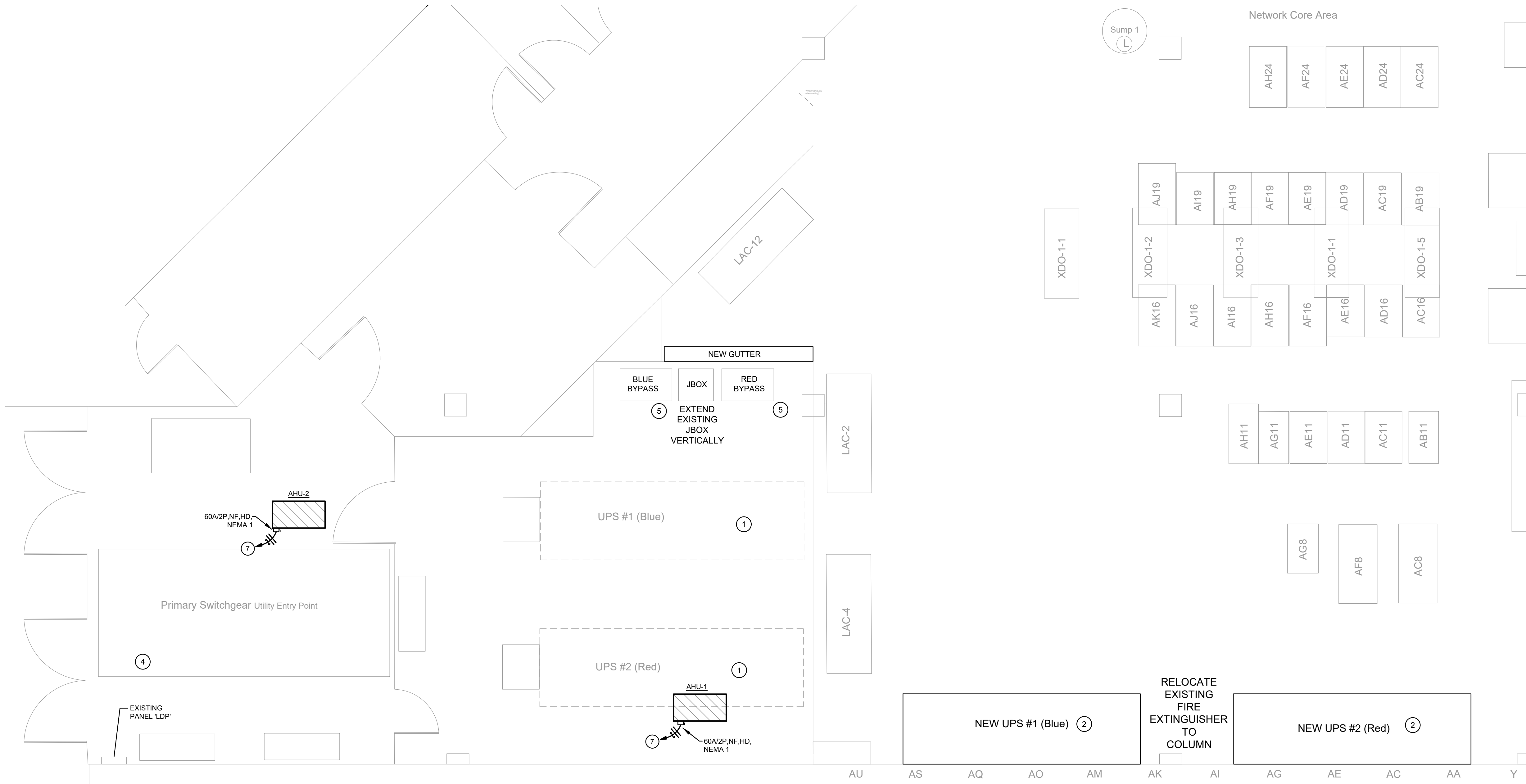




1 FLOOR PLAN - ELECTRICAL
SCALE: 1/4" = 1'-0"

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- CIRCUITS OF DIFFERENT PHASES MAY SHARE EQUIPMENT GROUND. EQUIPMENT GROUND CONDUCTOR SIZE SHALL NOT BE LESS THAN #12 AWG OR AS INDICATED ON THE DRAWINGS.
- ALL CONDUCTORS #10 AND SMALLER SHALL BE SOLID COPPER THW, THHN, THWN, AND ALL CONDUCTORS #8 AND LARGER SHALL BE STRANDED COPPER USING BOLTED LUGS AT TERMINALS.
- MINIMUM WIRE SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED.
- PULL ALL THE CONDUCTORS THROUGH RACEWAY AT THE SAME TIME.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS OTHERWISE NOTED. SEE SPECS FOR CONDUIT REQUIREMENTS. ALL CONDUIT SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
- 6'-0" MAXIMUM LENGTH ON FLEXIBLE CONDUIT.
- USE COMPRESSION FITTINGS ON CONDUIT, SET SCREW FITTINGS ARE NOT ALLOWED.
- PROVIDE PULL STRING AND PROTECTIVE BUSHINGS IN ALL SPARE CONDUITS.
- LABEL ALL CIRCUITS ON PANEL SCHEDULES.
- FIRE PROOF ALL PENETRATIONS MADE THROUGH FIRE RATED WALLS.
- ALL BOXES SHALL BE INDEPENDENTLY SUPPORTED TO THE BUILDINGS STRUCTURE.
- THE SPECIFICATIONS ARE AS BINDING ON THE CONTRACTOR AS THE DRAWINGS. THE CONTRACTOR SHALL READ THE SPECIFICATIONS AND SHALL INCLUDE ALL ITEMS REQUIRED BY THE SPECIFICATIONS BEFORE SUBMITTING A BID.
- CONTRACTOR SHALL ADJUST WIRE SIZE FOR VOLTAGE DROP

ELECTRICAL KEYED NOTES

- EXISTING UPS'S TO BE DEMOLISHED AFTER THE NEW UPS'S ARE UP AND RUNNING. SEE SYSTEM OF OPERATION STEPS ON SHEETS E2.01 AND E2.02. AFTER CUT AND CAP CONDUIT LEVEL WITH CONCRETE FLOOR. ALL WORK SHALL BE SCHEDULED WITH DIS TO AVOID DISRUPTION IN POWER.

PROVIDE AND INSTALL STRUCTURE TO SUPPORT (SEE BELOW) THE NEW UPS'S UNDER THE RAISED FLOOR. REMOVE THE EXISTING RECEPTACLES ON THE WALL BEHIND WHERE THE NEW UPS'S WILL BE INSTALLED. PROVIDE BLANK COVERPLATES AS NEEDED. INSTALL AND ASSEMBLE THE TWO NEW OWNER PROVIDED 500KVA UPS'S. CONNECT WITH 3 SETS OF 400 KCMIL WIRE AND 3/4" CONDUIT. CONDUIT WILL BE RAN FROM THE SWITCHGEAR TO THE NEW LOCATION SHOWN ON PLANS. ALL WORK SHALL BE SCHEDULED WITH DIS TO AVOID DISRUPTION IN POWER. SEE SYSTEM OF OPERATION STEPS ON SHEETS E2.01, E2.02 AND E2.03. FOLLOW MANUFACTURER'S GUILD LINES FOR GROUNDING AND BONDING.
