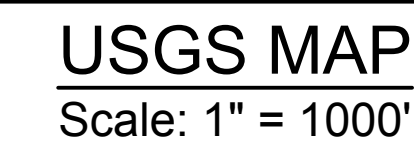
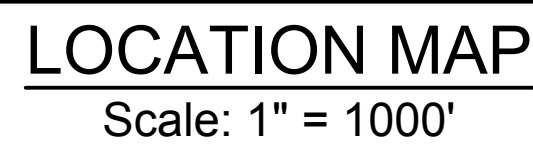
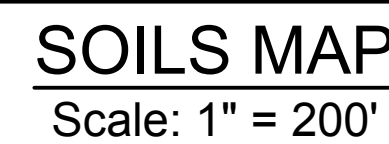


NORTHAMPTON COUNTY, PENNSYLVANIA
NOVEMBER 7, 2025

PREPARED FOR:
OWNER/DEVELOPER



Pennoni

81 Highland Ave, Suite 230
Bethlehem, PA 18017
T 610.231.0600
F 610.231.2033

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4	CS0201	EXISTING CONDITIONS AND DEMOLITION PLAN
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OWNER
Lehigh University
681 Taylor St.
Bethlehem PA 18015
v 610-758-4622

ARCHITECT
DIGSAU
340 North 12th Street, Suite 421
Philadelphia, PA 19107
v 215.627.0808
www.digsau.com

CIVIL ENGINEER
Pennoni
81 Highland Ave., Suite 230
Bethlehem, PA 18017
<https://www.pennoni.com/>
v 855-754-3595

LANDSCAPE ARCHITECT
Omnes
1262 Simon Blvd, B105
Easton, PA 18042
<https://omnes.studio/>
v 215-882-0500

STRUCTURAL ENGINEER
Keast & Hood
1635 Market St, #1705
Philadelphia, PA 19103
<https://keasthood.com/>
v 215-625-0099

MEP/FP ENGINEER
IMEG
623 26th Ave
Rock Island, IL 61201
<https://imegcorp.com>
v 215-569-0400

LIGHTING
Arup
77 Water Street
New York, NY 10005
<https://www.arup.com/en-us>
v 212-896-3000

ENVELOPE
RWDI
1608 Walnut Street, Suite 1603
Philadelphia, PA 19103
v 267-773-8375

VERTICAL TRANSPORTATION
Lerch Bates
275 S Main St, Suite 2CC
Doylestown, PA 18901
v 877-647-2110
<https://www.lerchbates.com/>

SKETCH PLAN
NOT FOR CONSTRUCTION

△	DATE:	DESCRIPTION:

LU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	AS NOTED
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

SHEET NAME:

COVER SHEET

SHEET NUMBER:

CS0001

SHEET 1 OF

PROJECT PHASE	START DATE	END DATE	STATUS	ASSIGNED TO
Phase 1: Planning	2023-01-01	2023-03-31	Completed	John Doe
Phase 2: Development	2023-04-01	2023-06-30	In Progress	Jane Smith
Phase 3: Testing	2023-07-01	2023-08-31	Not Started	Mike Johnson
Phase 4: Deployment	2023-09-01	2023-09-30	Not Started	Alice Brown



CALL BEFORE YOU DIG
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA
CALL 1-800-242-1776
PA. ACT 287 OF 1974 REQUIRES THREE WORKING DAYS
NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL OR
BLAST PENNSYLVANIA ONE-CALL SYSTEM, INC.
SERIAL NUMBER(S): 20251921235

GENERAL NOTES:

1. SITE ADDRESS: UNIVERSITY DRIVE, BETHLEHEM, PA 18015
- OWNER/APPLICANT: LEHIGH UNIVERSITY, 27 MEMORIAL DRIVE W, BETHLEHEM, PA 18015
- ENGINEER: PENNION ASSOCIATES INC., 881 TAYLOR ST, STE. 230, BETHLEHEM, PA 18017
2. THE PURPOSE OF THIS PLAN IS TO DEPICT THE DESIGN OF A RESIDENTIAL HOUSING STRUCTURE AND ASSOCIATED PARKING, UTILITIES AND STORMWATER MANAGEMENT FACILITIES ON THE LEHIGH UNIVERSITY CAMPUS.
3. MUNICIPAL ZONING INFORMATION: THIS SITE IS LOCATED IN THE "I" (INSTITUTIONAL) ZONING DISTRICT WITHIN THE CITY OF BETHLEHEM, PA.
- FOR COMPLETE ZONING INFORMATION PLEASE REFER TO THE ZONING CODE OF THE WEST MANCHESTER TOWNSHIP AS CURRENTLY AMENDED.
4. FLOOD ZONE INFORMATION: BY GRAPHIC PLOTTING ONLY, BASED UPON THE FLOOD INSURANCE RATE MAP, PANEL NO. 307 OF 355, COMMUNITY MAP NO. 4209505207E WITH AN EFFECTIVE DATE OF JULY 16, 2014, THE SITE IS LOCATED IN THE FOLLOWING FLOOD ZONE:
- ZONE X - AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THE DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

5. THE HORIZONTAL AND VERTICAL DATUM FOR THIS PROJECT REFERENCES THE PA STATE PLANE COORDINATE SYSTEM, NAD83 PENNSYLVANIA STATE PLANS, NORTH ZONE, US FOOT.

6. UNLESS SPECIFICALLY STATED OR SHOWN HEREIN TO THE CONTRARY, THIS SURVEY IS FOR THE PURPOSE OF AND DOES NOT LOCATE OR DELINEATE:

- A. RIGHTS OR INTERESTS OF THE UNITED STATES OF AMERICA OR COMMONWEALTH OF PENNSYLVANIA OVER LANDS NOW OR FORMERLY FLOWED BY TIDEWATER, BUT NO LONGER VISIBLE OR PHYSICALLY EVIDENT, OR LANDS CONTAINING ANY ANIMAL, MARINE, OR BOTANICAL SPECIES REGULATED BY OR UNDER THE JURISDICTION OF ANY FEDERAL, STATE, OR LOCAL AGENCY.
- B. ANY SUBSURFACE OR SUBTERRANEAN CONDITION, EASEMENTS OR RIGHTS, INCLUDING, BUT NOT LIMITED TO MINERAL OR MINING RIGHTS, OR THE LOCATION OF OR RIGHTS TO ANY SUBSURFACE STRUCTURES, CONTAINERS OR FACILITIES OR ANY OTHER NATURAL OR MAN-MADE SUBSURFACE CONDITION WHICH MAY OR MAY NOT AFFECT THE USE OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
6. THE LOCATION OF THE EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN TAKEN FROM EXISTING UTILITY RECORDS AVAILABLE AT THE TIME THESE PLANS WERE PREPARED AND FROM SURFACE OBSERVATION OF THE SITE.
7. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES IS NOT GUARANTEED.
8. IN ACCORDANCE WITH PA ACT 127 OF 2024, THE CONTRACTOR SHALL NOTIFY ALL UTILITIES WITHIN THE WORK AREA VIA THE PENNSYLVANIA ONE CALL SYSTEM, INC. (800-242-1178) A MINIMUM OF 5 WORKING DAYS BEFORE THE START OF EXCAVATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PLACE PERMANENT COLOR CODED MARKERS OR TRACER WIRE ALONG ALL PRIVATE LATERALS TO INDICATE THE TYPE AND LOCATION OF ALL LATERALS INSTALLED. IN ACCORDANCE WITH THE PA 10-ALL ACT 127 OF 2024, THESE MARKERS ARE INTENDED TO ASSIST IN LOCATING EFFORTS OF THE PRIVATE LINES IN THE FUTURE.
9. UTILITY COORDINATION SHALL BE INCLUDED IN THE PROJECT SCHEDULE AND IT IS THE EXPLICIT RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT THE PROJECT SCHEDULE INCLUDES THE NECESSARY RELOCATIONS, THE CONTRACTOR WILL NOT BE PAID ADDITIONALLY FOR THIS COORDINATION.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATIONS AND DEPTHS OF ALL EXISTING UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK AND TO TIME WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING FACILITIES ON THESE PLANS, HOWEVER, THIS INFORMATION IS SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN, COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES IS NOT GUARANTEED.
11. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR EXACT LOCATION AND PROTECTION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR.
12. THE SITE IS TO BE SERVED BY PUBLIC SEWER AND WATER SERVICE.
13. ALL RADII SHOWN ARE 5' UNLESS OTHERWISE SPECIFIED.
14. A PRE-CONSTRUCTION MEETING SET UP WITH THE MUNICIPALITY WILL BE REQUIRED BEFORE ANY CONSTRUCTION COMMENCES.

GENERAL NOTES PER CITY OF BETHLEHEM:

1. IN ORDER TO MAINTAIN CONTINUITY BETWEEN PLAN REVISIONS, ANY CHANGES TO A PREVIOUS PLAN SUBMISSION SHALL BE FLAGGED WITH A TRIANGLE. ANY CHANGES NOT FLAGGED MAY BE CONSIDERED NOT APPROVED. FLAGGED CHANGES SHALL BE REFERENCED TO THE APPROPRIATE REVISION DATE IN THE REVISION BOOK.
2. ACCURATE AS-BUILT PLANS SHALL BE KEPT UP TO DATE DURING THE CONSTRUCTION PROCESS. AT THE COMPLETION OF THE PROJECT, RECORD DRAWINGS SHALL BE DEVELOPED FROM THE AS-BUILT PLANS AND SUBMITTED TO THE CITY ENGINEER'S OFFICE. ALL FINAL DRAWINGS SHALL SHOW NORTH AMERICAN DATUM AND 1983 STATE PLANE COORDINATES IN FEET (PENNSYLVANIA SOUTH, FIPS ZONE 3702) AND THE DIGITAL FILE SHALL BE IN STATE PLANE FEET COORDINATES AS APPLICABLE. THE HARD COPY OF THE RECORD DRAWINGS SHALL BE IN THE FORM OF A MYLAR COPY. THE ENGINEER OF RECORD SHALL CERTIFY THE P.E. STAMPED AND SIGNED THAT THE RECORD DRAWINGS COMPLY SUBSTANTIALLY WITH THE APPROVED PLAN AND THAT THEY CONFORM TO INDUSTRY STANDARDS. ALL DIGITAL FILES SHALL RESIDE ON CD ROM COMPATIBLE CD ROM CONTAINING THE DIGITAL REPRESENTATION OF THE FINAL PLAN AS PRESENTED ON THE TWENTY-FOUR (24) INCH BY THIRTY-SIX (36) INCH SHEETS. THE DIGITAL MAY SHALL BE AUTOCAD COMPATIBLE. ALL LAYERS INCLUDED IN THE DIGITAL MAPS SHALL BE THE STANDARDIZED LAYERS PREPARED AND UTILIZED BY THE CITY OF BETHLEHEM TO ENSURE COMPATIBILITY WITH THE CITY'S EXISTING CAD STANDARDS AND AS DESCRIBED IN APPENDIX A OF THE CITY'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.
3. THE PROPOSED SITE WILL BE SERVICED BY PUBLIC WATER SUPPLY AND PUBLIC SEWER AND IN ACCORDANCE WITH ORDINANCE NO. 442 AT THE TIME OF A REQUEST FOR A BUILDING PERMIT OR AT THE EXECUTION OF THE DEVELOPERS AGREEMENT, A SANITARY SEWER TAPPING FEE OF \$2,527 PER EUD WILL NEED TO BE PAID. THE TOTAL AMOUNT WILL BE DETERMINED WHEN A SANITARY SEWER FACILITIES PLANNING MODULE APPLICATION IS SUBMITTED.
4. ALL ELECTRICAL WORK WILL REQUIRE AN ELECTRICAL PERMIT AND APPLICABLE JOB REQUEST NUMBER.
5. PRIOR TO CONSTRUCTION OF A RETAINING WALL ON-SITE, A PLAN CONTAINING DESIGN AND DETAILS, CERTIFIED BY AN ENGINEER EXPERIENCED IN THE DESIGN OF RETAINING WALLS, IS LICENSED IN THE STATE OF PENNSYLVANIA SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
6. PER BETHLEHEM CITY ORDINANCE NO. 3821, THE FACILITY WILL BE REQUIRED TO RECYCLE MIXED OFFICE PAPER, CORRUGATED CARDBOARD, AND ALUMINUM. THE OWNER SHALL CONTACT THE RECYCLING OFFICE AT 610-865-7075 TO COORDINATE. THE OWNER IS RESPONSIBLE FOR ESTABLISHING RECYCLE PROCEDURES.
7. SOLID WASTE AND RECYCLING WILL BE COLLECTED AT THE TRASH PAD LOCATION SHOWN ON THE PLANS. THE OWNER WILL CONTRACT WITH A HAULING SERVICE TO REMOVE THE WASTES FROM THE SITE.
8. PERSON DOORS WILL BE PROVIDED ON THE BUILDING PERMIT PLAN ACCESSIBLE ROUTES FROM THE PARKING LOT TO THE BUILDING WILL BE PROVIDED AT THAT TIME.
9. A KNOX BOX WILL BE INSTALLED PER THE DIRECTION OF THE CITY OF BETHLEHEM FIRE DEPARTMENT.
10. ALL PUBLIC UTILITIES SHOULD HAVE INLET MARKERS. THE DESIGN OF INLET MARKERS SHALL BE APPROVED BY THE CITY ENGINEER.
11. THE MAINTENANCE OF STORM WATER FACILITIES SHALL BE THE OWNER'S RESPONSIBILITY. THE OWNERS DEED, AND THE DEED TO ANY SUBSEQUENT OWNER, SHALL NOTE THAT THE OWNER SHALL ACCEPT THE MAINTENANCE RESPONSIBILITIES. THE CITY OF BETHLEHEM SHALL BE PERMITTED TO INSPECT THE STORMWATER FACILITIES ON AT LEAST AN ANNUAL SCHEDULE TO ENSURE THAT ANY NECESSARY CORRECTIVE WORK IS PERFORMED IN A TIMELY MANNER.

- THE DRAINAGE EASEMENT PROVIDED FOR THE FLOW OF STORMWATER ACROSS LOTS, AND NO OBTUSIONS SUCH AS PLANTING BERRIES OR FENCES MAY BE INSTALLED IN THE DRAINAGE EASEMENTS AREAS WITHOUT SUFFICIENT PROVISION OF THE PASSAGE OF STORMWATER AND ANY SUCH PROPOSED PROVISION SHALL BE APPROVED IN WRITING BY THE CITY ENGINEER.
12. UNLESS A GEOLOGICAL SURVEY DEMONSTRATED THE FEASIBILITY OF ENCOURAGING INFILTRATION IN A DETENTION POND, THE DETENTION POND SHALL, GENERALLY, BE LINES WITH A 6 INCH THICK CLAY LINER WITH A PERMEABILITY OF A 1X10⁻⁷ CM/SEC OR LESS. THIS CLAY LINER SHALL, IN TURN, BE COVERED BY A 6 INCH LAYER OF VEGE TPO/SOIL ON WHICH A HEALTHY GROWTH OF GRASS SHALL BE ESTABLISHED (UNLESS OTHERWISE SPECIFIED). THIS LINER SYSTEM SHALL EXTEND FROM THE BOTTOM OF THE POND TO THE ELEVATION OF THE EMERGENCY SPILLWAY. THE LINER PERMEABILITY OF 1X10⁻⁷ CM/SEC SHALL BE VERIFIED BY LAB TESTS ON THREE FIELD SAMPLES OR OTHER EQUIVALENT PROCEDURE ACCEPTABLE TO THE CITY ENGINEER. ADDITIONAL TESTS MAY BE REQUIRED BY THE CITY ENGINEER SHOULD ANY OF THE THREE ORIGINAL TESTS YIELD UNACCEPTABLE RESULTS. ALL THE TESTING SHALL BE ARRANGED AND PAID BY THE DEVELOPER; HOWEVER, THE TESTING LAB SHALL BE CERTIFIED IN THIS AREA OF TESTING AND ACCEPTABLE TO THE CITY ENGINEER.
- THE CITY ENGINEER MAY REQUIRE A FULL 12-INCH THICK CLAY LINER WITH PERMEABILITY OF 1X10⁻⁷ CM/SEC OR LESS, WHERE CIRCUMSTANCES SUCH AS WATER DEPTH OR NEARBY UTILITIES NECESSITATE A GREATER DEGREE OF ASSURANCE AGAINST THE FORMATION OF SINKHOLES. ALSO, THE CITY ENGINEER MAY REQUIRE AN IMPROVED LINER SYSTEM THAT IS IN THE OPINION OF THE CITY ENGINEER, EQUAL TO OR BETTER THAN THE ABOVE MENTIONED LINERS.

THE CONTRACTOR SHALL CLEAN ALL ACCUMULATED SEDIMENT AND SILT FROM THE POND AT THE END OF THE CONSTRUCTION, AND RETURN THE POND TO ITS ORIGINAL DESIGN CONDITIONS.

13. PRIOR TO ANY WORK WITHIN THE RIGHT-OF-WAY, PERMITS MUST BE OBTAINED FROM THE CITY ENGINEERING OFFICE.

14. SUPER PAVE IS REQUIRED AND MUST MEET PENNDOT SPECIFICATIONS PUB. 408.

15. IF ON-LOT DETENTION IS PROPOSED, NO IMPERVIOUS SURFACE FREE IS CHARGED. IMPERVIOUS SURFACES INCLUDE, BUILDING ADDITIONS, DECKS, PATIOS, GARAGES, DRIVEWAYS, SHEDS, SIMILAR STRUCTURES, ROOF, PARKING AREAS, DRIVEWAY AREAS, NEW STREETS, NEW SIDEWALK, EXISTING GRAVEL CRUSHED STONE, HARD PACKED SOIL IS EXEMPT.

16. A EROSION AND SEDIMENTATION CONTROL PLAN IS REQUIRED FOR EARTH DISTURBANCE ACTIVITY OF 1,000 SQUARE FEET OR MORE. THE CITY REQUIRES CUTOSS CONSERVATION (LCCD OR NCCD) REQUIRED OF 1 ACRE OR MORE.
17. THE LVPC REVIEWS ALL SITE PLANS THAT IT IS REQUIRED TO SIGN PRIOR TO BEING RECORDED IN THE COURTHOUSE OF EITHER NORTHAMPTON OR LEHIGH COUNTY. REGARDLESS OF THE SIZE OF THE SITE OR THE NET AMOUNT OF IMPERVIOUS SURFACES, THE LVPC IS NOT REQUIRED TO REVIEW A STORM WATER MANAGEMENT PLAN FOR A SITE THAT DOES NOT RESULT IN AN INCREASE OF 10,000 SQUARE FEET OF IMPERVIOUS SURFACE.

GENERAL UTILITY NOTES:

1. CONTRACTOR MUST APPLY FOR ALL UTILITY CONNECTION APPLICATIONS. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONNECTION FEES FOR CONSTRUCTION. REFER TO THIS SHEET FOR AVAILABLE UTILITY COMPANY LIST.
2. CONTRACTOR MUST OBTAIN ANY REQUIRED UTILITY DETAILS FOR RECONNECTION OF EXISTING SERVICES OR NEW SERVICE AND IS RESPONSIBLE FOR THE CONSTRUCTION OF EACH NEW SERVICE PER THE APPROPRIATE UTILITY COMPANY'S SPECIFICATIONS.
3. THE LOCATION OF THE EXISTING OVERHEAD UTILITIES SHOWN ON THIS PLAN HAVE BEEN TAKEN FROM HIGH VOLTAGE FIELD OBSERVATION.
4. ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND.
5. THE CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL UNDERGROUND UTILITIES AND APPURTENANCES TO MINIMIZE DISTURBANCE TO CURBING, PAVING, AND COMPACTED SUB-GRADE.
6. IF CONFLICTS ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND DESIGN ENGINEER FOR INSTRUCTION BEFORE PROCEEDING WITH WORK.
7. CONTRACTOR SHALL EXCAVATE ONLY ENOUGH TRENCH FOR WHICH PIPE CAN BE INSTALLED AND TRENCH BACKFILLED BY THE END OF EACH WORK DAY.
8. UTILITY TRENCHES TO BE BACKFILLED WITH SAFE CLAY STRUCTURAL FILL MATERIAL APPROVED BY AND UNDER THE SUPERVISION OF THE GEO-TECHNICAL ENGINEER.
9. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREAS. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK.

COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THE THEORETICAL MAXIMUM DRY DENSITY (ASTM D998). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES IN COMPACTED FILL THICKNESS. A REPORT FROM A GEO-TECHNICAL ENGINEER MAY BE REQUIRED BY THE PUBLIC WORKS INSPECTOR OR CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

11. CONTRACTOR IS CAUTIONED TO PROTECT ANY STRUCTURES IMMEDIATELY ADJACENT TO HIS EXCAVATION AREAS. ANY DAMAGE TO STRUCTURE SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN COST.
12. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE BETWEEN PROPOSED AND EXISTING UNDERGROUND UTILITIES AND STRUCTURES. CONTRACTOR TO NOTIFY CONSTRUCTION MANAGER / ENGINEER IMMEDIATELY AFTER UNCOVERING EXISTING UTILITIES IF CLEARANCE CANNOT BE ACHIEVED. NO CHANGES ARE TO BE MADE, WITHOUT THE CONSTRUCTION MANAGERS / ENGINEERS APPROVAL.
13. THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES ARE APPROXIMATE. THE ELEVATIONS OF THE EXISTING UTILITIES AT THE TERMINATING CONNECTION POINTS TO THE PROPOSED UTILITIES AND AT PROPOSED UTILITY CROSSINGS MUST BE FIELD CHECKED PRIOR TO CONSTRUCTING THE NEW UTILITIES.
14. CONNECTIONS TO EXISTING SEWERS SHALL BE MADE PER MUNICIPALITY, AUTHORITY, AND/OR UTILITY COMPANY'S REQUIREMENTS AND APPROVALS, AND USING APPROVED MATERIALS. APPROVED DIELECTRIC COUPLINGS SHALL BE USED BETWEEN DISSIMILAR MATERIALS.
15. IF UTILITY CONFLICTS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONSTRUCTION MANAGER / ENGINEER AND MAKE ARRANGEMENTS WITH THE UTILITY OWNER FOR THE RELOCATION OF THE NECESSARY UTILITIES AT NO COST TO THE OWNER OR THE ENGINEER.
16. MANHOLE RIMS TO INLET GRATE ELEVATIONS ARE APPROXIMATE, CONTRACTOR SHALL ADJUST RIMS TO MATCH FINAL GRADE ADJACENT TO SAME.
17. CLEANOUT CAPS, GRATES, VALVE BOXES, ETC. SHALL HAVE BLACK FINISH TOPS.

18. IF UTILITY CONFLICTS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONSTRUCTION MANAGER / ENGINEER AND MAKE ARRANGEMENTS WITH THE UTILITY OWNER FOR THE RELOCATION OF THE NECESSARY UTILITIES AT NO COST TO THE OWNER OR THE ENGINEER.
19. CONTRACTOR IS RESPONSIBLE FOR THE SUPPORT OF ALL EXCAVATIONS AND OF EXISTING UTILITIES WITHIN THE EXCAVATIONS PER OSHA REQUIREMENTS, STATE AND LOCAL CODES, UTILITY COMPANY REQUIREMENTS, ACCEPTED INDUSTRY STANDARDS OR SPECIFIED REQUIREMENTS, WHICHEVER IS MOST STRINGENT.
20. CONTRACTOR TO CONSTRUCT MANHOLE AND INLET STRUCTURES IN ACCORDANCE WITH LATEST EDITION OF PENNDOT PUBLICATION 72M STANDARDS FOR ROADWAY CONSTRUCTION AND MUNICIPALITY STANDARDS.
21. STORM DRAINAGE PIPE SHALL BE LAID ON SMOOTH CONTINUOUS GRADES WITH NO VISIBLE BENDS AT JOINTS.
22. UTILITY CONNECTION AND UTILITY COMPANY DETAILS FOR RECONNECTION AND NEW SERVICE WERE NOT PROVIDED BY THE UTILITY COMPANIES. CONTRACTOR SHALL OBTAIN ANY REQUIRED UTILITY DETAILS FOR RECONNECTION OF EXISTING SERVICES OR NEW SERVICE AND IS RESPONSIBLE FOR THE CONSTRUCTION OF EACH NEW SERVICE PER THE APPROPRIATE UTILITY COMPANIES SPECIFICATIONS.
23. ALL PIPE LENGTHS AND DISTANCES BETWEEN STRUCTURES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE ALONG A HORIZONTAL PLANE.
24. CONTRACTOR SHALL EXCAVATE ONLY ENOUGH TRENCH FOR WHICH PIPE CAN BE INSTALLED AND TRENCH BACKFILLED BY THE END OF EACH WORK DAY.
25. EXISTING UTILITY LATERALS FOR THE PREVIOUS USE ARE NOT TO BE REUSED UNLESS NOTED ON THE PLANS.
26. RUNOFF FROM IMPERVIOUS AREAS SHALL NOT BE DIRECTED INTO THE SANITARY SEWER NOR ONTO ADJACENT PROPERTIES.
27. ALL WATER MAINS AND APPURTENANCES SHALL MEET THE REQUIREMENTS OF THE MUNICIPALITY AND/OR AUTHORITY'S STANDARD SPECIFICATIONS. WATER MAINS ARE TO BE INSTALLED AT 4'-0" MINIMUM COVER UNLESS OTHERWISE INDICATED.
28. FIRE HYDRANT LOCATIONS AND CONSTRUCTION ARE SUBJECT TO THE APPROVAL OF THE LOCAL FIRE OFFICIALS AND UTILITY COMPANY.

29. DOMESTIC AND FIRE WATER BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED WITHIN THE BUILDING AND APPROVED BY MUNICIPALITY AND/OR AUTHORITY.
30. FINAL LOCATIONS OF HOSE BIBBS AND ROUTING OF SERVICE PIPING SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND IN ACCORDANCE WITH THE MEP PLANS.
31. ELECTRICAL TRANSFORMERS, PAD SIZES, AND LOCATIONS TO BE COORDINATED WITH THE UTILITY COMPANY, OWNER/DEVELOPER, AND ARCHITECT. ELECTRIC AND TELECOM UTILITIES ARE SHOWN FOR COORDINATION PURPOSES ONLY. CONSTRUCTION AND INSTALLATION OF THE UTILITIES TO BE IN ACCORDANCE WITH THE UTILITY COMPANY AND MEP PLANS, DETAILS, AND SPECIFICATIONS. CONTRACTOR TO IMMEDIATELY NOTIFY THE ENGINEER OF CONFLICTS AND CHANGES TO THE PLAN.

WATER NOTES:

1. EXISTING WATER LINES WITHIN THE PROJECT AREA ARE PRIVATE LINES. PROPOSED CHANGES TO WATER LINES ARE TO BE COORDINATED WITH THE ENGINEER IN ORDER TO CONTINUE TO PROVIDE SERVICE TO CAMPUS SYSTEMS.
2. WATER LINE CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER AS TO MINIMIZE LOSS OF SERVICE TO ANY OTHER CAMPUS SYSTEMS. CONTRACTOR SHALL COORDINATE WITH ENGINEER, DEPENDING UPON THE NATURE OF THE LOSS OF SERVICE, IT MAY BE REQUIRED THAT WORK BE COMPLETED IN THE EVENING AFTER NORMAL BUSINESS. ALL VALVES NEEDED FOR SHUT-DOWN SHALL BE COORDINATED WITH ENGINEER.
3. A MINIMUM VERTICAL CLEARANCE OF EIGHTEEN (18) INCHES BETWEEN ANY UTILITY AND THE WATER MAIN AND OTHER APPURTENANCES.
4. WATER MAINS SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE, DOUBLE CEMENT LINED AND TAR COATED WITH FUSION JOINTS, CLASS 5.
5. ALL FITTINGS SHALL BE DUCTILE IRON CLASS 350 ANSI A21.10 OR ANSI A21.53, EPOXY COATED MECHANICAL OR PUSH ON JOINTS. NOTE: FITTINGS NOT FURNISHED WITH AN EPOXY COATING CAN BE FURNISHED WITH A DOUBLE CEMENT LINING AND TAR COATING.
6. THE WATER LINES WITHIN THE PROJECT AREA ARE PRIVATE. WATER LINE REVISIONS SHOULD BE COORDINATED WITH THE CAMPUS SYSTEM.
7. FIRE HYDRANT AND WATER MAINS TO BE INSTALLED AND UNDER PRESSURE BEFORE ANY COMBUSTIBLE CONSTRUCTION IS STARTED.
8. MINIMUM COVER OF ALL WATER MAINS AND APPURTENANCES SHALL BE FOUR FEET (4'-0").
9. PROPOSED WATER LINES WITHIN THE EXISTING AND PROPOSED BUILDINGS TO BE CONNECTED TO THE EXISTING WATER LINE SERVING THE SITE. WATER SERVICE SHALL BE METERED BY THE EXISTING MASTER METER FOR THE CAMPUS.

UTILITY PROVIDER LIST:

- COMPANY: PENNION COMMUNICATIONS OF PA INC
ADDRESS: 300 E LAIRD ST
WILKES BARRE, PA 18702
CONTACT: MICHAEL NAVICH
EMAIL: Michael.Navich@PTFR.com
PHONE: 570-206-3587
- COMPANY: COMCAST
ADDRESS: 1004 CORNERSTONE BLVD
DOWNTOWN, PA 19235
CONTACT: JOHN CEDRICK SALVATERRA
EMAIL: JOHN.CEDRICK.SALVATERRA@COMCAST.COM
PHONE: 267-271-9781
- COMPANY: USIC LOCATING SERVICES LLC
ADDRESS: 9445 N RIVER ROAD SUITE 100
INDIANAPOLIS, IN 46240
CONTACT: USIC DSPATCH
PHONE: 800-778-8140
- COMPANY: LEHIGH UNIVERSITY
ADDRESS: 114 RESEARCH DR
BETHLEHEM, PA 18015
CONTACT: STEVEN BENKO
EMAIL: sbenko@lehigh.edu
PHONE: 610-738-5378

GENERAL CONSTRUCTION AND GRADING NOTES:

1. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL AND LOCAL CODES AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS OTHERWISE OBTAINED BY THE OWNER/DEVELOPER.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS, AS APPLICABLE:
A. PENNDOT SPECIFICATION, PUB 408/2020 OR LATEST REVISION.
B. PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, LAST REVISED 9/01/23 OR LATEST REVISION.
C. PENNDOT HANDBOOK OF APPROVED SIGNS, PUB 236/2020 OR LATEST REVISION.
D. AMERICANS WITH DISABILITIES ACT OF JULY 1993 AS AMENDED.
E. THE PENNSYLVANIA CLEAN STREAM LAW (38 P.S. SECTION 691.1 ET. SEQ.).
F. REGULATIONS OF PA CODE TITLE 25, CHAPTER 102.
G. MUNICIPALITY STANDARDS AND SPECIFICATIONS (LATEST EDITION).
H. IN EVENT OF A CONFLICT AMONG THESE REQUIREMENTS AND/OR PLANS, THE MORE RESTRICTIVE REGULATION SHALL APPLY OR A CLARIFICATION SHALL BE OBTAINED FROM THE ENGINEER.
3. THE CONTRACTOR SHALL BE REQUIRED TO REVIEW AND ABIDE BY SPECIFICATIONS OF THE PLAN AND ALL SUPPORTING DOCUMENTS, PERMITS, AND REPORTS FOR THIS SITE, INCLUDING BUT NOT LIMITED TO:
• EROSION AND SEDIMENTATION CONTROL PLAN (IF APPLICABLE)
• POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (IF APPLICABLE)
• HIGHWAY OCCUPANCY PLANS (IF APPLICABLE)
• GEO-TECHNICAL REPORT (IF APPLICABLE)
4. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERROR DETECTED PRIOR TO THE START OF CONSTRUCTION.
5. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER OR HIS REPRESENTATIVE OR THE ENGINEER MAY BE CAUSE OF THE WORK TO BE UNACCEPTABLE.
6. ALL MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER.
7. TRAFFIC CONTROL METHODS, SUCH AS BARRICADES, SUFFICIENT LIGHTS, SIGNS, ETC., THAT MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED AND MAINTAINED THROUGHOUT THE CONSTRUCTION.
8. CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AREA.
9. THE CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AROUND AND TO ALL BUILDINGS NEAR CONSTRUCTION. IN TIME OF RAIN OR MUD, ROADS SHALL BE ABLE TO CARRY A FIRE TRUCK BY BEING PAVED OR HAVING A CRUSHED STONE BASE, ETC., WITH A MINIMUM WIDTH OF 20 FEET. ACCESS TO BUILDINGS THAT HAVE SPRINKLER OR STANDPIPE SYSTEMS SHALL BE WITHIN 40 FEET OF THE FIRE DEPARTMENT CONNECTOR. (NFA 1141.3-1)
10. THE CONTRACTOR WILL ENSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR REGRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
11. THE CONTRACTOR SHALL PROVIDE ANY AND ALL EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOIL TESTS. ALL ARRANGEMENTS AND SCHEDULING FOR THE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
12. ALL PERMITS MUST BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
13. EXISTING GRADES AND ELEVATIONS TO BE TIED INTO AROUND THE SITE SHALL BE VERIFIED BY THE CONTRACTOR. DEVIATIONS OF EXISTING GRADES AND ELEVATIONS FOUND IN THE FIELD BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE DESIGN ENGINEER.
14. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER OR HIS REPRESENTATIVE OR THE ENGINEER MAY BE CAUSE OF THE WORK TO BE UNACCEPTABLE.
15. MINIMUM PAVEMENT GRADE SHALL BE 1.0% UNLESS NOTED OTHERWISE.
16. MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER.
17. HIGH INTENSITY LIGHTING FACILITIES SHALL BE SO ARRANGED THAT THE SOURCE OF ANY LIGHT IS CONCEALED FROM PUBLIC VIEW AND FROM ADJACENT RESIDENTIAL PROPERTY AND DOES NOT INTERFERE WITH TRAFFIC.
18. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREAS. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK.
19. THE CONTRACTOR WILL ENSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR REGRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
20. SOIL TESTING AND ON-SITE INSPECTION SHALL BE PERFORMED BY AN INDEPENDENT GEO-TECHNICAL ENGINEER. A GEO-TECHNICAL ENGINEER IS REQUIRED TO INSPECT, TEST AND CERTIFY TO THE COMPACTION OF ALL FILL BEARING FILLS. THE GEO-TECHNICAL ENGINEER SHALL PROVIDE COPIES OF TEST REPORTS TO THE CONTRACTOR, THE OWNER, AND TO THE OWNER'S REPRESENTATIVE AND SHALL PROMPTLY NOTIFY THE OWNER, HIS REPRESENTATIVE AND THE CONTRACTOR, SHOULD WORK PERFORMED BY THE CONTRACTOR FAIL TO MEET THESE SPECIFICATIONS.
21. ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY MUST COMPLY WITH THE MUNICIPALITY'S AND/OR PENNDOT STANDARDS AND SPECIFICATIONS.
22. UNSTABLE SOILS TO BE UNDERCUT, REMOVED, AND REPLACED IN ACCORDANCE WITH THE GEO-TECHNICAL REPORT.
23. TOPSOIL, MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE SAVED AND REDISTRIBUTED ON ALL REGRADED SURFACES. SO AS TO PROVIDE AT LEAST FOUR INCHES OF EVEN COVER TO ALL DISTURBED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING AND PLANTING.
24. MATERIALS AND CONSTRUCTION STANDARDS FOR STREETS, CURBS, AND GUTTERS, STORM AND SANITARY SEWERS, AND SIDEWALKS, SHALL CONFORM TO MUNICIPALITY AND/OR PENNDOT STANDARDS AND SPECIFICATIONS. CONSTRUCTION AND INSTALLATION OF THE UTILITIES TO BE IN ACCORDANCE WITH THE UTILITY COMPANY AND MEP PLANS, DETAILS, AND SPECIFICATIONS. CONTRACTOR TO IMMEDIATELY NOTIFY THE ENGINEER OF CONFLICTS AND CHANGES TO THE PLAN.
25. A MINIMUM 5' TOPSOIL IS REQUIRED FOR ALL VEGETATED AREAS.
26. ALL EXTERIOR CONCRETE AREAS TO UTILIZE CEMENT CONCRETE WATERPROOFING ADMIXTURE.

DEMOLITION NOTES:

1. DEMOLITION WILL BEGIN UPON RECEIPT OF ALL NECESSARY APPROVALS AND PERMITS FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. ALL WORK SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL AGENCY UTILITY COMPANY LIST.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE AREAS FOR ALL TIMES DURING CONSTRUCTION.
3. CONTRACTOR SHALL CONTACT THE PA ONE CALL SYSTEM (1-800-242-1178) PER ACT 287, AS AMENDED, NOT LESS THAN THREE DAYS NOR MORE THAN TEN WORKING DAYS BEFORE COMMENCING WITH DEMOLITION.
4. CONTRACTOR IS RESPONSIBLE FOR UTILIZING APPLICABLE EROSION CONTROL MEASURES PRIOR TO AND DURING DEMOLITION. REFER TO EROSION AND SEDIMENTATION CONTROL PLANS, NOTES AND DETAILS FOR EROSION AND SEDIMENT CONTROL PROCEDURES.
5. THE CONTRACTOR SHALL INSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS THAT COULD ADVERSELY IMPACT WATER QUALITY. DEMOLITION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIAL, CONCRETE WASTE, WATER, SANITARY WASTES, ETC. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSE KEEPING, MATERIAL MANAGEMENT AND LITTER CONTROL, WHEREVER POSSIBLE. RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL. DIRECT ALL PUMP DISCHARGES RESULTING FROM DEMOLITION OPERATIONS TO A SUFFICIENT FILTERING DEVICE IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
6. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY AND ALL DEBRIS THAT MAY FALL ON THE ROADWAY AND ANY DAMAGE MAY BE TRACKED DOW TO THE ROADWAY.
7. UTILITY REMOVAL/ABANDONMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING ADDITIONAL SPECIFICATIONS:

- A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING FACILITIES ON THESE PLANS, HOWEVER, THIS INFORMATION IS SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR EXACT LOCATION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR.
- B. CONTRACTOR TO NOTIFY APPROPRIATE UTILITY COMPANY PRIOR REMOVAL/ABANDONMENT OF SUCH UTILITY.
- C. REMOVAL/ABANDONMENT OF PRIVATE UTILITY COMPANY SERVICES TO BE IN ACCORDANCE WITH EACH RESPECTIVE UTILITY COMPANY STANDARD SPECIFICATIONS OR THE FOLLOWING PRECISE, WHICHEVER IS MORE RESTRICTIVE:
• ALL PIPES TO BE ABANDON SHALL BE EITHER EXCAVATED, REMOVED AND THE TRENCH BACKFILLED WITH COURSE AGGREGATE MATERIAL, OR ALTERNATE MATERIAL APPROVED BY THE ENVIRONMENTAL ENGINEER OF RECORD OR THE PIPE SHALL BE COMPLETED FILLED WITH FLOWABLE FILL SAND AND THE ENDS SEALED WITH WATERTIGHT GROUT.
• ALL STRUCTURES TO BE ABANDONED IN PLACE SHALL HAVE AT MINIMUM THE FIRST 5 FEET BELOW PROPOSED GRADE REMOVED. THE REMAINING STRUCTURE SHALL BE COMPLETELY FILLED WITH FLOWABLE FILL, CAPPED WITH A WATERTIGHT CONCRETE COVER AND SEALED WITH WATERTIGHT GROUT. WHERE SITE GRADING NECESSITATES STRUCTURE REMOVAL, THE ASSOCIATED PIPES SHALL BE FILLED WITH FLOWABLE FILL AND THE ENDS SEALED WITH WATERTIGHT GROUT.
• THE FLOWABLE FILL SHALL BE PLACED TO THE FLOW PATH OF ALL PIPES TO ENSURE THAT PLUGGING PIPES WILL NOT ADVERSELY AFFECT DRAINAGE ON ANY ADJACENT ROADWAY OR PROPERTY.
9. REMOVAL AND DISPOSAL OF BITUMINOUS MATERIAL SHALL BE COMPLETED IN ACCORDANCE WITH DETAILS AND REGULATIONS OF THE MUNICIPALITY, PADEP AND PENNDOT, AS APPLICABLE AND IS SUBJECT TO INSPECTION AND APPROVAL AS APPROPRIATE.

