

GENERAL NOTES:

1. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", 1(800)344-7483, OR 811 AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

2. THE CONTRACTOR SHALL NOT CHANGE OR DEViate FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER.

3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND FOR BRINGING THE PROJECT TO THE LINES AND GRADES SHOWN HEREIN. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS REQUIRED TO COMPLETE THE WORK SHOWN IN THESE PLANS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE EARTHWORK QUANTITIES AND TO ACCOUNT FOR HAUL IN OR HAUL OFF OF MATERIAL AS NECESSARY TO MEET THE LINES AND GRADES OF THE PLANS EVEN IF QUANTITY ESTIMATES ARE SHOWN WITHIN THESE DOCUMENTS. NO ADDITIONAL PAYMENTS WILL BE MADE FOR IMPORT OR EXPORT OF MATERIAL OR FOR ADJUSTMENTS TO QUANTITY ESTIMATES.

5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, EXCEPT WHERE SHOWN OTHERWISE. NOTIFY ENGINEER OF DISCREPANCIES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.

7. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF MISSOURI STATE LAW WHICH REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM UTILITY COMPANIES.

8. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.

9. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES SHOWN TO REMAIN FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN FOR REMOVAL ON THESE PLANS.

10. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.

11. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.

12. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE APPLICABLE UTILITY COMPANIES.

13. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.

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

15. HANDICAP PARKING STALLS SHALL BE SIGNED WITH CITY/ADA APPROVED SIGN AND CONSTRUCTED IN STRICT ACCORDANCE WITH CITY/ADA STANDARDS AND SHALL NOT EXCEED 2.00 PERCENT IN ANY DIRECTION. ACCESSIBLE SIDEWALKS HAVE A MAXIMUM GROSS SLOPE OF 2 PERCENT AND A MAXIMUM LONGITUDINAL SLOPE OF 5 PERCENT.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF SURFACE EROSION DURING CONSTRUCTION AND UNTIL THE OWNER ACCEPTS THE WORK AS COMPLETE. EROSION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, THE SILT FENCES AND GRAVEL FILTER BAGS SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE FOR THE DURATION OF THE SITE IMPROVEMENTS.

17. ALL HDPE PIPE SHALL BE ADS (N-12) OR APPROVED EQUAL, AND CONFORM TO AASHTO M294 SPECIFICATIONS. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

18. IF PRECAST CONCRETE STORM SEWER STRUCTURES ARE TO BE USED ON THIS PROJECT, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND HAVE THEM APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF THE STRUCTURES. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.

19. EXISTING TOPSOIL SHALL BE STRIPPED TO A POINT WHERE ALL VEGETATION IS REMOVED.

20. THE CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO COMMENCING WORK, SATISFY HIMSELF AS TO THE SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED.

21. ALL WATER SERVICE LINES SHALL BE INSTALLED PER LEE'S SUMMIT WATER UTILITIES STANDARDS. ALL WATER LINES SHALL BE A MINIMUM OF 48 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN.

22. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.

23. NO FEDERALLY OWNED MAILBOX MAY BE DISTURBED. THE CONTRACTOR SHALL GIVE AT LEAST TWENTY-FOUR (24) HOURS ADVANCE NOTICE TO THE MANAGER OF DELIVERY AND COLLECTIONS. TAMPERING WITH FEDERAL MAIL FACILITIES MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

24. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE FOR SURFACE OF PAVEMENT, TOP OF SIDEWALKS AND CURBS, TOP OF FLOOR SLABS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT FOR GRADING LINE ELEVATIONS.

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

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

27. ALL EXTERIOR CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI AND BE AIR ENTRAINED. FLYASH IS NOT A SUITABLE REPLACEMENT FOR PORTLAND CEMENT.

28. ALL ON-SITE WIRING AND CABLES SHALL BE PLACED UNDERGROUND.

29. THE CONTRACTOR SHALL MAKE HIS OWN ASSUMPTIONS ON THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. ALL ROCK EXCAVATION AND REMOVAL SHALL BE INCLUDED IN THE CONTRACTORS' BID.

30. CONCRETE PAVEMENT JOINTS SHALL AT A MINIMUM BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):

A. LONGITUDINAL CONSTRUCTION JOINTS SPACED AT INTERVALS NOT GREATER THAN 12 FEET, TOOLED TO 1/3 THE SLAB THICKNESS AND OF THE BAR TYPE.

B. CONSTRUCTION JOINTS AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE AND DOWELED WITH SMOOTH DOWELS.

C. TRANSVERSE JOINTS SPACED AT INTERVALS NOT GREATER THAN 15 FEET AND TOOLED TO 1/3 OF THE SLAB THICKNESS.

D. ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 3/4" NONEXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.

E. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.

32. CONTRACTOR TO FIELD VERIFY ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES AND INFRASTRUCTURE PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS.

33. TELEPHONE AND COMMUNICATION SERVICE ROUTING AND CONDUITS NOT SHOWN ON PLANS. CONTRACTOR SHALL INSTALL NECESSARY CONDUIT PRIOR TO PAVEMENT INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING AND INSTALLATION SCOPE WITH SERVICE PROVIDER.

34. BY ACCEPTING AND UTILIZING ANY ELECTRONIC FILE OF ANY DRAWING, REPORT OR DATA TRANSMITTED BY OLSSON, THE RECIPIENT AGREES FOR ITSELF, ITS SUCCESSORS, ASSIGNS, INSURERS AND ALL THOSE CLAIMING UNDER OR THROUGH IT, THAT BY USING ANY OF THE INFORMATION CONTAINED IN THE ELECTRONIC FILE, ALL USERS AGREE TO BE BOUND BY THE FOLLOWING TERMS. ALL OF THE INFORMATION CONTAINED IN THIS ELECTRONIC FILE IS THE WORK PRODUCT AND INSTRUMENT OF SERVICE OF OLSSON, WHO SHALL BE DEEMED THE AUTHOR, AND SHALL RETAIN ALL COMMON LAW, STATUTORY LAW AND OTHER RIGHTS, INCLUDING COPYRIGHTS, UNLESS THE SAME HAVE PREVIOUSLY BEEN TRANSFERRED IN WRITING TO THE RECIPIENT. THE INFORMATION CONTAINED IN THE ELECTRONIC FILE IS PROVIDED FOR THE CONVENIENCE OF THE RECIPIENT AND IS PROVIDED IN "AS IS" CONDITION. THE RECIPIENT IS AWARE THAT DIFFERENCES MAY EXIST BETWEEN THE ELECTRONIC FILES AND THE PRINTED HARD-COPY ORIGINAL SIGNED AND SEALED DRAWINGS OR REPORTS. IN THE EVENT OF A CONFLICT BETWEEN THE SIGNED AND SEALED ORIGINAL DOCUMENTS PREPARED BY OLSSON AND THE ELECTRONIC FILES TRANSFERRED HERewith, THE SIGNED AND SEALED ORIGINAL DOCUMENTS SHALL GOVERN. OLSSON SPECIFICALLY DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ELECTRONIC FILES. IT SHALL BE THE RECIPIENT'S RESPONSIBILITY TO CONFIRM THE ACCURACY OF THE INFORMATION CONTAINED IN THE ELECTRONIC FILE AND THAT IF ACCURATELY REFLECTS THE INFORMATION NEEDED BY THE RECIPIENT. THE RECIPIENT SHALL NOT RETRANSMIT THE ELECTRONIC FILE, OR ANY PORTION THEREOF, WITHOUT INCLUDING THIS DISCLAIMER AS PART OF ANY SUCH TRANSMISSION. IN ADDITION, THE RECIPIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS OLSSON, ITS OFFICERS, DIRECTORS, EMPLOYEES AND SUBCONSULTANTS AGAINST ANY AND ALL DAMAGES, LIABILITIES, CLAIMS OR COSTS, INCLUDING REASONABLE ATTORNEY'S AND EXPERT WITNESS FEES AND DEFENSE COSTS, ARISING FROM ANY CHANGES MADE BY ANYONE OTHER THAN OLSSON OR FROM ANY REUSE OF THE ELECTRONIC FILES WITHOUT THE PRIOR WRITTEN CONSENT OF OLSSON.

35. DESIGN PROFESSIONAL SHALL REVIEW SHOP DRAWINGS OR SAMPLES FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPTS ON THE PROJECT AND FOR COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS, AND SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. THE DESIGN PROFESSIONAL'S REVIEW SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS IN WRITING CALLED DESIGN PROFESSIONAL'S ATTENTION TO EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND DESIGN PROFESSIONAL HAS GIVEN WRITTEN APPROVAL OF EACH SUCH VARIATION BY SPECIFIC WRITTEN NOTATION THEREOF INCORPORATED INTO OR ACCOMPANYING THE SHOP DRAWING OR SAMPLE; NOR WILL ANY APPROVAL BY THE DESIGN PROFESSIONAL RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS WITH CONFORMANCE TO CONTRACT DOCUMENTS.

- a. BEFORE SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED:

a. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;

b. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;

c. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;

d. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.

ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY REVIEWED THE SUBMISSION AND CHECKED ALL DATA AND DETAILS. BY CONTRACTOR SIGNATURE, CONTRACTOR CERTIFIES SHOP DRAWING CONFORMANCE AND ACCURACY TO THE CONTRACT DOCUMENTS.

36. ANY CONTRACTOR BIDDING ANY PORTION OF THIS WORK SHALL HAVE IN HIS OR HER POSSESSION A COMPLETE SET OF CONSTRUCTION DOCUMENTS AND BE FAMILIAR WITH ALL SCOPES OF WORK AND TRADES TO UNDERSTAND THEIR INTERACTIONS.

37. CONTRACTOR TO PROVIDE A STRUCTURAL DESIGN FOR ALL STORM STRUCTURES WITH A ("L"+"H") AND ("W" + "H") GREATER THAN 20 FEET. "L" IS THE LENGTH OF THE BOX, "W" IS THE WIDTH OF THE BOX, AND "H" IS THE HEIGHT OF THE BOX. STRUCTURAL DESIGN SHOULD INCLUDE DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER. DESIGN SHALL BE SUBMITTED FOR REVIEW PRIOR TO ANY FABRICATION AND ORDERING OF PIPE PRODUCTS. IN THE EVEN THIS NOTE IS LESS STRINGENT THAN THE LOCAL JURISDICTION, THE MORE STRINGENT REQUIREMENTS SHOULD APPLY.

DEMOLITION NOTES

1. CONTRACTOR TO PRESERVE ALL SURVEY CONTROL.

2. CONTRACTOR TO COMPLETE DEMOLITION PER THE INTENT OF THESE PLANS.

3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THIS INCLUDES PRIVATE AND PUBLIC UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT MISSOURI ONE CALL AT 1-800-344-7483 IN ADVANCE OF ANY EXCAVATION TO COORDINATE UTILITY LOCATIONS.

4. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR SHOWN ON THESE PLANS.

5. REMOVAL AND DISPOSAL OF BUSHES AND TREES SMALLER THAN 12" IN DIAMETER SHALL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR CLEARING AND GRUBBING.

6. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OFF SITE BY THE CONTRACTOR.

7. DO NOT DISRUPT UTILITY SERVICE TO ADJACENT BUSINESSES OR RESIDENCES WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.

8. DO NOT DISRUPT TRAFFIC ON ADJACENT PUBLIC STREETS WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY.

9. ALL SIDEWALK AND PAVEMENT TO REMAIN SHALL BE PROTECTED IN PLACE INCLUDING PROTECTION FROM DAMAGE CAUSED BY REMOVAL OF ABUTTING PAVEMENT. CONTRACTOR SHALL SAW CUT WHERE NECESSARY.

10. CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DISCONNECTION, DEMOLITION, AND REMOVAL OF SERVICE LINES. CAP ALL LINES BEFORE PROCEEDING WITH WORK ON THIS CONTRACT.

11. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANIES WORK FORCE AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES.

12. CONTRACTOR SHALL PROTECT THE PUBLIC AT ALL TIME WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES AND AS APPROVED BY THE ENGINEER AND THE CITY.

13. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

14. DEMOLITION OF BUILDINGS SHALL INCLUDE THE BUILDING STRUCTURE, PAD, FOOTINGS, FOUNDATIONS, BASEMENT WALLS, BASEMENT FLOORS, TRUCK DOCKS, STEPS, DECKS, ALL ITEMS REMAINING IN BUILDING, ALL BUILDING UTILITY SERVICES, SIDEWALKS, AND BACKFILLING AND RESTORING REMAINING EXCAVATIONS, BASEMENTS AND TRENCHES PER SPECIFICATIONS.

15. ALL LIGHT POLE DEMOLITION SHALL INCLUDE FIXTURES, BASES AND WIRING.

16. ALL UTILITY DEMOLITION SHALL INCLUDE METERS, MANHOLES AND OTHER STRUCTURES ASSOCIATED WITH THE UTILITY SERVICE LINE.

PAVEMENT MARKING NOTES:

1. PAVEMENT MARKING PAINT: LATEX, WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.

2. DO NOT APPLY PAVEMENT MARKING PAINT UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE ARCHITECT.

3. ALLOW PAVING TO AGE FOR 24 HOURS BEFORE MARKING.

4. SWEEP AND CLEAN SURFACE.

5. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE MARKINGS WITH UNIFORM STRAIGHT EDGES. PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS.

6. THIS WORK SHALL CONSIST OF FURNISHING AND APPLYING PAINT ON PAVEMENT SURFACES, IN TRAFFIC LANES, PARKING BAYS, AREAS RESTRICTED TO HANDICAPPED PERSONS, CROSSWALKS, AND OTHER DETAIL PAVEMENT MARKINGS, IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS.

7. DETAILS NOT SHOWN SHALL BE IN CONFORMITY WITH THE STATE STANDARDS FOR TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND SIMILAR REQUIREMENTS ESTABLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

8. ALL PARKING LOT STRIPING SHALL BE SINGLE LINE 4" WIDE AS PER THE SITE PLANS.

9. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS. USE SHERWIN WILLIAMS PROMAR TRAFFIC MARKING PAINT, COLORS TO MATCH THE EXISTING ADJACENT INSTALLATIONS. USE FLAT BLACK, WHITE OR YELLOW, WHERE APPROPRIATE. UNLESS OTHERWISE DIRECTED, USE THE FOLLOWING:

A. BLACKTOP OR BITUMINOUS ASPHALT PAVING: USE WHITE COLOR.

B. PORTLAND CEMENT CONCRETE PAVING: USE YELLOW COLOR.

C. HANDICAPPED ACCESSIBLE PARKING AND ENTRYWAYS: USE WHITE COLOR WITH WHITE STRIPES.

D. PROVIDE PAINTED CURBS AT FIRE LANE DESIGNATIONS PER FIRE MARSHAL REQUIREMENTS.

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

11. DETAIL PAVEMENT MARKINGS SHALL BE THAT MARKING, EXCLUSIVE OF ACTUAL TRAFFIC LANE MARKING, AT EXIT AND ENTRANCE ISLANDS AND TURNOUTS, ON CURBS, AT CROSSWALKS, AT PARKING BAYS AND AT SUCH OTHER LOCATIONS AS SHOWN. HANDICAPPED PARKING SPACES SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH TRUE, SHARP EDGES AND ENDS.

EROSION & SEDIMENT CONTROL NOTES

1. PRIOR TO LAND DISTURBANCE ACTIVITIES, THE FOLLOWING SHALL OCCUR:

A. DELINEATE THE OUTER LIMITS OF ANY NATURAL STREAM CORRIDOR DESIGNATED IN ACCORDANCE WITH THE CITY'S DESIGN AND CONSTRUCTION MANUAL SHALL BE APPLICABLE TO DEVELOPMENT IN THE ADP.

B. CONSTRUCT A STABILIZED ENTRANCE/PARKING/DELIVERY AREA.

C. INSTALL PERIMETER CONTROLS AND REQUEST THE INSPECTION OF THE PRECONSTRUCTION EROSION AND SEDIMENT CONTROL MEASURES DESIGNATED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. LAND DISTURBANCE WORK SHALL NOT PROCEED UNTIL THERE IS A SATISFACTORY INSPECTION.

D. IDENTIFY THE LIMITS OF CONSTRUCTION ON THE GROUND WITH EASILY RECOGNIZABLE INDICATIONS SUCH AS CONSTRUCTION STAKING, CONSTRUCTION FENCING, AND PLACEMENT OF PHYSICAL BARRIERS OR OTHER MEANS ACCEPTABLE TO THE CITY INSPECTOR AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.

2. THE SITE SHALL COMPLY WITH ALL REQUIREMENTS OF THE MISSOURI WATER POLLUTION CONTROL AND NPDES STORMWATER RUNOFF FROM CONSTRUCTION SITES GENERAL PERMIT, AND LEE'S SUMMIT STANDARDS AND SPECIFICATIONS LIMITED TO:

A. STABILIZATION OF ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS.

B. INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERFORMED TO MEET OR EXCEED THE MINIMUM INSPECTION FREQUENCY IN THE MISSOURI GENERAL PERMIT. AT A MINIMUM, INSPECTIONS SHALL BE PERFORMED DURING ALL PHASES OF CONSTRUCTION AT THE FOLLOWING INTERVALS:

I AT LEAST ONCE EVERY 14 DAYS

II BY THE END OF THE NEXT DAY, EXCLUDING WEEKENDS AND FEDERAL HOLIDAYS, AFTER A RAIN EVENT OF ½ INCH OR MORE.

C. AN INSPECTION LOG SHALL BE MAINTAINED AND SHALL BE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.

D. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE ROUTINELY UPDATED PER THE SWPPP AND NOI TO SHOW ALL CHANGES AND AMENDMENTS TO THE PLAN. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE KEPT ON SITE AND MADE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.

3. UNLESS OTHERWISE NOTED IN THE PLANS, ALL SEEDING MUST CONFORM TO THE CITY OF LEE'S SUMMIT STANDARDS AND SPECIFICATIONS.

4. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED FOR THE DURATION OF A PROJECT. ALL INSTALLED EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN A MANNER THAT PRESERVES THEIR EFFECTIVENESS. IF THE CITY DETERMINES THAT THE BMPS IN PLACE DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL AT ANY TIME DURING THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EFFECTIVE CONTROL MEASURES THAT PROVIDE EFFECTIVE CONTROL SHALL BE REQUIRED. FAILURE TO DO SO IS A VIOLATION OF THE PROVISIONS OF CITY OF LEE'S SUMMIT STANDARDS AND REGULATIONS.

5. SILT FENCES AND SEDIMENT CONTROL BMPS WHICH ARE SHOWN ALONG THE BACK OF CURB MUST BE INSTALLED WITHIN TWO WEEKS OF CURB BACKFILL AND PRIOR TO PLACEMENT OF BASE ASPHALT. EXACT LOCATIONS OF THESE EROSION CONTROL METHODS MAY BE FIELD ADJUSTED TO MINIMIZE CONFLICTS WITH UTILITY CONSTRUCTION; HOWEVER, ANTICIPATED DISTURBANCE BY UTILITY CONSTRUCTION SHALL NOT DELAY INSTALLATION.

6. THE ABOVE REQUIREMENTS ARE THE RESPONSIBILITY OF THE PERMITEE FOR THE SITE. RESPONSIBILITY MAY BE TRANSFERRED TO ANOTHER PARTY BY THE PERMITEE ACCORDING TO THE SWPPP, BUT THE PERMITEE SHALL REMAIN LIABLE BY THE CITY OF LEE'S SUMMIT IF ANY OF THE ABOVE CONDITIONS ARE NOT MET.

7. APWA EROSION AND SEDIMENT CONTROL/BMPS USED ON THE PROJECT SHALL BE CONSTRUCTED, INSPECTED, AND MAINTAINED AT A MINIMUM TO APWA STANDARDS AND SPECIFICATIONS.

8. THE SITE SHALL COMPLY WITH ALL REQUIREMENTS OF THE MISSOURI WATER POLLUTION CONTROL AND NPDES STORMWATER RUNOFF FROM CONSTRUCTION SITES GENERAL PERMIT, OTHER PERMIT REQUIREMENTS, AND CITY OF LEE'S SUMMIT.

9. CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO BIDDING, SATISFY HIMSELF AS TO THE CONDITION OF EXISTING BMPS INCLUDING SEDIMENT TRAPS AND BASINS UNDER CURRENT OPERATION/NO FROM THE DEMOLITION PLANS CONSTRUCTION DOCUMENTS. AT NOTICE TO PROCEED, BMPS, EXISTING PERMITS, SWPPP OPERATIONS, AND MAINTENANCE BECOMES THE CONTRACTOR'S RESPONSIBILITY.

SANITARY SEWER NOTES:

1. ALL SANITARY SEWER SERVICE PIPE SHALL BE PVC SDR-26. SEWER SERVICE LINE W/PUSH ON JOINTS.

2. INSTALL 6" ONE-WAY CLEANOUT 10' FROM BUILDING OR AS NOTED ON PLANS.

3. NO FOUNDATION DRAINS ARE PLANNED FOR THIS PROJECT. DOWNSPOUTS SHALL NOT BE CONNECTED TO SANITARY SEWER. DOWNSPOUTS WILL DISCHARGE AT GRADE USING SPLASHBLOCK OR TO PROPOSED STORM SEWER.

4. TEN FEET OF HORIZONTAL SEPARATION AND TWO FEET OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER LINES AND THE SANITARY SEWER SERVICE LINE.

5. IN THE EVENT OF WORK IN OR ON THE SANITARY MAIN, ANY TREES OR PLANTINGS PLACED WITHIN THE SEWER EASEMENT MAY BE REMOVED WITHOUT REPLACEMENT OR COMPENSATION THERE-OF.

6. 90-DEGREE TURNS TO BE ACCOMPLISHED WITH TWO 45-DEGREE BENDS WITH A MINIMUM OF ONE FOOT OF PIPE BETWEEN THE 45-DEGREE BENDS.

7. FOR VERTICAL RISERS AND ENCASEMENTS, SEE SANITARY SEWER CONNECTION SHEETS.

8. SANITARY SERVICE LINES SHALL BE INSTALLED BY BUILDING PLUMBER AND IN ACCORDANCE WITH THE CURRENT SERVICE LINE DESIGN AND CONSTRUCTION STANDARDS.

9. ROOF DRAINS SHALL NOT BE CONNECTED TO THE SANITARY SEWER.

10. REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET THE GRADE REQUIREMENTS.

11. MANHOLE STATIONS AND PIPE LENGTHS SHOWN ON PLANS ARE TO THE CENTER OF MANHOLES. DO NOT SCALE DRAWINGS.

12. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT OR SIDEWALKS DAMAGED DURING THE CONSTRUCTION OF THE SANITARY SEWER SERVICE LINE.

AMERICAN WITH DISABILITIES ACT. (ADA)

1. ADA PARKING SPACES, MARKINGS AND ACCESS TO THE BUILDING(S) SHALL COMPLY WITH ADA.

2. ALL CONSTRUCTION TRAFFIC, TEMPORARY TRAFFIC CONTROL DEVICES, AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

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SCANNELL

PROPERTIES

MISSOURI
STATE OF MISSOURI
SEAL OF THE
GOVERNMENT
JANUARY 10, 1820
MITCHELL ALAN
PLEAK
NUMBER
PE-2009016764
03-01-22

REVISIONS

2021

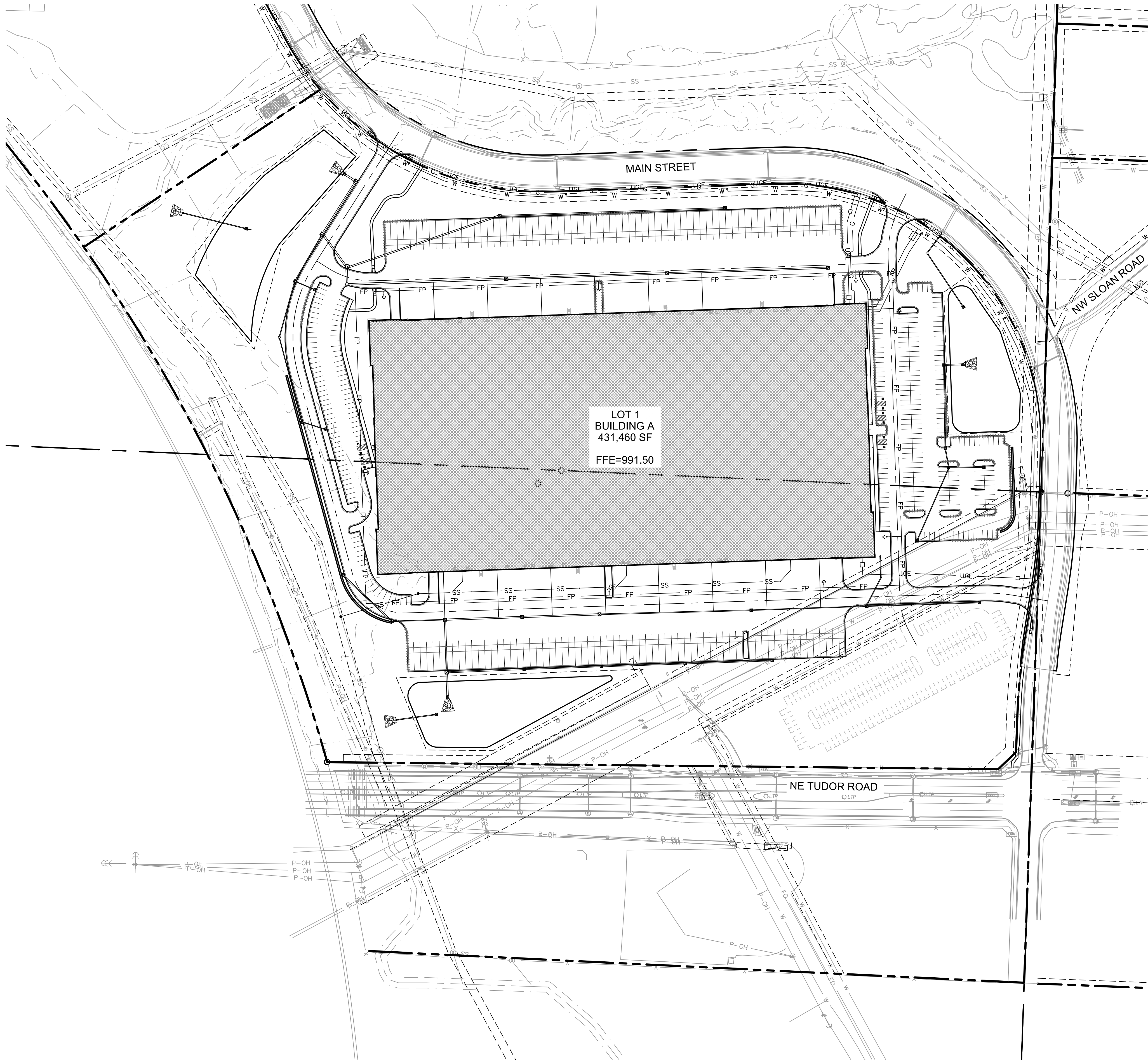
GENERAL NOTES

PHASE 1/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: TT101_02104157.dwg
date:

SHEET
C1.00



BUILDING & SITE DATA							
ZONING							
NO. OF STORIES	BLDG HEIGHT	USE	BUILDING SQ. FT.	PARKING REQUIRED	PARKING PROVIDED	FLOOR AREA RATIO	LOT AREA
1	48 FT	BUILDING A WAREHOUSE	431,460 S.F.	1 STALL PER 1000 SF (432 STALLS)	320 STALLS (159 FUTURE STALLS)	0.26	37.90 ACRES
LOT 1 PROPOSED OPEN SPACE= 788,745 S.F. (18.107 ACRES) 47.86%							
REQUIRED OPEN SPACE= REFERENCE LANDSCAPE PLAN							
LOT 1 PROPOSED IMPERVIOUS AREA= 858,965 S.F. (19.719 ACRES)							

PROPERTY DESCRIPTION

All that part of an unplatted tract of land, together with all that part of North Main Street right of way, all lying in the West Half of Section 31, Township 48 North, Range 31 West, lying in the City of Lee's Summit, Jackson County, Missouri, described by Patrick Ethan Ward, MO PLS-20050071, of Olsson MOLC-366, on October 14, 2021, as follows:

BEGINNING at the Northeast corner of the Southwest Quarter of Section 31, Township 48 North, Range 31 West; thence South 01 degree 59 minutes 47 seconds West, on the East line of said Southwest Quarter, a distance of 65.98 feet to a point on the West line of NW Sloan Street right of way, as established in Document 2013E0075031, said point also lying on a non-tangent curve; thence in a Southerly direction, departing said East line, on said West line and on a curve to the right whose initial tangent bears South 02 degrees 47 minutes 37 seconds West, having a radius of 970.00 feet, through a central angle of 6 degrees 27 minutes 07 seconds, an arc distance of 109.23 feet to a point of tangency; thence South 09 degrees 14 minutes 44 seconds West, continuing on said West line, a distance of 111.80 feet to a point of curvature; thence in a Southerly direction, continuing on said West line and on a curve to the left, having a radius of 1030.00 feet, through a central angle of 7 degrees 14 minutes 57 seconds, an arc distance of 130.32 feet to a point of tangency; thence South 01 degree 59 minutes 47 seconds West, continuing on said West line, a distance of 69.49 feet to a point on the North line of NE Tudor Road right of way, as established in said Document 2013E0075031; thence South 46 degrees 15 minutes 48 seconds West, departing said West line, on said North line, a distance of 46.09 feet to a point; thence North 89 degrees 24 minutes 16 seconds West, continuing on said North line, and on the North line of NW Tudor Road right of way, as established in Document 2013E0075030, a distance of 1249.23 feet to a point on the East line of Union Pacific Railroad right of way, as now established, said point also lying on a non-tangent curve; thence in a Northerly and Northwesterly direction, departing said North line, on said East line and on a curve to the left whose initial tangent bears North 15 degrees 46 minutes 27 seconds West, having a radius of 3203.90 feet, through a central angle of 22 degrees 48 minutes 11 seconds, an arc distance of 1275.12 feet to a point of tangency; thence North 38 degrees 34 minutes 39 seconds West, continuing on said East line, a distance of 738.40 feet to a point of curvature; thence in a Northwesterly direction, continuing on said East line and on a curve to the right, having a radius of 5981.13 feet, through a central angle of 2 degrees 39 minutes 22 seconds, an arc distance of 277.27 feet to a point on the North line of the South Half of the Northwest Quarter of said Section 31, said point also lying on a non-tangent line; thence South 87 degrees 40 minutes 30 seconds East, departing said East line, on said North line, a distance of 884.17 feet to a point on a non-tangent curve; thence in a Southeasterly direction, departing said North line, on a curve to the right whose initial tangent bears South 45 degrees 29 minutes 38 seconds East, having a radius of 544.00 feet, through a central angle of 16 degrees 50 minutes 44 seconds, an arc distance of 159.94 feet to a point of tangency; thence South 28 degrees 38 minutes 55 seconds East a distance of 437.58 feet to a point of curvature; thence in a Southeasterly and Easterly direction, on a curve to the left, having a radius of 476.00 feet, through a central angle of 63 degrees 19 minutes 59 seconds, an arc distance of 526.16 feet to a point of tangency; thence North 88 degrees 01 minute 06 seconds East a distance of 416.85 feet to a point of curvature; thence in an Easterly and Southeasterly direction, on a curve to the right, having a radius of 544.00 feet, through a central angle of 65 degrees 51 minutes 08 seconds, an arc distance of 625.24 feet to a point on a non-tangent line, said point also lying on the East line of said Northwest Quarter; thence South 01 degree 53 minutes 30 seconds West, on said East line, a distance of 338.00 feet to the POINT OF BEGINNING, containing 2,375,437 Square Feet or 54.5325 Acres, more or less.

PROPERTY OWNER/ DEVELOPER

SCANNELL PROPERTIES #603, LLC
8801 RIVER CROSSING BLVD, SUITE 300
INDIANAPOLIS, IN 46240
PH: 317-218-1648

ENGINEER/ LANDSCAPE ARCHITECT

OLSSON
7301 W. 133RD STREET, SUITE 200
OVERLAND PARK, KS 66213
PH: 913-381-1170
F: 913-381-1174

PROPOSED SITE USE

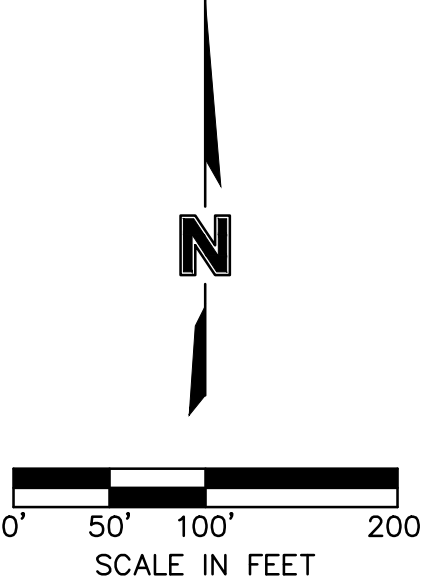
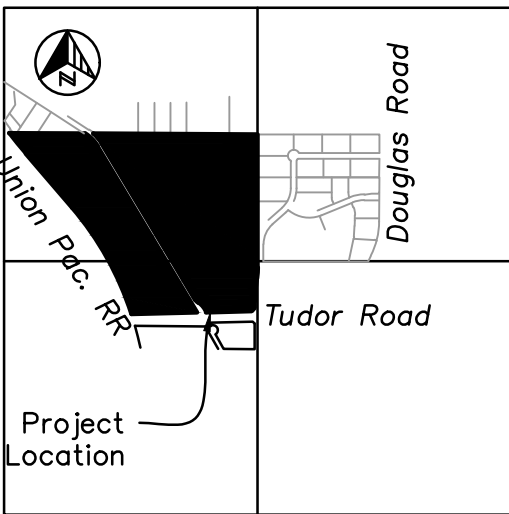
INDUSTRIAL

EXISTING & PROPOSED ZONING

SITE AREA

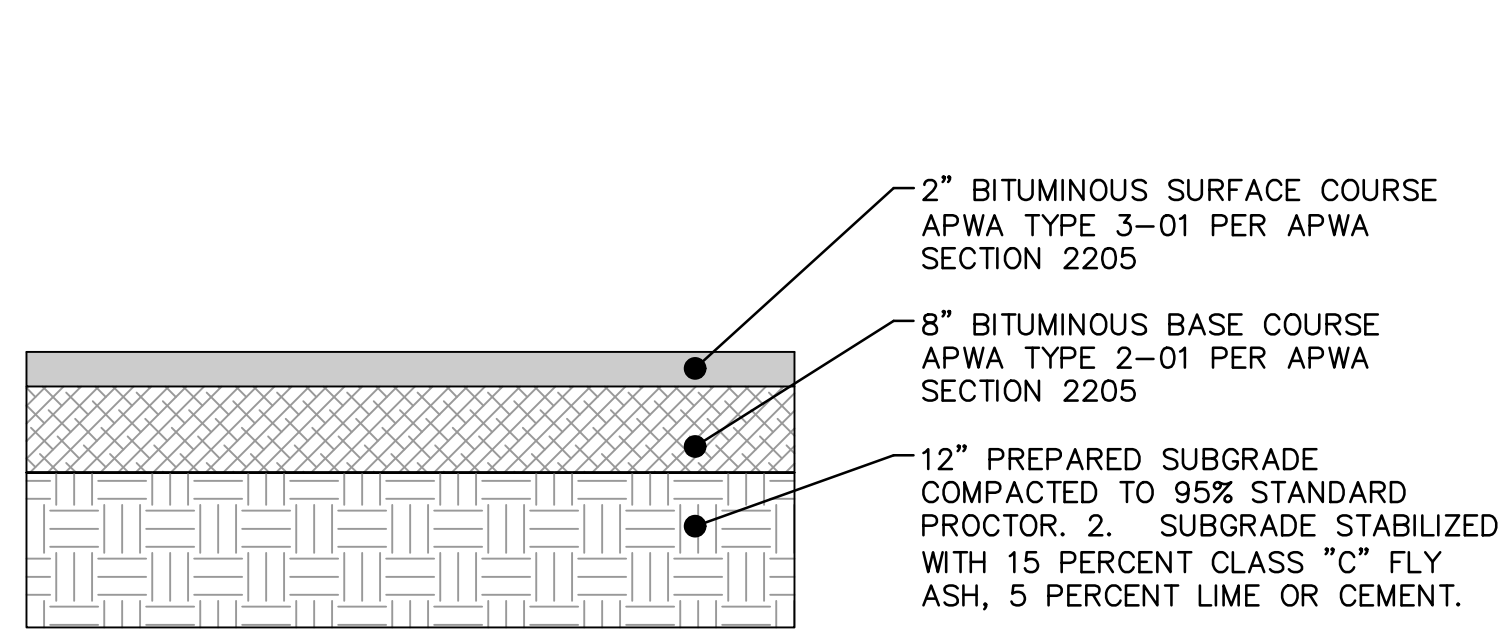
NET SITE AREA= 3,439,837 SQ. FT., (78.9678 AC±)

LEGEND	
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	SECTION LINE
	FEMA FLOOD PLAIN LIMITS
	LOT LINE
	FENCE

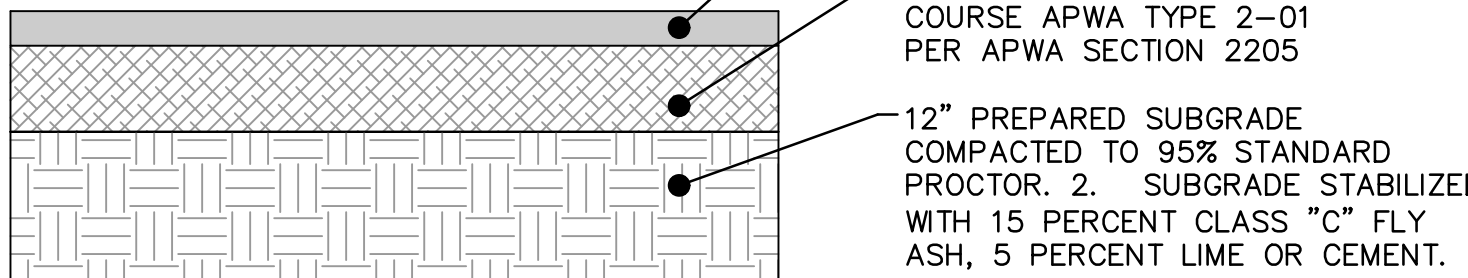


REV.	DATE	REVISIONS DESCRIPTION	BY
1	12.28.2021	CITY COMMENTS	
2	01.28.2022	REVISED AND OWNER CHANGES	
3	02.03.2022	CITY & ENGINEER COMMENTS	

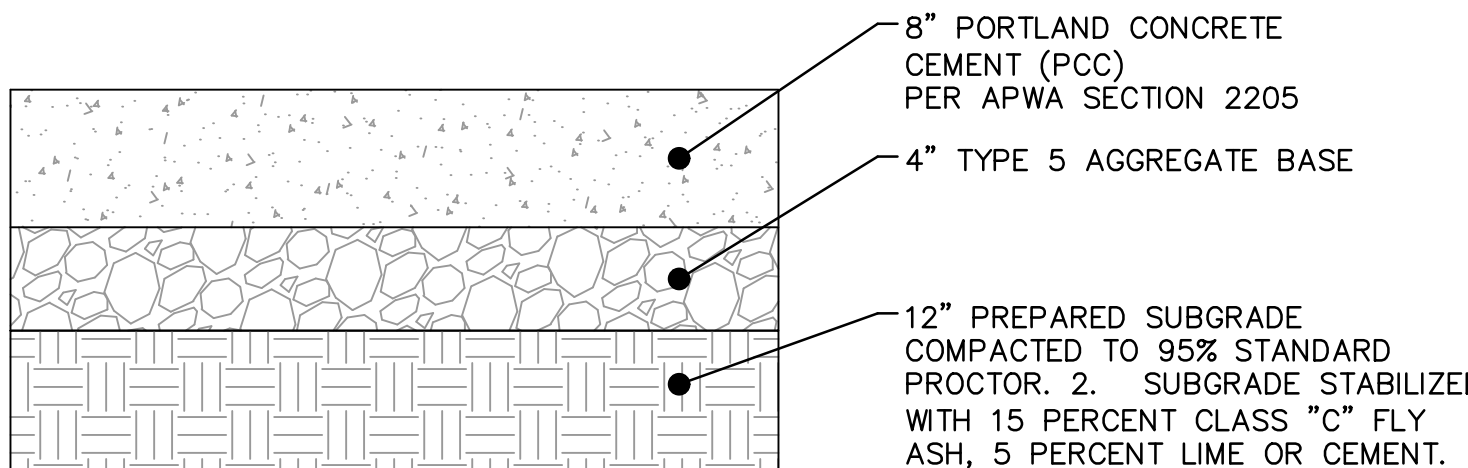
GENERAL LAYOUT PLAN PHASE I FINAL DEVELOPMENT PLAN		2021
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET		
LEE'S SUMMIT, MISSOURI		
drawn by: OLSSON checked by: ENG approved by: ENG QA/QC by: ENG project no.: 021-04157 drawing no.: G01.P01_02104157.dwg date:		
SHEET C2.00		



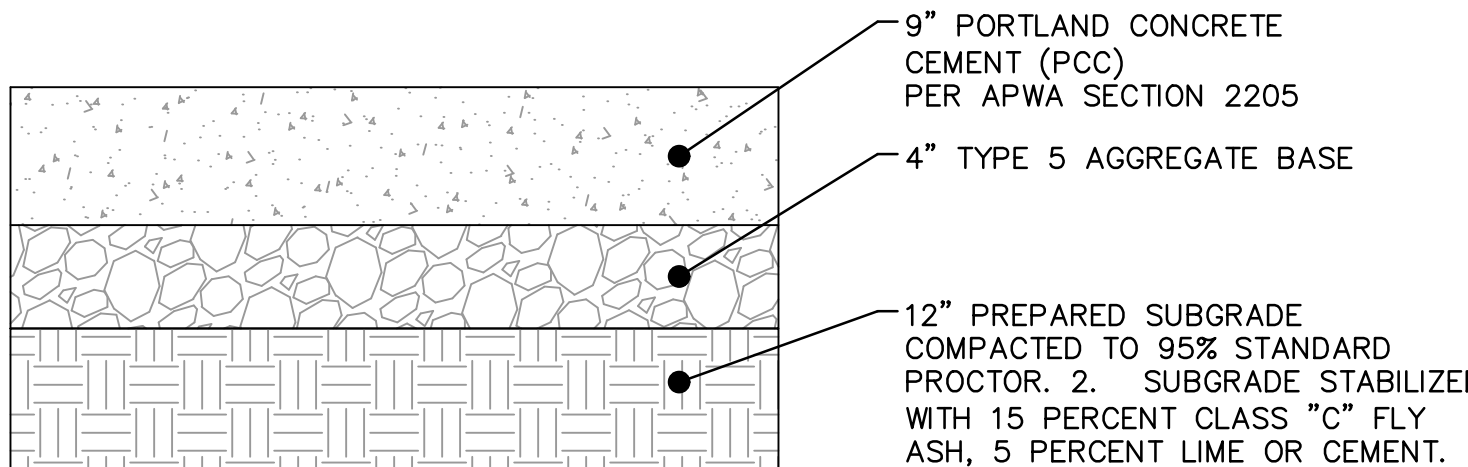
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PER GEOTECHNICAL REPORT



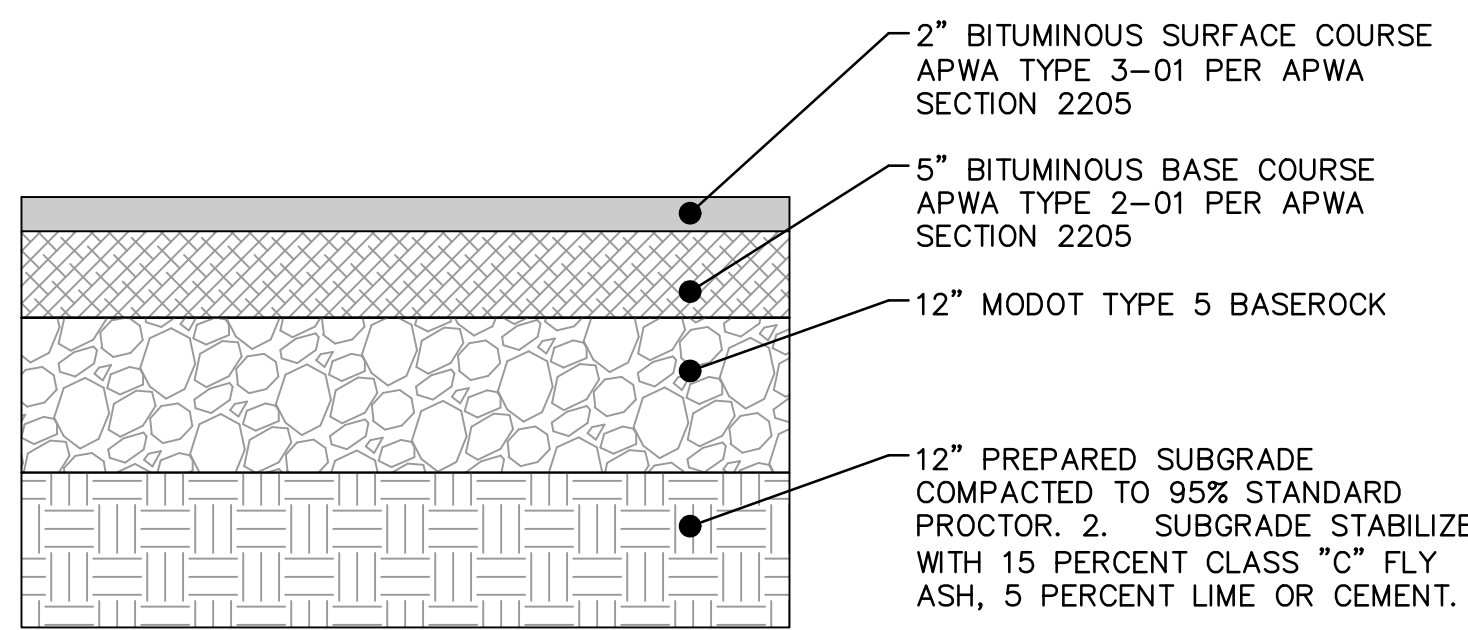
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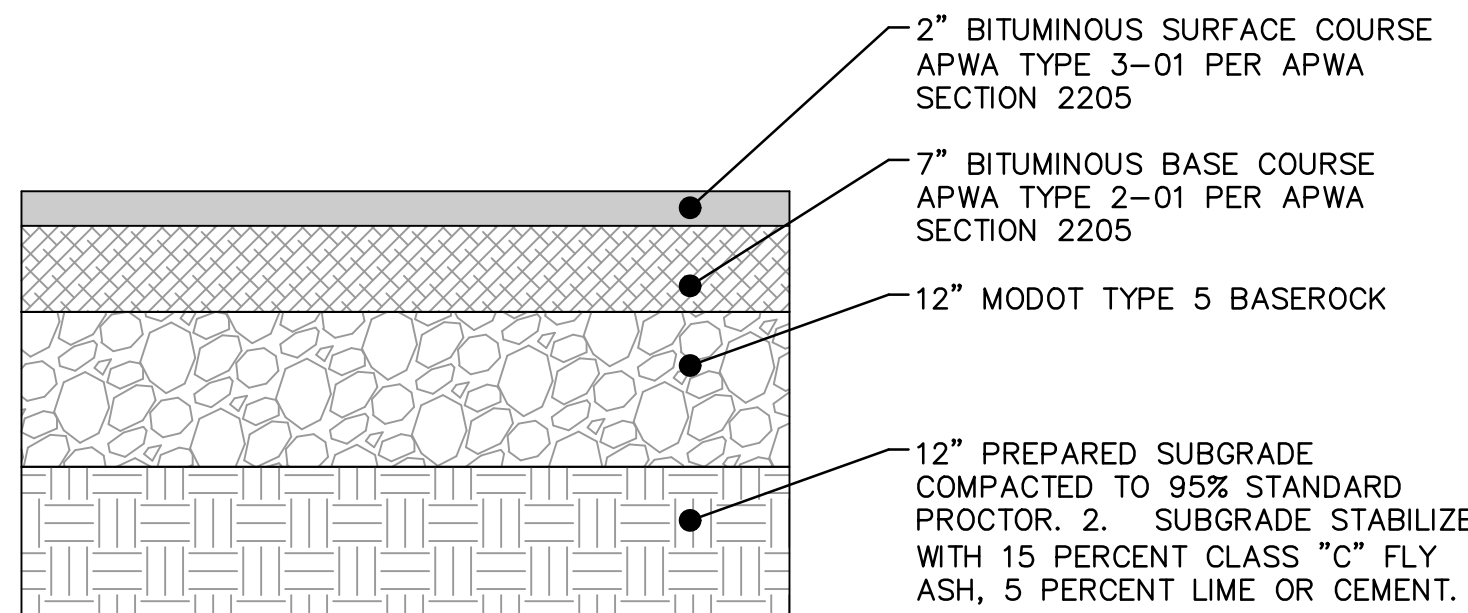
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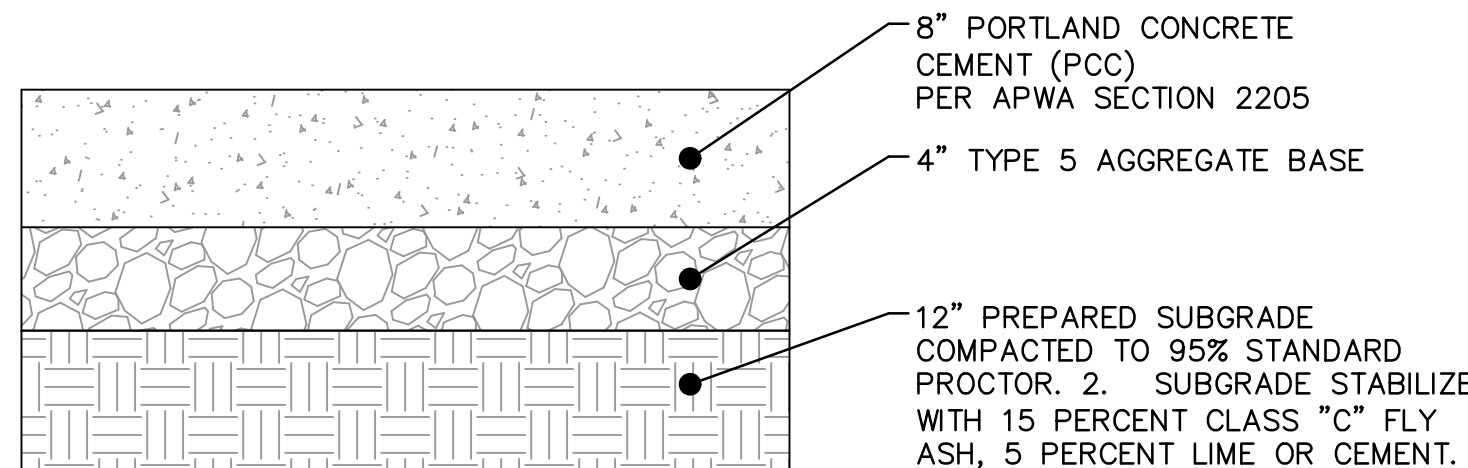
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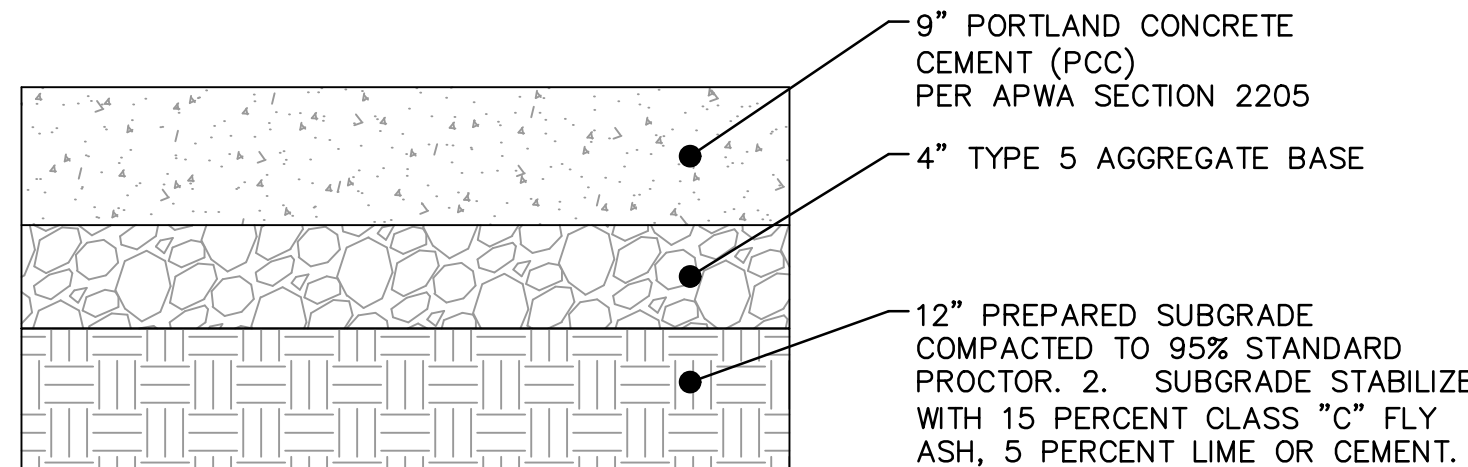
NOT TO SCALE
PER GEOTECHNICAL REPORT



NOT TO SCALE
PER GEOTECHNICAL REPORT



NOT TO SCALE
PER GEOTECHNICAL REPORT

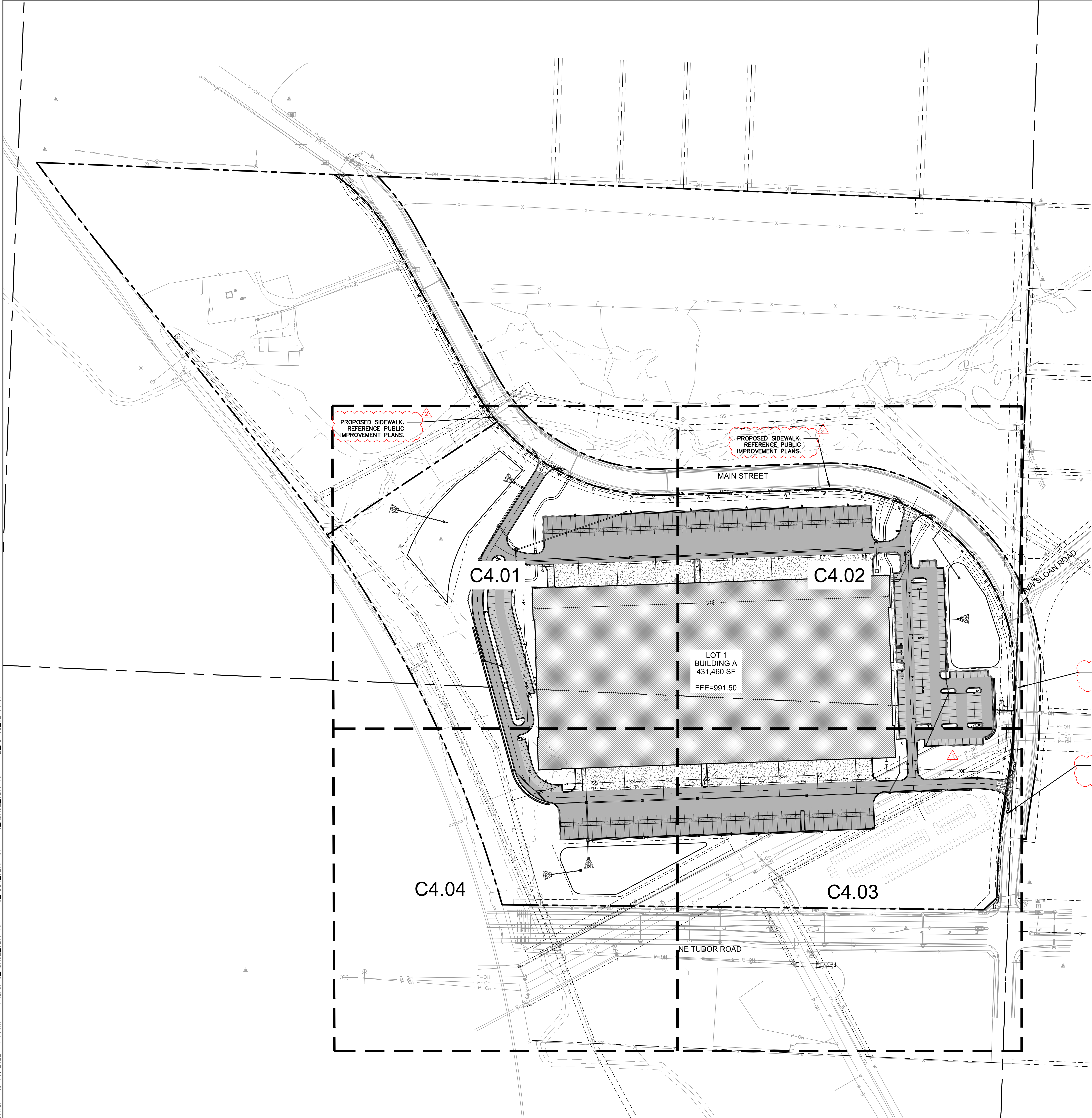


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PER GEOTECHNICAL REPORT

NOTE

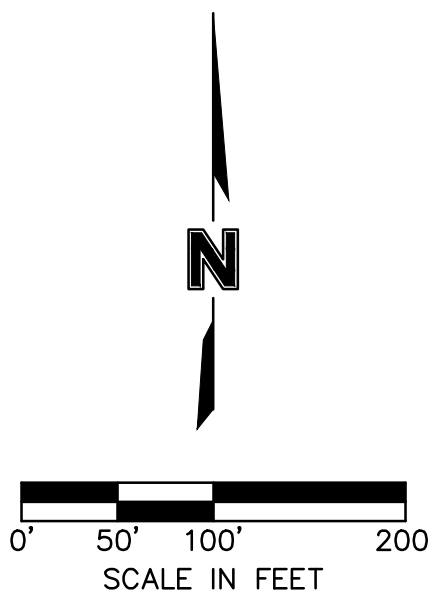
1. ALL CONSTRUCTION, SITE PREPARATION, GRADING, AND EXCAVATION PROCEDURES SHALL CONFORM TO RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT INCLUDING ADDENDUMS. CONTRACTOR SHALL CONTACT ENGINEER WITH ANY DISCREPANCIES OR CONCERNS BASED ON ACTUAL SITE CONDITIONS.
2. GEOTECHNICAL REPORT GOVERNS ONLY IF IT MEETS OR EXCEEDS CITY REQUIREMENTS.
3. SUBGRADE STABILIZED WITH 15 PERCENT CLASS "C" FLY ASH, 5 PERCENT LIME OR CEMENT.

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DIMENSION PLAN LEGEND

- PROPERTY LINE
- LOT LINE
- UTILITY EASEMENT
- BUILDING SET/BACK/LANDSCAPE BUFFER
- SAWCUT PAVEMENT FULL DEPTH
- ADA PATH - SIDEWALKS NOT DELINEATED AS ADA PATHS WILL NOT BE ADA COMPLIANT.
- PROPOSED STORM SEWER
- INSTALL STANDARD "WET" CURB & GUTTER (PER LEE'S SUMMIT STANDARD DETAIL)
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- INSTALL MEDIUM DUTY ASPHALT SEE PAVEMENT SECTION ON C3.00
- INSTALL HEAVY DUTY ASPHALT SEE PAVEMENT SECTION ON C3.00
- INSTALL HEAVY DUTY CONCRETE SEE PAVEMENT SECTION ON C3.00
- INSTALL CONCRETE SIDEWALK SEE PAVEMENT SECTION ON C3.00
- PROPOSED LIGHT POLE
- PROPOSED PARKING STALL COUNT



olsson

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7756
TEL 913.381.1170
www.olson.com

SCANNELL

PROPERTIES

STATE OF MISSOURI
PROFESSIONAL ENGINEER
MITCHELL ALAN
PE-2008015764
2-2-2022

BY

REVISIONS DESCRIPTION

DATE

REV. NO.

1 12.28.2021 CITY COMMENTS

2 01.03.2022 CITY AND OWNER CHANGES

3 02.03.2022 CITY & OWNER COMMENTS

REVISIONS

2021

OVERALL DIMENSION PLAN
PHASE I FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON

checked by: ENG

approved by: ENG

QA/QC by: ENG

project no.: 021-04157

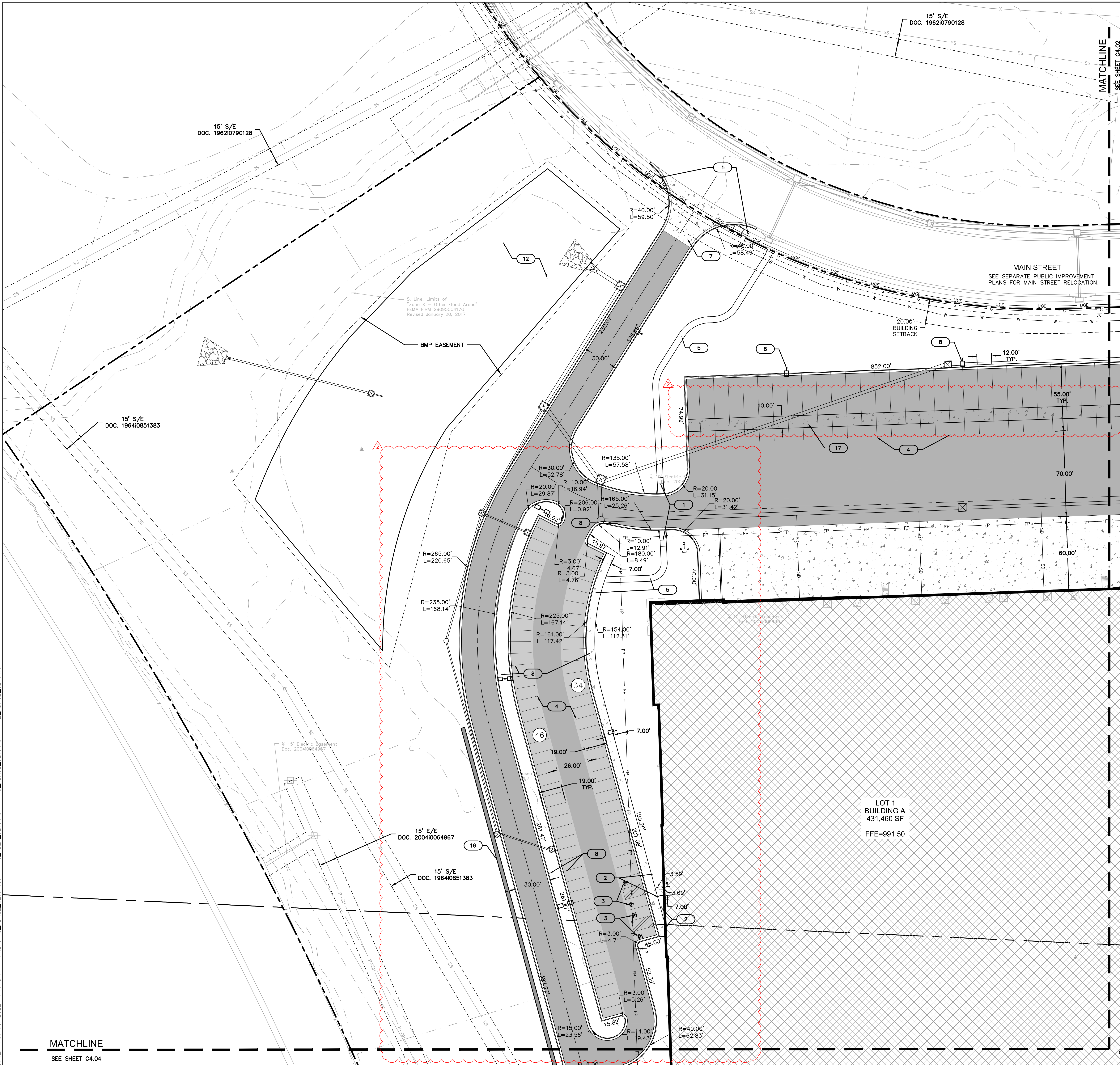
drawing no.: 021-04157

date:

SHEET

C4.00

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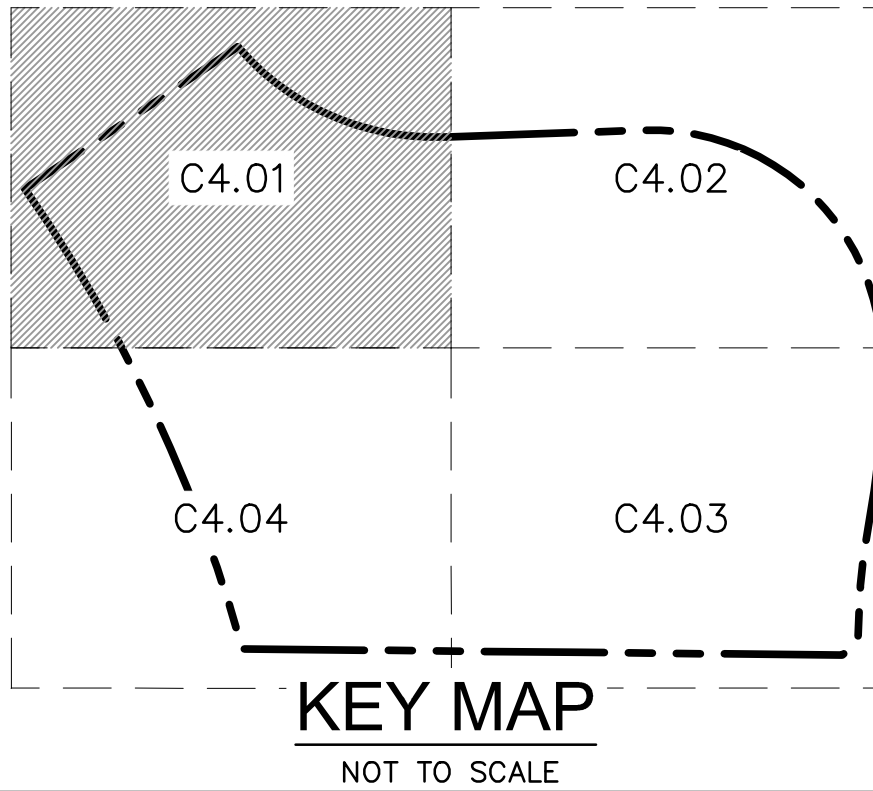
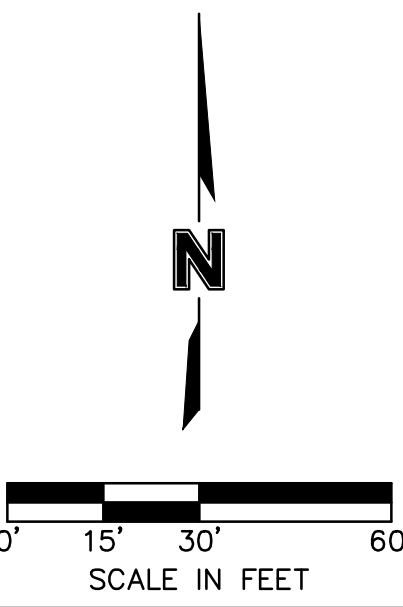


DIMENSION PLAN LEGEND

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- PROPOSED LIGHT POLE
- PROPOSED PARKING STALL COUNT

KEYNOTES

- CONSTRUCT ADA ACCESSIBLE RAMP. (SEE DETAIL SHEET)
- PROPOSED ADA ACCESSIBLE PARKING SIGN. (SEE DETAIL SHEET). SIGNS PROVIDED BY TENANT.
- ADA PARKING STALL LAYOUT. (SEE DETAIL SHEET)
- PROPOSED PAVEMENT STRIPING. (SEE PAVEMENT STRIPING PLAN)
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- PROPOSED CONCRETE APRON
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- PROPOSED TRAILER SPACING NUMBERING
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- PROPOSED FIRE HYDRANT
- PROPOSED RETAINING WALL WITH TRAFFIC RATED RAILING/FENCE.
- PROPOSED TRAILER PARKING DOLLY STRIP.



BY		
REVISIONS DESCRIPTION		
CITY COMMENTS		
1	12/28/2021	NO CHANGES
2	01/27/2022	NO CHANGES
3	02/03/2022	CITY & ENERGY COMMENTS

REV.	DATE	REVISIONS DESCRIPTION
1	12/28/2021	NO CHANGES
2	01/27/2022	NO CHANGES
3	02/03/2022	CITY & ENERGY COMMENTS

DIMENSION PLAN
PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: 021-04157.dwg
date:

SHEET
C4.01

2021

REVISIONS

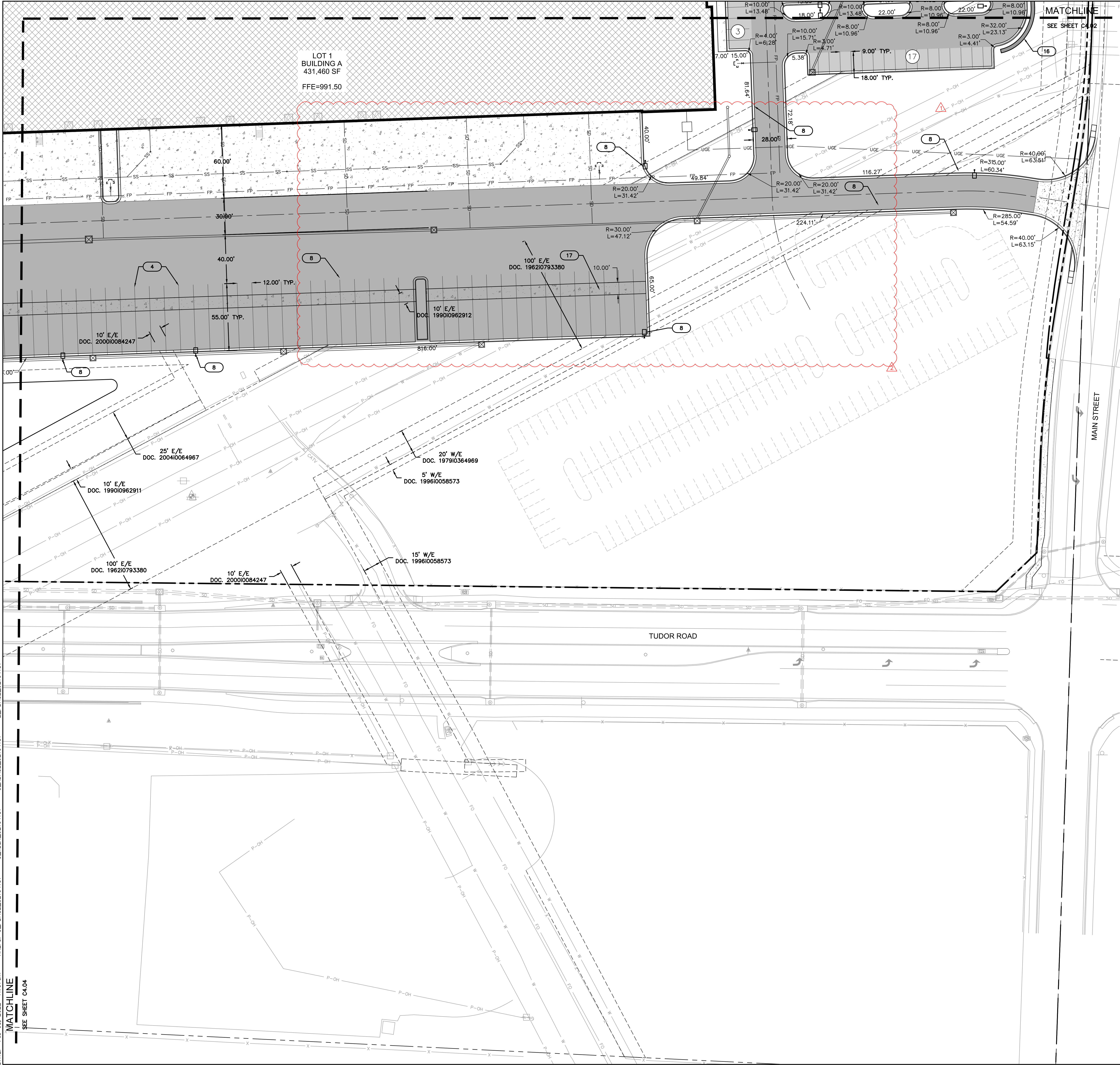
7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7756
TEL 913.381.1170
www.olsson.com



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MATCHLINE
SEE SHEET C4.04

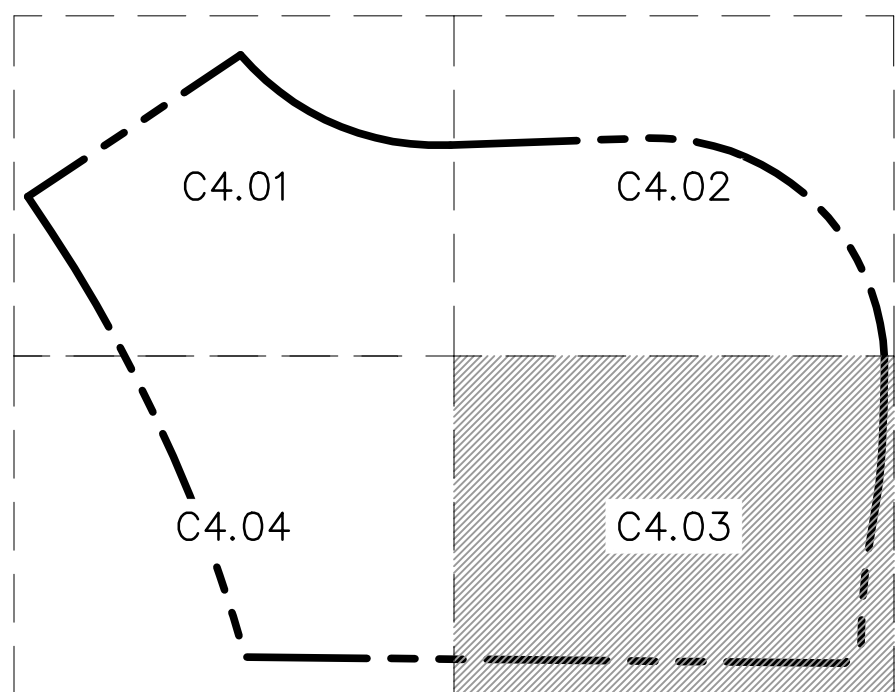


DIMENSION PLAN LEGEND

- PROPERTY LINE
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- BUILDING SET/BACK/LANDSCAPE BUFFER
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- PROPOSED DRY DETENTION BASIN
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- PROPOSED EV CHARGING STATION(SEE MEP/ARCH PLANS)
- PROPOSED FIRE HYDRANT
- PROPOSED RETAINING WALL WITH TRAFFIC RATED RAILING/FENCE.
- PROPOSED TRAILER PARKING DOLLY STRIP.



