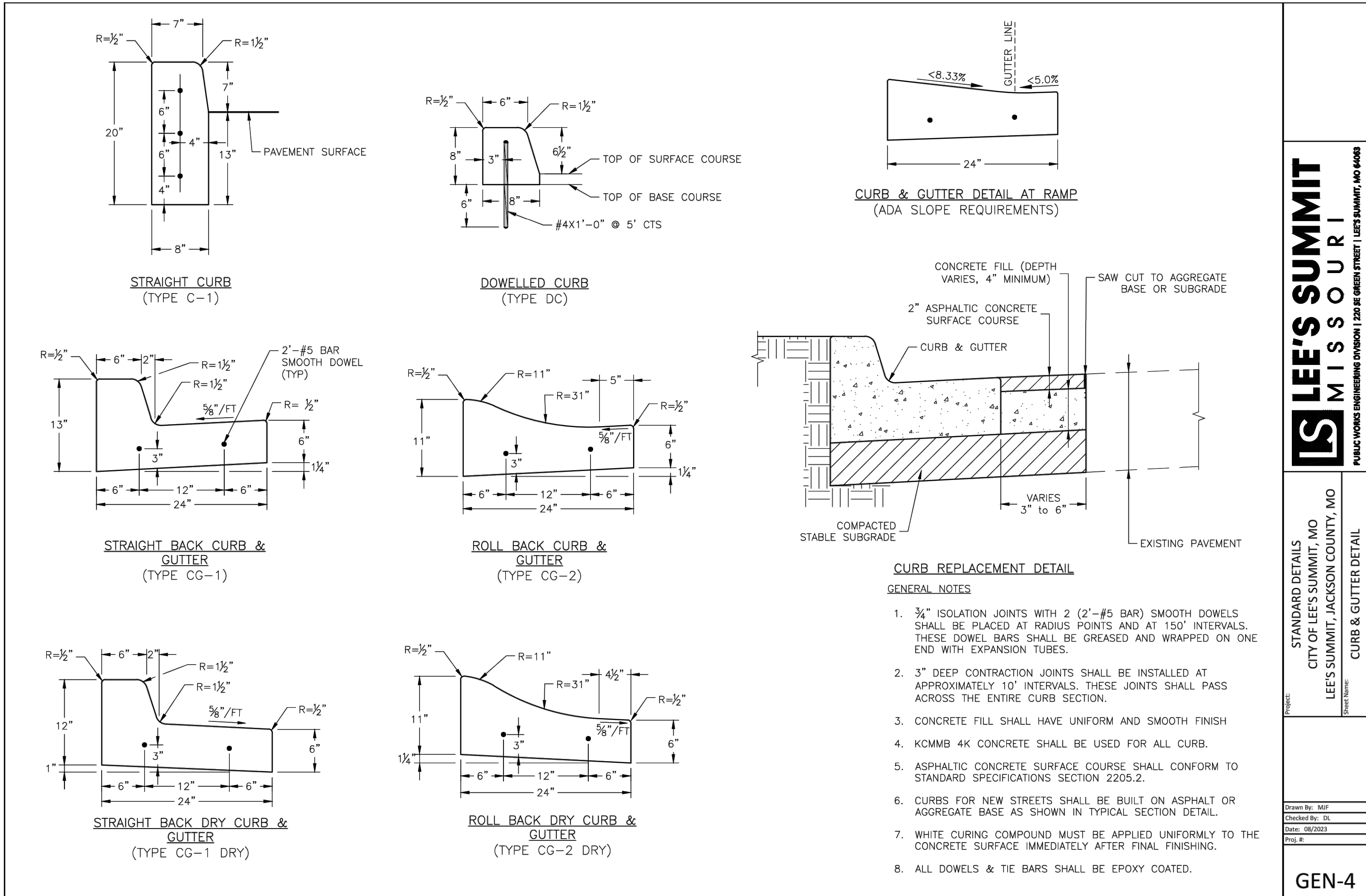
IS LEE'S SUMMIT MISSOURI

PUBLIC WORKS ENGINEERING DIVISION 1220 S GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

ADA RAMP RETROFIT DETAIL

Drawn By: MAF
Checked By: DL
Date: 08/2023
Proj. #: GEN-3B



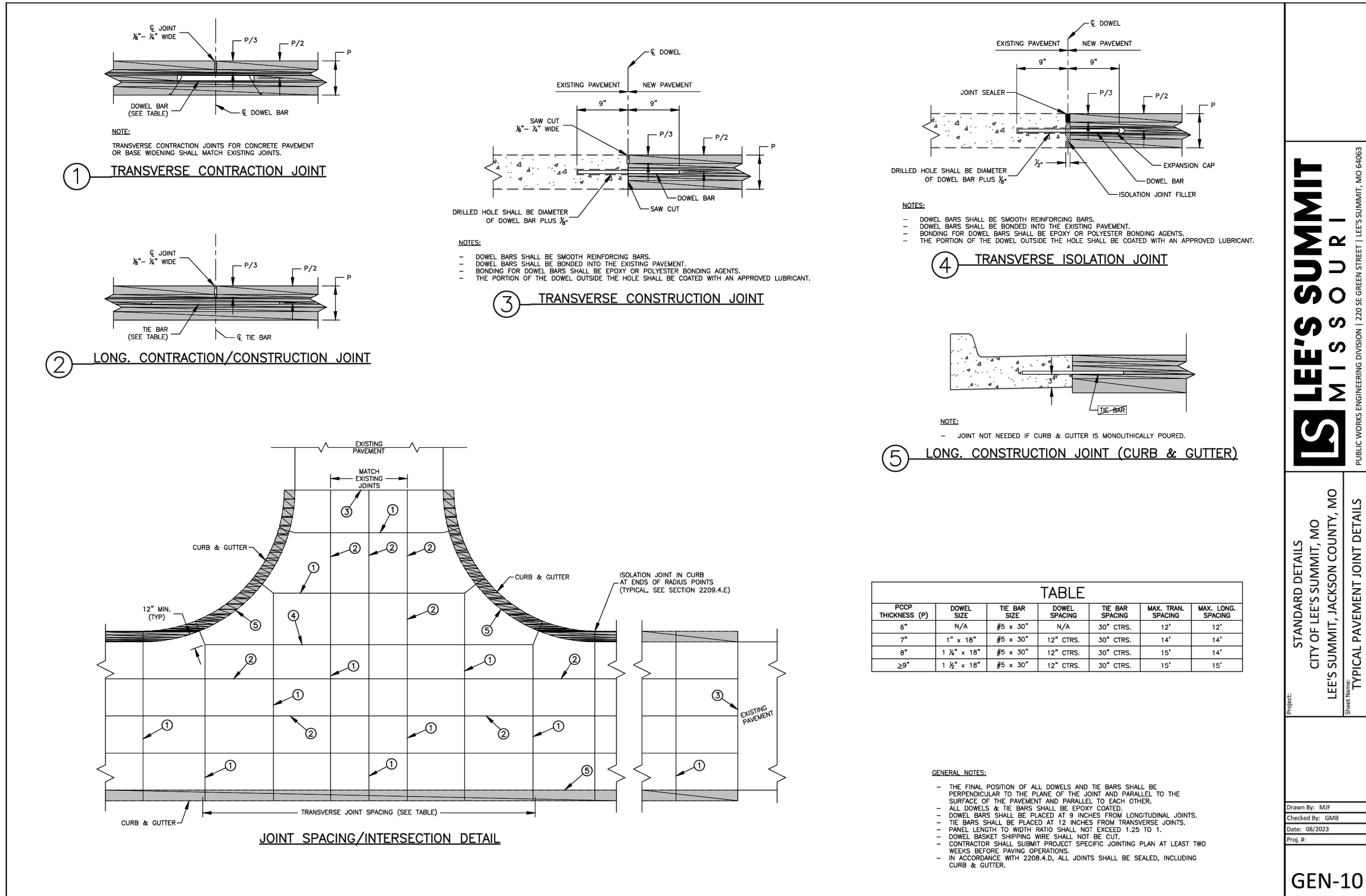
IS LEE'S SUMMIT MISSOURI

PUBLIC WORKS ENGINEERING DIVISION 1220 S GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

CURB & GUTTER DETAIL

Drawn By: MAF
Checked By: DL
Date: 08/2023
Proj. #: GEN-4



IS LEE'S SUMMIT MISSOURI

PUBLIC WORKS ENGINEERING DIVISION 1220 S GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

TYPICAL PAVEMENT JOINT DETAILS

Drawn By: MAF
Checked By: DL
Date: 08/2023
Proj. #: GEN-10

REVISIONS:

NO.	DATE
ORIGINAL	05/27/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

NATHAN THOMAS ECKHOFF
PROFESSIONAL ENGINEER
NUMBER: PE-200304960
NATHAN THOMAS ECKHOFF
MO LICENSE: 200304960

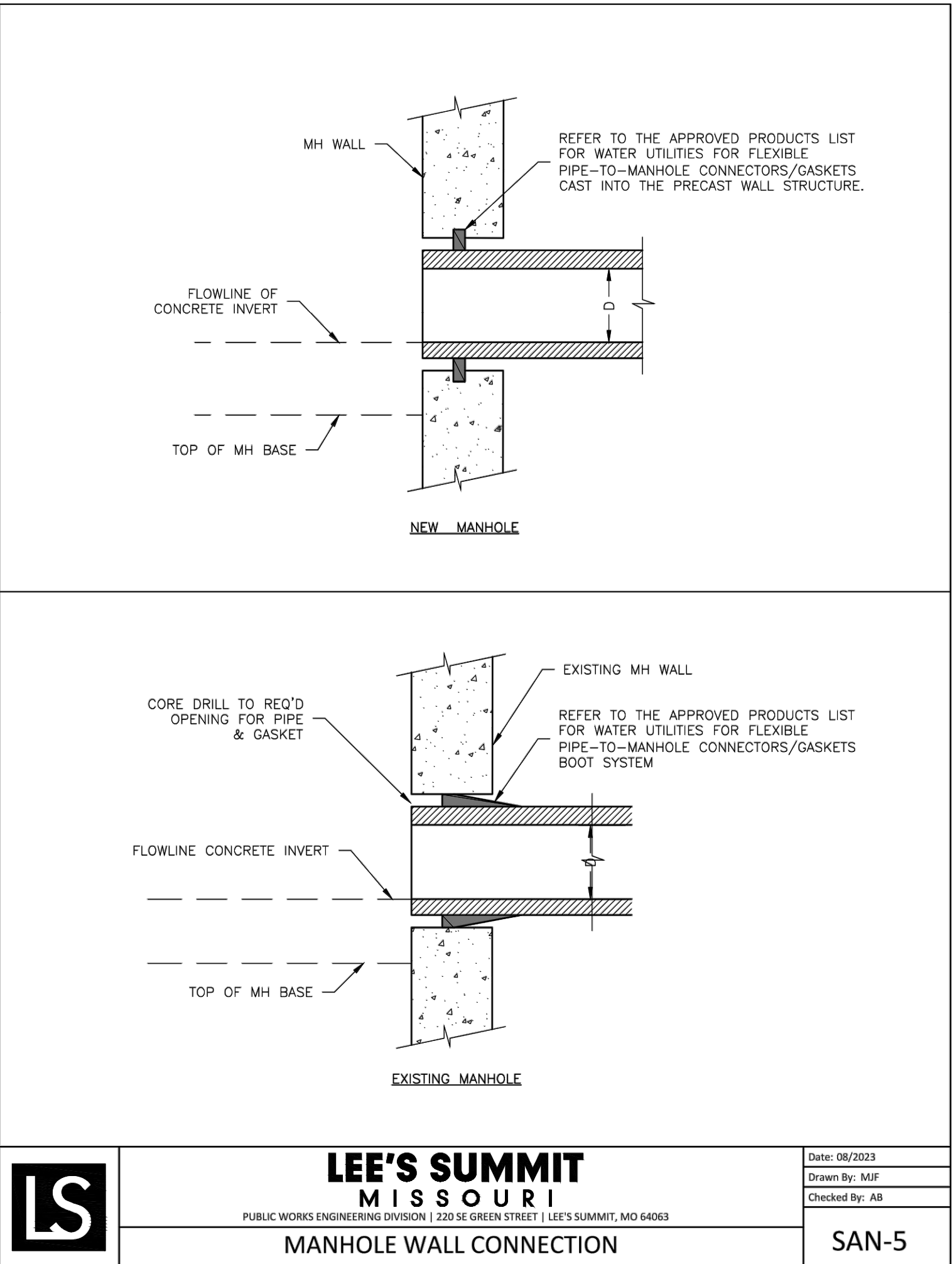
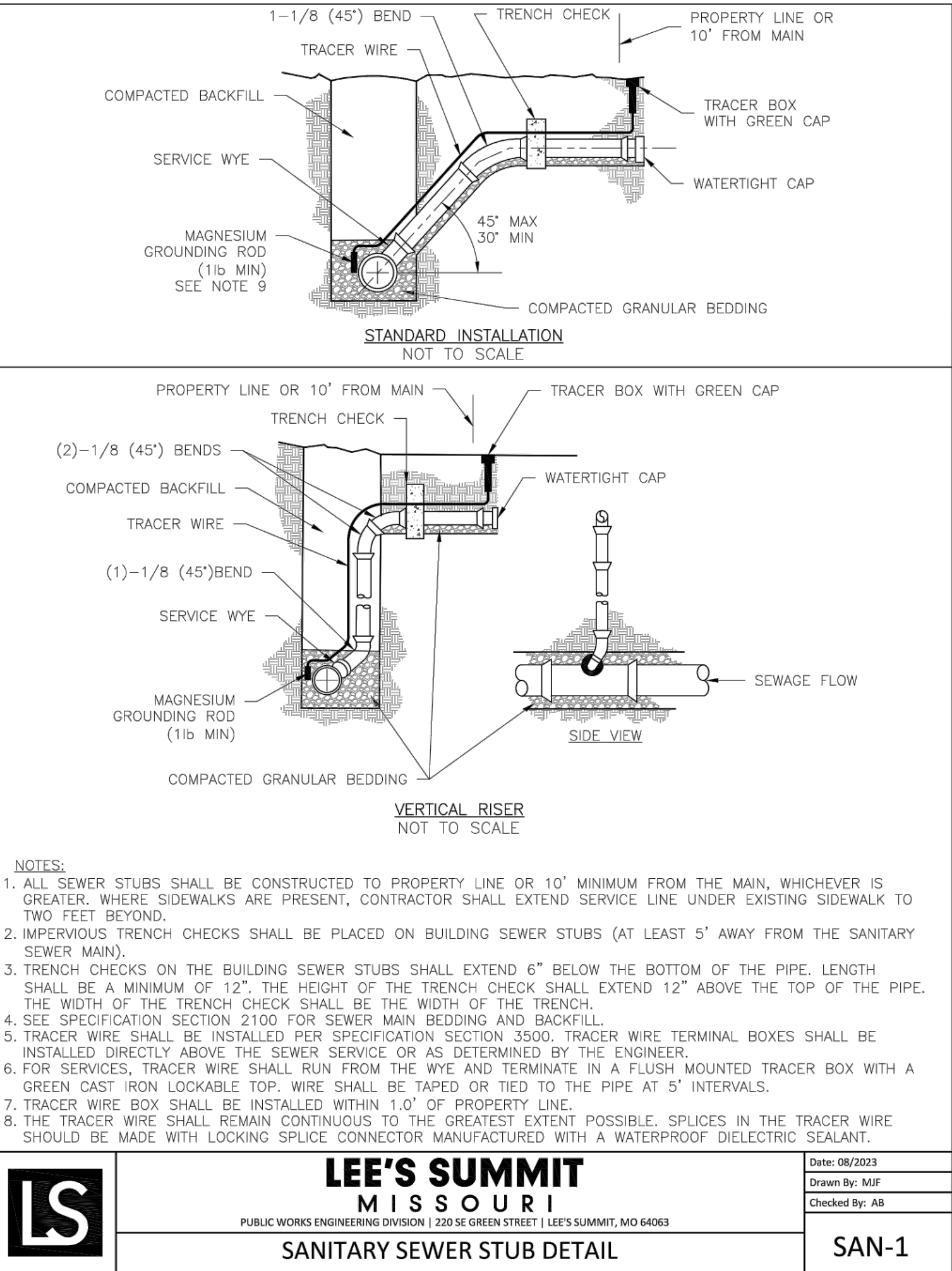
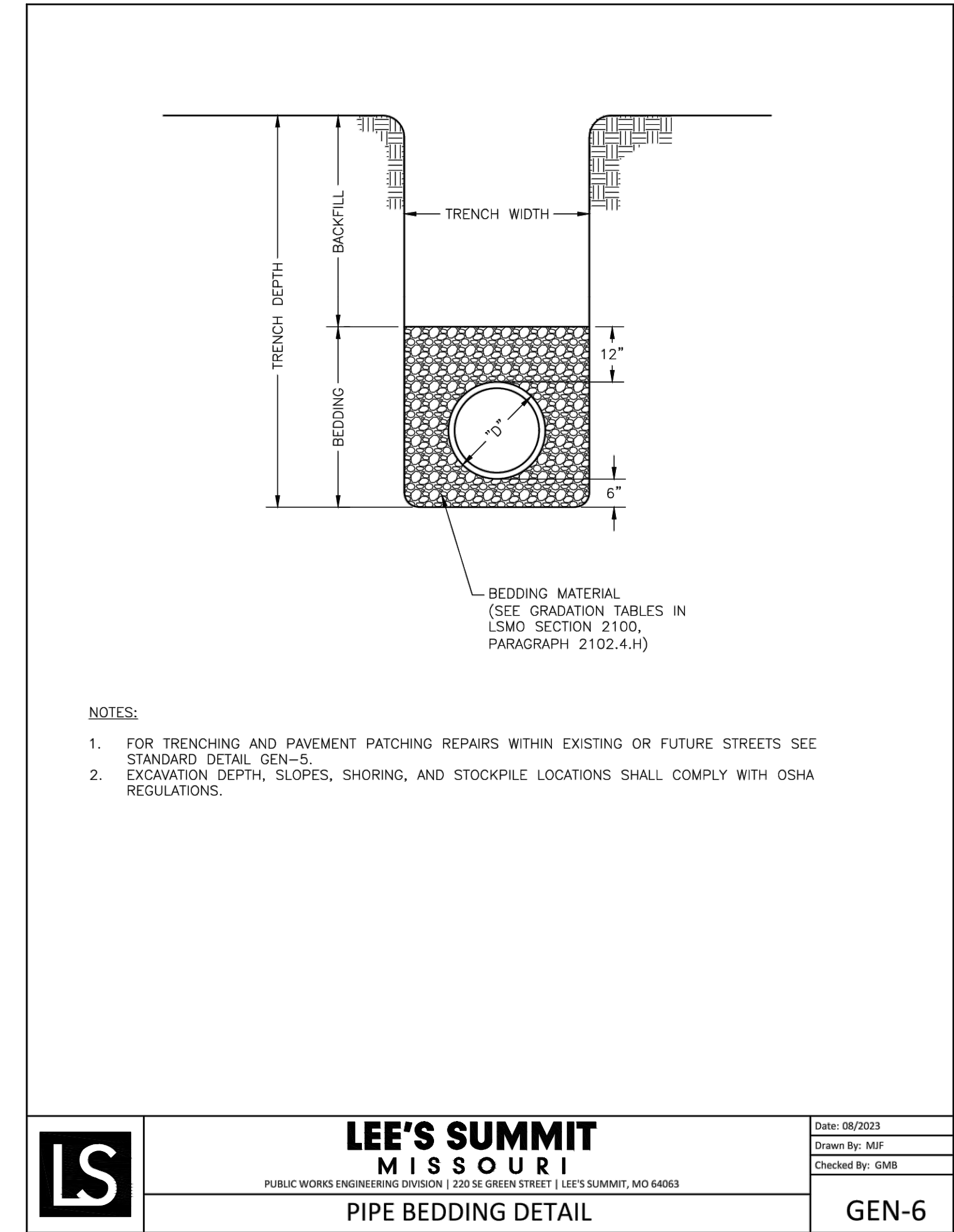
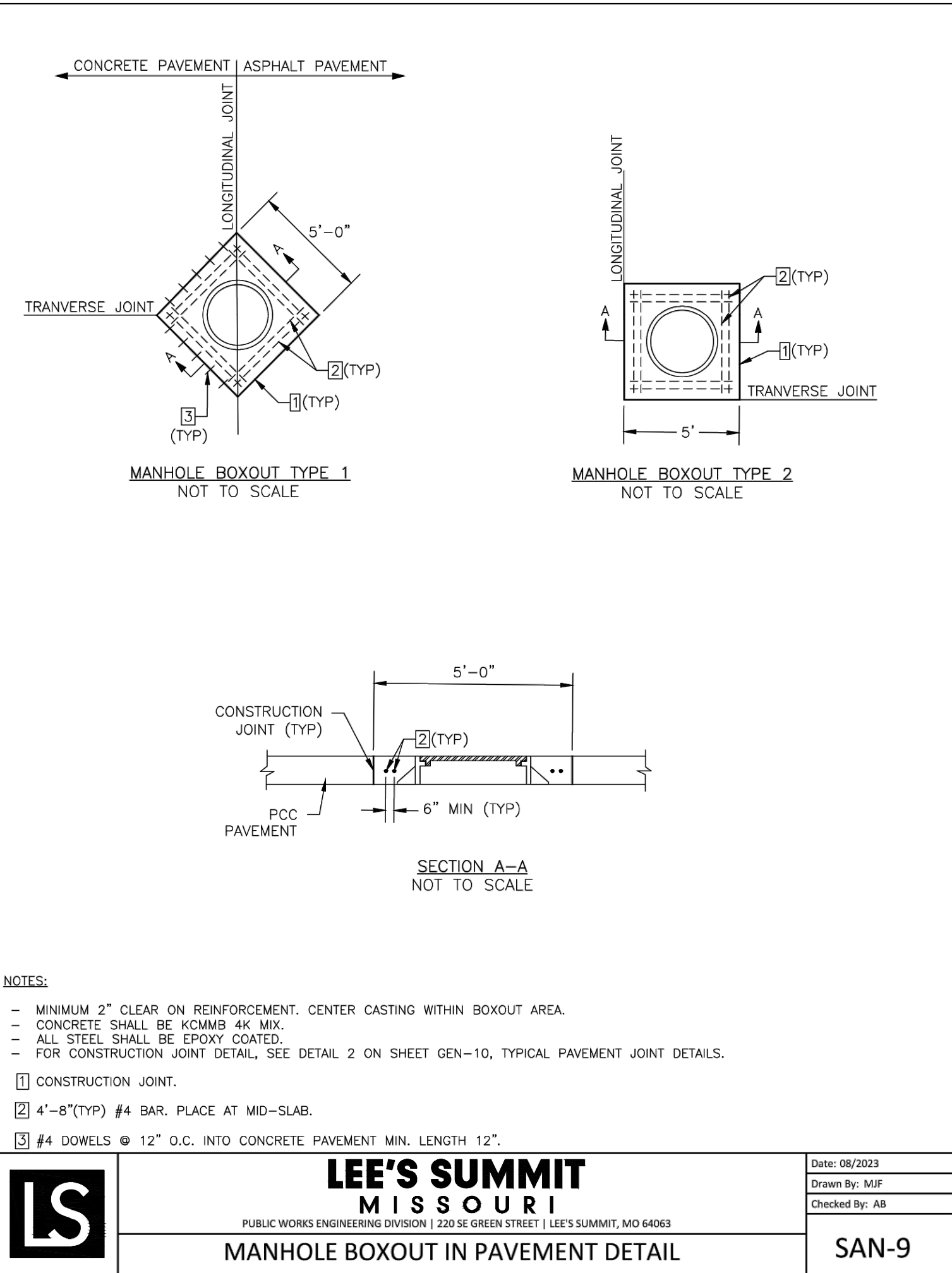
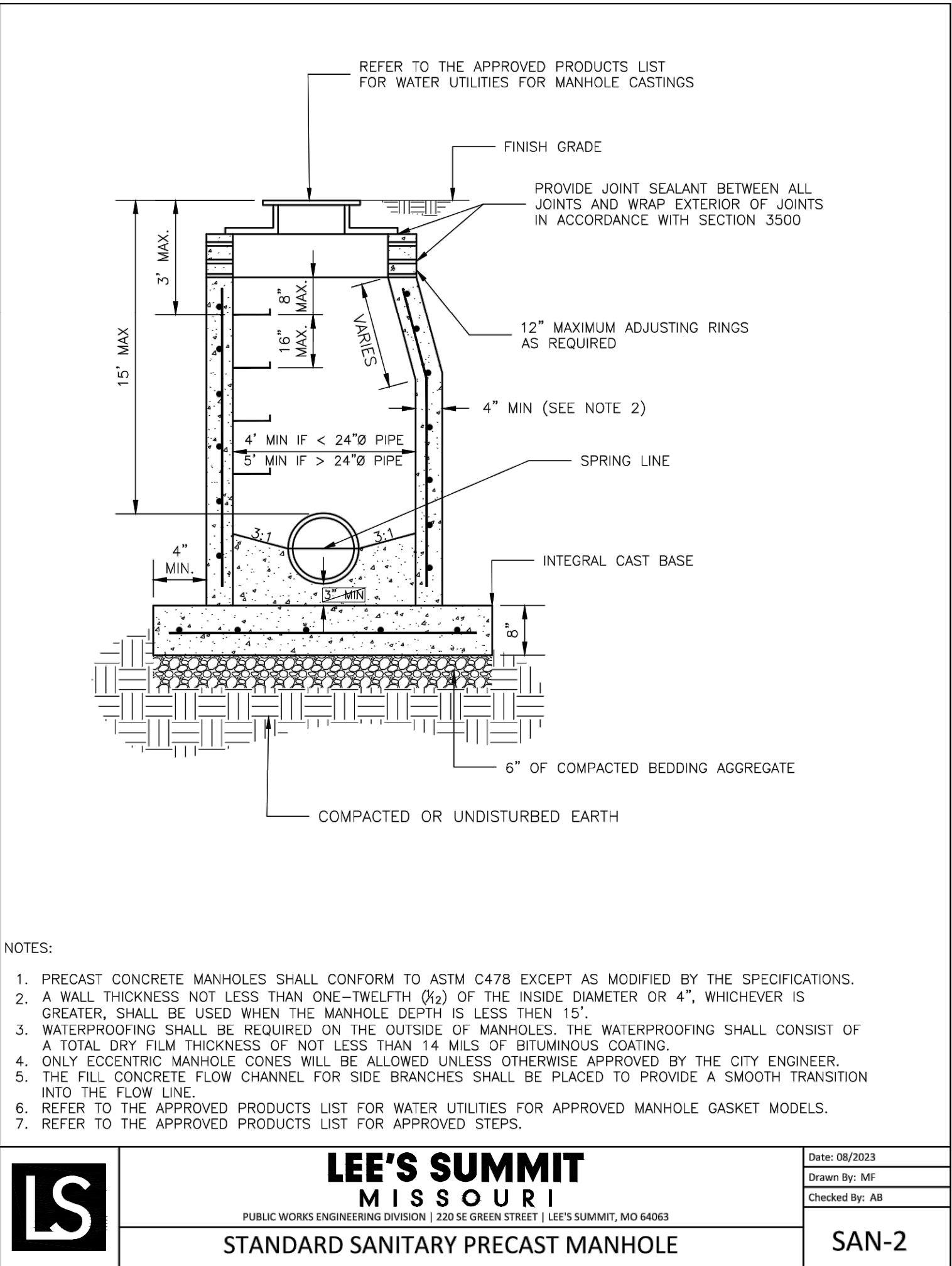
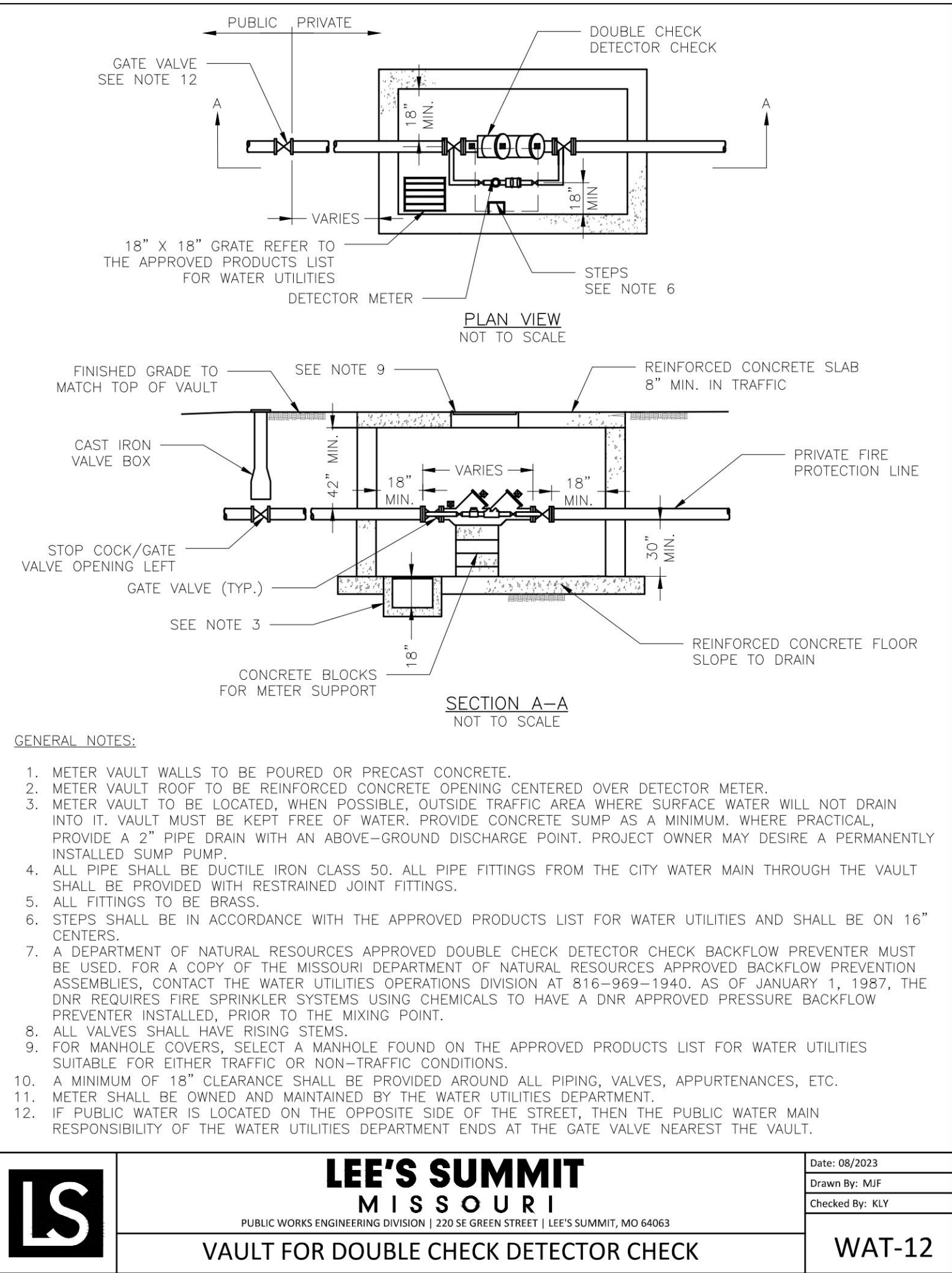
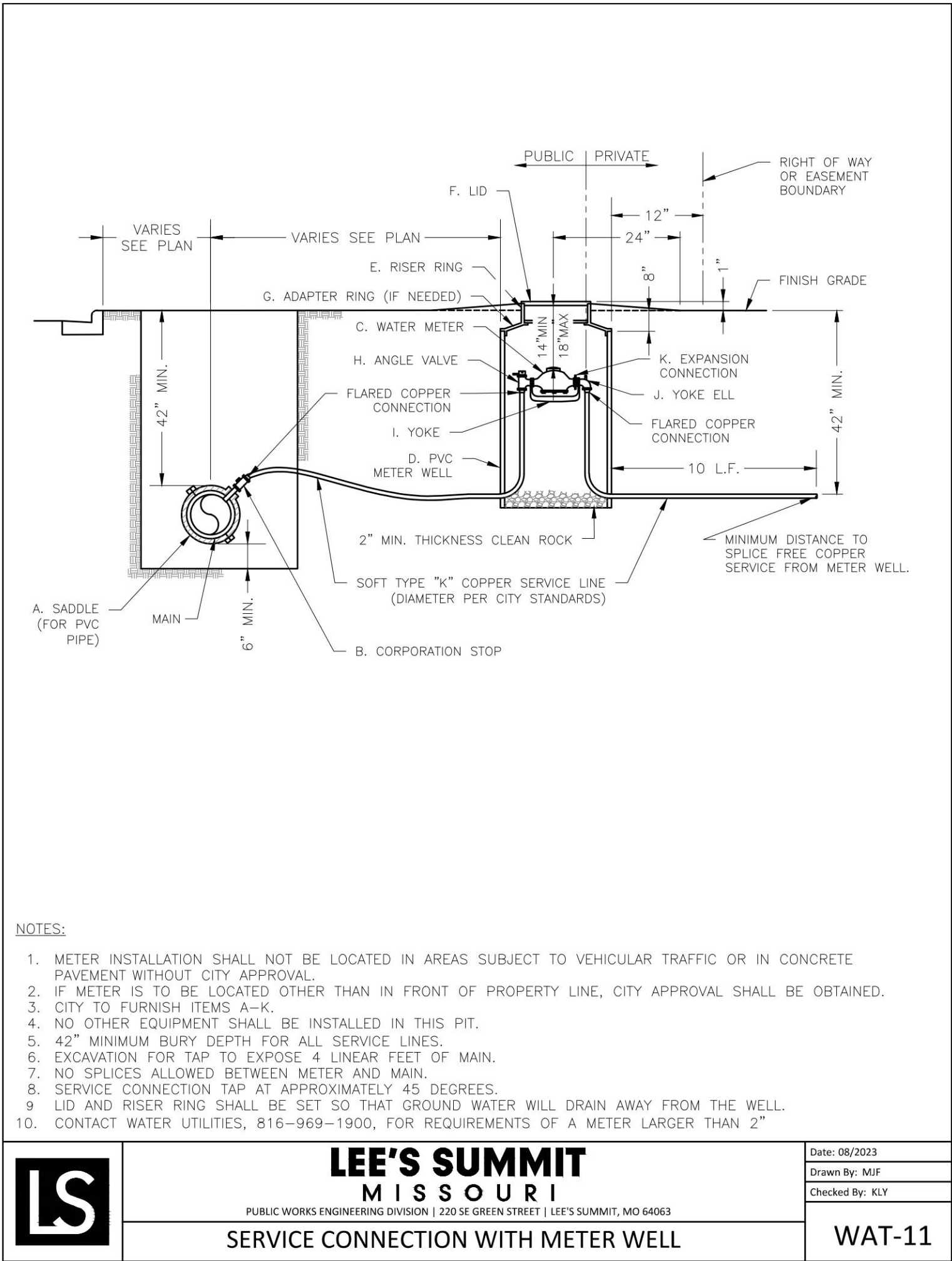
CROCKETT ENGINEERS & ARCHITECTS
1000 W. Illinois Blvd., Suite 100
Columbia, Missouri 65203
(314) 487-0292
www.crockettingeering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority: 000000001