SANITARY SEWER NOTES:

1. ALL SANITARY SEWER MANHOLES NOT LOCATED IN PAVED AREAS MUST BE EQUIPPED WITH WATERTIGHT FRAMES AND COVERS TO PREVENT THE INFLOW OF SURFACE WATER INTO THE SANITARY SEWER.
2. ALL SANITARY SEWER CONSTRUCTION MUST CONFORM TO THE MUNICIPALITY'S STANDARDS AND SPECIFICATIONS (LATEST EDITION).
3. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF EXISTING SANITARY SEWER MAINS AND EXISTING LATERALS FOR CONNECTION TO EXISTING SEWER SYSTEM.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CUT SHEETS FOR ALL SANITARY SYSTEM CONSTRUCTION FOR REVIEW AND APPROVAL BY THE MUNICIPALITY PRIOR TO CONSTRUCTION.
5. TYPICAL COVER OF THE SANITARY SEWER MAIN SHALL BE A MINIMUM OF FIVE FEET (5').
6. UNLESS OTHERWISE NOTED, THE SANITARY MAIN PIPE AND FITTINGS SHALL BE GASKETED SDR-26 SEWER PIPE.
7. MANHOLE STRUCTURES SHALL CONFORM TO ASTM C-478 AND PENNDOT PUB. 408, TO SUPPORT 150-H-41 LOADING.
8. UNLESS OTHERWISE NOTED, SANITARY LATERALS SHALL CONSIST OF SIX (6") INCH DIAMETER SDR-26 SEWER PIPE AT A MINIMUM SLOPE OF 1/4" PER FOOT.
9. PROPOSED SANITARY SEWER PIPING WITHIN THE EXISTING AND PROPOSED BUILDINGS SHALL BE CONNECTED TO EXISTING LATERALS IN ADDITION TO A PROPOSED CONNECTION PER THE MEP PLANS. THE PROPOSED SANITARY CONNECTION AND LATERAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MUNICIPALITY, AUTHORITY, AND/OR UTILITY COMPANY'S REQUIREMENTS.

STORM SEWER NOTES:

1. ALL STORM DRAINAGE PIPE SHALL BE LAID ON SMOOTH CONTINUOUS GRADES WITH NO VISIBLE BENDS AT JOINTS.
2. ALL STORM DRAINAGE PIPE SHALL BE CONSTRUCTED WITH WATERTIGHT JOINTS. PROVIDE GASKETS SUITABLE FOR REINFORCED CONCRETE PIPE OR HIGH-DENSITY POLYETHYLENE PIPE AS NECESSARY.
3. EXISTING STORM SEWER STRUCTURES TO BE MODIFIED SHALL BE ADJUSTED BY THE USE OF PRECAST CONCRETE RISER SECTIONS. IF STRUCTURE CANNOT BE MODIFIED, IT SHALL BE REPLACED. CONTRACTOR TO VERIFY DIMENSIONS OF ALL EXISTING STRUCTURES TO BE MODIFIED.

SOILS SUMMARY CHART:

SYMBOL	NAME	GROUP	SLOPES (%)	DEPTH TO		LIMITATIONS	RESOLUTION
				SEASONAL HIGH WATER TABLE (IN)	BEDROCK (IN)		
UD0	URBAN LAND GLADSTONE COMPLEX	A	8-25	>80	10-100	THIS SOIL HAS VARYING LIMITATIONS TO MOST NONFARM USES. THIS SOIL HAS THE POTENTIAL FOR SINKHOLES.	SEE RESOLUTION NOTES
Gnf	GLADSTONE GRAVELLY LOAM	A	25-55	>80	80-100	THIS SOIL HAS VARYING LIMITATIONS TO MOST NONFARM USES. THIS SOIL HAS THE POTENTIAL FOR SINKHOLES.	SEE RESOLUTION NOTES
UD	URBAN LAND DUFFIELD COMPLEX	B	8-25	>80	10-100	THIS SOIL HAS VARYING LIMITATIONS TO MOST NONFARM USES. THIS SOIL HAS THE POTENTIAL FOR SINKHOLES.	SEE RESOLUTION NOTES

RESOLUTION NOTES:

1. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEO-TECHNICAL ENGINEER DEEMS SOIL TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEO-TECHNICAL ENGINEER'S RECOMMENDATIONS.
2. LOW STRENGTH/LANDSLIDE PRONE: SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEO-TECHNICAL ENGINEER AND THE GEO-TECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
3. FROST ACTION: SOILS SHOULD BE FREE OF FROZEN OR MUCKY MATERIALS. FILL SHOULD NOT BE PLACED ON SATURATED OR FROZEN SURFACES. EARTHWORK INVOLVING THESE SOILS SHOULD BE LIMITED TO THE WARMER MONTHS WHEN PRACTICAL.
4. WETNESS: SOILS SHOULD BE EVALUATED FOR WETNESS PRIOR TO USE IN SITE WORK. IF GEO-TECHNICAL ENGINEER DEEMS SOIL TOO WET FOR SITE WORK, THEN SOILS SHALL BE AMENDED OR DRIED PER GEO-TECHNICAL ENGINEER'S RECOMMENDATIONS.
5. PIPING: AREAS OF EMBANKMENTS, WHERE PIPES PASSING THROUGH THEM SHALL HAVE ANTI-SLEEP COLLARS INSTALLED PER THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTIONS (PA DEP) EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM.
6. EASILY ERODIBLE: SOILS SHALL BE STABILIZED, WITH EITHER TEMPORARY OR FINAL STABILIZATION, IN AREAS WHERE EARTHWORK IS DELAYED OR STOPPED FOR FOUR CONSECUTIVE DAYS.
7. SHRINK/SWELL: SOILS SHOULD NOT BE USED FOR STRUCTURAL FILL UNLESS THEY HAVE BEEN EVALUATED BY A GEO-TECHNICAL ENGINEER AND THE GEO-TECHNICAL ENGINEER DEEMS THEM SUITABLE AS FILL OR PROVIDES RECOMMENDATIONS TO AMEND SOILS MAKING THEM SUITABLE AS FILL.
8. CUT BANKS CAVES - ALMOST ALL PENNSYLVANIA SOILS ARE SUSCEPTIBLE TO CAVING OF CUT BANKS. CUT SLOPES WILL BE STABILIZED AS SOON AS POSSIBLE WITH SEED AND MULCH OR EROSION CONTROL BLANKETS TO PREVENT SLIDING. SLOPES ARE DESIGNED TO NOT EXCEED 2H:1V.
9. LOW STRENGTH - MOST OF PENNSYLVANIA SOILS (73%) HAVE RELATIVELY LOW STRENGTH. PRECAUTIONS WILL BE TAKEN TO PREVENT SLOPE FAILURES DUE TO IMPROPER CONSTRUCTION PRACTICES. SOILS WILL BE EVALUATED DURING CONSTRUCTION TO DETERMINE WHETHER ADDITIONAL MEASURES WILL NEED TO BE TAKEN.
10. POOR TOPSOIL - SOIL AMENDMENTS WILL BE ADDED TO SITE SOILS TO PROMOTE VEGETATIVE GROWTH.

ZONING COMPLIANCE SUMMARY:

CITY OF BETHLEHEM ZONING ORDINANCE, ZONED "I" INSTITUTIONAL DISTRICT
INTENDED USE: LEHIGH UNIVERSITY HOSPITAL - DORMITORY

AREA REQUIREMENTS	REQUIRED	EXISTING	PROPOSED
MINIMUM TRACT AREA	2 AC.	97.81	
MINIMUM LOT WIDTH (FT.)	20	>20	
MAXIMUM BUILDING COVERAGE (%)	60	<60	<60
MAXIMUM IMPERVIOUS COVERAGE (%)	60	<60	<60
MAXIMUM BUILDING HEIGHT (FT.)	35	>35	
BUILDING SETBACK REQUIREMENTS*			
FRONT YARD SETBACK (FT.)	20	27	
REAR YARD SETBACK (FT.)	15	>15	
SIDE YARD SETBACK (FT.)**	15	>15	

- NOTES:
- ALL DEVELOPABLE AREA IS OWNED BY LEHIGH UNIVERSITY.

OWNER
Lehigh University
681 Taylor St.
Bethlehem PA 18015
v 610-758-4622

ARCHITECT
DIGSAU
340 North 12th Street, Suite 421
Philadelphia, PA 19107
v 215.627.0808
www.digsau.com

Pennoni
81 Highland Ave, Suite 230
Bethlehem, PA 18017
https://www.pennoni.com/
v 855-754-3595

LANDSCAPE ARCHITECT
Omnes
1262 Simon Blvd, B105
Easton, PA 18042
https://omnes.studio/
v 215-882-0500

STRUCTURAL ENGINEER
Keast & Hood
1635 Market St, #1705
Philadelphia, PA 19103
https://keasthood.com/
v 215-625-0099

MEP/FP ENGINEER
IMEG
623 28th Ave
Rock Island, IL 61201
https://imegcorp.com/
v 215-569-0400

LIGHTING
Arup
77 Water Street
New York, NY 10005
https://www.arup.com/en-us/
v 212-896-3000

ENVELOPE
RWDI
1608 Walnut Street, Suite 1603
Philadelphia, PA 19103
v 267-773-8375

VERTICAL TRANSPORTATION
Lerch Bates
275 S Main St, Suite 2CC
Doylestown, PA 18901
v 877-647-2110
https://www.lerchbates.com/

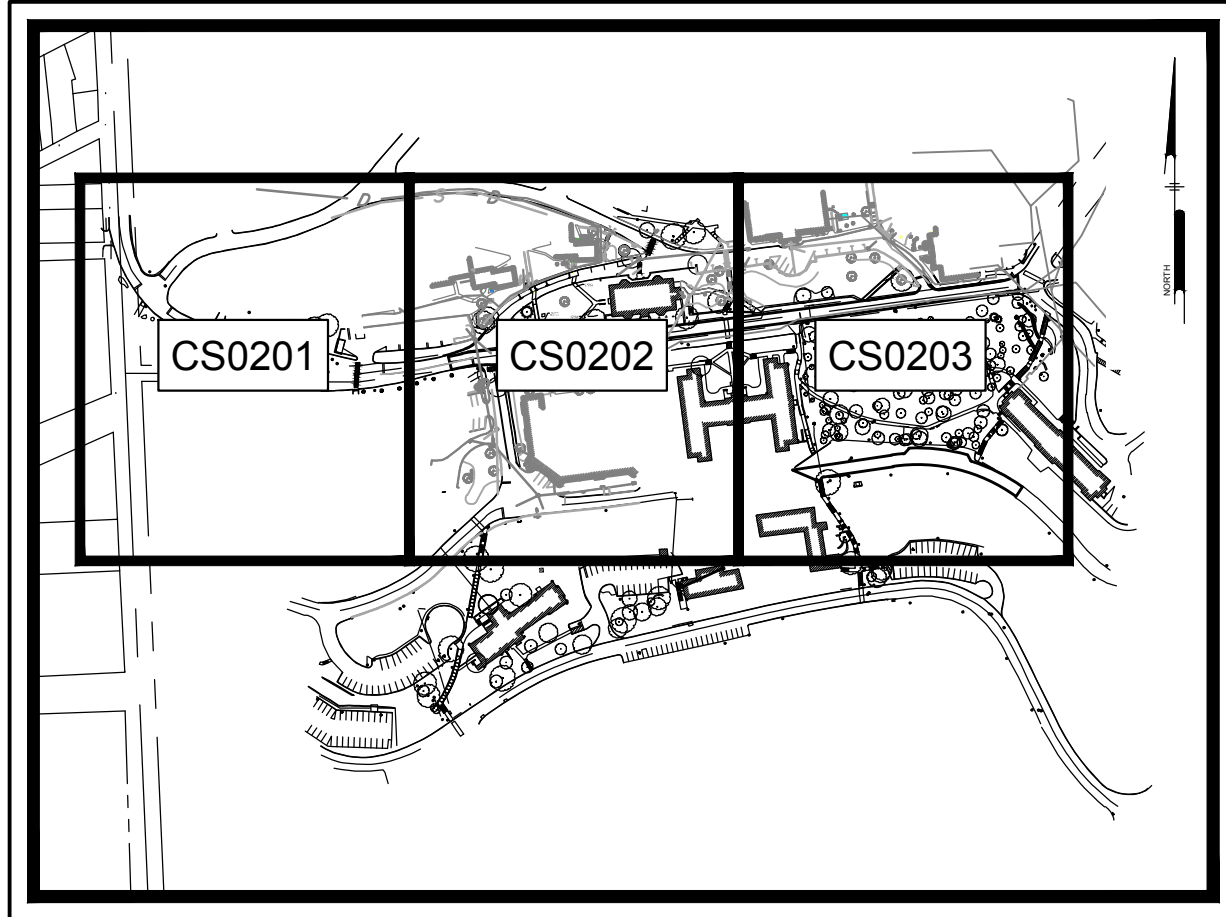
SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	1"=60'
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

SHEET NAME:
OVERALL EXISTING
CONDITIONS AND
DEMOLITION PLAN

SHEET NUMBER:
CS0200
SHEET 3 OF 18
PROJECT PHASE:



KEY MAP
NOT TO SCALE

LEGEND		
EXISTING	TO BE REMOVED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		HANDICAP PARKING
		NATURAL GAS, METER
		NATURAL GAS, MANHOLE
		NATURAL GAS, OVERHEAD
		NATURAL GAS, STUB OUT
		NATURAL GAS, VALVE
		NATURAL GAS, UNDERGROUND
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, JUNCTION BOX
		POWER, LIGHT
		POWER, SPOT LIGHT
		POWER, MANHOLE
		POWER, OVERHEAD
		POWER, METER
		POWER, PANEL BOX
		POWER, STUB OUT
		POWER, TRANSFORMER
		POWER, UNDERGROUND
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		CORNER FOUND
		MISC. CORNER FOUND
		CONCRETE MONUMENT FOUND
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOIL LABEL
		SANITARY, CLEAN-OUT
		SANITARY, FORCE MAIN
		SANITARY, FORCE MAIN MANHOLE
		SANITARY, FORCE STUB OUT
		SANITARY, LATERAL
		SANITARY, MANHOLE
		SANITARY, UNDERGROUND
		SANITARY, STUB OUT
		SANITARY, VALVE
		STORM, INLET
		STORM, HEADWALL
		STORM, MANHOLE
		STORM, UNDERGROUND
		STORM, ROOF DRAIN
		STORM, CLEAN-OUT
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		VEGETATION, SHRUB
		VEGETATION, STUMP
		VEGETATION, DECIDUOUS
		VEGETATION, CONIFEROUS
		VEGETATION, TREE LINE
		WATER, FIRE HYDRANT
		WATER, MANHOLE
		WATER, METER
		WATER, STUB OUT
		WATER, UNDERGROUND
		WATER, UNDERGROUND FIRE
		WATER, VALVE
		WETLAND
		WETLAND BUFFER
		ROAD ASPHALT - TO BE MILLED AND OVERLAYED
		ROAD ASPHALT - TO BE REMOVED
		PAVEMENT SAWCUT
		SLOPES 15% TO 25%
		SLOPES > 25%

0 60' 120'

PROJECT PHASE:

OWNER
Lehigh University
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v 610-758-4622

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IMEG
623 28th Ave
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v 215-569-0400

LIGHTING
Arup
77 Water Street
New York, NY 10005
https://www.arup.com/en-us/
v 212-896-3000

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1608 Walnut Street, Suite 1603
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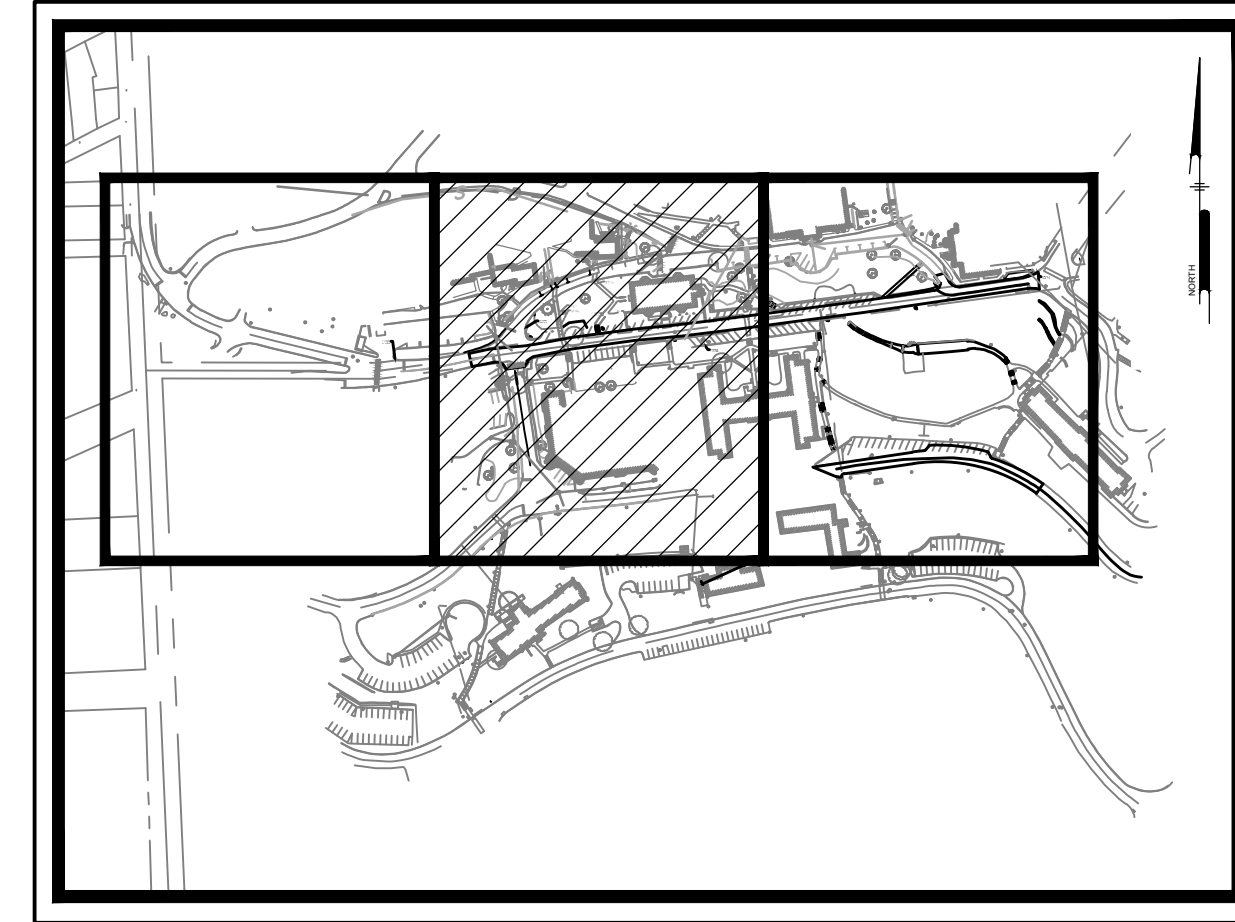
SKETCH PLAN
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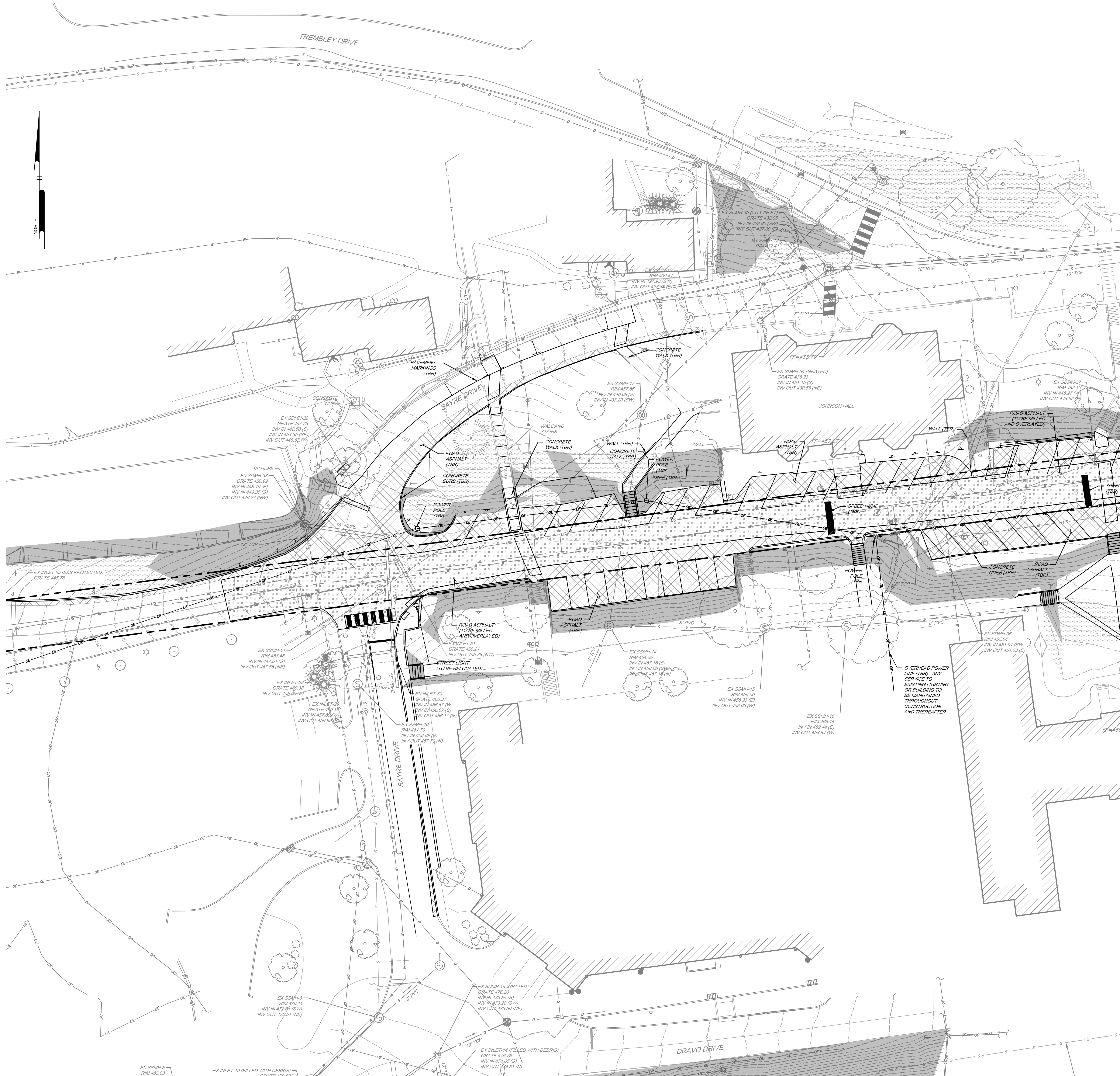
SHEET NAME:
EXISTING
CONDITIONS AND
DEMOLITION PLAN