KEY MAP

NOT TO SCALE



DIMENSION PLAN

PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: 02104157.dwg
date:

SHEET
C4.03



SCANNELL
PROPERTIES

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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2	01.28.2022	NO CHANGES	
3	02.03.2022	CITY & ENERGY COMMENTS	

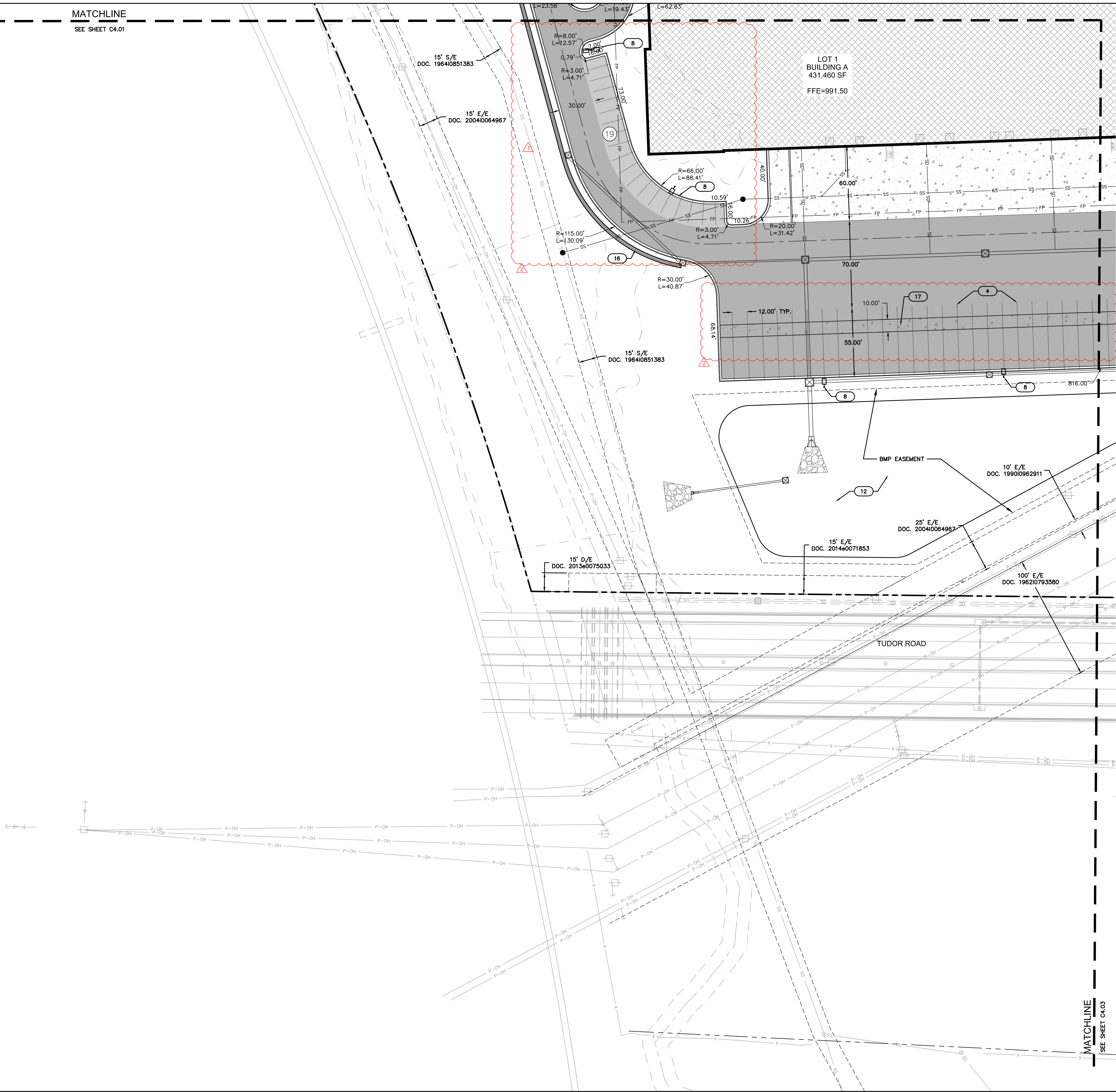
2021

REVISIONS

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7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4756
TEL 913.381.1170
www.olsson.com

MATCHLINE
SEE SHEET C4.01

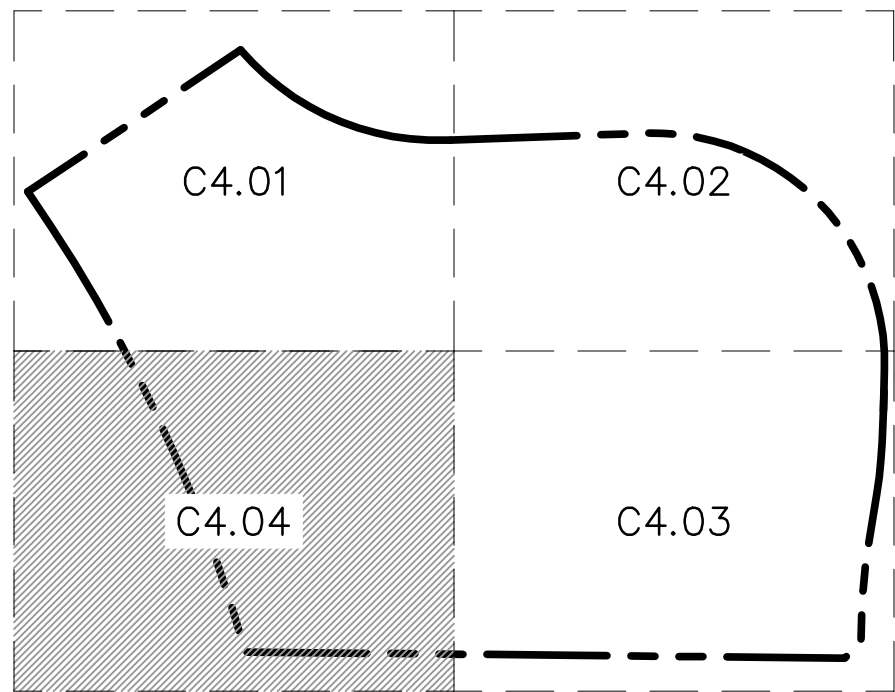


DIMENSION PLAN LEGEND

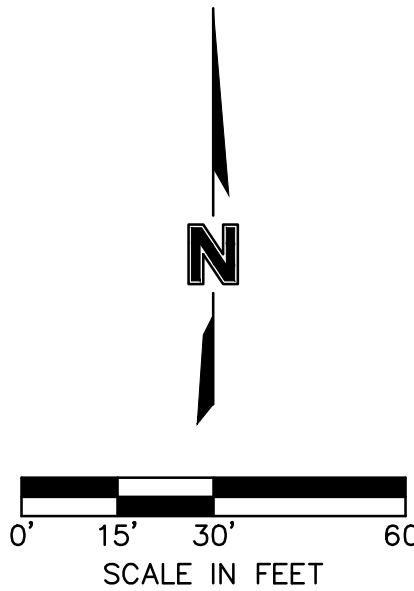
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- PROPOSED FIRE HYDRANT
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- PROPOSED TRAILER PARKING DOLLY STRIP.



KEY MAP
NOT TO SCALE



olsson

SCANNELL PROPERTIES

STATE OF MISSOURI
MITCHELL ALAN
PE-2009015764
2-2-2022

REV.	NO.	DATE	DESCRIPTION	BY
1	12.28.2021		CITY COMMENTS	
2	01.03.2022		CITY & ENERGY COMMENTS	
3	02.03.2022		CITY & ENERGY COMMENTS	

DIMENSION PLAN
PHASE I FINAL DEVELOPMENT PLAN

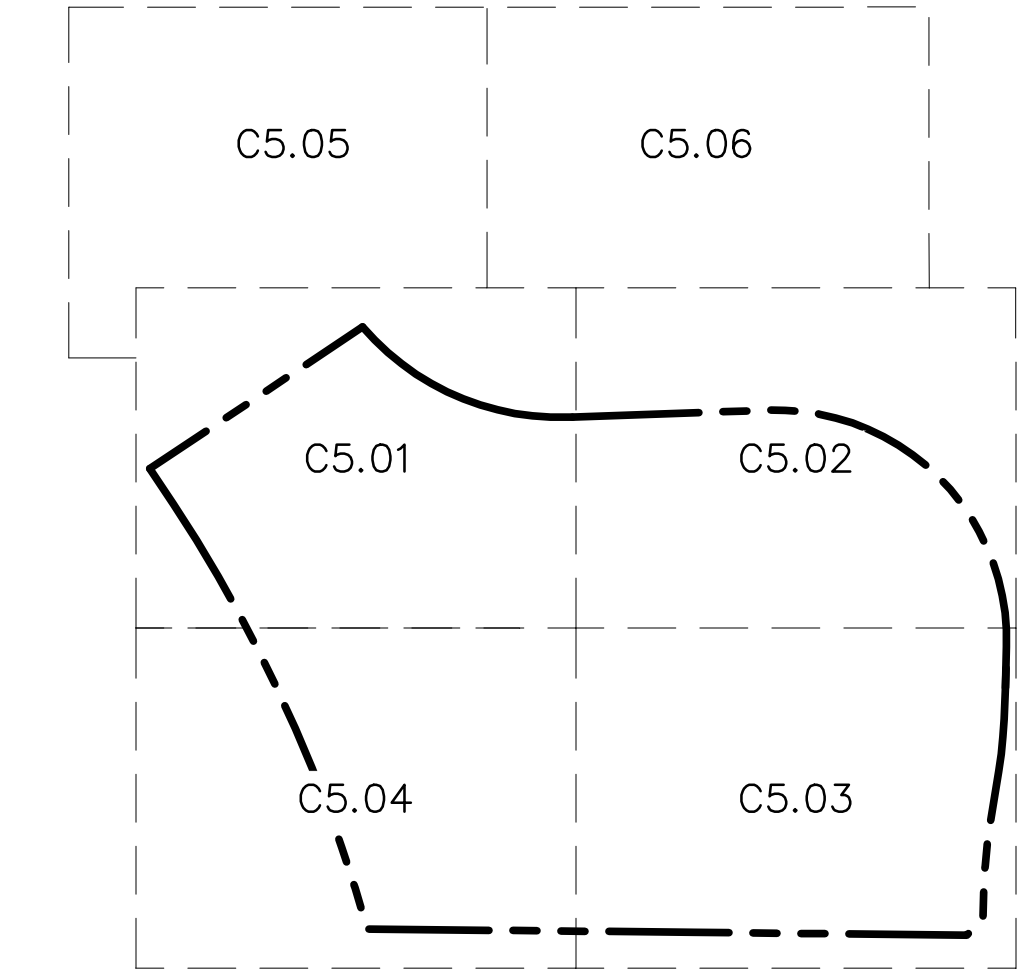
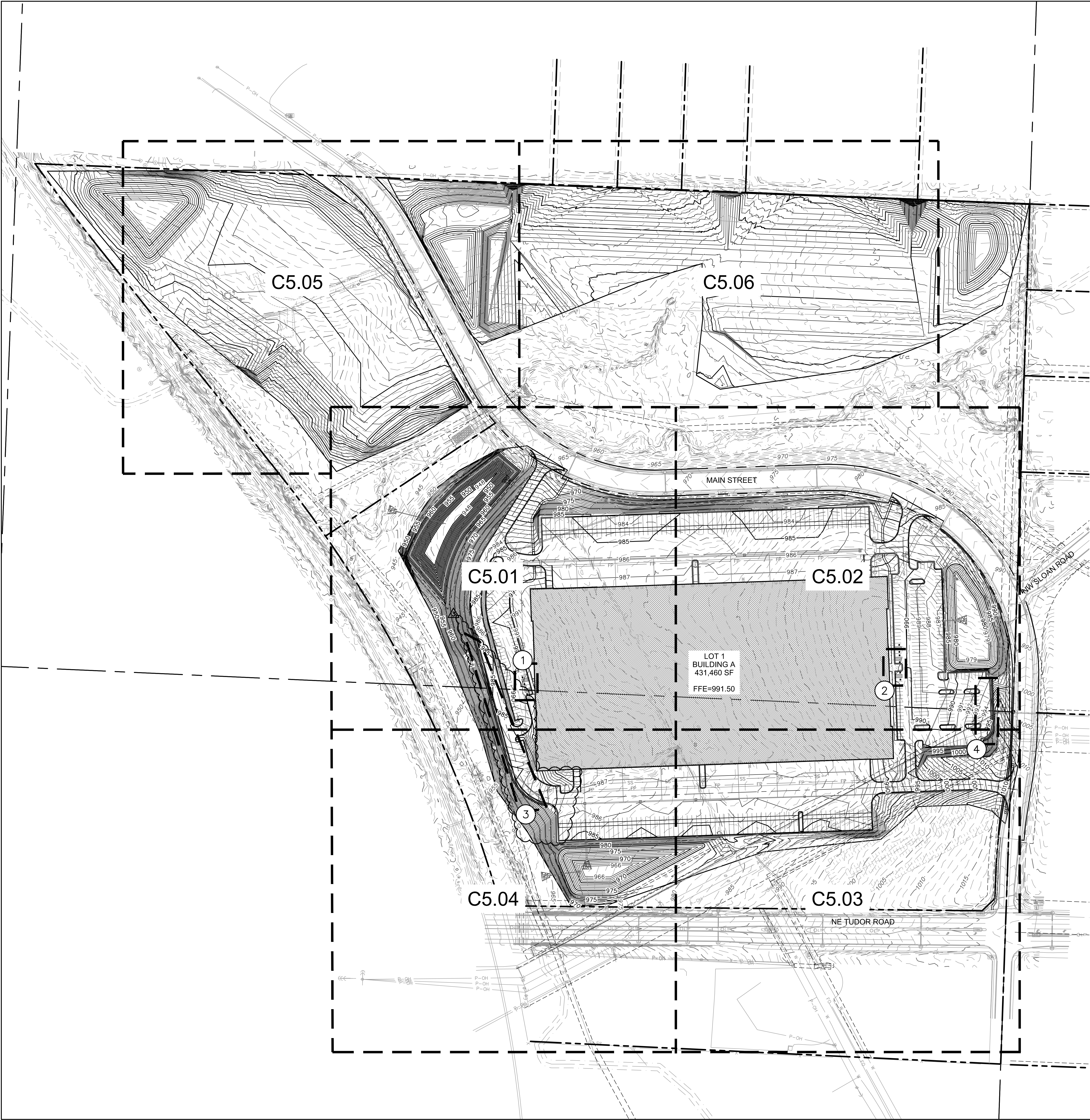
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no: 021-04157
drawing no: 02104157.dwg
date:

SHEET
C4.04

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4756
TEL 913.381.1170
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KEY MAP
NOT TO SCALE



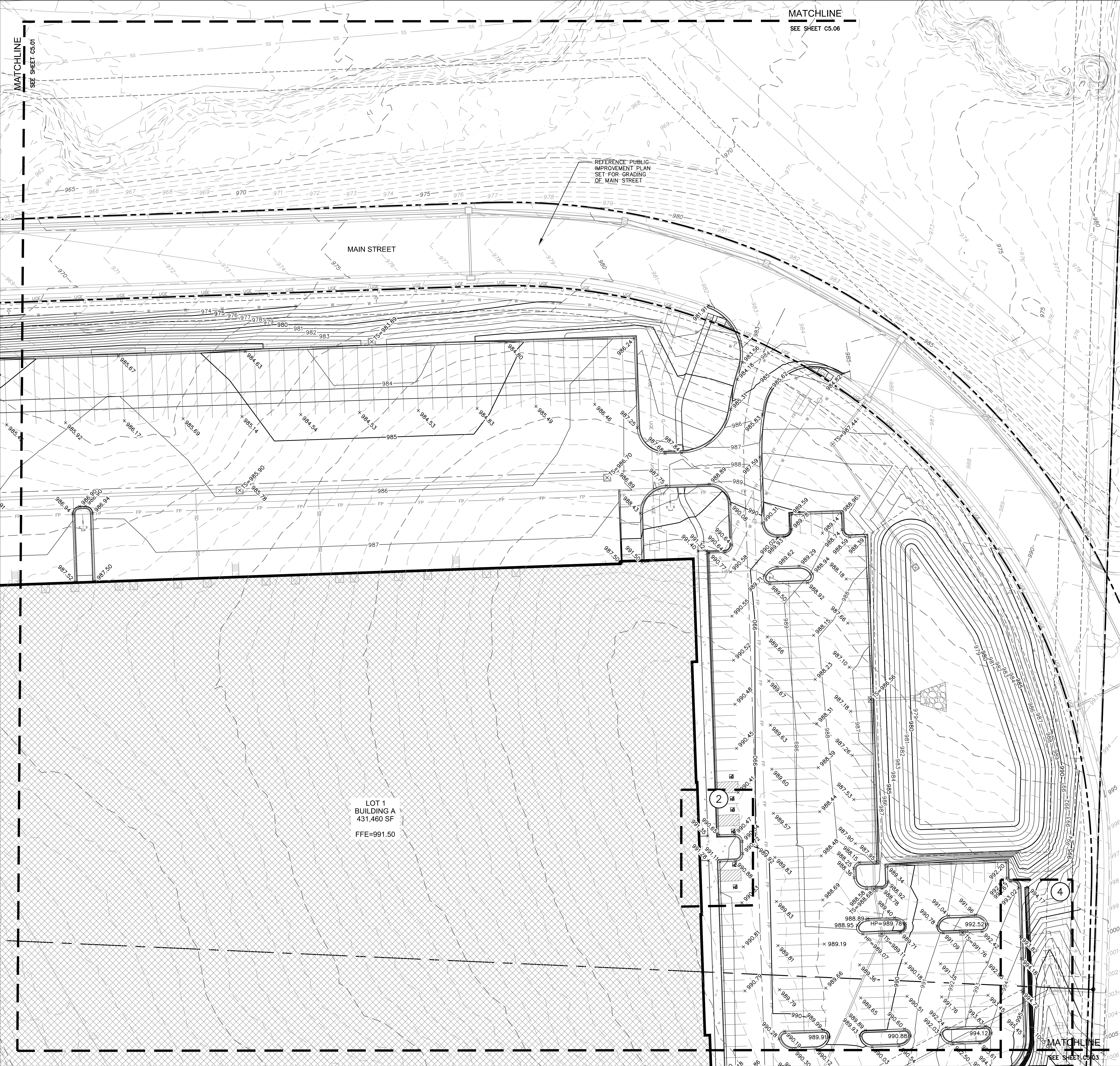
LEGEND	
	PROPERTY LINE
	SURROUNDING PROPERTY LINES
	UTILITY EASEMENT
	PROPOSED CONTOURS
	EXISTING CONTOURS
	GR.BR. GRADE BREAK LINE
	RIDGE RIDGE LINE
	VALLEY VALLEY LINE
	GRADING DETAIL LOCATIONS (SHEETS C509-C515)

OVERALL GRADING PLAN PHASE I FINAL DEVELOPMENT PLAN		2021
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET		
LEE'S SUMMIT, MISSOURI		

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	12.28.2021	CITY COMMENTS	
2	01.28.2022	CITY COMMENTS AND OWNER CHANGES	
3	02.03.2022	CITY & OWNER COMMENTS	



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MATCHLINE
SEE SHEET C5.06

MATCHLINE
SEE SHEET C5.01

MAIN STREET

REFERENCE PUBLIC
IMPROVEMENT PLAN
SET FOR GRADING
OF MAIN STREET

LOT 1
BUILDING A
431,460 SF
FFE=991.50

LEGEND

- PROPERTY LINE
- SURROUNDING PROPERTY LINES
- UTILITY EASEMENT
- PROPOSED CONTOURS
- EXISTING CONTOURS
- GRADE BREAK LINE
- RIDGE
- RIDGE LINE
- VALLEY
- VALLEY LINE
- GRADING DETAIL LOCATIONS (SHEETS C5.05—C5.07)

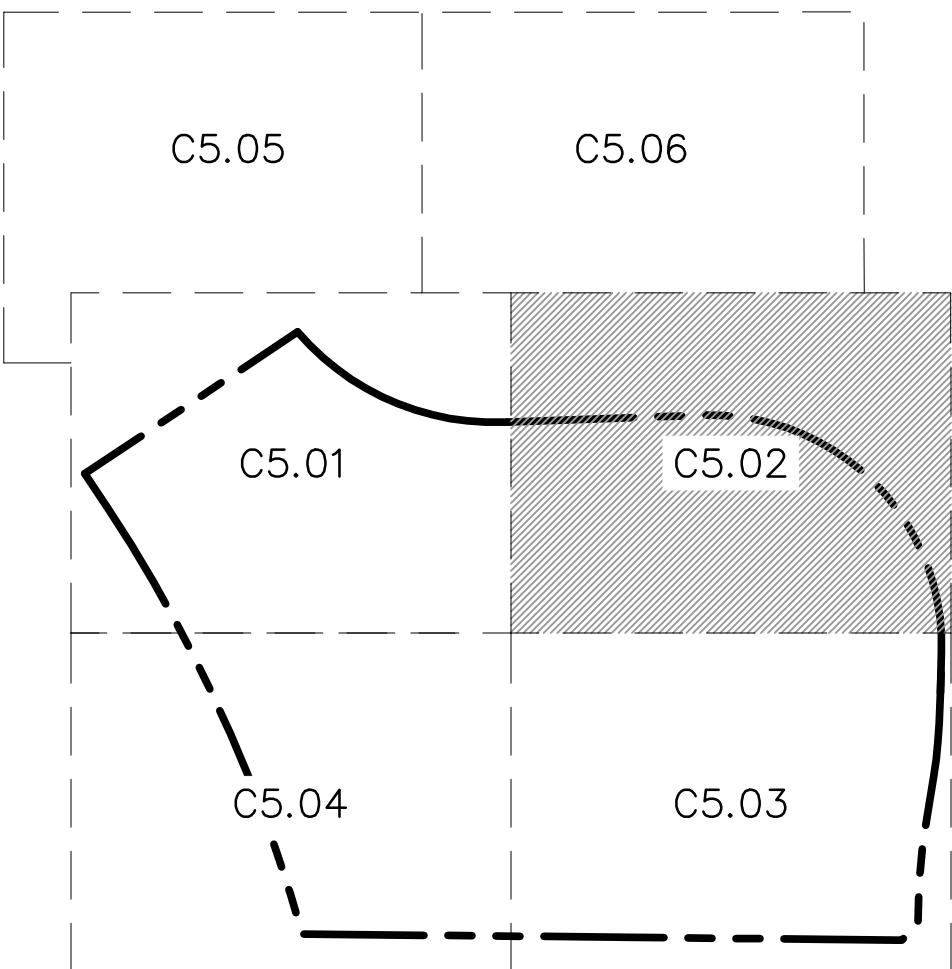
SPOT ELEVATION LEGEND:

ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT ELEVATION UNLESS NOTED OTHERWISE. RE: PLAN VIEW, LEGEND AND DETAILS FOR CURB TYPE AND TO CALCULATE TOP OF CURB ELEVATION.

- TC TOP OF CURB
- FG FINISHED GRADE WITHIN GREENSPACE
- TS TOP OF STRUCTURE
- FC CURB DEPRESSED TO BE FLUSH WITH ADJACENT PAVEMENT
- HP HIGH POINT
- LP LOW POINT
- WE± MATCH EXISTING
- FFE FINISH FLOOR ELEVATION AT TOP OF SLAB
- HFG HIGH FINISHED GRADE
- LFG LOW FINISHED GRADE

NOTES:

- CONTRACTOR TO REMOVE AND REPLACE ALL SIDEWALK NECESSARY FOR CONNECTION TO EXISTING.
- ALL ADA ACCESSIBLE SIDEWALK CROSS SLOPES SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.00% AND MAXIMUM LONGITUDINAL SLOPE OF 5.00%.
- ALL ADA ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
- CONTRACTOR TO PROVIDE FLAT A/C UNIT PADS FOR ALL A/C UNITS.
- NO GRADES SHALL EXCEED 5:1 UNLESS OTHERWISE NOTES.
- GRADING AND STORM SEWER IMPROVEMENTS SHALL BE STAKED, INCLUDING ALL HIGH POINTS AND KEY GRADE BREAKS.



KEY MAP
NOT TO SCALE



GRADING PLAN
PHASE I FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
checked by: ENG
project no.: 021-04157
drawing no.: GRD02_02104157.dwg
date:

SHEET
C5.02

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	12.28.2021	CITY COMMENTS	
2	01.28.2022	CITY COMMENTS	
3	02.03.2022	CITY & ENERGY COMMENTS	



SCANNELL
PROPERTIES

olsson

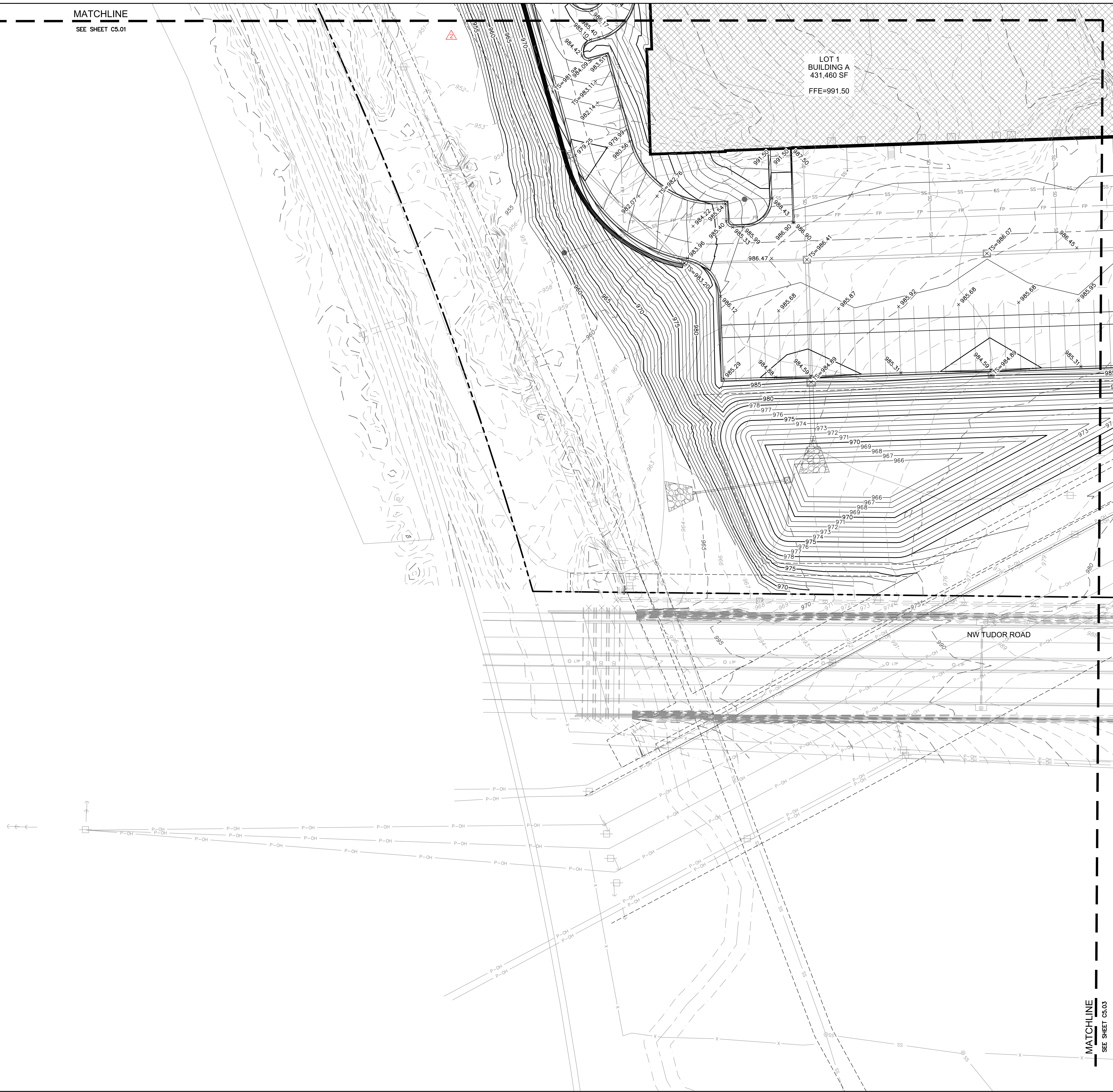
7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7755
TEL 913.381.1170
www.olsson.com

MATCHLINE
SEE SHEET C5.04



SHEET
C5.03

MATCHLINE
SEE SHEET C5.01



LEGEND

	PROPERTY LINE
	SURROUNDING PROPERTY LINES
	UTILITY EASEMENT
	PROPOSED CONTOURS
	EXISTING CONTOURS
	GRADE BREAK LINE
	RIDGE
	RIDGE LINE
	VALLEY
	VALLEY LINE
	GRADING DETAIL LOCATIONS (SHEETS C5.05-C5.07)

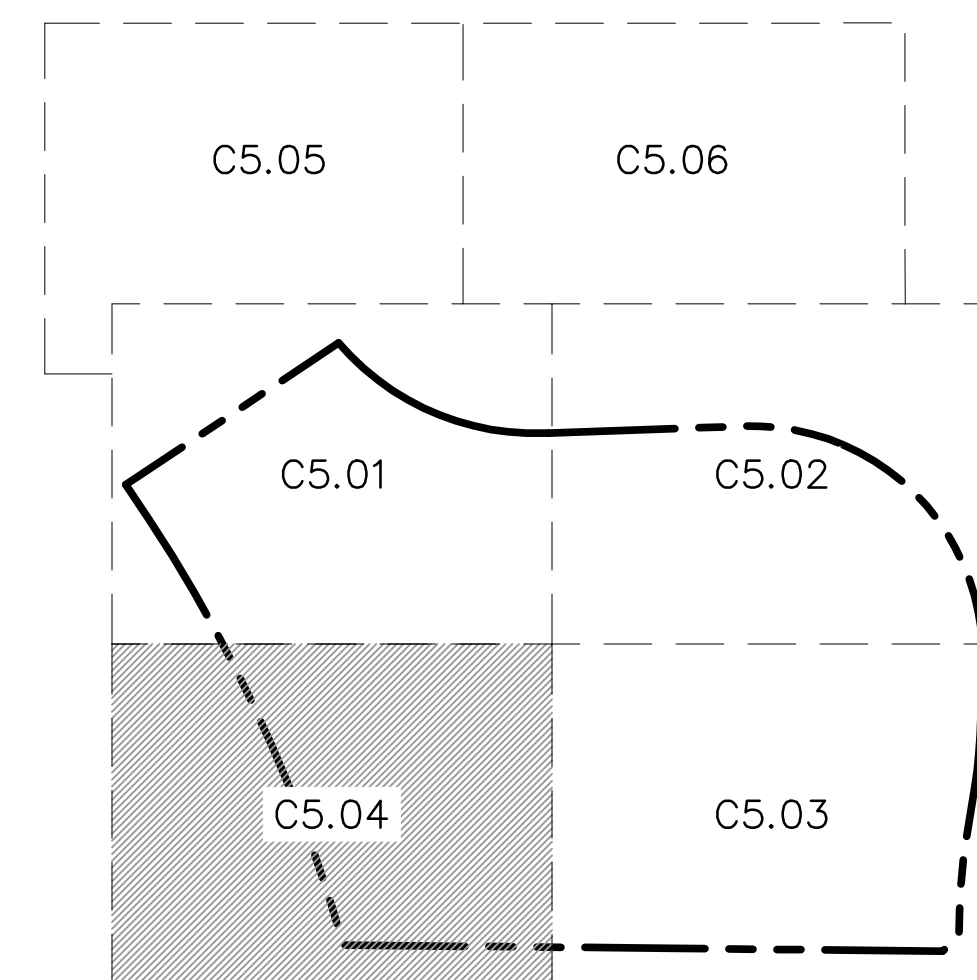
SPOT ELEVATION LEGEND:

ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT ELEVATION
UNLESS NOTED OTHERWISE. RE: PLAN VIEW, LEGEND AND
DETAILS FOR CURB TYPE AND TO CALCULATE TOP OF
CURB ELEVATION.

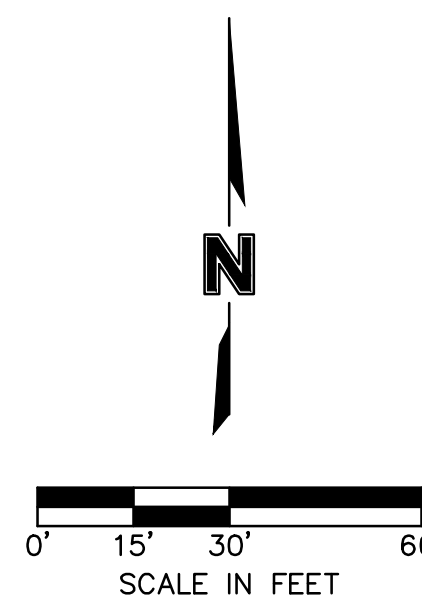
TC	TOP OF CURB
FG	FINISHED GRADE WITHIN GREENSPACE
TS	TOP OF STRUCTURE
FC	CURB DEPRESSED TO BE FLUSH WITH ADJACENT PAVEMENT
HP	HIGH POINT
LP	LOW POINT
ME±	MATCH EXISTING
FFE	FINISH FLOOR ELEVATION AT TOP OF SLAB
HFG	HIGH FINISHED GRADE
LFG	LOW FINISHED GRADE

NOTES:

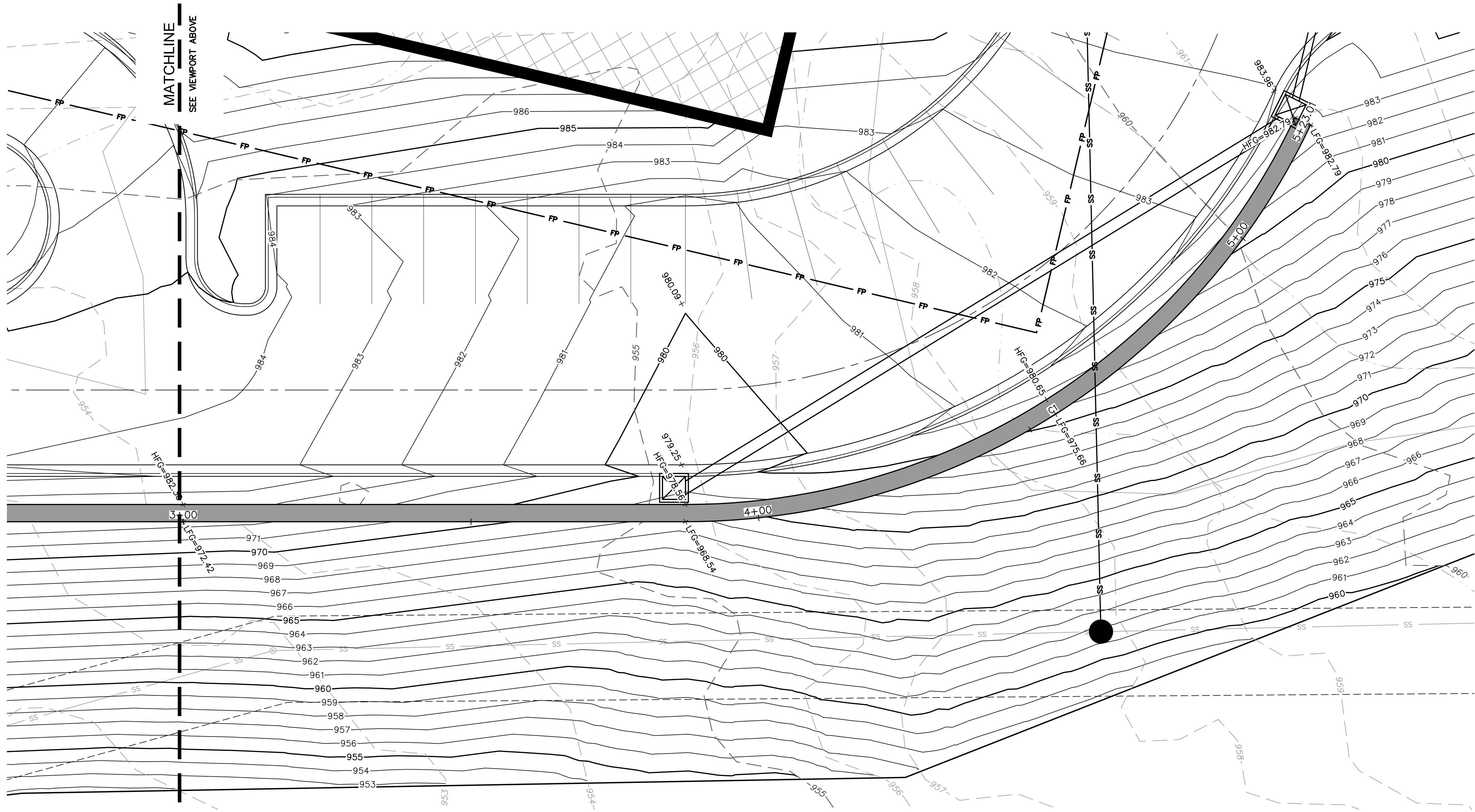
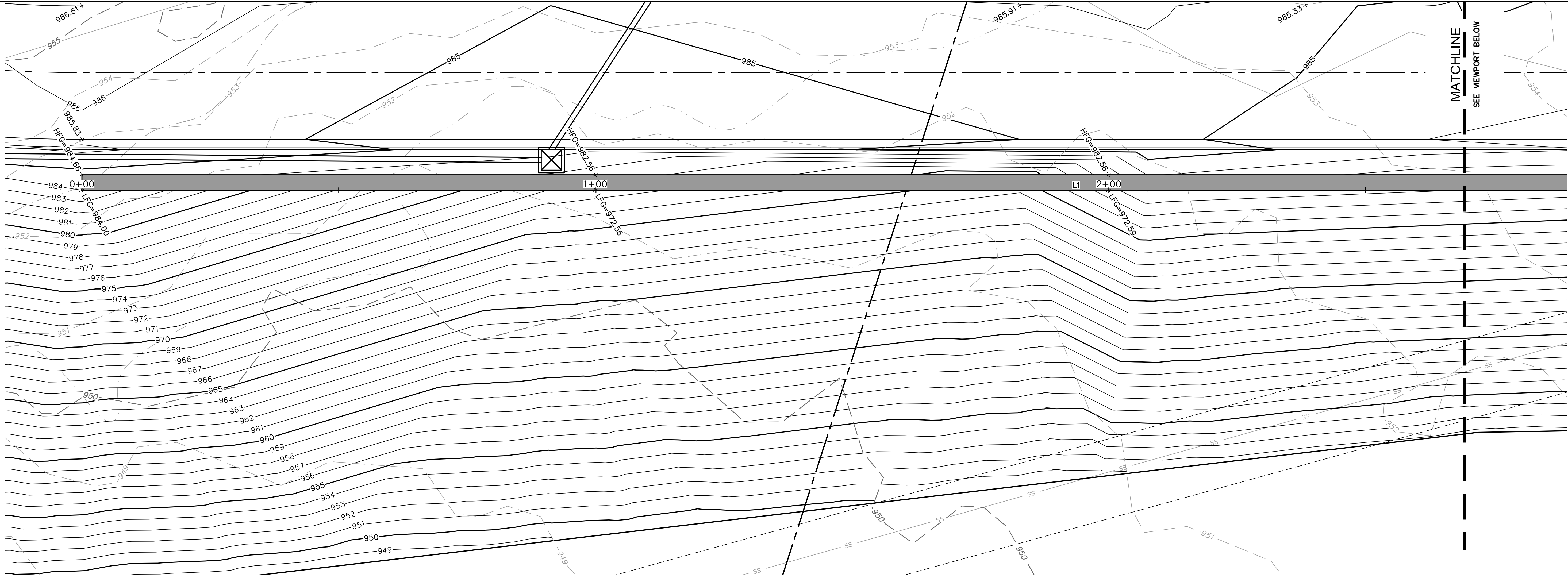
1. CONTRACTOR TO REMOVE AND REPLACE ALL SIDEWALK NECESSARY FOR CONNECTION TO EXISTING.
2. ALL ADA ACCESSIBLE SIDEWALK CROSS SLOPES SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.00% AND MAXIMUM LONGITUDINAL SLOPE OF 5.00%.
3. ALL ADA ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
4. CONTRACTOR TO PROVIDE FLAT A/C UNIT PADS FOR ALL A/C UNITS.
5. NO GRADES SHALL EXCEED 5:1 UNLESS OTHERWISE NOTES.
6. GRADING AND STORM SEWER IMPROVEMENTS SHALL BE STAKED, INCLUDING ALL HIGH POINTS AND KEY GRADE BREAKS.



KEY MAP
NOT TO SCALE

[illegible]

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3 GRADING DETAIL 3 - RETAINING WALL AA

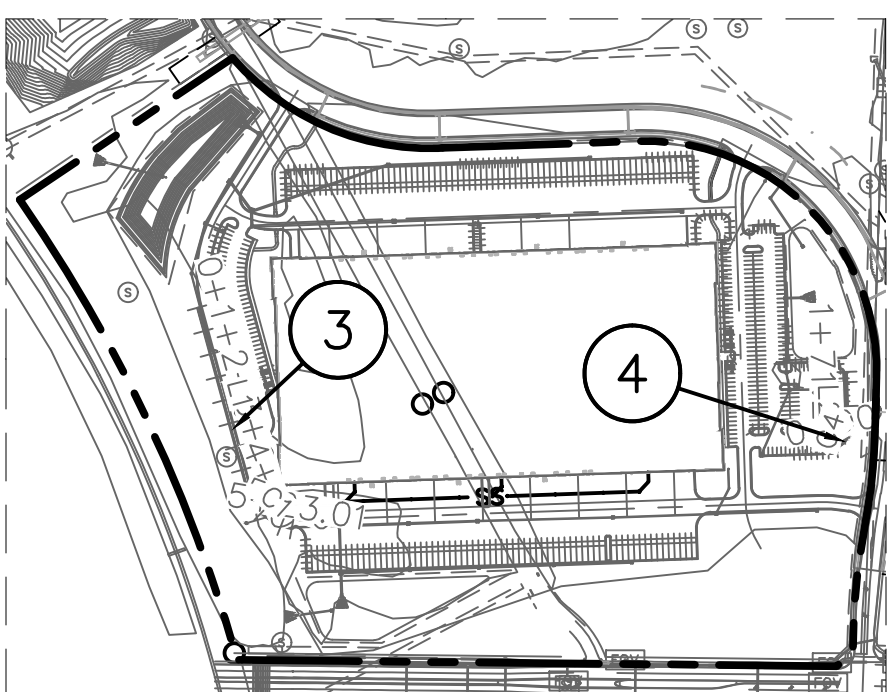
LEGEND	
---	PROPERTY LINE
---	SURROUNDING PROPERTY LINES
---	UTILITY EASEMENT
---	PROPOSED CONTOURS
---	EXISTING CONTOURS
---	GRADE BREAK LINE
---	RIDGE
---	RIDGE LINE
---	VALLEY
---	VALLEY LINE

SPOT ELEVATION LEGEND:
ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT ELEVATION UNLESS NOTED OTHERWISE. RE: PLAN VIEW, LEGEND AND DETAILS FOR CURB TYPE AND TO CALCULATE TOP OF CURB ELEVATION.

TC	TOP OF CURB
FG	FINISHED GRADE WITHIN GREENSPACE
TS	TOP OF STRUCTURE
FC	CURB DEPRESSED TO BE FLUSH WITH ADJACENT PAVEMENT
HP	HIGH POINT
LP	LOW POINT
WE±	MATCH EXISTING
FFE	FINISH FLOOR ELEVATION AT TOP OF SLAB
HFG	HIGH FINISHED GRADE
LFG	LOW FINISHED GRADE

- NOTES:**
- CONTRACTOR TO REMOVE AND REPLACE ALL SIDEWALK NECESSARY FOR CONNECTION TO EXISTING.
 - ALL ADA ACCESSIBLE SIDEWALK CROSS SLOPES SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.00% AND MAXIMUM LONGITUDINAL SLOPE OF 5.00%.
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 - CONTRACTOR TO PROVIDE FLAT A/C UNIT PADS FOR ALL A/C UNITS.
 - NO GRADES SHALL EXCEED 5:1 UNLESS OTHERWISE NOTES.
 - GRADING AND STORM SEWER IMPROVEMENTS SHALL BE STAKED, INCLUDING ALL HIGH POINTS AND KEY GRADE BREAKS.

- NOTE:**
- INFORMATION FOR RETAINING WALLS AA & BB SHOWN ON THE TABLES IS IN REFERENCE TO THE BOTTOM AND FRONT BLOCK OF WALL. THE BOTTOM AND FRONT BLOCK OF THE WALL LINE IS TO BE HELD DURING STAKING AND CONSTRUCTION.
 - ALL RETAINING WALL(S) ARE DESIGN BUILD BY THE CONTRACTOR. THE CONTRACTOR MUST PROVIDE THE WALL DESIGN PLANS AND GLOBAL STABILITY TO THE ENGINEER AND CITY OF LEE'S SUMMIT FOR APPROVAL. THE BUILDING PERMITS FOR THE PROJECT WILL NOT BE ISSUED UNTIL THE CITY OF LEE'S SUMMIT APPROVES THE WALL DESIGN. SEE DETAIL SHEET C8.02.



KEY MAP
NOT TO SCALE

RETAINING WALL AA								
ID #	STATION RANGE	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L1	0+00.00 3+87.27	52716.0764 52342.4063	54704.2248 54805.9477	387.27'	S15°13'42"E			
C1	PC= 3+87.27 PI= 4+63.44 PT= 5+23.01	52342.4063 52268.9080 52255.7346	54805.9477 54825.9559 54900.9812	135.74'	S47°38'05"E	64°48'46"	76.17'	120.00'

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Overland Park, KS 66204-7756
TEL 913.381.1170
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SCANNELL
P R O P E R T I E S

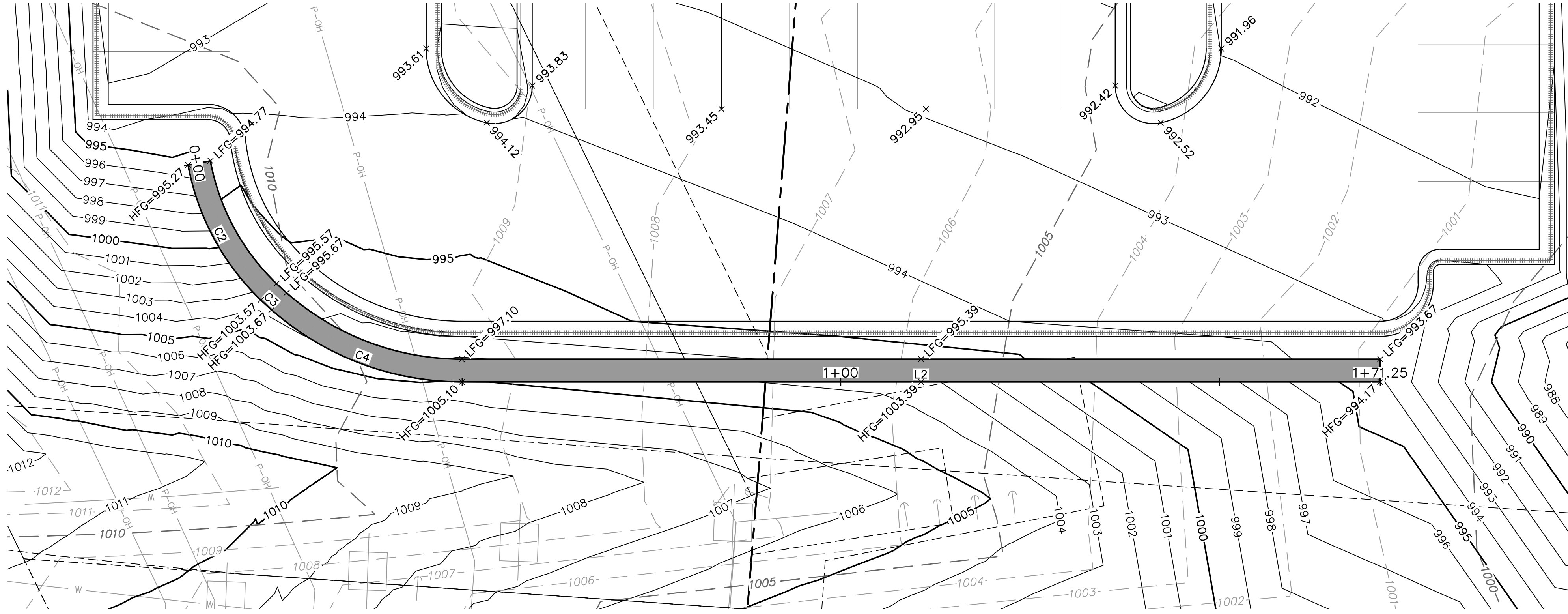
BY: _____
DATE: _____
REVISIONS DESCRIPTION
REV. NO. DATE
1 12/28/2021 CITY COMMENTS
2 01/10/2022 CITY COMMENTS
3 02/03/2022 CITY & ENERGY COMMENTS

GRADING DETAIL - RETAINING WALL AA
PHASE I FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021

drawn by: OLSSON
checked by: _____
approved by: _____
QA/QC by: _____
project no.: 021-04157
drawing no.: 02104157.dwg
date: _____

SHEET
C5.06



4 GRADING DETAIL 4 - RETAINING WALL BB

RETAINING WALL BB								
ID #		STATION RANGE	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	RADIUS
C2	PC=	0+00.00	52424.8396	56034.6742	20.57'	N59°41'13"E	35°42'41"	10.63'
	PI=	0+10.63	52427.1327	56045.0544				
	PT=	0+20.57	52435.0536	56052.1443				
C3	PC=	0+20.57	52435.0536	56052.1443	1.93'	N40°37'47"E	2°24'12"	0.96'
	PI=	0+21.53	52435.7726	56052.7879				
	PT=	0+22.50	52436.5180	56053.4007				
C4	PC=	0+22.50	52436.5180	56053.4007	27.46'	N18°43'23"E	41°24'35"	14.36'
	PI=	0+36.86	52447.6120	56062.5225				
	PT=	0+49.96	52461.9661	56062.0259				
L2		0+49.96	52461.9661	56062.0259	121.29'	N1°58'54"W		
		1+71.25	52583.1850	56057.8315				

LEGEND	
	PROPERTY LINE
	SURROUNDING PROPERTY LINES
	UTILITY EASEMENT
	PROPOSED CONTOURS
	EXISTING CONTOURS
	GRADE BREAK LINE
	RIDGE LINE
	VALLEY LINE

SPOT ELEVATION LEGEND:

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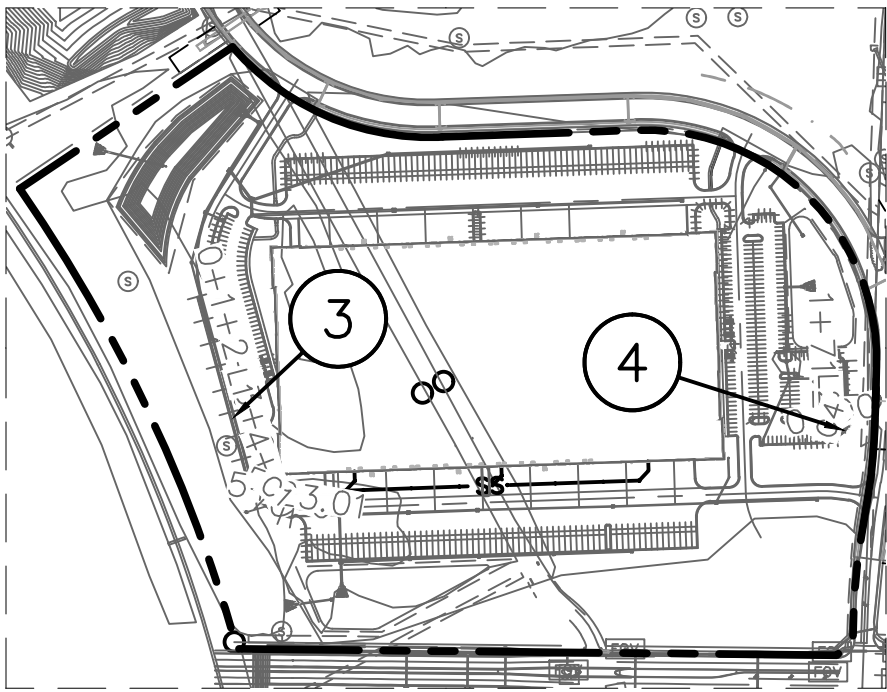
TC	TOP OF CURB
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TS	TOP OF STRUCTURE
FC	CURB DEPRESSED TO BE FLUSH WITH ADJACENT PAVEMENT
HP	HIGH POINT
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ME±	MATCH EXISTING
FFE	FINISH FLOOR ELEVATION AT TOP OF SLAB
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NOTES:

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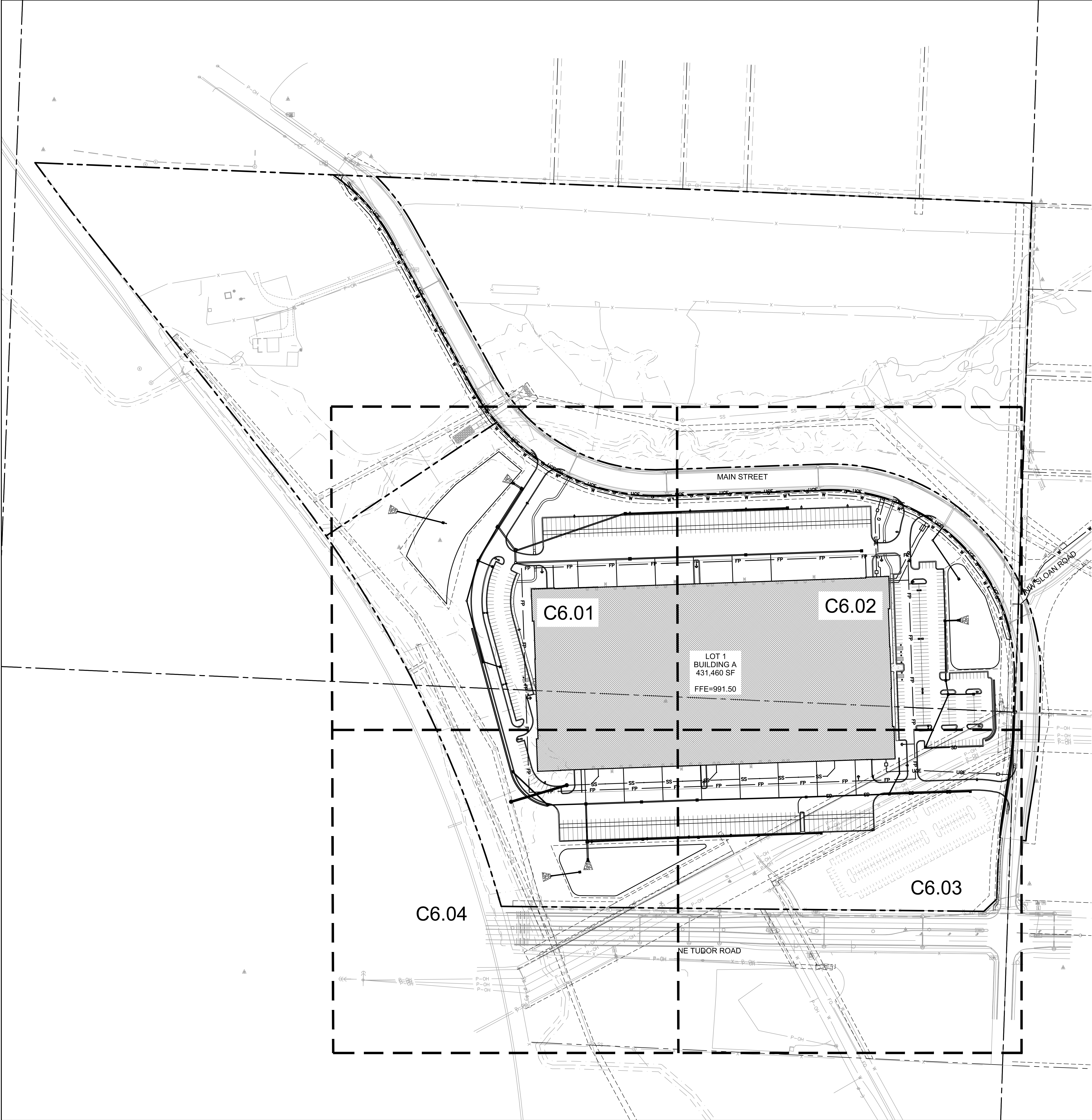
NOTE:

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KEY MAP
NOT TO SCALE

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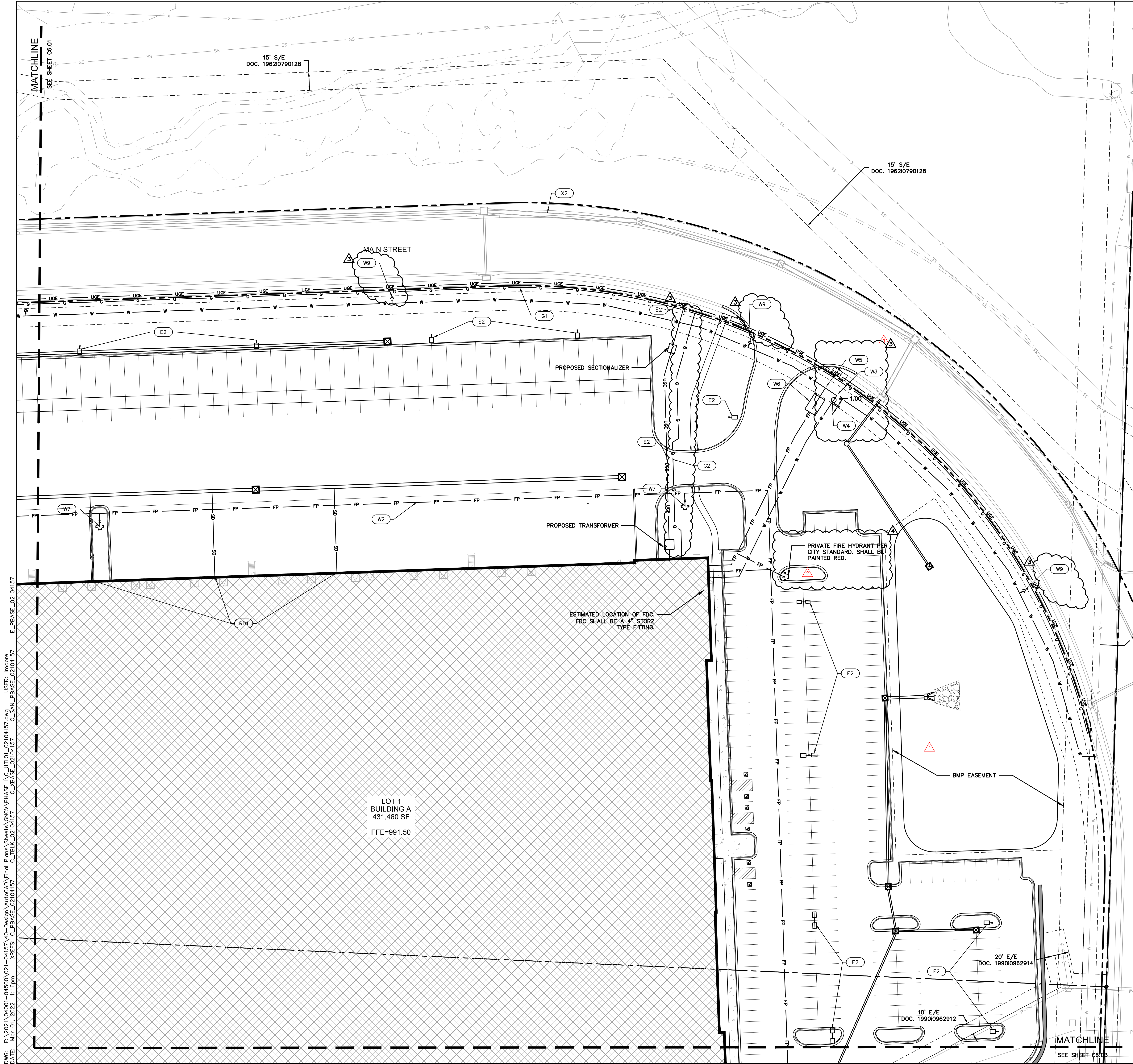


UTILITY PLAN LEGEND

---	---	PROPERTY LINE
SS	SS	EXISTING SANITARY SEWER
---	---	EXISTING STORM
W	---	EXISTING WATER PIPE
P-OH	---	EXISTING OVERHEAD POWER LINE
P-UG	---	EXISTING UNDERGROUND POWER LINE
---	---	STORM SEWER
SD	SD	STORM HEADER PIPE AND ROOF DRAINS
P-UG	---	UNDERGROUND POWER CONDUIT
G	---	NATURAL GAS PIPE
CATV	---	CABLE TELEVISION CONDUIT
W	---	WATER PIPE
SS	---	SANITARY SEWER SERVICE LINE
●	●	SANITARY SEWER MAIN (PER SHEETS C6.08-C6.12)

NOTE:
1. NO GAS WELLS ARE PRESENT ON THE PROPERTY BASED ON THE "ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI", BY EDWARD ALTON MAY, JR. DATED 1995.

		7301 West 133rd Street, Suite 200 Overland Park, KS 66213-4755 TEL 913.381.1170 www.olson.com	
BY	REVISIONS DESCRIPTION	DATE	REV. NO.
	CITY COMMENTS	12.28.2021	1
	CITY COMMENTS	02.03.2022	3
	CITY & ENERGY COMMENTS		
OVERALL UTILITY PLAN PHASE I FINAL DEVELOPMENT PLAN		2021	
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET			
LEE'S SUMMIT, MISSOURI			
drawn by: OLSSON			
checked by: ENG			
approved by: ENG			
QA/QC by: ENG			
project no: 021-04157			
drawing no: UTL01_02104157.dwg			
date:			
SHEET C6.00			

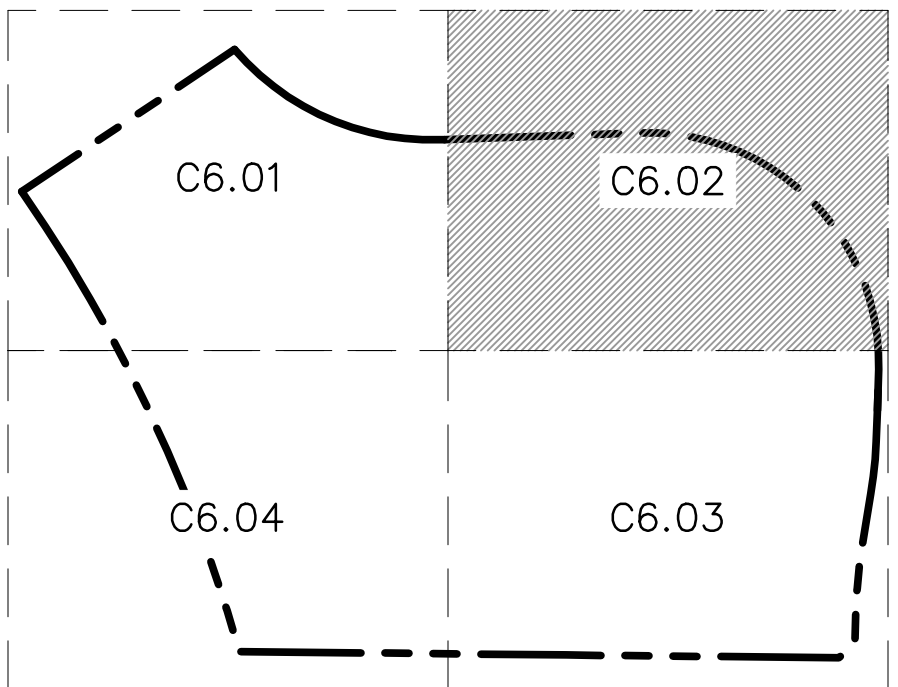


UTILITY PLAN LEGEND

- PROPERTY LINE
- EXISTING SANITARY SEWER
- EXISTING STORM
- EXISTING WATER PIPE
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND POWER LINE
- STORM SEWER
- STORM HEADER PIPE AND ROOF DRAINS
- UNDERGROUND POWER CONDUIT
- NATURAL GAS PIPE
- CABLE TELEVISION CONDUIT
- WATER PIPE
- SANITARY SEWER SERVICE LINE
- SANITARY SEWER MAIN (PER SHEETS C6.08-C6.12)

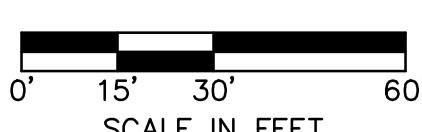
KEYNOTES

- WATER (W#)**
- W1 APPROXIMATE LOCATION OF PROPOSED 12" PUBLIC WATERMAIN. CONTRACTOR SHALL COORDINATE WITH CITY ON FINAL LOCATION.
- W2 APPROXIMATE LOCATION OF PROPOSED 10" PRIVATE PRESSURIZED FIRE PROTECTION LOOP. INSTALL 3,200 LF ± 10" C900 DR 14. CONTRACTOR SHALL COORDINATE WITH CITY ON FINAL LOCATION.
- W3 DOMESTIC WATER SERVICE TAP. CONNECTION REQUIREMENTS TO BE DETERMINED. CONTRACTOR SHALL COORDINATE WITH CITY ON CONNECTION.
- W4 INSTALL WATER METER PER CITY WATER STANDARDS AND SPECIFICATIONS.
- W5 CONNECT TO MAIN 12"x12" TEE, AND INSTALL 250± LF OF 12" C900 DR 14 FOR FIRE PROTECTION WATER SERVICE. CONTRACTOR SHALL COORDINATE WITH CITY ON CONNECTION.
- W6 INSTALL DOUBLE CHECK VALVE ASSEMBLY IN VAULT TO MEET CITY WATER STANDARDS AND SPECIFICATIONS. TAMPER SWITCHES AND THEIR ASSOCIATED WIRING WILL BE PROVIDED FOR THE SHUT-OFF VALUES IN THE VAULT. COORDINATE INSTALL AND BACKFLOW PREVENTION WITH CITY WATER AND MEP PLANS.
- W7 APPROXIMATE LOCATION OF PROPOSED YARD FIRE HYDRANT BY CONTRACTOR. YARD HYDRANTS SHALL MATCH CITY STANDARD AND DETAILS. SHALL BE PAINTED RED.
- W8 APPROXIMATE LOCATION OF PROPOSED PRIVATE FIRE HYDRANT BY CONTRACTOR. PRIVATE HYDRANTS SHALL MATCH CITY STANDARD AND DETAILS. SHALL BE PAINTED YELLOW WITH A SILVER TOP.
- W9 PUBLIC FIRE HYDRANTS. SEE SEPARATE PLANS.
- GAS (G#)**
- G1 APPROXIMATE LOCATION OF PROPOSED GAS MAIN. CONTRACTOR SHALL COORDINATE WITH ENGINEER ON FINAL LOCATION OF GAS MAIN AND CONTACT ENGINEER WITH ANY CHANGES.
- G2 INSTALL ±209 LF OF NEW GAS SERVICE TO PROPOSED GAS MAIN. COORDINATE WITH UTILITY COMPANY FOR EXACT LOCATION, ROUTING, AND CONNECTION.
- ELECTRIC (E#)**
- E1 INSTALL APPROXIMATELY 100± LF OF PRIMARY ELECTRICAL SERVICE PER EVERGY/LEE'S SUMMIT DESIGN STANDARDS AND SPECIFICATIONS. VERIFY CONDUIT SIZE AND ROUTING WITH CITY AND EVERGY. THE ALIGNMENT IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE ROUTE DIRECTLY WITH CITY AND EVERGY.
- E2 PROPOSED SITE LIGHTING. REFERENCE SITE LIGHTING PLANS FOR DETAILS.
- E3 INSTALL APPROXIMATELY 1000± LF OF SECONDARY ELECTRICAL SERVICE PER EVERGY/LEE'S SUMMIT DESIGN STANDARDS AND SPECIFICATIONS. VERIFY CONDUIT SIZE AND ROUTING WITH CITY AND EVERGY. THE ALIGNMENT IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE ROUTE DIRECTLY WITH CITY AND EVERGY.
- STORM ROOF DRAINS (RD#)**
- RD1 INSTALL 12" HDPE FROM THE ROOF DRAIN TO STORM HEADER PIPE WITH A 1.0% MINIMUM SLOPE. MINIMUM COVER OF PIPE IS 2.5' AND SHALL COORDINATE WITH ALL OTHER IMPROVEMENTS. INCLUDE BENDS, FITTINGS, AND OTHER PARTS FOR INSTALLATION. SEE MEP PLANS FOR ROOF DRAIN LOCATIONS AND DETAILS.
- RD2 INSTALL BACK OF CURB PERFORATED PIPE WITH SOCK AND TIE INTO CLOSEST PRIVATE STORM SEWER.
- SANITARY SEWER SERVICE (SS#)**
- SS1 SANITARY SEWER SERVICE LINES. REFERENCE SHEETS C6.05 -C6.07 FOR INFORMATION ON SANITARY SEWER SERVICE LINES.
- SS2 PRIVATE SANITARY SEWER MAIN EXTENSION. REFERENCE SHEETS C6.08 -C6.12 PRIVATE SANITARY SEWER SHEETS FOR MORE INFORMATION.
- EXISTING UTILITIES (X#)**
- X1 EXISTING SANITARY SEWER MAIN
- X2 EXISTING STORM SEWER
- X3 EXISTING WATER MAIN
- NOTE:**
1. FDC SHALL BE LOCATED WITH 100' OF FIRE HYDRANT.
2. THE ALL ISSUES PERTAINING TO LIFE SAFETY AND PROPERTY PROTECTION FROM THE HAZARDS OF FIRE, EXPLOSION OR DANGEROUS CONDITIONS IN NEW AND EXISTING BUILDINGS, STRUCTURES AND PREMISES, AND TO THE SAFETY TO FIRE FIGHTERS AND EMERGENCY RESPONDERS DURING EMERGENCY OPERATIONS, SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL FIRE CODE.



KEY MAP

NOT TO SCALE



DWG: F:\2021\04001-04500\021-04157\40-Design\AutoCAD\Final Plans\Sheets\GNV\PHASE I\C\UTL01_02104157.dwg USER: Immore DATE: Mar 01, 2022 1:16pm XREFS: C:\PBASE_02104157 C:\SAN_PBASE_02104157 E:\PBASE_02104157

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7756
TEL 913.381.1170
www.olsson.com

SCANNELL PROPERTIES

MITCHELL ALAN PLEAD
PROFESSIONAL ENGINEER
NUMBER PE-2009016764
EXPIRATION DATE 12-31-23

REV	DATE	DESCRIPTION	BY
1	12/24/2021	CITY COMMENTS	
2	01/03/2022	CITY COMMENTS	
3	02/03/2022	CITY COMMENTS	
4	02/24/2022	CITY COMMENTS	

UTILITY PLAN

PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS

NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

LEE'S SUMMIT, MISSOURI

drawn by: OLSSON

checked by: ENG

approved by: ENG

checked by: ENG

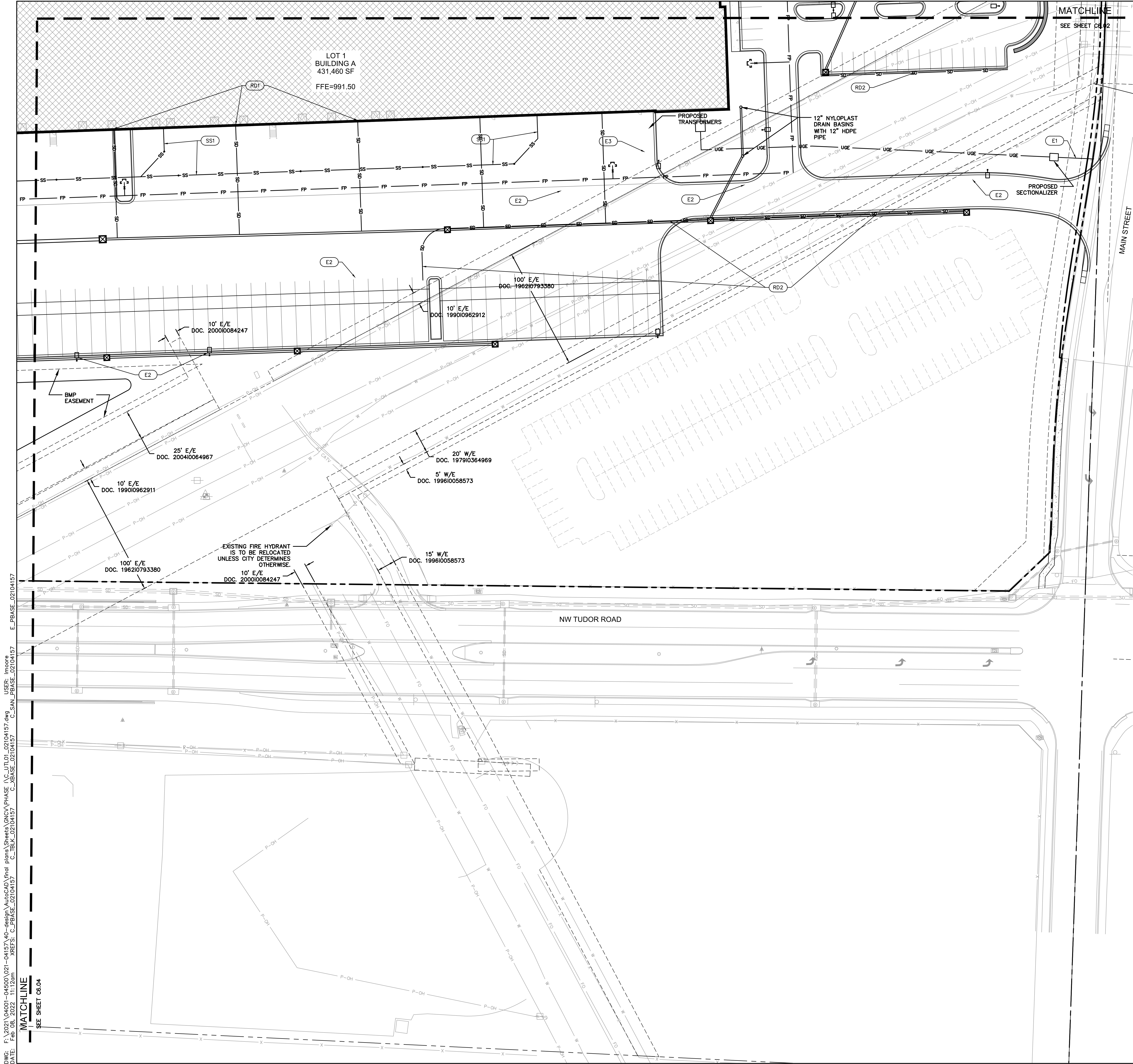
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drawing no: UTL01_02104157.dwg

date:

2021

SHEET C6.02



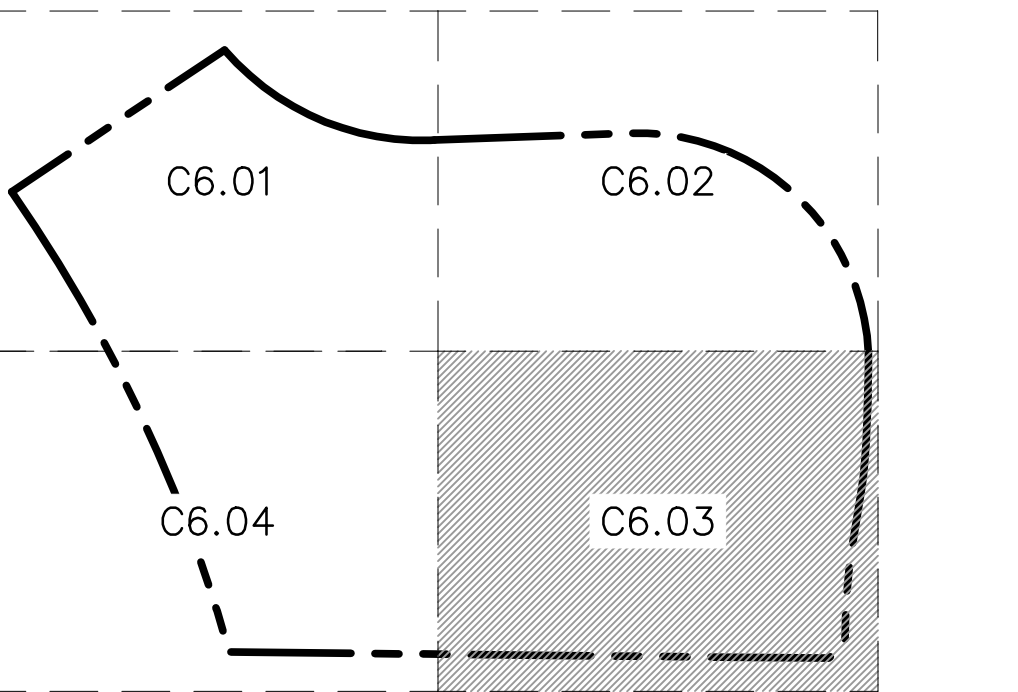
- UTILITY PLAN LEGEND**
- PROPERTY LINE
 - EXISTING SANITARY SEWER
 - EXISTING STORM
 - EXISTING WATER PIPE
 - EXISTING OVERHEAD POWER LINE
 - EXISTING UNDERGROUND POWER LINE
 - STORM SEWER
 - STORM HEADER PIPE AND ROOF DRAINS
 - UNDERGROUND POWER CONDUIT
 - NATURAL GAS PIPE
 - CABLE TELEVISION CONDUIT
 - WATER PIPE
 - SANITARY SEWER SERVICE LINE
 - SANITARY SEWER MAIN (PER SHEETS C6.08-C6.12)

- KEYNOTES**
- WATER (W#)**
- W1 APPROXIMATE LOCATION OF PROPOSED 12" PUBLIC WATERMAIN. CONTRACTOR SHALL COORDINATE WITH CITY ON FINAL LOCATION.
 - W2 APPROXIMATE LOCATION OF PROPOSED 10" PRIVATE PRESSURIZED FIRE PROTECTION LOOP. INSTALL 3,200 LF ± 10" C900 DR 14. CONTRACTOR SHALL COORDINATE WITH CITY ON FINAL LOCATION.
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 - W7 APPROXIMATE LOCATION OF PROPOSED YARD FIRE HYDRANT BY CONTRACTOR. YARD HYDRANTS SHALL MATCH CITY STANDARD AND DETAILS. SHALL BE PAINTED RED.
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- G1 APPROXIMATE LOCATION OF PROPOSED GAS MAIN. CONTRACTOR SHALL COORDINATE WITH ENGINEER ON FINAL LOCATION OF GAS MAIN AND CONTACT ENGINEER WITH ANY CHANGES.
 - G2 INSTALL ±209 LF OF NEW GAS SERVICE TO PROPOSED GAS MAIN. COORDINATE WITH UTILITY COMPANY FOR EXACT LOCATION, ROUTING, AND CONNECTION.