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

THE VILLAGE AT DISCOVERY
LOTS 5-8
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES: LEE'S SUMMIT SITE DETAILS

DESIGNED: NTE
DRAWN: NMD
PROJECT NO.: 230286
SHEET: CE 8.3



REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

NUMBER

PE-2003014960

PROFESSIONAL ENGINEER

NATHAN THOMAS ECKHOFF
MO LICENSE 2003014960

PREPARED BY:

CROCKETT ENGINEERS & ARCHITECTS

1000 W. Illinois Blvd., Suite 100
Columbia, Missouri 65203
(314) 487-0292

www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000001001

OWNER:

DISCOVERY PARK LEES SUMMIT LLC
4420 PHILLIPS FARM RD
COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOTS 5-8

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

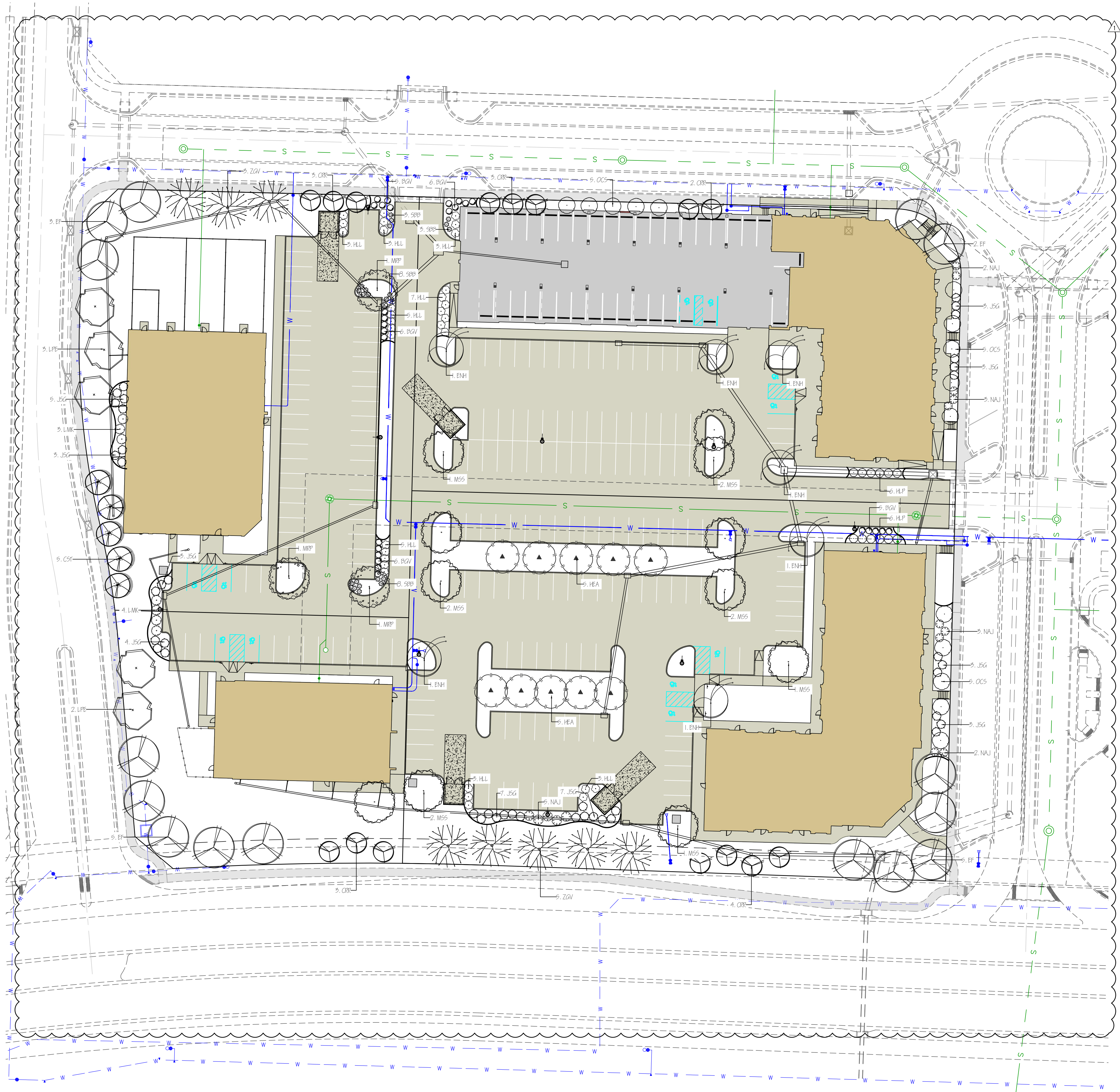
LEE'S SUMMIT UTILITY DETAILS

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET: CE 8.4



LANDSCAPE COMPLIANCE: LOTS 5-8

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
DISCOVERY AVE - 403 LF STREET FRONTAGE
ALLURA WAY - 512 LF STREET FRONTAGE
TRAILSEDGE - 406 LF STREET FRONTAGE
NW COLBURN RD - 484 LF STREET FRONTAGE

14 TREES REQUIRED 14 TREES PROPOSED
18 TREES REQUIRED 18 TREES PROPOSED
14 TREES REQUIRED 14 TREES PROPOSED
17 TREES REQUIRED 17 TREES PROPOSED

OPEN YARD TREES

1 SHRUB PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT
TOTAL LOT AREA = 154,598 SF

31 TREES REQUIRED 31 TREES PROPOSED

STREET FRONTAGE SHRUBS

1 SHRUB PER 20 FEET OF STREET FRONTAGE
DISCOVERY AVE - 403 LF STREET FRONTAGE
ALLURA WAY - 512 LF STREET FRONTAGE
TRAILSEDGE - 406 LF STREET FRONTAGE
NW COLBURN RD - 484 LF STREET FRONTAGE

21 SHRUBS REQUIRED 21 SHRUBS PROPOSED
26 SHRUBS REQUIRED 26 SHRUBS PROPOSED
21 SHRUBS REQUIRED 21 SHRUBS PROPOSED
25 SHRUBS REQUIRED 25 SHRUBS PROPOSED

OPEN YARD SHRUBS

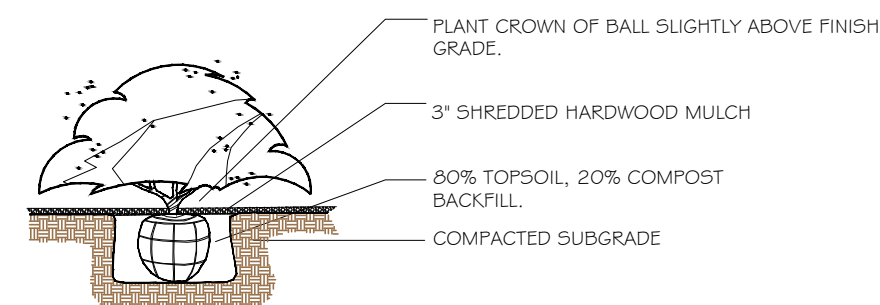
2 SHRUBS PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT
TOTAL LOT AREA = 154,598 SF

62 SHRUBS REQUIRED 62 SHRUBS PROPOSED

PLANTING SCHEDULE:

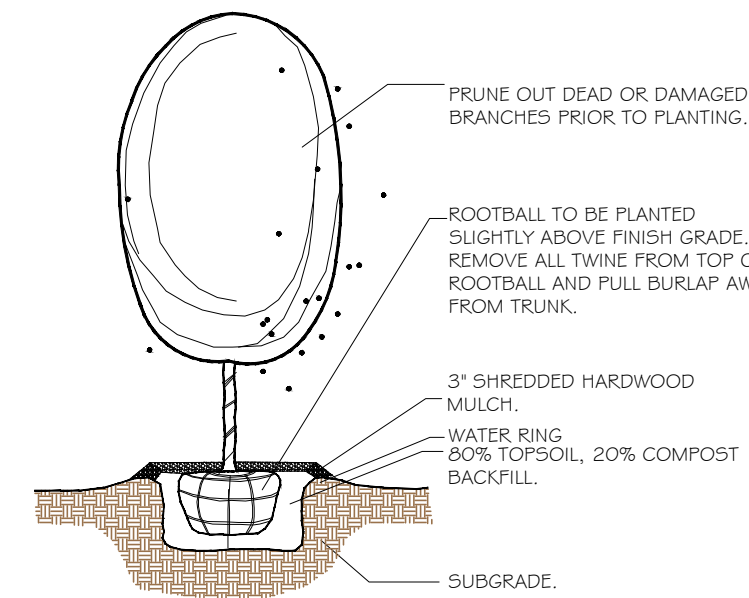
QUANTITY	SYMBOL	PLANT NAME	PLANT TYPE	SIZE
15	EF	ELM 'FRONTIER'	MEDIUM / LARGE TREE	3"
8	ZOV	ZEUKOVA 'GREEN VASE'	MEDIUM / LARGE TREE	3"
11	MSS	MIYABI MAPLE 'STATE STREET'	MEDIUM / LARGE TREE	3"
5	LPE	LONDON PLANETREE 'EXCLAMATION'	MEDIUM / LARGE TREE	3"
7	ENH	ELM 'NEW HORIZON'	MEDIUM / LARGE TREE	3"
15	OCS	OAK 'CRIMSON SPIRE'	MEDIUM / LARGE TREE	3"
10	HEA	HORNBEAM 'EMERALD AVE'	MEDIUM / LARGE TREE	3"
3	MRP	MAPLE 'RED POINTE'	MEDIUM / LARGE TREE	3"
5	CST	CRABAPPLE 'SUGARTIME'	ORNAMENTAL TREE	2"
15	CRR	CRABAPPLE 'ROYAL RANDROPS'	ORNAMENTAL TREE	2"
15	NAJ	NINEBARK 'AMBER JUBILEE'	DECIDUOUS SHRUB	#5
32	HLL	HYDRANGEA 'LITTLE LIME'	DECIDUOUS SHRUB	#5
7	LMK	LILAC 'MISS KIM'	DECIDUOUS SHRUB	#5
12	HLP	HYDRANGEA 'LITTLE LIME PUNCH'	FLOWERING SHRUB	#5
22	SBB	SPIREA 'BIG BANG'	DECIDUOUS SHRUB	#5
28	BOV	BOWWOOD 'GREEN VELVET'	EVERGREEN SHRUB	#5
40	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 SEPARATED FROM TURF AREAS BY "V" TRENCING.
- 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.