SHEET NUMBER:
CS0202
SHEET 5 OF 18
PROJECT PHASE:



KEY MAP
NOT TO SCALE

LEGEND		
EXISTING	TO BE REMOVED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		HANDICAP PARKING
		NATURAL GAS METER
		NATURAL GAS MANHOLE
		NATURAL GAS OVERHEAD
		NATURAL GAS STUB OUT
		NATURAL GAS VALVE
		NATURAL GAS UNDERGROUND
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, JUNCTION BOX
		POWER, LIGHT
		POWER, SPOT LIGHT
		POWER, MANHOLE
		POWER, OVERHEAD
		POWER, METER
		POWER, PANEL BOX
		POWER, STUB OUT
		POWER, TRANSFORMER
		POWER, UNDERGROUND
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		CORNER FOUND
		MISC. CORNER FOUND
		CONCRETE MONUMENT FOUND
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOL LABEL
		SANITARY, CLEAN-OUT
		SANITARY, FORCE MAIN
		SANITARY, FORCE MAIN MANHOLE
		SANITARY, FORCE STUB OUT
		SANITARY, LATERAL
		SANITARY, MANHOLE
		SANITARY, UNDERGROUND
		SANITARY, STUB OUT
		SANITARY, VALVE
		STORM, INLET
		STORM, HEADWALL
		STORM, MANHOLE
		STORM, UNDERGROUND
		STORM, ROOF DRAIN
		STORM, CLEAN-OUT
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		VEGETATION, SHRUB
		VEGETATION, STUMP
		VEGETATION, DECIDUOUS
		VEGETATION, CONIFEROUS
		VEGETATION, TREE LINE
		WATER, FIRE HYDRANT
		WATER, MANHOLE
		WATER, METER
		WATER, STUB OUT
		WATER, UNDERGROUND
		WATER, UNDERGROUND FIRE
		WATER, VALVE
		WETLAND
		WETLAND BUFFER
		ROAD ASPHALT - TO BE MILLED AND OVERLAYED
		ROAD ASPHALT - TO BE REMOVED
		PAVEMENT SAWCUT
		SLOPES 15% TO 25%
		SLOPES > 25%



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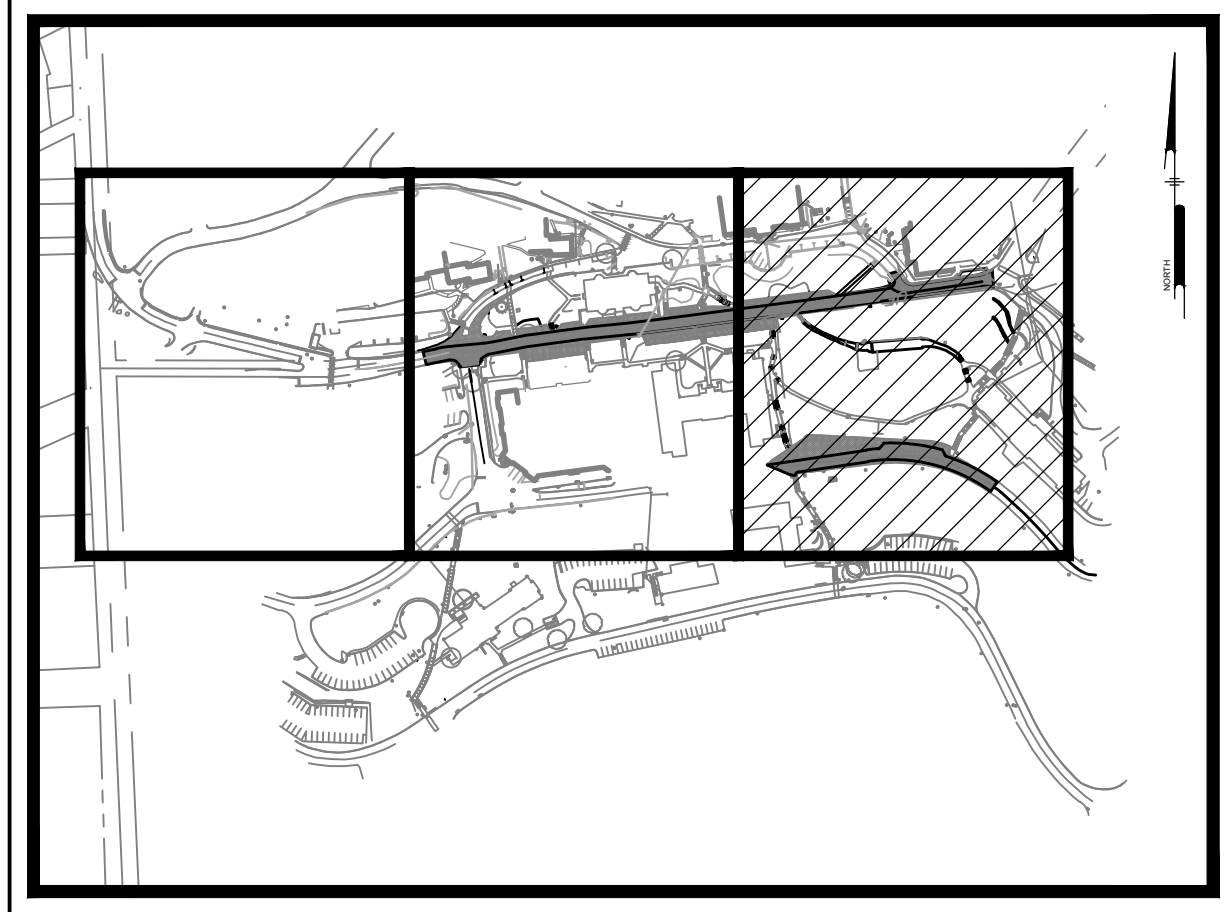
SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT DIGSX25001
DA PROJECT 2512
SCALE: 1" = 20'
FORMAT: 30" X 42"
DRAWN: 1005
CHECKED: TJS
DATE: 2025-09-10

SHEET NAME:
EXISTING
CONDITIONS AND
DEMOLITION PLAN

SHEET NUMBER:
CS0203
SHEET 6 OF 18
PROJECT PHASE:



LEGEND		
EXISTING	TO BE REMOVED	DESCRIPTION
[Symbol]	[Symbol]	CURB
[Symbol]	[Symbol]	CURB DEPRESSION
[Symbol]	[Symbol]	EDGE OF PAVEMENT
[Symbol]	[Symbol]	EDGE OF GRAVEL
[Symbol]	[Symbol]	EASEMENT
[Symbol]	[Symbol]	FENCE
[Symbol]	[Symbol]	FLOODPLAIN
[Symbol]	[Symbol]	GUIDE RAIL
[Symbol]	[Symbol]	HANDICAP PARKING
[Symbol]	[Symbol]	NATURAL GAS, METER
[Symbol]	[Symbol]	NATURAL GAS, MANHOLE
[Symbol]	[Symbol]	NATURAL GAS, OVERHEAD
[Symbol]	[Symbol]	NATURAL GAS, STUB OUT
[Symbol]	[Symbol]	NATURAL GAS, VALVE
[Symbol]	[Symbol]	NATURAL GAS, UNDERGROUND
[Symbol]	[Symbol]	POWER, GUY WIRE
[Symbol]	[Symbol]	POWER, JUNCTION BOX
[Symbol]	[Symbol]	POWER, LIGHT
[Symbol]	[Symbol]	POWER, SPOT LIGHT
[Symbol]	[Symbol]	POWER, MANHOLE
[Symbol]	[Symbol]	POWER, OVERHEAD
[Symbol]	[Symbol]	POWER, METER
[Symbol]	[Symbol]	POWER, PANEL BOX
[Symbol]	[Symbol]	POWER, STUB OUT
[Symbol]	[Symbol]	POWER, TRANSFORMER
[Symbol]	[Symbol]	POWER, UNDERGROUND
[Symbol]	[Symbol]	POWER, UTILITY POLE
[Symbol]	[Symbol]	PROPERTY, LINE
[Symbol]	[Symbol]	LEGAL RIGHT-OF-WAY
[Symbol]	[Symbol]	CORNER FOUND
[Symbol]	[Symbol]	MISC. CORNER FOUND
[Symbol]	[Symbol]	CONCRETE MONUMENT FOUND
[Symbol]	[Symbol]	BUILDING
[Symbol]	[Symbol]	SITE, POST
[Symbol]	[Symbol]	SITE, TRAFFIC SIGN
[Symbol]	[Symbol]	SOL. BOUNDARY
[Symbol]	[Symbol]	SOL. LABEL
[Symbol]	[Symbol]	SANITARY, CLEAN-OUT
[Symbol]	[Symbol]	SANITARY, FORCE MAIN
[Symbol]	[Symbol]	SANITARY, FORCE MAIN MANHOLE
[Symbol]	[Symbol]	SANITARY, FORCE STUB OUT
[Symbol]	[Symbol]	SANITARY, LATERAL
[Symbol]	[Symbol]	SANITARY, MANHOLE
[Symbol]	[Symbol]	SANITARY, UNDERGROUND
[Symbol]	[Symbol]	SANITARY, STUB OUT
[Symbol]	[Symbol]	SANITARY, VALVE
[Symbol]	[Symbol]	STORM, INLET
[Symbol]	[Symbol]	STORM, HEADWALL
[Symbol]	[Symbol]	STORM, MANHOLE
[Symbol]	[Symbol]	STORM, UNDERGROUND
[Symbol]	[Symbol]	STORM, ROOF DRAIN
[Symbol]	[Symbol]	STORM, CLEAN-OUT
[Symbol]	[Symbol]	MINOR CONTOUR
[Symbol]	[Symbol]	MAJOR CONTOUR
[Symbol]	[Symbol]	SPOT ELEVATION
[Symbol]	[Symbol]	VEGETATION, SHRUB
[Symbol]	[Symbol]	VEGETATION, STUMP
[Symbol]	[Symbol]	VEGETATION, DECIDUOUS
[Symbol]	[Symbol]	VEGETATION, CONIFEROUS
[Symbol]	[Symbol]	VEGETATION, TREE LINE
[Symbol]	[Symbol]	WATER, FIRE HYDRANT
[Symbol]	[Symbol]	WATER, MANHOLE
[Symbol]	[Symbol]	WATER, METER
[Symbol]	[Symbol]	WATER, STUB OUT
[Symbol]	[Symbol]	WATER, UNDERGROUND
[Symbol]	[Symbol]	WATER, UNDERGROUND FIRE
[Symbol]	[Symbol]	WATER, VALVE
[Symbol]	[Symbol]	WETLAND
[Symbol]	[Symbol]	WETLAND BUFFER
[Symbol]	[Symbol]	ROAD ASPHALT - TO BE MILLED AND OVERLAYED
[Symbol]	[Symbol]	ROAD ASPHALT - TO BE REMOVED
[Symbol]	[Symbol]	PAVEMENT SANCTUARY
[Symbol]	[Symbol]	SLOPES 15% TO 25%
[Symbol]	[Symbol]	SLOPES > 25%

0 20' 40'

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SKETCH PLAN
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[illegible]

CU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	1"=60'
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

SHEET NAME:

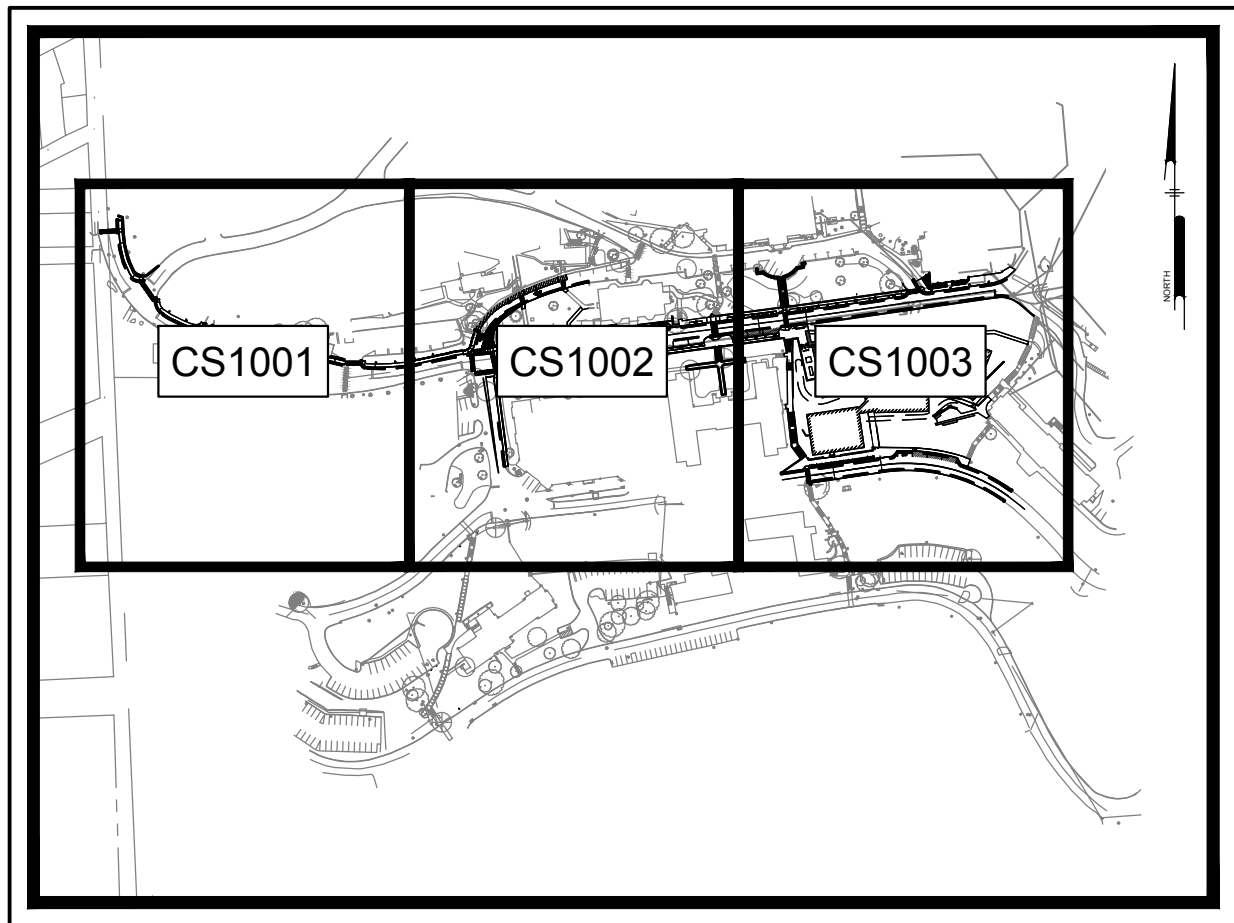
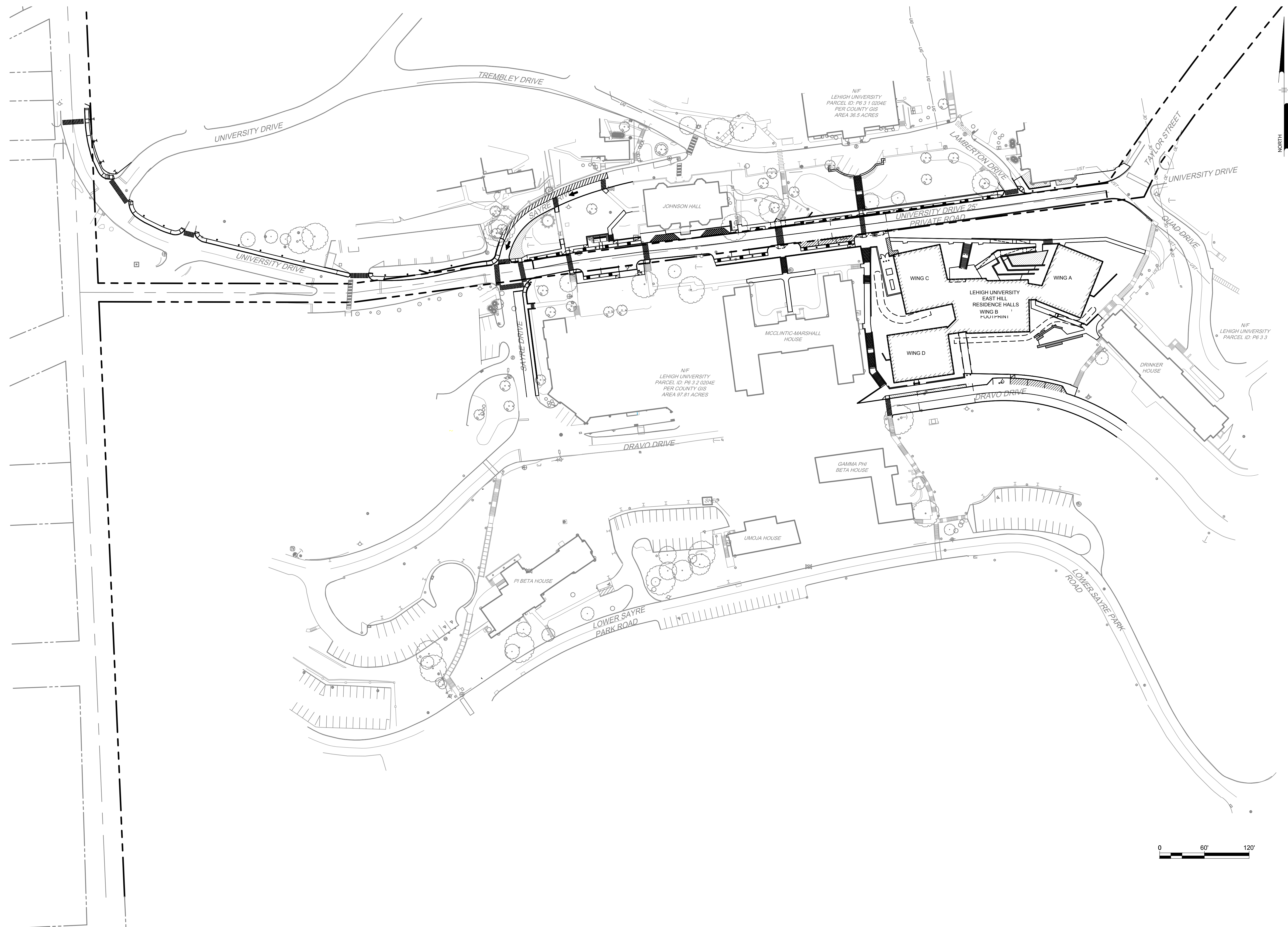
OVERALL SITE PLAN

SHEET NUMBER:

