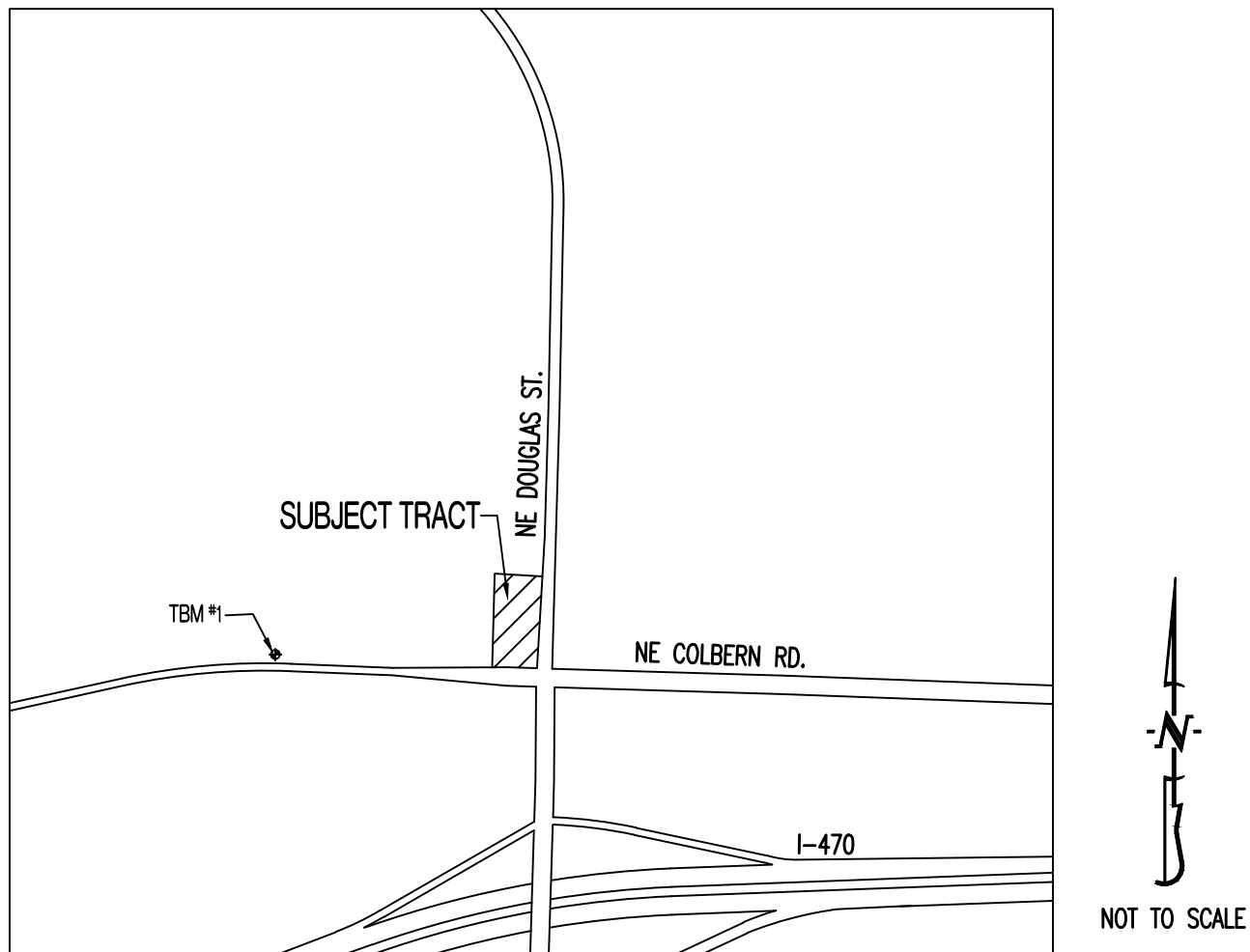


THE VILLAGE AT DISCOVERY PARK

LOT 1

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 #29095C0409G, DATED JANUARY 20, 2017.

LEGAL DESCRIPTION:

VILLAGE AT DISCOVERY PARK, LOT 1. A SUBDIVISION IN JACKSON COUNTY, LEE'S SUMMIT, MISSOURI.

UTILITY COMPANIES:

LOCATES:

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



TELEPHONE:

AT&T
800-286-8313

NATURAL GAS:

SPIRE
314-342-0500

CABLE TELEVISION:

SPECTRUM
877-772-2253

ELECTRIC:

EVERGY
816-524-3223

WATER/SANITARY SEWER:

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

FIBER:

GOOGLE FIBER
877-454-6959

GENERAL NOTES:

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

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

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

ALL CONCRETE MATERIALS SHALL CONFORM TO KCMMB STANDARDS AND SPECIFICATIONS.

THIS PLAT CONTAINS APPROXIMATELY 1.49 ACRES.

THIS TRACT IS ZONED PMIX.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

TOTAL DISTURBED AREA ON SITE = 1.82 AC.

MISSOURI DNR LAND DISTURBANCE PERMIT NUMBER MORA23630.

DEVELOPER :

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

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE	ORIGINAL 10/18/24	REVISION 1 12/05/24
CE 1.0	COVER SHEET	X	
CE 1.1	CIVIL SPECIFICATIONS	X	
CE 2.1	EROSION CONTROL PLAN	X	
CE 2.2	EROSION CONTROL DETAILS	X	
CE 3.0	OVERALL GRADING	X	
CE 3.1	GRADING SHEET 1	X	X
CE 3.2	GRADING SHEET 2	X	X
CE 3.3	GRADING SHEET 3	X	X
CE 3.4	GRADING SHEET 4	X	X
CE 4.1	UTILITY PLAN	X	
CE 5.1	STORM PROFILE & DETAILS	X	
CE 5.2	STORM DETAILS CONTD	X	
CE 5.3	25 YEAR STORM CALCS	X	
CE 5.4	100 YEAR STORM CALCS	X	
CE 6.1	SITE PLAN	X	X
CE 7.1	DETAILS SHEET 1	X	
CE 7.2	DETAILS SHEET 2	X	
CE 7.3	LEE'S SUMMIT DETAILS SHEET 1	X	
CE 7.4	LEE'S SUMMIT DETAILS SHEET 2	X	
CE 8.1	LANDSCAPING PLAN		X

LEGEND OF SYMBOLS:

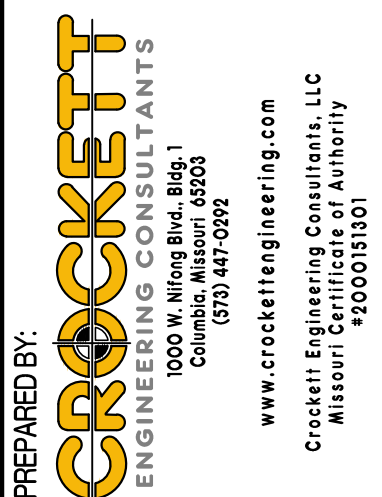
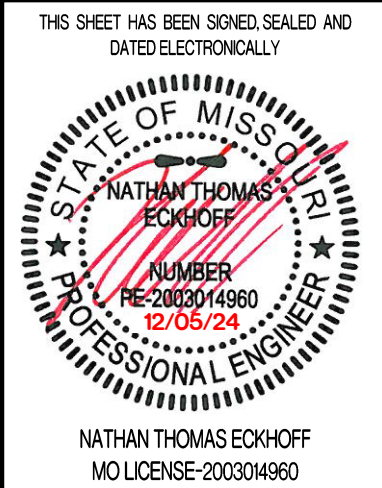
----	EXISTING CURB	FF=XXXX	FINISHED FLOOR OF STRUCTURE
=====	PROPOSED CURB	XXX.XX TD	PROPOSED TOP OF CURB ELEVATION
	RIP RAP	XXX.XX TP	PROPOSED TOP OF PAVEMENT ELEVATION
	EXISTING STRUCTURE	XXX.XX FG	PROPOSED FINISHED GRADE ELEVATION
	EXISTING TREELINE	XXX.XX TW	PROPOSED TOP OF WALL
	PROPOSED TREELINE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

STRUCTURAL FILL COMPACTION REQUIREMENTS

SOIL FILL THICKNESS	9-INCHES OR LESS WHEN USING HEAVY SELF-PROPELLED COMPACTION EQUIPMENT 6-INCHES OR LESS WHEN USING HAND GUIDED OR LIGHT SELF-PROPELLED EQUIPMENT
COMPACTION MOISTURE CONTENT REQUIREMENTS	- LEAN TO FAT CLAY AND FAT CLAY 2% BELOW STANDARD PROCTOR OPTIMUM MOISTURE CONTENT (OMC) TO 4% ABOVE THE STANDARD PROCTOR OPTIMUM MOISTURE CONTENT - LEAN CLAY AND SILT 2% BELOW TO 3% ABOVE STANDARD PROCTOR OMC - GRANULAR - WORKABLE MOISTURE CONTENT AND SHALL NOT PUMP WHEN PROOF-ROLLED 1
COMPACTION REQUIREMENTS 1 2	95% OF STANDARD PROCTOR DRY DENSITY (ASTM D-698) - 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.
- 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. - 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.	

REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024



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

THE VILLAGE AT DISCOVERY

LOT 1

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 DIRECTED TRAFFIC TO ALTERNATE ROUTE.

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

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

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

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

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

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

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

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

ALL DEBRIS SHALL BE DISPOSED OF OFF-SITE.

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

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

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

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

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

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

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

EARTHMOVING:

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

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

COMPACTION REQUIREMENTS ARE AS FOLLOWS:

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

GRADING TOLERANCES OUTSIDE BUILDING LINES ARE AS FOLLOWS:

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

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

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

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

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

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

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

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

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

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

- STRUCTURAL FILL: USE UNDER FOUNDATIONS, SLABS ON GRADE IN LAYERS AS INDICATED.
- DRAINAGE FILL: USE UNDER DESIGNATED BUILDING SLABS, AT FOUNDATION DRAINAGE AND ELSEWHERE AS INDICATED.
- LANDSCAPE AREA FILL:
 - ALL SUB-GRADE AREAS SHALL BE "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 CHEROKEE SOILS IN SOIL CLASSIFICATIONS GROUPS ML, CL, CH OR A COMBINATION THEREOF, FREE OF ROCK OR GRAVEL LARGER THAN 1" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIAL, VEGETATION AND OTHER DELETERIOUS MATER.
- SUB-BASE MATERIAL: USE UNDER PAVEMENT, WALKS, STEPS, PIPING AND CONDUIT.

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

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

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

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

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

CONCRETE :

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PAVEMENT MARKING :

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

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

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

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

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

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

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

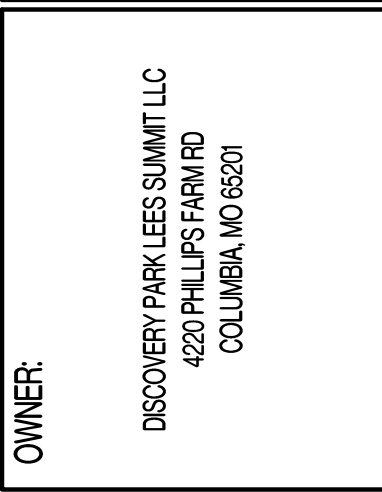
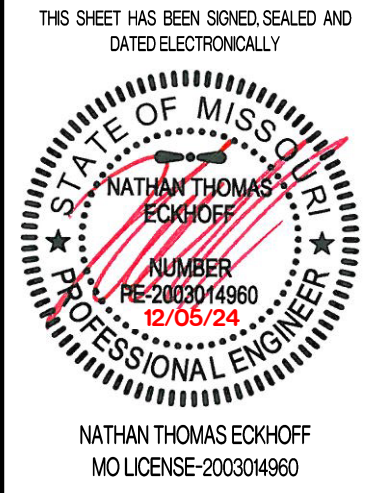
PAINTING SHALL NOT BE PERFORMED WHEN THE AMBIENT TEMPERATURE IS LESS THAN 55 DEGREES FAHRENHEIT AND NOT EXCEEDING 95 DEGREES FAHRENHEIT, OR WHILE THE SURFACE IS DAMP. THE SURFACE MUST BE FIVE DEGREES OR MORE ABOVE THE DEW POINT TEMPERATURE DURING PAINTING OPERATIONS AND WHILE PAINT IS DRYING.

AREAS TO BE PAINTED SHALL RECEIVE ONE COAT OF PAINT NOT LESS THAN 25 MILS THICKNESS WET PER MDDOT 620.9 THROUGH 620.9.3.4.2. IN LOCATIONS REQUIRING MULTIPLE COATS, PRIOR COAT SHALL BE DRY TO MANUFACTURER'S RECOMMENDATIONS BEFORE APPLYING THE NEXT COAT. FINISHED WORK SHALL BE UNIFORM, OF APPROVED COLOR, FREE OF RUNS, DRIPS, DEFECTIVE BRUSHING, SPRAYING, AND CLOGGING. PARKING LINES AND SYMBOLS SHALL BE NEAT AND WELL DEFINED. ONLY SKILLED APPLICATORS SHALL APPLY PAINT. OWNERS REPRESENTATIVE SHALL APPROVE APPLICATION TECHNIQUES.

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

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ORIGINAL	10/18/2024



DRAWING INCLUDES:

CIVIL SPECIFICATIONS

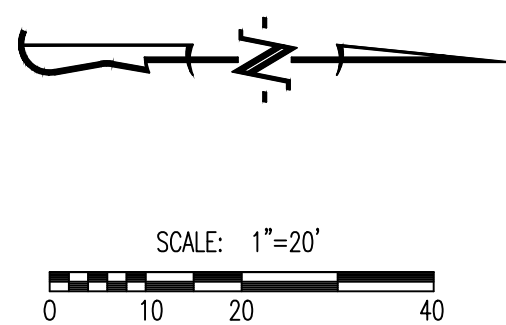
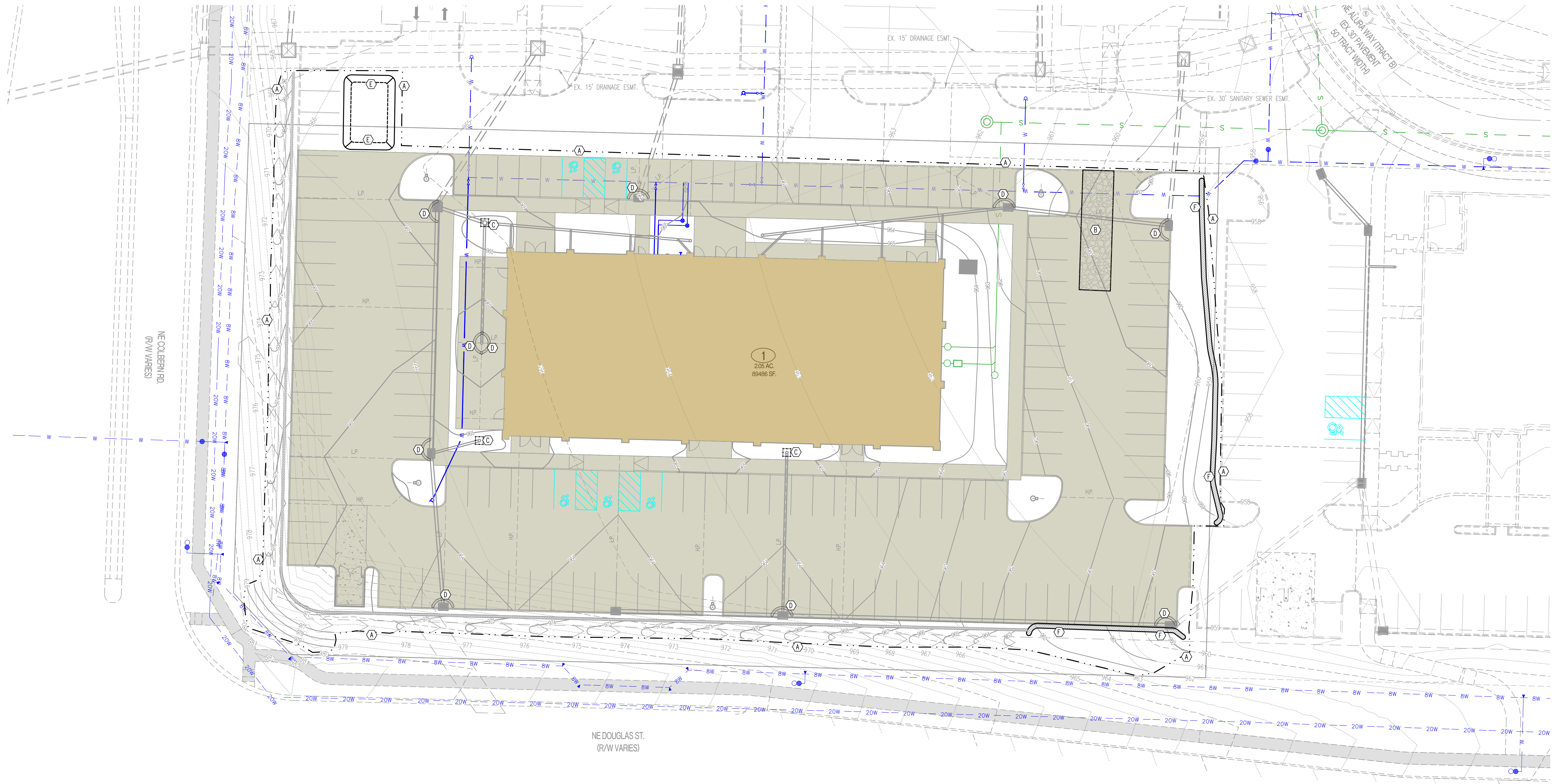
DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 11

Y:\2023\230286 - Discovery Park Lees Summit\Zone 1 Lot 1\A040 Files\Construction Plans\230286 Lot 1 Grading Base.dwg



LEGEND OF LABELS:

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

REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

STATE OF MISSOURI
NATHAN THOMAS ECKHOFF
NUMBER: PE-200304960
EXPIRATION: 12/31/26
PROFESSIONAL ENGINEER

NATHAN THOMAS ECKHOFF
MO LICENSE: 200304960

PREPARED BY:

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www.crockettingeering.com
Missouri Certificate of Authority #000000001

OWNER:

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

THE VILLAGE AT DISCOVERY

LOT 1

LEES SUMMIT, JACKSON COUNTY, MISSOURI

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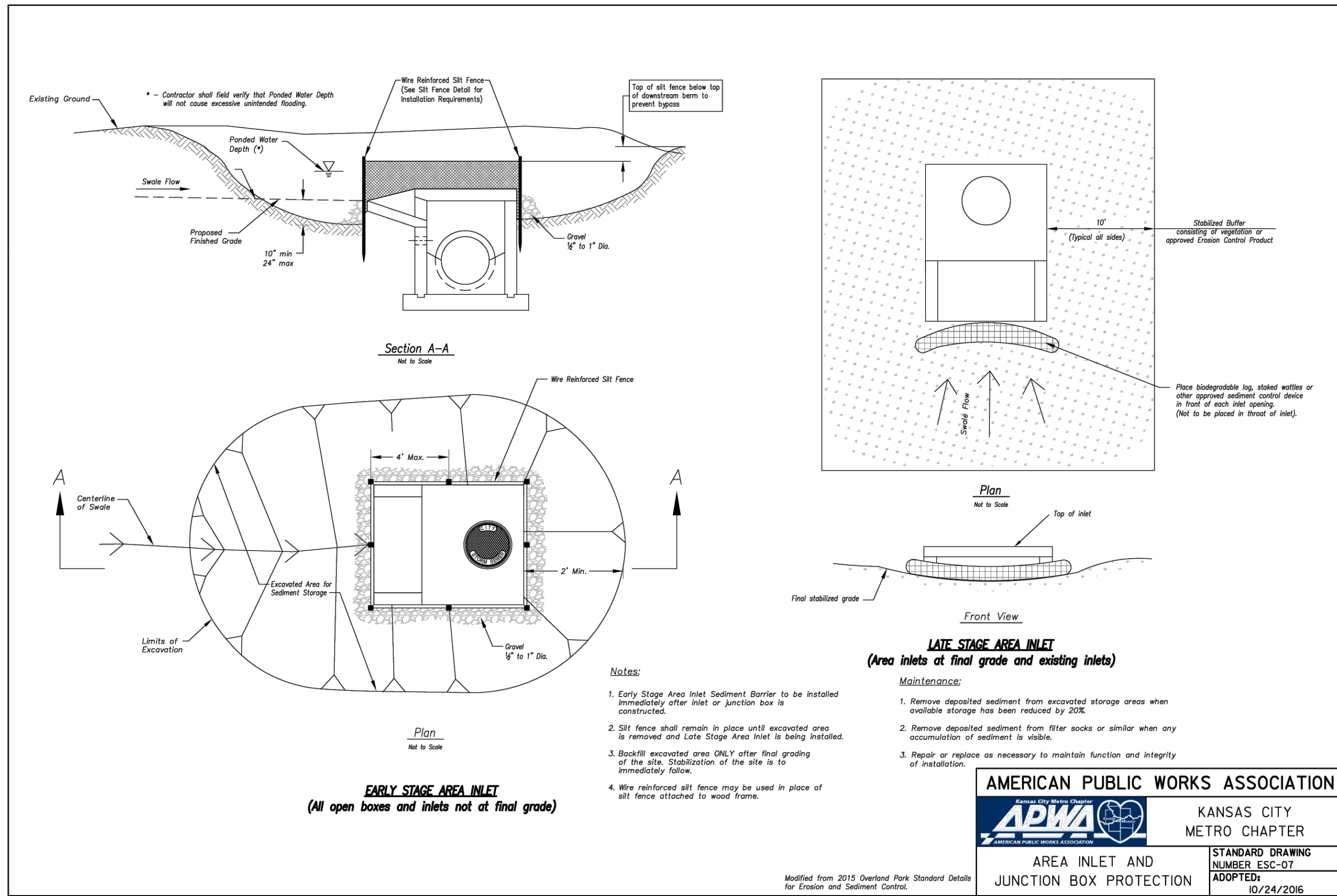
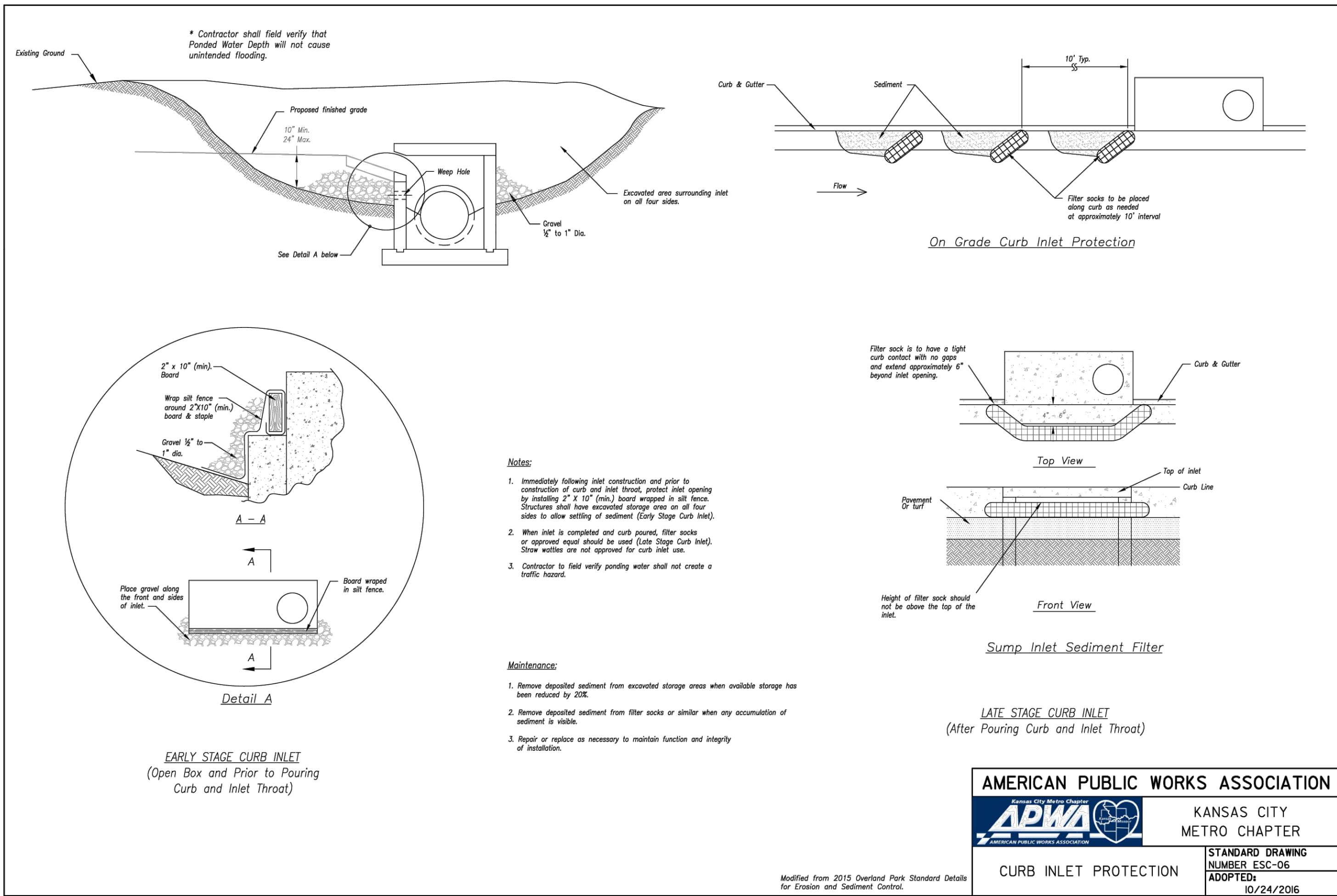
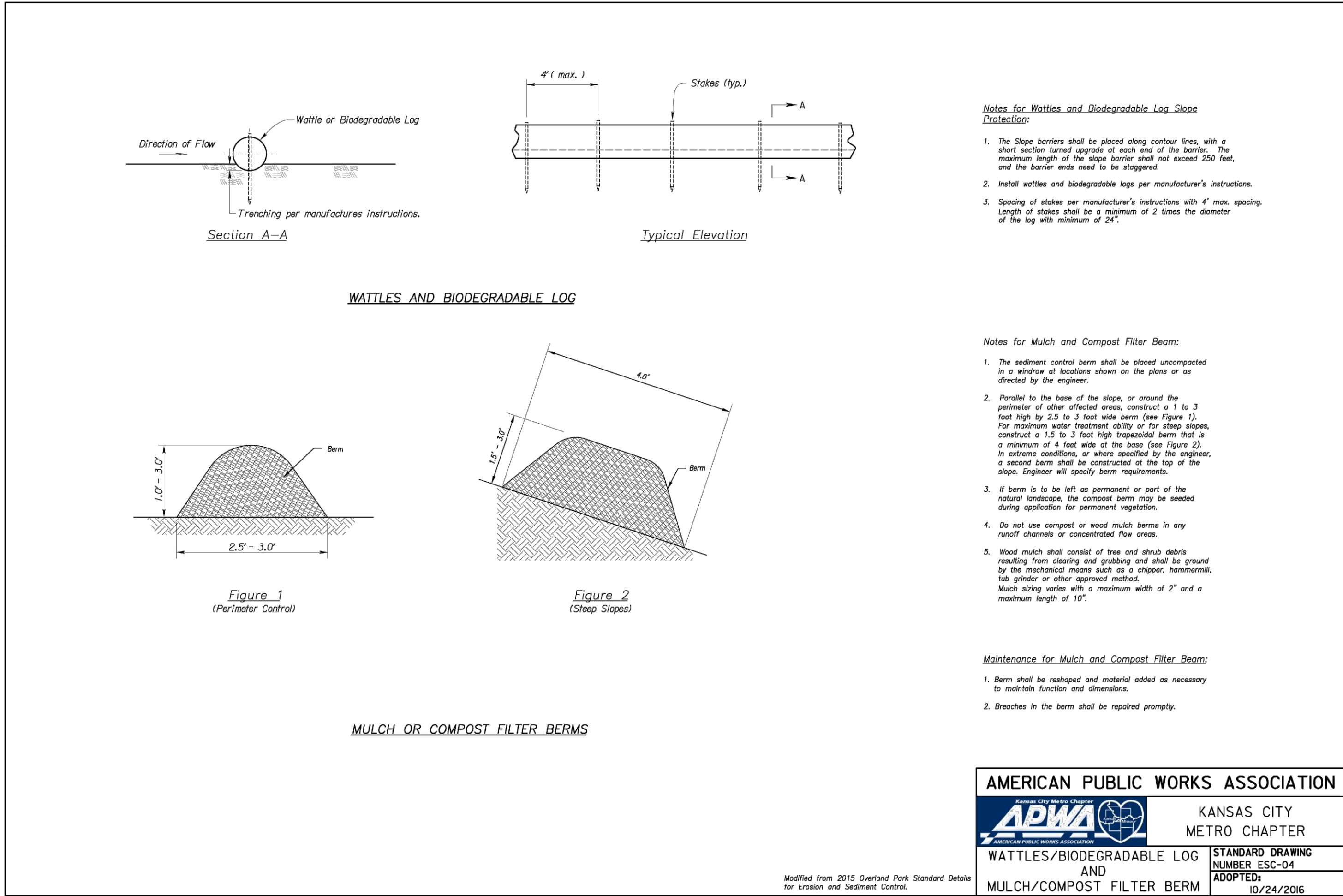
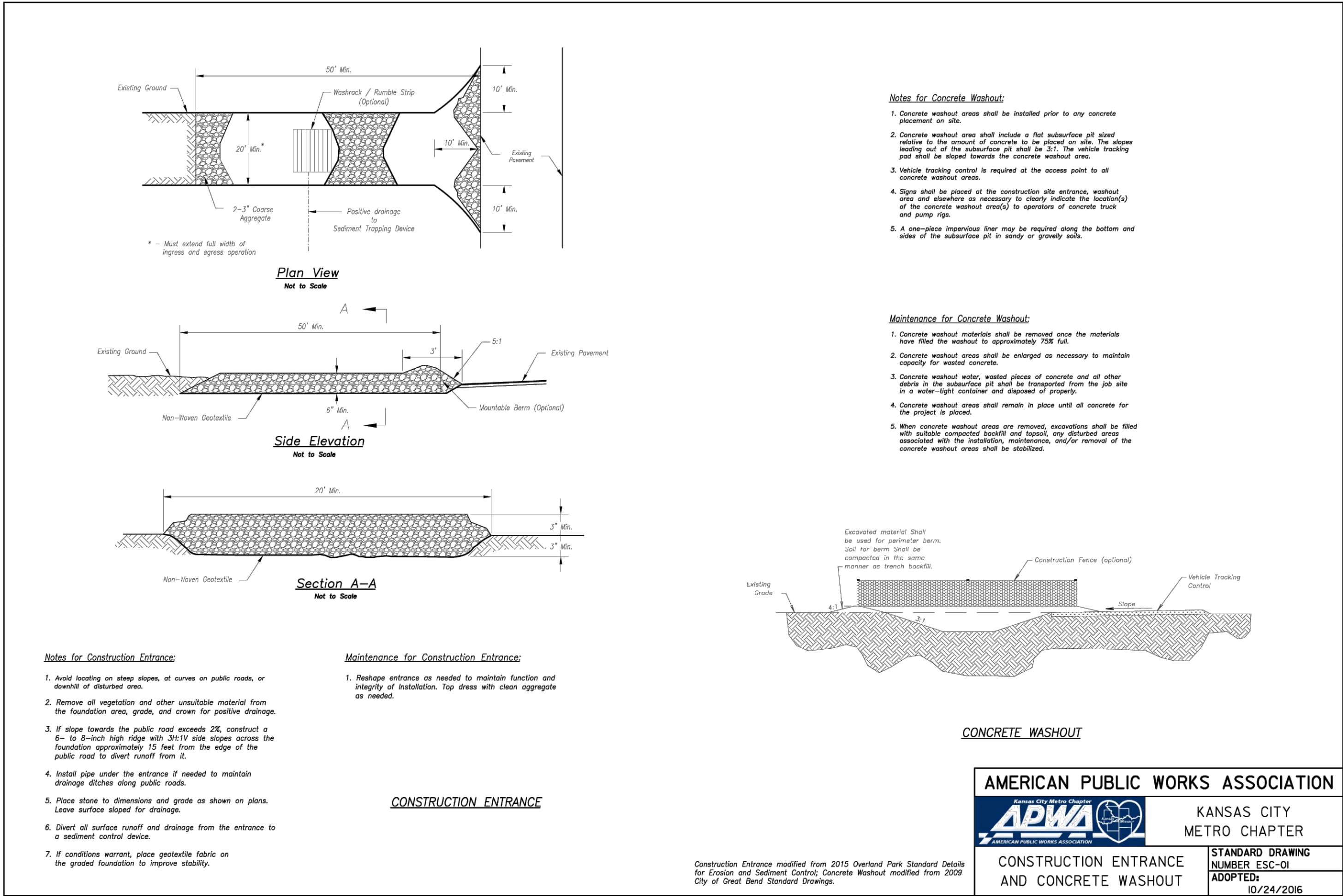
EROSION CONTROL PLAN

DESIGNED: NTE

DRAWN: NMD

PROJECT NO: 230286

SHEET:
CE 2.1



REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

PROFESSIONAL ENGINEER

NUMBER
PE-2003014960
12/05/24

NATHAN THOMAS ECKHOFF
MO LICENSE 2003014960

PREPARED BY:

CROCKETT

ENGINEERS & PLANNERS

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(314) 487-0292

www.crockettingeering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000000050

OWNER:

DISCOVERY PARK LEES SUMMIT LLC

4020 PHILLIPS FARM RD

COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOT 1

LEES SUMMIT, JACKSON COUNTY, MISSOURI

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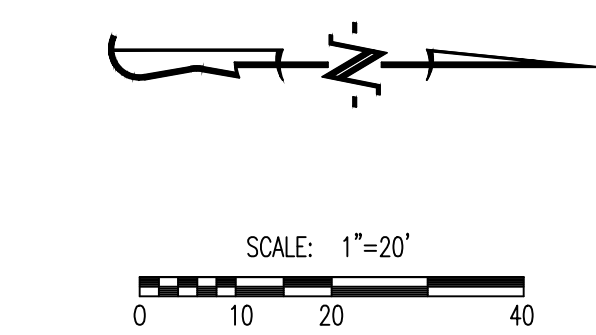
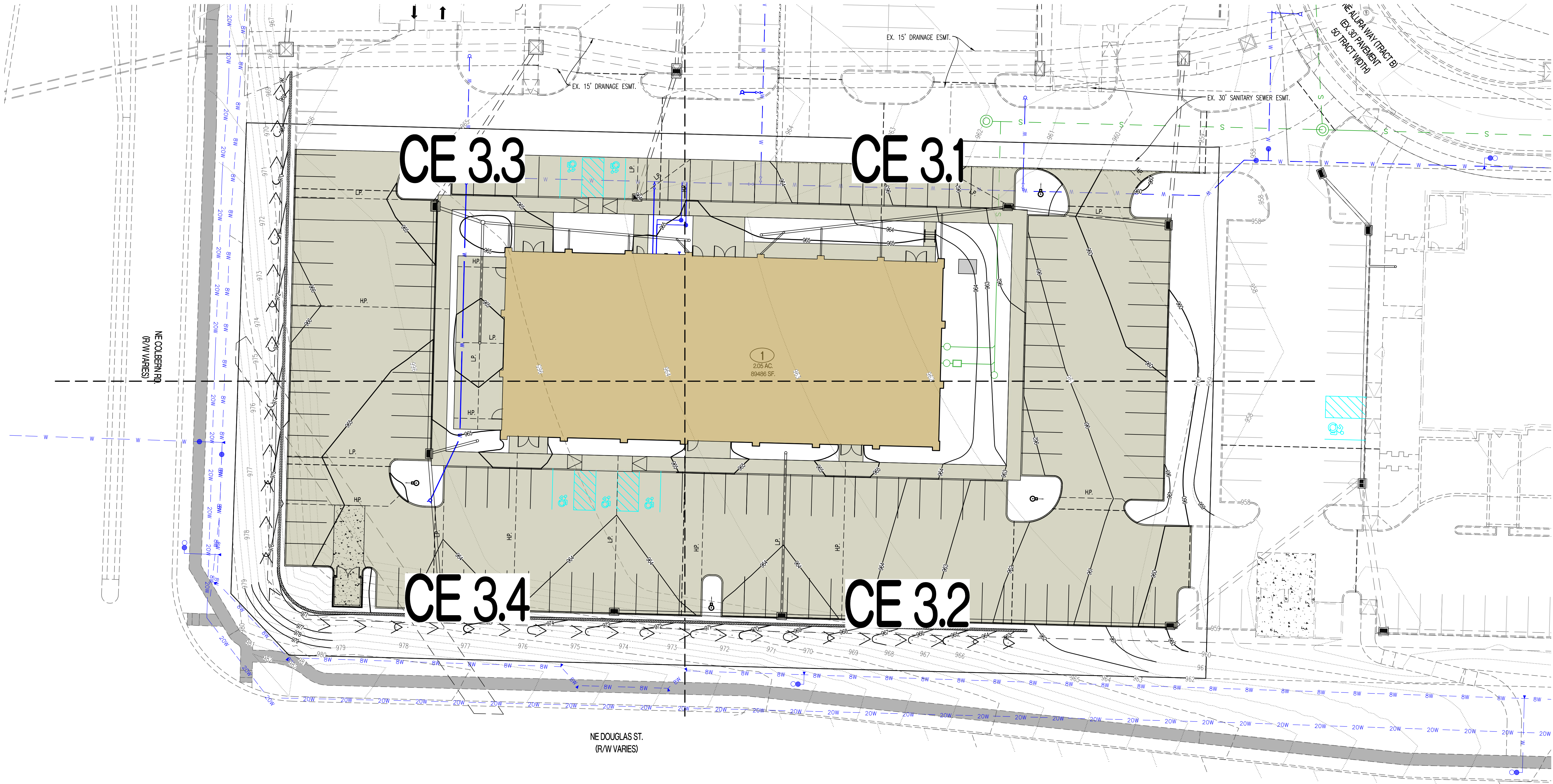
EROSION CONTROL DETAILS

DESIGNED: NTE

DRAWN: NMD

PROJECT NO: 230286

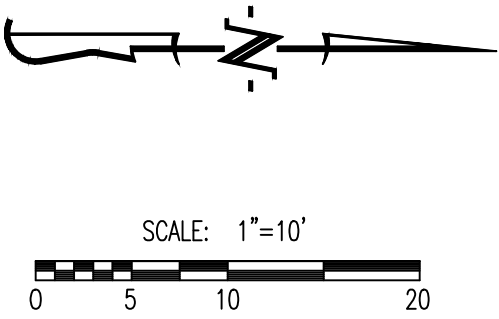
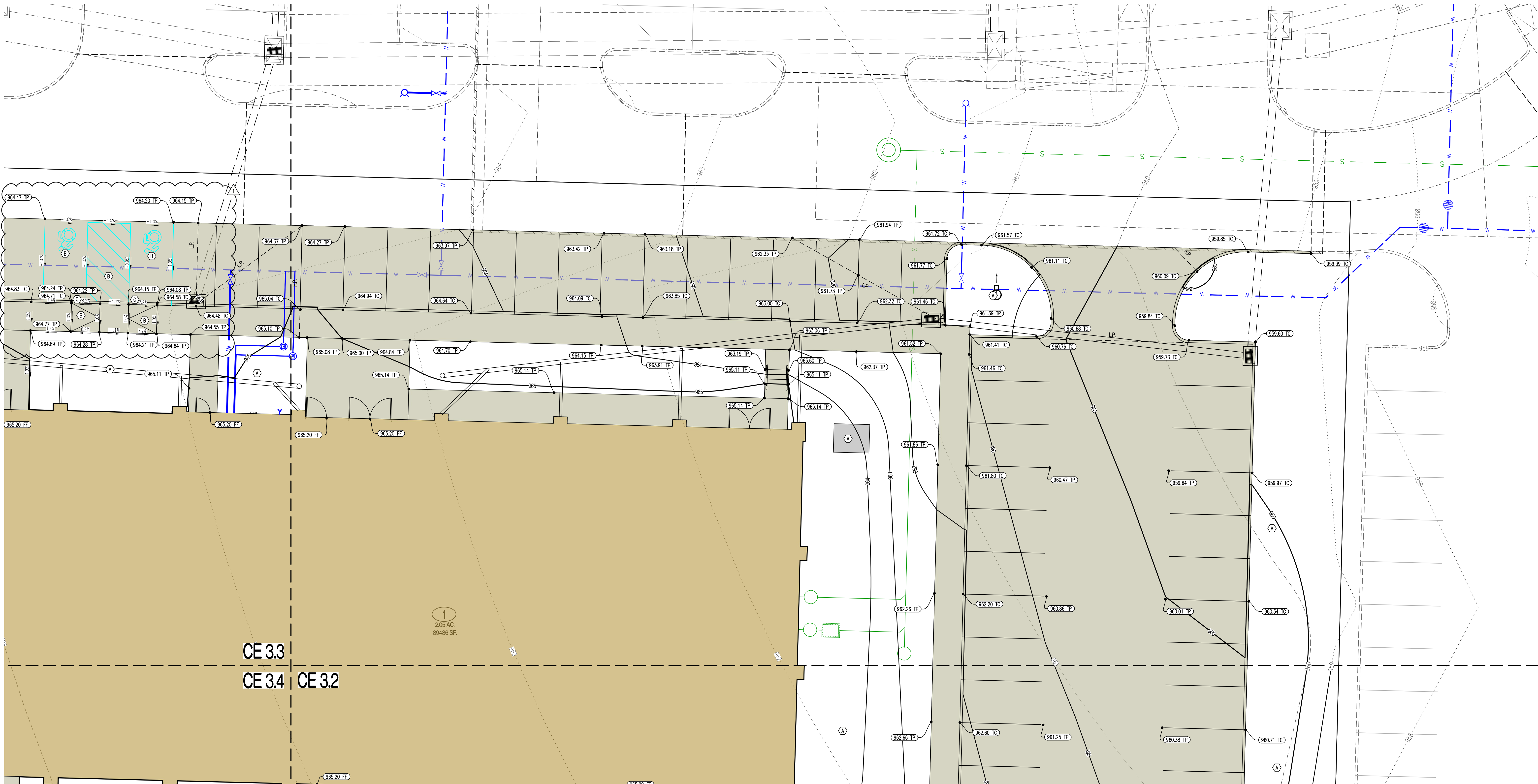
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LEGEND OF SYMBOLS:	
.....XXX.....	EXISTING MINOR CONTOUR
- - - - -XXX- - - - -	EXISTING MAJOR CONTOUR
.....XXX.....	PROPOSED MINOR CONTOUR
- - - - -XXX- - - - -	PROPOSED MAJOR CONTOUR
FF-XXXX	FINISHED FLOOR OF STRUCTURE

REVISIONS:	
NO.	DATE
ORIGINAL	10/18/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
NATHAN THOMAS ECKHOFF MO LICENSE: 200304960	
PREPARED BY:	
OWNER:	DISCOVERY PARK LEES SUMMIT LLC 4220 PHILLIPS FARM RD COLUMBIA, MO 65201
THE VILLAGE AT DISCOVERY LOT 1 LEES SUMMIT, JACKSON COUNTY, MISSOURI	
DRAWING INCLUDES:	
OVERALL GRADING	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO:	230286
SHEET:	CE 3.0

Y:\2023\230286 - Discovery Park Lees Summit\Zone 1 Lot 1\A040 Files\Construction Plans\230286 Lot 1 Grading Base.dwg



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

LEGEND OF SYMBOLS:

-----XX--	EXISTING MINOR CONTOUR
-----XX--	EXISTING MAJOR CONTOUR
-----XX--	PROPOSED MINOR CONTOUR
-----XX--	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 TW)	PROPOSED FINISHED GRADE AT TOP OF WALL
(XXXX.XX FF)	PROPOSED FINISHED FLOOR AT DOOR

REVISIONS:

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REV. 1	12/05/2024

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NATHAN THOMAS ECKHOFF
MO LICENSE 200304960

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DISCOVERY PARK LEES SUMMIT LLC
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COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY

LOT 1

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

GRADING SHEET 1

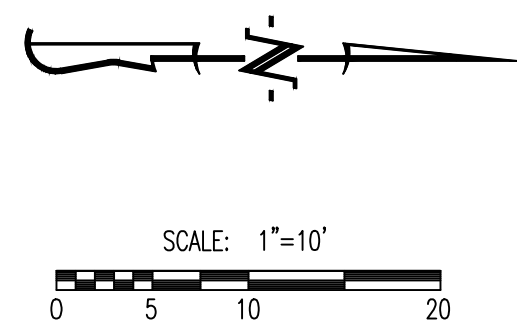
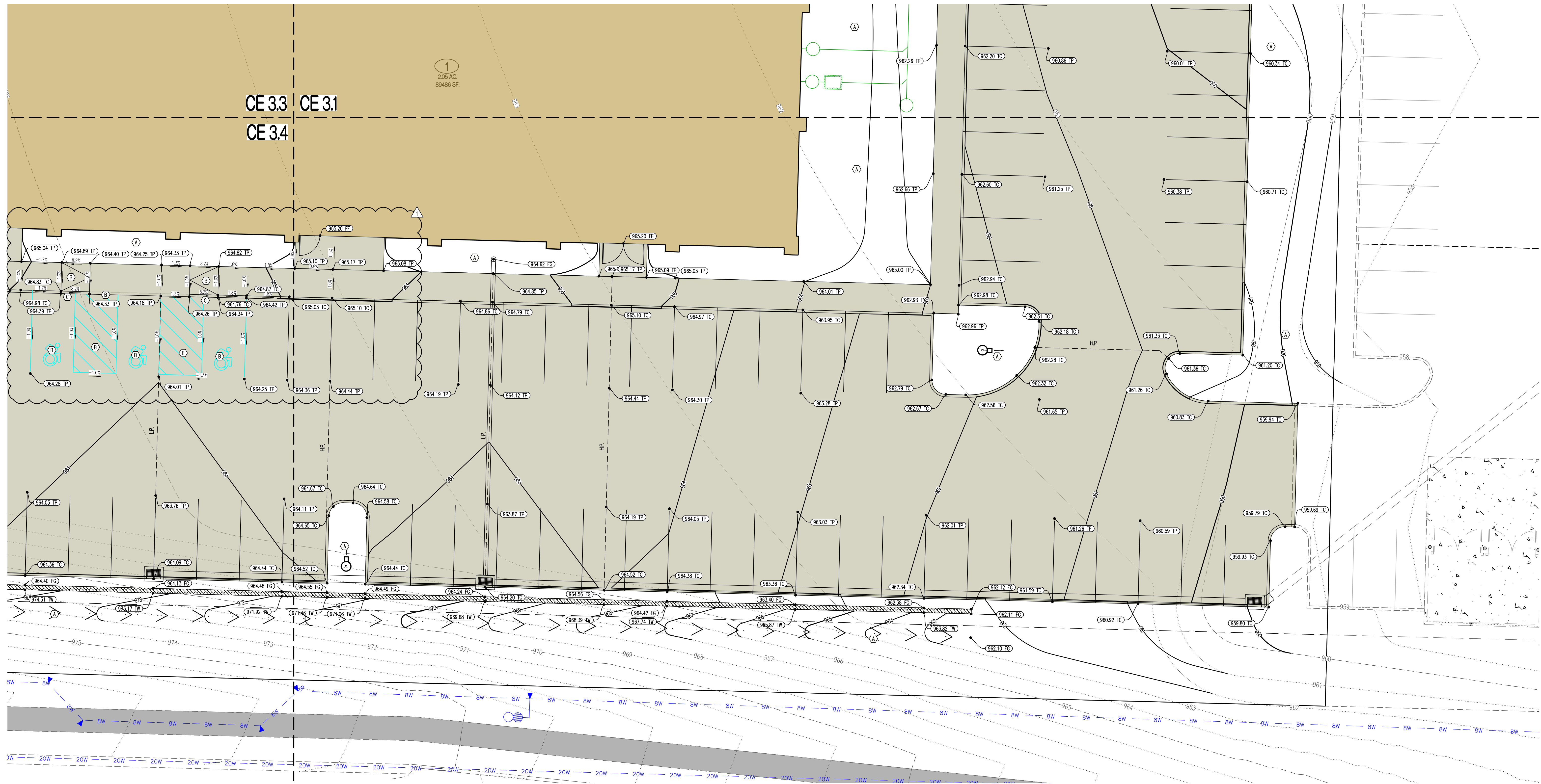
DESIGNED: NTE