SHRUB / PERENNIAL PLANTING DETAIL

Not To Scale



DECIDUOUS TREE PLANTING DETAIL

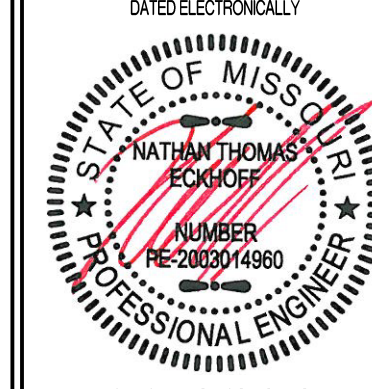
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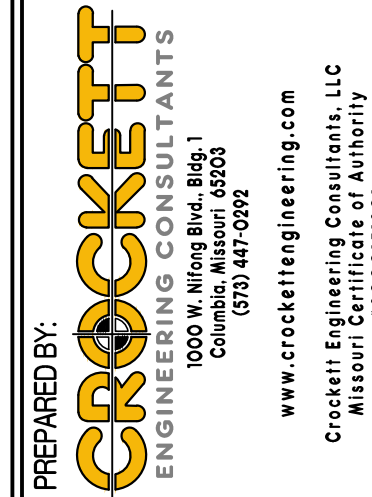
REVISIONS:

NO.	DATE
ORIGINAL	05/22/2024
REV. 1	07/23/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



NATHAN THOMAS ECKHOFF
MO LICENSE 200304960



OWNER:

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

THE VILLAGE AT DISCOVERY PARK
LOTS 5-8
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

LANDSCAPING PLAN

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 9.1

PLAN LEGEND

- PARTIAL HEIGHT PARTITION
— NON-RATED PARTITION; SEE ASSEMBLIES
— 1 HR RATED PARTITION; SEE ASSEMBLIES
A1 WINDOW TYPE; SEE WINDOW SCHEDULE
101 DOOR TYPE; SEE DOOR SCHEDULE
P7 PARTITION TYPE; SEE ASSEMBLIES
6'-0" FRAMING DIMENSIONS
6'-0" LAYOUT LAYOUT LAYOUT LINE DIMENSIONS

PRINTS ISSUED
05/10/2024 - FDP

REVISIONS:

rosemann & ASSOCIATES P.C.
ARCHITECTURE
INTERIOR DESIGN
ENGINEERING
PLANNING
1526 Grand Boulevard
Kansas City, MO 64108-1404
p: 816.472.1448
w: www.rosemann.com
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DENVER ▲ KANSAS CITY ▲ ST. LOUIS ▲ ATLANTA

PRELIMINARY
NOT FOR
CONSTRUCTION

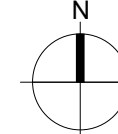
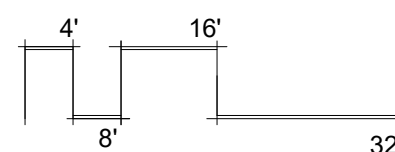
THE VILLAGE AT DISCOVERY -
LOT 5
LEE'S SUMMIT, MO

SHEET TITLE
FIRST FLOOR PLAN

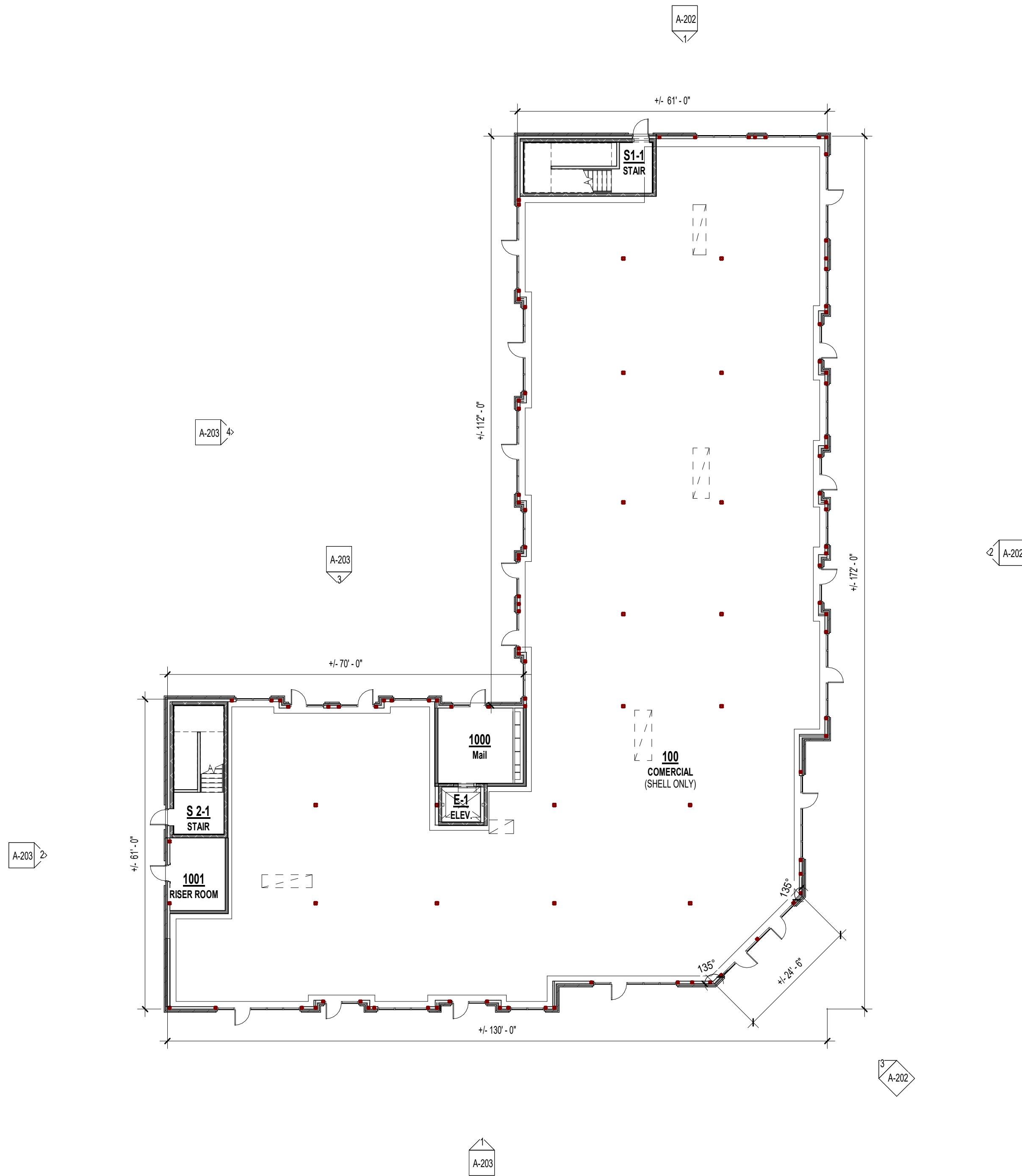
PROJECT NUMBER: 23102

SHEET NUMBER:

A-101.



A1 1ST FLOOR PLAN - FDP
1/16" = 1'-0"



rosemann
& ASSOCIATES P.C.

ARCHITECTURE
INTERIOR DESIGN
ENGINEERING
PLANNING

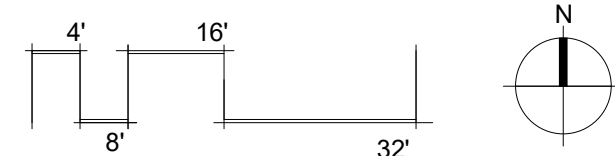
1526 Grand Boulevard
Kansas City, MO 64108-1404
p: 816.472.1448
w: www.rosemann.com
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LOT 5
LEE'S SUMMIT, MO

SHEET NUMBER:

A-102.



REFERENCE G-003 FOR GENERAL NOTES
REFERENCE A-101 FOR PLAN LEGEND

PLAN LEGEND

- PARTIAL HEIGHT PARTITION
— NON-RATED PARTITION; SEE ASSEMBLIES
— 1 HR RATED PARTITION; SEE ASSEMBLIES
A1 WINDOW TYPE; SEE WINDOW SCHEDULE
101 DOOR TYPE; SEE DOOR SCHEDULE
P7 PARTITION TYPE; SEE ASSEMBLIES
6'-0" FRAMING DIMENSIONS
6'-0" LAYOUT LAYOUT LAYOUT LINE DIMENSIONS

PRINTS ISSUED
05/10/2024 - FDP

REVISIONS:

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ARCHITECTURE
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THE VILLAGE AT DISCOVERY -
LOT 5
LEE'S SUMMIT, MO

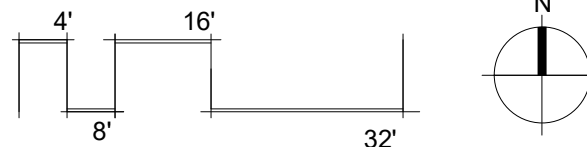
SHEET TITLE
THIRD FLOOR PLAN

PROJECT NUMBER: 23102

SHEET NUMBER:

A-103.

A1 THIRD FLOOR PLAN
1/16" = 1'-0"



MATERIAL LEGEND

- KING SIZE BRICK - COLOR 1 - ALLENDALE HILL
- KING SIZE BRICK - COLOR 2 - GLEN GERY SADDLE BROWN
- KING SIZE BRICK - COLOR 3 - CAVALRY GRAY
- STONE CAP - ROUGH ASHLAR
- LARGE FORMAT MASONRY - ROUGH ASHLAR

PRINTS ISSUED

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REVISIONS:

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THE VILLAGE AT DISCOVERY -
LOT 5
LEE'S SUMMIT, MO

SHEET TITLE
EXTERIOR ELEVATIONS COLOR

PROJECT NUMBER: 23102

SHEET NUMBER:

A-202



3 CORNER ELEVATION - COLOR
1/8" = 1'-0"



2 EAST ELEVATION - COLOR
1/8" = 1'-0"



1 NORTH ELEVATION 2 - COLOR
1/8" = 1'-0"

MATERIAL LEGEND

- KING SIZE BRICK - COLOR 1 - ALLENDALE HILL
KING SIZE BRICK - COLOR 2 - GLEN GERY SADDLE BROWN
KING SIZE BRICK - COLOR 3 - CAVALRY GRAY
STONE CAP - ROUGH ASHLAR
LARGE FORMAT MASONRY - ROUGH ASHLAR

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LEE'S SUMMIT, MO

SHEET TITLE
EXTERIOR ELEVATIONS COLOR

PROJECT NUMBER: 23102

SHEET NUMBER:

A-203



4 WEST ELEVATION 2 - COLOR
1/8" = 1'-0"



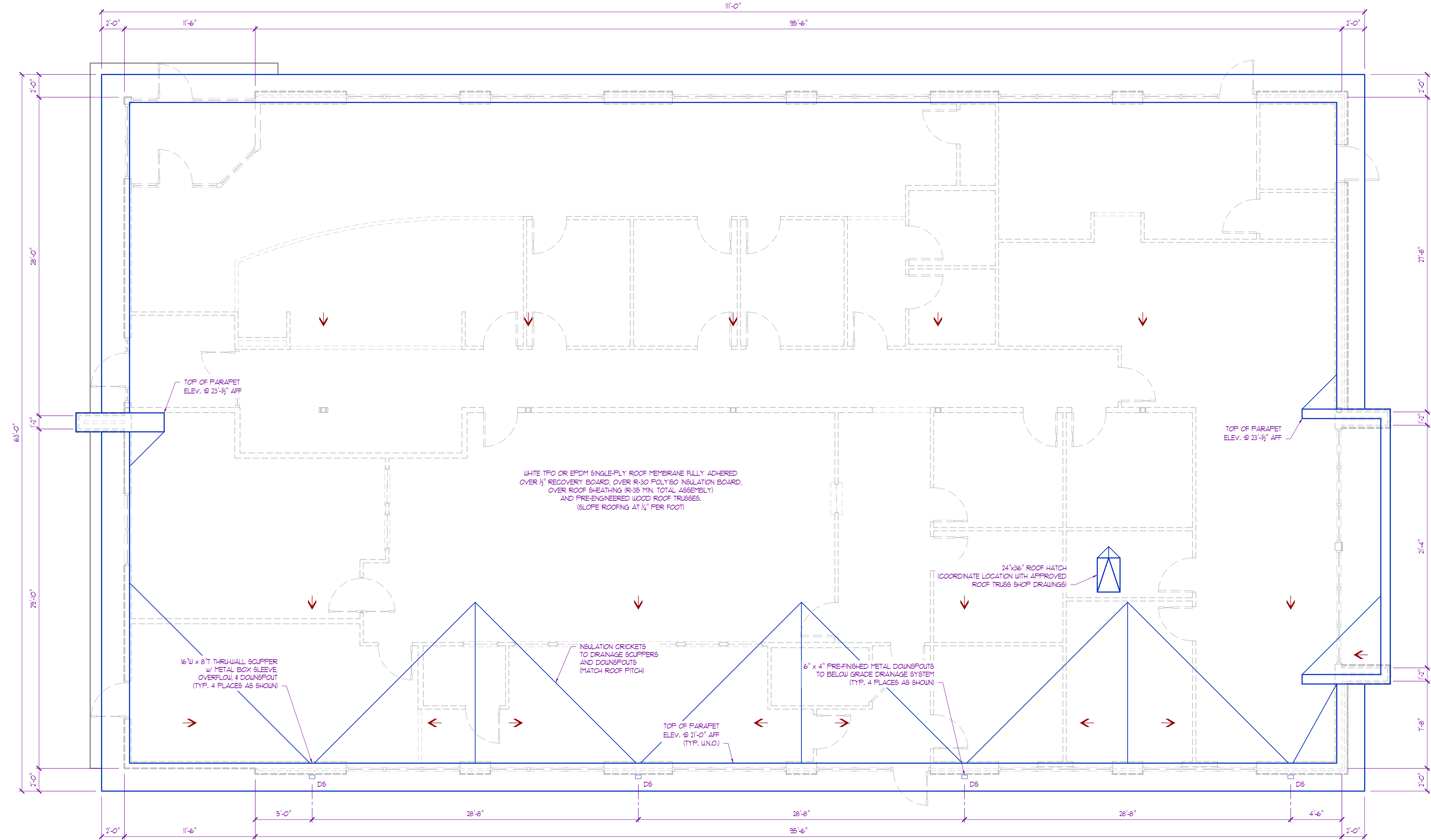
3 NORTH ELEVATION 1 - COLOR
1/8" = 1'-0"



2 WEST ELEVATION 1 - COLOR
1/8" = 1'-0"

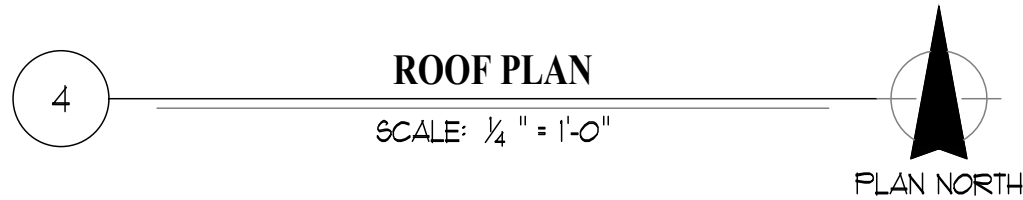


1 SOUTH ELEVATION - COLOR
1/8" = 1'-0"



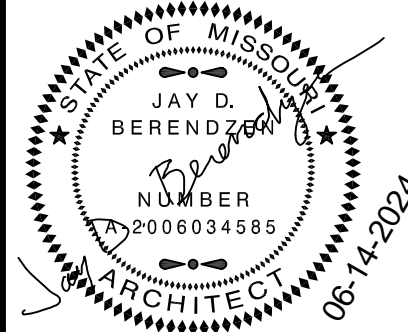
ROOF PLAN GENERAL NOTES:

1. VERIFY AND COORDINATE ALL BLOCKING, NAILERS, INSULATION STOPS, CRICKETS, FLASHING, ETC. FOR COMPLETE INSTALLATION OF ROOFING SYSTEM.
2. ROOFING SYSTEM TO BE WARRANTED AND WATER TIGHT.
3. VERIFY AND COORDINATE ALL ROOFTOP EQUIPMENT, CURBS, GAS LINES, PLUMBING PENETRATIONS, ETC. (2" MIN. ABOVE FINISH ROOF)
4. EXHAUST FANS & VENTING TO DISCHARGE A MIN. OF 10'-0" FROM ROOFTOP UNITS.
5. PROVIDE MOLDED ROOF WALK PADS TO AND AROUND ROOFTOP UNITS & OTHER EQUIPMENT AS NECESSARY.