- ELECTRIC (E#)**
- E1 INSTALL APPROXIMATELY 100± LF OF PRIMARY ELECTRICAL SERVICE PER EVERGY/LEE'S SUMMIT DESIGN STANDARDS AND SPECIFICATIONS. VERIFY CONDUIT SIZE AND ROUTING WITH CITY AND EVERGY. THE ALIGNMENT IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE ROUTE DIRECTLY WITH CITY AND EVERGY.
 - E2 PROPOSED SITE LIGHTING. REFERENCE SITE LIGHTING PLANS FOR DETAILS.
 - E3 INSTALL APPROXIMATELY 1000± LF OF SECONDARY ELECTRICAL SERVICE PER EVERGY/LEE'S SUMMIT DESIGN STANDARDS AND SPECIFICATIONS. VERIFY CONDUIT SIZE AND ROUTING WITH CITY AND EVERGY. THE ALIGNMENT IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE ROUTE DIRECTLY WITH CITY AND EVERGY.
- STORM ROOF DRAINS (RD#)**
- RD1 INSTALL 12" HDPE FROM THE ROOF DRAIN TO STORM HEADER PIPE WITH A 1.0% MINIMUM SLOPE. MINIMUM COVER OF PIPE IS 2.5' AND SHALL COORDINATE WITH ALL OTHER IMPROVEMENTS. INCLUDE BENDS, FITTINGS, AND OTHER PARTS FOR INSTALLATION. SEE MEP PLANS FOR ROOF DRAIN LOCATIONS AND DETAILS.
 - RD2 INSTALL BACK OF CURB PERFORATED PIPE WITH SOCK AND TIE INTO CLOSEST PRIVATE STORM SEWER.
- SANITARY SEWER SERVICE (SS#)**
- SS1 SANITARY SEWER SERVICE LINES. REFERENCE SHEETS C6.05-C6.07 FOR INFORMATION ON SANITARY SEWER SERVICE LINES.
 - SS2 PRIVATE SANITARY SEWER MAIN EXTENSION. REFERENCE SHEETS C6.08-C6.12 PRIVATE SANITARY SEWER SHEETS FOR MORE INFORMATION.

- EXISTING UTILITIES (X#)**
- X1 EXISTING SANITARY SEWER MAIN
 - X2 EXISTING STORM SEWER
 - X3 EXISTING WATER MAIN

NOTE:
FDC SHALL BE LOCATED WITH 100' OF FIRE HYDRANT.



KEY MAP
NOT TO SCALE

0' 15' 30' 60'
SCALE IN FEET

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REV.	NO.	DATE	DESCRIPTION	BY
1	1	12/28/2021	CITY COMMENTS	
2	2	02/03/2022	ADD AND CHANGE CHANGES	
3	3	02/03/2022	CITY & EVERGY COMMENTS	

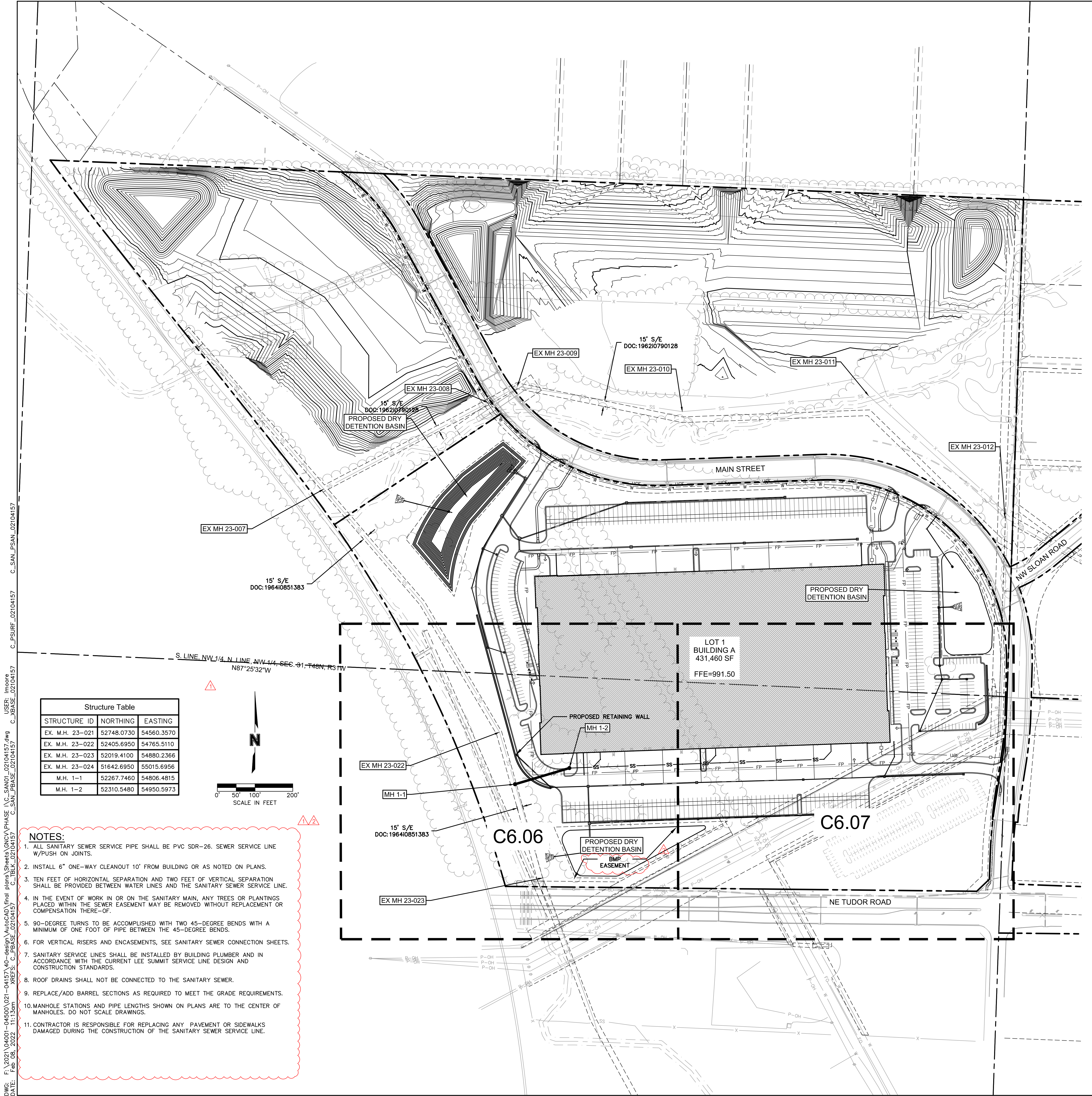
UTILITY PLAN
PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

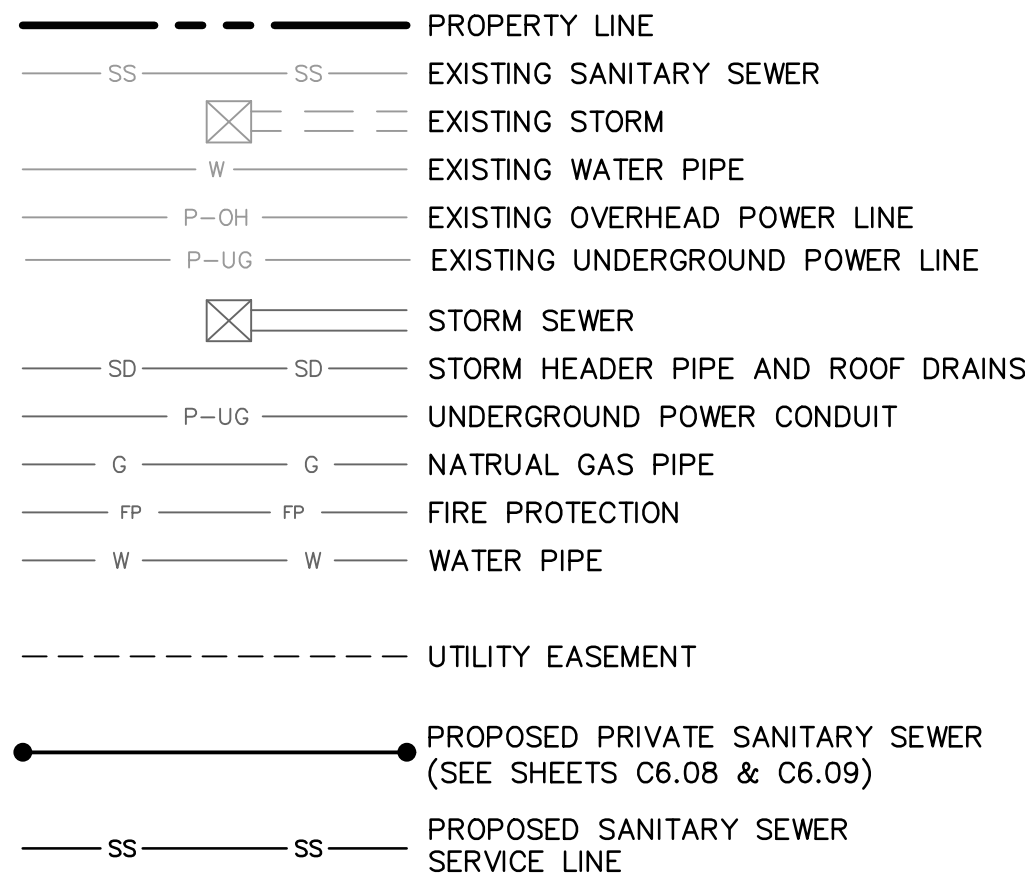
drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: 021-04157.dwg
date:

SHEET
C6.03

2021



SANITARY SEWER PLAN LEGEND

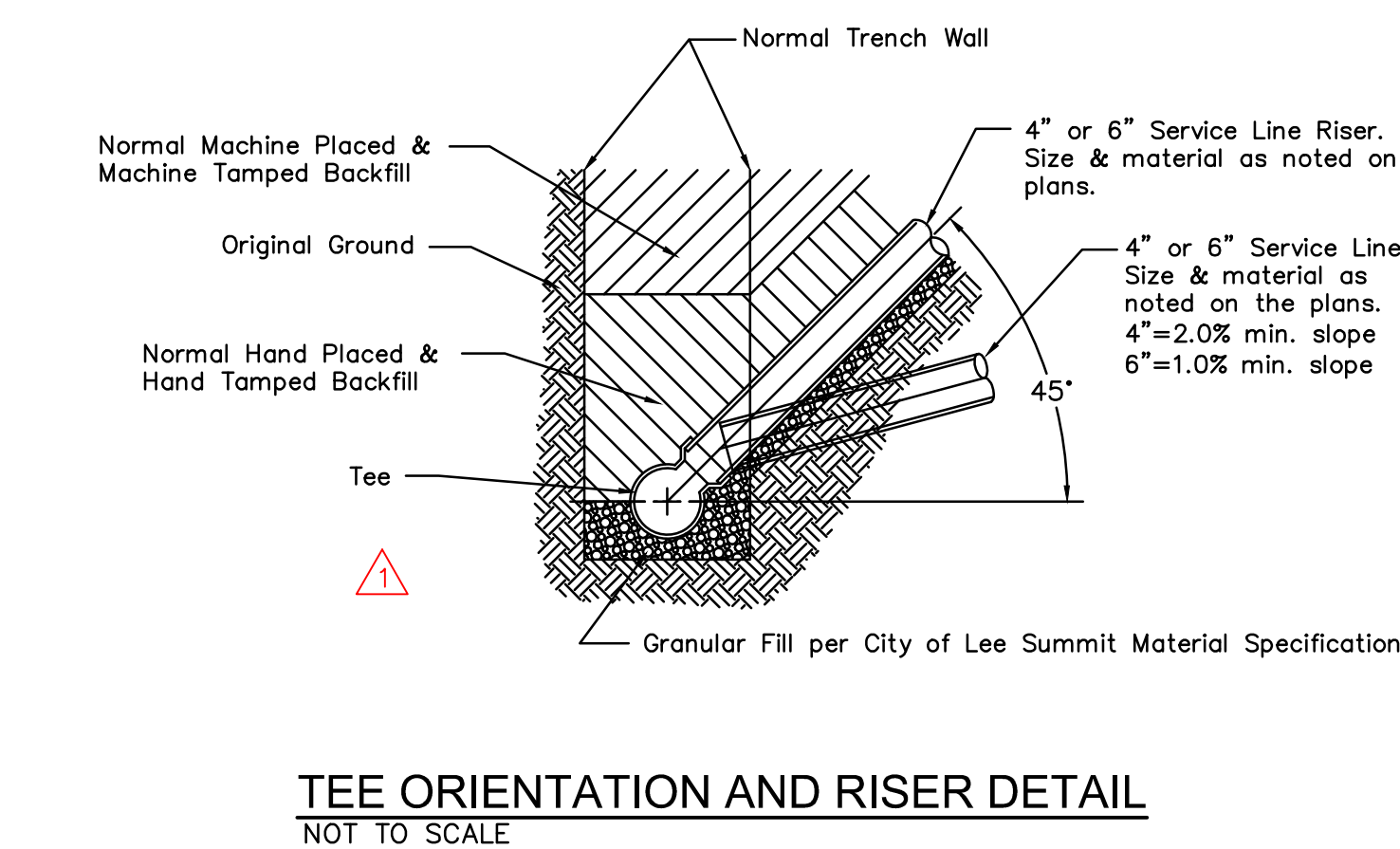
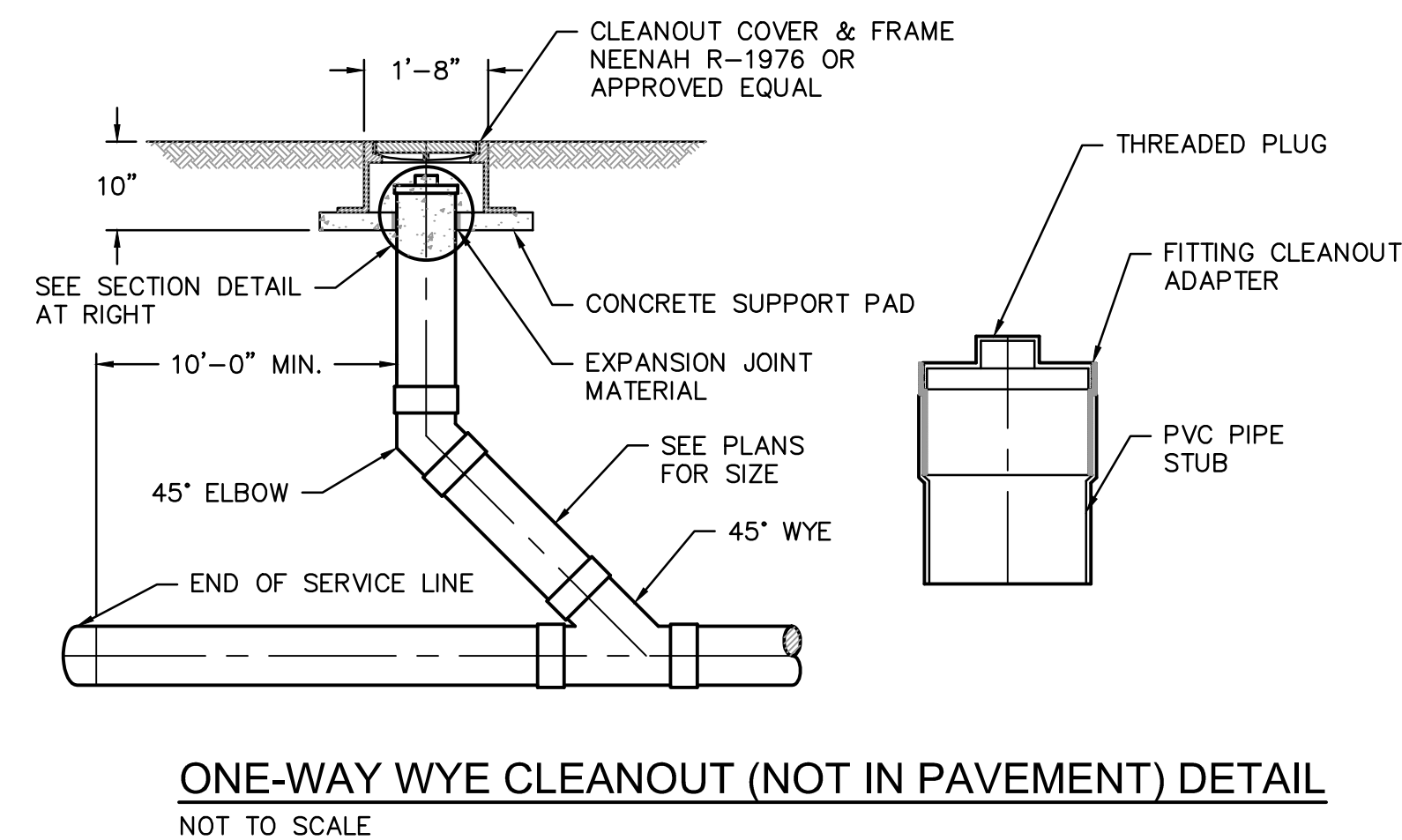
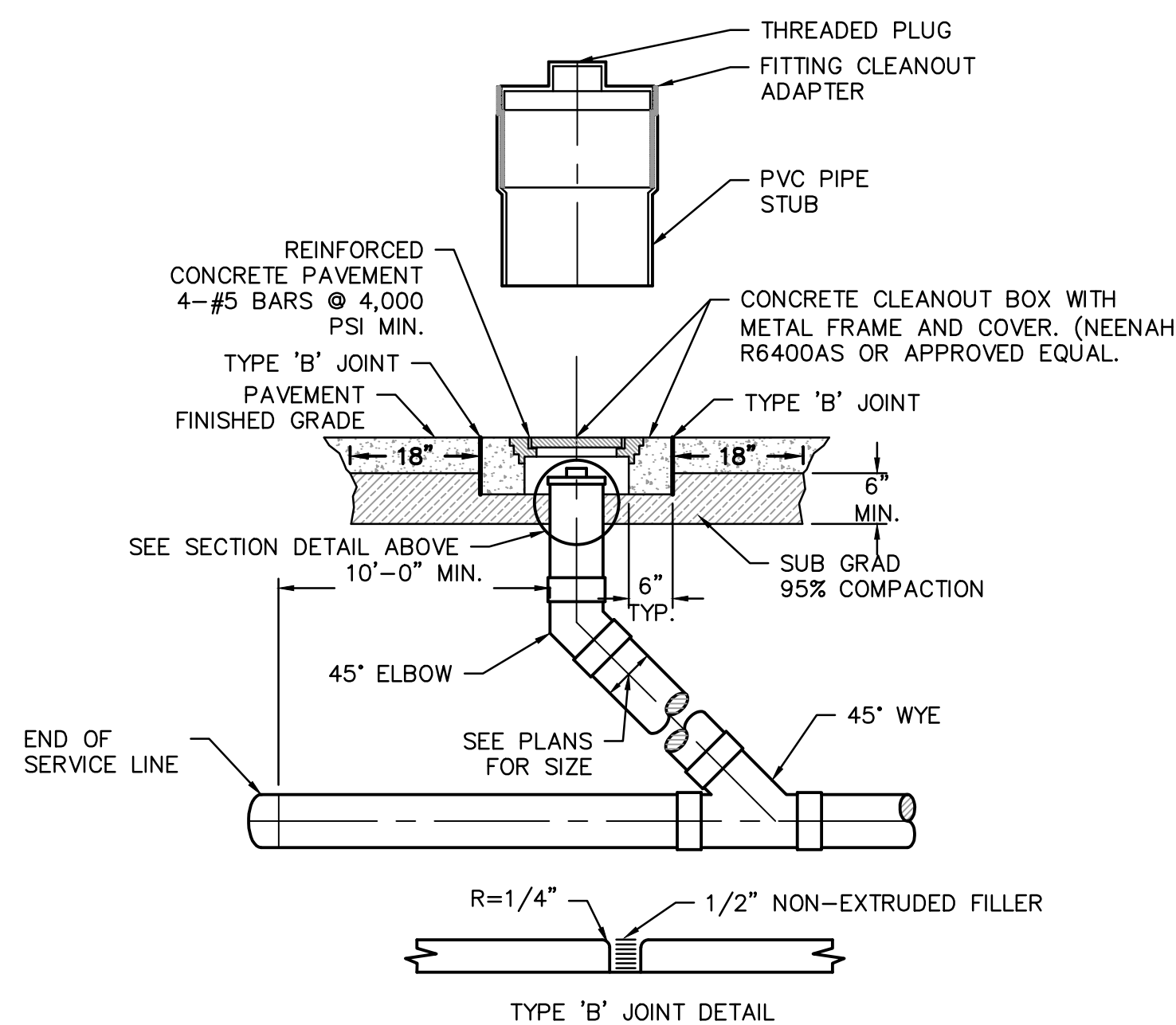


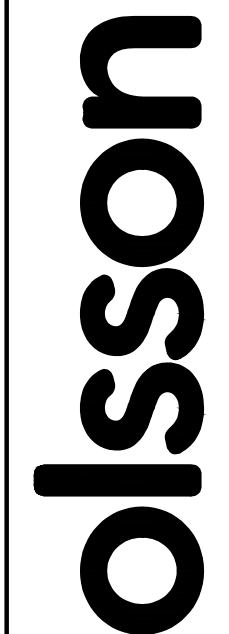
EASEMENT/SETBACK LEGEND

D/E STORM DRAINAGE EASEMENT
S/B PROPERTY SETBACK
S/E SANITARY SEWER EASEMENT
U/E UTILITY EASEMENT
E/E ELECTRIC EASEMENT


NOTE

FUTURE IMPROVEMENTS ARE SHOWN FOR REFERENCE ONLY.






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MISSOURI PROFESSIONAL ENGINEER
MITCHELL ALAN
PE-2000015764
2-2-22

REV	NO.	DATE	DESCRIPTION
1	1	12/28/2021	CITY COMMENTS
2	2	01/05/2022	CITY COMMENTS
3	3	01/05/2022	CITY COMMENTS

BY: _____

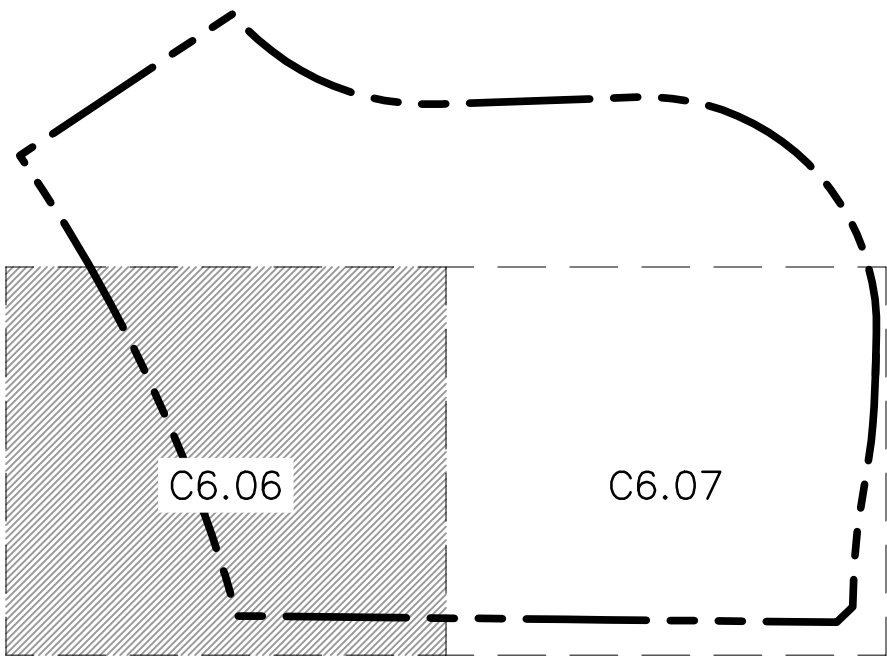
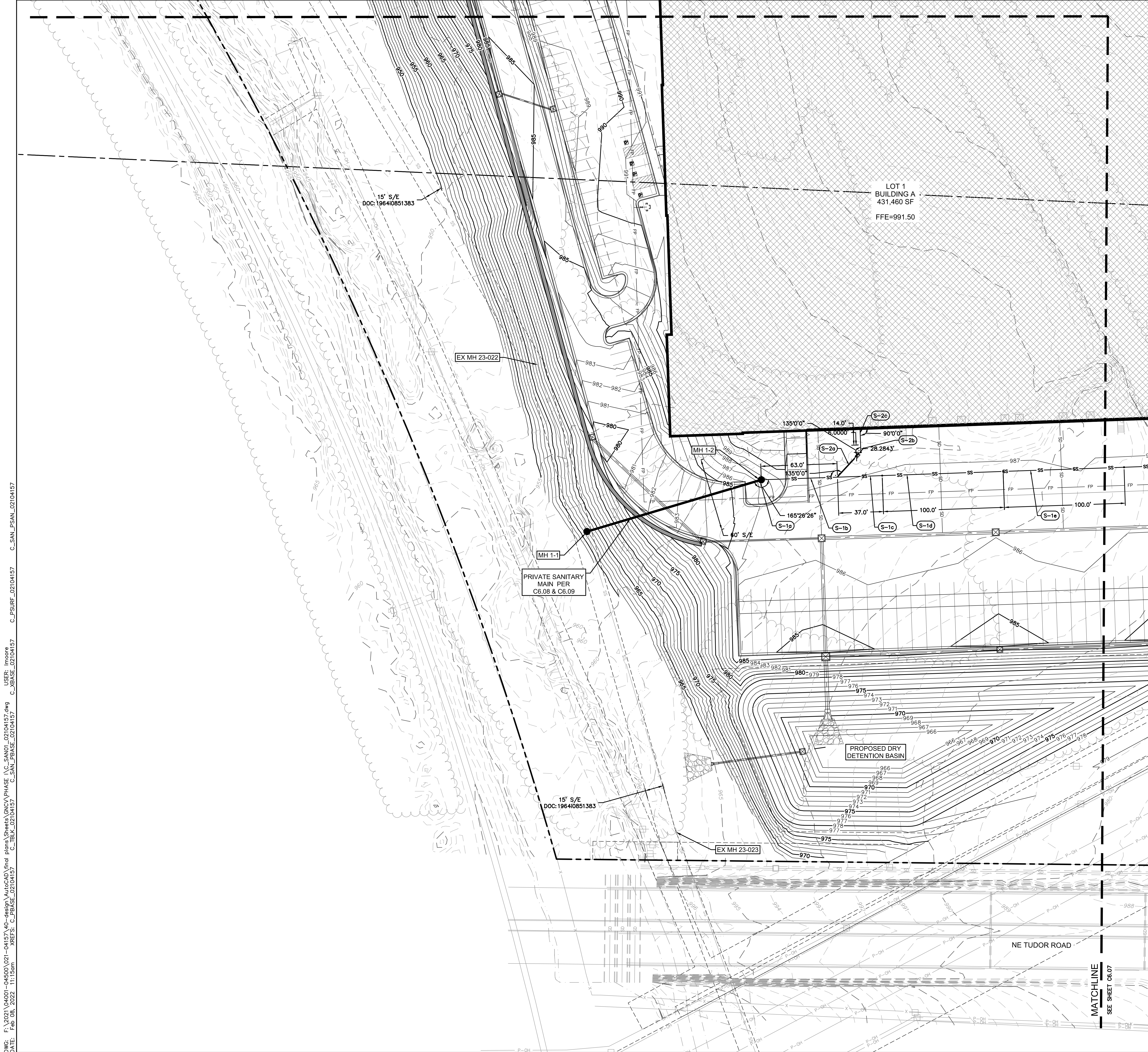
OVERALL SANITARY SEWER PLAN
PHASE I/FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021

REVISIONS

drawn by: OLSSON
checked by: _____
approved by: _____
QA/QC by: _____
project no.: 021-04157
drawing no.: SAN01_02104157.dwg
date: _____

SHEET
C6.05



KEY MAP
NOT TO SCALE

SANITARY SEWER PLAN LEGEND

- PROPERTY LINE
- EXISTING SANITARY SEWER
- EXISTING STORM
- EXISTING WATER PIPE
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND POWER LINE
- STORM SEWER
- SD STORM HEADER PIPE AND ROOF DRAINS
- P-UG UNDERGROUND POWER CONDUIT
- G NATURAL GAS PIPE
- FP FIRE PROTECTION
- W WATER PIPE
- UTILITY EASEMENT
- PROPOSED PRIVATE SANITARY SEWER (SEE SHEETS C6.08 & C6.09)
- PROPOSED SANITARY SEWER SERVICE LINE

NOTE

FUTURE IMPROVEMENTS ARE SHOWN FOR REFERENCE ONLY.

KEYNOTES

- SANITARY SEWER (S-#)**
- BUILDING A CONNECTION (CONTINUED ON NEXT SHEET)
 - PROPOSED MANHOLE. REFERENCE SHEETS C6.08 AND C6.09 FOR DETAILS.
INV. EL (OUT) @ MANHOLE (10" PVC)= 972.75
INV. EL (IN) @ MANHOLE (8" PVC)= 972.95
 - CONNECT TO MANHOLE AND INSTALL 63.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL WYE CONNECTION.
INV. EL @ WYE= 973.74
INV. EL @ STUB= 974.41
 - CONNECT TO WYE CONNECTION AND INSTALL 37.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL CLEANOUT IN PAVEMENT. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ CLEANOUT=974.20
 - CONNECT TO CLEANOUT AND INSTALL 100.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL CLEANOUT IN PAVEMENT. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ BUILDING=975.45
 - CONNECT TO CLEANOUT AND INSTALL 100.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL CLEANOUT IN PAVEMENT. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ BUILDING=976.70
 - BUILDING A CONNECTION
 - CONNECT TO WYE CONNECTION AND INSTALL 28.3 L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 2.00%. THEN INSTALL 45° BEND.
INV. EL @ 45° BEND= 974.98
 - CONNECT TO 45° BEND AND INSTALL CLEANOUT IN PAVEMENT. THEN CONNECT TO CLEANOUT AND INSTALL 8.49 FEET OF 8" PVC SDR-26 VERTICAL RISER (6.00 FT OF RISE). REFERENCE CLEANOUT AND RISER DETAILS PER SHEET C6.05.
INV @ 45° BEND= 974.98
INV @ END OF RISER= 980.98
 - CONNECT TO END OF RISER AND INSTALL 14.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 7.32%. THEN INSTALL REDUCER AS NEEDED AND CONNECT TO BUILDING WITH FERNOCO STRONGBACK RC COUPLING FOR DISSIMILAR PIPE CONNECTION.
FG @ BUILDING=987.50
INV. EL @ BUILDING=982.00

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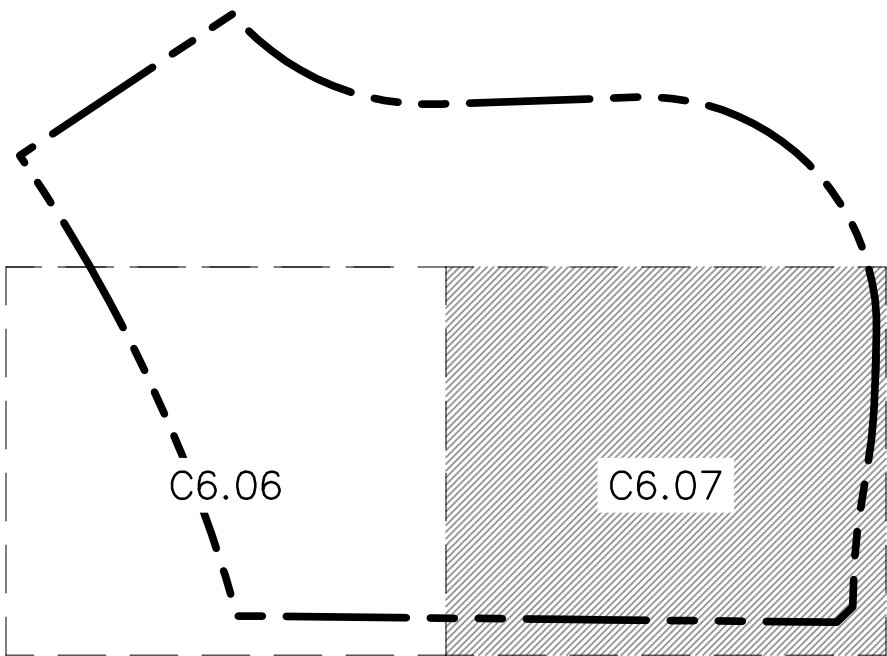
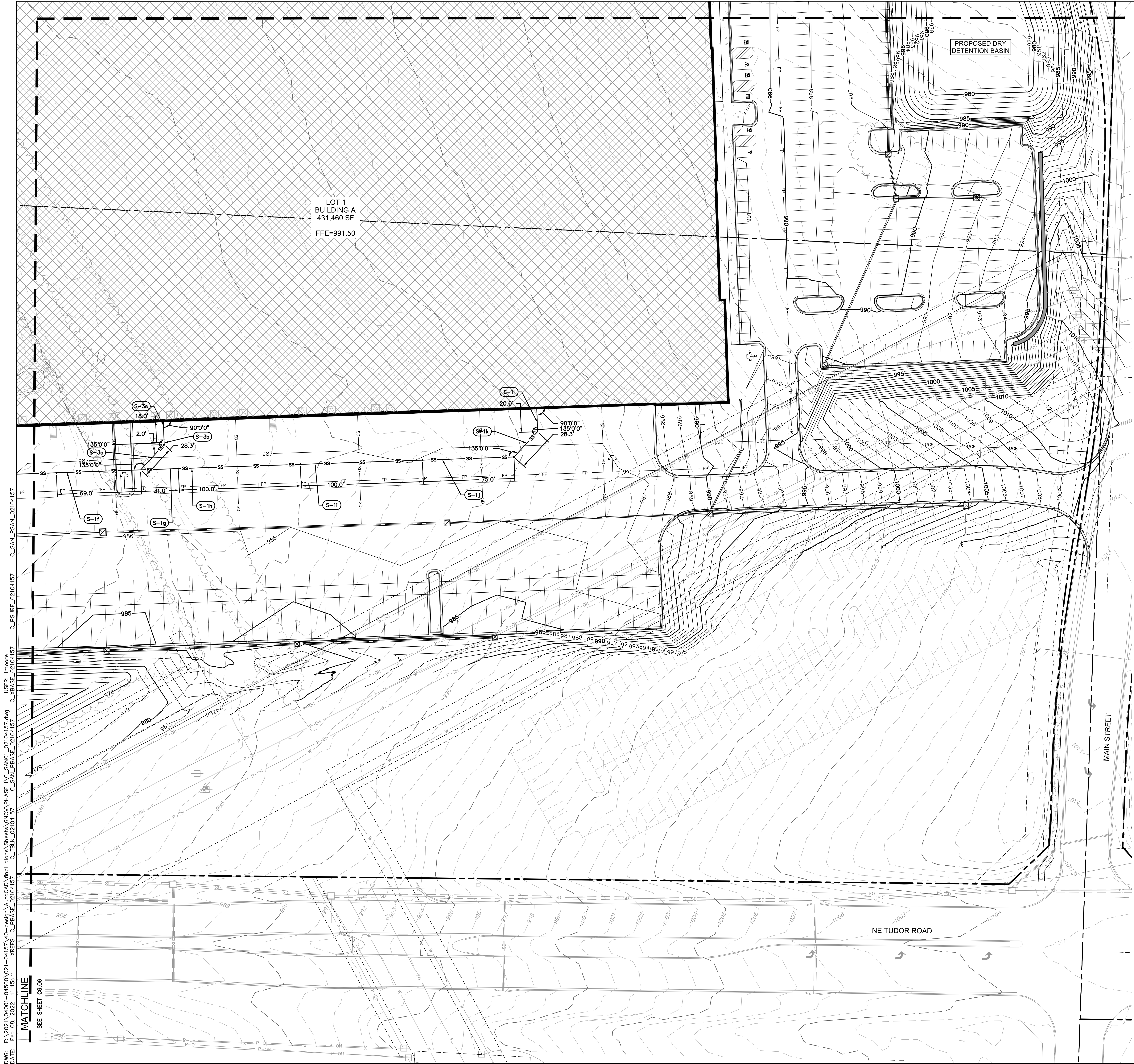
STATE OF MISSOURI
MITCHELL ALAN SCANNELL
PE-2000015764
2-2-2022

REV.	NO.	DATE	REVISIONS DESCRIPTION	BY
1	1	12.28.2021	CITY COMMENTS	
2	2	01.28.2022	ADD AND CHANGE CHANGES	
3	3	02.03.2022	CITY & ENERGY COMMENTS	

SANITARY SEWER CONNECTION PLAN PHASE I FINAL DEVELOPMENT PLAN		SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET LEE'S SUMMIT, MISSOURI	
		2021	

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: SAN01_02104157.dwg
date:

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C6.06



KEY MAP
NOT TO SCALE

SANITARY SEWER PLAN LEGEND

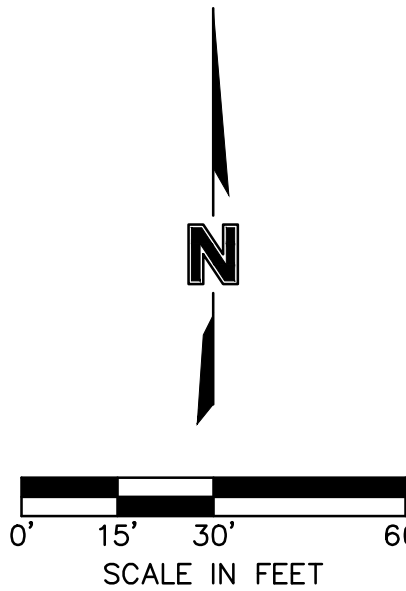
- PROPERTY LINE
- EXISTING SANITARY SEWER
- EXISTING STORM
- EXISTING WATER PIPE
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND POWER LINE
- STORM SEWER
- STORM HEADER PIPE AND ROOF DRAINS
- UNDERGROUND POWER CONDUIT
- NATURAL GAS PIPE
- FIRE PROTECTION
- WATER PIPE
- UTILITY EASEMENT
- PROPOSED PRIVATE SANITARY SEWER (SEE SHEETS C6.08 & C6.09)
- PROPOSED SANITARY SEWER SERVICE LINE

NOTE

FUTURE IMPROVEMENTS ARE SHOWN FOR REFERENCE ONLY.

KEYNOTES

- SANITARY SEWER (S-#)**
- BUILDING A CONNECTION (CONTINUED FROM PREVIOUS SHEET)
 - CONNECT TO CLEANOUT AND INSTALL 69.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL WYE CONNECTION.
INV. EL @ WYE= 977.57
INV. EL @ STUB= 978.24
 - CONNECT TO WYE CONNECTION AND INSTALL 31.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL CLEANOUT IN PAVEMENT. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ CLEANOUT= 977.95
 - CONNECT TO CLEANOUT AND INSTALL 100.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL CLEANOUT IN PAVEMENT. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ CLEANOUT= 979.21
 - CONNECT TO CLEANOUT AND INSTALL 100.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL CLEANOUT IN GREENSPACE. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ CLEANOUT= 980.46
 - CONNECT TO CLEANOUT AND INSTALL 75.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL 45° BEND AND CLEANOUT IN GREENSPACE. REFERENCE CLEANOUT DETAIL PER SHEET C6.05.
INV. EL @ 45° BEND= 981.40
 - CONNECT TO 45° BEND AND INSTALL 28.3± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS AT 1.25% THEN INSTALL 45° BEND.
INV. EL @ 45° BEND= 981.75
 - CONNECT TO 45° BEND AND INSTALL 20.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 1.25%. THEN INSTALL REDUCER AS NEEDED AND CONNECT TO BUILDING WITH FERNCO STRONGBACK RC COUPLING FOR DISSIMILAR PIPE CONNECTION.
FG @ BUILDING=989.00
INV. EL @ BUILDING=982.00
 - BUILDING A CONNECTION
 - CONNECT TO WYE CONNECTION AND INSTALL 28.3 L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 2.00%. THEN INSTALL 45° BEND.
INV. EL @ 45° BEND= 978.81
 - CONNECT TO 45° BEND AND INSTALL CLEANOUT IN PAVEMENT. THEN CONNECT TO CLEANOUT AND INSTALL 2.83 FEET OF 8" PVC SDR-26 VERTICAL RISER (2.00 FT OF RISE). REFERENCE RISER AND CLEANOUT DETAILS PER SHEET C6.05.
INV @ 45° BEND= 978.81
INV @ END OF RISER= 980.81
 - CONNECT TO END OF RISER AND INSTALL 18.0± L.F. OF 8" PVC SDR-26 W/ PUSH ON JOINTS @ 6.64%. THEN INSTALL REDUCER AS NEEDED AND CONNECT TO BUILDING WITH FERNCO STRONGBACK RC COUPLING FOR DISSIMILAR PIPE CONNECTION.
FG @ BUILDING=987.50
INV. EL @ BUILDING=982.00



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MITCHELL ALAN
SCANNELL
PROFESSIONAL ENGINEER
NO. PE-2000010164
STATE OF MISSOURI

REV.	NO.	DATE	REVISIONS DESCRIPTION	BY
1	1	12/28/2021	CITY COMMENTS	
2	2	01/27/2022	DESIGN AND STANDARD CHANGES	
3	3	02/03/2022	CITY & ENERGY COMMENTS	

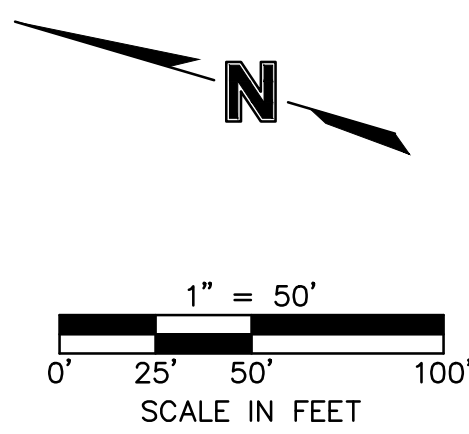
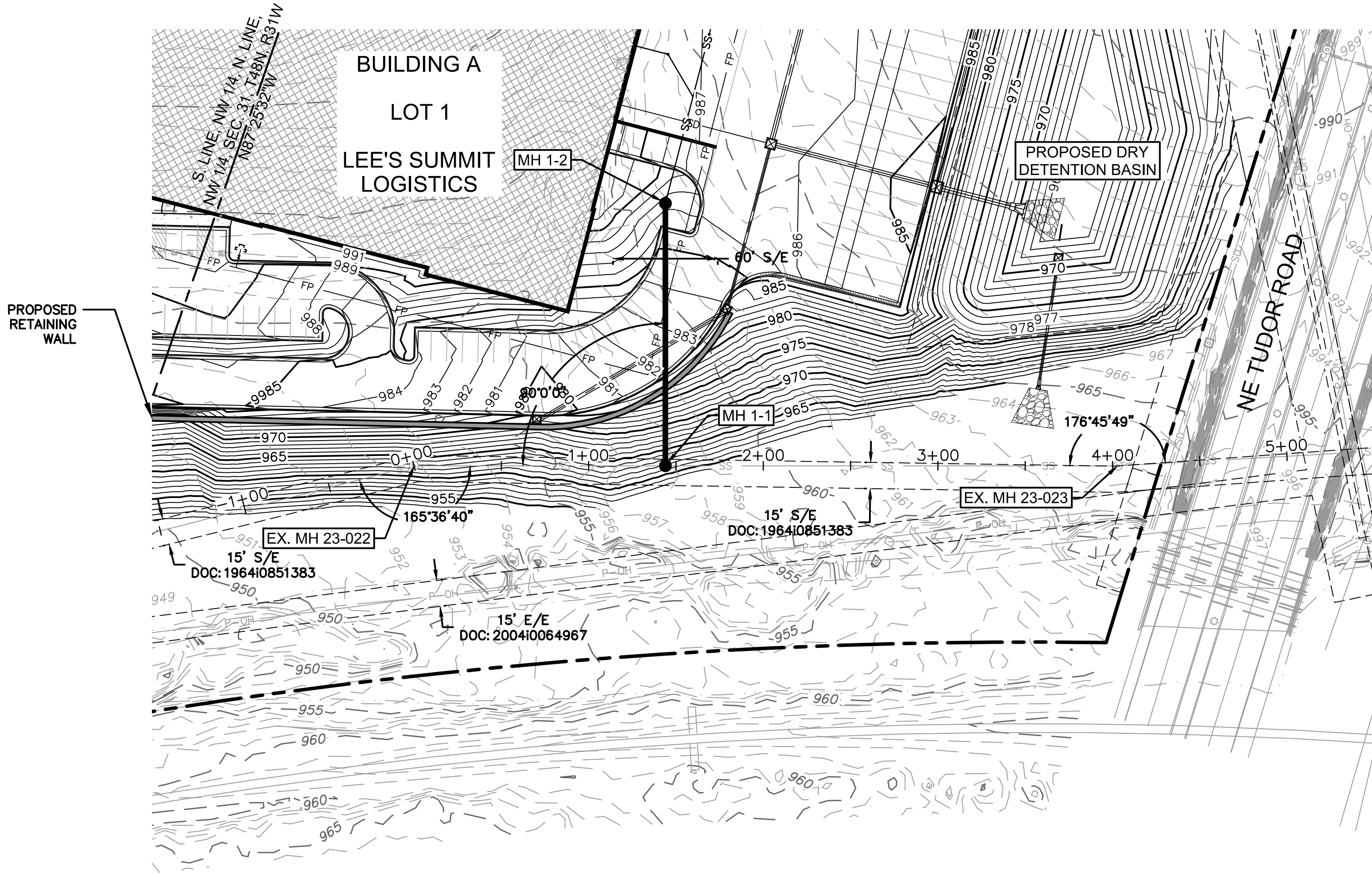
REVISIONS	
NO.	DATE
1	2021

SANITARY SEWER CONNECTION PLAN
PHASE I FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

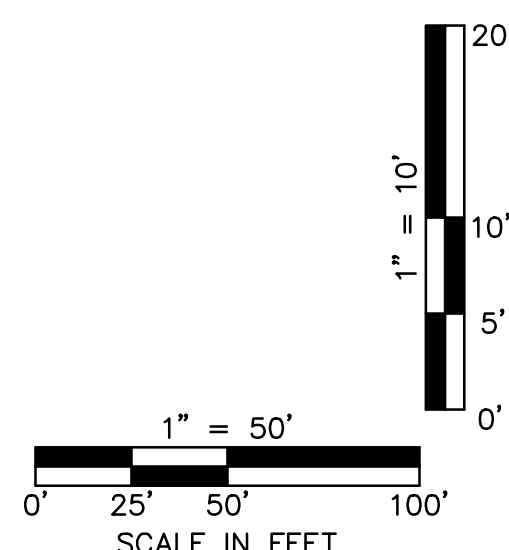
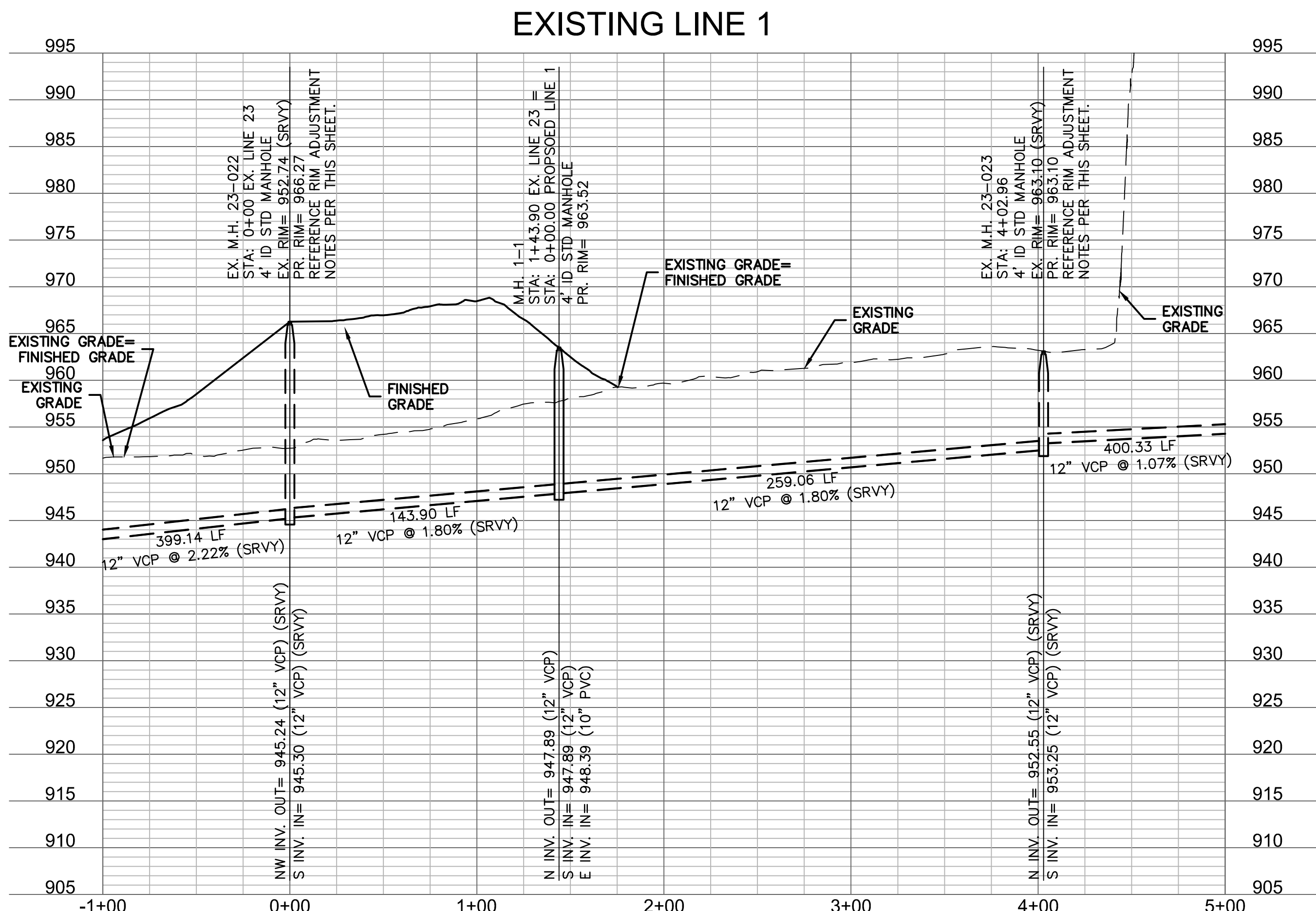
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checked by: ENG
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checked by: ENG
project no.: 021-04157
drawing no.: SAN01_02104157.dwg
date:

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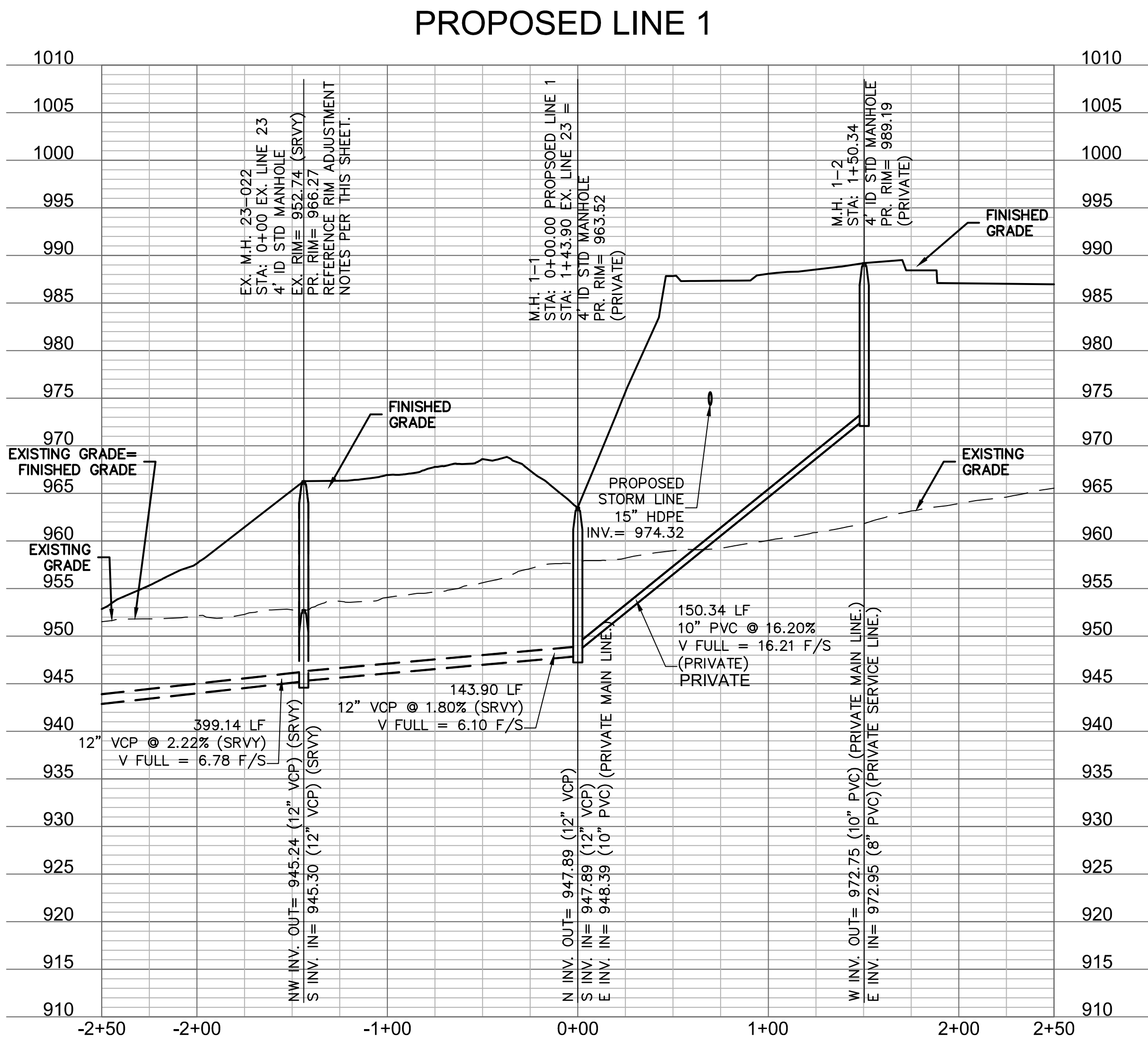
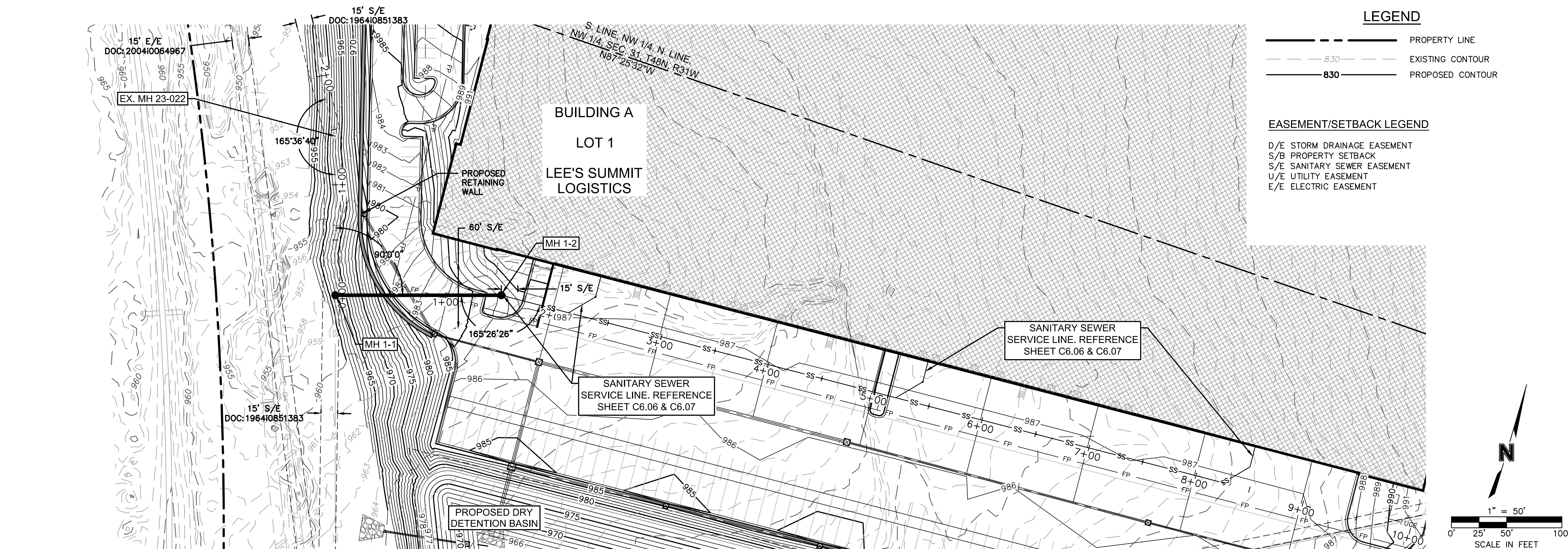


LEGEND	
	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR

- EASEMENT/SETBACK LEGEND**
- D/E STORM DRAINAGE EASEMENT
S/B PROPERTY SETBACK
S/E SANITARY SEWER EASEMENT
U/E UTILITY EASEMENT
E/E ELECTRIC EASEMENT
- SANITARY SEWER NOTES:**
- ALL SANITARY SEWER SERVICE PIPE SHALL BE PVC SDR-26. SEWER SERVICE LINE W/PUSH ON JOINTS.
 - TEN FEET OF HORIZONTAL SEPARATION AND TWO FEET OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER LINES AND THE SANITARY SEWER SERVICE LINE.
 - IN THE EVENT OF WORK IN OR ON THE UG SANITARY MAIN, ANY TREES OR PLANTINGS PLACED WITHIN THE SEWER EASEMENT MAY BE REMOVED WITHOUT REPLACEMENT OR COMPENSATION THERE-OF.
 - FOR VERTICAL RISERS AND ENCASEMENTS, SEE SANITARY SEWER CONNECTION SHEETS.
 - ROOF DRAINS SHALL NOT BE CONNECTED TO THE SANITARY SEWER.
 - REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET THE GRADE REQUIREMENTS.
 - MANHOLE STATIONS AND PIPE LENGTHS SHOWN ON PLANS ARE TO THE CENTER OF MANHOLES. DO NOT SCALE DRAWINGS.
 - CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT OR SIDEWALKS DAMAGED DURING THE CONSTRUCTION OF THE SANITARY SEWER MAIN.
- RIM ADJUSTMENT NOTES:**
- REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET THE GRADE REQUIREMENTS.



STRUCTURES	
ID	DESCRIPTION
EX. M.H. 23-022 0+00	4' ID STD MANHOLE EXISTING SANITARY SEWER - LINE 1 RIM= 966.27 52405.6950; 54765.5110 INV IN = 945.30 (12" VCP) INV OUT = 945.24 (12" VCP) N: 52405.695; E: 54765.511
EX. M.H. 23-023 4+02.96	4' ID STD MANHOLE EXISTING SANITARY SEWER - LINE 1 RIM= 963.10 52019.4100; 54880.2366 INV IN = 953.25 (12" VCP) INV OUT = 952.55 (12" VCP) N: 52019.410; E: 54880.237
M.H. 1-1 1+43.90	4' ID STD MANHOLE EXISTING SANITARY SEWER - LINE 1 RIM= 963.52 52267.7460; 54806.4815 INV IN = 947.89 (12" VCP) INV IN = 948.39 (10" PVC) INV OUT = 947.89 (12" VCP) N: 52267.746; E: 54806.481



STRUCTURES	
ID	DESCRIPTION
EX. M.H. 23-022 0+00	4' ID STD MANHOLE EXISTING SANITARY SEWER - LINE 1 RIM= 966.27 52405.6950; 54765.5110 INV IN = 945.30 (12" VCP) INV OUT = 945.24 (12" VCP) N: 52405.695; E: 54765.511
M.H. 1-1 1+43.90	4' ID STD MANHOLE EXISTING SANITARY SEWER - LINE 1 RIM= 963.52 52267.7460; 54806.4815 INV IN = 947.89 (12" VCP) INV IN = 948.39 (10" PVC) INV OUT = 947.89 (12" VCP) N: 52267.746; E: 54806.481
M.H. 1-2 1+50.34	4' ID STD MANHOLE PROPOSED SANITARY SEWER - LINE 1 RIM= 969.19 52310.5480; 54950.5973 INV IN = 972.95 (8" PVC) INV OUT = 972.75 (10" PVC) N: 52310.548; E: 54950.597

- SANITARY SEWER NOTES:**
- ALL SANITARY SEWER SERVICE PIPE SHALL BE PVC SDR-26. SEWER SERVICE LINE W/PUSH ON JOINTS.
 - TEN FEET OF HORIZONTAL SEPARATION AND TWO FEET OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER LINES AND THE SANITARY SEWER SERVICE LINE.
 - IN THE EVENT OF WORK IN OR ON THE UG SANITARY MAIN, ANY TREES OR PLANTINGS PLACED WITHIN THE SEWER EASEMENT MAY BE REMOVED WITHOUT REPLACEMENT OR COMPENSATION THERE-OF.
 - FOR VERTICAL RISERS AND ENCASEMENTS, SEE SANITARY SEWER CONNECTION SHEETS.
 - ROOF DRAINS SHALL NOT BE CONNECTED TO THE SANITARY SEWER.
 - REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET THE GRADE REQUIREMENTS.
 - MANHOLE STATIONS AND PIPE LENGTHS SHOWN ON PLANS ARE TO THE CENTER OF MANHOLES. DO NOT SCALE DRAWINGS.
 - CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT OR SIDEWALKS DAMAGED DURING THE CONSTRUCTION OF THE SANITARY SEWER MAIN.
- RIM ADJUSTMENT NOTES:**
- REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET THE GRADE REQUIREMENTS.