DRAWN: NMD

PROJECT NO: 230286

SHEET: CE 3.1

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

LEGEND OF SYMBOLS:	
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- - -	EXISTING MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
- - -	PROPOSED MAJOR CONTOUR
FF-XXXX	FINISHED FLOOR OF STRUCTURE
XXXXXX TC	PROPOSED TOP OF CURB ELEVATION TC = (TP+6") UNLESS NOTED OTHERWISE
XXXXXX TP	PROPOSED TOP OF PAVEMENT ELEVATION
XXXXXX FG	PROPOSED FINISHED GRADE ELEVATION
XXXXXX TW	PROPOSED FINISHED GRADE AT TOP OF WALL
XXXXXX FF	PROPOSED FINISHED FLOOR AT DOOR

REVISIONS:

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NATHAN THOMAS ECKHOFF
MO LICENSE 200304960

PREPARED BY:

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Missouri Certificate of Authority
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OWNER:

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4220 PHILLIPS FARM RD
COLUMBIA, MO 65201

THE VILLAGE AT DISCOVERY
LOT 1
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

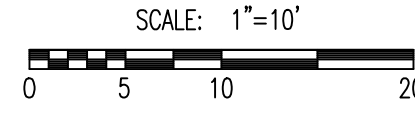
GRADING SHEET 2

DESIGNED: NTE

DRAWN: NMD

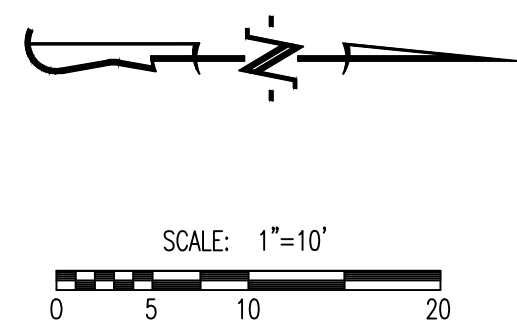
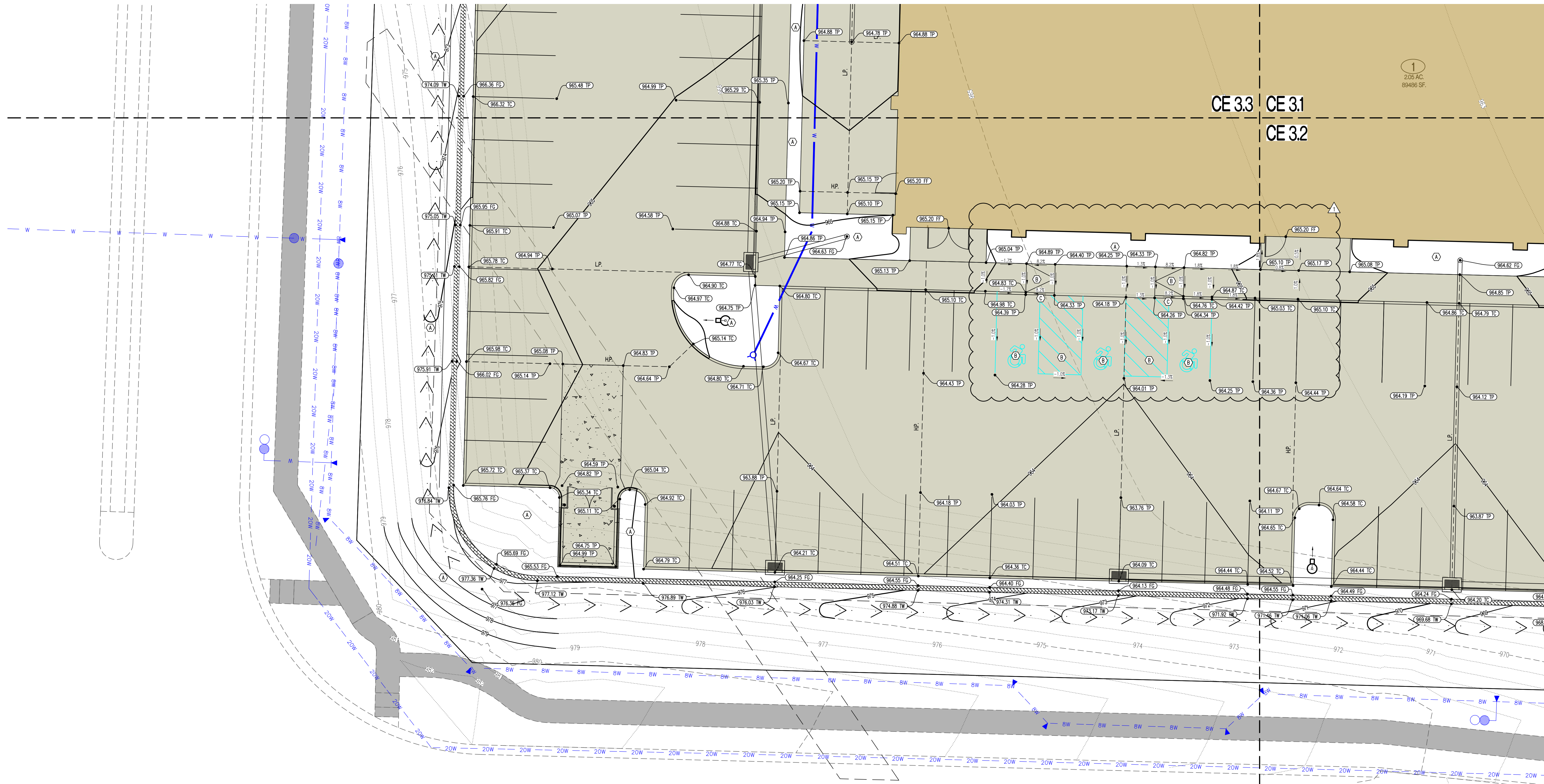
PROJECT NO: 230286

SHEET:
CE 32



SHEET: CE 3.3

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

LEGEND OF SYMBOLS:

-----XX--	EXISTING MINOR CONTOUR
-----XX--	EXISTING MAJOR CONTOUR
-----XX--	PROPOSED MINOR CONTOUR
-----XX--	PROPOSED MAJOR CONTOUR
FF-XXXX	FINISHED FLOOR OF STRUCTURE
(XXXX.XX TC)	PROPOSED TOP OF CURB ELEVATION TC = (TP+6") UNLESS NOTED OTHERWISE
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(XXXX.XX TW)	PROPOSED FINISHED GRADE AT TOP OF WALL
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REVISIONS:

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THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

REGISTERED PROFESSIONAL ENGINEER

NUMBER: PE-2003014960

EXPIRATION DATE: 12/05/24

NATHAN THOMAS ECKHOFF
MO LICENSE: 2003014960

PREPARED BY:

CROCKETT ENGINEERS & ARCHITECTS

1000 W. Illinois Street, Suite 100
Columbia, Missouri 65203
(314) 487-0592

www.crockettengineering.com

Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000000001

OWNER:

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

THE VILLAGE AT DISCOVERY

LOT 1

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

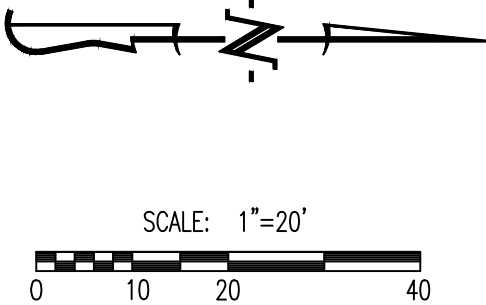
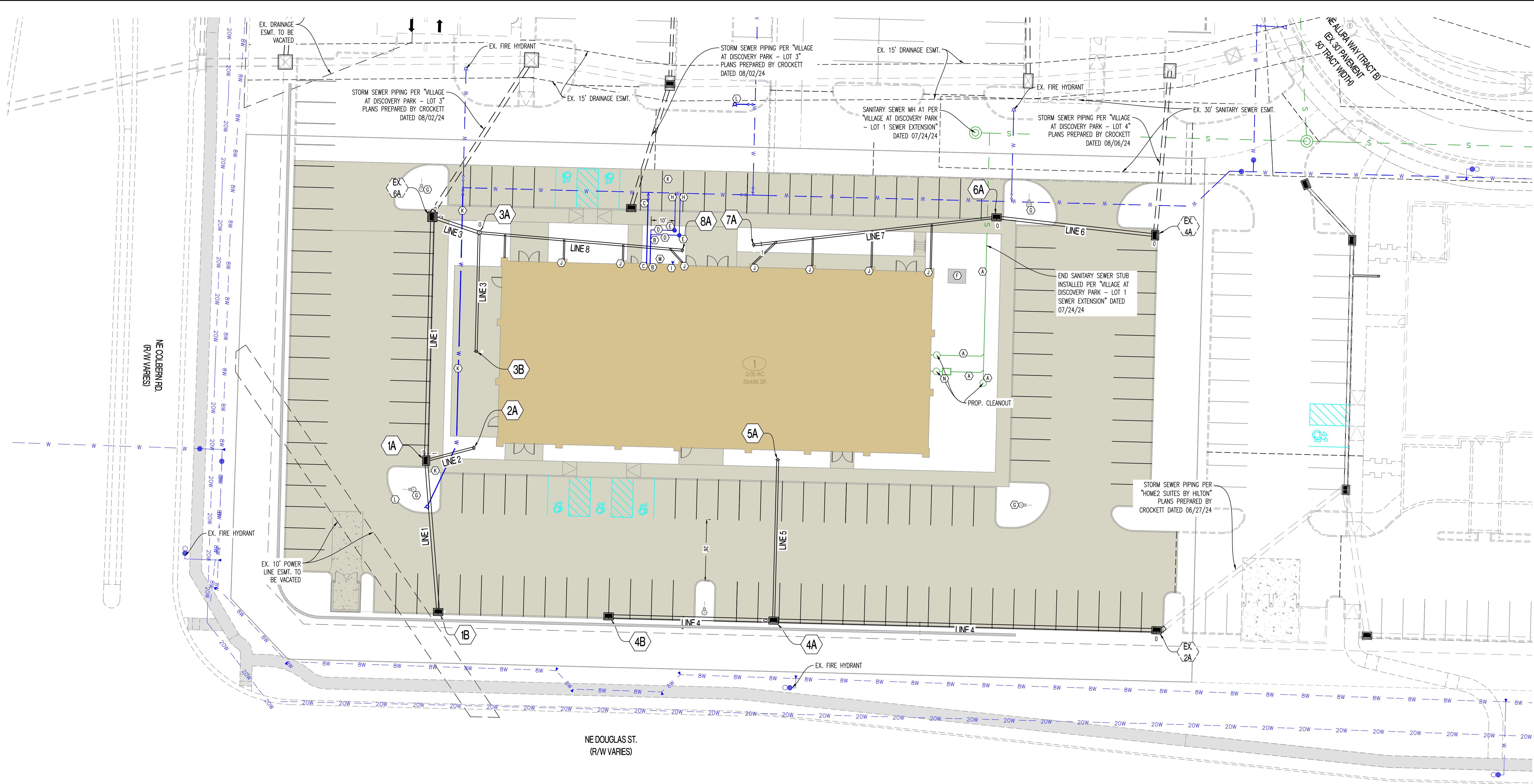
GRADING SHEET 4

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

SHEET: CE 3.4



LEGEND OF LABELS	
(A)	INSTALL 6" SDR 26 PVC LATERAL WITH CLEANOUTS AS SHOWN. INSTALL MAX ADAPTER AND CONNECT TO EXISTING SANITARY SEWER STUB AS SHOWN. 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 DETAIL 9 ON CE 5.2.
(B)	PROPOSED 3" CPVC WATERLINE SERVICE. REFER TO M.E.P. PLANS FOR BUILDING CONNECTION. CONFIRM SIZE AND MATERIAL WITH M.E.P. PLANS.
(C)	PROPOSED 6" CPVC FIRE LINE. CONNECT TO EXISTING WATERLINE INSTALLED PER "VILLAGE AT DISCOVERY PARK - LOT 3" PREPARED BY CROCKETT DATED 08/02/2024. CONTRACTOR TO VERIFY PIPE SIZE AND VALVE INSTALLATION AT MAIN. DOUBLE CHECK DETECTOR CHECK TO BE INSTALLED IN BUILDING. REFER TO M.E.P. PLANS. CONFIRM SIZE AND MATERIAL WITH SPRINKLER DESIGNER.
(D)	PROPOSED 2" TYPE K SOFT COPPER SERVICE LINE. USE 2" x 2" x 3" PIPE FITTING TO CONNECT SERVICE LINES A MINIMUM OF 10" BEYOND METER.
(E)	INSTALL 2" WATER METER AS SHOWN. CONTRACTOR TO VERIFY WITH M.E.P. PRIOR TO INSTALLATION. REFER TO CITY DETAIL WAT-11 ON CE 7.4.
(F)	PROPOSED TRANSFORMER. COORDINATE WITH M.E.P. AND UTILITY PROVIDER.
(G)	PROPOSED LIGHT POLE. REFER TO M.E.P. PLANS.
(H)	CONTRACTOR TO TAP EXISTING 6" WATERLINE AND INSTALL 2" TYPE K SOFT COPPER PIPE WITH 2" CORPORATION STOP VALVE AS SHOWN TO METER PIT. CONTRACTOR TO VERIFY SIZE AND DEPTH AND FURNISH ALL FITTINGS AS REQUIRED. REFER TO "THE VILLAGE AT DISCOVERY PARK LOT 3" BY CROCKETT DATED 08/02/2024 FOR EXISTING PLANNED WATERLINE. REFER TO CITY OF LEE'S SUMMIT DETAILS ON CE 7.4.
(I)	PROPOSED 4" STORZ FIRE DEPARTMENT CONNECTION (FDC). COORDINATE WITH ARCHITECT AND M.E.P.
(J)	PROPOSED 6" ROOF DRAIN. COORDINATE EXACT LOCATION WITH ARCHITECT. ROUTE 6" PVC TO COLLECTOR PIPE @ 1% MIN. SLOPE AS SHOWN. REFER TO CE 5.1 FOR PROFILE AND CONNECTION POINTS. REFER TO DETAIL 10 ON CE 5.2.
(K)	INSTALL 6" CPVC WITH VALVES AS SHOWN. CONTRACTOR TO INSTALL ALL BENDS, TEES, VALVES, AND THRUST BLOCKING AS REQUIRED BY CITY OF LEE'S SUMMIT STANDARDS.
(L)	PROPOSED FIRE HYDRANT. REFER TO DETAIL WAT-7 ON CE 7.4.
(M)	INSTALL GAS RISER FOR FUTURE GAS SERVICE. COORDINATE WITH UTILITY PROVIDER.
(N)	PROPOSED GREASE TRAP. REFER TO M.E.P. PLANS.

GENERAL NOTES:

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

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

REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

NUMBER
PE-2003014960
02/05/24

PROFESSIONAL ENGINEER

NATHAN THOMAS ECKHOFF
MO LICENSE 2003014960

PREPARED BY:

CROCKETT

ENGINEERS & ARCHITECTS

1000 W. Illinois Blvd., Suite 100
Columbia, Missouri 65203
(314) 487-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000001001

OWNER:

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

THE VILLAGE AT DISCOVERY

LOT 1

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

UTILITY PLAN

DESIGNED: NTE

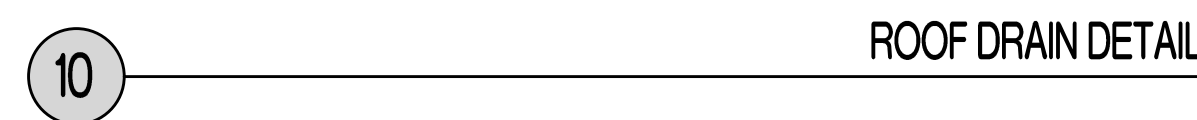
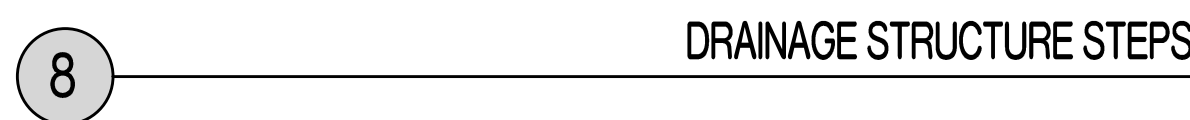
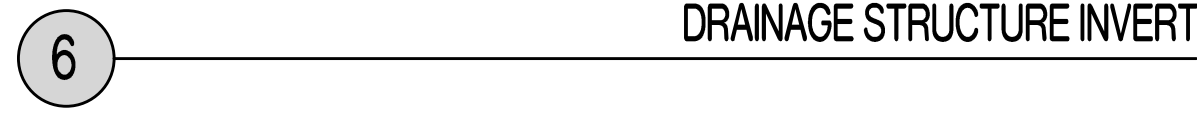
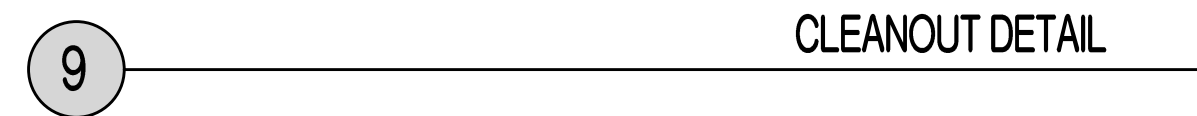
DRAWN: NMD

PROJECT NO.: 230286

SHEET:
CE 4.1

SOL FILL THICKNESS	• 9-INCHES OR LESS WHEN USING HEAVY SELF-PROPELLED COMPACTION EQUIPMENT • 6-INCHES OR LESS WHEN USING HAND GUIDED OR LIGHT SELF-PROPELLED EQUIPMENT
COMPACTION MOISTURE CONTENT REQUIREMENTS • LEAN TO FAT CLAY AND FAT CLAY • LEAN CLAY AND SILT • GRANULAR	• 2% BELOW STANDARD PROCTOR OPTIMUM MOISTURE CONTENT (OMC) TO 4% ABOVE THE STANDARD PROCTOR OPTIMUM MOISTURE CONTENT • 2% BELOW TO 3% ABOVE STANDARD PROCTOR OMC • WORKABLE MOISTURE CONTENT AND SHALL NOT PUMP WHEN PROOF-ROLLED ¹
COMPACTION REQUIREMENTS ²	95% OF STANDARD PROCTOR DRY DENSITY (ASTM D-698) 1. 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. 2. AS STATED WITHIN ASTM D698, THIS PROCEDURE IS INTENDED FOR SOLS 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.

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.
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.



REVISIONS:	
NO.	DATE
ORIGINAL	10/18/2024

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NATHAN THOMAS ECKHOFF
MO LICENSE: 200304960

PREPARED BY:

CROCKETT
ENGINEERING CONSULTANTS
1500 W. Illinois Blvd., Steg. 1
Columbia, MO 65204
(314) 447-0292

www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2000013101

OWNER:

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

THE VILLAGE AT DISCOVERY
LOT 1
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

STORM DETAILS CONT'D

DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	2302286
SHEET:	CE 5.2

The logo for Crockett Engineering Consultants features the word "CROCKETT" in a large, bold, yellow sans-serif font. A black crosshair is superimposed over the letter "O". Below "CROCKETT", the words "ENGINEERING CONSULTANTS" are written in a smaller, grey, sans-serif font.