ROOF DRAINAGE CALCULATIONS:

TOTAL ROOF DRAINAGE AREA: ± 7,210 SF
PROPOSED ROOF DRAINS: (4) @ 2,130 SF MAX. DRAINAGE AREA
RAINFALL RATE: 3.5" / HOUR
14"W x 10"T x 12'D CONDUCTOR HEAD: 4,600 SF OF DRAINAGE AREA CAPACITY (EXTEND TOP OF CONDUCTOR TO CONCEAL SCUPPER OPENING, INSTALL OVERFLOW IN CONDUCTOR AT SCUPPER ELEVATION)



EXPIRATION DATE 12-31-24
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MISSOURI ARC-000588
EXP. 12/31/25

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PROJECT
Discovery Animal Hospital
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ISSUE	ID	DESCRIPTION	DATE
	1	PERMIT	6/14/2024

PROJECT NO.
FBA2417
SHEET TITLE

ROOF PLAN

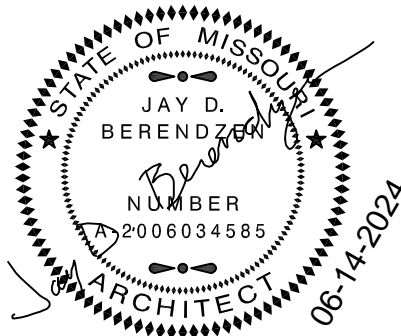
SHEET NUMBER

A400



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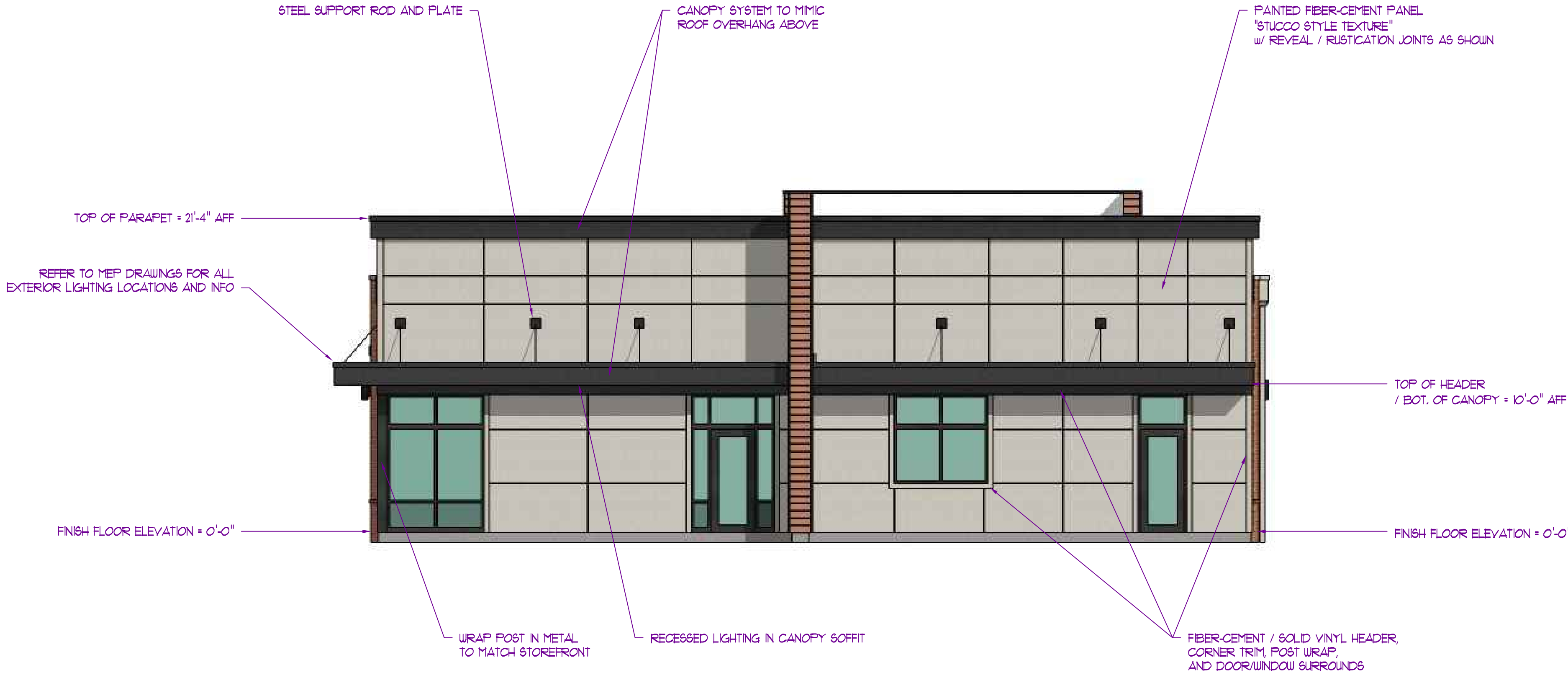
PROJECT
Discovery Park
Discovery Animal Hospital
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ISSUE		
ID	DESCRIPTION	DATE
1	PERMIT	6/14/2024

PROJECT NO.
FBA2417
SHEET TITLE

EXTERIOR
ELEVATIONS

SHEET NUMBER



E3
A100

WEST ELEVATION

SCALE: 3/8" = 1'-0"



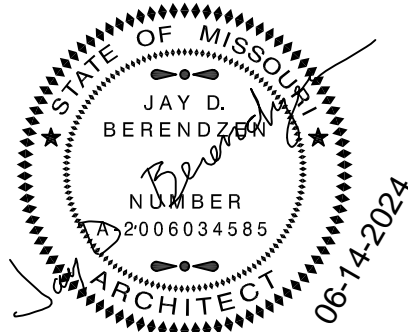
E3
A100

SOUTH ELEVATION

SCALE: 3/8" = 1'-0"

ELEVATOIN GENERAL NOTES:

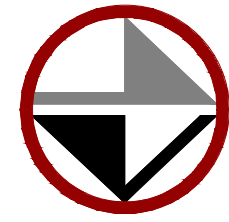
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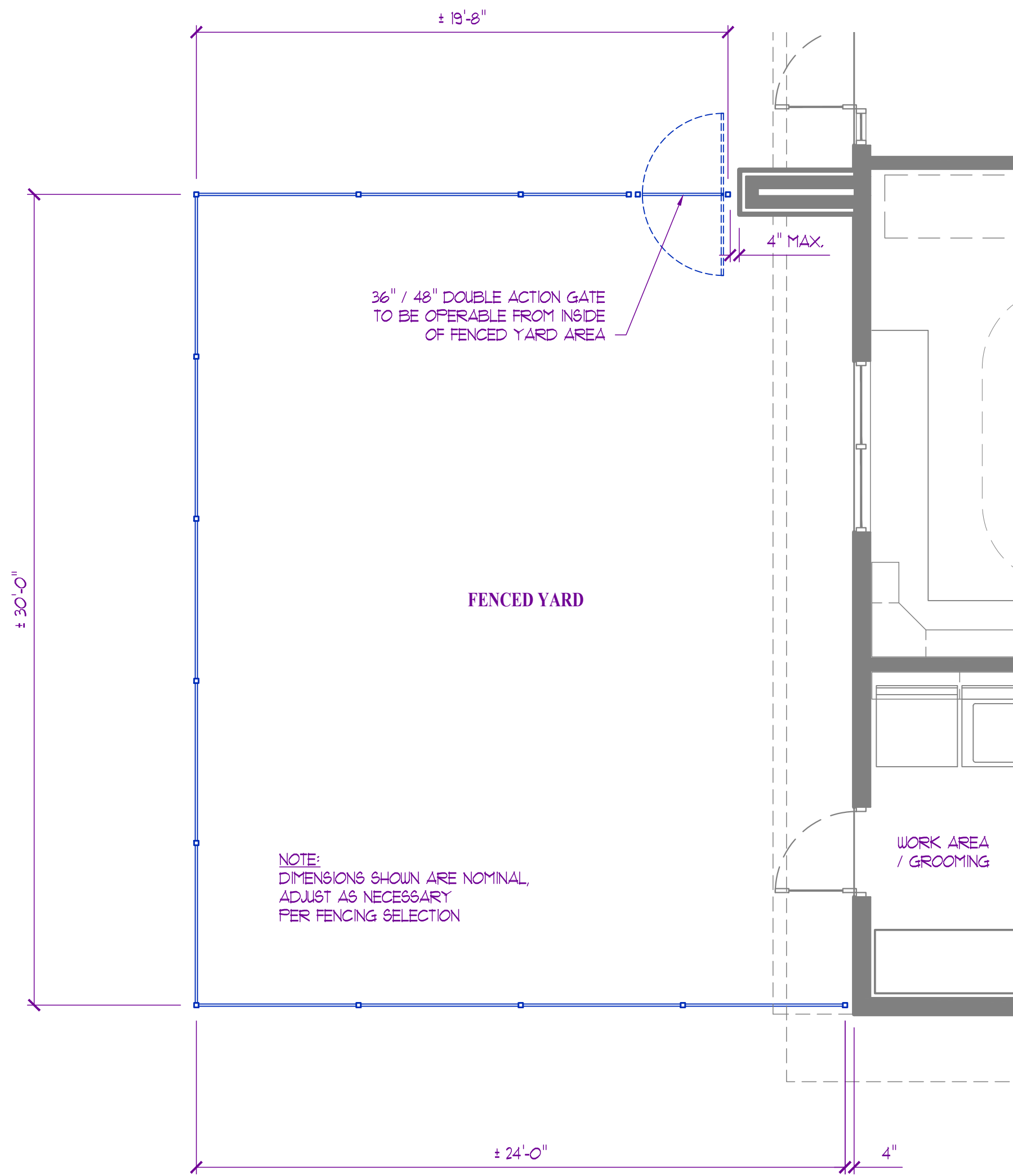
Discovery Park
Discovery Animal Hospital
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ISSUE		
ID	DESCRIPTION	DATE
1	PERMIT	6/14/2024

PROJECT NO.
FBA2417
SHEET TITLE

EXTERIOR
ELEVATIONS

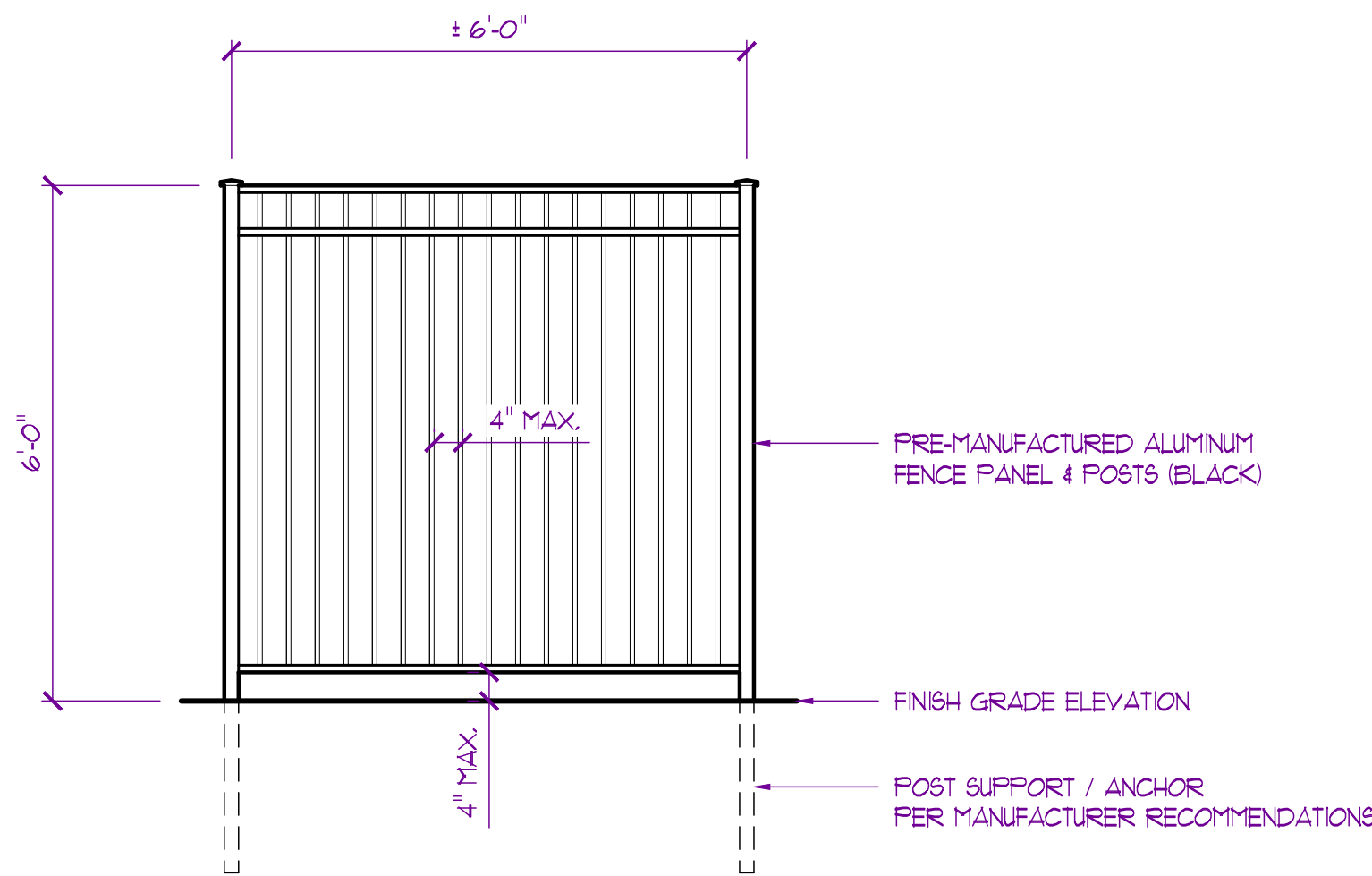
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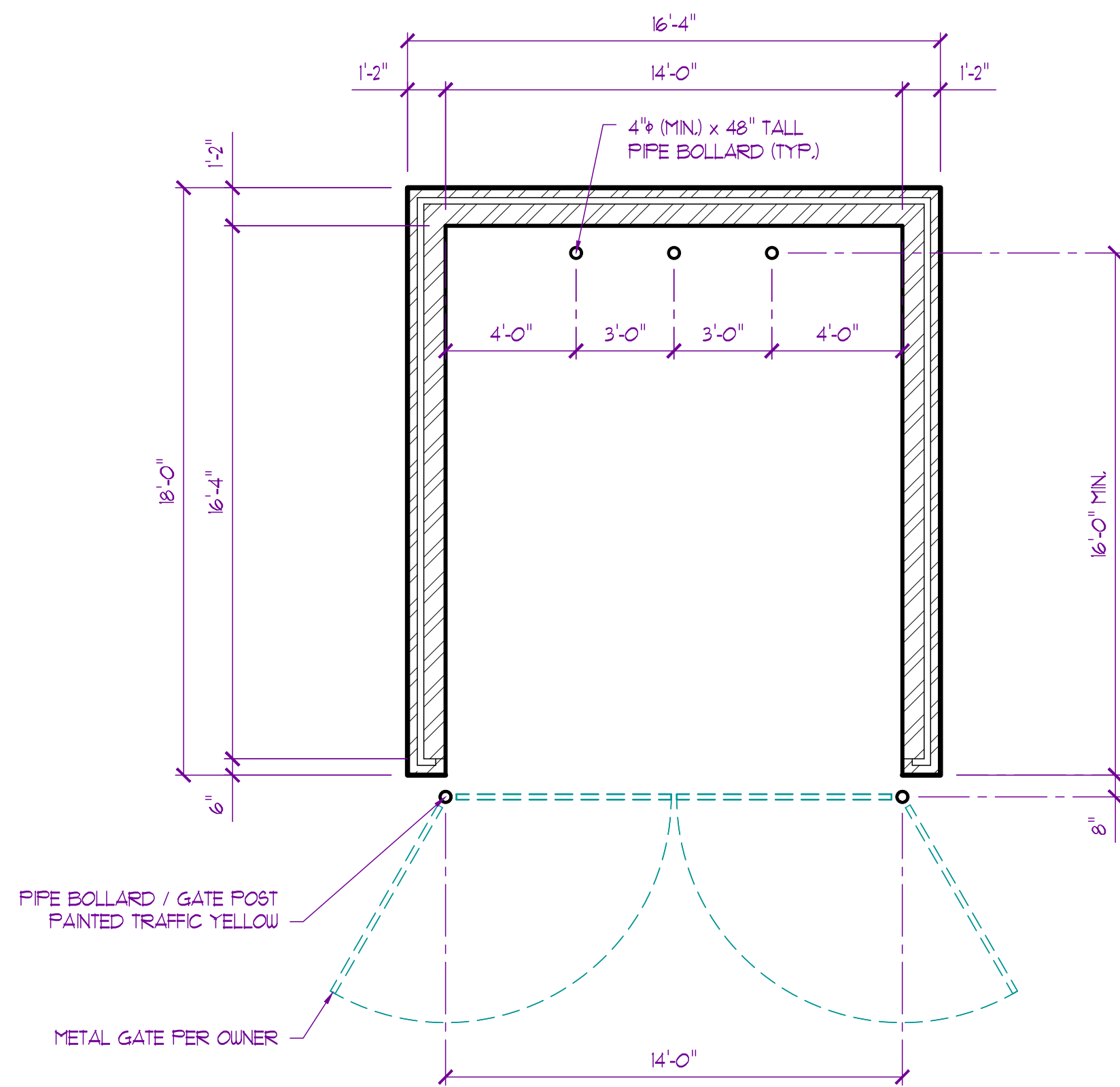
5
A800