- STRUCTURAL SUPPORT: DO NOT ANCHOR THE SEISMIC BRACKETS DIRECTLY TO STANDARD RAISED FLOOR TILES. YOU MUST USE A DEDICATED SEISMIC EQUIPMENT STAND (STANCHION/PEDESTAL SYSTEM) THAT IS RIGIDLY ANCHORED TO THE CONCRETE SLAB BELOW. OR EMPLOY HEAVY-DUTY THREADED RODS/DROP-IN ANCHORS THAT PASS COMPLETELY THROUGH THE RAISED FLOOR. HARDWARE GRADES: THE KIT REQUIRES HIGH-STRENGTH FASTENING HARDWARE. THE MINIMUM REQUIREMENT FOR FLOOR ANCHORING IS M12 STRENGTH GRADE 8.8 HARDWARE (OR EQUIVALENT 1/2-INCH GRADE 5/8 STRUCTURAL BOLTS). INSTALLING THE SCHNEIDER ELECTRIC GALAXY VL SEISMIC KIT (PART NUMBER GVLOP7002) FOR A 500 KW UPS ON A RAISED DATA CENTER FLOOR REQUIRES ANCHORING PAST THE REMOVABLE TILES DIRECTLY INTO THE CONCRETE SUBFLOOR (SLAB) USING A STRUCTURAL SUPPORT STAND OR LONG SEISMIC-RATED ANCHOR EXTENSIONS.
[Install the Seismic Anchoring and Position the UPS - Galaxy VL 380/400/415/440 V](#)
- PROVIDE AND INSTALL A NEW WIREWAY. FIELD VERIFY EXACT DIMENSIONS. CONDUIT TO NEW UPS SHALL BE FED UNDER FLOOR AND PROPERLY SUPPORTED. SEE SYSTEM OF OPERATION STEPS ON SHEETS E2.01, E2.02, AND E2.03.
- PROVIDE AND INSTALL A SQUARE D 300KA EMD SURGE PROTECTIVE DEVICES AND 60A/3P DISCONNECT ATOP THE SWITCHGEAR. CONNECT TO THE SWITCHGEAR PER THE MANUFACTURER'S RECOMMENDATION.
- PROVIDE AND INSTALL A SQUARE D 300KA EMD SURGE PROTECTIVE DEVICES ADJACENT TO THE 'MBC'. CONNECT TO THE OLD B1B BREAKER IN 'MBC' PER THE MANUFACTURER'S RECOMMENDATION.
- PROVIDE AND INSTALL 25A/2P BREAKER IN EXISTING SPACE IN EXISTING PANEL 'LDP'. WIRE SIZE SHALL BE:2#10, 1#10EG. DISCONNECT SHALL BE: 30A/2P, NF, HD, NEMA 3R. VERIFY INSTALLATION REQUIREMENTS PRIOR TO BID. ALL EXTERIOR CONDUIT SHALL BE RIGID, MOUNTED COPPER C-PORT BLOCKS, SEAL TIGHT SHALL BE LIMITED TO 3 FT. AT THE HVAC UNIT.
- PROVIDE AND INSTALL 50A/2P BREAKER IN EXISTING SPACE IN EXISTING PANEL 'LDP'. WIRE SIZE SHALL BE: 2#8, 1#10EG. DISCONNECT SHALL BE: 60A/2P, NF, HD, NEMA 1. VERIFY INSTALLATION REQUIREMENTS PRIOR TO BID.