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USER: Immore

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 DATE: Feb 08, 2022 11:16am XREFS: C_TBLK_02104157 C_PRASE_02104157 C_XAERIAL_02104157

Sanitary Sewer Design Information											
Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Future Cumulative Area	Peak Base Flow 50-Year Design	Peak Infiltration Flow 50-Year Design	Peak Inflow 50-Year Full Year Design	Total Peak Flow	Downstream Pipe Mappings N	Downstream Pipe Capacity	Downstream Pipe Full Flow Velocity
	(%)	(in)	(Ac.)	(Ac.)	(gpd)	(gpd)	(cfs)	(cfs)		(cfs)	(fps)
EX MH 23-022	1.80%	12	304.38	0.00	456570.00	152190.000	4.007	4.949	0.014	4.44	5.65
MH 1-1	16.20%	10	39.38	0.00	59070.00	19690.000	0.948	1.070	0.014	8.19	15.01

drawn by: _____ OLSSON
checked by: _____ ENG
approved by: _____ ENG
QA/QC by: _____ ENG
project no.: _____ 021-04157
drawing noC_SAN02_GNL_02104157
date: _____

checked by: _____ ENG

QA/QC by: _____ ENG

project no.: 021-04157

date:

— 215 —

1 SHEET

1 SHEET
C6.10



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	12.04.2024	CITY COMMENTS	
2	01.05.2024	OWNER #P AND OWNER CHANGES	
3	02.03.2022	CITY & ENERGY COMMENTS	

<p>SANITARY DESIGN TABLES PHASE I FINAL DEVELOPMENT PLAN</p> <p>SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET</p> <p>LEE'S SUMMIT, MISSISSAUGA</p>	2024
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SANITARY DESIGN TABLES
PHASE I FINAL DEVELOPMENT PLAN
WELL DEVELOPMENT LEE'S SUMMIT LOT
EAST CORNER OF TUDOR ROAD AND MAIN
SOLID

SANITARY DESIGN TABLES
PHASE I FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

SUMMIT, MISSOURI

SANIT/PHASB

SCANNELL DEV
NORTHWEST CORP

LEE'S SUMMIT MISSOURI

SANIT/PHASB

SCANNELL DEV
NORTHWEST CORP

LEE'S SUMMIT MISSOURI

<p>SANITARY DESIGN TABLES PHASE I FINAL DEVELOPMENT PLAN</p> <p>SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET</p> <p>LEE'S SUMMIT, MISSISSAUGA</p>	2024
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SCANNELL
PROPERTIES

SCANNELL
P R O P E R T I E S

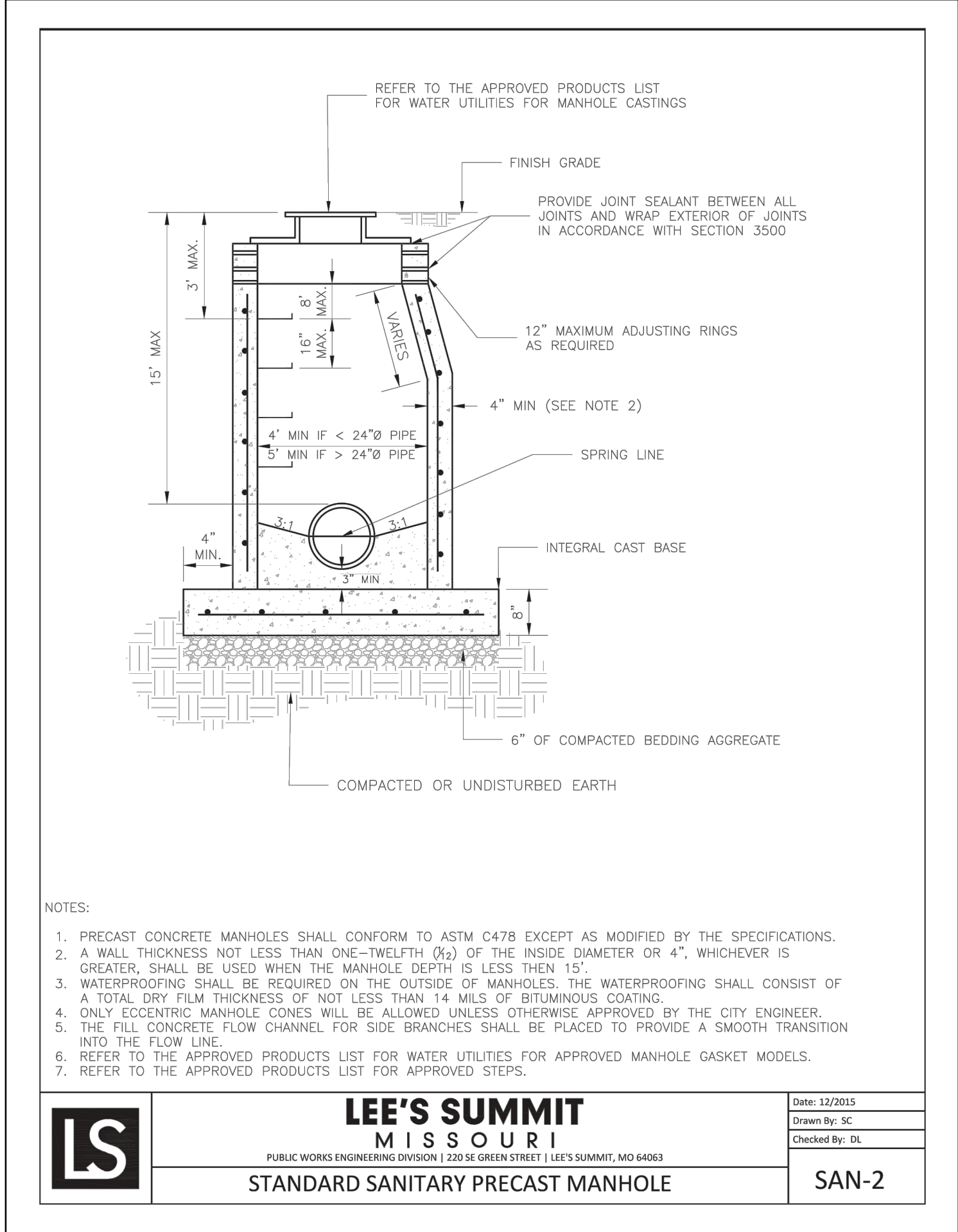
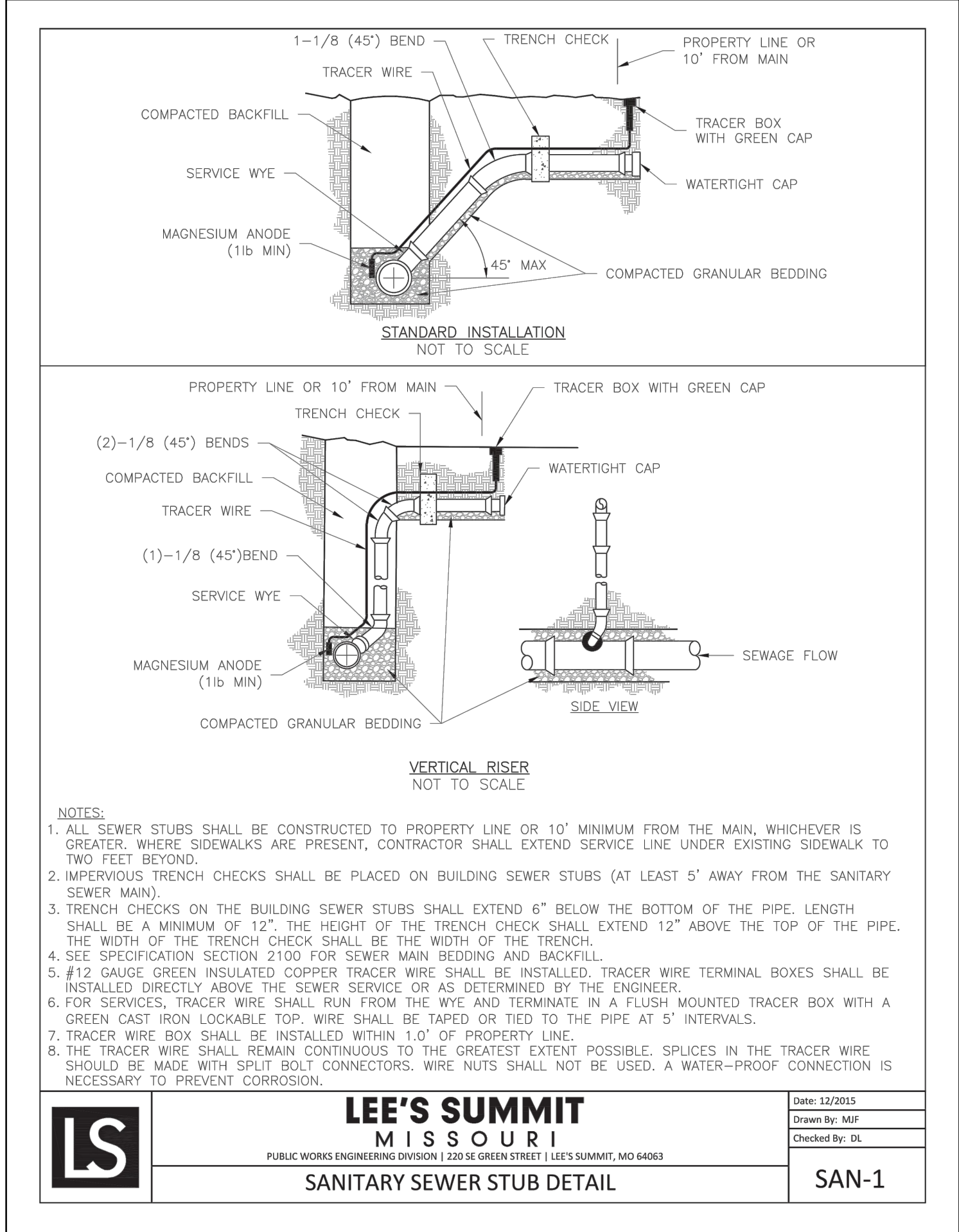
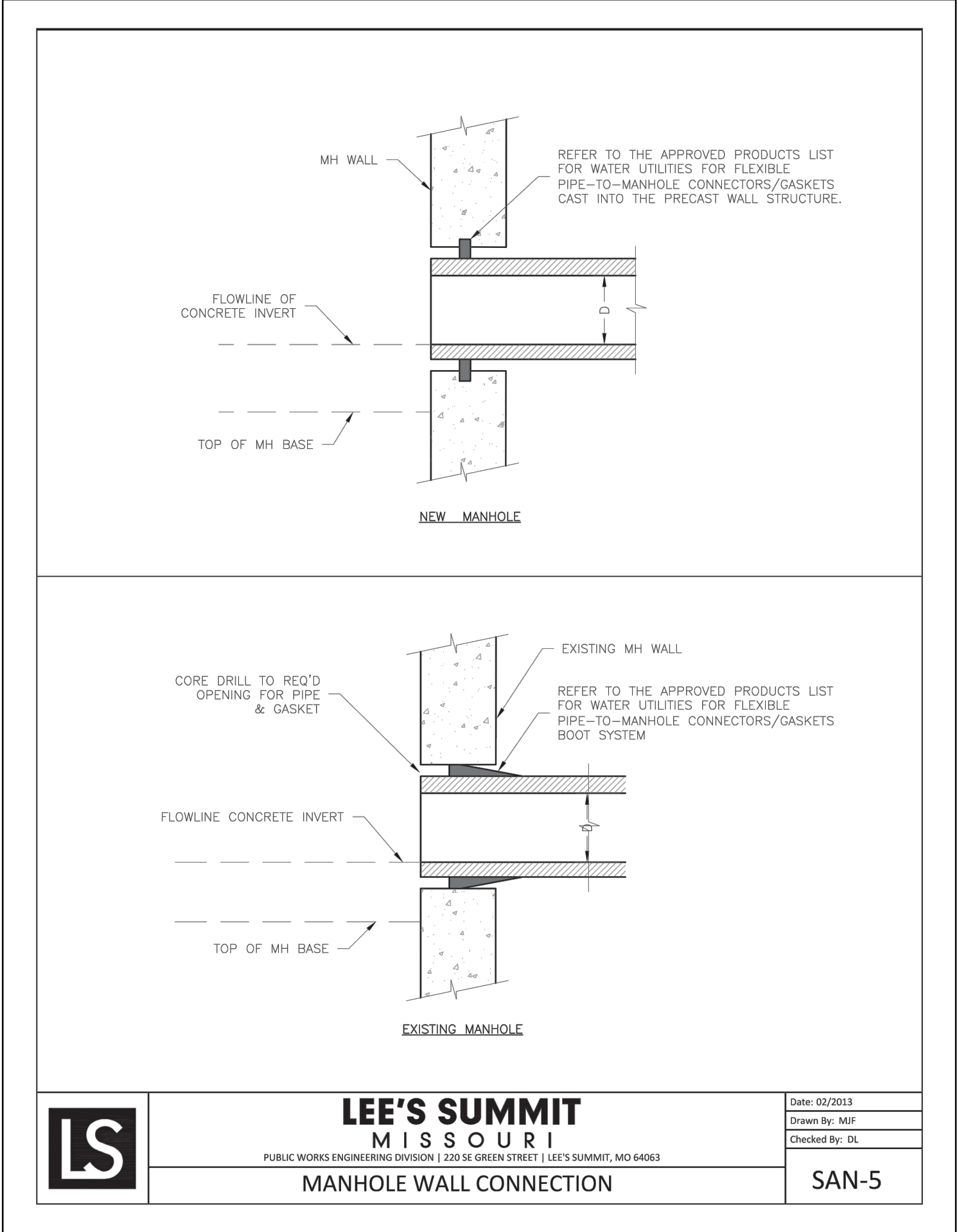
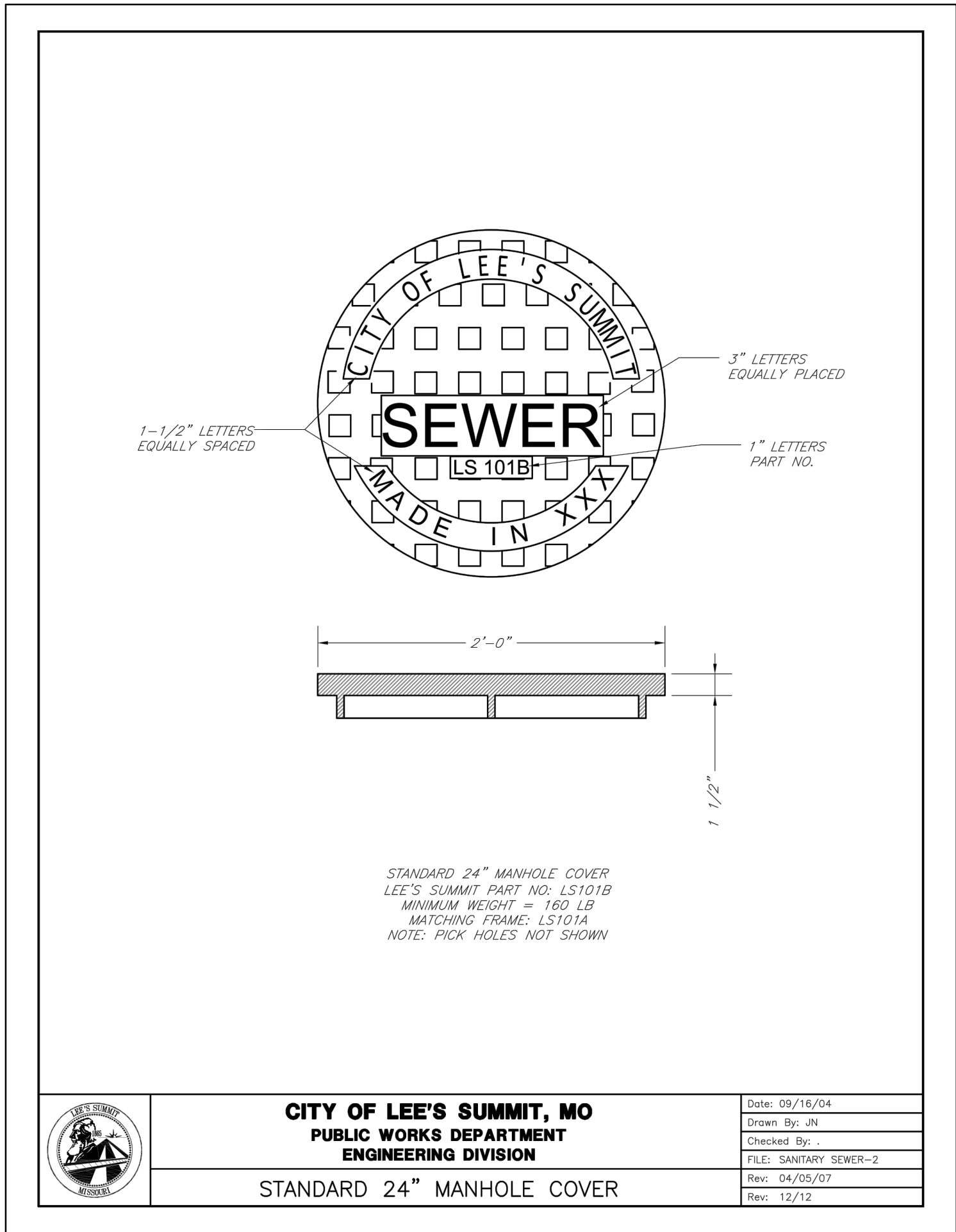
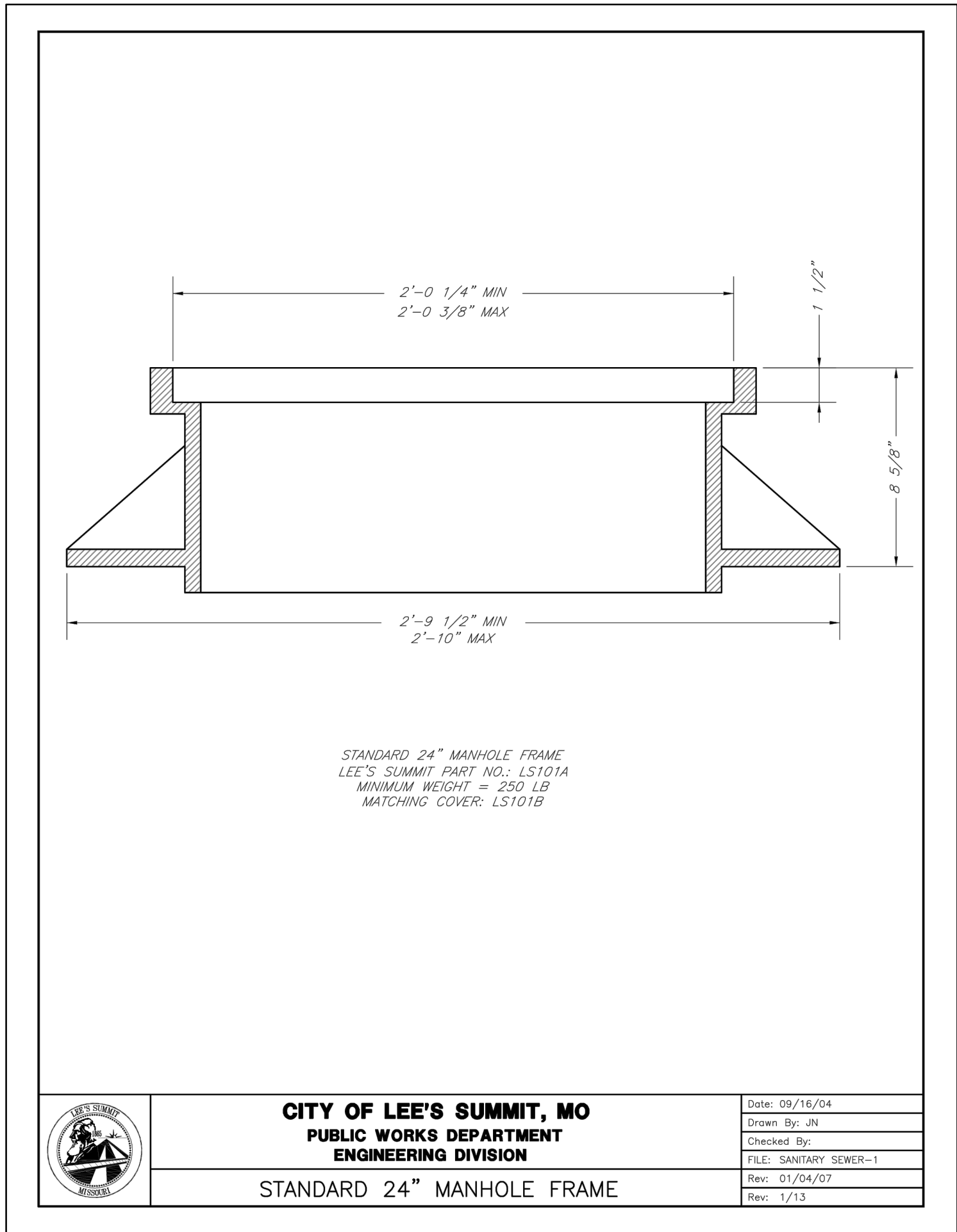
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Overland Park, KS 66213-1750

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Overland Park, KS 66213-4750

TEI 013 381 1170

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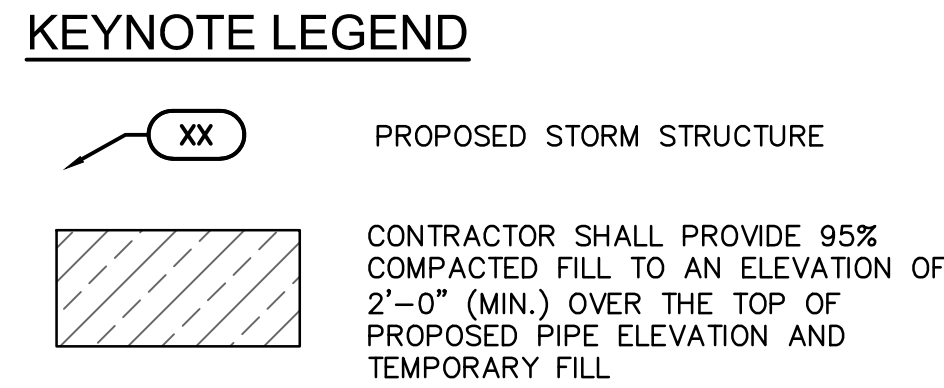
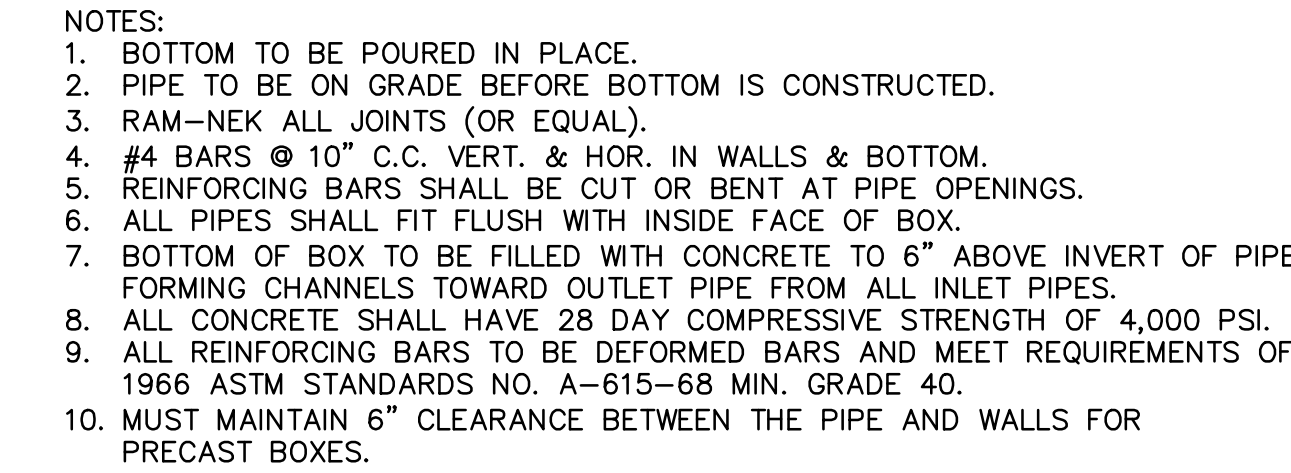
REV. NO.	DATE	REVISIONS DESCRIPTION
1	12.28.2021	CITY COMMENTS
2	01.05.2022	REVISED AND OWNER CHANGES
3	02.03.2022	CITY & ENERGY COMMENTS

BY	

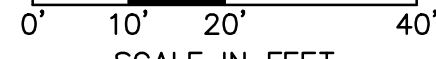




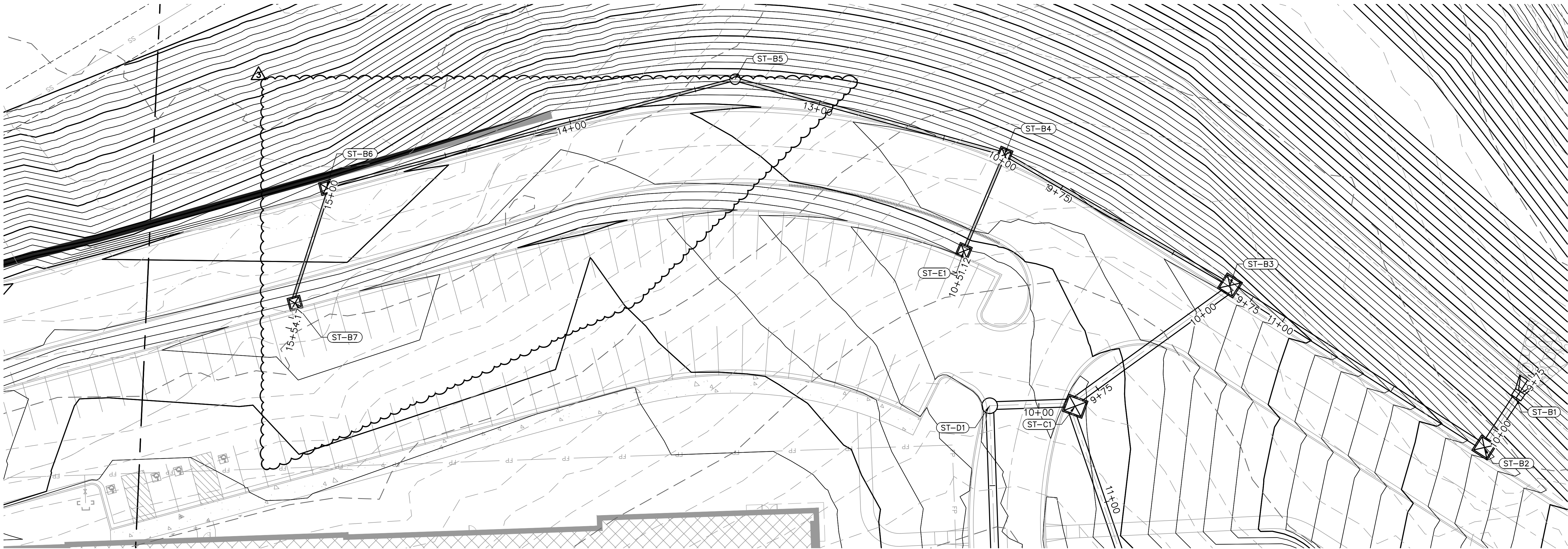
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1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN DEPTH.
2. NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
3. SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

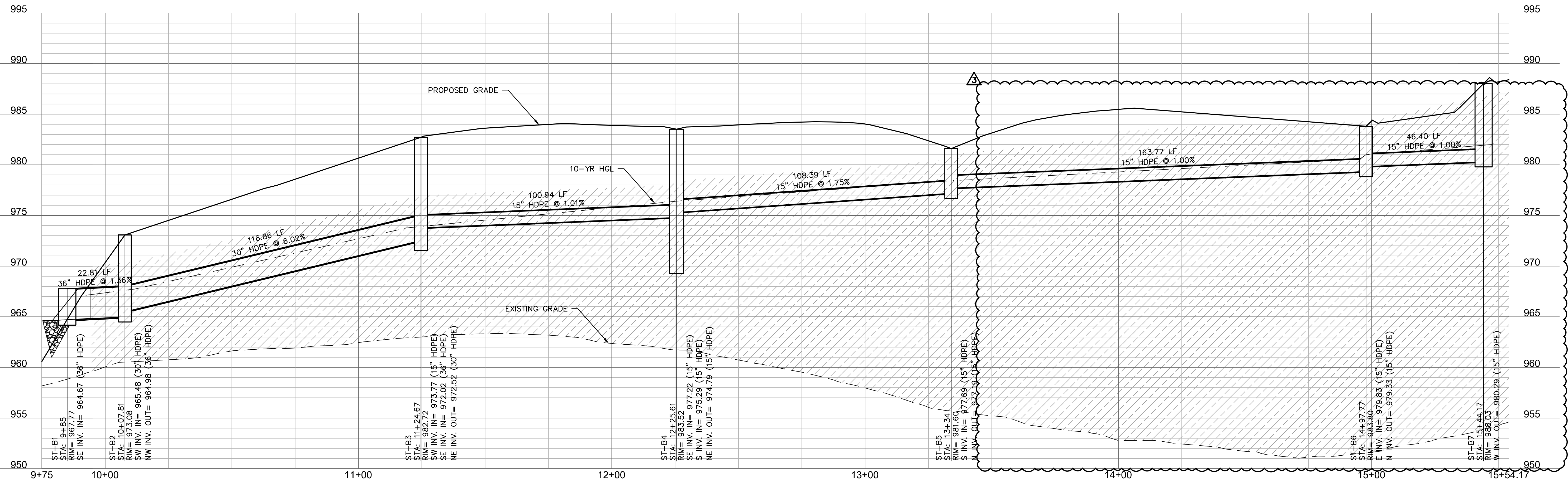


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0' 10' 20' 40'
SCALE IN FEET

STORM LINE B (9+75 - 15+54.17)



0' 10' 20' 40'
SCALE IN FEET

LEGEND

- PROPERTY LINE
- LOT LINES
- RIGHT-OF-WAY LINE
- SANITARY SEWER SERVICE
- FUTURE ELECTRICAL LINE
- FUTURE DOMESTIC WATER SERVICE
- FUTURE GAS SERVICE
- FUTURE TELEPHONE SERVICE
- EXISTING GRADE CONTOUR
- FINISHED GRADE CONTOUR
- STORM SEWER
- 10-YEAR HGL
- 100-YEAR HGL

KEYNOTE LEGEND

- PROPOSED STORM STRUCTURE
- CONTRACTOR SHALL PROVIDE 95% COMPACTED FILL TO AN ELEVATION OF 2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

STORM STRUCTURE NOTES

- CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN DEPTH.
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- ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

STRUCTURES	
ID	DESCRIPTION
ST-B1	36" CONCRETE FLARED END SECTION WITH TOE WALL 9+85, 0.00' RT STORM LINE B INV IN = 964.67 (36" HDPE) N: 53090.305; E: 54815.387
ST-B2	6'x6' NONSETBACK CURB INLET 10+07.81, 0.00' STORM LINE B INV IN = 965.48 (30" HDPE) INV OUT = 964.98 (36" HDPE) N: 53077.980; E: 54834.581
ST-B3	6'x6' NONSETBACK CURB INLET 11+24.67, 0.00' STORM LINE B RIM= 982.72 INV IN = 973.77 (15" HDPE) INV IN = 972.02 (36" HDPE) INV OUT = 972.52 (30" HDPE) N: 52979.400; E: 54771.831
ST-B4	4'x4' NONSETBACK CURB INLET INSERT 30' SNOUT WITH 60" SUMP DEPTH 12+25.61, 0.00' STORM LINE B RIM= 983.52 INV IN = 977.22 (15" HDPE) INV IN = 975.29 (15" HDPE) INV OUT = 974.79 (15" HDPE) N: 52892.074; E: 54721.209
ST-B5	6' I.D. MANHOLE 13+34, 0.00' STORM LINE B RIM= 981.60 INV IN = 977.69 (15" HDPE) INV OUT = 977.19 (15" HDPE) N: 52787.687; E: 54692.015
ST-B6	4'x4' NONSETBACK CURB INLET 14+07.77, 0.00' STORM LINE B RIM= 983.60 INV IN = 979.83 (15" HDPE) INV OUT = 979.33 (15" HDPE) N: 52629.372; E: 54733.929
ST-B7	4'x4' NONSETBACK CURB INLET W/ OPEN THROAT TO EAST 15+44.17, 0.00' STORM LINE B RIM= 988.03 INV IN = 980.29 (15" HDPE) N: 52617.193; E: 54778.700

BY

REVISIONS

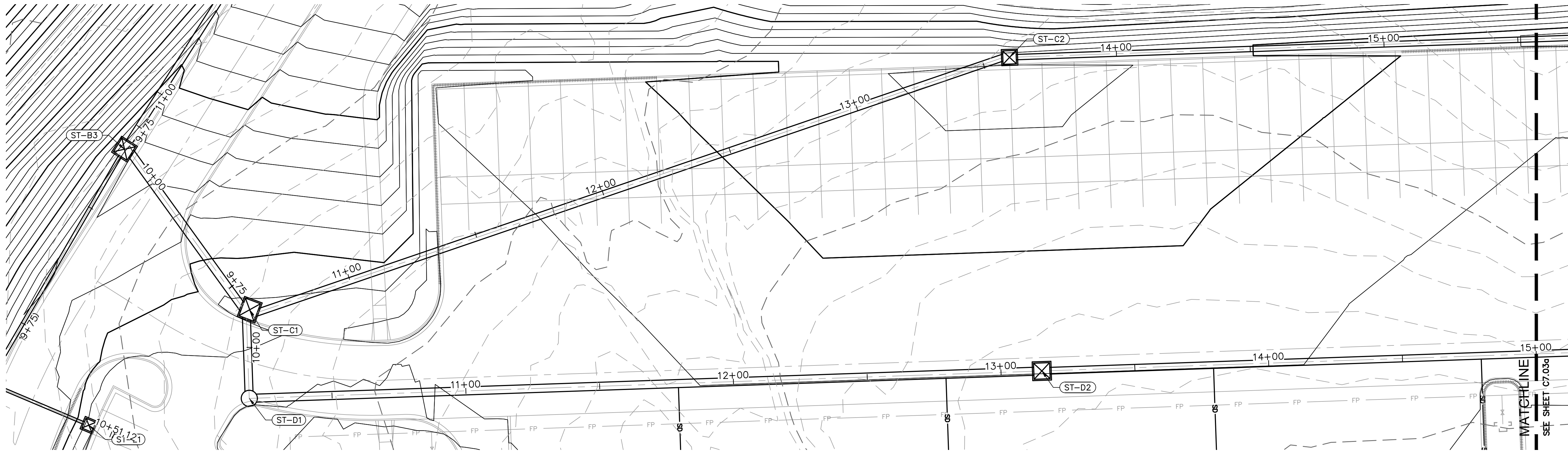
2021

STORM PLAN & PROFILE B
PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
GNCV by: ENG
project no: 021-04157
drawing no: 021-04157.dwg
date:

SHEET
C7.02



LEGEND

	PROPERTY LINE
	LOT LINES
	RIGHT-OF-WAY LINE
	SANITARY SEWER SERVICE
	FUTURE ELECTRICAL LINE
	FUTURE DOMESTIC WATER SERVICE
	FUTURE GAS SERVICE
	FUTURE TELEPHONE SERVICE
	EXISTING GRADE CONTOUR
	FINISHED GRADE CONTOUR
	STORM SEWER
	10-YEAR HGL
	100-YEAR HGL

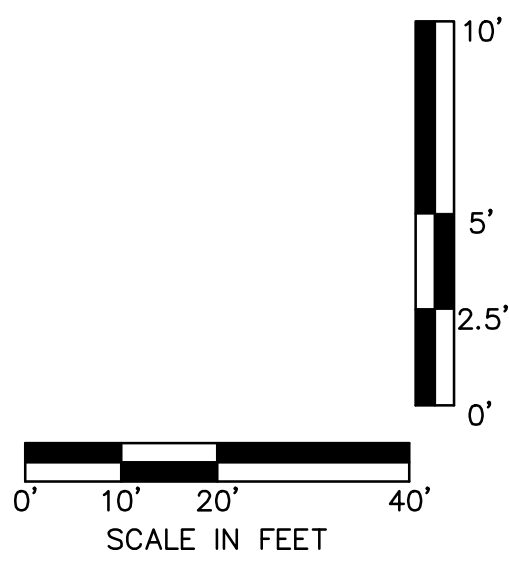
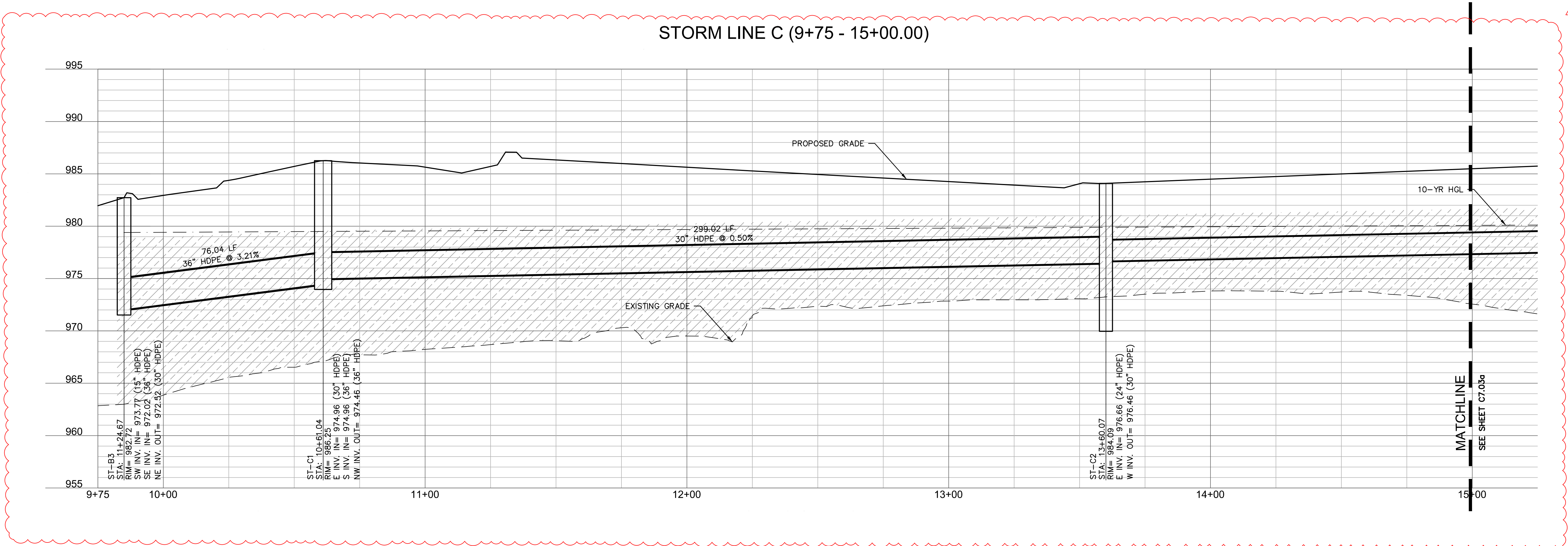
KEYNOTE LEGEND

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STORM STRUCTURE NOTES

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- SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
- ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

STRUCTURES	
ID	DESCRIPTION
ST-C1	6'X7' NONSETBACK CURB INLET 10+61.04, 0.00' STORM LINE C RIM= 986.25 INV IN = 974.96 (30" HDPE) INV IN = 974.96 (36" HDPE) INV OUT = 974.46 (36" HDPE) N: 52919.441; E: 54818.600
ST-C2	5'X5' NONSETBACK CURB INLET INSERT 36FTB SNOUT WITH 75" SUMP DEPTH 13+60.07, 0.00' STORM LINE C RIM= 984.09 INV IN = 976.66 (24" HDPE) INV OUT = 976.46 (30" HDPE) N: 53013.717; E: 55102.372
ST-C3	5'X5' NONSETBACK CURB INLET 17+80.07, -0.09' LT STORM LINE C RIM= 983.89 INV OUT = 978.76 (24" HDPE) N: 53028.241; E: 55522.121

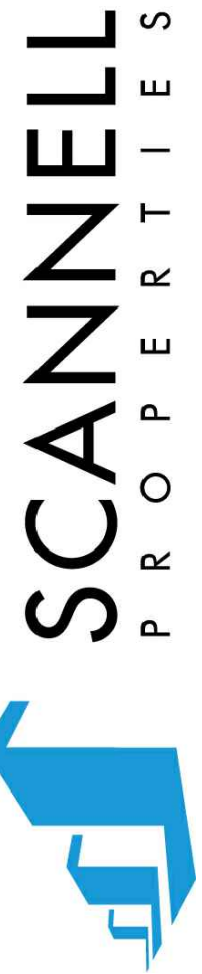


STORM PLAN & PROFILE C
PHASE 1/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: STM02_02104157.dwg
date:

SHEET
C7.03

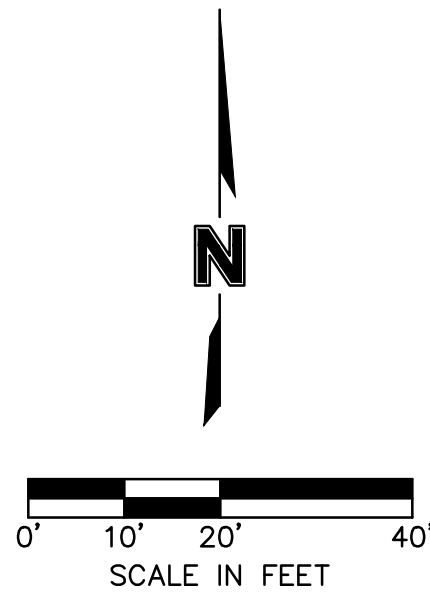
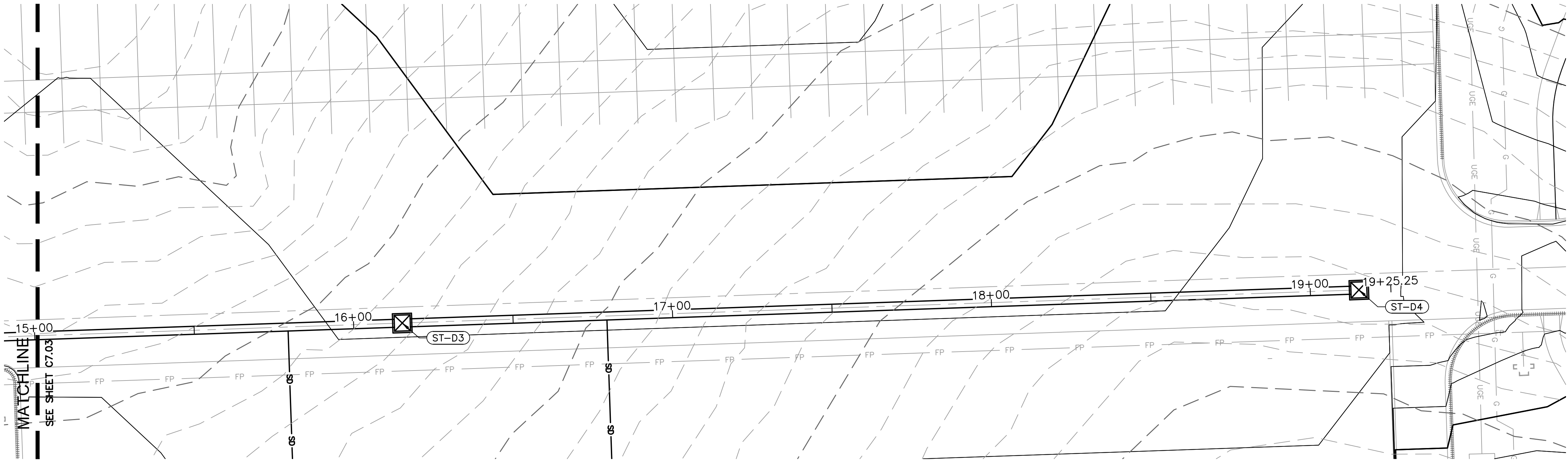


SCANNELL
PROPERTIES

REV	NO.	DATE	REVISIONS DESCRIPTION	BY
1	1	12/28/2021	CITY COMMENTS	
2	2	02/03/2022	ADD AND CHANGE CHANGES	
3	3	02/03/2022	CITY & ENERGY COMMENTS	

REVISIONS

2021



LEGEND

	PROPERTY LINE
	LOT LINES
	RIGHT-OF-WAY LINE
	SANITARY SEWER SERVICE
	FUTURE ELECTRICAL LINE
	FUTURE DOMESTIC WATER SERVICE
	FUTURE GAS SERVICE
	FUTURE TELEPHONE SERVICE
	EXISTING GRADE CONTOUR
	FINISHED GRADE CONTOUR
	STORM SEWER
	10-YEAR HGL
	100-YEAR HGL

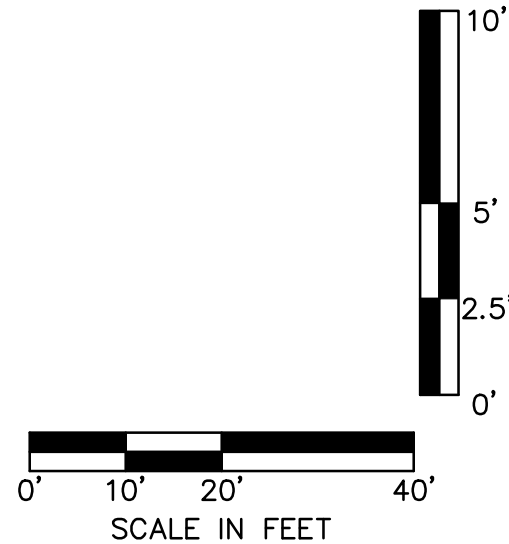
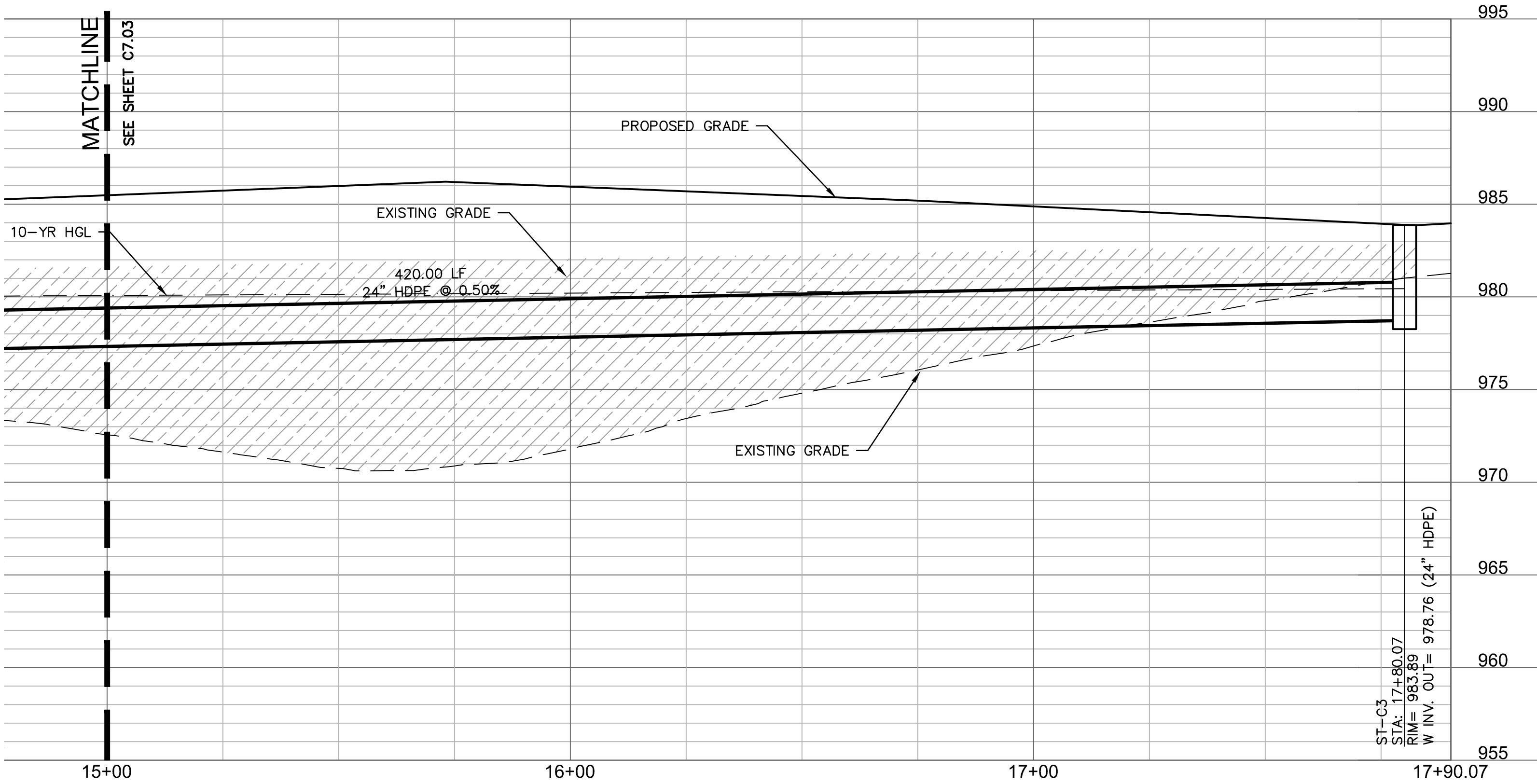
KEYNOTE LEGEND

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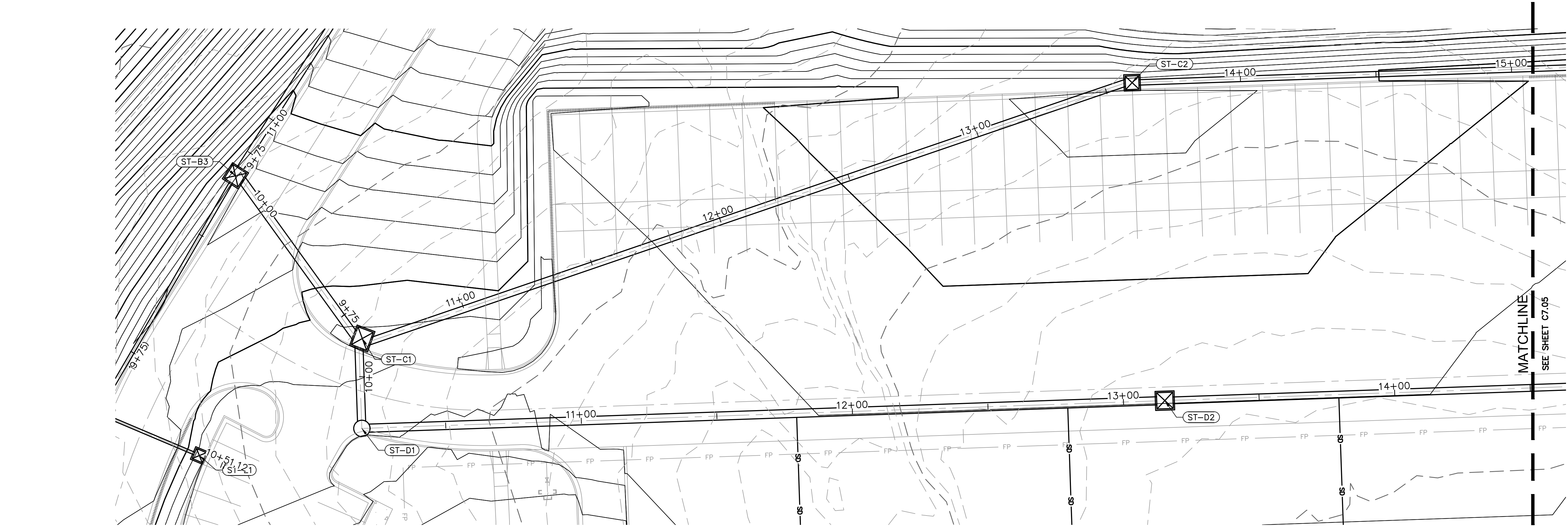
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STORM LINE C CONT. (15+00.00 - 17+90.07)



STRUCTURES	
ID	DESCRIPTION
ST-C1	6'x7' NONSETBACK CURB INLET 10+61.04, 0.00' STORM LINE C RIM= 986.25 INV IN = 974.96 (30" HDPE) INV IN = 974.96 (36" HDPE) INV OUT = 974.46 (36" HDPE) N: 52919.441; E: 54818.600
ST-C2	5'x5' NONSETBACK CURB INLET INSERT 36FTB SNOUT WITH 75" SUMP DEPTH 13+60.07, 0.00' STORM LINE C RIM= 984.09 INV IN = 976.66 (24" HDPE) INV OUT = 976.46 (30" HDPE) N: 53013.717; E: 55102.372
ST-C3	5'x5' NONSETBACK CURB INLET 17+80.07, -0.09' LT STORM LINE C RIM= 983.89 INV OUT = 978.76 (24" HDPE) N: 53028.241; E: 55522.121



- LEGEND**
- PROPERTY LINE
 - LOT LINES
 - RIGHT-OF-WAY LINE
 - SS SANITARY SEWER SERVICE
 - E FUTURE ELECTRICAL LINE
 - W FUTURE DOMESTIC WATER SERVICE
 - GAS FUTURE GAS SERVICE
 - COMM FUTURE TELEPHONE SERVICE
 - EXISTING GRADE CONTOUR
 - FINISHED GRADE CONTOUR
 - STORM SEWER
 - 10-YEAR HGL
 - 100-YEAR HGL

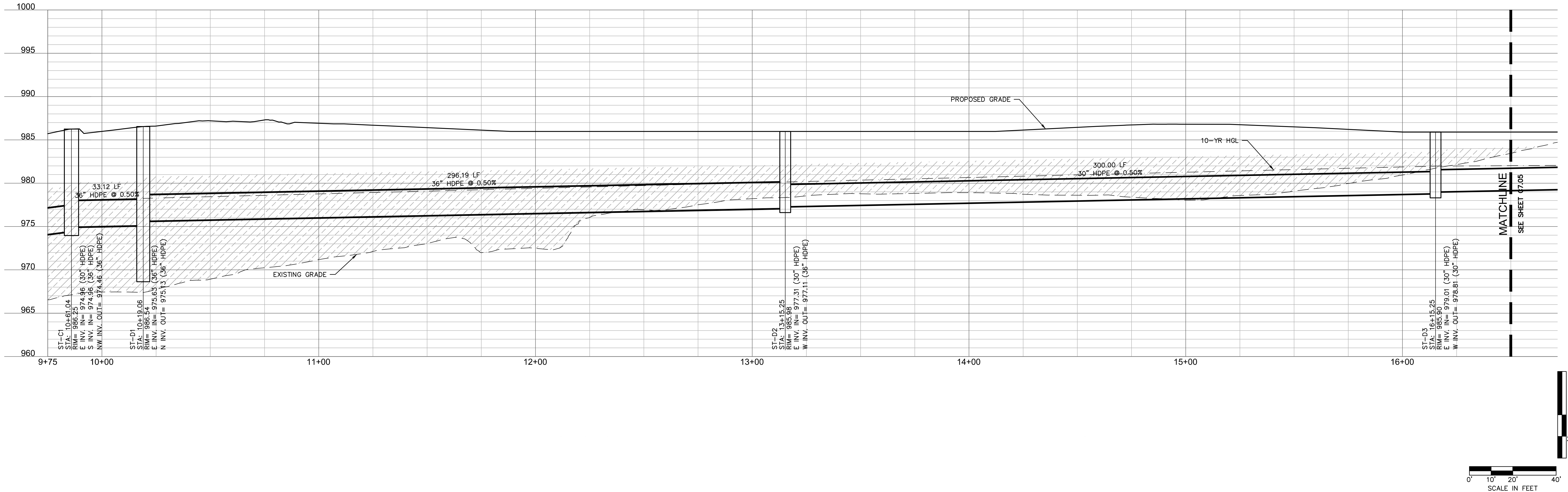
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STRUCTURES	
ID	DESCRIPTION
ST-C1	6'X7' NONSETBACK CURB INLET 10+61.04, 0.00' STORM LINE C RIM= 986.25 INV IN = 974.96 (30" HDPE) INV IN = 974.96 (36" HDPE) INV OUT = 974.46 (36" HDPE) N: 52919.441; E: 54818.600
ST-D1	6' I.D. MANHOLE INSERT 36FTB SNOUT WITH 75" SUMP DEPTH 10+19.06, 0.00' STORM LINE D RIM= 986.54 INV IN = 975.63 (36" HDPE) INV OUT = 975.13 (36" HDPE) N: 52886.322; E: 54818.421
ST-D2	6'X6' JUNCTION BOX 13+15.25, 0.00' STORM LINE D RIM= 985.98 INV IN = 977.31 (30" HDPE) INV OUT = 977.11 (36" HDPE) N: 52896.564; E: 55114.436

STORM LINE D (9+75 - 19+25.25)



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Overland Park, KS 66204-7756
TEL 913.381.1170
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SCANNELL
PROPERTIES

STATE OF MISSOURI
MITCHELL ALAN
PE-2008015764
2-2-2022
PROFESSIONAL ENGINEER

BY: _____

REVISIONS DESCRIPTION

REV	NO.	DATE
1	12.28.2021	
2	01.03.2022	
3	02.03.2022	

CITY COMMENTS
1. 12.28.2021
2. 01.03.2022
3. 02.03.2022

CITY & ENERGY COMMENTS

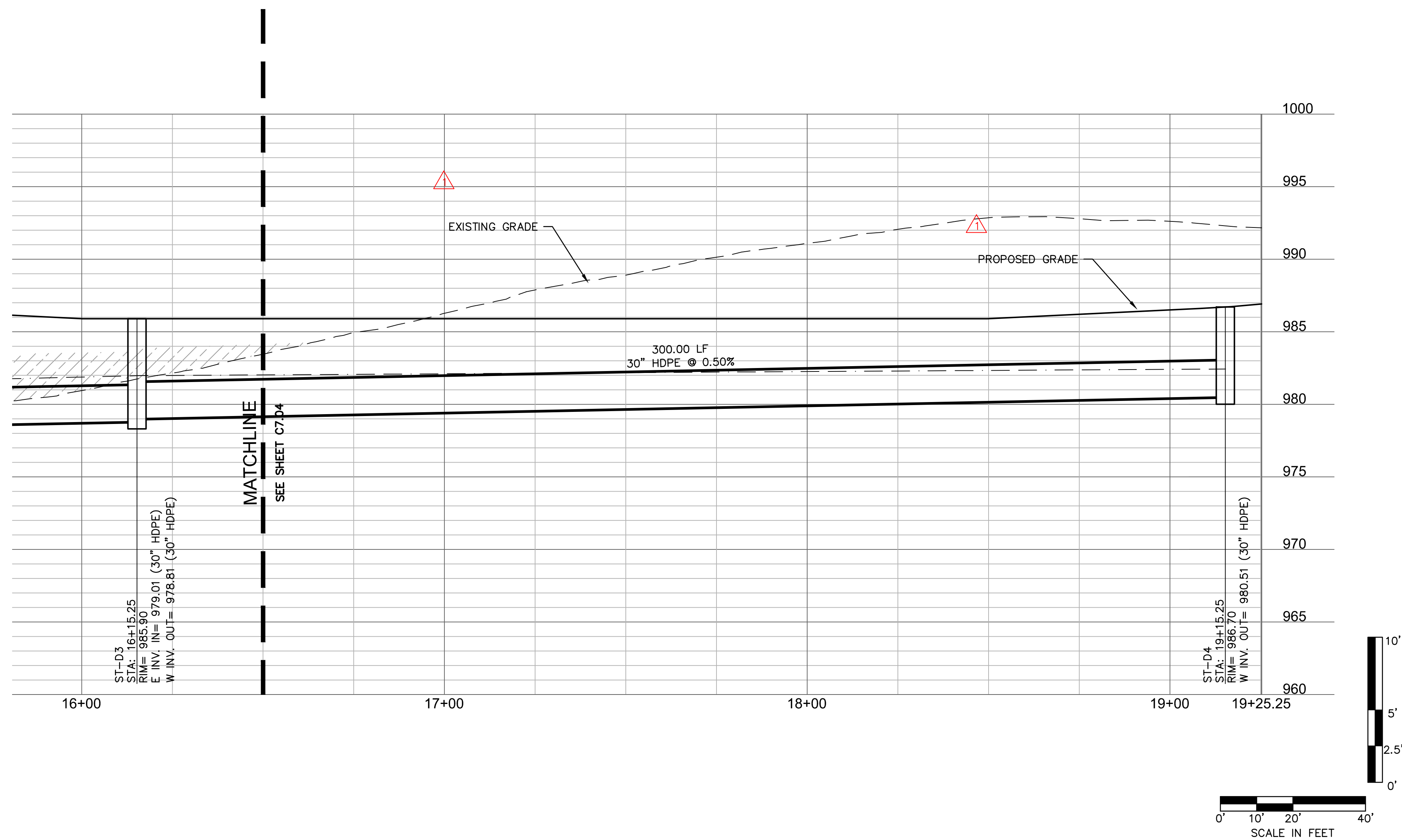
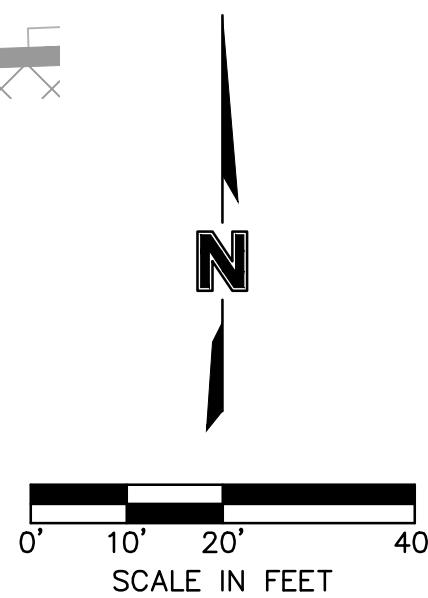
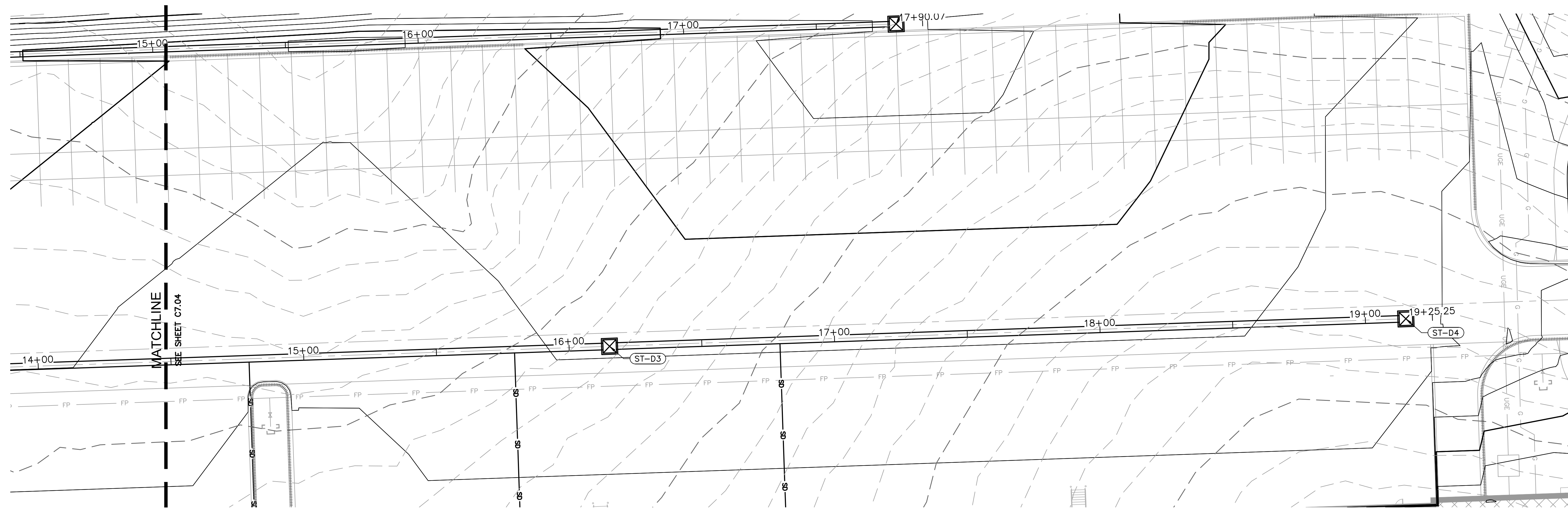
STORM PLAN & PROFILE D
PHASE I FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021














SHEET
C7.04

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no: 021-04157
drawing no: STM02_02104157.dwg
date:

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LEGEND

	PROPERTY LINE
	LOT LINES
	RIGHT-OF-WAY LINE
	SANITARY SEWER SERVICE
	FUTURE ELECTRICAL LINE
	FUTURE DOMESTIC WATER SERVICE
	FUTURE GAS SERVICE
	FUTURE TELEPHONE SERVICE
	EXISTING GRADE CONTOUR
	FINISHED GRADE CONTOUR
	STORM SEWER
	10-YEAR HGL
	100-YEAR HGL

KEYNOTE LEGEND

- XX

PROPOSED STORM STRUCTURE

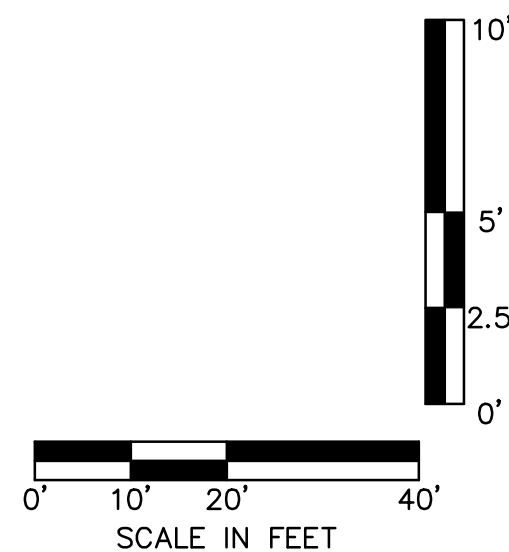
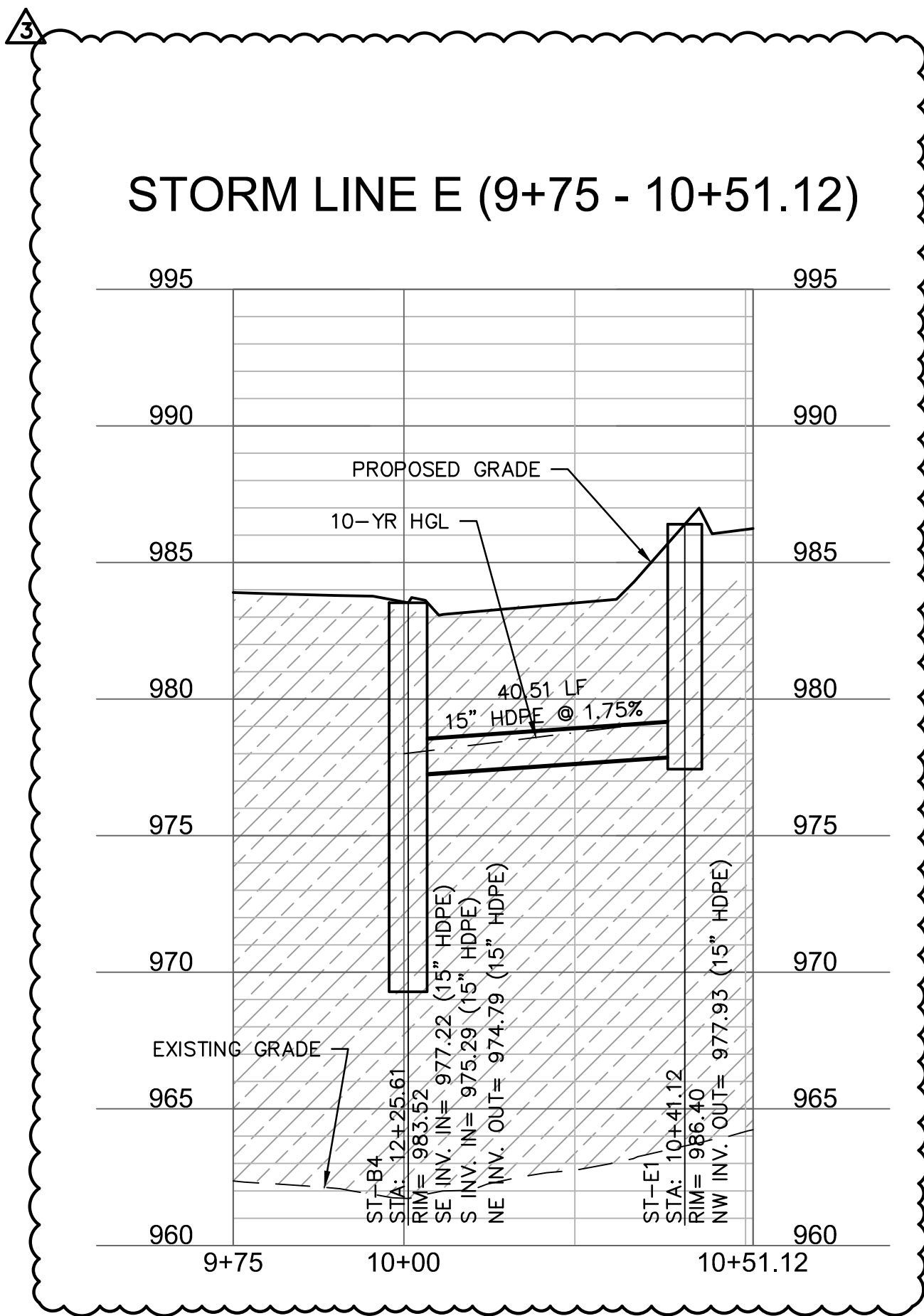
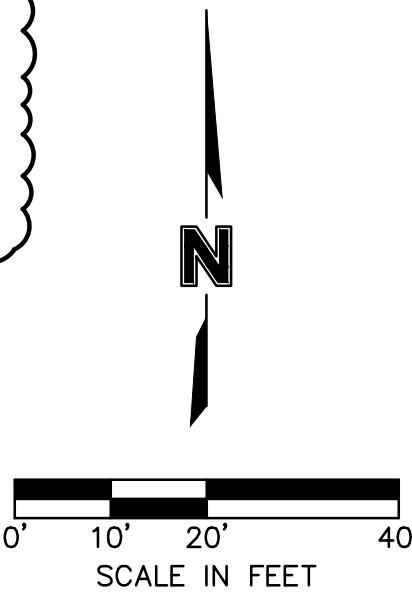
CONTRACTOR TO PROVIDE 95% COMPACTED FILL TO AN ELEVATION OF 2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

STORM STRUCTURE NOTES

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 4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
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STRUCTURES	
ID	DESCRIPTION
ST-D3	6'x6' JUNCTION BOX 16+15.25, 0.00' STORM LINE D RIM = 985.90 INV IN = 979.01 (30" HDPE) INV OUT = 978.81 (30" HDPE) N: 52906.938; E: 55414.257
ST-D4	6'x6' JUNCTION BOX 19+15.25, 0.00' STORM LINE D RIM = 986.70 INV OUT = 980.51 (30" HDPE) N: 52917.313; E: 55714.078

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LEGEND

	PROPERTY LINE
	LOT LINES
	RIGHT-OF-WAY LINE
	SANITARY SEWER SERVICE
	FUTURE ELECTRICAL LINE
	FUTURE DOMESTIC WATER SERVICE
	FUTURE GAS SERVICE
	FUTURE TELEPHONE SERVICE
	EXISTING GRADE CONTOUR
	FINISHED GRADE CONTOUR
	STORM SEWER
	10-YEAR HGL
	100-YEAR HGL

KEYNOTE LEGEND

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STORM STRUCTURE NOTES

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STRUCTURES	
ID	DESCRIPTION
ST-E1	4'x4' CURB/GRATE INLET 10+41.12, 0.00' STORM LINE E RIM= 986.40 INV OUT = 977.93 (15" HDPE) N: 52876.308; E: 54758.524

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LEGEND

	PROPERTY LINE
	LOT LINES
	RIGHT-OF-WAY LINE
	SANITARY SEWER SERVICE
	FUTURE ELECTRICAL LINE
	FUTURE DOMESTIC WATER SERVICE
	FUTURE GAS SERVICE
	FUTURE TELEPHONE SERVICE
	EXISTING GRADE CONTOUR
	FINISHED GRADE CONTOUR
	STORM SEWER
	10-YEAR HGL
	100-YEAR HGL

KEYNOTE LEGEND

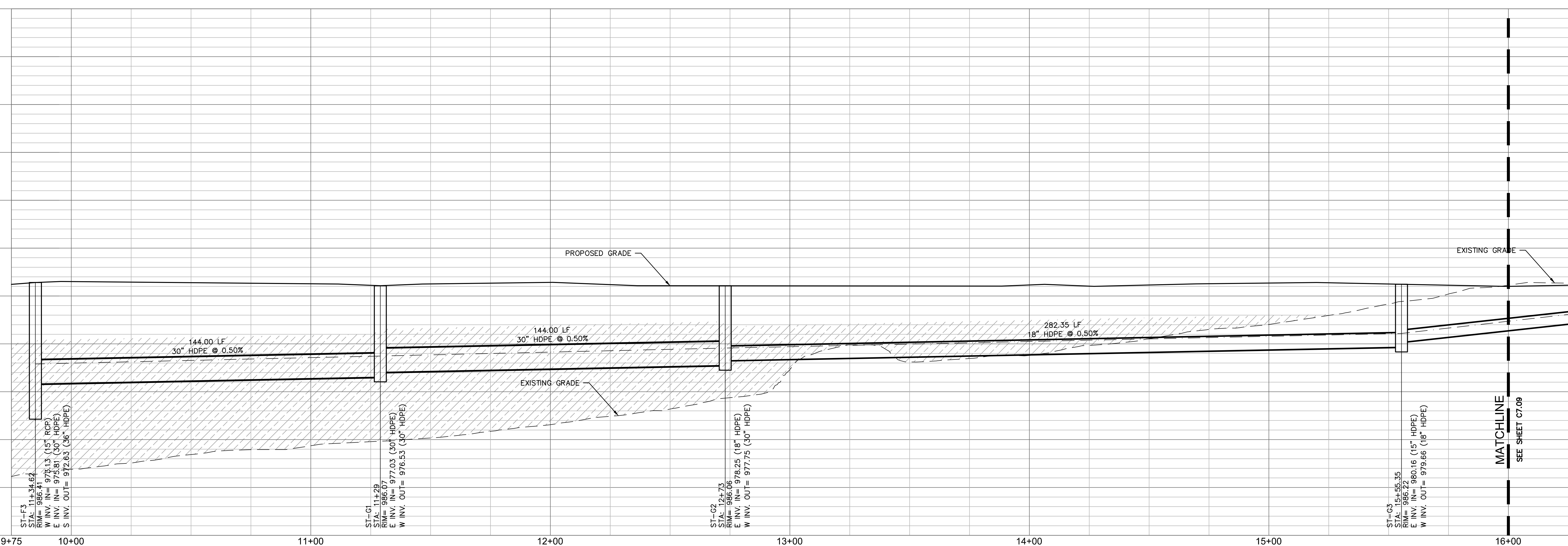
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STORM STRUCTURE NOTES

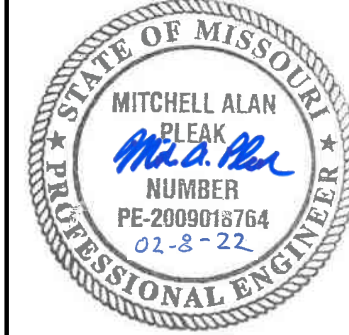
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- ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
- ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

STORM LINE G (9+75 - 19+90.23)

STRUCTURES	
ID	DESCRIPTION
ST-F3	6'x6' JUNCTION BOX 11+34.62, 0.00' STORM LINE F RIM= 986.41 INV IN = 973.13 (15" RCP) INV OUT = 975.81 (30" HDPE) N: 52262.226; E: 55000.453
ST-G1	6'x6' JUNCTION BOX 11+29, 0.00' STORM LINE G RIM= 986.07 INV IN = 977.03 (30" HDPE) INV OUT = 976.53 (30" HDPE) N: 52267.205; E: 55144.367
ST-G2	6'x6' JUNCTION BOX 12+73, 0.00' STORM LINE G RIM= 986.06 INV IN = 978.25 (18" HDPE) INV OUT = 977.75 (30" HDPE) N: 52272.185; E: 55288.281
ST-G3	6'x6' NONSETBACK CURB INLET 15+55.35, 0.00' STORM LINE G RIM= 986.22 INV IN = 980.16 (15" HDPE) INV OUT = 979.66 (18" HDPE) N: 52279.967; E: 55570.526



STORM LINE H (9+75 - 15+96.43)



REV	NO.	DATE	DESCRIPTION
1	1	12/28/2021	CITY COMMENTS
2	2	02/03/2022	CITY & ENERGY COMMENTS
3	3	02/03/2022	CITY & ENERGY COMMENTS

STORM PLAN & PROFILE G		2021
PHASE I FINAL DEVELOPMENT PLAN		
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS		2021
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET		
LEE'S SUMMIT, MISSOURI		

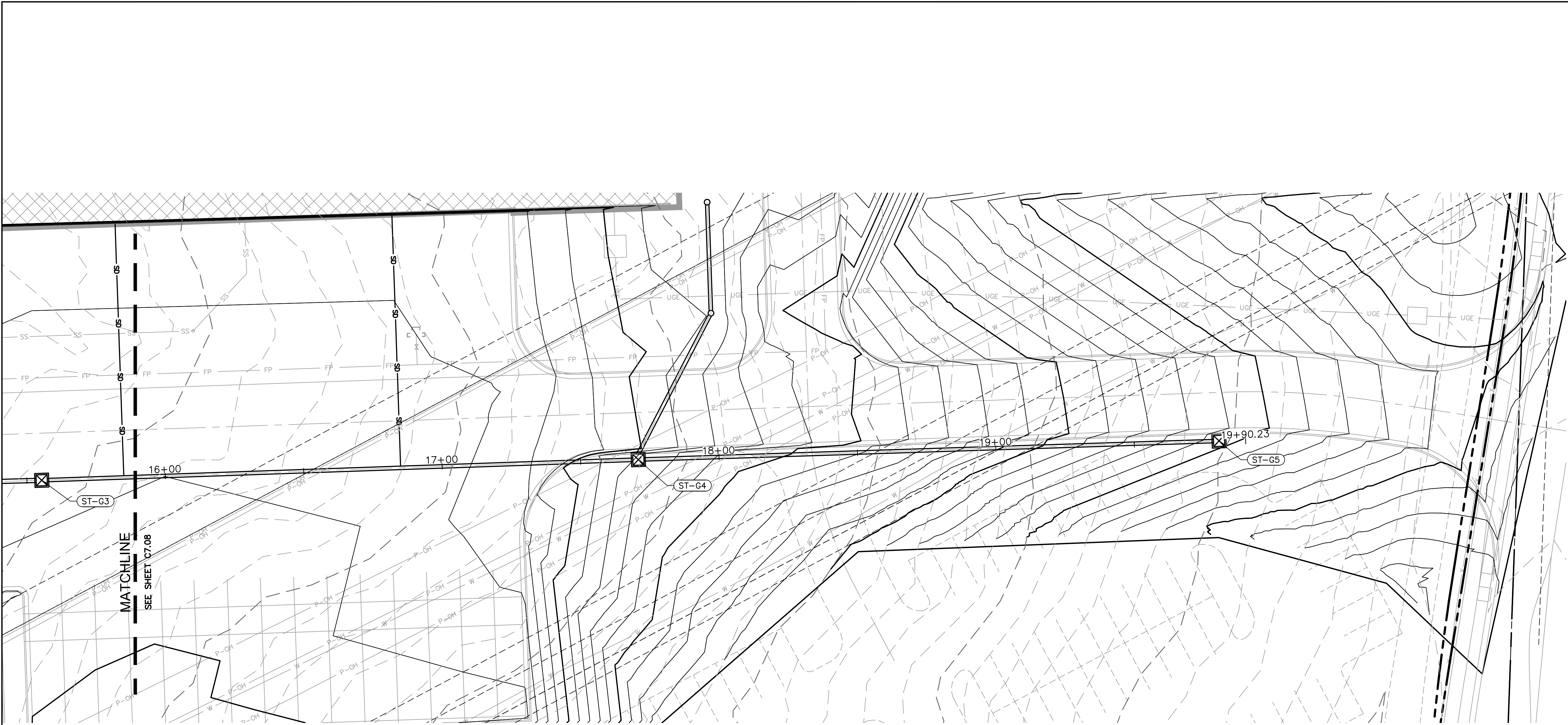
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checked by:	EN
approved by:	EN
QA/QC by:	EN
project no.:	0211041107
drawing no.:	871M02 0211041107 rev.
date:	

SHEET
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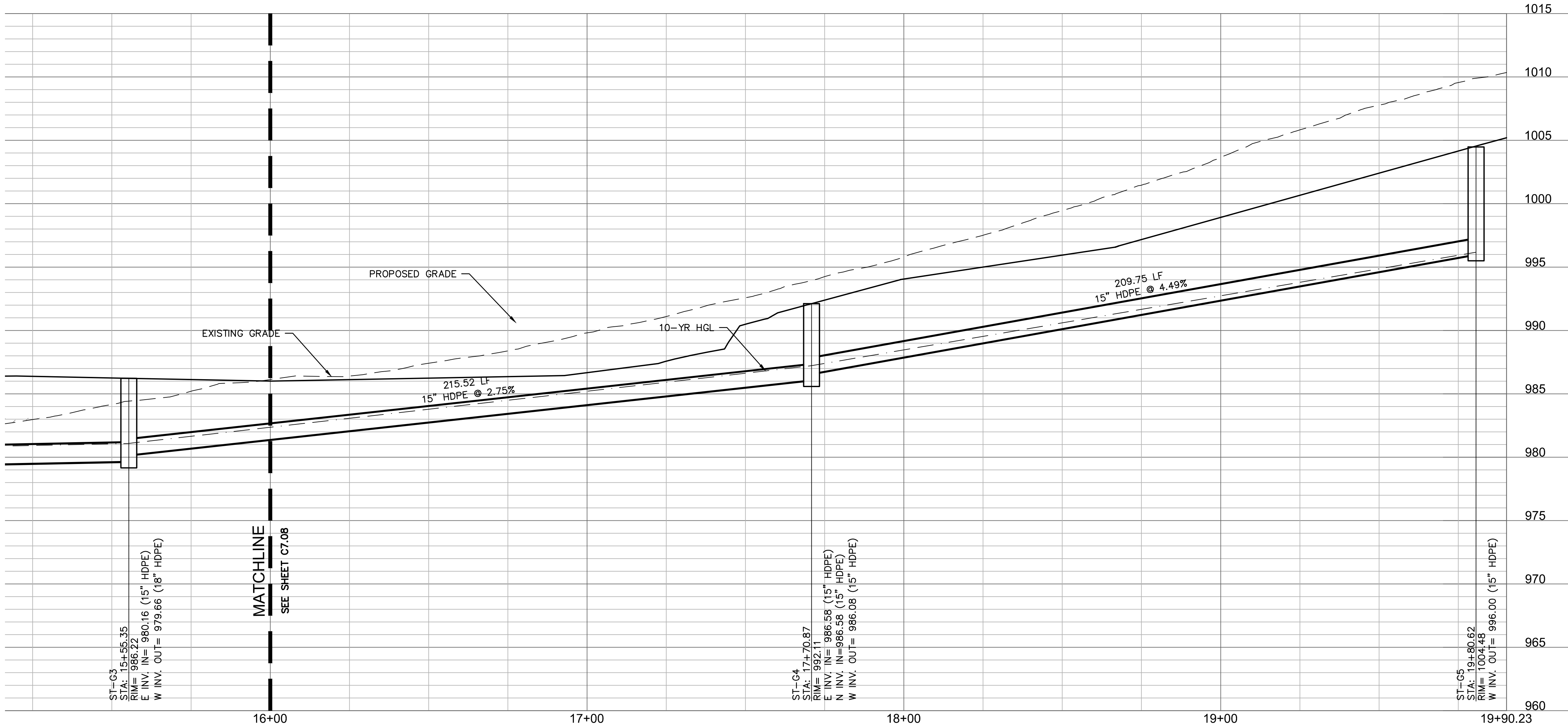
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drawing no.:	021-04157
date:	

SHEET
C7.08

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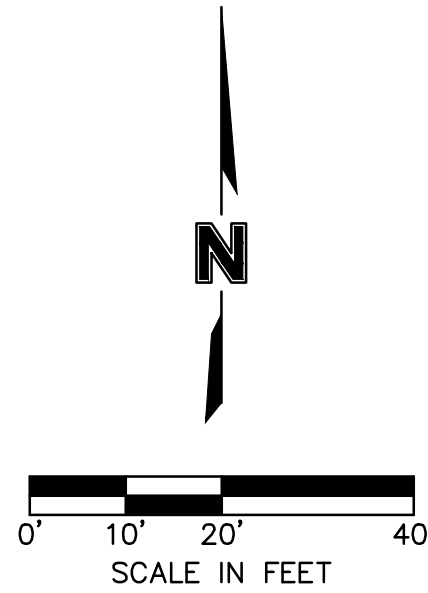


90.23)



0' 10' 20' 40'
SCALE IN FEET

0' 5' 10'
SCALE IN FEET



STRUCTURES	
ID	DESCRIPTION
ST-G3	6'X6' NONSETBACK CURB INLET 15+55.35, 0.00' STORM LINE G RIM= 986.22 INV IN = 980.16 (15" HDPE) INV OUT = 979.66 (18" HDPE) N: 52279.967; E: 55570.526
ST-G4	5'X5' NONSETBACK CURB INLET 17+70.87, 0.00' STORM LINE G RIM= 992.11 INV IN = 986.58 (15" HDPE) INV OUT = 986.08 (15" HDPE) N: 52287.420; E: 55785.916
ST-G5	4'X4' NONSETBACK CURB INLET 19+80.62, -0.35' LT STORM LINE G RIM= 1004.48 INV OUT = 996.00 (15" HDPE) N: 52294.174; E: 55995.554

- LEGEND**
- PROPERTY LINE
 - LOT LINES
 - RIGHT-OF-WAY LINE
 - SS SS
 - E E
 - W W
 - GAS
 - COMM
 - EXISTING GRADE CONTOUR
 - FINISHED GRADE CONTOUR
 - STORM SEWER
 - 10-YEAR HGL
 - 100-YEAR HGL

- KEYNOTE LEGEND**
- PROPOSED STORM STRUCTURE
 - CONTRACTOR SHALL PROVIDE 95% COMPACTED FILL TO AN ELEVATION OF 2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