1000 W. Nifong Blvd., Bldg. 1
Columbia, Missouri 65203
(573) 447-0292

Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
*2000151301



CROCKETT
ENGINEERING CONSULTANTS

PROJECT: The Village at Discovery Park - Lot 1

CALCULATED BY: NMD CHECKED BY: NTE

DATE: 10/16/24 PROJECT NO: 230286

[illegible]

CROCKETT
ENGINEERING CONSULTANTS

PROJECT: The Village at Discovery Park - Lot 1

CALCULATED BY: NMD CHECKED BY: NT

DATE: 10/16/24 PROJECT NO: 230286

STORM DRAIN PIPE SIZE											
DESCRIPTION		STORM DRAIN HYDRAULICS									NOTES
AREA NO.	UPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION	C _A		RAINFALL INTENSITY	RUNOFF	STORMWATER SLOPE	STORMWATER DRAIN DRAINAGE DRAINAGE DRAINAGE	STORMWATER MATERIAL	CAPACITY FLOWING FULL	VELOCITY FLOWING FULL
			ADDED	ORIGIN							
LINE 1											
1	1B	-5	0.18	0.18	8.53	152	0.010	12	HDPE	3.86	4.91
LINE 2 + 3	1A	-5	0.15	0.32	8.53	2.76	0.010	15	HDPE	6.99	5.70
LINE 3 + 4	EX. 6A	-5	0.33	0.66	8.53	5.61	0.010	18	HDPE	11.37	6.44
EX. 18" PIPE FROM DISCOVERY PARK LOT 3											
LINE 2											
2	2A	-5	0.00	0.00	8.53	0.03	0.010	10	PVC	2.59	4.75
LINE 3											
ROOF (14) + 5	3B	-5	0.16	0.16	8.53	1.38	0.010	10	PVC	2.59	4.75
6	3A	-5	0.00	0.17	8.53	1.41	0.010	12	HDPE	3.86	4.91
LINE 4											
7	4B	-5	0.16	0.16	8.53	1.37	0.020	15	HDPE	9.89	8.06
LINE 5 + 8	4A	-5	0.12	0.28	8.53	2.42	0.020	15	HDPE	9.89	8.06
10	EX. 2A	-5	0.20	0.48	8.53	4.09	0.020	18	HDPE	16.09	9.11
EX. PIPE FROM HOME#2 SUITES BY HILTON											
LINE 5											
ROOF (15) + 9	1C	-5	0.00	0.00	8.53	0.03	0.010	10	PVC	2.59	4.75
LINE 6											
ROOF (15) + 12	6B	-5	0.35	0.35	8.53	2.95	0.010	15	HDPE	3.86	4.91
13	EX. 4A	-5	0.25	0.60	8.53	5.08	0.010	15	HDPE	6.99	5.70
EX. STORM											
11	EX. 3A	-5	0.37	0.40	8.53	3.39	0.010	15	HDPE	6.99	5.70
EX. STORM LINE 3A FROM VILLAGE AT DISCOVERY PARK LOT 3 PLUS BYPASS											
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REVISIONS:

NO. _____ DATE _____

ORIGINAL	10/18/2024
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THIS SHEET HAS BEEN SIGNED SEALED AND

DATED ELECTRONICALLY



NATHAN THOMAS ECKHOF
MO LICENSE-2003014960

PREPARED BY:

CROCKETT
ENGINEERING CONSULTANTS

1000 W. Nifong Blvd., Bldg. 1
Columbia, Missouri 65203
(313) 447-0292

www.crockettengineering.com

Crockett Engineering Consultants, LLC
Missouri Certificate of Authority

OWNER:

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

THE VILLAGE AT DISCOVERY

LOT 1

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

25 YEAR STORM CALCS

DESIGNED: NTE

DRAWN: NMC

PROJECT NO.: 230286

SHEET

CE 5.3



4
-N-
B

PROJECT:	The Village at Discovery Park - Lot 1		
CALCULATED BY:	NMD	CHECKED BY:	NTE
DATE:	10/16/24	PROJECT NO:	230286

REVISIONS:	
NO.	DATE
ORIGINAL	10/18/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND
DATE/TIMESTAMPED ELECTRONICALLY



NATHAN THOMAS ECKHOFF
NUMBER
PE-20020 (14960)
12.05.24

NATHAN THOMAS ECKHOFF
NO LICENSE-200304960

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

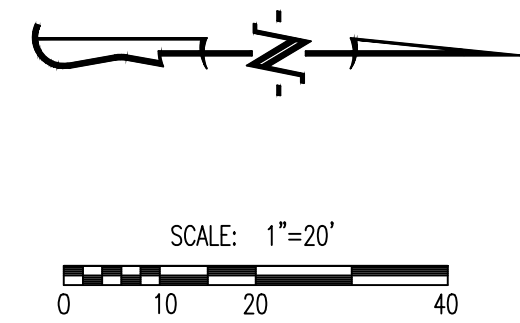
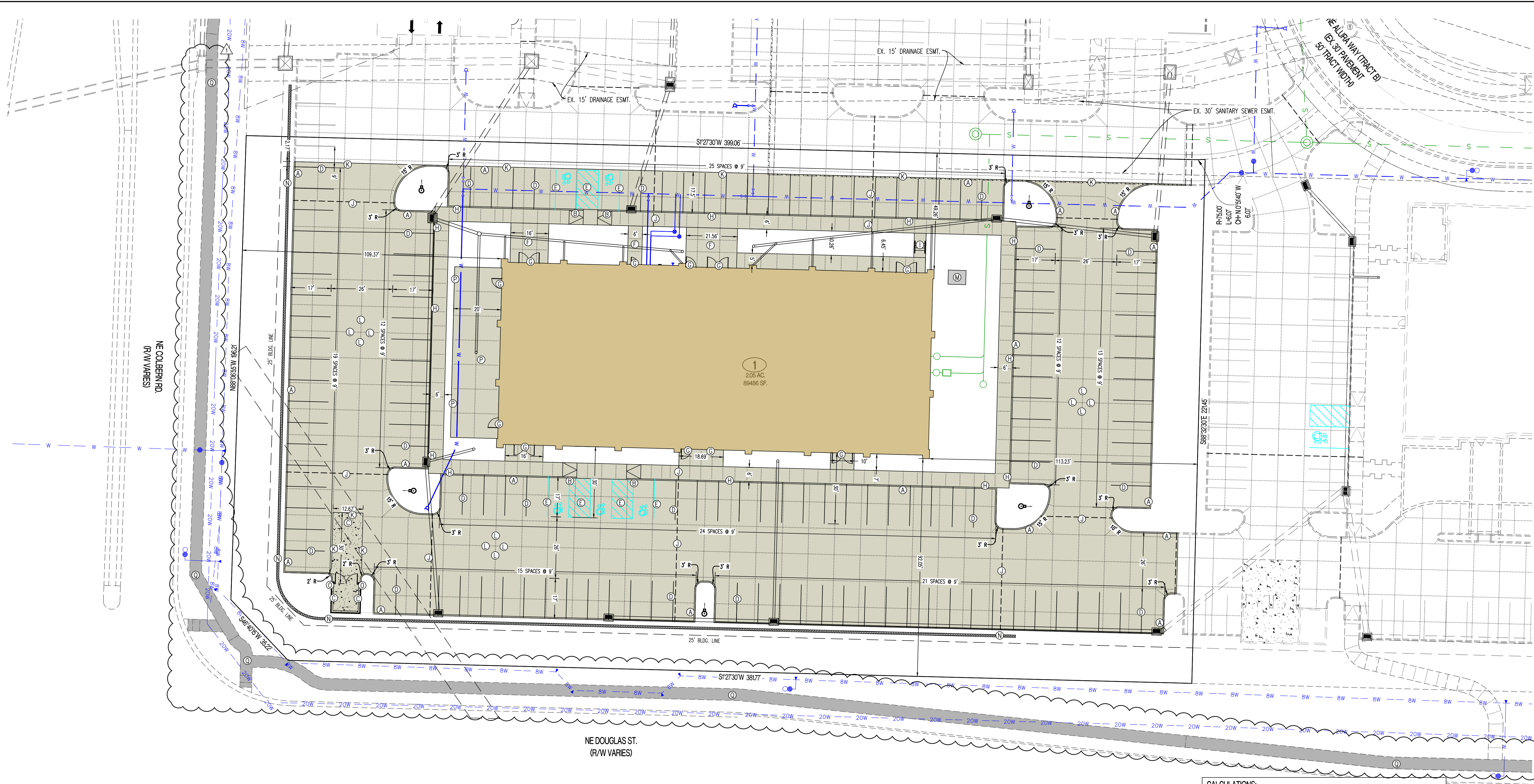
THE VILLAGE AT DISCOVERY
LOT 1
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 5.4

PROJECT:	The Village at Discovery Park - Lot 1		
CALCULATED BY:	NMD	CHECKED BY:	NTE
DATE:	10/16/24	PROJECT NO:	230286

STORM DRAIN PIPE SIZE													
DESCRIPTION		STORM DRAIN HYDRAULICS										NOTES	
AREA NO.	UPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION			CHANNEL INTENSITY in/h/v	RUNOFF cfs	STORMWATER SLOPE ft/ft	STORM WATER PIPE DIAMETER in	STORMWATER MATERIAL RCP DIP PVC OR HDPE	CAPACITY FLOWING FULL cfs	VELOCITY FLOWING FULL fps		
		CA		TOTAL ft/min									
		ADDED acres	ft/min										
min	acres												
LINE 1													
1	1B	<5	0.20	0.20	10.32	2.04	0.010	12	HDPE	3.86	4.91		
LINE 2 + 3	1A	<5	0.16	0.36	10.32	3.72	0.010	15	HDPE	6.99	5.70		
LINE 3 + 4	EX 6A	<5	0.36	0.72	10.32	7.39	0.010	18	HDPE	11.37	6.44	EX 18" PIPE FROM DISCOVERY PARK LOT 3	
LINE 2													
2	2A	<5	0.00	0.00	10.32	0.04	0.010	10	PVC	2.59	4.75		
LINE 3													
ROOF (14) + 5	3B	<5	0.16	0.16	10.32	1.69	0.010	10	PVC	2.59	4.75		
6	3A	<5	0.00	0.17	10.32	1.73	0.010	12	HDPE	3.86	4.91		
LINE 4													
7	4B	<5	0.18	0.18	10.32	1.84	0.020	15	HDPE	9.89	8.06		
LINE 5 + 8	4A	<5	0.12	0.30	10.32	3.12	0.020	15	HDPE	9.89	8.06		
10	EX 2A	<5	0.22	0.52	10.32	5.36	0.020	18	HDPE	16.09	9.11	EX PIPE FROM HOME2 SUITES BY HILTON	
LINE 5													
9	1C	<5	0.00	0.00	10.32	0.04	0.010	10	PVC	2.59	4.75		
LINE 6													
ROOF (16) + 12	6A	<5	0.37	0.37	10.32	3.78	0.010	12	HDPE	3.86	4.91		
13	EX 4A	<5	0.28	0.64	10.32	6.64	0.010	15	HDPE	6.99	5.70		
EX STORM													
11	EX 3A	<5	0.42	0.43	10.32	4.47	0.010	15	HDPE	6.99	5.70	EX STORM LINE 3A FROM VILLAGE AT DISCOVERY PARK LOT 3 PLUS BYPASS	
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Y:\2023\230286 - Discovery Park Lees Summit\Zone 1 Lot 1\A040 Files\Construction Plans\230286 Lot 1 Site Base.dwg



LEGEND OF LABELS

- | | |
|--|---|
| (A) CONSTRUCT LIGHT DUTY CONCRETE W/ INTEGRAL CURB AS SHOWN. REFER TO DETAIL 1 & 2 ON CE 7.1. | (I) INSTALL TYPE A OR TYPE A ALTERNATE EXPANSION JOINT IN PAVING. REFER TO DETAIL 6 ON CE 7.1. |
| (B) TRANSITION FROM 6" CURB TO 0" CURB. REFER TO CE 3.1-CE 3.4. | (K) INSTALL TYPE B CONSTRUCTION JOINT WHERE PROPOSED CONCRETE PAVING ABUTS EXISTING CONCRETE PAVING. REFER TO DETAIL 6 ON CE 7.1. |
| (C) DUMPSTER PAD AREA W/ INTEGRAL CURB AS SHOWN. REFER DETAIL 7 ON CE 7.1. REFER TO ARCHITECTURAL PLANS FOR PROPOSED DUMPSTER ENCLOSURE DETAILS. | (L) INSTALL TYPE C SAW JOINT IN PAVEMENT, MAXIMUM 12'X12' SQUARES (TYPICAL). REFER TO DETAIL 6 ON CE 7.1. |
| (D) PAINT 4" PARKING STALL STRIPES AS SHOWN, COLOR WHITE (TYPICAL) ALL STALLS EXCEPT ADA ACCESSIBLE STALLS. REFER TO PLAN FOR WIDTH AND DEPTH OF STALLS. | (M) PROPOSED TRANSFORMER PAD. COORDINATE WITH M.E.P. FOR EXACT SIZE AND LOCATION. |
| (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 8 ON CE 7.2. | (N) INSTALL RETAINING WALL W/ PEDESTRIAN GUARDRAIL WHEN ELEVATION DIFFERENCE IS OVER 30" IN HEIGHT. GUARDRAIL SHALL CONFORM TO SECTION 1015 OF THE 2018 I.B.C. (SEE PEDESTRIAN GUARDRAIL REQUIREMENTS NOTE ON THIS SHEET FOR REQUIREMENTS). REFER TO CE 3.0-CE 3.4 FOR ELEVATIONS. RETAINING WALLS WITH A HEIGHT OF 4 FEET OR GREATER (MEASURED FROM BOTTOM-OF-FOOTING TO TOP-OF-WALL), OR THAT SUPPORT A SURCHARGE, REQUIRE SUBMITTAL OF DETAILED PLANS AND CALCULATIONS BY AN ENGINEER, DEMONSTRATING COMPLIANCE WITH IBC 1807.2. THIS WILL BE A DEFERRED SUBMITTAL. WALL TYPE AND COLOR TO BE APPROVED BY OWNER. |
| (F) CONSTRUCT 4" THICK, PCC WALK PER PLAN DIMENSIONS AS SHOWN (MAXIMUM LONGITUDINAL SLOPE 1:20. MAXIMUM CROSS SLOPE AT 1:50). REFER DETAIL 5 ON CE 7.1. | (O) INSTALL PIPE BOLLARD AS SHOWN. REFER TO DETAIL 9 ON CE 7.2. |
| (G) CONSTRUCT THICKENED EDGE SIDEWALK/PAVEMENT ABUTTING BUILDING PER PLAN DIMENSIONS AS SHOWN (MAXIMUM LONGITUDINAL SLOPE 1:20. MAXIMUM CROSS SLOPE AT 1:50). REFER TO DETAIL 4 ON CE 7.1. | (P) PROPOSED PATIO AREA. REFER TO DETAIL 5 ON CE 7.1. REFER TO ARCHITECTURAL PLANS. |
| (H) CONSTRUCT THICKENED EDGE SIDEWALK WALK AT BACK OF CURB PER PLAN DIMENSIONS AS SHOWN (MAXIMUM LONGITUDINAL SLOPE 1:20. MAXIMUM CROSS SLOPE AT 1:50). REFER TO DETAIL 3 ON CE 7.1. | (Q) 5' STREET-SIDE SIDEWALK TO BE CONSTRUCTED PER SEPARATE PLANS. REFER TO OLSSON PLANS TITLED "THE VILLAGE AT DISCOVERY PARK COLBERN ROAD AND DOUGLAS STREET PUBLIC ROAD IMPROVEMENTS" DATED 07/23/2023. |
| (I) INSTALL PCC STAIRS WITH HANDRAIL IN SIDEWALK. REFER TO DETAIL 10 ON CE 7.2 REFER TO CE 3.1-CE 3.4 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.

PEDESTRIAN GUARD RAIL REQUIREMENTS NOTE:

- SHALL BE 42" TALL ABOVE ADJACENT WALKING SURFACE.
- SHALL NOT HAVE OPENINGS LARGE ENOUGH TO PASS A 4" SPHERE.
- MAIN RAILS SHALL RESIST 50 POUND PER LINEAL FOOT LATERALLY AT THE TOP RAIL OR 200 POUNDS CONCENTRATED LOAD LATERALLY.
- INTERMEDIATE RAILS SHALL RESIST A CONCENTRATED LOAD OF 50 POUNDS LATERALLY.

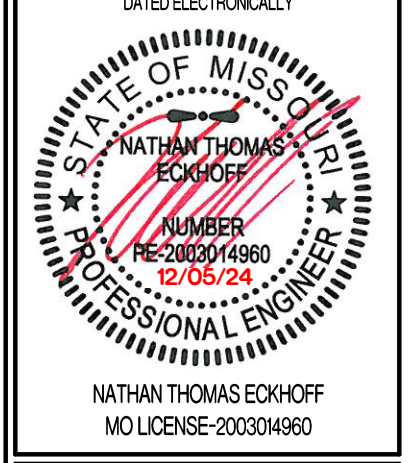
CALCULATIONS:

LAND AREA:		
TOTAL LAND AREA:		2.05 AC
BUILDING DETAILS:		
1ST FLOOR:	14,112 SQ.FT.	
2ND FLOOR:	14,112 SQ.FT.	
TOTAL S.F. (2-STORIES)	28,224 SQ.FT.	
PARKING SUMMARY:		
SPACES REQUIRED:		
RESTAURANT - FAST-FOOD AND SIT-DOWN - 14 PER 1,000 S.F. (2,500 S.F.)	35 SPACES	
OFFICES - GENERAL AND PROFESSIONAL (NOT MEDICAL, DENTAL OR VETERINARY) - 4 PER 1,000 S.F. (25,724 S.F.)	103 SPACES	
STANDARD SPACES REQUIRED:		138 SPACES
HANDICAP SPACES REQUIRED:		5 SPACES
SPACES PROVIDED:		
STANDARD SPACES PROVIDED:	139 SPACES	
HANDICAP SPACES PROVIDED:	5 SPACES	
TOTAL SPACES PROVIDED:	142 SPACES	
LOT COVERAGES:		
NET LAND AREA:	89,486 SQ.FT.	100%
TOTAL IMPERVIOUS SURFACE AREA:	65,220 SQ.FT.	73%
TOTAL OPEN SPACE:	24,266 SQ.FT.	27%
FLOOR AREA RATIO:		31%

REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024
REV. 1	12/05/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.



PREPARED BY:
CROCKETT
ENGINEERS & ARCHITECTS
1000 W. Illinois Blvd., Suite 100
Columbia, Missouri 65203
(314) 487-0591
www.crockettengineering.com
Missouri Certificate of Authority
#000000001

OWNER:

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

THE VILLAGE AT DISCOVERY LOT 1 LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

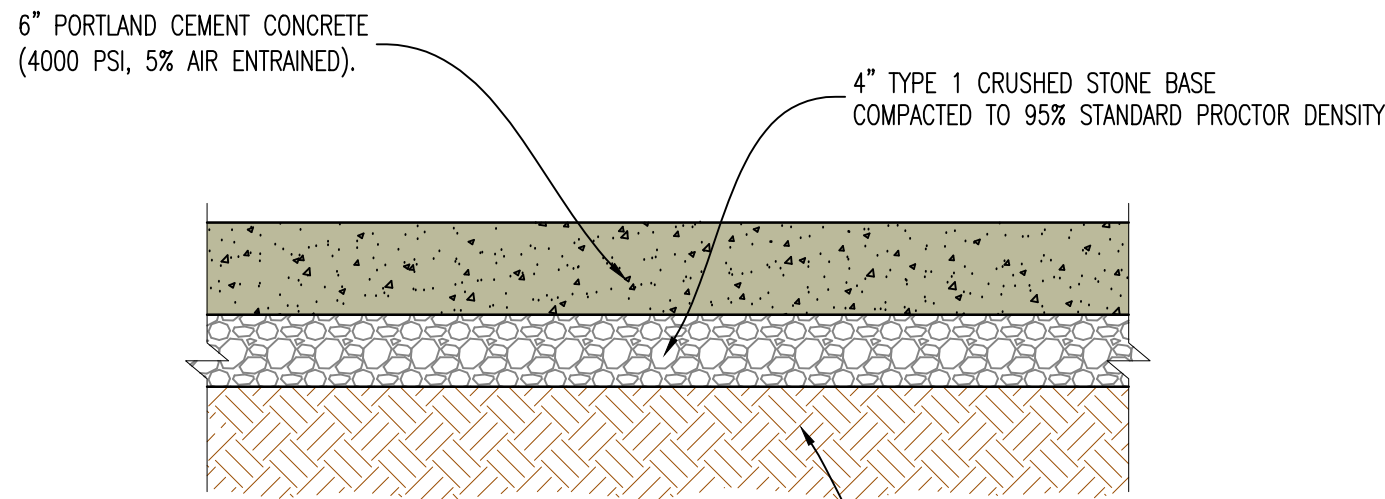
SITE PLAN

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

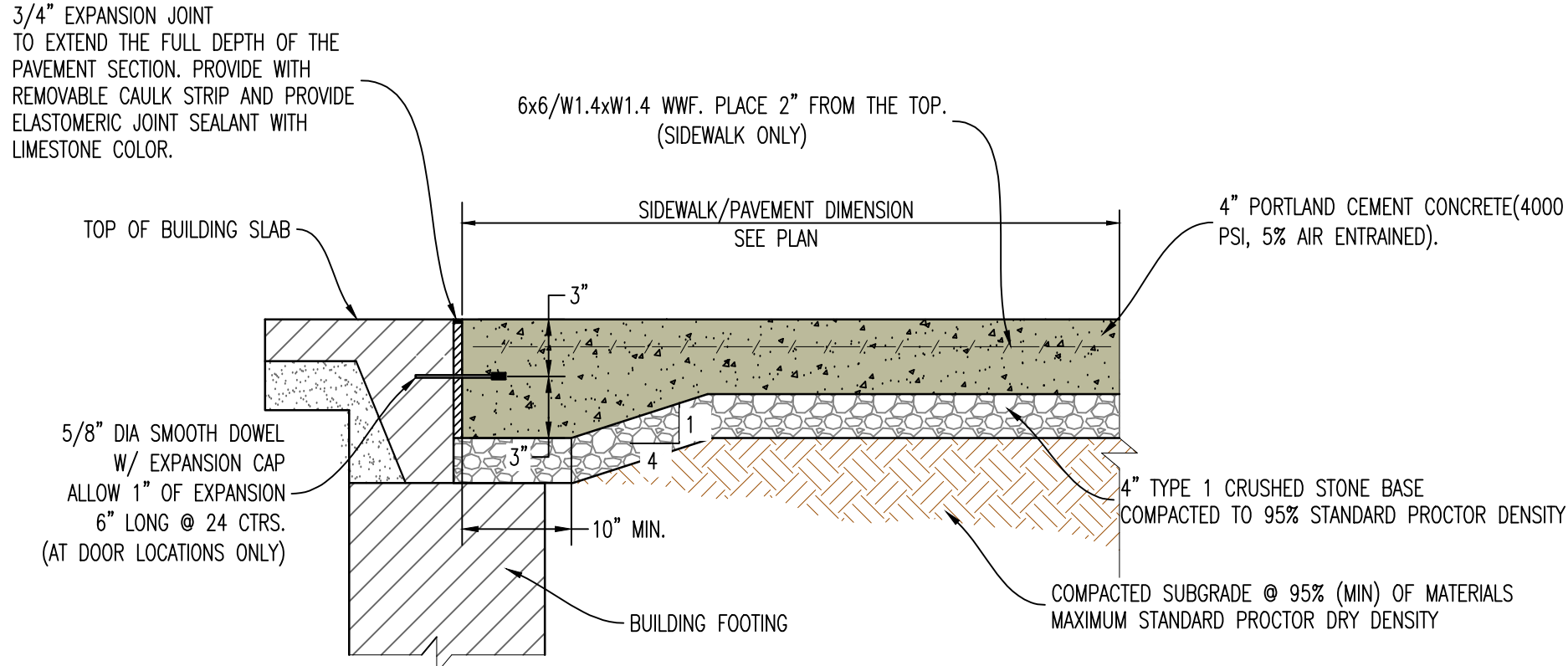
SHEET:
CE 6.1



NOTES:
ALL PAVEMENT IS TO HAVE PANELS SAW CUT WITH JOINTS NO LARGER THAN 12'X12' IN SIZE. FILL JOINT WITH BITUMINOUS SEALER.