PROJECT NOTES

THE EXISTING UPS'S ARE BEING REPLACED WITH NEW UPS'S. THE DATA CENTER WILL NOT BE TAKING ANY OUTAGE DURING THIS PROJECT. THIS WILL REQUIRE ALL LIVE ELECTRICAL WORK TO BE PERFORMED WITH THE PROPER P.P.E. THE CONTRACTOR MUST INSURE THE PROPER ORDER OF OPERATION, NO SERVER DOWN TIME, OR DAMAGE OF ANY EQUIPMENT. THE CONTRACTOR MUST VISIT THE SITE PRIOR TO BID TO VERIFY ALL EXISTING CONDITIONS. ALL WORK SHALL BE CLOSELY COORDINATED WITH D.I.S.

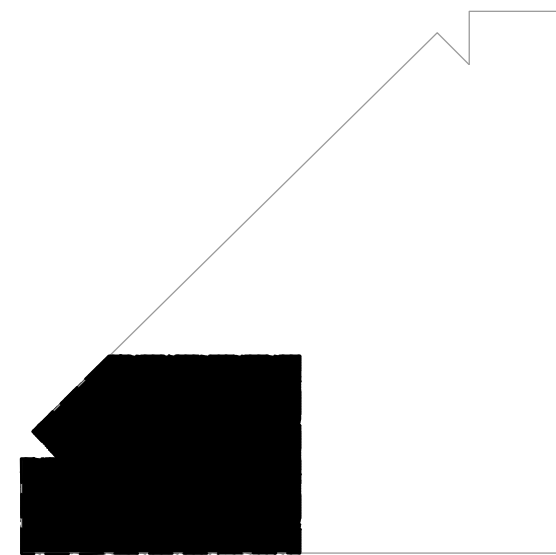
THE OWNER WILL PROVIDE THE UPS'S. THE CONTRACTOR SHALL INSTALL THE NEW UPS'S. THE CONTRACTOR IS RESPONSIBLE FOR ALL START-UP, COMMISSIONING, PROGRAMMING, ASSEMBLY, AND START-UP OF THE (2) NEW UPS'S.

NOTE: THE NEW UPS'S ARE CURRENTLY BEING STORED IN THE SERVER ROOM.

CONTRACTOR TO LIMIT THE NUMBER OF FLOOR TILES REMOVED TO ENSURE PROPER EQUIPMENT TEMPERATURE IN THE SERVER ROOM. MONITOR THE TEMPERATURE WHILE TILES ARE REMOVED.

THIS PROJECT WILL REQUIRE AFTER HOURS WORK. COORDINATE CONSTRUCTION SCHEDULE WITH OWNER.

ANY PRIME CONTRACTOR BIDDING THIS PROJECT MUST BE ABLE TO PRESENT PREVIOUS EXPERIENCE WITH DATA CENTERS, CRITICAL FACILITY INFRASTRUCTURE PROJECTS INVOLVING 480V/3PH OR GREATER BUILDING PROJECTS WHERE MAINTAINING BOTH POWER AND DATA STABILITY IS CRITICAL TO THE SUCCESS OF THE PROJECT, DEMONSTRATING EXPERTISE IN CONTROL SYSTEMS, INCLUDING KEY INTERLOCK SCHEMES THAT FACILITATE SAFE BREAKER MANIPULATION, AS WELL AS DEMONSTRATING THEIR ABILITY TO ACCOMPLISH THE PROJECT SCOPE WHILE ENSURING SMOOTH TRANSITION OF POWER AND DATA WITHOUT OUTAGE.



KEY PLAN