STORM STRUCTURE NOTES

- CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN DEPTH.
- NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
- ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

drawn by: OLSSON
checked by: ENG
approved by: ENG
GNCV by: ENG
project no: 021-04157
drawing no: STM02_02104157.dwg
date:

SHEET
C7.09

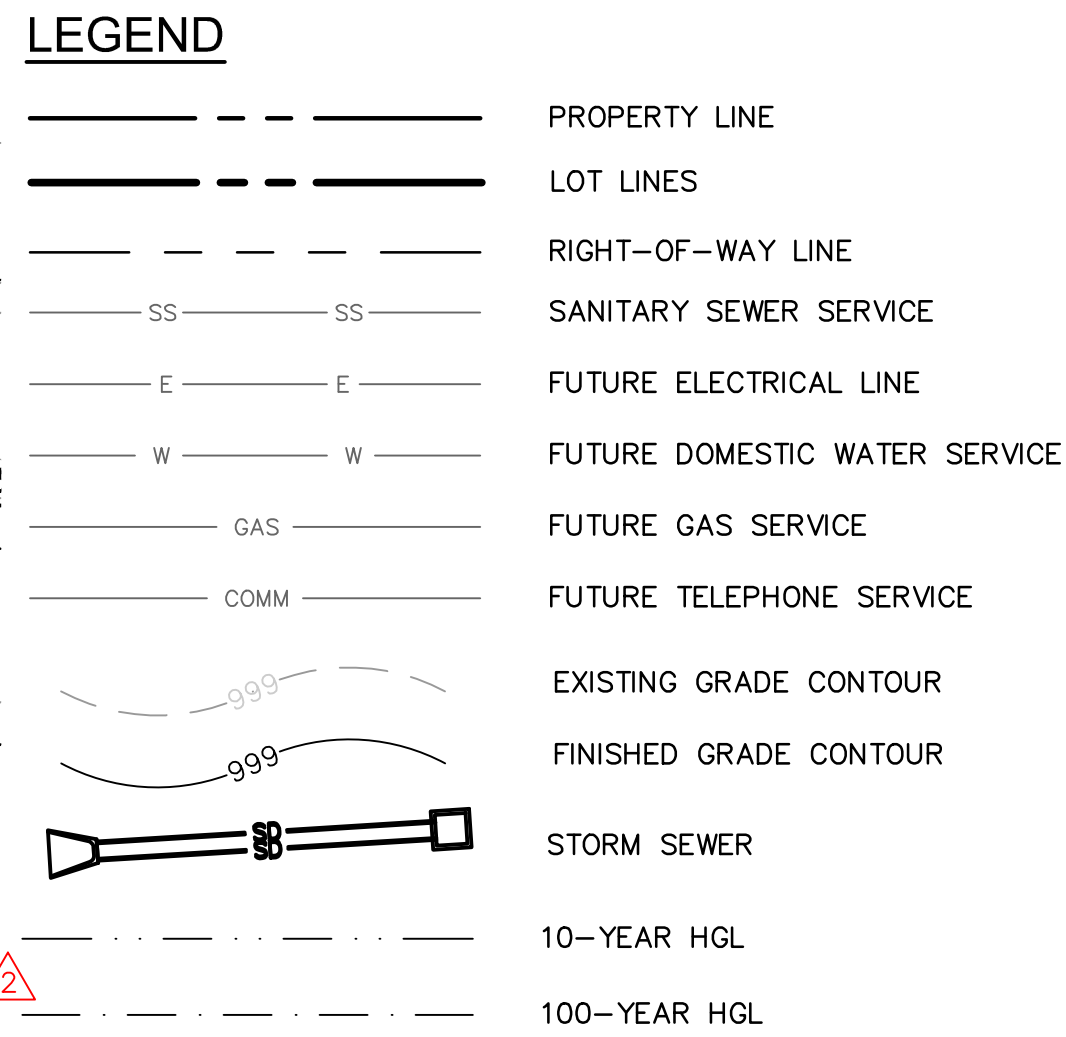
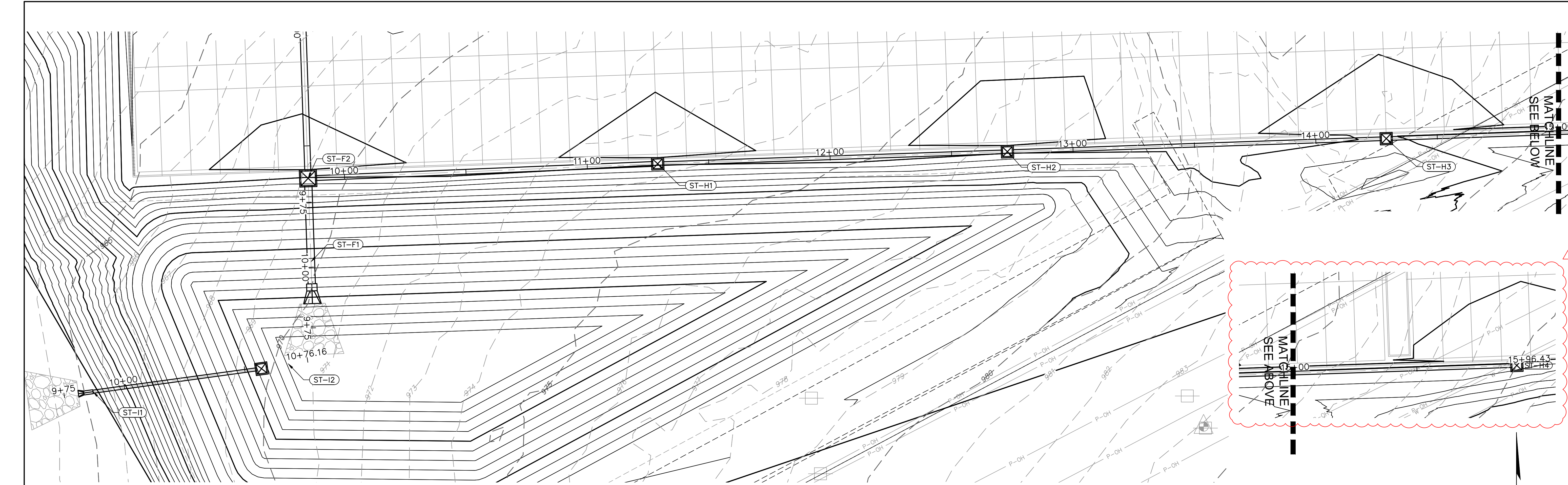
STORM PLAN & PROFILE G
PHASE I FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

REV.	NO.	DATE	REVISIONS DESCRIPTION
1	1	12/28/2021	CITY COMMENTS
2	2	01/27/2022	CITY COMMENTS
3	3	02/03/2022	CITY COMMENTS



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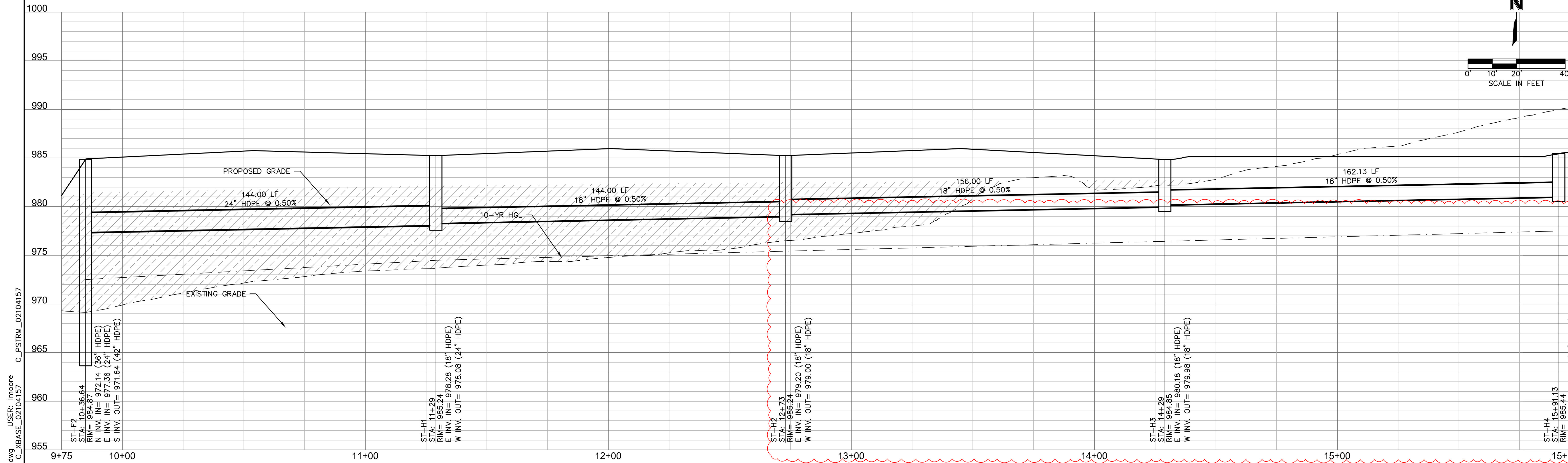
7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7756
TEL 913.381.1170
www.olsson.com



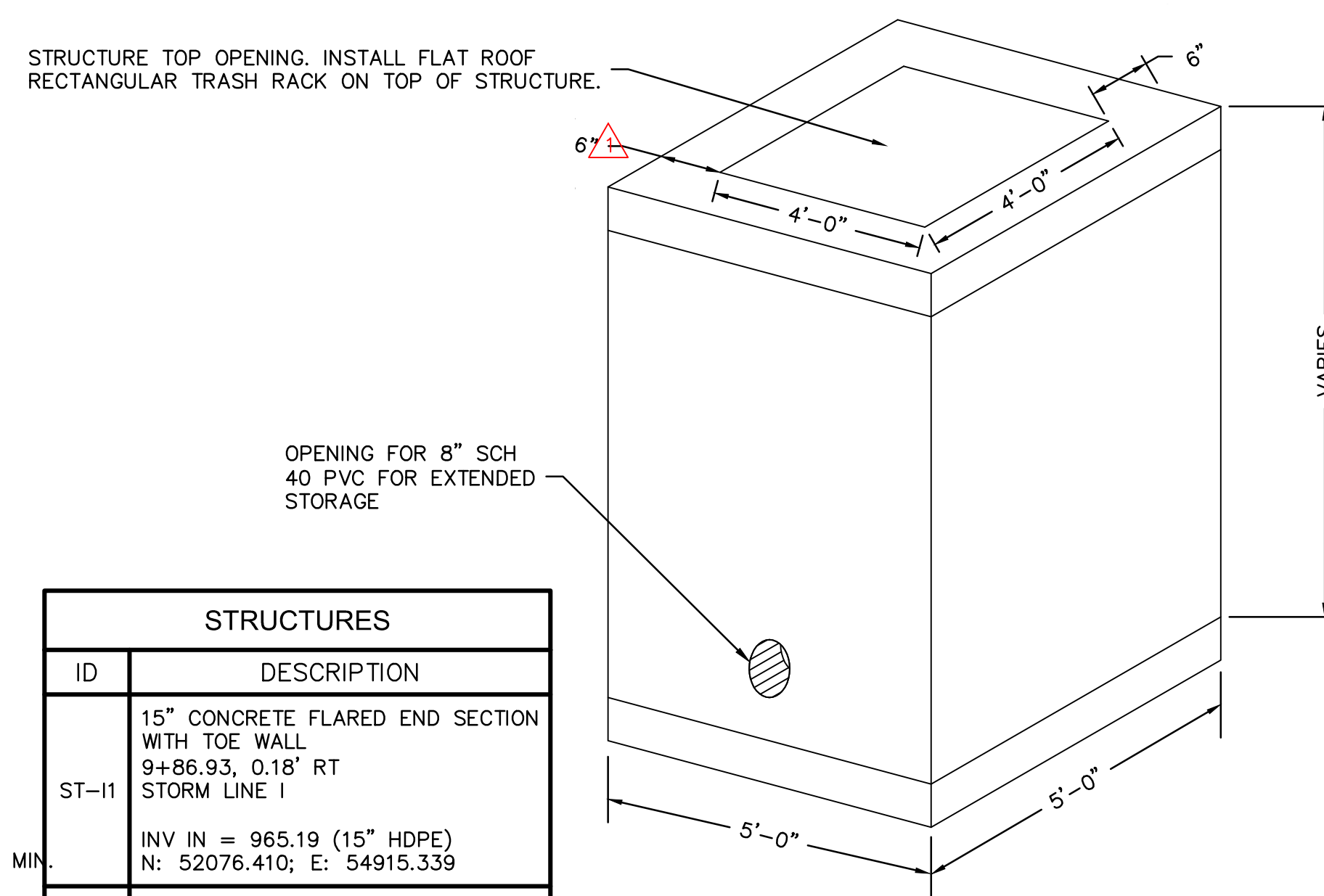
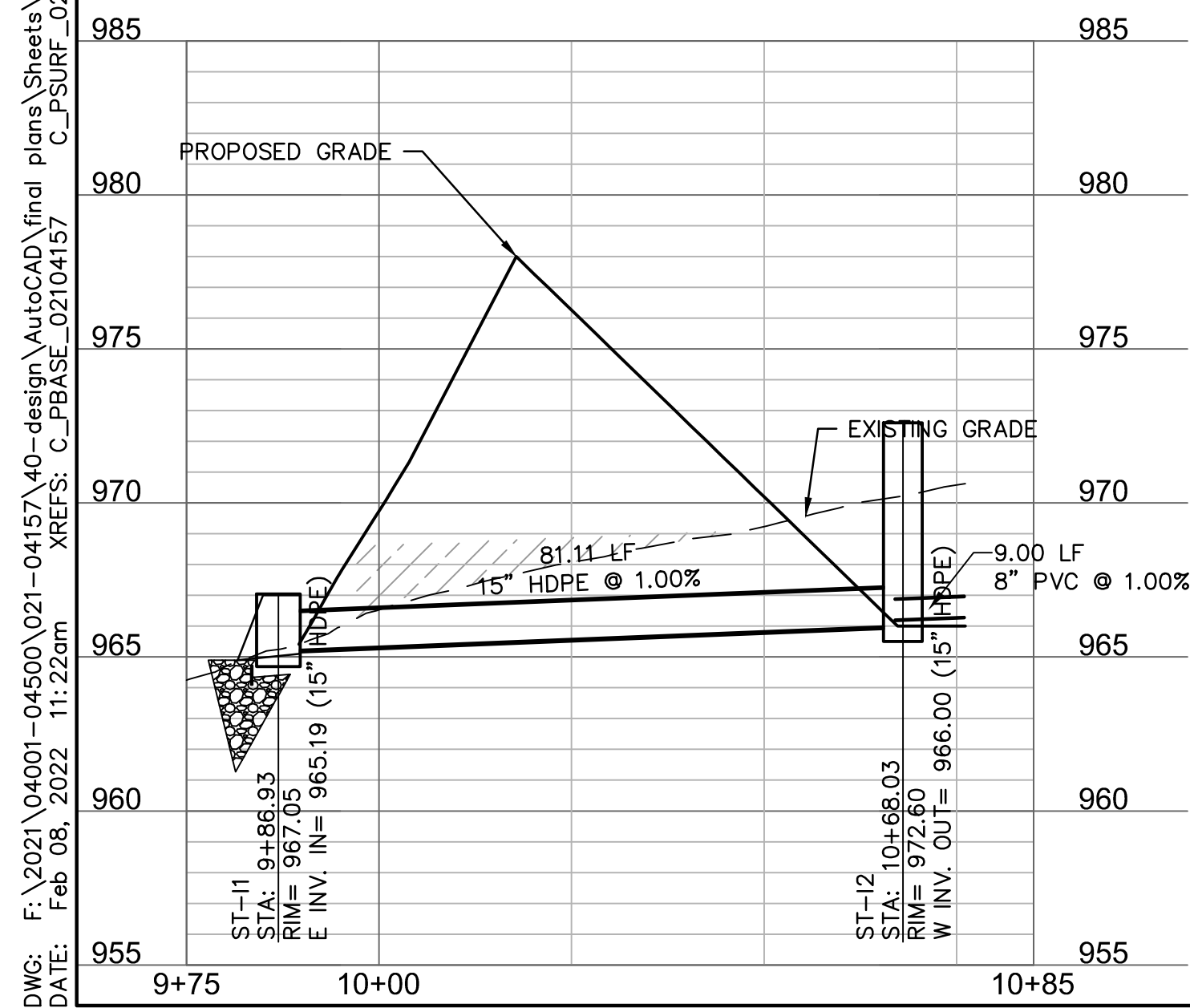
STORM STRUCTURE NOTES

- CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN DEPTH.
- NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS II, OR PRE-APPROVED EQUIVALENT.
- ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

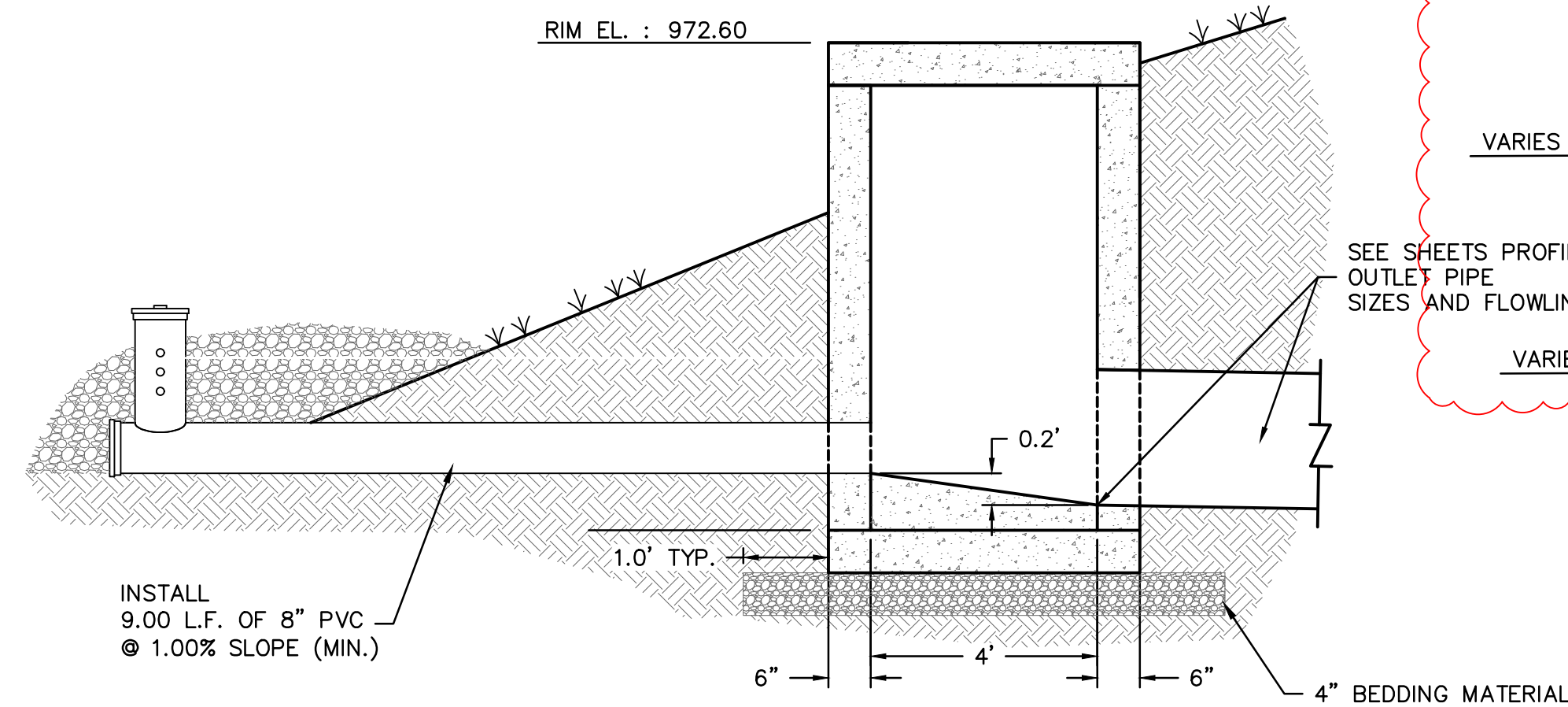
STRUCTURES	
ID	DESCRIPTION
ST-F2	7'X6" NONSETBACK CURB INLET INSERT 48"TB SNOUT WITH 90" SUMP DEPTH 10+36.64, 0.00' STORM LINE F RIM= 984.87 INV IN = 972.14 (36" HDPE) INV IN = 977.36 (24" HDPE) INV OUT = 971.64 (42" HDPE) N: 52164.302; E: 55003.842
ST-H1	6'X6" NONSETBACK CURB INLET 11+29, 0.00' STORM LINE H RIM= 985.24 INV IN = 978.28 (18" HDPE) INV OUT = 978.08 (24" HDPE) N: 52170.281; E: 55147.721
ST-H2	6'X6" NONSETBACK CURB INLET 12+73, 0.00' RT STORM LINE H RIM= 985.24 INV IN = 979.20 (18" HDPE) INV OUT = 979.00 (18" HDPE) N: 52175.260; E: 55291.635
ST-H3	6'X6" NONSETBACK CURB INLET 14+29, 0.00' RT STORM LINE H RIM= 984.85 INV IN = 980.18 (18" HDPE) INV OUT = 979.98 (18" HDPE) N: 52180.655; E: 55447.542
ST-H4	6'X6" NONSETBACK CURB INLET 15+91.13, 0.00' STORM LINE H RIM= 985.44 INV OUT = 980.99 (18" HDPE) N: 52186.262; E: 55609.570



STORM LINE I (9+75 - 10+85)



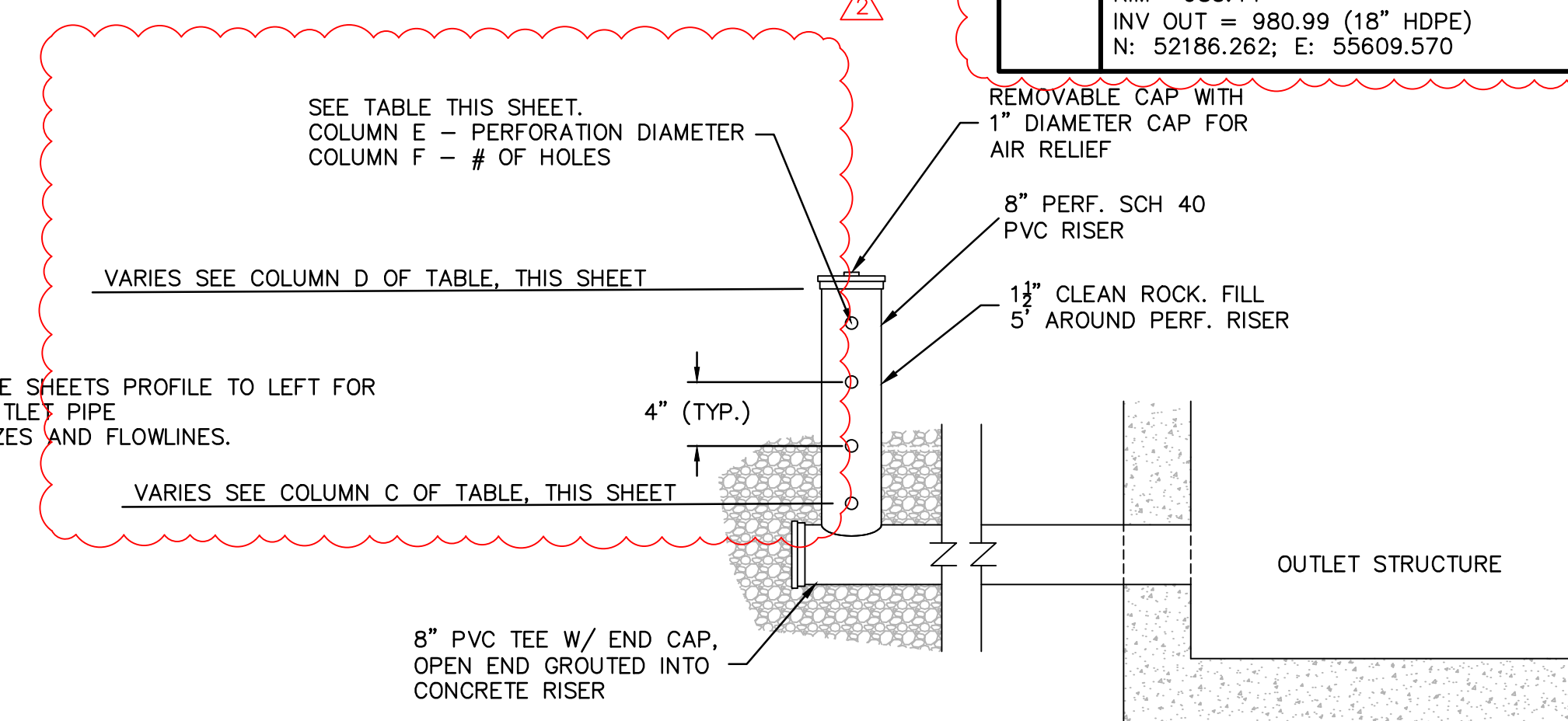
OUTLET STRUCTURE DETAIL
N.T.S.



SECTION THROUGH OUTLET STRUCTURE
N.T.S.

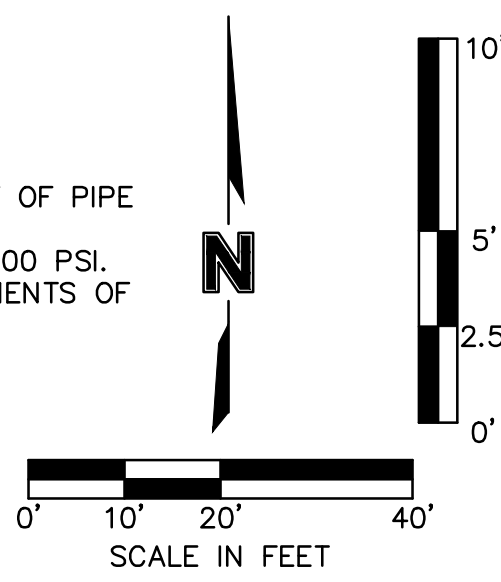
OUTLET STRUCTURE AND PERFORATED RISER INFORMATION

A	B	C	D	E	F
DETENTION FACILITY	STRUCTURE ID	BOTTOM PERFORATION ELEVATION	TOP ELEVATION OF PERFORATED PIPE	PERFORATION DIAMETER	# OF PERFORATION HOLES
C1	ST-I2	966.00	971.67	13/16" (0.8")	17



PERFORATED RISER PIPE DETAIL

- NOTES:
- BOTTOM TO BE POURED IN PLACE.
 - PIPE TO BE ON GRADE BEFORE BOTTOM IS CONSTRUCTED.
 - RAM-NEK ALL JOINTS (OR EQUAL).
 - #4 BARS @ 10" C.C. VERT. & HOR. IN WALLS & BOTTOM.
 - REINFORCING BARS SHALL BE CUT OR BENT AT PIPE OPENINGS.
 - ALL PIPES SHALL FIT FLUSH WITH INSIDE FACE OF BOX.
 - BOTTOM OF BOX TO BE FILLED WITH CONCRETE TO 6" ABOVE INVERT OF PIPE FORMING CHANNELS TOWARD OUTLET PIPE FROM ALL INLET PIPES.
 - ALL CONCRETE SHALL HAVE 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
 - ALL REINFORCING BARS TO BE DEFORMED BARS AND MEET REQUIREMENTS OF 1966 ASTM STANDARDS NO. A-615-68 MIN. GRADE 40.
 - MUST MAINTAIN 6" CLEARANCE BETWEEN THE PIPE AND WALLS FOR PRECAST BOXES.



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7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7756
TEL 913.381.1170 www.olsson.com

SCANNELL
PROPERTIES

STATE OF MISSOURI
MITCHELL ALAN SCANNELL
PROFESSIONAL ENGINEER
NUMBER PE-2008015764
EXPIRATION 8-23-25

REV.	NO.	DATE	DESCRIPTION
1	12.28.2021	CITY COMMENTS	
2	01.28.2022	CITY COMMENTS	
3	02.03.2022	CITY & ENERGY COMMENTS	

BY: [Signature]
DATE: 02/03/2022

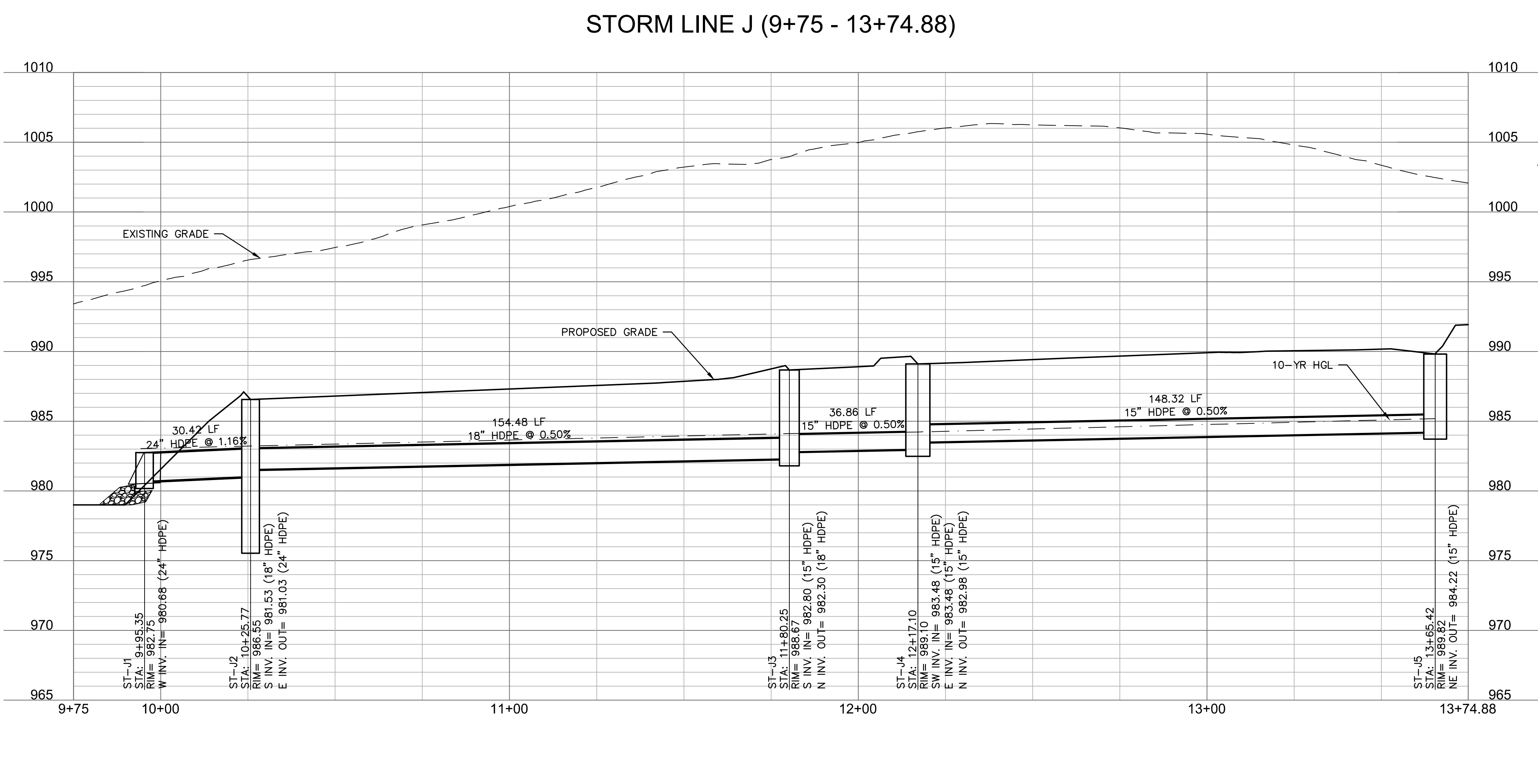
STORM PLAN & PROFILE H&I
PHASE I/FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021

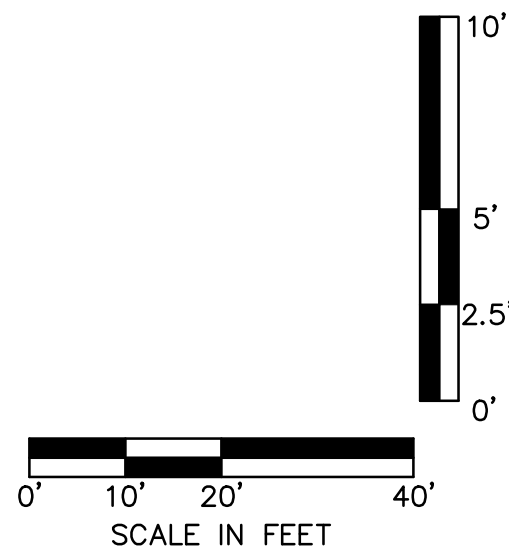
REVISIONS

drawn by: OLSSON
checked by: ENG
approved by: ENG
checked by: ENG
project no.: 021-04157
drawing no.: 02104157.dwg
date:

SHEET
C7.10



STRUCTURES		STRUCTURES	
ID	DESCRIPTION	ID	DESCRIPTION
ST-J1	24" CONCRETE FLARED END SECTION WITH TOE WALL 9+95.35, 0.00' STORM LINE J INV IN = 980.68 (24" HDPE) N: 52737.341; E: 55959.859	ST-J4A	4'X4' CURB/GRATE INLET 10+50.61, 0.00' STORM LINE J4 RIM= 991.76 INV OUT = 984.14 (15" HDPE) N: 52546.304; E: 56004.075
ST-J2	4'X4' CURB/GRATE INLET INSERT 30' SNOUT WITH 60" SUMP DEPTH 10+25.77, 0.00' STORM LINE J RIM= 986.55 INV IN = 981.53 (18" HDPE) INV OUT = 981.03 (24" HDPE) N: 52736.289; E: 55929.460	ST-J5	4'X4' CURB/GRATE INLET 13+65.42, 0.20' RT STORM LINE J RIM= 989.82 INV OUT = 984.22 (15" HDPE) N: 52408.936; E: 55880.132
ST-J3	4'X4' CURB/GRATE INLET 11+80.25, 0.00' STORM LINE J RIM= 988.67 INV IN = 982.80 (15" HDPE) INV OUT = 982.30 (18" HDPE) N: 52581.835; E: 55932.053		
ST-J4	4'X4' CURB/GRATE INLET 12+17.10, 0.00' STORM LINE J RIM= 989.10 INV IN = 983.48 (15" HDPE) INV OUT = 982.98 (15" HDPE) N: 52545.473; E: 55938.064		



LEGEND

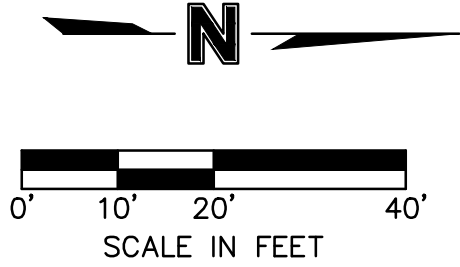
---	PROPERTY LINE
---	LOT LINES
---	RIGHT-OF-WAY LINE
SS	SANITARY SEWER SERVICE
E	FUTURE ELECTRICAL LINE
W	FUTURE DOMESTIC WATER SERVICE
GAS	FUTURE GAS SERVICE
COMM	FUTURE TELEPHONE SERVICE
---	EXISTING GRADE CONTOUR
---	FINISHED GRADE CONTOUR
---	STORM SEWER
---	10-YEAR HGL
---	100-YEAR HGL

KEYNOTE LEGEND

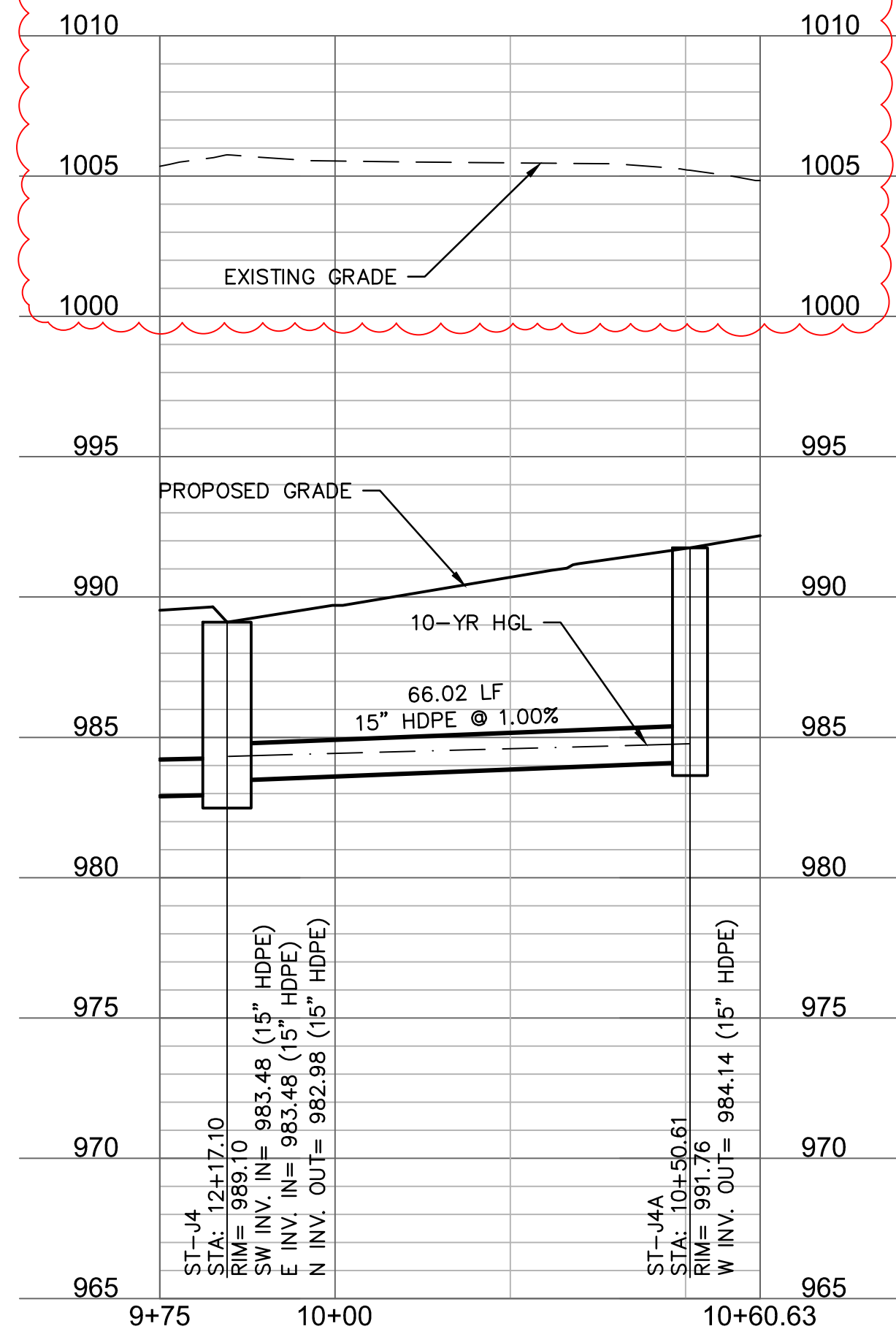
XX	PROPOSED STORM STRUCTURE
---	CONTRACTOR SHALL PROVIDE 95% COMPACTED FILL TO AN ELEVATION OF 2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

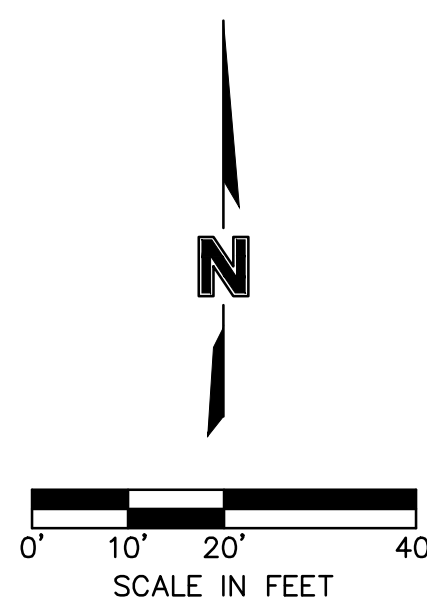
STORM STRUCTURE NOTES

- CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN DEPTH.
- NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
- ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

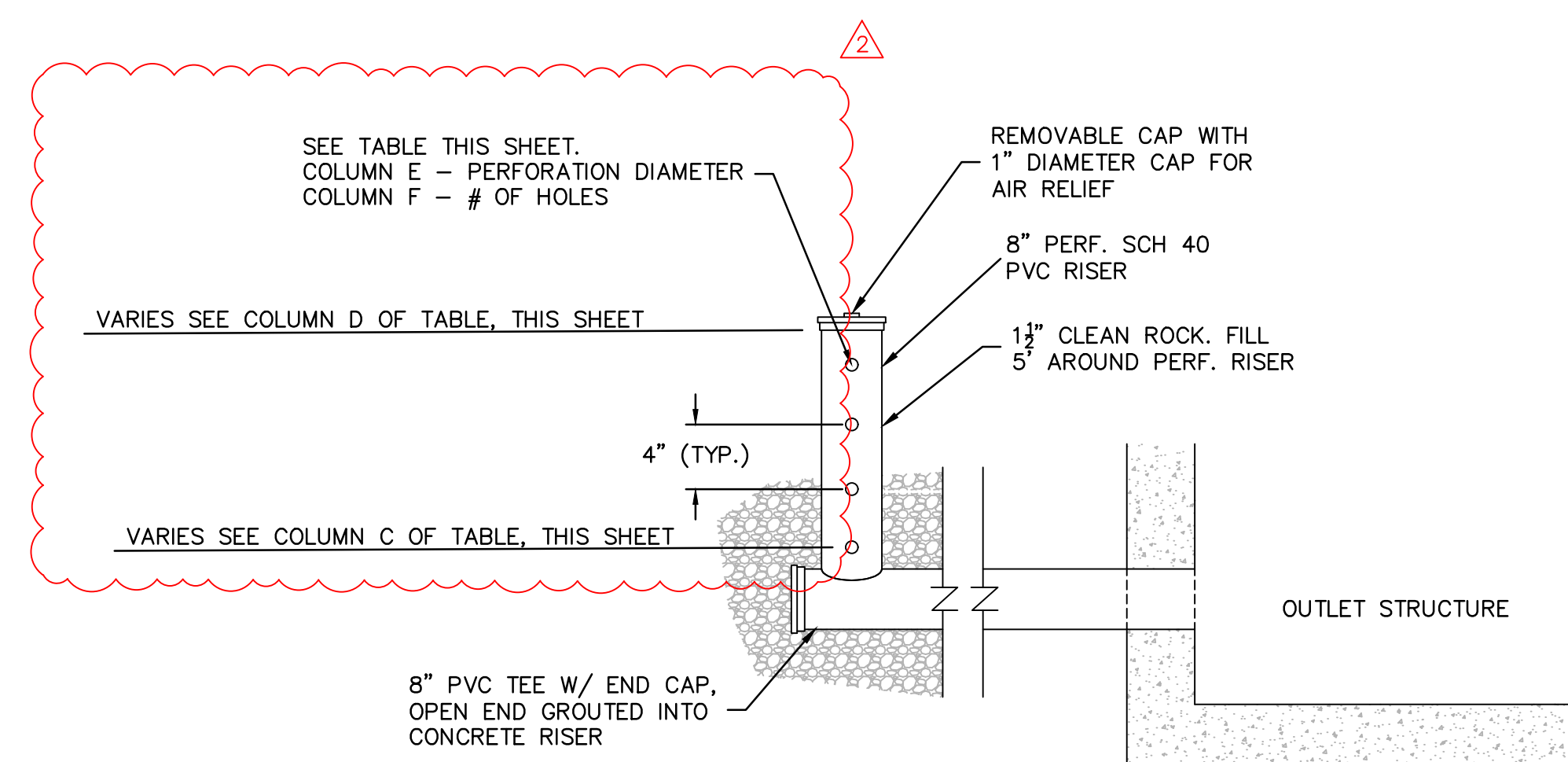


STORM LINE J4 (9+75 - 10+60.63)



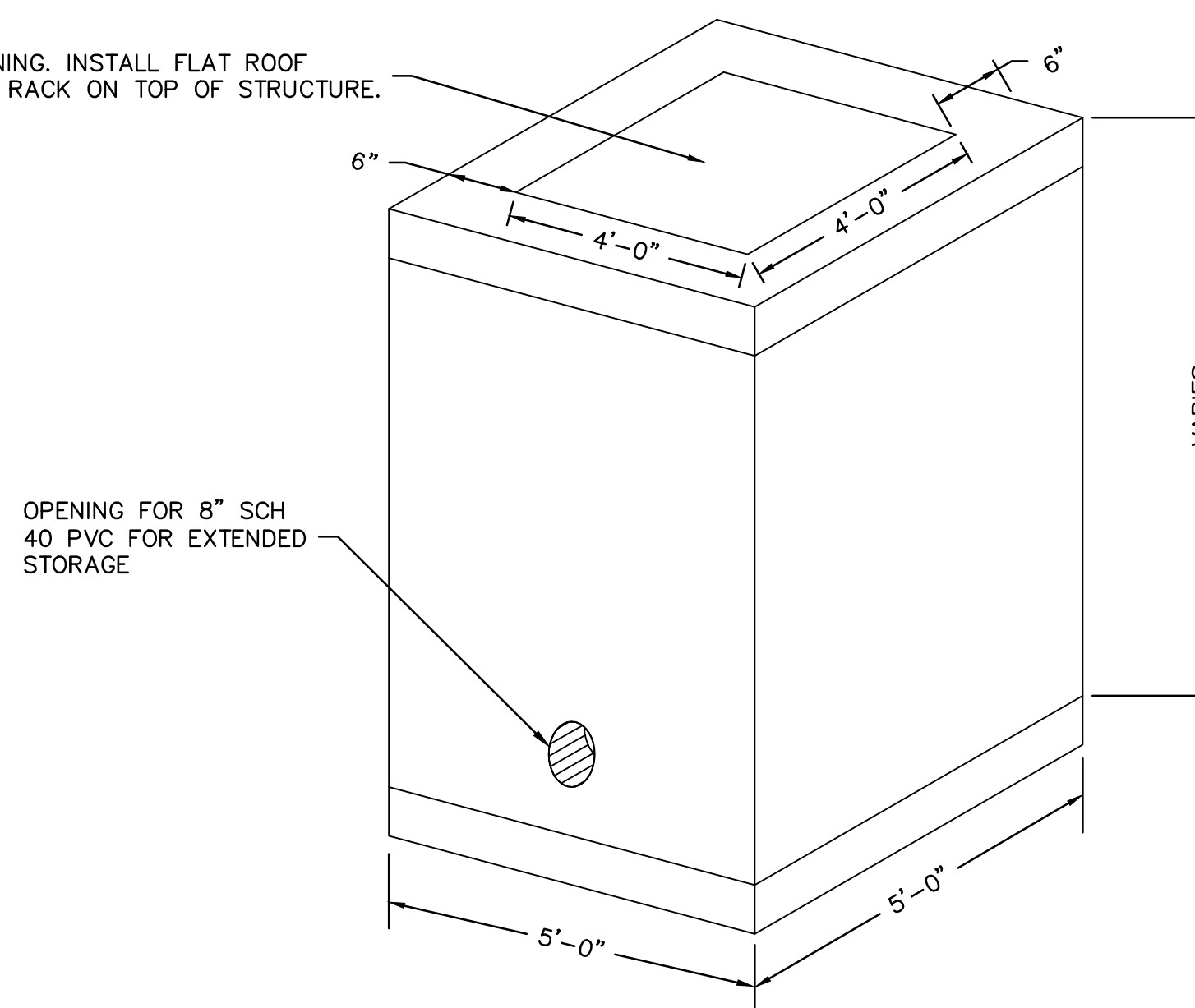
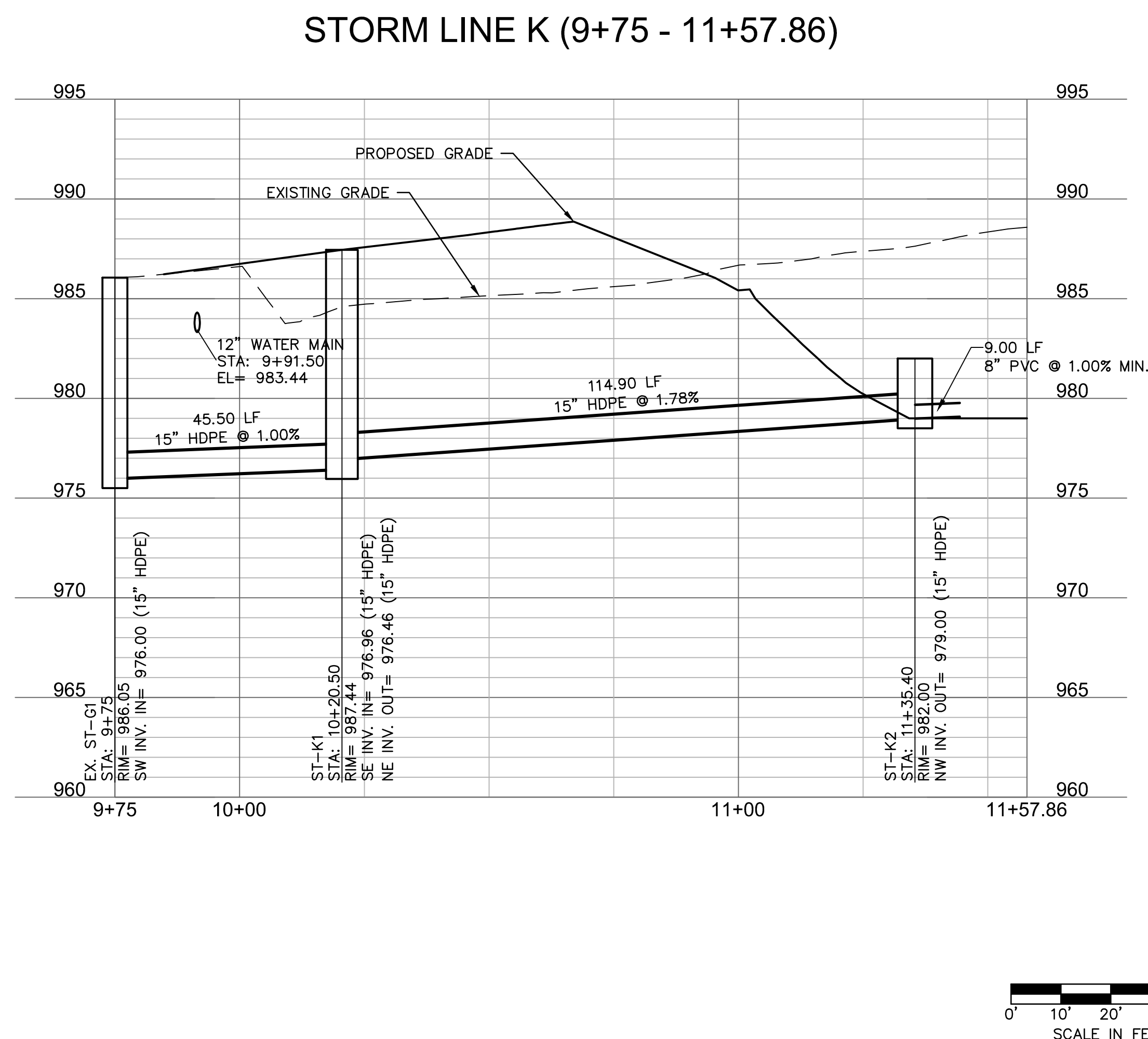


STRUCTURES	
ID	DESCRIPTION
EX. ST-G1	EXISTING MAIN STREET STORM STRUCTURE +97.5, 0.0' STORM LINE K RIM= 986.05 INV IN= 976.00 (15" HDPE) N: 52980.741; E: 55925.632
ST-K1	6' I.D. MANHOLE 10x20.50, 0.0' STORM LINE K RIM= 987.44 INV IN= 976.96 (15" HDPE) OUT= 976.46 (15" HDPE) N: 52944.576; E: 55988.019
ST-K2	4'x4' DETENTION BOX REFERENCE JUNCTION ON SHEET. 11x35.40, -0.01' LT STORM LINE K RIM= 982.00 INV OUT= 979.00 (15" HDPE) N: 52849.281; E: 55962.205



PERFORATED RISER PIPE DETAIL

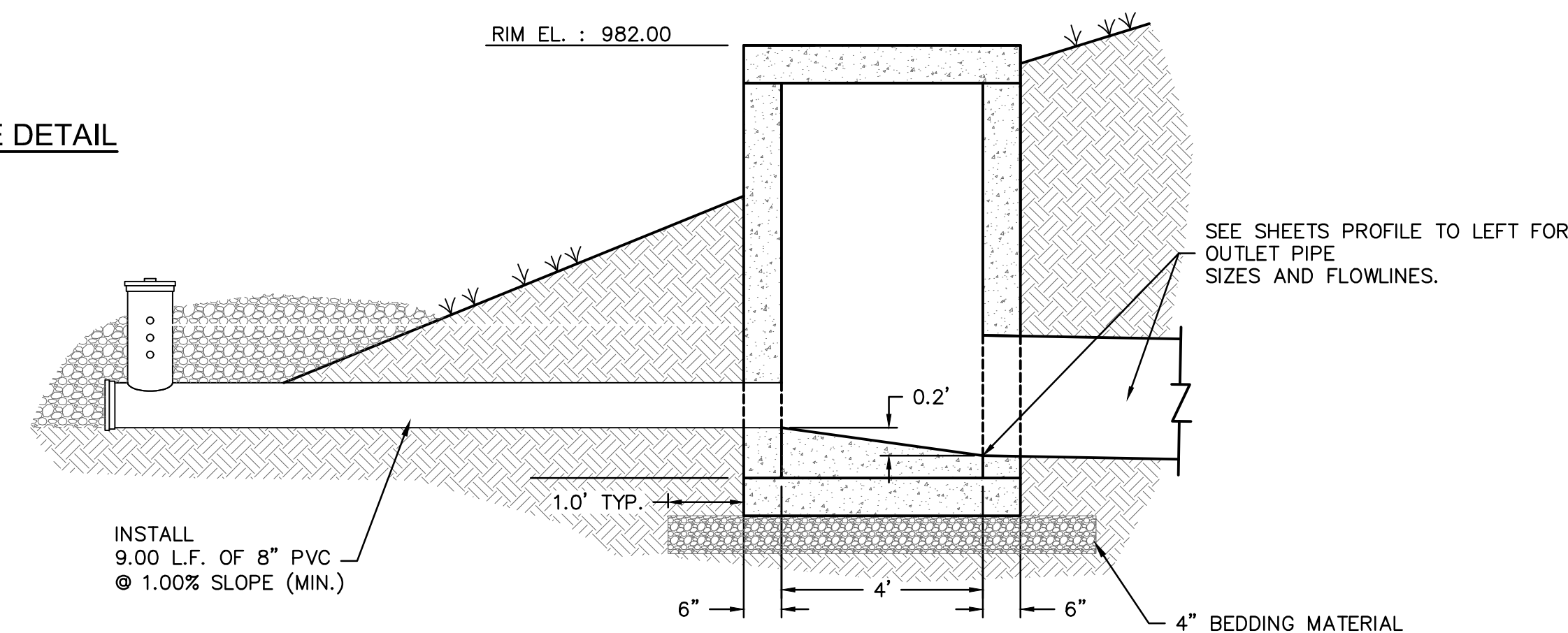
N.T.S



OUTLET STRUCTURE DETAIL

N.T.S.

- NOTES:
- #1. BOTTOM TO BE POURED IN PLACE.
 - #2. PIPE TO BE ON GRADE BEFORE BOTTOM IS CONSTRUCTED.
 - #3. RAN-NEK ALL JOINTS (OR EQUAL).
 - #4. #4-#8 @ 10" C.C. VERT. & HOR. IN WALLS & BOTTOM.
 - #5. REINFORCING BARS SHALL BE CUT OR BENT AT PIPE OPENINGS.
 - #6. PIPE SHALL FIT FLUSH WITH INSIDE OF BOX.
 - #7. BOTTOM OF BOX TO BE FILLED WITH CONCRETE TO 6" ABOVE INVERT OF PIPE FORMING CHANNELS TOWARD OUTLET PIPE FROM ALL INLET PIPES.
 - #8. ALL PIPE SHALL HAVE 8" MIN. COMPRESSIVE STRENGTH OF 4,000 PSI.
 - #9. ALL REINFORCING BARS TO BE DEFORMED BARS AND MEET REQUIREMENTS OF 1966 ASTM STANDARDS NO. A-615-68 MIN. GRADE 40.
 - #10. MUST MAINTAIN 6" CLEARANCE BETWEEN THE PIPE AND WALLS FOR PRECAST BOXES.

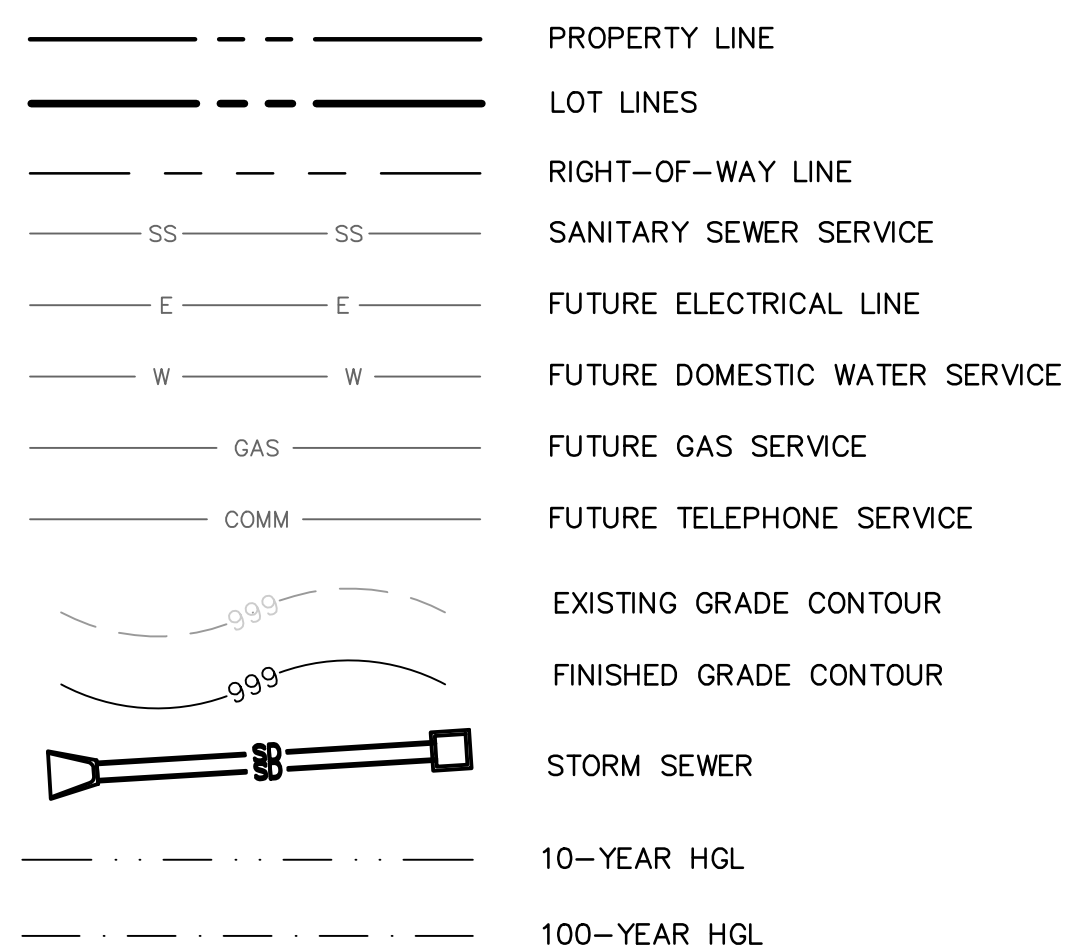


SECTION THROUGH OUTLET STRUCTURE

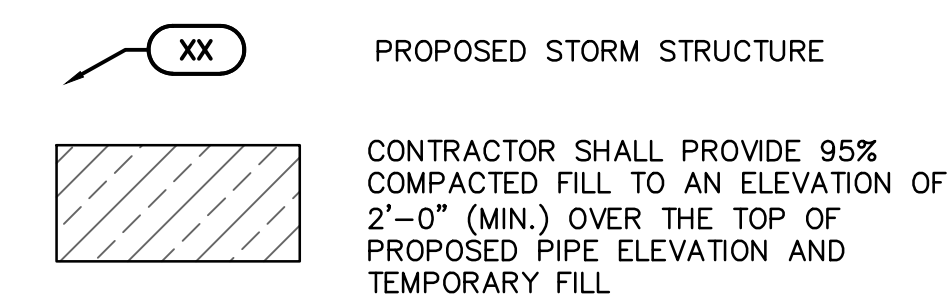
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OUTLET STRUCTURE AND PERFORATED RISER INFORMATION					
A	B	C	D	E	F
DETENTION FACILITY	STRUCTURE ID	BOTTOM PERFORATION ELEVATION	TOP ELEVATION OF PERFORATED PIPE	PERFORATION DIAMETER	# OF PERFORATION HOLES
B5	ST-K2	979.00	980.00	1-5/8" (1.6")	3

LEGEND



KEYNOTE LEGEND



STORM STRUCTURE NOTES

1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN DEPTH.
2. NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
3. SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

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SCANNELL
PROPERTIES



BY

REV. NO.	DATE	REVISIONS DESCRIPTION
1	12.04.2021	CITY COMMENTS
2	01.07.2022	CITY COMMENTS #2 AND OWNER CHANGES
3	02.03.2022	CITY & FIRST COMMENTS

REVISIONS

2021

STORM PLAN & PROFILE K
PHASE I FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
JMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing 02-STM02 02104157.dwg
date:

SHEET
C7.12

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10 YEAR STORM CALCULATIONS

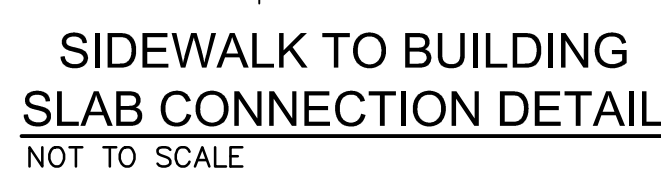
STORM SEWER PIPE AND STRUCTURE TABLE

TITLE: Lee's Summit Logistics JOB # 021-04157 DESIGN CONDITIONS: PRIVATE - 10 YEAR STORM EVENT																																
STRUCTURES		RUNOFF CALCULATIONS							PIPE DESIGN																							
FROM	TO	DIRECT AREA (ACRES)	TOTAL AREA (ACRES)	C	KC (K<1.0)	Tc (MIN)	FLOW TIME (MIN)	INTENSITY (IN/HR)	DESIGN Q (CFS)	DESCRIPTION	PIPE LENGTH (L.F.)	PIPE SLOPE (%)	PIPE DIA (IN)	Q FULL (CFS)	PIPE AREA (SQ.FT.)	V FULL (F/S)	DESIGN V (F/S)	Hw/D	MH TOP ELEVATION	UPSTREAM FLOWLINE	DOWNSTREAM FLOWLINE	DOWNSTREAM WATER ELEVATION	FRICTION HEAD (H.F)	ENTRY LOSS COEFFICIENT (K)	ACTUAL ENTRY LOSS (K)	ENTRY LOSS (H.M)	h f + h m (FT)	HW, INLET CONTROL	HW, OUTLET CONTROL	HYDRAULIC GRADE ELEV.	HYDRAULIC GRADE (MAX)	Comments
B8	B7	0.26	0.90	0.90	5.0	0.46	7.35	1.72					15	8.57	1.23	6.98	5.46	0.73	989.21	983.67	981.05	981.69	0.11	0.40	1.00	0.46	0.57	984.59	983.67	984.59	987.71	
B7	B6	0.15	0.90	0.90	5.0	0.46	7.35	0.99			149.63	1.75	15	8.57	1.23	6.98	6.16	0.82	986.99	980.55	979.91	980.72	0.06	0.40	0.40	0.24	0.30	981.57	981.01	981.57	985.49	
B6	B5	0.25	0.90	0.90	5.0	0.13	7.18	4.27	1.85		36.71	1.75	15	8.57	1.23	6.98	8.24	1.06	986.66	979.41	977.69	978.66	0.28	0.40	0.40	0.42	0.70	980.73	979.41	980.73	985.16	
B5	B4	0.00	0.90	0.90	5.0	0.46	7.35	0.00			62.45	2.75	15	10.74	1.23	8.75	8.24	1.06	981.96	977.19	975.29	976.33	0.47	0.40	0.40	0.30	0.78	978.50	977.19	978.50	980.46	
B4	B3	0.24	0.90	0.90	5.0	0.46	7.35	1.59			108.57	1.75	15	8.57	1.23	6.98	6.95	1.05	983.51	974.79	973.02	974.25	0.81	0.40	0.40	0.35	1.15	976.50	975.40	976.50	982.01	
B3	B2	0.11	0.90	0.90	5.0	0.23	7.07	5.73	0.73		101.11	1.75	15	8.57	1.23	6.98	7.47	1.36	982.70	972.52	965.51	968.28	3.50	0.40	0.40	3.05	6.55	982.46	974.83	982.46	981.20	
B2	B1	0.32	0.90	0.90	5.0	0.46	7.35	2.12			116.86	6.00	30	100.74	4.91	20.52	22.17	3.98	973.04	965.08	964.67	967.33	0.26	0.40	0.40	1.19	1.46	971.05	968.79	971.05	971.54	
C3	C2	1.84	0.90	0.90	5.0	1.25	7.35	12.18			23.41	1.75	36	88.47	7.07	12.52	13.87	1.99	983.89	978.76	976.66	976.66	1.23	0.40	1.00	0.49	1.72	980.70	978.76	980.70	982.39	
C2	C1	1.80	0.90	0.90	5.0	0.76	6.99	11.91			420.00	0.50	24	16.04	3.14	5.11	5.61	0.97	984.09	976.46	974.96	974.96	0.94	0.40	1.00	0.67	1.60	979.00	976.46	979.00	982.59	
C1	B3	0.14	0.90	0.90	7.0	0.12	6.78	62.24			299.07	0.50	30	29.08	4.91	5.92	6.55	1.02	986.25	974.46	973.70	973.70	0.67	0.40	0.40	0.71	1.38	979.56	974.46	979.56	984.75	
D4	D3	2.43	0.90	0.90	5.0	0.82	7.35	16.08			75.97	1.00	36	66.88	7.07	9.46	10.72	1.70	982.7	980.51	979.01	981.02	0.46	0.40	1.00	0.57	1.04	982.61	982.05	982.61	985.20	
D3	D2	2.02	0.90	0.90	5.8	0.74	7.11	28.46			300.00	0.50	30	29.08	4.91	5.92	6.74	1.21	985.90	978.81	977.31	980.23	1.46	0.40	0.40	0.28	1.74	981.82	981.96	981.96	984.40	
D2	D1	1.72	0.90	0.90	6.6	0.66	6.90	38.31			300.00	0.50	36	47.29	7.07	6.69	7.43	1.06	985.98	977.11	975.63	978.69	0.98	0.40	0.40	0.34	1.33	980.29	980.02	980.29	984.48	
D1	C1	0.00	0.90	0.90	7.2	0.07	6.72	36.84			296.19	0.50	36	47.29	7.07	6.69	7.45	1.07	987.10	975.13	974.96	977.67	0.11	0.40	0.40	0.34	0.46	978.34	978.13	978.34	985.60	
E1	D1	0.25	0.90	0.90	5.0	0.40	6.70	1.51			125.00	1.75	15	8.57	1.23	6.98	5.25	0.72	988.44	983.24	981.05	982.04	0.07	0.40	1.00	0.43	0.50	984.14	983.24	984.14	986.94	
F7	F6	0.04	0.90	0.90	5.0	0.23	6.60	0.24			34.92	1.00	15	6.48	1.23	5.28	2.53	0.67	989.56	984.00	983.65	983.91	0.00	0.40	1.00	0.10	0.10	984.84	984.01	984.84	988.06	
F6	F5	0.23	0.90	0.90	5.0	0.40	6.55	1.59			104.17	1.00	15	6.48	1.23	5.28	4.37	0.72	989.33	983.15	982.11	982.78	0.06	0.40	1.00	0.30	0.36	984.05	983.15	984.05	987.83	
F5	F4	0.00	0.90	0.90	8.3	0.22	6.45	1.57			57.81	1.00	15	6.48	1.23	5.28	4.34	0.72	988.89	981.61	981.03	981.70	0.03	0.40	0.40	0.12	0.15	982.51	981.85	982.51	987.39	
F4	F3	0.23	0.90	0.90	8.6	0.32	6.40	2.88			97.95	1.00	15	6.48	1.23	5.28	5.12	0.85	987.32	980.53	979.55	980.47	0.20	0.40	1.00	0.41	0.60	981.59	981.08	981.59	985.82	
F3	F2	1.06	0.90	0.90	8.9	0.18	6.32	32.56			97.87	1.00	30	41.13	4.91	8.38	9.27	1.37	986.41	975.31	974.33	976.98	0.62	0.40	0.40	0.53	1.16	978.74	978.14	978.74	984.91	
F2	F1	0.65	0.90	0.90	9.0	0.06	6.28	47.00			34.50	1.00	36	66.88	7.07	9.46	10.23	1.26	984.87	973.83	973.48	975.97	0.17	0.40	0.40	0.65	0.82	977.60	976.79	977.60	983.37	
G5	G4	0.24	0.90	0.90	9.1	0.49	6.27	1.35			209.36	4.50	15	13.74	1.23	11.20	7.15	0.71	1004.48	996.00	986.58	987.07	0.09	0.40	1.00	0.79	0.89	996.60	996.00	996.60	1002.98	
G4	G3	0.32	0.90	0.90	5.0	1.02	6.16	3.11			215.13	2.75	15	10.74	1.23	8.75	7.56	0.87	993.22	986.08	980.16	980.98	0.50	0.40	1.00	0.89	1.39	987.17	986.08	987.17	991.72	
G3	G2	0.46	0.90	0.90	10.1	1.07	6.06	5.57			282.75	0.50	18	7.45	1.77	4.21	4.61	0.93	987.20	979.66	978.25	979.67	0.80	0.40	1.00	0.33	1.13	981.06	980.81	981.06	985.70	
G2	G1	2.08	0.90	0.90	11.1	0.39	5.86	16.34			144.00	0.50	30	29.08	4.91	5.92	6.08	0.85	986.05	977.75	977.03	979.05	0.23	0.40	1.00	0.57	0.81	979.87	979.86	979.87	984.55	
G1	F3	1.06	0.90	0.90	11.5	0.37	5.78	21.64			144.00	0.50	30	29.08	4.91	5.92	6.48	0.98	986.07	976.53	975.81	978.05	0.40	0.40	0.40	0.26	0.66	978.98	978.72	978.98	984.57	
H2	H1	1.33	0.90	0.90	11.9	0.50	5.71	6.83			144.00	0.50	18	7.45	1.77	4.21	4.77	1.07	985.24	979.00	978.28	979.92	0.62	0.40	1.00	0.35	0.97	980.60	980.89	980.60	983.74	
H1	F2	0.61	0.90	0.90	12.4	0.45	5.62	9.81			144.00	0.50	24	16.04	3.14	5.11	5.35	0.86	985.24	978.08	977.36	979.13	0.27	0.40	0.40	0.18	0.45	979.81	979.58	979.81	983.74	
J5	J4	0.44	0.90	0.90	12.8	0.67	5.54	2.19			147.41	0.50	15	4.58	1.23	3.73	3.69	0.77	989.82	984.22	983.48	984.39	0.17	0.40	1.00	0.21	0.38	985.18	984.77	985.18	988.32	
J4	J3	0.23	0.90	0.90	5.0	0.15	5.43	4.06			36.86	0.50	15	4.58	1.23	3.73	4.21	1.02	989.10	982.98	982.80	984.12	0.15	0.40	0.40	0.11	0.26	984.25	984.38	984.25	987.60	
J3	J2	0.60	0.90	0.90	13.6	0.54	5.40	6.95			154.84	0.50	18	7.45	1.77	4.21	4.78	1.08	986.67	982.30	981.53	983.19	0.68	0.40	1.00	0.35	1.04	983.92	984.23	983.92	987.17	
J2	J1	0.95	0.90	0.90	14.2	0.37	5.31	11.37			30.82	1.15	24	24.33	3.14	7.74	7.60	0.93	986.55	981.03	980.68	982.28	0.08	0.40	1.00	0.90	0.98	982.89	983.25	982.89	985.05	
J4A	J4	0.16	0.90	0.90	14.2	0.31	5.30	0.76			66.02	1.00	15	6.48	1.23	5.28	3.54	0.68	991.75	984.14	983.48	984.41	0.01	0.40	1.00	0.19	0.20	984.99	984.61	984.99	990.25	