CS1000

SHEET 7 OF 18

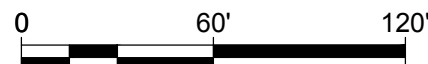
PROJECT PHASE



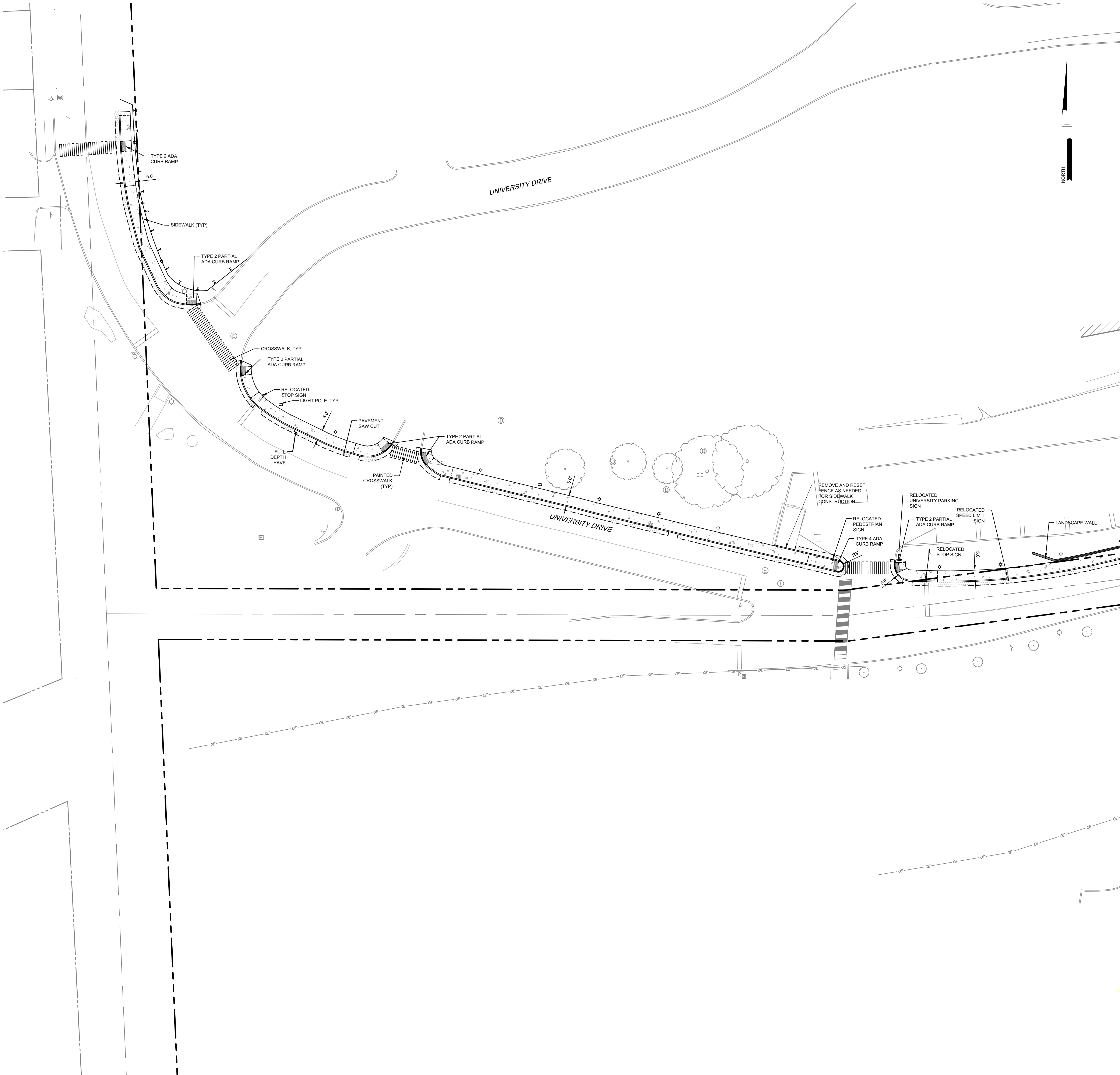
KEY MAP
NOT TO SCALE

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, UTILITY POLE
		PROPERTY LINE
		LEGAL RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		WETLAND
		WETLAND BUFFER
		FULL DEPTH ASPHALT
		ROAD ASPHALT - MILLED AND OVERLAYED
		PAVEMENT SAWCUT



U:\asau\DIGSAU\CS1001 - LARG\Heavy\Full Design\DESIGN_SHEETS\CS1001.dwg PLOTTED: 1/20/2025 1:39 PM BY: Asau\Gordon PLOTSTYLE: Pcsau.ctb



KEY MAP
NOT TO SCALE

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOIL LABEL
		WETLAND
		WETLAND BUFFER
		FULL DEPTH ASPHALT
		ROAD ASPHALT - MILLED AND OVERLAYED
		PAVEMENT SAWCUT
		LANDSCAPE WALL (WALL HT. < 4')
		RETAINING WALL (WALL HT. > 4')
		TREE WELL

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v 877-647-2110
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SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	#####
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

SHEET NAME:

#####

SHEET NUMBER:

CS1001

SHEET 8 OF 18

PROJECT PHASE:

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SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT DIGSX25001
DA PROJECT 2512
SCALE: 1"=20'
FORMAT: 30" X 42"
DRAWN: 1005
CHECKED: TJS
DATE: 2025-09-10

SHEET NAME:

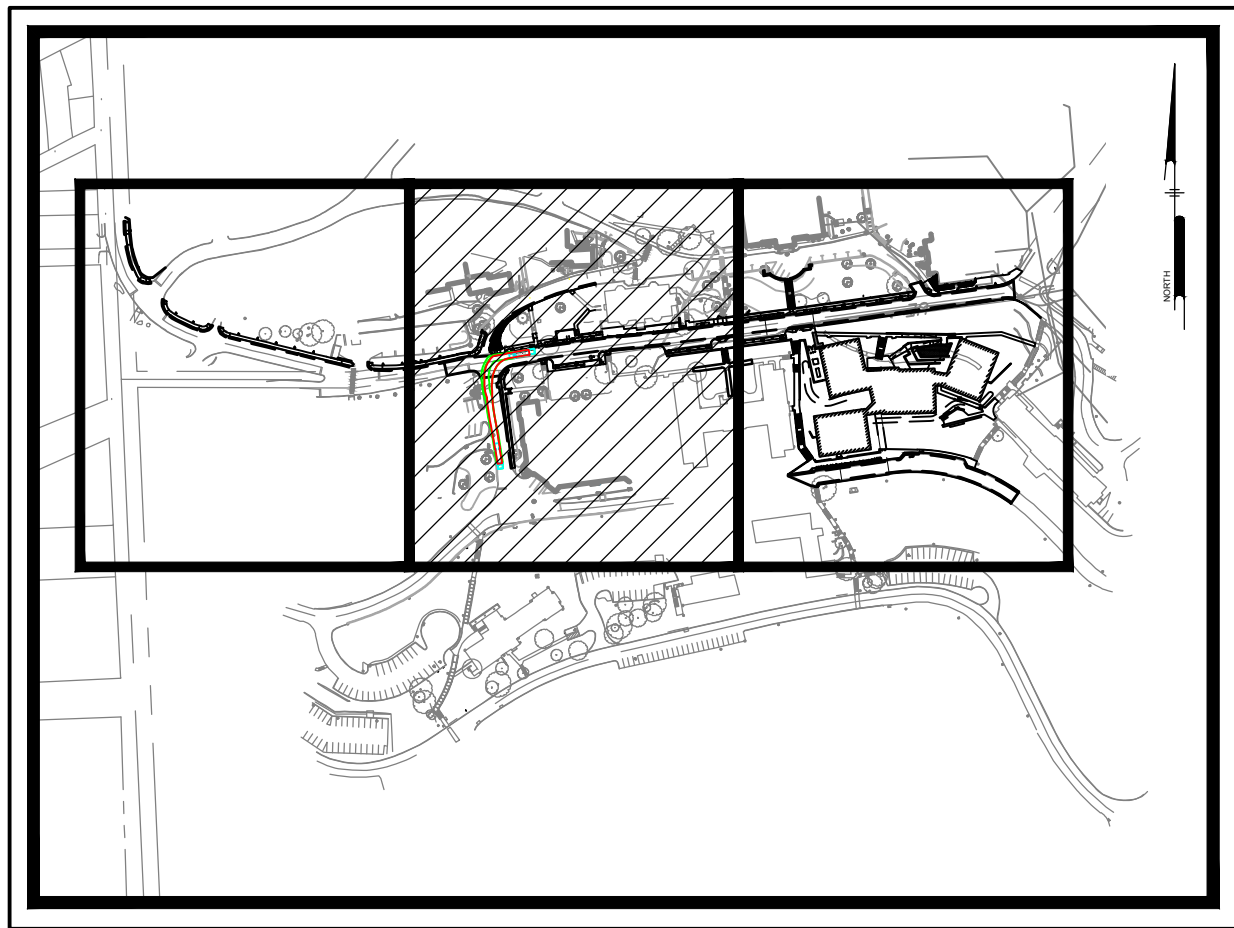
SITE PLAN

SHEET NUMBER:

CS1002

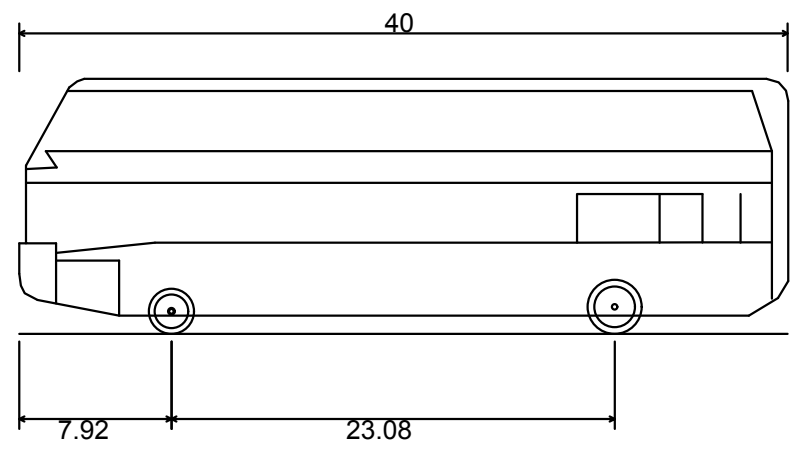
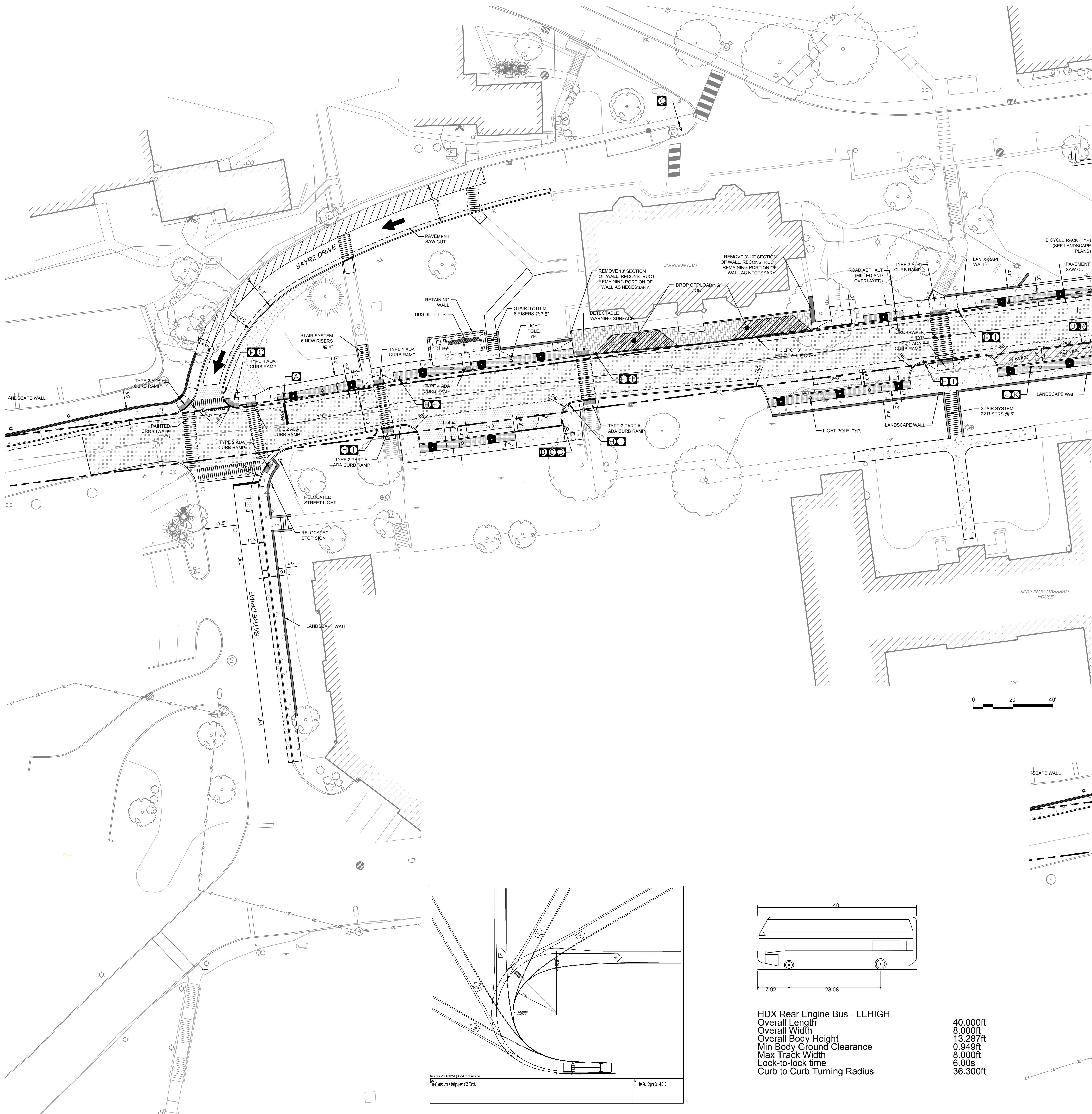
SHEET 9 OF 18

PROJECT PHASE:



KEY MAP
NOT TO SCALE

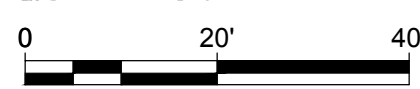
LEGEND	
EXISTING	PROPOSED
	CURB
	CURB DEPRESSION
	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	EASEMENT
	FENCE
	FLOODPLAIN
	GUIDE RAIL
	MARKING, HANDICAP PARKING
	POWER, GUY POLE
	POWER, GUY WIRE
	POWER, UTILITY POLE
	PROPERTY, LINE
	LEGAL RIGHT-OF-WAY
	CORNER
	MISC. CORNER
	CONCRETE MONUMENT
	SITE, BOLLARD
	SITE, BORING LOCATION
	BUILDING
	SITE, POST
	SITE, TRAFFIC SIGN
	SOIL BOUNDARY
	SOIL LABEL
	WETLAND
	WETLAND BUFFER
	FULL DEPTH ASPHALT
	ROAD ASPHALT - MILLED AND OVERLAYED
	PAVEMENT SAWCUT
	LANDSCAPE WALL (WALL HT. < 4')
	RETAINING WALL (WALL HT. > 4')
	TREE WELL



HDX Rear Engine Bus - LEHIGH
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock-to-lock time
Curb to Curb Turning Radius

40.00ft
8.00ft
13.28ft
0.949ft
8.00ft
6.00s
36.30ft

BUS TURNING EXHIBIT
SCALE 1" = 20'



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SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT DIGSX25001
DA PROJECT 2512
SCALE: 1" = 20'
FORMAT: 30" X 42"
DRAWN: 1005
CHECKED: TJS
DATE: 2025-09-10

SHEET NAME:

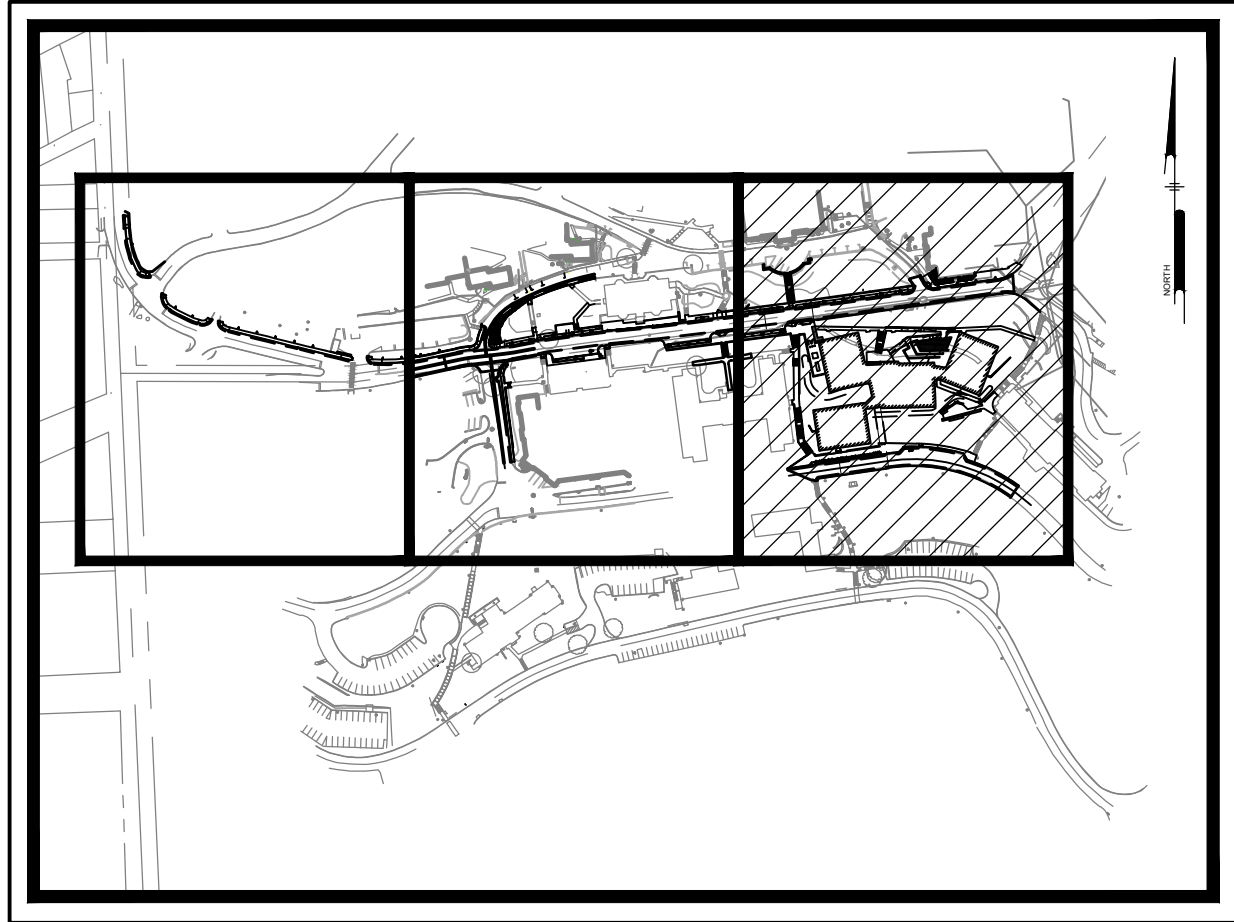
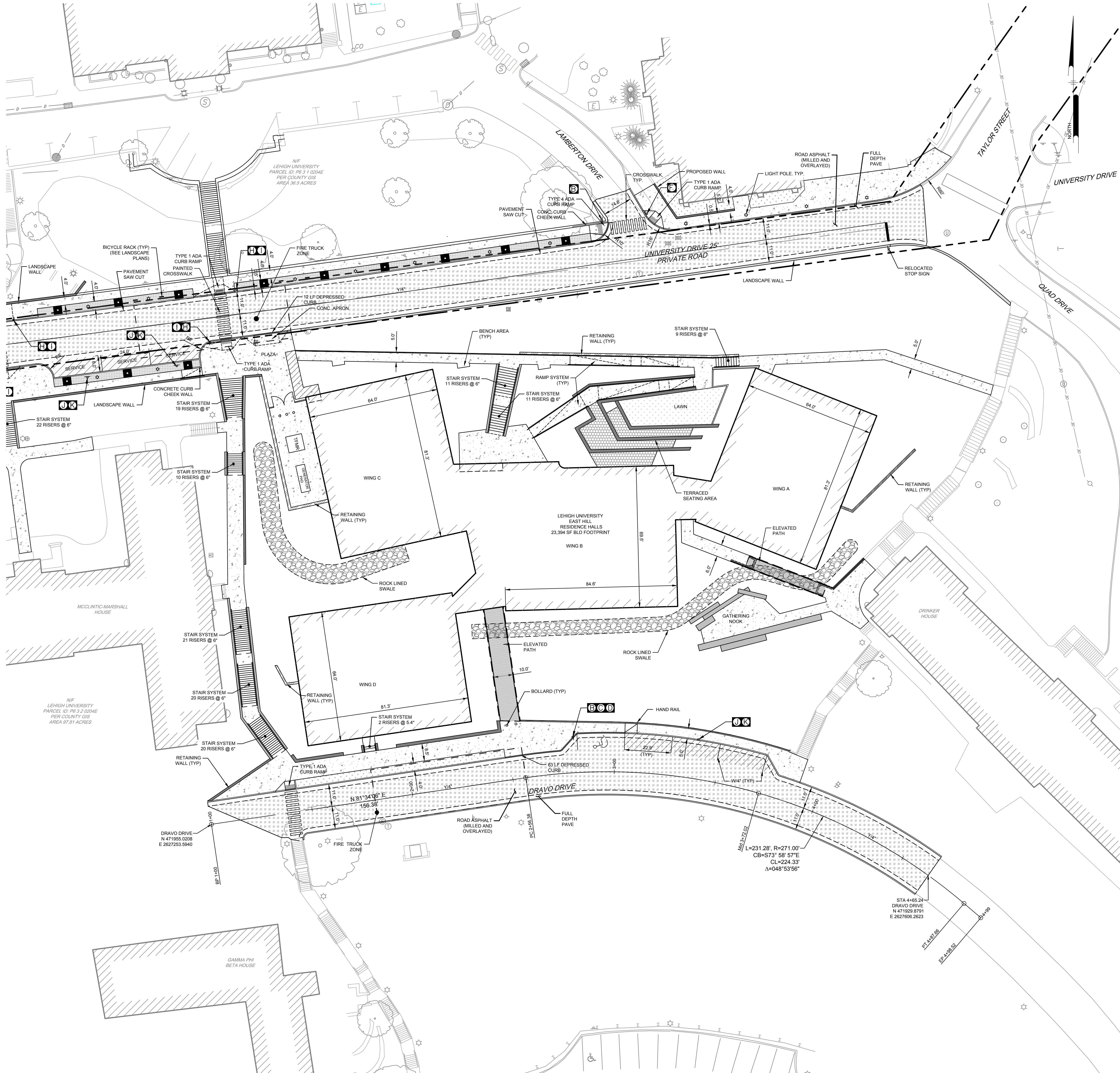
SITE PLAN