FENCED YARD PLAN

SCALE: 1/4" = 1'-0"



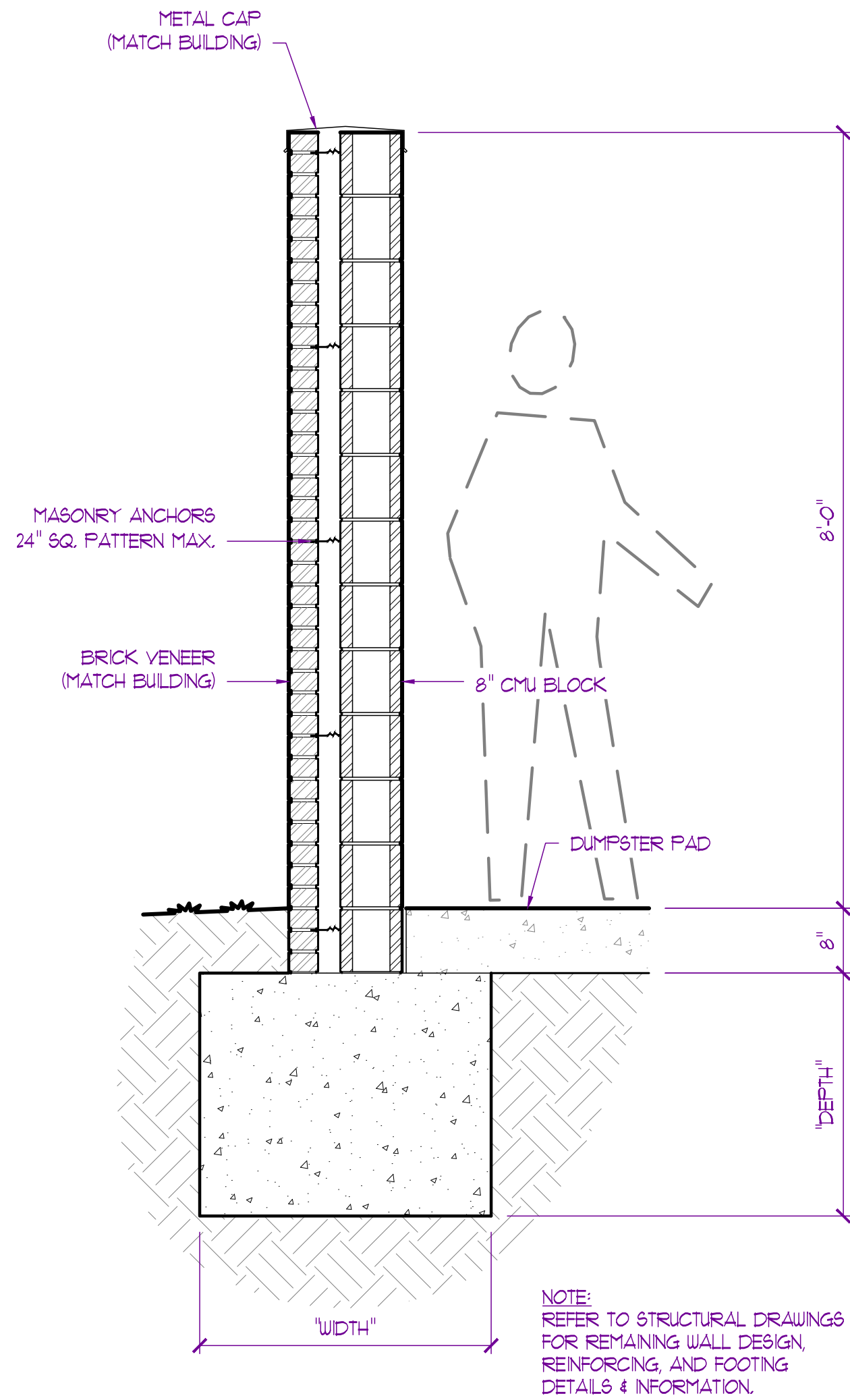
TYP. FENCE PANEL



6
A800

DUMPSTER ENCLOSURE PLAN

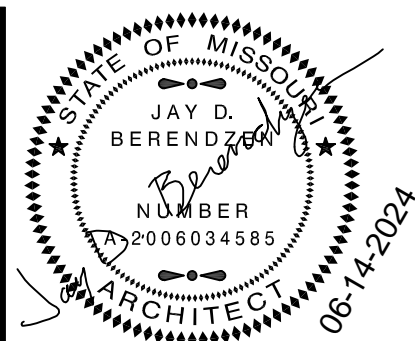
SCALE: 1/4" = 1'-0"



TYP. ENCLOSURE WALL SECTION

SITE DETAIL GENERAL NOTES:

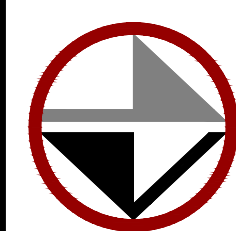
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PROJECT

Discovery Park
Discovery Animal Hospital
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ID	DESCRIPTION	DATE
1	PERMIT	6/14/2024

PROJECT NO.
FBA2417

SHEET TITLE

SITE DETAILS

SHEET NUMBER

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THE VILLAGE AT DISCOVERY -
LOT 7
LEE'S SUMMIT, MO

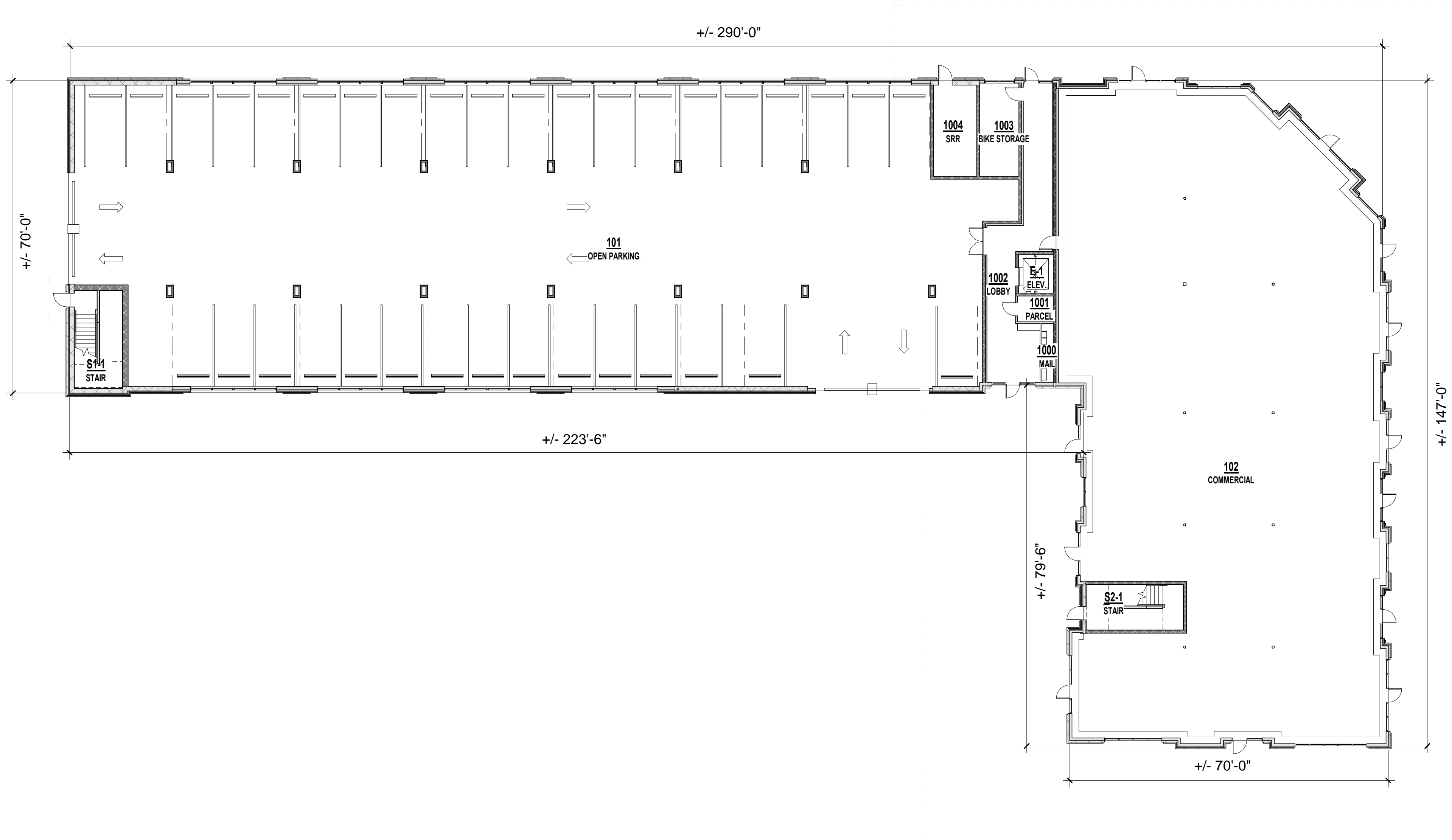
SHEET TITLE
FIRST FLOOR PLAN

PROJECT NUMBER: 23099
SHEET NUMBER:

A-101

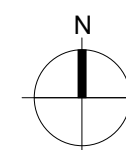
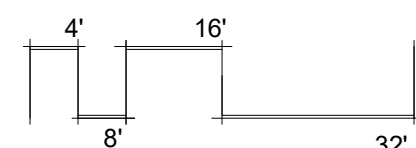
PLAN LEGEND

	PARTIAL HEIGHT PARTITION
	NON-RATED PARTITION; SEE ASSEMBLIES
	1 HR RATED PARTITION; SEE ASSEMBLIES
	2 HR RATED PARTITION; SEE ASSEMBLIES
	WINDOW TYPE; SEE WINDOW SCHEDULE
	DOOR TYPE; SEE DOOR SCHEDULE
	PARTITION TYPE; SEE ASSEMBLIES
	FRAMING DIMENSIONS
	LAYOUT LINE DIMENSIONS



A1

1ST FLOOR PLAN - FDP
1/16" = 1'-0"



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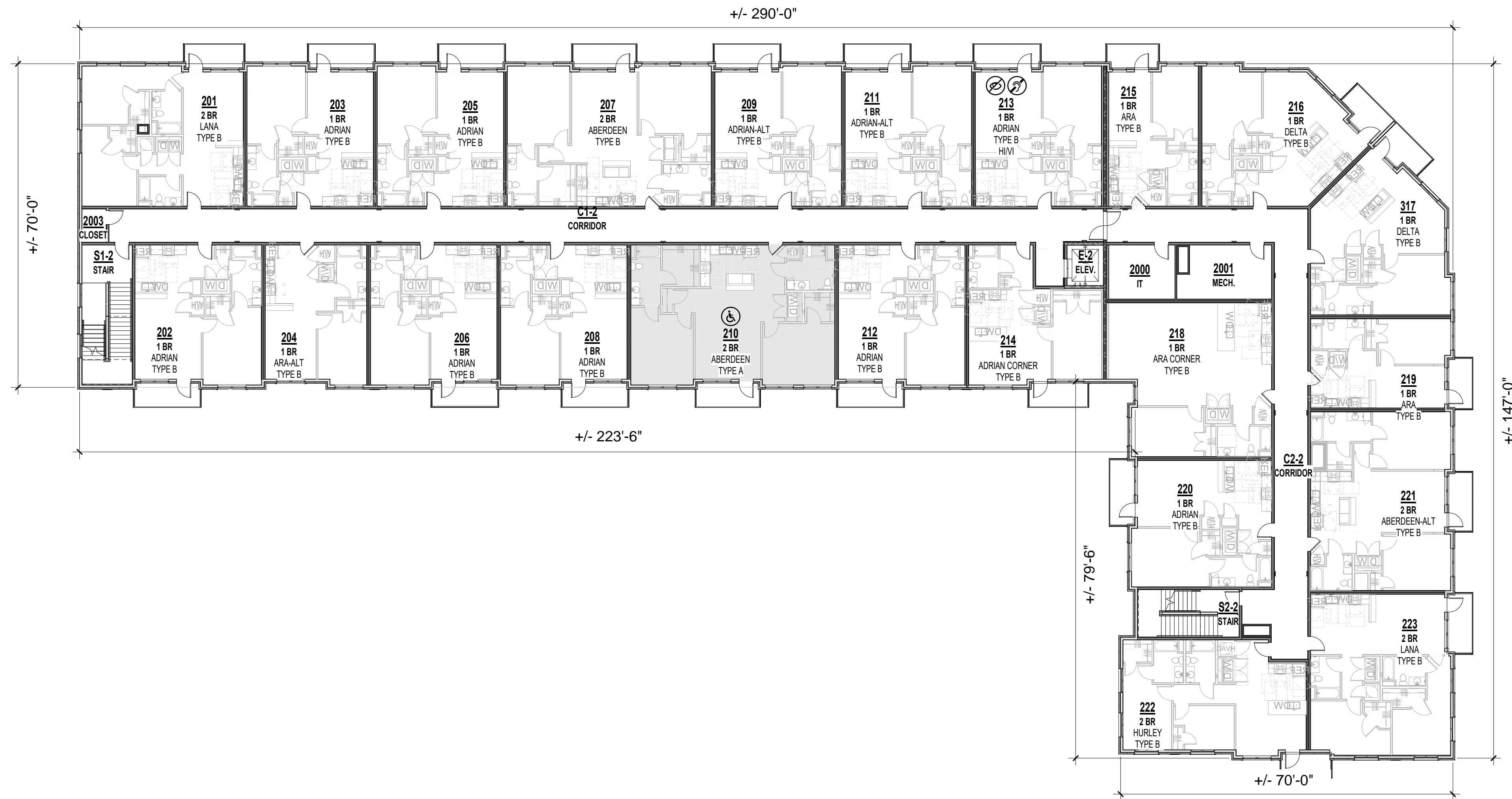
THE VILLAGE AT DISCOVERY -
LOT 7
LEE'S SUMMIT, MO