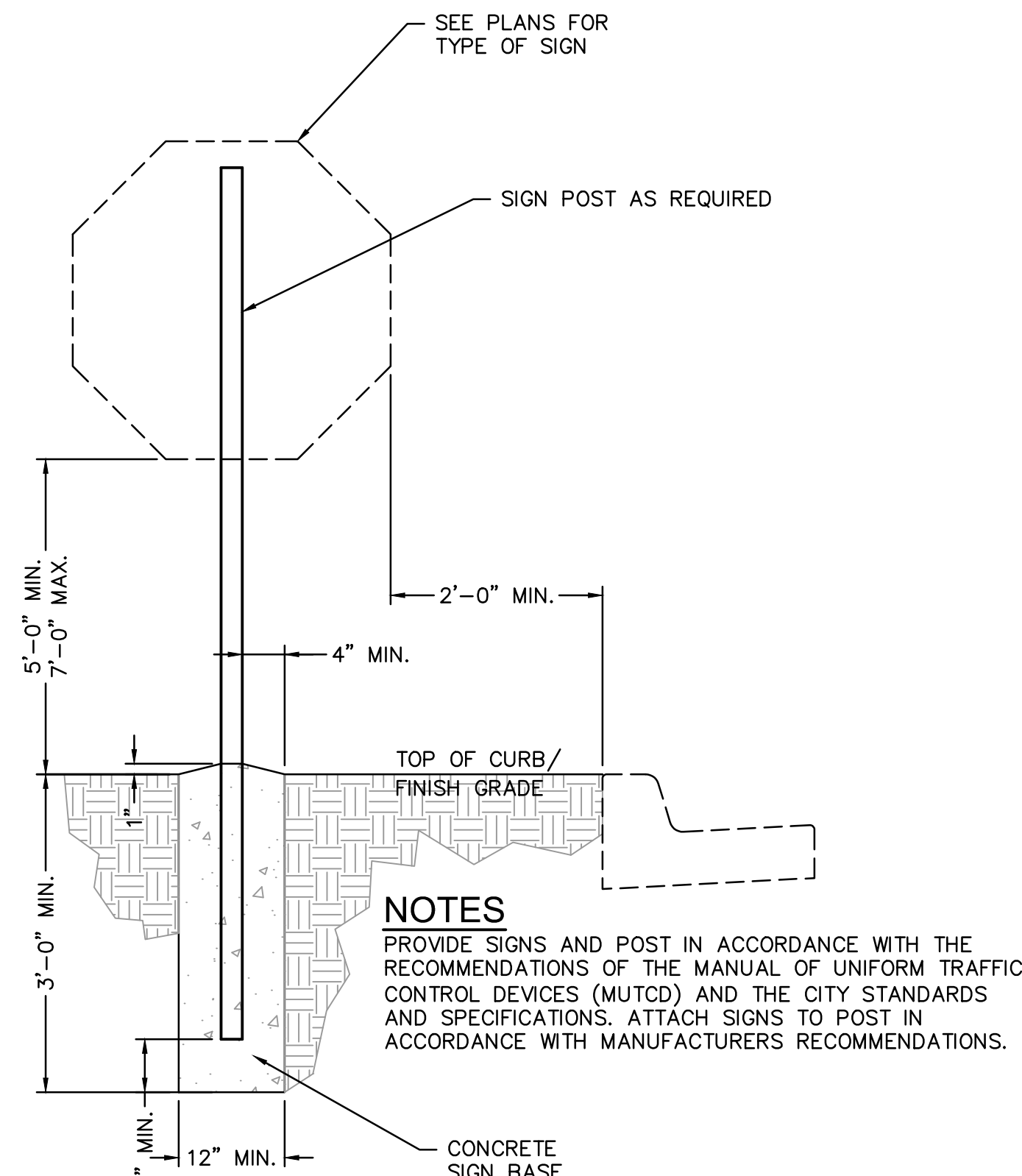
100 YEAR STORM CALCULATIONS

STORM SEWER PIPE AND STRUCTURE TABLE

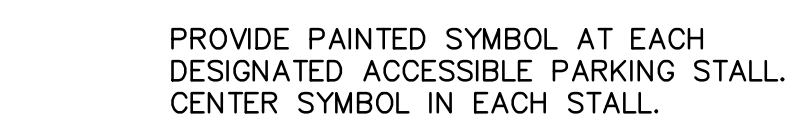
STORM SEWER PIPE AND STRUCTURE TABLE																																	
TITLE: Lee's Summit Logistics JOB #: 021-04157 DESIGN CONDITIONS: PRIVATE - 100 YEAR STORM EVENT																																	
STRUCTURES			RUNOFF CALCULATIONS										PIPE DESIGN																				
FROM	TO	DIRECT AREA (ACRES)	TOTAL AREA (ACRES)	C	KC (K=1.25)	Tc (MIN)	TIME (MIN)	INTENSITY (IN/HR)	DESIGN Q (CFS)	DESCRIPTION	PIPE LENGTH (L.F.)	PIPE SLOPE (%)	PIPE DIA (IN)	Q FULL (CFS)	PIPE AREA (SQ.FT.)	V FULL (F/S)	DESIGN V (F/S)	HwD	MH TOP ELEVATION	UPSTREAM FLOWLINE	DOWNSTREAM FLOWLINE	DOWNSTREAM WATER ELEVATION	FRICTION HEAD (H.F)	ENTRY LOSS COEFFICIENT (K)	ACTUAL ENTRY LOSS (K)	ENTRY LOSS (H.M)	h f + h m (FT)	HW, INLET CONTROL	HW, OUTLET CONTROL	HYDRAULIC GRADE ELEV.	HYDRAULIC GRADE (MAX)	Comments	
B8	B7	0.26	0.90	1.00	5.0	0.40	10.32	2.68												989.21	983.67	981.05	981.88	0.26	0.40	1.00	0.59	0.85	984.70	983.67	984.70	987.71	
		0.26	0.90	1.00	5.0	0.40	10.32	2.68		149.63	1.75	15	8.57	1.23	6.98	6.18	0.82		989.21	983.67	981.05	981.88	0.26	0.40	1.00	0.59	0.85	984.70	983.67	984.70	987.71		
B7	B6	0.15	0.90	1.00	5.0		10.32	1.55												986.99	980.55	979.91	980.94	0.15	0.40	1.00	0.30	0.45	981.85	981.39		981.85	985.49
		0.41	0.90	1.00	5.4	0.09	10.16	4.16		36.71	1.75	15	8.57	1.23	6.98	6.93	1.04		986.99	980.55	979.91	980.94	0.15	0.40	1.00	0.30	0.45	981.85	981.39		981.85	985.49	
B6	B5	0.25	0.90	1.00	5.0		10.32	2.58												986.66	979.41	977.69	978.92	0.68	0.40	0.40	0.53	1.20	981.43	980.13		981.43	985.16
		0.66	0.90	1.00	5.5	0.11	10.12	6.68		62.45	2.75	15	10.74	1.23	8.75	9.21	1.61		986.66	979.41	977.69	978.92	0.68	0.40	0.40	0.53	1.20	981.43	980.13		981.43	985.16	
B5	B4	0.00	0.90	1.00	5.0		10.32	0.00												981.96	974.59	973.02	974.85	1.98	0.40	0.40	0.37	1.53	979.20	978.17		979.20	980.46
		0.68	0.90	1.00	5.6	0.23	10.08	6.65		108.57	1.75	15	8.57	1.23	6.98	7.70	1.61		981.96	974.59	973.02	974.85	1.98	0.40	0.40	0.37	1.53	979.20	978.17		979.20	980.46	
B4	B3	0.24	0.90	1.00	5.0		10.32	2.48												983.51	972.79	971.02	974.85	1.98	0.40	0.40	0.33	2.31	977.76	977.16		977.76	982.01
		0.90	0.90	1.00	5.8	0.23	9.98	8.99		101.11	1.75	15	8.57	1.23	6.98	7.32	2.38		983.51	972.79	971.02	974.85	1.98	0.40	0.40	0.33	2.31	977.76	977.16		977.76	982.01	
B3	B2	0.11	0.90	1.00	5.0		10.32	1.14												982.70	974.52	965.51	974.85	1.98	0.40	0.40	0.37	1.17	984.54	974.16		984.54	981.20
		0.21	0.90	1.00	6.1	0.09	9.90	110.93		116.86	6.00	30	100.74	4.91	20.52	22.60	8.81		982.70	974.52	965.51	974.85	1.98	0.40	0.40	0.37	1.17	984.54	974.16		984.54	981.20	
B2	B1	0.32	0.90	1.00	5.0		10.32	3.30												973.04	965.08	964.67	968.31	0.65	0.40	0.40	1.52	2.17	976.84	970.47		976.84	971.54
		11.21	0.90	1.00	6.2	0.02	9.86	110.56		23.41	1.75	36	88.47	7.07	12.52	15.64	3.92		973.04	965.08	964.67	968.31	0.65	0.40	0.40	1.52	2.17	976.84	970.47		976.84	971.54	
			0.90	1.00	5.0		12.93	18.99												983.89	978.76	976.66	976.66	2.99	0.40	1.00	0.57	3.56	981.56	978.76		981.56	982.39
C3	C2	1.84	0.90	1.00	5.0		10.32	18.99		420.00	0.50	24	16.04	3.14	5.11	6.05	1.40		983.89	978.76	976.66	976.66	2.99	0.40	1.00	0.57	3.56	981.56	978.76		981.56	982.39	
		1.84	0.90	1.00	5.0	1.16	10.32	18.99		420.00	0.50	24	16.04	3.14	5.11	6.05	1.40		983.89	978.76	976.66	976.66	2.99	0.40	1.00	0.57	3.56	981.56	978.76		981.56	982.39	
C2	C1	1.80	0.90	1.00	5.0		10.32	18.58												984.09	976.46	974.96	974.96	2.31	0.40	1.00	0.83	3.14	980.27	976.46		980.27	982.59
		3.64	0.90	1.00	6.2	0.68	9.86	35.90		299.07	0.50	30	29.08	4.91	5.92	7.31	1.52		984.09	976.46	974.96	974.96	2.31	0.40	1.00	0.83	3.14	980.27	976.46		980.27	982.59	
C1	B3	0.14	0.90	1.00	5.0		10.32	1.45												986.25	974.46	973.70	973.70	1.65	0.40	0.40	1.19	2.85	984.13	974.46		984.13	984.75
		10.20	0.90	1.00	6.8	0.09	9.61	98.02		75.97	1.00	36	66.88	7.07	9.46	13.87	3.22		986.25	974.46	973.70	973.70	1.65	0.40	0.40	1.19	2.85	984.13	974.46		984.13	984.75	
			0.00				12.93													982.7	974.46	973.70											
D4	D3	2.43	0.90	1.00	5.0		10.32	25.08												986.70	980.51	979.01	981.66	1.13	0.40	1.00	0.69	1.62	983.23	983.47		983.47	985.20
		2.43	0.90	1.00	5.0	0.75	10.32	25.08		300.00	0.50	30	29.08	4.91	5.92	6.65	1.09		986.70	980.51	979.01	981.66	1.13	0.40	1.00	0.69	1.62	983.23	983.47		983.47	985.20	
D3	D2	2.02	0.90	1.00	5.0		10.32	20.85												985.90	978.81	977.31	980.92	3.57	0.40	0.40	0.51	4.08	983.77	985.00		985.00	984.40
		4.45	0.90	1.00	5.8	0.55	10.02	44.58		300.00	0.50	30	29.08	4.91	5.92	9.08	1.98		985.90	978.81	977.31	980.92	3.57	0.40	0.40	0.51	4.08	983.77	985.00		985.00	984.40	
D2	D1	1.72	0.90	1.00	5.0		10.32	17.75												985.98	977.13	975.63	979.89	2.45	0.40	0.40	0.46	2.91	982.04	982.79		982.79	984.48
		6.17	0.90	1.00	6.3	0.08	9.81	60.51		296.19	0.50	36	47.29	7.07	6.69	8.56	1.64		985.98	977.13	975.63	979.89	2.45	0.40	0.40	0.46	2.91	982.04	982.79		982.79	984.48	
D1	C1	0.00	0.90	1.00	5.0		10.32	0.00												987.10	975.11	974.96	978.60	0.28	0.40	0.40	0.47	0.76	980.17	979.35		980.17	985.60
		6.42	0.90	1.00	6.9	0.58	9.60	61.60		33.04	0.50	36	47.29	7.07	6.69	8.72	1.68		987.10	975.11	974.96	978.60	0.28	0.40	0.40	0.47	0.76	980.17	979.35		980.17	985.60	
E1	D1	0.25	0.90	1.00	5.0		10.32	2.58												988.44	983.24	981.05	982.14	0.17	0.40	1.00	0.56	0.73	984.23	983.24		984.23	988.94
		0.25	0.90	1.00	6.9	0.35	9.57	2.39		125.00	1.75	15	8.57	1.23	6.98	5.99	0.79		988.44	983.24	981.05	982.14	0.17	0.40	1.00	0.56	0.73	984.23	983.24		984.23	988.94	
F7	F6	0.04	0.90	1.00	5.0		10.32	0.41												989.56	984.00	983.65	983.97	0.00	0.40	1.00	0.13	0.13	984.84	984.10		984.84	988.06
		0.04	0.90	1.00	7.3	0.20	9.45	0.38		34.92	1.00	15	6.48	1.23	5.28	2.89	0.67		989.56	984.00	983.65	983.97	0.00	0.40	1.00	0.13	0.13	984.84	984.10		984.84	988.06	
F6	F5	0.23	0.90	1.00	5.0		10.32	2.37												989.33	983.15	981.05	982.14	0.16	0.40	1.00	0.38	0.54	984.16	983.51		984.16	987.83
		0.27	0.90	1.00	7.5	0.35	9.38	2.53		104.17	1.00	15	6.48	1.23	5.28	4.95	0.81		989.33	983.15	981.05	982.14	0.16	0.40	1.00	0.38	0.54	984.16	983.51		984.16	987.83	
F5	F4	0.00	0.90	1.00	5.0		10.32	0.00												988.89	981.61	981.05	981.89	0.09	0.40	0.40	0.15	0.24	982.61	982.12		982.61	987.39
		0.27	0.90	1.00	7.8	0.20	9.26	2.50		57.81	1.00	15	6.48	1.23	5.28	4.94	0.80		988.89	981.61	981.05	981.89	0.09	0.40	0.40	0.15	0.24	982.61	982.12		982.61	987.39	
F4	F3	0.23	0.90	1.00	5.0		10.32	2.37												987.32	980.53	979.55	980.76	0.50	0.40	1.00	0.51	1.01	981.93	981.77		981.93	985.82
		0.50	0.90	1.00	8.0	0.29	9.20	4.60		97.95	1.00	15	6.48	1.23	5.28	5.72	1.12		987.32	980.53	979.55	980.76	0.50	0.40	1.00	0.51	1.01	981.93	981.77		981.93	985.82	
F3	F2	1.06	0.90	1.00	5.0		10.32	10.94												986.41	975.31	974.33	977.99	1.59	0.40	0.40	0.70	2.29	981.47	980.28		981.47	984.91
		5.72	0.90	1.00	8.3	0.15	9.10	52.07		97.87	1.00	30	41.13	4.91	8.38	10.61	2.46		986.41	975.31	974.33	977.99	1.59	0.40	0.40	0.70	2.29	981.47	980.28		981.47	984.91	
F2	F1	0.65	0.90	1.00	5.0		10.32	6.71												984.87	973.83	973.48	977.12	0.44	0.40	0.40	0.70	1.15	980.35	978.26		980.35	983.37
		8.31	0.90	1.00	8.5	0.05	9.05	75.24		34.50	1.00	36	66.88	7.07	9.46	10.64	2.17		984.87	973.83	973.48	977.12	0.44	0.40	0.40	0.70	1.15	980.35	978.26		980.35		



1. 3/4" ISOLATION JOINTS WITH 5/8" DIA. X 2' SMOOTH DOWELS SHALL BE PLACED AT RADII POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. FIX DOWEL BARS WITH BAR SUPPORTS.
4. DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESSIBLE RAMP.



TYPICAL STREET SIGN DETAIL
NOT TO SCALE



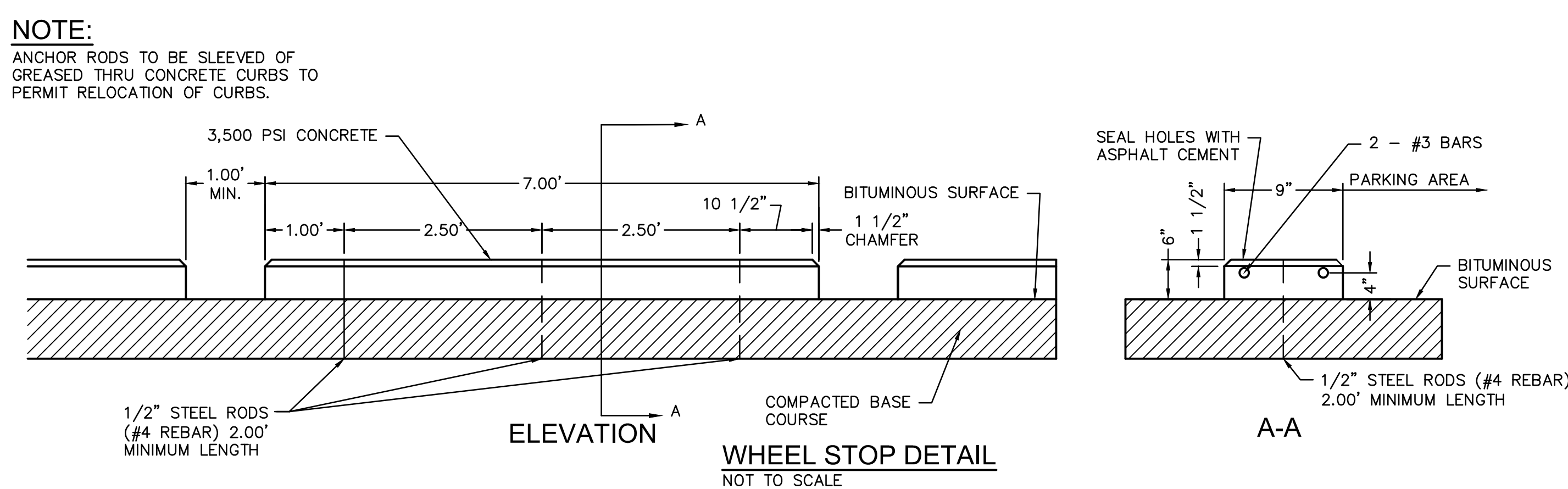
ACCESSIBLE PARKING SYMBOL
NOT TO SCALE



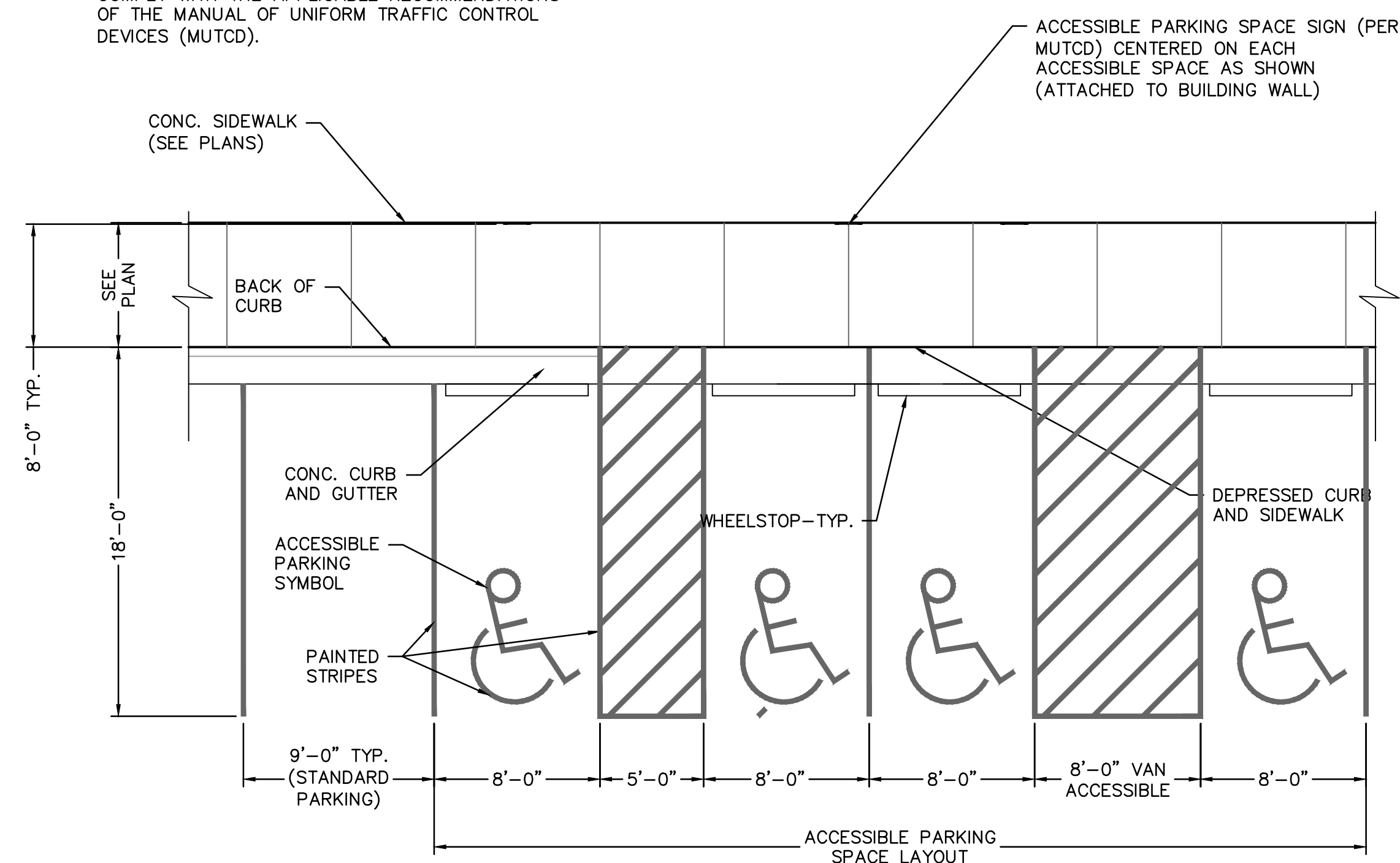
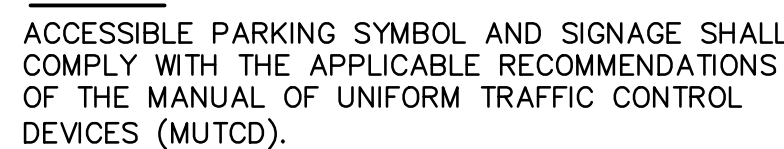
1. SIGN TO BE PER LOCAL JURISDICTION REQUIREMENTS. VERIFY SIZE, SHAPE & VERBIAGE
2. PROVIDE SIGN AT EACH HANDICAPPED ACCESSIBLE PARKING STALL.

ACCESSIBLE PARKING SPACE SIGNAGE

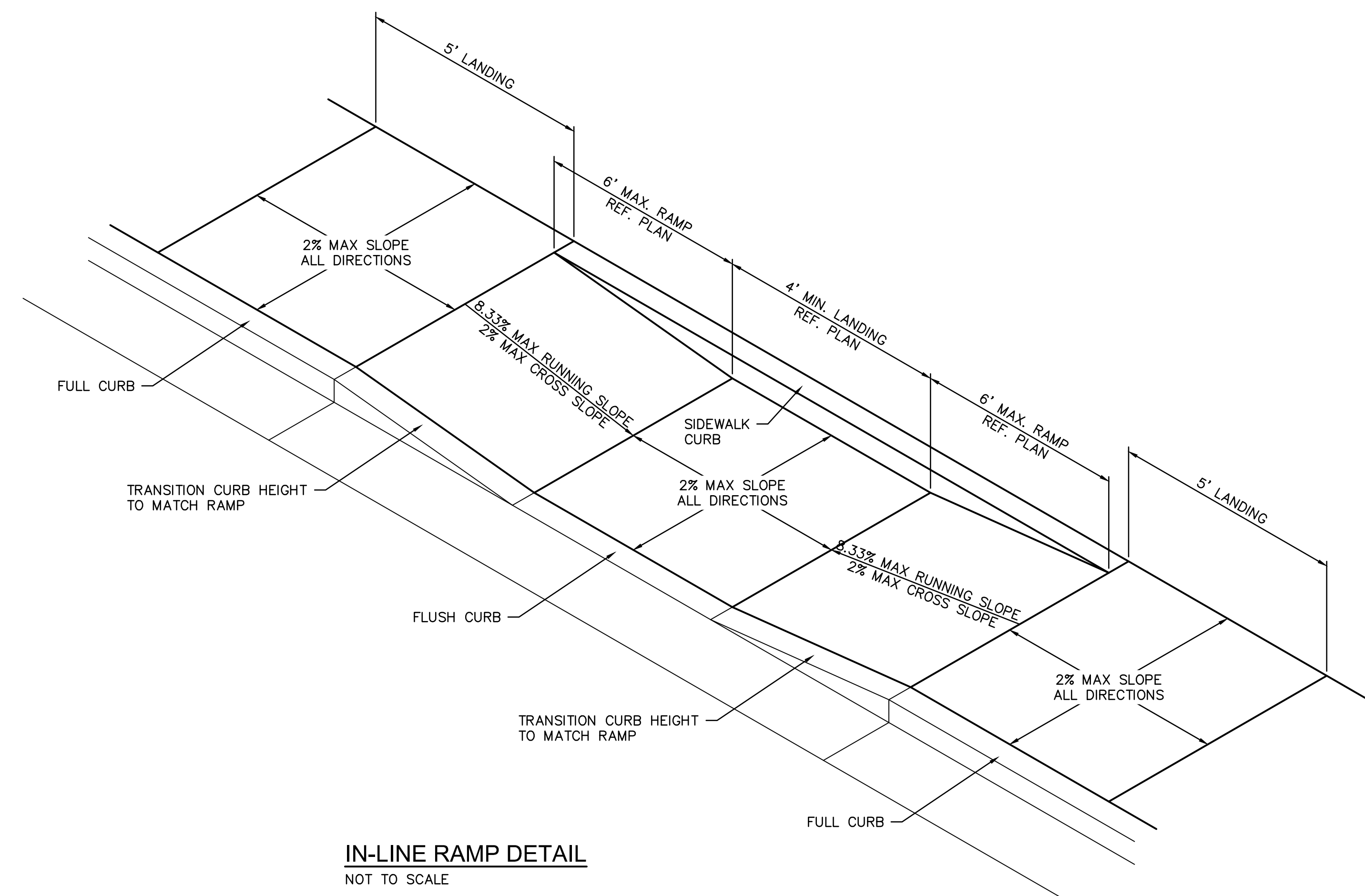
NOT TO SCALE



WHEEL STOP DETAIL
NOT TO SCALE

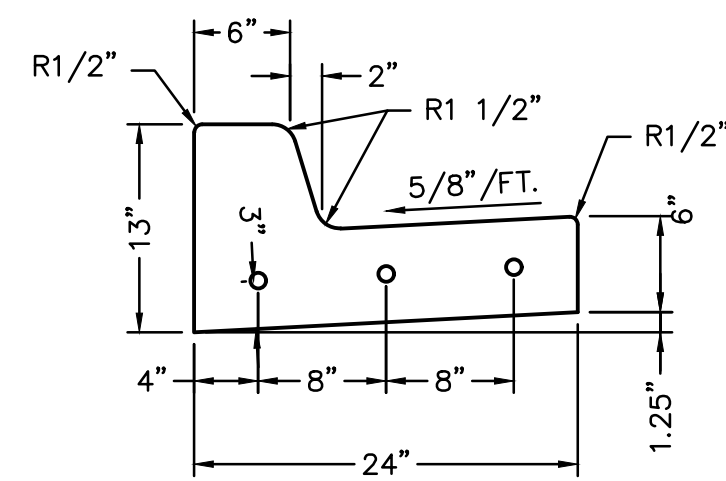


TYPICAL ADA PARKING SPACE LAYOUT DETAIL
NOT TO SCALE



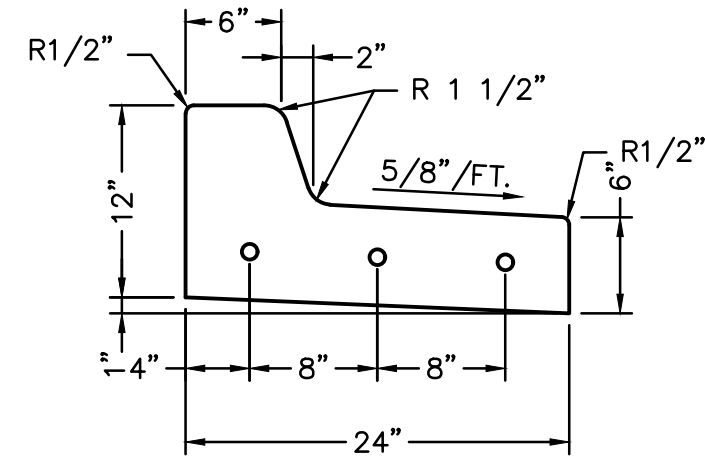
IN-LINE RAMP DETAIL
NOT TO SCALE

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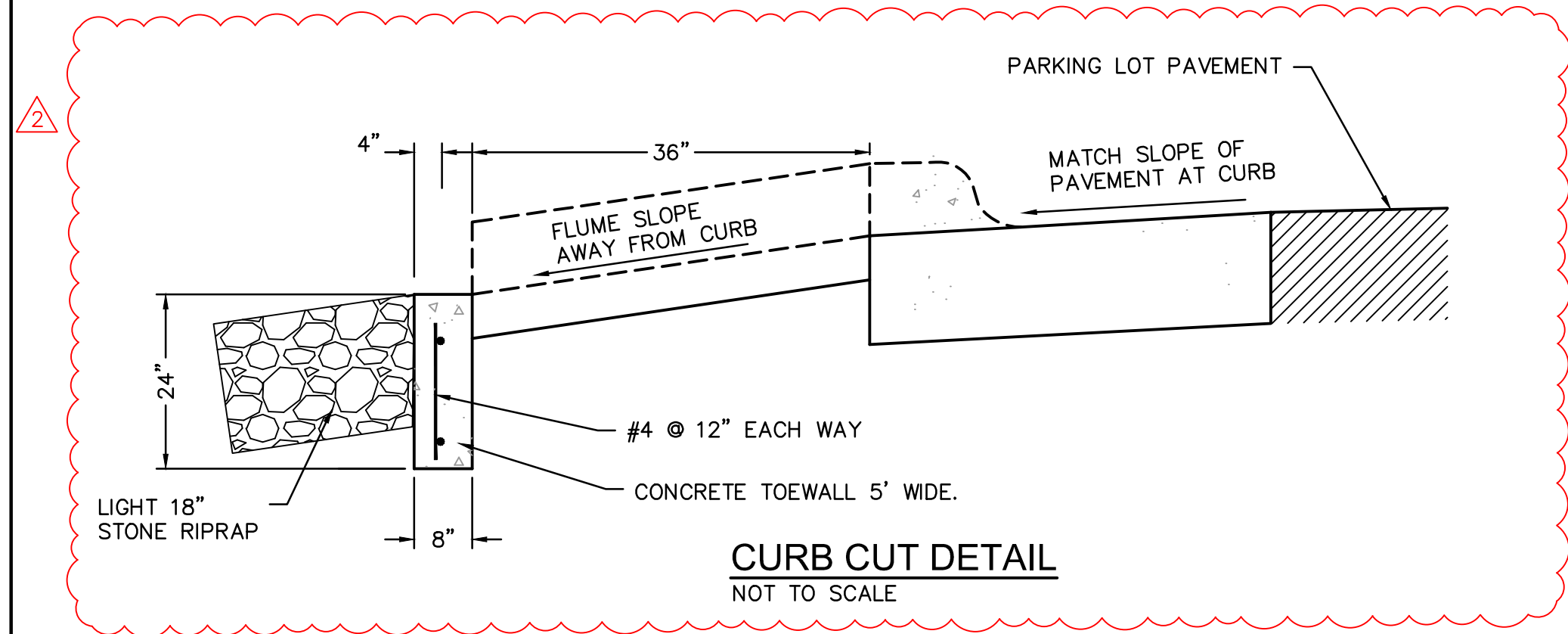
STRAIGHT BACK CURB & GUTTER

NOT TO SCALE



STRAIGHT BACK DRY CURB & GUTTER

NOT TO SCALE

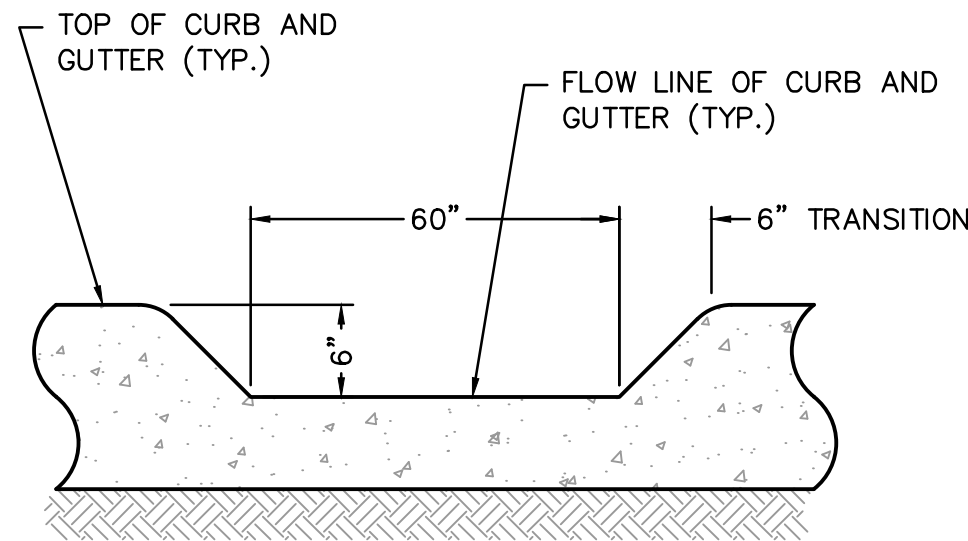


CURB CUT DETAIL

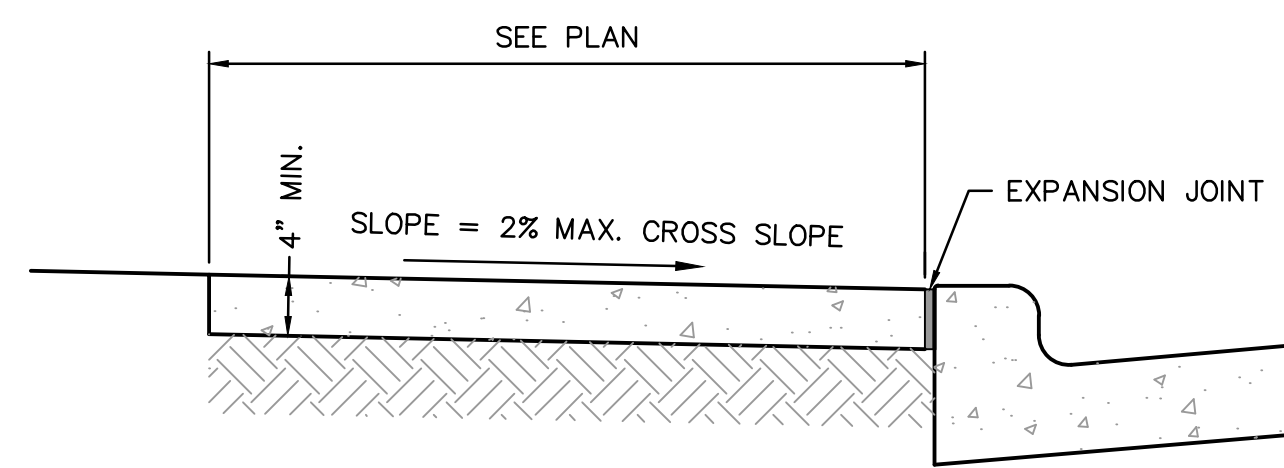
NOT TO SCALE

GENERAL NOTES:

- 3/4" ISOLATION JOINTS WITH 5/8" DIA. X 2' SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
- 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- FIX DOWEL BARS WITH BAR SUPPORTS.
- DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESSIBLE RAMP.

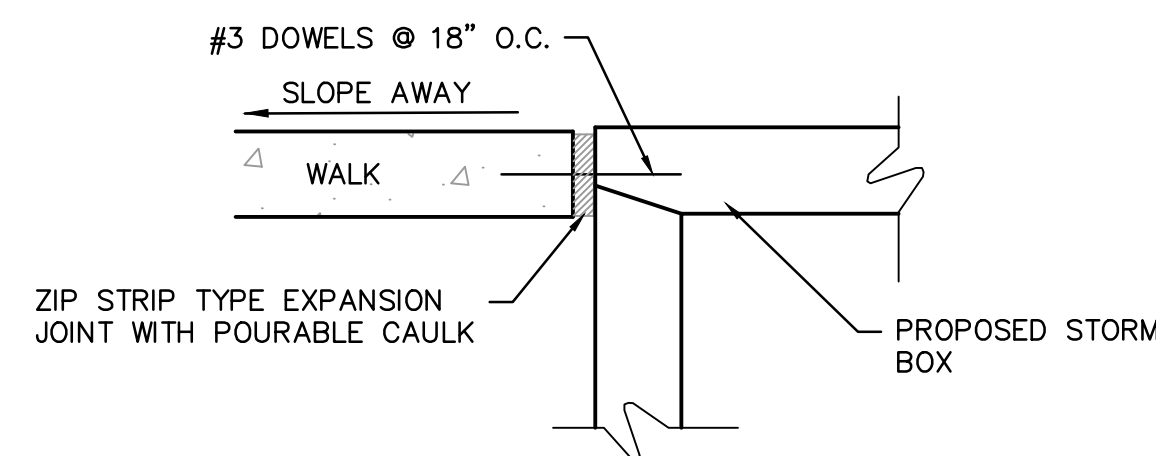


FRONT ELEVATION



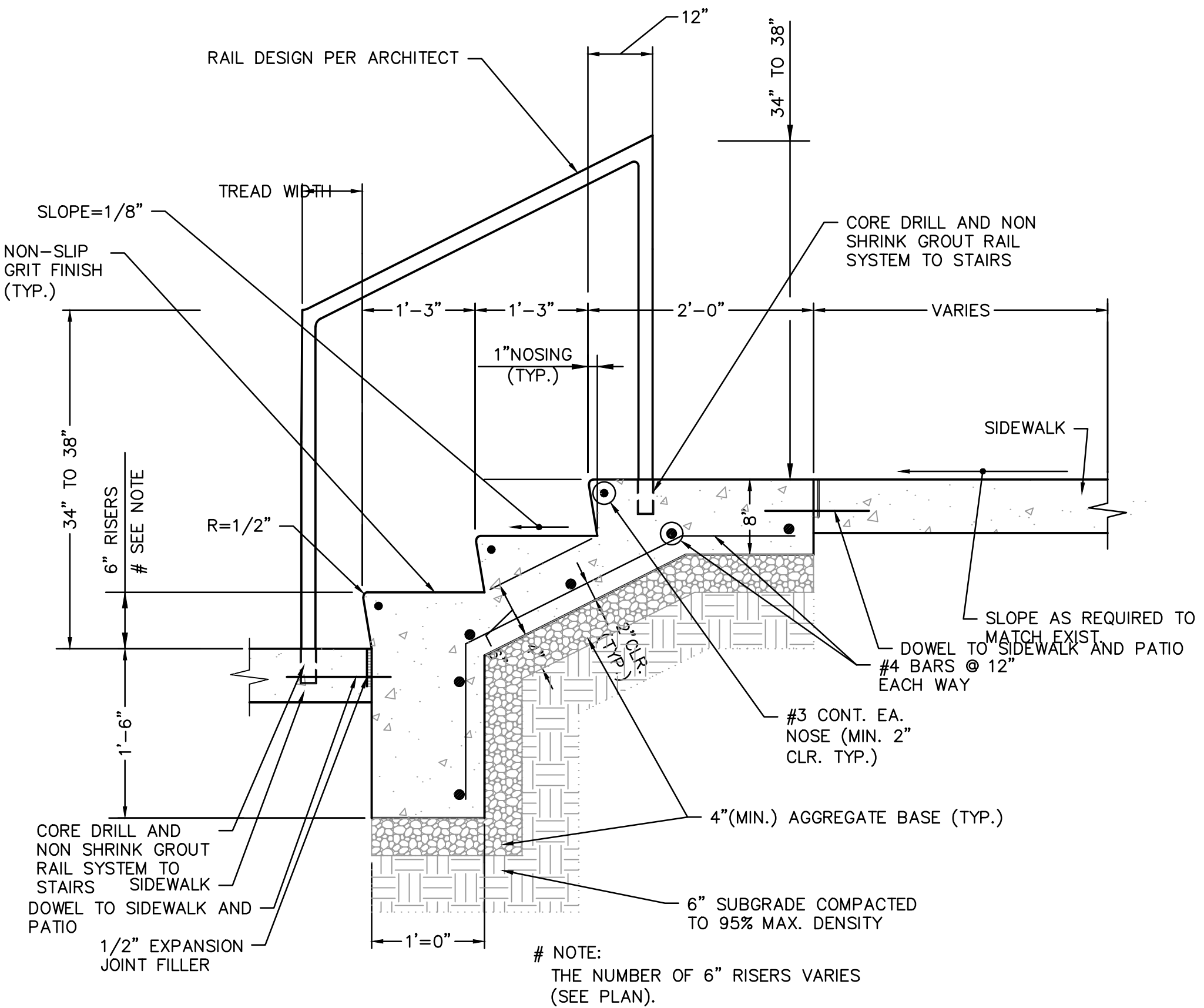
STANDARD CONCRETE WALK DETAIL

NOT TO SCALE



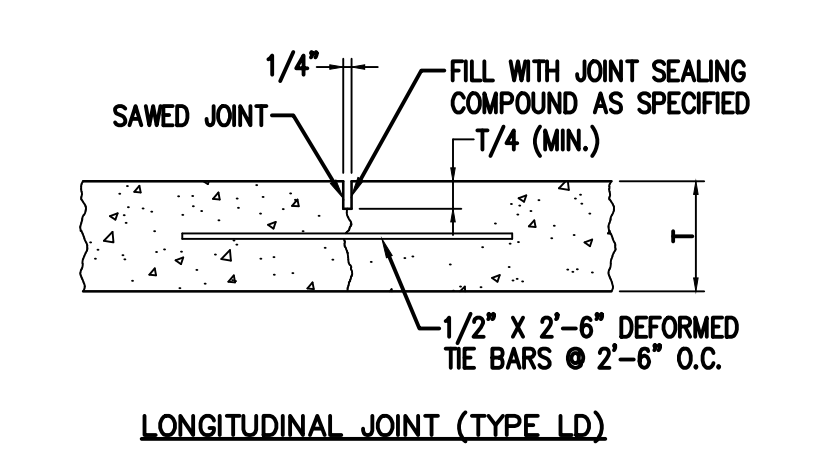
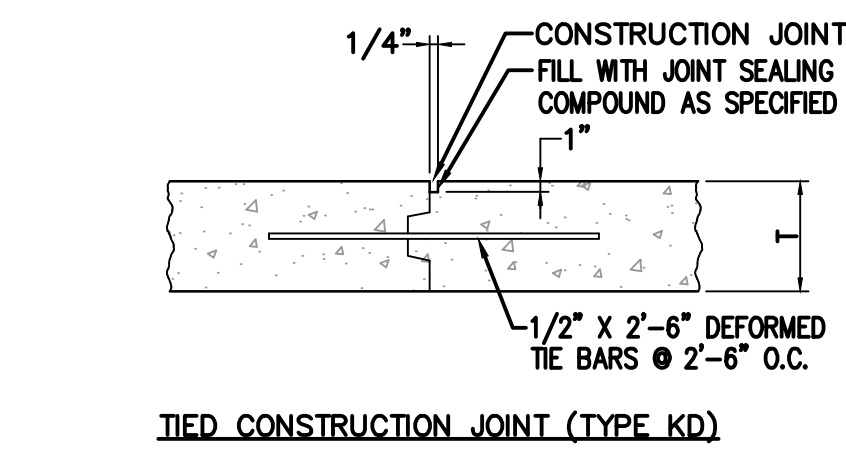
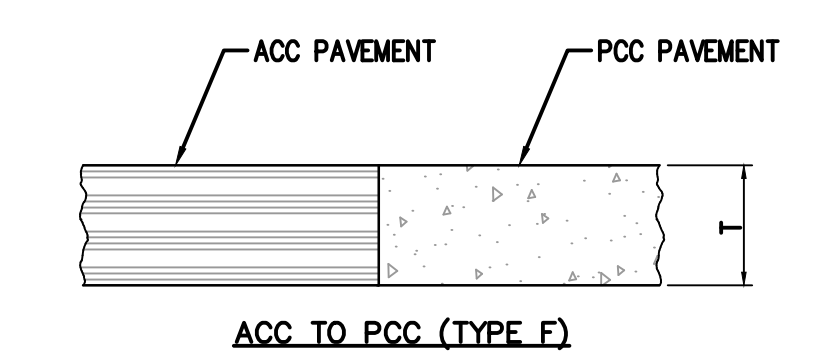
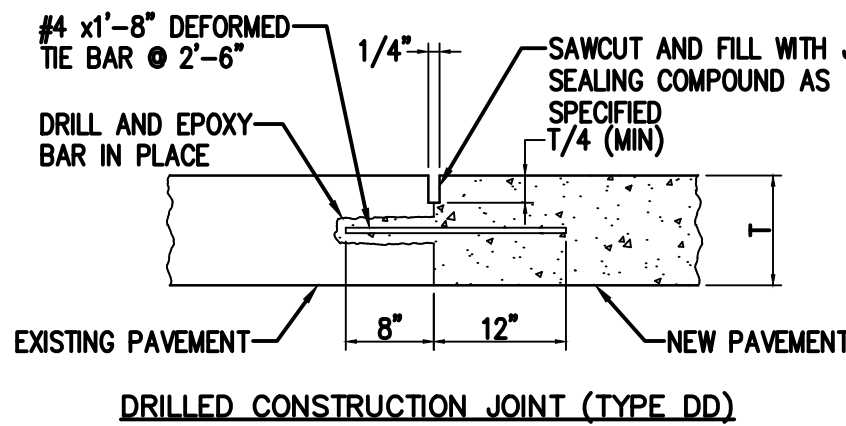
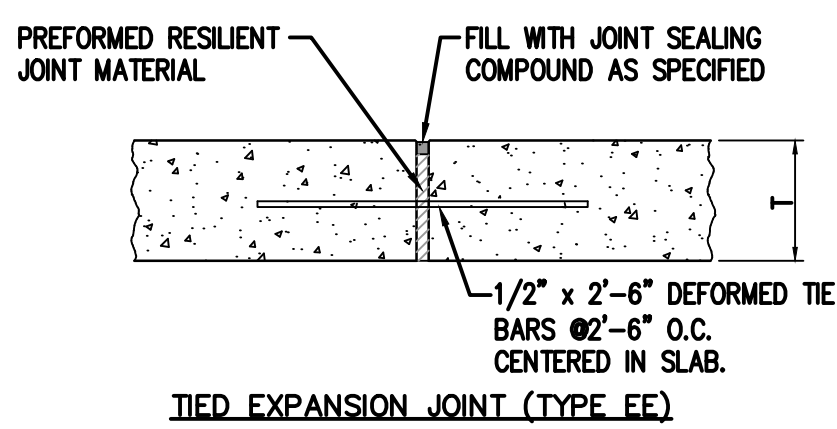
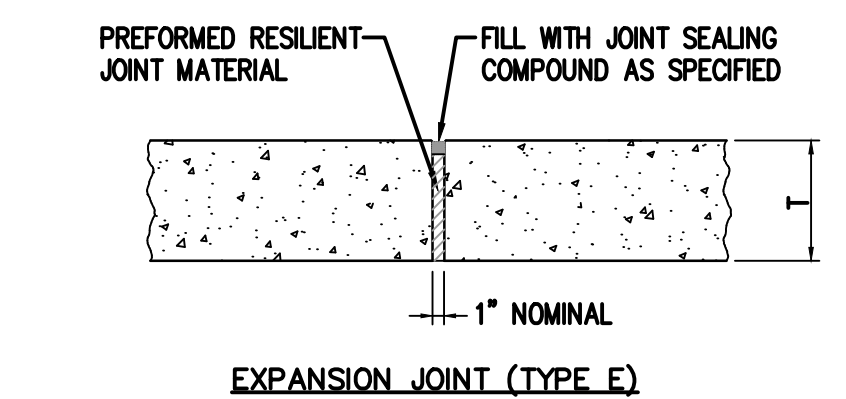
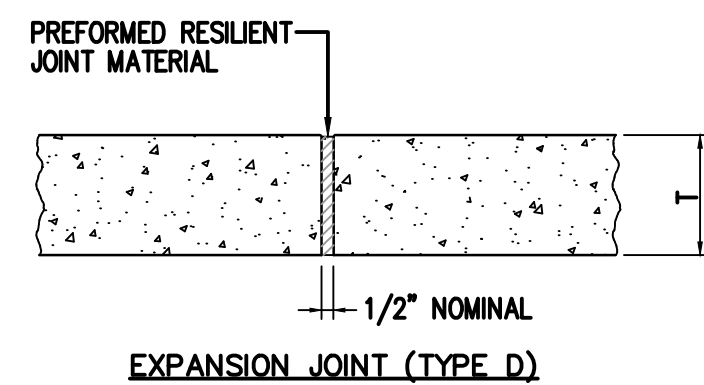
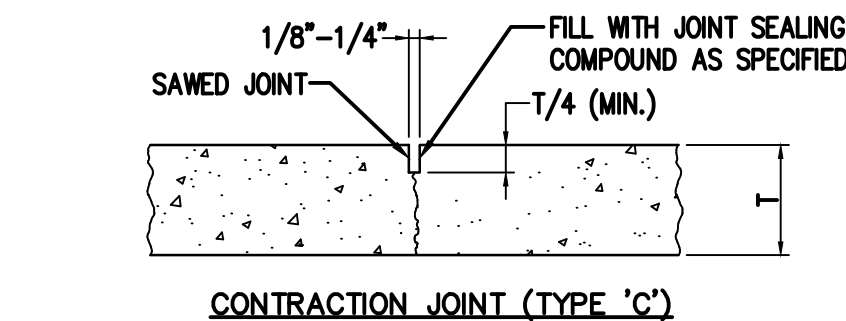
SIDEWALK TO STORM BOX
CONNECTION DETAIL

NOT TO SCALE



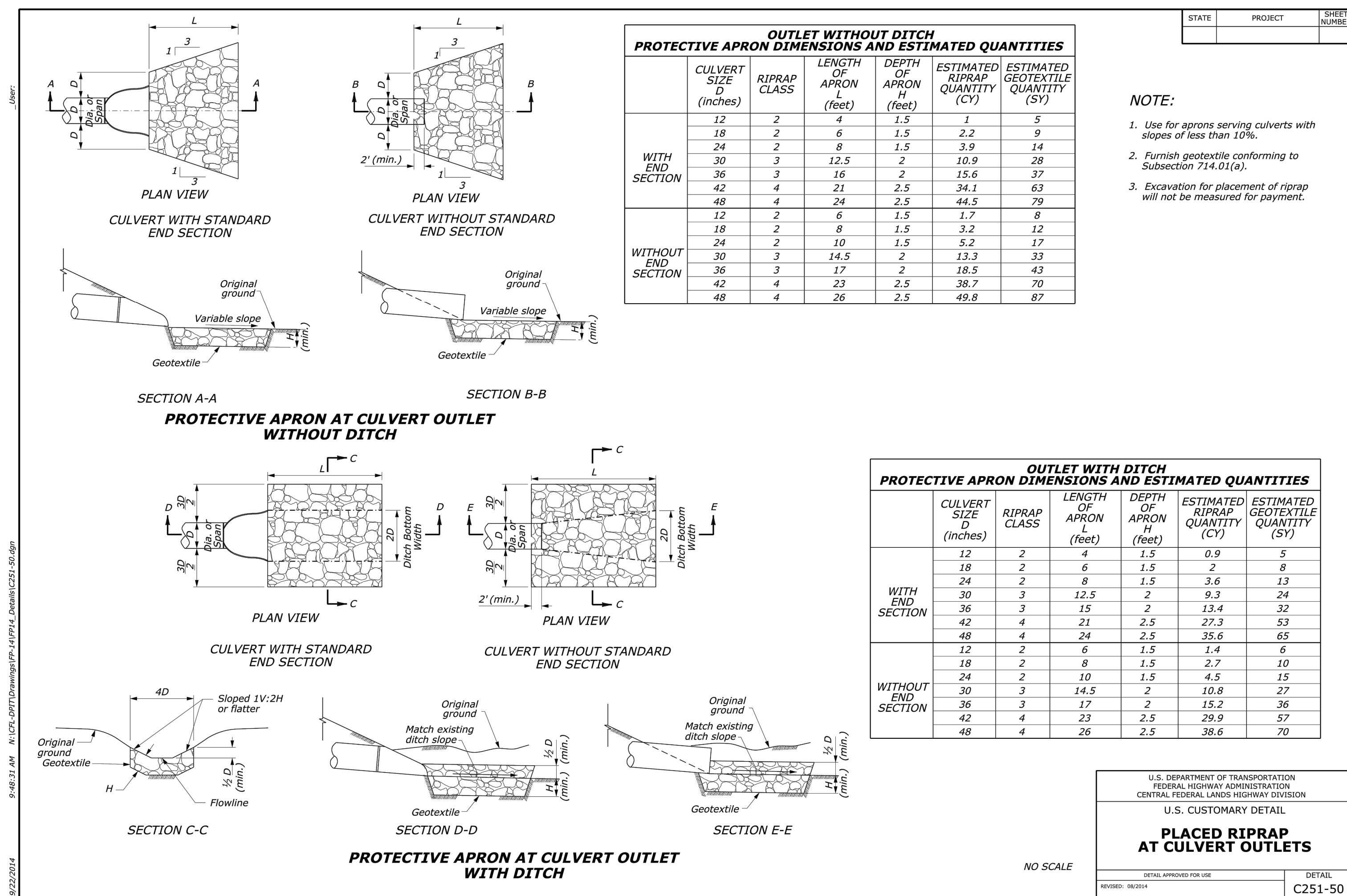
CONCRETE STAIR DETAIL

NOTE:
THE NUMBER OF 6" RISERS VARIES
(SEE PLAN).



PAVEMENT JOINT DETAILS

NOT TO SCALE



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SCANNELL
PROPERTIES



REV.	DATE	REVISION DESCRIPTION
1	12/28/2021	CITY COMMENTS
2	01/05/2022	REVISED AND CHANGE CHANGES
3	02/03/2022	CITY & ENERGY COMMENTS

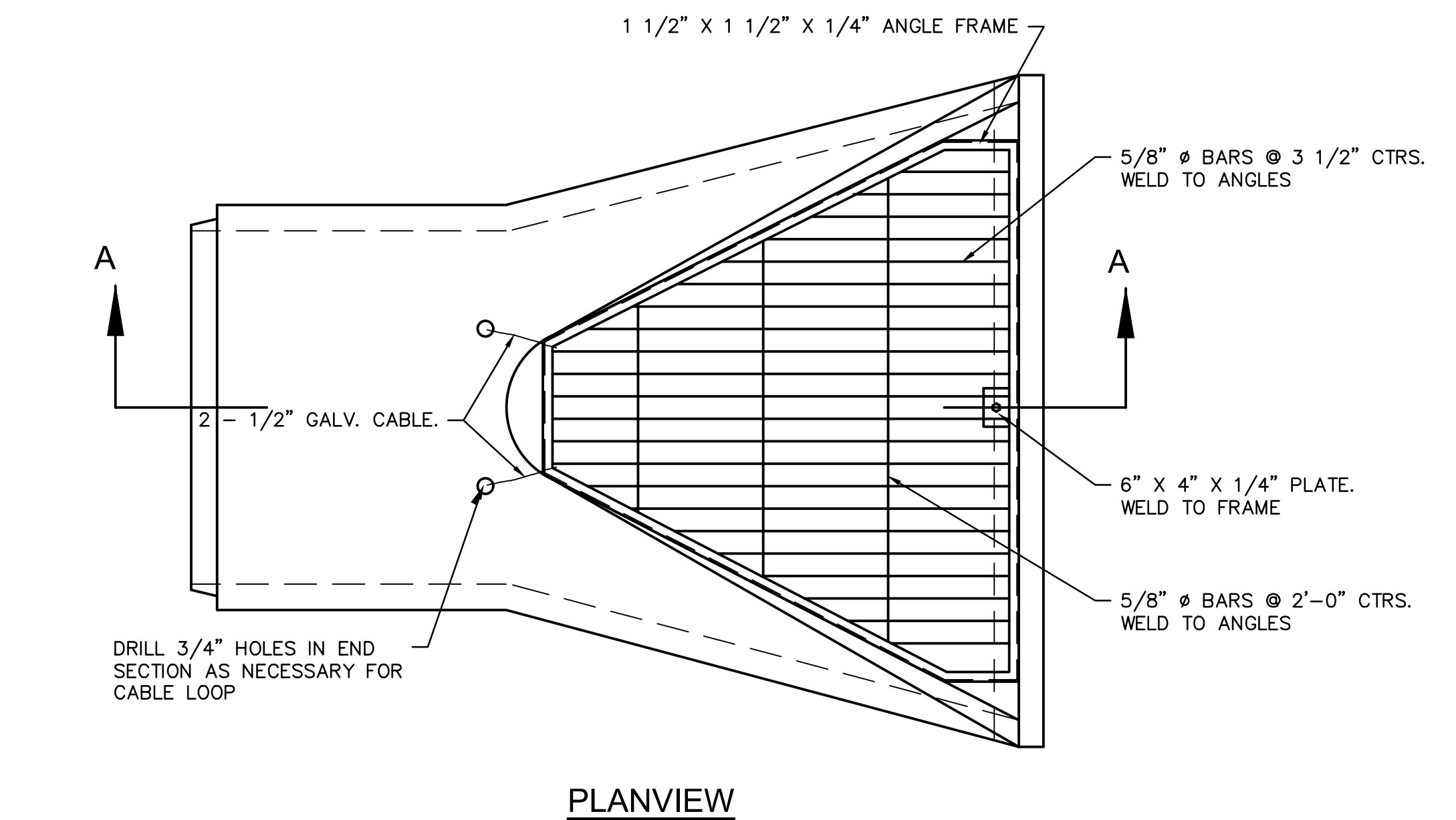
STANDARD DETAILS
PHASE I/FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: 021-04157.dwg
date:

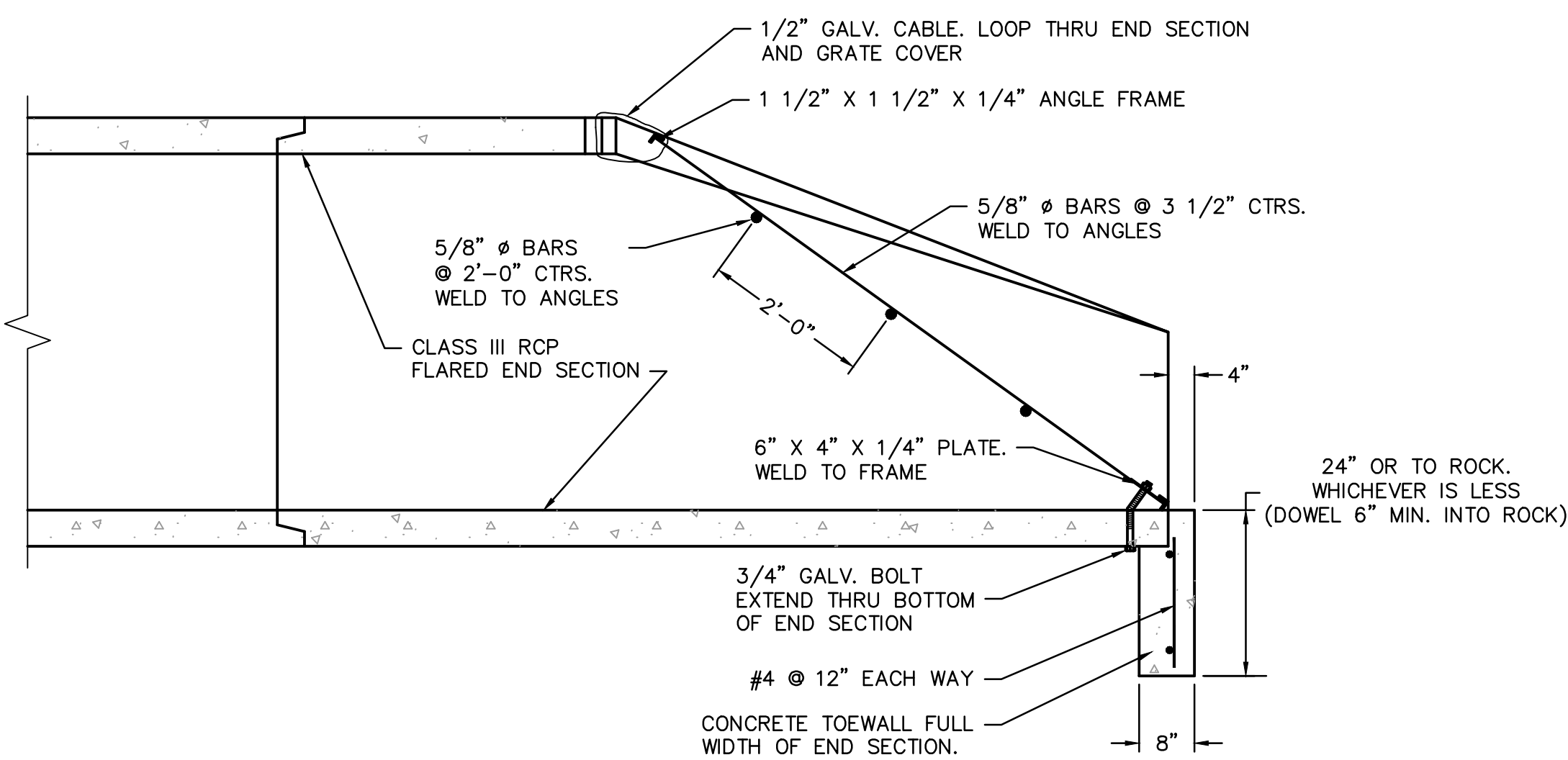
SHEET
C8.01

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4756
TEL 913.381.1170
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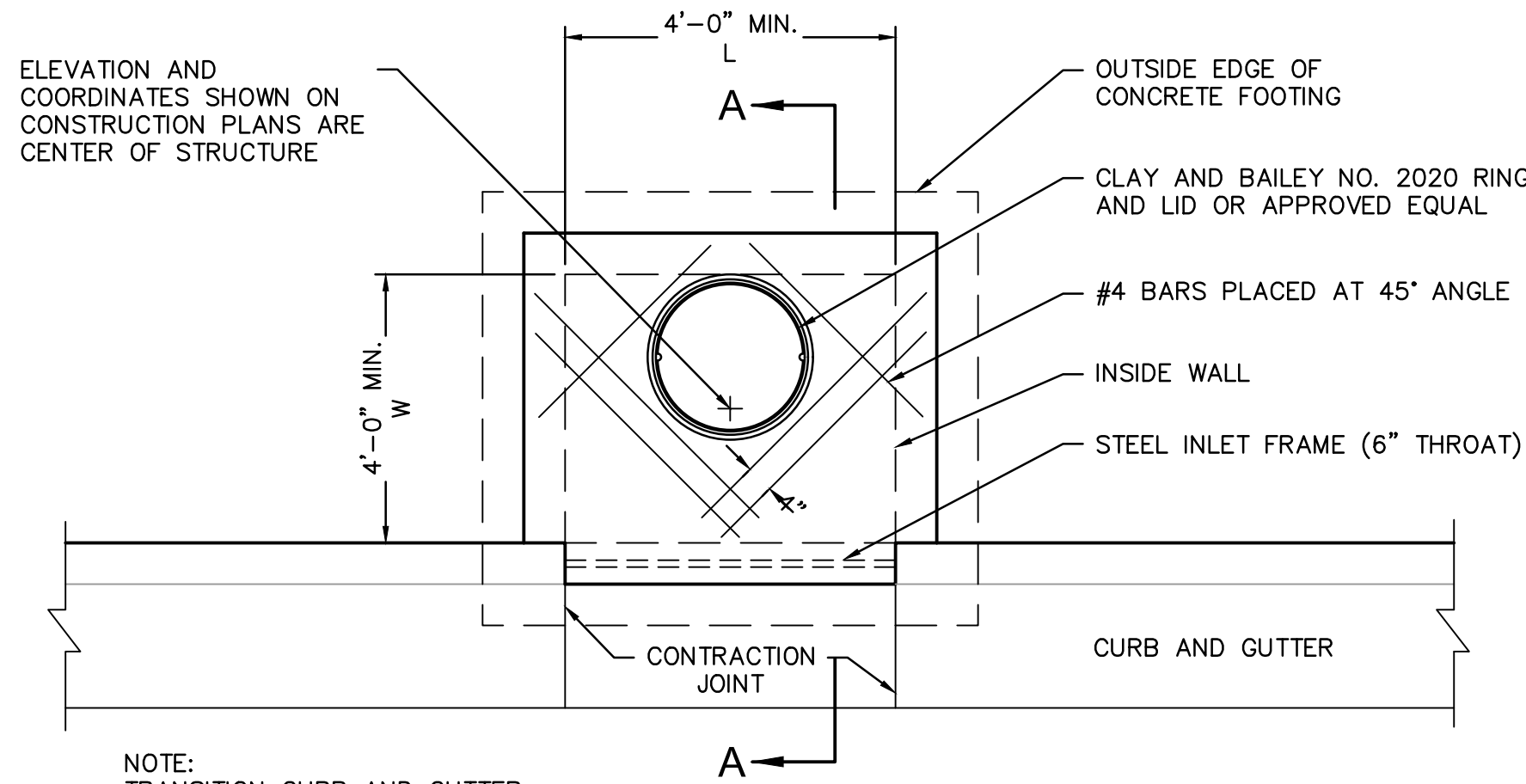
PLANVIEW



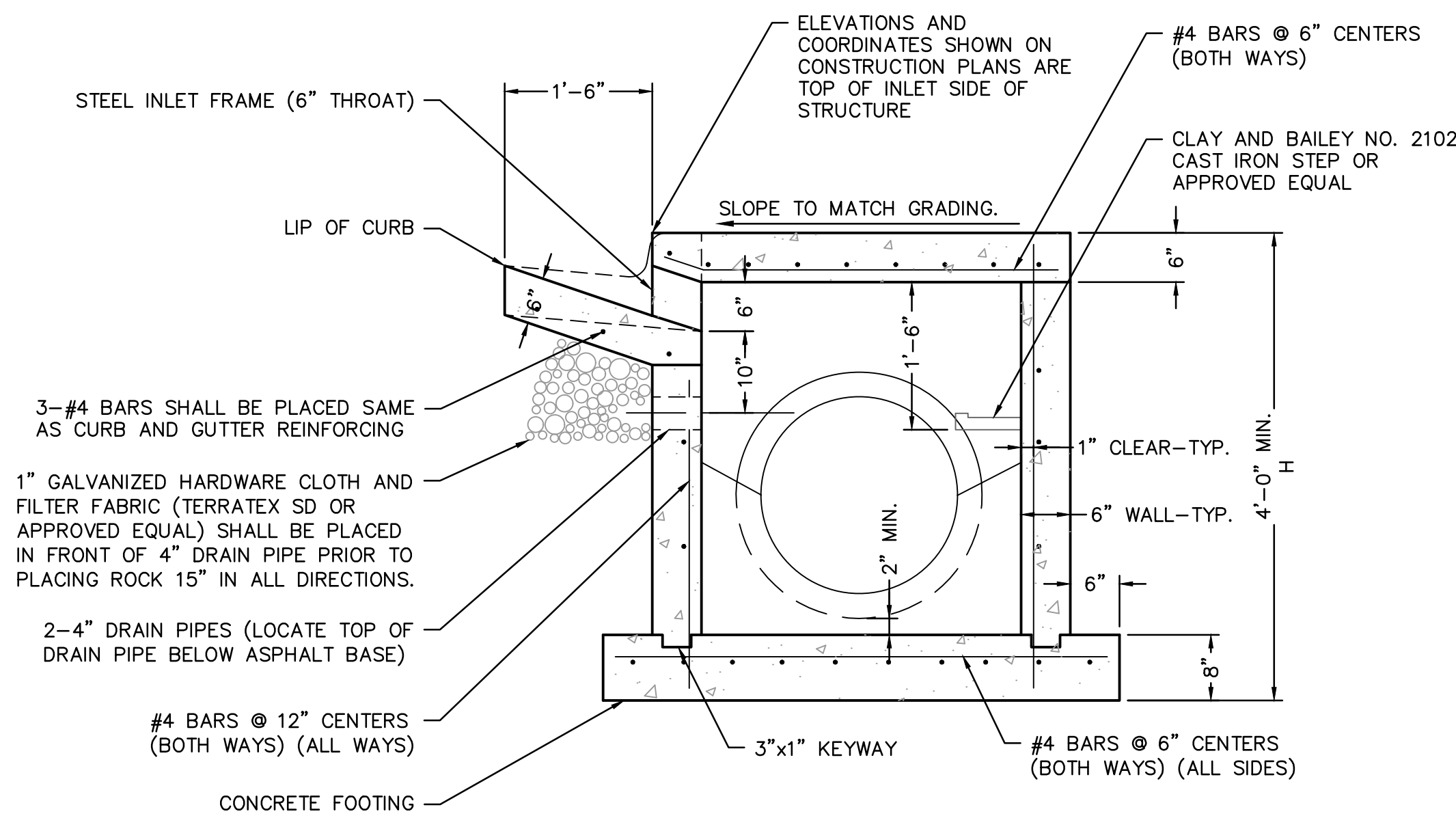
SECTION A-A
END SECTION TOE WALL & GRATE
NOT TO SCALE

END SECTION NOTES

1. GRATE COVER DETAIL SHALL BE ADJUSTED AS NECESSARY TO FIT END SECTION PROVIDED.
2. MAXIMUM OPENING THRU END SECTION SHALL BE NO GREATER THAN 6". ADJUST DETAIL AS NECESSARY.
3. ALL METAL SURFACES SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A-123.
4. USE CITY APPROVED CONCRETE THROUGHOUT.
5. ALL CONCRETE AND MATERIALS USED IN THIS WORK SHALL MEET THE REQUIREMENTS OF THE GOVERNING BODY.
6. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
7. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8"$ SHALL BE PERMITTED.
8. ALL LAP SPICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
9. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
10. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS ϕ 3'-0" MAXIMUM SPACING.
11. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.



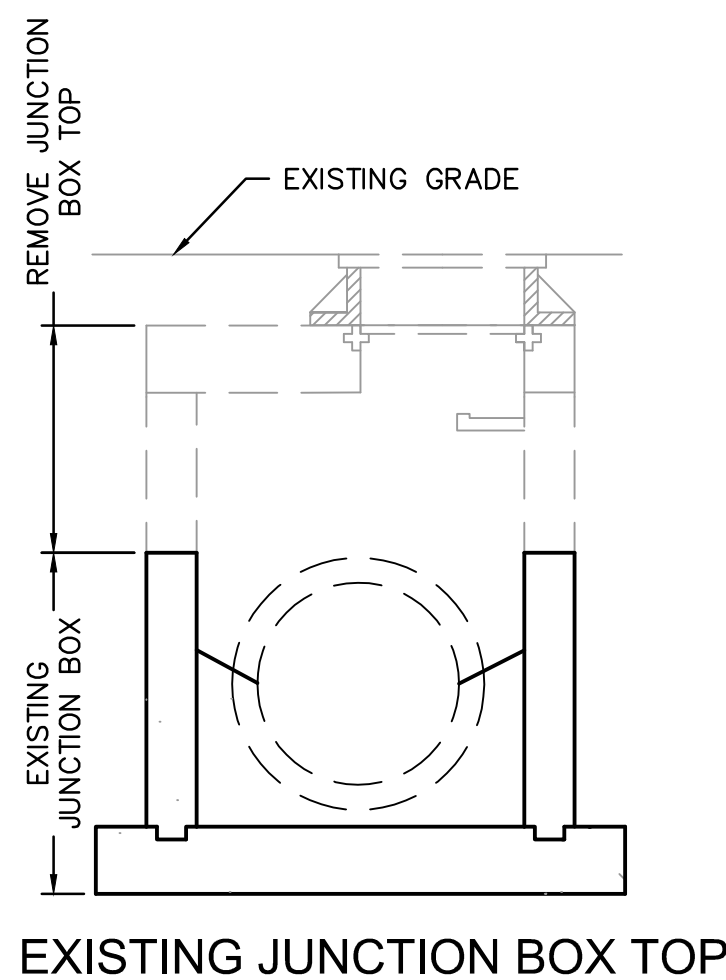
PLAN



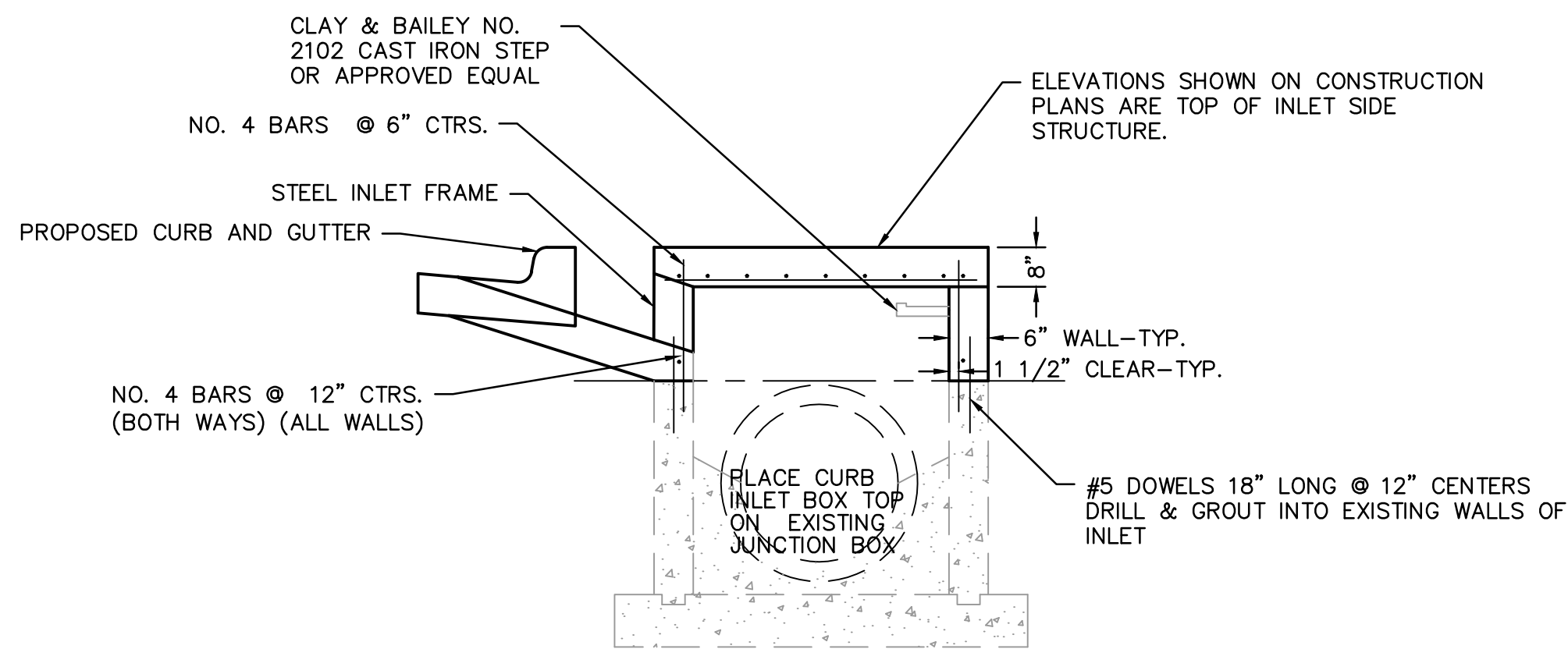
SECTION A-A
NON-SETBACK CURB INLET
NOT TO SCALE

NON-SETBACK CURB INLET NOTES

1. USE CITY APPROVED CONCRETE THROUGHOUT.
2. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
3. FLOOR OF INLET SHALL BE SHAPED TO PROVIDE SMOOTH FLOW.
4. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOULDED EXPANSION JOINT FILLER.
5. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
6. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND., INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY.
7. BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.
8. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
9. ALL STORM SEWER STRUCTURES SHALL BE PRECAST. PRECAST SHOP DRAWINGS SHALL BE APPROVED BY THE DESIGN ENGINEER.
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8"$ SHALL BE PERMITTED.
12. ALL LAP SPICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
13. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS ϕ 3'-0" MAXIMUM SPACING.
15. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
16. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
17. ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE ENGINEER AND PRIOR TO CURB CONSTRUCTION, OR AS DIRECTED BY THE CITY ENGINEER.
18. RCP CONNECTIONS TO PRECAST STRUCTURE SHALL MEET ALL CITY STANDARDS.
19. BACKFILL AROUND STRUCTURES SHALL BE COMPACTED AND SHALL BE OF THE MATERIAL SPECIFIED PER CITY STANDARDS.
20. NON-SETBACK CURB INLET TO BE USED ONLY WITH THE APPROVAL OF THE CITY ENGINEER.