SHEET NUMBER:

CS1003

SHEET 10 OF 18

PROJECT PHASE:



KEY MAP
NOT TO SCALE

LEGEND		DESCRIPTION
EXISTING	PROPOSED	
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOIL LABEL
		WETLAND
		WETLAND BUFFER
		FULL DEPTH ASPHALT
		ROAD ASPHALT - MILLED AND OVERLAVED
		PAVEMENT SAWCUT
		LANDSCAPE WALL (WALL HT. < 4')
		RETAINING WALL (WALL HT. > 4')
		TREE WELL

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SKETCH PLAN
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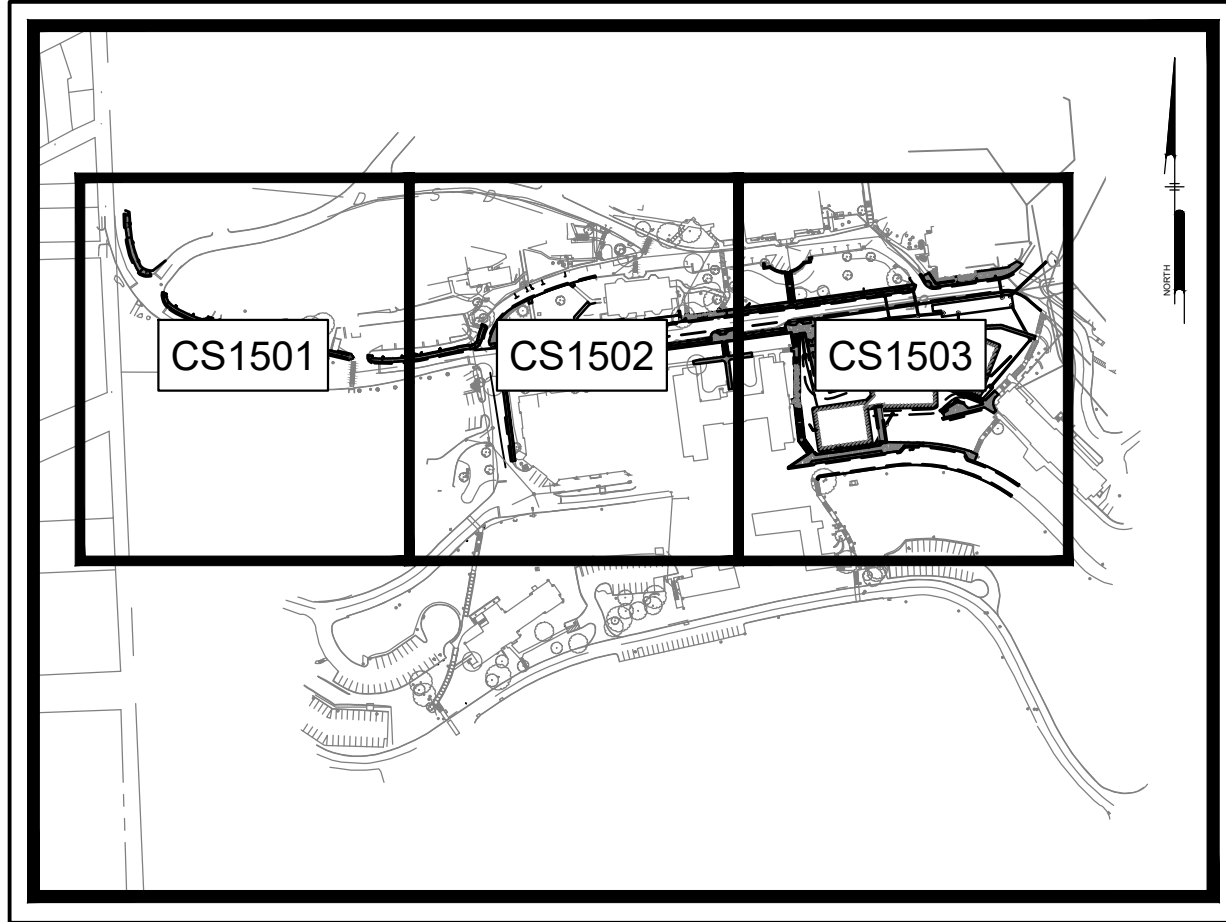
DATE: DESCRIPTION:

LU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	1"=60'
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

SHEET NAME:

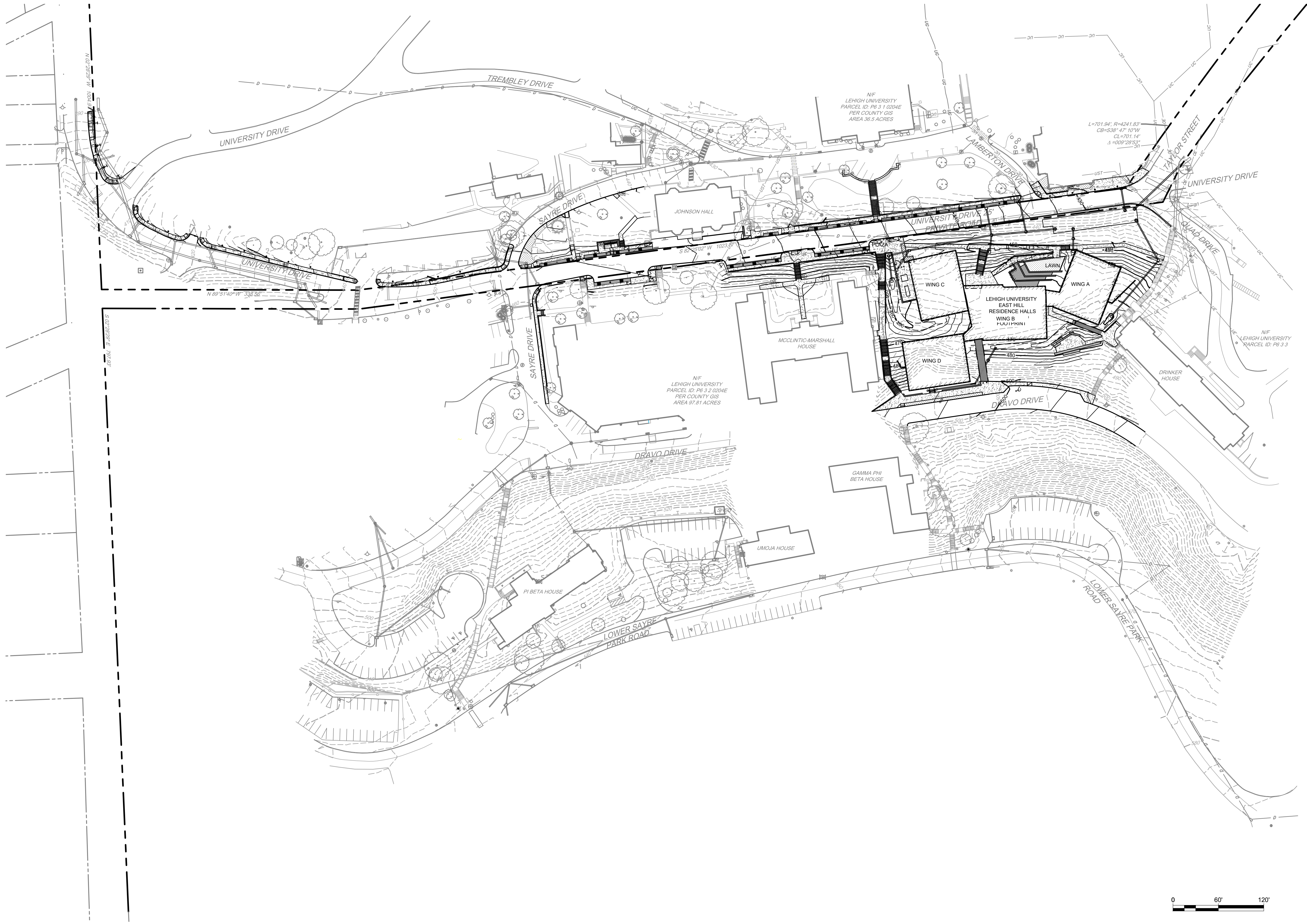
OVERALL GRADING
AND DRAINAGE PLAN

SHEET NUMBER:
CS1500
SHEET 11 OF 18
PROJECT PHASE:



KEY MAP
NOT TO SCALE

EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL, RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOIL LABEL
		STORM SEWER, INLET
		STORM SEWER, HEADWALL
		STORM SEWER, MANHOLE
		STORM SEWER, UNDERGROUND
		STORM SEWER, ROOF DRAIN
		STORM SEWER, CLEAN-OUT
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		WETLAND
		WETLAND BUFFER



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VERTICAL TRANSPORTATION
Lerch Bates
275 S Main St, Suite 2CC
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v 877-647-2110
https://www.lerchbates.com/

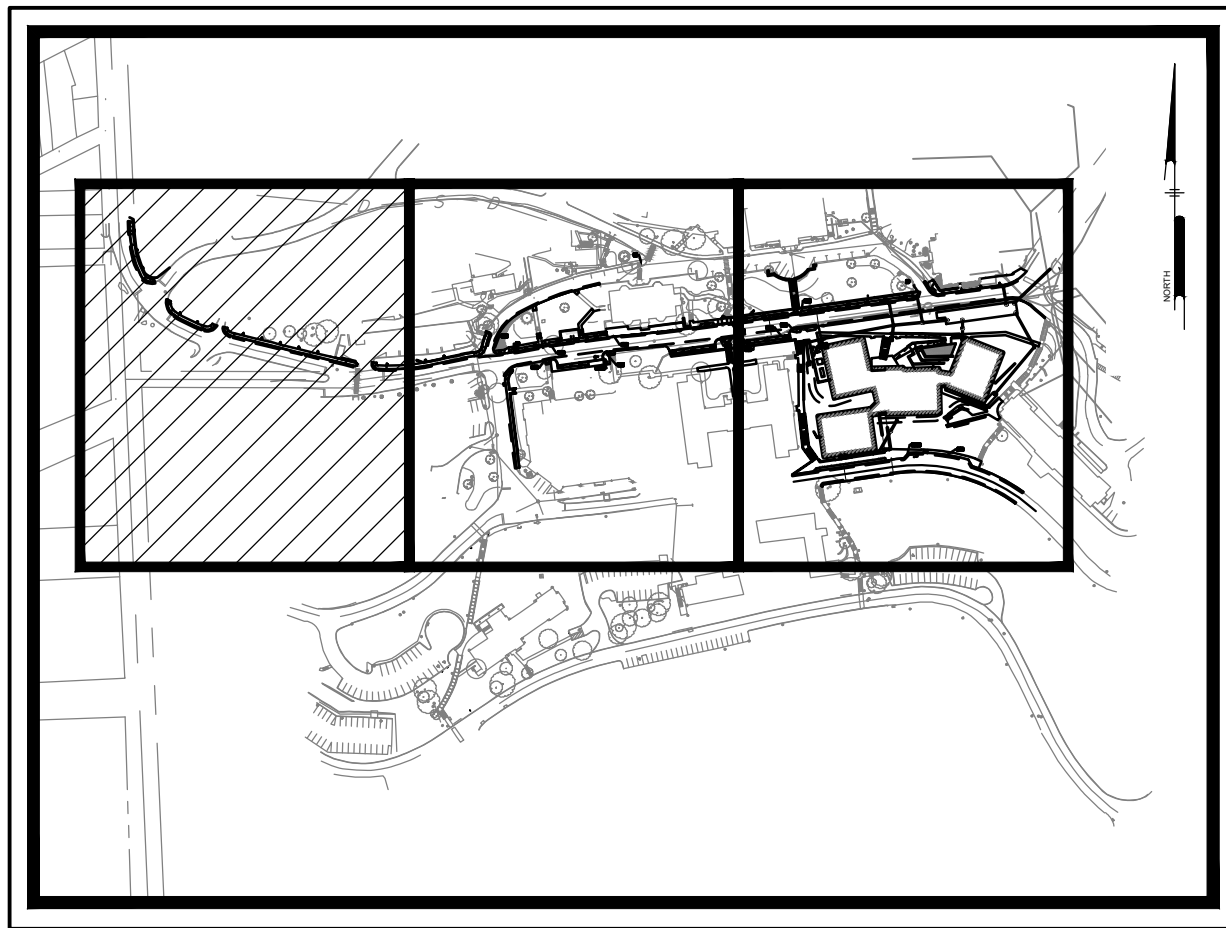
SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	1"=20'
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

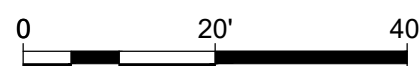
SHEET NAME:
GRADING AND
DRAINAGE PLAN

SHEET NUMBER:
CS1501
SHEET 12 OF 18
PROJECT PHASE:



KEY MAP
NOT TO SCALE

EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, UTILITY POLE
		PROPERTY LINE
		LEGAL RIGHT-OF-WAY CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOIL LABEL
		STORM SEWER, INLET
		STORM SEWER, HEADWALL
		STORM SEWER, MANHOLE
		STORM SEWER, UNDERGROUND
		STORM SEWER, ROOF DRAIN
		STORM SEWER, CLEAN-OUT
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		WETLAND
		WETLAND BUFFER



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v 610-758-4622

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v 855-754-3595

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Omnes
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Easton, PA 18042
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v 215-882-0500

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Philadelphia, PA 19103
https://keasthood.com/
v 215-625-0099

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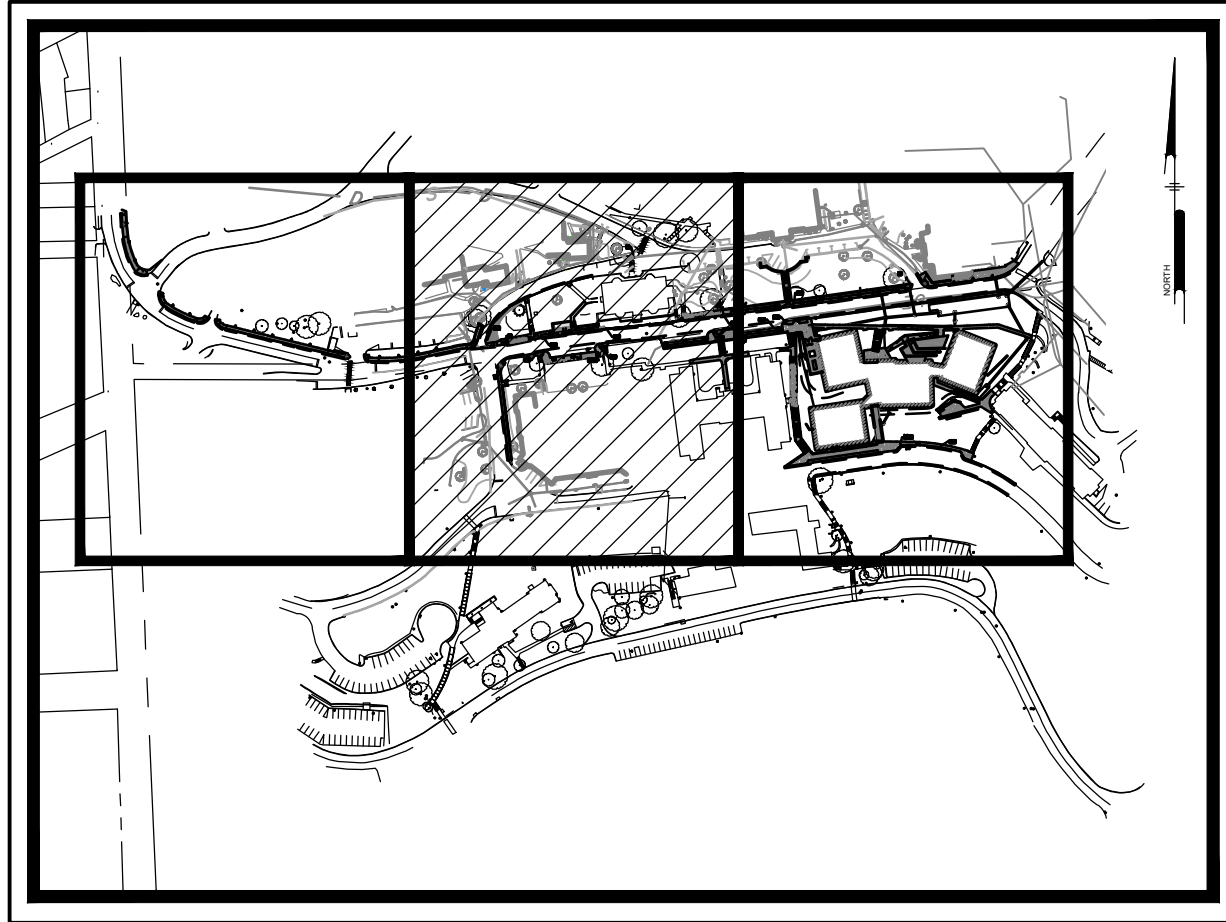
SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

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SCALE: 1"=20'
FORMAT: 30" X 42"
DRAWN: 1005
CHECKED: TJS
DATE: 2025-09-10

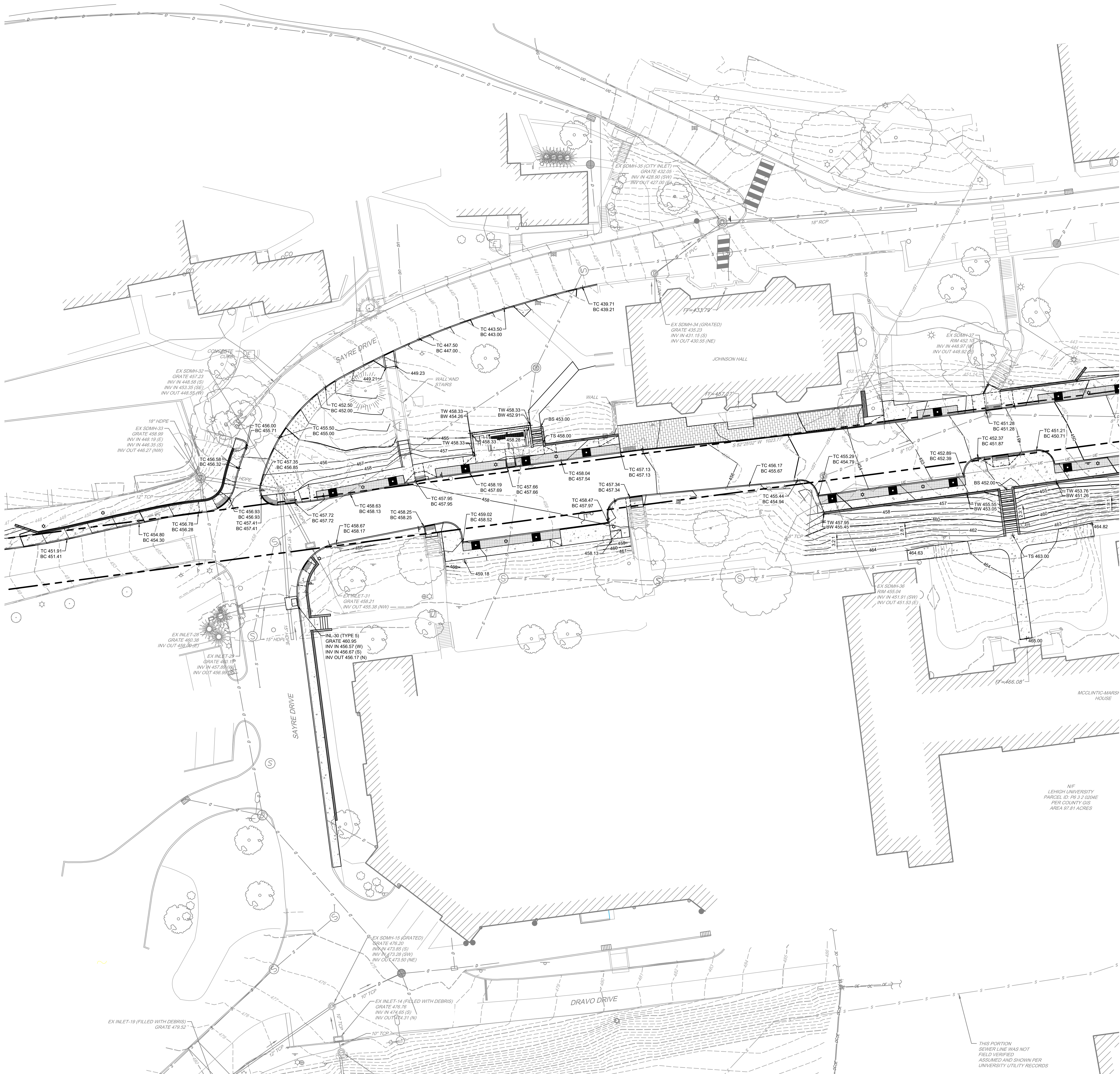
SHEET NAME:
GRADING AND DRAINAGE PLAN

SHEET NUMBER:
CS1502
SHEET 13 OF 18
PROJECT PHASE:



KEY MAP
NOT TO SCALE

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		POWER, GUY POLE
		POWER, UTILITY POLE
		PROPERTY LINE
		LEGAL RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL BOUNDARY
		SOIL LABEL
		STORM SEWER, INLET
		STORM SEWER, HEADWALL
		STORM SEWER, MANHOLE
		STORM SEWER, UNDERGROUND
		STORM SEWER, ROOF DRAIN
		STORM SEWER, CLEAN-OUT
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		WETLAND
		WETLAND BUFFER



0 20' 40'

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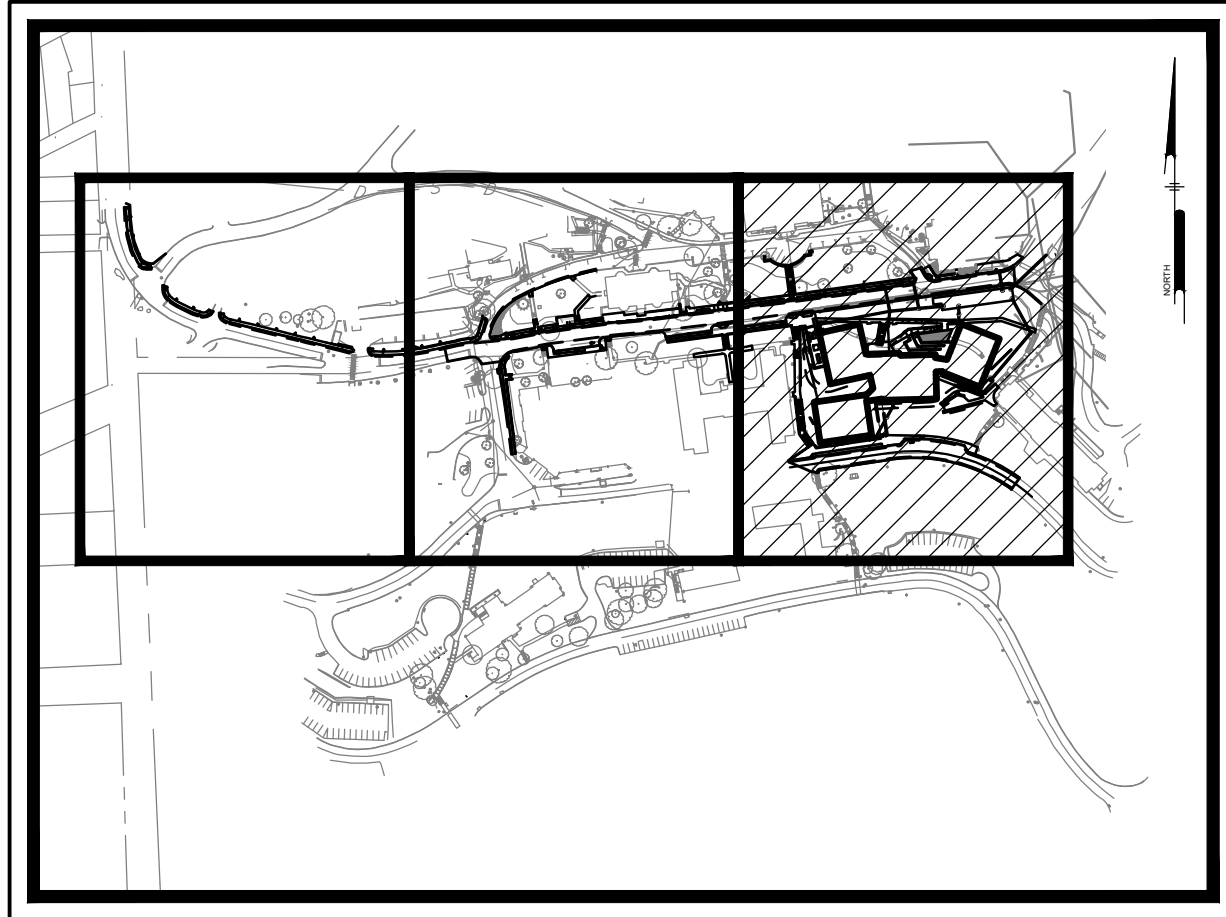
SKETCH PLAN
NOT FOR CONSTRUCTION

DATE: DESCRIPTION:

LU PROJECT DIGSX25001
DA PROJECT 2512
SCALE: 1" = 20'
FORMAT: 30" X 42"
DRAWN: 1005
CHECKED: TJS
DATE: 2025-09-10

SHEET NAME:
GRADING AND DRAINAGE PLAN

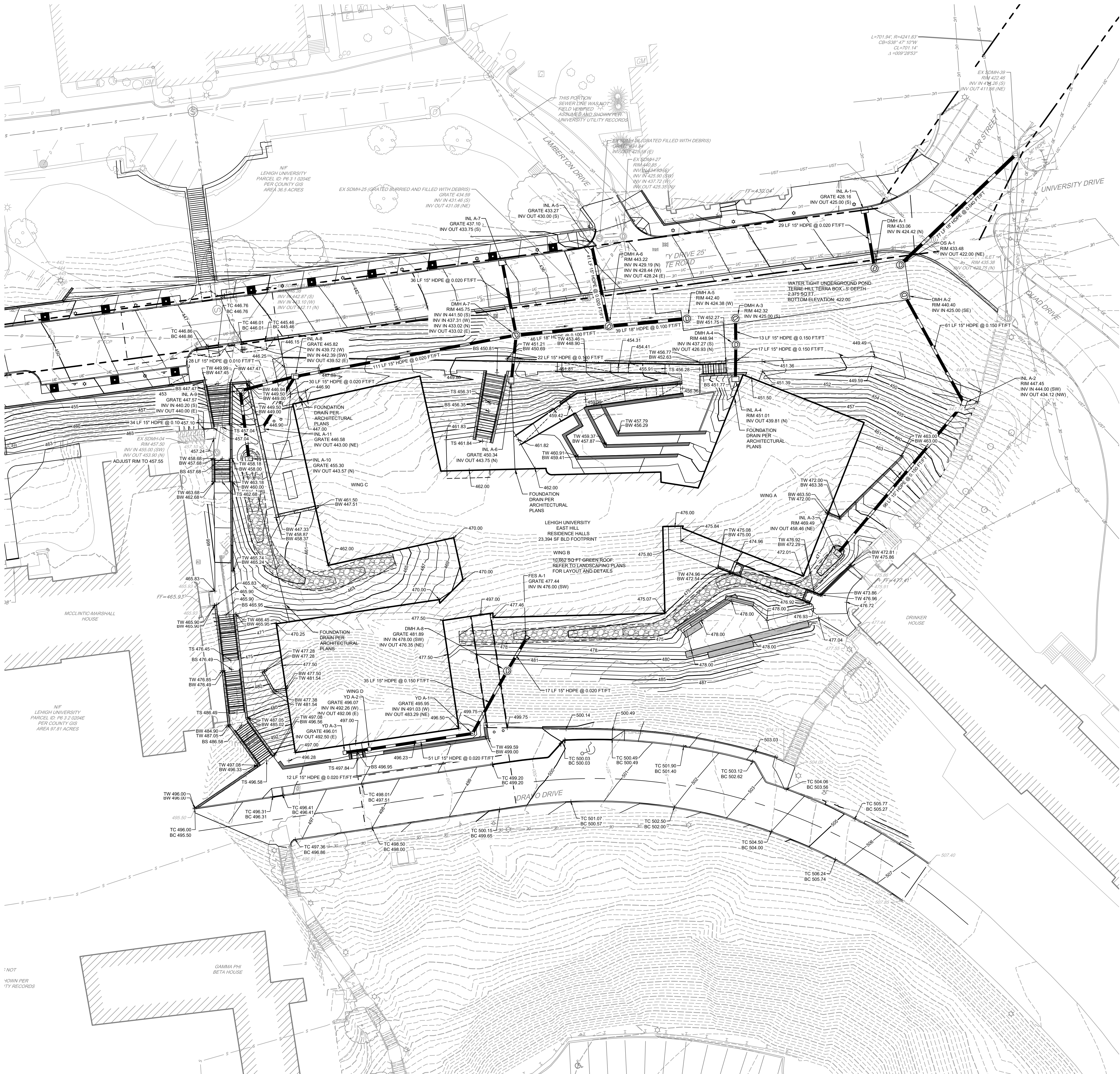
SHEET NUMBER:
CS1503
SHEET 14 OF 18
PROJECT PHASE:



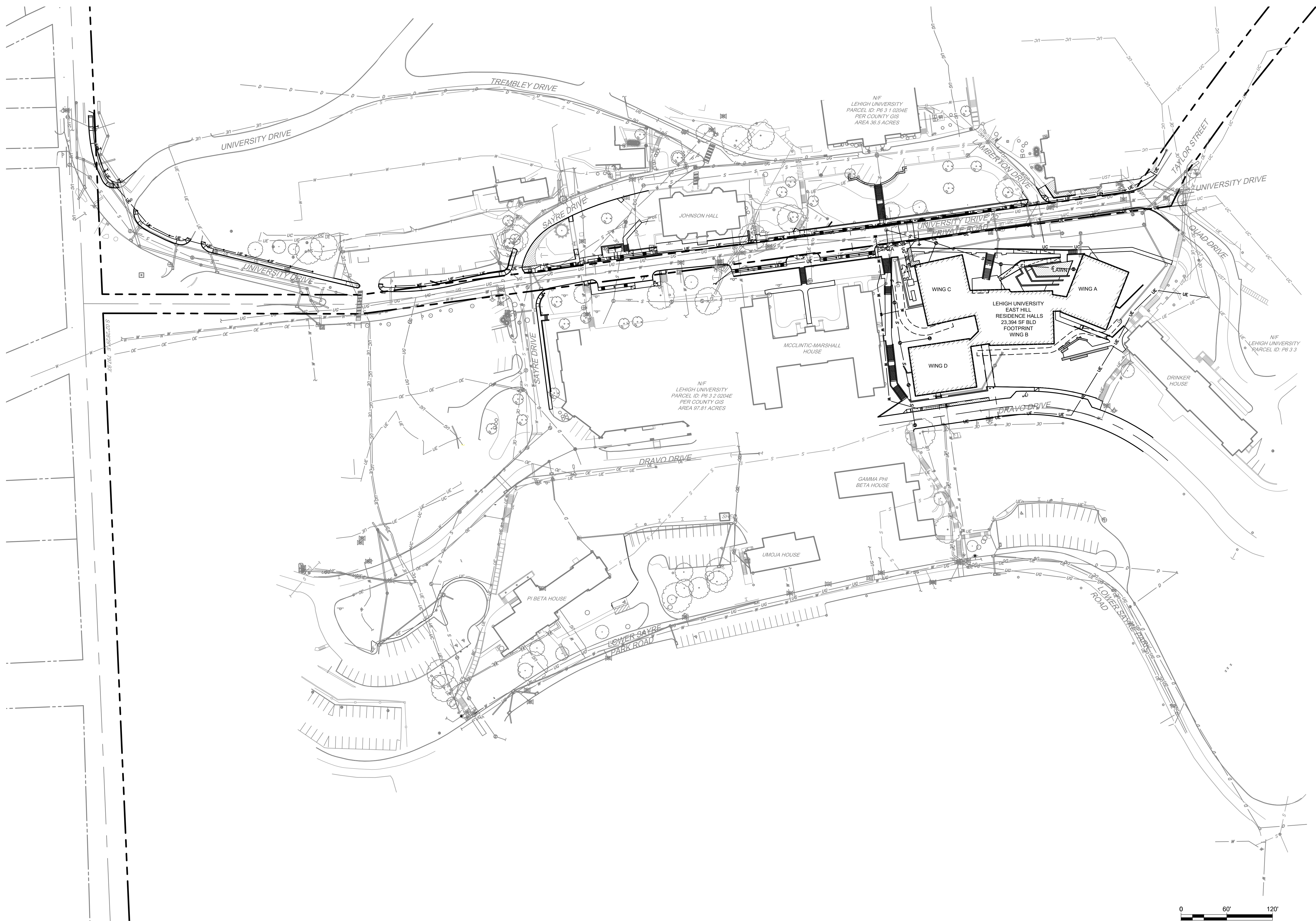
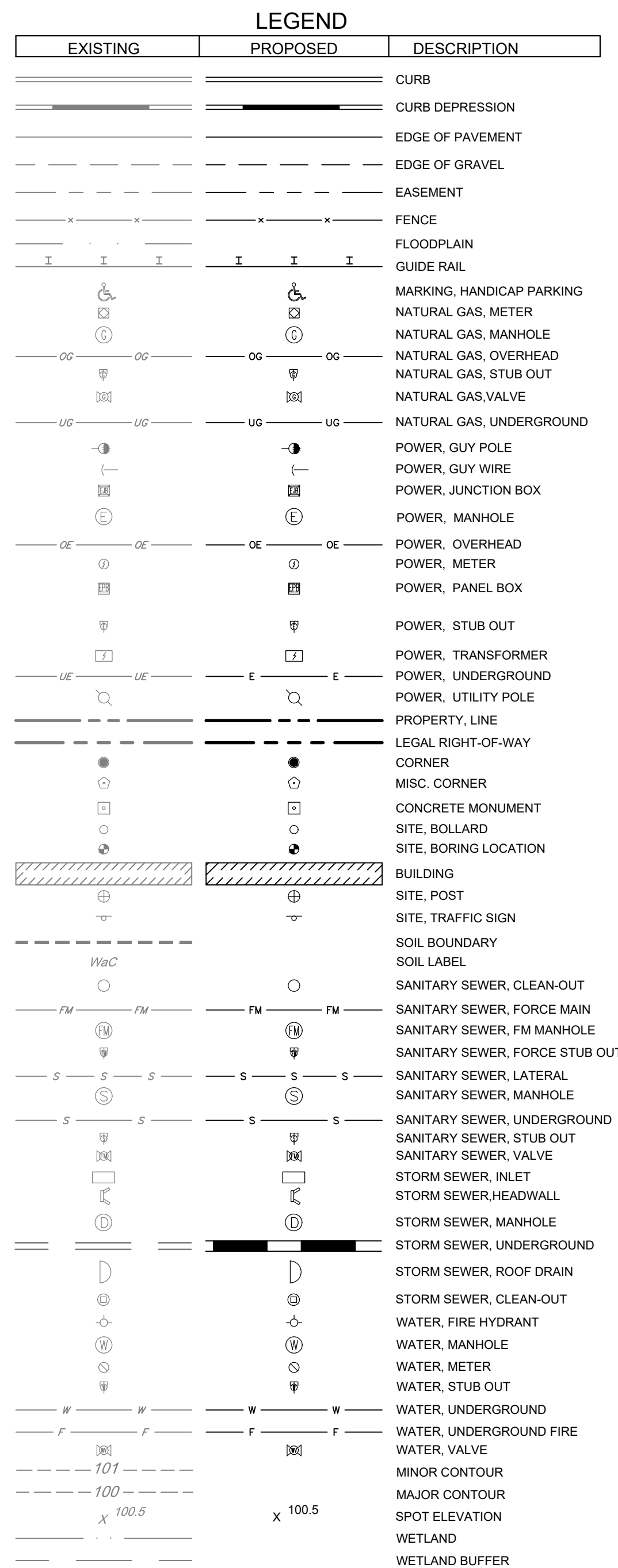
KEY MAP
NOT TO SCALE

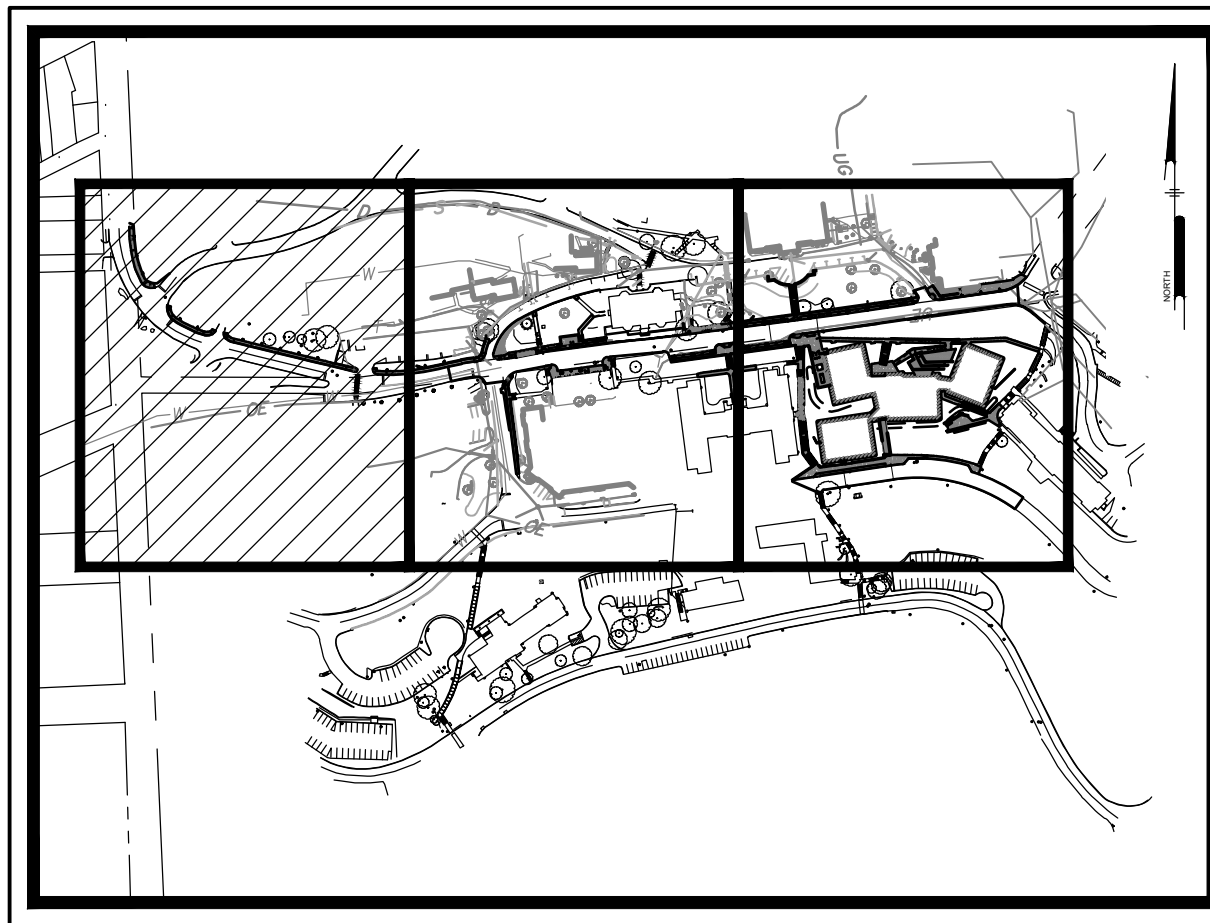
LEGEND		DESCRIPTION
EXISTING	PROPOSED	
---	---	CURB
---	---	CURB DEPRESSION
---	---	EDGE OF PAVEMENT
---	---	EDGE OF GRAVEL
---	---	EASEMENT
---	---	FENCE
---	---	FLOODPLAIN
---	---	GUIDE RAIL
---	---	MARKING, HANDICAP PARKING
---	---	POWER, GUY POLE
---	---	POWER, GUY WIRE
---	---	POWER, UTILITY POLE
---	---	PROPERTY LINE
---	---	LEGAL RIGHT-OF-WAY
---	---	CORNER
---	---	MISC. CORNER
---	---	CONCRETE MONUMENT
---	---	SITE, BOLLARD
---	---	SITE, BORING LOCATION
---	---	BUILDING
---	---	SITE, POST
---	---	SITE, TRAFFIC SIGN
---	---	SOIL BOUNDARY
---	---	SOIL LABEL
---	---	STORM SEWER, INLET
---	---	STORM SEWER, HEADWALL
---	---	STORM SEWER, MANHOLE
---	---	STORM SEWER, UNDERGROUND
---	---	STORM SEWER, ROOF DRAIN
---	---	STORM SEWER, CLEAN-OUT
---	---	MINOR CONTOUR
---	---	MAJOR CONTOUR
---	---	SPOT ELEVATION
---	---	WETLAND
---	---	WETLAND BUFFER

NOTE: PERIMETER FOUNDATION DRAINS SHALL BE INSTALLED ACCORDING TO THE SIZES AND LOCATIONS SHOWN ON THE ARCHITECTURAL PLANS FOR EACH BUILDING.