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

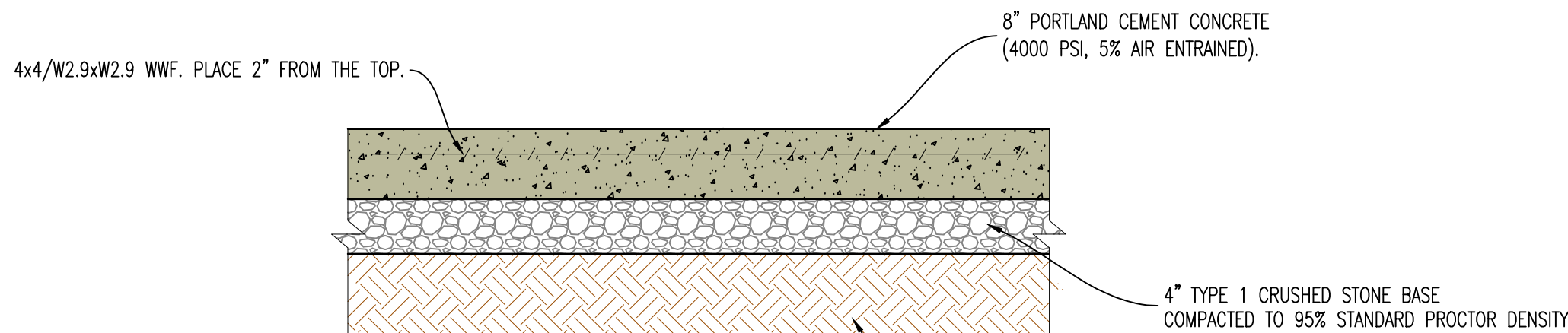
1 LIGHT DUTY CONCRETE PAVEMENT CROSS-SECTION



NOTES:
ALL LOW VOLUME CHANGE MATERIAL IN LOCATIONS OF SIDEWALK/PAVEMENT PLACED NEXT TO BUILDING IS TO BE REMOVED COMPLETELY AND REPLACED WITH TYPE 1 CRUSHED STONE BASE COMPACTED TO 95% STANDARD PROCTOR DENSITY PRIOR TO SIDEWALK/PAVEMENT INSTALLATION. JOINT SEALER TO BE BITUMINOUS SEALER IN PARKING AREAS AND NON-BITUMINOUS IN SIDEWALK/WALKING SURFACES (COLOR GRAY)

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

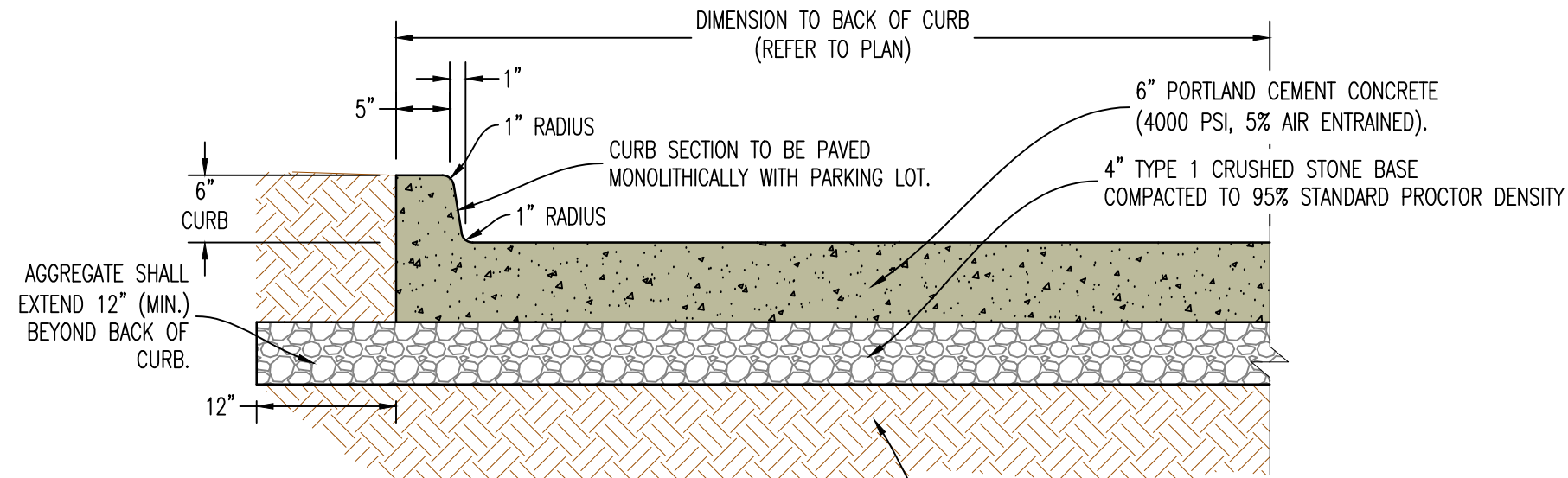
4 SIDEWALK/PAVEMENT ABUTTING BUILDING



NOTES:
ALL PAVEMENT IS TO HAVE PANELS SAW CUT WITH JOINTS NO LARGER THAN 12'X12' IN SIZE. FILL JOINT WITH BITUMINOUS SEALER.

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

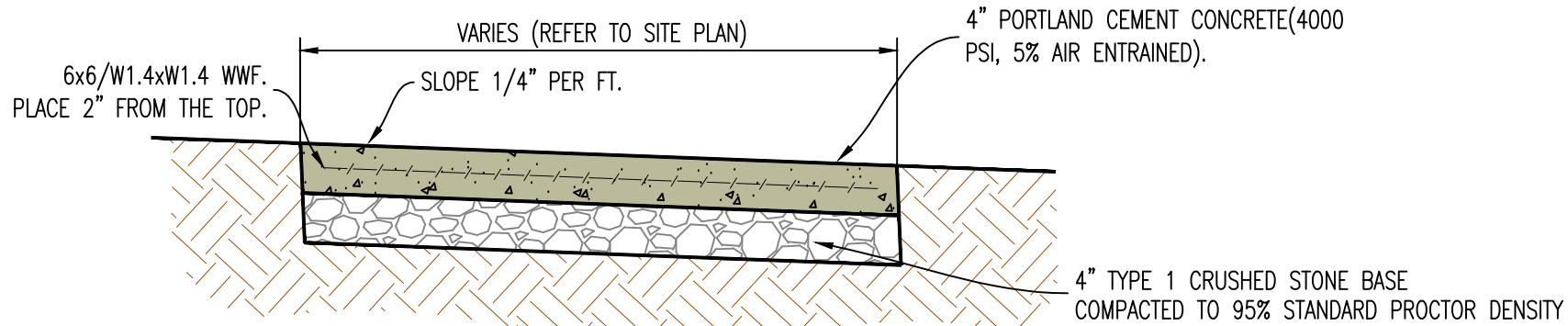
7 HEAVY DUTY CONCRETE PAVEMENT CROSS-SECTION (REINFORCED)



NOTES:
ALL PAVEMENT IS TO HAVE PANELS SAW CUT WITH JOINTS NO LARGER THAN 12'X12' IN SIZE. FILL JOINT WITH BITUMINOUS SEALER.

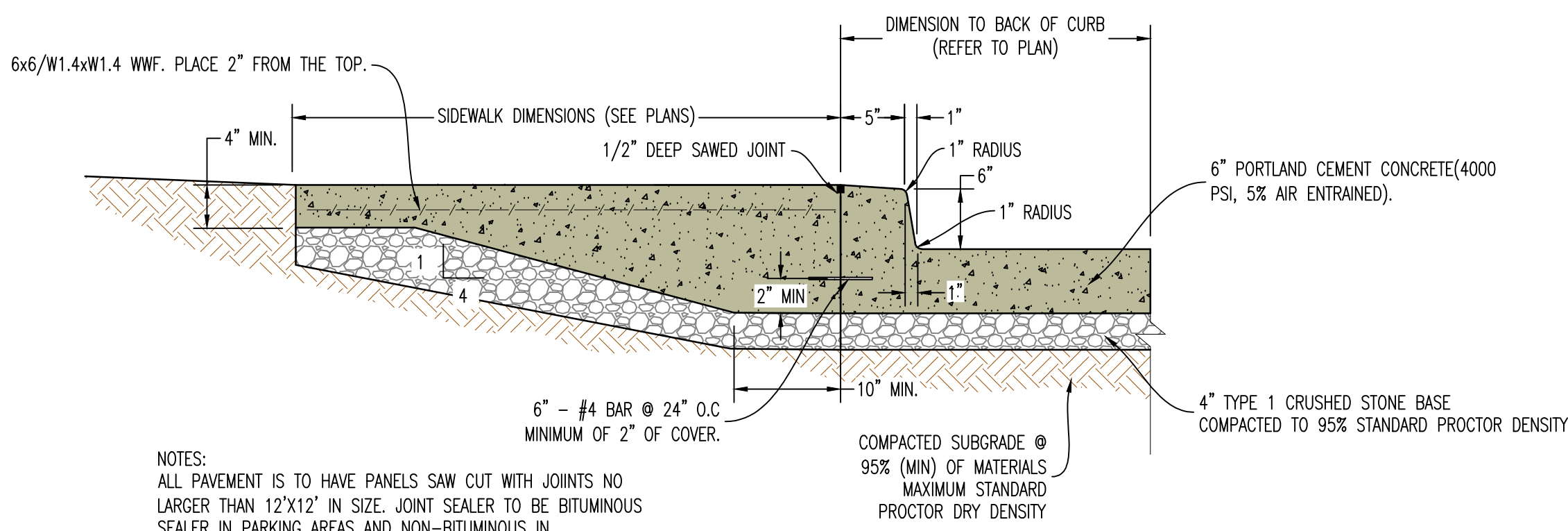
ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS SHALL CONFORM TO THE KOMMB SPECIFICATIONS.

2 6" CONCRETE BARRIER CURB CROSS-SECTION



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

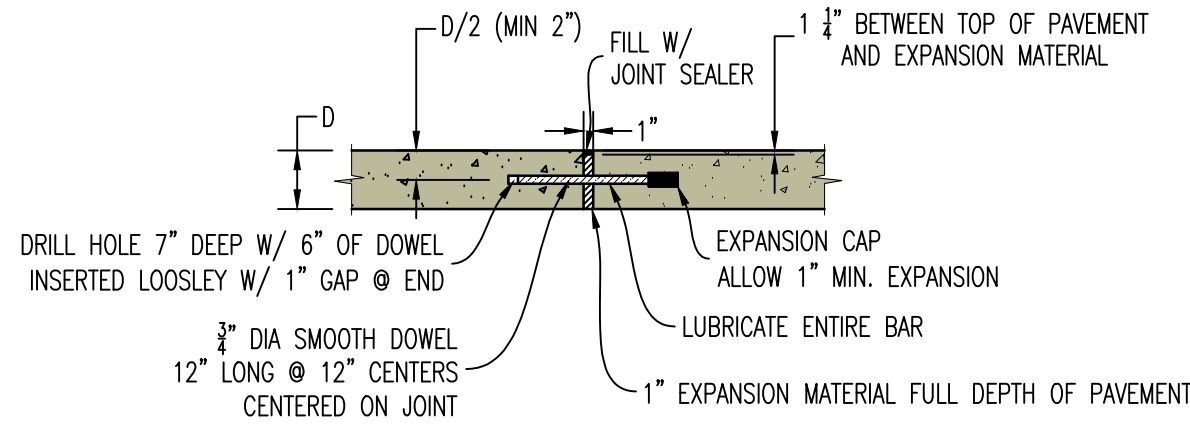
5 TYPICAL CONCRETE SIDEWALK



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

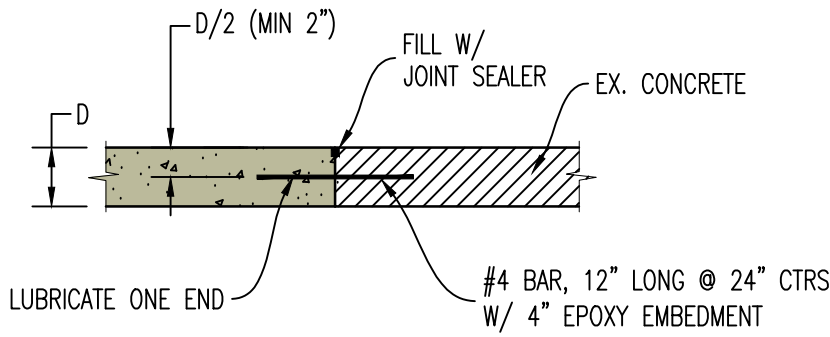
ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS SHALL CONFORM TO THE KOMMB SPECIFICATIONS.

3 THICKENED EDGE SIDEWALK WITH INTEGRAL CURB & GUTTER

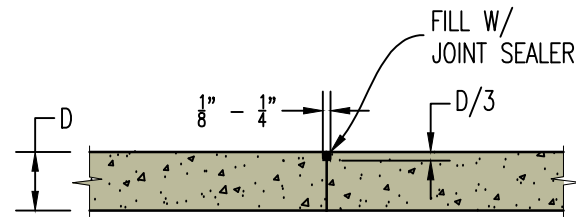


- NOTES:
1. ALL BARS TO BE INSTALLED PERPENDICULAR TO EDGE AND IN SAME PLANE TO PREVENT LOCKING OF JOINT.
 2. EDGE OF PAVEMENT TO BE SAWED/FORMED TO A CLEAN EDGE FOR INSTALLATION OF EXPANSION JOINT.

TYPE A - EXPANSION JOINT

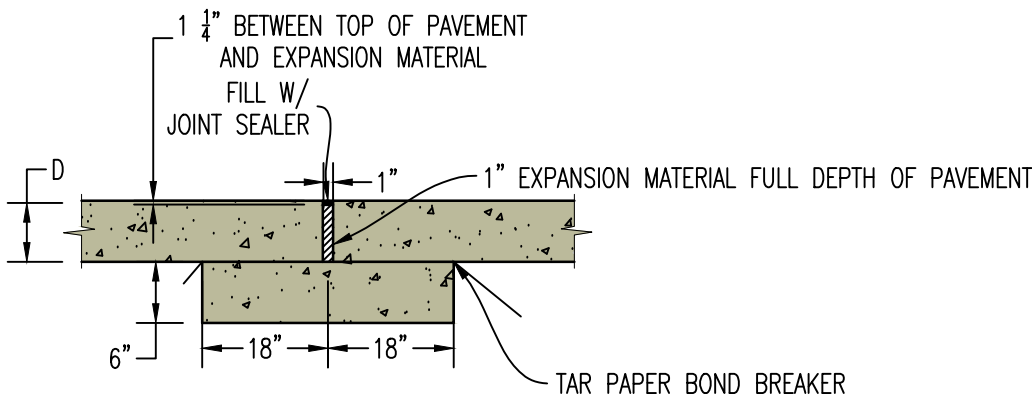


TYPE B - CONSTRUCTION JOINT



NOTE:
MAXIMUM DISTANCE BETWEEN SAW JOINTS TO BE 12'

TYPE C - CONTROL JOINT 'SAWED'



TYPE A ALTERNATE
CONCRETE SILL

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

6 CONCRETE PAVEMENT JOINT DETAILS

REVISIONS:	
NO.	DATE
ORIGINAL	10/18/2024
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
NATHAN THOMAS ECKHOFF MO LICENSE 200304960	
PREPARED BY: ENGINEERS & ARCHITECTS 1000 W. Illinois Blvd., Suite 100 Columbia, Missouri 65203 (314) 487-0292 www.crockettengineering.com Missouri Certificate of Authority #000000001	
OWNER: DISCOVERY PARK LEES SUMMIT LLC 4220 PHILLIPS FARM RD COLUMBIA MO 65201	
THE VILLAGE AT DISCOVERY LOT 1 LEES SUMMIT, JACKSON COUNTY, MISSOURI	
DRAWING INCLUDES: DETAILS SHEET 1	
DESIGNED:	NTE
DRAWN:	NMD
PROJECT NO.:	230286
SHEET:	CE 7.1

REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

NUMBER

PE-2003014960

12/05/24

PROFESSIONAL ENGINEER

NATHAN THOMAS ECKHOFF
MO LICENSE 2003014960

PREPARED BY:

CROCKETT

ENGINEERS & ARCHITECTS

1000 W. Illinois Blvd., Suite 100
Columbia, Missouri 65203
(314) 447-0292

www.crockettengineering.com

Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#000000001

OWNER:

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

THE VILLAGE AT DISCOVERY
LOT 1
LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

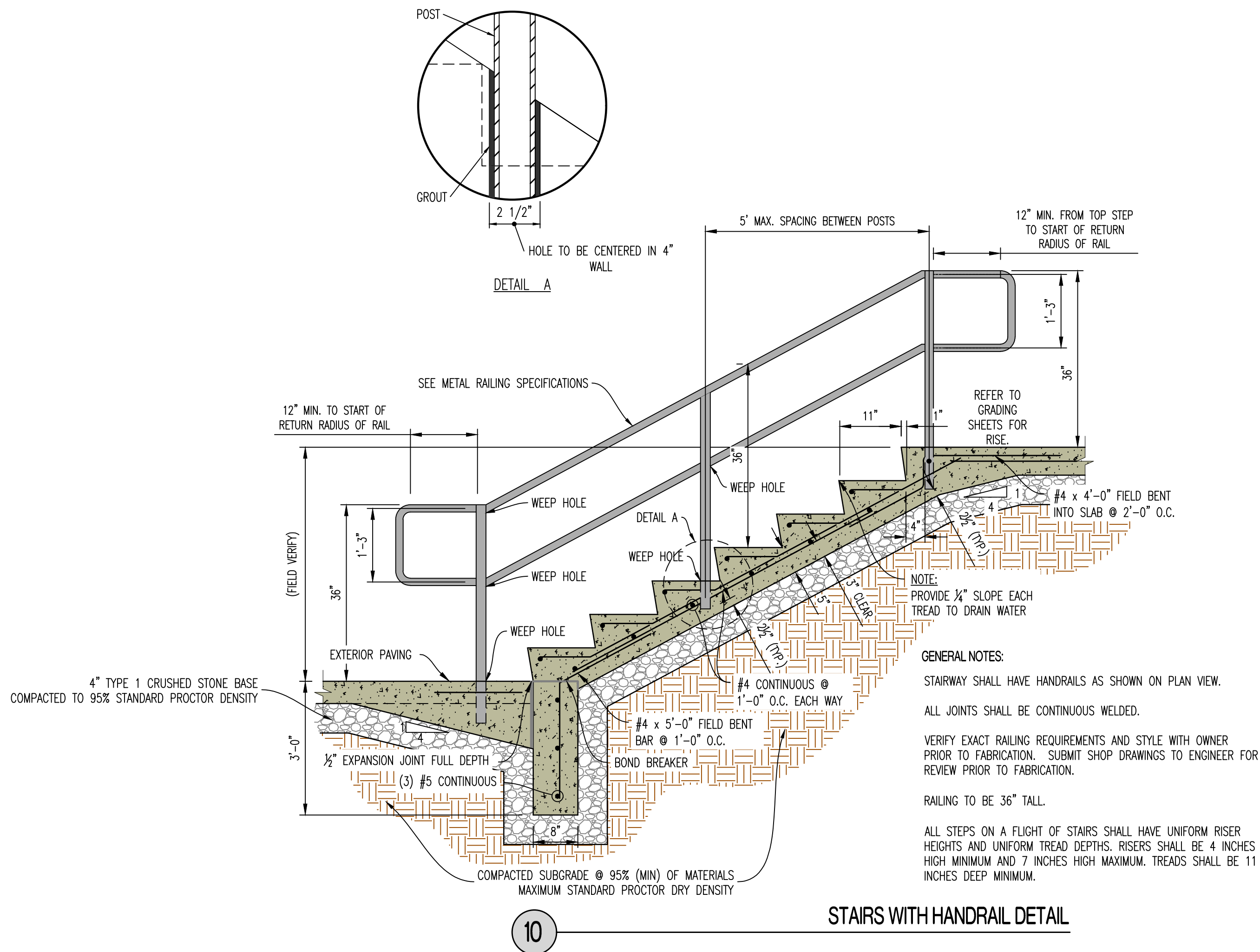
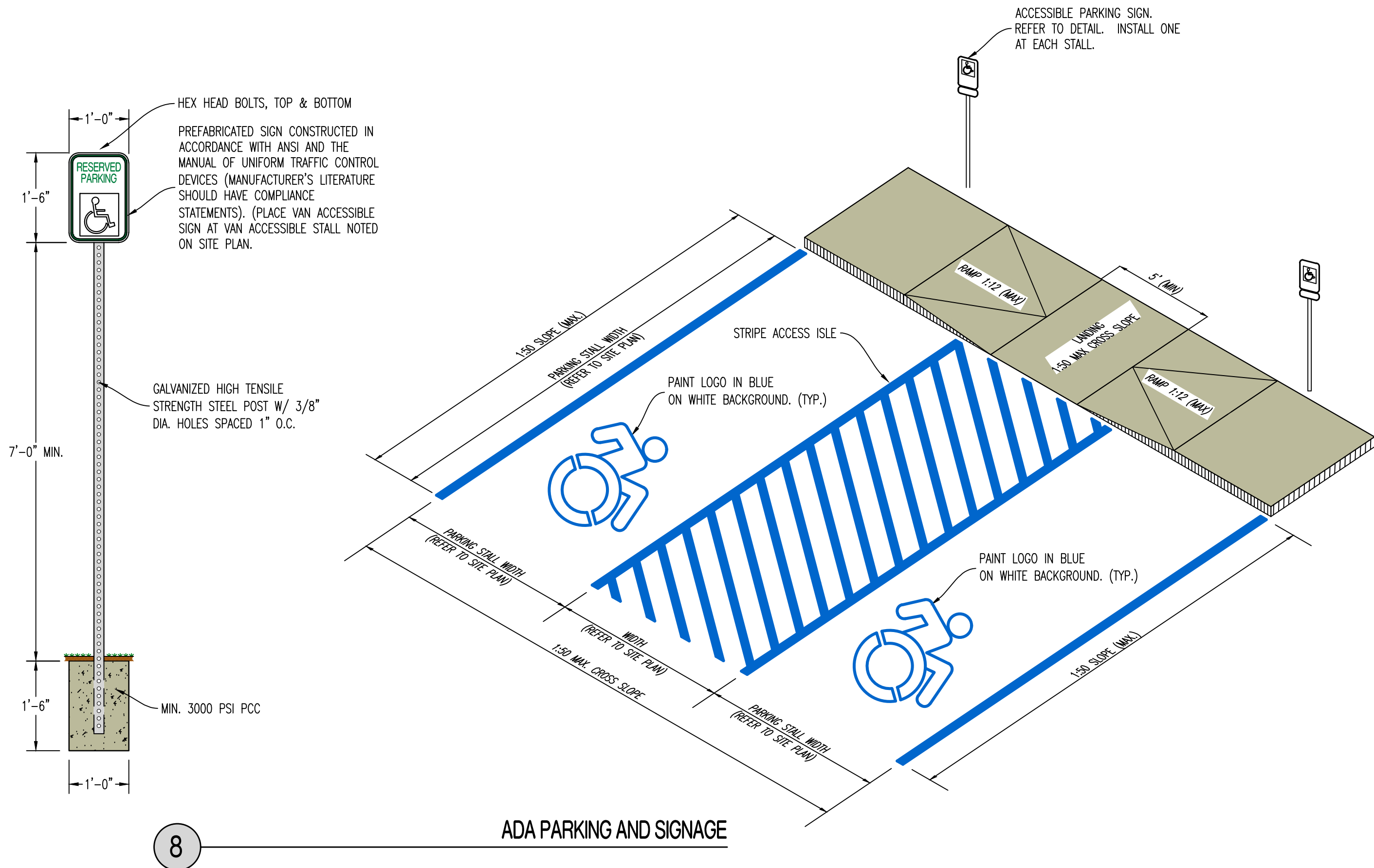
DETAILS SHEET 2

DESIGNED: NTE

DRAWN: NMD

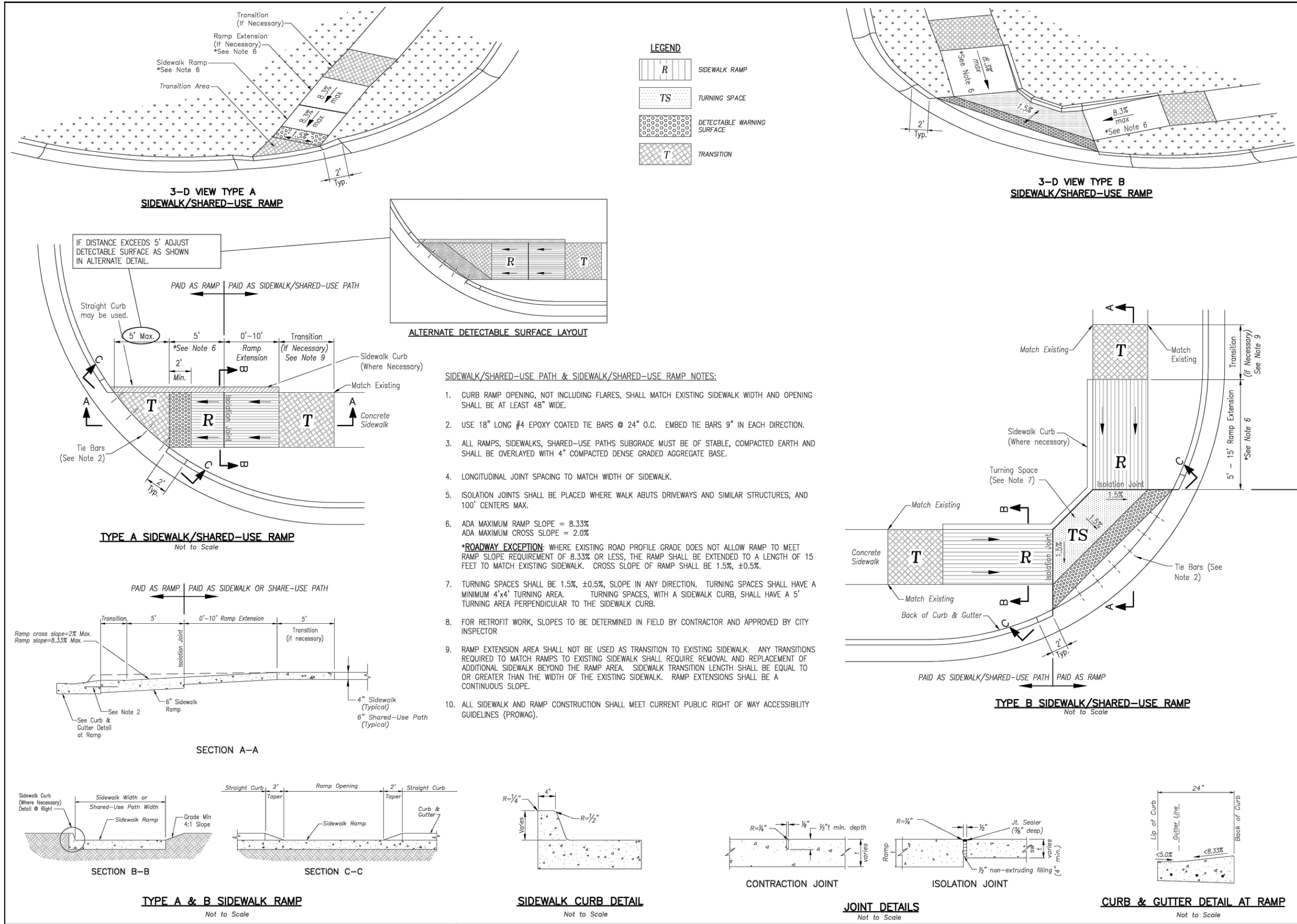
PROJECT NO.: 230286

SHEET:
CE 7.2



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 1/8", 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 1/8" 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 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.