EXISTING JUNCTION BOX TOP

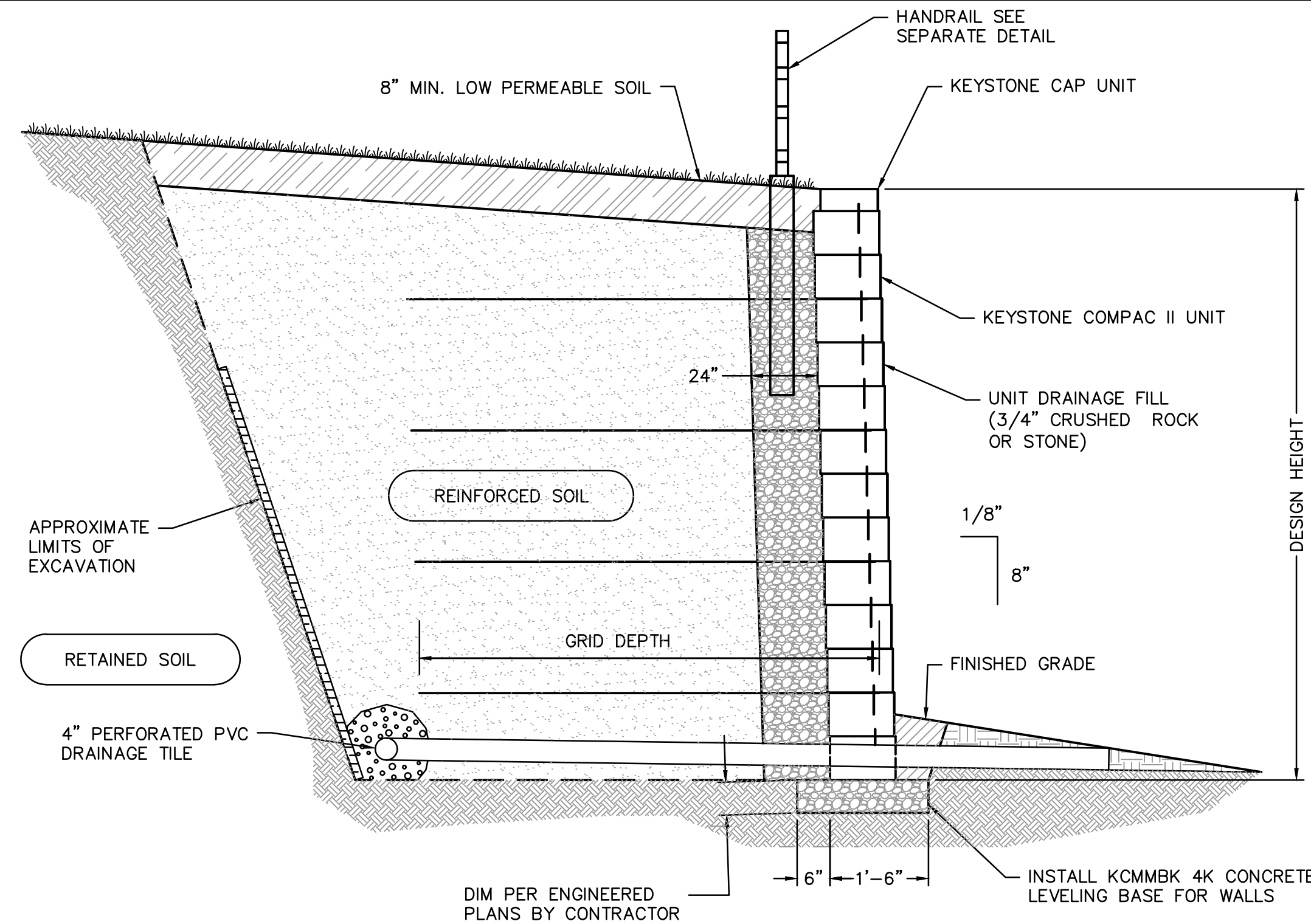


CURB INLET

NOTES:

1. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CITY STANDARDS.
2. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8"$ SHALL BE PERMITTED.
3. ALL LAP SPICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
4. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS ϕ 3'-0" MAXIMUM SPACING.
5. LOCATE MH RING OVER OUTLET. STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY.
6. BEVEL ALL EXPOSED EDGES WITH 3/4" CHAMFER OR 1/2" TOOLED EDGE.
7. MANHOLE RING AND COVER SHALL BE IN ACCORDANCE WITH CITY STANDARDS.

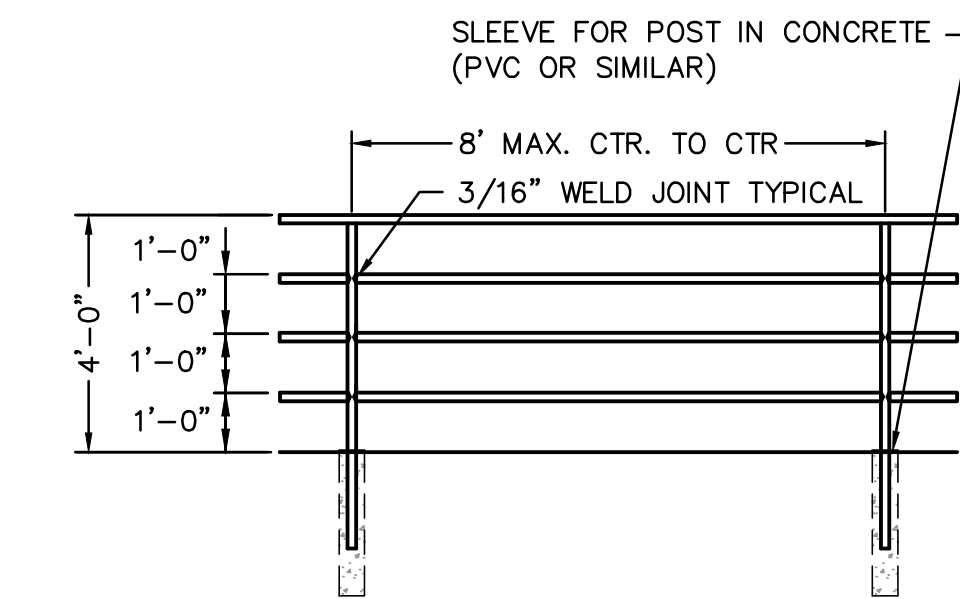
JUNCTION BOX TO CURB INLET CONVERSION DETAIL
NOT TO SCALE



SEGMENTAL RETAINING WALL
NOT TO SCALE

RETAINING WALL NOTES

1. RETAINING WALL SHALL BE "VERSA-LOK MOSAIC RETAINING WALL (NONWEATHERED) AND THE COLOR SHALL BE PALOMINO GRAY". THE DETAILS PROVIDED HERE ARE FOR GENERAL GUIDANCE ONLY. THE WALL SHALL BE "DESIGN-BUILD" PROVIDED COMPLETE IN-PLACE BY THE CONTRACTOR.
2. THE MODULAR WALL UNITS SHALL HAVE A STRAIGHT FACE WITH SPLIT FINISH TEXTURE. COLOR SHALL BE "PALOMINO GRAY".
3. THE WALL SHALL BE DESIGNED BY THE INSTALLER ACCORDING TO THE WALL UNIT MANUFACTURER'S DESIGN CRITERIA. THE DESIGN SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER AS A SHOP DRAWING FOR REVIEW. ALL DESIGN CALCULATIONS AND DESIGN CRITERIA, (ANGLE OF FRICTION, SOIL WEIGHT, ETC.), SHALL BE SUBMITTED WITH THE SHOP DRAWING. ALL DESIGN MUST BE SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI.
4. FACTORS OF SAFETY SHALL BE AS FOLLOWS:
1.5 AGAINST REINFORCEMENT GRID PULLOUT OR RUPTURE
1.5 AGAINST EXTERNAL SLIDING FAILURE
2.0 AGAINST OVERTURNING
5. THE DESIGN, DIMENSIONS, AND MATERIAL SHOWN IN THIS DETAIL ARE GENERAL IN NATURE. THE AGGREGATE MATERIALS, GEGRID SYSTEM, AND INSTALLATION SHALL BE AS WALL UNIT MANUFACTURER'S REQUIREMENTS.
6. SEE SPECIFICATIONS FOR MATERIAL SELECTION AND OTHER REQUIREMENTS.
7. WALL DESIGN SHALL INCLUDE GLOBAL STABILITY.
8. RETAINING WALL SHALL PROVIDE POSITIVE INTERLOCKING BETWEEN BLOCKS AND GRID.



NOTES:

1. ALL RAILING SHALL BE 2" SQUARE STEEL PIPE.
2. ALL EXPOSED STEEL SHALL BE PRIMED WITH ZINC OXIDE PAINT AND PAINTED WITH TWO COAT OF HIGH GLOSS EXTERIOR DARK BROWN PAINT. SUBMIT SAMPLE TO ARCHITECT PRIOR TO PAINTING FOR APPROVAL.
3. SPACING AND LOCATION AS SHOWN ON DETAILS.
4. SPACING OF VERTICAL POSTS SHALL BE EQUAL THROUGHOUT EACH SECTION OF THE HANDRAIL.

METAL PIPE HANDRAIL DETAIL
NOT TO SCALE

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SCANNELL
PROPERTIES

STATE OF MISSOURI
MITCHELL ALAN
REGISTERED PROFESSIONAL ENGINEER
NUMBER
PE-2000015764
EXPIRATION DATE
12-31-25

REV	DATE	REVISIONS DESCRIPTION
1	12/28/2021	CITY COMMENTS
2	01/28/2022	DESIGN AND DIMENSION CHANGES
3	02/03/2022	CITY & ENGINEER COMMENTS

STANDARD DETAILS
PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: 02104157.dwg
date:

SHEET
C8.02

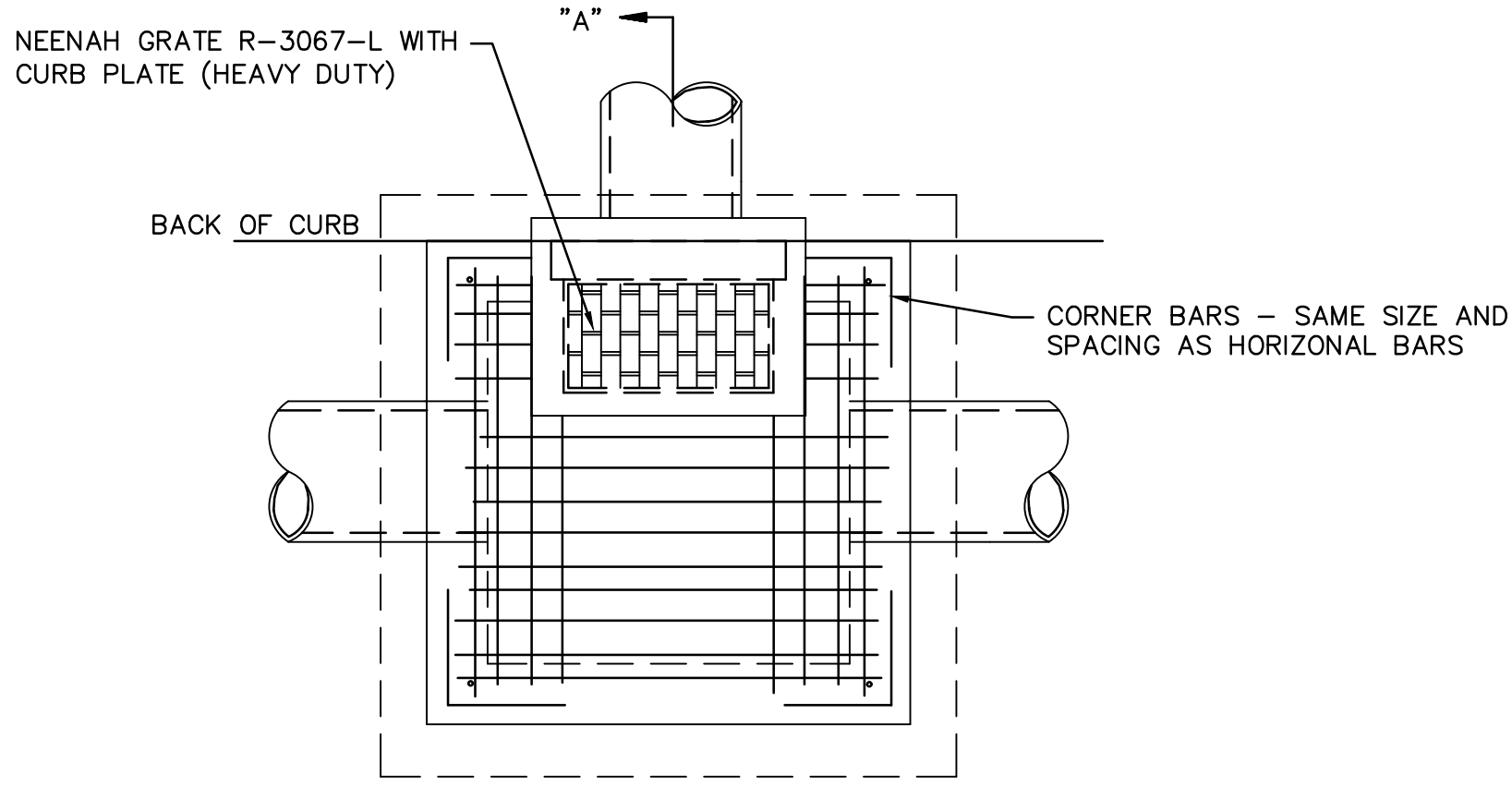
REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"

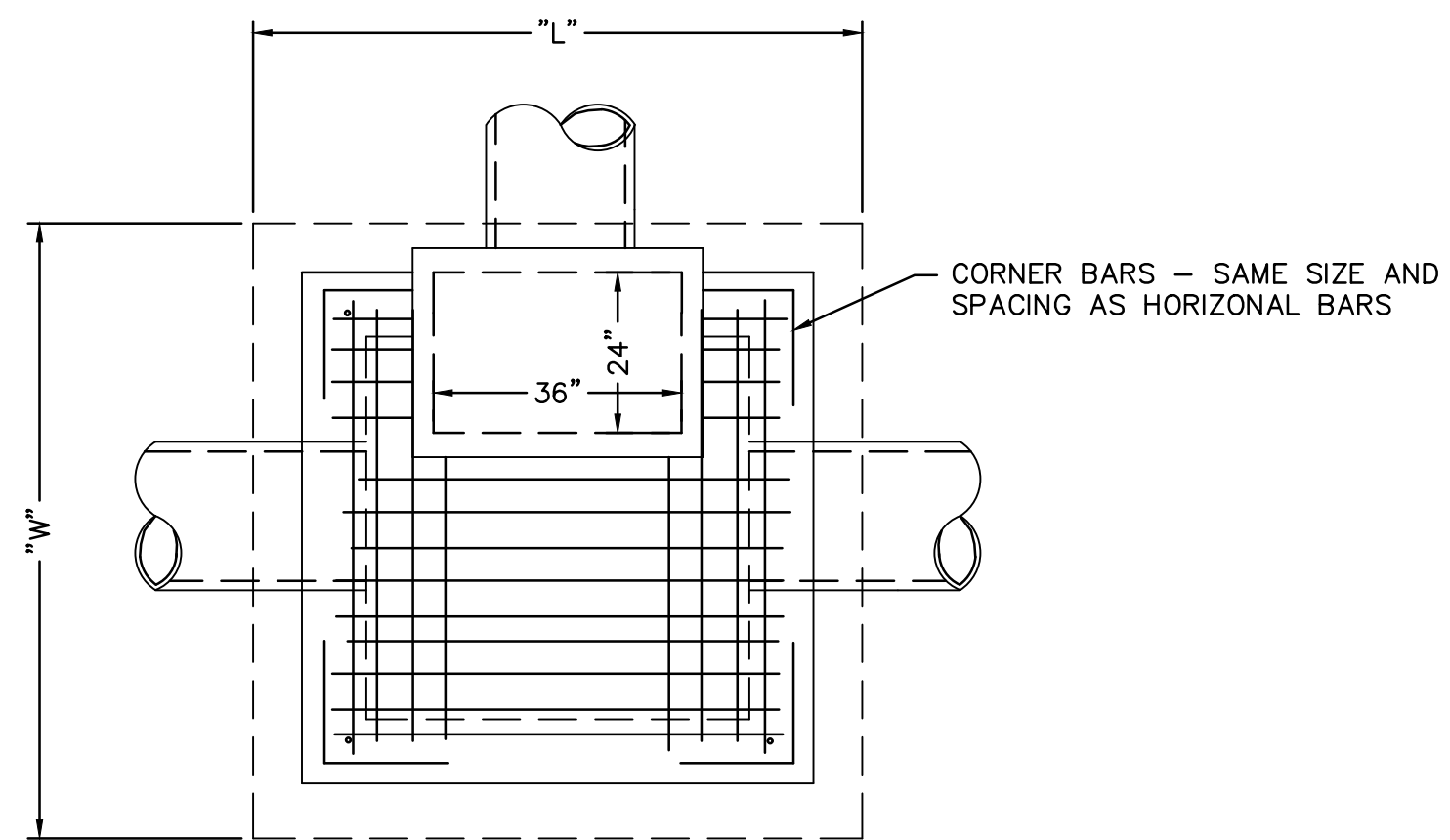
TABLE OF "T" & "N" DIMENSIONS				
SECTION	WDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	8"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
L = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
L = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
L = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER

TABLE OF "W" DIMENSIONS					
PIPE SIZE	SKEW OF CROSS DRAIN				PIPE SIZE
	STRAIGHT	30°	45°		
24"	4'-0"	4'-0"	4'-10"		SINGLE
30"	4'-0"	4'-7"	5'-8"		DOUBLE
36"	4'-0"	5'-3"	6'-5"		FOR "A" SECTION ONLY
42"	5'-3"	5'-11"	7'-3"	24"	7'-0"
48"	5'-10"	6'-7"	8'-0"	30"	7'-10"
60"	7'-0"	7'-10"	9'-8"	36"	9'-5"
				42"	11'-0"
				48"	11'-8"
					13'-2"
					15'-10"



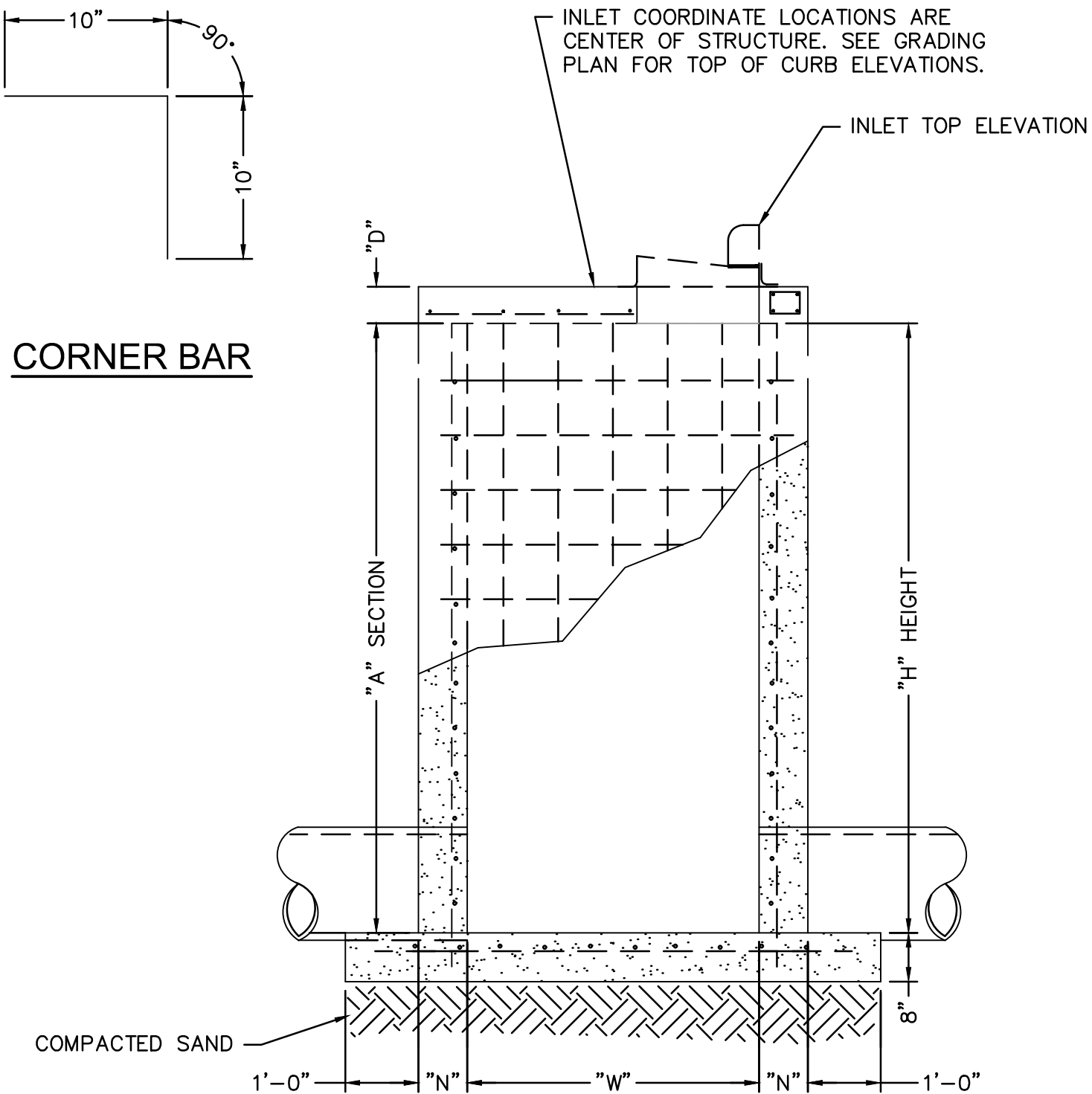
PLAN OF GRATE INLET TYPE 2



TOP VIEW

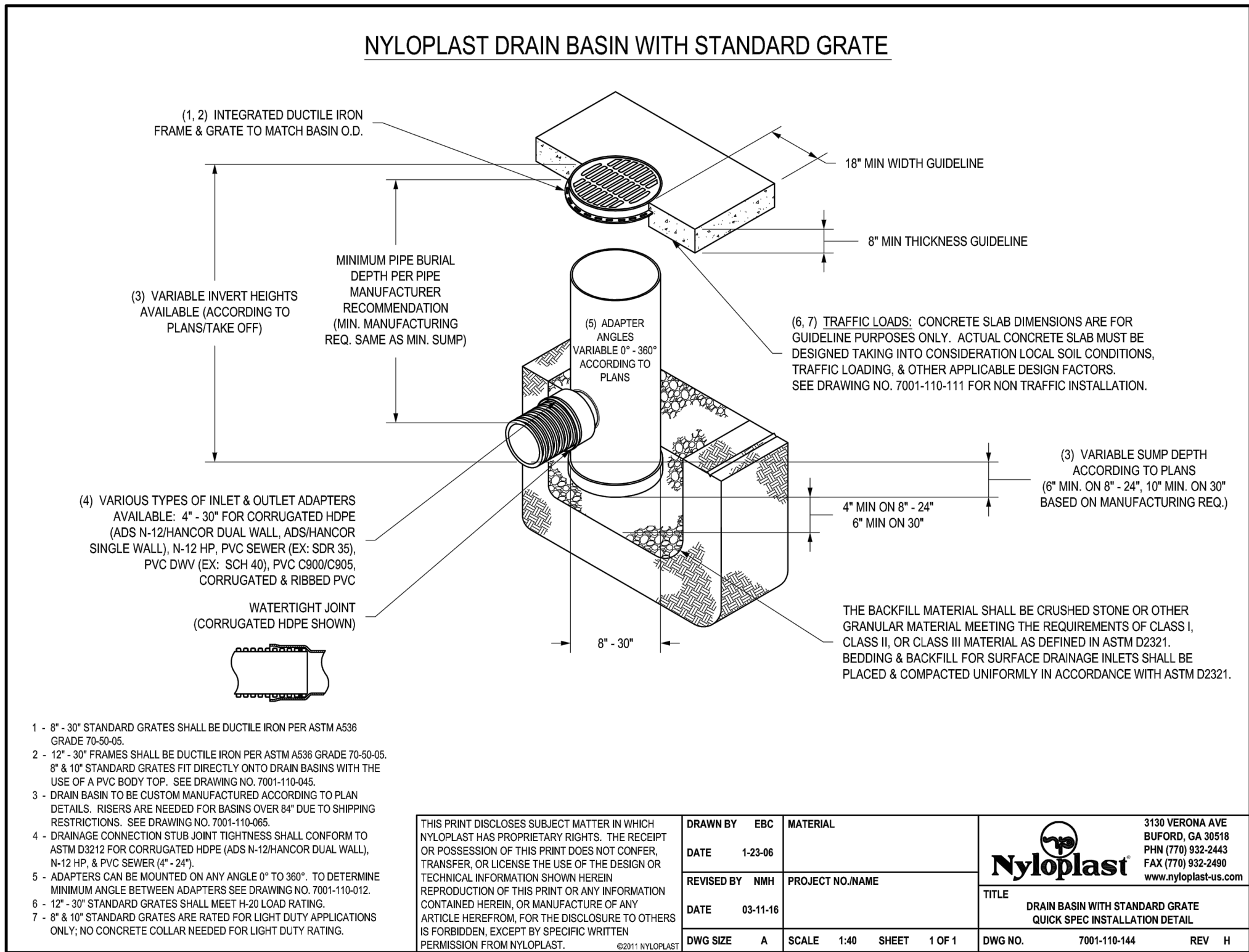
- GENERAL NOTES:**
- ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
 - ALL #4 & #5 REINFORCING BARS TO HAVE 1 1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
 - SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
 - PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF BOX.
 - ALL REINFORCING BARS TO BE GRADE 40.
 - A 2' MINIMUM INTERIOR WALL WIDTH IS REQUIRED FOR SIDES WITHOUT PIPES AND A 4' MINIMUM IS REQUIRED FOR SIDES WITH PIPES.
- CURB/GRATE INLET NOTES:**
- CONCRETE USED IN THIS WORK SHALL BE APPROVED BY THE CITY.
 - THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
 - EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.
 - INSTALL ANGLE IRON FACE ON ALL INLETS.
 - STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
 - CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND., INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY. THE DISTANCE FROM THE LAST STEP TO THE TOP OF CONCRETE INVERT SHOULD BE A MAXIMUM OF 24".
 - BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.
 - ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
 - ALL STORM SEWER STRUCTURES SHALL BE PRECAST. PRECAST SHOP DRAWINGS SHALL BE APPROVED BY THE DESIGN ENGINEER.
 - REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
 - ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. ALL LAP SPICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
 - ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL.
 - BAR SUPPORTS @ 3'-0" MAXIMUM SPACING. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES.
 - ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE.
 - ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.

CORNER BAR



SECTION A-A

STANDARD STORM SEWER CURB/GRATE INLET
NOT TO SCALE



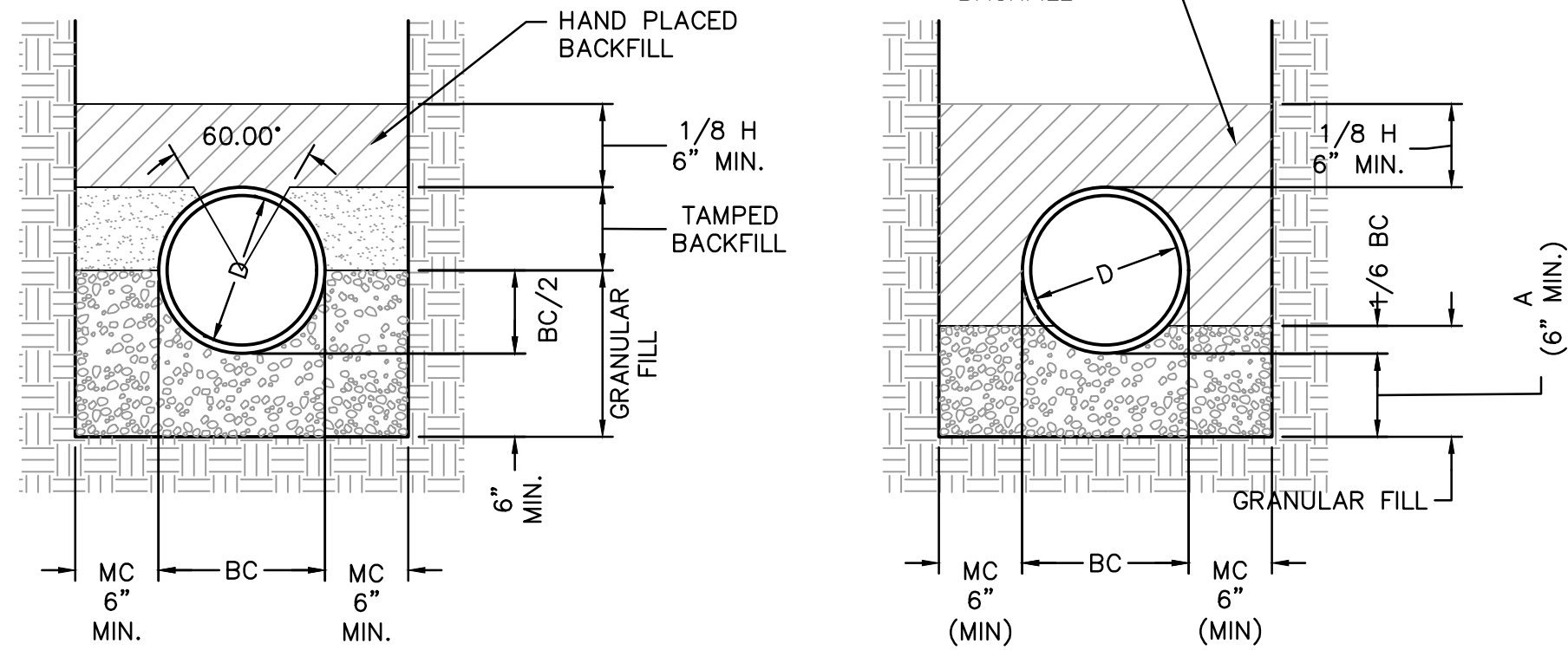
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECIPIER OF POSSESSION OF THIS PRINT DOES NOT CONVEY, TRANSFER OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION HEREIN OR ANY REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IN FORM OR IN ANY MANNER WITHOUT THE WRITTEN PERMISSION FROM NYLOPLAST.		DRAWN BY: EBC	DATE: 1-24-21	MATERIAL: 3150 VERONA AVE. BURLINGTON, MA 01803
DWG SIZE: A	SCALE: 1/4" = 1'-0"	SHEET: 1 OF 1	DWG NO.: 7001-110-144	REV: H

TABLE OF FILL DEPTHS BELOW PIPE		
D	"A" MIN. IN SOIL	"A" MIN. IN ROCK
27" & SMALLER	6"	6"
30" TO 66"	6"	9"
66" & LARGER	6"	12"

TABLE OF TRENCH WIDTHS		
PIPE SIZE (INCHES)	MINIMUM TRENCH WIDTH (INCHES)	MINIMUM SIDE WALL CLEARANCE (INCHES)
18	35	6
21	39	6 1/2
24	44	7
27	49	8
30	54	8 1/2
33	58	9
36	64	10
42	73	11
48	83	12 1/2
54	92	13 1/2
60	102	15
66	109	15

LEGEND

- BC = OUTSIDE DIAMETER OF PIPE
H = BACKFILL COVER ABOVE TOP OF PIPE
D = NOMINAL PIPE DIAMETER
A = FILL BELOW PIPE (SEE TABLE)
MC = MINIMUM SIDEWALL CLEARANCE (SEE TABLE)



CLASS B

FIRST CLASS BEDDING

CLASS C

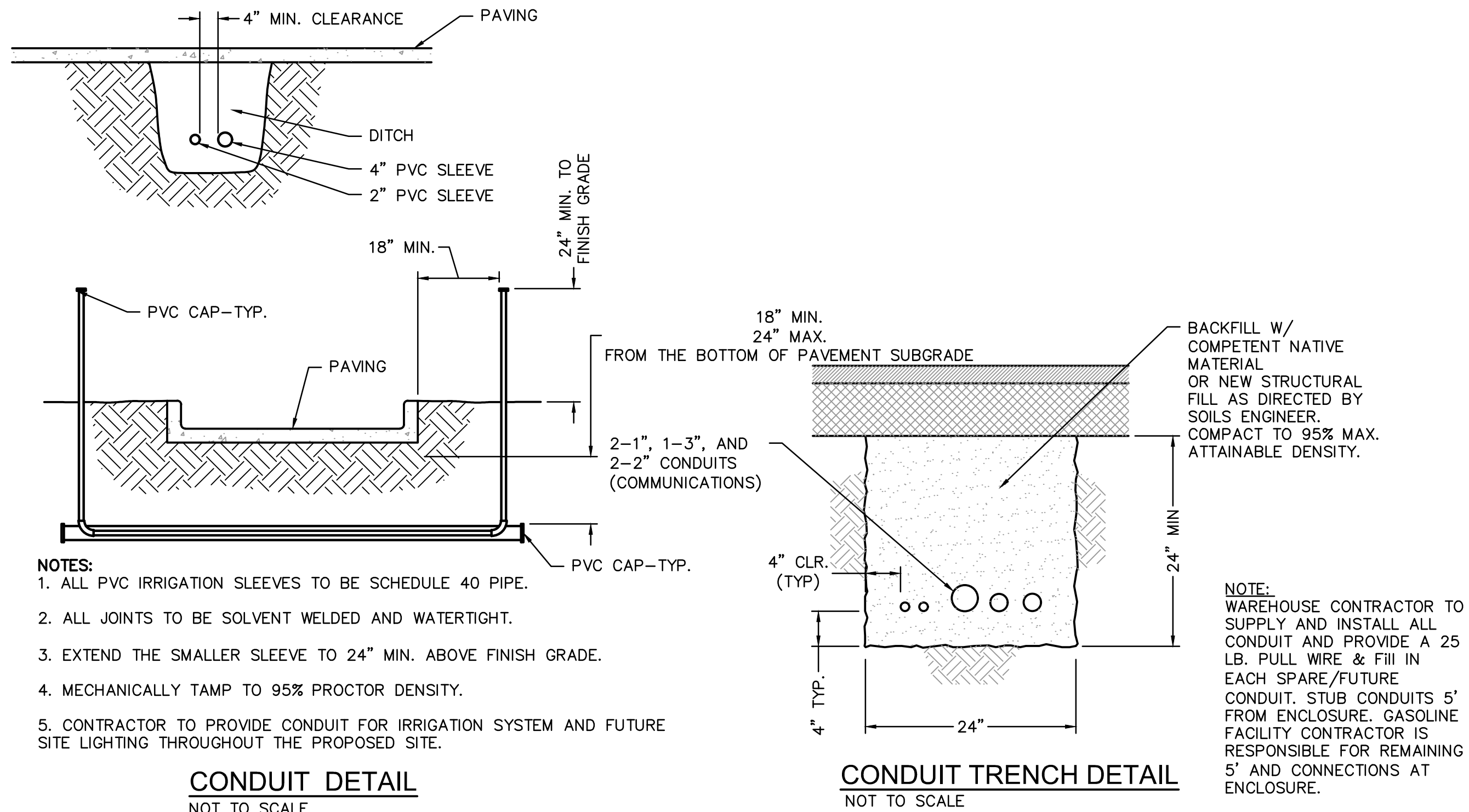
ORDINARY BEDDING

BEDDING NOTES

- GRANULAR FILL TO BE CRUSHED STONE OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2" SIEVE AND NOT LESS THAN 95% TO BE RETAINED ON A #4 SIEVE, TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL.
- TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO STANDARD METHOD T-99. GRANULAR FILL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACKFILL.
- HAND PLACED BACKFILL SHALL BE FINELY DIVIDED MATERIAL FREE FROM DEBRIS AND STONES.

STORM SEWER TRENCH DETAIL

NOT TO SCALE



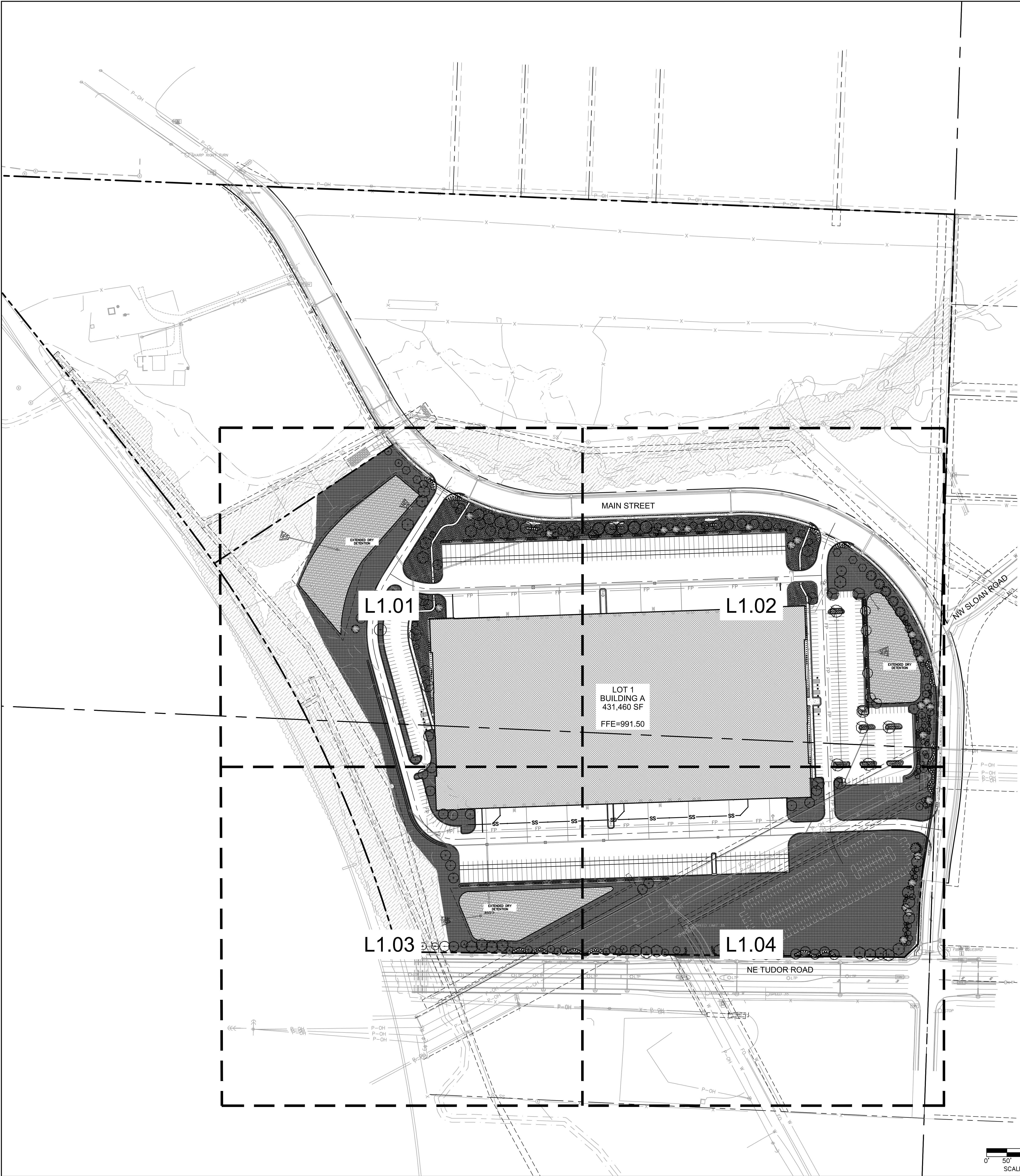
CONDUIT DETAIL

NOT TO SCALE

CONDUIT TRENCH DETAIL

NOT TO SCALE

REV.	NO.	DATE	REVISIONS DESCRIPTION
1	1	12/28/2021	CITY COMMENTS
2	2	01/05/2022	ADD AND CHANGE CHANGES
3	3	02/03/2022	CITY & ENERGY COMMENTS



0' 50' 100' 200'
SCALE IN FEET

LANDSCAPE CALCULATIONS - LOT 1

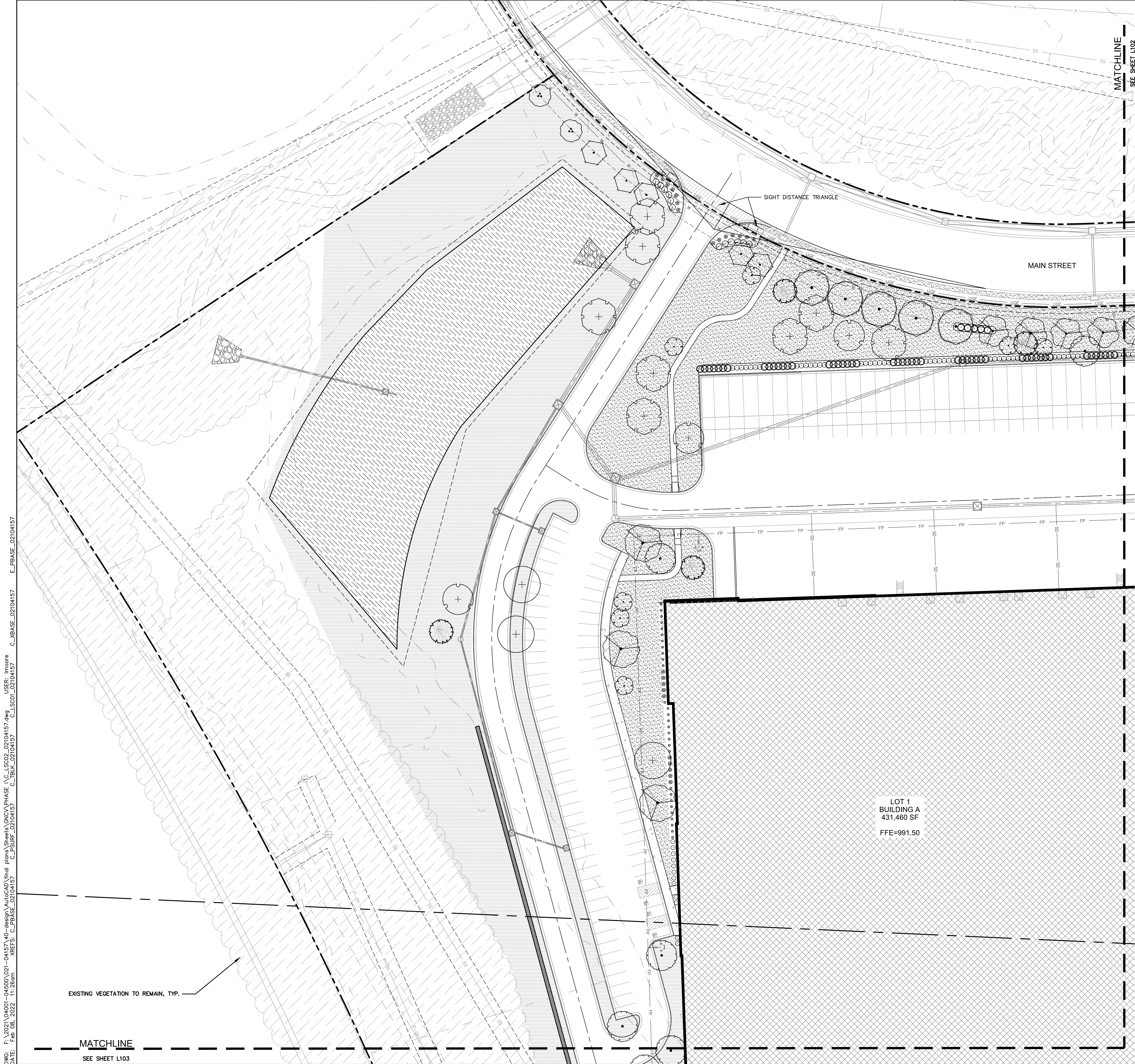
OPEN YARD AREAS
1 TREE AND 2 SHRUBS PER 5,000 SF OF TOTAL LOT AREA EXCLUDING BUILDING FOOTPRINT AREA AND TRACTS.
1,008,818 SF / 5,000 SF
201.76 TREES REQUIRED
77 TREES PROVIDED
**SEE PLAN FOR EXISTING TREE MASSES TO REMAIN
403.5 SHRUBS REQUIRED
469 SHRUBS PROVIDED

STREET FRONTAGE REQUIREMENT
MAIN STREET (SOUTH SIDE)
1,334 LF
1 TREE / 30' OF STREET FRONTAGE
44.46 TREES REQUIRED
44 TREES PROVIDED
1 SHRUB PER 20' OF STREET FRONTAGE
67 SHRUBS REQUIRED
67 SHRUBS PROVIDED

TUDOR ROAD
1,215 LF
1 TREE / 30' OF STREET FRONTAGE
40 TREES REQUIRED
40 TREES PROVIDED
1 SHRUB PER 20' OF STREET FRONTAGE
60 SHRUBS REQUIRED
60 SHRUBS PROVIDED

BUFFER-EAST SIDE
ALONG ABUTTING LAND USES REQUIRES MEDIUM IMPACT SCREENING.
1 SHADE TREE / 1,000 SF
12 SHADE TREES REQUIRED
6 SHADE TREES PROVIDED
1 ORNAMENTAL TREE / 500 SF
24 ORNAMENTAL TREES REQUIRED
37 ORNAMENTAL TREES PROVIDED
1 EVERGREEN TREE / 300 SF
40 EVERGREEN TREES REQUIRED
43 EVERGREEN TREES PROVIDED
1 SHRUB / 200 SF
60 SHRUBS REQUIRED
67 SHRUBS PROVIDED
** ADJUSTMENTS MADE DUE TO OVERHEAD POWERLINES

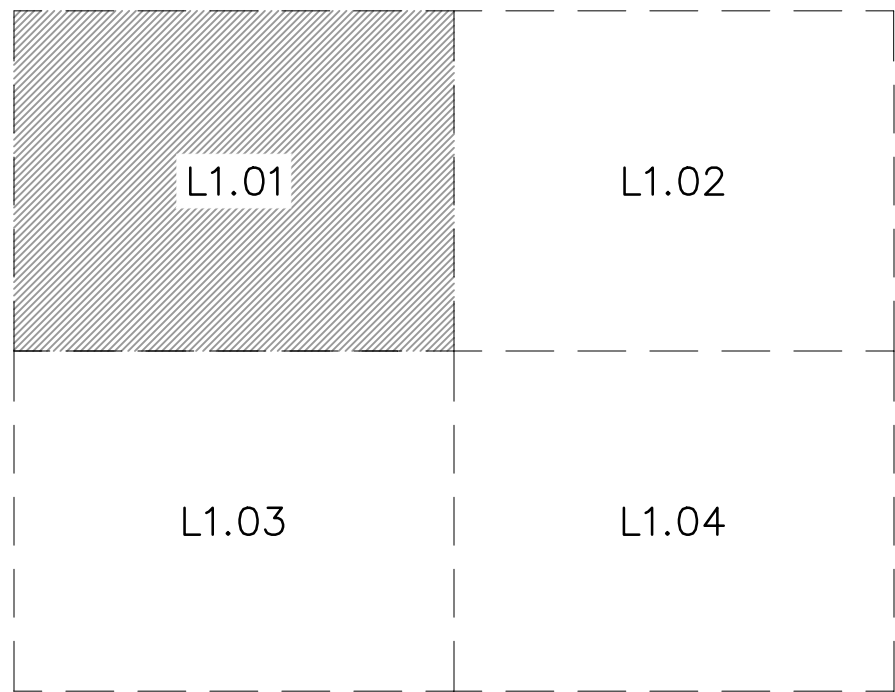
PLANT SCHEDULE					
DECIDUOUS TREES	BOTANICAL / COMMON NAME	SIZE	CALIPER		QTY
	ACER MIYABEI 'STATE STREET' MIYABEI MAPLE	B & B	3"		9
	EUCOMMIA ULMOIDES HARDY RUBBER TREE	B & B	3"		12
	GINKGO BILOBA 'PRINCETON SENTRY' PRINCETON SENTRY GINKGO	B & B	3"		5
	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER' SHADEMASTER LOCUST	B & B	3"		14
	PLATANUS X ACERIFOLIA 'EXCLAMATION' TM EXCLAMATION LONDON PLANE TREE	B & B	3"		29
	QUERCUS BICOLOR SWAMP WHITE OAK	B & B	3"		5
	QUERCUS MACROCARPA BURR OAK	B & B	3"		3
	QUERCUS SHUMARDII SHUMARD RED OAK	B & B	3"		26
	TAXODIUM DISTICHUM 'SHAWNEE BRAVE' TM BALD CYPRESS	B & B	3"		5
	TILIA AMERICANA 'BOULEVARD' BOULEVARD LINDEN	B & B	3"		5
	ULMUS PROPINQUA 'EMERALD SUNSHINE' EMERALD SUNSHINE ELM	B & B	3"		7
	ZELKOVA SERRATA 'MUSASHINO' SAWLEAF ZELKOVA	B & B	3"		11
EVERGREEN TREES	BOTANICAL / COMMON NAME	SIZE	CALIPER		QTY
	JUNIPERUS VIRGINIANA 'CANAERTII' CANAERTII JUNIPER	B&B, 8' HT.			32
	PICEA ABIES NORWAY SPRUCE	B&B, 8' HT.			22
ORNAMENTAL TREES	BOTANICAL / COMMON NAME	SIZE	CALIPER		QTY
	ACER TATARICUM 'HOT WINGS' HOT WINGS TATARIAN MAPLE	B&B, 8' HT.			2
	AMELANCHIER CANADENSIS 'AUTUMN BRILLIANCE' AUTUMN BRILLIANCE SERVICEBERRY	B & B	3"		25
	CERCIS CANADENSIS EASTERN REDBUD	B & B	3"		26
	MALUS X 'PRAIRIFIRE' PRAIRIFIRE CRABAPPLE	B & B	3"		8
SHRUBS	BOTANICAL / COMMON NAME	SIZE			
	BUXUS X 'GREEN VELVET' BOXWOOD	5 GAL			22
	CORNUS STOLONIFERA 'FARROW' TM ARCTIC FIRE RED TWIG DOGWOOD	5 GAL			45
	DIERVILLA RIVULARIS 'KODIAK ORANGE' KODIAK ORANGE BUSH-HONEYSUCKLE	5 GAL			58
	JUNIPERUS CHINENSIS 'GOLD LACE' GOLD LACE JUNIPER	5 GAL			67
	JUNIPERUS CHINENSIS 'SEA GREEN' SEA GREEN JUNIPER	5 GAL			358
	PANICUM VIRGATUM 'NORTH WIND' NORTHWIND SWITCH GRASS	1 GAL			80
	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	5 GAL			72
	VIBURNUM LANTANA 'MOHICAN' MOHICAN WAYFARING TREE	5 GAL			55
	VIBURNUM NUDUM 'WINTERHUR' WINTERHUR VIBURNUM	5 GAL			110
GROUND COVERS	BOTANICAL / COMMON NAME	CONT		SPACING	
	FESTUCA TURF TYPE TALL FESCUE BLEND	SEED			507,237 SF
	FESTUCA TURF TYPE TALL FESCUE BLEND	SOD			71,349 SF
NATIVE VEGETATION	BOTANICAL / COMMON NAME	CONT		SPACING	
	PANICUM VIRGATUM SWITCH GRASS	SEED			99,023 SF



PLANT SCHEDULE L1.01		
DECIDUOUS TREES	BOTANICAL / COMMON NAME	QTY
	ACER MIYABEI 'STATE STREET' MIYABEI MAPLE	5
	EUCOMMIA ULMOIDES HARDY RUBBER TREE	3
	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER' SHADEMASTER LOCUST	3
	PLATANUS X ACERIFOLIA 'EXCLAMATION' TM EXCLAMATION LONDON PLANE TREE	8
	QUERCUS MACROCARPA BURR OAK	3
	QUERCUS SHUMARDII SHUMARD RED OAK	4
	TILIA AMERICANA 'BOULEVARD' BOULEVARD LINDEN	4
	ZELKOVA SERRATA 'MUSASHINO' SAWLEAF ZELKOVA	5
EVERGREEN TREES	BOTANICAL / COMMON NAME	QTY
	PICEA ABIES NORWAY SPRUCE	4
ORNAMENTAL TREES	BOTANICAL / COMMON NAME	QTY
	CERCIS CANADENSIS EASTERN REDBUD	2
	MALUS X 'PRAIRIFIRE' PRAIRIFIRE CRABAPPLE	7
SHRUBS	BOTANICAL / COMMON NAME	QTY
	BUXUS X 'GREEN VELVET' BOXWOOD	12
	DIERVILLA RIVULARIS 'KODIAK ORANGE' KODIAK ORANGE BUSH-HONEYSUCKLE	24
	JUNIPERUS CHINENSIS 'GOLD LACE' GOLD LACE JUNIPER	12
	JUNIPERUS CHINENSIS 'SEA GREEN' SEA GREEN JUNIPER	54
	PANICUM VIRGATUM 'NORTH WIND' NORTHWIND SWITCH GRASS	29
	VIBURNUM NUDUM 'WINTERTHUR' WINTERTHUR VIBURNUM	44
GROUND COVERS	BOTANICAL / COMMON NAME	SEED
	FESTUCA TURF TYPE TALL FESCUE BLEND	
	FESTUCA TURF TYPE TALL FESCUE BLEND	SOD
NATIVE VEGETATION	BOTANICAL / COMMON NAME	QTY
	PANICUM VIRGATUM SWITCH GRASS	40,043 SF

SEE SHEET L1.0 FOR COMPLETE PLANT SCHEDULE FOR SIZE AND TOTAL QUANTITIES.

NOTE: ALL EQUIPMENT MUST BE SCREENED WHETHER OR NOT INDICATED ON PLANS. FIELD ADJUSTMENTS MAY BE NECESSARY TO ACCOMMODATE SITE CONDITIONS EQUIPMENT AND LANDSCAPE. COORDINATE WITH LANDSCAPE ARCHITECT FOR ADEQUATE SCREENING. MUST MEET CITY REQUIREMENTS.



KEY MAP
NOT TO SCALE



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MATCHLINE
SEE SHEET L103

EXISTING VEGETATION TO REMAIN, TYP.

LANDSCAPE PLAN
PHASE I FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021

drawn by: OLSSON
checked by: ENG
approved by: ENG
GNAC by: ENG
project no: 021-04157
drawing no: 021-04157.dwg
date: 02/08/2022

REVISIONS

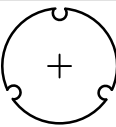
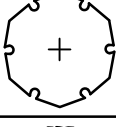

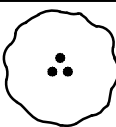




REV. NO.	DATE	REVISIONS DESCRIPTION
1	12/28/2021	CITY COMMENTS
2	01/11/2022	CITY & ENERGY COMMENTS
3	02/08/2022	CITY & ENERGY COMMENTS

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7756
TEL 913.381.1170
www.olsson.com

SEE SHEET L101

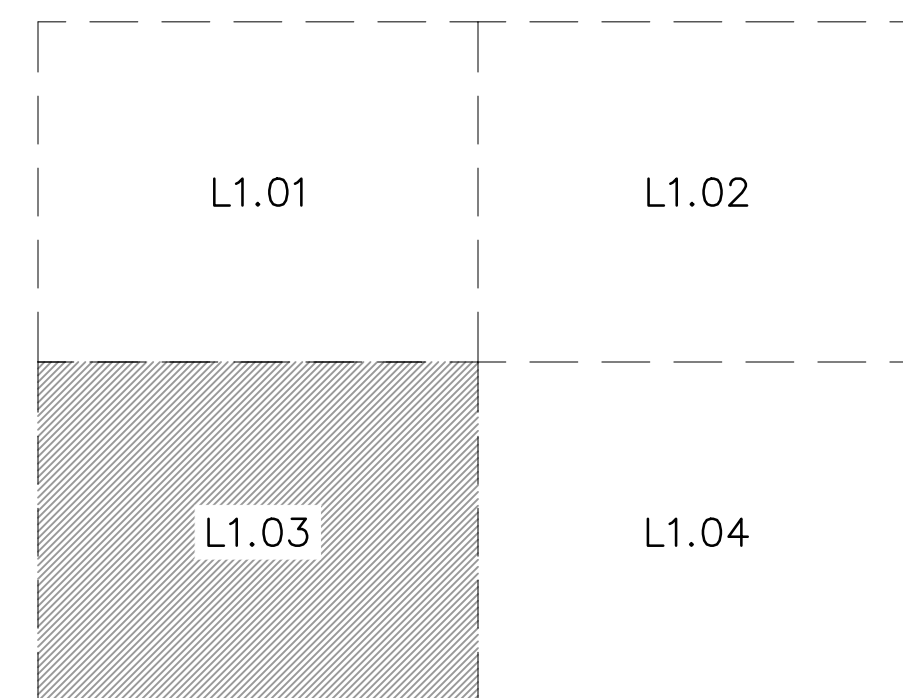
LOT 1
BUILDING A
431,460 SF
FFE=991.50

EXISTING VEGETATION TO REMAIN, TYP.

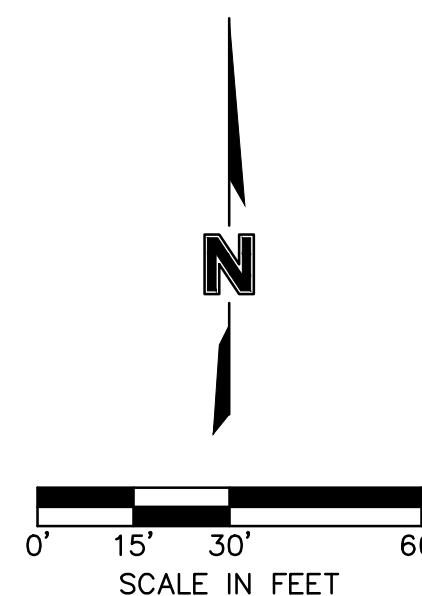
PLANT SCHEDULE L1.03			
DECIDUOUS TREES	BOTANICAL / COMMON NAME	QTY	
	EUCOMMIA ULMOIDES HARDY RUBBER TREE	2	
	PLATANUS X ACERIFOLIA 'EXCLAMATION' TM EXCLAMATION LONDON PLANE TREE	5	
	QUERCUS SHUMARDII SHUMARD RED OAK	6	
ORNAMENTAL TREES	BOTANICAL / COMMON NAME	QTY	
	CERDIS CANADENSIS EASTERN REDBUD	8	
SHRUBS	BOTANICAL / COMMON NAME	QTY	
	JUNIPERUS CHINENSIS 'SEA GREEN' SEA GREEN JUNIPER	71	
	VIBURNUM LANTANA 'MOHICAN' MOHICAN WAYFARING TREE	32	
GROUND COVERS	BOTANICAL / COMMON NAME		
	FESTUCA TURF TYPE TALL FESCUE BLEND	SEED	
NATIVE VEGETATION	BOTANICAL / COMMON NAME	QTY	
	PANICUM VIRGATUM SWITCH GRASS	31,776 SF	

SEE SHEET L1.0 FOR COMPLETE PLANT SCHEDULE FOR
SIZE AND TOTAL QUANTITIES.

NOTE: ALL EQUIPMENT MUST BE SCREENED WHETHER OR NOT INDICATED ON PLANS. FIELD ADJUSTMENTS MAY BE NECESSARY TO ACCOMMODATE SITE CONDITIONS EQUIPMENT AND LANDSCAPE. COORDINATE WITH LANDSCAPE ARCHITECT FOR ADEQUATE SCREENING. MUST MEET CITY REQUIREMENTS.



KEY MAP
NOT TO SCALE



MATCHLINE
SEE SHEET L104

LANDSCAPE PLAN
FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

LESSON ENG ENG ENG
-04157 57.dwg

REVISIONS

2021

BY

REVISIONS DESCRIPTION

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SCANNELL
PROPERTIES

[illegible]

DESCRIPTION	REVISIONS
NTS	
NTS #2 AND OWNER CHANGES	
BY COMMENTS	

DATE	REVISION
12.04.2021	CITY COMM
01.07.2022	CITY COMM
02.03.2022	CITY & EV

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APPENDIX A

LANDSCAPE PLANNING
AND DEVELOPMENT

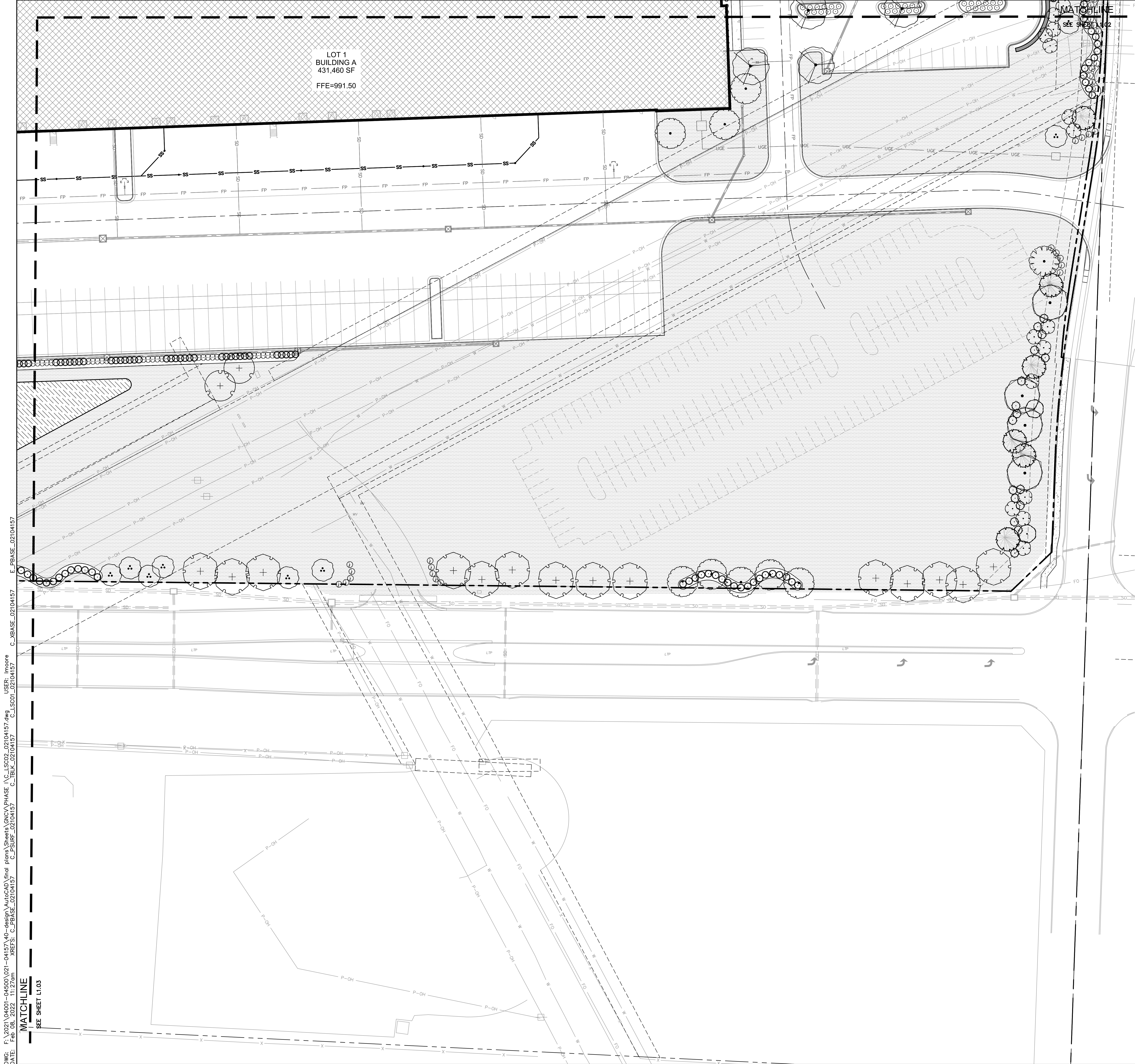
LA
PHASE I FIN
JINELL DEVELO
WEST CORNER
MISSOURI

SCA
NORTH
LEE'S SUMMIT

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing: LSC02_02104157.dwg
date:

SHEET

	DATE



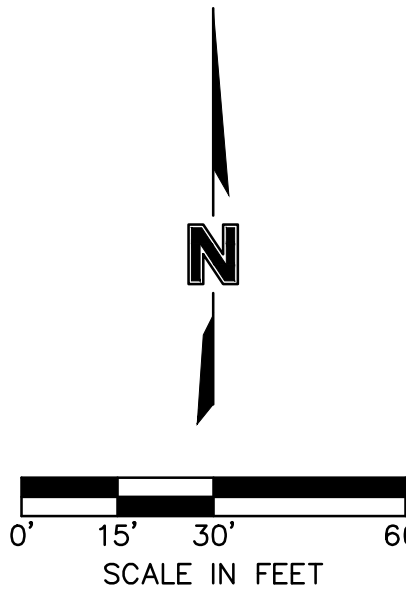
PLANT SCHEDULE L1.04		
DECIDUOUS TREES	BOTANICAL / COMMON NAME	QTY
	ACER MIYABEI 'STATE STREET' MIYABEI MAPLE	4
	EUCOMMIA ULMOIDES HARDY RUBBER TREE	3
	GLEDTISIA TRIACANTHOS INERMIS 'SHADEMASTER' SHADEMASTER LOCUST	2
	PLATANUS X ACERIFOLIA 'EXCLAMATION' TM EXCLAMATION LONDON PLANE TREE	14
	QUERCUS SHUMARDII SHUMARD RED OAK	10
	ULMUS PROPINQUA 'EMERALD SUNSHINE' EMERALD SUNSHINE ELM	1
EVERGREEN TREES	BOTANICAL / COMMON NAME	QTY
	JUNIPERUS VIRGINIANA 'CANAERTII' CANAERTI JUNIPER	16
	PICEA ABIES NORWAY SPRUCE	6
ORNAMENTAL TREES	BOTANICAL / COMMON NAME	QTY
	ACER TATARICUM 'HOT WINGS' HOT WINGS TATARIAN MAPLE	2
	AMELANCHIER CANADENSIS 'AUTUMN BRILLIANCE' AUTUMN BRILLIANCE SERVICEBERRY	13
	CERCIS CANADENSIS EASTERN REDBUD	8
SHRUBS	BOTANICAL / COMMON NAME	QTY
	JUNIPERUS CHINENSIS 'GOLD LACE' GOLD LACE JUNIPER	27
	JUNIPERUS CHINENSIS 'SEA GREEN' SEA GREEN JUNIPER	74
	PANICUM VIRGATUM 'NORTH WIND' NORTHWIND SWITCH GRASS	6
	VIBURNUM LANTANA 'MOHICAN' MOHICAN WAYFARING TREE	23
GROUND COVERS	BOTANICAL / COMMON NAME	SEED
	FESTUCA TURF TYPE TALL FESCUE BLEND	

SEE SHEET L1.0 FOR COMPLETE PLANT SCHEDULE FOR SIZE AND TOTAL QUANTITIES.

NOTE: ALL EQUIPMENT MUST BE SCREENED WHETHER OR NOT INDICATED ON PLANS. FIELD ADJUSTMENTS MAY BE NECESSARY TO ACCOMMODATE SITE CONDITIONS EQUIPMENT AND LANDSCAPE. COORDINATE WITH LANDSCAPE ARCHITECT FOR ADEQUATE SCREENING. MUST MEET CITY REQUIREMENTS.