0 20' 40'

[illegible]PROJECT PHASE:



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Bethlehem PA 18015
v 610-758-4622

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SKETCH PLAN
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[illegible]

LU PROJECT	DIGSX25001
DA PROJECT	2512
SCALE:	1" = 20'
FORMAT:	30" X 42"
DRAWN:	1005
CHECKED:	TJS
DATE:	2025-09-10

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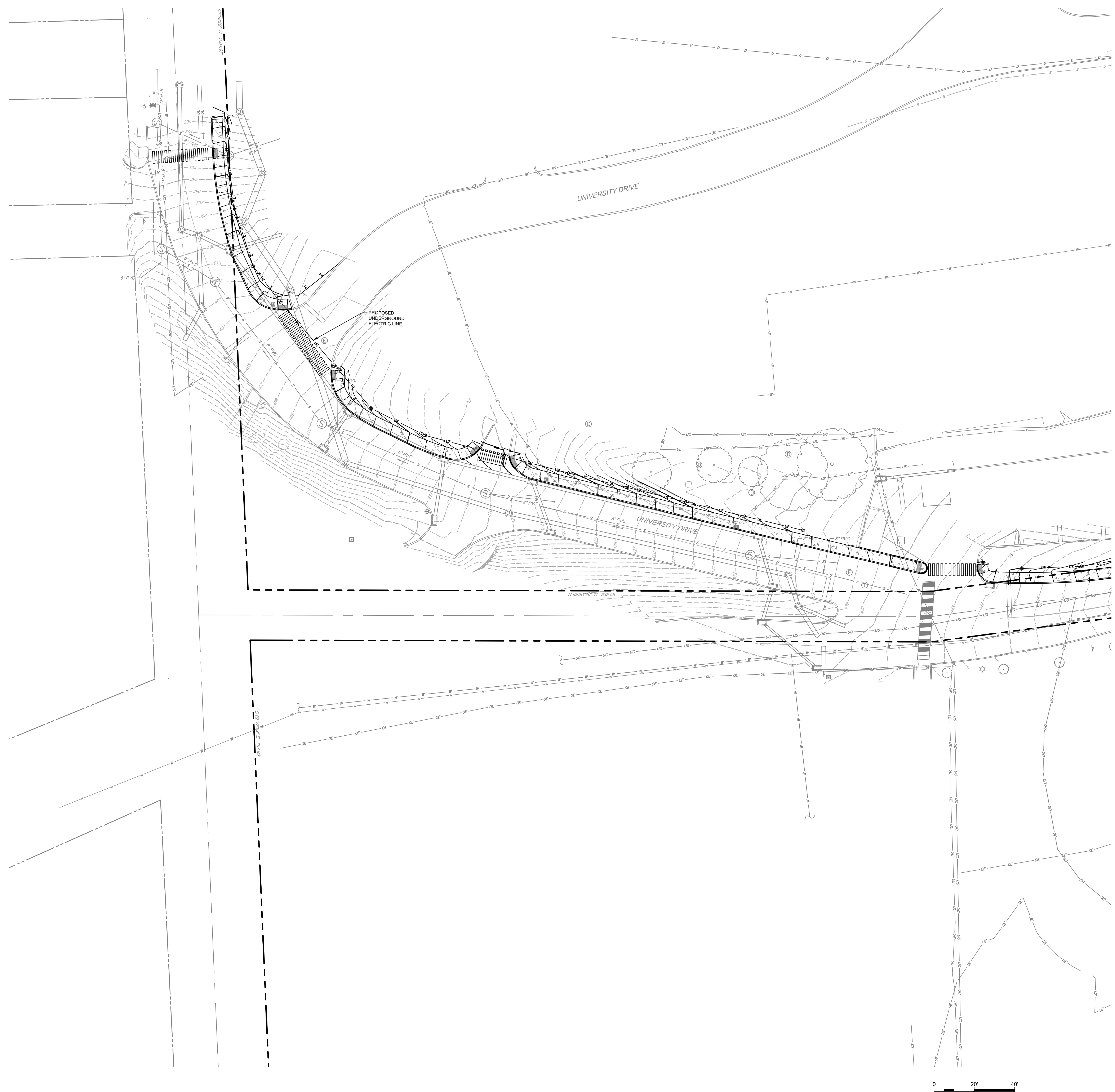
UTILITY PLAN

SHEET NUMBER:

CS1701

SHEET 16 OF 18

PROJECT PHASE:



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SKETCH PLAN
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DATE: DESCRIPTION:

LU PROJECT	DIGSX25001
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DRAWN:	1005
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DATE:	2025-09-10

SHEET NAME:

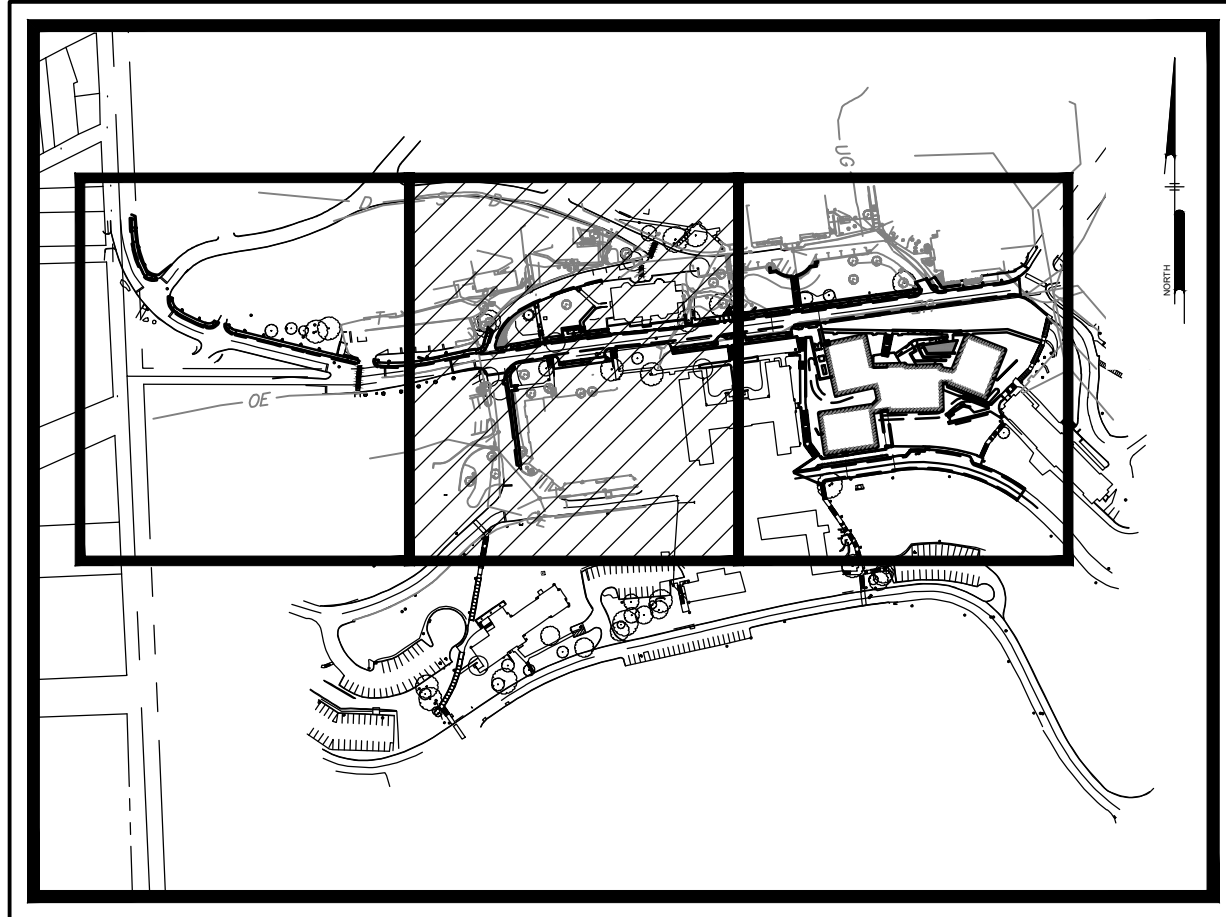
UTILITY PLAN

SHEET NUMBER:

CS1702

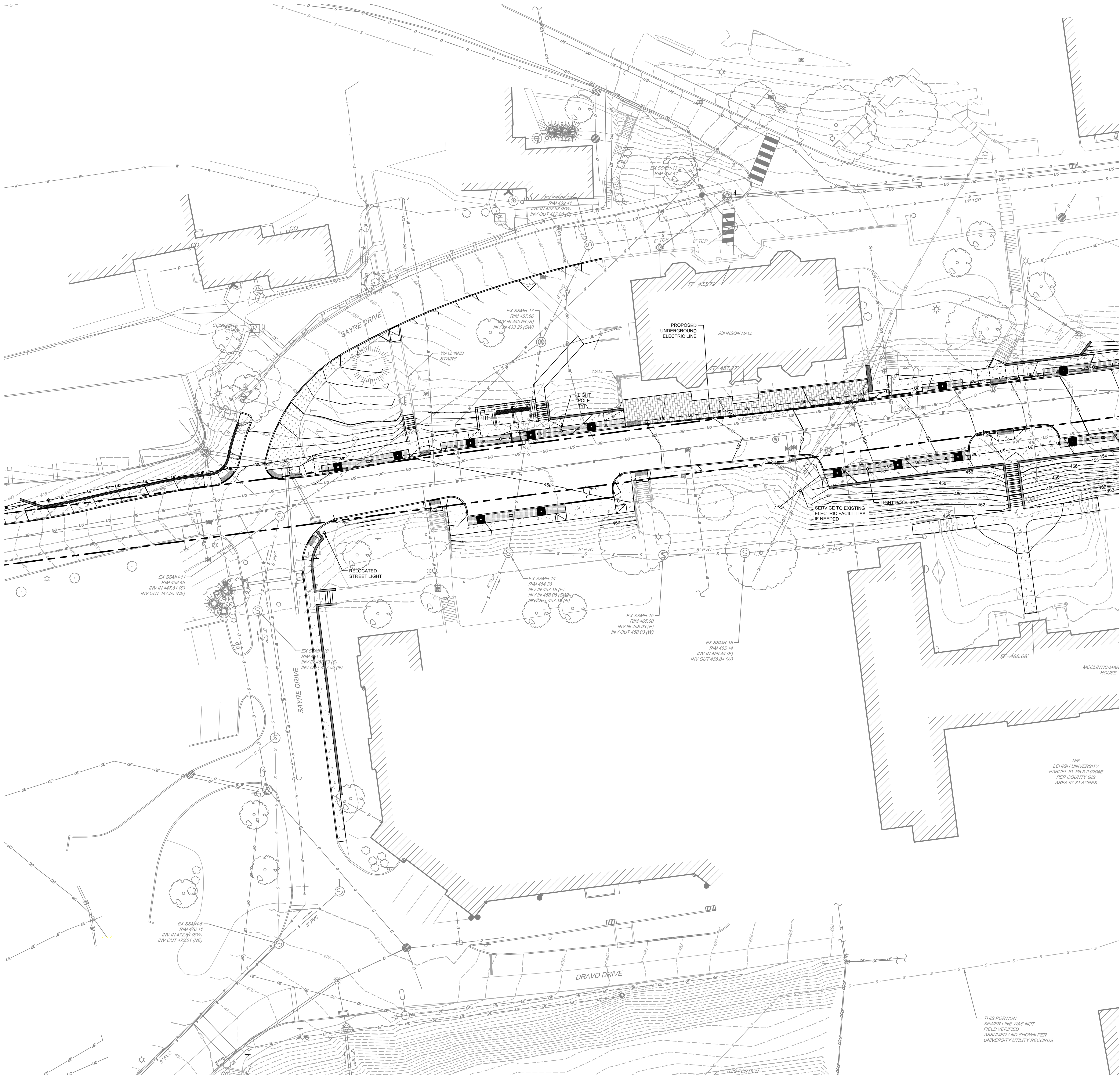
SHEET 17 OF 18

PROJECT PHASE:



KEY MAP
NOT TO SCALE

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		MARKING, HANDICAP PARKING
		NATURAL GAS, METER
		NATURAL GAS, MANHOLE
		NATURAL GAS, OVERHEAD
		NATURAL GAS, STUB OUT
		NATURAL GAS, VALVE
		NATURAL GAS, UNDERGROUND
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, JUNCTION BOX
		POWER, MANHOLE
		POWER, OVERHEAD
		POWER, METER
		POWER, PANEL BOX
		POWER, STUB OUT
		POWER, TRANSFORMER
		POWER, UNDERGROUND
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL, BOUNDARY
		SOIL, LABEL
		SANITARY SEWER, CLEAN-OUT
		SANITARY SEWER, FORCE MAIN
		SANITARY SEWER, FM MANHOLE
		SANITARY SEWER, FORCE STUB OUT
		SANITARY SEWER, LATERAL
		SANITARY SEWER, MANHOLE
		SANITARY SEWER, UNDERGROUND
		SANITARY SEWER, STUB OUT
		SANITARY SEWER, VALVE
		STORM SEWER, INLET
		STORM SEWER, HEADWALL
		STORM SEWER, MANHOLE
		STORM SEWER, UNDERGROUND
		STORM SEWER, ROOF DRAIN
		STORM SEWER, CLEAN-OUT
		WATER, FIRE HYDRANT
		WATER, MANHOLE
		WATER, METER
		WATER, STUB OUT
		WATER, UNDERGROUND
		WATER, UNDERGROUND FIRE
		WATER, VALVE
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		WETLAND
		WETLAND BUFFER



0 20' 40'

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SKETCH PLAN
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LU PROJECT DIGSX25001
DA PROJECT 2512
SCALE: 1" = 20'
FORMAT: 30" X 42"
DRAWN: 1005
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DATE: 2025-09-10

SHEET NAME:

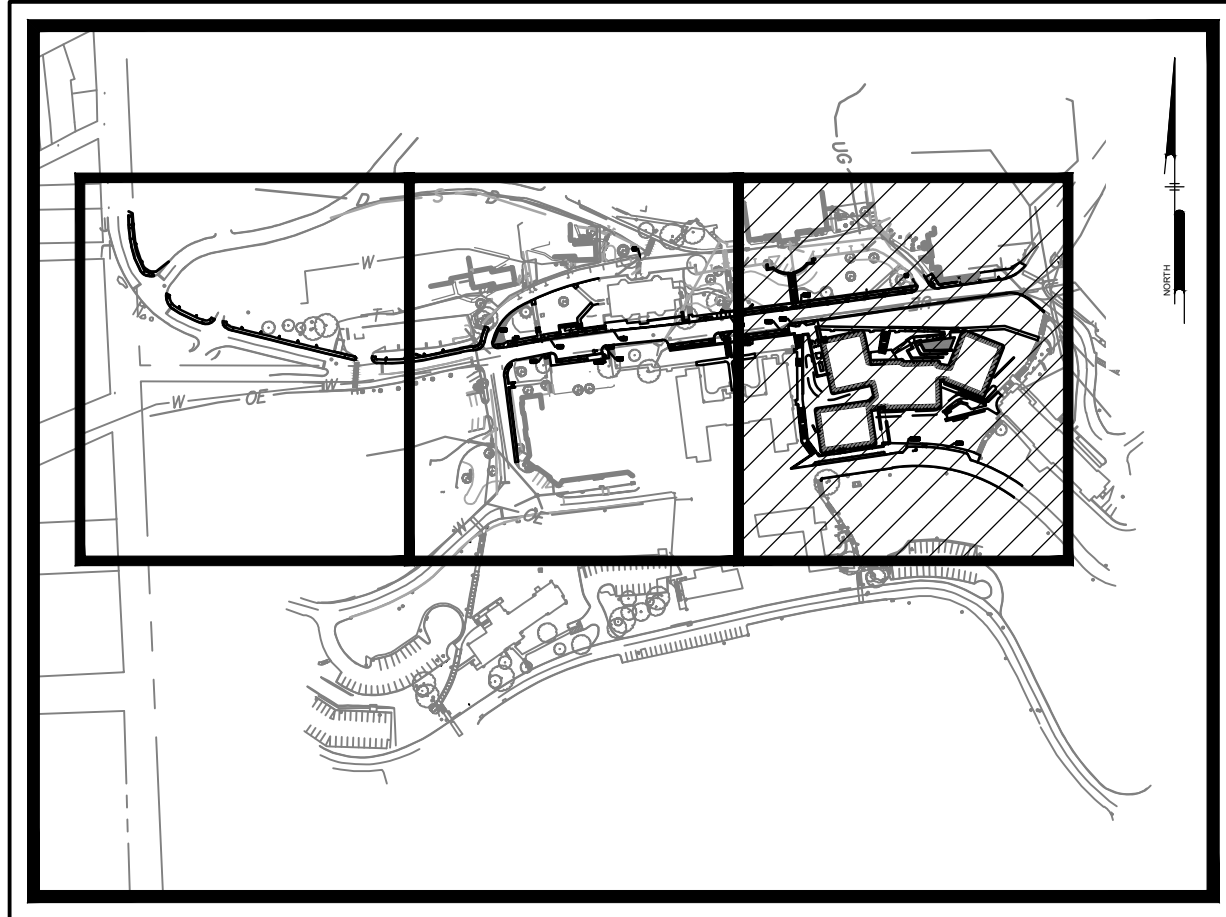
UTILITY PLAN

SHEET NUMBER:

CS1703

SHEET 18 OF 18

PROJECT PHASE:



KEY MAP
NOT TO SCALE

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		CURB
		CURB DEPRESSION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		EASEMENT
		FENCE
		FLOODPLAIN
		GUIDE RAIL
		MARKING, HANDICAP PARKING
		NATURAL GAS, METER
		NATURAL GAS, MANHOLE
		NATURAL GAS, OVERHEAD
		NATURAL GAS, STUB OUT
		NATURAL GAS, VALVE
		NATURAL GAS, UNDERGROUND
		POWER, GUY POLE
		POWER, GUY WIRE
		POWER, JUNCTION BOX
		POWER, MANHOLE
		POWER, OVERHEAD
		POWER, METER
		POWER, PANEL BOX
		POWER, STUB OUT
		POWER, TRANSFORMER
		POWER, UNDERGROUND
		POWER, UTILITY POLE
		PROPERTY, LINE
		LEGAL RIGHT-OF-WAY
		CORNER
		MISC. CORNER
		CONCRETE MONUMENT
		SITE, BOLLARD
		SITE, BORING LOCATION
		BUILDING
		SITE, POST
		SITE, TRAFFIC SIGN
		SOIL, BOUNDARY
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		SANITARY SEWER, CLEAN-OUT
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		SANITARY SEWER, FORCE STUB OUT
		SANITARY SEWER, LATERAL
		SANITARY SEWER, MANHOLE
		SANITARY SEWER, UNDERGROUND
		SANITARY SEWER, STUB OUT
		SANITARY SEWER, VALVE
		STORM SEWER, INLET
		STORM SEWER, HEADWALL
		STORM SEWER, MANHOLE
		STORM SEWER, UNDERGROUND
		STORM SEWER, ROOF DRAIN
		STORM SEWER, CLEAN-OUT
		WATER, FIRE HYDRANT
		WATER, MANHOLE
		WATER, METER
		WATER, STUB OUT
		WATER, UNDERGROUND
		WATER, UNDERGROUND FIRE
		WATER, VALVE
		MINOR CONTOUR
		MAJOR CONTOUR
		SPOT ELEVATION
		WETLAND
		WETLAND BUFFER

0 20' 40'