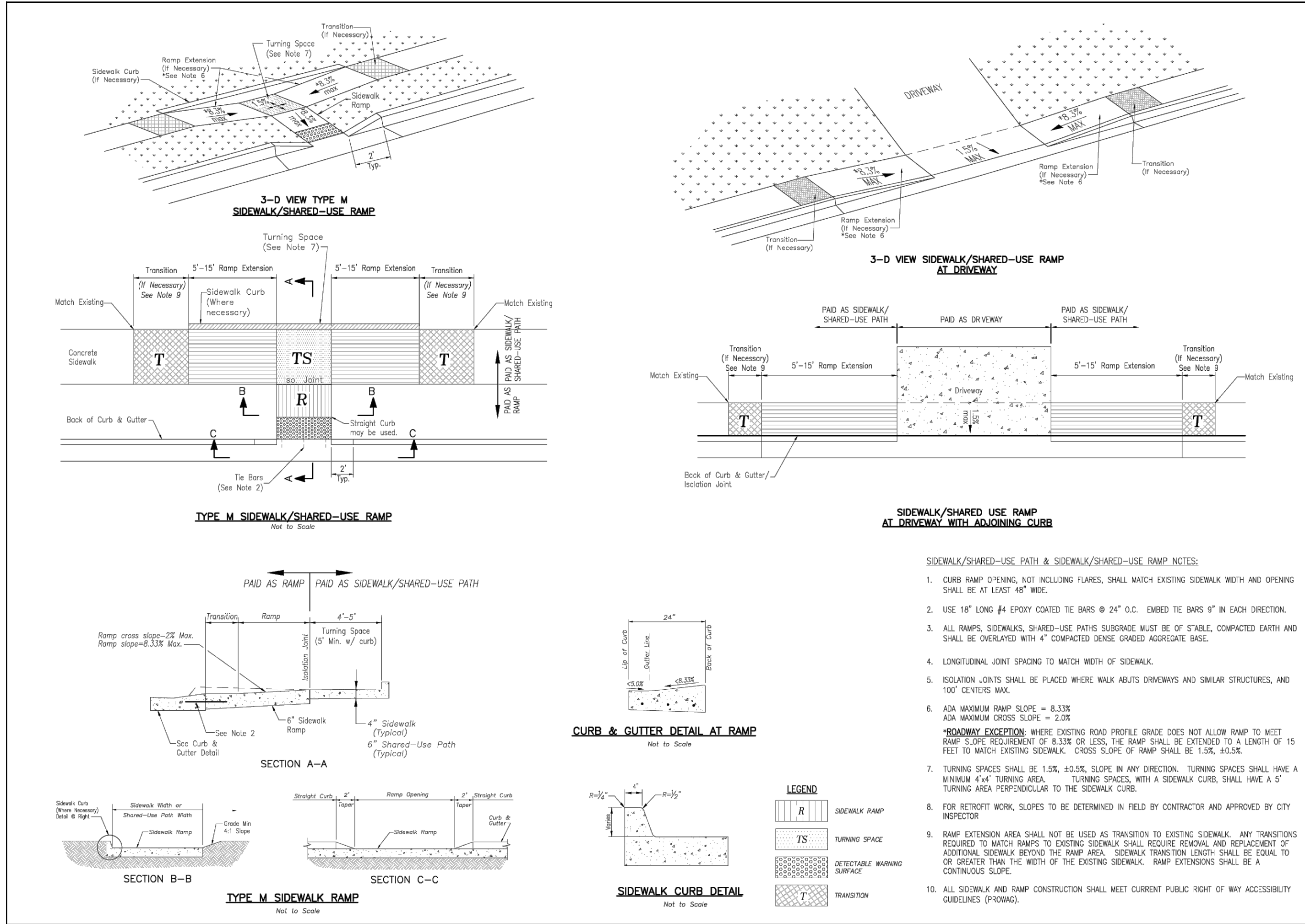


IS LEE'S SUMMIT MISSOURI

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

DESIGNED BY: MJP
CHECKED BY: DL
DATE: 08/2023
PLOT #:

GEN-3A

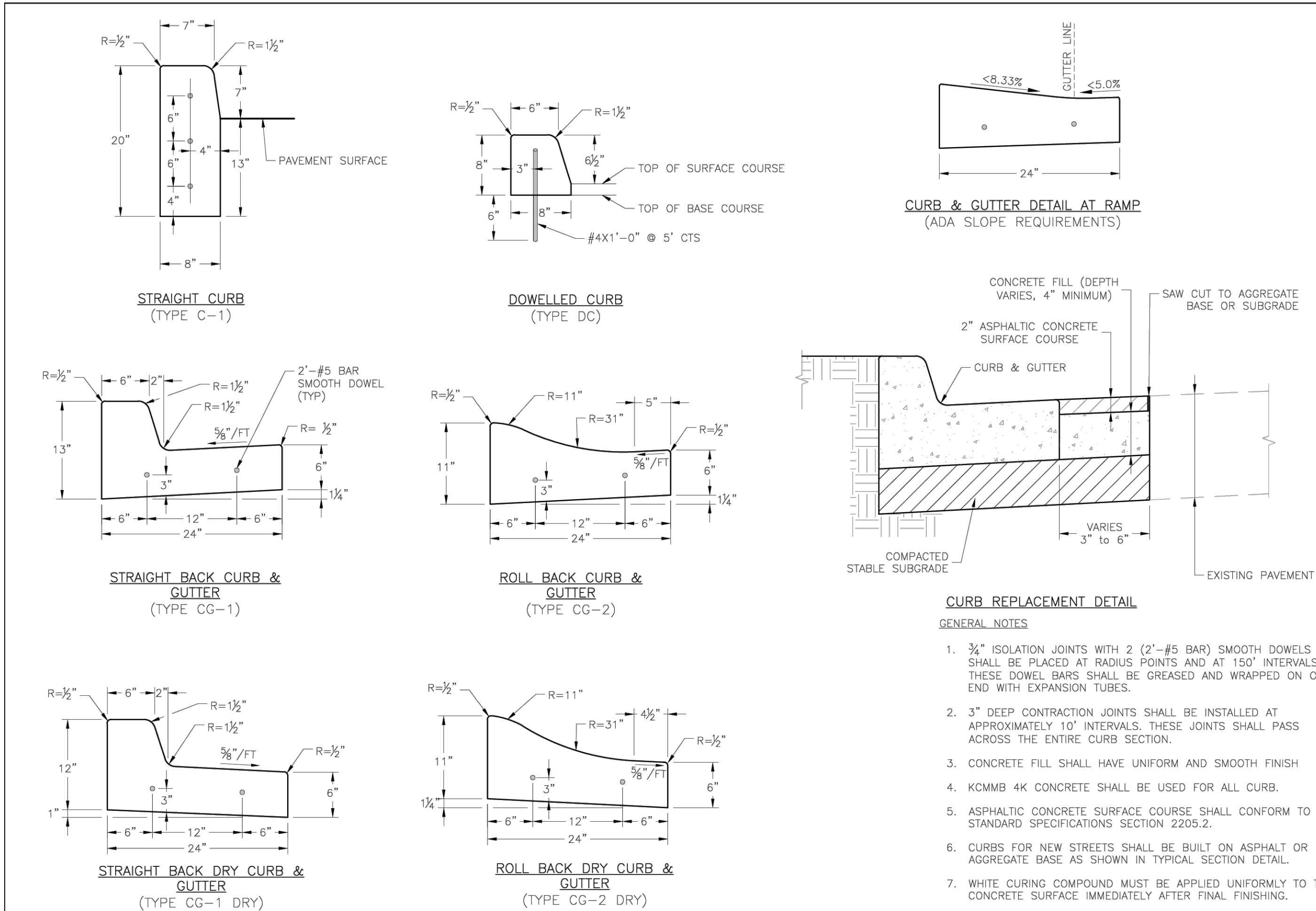


IS LEE'S SUMMIT MISSOURI

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

DESIGNED BY: MJP
CHECKED BY: DL
DATE: 08/2023
PLOT #:

GEN-3B

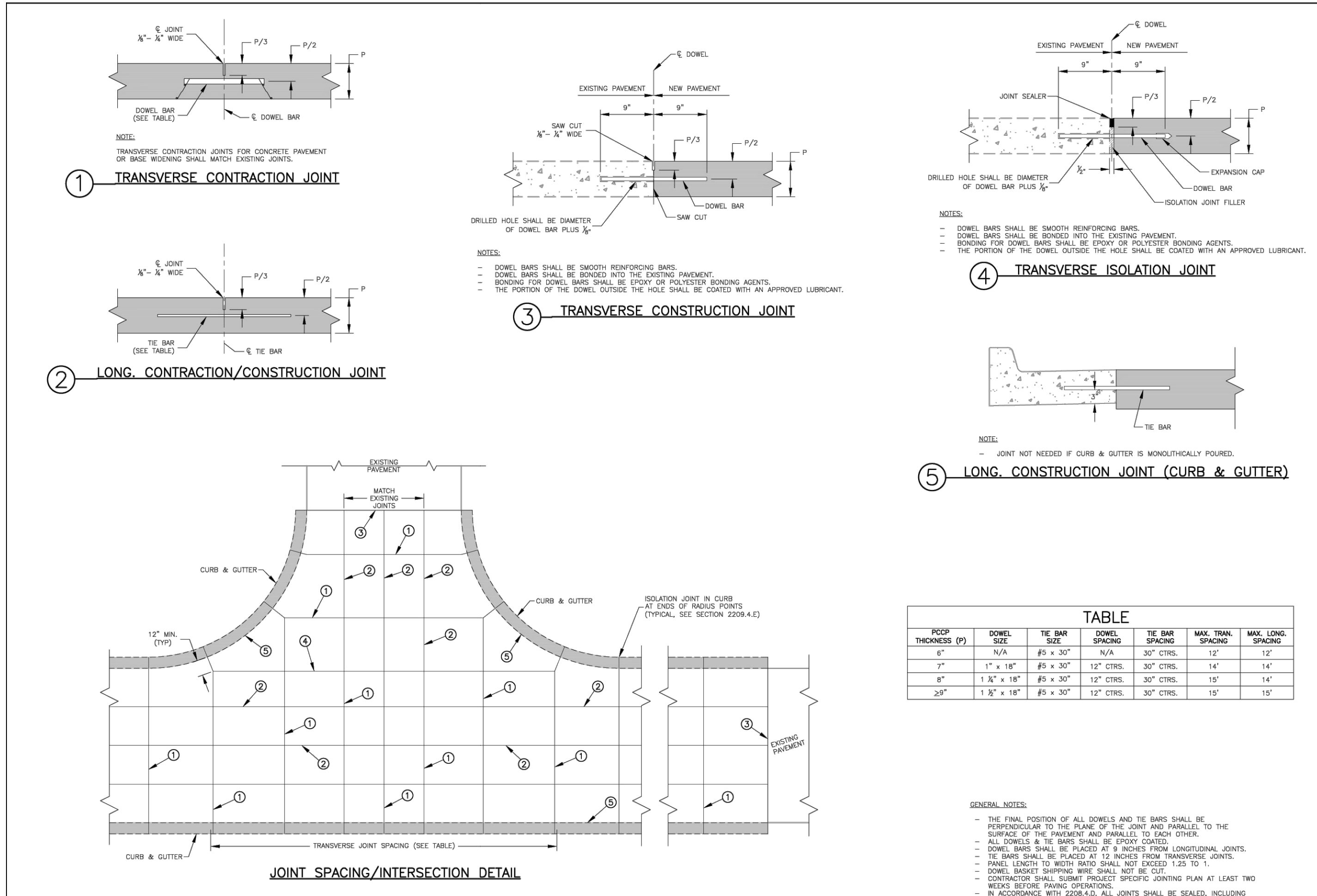


IS LEE'S SUMMIT MISSOURI

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

DESIGNED BY: MJP
CHECKED BY: DL
DATE: 08/2023
PLOT #:

GEN-4



IS LEE'S SUMMIT MISSOURI

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

DESIGNED BY: MJP
CHECKED BY: GMB
DATE: 08/2023
PLOT #:

GEN-10

REVISIONS:

NO.	DATE
ORIGINAL	10/18/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

NATHAN THOMAS ECKHOFF
PROFESSIONAL ENGINEER
NUMBER: PE-2003014960
DATE: 10/15/24
MO LICENSE: 200304960

NATHAN THOMAS ECKHOFF
MO 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 #000000001

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

THE VILLAGE AT DISCOVERY LOT 1

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

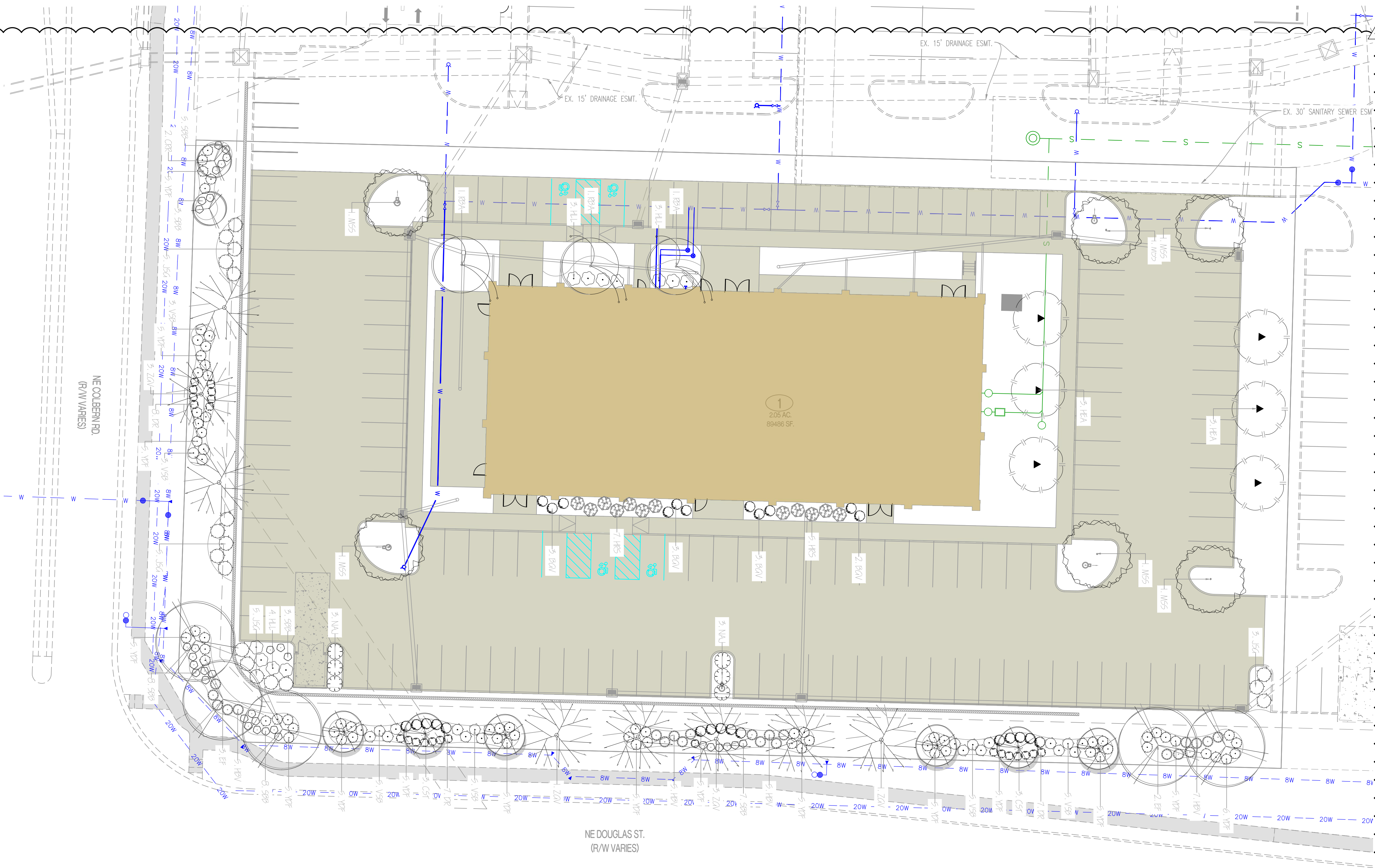
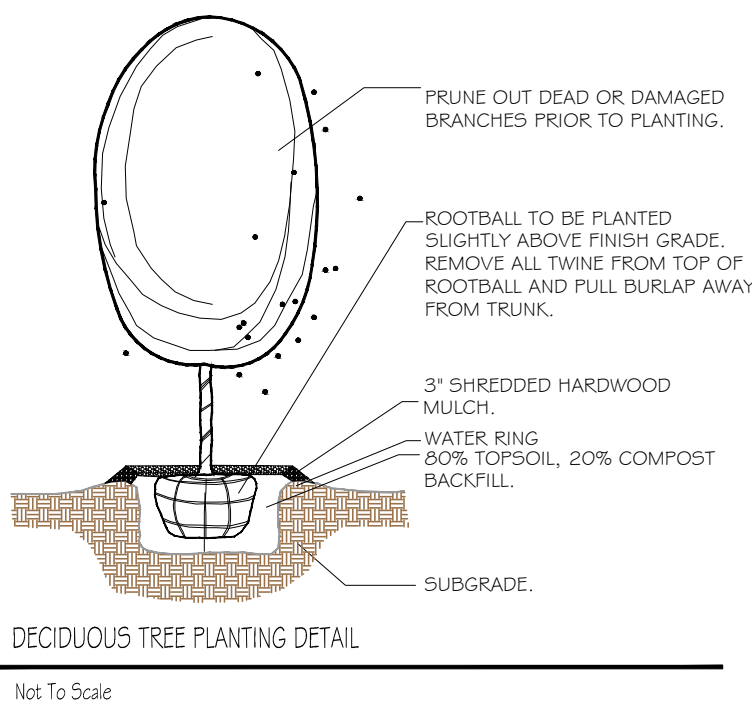
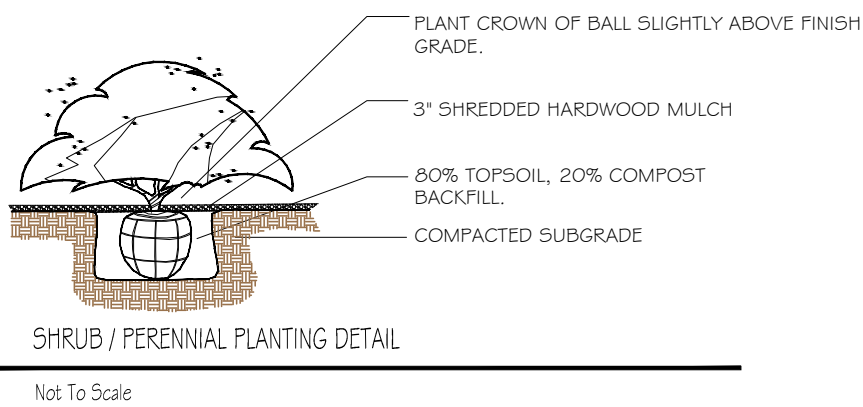
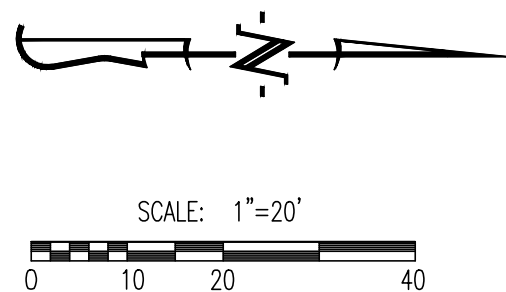
LEE'S SUMMIT DETAILS SHEET 1

DESIGNED: NTE

DRAWN: NMD

PROJECT NO: 230286

SHEET: CE 7.3



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

PLANTING SCHEDULE:				
QUANTITY	SYMBOL	PLANT NAME	PLANT TYPE	SIZE
5	EF	ELM 'FRONTIER'	MEDIUM / LARGE TREE	3"
8	ZOV	ZELKOVA 'GREEN VASE'	MEDIUM / LARGE TREE	3"
6	MSS	MYABII MAPLE 'STATE STREET'	MEDIUM / LARGE TREE	3"
6	HEA	HORNBEAM 'EMERALD AVENUE'	MEDIUM / LARGE TREE	3"
6	CST	CRABAPPLE 'SUGARTIME'	ORNAMENTAL TREE	2.5"
2	CRR	CRABAPPLE 'ROYAL RAINDROPS'	ORNAMENTAL TREE	2.5"
3	RBA	REDBUD 'APPALACHIAN'	ORNAMENTAL TREE	2.5"
6	NAJ	NINEBARK 'AMBER JUBILEE'	DECIDUOUS SHRUB	#5
11	HLL	HYDRANGEA 'LITTLE LIME'	DECIDUOUS SHRUB	#5
12	HRS	HYDRANGEA 'RUBY SLIPPERS'	DECIDUOUS SHRUB	#5
34	SBB	SPIREA 'BIG BANG'	DECIDUOUS SHRUB	#5
26	BGV	BOXWOOD 'GREEN VELVET'	EVERGREEN SHRUB	#5
18	JSG	JUNIPER 'SEA GREEN'	EVERGREEN SHRUB	#5
66	YDF	YEW 'DENSIFORMIS'	EVERGREEN SHRUB	#5
26	VSB	VIBURNUM 'SPICE BABY'	DECIDUOUS SHRUB	#5
23	DR	DRIFT ROSE	DECIDUOUS SHRUB	#5
22	HBV	HYPERICUM 'BLUE VELVET'	DECIDUOUS SHRUB	#5