KEY MAP
NOT TO SCALE



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MATCHLINE SEE SHEET L1.03

LANDSCAPE PLAN
PHASE I FINAL DEVELOPMENT PLAN
SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

2021

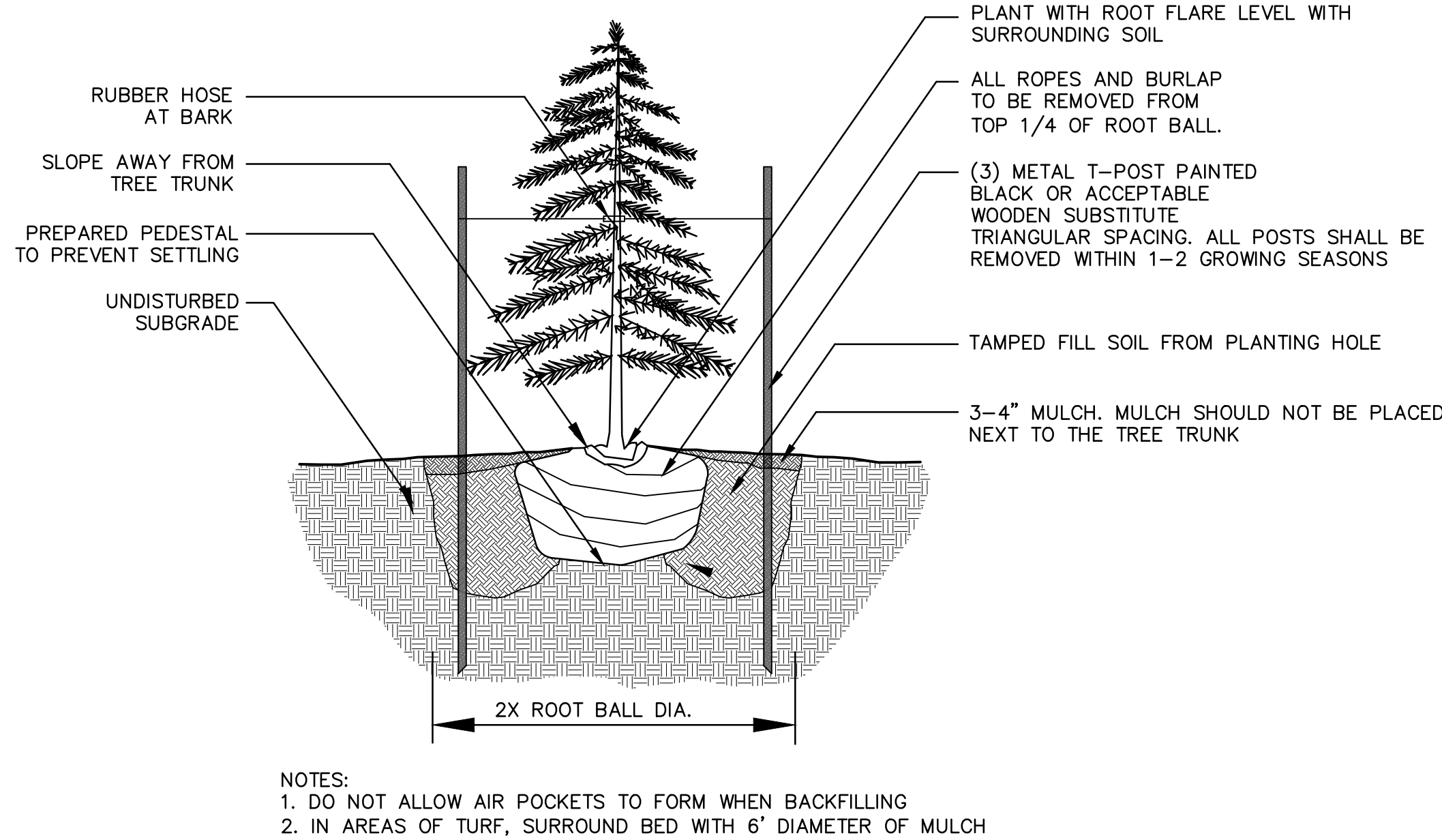
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checked by: ENG
approved by: ENG
GNAC by: ENG
project no.: 021-04157
drawing no.: 021-S002_02104157.dwg
date:

BY:
REVISIONS DESCRIPTION
DATE
REV. NO.
1 12.28.2021 CITY COMMENTS
2 01.03.2022 CITY & ENERGY COMMENTS
3 02.03.2022 CITY & ENERGY COMMENTS

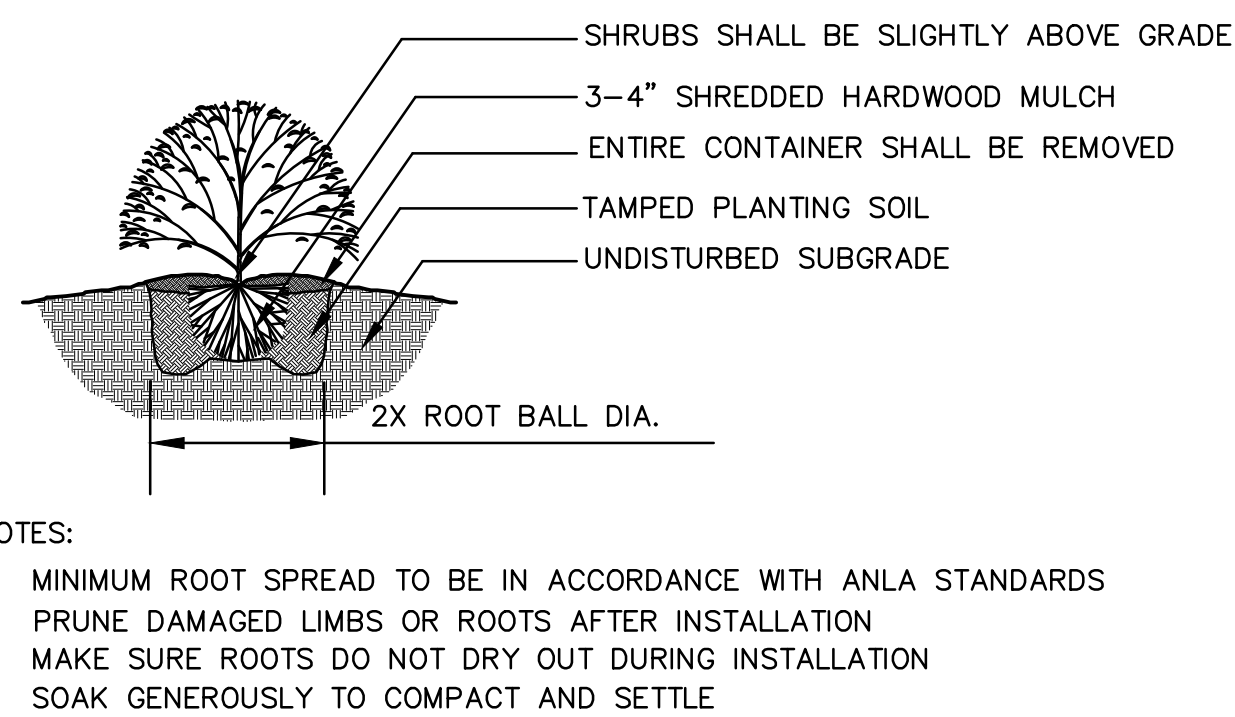
REVISIONS

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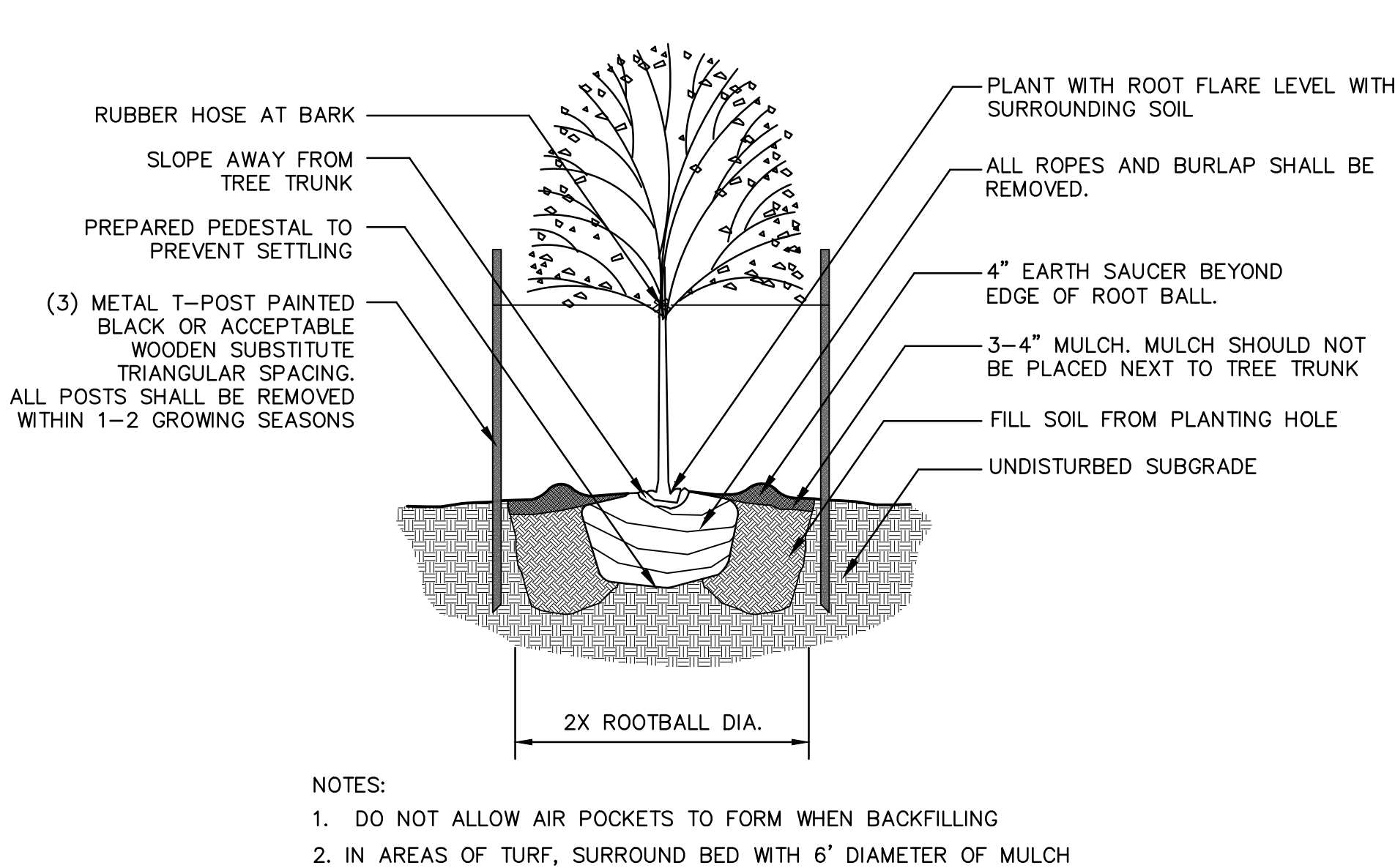
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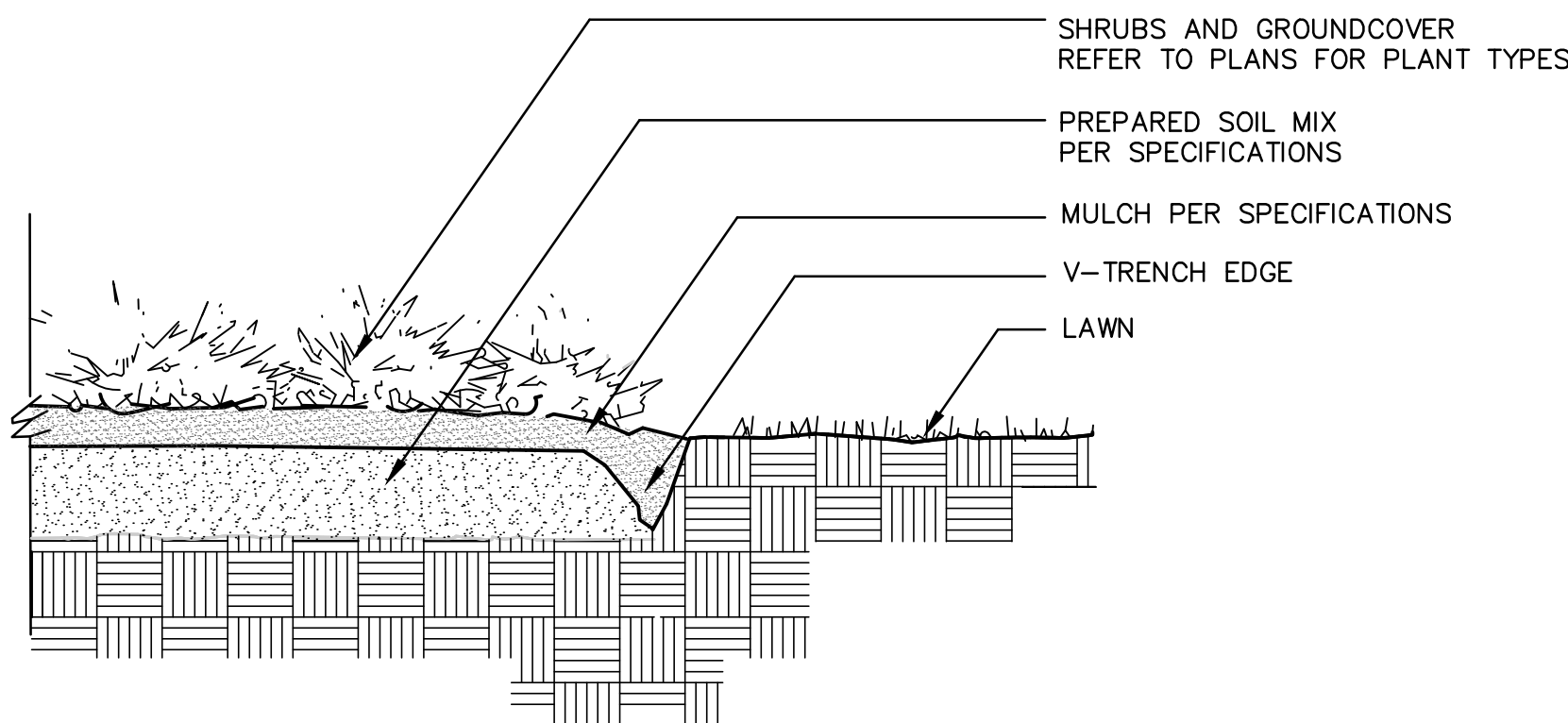
1 Evergreen Tree Planting Detail
not to scale



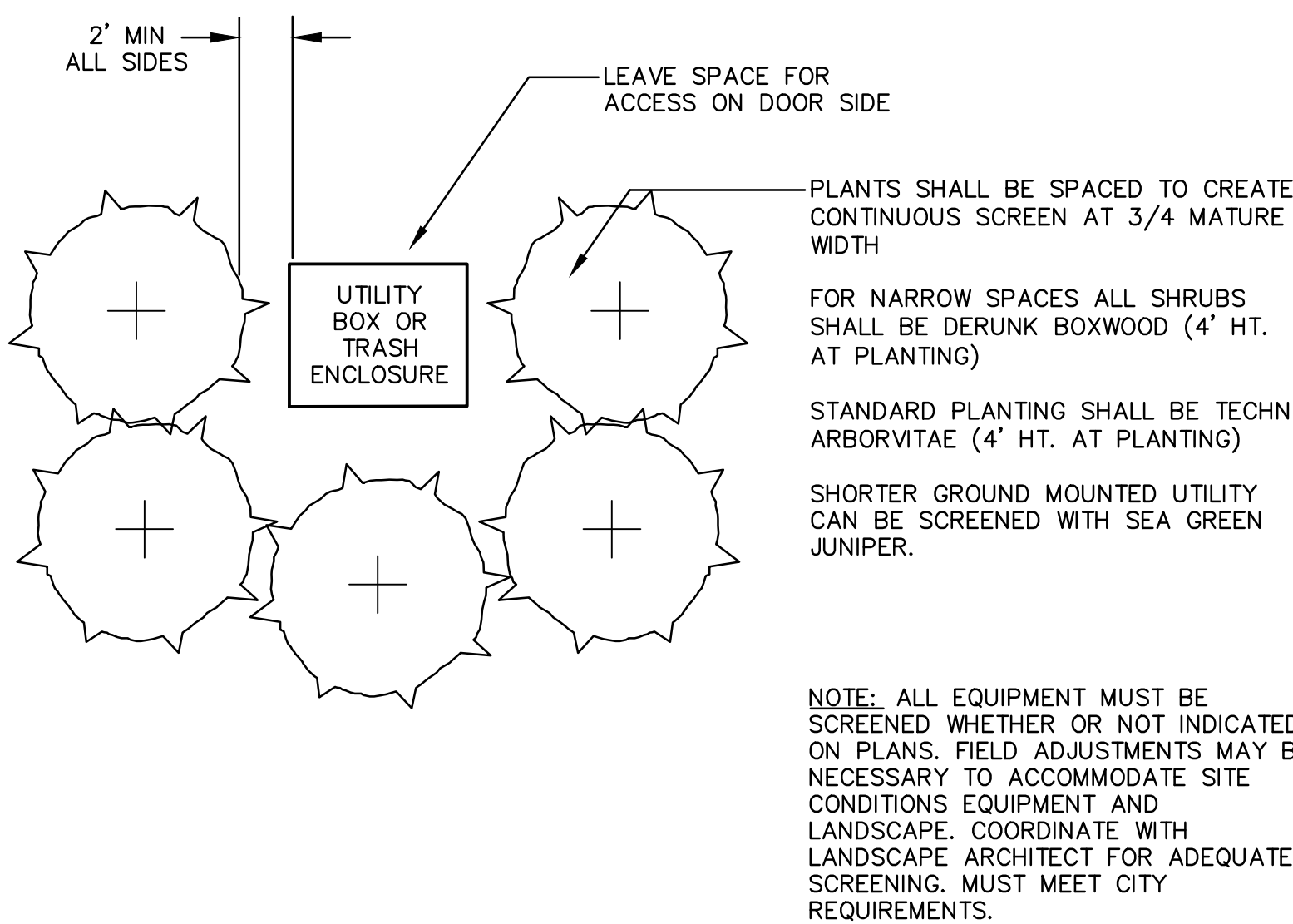
3 Shrub Planting Detail
not to scale



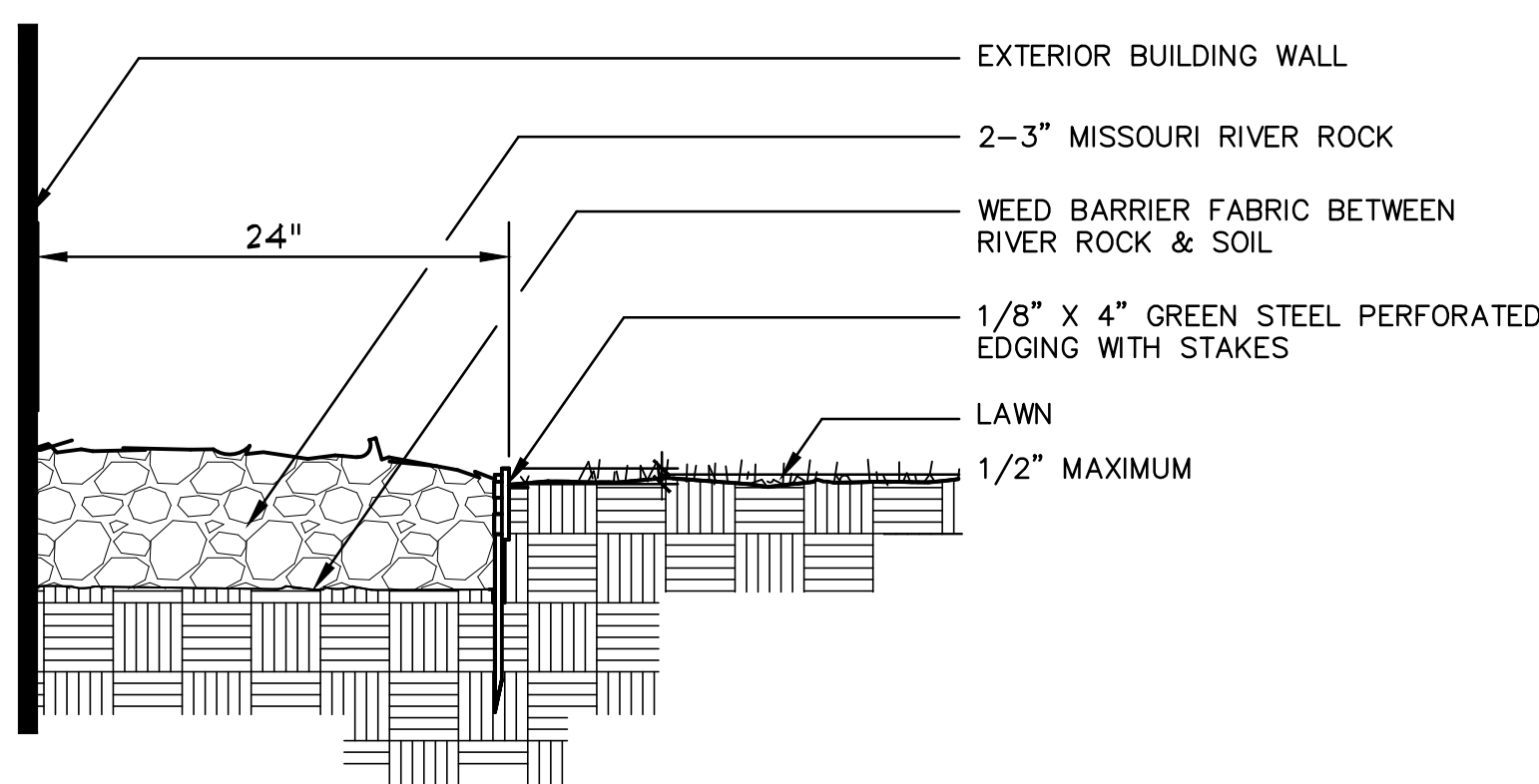
2 Deciduous Tree Planting Detail
not to scale



4 V-Trench Edging Detail
not to scale



6 Ground Mounted Mechanical Equipment Screening Detail
not to scale



7 Mow Strip Detail
not to scale

PLANTING NOTES

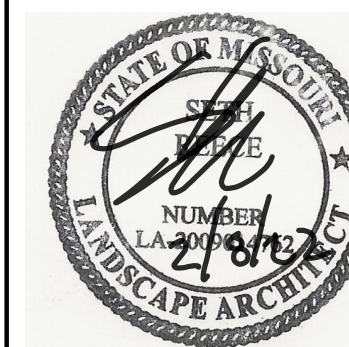
- ALL WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES.
- LOCATE AND FLAG ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING OVERHEAD AND UNDERGROUND UTILITIES. ANY DAMAGE TO SUCH SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- PLANTS AND OTHER MATERIALS ARE QUANTIFIED AND SUMMARIZED FOR THE CONVENIENCE OF THE CITY AND LOCAL GOVERNING BODIES. CONFIRM AND INSTALL SUFFICIENT QUANTITIES TO COMPLETE THE WORK AS DRAWN.
- PLAN IS SUBJECT TO CHANGES BASED ON PLANT SIZE AND MATERIAL AVAILABILITY. ALL CHANGES OR SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF LEE'S SUMMIT, MO AND THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN TO MEET MINIMUM SIZE AS SPECIFIED IN THE AMERICAN STANDARD FOR NURSERY STOCK ESTABLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA). THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL TREES SHALL BE CALIPERED AND ANY UNDERSIZED TREES SHALL BE REJECTED. SPECIFIED CALIPER MEASUREMENT FOR TREES SHALL BE MEASURED AT 12" ABOVE THE GRADE.
- PLANTING OF TREES, SHRUBS, SODDED AND SEEDED TURFGRASS SHALL BE COMMENCED DURING EITHER THE SPRING (MARCH 15-JUNE 15) OR FALL (SEPTEMBER 1 - OCTOBER 15) PLANTING SEASON AND WITH WATER AVAILABLE FOR IRRIGATION PURPOSES.
- CONTRACTOR SHALL STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL HAVE THE LANDSCAPE ARCHITECT APPROVE ALL STAKING PRIOR TO INSTALLATION. FIELD ADJUSTMENTS MAY BE NECESSARY BASED UPON FIELD CONDITIONS (I.E. ROOT BALL AND DROP INLET CONFLICT). ALL ADJUSTMENTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.
- THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS INJURIOUS TO PLANT GROWTH FROM PLANTING PITS AND BEDS PRIOR TO BACKFILLING WITH PLANTING MIX.
- A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL SHRUB BEDS PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.
- BACKFILL ALL PLANTING BEDS TO A MINIMUM 12-INCH DEPTH WITH PLANTING SOIL MIX. PLANTING SOIL MIX SHALL CONSIST OF ONE (1) PART PERLITE, ONE (1) PART PEAT MOSS, AND TWO (2) PARTS CLEAN LOAM TOPSOIL. THOROUGHLY MIX PLANTING SOIL COMPONENTS PRIOR TO PLACEMENT.
- ALL LANDSCAPE PLANTING AREAS, EXCLUDING TURF AREAS SHALL BE MULCHED WITH A MINIMUM OF 3-4" SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED ON PLANS.
- V-TRENCH LANDSCAPE EDGING IS TO BE USED ON ALL LANDSCAPE BEDS ABUTTING SODDED AREAS.
- ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH A HIGH-EFFICIENCY, AUTOMATIC IRRIGATION SYSTEM ACHIEVING 100% EVEN COVERAGE OF ALL LANDSCAPE AREAS. IRRIGATION SYSTEM SHALL BE DESIGN-BUILD TO MEET ALL CITY REQUIREMENTS.
- LANDSCAPE CONTRACTOR IS TO BE RESPONSIBLE FOR WATERING ALL PLANT MATERIALS UNTIL THE TIME THE PERMANENT IRRIGATION SYSTEM IS FULLY FUNCTIONAL AND ACCEPTANCE OF THE PROJECT HAS TAKEN PLACE. ANY MATERIAL WHICH DIES, OR DEFOLIATES (PRIOR TO ACCEPTANCE OF THE WORK) WILL BE PROMPTLY REMOVED AND REPLACED.
- THE CONTRACTOR WILL COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. CONTRACTOR WILL MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).

SODDING NOTES

- ALL DISTURBED AREAS SHALL BE SODDED WITH TURF-TYPE TALL FESCUE SOD WITH A MINIMUM OF 3 CULTIVARS.
- ALL LAWN AREAS SHALL RECEIVE A MINIMUM 6-INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
- THE ENTIRE SURFACE TO BE SODDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.
- SOD SHALL BE MACHINE STRIPPED AT A UNIFORM SOIL THICKNESS OF APPROXIMATELY ONE INCH (PLUS OR MINUS 1/4-INCH). THE MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH, AND SHALL BE DETERMINED AT THE TIME OF CUTTING IN THE FIELD. PRECAUTIONS SHALL BE TAKEN TO PREVENT DRYING AND HEATING. SOD DAMAGED BY HEAT AND DRY CONDITIONS, AND SOD CUT MORE THAN 18 HOURS BEFORE BEING INCORPORATED INTO THE WORK SHALL NOT BE USED.
- HANDLING OF SOD SHALL BE DONE IN A MANNER THAT WILL PREVENT TEARING, BREAKING, DRYING AND OTHER DAMAGE. PROTECT EXPOSED ROOTS FROM DEHYDRATION. DO NOT DELIVER MORE SOD THAN CAN BE LAID WITHIN 24 HOURS.
- MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE INSTALLING SOD. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1-1/2-INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 1000 S.F.
- SOD SHALL BE CAREFULLY PLACED IN THE DIRECTION PARALLEL WITH THE SLOPE OF THE AREA TO BE SODDED. SOD STRIPS SHALL BE BUTTED TOGETHER BUT NOT OVERLAPPED WITH THE SEAMS STAGGERED ON EACH ROW.
- FERTILIZER SHALL BE 20-10-5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF MISSOURI DEPT. OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN THAT ORDER.
- ALL SOD ON SLOPES GREATER THAN 5:1 AND WITHIN DETENTION AREAS SHALL BE STAKED.
- SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES BELOW SOD.
- CONTRACTOR SHALL PROVIDE FULL MAINTENANCE FOR SODDED TURF GRASS FOR A PERIOD OF 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF MUST BE ESTABLISHED. THE TURF GRASS SHALL BE FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.

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SCANNELL
PROPERTIES



REV.	NO.	DATE	REVISIONS DESCRIPTION
1	1	12.28.2021	CITY COMMENTS
2	2	01.03.2022	REVISED AND CHANGED
3	3	02.03.2022	CITY & ENERGY COMMENTS

REV.	NO.	DATE	REVISIONS DESCRIPTION
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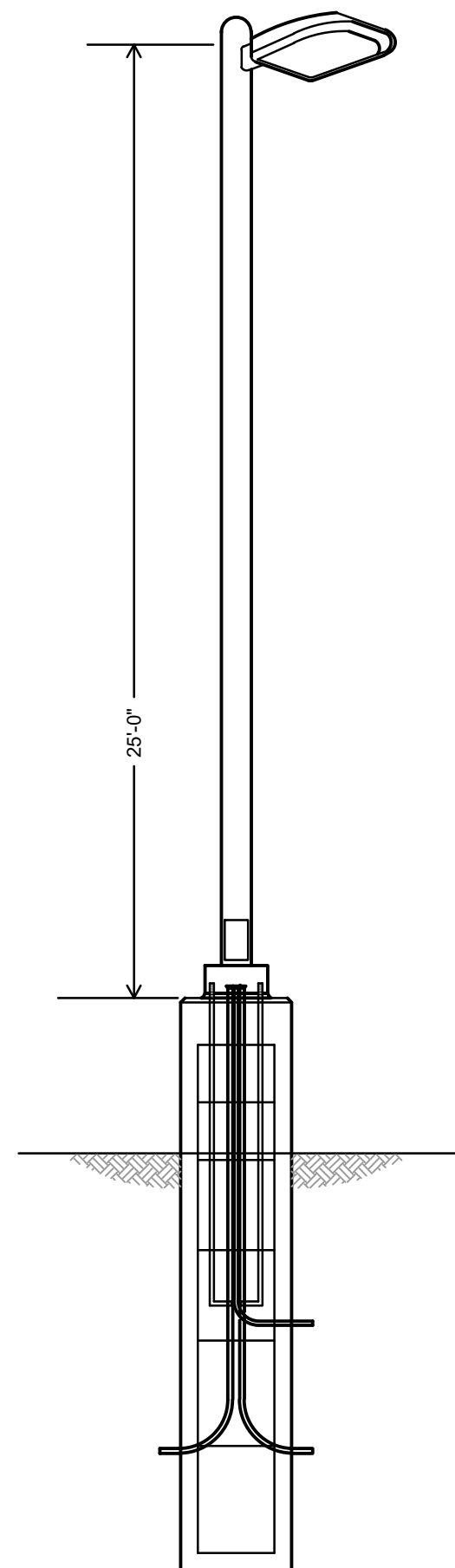
LANDSCAPE NOTES & DETAILS
PHASE I/FINAL DEVELOPMENT PLAN

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no.: 021-04157
drawing no.: 021-04157.dwg
date:

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7301 West 133rd Street, Suite 200
Overland Park, KS 66213-7750
TEL 913.381.1170
www.olsson.com



MATCHLINE
SEE SHEET E1.03

SHEET
E1.01

2021

REVISIONS

EV. NO.	DATE	REVISIONS DESCRIPTION
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BY



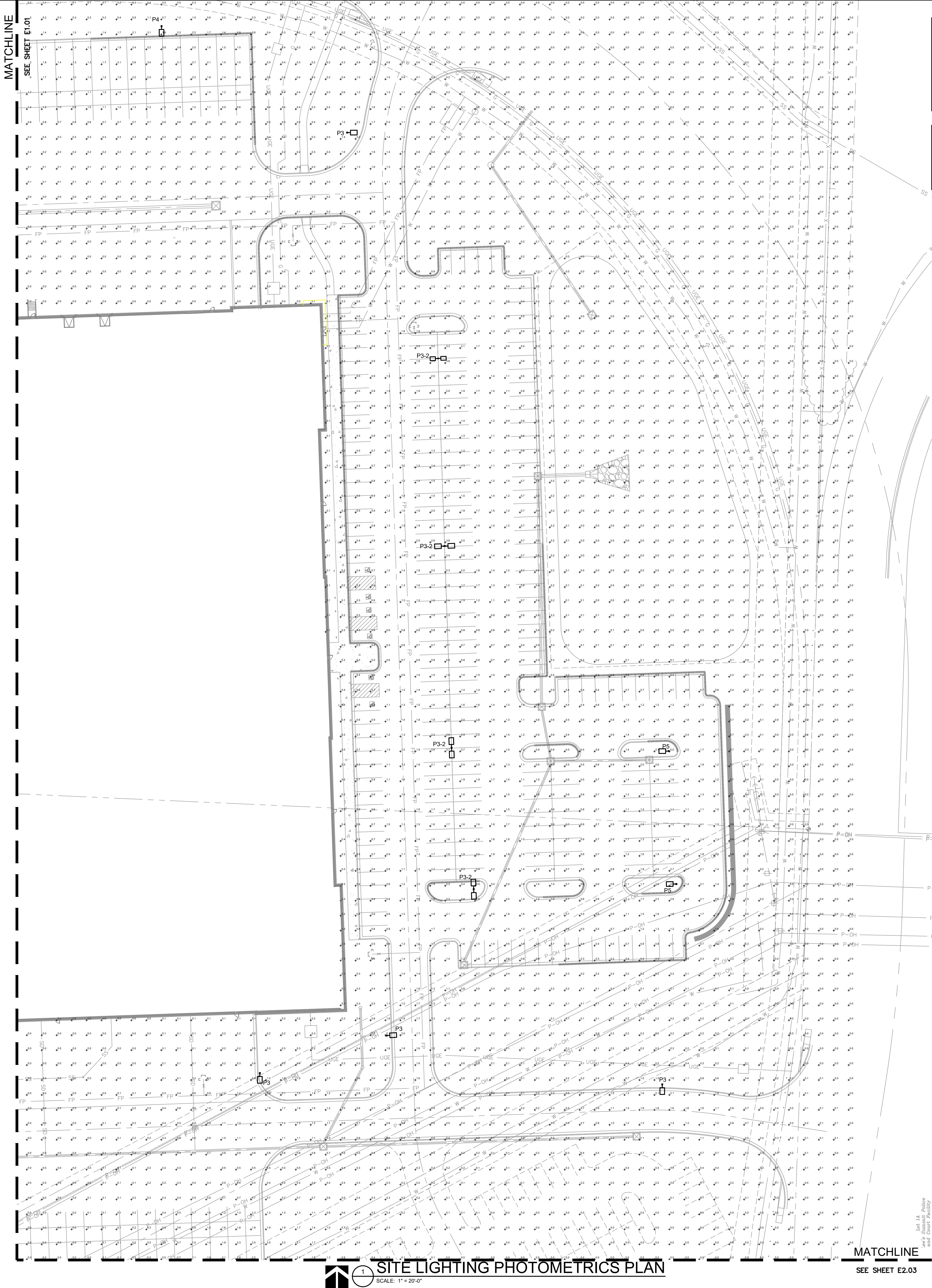
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Overland Park, KS 66213-4750

TEL 913.381.1170

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Schedule							
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Wattage
	P4	11	Lithonia Lighting	DSX1 LED P8 40K T4M MVOLT HS	DSX1 LED P8 40K T4M MVOLT with house side shield	1	207
	P3-2	8	Lithonia Lighting	DSX1 LED P3 40K T3M MVOLT	DSX1 LED P3 40K T3M MVOLT	1	204
	P5	2	Lithonia Lighting	DSX1 LED P3 40K T5S MVOLT	DSX1 LED P3 40K T5S MVOLT	1	102
	P3	7	Lithonia Lighting	DSX1 LED P3 40K T3M MVOLT	DSX1 LED P3 40K T3M MVOLT	1	102

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PROPERTY LINE	+	0.0%	0.0%	0.0%	N/A	N/A
DRIVE	X	0.4%	4.1%	0.3%	11.0:1	3.7:1
EAST PARKING	X	1.2%	3.9%	0.3%	13.0:1	4.0:1
NORTH PARKING	X	1.6%	6.1%	0.3%	13.7:1	5.8:1
SOUTH PARKING	X	1.1%	2.8%	0.0%	N/A	N/A
WEST PARKING	X	1.3%	3.0%	0.3%	10.0:1	4.3:1

SITE LIGHTING PHOTOMETRICS PLAN
PHASE I CONSTRUCTION DOCUMENTS

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no: 021-04157
drawing no: E_NSITE_02104157
date:

2021

REVISIONS

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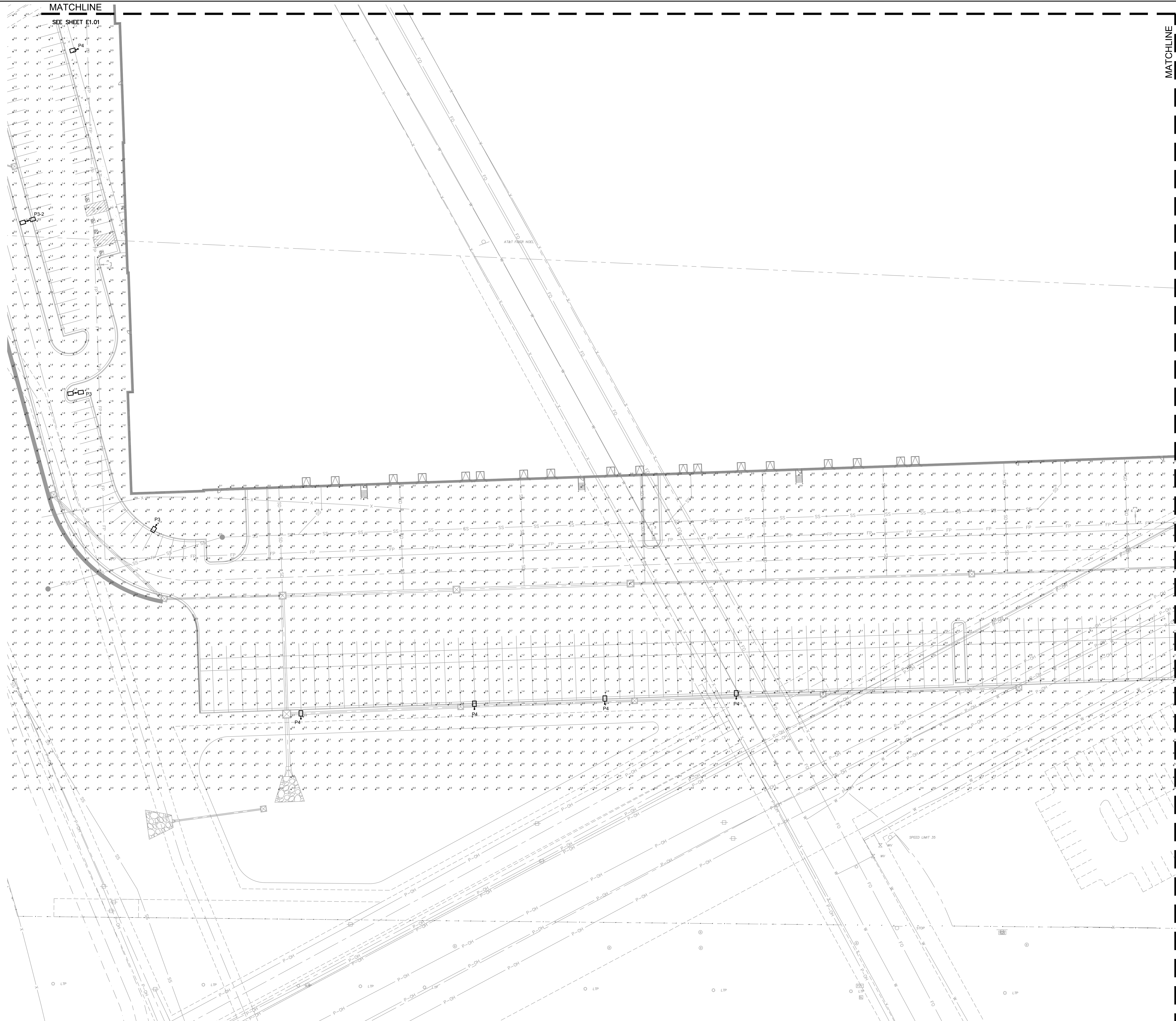
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E1.02

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 SITE LIGHTING PHOTOMETRICS PLAN
SCALE: 1" = 20'-0"

MATCHLINE —
SEE SHEET C4.02

SITE LIGHTING PHOTOMETRICS PLAN PHASE I CONSTRUCTION DOCUMENTS

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

2021

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SCANNELL
PROPERTIES

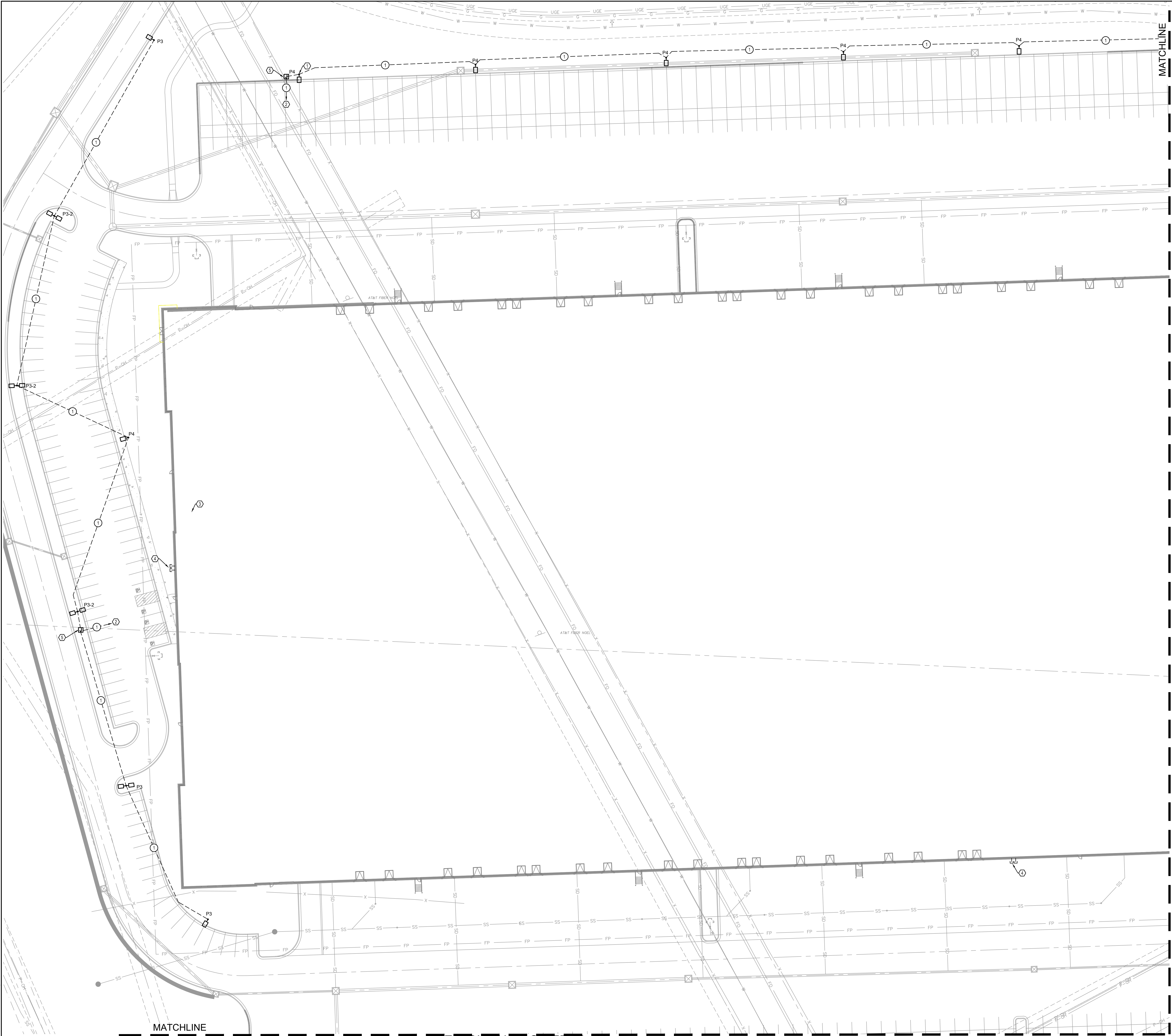
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approved by: _____ ENG
QA/QC by: _____ ENG
project no.: _____ 021-04157
drawing no.: E NSITE 02104157
date:

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MATCHLINE
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1 SITE LIGHTING POWER PLAN

SCALE: 1" = 20'-0"

MATCHLINE
SEE SHEET E2.02

GENERAL NOTES

- A. TO FEDERAL, STATE, AND LOCAL STATUTES, NOTIFY MISSOURI ONE-CALL SYSTEM, INC. AT LEAST 48 HOURS PRIOR TO ANY DIGGING, TRENCHING, EXCAVATION, ETC.
- B. INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING DETERMINATION OF TYPE AND LOCATION OF ALL UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- C. FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. ANY INTERFERENCE SHALL BE BROUGHT TO ATTENTION OF THE ARCHITECT AND ENGINEER FOR DIRECTION.
- D. PROVIDE EQUIPMENT GROUNDING CONDUCTOR THROUGHOUT EACH BRANCH CIRCUIT. CONDUCTOR MAY NOT BE INDICATED GRAPHICALLY.

○ SHEET KEYNOTES

1. AREA LED LIGHT FIXTURE ON POLE WITH CONCRETE BASE. REFER TO LIGHT FIXTURE SCHEDULE AND LIGHT POLE BASE DETAIL FOR ADDITIONAL INFORMATION. (TYP.)
2. ROUTE LIGHTING HOMERUN PANEL TO 20A/1P CIRCUIT BREAKER TO PANELBOARD IN BUILDING.
3. APPROXIMATE LOCATION OF PANELBOARD FOR NEW LIGHTING CIRCUITS. REFER TO BUILDING INTERIOR PLANS FOR EXACT LOCATION AND CONTROL SCHEME. EXTERIOR LIGHTING CIRCUITS TO BE CONTROLLED BY TIME CLOCK/PHOTOCELL.
4. REFER TO BUILDING INTERIOR PLANS FOR ROUTING LIGHTING CIRCUITS IN BUILDING.
5. IN GRADE JUNCTION BOX. REFER TO JUNCTION BOX DETAILS FOR ADDITIONAL INFORMATION. DETERMINE EXACT LOCATION AND QUANTITY FOR ROUTING NEW LIGHTING CIRCUITS.

○ SHEET KEYNOTES

1. (2)-#10 AND (1)-#10 GROUND IN 1" CONDUIT.

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DATE	
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SITE LIGHTING POWER PLAN
PHASE I CONSTRUCTION DOCUMENTS

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET

LEE'S SUMMIT, MISSOURI

drawn by: OLSSON
checked by: ENG
approved by: ENG
QA/QC by: ENG
project no: 021-04157
drawing no: E_NSITE_02104157
date:

2021

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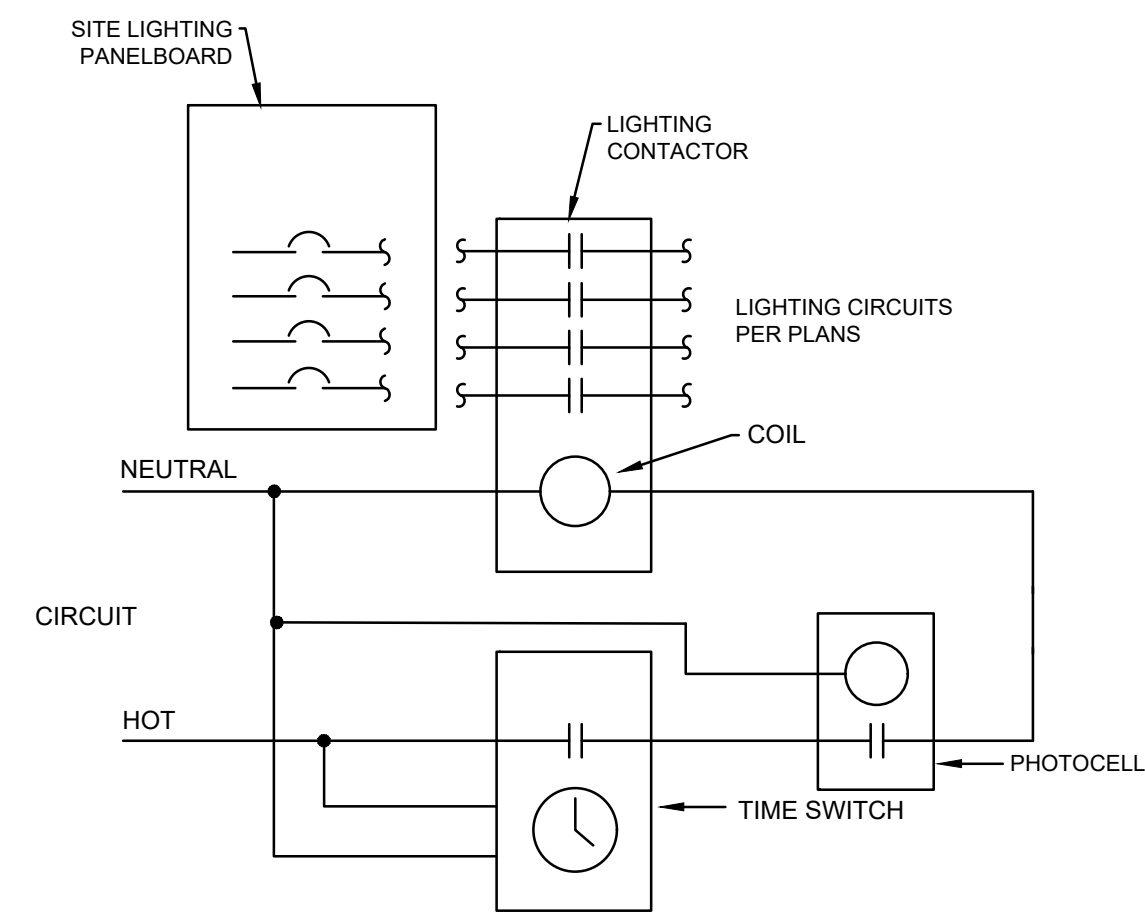
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DATE: Feb 08, 2022 1:58pm
USER: moore
XREFS: E_TBLK_02104157

3

SITE LIGHTING CONTROL SCHEMATIC

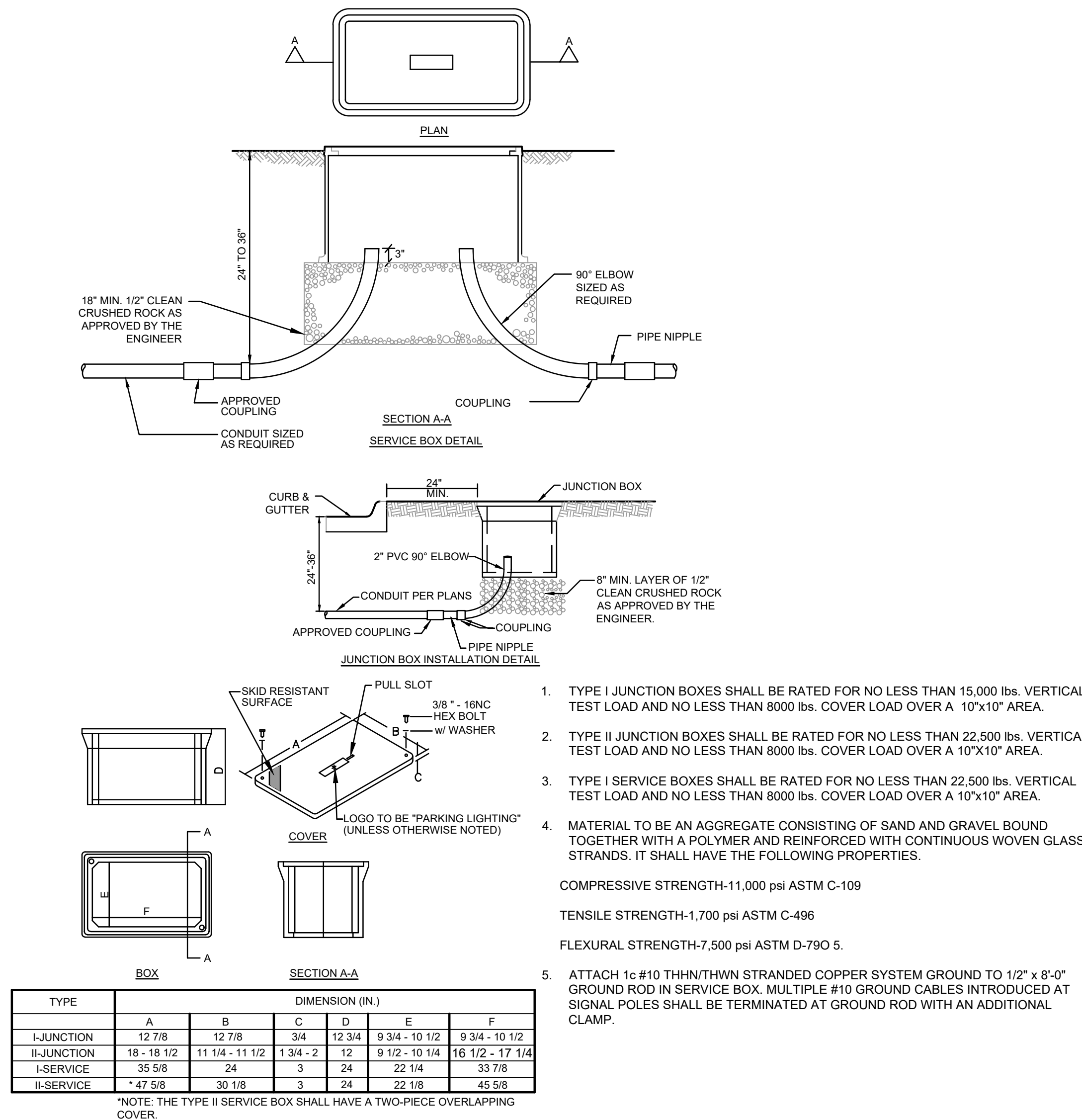
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FIBERGLASS REINFORCED POLYMER CONCRETE JUNCTION BOX DETAILS

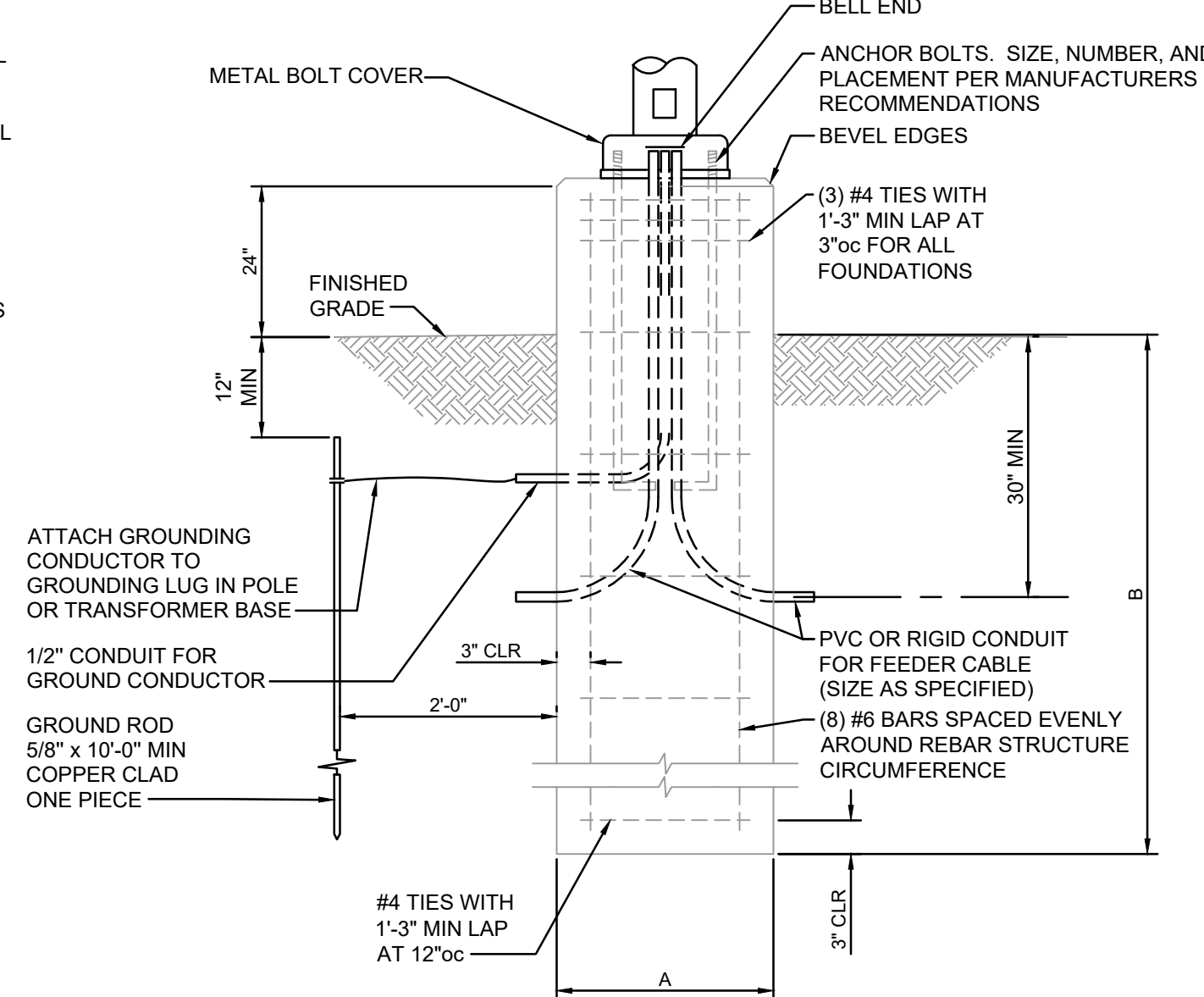
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CONCRETE LIGHT POLE BASE

SCALE: NOT TO SCALE



LIGHTING FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	MANUFACTURER AND MODEL	LAMPS	LUMENS	COLOR TEMP / CRI	DRIVER / BALLAST	VOLTAGE / WATTAGE	LOCATION
	P4	AREA LED LIGHT FIXTURE WITH 25'-0" POLE AND CONCRETE BASE.	LITHONIA# DSX1-LED-P8-40K-T4M-MVOLT-SPA-DBLXD POLE# SSS-25-5G-DM19AS-DBLXD	LED	24,000	4000K / 80	0-10V DIMMING	MVOLT 207	PARKING LOT
	P3-2	DOUBLE HEAD AREA LED LIGHT FIXTURE WITH 25'-0" POLE AND CONCRETE BASE.	LITHONIA# DSX1-LED-P3-40K-T3M-MVOLT-SPA-DBLXD POLE# SSS-25-5G-DM28AS-DBLXD	LED	12,500	4000K / 80	0-10V DIMMING	MVOLT 204	PARKING LOT
	P5	AREA LED LIGHT FIXTURE WITH 25'-0" POLE AND CONCRETE BASE.	LITHONIA# DSX1-LED-P3-40K-T5S-MVOLT-SPA-DBLXD POLE# SSS-25-5G-DM19AS-DBLXD	LED	13,000	4000K / 80	0-10V DIMMING	MVOLT 102	PARKING LOT
	P3	AREA LED LIGHT FIXTURE WITH 25'-0" POLE AND CONCRETE BASE.	LITHONIA# DSX1-LED-P3-40K-T3M-MVOLT-SPA-DBLXD POLE# SSS-25-5G-DM19AS-DBLXD	LED	12,500	4000K / 80	0-10V DIMMING	MVOLT 102	PARKING LOT

NOTES:
A. PROVIDE ALL COMPONENTS TO MAKE A COMPLETE ASSEMBLY. THIS WOULD INCLUDE, BUT NOT BE LIMITED TO, ARM, MOUNTING BRACKETS, POLE BASE COVER, ANCHOR BOLTS, TEMPLATE, BASE, HAND HOLE, SEPARATE CIRCUIT OUTLET, ETC.
B. PROVIDE CONCRETE BASE, PER DETAIL.

GENERAL NOTES

- CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES BEFORE CONSTRUCTING NEW FOUNDATIONS.
- THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
- EXCAVATE SHAFTS FOR DRILLED FOUNDATIONS TO INDICATED ELEVATIONS. REMOVE LOOSE DEBRIS, MATERIALS AND/OR MUCK TO MAKE BOTTOM SURFACES LEVEL WITHIN ACI 308.1 TOLERANCES.
- CONSTRUCTION TOLERANCES:
A. BOTTOM DIAMETER: MINUS ZERO, PLUS 6 INCHES, MEASURED IN ANY DIRECTION.
B. MAXIMUM VARIATION FROM PLUMB: 1/40.
C. MAXIMUM BOTTOM LEVEL: PLUS OR MINUS 2 INCHES.
- AT NO ADDITIONAL COST, CASE PIER SHAFTS AS NECESSARY. PROTECT EXCAVATED WALLS WITH TEMPORARY WATERTIGHT STEEL CASINGS OF SUFFICIENT LENGTH TO PREVENT WATER INTRUSION, CAVE-INS, DISPLACEMENT OF SURROUNDING EARTH, INJURY TO PERSONNEL AND DAMAGE TO CONSTRUCTION OPERATIONS. MAINTAIN EXCAVATIONS IN ESSENTIALLY DRY CONDITION, USING PUMPS WHERE NECESSARY. REMOVE WATER TO A MAXIMUM DEPTH OF 6 INCHES FROM EXCAVATED SHAFT PRIOR TO CONCRETE PLACEMENT.
- CONVEY CONCRETE FROM THE MIXER TO PLACE OF DEPOSIT BY BEST INDUSTRY METHODS THAT WILL PREVENT SEGREGATION AND LOSS OF MATERIAL. SIZE AND DESIGN THE EQUIPMENT FOR CONVEYING CONCRETE TO ENSURE UNIFORM, CONTINUOUS PLACEMENT OF CONCRETE. PLACE CONCRETE IN ACCORDANCE WITH ACI 318. PLACE CONCRETE IN A CONTINUOUS OPERATION AND WITHOUT SEGREGATION INTO DRY EXCAVATIONS WHENEVER POSSIBLE. USE ALL PRACTICABLE MEANS TO OBTAIN A DRY EXCAVATION BEFORE AND DURING CONCRETE PLACEMENT.
- WHEN PULLING CASING, MAINTAIN LEVEL OF CONCRETE ABOVE BOTTOM OF CASING GREATER OR EQUAL TO LEVEL OF GROUND KEEP BOTTOM OF CASING AT LEAST 10 FEET BELOW TOP OF CONCRETE. PREVENT IN-SITU MATERIALS FROM FALLING INTO AND MIXING WITH CONCRETE. PULL CASING IN SHORT SLOW VERTICAL LIFTS (ESSENTIALLY CONTINUOUS), MAINTAINING PLUMB ALIGNMENT AND SUFFICIENT HEAD OF CONCRETE.
- ALL CONCRETE SHALL BE CLASS KCMMB 4000
- ALL REINFORCING SHALL BE STRUCTURAL GRADE 60 PER ASTM-A615 AND HAVE AT LEAST 3" OF CONCRETE COVER.
- ANCHOR BOLTS ARE TO BE FURNISHED BY THE FOUNDATION CONTRACTOR UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PLACE ALL REBAR SO AS TO NOT INTERFERE WITH ANCHOR BOLTS.
- ALL ABOVE GRADE FOUNDATION SURFACES SHALL BE STEEL TROWEL FINISHED UNLESS OTHERWISE NOTED.
- EACH PIER FOUNDATION SHALL BE CONSTRUCTED IN A SINGLE CONTINUOUS POUR.
- NO EXCAVATION OR VIBRATION-INDUCING ACTIVITIES ARE ALLOWED WITHIN 3 PIER DIAMETERS OF A SUBJECT PIER UNTIL AT LEAST 24 HOURS HAVE ELAPSED SINCE THE TIME OF CONCRETE PLACEMENT. COVER ALL EXCAVATIONS BETWEEN OPERATIONS. REMOVE FOREIGN AND LOOSE MATERIAL FROM APPROVED EXCAVATION.
- THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND/OR SETTLEMENT OF EXISTING OR NEW CONSTRUCTION INSIDE OR OUTSIDE THE PROJECT LIMITS DURING EXCAVATION AND FOUNDATION CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS CAUSED BY CONSTRUCTION TECHNIQUES IS THE RESPONSIBILITY OF THE CONTRACTOR.

FOUNDATION DESIGN LIMITATIONS

- THIS FOUNDATION WAS DESIGNED FOR A MINIMUM LATERAL SOIL DEFORMATION MODULUS OF 0.50 KSI
- THIS FOUNDATION WAS DESIGNED FOR A MINIMUM LATERAL SOIL UNDRAINED SHEAR STRENGTH OF 0.50 KSF
- THIS FOUNDATION WAS DESIGNED FOR A MAXIMUM ALLOWABLE LATERAL DEFLECTION OF 1/2 INCH OVERALL AT GRADE ELEVATION
- THIS FOUNDATION WAS DESIGNED WITH AN ASSUMED DEPTH TO ROCK GREATER THAN TWENTY FEET FROM FINISHED GRADE
- THIS FOUNDATION WAS DESIGNED WITH AN ASSUMED WATER TABLE LOCATED AT THE SOIL SURFACE.
- THIS FOUNDATION WERE NOT DESIGNED TO WITHSTAND THE EFFECTS OF SCOURING.
- IF CONDITIONS OTHER THAN THOSE SPECIFIED HEREIN ARE PRESENT AT THE SITE, INCLUDING NON-COHESIVE SOILS FOUND IN BORINGS, PLEASE CONTACT THE ENGINEER OF RECORD.

STRUCTURAL CONCRETE

- CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF:
- ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
 - ACI 302 - "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION"
 - ACI 304 - "ACI MANUAL OF CONCRETE INSPECTION"
 - ACI 311 - "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE"
 - ACI 315 - "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"
 - ACI 318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
 - ACI 347 - "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK"
- ALL HOOKS SHALL BE "STANDARD" PER ACI SPECIFICATIONS.

EARTHWORK

- THE CONTRACTOR MUST PROVIDE SURFACE DRAINAGE AND PUMPS TO PROTECT ALL EXCAVATION FROM FLOODING. FLOODING OF ANY EXCAVATION AFTER APPROVAL OF THE SUBGRADE WILL BE CAUSE FOR RE-PREPARATION OF THE SUBGRADE.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY WATER, FROST, OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADE BEFORE AND AFTER PLACING OF CONCRETE AND UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT STRUCTURE.
- REFER TO THE GEOTECH REPORT FOR SUBSURFACE CONDITIONS AND CONSTRUCTION CONSIDERATIONS.

LIGHT FOUNDATION DATA		
MOUNTING HEIGHT	A	B
UP TO 30'	2'-0"	6'-0"

CONCRETE CLASS "KCMMB 4000"

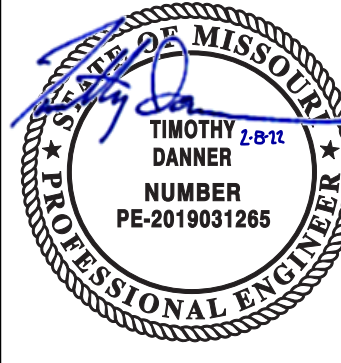
HEAVY HEX GALVANIZED NUTS: (AASHTO M291, GR A)
FLAT WASHERS GALVANIZED: (AASHTO M293)

SITE LIGHTING DETAILS PHASE I CONSTRUCTION DOCUMENTS

SCANNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
NORTHWEST CORNER OF TUDOR ROAD AND MAIN STREET
LEE'S SUMMIT, MISSOURI

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SECTION 260000 ELECTRICAL

1. GENERAL CONDITIONS:
- A. THIS CONTRACTOR SHALL INSPECT THE SITE WHERE THIS WORK IS TO BE PERFORMED AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS RELATED TO THIS PROJECT.
- B. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMANENT AND TEMPORARY PERMITS AND LICENSES AND SHALL MAKE ALL DEPOSITS AND PAY ALL FEES REQUIRED FOR THE PERFORMANCE OF WORK UNDER THIS SECTION OTHER THAN THOSE DEPOSITS OR FEES WHICH ARE FULLY REFUNDABLE TO THE OWNER.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. WHERE LOCAL CONDITIONS NECESSITATE A REARRANGEMENT, THE CONTRACTOR SHALL PREPARE, AND SUBMIT FOR APPROVAL, DRAWINGS OF THE PROPOSED REARRANGEMENT. THIS CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL OF HIS WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY, FURNISHING SUCH FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- D. THIS CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.
- E. SPECIFICATIONS AND DRAWINGS ARE COMPLEMENTARY AND WHAT IS CALLED FOR IN ONE SHALL BE AS BINDING AS IF CALLED FOR BY BOTH.
- F. FURNISH LABOR, MATERIALS, EQUIPMENT AND SERVICES REQUIRED AS SHOWN ON THE DRAWINGS AND SPECIFIED IN DIVISION 15.
- G. ALL WORK SHALL BE COMPLETE AND SHALL BE LEFT IN OPERATING CONDITION.
- H. INCLUDE ALL PARTS AND LABOR WHICH ARE INCIDENTAL AND NECESSARY FOR A COMPLETE AND OPERABLE INSTALLATION EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.
- I. REQUEST INSPECTIONS AS REQUIRED BY REGULATING AGENCIES AND/OR REGULATIONS. PAY ALL CHARGES FOR INSPECTIONS BY REGULATING AGENCIES OF INSTALLATIONS OF PLANS SPECIFICATIONS.
- J. PROVIDE THE OWNER WITH A CERTIFICATE OF FINAL INSPECTION AND APPROVAL BY ENFORCEMENT AUTHORITIES.
- K. FURNISH: TO OBTAIN, COORDINATE, SUBMIT THE NECESSARY DRAWINGS, DELIVER TO THE JOB SITE IN NEW CONDITION READY FOR INSTALLATION, UNLOAD AND UNPACK, AND GUARANTEE.
- L. INSTALL: TO RECEIVE AT THE JOB SITE, STORE, ASSEMBLE, ERECT, SET IN PLACE, ANCHOR, APPLY, FINISH, PROTECT, CLEAN, TEST, START-UP, AND MAKE READY FOR OWNER'S USE.
- M. PROVIDE: TO FURNISH AND INSTALL.
- N. PROVIDE NEW MATERIAL AND EQUIPMENT, UNLESS NOTED OTHERWISE. PROTECT EQUIPMENT AND MATERIAL FROM DAMAGE, DIRT AND THE WEATHER.
- O. THE ENGINEER RESERVES THE RIGHT TO REJECT MATERIAL OR WORKMANSHIP NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, BEFORE OR AFTER INSTALLATION, AT NO ADDITIONAL COST TO THE OWNER.
- P. REFINISH ALL ELECTRICAL EQUIPMENT DAMAGED DURING SHIPPING, INSTALLATION AND/OR PRIOR TO FINAL ACCEPTANCE TO ITS ORIGINAL CONDITION. REMOVE ALL RUST, PRIME, AND PAINT PER MANUFACTURER'S RECOMMENDATIONS FOR FINISH EQUAL TO ORIGINAL.
- Q. PROTECT OPENINGS AND EQUIPMENT FROM OBSTRUCTION, BREAKAGE, MISUSE, DAMAGE OR BLEMISHES. PROTECT MATERIALS AND EQUIPMENT IMMEDIATELY UPON RECEIPT AT THE JOB SITE OR IMMEDIATELY AFTER THEY HAVE BEEN REMOVED FROM THEIR SHIPPING CONTAINERS. UNLESS NOTED OTHERWISE, KEEP THEM CLEAN AND UNDAMAGED UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT BY THE OWNER. WHEN A PORTION OF THE BUILDING IS OCCUPIED BY THE OWNER BEFORE SUBSTANTIAL COMPLETION OF THE ENTIRE PROJECT, MAKE ARRANGEMENTS TO TRANSFER RESPONSIBILITY FOR PROTECTION AND HOUSEKEEPING FOR THE OCCUPIED PORTION.
- R. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ELECTRICAL EQUIPMENT, MATERIALS OR WORK UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT BY THE OWNER.
- S. KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH, CAUSED BY HIS EMPLOYEES OR WORK, AT ALL TIMES. REMOVE RUBBISH, TOOLS, SCAFFOLDING, AND SURPLUS MATERIALS FROM AND ABOUT THE BUILDING, AND LEAVE WORK AREAS "BROOM CLEAN" OR ITS EQUIVALENT DAILY. CLEAN ELECTRICAL EQUIPMENT AND REMOVE TEMPORARY IDENTIFICATION.
- T. OPERATE EQUIPMENT AND SYSTEMS IN ALL THEIR OPERATING MODES. TO VERIFY PROPER OPERATION, PRIOR TO FINAL FIELD OBSERVATION AND OWNER INSTRUCTIONS. PREPARE A PRE-INSPECTION REPORT AND SUBMIT TO THE ENGINEER AND OWNER FOR REVIEW.
- U. TEST ALL INSTALLED ELECTRICAL EQUIPMENT AND CABLES REQUIRED BY CONSTRUCTION DOCUMENTS ACCORDING TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION, INC. (NETA). IF ACCEPTABLE PERFORMANCE OF ANY TEST IS NOT ACHIEVED, MAKE THE NECESSARY CORRECTIONS AND THE TEST SHALL BE REPEATED UNTIL ACCEPTABLE PERFORMANCE IS ACHIEVED. PROVIDE WRITTEN REPORTS OF ALL TESTS, WITH FAILURES IDENTIFIED, TO ENGINEER.
- V. FULLY INSTRUCT THE OWNER'S DESIGNATED PERSONNEL IN THE OPERATION OF EACH ELECTRICAL SYSTEM AT THE TIME IT IS PUT INTO SERVICE. PROVIDE INSTRUCTION USING COMPETENT INSTRUCTORS AND FACTORY TRAINED PERSONNEL.
- W. CONTRACTOR SHALL INSTALL ALL MATERIALS AND EQUIPMENT AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND/OR RECOMMENDATIONS.
- X. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT INDICATED AND/OR REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. A FORM INDICATING ALL SHOP DRAWINGS TO BE PROVIDED AS PART OF THE PROJECT SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO ANY SHOP DRAWING SUBMITTAL REVIEW.
- Y. THIS SPECIFICATION SHALL INCORPORATE ALL PROJECT REQUIREMENTS AND RESPONSIBILITIES INDICATED WITHIN THE FRONT-END OF THE PROJECT MANUAL.

2. LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES:

- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION CODES, THE NATIONAL ELECTRICAL SAFETY CODE, LOCAL BUILDING CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. SHOULD ANY WORK SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN BE OF LOWER STANDARD, THE CONTRACTOR SHALL REFER THE POINTS IN QUESTION TO THE ENGINEER FOR APPROVAL.

3. SCOPE OF WORK:

- A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL AND ASSOCIATED SERVICES REQUIRED TO COMPLETELY CONSTRUCT AND LEAVE ALL SYSTEMS OPERATIONAL AS SHOWN ON THE

DRAWINGS AND HEREIN DESCRIBED.

- B. ALL WORK PERFORMED UNDER THIS SECTION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER.

4. MATERIALS AND EQUIPMENT REVIEW:

- A. AS SOON AS POSSIBLE AFTER THE AWARD OF THE CONTRACT, THIS CONTRACTOR SHALL SUBMIT FOR REVIEW SHOP DRAWINGS FOR ALL EQUIPMENT TO BE FURNISHED FOR THIS PROJECT. SUBMITTALS SHALL HIGHLIGHT THE MANUFACTURER'S NAME, MODEL NUMBER, DESCRIPTIVE ENGINEERING DATA AND ALL NECESSARY INFORMATION AS TO FINISH, MATERIAL, GAUGES AND ACCESSORIES.
- B. ALL PORTIONS OF THE SHOP DRAWINGS THAT ARE INTENDED TO BE REVIEWED SHALL BE HIGHLIGHTED. ANY PORTION NOT CALLED OUT SHALL BE ASSUMED TO BE EXCLUDED FROM THE JOB.

5. GUARANTEE:

- A. THIS CONTRACTOR SHALL GUARANTEE COMPLETE SYSTEM OPERATION AND THAT THE APPARATUS FURNISHED AND INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS AND WILL GIVE SATISFACTORY SERVICE. THE CONTRACTOR AGREES TO REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY PART OF THE INSTALLATION WHICH PROVES OR BECOMES DEFECTIVE WITHIN ONE YEAR AFTER THE SYSTEM IS ACCEPTED.

6. COORDINATION:

- A. THIS CONTRACTOR SHALL EXAMINE ALL ARCHITECTURAL, MECHANICAL, STRUCTURAL AND OTHER DRAWINGS RELATED TO THIS PROJECT, AND IT SHALL BE HIS RESPONSIBILITY TO COORDINATE THE ELECTRICAL WORK WITH OTHER TRADES.

7. AS-BUILT DRAWINGS:

- A. THIS CONTRACTOR SHALL PREPARE COMPLETE AS-BUILT DRAWINGS OF ALL ELECTRICAL SYSTEMS AND TURN OVER TO THE ENGINEER REVISED ELECTRONIC CAD FILES.
- B. THIS CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER'S REPRESENTATIVE FIVE BOUND SETS OF MANUFACTURER'S LITERATURE FOR ALL EQUIPMENT TO BE INSTALLED ON THIS PROJECT SHOWING ALL DETAILS OF EQUIPMENT, REPLACEMENT PART DATA AND MAINTENANCE INSTRUCTIONS.

8. EXCAVATION:

- A. ALL EXCAVATION AND BACKFILL REQUIRED FOR THE INSTALLATION OF ELECTRICAL WORK SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR.
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LAYOUT AND THE ESTABLISHMENT OF ALL LINES AND LEVELS REQUIRED FOR THE EXECUTION OF THE WORK.
- C. WHEN SERVICES ARE TO BE RUN SIDE-BY-SIDE, A COMMON TRENCH MAY BE USED PROVIDING THE REQUIRED VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE VARIOUS SERVICES ARE MAINTAINED AND PROVIDING THE METHODS OF BEDDING AND BACKFILL MEET THE APPROVAL OF THE ENGINEER. CONTRACTORS INVOLVED SHALL MAKE THEIR OWN AGREEMENT AS TO THE SHARING OF THE COST OF THE COMMON TRENCHING AND BACKFILL WORK.
- D. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT UTILITY ENGINEER IMMEDIATELY FOR DIRECTIONS. COOPERATE WITH OWNER AND UTILITY COMPANIES IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION. REPAIR DAMAGED UTILITIES TO SATISFACTION OF UTILITY OWNER.

9. EXTERIOR AND FOUNDATION WALLS:

- A. ALL PIPING THROUGH EXTERIOR OR FOUNDATION WALLS SHALL PASS THROUGH SCHEDULE 40 GALVANIZED STEEL SLEEVES WHICH SHALL BE LARGE ENOUGH TO ALLOW FOR CAULKING MATERIAL. NO SLEEVES ARE PERMITTED THROUGH CONCRETE STRUCTURAL MEMBERS. ALL SLEEVES SHALL BE COORDINATED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

10. FLOORS:

- A. ALL PIPING THROUGH FLOORS SHALL BE PROVIDED WITH SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVES, EXTENDING 2 INCHES ABOVE FLOOR.

11. CUTTING:

- A. ALL CUTTING OF EXISTING CONCRETE FLOORS/SLABS ON GRADE IN THE INTERIOR OF THE BUILDING SHALL BE PERFORMED BY "SAW CUTTING".

12. PATCHING:

- A. ON CONCRETE, PATCH THE OPENING WITH CONCRETE, FINISHED SMOOTH WITH ADJACENT SURFACES.

13. IDENTIFICATION OF SWITCHES AND APPARATUS:

- A. ALL CABINETS, SAFETY SWITCHES, AND OTHER APPARATUS USED FOR OPERATION AND CONTROL OF CIRCUITS, APPLIANCES, AND EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY IDENTIFIED BY MEANS OF ENGRAVED PLASTIC PLATES BLACK WITH WHITE LETTERS.

14. GROUNDING:

- A. ALL FEEDERS AND BRANCH CIRCUITS SHALL CONTAIN GROUND WIRES.
- B. ALL CONDUCTORS, MOTOR FRAMES, RACEWAYS, CABINETS, ETC., THAT REQUIRE GROUNDING SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, THOSE OF THE SERVING UTILITY AND LOCAL AUTHORITIES HAVING JURISDICTION.

15. CONDUIT:

- A. ALL ELECTRICAL POWER WIRING, INCLUDING LOW VOLTAGE WIRING, SHALL BE INSTALLED IN CONDUIT AS HEREIN SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH NOMINAL SIZE SHALL BE USED.
- B. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 AS MANUFACTURED BY CARLON OR APPROVED EQUAL. ALL CONDUITS SHALL BE INSTALLED WITH MINIMUM 36" INCH COVER.
- C. CONDUIT INSTALLED ABOVE GROUND EXTERIOR SHALL BE GALVANIZED RIGID STEEL AS MANUFACTURED BY THE ALLIED TUBE AND CONDUIT CORPORATION OR APPROVED EQUAL. CONDUIT SHALL BE SHERARIZED OR HOT-DIP GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
- D. WHEN PVC CONDUITS PENETRATE CONCRETE FLOOR CONSTRUCTION, CONTRACTOR SHALL USE RIGID STEEL ELBOWS AND EXTENSION. PVC CONDUIT/FITTINGS SHALL NOT BE PERMITTED TO BE EXPOSED ABOVE THE FLOOR.
- E. THIN WALL TUBING SHALL BE REPUBLIC "ELECTRUNITE E.M.T." OR APPROVED EQUAL. SHALL BE INSTALLED INDOORS.

- F. ALL FITTINGS SHALL BE OF THE COMPRESSION TYPE AND SHALL BE WATERTIGHT.
- G. CONDUIT FOR INTERIOR WIRING, IN GENERAL, SHALL BE THINWALL TUBING UNLESS OTHERWISE NOTED.
- H. RACEWAYS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FITTING TO FITTING. A RUN OF CONDUIT BETWEEN OUTLETS OR FITTINGS SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER-BENDS INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE OUTLET OR FITTING. THE RADIUS OF BENDS SHALL NEVER BE SHORTER THAN THAT OF THE CORRESPONDING TRADE ELBOW. THE SYSTEM SHALL BE COMPLETE WITH OUTLETS, DISTRIBUTION BOXES, ETC., SMOOTH INSIDE AND MECHANICALLY SECURE IN PLACE. APPROVED STRAPS, HANGERS, OR SUPPORTS SHALL BE USED TO SECURE CONDUITS IN PLACE. CONDUITS SHALL, IN GENERAL, BE SUPPORTED AT INTERVALS NOT EXCEEDING 10'-0" AND WITHIN 3'-0" OF EACH OUTLET BOX, JUNCTION BOX, CABINET OR FITTING.
- I. CONDUITS SHALL BE PROTECTED DURING CONSTRUCTION; PLUG AND KEEP CLEAN AND DRY. CONDUIT ENDS SHALL BE BUTTED IN CENTERS OF COUPLINGS. NO CRACKS OR FLATTENED SECTIONS WILL BE PERMITTED AT BENDS OR ELSEWHERE. ALL ENDS OF CONDUIT SHALL BE REAMED TO REMOVE ROUGH EDGES. RUNNING THREADS WILL NOT BE PERMITTED.
- J. CONDUITS SHALL BE CONCEALED WITHIN THE WALLS, CEILINGS, AND FLOORS WHERE POSSIBLE AND UNLESS OTHERWISE NOTED. EXPOSED CONDUIT SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE BUILD-ING LINES.

18. WIRE AND CABLE:

- A. WIRE AND CABLE SHALL BE AMERICAN INSULATED WIRE CORP., GENERAL CABLE CORP., SENATOR WIRE AND CABLE CORP. SOUTHWIRE OR APPROVED EQUAL, OF SIZES AS SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED.
- B. ALL CONDUCTORS SHALL BE COPPER.
- C. NO. 10 AWG AND SMALLER CONDUCTORS SHALL BE SOLID WITH INSULATION AND NO. 8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED WITH TYPE THHN/THWN INSULATION EXCEPT THAT CONDUCTORS WITHIN 3 INCHES OF LIGHT FIXTURE BALLASTS SHALL HAVE RHH, THHN, OR EQUAL INSULATION RATED FOR 90 DEGREES C. APPLICATION.

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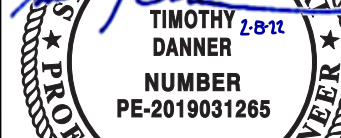
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REVISIONS DESCRIPTION

BY



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