SHEET TITLE
SECOND FLOOR PLAN

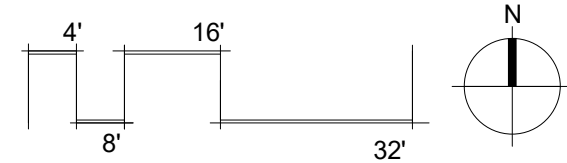
PROJECT NUMBER: 23099

SHEET NUMBER:

A-102



A1 SECOND FLOOR PLAN
1/16" = 1'-0"

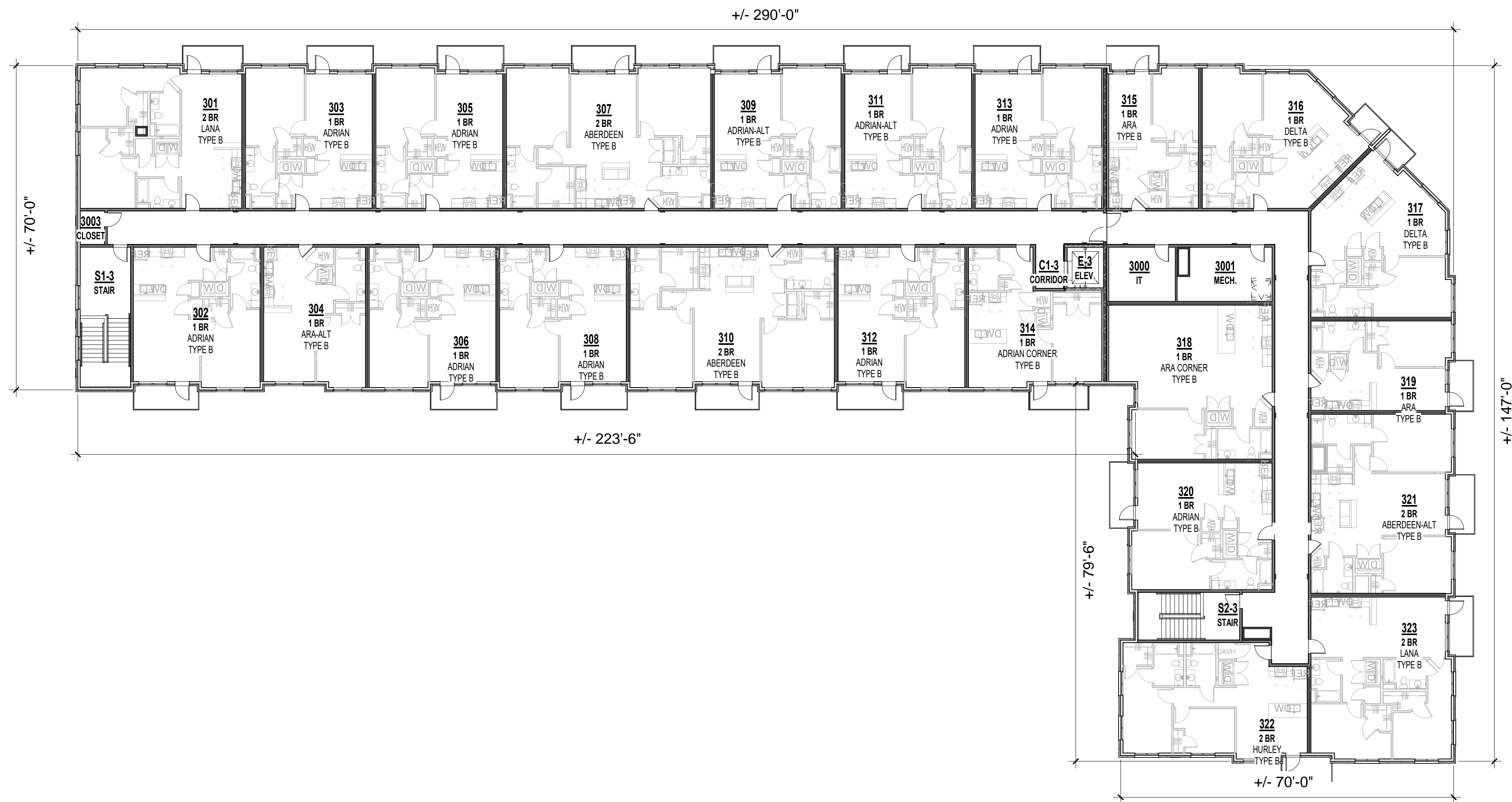


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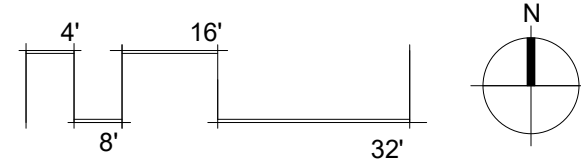
THE VILLAGE AT DISCOVERY -
LOT 7
LEE'S SUMMIT, MO

SHEET TITLE
THIRD FLOOR PLAN
PROJECT NUMBER: 23099
SHEET NUMBER:

A-103



A1 THIRD FLOOR PLAN
1/16" = 1'-0"



MATERIAL LEGEND

- KING SIZE BRICK - COLOR 1 - ALLENDALE HILL
- KING SIZE BRICK - COLOR 2 - GLEN GERY SADDLE BROWN
- KING SIZE BRICK - COLOR 3 - CAVALRY GRAY
- STONE CAP - ROUGH ASHLAR
- LARGE FORMAT MASONRY - ROUGH ASHLAR

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REVISIONS:

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THE VILLAGE AT DISCOVERY -
LOT 7

LEE'S SUMMIT, MO

SHEET TITLE
EXTERIOR COLOR ELEVATIONS
PROJECT NUMBER: 23099
SHEET NUMBER:

A-202



2 EAST ELEVATION - COLOR
3/32" = 1'-0"



1 NORTH ELEVATION - COLOR
3/32" = 1'-0"

PRELIMINARY
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CONSTRUCTION

THE VILLAGE AT DISCOVERY -
LOT 7
LEE'S SUMMIT, MO

SHEET TITLE
EXTERIOR COLOR ELEVATIONS
PROJECT NUMBER: 23099
SHEET NUMBER:

A-203



3 CORNER ELEVATION - COLOR
3/32" = 1'-0"



2 WEST ELEVATION - COLOR
3/32" = 1'-0"



1 SOUTH ELEVATION - COLOR
3/32" = 1'-0"

Project Information:

Property Address: Lot 8 of The Village at Discovery
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

Property Owner: Discovery Park Lee's Summit LLC
4220 Phillips Farm Road
Columbia, Missouri 65201

Code in Effect: ICC 2018, City of Lee's Summit

Zoning: PMIX, Planned Mixed Use

Lot Area: ± 1.16 Acres

Setbacks: (Based off CP-2 District)
Front Yard: 15 Feet
Side Yard: 10 Feet (0ft when abutting Interior Lot Lines)
Rear Yard: 20 Feet

Height Regulations: 40 Feet (Zoning)

Proposed Building: ± 10,366 sq.ft. Single Story Building
Wood Framed w/ Masonry Veneer
Type 5B, Sprinklered

Proposed Use & Occupancy: B-Business (Animal Hospital, Kennel, and Pounds)

Allowable Building Heights & Areas:
Sprinklered: 3 Stories (60 feet) 36,000 sq.ft. Floor Area

Design Loading:
Assembly Unconcentrated: 1 Occ / 15 sf
Office / Business: 1 Occ / 150 sf
Kennels / Play Rooms: 1 Occ / 300 sf
Storage / Stock Area: 1 Occ / 300 sf

Current Design Load: 53 Occupants

Exits Required: 2 Exits Min. w/ Proximity

Egress Requirements:

Spaces with Single Exit: 49 Occupants Maximum, Common Path of Egress Travel: 75 feet

Exit Proximity: Second Egress Door must be more than...
½ the Diagonal Distance of Space Serving Apart (Sprinklered)

Exit Access Travel Distance: 300 feet

Corridor Width: 44" min. (36" with Occupant Load under 50)
Dead End Corridors: 50 feet Maximum (Sprinklered)
Corridor Fire Rating: OL served by Corridor over 30 = 0-Hr Rated (Sprinklered)

- Egress Doors shall have a Minimum Clear Opening Width of not less than 32"
- Every Exit Door shall be Operable from the Inside without the use of a Key or any Specific Knowledge or Effort.
- Doors must swing in Direction of Egress (Occupant Load under 50 may swing in)

Accessibility:

- At least one Accessible Route shall connect each Accessible Space throughout the Building.
- At least 60% of all Public Entrances must be Accessible
- Toilet & Bathing Facilities must be Accessible per Section 1110.2
- Toilet Rooms off Private Offices do not have to be Accessible

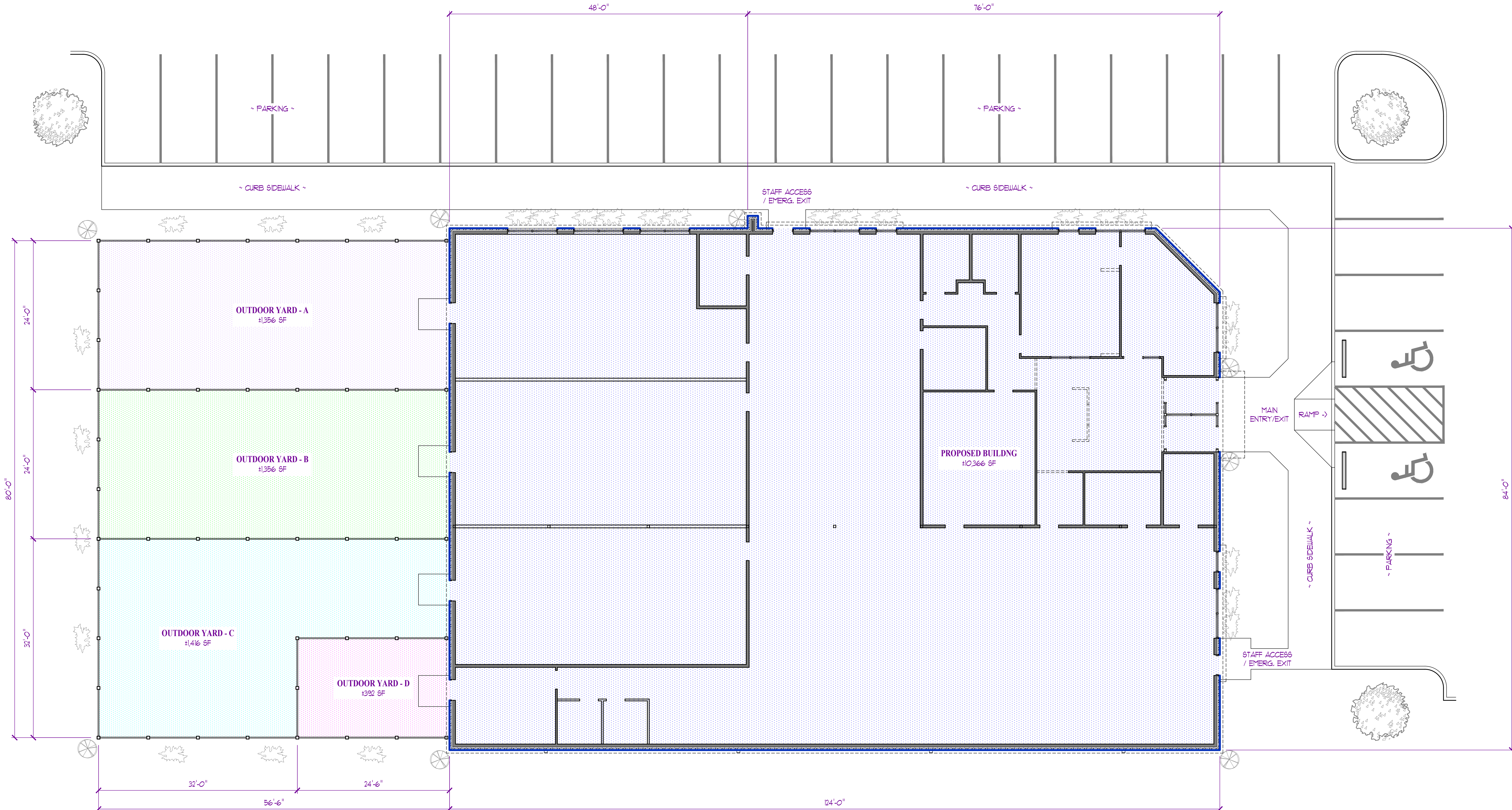
Plumbing Requirements: Business w/ 53 Occupants:

Water Closets = 1 per 25 for the first 50, then 1 per 50 for remainder

Lavatories = 1 per 40 for the first 80, then 1 per 80 for remainder

Drinking Fountains = 1 per 100 Occupants

Other = 1 Service Sink



1 OVERALL PLAN
SCALE: 1/8" = 1'-0"



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PROJECT
Discovery Park
Discovery Pet Spa
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ISSUE	ID	DESCRIPTION	DATE
PROGRESS	1		7/10/2024