LANDSCAPE COMPLIANCE: LOT 1			
LEE'S SUMMIT, MISSOURI CODE OF ORDINANCES: DIVISION II - LANDSCAPING, BUFFERS, AND TREE PROTECTION SITE ZONED: PMIX, PROPOSED: PMIX			
<u>STREET FRONTAGE TREES</u>			
1 TREE PER 30 FEET OF STREET FRONTAGE DOUGLAS AVE - 388 LF STREET FRONTAGE NE COLBURN RD - 214 LF STREET FRONTAGE	14 TREES REQUIRED 7 TREES REQUIRED	14 TREES PROPOSED 7 TREES PROPOSED	
<u>OPEN YARD TREES</u>			
1 TREE PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT TOTAL LOT AREA = 75,287 SF	15 TREES REQUIRED	15 TREES PROPOSED	
<u>STREET FRONTAGE SHRUBS</u>			
1 SHRUB PER 20 FEET OF STREET FRONTAGE DOUGLAS AVE - 388 LF STREET FRONTAGE NE COLBURN RD - 214 LF STREET FRONTAGE	20 SHRUBS REQUIRED 11 SHRUBS REQUIRED	20 SHRUBS PROPOSED 11 SHRUBS PROPOSED	
<u>OPEN YARD SHRUBS</u>			
2 SHRUBS PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT TOTAL LOT AREA = 75,287 SF	30 SHRUBS REQUIRED	30 SHRUBS PROPOSED	
<u>PARKING LOT SCREENING</u>			
12 SHRUBS PER 40 LINEAR FT OF PARKING LOT VISIBLE FROM RIGHT OF WAY TOTAL LINEAR FEET - 600 LF	180 SHRUBS REQUIRED	183 SHRUBS PROPOSED	

REVISIONS:

NO.	DATE
ORIGINAL	10/14/2024
REV. 1	12/05/2024

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

NATHAN THOMAS ECKHOFF

NUMBER
PE-200304960
12/05/24

PROFESSIONAL ENGINEER

NATHAN THOMAS ECKHOFF
MO LICENSE: 200304960

PREPARED BY:

CROCKETT

ENGINEERS & PLANNERS

1000 W. Illinois Blvd., Ste. 100
Columbia, Missouri 65203
(314) 487-0292
www.crockettengineering.com
Missouri Certificate of Authority
#000000001

OWNER:

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

THE VILLAGE AT DISCOVERY

LOT 1

LEES SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

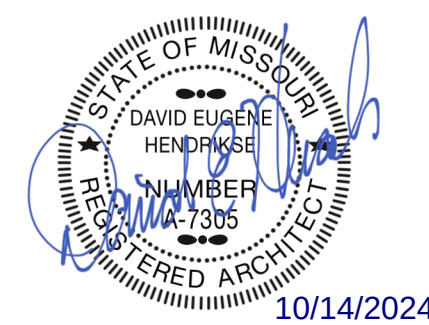
LANDSCAPING PLAN

DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

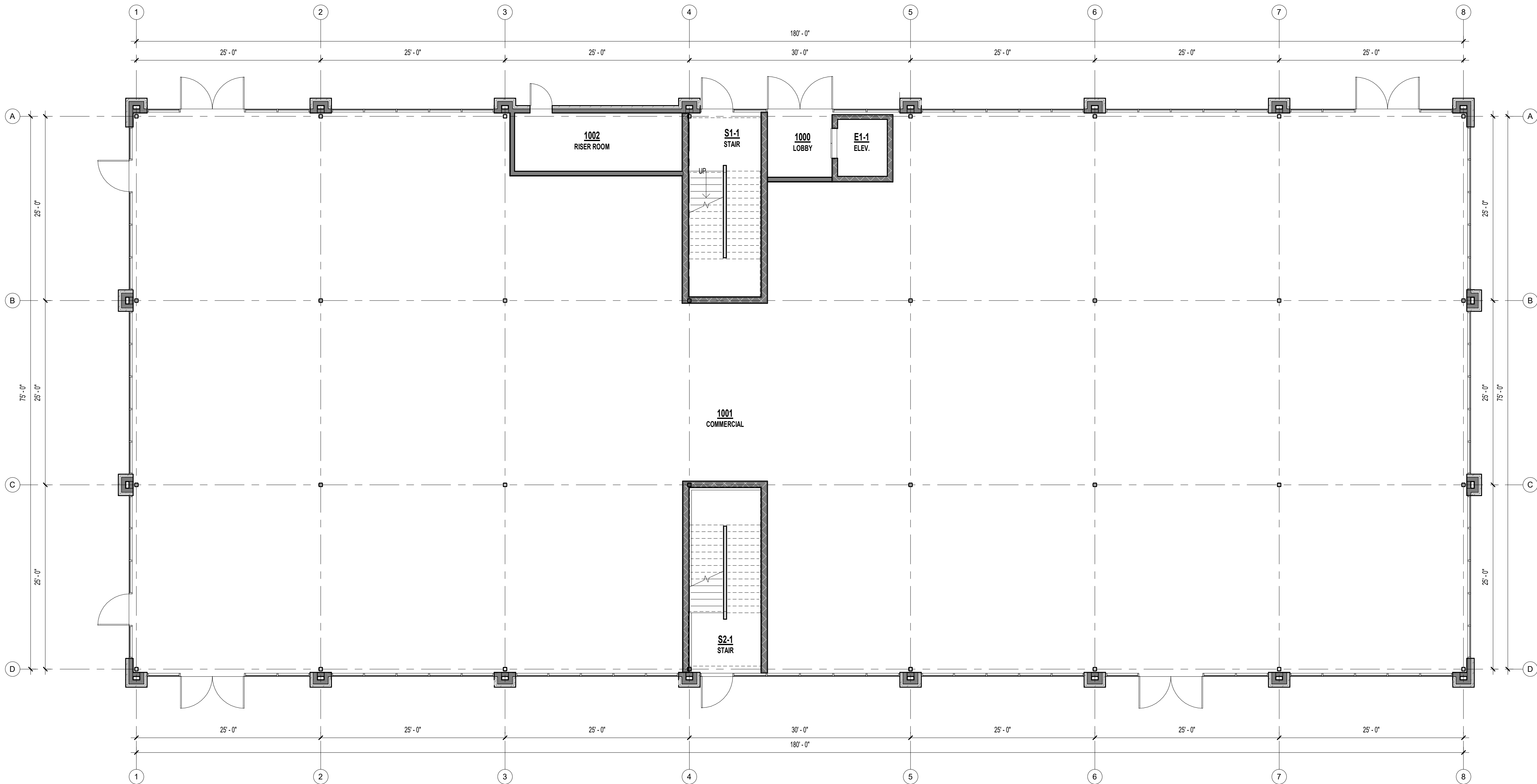
SHEET:
CE 8.1



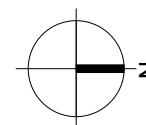
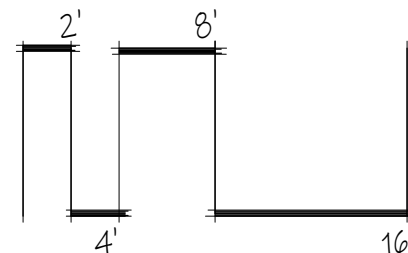
THE VILLAGE AT DISCOVERY -
LOT 1
LEE SUMMIT, MO 64064

SHEET TITLE
FLOOR PLANS
PROJECT NUMBER: 23096
SHEET NUMBER:

A1



1 FIRST FLOOR PLAN
1/8" = 1'-0"

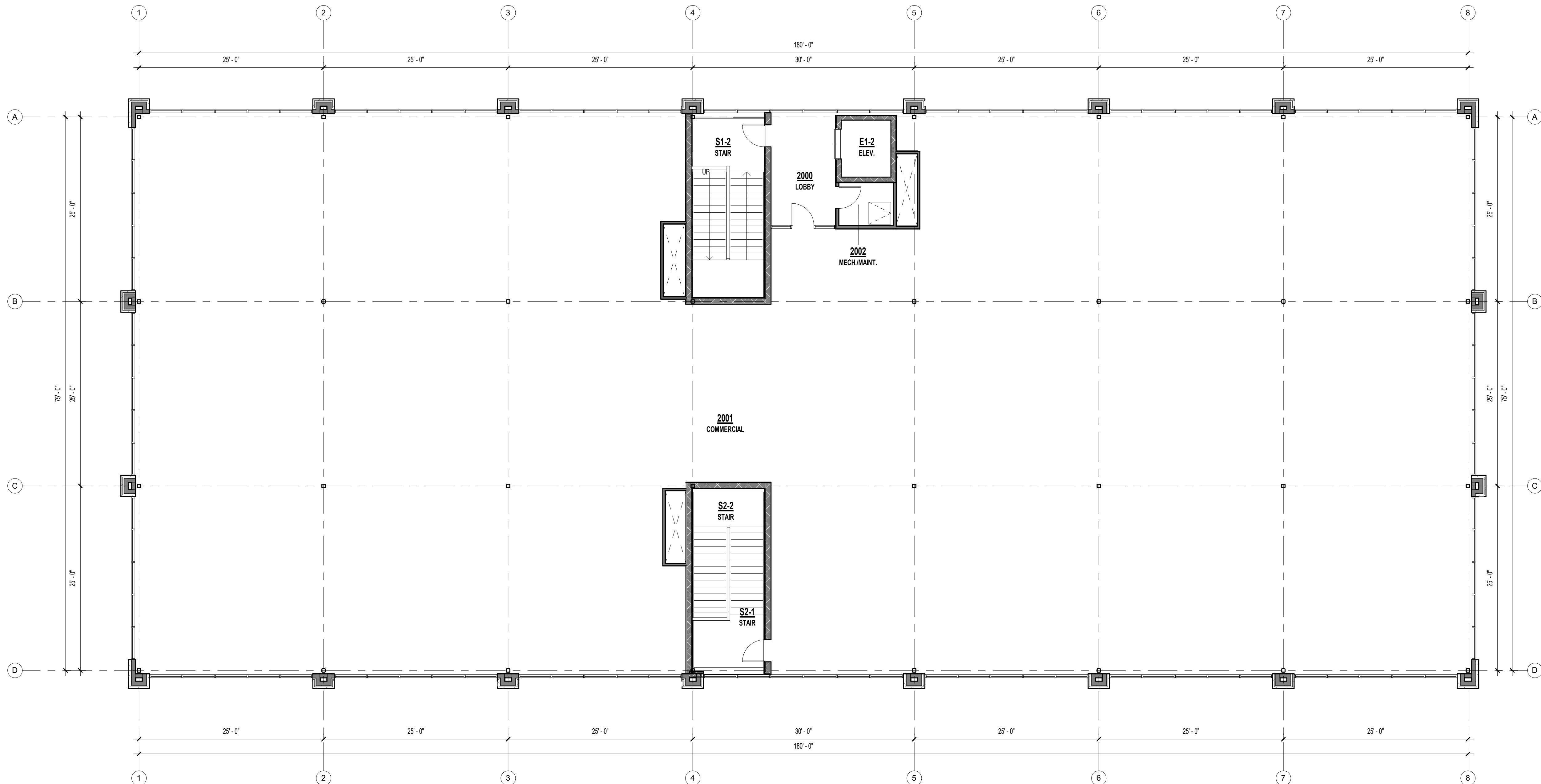




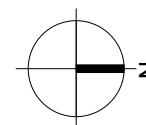
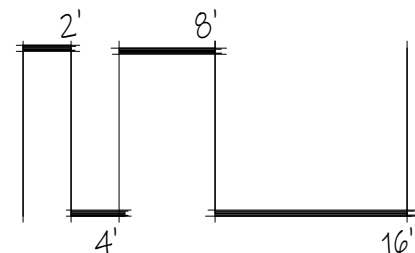
THE VILLAGE AT DISCOVERY -
LOT 1
LEE SUMMIT, MO 64064

SHEET TITLE
FLOOR PLANS
PROJECT NUMBER: 23096
SHEET NUMBER:

A2



1 SECOND FLOOR PLAN
1/8" = 1'-0"





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



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

MATERIAL LEGEND

	KING SIZE BRICK - COLOR 1 - ALLENDALE HILL
	KING SIZE BRICK - COLOR 2 - GLEN GERY SADDLE BROWN
	STONE - ROUGH ASHLAR
	EIFS BANDING - ROUGH ASHLAR
	GLASS
	SPANDREL

PRINTS ISSUED
12/04/24

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



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

THE VILLAGE AT DISCOVERY -

LOT 1

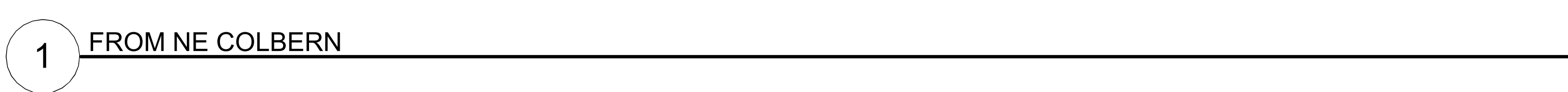
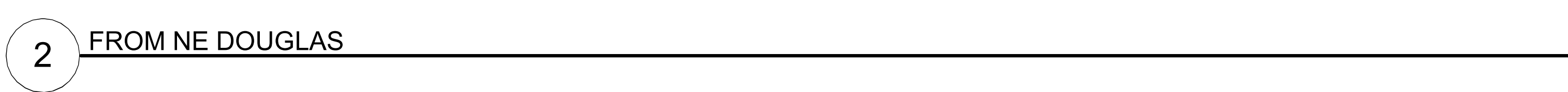
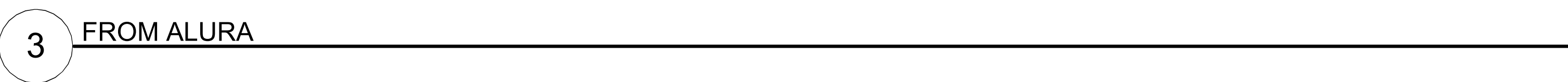
LEE'S SUMMIT, MO

SHEET TITLE
EXTERIOR ELEVATIONS - COLOR

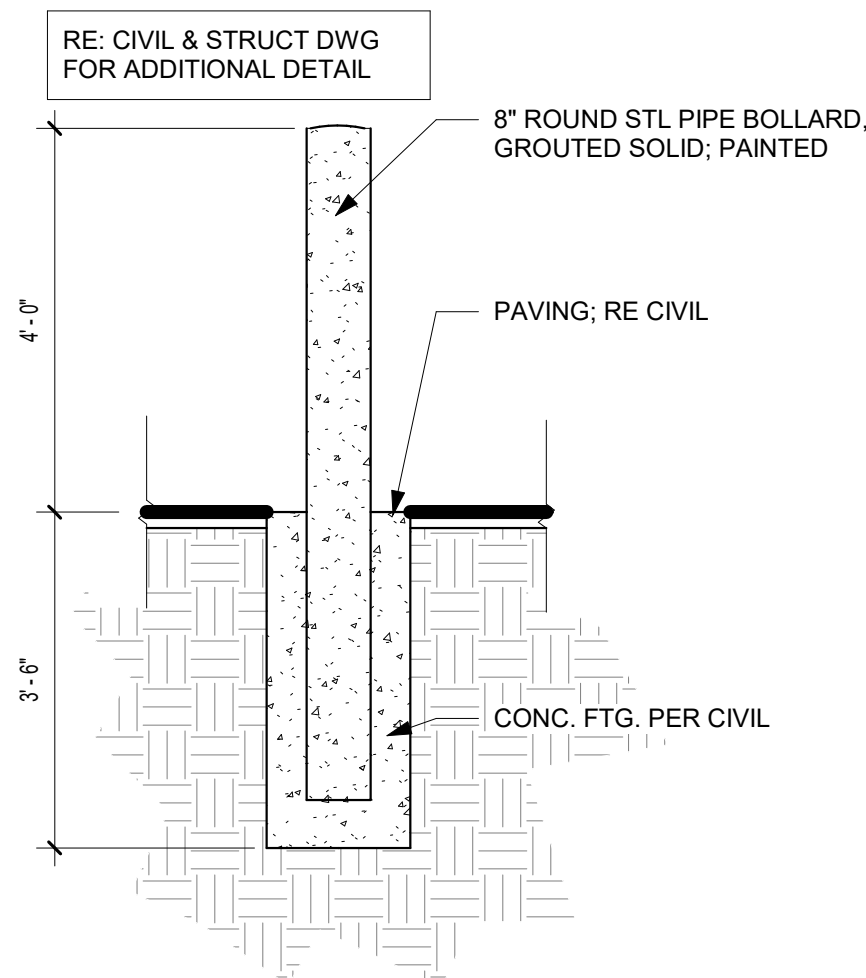
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SHEET NUMBER:

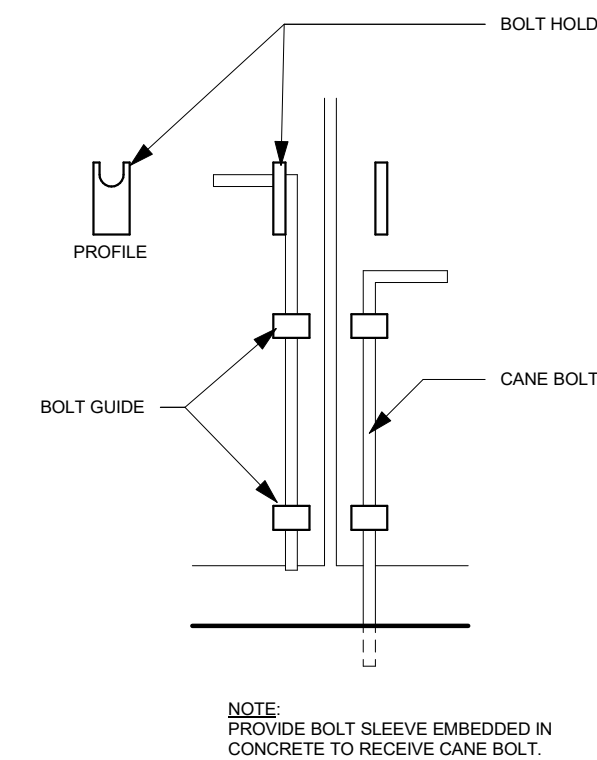
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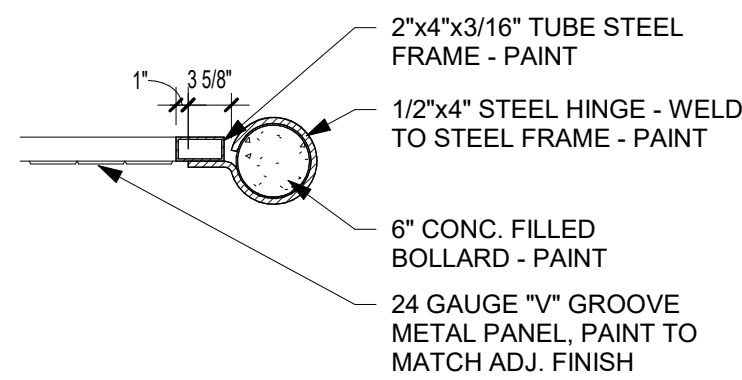
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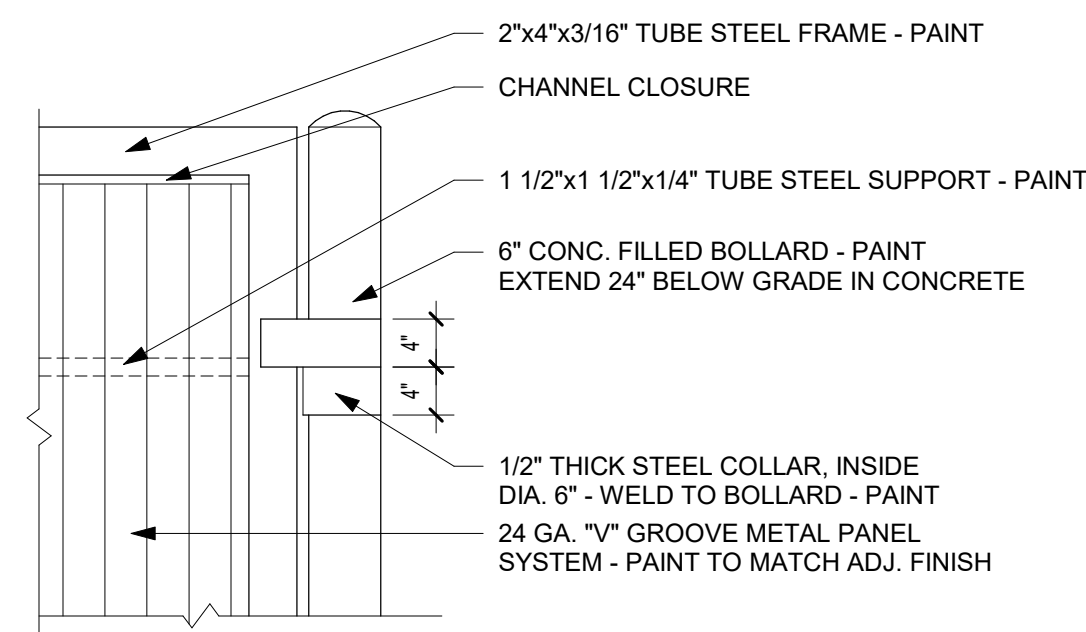
B3 SITE - BOLLARD - STEEL
1/2" = 1'-0"



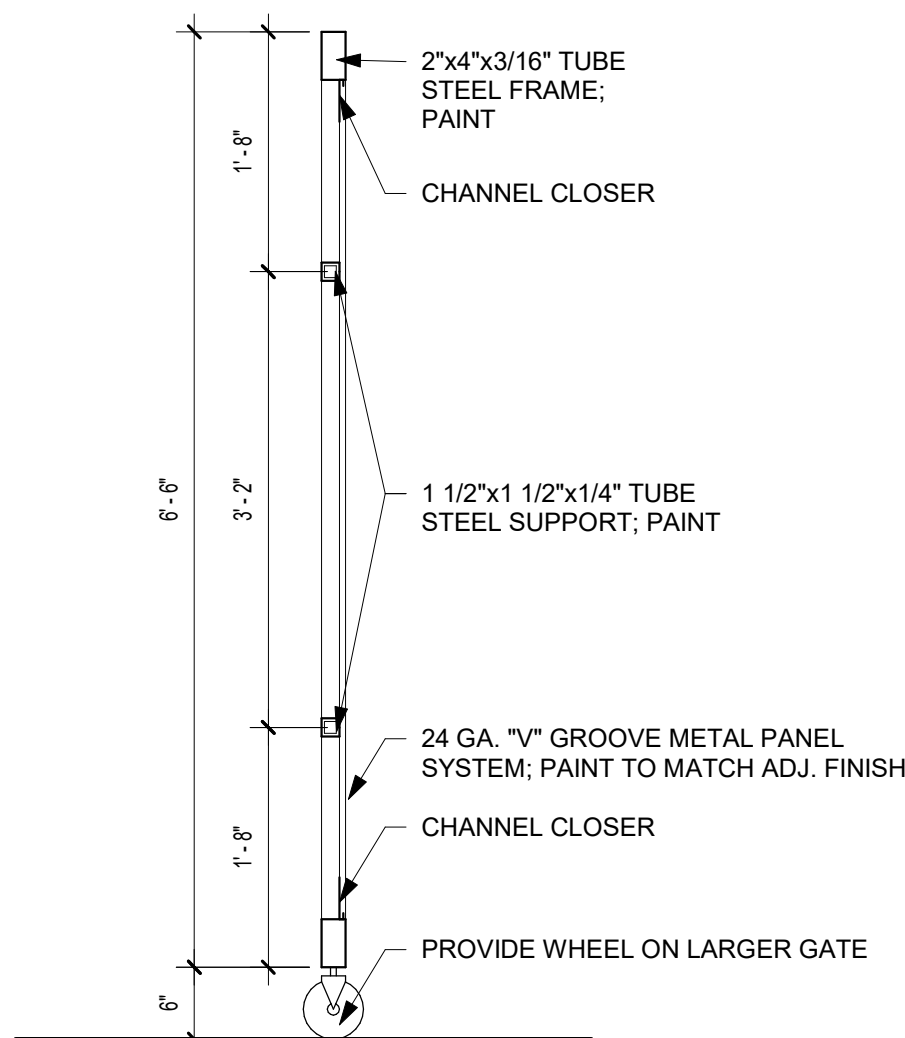
A4 SITE - CANE BOLT DETAIL
3" = 1'-0"



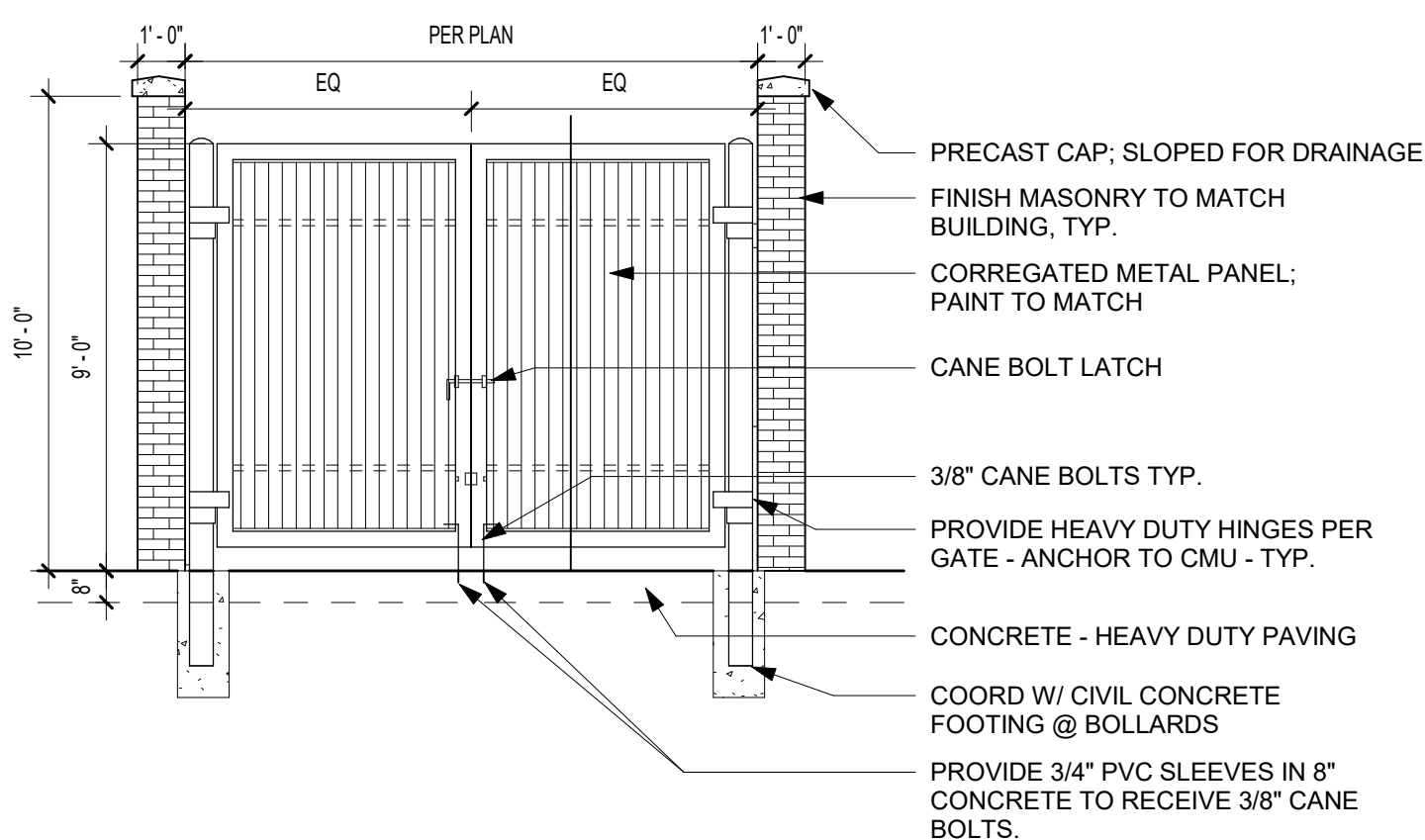
A3 TRASH GATE CROSS SECTION
3/4" = 1'-0"



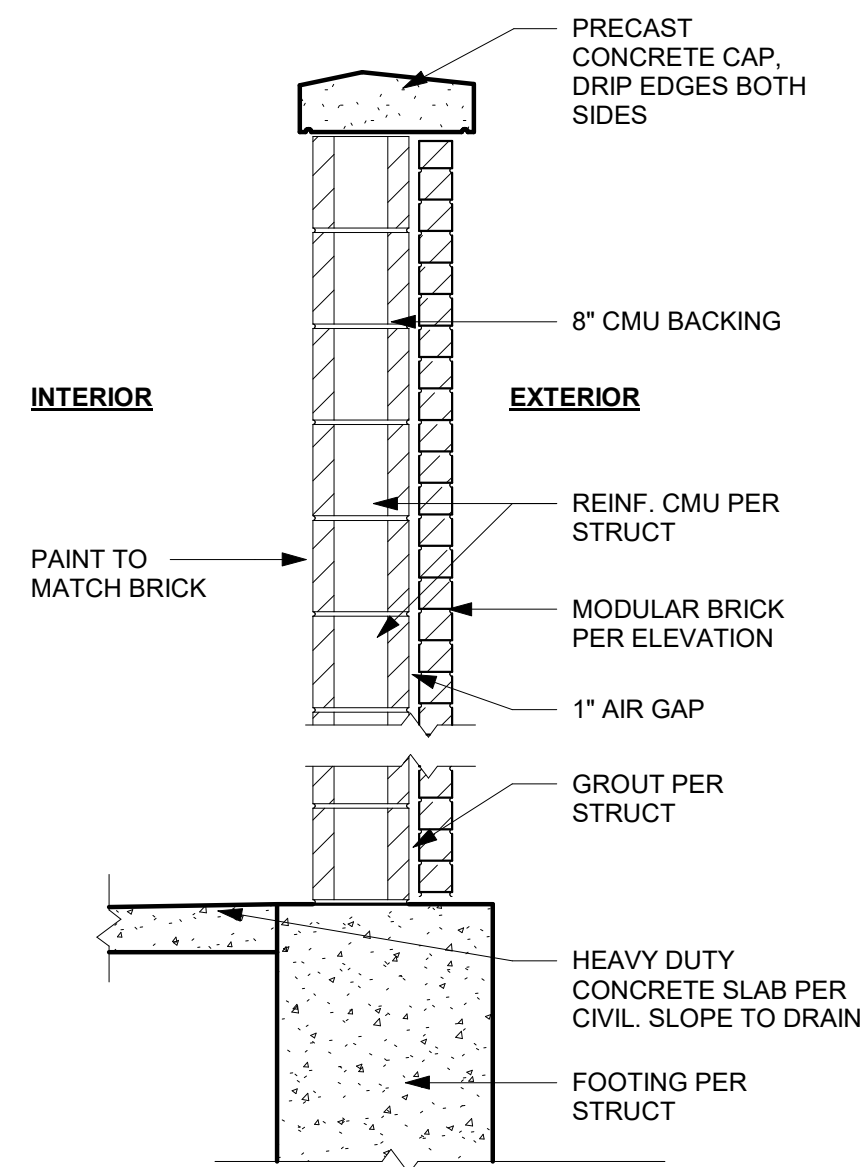
A2 TRASH GATE DETAIL
3/4" = 1'-0"



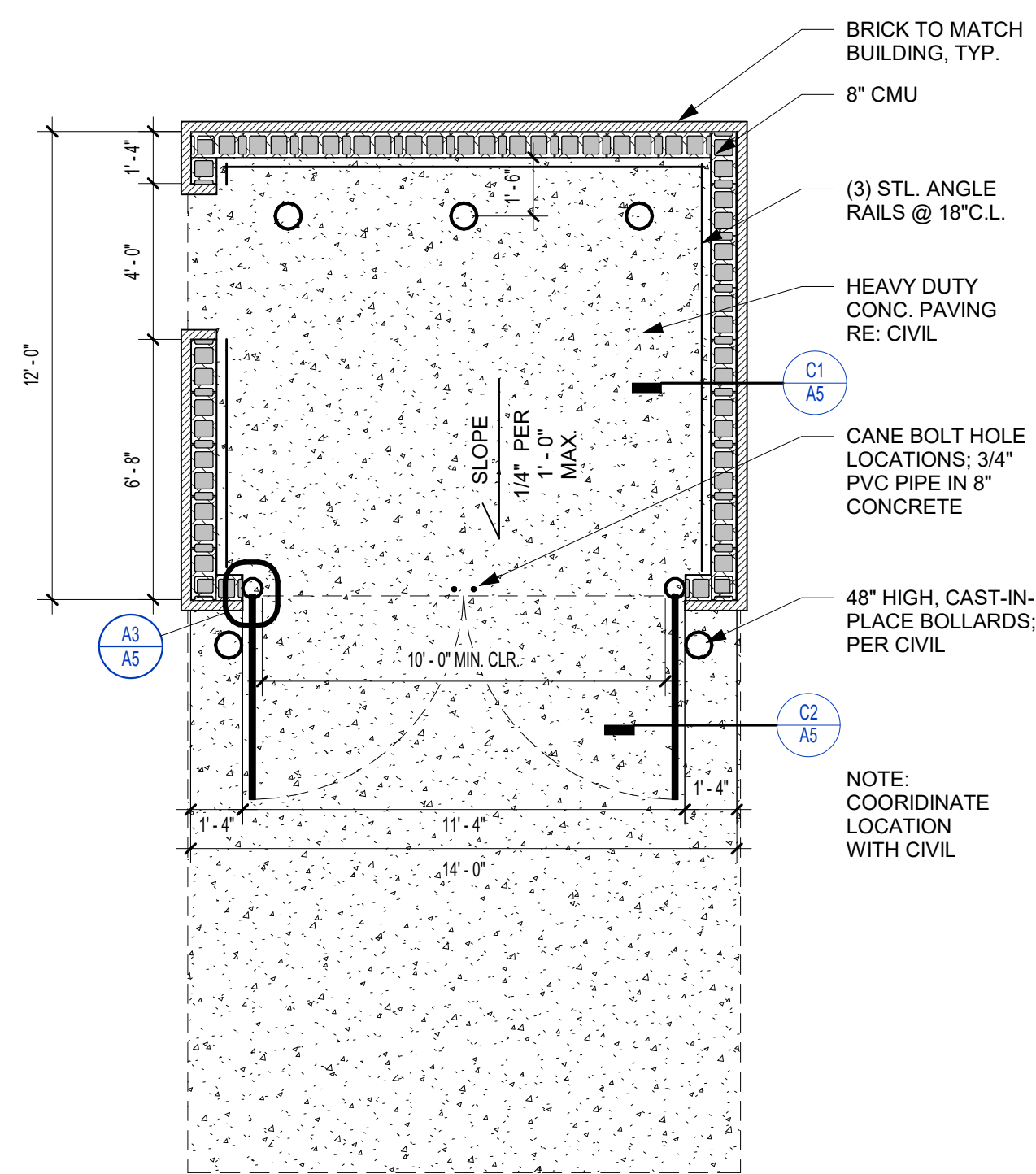
C2 TRASH GATE SECTION
3/4" = 1'-0"



B2 ENCLOSURE FRONT ELEVATION
1/4" = 1'-0"

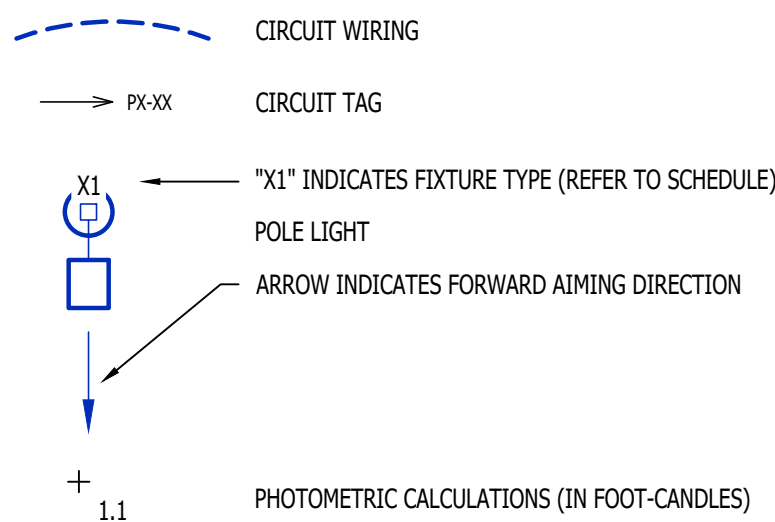


C1 SITE - ENCLOSURE - CMU - WALL SECTION
3/4" = 1'-0"



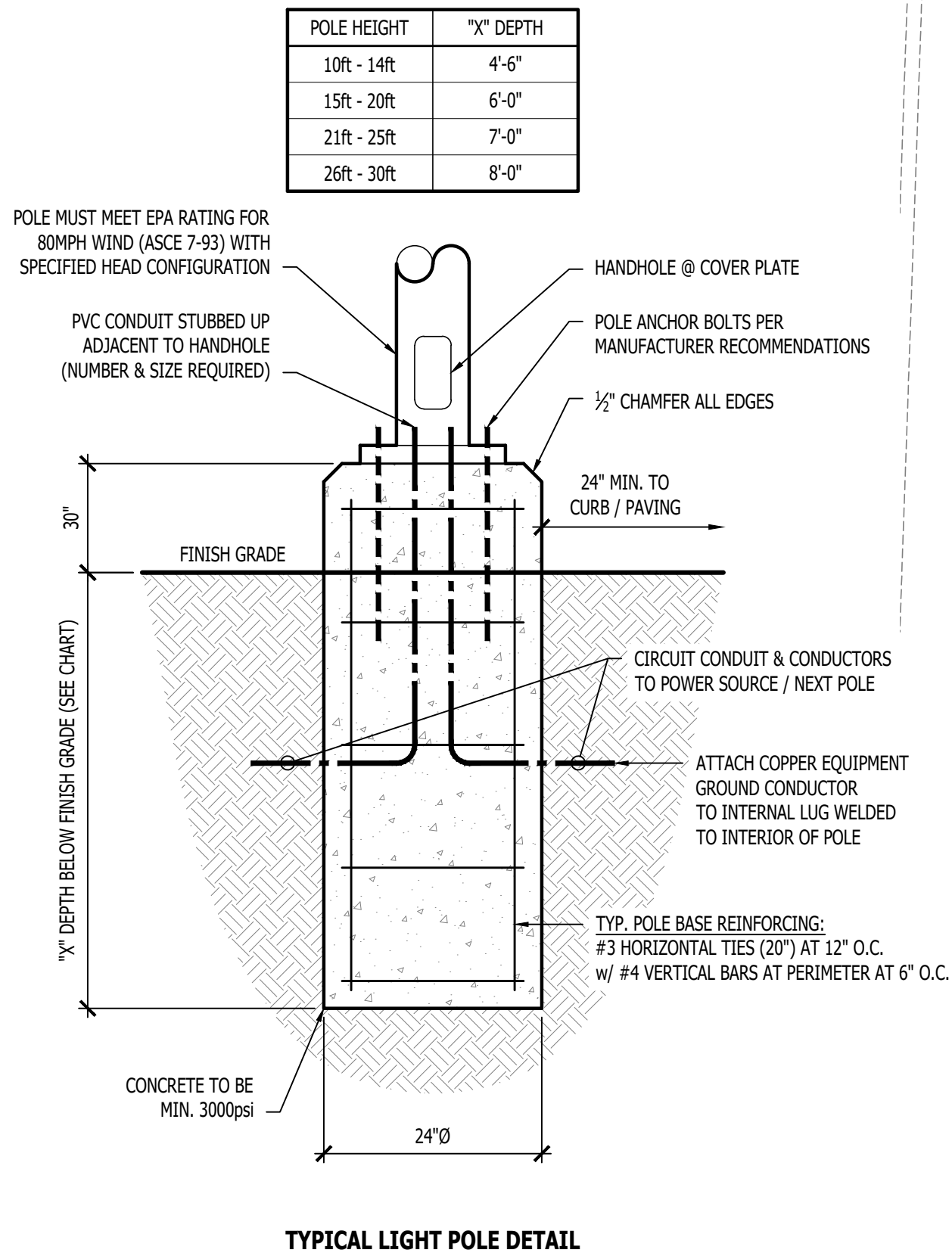
A1 SINGLE DUMPSTER TRASH ENCLOSURE PLAN
1/4" = 1'-0"

SITE LIGHTING PLAN SYMBOL LEGEND

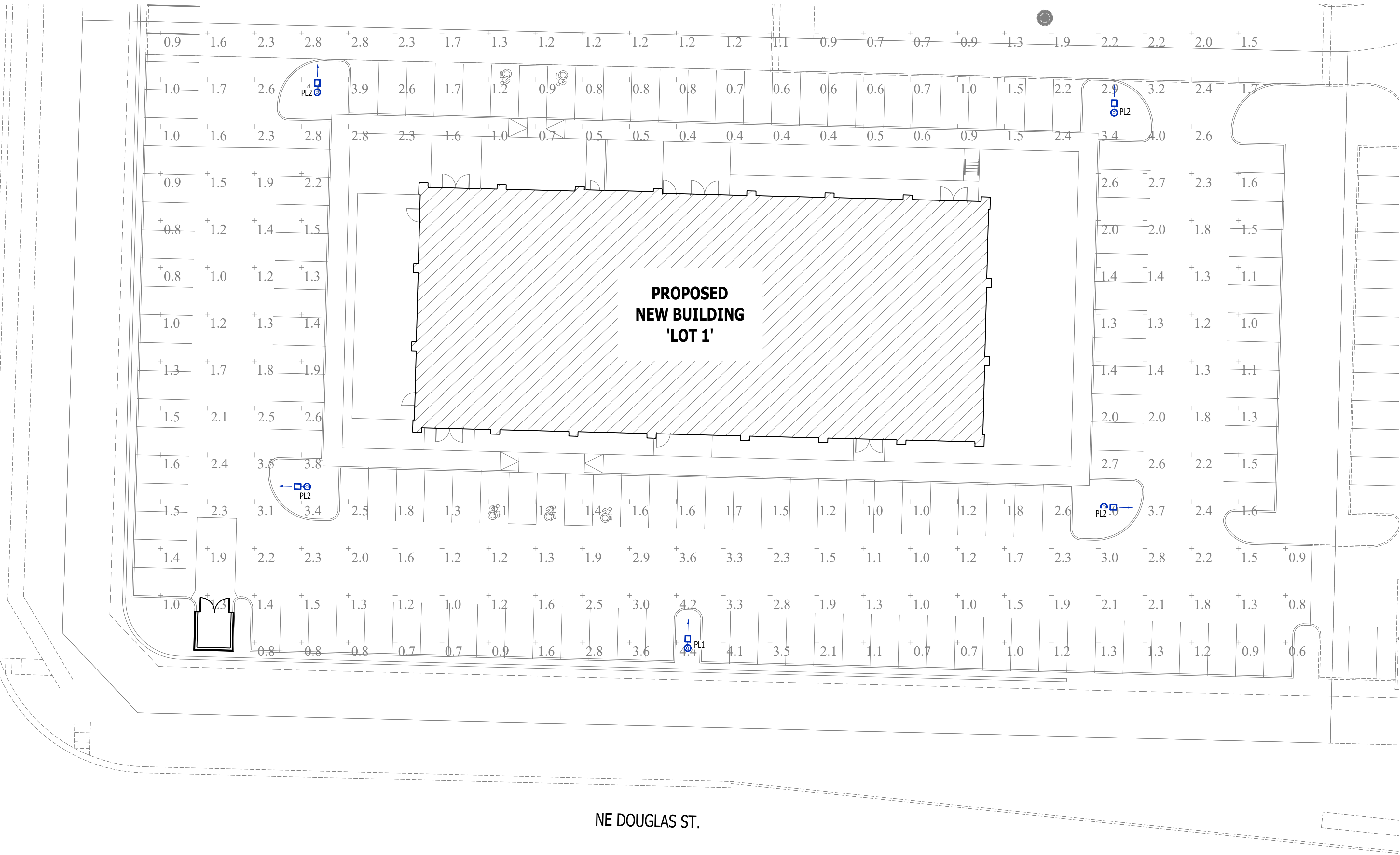


SITE LIGHTING PLAN GENERAL NOTES:

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



NE COLBURN RD.



NE DOUGLAS ST.



SITE LIGHTING PLAN

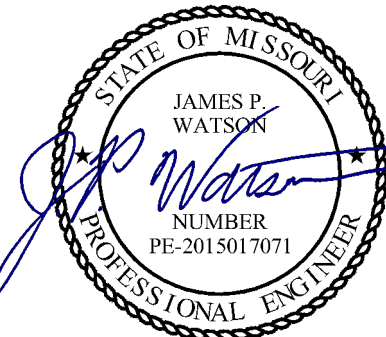
SCALE: 1" = 20 ft

SITE LIGHTING FIXTURE SCHEDULE

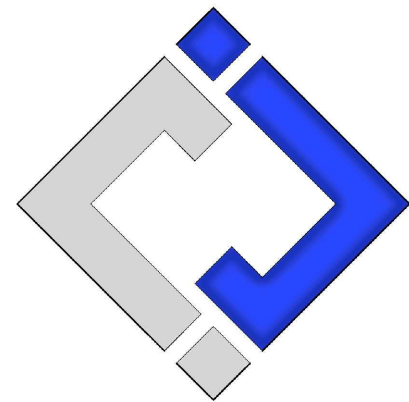
TAG	MANUFACTURER (OR EQUAL)	MODEL NUMBER (OR EQUAL)	DESCRIPTION	MOUNTING	LUMEN OUTPUT	CCT (°K)	CRI	VOLTS	WATTS	NOTES
PL1	MCGRAW-EDISON	PRV-XL-PA3B-740-U-T4W-HSS	LED POLE LIGHT	20' #SSS POLE ON 30" BASE	30,161	4000	70	208	234	WITH #MS/DIM-L40W MOTION SENSING DIMMING
PL2	MCGRAW-EDISON	PRV-XL-PA3B-740-U-SWQ	LED POLE LIGHT	20' #SSS POLE ON 30" BASE	31,559	4000	70	208	234	WITH #MS/DIM-L40W MOTION SENSING DIMMING
NOTES: 1. VERIFY LIGHT FIXTURE FINISHES WITH OWNER / ARCHITECT PRIOR TO ORDERING.										

SITE LIGHTING CALCULATION SUMMARY

AREA / LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING / DRIVE AISLES	ILLUMINANCE	FC	1.71	4.4	0.4	4.3	11.0
NOTES: 1. PHOTOMETRIC CALCULATIONS DO NOT INCLUDE EXISTING LIGHTING							



James Watson, P.E. October 17, 2024
PE-2015017071
MO Certificate of Authority # 2018029680



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J2 PROJECT No: J21003

J2 DESIGN: ACW

ISSUE TITLE DATE

FDP SUBMITTAL 10 - 17 - 2024

MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR:

Village at Discovery Park Lot 1
SITE LIGHTING

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

AHJ APPROVAL STAMP

SHEET TITLE

SITE LIGHTING
PLAN

SHEET NUMBER

SL1