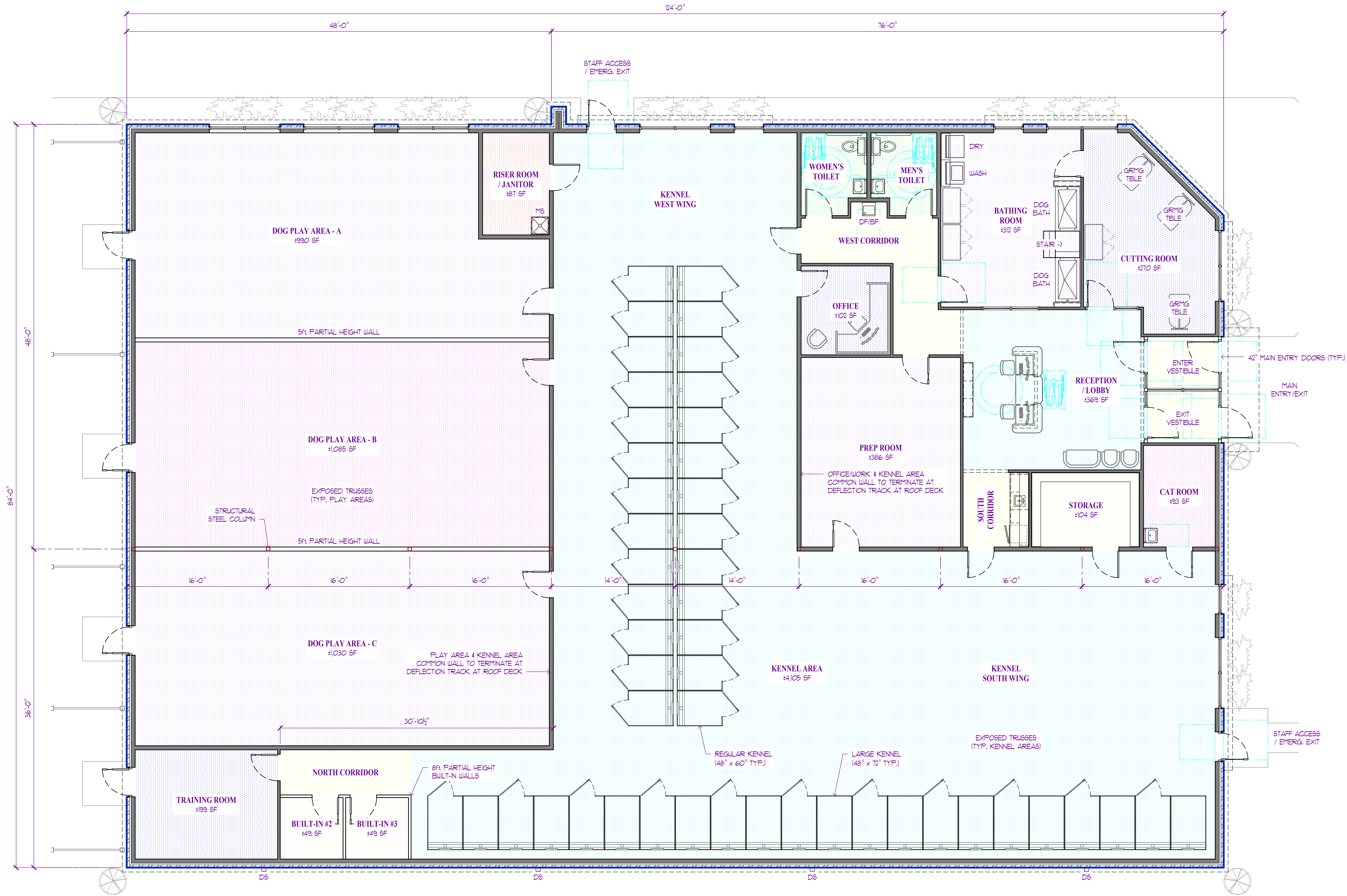
PROJECT NO.
FBA24XXX

SHEET TITLE

OVERALL PLAN

PRELIMINARY
CODE REVIEW

SHEET NUMBER



2 FLOOR PLAN
SCALE: 3/16" = 1'-0"

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Discovery Park
Discovery Pet Spa

1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ISSUE

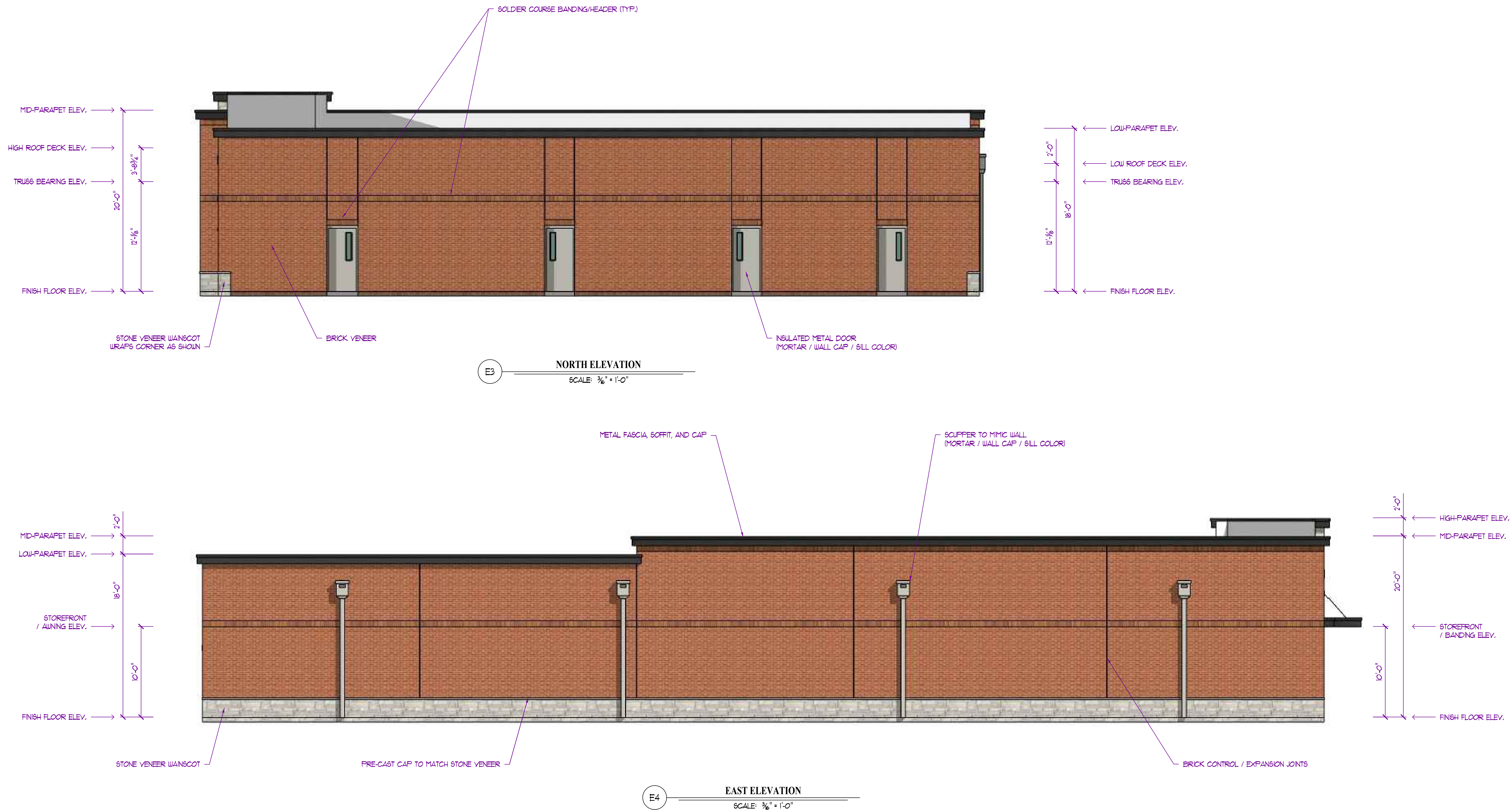
ID	DESCRIPTION	DATE
1	PROGRESS	7/10/2024

PROJECT NO.
FBA24XX

SHEET TITLE
FLOOR PLAN

SHEET NUMBER
A101







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MISSOURI ARC-000588

EXP. 12/31/25

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PROJECT

Discovery Park
Discovery Pet Spa
1901 NE Trails Edge Boulevard
Lee's Summit, Jackson County, Missouri

ISSUE

ID	DESCRIPTION	DATE
1	PROGRESS	7/10/2024

PROJECT NO.
FBA24XX

SHEET TITLE
EXTERIOR
RENDERINGS

SHEET NUMBER
A202

PORTER, BERENDZEN & ASSOCIATES, P.C.
ARCHITECTS

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jag@pbaarchitects.com

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SITE LIGHTING PLAN SYMBOL LEGEND

X1
"X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE)
POLE LIGHT
ARROW INDICATES FORWARD AIMING DIRECTION
+
1.1
PHOTOMETRIC CALCULATIONS (IN FOOT-CANDELES)

- 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.
 - SEE SHEET EL101 FOR BUILDING MOUNTED EXTERIOR LIGHT FIXTURE CIRCUITING AND ADDITIONAL DETAILS.
 - BUILDING-MOUNTED EXTERIOR LIGHTING IS NOT YET DESIGNED FOR PROPOSED BUILDINGS. 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.

TRAILSEDGE BLVD.

ALURA WAY

PROPOSED
NEW BUILDING 'LOT 8'

PROPOSED
NEW BUILDING 'LOT 7'

PROPOSED
NEW BUILDING 'LOT 6'

PROPOSED
NEW BUILDING 'LOT 5'



SITE LIGHTING PLAN
SCALE: 1" = 20 ft

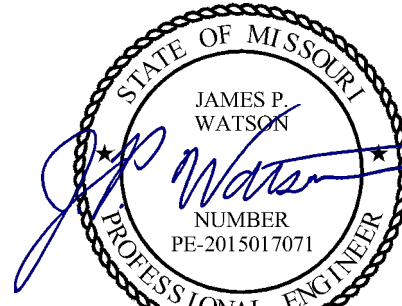
STATE OF MISSOURI
JAMES P. WATSON
NUMBER
PE-2015017071
PROFESSIONAL ENGINEER
James Watson, P.E. May 24, 2024
PE-2015017071
MO Certificate of Authority # 2018029680

J-SQUARED
ENGINEERING
2400 Bluff Creek Drive, Suite 101
Columbia, Missouri 65201
573 - 234 - 4492 phone
www.j-squaredeng.com

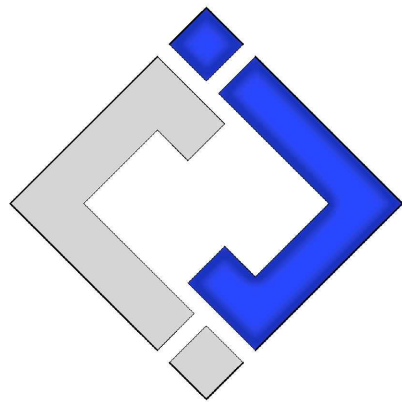
J2 PROJECT No:	J21209.1
J2 DESIGN:	ACW
ISSUE TITLE	DATE
FDP SUBMITTAL	05 / 24 / 2024

Mechanical - Electrical - Plumbing Design Drawings for
Discovery Lots 5-8 Site Lighting Plan
Lots 5-8
Lee's Summit, Jackson County, MO 64064

SHEET TITLE
**SITE LIGHTING
PLAN**
SHEET NUMBER
SL1



James Watson, P.E. May 24, 2024
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J2 PROJECT No: J21209.1

J2 DESIGN: ACW

ISSUE TITLE DATE

FDP SUBMITTAL 05 / 24 / 2024

Mechanical - Electrical - Plumbing Design Drawings for

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SHEET TITLE

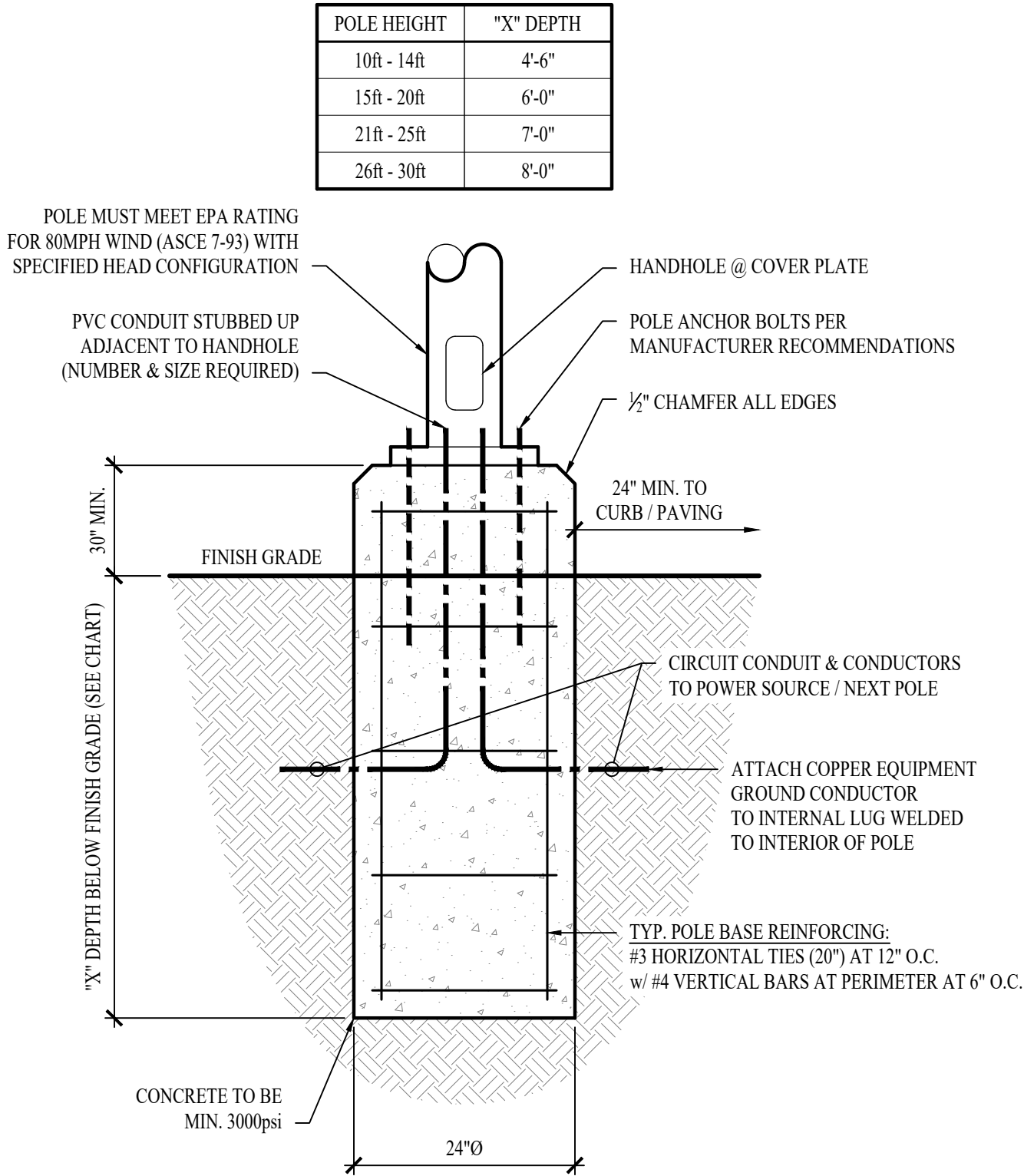
SITE LIGHTING
PLAN

SHEET NUMBER

SL1

SITE LIGHTING CALCULATION SUMMARY						
AREA	UNIT	AVERAGE	MAXIMUM	MINIMUM	AVG.MIN	MAX.MIN
PARKING/DRIVE-AISLES	FC	2.25	7.5	0.6	3.8	12.5

SITE LIGHTING FIXTURE SCHEDULE										
TAG	MANUFACTURER (OR EQUAL)	MODEL NUMBER (OR EQUAL)	DESCRIPTION	MOUNTING	LUMEN OUTPUT	CCT (°K)	CRI	VOLTS	WATTS	NOTES
PL1	MCCRAW-EDISON	PRV-XL-PA4A-740-U-SWQ	POLE LIGHT	20' POLE ON 30" BASE	35,079	4000	70	208	245	WITH #MS/DIM-L40W MOTION SENSING DIMMING
PL2	MCCRAW-EDISON	PRV-XL-PA4B-740-U-T3	POLE LIGHT	20' POLE ON 30" BASE	36,002	4000	70	208	303	WITH #MS/DIM-L40W MOTION SENSING DIMMING
PL3	MCCRAW-EDISON	PRV-XL-PA4B-740-U-T4W-HSS	POLE LIGHT	20' POLE ON 30" BASE	28,286	4000	70	208	303	WITH #MS/DIM-L40W MOTION SENSING DIMMING
NOTES: 1. VERIFY LIGHT FIXTURE FINISHES WITH OWNER / ARCHITECT PRIOR TO INSTALLATION										



TYPICAL LIGHT POLE DETAIL - 1